

Appendix B – System Check Plots

Date: 2025/3/16

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; $\sigma = 1.861$ S/m; $\epsilon_r = 40.005$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS

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 - 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: $dx=1.200$ mm, $dy=1.200$ mm
Maximum value of SAR (interpolated) = 4.62 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 = 52.71 V/m; Power Drift = -0.03 dB

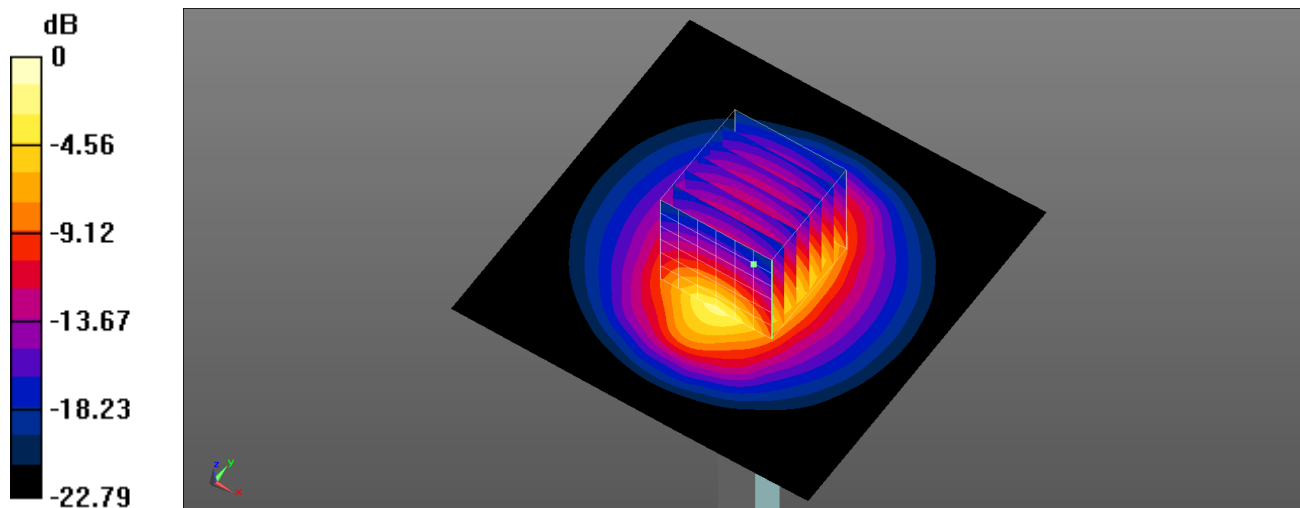
Peak SAR (extrapolated) = 5.52 W/kg

SAR(1 g) = 2.87 W/kg; SAR(10 g) = 1.37 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 = 55.1%

Maximum value of SAR (measured) = 4.63 W/kg



0 dB = 4.63 W/kg = 6.66 dBW/kg

Date: 2025/3/17

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; $\sigma = 4.776$ S/m; $\epsilon_r = 35.632$; $\rho = 1000$ kg/m³

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) = 10.8 W/kg

System Performance Check at 5250MHz/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 52.10 V/m; Power Drift = -0.04 dB

