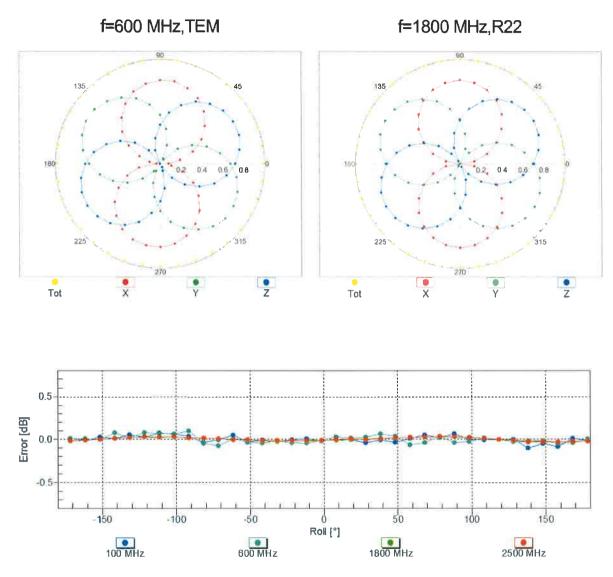
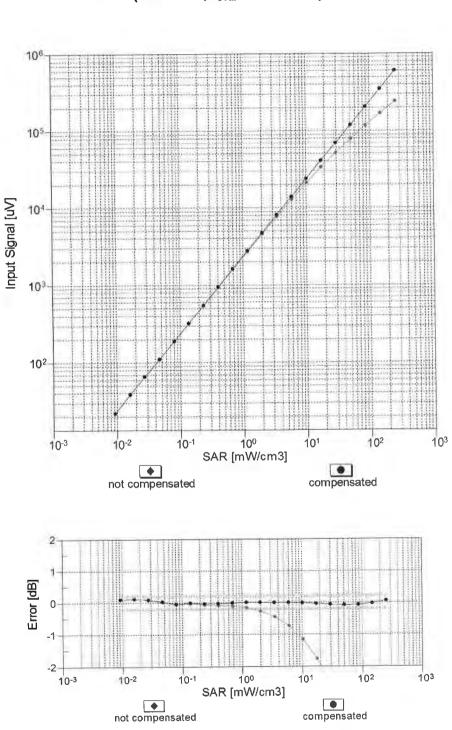
March 26, 2021



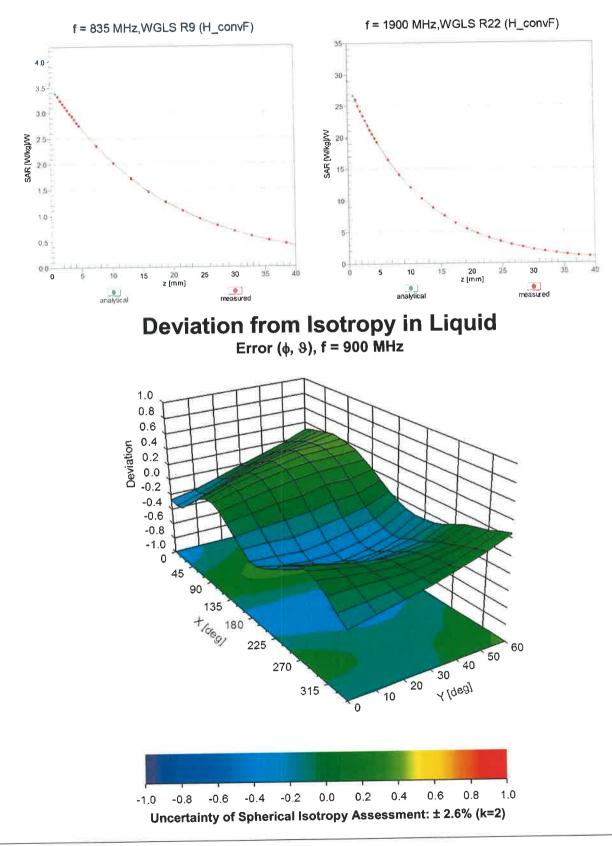
# Receiving Pattern ( $\phi$ ), $\vartheta = 0^{\circ}$

Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)



Dynamic Range f(SAR<sub>head</sub>) (TEM cell , f<sub>eval</sub>= 1900 MHz)

Uncertainty of Linearity Assessment: ± 0.6% (k=2)



# **Conversion Factor Assessment**

Certificate No: EX3-3650\_Mar21

# Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>t</sup> (k=2)
0		CW	CW	0.00	±4.7 %
0010	CAA	SAR Validation (Square, 100ms, 10ms)	Test	10.00	± 9.6 %
0011	CAB	UMTS-FDD (WCDMA)	WCDMA	2.91	± 9.6 %
0012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	± 9.6 %
10013	CAB	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	± 9.6 %
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	± 9.6 %
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	± 9.6 %
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	± 9.6 %
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	± 9.6 %
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	± 9.6 %
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	± 9.6 %
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	± 9.6 %
10020	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	± 9.6 %
10023	-	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	± 9.6 %
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	± 9.6 %
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	± 9.6 %
	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	± 9.6 9
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	± 9.6 °
10034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	± 9.6
10035	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	± 9.6
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	± 9.6
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	± 9.6
10038	CAA		CDMA2000	4.57	± 9.6
10039	CAB	CDMA2000 (1xRTT, RC1)	AMPS	7.78	± 9.6
10042	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	0.00	± 9.6
10044	CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	DECT	13.80	± 9.6
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	10.79	± 9.6
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	TD-SCDMA	11.01	± 9.6
10056	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)		6.52	± 9.6
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	2.12	± 9.6
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN		± 9.6
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	± 9.0
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	± 9.0
10062	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	
10063	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	± 9.6
10064	CAD	IEEE 802.11a/h WIFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	± 9.6
10065	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	± 9.6
10066	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	± 9.6
10067	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	± 9.6
10068	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	± 9.6
10069	CAD	IEEE 802.11a/h WiFI 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	± 9.6
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	± 9.6
10072	CAB	IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	± 9.6
10073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	± 9.6
10073	CAB	THE ADD STATES O A CUL- (DOCO/OEDM 24 Mbrs)	WLAN	10.30	± 9.6
10074	CAB	THE ARE ALL MITTO A CUL- (DECE/OEDM 26 Mbrs)	WLAN	10.77	± 9.6
10075		UPTE 000 44 MUELD 4 CH- (DSSS/OEDM 48 Mbps)	WLAN	10.94	± 9.6
10078	CAB	UPPER AND ANTELS A CILL (DESS/OEDM 54 Mbps)	WLAN	11.00	± 9.6
10077	CAB	DELL'AGRAGI (1 DTT DOQ)	CDMA2000	3.97	± 9.6
1	CAB	In a fille the FDD (TDMA/FDM BI/4 DOBSK Fullrate)	AMPS	4.77	± 9.6
10082	CAB	CORRECTIONAL CHARK THILD AL	GSM	6.56	± 9.6
10090	DAC	A CONTRACT OF A CONTRACT AND A CONTRACT	WCDMA	3.98	± 9.6
10097 10098	CAC		WCDMA	3.98	± 9.6

Certificate No: EX3-3650\_Mar21

10099	CAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	± 9.6 %
10100	CAC	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	± 9.6 %
10101	CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
10102	CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10103	DAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	± 9.6 %
10104	CAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	± 9.6 %
10105	CAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	± 9.6 %
10108	CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	± 9.6 %
10109	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10110	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	± 9.6 %
10111	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	± 9.6 %
10112	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	± 9.6 %
10113	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	± 9.6 %
10114	CAG	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	± 9.6 %
10115	CAG	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	± 9.6 %
10116	CAG	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	± 9.6 %
10117	CAG	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	± 9.6 %
10118	CAD	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	8.59	± 9.6 %
10119	CAD	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	± 9.6 %
10140	CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	± 9.6 %
10141	CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	± 9.6 %
10142	CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10143	CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	± 9.6 %
10144	CAC	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	± 9.6 %
10145	CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	± 9.6 %
10146	CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	± 9.6 %
10147	CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	± 9.6 %
10149	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
10150	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10151	CAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	± 9.6 %
10152	CAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	9.92	± 9.6 %
10153	CAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	± 9.6 %
10154	CAF	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	± 9.6 %
10155	CAF	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10156	CAF	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	± 9.6 %
10157	CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	± 9.6 %
10158	CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.62	± 9.6 %
10159	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.56	± 9.6 %
10160	CAG	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	5.82	± 9.6 %
10161	CAG	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10162	CAG	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	± 9.6 %
10166	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	± 9.6 %
10167	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	± 9.6 %
10168	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	± 9.6 %
10169	CAG	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10170	CAG	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10171	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	± 9.6 %
10172	CAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10173	CAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10174	CAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10175	CAF	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10176	CAF	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10177	CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10178	CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10179	AAE	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10180	CAG	LEE EDD (OO EDMA & DD E MILL OF OAM)	LTE-FDD	6.50	± 9.6 %

Certificate No: EX3-3650\_Mar21

Page 12 of 23

10181	CAG	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10182	CAG	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	±9.6 %
10183	CAG	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10184	CAG	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10185	CAI	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	± 9.6 %
10186	CAG	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10187	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10188	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10189	CAE	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10193	CAE	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	WLAN	8.09	± 9.6 %
10194	AAD	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	± 9.6 %
10195	CAE	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN	8.21	± 9.6 %
10196	CAE	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	WLAN	8.10	± 9.6 %
10197	AAE	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	WLAN	8.13	± 9.6 %
10198	CAF	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	± 9.6 %
10219	CAF	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8.03	± 9.6 %
10220	AAF	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	± 9.6 %
10221	CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	± 9.6 %
10222	CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	± 9.6 %
10223	CAD	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	± 9.6 %
10224	CAD	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	± 9.6 %
10225	CAD	UMTS-FDD (HSPA+)	WCDMA	5.97	± 9.6 %
10226	CAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.49	± 9.6 %
10227	CAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	± 9.6 %
10228	CAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	± 9.6 %
10229	DAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10230	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10231	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.19	± 9.6 %
10232	CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10233	CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10234	CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10235	CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10236	CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10237	CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10238	CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10239	CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10240	CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10241	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.82	± 9.6 %
10242	CAD	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	± 9.6 %
10243	CAD	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	± 9.6 %
10244	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-TDD	10.06	± 9.6 %
10245	CAG	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	± 9.6 %
10246	CAG	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	± 9.6 %
10247	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9.91	± 9.6 %
10248	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	± 9.6 %
10249	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	± 9.6 %
10250	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	± 9.6 %
10251	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	± 9.6 %
10252	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10253	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.90	± 9.6 %
10254	CAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	± 9.6 %
10255	CAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-TDD	9.20	± 9.6 9
10256	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.96	± 9.6 9
10257	CAD	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.08	± 9.6 °
10258	CAD	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD	9.34	± 9.6 9
10259	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-TDD	9.98	± 9.6 9

Certificate No: EX3-3650\_Mar21

10260	CAG	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.97	± 9.6 %
10261	CAG	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10262	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	9.83	± 9.6 %
10263	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-TDD	10.16	± 9.6 %
10264		LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	9.23	± 9.6 %
10265	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	9.92	± 9.6 %
10265	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	± 9.6 %
10267	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	± 9.6 %
10268	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.06	± 9.6 %
	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 10-04M)	LTE-TDD	10.13	± 9.6 %
10269	CAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.58	± 9.6 %
10270	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	WCDMA	4.87	± 9.6 %
10274	CAB		WCDMA	3.96	± 9.6 %
10275	CAD	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	PHS	11.81	± 9.6 %
10277	CAD	PHS (QPSK)	PHS	11.81	± 9.6 %
10278	CAD	PHS (QPSK, BW 884MHz, Rolloff 0.5)			-
10279	CAG	PHS (QPSK, BW 884MHz, Rolloff 0.38)	PHS	12.18	± 9.6 %
10290	CAG	CDMA2000, RC1, SO55, Full Rate	CDMA2000	3.91	± 9.6 %
10291	CAG	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	± 9.6 %
10292	CAG	CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	± 9.6 %
10293	CAG	CDMA2000, RC3, SO3, Full Rate	CDMA2000	3.50	± 9.6 %
10295	CAG	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	CDMA2000	12.49	± 9.6 %
10297	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-FDD	5.81	± 9.6 %
10298	CAF	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10299	CAF	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.39	± 9.6 %
10300	CAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10301	CAC	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	WIMAX	12.03	± 9.6 %
10302	CAB	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3CTRL)	WiMAX	12.57	± 9.6 %
10303	CAB	IEEE 802.16e WIMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	WiMAX	12.52	± 9.6 %
10304	CAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	WiMAX	11.86	± 9.6 %
10305	CAA	IEEE 802.16e WIMAX (31:15, 10ms, 10MHz, 64QAM, PUSC)	WIMAX	15.24	± 9.6 %
10306	CAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 64QAM, PUSC)	WiMAX	14.67	± 9.6 %
10307	AAB	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, PUSC)	WIMAX	14.49	± 9.6 %
10308	AAB	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	WiMAX	14.46	± 9.6 %
10309	AAB	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM,AMC 2x3)	WIMAX	14.58	± 9.6 %
10310	AAB	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3	WiMAX	14.57	± 9.6 %
10311		LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.06	± 9.6 %
10313	AAB	iDEN 1:3	IDEN	10.51	± 9.6 %
10313	AAD	iDEN 1:6	IDEN	13.48	± 9.6 %
10314	AAD	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc dc)	WLAN	1.71	± 9.6 %
10315	AAD	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc dc)	WLAN	8.36	± 9.6 %
	AAD	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc dc)	WLAN	8.36	± 9.6 %
10317	AAA		Generic	10.00	± 9.6 %
10352	AAA	Pulse Waveform (200Hz, 10%)	Generic	6.99	± 9.6 %
10353	AAA	Pulse Waveform (200Hz, 20%)	Generic	3.98	± 9.6 %
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	2.22	± 9.6 %
10355	AAA	Pulse Waveform (200Hz, 60%)	Generic	0.97	± 9.6 %
10356	AAA	Pulse Waveform (200Hz, 80%)		9	-
10387	AAA	QPSK Waveform, 1 MHz	Generic	5.10	± 9.6 %
10388	AAA	QPSK Waveform, 10 MHz	Generic	5.22	± 9.6 %
10396	AAA	64-QAM Waveform, 100 kHz	Generic	6.27	± 9.6 %
10399	AAA	64-QAM Waveform, 40 MHz	Generic	6.27	± 9.6 %
10400	AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc dc)	WLAN	8.37	± 9.6 %
10401	AAA	IEEE 802.11ac WiFI (40MHz, 64-QAM, 99pc dc)	WLAN	8.60	± 9.6 %
10402	AAA	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc dc)	WLAN	8.53	± 9.6 %
10403	AAB	CDMA2000 (1xEV-DO, Rev. 0)	CDMA2000	3.76	± 9.6 %
10404	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	3.77	± 9.6 %
10406	AAD	CDMA2000, RC3, SO32, SCH0, Full Rate	CDMA2000	5.22	± 9.6 %

Certificate No: EX3-3650\_Mar21

Page 14 of 23

10410	AAA	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
10414	AAA	WLAN CCDF, 64-QAM, 40MHz	Generic	8.54	± 9.6 %
10415	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc dc)	WLAN	1.54	± 9.6 %
10416	AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc dc)	WLAN	8.23	± 9.6 %
10417	AAA	IEEE 802.11a/h WIFi 5 GHz (OFDM, 6 Mbps, 99pc dc)	WLAN	8.23	± 9.6 %
10418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Long)	WLAN	8.14	± 9.6 %
10419	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Short)	WLAN	8.19	± 9.6 %
10419		IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	± 9.6 %
10422	AAA	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	±9.6%
10423	AAA	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN	8.40	± 9.6 %
10424	AAE	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	± 9.6 %
10425	AAE	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	± 9.6 %
10420	AAE	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	± 9.6 %
	AAB	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.28	± 9.6 %
10430	AAB	LTE-FDD (OFDMA, 3 MHz, E-TM 3.1)	LTE-FDD	8.38	± 9.6 %
10431	AAC	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10432	AAB	LTE-FDD (OFDMA, 13 Milz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10433	AAC	A STATE OF A	WCDMA	8.60	± 9.6 %
10434	AAG	W-CDMA (BS Test Model 1, 64 DPCH)	LTE-TDD	7.82	± 9.6 %
10435	AAA	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub)	LTE-FDD	7.56	± 9.6 %
10447	AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.53	± 9.6 %
10448	AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	LTE-FDD	7.51	± 9.6 %
10449	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	LTE-FDD	7.48	± 9.6 %
10450	AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	WCDMA	7.40	± 9.6 %
10451	AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)		10.00	± 9.6 %
10453	AAC	Validation (Square, 10ms, 1ms)	Test		± 9.6 %
10456	AAC	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc dc)	WLAN	8.63	± 9.6 %
10457	AAC	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	
10458	AAC	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	± 9.6 %
10459	AAC	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	CDMA2000	8.25	± 9.6 %
10460	AAC	UMTS-FDD (WCDMA, AMR)	WCDMA	2.39	± 9.6 %
10461	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10462	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.30	± 9.6 %
10463	AAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.56	± 9.6 %
10464	AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10465	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10466	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10467	AAA	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10468	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10469	AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Sub)	LTE-TDD	8.56	± 9.6 %
10470	AAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10471	AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10472	AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10473	AAA	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10474	AAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10475	AAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10477	AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10478	AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10479	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10480	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.18	± 9.6 %
10481	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.45	± 9.6 %
10482	AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.71	± 9.6 %
10483	AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, Sub)	LTE-TDD	8.39	± 9.6 %
10484	AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Sub)	LTE-TDD	8.47	± 9.6 %
10485		LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Sub)	LTE-TDD	7.59	± 9.6 %
10485	AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Sub)	LTE-TDD	8.38	± 9.6 %
10486	AAB AAC	LEE TER (OO EDIAL FOR/ DD FAMILE CA OAM III Sub)	LTE-TDD	8.60	± 9.6 %

Certificate No: EX3-3650\_Mar21

Page 15 of 23

10488	AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.70	± 9.6 %
10489	AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Sub)	LTE-TDD	8.31	± 9.6 %
10490	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	± 9.6 %
10491	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10491		LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.41	± 9.6 %
10492	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Sub)	LTE-TDD	8.55	± 9.6 %
10493	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDD	8.37	± 9.6 %
10495 10496	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	± 9.6 %
	AAE	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.67	± 9.6 %
10497	AAE	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64 OK, 02 OU)	LTE-TDD	8.40	± 9.6 %
10498	AAE	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 10 GAM, 02 Gab)	LTE-TDD	8.68	± 9.6 %
10499	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.67	± 9.6 %
10500	AAF	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, GI SIX, 02 000)	LTE-TDD	8.44	± 9.6 %
10501	AAF	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 10-QAM, 0L Sub)			± 9.6 %
10502	AAB				± 9.6 %
10503	AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Sub)			± 9.6 %
10504	AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Sub)	Sub)   LTE-TDD   7.72   ± 9     JL Sub)   LTE-TDD   8.31   ± 9     JL Sub)   LTE-TDD   8.54   ± 9     JL Sub)   LTE-TDD   8.54   ± 9     L Sub)   LTE-TDD   7.74   ± 9     UL Sub)   LTE-TDD   8.36   ± 9     UL Sub)   LTE-TDD   8.36   ± 9     UL Sub)   LTE-TDD   8.55   ± 9     L Sub)   LTE-TDD   8.49   ± 9     UL Sub)   LTE-TDD   8.49   ± 9     UL Sub)   LTE-TDD   8.51   ± 9		± 9.6 %
10505	AAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Sub)			± 9.6 %
10506	AAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Sub)			± 9.6 %
10507	AAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Sub)			± 9.6 %
10508	AAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Sub)			± 9.6 %
10509	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Sub)			
10510	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Sub)			± 9.6 %
10511	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Sub)			± 9.6 %
10512	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Sub)			± 9.6 %
10513	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDD	8.42	± 9.6 %
10514	AAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.45	± 9.6 %
10515	AAE	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc dc)	WLAN	1.58	± 9.6 %
10516	AAE	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc dc)	WLAN	1.57	± 9.6 %
10517	AAF	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc dc)	WLAN	1.58	± 9.6 %
10518	AAF	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc dc)	WLAN	8.23	± 9.6 %
10519	AAF	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc dc)	WLAN	8.39	± 9.6 %
10520	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc dc)	WLAN	8.12	± 9.6 %
10521	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc dc)	WLAN	7.97	± 9.6 %
10522	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc dc)	WLAN	8.45	± 9.6 %
10523	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc dc)	WLAN	8.08	± 9.6 %
10524	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc dc)	WLAN	8.27	± 9.6 %
10525	AAC	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc dc)	WLAN	8.36	± 9.6 %
10526	AAF	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc dc)	WLAN	8.42	± 9.6 %
10527	AAF	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc dc)	WLAN	8.21	± 9.6 %
10528	AAF	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc dc)	WLAN	8.36	± 9.6 %
10529		IEEE 802.11ac WiFi (20MHz, MCS4, 99pc dc)	WLAN	8.36	± 9.6 %
10523	AAF	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc dc)	WLAN	8.43	± 9.6 %
10531	AAF	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc dc)	WLAN	8.29	± 9.6 %
	AAF	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc dc)	WLAN	8.38	± 9.6 %
10533	AAE	IEEE 802.11ac WiFI (40MHz, MCS0, 99pc dc)	WLAN	8.45	± 9.6 %
10534	AAE	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc dc)	WLAN	8.45	± 9.6 %
10535	AAE	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc dc)	WLAN	8.32	± 9.6 %
	AAF	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc dc)	WLAN	8.44	± 9.6 %
10537	AAF	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc dc)	WLAN	8.54	± 9.6 %
10538	AAF	HERE and the Intert (ADMILE MODE Office da)	WLAN	8.39	± 9.6 %
10540	AAA	HERE ORD AA - MUEL (ADMUL MORT ODDO do)	WLAN	8.46	± 9.6 %
10541	AAA		WLAN	8.65	± 9.6 %
10542	AAA	LITT AND 14 MICH (ADAMLE MODO ODec do)	WLAN	8.65	± 9.6 %
10543	AAC	ITTT ADD 44 JANTE (COMALLE MACCO ODDA do)	WLAN	8.47	± 9.6 %
10544	AAC	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc dc)		0.47	± 9.6 %

Certificate No: EX3-3650\_Mar21

Page 16 of 23

10546	AAC	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc dc)	WLAN	8.35	± 9.6 %
10547	AAC	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc dc)	WLAN	8.49	± 9.6 %
10548	AAC	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc dc)	WLAN	8.37	± 9.6 %
10550	AAC	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc dc)	WLAN	8.38	± 9.6 %
10551	AAC	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc dc)	WLAN	8.50	± 9.6 %
10552	AAC	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc dc)	WLAN	8.42	± 9.6 %
10553	-	IEEE 802-11ac WiFi (80MHz, MCS9, 99pc dc)	WLAN	8.45	± 9.6 %
10554	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc dc)	WLAN	8.48	± 9.6 %
10555	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc dc)	WLAN	8.47	±9.6 %
10556	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc dc)	WLAN	8.50	± 9.6 %
10557	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc dc)	WLAN	8.52	± 9.6 %
10558	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc dc)	WLAN	8.61	±9.6 %
10550	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc dc)	WLAN	8.73	± 9.6 %
	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc dc)	WLAN	8.56	± 9.6 %
10561	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc dc)	WLAN	8.69	± 9.6 %
10562	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc dc)	WLAN	8.77	±9.6 %
10563	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc dc)	WLAN	8.25	± 9.6 %
10564	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc dc)	WLAN	8.45	± 9.6 %
10565	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc dc)	WLAN	8.13	± 9.6 %
10566	AAC	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 18 Mbbs, sape dc) IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc dc)	WLAN	8.00	± 9.6 %
10567	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbbs, 99pc dc) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc dc)	WLAN	8.37	± 9.6 %
10568	AAC	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 30 Mbbs, 55pc dc) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc dc)	WLAN	8,10	± 9.6 %
10569	AAC	IEEE 802.11g WIFI 2.4 GHZ (DSSS-OFDM, 48 Mbps, 99pc dc)	WLAN	8.30	± 9.6 %
10570	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc dc)	WLAN	1.99	± 9.6 %
10571	AAC	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc dc)	WLAN	1.99	± 9.6 %
10572	AAC	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc dc)	WLAN	1.98	± 9.6 %
10573	AAC	IEEE 802.11b WIFI 2.4 GHz (DSSS, 5.5 Mbps, 90pc dc)		1.98	± 9.6 %
10574	AAC	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc dc)	WLAN	8.59	± 9.6 %
10575	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc dc)	WLAN		± 9.6 %
10576	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc dc)	WLAN	8.60	± 9.6 %
10577	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc dc)	WLAN	8.70	± 9.6 %
10578	AAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc dc)	WLAN		
10579	AAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc dc)	WLAN	8.36	± 9.6 %
10580	AAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc dc)	WLAN	8.76	± 9.6 %
10581	AAD	IEEE 802.11g WiFI 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc dc)	WLAN	8.35	± 9.6 %
10582	AAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc dc)	WLAN	8.67	± 9.6 %
10583	AAD	IEEE 802,11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc dc)	WLAN	8.59	± 9.6 %
10584	AAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc dc)	WLAN	8.60	± 9.6 %
10585	AAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc dc)	WLAN	8.70	± 9.6 %
10586	AAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc dc)	WLAN	8.49	± 9.6 %
10587	AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc dc)	WLAN	8.36	± 9.6 %
10588	AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc dc)	WLAN	8.76	± 9.6 %
10589	AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc dc)	WLAN	8.35	± 9.6 %
10590	AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc dc)	WLAN	8.67	± 9.6 %
10591	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc dc)	WLAN	8.63	± 9.6 %
10592	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc dc)	WLAN	8.79	± 9.6 %
10593	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc dc)	WLAN	8.64	± 9.6 %
10594	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc dc)	WLAN	8.74	± 9.6 %
10595	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc dc)	WLAN	8.74	± 9.6 9
10596	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc dc)	WLAN	8.71	± 9.6 °
10597	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc dc)	WLAN	8.72	± 9.6 °
10598	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc dc)	WLAN	8.50	± 9.6 °
10599	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc dc)	WLAN	8.79	± 9.6
10600		IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc dc)	WLAN	8.88	± 9.6
10601	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc dc)	WLAN	8.82	± 9.6
	AAA	UFFE 000 44+ (UT Mined 40MHz MCS3 90pc dc)	WLAN	8.94	± 9.6
10602 10603	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc dc)	WLAN	9.03	± 9.6

Certificate No: EX3-3650\_Mar21

Page 17 of 23

10604	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc dc)	WLAN	8.76	± 9.6 %
10605	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc dc)	WLAN	8.97	± 9.6 %
10606	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc dc)	WLAN	8.82	± 9.6 %
10607	AAC	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc dc)	WLAN	8.64	± 9.6 %
10608	AAC	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc dc)	WLAN	8.77	± 9.6 %
10609		IEEE 802.11ac WiFi (20MHz, MCS2, 90pc dc)	WLAN	8.57	± 9.6 %
10610	AAC	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc dc)	WLAN	8.78	± 9.6 %
10611		IEEE 802.11ac WiFi (20MHz, MCS4, 90pc dc)	WLAN	8.70	± 9.6 %
10612	AAC AAC	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc dc)	WLAN	8.77	± 9.6 %
10613	AAC	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc dc)	WLAN	8.94	± 9.6 %
10614	AAC	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc dc)	WLAN	8.59	± 9.6 %
10615	AAC	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc dc)	WLAN	8.82	± 9.6 %
10616	AAC	IEEE 802.11ac WiFI (40MHz, MCS0, 90pc dc)	WLAN	8.82	± 9.6 %
10617	AAC	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc dc)	WLAN	8.81	± 9.6 %
10618	AAC	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc dc)	WLAN	8.58	± 9.6 %
10619	AAC	IEEE 802.11ac WIFI (40MHz, MCS3, 90pc dc)	WLAN	8.86	± 9.6 %
10620	AAC	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc dc)	WLAN	8.87	± 9.6 %
10620	AAC	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc dc)	WLAN	8.77	± 9.6 %
10622	AAC	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc dc)	WLAN	8.68	± 9.6 %
10622	AAC	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc dc)	WLAN	8.82	± 9.6 %
10624	AAC	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc dc)	WLAN	8.96	± 9.6 %
10625	AAC	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc dc)	WLAN	8.96	± 9.6 %
10626	AAC	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc dc)	WLAN	8.83	± 9.6 %
10627	-	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc dc)	WLAN	8.88	±9.6 %
10628	AAC	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc dc)	WLAN	8.71	± 9.6 %
10629	AAC	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc dc)	WLAN	8.85	± 9.6 %
10630	-	1EEE 802.11ac WiFi (80MHz, MCS4, 90pc dc)	WLAN	8.72	± 9.6 %
10631	AAC	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc dc)	WLAN	8.81	± 9.6 %
10632	AAC	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc dc)	WLAN	8.74	± 9.6 %
10633	AAC	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc dc)	WLAN	8.83	± 9.6 %
10634	_	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc dc)	WLAN	8.80	± 9.6 %
10635	AAC AAC	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc dc)	WLAN	8.81	± 9.6 %
10636	AAC	IEEE 802.11ac WIFI (160MHz, MCS0, 90pc dc)	WLAN	8.83	± 9.6 %
10637	AAC	IEEE 802.11ac WIFI (160MHz, MCS1, 90pc dc)	WLAN	8.79	± 9.6 %
10638		IEEE 802.11ac WiFi (160MHz, MCS2, 90pc dc)	WLAN	8.86	± 9.6 %
10639	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc dc)	WLAN	8.85	± 9.6 %
10640	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc dc)	WLAN	8.98	± 9.6 %
10641	AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc dc)	WLAN	9.06	± 9.6 %
10641	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc dc)	WLAN	9.06	± 9.6 %
10643	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc dc)	WLAN	8.89	± 9.6 %
10644	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc dc)	WLAN	9.05	± 9.6 %
10645	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc dc)	WLAN	9.11	± 9.6 %
10646	AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub=2,7)	LTE-TDD	11.96	± 9.6 %
10647		LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub=2,7)	LTE-TDD	11.96	± 9.6 %
10648	AAC	CDMA2000 (1x Advanced)	CDMA2000	3.45	± 9.6 %
10652	AAC	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	± 9.6 %
10653	AAC AAC	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	± 9.6 %
10654		LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	± 9.6 %
10654	AAC	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	± 9.6 %
10655	AAC	Pulse Waveform (200Hz, 10%)	Test	10.00	± 9.6 %
10658	AAC	Pulse Waveform (200Hz, 20%)	Test	6.99	± 9.6 %
10659	AAC		Test	3.98	± 9.6 %
	AAC		Test	2.22	± 9.6 %
10661	AAC		Test	0.97	± 9.6 %
10662	AAC	Direct att Law Enormy	Bluetooth	2.19	± 9.6 %
10670	AAC	IEEE 802.11ax (20MHz, MCS0, 90pc dc)	WLAN	9.09	± 9.6 %

