Appendix B – System Check Plots

Date: 2024/11/22

System Performance Check at 2450 MHz

DUT: D2450V2_SN712

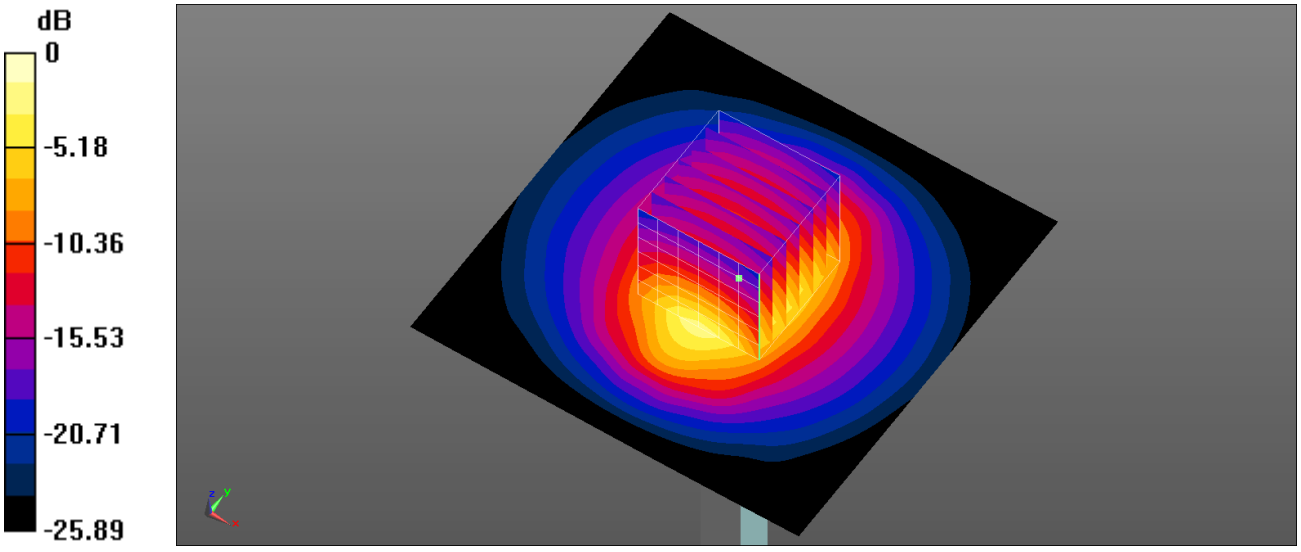
Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2450 MHz; σ = 1.79 S/m; ε_r = 38.866; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5

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 - SN3847; ConvF(7.17, 7.17, 7.17) @ 2450 MHz; Calibrated: 2024/2/21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1253; Calibrated: 2024/4/22
- 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) = 4.37 W/kg

System Performance Check at 2450MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 52.23 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 5.24 W/kg
SAR(1 g) = 2.71 W/kg; SAR(10 g) = 1.29 W/kg
Smallest distance from peaks to all points 3 dB below = 9.5 mm
Ratio of SAR at M2 to SAR at M1 = 57.5%
Maximum value of SAR (measured) = 4.38 W/kg



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

Date: 2024/11/23

System Performance Check at 5250 MHz

DUT: D5GHzV2_SN1021

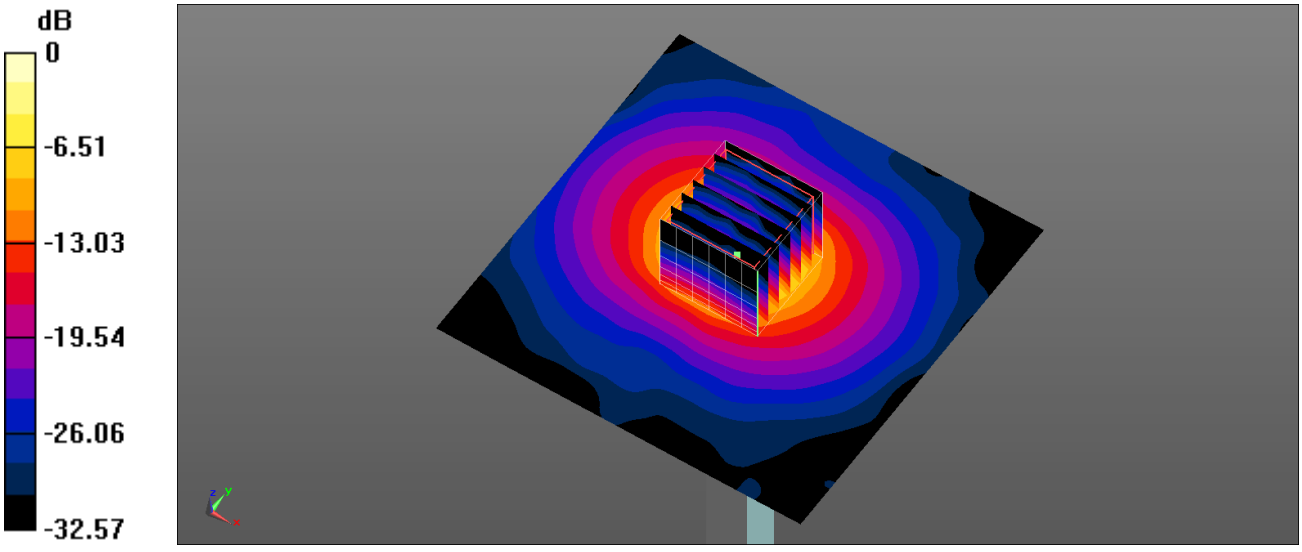
Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5250 MHz; σ = 4.486 S/m; ε_r = 33.856; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5

