

## Appendix B – System Check Plots

Date: 2025/3/8

**System Performance Check at 2450 MHz**

**DUT: D2450V2\_SN712**

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 2450 \text{ MHz}$ ;  $\sigma = 1.871 \text{ S/m}$ ;  $\epsilon_r = 41.757$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section  
 Measurement Standard: DASYS

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3847; ConvF(7.01, 6.75, 6.74) @ 2450 MHz; Calibrated: 2025/2/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2024/6/5
- Phantom: ELI; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**System Performance Check at 2450MHz/Area Scan (81x81x1):** Interpolated grid:  $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$   
 Maximum value of SAR (interpolated) = 4.25 W/kg

**System Performance Check at 2450MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 50.79 V/m; Power Drift = -0.11 dB

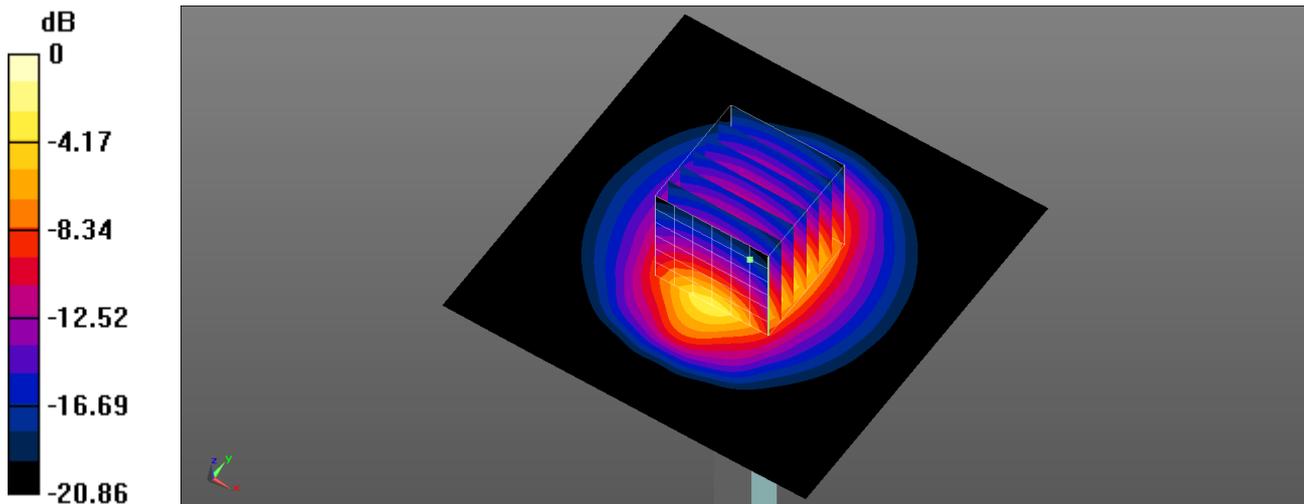
Peak SAR (extrapolated) = 4.89 W/kg

**SAR(1 g) = 2.61 W/kg; SAR(10 g) = 1.26 W/kg** (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 53.3%

Maximum value of SAR (measured) = 4.15 W/kg



0 dB = 4.15 W/kg = 6.18 dBW/kg

Date: 2025/3/9

**System Performance Check at 5250 MHz**

**DUT: D5GHzV2\_SN1021**

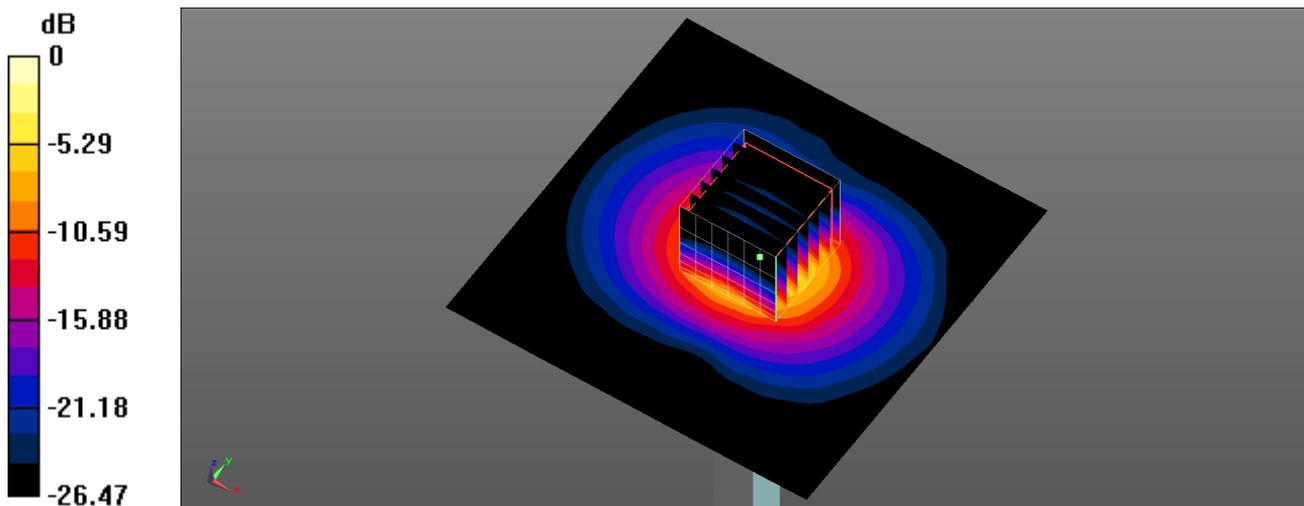
Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1  
Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.52$  S/m;  $\epsilon_r = 34.218$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASYS

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3847; ConvF(5.47, 5.26, 5.25) @ 5250 MHz; Calibrated: 2025/2/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2024/6/5
- Phantom: ELI; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**System Performance Check at 5250MHz/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 9.42 W/kg

**System Performance Check at 5250MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
Reference Value = 48.09 V/m; Power Drift = -0.12 dB  
Peak SAR (extrapolated) = 17.0 W/kg  
**SAR(1 g) = 4.01 W/kg; SAR(10 g) = 1.15 W/kg** (SAR corrected for target medium)  
Smallest distance from peaks to all points 3 dB below = 7.2 mm  
Ratio of SAR at M2 to SAR at M1 = 63.5%  
Maximum value of SAR (measured) = 10.2 W/kg



0 dB = 10.2 W/kg = 10.09 dBW/kg

Date: 2025/3/10

**System Performance Check at 5600 MHz**

**DUT: D5GHzV2\_SN1021**

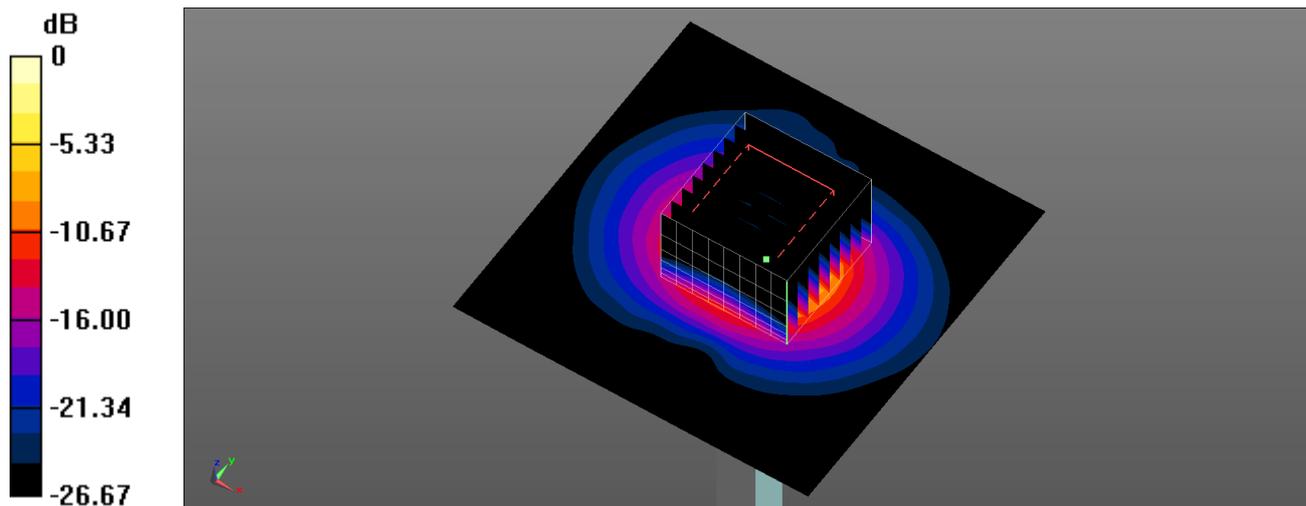
Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 5600$  MHz;  $\sigma = 4.861$  S/m;  $\epsilon_r = 33.829$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section  
 Measurement Standard: DASYS

