

Client: **BTL Inc .**  
**Guangdong**

Certificate No: 25J02Z000863

## CALIBRATION CERTIFICATE

Object DAE4 - SN: 1390

Calibration Procedure(s) FF-Z11-002-01  
Calibration Procedure for the Data Acquisition Electronics (DAEx)

Calibration date: November 19, 2025

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)℃ and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards      | ID #    | Cal Date(Calibrated by, Certificate No.) | Scheduled Calibration |
|------------------------|---------|------------------------------------------|-----------------------|
| Process Calibrator 753 | 1971018 | 11-Jun-25 (CTTL, No.25J02X004977)        | Jun-26                |

|                |             |                    |
|----------------|-------------|--------------------|
| Calibrated by: | Name        | Function           |
|                | Yu Zongying | SAR Test Engineer  |
| Reviewed by:   | Lin Jun     | SAR Test Engineer  |
| Approved by:   | Qi Dianyuan | SAR Project Leader |

Signature

Issued: November 21, 2025

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



In Collaboration with

**s p e a g**  
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### **Glossary:**

DAE

data acquisition electronics

Connector angle

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

### **Methods Applied and Interpretation of Parameters:**

- *DC Voltage Measurement:* Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle:* The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The report provide only calibration results for DAE, it does not contain other performance test results.



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## DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1 $\mu$ V, full range = -100...+300 mV

Low Range: 1LSB = 61nV, full range = -1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

| Calibration Factors | X                         | Y                         | Z                         |
|---------------------|---------------------------|---------------------------|---------------------------|
| High Range          | 403.680 $\pm$ 0.15% (k=2) | 403.398 $\pm$ 0.15% (k=2) | 404.275 $\pm$ 0.15% (k=2) |
| Low Range           | 3.97858 $\pm$ 0.7% (k=2)  | 4.00096 $\pm$ 0.7% (k=2)  | 3.98194 $\pm$ 0.7% (k=2)  |

## Connector Angle

|                                           |                |
|-------------------------------------------|----------------|
| Connector Angle to be used in DASY system | 138° $\pm$ 1 ° |
|-------------------------------------------|----------------|



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Multilateral Agreement for the recognition of calibration certificates**

**Accreditation No.: SCS 0108**

**Client**

**BTL Inc.**  
Guangdong

**Certificate No.**

**EX-7693\_Nov25**

## CALIBRATION CERTIFICATE

**Object** EX3DV4 - SN:7693

**Calibration procedure(s)** QA CAL-01.v10, QA CAL-12.v10, QA CAL-14.v7, QA CAL-23.v6,  
QA CAL-25.v8, QA CAL-48.v2  
Calibration procedure for dosimetric E-field probes

**Calibration date** November 26, 2025

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  $(22 \pm 3)^\circ\text{C}$  and humidity  $< 70\%$ .

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards           | ID         | Calibration Date (Certificate No.)     | Sched. Cal. |
|-----------------------------|------------|----------------------------------------|-------------|
| Power Sensor R&S NRP-33T    | SN: 100967 | 29-Oct-25 (No. Part of L1407)          | Oct-26      |
| N-type mismatch combination | SN: L1119  | 26-Mar-25 (No. 217-04292)              | Mar-26      |
| OCP DAK-12                  | SN: 1016   | 16-Sept-25 (No. OCP-DAK12-1016_Sep25)  | Sep-26      |
| OCP DAK-3.5                 | SN: 1249   | 16-Sept-25 (No. OCP-DAK3.5-1249_Sep25) | Sep-26      |
| Reference Probe EX3DV4      | SN: 7349   | 10-Jan-25 (No. EX3-7349_Jan25)         | Jan-26      |
| DAE4                        | SN: 1301   | 30-Oct-25 (No. DAE4-1301_Oct25)        | Oct-26      |

| Secondary Standards | ID        | Check Date (in house)                 | Sched. Check |
|---------------------|-----------|---------------------------------------|--------------|
| ACAP 2020 Setup 1   | SN: L1404 | 01-Oct-25 (No. IHCK_ACAP2020-1_Oct25) | Oct-26       |
| OCP DAK-12          | SN: 1029  | 27-Feb-25 (No. OCP-DAK12-1029_Feb25)  | Feb-26       |
| OCP DAK-3.5         | SN: 1336  | 09-Dec-24 (No. OCP-DAK3.5-1336_Dec24) | Dec-25       |

|               | Name           | Function              | Signature |
|---------------|----------------|-----------------------|-----------|
| Calibrated by | Joanna Lleshaj | Laboratory Technician |           |
| Approved by   | Sven Kühn      | Technical Manager     |           |

**Issued: November 26, 2025**

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## Calibration Laboratory of

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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 $\vartheta$ | $\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis |
| Connector Angle          | information used in DASY system to align probe sensor 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 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  $\vartheta = 0$  ( $f \leq 900$  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 signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  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  $\pm 50$  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).

## Parameters of Probe: EX3DV4 - SN:7693

### Basic Calibration Parameters

|                                                           | Sensor X | Sensor Y | Sensor Z | Unc ( $k = 2$ ) |
|-----------------------------------------------------------|----------|----------|----------|-----------------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 0.63     | 0.68     | 0.70     | $\pm 10.1\%$    |
| DCP (mV) <sup>B</sup>                                     | 108.1    | 106.2    | 109.5    | $\pm 4.7\%$     |

### Calibration Results for Modulation Response

| UID   | Communication System Name      |   | A<br>dB | B<br>$\text{dB}\sqrt{\mu\text{V}}$ | C     | D<br>dB | VR<br>mV | Max<br>dev. | Max<br>Unc <sup>E</sup><br>$k = 2$ |
|-------|--------------------------------|---|---------|------------------------------------|-------|---------|----------|-------------|------------------------------------|
| 0     | Continuous Wave                | X | 0.00    | 0.00                               | 1.00  | 0.00    | 141.0    | $\pm 1.2\%$ | $\pm 4.7\%$                        |
|       |                                | Y | 0.00    | 0.00                               | 1.00  |         | 125.1    |             |                                    |
|       |                                | Z | 0.00    | 0.00                               | 1.00  |         | 124.0    |             |                                    |
| 10352 | Pulse (D=10%, T=5 ms)          | X | 0.63    | 69.83                              | 18.05 | 10.00   | 23.0     | $\pm 2.0\%$ | $\pm 9.6\%$                        |
|       |                                | Y | 0.52    | 70.00                              | 18.65 |         | 24.0     |             |                                    |
|       |                                | Z | 0.60    | 70.00                              | 18.26 |         | 24.0     |             |                                    |
| 10353 | Pulse (D=20%, T=5 ms)          | X | 0.60    | 72.84                              | 18.11 | 6.99    | 47.0     | $\pm 1.6\%$ | $\pm 9.6\%$                        |
|       |                                | Y | 0.49    | 73.01                              | 18.72 |         | 49.0     |             |                                    |
|       |                                | Z | 0.56    | 73.01                              | 18.33 |         | 48.0     |             |                                    |
| 10354 | Pulse (D=40%, T=5 ms)          | X | 0.56    | 75.85                              | 18.18 | 3.98    | 93.0     | $\pm 1.4\%$ | $\pm 9.6\%$                        |
|       |                                | Y | 0.45    | 76.02                              | 18.78 |         | 97.0     |             |                                    |
|       |                                | Z | 0.53    | 76.02                              | 18.41 |         | 96.0     |             |                                    |
| 10355 | Pulse (D=60%, T=5 ms)          | X | 0.54    | 77.61                              | 18.22 | 2.22    | 140.0    | $\pm 1.3\%$ | $\pm 9.6\%$                        |
|       |                                | Y | 0.43    | 77.78                              | 18.82 |         | 145.0    |             |                                    |
|       |                                | Z | 0.51    | 77.78                              | 18.45 |         | 143.0    |             |                                    |
| 10387 | Random (BW=1 MHz, MOD=QPSK)    | X | 0.00    | 74.73                              | 19.86 | 0.06    | 109.0    | $\pm 1.6\%$ | $\pm 9.6\%$                        |
|       |                                | Y | 0.00    | 50.04                              | 19.89 |         | 114.0    |             |                                    |
|       |                                | Z | 0.00    | 49.97                              | 19.98 |         | 112.0    |             |                                    |
| 10388 | Random (BW=10 MHz, MOD=QPSK)   | X | 1.89    | 74.61                              | 16.96 | 0.00    | 114.0    | $\pm 2.2\%$ | $\pm 9.6\%$                        |
|       |                                | Y | 1.82    | 74.78                              | 17.60 |         | 120.0    |             |                                    |
|       |                                | Z | 1.87    | 74.78                              | 17.10 |         | 118.0    |             |                                    |
| 10396 | Random (BW=100 kHz, MOD=64QAM) | X | 0.00    | 73.56                              | 22.26 | 1.84    | 80.0     | $\pm 5.2\%$ | $\pm 9.6\%$                        |
|       |                                | Y | 0.00    | 47.85                              | 21.93 |         | 83.0     |             |                                    |
|       |                                | Z | 0.00    | 73.73                              | 22.47 |         | 82.0     |             |                                    |
| 10399 | Random (BW=40 MHz, MOD=64QAM)  | X | 4.17    | 73.56                              | 16.84 | 0.00    | 106.0    | $\pm 3.2\%$ | $\pm 9.6\%$                        |
|       |                                | Y | 3.92    | 73.73                              | 17.49 |         | 111.0    |             |                                    |
|       |                                | Z | 4.09    | 73.73                              | 16.97 |         | 109.0    |             |                                    |
| 10414 | Random (BW=40 MHz, HIGH PAR)   | X | 5.05    | 71.29                              | 16.83 | 0.00    | 77.0     | $\pm 1.6\%$ | $\pm 9.6\%$                        |
|       |                                | Y | 4.85    | 71.46                              | 17.49 |         | 81.0     |             |                                    |
|       |                                | Z | 5.02    | 71.46                              | 16.97 |         | 80.0     |             |                                    |

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  $E^2$ -field uncertainty inside TSL (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.

## Parameters of Probe: EX3DV4 - SN:7693

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>$V^{-1}$ | T1<br>$ms V^{-2}$ | T2<br>$ms V^{-1}$ | T3<br>ms | T4<br>$V^{-2}$ | T5<br>$V^{-1}$ | T6   |
|---|----------|----------|----------------------|-------------------|-------------------|----------|----------------|----------------|------|
| x | 11.7     | 84.35    | 33.23                | 3.82              | 0.00              | 4.90     | 0.53           | 0.00           | 1.00 |
| y | 12.3     | 89.57    | 33.98                | 3.26              | 0.00              | 4.90     | 0.47           | 0.00           | 1.00 |
| z | 12.2     | 87.26    | 33.03                | 3.67              | 0.00              | 4.90     | 0.53           | 0.00           | 1.00 |

### Other Probe Parameters

|                                               |            |
|-----------------------------------------------|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle                               | -75.1°     |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 12 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.

## Parameters of Probe: EX3DV4 - SN:7693

### Calibration Parameter Determined in HSL

| 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 <sup>H</sup> (k = 2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|--------------------------|
| 750                  | 41.9                               | 0.89                            | 9.97    | 9.77    | 10.60   | 0.36               | 1.27                    | ±11.0%                   |
| 835                  | 41.5                               | 0.90                            | 9.75    | 9.55    | 10.36   | 0.36               | 1.27                    | ±11.0%                   |
| 1750                 | 40.1                               | 1.37                            | 8.21    | 8.04    | 8.72    | 0.36               | 1.27                    | ±11.0%                   |
| 1900                 | 40.0                               | 1.40                            | 7.89    | 7.73    | 8.39    | 0.36               | 1.27                    | ±11.0%                   |
| 2100                 | 39.8                               | 1.49                            | 7.68    | 7.53    | 8.17    | 0.35               | 1.27                    | ±11.0%                   |
| 2300                 | 39.5                               | 1.67                            | 7.44    | 7.29    | 7.91    | 0.35               | 1.27                    | ±11.0%                   |
| 2450                 | 39.2                               | 1.80                            | 7.29    | 7.14    | 7.75    | 0.35               | 1.27                    | ±11.0%                   |
| 2600                 | 39.0                               | 1.96                            | 7.17    | 7.03    | 7.62    | 0.35               | 1.27                    | ±11.0%                   |
| 3300                 | 38.2                               | 2.71                            | 6.73    | 6.66    | 7.19    | 0.34               | 1.27                    | ±13.1%                   |
| 3500                 | 37.9                               | 2.91                            | 6.66    | 6.59    | 7.12    | 0.35               | 1.27                    | ±13.1%                   |
| 3700                 | 37.7                               | 3.12                            | 6.60    | 6.53    | 7.05    | 0.35               | 1.27                    | ±13.1%                   |
| 3900                 | 37.5                               | 3.32                            | 6.56    | 6.49    | 7.01    | 0.35               | 1.27                    | ±13.1%                   |
| 4100                 | 37.2                               | 3.53                            | 6.50    | 6.43    | 6.95    | 0.35               | 1.27                    | ±13.1%                   |
| 4200                 | 37.1                               | 3.63                            | 6.43    | 6.36    | 6.87    | 0.35               | 1.27                    | ±13.1%                   |
| 4400                 | 36.9                               | 3.84                            | 6.35    | 6.28    | 6.79    | 0.35               | 1.27                    | ±13.1%                   |
| 4600                 | 36.7                               | 4.04                            | 6.22    | 6.16    | 6.65    | 0.35               | 1.27                    | ±13.1%                   |
| 4800                 | 36.4                               | 4.25                            | 6.15    | 6.08    | 6.57    | 0.36               | 1.27                    | ±13.1%                   |
| 4950                 | 36.3                               | 4.40                            | 6.03    | 5.96    | 6.44    | 0.34               | 1.27                    | ±13.1%                   |
| 5250                 | 35.9                               | 4.71                            | 5.71    | 5.65    | 6.10    | 0.31               | 1.27                    | ±13.1%                   |
| 5600                 | 35.5                               | 5.07                            | 5.33    | 5.27    | 5.69    | 0.28               | 1.27                    | ±13.1%                   |
| 5750                 | 35.4                               | 5.22                            | 5.25    | 5.19    | 5.61    | 0.27               | 1.27                    | ±13.1%                   |
| 5850                 | 35.2                               | 5.32                            | 5.12    | 5.06    | 5.47    | 0.26               | 1.27                    | ±13.1%                   |

<sup>C</sup> Frequency validity above 300 MHz of ±100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ±50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ±10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4–9 MHz, and ConvF assessed at 13 MHz is 9–19 MHz. Above 5 GHz frequency validity can be extended to ±110 MHz.

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

<sup>H</sup> The stated uncertainty is the total calibration uncertainty (k = 2) of Norm-ConvF. This is equivalent to the uncertainty component with the symbol CF in Table 9 of IEC/IEEE 62209-1528:2020.

## Parameters of Probe: EX3DV4 - SN:7693

### Calibration Parameter Determined in HSL

| 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 <sup>H</sup> (k = 2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|--------------------------|
| 6500                 | 34.5                               | 6.07                            | 5.51    | 5.46    | 5.89    | 0.20               | 1.27                    | ±18.6%                   |

<sup>C</sup> Frequency validity is -600/+700 MHz at 6.5 GHz, ±700 MHz at or above 7 GHz, and ±150 MHz at 9.85 GHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

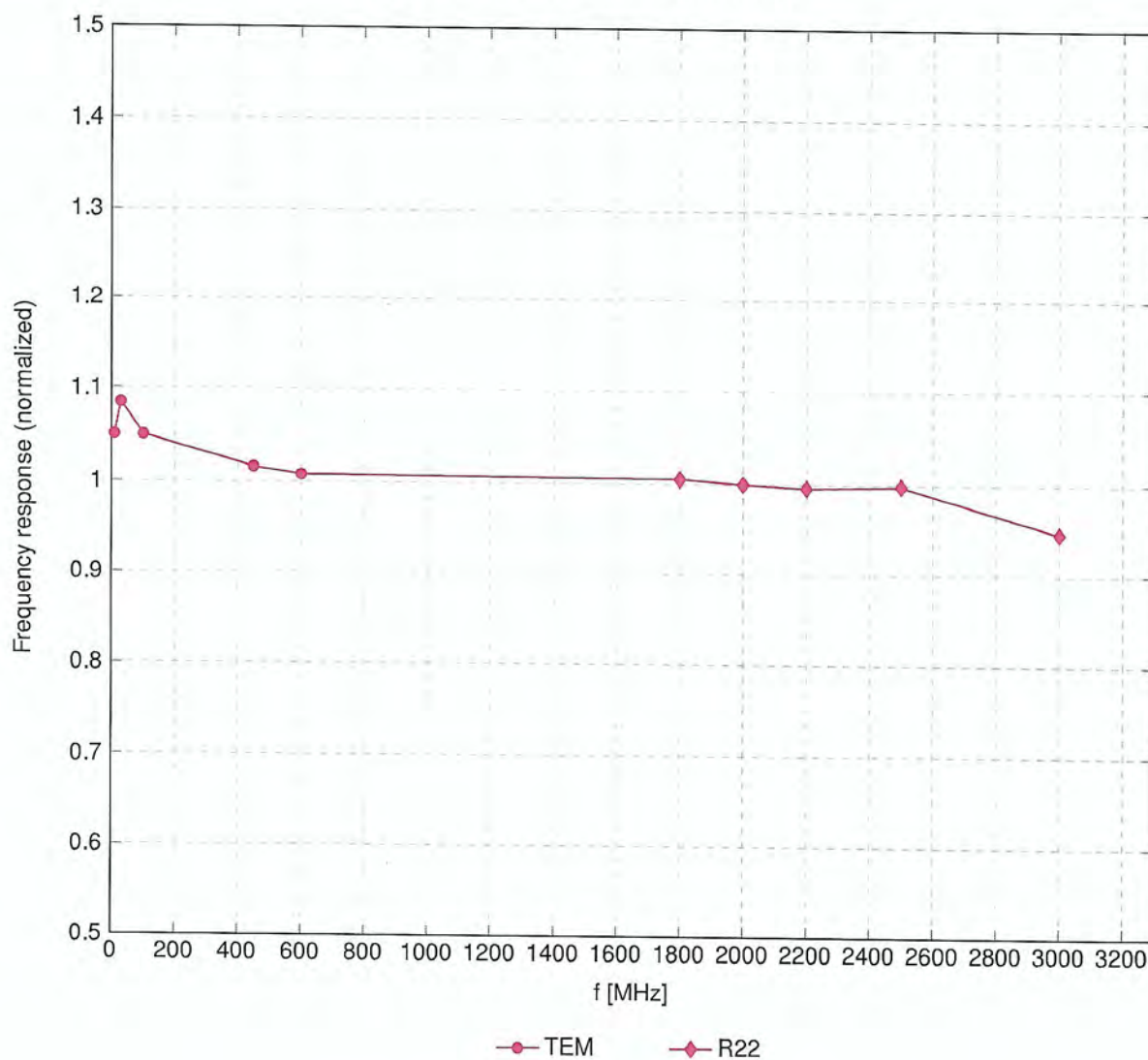
<sup>F</sup> The probes are calibrated using tissue simulating liquids (TSL) that deviate for  $\epsilon$  and  $\sigma$  by less than ±10% from the target values (typically better than ±6%) and are valid for TSL with deviations of up to ±10%.

<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.

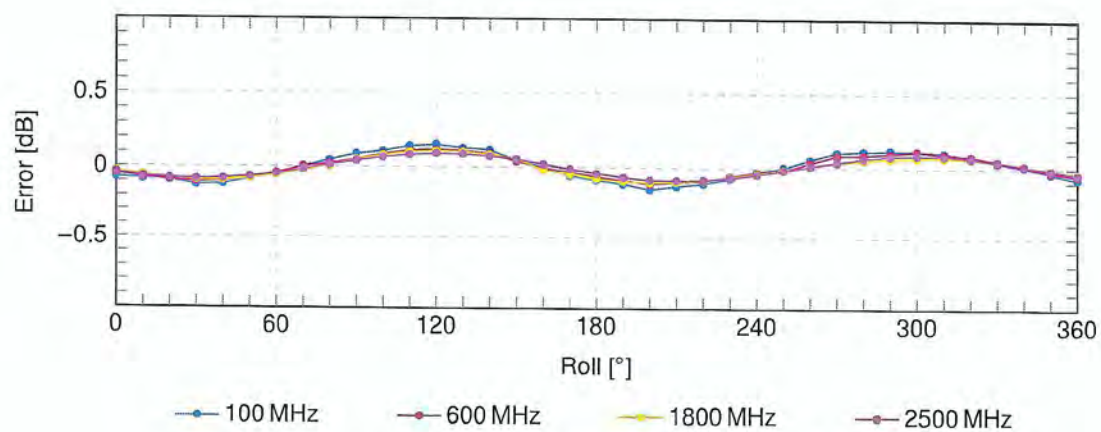
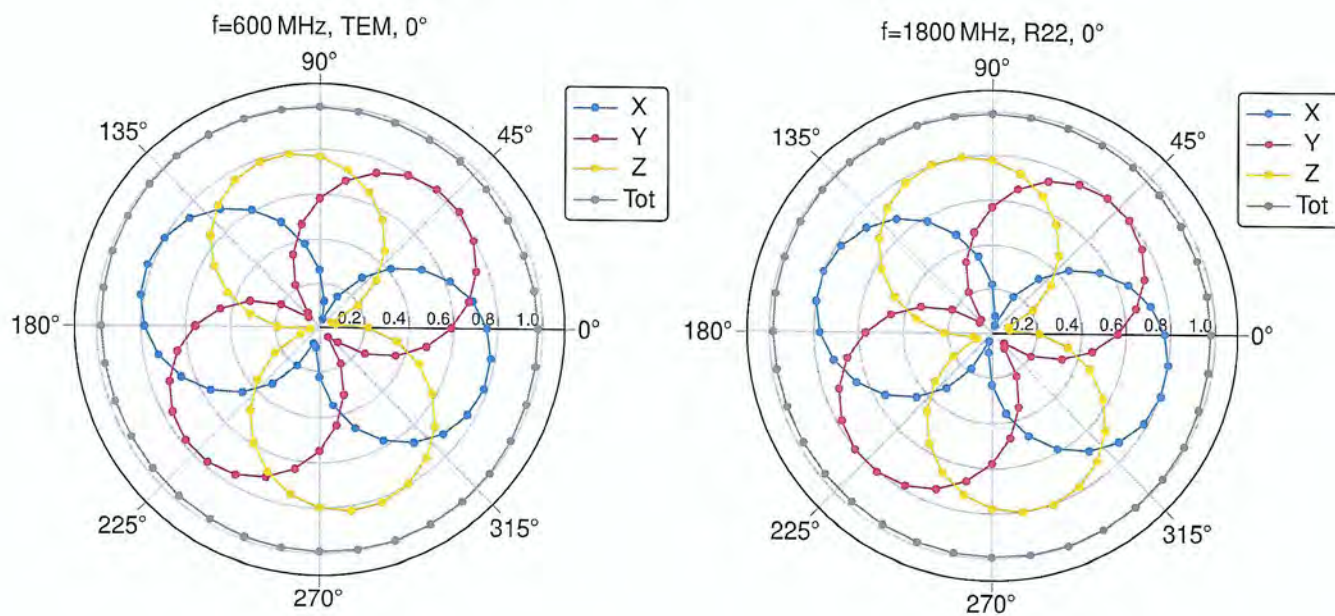
<sup>H</sup> The stated uncertainty is the total calibration uncertainty (k = 2) of Norm-ConvF. This is equivalent to the uncertainty component with the symbol CF in Table 9 of IEC/IEEE 62209-1528:2020.