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 - SN3847; ConvF(5.35, 5.35, 5.35) @ 5250 MHz; Calibrated: 2024/2/21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1253; Calibrated: 2024/4/22
- 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) = 10.02 W/kg

System Performance Check at 5250MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 38.27 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 12.15 W/kg
SAR(1 g) = 4.15 W/kg; SAR(10 g) = 1.12 W/kg
Smallest distance from peaks to all points 3 dB below = 7.6 mm
Ratio of SAR at M2 to SAR at M1 = 68.2%
Maximum value of SAR (measured) = 9.21 W/kg



0 dB = 9.21 W/kg = 9.64 dBW/kg

Date: 2024/11/24

System Performance Check at 5600 MHz

DUT: D5GHzV2_SN1021

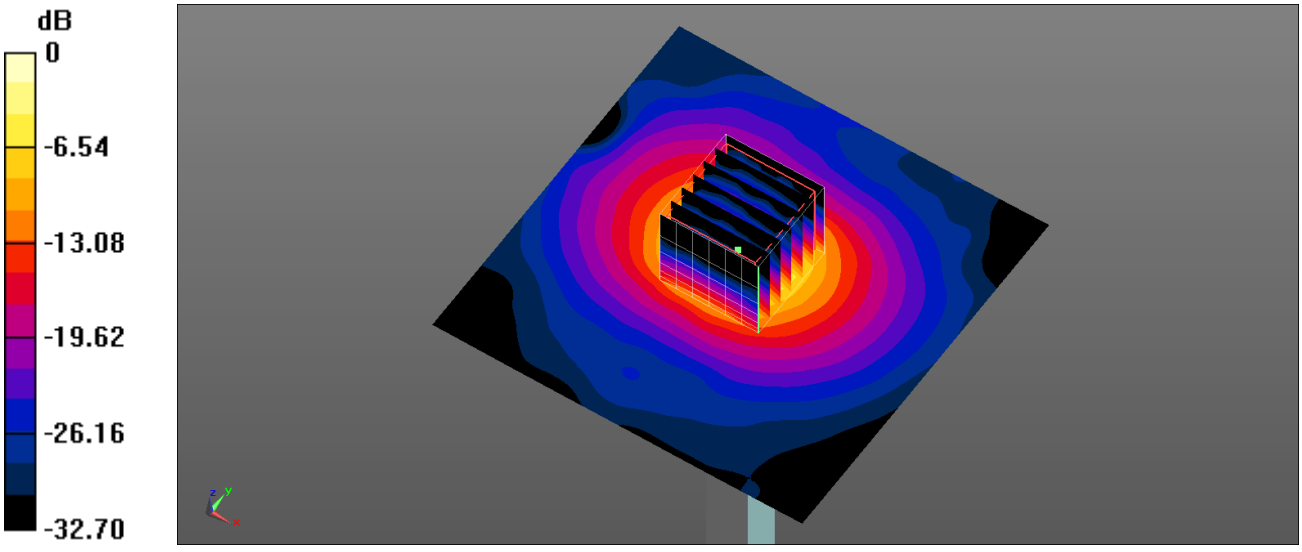
Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; σ = 4.875 S/m; ε_r = 33.231; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5

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 - SN3847; ConvF(4.66, 4.66, 4.66) @ 5600 MHz; Calibrated: 2024/2/21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1253; Calibrated: 2024/4/22
- 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) = 11.2 W/kg

