

**Appendix A. Calibration certificate**  
**Appendix A.1 Probe Calibration certificate(EX3DV4 3928)**

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



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

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

Accreditation No.: **SCS 0108**

Client **Eurofins KCTL**  
 Gyeonggi-do, Republic of Korea

Certificate No. **EX-3928\_Feb24**

**CALIBRATION CERTIFICATE**

Object: **EX3DV4 - SN:3928**


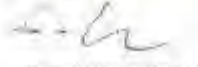
Calibration procedure(s): **QA CAL-01.v10, QA CAL-12.v10, QA CAL-14.v7, QA CAL-23.v6,  
 QA CAL-25.v8**  
 Calibration procedure for dosimetric E-field probes

Calibration date: **February 22, 2024**

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 NRP2	SN: 104778	30-Mar-23 (No. 217-03804/03805)	Mar-24
Power sensor NRP-Z31	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
OCP DAK 3.5 (weighted)	SN: 1249	05-Oct-23 (OCP-DAK3.5-1249_Oct23)	Oct-24
OCP DAK-12	SN: 1016	05-Oct-23 (OCP-DAK12-1016_Oct23)	Oct-24
Reference 20 dB Attenuator	SN: CC2552 (20x)	30-Mar-23 (No. 217-03809)	Mar-24
DAE4	SN: 660	16-Mar-23 (No. DAE4-660_Mar23)	Mar-24
Reference Probe EX3DV4	SN: 7349	03-Nov-23 (No. EX3-7349_Nov23)	Nov-24

Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: MY41498067	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
RF generator HP 8648C	SN: US3842U01700	04-Aug-99 (in house check Jun-22)	In house check: Jun-24
Network Analyzer E8358A	SN: US41089477	31-Mar-14 (in house check Oct-23)	In house check: Oct-24

	Name	Function	Signature
Calibrated by	Jeffrey Katzman	Laboratory Technician	
Approved by	Sven Küht	Technical Manager	

Issued: February 22, 2024

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

**Calibration Laboratory of  
 Schmid & Partner  
 Engineering AG**  
 Zeughausstrasse 45, 8004 Zurich, Switzerland



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

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

Accreditation No.: **SCS 0108**

**Glossary**

TSL	tissue simulating liquid
NORM <sub>x,y,z</sub>	sensitivity in free space
ConvF	sensitivity in TSL / NORM <sub>x,y,z</sub>
DCP	diode compression point
CF	crest factor (1/duty cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization $\psi$	$\psi$ rotation around probe axis
Polarization $\delta$	$\delta$ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\delta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the root coordinate system

**Calibration is Performed According to the Following Standards:**

- a) IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices – Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Methods Applied and Interpretation of Parameters:**

- **NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\theta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- **NORM(f)<sub>x,y,z</sub> = NORM<sub>x,y,z</sub> \* 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.
- **DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal. 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
- **A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>; A, B, C, D** are numerical linearization parameters assessed based on the data of power sweep for specific modulation signals. 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  $f \leq 800$  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 NORM<sub>x,y,z</sub> \* 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 150 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 NORM<sub>x</sub> (no uncertainty required).

EX3DV4 - SN:3928

February 22, 2024

**Parameters of Probe: EX3DV4 - SN:3928**

**Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k = 2)
Norm ( $\mu\text{V}/(\text{V/m})^2$ ) <sup>A</sup>	0.50	0.25	0.54	$\pm 10.1\%$
DCP (mV) <sup>B</sup>	99.3	95.8	100.0	$\pm 4.7\%$

**Calibration Results for Modulation Response**

UID	Communication System Name	A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Max dev.	Max Unc <sup>F</sup> k = 2	
0	CW	X	0.00	0.00	1.00	0.00	148.0	$\pm 2.8\%$	$\pm 4.7\%$
		Y	0.00	0.00	1.00		120.1		
		Z	0.00	0.00	1.00		147.9		
10352	Pulse Waveform (200Hz, 10%)	X	20.00	93.19	21.99	10.00	80.0	$\pm 2.6\%$	$\pm 9.6\%$
		Y	20.00	97.07	24.45		80.0		
		Z	20.00	95.38	23.31		80.0		
10353	Pulse Waveform (200Hz, 20%)	X	20.00	95.91	21.99	8.99	80.0	$\pm 1.3\%$	$\pm 9.6\%$
		Y	20.00	96.57	23.97		80.0		
		Z	20.00	96.12	23.57		80.0		
10354	Pulse Waveform (200Hz, 40%)	X	20.00	98.77	22.17	3.98	95.0	$\pm 0.8\%$	$\pm 9.6\%$
		Y	20.00	108.08	27.11		95.0		
		Z	20.00	103.12	24.53		95.0		
10355	Pulse Waveform (200Hz, 60%)	X	20.00	102.27	22.48	2.22	120.0	$\pm 0.8\%$	$\pm 9.6\%$
		Y	20.00	118.21	30.27		120.0		
		Z	20.00	108.24	25.49		120.0		
10387	QPSK Waveform, 1 MHz	X	1.56	63.82	13.71	1.00	150.0	$\pm 2.2\%$	$\pm 9.6\%$
		Y	1.80	65.44	15.23		150.0		
		Z	1.62	64.84	14.29		150.0		
10388	QPSK Waveform, 10 MHz	X	2.01	65.62	14.94	0.00	150.0	$\pm 0.9\%$	$\pm 9.6\%$
		Y	2.38	66.06	15.91		150.0		
		Z	2.13	66.71	14.98		150.0		
10396	64-QAM Waveform, 100 kHz	X	2.78	68.74	17.81	3.01	150.0	$\pm 1.1\%$	$\pm 9.6\%$
		Y	2.53	67.58	17.85		150.0		
		Z	2.93	69.62	18.43		150.0		
10399	64-QAM Waveform, 40 MHz	X	3.35	66.03	15.05	0.00	150.0	$\pm 1.1\%$	$\pm 9.6\%$
		Y	3.63	67.07	15.91		150.0		
		Z	3.48	66.61	15.45		150.0		
10414	WLAN CCDF, 64-QAM, 40 MHz	X	4.82	65.05	15.13	0.00	150.0	$\pm 2.2\%$	$\pm 9.6\%$
		Y	5.06	65.52	15.62		150.0		
		Z	4.90	65.47	15.41		150.0		

Note: For details on UID parameters see Appendix

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

<sup>A</sup> The uncertainties of Norm X, Y, Z do not affect the E-field uncertainty inside TBL (see Page 5).

<sup>B</sup> Linearization parameter uncertainty for maximum specified line strength.

<sup>F</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed to the square of the line value.

EX3DV4 - SN:3928

February 22, 2024

**Parameters of Probe: EX3DV4 - SN:3928**

**Sensor Model Parameters**

	C1 IF	C2 IF	$\alpha$ V <sup>-1</sup>	T1 msV <sup>-2</sup>	T2 msV <sup>-1</sup>	T3 ms	T4 V <sup>-2</sup>	T5 V <sup>-1</sup>	T6
x	50.4	378.22	35.72	14.13	0.25	5.07	1.22	0.28	1.01
y	81.1	470.28	37.56	14.46	0.35	5.09	0.00	0.37	1.01
z	48.3	364.24	36.04	14.70	0.22	5.10	0.88	0.36	1.01

**Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle	89.1°
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	9mm
Tip Diameter	2.5mm
Probe Tip to Sensor X Calibration Point	1mm
Probe Tip to Sensor Y Calibration Point	1mm
Probe Tip to Sensor Z Calibration Point	1mm
Recommended Measurement Distance from Surface	1.4mm

*Note: Measurement distance from surface can be increased to 3-4 mm for Air Scan job*

EX3DV4 - SN:3928

February 22, 2024

**Parameters of Probe: EX3DV4 - SN:3928**

**Calibration Parameter Determined in Head Tissue Simulating Media**

f (MHz) <sup>C</sup>	Relative Permittivity <sup>F</sup>	Conductivity <sup>F</sup> (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
6	55.0	0.75	16.85	16.65	16.85	0.00	1.25	±13.3%
13	55.0	0.75	14.72	14.72	14.72	0.00	1.25	±13.3%
750	41.9	0.89	8.84	8.61	8.82	0.39	1.27	±11.0%
850	41.5	0.92	8.22	8.01	8.47	0.38	1.27	±11.0%
900	41.5	0.97	8.23	7.52	8.98	0.40	1.27	±11.0%
1750	40.1	1.37	7.72	7.55	8.45	0.29	1.27	±11.0%
1900	40.0	1.40	7.40	7.18	8.01	0.31	1.27	±11.0%
2300	39.5	1.67	7.19	7.03	7.78	0.33	1.27	±11.0%
2450	39.2	1.80	7.05	6.88	7.61	0.33	1.27	±11.0%
2600	39.0	1.96	6.93	6.76	7.49	0.30	1.27	±11.0%
5250	35.9	4.71	5.13	5.02	5.64	0.39	1.53	±13.1%
5600	35.5	5.07	4.56	4.45	4.97	0.40	1.67	±13.1%
5800	35.3	5.27	4.52	4.43	4.94	0.36	1.67	±13.1%

<sup>C</sup> Frequency validity above 300 MHz or 1100 MHz (only applies for DA8Y v4.4 and higher (see Page 2)), else it is restricted to ≤50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-8 MHz and ConvF assessed at 13 MHz is 9-18 MHz. Above 6 GHz frequency validity can be extended to ±10 MHz.

<sup>F</sup> The probes are calibrated using tissue simulating liquids (TSL) that deviate for  $\epsilon'$  and  $\sigma$  by less than ±5% from the target values (typically better than ±3%) and are valid for TSL with deviations of up to ±10% if SAR correction is applied.

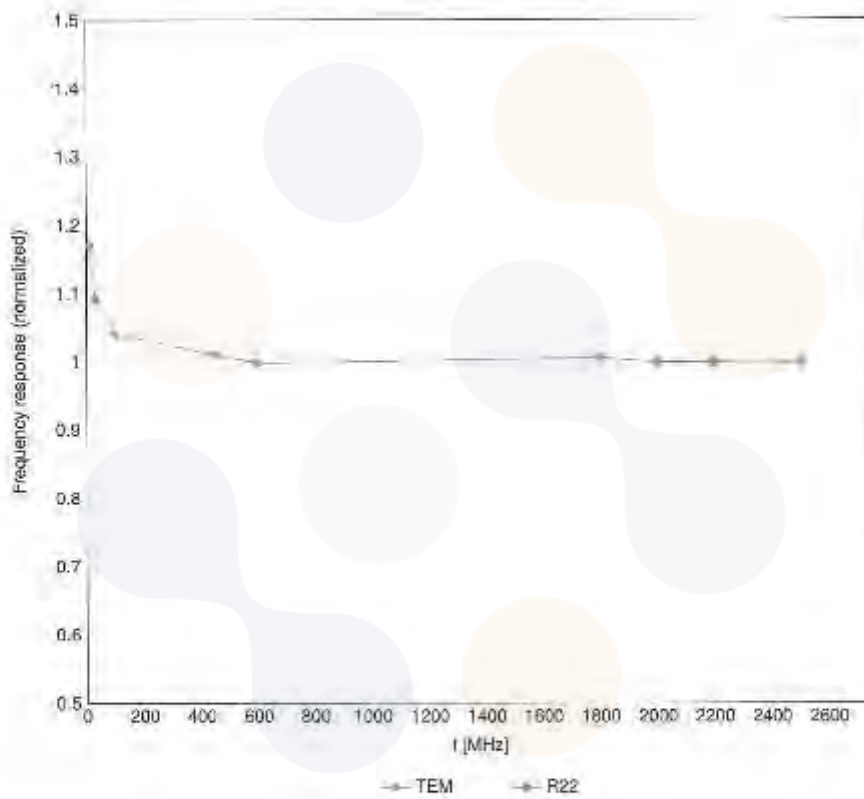
<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 5 GHz and below ±2% for frequencies between 6-6 GHz at any distance larger than half the probe tip diameter from the boundary.

EX3DV4 - SN:3928

February 22, 2024

### Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide:R22)

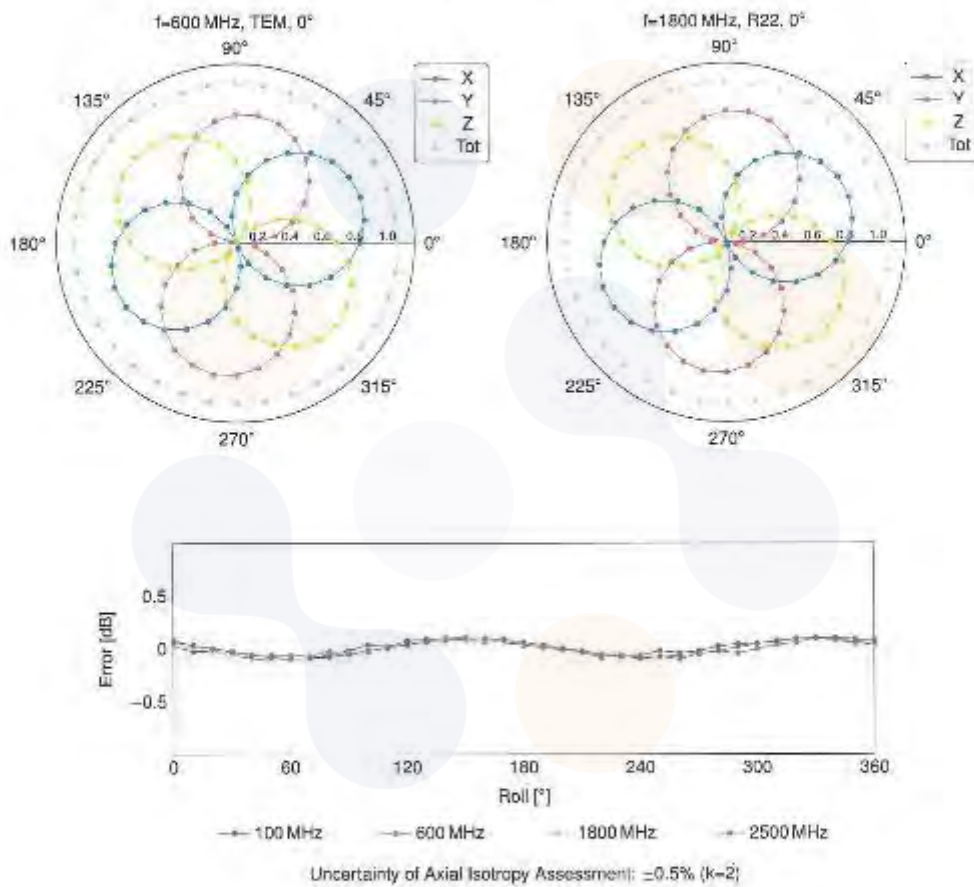


Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  (k=2)

EX3DV4 - SN:3928

February 22, 2024

**Receiving Pattern ( $\phi$ ),  $\theta = 0^\circ$**

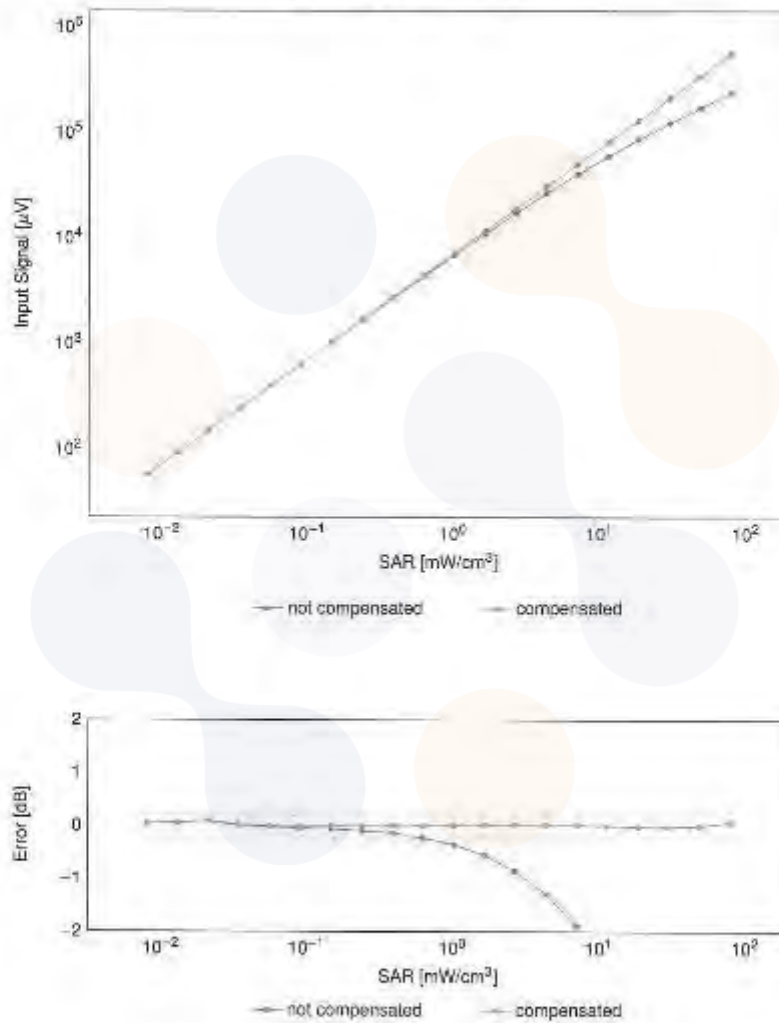


EX3DV4 - SN:3928

February 22, 2024

**Dynamic Range f(SAR<sub>head</sub>)**

(TEM cell, f<sub>eval</sub> = 1900MHz)



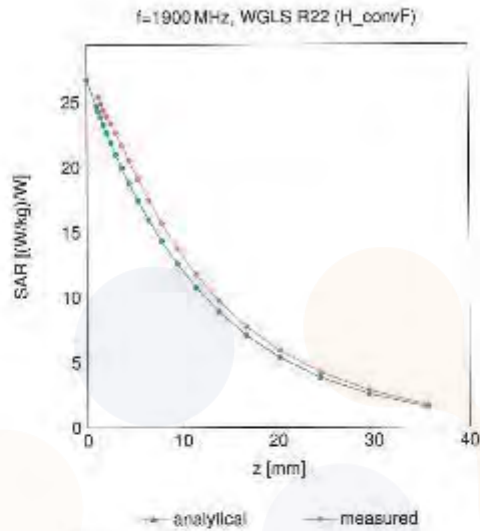
Uncertainty of Linearity Assessment: +0.6% (k=2)



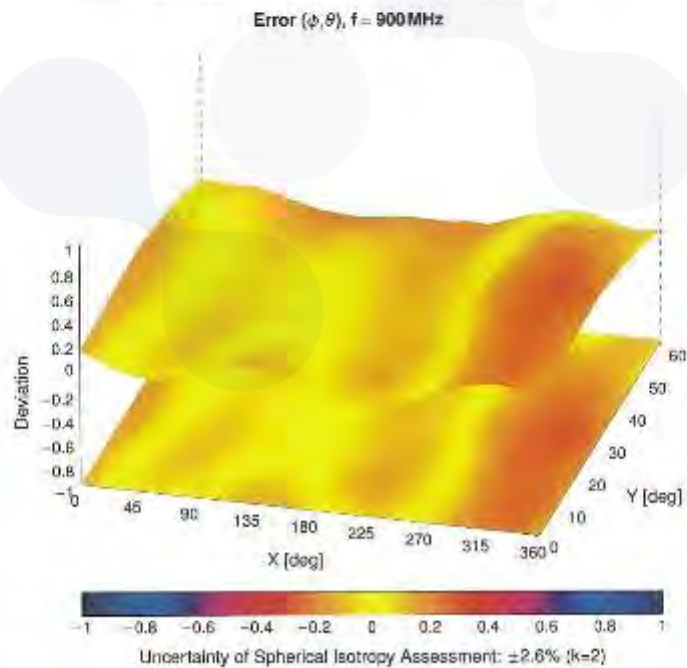
EX3DV4 - SN:3928

February 22, 2024

### Conversion Factor Assessment



### Deviation from Isotropy in Liquid



EX3DV4 - SN:3928

February 22, 2024

**Appendix: Modulation Calibration Parameters**

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>E</sup> k - 2
0		CW	CW	0.00	±4.7
10010	CAB	SAR Validation (Square, 100 ms, 10 ms)	Test	10.00	+9.6
10011	CAC	UMTS-FDD (WCDMA)	WCDMA	2.91	+9.6
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	+9.6
10013	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.48	+9.6
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	+9.6
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	+9.6
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	+9.6
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	+9.6
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	+9.6
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0 1 2)	GSM	4.80	+9.6
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0 1 2 3)	GSM	3.55	+9.6
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	+9.6
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	+9.6
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	+9.6
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	+9.6
10033	CAA	IEEE 802.15.1 Bluetooth (P4-DQPSK, DH1)	Bluetooth	7.74	+9.6
10034	CAA	IEEE 802.15.1 Bluetooth (P4-DQPSK, DH3)	Bluetooth	4.53	+9.6
10035	CAA	IEEE 802.15.1 Bluetooth (P4-DQPSK, DH5)	Bluetooth	3.83	+9.6
10036	CAA	IEEE 802.15.1 Bluetooth (8-CPFSK, DH1)	Bluetooth	8.01	+9.6
10037	CAA	IEEE 802.15.1 Bluetooth (8-CPFSK, DH3)	Bluetooth	4.77	+9.6
10038	CAA	IEEE 802.15.1 Bluetooth (8-CPFSK, DH5)	Bluetooth	4.10	+9.6
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	+9.6
10042	CAB	IS-54 / IS-136 FDD (TDMA/FDD, P4-DQPSK, Fullrate)	AMPS	7.78	+9.6
10044	CAA	IS-61/61A/11A 568 FDD (FDMA, FM)	AMPS	6.00	+9.6
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	+9.6
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	+9.6
10056	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mbps)	TD-SCDMA	11.01	+9.6
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.62	+9.6
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	+9.6
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	+9.6
10061	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.80	+9.6
10062	CAE	IEEE 802.11a/n WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.88	+9.6
10063	CAE	IEEE 802.11a/n WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	9.83	+9.6
10064	CAE	IEEE 802.11a/n WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.99	+9.6
10065	CAE	IEEE 802.11a/n WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	+9.6
10066	CAE	IEEE 802.11a/n WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.98	+9.6
10067	CAE	IEEE 802.11a/n WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	+9.6
10068	CAE	IEEE 802.11a/n WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	+9.6
10069	CAE	IEEE 802.11a/n WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	+9.6
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps)	WLAN	9.83	+9.6
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps)	WLAN	9.62	+9.6
10073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps)	WLAN	9.94	+9.6
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps)	WLAN	10.30	+9.6
10075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps)	WLAN	10.77	+9.6
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps)	WLAN	10.94	+9.6
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps)	WLAN	11.00	+9.6
10081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	+9.6
10082	CAB	IS-54 / IS-136 FDD (TDMA/FDD, P4-DQPSK, Fullrate)	AMPS	4.77	+9.6
10090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	+9.6
10097	CAC	UMTS-FDD (HSDPA)	WCDMA	3.98	+9.6
10098	CAC	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	+9.6
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	+9.6
10100	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	+9.6
10101	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	+9.6
10102	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.50	+9.6
10103	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	3.29	+9.6
10104	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	3.97	+9.6
10105	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	+9.6
10106	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	+9.6
10109	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	+9.6
10110	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	+9.6
10111	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	+9.6

EX3DV4 - SN:3928

February 22, 2024

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>2</sup> K=2
10112	CAH	LTE-FDD (SC-FDMA, 100% RB, 10MHz, 64-QAM)	LTE-FDD	6.59	+9.6
10113	CAH	LTE-FDD (SC-FDMA, 100% RB, 5MHz, 64-QAM)	LTE-FDD	6.62	+9.6
10114	CAE	IEEE 802.11n (HT Greenfield, 18.5Mbps, BPSK)	WLAN	6.10	+9.6
10115	CAE	IEEE 802.11n (HT Greenfield, 81Mbps, 16-QAM)	WLAN	6.46	+9.6
10116	CAE	IEEE 802.11n (HT Greenfield, 135Mbps, 64-QAM)	WLAN	6.75	+9.6
10117	CAE	IEEE 802.11n (HT Mixed), 13.5Mbps, BPSK)	WLAN	6.07	+9.6
10118	CAE	IEEE 802.11n (HT Mixed), 81Mbps, 16-QAM)	WLAN	6.39	+9.6
10119	CAF	IEEE 802.11n (HT Mixed), 135Mbps, 64-QAM)	WLAN	6.75	+9.6
10140	CAF	LTE-FDD (SC-FDMA, 100% RB, 15MHz, 16-QAM)	LTE-FDD	6.49	+9.6
10141	CAF	LTE-FDD (SC-FDMA, 100% RB, 15MHz, 64-QAM)	LTE-FDD	6.53	+9.6
10142	CAF	LTE-FDD (SC-FDMA, 100% RB, 3MHz, QPSK)	LTE-FDD	5.73	+9.6
10143	CAF	LTE-FDD (SC-FDMA, 100% RB, 3MHz, 16-QAM)	LTE-FDD	6.35	+9.6
10144	CAF	LTE-FDD (SC-FDMA, 100% RB, 3MHz, 64-QAM)	LTE-FDD	6.65	+9.6
10145	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4MHz, QPSK)	LTE-FDD	5.76	+9.6
10146	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4MHz, 16-QAM)	LTE-FDD	6.41	+9.6
10147	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4MHz, 64-QAM)	LTE-FDD	6.72	+9.6
10148	CAF	LTE-FDD (SC-FDMA, 50% RB, 20MHz, 16-QAM)	LTE-FDD	6.42	+9.6
10149	CAF	LTE-FDD (SC-FDMA, 50% RB, 20MHz, 64-QAM)	LTE-FDD	6.80	+9.6
10150	CAF	LTE-FDD (SC-FDMA, 50% RB, 20MHz, 16-QAM)	LTE-FDD	6.23	+9.6
10151	CAH	LTE-TDD (SC-FDMA, 50% RB, 20MHz, QPSK)	LTE-TDD	9.23	+9.6
10152	CAH	LTE-TDD (SC-FDMA, 50% RB, 20MHz, 16-QAM)	LTE-TDD	9.32	+9.6
10153	CAH	LTE-TDD (SC-FDMA, 50% RB, 20MHz, 64-QAM)	LTE-TDD	10.05	+9.6
10154	CAH	LTE-FDD (SC-FDMA, 50% RB, 10MHz, QPSK)	LTE-FDD	5.75	+9.6
10155	CAH	LTE-FDD (SC-FDMA, 50% RB, 10MHz, 16-QAM)	LTE-FDD	6.43	+9.6
10156	CAF	LTE-FDD (SC-FDMA, 50% RB, 5MHz, QPSK)	LTE-FDD	5.78	+9.6
10157	CAH	LTE-FDD (SC-FDMA, 50% RB, 5MHz, 16-QAM)	LTE-FDD	6.48	+9.6
10158	CAH	LTE-FDD (SC-FDMA, 50% RB, 10MHz, 64-QAM)	LTE-FDD	6.62	+9.6
10159	CAH	LTE-FDD (SC-FDMA, 50% RB, 5MHz, 64-QAM)	LTE-FDD	6.06	+9.6
10160	CAF	LTE-FDD (SC-FDMA, 50% RB, 15MHz, QPSK)	LTE-FDD	6.06	+9.6
10161	CAF	LTE-FDD (SC-FDMA, 50% RB, 15MHz, 16-QAM)	LTE-FDD	6.45	+9.6
10162	CAF	LTE-FDD (SC-FDMA, 50% RB, 15MHz, 64-QAM)	LTE-FDD	6.58	+9.6
10163	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4MHz, QPSK)	LTE-FDD	5.45	+9.6
10164	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4MHz, 16-QAM)	LTE-FDD	6.21	+9.6
10165	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4MHz, 64-QAM)	LTE-FDD	6.79	+9.6
10166	CAF	LTE-FDD (SC-FDMA, 1 RB, 20MHz, QPSK)	LTE-FDD	5.73	+9.6
10167	CAF	LTE-FDD (SC-FDMA, 1 RB, 20MHz, 16-QAM)	LTE-FDD	6.52	+9.6
10168	CAF	LTE-FDD (SC-FDMA, 1 RB, 20MHz, 64-QAM)	LTE-FDD	6.48	+9.6
10169	CAF	LTE-FDD (SC-FDMA, 1 RB, 20MHz, QPSK)	LTE-FDD	6.21	+9.6
10170	CAF	LTE-FDD (SC-FDMA, 1 RB, 20MHz, 16-QAM)	LTE-FDD	6.52	+9.6
10171	CAF	LTE-FDD (SC-FDMA, 1 RB, 20MHz, 64-QAM)	LTE-FDD	6.48	+9.6
10172	CAF	LTE-FDD (SC-FDMA, 1 RB, 20MHz, QPSK)	LTE-FDD	6.21	+9.6
10173	CAH	LTE-TDD (SC-FDMA, 1 RB, 20MHz, 16-QAM)	LTE-TDD	9.46	+9.6
10174	CAH	LTE-TDD (SC-FDMA, 1 RB, 20MHz, 64-QAM)	LTE-TDD	10.25	+9.6
10175	CAH	LTE-FDD (SC-FDMA, 1 RB, 10MHz, QPSK)	LTE-FDD	5.72	+9.6
10176	CAH	LTE-FDD (SC-FDMA, 1 RB, 10MHz, 16-QAM)	LTE-FDD	6.32	+9.6
10177	CAH	LTE-FDD (SC-FDMA, 1 RB, 5MHz, QPSK)	LTE-FDD	5.73	+9.6
10178	CAH	LTE-FDD (SC-FDMA, 1 RB, 5MHz, 16-QAM)	LTE-FDD	6.52	+9.6
10179	CAH	LTE-FDD (SC-FDMA, 1 RB, 5MHz, 64-QAM)	LTE-FDD	6.50	+9.6
10180	CAH	LTE-FDD (SC-FDMA, 1 RB, 5MHz, 64-QAM)	LTE-FDD	6.50	+9.6
10181	CAF	LTE-FDD (SC-FDMA, 1 RB, 15MHz, QPSK)	LTE-FDD	6.72	+9.6
10182	CAF	LTE-FDD (SC-FDMA, 1 RB, 15MHz, 16-QAM)	LTE-FDD	6.52	+9.6
10183	AAF	LTE-FDD (SC-FDMA, 1 RB, 15MHz, 64-QAM)	LTE-FDD	6.50	+9.6
10184	CAF	LTE-FDD (SC-FDMA, 1 RB, 3MHz, QPSK)	LTE-FDD	5.73	+9.6
10185	CAF	LTE-FDD (SC-FDMA, 1 RB, 3MHz, 16-QAM)	LTE-FDD	6.51	+9.6
10186	AAF	LTE-FDD (SC-FDMA, 1 RB, 3MHz, 64-QAM)	LTE-FDD	6.50	+9.6
10187	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4MHz, QPSK)	LTE-FDD	5.73	+9.6
10188	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4MHz, 16-QAM)	LTE-FDD	6.52	+9.6
10189	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4MHz, 64-QAM)	LTE-FDD	6.50	+9.6
10190	CAE	IEEE 802.11n (HT Greenfield, 8.5Mbps, BPSK)	WLAN	6.09	+9.6
10191	CAE	IEEE 802.11n (HT Greenfield, 39Mbps, 16-QAM)	WLAN	6.12	+9.6
10192	CAE	IEEE 802.11n (HT Greenfield, 85Mbps, 64-QAM)	WLAN	6.21	+9.6
10193	CAE	IEEE 802.11n (HT Mixed), 8.5Mbps, BPSK)	WLAN	6.10	+9.6
10194	CAE	IEEE 802.11n (HT Mixed), 39Mbps, 16-QAM)	WLAN	6.13	+9.6
10195	CAE	IEEE 802.11n (HT Mixed), 85Mbps, 64-QAM)	WLAN	6.23	+9.6
10196	CAE	IEEE 802.11n (HT Mixed), 45Mbps, 16-QAM)	WLAN	6.15	+9.6
10197	CAE	IEEE 802.11n (HT Mixed), 72.2Mbps, 64-QAM)	WLAN	6.27	+9.6
10198	CAE	IEEE 802.11n (HT Mixed), 15Mbps, BPSK)	WLAN	6.08	+9.6
10199	CAE	IEEE 802.11n (HT Mixed), 39Mbps, 16-QAM)	WLAN	6.18	+9.6
10200	CAE	IEEE 802.11n (HT Mixed), 85Mbps, 64-QAM)	WLAN	6.28	+9.6

EX3DV4 - SN:3928

February 22, 2024

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>F</sup> k = 2
10225	CAC	UMTS-FDD (HSPA+)	WCDMA	5.97	±9.6
10225	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4MHz, 16-QAM)	LTE-TDD	3.49	±9.6
10227	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4MHz, 64-QAM)	LTE-TDD	10.26	±9.6
10228	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4MHz, QPSK)	LTE-TDD	9.22	±9.6
10229	CAE	LTE-TDD (SC-FDMA, 1 RB, 3MHz, 16-QAM)	LTE-TDD	9.48	±9.6
10230	CAE	LTE-TDD (SC-FDMA, 1 RB, 3MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10231	CAE	LTE-TDD (SC-FDMA, 1 RB, 3MHz, QPSK)	LTE-TDD	9.19	±9.6
10232	CAH	LTE-TDD (SC-FDMA, 1 RB, 5MHz, 16-QAM)	LTE-TDD	9.48	±9.6
10233	CAH	LTE-TDD (SC-FDMA, 1 RB, 5MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10234	CAH	LTE-TDD (SC-FDMA, 1 RB, 5MHz, QPSK)	LTE-TDD	9.21	±9.6
10235	CAH	LTE-TDD (SC-FDMA, 1 RB, 10MHz, 16-QAM)	LTE-TDD	9.48	±9.6
10236	CAH	LTE-TDD (SC-FDMA, 1 RB, 10MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10237	CAH	LTE-TDD (SC-FDMA, 1 RB, 10MHz, QPSK)	LTE-TDD	9.21	±9.6
10238	CAG	LTE-TDD (SC-FDMA, 1 RB, 15MHz, 16-QAM)	LTE-TDD	9.49	±9.6
10239	CAG	LTE-TDD (SC-FDMA, 1 RB, 15MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10240	CAG	LTE-TDD (SC-FDMA, 1 RB, 15MHz, QPSK)	LTE-TDD	9.21	±9.6
10241	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4MHz, 16-QAM)	LTE-TDD	9.82	±9.6
10242	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4MHz, 64-QAM)	LTE-TDD	9.86	±9.6
10243	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4MHz, QPSK)	LTE-TDD	9.48	±9.6
10244	CAE	LTE-TDD (SC-FDMA, 50% RB, 3MHz, 16-QAM)	LTE-TDD	10.08	±9.6
10245	CAE	LTE-TDD (SC-FDMA, 50% RB, 3MHz, 64-QAM)	LTE-TDD	10.08	±9.6
10246	CAL	LTE-TDD (SC-FDMA, 50% RB, 3MHz, QPSK)	LTE-TDD	9.30	±9.6
10247	CAH	LTE-TDD (SC-FDMA, 50% RB, 5MHz, 16-QAM)	LTE-TDD	9.91	±9.6
10248	CAH	LTE-TDD (SC-FDMA, 50% RB, 5MHz, 64-QAM)	LTE-TDD	10.09	±9.6
10249	CAH	LTE-TDD (SC-FDMA, 50% RB, 5MHz, QPSK)	LTE-TDD	9.29	±9.6
10250	CAH	LTE-TDD (SC-FDMA, 50% RB, 10MHz, 16-QAM)	LTE-TDD	9.81	±9.6
10251	CAH	LTE-TDD (SC-FDMA, 50% RB, 10MHz, 64-QAM)	LTE-TDD	10.17	±9.6
10252	CAH	LTE-TDD (SC-FDMA, 50% RB, 10MHz, QPSK)	LTE-TDD	9.24	±9.6
10253	CAG	LTE-TDD (SC-FDMA, 50% RB, 15MHz, 16-QAM)	LTE-TDD	9.90	±9.6
10254	CAG	LTE-TDD (SC-FDMA, 50% RB, 15MHz, 64-QAM)	LTE-TDD	10.14	±9.6
10255	CAG	LTE-TDD (SC-FDMA, 50% RB, 15MHz, QPSK)	LTE-TDD	9.20	±9.6
10256	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4MHz, 16-QAM)	LTE-TDD	9.95	±9.6
10257	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4MHz, 64-QAM)	LTE-TDD	10.09	±9.6
10258	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4MHz, QPSK)	LTE-TDD	9.34	±9.6
10259	CAF	LTE-TDD (SC-FDMA, 100% RB, 3MHz, 16-QAM)	LTE-TDD	9.99	±9.6
10260	CAF	LTE-TDD (SC-FDMA, 100% RB, 3MHz, 64-QAM)	LTE-TDD	9.97	±9.6
10261	CAE	LTE-TDD (SC-FDMA, 100% RB, 3MHz, QPSK)	LTE-TDD	9.24	±9.6
10262	CAH	LTE-TDD (SC-FDMA, 100% RB, 5MHz, 16-QAM)	LTE-TDD	9.89	±9.6
10263	CAH	LTE-TDD (SC-FDMA, 100% RB, 5MHz, 64-QAM)	LTE-TDD	10.16	±9.6
10264	CAH	LTE-TDD (SC-FDMA, 100% RB, 5MHz, QPSK)	LTE-TDD	9.23	±9.6
10265	CAH	LTE-TDD (SC-FDMA, 100% RB, 10MHz, 16-QAM)	LTE-TDD	9.92	±9.6
10266	CAH	LTE-TDD (SC-FDMA, 100% RB, 10MHz, 64-QAM)	LTE-TDD	10.07	±9.6
10267	CAH	LTE-TDD (SC-FDMA, 100% RB, 10MHz, QPSK)	LTE-TDD	9.30	±9.6
10268	CAG	LTE-TDD (SC-FDMA, 100% RB, 15MHz, 16-QAM)	LTE-TDD	10.06	±9.6
10269	CAG	LTE-TDD (SC-FDMA, 100% RB, 15MHz, 64-QAM)	LTE-TDD	10.13	±9.6
10270	CAG	LTE-TDD (SC-FDMA, 100% RB, 15MHz, QPSK)	LTE-TDD	9.58	±9.6
10274	CAC	UMTS-FDD (HSUPA, Subset 5, 3GPP Re8.10)	WCDMA	4.87	±9.6
10275	CAC	UMTS-FDD (HSUPA, Subset 5, 3GPP Re8.4)	WCDMA	3.66	±9.6
10277	CAA	PHS (QPSK)	PHS	11.81	±9.6
10278	CAA	PHS (QPSK, BW 884MHz, RollOff 0.5)	PHS	11.81	±9.6
10279	CAA	PHS (QPSK, BW 884MHz, RollOff 0.39)	PHS	12.18	±9.6
10290	AAB	CDMA2000, RC1, SO55, Full Rate	CDMA2000	3.91	±9.6
10291	AAB	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.48	±9.6
10292	AAB	CDMA2000, RC3, SO37, Full Rate	CDMA2000	3.39	±9.6
10298	AAB	CDMA2000, RC3, SO3, Full Rate	CDMA2000	3.50	±9.6
10299	AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	CDMA2000	12.49	±9.6
10297	AAE	LTE-FDD (SC-FDMA, 50% RB, 20MHz, QPSK)	LTE-FDD	5.81	±9.6
10296	AAE	LTE-FDD (SC-FDMA, 50% RB, 3MHz, QPSK)	LTE-FDD	5.72	±9.6
10299	AAE	LTE-FDD (SC-FDMA, 50% RB, 3MHz, 16-QAM)	LTE-FDD	6.39	±9.6
10300	AAE	LTE-FDD (SC-FDMA, 50% RB, 3MHz, 64-QAM)	LTE-FDD	6.60	±9.6
10301	AAA	IEEE 802.16e WIMAX (29.18, 5ms, 10MHz, QPSK, PUSC)	WIMAX	12.03	±9.6
10302	AAA	IEEE 802.16e WIMAX (29.18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	WIMAX	12.57	±9.6
10303	AAA	IEEE 802.16e WIMAX (31.15, 5ms, 10MHz, 64QAM, PUSC)	WIMAX	12.52	±9.6
10304	AAA	IEEE 802.16e WIMAX (29.18, 5ms, 10MHz, 64QAM, PUSC)	WIMAX	11.96	±9.6
10305	AAA	IEEE 802.16e WIMAX (31.15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	WIMAX	15.24	±9.6
10306	AAA	IEEE 802.16e WIMAX (29.18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	WIMAX	14.87	±9.6

