10303-AAA	IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	X	5.78	67.02	19.02	4.96	50.0	± 9.6 %
		Y	5.06	65.55	17.98		50.0	
		Z	4.97	65.86	18.03		50.0	
10304-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	X	5.48	66.51	18.31	4.17	50.0	± 9.6 %
		Y	4.84	65.37	17.46		50.0	
		Z	4.75	65.67	17.49		50.0	
10305-AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	X	6.08	72.50	22.89	6.02	35.0	± 9.6 %
		Y	4.70	67.98	19.95		35.0	
		Z	4.73	69.00	20.20		35.0	
10306-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	X	5.79	68.34	20.52	6.02	35.0	± 9.6 %
		Y	4.91	66.57	19.26		35.0	
		Z	4.87	67.25	19.44		35.0	
10307-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	X	5.95	70.24	21.57	6.02	35.0	± 9.6 %
		Y	4.86	66.96	19.34		35.0	
		Z	4.81	67.58	19.49		35.0	
10308-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	X	5.95	70.59	21.77	6.02	35.0	± 9.6 %
		Y	4.83	67.14	19.47		35.0	
		Z	4.80	67.86	19.67		35.0	
10309-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	X	5.89	68.57	20.63	6.02	35.0	± 9.6 %
		Y	4.98	66.81	19.41		35.0	
		Z	4.92	67.45	19.58		35.0	
10310-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	5.76	68.46	20.49	6.02	35.0	± 9.6 %
		Y	4.87	66.70	19.27		35.0	
		Z	4.84	67.39	19.46		35.0	
10311-AAB	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	3.67	70.83	17.17	0.00	150.0	± 9.6 %
		Y	3.29	69.70	16.59		150.0	
		Z	3.13	69.21	16.37		150.0	
10313-AAA	iDEN 1:3	X	5.42	73.66	16.54	6.99	70.0	± 9.6 %
		Y	3.23	68.66	13.67		70.0	
		Z	3.24	69.09	13.89		70.0	
10314-AAA	iDEN 1:6	X	6.44	77.53	20.45	10.00	30.0	± 9.6 %
		Y	3.71	71.31	17.32		30.0	
		Z	3.76	72.02	17.68		30.0	
10315-AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	X	1.19	65.03	16.23	0.17	150.0	± 9.6 %
		Y	1.10	64.01	15.31		150.0	
		Z	1.09	63.89	15.13		150.0	
10316-AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	X	4.88	66.71	16.46	0.17	150.0	± 9.6 %
		Y	4.64	66.59	16.19		150.0	
		Z	4.54	66.61	16.15		150.0	
10317-AAB	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	X	4.88	66.71	16.46	0.17	150.0	± 9.6 %
		Y	4.64	66.59	16.19		150.0	
		Z	4.54	66.61	16.15		150.0	
10400-AAC	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	X	5.07	67.13	16.48	0.00	150.0	± 9.6 %
		Y	4.80	67.07	16.31		150.0	
		Z	4.66	67.04	16.26		150.0	
10401-AAC	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	X	5.65	67.18	16.52	0.00	150.0	± 9.6 %
		Y	5.44	67.12	16.38		150.0	
		Z	5.36	67.17	16.39		150.0	

EX3DV4– SN:3866　　　　　　　　　　　　　　　　May 31, 2017

10402-AAC	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	X	5.95	67.81	16.67	0.00	150.0	± 9.6 %
		Y	5.73	67.64	16.50		150.0	
		Z	5.61	67.51	16.42		150.0	
10403-AAB	CDMA2000 (1xEV-DO, Rev. 0)	X	2.08	72.13	17.20	0.00	115.0	± 9.6 %
		Y	1.73	70.79	15.54		115.0	
		Z	1.49	69.39	14.25		115.0	
10404-AAB	CDMA2000 (1xEV-DO, Rev. A)	X	2.08	72.13	17.20	0.00	115.0	± 9.6 %
		Y	1.73	70.79	15.54		115.0	
		Z	1.49	69.39	14.25		115.0	
10406-AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	X	25.96	105.00	28.55	0.00	100.0	± 9.6 %
		Y	35.97	107.39	27.34		100.0	
		Z	100.00	117.41	28.38		100.0	
10410-AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	39.66	105.40	27.14	3.23	80.0	± 9.6 %
		Y	5.60	78.79	17.37		80.0	
		Z	6.13	80.71	17.76		80.0	
10415-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	X	1.05	63.68	15.52	0.00	150.0	± 9.6 %
		Y	1.02	63.25	14.93		150.0	
		Z	1.01	63.14	14.73		150.0	
10416-AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	X	4.81	66.68	16.41	0.00	150.0	± 9.6 %
		Y	4.61	66.73	16.27		150.0	
		Z	4.51	66.73	16.21		150.0	
10417-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	X	4.81	66.68	16.41	0.00	150.0	± 9.6 %
		Y	4.61	66.73	16.27		150.0	
		Z	4.51	66.73	16.21		150.0	
10418-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	X	4.80	66.82	16.41	0.00	150.0	± 9.6 %
		Y	4.60	66.88	16.28		150.0	
		Z	4.50	66.90	16.24		150.0	
10419-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	X	4.82	66.78	16.43	0.00	150.0	± 9.6 %
		Y	4.62	66.83	16.29		150.0	
		Z	4.52	66.84	16.24		150.0	
10422-AAA	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	X	4.96	66.79	16.43	0.00	150.0	± 9.6 %
		Y	4.75	66.83	16.30		150.0	
		Z	4.64	66.83	16.25		150.0	
10423-AAA	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	X	5.21	67.23	16.59	0.00	150.0	± 9.6 %
		Y	4.94	67.18	16.43		150.0	
		Z	4.80	67.14	16.36		150.0	
10424-AAA	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	X	5.10	67.16	16.55	0.00	150.0	± 9.6 %
		Y	4.85	67.13	16.40		150.0	
		Z	4.72	67.09	16.33		150.0	
10425-AAA	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	X	5.64	67.50	16.68	0.00	150.0	± 9.6 %
		Y	5.42	67.40	16.52		150.0	
		Z	5.31	67.34	16.48		150.0	
10426-AAA	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	X	5.66	67.55	16.69	0.00	150.0	± 9.6 %
		Y	5.42	67.41	16.52		150.0	
		Z	5.32	67.37	16.49		150.0	

Certificate No: EX3-3866_May17　　　　　　　　Page 25 of 38

EX3DV4– SN:3866

May 31, 2017

10427-AAA	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	X	5.70	67.63	16.73	0.00	150.0	± 9.6 %
		Y	5.44	67.42	16.53		150.0	
		Z	5.33	67.35	16.48		150.0	
10430-AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	X	4.61	70.13	18.46	0.00	150.0	± 9.6 %
		Y	4.54	71.62	18.84		150.0	
		Z	4.34	71.47	18.45		150.0	
10431-AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	X	4.62	67.28	16.57	0.00	150.0	± 9.6 %
		Y	4.33	67.30	16.34		150.0	
		Z	4.19	67.30	16.21		150.0	
10432-AAA	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	X	4.90	67.21	16.56	0.00	150.0	± 9.6 %
		Y	4.62	67.17	16.36		150.0	
		Z	4.49	67.16	16.28		150.0	
10433-AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	X	5.13	67.24	16.60	0.00	150.0	± 9.6 %
		Y	4.86	67.17	16.42		150.0	
		Z	4.73	67.13	16.35		150.0	
10434-AAA	W-CDMA (BS Test Model 1, 64 DPCH)	X	4.70	70.75	18.51	0.00	150.0	± 9.6 %
		Y	4.71	72.68	18.95		150.0	
		Z	4.48	72.50	18.48		150.0	
10435-AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	37.53	104.49	26.87	3.23	80.0	± 9.6 %
		Y	5.44	78.34	17.17		80.0	
		Z	5.88	80.12	17.53		80.0	
10447-AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.97	67.39	16.31	0.00	150.0	± 9.6 %
		Y	3.65	67.40	15.84		150.0	
		Z	3.48	67.35	15.53		150.0	
10448-AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	X	4.41	67.05	16.43	0.00	150.0	± 9.6 %
		Y	4.16	67.08	16.20		150.0	
		Z	4.03	67.09	16.08		150.0	
10449-AAA	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	X	4.65	67.03	16.47	0.00	150.0	± 9.6 %
		Y	4.42	67.01	16.27		150.0	
		Z	4.30	66.99	16.19		150.0	
10450-AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.81	66.98	16.46	0.00	150.0	± 9.6 %
		Y	4.61	66.94	16.28		150.0	
		Z	4.50	66.91	16.21		150.0	
10451-AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	X	3.93	67.73	16.20	0.00	150.0	± 9.6 %
		Y	3.57	67.69	15.58		150.0	
		Z	3.37	67.51	15.13		150.0	
10456-AAA	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	X	6.49	68.19	16.87	0.00	150.0	± 9.6 %
		Y	6.27	67.99	16.68		150.0	
		Z	6.17	67.89	16.63		150.0	
10457-AAA	UMTS-FDD (DC-HSDPA)	X	3.92	65.38	16.20	0.00	150.0	± 9.6 %
		Y	3.83	65.36	16.00		150.0	
		Z	3.78	65.38	15.92		150.0	
10458-AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	X	3.67	66.56	15.63	0.00	150.0	± 9.6 %
		Y	3.38	66.92	15.01		150.0	
		Z	3.18	66.77	14.47		150.0	
10459-AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	X	4.75	64.52	15.97	0.00	150.0	± 9.6 %
		Y	4.38	64.72	15.57		150.0	
		Z	4.28	65.18	15.52		150.0	

Certificate No: EX3-3866_May17

Page 26 of 38

TRF-RF-601(03)161101

Prohibits the copying and re-issue of this report without DT&C approval.

Pages: 103 /204

EX3DV4– SN:3866 May 31, 2017

10460-AAA	UMTS-FDD (WCDMA, AMR)	X	1.12	71.77	18.52	0.00	150.0	± 9.6 %
		Y	0.94	69.07	16.80		150.0	
		Z	0.91	68.55	16.38		150.0	
10461-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	119.31	30.82	3.29	80.0	± 9.6 %
		Y	3.10	73.05	16.04		80.0	
		Z	2.89	73.54	16.13		80.0	
10462-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	18.95	88.90	20.75	3.23	80.0	± 9.6 %
		Y	1.38	61.26	8.79		80.0	
		Z	1.06	60.00	7.67		80.0	
10463-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	10.36	80.77	17.93	3.23	80.0	± 9.6 %
		Y	1.23	60.00	7.78		80.0	
		Z	1.08	60.00	7.25		80.0	
10464-AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	117.71	29.93	3.23	80.0	± 9.6 %
		Y	2.52	70.33	14.54		80.0	
		Z	2.25	70.28	14.39		80.0	
10465-AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	14.09	85.26	19.62	3.23	80.0	± 9.6 %
		Y	1.33	60.91	8.56		80.0	
		Z	1.06	60.00	7.62		80.0	
10466-AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	8.41	78.26	17.06	3.23	80.0	± 9.6 %
		Y	1.23	60.00	7.74		80.0	
		Z	1.08	60.00	7.21		80.0	
10467-AAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	117.87	30.00	3.23	80.0	± 9.6 %
		Y	2.60	70.71	14.71		80.0	
		Z	2.33	70.74	14.59		80.0	
10468-AAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	15.00	86.04	19.87	3.23	80.0	± 9.6 %
		Y	1.34	60.98	8.61		80.0	
		Z	1.05	60.00	7.63		80.0	
10469-AAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	8.49	78.39	17.10	3.23	80.0	± 9.6 %
		Y	1.23	60.00	7.73		80.0	
		Z	1.08	60.00	7.21		80.0	
10470-AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	117.89	30.01	3.23	80.0	± 9.6 %
		Y	2.59	70.68	14.70		80.0	
		Z	2.32	70.72	14.58		80.0	
10471-AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	14.99	86.02	19.85	3.23	80.0	± 9.6 %
		Y	1.33	60.96	8.58		80.0	
		Z	1.05	60.00	7.62		80.0	
10472-AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	8.47	78.36	17.08	3.23	80.0	± 9.6 %
		Y	1.23	60.00	7.72		80.0	
		Z	1.08	60.00	7.20		80.0	
10473-AAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	117.86	30.00	3.23	80.0	± 9.6 %
		Y	2.58	70.66	14.68		80.0	
		Z	2.32	70.69	14.56		80.0	
10474-AAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	14.86	85.93	19.82	3.23	80.0	± 9.6 %
		Y	1.33	60.94	8.58		80.0	
		Z	1.05	60.00	7.62		80.0	
10475-AAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	8.43	78.30	17.07	3.23	80.0	± 9.6 %
		Y	1.23	60.00	7.73		80.0	
		Z	1.07	60.00	7.20		80.0	

Certificate No: EX3-3866_May17 Page 27 of 38

EX3DV4– SN:3866　　　　　　　　　　　　　　　　　　　　May 31, 2017

10477-AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	14.24	85.37	19.64	3.23	80.0	± 9.6 %
		Y	1.32	60.87	8.52		80.0	
		Z	1.05	60.00	7.60		80.0	
10478-AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	8.34	78.16	17.01	3.23	80.0	± 9.6 %
		Y	1.23	60.00	7.72		80.0	
		Z	1.08	60.00	7.19		80.0	
10479-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	7.58	82.44	22.68	3.23	80.0	± 9.6 %
		Y	3.59	72.16	17.26		80.0	
		Z	3.82	73.96	17.62		80.0	
10480-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	8.66	80.46	20.82	3.23	80.0	± 9.6 %
		Y	3.62	69.25	14.74		80.0	
		Z	3.25	68.73	13.95		80.0	
10481-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	8.32	79.39	20.20	3.23	80.0	± 9.6 %
		Y	3.30	67.75	13.82		80.0	
		Z	2.81	66.70	12.77		80.0	
10482-AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.61	74.84	18.74	2.23	80.0	± 9.6 %
		Y	2.45	67.42	14.54		80.0	
		Z	2.17	66.40	13.61		80.0	
10483-AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	7.04	78.01	20.15	2.23	80.0	± 9.6 %
		Y	3.22	67.65	14.25		80.0	
		Z	2.72	66.06	12.91		80.0	
10484-AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	6.88	77.42	19.95	2.23	80.0	± 9.6 %
		Y	3.19	67.33	14.13		80.0	
		Z	2.68	65.67	12.75		80.0	
10485-AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.87	75.43	19.35	2.23	80.0	± 9.6 %
		Y	2.80	68.87	15.89		80.0	
		Z	2.65	68.70	15.57		80.0	
10486-AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.39	71.11	17.61	2.23	80.0	± 9.6 %
		Y	2.97	66.86	14.77		80.0	
		Z	2.74	66.32	14.11		80.0	
10487-AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.42	70.85	17.52	2.23	80.0	± 9.6 %
		Y	3.01	66.70	14.70		80.0	
		Z	2.77	66.11	14.01		80.0	
10488-AAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.15	74.67	19.27	2.23	80.0	± 9.6 %
		Y	3.29	69.38	16.67		80.0	
		Z	3.18	69.51	16.70		80.0	
10489-AAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.57	70.52	17.95	2.23	80.0	± 9.6 %
		Y	3.41	67.34	16.01		80.0	
		Z	3.29	67.38	15.90		80.0	
10490-AAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.64	70.21	17.86	2.23	80.0	± 9.6 %
		Y	3.52	67.30	16.03		80.0	
		Z	3.39	67.34	15.91		80.0	
10491-AAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.16	72.89	18.65	2.23	80.0	± 9.6 %
		Y	3.65	68.85	16.62		80.0	
		Z	3.54	68.96	16.70		80.0	
10492-AAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.86	69.73	17.79	2.23	80.0	± 9.6 %
		Y	3.83	67.17	16.24		80.0	
		Z	3.72	67.23	16.22		80.0	

Certificate No: EX3-3866_May17　　　　　　　　Page 28 of 38

EX3DV4– SN:3866   May 31, 2017

10493-AAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.93	69.55	17.75	2.23	80.0	± 9.6 %
		Y	3.91	67.12	16.25		80.0	
		Z	3.79	67.17	16.21		80.0	
10494-AAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.74	74.72	19.14	2.23	80.0	± 9.6 %
		Y	3.85	69.89	16.87		80.0	
		Z	3.73	69.95	16.96		80.0	
10495-AAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.96	70.37	18.01	2.23	80.0	± 9.6 %
		Y	3.85	67.52	16.39		80.0	
		Z	3.74	67.53	16.38		80.0	
10496-AAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.01	69.97	17.90	2.23	80.0	± 9.6 %
		Y	3.95	67.37	16.38		80.0	
		Z	3.83	67.39	16.37		80.0	
10497-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.01	73.25	17.74	2.23	80.0	± 9.6 %
		Y	1.93	64.71	12.56		80.0	
		Z	1.59	62.88	11.00		80.0	
10498-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.65	69.30	15.53	2.23	80.0	± 9.6 %
		Y	1.84	62.00	10.41		80.0	
		Z	1.45	60.03	8.60		80.0	
10499-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.67	69.04	15.33	2.23	80.0	± 9.6 %
		Y	1.83	61.70	10.14		80.0	
		Z	1.46	60.00	8.46		80.0	
10500-AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.83	74.54	19.13	2.23	80.0	± 9.6 %
		Y	2.97	68.88	16.15		80.0	
		Z	2.85	68.93	16.01		80.0	
10501-AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.45	70.72	17.68	2.23	80.0	± 9.6 %
		Y	3.17	67.08	15.27		80.0	
		Z	2.99	66.87	14.86		80.0	
10502-AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.49	70.49	17.57	2.23	80.0	± 9.6 %
		Y	3.24	67.03	15.21		80.0	
		Z	3.05	66.79	14.78		80.0	
10503-AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.08	74.48	19.18	2.23	80.0	± 9.6 %
		Y	3.26	69.22	16.59		80.0	
		Z	3.14	69.35	16.62		80.0	
10504-AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.55	70.45	17.91	2.23	80.0	± 9.6 %
		Y	3.39	67.26	15.96		80.0	
		Z	3.27	67.30	15.84		80.0	
10505-AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.62	70.13	17.82	2.23	80.0	± 9.6 %
		Y	3.50	67.21	15.98		80.0	
		Z	3.38	67.26	15.86		80.0	
10506-AAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.70	74.57	19.08	2.23	80.0	± 9.6 %
		Y	3.82	69.76	16.81		80.0	
		Z	3.70	69.84	16.89		80.0	
10507-AAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.94	70.30	17.97	2.23	80.0	± 9.6 %
		Y	3.84	67.45	16.35		80.0	
		Z	3.72	67.47	16.34		80.0	