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3847; ConvF(5.19, 5, 4.99) @ 5600 MHz; Calibrated: 2025/2/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2024/6/5
- Phantom: ELI; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**System Performance Check at 5600MHz/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
 Maximum value of SAR (interpolated) = 10.2 W/kg

**System Performance Check at 5600MHz/Zoom Scan (9x9x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
 Reference Value = 47.33 V/m; Power Drift = -0.17 dB  
 Peak SAR (extrapolated) = 19.3 W/kg  
**SAR(1 g) = 4.1 W/kg; SAR(10 g) = 1.16 W/kg** (SAR corrected for target medium)  
 Smallest distance from peaks to all points 3 dB below = 7.4 mm  
 Ratio of SAR at M2 to SAR at M1 = 60.1%  
 Maximum value of SAR (measured) = 10.6 W/kg



0 dB = 10.6 W/kg = 10.25 dBW/kg

Date: 2025/3/11

**System Performance Check at 5800 MHz**

**DUT: D5GHzV2\_SN1021**

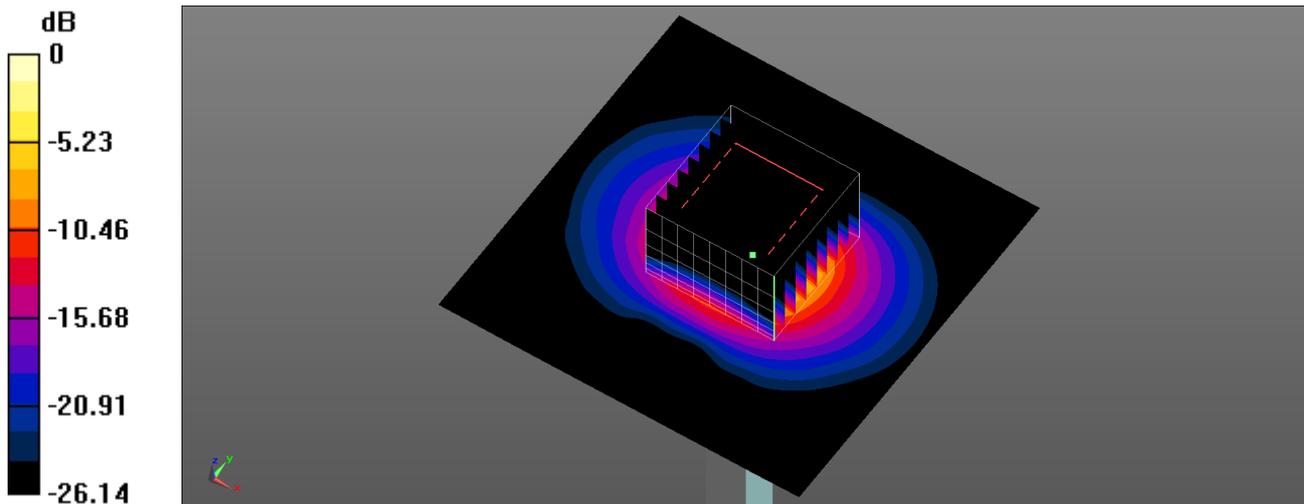
Communication System: UID 0, CW (0); Frequency: 5800 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 5800$  MHz;  $\sigma = 5.063$  S/m;  $\epsilon_r = 33.549$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section  
 Measurement Standard: DASYS

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3847; ConvF(5.03, 4.84, 4.83) @ 5800 MHz; Calibrated: 2025/2/25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2024/6/5
- Phantom: ELI; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**System Performance Check at 5800MHz/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
 Maximum value of SAR (interpolated) = 10.0 W/kg

