

Appendix B – System Check Plots

Date: 2026/1/23

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; $\sigma = 1.852$ S/m; $\epsilon_r = 42.18$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASY5

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN7647; ConvF(7.23, 7.03, 8.4) @ 2450 MHz; Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1253; Calibrated: 2025/4/22
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 AA; Serial: 1175
- 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) = 4.31 W/kg

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

Reference Value = 48.69 V/m; Power Drift = -0.15 dB

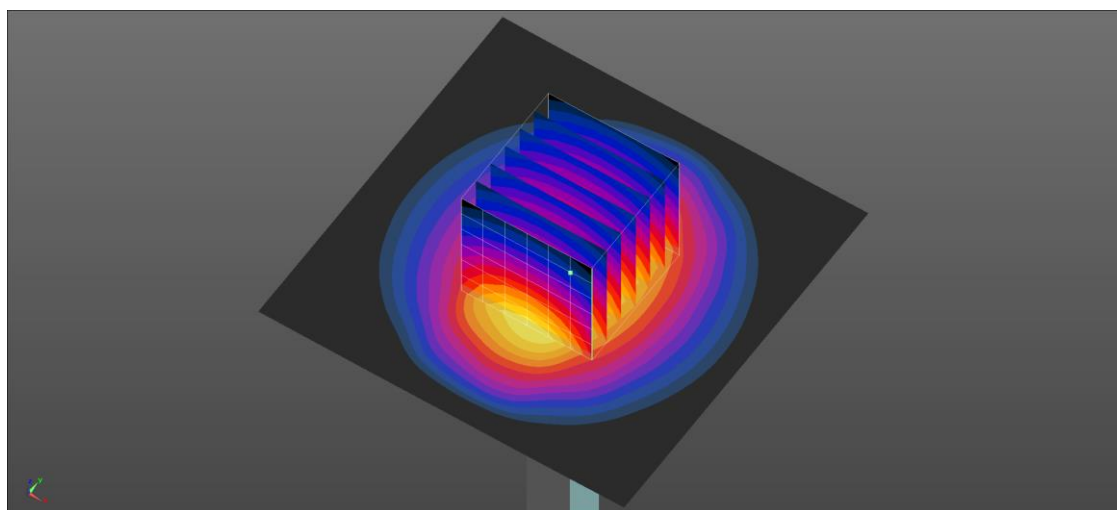
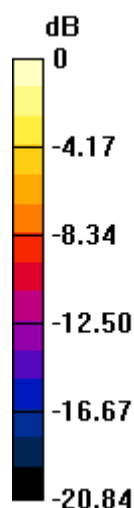
Peak SAR (extrapolated) = 5.29 W/kg

SAR(1 g) = 2.68 W/kg; SAR(10 g) = 1.28 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 9.2 mm

Ratio of SAR at M2 to SAR at M1 = 54.6%

Maximum value of SAR (measured) = 4.38 W/kg



0 dB = 4.38 W/kg = 6.41 dBW/kg

Date: 2026/1/24

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; $\sigma = 4.495$ S/m; $\epsilon_r = 37.831$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN7647; ConvF(5.5, 5.36, 6.39) @ 5250 MHz; Calibrated: 2025/4/24
- Sensor-Surface: 1.4 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1253; Calibrated: 2025/4/22
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 AA; Serial: 1175
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

System Performance Check at 5250 MHz/Area Scan (91x91x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm
Maximum value of SAR (interpolated) = 8.79 W/kg

System Performance Check at 5250 MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 43.74 V/m; Power Drift = -0.01 dB