Certificate No: EX3-3866_May17   Page 29 of 38

EX3DV4– SN:3866   May 31, 2017

10508-AAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.00	69.91	17.86	2.23	80.0	± 9.6 %
		Y	3.94	67.30	16.34		80.0	
		Z	3.82	67.33	16.33		80.0	
10509-AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.79	72.95	18.48	2.23	80.0	± 9.6 %
		Y	4.26	69.29	16.69		80.0	
		Z	4.14	69.32	16.77		80.0	
10510-AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.42	70.01	17.89	2.23	80.0	± 9.6 %
		Y	4.37	67.55	16.52		80.0	
		Z	4.25	67.52	16.53		80.0	
10511-AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.43	69.67	17.81	2.23	80.0	± 9.6 %
		Y	4.43	67.38	16.51		80.0	
		Z	4.31	67.37	16.51		80.0	
10512-AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.25	74.86	19.04	2.23	80.0	± 9.6 %
		Y	4.32	70.27	16.92		80.0	
		Z	4.20	70.27	16.99		80.0	
10513-AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.36	70.54	18.07	2.23	80.0	± 9.6 %
		Y	4.24	67.74	16.56		80.0	
		Z	4.12	67.67	16.56		80.0	
10514-AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.30	69.96	17.91	2.23	80.0	± 9.6 %
		Y	4.27	67.44	16.51		80.0	
		Z	4.16	67.39	16.51		80.0	
10515-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	X	1.02	63.96	15.65	0.00	150.0	± 9.6 %
		Y	0.98	63.45	15.00		150.0	
		Z	0.97	63.33	14.80		150.0	
10516-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	X	0.94	78.96	21.94	0.00	150.0	± 9.6 %
		Y	0.63	71.55	18.18		150.0	
		Z	0.60	70.68	17.59		150.0	
10517-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	X	0.92	67.01	16.91	0.00	150.0	± 9.6 %
		Y	0.84	65.58	15.77		150.0	
		Z	0.82	65.26	15.47		150.0	
10518-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	X	4.82	66.79	16.42	0.00	150.0	± 9.6 %
		Y	4.61	66.81	16.26		150.0	
		Z	4.50	66.81	16.20		150.0	
10519-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	X	5.08	67.12	16.56	0.00	150.0	± 9.6 %
		Y	4.81	67.06	16.38		150.0	
		Z	4.68	67.02	16.30		150.0	
10520-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.92	67.13	16.50	0.00	150.0	± 9.6 %
		Y	4.67	67.05	16.31		150.0	
		Z	4.53	66.99	16.23		150.0	
10521-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	X	4.85	67.15	16.50	0.00	150.0	± 9.6 %
		Y	4.60	67.05	16.30		150.0	
		Z	4.47	66.98	16.22		150.0	
10522-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	X	4.87	66.98	16.46	0.00	150.0	± 9.6 %
		Y	4.65	67.07	16.35		150.0	
		Z	4.53	67.08	16.31		150.0	

Certificate No: EX3-3866_May17   Page 30 of 38

EX3DV4– SN:3866   May 31, 2017

10523-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	X	4.75	66.99	16.37	0.00	150.0	± 9.6 %
		Y	4.53	66.97	16.21		150.0	
		Z	4.42	66.97	16.17		150.0	
10524-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	X	4.84	66.98	16.47	0.00	150.0	± 9.6 %
		Y	4.60	67.01	16.33		150.0	
		Z	4.47	67.00	16.27		150.0	
10525-AAA	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	X	4.77	66.04	16.07	0.00	150.0	± 9.6 %
		Y	4.57	66.07	15.93		150.0	
		Z	4.47	66.07	15.88		150.0	
10526-AAA	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	X	5.00	66.46	16.21	0.00	150.0	± 9.6 %
		Y	4.76	66.45	16.07		150.0	
		Z	4.63	66.42	16.01		150.0	
10527-AAA	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	X	4.92	66.48	16.20	0.00	150.0	± 9.6 %
		Y	4.67	66.43	16.03		150.0	
		Z	4.55	66.38	15.96		150.0	
10528-AAA	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	X	4.94	66.50	16.23	0.00	150.0	± 9.6 %
		Y	4.69	66.44	16.06		150.0	
		Z	4.56	66.40	15.99		150.0	
10529-AAA	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	X	4.94	66.50	16.23	0.00	150.0	± 9.6 %
		Y	4.69	66.44	16.06		150.0	
		Z	4.56	66.40	15.99		150.0	
10531-AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	X	4.97	66.67	16.25	0.00	150.0	± 9.6 %
		Y	4.70	66.57	16.08		150.0	
		Z	4.55	66.49	16.00		150.0	
10532-AAA	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	X	4.82	66.62	16.25	0.00	150.0	± 9.6 %
		Y	4.55	66.44	16.02		150.0	
		Z	4.42	66.35	15.93		150.0	
10533-AAA	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	X	4.96	66.50	16.19	0.00	150.0	± 9.6 %
		Y	4.70	66.48	16.04		150.0	
		Z	4.58	66.46	15.98		150.0	
10534-AAA	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	X	5.43	66.70	16.27	0.00	150.0	± 9.6 %
		Y	5.21	66.56	18.10		150.0	
		Z	5.10	66.47	16.03		150.0	
10535-AAA	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	X	5.52	66.87	16.33	0.00	150.0	± 9.6 %
		Y	5.27	66.70	16.15		150.0	
		Z	5.16	66.64	16.11		150.0	
10536-AAA	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	X	5.37	66.84	16.31	0.00	150.0	± 9.6 %
		Y	5.14	66.69	16.13		150.0	
		Z	5.03	66.60	16.07		150.0	
10537-AAA	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	X	5.44	66.79	16.28	0.00	150.0	± 9.6 %
		Y	5.20	66.65	16.12		150.0	
		Z	5.09	66.56	16.06		150.0	
10538-AAA	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	X	5.57	66.89	16.36	0.00	150.0	± 9.6 %
		Y	5.31	66.69	16.18		150.0	
		Z	5.17	66.57	16.10		150.0	
10540-AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	X	5.44	66.79	16.33	0.00	150.0	± 9.6 %
		Y	5.22	66.67	16.18		150.0	
		Z	5.10	66.57	16.12		150.0	

Certificate No: EX3-3866_May17   Page 31 of 38

EX3DV4– SN:3866   May 31, 2017

10541-AAA	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	X	5.46	66.82	16.35	0.00	150.0	± 9.6 %
		Y	5.20	66.57	16.13		150.0	
		Z	5.08	66.47	16.05		150.0	
10542-AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	X	5.58	66.75	16.33	0.00	150.0	± 9.6 %
		Y	5.35	66.62	16.16		150.0	
		Z	5.24	66.54	16.10		150.0	
10543-AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	X	5.72	66.87	16.39	0.00	150.0	± 9.6 %
		Y	5.43	66.64	16.19		150.0	
		Z	5.31	66.56	16.13		150.0	
10544-AAA	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	X	5.68	66.81	16.25	0.00	150.0	± 9.6 %
		Y	5.50	66.67	16.09		150.0	
		Z	5.41	66.59	16.03		150.0	
10545-AAA	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	X	5.89	67.14	16.34	0.00	150.0	± 9.6 %
		Y	5.69	67.04	16.21		150.0	
		Z	5.59	66.96	16.17		150.0	
10546-AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	X	5.81	67.15	16.37	0.00	150.0	± 9.6 %
		Y	5.58	66.92	16.17		150.0	
		Z	5.47	66.77	16.09		150.0	
10547-AAA	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	X	5.91	67.23	16.39	0.00	150.0	± 9.6 %
		Y	5.66	66.98	16.19		150.0	
		Z	5.54	66.81	16.10		150.0	
10548-AAA	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	X	6.14	68.03	16.76	0.00	150.0	± 9.6 %
		Y	5.88	67.79	16.56		150.0	
		Z	5.73	67.57	16.45		150.0	
10550-AAA	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	X	5.82	67.06	16.33	0.00	150.0	± 9.6 %
		Y	5.60	66.89	16.16		150.0	
		Z	5.50	66.80	16.11		150.0	
10551-AAA	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	X	5.83	67.13	16.32	0.00	150.0	± 9.6 %
		Y	5.61	66.96	16.16		150.0	
		Z	5.50	66.84	16.09		150.0	
10552-AAA	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	X	5.74	66.94	16.25	0.00	150.0	± 9.6 %
		Y	5.52	66.75	16.07		150.0	
		Z	5.43	66.67	16.02		150.0	
10553-AAA	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	X	5.83	66.97	16.29	0.00	150.0	± 9.6 %
		Y	5.61	66.80	16.12		150.0	
		Z	5.50	66.69	16.05		150.0	
10554-AAA	IEEE 1602.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	X	6.06	67.19	16.34	0.00	150.0	± 9.6 %
		Y	5.90	67.03	16.17		150.0	
		Z	5.82	66.94	16.11		150.0	
10555-AAA	IEEE 1602.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	X	6.26	67.62	16.52	0.00	150.0	± 9.6 %
		Y	6.03	67.32	16.29		150.0	
		Z	5.93	67.21	16.22		150.0	
10556-AAA	IEEE 1602.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	X	6.24	67.53	16.47	0.00	150.0	± 9.6 %
		Y	6.05	67.36	16.30		150.0	
		Z	5.96	67.26	16.24		150.0	
10557-AAA	IEEE 1602.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	X	6.24	67.54	16.50	0.00	150.0	± 9.6 %
		Y	6.03	67.30	16.29		150.0	
		Z	5.92	67.17	16.22		150.0	

Certificate No: EX3-3866_May17   Page 32 of 38

EX3DV4– SN:3866

May 31, 2017

10558-AAA	IEEE 1602.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	X	6.30	67.71	16.59	0.00	150.0	± 9.6 %
		Y	6.08	67.47	16.38		150.0	
		Z	5.97	67.32	16.31		150.0	
10560-AAA	IEEE 1602.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	X	6.32	67.63	16.59	0.00	150.0	± 9.6 %
		Y	6.08	67.33	16.36		150.0	
		Z	5.97	67.18	16.28		150.0	
10561-AAA	IEEE 1602.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	X	6.21	67.53	16.58	0.00	150.0	± 9.6 %
		Y	5.99	67.28	16.37		150.0	
		Z	5.89	67.14	16.29		150.0	
10562-AAA	IEEE 1602.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	X	6.36	67.97	16.80	0.00	150.0	± 9.6 %
		Y	6.12	67.67	16.56		150.0	
		Z	5.99	67.47	16.46		150.0	
10563-AAA	IEEE 1602.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	X	6.56	68.09	16.80	0.00	150.0	± 9.6 %
		Y	6.44	68.16	16.75		150.0	
		Z	6.14	67.53	16.44		150.0	
10564-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)	X	5.15	66.88	16.56	0.46	150.0	± 9.6 %
		Y	4.93	66.82	16.35		150.0	
		Z	4.82	66.84	16.31		150.0	
10565-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	X	5.46	67.42	16.90	0.46	150.0	± 9.6 %
		Y	5.18	67.32	16.70		150.0	
		Z	5.04	67.27	16.63		150.0	
10566-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle)	X	5.28	67.29	16.72	0.46	150.0	± 9.6 %
		Y	5.01	67.17	16.51		150.0	
		Z	4.88	67.12	16.44		150.0	
10567-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle)	X	5.30	67.69	17.07	0.46	150.0	± 9.6 %
		Y	5.04	67.62	16.90		150.0	
		Z	4.91	67.53	16.81		150.0	
10568-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle)	X	5.16	66.90	16.42	0.46	150.0	± 9.6 %
		Y	4.90	66.84	16.21		150.0	
		Z	4.78	66.86	16.19		150.0	
10569-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle)	X	5.23	67.67	17.07	0.46	150.0	± 9.6 %
		Y	4.99	67.67	16.93		150.0	
		Z	4.87	67.63	16.87		150.0	
10570-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle)	X	5.28	67.45	16.98	0.46	150.0	± 9.6 %
		Y	5.03	67.51	16.88		150.0	
		Z	4.90	67.48	16.81		150.0	
10571-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	X	1.35	66.13	16.64	0.46	130.0	± 9.6 %
		Y	1.19	64.43	15.36		130.0	
		Z	1.18	64.35	15.23		130.0	
10572-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	X	1.38	66.86	17.05	0.46	130.0	± 9.6 %
		Y	1.20	65.01	15.71		130.0	
		Z	1.19	64.89	15.56		130.0	
10573-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	X	11.19	110.54	30.57	0.46	130.0	± 9.6 %
		Y	1.73	81.41	21.20		130.0	
		Z	1.63	80.44	20.78		130.0	
10574-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	X	1.76	75.02	20.84	0.46	130.0	± 9.6 %
		Y	1.35	70.98	18.69		130.0	
		Z	1.30	70.28	18.27		130.0	

Certificate No: EX3-3866_May17

Page 33 of 38

EX3DV4– SN:3866   May 31, 2017

10575- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 90pc duty cycle)	X	4.93	66.62	16.56	0.46	130.0	± 9.6 %
		Y	4.69	66.49	16.28		130.0	
		Z	4.59	66.53	16.25		130.0	
10576- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 9 Mbps, 90pc duty cycle)	X	4.96	66.79	16.64	0.46	130.0	± 9.6 %
		Y	4.72	66.67	16.36		130.0	
		Z	4.61	66.70	16.32		130.0	
10577- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 12 Mbps, 90pc duty cycle)	X	5.24	67.17	16.82	0.46	130.0	± 9.6 %
		Y	4.94	67.00	16.54		130.0	
		Z	4.81	66.98	16.49		130.0	
10578- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 90pc duty cycle)	X	5.13	67.36	16.93	0.46	130.0	± 9.6 %
		Y	4.84	67.19	16.67		130.0	
		Z	4.71	67.15	16.60		130.0	
10579- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 90pc duty cycle)	X	4.90	66.75	16.31	0.46	130.0	± 9.6 %
		Y	4.59	66.39	15.91		130.0	
		Z	4.46	66.37	15.86		130.0	
10580- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 90pc duty cycle)	X	4.95	66.65	16.27	0.46	130.0	± 9.6 %
		Y	4.63	66.38	15.90		130.0	
		Z	4.51	66.41	15.89		130.0	
10581- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 90pc duty cycle)	X	5.05	67.49	16.90	0.46	130.0	± 9.6 %
		Y	4.73	67.22	16.59		130.0	
		Z	4.61	67.17	16.53		130.0	
10582- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 90pc duty cycle)	X	4.87	66.47	16.10	0.46	130.0	± 9.6 %
		Y	4.53	66.11	15.67		130.0	
		Z	4.40	66.12	15.64		130.0	
10583- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	X	4.93	66.62	16.56	0.46	130.0	± 9.6 %
		Y	4.69	66.49	16.28		130.0	
		Z	4.59	66.53	16.25		130.0	
10584- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	X	4.96	66.79	16.64	0.46	130.0	± 9.6 %
		Y	4.72	66.67	16.36		130.0	
		Z	4.61	66.70	16.32		130.0	
10585- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	X	5.24	67.17	16.82	0.46	130.0	± 9.6 %
		Y	4.94	67.00	16.54		130.0	
		Z	4.81	66.98	16.49		130.0	
10586- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	X	5.13	67.36	16.93	0.46	130.0	± 9.6 %
		Y	4.84	67.19	16.67		130.0	
		Z	4.71	67.15	16.60		130.0	
10587- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	X	4.90	66.75	16.31	0.46	130.0	± 9.6 %
		Y	4.59	66.39	15.91		130.0	
		Z	4.46	66.37	15.86		130.0	
10588- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	X	4.95	68.65	16.27	0.46	130.0	± 9.6 %
		Y	4.63	66.38	15.90		130.0	
		Z	4.51	66.41	15.89		130.0	
10589- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	X	5.05	67.49	16.90	0.46	130.0	± 9.6 %
		Y	4.73	67.22	16.59		130.0	
		Z	4.61	67.17	16.53		130.0	
10590- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	X	4.87	66.47	16.10	0.46	130.0	± 9.6 %
		Y	4.53	66.11	15.67		130.0	
		Z	4.40	66.12	15.64		130.0	

Certificate No: EX3-3866_May17   Page 34 of 38

EX3DV4– SN:3866

May 31, 2017

10591-AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	X	5.09	66.69	16.66	0.46	130.0	± 9.6 %
		Y	4.84	66.58	16.40		130.0	
		Z	4.74	66.60	16.36		130.0	
10592-AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	X	5.29	67.05	16.77	0.46	130.0	± 9.6 %
		Y	5.01	66.92	16.53		130.0	
		Z	4.89	66.93	16.49		130.0	
10593-AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	X	5.23	67.04	16.70	0.46	130.0	± 9.6 %
		Y	4.93	66.84	16.41		130.0	
		Z	4.80	66.82	16.36		130.0	
10594-AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	X	5.27	67.16	16.83	0.46	130.0	± 9.6 %
		Y	4.99	67.01	16.57		130.0	
		Z	4.86	66.99	16.52		130.0	
10595-AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	X	5.27	67.18	16.76	0.46	130.0	± 9.6 %
		Y	4.95	66.95	16.45		130.0	
		Z	4.82	66.94	16.41		130.0	
10596-AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	X	5.19	67.13	16.73	0.46	130.0	± 9.6 %
		Y	4.89	66.93	16.44		130.0	
		Z	4.76	66.93	16.41		130.0	
10597-AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	X	5.15	67.11	16.67	0.46	130.0	± 9.6 %
		Y	4.84	66.84	16.33		130.0	
		Z	4.71	66.82	16.28		130.0	
10598-AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	X	5.13	67.41	16.95	0.46	130.0	± 9.6 %
		Y	4.83	67.13	16.63		130.0	
		Z	4.70	67.07	16.55		130.0	
10599-AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	X	5.77	67.42	16.87	0.46	130.0	± 9.6 %
		Y	5.50	67.15	16.59		130.0	
		Z	5.39	67.08	16.55		130.0	
10600-AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	X	5.99	68.01	17.13	0.46	130.0	± 9.6 %
		Y	5.64	67.53	16.75		130.0	
		Z	5.50	67.43	16.69		130.0	
10601-AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	X	5.84	67.66	16.97	0.46	130.0	± 9.6 %
		Y	5.53	67.30	16.65		130.0	
		Z	5.41	67.23	16.61		130.0	
10602-AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	X	5.96	67.73	16.92	0.46	130.0	± 9.6 %
		Y	5.61	67.25	16.54		130.0	
		Z	5.51	67.30	16.56		130.0	
10603-AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	X	6.09	68.14	17.25	0.46	130.0	± 9.6 %
		Y	5.71	67.64	16.87		130.0	
		Z	5.58	67.56	16.83		130.0	
10604-AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	X	5.79	67.43	16.89	0.46	130.0	± 9.6 %
		Y	5.50	67.09	16.59		130.0	
		Z	5.43	67.15	16.61		130.0	
10605-AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	X	5.88	67.61	16.98	0.46	130.0	± 9.6 %
		Y	5.60	67.34	16.70		130.0	
		Z	5.50	67.35	16.70		130.0	
10606-AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	X	5.64	67.11	16.61	0.46	130.0	± 9.6 %
		Y	5.38	66.83	16.31		130.0	
		Z	5.25	66.71	16.24		130.0	