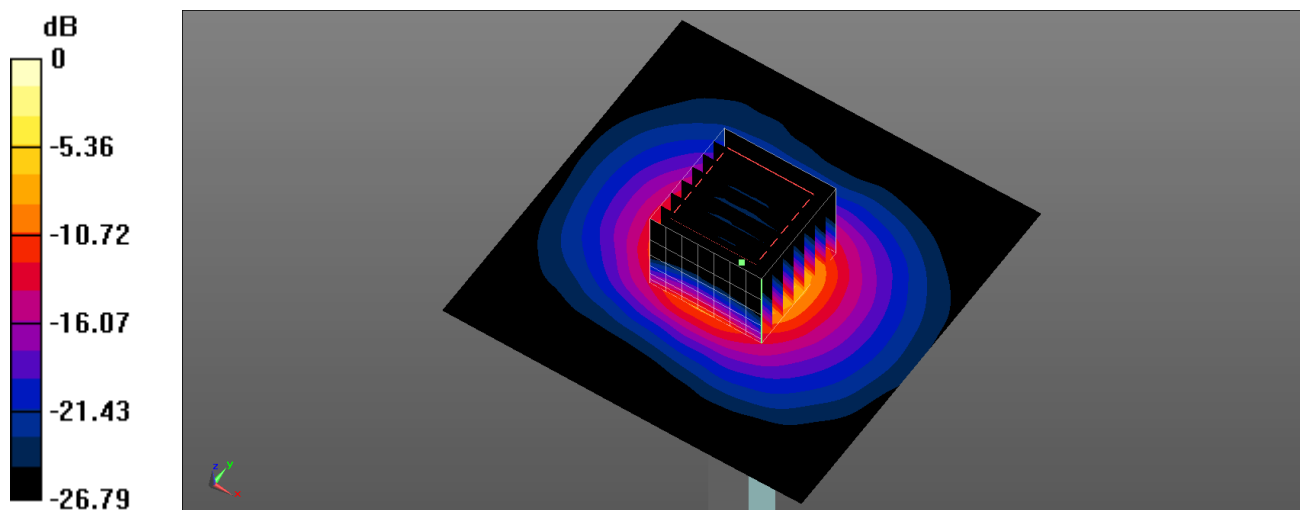
Peak SAR (extrapolated) = 19.0 W/kg

SAR(1 g) = 4.27 W/kg; SAR(10 g) = 1.17 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 = 60.1%

Maximum value of SAR (measured) = 10.8 W/kg



0 dB = 10.8 W/kg = 10.33 dBW/kg

Date: 2025/3/18

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; $\sigma = 5.097$ S/m; $\epsilon_r = 35.346$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS

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 - SN3847; ConvF(5.19, 5, 4.99) @ 5600 MHz; Calibrated: 2025/2/25
- Sensor-Surface: 1.4 mm (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 5600 MHz/Area Scan (91x91x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm
Maximum value of SAR (interpolated) = 11.4 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 = 51.27 V/m; Power Drift = -0.12 dB

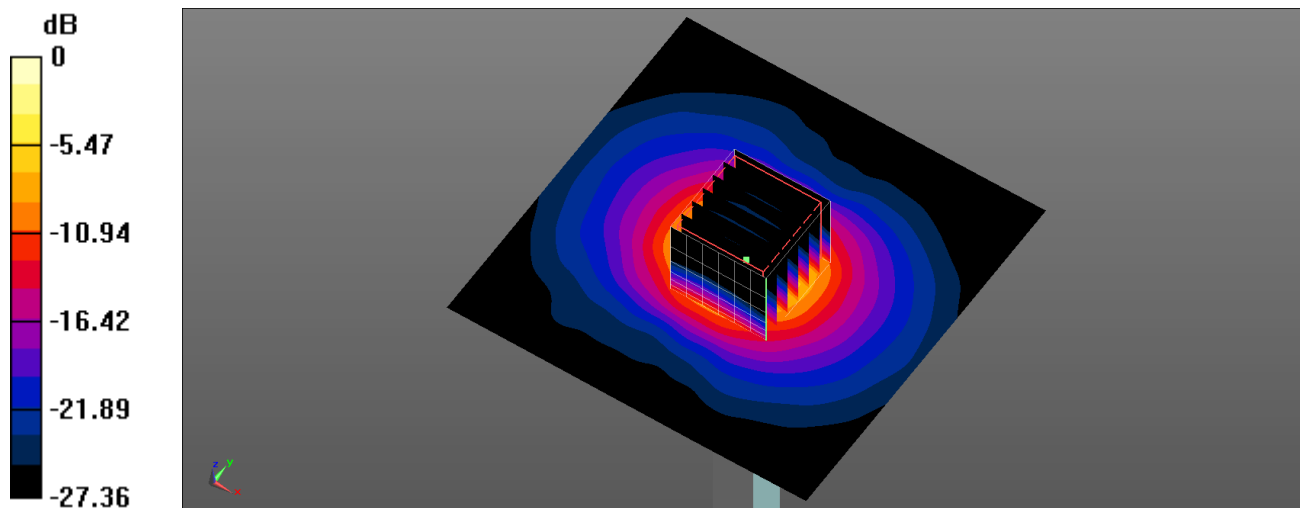
Peak SAR (extrapolated) = 22.9 W/kg

SAR(1 g) = 4.46 W/kg; SAR(10 g) = 1.21 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 7.6 mm