EX3DV4 - SN:8928

February 22, 2024

UID	Rev	Communication System Name	Group	PAR [dB]	Unc <sup>h</sup> k = 2
10307	AAA	IEEE 802.16e WIMAX (20:18, 10 ms, 10 MHz, QPSK, PUSC, 15 symbols)	WIMAX	14.43	±0.6
10308	AAA	IEEE 802.16e WIMAX (20:18, 10 ms, 10 MHz, 16QAM, PUSC)	WIMAX	14.48	±0.6
10309	AAA	IEEE 802.16e WIMAX (20:18, 10 ms, 10 MHz, 16QAM, AMC 2x3, 18 symbols)	WIMAX	14.50	±0.6
10310	AAA	IEEE 802.16e WIMAX (20:18, 10 ms, 10 MHz, QPSK, AMC 2x3, 18 symbols)	WIMAX	14.57	±0.6
10311	AAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.08	±0.6
10313	AAA	IDEN 1:0	CDEN	6.51	±0.6
10314	AAA	IDEN 1:0	CDEN	13.48	±0.6
10315	AAB	IEEE 802.11b WiFi (2.4 GHz, DSSS, 1 Mbps, 99% duty cycle)	WLAN	1.71	±0.6
10316	AAB	IEEE 802.11g WiFi (2.4 GHz, ERP-OFDM, 6 Mbps, 99% duty cycle)	WLAN	8.96	±0.6
10317	AAE	IEEE 802.11a WiFi (5 GHz, OFDM, 6 Mbps, 99% duty cycle)	WLAN	8.98	±0.6
10352	AAA	Pulse Waveform (200Hz, 10%)	Generic	11.00	±0.6
10351	AAA	Pulse Waveform (200Hz, 20%)	Generic	6.69	±0.6
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.88	±0.6
10355	AAA	Pulse Waveform (200Hz, 80%)	Generic	2.25	±0.6
10356	AAA	Pulse Waveform (500Hz, 80%)	Generic	0.97	±0.6
10387	AAA	QPSK Waveform, 1 MHz	Generic	5.10	±0.6
10388	AAA	QPSK Waveform, 10 MHz	Generic	5.22	±0.6
10389	AAA	64-QAM Waveform, 100 kHz	Generic	8.27	±0.6
10389	AAA	64-QAM Waveform, 40 MHz	Generic	8.27	±0.6
10400	AAF	IEEE 802.11n WiFi (20 MHz, 64-QAM, 99% duty cycle)	WLAN	8.37	±0.6
10401	AAF	IEEE 802.11n WiFi (40 MHz, 64-QAM, 99% duty cycle)	WLAN	8.50	±0.6
10402	AAF	IEEE 802.11n WiFi (80 MHz, 64-QAM, 99% duty cycle)	WLAN	8.53	±0.6
10403	AAB	CDMA2000 1xEV-DO, Rev. 0	CDMA2000	3.78	±0.6
10404	AAB	CDMA2000 1xEV-DO, Rev. A	CDMA2000	3.77	±0.6
10405	AAB	CDMA2000, FQ3, SQ32, SCH9, Full Rate	CDMA2000	5.22	±0.6
10413	AAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframes=2,3,4,7,8,9, Subframe Conf=4)	LTE-TDD	7.82	±0.6
10414	AAA	WLAN CCDF 64-QAM, 40 MHz	Generic	8.54	±0.6
10415	AAA	IEEE 802.11b WiFi (2.4 GHz, DSSS, 1 Mbps, 99% duty cycle)	WLAN	1.64	±0.6
10416	AAA	IEEE 802.11g WiFi (2.4 GHz, ERP-OFDM, 6 Mbps, 99% duty cycle)	WLAN	8.23	±0.6
10417	AAD	IEEE 802.11a WiFi (5 GHz, OFDM, 6 Mbps, 99% duty cycle)	WLAN	8.23	±0.6
10418	AAA	IEEE 802.11g WiFi (2.4 GHz, DSSS-OFDM, 6 Mbps, 99% duty cycle, long preamble)	WLAN	8.14	±0.6
10419	AAA	IEEE 802.11g WiFi (2.4 GHz, DSSS-OFDM, 6 Mbps, 99% duty cycle, short preamble)	WLAN	8.19	±0.6
10422	AAD	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	±0.6
10423	AAD	IEEE 802.11n (HT Greenfield, 48.3 Mbps, 16-QAM)	WLAN	8.47	±0.6
10424	AAD	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN	8.40	±0.6
10425	AAD	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	±0.6
10426	AAD	IEEE 802.11n (HT Greenfield, 30 Mbps, 16-QAM)	WLAN	8.45	±0.6
10427	AAD	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	±0.6
10480	AAE	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.29	±0.6
10481	AAE	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.29	±0.6
10482	AAD	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	LTE-FDD	8.34	±0.6
10483	AAD	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	±0.6
10484	AAB	WCDMA (SS Test Model 1, 64 DPCH)	WCDMA	8.60	±0.6
10485	AAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframes=2,3,4,7,8,9)	LTE-TDD	7.82	±0.6
10447	AAE	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	±0.6
10449	AAE	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.52	±0.6
10449	AAD	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.51	±0.6
10450	AAD	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	±0.6
10451	AAB	WCDMA (SS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.50	±0.6
10453	AAE	Validation (Square, 10 ms, 1 ms)	Test	10.00	±0.6
10456	AAD	IEEE 802.11ac WiFi (60 MHz, 64-QAM, 99% duty cycle)	WLAN	8.63	±0.6
10457	AAE	UMTS-FDD (DS-SS/FS)	WCDMA	8.62	±0.6
10458	AAA	CDMA2000 1xEV-DO, Rev. B, 2 carriers	CDMA2000	6.55	±0.6
10458	AAA	CDMA2000 1xEV-DO, Rev. B, 3 carriers	CDMA2000	8.25	±0.6
10460	AAE	UMTS-FDD (WCDMA, AMF)	WCDMA	8.30	±0.6
10461	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframes=2,3,4,7,8,9)	LTE-TDD	7.82	±0.6
10462	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframes=2,3,4,7,8,9)	LTE-TDD	8.30	±0.6
10463	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframes=2,3,4,7,8,9)	LTE-TDD	8.56	±0.6
10464	AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframes=2,3,4,7,8,9)	LTE-TDD	7.82	±0.6
10465	AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframes=2,3,4,7,8,9)	LTE-TDD	8.32	±0.6
10466	AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframes=2,3,4,7,8,9)	LTE-TDD	8.57	±0.6
10487	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframes=2,3,4,7,8,9)	LTE-TDD	7.82	±0.6
10488	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframes=2,3,4,7,8,9)	LTE-TDD	8.32	±0.6
10489	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframes=2,3,4,7,8,9)	LTE-TDD	8.56	±0.6
10479	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframes=2,3,4,7,8,9)	LTE-TDD	7.82	±0.6
10421	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframes=2,3,4,7,8,9)	LTE-TDD	8.32	±0.6

EX3DV4 - SN:9928

February 22, 2024

UID	Rev	Communication System Name	Group	PAR (dB)	Line# K-2
10472	AAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.67	+9.6
10473	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	+9.6
10474	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.25	+9.6
10475	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.67	+9.6
10477	AAO	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	+9.6
10478	AAO	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	+9.6
10479	AAO	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	+9.6
10480	AAO	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.19	+9.6
10481	AAO	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	9.45	+9.6
10482	AAO	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.71	+9.6
10483	AAO	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.39	+9.6
10484	AAO	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.47	+9.6
10485	AAO	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.59	+9.6
10486	AAO	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.38	+9.6
10487	AAO	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.60	+9.6
10488	AAO	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.70	+9.6
10489	AAO	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.27	+9.6
10490	AAO	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	+9.6
10491	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	+9.6
10492	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.41	+9.6
10493	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	+9.6
10494	AAO	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	+9.6
10495	AAO	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.37	+9.6
10496	AAO	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	+9.6
10497	AAO	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	+9.6
10498	AAO	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.40	+9.6
10499	AAO	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.68	+9.6
10500	AAO	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	+9.6
10501	AAO	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.44	+9.6
10502	AAO	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.52	+9.6
10503	AAO	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.72	+9.6
10504	AAO	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	+9.6
10505	AAO	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	+9.6
10506	AAO	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	+9.6
10507	AAO	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.38	+9.6
10508	AAO	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.65	+9.6
10509	AAO	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.59	+9.6
10510	AAO	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	+9.6
10511	AAO	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.51	+9.6
10512	AAO	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	+9.6
10513	AAO	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.42	+9.6
10514	AAO	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	+9.6
10515	AAA	IEEE 802.11a WiFi (2.4 GHz, DSSS, 2 Mbps, 99% duty cycle)	WLAN	1.33	+9.6
10516	AAA	IEEE 802.11a WiFi (2.4 GHz, DSSS, 5.5 Mbps, 99% duty cycle)	WLAN	1.57	+9.6
10517	AAA	IEEE 802.11a WiFi (2.4 GHz, DSSS, 11 Mbps, 99% duty cycle)	WLAN	1.58	+9.6
10518	AAO	IEEE 802.11a WiFi (5 GHz, OFDM, 9 Mbps, 99% duty cycle)	WLAN	8.23	+9.6
10519	AAO	IEEE 802.11a WiFi (5 GHz, OFDM, 12 Mbps, 99% duty cycle)	WLAN	8.33	+9.6
10520	AAO	IEEE 802.11a WiFi (5 GHz, OFDM, 18 Mbps, 99% duty cycle)	WLAN	8.12	+9.6
10521	AAO	IEEE 802.11a WiFi (5 GHz, OFDM, 24 Mbps, 99% duty cycle)	WLAN	7.87	+9.6
10522	AAO	IEEE 802.11a WiFi (5 GHz, OFDM, 36 Mbps, 99% duty cycle)	WLAN	8.45	+9.6
10523	AAO	IEEE 802.11a WiFi (5 GHz, OFDM, 48 Mbps, 99% duty cycle)	WLAN	8.08	+9.6
10524	AAO	IEEE 802.11a WiFi (5 GHz, OFDM, 54 Mbps, 99% duty cycle)	WLAN	8.27	+9.6
10525	AAO	IEEE 802.11ac WiFi (20 MHz, MCS0, 99% duty cycle)	WLAN	8.58	+9.6
10526	AAO	IEEE 802.11ac WiFi (20 MHz, MCS1, 99% duty cycle)	WLAN	8.42	+9.6
10527	AAO	IEEE 802.11ac WiFi (20 MHz, MCS2, 99% duty cycle)	WLAN	8.21	+9.6
10528	AAO	IEEE 802.11ac WiFi (20 MHz, MCS3, 99% duty cycle)	WLAN	8.38	+9.6
10529	AAO	IEEE 802.11ac WiFi (20 MHz, MCS4, 99% duty cycle)	WLAN	8.30	+9.6
10530	AAO	IEEE 802.11ac WiFi (20 MHz, MCS5, 99% duty cycle)	WLAN	8.43	+9.6
10531	AAO	IEEE 802.11ac WiFi (20 MHz, MCS6, 99% duty cycle)	WLAN	8.25	+9.6
10532	AAO	IEEE 802.11ac WiFi (20 MHz, MCS7, 99% duty cycle)	WLAN	8.29	+9.6
10533	AAO	IEEE 802.11ac WiFi (20 MHz, MCS8, 99% duty cycle)	WLAN	8.58	+9.6
10534	AAO	IEEE 802.11ac WiFi (40 MHz, MCS8, 99% duty cycle)	WLAN	8.45	+9.6
10535	AAO	IEEE 802.11ac WiFi (40 MHz, MCS9, 99% duty cycle)	WLAN	8.45	+9.6
10536	AAO	IEEE 802.11ac WiFi (40 MHz, MCS10, 99% duty cycle)	WLAN	8.54	+9.6
10537	AAO	IEEE 802.11ac WiFi (40 MHz, MCS11, 99% duty cycle)	WLAN	8.32	+9.6
10538	AAO	IEEE 802.11ac WiFi (40 MHz, MCS12, 99% duty cycle)	WLAN	8.44	+9.6
10539	AAO	IEEE 802.11ac WiFi (40 MHz, MCS13, 99% duty cycle)	WLAN	8.54	+9.6
10540	AAO	IEEE 802.11ac WiFi (40 MHz, MCS14, 99% duty cycle)	WLAN	8.83	+9.6

EX30W4 - SN3928

February 22, 2024

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>2</sup> k = 2
1064	AAD	IEEE 802.11ac WiFi (40 MHz, MCS7, 99pc duty cycle)	WLAN	8.40	-9.6
10642	AAD	IEEE 802.11ac WiFi (40 MHz, MCS8, 99pc duty cycle)	WLAN	8.60	-9.6
10645	AAD	IEEE 802.11ac WiFi (40 MHz, MCS9, 99pc duty cycle)	WLAN	8.65	-9.6
10644	AAD	IEEE 802.11ac WiFi (80 MHz, MCS9, 99pc duty cycle)	WLAN	8.47	-9.6
10645	AAD	IEEE 802.11ac WiFi (80 MHz, MCS11, 99pc duty cycle)	WLAN	8.55	-9.6
10646	AAD	IEEE 802.11ac WiFi (80 MHz, MCS12, 99pc duty cycle)	WLAN	8.35	-9.6
10647	AAD	IEEE 802.11ac WiFi (80 MHz, MCS13, 99pc duty cycle)	WLAN	8.43	-9.6
10648	AAD	IEEE 802.11ac WiFi (80 MHz, MCS14, 99pc duty cycle)	WLAN	8.97	-9.6
10650	AAD	IEEE 802.11ac WiFi (80 MHz, MCS16, 99pc duty cycle)	WLAN	8.39	-9.6
10651	AAD	IEEE 802.11ac WiFi (80 MHz, MCS17, 99pc duty cycle)	WLAN	8.60	-9.6
10652	AAD	IEEE 802.11ac WiFi (80 MHz, MCS18, 99pc duty cycle)	WLAN	8.42	-9.6
10653	AAD	IEEE 802.11ac WiFi (80 MHz, MCS19, 99pc duty cycle)	WLAN	8.45	-9.6
10654	AAE	IEEE 802.11ac WiFi (160 MHz, MCS0, 99pc duty cycle)	WLAN	8.48	-9.6
10655	AAE	IEEE 802.11ac WiFi (160 MHz, MCS1, 99pc duty cycle)	WLAN	8.47	-9.6
10656	AAE	IEEE 802.11ac WiFi (160 MHz, MCS2, 99pc duty cycle)	WLAN	8.50	-9.6
10657	AAF	IEEE 802.11ac WiFi (160 MHz, MCS3, 99pc duty cycle)	WLAN	8.52	-9.6
10658	AAF	IEEE 802.11ac WiFi (160 MHz, MCS4, 99pc duty cycle)	WLAN	8.61	-9.6
10660	AAE	IEEE 802.11ac WiFi (160 MHz, MCS6, 99pc duty cycle)	WLAN	8.78	-9.6
10661	AAE	IEEE 802.11ac WiFi (160 MHz, MCS7, 99pc duty cycle)	WLAN	8.58	-9.6
10662	AAE	IEEE 802.11ac WiFi (160 MHz, MCS8, 99pc duty cycle)	WLAN	8.89	-9.6
10663	AAE	IEEE 802.11ac WiFi (160 MHz, MCS9, 99pc duty cycle)	WLAN	8.77	-9.6
10664	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9Mbps, 99pc duty cycle)	WLAN	8.25	-9.6
10665	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12Mbps, 99pc duty cycle)	WLAN	8.45	-9.6
10666	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18Mbps, 99pc duty cycle)	WLAN	8.13	-9.6
10667	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24Mbps, 99pc duty cycle)	WLAN	8.00	-9.6
10668	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36Mbps, 99pc duty cycle)	WLAN	8.37	-9.6
10669	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48Mbps, 99pc duty cycle)	WLAN	8.10	-9.6
10670	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54Mbps, 99pc duty cycle)	WLAN	8.20	-9.6
10671	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1Mbps, 99pc duty cycle)	WLAN	1.88	-9.6
10672	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2Mbps, 99pc duty cycle)	WLAN	1.98	-9.6
10673	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 3Mbps, 99pc duty cycle)	WLAN	1.98	-9.6
10674	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 4Mbps, 99pc duty cycle)	WLAN	1.98	-9.6
10675	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS-OFDM, 6Mbps, 99pc duty cycle)	WLAN	8.59	-9.6
10676	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS-OFDM, 9Mbps, 99pc duty cycle)	WLAN	8.60	-9.6
10677	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS-OFDM, 12Mbps, 99pc duty cycle)	WLAN	8.79	-9.6
10678	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS-OFDM, 18Mbps, 99pc duty cycle)	WLAN	8.49	-9.6
10679	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS-OFDM, 24Mbps, 99pc duty cycle)	WLAN	8.38	-9.6
10680	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36Mbps, 99pc duty cycle)	WLAN	8.78	-9.6
10681	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48Mbps, 99pc duty cycle)	WLAN	8.25	-9.6
10682	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54Mbps, 99pc duty cycle)	WLAN	8.67	-9.6
10683	AAA	IEEE 802.11n WiFi 5GHz (OFDM, 6Mbps, 99pc duty cycle)	WLAN	8.58	-9.6
10684	AAD	IEEE 802.11n WiFi 5GHz (OFDM, 9Mbps, 99pc duty cycle)	WLAN	8.60	-9.6
10685	AAD	IEEE 802.11n WiFi 5GHz (OFDM, 12Mbps, 99pc duty cycle)	WLAN	8.70	-9.6
10686	AAD	IEEE 802.11n WiFi 5GHz (OFDM, 18Mbps, 99pc duty cycle)	WLAN	8.49	-9.6
10687	AAD	IEEE 802.11n WiFi 5GHz (OFDM, 24Mbps, 99pc duty cycle)	WLAN	8.38	-9.6
10688	AAD	IEEE 802.11n WiFi 5GHz (OFDM, 36Mbps, 99pc duty cycle)	WLAN	8.78	-9.6
10689	AAD	IEEE 802.11n WiFi 5GHz (OFDM, 48Mbps, 99pc duty cycle)	WLAN	8.35	-9.6
10690	AAD	IEEE 802.11n WiFi 5GHz (OFDM, 54Mbps, 99pc duty cycle)	WLAN	8.35	-9.6
10691	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS0, 99pc duty cycle)	WLAN	8.67	-9.6
10692	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS1, 99pc duty cycle)	WLAN	8.63	-9.6
10693	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS2, 99pc duty cycle)	WLAN	8.79	-9.6
10694	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS3, 99pc duty cycle)	WLAN	8.81	-9.6
10695	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS4, 99pc duty cycle)	WLAN	8.74	-9.6
10696	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS5, 99pc duty cycle)	WLAN	8.74	-9.6
10697	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS6, 99pc duty cycle)	WLAN	8.71	-9.6
10698	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS7, 99pc duty cycle)	WLAN	8.72	-9.6
10699	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS8, 99pc duty cycle)	WLAN	8.60	-9.6
10700	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS9, 99pc duty cycle)	WLAN	8.79	-9.6
10701	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS10, 99pc duty cycle)	WLAN	8.88	-9.6
10702	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS11, 99pc duty cycle)	WLAN	8.82	-9.6
10703	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS12, 99pc duty cycle)	WLAN	8.94	-9.6
10704	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS13, 99pc duty cycle)	WLAN	8.03	-9.6
10705	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS14, 99pc duty cycle)	WLAN	8.76	-9.6
10706	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS15, 99pc duty cycle)	WLAN	8.57	-9.6
10707	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS16, 99pc duty cycle)	WLAN	8.82	-9.6
10708	AAD	IEEE 802.11n HT Mixed, 20MHz, MCS17, 99pc duty cycle)	WLAN	8.64	-9.6
10709	AAD	IEEE 802.11ac WiFi (20 MHz, MCS1, 99pc duty cycle)	WLAN	8.77	-9.6

EX3DV4 - SN:3928

February 22, 2024

UID	Rev	Communication System Name	Group	PAH (dB)	Unc <sup>95%</sup> - 2
10609	AAD	IEEE 802.11ax WiFi (20MHz, MCS8, 90pc duty cycle)	WLAN	8.17	±8.8
10610	AAD	IEEE 802.11ax WiFi (20MHz, MCS8, 90pc duty cycle)	WLAN	8.78	±8.6
10611	AAD	IEEE 802.11ax WiFi (20MHz, MCS8, 90pc duty cycle)	WLAN	8.70	±8.6
10612	AAD	IEEE 802.11ax WiFi (20MHz, MCS8, 90pc duty cycle)	WLAN	8.77	±8.6
10613	AAD	IEEE 802.11ax WiFi (20MHz, MCS8, 90pc duty cycle)	WLAN	8.54	±8.5
10614	AAD	IEEE 802.11ax WiFi (20MHz, MCS7, 90pc duty cycle)	WLAN	8.50	±8.5
10615	AAD	IEEE 802.11ax WiFi (20MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±8.8
10616	AAD	IEEE 802.11ax WiFi (40MHz, MCS9, 90pc duty cycle)	WLAN	8.82	±8.8
10617	AAD	IEEE 802.11ax WiFi (40MHz, MCS1, 90pc duty cycle)	WLAN	8.81	±8.8
10618	AAD	IEEE 802.11ax WiFi (40MHz, MCS2, 90pc duty cycle)	WLAN	8.59	±8.6
10619	AAD	IEEE 802.11ax WiFi (40MHz, MCS3, 90pc duty cycle)	WLAN	8.85	±8.8
10620	AAD	IEEE 802.11ax WiFi (40MHz, MCS4, 90pc duty cycle)	WLAN	8.87	±8.8
10621	AAD	IEEE 802.11ax WiFi (40MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±8.6
10622	AAD	IEEE 802.11ax WiFi (40MHz, MCS6, 90pc duty cycle)	WLAN	8.69	±8.6
10623	AAD	IEEE 802.11ax WiFi (40MHz, MCS7, 90pc duty cycle)	WLAN	8.62	±8.6
10624	AAD	IEEE 802.11ax WiFi (40MHz, MCS8, 90pc duty cycle)	WLAN	8.80	±8.8
10625	AAD	IEEE 802.11ax WiFi (40MHz, MCS8, 90pc duty cycle)	WLAN	8.90	±8.9
10626	AAD	IEEE 802.11ax WiFi (80MHz, MCS9, 90pc duty cycle)	WLAN	8.85	±8.8
10627	AAD	IEEE 802.11ax WiFi (80MHz, MCS1, 90pc duty cycle)	WLAN	8.88	±8.8
10628	AAD	IEEE 802.11ax WiFi (80MHz, MCS2, 90pc duty cycle)	WLAN	8.71	±8.6
10629	AAD	IEEE 802.11ax WiFi (80MHz, MCS3, 90pc duty cycle)	WLAN	8.85	±8.8
10630	AAD	IEEE 802.11ax WiFi (80MHz, MCS4, 90pc duty cycle)	WLAN	8.72	±8.6
10631	AAD	IEEE 802.11ax WiFi (80MHz, MCS5, 90pc duty cycle)	WLAN	8.81	±8.8
10632	AAD	IEEE 802.11ax WiFi (80MHz, MCS6, 90pc duty cycle)	WLAN	8.74	±8.6
10633	AAD	IEEE 802.11ax WiFi (80MHz, MCS7, 90pc duty cycle)	WLAN	8.83	±8.8
10634	AAD	IEEE 802.11ax WiFi (80MHz, MCS8, 90pc duty cycle)	WLAN	8.60	±8.6
10635	AAD	IEEE 802.11ax WiFi (80MHz, MCS9, 90pc duty cycle)	WLAN	8.81	±8.8
10636	AAD	IEEE 802.11ax WiFi (160MHz, MCS9, 90pc duty cycle)	WLAN	8.83	±8.8
10637	AAD	IEEE 802.11ax WiFi (160MHz, MCS1, 90pc duty cycle)	WLAN	8.79	±8.6
10638	AAD	IEEE 802.11ax WiFi (160MHz, MCS2, 90pc duty cycle)	WLAN	8.86	±8.8
10639	AAD	IEEE 802.11ax WiFi (160MHz, MCS3, 90pc duty cycle)	WLAN	8.83	±8.8
10640	AAD	IEEE 802.11ax WiFi (160MHz, MCS4, 90pc duty cycle)	WLAN	8.98	±8.9
10641	AAD	IEEE 802.11ax WiFi (160MHz, MCS5, 90pc duty cycle)	WLAN	9.08	±9.0
10642	AAD	IEEE 802.11ax WiFi (160MHz, MCS6, 90pc duty cycle)	WLAN	9.08	±9.0
10643	AAD	IEEE 802.11ax WiFi (160MHz, MCS7, 90pc duty cycle)	WLAN	8.89	±8.8
10644	AAD	IEEE 802.11ax WiFi (160MHz, MCS8, 90pc duty cycle)	WLAN	8.93	±8.9
10645	AAD	IEEE 802.11ax WiFi (160MHz, MCS9, 90pc duty cycle)	WLAN	8.11	±8.0
10646	AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.98	±9.6
10647	AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	±9.6
10648	AAD	CDMA2000 (1x Advanced)	CDMA2000	3.46	±3.5
10649	AAD	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.97	±6.9
10650	AAD	LTE-TDD (OFDMA, 10MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	±7.4
10651	AAD	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	8.96	±8.9
10652	AAD	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	±7.2
10653	AAD	Pulse Waveform (200Hz, 10%)	Test	10.00	±9.9
10654	AAD	Pulse Waveform (200Hz, 20%)	Test	8.99	±8.9
10655	AAD	Pulse Waveform (200Hz, 40%)	Test	3.98	±3.9
10656	AAD	Pulse Waveform (200Hz, 60%)	Test	2.22	±2.2
10657	AAD	Pulse Waveform (200Hz, 80%)	Test	0.57	±0.5
10658	AAA	Bluetooth Low Energy	Bluetooth	2.15	±2.0
10659	AAC	IEEE 802.11ax (20 MHz, MCS6, 90pc duty cycle)	WLAN	8.08	±8.0
10660	AAC	IEEE 802.11ax (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.57	±8.5
10661	AAC	IEEE 802.11ax (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.78	±8.7
10662	AAC	IEEE 802.11ax (20 MHz, MCS9, 90pc duty cycle)	WLAN	8.74	±8.7
10663	AAC	IEEE 802.11ax (20 MHz, MCS1, 90pc duty cycle)	WLAN	8.90	±8.9
10664	AAC	IEEE 802.11ax (20 MHz, MCS2, 90pc duty cycle)	WLAN	8.77	±8.7
10665	AAC	IEEE 802.11ax (20 MHz, MCS3, 90pc duty cycle)	WLAN	8.73	±8.7
10666	AAC	IEEE 802.11ax (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.78	±8.7
10667	AAC	IEEE 802.11ax (20 MHz, MCS5, 90pc duty cycle)	WLAN	8.86	±8.8
10668	AAC	IEEE 802.11ax (20 MHz, MCS6, 90pc duty cycle)	WLAN	8.80	±8.8
10669	AAC	IEEE 802.11ax (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.82	±8.8
10670	AAC	IEEE 802.11ax (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.83	±8.8
10671	AAC	IEEE 802.11ax (20 MHz, MCS9, 90pc duty cycle)	WLAN	8.25	±8.2
10672	AAC	IEEE 802.11ax (20 MHz, MCS1, 90pc duty cycle)	WLAN	8.33	±8.3
10673	AAC	IEEE 802.11ax (20 MHz, MCS2, 90pc duty cycle)	WLAN	8.33	±8.3
10674	AAC	IEEE 802.11ax (20 MHz, MCS3, 90pc duty cycle)	WLAN	8.28	±8.2



EX3DV4 - SN:3928

February 22, 2024

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>F</sup> k = 2
10687	AAC	IEEE 802.11ax (20 MHz, MCS4, 99pc duty cycle)	WLAN	8.45	±9.6
10688	AAC	IEEE 802.11ax (20 MHz, MCS6, 99pc duty cycle)	WLAN	8.29	±9.6
10689	AAC	IEEE 802.11ax (20 MHz, MCS6, 99pc duty cycle)	WLAN	8.55	±9.6
10690	AAC	IEEE 802.11ax (20 MHz, MCS7, 99pc duty cycle)	WLAN	8.25	±9.6
10691	AAC	IEEE 802.11ax (20 MHz, MCS6, 99pc duty cycle)	WLAN	8.25	±9.6
10692	AAC	IEEE 802.11ax (20 MHz, MCS6, 99pc duty cycle)	WLAN	8.25	±9.6
10693	AAC	IEEE 802.11ax (20 MHz, MCS10, 99pc duty cycle)	WLAN	8.25	±9.6
10694	AAC	IEEE 802.11ax (20 MHz, MCS11, 99pc duty cycle)	WLAN	8.57	±9.6
10695	AAC	IEEE 802.11ax (40 MHz, MCS0, 90pc duty cycle)	WLAN	8.76	±9.6
10696	AAC	IEEE 802.11ax (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.91	±9.6
10697	AAC	IEEE 802.11ax (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.61	±9.6
10698	AAC	IEEE 802.11ax (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.89	±9.6
10699	AAC	IEEE 802.11ax (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.82	±9.6
10700	AAC	IEEE 802.11ax (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.73	±9.6
10701	AAC	IEEE 802.11ax (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.68	±9.6
10702	AAC	IEEE 802.11ax (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.70	±9.6
10703	AAC	IEEE 802.11ax (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6
10704	AAC	IEEE 802.11ax (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.56	±9.6
10705	AAC	IEEE 802.11ax (40 MHz, MCS10, 90pc duty cycle)	WLAN	8.69	±9.6
10706	AAC	IEEE 802.11ax (40 MHz, MCS11, 90pc duty cycle)	WLAN	8.66	±9.6
10707	AAC	IEEE 802.11ax (40 MHz, MCS0, 90pc duty cycle)	WLAN	8.32	±9.6
10708	AAC	IEEE 802.11ax (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.55	±9.6
10709	AAC	IEEE 802.11ax (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.33	±9.6
10710	AAC	IEEE 802.11ax (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.29	±9.6
10711	AAC	IEEE 802.11ax (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.39	±9.6
10712	AAC	IEEE 802.11ax (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.67	±9.6
10713	AAC	IEEE 802.11ax (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.33	±9.6
10714	AAC	IEEE 802.11ax (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.28	±9.6
10715	AAC	IEEE 802.11ax (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.45	±9.6
10716	AAC	IEEE 802.11ax (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.30	±9.6
10717	AAC	IEEE 802.11ax (40 MHz, MCS10, 90pc duty cycle)	WLAN	8.48	±9.6
10718	AAC	IEEE 802.11ax (40 MHz, MCS11, 90pc duty cycle)	WLAN	8.24	±9.6
10719	AAC	IEEE 802.11ax (80 MHz, MCS0, 90pc duty cycle)	WLAN	8.61	±9.6
10720	AAC	IEEE 802.11ax (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.87	±9.6
10721	AAC	IEEE 802.11ax (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.76	±9.6
10722	AAC	IEEE 802.11ax (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.55	±9.6
10723	AAC	IEEE 802.11ax (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.70	±9.6
10724	AAC	IEEE 802.11ax (80 MHz, MCS5, 90pc duty cycle)	WLAN	8.50	±9.6
10725	AAC	IEEE 802.11ax (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.74	±9.6
10726	AAC	IEEE 802.11ax (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.72	±9.6
10727	AAC	IEEE 802.11ax (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.66	±9.6
10728	AAC	IEEE 802.11ax (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.65	±9.6
10729	AAC	IEEE 802.11ax (80 MHz, MCS10, 90pc duty cycle)	WLAN	8.54	±9.6
10730	AAC	IEEE 802.11ax (80 MHz, MCS11, 90pc duty cycle)	WLAN	8.57	±9.6
10731	AAC	IEEE 802.11ax (80 MHz, MCS0, 90pc duty cycle)	WLAN	8.42	±9.6
10732	AAC	IEEE 802.11ax (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.48	±9.6
10733	AAC	IEEE 802.11ax (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.40	±9.6
10734	AAC	IEEE 802.11ax (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.25	±9.6
10735	AAC	IEEE 802.11ax (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.33	±9.6
10736	AAC	IEEE 802.11ax (80 MHz, MCS5, 90pc duty cycle)	WLAN	8.27	±9.6
10737	AAC	IEEE 802.11ax (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.26	±9.6
10738	AAC	IEEE 802.11ax (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.42	±9.6
10739	AAC	IEEE 802.11ax (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.29	±9.6
10740	AAC	IEEE 802.11ax (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.46	±9.6
10741	AAC	IEEE 802.11ax (80 MHz, MCS10, 90pc duty cycle)	WLAN	8.40	±9.6
10742	AAC	IEEE 802.11ax (80 MHz, MCS11, 90pc duty cycle)	WLAN	8.43	±9.6
10743	AAC	IEEE 802.11ax (160 MHz, MCS0, 90pc duty cycle)	WLAN	8.94	±9.6
10744	AAC	IEEE 802.11ax (160 MHz, MCS1, 90pc duty cycle)	WLAN	9.16	±9.6
10745	AAC	IEEE 802.11ax (160 MHz, MCS2, 90pc duty cycle)	WLAN	8.93	±9.6
10746	AAC	IEEE 802.11ax (160 MHz, MCS3, 90pc duty cycle)	WLAN	9.11	±9.6
10747	AAC	IEEE 802.11ax (160 MHz, MCS4, 90pc duty cycle)	WLAN	9.04	±9.6
10748	AAC	IEEE 802.11ax (160 MHz, MCS5, 90pc duty cycle)	WLAN	8.93	±9.6
10749	AAC	IEEE 802.11ax (160 MHz, MCS6, 90pc duty cycle)	WLAN	8.90	±9.6
10750	AAC	IEEE 802.11ax (160 MHz, MCS7, 90pc duty cycle)	WLAN	8.75	±9.6
10751	AAC	IEEE 802.11ax (160 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6
10752	AAC	IEEE 802.11ax (160 MHz, MCS9, 90pc duty cycle)	WLAN	8.81	±9.6

EX3DV4 - SN.3928

February 22, 2024

UID	Rev	Communication System Name	Group	PAR [dB]	Limit k-2
10753	AAC	IEEE 802.11ax (160MHz, MCS10, 99pc duty cycle)	WLAN	9.30	-18.8
10754	AAC	IEEE 802.11ax (160MHz, MCS11, 99pc duty cycle)	WLAN	9.94	-18.8
10755	AAC	IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle)	WLAN	8.94	-18.8
10756	AAC	IEEE 802.11ax (160MHz, MCS1, 99pc duty cycle)	WLAN	8.77	-18.8
10757	AAC	IEEE 802.11ax (160MHz, MCS2, 99pc duty cycle)	WLAN	8.77	-18.8
10758	AAC	IEEE 802.11ax (160MHz, MCS3, 99pc duty cycle)	WLAN	8.69	-18.8
10759	AAC	IEEE 802.11ax (160MHz, MCS4, 99pc duty cycle)	WLAN	8.58	-18.8
10760	AAC	IEEE 802.11ax (160MHz, MCS5, 99pc duty cycle)	WLAN	8.48	-18.8
10761	AAC	IEEE 802.11ax (160MHz, MCS6, 99pc duty cycle)	WLAN	8.58	-18.8
10762	AAC	IEEE 802.11ax (160MHz, MCS7, 99pc duty cycle)	WLAN	8.48	-18.8
10763	AAC	IEEE 802.11ax (160MHz, MCS8, 99pc duty cycle)	WLAN	8.50	-18.8
10764	AAC	IEEE 802.11ax (160MHz, MCS9, 99pc duty cycle)	WLAN	8.64	-18.8
10765	AAC	IEEE 802.11ax (160MHz, MCS10, 99pc duty cycle)	WLAN	8.84	-18.8
10766	AAC	IEEE 802.11ax (160MHz, MCS11, 99pc duty cycle)	WLAN	8.51	-18.8
10767	AAE	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15kHz)	5G NR FR1 TDD	7.99	-18.8
10768	AAE	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.01	-18.8
10769	AAE	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.01	-18.8
10770	AAE	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.02	-18.8
10771	AAE	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.02	-18.8
10772	AAE	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.22	-18.8
10773	AAE	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.02	-18.8
10774	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.02	-18.8
10775	AAE	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15kHz)	5G NR FR1 TDD	5.51	-18.8
10776	AAE	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15kHz)	5G NR FR1 TDD	6.30	-18.8
10777	AAE	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15kHz)	5G NR FR1 TDD	6.30	-18.8
10778	AAE	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15kHz)	5G NR FR1 TDD	6.34	-18.8
10779	AAE	5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15kHz)	5G NR FR1 TDD	6.42	-18.8
10780	AAE	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15kHz)	5G NR FR1 TDD	6.38	-18.8
10781	AAE	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15kHz)	5G NR FR1 TDD	6.38	-18.8
10782	AAE	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15kHz)	5G NR FR1 TDD	6.43	-18.8
10783	AAE	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15kHz)	5G NR FR1 TDD	6.31	-18.8
10784	AAE	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15kHz)	5G NR FR1 TDD	6.29	-18.8
10785	AAE	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15kHz)	5G NR FR1 TDD	6.40	-18.8
10786	AAE	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15kHz)	5G NR FR1 TDD	6.26	-18.8
10787	AAE	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15kHz)	5G NR FR1 TDD	6.44	-18.8
10788	AAE	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15kHz)	5G NR FR1 TDD	6.39	-18.8
10789	AAE	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15kHz)	5G NR FR1 TDD	6.37	-18.8
10790	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15kHz)	5G NR FR1 TDD	6.39	-18.8
10791	AAE	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.83	-18.8
10792	AAE	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.82	-18.8
10793	AAE	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.92	-18.8
10794	AAE	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.82	-18.8
10795	AAE	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.84	-18.8
10796	AAE	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.82	-18.8
10797	AAE	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.01	-18.8
10798	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.89	-18.8
10799	AAE	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.93	-18.8
10800	AAE	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.89	-18.8
10801	AAE	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.87	-18.8
10802	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.80	-18.8
10803	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.80	-18.8
10804	AAE	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.34	-18.8
10805	AAE	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.37	-18.8
10806	AAE	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.34	-18.8
10807	AAE	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.34	-18.8
10808	AAE	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.34	-18.8
10809	AAE	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.34	-18.8
10810	AAE	5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.35	-18.8
10811	AAE	5G NR (CP-OFDM, 50% RB, 80 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.35	-18.8
10812	AAE	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.34	-18.8
10813	AAE	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.35	-18.8
10814	AAE	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.35	-18.8
10815	AAE	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.35	-18.8
10816	AAE	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.35	-18.8
10817	AAE	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.35	-18.8
10818	AAE	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.35	-18.8
10819	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.35	-18.8
10820	AAE	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.35	-18.8
10821	AAE	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.35	-18.8
10822	AAE	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.35	-18.8
10823	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.35	-18.8
10824	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.38	-18.8
10825	AAE	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.41	-18.8
10826	AAE	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.42	-18.8
10827	AAE	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.42	-18.8
10828	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30kHz)	5G NR FR1 TDD	6.42	-18.8

EX3DV4 - SN\_3928

February 22, 2024

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>o</sup> k=2
10829	AAF	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.40	+5.6
10830	AAE	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.83	+6.6
10831	AAE	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.73	+5.6
10832	AAE	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.74	+5.6
10833	AAE	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.70	+5.6
10834	AAE	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.75	+5.6
10835	AAE	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.60	+5.6
10836	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.60	+5.6
10837	AAE	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.68	+5.6
10838	AAE	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.70	+5.6
10840	AAE	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.97	+5.6
10841	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.71	+5.6
10845	AAE	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.49	+5.6
10844	AAE	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.39	+5.6
10845	AAE	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	+5.6
10854	AAE	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	+5.6
10855	AAE	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	+5.6
10856	AAE	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	+5.6
10857	AAE	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.38	+5.6
10858	AAE	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.39	+5.6
10859	AAE	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	+5.6
10860	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	+5.6
10861	AAE	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.40	+5.6
10862	AAE	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	+5.6
10864	AAE	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	+5.6
10865	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	+5.6
10866	AAE	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.89	+5.6
10868	AAE	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.88	+5.6
10869	AAE	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.79	+5.6
10870	AAE	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.88	+5.6
10871	AAE	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	5.75	+5.6
10872	AAE	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	5.89	+5.6
10873	AAE	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	5.81	+5.6
10874	AAE	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	5.88	+5.6
10875	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	+5.6
10876	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.39	+5.6
10877	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	7.95	+5.6
10878	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.41	+5.6
10879	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.12	+5.6
10880	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.38	+5.6
10881	AAE	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	+5.6
10882	AAE	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.89	+5.6
10883	AAE	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	5.67	+5.6
10884	AAE	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	5.89	+5.6
10885	AAE	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	5.61	+5.6
10886	AAE	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	5.65	+5.6
10887	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.75	+5.6
10888	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.38	+5.6
10889	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.02	+5.6
10890	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.40	+5.6
10891	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.13	+5.6
10892	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.41	+5.6
10897	AAE	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.88	+5.6
10898	AAE	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	+5.6
10899	AAE	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	+5.6
10900	AAE	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	+5.6
10901	AAE	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	+5.6
10902	AAE	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	+5.6
10903	AAE	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	+5.6
10904	AAE	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	+5.6
10905	AAE	5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	+5.6
10906	AAE	5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	+5.6
10907	AAE	5G NR (DFT-s-OFDM, 30% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.79	+5.6
10908	AAE	5G NR (DFT-s-OFDM, 30% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.59	+5.6
10909	AAE	5G NR (DFT-s-OFDM, 30% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.58	+5.6
10910	AAE	5G NR (DFT-s-OFDM, 30% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.53	+5.6

EX3DV4 - SN:3928

February 22, 2024

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>o</sup> k = 2
10911	AAB	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	±9.6
10912	AAC	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	±9.6
10913	AAD	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	±9.6
10914	AAC	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.95	±9.6
10915	AAD	5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	±9.6
10916	AAD	5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	±9.6
10917	AAD	5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	±9.6
10918	AAE	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	±9.6
10919	AAC	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	±9.6
10920	AAB	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	±9.6
10921	AAC	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10922	AAB	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.82	±9.6
10923	AAC	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10924	AAD	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10925	AAC	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.95	±9.6
10926	AAD	5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10927	AAD	5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	±9.6
10928	AAD	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	±9.6
10929	AAD	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	±9.6
10930	AAC	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	±9.6
10931	AAC	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
10932	AAC	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
10933	AAC	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
10934	AAC	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
10935	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
10936	AAD	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.30	±9.6
10937	AAD	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.77	±9.6
10938	AAC	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.80	±9.6
10939	AAC	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.82	±9.6
10940	AAC	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.89	±9.6
10941	AAC	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.88	±9.6
10942	AAC	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	±9.6
10943	AAD	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.95	±9.6
10944	AAD	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
10945	AAD	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.55	±9.6
10946	AAC	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	±9.6
10947	AAC	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	±9.6
10948	AAC	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	±9.6
10949	AAC	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	±9.6
10950	AAC	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	±9.6
10951	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.92	±9.6
10952	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.25	±9.6
10953	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.15	±9.6
10954	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.23	±9.6
10955	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.42	±9.6
10956	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.14	±9.6
10957	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.51	±9.6
10958	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.61	±9.6
10959	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.33	±9.6
10960	AAE	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.32	±9.6
10961	AAC	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.35	±9.6
10962	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.43	±9.6
10963	AAC	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.55	±9.6
10964	AAE	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	8.29	±9.6
10965	AAC	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	8.37	±9.6
10966	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	8.55	±9.6
10967	AAC	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	8.42	±9.6
10968	AAD	5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.49	±9.6
10972	AAC	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	11.59	±9.6
10973	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	9.06	±9.6
10974	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, 256-QAM, 30 kHz)	5G NR FR1 TDD	10.26	±9.6
10978	AAA	ULLA BDR	ULLA	1.16	±9.6
10979	AAA	ULLA HDR4	ULLA	8.58	±9.6
10980	AAA	ULLA HDR8	ULLA	10.32	±9.6
10981	AAA	ULLA HDRp4	ULLA	3.19	±9.6
10982	AAA	ULLA HDRp8	ULLA	3.43	±9.6

EX3DV4 - SN:3928

February 22, 2024

UID	Rev	Communication System Name	Group	PAH (dB)	Unc. K=2
10983	AAC	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	0.31	±0.0
10984	AAB	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	0.48	±0.0
10985	AAC	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	0.54	±0.0
10986	AAB	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	0.50	±0.0
10987	AAC	5G NR DL (CP-OFDM, TM 3.1, 60 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	0.55	±0.0
10988	AAB	5G NR DL (CP-OFDM, TM 3.1, 70 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	0.33	±0.0
10989	AAC	5G NR DL (CP-OFDM, TM 3.1, 80 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	0.33	±0.0
10990	AAB	5G NR DL (CP-OFDM, TM 3.1, 90 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	0.32	±0.0
11003	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	10.24	±0.0
11004	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	10.73	±0.0
11005	AAA	5G NR DL (CP-OFDM, TM 3.1, 25 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	8.70	±0.0
11006	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.55	±0.0
11007	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.46	±0.0
11008	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.17	±0.0
11009	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	6.75	±0.0
11010	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.90	±0.0
11011	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.96	±0.0
11012	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.86	±0.0
11013	AAB	IEEE 802.11be (80 MHz, MCS1, 89pc duty cycle)	WLAN	8.47	±0.0
11014	AAB	IEEE 802.11be (80 MHz, MCS8, 89pc duty cycle)	WLAN	8.45	±0.0
11015	AAB	IEEE 802.11be (80 MHz, MCS8, 89pc duty cycle)	WLAN	8.44	±0.0
11016	AAB	IEEE 802.11be (80 MHz, MCS4, 89pc duty cycle)	WLAN	8.44	±0.0
11017	AAB	IEEE 802.11be (80 MHz, MCS8, 89pc duty cycle)	WLAN	8.41	±0.0
11018	AAB	IEEE 802.11be (80 MHz, MCS8, 89pc duty cycle)	WLAN	8.40	±0.0
11019	AAB	IEEE 802.11be (80 MHz, MCS7, 89pc duty cycle)	WLAN	8.29	±0.0
11020	AAB	IEEE 802.11be (80 MHz, MCS9, 89pc duty cycle)	WLAN	8.27	±0.0
11021	AAB	IEEE 802.11be (80 MHz, MCS9, 89pc duty cycle)	WLAN	8.40	±0.0
11022	AAB	IEEE 802.11be (80 MHz, MCS10, 89pc duty cycle)	WLAN	8.35	±0.0
11023	AAB	IEEE 802.11be (80 MHz, MCS11, 89pc duty cycle)	WLAN	8.00	±0.0
11024	AAB	IEEE 802.11be (80 MHz, MCS12, 89pc duty cycle)	WLAN	8.43	±0.0
11025	AAB	IEEE 802.11be (80 MHz, MCS13, 89pc duty cycle)	WLAN	8.37	±0.0
11026	AAB	IEEE 802.11be (80 MHz, MCS6, 89pc duty cycle)	WLAN	8.39	±0.0

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

**Appendix A.2 Probe Calibration certificate(EX3DV4\_7540)**

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



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

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

Accreditation No.: **SCS 0108**

Client **Eurofins KCTL**  
 Gyeonggi-do, Republic of Korea

Certificate No. **EX-7540\_May23**

**CALIBRATION CERTIFICATE**

Object: **EX3DV4 - SN:7540**



Calibration procedure(s): **QA CAL-01.v10, QA CAL-12.v10, QA CAL-14.v7, QA CAL-23.v6,  
 QA CAL-25.v8  
 Calibration procedure for dosimetric E-field probes**

Calibration date: **May 04, 2023**

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&E critical for calibration)

Primary Standards	ID	Cal. Date (Certificate No.)	Scheduled Calibration
Power meter NRP2	SN: 104778	30-Mar-23 (No. 217-0380403805)	Mar-24
Power sensor NRP-Z91	SN: 189244	30-Mar-23 (No. 217-03804)	Mar-24
DCP DAK-3.5 (weighted)	SN: 1249	20-Oct-22 (DCP-DAK3.5-1249_Oct22)	Oct-23
DCP DAK-12	SN: 1016	20-Oct-22 (DCP-DAK12-1016_Oct22)	Oct-23
Reference 20 dB Attenuator	SN: CC2552 (20x)	30-Mar-23 (No. 217-03809)	Mar-24
DAE4	SN: 660	16-Mar-23 (No. DAE4-660_Mar23)	Mar-24
Reference Probe ES3DV2	SN: 3013	06-Jan-23 (No. ES3-3013_Jan23)	Jan-24

Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E44198	SN: CB41293874	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
RF generator HP 8648C	SN: US3542U01700	04-Aug-99 (in house check Jun-22)	In house check: Jun-24
Network Analyzer E8356A	SN: US4108D477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

	Name	Function	Signature
Calibrated by	Joanna Hachej	Laboratory Technician	
Approved by	Eber KChn	Technical Manager	

Issue: May 07, 2023

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

**Calibration Laboratory of**

Schmid & Partner  
 Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland



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

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

Accreditation No.: **SCS 0108**

**Glossary**

TSL	tissue simulating liquid
NORM <sub>x,y,z</sub>	sensitivity in free space
ConvF	sensitivity in TSL / NORM <sub>x,y,z</sub>
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization $\theta$	$\theta$ rotation around probe axis
Polarization $\phi$	$\phi$ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\theta = 0$ 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:**

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices – Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB a65664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Methods Applied and Interpretation of Parameters:**

- NORM<sub>x,y,z</sub>: Assessed for E-field polarization  $\theta = 0$  ( $f \leq 900$  MHz in TEM-cell,  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not reflect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM( $f$ )<sub>x,y,z</sub> = NORM<sub>x,y,z</sub> \* 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.
- DCP<sub>x,y,z</sub>: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal. 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.
- A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>: 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 for Temperature Transfer Standard 4x ( $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 600$  MHz. The same setups are used for assessment of the parameters needed 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 NORM<sub>x,y,z</sub> \* ConvF, whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  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 NORM<sub>x</sub> (no uncertainty required).