System Performance Check at 5600MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 42.79 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 13.2 W/kg
SAR(1 g) = 4.26 W/kg; SAR(10 g) = 1.16 W/kg
Smallest distance from peaks to all points 3 dB below = 6.8 mm
Ratio of SAR at M2 to SAR at M1 = 65.5%
Maximum value of SAR (measured) = 10.43 W/kg



0 dB = 10.43 W/kg = 10.18 dBW/kg

Date: 2024/11/25

System Performance Check at 5800 MHz

DUT: D5GHzV2_SN1021

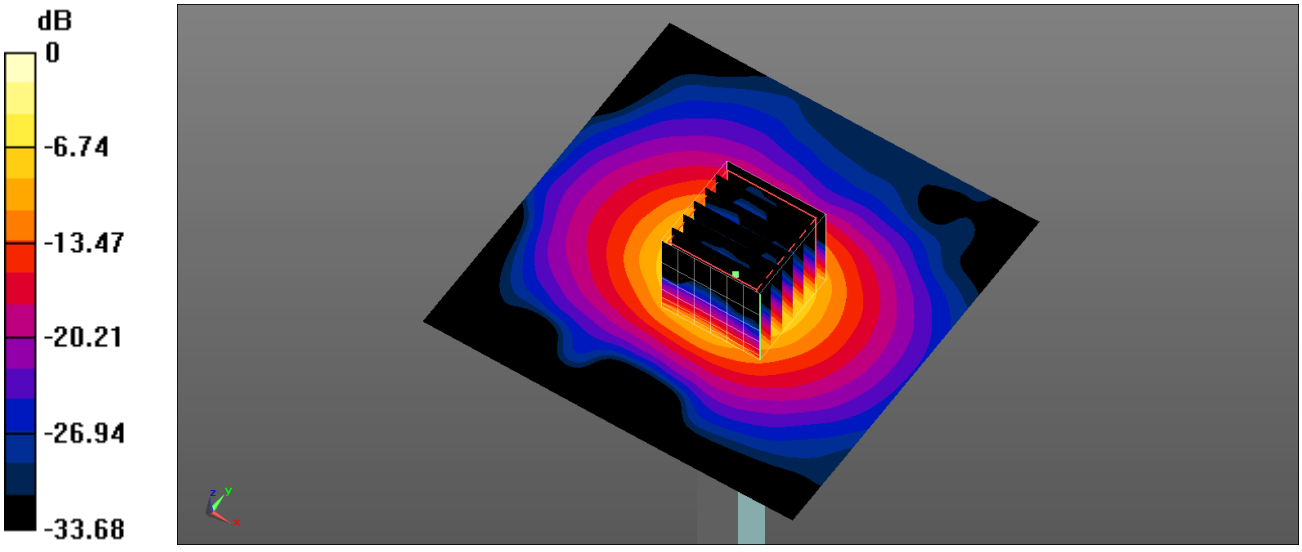
Communication System: UID 0, CW (0); Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 5.11 S/m; ε_r = 32.884; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5

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 - SN3847; ConvF(4.79, 4.79, 4.79) @ 5800 MHz; Calibrated: 2024/2/21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1253; Calibrated: 2024/4/22
- 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) = 9.84 W/kg

System Performance Check at 5800MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 40.26 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 10.19 W/kg
SAR(1 g) = 4.04 W/kg; SAR(10 g) = 1.09 W/kg
Smallest distance from peaks to all points 3 dB below = 7.9 mm
Ratio of SAR at M2 to SAR at M1 = 57.2%
Maximum value of SAR (measured) = 9.67 W/kg



0 dB = 9.67 W/kg = 9.85 dBW/kg

Test Date : 2024-11-27 | Ambient Temp : 22.5 °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	D6.5GHzV2	1016	20.0

Exposure Conditions

Phantom Section	Group	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	CW	6500.000	5.2	6.24	34.0