Ratio of SAR at M2 to SAR at M1 = 60.3%

Maximum value of SAR (measured) = 11.7 W/kg



0 dB = 11.7 W/kg = 10.68 dBW/kg

Date: 2025/3/19

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; $\sigma = 5.316$ S/m; $\epsilon_r = 35.18$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASYS

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 - SN3847; ConvF(5.03, 4.84, 4.83) @ 5800 MHz; Calibrated: 2025/2/25
- Sensor-Surface: 1.4 mm (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 5800 MHz/Area Scan (91x91x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm
Maximum value of SAR (interpolated) = 11.2 W/kg

System Performance Check at 5800 MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 49.34 V/m; Power Drift = -0.16 dB

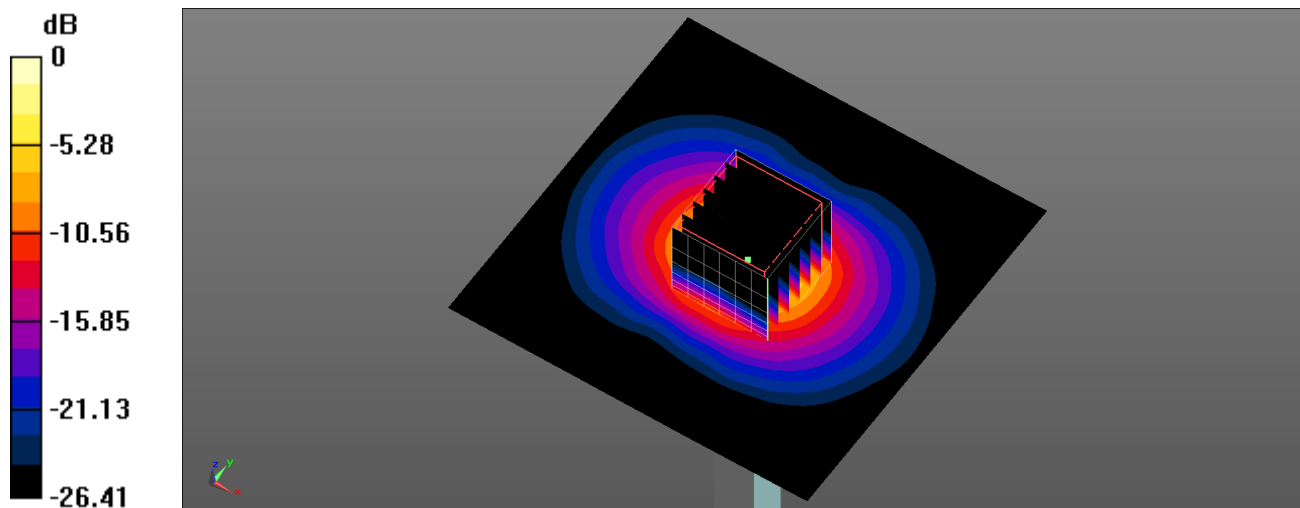
Peak SAR (extrapolated) = 22.8 W/kg

SAR(1 g) = 4.23 W/kg; SAR(10 g) = 1.15 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 7.6 mm

Ratio of SAR at M2 to SAR at M1 = 59.2%

Maximum value of SAR (measured) = 11.2 W/kg



0 dB = 11.2 W/kg = 10.49 dBW/kg

Test Date : 2025-03-14 | Ambient Temp : 22.4 °C | Tissue Temp : 22.0 °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 Conductivity [S/m]	TSL Permittivity
Flat	CW	6500.000	5.2	6.04	32.4

