

## **Appendix B – System Check Plots**

Date: 2025/3/4

**System Performance Check at 2450 MHz**

**DUT: D2450V2\_SN712**

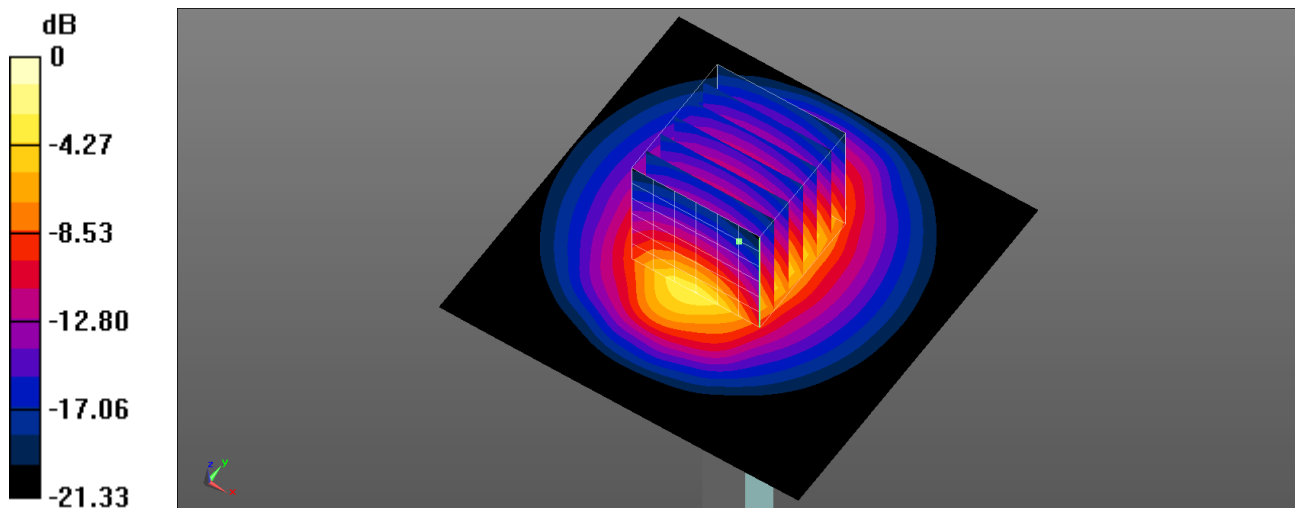
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1  
Medium parameters used: f = 2450 MHz;  $\sigma = 1.734$  S/m;  $\epsilon_r = 38.938$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASYS

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 - SN3977; ConvF(7.73, 7.11, 7.58) @ 2450 MHz; Calibrated: 2024/3/21
- 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 (71x71x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 3.95 W/kg

**System Performance Check at 2450MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 50.47 V/m; Power Drift = 0.04 dB  
Peak SAR (extrapolated) = 4.92 W/kg  
**SAR(1 g) = 2.49 W/kg; SAR(10 g) = 1.18 W/kg** (SAR corrected for target medium)  
Smallest distance from peaks to all points 3 dB below = 9.4 mm  
Ratio of SAR at M2 to SAR at M1 = 53.6%  
Maximum value of SAR (measured) = 4.01 W/kg