## Frequency Response of E-Field

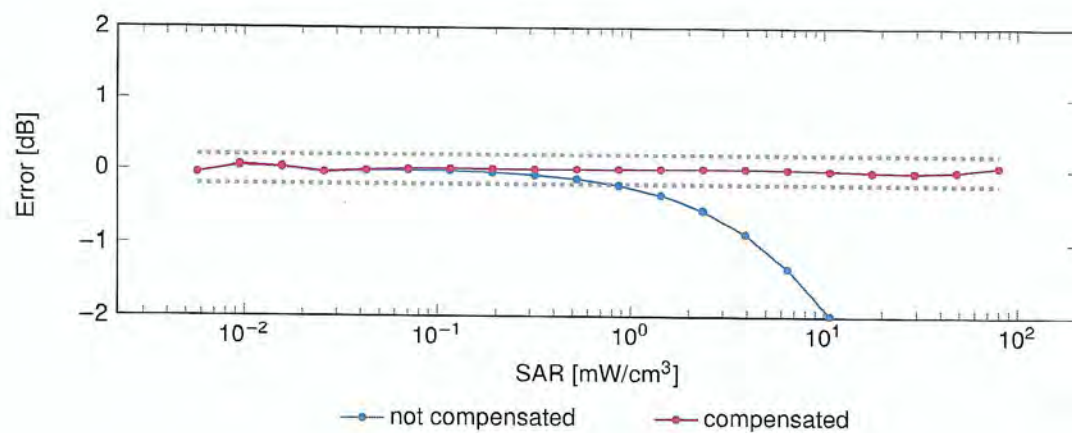
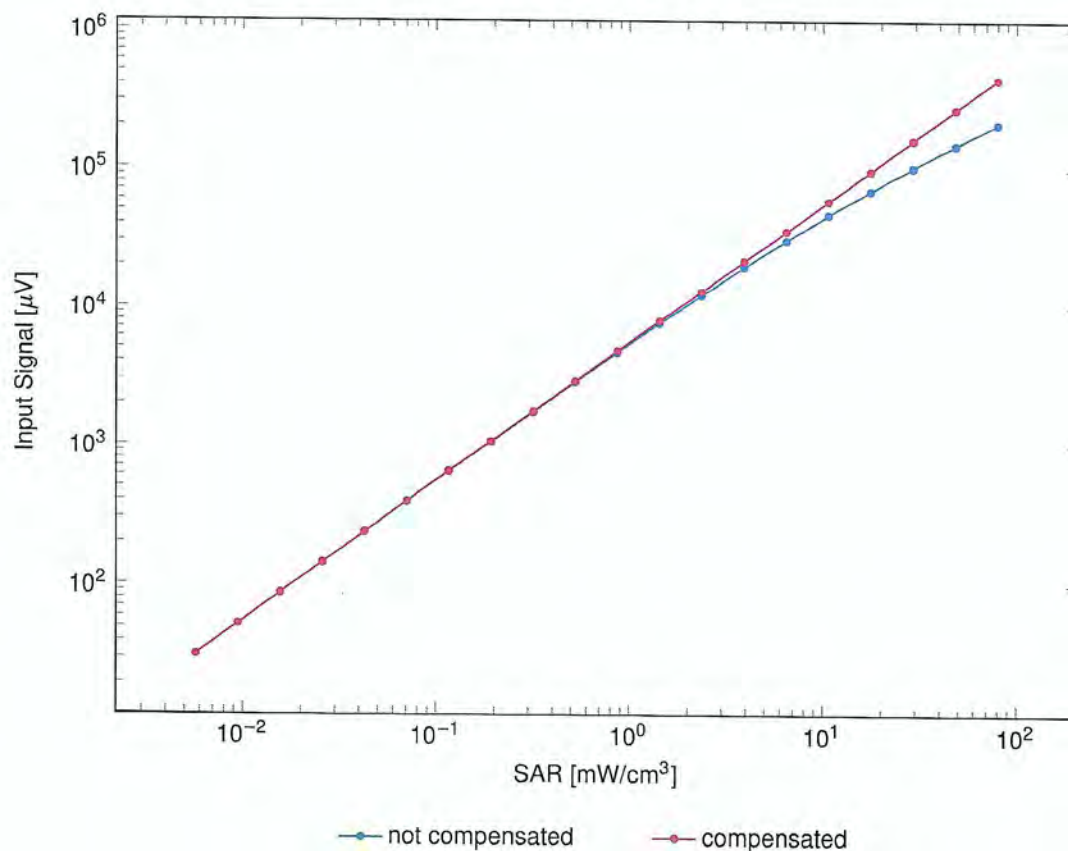
(TEM-Cell:ifi110 EXX, Waveguide:R22)



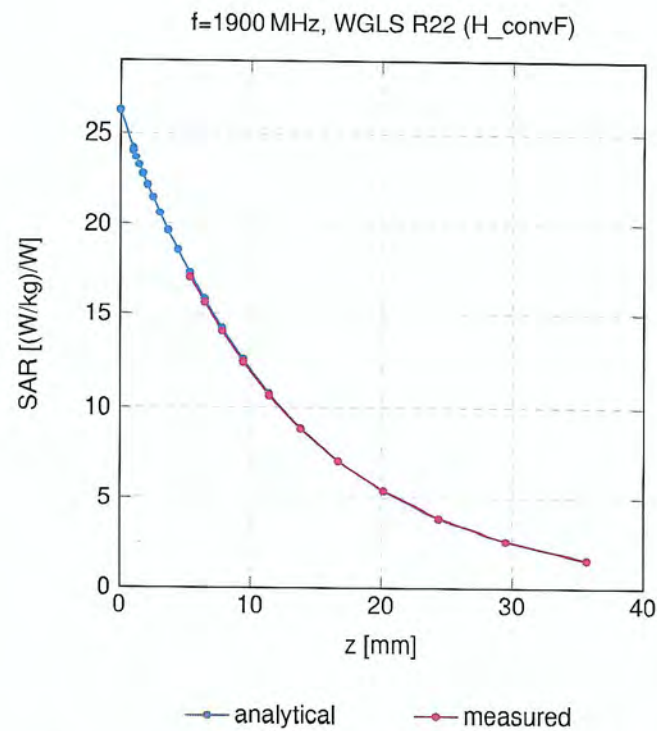
Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  ( $k=2$ )

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

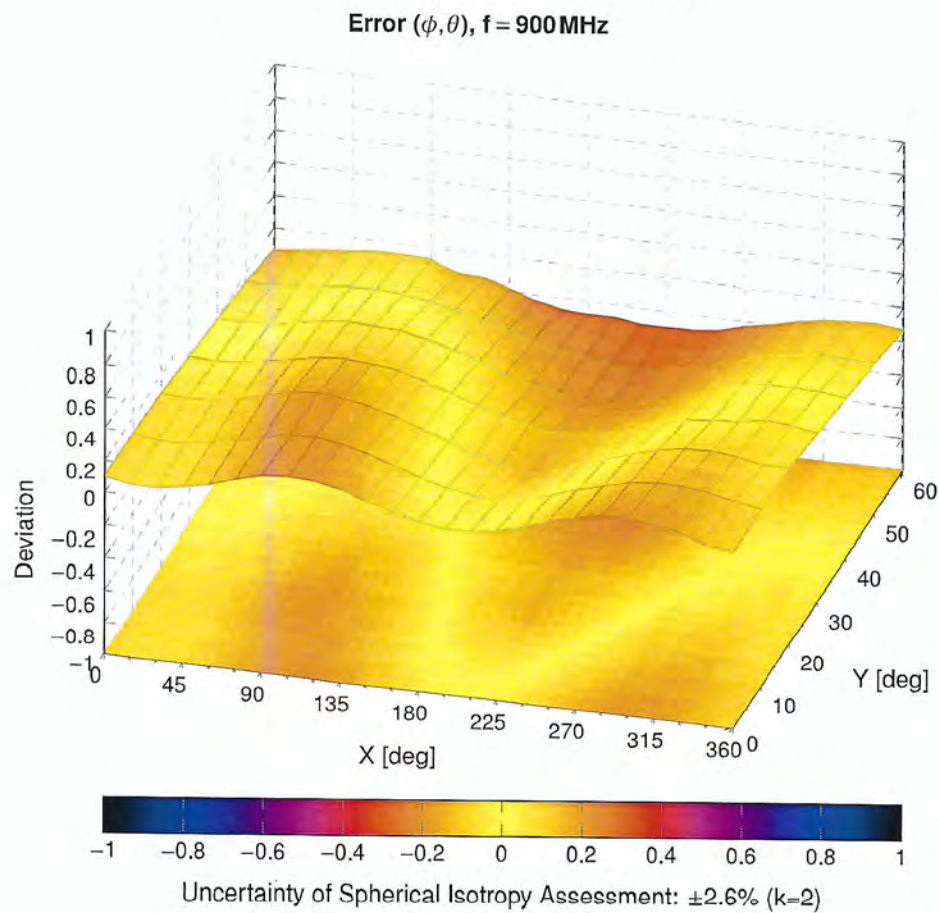
Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  ( $k=2$ )

**Dynamic Range  $f(\text{SAR}_{\text{HSL}})$** (TEM cell,  $f_{\text{eval}} = 1900 \text{ MHz}$ )Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

Conversion Factor Assessment



Deviation from Isotropy in Liquid



## Appendix: Modulation Calibration Parameters

| UID   | Rev | Communication System Name                      | Group     | PAR (dB) | Unc <sup>E</sup> $k = 2$ |
|-------|-----|------------------------------------------------|-----------|----------|--------------------------|
| 0     |     | Continuous Wave                                | CW        | 0.00     | ±4.7                     |
| 10010 | CAB | Pulse (D=10%, T=100 ms)                        | Test      | 10.00    | ±9.6                     |
| 10011 | CAC | Rel. 99, RMC, QPSK, 5.0 MHz                    | WCDMA     | 2.91     | ±9.6                     |
| 10012 | CAB | DSSS, DBPSK, 1.0 Mbps, 92.5% DC                | WLAN      | 1.87     | ±9.6                     |
| 10013 | CAB | OFDM, BPSK, 6.0 Mbps, 72.1% DC                 | WLAN      | 9.46     | ±9.6                     |
| 10021 | DAC | Voice, GMSK, 1 slot(s)                         | GSM       | 9.39     | ±9.6                     |
| 10023 | DAC | Data, GMSK, 1 slot(s)                          | GSM       | 9.57     | ±9.6                     |
| 10024 | DAC | Data, GMSK, 2 slot(s)                          | GSM       | 6.56     | ±9.6                     |
| 10025 | DAC | Data, 8PSK, 1 slot(s)                          | GSM       | 12.62    | ±9.6                     |
| 10026 | DAC | Data, 8PSK, 2 slot(s)                          | GSM       | 9.55     | ±9.6                     |
| 10027 | DAC | Data, GMSK, 3 slot(s)                          | GSM       | 4.80     | ±9.6                     |
| 10028 | DAC | Data, GMSK, 4 slot(s)                          | GSM       | 3.55     | ±9.6                     |
| 10029 | DAC | Data, 8PSK, 3 slot(s)                          | GSM       | 7.78     | ±9.6                     |
| 10030 | CAA | BR, DH1, GFSK                                  | Bluetooth | 5.30     | ±9.6                     |
| 10031 | CAA | BR, DH3, GFSK                                  | Bluetooth | 1.87     | ±9.6                     |
| 10032 | CAA | BR, DH5, GFSK                                  | Bluetooth | 1.16     | ±9.6                     |
| 10033 | CAA | EDR, DH1, pi/4-DQPSK                           | Bluetooth | 7.74     | ±9.6                     |
| 10034 | CAA | EDR, DH3, pi/4-DQPSK                           | Bluetooth | 4.53     | ±9.6                     |
| 10035 | CAA | EDR, DH5, pi/4-DQPSK                           | Bluetooth | 3.83     | ±9.6                     |
| 10036 | CAA | EDR, DH1, 8-DPSK                               | Bluetooth | 8.01     | ±9.6                     |
| 10037 | CAA | EDR, DH3, 8-DPSK                               | Bluetooth | 4.77     | ±9.6                     |
| 10038 | CAA | EDR, DH5, 8-DPSK                               | Bluetooth | 4.10     | ±9.6                     |
| 10039 | CAB | RC1, 1xRTT                                     | CDMA2000  | 4.57     | ±9.6                     |
| 10048 | CAA | Full Slot, GFSK, 1 slot(s)                     | DECT      | 13.80    | ±9.6                     |
| 10049 | CAA | Double Slot, GFSK, 2 slot(s)                   | DECT      | 10.79    | ±9.6                     |
| 10056 | CAA | TD-SCDMA, QPSK, 1.6 MHz                        | TD-SCDMA  | 11.01    | ±9.6                     |
| 10058 | DAC | Data, 8PSK, 4 slot(s)                          | GSM       | 6.52     | ±9.6                     |
| 10059 | CAB | DSSS, DQPSK, 2.0 Mbps, 87.4% DC                | WLAN      | 2.12     | ±9.6                     |
| 10060 | CAB | HR-DSSS, DQPSK, 5.5 Mbps, 72.7% DC             | WLAN      | 2.83     | ±9.6                     |
| 10061 | CAB | HR-DSSS, DQPSK, 11.0 Mbps, 57.5% DC            | WLAN      | 3.60     | ±9.6                     |
| 10062 | CAE | OFDM, BPSK, 6.0 Mbps, 89.1% DC                 | WLAN      | 8.68     | ±9.6                     |
| 10063 | CAE | OFDM, BPSK, 9.0 Mbps, 85.3% DC                 | WLAN      | 8.63     | ±9.6                     |
| 10064 | CAE | OFDM, QPSK, 12.0 Mbps, 82.0% DC                | WLAN      | 9.09     | ±9.6                     |
| 10065 | CAE | OFDM, QPSK, 18.0 Mbps, 76.0% DC                | WLAN      | 9.00     | ±9.6                     |
| 10066 | CAE | OFDM, 16QAM, 24.0 Mbps, 70.6% DC               | WLAN      | 9.38     | ±9.6                     |
| 10067 | CAE | OFDM, 16QAM, 36.0 Mbps, 62.9% DC               | WLAN      | 10.12    | ±9.6                     |
| 10068 | CAE | OFDM, 64QAM, 48.0 Mbps, 56.6% DC               | WLAN      | 10.24    | ±9.6                     |
| 10069 | CAE | OFDM, 64QAM, 54.0 Mbps, 54.4% DC               | WLAN      | 10.56    | ±9.6                     |
| 10071 | CAB | OFDM, BPSK, 9.0 Mbps, 65.1% DC                 | WLAN      | 9.83     | ±9.6                     |
| 10072 | CAB | OFDM, QPSK, 12.0 Mbps, 60.1% DC                | WLAN      | 9.62     | ±9.6                     |
| 10073 | CAB | OFDM, QPSK, 18.0 Mbps, 53.1% DC                | WLAN      | 9.94     | ±9.6                     |
| 10074 | CAB | OFDM, 16QAM, 24.0 Mbps, 48.5% DC               | WLAN      | 10.30    | ±9.6                     |
| 10075 | CAB | OFDM, 16QAM, 36.0 Mbps, 42.9% DC               | WLAN      | 10.77    | ±9.6                     |
| 10076 | CAB | OFDM, 64QAM, 48.0 Mbps, 39.5% DC               | WLAN      | 10.94    | ±9.6                     |
| 10077 | CAB | OFDM, 64QAM, 54.0 Mbps, 38.5% DC               | WLAN      | 11.00    | ±9.6                     |
| 10081 | CAB | RC3, 1xRTT                                     | CDMA2000  | 3.97     | ±9.6                     |
| 10097 | CAC | Rel. 5 HSDPA, QPSK, 5.0 MHz                    | WCDMA     | 3.98     | ±9.6                     |
| 10098 | CAC | Rel. 6 HSUPA, Subset 2, QPSK, 5.0 MHz          | WCDMA     | 3.98     | ±9.6                     |
| 10100 | CAF | 20.0 MHz, QPSK, 100% RB                        | LTE-FDD   | 5.67     | ±9.6                     |
| 10101 | CAF | 20.0 MHz, 16QAM, 100% RB                       | LTE-FDD   | 6.42     | ±9.6                     |
| 10102 | CAF | 20.0 MHz, 64QAM, 100% RB                       | LTE-FDD   | 6.60     | ±9.6                     |
| 10103 | CAH | 20.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 100% RB  | LTE-TDD   | 9.29     | ±9.6                     |
| 10104 | CAH | 20.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 100% RB | LTE-TDD   | 9.97     | ±9.6                     |
| 10105 | CAH | 20.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 100% RB | LTE-TDD   | 10.01    | ±9.6                     |
| 10108 | CAH | 10.0 MHz, QPSK, 100% RB                        | LTE-FDD   | 5.80     | ±9.6                     |
| 10109 | CAH | 10.0 MHz, 16QAM, 100% RB                       | LTE-FDD   | 6.43     | ±9.6                     |
| 10110 | CAH | 5.0 MHz, QPSK, 100% RB                         | LTE-FDD   | 5.75     | ±9.6                     |
| 10111 | CAH | 5.0 MHz, 16QAM, 100% RB                        | LTE-FDD   | 6.44     | ±9.6                     |
| 10112 | CAH | 10.0 MHz, 64QAM, 100% RB                       | LTE-FDD   | 6.59     | ±9.6                     |
| 10113 | CAH | 5.0 MHz, 64QAM, 100% RB                        | LTE-FDD   | 6.62     | ±9.6                     |
| 10114 | CAE | HT40 Greenfield, MCS0 (13.5 Mbps), 99.7% DC    | WLAN      | 8.10     | ±9.6                     |
| 10115 | CAE | HT40 Greenfield, MCS4 (81.0 Mbps), 99.7% DC    | WLAN      | 8.46     | ±9.6                     |
| 10116 | CAE | HT40 Greenfield, MCS7 (135.0 Mbps), 99.7% DC   | WLAN      | 8.15     | ±9.6                     |

| UID   | Rev | Communication System Name                     | Group   | PAR (dB) | Unc <sup>E</sup> k = 2 |
|-------|-----|-----------------------------------------------|---------|----------|------------------------|
| 10117 | CAE | HT40 Mixed, MCS0 (13.5 Mbps), 99.7% DC        | WLAN    | 8.07     | ±9.6                   |
| 10118 | CAE | HT40 Mixed, MCS4 (81.0 Mbps), 99.7% DC        | WLAN    | 8.59     | ±9.6                   |
| 10119 | CAE | HT40 Mixed, MCS7 (135.0 Mbps), 99.7% DC       | WLAN    | 8.13     | ±9.6                   |
| 10140 | CAF | 15.0 MHz, 16QAM, 100% RB                      | LTE-FDD | 6.49     | ±9.6                   |
| 10141 | CAF | 15.0 MHz, 64QAM, 100% RB                      | LTE-FDD | 6.53     | ±9.6                   |
| 10142 | CAF | 3.0 MHz, QPSK, 100% RB                        | LTE-FDD | 5.73     | ±9.6                   |
| 10143 | CAF | 3.0 MHz, 16QAM, 100% RB                       | LTE-FDD | 6.35     | ±9.6                   |
| 10144 | CAF | 3.0 MHz, 64QAM, 100% RB                       | LTE-FDD | 6.65     | ±9.6                   |
| 10145 | CAG | 1.4 MHz, QPSK, 100% RB                        | LTE-FDD | 5.76     | ±9.6                   |
| 10146 | CAG | 1.4 MHz, 16QAM, 100% RB                       | LTE-FDD | 6.41     | ±9.6                   |
| 10147 | CAG | 1.4 MHz, 64QAM, 100% RB                       | LTE-FDD | 6.72     | ±9.6                   |
| 10149 | CAF | 20.0 MHz, 16QAM, 50% RB                       | LTE-FDD | 6.42     | ±9.6                   |
| 10150 | CAF | 20.0 MHz, 64QAM, 50% RB                       | LTE-FDD | 6.60     | ±9.6                   |
| 10151 | CAH | 20.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 50% RB  | LTE-TDD | 9.28     | ±9.6                   |
| 10152 | CAH | 20.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 50% RB | LTE-TDD | 9.92     | ±9.6                   |
| 10153 | CAH | 20.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 50% RB | LTE-TDD | 10.05    | ±9.6                   |
| 10154 | CAH | 10.0 MHz, QPSK, 50% RB                        | LTE-FDD | 5.75     | ±9.6                   |
| 10155 | CAH | 10.0 MHz, 16QAM, 50% RB                       | LTE-FDD | 6.43     | ±9.6                   |
| 10156 | CAH | 5.0 MHz, QPSK, 50% RB                         | LTE-FDD | 5.79     | ±9.6                   |
| 10157 | CAH | 5.0 MHz, 16QAM, 50% RB                        | LTE-FDD | 6.49     | ±9.6                   |
| 10158 | CAH | 10.0 MHz, 64QAM, 50% RB                       | LTE-FDD | 6.62     | ±9.6                   |
| 10159 | CAH | 5.0 MHz, 64QAM, 50% RB                        | LTE-FDD | 6.56     | ±9.6                   |
| 10160 | CAF | 15.0 MHz, QPSK, 50% RB                        | LTE-FDD | 5.82     | ±9.6                   |
| 10161 | CAF | 15.0 MHz, 16QAM, 50% RB                       | LTE-FDD | 6.43     | ±9.6                   |
| 10162 | CAF | 15.0 MHz, 64QAM, 50% RB                       | LTE-FDD | 6.58     | ±9.6                   |
| 10166 | CAG | 1.4 MHz, QPSK, 50% RB                         | LTE-FDD | 5.46     | ±9.6                   |
| 10167 | CAG | 1.4 MHz, 16QAM, 50% RB                        | LTE-FDD | 6.21     | ±9.6                   |
| 10168 | CAG | 1.4 MHz, 64QAM, 50% RB                        | LTE-FDD | 6.79     | ±9.6                   |
| 10169 | CAF | 20.0 MHz, QPSK, 1 RB                          | LTE-FDD | 5.73     | ±9.6                   |
| 10170 | CAF | 20.0 MHz, 16QAM, 1 RB                         | LTE-FDD | 6.52     | ±9.6                   |
| 10171 | AAF | 20.0 MHz, 64QAM, 1 RB                         | LTE-FDD | 6.49     | ±9.6                   |
| 10172 | CAH | 20.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 1 RB    | LTE-TDD | 9.21     | ±9.6                   |
| 10173 | CAH | 20.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 1 RB   | LTE-TDD | 9.48     | ±9.6                   |
| 10174 | CAH | 20.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 1 RB   | LTE-TDD | 10.25    | ±9.6                   |
| 10175 | CAH | 10.0 MHz, QPSK, 1 RB                          | LTE-FDD | 5.72     | ±9.6                   |
| 10176 | CAH | 10.0 MHz, 16QAM, 1 RB                         | LTE-FDD | 6.52     | ±9.6                   |
| 10177 | CAJ | 5.0 MHz, QPSK, 1 RB                           | LTE-FDD | 5.73     | ±9.6                   |
| 10178 | CAH | 5.0 MHz, 16QAM, 1 RB                          | LTE-FDD | 6.52     | ±9.6                   |
| 10179 | CAH | 10.0 MHz, 64QAM, 1 RB                         | LTE-FDD | 6.50     | ±9.6                   |
| 10180 | CAH | 5.0 MHz, 64QAM, 1 RB                          | LTE-FDD | 6.50     | ±9.6                   |
| 10181 | CAF | 15.0 MHz, QPSK, 1 RB                          | LTE-FDD | 5.72     | ±9.6                   |
| 10182 | CAF | 15.0 MHz, 16QAM, 1 RB                         | LTE-FDD | 6.52     | ±9.6                   |
| 10183 | AAE | 15.0 MHz, 64QAM, 1 RB                         | LTE-FDD | 6.50     | ±9.6                   |
| 10184 | CAF | 3.0 MHz, QPSK, 1 RB                           | LTE-FDD | 5.73     | ±9.6                   |
| 10185 | CAF | 3.0 MHz, 16QAM, 1 RB                          | LTE-FDD | 6.51     | ±9.6                   |
| 10186 | AAF | 3.0 MHz, 64QAM, 1 RB                          | LTE-FDD | 6.50     | ±9.6                   |
| 10187 | CAG | 1.4 MHz, QPSK, 1 RB                           | LTE-FDD | 5.73     | ±9.6                   |
| 10188 | CAG | 1.4 MHz, 16QAM, 1 RB                          | LTE-FDD | 6.52     | ±9.6                   |
| 10189 | AAG | 1.4 MHz, 64QAM, 1 RB                          | LTE-FDD | 6.50     | ±9.6                   |
| 10193 | CAE | HT20 Greenfield, MCS0 (6.5 Mbps), 99.4% DC    | WLAN    | 8.09     | ±9.6                   |
| 10194 | CAE | HT20 Greenfield, MCS4 (39.0 Mbps), 99.5% DC   | WLAN    | 8.12     | ±9.6                   |
| 10195 | CAE | HT20 Greenfield, MCS7 (65.0 Mbps), 99.5% DC   | WLAN    | 8.21     | ±9.6                   |
| 10196 | CAE | HT20 Mixed, MCS0 (6.5 Mbps), 99.4% DC         | WLAN    | 8.10     | ±9.6                   |
| 10197 | CAE | HT20 Mixed, MCS4 (39.0 Mbps), 99.5% DC        | WLAN    | 8.13     | ±9.6                   |
| 10198 | CAE | HT20 Mixed, MCS7 (65.0 Mbps), 99.5% DC        | WLAN    | 8.27     | ±9.6                   |
| 10219 | CAE | HT20 Mixed, MCS0 (7.2 Mbps), 99.3% DC         | WLAN    | 8.03     | ±9.6                   |
| 10220 | CAE | HT20 Mixed, MCS4 (43.3 Mbps), 99.4% DC        | WLAN    | 8.13     | ±9.6                   |
| 10221 | CAE | HT20 Mixed, MCS7 (72.2 Mbps), 99.4% DC        | WLAN    | 8.27     | ±9.6                   |
| 10222 | CAE | HT40 Mixed, MCS0 (15.0 Mbps), 99.7% DC        | WLAN    | 8.06     | ±9.6                   |
| 10223 | CAE | HT40 Mixed, MCS4 (90.0 Mbps), 99.7% DC        | WLAN    | 8.48     | ±9.6                   |
| 10224 | CAE | HT40 Mixed, MCS7 (150.0 Mbps), 99.7% DC       | WLAN    | 8.08     | ±9.6                   |
| 10225 | CAC | Rel. 7 HSPA+, 16QAM, 5.0 MHz                  | WCDMA   | 5.97     | ±9.6                   |
| 10226 | CAC | 1.4 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 1 RB    | LTE-TDD | 9.49     | ±9.6                   |
| 10227 | CAC | 1.4 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 1 RB    | LTE-TDD | 10.26    | ±9.6                   |
| 10228 | CAC | 1.4 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 1 RB     | LTE-TDD | 9.22     | ±9.6                   |
| 10229 | CAE | 3.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 1 RB    | LTE-TDD | 9.48     | ±9.6                   |