Certificate No: EX3-3650\_Mar21

Page 18 of 23

10672	AAD	IEEE 802.11ax (20MHz, MCS1, 90pc dc)	WLAN	8.57	± 9.6 %
10673	AAD	IEEE 802.11ax (20MHz, MCS2, 90pc dc)	WLAN	8.78	± 9.6 %
10674	AAD	IEEE 802.11ax (20MHz, MCS3, 90pc dc)	WLAN	8.74	± 9.6 %
10675	AAD	IEEE 802.11ax (20MHz, MCS4, 90pc dc)	WLAN	8.90	± 9.6 %
10676	AAD	IEEE 802.11ax (20MHz, MCS5, 90pc dc)	WLAN	8.77	± 9.6 %
10677	AAD	IEEE 802.11ax (20MHz, MCS6, 90pc dc)	WLAN	8.73	± 9.6 %
10678	-	IEEE 802.11ax (20MHz, MCS7, 90pc dc)	WLAN	8.78	± 9.6 %
10679	AAD	IEEE 802.11ax (20MHz, MCS8, 90pc dc)	WLAN	8.89	± 9.6 %
10680	AAD	IEEE 802.11ax (20MHz, MCS9, 90pc dc)	WLAN	8.80	± 9.6 %
10681	AAD	IEEE 802.11ax (20MHz, MCS10, 90pc dc)	WLAN	8.62	± 9.6 %
	AAG	IEEE 802.11ax (20MHz, MCS11, 90pc dc)	WLAN	8.83	± 9.6 %
10682	AAF	IEEE 802.11ax (20MHz, MCS0, 99pc dc)	WLAN	8.42	± 9.6 %
10683	AAA	IEEE 802.11ax (20MHz, MCS1, 99pc dc)	WLAN	8.26	± 9.6 %
10684	AAC		WLAN	8.33	± 9.6 %
10685	AAC	IEEE 802.11ax (20MHz, MCS2, 99pc dc)	WLAN	8.28	± 9.6 %
10686	AAC	IEEE 802.11ax (20MHz, MCS3, 99pc dc)	WLAN	8.45	± 9.6 %
10687	AAE	IEEE 802.11ax (20MHz, MCS4, 99pc dc)	WLAN		± 9.6 %
10688	AAE	IEEE 802.11ax (20MHz, MCS5, 99pc dc)		8.29	± 9.6 %
10689	AAD	IEEE 802.11ax (20MHz, MCS6, 99pc dc)	WLAN	8.55	
10690	AAE	IEEE 802.11ax (20MHz, MCS7, 99pc dc)	WLAN WLAN	8.29	$\pm 9.6\%$
10691	AAB	IEEE 802.11ax (20MHz, MCS8, 99pc dc)		8.25	± 9.6 %
10692	AAA	IEEE 802.11ax (20MHz, MCS9, 99pc dc)	WLAN	8.29	± 9.6 %
10693	AAA	IEEE 802.11ax (20MHz, MCS10, 99pc dc)	WLAN	8.25	± 9.6 %
10694	AAA	IEEE 802.11ax (20MHz, MCS11, 99pc dc)	WLAN	8.57	± 9.6 %
10695	AAA	IEEE 802.11ax (40MHz, MCS0, 90pc dc)	WLAN	8.78	± 9.6 %
10696	AAA	IEEE 802.11ax (40MHz, MCS1, 90pc dc)	WLAN	8.91	± 9.6 %
10697	AAA	IEEE 802.11ax (40MHz, MCS2, 90pc dc)	WLAN	8.61	± 9.6 %
10698	AAA	IEEE 802.11ax (40MHz, MCS3, 90pc dc)	WLAN	8.89	± 9.6 %
10699	AAA	IEEE 802.11ax (40MHz, MCS4, 90pc dc)	WLAN	8.82	± 9.6 %
10700	AAA	IEEE 802.11ax (40MHz, MCS5, 90pc dc)	WLAN	8.73	± 9.6 %
10701	AAA	IEEE 802.11ax (40MHz, MCS6, 90pc dc)	WLAN	8.86	± 9.6 %
10702	AAA	IEEE 802.11ax (40MHz, MCS7, 90pc dc)	WLAN	8.70	± 9.6 %
10703	AAA	IEEE 802.11ax (40MHz, MCS8, 90pc dc)	WLAN	8.82	± 9.6 %
10704	AAA	IEEE 802.11ax (40MHz, MCS9, 90pc dc)	WLAN	8.56	± 9.6 %
10705	AAA	IEEE 802.11ax (40MHz, MCS10, 90pc dc)	WLAN	8.69	± 9.6 %
10706	AAC	IEEE 802.11ax (40MHz, MCS11, 90pc dc)	WLAN	8.66	± 9.6 %
10707	AAC	IEEE 802.11ax (40MHz, MCS0, 99pc dc)	WLAN	8.32	± 9.6 %
10708	-	IEEE 802.11ax (40MHz, MCS1, 99pc dc)	WLAN	8.55	± 9.6 %
10709	AAC	IEEE 802.11ax (40MHz, MCS2, 99pc dc)	WLAN	8.33	± 9.6 %
10703	AAC	IEEE 802.11ax (40MHz, MCS3, 99pc dc)	WLAN	8.29	± 9.6 %
10710	AAC	IEEE 802.11ax (40MHz, MCS4, 99pc dc)	WLAN	8.39	± 9.6 %
10712	AAC	IEEE 802.11ax (40MHz, MCS5, 99pc dc)	WLAN	8.67	± 9.6 %
	AAC	IEEE 802.11ax (40MHz, MCS6, 99pc dc)	WLAN	8.33	± 9.6 %
10713	AAC	IEEE 802.11ax (40MHz, MCS0, 390c dc)	WLAN	8.26	± 9.6 %
10714	AAC	IEEE 802.11ax (40MHz, MCS7, 35pc dc)	WLAN	8.45	± 9.6 %
10715	AAC		WLAN	8.30	± 9.6 %
10716	AAC	IEEE 802.11ax (40MHz, MCS9, 99pc dc)	WLAN	8.48	± 9.6 %
10717	AAC	IEEE 802.11ax (40MHz, MCS10, 99pc dc)	WLAN	8.24	± 9.6 %
10718	AAC	IEEE 802.11ax (40MHz, MCS11, 99pc dc)	WLAN	8.81	± 9.6 %
10719	AAC	IEEE 802.11ax (80MHz, MCS0, 90pc dc)	WLAN	8.87	± 9.6 %
10720	AAC	IEEE 802.11ax (80MHz, MCS1, 90pc dc)	WLAN	8.76	± 9.6 %
10721	AAC	IEEE 802.11ax (80MHz, MCS2, 90pc dc)			± 9.6 %
10722	AAC	IEEE 802.11ax (80MHz, MCS3, 90pc dc)	WLAN	8.55	± 9.6 %
10723	AAC	IEEE 802.11ax (80MHz, MCS4, 90pc dc)	WLAN	8.70	-
10724	AAC	IEEE 802.11ax (80MHz, MCS5, 90pc dc)	WLAN	8.90	± 9.6 %
10725	AAC	IEEE 802.11ax (80MHz, MCS6, 90pc dc)	WLAN	8.74	± 9.6 %
10726	AAC	IEEE 802.11ax (80MHz, MCS7, 90pc dc)	WLAN	8.72	± 9.6 %
10727	AAC	IEEE 802.11ax (80MHz, MCS8, 90pc dc)	WLAN	8.66	± 9.6 %

Certificate No: EX3-3650\_Mar21

Page 19 of 23

10728	AAC	IEEE 802.11ax (80MHz, MCS9, 90pc dc)	WLAN	8.65	± 9.6 %
10729	AAC	IEEE 802.11ax (80MHz, MCS10, 90pc dc)	WLAN	8.64	± 9.6 %
10730	AAC	IEEE 802.11ax (80MHz, MCS11, 90pc dc)	WLAN	8.67	± 9.6 %
10731	AAC	IEEE 802.11ax (80MHz, MCS0, 99pc dc)	WLAN	8.42	± 9.6 %
0732	AAC	IEEE 802.11ax (80MHz, MCS1, 99pc dc)	WLAN	8.46	± 9.6 %
0733	AAC	IEEE 802.11ax (80MHz, MCS2, 99pc dc)	WLAN	8.40	± 9.6 %
0734	AAC	IEEE 802.11ax (80MHz, MCS3, 99pc dc)	WLAN	8.25	± 9.6 %
10735	AAC	IEEE 802.11ax (80MHz, MCS4, 99pc dc)	WLAN	8.33	± 9.6 %
10736	AAC	IEEE 802.11ax (80MHz, MCS5, 99pc dc)	WLAN	8.27	± 9.6 %
10737	AAC	IEEE 802.11ax (80MHz, MCS6, 99pc dc)	WLAN	8.36	± 9.6 %
10738	AAC	IEEE 802.11ax (80MHz, MCS7, 99pc dc)	WLAN	8.42	± 9.6 %
10739	AAC	IEEE 802.11ax (80MHz, MCS8, 99pc dc)	WLAN	8.29	± 9.6 %
10740	AAC	IEEE 802.11ax (80MHz, MCS9, 99pc dc)	WLAN	8.48	± 9.6 %
10741	AAC	IEEE 802.11ax (80MHz, MCS10, 99pc dc)	WLAN	8.40	± 9.6 %
10742	AAC	IEEE 802.11ax (80MHz, MCS11, 99pc dc)	WLAN	8.43	± 9.6 %
10743	AAC	IEEE 802.11ax (160MHz, MCS0, 90pc dc)	WLAN	8.94	± 9.6 %
10744	AAC	IEEE 802.11ax (160MHz, MCS1, 90pc dc)	WLAN	9.16	± 9.6 %
10745	-	IEEE 802.11ax (160MHz, MCS2, 90pc dc)	WLAN	8.93	± 9.6 %
10746	AAC	IEEE 802.11ax (160MHz, MCS3, 90pc dc)	WLAN	9.11	± 9.6 %
10740	AAC	IEEE 802.11ax (160MHz, MCS4, 90pc dc)	WLAN	9.04	± 9.6 %
10748	-	IEEE 802.11ax (160MHz, MCS5, 90pc dc)	WLAN	8.93	± 9.6 %
10749	AAC	IEEE 802.11ax (160MHz, MCS6, 90pc dc)	WLAN	8.90	± 9.6 %
10749	AAC	IEEE 802.11ax (160MHz, MCS7, 90pc dc)	WLAN	8.79	± 9.6 %
10750	AAC	IEEE 802.11ax (160MHz, MCS8, 90pc dc)	WLAN	8.82	± 9.6 %
	AAC	IEEE 802.11ax (160MHz, MCS9, 90pc dc)	WLAN	8.81	± 9.6 %
10752	AAC	IEEE 802.11ax (160MHz, MCS0, 90pc dc)	WLAN	9.00	± 9.6 %
10753	AAC	IEEE 802.11ax (160MHz, MCS10, 90pc dc)	WLAN	8.94	± 9.6 %
10754	AAC		WLAN	8.64	± 9.6 %
10755	AAC	IEEE 802.11ax (160MHz, MCS0, 99pc dc)	WLAN	8.77	± 9.6 %
10756	AAC	IEEE 802.11ax (160MHz, MCS1, 99pc dc)	WLAN	8.77	± 9.6 %
10757	AAC	IEEE 802.11ax (160MHz, MCS2, 99pc dc)		8.69	± 9.6 %
10758	AAC	IEEE 802.11ax (160MHz, MCS3, 99pc dc)	WLAN	-	
10759	AAC	IEEE 802.11ax (160MHz, MCS4, 99pc dc)	WLAN	8.58	$\pm 9.6\%$
10760	AAC	IEEE 802.11ax (160MHz, MCS5, 99pc dc)	WLAN	8.49	± 9.6 % ± 9.6 %
10761	AAC	IEEE 802.11ax (160MHz, MCS6, 99pc dc)	WLAN	8.58	-
10762	AAC	IEEE 802.11ax (160MHz, MCS7, 99pc dc)	WLAN	8.49	± 9.6 %
10763	AAC	IEEE 802.11ax (160MHz, MCS8, 99pc dc)	WLAN	8.53	± 9.6 %
10764	AAC	IEEE 802.11ax (160MHz, MCS9, 99pc dc)	WLAN	8.54	± 9.6 %
10765	AAC	IEEE 802.11ax (160MHz, MCS10, 99pc dc)	WLAN	8.54	± 9.6 %
10766	AAC	IEEE 802.11ax (160MHz, MCS11, 99pc dc)	WLAN	8.51	± 9.6 %
10767	AAC	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	7.99	± 9.6 %
10768	AAC	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	± 9.6 %
10769	AAC	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	± 9.6 %
10770	AAC	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	± 9.6 %
10771	AAC	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	± 9.6 %
10772	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.23	± 9.6 %
10773	AAC	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.03	± 9.6 %
10774	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	± 9.6 °
10775	AAC	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	± 9.6 °
10776	AAC	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	± 9.6 9
10777	AAC	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	± 9.6 °
10778	AAC	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.34	± 9.6 °
10779	AAC	5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.42	± 9.6 °
10780	AAC	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	± 9.6 °
10781	AAC	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	± 9.6 °
10782	AAC	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.43	± 9.6 °
10783	AAC	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	± 9.6 °

Certificate No: EX3-3650\_Mar21

Page 20 of 23

March 26, 2021

10784	AAC	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.29	± 9.6 %
10785	AAC	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10786	AAC	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10787	AAC	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.44	± 9.6 %
10788	AAC	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10789	AAC	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10790	AAC	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10791	AAC	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.83	± 9.6 %
10792	AAC	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.92	± 9.6 %
10793	AAC	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.95	± 9.6 %
10794	AAC	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	± 9.6 %
10795	AAC	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.84	± 9.6 %
10796		5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	± 9.6 %
10797	AAC	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.01	± 9.6 %
10798	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	± 9.6 %
10798	AAC	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	± 9.6 %
10799	AAC	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	± 9.6 %
10802	AAC	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.87	± 9.6 %
	AAC	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	± 9.6 %
10803	AAE		5G NR FR1 TDD	8.34	± 9.6 %
10805	AAD	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz) 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10806	AAD		5G NR FR1 TDD	8.34	± 9.6 %
10809	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD		± 9.6 %
10810	AAD	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)		8.34	
10812	AAD	5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10817	AAD	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10818	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10819	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.33	± 9.6 %
10820	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.30	± 9.6 %
10821	AAC	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10822	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10823	AAC	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10824	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10825	AAD	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10827	AAD	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.42	± 9.6 %
10828	AAE	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.43	± 9.6 %
10829	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10830	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.63	± 9.6 %
10831	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.73	± 9.6 %
10832	AAD	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.74	± 9.6 %
10833	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10834	AAD	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.75	± 9.6 %
10835	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10836	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.66	± 9.6 %
10837	AAD	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.68	± 9.6 %
10839	AAD	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10840	AAD	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.67	± 9.6 %
10841	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.71	± 9.6 %
10843	AAD	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.49	± 9.6 %
10844	AAD	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10846	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10854	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10855	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10856	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10857	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10858	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10859	AAD	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %

Certificate No: EX3-3650\_Mar21

March 26, 2021

10860	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10861	AAD	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10863	AAD	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10864	AAE	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10865	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10866	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10868	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.89	± 9.6 %
10869	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10870	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.86	± 9.6 %
10871	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10872	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.52	± 9.6 %
10873	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	± 9.6 %
10874	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	± 9.6 %
10875	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	± 9.6 %
10876	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.39	± 9.6 %
10877	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 KHz)	5G NR FR2 TDD	7.95	± 9.6 %
10878	-	5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 KHz)	5G NR FR2 TDD	8.41	± 9.6 %
10879	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD		
	AAD			8.12	± 9.6 %
10880 10881	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz) 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.38	± 9.6 %
10881	AAD		5G NR FR2 TDD	5.75	$\pm 9.6\%$
	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.96	± 9.6 %
10883	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.57	± 9.6 %
10884	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.53	± 9.6 %
10885	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	± 9.6 %
10886	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	± 9.6 %
10887	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	± 9.6 %
10888	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.35	± 9.6 %
10889	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.02	± 9.6 %
10890	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.40	± 9.6 %
10891	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.13	± 9.6 %
10892	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.41	± 9.6 %
10897	AAD	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.66	± 9.6 %
10898	AAD	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	± 9.6 %
10899	AAD	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	± 9.6 %
10900	AAD	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10901	AAD	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10902	AAD	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10903	AAD	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10904	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10905	AAD	5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10906	AAD	5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10907	AAD	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.78	± 9.6 %
10908	AAD	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	± 9.6 %
10909	AAD	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.96	± 9.6 %
10910	AAD	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	± 9.6 %
10911	AAD	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	± 9.6 %
10912	AAD	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10913	AAD	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10914	AAD	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.85	± 9.6 9
10915	AAD	5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	± 9.6 %
10916	AAD	5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	± 9.6 9
10917	-	5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	± 9.6 9
10918	AAD	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	± 9.6 %
10918	AAD	5G NR (DF1-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	
10919	AAD	5G NR (DF1-S-OFDM, 100% RB, 10 MHz, QPSK, 30 KHz)	5G NR FR1 TDD	-	± 9.6 %
10920	AAD	1 0G NR (DET-S-OFDIVI, 100% RD, 13 WITZ, QPSR, 30 KHZ)	JOURTRIDD	5.87	± 9.6 %

Certificate No: EX3-3650\_Mar21

Page 22 of 23

March 26, 2021

10922	AAD	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.82	± 9.6 %
10923	AAD	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10924	AAD	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10925	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.95	± 9.6 %
10926	AAD	5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10927	AAD	5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	± 9.6 %
10928	AAD	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10929	AAD	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10930	AAD	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10931	AAD	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10932	AAB	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10933	AAA	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10934	AAA	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10935	AAA	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10936	AAC	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	± 9.6 %
10937	AAB	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.77	± 9.6 %
10938	AAB	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	± 9.6 %
10939	AAB	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.82	± 9.6 %
10940	AAB	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.89	± 9.6 %
10941	AAB	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	± 9.6 %
10942	AAB	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	± 9.6 %
10943	AAB	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.95	± 9.6 %
10944	AAB	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.81	± 9.6 %
10945	AAB	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	± 9.6 %
10946	AAC	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	± 9.6 %
10947	AAB	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	± 9.6 %
10948	AAB	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	± 9.6 %
10949	AAB	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	± 9.6 %
10950	AAB	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	± 9.6 %
10951	AAB	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.92	± 9.6 %
10952	AAB	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.25	± 9.6 %
10953	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.15	± 9.6 %
10954	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.23	± 9.6 %
10955	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.42	± 9.6 %
10956	AAB	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.14	± 9.6 %
10957	AAC	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.31	± 9.6 %
10958	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.61	± 9.6 %
10959	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.33	± 9.6 %
10960	AAB	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.32	± 9.6 %
10961	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.36	± 9.6 %
10962	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.40	± 9.6 %
10963	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.55	± 9.6 %
10964	AAB	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.29	± 9.6 %
10965	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.37	± 9.6 %
10966	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.55	± 9.6 %
10967	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.42	± 9.6 %
10968	AAB	5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.49	± 9.6 %
10972	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	11.59	± 9.6 %
10973	AAB	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	9.06	± 9.6 %
10974	AAB	5G NR (CP-OFDM, 100% RB, 100 MHz, 256-QAM, 30 kHz)	5G NR FR1 TDD	10.28	± 9.6 %

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

### Calibration Laboratory of Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





Schweizerischer Kalibrierdienst S

Service suisse d'étalonnage С

Servizio svizzero di taratura S

Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Certificate No: EX3-3887\_Oct20

ALIDIVATION	CERTIFICATE		
oject	EX3DV4 - SN:3887		
alibration procedure(s)	QA CAL-01.v9, QA Calibration procedu	CAL-14.v6, QA CAL-23.v5, QA ( are for dosimetric E-field probes	CAL-25.v7
alibration date:	October 22, 2020		
he measurements and the unc	ertainties with confidence prob ucted in the closed laboratory f	al standards, which realize the physical units o pability are given on the following pages and a acility: environment temperature (22 ± 3)°C a	are part of the certificate.
		Cal Date (Certificate No.)	Scheduled Calibration
Primary Standards	ID SN: 104778	01-Apr-20 (No. 217-03100/03101)	Apr-21
Power meter NRP		01-Apr-20 (No. 217-03100)	Apr-21
	SN: 103244		Apr-21
	SNI 102245	[ 01-Apr-20 (No. 217-03101)	
Power sensor NRP-Z91	SN: 103245	01-Apr-20 (No. 217-03101) 31-Mar-20 (No. 217-03106)	
Power sensor NRP-Z91 Reference 20 dB Attenuator	SN: CC2552 (20x)	31-Mar-20 (No. 217-03106)	Apr-21
Power sensor NRP-Z91 Reference 20 dB Attenuator DAE4	SN: CC2552 (20x) SN: 660	31-Mar-20 (No. 217-03106) 27-Dec-19 (No. DAE4-660_Dec19)	Apr-21 Dec-20
Power sensor NRP-Z91 Reference 20 dB Attenuator DAE4	SN: CC2552 (20x)	31-Mar-20 (No. 217-03106)	Apr-21
Power sensor NRP-Z91 Reference 20 dB Attenuator DAE4 Reference Probe ES3DV2	SN: CC2552 (20x) SN: 660 SN: 3013	31-Mar-20 (No. 217-03106) 27-Dec-19 (No. DAE4-660_Dec19)	Apr-21 Dec-20
Power sensor NRP-Z91 Reference 20 dB Attenuator DAE4 Reference Probe ES3DV2 Secondary Standards	SN: CC2552 (20x) SN: 660 SN: 3013 ID	31-Mar-20 (No. 217-03106) 27-Dec-19 (No. DAE4-660_Dec19) 31-Dec-19 (No. ES3-3013_Dec19)	Apr-21 Dec-20 Dec-20
Power sensor NRP-Z91 Reference 20 dB Attenuator DAE4 Reference Probe ES3DV2 Secondary Standards Power meter E4419B	SN: CC2552 (20x) SN: 660 SN: 3013	31-Mar-20 (No. 217-03106) 27-Dec-19 (No. DAE4-660_Dec19) 31-Dec-19 (No. ES3-3013_Dec19) Check Date (in house)	Apr-21 Dec-20 Dec-20 Scheduled Check
Power sensor NRP-Z91 Reference 20 dB Attenuator DAE4 Reference Probe ES3DV2 Secondary Standards Power meter E4419B Power sensor E4412A	SN: CC2552 (20x) SN: 660 SN: 3013 ID SN: GB41293874	31-Mar-20 (No. 217-03106) 27-Dec-19 (No. DAE4-660_Dec19) 31-Dec-19 (No. ES3-3013_Dec19) Check Date (in house) 06-Apr-16 (in house check Jun-20)	Apr-21 Dec-20 Dec-20 Scheduled Check In house check: Jun-22
Power sensor NRP-Z91 Reference 20 dB Attenuator DAE4 Reference Probe ES3DV2 Secondary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A	SN: CC2552 (20x) SN: 660 SN: 3013 ID SN: GB41293874 SN: MY41498087	31-Mar-20 (No. 217-03106)   27-Dec-19 (No. DAE4-660_Dec19)   31-Dec-19 (No. ES3-3013_Dec19)   Check Date (in house)   06-Apr-16 (in house check Jun-20)   06-Apr-16 (in house check Jun-20)	Apr-21 Dec-20 Dec-20 Scheduled Check In house check: Jun-22 In house check: Jun-22
Power sensor NRP-Z91 Reference 20 dB Attenuator DAE4 Reference Probe ES3DV2 Secondary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A RF generator HP 8648C	SN: CC2552 (20x) SN: 660 SN: 3013 ID SN: GB41293874 SN: MY41498087 SN: 000110210	31-Mar-20 (No. 217-03106)   27-Dec-19 (No. DAE4-660_Dec19)   31-Dec-19 (No. ES3-3013_Dec19)   Check Date (in house)   06-Apr-16 (in house check Jun-20)	Apr-21 Dec-20 Dec-20 Scheduled Check In house check: Jun-22 In house check: Jun-22 In house check: Jun-22
Power sensor NRP-Z91 Reference 20 dB Attenuator DAE4 Reference Probe ES3DV2 Secondary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A RF generator HP 8648C Network Analyzer E8358A	SN: CC2552 (20x)     SN: 660     SN: 3013     ID     SN: GB41293874     SN: MY41498087     SN: 000110210     SN: US3642U01700	31-Mar-20 (No. 217-03106)   27-Dec-19 (No. DAE4-660_Dec19)   31-Dec-19 (No. ES3-3013_Dec19)   Check Date (in house)   06-Apr-16 (in house check Jun-20)   04-Aug-99 (in house check Jun-20)   31-Mar-14 (in house check Oct-20)   Function   Laboratory Techniclan	Apr-21 Dec-20 Dec-20 Scheduled Check In house check: Jun-22 In house check: Jun-22 In house check: Jun-22 In house check: Jun-22
Power sensor E4412A RF generator HP 8648C	SN: CC2552 (20x)     SN: 660     SN: 3013     ID     SN: GB41293874     SN: MY41498087     SN: 000110210     SN: US3642U01700     SN: US41080477     Name	31-Mar-20 (No. 217-03106)   27-Dec-19 (No. DAE4-660_Dec19)   31-Dec-19 (No. ES3-3013_Dec19)   Check Date (in house)   06-Apr-16 (in house check Jun-20)   07-Apr-16 (in house check Jun-20)   08-Apr-14 (in house check Oct-20)	Apr-21 Dec-20 Dec-20 Scheduled Check In house check: Jun-22 In house check: Jun-22 In house check: Jun-22 In house check: Jun-22 In house check: Jun-22

Certificate No: EX3-3887\_Oct20

Page 1 of 22

### Calibration Laboratory of

Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland



Schweizerischer Kalibrierdienst S

Service suisse d'étalonnage С

Accreditation No.: SCS 0108

Servizio svizzero di taratura S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

## **Glossary:**

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF ·	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization 9	$\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor Y to the rebet sporting to success

information used in DASY system to align probe sensor X to the robot coordinate system

## Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from handb)
- held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices C) used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

## Methods Applied and Interpretation of Parameters:

- NORMx, y, z: Assessed for E-field polarization  $\vartheta = 0$  (f  $\leq 900$  MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- $NORM(f)x, y, z = NORMx, y, z * frequency_response$  (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx,y,z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW . signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal . characteristics -
- Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z; A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \le 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are
- used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx, y, z \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm$  50 MHz to  $\pm$  100
- Spherical isotropy (3D deviation from isotropy): in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORMx (no . uncertainty required),