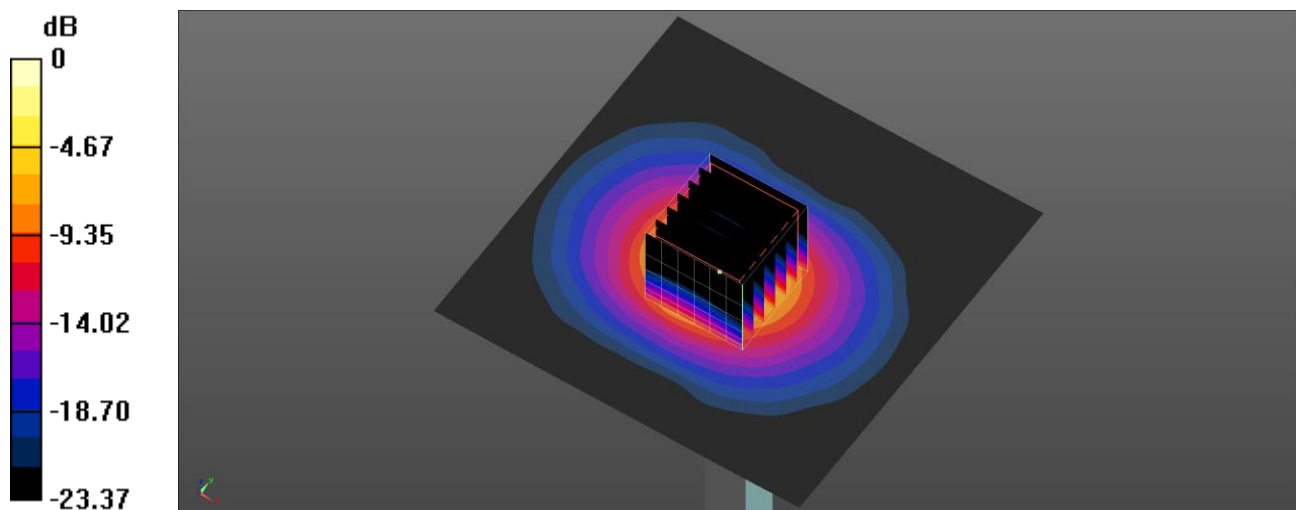
Peak SAR (extrapolated) = 16.5 W/kg

SAR(1 g) = 3.77 W/kg; SAR(10 g) = 1.12 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 = 59.3%

Maximum value of SAR (measured) = 9.03 W/kg



0 dB = 9.03 W/kg = 9.56 dBW/kg

Date: 2026/1/25

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; $\sigma = 4.842$ S/m; $\epsilon_r = 37.547$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5

DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN7647; ConvF(5.11, 4.97, 5.93) @ 5600 MHz; Calibrated: 2025/4/24
- Sensor-Surface: 1.4 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1253; Calibrated: 2025/4/22
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 AA; Serial: 1175
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

System Performance Check at 5600 MHz/Area Scan (91x91x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm
Maximum value of SAR (interpolated) = 10.6 W/kg

System Performance Check at 5600 MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 49.61 V/m; Power Drift = -0.06 dB