| UID   | Rev | Communication System Name                        | Group    | PAR (dB) | Unc <sup>E</sup> $k = 2$ |
|-------|-----|--------------------------------------------------|----------|----------|--------------------------|
| 10230 | CAE | 3.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 1 RB       | LTE-TDD  | 10.25    | ±9.6                     |
| 10231 | CAE | 3.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 1 RB        | LTE-TDD  | 9.19     | ±9.6                     |
| 10232 | CAH | 5.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 1 RB       | LTE-TDD  | 9.48     | ±9.6                     |
| 10233 | CAH | 5.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 1 RB       | LTE-TDD  | 10.25    | ±9.6                     |
| 10234 | CAH | 5.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 1 RB        | LTE-TDD  | 9.21     | ±9.6                     |
| 10235 | CAH | 10.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 1 RB      | LTE-TDD  | 9.48     | ±9.6                     |
| 10236 | CAH | 10.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 1 RB      | LTE-TDD  | 10.25    | ±9.6                     |
| 10237 | CAH | 10.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 1 RB       | LTE-TDD  | 9.21     | ±9.6                     |
| 10238 | CAG | 15.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 1 RB      | LTE-TDD  | 9.48     | ±9.6                     |
| 10239 | CAG | 15.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 1 RB      | LTE-TDD  | 10.25    | ±9.6                     |
| 10240 | CAG | 15.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 1 RB       | LTE-TDD  | 9.21     | ±9.6                     |
| 10241 | CAC | 1.4 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 50% RB     | LTE-TDD  | 9.82     | ±9.6                     |
| 10242 | CAC | 1.4 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 50% RB     | LTE-TDD  | 9.86     | ±9.6                     |
| 10243 | CAC | 1.4 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 50% RB      | LTE-TDD  | 9.46     | ±9.6                     |
| 10244 | CAE | 3.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 50% RB     | LTE-TDD  | 10.06    | ±9.6                     |
| 10245 | CAE | 3.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 50% RB     | LTE-TDD  | 10.06    | ±9.6                     |
| 10246 | CAE | 3.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 50% RB      | LTE-TDD  | 9.30     | ±9.6                     |
| 10247 | CAH | 5.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 50% RB     | LTE-TDD  | 9.91     | ±9.6                     |
| 10248 | CAH | 5.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 50% RB     | LTE-TDD  | 10.09    | ±9.6                     |
| 10249 | CAH | 5.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 50% RB      | LTE-TDD  | 9.29     | ±9.6                     |
| 10250 | CAH | 10.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 50% RB    | LTE-TDD  | 9.81     | ±9.6                     |
| 10251 | CAH | 10.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 50% RB    | LTE-TDD  | 10.17    | ±9.6                     |
| 10252 | CAH | 10.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 50% RB     | LTE-TDD  | 9.24     | ±9.6                     |
| 10253 | CAG | 15.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 50% RB    | LTE-TDD  | 9.90     | ±9.6                     |
| 10254 | CAG | 15.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 50% RB    | LTE-TDD  | 10.14    | ±9.6                     |
| 10255 | CAG | 15.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 50% RB     | LTE-TDD  | 9.20     | ±9.6                     |
| 10256 | CAC | 1.4 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 100% RB    | LTE-TDD  | 9.96     | ±9.6                     |
| 10257 | CAC | 1.4 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 100% RB    | LTE-TDD  | 10.08    | ±9.6                     |
| 10258 | CAC | 1.4 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 100% RB     | LTE-TDD  | 9.34     | ±9.6                     |
| 10259 | CAE | 3.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 100% RB    | LTE-TDD  | 9.98     | ±9.6                     |
| 10260 | CAE | 3.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 100% RB    | LTE-TDD  | 9.97     | ±9.6                     |
| 10261 | CAE | 3.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 100% RB     | LTE-TDD  | 9.24     | ±9.6                     |
| 10262 | CAH | 5.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 100% RB    | LTE-TDD  | 9.83     | ±9.6                     |
| 10263 | CAH | 5.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 100% RB    | LTE-TDD  | 10.16    | ±9.6                     |
| 10264 | CAH | 5.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 100% RB     | LTE-TDD  | 9.23     | ±9.6                     |
| 10265 | CAH | 10.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 100% RB   | LTE-TDD  | 9.92     | ±9.6                     |
| 10266 | CAH | 10.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 100% RB   | LTE-TDD  | 10.07    | ±9.6                     |
| 10267 | CAH | 10.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 100% RB    | LTE-TDD  | 9.30     | ±9.6                     |
| 10268 | CAG | 15.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 100% RB   | LTE-TDD  | 10.06    | ±9.6                     |
| 10269 | CAG | 15.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 100% RB   | LTE-TDD  | 10.13    | ±9.6                     |
| 10270 | CAG | 15.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 100% RB    | LTE-TDD  | 9.58     | ±9.6                     |
| 10274 | CAC | Rel. 6 HSUPA Subset 2, beta_d 0, QPSK, 5.0 MHz   | WCDMA    | 4.87     | ±9.6                     |
| 10275 | CAC | Rel. 6 HSUPA Subset 2, beta_d 15, QPSK, 5.0 MHz  | WCDMA    | 3.96     | ±9.6                     |
| 10290 | AAB | RC1, SO55, Full frame rate, 1xRTT                | CDMA2000 | 3.91     | ±9.6                     |
| 10291 | AAB | RC3, SO55, Full frame rate, 1xRTT                | CDMA2000 | 3.46     | ±9.6                     |
| 10292 | AAB | RC3, SO32, Full frame rate, SCH0 disabled, 1xRTT | CDMA2000 | 3.39     | ±9.6                     |
| 10293 | AAB | RC3, SO3, Full frame rate, 1xRTT                 | CDMA2000 | 3.50     | ±9.6                     |
| 10295 | AAB | RC3, SO3, 1/8 frame rate, 1xRTT                  | CDMA2000 | 12.49    | ±9.6                     |
| 10297 | AAE | 20.0 MHz, QPSK, 50% RB                           | LTE-FDD  | 5.81     | ±9.6                     |
| 10298 | AAE | 3.0 MHz, QPSK, 50% RB                            | LTE-FDD  | 5.72     | ±9.6                     |
| 10299 | AAE | 3.0 MHz, 16QAM, 50% RB                           | LTE-FDD  | 6.39     | ±9.6                     |
| 10300 | AAE | 3.0 MHz, 64QAM, 50% RB                           | LTE-FDD  | 6.60     | ±9.6                     |
| 10301 | AAA | PUSC, 29:18, QPSK, 5.0 ms, 18 TRAF SYM           | WiMAX    | 12.03    | ±9.6                     |
| 10302 | AAA | PUSC, 29:18, QPSK, 5.0 ms, 15 TRAF SYM           | WiMAX    | 12.57    | ±9.6                     |
| 10303 | AAA | PUSC, 31:15, 64QAM, 5.0 ms, 15 TRAF SYM          | WiMAX    | 12.52    | ±9.6                     |
| 10304 | AAA | PUSC, 29:18, 64QAM, 5.0 ms, 18 TRAF SYM          | WiMAX    | 11.86    | ±9.6                     |
| 10305 | AAA | PUSC, 31:15, 64QAM, 10.0 ms, 15 TRAF SYM         | WiMAX    | 15.24    | ±9.6                     |
| 10306 | AAA | PUSC, 29:18, 64QAM, 10.0 ms, 18 TRAF SYM         | WiMAX    | 14.67    | ±9.6                     |
| 10307 | AAA | PUSC, 29:18, QPSK, 10.0 ms, 18 TRAF SYM          | WiMAX    | 14.49    | ±9.6                     |
| 10308 | AAA | PUSC, 29:18, 16QAM, 10.0 ms, 18 TRAF SYM         | WiMAX    | 14.46    | ±9.6                     |
| 10309 | AAA | AMC 2x3, 29:18, 16QAM, 10.0 ms, 18 TRAF SYM      | WiMAX    | 14.58    | ±9.6                     |
| 10310 | AAA | AMC 2x3, 29:18, QPSK, 10.0 ms, 18 TRAF SYM       | WiMAX    | 14.57    | ±9.6                     |
| 10311 | AAE | 15.0 MHz, QPSK, 100% RB                          | LTE-FDD  | 6.06     | ±9.6                     |
| 10315 | AAB | DSSS, DBPSK, 1.0 Mbps, 96.0% DC                  | WLAN     | 1.71     | ±9.6                     |
| 10316 | AAB | OFDM, BPSK, 6.0 Mbps, 95.9% DC                   | WLAN     | 8.36     | ±9.6                     |
| 10317 | AAE | OFDM, BPSK, 6.0 Mbps, 95.9% DC                   | WLAN     | 8.36     | ±9.6                     |

| UID   | Rev | Communication System Name                                   | Group    | PAR (dB) | Unc <sup>E</sup> k = 2 |
|-------|-----|-------------------------------------------------------------|----------|----------|------------------------|
| 10352 | AAA | Pulse (D=10%, T=5 ms)                                       | Generic  | 10.00    | ±9.6                   |
| 10353 | AAA | Pulse (D=20%, T=5 ms)                                       | Generic  | 6.99     | ±9.6                   |
| 10354 | AAA | Pulse (D=40%, T=5 ms)                                       | Generic  | 3.98     | ±9.6                   |
| 10355 | AAA | Pulse (D=60%, T=5 ms)                                       | Generic  | 2.22     | ±9.6                   |
| 10356 | AAA | Pulse (D=80%, T=5 ms)                                       | Generic  | 0.97     | ±9.6                   |
| 10387 | AAA | Random (BW=1 MHz, MOD=QPSK)                                 | Generic  | 5.10     | ±9.6                   |
| 10388 | AAA | Random (BW=10 MHz, MOD=QPSK)                                | Generic  | 5.22     | ±9.6                   |
| 10396 | AAA | Random (BW=100 kHz, MOD=64QAM)                              | Generic  | 6.27     | ±9.6                   |
| 10399 | AAA | Random (BW=40 MHz, MOD=64QAM)                               | Generic  | 6.27     | ±9.6                   |
| 10400 | AAF | VHT20, MCS5 (52.0 Mbps), 99.0% DC                           | WLAN     | 8.37     | ±9.6                   |
| 10401 | AAF | VHT40, MCS5 (108.0 Mbps), 96.7% DC                          | WLAN     | 8.60     | ±9.6                   |
| 10402 | AAF | VHT80, MCS5 (234.0 Mbps), 99.0% DC                          | WLAN     | 8.53     | ±9.6                   |
| 10403 | AAB | Rev. 0, 1xEV-DO                                             | CDMA2000 | 3.76     | ±9.6                   |
| 10404 | AAB | Rev. A, 1xEV-DO                                             | CDMA2000 | 3.77     | ±9.6                   |
| 10406 | AAB | RC3, SO32, Full frame rate, SCH0 enabled, 1xRTT             | CDMA2000 | 5.22     | ±9.6                   |
| 10410 | AAH | 10.0 MHz, QPSK, UL/DL CFG: 0, SSC: 4, 1 RB                  | LTE-TDD  | 7.82     | ±9.6                   |
| 10414 | AAA | Random (BW=40 MHz, HIGH PAR)                                | Generic  | 8.54     | ±9.6                   |
| 10415 | AAA | DSSS, DBPSK, 1.0 Mbps, 99.9% DC                             | WLAN     | 1.54     | ±9.6                   |
| 10416 | AAA | OFDM, BPSK, 6.0 Mbps, 99.9% DC                              | WLAN     | 8.23     | ±9.6                   |
| 10417 | AAD | OFDM, BPSK, 6.0 Mbps, 99.9% DC                              | WLAN     | 8.23     | ±9.6                   |
| 10418 | AAA | OFDM (LTF), BPSK, 6.0 Mbps, 99.8% DC                        | WLAN     | 8.14     | ±9.6                   |
| 10419 | AAA | OFDM (STF), BPSK, 6.0 Mbps, 99.8% DC                        | WLAN     | 8.19     | ±9.6                   |
| 10422 | AAD | HT20 Greenfield, MCS0 (7.2 Mbps), 99.3% DC                  | WLAN     | 8.32     | ±9.6                   |
| 10423 | AAD | HT20 Greenfield, MCS4 (43.3 Mbps), 99.3% DC                 | WLAN     | 8.47     | ±9.6                   |
| 10424 | AAD | HT20 Greenfield, MCS7 (72.2 Mbps), 99.3% DC                 | WLAN     | 8.40     | ±9.6                   |
| 10425 | AAD | HT40 Greenfield, MCS0 (15.0 Mbps), 99.2% DC                 | WLAN     | 8.41     | ±9.6                   |
| 10426 | AAD | HT40 Greenfield, MCS4 (90.0 Mbps), 99.2% DC                 | WLAN     | 8.45     | ±9.6                   |
| 10427 | AAD | HT40 Greenfield, MCS7 (150.0 Mbps), 99.2% DC                | WLAN     | 8.41     | ±9.6                   |
| 10430 | AAE | 5.0 MHz, 64-QAM, 100% RB                                    | LTE-FDD  | 8.28     | ±9.6                   |
| 10431 | AAE | 10.0 MHz, 64-QAM, 100% RB                                   | LTE-FDD  | 8.38     | ±9.6                   |
| 10432 | AAD | 15.0 MHz, 64-QAM, 100% RB                                   | LTE-FDD  | 8.34     | ±9.6                   |
| 10433 | AAD | 20.0 MHz, 64-QAM, 100% RB                                   | LTE-FDD  | 8.34     | ±9.6                   |
| 10434 | AAB | BS Test Model 1, 64 DPCH, 64QAM, 5.0 MHz (DL)               | WCDMA    | 8.60     | ±9.6                   |
| 10435 | AAG | 20.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 1 RB                  | LTE-TDD  | 7.82     | ±9.6                   |
| 10447 | AAE | 5.0 MHz, 64-QAM, 100% RB                                    | LTE-FDD  | 7.56     | ±9.6                   |
| 10448 | AAE | 10.0 MHz, 64-QAM, 100% RB                                   | LTE-FDD  | 7.53     | ±9.6                   |
| 10449 | AAD | 15.0 MHz, 64-QAM, 100% RB                                   | LTE-FDD  | 7.51     | ±9.6                   |
| 10450 | AAD | 20.0 MHz, 64-QAM, 100% RB                                   | LTE-FDD  | 7.48     | ±9.6                   |
| 10451 | AAB | BS Test Model 1, 64 DPCH, Clipping 44%, 64QAM, 5.0 MHz (DL) | WCDMA    | 7.59     | ±9.6                   |
| 10456 | AAD | VHT160, MCS5 (58.5 Mbps), 99.0% DC                          | WLAN     | 8.63     | ±9.6                   |
| 10457 | AAB | Rel. 5 DC-HSDPA, QPSK, 10.0 MHz                             | WCDMA    | 6.62     | ±9.6                   |
| 10458 | AAA | Rev. B, 2 carriers, 1xEV-DO                                 | CDMA2000 | 6.55     | ±9.6                   |
| 10459 | AAA | Rev. B, 3 carriers, 1xEV-DO                                 | CDMA2000 | 8.25     | ±9.6                   |
| 10460 | AAB | Rel. 99, AMR, QPSK, 5.0 MHz                                 | WCDMA    | 2.39     | ±9.6                   |
| 10461 | AAC | 1.4 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 1 RB                   | LTE-TDD  | 7.82     | ±9.6                   |
| 10462 | AAC | 1.4 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 1 RB                  | LTE-TDD  | 8.30     | ±9.6                   |
| 10463 | AAC | 1.4 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 1 RB                  | LTE-TDD  | 8.56     | ±9.6                   |
| 10464 | AAD | 3.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 1 RB                   | LTE-TDD  | 7.82     | ±9.6                   |
| 10465 | AAD | 3.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 1 RB                  | LTE-TDD  | 8.32     | ±9.6                   |
| 10466 | AAD | 3.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 1 RB                  | LTE-TDD  | 8.57     | ±9.6                   |
| 10467 | AAG | 5.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 1 RB                   | LTE-TDD  | 7.82     | ±9.6                   |
| 10468 | AAG | 5.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 1 RB                  | LTE-TDD  | 8.32     | ±9.6                   |
| 10469 | AAG | 5.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 1 RB                  | LTE-TDD  | 8.56     | ±9.6                   |
| 10470 | AAG | 10.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 1 RB                  | LTE-TDD  | 7.82     | ±9.6                   |
| 10471 | AAG | 10.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 1 RB                 | LTE-TDD  | 8.32     | ±9.6                   |
| 10472 | AAG | 10.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 1 RB                 | LTE-TDD  | 8.57     | ±9.6                   |
| 10473 | AAF | 15.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 1 RB                  | LTE-TDD  | 7.82     | ±9.6                   |
| 10474 | AAF | 15.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 1 RB                 | LTE-TDD  | 8.32     | ±9.6                   |
| 10475 | AAF | 15.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 1 RB                 | LTE-TDD  | 8.57     | ±9.6                   |
| 10477 | AAG | 20.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 1 RB                 | LTE-TDD  | 8.32     | ±9.6                   |
| 10478 | AAG | 20.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 1 RB                 | LTE-TDD  | 8.57     | ±9.6                   |
| 10479 | AAC | 1.4 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 50% RB                 | LTE-TDD  | 7.74     | ±9.6                   |
| 10480 | AAC | 1.4 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 50% RB                | LTE-TDD  | 8.18     | ±9.6                   |
| 10481 | AAC | 1.4 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 50% RB                | LTE-TDD  | 8.45     | ±9.6                   |
| 10482 | AAD | 3.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 50% RB                 | LTE-TDD  | 7.71     | ±9.6                   |
| 10483 | AAD | 3.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 50% RB                | LTE-TDD  | 8.39     | ±9.6                   |