Certificate No: EX3-3887\_Oct20

~~~~

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:3887

### **Basic Calibration Parameters**

|                            |       | Sensor Y | Sensor Z | Unc (k=2) |  |
|----------------------------|-------|----------|----------|-----------|--|
| New / W////m/2)A           | 0.37  | 0.39     | 0.48     | ± 10.1 %  |  |
| Norm $(\mu V/(V/m)^2)^{n}$ | 103.0 | 100.4    | 99.8     |           |  |
| DCP (mV) <sup>°</sup>      | 100.0 |          |          |           |  |

## Calibration Results for Modulation Response

| UID<br>UID     | on Results for Modulation<br>Communication System Name | 1.03 | A<br>dB | B<br>dBõV | C     | D<br>dB | VR<br>mV | Max<br>dev. | Max<br>Unc <sup>E</sup><br>(k=2) |
|----------------|--------------------------------------------------------|------|---------|-----------|-------|---------|----------|-------------|----------------------------------|
|                | 011                                                    | X    | 0.00    | 0.00      | 1.00  | 0.00    | 135.3    | ± 2.5 %     | ± 4.7 %                          |
| 0              | CW                                                     |      | 0.00    | 0.00      | 1.00  | 7       | 136.1    | 1           |                                  |
|                |                                                        | Z    | 0.00    | 0.00      | 1.00  |         | 136.9    |             |                                  |
| 10000          | Pulse Waveform (200Hz, 10%)                            | X    | 6.82    | 77.08     | 16.27 | 10.00   | 60.0     | ± 3.3 %     | ±9.6 %                           |
| 10352-         | Puise waveloint (20012, 1078)                          | Ŷ    | 20.00   | 97.15     | 24.21 |         | 60.0     |             |                                  |
| AAA            |                                                        | Z    | 20.00   | 91.97     | 20.80 |         | 60.0     |             |                                  |
| 10353-         | Pulse Waveform (200Hz, 20%)                            | X    | 10.17   | 83.09     | 17.10 | 6.99    | 80.0     | ± 1.7 %     | ± 9.6 %                          |
| 10353-<br>AAA  | Fuise Waveloun (2001)2, 2035)                          | Y    | 20.00   | 100.85    | 25.05 |         | 80.0     |             |                                  |
| ~~~~           |                                                        | Z    | 20.00   | 96.27     | 21.78 |         | 80.0     |             |                                  |
| 10354-         | Pulse Waveform (200Hz, 40%)                            | X    | 20.00   | 91.82     | 18.49 | 3.98    | 95.0     | ± 1.3 %     | ± 9.6 %                          |
| AAA            |                                                        | Y    | 20.00   | 110.61    | 28.44 |         | 95.0     |             |                                  |
| <i>[</i> `\[`\ |                                                        | Z    | 20.00   | 105.64    | 24.88 | 1       | 95.0     |             |                                  |
| 10355-         | Pulse Waveform (200Hz, 60%)                            | X    | 12.49   | 92.62     | 18.75 | 2.22    | 120.0    | ± 1.3 %     | ± 9.6 %                          |
| AAA            | Faise Watchinin (Looning on in)                        | Y    | 20.00   | 122.95    | 32.75 |         | 120.0    | -           |                                  |
| FNFY 1         |                                                        | Z    | 20.00   | 115.84    | 28.30 |         | 120.0    |             | 0.0.04                           |
| 10387-         | QPSK Waveform, 1 MHz                                   | X    | 1.71    | 65.76     | 14.77 | 1.00    | 150.0    | ±2.2 %      | ± 9.6 %                          |
| AAA            | al off traction of the                                 | Y    | 1.79    | 66.76     | 15.63 |         | 150.0    | -           |                                  |
| 2401           |                                                        | Z    | 1.55    | 65.54     | 14.47 |         | 150.0    |             |                                  |
| 10388-         | QPSK Waveform, 10 MHz                                  | X    | 2.24    | 67.66     | 15.44 | 0.00    | 150.0    | ±0.9%       | ± 9.6 %                          |
| AAA            |                                                        | Y    | 2.37    | 68.79     | 16.30 | -       | 150.0    |             |                                  |
| 70.04          |                                                        | Z    | 2.02    | 66.51     | 15.06 | 4       | 150.0    |             | 1000                             |
| 10396-         | 64-QAM Waveform, 100 kHz                               | X    | 2.94    | 70.38     | 18.52 | 3.01    | 150.0    | ± 0.7 %     | ± 9.6 %                          |
| AAA            |                                                        | Y    | 3.07    | 71.33     | 19.34 |         | 150.0    | -           |                                  |
|                |                                                        | Z    | 2.90    | 70,93     | 19.27 |         | 150.0    | 0.0.00      | 1000                             |
| 10399-         | 64-QAM Waveform, 40 MHz                                | X    | 3.40    | 66.48     | 15.34 | 0.00    | 150.0    | ± 0.8 %     | ± 9.6 %                          |
| AAA            |                                                        | Y    | 3.62    | 67.55     | 16.08 | 4       | 150.0    | -           | ·                                |
|                |                                                        | Z    | 3.39    | 66.52     | 15.45 |         | 150.0    | 1 1 m N/    | ± 9,6 %                          |
| 10414-         | WLAN CCDF, 64-QAM, 40MHz                               | X    | 4.80    | 65.34     | 15.24 | 0.00    | 150.0    | ± 1.5 %     | 1 2 9.0 %                        |
| AAA            |                                                        | Y    | 4.80    | 65.30     | 15.40 | 4       | 150.0    |             |                                  |
| 1              |                                                        | Z    | 4,73    | 65.42     | 15,36 | 1       | 150.0    |             | مەرەسىسىيىلىپ                    |

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>6</sup> The uncertainties of Norm X,Y,Z do not affect the  $E^2$ -field uncertainty inside TSL (see Page 5).

<sup>a</sup> Numerical linearization parameter: uncertainty not required. <sup>c</sup> Uncertainty is determined using the max, deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:3887

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | α<br>V <sup>-1</sup> | T1<br>ms.V <sup>-2</sup> | T2<br>ms.V <sup>-1</sup> | T3<br>ms | T4<br>V <sup>-2</sup> | T5<br>V <sup>-1</sup> | <b>T</b> 6 |
|---|----------|----------|----------------------|--------------------------|--------------------------|----------|-----------------------|-----------------------|------------|
| X |          | 335.09   |                      | 10,31                    | 0.60                     | 4.98     | 2.00                  | 0.10                  | 1 01       |
| Y | 47.6     | 350.46   | 34.74                | 15.06                    | 0.08                     | 5,10     | 1.36                  | 0.21                  | 1 01       |
| Ζ | 36.7     | 269.23   | 34.43                | 8.82                     | 0.00                     | 5.04     | 1.84                  | 0.06                  | 1.01       |

## Other Probe Parameters

| Sensor Arrangement                            | Triangular |
|-----------------------------------------------|------------|
| Connector Angie (°)                           | -121.2     |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 9 mm       |
| Tip Dlameter                                  | 2.5 mm     |
| Probe Tip to Sensor X Calibration Point       |            |
| Probe Tip to Sensor Y Calibration Point       | 1 mm       |
| Probe Tip to Sensor Z Calibration Point       | 1 mm       |
| Recommended Measurement Distance from Surface | 1.4 mm     |

Note: Measurement distance from surface can be increased to 3-4 mm for an Area Scan job.

1

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:3887

| f (MHz) <sup>c</sup> | Relative<br>Permittivity <sup>F</sup> | Conductivity<br>(S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>6</sup><br>(mm) | Unc<br>(k=2) |
|----------------------|---------------------------------------|------------------------------------|---------|---------|---------|--------------------|----------------------------|--------------|
| 750                  | 41.9                                  | 0.89                               | 9.49    | 9,49    | 9.49    | 0.52               | 0.80                       | ± 12.0 %     |
| 835                  | 41.5                                  | 0.90                               | 9.20    | 9.20    | 9.20    | 0.28               | 1.18                       | ± 12.0 %     |
| 900                  | 41.5                                  | 0.97                               | 9.06    | 9.06    | 9.06    | 0.42               | 0.88                       | ± 12.0 %     |
| 1450                 | 40.5                                  | 1.20                               | 8.34    | 8.34    | 8.34    | 0.30               | 0.80                       | ± 12.0 %     |
| 1750                 | 40.1                                  | 1.37                               | 8.24    | 8.24    | 8.24    | 0.33               | 0.86                       | ± 12.0 %     |
| 1900                 | 40.0                                  | 1.40                               | 7.98    | 7.98    | 7.98    | 0.28               | 0.94                       | ± 12.0 %     |
| 2000                 | 40.0                                  | 1.40                               | 7.86    | 7.86    | 7.86    | 0.28               | 0.86                       | ± 12,0 %     |
| 2300                 | 39.5                                  | 1.67                               | 7.70    | 7.70    | 7.70    | 0.30               | 0.90                       | ± 12.0 %     |
| 2450                 | 39.2                                  | 1.80                               | 7.33    | 7.33    | 7.33    | 0.32               | 0.90                       | ± 12.0 %     |
| 2600                 | 39.0                                  | 1.96                               | 7.21    | 7.21    | 7.21    | 0.36               | 0.90                       | ± 12.0 %     |
| 3300                 | 38.2                                  | 2.71                               | 6.80    | 6.80    | 6.80    | 0.35               | 1.30                       | ± 13.1 %     |
| 3500                 | 37.9                                  | 2.91                               | 6.64    | 6.64    | 6.64    | 0.35               | 1.30                       | ± 13.1 %     |
| 3700                 | 37.7                                  | 3.12                               | 6.39    | 6.39    | 6.39    | 0.35               | 1,30                       | ± 13.1 %     |
| 3900                 | 37.5                                  | 3.32                               | 6.14    | 6.14    | 6.14    | 0.40               | 1.60                       | ± 13.1 %     |
| 4100                 | 37.2                                  | 3.53                               | 5.92    | 5.92    | 5.92    | 0.40               | 1.60                       | ± 13.1 %     |
| 4200                 | 37.1                                  | 3.63                               | 5.76    | 5.76    | 5.76    | 0.40               | 1.70                       | ± 13.1 %     |
| 4400                 | 36.9                                  | 3.84                               | 5,74    | 5.74    | 5.74    | 0.38               | 1.33                       | ± 13.1 %     |
| 4600                 | 36.7                                  | 4.04                               | 5.54    | 5.54    | 5.54    | 0.40               | 1.70                       | ± 13.1 %     |
| 4800                 | 36.4                                  | 4.25                               | 5.45    | 5.45    | 5.45    | 0.40               | 1.80                       | ± 13.1 %     |
| 4950                 | 36.3                                  | 4.40                               | 5.32    | 5.32    | 5.32    | 0.40               | 1.80                       | ± 13.1 %     |
| 5250                 | 35.9                                  | 4.71                               | 4.71    | 4.71    | 4.71    | 0.40               | 1.80                       | ± 13.1 %     |
| 5600                 | 35.5                                  | 5.07                               | 4.24    | 4.24    | 4.24    | 0.40               | 1.80                       | ± 13.1 %     |
| 5750                 | 35.4                                  | 5.22                               | 4.36    | 4.36    | 4.36    | 0.40               | 1.80                       | ± 13.1 %     |

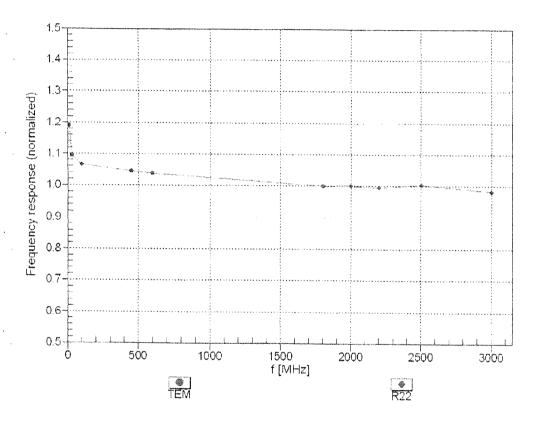
Calibration Parameter Determined in Head Tissue Simulating Media

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz. <sup>6</sup> At frequencies below 3 GHz, the validity of tissue parameters (is and it) can be relaxed to ± 10% if liquid compensation formula is applied to a second solution of the time of time of time of time of the time of the time of the time of the time of time of the time of the time of time of the time of time of the time of time of time of the time of time of the time of the time of time of time of the time of time of the time of the time of the time of time of time of time of time of the time of time of the time of ti

At trequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to  $\pm$  10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to  $\pm$  5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters. <sup>6</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than  $\pm$  1% for frequencies below 3 GHz and below  $\pm$  2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary

October 22, 2020

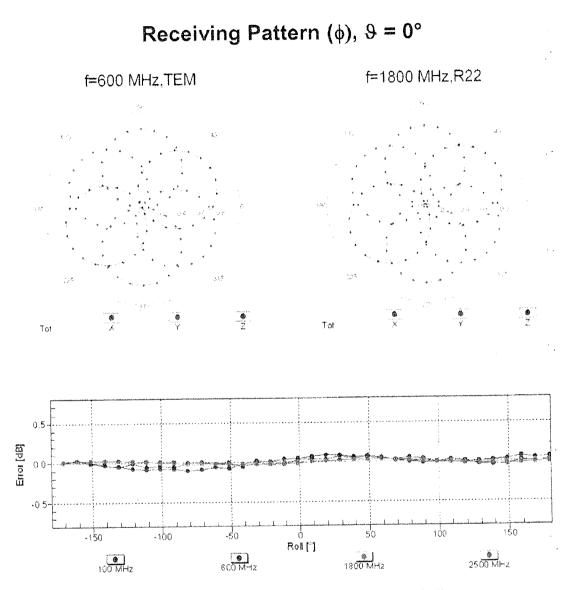
## Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

Page 6 of 22

October 22, 2020

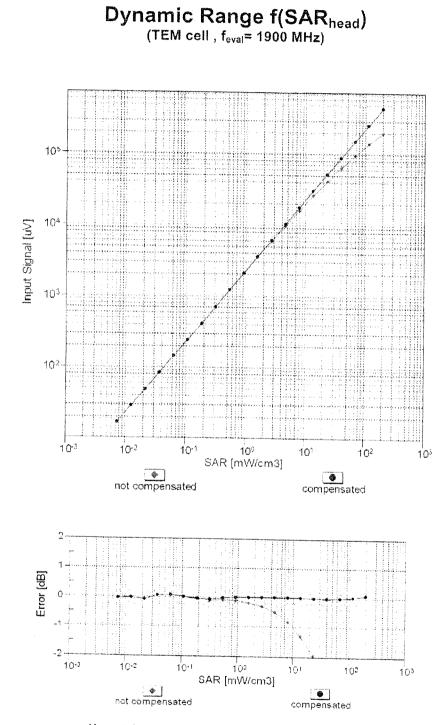


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

### Certificate No: EX3-3887\_Oct20

Page 7 of 22

October 22, 2020

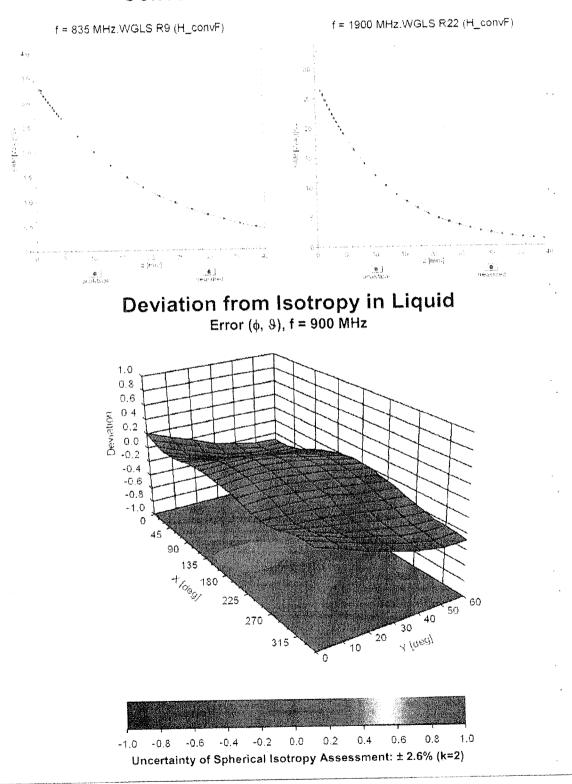


Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Page 8 of 22

Certificate No: EX3-3887\_Oct20

October 22, 2020



Conversion Factor Assessment

Certificate No: EX3-3887\_Oct20

Page 9 of 22

. ,

October 22, 2020

| Append | lix: Mc | odulation Calibration Parameters |    |
|--------|---------|----------------------------------|----|
| DID    | Rev     | Communication System Name        | 10 |
| 0      |         |                                  |    |

|            | Rev | Communication System Name                                                                        | Group     | PAR<br>(dB) | Unc <sup>E</sup><br>(k=2) |
|------------|-----|--------------------------------------------------------------------------------------------------|-----------|-------------|---------------------------|
| J<br>10010 |     | CW                                                                                               | CW        | 0.00        | ± 4.7 %                   |
| 10010      | CAA | SAR Validation (Square, 100ms, 10ms)                                                             | Test      | 10.00       | ± 9.6 %                   |
| 10012      | CAB | UMTS-FDD (WCDMA)                                                                                 | WCDMA     | 2.91        | ± 9.6 %                   |
| 10012      | CAB | IEEE 802 11b WiFI 2.4 GHz (DSSS, 1 Mbps)                                                         | WLAN      | 1.87        | ± 9.6 %                   |
| 10013      | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)                                                    | WLAN      | 9.46        | ± 9.6 %                   |
|            | DAC | GSM-FDD (TDMA, GMSK)                                                                             | GSM       | 9.39        | ± 9.6 %                   |
| 10023      | DAC | GPRS-FDD (TDMA, GMSK, TN 0)                                                                      | GSM       | 9.57        | ± 9.6 %                   |
| 10024      | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                                                                    | GSM       | 6.56        | ± 9.6 %                   |
| 10025      | DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                                                                      | GSM       | 12.62       | ± 9.6 %                   |
| 10026      | DAC | EDGE-FDD (TDMA. 8PSK, TN 0-1)                                                                    | GSM       | 9.55        | ± 9,6 %                   |
| 10027      | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)                                                                  | GSM       | 4.80        | ± 9.6 %                   |
| 10028      | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)                                                                | GSM       | 3.55        | ± 9.6 %                   |
| 0029       | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)                                                                  | GSM       | 7.78        | ± 9.6 %                   |
| 0030       | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)                                                              | Bluetooth | 5.30        | ± 9.6 %                   |
| 0031       | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)                                                              | Bluetooth | 1.87        | ± 9.6 %                   |
| 0032       | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                                                              | Bluetooth | 1.16        | ± 9.6 %                   |
| 0033       | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)                                                        | Bluetooth | 7.74        | ± 9.6 %                   |
| 0034       | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)                                                        | Bluetooth | 4.53        | ± 9.6 %                   |
| 0035       | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)                                                        | Bluetooth | 3.83        | ± 9.6 %                   |
| 0036       | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)                                                            | Bluetooth | 8.01        | ± 9.6 %                   |
| 0037       | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)                                                            | Bluetooth | 4.77        | ± 9.6 %                   |
| 0038       | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)                                                            | Bluetooth | 4.10        | ± 9.6 %                   |
| 0039.      | CAB | CDMA2000 (1xRTT, RC1)                                                                            | CDMA2000  | 4.57        | ± 9.6 %                   |
| 0042       | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)                                              | AMPS      | 7.78        | ± 9.6 %                   |
| 0044       | CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                                                                 | AMPS      | 0.00        | ± 9.6 %                   |
| 0048       | CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)                                                        | DECT      | 13.80       |                           |
| 10049      | CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)                                                      | DECT      | 10.79       | ± 9.6 %                   |
| 0056       | CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                                                                   | TD-SCDMA  | 11.01       | ± 9.6 %                   |
| 0058       | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                                                                | GSM       | 6.52        |                           |
| 0059       | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)                                                         | WLAN .    |             | ± 9.6 %                   |
| 0060 .     | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)                                                       | WLAN      | 2.12        | ± 9.6 %                   |
| 0061       | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)                                                        | WLAN      | 2.83        | ± 9.6 %                   |
| 0062       | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)                                                         | WLAN      | 3.60        | ± 9.6 %                   |
| 0063       | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)                                                         | WLAN      | 8,68        | ± 9.6 %                   |
| 0064       | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)                                                        | WLAN      | 8.63        | ± 9.6 %                   |
| 0065       | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)                                                        |           | 9.09        | ± 9.6 %                   |
| 0066       | CAD | IEEE 802.11a/h WIFi 5 GHz (OFDM, 24 Mbps)                                                        | WLAN      | 9.00        | ± 9.6 %                   |
| 0067       | CAD | IEEE 802.11a/h WIFI 5 GHz (OFDM, 36 Mbps)                                                        | WLAN      | 9.38        | ±9.6 %                    |
| 0068       | CAD | IEEE 802.11a/h WIFI 5 GHz (OFDM, 48 Mbps)                                                        | WLAN      | 10.12       | ± 9.6 %                   |
| 0069       | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)                                                        | WLAN      | 10.24       | ± 9.6 %                   |
| 0071       | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)                                                    | WLAN      | 10.56       | ± 9.6 %                   |
| 0072       | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)                                                    | WLAN      | 9.83        | ± 9.6 %                   |
| 0073       | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)                                                   | WLAN      | 9.62        | ± 9.6 %                   |
| 0074       | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)                                                   | WLAN      | 9.94        | ± 9.6 %                   |
| 0075       |     | IEEE 802.11g WII 12.4 GHZ (DSSS/OFDW, 24 Mops)                                                   | WLAN      | 10.30       | ± 9.6 %                   |
| 0076       | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)<br>IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps) | WLAN      | 10.77       | ± 9.6 %                   |
| 0077       | CAB | LEEE 802.11g WIFI 2.4 GHZ (USSS/OFDM, 48 Mbps)                                                   | WLAN      | 10.94       | ±9.6 %                    |
| 0081       | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)                                                   | WLAN      | 11.00       | ± 9.6 %                   |
| 0082       | CAB | CDMA2000 (1xRTT, RC3)                                                                            | CDMA2000  | 3.97        | ± 9.6 %                   |
| 0090       | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)                                              | AMPS      | 4.77        | ±9.6 %                    |
| 0090       | DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                                                                    | GSM       | 6.56        | ± 9.6 %                   |
|            | CAC | UMTS-FDD (HSDPA)                                                                                 | WCDMA     | 3.98        | ± 9.6 %                   |
| 8600       | DAC | UMTS-FDD (HSUPA, Subtest 2)                                                                      | WCDMA     | 3.98        | ± 9.6 %                   |

Certificate No: EX3-3887\_Oct20

Page 10 of 22

October 22, 2020

| 10099 | CAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                  | GSM     | 9.55  | ±9.6 %      |
|-------|-----|------------------------------------------------|---------|-------|-------------|
| 10100 | CAC | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)       | LTE-FDD | 5.67  | ±9,6 %      |
| 0101  | CAB | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)     | LTE-FDD | 6.42  | ± 9,8 %     |
| 0102  |     | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)     | LTE-FDD | 6.60  | ± 9.6 %     |
| 0103  | CAB | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)       | LTE-TDD | 9.29  | ± 9.6 %     |
|       | DAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz. 16-QAM)     | LTE-TDD | 9.97  | ±9.6 %      |
| 0104  | CAE | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)     | LTE-TDD | 10.01 | ±9.6 %      |
| 0105  | CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)       | LTE-FDD | 5.80  | ±9.6 %      |
| 0108  | CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)     | LTE-FDD | 6.43  | ± 9.6 %     |
| 0109  | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)        | LTE-FDD | 5.75  | ± 9:6 %     |
| 0110  | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz. 16-QAM)      | LTE-FDD | 6.44  | ± 9.6 %     |
| 0111  | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | LTE-FDD | 6.59  | ± 9.6 %     |
| 0112  | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 04-QAM)     | LTE-FDD | 6.62  | ± 9.6 %     |
| 0113  | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 04-QAM)      | WLAN    | 8.10  | ± 9.6 %     |
| 0114  | CAG | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | WLAN    | 8,46  | ± 9.6 %     |
| 0115  | CAG | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | WLAN    | 8.15  | ± 9.6 %     |
| 0116  | CAG | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | WLAN    | 8.07  | ± 9.6 %     |
| 0117  | CAG | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       |         | 8.59  | ± 9.6 %     |
| 10118 | CAD | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | WLAN    |       | ± 9.6 %     |
| 0119  | CAD | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | WLAN    | 8.13  | $\pm 9.6\%$ |
| 10140 | CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | LTE-FDD | 6.49  |             |
| 10141 | CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | LTE-FDD | 6.53  | ± 9.6 %     |
| 10142 | CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | LTE-FDD | 5.73  | ± 9.6 %     |
| 10143 | CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | LTE-FDD | 6.35  | ± 9.6 %     |
| 10144 | CAC | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | LTE-FDD | 6,65  | ± 9.6 %     |
| 10145 | CAC | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | LTE-FDD | 5.76  | ± 9.6 %     |
| 10146 | CAC | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | LTE-FDD | 6.41  | ± 9.6 %     |
| 10147 | CAC | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | LTE-FDD | 6.72  | ± 9.6 %     |
| 10149 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-FDD | 6.42  | ± 9.6 %     |
| 10150 |     | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-FDD | 6.60  | ± 9.6 %     |
| 10151 | CAE | LTE-TDD (SC-FDMA, 50% RB. 20 MHz, QPSK)        | LTE-TDD | 9.28  | ± 9.6 %     |
| 10152 | CAE | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-TDD | 9.92  | ± 9.6 %     |
| 10152 | CAE | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-TDD | 10.05 | ± 9.6 %     |
| 10154 | CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)        | LTE-FDD | 5.75  | ± 9.6 %     |
|       | CAF | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)      | LTE-FDD | 6.43  | ± 9.6 %     |
| 10155 | CAF | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         | LTE-FDD | 5.79  | ± 9.6 %     |
| 10156 | CAF | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)       | LTE-FDD | 6.49  | ± 9.6 %     |
| 10157 | CAE | LTE-FDD (SC-FDMA, 50% RB, 30 M12, 10-QAM)      | LTE-FDD | 6.62  | ± 9.6 %     |
| 10158 | CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)       | LTE-FDD | 6,56  | ± 9.6 %     |
| 10159 | CAG | LIE-FDD (SC-FDMA, 50% RB, 5 MHz, 0PCK)         | LTE-FDD | 5.82  | ± 9.6 %     |
| 10160 | CAG | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)        | LTE-FDD | 6.43  | ± 9.6 %     |
| 10161 | CAG | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)      | LTE-FDD | 6.58  | ± 9.6 %     |
| 10162 | CAG | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)      | LTE-FDD | 5.46  | ± 9.6 %     |
| 10166 | CAG | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)       | LTE-FDD | 6.21  | ± 9.6 °     |
| 10167 | CAG | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)     | LTE-FDD | 6.79  | ± 9.6 9     |
| 10168 | CAG | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)     |         | 5.73  | ± 9.6 °     |
| 10169 | CAG | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-FDD | 6.52  | ± 9.6 °     |
| 10170 | CAG | LTE-FDD (SC-FDMA, 1 RB. 20 MHz, 16-QAM)        | LTE-FDD | 6.49  | ± 9.6       |
| 10171 | CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-FDD |       | ± 9.6       |
| 10172 | CAE | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-TDD | 9.21  | ± 9.6       |
| 10173 | CAE | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-TDD | 9.48  |             |
| 10174 | CAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-TDD | 10.25 | ± 9.6       |
| 10175 | CAF | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)          | LTE-FDD | 5.72  | ± 9.6       |
| 10176 | CAF | LTE-FDD (SC-FDMA, 1 RB, 10 MHz; 16-QAM)        | LTE-FDD | 6.52  | ± 9.6       |
| 10177 | CAE | THE THE COLUMN A DE EMMA                       | LTE-FDD | 5.73  | ± 9.6       |
| 10178 | CAE | THE PROPERTY ( DO CAMP - 16 DAM)               | LTE-FDD | 6.52  | ± 9.6       |
| 10179 | AAE | THE PERSON AND AND AND AND                     | LTE-FDD | 6.50  | ± 9.6       |
| 10173 |     | TE FOO (OC FOMA 1 PR 5 MHZ 64 OAM)             | LTE-FDD | 6.50  | ±96         |

Certificate No: EX3-3887\_Oct20

Page 11 of 22

.

### October 22, 2020

| 10181  | CAG  | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)         | LTE-FDD                                | 5.72  | ± 9.6 ° |
|--------|------|-----------------------------------------------|----------------------------------------|-------|---------|
| 10182  | CAG  | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)       | LTE-FDD                                | 6.52  | ± 9.6 9 |
| 10183  | CAG  | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)       | LTE-FDD                                | 6.50  | ± 9.6 ° |
| 10184  | CAG  | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | LTE-FDD                                | 5.73  | ± 9.6 ° |
| 10185  | CAI  | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | LTE-FDD                                | 6.51  | ± 9.6 9 |
| 10186  | CAG  | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | LTE-FDD                                | 6.50  | ± 9.6 ° |
| 10187  | CAG  | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)        | LTE-FDD                                | 5.73  | ± 9.6 9 |
| 10188  | CAG  | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | LTE-FDD                                | 6.52  | ± 9.6 ° |
| 10189  | CAE  | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)      | LTE-FDD                                | 6.50  | ± 9.6 ° |
| 10193  | CAE  | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)  | WLAN                                   | 8.09  | ± 9.6 ° |
| 10194  | AAD  | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) | WLAN                                   | 8.12  | ± 9.6 ° |
| 10195  | CAE  | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) | WLAN                                   | 8.21  | ± 9.6 9 |
| 10196  | CAE  | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)       | WLAN                                   | 8.10  | ± 9.6 ° |
| 10197  | AAE  | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)      | WLAN                                   | 8,13  | ± 9.6 ° |
| 10198  | CAF  | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)      | WLAN                                   | 8.27  | · •     |
| 10219  | CAF  | IEEE 802.11n (HT Mixed, 7.2 Mbps. BPSK)       | WLAN                                   |       | ± 9.6 9 |
| 10220  | AAF  | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)    | WLAN                                   | 8.03  | ± 9.6 % |
| 10221  | CAC  | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)    | WLAN                                   | 8.13  | ± 9.6 ° |
| 10222  | CAC  | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)        | ······································ | 8.27  | ± 9.6 9 |
| 10223  | CAD  | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)      | WLAN                                   | 8.06  | ± 9.6 ° |
| 10224. | CAD  | IEEE 802.11n (HT Mixed, 150 Mbps, 16-QAM)     | WLAN                                   | 8.48  | ± 9.6 9 |
| 10225  | CAD  | UMTS-FDD (HSPA+)                              | WLAN                                   | 8.08  | ± 9.6 % |
| 10226  | CAD  | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | WCDMA                                  | 5.97  | ± 9.6 ? |
| 10227  | CAD  | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | LTE-TDD                                | 9.49  | ± 9.6 % |
| 10228  |      | LTE-TDD (SC-FDMA, T RB, 1.4 MHz, 64-QAM)      | LTE-TDD                                | 10.26 | ± 9.6 % |
| 10229  | CAD  | LTE TOD (SO-FDMA, FRB, 1.4 MHz, QPSK)         | LTE-TDD                                | 9.22  | ± 9.6 % |
| 10230  | DAC  | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | LTE-TDD                                | 9.48  | ± 9.6 9 |
| 10231  | CAC  | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | LTE-TDD                                | 10.25 | ± 9.6 % |
| 10232  | CAC  | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | LTE-TDD                                | 9.19  | ± 9.6 % |
| 10232  | CAD  | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)        | LTE-TDD                                | 9.48  | ± 9.6 % |
| 10233  | CAD  | LTE-TDD (SC-FDMA, 1 RB, 5 MHz. 64-QAM)        | LTE-TDD                                | 10.25 | ± 9.6 % |
| 10234  | CAD  | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)          | LTE-TDD                                | 9.21  | ± 9.6 % |
| 10236  | CAD  | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)       | LTE-TDD                                | 9.48  | ± 9.6 % |
| 10236  | CAD  | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)       | LTE-TDD                                | 10.25 | ± 9.6 % |
|        | CAD  | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)         | LTE-TDD                                | 9.21  | ± 9.6 % |
| 10238  | CAB  | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)       | LTE-TDD                                | 9.48  | ± 9.6 % |
| 10239  | CAB  | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)       | LTE-TDD                                | 10:25 | ± 9.6 % |
| 10240  | CAB  | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)         | LTE-TDD                                | 9.21  | ± 9.6 % |
| 10241  | CAB  | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)    | LTE-TDD                                | 9.82  | ± 9.6 % |
| 10242  | CAD  | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)    | LTE-TOD                                | 9.86  | ± 9.6 % |
| 10243  | CAD  | LTE-TDD (SC-FDMA, 50% RB, 1.4 MH2, QPSK)      | LTE-TDD                                | 9.46  | ± 9.6 % |
| 10244  | CAD  | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)      | LTE-TDD                                | 10.06 | ± 9.6 % |
| 10245  | CAG  | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)      | LTE-TDD                                | 10.06 | ± 9.6 % |
| 10246  | CAG  | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)        | LTE-TDD                                | 9.30  | ± 9.6 % |
| 10247  | CAG  | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)      | LTE-TDD                                | 9.91  | ± 9.6 % |
| 10248  | CAG  | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)      | LTE-TOD                                | 10.09 | ± 9.6 % |
| 10249  | CAG  | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)        | LTE-TDD                                | 9.29  | ± 9.6 % |
| 0250   | CAG  | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)     | LTE-TDD                                | 9.29  | ± 9.6 % |
