

Test Laboratory: BTL Inc.

Date: 2023/12/18

**System Check\_H2450\_1218****DUT: Dipole 2450 MHz D2450V2;SN:919;**

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used :  $f = 2450$  MHz;  $\sigma = 1.845$  S/m;  $\epsilon_r = 39.737$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 22.5 °C; Liquid Temperature : 22.3 °C

DASY Configuration:

- Probe:EX3DV4-SN7693;ConvF(8.32,8.32, 8.32) @ 2450 MHz; Calibrated: 2023/10/31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1717; Calibrated: 2023/4/10
- Phantom: ELI V5.0; Type: QD OVA 001 BB; Serial: TP:1222
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

**Area Scan (8x8x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm

Maximum value of SAR (measured) = 17.4 W/kg

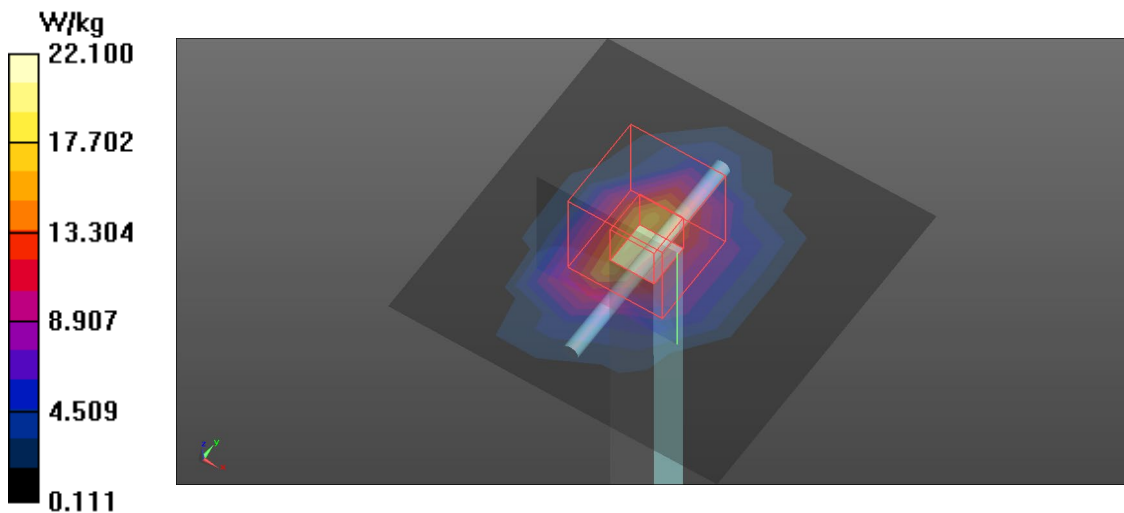
**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 108.2 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 27.1 W/kg

**SAR(1 g) = 13.1 W/kg; SAR(10 g) = 6.09 W/kg**

Maximum value of SAR (measured) = 22.1 W/kg



Test Laboratory: BTL Inc.