EX3DV4 - SN:7540

May 04, 2023

**Parameters of Probe: EX3DV4 - SN:7540**

**Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k = 2)
Norm ( $\mu\text{V}/(\text{V/m})^2$ ) <sup>A</sup>	0.56	0.58	0.58	$\pm 10.1\%$
DCP ( $\pi\text{V}$ ) <sup>B</sup>	100.1	99.0	98.7	$\pm 4.7\%$

**Calibration Results for Modulation Response**

UID	Communication System Name	A dB	B dB $\mu\text{V}$	C	D dB	VR mV	Max dev.	Max Unc <sup>E</sup> k = 2
D	CW	X	0.00	0.00	1.00	141.3	$\pm 2.7\%$	$\pm 4.7\%$
		Y	0.00	0.00	1.00	133.4		
		Z	0.00	0.00	1.00	118.4		
10352	Pulse Waveform (200Hz, 10%)	X	20.00	91.50	20.89	10.00	$\pm 3.0\%$	$\pm 9.6\%$
		Y	4.61	71.43	12.83	60.0		
		Z	20.00	90.77	20.30	60.0		
10353	Pulse Waveform (200Hz, 20%)	X	20.00	93.62	20.58	6.99	$-1.9\%$	$\pm 9.6\%$
		Y	12.75	81.17	15.01	80.0		
		Z	20.00	91.04	19.53	80.0		
10354	Pulse Waveform (200Hz, 40%)	X	20.00	96.72	20.61	3.95	$\pm 1.0\%$	$\pm 9.6\%$
		Y	20.00	85.90	15.33	95.0		
		Z	20.00	91.77	18.50	95.0		
10355	Pulse Waveform (200Hz, 60%)	X	20.00	97.45	19.57	2.22	$\pm 0.9\%$	$\pm 9.6\%$
		Y	20.00	86.24	14.54	120.0		
		Z	20.00	90.94	16.80	120.0		
10387	QPSK Waveform, 1 MHz	X	1.48	84.40	13.68	1.00	$\pm 2.8\%$	$-9.6\%$
		Y	1.80	86.12	14.55	150.0		
		Z	1.55	84.08	13.99	150.0		
10388	QPSK Waveform, 10 MHz	X	1.99	85.10	14.52	0.00	$\pm 1.1\%$	$\pm 9.6\%$
		Y	2.14	87.62	15.39	150.0		
		Z	2.05	86.81	14.81	150.0		
10396	64-QAM Waveform, 100 kHz	X	2.71	89.04	17.96	3.01	$\pm 0.8\%$	$\pm 9.6\%$
		Y	2.54	88.68	18.02	150.0		
		Z	2.65	89.79	18.32	150.0		
10399	64-QAM Waveform, 40 MHz	X	3.34	86.20	15.15	0.00	$\pm 2.1\%$	$\pm 9.6\%$
		Y	3.49	87.12	15.69	150.0		
		Z	3.43	86.65	15.56	150.0		
10414	WLAN COFE 64-QAM, 40 MHz	X	4.73	85.16	15.18	0.00	$-4.0\%$	$-9.6\%$
		Y	4.66	85.14	15.23	150.0		
		Z	4.86	85.54	15.39	150.0		

Note: For details on UID parameters see Appendix

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

<sup>A</sup> The uncertainties of Norm X, Y, Z do not affect the E<sup>2</sup>-EMF uncertainty inside T30. (see Pages 5 and 8).  
<sup>B</sup> Linearity parameter uncertainty for maximum specified field strength.  
<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.



EX3DV4 - SN:7540

May 04, 2023

**Parameters of Probe: EX3DV4 - SN:7540**

**Sensor Model Parameters**

	C1 IF	C2 IF	$\alpha$ V <sup>-1</sup>	T1 msV <sup>-2</sup>	T2 msV <sup>-1</sup>	T3 ms	T4 V <sup>-2</sup>	T5 V <sup>-1</sup>	T6
x	43.7	329.10	35.95	12.38	0.00	5.10	1.08	0.27	1.01
y	39.9	298.86	35.65	17.06	0.00	5.03	0.52	0.26	1.01
z	47.3	357.34	36.12	16.16	0.20	5.10	0.54	0.43	1.01

**Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle	-149.6°
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	3 mm
Recommended Measurement Distance from Surface	1.4 mm

Note: Measurement distance from surface can be increased to 3-4 mm for a 1-368 Scan [pt].

EX3DV4 - SN:7540

May 04, 2025

**Parameters of Probe: EX3DV4 - SN:7540**

**Calibration Parameter Determined in Head Tissue Simulating Media**

f (MHz) <sup>C</sup>	Relative Permittivity <sup>F</sup>	Conductivity <sup>F</sup> (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>B</sup> (mm)	Unc. (k = 2)
750	41.9	0.89	10.20	10.20	10.20	0.62	0.80	±12.0%
850	41.5	0.92	9.67	9.67	9.67	0.58	0.94	±12.0%
900	41.5	0.97	9.50	9.50	9.50	0.43	0.87	±12.0%
1750	40.1	1.37	8.58	8.58	8.58	0.51	0.86	±12.0%
1900	40.0	1.40	8.52	8.52	8.52	0.50	0.86	±12.0%
2300	39.5	1.67	7.87	7.87	7.87	0.26	0.90	±12.0%
2450	39.2	1.80	7.63	7.63	7.63	0.24	0.90	±12.0%
2600	39.0	1.96	7.49	7.49	7.49	0.22	0.90	±12.0%
3300	36.2	2.71	7.07	7.07	7.07	0.30	1.30	±14.0%
3500	37.9	2.91	7.00	7.00	7.00	0.30	1.30	±14.0%
3700	37.7	3.12	6.97	6.97	6.97	0.30	1.30	±14.0%
3900	37.5	3.32	6.89	6.89	6.89	0.40	1.50	±14.0%
4100	37.2	3.53	6.83	6.83	6.83	0.40	1.50	±14.0%
4800	36.4	4.25	6.10	6.10	6.10	0.40	1.50	±14.0%
5250	35.9	4.71	5.24	5.24	5.24	0.40	1.80	±14.0%
5000	35.5	5.07	4.55	4.55	4.55	0.40	1.80	±14.0%
5800	35.3	5.27	4.70	4.70	4.70	0.40	1.80	±14.0%

<sup>C</sup> Frequency validity above 200 MHz (or +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, 80, 135, 160 and 230 MHz respectively. Validity of ConvF assessed at 8 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to +110 MHz.

<sup>F</sup> The probes are calibrated using tissue simulating media (TSM) with deviations for  $\epsilon$  and  $\sigma$  by less than ±5% from the target values (typically better than ±3%, and are valid for TSM with deviations of up to ±10%. If TSM with deviations from the target of less than ±5% measured, the calibration uncertainties are 11.1% for 0.7-3 GHz and 13.1% for 3-6 GHz.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the secondary effect after compensation is always less than ±1% for frequencies below 3 GHz and below ±2% for frequencies between 5-6 GHz at any distance larger than half the probe tip diameter from the boundary.

EX3DV4 - SN:7540

May 04, 2023

**Parameters of Probe: EX3DV4 - SN:7540**

**Calibration Parameter Determined in Head Tissue Simulating Media**

f (MHz) <sup>Ⓒ</sup>	Relative Permittivity <sup>Ⓓ</sup>	Conductivity <sup>Ⓓ</sup> (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha <sup>Ⓓ</sup>	Depth <sup>Ⓓ</sup> (mm)	Unc (k = 2)
6500	34.5	6.07	5.35	5.35	5.35	0.25	2.50	±18.6%
7000	33.9	6.65	5.20	5.20	5.20	0.25	2.50	±18.6%

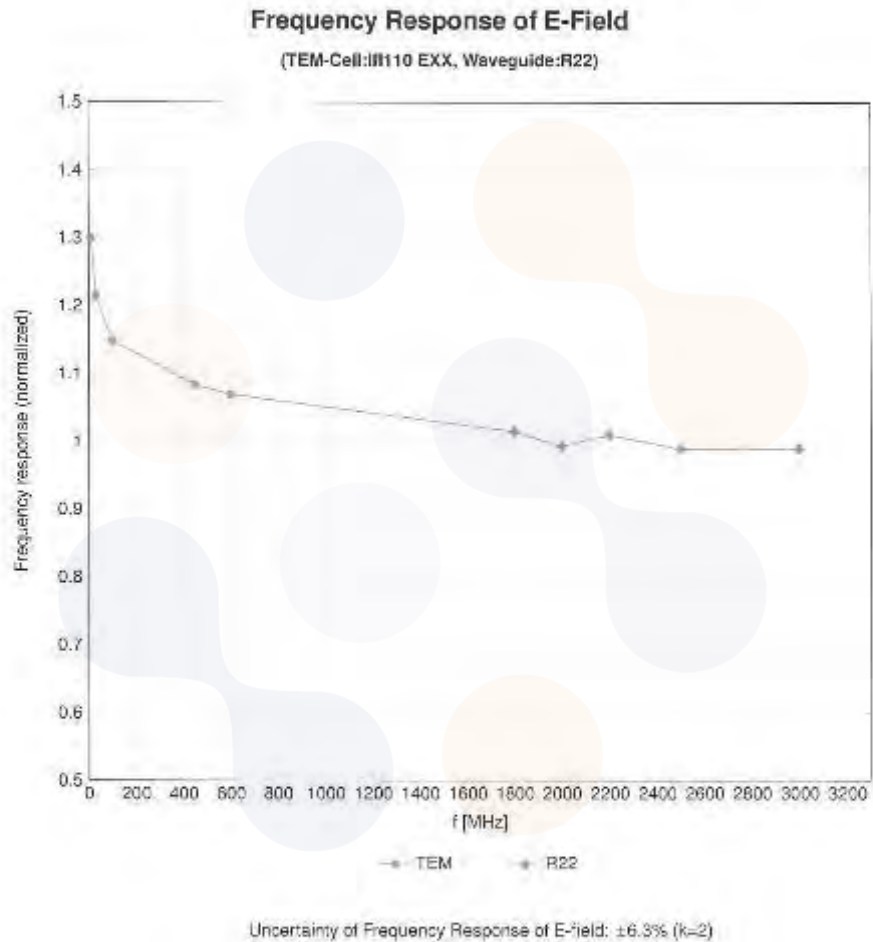
<sup>Ⓒ</sup> Frequency validity at 6.5 GHz is 600-700 MHz, and 1700 MHz also above 7 GHz. The uncertainty is the RMS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

<sup>Ⓓ</sup> The probes are calibrated using tissue simulating liquids (TSL) that deviate from  $\epsilon_r$  and  $\sigma$  by less than  $\pm 1.0\%$  from the target values (typically better than  $\pm 0.8\%$ ) and are valid for TSL with deviations of up to  $\pm 10\%$ .

<sup>Ⓔ</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect, after compensation is always less than  $\pm 1\%$  for frequencies below 3 GHz; below  $\pm 2\%$  for frequencies between 3-6 GHz; and below  $\pm 4\%$  for frequencies between 6-10 GHz. If any distance is larger than half the probe's diameter from the boundary.

EX3DV4 - SN:7540

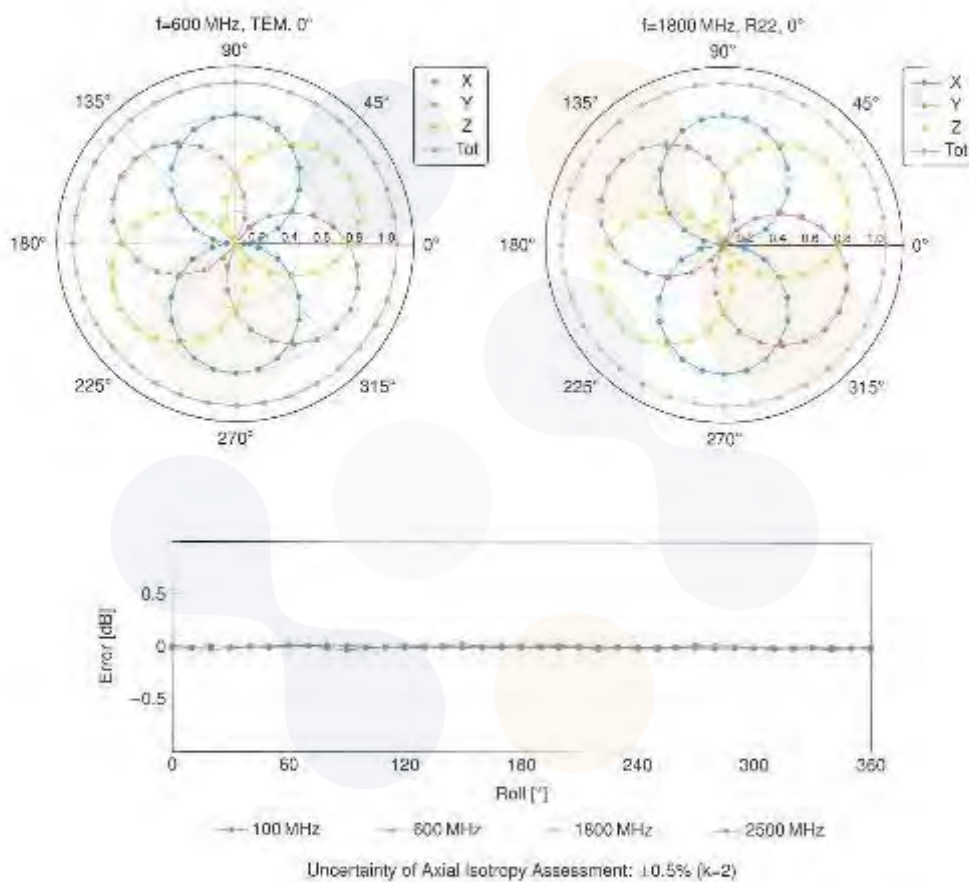
May 04, 2023



EX3DV4 - SN:7540

May 04, 2023

**Receiving Pattern ( $\psi$ ),  $\theta = 0^\circ$**

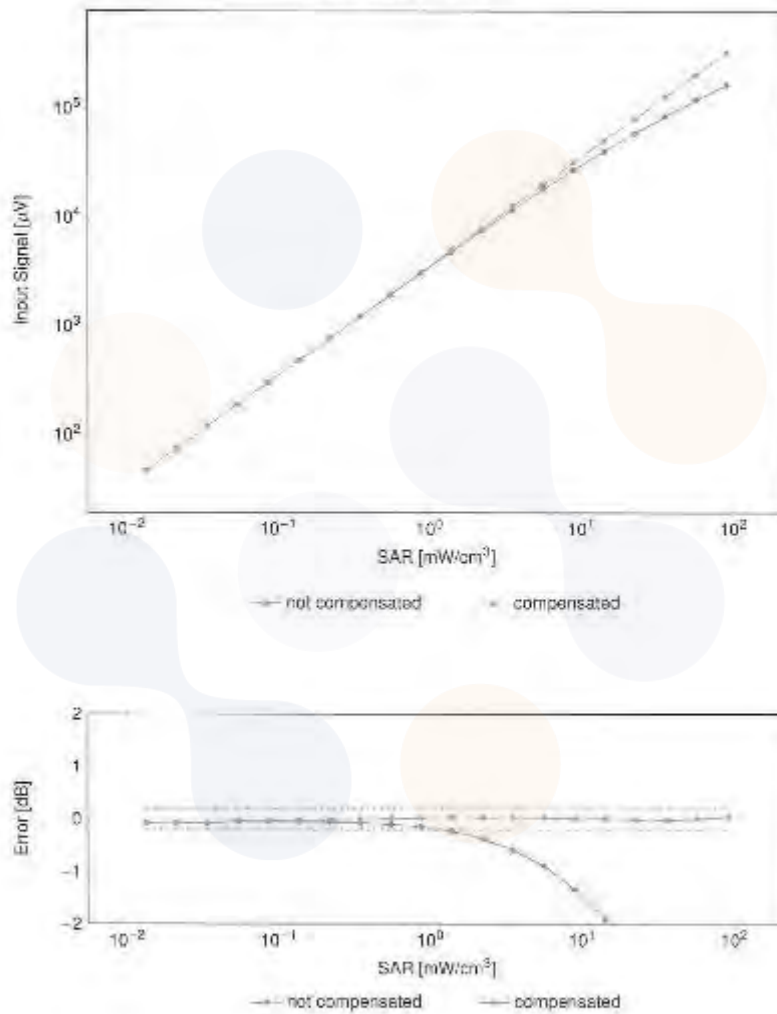


EX3DV4 - SN:7540

May 04, 2023

**Dynamic Range f(SAR<sub>head</sub>)**

(TEM cell, f<sub>eval</sub> = 1900MHz)

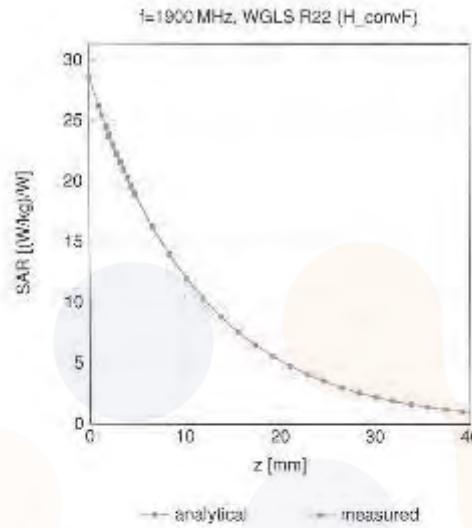


Uncertainty of Linearity Assessment: ±0.6% (k=2)

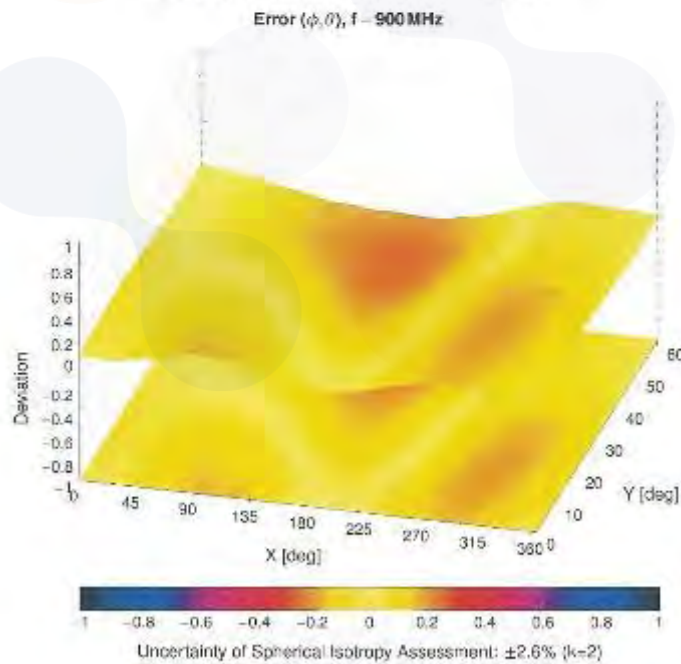
EX3DV1 - SN:7540

May 04, 2023

### Conversion Factor Assessment



### Deviation from Isotropy in Liquid



EX3DM4 - SN:7540

May 04, 2023

**Appendix: Modulation Calibration Parameters**

UID	Ref	Communication System Name	Group	PAR (dB)	Unc <sup>2</sup> K = 2
10010	CAB	SAR Validator (Square 100 ms - 10 ms)	CW	0.00	14.7
10011	CAC	UMTS FDD (WCDMA)	set	10.00	19.8
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WCDMA	2.01	19.8
10013	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	1.87	19.8
10021	DAC	GSM-FDD (TDMA, GMSK)	WLAN	0.46	19.8
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	0.50	19.8
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	0.57	19.8
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	6.56	19.8
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	12.62	19.8
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	0.50	19.8
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	4.30	19.8
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	3.55	19.8
10030	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	19.8
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	-9.8
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH2)	Bluetooth	1.87	-9.8
10033	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.18	-9.8
10034	CAA	IEEE 802.15.1 Bluetooth (Pi4-QPSK, DH1)	Bluetooth	7.78	-9.8
10035	CAA	IEEE 802.15.1 Bluetooth (Pi4-QPSK, DH3)	Bluetooth	4.53	-9.8
10036	CAA	IEEE 802.15.1 Bluetooth (Pi4-QPSK, DH5)	Bluetooth	3.03	-9.8
10037	CAA	IEEE 802.15.1 Bluetooth (8-PSK, DH1)	Bluetooth	0.01	-9.8
10038	CAA	IEEE 802.15.1 Bluetooth (8-PSK, DH3)	Bluetooth	4.77	-9.8
10039	CAA	IEEE 802.15.1 Bluetooth (8-PSK, DH5)	Bluetooth	4.10	-9.8
10039	CAU	CDMA2000 (WRTT, RC3)	CDMA2000	4.87	-9.8
10042	CAB	IS-54/136 FDD (TDMA-FDM, Pi4-QPSK, Fullrate)	AMPS	7.78	-9.8
10044	CAA	IS-54/136/TIA-553 FDD (FDMA, FM)	AMPS	0.00	-9.8
10045	CAA	DECT (TDD, TDMA-FDM, QPSK, Full Slot, 24)	DECT	15.80	19.8
10049	CAA	DECT (TDD, TDMA-FDM, QPSK, Double Slot, 12)	DECT	10.75	19.8
10051	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mbps)	TD-SCDMA	11.01	19.8
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	19.8
10060	CAB	IEEE 802.11a WiFi 5 GHz (DSSS, 2 Mbps)	WLAN	2.12	19.8
10061	CAB	IEEE 802.11a WiFi 5 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	19.8
10062	CAB	IEEE 802.11a WiFi 5 GHz (DSSS, 11 Mbps)	WLAN	3.80	19.8
10063	CAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	3.88	19.8
10063	CAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	3.85	19.8
10064	CAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	0.00	19.8
10065	CAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	0.00	19.8
10066	CAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	3.38	19.8
10067	CAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	13.13	19.8
10068	CAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.49	19.8
10069	CAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.55	19.8
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 8 Mbps)	WLAN	9.03	-9.8
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.02	-9.8
10073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	-9.8
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	-9.8
10075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.77	-9.8
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.94	-9.8
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11.00	-9.8
10081	CAB	CDMA2000 (WRTT, RC3)	CDMA2000	3.97	19.8
10082	CAB	IS-54/136 FDD (TDMA-FDM, Pi4-QPSK, Fullrate)	AMPS	4.77	19.8
10090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	19.8
10097	DAC	UMTS-FDD (HSPA)	WCDMA	3.88	19.8
10098	DAC	UMTS-FDD (HSPA, Subcar 2)	WCDMA	3.88	19.8
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.56	19.8
10100	DAC	LTE-FDD (SC-FDMA, 100% RB, 30 MHz, QPSK)	LTE-FDD	0.00	19.8
10101	DAC	LTE-FDD (SC-FDMA, 100% RB, 30 MHz, 16-QAM)	LTE-FDD	0.40	19.8
10102	DAC	LTE-FDD (SC-FDMA, 100% RB, 30 MHz, 64-QAM)	LTE-FDD	0.00	19.8
10103	CAH	LTE-TDD (SC-FDMA, 100% RB, 30 MHz, QPSK)	LTE-TDD	9.26	19.8
10104	CAH	LTE-TDD (SC-FDMA, 100% RB, 30 MHz, 16-QAM)	LTE-TDD	0.50	19.8
10105	CAH	LTE-TDD (SC-FDMA, 100% RB, 30 MHz, 64-QAM)	LTE-TDD	10.01	19.8
10106	CAH	LTE-FDD (SC-FDMA, 100% RB, 19 MHz, QPSK)	LTE-FDD	5.60	19.8
10106	CAH	LTE-FDD (SC-FDMA, 100% RB, 19 MHz, 16-QAM)	LTE-FDD	3.43	19.8
10110	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	19.8
10111	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	3.41	19.8



EX32W4 - SN:7540

May 04, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>2</sup> k - 2
10112	CAH	LTE-FDD (SC-FDMA, 100% RB, 10MHz, 64-QAM)	LTE-FDD	5.55	+9.6
10113	CAH	LTE-FDD (SC-FDMA, 100% RB, 5MHz, 64-QAM)	LTE-FDD	5.62	+9.6
10114	CAD	IEEE 802.11n (HT Greenfield, 13.5Mbps, BPSK)	WLAN	5.10	+9.6
10115	CAD	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	5.46	+9.6
10116	CAD	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	5.10	+9.6
10117	CAD	IEEE 802.11n (HT Mixed, 13.5Mbps, BPSK)	WLAN	5.07	+9.6
10118	CAD	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	5.55	+9.6
10119	CAD	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	5.15	+9.6
10140	CAF	LTE-FDD (SC-FDMA, 100% RB, 15MHz, 16-QAM)	LTE-FDD	5.45	+9.6
10141	CAF	LTE-FDD (SC-FDMA, 100% RB, 15MHz, 64-QAM)	LTE-FDD	5.53	+9.6
10142	CAF	LTE-FDD (SC-FDMA, 100% RB, 3MHz, QPSK)	LTE-FDD	5.73	+9.6
10143	CAF	LTE-FDD (SC-FDMA, 100% RB, 3MHz, 16-QAM)	LTE-FDD	5.55	+9.6
10144	CAF	LTE-FDD (SC-FDMA, 100% RB, 3MHz, 64-QAM)	LTE-FDD	5.55	+9.6
10145	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4MHz, QPSK)	LTE-FDD	5.75	+9.6
10146	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4MHz, 16-QAM)	LTE-FDD	5.41	+9.6
10147	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4MHz, 64-QAM)	LTE-FDD	5.72	+9.6
10149	CAF	LTE-FDD (SC-FDMA, 50% RB, 20MHz, 16-QAM)	LTE-FDD	5.42	+9.6
10150	CAF	LTE-FDD (SC-FDMA, 50% RB, 20MHz, 64-QAM)	LTE-FDD	5.60	+9.6
10151	CAH	LTE-TDD (SC-FDMA, 50% RB, 20MHz, QPSK)	LTE-TDD	5.28	+9.6
10152	CAH	LTE-TDD (SC-FDMA, 50% RB, 20MHz, 16-QAM)	LTE-TDD	5.32	+9.6
10153	CAH	LTE-TDD (SC-FDMA, 50% RB, 20MHz, 64-QAM)	LTE-TDD	5.05	+9.6
10154	CAH	LTE-FDD (SC-FDMA, 50% RB, 10MHz, QPSK)	LTE-FDD	5.75	+9.6
10155	CAH	LTE-FDD (SC-FDMA, 50% RB, 10MHz, 16-QAM)	LTE-FDD	5.40	+9.6
10156	CAH	LTE-FDD (SC-FDMA, 50% RB, 5MHz, QPSK)	LTE-FDD	5.75	+9.6
10157	CAH	LTE-FDD (SC-FDMA, 50% RB, 5MHz, 16-QAM)	LTE-FDD	5.49	+9.6
10158	CAH	LTE-FDD (SC-FDMA, 50% RB, 10MHz, 64-QAM)	LTE-FDD	5.52	+9.6
10159	CAH	LTE-FDD (SC-FDMA, 50% RB, 5MHz, 64-QAM)	LTE-FDD	5.50	+9.6
10160	CAF	LTE-FDD (SC-FDMA, 50% RB, 15MHz, QPSK)	LTE-FDD	5.62	+9.6
10161	CAF	LTE-FDD (SC-FDMA, 50% RB, 15MHz, 16-QAM)	LTE-FDD	5.43	+9.6
10162	CAF	LTE-FDD (SC-FDMA, 50% RB, 15MHz, 64-QAM)	LTE-FDD	5.58	+9.6
10163	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4MHz, QPSK)	LTE-FDD	5.49	+9.6
10164	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4MHz, 16-QAM)	LTE-FDD	5.21	+9.6
10165	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4MHz, 64-QAM)	LTE-FDD	5.75	+9.6
10166	CAF	LTE-FDD (SC-FDMA, 1 RB, 20MHz, QPSK)	LTE-FDD	5.73	+9.6
10167	CAF	LTE-FDD (SC-FDMA, 1 RB, 20MHz, 16-QAM)	LTE-FDD	5.52	+9.6
10168	CAF	LTE-FDD (SC-FDMA, 1 RB, 20MHz, 64-QAM)	LTE-FDD	5.49	+9.6
10169	CAF	LTE-FDD (SC-FDMA, 1 RB, 20MHz, QPSK)	LTE-TDD	5.21	+9.6
10170	CAF	LTE-FDD (SC-FDMA, 1 RB, 20MHz, 16-QAM)	LTE-TDD	5.48	+9.6
10171	CAF	LTE-FDD (SC-FDMA, 1 RB, 20MHz, 64-QAM)	LTE-TDD	5.25	+9.6
10172	CAF	LTE-FDD (SC-FDMA, 1 RB, 10MHz, QPSK)	LTE-FDD	5.72	+9.6
10173	CAF	LTE-FDD (SC-FDMA, 1 RB, 10MHz, 16-QAM)	LTE-FDD	5.52	+9.6
10174	CAF	LTE-FDD (SC-FDMA, 1 RB, 10MHz, 64-QAM)	LTE-FDD	5.73	+9.6
10175	CAF	LTE-FDD (SC-FDMA, 1 RB, 5MHz, QPSK)	LTE-FDD	5.73	+9.6
10176	CAF	LTE-FDD (SC-FDMA, 1 RB, 5MHz, 16-QAM)	LTE-FDD	5.52	+9.6
10177	CAF	LTE-FDD (SC-FDMA, 1 RB, 5MHz, 64-QAM)	LTE-FDD	5.73	+9.6
10178	CAH	LTE-FDD (SC-FDMA, 1 RB, 5MHz, 16-QAM)	LTE-FDD	5.52	+9.6
10179	CAH	LTE-FDD (SC-FDMA, 1 RB, 10MHz, 64-QAM)	LTE-FDD	5.50	+9.6
10180	CAH	LTE-FDD (SC-FDMA, 1 RB, 5MHz, 64-QAM)	LTE-FDD	5.50	+9.6
10181	CAF	LTE-FDD (SC-FDMA, 1 RB, 15MHz, QPSK)	LTE-FDD	5.72	+9.6
10182	CAF	LTE-FDD (SC-FDMA, 1 RB, 15MHz, 16-QAM)	LTE-FDD	5.52	+9.6
10183	ARE	LTE-FDD (SC-FDMA, 1 RB, 15MHz, 64-QAM)	LTE-FDD	5.50	+9.6
10184	CAF	LTE-FDD (SC-FDMA, 1 RB, 3MHz, QPSK)	LTE-FDD	5.73	+9.6
10185	CAF	LTE-FDD (SC-FDMA, 1 RB, 3MHz, 16-QAM)	LTE-FDD	5.51	+9.6
10186	AAF	LTE-FDD (SC-FDMA, 1 RB, 3MHz, 64-QAM)	LTE-FDD	5.50	+9.6
10187	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4MHz, QPSK)	LTE-FDD	5.73	+9.6
10188	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4MHz, 16-QAM)	LTE-FDD	5.52	+9.6
10189	AAG	LTE-FDD (SC-FDMA, 1 RB, 1.4MHz, 64-QAM)	LTE-FDD	5.50	+9.6
10190	CAD	IEEE 802.11n (HT Greenfield, 6.5Mbps, BPSK)	WLAN	5.09	+9.6
10191	CAD	IEEE 802.11n (HT Greenfield, 38 Mbps, 16-QAM)	WLAN	5.12	+9.6
10192	CAD	IEEE 802.11n (HT Greenfield, 85 Mbps, 64-QAM)	WLAN	5.21	+9.6
10193	CAD	IEEE 802.11n (HT Mixed, 6.5Mbps, QPSK)	WLAN	5.10	+9.6
10194	CAD	IEEE 802.11n (HT Mixed, 38 Mbps, 16-QAM)	WLAN	5.73	+9.6
10195	CAD	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	5.27	+9.6
10219	CAD	IEEE 802.11n (HT Mixed, 7.2Mbps, BPSK)	WLAN	5.09	+9.6
10220	CAD	IEEE 802.11n (HT Mixed, 48.3Mbps, 16-QAM)	WLAN	5.15	+9.6
10221	CAD	IEEE 802.11n (HT Mixed, 72.2Mbps, 64-QAM)	WLAN	5.27	+9.6
10222	CAD	IEEE 802.11n (HT Mixed, 15 Mbps, QPSK)	WLAN	5.45	+9.6
10223	CAD	IEEE 802.11n (HT Mixed, 30 Mbps, 16-QAM)	WLAN	5.45	+9.6
10224	CAD	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	5.05	+9.6

EX3DV4 - SN:7540

May 04, 2023

UID	Rev	Communication System Name	Group	FAR (dB)	Unc <sup>F</sup> A = 2
10225	CAC	UMTS-FDD (HSPA)	WCDMA	5.97	-19.8
10226	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4MHz, 16-QAM)	LTE-TDD	9.49	-19.8
10227	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4MHz, 64-QAM)	LTE-TDD	10.26	-19.8
10228	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4MHz, QPSK)	LTE-TDD	9.22	-19.8
10229	CAE	LTE-TDD (SC-FDMA, 1 RB, 3MHz, 16-QAM)	LTE-TDD	9.48	-19.8
10230	CAE	LTE-TDD (SC-FDMA, 1 RB, 3MHz, 64-QAM)	LTE-TDD	10.25	-19.8
10231	CAE	LTE-TDD (SC-FDMA, 1 RB, 3MHz, QPSK)	LTE-TDD	9.19	-19.8
10232	CAH	LTE-TDD (SC-FDMA, 1 RB, 3MHz, 16-QAM)	LTE-TDD	9.45	-19.8
10233	CAH	LTE-TDD (SC-FDMA, 1 RB, 3MHz, 64-QAM)	LTE-TDD	10.25	-19.8
10234	CAH	LTE-TDD (SC-FDMA, 1 RB, 3MHz, QPSK)	LTE-TDD	9.21	-19.8
10235	CAH	LTE-TDD (SC-FDMA, 1 RB, 10MHz, 16-QAM)	LTE-TDD	9.48	-19.8
10236	CAH	LTE-TDD (SC-FDMA, 1 RB, 10MHz, 64-QAM)	LTE-TDD	10.25	-19.8
10237	CAH	LTE-TDD (SC-FDMA, 1 RB, 10MHz, QPSK)	LTE-TDD	9.21	-19.8
10238	CAG	LTE-TDD (SC-FDMA, 1 RB, 15MHz, 16-QAM)	LTE-TDD	9.48	-19.8
10239	CAG	LTE-TDD (SC-FDMA, 1 RB, 15MHz, 64-QAM)	LTE-TDD	10.25	-19.8
10240	CAG	LTE-TDD (SC-FDMA, 1 RB, 15MHz, QPSK)	LTE-TDD	9.21	-19.8
10241	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4MHz, 16-QAM)	LTE-TDD	9.62	-19.8
10242	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4MHz, 64-QAM)	LTE-TDD	9.86	-19.8
10243	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4MHz, QPSK)	LTE-TDD	9.46	-19.8
10244	CAE	LTE-TDD (SC-FDMA, 50% RB, 3MHz, 16-QAM)	LTE-TDD	10.06	-19.8
10245	CAE	LTE-TDD (SC-FDMA, 50% RB, 3MHz, 64-QAM)	LTE-TDD	10.05	-19.8
10246	CAE	LTE-TDD (SC-FDMA, 50% RB, 3MHz, QPSK)	LTE-TDD	9.32	-19.8
10247	CAH	LTE-TDD (SC-FDMA, 50% RB, 3MHz, 16-QAM)	LTE-TDD	9.91	-19.8
10248	CAH	LTE-TDD (SC-FDMA, 50% RB, 3MHz, 64-QAM)	LTE-TDD	10.09	-19.8
10249	CAH	LTE-TDD (SC-FDMA, 50% RB, 3MHz, QPSK)	LTE-TDD	9.29	-19.8
10250	CAH	LTE-TDD (SC-FDMA, 50% RB, 10MHz, 16-QAM)	LTE-TDD	9.81	-19.8
10251	CAH	LTE-TDD (SC-FDMA, 50% RB, 10MHz, 64-QAM)	LTE-TDD	10.17	-19.8
10252	CAH	LTE-TDD (SC-FDMA, 50% RB, 10MHz, QPSK)	LTE-TDD	9.24	-19.8
10253	CAG	LTE-TDD (SC-FDMA, 50% RB, 15MHz, 16-QAM)	LTE-TDD	9.82	-19.8
10254	CAG	LTE-TDD (SC-FDMA, 50% RB, 15MHz, 64-QAM)	LTE-TDD	10.14	-19.8
10255	CAG	LTE-TDD (SC-FDMA, 50% RB, 15MHz, QPSK)	LTE-TDD	9.20	-19.8
10256	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4MHz, 16-QAM)	LTE-TDD	9.98	-19.8
10257	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4MHz, 64-QAM)	LTE-TDD	10.05	-19.8
10258	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4MHz, QPSK)	LTE-TDD	9.54	-19.8
10259	CAE	LTE-TDD (SC-FDMA, 100% RB, 3MHz, 16-QAM)	LTE-TDD	9.26	-19.8
10260	CAE	LTE-TDD (SC-FDMA, 100% RB, 3MHz, 64-QAM)	LTE-TDD	9.97	-19.8
10261	CAE	LTE-TDD (SC-FDMA, 100% RB, 3MHz, QPSK)	LTE-TDD	9.24	-19.8
10262	CAH	LTE-TDD (SC-FDMA, 100% RB, 5MHz, 16-QAM)	LTE-TDD	9.63	-19.8
10263	CAH	LTE-TDD (SC-FDMA, 100% RB, 5MHz, 64-QAM)	LTE-TDD	10.16	-19.8
10264	CAH	LTE-TDD (SC-FDMA, 100% RB, 5MHz, QPSK)	LTE-TDD	9.23	-19.8
10265	CAH	LTE-TDD (SC-FDMA, 100% RB, 10MHz, 16-QAM)	LTE-TDD	9.32	-19.8
10266	CAH	LTE-TDD (SC-FDMA, 100% RB, 10MHz, 64-QAM)	LTE-TDD	10.07	-19.8
10267	CAH	LTE-TDD (SC-FDMA, 100% RB, 10MHz, QPSK)	LTE-TDD	9.30	-19.8
10268	CAE	LTE-TDD (SC-FDMA, 100% RB, 15MHz, 16-QAM)	LTE-TDD	10.05	-19.8
10269	CAG	LTE-TDD (SC-FDMA, 100% RB, 15MHz, 64-QAM)	LTE-TDD	10.13	-19.8
10270	CAG	LTE-TDD (SC-FDMA, 100% RB, 15MHz, QPSK)	LTE-TDD	9.58	-19.8
10271	CAC	UMTS-FDD (HSPA, Subnet 3, SCPP RAB 10)	WCDMA	4.87	-19.8
10272	CAC	UMTS-FDD (HSPA, Subnet 3, SCPP RAB 4)	WCDMA	3.96	-19.8
10273	CAA	PHS (QPSK)	PHS	11.61	-19.8
10274	CAA	PHS (QPSK, BW 99.8MHz, Roll-off 0.5)	PHS	11.51	-19.8
10275	CAA	PHS (QPSK, BW 99.8MHz, Roll-off 0.38)	PHS	12.18	-19.8
10280	AAB	CDMA2000, RC1, SC05, Full Rate	CDMA2000	3.91	-19.8
10281	AAB	CDMA2000, RC1, SC05, Full Rate	CDMA2000	3.45	-19.8
10282	AAB	CDMA2000, RC1, SC05, Full Rate	CDMA2000	3.39	-19.8
10283	AAB	CDMA2000, RC3, SC05, Full Rate	CDMA2000	3.50	-19.8
10284	AAB	CDMA2000, RC1, SC05, 1/8th Rate 25.1k	CDMA2000	12.49	-19.8
10287	AAE	LTE-FDD (SC-FDMA, 50% RB, 20MHz, QPSK)	LTE-FDD	5.91	-19.8
10288	AAE	LTE-FDD (SC-FDMA, 50% RB, 3MHz, QPSK)	LTE-FDD	5.72	-19.8
10289	AAE	LTE-FDD (SC-FDMA, 50% RB, 3MHz, 16-QAM)	LTE-FDD	6.29	-19.8
10290	AAE	LTE-FDD (SC-FDMA, 50% RB, 3MHz, 64-QAM)	LTE-FDD	6.60	-19.8
10301	AAA	IEEE 802.15e WIMAX (29.15, 5ms, 10MHz, QPSK, PUSC)	WIMAX	15.03	-19.8
10302	AAA	IEEE 802.15e WIMAX (29.15, 5ms, 10MHz, QPSK, PUSC, 3 CTTI, symbol 6)	WIMAX	15.67	-19.8
10303	AAA	IEEE 802.15e WIMAX (29.15, 5ms, 10MHz, 64QAM, PUSC)	WIMAX	12.52	-19.8
10304	AAA	IEEE 802.15e WIMAX (29.15, 5ms, 10MHz, 64QAM, PUSC)	WIMAX	11.66	-19.8
10305	AAA	IEEE 802.15e WIMAX (29.15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	WIMAX	15.21	-19.8
10306	AAA	IEEE 802.15e WIMAX (29.15, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	WIMAX	14.07	-19.8