| 0251   | CAF  | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)     | LTE-TDD                                | 10.17 |         |
| 0252   | CAF  | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)       | LTE-TDD                                | 9.24  | ± 9.6 % |
| 0253   | CAF  | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)     | LTE-TDD                                |       | ± 9.6 % |
| 0254   | CAB  | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)     | LTE-TDD                                | 9.90  | ± 9.6 % |
| 0255   | CAB  | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)       | i i                                    | 10.14 | ± 9.6 % |
| 0256   | CAB  | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)   | LTE-TOD                                | 9.20  | ±9.6 %  |
| 0257   | CAD  | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)   | LTE-TDD                                | 9.96  | ±9.6 %  |
| 0258   | CAD  | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)     | LTE-TDD                                | 10.08 | ± 9.6 % |
| 0259   | CAD  | LTE-TDD (SC-FDMA, 100% RB, 14 MHz, QPSK)      | LTE-TDD                                | 9.34  | ± 9.6 % |
|        | LONU | 100 (00-1 DIVIA, 100% KB, 3 MHZ, 16-QAM)      | LTE-TDD                                | 9,98  | ± 9.6 % |

Certificate No: EX3-3887\_Oct20

October 22, 2020

......

| 10260 | CAG        | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)                 | LTE-TDD  | 9.97  | ± 9.6 %                                |
|-------|------------|-----------------------------------------------------------|----------|-------|----------------------------------------|
| 10261 | CAG        | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)                   | LTE-TDD  | 9.24  | ±9.6 %                                 |
| 10262 | CAG        | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)                 | LTE-TDD  | 9.83  | ± 9.6 %                                |
| 10262 |            | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)                 | LTE-TDD  | 10.16 | ± 9.6 %                                |
|       | CAG        | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)                   | LTE-TDD  | 9.23  | ± 9.6 %                                |
| 10264 | CAG        | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)                | LTE-TDD  | 9.92  | ± 9.6 %                                |
| 10265 | CAG        | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 10 QAM)                | LTE-TDD  | 10.07 | ± 9.6 %                                |
| 10266 | CAF        |                                                           | LTE-TDD  | 9.30  | ± 9.6 %                                |
| 10267 | CAF        | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)                  | LTE-TOD  | 10.06 | ± 9.6 %                                |
| 10268 | CAF        | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)                | LTE-TDD  | 10.00 | ± 9.6 %                                |
| 10269 | CAB        | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)                |          | 9.58  | ± 9.6 %                                |
| 10270 | CAB        | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                  | LTE-TDD  | 4.87  | ± 9.6 %                                |
| 10274 | CAB        | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)                 | WCDMA    |       | ± 9.6 %                                |
| 10275 | CAD        | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)                  | WCDMA    | 3.96  | ************************************** |
| 10277 | CAD        | PHS (QPSK)                                                | PHS      | 11.81 | ± 9.6 %                                |
| 10278 | CAD        | PHS (QPSK, BW 884MHz, Rolloff 0.5)                        | PHS      | 11.81 | ± 9.6 %                                |
| 10279 | CAG        | PHS (QPSK, BW 884MHz, Rolloff 0.38)                       | PHS      | 12.18 | ± 9.6 %                                |
| 10290 | CAG        | CDMA2000, RC1, SO55, Full Rate                            | CDMA2000 | 3.91  | ± 9.6 %                                |
| 10291 | CAG        | CDMA2000, RC3, SO55, Full Rate                            | CDMA2000 | 3.46  | ± 9.6 %                                |
| 10292 | CAG        | CDMA2000, RC3, SO32, Full Rate                            | CDMA2000 | 3.39  | ±9.6 %                                 |
| 10293 | CAG        | CDMA2000, RC3, SO3, Full Rate                             | CDMA2000 | 3.50  | ± 9.6 %                                |
| 10295 | CAG        | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.                     | CDMA2000 | 12.49 | ± 9.6 %                                |
| 10297 | CAF        | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)                   | LTE-FDD  | 5.81  | ± 9.6 %                                |
| 10298 | CAF        | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)                    | LTE-FDD  | 5.72  | ± 9.6 %                                |
| 10299 | CAF        | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)                  | LTE-FDD  | 6.39  | ± 9.6 %                                |
| 10300 | CAC        | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                  | LTE-FDD  | 6.60  | ± 9.6 %                                |
| 10301 | CAC        | IEEE 802.16e WIMAX (29:18, 5ms. 10MHz, QPSK, PUSC)        | WIMAX    | 12.03 | ±9.6 %                                 |
| 10302 |            | IEEE 802.16e WIMAX (29:18, 5ms. 10MHz, QPSK, PUSC. 3CTRL) | WIMAX    | 12.57 | ± 9.6 %                                |
| 10302 | CAB        | IEEE 802.16e WIMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)       | WIMAX    | 12.52 | ± 9.6 %                                |
| 10303 | CAB        | IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)       | WIMAX    | 11.86 | ± 9.6 %                                |
|       | CAA        | IEEE 802.16e WIMAX (2010, 0110, 100112, 040, 011, 1000)   | WIMAX    | 15.24 | ± 9.6 %                                |
| 10305 | CAA        | IEEE 802.168 WIMAX (21.13, 10ms, 10m12, 040AM, PUSC)      | WIMAX    | 14.67 | ± 9.6 %                                |
| 10306 | CAA        | IEEE 802.160 WIMAX (29.18, 10ms, 10MHz, QPSK, PUSC)       | WIMAX    | 14.49 | ± 9.6 %                                |
| 10307 | AAB        | IEEE 802.166 WIMAX (29.16, 10ths, 10th12, 47.50, 1000)    | WIMAX    | 14.46 | ± 9.6 %                                |
| 10308 | AAB        | IEEE 802.166 WIMAX (29.16, 10ms, 10MHz, 100AM, F030)      | WIMAX    | 14.58 | ± 9.6 %                                |
| 10309 | AAB        |                                                           | WIMAX    | 14.57 | ± 9.6 %                                |
| 10310 | AAB        | IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3     | LTE-FDD  | 6.06  | ± 9.6 %                                |
| 10311 | AAB        | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                  | IDEN     | 10.51 | ± 9.6 %                                |
| 10313 | AAD        | IDEN 1:3                                                  | IDEN     | 13.48 | ± 9.6 %                                |
| 10314 | AAD        | IDEN 1:6                                                  | 1        | 1.71  | ± 9.6 %                                |
| 10315 | AAD        | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc dc)         | WLAN     |       |                                        |
| 10316 | AAD        | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc dc)     | WLAN     | 8.36  | ± 9.6 %                                |
| 10317 | AAA        | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc dc)           | WLAN     | 8.36  | ± 9.6 %                                |
| 10352 | AAA        | Pulse Waveform (200Hz, 10%)                               | Generic  | 10.00 | ± 9.6 %                                |
| 10353 | AAA        | Pulse Waveform (200Hz, 20%)                               | Generic  | 6.99  | ± 9.6 %                                |
| 10354 | AAA        | Pulse Waveform (200Hz, 40%)                               | Generíc  | 3.98  | ± 9.6 %                                |
| 10355 | AAA        | Pulse Waveform (200Hz. 60%)                               | Generic  | 2.22  | ± 9,6 %                                |
| 10356 | AAA        | Pulse Waveform (200Hz, 80%)                               | Generic  | 0.97  | ± 9.6 %                                |
| 10387 | AAA        | QPSK Waveform, 1 MHz                                      | Generic  | 5.10  | ± 9.6 %                                |
| 10388 | AAA        | QPSK Waveform, 10 MHz                                     | Generic  | 5.22  | ± 9.6 %                                |
| 10396 | AAA        | 64-QAM Waveform, 100 kHz                                  | Generic  | 6.27  | ± 9.6 %                                |
| 10399 | AAA        | 64-QAM Waveform, 40 MHz                                   | Generic  | 6.27  | ± 9.6 %                                |
| 10400 | AAD        | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc dc)               | WLAN     | 8.37  | ± 9.6 %                                |
| 10400 | AAA        | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc dc)               | WLAN     | 8.60  | ± 9.6 %                                |
| 10401 |            | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc dc)               | WLAN     | 8.53  | ± 9.6 %                                |
|       | AAA        | CDMA2000 (1xEV-DO, Rev. 0)                                | CDMA2000 | 3.76  | ± 9.6 %                                |
| L     | A          |                                                           |          |       |                                        |
| 10403 | AAB<br>AAB |                                                           | CDMA2000 | 3.77  | ± 9.6 %                                |

Certificate No: EX3-3887\_Oct20

Page 13 of 22

| 10410 | AAA   | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub=2,3,4,7,8,9) | LTE-TDD            | 1 7 65 |         |
|-------|-------|-----------------------------------------------------------|--------------------|--------|---------|
| 10414 | AAA   | WLAN CCDF, 64-QAM, 40MHz                                  |                    | 7.82   | ± 9.6 9 |
| 10415 | AAA   | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc dc)         | Generic            | 8.54   | ± 9.6 ° |
| 10416 | AAA   | IEEE 802.11g WIFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc dc)     | WLAN               | 1.54   | ± 9.6 9 |
| 10417 | AAA   | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc dc)         | WLAN               | 8.23   | ± 9.6 % |
| 10418 | AAA   | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Long) | WLAN               | 8.23   | ± 9.6 9 |
| 10419 | AAA   | IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Long) | WLAN               | 8.14   | ± 9.6 % |
| 10422 | AAA   | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)              | WLAN               | 8.19   | ± 9.6 % |
| 10423 | AAA   | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)              | WLAN               | 8.32   | ± 9.6 % |
| 10424 | AAE   | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)           | WLAN               | 8,47   | ± 9.6 % |
| 10425 |       | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)           | WLAN               | 8.40   | ± 9.6 % |
| 10426 | AAE   | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)               | WLAN               | 8.41   | ± 9.6 % |
| 0427  | AAE   | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)             | WLAN               | 8.45   | ± 9.6 % |
| 0430  | AAB   | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)            | WLAN               | 8.41   | ± 9.6 % |
|       | AAB   | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                          | LTE-FDD            | 8.28   |         |
| 0431  | AAC   | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                         | LTE-FDD            |        | ± 9.6 % |
| 0432  | AAB   | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                         | LTE-FDD            | 8.38   | ± 9.6 % |
| 0433  | AAC   | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                         |                    | 8.34   | ± 9.6 % |
| 0434  | AAG   | W-CDMA (BS Test Model 1, 64 DPCH)                         | LTE-FDD            | 8.34   | ± 9.6 % |
| 0435  | AAA   | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub)             | WCDMA              | 8.60   | ± 9.6 % |
| 0447  | AAA   | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)            | LTE-TDD            | 7.82   | ± 9.6 % |
| 0448  | AAA   | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)            | LTE-FDD            | 7.56   | ± 9.6 % |
| 0449  | AAC   | TE-EDD (OEDMA, 15 MILE, E-THI 3.1, Clippin 44%)           | LTE-FDD            | 7.53   | ± 9.6 % |
| 0450  |       | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)            | LTE-FDD            | 7.51   | ± 9.6 % |
| 0451  | AAA   | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)           | LTE-FDD            | 7.48   | ± 9.6 % |
| 0453  | AAA   | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)           | WCDMA              | 7.59   | ± 9.6 % |
|       | AAC   | Validation (Square, 10ms, 1ms)                            | Test               | 10.00  |         |
| 0456  | AAC   | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc dc)              | WLAN               |        | ± 9.6 % |
| 0457  | AAC   | UMTS-FDD (DC-HSDPA)                                       | WCDMA              | 8.63   | ± 9.6 % |
| 0458  | AAC   | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                    | CDMA2000           | 6.62   | ± 9.6 % |
| 0459  | AAC   | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                    |                    | 6.55   | ± 9.6 % |
| 0460  | AAC   | UMTS-FDD (WCDMA, AMR)                                     | CDMA2000           | 8.25   | ± 9.6 % |
| 0461  | AAC   | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Sub)            | WCDMA              | 2.39   | ±9.6%   |
| 0462  | AAC   | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Sub)          | L.TE-TDD           | 7.82   | ± 9.6 % |
| 0463  | AAD   | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Sub)          | LTE-TDD            | 8.30   | ± 9.6 % |
| )464  | AAD   | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Sub)              | LTE-TOD            | 8.56   | ± 9.6 % |
| 465   | AAC   | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Sub)            | LTE-TDD            | 7,82   | ± 9.6 % |
| 466   | AAC   | LITE-TOD (SO EDMA, TRB, 3 MHZ, 16-QAM, UL Sub)            | LTE-TDD            | 8.32   | ± 9.6 % |
| 467   | AAA   | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Sub)            | LTE-TDD            | 8.57   | ± 9.6 % |
| 468   | ***** | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub)              | LTE-TDD            | 7.82   | ± 9.6 % |
| 469   | AAF   | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Sub)            | LTE-TOD            | 8.32   | ± 9.6 % |
| 470   | AAD   | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Sub)            | LTE-TOD            | 8.56   |         |
|       | AAD   | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub)             | LTE-TDD            | 7.82   | ± 9,6 % |
| 471   | AAC   | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Sub)           | LTE-TOD            |        | ± 9.6 % |
| 472   | AAC   | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Sub)           |                    | 8.32   | ± 9.6 % |
| 473.  | AAA   | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, OPSK 11 Sub)              | LTE-TDD            | 8.57   | ±9.6 %  |
| 474 - | AAC   | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-OAM III, Sub)          | LTE-TOD            | 7.82   | ±9.6 %  |
| 475   | AAD   | LIE-IDD (SC-FDMA, 1 RB, 15 MHz 64-DAM LIL SUD)            | LTE-TDD            | 8.32   | ±9.6 %  |
| 477   | AAC   | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Sub)           | LTE-TDD            | 8.57   | ± 9.6 % |
| 178   | AAC   | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Sub)           | LTE-TDD            | 8.32   | ± 9.6 % |
| 179   | AAC   | LTE-TDD (SC-EDMA 50% DD 4 4 Mill Sub)                     | LTE-TDD            | 8.57   | ± 9.6 % |
| 80    | AAA   | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Sub)          | LTE-TDD            | 7.74   | ± 9.6 % |
| 81.   |       | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Sub)        | LTE-TDD            | 8.18   | ± 9.6 % |
| 82    | AAA   | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Sub)        | LTE-TDD            | 8.45   |         |
| 83    | AAA   | LTE-TOD (SC-FDMA, 50% RB, 3 MHz, OPSK LIL Sub)            | LTE-TOD            |        | ± 9.6 % |
|       | AAA   | LTE-TOD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, Sub)             | LTE-TOD            | 7.71   | ±9.6 %  |
| 84    | AAB   | LIE-TOD (SC-FDMA, 50% RB, 3 MHz 64-OAM LIL SUD)           |                    | 8.39   | ± 9.6 % |
| 85    | AAB   | LIE-TOD (SC-FDMA, 50% RB, 5 MHz, OPSK UL Sub)             | LTE-TDD            | 8.47   | ±9.6 %  |
|       | AAB   | LIE-IDD (SC-FDMA, 50% RB, 5 MHz 16-DAM III Sub)           | LTE-TDD            | 7.59   | ±9.6 %  |
| 87    | AAC   | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Sub)          | LTE-TDD<br>LTE-TDD | 8.38   | ± 9.6 % |
|       |       |                                                           |                    |        |         |

Certificate No: EX3-3887\_Oct20

October 22, 2020

| 10488 | AAC        | LTE-TDD (SC-FDMA, 50% RB. 10 MHz, QPSK, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LTE-TDD   | 7.70  | ± 9.6 %            |
|-------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------|--------------------|
| 10489 | AAC        | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LTE-TDD   | 8.31  | ± 9.6 %            |
| 10490 | AAF        | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LTE-TDD   | 8.54  | ± 9.6 %            |
| 10491 | AAF        | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LTE-TDD   | 7,74  | ± 9.6 %            |
| 10492 | AAF        | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LTE-TDD   | 8.41  | ± 9.6 %            |
| 10493 | AAF        | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LTE-TDD   | 8.55  | ± 9.6 %            |
| 10494 | AAF        | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LTE-TDD   | 7,74  | ± 9.6 %            |
| 10495 |            | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LTE-TDD   |       | ± 9,6 %            |
| 10495 | AAF        | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LTE-TDD   | 8.37  |                    |
| 10497 | AAE        | LTE-TDD (SC-FDMA, 30% RB, 20 MAz, 64-QAM, 6E Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LTE-TDD   | 8.54  | ± 9.6 %<br>± 9.6 % |
| 10498 | AAE        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LTE-TDD   | 7.67  |                    |
| 10498 | AAE        | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | 8.40  | ±9.6%              |
|       | AAC        | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | LTE-TDD   | 8.68  | ± 9.6 %            |
| 10500 | AAF        | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LTE-TDD   | 7.67  | ± 9.6 %            |
| 10501 | AAF        | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LTE-TDD   | 8.44  | ± 9.6 %            |
| 10502 | AAB        | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LTE-TDD   | 8.52  | ± 9.6 %            |
| 10503 | AAB        | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LTE-TDD   | 7.72  | ± 9.6 %            |
| 10504 | AAB        | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LTE-TDD   | 8.31  | ± 9.6 %            |
| 10505 | AAC        | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LTE-TDD   | 8.54  | ± 9.6 %            |
| 10506 | AAC        | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LTE-TDD   | 7.74  | ± 9.6 %            |
| 10507 | AAC        | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | LTE-TDD   | 8.36  | ± 9.6 %            |
| 10508 | AAF        | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | LTE-TDD   | 8.55  | ± 9.6 %            |
| 10509 | AAF        | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LTE-TDD   | 7.99  | ± 9.6 %            |
| 10510 | AAF        | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | LTE-TDD   | 8.49  | ± 9.6 %            |
| 10511 | AAF        | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | LTE-TDD   | 8.51  | ± 9.6 %            |
| 10512 | AAF        | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LTE-TDD   | 7.74  | ± 9.6 %            |
| 10513 | AAF        | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | LTE-TDD   | 8.42  | ± 9.6 %            |
| 10514 | AAE        | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Sub)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | LTE-TDD   | 8.45  | ± 9.6 %            |
| 10515 | AAE        | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | WLAN      | 1.58  | ± 9.6 %            |
| 10516 | AAE        | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | WLAN      | 1.57  | ± 9.6 %            |
| 10517 | AAF        | IEEE 802.11b WIFI 2.4 GHz (DSSS, 11 Mbps, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | WLAN      | 1.58  | ± 9.6 %            |
| 10518 | AAF        | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | WLAN      | 8.23  | ± 9.6 %            |
| 10519 | AAF        | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | WLAN      | 8.39  | ± 9.6 %            |
| 10520 | AAB        | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | WLAN      | 8.12  | ±9.6 %             |
| 10521 | AAB        | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | WLAN      | 7.97  | ± 9.6 %            |
| 10522 | AAB        | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | WLAN      | 8.45  | ± 9.6 %            |
| 10523 | AAC        | IEEE 802.11a/h WIFi 5 GHz (OFDM, 48 Mbps, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | WLAN      | 8.08  | ± 9.6 %            |
| 10524 | AAC        | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | WLAN      | 8.27  | ± 9.6 %            |
| 10525 | AAC        | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      | 8.36  | ± 9.6 %            |
| 10526 | AAF        | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      | 8.42  | ± 9.6 %            |
| 10527 | AAF        | IEEE 802,11ac WiFi (20MHz, MCS2, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      | 8.21  | ± 9.6 %            |
| 10528 | AAF        | IEEE 802.11ac WIFI (20MHz, MCS3, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN,     | 8.36  | ± 9.6 %            |
| 10529 | AAF        | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      | 8.36  | ± 9.6 %            |
| 10531 | AAF        | IEEE 802.11ac WIFI (20MHz, MCS6, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      | 8.43  | ± 9.6 %            |
| 10532 | AAF        | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      | 8.29  | ± 9.6 %            |
| 10533 | AAE        | IEEE 802.11ac WiFI (20MHz, MCS8, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      | 8.38  | ± 9.6 %            |
| 10534 | AAE        | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      | 8.45  | ± 9.6 %            |
| 10535 | AAE        | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      | 8.45  | ± 9.6 %            |
| 10536 | AAF        | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      | 8.32  | ± 9.6 %            |
| 10537 | AAF        | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      | 8.44  | ± 9.6 %            |
| 10538 | AAF        | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      | 8.54  | ± 9.6 %            |
| 10540 | AAA        | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      | 8.39  | ± 9.6 %            |
| 10541 | AAA        | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      | 8.46  | ± 9.6 %            |
| 10541 |            | IEEE 802.11ac WiFI (40MHz, MCS7, 35pc 6c)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      | 8,65  | ± 9.6 %            |
| 10542 | AAA        | IEEE 802.11ac WiFI (40MHz, MCS8, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      |       | ± 9.6 %            |
|       | AAC<br>AAC | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WLAN      | 8.65  | ± 9.6 %            |
| 10544 |            | A THE REPORT OF A DESCRIPTION OF A DESCRIPANTO OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCR | ( VVL/MIN | . 04/ |                    |

Certificate No: EX3-3887\_Oct20

October 22, 2020

| 10546        | AAC | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc dc)                                                      |      |      | ober 22, 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------|-----|------------------------------------------------------------------------------------------------|------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10547        | AAC | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc dc)                                                      | WLAN | 8.35 | ± 9.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10548        | AAC | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc dc)                                                      | WLAN | 8.49 | ± 9.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10550        | AAC | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc dc)                                                      | WLAN | 8.37 | ± 9.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10551        | AAC | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc dc)                                                      | WLAN | 8.38 | ± 9.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10552 -      | AAC | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc dc)                                                      | WLAN | 8.50 | ± 9.6 °                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 10553        | AAC | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc dc)                                                      | WLAN | 8.42 | ± 9.6 °                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 10554        | AAC | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc dc)                                                      | WLAN | 8.45 | ± 9.6 °                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 10555        |     | IEEE 802 11ac WIFI (160MHz, MCS0, 99pc dc)                                                     | WLAN | 8.48 | ± 9.6 °                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 10556        | AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc dc)                                                     | WLAN | 8.47 | ± 9.6 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 10557        | AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc dc)                                                     | WLAN | 8.50 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 10558        | AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc dc)                                                     | WLAN | 8.52 | ± 9.6 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 10560        | AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc dc)                                                     | WLAN | 8.61 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 10561        | AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc dc)                                                     | WLAN | 8.73 | ± 9.6 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 10562        | AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc dc)                                                     | WLAN | 8.56 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 10563        | AAC | IEEE 802.11ac WiFI (160MHz, MCS8, 99pc dc)                                                     | WLAN | 8.69 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|              | AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc dc)                                                     | WLAN | 8.77 | ± 9.6 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0564         | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc dc)                                         | WLAN | 8.25 | ± 9.6 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0565         | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99nr dr)                                        | WLAN |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 0566         | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc dc)                                        | WLAN | 8.45 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0567         | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc dc)                                        | WLAN | 8.13 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0568         | AAC | IEEE 802.11g WIFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc dc)                                        | WLAN | 8.00 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0569         | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc dc)                                        | WLAN | 8.37 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0570         | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc dc)                                        |      | 8.10 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0571         | AAC | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc dc)                                              | WLAN | 8.30 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0572         | AAC | IEEE 802.11b WiFi 2.4 GHz (DSSS. 2 Mbps, 90pc dc)                                              | WLAN | 1.99 | ± 9,6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0573         | AAC | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc dc)                                            | WLAN | 1.99 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0574         | AAC | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc dc)                                             | WLAN | 1.98 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0575         | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM. 6 Mbps, 90pc dc)                                         | WLAN | 1.98 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0576         | AAC | IEEE 802.11g WIEL2.4 GHZ (DSSS-OFDM, 6 Mbps, 90pc dc)                                          | WLAN | 8.59 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0577         | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM. 9 Mbps, 90pc dc)                                         | WLAN | 8.60 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0578         | AAD | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc dc)                                        | WLAN | 8.70 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0579         | AAD | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc dc)                                        | WLAN | 8.49 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0580         |     | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc dc)                                        | WLAN | 8.36 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0581         | AAD | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc dc)                                        | WLAN | 8.76 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0582         | AAD | IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc dc)                                        | WLAN | 8.35 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0583         | AAD | IEEE 802 11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc dc)                                        | WLAN | 8.67 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| )585<br>)584 | AAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc dc)                                              | WLAN | 8.59 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|              | AAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc dc)                                              | WLAN | 8.60 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| )585         | AAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc dc)                                             | WLAN | 8.70 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| )586         | AAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc dc)                                             | WLAN |      | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 587          | AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM 24 Mhos 90bc do)                                               | WLAN | 8.49 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| )588         | AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc dc)                                             | WLAN | 8.36 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 589          | ΑΛΑ | TEEC 802. I Ta/n WIFI 5 GHz (OFDM, 48 Mbps, 90pc dc)                                           | WLAN | 8.76 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 590          | AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90nc dc)                                             | WLAN | 8.35 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 1591         | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc dc)                                                  | WLAN | 8,67 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 592          | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc dc)                                                  |      | 8.63 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 593          | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc dc)                                                  | WLAN | 8.79 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 594          | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc dc)                                                  | WLAN | 8.64 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 595          | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc dc)                                                  | WLAN | 8.74 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 596          | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc dc)                                                  | WLAN | 8.74 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 597          | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc dc)                                                  | WLAN | 8.71 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 598.         | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc dc)                                                  | WLAN | 8.72 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 599          | AAA | IEEE 802 110 (HT Mixed A0MUS MOSC SO                                                           | WLAN | 8.50 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 600          | AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc dc)                                                  | WLAN | 8.79 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 601          |     | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc dc)                                                  | WLAN | 8.88 | ± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 302          | AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc dc)                                                  | WLAN | 8.82 | Contraction of the second seco |
| ure          | AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc dc)<br>IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc dc) | WLAN | 8.94 | ± 9.6 %<br>± 9.6 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 603          | AAA |                                                                                                |      |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

Certificaté No: EX3-3887\_Oct20

| 10604          | AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc dc)              | WLAN      | 8.76  | ± 9.6 %   |
|----------------|-----|------------------------------------------------------------|-----------|-------|-----------|
| 10605          | AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc dc)              | WLAN      | 8.97  | ± 9.6 %   |
| 10606          | AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc dc)              | WLAN      | 8.82  | ± 9.6 %   |
| 10607          | AAC | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc dc)                  | WLAN      | 8.64  | ±9.6 %    |
| 10608          | AAC | IEEE 802,11ac WiFi (20MHz, MCS1, 90pc dc)                  | WLAN      | 8.77  | ± 9.6 %   |
| 10609          | AAC | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc dc)                  | WLAN      | 8.57  | ± 9.6 %   |
| 10610          | AAC | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc dc)                  | WLAN      | 8.78  | ± 9.6 %   |