Date: 2023/12/19

**System Check\_H5250\_1219****DUT: Dipole D5GHzV2;SN:1160;**

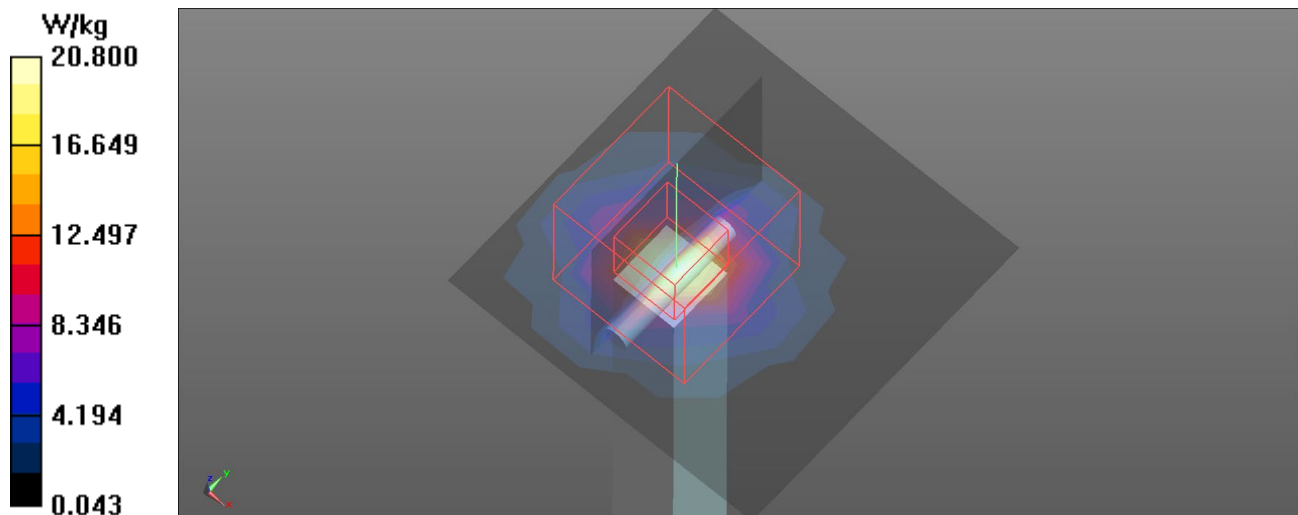
Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1  
Medium parameters used :  $f = 5250$  MHz;  $\sigma = 4.763$  S/m;  $\epsilon_r = 36.373$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 22.7 °C; Liquid Temperature : 22.2 °C

DASY Configuration:

- Probe:EX3DV4-SN7544; ConvF(5.35, 5.35, 5.35) @ 5250 MHz; Calibrated: 2023/2/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 23.0$
- Electronics: DAE4 Sn1423; Calibrated: 2023/3/17
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1128
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

**Area Scan (6x6x1):** Measurement grid:  $dx=10$ mm,  $dy=10$ mm  
Maximum value of SAR (measured) = 20.8 W/kg

**Zoom Scan (7x7x12)/Cube 0:** Measurement grid:  $dx=4$ mm,  $dy=4$ mm,  $dz=2$ mm  
Reference Value = 51.38 V/m; Power Drift = 0.07 dB  
Peak SAR (extrapolated) = 36.4 W/kg  
**SAR(1 g) = 7.82 W/kg; SAR(10 g) = 2.22 W/kg**  
Maximum value of SAR (measured) = 21.1 W/kg



Test Laboratory: BTL Inc.

Date: 2023/12/19

**System Check\_H5600\_1219****DUT: Dipole D5GHzV2;SN:1160;**

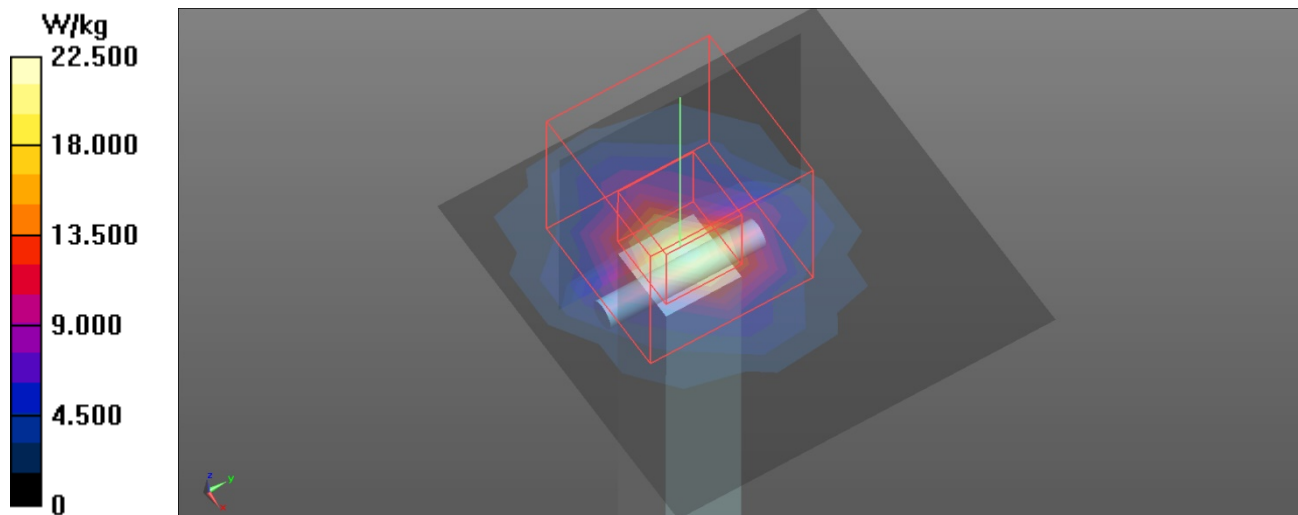
Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.173$  S/m;  $\epsilon_r = 35.555$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 22.7 °C; Liquid Temperature : 22.2 °C