0 dB = 4.01 W/kg = 6.03 dBW/kg

Date: 2025/3/5

**System Performance Check at 5250 MHz**

**DUT: D5GHzV2\_SN1021**

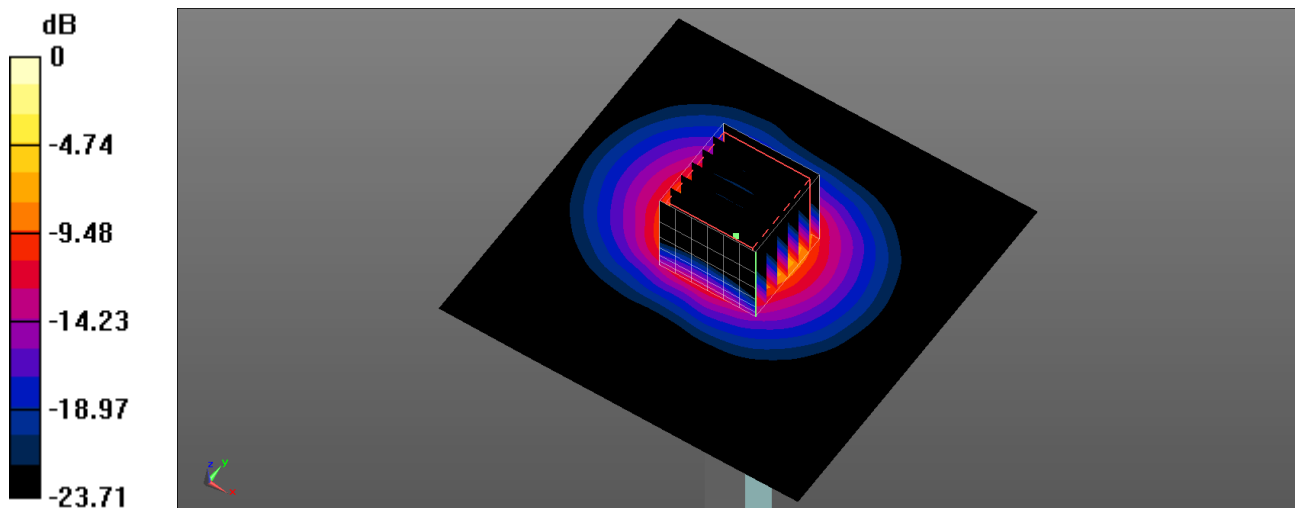
Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1  
Medium parameters used:  $f = 5250 \text{ MHz}$ ;  $\sigma = 4.32 \text{ S/m}$ ;  $\epsilon_r = 33.354$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section  
Measurement Standard: DASYS

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 - SN3977; ConvF(5.68, 5.15, 5.5) @ 5250 MHz; Calibrated: 2024/3/21
- 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:  $dx=1.000 \text{ mm}$ ,  $dy=1.000 \text{ mm}$   
Maximum value of SAR (interpolated) = 9.39 W/kg

**System Performance Check at 5250MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=1.4\text{mm}$   
Reference Value = 39.04 V/m; Power Drift = 0.02 dB  
Peak SAR (extrapolated) = 15.2 W/kg  
**SAR(1 g) = 3.77 W/kg; SAR(10 g) = 1.05 W/kg** (SAR corrected for target medium)  
Smallest distance from peaks to all points 3 dB below = 8.4 mm  
Ratio of SAR at M2 to SAR at M1 = 62.7%  
Maximum value of SAR (measured) = 9.25 W/kg



0 dB = 9.25 W/kg = 9.66 dBW/kg

Date: 2025/3/6

**System Performance Check at 5600 MHz**

**DUT: D5GHzV2\_SN1021**

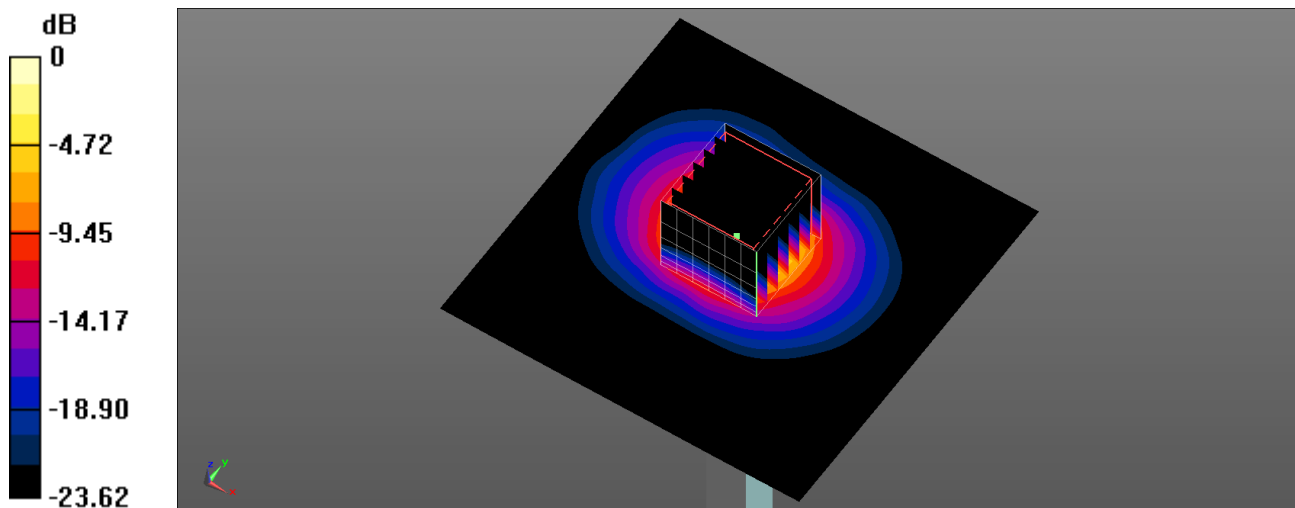
Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1  
Medium parameters used: f = 5600 MHz;  $\sigma = 4.648$  S/m;  $\epsilon_r = 32.963$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASYS

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 - SN3977; ConvF(4.9, 4.47, 4.74) @ 5600 MHz; Calibrated: 2024/3/21
- 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) = 9.99 W/kg

**System Performance Check at 5600MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
Reference Value = 42.25 V/m; Power Drift = 0.07 dB  
Peak SAR (extrapolated) = 16.9 W/kg  
**SAR(1 g) = 3.96 W/kg; SAR(10 g) = 1.09 W/kg** (SAR corrected for target medium)  
Smallest distance from peaks to all points 3 dB below = 7.8 mm  
Ratio of SAR at M2 to SAR at M1 = 63.4%  
Maximum value of SAR (measured) = 9.54 W/kg



0 dB = 9.54 W/kg = 9.80 dBW/kg

Date: 2025/3/7

**System Performance Check at 5800 MHz**

**DUT: D5GHzV2\_SN1021**

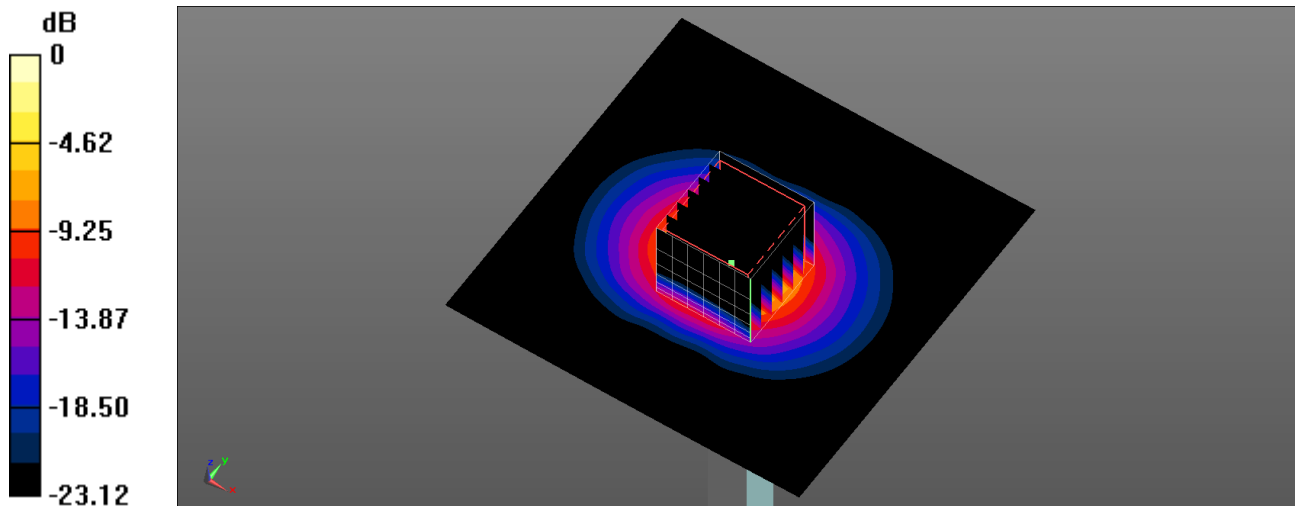
Communication System: UID 0, CW (0); Frequency: 5800 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 5800$  MHz;  $\sigma = 4.844$  S/m;  $\epsilon_r = 32.683$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
Measurement Standard: DASYS

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 - SN3977; ConvF(5.03, 4.62, 4.96) @ 5800 MHz; Calibrated: 2024/3/21
- 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) = 9.33 W/kg

**System Performance Check at 5800MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
Reference Value = 54.73 V/m; Power Drift = 0.16 dB  
Peak SAR (extrapolated) = 18.4 W/kg  
**SAR(1 g) = 3.83 W/kg; SAR(10 g) = 1.04 W/kg** (SAR corrected for target medium)  
Smallest distance from peaks to all points 3 dB below = 7.7 mm  
Ratio of SAR at M2 to SAR at M1 = 61.9%  
Maximum value of SAR (measured) = 10.1 W/kg