| 10611          | AAC | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc dc)                  | WLAN      | 8.70  | ± 9.6 %   |
| 10612          |     | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc dc)                  | WLAN      | 8.77  | ± 9.6 %   |
| 10613          | AAC | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc dc)                  | WLAN      | 8.94  | ± 9.6 %   |
| 10614          | AAC | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc dc)                  | WLAN      | 8.59  | ± 9.6 %   |
| 10615          | AAC | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc dc)                  | WLAN      | 8.82  | ± 9.6 %   |
| 10616          | AAC | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc dc)                  | WLAN      | 8.82  | ± 9.6 %   |
| 10617          | AAC | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc dc)                  | WLAN      | 8.81  | ± 9.6 %   |
|                | AAC | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc dc)                  | WLAN      | 8 58  | ± 9.6 %   |
| 10618          | AAC |                                                            | WLAN      | 8.86  | ± 9.6 %   |
| 10619          | AAC | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc dc)                  |           |       | ± 9.6 %   |
| 10620          | AAC | IEEE 802.11ac WiFI (40MH2, MCS4, 90pc dc)                  | WLAN      | 8.87  |           |
| 10621          | AAC | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc dc)                  | WLAN      | 8.77  | ± 9.6 %   |
| 10622          | AAC | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc dc)                  | WLAN      | 8.68  | ±9.6%     |
| 10623          | AAC | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc dc)                  | WLAN      | 8.82  | ± 9.6 %   |
| 10624          | AAC | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc dc)                  | WLAN      | 8.96  | ± 9.6 %   |
| 10625          | AAC | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc dc)                  | WLAN      | 8.96  | ± 9.6 %   |
| 10626          | AAC | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc dc)                  | WLAN      | 8.83  | ± 9.6 %   |
| 10627          | AAC | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc dc)                  | WLAN      | 8.88  | ± 9.6 %   |
| 10628          | AAC | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc dc)                  | WLAN      | 8.71  | ± 9.6 %   |
| 10629          | AAC | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc dc)                  | WLAN      | 8.85  | ± 9.6 %   |
| 10630          | AAC | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc dc)                  | WLAN      | 8.72  | ± 9.6 %   |
| 10631          | AAC | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc dc)                  | WLAN      | 8.81  | ± 9.6 %   |
| 10632          | AAC | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc dc)                  | WLAN      | 8.74  | ± 9.6 %   |
| 10633          | AAC | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc dc)                  | WLAN      | 8.83  | ± 9.6 %   |
| 10634          | AAC | IEEE 802,11ac WiFI (80MHz, MCS8, 90pc dc)                  | WLAN      | 8.80  | ± 9.6 %   |
| 10635          | AAC | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc dc)                  | WLAN      | 8.81  | ± 9.6 %   |
| 10636          | AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc dc)                 | WLAN      | 8.83  | ± 9.6 %   |
| 10637          | AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc dc)                 | WLAN      | 8.79  | ± 9.6 %   |
| 10638          | AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc dc)                 | WLAN      | 8.86  | ± 9.6 %   |
| 10639          | AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc dc)                 | WLAN      | 8.85  | ± 9.6 %   |
| 10640          | AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc dc)                 | WLAN      | 8.98  | ± 9.6 %   |
| 10641          | AAC | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc dc)                 | WLAN      | 9.06  | ± 9.6 %   |
| 10642          | AAC | IEEE 802,11ac WIFI (160MHz, MCS6, 90pc dc)                 | WLAN      | 9.06  | ± 9.6 %   |
| 10643          | AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc dc)                 | WLAN      | 8.89  | ± 9.6 %   |
| 10644          | AAC | IEEE 802.11ac WiFI (160MHz, MCS8, 90pc dc)                 | WLAN      | 9.05  | ± 9.6 %   |
| 10645          | AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc dc)                 | WLAN      | 9.11  | ± 9.6 %   |
| 10646          | AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub=2,7)           | LTE-TDD   | 11.96 | ± 9.6 %   |
| 10647          | AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub=2,7)          | LTE-TDD   | 11,96 | ± 9.6 %   |
| 10648          | AAC | CDMA2000 (1x Advanced)                                     | CDMA2000  | 3.45  | ± 9.6 %   |
| 10652          | AAC | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)             | LTE-TDD   | 6.91  | ± 9.6 %   |
| 10653          | AAC | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)            | LTE-TDD   | 7.42  | ± 9.6 %   |
| 10654          | AAC | LTE-TDD (OFDMA, 15 MHz. E-TM 3.1, Clipping 44%)            | LTE-TDD   | 6.96  | ± 9.6 9   |
| 10655          |     | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)            |           | 7.21  | ± 9.6 %   |
| 10655          | AAC | Pulse Waveform (200Hz, 10%)                                | Test      | 10.00 | ± 9.6 9   |
| 10659          | AAC | Pulse Waveform (200Hz, 10%)                                | Test      | 6.99  | ± 9.6 %   |
| 10660          | AAC | Pulse Waveform (200Hz, 40%)                                | Test      | 3.98  | ± 9.6 °   |
|                | AAC | Pulse Waveform (200Hz, 40%)<br>Pulse Waveform (200Hz, 60%) | Test      | 2.22  | ± 9.6 9   |
| 10661          | AAC | Pulse Waveform (200Hz, 80%)<br>Pulse Waveform (200Hz, 80%) | Test      | 0.97  | ± 9.6 °   |
| 10662<br>10670 | AAC |                                                            |           | 2.19  | ± 9.6 9   |
|                | AAC | Bluetooth Low Energy                                       | Bluetooth | 2.19  | 1 2 9.0 7 |

Certificate No: EX3-3887\_Oct20

Page 17 of 22

October 22, 2020

| 10672      | AAD      |                                       | LAR AL |      |         |
|------------|----------|---------------------------------------|--------|------|---------|
| 10673      | AAD      |                                       | WLAN   | 8.57 | ±9.6    |
| 10674      | AAD      |                                       | WLAN   | 8.78 | ± 9.6   |
| 10675      | AAD      |                                       | WLAN   | 8.74 | ± 9.6   |
| 10676      | AAD      |                                       | WLAN   | 8.90 | ± 9.6   |
| 10677      | AAD      | IEEE 802.11ax (20MHz, MCS6, 90pc dc)  | WLAN   | 8.77 | ± 9.6   |
| 10678      | AAD      | IEEE 802.11ax (20MHz, MCS7, 90pc dc)  | WLAN   | 8.73 | ± 9.6   |
| 10679      | AAD      | IEEE 802.11ax (20MHz, MCS8, 90pc dc)  | WLAN   | 8.78 | ± 9.6   |
| 10680      | AAD      | IEEE 802.11ax (20MHz, MCS9, 90pc dc)  | WLAN   | 8.89 | ± 9.6   |
| 0681       | AAG      | IEEE 802.11ax (20MHz, MCS10, 90pc dc) | WLAN   | 8.80 | ± 9.6 ° |
| 0682       | AAF      | IEEE 802.11ax (20MHz, MCS11, 90pc dc) | WLAN   | 8.62 | ± 9.6 ° |
| 0683       | AAA      | IEEE 802.11ax (20MHz, MCS0, 99pc dc)  | WLAN   | 8.83 | ± 9.6 ° |
| 0684       | AAC      | IEEE 802.11ax (20MHz, MCS1, 99pc dc)  | WLAN   | 8.42 | ± 9.6 9 |
| 0685       | AAC      | IEEE 802.11ax (20MHz, MCS2, 99pc dc)  | WLAN   | 8.26 | ± 9.6 9 |
| 0686       | AAC      | IEEE 802.11ax (20MHz, MCS3, 99pc dc)  | WLAN   | 8.33 | ± 9.6 9 |
| 0687       | AAE      | IEEE 802.11ax (20MHz, MCS4, 99pc dc)  | WLAN   | 8.28 | ± 9.6 9 |
| 0688       | AAE      | IEEE 802.11ax (20MHz, MCS4, 99pc dc)  | WLAN   | 8.45 | ± 9.6 % |
| 0689       | AAD      | IEEE 802.11ax (20MHz, MCS5, 99pc dc)  | WLAN   | 8.29 | ± 9.6 9 |
| 0690       | AAE      | IFEE 802 11ax (20141a NICS5, 9900 dc) | WLAN   | 8.55 | ± 9.6 % |
| 0691       | AAB      | IEEE 802.11ax (20MHz, MCS7, 99pc dc)  | WLAN   | 8.29 | ± 9.6 9 |
| 0692       | AAA      | IEEE 802.11ax (20MHz, MCS8, 99pc dc)  | WLAN   | 8.25 | ± 9.6 % |
| 0693       | AAA      | IEEE 802.11ax (20MHz, MCS9, 99pc dc)  | WLAN   | 8.29 | ± 9.6 % |
| 0694       |          | IEEE 802.11ax (20MHz, MCS10, 99pc dc) | WLAN   | 8.25 | ± 9.6 % |
| 0695       | AAA      | IEEE 802.11ax (20MHz, MCS11, 99pc dc) | WLAN   | 8.57 | ± 9.6 % |
| 0696       | AAA      | IEEE 802.11ax (40MHz, MCS0, 90pc dc)  | WLAN   | 8.78 | ± 9.6 % |
| 0697       | AAA      | IEEE 802.11ax (40MHz, MCS1, 90pc dc)  | WLAN   | 8,91 | ± 9.6 % |
| 698        | AAA      | IEEE 802.11ax (40MHz, MCS2, 90pc dc)  | WLAN   | 8.61 |         |
| )699       | AAA      | IEEE 802.11ax (40MHz, MCS3. 90pc dc)  | WLAN   | 8.89 | ± 9.6 % |
| 0099       | AAA      | IEEE 802.11ax (40MHz, MCS4, 90pc dc)  | WLAN   | 8.82 | ± 9.6 % |
| 701        | AAA      | IEEE 802.11ax (40MHz, MCS5, 90pc dc)  | WLAN   | 8.73 | ± 9.6 % |
| 702        | AAA      | IEEE 802.11ax (40MHz, MCS6, 90pc dc)  | WLAN   | 8.86 | ± 9.6 % |
| 703        | AAA      | IEEE 802.11ax (40MHz, MCS7, 90pc dc)  | WLAN   | 8.70 | ± 9.6 % |
| 704        | AAA      | IEEE 802.11ax (40MHz, MCS8, 90pc dc)  | WLAN   | 8.82 | ± 9.6 % |
| 705        | AAA      | IEEE 802.11ax (40MHz, MCS9, 90pc dc)  | WLAN   | 8.56 | ± 9.6 % |
|            | AAA      | IEEE 802.11ax (40MHz, MCS10, 90pc dc) | WLAN   |      | ± 9.6 % |
| 706<br>707 | AAC      | IEEE 802.11ax (40MHz, MCS11, 90pc dc) | WLAN   | 8.69 | ± 9.6 % |
|            | AAC      | IEEE 802.11ax (40MHz, MCS0, 99pc dc)  | WLAN   | 8.66 | ± 9.6 % |
| 708        | AAC      | IEEE 802.11ax (40MHz, MCS1. 99pc dc)  | WLAN   | 8.32 | ± 9.6 % |
| 709        | AAC      | IEEE 802.11ax (40MHz, MCS2, 99pc dc)  | WLAN   | 8.55 | ±9.6 %  |
| 710        | AAC      | IEEE 802.11ax (40MHz, MCS3, 990c dc)  | WLAN   | 8.33 | ± 9.6 % |
| 711        | AAC      | IEEE 802.11ax (40MHz, MCS4, 99pc dc)  | WLAN   | 8.29 | ± 9.6 % |
| 712        | AAC      | IEEE 802.11ax (40MHz, MCS5, 99pc dc)  | WLAN   | 8.39 | ± 9.6 % |
| 713        | AAC      | IEEE 802.11ax (40MHz, MCS6, 99pc dc)  |        | 8.67 | ± 9.6 % |
| '14        | AAC      | IEEE 802.11ax (40MHz, MCS7, 99pc dc)  | WLAN   | 8.33 | ± 9.6 % |
| '15        | AAC      | IEEE 802.11ax (40MHz, MCS8, 99pc dc)  | WLAN   | 8.26 | ±9.6 %  |
| 16         | AAC      | IEEE 802,11ax (40MHz, MCS9, 99pc dc)  | WLAN   | 8.45 | ±9.6 %  |
| 17         | AAC      | IEEE 802.11ax (40MHz, MCS10, 99pc dc) | WLAN   | 8.30 | ± 9.6 % |
| 18         | AAC      | IEEE 802.11ax (40MHz, MCS11, 990c dc) | WLAN   | 8.48 | ±9.6 %  |
| 19         | AAC      | IEEE 802.11ax (80MHz, MCS0, 90pc dc)  | WLAN   | 8.24 | ± 9.6 % |
| 20         | AAC      | IEEE 802.11ax (80MHz, MCS1, 90pc dc)  | WLAN   | 8.81 | ± 9.6 % |
| 21         | AAC      | IEEE 802.11ax (80MHz, MCS2, 90pc dc)  | WLAN   | 8.87 | ± 9.6 % |
|            | AAC      | IEEE 802.11ax (80MHz, MCS3, 90pc dc)  | WLAN   | 8.76 | ± 9.6 % |
| 20         | AAC      | IEEE 802.11ax (80MHz, MCS4, 90pc dc)  | WLAN   | 8.55 | ± 9.6 % |
| 24 .       |          | IEEE 802.11ax (80MHz, MCS5, 90pc dc)  | WLAN   | 8.70 | ± 9.6 % |
| 25         | AAC      | IEEE 802.11ax (80MHz, MCS6, 90pc dc)  | WLAN   | 8.90 | ± 9.6 % |
|            | AAC      | IEEE 802.11ax (80MHz, MCS6, 90pc dc)  | WLAN   | 8.74 | ± 9.6 % |
|            | AAC      | IEEE 802.11ax (80MHz, MCS7, 90pc dc)  | WLAN   | 8.72 | ± 9.6 % |
| i          | <u> </u> |                                       | WLAN   |      | - 0.0 % |

Certificate No: EX3-3887\_Oct20

Page 18 of 22

October 22, 2020

.

| 10728 | AAC | IEEE 802.11ax (80MHz, MCS9, 90pc dc)          | WLAN           | 8.65 | ±9.6 %  |
|-------|-----|-----------------------------------------------|----------------|------|---------|
| 0729  | AAC | IEEE 802.11ax (80MHz, MCS10, 90pc dc)         | WLAN           | 8.64 | ± 9.6 % |
| 10730 | AAC | IEEE 802.11ax (80MHz, MCS11, 90pc dc)         | WLAN           | 8.67 | ± 9.6 % |
| 10731 | AAC | IEEE 802,11ax (80MHz, MCS0, 99pc dc)          | WLAN           | 8.42 | ±9.6 %  |
| 0732  | AAC | IEEE 802.11ax (80MHz, MCS1, 99pc dc)          | WLAN           | 8.46 | ± 9:6 % |
| 0733  | AAC | IEEE 802.11ax (80MHz, MCS2, 99pc dc)          | WLAN           | 8.40 | ± 9.6 % |
| 0734  | AAC | IEEE 802.11ax (80MHz, MCS3, 99pc dc)          | WLAN           | 8.25 | ± 9.6 % |
| 0735  | AAC | IEEE 802.11ax (80MHz, MCS4, 99pc dc)          | WLAN           | 8.33 | ± 9.6 % |
| 0736  | AAC | IEEE 802.11ax (80MHz, MCS5, 99pc dc)          | WLAN           | 8.27 | ± 9.6 % |
| 0737  | 4   | IEEE 802.11ax (80MHz, MCS6, 99pc dc)          | WLAN           | 8.36 | ± 9.6 % |
| 0738  | AAC | IEEE 802.11ax (80MHz, MCS7, 99pc dc)          | WLAN           | 8.42 | ± 9.6 % |
| 0739  | AAC | IEEE 802.11ax (80MHz, MCS8, 99pc dc)          | WLAN           | 8.29 | ± 9:6 % |
| 0740  | AAC | IEEE 802.11ax (80MHz, MCS9, 99pc dc)          | WLAN           | 8.48 | ± 9.6 % |
| 0740  | AAC | IEEE 802.11ax (80MHz, MCS3, 39pc dc)          | WLAN           | 8.40 | ± 9.6 % |
| 0741  | AAC |                                               | WLAN           | 8.43 | ± 9.6 % |
|       | AAC | IEEE 802.11ax (80MHz, MCS11, 99pc dc)         | WLAN           |      | ± 9.6 % |
| 0743  | AAC | IEEE 802.11ax (160MHz, MCS0, 90pc dc)         |                | 8.94 | 1       |
| 0744  | AAC | IEEE 802.11ax (160MHz, MCS1, 90pc dc)         | WLAN<br>INI AN | 9.16 | ± 9.6 % |
| 0745  | AAC | IEEE 802.11ax (160MHz, MCS2, 90pc dc)         | WLAN           | 8.93 | ± 9.6 % |
| 0746  | AAC | IEEE 802.11ax (160MHz, MCS3, 90pc dc)         | WLAN           | 9.11 | ± 9.6 % |
| 0747  | AAC | IEEE 802.11ax (160MHz, MCS4, 90pc dc)         | WLAN           | 9.04 | ± 9.6 % |
| 0748  | AAC | IEEE 802.11ax (160MHz, MCS5, 90pc dc)         | WLAN           | 8.93 | ± 9.6 % |
| 0749  | AAC | IEEE 802.11ax (160MHz, MCS6, 90pc dc)         | WLAN           | 8.90 | ± 9.6 % |
| 0750  | AAC | IEEE 802.11ax (160MHz, MCS7, 90pc dc)         | WLAN           | 8.79 | ± 9.6 % |
| 0751  | AAC | IEEE 802.11ax (160MHz, MCS8, 90pc dc)         | WLAN           | 8.82 | ± 9.6 % |
| 0752  | AAC | IEEE 802.11ax (160MHz, MCS9, 90pc dc)         | WLAN           | 8.81 | ± 9.6 % |
| 0753  | AAC | IEEE 802.11ax (160MHz, MCS10, 90pc dc)        | WLAN           | 9.00 | ± 9.6 % |
| 0754  | AAC | IEEE 802.11ax (160MHz, MCS11, 90pc dc)        | WLAN           | 8.94 | ± 9.6 % |
| 0755  | AAC | IEEE 802.11ax (160MHz, MCS0, 99pc dc)         | WLAN           | 8.64 | ± 9.6 % |
| 0756  | AAC | IEEE 802.11ax (160MHz, MCS1, 99pc dc)         | WLAN           | 8.77 | ± 9.6 % |
| 0757  | AAC | IEEE 802.11ax (160MHz, MCS2, 99pc dc)         | WLAN           | 8.77 | ± 9.6 % |
| 10758 | AAC | IEEE 802.11ax (160MHz, MCS3, 99pc dc)         | WLAN           | 8.69 | ± 9.6 % |
| 10759 | AAC | IEEE 802.11ax (160MHz, MCS4, 99pc dc)         | WLAN           | 8.58 | ± 9.6 % |
| 10760 | AAC | IEEE 802.11ax (160MHz, MCS5, 99pc dc)         | WLAN           | 8.49 | ± 9.6 % |
| 10761 | AAC | IEEE 802.11ax (160MHz, MCS6, 99pc dc)         | WLAN           | 8.58 | ± 9.6 % |
| 10762 | AAC | IEEE 802.11ax (160MHz, MCS7, 99pc dc)         | WLAN           | 8.49 | ± 9.6 % |
| 10763 | AAC | IEEE 802.11ax (160MHz, MCS8, 99pc dc)         | WLAN           | 8.53 | ± 9.6 % |
| 10764 | AAC | IEEE 802.11ax (160MHz, MCS9, 99pc dc)         | WLAN           | 8.54 | ± 9.6 % |
| 10765 | AAC | IEEE 802.11ax (160MHz, MCS10, 99pc dc)        | WLAN           | 8.54 | ± 9.6 % |
| 10766 | AAC | IEEE 802.11ax (160MHz, MCS11, 99pc dc)        | WLAN           | 8.51 | ± 9.6 ° |
| 10767 | AAC | 5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD  | 7.99 | ± 9.6 9 |
| 10768 | AAC | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD  | 8.01 | ± 9.6 ° |
| 10769 | AAC | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD  | 8.01 | ± 9.6 ° |
| 10770 | AAC | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD  | 8.02 | ± 9.6 ° |
| 10771 | AAC | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD  | 8.02 | ± 9.6 ° |
| 10772 | AAC | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 KHz)   | 5G NR FR1 TDD  | 8.23 | ± 9.6 ° |
| 10773 | AAC | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD  | 8.03 | ± 9.6 ° |
| 10774 |     | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD  | 8.02 | ± 9.6 ° |
| 10775 | AAC | 5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD  | 8.31 | ± 9.6 ° |
| 10776 | AAC | 5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD  | 8.30 | ± 9.6 ° |
| 10776 | AAC | 5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD  | 8.30 | ± 9.6   |
|       | AAC | 5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD  | 8.34 | ± 9.6 ° |
| 10778 | AAC |                                               | 5G NR FR1 TDD  | 8.42 | ± 9.6 ° |
| 10779 | AAC | 5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz) |                |      |         |
| 10780 | AAC | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD  | 8.38 | ± 9.6 ° |
| 10781 | AAC | 5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD  | 8.38 | ± 9.6 ° |
| 10782 | AAC | 5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD  | 8.43 | ± 9.6 ° |
| 10783 | AAC | 5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD  | 8.31 | ± 9.6 ° |

Certificate No: EX3-3887\_Oct20

October 22, 2020

| 10784      | A * ^ | 50 NP (CD OFPNI 1000)                           |               |      | ober 22, 20 |
|------------|-------|-------------------------------------------------|---------------|------|-------------|
| 10785      | AAC   | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.29 | ± 9.6 9     |
| 10785      | AAC   | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.40 | ± 9.6 9     |
| 10787      | AAC   | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.35 | ± 9.6 %     |
|            | AAC   | 5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.44 | ± 9.6 9     |
| 10788      | AAC   | 5G NR (CP-OFDM, 100% RB. 30 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.39 |             |
| 10789      | AAC   | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.39 | ± 9.6 %     |
| 10790      | AAC   | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD |      | ± 9.6 %     |
| 10791      | AAC   | 5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 8.39 | ± 9.6 %     |
| 10792      | AAC   | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.83 | ± 9.6 %     |
| 10793      | AAC   | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.92 | ± 9.6 %     |
| 10794      | AAC   | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.95 | ± 9.6 %     |
| 10795      | AAC   | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.82 | ± 9.6 %     |
| 10796      | AAC   | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.84 | ± 9.6 %     |
| 10797      | AAC   | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)     |               | 7.82 | ± 9.6 %     |
| 10798 ·    | AAC   | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 8.01 | ± 9.6 %     |
| 10799      | AAC   | 5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.89 | ± 9.6 %     |
| 10801      | AAC   | 5G NR (CP-OFDM, 1 RB. 80 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.93 | ± 9.6 %     |
| 10802      | AAC   | 5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 7.89 | ± 9.6 %     |
| 10803      | AAE   | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 7.87 | ± 9.6 %     |
| 10805      | AAD   | 5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 7.93 | ± 9.6 %     |
| 10806      | AAD   | 5G NR (CP.OFDM, 50% RB, 10 MHZ, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.34 | ± 9.6 %     |
| 10809      | AAD   | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.37 | ± 9.6 %     |
| 10810      |       | 5G NR (CP-OFDM, 50% RB. 30 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.34 | ± 9.6 %     |
| 10812      | AAD   | 5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.34 | ± 9.6 %     |
| 0812       | AAD   | 5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.35 | ± 9.6 %     |
|            | AAD   | 5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 8.35 | ± 9.6 %     |
| 0818       | AAD   | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.34 | ± 9.6 %     |
| 0819       | AAD   | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.33 | ± 9.6 %     |
| 0820       | AAD   | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.30 | ± 9.6 %     |
| 0821       | AAC   | 5G NR (CP-OFDM, 100% RB, 25 MHz, OPSK 30 kHz)   | 5G NR FR1 TOD | 8.41 |             |
| 0822       | AAD   | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.41 | ± 9.6 %     |
| 0823       | AAC   | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK 30 kHz)   | 5G NR FR1 TDD | +    | ± 9.6 %     |
| 0824       | AAD   | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.36 | ± 9.6 %     |
| 0825.      | AAD   | 5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.39 | ± 9.6 %     |
| 0827       | AAD   | 5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.41 | ± 9.6 %     |
| 0828       | AAE   | 5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)  | 5G NR FR1 TDD | 8.42 | ± 9.6 %     |
| 0829       | AAD   | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz) |               | 8.43 | ± 9.6 %     |
| 0830       | AAD   | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 8,40 | ± 9.6 %     |
| 0831       | AAD   | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.63 | ± 9.6 %     |
| 0832       | AAD   | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.73 | ± 9.6 %     |
| 0833-      | AAD   | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.74 | ±9.6 %      |
| 0834 .     | AAD   | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.70 | ± 9.6 %     |
| 0835       | AAD   | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.75 | ± 9.6 %     |
| 0836       | AAE   | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.70 | ±9.6 %      |
| )837       | AAD   | 5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.66 | ± 9.6 %     |
| 0839       | AAD   | 5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.68 | ± 9.6 %     |
| 0840       | AAD   | 5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)     | 5G NR FR1 TDD | 7.70 | ± 9.6 %     |
| 841        | AAD   | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)    | 5G NR FR1 TDD | 7.67 | ± 9.6 %     |
| 843        | AAD   | 5G NR (CP-OFDM 50% PD 16 101 0 000 0            | 5G NR FR1 TDD | 7.71 | ± 9.6 %     |
| 844        | AAD   | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)   | 5G NR FR1 TDD | 8.49 | ± 9.6 %     |
| 846        | AAD   | 5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)   | 5G NR FR1 TDD | 8.34 | ± 9.6 %     |
| 854        | AAD   | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)   | 5G NR FR1 TDD | 8.41 | ± 9.6 %     |
| 855        |       | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.34 | ± 9.6 %     |
| 856        | AAD   | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.36 | ± 9.6 %     |
| 857        | AAD   | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.37 |             |
|            | AAD   | 5G NR (CP-OFDM, 100% RB, 25 MHz, OPSK, 60 kHz)  | 5G NR FR1 TDD |      | ±9.6 %      |
|            | AAD   | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)  |               | 8.35 | ±9.6 %      |
| 858<br>859 | AAD   | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)  | 5G NR FR1 TDD | 8.36 | ± 9.6 %     |

Certificate No: EX3-3887\_Oct20

#### EX3DV4-- SN:3887

October 22, 2020

| 10860 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.41 | ±9.6 %             |
|-------|-----|------------------------------------------------------|---------------|------|--------------------|
| 10861 | AAD | 5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.40 | ± 9.6 %            |
| 10863 | AAD | 5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.41 | ±9.6 %             |
| 10864 | AAE | 5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD | 8.37 | ±9.6 %             |
| 0865  | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz)      | 5G NR FR1 TDD | 8.41 | ±9.6%              |
| 0866  | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 5.68 | ± 9.6 %            |
| 0868  | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.89 | ± 9.6 %            |
| 0869  | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)     | 5G NR FR2 TDD | 5.75 | ± 9.6 %            |
| 10870 |     | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)  | 5G NR FR2 TDD | 5.86 | ± 9.6 %            |
| 10871 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)    | 5G NR FR2 TDD | 5.75 | ± 9.6 %            |
| 10872 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz) | 5G NR FR2 TDD | 6.52 | ± 9.6 %            |
| 10873 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)    | 5G NR FR2 TDD | 6.61 | ± 9.6 %            |
| 10874 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz) | 5G NR FR2 TDD | 6.65 | ± 9.6 %            |
| 10875 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)        | 5G NR FR2 TDD | 7.78 | ± 9:6 %            |
| 10876 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)     | 5G NR FR2 TDD | 8.39 | ± 9.6 %            |
| 10877 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)       | 5G NR FR2 TDD | 7.95 | ± 9.6 %            |
| 10878 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 KHz)    | 5G NR FR2 TDD | 8.41 | ± 9.6 %            |
|       | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 HHz)       | 5G NR FR2 TDD | 8.12 | ± 9.6 %            |
| 10879 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 KHz)       | 5G NR FR2 TDD | 8.38 | ± 9.6 %            |
| 10880 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)  | 5G NR FR2 TDD | 5.75 | ± 9,6 %            |
| 10881 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)   | 5G NR FR2 TDD | 5.96 | ± 9:6 %            |
| 10882 | AAD | 5G NR (DF1-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)     | 5G NR FR2 TDD | 6.57 | ± 9.6 %            |
| 10883 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 KHz)  | 5G NR FR2 TDD | 6.53 | ± 9.6 %            |
| 10884 | AAD | 5G NR (DFT-S-OFDM, 1 RB, 50 MHz, 64QAM, 120 KHz)     | 5G NR FR2 TDD | 6.61 | ± 9.6 %            |
| 10885 | AAD | 5G NR (DFT-s-OFDM, 10% RB, 50 MHz, 64QAM, 120 KHz)   | 5G NR FR2 TDD | 6.65 | ± 9.6 %            |
| 10886 | AAD |                                                      | 5G NR FR2 TDD | 7.78 | ± 9.6 %            |
| 10887 | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)         | 5G NR FR2 TDD | 8.35 | ± 9.6 %            |
| 10888 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)      | SG NR FR2 TDD | 8.02 | ±9.6 °             |
| 10889 | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)        | 5G NR FR2 TDD | 8.40 | ± 9.6 %            |
| 10890 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 KHz)     | 5G NR FR2 TDD | 8.13 | ± 9.6 %            |
| 10891 | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)        | 5G NR FR2 TDD | 8.41 | ± 9,6 9            |
| 10892 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)     | 5G NR FR1 TDD | 5.66 | ± 9.6 %            |
| 10897 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)        | 5G NR FR1 TDD | 5.67 | ± 9.6 9            |
| 10898 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.67 | ± 9.6 °            |
| 10899 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 °            |
| 10900 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD |      | ± 9.6 °            |
| 10901 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)       |               | 5.68 | ± 9.6 °            |
| 10902 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 |                    |
| 10903 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 °<br>± 9.6 ° |
| 10904 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 °            |
| 10905 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 |                    |
| 10906 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD | 5.68 | ± 9.6 °            |
| 10907 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD | 5.78 | ± 9.6              |
| 10908 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.93 | ± 9.6              |
| 10909 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.96 | ± 9.6              |
| 10910 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.83 | ± 9.6              |
| 10911 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.93 | ± 9.6              |
| 10912 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.84 | ± 9.6              |
| 10913 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.84 | ± 9.6              |
| 10914 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.85 | ± 9.6              |
| 10915 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK. 30 kHz)     | 5G NR FR1 TDD | 5.83 | ± 9.6              |
| 10916 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.87 | ± 9.6              |
| 10917 | AAD | 5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.94 | ± 9.6              |
| 10918 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD | 5.86 | ± 9,6              |
| 10919 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.86 | ± 9.6              |
| 10920 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.87 | ± 9.6              |
| 10921 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD | 5.84 | ± 9.6              |

Certificate No: EX3-3887\_Oct20

Page 21 of 22

### EX3DV4- SN:3887

.

| 10922        | AAD |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | *****         |             | ober 22, 2 |
|--------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------|------------|
| 10923        | AAD | D 5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 5G NR FR1 TDD | 5.82        | ± 9.6      |
| 10924        | AAC | 5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5G NR FR1 TDD | 5.84        | ·····      |
| 10925        | AAC | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5G NR FR1 TDD | 5.84        | ± 9.6      |
| 10926        | AAD | 5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5G NR FR1 TDD | 5.95        | ± 9.6      |
| 10927        | AAD | 5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5G NR FR1 TDD | 5.84        | ± 9.6 °    |
| 10928        | AAD | 5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5G NR FR1 TDD | 5.94        | ± 9.6 1    |
| 10929        | AAD | 5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5G NR FR1 FDD | 5.52        | ± 9.6 °    |
| 10930        | AAD | 5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5G NR FR1 FDD | 5.52        | ± 9.6 9    |
| 10931.       |     | 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5G NR FR1 FDD | 5.52        | ± 9.6 9    |
| 10932        | AAB | 5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5G NR FR1 FDD | 5.51        | ± 9.6 %    |
| 10933        | AAA | 5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5G NR FR1 FDD | 5.51        | ± 9.6 9    |
| 10934        | AAA | 5G NR (DFT-s-OFDM 1 PR 40 MHz, QPSK, 15 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 5G NR FR1 FDD | 5.51        | ± 9.6 9    |
| 10935        | AAA | 5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5G NR FR1 FDD | 5.51        | ± 9.6 %    |
| 10936        | AAC | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 KHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5G NR FR1 FDD | 5.51        | ± 9.6 %    |
| 0937         | AAB | 5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5G NR FR1 FDD | 5.90        |            |
| 0938         | AAB | 5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5G NR FR1 FDD | 5.77        | ± 9.6 %    |
| 0939         | AAB | 5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5G NR FR1 FDD |             | ± 9.6 %    |
| 0940         | AAB | JO NA UF I'S UFUM 50% RB 20 MHZ ODDY ALLI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 5G NR FR1 FDD | 5.90        | ± 9,6 %    |
| 0941         |     | 00 NR (DET-S-OFDM, 50% RB, 25 MHz OPSK 15 HLP)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5G NR FR1 FDD | 5.82        | ±9.6 %     |
| 0942         | AAB | 00 NR (DFT-S-OFDM, 50% RB, 30 MHz OPSK 15 HUS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5G NR FR1 FDD | 5.89        | ± 9.6 %    |
| 0943         | AAB | 5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5G NR FR1 FDD | 5.83        | ± 9.6 %    |
| 0944         | AAB | JOINR (DFT-S-OFDM, 50% RB 50 MHz ORSK 15 MLD)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5G NR FR1 FDD | 5.85        | ± 9.6 %    |
| 0945         | AAB | 00 NR (DFT-S-OFDM, 100% RB, 5 MHz OPSK 15 KH-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5G NR FR1 FDD | 5.95        | ± 9.6 %    |
| 0946         | AAB | 35 NR (DFT-S-OFDM, 100% RB, 10 MHz OPSK 15 MHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5G NR FR1 FDD | 5.81        | ± 9.6 %    |
| 0947         | AAC | 36 NR (DFT-S-OFDM, 100% RB, 15 MHz OPSK 16 KHE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5G NR FR1 FDD | 5.85        | ± 9.6 %    |
| 0948         | AAB | JOINT UP I-S-UFUM, 100% BB 20 MHZ ODOK IELIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 5G NR FR1 FDD | 5.83        | ± 9.6 %    |
| 0949<br>0949 | AAB | JO NR (DET-S-OFDM, 100% RB, 25 MHz OPSK 15 HUS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SG NR FRI FDD | 5.87        | ±9.6%      |
|              | AAB | 1 50 MIN (UP 1-S-UPUM, 100% RB 30 MHz ODSK 45 11)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5G NR FR1 FDD | 5.94        | ±9.6 %     |
| )950<br>)951 | AAB | 50 NR (DF 1-S-OFDM, 100% RB 40 MH2 OPSY 15 HILL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5G NR FR1 FDD | 5.87        | ±9.6 %     |
|              | AAB | 00 MR (UF 1-S-OFUM, 100% RB, 50 MHz OPSK 15 (U-)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5G NR FR1 FDD | 5.94        | ±9.6 %     |
| 952          | AAB | JOINR DL (CP-OFDM, TM 3 1 5 MHZ 64 OAM 15 HL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 5G NR FR1 FDD | 5.92        | ± 9.6 %    |
| 953          | AAB | JG NR DL (CP-OFDM, TM 3.1, 10 MHz 64-OAM 15 HUR)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5G NR FR1 FDD | 8.25        | ± 9.6 %    |
| 954          | AAB | OUNINDE CEPUTUM, M31 15 MHZ 64 OANA 4ELILI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5G NR FR1 FDD | 8.15        | ± 9.6 %    |
| 955          | AAB | JOINR DL (CP-OFDM, TM 3.1. 20 MHz 64-OAM 15 KU-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5G NR FR1 FDD | 8.23        | ± 9.6 %    |
| 956          | AAB | SO NIL OF OFUM, M3.1 5 MHZ 64 DAMA 20 LIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 5G NR FR1 FDD | 8.42        | ± 9.6 %    |
| 957          | AAC | JOINR DL (CP-OFDM, TM 3.1 10 MHz 64 OAMA BOLLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5G NR FR1 FDD | 8.14        | ± 9.6 %    |
| 958          | AAB | OUTIN DE OPOFUM, TM 3 1 15 MHZ 64 OAM BOLING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 5G NR FR1 FDD | 8.31        | ± 9.6 %    |
| 959          | AAB | CONTROL (CP-OFDM, IM 3.1. 20 MHZ 64-OAM 20 HULL)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5G NR FR1 FDD | 8.61        | ± 9.6 %    |
| 960          | AAB | OUNIN DE ICH-OFUM, IM 3.1 5 MHZ 64 OAM 15 HILL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5G NR FR1 FDD | 8.33        | ± 9.6 %    |
| 61           | AAB | JG NR DL (CP-OFDM, TM 3.1 10 MHZ 64 DAM 4E WAS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5G NR FR1 TDD | 9.32        | ±9.6 %     |
| 962.         | AAB | CONTOL CP-OFDM. M 31 15 MHz 64 DAM 15 H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5G NR FR1 TDD | 9.36        | ± 9.6 %    |
| 963          | AAB | CONTROLICE OF UM IM 31 20 MHz 64 OANA 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 5G NR FR1 TDD | 9.40        | ± 9.6 %    |
| 64           | AAB | NOTICUL UP-UPUM, IM 31 5 MHZ 64 OAM 20 LINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5G NR FR1 TDD | 9.55        | ± 9.6 %    |
| 65           | AAB | OC AN DE OF OF DM, IM 3.1 10 MHz 64 OAM 20 HU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5G NR FR1 TDD | 9.29        | ±9.6 %     |
| 66           | AAB | 5G NR DL (CP-OFDM, TM 3.1. 15 MHz, 64-QAM, 30 KHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5G NR FR1 TDD | 9.37        | ± 9.6 %    |
|              | AAB | SCHRUCE UP UP UM, TM 3 1 20 MHz 64 OAM DOLLES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5G NR FR1 TDD | 9.55        | ± 9.6 %    |
| 68           | AAB | 5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 5G NR FR1 TDD | 9.42        | ± 9.6 %    |
| 72.          | AAB | 5G NR (CP-OFDM 1 PR 20 Mill CT-20 Mill 2 CT- | 5G NR FR1 TDD |             | ± 9.6 %    |
| 3.0          |     | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)<br>5G NR (DET-s-OFDM, 1 RD, 20 MHz, QPSK, 15 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5G NR FR1 TDD |             | ± 9.6 %    |
|              | AAB | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)<br>5G NR (CP-OFDM, 100% RB, 100 MHz, 256-QAM, 30 kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5G NR FR1 TDD |             | ± 9.6 %    |
|              | - 1 | TO THE OF DIVE THEY ARE TAO MILE OF A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5G NR FR1 TDD | J. J. J. J. | - 30% /    |

<sup>©</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

-----