DASY Configuration:

- Probe: EX3DV4 - SN7544; ConvF(4.8, 4.8, 4.8) @ 5600 MHz; Calibrated: 2023/2/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 23.0$
- Electronics: DAE4 Sn1423; Calibrated: 2023/3/17
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1128
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

**Area Scan (6x6x1):** Measurement grid:  $dx=10$ mm,  $dy=10$ mm  
Maximum value of SAR (measured) = 22.1 W/kg

**Zoom Scan (7x7x12)/Cube 0:** Measurement grid:  $dx=4$ mm,  $dy=4$ mm,  $dz=2$ mm  
Reference Value = 51.43 V/m; Power Drift = 0.06 dB  
Peak SAR (extrapolated) = 41.2 W/kg  
**SAR(1 g) = 8.15 W/kg; SAR(10 g) = 2.28 W/kg**  
Maximum value of SAR (measured) = 22.5 W/kg



Test Laboratory: BTL Inc.

Date: 2023/12/19

**System Check\_H5750\_1219****DUT: Dipole D5GHzV2;SN:1160;**

Communication System: UID 0, CW (0); Frequency: 5750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.363$  S/m;  $\epsilon_r = 35.226$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 22.7 °C; Liquid Temperature : 22.2 °C

DASY Configuration:

- Probe: EX3DV4-SN7544;ConvF(4.87, 4.87, 4.87) @ 5750 MHz; Calibrated: 2023/2/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 23.0$
- Electronics: DAE4 Sn1423; Calibrated: 2023/3/17
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1128
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