TX3DV4 - SN-7540

May 04, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>+</sup> & -
10307	AAA	IEEE 802.16e WIMAX (25.18, 10ms, 10MHz, QPSK, PUSC(18 symbols))	WIMAX	14.48	+9.0
10308	AAA	IEEE 802.16e WIMAX (25.18, 10ms, 10MHz, 15QAM, PUSC)	WIMAX	14.48	+9.0
10309	AAA	IEEE 802.16e WIMAX (25.18, 10ms, 10MHz, 16QAM, AMC 2cs, 18 symbols)	WIMAX	14.58	+9.0
10310	AAA	IEEE 802.16e WIMAX (25.18, 10ms, 10MHz, QPSK, AMC 2cs, 18 symbols)	WIMAX	14.57	+9.0
10311	AAE	LTE-FDD (SC-FDMA, 100% RB, 15MHz, QPSK)	LTE-FDD	5.08	+9.0
10312	AAA	CDN 1/2	CDN	10.51	+9.0
10314	AAA	CDN 1/5	CDN	13.48	+9.0
10315	AAB	IEEE 802.11b WiFi (2.4GHz) (DSSS, 1Mbps, 99% duty cycle)	WLAN	1.71	+9.0
10316	AAB	IEEE 802.11g WiFi (2.4GHz) (ERP-OFDM, 6Mbps, 99% duty cycle)	WLAN	5.36	+9.0
10317	AAD	IEEE 802.11n WiFi (5GHz) (OFDM, FM type, 96% duty cycle)	WLAN	5.36	+9.0
10322	AAA	Pulse Waveform (200Hz, 10%)	Generic	10.00	+9.0
10328	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.99	+9.0
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.99	+9.0
10355	AAA	Pulse Waveform (200Hz, 80%)	Generic	2.22	+9.0
10356	AAA	Pulse Waveform (200Hz, 80%)	Generic	3.97	+9.0
10357	AAA	QPSK Waveform (1MHz)	Generic	5.10	+9.0
10358	AAA	QPSK Waveform (10MHz)	Generic	5.22	+9.0
10395	AAA	64-QAM Waveform (100kHz)	Generic	6.27	+9.0
10399	AAA	64-QAM Waveform (40MHz)	Generic	6.27	+9.0
10400	AAE	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99% duty cycle)	WLAN	6.37	+9.0
10401	AAE	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99% duty cycle)	WLAN	6.60	+9.0
10402	AAE	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99% duty cycle)	WLAN	6.59	+9.0
10403	AAB	CDMA2000 1XEV-DO, Rev. 3f	CDMA2000	3.76	+9.0
10404	AAB	CDMA2000 1XEV-DO, Rev. A	CDMA2000	3.77	+9.0
10405	AAB	CDMA2000, HCS, SCH2, SCH0, Full rate	CDMA2000	3.22	+9.0
10410	AAH	LTE-TDD (SC-FDMA, 1 RB, 10MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe=0,1,6)	LTE-TDD	7.82	+9.0
10414	AAA	WLAN CCDF 64-QAM, 40MHz	Generic	8.54	+9.0
10415	AAA	IEEE 802.11b WiFi (2.4GHz) (DSSS, 1Mbps, 99% duty cycle)	WLAN	1.54	+9.0
10416	AAA	IEEE 802.11g WiFi (2.4GHz) (ERP-OFDM, 6Mbps, 99% duty cycle)	WLAN	6.03	+9.0
10417	AAC	IEEE 802.11ah WiFi (5GHz) (OFDM, FM type, 99% duty cycle)	WLAN	5.23	+9.0
10418	AAB	IEEE 802.11g WiFi (2.4GHz) (DSSS-OFDM, 6Mbps, 99% duty cycle, Long preamble)	WLAN	6.14	+9.0
10419	AAA	IEEE 802.11g WiFi (2.4GHz) (DSSS-OFDM, 6Mbps, 99% duty cycle, Short preamble)	WLAN	6.19	+9.0
10420	AAC	IEEE 802.11n (HT) Greenfield, 7.2Mbps, QPSK	WLAN	6.02	+9.0
10423	AAC	IEEE 802.11n (HT) Greenfield, 45.0Mbps, 16-QAM	WLAN	6.17	+9.0
10424	AAC	IEEE 802.11n (HT) Greenfield, 78.2Mbps, 64-QAM	WLAN	6.40	+9.0
10425	AAC	IEEE 802.11n (HT) Greenfield, 15Mbps, QPSK	WLAN	6.11	+9.0
10426	AAC	IEEE 802.11n (HT) Greenfield, 30Mbps, 16-QAM	WLAN	6.15	+9.0
10427	AAC	IEEE 802.11n (HT) Greenfield, 150Mbps, 64-QAM	WLAN	6.41	+9.0
10430	AAE	LTE-FDD (OFDMA, 5MHz, E-TM 3.1)	LTE-FDD	6.28	+9.0
10431	AAE	LTE-FDD (OFDMA, 10MHz, E-TM 3.1)	LTE-FDD	6.28	+9.0
10432	AAE	LTE-FDD (OFDMA, 15MHz, E-TM 3.1)	LTE-FDD	6.24	+9.0
10433	AAE	LTE-FDD (OFDMA, 20MHz, E-TM 3.1)	LTE-FDD	6.54	+9.0
10434	AAB	WCDMA (BS Test Model), 64 DPCS	WCDMA	6.60	+9.0
10435	AAE	LTE-TDD (SC-FDMA, 1 RB, 20MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	+9.0
10442	AAE	LTE-FDD (OFDMA, 5MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.58	+9.0
10448	AAE	LTE-FDD (OFDMA, 10MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.53	+9.0
10449	AAE	LTE-FDD (OFDMA, 15MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.51	+9.0
10450	AAE	LTE-FDD (OFDMA, 20MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	+9.0
10451	AAE	WCDMA (BS Test Model), 64 DPCS, Clipping 44%	WCDMA	7.59	+9.0
10452	AAE	Validation (Square, 10ms, 1ms)	Test	10.00	+9.0
10456	AAC	IEEE 802.11ac WiFi (60MHz, 64-QAM, 99% duty cycle)	WLAN	6.63	+9.0
10457	AAB	UMTS-FDD (DC-SSM)	WCDMA	6.02	+9.0
10458	AAE	CDMA2000 1XEV-DO, Rev. 3, 2 carriers	CDMA2000	6.55	+9.0
10459	AAE	CDMA2000 1XEV-DO, Rev. 3, 3 carriers	CDMA2000	6.25	+9.0
10460	AAB	UMTS-FDD (WCDMA, AMR)	WCDMA	2.38	+9.0
10461	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	+9.0
10462	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.30	+9.0
10463	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	+9.0
10464	AAE	LTE-TDD (SC-FDMA, 1 RB, 3MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	+9.0
10465	AAE	LTE-TDD (SC-FDMA, 1 RB, 3MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.30	+9.0
10466	AAE	LTE-TDD (SC-FDMA, 1 RB, 3MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	+9.0
10467	AAE	LTE-TDD (SC-FDMA, 1 RB, 5MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	+9.0
10468	AAE	LTE-TDD (SC-FDMA, 1 RB, 5MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	+9.0
10469	AAE	LTE-TDD (SC-FDMA, 1 RB, 5MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.59	+9.0
10470	AAE	LTE-TDD (SC-FDMA, 1 RB, 10MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	+9.0
10471	AAE	LTE-TDD (SC-FDMA, 1 RB, 10MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	+9.0

EX3DV4 - SN 7540

May 04, 2023

UID	Rev	Communication System Name	Group	PAH (dB)	Unc <sup>2</sup> K = 2
10472	AAG	LTE-TDD (SC-FDMA, 1 RB, 10MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	+5.6
10473	AAF	LTE-TDD (SC-FDMA, 1 RB, 15MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	+5.6
10474	AAF	LTE-TDD (SC-FDMA, 1 RB, 15MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.22	+5.6
10475	AAF	LTE-TDD (SC-FDMA, 1 RB, 15MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	+5.6
10477	AAG	LTE-TDD (SC-FDMA, 1 RB, 20MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.22	+5.6
10478	AAG	LTE-TDD (SC-FDMA, 1 RB, 20MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	+5.6
10479	AAC	LTE-TDD (SC-FDMA, 50% RB, 10MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	+5.6
10480	AAC	LTE-TDD (SC-FDMA, 50% RB, 10MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.16	+5.6
10481	AAC	LTE-TDD (SC-FDMA, 50% RB, 10MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	+5.6
10482	AAD	LTE-TDD (SC-FDMA, 50% RB, 3MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.77	+9.6
10483	AAD	LTE-TDD (SC-FDMA, 50% RB, 3MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.39	+9.6
10484	AAD	LTE-TDD (SC-FDMA, 50% RB, 3MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.47	+9.6
10485	AAG	LTE-TDD (SC-FDMA, 50% RB, 5MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.95	+9.6
10486	AAG	LTE-TDD (SC-FDMA, 50% RB, 5MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.38	+9.6
10487	AAG	LTE-TDD (SC-FDMA, 50% RB, 5MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.50	+9.6
10488	AAG	LTE-TDD (SC-FDMA, 50% RB, 10MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.70	+9.6
10489	AAG	LTE-TDD (SC-FDMA, 50% RB, 10MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	+9.6
10490	AAG	LTE-TDD (SC-FDMA, 50% RB, 10MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	+9.6
10491	AAF	LTE-TDD (SC-FDMA, 50% RB, 15MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	+9.6
10492	AAF	LTE-TDD (SC-FDMA, 50% RB, 15MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.41	+9.6
10493	AAF	LTE-TDD (SC-FDMA, 50% RB, 15MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	+9.6
10494	AAG	LTE-TDD (SC-FDMA, 50% RB, 20MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	+9.6
10495	AAG	LTE-TDD (SC-FDMA, 50% RB, 20MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.37	+9.6
10496	AAG	LTE-TDD (SC-FDMA, 50% RB, 20MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	+9.6
10497	AAC	LTE-TDD (SC-FDMA, 100% RB, 1.4MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	+9.6
10498	AAC	LTE-TDD (SC-FDMA, 100% RB, 1.4MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.40	+9.6
10499	AAC	LTE-TDD (SC-FDMA, 100% RB, 1.4MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.68	+9.6
10500	AAD	LTE-TDD (SC-FDMA, 100% RB, 3MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	+9.6
10501	AAD	LTE-TDD (SC-FDMA, 100% RB, 3MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.44	+9.6
10502	AAD	LTE-TDD (SC-FDMA, 100% RB, 3MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.52	+9.6
10503	AAG	LTE-TDD (SC-FDMA, 100% RB, 5MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.72	+9.6
10504	AAG	LTE-TDD (SC-FDMA, 100% RB, 5MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	+9.6
10505	AAG	LTE-TDD (SC-FDMA, 100% RB, 5MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	+9.6
10506	AAG	LTE-TDD (SC-FDMA, 100% RB, 10MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	+9.6
10507	AAG	LTE-TDD (SC-FDMA, 100% RB, 10MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.38	+9.6
10508	AAG	LTE-TDD (SC-FDMA, 100% RB, 10MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	+9.6
10509	AAF	LTE-TDD (SC-FDMA, 100% RB, 15MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.89	+9.6
10510	AAF	LTE-TDD (SC-FDMA, 100% RB, 15MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.48	+9.6
10511	AAF	LTE-TDD (SC-FDMA, 100% RB, 15MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.61	+9.6
10512	AAG	LTE-TDD (SC-FDMA, 100% RB, 20MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	+9.6
10513	AAG	LTE-TDD (SC-FDMA, 100% RB, 20MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.42	+9.6
10514	AAG	LTE-TDD (SC-FDMA, 100% RB, 20MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.46	+9.6
10515	AAA	IEEE 802.11b WFI 2.4GHz (DSSS), 2Mbps, 99pc duty cycle)	WLAN	1.58	+9.6
10516	AAA	IEEE 802.11b WFI 2.4GHz (DSSS), 5.5Mbps, 99pc duty cycle)	WLAN	1.57	+9.6
10517	AAA	IEEE 802.11b WFI 2.4GHz (DSSS), 11Mbps, 99pc duty cycle)	WLAN	1.58	+9.6
10518	AAC	IEEE 802.11a WFI 5GHz (OFDM), 9Mbps, 99pc duty cycle)	WLAN	3.25	+9.6
10519	AAC	IEEE 802.11a WFI 5GHz (OFDM), 12Mbps, 99pc duty cycle)	WLAN	3.28	+9.6
10520	AAC	IEEE 802.11a WFI 5GHz (OFDM), 18Mbps, 99pc duty cycle)	WLAN	3.12	+9.6
10521	AAC	IEEE 802.11a WFI 5GHz (OFDM), 24Mbps, 99pc duty cycle)	WLAN	2.97	+9.6
10522	AAC	IEEE 802.11a WFI 5GHz (OFDM), 36Mbps, 99pc duty cycle)	WLAN	3.45	+9.6
10523	AAC	IEEE 802.11a WFI 5GHz (OFDM), 48Mbps, 99pc duty cycle)	WLAN	3.39	+9.6
10524	AAC	IEEE 802.11a WFI 5GHz (OFDM), 54Mbps, 99pc duty cycle)	WLAN	3.27	+9.6
10525	AAC	IEEE 802.11ac WFI (20MHz, MCS0), 99pc duty cycle)	WLAN	3.35	+9.6
10526	AAC	IEEE 802.11ac WFI (20MHz, MCS1), 99pc duty cycle)	WLAN	3.42	+9.6
10527	AAC	IEEE 802.11ac WFI (20MHz, MCS2), 99pc duty cycle)	WLAN	3.21	+9.6
10528	AAC	IEEE 802.11ac WFI (20MHz, MCS3), 99pc duty cycle)	WLAN	3.36	+9.6
10529	AAC	IEEE 802.11ac WFI (20MHz, MCS4), 99pc duty cycle)	WLAN	3.36	+9.6
10530	AAC	IEEE 802.11ac WFI (20MHz, MCS5), 99pc duty cycle)	WLAN	3.43	+9.6
10531	AAC	IEEE 802.11ac WFI (20MHz, MCS6), 99pc duty cycle)	WLAN	3.25	+9.6
10532	AAC	IEEE 802.11ac WFI (20MHz, MCS7), 99pc duty cycle)	WLAN	3.25	+9.6
10533	AAC	IEEE 802.11ac WFI (20MHz, MCS8), 99pc duty cycle)	WLAN	3.30	+9.6
10534	AAC	IEEE 802.11ac WFI (40MHz, MCS0), 99pc duty cycle)	WLAN	3.45	+9.6
10535	AAC	IEEE 802.11ac WFI (40MHz, MCS1), 99pc duty cycle)	WLAN	3.45	+9.6
10536	AAC	IEEE 802.11ac WFI (40MHz, MCS2), 99pc duty cycle)	WLAN	3.32	+9.6
10537	AAC	IEEE 802.11ac WFI (40MHz, MCS3), 99pc duty cycle)	WLAN	3.44	+9.6
10538	AAC	IEEE 802.11ac WFI (40MHz, MCS4), 99pc duty cycle)	WLAN	3.54	+9.6
10539	AAC	IEEE 802.11ac WFI (40MHz, MCS5), 99pc duty cycle)	WLAN	3.50	+9.6

EX30V4 SN7540

May 04, 2023

ID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>1</sup> E-2
10541	AAC	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	WLAN	8.48	+9.6
10542	AAC	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	WLAN	8.65	+9.6
10543	AAC	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.65	+9.6
10544	AAC	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.47	+9.6
10545	AAC	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	WLAN	8.58	+9.6
10546	AAC	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	WLAN	8.36	+9.6
10547	AAC	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	WLAN	8.48	+9.6
10548	AAC	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	WLAN	8.37	+9.6
10560	AAC	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	WLAN	8.38	+9.6
10561	AAC	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	WLAN	8.36	+9.6
10562	AAC	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	WLAN	8.42	+9.6
10563	AAC	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.45	+9.6
10564	AAC	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.45	+9.6
10576	AAD	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	WLAN	8.42	+9.6
10576	AAD	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	WLAN	8.50	+9.6
10577	AAD	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	WLAN	8.52	+9.6
10578	AAD	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	WLAN	8.61	+9.6
10580	AAD	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	WLAN	8.73	+9.6
10581	AAD	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	WLAN	8.58	+9.6
10582	AAD	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	WLAN	8.68	+9.6
10583	AAD	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.77	+9.6
10584	AAA	IEEE 802.11g WiFi 2.4GHz (DSSS-OFDM, 8Mbps, 99pc duty cycle)	WLAN	8.25	+9.6
10585	AAA	IEEE 802.11g WiFi 2.4GHz (DSSS-OFDM, 12Mbps, 99pc duty cycle)	WLAN	8.45	+9.6
10586	AAA	IEEE 802.11g WiFi 2.4GHz (DSSS-OFDM, 18Mbps, 99pc duty cycle)	WLAN	8.13	+9.6
10587	AAA	IEEE 802.11g WiFi 2.4GHz (DSSS-OFDM, 24Mbps, 99pc duty cycle)	WLAN	8.06	+9.6
10588	AAA	IEEE 802.11g WiFi 2.4GHz (DSSS-OFDM, 36Mbps, 99pc duty cycle)	WLAN	8.32	+9.6
10589	AAA	IEEE 802.11g WiFi 2.4GHz (DSSS-OFDM, 48Mbps, 99pc duty cycle)	WLAN	8.10	+9.6
10570	AAA	IEEE 802.11g WiFi 2.4GHz (DSSS-OFDM, 54Mbps, 99pc duty cycle)	WLAN	8.30	+9.6
10571	AAA	IEEE 802.11b WiFi 2.4GHz (DSSS, 1Mbps, 99pc duty cycle)	WLAN	1.99	+9.6
10572	AAA	IEEE 802.11b WiFi 2.4GHz (DSSS, 2Mbps, 99pc duty cycle)	WLAN	1.99	+9.6
10573	AAA	IEEE 802.11b WiFi 2.4GHz (DSSS, 5.5Mbps, 99pc duty cycle)	WLAN	1.84	+9.6
10574	AAA	IEEE 802.11b WiFi 2.4GHz (DSSS, 11Mbps, 99pc duty cycle)	WLAN	1.88	+9.6
10575	AAA	IEEE 802.11b WiFi 2.4GHz (DSSS-OFDM, 8Mbps, 99pc duty cycle)	WLAN	8.09	+9.6
10576	AAA	IEEE 802.11g WiFi 2.4GHz (DSSS-OFDM, 3Mbps, 99pc duty cycle)	WLAN	8.60	+9.6
10577	AAA	IEEE 802.11g WiFi 2.4GHz (DSSS-OFDM, 12Mbps, 99pc duty cycle)	WLAN	8.70	+9.6
10578	AAA	IEEE 802.11g WiFi 2.4GHz (DSSS-OFDM, 18Mbps, 99pc duty cycle)	WLAN	8.46	+9.6
10579	AAA	IEEE 802.11g WiFi 2.4GHz (DSSS-OFDM, 24Mbps, 99pc duty cycle)	WLAN	8.56	+9.6
10580	AAA	IEEE 802.11g WiFi 2.4GHz (DSSS-OFDM, 36Mbps, 99pc duty cycle)	WLAN	8.76	+9.6
10581	AAA	IEEE 802.11g WiFi 2.4GHz (DSSS-OFDM, 48Mbps, 99pc duty cycle)	WLAN	8.35	+9.6
10582	AAA	IEEE 802.11g WiFi 2.4GHz (DSSS-OFDM, 54Mbps, 99pc duty cycle)	WLAN	8.67	+9.6
10583	AAC	IEEE 802.11ah WiFi 5GHz (OFDM, 8Mbps, 99pc duty cycle)	WLAN	8.59	+9.6
10584	AAC	IEEE 802.11ah WiFi 5GHz (OFDM, 9Mbps, 99pc duty cycle)	WLAN	8.80	+9.6
10585	AAC	IEEE 802.11ah WiFi 5GHz (OFDM, 18Mbps, 99pc duty cycle)	WLAN	8.70	+9.6
10586	AAC	IEEE 802.11ah WiFi 5GHz (OFDM, 36Mbps, 99pc duty cycle)	WLAN	8.25	+9.6
10587	AAC	IEEE 802.11ah WiFi 5GHz (OFDM, 54Mbps, 99pc duty cycle)	WLAN	8.67	+9.6
10591	AAC	IEEE 802.11n (HT Mixed, 20MHz, MCS9, 99pc duty cycle)	WLAN	8.68	+9.6
10592	AAC	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 99pc duty cycle)	WLAN	8.78	+9.6
10593	AAC	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 99pc duty cycle)	WLAN	8.64	+9.6
10594	AAC	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 99pc duty cycle)	WLAN	8.74	+9.6
10595	AAC	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 99pc duty cycle)	WLAN	8.74	+9.6
10596	AAC	IEEE 802.11n (HT Mixed, 20MHz, MCS8, 99pc duty cycle)	WLAN	8.71	+9.6
10597	AAC	IEEE 802.11n (HT Mixed, 20MHz, MCS9, 99pc duty cycle)	WLAN	8.70	+9.6
10598	AAC	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 99pc duty cycle)	WLAN	8.70	+9.6
10599	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 99pc duty cycle)	WLAN	8.79	+9.6
10600	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 99pc duty cycle)	WLAN	8.60	+9.6
10601	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 99pc duty cycle)	WLAN	8.82	+9.6
10602	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 99pc duty cycle)	WLAN	8.81	+9.6
10603	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 99pc duty cycle)	WLAN	8.82	+9.6
10604	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 99pc duty cycle)	WLAN	8.78	+9.6
10605	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 99pc duty cycle)	WLAN	8.97	+9.6
10606	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 99pc duty cycle)	WLAN	8.82	+9.6
10607	AAC	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.64	+9.6
10608	AAC	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	WLAN	8.77	+9.6

EX3DV4 - SN:7540

May 04, 2023

UID	Rev	Communication System Name	Group	PAH (dB)	Unc <sup>k</sup> k = 2
10608	AAC	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	WLAN	8.57	+8.6
10610	AAC	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	WLAN	8.78	+8.6
10611	AAC	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	WLAN	8.70	+8.6
10612	AAC	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	+8.6
10613	AAC	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	WLAN	8.64	+8.6
10614	AAC	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	WLAN	8.68	+8.6
10616	AAC	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	WLAN	8.82	+8.6
10616	AAC	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	WLAN	8.62	+8.6
10617	AAC	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	WLAN	8.61	+8.6
10618	AAC	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	WLAN	8.68	+8.6
10619	AAC	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	WLAN	8.65	+8.6
10620	AAC	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	WLAN	8.67	+8.6
10621	AAC	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	WLAN	8.77	+8.6
10622	AAC	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	WLAN	8.58	+8.6
10623	AAC	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	WLAN	8.52	+8.6
10624	AAC	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	WLAN	8.35	+8.6
10625	AAC	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	WLAN	8.86	+8.6
10628	AAC	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	WLAN	8.83	+8.6
10629	AAC	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	WLAN	8.88	+8.6
10628	AAC	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	WLAN	8.71	+8.6
10629	AAC	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	WLAN	8.85	+8.6
10630	AAC	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	WLAN	8.72	+8.6
10631	AAC	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	WLAN	8.81	+8.6
10632	AAC	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	WLAN	8.71	+8.6
10633	AAC	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	WLAN	8.83	+8.6
10634	AAC	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	WLAN	8.80	+8.6
10635	AAC	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	WLAN	8.81	+8.6
10636	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	WLAN	8.62	+8.6
10637	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	WLAN	8.75	+8.6
10638	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	WLAN	8.85	+8.6
10639	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	WLAN	8.85	+8.6
10640	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	WLAN	8.98	+8.6
10641	AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	WLAN	8.86	+8.6
10642	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	WLAN	8.86	+8.6
10643	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	WLAN	8.89	+8.6
10644	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	WLAN	8.85	+8.6
10645	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	WLAN	8.11	+8.6
10646	AAH	LTE-TDD (FDD-LTE), 5MHz, QPSK, UL Subframe-2(F)	LTE-TDD	11.88	+8.6
10647	AAH	LTE-TDD (FDD-LTE), 5MHz, QPSK, UL Subframe-2(F)	LTE-TDD	11.88	+8.6
10648	AAH	CDMA2000 1X Advanced	CDMA2000	8.46	+8.6
10652	AAF	LTE-TDD (FDD-LTE), 5MHz, E-TM 3.1, Clipping 44%	LTE-TDD	8.91	+8.6
10653	AAF	LTE-TDD (FDD-LTE), 10MHz, E-TM 3.1, Clipping 44%	LTE-TDD	7.49	+8.6
10654	AAF	LTE-TDD (FDD-LTE), 15MHz, E-TM 3.1, Clipping 44%	LTE-TDD	8.56	+8.6
10655	AAF	LTE-TDD (FDD-LTE), 20MHz, E-TM 3.1, Clipping 44%	LTE-TDD	7.21	+8.6
10658	AAB	Pulse Waveform (200Hz, 19%)	Test	10.00	+8.6
10659	AAB	Pulse Waveform (200Hz, 20%)	Test	0.88	+8.6
10660	AAB	Pulse Waveform (200Hz, 40%)	Test	3.96	+8.6
10661	AAB	Pulse Waveform (200Hz, 80%)	Test	2.22	+8.6
10662	AAB	Pulse Waveform (200Hz, 80%)	Test	0.97	+8.6
10670	AAA	Bluetooth Low Energy	Bluetooth	2.15	+8.6
10671	AAC	IEEE 802.11ax (20MHz, MCS0, 90pc duty cycle)	WLAN	9.06	+8.6
10672	AAC	IEEE 802.11ax (20MHz, MCS1, 90pc duty cycle)	WLAN	8.57	+8.6
10673	AAC	IEEE 802.11ax (20MHz, MCS2, 90pc duty cycle)	WLAN	8.75	+8.6
10674	AAC	IEEE 802.11ax (20MHz, MCS3, 90pc duty cycle)	WLAN	8.74	+8.6
10675	AAC	IEEE 802.11ax (20MHz, MCS4, 90pc duty cycle)	WLAN	8.90	+8.6
10676	AAC	IEEE 802.11ax (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	+8.6
10677	AAC	IEEE 802.11ax (20MHz, MCS6, 90pc duty cycle)	WLAN	8.73	+8.6
10678	AAC	IEEE 802.11ax (20MHz, MCS7, 90pc duty cycle)	WLAN	8.79	+8.6
10679	AAC	IEEE 802.11ax (20MHz, MCS8, 90pc duty cycle)	WLAN	9.89	+8.6
10680	AAC	IEEE 802.11ax (20MHz, MCS9, 90pc duty cycle)	WLAN	9.03	+8.6
10681	AAC	IEEE 802.11ax (20MHz, MCS10, 90pc duty cycle)	WLAN	8.62	+8.6
10682	AAC	IEEE 802.11ax (20MHz, MCS11, 90pc duty cycle)	WLAN	8.83	+8.6
10683	AAC	IEEE 802.11ax (20MHz, MCS0, 90pc duty cycle)	WLAN	8.48	+8.6
10684	AAC	IEEE 802.11ax (20MHz, MCS1, 90pc duty cycle)	WLAN	8.28	+8.6
10685	AAC	IEEE 802.11ax (20MHz, MCS2, 90pc duty cycle)	WLAN	8.53	+8.6
10686	AAC	IEEE 802.11ax (20MHz, MCS3, 90pc duty cycle)	WLAN	8.20	+8.6

EX3DV4 SN-7540

May 01, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>†</sup> $\bar{F} \pm 2$
10687	AAC	IEEE 802.11ax (20MHz, MCS4, 99pc duty cycle)	WLAN	9.45	-9.8
10688	AAC	IEEE 802.11ax (20MHz, MCS6, 99pc duty cycle)	WLAN	9.29	-9.8
10689	AAC	IEEE 802.11ax (20MHz, MCS6, 99pc duty cycle)	WLAN	9.53	-9.8
10690	AAC	IEEE 802.11ax (20MHz, MCS7, 99pc duty cycle)	WLAN	9.29	-9.8
10691	AAC	IEEE 802.11ax (20MHz, MCS8, 99pc duty cycle)	WLAN	9.25	-9.8
10692	AAC	IEEE 802.11ax (20MHz, MCS8, 99pc duty cycle)	WLAN	9.29	-9.8
10693	AAC	IEEE 802.11ax (20MHz, MCS10, 99pc duty cycle)	WLAN	9.25	-9.8
10694	AAC	IEEE 802.11ax (20MHz, MCS11, 99pc duty cycle)	WLAN	8.57	-9.8
10695	AAC	IEEE 802.11ax (40MHz, MCS6, 99pc duty cycle)	WLAN	9.78	-9.8
10696	AAC	IEEE 802.11ax (40MHz, MCS11, 99pc duty cycle)	WLAN	9.91	-9.8
10697	AAC	IEEE 802.11ax (40MHz, MCS2, 99pc duty cycle)	WLAN	8.61	-9.8
10698	AAC	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.80	-9.8
10699	AAC	IEEE 802.11ax (40MHz, MCS4, 99pc duty cycle)	WLAN	8.82	-9.8
10700	AAC	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.73	-9.8
10701	AAC	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.88	-9.8
10702	AAC	IEEE 802.11ax (40MHz, MCS7, 99pc duty cycle)	WLAN	8.70	-9.8
10703	AAC	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.82	-9.8
10704	AAC	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.56	-9.8
10705	AAC	IEEE 802.11ax (40MHz, MCS10, 99pc duty cycle)	WLAN	8.59	-9.8
10706	AAC	IEEE 802.11ax (40MHz, MCS11, 99pc duty cycle)	WLAN	8.85	-9.8
10707	AAC	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	9.92	-9.8
10708	AAC	IEEE 802.11ax (40MHz, MCS11, 99pc duty cycle)	WLAN	9.55	-9.8
10709	AAC	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	9.99	-9.8
10710	AAC	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.29	-9.8
10711	AAC	IEEE 802.11ax (40MHz, MCS4, 99pc duty cycle)	WLAN	8.38	-9.8
10712	AAC	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.67	-9.8
10713	AAC	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.33	-9.8
10714	AAC	IEEE 802.11ax (40MHz, MCS7, 99pc duty cycle)	WLAN	8.26	-9.8
10715	AAC	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.46	-9.8
10716	AAC	IEEE 802.11ax (40MHz, MCS9, 99pc duty cycle)	WLAN	8.50	-9.8
10717	AAC	IEEE 802.11ax (40MHz, MCS10, 99pc duty cycle)	WLAN	8.48	-9.8
10718	AAC	IEEE 802.11ax (40MHz, MCS11, 99pc duty cycle)	WLAN	8.24	-9.8
10719	AAC	IEEE 802.11ax (80MHz, MCS8, 99pc duty cycle)	WLAN	8.81	-9.8
10720	AAC	IEEE 802.11ax (80MHz, MCS11, 99pc duty cycle)	WLAN	9.87	-9.8
10721	AAC	IEEE 802.11ax (80MHz, MCS2, 99pc duty cycle)	WLAN	9.75	-9.8
10722	AAC	IEEE 802.11ax (80MHz, MCS3, 99pc duty cycle)	WLAN	8.55	-9.8
10723	AAC	IEEE 802.11ax (80MHz, MCS4, 99pc duty cycle)	WLAN	8.70	-9.8
10724	AAC	IEEE 802.11ax (80MHz, MCS8, 99pc duty cycle)	WLAN	8.80	-9.8
10725	AAC	IEEE 802.11ax (80MHz, MCS6, 99pc duty cycle)	WLAN	8.70	-9.8
10726	AAC	IEEE 802.11ax (80MHz, MCS7, 99pc duty cycle)	WLAN	8.72	-9.8
10727	AAC	IEEE 802.11ax (80MHz, MCS8, 99pc duty cycle)	WLAN	8.68	-9.8
10728	AAC	IEEE 802.11ax (80MHz, MCS8, 99pc duty cycle)	WLAN	8.65	-9.8
10729	AAC	IEEE 802.11ax (80MHz, MCS10, 99pc duty cycle)	WLAN	8.64	-9.8
10730	AAC	IEEE 802.11ax (80MHz, MCS11, 99pc duty cycle)	WLAN	8.67	-9.8
10731	AAC	IEEE 802.11ax (80MHz, MCS9, 99pc duty cycle)	WLAN	8.42	-9.8
10732	AAC	IEEE 802.11ax (80MHz, MCS11, 99pc duty cycle)	WLAN	8.46	-9.8
10733	AAC	IEEE 802.11ax (80MHz, MCS2, 99pc duty cycle)	WLAN	8.40	-9.8
10734	AAC	IEEE 802.11ax (80MHz, MCS3, 99pc duty cycle)	WLAN	8.25	-9.8
10735	AAC	IEEE 802.11ax (80MHz, MCS4, 99pc duty cycle)	WLAN	8.37	-9.8
10736	AAC	IEEE 802.11ax (80MHz, MCS8, 99pc duty cycle)	WLAN	8.87	-9.8
10737	AAC	IEEE 802.11ax (80MHz, MCS6, 99pc duty cycle)	WLAN	8.36	-9.8
10738	AAC	IEEE 802.11ax (80MHz, MCS7, 99pc duty cycle)	WLAN	8.42	-9.8
10739	AAC	IEEE 802.11ax (80MHz, MCS8, 99pc duty cycle)	WLAN	8.28	-9.8
10740	AAC	IEEE 802.11ax (80MHz, MCS8, 99pc duty cycle)	WLAN	8.48	-9.8
10741	AAC	IEEE 802.11ax (80MHz, MCS10, 99pc duty cycle)	WLAN	8.40	-9.8
10742	AAC	IEEE 802.11ax (80MHz, MCS11, 99pc duty cycle)	WLAN	8.42	-9.8
10743	AAC	IEEE 802.11ax (160MHz, MCS9, 99pc duty cycle)	WLAN	8.68	-9.8
10744	AAC	IEEE 802.11ax (160MHz, MCS11, 99pc duty cycle)	WLAN	9.16	-9.8
10745	AAC	IEEE 802.11ax (160MHz, MCS2, 99pc duty cycle)	WLAN	8.93	-9.8
10746	AAC	IEEE 802.11ax (160MHz, MCS3, 99pc duty cycle)	WLAN	9.11	-9.8
10747	AAC	IEEE 802.11ax (160MHz, MCS4, 99pc duty cycle)	WLAN	9.04	-9.8
10748	AAC	IEEE 802.11ax (160MHz, MCS7, 99pc duty cycle)	WLAN	8.95	-9.8
10749	AAC	IEEE 802.11ax (160MHz, MCS8, 99pc duty cycle)	WLAN	8.90	-9.8
10750	AAC	IEEE 802.11ax (160MHz, MCS7, 99pc duty cycle)	WLAN	8.79	-9.8
10751	AAC	IEEE 802.11ax (160MHz, MCS8, 99pc duty cycle)	WLAN	8.82	-9.8
10752	AAC	IEEE 802.11ax (160MHz, MCS9, 99pc duty cycle)	WLAN	8.91	-9.8