| UID   | Rev | Communication System Name                      | Group   | PAR (dB) | Unc <sup>E</sup> $k = 2$ |
|-------|-----|------------------------------------------------|---------|----------|--------------------------|
| 10484 | AAD | 3.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 50% RB   | LTE-TDD | 8.47     | ±9.6                     |
| 10485 | AAG | 5.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 50% RB    | LTE-TDD | 7.59     | ±9.6                     |
| 10486 | AAG | 5.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 50% RB   | LTE-TDD | 8.38     | ±9.6                     |
| 10487 | AAG | 5.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 50% RB   | LTE-TDD | 8.60     | ±9.6                     |
| 10488 | AAG | 10.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 50% RB   | LTE-TDD | 7.70     | ±9.6                     |
| 10489 | AAG | 10.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 50% RB  | LTE-TDD | 8.31     | ±9.6                     |
| 10490 | AAG | 10.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 50% RB  | LTE-TDD | 8.54     | ±9.6                     |
| 10491 | AAF | 15.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 50% RB   | LTE-TDD | 7.74     | ±9.6                     |
| 10492 | AAF | 15.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 50% RB  | LTE-TDD | 8.41     | ±9.6                     |
| 10493 | AAF | 15.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 50% RB  | LTE-TDD | 8.55     | ±9.6                     |
| 10494 | AAG | 20.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 50% RB   | LTE-TDD | 7.74     | ±9.6                     |
| 10495 | AAG | 20.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 50% RB  | LTE-TDD | 8.37     | ±9.6                     |
| 10496 | AAG | 20.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 50% RB  | LTE-TDD | 8.54     | ±9.6                     |
| 10497 | AAC | 1.4 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 100% RB   | LTE-TDD | 7.67     | ±9.6                     |
| 10498 | AAC | 1.4 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 100% RB  | LTE-TDD | 8.40     | ±9.6                     |
| 10499 | AAC | 1.4 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 100% RB  | LTE-TDD | 8.68     | ±9.6                     |
| 10500 | AAD | 3.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 100% RB   | LTE-TDD | 7.67     | ±9.6                     |
| 10501 | AAD | 3.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 100% RB  | LTE-TDD | 8.44     | ±9.6                     |
| 10502 | AAD | 3.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 100% RB  | LTE-TDD | 8.52     | ±9.6                     |
| 10503 | AAG | 5.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 100% RB   | LTE-TDD | 7.72     | ±9.6                     |
| 10504 | AAG | 5.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 100% RB  | LTE-TDD | 8.31     | ±9.6                     |
| 10505 | AAG | 5.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 100% RB  | LTE-TDD | 8.54     | ±9.6                     |
| 10506 | AAG | 10.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 100% RB  | LTE-TDD | 7.74     | ±9.6                     |
| 10507 | AAG | 10.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 100% RB | LTE-TDD | 8.36     | ±9.6                     |
| 10508 | AAG | 10.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 100% RB | LTE-TDD | 8.55     | ±9.6                     |
| 10509 | AAF | 15.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 100% RB  | LTE-TDD | 7.99     | ±9.6                     |
| 10510 | AAF | 15.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 100% RB | LTE-TDD | 8.49     | ±9.6                     |
| 10511 | AAF | 15.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 100% RB | LTE-TDD | 8.51     | ±9.6                     |
| 10512 | AAG | 20.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 100% RB  | LTE-TDD | 7.74     | ±9.6                     |
| 10513 | AAG | 20.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 100% RB | LTE-TDD | 8.42     | ±9.6                     |
| 10514 | AAG | 20.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 100% RB | LTE-TDD | 8.45     | ±9.6                     |
| 10515 | AAA | DSSS, DQPSK, 2.0 Mbps, 99.0% DC                | WLAN    | 1.58     | ±9.6                     |
| 10516 | AAA | HR-DSSS, DQPSK, 5.5 Mbps, 99.2% DC             | WLAN    | 1.57     | ±9.6                     |
| 10517 | AAA | HR-DSSS, DQPSK, 11.0 Mbps, 99.0% DC            | WLAN    | 1.58     | ±9.6                     |
| 10518 | AAD | OFDM, BPSK, 9.0 Mbps, 98.9% DC                 | WLAN    | 8.23     | ±9.6                     |
| 10519 | AAD | OFDM, QPSK, 12.0 Mbps, 99.0% DC                | WLAN    | 8.39     | ±9.6                     |
| 10520 | AAD | OFDM, QPSK, 18.0 Mbps, 99.0% DC                | WLAN    | 8.12     | ±9.6                     |
| 10521 | AAD | OFDM, 16QAM, 24.0 Mbps, 99.0% DC               | WLAN    | 7.97     | ±9.6                     |
| 10522 | AAD | OFDM, 16QAM, 36.0 Mbps, 99.0% DC               | WLAN    | 8.45     | ±9.6                     |
| 10523 | AAD | OFDM, 64QAM, 48.0 Mbps, 99.0% DC               | WLAN    | 8.08     | ±9.6                     |
| 10524 | AAD | OFDM, 64QAM, 54.0 Mbps, 99.0% DC               | WLAN    | 8.27     | ±9.6                     |
| 10525 | AAD | VHT20, MCS0 (6.5 Mbps), 98.9% DC               | WLAN    | 8.36     | ±9.6                     |
| 10526 | AAD | VHT20, MCS1 (13.0 Mbps), 99.0% DC              | WLAN    | 8.42     | ±9.6                     |
| 10527 | AAD | VHT20, MCS2 (19.5 Mbps), 99.0% DC              | WLAN    | 8.21     | ±9.6                     |
| 10528 | AAD | VHT20, MCS3 (26.0 Mbps), 99.0% DC              | WLAN    | 8.36     | ±9.6                     |
| 10529 | AAD | VHT20, MCS4 (39.0 Mbps), 99.0% DC              | WLAN    | 8.36     | ±9.6                     |
| 10531 | AAD | VHT20, MCS6 (58.5 Mbps), 99.0% DC              | WLAN    | 8.43     | ±9.6                     |
| 10532 | AAD | VHT20, MCS7 (65.0 Mbps), 99.0% DC              | WLAN    | 8.29     | ±9.6                     |
| 10533 | AAD | VHT20, MCS8 (78.0 Mbps), 99.0% DC              | WLAN    | 8.38     | ±9.6                     |
| 10534 | AAD | VHT40, MCS0 (13.5 Mbps), 98.9% DC              | WLAN    | 8.45     | ±9.6                     |
| 10535 | AAD | VHT40, MCS1 (27.0 Mbps), 98.8% DC              | WLAN    | 8.45     | ±9.6                     |
| 10536 | AAD | VHT40, MCS2 (40.5 Mbps), 98.8% DC              | WLAN    | 8.32     | ±9.6                     |
| 10537 | AAD | VHT40, MCS3 (54.0 Mbps), 98.7% DC              | WLAN    | 8.44     | ±9.6                     |
| 10538 | AAD | VHT40, MCS4 (81.0 Mbps), 98.5% DC              | WLAN    | 8.54     | ±9.6                     |
| 10540 | AAD | VHT40, MCS6 (121.5 Mbps), 98.3% DC             | WLAN    | 8.39     | ±9.6                     |
| 10541 | AAD | VHT40, MCS7 (135.0 Mbps), 98.3% DC             | WLAN    | 8.46     | ±9.6                     |
| 10542 | AAD | VHT40, MCS8 (162.0 Mbps), 98.1% DC             | WLAN    | 8.65     | ±9.6                     |
| 10543 | AAD | VHT40, MCS9 (180.0 Mbps), 98.0% DC             | WLAN    | 8.65     | ±9.6                     |
| 10544 | AAD | VHT80, MCS0 (29.3 Mbps), 99.0% DC              | WLAN    | 8.47     | ±9.6                     |
| 10545 | AAD | VHT80, MCS1 (58.5 Mbps), 99.0% DC              | WLAN    | 8.55     | ±9.6                     |
| 10546 | AAD | VHT80, MCS2 (87.8 Mbps), 99.0% DC              | WLAN    | 8.35     | ±9.6                     |
| 10547 | AAD | VHT80, MCS3 (117.0 Mbps), 99.0% DC             | WLAN    | 8.49     | ±9.6                     |
| 10548 | AAD | VHT80, MCS4 (175.5 Mbps), 99.0% DC             | WLAN    | 8.37     | ±9.6                     |
| 10550 | AAD | VHT80, MCS6 (263.3 Mbps), 99.0% DC             | WLAN    | 8.38     | ±9.6                     |
| 10551 | AAD | VHT80, MCS7 (292.5 Mbps), 99.0% DC             | WLAN    | 8.50     | ±9.6                     |
| 10552 | AAD | VHT80, MCS8 (351.0 Mbps), 99.0% DC             | WLAN    | 8.42     | ±9.6                     |

| UID   | Rev | Communication System Name               | Group | PAR (dB) | Unc <sup>E</sup> $k = 2$ |
|-------|-----|-----------------------------------------|-------|----------|--------------------------|
| 10553 | AAD | VHT80, MCS9 (390.0 Mbps), 99.0% DC      | WLAN  | 8.45     | ±9.6                     |
| 10554 | AAE | VHT160, MCS0 (58.5 Mbps), 99.0% DC      | WLAN  | 8.48     | ±9.6                     |
| 10555 | AAE | VHT160, MCS1 (117.0 Mbps), 99.0% DC     | WLAN  | 8.47     | ±9.6                     |
| 10556 | AAE | VHT160, MCS2 (175.5 Mbps), 99.0% DC     | WLAN  | 8.50     | ±9.6                     |
| 10557 | AAE | VHT160, MCS3 (234.0 Mbps), 99.0% DC     | WLAN  | 8.52     | ±9.6                     |
| 10558 | AAE | VHT160, MCS4 (351.0 Mbps), 99.0% DC     | WLAN  | 8.61     | ±9.6                     |
| 10560 | AAE | VHT160, MCS6 (526.5 Mbps), 99.0% DC     | WLAN  | 8.73     | ±9.6                     |
| 10561 | AAE | VHT160, MCS7 (585.0 Mbps), 99.0% DC     | WLAN  | 8.56     | ±9.6                     |
| 10562 | AAE | VHT160, MCS8 (702.0 Mbps), 99.0% DC     | WLAN  | 8.69     | ±9.6                     |
| 10563 | AAE | VHT160, MCS9 (780.0 Mbps), 99.0% DC     | WLAN  | 8.77     | ±9.6                     |
| 10564 | AAA | OFDM, BPSK, 9.0 Mbps, 98.9% DC          | WLAN  | 8.25     | ±9.6                     |
| 10565 | AAA | OFDM, QPSK, 12.0 Mbps, 99.0% DC         | WLAN  | 8.45     | ±9.6                     |
| 10566 | AAA | OFDM, QPSK, 18.0 Mbps, 99.0% DC         | WLAN  | 8.13     | ±9.6                     |
| 10567 | AAA | OFDM, 16QAM, 24.0 Mbps, 99.0% DC        | WLAN  | 8.00     | ±9.6                     |
| 10568 | AAA | OFDM, 16QAM, 36.0 Mbps, 99.0% DC        | WLAN  | 8.37     | ±9.6                     |
| 10569 | AAA | OFDM, 64QAM, 48.0 Mbps, 99.0% DC        | WLAN  | 8.10     | ±9.6                     |
| 10570 | AAA | OFDM, 64QAM, 54.0 Mbps, 99.0% DC        | WLAN  | 8.30     | ±9.6                     |
| 10571 | AAA | DSSS, DQPSK, 1.0 Mbps, 90.0% DC         | WLAN  | 1.99     | ±9.6                     |
| 10572 | AAA | DSSS, DQPSK, 2.0 Mbps, 90.0% DC         | WLAN  | 1.99     | ±9.6                     |
| 10573 | AAA | HR-DSSS, DQPSK, 5.5 Mbps, 90.1% DC      | WLAN  | 1.98     | ±9.6                     |
| 10574 | AAA | HR-DSSS, DQPSK, 11.0 Mbps, 90.3% DC     | WLAN  | 1.98     | ±9.6                     |
| 10575 | AAA | OFDM, BPSK, 6.0 Mbps, 89.9% DC          | WLAN  | 8.59     | ±9.6                     |
| 10576 | AAA | OFDM, BPSK, 9.0 Mbps, 89.9% DC          | WLAN  | 8.60     | ±9.6                     |
| 10577 | AAA | OFDM, QPSK, 12.0 Mbps, 90.0% DC         | WLAN  | 8.70     | ±9.6                     |
| 10578 | AAA | OFDM, QPSK, 18.0 Mbps, 90.0% DC         | WLAN  | 8.49     | ±9.6                     |
| 10579 | AAA | OFDM, 16QAM, 24.0 Mbps, 90.0% DC        | WLAN  | 8.36     | ±9.6                     |
| 10580 | AAA | OFDM, 16QAM, 36.0 Mbps, 90.0% DC        | WLAN  | 8.76     | ±9.6                     |
| 10581 | AAA | OFDM, 64QAM, 48.0 Mbps, 90.0% DC        | WLAN  | 8.35     | ±9.6                     |
| 10582 | AAA | OFDM, 64QAM, 54.0 Mbps, 90.0% DC        | WLAN  | 8.67     | ±9.6                     |
| 10583 | AAD | OFDM, BPSK, 6.0 Mbps, 89.9% DC          | WLAN  | 8.59     | ±9.6                     |
| 10584 | AAD | OFDM, BPSK, 9.0 Mbps, 89.9% DC          | WLAN  | 8.60     | ±9.6                     |
| 10585 | AAD | OFDM, QPSK, 12.0 Mbps, 90.0% DC         | WLAN  | 8.70     | ±9.6                     |
| 10586 | AAD | OFDM, QPSK, 18.0 Mbps, 90.0% DC         | WLAN  | 8.49     | ±9.6                     |
| 10587 | AAD | OFDM, 16QAM, 24.0 Mbps, 90.0% DC        | WLAN  | 8.36     | ±9.6                     |
| 10588 | AAD | OFDM, 16QAM, 36.0 Mbps, 90.0% DC        | WLAN  | 8.76     | ±9.6                     |
| 10589 | AAD | OFDM, 64QAM, 48.0 Mbps, 90.0% DC        | WLAN  | 8.35     | ±9.6                     |
| 10590 | AAD | OFDM, 64QAM, 54.0 Mbps, 90.0% DC        | WLAN  | 8.67     | ±9.6                     |
| 10591 | AAD | HT20 Mixed, MCS0 (6.5 Mbps), 89.9% DC   | WLAN  | 8.63     | ±9.6                     |
| 10592 | AAD | HT20 Mixed, MCS1 (13.0 Mbps), 90.0% DC  | WLAN  | 8.79     | ±9.6                     |
| 10593 | AAD | HT20 Mixed, MCS2 (19.5 Mbps), 90.0% DC  | WLAN  | 8.64     | ±9.6                     |
| 10594 | AAD | HT20 Mixed, MCS3 (26.0 Mbps), 90.0% DC  | WLAN  | 8.74     | ±9.6                     |
| 10595 | AAD | HT20 Mixed, MCS4 (39.0 Mbps), 90.0% DC  | WLAN  | 8.74     | ±9.6                     |
| 10596 | AAD | HT20 Mixed, MCS5 (52.0 Mbps), 90.0% DC  | WLAN  | 8.71     | ±9.6                     |
| 10597 | AAD | HT20 Mixed, MCS6 (58.5 Mbps), 90.0% DC  | WLAN  | 8.72     | ±9.6                     |
| 10598 | AAD | HT20 Mixed, MCS7 (65.0 Mbps), 90.0% DC  | WLAN  | 8.50     | ±9.6                     |
| 10599 | AAD | HT40 Mixed, MCS0 (13.5 Mbps), 89.9% DC  | WLAN  | 8.79     | ±9.6                     |
| 10600 | AAD | HT40 Mixed, MCS1 (27.0 Mbps), 89.7% DC  | WLAN  | 8.88     | ±9.6                     |
| 10601 | AAD | HT40 Mixed, MCS2 (40.5 Mbps), 89.6% DC  | WLAN  | 8.82     | ±9.6                     |
| 10602 | AAD | HT40 Mixed, MCS3 (54.0 Mbps), 89.4% DC  | WLAN  | 8.94     | ±9.6                     |
| 10603 | AAD | HT40 Mixed, MCS4 (81.0 Mbps), 89.2% DC  | WLAN  | 9.03     | ±9.6                     |
| 10604 | AAD | HT40 Mixed, MCS5 (108.0 Mbps), 88.9% DC | WLAN  | 8.76     | ±9.6                     |
| 10605 | AAD | HT40 Mixed, MCS6 (121.5 Mbps), 88.8% DC | WLAN  | 8.97     | ±9.6                     |
| 10606 | AAD | HT40 Mixed, MCS7 (135.0 Mbps), 88.7% DC | WLAN  | 8.82     | ±9.6                     |
| 10607 | AAD | VHT20, MCS0 (6.5 Mbps), 89.9% DC        | WLAN  | 8.64     | ±9.6                     |
| 10608 | AAD | VHT20, MCS1 (13.0 Mbps), 90.0% DC       | WLAN  | 8.77     | ±9.6                     |
| 10609 | AAD | VHT20, MCS2 (19.5 Mbps), 90.0% DC       | WLAN  | 8.57     | ±9.6                     |
| 10610 | AAD | VHT20, MCS3 (26.0 Mbps), 90.0% DC       | WLAN  | 8.78     | ±9.6                     |
| 10611 | AAD | VHT20, MCS4 (39.0 Mbps), 90.0% DC       | WLAN  | 8.70     | ±9.6                     |
| 10612 | AAD | VHT20, MCS5 (52.0 Mbps), 90.0% DC       | WLAN  | 8.77     | ±9.6                     |
| 10613 | AAD | VHT20, MCS6 (58.5 Mbps), 90.0% DC       | WLAN  | 8.94     | ±9.6                     |
| 10614 | AAD | VHT20, MCS7 (65.0 Mbps), 90.0% DC       | WLAN  | 8.59     | ±9.6                     |
| 10615 | AAD | VHT20, MCS8 (78.0 Mbps), 90.0% DC       | WLAN  | 8.82     | ±9.6                     |
| 10616 | AAD | VHT40, MCS0 (13.5 Mbps), 89.9% DC       | WLAN  | 8.82     | ±9.6                     |
| 10617 | AAD | VHT40, MCS1 (27.0 Mbps), 89.7% DC       | WLAN  | 8.81     | ±9.6                     |
| 10618 | AAD | VHT40, MCS2 (40.5 Mbps), 89.6% DC       | WLAN  | 8.58     | ±9.6                     |
| 10619 | AAD | VHT40, MCS3 (54.0 Mbps), 89.4% DC       | WLAN  | 8.86     | ±9.6                     |

| UID   | Rev | Communication System Name                  | Group     | PAR (dB) | Unc <sup>E</sup> $k = 2$ |
|-------|-----|--------------------------------------------|-----------|----------|--------------------------|
| 10620 | AAD | VHT40, MCS4 (81.0 Mbps), 89.2% DC          | WLAN      | 8.87     | ±9.6                     |
| 10621 | AAD | VHT40, MCS5 (108.0 Mbps), 88.9% DC         | WLAN      | 8.77     | ±9.6                     |
| 10622 | AAD | VHT40, MCS6 (121.5 Mbps), 88.8% DC         | WLAN      | 8.68     | ±9.6                     |
| 10623 | AAD | VHT40, MCS7 (135.0 Mbps), 88.6% DC         | WLAN      | 8.82     | ±9.6                     |
| 10624 | AAD | VHT40, MCS8 (162.0 Mbps), 88.4% DC         | WLAN      | 8.96     | ±9.6                     |
| 10625 | AAD | VHT40, MCS9 (180.0 Mbps), 88.2% DC         | WLAN      | 8.96     | ±9.6                     |
| 10626 | AAD | VHT80, MCS0 (29.3 Mbps), 90.0% DC          | WLAN      | 8.83     | ±9.6                     |
| 10627 | AAD | VHT80, MCS1 (58.5 Mbps), 90.0% DC          | WLAN      | 8.88     | ±9.6                     |
| 10628 | AAD | VHT80, MCS2 (87.8 Mbps), 90.0% DC          | WLAN      | 8.71     | ±9.6                     |
| 10629 | AAD | VHT80, MCS3 (117.0 Mbps), 90.0% DC         | WLAN      | 8.85     | ±9.6                     |
| 10630 | AAD | VHT80, MCS4 (175.5 Mbps), 90.0% DC         | WLAN      | 8.72     | ±9.6                     |
| 10631 | AAD | VHT80, MCS5 (234.0 Mbps), 90.0% DC         | WLAN      | 8.81     | ±9.6                     |
| 10632 | AAD | VHT80, MCS6 (263.3 Mbps), 90.0% DC         | WLAN      | 8.74     | ±9.6                     |
| 10633 | AAD | VHT80, MCS7 (292.5 Mbps), 90.0% DC         | WLAN      | 8.83     | ±9.6                     |
| 10634 | AAD | VHT80, MCS8 (351.0 Mbps), 90.0% DC         | WLAN      | 8.80     | ±9.6                     |
| 10635 | AAD | VHT80, MCS9 (390.0 Mbps), 90.0% DC         | WLAN      | 8.81     | ±9.6                     |
| 10636 | AAE | VHT160, MCS0 (58.5 Mbps), 90.0% DC         | WLAN      | 8.83     | ±9.6                     |
| 10637 | AAE | VHT160, MCS1 (117.0 Mbps), 90.0% DC        | WLAN      | 8.79     | ±9.6                     |
| 10638 | AAE | VHT160, MCS2 (175.5 Mbps), 90.0% DC        | WLAN      | 8.86     | ±9.6                     |
| 10639 | AAE | VHT160, MCS3 (234.0 Mbps), 90.0% DC        | WLAN      | 8.85     | ±9.6                     |
| 10640 | AAE | VHT160, MCS4 (351.0 Mbps), 90.0% DC        | WLAN      | 8.98     | ±9.6                     |
| 10641 | AAE | VHT160, MCS5 (468.0 Mbps), 90.0% DC        | WLAN      | 9.06     | ±9.6                     |
| 10642 | AAE | VHT160, MCS6 (526.5 Mbps), 90.0% DC        | WLAN      | 9.06     | ±9.6                     |
| 10643 | AAE | VHT160, MCS7 (585.0 Mbps), 90.0% DC        | WLAN      | 8.89     | ±9.6                     |
| 10644 | AAE | VHT160, MCS8 (702.0 Mbps), 90.0% DC        | WLAN      | 9.05     | ±9.6                     |
| 10645 | AAE | VHT160, MCS9 (780.0 Mbps), 90.0% DC        | WLAN      | 9.11     | ±9.6                     |
| 10646 | AAH | 5.0 MHz, QPSK, UL/DL CFG: 2, SSC: 4, 1 RB  | LTE-TDD   | 11.96    | ±9.6                     |
| 10647 | AAG | 20.0 MHz, QPSK, UL/DL CFG: 2, SSC: 7, 1 RB | LTE-TDD   | 11.96    | ±9.6                     |
| 10648 | AAA | RC8, SO75, 1xAdvanced                      | CDMA2000  | 3.45     | ±9.6                     |
| 10670 | AAA | LE, Test, GFSK                             | Bluetooth | 2.19     | ±9.6                     |
| 10671 | AAC | ET20, MCS0 (8.6 Mbps), 90.0% DC            | WLAN      | 9.09     | ±9.6                     |
| 10672 | AAC | ET20, MCS1 (17.0 Mbps), 90.0% DC           | WLAN      | 8.57     | ±9.6                     |
| 10673 | AAC | ET20, MCS2 (26.0 Mbps), 90.0% DC           | WLAN      | 8.78     | ±9.6                     |
| 10674 | AAC | ET20, MCS3 (34.0 Mbps), 90.0% DC           | WLAN      | 8.74     | ±9.6                     |
| 10675 | AAC | ET20, MCS4 (52.0 Mbps), 90.0% DC           | WLAN      | 8.90     | ±9.6                     |
| 10676 | AAC | ET20, MCS5 (69.0 Mbps), 90.0% DC           | WLAN      | 8.77     | ±9.6                     |
| 10677 | AAC | ET20, MCS6 (77.0 Mbps), 90.0% DC           | WLAN      | 8.73     | ±9.6                     |
| 10678 | AAC | ET20, MCS7 (86.0 Mbps), 90.0% DC           | WLAN      | 8.78     | ±9.6                     |
| 10679 | AAC | ET20, MCS8 (103.0 Mbps), 90.0% DC          | WLAN      | 8.89     | ±9.6                     |
| 10680 | AAC | ET20, MCS9 (115.0 Mbps), 90.0% DC          | WLAN      | 8.80     | ±9.6                     |
| 10681 | AAC | ET20, MCS10 (122.0 Mbps), 90.0% DC         | WLAN      | 8.62     | ±9.6                     |
| 10682 | AAC | ET20, MCS11 (135.0 Mbps), 90.0% DC         | WLAN      | 8.83     | ±9.6                     |
| 10683 | AAC | ET20, MCS0 (8.6 Mbps), 100.0% DC           | WLAN      | 8.42     | ±9.6                     |
| 10684 | AAC | ET20, MCS1 (17.0 Mbps), 100.0% DC          | WLAN      | 8.26     | ±9.6                     |
| 10685 | AAC | ET20, MCS2 (26.0 Mbps), 100.0% DC          | WLAN      | 8.33     | ±9.6                     |
| 10686 | AAC | ET20, MCS3 (34.0 Mbps), 100.0% DC          | WLAN      | 8.28     | ±9.6                     |
| 10687 | AAC | ET20, MCS4 (52.0 Mbps), 100.0% DC          | WLAN      | 8.45     | ±9.6                     |
| 10688 | AAC | ET20, MCS5 (69.0 Mbps), 100.0% DC          | WLAN      | 8.29     | ±9.6                     |
| 10689 | AAC | ET20, MCS6 (77.0 Mbps), 100.0% DC          | WLAN      | 8.55     | ±9.6                     |
| 10690 | AAC | ET20, MCS7 (86.0 Mbps), 100.0% DC          | WLAN      | 8.29     | ±9.6                     |
| 10691 | AAC | ET20, MCS8 (103.0 Mbps), 100.0% DC         | WLAN      | 8.25     | ±9.6                     |
| 10692 | AAC | ET20, MCS9 (115.0 Mbps), 100.0% DC         | WLAN      | 8.29     | ±9.6                     |
| 10693 | AAC | ET20, MCS10 (122.0 Mbps), 100.0% DC        | WLAN      | 8.25     | ±9.6                     |
| 10694 | AAC | ET20, MCS11 (135.0 Mbps), 100.0% DC        | WLAN      | 8.57     | ±9.6                     |
| 10695 | AAC | ET40, MCS0 (17.2 Mbps), 89.8% DC           | WLAN      | 8.78     | ±9.6                     |
| 10696 | AAC | ET40, MCS1 (34.0 Mbps), 89.8% DC           | WLAN      | 8.91     | ±9.6                     |
| 10697 | AAC | ET40, MCS2 (52.0 Mbps), 89.7% DC           | WLAN      | 8.61     | ±9.6                     |
| 10698 | AAC | ET40, MCS3 (69.0 Mbps), 89.7% DC           | WLAN      | 8.89     | ±9.6                     |
| 10699 | AAC | ET40, MCS4 (103.0 Mbps), 89.9% DC          | WLAN      | 8.82     | ±9.6                     |
| 10700 | AAC | ET40, MCS5 (138.0 Mbps), 89.8% DC          | WLAN      | 8.73     | ±9.6                     |
| 10701 | AAC | ET40, MCS6 (155.0 Mbps), 89.8% DC          | WLAN      | 8.86     | ±9.6                     |
| 10702 | AAC | ET40, MCS7 (172.0 Mbps), 89.8% DC          | WLAN      | 8.70     | ±9.6                     |
| 10703 | AAC | ET40, MCS8 (207.0 Mbps), 89.8% DC          | WLAN      | 8.82     | ±9.6                     |
| 10704 | AAC | ET40, MCS9 (229.0 Mbps), 89.8% DC          | WLAN      | 8.56     | ±9.6                     |
| 10705 | AAC | ET40, MCS10 (258.0 Mbps), 89.8% DC         | WLAN      | 8.69     | ±9.6                     |
| 10706 | AAC | ET40, MCS11 (267.0 Mbps), 89.8% DC         | WLAN      | 8.66     | ±9.6                     |