**System Performance Check at 5800MHz/Zoom Scan (9x9x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
 Reference Value = 45.85 V/m; Power Drift = -0.11 dB  
 Peak SAR (extrapolated) = 19.8 W/kg  
**SAR(1 g) = 3.96 W/kg; SAR(10 g) = 1.12 W/kg** (SAR corrected for target medium)  
 Smallest distance from peaks to all points 3 dB below = 7.4 mm  
 Ratio of SAR at M2 to SAR at M1 = 58.4%  
 Maximum value of SAR (measured) = 10.6 W/kg



0 dB = 10.6 W/kg = 10.25 dBW/kg

Test Date : 2025-03-05 | Ambient Temp : 22.3 °C | Tissue Temp : 21.9 °C

**System Performance Check**

**System Performance Check at 6500 MHz**

**Verification Source Properties**

| Manufacturer | Model No. | Serial No. | Input Power [dBm] |
|--------------|-----------|------------|-------------------|
| SPEAG        | D6.5GHz   | 1016       | 20.0              |

**Exposure Conditions**

| Phantom Section | Group | Frequency [MHz] | Conversion Factor | TSL Conductivity [S/m] | TSL Permittivity |
|-----------------|-------|-----------------|-------------------|------------------------|------------------|
| Flat            | CW    | 6500.000        | 5.2               | 5.93                   | 31.9             |

**Hardware Setup**

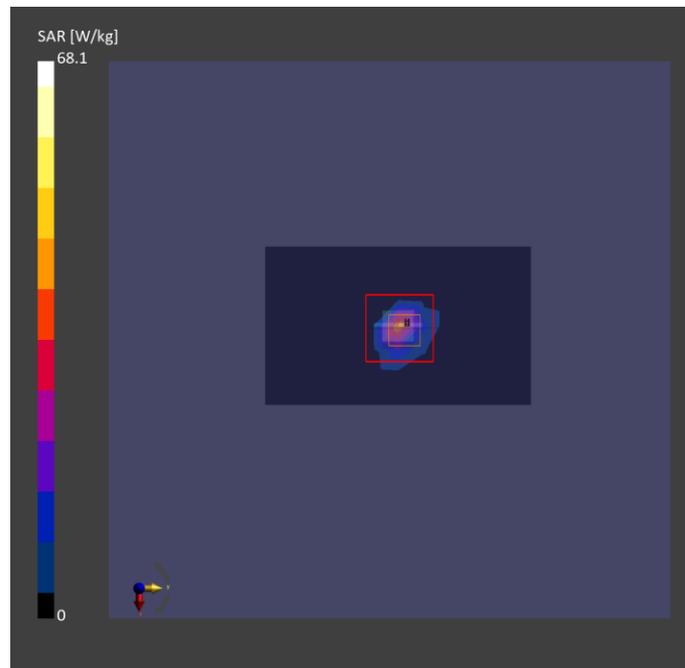
| Phantom                             | Tissue Simulating Liquid | Probe   Calibration Date     | DAE   Calibration Date   |
|-------------------------------------|--------------------------|------------------------------|--------------------------|
| ELI V5.0 (20deg probe tilt) - 1175  | HBBL-600-10000V6         | EX3DV4 - SN7647 / 2024-04-24 | DAE4 Sn1253 / 2024-04-22 |
| <b>Measurement Software Version</b> |                          | 16.4.0.5005                  |                          |

**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 [mm] | 3.0         | 1.4                |
| Graded Grid         | N/A         | Yes                |
| Grading Ratio       | N/A         | 1.4                |

**Measurement Results**

|  | Area Scan     | Zoom Scan     |
|--|---------------|---------------|
| psSAR-1g [W/kg]                                      | 22.9          | <b>28.3</b>   |
| psSAR-8g [W/kg]                                      | 5.77          | <b>6.36</b>   |
| psSAR-10g [W/kg]                                     | 4.82          | <b>5.19</b>   |
| psAPD (1.0 cm <sup>2</sup> , sq) [W/m <sup>2</sup> ] |               | <b>283</b>    |
| psAPD (4.0 cm <sup>2</sup> , sq) [W/m <sup>2</sup> ] |               | <b>129</b>    |
| Power Drift [dB]                                     |               | 0.11          |
| TSL Correction                                       | Positive only | Positive only |