EX3DV# - SN:7540

May (4), 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>F</sup> k ±2
10753	AAC	IEEE 802.11ax (100MHz, MCS-1, 80ps duty cycle)	WLAN	9.00	-9.0
10754	AAC	IEEE 802.11ax (100MHz, MCS-1, 80ps duty cycle)	WLAN	9.84	-9.0
10756	AAC	IEEE 802.11ax (100MHz, MCS-1, 80ps duty cycle)	WLAN	9.54	-9.0
10756	AAC	IEEE 802.11ax (100MHz, MCS-1, 80ps duty cycle)	WLAN	9.77	-9.0
10757	AAC	IEEE 802.11ax (100MHz, MCS-1, 80ps duty cycle)	WLAN	9.77	-9.0
10758	AAC	IEEE 802.11ax (100MHz, MCS-4, 80ps duty cycle)	WLAN	9.09	-9.0
10759	AAC	IEEE 802.11ax (100MHz, MCS-4, 80ps duty cycle)	WLAN	9.54	-9.0
10760	AAC	IEEE 802.11ax (100MHz, MCS-6, 80ps duty cycle)	WLAN	9.49	-9.0
10761	AAC	IEEE 802.11ax (100MHz, MCS-6, 80ps duty cycle)	WLAN	9.58	-9.0
10762	AAC	IEEE 802.11ax (100MHz, MCS-7, 80ps duty cycle)	WLAN	9.49	-9.0
10763	AAC	IEEE 802.11ax (100MHz, MCS-8, 80ps duty cycle)	WLAN	9.53	-9.0
10764	AAC	IEEE 802.11ax (100MHz, MCS-8, 80ps duty cycle)	WLAN	9.54	-9.0
10765	AAC	IEEE 802.11ax (100MHz, MCS-10, 80ps duty cycle)	WLAN	9.54	-9.0
10766	AAD	IEEE 802.11ax (100MHz, MCS-11, 80ps duty cycle)	WLAN	9.51	-9.0
10767	AAD	5G NR (CP-OFDM, 1 RB, 3MHz, QPSK, 15kHz)	5G NR FR1 TDD	7.09	-9.0
10768	AAD	5G NR (CP-OFDM, 1 RB, 3MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.01	-9.0
10768	AAD	5G NR (CP-OFDM, 1 RB, 15MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.01	-9.0
10770	AAD	5G NR (CP-OFDM, 1 RB, 30MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.09	-9.0
10771	AAD	5G NR (CP-OFDM, 1 RB, 35MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.09	-9.0
10772	AAD	5G NR (CP-OFDM, 1 RB, 30MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.03	-9.0
10773	AAD	5G NR (CP-OFDM, 1 RB, 40MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.03	-9.0
10774	AAD	5G NR (CP-OFDM, 1 RB, 50MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.09	-9.0
10775	AAD	5G NR (CP-OFDM, 50% RB, 5MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.31	-9.0
10776	AAD	5G NR (CP-OFDM, 50% RB, 10MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.30	-9.0
10777	AAC	5G NR (CP-OFDM, 50% RB, 15MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.00	-9.0
10778	AAD	5G NR (CP-OFDM, 50% RB, 20MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.11	-9.0
10779	AAC	5G NR (CP-OFDM, 50% RB, 25MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.42	-9.0
10780	AAD	5G NR (CP-OFDM, 50% RB, 30MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.08	-9.0
10781	AAD	5G NR (CP-OFDM, 50% RB, 40MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.08	-9.0
10782	AAD	5G NR (CP-OFDM, 50% RB, 50MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.49	-9.0
10783	AAC	5G NR (CP-OFDM, 100% RB, 3MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.51	-9.0
10784	AAD	5G NR (CP-OFDM, 100% RB, 10MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.25	-9.0
10785	AAD	5G NR (CP-OFDM, 100% RB, 15MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.40	-9.0
10786	AAD	5G NR (CP-OFDM, 100% RB, 20MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.55	-9.0
10787	AAD	5G NR (CP-OFDM, 100% RB, 25MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.44	-9.0
10788	AAD	5G NR (CP-OFDM, 100% RB, 30MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.39	-9.0
10789	AAD	5G NR (CP-OFDM, 100% RB, 40MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.37	-9.0
10790	AAD	5G NR (CP-OFDM, 100% RB, 50MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.39	-9.0
10791	AAC	5G NR (CP-OFDM, 1 RB, 5MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.83	-9.0
10792	AAD	5G NR (CP-OFDM, 1 RB, 10MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.92	-9.0
10793	AAD	5G NR (CP-OFDM, 1 RB, 15MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.95	-9.0
10794	AAD	5G NR (CP-OFDM, 1 RB, 20MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.82	-9.0
10795	AAD	5G NR (CP-OFDM, 1 RB, 25MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.84	-9.0
10796	AAD	5G NR (CP-OFDM, 1 RB, 30MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.82	-9.0
10797	AAD	5G NR (CP-OFDM, 1 RB, 40MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.01	-9.0
10798	AAD	5G NR (CP-OFDM, 1 RB, 50MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.89	-9.0
10799	AAD	5G NR (CP-OFDM, 1 RB, 60MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.99	-9.0
10800	AAD	5G NR (CP-OFDM, 1 RB, 80MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.89	-9.0
10802	AAD	5G NR (CP-OFDM, 1 RB, 30MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.87	-9.0
10803	AAD	5G NR (CP-OFDM, 1 RB, 100MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.99	-9.0
10805	AAD	5G NR (CP-OFDM, 50% RB, 10MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.34	-9.0
10806	AAD	5G NR (CP-OFDM, 50% RB, 15MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.37	-9.0
10808	AAD	5G NR (CP-OFDM, 50% RB, 20MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.36	-9.0
10810	AAD	5G NR (CP-OFDM, 50% RB, 30MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.36	-9.0
10812	AAD	5G NR (CP-OFDM, 50% RB, 40MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.35	-9.0
10814	AAC	5G NR (CP-OFDM, 100% RB, 5MHz, QPSK, 20kHz)	5G NR FR1 TDD	8.35	-9.0
10816	AAD	5G NR (CP-OFDM, 100% RB, 10MHz, QPSK, 20kHz)	5G NR FR1 TDD	8.30	-9.0
10819	AAD	5G NR (CP-OFDM, 100% RB, 15MHz, QPSK, 20kHz)	5G NR FR1 TDD	8.30	-9.0
10820	AAD	5G NR (CP-OFDM, 100% RB, 20MHz, QPSK, 20kHz)	5G NR FR1 TDD	8.30	-9.0
10821	AAD	5G NR (CP-OFDM, 100% RB, 25MHz, QPSK, 20kHz)	5G NR FR1 TDD	8.41	-9.0
10822	AAD	5G NR (CP-OFDM, 100% RB, 30MHz, QPSK, 20kHz)	5G NR FR1 TDD	8.41	-9.0
10823	AAD	5G NR (CP-OFDM, 100% RB, 40MHz, QPSK, 20kHz)	5G NR FR1 TDD	8.56	-9.0
10824	AAD	5G NR (CP-OFDM, 100% RB, 50MHz, QPSK, 20kHz)	5G NR FR1 TDD	8.30	-9.0
10825	AAD	5G NR (CP-OFDM, 100% RB, 60MHz, QPSK, 20kHz)	5G NR FR1 TDD	8.41	-9.0
10827	AAD	5G NR (CP-OFDM, 100% RB, 80MHz, QPSK, 20kHz)	5G NR FR1 TDD	8.42	-9.0
10828	AAD	5G NR (CP-OFDM, 100% RB, 90MHz, QPSK, 20kHz)	5G NR FR1 TDD	8.43	-9.0



EX00V4 - SN:7540

May 04, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unq <sup>2</sup> = 2
10820	AAD	5G NR (CP-OFDM) 100% RB, 100MHz, QPSK, 30kHz	5G NR FR1 TDD	6.40	-29.0
10830	AAD	5G NR (CP-OFDM) 1 RB, 10MHz, QPSK, 60kHz	5G NR FR1 TDD	7.63	-29.0
10831	AAD	5G NR (CP-OFDM) 1 RB, 15MHz, QPSK, 60kHz	5G NR FR1 TDD	7.73	-29.0
10832	AAD	5G NR (CP-OFDM) 1 RB, 20MHz, QPSK, 60kHz	5G NR FR1 TDD	7.74	-29.0
10833	AAD	5G NR (CP-OFDM) 1 RB, 25MHz, QPSK, 60kHz	5G NR FR1 TDD	7.70	-29.0
10834	AAD	5G NR (CP-OFDM) 1 RB, 30MHz, QPSK, 60kHz	5G NR FR1 TDD	7.75	-29.0
10835	AAD	5G NR (CP-OFDM) 1 RB, 40MHz, QPSK, 60kHz	5G NR FR1 TDD	7.70	-29.0
10836	AAD	5G NR (CP-OFDM) 1 RB, 50MHz, QPSK, 60kHz	5G NR FR1 TDD	7.68	-29.0
10837	AAD	5G NR (CP-OFDM) 1 RB, 60MHz, QPSK, 60kHz	5G NR FR1 TDD	7.68	-29.0
10838	AAD	5G NR (CP-OFDM) 1 RB, 80MHz, QPSK, 60kHz	5G NR FR1 TDD	7.70	-29.0
10840	AAD	5G NR (CP-OFDM) 1 RB, 90MHz, QPSK, 60kHz	5G NR FR1 TDD	7.67	-29.0
10841	AAD	5G NR (CP-OFDM) 1 RB, 100MHz, QPSK, 60kHz	5G NR FR1 TDD	7.71	-29.0
10842	AAD	5G NR (CP-OFDM) 50% RB, 15MHz, QPSK, 30kHz	5G NR FR1 TDD	8.49	-29.0
10844	AAD	5G NR (CP-OFDM) 50% RB, 20MHz, QPSK, 30kHz	5G NR FR1 TDD	9.00	-29.0
10846	AAD	5G NR (CP-OFDM) 50% RB, 30MHz, QPSK, 30kHz	5G NR FR1 TDD	9.41	-29.0
10854	AAD	5G NR (CP-OFDM) 100% RB, 10MHz, QPSK, 60kHz	5G NR FR1 TDD	9.24	-29.0
10855	AAD	5G NR (CP-OFDM) 100% RB, 15MHz, QPSK, 60kHz	5G NR FR1 TDD	9.38	-29.0
10858	AAD	5G NR (CP-OFDM) 100% RB, 20MHz, QPSK, 60kHz	5G NR FR1 TDD	9.37	-29.0
10857	AAD	5G NR (CP-OFDM) 100% RB, 25MHz, QPSK, 60kHz	5G NR FR1 TDD	9.25	-29.0
10859	AAD	5G NR (CP-OFDM) 100% RB, 30MHz, QPSK, 60kHz	5G NR FR1 TDD	9.38	-29.0
10859	AAD	5G NR (CP-OFDM) 100% RB, 40MHz, QPSK, 60kHz	5G NR FR1 TDD	9.24	-29.0
10860	AAD	5G NR (CP-OFDM) 100% RB, 50MHz, QPSK, 60kHz	5G NR FR1 TDD	9.41	-29.0
10861	AAD	5G NR (CP-OFDM) 100% RB, 60MHz, QPSK, 60kHz	5G NR FR1 TDD	9.40	-29.0
10863	AAD	5G NR (CP-OFDM) 100% RB, 80MHz, QPSK, 60kHz	5G NR FR1 TDD	9.41	-29.0
10864	AAD	5G NR (CP-OFDM) 100% RB, 90MHz, QPSK, 60kHz	5G NR FR1 TDD	9.37	-29.0
10866	AAD	5G NR (DFT-s-OFDM) 100% RB, 100MHz, QPSK, 60kHz	5G NR FR1 TDD	9.41	-29.0
10866	AAD	5G NR (DFT-s-OFDM) 1 RB, 100MHz, QPSK, 20kHz	5G NR FR1 TDD	5.88	-29.0
10868	AAD	5G NR (DFT-s-OFDM) 100% RB, 100MHz, QPSK, 30kHz	5G NR FR1 TDD	5.93	-29.0
10869	AAD	5G NR (DFT-s-OFDM) 1 RB, 100MHz, QPSK, 120kHz	5G NR FR2 TDD	6.75	-29.0
10870	AAD	5G NR (DFT-s-OFDM) 100% RB, 150MHz, QPSK, 120kHz	5G NR FR2 TDD	6.88	-29.0
10871	AAD	5G NR (DFT-s-OFDM) 1 RB, 100MHz, 180AM, 120kHz	5G NR FR2 TDD	6.75	-29.0
10872	AAD	5G NR (DFT-s-OFDM) 100% RB, 130MHz, 180AM, 120kHz	5G NR FR2 TDD	6.52	-29.0
10873	AAD	5G NR (DFT-s-OFDM) 1 RB, 100MHz, 84QAM, 120kHz	5G NR FR2 TDD	6.67	-29.0
10874	AAD	5G NR (DFT-s-OFDM) 100% RB, 100MHz, 84QAM, 120kHz	5G NR FR2 TDD	6.65	-29.0
10875	AAD	5G NR (CP-OFDM) 1 RB, 100MHz, QPSK, 120kHz	5G NR FR2 TDD	7.75	-29.0
10876	AAD	5G NR (CP-OFDM) 100% RB, 100MHz, QPSK, 120kHz	5G NR FR2 TDD	8.35	-29.0
10877	AAD	5G NR (CP-OFDM) 1 RB, 100MHz, 180AM, 120kHz	5G NR FR2 TDD	7.90	-29.0
10878	AAD	5G NR (CP-OFDM) 100% RB, 100MHz, 180AM, 120kHz	5G NR FR2 TDD	8.41	-29.0
10879	AAD	5G NR (CP-OFDM) 1 RB, 100MHz, 84QAM, 120kHz	5G NR FR2 TDD	8.12	-29.0
10880	AAD	5G NR (CP-OFDM) 100% RB, 100MHz, 84QAM, 120kHz	5G NR FR2 TDD	8.38	-29.0
10881	AAD	5G NR (DFT-s-OFDM) 1 RB, 50MHz, QPSK, 120kHz	5G NR FR2 TDD	5.75	-29.0
10882	AAD	5G NR (DFT-s-OFDM) 100% RB, 50MHz, QPSK, 120kHz	5G NR FR2 TDD	5.98	-29.0
10883	AAD	5G NR (DFT-s-OFDM) 1 RB, 50MHz, 180AM, 120kHz	5G NR FR2 TDD	6.57	-29.0
10884	AAD	5G NR (DFT-s-OFDM) 100% RB, 50MHz, 180AM, 120kHz	5G NR FR2 TDD	6.53	-29.0
10885	AAD	5G NR (DFT-s-OFDM) 1 RB, 50MHz, 84QAM, 120kHz	5G NR FR2 TDD	6.61	-29.0
10886	AAD	5G NR (DFT-s-OFDM) 100% RB, 50MHz, 84QAM, 120kHz	5G NR FR2 TDD	6.65	-29.0
10887	AAD	5G NR (CP-OFDM) 1 RB, 50MHz, QPSK, 120kHz	5G NR FR2 TDD	7.76	-29.0
10888	AAD	5G NR (CP-OFDM) 100% RB, 50MHz, QPSK, 120kHz	5G NR FR2 TDD	8.35	-29.0
10889	AAD	5G NR (CP-OFDM) 1 RB, 50MHz, 180AM, 120kHz	5G NR FR2 TDD	8.02	-29.0
10890	AAD	5G NR (CP-OFDM) 100% RB, 50MHz, 180AM, 120kHz	5G NR FR2 TDD	8.40	-29.0
10891	AAD	5G NR (CP-OFDM) 1 RB, 50MHz, 84QAM, 120kHz	5G NR FR2 TDD	8.15	-29.0
10892	AAD	5G NR (CP-OFDM) 100% RB, 50MHz, 84QAM, 120kHz	5G NR FR2 TDD	8.41	-29.0
10897	AAD	5G NR (DFT-s-OFDM) 1 RB, 5MHz, QPSK, 30kHz	5G NR FR1 TDD	5.66	-29.0
10898	AAD	5G NR (DFT-s-OFDM) 1 RB, 10MHz, QPSK, 30kHz	5G NR FR1 TDD	5.67	-29.0
10899	AAD	5G NR (DFT-s-OFDM) 1 RB, 15MHz, QPSK, 30kHz	5G NR FR1 TDD	5.67	-29.0
10900	AAD	5G NR (DFT-s-OFDM) 1 RB, 20MHz, QPSK, 30kHz	5G NR FR1 TDD	5.68	-29.0
10901	AAD	5G NR (DFT-s-OFDM) 1 RB, 25MHz, QPSK, 30kHz	5G NR FR1 TDD	5.68	-29.0
10902	AAD	5G NR (DFT-s-OFDM) 1 RB, 30MHz, QPSK, 30kHz	5G NR FR1 TDD	5.68	-29.0
10903	AAD	5G NR (DFT-s-OFDM) 1 RB, 40MHz, QPSK, 30kHz	5G NR FR1 TDD	5.68	-29.0
10904	AAD	5G NR (DFT-s-OFDM) 1 RB, 50MHz, QPSK, 30kHz	5G NR FR1 TDD	5.68	-29.0
10905	AAD	5G NR (DFT-s-OFDM) 1 RB, 60MHz, QPSK, 30kHz	5G NR FR1 TDD	5.68	-29.0
10906	AAD	5G NR (DFT-s-OFDM) 1 RB, 80MHz, QPSK, 30kHz	5G NR FR1 TDD	5.68	-29.0
10907	AAD	5G NR (DFT-s-OFDM) 50% RB, 5MHz, QPSK, 30kHz	5G NR FR1 TDD	6.76	-29.0
10908	AAD	5G NR (DFT-s-OFDM) 50% RB, 10MHz, QPSK, 30kHz	5G NR FR1 TDD	6.92	-29.0
10909	AAD	5G NR (DFT-s-OFDM) 50% RB, 15MHz, QPSK, 30kHz	5G NR FR1 TDD	6.96	-29.0
10910	AAD	5G NR (DFT-s-OFDM) 50% RB, 20MHz, QPSK, 30kHz	5G NR FR1 TDD	6.93	-29.0

EX10V4 - SN7540

May 04, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>±</sup> K = 2
10911	AAB	5G NR (DFT-s-OFDM, 50% RB, 25MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.83	+9.6
10912	AAB	5G NR (DFT-s-OFDM, 50% RB, 20MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.84	+9.6
10913	AAB	5G NR (DFT-s-OFDM, 50% RB, 40MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.84	+9.6
10914	AAB	5G NR (DFT-s-OFDM, 50% RB, 50MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.85	+9.6
10915	AAB	5G NR (DFT-s-OFDM, 50% RB, 60MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.85	+9.6
10916	AAB	5G NR (DFT-s-OFDM, 50% RB, 80MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.87	+9.6
10917	AAB	5G NR (DFT-s-OFDM, 50% RB, 100MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.84	+9.6
10918	AAC	5G NR (DFT-s-OFDM, 100% RB, 5MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.86	+9.6
10919	AAB	5G NR (DFT-s-OFDM, 100% RB, 10MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.88	+9.6
10920	AAB	5G NR (DFT-s-OFDM, 100% RB, 15MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.87	+9.6
10921	AAB	5G NR (DFT-s-OFDM, 100% RB, 20MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.84	+9.6
10922	AAB	5G NR (DFT-s-OFDM, 100% RB, 25MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.82	+9.6
10923	AAB	5G NR (DFT-s-OFDM, 100% RB, 30MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.84	+9.6
10924	AAB	5G NR (DFT-s-OFDM, 100% RB, 40MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.84	+9.6
10925	AAB	5G NR (DFT-s-OFDM, 100% RB, 50MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.85	+9.6
10926	AAB	5G NR (DFT-s-OFDM, 100% RB, 60MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.84	+9.6
10927	AAB	5G NR (DFT-s-OFDM, 100% RB, 80MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.84	+9.6
10928	AAC	5G NR (DFT-s-OFDM, 1 RB, 5MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.82	+9.6
10929	AAC	5G NR (DFT-s-OFDM, 1 RB, 10MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.82	+9.6
10930	AAC	5G NR (DFT-s-OFDM, 1 RB, 15MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.82	+9.6
10931	AAC	5G NR (DFT-s-OFDM, 1 RB, 20MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.81	+9.6
10932	AAC	5G NR (DFT-s-OFDM, 1 RB, 25MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.81	+9.6
10933	AAC	5G NR (DFT-s-OFDM, 1 RB, 30MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.81	+9.6
10934	AAC	5G NR (DFT-s-OFDM, 1 RB, 40MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.81	+9.6
10935	AAC	5G NR (DFT-s-OFDM, 1 RB, 50MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.81	+9.6
10936	AAC	5G NR (DFT-s-OFDM, 50% RB, 5MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.80	+9.6
10937	AAC	5G NR (DFT-s-OFDM, 50% RB, 10MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.77	+9.6
10938	AAC	5G NR (DFT-s-OFDM, 50% RB, 15MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.80	+9.6
10939	AAC	5G NR (DFT-s-OFDM, 50% RB, 20MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.82	+9.6
10940	AAC	5G NR (DFT-s-OFDM, 50% RB, 25MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.88	+9.6
10941	AAC	5G NR (DFT-s-OFDM, 50% RB, 30MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.83	+9.6
10942	AAC	5G NR (DFT-s-OFDM, 50% RB, 40MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.85	+9.6
10943	AAC	5G NR (DFT-s-OFDM, 50% RB, 50MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.85	+9.6
10944	AAC	5G NR (DFT-s-OFDM, 100% RB, 5MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.81	+9.6
10945	AAC	5G NR (DFT-s-OFDM, 100% RB, 10MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.85	+9.6
10946	AAC	5G NR (DFT-s-OFDM, 100% RB, 15MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.83	+9.6
10947	AAC	5G NR (DFT-s-OFDM, 100% RB, 20MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.87	+9.6
10948	AAC	5G NR (DFT-s-OFDM, 100% RB, 25MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.84	+9.6
10949	AAC	5G NR (DFT-s-OFDM, 100% RB, 30MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.87	+9.6
10950	AAC	5G NR (DFT-s-OFDM, 100% RB, 40MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.84	+9.6
10951	AAC	5G NR (DFT-s-OFDM, 100% RB, 50MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.82	+9.6
10952	AAA	5G NR DL (CP-OFDM, TM 3.1, 5MHz, 64-QAM, 15kHz)	5G NR FR1 FDD	8.25	+9.6
10953	AAA	5G NR DL (CP-OFDM, TM 3.1, 10MHz, 64-QAM, 15kHz)	5G NR FR1 FDD	8.12	+9.6
10954	AAA	5G NR DL (CP-OFDM, TM 3.1, 15MHz, 64-QAM, 15kHz)	5G NR FR1 FDD	8.25	+9.6
10955	AAA	5G NR DL (CP-OFDM, TM 3.1, 20MHz, 64-QAM, 15kHz)	5G NR FR1 FDD	8.42	+9.6
10956	AAA	5G NR DL (CP-OFDM, TM 3.1, 5MHz, 64-QAM, 30kHz)	5G NR FR1 FDD	8.14	+9.6
10957	AAA	5G NR DL (CP-OFDM, TM 3.1, 10MHz, 64-QAM, 30kHz)	5G NR FR1 FDD	8.31	+9.6
10958	AAA	5G NR DL (CP-OFDM, TM 3.1, 15MHz, 64-QAM, 30kHz)	5G NR FR1 FDD	8.61	+9.6
10959	AAA	5G NR DL (CP-OFDM, TM 3.1, 20MHz, 64-QAM, 30kHz)	5G NR FR1 FDD	8.33	+9.6
10960	AAC	5G NR DL (CP-OFDM, TM 3.1, 5MHz, 64-QAM, 15kHz)	5G NR FR1 TDD	8.32	+9.6
10961	AAB	5G NR DL (CP-OFDM, TM 3.1, 10MHz, 64-QAM, 15kHz)	5G NR FR1 TDD	8.35	+9.6
10962	AAB	5G NR DL (CP-OFDM, TM 3.1, 15MHz, 64-QAM, 15kHz)	5G NR FR1 TDD	8.40	+9.6
10963	AAB	5G NR DL (CP-OFDM, TM 3.1, 20MHz, 64-QAM, 15kHz)	5G NR FR1 TDD	8.55	+9.6
10964	AAC	5G NR DL (CP-OFDM, TM 3.1, 5MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	8.28	+9.6
10965	AAB	5G NR DL (CP-OFDM, TM 3.1, 10MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	8.37	+9.6
10966	AAB	5G NR DL (CP-OFDM, TM 3.1, 15MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	8.52	+9.6
10967	AAB	5G NR DL (CP-OFDM, TM 3.1, 20MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	8.42	+9.6
10968	AAB	5G NR DL (CP-OFDM, TM 3.1, 100MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	9.49	+9.6
10972	AAB	5G NR (CP-OFDM, 1 RB, 20MHz, QPSK, 15kHz)	5G NR FR1 TDD	11.59	+9.6
10973	AAB	5G NR (DFT-s-OFDM, 1 RB, 100MHz, QPSK, 30kHz)	5G NR FR1 TDD	9.06	+9.6
10974	AAB	5G NR (CP-OFDM, 100% RB, 100MHz, 256-QAM, 30kHz)	5G NR FR1 TDD	10.28	+9.6
10978	AAA	ULLA HDR	ULLA	1.15	+9.6
10979	AAA	ULLA HDR4	ULLA	8.59	+9.6
10980	AAA	ULLA HDR8	ULLA	10.32	+9.6
10981	AAA	ULLA HDRp4	ULLA	3.19	+9.6
10982	AAA	ULLA HDRp5	ULLA	3.43	+9.6

EXSDV4 - SN:7540

May 01, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>F</sup> k - 2
10983	AAA	5G NR DL (CP-OFDM, TM 3.1, 40MHz, 64-QAM, 154Hz)	5G NR FR1 TDD	9.31	+9.6
10984	AAA	5G NR DL (CP-OFDM, TM 3.1, 50MHz, 64-QAM, 154Hz)	5G NR FR1 TDD	9.42	+9.6
10985	AAA	5G NR DL (CP-OFDM, TM 3.1, 40MHz, 64-QAM, 304Hz)	5G NR FR1 TDD	9.54	+9.6
10986	AAA	5G NR DL (CP-OFDM, TM 3.1, 50MHz, 64-QAM, 304Hz)	5G NR FR1 TDD	9.50	+9.6
10987	AAA	5G NR DL (CP-OFDM, TM 3.1, 50MHz, 64-QAM, 304Hz)	5G NR FR1 TDD	9.53	+9.6
10988	AAA	5G NR DL (CP-OFDM, TM 3.1, 70MHz, 64-QAM, 304Hz)	5G NR FR1 TDD	9.30	+9.6
10989	AAA	5G NR DL (CP-OFDM, TM 3.1, 50MHz, 64-QAM, 304Hz)	5G NR FR1 TDD	9.29	+9.6
10990	AAA	5G NR DL (CP-OFDM, TM 3.1, 30MHz, 64-QAM, 304Hz)	5G NR FR1 TDD	9.52	+9.6
11000	AAA	5G NR DL (CP-OFDM, TM 3.1, 30MHz, 64-QAM, 154Hz)	5G NR FR1 TDD	10.24	+9.6
11004	AAA	5G NR DL (CP-OFDM, TM 3.1, 30MHz, 64-QAM, 304Hz)	5G NR FR1 TDD	10.78	+9.6
11005	AAA	5G NR DL (CP-OFDM, TM 3.1, 25MHz, 64-QAM, 154Hz)	5G NR FR1 FDD	8.70	+9.6
11006	AAA	5G NR DL (CP-OFDM, TM 3.1, 30MHz, 64-QAM, 154Hz)	5G NR FR1 FDD	8.55	+9.6
11007	AAA	5G NR DL (CP-OFDM, TM 3.1, 40MHz, 64-QAM, 154Hz)	5G NR FR1 FDD	8.46	+9.6
11008	AAA	5G NR DL (CP-OFDM, TM 3.1, 50MHz, 64-QAM, 154Hz)	5G NR FR1 FDD	8.51	+9.6
11009	AAA	5G NR DL (CP-OFDM, TM 3.1, 25MHz, 64-QAM, 304Hz)	5G NR FR1 FDD	8.78	+9.6
11010	AAA	5G NR DL (CP-OFDM, TM 3.1, 20MHz, 64-QAM, 304Hz)	5G NR FR1 FDD	8.95	+9.6
11011	AAA	5G NR DL (CP-OFDM, TM 3.1, 40MHz, 64-QAM, 304Hz)	5G NR FR1 FDD	9.08	+9.6
11012	AAA	5G NR DL (CP-OFDM, TM 3.1, 30MHz, 64-QAM, 304Hz)	5G NR FR1 FDD	8.88	+9.6
11013	AAA	IEEE 802.11ac (80MHz, MCS1, 99pc duty cycle)	WLAN	8.07	+9.6
11014	AAA	IEEE 802.11ac (80MHz, MCS2, 99pc duty cycle)	WLAN	8.05	+9.6
11015	AAA	IEEE 802.11ac (80MHz, MCS3, 99pc duty cycle)	WLAN	8.06	+9.6
11016	AAA	IEEE 802.11ac (80MHz, MCS4, 99pc duty cycle)	WLAN	8.11	+9.6
11017	AAA	IEEE 802.11ac (80MHz, MCS5, 99pc duty cycle)	WLAN	8.11	+9.6
11018	AAA	IEEE 802.11ac (80MHz, MCS6, 99pc duty cycle)	WLAN	8.40	+9.6
11019	AAA	IEEE 802.11ac (80MHz, MCS7, 99pc duty cycle)	WLAN	8.29	+9.6
11020	AAA	IEEE 802.11ac (80MHz, MCS8, 99pc duty cycle)	WLAN	8.27	+9.6
11021	AAA	IEEE 802.11ac (80MHz, MCS9, 99pc duty cycle)	WLAN	8.46	+9.6
11022	AAA	IEEE 802.11ac (80MHz, MCS10, 99pc duty cycle)	WLAN	8.38	+9.6
11023	AAA	IEEE 802.11ac (80MHz, MCS11, 99pc duty cycle)	WLAN	8.09	+9.6
11024	AAA	IEEE 802.11ac (80MHz, MCS12, 99pc duty cycle)	WLAN	8.42	+9.6
11025	AAA	IEEE 802.11ax (320MHz, MCS13, 99pc duty cycle)	WLAN	8.37	+9.6
11026	AAA	IEEE 802.11ax (320MHz, MCS14, 99pc duty cycle)	WLAN	8.39	+9.6

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

**Appendix A.3 Probe Calibration certificate(EX3DV4\_7772)**

**Calibration Laboratory of**  
**Schmid & Partner**  
**Engineering AG**  
 Zeughausstrasse 43, 8304 Zürich, Switzerland



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

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

Accreditation No.: **SCS 0108**

Client **Eurofins KCTL**  
 Gyeonggi-do, Republic of Korea

Certificate No. **EX-7772\_Sep23**

**CALIBRATION CERTIFICATE**

Object: **EX3DV4 - SN:7772**

Calibration procedure(s): **QA GAL-01.V10, QA CAL-12.V10, QA CAL-14.V7, QA CAL-23.V6,  
 QA CAL-25.V6  
 Calibration procedure for dosimetric E-field probes**

Calibration date: **September 20, 2023**

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&PE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP2	SN: 104778	20-Mar-23 (No. 217-03804/03805)	Mar-24
Power sensor NRP-Z31	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
OCP DAK-3.5 (weighted)	SN: 1249	23-Oct-22 (OCP-DAK3.5-1249_Oct22)	Oct-23
OCP DAK-12	SN: 1016	23-Oct-22 (OCP-DAK12-1016_Oct22)	Oct-23
Reference 20 dB Attenuator	SN: CC2552 (20x)	30-Mar-23 (No. 217-03809)	Mar-24
DAE4	SN: 660	18-Mar-23 (No. DAE4-660_Mar23)	Mar-24
Reference Probe ES3DV8	SN: 3018	06-Jan-23 (No. ES3-3018_Jan23)	Jan-24

Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293374	05-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: MY1458087	05-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: 00010210	08-Apr-16 (in house check Jun-22)	In house check: Jun-24
RF generator HP 8640C	SN: US3642U01700	04-Aug-99 (in house check Jun-22)	In house check: Jun-24
Network Analyzer F8358A	SN: US41060477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

	Name	Function	Signature
Calibrated by	Jestor Kasrat	Laboratory Technician	
Approved by	Sven Küfer	Technical Manager	

Issued: September 25, 2023

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

**Calibration Laboratory of**

Schmid & Partner  
 Engineering AG

Zehngausstrasse 43, 8004 Zurich, Switzerland



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

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

Accreditation No.: **SCS 0108**

**Glossary**

TSL	tissue simulating liquid
NORM <sub>x,y,z</sub>	sensitivity in free space
ConvF	sensitivity in TSL / NORM <sub>x,y,z</sub>
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization $\varphi$	$\varphi$ rotation around probe axis
Polarization $\theta$	$\theta$ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e. $\theta = 0$ 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) IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Methods Applied and Interpretation of Parameters:**

- NORM<sub>x,y,z</sub>: Assessed for E-field polarization  $\theta = 0$  ( $f \leq 800$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainty of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub> = NORM<sub>x,y,z</sub> \* 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.
- DCP<sub>x,y,z</sub>: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal. 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
- A<sub>x,y,z</sub>, B<sub>x,y,z</sub>, C<sub>x,y,z</sub>, D<sub>x,y,z</sub>, V<sub>R<sub>x,y,z</sub></sub>: 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. V<sub>R</sub> 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  $f \leq 800$  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 NORM<sub>x,y,z</sub> \* 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  $\pm 100$  MHz.
- Spherical isotropy (30 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 NORM<sub>x</sub> (no uncertainty required).

EX3DV4 - SN:7772

September 20, 2023

**Parameters of Probe: EX3DV4 - SN:7772**

**Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k = 2)
Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup>	0.49	0.52	0.50	±10.1%
DCP (mV) <sup>B</sup>	102.9	105.3	106.2	±4.7%

**Calibration Results for Modulation Response**

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Max dev.	Max Unc <sup>E</sup> k = 2
0	CW	X	0.00	0.00	1.00	0.00	141.6	±2.9%	±4.7%
		Y	0.00	0.00	1.00		138.8		
		Z	0.00	0.00	1.00		144.6		
10352	Pulse Waveform (200Hz, 10%)	X	1.37	60.00	5.88	10.00	60.0	±3.2%	±9.6%
		Y	1.66	61.55	7.00		60.0		
		Z	1.38	60.00	5.83		60.0		
10353	Pulse Waveform (200Hz, 20%)	X	0.78	60.00	4.62	6.99	80.0	±2.6%	±9.6%
		Y	0.61	60.00	5.18		80.0		
		Z	0.63	60.00	4.74		80.0		
10354	Pulse Waveform (200Hz, 40%)	X	0.00	128.46	0.42	3.98	95.0	+2.7%	±9.6%
		Y	0.14	137.42	0.16		95.0		
		Z	0.33	158.77	11.06		95.0		
10355	Pulse Waveform (200Hz, 60%)	X	2.39	158.76	17.83	2.22	120.0	+1.5%	±9.6%
		Y	5.84	108.62	2.27		120.0		
		Z	6.66	77.34	0.27		120.0		
10387	QPSK Waveform, 1 MHz	X	0.52	65.12	13.66	1.00	150.0	±3.3%	±9.6%
		Y	0.45	63.78	12.41		150.0		
		Z	0.52	66.26	14.38		150.0		
10388	QPSK Waveform, 10 MHz	X	1.37	67.26	14.60	0.00	150.0	±0.9%	±9.6%
		Y	1.27	66.52	13.98		150.0		
		Z	1.40	68.31	14.88		150.0		
10396	64-QAM Waveform, 100 kHz	X	1.55	63.34	15.54	3.01	150.0	±1.2%	±9.6%
		Y	1.64	64.41	15.69		150.0		
		Z	1.64	64.62	16.15		150.0		
10399	64-QAM Waveform, 40 MHz	X	2.79	66.53	15.39	0.00	150.0	±1.9%	±9.6%
		Y	2.72	66.37	15.18		150.0		
		Z	2.79	66.99	15.54		150.0		
10414	WLAN CCDF, 64-QAM, 40MHz	X	3.85	66.69	15.70	0.00	150.0	±3.3%	±9.6%
		Y	3.78	66.59	15.54		150.0		
		Z	3.80	67.05	15.75		150.0		

Note: For details on UID parameters see Appendix

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

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TRU. (see Pages 5 and 6).  
<sup>B</sup> Linearization parameter uncertainty for maximum specified field strength.  
<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

EX3DV4 - SN:7772

September 20, 2023

**Parameters of Probe: EX3DV4 - SN:7772**

**Sensor Model Parameters**

	C1 fF	C2 fF	$\alpha$ V <sup>-1</sup>	T1 msV <sup>2</sup>	T2 msV <sup>-1</sup>	T3 ms	T4 V <sup>-2</sup>	T5 V <sup>-1</sup>	T6
x	8.8	63.70	35.09	2.26	0.00	4.90	0.00	0.04	1.00
y	8.5	62.09	34.27	4.70	0.00	4.96	0.33	0.04	1.00
z	7.7	56.07	33.58	4.61	0.00	4.90	0.37	0.00	1.00

**Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle	14.7°
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

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

EX3DV4 - SN:7772

September 20, 2023

**Parameters of Probe: EX3DV4 - SN:7772**

**Calibration Parameter Determined in Head Tissue Simulating Media**

f (MHz) <sup>D</sup>	Relative Permittivity <sup>F</sup>	Conductivity <sup>F</sup> (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc. (k=2)
750	41.9	0.89	7.94	7.89	8.74	0.43	1.27	±12.0%
850	41.5	0.92	7.95	7.82	8.67	0.40	1.27	±12.0%
900	41.5	0.97	7.85	7.84	8.72	0.41	1.27	±12.0%
1750	40.1	1.37	7.50	7.52	8.17	0.29	1.27	±12.0%
1900	40.0	1.40	7.35	7.36	8.04	0.31	1.27	±12.0%
2300	39.5	1.67	6.85	6.64	7.22	0.32	1.27	±12.0%
2450	38.2	1.80	6.85	6.59	7.21	0.32	1.27	±12.0%
2600	38.0	1.95	6.82	6.57	7.15	0.31	1.27	±12.0%
5250	35.9	4.71	4.94	4.62	5.64	0.40	1.53	±14.0%
5600	35.5	5.07	4.29	4.01	4.89	0.35	1.77	±14.0%
5800	35.3	5.27	4.37	4.07	5.01	0.36	1.78	±14.0%

<sup>D</sup> Frequency validity above 300 MHz;  $\pm 100$  MHz only applies for DASY v1.1 and higher (see Page 2), else it is restricted to  $\pm 50$  MHz. The uncertainty is the RMS of the ConvF uncertainty of calibration frequency and the uncertainty for the indicated frequency band. Frequency valid by below 300 MHz is  $\pm 10, 20, 30, 50$  and  $70$  MHz for ConvF assessments of 80, 84, 128, 150 and 200 MHz respectively. Validity of ConvF assessed at 6 MHz is 0-9 MHz; and ConvF assessed at 10 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to  $\pm 10$  MHz.

<sup>F</sup> The probes are calibrated using tissue simulating liquids (TSL) that deviate from  $\epsilon$  and  $\sigma$  by less than  $\pm 5\%$  from the target values (typically better than  $\pm 3\%$ ) and are valid for TSL with deviations of up to  $\pm 10\%$ . If TSL with deviations from the target of less than  $\pm 5\%$  are used, the calibration uncertainties are  $\pm 1\%$  for 0.7 - 3 GHz and  $\pm 1.5\%$  for 3 - 6 GHz.

<sup>G</sup> Alpha/Depth are determined at 1 kHz calibration. IEC60601-2-23 variants that the remaining deviation due to the boundary effect after compensation is always less than  $\pm 1\%$  for frequencies below 3 GHz and below  $\pm 2\%$  for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.



EX3DV4 - SN:7772

September 20, 2023

**Parameters of Probe: EX3DV4 - SN:7772**

**Calibration Parameter Determined in Head Tissue Simulating Media**

f (MHz) <sup>C</sup>	Relative Permittivity <sup>F</sup>	Conductivity <sup>F</sup> (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k = 2)
6500	34.5	8.07	4.82	4.42	5.26	0.20	2.00	±18.6%
7000	33.9	6.65	4.98	4.51	5.42	0.20	2.00	±18.6%

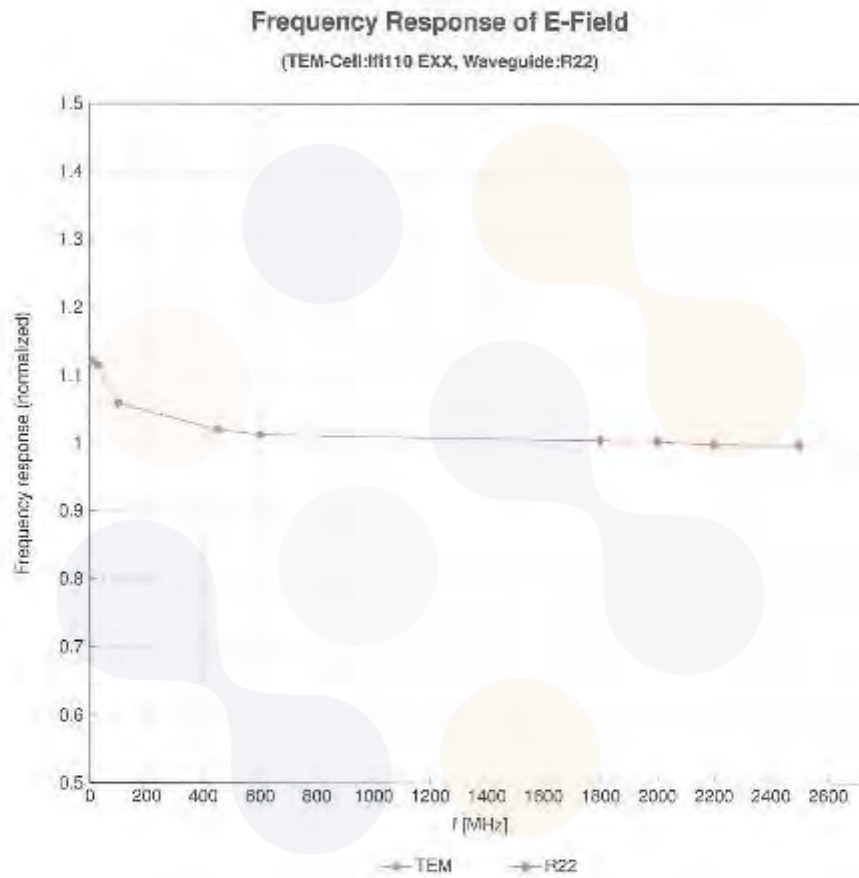
<sup>C</sup> Frequency validity at 6.5 GHz is ±600/±700 MHz, and ±700 MHz at or above 7 GHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

<sup>F</sup> The probes are calibrated using tissue simulating liquids (TSL) that deviate for  $\epsilon'$  and  $\sigma$  by less than ±10% from the target values (typically better than ±8%) and are valid for TSL with deviations of up to ±10%.

<sup>G</sup> 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, below ±2% for frequencies between 3–6 GHz, and below ±4% for frequencies between 6–10 GHz at any distance larger than half the probe tip diameter from the boundary.