**Area Scan (6x6x1):** Measurement grid:  $dx=10$ mm,  $dy=10$ mm

Maximum value of SAR (measured) = 21.9 W/kg

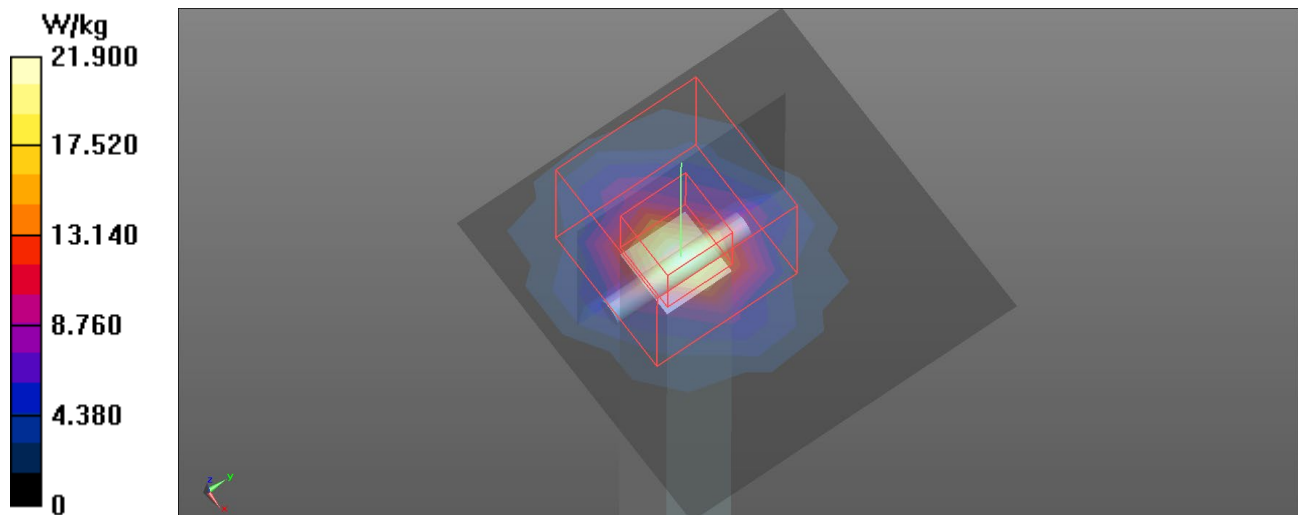
**-Zoom Scan (7x7x12)/Cube 0:** Measurement grid:  $dx=4$ mm,  $dy=4$ mm,  $dz=2$ mm

Reference Value = 50.32 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 41.6 W/kg

**SAR(1 g) = 7.95 W/kg; SAR(10 g) = 2.23 W/kg**

Maximum value of SAR (measured) = 21.9 W/kg



Test Laboratory: BTL Inc.

Date: 2023/12/19

**System Check\_H5800\_1219****DUT: Dipole D5GHzV2;SN:1160;**

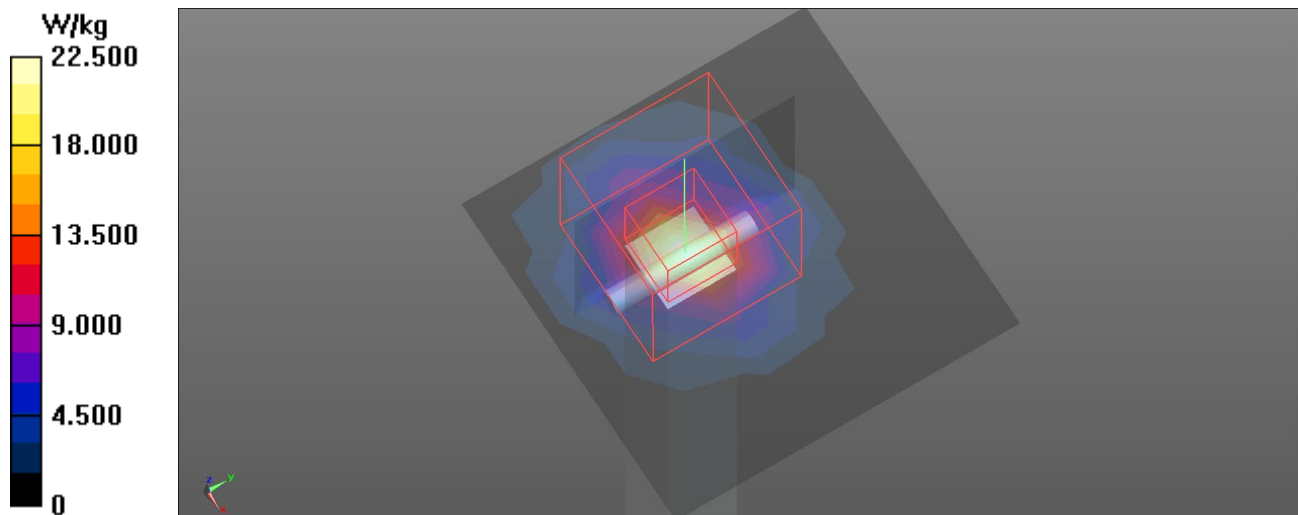
Communication System: UID 0, CW (0); Frequency: 5800 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 5800$  MHz;  $\sigma = 5.415$  S/m;  $\epsilon_r = 35.096$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 22.7 °C; Liquid Temperature : 22.2 °C