Certificate No: EX3-3866_May17

Page 35 of 38

EX3DV4– SN:3866   May 31, 2017

10607-AAA	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	X	4.91	65.98	16.27	0.46	130.0	± 9.6 %
		Y	4.67	65.88	16.01		130.0	
		Z	4.58	65.91	15.98		130.0	
10608-AAA	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	X	5.16	66.42	16.42	0.46	130.0	± 9.6 %
		Y	4.87	66.29	16.18		130.0	
		Z	4.75	66.30	16.14		130.0	
10609-AAA	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	X	5.04	66.34	16.31	0.46	130.0	± 9.6 %
		Y	4.76	66.13	16.01		130.0	
		Z	4.64	66.13	15.97		130.0	
10610-AAA	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	X	5.10	66.49	16.46	0.46	130.0	± 9.6 %
		Y	4.81	66.31	16.18		130.0	
		Z	4.69	66.30	16.14		130.0	
10611-AAA	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	X	5.04	66.38	16.34	0.46	130.0	± 9.6 %
		Y	4.73	66.11	16.02		130.0	
		Z	4.61	66.09	15.98		130.0	
10612-AAA	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	X	5.05	66.47	16.34	0.46	130.0	± 9.6 %
		Y	4.74	66.23	16.04		130.0	
		Z	4.61	66.23	16.01		130.0	
10613-AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	X	5.07	66.42	16.27	0.46	130.0	± 9.6 %
		Y	4.75	66.14	15.94		130.0	
		Z	4.61	66.10	15.89		130.0	
10614-AAA	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	X	5.00	66.68	16.54	0.46	130.0	± 9.6 %
		Y	4.69	66.38	16.21		130.0	
		Z	4.56	66.32	16.14		130.0	
10615-AAA	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	X	5.03	66.12	16.09	0.46	130.0	± 9.6 %
		Y	4.72	65.88	15.77		130.0	
		Z	4.60	65.91	15.74		130.0	
10616-AAA	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	X	5.57	66.66	16.47	0.46	130.0	± 9.6 %
		Y	5.32	66.41	16.21		130.0	
		Z	5.21	66.36	16.18		130.0	
10617-AAA	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	X	5.66	66.81	16.51	0.46	130.0	± 9.6 %
		Y	5.37	66.51	16.23		130.0	
		Z	5.28	66.52	16.23		130.0	
10618-AAA	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	X	5.53	66.83	16.55	0.46	130.0	± 9.6 %
		Y	5.27	66.59	16.29		130.0	
		Z	5.17	66.54	16.25		130.0	
10619-AAA	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	X	5.55	66.62	16.38	0.46	130.0	± 9.6 %
		Y	5.29	66.38	16.11		130.0	
		Z	5.18	66.32	16.08		130.0	
10620-AAA	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	X	5.70	66.80	16.51	0.46	130.0	± 9.6 %
		Y	5.39	66.47	16.20		130.0	
		Z	5.27	66.37	16.15		130.0	
10621-AAA	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	X	5.67	66.88	16.66	0.46	130.0	± 9.6 %
		Y	5.39	66.61	16.40		130.0	
		Z	5.28	66.53	16.35		130.0	
10622-AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	X	5.64	66.90	16.67	0.46	130.0	± 9.6 %
		Y	5.39	66.71	16.44		130.0	
		Z	5.28	66.67	16.42		130.0	

Certificate No: EX3-3866_May17   Page 36 of 38

EX3DV4– SN:3866 May 31, 2017

10623-AAA	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	X	5.58	66.69	16.45	0.46	130.0	± 9.6 %
		Y	5.27	66.24	16.08		130.0	
		Z	5.16	66.20	16.05		130.0	
10624-AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	X	5.72	66.66	16.50	0.46	130.0	± 9.6 %
		Y	5.46	66.44	16.25		130.0	
		Z	5.35	66.40	16.21		130.0	
10625-AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	X	6.02	67.31	16.86	0.46	130.0	± 9.6 %
		Y	5.83	67.39	16.77		130.0	
		Z	5.66	67.19	16.66		130.0	
10626-AAA	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	X	5.80	66.70	16.41	0.46	130.0	± 9.6 %
		Y	5.59	66.47	16.17		130.0	
		Z	5.51	66.43	16.14		130.0	
10627-AAA	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	X	6.04	67.10	16.54	0.46	130.0	± 9.6 %
		Y	5.82	66.97	16.37		130.0	
		Z	5.73	66.93	16.35		130.0	
10628-AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	X	5.89	66.92	16.41	0.46	130.0	± 9.6 %
		Y	5.64	66.58	16.10		130.0	
		Z	5.53	66.47	16.06		130.0	
10629-AAA	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	X	6.00	67.02	16.44	0.46	130.0	± 9.6 %
		Y	5.73	66.66	16.13		130.0	
		Z	5.60	66.52	16.07		130.0	
10630-AAA	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	X	6.47	68.52	17.19	0.46	130.0	± 9.6 %
		Y	6.14	68.04	16.82		130.0	
		Z	5.94	67.72	16.68		130.0	
10631-AAA	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	X	6.47	68.60	17.41	0.46	130.0	± 9.6 %
		Y	6.09	68.05	17.04		130.0	
		Z	5.91	67.74	16.88		130.0	
10632-AAA	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	X	6.09	67.42	16.84	0.46	130.0	± 9.6 %
		Y	5.81	67.11	16.59		130.0	
		Z	5.71	67.03	16.54		130.0	
10633-AAA	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	X	6.02	67.23	16.58	0.46	130.0	± 9.6 %
		Y	5.72	66.79	16.24		130.0	
		Z	5.61	66.68	16.19		130.0	
10634-AAA	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	X	6.01	67.25	16.65	0.46	130.0	± 9.6 %
		Y	5.71	66.84	16.34		130.0	
		Z	5.59	66.71	16.27		130.0	
10635-AAA	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	X	5.88	66.55	16.04	0.46	130.0	± 9.6 %
		Y	5.57	66.09	15.67		130.0	
		Z	5.46	66.00	15.63		130.0	
10636-AAA	IEEE 1602.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	X	6.19	67.09	16.50	0.46	130.0	± 9.6 %
		Y	6.00	66.85	16.26		130.0	
		Z	5.92	66.78	16.22		130.0	
10637-AAA	IEEE 1602.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	X	6.42	67.60	16.73	0.46	130.0	± 9.6 %
		Y	6.15	67.20	16.41		130.0	
		Z	6.07	67.13	16.38		130.0	
10638-AAA	IEEE 1602.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	X	6.36	67.41	16.61	0.46	130.0	± 9.6 %
		Y	6.15	67.18	16.37		130.0	
		Z	6.07	67.12	16.35		130.0	

Certificate No: EX3-3866_May17 Page 37 of 38

EX3DV4– SN:3866

May 31, 2017

10639-AAA	IEEE 1602.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	X	6.39	67.51	16.71	0.46	130.0	± 9.6 %
		Y	6.15	67.18	16.43		130.0	
		Z	6.05	67.07	16.37		130.0	
10640-AAA	IEEE 1602.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	X	6.42	67.57	16.68	0.46	130.0	± 9.6 %
		Y	6.15	67.18	16.36		130.0	
		Z	6.04	67.05	16.30		130.0	
10641-AAA	IEEE 1602.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	X	6.42	67.34	16.58	0.46	130.0	± 9.6 %
		Y	6.17	67.01	16.29		130.0	
		Z	6.09	66.98	16.28		130.0	
10642-AAA	IEEE 1602.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	X	6.53	67.76	16.96	0.46	130.0	± 9.6 %
		Y	6.25	67.39	16.66		130.0	
		Z	6.14	67.25	16.60		130.0	
10643-AAA	IEEE 1602.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	X	6.32	67.36	16.66	0.46	130.0	± 9.6 %
		Y	6.06	66.99	16.35		130.0	
		Z	5.97	66.91	16.32		130.0	
10644-AAA	IEEE 1602.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	X	6.56	68.07	17.04	0.46	130.0	± 9.6 %
		Y	6.25	67.56	16.65		130.0	
		Z	6.11	67.33	16.55		130.0	
10645-AAA	IEEE 1602.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	X	6.75	68.14	17.02	0.46	130.0	± 9.6 %
		Y	6.64	68.25	16.94		130.0	
		Z	6.31	67.55	16.62		130.0	
10646-AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	X	17.14	96.60	31.35	9.30	60.0	± 9.6 %
		Y	11.66	91.33	28.76		60.0	
		Z	14.54	98.42	31.68		60.0	
10647-AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	X	17.01	97.08	31.61	9.30	60.0	± 9.6 %
		Y	11.05	90.83	28.68		60.0	
		Z	13.46	97.50	31.51		60.0	
10648-AAA	CDMA2000 (1x Advanced)	X	1.00	66.85	14.21	0.00	150.0	± 9.6 %
		Y	0.78	64.69	11.99		150.0	
		Z	0.68	63.70	10.81		150.0	

[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Certificate No: EX3-3866_May17   Page 38 of 38

ꗦ Dt&C

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

ilac-MRA

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

Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Client   **DT&C (Dymstec)**

Certificate No: **EX3-3930_Jul17**

CALIBRATION CERTIFICATE

Object	EX3DV4 - SN:3930
Calibration procedure(s)	A CAL-01.v9, QA CAL-14.v4, QA CAL-23.v5, QA CAL-25.v6 Calibration procedure for dosimetric E-field probes
Calibration date:	July 26, 2017

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	04-Apr-17 (No. 217-02521/02522)	Apr-18
Power sensor NRP-Z91	SN: 103244	04-Apr-17 (No. 217-02521)	Apr-18
Power sensor NRP-Z91	SN: 103245	04-Apr-17 (No. 217-02525)	Apr-18
Reference 20 dB Attenuator	SN: S5277 (20x)	07-Apr-17 (No. 217-02528)	Apr-18
Reference Probe ES3DV2	SN: 3013	31-Dec-16 (No. ES3-3013_Dec16)	Dec-17
DAE4	SN: 660	7-Dec-16 (No. DAE4-660_Dec16)	Dec-17

Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-16)	In house check: Jun-18
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-16)	In house check: Oct-17

	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	*M.Weber*
Approved by:	Katja Pokovic	Technical Manager	

Issued: July 26, 2017

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: EX3-3930_Jul17

Page 1 of 38

Dt&C

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

ilac-MRA

S C S

Schweizerischer Kalibrierdienst
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

Accreditation No.: **SCS 0108**

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 ϑ	ϑ 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 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

b) IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016

c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices 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 ≤ 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 E²-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 ≤ 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 ± 50 MHz to ± 100 MHz.
- *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: EX3-3930_Jul17

Page 2 of 38

Probe EX3DV4

SN:3930

Manufactured: July 24, 2013
Calibrated: July 26, 2017

Calibrated for DASY/EASY Systems
(Note: non-compatible with DASY2 system!)

Dt&C

EX3DV4– SN:3930   July 26, 2017

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3930

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$)[A]	0.41	0.48	0.41	± 10.1 %
DCP (mV)[B]	102.3	100.5	102.3	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√µV	C	D dB	VR mV	Unc[E] (k=2)
0	CW	X	0.0	0.0	1.0	0.00	156.8	±3.3 %
		Y	0.0	0.0	1.0		166.7	
		Z	0.0	0.0	1.0		161.8	

Note: For details on UID parameters see Appendix.

Sensor Model Parameters

	C1 fF	C2 fF	α V^{-1}	T1 ms.V^{-2}	T2 ms.V^{-1}	T3 ms	T4 V^{-2}	T5 V^{-1}	T6
X	42.59	309.7	34.17	18.79	0.314	5.099	0.610	0.364	1.003
Y	37.98	282.6	35.37	16.16	0.628	5.077	0.521	0.401	1.005
Z	42.19	308.3	34.31	21.95	0.506	5.100	1.499	0.287	1.006

> 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%.

[A] The uncertainties of Norm X,Y,Z do not affect the E^2-field uncertainty inside TSL (see Pages 5 and 6).
[B] Numerical linearization parameter: uncertainty not required.
[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Certificate No: EX3-3930_Jul17   Page 4 of 38

EX3DV4– SN:3930

July 26, 2017

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3930

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unc (k=2)
2450	39.2	1.80	7.87	7.87	7.87	0.37	0.90	± 12.0 %
2600	39.0	1.96	7.73	7.73	7.73	0.38	0.92	± 12.0 %
5200	36.0	4.66	5.46	5.46	5.46	0.35	1.80	± 13.1 %
5300	35.9	4.76	5.24	5.24	5.24	0.35	1.80	± 13.1 %
5500	35.6	4.96	4.97	4.97	4.97	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.86	4.86	4.86	0.40	1.80	± 13.1 %
5800	35.3	5.27	4.83	4.83	4.83	0.40	1.80	± 13.1 %

[C] 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. Above 5 GHz frequency validity can be extended to ± 110 MHz.
[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.
[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

Certificate No: EX3-3930_Jul17

Page 5 of 38

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3930

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unc (k=2)
2450	52.7	1.95	7.90	7.90	7.90	0.35	0.95	± 12.0 %
2600	52.5	2.16	7.60	7.60	7.60	0.35	0.95	± 12.0 %
5200	49.0	5.30	4.87	4.87	4.87	0.40	1.90	± 13.1 %
5300	48.9	5.42	4.70	4.70	4.70	0.40	1.90	± 13.1 %
5500	48.6	5.65	4.41	4.41	4.41	0.40	1.90	± 13.1 %
5600	48.5	5.77	4.22	4.22	4.22	0.45	1.90	± 13.1 %
5800	48.2	6.00	4.33	4.33	4.33	0.45	1.90	± 13.1 %

[C] 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. Above 5 GHz frequency validity can be extended to ± 110 MHz.

[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

⏀ **Dt&C**

Frequency Response of E-Field
(TEM-Cell:ifi110 EXX, Waveguide: R22)
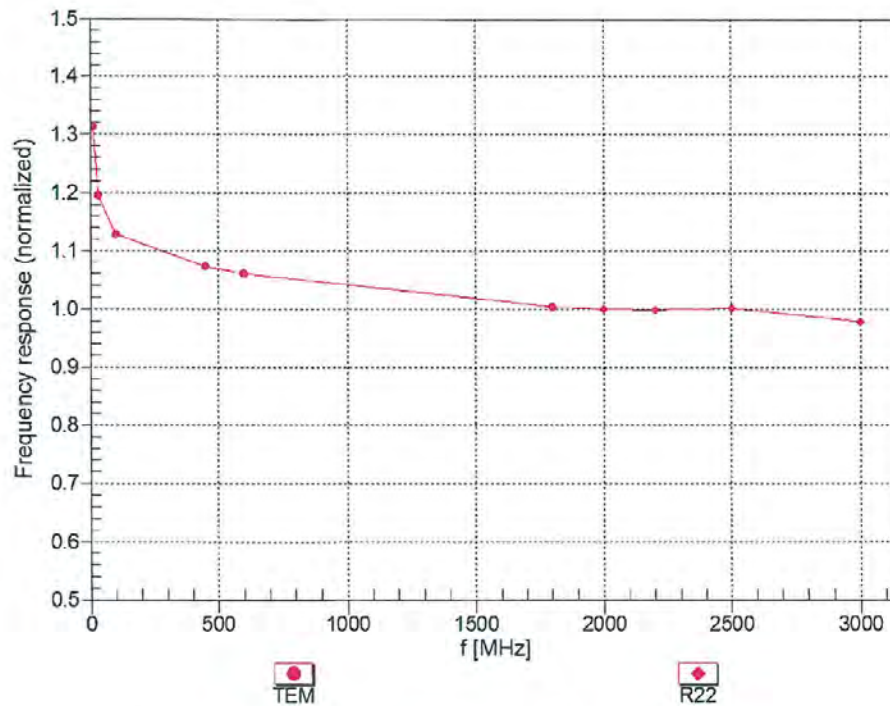
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

TRF-RF-601(03)161101

Prohibits the copying and re-issue of this report without DT&C approval.