Test Date : 2025-03-07 | Ambient Temp : 22.2 °C

**System Performance Check**

**System Performance Check at 10GHz**

**Verification Source Properties**

| Manufacturer | Model No.              | Serial No. |
|--------------|------------------------|------------|
| SPEAG        | 5G Verification Source | 1060       |

**Exposure Conditions**

| Phantom Section | Group | Frequency [MHz] | Conversion Factor |
|-----------------|-------|-----------------|-------------------|
| 5G              | CW    | 10000.0         | 1.0               |

**Hardware Setup**

| Phantom             | Medium | Probe   Calibration Date               | DAE   Calibration Date   |
|---------------------|--------|--|--------------------------|
| mmWave - 5G Phantom | Air    | EUmmWV3 - SN9403_F1-55GHz / 2024-11-15 | DAE4 Sn1253 / 2024-04-22 |

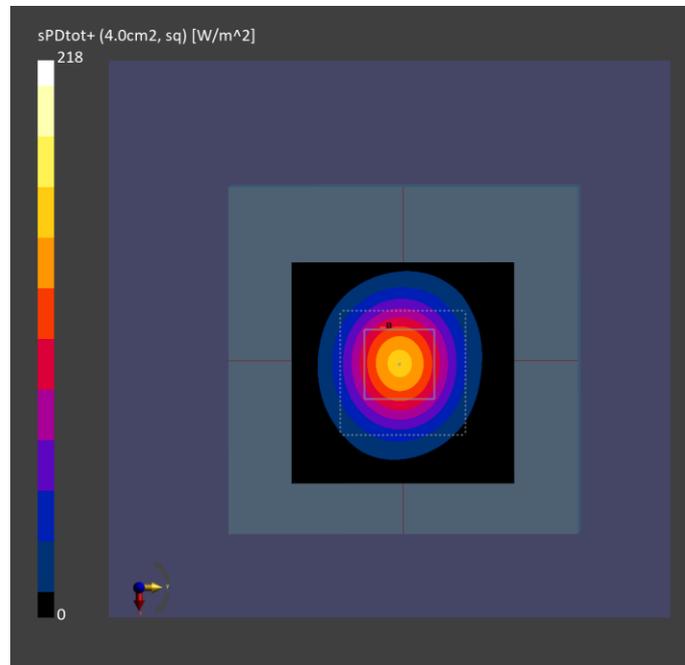
**Measurement Software Version**

**Scan Setup**

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

**Measurement Results**

|                               | 5G Scan |
|-------------------------------|---------|
| Avg. Area [cm <sup>2</sup> ]  | 4.00    |
| psPD n+ [W/m <sup>2</sup> ]   | 51      |
| psPD tot+ [W/m <sup>2</sup> ] | 52      |
| psPD mod+ [W/m <sup>2</sup> ] | 52      |
| E max [V/m]                   | 92      |
| Power Drift [dB]              | 0.01    |



Test Date : 2025-03-08 | Ambient Temp : 22.1 °C

**System Performance Check**

**System Performance Check at 10GHz**

**Verification Source Properties**

| Manufacturer | Model No.              | Serial No. |
|--------------|------------------------|------------|
| SPEAG        | 5G Verification Source | 1060       |

**Exposure Conditions**

| Phantom Section | Group | Frequency [MHz] | Conversion Factor |
|-----------------|-------|-----------------|-------------------|
| 5G              | CW    | 10000.0         | 1.0               |

**Hardware Setup**

| Phantom             | Medium | Probe   Calibration Date               | DAE   Calibration Date   |
|---------------------|--------|--|--------------------------|
| mmWave - 5G Phantom | Air    | EUmmWV3 - SN9403_F1-55GHz / 2024-11-15 | DAE4 Sn1253 / 2024-04-22 |

**Measurement Software Version**

**Scan Setup**

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

**Measurement Results**

|                               | 5G Scan |
|-------------------------------|---------|
| Avg. Area [cm <sup>2</sup> ]  | 4.00    |
| psPD n+ [W/m <sup>2</sup> ]   | 55      |
| psPD tot+ [W/m <sup>2</sup> ] | 56      |
| psPD mod+ [W/m <sup>2</sup> ] | 56      |
| E max [V/m]                   | 99      |
| Power Drift [dB]              | 0.05    |