DASY Configuration:

- Probe:EX3DV4 SN7544;ConvF(4.87, 4.87, 4.87) @ 5800 MHz; Calibrated: 2023/2/16
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 23.0$
- Electronics: DAE4 Sn1423; Calibrated: 2023/3/17
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1128
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

**Area Scan (6x6x1):** Measurement grid:  $dx=10$ mm,  $dy=10$ mm  
Maximum value of SAR (measured) = 22.1 W/kg

**Zoom Scan (7x7x12)/Cube 0:** Measurement grid:  $dx=4$ mm,  $dy=4$ mm,  $dz=2$ mm  
Reference Value = 50.97 V/m; Power Drift = 0.01 dB  
Peak SAR (extrapolated) = 43.3 W/kg  
**SAR(1 g) = 8.11 W/kg; SAR(10 g) = 2.28 W/kg**  
Maximum value of SAR (measured) = 22.5 W/kg



## Measurement Report for Device, , , UID 0 -, Channel 0 (6500.0MHz)

### Device under Test Properties

| Model, Manufacturer<br>Device, | Dimensions [mm]<br>50.0 x 10.0 x 8.0 | IMEI | DUT Type<br>Dipole |
|--------------------------------|--------------------------------------|------|--------------------|
|--------------------------------|--------------------------------------|------|--------------------|

### Exposure Conditions

| Phantom<br>Section, TSL | Position, Test<br>Distance [mm] | Band | Group,<br>UID | Frequency<br>[MHz],<br>Channel<br>Number | Conversion<br>Factor | TSL<br>Conductivity<br>[S/m] | TSL<br>Permittivity |
|-------------------------|---------------------------------|------|---------------|------------------------------------------|----------------------|------------------------------|---------------------|
| Flat,<br>HSL            | ,                               |      | ,<br>0--      | 6500.0,<br>0                             | 5.8                  | 5.91                         | 33.4                |

### Hardware Setup

| Phantom<br>Twin-SAM V8.0 (30deg probe<br>tilt) - 2081 | TSL, Measured Date<br>HBBL-695-10000 | Probe, Calibration Date<br>EX3DV4 - SN7693, 2023-10-31 | DAE, Calibration Date<br>DAE4 Sn1423, 2023-03-17 |
|-------------------------------------------------------|--------------------------------------|--------------------------------------------------------|--------------------------------------------------|
|-------------------------------------------------------|--------------------------------------|--------------------------------------------------------|--------------------------------------------------|

### Scan Setup

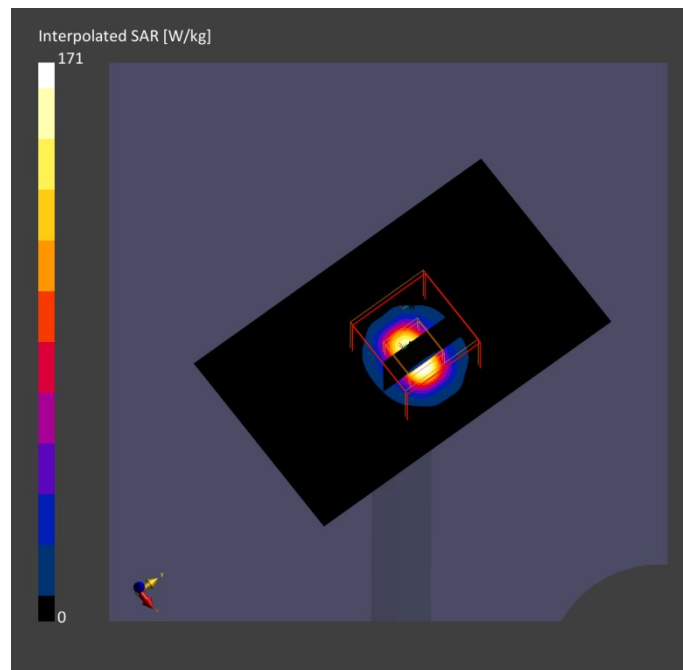
|                        | Area Scan   | Zoom Scan          |
|------------------------|-------------|--------------------|
| Grid Extents [mm]      | 51.0 x 85.0 | 22.0 x 22.0 x 22.0 |
| Grid Steps [mm]        | 8.5 x 8.5   | 3.4 x 3.4 x 1.4    |
| Sensor Surface<br>[mm] | 3.0         | 1.4                |
| Graded Grid            | Yes         | Yes                |
| Grading Ratio          | 1.5         | 1.4                |
| MAIA                   | N/A         | N/A                |
| Surface Detection      | VMS + 6p    | VMS + 6p           |
| Scan Method            | Measured    | Measured           |