#### **Calibration Laboratory of** Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





S

S

Schweizerischer Kalibrierdienst Service suisse d'étalonnage С Servizio svizzero di taratura Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Client B.V. ADT (Auden)

### Certificate No: EUmmWV4-9454\_Sep20

Accreditation No.: SCS 0108

## CALIBRATION CERTIFICATE Object EUmmWV4 - SN:9454 Calibration procedure(s) QA CAL-02.v9, QA CAL-25.v7, QA CAL-42.v2 Calibration procedure for E-field probes optimized for close near field evaluations in air Calibration date: September 24, 2020 This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate. All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%. Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration                            |
|----------------------------|------------------|-----------------------------------|--------------------------------------------------|
| Power meter NRP            | SN: 104778       | 01-Apr-20 (No. 217-03100/03101)   | Apr-21                                           |
| Power sensor NRP-Z91       | SN: 103244       | 01-Apr-20 (No. 217-03100)         | Apr-21                                           |
| Power sensor NRP-Z91       | SN: 103245       | 01-Apr-20 (No. 217-03101)         | Apr-21                                           |
| Reference 20 dB Attenuator | SN: CC2552 (20x) | 31-Mar-20 (No. 217-03106)         | Apr-21                                           |
| Reference Probe ER3DV6     | SN: 2328         | 05-Oct-19 (No. ER3-2328_Oct19)    | Oct-20                                           |
| DAE4                       | SN: 789          | 27-Dec-19 (No. DAE4-789_Dec19)    | Dec-20                                           |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check                                  |
| Power meter E4419B         | SN: GB41293874   | 06-Apr-16 (in house check Jun-20) | In house check: Jun-22                           |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-20) | In house check: Jun-22                           |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-20) | In house check: Jun-22                           |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-20) |                                                  |
| Network Analyzer HP 8753E  | SN: US37390585   | 18-Oct-01 (in house check Oct-19) | In house check: Jun-22<br>In house check: Oct-20 |

|                              | Name                                  | Function                                    | Signature                  |
|------------------------------|---------------------------------------|---------------------------------------------|----------------------------|
| Calibrated by:               | Leif Klysner                          | Laboratory Technician                       | Seftler                    |
| Approved by:                 | Katja Pokovic                         | Technical Manager                           | Alles                      |
| This calibration certificate | shall not be reproduced except in ful | without written approval of the laboratory. | Issued: September 29, 2020 |

Calibration Laboratory of Schmid & Partner

~

Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





S

S Schweizerischer Kalibrierdienst

- C Service suisse d'étalonnage
  - Servizio svizzero di taratura Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

| <b>Glossary:</b><br>NORMx,y,z<br>DCP<br>CF<br>A, B, C, D<br>Polarization φ | sensitivity in free space<br>diode compression point<br>crest factor (1/duty_cycle) of the RF signal<br>modulation dependent linearization parameters<br>φ rotation around probe axis                                                                                                                                                                                                    |
|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Polarization &<br>Connector Angle<br>Sensor Angles<br>k                    | $\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\vartheta = 0$ is normal to probe axis<br>information used in DASY system to align probe sensor X to the robot coordinate system<br>sensor deviation from the probe axis, used to calculate the field orientation and polarization<br>is the wave propagation direction |

# Calibration is Performed According to the Following Standards:

a) IEEE Std 1309-2005, "IEEE Standard for calibration of electromagnetic field sensors and probes, excluding antennas, from 9 kHz to 40 GHz", December 2005

## Methods Applied and Interpretation of Parameters:

- NORMx, y, z: Assessed for E-field polarization 9 = 0 for XY sensors and 9 = 90 for Z sensor (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). For frequencies > 6 GHz, the far field in front of waveguide horn antennas is measured for a set of frequencies in various waveguide bands up to 110 GHz.
- *DCPx,y,z*: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- The frequency sensor model parameters are determined prior to calibration based on a frequency sweep (sensor model involving resistors R, R<sub>p</sub>, inductance L and capacitors C, C<sub>p</sub>).
- Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- Sensor Offset: The sensor offset corresponds to the mechanical from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORMx (no uncertainty required).
- Equivalent Sensor Angle: The two probe sensors are mounted in the same plane at different angles. The angles are assessed using the information gained by determining the NORMx (no uncertainty required).
- Spherical isotropy (3D deviation from isotropy): in a locally homogeneous field realized using an open waveguide / horn setup.

Accreditation No.: SCS 0108

# DASY - Parameters of Probe: EUmmWV4 - SN:9454

#### **Basic Calibration Parameters**

|                         | Sensor X | Sensor Y | Unc (k=2) |
|-------------------------|----------|----------|-----------|
| Norm $(\mu V/(V/m)^2)$  | 0.02128  | 0.02468  | ± 10.1 %  |
| DCP (mV) <sup>B</sup>   | 104.0    | 104.0    |           |
| Equivalent Sensor Angle | -59.7    | 34.2     |           |

# Calibration results for Frequency Response (750 MHz – 110 GHz)

| Frequency<br>GHz | Target E-Field<br>V/m | Deviation Sensor X<br>dB | Deviation Sensor Y<br>dB | Unc (k=2)<br>dB        |
|------------------|-----------------------|--------------------------|--------------------------|------------------------|
| 0.75             | 77.2                  | -0.05                    | 0.15                     | ± 0.43 dB              |
| 1.8              | 140.4                 | 0.10                     | 0.14                     | ± 0.43 dB              |
| 2                | 133.0                 | 0.03                     | 0.08                     | ± 0.43 dB              |
| 2.2              | 124.8                 | 0.03                     | 0.04                     | ± 0.43 dB              |
| 2.5              | 123.0                 | -0.04                    | -0.08                    | ± 0.43 dB              |
| 3.5              | 256.2                 | -0.01                    | -0.18                    | ± 0.43 dB              |
| 3.7              | 249.8                 | 0.04                     | -0.19                    | ± 0.43 dB              |
| 6.6              | 41.8                  | 0.39                     | 0.26                     | ± 0.98 dB              |
| 8                | 48.4                  | -0.10                    | -0.29                    |                        |
| 10               | 54.4                  | -0.04                    | 0.03                     | ± 0.98 dB              |
| 15               | 71.5                  | -0.17                    | -0.46                    | ± 0.98 dB              |
| 18               | 85.3                  | 0.27                     | 0.35                     | ± 0.98 dB<br>± 0.98 dB |
| 26.6             | 96.9                  | 0.38                     | 0.16                     |                        |
| 30               | 92.6                  | 0.08                     | 0.10                     | ± 0.98 dB              |
| 35               | 93.7                  | -0.31                    | -0.12                    | ± 0.98 dB              |
| 40               | 91.5                  | -0.75                    | -0.12                    | ± 0.98 dB              |
|                  |                       |                          | -0.55                    | ± 0.98 dB              |
| 50               | 19.6                  | 0.15                     | 0.02                     | ± 0.98 dB              |
| 55               | 22.4                  | 0.57                     | 0.37                     | ± 0.98 dB              |
| 60               | 23.0                  | -0.02                    | -0.03                    | ± 0.98 dB              |
| 65               | 27.4                  | -0.17                    | 0.05                     | ± 0.98 dB              |
| 70               | 23.9                  | 0.10                     | 0.00                     | ± 0.98 dB              |
| 75               | 20.0                  | -0.10                    | -0.03                    | ± 0.98 dB              |
| 75               | 14.8                  | 0.08                     | 0.06                     | ± 0.98 dB              |
| 30               | 22.5                  | 0.05                     | 0.32                     | ± 0.98 dB              |
| 35               | 22.8                  | 0.12                     | 0.08                     | ± 0.98 dB              |
| 90               | 23.8                  | 0.08                     | 0.07                     | ± 0.98 dB<br>± 0.98 dB |
| 92               | 23.9                  | -0.19                    | -0.20                    | ± 0.98 dB              |
| 95               | 20.5                  | -0.36                    | -0.29                    | ± 0.98 dB<br>± 0.98 dB |
| 97               | 24.4                  | -0.20                    | -0.17                    | ± 0.98 dB              |
| 00               | 22.6                  | 0.09                     | -0.02                    |                        |
| 05               | 22.7                  | 0.04                     | 0.05                     | ± 0.98 dB              |
| 10               | 19.7                  | 0.15                     | 0.22                     | ± 0.98 dB<br>± 0.98 dB |

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

# DASY - Parameters of Probe: EUmmWV4 - SN:9454

| UID    | Communication System Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |   | A<br>dB | B<br>dBõV | С     | D<br>dB | VR<br>mV | Max<br>dev. | Max<br>Unc <sup>E</sup><br>(k=2) |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------|-----------|-------|---------|----------|-------------|----------------------------------|
| 0 CW   | CW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | X | 0.00    | 0.00      | 1.00  | 0.00    | 141.5    | ± 2.5 %     | ± 4.7 %                          |
|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Y | 0.00    | 0.00      | 1.00  |         | 78.0     |             | /4                               |
| 10352- | Pulse Waveform (200Hz, 10%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | X | 1.51    | 60.00     | 14.27 | 10.00   | 6.0      | ± 1.3 %     | ± 9.6 %                          |
| AAA    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Y | 1.42    | 60.00     | 14.96 |         | 6.0      |             | / -                              |
| 10353- | Pulse Waveform (200Hz, 20%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | X | 1.03    | 60.00     | 13.21 | 6.99    | 12.0     | ± 1.2 %     | ± 9.6 %                          |
| AAA    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Y | 0.96    | 60.00     | 14.08 |         | 12.0     |             |                                  |
| 10354- | Pulse Waveform (200Hz, 40%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | X | 0.62    | 60.00     | 12.06 | 3.98    | 23.0     | ± 1.1 %     | ± 9.6 %                          |
| AAA    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Y | 0.59    | 60.00     | 12.98 |         | 23.0     |             |                                  |
| 10355- | Pulse Waveform (200Hz, 60%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | X | 0.37    | 60.00     | 11.61 | 2.22    | 27.0     | ± 0.9 %     | ± 9.6 %                          |
| AAA    | h:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Y | 0.44    | 60.00     | 11.96 |         | 27.0     |             | = 0.0 /0                         |
| 10387- | QPSK Waveform, 1 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | X | 1.04    | 60.00     | 11.96 | 1.00    | 22.0     | ± 1.6 %     | ± 9.6 %                          |
| AAA    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Y | 1.06    | 60.00     | 11.74 |         | 22.0     |             | /                                |
| 10388- | QPSK Waveform, 10 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | X | 1.23    | 60.00     | 12.12 | 0.00    | 22.0     | ±0.7 %      | ± 9.6 %                          |
| AAA    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Y | 1.34    | 60.00     | 11.94 |         | 22.0     |             |                                  |
| 10396- | 64-QAM Waveform, 100 kHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | X | 2.26    | 62.64     | 14.94 | 3.01    | 17.0     | ± 1.0 %     | ±9.6 %                           |
| AAA    | and the second sec | Y | 1.98    | 60.00     | 13.64 |         | 17.0     |             | - 0.0 70                         |
| 10399- | 64-QAM Waveform, 40 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | X | 2.07    | 60.00     | 12.52 | 0.00    | 19.0     | ± 1.1 %     | ± 9.6 %                          |
| AAA    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Y | 2.11    | 60.00     | 12.50 | 19.0    |          |             | - 0.0 /0                         |
| 10414- | WLAN CCDF, 64-QAM, 40MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | X | 3.14    | 60.00     | 12.93 | 0.00    | 12.0     | ± 1.0 %     | ± 9.6 %                          |
| AAA    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Y | 3.13    | 60.00     | 12.93 |         | 12.0     | 1.10 10     |                                  |

# **Calibration Results for Modulation Response**

Note: For details on all calibrated UID parameters see Appendix

### **Calibration Results for Linearity Response**

| Frequency<br>GHz | Target E-Field<br>V/m | Deviation Sensor X dB | Deviation Sensor Y dB | Unc (k=2)<br>dB |
|------------------|-----------------------|-----------------------|-----------------------|-----------------|
| 0.9              | 50.0                  | -0.09                 | -0.06                 | ± 0.2 dB        |
| 0.9              | 100.0                 | -0.04                 | -0.12                 | ± 0.2 dB        |
| 0.9              | 500.0                 | 0.02                  | -0.02                 | ± 0.2 dB        |
| 0.9              | 1000.0                | 0.04                  | 0.01                  | ± 0.2 dB        |
| 0.9              | 1500.0                | 0.02                  | 0.00                  | ± 0.2 dB        |
| 0.9              | 2000.0                | -0.01                 | -0.02                 | ± 0.2 dB        |

# Sensor Frequency Model Parameters (750 MHz – 78 GHz)

| · · · · · · · · · · · · · · · · · · · | Sensor X | Sensor Y |
|---------------------------------------|----------|----------|
| R (Ω)                                 | 44.99    | 47.95    |
| $R_{\rho}(\Omega)$                    | 93.30    | 89.32    |
| L (nH)                                | 0.03978  | 0.04081  |
| C (pF)                                | 0.2278   | 0.2831   |
| C <sub>p</sub> (pF)                   | 0.1096   | 0.1102   |

## Sensor Frequency Model Parameters (55 GHz – 110 GHz)

|                            | Sensor X | Sensor Y |
|----------------------------|----------|----------|
| R (Ω)                      | 29.57    | 33.90    |
| $R_{p}\left(\Omega\right)$ | 99.57    | 95.38    |
| L (nH)                     | 0.04215  | 0.03556  |
| C (pF)                     | 0.1230   | 0.1826   |
| C <sub>p</sub> (pF)        | 0.1106   | 0.1198   |

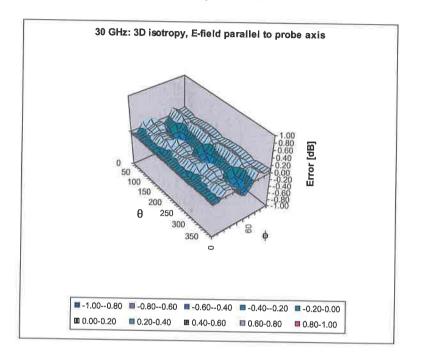
# DASY - Parameters of Probe: EUmmWV4 - SN:9454

### Sensor Model Parameters

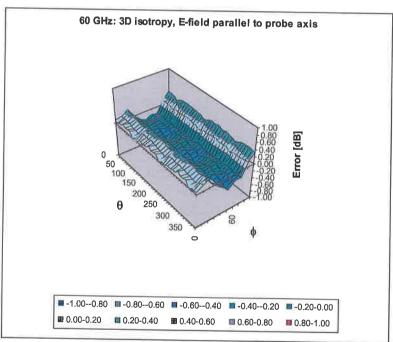
|   | C1<br>fF | C2<br>fF | α<br>V <sup>-1</sup> | T1<br>ms.V⁻² | T2<br>ms.V <sup>-1</sup> | T3<br>ms | T4<br>V <sup>-2</sup> | T5<br>V <sup>-1</sup> | Т6   |
|---|----------|----------|----------------------|--------------|--------------------------|----------|-----------------------|-----------------------|------|
| Х | 37.9     | 277.48   | 34.22                | 0.92         | 2.82                     | 5.00     | 0.00                  | 0.96                  | 1.01 |
| Y | 32.9     | 239.49   | 33.95                | 0.92         | 2.66                     | 5.01     | 0.00                  | 1.24                  | 1.00 |

## **Other Probe Parameters**

| Sensor Arrangement                      | Rectangular |
|-----------------------------------------|-------------|
| Connector Angle (°)                     | -152.3      |
| Mechanical Surface Detection Mode       | enabled     |
| Optical Surface Detection Mode          | disabled    |
| Probe Overall Length                    | 320 mm      |
| Probe Body Diameter                     | 8 mm        |
| Tip Length                              | 23 mm       |
| Tip Diameter                            | 8.0 mm      |
| Probe Tip to Sensor X Calibration Point | 1.5 mm      |
| Probe Tip to Sensor Y Calibration Point | 1.5 mm      |



## Deviation from Isotropy in Air f = 30, 60 GHz



Probe isotropy for E<sub>tot</sub>: probe rotated  $\varphi = 0^{\circ}$  to 360°, tilted from field propagation direction  $\vec{k}$ Parallel to the field propagation ( $\psi = 0^{\circ} - 90^{\circ}$ ) at 30 GHz: deviation within ± 0.30 dB Parallel to the field propagation ( $\psi = 0^{\circ} - 90^{\circ}$ ) at 60 GHz: deviation within ± 0.38 dB

# **Appendix: Modulation Calibration Parameters**

| UID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Rev | Communication System Name                           | Group     | PAR<br>(dB) | Unc <sup>t</sup><br>(k=2) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------|-----------|-------------|---------------------------|
| 10010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -   | CW                                                  | CW        | 0.00        | ± 4.7 9                   |
| 10010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAA | SAR Validation (Square, 100ms, 10ms)                | Test      | 10.00       | ± 9.6 9                   |
| 10011                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAB | UMTS-FDD (WCDMA)                                    | WCDMA     | 2.91        | ± 9.6 9                   |
| 10012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)            | WLAN      | 1.87        | ± 9.6 9                   |
| and the second se | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)       | WLAN      | 9.46        | ± 9.6 9                   |
| 10021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DAC | GSM-FDD (TDMA, GMSK)                                | GSM       | 9.39        | ± 9.6 9                   |
| 10023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DAC | GPRS-FDD (TDMA, GMSK, TN 0)                         | GSM       | 9.57        | ± 9.6 9                   |
| 10024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                       | GSM       | 6.56        | ± 9.6 %                   |
| 10025                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                         | GSM       | 12.62       | ± 9.6 9                   |
| 10026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                       | GSM       | 9.55        | ± 9.6 %                   |
| 10027                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)                     | GSM       | 4.80        | ± 9.6 9                   |
| 10028                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)                   | GSM       | 3.55        | ± 9.6 %                   |
| 10029                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)                     | GSM       | 7.78        | ± 9.6 %                   |
| 10030                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)                 | Bluetooth | 5.30        | ± 9.6 %                   |
| 10031                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)                 | Bluetooth | 1.87        | ± 9.6 %                   |
| 10032                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | Bluetooth | 1.16        | ± 9.6 %                   |
| 10033                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | Bluetooth | 7.74        | ± 9.6 %                   |
| 10034                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | Bluetooth | 4.53        | ± 9.6 %                   |
| 10035                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | Bluetooth | 3.83        | ± 9.6 %                   |
| 10036                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | Bluetooth | 8.01        | ± 9.6 %                   |
| 10037                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | Bluetooth | 4.77        | ± 9.6 %                   |
| 10038                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | Bluetooth | 4.10        |                           |
| 10039                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAB | CDMA2000 (1xRTT, RC1)                               | CDMA2000  | 4.10        | ± 9.6 %                   |
| 10042                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | AMPS      |             | ± 9.6 %                   |
| 10044                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | AMPS      | 7.78        | ± 9.6 %                   |
| 10048                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | DECT      | 0.00        | ± 9.6 %                   |
| 10049                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | DECT      | 13.80       | ± 9.6 %                   |
| 10056                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | TD-SCDMA  | 10.79       | ± 9.6 %                   |
| 0058                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | GSM       | 11.01       | ± 9.6 %                   |
| 0059                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | WLAN      | 6.52        | ± 9.6 %                   |
| 0060                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | WLAN      | 2.12        | ± 9.6 %                   |
| 0061                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)           | WLAN      | 2.83        | ± 9.6 %                   |
| 0062                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)            |           | 3.60        | ± 9.6 %                   |
| 0063                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)            | WLAN      | 8.68        | ± 9.6 %                   |
| 0064                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)           | WLAN      | 8.63        | ± 9.6 %                   |
| 0065                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)           | WLAN      | 9.09        | ± 9.6 %                   |
| 0066                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)           | WLAN      | 9.00        | ± 9.6 %                   |
| 0067                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)           | WLAN      | 9.38        | ± 9.6 %                   |
| 0068                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 38 Mbps)           | WLAN      | 10.12       | ± 9.6 %                   |
| 0069                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)           | WLAN      | 10.24       | ± 9.6 %                   |
| 0071                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |     |                                                     | WLAN      | 10.56       | ± 9.6 %                   |
| 0072                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)       | WLAN      | 9.83        | ±9.6 %                    |
| 0073                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)      | WLAN      | 9.62        | ± 9.6 %                   |
| 0074                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)      | WLAN      | 9.94        | ±9.6 %                    |
| 0075                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)      | WLAN      | 10.30       | ±9.6 %                    |
| 0076                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)      | WLAN      | 10.77       | ± 9.6 %                   |
| 0070                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)      | WLAN      | 10.94       | ±9.6 %                    |
| 0077                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)      | WLAN      | 11.00       | ± 9.6 %                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | CAB | CDMA2000 (1xRTT, RC3)                               | CDMA2000  | 3.97        | ± 9.6 %                   |
| 0082                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | AMPS      | 4.77        | ± 9.6 %                   |
| 0090                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | GSM       | 6.56        | ± 9.6 %                   |
| 0097                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CAC | UMTS-FDD (HSDPA)                                    | WCDMA     | 3.98        | ± 9.6 %                   |
| 0098                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | DAC | UMTS-FDD (HSUPA, Subtest 2)                         | WCDMA     | 3.98        | ± 9.6 %                   |

| 10099 | CAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                  | GSM     | 9.55  | ± 9.6 % |
|-------|-----|------------------------------------------------|---------|-------|---------|
| 10100 | CAC | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)       | LTE-FDD | 5.67  | ± 9.6 % |
| 10101 | CAB | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)     | LTE-FDD | 6.42  | ± 9.6 % |
| 10102 | CAB | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)     | LTE-FDD | 6.60  | ± 9.6 % |
| 10103 | DAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)       | LTE-TDD | 9.29  | ± 9.6 % |
| 10104 | CAE | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)     | LTE-TDD | 9.97  | ± 9.6 % |
| 10105 | CAE | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)     | LTE-TDD | 10.01 | ± 9.6 % |
| 10108 | CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)       | LTE-FDD | 5.80  | ± 9.6 % |
| 10109 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)     | LTE-FDD | 6.43  | ± 9.6 % |
| 10110 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)        | LTE-FDD | 5.75  | -       |
| 10111 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)      | LTE-FDD | 6.44  | ± 9.6 % |
| 10112 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | LTE-FDD | 6.59  | ± 9.6 % |
| 10113 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | LTE-FDD |       | ± 9.6 % |
| 10114 | CAG | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | WLAN    | 6.62  | ± 9.6 % |
| 10115 | CAG | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | WLAN    | 8.10  | ± 9.6 % |
| 10116 | CAG | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | WLAN    | 8.46  | ± 9.6 % |
| 10117 | CAG | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | WLAN    | 8.15  | ± 9.6 % |
| 10118 | CAD | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       |         | 8.07  | ± 9.6 % |
| 10119 | CAD | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | WLAN    | 8.59  | ± 9.6 % |
| 10140 | CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | WLAN    | 8.13  | ± 9.6 % |
| 10141 | CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | LTE-FDD | 6.49  | ± 9.6 % |
| 10142 | CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | LTE-FDD | 6.53  | ± 9.6 % |
| 10143 |     |                                                | LTE-FDD | 5.73  | ± 9.6 % |
| 10144 | CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | LTE-FDD | 6.35  | ± 9.6 % |
| 10145 | CAC | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | LTE-FDD | 6.65  | ± 9.6 % |
| 10145 | CAC | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | LTE-FDD | 5.76  | ± 9.6 % |
| 10140 | CAC | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | LTE-FDD | 6.41  | ± 9.6 % |
| 10147 | CAC | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | LTE-FDD | 6.72  | ± 9.6 % |
| 10149 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-FDD | 6.42  | ± 9.6 % |
|       | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-FDD | 6.60  | ± 9.6 % |
| 10151 | CAE | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)        | LTE-TDD | 9.28  | ± 9.6 % |
| 10152 | CAE | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-TDD | 9.92  | ± 9.6 % |
| 10153 | CAE | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-TDD | 10.05 | ± 9.6 % |
| 10154 | CAF | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)        | LTE-FDD | 5.75  | ± 9.6 % |
| 10155 | CAF | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)      | LTE-FDD | 6.43  | ± 9.6 % |
| 10156 | CAF | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         | LTE-FDD | 5.79  | ± 9.6 % |
| 10157 | CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)       | LTE-FDD | 6.49  | ± 9.6 % |
| 0158  | CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)      | LTE-FDD | 6.62  | ± 9.6 % |
| 0159  | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)       | LTE-FDD | 6.56  | ± 9.6 % |
| 0160  | CAG | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)        | LTE-FDD | 5.82  | ± 9.6 % |
| 0161  | CAG | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)      | LTE-FDD | 6.43  | ± 9.6 % |
| 10162 | CAG | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)      | LTE-FDD | 6.58  | ± 9.6 % |
| 0166  | CAG | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)       | LTE-FDD | 5.46  | ± 9.6 % |
| 0167  | CAG | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)     | LTE-FDD | 6.21  | ± 9.6 % |
| 0168  | CAG | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)     | LTE-FDD | 6.79  | ± 9.6 % |
| 0169  | CAG | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-FDD | 5.73  | ± 9.6 % |
| 0170  | CAG | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 0171  | CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-FDD | 6.49  |         |
| 0172  | CAE | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-TDD | 9.21  | ± 9.6 % |
| 0173  | CAE | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-TDD |       | ± 9.6 % |
| 0174  | CAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-TDD | 9.48  | ± 9.6 % |
| 0175  | CAF | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)          | LTE-FDD | 10.25 | ± 9.6 % |
| 0176  | CAF | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)        |         | 5.72  | ± 9.6 % |
| 0177  | CAE | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)           | LTE-FDD | 6.52  | ± 9.6 % |
| 0178  | CAE | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)         | LTE-FDD | 5.73  | ± 9.6 % |
|       |     |                                                | LTE-FDD | 6.52  | ±9.6 %  |
| 0179  | AAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)        | LTE-FDD | 6.50  | ±9.6 %  |

Certificate No: EUmmWV4-9454\_Sep20

Page 8 of 19

| 10181 | CAG | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)                                                  | LTE-FDD                                    | 5.72  | ± 9.6 9 |
|-------|-----|----------------------------------------------------------------------------------------|--------------------------------------------|-------|---------|
| 10182 | CAG | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)                                                | LTE-FDD                                    | 6.52  | ± 9.6 9 |
| 10183 | CAG | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)                                                | LTE-FDD                                    | 6.50  | ± 9.6 9 |
| 10184 | CAG | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)                                                   | LTE-FDD                                    | 5.73  | ± 9.6 % |
| 10185 | CAI | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)                                                 | LTE-FDD                                    | 6.51  | ± 9.6 % |
| 10186 | CAG | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)                                                 | LTE-FDD                                    | 6.50  | ± 9.6 % |
| 10187 | CAG | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)                                                 | LTE-FDD                                    | 5.73  | ± 9.6 % |
| 10188 | CAG | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)                                               | LTE-FDD                                    | 6.52  | ± 9.6 % |
| 10189 | CAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)                                               | LTE-FDD                                    | 6.50  |         |
| 10193 | CAE | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)                                           | WLAN                                       | 8.09  | ± 9.6 % |
| 10194 | AAD | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)                                          | WLAN                                       | 8.12  | ± 9.6 % |
| 10195 | CAE | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)                                          | WLAN                                       | 8.21  | ± 9.6 % |
| 10196 | CAE | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)                                                | WLAN                                       | 8.10  | ± 9.6 % |
| 10197 | AAE | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)                                               | WLAN                                       |       | ± 9.6 % |
| 10198 | CAF | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)                                               | WLAN                                       | 8.13  | ± 9.6 % |
| 10219 | CAF | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)                                                | WLAN                                       | 8.27  | ± 9.6 % |
| 10220 | AAF | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)                                             | WLAN                                       | 8.03  | ± 9.6 % |
| 10221 | CAC | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)                                             |                                            | 8.13  | ± 9.6 % |
| 10222 | CAC | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)                                                 | WLAN NA N | 8.27  | ± 9.6 % |
| 10223 | CAD | IEEE 802.11n (HT Mixed, 10 Mbps, BPSK)                                                 | WLAN                                       | 8.06  | ± 9.6 % |
| 10224 | CAD | IEEE 802.11n (HT Mixed, 30 Mbps, 16-QAM)                                               | WLAN                                       | 8.48  | ± 9.6 % |
| 10225 | CAD | UMTS-FDD (HSPA+)                                                                       | WLAN                                       | 8.08  | ± 9.6 % |
| 10226 | -   | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)                                               | WCDMA                                      | 5.97  | ± 9.6 % |
| 10227 | CAD |                                                                                        | LTE-TDD                                    | 9.49  | ± 9.6 % |
| 10228 | CAD | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)                                               | LTE-TDD                                    | 10.26 | ± 9.6 % |
| 10229 | CAD | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)                                                 | LTE-TDD                                    | 9.22  | ± 9.6 % |
| 0223  | DAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)                                                 | LTE-TDD                                    | 9.48  | ± 9.6 % |
| 10230 | CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)                                                 | LTE-TDD                                    | 10.25 | ± 9.6 % |
|       | CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)                                                   | LTE-TDD                                    | 9.19  | ± 9.6 % |
| 0232  | CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)                                                 | LTE-TDD                                    | 9.48  | ± 9.6 % |
| 0233  | CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)                                                 | LTE-TDD                                    | 10.25 | ± 9.6 % |