EX3DV4 - SN:7772

September 20, 2023

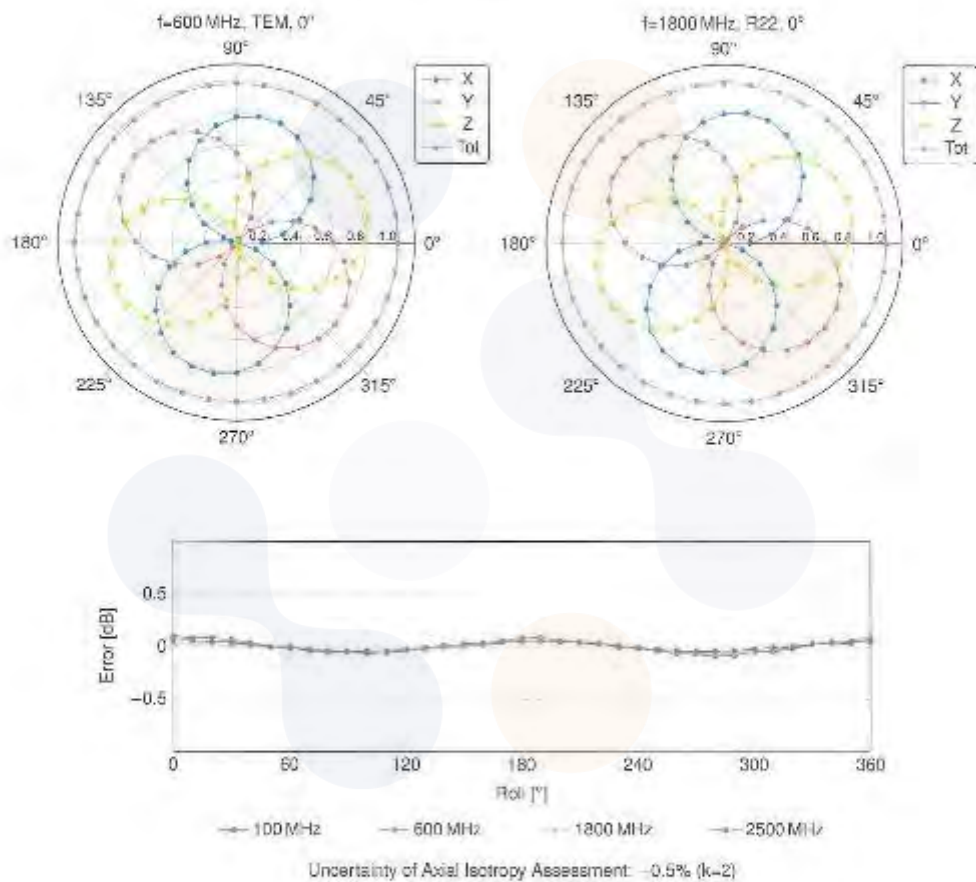


Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  (k=2)

EX3DV4 - SN:7772

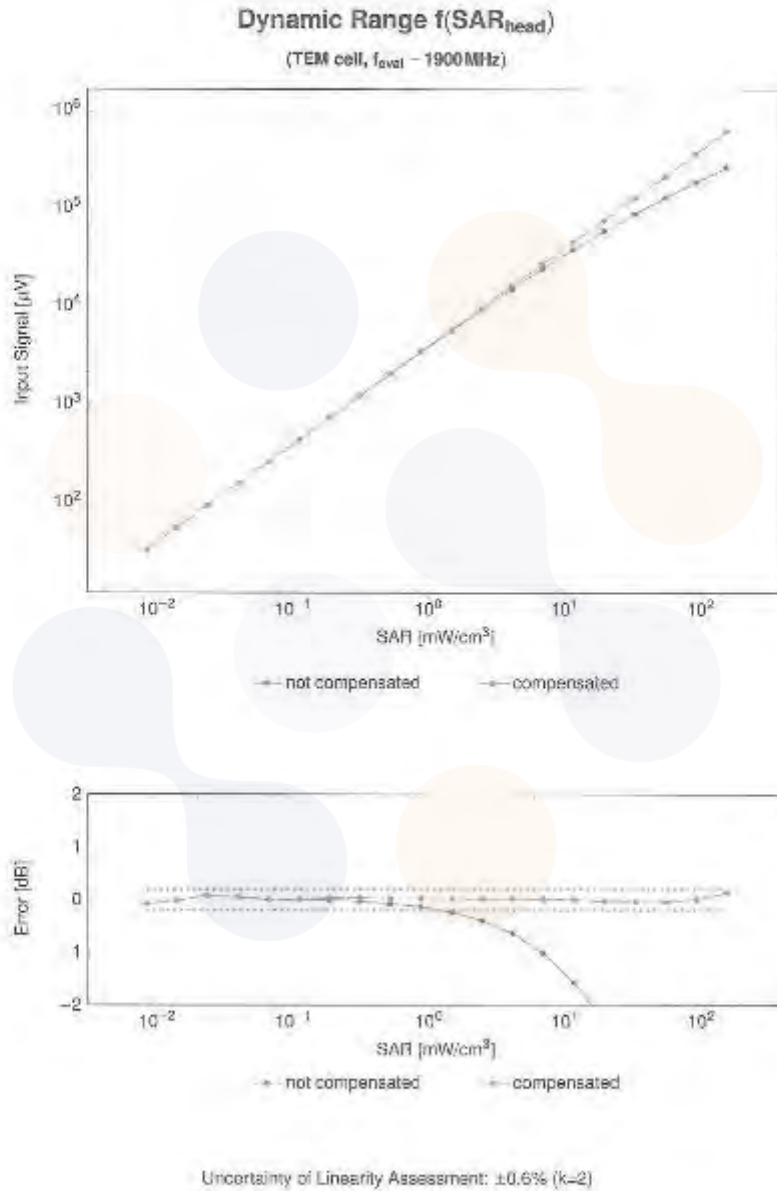
September 20, 2023

**Receiving Pattern ( $\phi$ ),  $\theta = 0^\circ$**



EX3DV4 - SN:7772

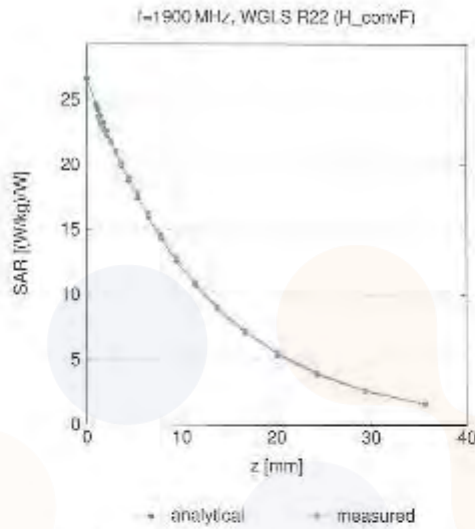
September 20, 2023



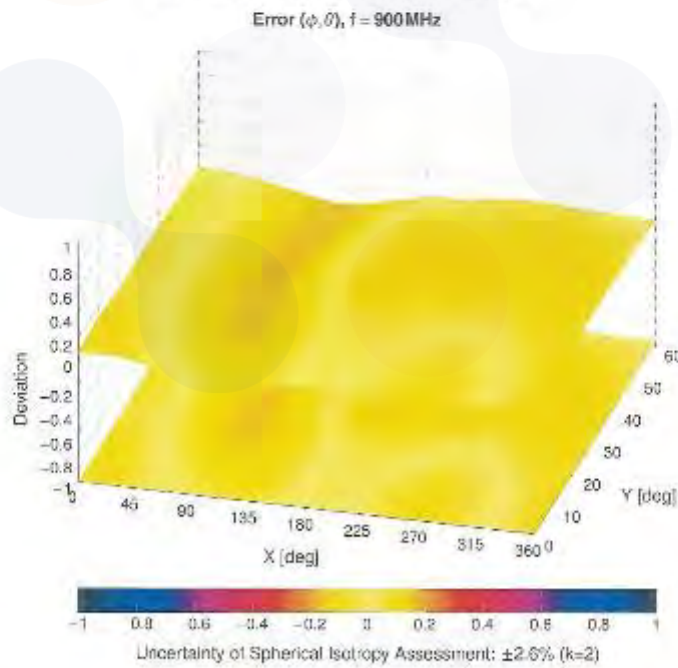
EX3DV4 - SN:7772

September 20, 2023

### Conversion Factor Assessment



### Deviation from Isotropy in Liquid



EX3DV4 - SN:7772

September 20, 2023

**Appendix: Modulation Calibration Parameters**

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>k</sup> k = 2
0		CW	CW	0.00	±4.7
10010	CAB	SA1 Validation (Square, 100ms, 10ms)	Test	10.00	±0.8
10011	CAC	UMTS-FDD (WCDMA)	WCDMA	2.91	±0.8
10012	CAD	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1Mbps)	WLAN	1.87	±0.8
10013	CAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6Mbps)	WLAN	9.46	±0.8
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	±0.8
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	±0.8
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	±0.8
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	±0.8
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	±0.8
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.60	±0.8
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	±0.8
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.76	±0.8
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.00	±0.8
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH2)	Bluetooth	1.67	±0.8
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.16	±0.8
10033	CAA	IEEE 802.15.1 Bluetooth (PI4-DQPSK, DH1)	Bluetooth	7.74	±0.8
10034	CAA	IEEE 802.15.1 Bluetooth (PI4-DQPSK, DH2)	Bluetooth	4.53	±0.8
10035	CAA	IEEE 802.15.1 Bluetooth (PI4-DQPSK, DH3)	Bluetooth	3.83	±0.8
10036	CAA	IEEE 802.15.1 Bluetooth (8-OPSK, DH1)	Bluetooth	8.01	±0.8
10037	CAA	IEEE 802.15.1 Bluetooth (8-OPSK, DH2)	Bluetooth	4.77	±0.8
10038	CAA	IEEE 802.15.1 Bluetooth (8-OPSK, DH3)	Bluetooth	4.10	±0.8
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	±0.8
10042	CAB	IS-54 / IS-136 FDD (TDMA-FDM, PI4-DQPSK, Fullrate)	AMPS	7.79	±0.8
10044	CAA	IS-81E/W-TIA-553 FDD (TDMA, F-M)	AMPS	0.00	±0.8
10048	CAA	DECT (TDD, TDMA-FDM, GFSK, Full Slot, 24)	DECT	13.80	±0.8
10049	CAA	DECT (TDD, TDMA-FDM, GFSK, Double Slot, 12)	DECT	10.79	±0.8
10050	CAA	UMTS-TDD (TD-SCDMA, 1.28Mbps)	TD-SCDMA	11.01	±0.8
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	±0.8
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2Mbps)	WLAN	2.12	±0.8
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5Mbps)	WLAN	2.83	±0.8
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11Mbps)	WLAN	3.80	±0.8
10062	CAD	IEEE 802.11a/n WiFi 5GHz (OFDM, 6Mbps)	WLAN	8.88	±0.8
10063	CAD	IEEE 802.11a/n WiFi 5GHz (OFDM, 9Mbps)	WLAN	8.83	±0.8
10064	CAD	IEEE 802.11a/n WiFi 5GHz (OFDM, 12Mbps)	WLAN	9.00	±0.8
10065	CAD	IEEE 802.11a/n WiFi 5GHz (OFDM, 18Mbps)	WLAN	9.00	±0.8
10066	CAD	IEEE 802.11a/n WiFi 5GHz (OFDM, 24Mbps)	WLAN	9.30	±0.8
10067	CAD	IEEE 802.11a/n WiFi 5GHz (OFDM, 36Mbps)	WLAN	10.12	±0.8
10068	CAD	IEEE 802.11a/n WiFi 5GHz (OFDM, 48Mbps)	WLAN	10.24	±0.8
10069	CAD	IEEE 802.11a/n WiFi 5GHz (OFDM, 54Mbps)	WLAN	10.56	±0.8
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9Mbps)	WLAN	9.03	±0.8
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12Mbps)	WLAN	9.62	±0.8
10073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18Mbps)	WLAN	9.94	±0.8
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24Mbps)	WLAN	10.30	±0.8
10075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36Mbps)	WLAN	10.77	±0.8
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48Mbps)	WLAN	10.94	±0.8
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54Mbps)	WLAN	11.00	±0.8
10081	CAB	CDMA2000 (1xRTT, RC2)	CDMA2000	3.97	±0.8
10082	CAB	IS-54 / IS-136 FDD (TDMA-FDM, PI4-DQPSK, Fullrate)	AMPS	4.77	±0.8
10089	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	±0.8
10097	CAC	UMTS-FDD (HSPA)	WCDMA	3.98	±0.8
10098	CAC	UMTS-FDD (HSPA, Subclass 2)	WCDMA	3.98	±0.8
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	±0.8
10100	CAF	LTE-FDD (SC-FDMA, 100% RB, 20MHz, QPSK)	LTE-FDD	5.67	±0.8
10101	CAF	LTE-FDD (SC-FDMA, 100% RB, 20MHz, 16-QAM)	LTE-FDD	6.42	±0.8
10102	CAF	LTE-FDD (SC-FDMA, 100% RB, 20MHz, 64-QAM)	LTE-FDD	6.60	±0.8
10103	CAH	LTE-TDD (SC-FDMA, 100% RB, 20MHz, QPSK)	LTE-TDD	9.29	±0.8
10104	CAH	LTE-TDD (SC-FDMA, 100% RB, 20MHz, 16-QAM)	LTE-TDD	9.67	±0.8
10105	CAH	LTE-TDD (SC-FDMA, 100% RB, 20MHz, 64-QAM)	LTE-TDD	10.01	±0.8
10108	CAH	LTE-FDD (SC-FDMA, 100% RB, 10MHz, QPSK)	LTE-FDD	6.00	±0.8
10109	CAH	LTE-FDD (SC-FDMA, 100% RB, 10MHz, 16-QAM)	LTE-FDD	6.43	±0.8
10110	CAH	LTE-FDD (SC-FDMA, 100% RB, 5MHz, QPSK)	LTE-FDD	6.75	±0.8
10111	CAH	LTE-FDD (SC-FDMA, 100% RB, 5MHz, 16-QAM)	LTE-FDD	6.44	±0.8

EX3DV4 - SN:7772

September 20, 2023

UID	Rev	Communication System Name	Group	PAR [dB]	Unc <sup>E</sup> k = 2
10112	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.53	±9.8
10113	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	±9.8
10114	CAD	IEEE 802.11n (HT Greenfield, 13.5Mbps, BPSK)	WLAN	6.10	±9.8
10115	CAD	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	6.46	±9.8
10116	CAD	IEEE 802.11n (HT Greenfield, 136 Mbps, 64-QAM)	WLAN	6.15	±9.8
10117	CAD	IEEE 802.11n (HT Mixed, 13.5Mbps, BPSK)	WLAN	6.07	±9.8
10118	CAD	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	6.59	±9.8
10119	CAD	IEEE 802.11n (HT Mixed, 136 Mbps, 64-QAM)	WLAN	6.13	±9.8
10140	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	±9.8
10141	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	±9.8
10142	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.8
10143	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	±9.8
10144	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	±9.8
10145	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	±9.8
10146	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	±9.8
10147	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	±9.8
10148	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.8
10150	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.8
10151	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	±9.8
10152	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	9.92	±9.8
10153	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	±9.8
10154	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	6.75	±9.8
10155	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.8
10156	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.78	±9.8
10157	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	±9.8
10158	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.66	±9.8
10159	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.06	±9.8
10160	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	5.82	±9.8
10161	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6.48	±9.8
10162	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	±9.8
10166	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	±9.8
10167	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	±9.8
10168	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	±9.8
10169	CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	±9.8
10170	CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	±9.8
10171	AAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	±9.8
10172	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	9.21	±9.8
10173	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.46	±9.8
10174	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	±9.8
10175	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	±9.8
10176	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	±9.8
10177	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.73	±9.8
10178	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.52	±9.8
10179	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	±9.8
10180	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	±9.8
10181	CAH	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.72	±9.8
10182	CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	±9.8
10183	AAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	±9.8
10184	CAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.8
10185	CAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	±9.8
10186	AAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	±9.8
10187	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	±9.8
10188	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	±9.8
10189	AAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.59	±9.8
10190	CAD	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	WLAN	6.09	±9.8
10194	CAD	IEEE 802.11n (HT Greenfield, 89 Mbps, 16-QAM)	WLAN	6.12	±9.8
10195	CAD	IEEE 802.11n (HT Greenfield, 85 Mbps, 64-QAM)	WLAN	6.21	±9.8
10196	CAD	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	WLAN	6.10	±9.8
10197	CAD	IEEE 802.11n (HT Mixed, 38 Mbps, 16-QAM)	WLAN	6.13	±9.8
10198	CAD	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	6.27	±9.8
10219	CAD	IEEE 802.11n (HT Mixed, 7.2 Mbps, QPSK)	WLAN	6.03	±9.8
10220	CAD	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	6.13	±9.8
10221	CAD	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	6.27	±9.8
10222	CAD	IEEE 802.11n (HT Mixed, 16 Mbps, BPSK)	WLAN	6.06	±9.8
10223	CAD	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	6.46	±9.8
10224	CAD	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	6.08	±9.8

EX3DV4 - SN:7772

September 20, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>2</sup> k = 2
10225	CAC	UMTS-FDD (HSPA+)	WCDMA	5.97	±0.0
10226	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.46	±0.6
10227	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	±0.6
10228	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	±0.0
10229	CAE	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9.46	±0.6
10230	CAE	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.26	±0.6
10231	CAE	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.18	±0.6
10232	CAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.46	±0.6
10233	CAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.26	±0.6
10234	CAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	±0.6
10235	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.46	±0.6
10236	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.26	±0.6
10237	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	±0.6
10238	CAG	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.46	±0.6
10239	CAG	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.26	±0.6
10240	CAG	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	±0.6
10241	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.82	±0.6
10242	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	±0.6
10243	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	±0.6
10244	CAE	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-TDD	10.06	±0.6
10245	CAE	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	±0.6
10246	CAE	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	±0.6
10247	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9.91	±0.6
10248	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	±0.6
10249	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	±0.6
10250	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	±0.6
10251	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	±0.6
10252	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	±0.6
10253	CAG	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.30	±0.6
10254	CAG	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	±0.6
10255	CAG	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-TDD	9.20	±0.6
10256	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	8.86	±0.6
10257	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.08	±0.6
10258	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD	8.31	±0.6
10259	CAE	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-TDD	8.89	±0.6
10260	CAE	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	8.97	±0.6
10261	CAE	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	8.24	±0.6
10262	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	8.83	±0.6
10263	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-TDD	10.15	±0.6
10264	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	8.23	±0.6
10265	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	8.82	±0.6
10266	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	±0.6
10267	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	8.30	±0.6
10268	CAG	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.08	±0.6
10269	CAG	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.13	±0.6
10270	CAG	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	8.50	±0.6
10274	CAC	UMTS-FDD (HSUPA, Subnet 5, 3GPP Rel.10)	WCDMA	4.87	±0.6
10275	CAC	UMTS-FDD (HSUPA, Subnet 5, 3GPP Rel.4)	WCDMA	3.96	±0.6
10277	CAA	PHS (QPSK)	PHS	11.81	±0.6
10278	CAA	PHS (QPSK, BW 884 MHz, Roll off 0.5)	PHS	11.81	±0.6
10279	CAA	PHS (QPSK, BW 884 MHz, Roll off 0.35)	PHS	12.18	±0.6
10280	AAB	CDMA2000, PC1, 3.1kbps, Full Rate	CDMA2000	3.51	±0.6
10281	AAB	CDMA2000, PC3, 3.1kbps, Full Rate	CDMA2000	3.46	±0.6
10282	AAB	CDMA2000, PC3, 3.1kbps, Full Rate	CDMA2000	3.50	±0.6
10283	AAB	CDMA2000, PC3, 3.1kbps, Full Rate	CDMA2000	3.50	±0.6
10285	AAB	CDMA2000, PC1, 3.1kbps, 1/8th Rate 25%	CDMA2000	12.46	±0.6
10287	AAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-FDD	5.61	±0.6
10288	AAE	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-FDD	5.72	±0.6
10288	AAE	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.38	±0.6
10300	AAE	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	±0.6
10301	AAA	IEEE 802.16e WIMAX (20% B, 5 ms, 10 MHz, QPSK, PUSC)	WIMAX	12.05	±0.6
10302	AAA	IEEE 802.16e WIMAX (20% B, 5 ms, 10 MHz, QPSK, PUSC, 3 CTR symbols)	WIMAX	12.57	±0.6
10303	AAA	IEEE 802.16e WIMAX (31% B, 5 ms, 10 MHz, 64QAM, PUSC)	WIMAX	12.52	±0.6
10304	AAA	IEEE 802.16e WIMAX (20% B, 5 ms, 10 MHz, 64QAM, PUSC)	WIMAX	11.86	±0.6
10305	AAA	IEEE 802.16a WIMAX (31% B, 10 ms, 10 MHz, 64QAM, PUSC, 15 symbols)	WIMAX	15.24	±0.6
10306	AAA	IEEE 802.16a WIMAX (20% B, 10 ms, 10 MHz, 64QAM, PUSC, 16 symbols)	WIMAX	14.87	±0.6



EX3DV4 - SN:7772

September 20, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>κ</sup> κ = 2
10207	AAA	IEEE 802.16e WMAX (20-18, 10 ms, 10 MHz, QPSK, PUSC, 18 symbols)	WMAX	14.48	+9.6
10208	AAA	IEEE 802.16e WMAX (20-18, 10 ms, 10 MHz, 16QAM, PUSC)	WMAX	14.46	+9.6
10209	AAA	IEEE 802.16e WMAX (20-18, 10 ms, 10 MHz, 16QAM, AMC 2x3, 18 symbols)	WMAX	14.58	+9.6
10210	AAA	IEEE 802.16e WMAX (20-18, 10 ms, 10 MHz, QPSK, AMC 2x3, 18 symbols)	WMAX	14.67	+9.6
10211	A4E	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.06	+9.6
10213	AAA	DEN 1.3	IDEN	10.61	+9.6
10214	AAA	DEN 1.8	IDEN	13.48	+9.6
10215	A4B	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	WLAN	1.71	+9.6
10216	A4B	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	+9.6
10217	A4D	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	+9.6
10252	AAA	Pulse Waveform (200Hz, 10%)	Generic	10.00	+9.6
10253	AAA	Pulse Waveform (200Hz, 20%)	Generic	8.90	+9.6
10254	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.95	+9.6
10255	AAA	Pulse Waveform (200Hz, 60%)	Generic	2.22	+9.6
10256	AAA	Pulse Waveform (200Hz, 80%)	Generic	0.97	+9.6
10287	AAA	QPSK Waveform, 1 MHz	Generic	5.10	+9.6
10288	AAA	QPSK Waveform, 10 MHz	Generic	5.22	+9.6
10289	AAA	64-QAM Waveform, 100 kHz	Generic	8.27	+9.6
10289	AAA	64-QAM Waveform, 40 MHz	Generic	6.27	+9.6
10400	A4F	IEEE 802.11ac WiFi (20 MHz, 64-QAM, 96pc duty cycle)	WLAN	8.37	+9.6
10401	A4E	IEEE 802.11ac WiFi (40 MHz, 64-QAM, 96pc duty cycle)	WLAN	8.50	+9.6
10402	A4E	IEEE 802.11ac WiFi (80 MHz, 64-QAM, 96pc duty cycle)	WLAN	8.53	+9.6
10403	A4B	CDMA2000 (1xEV-DO, Rev. 0)	CDMA2000	3.78	+9.6
10404	A4B	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	3.77	+9.6
10405	A4B	CDMA2000, RCS, 9028, SC=0, Full Rate	CDMA2000	5.22	+9.6
10410	A4H	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)	LTE-TDD	7.82	+9.6
10414	AAA	WLAN CCK4, 64-QAM, 40 MHz	Generic	8.54	+9.6
10415	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	WLAN	1.54	+9.6
10416	AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.23	+9.6
10417	A4C	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.23	+9.6
10418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 96pc duty cycle, Long preamble)	WLAN	8.14	+9.6
10419	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 96pc duty cycle, Short preamble)	WLAN	8.19	+9.6
10422	A4C	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	+9.6
10423	A4C	IEEE 802.11n (HT Greenfield, 42.3 Mbps, 16-QAM)	WLAN	8.47	+9.6
10424	A4C	IEEE 802.11n (HT Greenfield, 72.3 Mbps, 64-QAM)	WLAN	8.40	+9.6
10425	A4C	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	+9.6
10425	A4C	IEEE 802.11n (HT Greenfield, 50 Mbps, 16-QAM)	WLAN	8.45	+9.6
10427	A4C	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	+9.6
10430	A4E	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	6.26	+9.6
10431	A4E	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	6.36	+9.6
10432	A4D	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	LTE-FDD	6.34	+9.6
10433	A4D	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	6.34	+9.6
10434	A4B	W-CDMA (BS Test Model 1, 34 DPCH)	WCDMA	6.00	+9.6
10435	A4C	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	+9.6
10447	A4E	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	+9.6
10449	A4E	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.55	+9.6
10449	A4D	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.51	+9.6
10450	A4D	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	+9.6
10451	A4B	W-CDMA (BS Test Model 1, 34 DPCH, Clipping 44%)	WCDMA	7.58	+9.6
10453	A4E	Walktest (Square, 10 ms, 1 ms)	Test	10.00	+9.6
10454	A4E	IEEE 802.11ac WiFi (160 MHz, 64-QAM, 96pc duty cycle)	WLAN	8.63	+9.6
10457	A4B	UMTS-FDD (DC-HSDPA)	WCDMA	6.02	+9.6
10458	AAA	CDMA2000 (1xEV-DO, Rev. 3, 2 carriers)	CDMA2000	6.55	+9.6
10459	AAA	CDMA2000 (1xEV-DO, Rev. 3, 3 carriers)	CDMA2000	6.25	+9.6
10460	A4B	UMTS-FDD (WCDMA, AMR)	WCDMA	2.39	+9.6
10461	A4C	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	+9.6
10462	A4C	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.30	+9.6
10463	A4C	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	+9.6
10464	A4D	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	+9.6
10465	A4D	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	+9.6
10466	A4D	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	+9.6
10467	A4C	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	+9.6
10468	A4C	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	+9.6
10468	A4C	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	+9.6
10470	A4C	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	+9.6
10471	A4C	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	+9.6

EX3DV4 - SN:7772

September 20, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>2</sup> # = 2
10472	AAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±0.6
10473	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±0.6
10474	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±0.6
10475	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±0.6
10477	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±0.6
10478	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±0.6
10479	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±0.6
10480	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.18	±0.6
10481	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	±0.6
10482	AAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.71	±0.6
10483	AAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.39	±0.6
10484	AAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.47	±0.6
10485	AAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.59	±0.6
10488	AAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.39	±0.6
10497	AAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.60	±0.6
10499	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.70	±0.6
10499	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	±0.6
10490	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±0.6
10491	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±0.6
10492	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.41	±0.6
10493	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	±0.6
10494	AAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±0.6
10495	AAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.37	±0.6
10495	AAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±0.6
10497	AAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	±0.6
10498	AAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.40	±0.6
10499	AAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.68	±0.6
10500	AAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	±0.6
10501	AAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.44	±0.6
10502	AAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.52	±0.6
10503	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.72	±0.6
10504	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	±0.6
10505	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±0.6
10506	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±0.6
10507	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.36	±0.6
10508	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	±0.6
10509	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.89	±0.6
10510	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.49	±0.6
10511	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.51	±0.6
10512	AAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±0.6
10513	AAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.42	±0.6
10514	AAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	±0.6
10515	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99% duty cycle)	WLAN	1.58	±0.6
10516	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99% duty cycle)	WLAN	1.57	±0.6
10517	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99% duty cycle)	WLAN	1.58	±0.6
10518	AAC	IEEE 802.11ah WiFi 5 GHz (OFDM, 9 Mbps, 99% duty cycle)	WLAN	8.23	±0.6
10519	AAC	IEEE 802.11ah WiFi 5 GHz (OFDM, 12 Mbps, 99% duty cycle)	WLAN	8.29	±0.6
10520	AAC	IEEE 802.11ah WiFi 5 GHz (OFDM, 18 Mbps, 99% duty cycle)	WLAN	8.12	±0.6
10521	AAC	IEEE 802.11ah WiFi 5 GHz (OFDM, 24 Mbps, 99% duty cycle)	WLAN	7.97	±0.6
10522	AAC	IEEE 802.11ah WiFi 5 GHz (OFDM, 36 Mbps, 99% duty cycle)	WLAN	8.45	±0.6
10523	AAC	IEEE 802.11ah WiFi 5 GHz (OFDM, 48 Mbps, 99% duty cycle)	WLAN	8.08	±0.6
10524	AAC	IEEE 802.11ah WiFi 5 GHz (OFDM, 54 Mbps, 99% duty cycle)	WLAN	8.27	±0.6
10525	AAC	IEEE 802.11ac WiFi (20 MHz, MCS0, 99% duty cycle)	WLAN	8.36	±0.6
10526	AAC	IEEE 802.11ac WiFi (20 MHz, MCS1, 99% duty cycle)	WLAN	8.42	±0.6
10527	AAC	IEEE 802.11ac WiFi (20 MHz, MCS2, 99% duty cycle)	WLAN	8.21	±0.6
10528	AAC	IEEE 802.11ac WiFi (20 MHz, MCS3, 99% duty cycle)	WLAN	8.36	±0.6
10529	AAC	IEEE 802.11ac WiFi (20 MHz, MCS4, 99% duty cycle)	WLAN	8.26	±0.6
10531	AAC	IEEE 802.11ac WiFi (20 MHz, MCS6, 99% duty cycle)	WLAN	8.42	±0.6
10532	AAC	IEEE 802.11ac WiFi (20 MHz, MCS7, 99% duty cycle)	WLAN	8.29	±0.6
10533	AAC	IEEE 802.11ac WiFi (20 MHz, MCS8, 99% duty cycle)	WLAN	8.28	±0.6
10534	AAC	IEEE 802.11ac WiFi (40 MHz, MCS0, 99% duty cycle)	WLAN	8.45	±0.6
10535	AAC	IEEE 802.11ac WiFi (40 MHz, MCS1, 99% duty cycle)	WLAN	8.45	±0.6
10536	AAC	IEEE 802.11ac WiFi (40 MHz, MCS2, 99% duty cycle)	WLAN	8.32	±0.6
10537	AAC	IEEE 802.11ac WiFi (40 MHz, MCS3, 99% duty cycle)	WLAN	8.44	±0.6
10538	AAC	IEEE 802.11ac WiFi (40 MHz, MCS4, 99% duty cycle)	WLAN	8.54	±0.6
10540	AAC	IEEE 802.11ac WiFi (40 MHz, MCS6, 99% duty cycle)	WLAN	8.39	±0.6

EX3DV4 - SN:7772

September 20, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>k</sup> k = 2
10541	AAC	IEEE 802.11ac WiFi (40 MHz, MCS7, 80pc duty cycle)	WLAN	8.48	+0.6
10542	AAC	IEEE 802.11ac WiFi (40 MHz, MCS8, 80pc duty cycle)	WLAN	8.65	+0.6
10543	AAC	IEEE 802.11ac WiFi (40 MHz, MCS9, 80pc duty cycle)	WLAN	8.65	+0.6
10544	AAC	IEEE 802.11ac WiFi (80 MHz, MCS0, 80pc duty cycle)	WLAN	8.47	+0.6
10545	AAC	IEEE 802.11ac WiFi (80 MHz, MCS1, 80pc duty cycle)	WLAN	8.55	+0.6
10546	AAC	IEEE 802.11ac WiFi (80 MHz, MCS2, 80pc duty cycle)	WLAN	8.35	+0.6
10547	AAC	IEEE 802.11ac WiFi (80 MHz, MCS3, 80pc duty cycle)	WLAN	8.49	+0.6
10548	AAC	IEEE 802.11ac WiFi (80 MHz, MCS4, 80pc duty cycle)	WLAN	8.37	+0.6
10550	AAC	IEEE 802.11ac WiFi (80 MHz, MCS6, 80pc duty cycle)	WLAN	8.38	+0.6
10551	AAC	IEEE 802.11ac WiFi (80 MHz, MCS7, 80pc duty cycle)	WLAN	8.50	+0.6
10552	AAC	IEEE 802.11ac WiFi (80 MHz, MCS8, 80pc duty cycle)	WLAN	8.42	+0.6
10553	AAC	IEEE 802.11ac WiFi (80 MHz, MCS9, 80pc duty cycle)	WLAN	8.45	+0.6
10554	AAD	IEEE 802.11ac WiFi (160 MHz, MCS0, 80pc duty cycle)	WLAN	8.48	+0.6
10555	AAD	IEEE 802.11ac WiFi (160 MHz, MCS1, 80pc duty cycle)	WLAN	8.47	+0.6
10556	AAD	IEEE 802.11ac WiFi (160 MHz, MCS2, 80pc duty cycle)	WLAN	8.50	+0.6
10557	AAD	IEEE 802.11ac WiFi (160 MHz, MCS3, 80pc duty cycle)	WLAN	8.62	+0.6
10558	AAD	IEEE 802.11ac WiFi (160 MHz, MCS4, 80pc duty cycle)	WLAN	8.61	+0.6
10560	AAD	IEEE 802.11ac WiFi (160 MHz, MCS5, 80pc duty cycle)	WLAN	8.73	+0.6
10561	AAD	IEEE 802.11ac WiFi (160 MHz, MCS7, 80pc duty cycle)	WLAN	8.06	+0.6
10562	AAD	IEEE 802.11ac WiFi (160 MHz, MCS8, 80pc duty cycle)	WLAN	8.66	+0.6
10563	AAD	IEEE 802.11ac WiFi (160 MHz, MCS9, 80pc duty cycle)	WLAN	8.77	+0.6
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 8 Mbps, 90pc duty cycle)	WLAN	8.25	+0.6
10565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.45	+0.6
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.15	+0.6
10567	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.00	+0.6
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.37	+0.6
10569	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.10	+0.6
10570	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.30	+0.6
10571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WLAN	1.99	+0.6
10572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	WLAN	1.99	+0.6
10573	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	WLAN	1.96	+0.6
10574	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	WLAN	1.96	+0.6
10575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 8 Mbps, 90pc duty cycle)	WLAN	8.39	+0.6
10576	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.50	+0.6
10577	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	+0.6
10578	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.40	+0.6
10579	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.38	+0.6
10580	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.75	+0.6
10581	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	+0.6
10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.37	+0.6
10583	AAC	IEEE 802.11ah WiFi 5 GHz (OFDM, 8 Mbps, 80pc duty cycle)	WLAN	8.59	+0.6
10584	AAC	IEEE 802.11ah WiFi 5 GHz (OFDM, 9 Mbps, 80pc duty cycle)	WLAN	8.60	+0.6
10585	AAC	IEEE 802.11ah WiFi 5 GHz (OFDM, 12 Mbps, 80pc duty cycle)	WLAN	8.70	+0.6
10586	AAC	IEEE 802.11ah WiFi 5 GHz (OFDM, 18 Mbps, 80pc duty cycle)	WLAN	8.49	+0.6
10587	AAC	IEEE 802.11ah WiFi 5 GHz (OFDM, 24 Mbps, 80pc duty cycle)	WLAN	8.36	+0.6
10589	AAC	IEEE 802.11ah WiFi 5 GHz (OFDM, 36 Mbps, 80pc duty cycle)	WLAN	8.76	+0.6
10599	AAC	IEEE 802.11ah WiFi 5 GHz (OFDM, 48 Mbps, 80pc duty cycle)	WLAN	8.35	+0.6
10590	AAC	IEEE 802.11ah WiFi 5 GHz (OFDM, 54 Mbps, 80pc duty cycle)	WLAN	8.67	+0.6
10591	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS0, 90pc duty cycle)	WLAN	8.63	+0.6
10592	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS1, 90pc duty cycle)	WLAN	8.79	+0.6
10593	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS2, 90pc duty cycle)	WLAN	8.64	+0.6
10594	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS3, 90pc duty cycle)	WLAN	8.74	+0.6
10595	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS4, 90pc duty cycle)	WLAN	8.74	+0.6
10598	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS5, 90pc duty cycle)	WLAN	8.71	+0.6
10597	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS6, 90pc duty cycle)	WLAN	8.72	+0.6
10599	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS7, 90pc duty cycle)	WLAN	8.50	+0.6
10599	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS0, 90pc duty cycle)	WLAN	8.79	+0.6
10600	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS1, 90pc duty cycle)	WLAN	8.68	+0.6
10601	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS2, 90pc duty cycle)	WLAN	8.62	+0.6
10602	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS3, 90pc duty cycle)	WLAN	8.64	+0.6
10603	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS4, 90pc duty cycle)	WLAN	9.03	+0.6
10604	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS5, 90pc duty cycle)	WLAN	8.76	+0.6
10605	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS6, 90pc duty cycle)	WLAN	8.97	+0.6
10606	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS7, 90pc duty cycle)	WLAN	8.82	+0.6
10607	AAC	IEEE 802.11ac WiFi (20 MHz, MCS0, 80pc duty cycle)	WLAN	8.64	+0.6
10608	AAC	IEEE 802.11ac WiFi (20 MHz, MCS1, 80pc duty cycle)	WLAN	8.77	+0.6

EX3DV4 - SN:7772

September 20, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>k</sup> k = 2
10609	AAC	IEEE 802.11ac WiFi (20 MHz, MCS2, 90pc duty cycle)	WLAN	8.57	±0.8
10610	AAC	IEEE 802.11ac WiFi (20 MHz, MCS3, 90pc duty cycle)	WLAN	8.78	±0.8
10611	AAC	IEEE 802.11ac WiFi (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.70	±0.8
10612	AAC	IEEE 802.11ac WiFi (20 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±0.8
10613	AAC	IEEE 802.11ac WiFi (20 MHz, MCS6, 90pc duty cycle)	WLAN	8.94	±0.8
10614	AAC	IEEE 802.11ac WiFi (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.93	±0.8
10615	AAC	IEEE 802.11ac WiFi (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±0.8
10616	AAC	IEEE 802.11ac WiFi (40 MHz, MCS0, 90pc duty cycle)	WLAN	8.82	±0.8
10617	AAC	IEEE 802.11ac WiFi (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.81	±0.8
10618	AAC	IEEE 802.11ac WiFi (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.58	±0.8
10619	AAC	IEEE 802.11ac WiFi (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.88	±0.8
10620	AAC	IEEE 802.11ac WiFi (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.87	±0.8
10621	AAC	IEEE 802.11ac WiFi (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±0.8
10622	AAC	IEEE 802.11ac WiFi (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.99	±0.8
10623	AAC	IEEE 802.11ac WiFi (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.92	±0.8
10624	AAC	IEEE 802.11ac WiFi (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.96	±0.8
10625	AAC	IEEE 802.11ac WiFi (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.96	±0.8
10626	AAC	IEEE 802.11ac WiFi (80 MHz, MCS0, 90pc duty cycle)	WLAN	8.83	±0.8
10627	AAC	IEEE 802.11ac WiFi (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.88	±0.8
10628	AAC	IEEE 802.11ac WiFi (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.71	±0.8
10629	AAC	IEEE 802.11ac WiFi (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.85	±0.8
10630	AAC	IEEE 802.11ac WiFi (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.72	±0.8
10631	AAC	IEEE 802.11ac WiFi (80 MHz, MCS5, 90pc duty cycle)	WLAN	8.81	±0.8
10632	AAC	IEEE 802.11ac WiFi (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.74	±0.8
10633	AAC	IEEE 802.11ac WiFi (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.83	±0.8
10634	AAC	IEEE 802.11ac WiFi (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±0.8
10635	AAC	IEEE 802.11ac WiFi (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.81	±0.8
10636	AAD	IEEE 802.11ac WiFi (160 MHz, MCS0, 90pc duty cycle)	WLAN	8.83	±0.8
10637	AAD	IEEE 802.11ac WiFi (160 MHz, MCS1, 90pc duty cycle)	WLAN	8.79	±0.8
10638	AAD	IEEE 802.11ac WiFi (160 MHz, MCS2, 90pc duty cycle)	WLAN	8.86	±0.8
10639	AAD	IEEE 802.11ac WiFi (160 MHz, MCS3, 90pc duty cycle)	WLAN	8.85	±0.8
10640	AAD	IEEE 802.11ac WiFi (160 MHz, MCS4, 90pc duty cycle)	WLAN	8.88	±0.8
10641	AAD	IEEE 802.11ac WiFi (160 MHz, MCS5, 90pc duty cycle)	WLAN	9.06	±0.8
10642	AAD	IEEE 802.11ac WiFi (160 MHz, MCS6, 90pc duty cycle)	WLAN	9.06	±0.8
10643	AAD	IEEE 802.11ac WiFi (160 MHz, MCS7, 90pc duty cycle)	WLAN	8.80	±0.8
10644	AAD	IEEE 802.11ac WiFi (160 MHz, MCS8, 90pc duty cycle)	WLAN	8.05	±0.8
10645	AAD	IEEE 802.11ac WiFi (160 MHz, MCS9, 90pc duty cycle)	WLAN	8.11	±0.8
10646	AAH	LTE-TDD (SC-FDMA, 1 PR, 5 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.98	±0.8
10647	AAH	LTE-TDD (SC-FDMA, 1 PR, 20 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.98	±0.8
10648	AAA	CDMA2000 (1x Advanced)	CDMA2000	8.46	±0.8
10652	AAI	LTE-TDD (CPDWA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	±0.8
10653	AAI	LTE-TDD (CPDWA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	±0.8
10654	AAE	LTE-TDD (CPDWA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	±0.8
10655	AAI	LTE-TDD (CPDWA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	±0.8
10658	AAB	Pulse Waveform (200Hz, 10%)	Test	10.00	±0.8
10659	AAB	Pulse Waveform (200Hz, 20%)	Test	6.95	±0.8
10660	AAB	Pulse Waveform (200Hz, 40%)	Test	3.98	±0.8
10661	AAB	Pulse Waveform (200Hz, 60%)	Test	2.22	±0.8
10662	AAB	Pulse Waveform (200Hz, 80%)	Test	0.97	±0.8
10670	AAA	Bluetooth Low Energy	Bluetooth	2.19	±0.8
10671	AAC	IEEE 802.11ax (20 MHz, MCS0, 90pc duty cycle)	WLAN	9.09	±0.8
10672	AAC	IEEE 802.11ax (20 MHz, MCS1, 90pc duty cycle)	WLAN	8.57	±0.8
10673	AAC	IEEE 802.11ax (20 MHz, MCS2, 90pc duty cycle)	WLAN	8.78	±0.8
10674	AAC	IEEE 802.11ax (20 MHz, MCS3, 90pc duty cycle)	WLAN	8.74	±0.8
10675	AAC	IEEE 802.11ax (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.90	±0.8
10676	AAC	IEEE 802.11ax (20 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±0.8
10677	AAC	IEEE 802.11ax (20 MHz, MCS6, 90pc duty cycle)	WLAN	8.73	±0.8
10679	AAC	IEEE 802.11ax (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.78	±0.8
10679	AAC	IEEE 802.11ax (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.89	±0.8
10680	AAC	IEEE 802.11ax (20 MHz, MCS9, 90pc duty cycle)	WLAN	8.80	±0.8
10681	AAC	IEEE 802.11ax (20 MHz, MCS10, 90pc duty cycle)	WLAN	8.82	±0.8
10682	AAC	IEEE 802.11ax (20 MHz, MCS11, 90pc duty cycle)	WLAN	8.83	±0.8
10683	AAC	IEEE 802.11ax (20 MHz, MCS0, 98pc duty cycle)	WLAN	8.42	±0.8
10684	AAC	IEEE 802.11ax (20 MHz, MCS1, 98pc duty cycle)	WLAN	8.26	±0.8
10685	AAC	IEEE 802.11ax (20 MHz, MCS2, 98pc duty cycle)	WLAN	8.35	±0.8
10686	AAC	IEEE 802.11ax (20 MHz, MCS3, 98pc duty cycle)	WLAN	8.28	±0.8