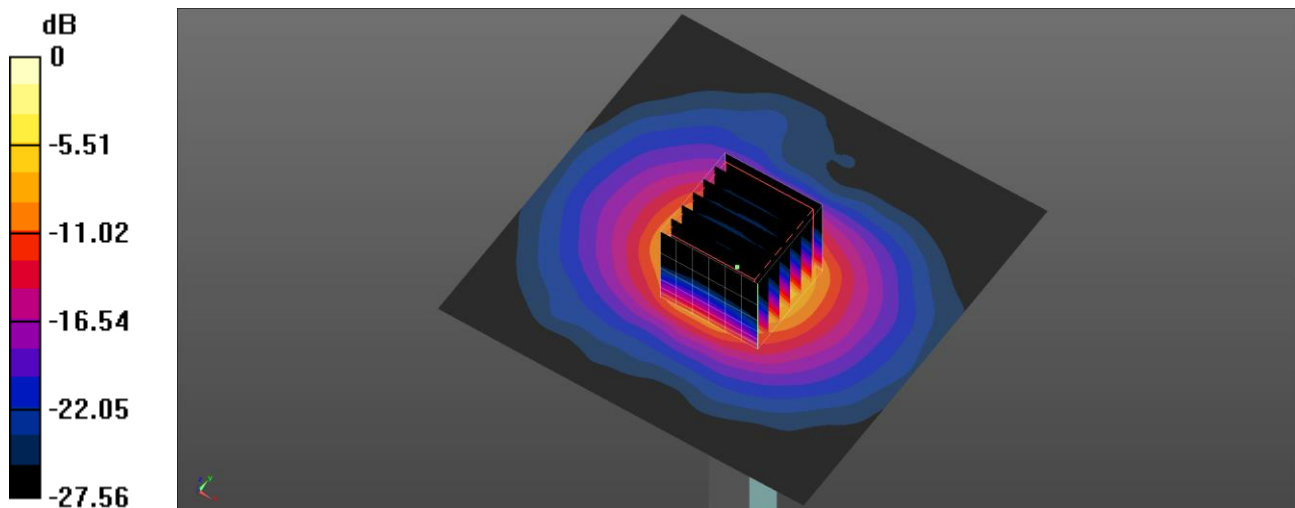
Peak SAR (extrapolated) = 21.5 W/kg

SAR(1 g) = 4.3 W/kg; SAR(10 g) = 1.22 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 = 59.1%

Maximum value of SAR (measured) = 11.0 W/kg



0 dB = 11.0 W/kg = 10.41 dBW/kg

Date: 2026/1/26

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; $\sigma = 5.043$ S/m; $\epsilon_r = 37.068$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5

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 - SN7647; ConvF(5.05, 4.91, 5.86) @ 5800 MHz; Calibrated: 2025/4/24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1253; Calibrated: 2025/4/22
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 AA; Serial: 1175
- 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) = 9.62 W/kg

System Performance Check at 5800MHz/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 45.97 V/m; Power Drift = 0.09 dB

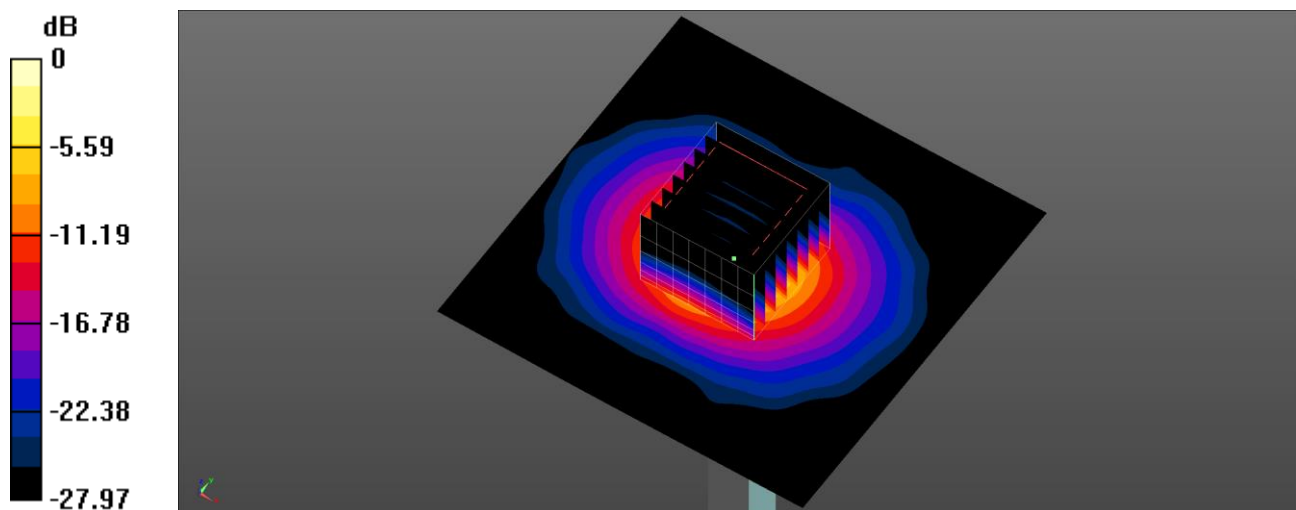
Peak SAR (extrapolated) = 19.4 W/kg

SAR(1 g) = 3.82 W/kg; SAR(10 g) = 1.08 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 = 60.3%