Pages: 122 /204

Dt&C

EX3DV4– SN:3930

July 26, 2017

Receiving Pattern (φ), ϑ = 0°

f=600 MHz,TEM

f=1800 MHz,R22

| Tot | X | Y | Z |

| Tot | X | Y | Z |

| 100 MHz | 600 MHz | 1800 MHz | 2500 MHz |
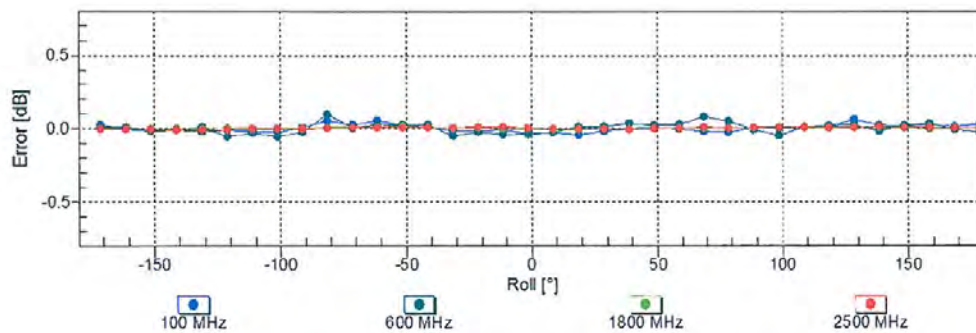
Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Certificate No: EX3-3930_Jul17

Page 8 of 38

Dynamic Range f(SAR$_{head}$)
(TEM cell , f$_{eval}$= 1900 MHz)

not compensated   compensated
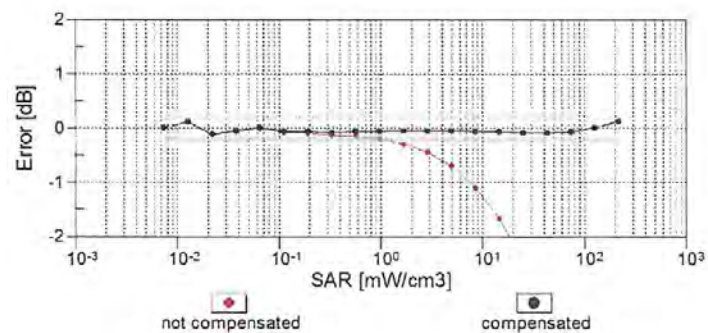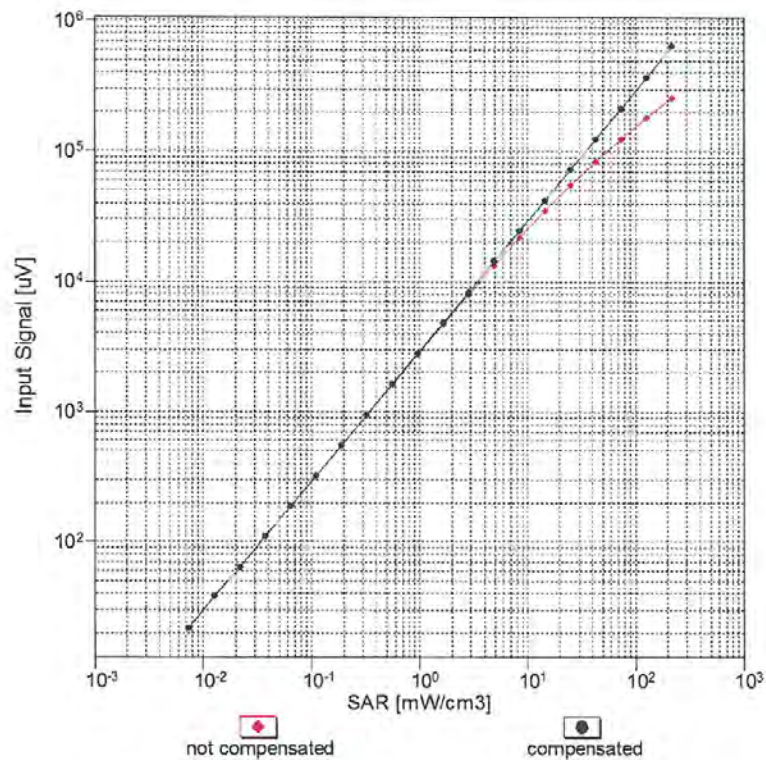
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Dt&C

EX3DV4– SN:3930

July 26, 2017

Conversion Factor Assessment

f = 2450 MHz,WGLS R22 (H_convF)

f = 2450 MHz,WGLS R22 (M_convF)
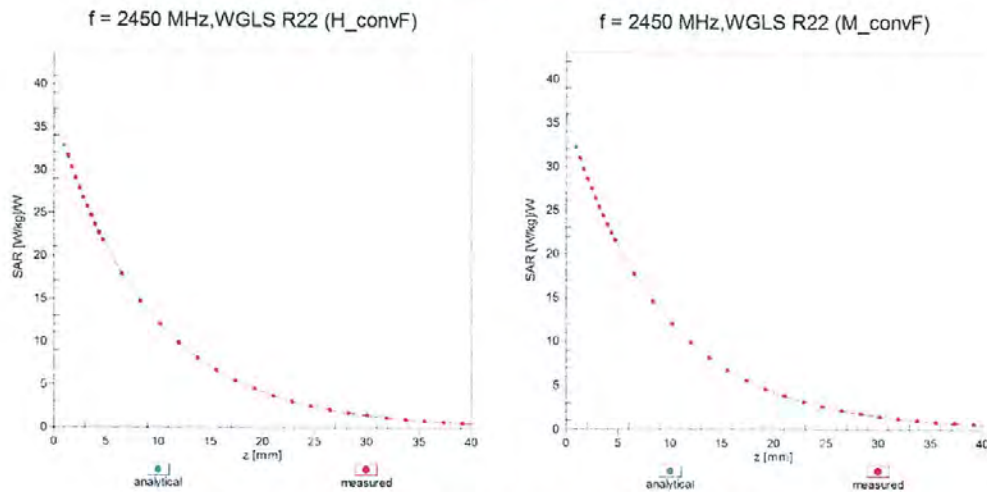
Deviation from Isotropy in Liquid
Error (φ, ϑ), f = 900 MHz

Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

Certificate No: EX3-3930_Jul17

Page 10 of 38

Dt&C
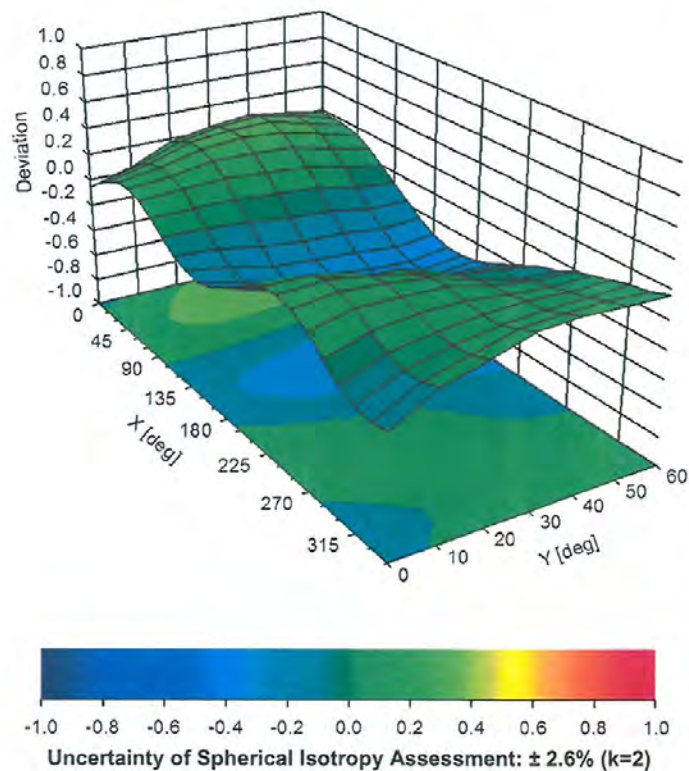
EX3DV4– SN:3930

July 26, 2017

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3930

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	118.7
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 Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
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

EX3DV4– SN:3930   July 26, 2017

Appendix: Modulation Calibration Parameters

UID	Communication System Name		A dB	B dBμV	C	D dB	VR mV	Max Unc^E (k=2)
0	CW	X	0.00	0.00	1.00	0.00	156.8	± 3.3 %
		Y	0.00	0.00	1.00		166.7	
		Z	0.00	0.00	1.00		161.8	
10010-CAA	SAR Validation (Square, 100ms, 10ms)	X	33.98	95.02	20.39	10.00	20.0	± 9.6 %
		Y	12.31	85.76	18.73		20.0	
		Z	36.97	97.49	21.78		20.0	
10011-CAB	UMTS-FDD (WCDMA)	X	1.32	72.73	18.36	0.00	150.0	± 9.6 %
		Y	0.95	66.04	14.44		150.0	
		Z	1.05	67.88	15.60		150.0	
10012-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	X	1.27	66.02	16.87	0.41	150.0	± 9.6 %
		Y	1.19	63.75	15.02		150.0	
		Z	1.24	64.77	15.76		150.0	
10013-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	X	4.89	67.27	17.48	1.46	150.0	± 9.6 %
		Y	4.81	66.88	17.12		150.0	
		Z	4.88	67.08	17.28		150.0	
10021-DAC	GSM-FDD (TDMA, GMSK)	X	100.00	118.50	29.46	9.39	50.0	± 9.6 %
		Y	100.00	120.04	30.47		50.0	
		Z	100.00	119.12	30.12		50.0	
10023-DAC	GPRS-FDD (TDMA, GMSK, TN 0)	X	100.00	117.91	29.22	9.57	50.0	± 9.6 %
		Y	100.00	119.43	30.24		50.0	
		Z	100.00	118.72	29.96		50.0	
10024-DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	X	100.00	118.87	28.78	6.56	60.0	± 9.6 %
		Y	100.00	119.40	29.15		60.0	
		Z	100.00	117.69	28.60		60.0	
10025-DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	X	6.09	83.18	33.46	12.57	50.0	± 9.6 %
		Y	4.16	69.03	25.44		50.0	
		Z	7.41	87.92	35.28		50.0	
10026-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	X	16.43	108.30	39.06	9.56	60.0	± 9.6 %
		Y	8.80	90.83	32.45		60.0	
		Z	17.86	108.64	38.77		60.0	
10027-DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	X	100.00	121.78	29.37	4.80	80.0	± 9.6 %
		Y	100.00	120.90	29.04		80.0	
		Z	100.00	118.68	28.36		80.0	
10028-DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	X	100.00	126.85	30.88	3.55	100.0	± 9.6 %
		Y	100.00	123.74	29.56		100.0	
		Z	100.00	121.16	28.77		100.0	
10029-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	X	8.49	91.15	31.68	7.80	80.0	± 9.6 %
		Y	5.92	81.55	27.56		80.0	
		Z	9.27	91.80	31.56		80.0	
10030-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	X	100.00	118.04	27.99	5.30	70.0	± 9.6 %
		Y	100.00	117.70	27.90		70.0	
		Z	100.00	116.25	27.53		70.0	
10031-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	X	100.00	135.43	32.90	1.88	100.0	± 9.6 %
		Y	100.00	124.47	28.40		100.0	
		Z	100.00	123.75	28.45		100.0	

Certificate No: EX3-3930_Jul17   Page 12 of 38

10032-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	X	100.00	158.27	40.81	1.17	100.0	± 9.6 %
		Y	100.00	132.40	30.62		100.0	
		Z	100.00	133.39	31.35		100.0	
10033-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	X	100.00	130.12	35.27	5.30	70.0	± 9.6 %
		Y	47.92	115.56	31.04		70.0	
		Z	100.00	127.31	34.17		70.0	
10034-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	X	100.00	127.72	32.57	1.88	100.0	± 9.6 %
		Y	5.40	84.00	20.03		100.0	
		Z	26.50	106.08	26.87		100.0	
10035-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	X	98.14	127.45	32.05	1.17	100.0	± 9.6 %
		Y	2.68	75.86	16.83		100.0	
		Z	6.47	87.81	21.42		100.0	
10036-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	X	100.00	130.64	35.51	5.30	70.0	± 9.6 %
		Y	100.00	127.36	33.94		70.0	
		Z	100.00	127.74	34.37		70.0	
10037-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	X	100.00	127.73	32.53	1.88	100.0	± 9.6 %
		Y	4.58	81.94	19.33		100.0	
		Z	19.79	102.15	25.82		100.0	
10038-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	X	100.00	128.63	32.52	1.17	100.0	± 9.6 %
		Y	2.70	76.24	17.10		100.0	
		Z	6.68	88.65	21.82		100.0	
10039-CAB	CDMA2000 (1xRTT, RC1)	X	6.20	89.91	22.06	0.00	150.0	± 9.6 %
		Y	1.39	69.12	13.61		150.0	
		Z	1.97	73.64	16.08		150.0	
10042-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	X	100.00	114.51	26.96	7.78	50.0	± 9.6 %
		Y	100.00	115.91	27.79		50.0	
		Z	100.00	114.70	27.39		50.0	
10044-CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	X	0.00	104.05	0.58	0.00	150.0	± 9.6 %
		Y	0.01	90.05	0.67		150.0	
		Z	0.00	93.86	0.01		150.0	
10048-CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	X	100.00	118.84	30.69	13.80	25.0	± 9.6 %
		Y	100.00	118.92	31.37		25.0	
		Z	100.00	121.71	32.37		25.0	
10049-CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	X	100.00	116.35	28.73	10.79	40.0	± 9.6 %
		Y	100.00	118.18	29.97		40.0	
		Z	100.00	118.06	29.88		40.0	
10056-CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	X	100.00	126.32	34.62	9.03	50.0	± 9.6 %
		Y	100.00	125.02	34.10		50.0	
		Z	100.00	125.44	34.44		50.0	
10058-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	X	6.05	83.52	27.88	6.55	100.0	± 9.6 %
		Y	4.69	76.91	24.81		100.0	
		Z	6.52	83.98	27.72		100.0	
10059-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	X	1.39	68.10	18.00	0.61	110.0	± 9.6 %
		Y	1.25	64.97	15.72		110.0	
		Z	1.34	66.55	16.72		110.0	
10060-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	X	100.00	145.37	39.14	1.30	110.0	± 9.6 %
		Y	14.08	108.54	29.23		110.0	
		Z	100.00	138.14	36.18		110.0	

Certificate No: EX3-3930_Jul17

Page 13 of 38

EX3DV4– SN:3930　　　　　　　　　　　　　　　　　　　　　　　　July 26, 2017

10061-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	X	25.81	121.10	35.51	2.04	110.0	± 9.6 %
		Y	3.44	82.74	23.20		110.0	
		Z	9.74	100.38	29.02		110.0	
10062-CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	X	4.68	67.22	16.86	0.49	100.0	± 9.6 %
		Y	4.58	66.75	16.46		100.0	
		Z	4.65	66.95	16.61		100.0	
10063-CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.70	67.34	16.99	0.72	100.0	± 9.6 %
		Y	4.60	66.87	16.58		100.0	
		Z	4.68	67.08	16.74		100.0	
10064-CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	X	4.97	67.56	17.19	0.86	100.0	± 9.6 %
		Y	4.86	67.09	16.80		100.0	
		Z	4.95	67.31	16.96		100.0	
10065-CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	4.85	67.50	17.34	1.21	100.0	± 9.6 %
		Y	4.74	67.00	16.91		100.0	
		Z	4.84	67.27	17.11		100.0	
10066-CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	X	4.87	67.54	17.52	1.46	100.0	± 9.6 %
		Y	4.77	67.05	17.10		100.0	
		Z	4.87	67.32	17.30		100.0	
10067-CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	X	5.17	67.72	17.97	2.04	100.0	± 9.6 %
		Y	5.07	67.34	17.60		100.0	
		Z	5.17	67.57	17.79		100.0	
10068-CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	X	5.21	67.74	18.19	2.55	100.0	± 9.6 %
		Y	5.11	67.31	17.81		100.0	
		Z	5.22	67.61	18.02		100.0	
10069-CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	X	5.29	67.72	18.37	2.67	100.0	± 9.6 %
		Y	5.19	67.34	17.99		100.0	
		Z	5.30	67.62	18.21		100.0	
10071-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	X	4.99	67.37	17.81	1.99	100.0	± 9.6 %
		Y	4.92	67.00	17.45		100.0	
		Z	5.00	67.22	17.62		100.0	
10072-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	X	4.98	67.76	18.08	2.30	100.0	± 9.6 %
		Y	4.90	67.32	17.68		100.0	
		Z	4.99	67.61	17.89		100.0	
10073-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	X	5.06	67.98	18.45	2.83	100.0	± 9.6 %
		Y	4.98	67.55	18.06		100.0	
		Z	5.08	87.86	18.29		100.0	
10074-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	X	5.05	67.92	18.63	3.30	100.0	± 9.6 %
		Y	4.99	67.53	18.25		100.0	
		Z	5.09	67.84	18.48		100.0	
10075-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	5.09	68.03	18.96	3.82	90.0	± 9.6 %
		Y	5.03	67.61	18.55		90.0	
		Z	5.14	68.00	18.83		90.0	
10076-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	X	5.11	67.82	19.08	4.15	90.0	± 9.6 %
		Y	5.07	67.47	18.71		90.0	
		Z	5.17	67.83	18.99		90.0	
10077-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	X	5.14	67.90	19.19	4.30	90.0	± 9.6 %
		Y	5.10	67.57	18.83		90.0	
		Z	5.20	67.92	19.09		90.0	

Certificate No: EX3-3930_Jul17　　　　　　　　Page 14 of 38

EX3DV4– SN:3930   July 26, 2017

10081-CAB	CDMA2000 (1xRTT, RC3)	X	1.47	74.80	16.59	0.00	150.0	± 9.6 %
		Y	0.71	64.40	10.98		150.0	
		Z	0.85	66.68	12.68		150.0	
10082-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	X	0.84	60.00	4.97	4.77	80.0	± 9.6 %
		Y	0.83	60.00	5.19		80.0	
		Z	0.96	60.05	5.34		80.0	
10090-DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	X	100.00	118.89	28.81	6.56	60.0	± 9.6 %
		Y	100.00	119.41	29.18		60.0	
		Z	100.00	117.72	28.64		60.0	
10097-CAB	UMTS-FDD (HSDPA)	X	2.10	70.90	17.44	0.00	150.0	± 9.6 %
		Y	1.77	67.39	15.22		150.0	
		Z	1.86	68.35	15.93		150.0	
10098-CAB	UMTS-FDD (HSUPA, Subtest 2)	X	2.06	70.89	17.44	0.00	150.0	± 9.6 %
		Y	1.73	67.32	15.18		150.0	
		Z	1.82	68.30	15.90		150.0	
10099-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	16.64	108.59	39.15	9.56	60.0	± 9.6 %
		Y	8.86	90.97	32.50		60.0	
		Z	18.05	108.86	38.84		60.0	
10100-CAC	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	3.43	72.59	17.97	0.00	150.0	± 9.6 %
		Y	2.93	69.49	16.35		150.0	
		Z	3.12	70.62	16.88		150.0	
10101-CAC	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	3.32	68.53	16.59	0.00	150.0	± 9.6 %
		Y	3.12	67.11	15.68		150.0	
		Z	3.21	67.66	15.99		150.0	
10102-CAC	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	3.41	68.45	16.65	0.00	150.0	± 9.6 %
		Y	3.23	67.14	15.80		150.0	
		Z	3.31	67.64	16.08		150.0	
10103-CAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	8.48	81.63	23.12	3.98	65.0	± 9.6 %
		Y	6.79	77.32	21.30		65.0	
		Z	8.35	80.51	22.48		65.0	
10104-CAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	7.32	77.12	22.10	3.98	65.0	± 9.6 %
		Y	6.47	74.49	20.81		65.0	
		Z	7.50	76.91	21.82		65.0	
10105-CAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	6.60	74.99	21.49	3.98	65.0	± 9.6 %
		Y	6.13	73.28	20.58		65.0	
		Z	6.95	75.36	21.46		65.0	
10108-CAD	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	2.97	71.84	17.84	0.00	150.0	± 9.6 %
		Y	2.54	68.77	16.15		150.0	
		Z	2.71	69.84	16.70		150.0	
10109-CAD	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	2.98	68.61	16.61	0.00	150.0	± 9.6 %
		Y	2.76	66.99	15.53		150.0	
		Z	2.86	67.57	15.90		150.0	
10110-CAD	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	2.44	71.26	17.61	0.00	150.0	± 9.6 %
		Y	2.04	67.88	15.62		150.0	
		Z	2.19	69.00	16.29		150.0	
10111-CAD	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	2.81	70.37	17.31	0.00	150.0	± 9.6 %
		Y	2.49	68.01	15.76		150.0	
		Z	2.61	68.69	16.27		150.0	