| 0234  | CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)                                                   | LTE-TDD                                    | 9.21  | ± 9.6 % |
| 0235  | CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)                                                | LTE-TDD                                    | 9.48  | ± 9.6 % |
| 0236  | CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)                                                | LTE-TDD                                    | 10.25 | ± 9.6 % |
| 0237  | CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)                                                  | LTE-TDD                                    | 9.21  | ± 9.6 % |
| 0238  | CAB | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)                                                | LTE-TDD                                    | 9.48  | ± 9.6 % |
| 0239  | CAB | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)                                                | LTE-TDD                                    | 10.25 | ± 9.6 % |
| 0240  | CAB | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)                                                  | LTE-TDD                                    | 9.21  | ± 9.6 % |
| 0241  | CAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)                                             | LTE-TDD                                    | 9.82  | ± 9.6 % |
| 0242  | CAD | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)                                             | LTE-TDD                                    | 9.86  | ± 9.6 % |
| 0243  | CAD | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)                                               | LTE-TDD                                    | 9.46  | ± 9.6 % |
| 0244  | CAD | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)                                               | LTE-TDD                                    | 10.06 | ± 9.6 % |
| 0245  | CAG | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                                               | LTE-TDD                                    | 10.06 | ± 9.6 % |
| 0246  | CAG | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)                                                 | LTE-TDD                                    | 9.30  | ± 9.6 % |
| 0247  | CAG | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)                                               | LTE-TDD                                    | 9.91  | ± 9.6 % |
| 0248  | CAG | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)                                               | LTE-TDD                                    |       |         |
| 0249  | CAG | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)                                                 | LTE-TDD                                    | 10.09 | ± 9.6 % |
| 0250  | CAG | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)                                              | LTE-TDD                                    | 9.29  | ± 9.6 % |
| 0251  | CAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)                                              |                                            | 9.81  | ± 9.6 % |
| 0252  | CAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)                                                | LTE-TDD                                    | 10.17 | ± 9.6 % |
| 0253  | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)                                              | LTE-TDD                                    | 9.24  | ± 9.6 % |
| 0254  | CAB | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)                                              | LTE-TDD                                    | 9.90  | ± 9.6 % |
| 0255  | CAB | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 04-0AM)                                              | LTE-TDD                                    | 10.14 | ± 9.6 % |
| 0256  |     | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)<br>LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM) | LTE-TDD                                    | 9.20  | ± 9.6 % |
| 0257  | CAB | LTE-TOD (SC-EDMA, 100% RB, 1.4 MHZ, 16-QAM)                                            | LTE-TDD                                    | 9.96  | ± 9.6 % |
| 0258  | CAD | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)                                            | LTE-TDD                                    | 10.08 | ±9.6 %  |
| 0259  | CAD | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)                                              | LTE-TDD                                    | 9.34  | ± 9.6 % |
| 1203  | CAD | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)                                              | LTE-TDD                                    | 9.98  | ±9.6 %  |

| 10260 | CAG | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)                 | LTE-TDD  | 9.97  | ± 9.6 % |
|-------|-----|-----------------------------------------------------------|----------|-------|---------|
| 10261 | CAG | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)                   | LTE-TDD  | 9.24  | ± 9.6 % |
| 10262 | CAG | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)                 | LTE-TDD  | 9.83  | ± 9.6 % |
| 10263 | CAG | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)                 | LTE-TDD  | 10.16 | ± 9.6 % |
| 10264 | CAG | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)                   | LTE-TDD  | 9.23  | ± 9.6 % |
| 10265 | CAG | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)                | LTE-TDD  | 9.92  | ± 9.6 % |
| 10266 | CAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)                | LTE-TDD  | 10.07 | ± 9.6 % |
| 10267 | CAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)                  | LTE-TDD  | 9.30  | ± 9.6 % |
| 10268 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)                | LTE-TDD  | 10.06 | ± 9.6 % |
| 10269 | CAB | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)                | LTE-TDD  | 10.00 | ± 9.6 % |
| 10270 | CAB | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                  | LTE-TDD  | 9.58  | ± 9.6 % |
| 10274 | CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)                 | WCDMA    | 4.87  |         |
| 10275 | CAD | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)                  | WCDMA    | 3.96  | ± 9.6 % |
| 10277 | CAD | PHS (QPSK)                                                | PHS      | 11.81 | ± 9.6 % |
| 10278 | CAD | PHS (QPSK, BW 884MHz, Rolloff 0.5)                        | PHS      |       | ± 9.6 % |
| 10279 | CAG | PHS (QPSK, BW 884MHz, Rolloff 0.38)                       | PHS      | 11.81 | ± 9.6 % |
| 10290 | CAG | CDMA2000, RC1, SO55, Full Rate                            |          | 12.18 | ± 9.6 % |
| 10291 | CAG | CDMA2000, RC3, SO55, Full Rate                            | CDMA2000 | 3.91  | ± 9.6 % |
| 10292 | CAG | CDMA2000, RC3, SO32, Full Rate                            | CDMA2000 | 3.46  | ± 9.6 % |
| 10293 | CAG | CDMA2000, RC3, SO32, Pull Rate                            | CDMA2000 | 3.39  | ± 9.6 % |
| 10295 | CAG | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.                     | CDMA2000 | 3.50  | ± 9.6 % |
| 10297 |     | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)                   | CDMA2000 | 12.49 | ± 9.6 % |
| 10298 | CAF |                                                           | LTE-FDD  | 5.81  | ± 9.6 % |
| 10299 | CAF | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)                    | LTE-FDD  | 5.72  | ± 9.6 % |
| 10299 | CAF | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)                  | LTE-FDD  | 6.39  | ± 9.6 % |
| 10300 | CAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                  | LTE-FDD  | 6.60  | ± 9.6 % |
|       | CAC | IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)        | WiMAX    | 12.03 | ± 9.6 % |
| 10302 | CAB | IEEE 802,16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3CTRL) | WIMAX    | 12.57 | ± 9.6 % |
| 10303 | CAB | IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)       | WIMAX    | 12.52 | ± 9.6 % |
| 10304 | CAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)       | WIMAX    | 11.86 | ± 9.6 % |
| 10305 | CAA | IEEE 802.16e WIMAX (31:15, 10ms, 10MHz, 64QAM, PUSC)      | WIMAX    | 15.24 | ± 9.6 % |
| 0306  | CAA | IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 64QAM, PUSC)      | WIMAX    | 14.67 | ± 9.6 % |
| 10307 | AAB | IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, PUSC)       | WIMAX    | 14.49 | ± 9.6 % |
| 10308 | AAB | IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)      | WiMAX    | 14.46 | ± 9.6 % |
| 0309  | AAB | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM,AMC 2x3)    | WiMAX    | 14.58 | ± 9.6 % |
| 0310  | AAB | IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3     | WIMAX    | 14.57 | ± 9.6 % |
| 0311  | AAB | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                  | LTE-FDD  | 6.06  | ± 9.6 % |
| 0313  | AAD | iDEN 1:3                                                  | iDEN     | 10.51 | ± 9.6 % |
| 0314  | AAD | iDEN 1:6                                                  | iDEN     | 13.48 | ± 9.6 % |
| 0315  | AAD | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc dc)         | WLAN     | 1.71  | ± 9.6 % |
| 0316  | AAD | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc dc)     | WLAN     | 8.36  |         |
| 0317  | AAA | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc dc)           | WLAN     |       | ± 9.6 % |
| 0352  | AAA | Pulse Waveform (200Hz, 10%)                               | Generic  | 8.36  | ± 9.6 % |
| 0353  | AAA | Pulse Waveform (200Hz, 20%)                               | Generic  | 10.00 | ± 9.6 % |
| 0354  | AAA | Pulse Waveform (200Hz, 40%)                               | Generic  | 6.99  | ± 9.6 % |
| 0355  | AAA | Pulse Waveform (200Hz, 60%)                               | Generic  | 3.98  | ± 9.6 % |
| 0356  | AAA | Pulse Waveform (200Hz, 80%)                               |          | 2.22  | ± 9.6 % |
| 0387  | AAA | QPSK Waveform, 1 MHz                                      | Generic  | 0.97  | ± 9.6 % |
| 0388  | AAA | QPSK Waveform, 10 MHz                                     | Generic  | 5.10  | ± 9.6 % |
| 0396  | AAA | 64-QAM Waveform, 100 kHz                                  | Generic  | 5.22  | ± 9.6 % |
| 0399  |     | 64-QAM Waveform, 40 MHz                                   | Generic  | 6.27  | ± 9.6 % |
| 0400  | AAA |                                                           | Generic  | 6.27  | ± 9.6 % |
| 0400  | AAD | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc dc)               | WLAN     | 8.37  | ± 9.6 % |
| 0401  | AAA | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc dc)               | WLAN     | 8.60  | ± 9.6 % |
| 0402  | AAA | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc dc)               | WLAN     | 8.53  | ± 9.6 % |
|       | AAB | CDMA2000 (1xEV-DO, Rev. 0)                                | CDMA2000 | 3.76  | ± 9.6 % |
| 0404  | AAB | CDMA2000 (1xEV-DO, Rev. A)                                | CDMA2000 | 3.77  | ± 9.6 % |
| 0406  | AAD | CDMA2000, RC3, SO32, SCH0, Full Rate                      | CDMA2000 | 5.22  | ± 9.6 % |

| 10410 | AAA | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub=2,3,4,7,8,9)                                       | LTE-TDD  | 7.82  | ± 9.6 9 |
|-------|-----|-------------------------------------------------------------------------------------------------|----------|-------|---------|
| 10414 | AAA | WLAN CCDF, 64-QAM, 40MHz                                                                        | Generic  | 8.54  | ± 9.6 9 |
| 10415 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc dc)                                               | WLAN     | 1.54  | ± 9.6 9 |
| 10416 | AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc dc)                                           | WLAN     | 8.23  | ± 9.6 % |
| 10417 | AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc dc)                                               | WLAN     | 8.23  | ± 9.6 % |
| 10418 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Long)                                       | WLAN     | 8.14  | ± 9.6 9 |
| 10419 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Short)                                      | WLAN     | 8.19  | ± 9.6 9 |
| 10422 | AAA | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)                                                    | WLAN     | 8.32  | ± 9.6 9 |
| 10423 | AAA | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)                                                 | WLAN     | 8.47  |         |
| 10424 | AAE | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)                                                 | WLAN     | 8.40  | ± 9.6 % |
| 10425 | AAE | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                                                     | WLAN     |       | ± 9.6 % |
| 10426 | AAE | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)                                                   | WLAN     | 8.41  | ± 9.6 % |
| 10427 | AAB | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)                                                  | WLAN     | 8.45  | ± 9.6 % |
| 10430 | AAB | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                                                                |          | 8.41  | ± 9.6 % |
| 10431 | AAC | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                                                               | LTE-FDD  | 8.28  | ± 9.6 % |
| 10432 | AAB | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                                                               | LTE-FDD  | 8.38  | ± 9.6 % |
| 10433 | AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                                                               | LTE-FDD  | 8.34  | ± 9.6 % |
| 10434 | AAG | W-CDMA (BS Test Model 1, 64 DPCH)                                                               | LTE-FDD  | 8.34  | ± 9.6 % |
| 10435 |     |                                                                                                 | WCDMA    | 8.60  | ± 9.6 % |
| 10433 | AAA | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub)<br>LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%) | LTE-TDD  | 7.82  | ± 9.6 % |
| 10448 | AAA |                                                                                                 | LTE-FDD  | 7.56  | ± 9.6 % |
| 10449 | AAA | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)                                                  | LTE-FDD  | 7.53  | ± 9.6 % |
| 10445 | AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)                                                  | LTE-FDD  | 7.51  | ± 9.6 % |
| 10450 | AAA | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)                                                 | LTE-FDD  | 7.48  | ± 9.6 % |
|       | AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)                                                 | WCDMA    | 7.59  | ± 9.6 % |
| 10453 | AAC | Validation (Square, 10ms, 1ms)                                                                  | Test     | 10.00 | ± 9.6 % |
| 10456 | AAC | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc dc)                                                    | WLAN     | 8.63  | ± 9.6 % |
| 10457 | AAC | UMTS-FDD (DC-HSDPA)                                                                             | WCDMA    | 6.62  | ± 9.6 % |
| 10458 | AAC | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                                                          | CDMA2000 | 6.55  | ± 9.6 % |
| 10459 | AAC | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                                                          | CDMA2000 | 8.25  | ± 9.6 % |
| 10460 | AAC | UMTS-FDD (WCDMA, AMR)                                                                           | WCDMA    | 2.39  | ± 9.6 % |
| 10461 | AAC | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Sub)                                                  | LTE-TDD  | 7.82  | ± 9.6 % |
| 10462 | AAC | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Sub)                                                | LTE-TDD  | 8.30  | ± 9.6 % |
| 10463 | AAD | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Sub)                                                | LTE-TDD  | 8.56  | ± 9.6 % |
| 10464 | AAD | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Sub)                                                    | LTE-TDD  | 7.82  | ± 9.6 % |
| 0465  | AAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Sub)                                                  | LTE-TDD  | 8.32  | ± 9.6 % |
| 0466  | AAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Sub)                                                  | LTE-TDD  | 8.57  |         |
| 0467  | AAA | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub)                                                    | LTE-TDD  | 7.82  | ± 9.6 % |
| 0468  | AAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Sub)                                                  | LTE-TDD  |       | ± 9.6 % |
| 0469  | AAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Sub)                                                  | LTE-TDD  | 8.32  | ± 9.6 % |
| 0470  | AAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub)                                                   | LTE-TDD  | 8.56  | ± 9.6 % |
| 0471  | AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Sub)                                                 | LTE-TDD  | 7.82  | ± 9.6 % |
| 0472  | AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Sub)                                                 |          | 8.32  | ± 9.6 % |
| 0473  | AAA | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Sub)                                                   | LTE-TDD  | 8.57  | ± 9.6 % |
| 0474  | AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Sub)                                                 | LTE-TDD  | 7.82  | ± 9.6 % |
| 0475  | AAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Sub)                                                 | LTE-TDD  | 8.32  | ± 9.6 % |
| 0477  | AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Sub)                                                 | LTE-TDD  | 8.57  | ± 9.6 % |
| 0478  |     |                                                                                                 | LTE-TDD  | 8.32  | ± 9.6 % |
| 0478  | AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Sub)                                                 | LTE-TDD  | 8.57  | ±9.6 %  |
| 0479  | AAC | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Sub)                                                | LTE-TDD  | 7.74  | ±9.6 %  |
| 0480  | AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Sub)                                              | LTE-TDD  | 8.18  | ± 9.6 % |
|       | AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Sub)                                              | LTE-TDD  | 8.45  | ±9.6 %  |
| 0482  | AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Sub)                                                  | LTE-TDD  | 7.71  | ± 9.6 % |
| 0483  | AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, Sub)                                                   | LTE-TDD  | 8.39  | ± 9.6 % |
| 0484  | AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Sub)                                                | LTE-TDD  | 8.47  | ± 9.6 % |
| 0485  | AAB | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Sub)                                                  | LTE-TDD  | 7.59  | ± 9.6 % |
| 0486  | AAB | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Sub)                                                | LTE-TDD  | 8.38  | ± 9.6 % |
| 0487  | AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Sub)                                                | LTE-TDD  | 8.60  | ± 9.6 % |

### EUmmWV4 - SN: 9454

September 24, 2020

| 10488        | AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Sub)     | LTE-TDD | 7.70 | ± 9.6 9 |
|--------------|-----|-----------------------------------------------------|---------|------|---------|
| 10489        | AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.31 | ± 9.6 9 |
| 10490        | AAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10491        | AAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Sub)     | LTE-TDD | 7.74 | ± 9.6 % |
| 10492        | AAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.41 | ± 9.6 % |
| 10493        | AAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.55 | ± 9.6 % |
| 10494        | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Sub)     | LTE-TDD | 7.74 | ± 9.6 % |
| 10495        | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.37 | ± 9.6 % |
| 10496        | AAE | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10497        | AAE | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Sub)   | LTE-TDD | 7.67 | ± 9.6 % |
| 10498        | AAE | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Sub) | LTE-TDD | 8.40 | ± 9.6 % |
| 10499        | AAC | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Sub) | LTE-TDD | 8.68 | ± 9.6 % |
| 10500        | AAF | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Sub)     | LTE-TDD | 7.67 | ± 9.6 % |
| 10501        | AAF | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.44 | ± 9.6 % |
| 10502        | AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.52 | ± 9.6 % |
| 10503        | AAB | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Sub)     | LTE-TDD | 7.72 | ± 9.6 % |
| 10504        | AAB | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Sub)   | LTE-TDD | 8.31 | ± 9.6 % |
| 10505        | AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Sub)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10506        | AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Sub)    | LTE-TDD | 7.74 | ± 9.6 % |
| 10507        | AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Sub)  | LTE-TDD | 8.36 | ± 9.6 % |
| 10508        | AAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Sub)  | LTE-TDD | 8.55 | ± 9.6 % |
| 10509        | AAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Sub)    | LTE-TDD | 7.99 | ± 9.6 % |
| 10510        | AAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Sub)  | LTE-TDD | 8.49 | ± 9.6 % |
| 10511        | AAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Sub)  | LTE-TDD | 8.51 | ± 9.6 % |
| 10512        | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Sub)    | LTE-TDD | 7.74 | ± 9.6 % |
| 10513        | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Sub)  | LTE-TDD | 8.42 | ± 9.6 % |
| 10514        | AAE | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Sub)  | LTE-TDD | 8.45 | ± 9.6 % |
| 10515        | AAE | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc dc)   | WLAN    | 1.58 | ± 9.6 % |
| 10516        | AAE | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc dc) | WLAN    | 1.57 | ± 9.6 % |
| 10517        | AAF | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc dc)  | WLAN    | 1.58 | ± 9.6 % |
| 10518        | AAF | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc dc)   | WLAN    | 8.23 | ± 9.6 % |
| 10519        | AAF | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc dc)  | WLAN    | 8.39 | ± 9.6 % |
| 10520        | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc dc)  | WLAN    | 8.12 | ± 9.6 % |
| 10521        | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc dc)  | WLAN    | 7.97 | ± 9.6 % |
| 10522        | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc dc)  | WLAN    | 8.45 | ± 9.6 % |
| 10523        | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc dc)  | WLAN    | 8.08 | ± 9.6 % |
| 10524        | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc dc)  | WLAN    | 8.27 | ± 9.6 % |
| 10525        | AAC | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc dc)           | WLAN    | 8.36 | ± 9.6 % |
| 10526        | AAF | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc dc)           | WLAN    | 8.42 | ± 9.6 % |
| 0527<br>0528 | AAF | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc dc)           | WLAN    | 8.21 | ± 9.6 % |
| 0528         | AAF | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc dc)           | WLAN    | 8.36 | ± 9.6 % |
| 0529         | AAF | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc dc)           | WLAN    | 8.36 | ± 9.6 % |
| 0531         | AAF | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc dc)           | WLAN    | 8.43 | ± 9.6 % |
| 0532         | AAF | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc dc)           | WLAN    | 8.29 | ± 9.6 % |
| 0533         | AAE | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc dc)           | WLAN    | 8.38 | ± 9.6 % |
| 0535         | AAE | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc dc)           | WLAN    | 8.45 | ± 9.6 % |
| 0536         | AAE | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc dc)           | WLAN    | 8.45 | ± 9.6 % |
| 0536         | AAF | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc dc)           | WLAN    | 8.32 | ± 9.6 % |
| 0537         | AAF | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc dc)           | WLAN    | 8.44 | ± 9.6 % |
| 0538         | AAF | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc dc)           | WLAN    | 8.54 | ± 9.6 % |
| 0540         | AAA | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc dc)           | WLAN    | 8.39 | ±9.6 %  |
|              | AAA | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc dc)           | WLAN    | 8.46 | ± 9.6 % |
| 0542<br>0543 | AAA | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc dc)           | WLAN    | 8.65 | ± 9.6 % |
| 0543         | AAC | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc dc)           | WLAN    | 8.65 | ±9.6 %  |
|              | AAC | IEEE 802.11ac WIFi (80MHz, MCS0, 99pc dc)           | WLAN    | 8.47 | ±9.6 %  |
| 0545         | AAC | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc dc)           | WLAN    | 8.55 | ± 9.6 % |

#### EUmmWV4 - SN: 9454

September 24, 2020

| 10546 | AAC | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc dc)               | WLAN | 8.35 | ± 9.6 %     |
|-------|-----|---------------------------------------------------------|------|------|-------------|
| 10547 | AAC | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc dc)               | WLAN | 8.49 | ± 9.6 %     |
| 10548 | AAC | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc dc)               | WLAN | 8.37 | ± 9.6 %     |
| 10550 | AAC | IEEE 802.11ac WiFI (80MHz, MCS6, 99pc dc)               | WLAN | 8.38 | ± 9.6 %     |
| 10551 | AAC | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc dc)               | WLAN | 8.50 | ± 9.6 %     |
| 10552 | AAC | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc dc)               | WLAN | 8.42 | ± 9.6 %     |
| 10553 | AAC | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc dc)               | WLAN | 8.45 | ± 9.6 %     |
| 10554 | AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 99pc dc)              | WLAN | 8.48 | -           |
| 10555 | AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc dc)              | WLAN | 8.47 | ± 9.6 %     |
| 10556 | AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc dc)              | WLAN | 8.50 | ± 9.6 %     |
| 10557 | AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc dc)              | WLAN | 8.52 | ± 9.6 %     |
| 10558 | AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc dc)              | WLAN | 8.61 | ± 9.6 %     |
| 10560 | AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc dc)              | WLAN |      | ± 9.6 %     |
| 10561 | AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc dc)              | WLAN | 8.73 | ± 9.6 %     |
| 10562 | AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 99pc dc)              | WLAN | 8.56 | ± 9.6 %     |
| 10563 | AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc dc)              |      | 8.69 | ± 9.6 %     |
| 10564 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc dc)  | WLAN | 8.77 | ± 9.6 %     |
| 10565 | AAC | IEEE 802.11g Wil 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc dc)   | WLAN | 8.25 | ± 9.6 %     |
| 10566 | -   | IEEE 802.11g Wil 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc dc)  | WLAN | 8.45 | ± 9.6 %     |
| 10567 | AAC |                                                         | WLAN | 8.13 | ± 9.6 %     |
| 10568 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc dc) | WLAN | 8.00 | ± 9.6 %     |
| 10569 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc dc) | WLAN | 8.37 | ± 9.6 %     |
| 10570 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc dc) | WLAN | 8.10 | ± 9.6 %     |
| 10570 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc dc) | WLAN | 8.30 | ± 9.6 %     |
| 10572 | AAC | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc dc)       | WLAN | 1.99 | ± 9.6 %     |
|       | AAC | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc dc)       | WLAN | 1.99 | ± 9.6 %     |
| 10573 | AAC | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc dc)     | WLAN | 1.98 | ± 9.6 %     |
| 10574 | AAC | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc dc)      | WLAN | 1.98 | ± 9.6 %     |
| 10575 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc dc)  | WLAN | 8.59 | ± 9.6 %     |
| 10576 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc dc)  | WLAN | 8.60 | ± 9.6 %     |
| 10577 | AAC | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc dc) | WLAN | 8.70 | ± 9.6 %     |
| 10578 | AAD | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc dc) | WLAN | 8.49 | ± 9.6 %     |
| 10579 | AAD | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc dc) | WLAN | 8.36 | ± 9.6 %     |
| 10580 | AAD | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc dc) | WLAN | 8.76 | ± 9.6 %     |
| 10581 | AAD | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc dc) | WLAN | 8.35 | ± 9.6 %     |
| 0582  | AAD | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc dc) | WLAN | 8.67 | ± 9.6 %     |
| 10583 | AAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc dc)       | WLAN | 8.59 | ± 9.6 %     |
| 0584  | AAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc dc)       | WLAN | 8.60 | ± 9.6 %     |
| 0585  | AAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc dc)      | WLAN | 8.70 | ± 9.6 %     |
| 0586  | AAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc dc)      | WLAN | 8.49 | ± 9.6 %     |
| 0587  | AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc dc)      | WLAN | 8.36 | ± 9.6 %     |
| 0588  | AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc dc)      | WLAN | 8.76 | ± 9.6 %     |
| 0589  | AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc dc)      | WLAN | 8.35 | ± 9.6 %     |
| 0590  | AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc dc)      | WLAN | 8.67 | ± 9.6 %     |
| 0591  | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc dc)           | WLAN | 8.63 | ± 9.6 %     |
| 0592  | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc dc)           | WLAN | 8.79 | ± 9.6 %     |
| 0593  | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc dc)           | WLAN | 8.64 | ± 9.6 %     |
| 0594  | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc dc)           | WLAN | 8.74 | ± 9.6 %     |
| 0595  | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc dc)           | WLAN | 8.74 | ± 9.6 %     |
| 0596  | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc dc)           | WLAN | 8.71 | ± 9.6 %     |
| 0597  | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc dc)           | WLAN | 8.72 | -           |
| 0598  | AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc dc)           | WLAN |      | $\pm 9.6\%$ |
| 0599  | AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc dc)           | WLAN | 8.50 | ± 9.6 %     |
| 0600  | AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc dc)           | WLAN | 8.79 | ± 9.6 %     |
| 0601  | AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc dc)           |      | 8.88 | ± 9.6 %     |
|       | ~~~ |                                                         | WLAN | 8.82 | ±9.6 %      |
| 0602  | AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc dc)           | WLAN | 8.94 | ± 9.6 %     |

| 10605<br>10606<br>10607<br>10608<br>10609 | AAA<br>AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc dc)     | WLAN              | 8.76         | ± 9.6 %            |
|-------------------------------------------|------------|---------------------------------------------------|-------------------|--------------|--------------------|
| 10607<br>10608                            | AAC        |                                                   |                   | 0.97         | ± 9.6 %            |
| 10608                                     |            | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc dc)     | WLAN              | 8.82         | ± 9.6 %            |
|                                           | AAC        | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc dc)         | WLAN              | 8.64         | ± 9.6 %            |
| 10600                                     | AAC        | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc dc)         | WLAN              | 8.77         | ± 9.6 %            |
| 10009                                     | AAC        | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc dc)         | WLAN              | 8.57         | ± 9.6 %            |
| 10610                                     | AAC        | IEEE 802.11ac WiFI (20MHz, MCS3, 90pc dc)         | WLAN              | 8.78         | ± 9.6 %            |
| 10611                                     | AAC        | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc dc)         | WLAN              | 8.70         | ± 9.6 %            |
| 10612                                     | AAC        | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc dc)         | WLAN              | 8.77         | ± 9.6 %            |
| 10613                                     | AAC        | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc dc)         | WLAN              | 8.94         | ± 9.6 %            |
| 10614                                     | AAC        | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc dc)         | WLAN              | 8.59         | ± 9.6 %            |
| 10615                                     | AAC        | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc dc)         | WLAN              | 8.82         | ± 9.6 %            |
| 10616                                     | AAC        | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc dc)         | WLAN              | 8.82         |                    |
| 10617                                     | AAC        | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc dc)         | WLAN              | 8.81         | ± 9.6 %            |
| 10618                                     | AAC        | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc dc)         | WLAN              |              | ± 9.6 %            |
| 10619                                     | AAC        | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc dc)         | WLAN              | 8.58         | ± 9.6 %            |
| 10620                                     | AAC        | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc dc)         | WLAN              | 8.86         | ± 9.6 %            |
| 10621                                     | AAC        | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc dc)         |                   | 8.87         | ± 9.6 %            |
| 10622                                     | AAC        | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc dc)         | WLAN              | 8.77         | ± 9.6 %            |
| 10623                                     | AAC        | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc dc)         | WLAN              | 8.68         | ± 9.6 %            |
| 10624                                     | -          | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc dc)         | WLAN              | 8.82         | ± 9.6 %            |
| 10625                                     | AAC        | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc dc)         | WLAN              | 8.96         | ± 9.6 %            |
| 10626                                     | AAC        |                                                   | WLAN              | 8.96         | ± 9.6 %            |
| 10627                                     | AAC        | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc dc)         | WLAN              | 8.83         | ± 9.6 %            |
| 10628                                     | AAC        | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc dc)         | WLAN              | 8.88         | ± 9.6 %            |
| 10628                                     | AAC        | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc dc)         | WLAN              | 8.71         | ± 9.6 %            |
|                                           | AAC        | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc dc)         | WLAN              | 8.85         | ± 9.6 %            |