### Measurement Results

|                        | Area Scan     | Zoom Scan     |
|------------------------|---------------|---------------|
| Date                   | 2023-12-18    | 2023-12-18    |
| psSAR1g [W/kg]         | 21.6          | 28.3          |
| psSAR10g<br>[W/kg]     | 4.77          | 5.40          |
| Power Drift [dB]       | -0.01         | 0.00          |
| Power Scaling          | Disabled      | Disabled      |
| Scaling Factor<br>[dB] |               |               |
| TSL Correction         | No correction | No correction |
| M2/M1 [%]              |               | 51.4          |
| Dist 3dB Peak<br>[mm]  |               | 4.4           |

### Warning(s) / Error(s)

| Details    | Area Scan | Zoom Scan |
|------------|-----------|-----------|
| Warning(s) |           |           |
| Error(s)   |           |           |



# Measurement Report for Device, FRONT, Validation band, UID 0 -, Channel 10000 (10000.0MHz)

## Device under Test Properties

| Model, Manufacturer | Dimensions [mm]       | IMEI | DUT Type            |
|---------------------|-----------------------|------|---------------------|
| 1041, Device        | 100.0 x 100.0 x 172.0 |      | Verification Source |

## Exposure Conditions

| Phantom Section | Position, Test Distance [mm] | Band            | Group, UID | Frequency [MHz], Channel Number | Conversion Factor |
|-----------------|------------------------------|-----------------|------------|---------------------------------|-------------------|
| 5G Air          | FRONT, 10.00                 | Validation band | CW, 0--    | 10000.0, 10000                  | 1.0               |

## Hardware Setup

| Phantom      | Medium | Probe, Calibration Date               | DAE, Calibration Date   |
|--------------|--------|---------------------------------------|-------------------------|
| mmWave- xxxx | ---Air | EUmmWV4 - SN9626_F1-55GHz, 2023-05-17 | DAE4 Sn1423, 2023-03-17 |

## Scan Setup

|                     | 5G Scan       |
|---------------------|---------------|
| Grid Extents [mm]   | 60.0 x 60.0   |
| Grid Steps [lambda] | 0.125 x 0.125 |
| Sensor Surface [mm] | 10.0          |
| MAIA                | Y             |

## Measurement Results

|                              | 5G Scan    |
|------------------------------|------------|
| Date                         | 2023-12-18 |
| Avg. Area [cm <sup>2</sup> ] | 4.00       |
| psPDn+ [W/m <sup>2</sup> ]   | 43.5       |
| psPDtot+ [W/m <sup>2</sup> ] | 48.0       |
| psPDmod+ [W/m <sup>2</sup> ] | 48.4       |
| E <sub>max</sub> [V/m]       | 152        |
| Power Drift [dB]             | 0.03       |

## Warning(s) / Error(s)

Details 5G Scan

Warning(s)

Error(s)