Certificate No: EX3-3930_Jul17   Page 15 of 38

EX3DV4– SN:3930   July 26, 2017

10112-CAD	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	3.10	68.56	16.63	0.00	150.0	± 9.6 %
		Y	2.89	67.08	15.63		150.0
		Z	2.99	67.59	15.96		150.0
10113-CAD	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	2.96	70.43	17.38	0.00	150.0	± 9.6 %
		Y	2.64	68.23	15.92		150.0
		Z	2.76	68.84	16.40		150.0
10114-CAB	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	X	5.10	67.56	16.67	0.00	150.0	± 9.6 %
		Y	5.00	67.06	16.33		150.0
		Z	5.06	67.28	16.42		150.0
10115-CAB	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	X	5.35	67.59	16.69	0.00	150.0	± 9.6 %
		Y	5.25	67.14	16.38		150.0
		Z	5.32	67.33	16.46		150.0
10116-CAB	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	X	5.19	67.74	16.69	0.00	150.0	± 9.6 %
		Y	5.09	67.25	16.36		150.0
		Z	5.15	67.45	16.44		150.0
10117-CAB	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	X	5.07	67.43	16.63	0.00	150.0	± 9.6 %
		Y	4.99	67.01	16.32		150.0
		Z	5.03	67.16	16.38		150.0
10118-CAB	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	X	5.43	67.76	16.78	0.00	150.0	± 9.6 %
		Y	5.32	67.31	16.47		150.0
		Z	5.39	67.50	16.55		150.0
10119-CAB	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	X	5.17	67.69	16.68	0.00	150.0	± 9.6 %
		Y	5.08	67.23	16.36		150.0
		Z	5.13	67.40	16.43		150.0
10140-CAC	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	3.45	68.45	16.56	0.00	150.0	± 9.6 %
		Y	3.25	67.15	15.72		150.0
		Z	3.34	67.65	16.00		150.0
10141-CAC	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	3.57	68.54	16.72	0.00	150.0	± 9.6 %
		Y	3.38	67.32	15.92		150.0
		Z	3.47	67.77	16.17		150.0
10142-CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	2.30	72.11	17.60	0.00	150.0	± 9.6 %
		Y	1.80	67.79	15.04		150.0
		Z	1.97	69.14	15.94		150.0
10143-CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	2.87	72.31	17.44	0.00	150.0	± 9.6 %
		Y	2.30	68.51	15.11		150.0
		Z	2.49	69.65	15.97		150.0
10144-CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	2.38	68.49	15.12	0.00	150.0	± 9.6 %
		Y	2.02	65.87	13.27		150.0
		Z	2.19	66.86	14.10		150.0
10145-CAD	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	1.44	68.19	13.11	0.00	150.0	± 9.6 %
		Y	0.93	62.67	9.45		150.0
		Z	1.13	64.81	11.22		150.0
10146-CAD	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	1.65	65.01	10.48	0.00	150.0	± 9.6 %
		Y	1.27	62.22	8.43		150.0
		Z	1.79	65.38	10.60		150.0
10147-CAD	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	1.96	66.95	11.55	0.00	150.0	± 9.6 %
		Y	1.37	62.92	8.91		150.0
		Z	2.12	67.23	11.60		150.0

EX3DV4– SN:3930　　　　　　　　　　　　　　　　　　　　　　　　　　　July 26, 2017

10149-CAC	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	2.99	68.69	16.66	0.00	150.0	± 9.6 %
		Y	2.77	67.06	15.58		150.0	
		Z	2.87	67.64	15.95		150.0	
10150-CAC	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	3.11	68.63	16.68	0.00	150.0	± 9.6 %
		Y	2.90	67.14	15.67		150.0	
		Z	2.99	67.65	16.00		150.0	
10151-CAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	10.17	86.64	25.07	3.98	65.0	± 9.6 %
		Y	7.45	80.64	22.65		65.0	
		Z	9.66	84.69	24.12		65.0	
10152-CAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	6.99	77.66	22.02	3.98	65.0	± 9.6 %
		Y	6.03	74.58	20.48		65.0	
		Z	7.14	77.28	21.65		65.0	
10153-CAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	7.50	78.88	22.89	3.98	65.0	± 9.6 %
		Y	6.49	75.82	21.38		65.0	
		Z	7.64	78.46	22.50		65.0	
10154-CAD	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	2.51	71.85	17.95	0.00	150.0	± 9.6 %
		Y	2.08	68.26	15.86		150.0	
		Z	2.24	69.43	16.55		150.0	
10155-CAD	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	2.82	70.39	17.33	0.00	150.0	± 9.6 %
		Y	2.49	68.04	15.78		150.0	
		Z	2.61	68.71	16.29		150.0	
10156-CAD	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	2.23	73.00	17.70	0.00	150.0	± 9.6 %
		Y	1.62	67.61	14.59		150.0	
		Z	1.83	69.27	15.71		150.0	
10157-CAD	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	2.33	69.89	15.51	0.00	150.0	± 9.6 %
		Y	1.83	66.15	13.07		150.0	
		Z	2.04	67.51	14.15		150.0	
10158-CAD	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	2.97	70.52	17.44	0.00	150.0	± 9.6 %
		Y	2.64	68.31	15.98		150.0	
		Z	2.77	68.92	16.45		150.0	
10159-CAD	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	2.49	70.59	15.88	0.00	150.0	± 9.6 %
		Y	1.92	66.54	13.31		150.0	
		Z	2.15	68.02	14.44		150.0	
10160-CAC	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	2.90	70.43	17.37	0.00	150.0	± 9.6 %
		Y	2.59	68.16	15.99		150.0	
		Z	2.70	68.88	16.41		150.0	
10161-CAC	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	3.02	68.67	16.64	0.00	150.0	± 9.6 %
		Y	2.79	67.10	15.56		150.0	
		Z	2.89	67.63	15.93		150.0	
10162-CAC	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	3.13	68.82	16.75	0.00	150.0	± 9.6 %
		Y	2.90	67.31	15.71		150.0	
		Z	3.00	67.80	16.05		150.0	
10166-CAD	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	3.47	69.86	19.28	3.01	150.0	± 9.6 %
		Y	3.31	68.79	18.69		150.0	
		Z	3.64	70.40	19.47		150.0	
10167-CAD	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	4.28	73.01	19.82	3.01	150.0	± 9.6 %
		Y	3.94	71.46	19.05		150.0	
		Z	4.73	74.34	20.28		150.0	

Certificate No: EX3-3930_Jul17　　　　　　　　Page 17 of 38

10168-CAD	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	4.88	75.83	21.41	3.01	150.0	± 9.6 %
		Y	4.44	74.13	20.63		150.0	
		Z	5.44	77.36	21.91		150.0	
10169-CAC	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	2.85	69.01	18.94	3.01	150.0	± 9.6 %
		Y	2.74	67.56	18.10		150.0	
		Z	3.13	70.29	19.43		150.0	
10170-CAC	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	4.01	75.69	21.63	3.01	150.0	± 9.6 %
		Y	3.58	72.93	20.34		150.0	
		Z	4.93	78.73	22.65		150.0	
10171-AAC	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	3.21	70.97	18.56	3.01	150.0	± 9.6 %
		Y	2.96	68.95	17.54		150.0	
		Z	3.78	73.14	19.33		150.0	
10172-CAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	11.64	99.70	31.90	6.02	65.0	± 9.6 %
		Y	6.31	86.23	27.05		65.0	
		Z	19.09	108.21	34.23		65.0	
10173-CAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	81.65	130.61	37.97	6.02	65.0	± 9.6 %
		Y	14.18	98.21	29.17		65.0	
		Z	100.00	132.05	37.94		65.0	
10174-CAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	35.41	113.54	33.00	6.02	65.0	± 9.6 %
		Y	10.88	92.45	26.81		65.0	
		Z	73.87	124.65	35.53		65.0	
10175-CAD	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	2.82	68.68	18.68	3.01	150.0	± 9.6 %
		Y	2.71	67.27	17.86		150.0	
		Z	3.09	69.93	19.16		150.0	
10176-CAD	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	4.02	75.71	21.64	3.01	150.0	± 9.6 %
		Y	3.59	72.95	20.35		150.0	
		Z	4.94	78.76	22.66		150.0	
10177-CAF	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	2.84	68.84	18.77	3.01	150.0	± 9.6 %
		Y	2.72	67.40	17.94		150.0	
		Z	3.12	70.10	19.25		150.0	
10178-CAD	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	X	3.98	75.49	21.52	3.01	150.0	± 9.6 %
		Y	3.56	72.79	20.26		150.0	
		Z	4.88	78.50	22.53		150.0	
10179-CAD	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	3.57	73.19	19.96	3.01	150.0	± 9.6 %
		Y	3.23	70.79	18.80		150.0	
		Z	4.29	75.74	20.83		150.0	
10180-CAD	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	X	3.20	70.90	18.51	3.01	150.0	± 9.6 %
		Y	2.95	68.90	17.50		150.0	
		Z	3.76	73.06	19.28		150.0	
10181-CAC	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	2.84	68.82	18.77	3.01	150.0	± 9.6 %
		Y	2.72	67.38	17.94		150.0	
		Z	3.11	70.08	19.25		150.0	
10182-CAC	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	3.97	75.46	21.51	3.01	150.0	± 9.6 %
		Y	3.55	72.76	20.24		150.0	
		Z	4.87	78.47	22.52		150.0	
10183-AAB	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	3.19	70.87	18.50	3.01	150.0	± 9.6 %
		Y	2.95	68.88	17.49		150.0	
		Z	3.76	73.04	19.27		150.0	

EX3DV4– SN:3930   July 26, 2017

10184-CAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	2.85	68.86	18.79	3.01	150.0	± 9.6 %
		Y	2.73	67.42	17.96		150.0	
		Z	3.12	70.12	19.27		150.0	
10185-CAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	3.99	75.54	21.55	3.01	150.0	± 9.6 %
		Y	3.57	72.83	20.28		150.0	
		Z	4.90	78.56	22.56		150.0	
10186-AAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	3.21	70.94	18.54	3.01	150.0	± 9.6 %
		Y	2.96	68.94	17.52		150.0	
		Z	3.78	73.11	19.31		150.0	
10187-CAD	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	2.86	68.93	18.86	3.01	150.0	± 9.6 %
		Y	2.74	67.49	18.03		150.0	
		Z	3.13	70.20	19.34		150.0	
10188-CAD	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	4.13	76.28	21.96	3.01	150.0	± 9.6 %
		Y	3.67	73.44	20.65		150.0	
		Z	5.10	79.43	23.01		150.0	
10189-AAD	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	3.29	71.41	18.84	3.01	150.0	± 9.6 %
		Y	3.02	69.31	17.78		150.0	
		Z	3.88	73.65	19.63		150.0	
10193-CAB	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	X	4.51	67.12	16.43	0.00	150.0	± 9.6 %
		Y	4.41	66.65	16.03		150.0	
		Z	4.47	66.79	16.14		150.0	
10194-CAB	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	X	4.67	67.40	16.55	0.00	150.0	± 9.6 %
		Y	4.56	66.90	16.16		150.0	
		Z	4.63	67.07	16.27		150.0	
10195-CAB	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	X	4.71	67.43	16.57	0.00	150.0	± 9.6 %
		Y	4.59	66.92	16.18		150.0	
		Z	4.66	67.10	16.29		150.0	
10196-CAB	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	X	4.51	67.16	16.44	0.00	150.0	± 9.6 %
		Y	4.40	66.66	16.02		150.0	
		Z	4.46	66.83	16.15		150.0	
10197-CAB	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	X	4.68	67.42	16.56	0.00	150.0	± 9.6 %
		Y	4.56	66.91	16.17		150.0	
		Z	4.64	67.09	16.28		150.0	
10198-CAB	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	X	4.71	67.44	16.58	0.00	150.0	± 9.6 %
		Y	4.59	66.93	16.18		150.0	
		Z	4.66	67.11	16.30		150.0	
10219-CAB	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	X	4.46	67.20	16.42	0.00	150.0	± 9.6 %
		Y	4.35	66.68	15.99		150.0	
		Z	4.41	66.85	16.12		150.0	
10220-CAB	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	X	4.67	67.38	16.55	0.00	150.0	± 9.6 %
		Y	4.56	66.87	16.15		150.0	
		Z	4.63	67.05	16.27		150.0	
10221-CAB	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	X	4.72	67.36	16.56	0.00	150.0	± 9.6 %
		Y	4.60	66.87	16.17		150.0	
		Z	4.67	67.04	16.28		150.0	
10222-CAB	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	X	5.04	67.44	16.62	0.00	150.0	± 9.6 %
		Y	4.96	66.99	16.30		150.0	
		Z	5.01	67.16	16.38		150.0	

Certificate No: EX3-3930_Jul17   Page 19 of 38

EX3DV4– SN:3930   July 26, 2017

10223-CAB	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	X	5.33	67.63	16.73	0.00	150.0	± 9.6 %
		Y	5.24	67.19	16.42		150.0	
		Z	5.30	67.37	16.50		150.0	
10224-CAB	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	X	5.09	67.56	16.61	0.00	150.0	± 9.6 %
		Y	5.00	67.10	16.29		150.0	
		Z	5.05	67.27	16.36		150.0	
10225-CAB	UMTS-FDD (HSPA+)	X	2.85	67.23	15.91	0.00	150.0	± 9.6 %
		Y	2.68	65.99	14.87		150.0	
		Z	2.76	66.40	15.30		150.0	
10226-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	100.00	134.64	39.04	6.02	65.0	± 9.6 %
		Y	15.50	99.99	29.80		65.0	
		Z	100.00	132.31	38.10		65.0	
10227-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	89.98	129.81	37.07	6.02	65.0	± 9.6 %
		Y	15.57	98.63	28.75		65.0	
		Z	100.00	129.61	36.69		65.0	
10228-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	22.76	113.67	36.12	6.02	65.0	± 9.6 %
		Y	8.10	91.55	29.00		65.0	
		Z	34.50	120.43	37.70		65.0	
10229-CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	82.62	130.81	38.03	6.02	65.0	± 9.6 %
		Y	14.30	98.35	29.21		65.0	
		Z	100.00	132.04	37.95		65.0	
10230-CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	73.67	126.07	36.09	6.02	65.0	± 9.6 %
		Y	14.23	96.95	28.16		65.0	
		Z	100.00	129.44	36.58		65.0	
10231-CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	20.71	111.58	35.44	6.02	65.0	± 9.6 %
		Y	7.71	90.47	28.55		65.0	
		Z	30.95	118.05	36.97		65.0	
10232-CAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	X	82.54	130.81	38.03	6.02	65.0	± 9.6 %
		Y	14.28	98.32	29.21		65.0	
		Z	100.00	132.06	37.95		65.0	
10233-CAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	X	73.30	126.00	36.07	6.02	65.0	± 9.6 %
		Y	14.18	96.90	28.15		65.0	
		Z	100.00	129.45	36.58		65.0	
10234-CAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	19.21	109.78	34.79	6.02	65.0	± 9.6 %
		Y	7.42	89.56	28.12		65.0	
		Z	28.31	115.96	36.27		65.0	
10235-CAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	83.09	130.95	38.07	6.02	65.0	± 9.6 %
		Y	14.29	98.36	29.22		65.0	
		Z	100.00	132.07	37.96		65.0	
10236-CAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	75.41	126.45	36.17	6.02	65.0	± 9.6 %
		Y	14.36	97.08	28.20		65.0	
		Z	100.00	129.40	36.56		65.0	
10237-CAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	20.84	111.74	35.49	6.02	65.0	± 9.6 %
		Y	7.71	90.51	28.56		65.0	
		Z	31.21	118.26	37.03		65.0	
10238-CAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	82.49	130.82	38.03	6.02	65.0	± 9.6 %
		Y	14.24	98.30	29.20		65.0	
		Z	100.00	132.07	37.95		65.0	