| UID   | Rev | Communication System Name                        | Group         | PAR (dB) | Unc <sup>E</sup> $k = 2$ |
|-------|-----|--------------------------------------------------|---------------|----------|--------------------------|
| 10707 | AAC | ET40, MCS0 (17.2 Mbps), 99.8% DC                 | WLAN          | 8.32     | ±9.6                     |
| 10708 | AAC | ET40, MCS1 (34.0 Mbps), 99.7% DC                 | WLAN          | 8.55     | ±9.6                     |
| 10709 | AAC | ET40, MCS2 (52.0 Mbps), 99.7% DC                 | WLAN          | 8.33     | ±9.6                     |
| 10710 | AAC | ET40, MCS3 (69.0 Mbps), 99.7% DC                 | WLAN          | 8.29     | ±9.6                     |
| 10711 | AAC | ET40, MCS4 (103.0 Mbps), 99.8% DC                | WLAN          | 8.39     | ±9.6                     |
| 10712 | AAC | ET40, MCS5 (138.0 Mbps), 99.8% DC                | WLAN          | 8.67     | ±9.6                     |
| 10713 | AAC | ET40, MCS6 (155.0 Mbps), 99.8% DC                | WLAN          | 8.33     | ±9.6                     |
| 10714 | AAC | ET40, MCS7 (172.0 Mbps), 99.8% DC                | WLAN          | 8.26     | ±9.6                     |
| 10715 | AAC | ET40, MCS8 (207.0 Mbps), 99.8% DC                | WLAN          | 8.45     | ±9.6                     |
| 10716 | AAC | ET40, MCS9 (229.0 Mbps), 99.8% DC                | WLAN          | 8.30     | ±9.6                     |
| 10717 | AAC | ET40, MCS10 (258.0 Mbps), 99.8% DC               | WLAN          | 8.48     | ±9.6                     |
| 10718 | AAC | ET40, MCS11 (267.0 Mbps), 99.8% DC               | WLAN          | 8.24     | ±9.6                     |
| 10719 | AAC | ET80, MCS0 (36.0 Mbps), 90.0% DC                 | WLAN          | 8.81     | ±9.6                     |
| 10720 | AAC | ET80, MCS1 (72.1 Mbps), 90.0% DC                 | WLAN          | 8.87     | ±9.6                     |
| 10721 | AAC | ET80, MCS2 (108.1 Mbps), 90.0% DC                | WLAN          | 8.76     | ±9.6                     |
| 10722 | AAC | ET80, MCS3 (144.1 Mbps), 90.0% DC                | WLAN          | 8.55     | ±9.6                     |
| 10723 | AAC | ET80, MCS4 (216.2 Mbps), 90.0% DC                | WLAN          | 8.70     | ±9.6                     |
| 10724 | AAC | ET80, MCS5 (288.2 Mbps), 90.0% DC                | WLAN          | 8.90     | ±9.6                     |
| 10725 | AAC | ET80, MCS6 (324.4 Mbps), 90.0% DC                | WLAN          | 8.74     | ±9.6                     |
| 10726 | AAC | ET80, MCS7 (360.3 Mbps), 90.0% DC                | WLAN          | 8.72     | ±9.6                     |
| 10727 | AAC | ET80, MCS8 (432.4 Mbps), 90.0% DC                | WLAN          | 8.66     | ±9.6                     |
| 10728 | AAC | ET80, MCS9 (480.4 Mbps), 90.0% DC                | WLAN          | 8.65     | ±9.6                     |
| 10729 | AAC | ET80, MCS10 (540.4 Mbps), 90.0% DC               | WLAN          | 8.64     | ±9.6                     |
| 10730 | AAC | ET80, MCS11 (72.0 Mbps), 90.0% DC                | WLAN          | 8.67     | ±9.6                     |
| 10731 | AAC | ET80, MCS0 (36.0 Mbps), 100.0% DC                | WLAN          | 8.42     | ±9.6                     |
| 10732 | AAC | ET80, MCS1 (72.1 Mbps), 100.0% DC                | WLAN          | 8.46     | ±9.6                     |
| 10733 | AAC | ET80, MCS2 (108.1 Mbps), 100.0% DC               | WLAN          | 8.40     | ±9.6                     |
| 10734 | AAC | ET80, MCS3 (144.1 Mbps), 100.0% DC               | WLAN          | 8.25     | ±9.6                     |
| 10735 | AAC | ET80, MCS4 (216.2 Mbps), 100.0% DC               | WLAN          | 8.33     | ±9.6                     |
| 10736 | AAC | ET80, MCS5 (288.2 Mbps), 100.0% DC               | WLAN          | 8.27     | ±9.6                     |
| 10737 | AAC | ET80, MCS6 (324.4 Mbps), 100.0% DC               | WLAN          | 8.36     | ±9.6                     |
| 10738 | AAC | ET80, MCS7 (360.3 Mbps), 100.0% DC               | WLAN          | 8.42     | ±9.6                     |
| 10739 | AAC | ET80, MCS8 (432.4 Mbps), 100.0% DC               | WLAN          | 8.29     | ±9.6                     |
| 10740 | AAC | ET80, MCS9 (480.4 Mbps), 100.0% DC               | WLAN          | 8.48     | ±9.6                     |
| 10741 | AAC | ET80, MCS10 (540.4 Mbps), 100.0% DC              | WLAN          | 8.40     | ±9.6                     |
| 10742 | AAC | ET80, MCS11 (600.5 Mbps), 100.0% DC              | WLAN          | 8.43     | ±9.6                     |
| 10743 | AAC | ET160, MCS0 (72.0 Mbps), 88.2% DC                | WLAN          | 8.94     | ±9.6                     |
| 10744 | AAC | ET160, MCS1 (144.0 Mbps), 87.1% DC               | WLAN          | 9.16     | ±9.6                     |
| 10745 | AAC | ET160, MCS2 (216.0 Mbps), 87.4% DC               | WLAN          | 8.93     | ±9.6                     |
| 10746 | AAC | ET160, MCS3 (282.0 Mbps), 87.1% DC               | WLAN          | 9.11     | ±9.6                     |
| 10747 | AAC | ET160, MCS4 (432.0 Mbps), 87.4% DC               | WLAN          | 9.04     | ±9.6                     |
| 10748 | AAC | ET160, MCS5 (576.0 Mbps), 86.8% DC               | WLAN          | 8.93     | ±9.6                     |
| 10749 | AAC | ET160, MCS6 (649.0 Mbps), 86.7% DC               | WLAN          | 8.90     | ±9.6                     |
| 10750 | AAC | ET160, MCS7 (721.0 Mbps), 86.7% DC               | WLAN          | 8.79     | ±9.6                     |
| 10751 | AAC | ET160, MCS8 (865.0 Mbps), 86.3% DC               | WLAN          | 8.82     | ±9.6                     |
| 10752 | AAC | ET160, MCS9 (961.0 Mbps), 86.3% DC               | WLAN          | 8.81     | ±9.6                     |
| 10753 | AAC | ET160, MCS10 (1081.0 Mbps), 86.7% DC             | WLAN          | 9.00     | ±9.6                     |
| 10754 | AAC | ET160, MCS11 (1201.0 Mbps), 86.7% DC             | WLAN          | 8.94     | ±9.6                     |
| 10755 | AAC | ET160, MCS0 (72.0 Mbps), 98.0% DC                | WLAN          | 8.64     | ±9.6                     |
| 10756 | AAC | ET160, MCS1 (144.0 Mbps), 98.8% DC               | WLAN          | 8.77     | ±9.6                     |
| 10757 | AAC | ET160, MCS2 (216.0 Mbps), 97.1% DC               | WLAN          | 8.77     | ±9.6                     |
| 10758 | AAC | ET160, MCS3 (282.0 Mbps), 96.8% DC               | WLAN          | 8.69     | ±9.6                     |
| 10759 | AAC | ET160, MCS4 (432.0 Mbps), 97.1% DC               | WLAN          | 8.58     | ±9.6                     |
| 10760 | AAC | ET160, MCS5 (576.0 Mbps), 96.5% DC               | WLAN          | 8.49     | ±9.6                     |
| 10761 | AAC | ET160, MCS6 (649.0 Mbps), 96.3% DC               | WLAN          | 8.58     | ±9.6                     |
| 10762 | AAC | ET160, MCS7 (721.0 Mbps), 96.3% DC               | WLAN          | 8.49     | ±9.6                     |
| 10763 | AAC | ET160, MCS8 (865.0 Mbps), 95.9% DC               | WLAN          | 8.53     | ±9.6                     |
| 10764 | AAC | ET160, MCS9 (961.0 Mbps), 95.9% DC               | WLAN          | 8.54     | ±9.6                     |
| 10765 | AAC | ET160, MCS10 (1081.0 Mbps), 96.3% DC             | WLAN          | 8.54     | ±9.6                     |
| 10766 | AAC | ET160, MCS11 (1201.0 Mbps), 96.3% DC             | WLAN          | 8.51     | ±9.6                     |
| 10767 | AAG | CP-OFDM, 5.0 MHz, QPSK, 15 kHz, 99.9% DC, 1 RB   | 5G NR FR1 TDD | 7.99     | ±9.6                     |
| 10768 | AAE | CP-OFDM, 10.0 MHz, QPSK, 15 kHz, 100.0% DC, 1 RB | 5G NR FR1 TDD | 8.01     | ±9.6                     |
| 10769 | AAD | CP-OFDM, 15.0 MHz, QPSK, 15 kHz, 100.0% DC, 1 RB | 5G NR FR1 TDD | 8.01     | ±9.6                     |
| 10770 | AAE | CP-OFDM, 20.0 MHz, QPSK, 15 kHz, 100.0% DC, 1 RB | 5G NR FR1 TDD | 8.02     | ±9.6                     |
| 10771 | AAD | CP-OFDM, 25.0 MHz, QPSK, 15 kHz, 100.0% DC, 1 RB | 5G NR FR1 TDD | 8.02     | ±9.6                     |
| 10772 | AAE | CP-OFDM, 30.0 MHz, QPSK, 15 kHz, 100.0% DC, 1 RB | 5G NR FR1 TDD | 8.23     | ±9.6                     |

| UID   | Rev | Communication System Name                            | Group         | PAR (dB) | Unc <sup>E</sup> k = 2 |
|-------|-----|------------------------------------------------------|---------------|----------|------------------------|
| 10773 | AAF | CP-OFDM, 40.0 MHz, QPSK, 15 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 8.03     | ±9.6                   |
| 10774 | AAE | CP-OFDM, 50.0 MHz, QPSK, 15 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 8.02     | ±9.6                   |
| 10775 | AAF | CP-OFDM, 5.0 MHz, QPSK, 15 kHz, 100.0% DC, 50% RB    | 5G NR FR1 TDD | 8.31     | ±9.6                   |
| 10776 | AAE | CP-OFDM, 10.0 MHz, QPSK, 15 kHz, 100.0% DC, 50% RB   | 5G NR FR1 TDD | 8.30     | ±9.6                   |
| 10777 | AAC | CP-OFDM, 15.0 MHz, QPSK, 15 kHz, 100.0% DC, 50% RB   | 5G NR FR1 TDD | 8.30     | ±9.6                   |
| 10778 | AAE | CP-OFDM, 20.0 MHz, QPSK, 15 kHz, 100.0% DC, 50% RB   | 5G NR FR1 TDD | 8.34     | ±9.6                   |
| 10779 | AAC | CP-OFDM, 25.0 MHz, QPSK, 15 kHz, 100.0% DC, 50% RB   | 5G NR FR1 TDD | 8.42     | ±9.6                   |
| 10780 | AAE | CP-OFDM, 30.0 MHz, QPSK, 15 kHz, 100.0% DC, 50% RB   | 5G NR FR1 TDD | 8.38     | ±9.6                   |
| 10781 | AAF | CP-OFDM, 40.0 MHz, QPSK, 15 kHz, 100.0% DC, 50% RB   | 5G NR FR1 TDD | 8.38     | ±9.6                   |
| 10782 | AAE | CP-OFDM, 50.0 MHz, QPSK, 15 kHz, 100.0% DC, 50% RB   | 5G NR FR1 TDD | 8.43     | ±9.6                   |
| 10783 | AAG | CP-OFDM, 5.0 MHz, QPSK, 15 kHz, 100.0% DC, 100% RB   | 5G NR FR1 TDD | 8.31     | ±9.6                   |
| 10784 | AAE | CP-OFDM, 10.0 MHz, QPSK, 15 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.29     | ±9.6                   |
| 10785 | AAD | CP-OFDM, 15.0 MHz, QPSK, 15 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.40     | ±9.6                   |
| 10786 | AAE | CP-OFDM, 20.0 MHz, QPSK, 15 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.35     | ±9.6                   |
| 10787 | AAD | CP-OFDM, 25.0 MHz, QPSK, 15 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.44     | ±9.6                   |
| 10788 | AAE | CP-OFDM, 30.0 MHz, QPSK, 15 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.39     | ±9.6                   |
| 10789 | AAF | CP-OFDM, 40.0 MHz, QPSK, 15 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.37     | ±9.6                   |
| 10790 | AAE | CP-OFDM, 50.0 MHz, QPSK, 15 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.39     | ±9.6                   |
| 10791 | AAG | CP-OFDM, 5.0 MHz, QPSK, 30 kHz, 99.9% DC, 1 RB       | 5G NR FR1 TDD | 7.83     | ±9.6                   |
| 10792 | AAE | CP-OFDM, 10.0 MHz, QPSK, 30 kHz, 99.9% DC, 1 RB      | 5G NR FR1 TDD | 7.92     | ±9.6                   |
| 10793 | AAD | CP-OFDM, 15.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 7.95     | ±9.6                   |
| 10794 | AAE | CP-OFDM, 20.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 7.82     | ±9.6                   |
| 10795 | AAD | CP-OFDM, 25.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 7.84     | ±9.6                   |
| 10796 | AAE | CP-OFDM, 30.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 7.82     | ±9.6                   |
| 10797 | AAF | CP-OFDM, 40.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 8.01     | ±9.6                   |
| 10798 | AAE | CP-OFDM, 50.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 7.89     | ±9.6                   |
| 10799 | AAF | CP-OFDM, 60.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 7.93     | ±9.6                   |
| 10801 | AAF | CP-OFDM, 80.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 7.89     | ±9.6                   |
| 10802 | AAE | CP-OFDM, 90.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 7.87     | ±9.6                   |
| 10803 | AAF | CP-OFDM, 100.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB    | 5G NR FR1 TDD | 7.93     | ±9.6                   |
| 10805 | AAE | CP-OFDM, 10.0 MHz, QPSK, 30 kHz, 100.0% DC, 50% RB   | 5G NR FR1 TDD | 8.34     | ±9.6                   |
| 10806 | AAD | CP-OFDM, 15.0 MHz, QPSK, 30 kHz, 100.0% DC, 50% RB   | 5G NR FR1 TDD | 8.37     | ±9.6                   |
| 10809 | AAE | CP-OFDM, 30.0 MHz, QPSK, 30 kHz, 100.0% DC, 50% RB   | 5G NR FR1 TDD | 8.34     | ±9.6                   |
| 10810 | AAF | CP-OFDM, 40.0 MHz, QPSK, 30 kHz, 100.0% DC, 50% RB   | 5G NR FR1 TDD | 8.34     | ±9.6                   |
| 10812 | AAF | CP-OFDM, 60.0 MHz, QPSK, 30 kHz, 100.0% DC, 50% RB   | 5G NR FR1 TDD | 8.35     | ±9.6                   |
| 10817 | AAG | CP-OFDM, 5.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB   | 5G NR FR1 TDD | 8.35     | ±9.6                   |
| 10818 | AAE | CP-OFDM, 10.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.34     | ±9.6                   |
| 10819 | AAD | CP-OFDM, 15.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.33     | ±9.6                   |
| 10820 | AAE | CP-OFDM, 20.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.30     | ±9.6                   |
| 10821 | AAD | CP-OFDM, 25.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.41     | ±9.6                   |
| 10822 | AAE | CP-OFDM, 30.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.41     | ±9.6                   |
| 10823 | AAF | CP-OFDM, 40.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.36     | ±9.6                   |
| 10824 | AAE | CP-OFDM, 50.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.39     | ±9.6                   |
| 10825 | AAF | CP-OFDM, 60.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.41     | ±9.6                   |
| 10827 | AAF | CP-OFDM, 80.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.42     | ±9.6                   |
| 10828 | AAE | CP-OFDM, 90.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.43     | ±9.6                   |
| 10829 | AAF | CP-OFDM, 100.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB | 5G NR FR1 TDD | 8.40     | ±9.6                   |
| 10830 | AAE | CP-OFDM, 10.0 MHz, QPSK, 60 kHz, 99.9% DC, 1 RB      | 5G NR FR1 TDD | 7.63     | ±9.6                   |
| 10831 | AAD | CP-OFDM, 15.0 MHz, QPSK, 60 kHz, 99.9% DC, 1 RB      | 5G NR FR1 TDD | 7.73     | ±9.6                   |
| 10832 | AAE | CP-OFDM, 20.0 MHz, QPSK, 60 kHz, 99.9% DC, 1 RB      | 5G NR FR1 TDD | 7.74     | ±9.6                   |
| 10833 | AAD | CP-OFDM, 25.0 MHz, QPSK, 60 kHz, 99.9% DC, 1 RB      | 5G NR FR1 TDD | 7.70     | ±9.6                   |
| 10834 | AAE | CP-OFDM, 30.0 MHz, QPSK, 60 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 7.75     | ±9.6                   |
| 10835 | AAF | CP-OFDM, 40.0 MHz, QPSK, 60 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 7.70     | ±9.6                   |
| 10836 | AAE | CP-OFDM, 50.0 MHz, QPSK, 60 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 7.66     | ±9.6                   |
| 10837 | AAF | CP-OFDM, 60.0 MHz, QPSK, 60 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 7.68     | ±9.6                   |
| 10839 | AAF | CP-OFDM, 80.0 MHz, QPSK, 60 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 7.70     | ±9.6                   |
| 10840 | AAE | CP-OFDM, 90.0 MHz, QPSK, 60 kHz, 100.0% DC, 1 RB     | 5G NR FR1 TDD | 7.67     | ±9.6                   |
| 10841 | AAF | CP-OFDM, 100.0 MHz, QPSK, 60 kHz, 100.0% DC, 1 RB    | 5G NR FR1 TDD | 7.71     | ±9.6                   |
| 10843 | AAD | CP-OFDM, 15.0 MHz, QPSK, 60 kHz, 100.0% DC, 50% RB   | 5G NR FR1 TDD | 8.49     | ±9.6                   |
| 10844 | AAE | CP-OFDM, 20.0 MHz, QPSK, 60 kHz, 100.0% DC, 50% RB   | 5G NR FR1 TDD | 8.34     | ±9.6                   |
| 10846 | AAE | CP-OFDM, 30.0 MHz, QPSK, 60 kHz, 100.0% DC, 50% RB   | 5G NR FR1 TDD | 8.41     | ±9.6                   |
| 10854 | AAE | CP-OFDM, 10.0 MHz, QPSK, 60 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.34     | ±9.6                   |
| 10855 | AAD | CP-OFDM, 15.0 MHz, QPSK, 60 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.36     | ±9.6                   |
| 10856 | AAE | CP-OFDM, 20.0 MHz, QPSK, 60 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.37     | ±9.6                   |
| 10857 | AAD | CP-OFDM, 25.0 MHz, QPSK, 60 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.35     | ±9.6                   |
| 10858 | AAE | CP-OFDM, 30.0 MHz, QPSK, 60 kHz, 100.0% DC, 100% RB  | 5G NR FR1 TDD | 8.36     | ±9.6                   |