Hardware Setup

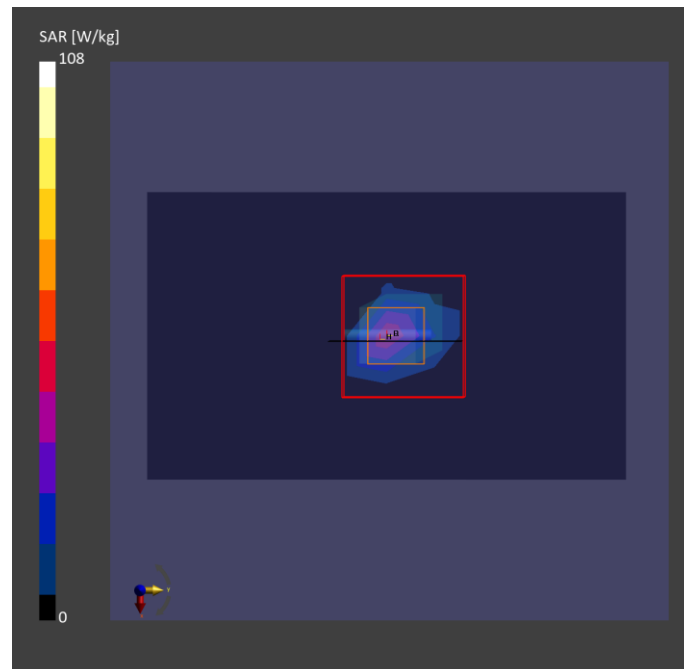
Phantom	Tissue Simulating Liquid	Probe Calibration Date	DAE Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HBBL-600-10000V6	EX3DV4 - SN7647 / 2024-04-24	DAE4 Sn1253 / 2024-04-22
Measurement Software Version		16.4.0.5005	

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]	25.2	29.1
psSAR-8g [W/kg]	6.12	6.62
psSAR-10g [W/kg]	5.08	5.48
psAPD (1.0 cm ² , sq) [W/m ²]		291
psAPD (4.0 cm ² , sq) [W/m ²]		132
Power Drift [dB]		-0.08
TSL Correction	Positive only	Positive only



Test Date : 2025-03-20 | Ambient Temp : 22.3 °C

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

Manufacturer	Model No.	Serial No.
SPEAG	5G Verification Source 10GHz	1060

Exposure Conditions

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

Hardware Setup

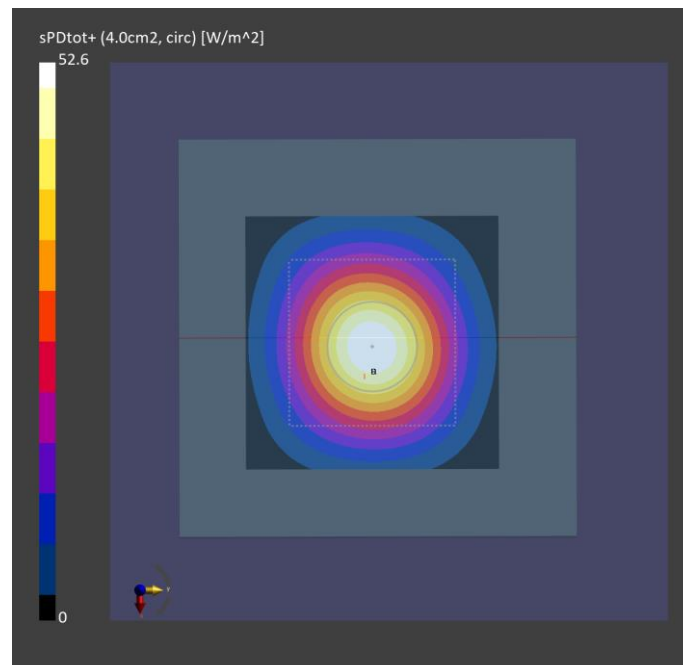
Phantom	Medium	Probe Calibration Date	DAE Calibration Date
mmWave - 5G Phantom	Air	EUmmWV3 - SN9403_F1-55GHz / 2024-11-15	DAE4 Sn1253 / 2024-04-22
Measurement Software Version		3.2.2.2358	

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]	52.6
psPD tot+ [W/m ²]	52.9
psPD mod+ [W/m ²]	53.6
E max [V/m]	151
Power Drift [dB]	0.11



Test Date : 2025-03-21 | Ambient Temp : 22.5 °C

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

Manufacturer	Model No.	Serial No.
SPEAG	5G Verification Source 10GHz	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		3.2.2.2358	

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]	54.1
psPD tot+ [W/m ²]	54.8
psPD mod+ [W/m ²]	55.2
E max [V/m]	138
Power Drift [dB]	-0.02