Certificate No: EX3-3930_Jul17   Page 20 of 38

EX3DV4– SN:3930   July 26, 2017

10239-CAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	72.98	125.95	36.06	6.02	65.0	± 9.6 %
		Y	14.12	96.85	28.14		65.0	
		Z	100.00	129.48	36.59		65.0	
10240-CAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	20.77	111.69	35.47	6.02	65.0	± 9.6 %
		Y	7.70	90.48	28.55		65.0	
		Z	31.11	118.21	37.01		65.0	
10241-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	9.67	86.02	27.48	6.98	65.0	± 9.6 %
		Y	8.34	82.75	26.06		65.0	
		Z	11.45	88.99	28.49		65.0	
10242-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	8.24	82.61	26.07	6.98	65.0	± 9.6 %
		Y	7.55	80.70	25.17		65.0	
		Z	9.88	85.88	27.26		65.0	
10243-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	6.30	77.89	25.05	6.98	65.0	± 9.6 %
		Y	5.98	76.58	24.31		65.0	
		Z	7.19	80.31	26.01		65.0	
10244-CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	8.63	81.55	20.39	3.98	65.0	± 9.6 %
		Y	5.64	74.67	17.26		65.0	
		Z	9.19	81.68	20.37		65.0	
10245-CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	8.00	80.12	19.81	3.98	65.0	± 9.6 %
		Y	5.39	73.76	16.82		65.0	
		Z	8.56	80.34	19.82		65.0	
10246-CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	18.63	97.78	26.34	3.98	65.0	± 9.6 %
		Y	6.44	80.36	20.03		65.0	
		Z	11.95	89.50	23.51		65.0	
10247-CAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	7.43	80.73	21.39	3.98	65.0	± 9.6 %
		Y	5.32	74.70	18.44		65.0	
		Z	7.01	78.79	20.41		65.0	
10248-CAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	6.95	79.12	20.73	3.98	65.0	± 9.6 %
		Y	5.15	73.72	18.00		65.0	
		Z	6.69	77.57	19.90		65.0	
10249-CAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	21.73	102.12	28.84	3.98	65.0	± 9.6 %
		Y	8.49	85.50	23.07		65.0	
		Z	14.93	94.32	26.17		65.0	
10250-CAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	8.08	82.63	23.96	3.98	65.0	± 9.6 %
		Y	6.42	77.94	21.75		65.0	
		Z	7.98	81.42	23.23		65.0	
10251-CAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	7.09	78.80	22.04	3.98	65.0	± 9.6 %
		Y	5.86	75.03	20.13		65.0	
		Z	7.14	78.09	21.53		65.0	
10252-CAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	13.90	94.66	27.76	3.98	65.0	± 9.6 %
		Y	8.17	84.54	23.98		65.0	
		Z	12.05	90.77	26.17		65.0	
10253-CAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	6.81	77.00	21.71	3.98	65.0	± 9.6 %
		Y	5.93	74.14	20.21		65.0	
		Z	6.96	76.68	21.36		65.0	
10254-CAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	7.26	78.10	22.47	3.98	65.0	± 9.6 %
		Y	6.33	75.23	21.00		65.0	
		Z	7.41	77.74	22.11		65.0	

Certificate No: EX3-3930_Jul17   Page 21 of 38

EX3DV4– SN:3930　　　　　　　　　　　　　　　　　　　　　　July 26, 2017

10255-CAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	9.31	85.32	24.81	3.98	65.0	± 9.6 %
		Y	7.05	79.83	22.50		65.0	
		Z	9.02	83.71	23.96		65.0	
10256-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	5.69	74.67	16.55	3.98	65.0	± 9.6 %
		Y	3.89	69.11	13.66		65.0	
		Z	6.22	75.16	16.73		65.0	
10257-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	5.22	73.12	15.81	3.98	65.0	± 9.6 %
		Y	3.72	68.22	13.13		65.0	
		Z	5.73	73.68	16.03		65.0	
10258-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	9.96	86.48	21.68	3.98	65.0	± 9.6 %
		Y	4.13	73.03	16.06		65.0	
		Z	7.28	80.82	19.52		65.0	
10259-CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	7.71	81.48	22.33	3.98	65.0	± 9.6 %
		Y	5.78	76.03	19.69		65.0	
		Z	7.42	79.83	21.44		65.0	
10260-CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	7.53	80.71	22.02	3.98	65.0	± 9.6 %
		Y	5.75	75.59	19.50		65.0	
		Z	7.30	79.22	21.20		65.0	
10261-CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	15.17	96.18	27.57	3.98	65.0	± 9.6 %
		Y	7.78	83.92	23.01		65.0	
		Z	12.21	91.04	25.60		65.0	
10262-CAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	8.05	82.54	23.90	3.98	65.0	± 9.6 %
		Y	6.39	77.84	21.69		65.0	
		Z	7.96	81.33	23.17		65.0	
10263-CAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	7.07	78.77	22.03	3.98	65.0	± 9.6 %
		Y	5.85	75.01	20.12		65.0	
		Z	7.12	78.06	21.52		65.0	
10264-CAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	13.62	94.25	27.60	3.98	65.0	± 9.6 %
		Y	8.06	84.25	23.85		65.0	
		Z	11.85	90.44	26.03		65.0	
10265-CAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	6.99	77.67	22.02	3.98	65.0	± 9.6 %
		Y	6.03	74.58	20.48		65.0	
		Z	7.14	77.28	21.66		65.0	
10266-CAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	7.49	78.85	22.87	3.98	65.0	± 9.6 %
		Y	6.48	75.81	21.37		65.0	
		Z	7.63	78.44	22.49		65.0	
10267-CAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	10.13	86.55	25.04	3.98	65.0	± 9.6 %
		Y	7.43	80.58	22.63		65.0	
		Z	9.63	84.62	24.09		65.0	
10268-CAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	7.40	76.77	22.05	3.98	65.0	± 9.6 %
		Y	6.63	74.41	20.87		65.0	
		Z	7.60	76.62	21.80		65.0	
10269-CAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	7.30	76.16	21.84	3.98	65.0	± 9.6 %
		Y	6.61	73.98	20.72		65.0	
		Z	7.51	76.08	21.62		65.0	
10270-CAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	8.33	80.69	22.98	3.98	65.0	± 9.6 %
		Y	6.98	77.17	21.43		65.0	
		Z	8.31	79.84	22.44		65.0	

Certificate No: EX3-3930_Jul17　　　　　　　Page 22 of 38

10274-CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	X	2.69	67.96	16.04	0.00	150.0	± 9.6 %
		Y	2.50	66.44	14.86		150.0	
		Z	2.58	66.90	15.30		150.0	
10275-CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	X	1.89	71.54	17.59	0.00	150.0	± 9.6 %
		Y	1.50	67.06	14.93		150.0	
		Z	1.62	68.41	15.79		150.0	
10277-CAA	PHS (QPSK)	X	2.20	61.99	7.39	9.03	50.0	± 9.6 %
		Y	2.25	62.04	7.58		50.0	
		Z	2.54	62.86	8.21		50.0	
10278-CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	X	11.72	85.68	20.59	9.03	50.0	± 9.6 %
		Y	5.21	73.63	15.97		50.0	
		Z	9.14	81.76	19.46		50.0	
10279-CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	X	11.89	85.89	20.73	9.03	50.0	± 9.6 %
		Y	5.30	73.84	16.11		50.0	
		Z	9.28	81.96	19.59		50.0	
10290-AAB	CDMA2000, RC1, SO55, Full Rate	X	2.55	77.51	17.57	0.00	150.0	± 9.6 %
		Y	1.11	66.19	11.94		150.0	
		Z	1.43	69.23	13.91		150.0	
10291-AAB	CDMA2000, RC3, SO55, Full Rate	X	1.39	74.07	16.28	0.00	150.0	± 9.6 %
		Y	0.70	64.23	10.87		150.0	
		Z	0.83	66.42	12.53		150.0	
10292-AAB	CDMA2000, RC3, SO32, Full Rate	X	9.82	102.29	25.87	0.00	150.0	± 9.6 %
		Y	0.89	68.01	13.15		150.0	
		Z	1.24	72.67	15.80		150.0	
10293-AAB	CDMA2000, RC3, SO3, Full Rate	X	100.00	138.23	35.17	0.00	150.0	± 9.6 %
		Y	1.51	75.03	16.60		150.0	
		Z	2.84	84.41	20.67		150.0	
10295-AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	X	27.33	105.84	30.81	9.03	50.0	± 9.6 %
		Y	18.18	96.31	27.25		50.0	
		Z	19.90	99.06	28.68		50.0	
10297-AAB	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	2.99	71.99	17.93	0.00	150.0	± 9.6 %
		Y	2.55	68.87	16.22		150.0	
		Z	2.72	69.95	16.77		150.0	
10298-AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	2.01	72.44	16.26	0.00	150.0	± 9.6 %
		Y	1.27	65.63	12.31		150.0	
		Z	1.51	67.87	13.91		150.0	
10299-AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	2.57	69.98	13.97	0.00	150.0	± 9.6 %
		Y	1.86	65.75	11.46		150.0	
		Z	2.76	70.20	13.95		150.0	
10300-AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	1.73	64.40	10.56	0.00	150.0	± 9.6 %
		Y	1.47	62.59	9.11		150.0	
		Z	1.87	64.77	10.68		150.0	
10301-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	X	4.92	66.72	18.02	4.17	50.0	± 9.6 %
		Y	4.65	65.76	17.35		50.0	
		Z	5.01	66.93	18.03		50.0	
10302-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	X	5.30	66.87	18.48	4.96	50.0	± 9.6 %
		Y	5.16	66.33	18.00		50.0	
		Z	5.35	66.90	18.40		50.0	

TRF-RF-601(03)161101

Prohibits the copying and re-issue of this report without DT&C approval.

Pages: 138 /204

Dt&C

EX3DV4– SN:3930

July 26, 2017

10303-AAA	IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	X	5.06	66.56	18.33	4.96	50.0	± 9.6 %
		Y	4.93	66.03	17.83		50.0	
		Z	5.12	66.63	18.26		50.0	
10304-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	X	4.88	66.48	17.86	4.17	50.0	± 9.6 %
		Y	4.73	65.90	17.33		50.0	
		Z	4.92	66.45	17.72		50.0	
10305-AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	X	4.68	69.38	20.33	6.02	35.0	± 9.6 %
		Y	4.66	69.11	19.71		35.0	
		Z	4.92	70.15	20.56		35.0	
10306-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	X	4.88	67.84	19.71	6.02	35.0	± 9.6 %
		Y	4.84	67.64	19.25		35.0	
		Z	5.02	68.29	19.83		35.0	
10307-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	X	4.79	68.06	19.71	6.02	35.0	± 9.6 %
		Y	4.74	67.80	19.21		35.0	
		Z	4.95	68.57	19.84		35.0	
10308-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	X	4.79	68.35	19.89	6.02	35.0	± 9.6 %
		Y	4.74	68.07	19.38		35.0	
		Z	4.96	68.89	20.04		35.0	
10309-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	X	4.92	68.02	19.84	6.02	35.0	± 9.6 %
		Y	4.86	67.74	19.35		35.0	
		Z	5.07	68.47	19.96		35.0	
10310-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	4.84	67.95	19.71	6.02	35.0	± 9.6 %
		Y	4.80	67.75	19.26		35.0	
		Z	4.99	68.43	19.84		35.0	
10311-AAB	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	3.38	71.09	17.45	0.00	150.0	± 9.6 %
		Y	2.91	68.21	15.92		150.0	
		Z	3.09	69.24	16.41		150.0	
10313-AAA	iDEN 1:3	X	29.79	102.17	25.80	6.99	70.0	± 9.6 %
		Y	6.70	82.11	20.08		70.0	
		Z	13.51	90.09	22.33		70.0	
10314-AAA	iDEN 1:6	X	100.00	132.14	37.01	10.00	30.0	± 9.6 %
		Y	12.30	96.44	27.92		30.0	
		Z	39.07	114.28	32.48		30.0	
10315-AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	X	1.17	65.90	16.81	0.17	150.0	± 9.6 %
		Y	1.10	63.55	14.86		150.0	
		Z	1.13	64.47	15.57		150.0	
10316-AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	X	4.57	67.20	16.62	0.17	150.0	± 9.6 %
		Y	4.46	66.69	16.19		150.0	
		Z	4.54	66.90	16.34		150.0	
10317-AAB	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	X	4.57	67.20	16.62	0.17	150.0	± 9.6 %
		Y	4.46	66.69	16.19		150.0	
		Z	4.54	66.90	16.34		150.0	
10400-AAC	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	X	4.65	67.44	16.54	0.00	150.0	± 9.6 %
		Y	4.52	66.90	16.13		150.0	
		Z	4.60	67.10	16.26		150.0	
10401-AAC	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	X	5.31	67.36	16.56	0.00	150.0	± 9.6 %
		Y	5.20	66.85	16.21		150.0	
		Z	5.28	67.11	16.34		150.0	

Certificate No: EX3-3930_Jul17

Page 24 of 38

Dt&C

EX3DV4– SN:3930   July 26, 2017

10402-AAC	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	X	5.60	67.77	16.63	0.00	150.0	± 9.6 %
		Y	5.52	67.35	16.35		150.0	
		Z	5.57	67.52	16.41		150.0	
10403-AAB	CDMA2000 (1xEV-DO, Rev. 0)	X	2.55	77.51	17.57	0.00	115.0	± 9.6 %
		Y	1.11	66.19	11.94		115.0	
		Z	1.43	69.23	13.91		115.0	
10404-AAB	CDMA2000 (1xEV-DO, Rev. A)	X	2.55	77.51	17.57	0.00	115.0	± 9.6 %
		Y	1.11	66.19	11.94		115.0	
		Z	1.43	69.23	13.91		115.0	
10406-AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	X	100.00	121.94	30.15	0.00	100.0	± 9.6 %
		Y	54.91	111.96	27.35		100.0	
		Z	100.00	117.01	28.11		100.0	
10410-AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	125.45	31.76	3.23	80.0	± 9.6 %
		Y	100.00	125.36	31.73		80.0	
		Z	100.00	123.08	30.95		80.0	
10415-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	X	1.06	64.63	16.00	0.00	150.0	± 9.6 %
		Y	1.02	62.69	14.25		150.0	
		Z	1.03	63.30	14.80		150.0	
10416-AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	X	4.51	67.14	16.50	0.00	150.0	± 9.6 %
		Y	4.40	66.65	16.10		150.0	
		Z	4.47	66.81	16.21		150.0	
10417-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	X	4.51	67.14	16.50	0.00	150.0	± 9.6 %
		Y	4.40	66.65	16.10		150.0	
		Z	4.47	66.81	16.21		150.0	
10418-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	X	4.51	67.34	16.55	0.00	150.0	± 9.6 %
		Y	4.40	66.84	16.14		150.0	
		Z	4.46	67.00	16.25		150.0	
10419-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	X	4.52	67.27	16.54	0.00	150.0	± 9.6 %
		Y	4.42	66.77	16.13		150.0	
		Z	4.48	66.94	16.24		150.0	
10422-AAA	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	X	4.63	67.24	16.53	0.00	150.0	± 9.6 %
		Y	4.52	66.76	16.15		150.0	
		Z	4.59	66.92	16.25		150.0	
10423-AAA	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	X	4.78	67.53	16.63	0.00	150.0	± 9.6 %
		Y	4.66	67.02	16.24		150.0	
		Z	4.74	67.20	16.35		150.0	
10424-AAA	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	X	4.71	67.49	16.61	0.00	150.0	± 9.6 %
		Y	4.59	66.98	16.22		150.0	
		Z	4.66	67.16	16.33		150.0	
10425-AAA	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	X	5.29	67.61	16.70	0.00	150.0	± 9.6 %
		Y	5.20	67.21	16.41		150.0	
		Z	5.25	67.35	16.46		150.0	
10426-AAA	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	X	5.30	67.67	16.72	0.00	150.0	± 9.6 %
		Y	5.22	67.27	16.43		150.0	
		Z	5.26	67.40	16.49		150.0	

Certificate No: EX3-3930_Jul17   Page 25 of 38

EX3DV4– SN:3930

July 26, 2017

ID	Description	Axis						
10427-AAA	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	X	5.30	67.61	16.69	0.00	150.0	± 9.6 %
		Y	5.20	67.12	16.36		150.0	
		Z	5.27	67.34	16.45		150.0	
10430-AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	X	4.57	73.13	19.26	0.00	150.0	± 9.6 %
		Y	4.25	71.86	18.29		150.0	
		Z	4.30	71.73	18.42		150.0	
10431-AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	X	4.19	67.88	16.57	0.00	150.0	± 9.6 %
		Y	4.02	67.17	15.98		150.0	
		Z	4.13	67.40	16.19		150.0	
10432-AAA	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	X	4.48	67.62	16.60	0.00	150.0	± 9.6 %
		Y	4.35	67.04	16.14		150.0	
		Z	4.43	67.24	16.28		150.0	
10433-AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	X	4.72	67.53	16.63	0.00	150.0	± 9.6 %
		Y	4.60	67.01	16.24		150.0	
		Z	4.68	67.19	16.35		150.0	
10434-AAA	W-CDMA (BS Test Model 1, 64 DPCH)	X	4.85	74.62	19.43	0.00	150.0	± 9.6 %
		Y	4.36	72.77	18.16		150.0	
		Z	4.45	72.79	18.42		150.0	
10435-AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	125.20	31.64	3.23	80.0	± 9.6 %
		Y	100.00	125.11	31.61		80.0	
		Z	100.00	122.85	30.84		80.0	
10447-AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.53	68.22	15.98	0.00	150.0	± 9.6 %
		Y	3.27	66.98	14.95		150.0	
		Z	3.41	67.43	15.42		150.0	
10448-AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	X	4.04	67.68	16.45	0.00	150.0	± 9.6 %
		Y	3.89	66.96	15.85		150.0	
		Z	3.98	67.19	16.06		150.0	
10449-AAA	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	X	4.31	67.48	16.52	0.00	150.0	± 9.6 %
		Y	4.18	66.87	16.04		150.0	
		Z	4.26	67.08	16.19		150.0	
10450-AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.50	67.33	16.51	0.00	150.0	± 9.6 %
		Y	4.39	66.79	16.09		150.0	
		Z	4.46	66.98	16.21		150.0	
10451-AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	X	3.42	68.46	15.57	0.00	150.0	± 9.6 %
		Y	3.09	66.85	14.32		150.0	
		Z	3.28	67.52	14.94		150.0	
10456-AAA	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	X	6.17	68.15	16.83	0.00	150.0	± 9.6 %
		Y	6.14	67.85	16.62		150.0	
		Z	6.15	67.95	16.64		150.0	
10457-AAA	UMTS-FDD (DC-HSDPA)	X	3.79	65.80	16.22	0.00	150.0	± 9.6 %
		Y	3.74	65.37	15.81		150.0	
		Z	3.77	65.49	15.93		150.0	
10458-AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	X	3.19	67.53	14.76	0.00	150.0	± 9.6 %
		Y	2.84	65.80	13.33		150.0	
		Z	3.06	66.68	14.17		150.0	
10459-AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	X	4.34	66.03	15.88	0.00	150.0	± 9.6 %
		Y	3.91	64.46	14.68		150.0	
		Z	4.11	64.97	15.22		150.0	