| UID   | Rev | Communication System Name                                 | Group         | PAR (dB) | Unc <sup>E</sup> k = 2 |
|-------|-----|-----------------------------------------------------------|---------------|----------|------------------------|
| 10859 | AAF | CP-OFDM, 40.0 MHz, QPSK, 60 kHz, 100.0% DC, 100% RB       | 5G NR FR1 TDD | 8.34     | ±9.6                   |
| 10860 | AAE | CP-OFDM, 50.0 MHz, QPSK, 60 kHz, 100.0% DC, 100% RB       | 5G NR FR1 TDD | 8.41     | ±9.6                   |
| 10861 | AAF | CP-OFDM, 60.0 MHz, QPSK, 60 kHz, 100.0% DC, 100% RB       | 5G NR FR1 TDD | 8.40     | ±9.6                   |
| 10863 | AAF | CP-OFDM, 80.0 MHz, QPSK, 60 kHz, 100.0% DC, 100% RB       | 5G NR FR1 TDD | 8.41     | ±9.6                   |
| 10864 | AAE | CP-OFDM, 90.0 MHz, QPSK, 60 kHz, 100.0% DC, 100% RB       | 5G NR FR1 TDD | 8.37     | ±9.6                   |
| 10865 | AAF | CP-OFDM, 100.0 MHz, QPSK, 60 kHz, 100.0% DC, 100% RB      | 5G NR FR1 TDD | 8.41     | ±9.6                   |
| 10866 | AAF | DFT-s-OFDM, 100.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB      | 5G NR FR1 TDD | 5.68     | ±9.6                   |
| 10868 | AAF | DFT-s-OFDM, 100.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB   | 5G NR FR1 TDD | 5.89     | ±9.6                   |
| 10869 | AAE | DFT-s-OFDM, 100.0 MHz, QPSK, 120 kHz, 100.0% DC, 1 RB     | 5G NR FR2 TDD | 5.75     | ±9.6                   |
| 10870 | AAE | DFT-s-OFDM, 100.0 MHz, QPSK, 120 kHz, 100.0% DC, 100% RB  | 5G NR FR2 TDD | 5.86     | ±9.6                   |
| 10871 | AAE | DFT-s-OFDM, 100.0 MHz, 16QAM, 120 kHz, 100.0% DC, 1 RB    | 5G NR FR2 TDD | 5.75     | ±9.6                   |
| 10872 | AAE | DFT-s-OFDM, 100.0 MHz, 16QAM, 120 kHz, 100.0% DC, 100% RB | 5G NR FR2 TDD | 6.52     | ±9.6                   |
| 10873 | AAE | DFT-s-OFDM, 100.0 MHz, 64QAM, 120 kHz, 100.0% DC, 1 RB    | 5G NR FR2 TDD | 6.61     | ±9.6                   |
| 10874 | AAE | DFT-s-OFDM, 100.0 MHz, 64QAM, 120 kHz, 100.0% DC, 100% RB | 5G NR FR2 TDD | 6.65     | ±9.6                   |
| 10875 | AAE | CP-OFDM, 100.0 MHz, QPSK, 120 kHz, 100.0% DC, 1 RB        | 5G NR FR2 TDD | 7.78     | ±9.6                   |
| 10876 | AAE | CP-OFDM, 100.0 MHz, QPSK, 120 kHz, 100.0% DC, 100% RB     | 5G NR FR2 TDD | 8.39     | ±9.6                   |
| 10877 | AAE | CP-OFDM, 100.0 MHz, 16QAM, 120 kHz, 100.0% DC, 1 RB       | 5G NR FR2 TDD | 7.95     | ±9.6                   |
| 10878 | AAE | CP-OFDM, 100.0 MHz, 16QAM, 120 kHz, 100.0% DC, 100% RB    | 5G NR FR2 TDD | 8.41     | ±9.6                   |
| 10879 | AAE | CP-OFDM, 100.0 MHz, 64QAM, 120 kHz, 100.0% DC, 1 RB       | 5G NR FR2 TDD | 8.12     | ±9.6                   |
| 10880 | AAE | CP-OFDM, 100.0 MHz, 64QAM, 120 kHz, 100.0% DC, 100% RB    | 5G NR FR2 TDD | 8.38     | ±9.6                   |
| 10881 | AAE | DFT-s-OFDM, 50.0 MHz, QPSK, 120 kHz, 100.0% DC, 1 RB      | 5G NR FR2 TDD | 5.75     | ±9.6                   |
| 10882 | AAE | DFT-s-OFDM, 50.0 MHz, QPSK, 120 kHz, 100.0% DC, 100% RB   | 5G NR FR2 TDD | 5.96     | ±9.6                   |
| 10883 | AAE | DFT-s-OFDM, 50.0 MHz, 16QAM, 120 kHz, 100.0% DC, 1 RB     | 5G NR FR2 TDD | 6.57     | ±9.6                   |
| 10884 | AAE | DFT-s-OFDM, 50.0 MHz, 16QAM, 120 kHz, 100.0% DC, 100% RB  | 5G NR FR2 TDD | 6.53     | ±9.6                   |
| 10885 | AAE | DFT-s-OFDM, 50.0 MHz, 64QAM, 120 kHz, 100.0% DC, 1 RB     | 5G NR FR2 TDD | 6.61     | ±9.6                   |
| 10886 | AAE | DFT-s-OFDM, 50.0 MHz, 64QAM, 120 kHz, 100.0% DC, 100% RB  | 5G NR FR2 TDD | 6.65     | ±9.6                   |
| 10887 | AAE | CP-OFDM, 50.0 MHz, QPSK, 120 kHz, 99.9% DC, 1 RB          | 5G NR FR2 TDD | 7.78     | ±9.6                   |
| 10888 | AAE | CP-OFDM, 50.0 MHz, QPSK, 120 kHz, 100.0% DC, 100% RB      | 5G NR FR2 TDD | 8.35     | ±9.6                   |
| 10889 | AAE | CP-OFDM, 50.0 MHz, 16QAM, 120 kHz, 100.0% DC, 1 RB        | 5G NR FR2 TDD | 8.02     | ±9.6                   |
| 10890 | AAE | CP-OFDM, 50.0 MHz, 16QAM, 120 kHz, 100.0% DC, 100% RB     | 5G NR FR2 TDD | 8.40     | ±9.6                   |
| 10891 | AAE | CP-OFDM, 50.0 MHz, 64QAM, 120 kHz, 100.0% DC, 1 RB        | 5G NR FR2 TDD | 8.13     | ±9.6                   |
| 10892 | AAE | CP-OFDM, 50.0 MHz, 64QAM, 120 kHz, 100.0% DC, 100% RB     | 5G NR FR2 TDD | 8.41     | ±9.6                   |
| 10897 | AAE | DFT-s-OFDM, 5.0 MHz, QPSK, 30 kHz, 99.9% DC, 1 RB         | 5G NR FR1 TDD | 5.66     | ±9.6                   |
| 10898 | AAC | DFT-s-OFDM, 10.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB       | 5G NR FR1 TDD | 5.67     | ±9.6                   |
| 10899 | AAB | DFT-s-OFDM, 15.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB       | 5G NR FR1 TDD | 5.67     | ±9.6                   |
| 10900 | AAC | DFT-s-OFDM, 20.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB       | 5G NR FR1 TDD | 5.68     | ±9.6                   |
| 10901 | AAB | DFT-s-OFDM, 25.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB       | 5G NR FR1 TDD | 5.68     | ±9.6                   |
| 10902 | AAC | DFT-s-OFDM, 30.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB       | 5G NR FR1 TDD | 5.68     | ±9.6                   |
| 10903 | AAD | DFT-s-OFDM, 40.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB       | 5G NR FR1 TDD | 5.68     | ±9.6                   |
| 10904 | AAC | DFT-s-OFDM, 50.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB       | 5G NR FR1 TDD | 5.68     | ±9.6                   |
| 10905 | AAD | DFT-s-OFDM, 60.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB       | 5G NR FR1 TDD | 5.68     | ±9.6                   |
| 10906 | AAD | DFT-s-OFDM, 80.0 MHz, QPSK, 30 kHz, 100.0% DC, 1 RB       | 5G NR FR1 TDD | 5.68     | ±9.6                   |
| 10907 | AAE | DFT-s-OFDM, 5.0 MHz, QPSK, 30 kHz, 100.0% DC, 50% RB      | 5G NR FR1 TDD | 5.78     | ±9.6                   |
| 10908 | AAC | DFT-s-OFDM, 10.0 MHz, QPSK, 30 kHz, 100.0% DC, 50% RB     | 5G NR FR1 TDD | 5.93     | ±9.6                   |
| 10909 | AAB | DFT-s-OFDM, 15.0 MHz, QPSK, 30 kHz, 100.0% DC, 50% RB     | 5G NR FR1 TDD | 5.96     | ±9.6                   |
| 10910 | AAC | DFT-s-OFDM, 20.0 MHz, QPSK, 30 kHz, 100.0% DC, 50% RB     | 5G NR FR1 TDD | 5.83     | ±9.6                   |
| 10911 | AAB | DFT-s-OFDM, 25.0 MHz, QPSK, 30 kHz, 100.0% DC, 50% RB     | 5G NR FR1 TDD | 5.93     | ±9.6                   |
| 10912 | AAC | DFT-s-OFDM, 30.0 MHz, QPSK, 30 kHz, 100.0% DC, 50% RB     | 5G NR FR1 TDD | 5.84     | ±9.6                   |
| 10913 | AAD | DFT-s-OFDM, 40.0 MHz, QPSK, 30 kHz, 100.0% DC, 50% RB     | 5G NR FR1 TDD | 5.84     | ±9.6                   |
| 10914 | AAC | DFT-s-OFDM, 50.0 MHz, QPSK, 30 kHz, 100.0% DC, 50% RB     | 5G NR FR1 TDD | 5.85     | ±9.6                   |
| 10915 | AAD | DFT-s-OFDM, 60.0 MHz, QPSK, 30 kHz, 100.0% DC, 50% RB     | 5G NR FR1 TDD | 5.83     | ±9.6                   |
| 10916 | AAD | DFT-s-OFDM, 80.0 MHz, QPSK, 30 kHz, 100.0% DC, 50% RB     | 5G NR FR1 TDD | 5.87     | ±9.6                   |
| 10917 | AAD | DFT-s-OFDM, 100.0 MHz, QPSK, 30 kHz, 100.0% DC, 50% RB    | 5G NR FR1 TDD | 5.94     | ±9.6                   |
| 10918 | AAE | DFT-s-OFDM, 5.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB     | 5G NR FR1 TDD | 5.86     | ±9.6                   |
| 10919 | AAC | DFT-s-OFDM, 10.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB    | 5G NR FR1 TDD | 5.86     | ±9.6                   |
| 10920 | AAB | DFT-s-OFDM, 15.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB    | 5G NR FR1 TDD | 5.87     | ±9.6                   |
| 10921 | AAC | DFT-s-OFDM, 20.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB    | 5G NR FR1 TDD | 5.84     | ±9.6                   |
| 10922 | AAB | DFT-s-OFDM, 25.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB    | 5G NR FR1 TDD | 5.82     | ±9.6                   |
| 10923 | AAC | DFT-s-OFDM, 30.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB    | 5G NR FR1 TDD | 5.84     | ±9.6                   |
| 10924 | AAD | DFT-s-OFDM, 40.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB    | 5G NR FR1 TDD | 5.84     | ±9.6                   |
| 10925 | AAC | DFT-s-OFDM, 50.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB    | 5G NR FR1 TDD | 5.95     | ±9.6                   |
| 10926 | AAD | DFT-s-OFDM, 60.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB    | 5G NR FR1 TDD | 5.84     | ±9.6                   |
| 10927 | AAD | DFT-s-OFDM, 80.0 MHz, QPSK, 30 kHz, 100.0% DC, 100% RB    | 5G NR FR1 TDD | 5.94     | ±9.6                   |
| 10928 | AAD | DFT-s-OFDM, 5.0 MHz, QPSK, 15 kHz, 1 RB                   | 5G NR FR1 FDD | 5.52     | ±9.6                   |
| 10929 | AAD | DFT-s-OFDM, 10.0 MHz, QPSK, 15 kHz, 1 RB                  | 5G NR FR1 FDD | 5.52     | ±9.6                   |
| 10930 | AAC | DFT-s-OFDM, 15.0 MHz, QPSK, 15 kHz, 1 RB                  | 5G NR FR1 FDD | 5.52     | ±9.6                   |

| UID   | Rev | Communication System Name                   | Group         | PAR (dB) | Unc <sup>E</sup> $k = 2$ |
|-------|-----|---------------------------------------------|---------------|----------|--------------------------|
| 10931 | AAC | DFT-s-OFDM, 20.0 MHz, QPSK, 15 kHz, 1 RB    | 5G NR FR1 FDD | 5.51     | ±9.6                     |
| 10932 | AAC | DFT-s-OFDM, 25.0 MHz, QPSK, 15 kHz, 1 RB    | 5G NR FR1 FDD | 5.51     | ±9.6                     |
| 10933 | AAC | DFT-s-OFDM, 30.0 MHz, QPSK, 15 kHz, 1 RB    | 5G NR FR1 FDD | 5.51     | ±9.6                     |
| 10934 | AAC | DFT-s-OFDM, 40.0 MHz, QPSK, 15 kHz, 1 RB    | 5G NR FR1 FDD | 5.51     | ±9.6                     |
| 10935 | AAD | DFT-s-OFDM, 50.0 MHz, QPSK, 15 kHz, 1 RB    | 5G NR FR1 FDD | 5.51     | ±9.6                     |
| 10936 | AAD | DFT-s-OFDM, 5.0 MHz, QPSK, 15 kHz, 50% RB   | 5G NR FR1 FDD | 5.90     | ±9.6                     |
| 10937 | AAD | DFT-s-OFDM, 10.0 MHz, QPSK, 15 kHz, 50% RB  | 5G NR FR1 FDD | 5.77     | ±9.6                     |
| 10938 | AAC | DFT-s-OFDM, 15.0 MHz, QPSK, 15 kHz, 50% RB  | 5G NR FR1 FDD | 5.90     | ±9.6                     |
| 10939 | AAC | DFT-s-OFDM, 20.0 MHz, QPSK, 15 kHz, 50% RB  | 5G NR FR1 FDD | 5.82     | ±9.6                     |
| 10940 | AAC | DFT-s-OFDM, 25.0 MHz, QPSK, 15 kHz, 50% RB  | 5G NR FR1 FDD | 5.89     | ±9.6                     |
| 10941 | AAC | DFT-s-OFDM, 30.0 MHz, QPSK, 15 kHz, 50% RB  | 5G NR FR1 FDD | 5.83     | ±9.6                     |
| 10942 | AAC | DFT-s-OFDM, 40.0 MHz, QPSK, 15 kHz, 50% RB  | 5G NR FR1 FDD | 5.85     | ±9.6                     |
| 10943 | AAD | DFT-s-OFDM, 50.0 MHz, QPSK, 15 kHz, 50% RB  | 5G NR FR1 FDD | 5.95     | ±9.6                     |
| 10944 | AAD | DFT-s-OFDM, 5.0 MHz, QPSK, 15 kHz, 100% RB  | 5G NR FR1 FDD | 5.81     | ±9.6                     |
| 10945 | AAD | DFT-s-OFDM, 10.0 MHz, QPSK, 15 kHz, 100% RB | 5G NR FR1 FDD | 5.85     | ±9.6                     |
| 10946 | AAC | DFT-s-OFDM, 15.0 MHz, QPSK, 15 kHz, 100% RB | 5G NR FR1 FDD | 5.83     | ±9.6                     |
| 10947 | AAC | DFT-s-OFDM, 20.0 MHz, QPSK, 15 kHz, 100% RB | 5G NR FR1 FDD | 5.87     | ±9.6                     |
| 10948 | AAC | DFT-s-OFDM, 25.0 MHz, QPSK, 15 kHz, 100% RB | 5G NR FR1 FDD | 5.94     | ±9.6                     |
| 10949 | AAC | DFT-s-OFDM, 30.0 MHz, QPSK, 15 kHz, 100% RB | 5G NR FR1 FDD | 5.87     | ±9.6                     |
| 10950 | AAC | DFT-s-OFDM, 40.0 MHz, QPSK, 15 kHz, 100% RB | 5G NR FR1 FDD | 5.94     | ±9.6                     |
| 10951 | AAD | DFT-s-OFDM, 50.0 MHz, QPSK, 15 kHz, 100% RB | 5G NR FR1 FDD | 5.92     | ±9.6                     |
| 10978 | AAA | BDR, 1.0 MHz, 76.7% DC                      | ULLA          | 1.16     | ±9.6                     |
| 10979 | AAA | HDR4, 2.0 MHz, 25.1% DC                     | ULLA          | 8.58     | ±9.6                     |
| 10980 | AAA | HDR8, 4.0 MHz, 16.5% DC                     | ULLA          | 10.32    | ±9.6                     |
| 10981 | AAA | HDRp4, 2.0 MHz, 89.0% DC                    | ULLA          | 3.19     | ±9.6                     |
| 10982 | AAA | HDRp8, 4.0 MHz, 90.3% DC                    | ULLA          | 3.43     | ±9.6                     |
| 11013 | AAB | EHT320, MCS1 (272.0 Mbps), 100.0% DC        | WLAN          | 8.47     | ±9.6                     |
| 11014 | AAB | EHT320, MCS2 (408.0 Mbps), 100.0% DC        | WLAN          | 8.45     | ±9.6                     |
| 11015 | AAB | EHT320, MCS3 (544.0 Mbps), 100.0% DC        | WLAN          | 8.44     | ±9.6                     |
| 11016 | AAB | EHT320, MCS4 (817.0 Mbps), 100.0% DC        | WLAN          | 8.44     | ±9.6                     |
| 11017 | AAB | EHT320, MCS5 (1089.0 Mbps), 100.0% DC       | WLAN          | 8.41     | ±9.6                     |
| 11018 | AAB | EHT320, MCS6 (1225.0 Mbps), 100.0% DC       | WLAN          | 8.40     | ±9.6                     |
| 11019 | AAB | EHT320, MCS7 (1361.0 Mbps), 100.0% DC       | WLAN          | 8.29     | ±9.6                     |
| 11020 | AAB | EHT320, MCS8 (1633.0 Mbps), 100.0% DC       | WLAN          | 8.27     | ±9.6                     |
| 11021 | AAB | EHT320, MCS9 (1815.0 Mbps), 100.0% DC       | WLAN          | 8.46     | ±9.6                     |
| 11022 | AAB | EHT320, MCS10 (2042.0 Mbps), 100.0% DC      | WLAN          | 8.36     | ±9.6                     |
| 11023 | AAB | EHT320, MCS11 (2269.0 Mbps), 100.0% DC      | WLAN          | 8.09     | ±9.6                     |
| 11024 | AAB | EHT320, MCS12 (2450.0 Mbps), 100.0% DC      | WLAN          | 8.42     | ±9.6                     |
| 11025 | AAB | EHT320, MCS13 (2722.0 Mbps), 100.0% DC      | WLAN          | 8.37     | ±9.6                     |
| 11026 | AAB | EHT320, MCS0 (136.0 Mbps), 100.0% DC        | WLAN          | 8.39     | ±9.6                     |

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



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Accreditation No.: SCS 0108

Client

BTL Inc.  
Guangdong

Certificate No.

D750V3-1095\_Sep24

## CALIBRATION CERTIFICATE

Object D750V3 - SN: 1095

Calibration procedure(s) QA CAL-05.v12  
Calibration Procedure for SAR Validation Sources between 0.7 - 3 GHz

Calibration date September 16, 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  $(22 \pm 3)^\circ\text{C}$  and humidity  $< 70\%$ .