EX3DV4 - SN:7772

September 20, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>E</sup> k = 2
13687	AAC	IEEE 802.11ax (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.45	±9.5
13688	AAC	IEEE 802.11ax (20 MHz, MCS5, 90pc duty cycle)	WLAN	8.29	±9.5
13689	AAC	IEEE 802.11ax (20 MHz, MCS6, 90pc duty cycle)	WLAN	8.55	±9.5
13690	AAC	IEEE 802.11ax (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.29	±9.5
13691	AAC	IEEE 802.11ax (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.25	±9.5
13692	AAC	IEEE 802.11ax (20 MHz, MCS9, 90pc duty cycle)	WLAN	8.29	±9.5
13693	AAC	IEEE 802.11ax (20 MHz, MCS10, 90pc duty cycle)	WLAN	8.25	±9.5
13694	AAC	IEEE 802.11ax (20 MHz, MCS11, 90pc duty cycle)	WLAN	8.57	±9.5
13695	AAC	IEEE 802.11ax (40 MHz, MCS0, 90pc duty cycle)	WLAN	8.78	±9.5
13696	AAC	IEEE 802.11ax (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.91	±9.5
13697	AAC	IEEE 802.11ax (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.81	±9.5
13698	AAC	IEEE 802.11ax (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.89	±9.5
13699	AAC	IEEE 802.11ax (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.82	±9.5
13700	AAC	IEEE 802.11ax (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.73	±9.5
13701	AAC	IEEE 802.11ax (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.85	±9.5
13702	AAC	IEEE 802.11ax (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.70	±9.5
13703	AAC	IEEE 802.11ax (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.5
13704	AAC	IEEE 802.11ax (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.56	±9.5
13705	AAC	IEEE 802.11ax (40 MHz, MCS10, 90pc duty cycle)	WLAN	8.59	±9.5
13706	AAC	IEEE 802.11ax (40 MHz, MCS11, 90pc duty cycle)	WLAN	8.55	±9.5
13707	AAC	IEEE 802.11ax (40 MHz, MCS0, 90pc duty cycle)	WLAN	8.32	±9.5
13708	AAC	IEEE 802.11ax (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.55	±9.5
13709	AAC	IEEE 802.11ax (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.33	±9.5
13710	AAC	IEEE 802.11ax (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.29	±9.5
13711	AAC	IEEE 802.11ax (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.38	±9.5
13712	AAC	IEEE 802.11ax (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.67	±9.5
13713	AAC	IEEE 802.11ax (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.33	±9.5
13714	AAC	IEEE 802.11ax (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.28	±9.5
13715	AAC	IEEE 802.11ax (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.45	±9.5
13716	AAC	IEEE 802.11ax (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.30	±9.5
13717	AAC	IEEE 802.11ax (40 MHz, MCS10, 90pc duty cycle)	WLAN	8.48	±9.5
13718	AAC	IEEE 802.11ax (40 MHz, MCS11, 90pc duty cycle)	WLAN	8.24	±9.5
13719	AAC	IEEE 802.11ax (80 MHz, MCS0, 90pc duty cycle)	WLAN	8.81	±9.5
13720	AAC	IEEE 802.11ax (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.87	±9.5
13721	AAC	IEEE 802.11ax (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.76	±9.5
13722	AAC	IEEE 802.11ax (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.55	±9.5
13723	AAC	IEEE 802.11ax (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.70	±9.5
13724	AAC	IEEE 802.11ax (80 MHz, MCS5, 90pc duty cycle)	WLAN	8.60	±9.5
13725	AAC	IEEE 802.11ax (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.74	±9.5
13726	AAC	IEEE 802.11ax (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.72	±9.5
13727	AAC	IEEE 802.11ax (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.66	±9.5
13728	AAC	IEEE 802.11ax (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.65	±9.5
13729	AAC	IEEE 802.11ax (80 MHz, MCS10, 90pc duty cycle)	WLAN	8.64	±9.5
13730	AAC	IEEE 802.11ax (80 MHz, MCS11, 90pc duty cycle)	WLAN	8.67	±9.5
13731	AAC	IEEE 802.11ax (80 MHz, MCS0, 90pc duty cycle)	WLAN	8.42	±9.5
13732	AAC	IEEE 802.11ax (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.48	±9.5
13733	AAC	IEEE 802.11ax (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.40	±9.5
13734	AAC	IEEE 802.11ax (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.25	±9.5
13735	AAC	IEEE 802.11ax (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.33	±9.5
13736	AAC	IEEE 802.11ax (80 MHz, MCS5, 90pc duty cycle)	WLAN	8.27	±9.5
13737	AAC	IEEE 802.11ax (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.36	±9.5
13738	AAC	IEEE 802.11ax (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.42	±9.5
13739	AAC	IEEE 802.11ax (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.29	±9.5
13740	AAC	IEEE 802.11ax (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.49	±9.5
13741	AAC	IEEE 802.11ax (80 MHz, MCS10, 90pc duty cycle)	WLAN	8.40	±9.5
13742	AAC	IEEE 802.11ax (80 MHz, MCS11, 90pc duty cycle)	WLAN	8.43	±9.5
13743	AAC	IEEE 802.11ax (160 MHz, MCS0, 90pc duty cycle)	WLAN	8.94	±9.5
13744	AAC	IEEE 802.11ax (160 MHz, MCS1, 90pc duty cycle)	WLAN	8.18	±9.5
13745	AAC	IEEE 802.11ax (160 MHz, MCS2, 90pc duty cycle)	WLAN	8.83	±9.5
13746	AAC	IEEE 802.11ax (160 MHz, MCS3, 90pc duty cycle)	WLAN	8.11	±9.5
13747	AAC	IEEE 802.11ax (160 MHz, MCS4, 90pc duty cycle)	WLAN	8.04	±9.5
13748	AAC	IEEE 802.11ax (160 MHz, MCS5, 90pc duty cycle)	WLAN	8.93	±9.5
13749	AAC	IEEE 802.11ax (160 MHz, MCS6, 90pc duty cycle)	WLAN	8.80	±9.5
13750	AAC	IEEE 802.11ax (160 MHz, MCS7, 90pc duty cycle)	WLAN	8.79	±9.5
13751	AAC	IEEE 802.11ax (160 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.5
13752	AAC	IEEE 802.11ax (160 MHz, MCS9, 90pc duty cycle)	WLAN	8.81	±9.5

EX3DV4 - SN:7772

September 20, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>2</sup> k = 2
10753	AAC	IEEE 802.11ax (180MHz, MCS10, 80ps duty cycle)	WLAN	8.00	±9.6
10754	AAC	IEEE 802.11ax (180MHz, MCS11, 80ps duty cycle)	WLAN	8.94	±9.6
10755	AAC	IEEE 802.11ax (180MHz, MCS9, 80ps duty cycle)	WLAN	8.64	±9.6
10756	AAC	IEEE 802.11ax (180MHz, MCS7, 80ps duty cycle)	WLAN	8.77	±9.6
10757	AAC	IEEE 802.11ax (180MHz, MCS5, 80ps duty cycle)	WLAN	8.77	±9.6
10758	AAC	IEEE 802.11ax (180MHz, MCS3, 80ps duty cycle)	WLAN	8.69	±9.6
10759	AAC	IEEE 802.11ax (180MHz, MCS1, 80ps duty cycle)	WLAN	8.58	±9.6
10760	AAC	IEEE 802.11ax (180MHz, MCS9, 80ps duty cycle)	WLAN	8.49	±9.6
10761	AAC	IEEE 802.11ax (180MHz, MCS6, 80ps duty cycle)	WLAN	8.58	±9.6
10762	AAC	IEEE 802.11ax (180MHz, MCS7, 80ps duty cycle)	WLAN	8.48	±9.6
10763	AAC	IEEE 802.11ax (180MHz, MCS5, 80ps duty cycle)	WLAN	8.53	±9.6
10764	AAC	IEEE 802.11ax (180MHz, MCS9, 80ps duty cycle)	WLAN	8.54	±9.6
10765	AAC	IEEE 802.11ax (180MHz, MCS10, 80ps duty cycle)	WLAN	8.54	±9.6
10766	AAC	IEEE 802.11ax (180MHz, MCS11, 80ps duty cycle)	WLAN	8.51	±9.6
10767	AAD	5G NR (CP-OFDM, 1 RB, 5MHz, QPSK, 15kHz)	5G NR FR1 TDD	7.88	±9.6
10768	AAD	5G NR (CP-OFDM, 1 RB, 10MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.01	±9.6
10769	AAD	5G NR (CP-OFDM, 1 RB, 15MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.01	±9.6
10770	AAD	5G NR (CP-OFDM, 1 RB, 20MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.02	±9.6
10771	AAD	5G NR (CP-OFDM, 1 RB, 25MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.02	±9.6
10772	AAD	5G NR (CP-OFDM, 1 RB, 30MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.22	±9.6
10773	AAD	5G NR (CP-OFDM, 1 RB, 40MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.02	±9.6
10774	AAD	5G NR (CP-OFDM, 1 RB, 50MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.02	±9.6
10775	AAD	5G NR (CP-OFDM, 60% RB, 5MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.31	±9.6
10776	AAD	5G NR (CP-OFDM, 60% RB, 10MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.30	±9.6
10777	AAD	5G NR (CP-OFDM, 60% RB, 15MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.30	±9.6
10778	AAD	5G NR (CP-OFDM, 60% RB, 20MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.34	±9.6
10779	AAD	5G NR (CP-OFDM, 60% RB, 25MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.42	±9.6
10780	AAD	5G NR (CP-OFDM, 60% RB, 30MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.36	±9.6
10781	AAD	5G NR (CP-OFDM, 60% RB, 40MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.36	±9.6
10782	AAD	5G NR (CP-OFDM, 60% RB, 50MHz, QPSK, 15kHz)	5G NR FR1 TDD	9.43	±9.6
10783	AAD	5G NR (CP-OFDM, 100% RB, 5MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.31	±9.6
10784	AAD	5G NR (CP-OFDM, 100% RB, 10MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.29	±9.6
10785	AAD	5G NR (CP-OFDM, 100% RB, 15MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.40	±9.6
10786	AAD	5G NR (CP-OFDM, 100% RB, 20MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.35	±9.6
10787	AAD	5G NR (CP-OFDM, 100% RB, 25MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.44	±9.6
10788	AAD	5G NR (CP-OFDM, 100% RB, 30MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.33	±9.6
10789	AAD	5G NR (CP-OFDM, 100% RB, 40MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.37	±9.6
10790	AAD	5G NR (CP-OFDM, 100% RB, 50MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.30	±9.6
10791	AAD	5G NR (CP-OFDM, 1 RB, 5MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.83	±9.6
10792	AAD	5G NR (CP-OFDM, 1 RB, 10MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.92	±9.6
10793	AAD	5G NR (CP-OFDM, 1 RB, 15MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.85	±9.6
10794	AAD	5G NR (CP-OFDM, 1 RB, 20MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.82	±9.6
10795	AAD	5G NR (CP-OFDM, 1 RB, 25MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.94	±9.6
10796	AAD	5G NR (CP-OFDM, 1 RB, 30MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.92	±9.6
10797	AAD	5G NR (CP-OFDM, 1 RB, 40MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.01	±9.6
10798	AAD	5G NR (CP-OFDM, 1 RB, 50MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.89	±9.6
10799	AAD	5G NR (CP-OFDM, 1 RB, 60MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.93	±9.6
10801	AAD	5G NR (CP-OFDM, 1 RB, 80MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.89	±9.6
10802	AAD	5G NR (CP-OFDM, 1 RB, 90MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.87	±9.6
10803	AAD	5G NR (CP-OFDM, 1 RB, 100MHz, QPSK, 30kHz)	5G NR FR1 TDD	7.93	±9.6
10805	AAD	5G NR (CP-OFDM, 50% RB, 10MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.34	±9.6
10806	AAD	5G NR (CP-OFDM, 50% RB, 15MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.37	±9.6
10808	AAD	5G NR (CP-OFDM, 50% RB, 30MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.34	±9.6
10810	AAD	5G NR (CP-OFDM, 50% RB, 40MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.34	±9.6
10812	AAD	5G NR (CP-OFDM, 50% RB, 60MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.35	±9.6
10817	AAD	5G NR (CP-OFDM, 100% RB, 5MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.36	±9.6
10818	AAD	5G NR (CP-OFDM, 100% RB, 10MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.34	±9.6
10819	AAD	5G NR (CP-OFDM, 100% RB, 15MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.33	±9.6
10820	AAD	5G NR (CP-OFDM, 100% RB, 20MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.30	±9.6
10821	AAD	5G NR (CP-OFDM, 100% RB, 25MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.41	±9.6
10822	AAD	5G NR (CP-OFDM, 100% RB, 30MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.41	±9.6
10823	AAD	5G NR (CP-OFDM, 100% RB, 40MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.36	±9.6
10824	AAD	5G NR (CP-OFDM, 100% RB, 50MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.39	±9.6
10825	AAD	5G NR (CP-OFDM, 100% RB, 60MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.41	±9.6
10827	AAD	5G NR (CP-OFDM, 100% RB, 80MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.42	±9.6
10828	AAD	5G NR (CP-OFDM, 100% RB, 90MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.43	±9.6

EX3DV4 - SN:7772

September 20, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>E</sup> k = 2
10829	A4D	5G NR (CP-OFDM, 100% RB, 100MHz, QPSK, 30kHz)	5G NR FR1 TDD	8.40	±0.0
10830	A4D	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60kHz)	5G NR FR1 TDD	7.83	±0.0
10831	A4D	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60kHz)	5G NR FR1 TDD	7.73	±0.0
10832	A4D	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60kHz)	5G NR FR1 TDD	7.74	±0.0
10833	A4D	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60kHz)	5G NR FR1 TDD	7.70	±0.0
10834	A4D	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60kHz)	5G NR FR1 TDD	7.75	±0.0
10835	A4D	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60kHz)	5G NR FR1 TDD	7.70	±0.0
10836	A4D	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60kHz)	5G NR FR1 TDD	7.66	±0.0
10837	A4D	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60kHz)	5G NR FR1 TDD	7.68	±0.0
10839	A4D	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60kHz)	5G NR FR1 TDD	7.70	±0.0
10840	A4D	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60kHz)	5G NR FR1 TDD	7.67	±0.0
10841	A4D	5G NR (CP-OFDM, 1 RB, 100MHz, QPSK, 60kHz)	5G NR FR1 TDD	7.71	±0.0
10843	A4D	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60kHz)	5G NR FR1 TDD	8.40	±0.0
10844	A4D	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60kHz)	5G NR FR1 TDD	8.34	±0.0
10846	A4D	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60kHz)	5G NR FR1 TDD	8.41	±0.0
10854	A4D	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60kHz)	5G NR FR1 TDD	8.34	±0.0
10855	A4D	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60kHz)	5G NR FR1 TDD	8.36	±0.0
10856	A4D	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60kHz)	5G NR FR1 TDD	8.37	±0.0
10857	A4D	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60kHz)	5G NR FR1 TDD	8.35	±0.0
10858	A4D	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60kHz)	5G NR FR1 TDD	8.36	±0.0
10859	A4D	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60kHz)	5G NR FR1 TDD	8.34	±0.0
10860	A4D	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60kHz)	5G NR FR1 TDD	8.41	±0.0
10861	A4D	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60kHz)	5G NR FR1 TDD	8.40	±0.0
10863	A4D	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60kHz)	5G NR FR1 TDD	8.41	±0.0
10864	A4D	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60kHz)	5G NR FR1 TDD	8.37	±0.0
10865	A4D	5G NR (CP-OFDM, 100% RB, 100MHz, QPSK, 60kHz)	5G NR FR1 TDD	8.41	±0.0
10866	A4D	5G NR (DFT-s-OFDM, 1 RB, 100MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.88	±0.0
10868	A4D	5G NR (DFT-s-OFDM, 100% RB, 100MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.89	±0.0
10869	A4E	5G NR (DFT-s-OFDM, 1 RB, 100MHz, QPSK, 120kHz)	5G NR FR2 TDD	5.75	±0.0
10870	A4E	5G NR (DFT-s-OFDM, 100% RB, 100MHz, QPSK, 120kHz)	5G NR FR2 TDD	5.86	±0.0
10871	A4E	5G NR (DFT-s-OFDM, 1 RB, 100MHz, 19QAM, 120kHz)	5G NR FR2 TDD	5.75	±0.0
10872	A4E	5G NR (DFT-s-OFDM, 100% RB, 100MHz, 19QAM, 120kHz)	5G NR FR2 TDD	6.52	±0.0
10873	A4F	5G NR (DFT-s-OFDM, 1 RB, 100MHz, 84QAM, 120kHz)	5G NR FR2 TDD	6.51	±0.0
10874	A4F	5G NR (DFT-s-OFDM, 100% RB, 100MHz, 84QAM, 120kHz)	5G NR FR2 TDD	6.55	±0.0
10875	A4F	5G NR (CP-OFDM, 1 RB, 100MHz, QPSK, 120kHz)	5G NR FR2 TDD	7.78	±0.0
10876	A4C	5G NR (CP-OFDM, 100% RB, 100MHz, QPSK, 120kHz)	5G NR FR2 TDD	8.39	±0.0
10877	A4E	5G NR (CP-OFDM, 1 RB, 100MHz, 16QAM, 120kHz)	5G NR FR2 TDD	7.85	±0.0
10878	A4E	5G NR (CP-OFDM, 100% RB, 100MHz, 16QAM, 120kHz)	5G NR FR2 TDD	6.41	±0.0
10879	A4E	5G NR (CP-OFDM, 1 RB, 100MHz, 64QAM, 120kHz)	5G NR FR2 TDD	6.13	±0.0
10880	A4E	5G NR (CP-OFDM, 100% RB, 100MHz, 64QAM, 120kHz)	5G NR FR2 TDD	6.38	±0.0
10881	A4E	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120kHz)	5G NR FR2 TDD	5.75	±0.0
10882	A4E	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120kHz)	5G NR FR2 TDD	5.98	±0.0
10883	A4E	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120kHz)	5G NR FR2 TDD	6.57	±0.0
10884	A4E	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120kHz)	5G NR FR2 TDD	6.53	±0.0
10885	A4E	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120kHz)	5G NR FR2 TDD	6.61	±0.0
10889	A4E	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120kHz)	5G NR FR2 TDD	6.65	±0.0
10897	A4E	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120kHz)	5G NR FR2 TDD	7.78	±0.0
10898	A4E	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120kHz)	5G NR FR2 TDD	8.35	±0.0
10899	A4E	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120kHz)	5G NR FR2 TDD	6.02	±0.0
10900	A4E	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120kHz)	5G NR FR2 TDD	6.40	±0.0
10901	A4E	5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120kHz)	5G NR FR2 TDD	6.13	±0.0
10902	A4E	5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120kHz)	5G NR FR2 TDD	6.41	±0.0
10907	A4C	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.66	±0.0
10908	A4B	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.67	±0.0
10909	A4B	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.68	±0.0
10910	A4B	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.68	±0.0
10911	A4B	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.68	±0.0
10912	A4B	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.68	±0.0
10913	A4D	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.68	±0.0
10914	A4B	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.68	±0.0
10915	A4B	5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.68	±0.0
10916	A4B	5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.68	±0.0
10917	A4C	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.78	±0.0
10918	A4B	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.93	±0.0
10919	A4B	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.93	±0.0
10920	A4B	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.93	±0.0

EX3DV4 - SN:7772

September 20, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>F</sup> k = 2
10911	AAB	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.83	±0.8
10912	AAB	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.84	±0.8
10913	AAB	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.84	±0.8
10914	AAB	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.85	±0.8
10915	AAB	5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.83	±0.8
10916	AAB	5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.87	±0.8
10917	AAB	5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.94	±0.8
10918	AAC	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.66	±0.8
10919	AAB	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.66	±0.8
10920	AAB	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.67	±0.8
10921	AAB	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.64	±0.8
10922	AAB	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.62	±0.8
10923	AAB	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.64	±0.8
10924	AAB	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.64	±0.8
10925	AAB	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.65	±0.8
10926	AAB	5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.64	±0.8
10927	AAB	5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30kHz)	5G NR FR1 TDD	5.64	±0.8
10928	AAC	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.52	±0.6
10929	AAC	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.52	±0.6
10930	AAC	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.52	±0.6
10931	AAC	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.51	±0.6
10932	AAC	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.51	±0.6
10933	AAC	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.51	±0.6
10934	AAC	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.51	±0.6
10935	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.51	±0.6
10936	AAC	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.90	±0.6
10937	AAC	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.77	±0.6
10938	AAC	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.90	±0.6
10939	AAC	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.82	±0.6
10940	AAC	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.88	±0.6
10941	AAC	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.83	±0.6
10942	AAC	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.85	±0.6
10943	AAD	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.95	±0.6
10944	AAC	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.81	±0.6
10945	AAC	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.85	±0.6
10946	AAC	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.83	±0.6
10947	AAC	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.87	±0.6
10948	AAC	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.94	±0.6
10949	AAC	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.87	±0.6
10950	AAC	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.94	±0.6
10951	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.92	±0.6
10952	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15kHz)	5G NR FR1 FDD	8.25	±0.6
10953	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15kHz)	5G NR FR1 FDD	8.15	±0.6
10954	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15kHz)	5G NR FR1 FDD	8.23	±0.6
10955	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15kHz)	5G NR FR1 FDD	8.42	±0.6
10956	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30kHz)	5G NR FR1 FDD	8.14	±0.6
10957	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30kHz)	5G NR FR1 FDD	8.31	±0.6
10958	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30kHz)	5G NR FR1 FDD	8.81	±0.6
10959	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30kHz)	5G NR FR1 FDD	8.33	±0.6
10960	AAC	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15kHz)	5G NR FR1 TDD	9.32	±0.6
10961	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15kHz)	5G NR FR1 TDD	9.38	±0.6
10962	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15kHz)	5G NR FR1 TDD	9.40	±0.6
10963	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15kHz)	5G NR FR1 TDD	9.55	±0.6
10964	AAC	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	9.29	±0.6
10965	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	9.37	±0.6
10966	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	9.55	±0.6
10967	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	9.42	±0.6
10968	AAB	5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	9.49	±0.6
10972	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15kHz)	5G NR FR1 TDD	11.59	±0.6
10973	AAB	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30kHz)	5G NR FR1 TDD	9.08	±0.6
10974	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, 256-QAM, 30kHz)	5G NR FR1 TDD	10.29	±0.6
10978	AAA	ULLA BDH	ULLA	1.18	±0.6
10979	AAA	ULLA HDR4	ULLA	0.59	±0.6
10980	AAA	ULLA HDR8	ULLA	0.32	±0.6
10981	AAA	ULLA HDRy4	ULLA	3.18	±0.6
10982	AAA	ULLA HDRy8	ULLA	3.43	±0.6



EX3DV4 - SN:7772

September 20, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>E</sup> k = 2
10883	AAA	5G NR DL (CP-OFDM, TM 3.1, 40MHz, 64-QAM, 15kHz)	5G NR FR1 TDD	8.31	±0.6
10884	AAA	5G NR DL (CP-OFDM, TM 3.1, 50MHz, 64-QAM, 15kHz)	5G NR FR1 TDD	8.42	±0.6
10885	AAA	5G NR DL (CP-OFDM, TM 3.1, 40MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	8.54	±0.6
10886	AAA	5G NR DL (CP-OFDM, TM 3.1, 50MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	8.50	±0.6
10887	AAA	5G NR DL (CP-OFDM, TM 3.1, 60MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	8.53	±0.6
10888	AAA	5G NR DL (CP-OFDM, TM 3.1, 70MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	8.39	±0.6
10889	AAA	5G NR DL (CP-OFDM, TM 3.1, 80MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	8.33	±0.6
10890	AAA	5G NR DL (CP-OFDM, TM 3.1, 90MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	8.52	±0.6
11003	AAA	5G NR DL (CP-OFDM, TM 3.1, 50MHz, 64-QAM, 15kHz)	5G NR FR1 TDD	10.24	±0.6
11004	AAA	5G NR DL (CP-OFDM, TM 3.1, 50MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	10.73	±0.6
11005	AAA	5G NR DL (CP-OFDM, TM 3.1, 25MHz, 64-QAM, 15kHz)	5G NR FR1 FDD	8.70	±0.6
11006	AAA	5G NR DL (CP-OFDM, TM 3.1, 30MHz, 64-QAM, 15kHz)	5G NR FR1 FDD	8.55	±0.6
11007	AAA	5G NR DL (CP-OFDM, TM 3.1, 40MHz, 64-QAM, 15kHz)	5G NR FR1 FDD	8.46	±0.6
11008	AAA	5G NR DL (CP-OFDM, TM 3.1, 50MHz, 64-QAM, 15kHz)	5G NR FR1 FDD	8.51	±0.6
11009	AAA	5G NR DL (CP-OFDM, TM 3.1, 25MHz, 64-QAM, 30kHz)	5G NR FR1 FDD	8.76	±0.6
11010	AAA	5G NR DL (CP-OFDM, TM 3.1, 30MHz, 64-QAM, 30kHz)	5G NR FR1 FDD	8.95	±0.6
11011	AAA	5G NR DL (CP-OFDM, TM 3.1, 40MHz, 64-QAM, 30kHz)	5G NR FR1 FDD	8.88	±0.6
11012	AAA	5G NR DL (CP-OFDM, TM 3.1, 50MHz, 64-QAM, 30kHz)	5G NR FR1 FDD	8.88	±0.6
11013	AAA	IEEE 802.11be (320MHz, MCS1, 99pc duty cycle)	WLAN	8.47	±0.6
11014	AAA	IEEE 802.11be (320MHz, MCS2, 99pc duty cycle)	WLAN	8.45	±0.6
11015	AAA	IEEE 802.11be (320MHz, MCS3, 99pc duty cycle)	WLAN	8.44	±0.6
11016	AAA	IEEE 802.11be (320MHz, MCS4, 99pc duty cycle)	WLAN	8.44	±0.6
11017	AAA	IEEE 802.11be (320MHz, MCS5, 99pc duty cycle)	WLAN	8.41	±0.6
11018	AAA	IEEE 802.11be (320MHz, MCS6, 99pc duty cycle)	WLAN	8.40	±0.6
11019	AAA	IEEE 802.11be (320MHz, MCS7, 99pc duty cycle)	WLAN	8.29	±0.6
11020	AAA	IEEE 802.11be (320MHz, MCS8, 99pc duty cycle)	WLAN	8.27	±0.6
11021	AAA	IEEE 802.11be (320MHz, MCS9, 99pc duty cycle)	WLAN	8.46	±0.6
11022	AAA	IEEE 802.11be (320MHz, MCS10, 99pc duty cycle)	WLAN	8.36	±0.6
11023	AAA	IEEE 802.11be (320MHz, MCS11, 99pc duty cycle)	WLAN	8.03	±0.6
11024	AAA	IEEE 802.11be (320MHz, MCS12, 99pc duty cycle)	WLAN	8.42	±0.6
11025	AAA	IEEE 802.11be (320MHz, MCS13, 99pc duty cycle)	WLAN	8.37	±0.6
11026	AAA	IEEE 802.11be (320MHz, MCS0, 99pc duty cycle)	WLAN	8.38	±0.6

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

**Appendix A.4 Dipole Calibration certificate (D750V3\_1183)**

**Calibration Laboratory of  
 Schmid & Partner  
 Engineering AG**

Zeughausstrasse 43, 8004 Zurich, Switzerland





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

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

Accreditation No.: **SCS 0108**

Client: **Eurofins KCTL**  
 Gyeonggi-do, Republic of Korea

Certificate No. **D750V3-1183\_Sep23**

CALIBRATION CERTIFICATE			
Object:	D750V3 - SN:1183		
Calibration procedure(s):	QA CAL-05.v12 Calibration Procedure for SAR Validation Sources between 0,7-3 GHz		
Calibration date:	September 25, 2023		
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&TC critical for calibration)			
Primary Standards:	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP2	SN: 104776	30-Mar-23 (No. 217-03804/03805)	Mar-24
Power sensor NRP-751	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
Power sensor NRP-Z91	SN: 103245	30-Mar-23 (No. 217-03805)	Mar-24
Reference 20 dB Attenuator	SN: BH9884 (20K)	30-Mar-23 (No. 217-03809)	Mar-24
Type-N mismatch combination	SN: 310962 / 06827	30-Mar-23 (No. 217-03810)	Mar-24
Reference Probe EX3DV4	SN: 7349	10-Jan-23 (No. EX3-7549_Jan23)	Jan-24
DADs	SN: 801	18-Dec-22 (No. DAF4-601_Dec22)	Dec-23
Secondary Standards:	ID #	Check Date (In house)	Scheduled Check
Power meter E4419E	SN: 08395124/5	30-Oct-14 (In house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: US37292793	07-Oct-15 (In house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: MY41035315	07-Oct-15 (In house check Oct-22)	In house check: Oct-24
RF generator R&S SMT-05	SN: 100072	11-Jun-15 (In house check Oct-22)	In house check: Oct-24
Network Analyzer Agilent E8359A	SN: US41080477	31-Mar-14 (In house check Oct-22)	In house check: Oct-24
Calibrated by:	Name Kresimir Franje	Function Laboratory Technician	Signature 
Approved by:	Name Sven Rubin	Function Technical Manager	Signature 
This calibration certificate shall not be reproduced except in full without written approval of the laboratory			Issued: September 25, 2023

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



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

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

Accreditation No.: **SCS 0108**

**Glossary:**

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

**Calibration is Performed According to the Following Standards:**

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Additional Documentation:**

- DASY System Handbook

**Methods Applied and Interpretation of Parameters:**

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The source is mounted in a touch configuration below the center marking of the flat phantom.
- Return Loss:** This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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%.

### Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	750 MHz $\pm$ 1 MHz	

### Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.9	0.89 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	42.2 $\pm$ 6 %	0.88 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

### SAR result with Head TSL

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.09 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	8.46 W/kg $\pm$ 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.37 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	5.52 W/kg $\pm$ 16.5 % (k=2)

**Appendix (Additional assessments outside the scope of SCS 0108)**

**Antenna Parameters with Head TSL**

Impedance, transformed to feed point	52.0 $\Omega$ - 3.4 j $\Omega$
Return Loss	- 28.3 dB

**General Antenna Parameters and Design**

Electrical Delay (one direction)	1.031 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

**Additional EUT Data**

Manufactured by	SPEAG
-----------------	-------

## DASY5 Validation Report for Head TSL

Date: 25.09.2023

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1183**

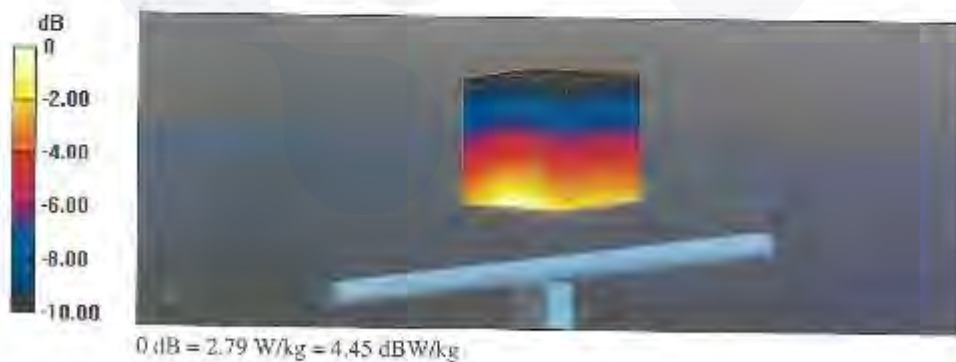
Communication System: UID 0 - CW; Frequency: 750 MHz  
Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.88$  S/m;  $\epsilon_r = 42.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

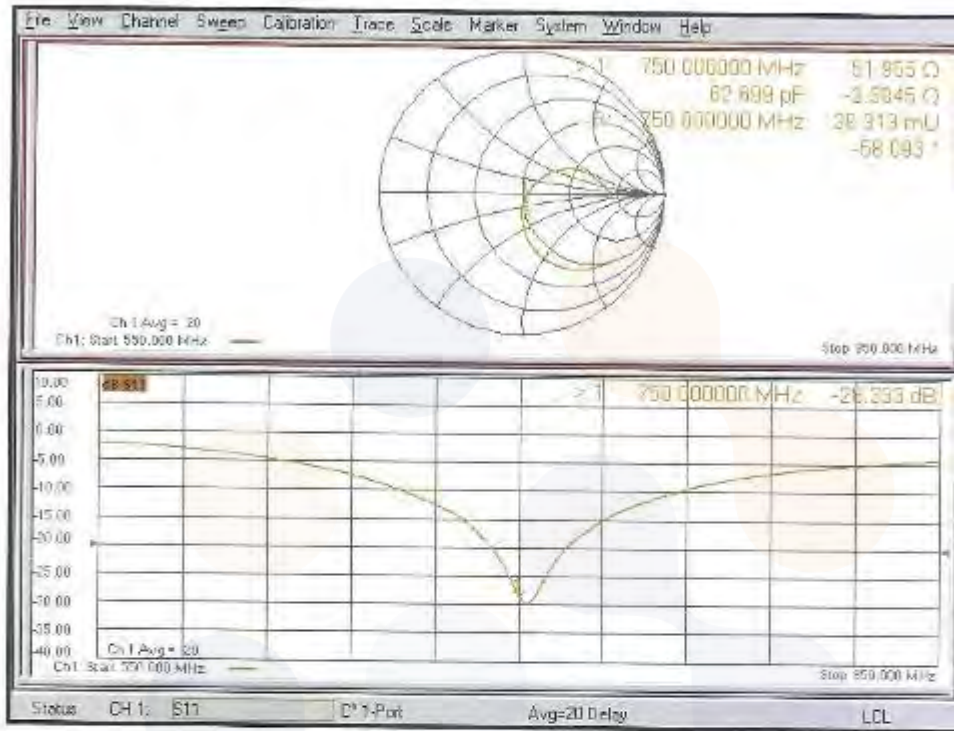
- Probe: EX3DV4 - SN7349; ConvF(10.11, 10.11, 10.11) @ 750 MHz; Calibrated: 10.01.2023
- Sensor Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAB4 Sn601; Calibrated: 19.12.2022
- Phantom: Flat Phantom 4.9 (front); Type: QD 00L P19 AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(750t)

### Dipole Calibration for Head Tissue/ $P_{in}=250$ mW, $d=15$ mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm  
Reference Value = 60.85 V/m; Power Drift = -0.09 dB  
Peak SAR (extrapolated) = 3.14 W/kg  
**SAR(1 g) = 2.09 W/kg; SAR(10 g) = 1.37 W/kg**  
Smallest distance from peaks to all points 3 dB below = 17.5 mm  
Ratio of SAR at M2 to SAR at M1 = 66.2%  
Maximum value of SAR (measured) = 2.79 W/kg



**Impedance Measurement Plot for Head TSL**



**Appendix A.5 Dipole Calibration certificate (D850V2\_1006)**

**Calibration Laboratory of  
 Schmid & Partner  
 Engineering AG**

Zeughausstrasse 43, 8004 Zurich, Switzerland





**S** Schweizerischer Kalibrierdienst  
**C** Service suisse d'étalonnage  
**S** 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**

Client **Eurofins KCTL**  
 Gyeonggi-do, Republic of Korea

Certificate No. **D850V2-1006\_Sep23**

CALIBRATION CERTIFICATE			
Object	D850V2 - SN:1006		
Calibration procedure(s)	QA CAL-05.v12 Calibration Procedure for SAR Validation Sources between 0.7-3 GHz		
Calibration date:	September 25, 2023		
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 ± 0.2°C) and humidity < 70%.			
Calibration Equipment used (M&E critical for calibration)			
Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP2	SN: 104778	30-Mar-23 (No. 217-03804/03805)	Mar-24
Power sensor NRP-Z31	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
Power sensor NRP-Z31	SN: 103245	30-Mar-23 (No. 217-03804)	Mar-24
Reference 20 dB Attenuator	SN: D19384 (20K)	30-Mar-23 (No. 217-03809)	Mar-24
Type-N mismatch combination	SN: 310982 / 08827	30-Mar-23 (No. 217-03810)	Mar-24
Reference Probe EX3DV4	SN: 7349	10-Jan-23 (No. EK3-7349_Jan23)	Jan-24
DAE4	SN: 601	18-Dec-22 (No. DAE4-601_Dec22)	Dec-23
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: CB385124/5	30-Oct-14 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: US37292789	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: MY41093315	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
RF generator R&S SMT-05	SN: 100972	15-Jun-15 (in house check Oct-22)	In house check: Oct-24
Network Analyzer Agilent E3558A	SN: US41080477	21-Mar-14 (in house check Oct-22)	In house check: Oct-24
Calibrated by:	Name Kresimir Franjic	Function Laboratory Technician	Signature 
Approved by:	Name Sven Kuhn	Function Technical Manager	Signature 
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			Issued: September 25, 2023



**Calibration Laboratory of**  
Schmid & Partner  
Engineering AG  
Zanghuusstrasse 43, 8094 Zurich, Switzerland



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

Accreditation No.: **SCS 0108**

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

**Glossary:**

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

**Calibration is Performed According to the Following Standards:**

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Additional Documentation:**

- DASY System Handbook

**Methods Applied and Interpretation of Parameters:**

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The source is mounted in a touch configuration below the center marking of the flat phantom.
- Return Loss:** This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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%.

### Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	850 MHz ± 1 MHz	

### Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.5	0.92 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	-41.9 ± 6 %	0.92 mho/m ± 6 %
Head TSL temperature change during test	± 0.5 °C	---	---

### SAR result with Head TSL

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.51 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	10.1 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.83 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	6.52 W/kg ± 16.5 % (k=2)

**Appendix (Additional assessments outside the scope of SCS 0108)**

**Antenna Parameters with Head TSL**

Impedance, transformed to feed point	50.6 $\Omega$ - 4.2 j $\Omega$
Return Loss	- 27.5 dB

**General Antenna Parameters and Design**

Electrical Delay (one direction)	1.434 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

**Additional EUT Data**

Manufactured by	SPEAG
-----------------	-------

## DASY5 Validation Report for Head TSL

Date: 25.09.2023

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 850 MHz; Type: D850V2; Serial: D850V2 - SN:1006**

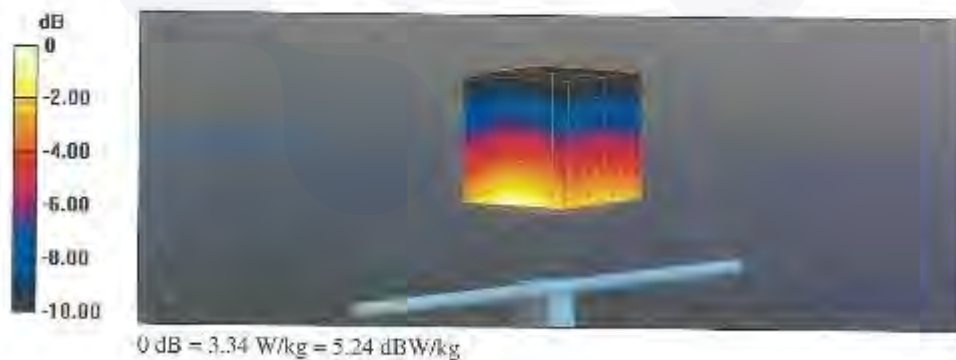
Communication System: UID 0 - CW; Frequency: 850 MHz  
Medium parameters used:  $f = 850 \text{ MHz}$ ;  $\sigma = 0.92 \text{ S/m}$ ;  $s_r = 41.9$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section  
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

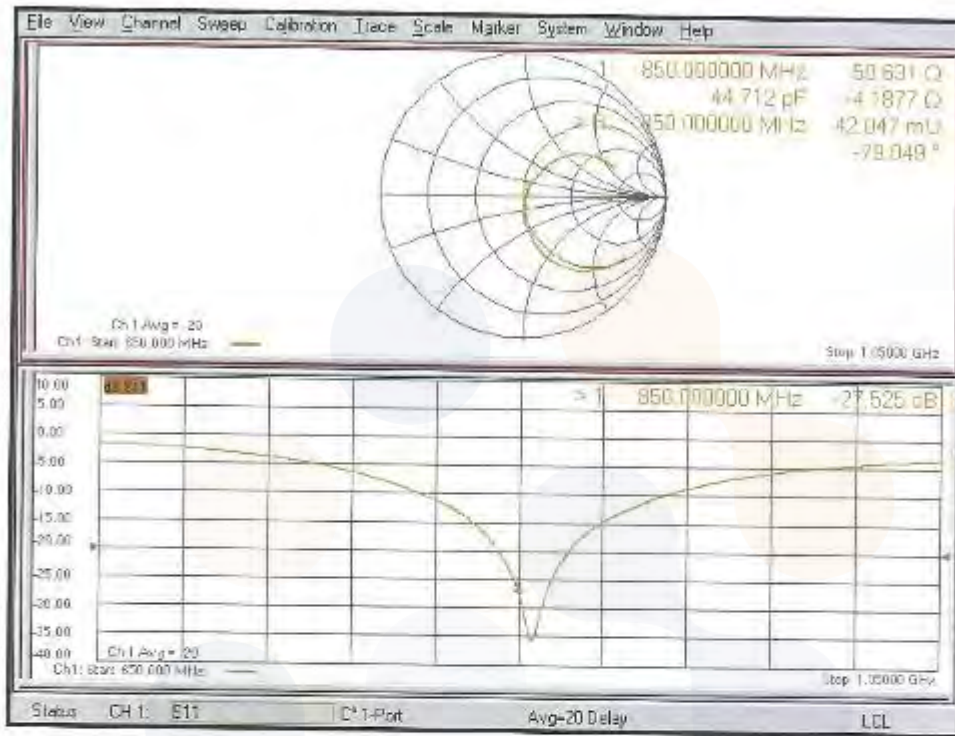
- Probe: EX3DV4 - SN7349; ConvF(9.63, 9.63, 9.63) @ 850 MHz; Calibrated: 10.01.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 19.12.2022
- Phantom: Flat Phantom 4.9 (front); Type: QD 001, P49 AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

### Dipole Calibration for Head Tissue/Pin=250 mW, $d=15\text{mm}$ /Zoom Scan (7x7x7)/Cube 0:

Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value = 64.51 V/m; Power Drift = -0.01 dB  
Peak SAR (extrapolated) = 3.75 W/kg  
**SAR(1 g) = 2.51 W/kg; SAR(10 g) = 1.63 W/kg**  
Smallest distance from peaks to all points 3 dB below = 18.6 mm  
Ratio of SAR at M2 to SAR at M1 = 66.5%  
Maximum value of SAR (measured) = 3.34 W/kg



Impedance Measurement Plot for Head TSL



**Appendix A.6 Dipole Calibration certificate (D1750V2\_1072)**

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




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

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

Accreditation No.: **SCS 0108**

Client: **Eurofins KCTL**  
 Gyeonggi-do, Republic of Korea

Certificate No. **D1750V2-1072\_Sep23**

CALIBRATION CERTIFICATE			
Object	D1750V2 - SN:1072		
Calibration procedure(s)	QA CAL-05.v12 Calibration Procedure for SAR Validation Sources between 0.7-3 GHz		
Calibration date	September 26, 2023		
<p>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.</p> <p>All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity &lt; 70%.</p> <p>Calibration Equipment used (M&amp;E critical for calibration)</p>			
<b>Primary Standards</b>	<b>ID #</b>	<b>Cal Date (Certificate No.)</b>	<b>Scheduled Calibration</b>
Power meter NRP2	SN: 104778	30-Mar-23 (No. 217-03604/03605)	Mar-24
Power sensor NRP-Z91	SN: 103244	30-Mar-23 (No. 217-03604)	Mar-24
Power sensor NRP-Z91	SN: 103245	30-Mar-23 (No. 217-03605)	Mar-24
Reference 20 dB Attenuator	SN: BH9391 (20K)	30-Mar-23 (No. 217-03609)	Mar-24
Type-N mismatch combination	SN: 310982 / 06327	30-Mar-23 (No. 217-03810)	Mar-24
Reference Probe EX31V4	SN: 7949	10-Jan-23 (No. EX3-7949-Jan23)	Jan-24
DAE-4	SN: 801	19-Dec-22 (No. DAE4-801-Dec22)	Dec-23
<b>Secondary Standards</b>	<b>ID #</b>	<b>Check Date (in house)</b>	<b>Scheduled Check</b>
Power meter F4419B	SN: GR89519475	30-Oct-14 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: US3/292789	07-Oct-16 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: MY#1093015	07-Oct-16 (in house check Oct-22)	In house check: Oct-24
RF generator R&B SMT-06	SN: 100972	15-Jul-15 (in house check Oct-22)	In house check: Oct-24
Network Analyzer Agilent E8358A	SN: US41050477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24
Calibrated by:	Name Krzysztof Fryzjo	Function Laboratory Technician	Signature 
Approved by:	Name Sven Kohn	Function Technical Manager	
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			Issued: September 26, 2023

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



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

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

Accreditation No.: **SCS 0108**

**Glossary:**

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

**Calibration is Performed According to the Following Standards:**

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 865864, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Additional Documentation:**

- DASY System Handbook

**Methods Applied and Interpretation of Parameters:**

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The source is mounted in a touch configuration below the center marking of the flat phantom.
- Return Loss:** This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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%.

### Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1750 MHz ± 1 MHz	

### Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.1	1.37 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	40.2 ± 6 %	1.35 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

### SAR result with Head TSL

SAR averaged over 1 cm <sup>2</sup> (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	8.92 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	36.0 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>2</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	4.72 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	19.0 W/kg ± 16.5 % (k=2)



#### Appendix (Additional assessments outside the scope of SCS 0108)

##### Antenna Parameters with Head TSL

Impedance, transformed to feed point	49.7 $\Omega$ - 1.7 j $\Omega$
Return Loss	- 35.5 dB

##### General Antenna Parameters and Design

Electrical Delay (one direction)	1.215 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

##### Additional EUT Data

Manufactured by	SPEAG
-----------------	-------

## DASY5 Validation Report for Head TSL

Date: 26.09.2023

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2 - SN:1072

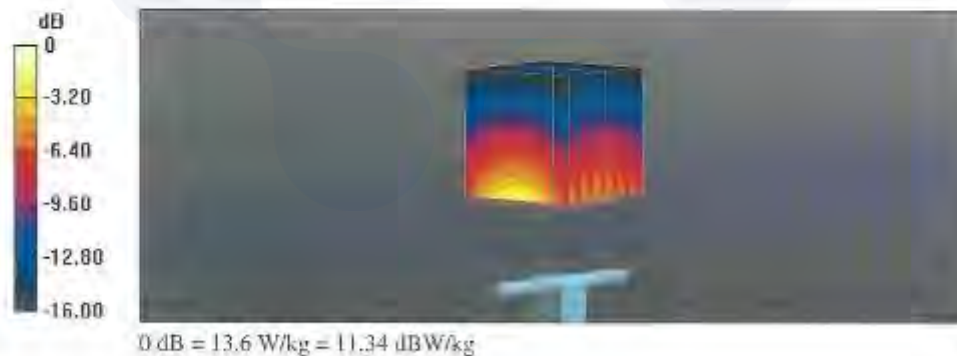
Communication System: UID 0 - CW; Frequency: 1750 MHz  
Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.35$  S/m;  $\epsilon_r = 40.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

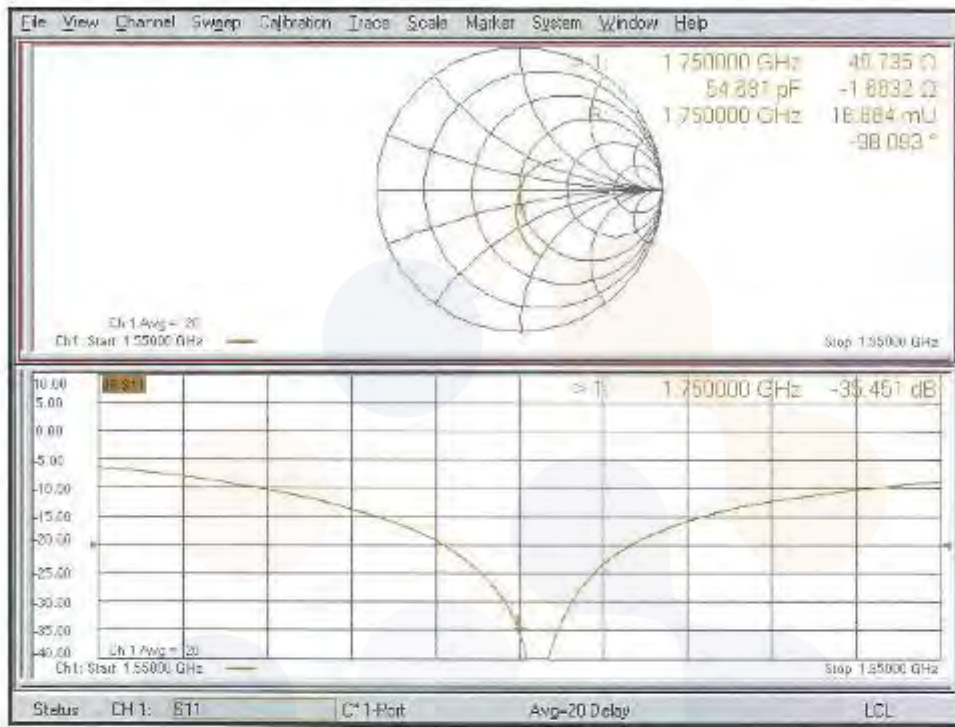
- Probe: EX3DV4 - SN7349; ConvF(8.67, 8.67, 8.67) @ 1750 MHz; Calibrated: 10.01.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAF4 Sn601; Calibrated: 19.12.2022
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 S2.10.4(1535); SPMCAD X 14.6.14(750f)

### Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 105.4 V/m; Power Drift = -0.00 dB  
Peak SAR (extrapolated) = 16.2 W/kg  
SAR(1 g) = 8.92 W/kg; SAR(10 g) = 4.72 W/kg  
Smallest distance from peaks to all points 3 dB below = 10 mm  
Ratio of SAR at M2 to SAR at M1 = 55.5%  
Maximum value of SAR (measured) = 13.6 W/kg



**Impedance Measurement Plot for Head TSL**



**Appendix A.7 Dipole Calibration certificate (D1900V2\_5d160)**

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



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

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

Accreditation No.: **SCS 0108**

**Client Eurofins KCTL**  
 Gyeonggi-do, Republic of Korea

Certificate No. **D1900V2-5d160\_Sep23**

CALIBRATION CERTIFICATE			
Object:	D1900V2 - SN:5d160		
Calibration procedure(s):	QA CAL-05.v12 Calibration Procedure for SAR Validation Sources between 0.7-3 GHz		
Calibration date:	September 26, 2023		
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 (NOTE: critical for calibration)			
<b>Primary Standards</b>	<b>ID #</b>	<b>Cal Date (Certificate No.)</b>	<b>Scheduled Calibration</b>
Power Meter NRP2	SN: 104778	30-Mar-23 (No. 217-03804/03805)	Mar-24
Power sensor NRP-Z81	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
Power sensor NRP-Z91	SN: 103245	30-Mar-23 (No. 217-03805)	Mar-24
Reference 20 dB Attenuator	SN: BH8094 (20x)	30-Mar-23 (No. 217-03809)	Mar-24
Type N mismatch combination	SN: 510982 / 08327	30-Mar-23 (No. 217-03810)	Mar-24
Reference Probe EX3DV4	SN: 7349	19-Jan-23 (No. EX3-7349_Jan23)	Jan-24
DAE <sup>2</sup>	SN: 654	27-Jan-23 (No. DAE4-654_Jan23)	Jan-24
<b>Secondary Standards</b>	<b>ID #</b>	<b>Check Date (in house)</b>	<b>Scheduled Check</b>
Power Meter E41185	SN: 0638512475	30-Oct-14 (in house check Oct-22)	in house check: Oct-24
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-22)	in house check: Oct-24
Power sensor HP 8481A	SN: MY41093318	07-Oct-15 (in house check Oct-22)	in house check: Oct-24
RF generator R&S SMT 08	SN: f00972	15-Jun-15 (in house check Oct-22)	in house check: Oct-24
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	in house check: Oct-24
Calibrated by:	Name: <b>Kristina Freij</b> Function: <b>Laboratory Technician</b>	Signature:	
Approved by:	Name: <b>Sven Kihl</b> Function: <b>Technical Manager</b>	Signature:	
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			Issued: September 27, 2023

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



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

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

Accreditation No.: **SCS 0108**

**Glossary:**

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

**Calibration is Performed According to the Following Standards:**

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528. Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Additional Documentation:**

- DASY System Handbook.

**Methods Applied and Interpretation of Parameters:**

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The source is mounted in a touch configuration below the center marking of the flat phantom.
- Return Loss:** This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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%.

**Measurement Conditions**

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1900 MHz ± 1 MHz	

**Head TSL parameters**

The following parameters and calculations were applied:

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.0	1.40 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	40.0 ± 6 %	1.40 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	—	—

**SAR result with Head TSL**

SAR averaged over 1 cm <sup>2</sup> (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	10.0 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	40.0 W/kg ± 17.0 % (k=2)
SAR averaged over 10 cm <sup>2</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	5.27 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	21.1 W/kg ± 16.5 % (k=2)

**Appendix (Additional assessments outside the scope of SCS 0108)**

**Antenna Parameters with Head TSL**

Impedance, transformed to feed point	51.0 $\Omega$ + j6.7 $\Omega$
Return Loss	-24.3 dB

**General Antenna Parameters and Design**

Electrical Delay (one direction)	7.186 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

**Additional EUT Data**

Manufactured by	SPEAG
-----------------	-------

## DASY5 Validation Report for Head TSL

Date: 26.09.2023

Test Laboratory: SPFAG, Zurich, Switzerland

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d160**

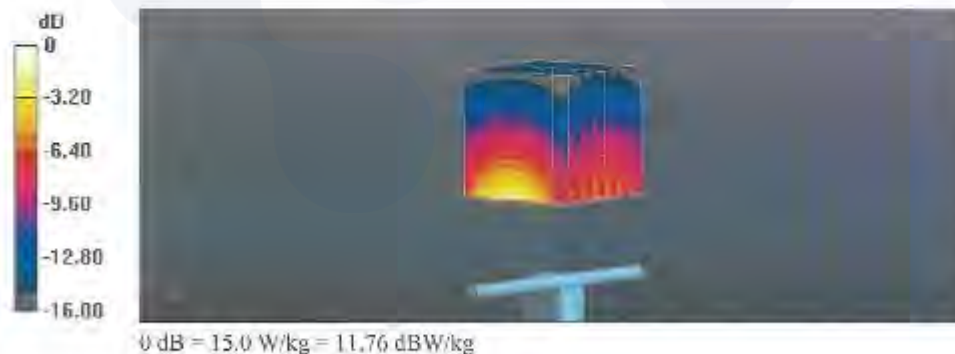
Communication System: UID 0 - CW; Frequency: 1900 MHz  
Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.4$  S/m;  $\epsilon_r = 40$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(8.43, 8.43, 8.43) @ 1900 MHz; Calibrated: (0.01.2023)
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn654; Calibrated: 27.01.2023
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

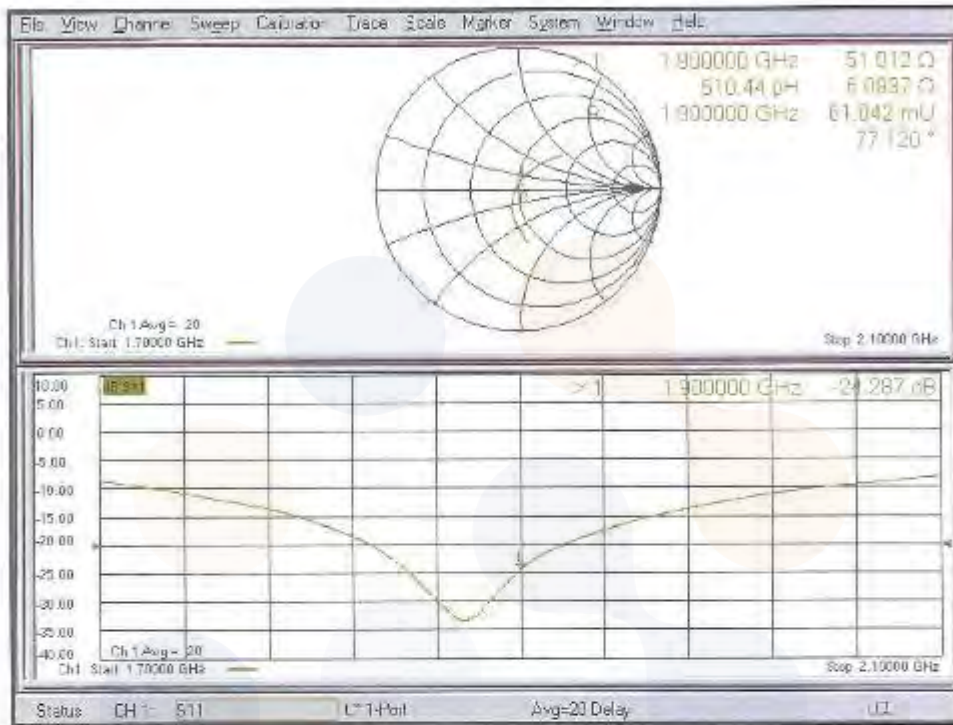
### Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 108.5 V/m; Power Drift = 0.07 dB  
Peak SAR (extrapolated) = 18.2 W/kg  
SAR(1 g) = 10 W/kg; SAR(10 g) = 5.27 W/kg  
Smallest distance from peaks to all points 3 dB below = 10 mm  
Ratio of SAR at M2 to SAR at M1 = 55.8%  
Maximum value of SAR (measured) = 15.0 W/kg





**Impedance Measurement Plot for Head TSL**



**Appendix A.8 Dipole Calibration certificate (D2450V2\_895)**

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




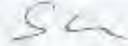
**S** Schweizerischer Kalibrierdienst  
**C** Service suisse d'étalonnage  
**S** Servizio svizzero di taratura  
**S** Swiss Calibration Service

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

Accreditation No.: **SCS 0108**

Client: **Eurofins KCTL**  
 Gyeonggi-do, Republic of Korea

Certificate No. **D2450V2-895\_Sep23**

CALIBRATION CERTIFICATE			
Object:	D2450V2 - SN:895		
Calibration procedure(s):	QA CAL-05.v12 Calibration Procedure for SAR Validation Sources between 0,7-3 GHz		
Calibration date:	September 26, 2023		
<p>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.</p> <p>All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3) °C and humidity &lt; 70%.</p> <p>Calibration Equipment Used (M&amp;PE critical for calibration)</p>			
<b>Primary Standards</b>	<b>ID #</b>	<b>Cal Date (Certificate No.)</b>	<b>Scheduled Calibration</b>
Power meter NRP2	SN: 104778	30-Mar-23 (No. 217-03804/03805)	Mar-24
Power sensor NRP-Z81	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
Power sensor NRP-Z91	SN: 103245	30-Mar-23 (No. 217-03805)	Mar-24
Reference 20 dB Attenuator	SN: BH3894 (20K)	30-Mar-23 (No. 217-03808)	Mar-24
Type-N mismatch combination	SN: 310882 / 06327	30-Mar-23 (No. 217-03810)	Mar-24
Reference Probe EX3DV4	SN: 7949	10-Jan-23 (No. EX5-7949_Jan23)	Jan-24
DAE4	SN: 854	27-Jan-23 (No. IGA4-854_Jan23)	Jan-24
<b>Secondary Standards</b>	<b>ID #</b>	<b>Check Date (in house)</b>	<b>Scheduled Check</b>
Power meter E4418B	SN: 6883512475	30-Oct-14 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: LS37292783	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: MY41083315	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
RF generator R&B SMT-06	SN: 100972	15-Jun-18 (in house check Oct-22)	In house check: Oct-24
Network Analyzer Agilent E8358A	SN: LS41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24
Calibrated by:	Name: Krešimir Frančić	Function: Laboratory Technician	Signature: 
Approved by:	Name: Sván Kühn	Technical Manager	Signature: 
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			Issued: September 26, 2023

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



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

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

Accreditation No.: **SCS 0108**

**Glossary:**

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

**Calibration is Performed According to the Following Standards:**

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 865864, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Additional Documentation:**

- DASY System Handbook

**Methods Applied and Interpretation of Parameters:**

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The source is mounted in a touch configuration below the center marking of the flat phantom.
- Return Loss:** This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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%.

### Measurement Conditions

DASY system configuration, as far as not given on page 1:

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2450 MHz ± 1 MHz	

### Head TSL parameters

The following parameters and calculations were applied:

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.2	1.80 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	37.7 ± 6 %	1.84 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	---	---

### SAR result with Head TSL

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.3 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	52.2 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.26 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.7 W/kg ± 16.5 % (k=2)

**Appendix (Additional assessments outside the scope of SCS 0108)**

**Antenna Parameters with Head TSL**

Impedance, transformed to feed point	54.4 $\Omega$ + 4.1 j $\Omega$
Return Loss	- 24.8 dB

**General Antenna Parameters and Design**

Electrical Delay (one direction)	1.157 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

**Additional EUT Data**

Manufactured by	SPEAG
-----------------	-------

## DASY5 Validation Report for Head TSL

Date: 26.09.2023

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:895**

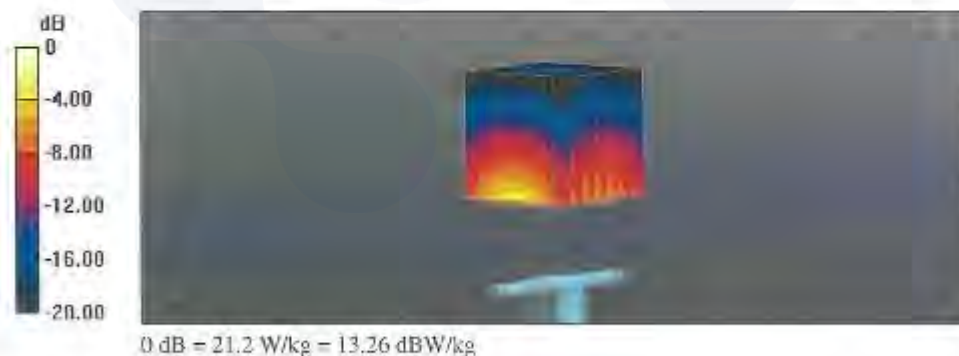
Communication System: UTD 0 - CW; Frequency: 2450 MHz  
Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.84$  S/m;  $\epsilon_r = 37.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

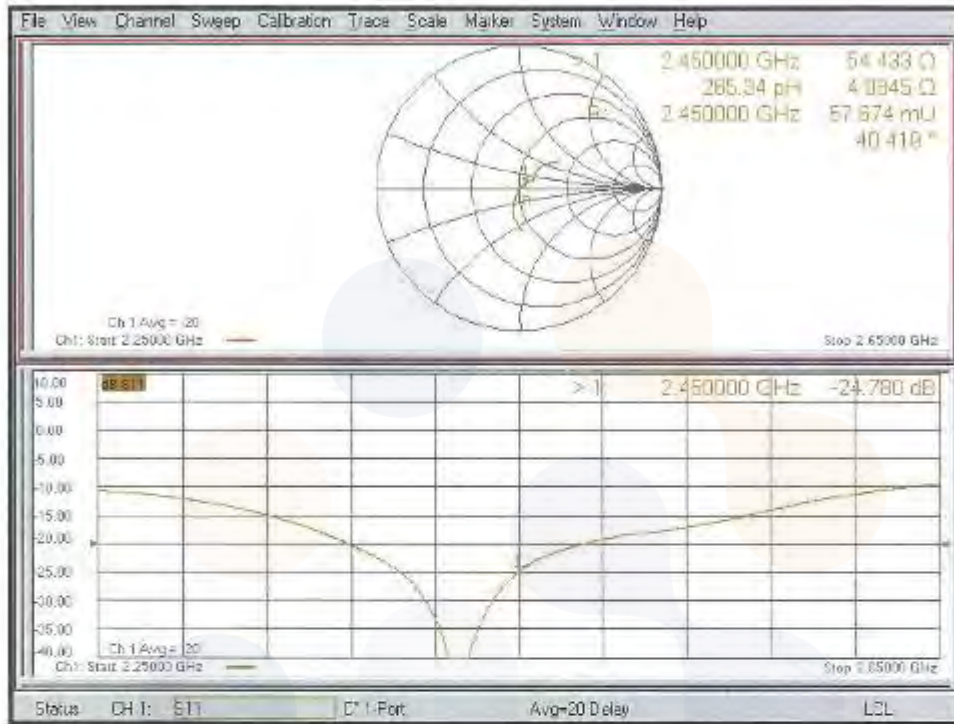
- Probe: EX3DV4 - SN7349; ConvF(7.9, 7.9, 7.9) @ 2450 MHz; Calibrated: 10.01.2023
- Sensor Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAT4 Sn654; Calibrated: 27.01.2023
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

### Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 115.5 V/m; Power Drift = 0.07 dB  
Peak SAR (extrapolated) = 25.9 W/kg  
**SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.26 W/kg**  
Smallest distance from peaks to all points 3 dB below = 9 mm  
Ratio of SAR at M2 to SAR at M1 = 51.7%  
Maximum value of SAR (measured) = 21.2 W/kg



**Impedance Measurement Plot for Head TSL**



**Appendix A.9 Dipole Calibration certificate (D2600V2\_1050)**

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




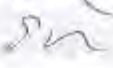
**S** Schweizerischer Kalibrierdienst  
**C** Service suisse d'étalonnage  
**S** Servizio svizzero di taratura  
**S** Swiss Calibration Service

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

Accreditation No.: **SCS 0108**

Client: **Eurofins KCTL**  
 Gyeonggi-do, Republic of Korea

Certificate No. **D2600V2-1050\_Sep23**

CALIBRATION CERTIFICATE			
Object	D2600V2 - SN:1050		
Calibration procedure(s)	QA CAL-05.v12 Calibration Procedure for SAR Validation Sources between 0.7-3 GHz		
Calibration date(s)	September 26, 2023		
<p>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.</p> <p>All calibrations have been conducted in the closed laboratory facility: environment temperature <math>(22 \pm 3)^\circ\text{C}</math> and humidity <math>&lt; 70\%</math>.</p> <p>Calibration Equipment used (M&amp;PE critical for calibration)</p>			
<b>Primary Standards</b>	<b>ID #</b>	<b>Cal Date (Certificate No.)</b>	<b>Scheduled Calibration</b>
Power meter NRP2	SN: 104778	30-Mar-23 (No. 217-03604/03605)	Mar-24
Power sensor NRP-Z91	SN: 103244	30-Mar-23 (No. 217-03604)	Mar-24
Power sensor NRP-Z91	SN: 103245	30-Mar-23 (No. 217-03605)	Mar-24
Reference 20 dB Attenuator	SN: SH9394 (20K)	30-Mar-23 (No. 217-03609)	Mar-24
Type-N mismatch combiner	SN: 310082 / 05327	30-Mar-23 (No. 217-03610)	Mar-24
Reference Probe EX3DV4	SN: 7349	18-Jan-23 (No. FX3-7349_Jan23)	Jan-24
DAE1	SN: 654	27-Jan-23 (No. DAE4-654_Jan23)	Jan-24
<b>Secondary Standards</b>	<b>ID #</b>	<b>Check Date (in house)</b>	<b>Scheduled Check</b>
Power meter E4419B	SN: G329512475	30-Oct-14 (in house check Oct-22)	in house check: Oct-24
Power sensor HP 8461A	SN: US37292788	07-Oct-15 (in house check Oct-22)	in house check: Oct-24
Power sensor HP 8461A	SN: MY41093315	07-Oct-15 (in house check Oct-22)	in house check: Oct-24
HP generator R&S SM1-05	SN: 100372	15-Jun-15 (in house check Oct-22)	in house check: Oct-24
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	in house check: Oct-24
Calibrated by:	Name Krešimir Franjić	Function Laboratory Technician	Signature 
Approved by:	Name Sven Köhn	Function Technical Manager	Signature 
This calibration certificate shall not be reproduced, except in full, without written approval of the laboratory.			Issued: September 26, 2023



**Calibration Laboratory of  
Schmid & Partner  
Engineering AG**  
Zeughausstrasse 83, 8004 Zurich, Switzerland



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

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

Accreditation No.: **SCS 0108**

**Glossary:**

TSL tissue simulating liquid  
ConvF sensitivity in TSL / NORM x,y,z  
N/A not applicable or not measured

**Calibration is Performed According to the Following Standards:**

- a) IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- b) KDB 865864, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Additional Documentation:**

- c) DASY System Handbook

**Methods Applied and Interpretation of Parameters:**

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The source is mounted in a touch configuration below the center marking of the flat phantom.
- *Return Loss:* This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

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%.

**Measurement Conditions**

DASY system configuration, as far as not given on page 1:

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	$dx, dy, dz = 5 \text{ mm}$	
Frequency	$2600 \text{ MHz} \pm 1 \text{ MHz}$	

**Head TSL parameters**

The following parameters and calculations were applied:

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.0	1.95 mho/m
Measured Head TSL parameters	$(22.0 \pm 0.2) \text{ °C}$	$37.2 \pm 6 \%$	$2.00 \text{ mho/m} \pm 6 \%$
Head TSL temperature change during test	$< 0.5 \text{ °C}$	---	---

**SAR result with Head TSL**

SAR averaged over 1 cm <sup>2</sup> (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	14.8 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	$57.3 \text{ W/kg} \pm 17.0 \%$ (k=2)

SAR averaged over 10 cm <sup>2</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	8.55 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	$25.9 \text{ W/kg} \pm 16.5 \%$ (k=2)

#### Appendix (Additional assessments outside the scope of SCS 0108)

##### Antenna Parameters with Head TSL

Impedance, transformed to feed point	46.9 $\Omega$ - 5.2 j $\Omega$
Return Loss	- 24.1 dB

##### General Antenna Parameters and Design

Electrical Delay (one direction)	1.151 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

##### Additional EUT Data

Manufactured by	SPEAG
-----------------	-------

## DASY5 Validation Report for Head TSL

Date: 26.09.2023

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN:1050**

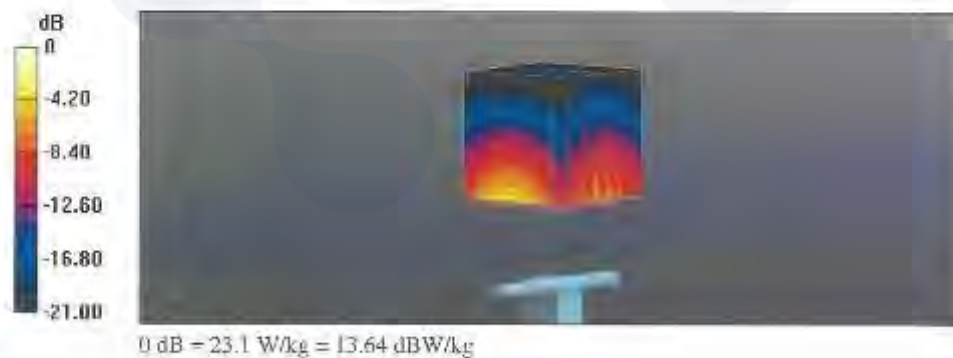
Communication System: UID 0 - CW; Frequency: 2600 MHz  
Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2$  S/m;  $\epsilon_r = 37.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

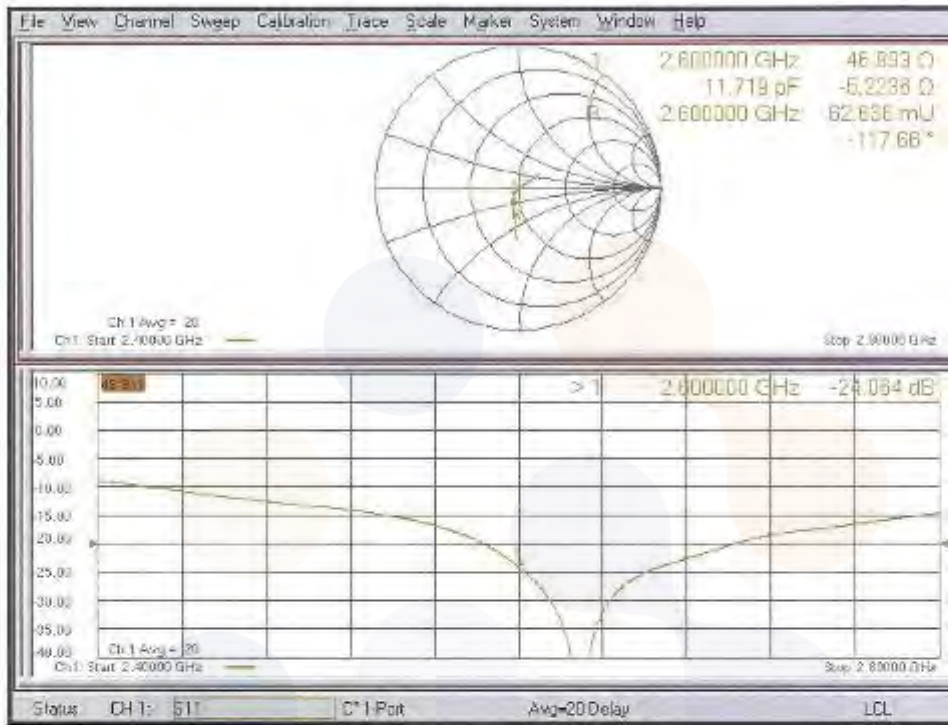
- Probe: EX3DV4 - SN7349; ConvF(7.68, 7.68, 7.68) @ 2600 MHz; Calibrated: 10.01.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn654; Calibrated: 27.01.2023
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

### Dipole Calibration for Head Tissue/ $P_{in}=250$ mW, $d=10$ mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm  
Reference Value = 119.3 V/m; Power Drift = 0.08 dB  
Peak SAR (extrapolated) = 28.3 W/kg  
**SAR(1 g) = 14.6 W/kg; SAR(10 g) = 6.55 W/kg**  
Smallest distance from peaks to all points 3 dB below = 9 mm  
Ratio of SAR at M2 to SAR at M1 = 51.6%  
Maximum value of SAR (measured) = 23.1 W/kg



**Impedance Measurement Plot for Head TSL**



**Appendix A.10 Dipole Calibration certificate (D5GHzV2\_1134)**

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



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

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

Accreditation No.: **SCS 0108**

Client: **Eurofins KCTL**  
 Gyeonggi-do, Republic of Korea

Certificate No. **D5GHzV2-1134\_Jan24**

CALIBRATION CERTIFICATE			
Object	D5GHzV2 - SN:1134		
Calibration procedure(s)	QA-CAL-22.v7 Calibration Procedure for SAR Validation Sources between 3-10 GHz		
Calibration date:	January 17, 2024		
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 closest laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.			
Calibration Equipment used (M&TE critical for calibration)			
<b>Primary Standards</b>	<b>ID #</b>	<b>Cal. Date (Certificate No.)</b>	<b>Scheduled Calibration</b>
Power meter NRP2	SN: 104778	30-Mar-23 (No. 217-03604/03605)	Mar-24
Power sensor NRP-Z91	SN: 103244	30-Mar-23 (No. 217-03604)	Mar-24
Power sensor NRP-Z91	SN: 103245	30-Mar-23 (No. 217-03605)	Mar-24
Reference 20 dB Attenuator	SN: 649384 (20k)	30-Mar-23 (No. 217-03609)	Mar-24
Type-N mismatch combination	SN: 310982 / 06327	30-Mar-23 (No. 217-03610)	Mar-24
Reference Probe EX3DV4	SN: 3503	07-Mar-23 (No. EX3-3503_Mar23)	Mar-24
DAE4	SN: 601	03-Oct-23 (No. DAE4-601_Oct23)	Oct-24
<b>Secondary Standards</b>	<b>ID #</b>	<b>Check Date (in house)</b>	<b>Scheduled Check</b>
Power meter E4118B	SN: GB33612475	30-Oct-14 (in house check Oct-22)	in house check: Oct-24
Power sensor HP 8481A	SN: US37282783	07-Oct-15 (in house check Oct-22)	in house check: Oct-24
Power sensor HP 8481A	SN: MY41063315	07-Oct-15 (in house check Oct-22)	in house check: Oct-24
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-22)	in house check: Oct-24
Network Analyzer Agilent E6358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	in house check: Oct-24
Calibrated by:	Name: Paulo Pina	Function: Laboratory Technician	Signature: 
Approved by:	Name: Sven Kuhn	Technical Manager	Signature: 
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			Issued: January 18, 2024

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



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

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

Accreditation No.: **SCS 0108**

**Glossary:**

TSL tissue simulating liquid  
ConvF sensitivity in TSL / NORM x,y,z  
N/A not applicable or not measured

**Calibration is Performed According to the Following Standards:**

- a) IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Additional Documentation:**

- c) DASY System Handbook

**Methods Applied and Interpretation of Parameters:**

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The source is mounted in a touch configuration below the center marking of the flat phantom.
- *Return Loss:* This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

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%.

### Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	$\Delta x, \Delta y = 1.4 \text{ mm}, \Delta z = 1.4 \text{ mm}$	Graded Ratio = 1.4 (Z direction)
Frequency	5250 MHz $\pm$ 1 MHz 5600 MHz $\pm$ 1 MHz 5800 MHz $\pm$ 1 MHz	

### Head TSL parameters at 5250 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.9	4.71 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	36.5 $\pm$ 6 %	4.65 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	---	---

### SAR result with Head TSL at 5250 MHz

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.88 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	<b>79.0 W/kg <math>\pm</math> 19.9 % (k=2)</b>

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	100 mW Input power	2.26 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	<b>22.8 W/kg <math>\pm</math> 19.5 % (k=2)</b>

### Head TSL parameters at 5600 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.5	5.07 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	36.1 $\pm$ 6 %	5.04 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	---	---

### SAR result with Head TSL at 5600 MHz

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.22 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	<b>82.4 W/kg <math>\pm</math> 19.9 % (k=2)</b>

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	100 mW Input power	2.36 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	<b>23.7 W/kg <math>\pm</math> 19.5 % (k=2)</b>



**Head TSL parameters at 5800 MHz**

The following parameters and calculations were applied:

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.3	5.27 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.9 ± 6 %	5.22 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	—	—

**SAR result with Head TSL at 5800 MHz**

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.84 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	78.6 W/kg ± 19.9 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	Condition	
SAR measured	100 mW input power	2.22 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	22.4 W/kg ± 19.5 % (k=2)

**Appendix (Additional assessments outside the scope of SCS 0108)**

**Antenna Parameters with Head TSL at 5250 MHz**

Impedance, transformed to feed point	48.8 $\Omega$ - 7.8 j $\Omega$
Return Loss	- 22.0 dB

**Antenna Parameters with Head TSL at 5600 MHz**

Impedance, transformed to feed point	54.8 $\Omega$ - 2.2 j $\Omega$
Return Loss	- 25.9 dB

**Antenna Parameters with Head TSL at 5800 MHz**

Impedance, transformed to feed point	54.8 $\Omega$ - 2.7 j $\Omega$
Return Loss	- 25.6 dB

**General Antenna Parameters and Design**

Electrical Delay (one direction)	1.204 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

**Additional EUT Data**

Manufactured by	SPEAG
-----------------	-------

## DASY5 Validation Report for Head TSL

Date: 17.01.2024

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1134**

Communication System: UID 0 - CW; Frequency: 5250 MHz, Frequency: 5600 MHz, Frequency: 5800 MHz

Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.65$  S/m;  $\epsilon_r = 36.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.04$  S/m;  $\epsilon_r = 36.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Medium parameters used:  $f = 5800$  MHz;  $\sigma = 5.22$  S/m;  $\epsilon_r = 35.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(5.5, 5.5, 5.5) @ 5250 MHz, ConvF(5.1, 5.1, 5.1) @ 5600 MHz, ConvF(5.01, 5.01, 5.01) @ 5800 MHz; Calibrated: 07.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 03.10.2023
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

### **Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5250 MHz/Zoom Scan,**

**dist=1.4mm (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 75.52 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 26.5 W/kg

**SAR(1 g) = 7.88 W/kg; SAR(10 g) = 2.28 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.4 mm

Ratio of SAR at M2 to SAR at M1 = 71.1%

Maximum value of SAR (measured) = 18.2 W/kg

### **Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan,**

**dist=1.4mm (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 73.91 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 29.6 W/kg

**SAR(1 g) = 8.22 W/kg; SAR(10 g) = 2.36 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 68.6%

Maximum value of SAR (measured) = 19.7 W/kg

**Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5800 MHz/Zoom Scan,**

**dist=1.4mm (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 72.16 V/m; Power Drift = 0.01 dB

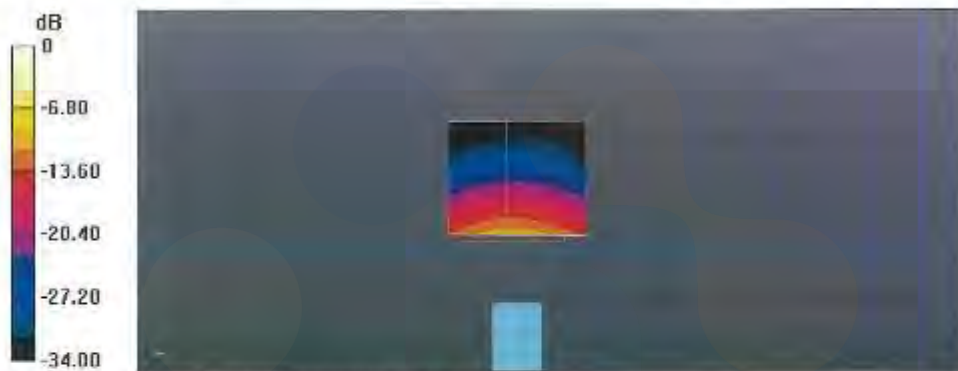
Peak SAR (extrapolated) = 30.0 W/kg

**SAR(1 g) = 7.84 W/kg; SAR(10 g) = 2.23 W/kg**

Smallest distance from peaks to all points 3 dB below = 7.2 mm

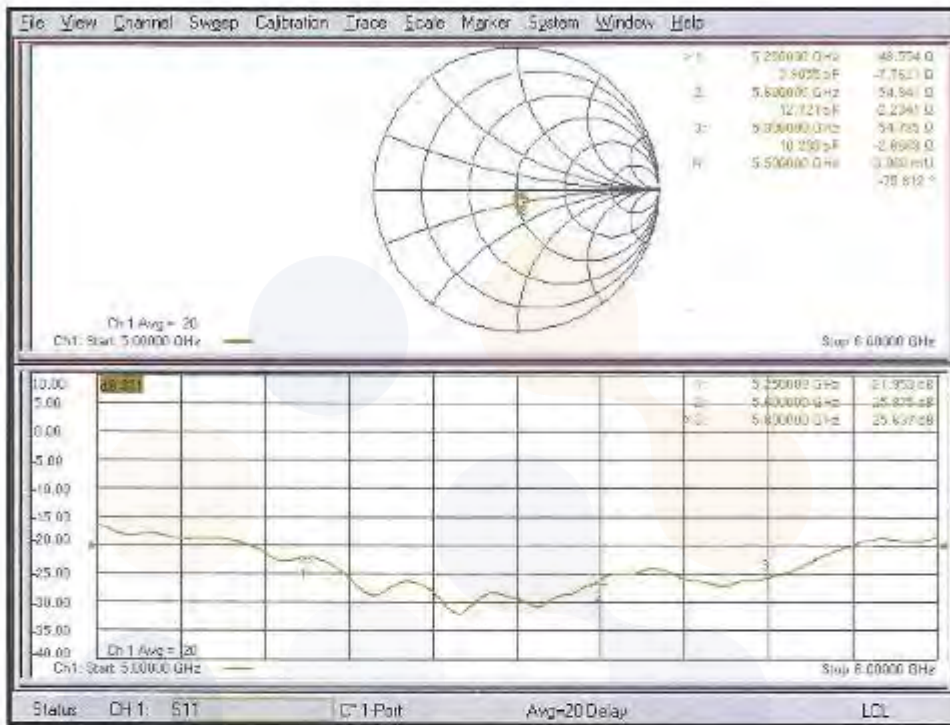
Ratio of SAR at M2 to SAR at M1 = 66.5%

Maximum value of SAR (measured) = 19.2 W/kg



0 dB = 19.7 W/kg = 12.94 dBW/kg

**Impedance Measurement Plot for Head TSL**



## Appendix B. SAR Tissue Specification

The brain mixtures consist of a viscous gel using hydrox-ethyl cellulose(HEC) gelling agent and saline solution. Preservation with a bactericide is added and visual inspection is made to make sure air bubbles are not trapped during the mixing process. The mixture is calibrated to obtain proper dielectric constant (permittivity) and conductivity of the desired tissue.

Frequency (MHz)	750 ~ 835		1 750		1 900		2 450		5 200 ~ 5 800	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Ingredient	% by weight									
Water	40.29	51.97	53.00	68.00	55.00	70.50	72.00	73.00	65.52	80.00
Salt (NaCl)	1.38	0.93	0.40	0.20	0.35	0.30	0.10	0.10	0	0
Sugar	57.90	47.00	0	0	0	0	0	0	0	0
HEC	0.24	0	0	0	0	0	0	0	0	0
Bactericide	0.19	0.10	0	0	0	0	0	0	0	0
Triton X-100	0	0	0	0	0	0	20.00	0	17.24	0
DGBE	0	0	46.60	31.80	44.65	29.20	0	26.90	0	0
Diethylene glycol hexyl ether	0	0	0	0	0	0	7.90	0	17.24	0
Polysorbate (Tween) 80	0	0	0	0	0	0	0	0	0	20.00
<b>Tissue parameter target by C. Gabriel and G. Harts grove.</b>										
Salt: 99 % Pure Sodium Chloride					Sucrose: 98 % Pure Sucrose					
Water: De-ionized, 16 M resistivity					HEC: Hydroxyethyl Cellulose					
DGBE: 99 % Di(ethylene glycol) butyl ether, [2-(2-butoxyethoxy) ethanol]										
Triton X-100(ultra-pure): Polyethylene glycol mono[4-(1,1,3,3-tetramethylbutyl)phenyl] ether										