Certificate No: EX3-3930_Jul17

Dt&C

EX3DV4– SN:3930   July 26, 2017

10460-AAA	UMTS-FDD (WCDMA, AMR)	X	1.27	75.54	20.22	0.00	150.0	± 9.6 %
		Y	0.83	66.56	15.11		150.0	
		Z	0.92	68.82	16.54		150.0	
10461-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	132.60	35.03	3.29	80.0	± 9.6 %
		Y	100.00	129.12	33.55		80.0	
		Z	100.00	129.87	34.06		80.0	
10462-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	108.03	23.65	3.23	80.0	± 9.6 %
		Y	3.50	73.92	14.70		80.0	
		Z	100.00	107.06	23.42		80.0	
10463-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	23.45	89.85	18.33	3.23	80.0	± 9.6 %
		Y	1.43	64.41	10.45		80.0	
		Z	23.26	89.31	18.29		80.0	
10464-AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	129.90	33.60	3.23	80.0	± 9.6 %
		Y	96.78	125.96	32.03		80.0	
		Z	100.00	127.32	32.71		80.0	
10465-AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	107.18	23.25	3.23	80.0	± 9.6 %
		Y	2.49	70.38	13.38		80.0	
		Z	100.00	106.32	23.07		80.0	
10466-AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.37	76.40	14.60	3.23	80.0	± 9.6 %
		Y	1.29	63.36	9.93		80.0	
		Z	7.20	78.43	15.29		80.0	
10467-AAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	130.27	33.76	3.23	80.0	± 9.6 %
		Y	100.00	126.74	32.27		80.0	
		Z	100.00	127.65	32.86		80.0	
10468-AAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	107.46	23.37	3.23	80.0	± 9.6 %
		Y	2.71	71.30	13.74		80.0	
		Z	100.00	106.56	23.18		80.0	
10469-AAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.59	76.77	14.71	3.23	80.0	± 9.6 %
		Y	1.30	63.41	9.95		80.0	
		Z	7.47	78.79	15.40		80.0	
10470-AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	130.32	33.77	3.23	80.0	± 9.6 %
		Y	100.00	126.77	32.28		80.0	
		Z	100.00	127.69	32.87		80.0	
10471-AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	107.37	23.33	3.23	80.0	± 9.6 %
		Y	2.68	71.19	13.69		80.0	
		Z	100.00	106.49	23.14		80.0	
10472-AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.39	76.42	14.59	3.23	80.0	± 9.6 %
		Y	1.29	63.36	9.92		80.0	
		Z	7.28	78.52	15.30		80.0	
10473-AAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	130.28	33.76	3.23	80.0	± 9.6 %
		Y	100.00	126.74	32.26		80.0	
		Z	100.00	127.65	32.85		80.0	
10474-AAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	107.38	23.33	3.23	80.0	± 9.6 %
		Y	2.66	71.11	13.66		80.0	
		Z	100.00	106.49	23.14		80.0	
10475-AAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.28	76.25	14.54	3.23	80.0	± 9.6 %
		Y	1.28	63.34	9.91		80.0	
		Z	7.14	78.36	15.25		80.0	

Certificate No: EX3-3930_Jul17   Page 27 of 38

EX3DV4– SN:3930   July 26, 2017

10477-AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	107.11	23.21	3.23	80.0	± 9.6 %
		Y	2.49	70.42	13.38		80.0	
		Z	100.00	106.26	23.03		80.0	
10478-AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.06	75.82	14.39	3.23	80.0	± 9.6 %
		Y	1.28	63.28	9.87		80.0	
		Z	6.87	77.99	15.13		80.0	
10479-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	126.93	34.02	3.23	80.0	± 9.6 %
		Y	13.38	95.37	25.60		80.0	
		Z	94.85	124.77	33.35		80.0	
10480-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	115.10	28.45	3.23	80.0	± 9.6 %
		Y	10.61	85.67	20.42		80.0	
		Z	100.00	114.05	28.08		80.0	
10481-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	72.99	108.90	26.41	3.23	80.0	± 9.6 %
		Y	6.63	78.99	17.85		80.0	
		Z	50.22	103.51	25.05		80.0	
10482-AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	22.45	101.11	26.27	2.23	80.0	± 9.6 %
		Y	3.07	72.50	16.40		80.0	
		Z	6.67	82.90	20.59		80.0	
10483-AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	11.24	85.83	20.71	2.23	80.0	± 9.6 %
		Y	3.41	70.08	14.59		80.0	
		Z	9.47	83.02	19.78		80.0	
10484-AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	8.51	82.05	19.52	2.23	80.0	± 9.6 %
		Y	3.13	68.80	14.05		80.0	
		Z	7.60	80.01	18.80		80.0	
10485-AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	11.52	93.72	25.67	2.23	80.0	± 9.6 %
		Y	3.68	75.26	18.76		80.0	
		Z	6.26	82.99	21.85		80.0	
10486-AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	6.05	79.59	20.24	2.23	80.0	± 9.6 %
		Y	3.22	69.88	15.80		80.0	
		Z	4.55	74.57	18.10		80.0	
10487-AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.65	78.19	19.70	2.23	80.0	± 9.6 %
		Y	3.17	69.31	15.53		80.0	
		Z	4.40	73.72	17.74		80.0	
10488-AAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.27	82.82	23.06	2.23	80.0	± 9.6 %
		Y	3.70	73.56	19.11		80.0	
		Z	5.09	78.35	21.09		80.0	
10489-AAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.60	74.50	19.82	2.23	80.0	± 9.6 %
		Y	3.57	69.95	17.46		80.0	
		Z	4.26	72.50	18.73		80.0	
10490-AAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.60	73.92	19.58	2.23	80.0	± 9.6 %
		Y	3.64	69.73	17.37		80.0	
		Z	4.31	72.12	18.57		80.0	
10491-AAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.31	77.49	21.21	2.23	80.0	± 9.6 %
		Y	3.85	71.68	18.53		80.0	
		Z	4.80	74.99	19.94		80.0	
10492-AAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.52	71.91	19.07	2.23	80.0	± 9.6 %
		Y	3.85	68.89	17.42		80.0	
		Z	4.38	70.78	18.35		80.0	

Certificate No: EX3-3930_Jul17   Page 28 of 38

EX3DV4– SN:3930　　　　　　　　　　　　　　　　　　　　July 26, 2017

10493-AAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.54	71.58	18.93	2.23	80.0	± 9.6 %
		Y	3.90	68.74	17.35		80.0	
		Z	4.42	70.55	18.25		80.0	
10494-AAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.30	80.44	22.16	2.23	80.0	± 9.6 %
		Y	4.17	73.15	19.03		80.0	
		Z	5.43	77.14	20.64		80.0	
10495-AAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.59	72.41	19.33	2.23	80.0	± 9.6 %
		Y	3.88	69.19	17.62		80.0	
		Z	4.44	71.21	18.58		80.0	
10496-AAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.60	71.83	19.11	2.23	80.0	± 9.6 %
		Y	3.95	68.92	17.54		80.0	
		Z	4.48	70.78	18.43		80.0	
10497-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	16.04	93.03	22.43	2.23	80.0	± 9.6 %
		Y	1.83	65.71	12.24		80.0	
		Z	4.14	75.38	16.71		80.0	
10498-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.09	65.14	11.49	2.23	80.0	± 9.6 %
		Y	1.29	60.00	8.18		80.0	
		Z	1.80	62.99	10.35		80.0	
10499-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	1.86	63.61	10.61	2.23	80.0	± 9.6 %
		Y	1.30	60.00	8.02		80.0	
		Z	1.68	62.07	9.73		80.0	
10500-AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	7.85	87.28	24.05	2.23	80.0	± 9.6 %
		Y	3.62	74.30	18.81		80.0	
		Z	5.46	80.32	21.30		80.0	
10501-AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.28	77.27	19.98	2.23	80.0	± 9.6 %
		Y	3.43	70.19	16.55		80.0	
		Z	4.44	73.78	18.35		80.0	
10502-AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.26	76.75	19.70	2.23	80.0	± 9.6 %
		Y	3.46	69.95	16.37		80.0	
		Z	4.45	73.43	18.14		80.0	
10503-AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.13	82.44	22.90	2.23	80.0	± 9.6 %
		Y	3.65	73.33	19.00		80.0	
		Z	5.01	78.06	20.96		80.0	
10504-AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.56	74.35	19.74	2.23	80.0	± 9.6 %
		Y	3.55	69.83	17.39		80.0	
		Z	4.23	72.37	18.66		80.0	
10505-AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.57	73.78	19.51	2.23	80.0	± 9.6 %
		Y	3.62	69.62	17.30		80.0	
		Z	4.28	72.00	18.50		80.0	
10506-AAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.21	80.19	22.05	2.23	80.0	± 9.6 %
		Y	4.13	72.99	18.95		80.0	
		Z	5.37	76.94	20.55		80.0	
10507-AAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.57	72.33	19.29	2.23	80.0	± 9.6 %
		Y	3.86	69.12	17.58		80.0	
		Z	4.42	71.14	18.54		80.0	

Certificate No: EX3-3930_Jul17　　　　　　　　Page 29 of 38

EX3DV4– SN:3930

July 26, 2017

10508-AAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.58	71.73	19.06	2.23	80.0	± 9.6 %
		Y	3.94	68.84	17.49		80.0	
		Z	4.46	70.69	18.38		80.0	
10509-AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.83	76.49	20.61	2.23	80.0	± 9.6 %
		Y	4.46	71.62	18.40		80.0	
		Z	5.37	74.46	19.57		80.0	
10510-AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.89	71.13	18.85	2.23	80.0	± 9.6 %
		Y	4.31	68.67	17.53		80.0	
		Z	4.81	70.33	18.30		80.0	
10511-AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.90	70.69	18.70	2.23	80.0	± 9.6 %
		Y	4.37	68.45	17.47		80.0	
		Z	4.84	69.99	18.19		80.0	
10512-AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.75	79.67	21.67	2.23	80.0	± 9.6 %
		Y	4.65	73.10	18.88		80.0	
		Z	5.92	76.77	20.32		80.0	
10513-AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.83	71.62	19.07	2.23	80.0	± 9.6 %
		Y	4.21	68.87	17.63		80.0	
		Z	4.73	70.71	18.47		80.0	
10514-AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.78	70.93	18.82	2.23	80.0	± 9.6 %
		Y	4.23	68.48	17.50		80.0	
		Z	4.71	70.15	18.28		80.0	
10515-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	X	1.03	64.96	16.17	0.00	150.0	± 9.6 %
		Y	0.98	62.82	14.28		150.0	
		Z	0.99	63.49	14.87		150.0	
10516-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	X	1.36	87.70	25.78	0.00	150.0	± 9.6 %
		Y	0.53	66.95	15.48		150.0	
		Z	0.62	70.94	17.85		150.0	
10517-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	X	0.94	68.49	17.78	0.00	150.0	± 9.6 %
		Y	0.80	64.15	14.62		150.0	
		Z	0.84	65.42	15.57		150.0	
10518-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	X	4.50	67.24	16.49	0.00	150.0	± 9.6 %
		Y	4.40	66.74	16.08		150.0	
		Z	4.46	66.90	16.20		150.0	
10519-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	X	4.67	67.42	16.58	0.00	150.0	± 9.6 %
		Y	4.55	66.92	16.18		150.0	
		Z	4.62	67.09	16.30		150.0	
10520-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.53	67.40	16.52	0.00	150.0	± 9.6 %
		Y	4.40	66.85	16.09		150.0	
		Z	4.48	67.05	16.22		150.0	
10521-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	X	4.46	67.40	16.52	0.00	150.0	± 9.6 %
		Y	4.34	66.82	16.07		150.0	
		Z	4.41	67.04	16.21		150.0	
10522-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	X	4.52	67.52	16.61	0.00	150.0	± 9.6 %
		Y	4.39	66.94	16.17		150.0	
		Z	4.47	67.15	16.31		150.0	

Certificate No: EX3-3930_Jul17

Page 30 of 38

EX3DV4– SN:3930   July 26, 2017

10523-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	X	4.42	67.45	16.50	0.00	150.0	± 9.6 %
		Y	4.31	66.91	16.07		150.0	
		Z	4.37	67.08	16.18		150.0	
10524-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	X	4.46	67.44	16.58	0.00	150.0	± 9.6 %
		Y	4.34	66.89	16.15		150.0	
		Z	4.42	67.08	16.27		150.0	
10525-AAA	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	X	4.48	66.54	16.20	0.00	150.0	± 9.6 %
		Y	4.36	66.00	15.77		150.0	
		Z	4.43	66.17	15.89		150.0	
10526-AAA	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	X	4.63	66.87	16.33	0.00	150.0	± 9.6 %
		Y	4.49	66.28	15.89		150.0	
		Z	4.57	66.49	16.02		150.0	
10527-AAA	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	X	4.56	66.85	16.28	0.00	150.0	± 9.6 %
		Y	4.42	66.24	15.83		150.0	
		Z	4.50	66.46	15.96		150.0	
10528-AAA	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	X	4.57	66.86	16.31	0.00	150.0	± 9.6 %
		Y	4.43	66.26	15.86		150.0	
		Z	4.51	66.47	15.99		150.0	
10529-AAA	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	X	4.57	66.86	16.31	0.00	150.0	± 9.6 %
		Y	4.43	66.26	15.86		150.0	
		Z	4.51	66.47	15.99		150.0	
10531-AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	X	4.55	66.94	16.31	0.00	150.0	± 9.6 %
		Y	4.40	66.29	15.84		150.0	
		Z	4.49	66.54	15.99		150.0	
10532-AAA	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	X	4.42	66.82	16.26	0.00	150.0	± 9.6 %
		Y	4.28	66.15	15.77		150.0	
		Z	4.36	66.40	15.93		150.0	
10533-AAA	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	X	4.58	66.94	16.31	0.00	150.0	± 9.6 %
		Y	4.44	66.33	15.86		150.0	
		Z	4.52	66.54	15.99		150.0	
10534-AAA	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	X	5.10	66.82	16.29	0.00	150.0	± 9.6 %
		Y	4.99	66.31	15.94		150.0	
		Z	5.05	66.51	16.03		150.0	
10535-AAA	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	X	5.15	66.98	16.37	0.00	150.0	± 9.6 %
		Y	5.04	66.45	16.01		150.0	
		Z	5.11	66.67	16.10		150.0	
10536-AAA	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	X	5.04	66.97	16.35	0.00	150.0	± 9.6 %
		Y	4.93	66.44	15.98		150.0	
		Z	4.99	66.65	16.08		150.0	
10537-AAA	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	X	5.09	66.92	16.32	0.00	150.0	± 9.6 %
		Y	4.98	66.42	15.97		150.0	
		Z	5.04	66.60	16.06		150.0	
10538-AAA	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	X	5.16	66.90	16.35	0.00	150.0	± 9.6 %
		Y	5.05	66.40	16.00		150.0	
		Z	5.12	66.59	16.09		150.0	
10540-AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	X	5.10	66.89	16.36	0.00	150.0	± 9.6 %
		Y	4.98	66.36	16.00		150.0	
		Z	5.05	66.58	16.10		150.0	

Certificate No: EX3-3930_Jul17   Page 31 of 38

EX3DV4– SN:3930

July 26, 2017

10541-AAA	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	X	5.08	66.80	16.30	0.00	150.0	± 9.6 %
		Y	4.97	66.28	15.94		150.0	
		Z	5.03	66.49	16.04		150.0	
10542-AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	X	5.23	66.86	16.34	0.00	150.0	± 9.6 %
		Y	5.12	66.38	16.01		150.0	
		Z	5.19	66.57	16.10		150.0	
10543-AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	X	5.29	66.86	16.37	0.00	150.0	± 9.6 %
		Y	5.19	66.42	16.06		150.0	
		Z	5.25	66.58	16.12		150.0	
10544-AAA	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	X	5.42	66.89	16.26	0.00	150.0	± 9.6 %
		Y	5.33	66.42	15.95		150.0	
		Z	5.38	66.62	16.03		150.0	
10545-AAA	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	X	5.59	67.26	16.39	0.00	150.0	± 9.6 %
		Y	5.50	66.82	16.11		150.0	
		Z	5.54	66.98	16.16		150.0	
10546-AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	X	5.46	67.05	16.31	0.00	150.0	± 9.6 %
		Y	5.37	66.54	15.98		150.0	
		Z	5.42	66.77	16.07		150.0	
10547-AAA	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	X	5.53	67.10	16.32	0.00	150.0	± 9.6 %
		Y	5.44	66.63	16.02		150.0	
		Z	5.49	66.82	16.09		150.0	
10548-AAA	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	X	5.70	67.79	16.64	0.00	150.0	± 9.6 %
		Y	5.59	67.25	16.30		150.0	
		Z	5.64	67.47	16.39		150.0	
10550-AAA	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	X	5.49	67.10	16.35	0.00	150.0	± 9.6 %
		Y	5.42	66.68	16.06		150.0	
		Z	5.45	66.82	16.11		150.0	
10551-AAA	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	X	5.49	67.10	16.30	0.00	150.0	± 9.6 %
		Y	5.37	66.52	15.95		150.0	
		Z	5.44	66.81	16.06		150.0	
10552-AAA	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	X	5.43	66.99	16.26	0.00	150.0	± 9.6 %
		Y	5.34	66.52	15.94		150.0	
		Z	5.39	66.71	16.02		150.0	
10553-AAA	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	X	5.50	66.97	16.28	0.00	150.0	± 9.6 %
		Y	5.40	66.49	15.96		150.0	
		Z	5.46	66.70	16.05		150.0	
10554-AAA	IEEE 1602.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	X	5.82	67.21	16.32	0.00	150.0	± 9.6 %
		Y	5.75	66.76	16.03		150.0	
		Z	5.78	66.95	16.10		150.0	
10555-AAA	IEEE 1602.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	X	5.93	67.46	16.43	0.00	150.0	± 9.6 %
		Y	5.85	66.99	16.13		150.0	
		Z	5.89	67.20	16.21		150.0	
10556-AAA	IEEE 1602.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	X	5.96	67.52	16.45	0.00	150.0	± 9.6 %
		Y	5.88	67.08	16.16		150.0	
		Z	5.91	67.26	16.23		150.0	
10557-AAA	IEEE 1602.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	X	5.92	67.43	16.42	0.00	150.0	± 9.6 %
		Y	5.84	66.96	16.13		150.0	
		Z	5.88	67.17	16.20		150.0	

TRF-RF-601(03)161101

Prohibits the copying and re-issue of this report without DT&C approval.