Hardware Setup

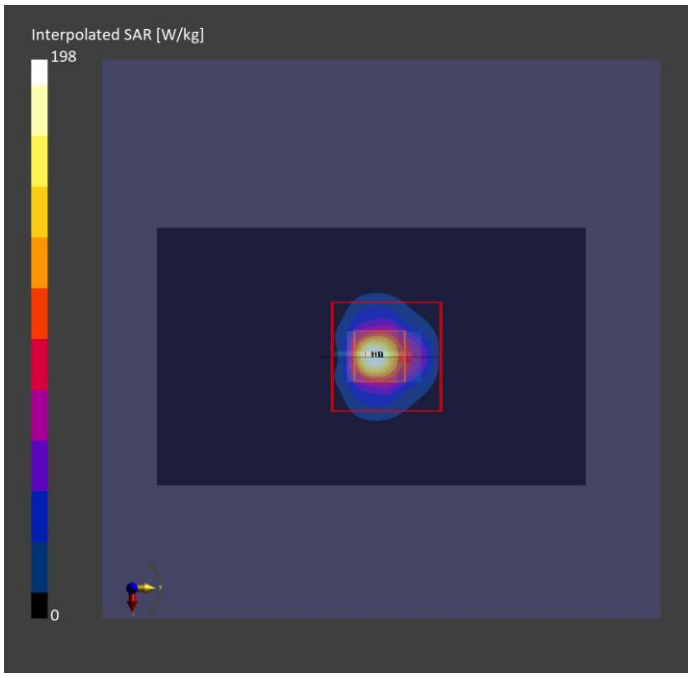
Phantom	Tissue Simulating Liquid	Probe | Calibration Date	DAE | Calibration Date
ELI V5.0 (20deg probe tilt) - 1175	HBBL-600-10000V6	EX3DV4 - SN7647 / 2024-04-24	DAE4 Sn541 / 2024-10-28

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]	26.6	**29.6**
psSAR-*8g* [W/kg]	6.19	**6.87**
psSAR-*10g* [W/kg]	5.14	**5.67**
psAPD (*1.0 cm²*, sq) [W/m²]		**296**
psAPD (*4.0 cm²*, sq) [W/m²]		**137**
Power Drift [dB]		-0.05
TSL Correction	Positive only	Positive only



Test Date : 2024-12-03 | Ambient Temp : 22.1 °C

System Performance Check

System Performance Check at 10 GHz

Verification Source Properties

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

Exposure Conditions

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

Hardware Setup

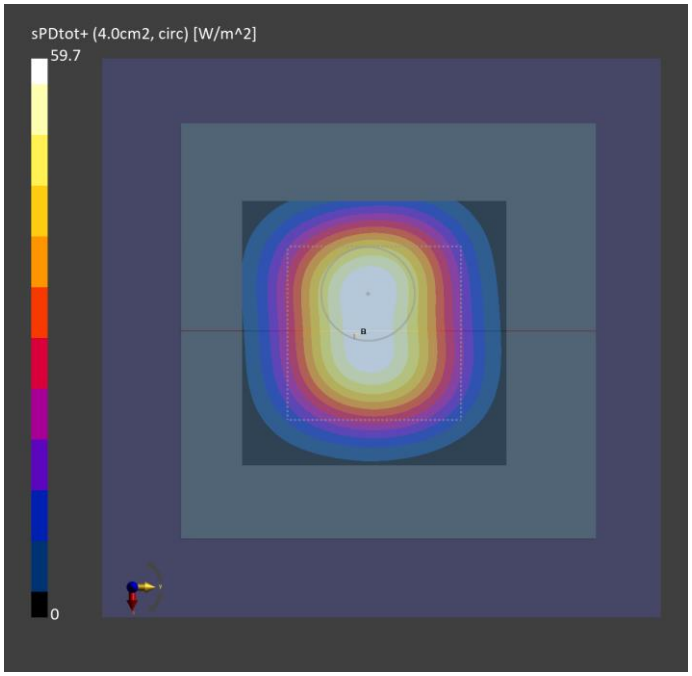
Phantom	Medium	Probe | Calibration Date	DAE | Calibration Date
mmWave - 1102	Air	EUmmWV4 - SN9639_F1-55GHz / 2024-09-16	DAE4 Sn1669 / 2024-05-16

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 [cm²]	4.00
psPD n+ [W/m²]	**59.6**
psPD tot+ [W/m²]	**59.7**
psPD mod+ [W/m²]	60.1
E max [V/m]	159
Power Drift [dB]	0.00



Test Date : 2024-12-04 | Ambient Temp : 22.1 °C

System Performance Check

System Performance Check at 10 GHz

Verification Source Properties

Manufacturer	Model No.	Serial No.
SPEAG	5G Verification Soruce 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 - 1102	Air	EUmmWV4 - SN9639_F1-55GHz / 2024-09-16	DAE4 Sn1669 / 2024-05-16

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 [cm²]	4.00
psPD n+ [W/m²]	**56.6**
psPD tot+ [W/m²]	**57.3**
psPD mod+ [W/m²]	57.7
E max [V/m]	158
Power Drift [dB]	-0.03