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards                          | ID         | Cal Date (Certificate No.)            | Scheduled Cal |
|--------------------------------------------|------------|---------------------------------------|---------------|
| Power Sensor R&S NRP-33T                   | SN: 100967 | 28-Mar-24 (No. 217-04038)             | Mar-25        |
| Power Sensor R&S NRP18A                    | SN: 101859 | 22-Jul-24 (No. 4030A315008547)        | Jul-25        |
| Spectrum Analyzer R&S FSV40                | SN: 101832 | 25-Jan-24 (No. 4030-315007551)        | Jan-25        |
| Mismatch; Short [S4188] Attenuator [S4423] | SN: 1152   | 28-Mar-24 (No. 217-04050)             | Mar-25        |
| OCP DAK-12                                 | SN: 1016   | 05-Oct-23 (No. OCP-DAK12-1016_Oct23)  | Oct-24        |
| OCP DAK-3.5                                | SN: 1249   | 05-Oct-23 (No. OCP-DAK3.5-1249_Oct23) | Oct-24        |
| Reference Probe EX3DV4                     | SN: 7349   | 03-Jun-24 (No. EX3-7349_Jun24)        | Jun-25        |
| DAE4ip                                     | SN: 1836   | 10-Jan-24 (No. DAE4ip-1836_Jan24)     | Jan-25        |

| Secondary Standards          | ID         | Check Date (in house)                      | Scheduled Check |
|------------------------------|------------|--------------------------------------------|-----------------|
| ACAD Source Box              | SN: 1000   | 28-May-24 (No. 675-ACAD_Source_Box-240528) | May-25          |
| Signal Generator R&S SMB100A | SN: 182081 | 28-May-24 (No. 675-CAL16-S4588-240528)     | May-25          |
| Mismatch; SMA                | SN: 1102   | 22-May-24 (No. 675-Mismatch_SMA-240522)    | May-25          |

|               | Name       | Function              | Signature |
|---------------|------------|-----------------------|-----------|
| Calibrated by | Paulo Pina | Laboratory Technician |           |
| Approved by   | Sven Kühn  | Technical Manager     |           |

Issued: September 16, 2024

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



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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 dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss*: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay*: One-way delay between the SMA connector and the antenna feed point. 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.

|                                     |                          |                                     |
|-------------------------------------|--------------------------|-------------------------------------|
| <b>DASY Version</b>                 | DASY8 Module SAR         | 16.4.0                              |
| <b>Extrapolation</b>                | Advanced Extrapolation   |                                     |
| <b>Phantom</b>                      | Modular Flat Phantom     |                                     |
| <b>Distance Dipole Center - TSL</b> | 15 mm                    | with spacer                         |
| <b>Zoom Scan Resolution</b>         | dx, dy = 6mm, dz = 1.5mm | Graded Ratio = 1.5 mm (Z direction) |
| <b>Frequency</b>                    | 750MHz $\pm$ 1MHz        |                                     |

## Head TSL parameters at 750 MHz

The following parameters and calculations were applied.

|                                                | Temperature        | Permittivity  | Conductivity         |
|------------------------------------------------|--------------------|---------------|----------------------|
| <b>Nominal Head TSL parameters</b>             | 22.0 °C            | 41.9          | 0.890 mho/m          |
| <b>Measured Head TSL parameters</b>            | (22.0 $\pm$ 0.2)°C | 43.2 $\pm$ 6% | 0.880 mho/m $\pm$ 6% |
| <b>Head TSL temperature change during test</b> | < 0.5 °C           |               |                      |

## SAR result with Head TSL at 750 MHz

| <b>SAR averaged over 1 cm<sup>3</sup> (1 g) of Head TSL</b> | Condition          |                               |
|-------------------------------------------------------------|--------------------|-------------------------------|
| SAR for nominal Head TSL parameters                         | 24 dBm input power | 2.13 W/kg                     |
| SAR for nominal Head TSL parameters                         | normalized to 1W   | 8.48 W/kg $\pm$ 17.0% (k = 2) |

| <b>SAR averaged over 10 cm<sup>3</sup> (10 g) of Head TSL</b> | Condition          |                               |
|---------------------------------------------------------------|--------------------|-------------------------------|
| SAR for nominal Head TSL parameters                           | 24 dBm input power | 1.38 W/kg                     |
| SAR for nominal Head TSL parameters                           | normalized to 1W   | 5.49 W/kg $\pm$ 16.5% (k = 2) |

**Appendix (Additional assessments outside the scope of SCS 0108)****Antenna Parameters with Head TSL at 750 MHz**

|             |                                |
|-------------|--------------------------------|
| Impedance   | 51.5 $\Omega$ – 3.3 j $\Omega$ |
| Return Loss | -29.0 dB                       |

**General Antenna Parameters and Design**

|                                  |          |
|----------------------------------|----------|
| Electrical Delay (one direction) | 1.033 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 |
|-----------------|-------|

System Performance Check Report

Summary

|                 |                 |     |             |
|-----------------|-----------------|-----|-------------|
| Dipole          | Frequency [MHz] | TSL | Power [dBm] |
| D750V3 - SN1095 | 750             | HSL | 24          |

Exposure Conditions

|                      |                    |         |            |                                 |                   |                        |                  |
|----------------------|--------------------|---------|------------|---------------------------------|-------------------|------------------------|------------------|
| Phantom Section, TSL | Test Distance [mm] | Band    | Group, UID | Frequency [MHz], Channel Number | Conversion Factor | TSL Conductivity [S/m] | TSL Permittivity |
| Flat                 | 15                 | CW, 0-- |            | 750, 0                          | 9.9               | 0.88                   | 43.2             |

Hardware Setup

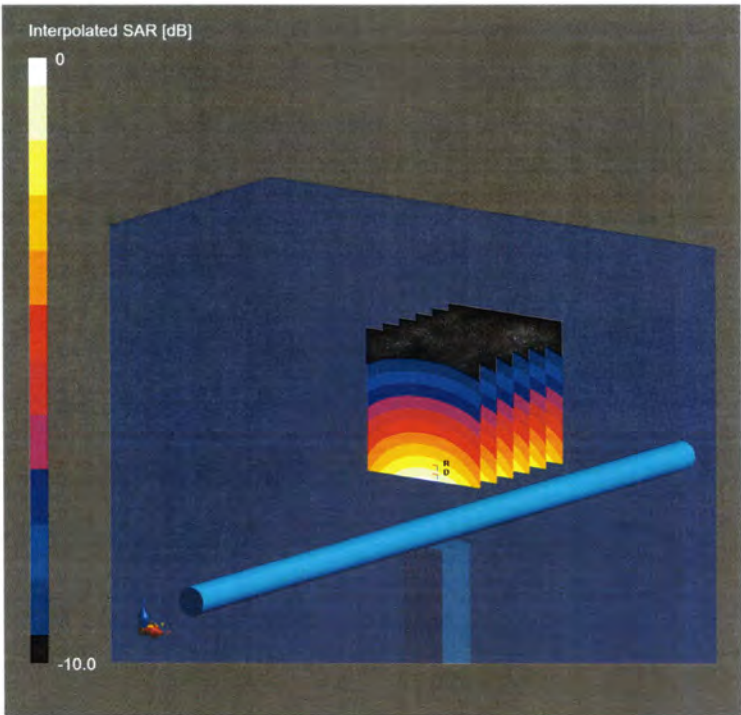
|               |                    |                             |                           |
|---------------|--------------------|-----------------------------|---------------------------|
| Phantom       | TSL, Measured Date | Probe, Calibration Date     | DAE, Calibration Date     |
| Flat V4.9 mod | HSL, 2024-09-16    | EX3DV4 - SN7349, 2024-06-03 | DAE4ip Sn1836, 2024-01-10 |

Scans Setup

|                     |                 |
|---------------------|-----------------|
|                     | Zoom Scan       |
| Grid Extents [mm]   | 30 x 30 x 30    |
| Grid Steps [mm]     | 6.0 x 6.0 x 1.5 |
| Sensor Surface [mm] | 1.4             |
| Graded Grid         | Yes             |
| Grading Ratio       | 1.5             |
| MAIA                | N/A             |
| Surface Detection   | VMS + 6p        |
| Scan Method         | Measured        |

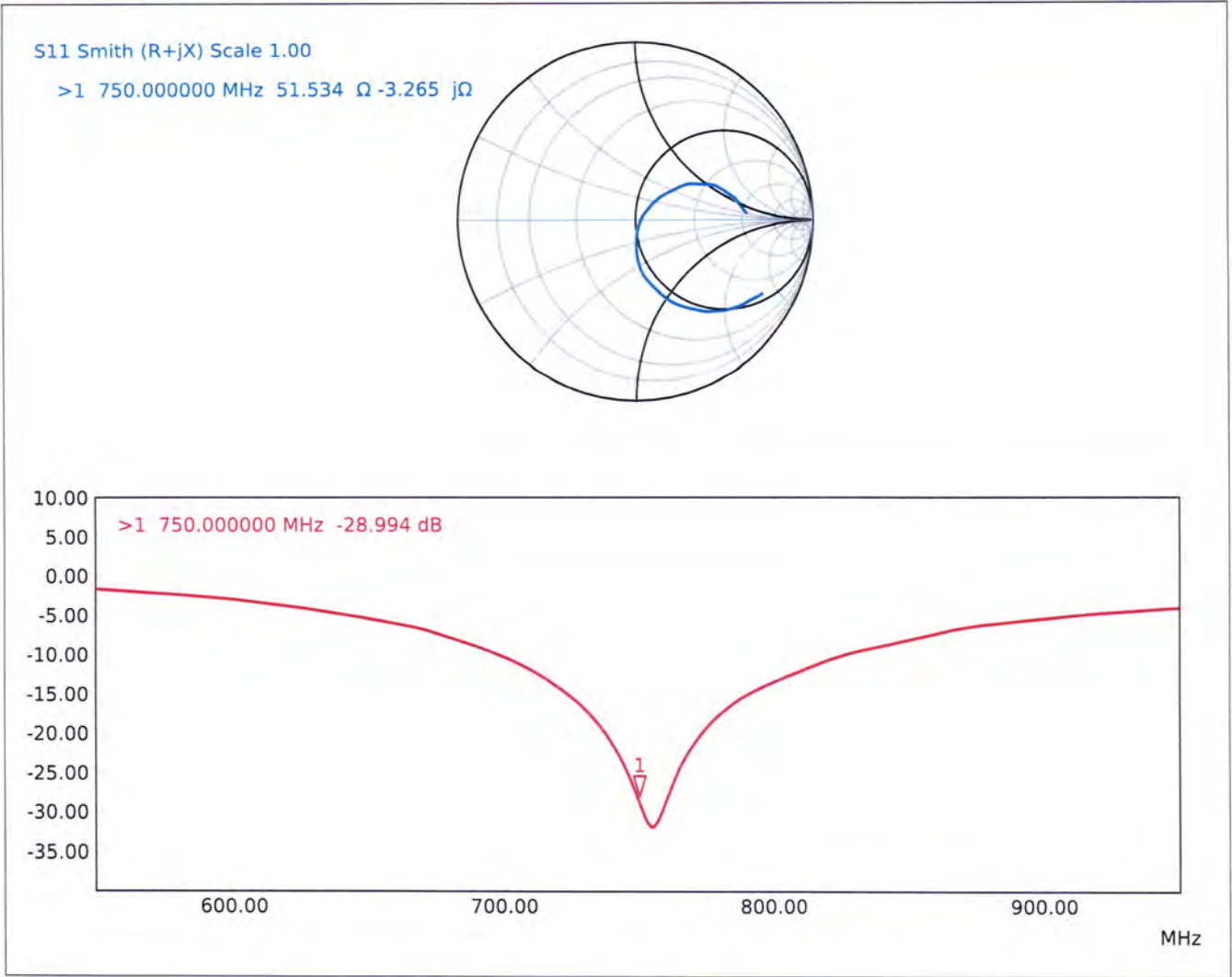
Measurement Results

|                     |                     |
|---------------------|---------------------|
|                     | Zoom Scan           |
| Date                | 2024-09-16          |
| psSAR1g [W/Kg]      | 2.13                |
| psSAR10g [W/Kg]     | 1.38                |
| Power Drift [dB]    | -0.02               |
| Power Scaling       | Disabled            |
| Scaling Factor [dB] |                     |
| TSL Correction      | Positive / Negative |



0 dB = 3.30 W/Kg

Impedance Measurement Plot for Head TSL





## Dipole Internal Calibration Record

|               |             |                      |                    |                  |                    |
|---------------|-------------|----------------------|--------------------|------------------|--------------------|
| Asset No. :   | E-429       | Model No. :          | D750V3             | Serial No. :     | 1095               |
| Environmental | 22.0°C, 52% | Original Cal. Date : | September 16, 2024 | Next Cal. Date : | September 16, 2027 |

### Standard List

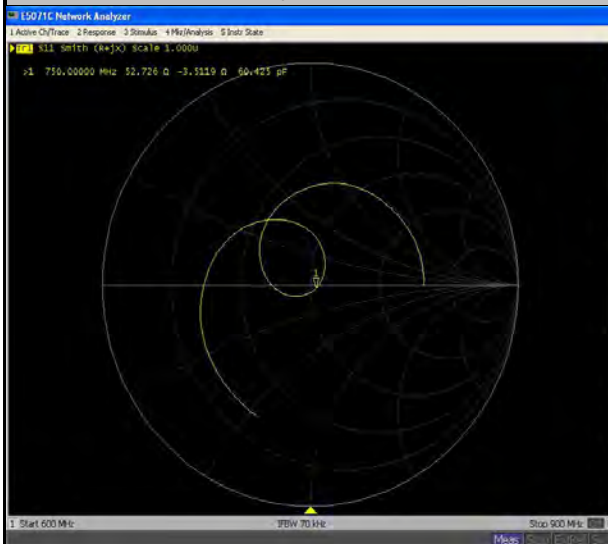
|   |                             |                                                                                                                                                                                                                                                                          |
|---|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | IEC/IEEE<br>62209-1528:2020 | 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 10GHz ) |
| 2 | KDB865664                   | SAR Measurement Requirements for 100 MHz to 6 GHz                                                                                                                                                                                                                        |

### Equipment Information

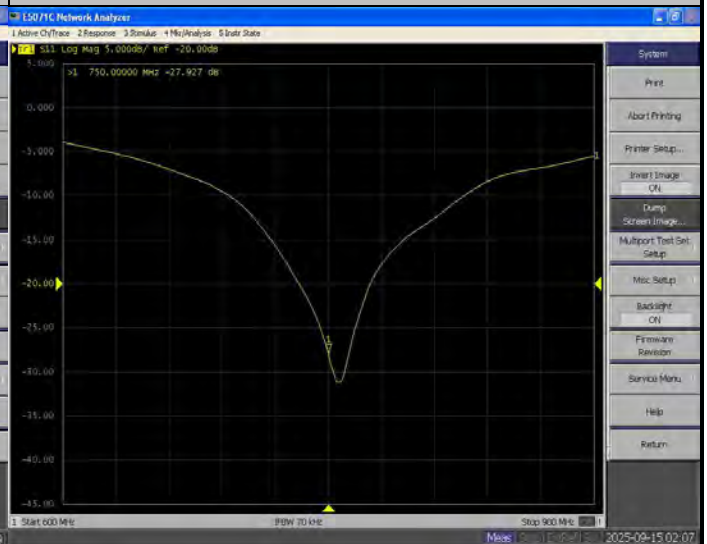
|                         |                |                |                    |                    |                   |
|-------------------------|----------------|----------------|--------------------|--------------------|-------------------|
| Equipment :             | Manufacturer : | Model No. :    | Serial No. :       | Cal.Organization : | Cal. Date :       |
| Power Amplifier         | Mini-Circuits  | ZHL-42W+       | QA1333003          | N/A                | May 29, 2025      |
| DC Source metter        | Iteck          | IT6154         | 006104126768201001 | N/A                | May 29, 2025      |
| Vector Network Analyzer | Agilent        | E5071C         | MY46102965         | N/A                | January 11, 2025  |
| Signal Generator        | Agilent        | N5172B         | MY53050758         | N/A                | January 11, 2025  |
| Smart Power Sensor      | R&S            | NRP18S         | 101333             | N/A                | May 29, 2025      |
| Dielectric Assessment   | Speag          | DAK-3.5        | 1226               | N/A                | January 20, 2025  |
| Directional Coupler     | Woken          | TS-PCC0M-05    | 0107090019         | N/A                | January 11, 2025  |
| Coupler                 | Woken          | 0110A05601O-10 | COM5BNW1A2         | N/A                | January 12, 2025  |
| Liquid Thermometer      | Nscing Es      | YZ6021S        | /                  | N/A                | November 24, 2024 |

| Model No | For Head Tissue                      |                      |                       |           |        |
|----------|--------------------------------------|----------------------|-----------------------|-----------|--------|
| D750V3   | Item                                 | Original Cal. Result | Verified on 2025/9/15 | Deviation | Result |
|          | Impedance, transformed to feed point | 51.5Ω-3.3jΩ          | 52.73Ω-3.51Ω          | <5Ω       | Pass   |
|          | Return Loss(dB)                      | -29                  | -27.93                | -3.7%     | Pass   |
|          | SAR Value for 1g(mW/g)               | 2.13                 | 2.09                  | -1.9%     | Pass   |
|          | SAR Value for 10g(mW/g)              | 1.38                 | 1.38                  | 0.0%      | Pass   |

### Impedance Test-Head



### Return Loss-Head



Test Laboratory: BTL Inc.

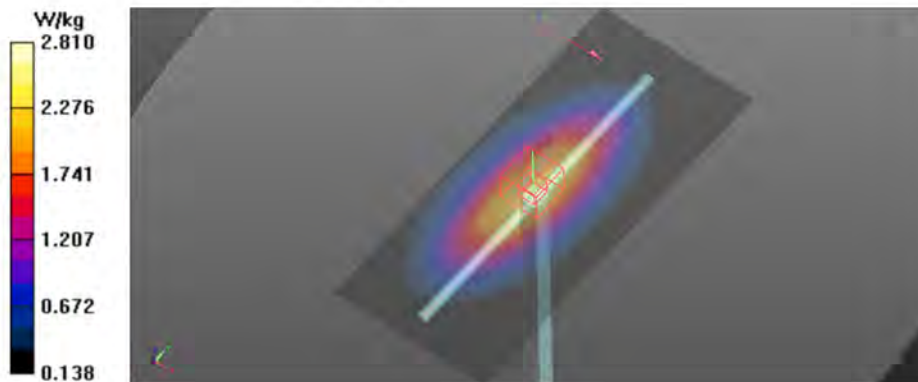
Date: 2025/9/15

**System Check\_H750\_0915****DUT: Dipole 750 MHz D750V3;SN:1095;**

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.882 \text{ S/m}$ ;  $\epsilon_r = 41.813$ ;  $\rho = 1000 \text{ kg/m}^3$ Ambient Temperature :  $22.0 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $21.5 \text{ }^\circ\text{C}$ **DASY Configuration:**

- Probe: EX3DV4 - SN7544; ConvF(10.59, 10.59, 10.59) @ 750 MHz; Calibrated: 2025/6/19
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn420; Calibrated: 2025/4/8
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1128
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

**Area Scan (7x15x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$ Maximum value of SAR (measured) =  $2.57 \text{ W/kg}$ **Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$ Reference Value =  $55.69 \text{ V/m}$ ; Power Drift =  $0.08 \text{ dB}$ Peak SAR (extrapolated) =  $3.19 \text{ W/kg}$ **SAR(1 g) =  $2.09 \text{ W/kg}$ ; SAR(10 g) =  $1.38 \text{ W/kg}$** Smallest distance from peaks to all points 3 dB below =  $20.5 \text{ mm}$ Ratio of SAR at M2 to SAR at M1 =  $65.7\%$ Maximum value of SAR (measured) =  $2.81 \text{ W/kg}$ 

Calibrator:

*Justin Huang*

Approver:

*Herbert Lin*



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Multilateral Agreement for the recognition of calibration certificates

Client **BTL Inc.**  
**Guangdong**

Certificate No. **D835V2-4d160\_Apr24/2**

## CALIBRATION CERTIFICATE (Replacement of No: D835V2-4d160\_Apr24)

Object **D835V2 - SN:4d160**

Calibration procedure(s) **QA CAL-05.v12**  
**Calibration Procedure for SAR Validation Sources between 0.7-3 GHz**

Calibration date: **April 25, 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 ( $22 \pm 3$ )°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         | 26-Mar-24 (No. 217-04036/04037)   | Mar-25                 |
| Power sensor NRP-Z91            | SN: 103244         | 26-Mar-24 (No. 217-04036)         | Mar-25                 |
| Power sensor NRP-Z91            | SN: 103245         | 26-Mar-24 (No. 217-04037)         | Mar-25                 |
| Reference 20 dB Attenuator      | SN: BH9394 (20k)   | 26-Mar-24 (No. 217-04046)         | Mar-25                 |
| Type-N mismatch combination     | SN: 310982 / 06327 | 26-Mar-24 (No. 217-04047)         | Mar-25                 |
| Reference Probe EX3DV4          | SN: 7349           | 03-Nov-23 (No. EX3-7349_Nov23)    | Nov-24                 |
| DAE4                            | SN: 601            | 30-Jan-24 (No. DAE4-601_Jan24)    | Jan-25                 |
| Secondary Standards             | ID #               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B              | SN: GB39512475     | 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: MY41093315     | 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 E8358A | SN: US41080477     | 31-Mar-14 (in house check Oct-22) | In house check: Oct-24 |

Calibrated by: **Paulo Pina**      Name: **Paulo Pina**      Function: **Laboratory Technician**

Approved by: **Sven Kühn**      Name: **Sven Kühn**      Technical Manager

Signature

Issued: May 21, 2024

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### 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                    | 835 MHz $\pm$ 1 MHz    |             |

## Head TSL parameters

The following parameters and calculations were applied.

|                                         | Temperature         | Permittivity   | Conductivity         |
|-----------------------------------------|---------------------|----------------|----------------------|
| Nominal Head TSL parameters             | 22.0 °C             | 41.5           | 0.90 mho/m           |
| Measured Head TSL parameters            | (22.0 $\pm$ 0.2) °C | 43.0 $\pm$ 6 % | 0.92 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 | 2.48 W/kg                                      |
| SAR for nominal Head TSL parameters                   | normalized to 1W   | <b>9.83 W/kg <math>\pm</math> 17.0 % (k=2)</b> |

|                                                         |                    |                                                |
|---------------------------------------------------------|--------------------|------------------------------------------------|
| SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL | condition          |                                                |
| SAR measured                                            | 250 mW input power | 1.62 W/kg                                      |
| SAR for nominal Head TSL parameters                     | normalized to 1W   | <b>6.42 W/kg <math>\pm</math> 16.5 % (k=2)</b> |

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

### Antenna Parameters with Head TSL

|                                      |                                |
|--------------------------------------|--------------------------------|
| Impedance, transformed to feed point | 50.2 $\Omega$ - 3.8 j $\Omega$ |
| Return Loss                          | - 28.3 dB                      |

### General Antenna Parameters and Design

|                                  |          |
|----------------------------------|----------|
| Electrical Delay (one direction) | 1.442 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: 25.04.2024

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d160**

Communication System: UID 0 - CW; Frequency: 835 MHz

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.92$  S/m;  $\epsilon_r = 43$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(9.69, 9.69, 9.69) @ 835 MHz; Calibrated: 03.11.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.01.2024
- Phantom: Flat Phantom 4.9 (front); Type: QD 00L P49 AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

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

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 64.45 V/m; Power Drift = -0.03 dB