Maximum value of SAR (measured) = 9.80 W/kg



0 dB = 9.80 W/kg = 9.91 dBW/kg

Test Date : 2026-01-16 | Ambient Temp : 22.1 °C | Tissue Temp : 21.4 °C

System Performance Check**System Performance Check at 6500 MHz****Verification Source Properties**

Manufacturer	Model No.	Serial No.	Input Power [dBm]
SPEAG	D6.5GHzV2	1016	20.0

Exposure Conditions

Phantom Section	Group	Frequency [MHz]	Conversion Factor	TSL Permittivity	TSL Conductivity [S/m]
Flat	CW	6500.000	5.36	36.1	5.96

Hardware Setup

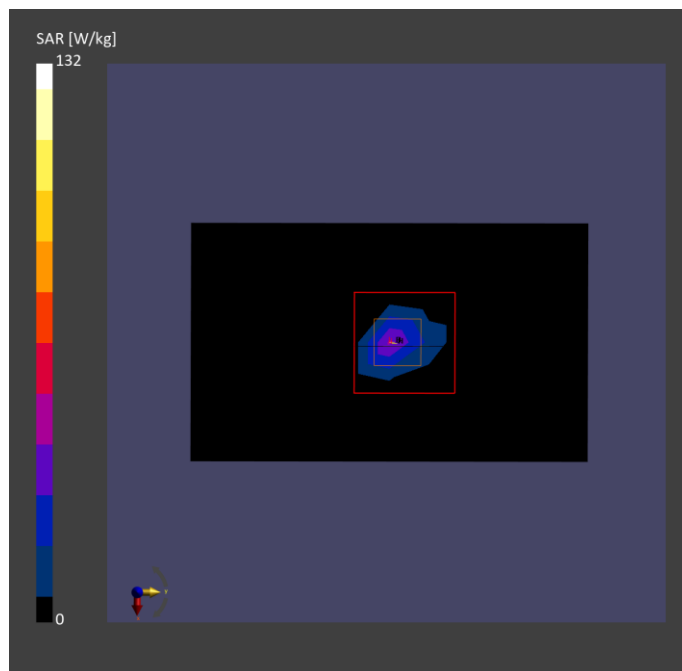
Phantom	Tissue Simulating Liquid	Probe / Calibration Date	DAE / Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HBBL-600-10000V6	EX3DV4 - SN7647 / 2025-04-24	DAE4 Sn1253 / 2025-04-22
Measurement Software Version		16.4.0.5005	

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]	25.0	29.6
psSAR-8g [W/kg]	6.12	6.77
psSAR-10g [W/kg]	5.07	5.61
psAPD (1.0 cm ² , sq) [W/m ²]		296
psAPD (4.0 cm ² , sq) [W/m ²]		135
Power Drift [dB]		0.13
TSL Correction	Positive only	Positive only



Test Date : 2026-01-19 | Ambient Temp : 21.8 °C

System Performance Check**System Performance Check at 10 GHz****Verification Source Properties**

Manufacturer	Model No.	Serial No.
SPEAG	H10GVx	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	Air	EUmmWV3 - SN9403_F1- 55GHz / 2025-11-19	DAE4 Sn1253 / 2025-04-22
Measurement Software Version		V3.2.0.1840	

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 ²]	4.00
psPD n+ [W/m ²]	56.6
psPD tot+ [W/m ²]	57.1
psPD mod+ [W/m ²]	57.4
E max [V/m]	151
Power Drift [dB]	0.05