| 10630                                     | AAC        | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc dc)         | WLAN              | 8.72         | ± 9.6 %            |
| 10631                                     | AAC        | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc dc)         | WLAN              | 8.81         | ± 9.6 %            |
| 10632                                     | AAC        | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc dc)         | WLAN              | 8.74         | ± 9.6 %            |
| 10633                                     | AAC        | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc dc)         | WLAN              | 8.83         | ± 9.6 %            |
| 10634                                     | AAC        | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc dc)         | WLAN              | 8.80         | ± 9.6 %            |
| 10635                                     | AAC        | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc dc)         | WLAN              | 8.81         | ± 9.6 %            |
| 0636                                      | AAC        | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc dc)        | WLAN              | 8.83         | ± 9.6 %            |
| 0637                                      | AAC        | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc dc)        | WLAN              | 8.79         | ± 9.6 %            |
| 0638                                      | AAC        | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc dc)        | WLAN              | 8.86         | ± 9.6 %            |
| 0639                                      | AAC        | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc dc)        | WLAN              | 8.85         | ± 9.6 %            |
| 0640                                      | AAC        | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc dc)        | WLAN              | 8.98         | ± 9.6 %            |
| 0641                                      | AAC        | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc dc)        | WLAN              | 9.06         | ± 9.6 %            |
| 0642                                      | AAC        | IEEE 802.11ac WiFi (160MHz, MCS6, 90pc dc)        | WLAN              | 9.06         | ± 9.6 %            |
| 0643                                      | AAC        | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc dc)        | WLAN              | 8.89         | ± 9.6 %            |
| 0644                                      | AAC        | IEEE 802.11ac WiFi (160MHz, MCS8, 90pc dc)        | WLAN              | 9.05         | ± 9.6 %            |
| 0645                                      | AAC        | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc dc)        | WLAN              | 9.11         | ± 9.6 %            |
| 0646                                      | AAC        | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub=2,7)  | LTE-TDD           | 11.96        |                    |
| 0647                                      | AAC        | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub=2,7) | LTE-TDD           | 11.96        | ± 9.6 %            |
| 0648                                      | AAC        | CDMA2000 (1x Advanced)                            | CDMA2000          | 3.45         | ± 9.6 %            |
| 0652                                      | AAC        | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)    | LTE-TDD           |              | $\pm 9.6\%$        |
| 0653                                      | AAC        | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)   | LTE-TDD           | 6.91         | ± 9.6 %            |
| 0654                                      | AAC        | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)   |                   | 7.42         | ± 9.6 %            |
| 0655                                      | AAC        | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)   | LTE-TDD           | 6.96         | ± 9.6 %            |
| 0658                                      | AAC        | Pulse Waveform (200Hz, 10%)                       |                   | 7.21         | ± 9.6 %            |
|                                           | AAC        | Pulse Waveform (200Hz, 20%)                       | Test              | 10.00        | ± 9.6 %            |
|                                           | AAC        | Pulse Waveform (200Hz, 40%)                       | Test              | 6.99         | ± 9.6 %            |
|                                           | AAC        | Pulse Waveform (200Hz, 60%)                       | Test              | 3.98         | ±9.6 %             |
| 0000                                      | _          | Pulse Waveform (200Hz, 80%)                       | Test              | 2.22         | ± 9.6 %            |
|                                           | AAC        | Bluetooth Low Energy                              | Test              | 0.97         | ± 9.6 %            |
|                                           | AAC<br>AAD | IEEE 802.11ax (20MHz, MCS0, 90pc dc)              | Bluetooth<br>WLAN | 2.19<br>9.09 | ± 9.6 %<br>± 9.6 % |

#### EUmmWV4 - SN: 9454

September 24, 2020

| 10672 | AAD | IEEE 802.11ax (20MHz, MCS1, 90pc dc)  | WLAN | 8.57 | ± 9.6 % |
|-------|-----|---------------------------------------|------|------|---------|
| 10673 | AAD | IEEE 802.11ax (20MHz, MCS2, 90pc dc)  | WLAN | 8.78 | ± 9.6 % |
| 10674 | AAD | IEEE 802.11ax (20MHz, MCS3, 90pc dc)  | WLAN | 8.74 | ± 9.6 % |
| 10675 | AAD | IEEE 802.11ax (20MHz, MCS4, 90pc dc)  | WLAN | 8.90 | ± 9.6 % |
| 10676 | AAD | IEEE 802.11ax (20MHz, MCS5, 90pc dc)  | WLAN | 8.77 | ± 9.6 % |
| 10677 | AAD | IEEE 802.11ax (20MHz, MCS6, 90pc dc)  | WLAN | 8.73 | ± 9.6 % |
| 10678 | AAD | IEEE 802.11ax (20MHz, MCS7, 90pc dc)  | WLAN | 8.78 | ± 9.6 % |
| 10679 | AAD | IEEE 802.11ax (20MHz, MCS8, 90pc dc)  | WLAN | 8.89 | ± 9.6 % |
| 10680 | AAD | IEEE 802.11ax (20MHz, MCS9, 90pc dc)  | WLAN | 8.80 | ± 9.6 % |
| 10681 | AAG | IEEE 802.11ax (20MHz, MCS10, 90pc dc) | WLAN | 8.62 | ± 9.6 % |
| 10682 | AAF | IEEE 802.11ax (20MHz, MCS11, 90pc dc) | WLAN | 8.83 | ± 9.6 % |
| 10683 | AAA | IEEE 802.11ax (20MHz, MCS0, 99pc dc)  | WLAN | 8.42 | ± 9.6 % |
| 10684 | AAC | IEEE 802.11ax (20MHz, MCS1, 99pc dc)  | WLAN | 8.26 | ± 9.6 % |
| 10685 | AAC | IEEE 802.11ax (20MHz, MCS2, 99pc dc)  | WLAN | 8.33 | ± 9.6 % |
| 10686 | AAC | IEEE 802.11ax (20MHz, MCS3, 99pc dc)  | WLAN | 8.28 | ± 9.6 % |
| 10687 | AAE | IEEE 802.11ax (20MHz, MCS4, 99pc dc)  | WLAN | 8.45 | ± 9.6 % |
| 10688 | AAE | IEEE 802.11ax (20MHz, MCS5, 99pc dc)  | WLAN | 8.29 | ± 9.6 % |
| 10689 | AAD | IEEE 802.11ax (20MHz, MCS6, 99pc dc)  | WLAN |      | -       |
| 10690 | AAE | IEEE 802.11ax (20MHz, MCS7, 99pc dc)  | WLAN | 8.55 | ± 9.6 % |
| 10691 | AAB | IEEE 802.11ax (20MHz, MCS8, 99pc dc)  | WLAN | 8.29 | ± 9.6 % |
| 10692 | AAA | IEEE 802.11ax (20MHz, MCS9, 99pc dc)  | WLAN | 8.25 | ± 9.6 % |
| 10693 | AAA | IEEE 802.11ax (20MHz, MCS10, 99pc dc) | WLAN | 8.29 | ± 9.6 % |
| 10694 | AAA | IEEE 802.11ax (20MHz, MCS11, 99pc dc) |      | 8.25 | ± 9.6 % |
| 10695 | -   | IEEE 802.11ax (20MHz, MCS0, 90pc dc)  | WLAN | 8.57 | ± 9.6 % |
| 10696 | AAA | IEEE 802.11ax (40MHz, MCS1, 90pc dc)  | WLAN | 8.78 | ± 9.6 % |
| 10697 | AAA | IEEE 802.11ax (40MHz, MCS1, 90pc dc)  | WLAN | 8.91 | ± 9.6 % |
| 10698 | AAA | IEEE 802.11ax (40MHz, MCS2, 90pc dc)  | WLAN | 8.61 | ± 9.6 % |
| 10699 | AAA |                                       | WLAN | 8.89 | ± 9.6 % |
| 10700 | AAA | IEEE 802.11ax (40MHz, MCS4, 90pc dc)  | WLAN | 8.82 | ± 9.6 % |
| 10700 | AAA | IEEE 802.11ax (40MHz, MCS5, 90pc dc)  | WLAN | 8.73 | ± 9.6 % |
| 10702 | AAA | IEEE 802.11ax (40MHz, MCS6, 90pc dc)  | WLAN | 8.86 | ± 9.6 % |
| 10702 | AAA | IEEE 802.11ax (40MHz, MCS7, 90pc dc)  | WLAN | 8.70 | ± 9.6 % |
| 10703 | AAA | IEEE 802.11ax (40MHz, MCS8, 90pc dc)  | WLAN | 8.82 | ± 9.6 % |
| 10704 | AAA | IEEE 802.11ax (40MHz, MCS9, 90pc dc)  | WLAN | 8.56 | ± 9.6 % |
|       | AAA | IEEE 802.11ax (40MHz, MCS10, 90pc dc) | WLAN | 8.69 | ± 9.6 % |
| 10706 | AAC | IEEE 802.11ax (40MHz, MCS11, 90pc dc) | WLAN | 8.66 | ± 9.6 % |
| 10707 | AAC | IEEE 802.11ax (40MHz, MCS0, 99pc dc)  | WLAN | 8.32 | ± 9.6 % |
| 10708 | AAC | IEEE 802.11ax (40MHz, MCS1, 99pc dc)  | WLAN | 8.55 | ± 9.6 % |
| 10709 | AAC | IEEE 802.11ax (40MHz, MCS2, 99pc dc)  | WLAN | 8.33 | ± 9.6 % |
| 10710 | AAC | IEEE 802.11ax (40MHz, MCS3, 99pc dc)  | WLAN | 8.29 | ± 9.6 % |
| 10711 | AAC | IEEE 802.11ax (40MHz, MCS4, 99pc dc)  | WLAN | 8.39 | ± 9.6 % |
| 10712 | AAC | IEEE 802.11ax (40MHz, MCS5, 99pc dc)  | WLAN | 8.67 | ± 9.6 % |
| 10713 | AAC | IEEE 802.11ax (40MHz, MCS6, 99pc dc)  | WLAN | 8.33 | ± 9.6 % |
| 10714 | AAC | IEEE 802.11ax (40MHz, MCS7, 99pc dc)  | WLAN | 8.26 | ± 9.6 % |
| 10715 | AAC | IEEE 802.11ax (40MHz, MCS8, 99pc dc)  | WLAN | 8.45 | ± 9.6 % |
| 0716  | AAC | IEEE 802.11ax (40MHz, MCS9, 99pc dc)  | WLAN | 8.30 | ± 9.6 % |
| 0717  | AAC | IEEE 802.11ax (40MHz, MCS10, 99pc dc) | WLAN | 8.48 | ± 9.6 % |
| 0718  | AAC | IEEE 802.11ax (40MHz, MCS11, 99pc dc) | WLAN | 8.24 | ± 9.6 % |
| 0719  | AAC | IEEE 802.11ax (80MHz, MCS0, 90pc dc)  | WLAN | 8.81 | ± 9.6 % |
| 0720  | AAC | IEEE 802.11ax (80MHz, MCS1, 90pc dc)  | WLAN | 8.87 | ± 9.6 % |
| 0721  | AAC | IEEE 802.11ax (80MHz, MCS2, 90pc dc)  | WLAN | 8.76 | ± 9.6 % |
| 0722  | AAC | IEEE 802.11ax (80MHz, MCS3, 90pc dc)  | WLAN | 8.55 | ± 9.6 % |
| 0723  | AAC | IEEE 802.11ax (80MHz, MCS4, 90pc dc)  | WLAN | 8.70 | ± 9.6 % |
| 0724  | AAC | IEEE 802.11ax (80MHz, MCS5, 90pc dc)  | WLAN | 8.90 | ± 9.6 % |
| 0725  | AAC | IEEE 802.11ax (80MHz, MCS6, 90pc dc)  | WLAN | 8.74 | ± 9.6 % |
| 0726  | AAC | IEEE 802.11ax (80MHz, MCS7, 90pc dc)  | WLAN | 8.72 | ± 9.6 % |
| 0727  | AAC | IEEE 802.11ax (80MHz, MCS8, 90pc dc)  | WLAN | 8.66 | ± 9.6 % |

| 10728 | AAC | IEEE 802.11ax (80MHz, MCS9, 90pc dc)          | WLAN          | 8.65 | ± 9.6 %     |
|-------|-----|-----------------------------------------------|---------------|------|-------------|
| 10729 | AAC | IEEE 802.11ax (80MHz, MCS10, 90pc dc)         | WLAN          | 8.64 | ± 9.6 %     |
| 10730 | AAC | IEEE 802.11ax (80MHz, MCS11, 90pc dc)         | WLAN          | 8.67 | ± 9.6 9     |
| 10731 | AAC | IEEE 802.11ax (80MHz, MCS0, 99pc dc)          | WLAN          | 8.42 | ± 9.6 %     |
| 10732 | AAC | IEEE 802.11ax (80MHz, MCS1, 99pc dc)          | WLAN          | 8.46 | ± 9.6 %     |
| 10733 | AAC | IEEE 802.11ax (80MHz, MCS2, 99pc dc)          | WLAN          | 8.40 | ± 9.6 %     |
| 10734 | AAC | IEEE 802.11ax (80MHz, MCS3, 99pc dc)          | WLAN          | 8.25 | ± 9.6 %     |
| 10735 | AAC | IEEE 802.11ax (80MHz, MCS4, 99pc dc)          | WLAN          | 8.33 | ± 9.6 %     |
| 10736 | AAC | IEEE 802.11ax (80MHz, MCS5, 99pc dc)          | WLAN          | 8.27 | ± 9.6 %     |
| 10737 | AAC | IEEE 802.11ax (80MHz, MCS6, 99pc dc)          | WLAN          | 8.36 | ± 9.6 %     |
| 10738 | AAC | IEEE 802.11ax (80MHz, MCS7, 99pc dc)          | WLAN          | 8.42 | ± 9.6 %     |
| 10739 | AAC | IEEE 802.11ax (80MHz, MCS8, 99pc dc)          | WLAN          | 8.29 | ± 9.6 %     |
| 10740 | AAC | IEEE 802.11ax (80MHz, MCS9, 99pc dc)          | WLAN          | 8.48 | ± 9.6 %     |
| 10741 | AAC | IEEE 802.11ax (80MHz, MCS10, 99pc dc)         | WLAN          | 8.40 | ± 9.6 %     |
| 10742 | AAC | IEEE 802.11ax (80MHz, MCS11, 99pc dc)         | WLAN          | 8.43 | -           |
| 10743 | AAC | IEEE 802.11ax (160MHz, MCS0, 90pc dc)         | WLAN          | 8.94 | ± 9.6 %     |
| 10744 | AAC | IEEE 802.11ax (160MHz, MCS1, 90pc dc)         | WLAN          |      | ± 9.6 %     |
| 10745 | AAC | IEEE 802.11ax (160MHz, MCS2, 90pc dc)         | WLAN          | 9.16 | ± 9.6 %     |
| 10746 | AAC | IEEE 802.11ax (160MHz, MCS3, 90pc dc)         | WLAN          | 8.93 | ± 9.6 %     |
| 10747 | AAC | IEEE 802.11ax (160MHz, MCS4, 90pc dc)         | WLAN          | 9.11 | ± 9.6 %     |
| 10748 | AAC | IEEE 802.11ax (160MHz, MCS5, 90pc dc)         |               | 9.04 | ± 9.6 %     |
| 10749 | AAC | IEEE 802.11ax (160MHz, MCS6, 90pc dc)         | WLAN          | 8.93 | ± 9.6 %     |
| 10750 |     | IEEE 802.11ax (160MHz, MCS3, 90pc dc)         | WLAN          | 8.90 | ± 9.6 %     |
| 10751 | AAC | IEEE 802.11ax (160MHz, MCS7, 90pc dc)         | WLAN          | 8.79 | ± 9.6 %     |
| 10752 | AAC |                                               | WLAN          | 8.82 | ± 9.6 %     |
| 10753 | AAC | IEEE 802.11ax (160MHz, MCS9, 90pc dc)         | WLAN          | 8.81 | ± 9.6 %     |
| 10754 | AAC | IEEE 802.11ax (160MHz, MCS10, 90pc dc)        | WLAN          | 9.00 | ± 9.6 %     |
| 10755 | AAC | IEEE 802.11ax (160MHz, MCS11, 90pc dc)        | WLAN          | 8.94 | ± 9.6 %     |
| 10756 | AAC | IEEE 802.11ax (160MHz, MCS0, 99pc dc)         | WLAN          | 8.64 | ± 9.6 %     |
|       | AAC | IEEE 802.11ax (160MHz, MCS1, 99pc dc)         | WLAN          | 8.77 | ± 9.6 %     |
| 10757 | AAC | IEEE 802.11ax (160MHz, MCS2, 99pc dc)         | WLAN          | 8.77 | ± 9.6 %     |
| 10758 | AAC | IEEE 802.11ax (160MHz, MCS3, 99pc dc)         | WLAN          | 8.69 | ± 9.6 %     |
| 10759 | AAC | IEEE 802.11ax (160MHz, MCS4, 99pc dc)         | WLAN          | 8.58 | ± 9.6 %     |
| 10760 | AAC | IEEE 802.11ax (160MHz, MCS5, 99pc dc)         | WLAN          | 8.49 | ± 9.6 %     |
| 10761 | AAC | IEEE 802.11ax (160MHz, MCS6, 99pc dc)         | WLAN          | 8.58 | ± 9.6 %     |
| 10762 | AAC | IEEE 802.11ax (160MHz, MCS7, 99pc dc)         | WLAN          | 8.49 | ± 9.6 %     |
| 10763 | AAC | IEEE 802.11ax (160MHz, MCS8, 99pc dc)         | WLAN          | 8.53 | ± 9.6 %     |
| 10764 | AAC | IEEE 802.11ax (160MHz, MCS9, 99pc dc)         | WLAN          | 8.54 | ± 9.6 %     |
| 10765 | AAC | IEEE 802.11ax (160MHz, MCS10, 99pc dc)        | WLAN          | 8.54 | ± 9.6 %     |
| 10766 | AAC | IEEE 802.11ax (160MHz, MCS11, 99pc dc)        | WLAN          | 8.51 | ± 9.6 %     |
| 0767  | AAC | 5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)    | 5G NR FR1 TDD | 7.99 | ± 9.6 %     |
| 10768 | AAC | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD | 8.01 | ± 9.6 %     |
| 0769  | AAC | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD | 8.01 | ± 9.6 %     |
| 0770  | AAC | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD | 8.02 | ± 9.6 %     |
| 0771  | AAC | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD | 8.02 | ± 9.6 %     |
| 0772  | AAC | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD | 8.23 | ± 9.6 %     |
| 0773  | AAC | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD | 8.03 | ± 9.6 %     |
| 0774  | AAC | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)   | 5G NR FR1 TDD | 8.02 | ± 9.6 %     |
| 0775  | AAC | 5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)  | 5G NR FR1 TDD | 8.31 | ± 9.6 %     |
| 0776  | AAC | 5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.30 | ± 9.6 %     |
| 0777  | AAC | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.30 | ± 9.6 %     |
| 0778  | AAC | 5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.34 | ± 9.6 %     |
| 0779  | AAC | 5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.42 | ± 9.6 %     |
| 0780  | AAC | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.38 |             |
| 0781  | AAC | 5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.38 | ± 9.6 %     |
| 0782  | AAC | 5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.43 | $\pm 9.6\%$ |
| 0783  | AAC | 5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz) | 5G NR FR1 TDD | 8.31 | ±9.6 %      |

| 10784 | AAC | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)                                                   | 5G NR FR1 TDD | 8.29 | ± 9.6 9 |
|-------|-----|--------------------------------------------------------------------------------------------------|---------------|------|---------|
| 10785 | AAC | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)                                                   | 5G NR FR1 TDD | 8.40 | ± 9.6 9 |
| 10786 | AAC | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)                                                   | 5G NR FR1 TDD | 8.35 | ± 9.6 9 |
| 10787 | AAC | 5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)                                                   | 5G NR FR1 TDD | 8.44 | ± 9.6 9 |
| 10788 | AAC | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)                                                   | 5G NR FR1 TDD | 8.39 | ± 9.6 9 |
| 10789 | AAC | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)                                                   | 5G NR FR1 TDD | 8.37 | ± 9.6 % |
| 10790 | AAC | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)                                                   | 5G NR FR1 TDD | 8.39 | ± 9.6 9 |
| 10791 | AAC | 5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)                                                       | 5G NR FR1 TDD | 7.83 | ± 9.6 9 |
| 10792 | AAC | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)                                                      | 5G NR FR1 TDD | 7.92 | ± 9.6 9 |
| 10793 | AAC | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)                                                      | 5G NR FR1 TDD | 7.95 | ± 9.6 % |
| 10794 | AAC | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)                                                      | 5G NR FR1 TDD | 7.82 | ± 9.6 9 |
| 10795 | AAC | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)                                                      | 5G NR FR1 TDD | 7.84 | ± 9.6 9 |
| 10796 | AAC | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)                                                      | 5G NR FR1 TDD | 7.82 | ± 9.6 % |
| 10797 | AAC | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)                                                      | 5G NR FR1 TDD | -    |         |
| 10798 | AAC | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)                                                      | 5G NR FR1 TDD | 8.01 | ± 9.6 % |
| 10799 | AAC | 5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)                                                      | 5G NR FR1 TDD | 7.89 | ± 9.6 % |
| 10801 | AAC | 5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)                                                      |               | 7.93 | ± 9.6 % |
| 10802 | AAC | 5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)                                                      | 5G NR FR1 TDD | 7.89 | ± 9.6 % |
| 10803 | AAE | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)                                                     | 5G NR FR1 TDD | 7.87 | ± 9.6 % |
| 10805 | AAD | 5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)                                                    | 5G NR FR1 TDD | 7.93 | ± 9.6 % |
| 10806 | AAD | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)                                                    | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10809 | AAD | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)                                                    | 5G NR FR1 TDD | 8.37 | ± 9.6 % |
| 10810 | -   |                                                                                                  | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10812 | AAD | 5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)                                                    | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10817 | AAD | 5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)                                                    | 5G NR FR1 TDD | 8.35 | ± 9.6 % |
| 10818 | AAD | 5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)                                                    | 5G NR FR1 TDD | 8.35 | ± 9.6 % |
|       | AAD | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)                                                   | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 10819 | AAD | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)                                                   | 5G NR FR1 TDD | 8.33 | ± 9.6 % |
| 10820 | AAD | 5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)                                                   | 5G NR FR1 TDD | 8.30 | ± 9.6 % |
| 10821 | AAC | 5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)                                                   | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10822 | AAD | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)                                                   | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10823 | AAC | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)                                                   | 5G NR FR1 TDD | 8.36 | ± 9.6 % |
| 10824 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)                                                   | 5G NR FR1 TDD | 8.39 | ± 9.6 % |
| 10825 | AAD | 5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)                                                   | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 10827 | AAD | 5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)                                                   | 5G NR FR1 TDD | 8.42 | ± 9.6 % |
| 10828 | AAE | 5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)                                                   | 5G NR FR1 TDD | 8.43 | ± 9.6 % |
| 10829 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)                                                  | 5G NR FR1 TDD | 8.40 | ± 9.6 % |
| 10830 | AAD | 5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)                                                      | 5G NR FR1 TDD | 7.63 | ± 9.6 % |
| 10831 | AAD | 5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)                                                      | 5G NR FR1 TDD | 7.73 | ± 9.6 % |
| 10832 | AAD | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz)                                                      | 5G NR FR1 TDD | 7.74 | ± 9.6 % |
| 10833 | AAD | 5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)                                                      | 5G NR FR1 TDD | 7.70 | ± 9.6 % |
| 0834  | AAD | 5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)                                                      | 5G NR FR1 TDD | 7.75 | ± 9.6 % |
| 0835  | AAD | 5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)                                                      | 5G NR FR1 TDD | 7.70 | ± 9.6 % |
| 0836  | AAE | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)                                                      | 5G NR FR1 TDD | 7.66 | ± 9.6 % |
| 10837 | AAD | 5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)                                                      | 5G NR FR1 TDD | 7.68 |         |
| 0839  | AAD | 5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)                                                      | 5G NR FR1 TDD | 7.00 | ± 9.6 % |
| 0840  | AAD | 5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)                                                      | 5G NR FR1 TDD |      | ± 9.6 % |
| 0841  | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)                                                     | 5G NR FR1 TDD | 7.67 | ± 9.6 % |
| 0843  | AAD | 5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)                                                    | 5G NR FR1 TDD | 7.71 | ± 9.6 % |
| 0844  | AAD | 5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)                                                    |               | 8.49 | ± 9.6 % |
| 0846  | AAD | 5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)                                                    | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 0854  | AAD | 5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)                                                   | 5G NR FR1 TDD | 8.41 | ± 9.6 % |
| 0855  | AAD | 5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)                                                   | 5G NR FR1 TDD | 8.34 | ± 9.6 % |
| 0856  |     | 5G NR (CP-OFDM, 100% RB, 15 MHZ, QPSK, 60 KHZ)<br>5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz) | 5G NR FR1 TDD | 8.36 | ± 9.6 % |
| 0857  | AAD |                                                                                                  | 5G NR FR1 TDD | 8.37 | ± 9.6 % |
| 0858  | AAD | 5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)                                                   | 5G NR FR1 TDD | 8.35 | ± 9.6 % |
| 0858  | AAD | 5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)                                                   | 5G NR FR1 TDD | 8.36 | ± 9.6 % |
| 0009  | AAD | 5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)                                                   | 5G NR FR1 TDD | 8.34 | ±9.6 %  |

| 10860 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD                  | 8.41 | ± 9.6 % |
|-------|-----|------------------------------------------------------|--------------------------------|------|---------|
| 10861 | AAD | 5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD                  | 8.40 | ± 9.6 % |
| 10863 | AAD | 5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD                  | 8.41 | ± 9.6 % |
| 10864 | AAE | 5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)       | 5G NR FR1 TDD                  | 8.37 | ± 9.6 % |
| 10865 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz)      | 5G NR FR1 TDD                  | 8.41 | ± 9.6 % |
| 10866 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD                  | 5.68 | ± 9.6 % |
| 10868 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD                  | 5.89 | ± 9.6 % |
| 10869 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)     | 5G NR FR2 TDD                  | 5.75 | ± 9.6 % |
| 10870 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)  | 5G NR FR2 TDD                  | 5.86 | ± 9.6 % |
| 10871 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)    | 5G NR FR2 TDD                  | 5.75 | ± 9.6 % |
| 10872 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz) | 5G NR FR2 TDD                  | 6.52 | ± 9.6 % |
| 10873 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)    | 5G NR FR2 TDD                  | 6.61 | ± 9.6 % |
| 10874 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz) | 5G NR FR2 TDD                  | 6.65 | ± 9.6 % |
| 10875 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)        | 5G NR FR2 TDD                  | 7.78 | ± 9.6 % |
| 10876 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)     | 5G NR FR2 TDD                  | 8.39 | ± 9.6 % |
| 10877 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)       | 5G NR FR2 TDD                  | 7.95 | ± 9.6 % |
| 10878 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)    | 5G NR FR2 TDD                  | 8.41 | ± 9.6 % |
| 10879 | AAD | 5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)       | 5G NR FR2 TDD                  | 8.12 |         |
| 10880 | AAD | 5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)    | 5G NR FR2 TDD                  | 8.38 | ± 9.6 % |
| 10881 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)      | 5G NR FR2 TDD                  | 5.75 | ± 9.6 % |
| 10882 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)   | 5G NR FR2 TDD                  |      | ± 9.6 % |
| 10883 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)     | 5G NR FR2 TDD                  | 5.96 | ± 9.6 % |
| 10884 | AAD | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)  | 5G NR FR2 TDD                  | 6.57 | ± 9.6 % |
| 10885 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)     | 5G NR FR2 TDD                  | 6.53 | ± 9.6 % |
| 0886  | AAD | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)  | 5G NR FR2 TDD                  | 6.61 | ± 9.6 % |
| 0887  | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)         | 5G NR FR2 TDD                  | 6.65 | ± 9.6 % |
| 0888  | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)      |                                | 7.78 | ± 9.6 % |
| 0889  | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 KHz)        | 5G NR FR2 TDD<br>5G NR FR2 TDD | 8.35 | ± 9.6 % |
| 10890 | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)     |                                | 8.02 | ± 9.6 % |
| 10891 | AAD | 5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 KHz)        | 5G NR FR2 TDD                  | 8.40 | ± 9.6 % |
| 0892  | AAD | 5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 KHz)     | 5G NR FR2 TDD                  | 8.13 | ± 9.6 % |
| 10897 | AAD | 5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)        | 5G NR FR2 TDD                  | 8.41 | ± 9.6 % |
| 0898  | AAD | 5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD                  | 5.66 | ± 9.6 % |
| 0899  | AAD | 5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD                  | 5.67 | ± 9.6 % |
| 0900  | AAD | 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30 KHz)       | 5G NR FR1 TDD                  | 5.67 | ± 9.6 % |
| 0901  | AAD | 5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 KHz)       | 5G NR FR1 TDD                  | 5.68 | ± 9.6 % |
| 0902  | AAD | 5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 KHz)       | 5G NR FR1 TDD                  | 5.68 | ± 9.6 % |
| 0903  | AAD | 5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD                  | 5.68 | ± 9.6 % |
| 0904  | AAD | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD                  | 5.68 | ± 9.6 % |
| 0905  | AAD | 5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)       | 5G NR FR1 TDD                  | 5.68 | ± 9.6 % |
| 0906  | -   | 5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 KHz)       | 5G NR FR1 TDD                  | 5.68 | ± 9.6 % |
| 0907  | AAD | 5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz)      | 5G NR FR1 TDD                  | 5.68 | ± 9.6 % |
| 0908  | AAD |                                                      | 5G NR FR1 TDD                  | 5.78 | ± 9.6 % |
| 0909  | AAD | 5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD                  | 5.93 | ± 9.6 % |
| 0910  | AAD | 5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD                  | 5.96 | ± 9.6 % |
| 0910  | AAD | 5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD                  | 5.83 | ± 9.6 % |
| 0912  | AAD | 5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD                  | 5.93 | ± 9.6 % |
| 0913  | AAD | 5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD                  | 5.84 | ± 9.6 % |
| 0913  | AAD | 5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD                  | 5.84 | ± 9.6 % |
| 0914  | AAD | 5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD                  | 5.85 | ± 9.6 % |
| 0915  | AAD | 5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD                  | 5.83 | ± 9.6 % |
| 0916  | AAD | 5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD                  | 5.87 | ± 9.6 % |
|       | AAD | 5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD                  | 5.94 | ±9.6 %  |
| 0918  | AAD | 5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD                  | 5.86 | ± 9.6 % |
| 0919  | AAD | 5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD                  | 5.86 | ± 9.6 % |
| 0920  | AAD | 5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD                  | 5.87 | ± 9.6 % |
| 0921  | AAD | 5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)    | 5G NR FR1 TDD                  | 5.84 | ± 9.6 % |

#### EUmmWV4 - SN: 9454

September 24, 2020

| 10922 | AAD  | 5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.82          | ± 9.6 %            |
|-------|------|-----------------------------------------------------|---------------|---------------|--------------------|
| 10923 | AAD  | 5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.84          | ± 9.6 %            |
| 10924 | AAD  | 5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.84          | ± 9.6 %            |
| 10925 | AAD  | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.95          | ± 9.6 %            |
| 10926 | AAD  | 5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.84          | ± 9.6 %            |
| 10927 | AAD  | 5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)   | 5G NR FR1 TDD | 5.94          | ± 9.6 %            |
| 10928 | AAD  | 5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)       | 5G NR FR1 FDD | 5.52          | ± 9.6 %            |
| 10929 | AAD  | 5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.52          | ± 9.6 %            |
| 10930 | AAD  | 5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.52          | ± 9.6 %            |
| 10931 | AAD  | 5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51          | ± 9.6 %            |
| 10932 | AAB  | 5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51          | ± 9.6 %            |
| 10933 | AAA  | 5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51          | ± 9.6 %            |
| 10934 | AAA  | 5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51          | ± 9.6 %            |
| 10935 | AAA  | 5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)      | 5G NR FR1 FDD | 5.51          | ± 9.6 %            |
| 10936 | AAC  | 5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)     | 5G NR FR1 FDD | 5.90          | ± 9.6 %            |
| 10937 | AAB  | 5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.77          | ± 9.6 %            |
| 10938 | AAB  | 5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.90          | ± 9.6 %            |
| 10939 | AAB  | 5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.82          | ± 9.6 %            |
| 10940 | AAB  | 5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.89          | ± 9.6 %            |
| 10941 | AAB  | 5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.83          | ± 9.6 %            |
| 10942 | AAB  | 5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.85          | ± 9.6 %            |
| 10943 | AAB  | 5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.95          | ± 9.6 %            |
| 0944  | AAB  | 5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)    | 5G NR FR1 FDD | 5.81          | ± 9.6 %            |
| 0945  | AAB  | 5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.85          | ± 9.6 %            |
| 10946 | AAC  | 5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.83          | ± 9.6 %            |
| 10947 | AAB  | 5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.87          | ± 9.6 %            |
| 0948  | AAB  | 5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.94          | ± 9.6 %            |
| 0949  | AAB  | 5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.87          | ± 9.6 %            |
| 0950  | AAB  | 5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.94          | ± 9.6 %            |
| 0951  | AAB  | 5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)   | 5G NR FR1 FDD | 5.92          | ± 9.6 %            |
| 0952  | AAB  | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)   | 5G NR FR1 FDD | 8.25          | ± 9.6 %            |
| 0953  | AAB  | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 FDD | 8.15          | ± 9.6 %            |
| 0954  | AAB  | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 FDD | 8.23          | ± 9.6 %            |
| 0955  | AAB  | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 FDD | 8.42          |                    |
| 0956  | AAB  | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)   | 5G NR FR1 FDD | 8.14          | ± 9.6 %            |
| 0957  | AAC  | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 FDD | 8.31          | ± 9.6 %            |
| 0958  | AAB  | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 FDD |               |                    |
| 0959  | AAB  | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 FDD | 8.61<br>8.33  | ± 9.6 %<br>± 9.6 % |
| 0960  | AAB  | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)   | 5G NR FR1 TDD | 9.32          |                    |
| 0961  | AAB  | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 TDD | 9.36          | ± 9.6 %            |
| 0962  | AAB  | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 KHz)  | 5G NR FR1 TDD | 9.30          | ± 9.6 %            |
| 0963  | AAB  | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)  | 5G NR FR1 TDD | 9.40          | ± 9.6 %            |
| 0964  | AAB  | 5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)   | 5G NR FR1 TDD | 9.55          | $\pm 9.6\%$        |
| 0965  | AAB  | 5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 TDD | 9.29          | $\pm 9.6\%$        |
| 0966  | AAB  | 5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)  | 5G NR FR1 TDD |               | ± 9.6 %            |
| 0967  | AAB  | 5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 KHz)  | 5G NR FR1 TDD | 9.55          | $\pm 9.6\%$        |
| 0968  | AAB  | 5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 KHz) | 5G NR FR1 TDD | 9.42          | ± 9.6 %            |
| 0972  | AAB  | 5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)         | 5G NR FR1 TDD | 9.49<br>11.59 | ± 9.6 %            |
| 0973  | AAB  | 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)     | 5G NR FR1 TDD |               | ± 9.6 %            |
|       | 10.0 | US TREATED THE TOU WITZ, QESK, 30 KHZ)              | JOINT FRI IDD | 9.06          | ± 9.6 %            |

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.