Pages: 147 /204

10558-AAA	IEEE 1602.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	X	5.96	67.57	16.51	0.00	150.0	± 9.6 %
		Y	5.86	67.06	16.19		150.0	
		Z	5.92	67.31	16.29		150.0	
10560-AAA	IEEE 1602.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	X	5.96	67.44	16.48	0.00	150.0	± 9.6 %
		Y	5.87	66.96	16.18		150.0	
		Z	5.92	67.18	16.26		150.0	
10561-AAA	IEEE 1602.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	X	5.89	67.40	16.50	0.00	150.0	± 9.6 %
		Y	5.80	66.94	16.20		150.0	
		Z	5.84	67.14	16.28		150.0	
10562-AAA	IEEE 1602.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	X	5.98	67.69	16.64	0.00	150.0	± 9.6 %
		Y	5.86	67.13	16.30		150.0	
		Z	5.93	67.41	16.41		150.0	
10563-AAA	IEEE 1602.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	X	6.05	67.54	16.52	0.00	150.0	± 9.6 %
		Y	5.95	67.06	16.22		150.0	
		Z	6.00	67.28	16.30		150.0	
10564-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)	X	4.82	67.24	16.60	0.46	150.0	± 9.6 %
		Y	4.72	66.79	16.24		150.0	
		Z	4.78	66.96	16.35		150.0	
10565-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	X	5.03	67.66	16.91	0.46	150.0	± 9.6 %
		Y	4.92	67.21	16.56		150.0	
		Z	4.99	67.37	16.66		150.0	
10566-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle)	X	4.87	67.51	16.74	0.46	150.0	± 9.6 %
		Y	4.75	67.02	16.36		150.0	
		Z	4.83	67.21	16.48		150.0	
10567-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle)	X	4.91	67.97	17.14	0.46	150.0	± 9.6 %
		Y	4.79	67.45	16.75		150.0	
		Z	4.87	67.63	16.85		150.0	
10568-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle)	X	4.77	67.27	16.50	0.46	150.0	± 9.6 %
		Y	4.65	66.75	16.09		150.0	
		Z	4.74	66.99	16.25		150.0	
10569-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle)	X	4.89	68.16	17.26	0.46	150.0	± 9.6 %
		Y	4.78	67.67	16.89		150.0	
		Z	4.84	67.81	16.97		150.0	
10570-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle)	X	4.90	67.92	17.14	0.46	150.0	± 9.6 %
		Y	4.78	67.44	16.76		150.0	
		Z	4.86	67.60	16.86		150.0	
10571-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	X	1.29	66.90	17.34	0.46	130.0	± 9.6 %
		Y	1.18	64.21	15.26		130.0	
		Z	1.25	65.49	16.13		130.0	
10572-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	X	1.32	67.77	17.86	0.46	130.0	± 9.6 %
		Y	1.20	64.74	15.60		130.0	
		Z	1.27	66.15	16.53		130.0	
10573-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	X	100.00	157.80	43.41	0.46	130.0	± 9.6 %
		Y	1.35	77.92	20.42		130.0	
		Z	4.07	96.53	27.00		130.0	
10574-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	X	1.82	78.36	22.91	0.46	130.0	± 9.6 %
		Y	1.27	69.71	18.21		130.0	
		Z	1.48	72.97	19.91		130.0	

Certificate No: EX3-3930_Jul17   Page 33 of 38

EX3DV4– SN:3930

July 26, 2017

10575-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)	X	4.61	67.09	16.70	0.46	130.0	± 9.6 %
		Y	4.51	66.61	16.30		130.0	
		Z	4.59	66.81	16.44		130.0	
10576-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	X	4.65	67.29	16.79	0.46	130.0	± 9.6 %
		Y	4.54	66.81	16.39		130.0	
		Z	4.61	67.00	16.52		130.0	
10577-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	X	4.83	67.53	16.93	0.46	130.0	± 9.6 %
		Y	4.71	67.05	16.53		130.0	
		Z	4.79	67.24	16.67		130.0	
10578-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	X	4.74	67.74	17.07	0.46	130.0	± 9.6 %
		Y	4.62	67.21	16.65		130.0	
		Z	4.70	67.42	16.79		130.0	
10579-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	X	4.49	66.93	16.32	0.46	130.0	± 9.6 %
		Y	4.37	66.37	15.88		130.0	
		Z	4.46	66.65	16.07		130.0	
10580-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	X	4.53	66.98	16.35	0.46	130.0	± 9.6 %
		Y	4.41	66.43	15.90		130.0	
		Z	4.50	66.70	16.09		130.0	
10581-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	X	4.65	67.83	17.05	0.46	130.0	± 9.6 %
		Y	4.53	67.28	16.62		130.0	
		Z	4.61	67.49	16.76		130.0	
10582-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	X	4.42	66.66	16.09	0.46	130.0	± 9.6 %
		Y	4.29	66.11	15.64		130.0	
		Z	4.39	66.39	15.84		130.0	
10583-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	X	4.61	67.09	16.70	0.46	130.0	± 9.6 %
		Y	4.51	66.61	16.30		130.0	
		Z	4.59	66.81	16.44		130.0	
10584-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	X	4.65	67.29	16.79	0.46	130.0	± 9.6 %
		Y	4.54	66.81	16.39		130.0	
		Z	4.61	67.00	16.52		130.0	
10585-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	X	4.83	67.53	16.93	0.46	130.0	± 9.6 %
		Y	4.71	67.05	16.53		130.0	
		Z	4.79	67.24	16.67		130.0	
10586-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	X	4.74	67.74	17.07	0.46	130.0	± 9.6 %
		Y	4.62	67.21	16.65		130.0	
		Z	4.70	67.42	16.79		130.0	
10587-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	X	4.49	66.93	16.32	0.46	130.0	± 9.6 %
		Y	4.37	66.37	15.88		130.0	
		Z	4.46	66.65	16.07		130.0	
10588-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	X	4.53	66.98	16.35	0.46	130.0	± 9.6 %
		Y	4.41	66.43	15.90		130.0	
		Z	4.50	66.70	16.09		130.0	
10589-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	X	4.65	67.83	17.05	0.46	130.0	± 9.6 %
		Y	4.53	67.28	16.62		130.0	
		Z	4.61	67.49	16.76		130.0	
10590-AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	X	4.42	66.66	16.09	0.46	130.0	± 9.6 %
		Y	4.29	66.11	15.64		130.0	
		Z	4.39	66.39	15.84		130.0	

Certificate No: EX3-3930_Jul17

Page 34 of 38

EX3DV4– SN:3930   July 26, 2017

10591-AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	X	4.76	67.13	16.79	0.46	130.0	± 9.6 %
		Y	4.67	66.70	16.42		130.0	
		Z	4.74	66.87	16.55		130.0	
10592-AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	X	4.91	67.46	16.92	0.46	130.0	± 9.6 %
		Y	4.79	67.00	16.55		130.0	
		Z	4.87	67.19	16.67		130.0	
10593-AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	X	4.82	67.35	16.79	0.46	130.0	± 9.6 %
		Y	4.71	66.87	16.40		130.0	
		Z	4.79	67.08	16.54		130.0	
10594-AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	X	4.88	67.54	16.96	0.46	130.0	± 9.6 %
		Y	4.77	67.06	16.58		130.0	
		Z	4.85	67.26	16.71		130.0	
10595-AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	X	4.85	67.50	16.87	0.46	130.0	± 9.6 %
		Y	4.73	67.02	16.48		130.0	
		Z	4.82	67.23	16.61		130.0	
10596-AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	X	4.78	67.50	16.87	0.46	130.0	± 9.6 %
		Y	4.66	66.99	16.47		130.0	
		Z	4.75	67.21	16.61		130.0	
10597-AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	X	4.73	67.38	16.74	0.46	130.0	± 9.6 %
		Y	4.61	66.86	16.32		130.0	
		Z	4.70	67.09	16.48		130.0	
10598-AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	X	4.73	67.65	17.03	0.46	130.0	± 9.6 %
		Y	4.61	67.11	16.61		130.0	
		Z	4.69	67.34	16.75		130.0	
10599-AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	X	5.40	67.48	16.91	0.46	130.0	± 9.6 %
		Y	5.34	67.15	16.64		130.0	
		Z	5.38	67.26	16.70		130.0	
10600-AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	X	5.50	67.81	17.04	0.46	130.0	± 9.6 %
		Y	5.43	67.47	16.78		130.0	
		Z	5.48	67.58	16.83		130.0	
10601-AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	X	5.42	67.65	16.98	0.46	130.0	± 9.6 %
		Y	5.34	67.28	16.70		130.0	
		Z	5.39	67.42	16.77		130.0	
10602-AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	X	5.54	67.77	16.95	0.46	130.0	± 9.6 %
		Y	5.45	67.37	16.66		130.0	
		Z	5.51	67.54	16.75		130.0	
10603-AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	X	5.61	68.05	17.23	0.46	130.0	± 9.6 %
		Y	5.52	67.67	16.95		130.0	
		Z	5.58	67.82	17.02		130.0	
10604-AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	X	5.47	67.68	17.03	0.46	130.0	± 9.6 %
		Y	5.41	67.35	16.77		130.0	
		Z	5.45	67.46	16.82		130.0	
10605-AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	X	5.51	67.76	17.07	0.46	130.0	± 9.6 %
		Y	5.43	67.38	16.78		130.0	
		Z	5.48	67.54	16.86		130.0	
10606-AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	X	5.26	67.11	16.60	0.46	130.0	± 9.6 %
		Y	5.21	66.79	16.34		130.0	
		Z	5.24	66.90	16.40		130.0	

Certificate No: EX3-3930_Jul17   Page 35 of 38

EX3DV4– SN:3930

July 26, 2017

10607-AAA	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	X	4.62	66.55	16.47	0.46	130.0	± 9.6 %
		Y	4.51	66.04	16.06		130.0	
		Z	4.58	66.23	16.20		130.0	
10608-AAA	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	X	4.79	66.93	16.63	0.46	130.0	± 9.6 %
		Y	4.66	66.37	16.21		130.0	
		Z	4.75	66.59	16.35		130.0	
10609-AAA	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	X	4.68	66.77	16.47	0.46	130.0	± 9.6 %
		Y	4.55	66.20	16.03		130.0	
		Z	4.64	66.44	16.18		130.0	
10610-AAA	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	X	4.74	66.95	16.64	0.46	130.0	± 9.6 %
		Y	4.60	66.38	16.20		130.0	
		Z	4.69	66.60	16.35		130.0	
10611-AAA	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	X	4.65	66.74	16.48	0.46	130.0	± 9.6 %
		Y	4.52	66.17	16.04		130.0	
		Z	4.60	66.41	16.20		130.0	
10612-AAA	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	X	4.65	66.90	16.53	0.46	130.0	± 9.6 %
		Y	4.51	66.29	16.07		130.0	
		Z	4.61	66.55	16.24		130.0	
10613-AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	X	4.65	66.73	16.38	0.46	130.0	± 9.6 %
		Y	4.50	66.11	15.92		130.0	
		Z	4.60	66.39	16.10		130.0	
10614-AAA	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	X	4.61	66.99	16.66	0.46	130.0	± 9.6 %
		Y	4.47	66.36	16.19		130.0	
		Z	4.56	66.62	16.35		130.0	
10615-AAA	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	X	4.64	66.55	16.24	0.46	130.0	± 9.6 %
		Y	4.51	65.98	15.80		130.0	
		Z	4.60	66.23	15.97		130.0	
10816-AAA	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	X	5.25	66.84	16.58	0.46	130.0	± 9.6 %
		Y	5.15	66.38	16.25		130.0	
		Z	5.21	66.57	16.34		130.0	
10617-AAA	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	X	5.31	67.01	16.64	0.46	130.0	± 9.6 %
		Y	5.20	66.52	16.29		130.0	
		Z	5.27	66.74	16.40		130.0	
10618-AAA	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	X	5.21	67.08	16.69	0.46	130.0	± 9.6 %
		Y	5.11	66.58	16.34		130.0	
		Z	5.17	66.79	16.44		130.0	
10619-AAA	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	X	5.21	66.83	16.50	0.46	130.0	± 9.6 %
		Y	5.12	66.36	16.16		130.0	
		Z	5.18	66.56	16.26		130.0	
10620-AAA	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	X	5.29	66.84	16.55	0.46	130.0	± 9.6 %
		Y	5.19	66.38	16.22		130.0	
		Z	5.26	66.58	16.32		130.0	
10621-AAA	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	X	5.31	67.02	16.76	0.46	130.0	± 9.6 %
		Y	5.21	66.53	16.42		130.0	
		Z	5.27	66.74	16.52		130.0	
10622-AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	X	5.31	67.15	16.82	0.46	130.0	± 9.6 %
		Y	5.20	66.63	16.46		130.0	
		Z	5.27	66.85	16.57		130.0	

Certificate No: EX3-3930_Jul17

Page 36 of 38

EX3DV4– SN:3930   July 26, 2017

10623-AAA	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	X	5.19	66.67	16.45	0.46	130.0	± 9.6 %
		Y	5.08	66.15	16.08		130.0	
		Z	5.16	66.40	16.22		130.0	
10624-AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	X	5.38	66.86	16.60	0.46	130.0	± 9.6 %
		Y	5.28	66.41	16.28		130.0	
		Z	5.34	66.61	16.38		130.0	
10625-AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	X	5.62	67.45	16.95	0.46	130.0	± 9.6 %
		Y	5.40	66.65	16.46		130.0	
		Z	5.57	67.16	16.71		130.0	
10626-AAA	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	X	5.56	66.87	16.51	0.46	130.0	± 9.6 %
		Y	5.48	66.42	16.21		130.0	
		Z	5.52	66.63	16.30		130.0	
10627-AAA	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	X	5.77	67.39	16.73	0.46	130.0	± 9.6 %
		Y	5.69	66.98	16.46		130.0	
		Z	5.73	67.13	16.52		130.0	
10628-AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	X	5.56	66.89	16.42	0.46	130.0	± 9.6 %
		Y	5.47	66.40	16.09		130.0	
		Z	5.53	66.64	16.21		130.0	
10629-AAA	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	X	5.64	66.95	16.44	0.46	130.0	± 9.6 %
		Y	5.56	66.53	16.16		130.0	
		Z	5.60	66.71	16.24		130.0	
10630-AAA	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	X	5.93	68.03	16.99	0.46	130.0	± 9.6 %
		Y	5.81	67.48	16.64		130.0	
		Z	5.88	67.74	16.75		130.0	
10631-AAA	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	X	5.92	68.13	17.23	0.46	130.0	± 9.6 %
		Y	5.80	67.56	16.87		130.0	
		Z	5.87	67.82	16.98		130.0	
10632-AAA	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	X	5.75	67.50	16.94	0.46	130.0	± 9.6 %
		Y	5.69	67.14	16.68		130.0	
		Z	5.71	67.24	16.71		130.0	
10633-AAA	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	X	5.64	67.11	16.56	0.46	130.0	± 9.6 %
		Y	5.52	66.57	16.21		130.0	
		Z	5.60	66.85	16.34		130.0	
10634-AAA	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	X	5.63	67.16	16.65	0.46	130.0	± 9.6 %
		Y	5.53	66.68	16.33		130.0	
		Z	5.59	66.90	16.42		130.0	
10635-AAA	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	X	5.48	66.39	15.99	0.46	130.0	± 9.6 %
		Y	5.39	65.91	15.66		130.0	
		Z	5.45	66.17	15.79		130.0	
10636-AAA	IEEE 1602.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	X	5.97	67.20	16.57	0.46	130.0	± 9.6 %
		Y	5.90	66.77	16.29		130.0	
		Z	5.94	66.97	16.38		130.0	
10637-AAA	IEEE 1602.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	X	6.10	67.53	16.72	0.46	130.0	± 9.6 %
		Y	6.03	67.08	16.43		130.0	
		Z	6.07	67.30	16.52		130.0	
10638-AAA	IEEE 1602.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	X	6.11	67.54	16.70	0.46	130.0	± 9.6 %
		Y	6.04	67.12	16.43		130.0	
		Z	6.08	67.31	16.50		130.0	

Certificate No: EX3-3930_Jul17   Page 37 of 38

EX3DV4– SN:3930

July 26, 2017

10639-AAA	IEEE 1602.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	X	6.09	67.47	16.71	0.46	130.0	± 9.6 %
		Y	6.01	67.02	16.42		130.0	
		Z	6.05	67.24	16.51		130.0	
10640-AAA	IEEE 1602.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	X	6.08	67.45	16.64	0.46	130.0	± 9.6 %
		Y	5.98	66.95	16.33		130.0	
		Z	6.04	67.22	16.45		130.0	
10641-AAA	IEEE 1602.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	X	6.13	67.37	16.62	0.46	130.0	± 9.6 %
		Y	6.06	66.97	16.36		130.0	
		Z	6.10	67.16	16.43		130.0	
10642-AAA	IEEE 1602.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	X	6.18	67.65	16.93	0.46	130.0	± 9.6 %
		Y	6.09	67.21	16.65		130.0	
		Z	6.14	67.42	16.73		130.0	
10643-AAA	IEEE 1602.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	X	6.01	67.31	16.66	0.46	130.0	± 9.6 %
		Y	5.93	66.88	16.37		130.0	
		Z	5.98	67.09	16.46		130.0	
10644-AAA	IEEE 1602.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	X	6.12	67.67	16.86	0.46	130.0	± 9.6 %
		Y	6.01	67.11	16.51		130.0	
		Z	6.08	67.43	16.65		130.0	
10645-AAA	IEEE 1602.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	X	6.23	67.62	16.79	0.46	130.0	± 9.6 %
		Y	6.13	67.13	16.48		130.0	
		Z	6.19	67.38	16.59		130.0	
10646-AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	X	44.06	133.17	44.84	9.30	60.0	± 9.6 %
		Y	12.39	101.54	35.15		60.0	
		Z	58.66	138.52	46.07		60.0	
10647-AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	X	33.76	127.67	43.54	9.30	60.0	± 9.6 %
		Y	10.83	99.05	34.46		60.0	
		Z	44.69	133.00	44.82		60.0	
10648-AAA	CDMA2000 (1x Advanced)	X	0.82	66.98	12.55	0.00	150.0	± 9.6 %
		Y	0.58	62.24	9.25		150.0	
		Z	0.65	63.58	10.51		150.0	

[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Certificate No: EX3-3930_Jul17   Page 38 of 38