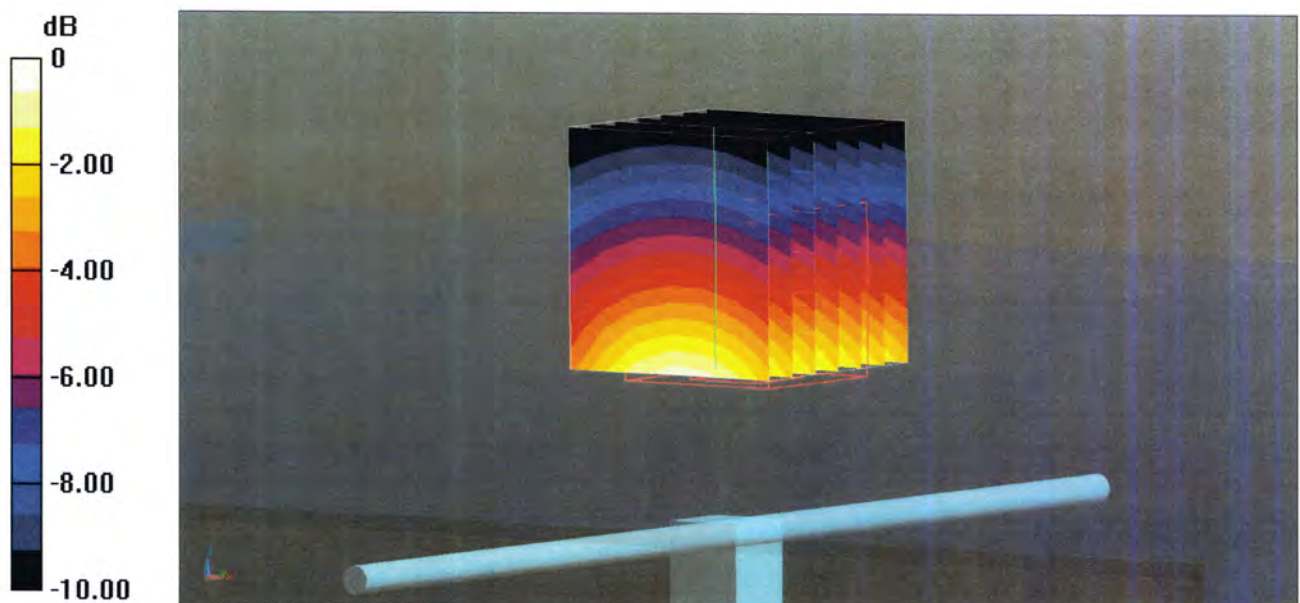
Peak SAR (extrapolated) = 3.69 W/kg

**SAR(1 g) = 2.48 W/kg; SAR(10 g) = 1.62 W/kg**

Smallest distance from peaks to all points 3 dB below = 16.1 mm

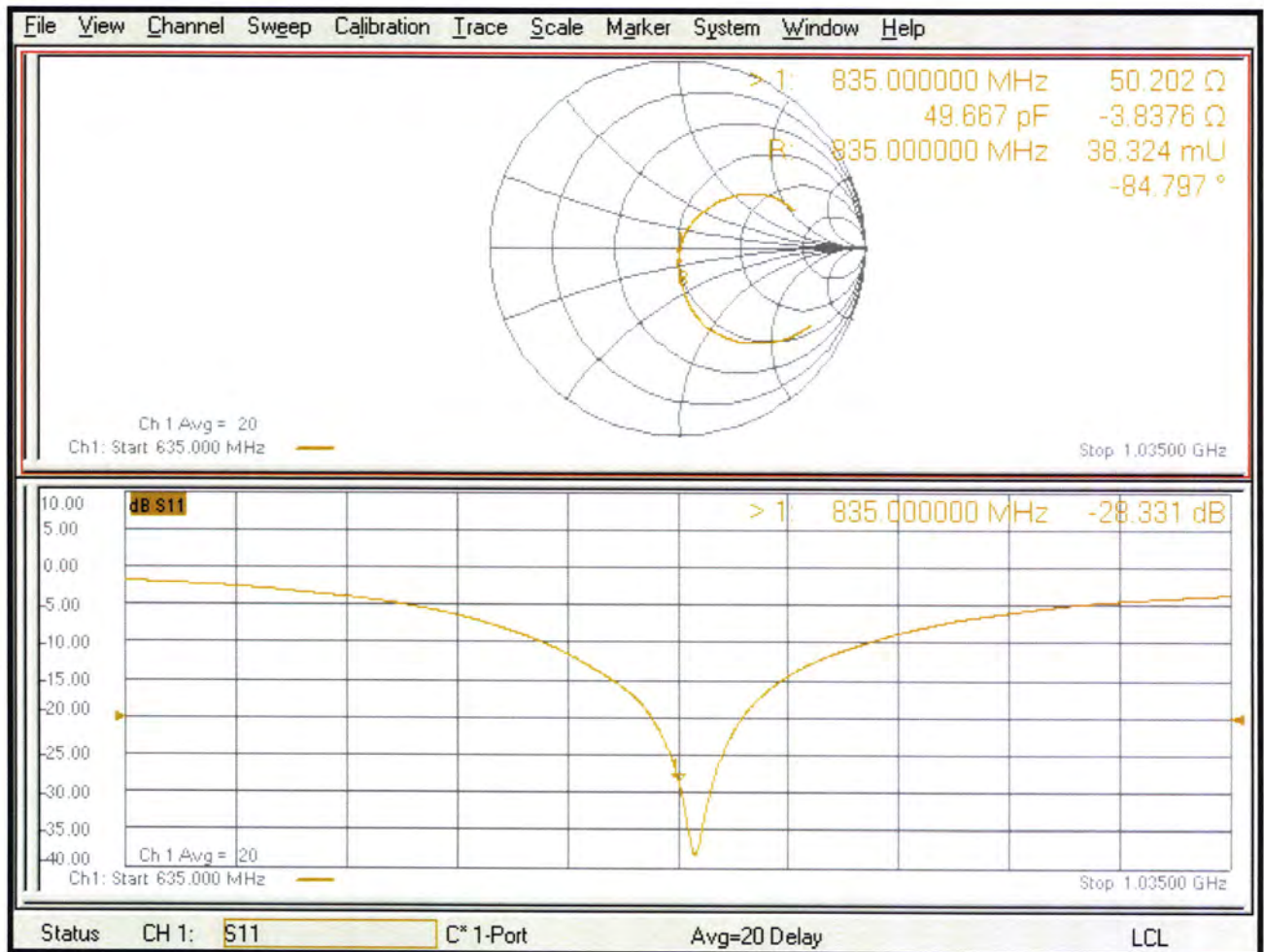
Ratio of SAR at M2 to SAR at M1 = 66.9%

Maximum value of SAR (measured) = 3.26 W/kg



0 dB = 3.26 W/kg = 5.14 dBW/kg

## Impedance Measurement Plot for Head TSL





## Dipole Internal Calibration Record

|               |             |                      |                |                  |                |
|---------------|-------------|----------------------|----------------|------------------|----------------|
| Asset No. :   | E-437       | Model No. :          | D835V2         | Serial No. :     | 4d160          |
| Environmental | 22.3°C, 55% | Original Cal. Date : | April 25, 2024 | Next Cal. Date : | April 25, 2027 |

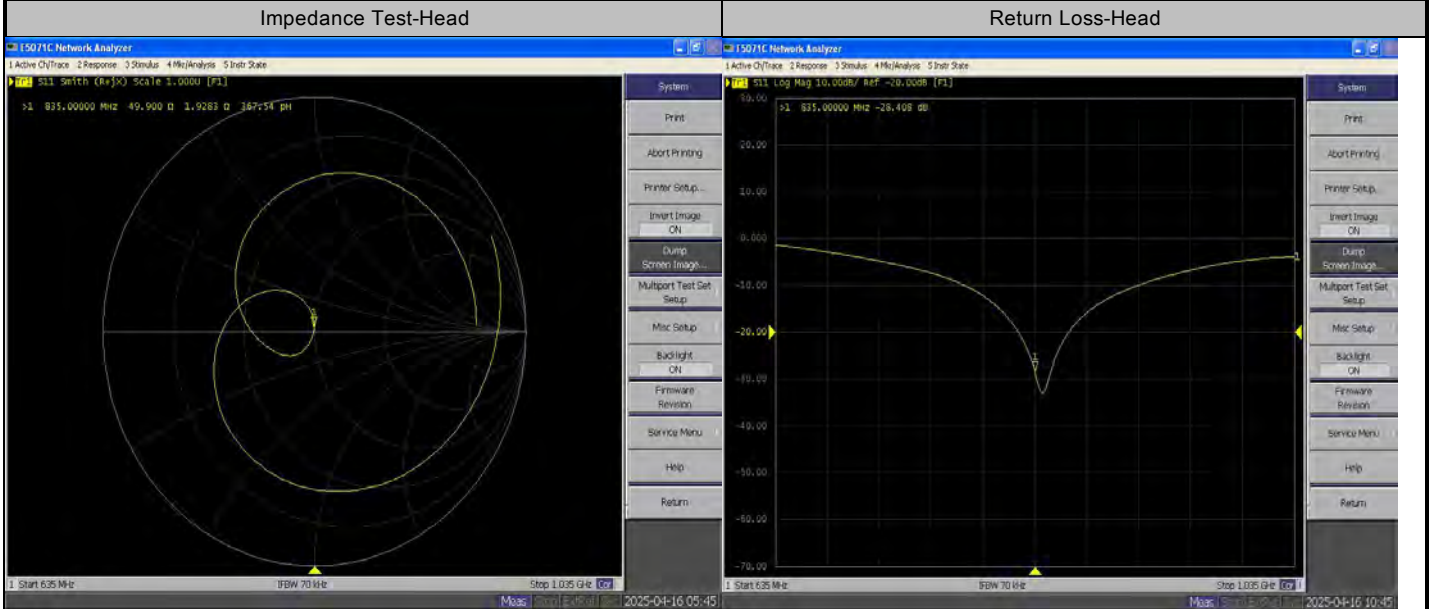
### Standard List

|   |                             |                                                                                                                                                                                                                                                                          |
|---|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | IEC/IEEE<br>62209-1528:2020 | 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 10GHz ) |
| 2 | KDB865664                   | SAR Measurement Requirements for 100 MHz to 6 GHz                                                                                                                                                                                                                        |

### Equipment Information

|                        |                |                |                    |                    |                   |
|------------------------|----------------|----------------|--------------------|--------------------|-------------------|
| Equipment :            | Manufacturer : | Model No. :    | Serial No. :       | Cal.Organization : | Cal. Date :       |
| Power Amplifier        | Mini-Circuits  | ZHL-42W+       | QA1333003          | N/A                | June 29, 2024     |
| DC Source metter       | Iteck          | IT6154         | 006104126768201001 | N/A                | June 29, 2024     |
| Vector Network Analyze | Agilent        | E5071C         | MY46102965         | N/A                | January 11, 2025  |
| Signal Generator       | Agilent        | N5172B         | MY53050758         | N/A                | January 11, 2025  |
| Smart Power Sensor     | R&S            | NRP18S         | 101333             | N/A                | June 1, 2024      |
| Dielectric Assessment  | Speag          | DAK-3.5        | 1226               | N/A                | January 20, 2025  |
| Directional Coupler    | Woken          | TS-PCC0M-05    | 0107090019         | N/A                | January 11, 2025  |
| Coupler                | Woken          | 0110A05601O-10 | COM5BNW1A2         | N/A                | January 12, 2025  |
| Liquid Thermometer     | Nscing Es      | YZ6021S        | /                  | N/A                | November 24, 2024 |

| Model No | For Head Tissue                      |                      |                       |           |        |
|----------|--------------------------------------|----------------------|-----------------------|-----------|--------|
|          | Item                                 | Original Cal. Result | Verified on 2025/4/16 | Deviation | Result |
| D835V2   | Impedance, transformed to feed point | 50.2Ω-3.8jΩ          | 49.9Ω+1.93Ω           | <5Ω       | Pass   |
|          | Return Loss(dB)                      | -28.3                | -28.408               | 0.4%      | Pass   |
|          | SAR Value for 1g(mW/g)               | 2.48                 | 2.33                  | -6.0%     | Pass   |
|          | SAR Value for 10g(mW/g)              | 1.62                 | 1.53                  | -5.6%     | Pass   |
|          |                                      |                      |                       |           |        |



Test Laboratory: BTL Inc.

Date: 2025/4/16

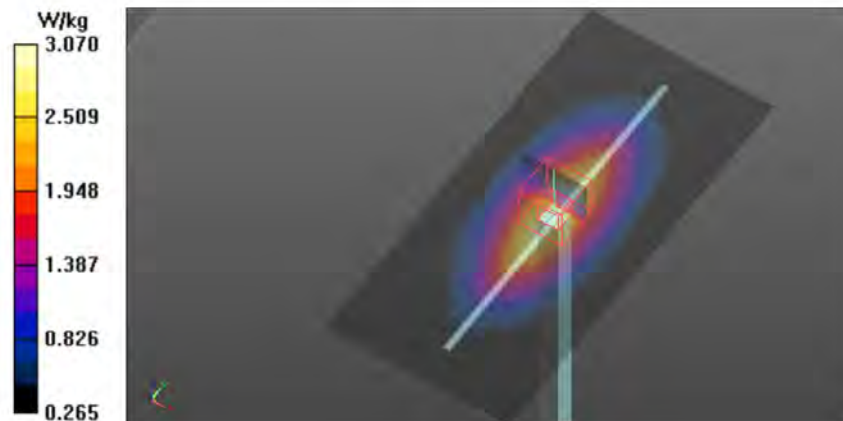
**System Check\_H835\_0416****DUT: Dipole 835 MHz D835V2;SN:4d160;**

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.906 \text{ S/m}$ ;  $\epsilon_r = 40.917$ ;  $\rho = 1000 \text{ kg/m}^3$ Ambient Temperature:  $22.3^\circ\text{C}$ ; Liquid Temperature:  $22.1^\circ\text{C}$ 

DASY Configuration:

- Probe: EX3DV4 - SN7693; ConvF(9.32, 9.08, 9.73) @835MHz;Calibrated: 2024/11/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1390; Calibrated: 2024/11/14
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: 1222
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

**Area Scan (7x14x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$ Maximum value of SAR (measured) =  $3.12 \text{ W/kg}$ **Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$ Reference Value =  $59.94 \text{ V/m}$ ; Power Drift =  $-0.07 \text{ dB}$ Peak SAR (extrapolated) =  $3.38 \text{ W/kg}$ **SAR(1 g) =  $2.33 \text{ W/kg}$ ; SAR(10 g) =  $1.53 \text{ W/kg}$** Smallest distance from peaks to all points 3 dB below =  $12.4 \text{ mm}$ Ratio of SAR at M2 to SAR at M1 =  $68.3\%$ Maximum value of SAR (measured) =  $3.07 \text{ W/kg}$ 

Calibrator:

*Justin Huang*

Approver:

*Herbert Lin*



## Dipole Internal Calibration Record

|                           |             |                      |                |                  |                |
|---------------------------|-------------|----------------------|----------------|------------------|----------------|
| Asset No. :               | E-437       | Model No. :          | D835V2         | Serial No. :     | 4d160          |
| Environmental condition : | 22.6°C, 52% | Original Cal. Date : | April 25, 2024 | Next Cal. Date : | April 25, 2027 |

### Standard List

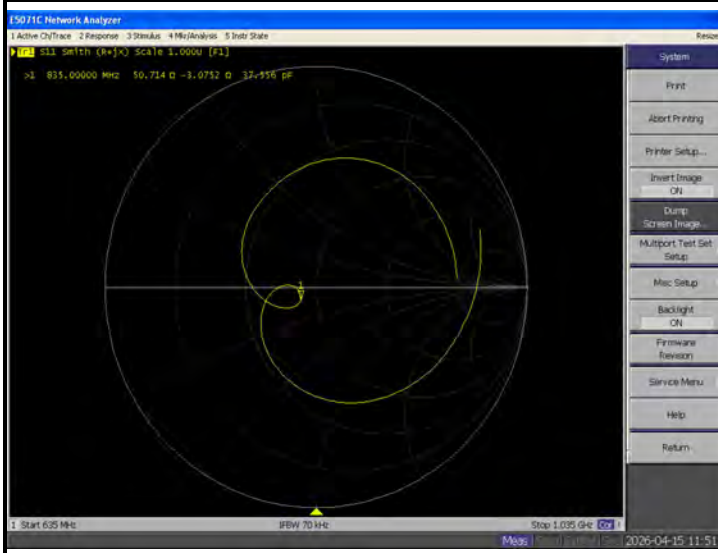
|   |                             |                                                                                                                                                                                                                                                                          |
|---|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | IEC/IEEE<br>62209-1528:2020 | 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 10GHz ) |
| 2 | KDB865664                   | SAR Measurement Requirements for 100 MHz to 6 GHz                                                                                                                                                                                                                        |

### Equipment Information

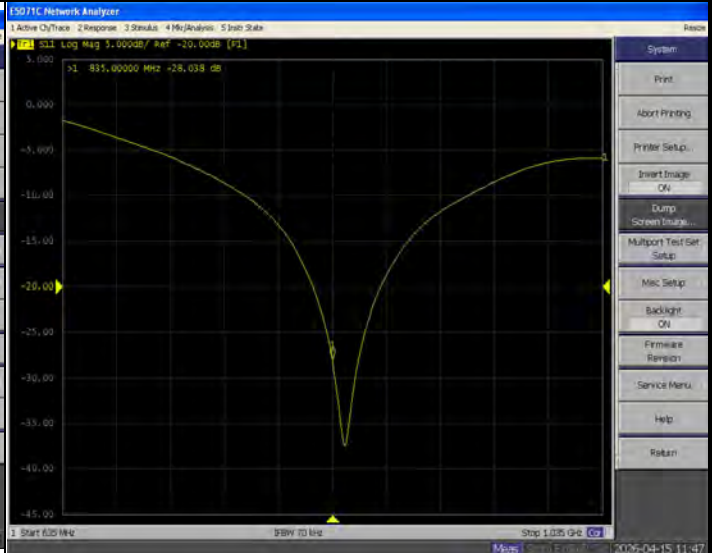
|                        |                |                |                    |                    |                   |
|------------------------|----------------|----------------|--------------------|--------------------|-------------------|
| Equipment :            | Manufacturer : | Model No. :    | Serial No. :       | Cal.Organization : | Cal. Date :       |
| Power Amplifier        | Mini-Circuits  | ZHL-42W+       | QA1333003          | N/A                | May 29, 2025      |
| DC Source metter       | Iteck          | IT6154         | 006104126768201001 | N/A                | May 29, 2025      |
| Vector Network Analyze | Agilent        | E5071C         | MY46102965         | N/A                | December 20, 2025 |
| Signal Generator       | Agilent        | N5172B         | MY53050758         | N/A                | December 20, 2025 |
| Smart Power Sensor     | R&S            | NRP18S         | 101333             | N/A                | May 29, 2025      |
| Dielectric Assessment  | Speag          | DAK-3.5        | 1226               | N/A                | February 19, 2026 |
| Directional Coupler    | Woken          | TS-PCC0M-05    | 0107090019         | N/A                | December 20, 2025 |
| Coupler                | Woken          | 0110A05601O-10 | COM5BNW1A2         | N/A                | December 20, 2025 |
| Liquid Thermometer     | Nscing Es      | YZ6021S        | /                  | N/A                | November 13, 2025 |

| Model No | For Head Tissue                      |                      |                       |           |        |
|----------|--------------------------------------|----------------------|-----------------------|-----------|--------|
| D835V2   | Item                                 | Original Cal. Result | Verified on 2026/4/15 | Deviation | Result |
|          | Impedance, transformed to feed point | 50.2Ω-3.8jΩ          | 50.7Ω-3.1jΩ           | <5Ω       | Pass   |
|          | Return Loss(dB)                      | -28.3                | -28.0                 | -1.1%     | Pass   |
|          | SAR Value for                        | 2.48                 | 2.52                  | 1.6%      | Pass   |
|          | SAR Value for                        | 1.62                 | 1.65                  | 1.9%      | Pass   |

### Impedance Test-Head



### Return Loss-Head



Test Laboratory: BTL Inc.

Date: 2026/4/15

**System Check\_H835\_0415****DUT: Dipole 835 MHz D835V2;SN:4d160;**

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.926$  S/m;  $\epsilon_r = 42.137$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.6 °C; Liquid Temperature: 22.3 °C

DASY Configuration:

- Probe: EX3DV4 - SN3809; ConvF(9.15, 9.15, 9.15) @ 835 MHz; Calibrated: 2026/3/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1390; Calibrated: 2025/11/19
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 Ax; Serial: 1222
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

**Area Scan (7x14x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 3.43 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 62.46 V/m; Power Drift = -0.09 dB

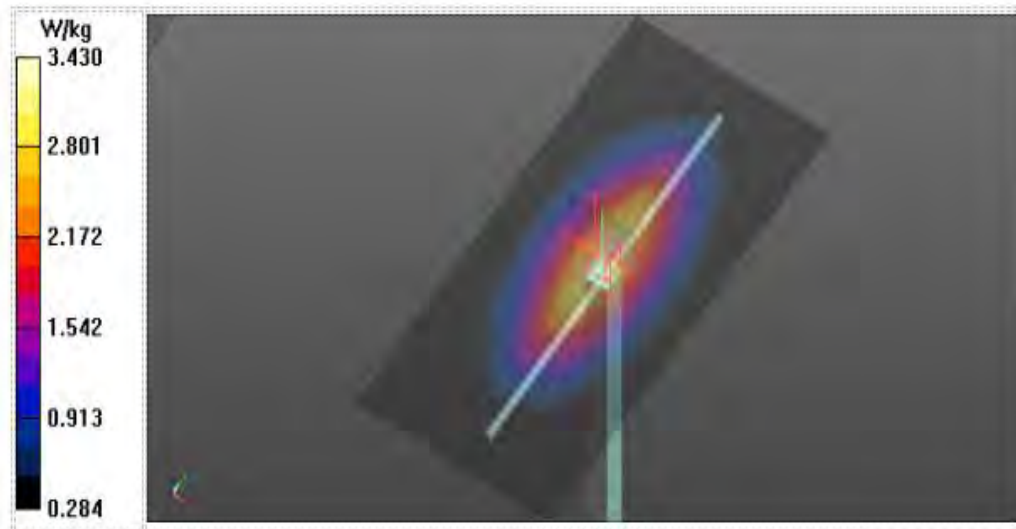
Peak SAR (extrapolated) = 3.94 W/kg

**SAR(1 g) = 2.52 W/kg; SAR(10 g) = 1.65 W/kg**

Smallest distance from peaks to all points 3 dB below = 13.8 mm

Ratio of SAR at M2 to SAR at M1 = 64.1%

Maximum value of SAR (measured) = 3.43 W/kg



Calibrator: Dana Chen

Approver: Herbert Lin



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 **BTL Inc.**  
**Guangdong**

Certificate No. **D1750V2-1101\_Apr24/2**

## CALIBRATION CERTIFICATE(Replacement of No: D1750V2-1101\_Apr24)

Object **D1750V2 - SN:1101**

Calibration procedure(s) **QA CAL-05.v12**  
**Calibration Procedure for SAR Validation Sources between 0.7-3 GHz**

Calibration date: **April 25, 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  $(22 \pm 3)^{\circ}\text{C}$  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         | 26-Mar-24 (No. 217-04036/04037) | Mar-25                |
| Power sensor NRP-Z91        | SN: 103244         | 26-Mar-24 (No. 217-04036)       | Mar-25                |
| Power sensor NRP-Z91        | SN: 103245         | 26-Mar-24 (No. 217-04037)       | Mar-25                |
| Reference 20 dB Attenuator  | SN: BH9394 (20k)   | 26-Mar-24 (No. 217-04046)       | Mar-25                |
| Type-N mismatch combination | SN: 310982 / 06327 | 26-Mar-24 (No. 217-04047)       | Mar-25                |
| Reference Probe EX3DV4      | SN: 7349           | 03-Nov-23 (No. EX3-7349_Nov23)  | Nov-24                |
| DAE4                        | SN: 601            | 30-Jan-24 (No. DAE4-601_Jan24)  | Jan-25                |

| Secondary Standards             | ID #           | Check Date (in house)             | Scheduled Check        |
|---------------------------------|----------------|-----------------------------------|------------------------|
| Power meter E4419B              | SN: GB39512475 | 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: MY41093315 | 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 E8358A | SN: US41080477 | 31-Mar-14 (in house check Oct-22) | In house check: Oct-24 |

Calibrated by: **Paulo Pina** **Laboratory Technician**

Signature

Approved by: **Sven Kühn** **Technical Manager**

Issued: May 21, 2024

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



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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                    | 1750 MHz $\pm$ 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 $\pm$ 0.2) °C | 41.3 $\pm$ 6 % | 1.34 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 | 9.06 W/kg                                      |
| SAR for nominal Head TSL parameters                   | normalized to 1W   | <b>37.0 W/kg <math>\pm</math> 17.0 % (k=2)</b> |

|                                                         |                    |                                                |
|---------------------------------------------------------|--------------------|------------------------------------------------|
| SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL | condition          |                                                |
| SAR measured                                            | 250 mW input power | 4.79 W/kg                                      |
| SAR for nominal Head TSL parameters                     | normalized to 1W   | <b>19.4 W/kg <math>\pm</math> 16.5 % (k=2)</b> |