0 dB = 10.1 W/kg = 10.04 dBW/kg

Test Date : 2025-03-07 | Ambient Temp : 21.8 °C | Tissue Temp : 21.5 °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	5.65	6.03	32.2

**Hardware Setup**

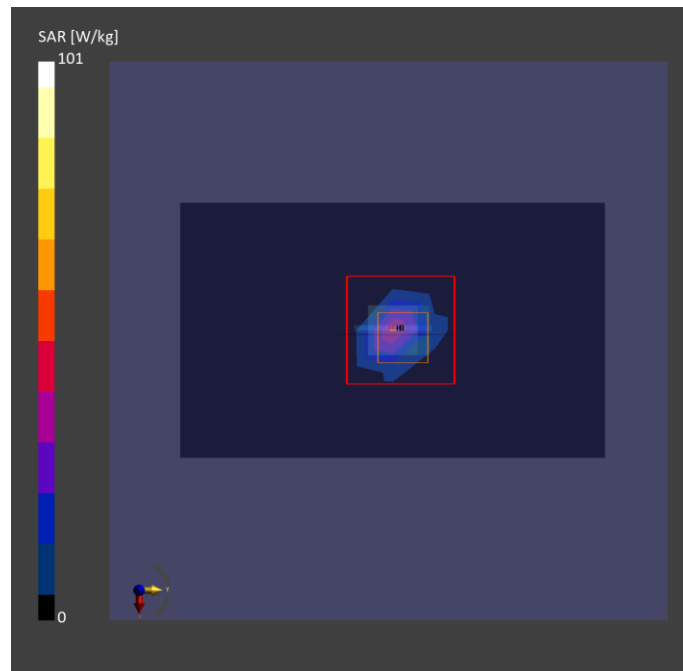
Phantom	Tissue Simulating Liquid	Probe   Calibration Date	DAE   Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HBBL-600-10000V6	EX3DV4 - SN7647 / 2024-04-24	DAE4 Sn1253 / 2024-04-22
<b>Measurement Software Version</b>		16.4.0.5005	

**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]	23.3	<b>27.9</b>
psSAR-8g [W/kg]	5.76	<b>6.67</b>
psSAR-10g [W/kg]	4.81	<b>5.53</b>
psAPD (1.0 cm <sup>2</sup> , sq) [W/m <sup>2</sup> ]		<b>279</b>
psAPD (4.0 cm <sup>2</sup> , sq) [W/m <sup>2</sup> ]		<b>138</b>
Power Drift [dB]		0.05
TSL Correction	Positive only	Positive only



Test Date : 2025-03-10 | 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

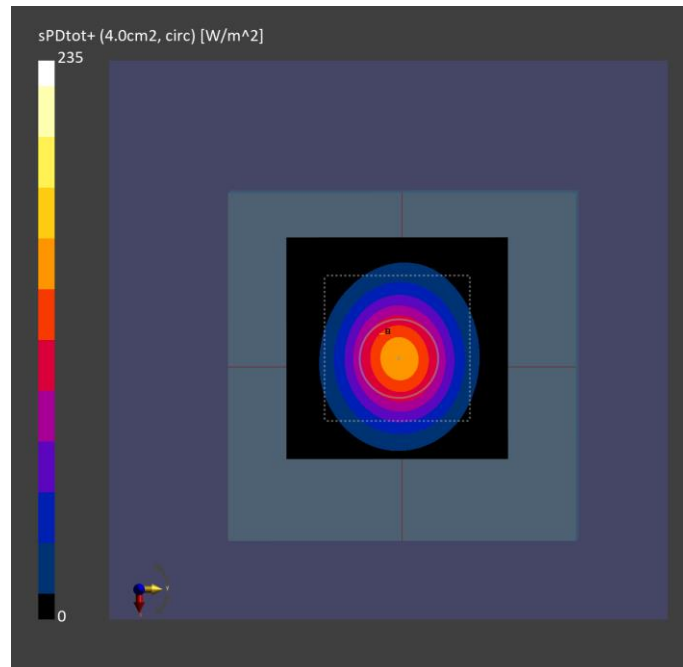
**Measurement Software Version**

**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]	96
Power Drift [dB]	0.05



Test Date : 2025-03-11 | Ambient Temp : 22.0 °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> ]	<b>53</b>
psPD tot+ [W/m <sup>2</sup> ]	<b>54</b>
psPD mod+ [W/m <sup>2</sup> ]	54
E max [V/m]	96
Power Drift [dB]	0.02

