

Appendix A. System Check Data

Test Laboratory: DEKRA

Date: 2024/05/22

System Performance Check_2450MHz-Head

DUT: Dipole 2450 MHz; Type: D2450V2

Communication System: UID 0, CW; Frequency: 2450 MHz

Communication System PAR: 0 dB

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.79$ S/m; $\epsilon_r = 39.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: EX3DV4 - SN3698; ConvF(7.15, 7.15, 7.15) @ 2450 MHz; Calibrated: 2023/11/21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1207; Calibrated: 2023/11/22
- Phantom: ELI 5.0; Type: QDOVA002AA; Serial: 1199
- Measurement SW: DASY52, Version 52.10 (4);

Configuration/2450MHz-Head/Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 18.3 W/kg

Configuration/2450MHz-Head/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 112.2 V/m; Power Drift = 0.06 dB

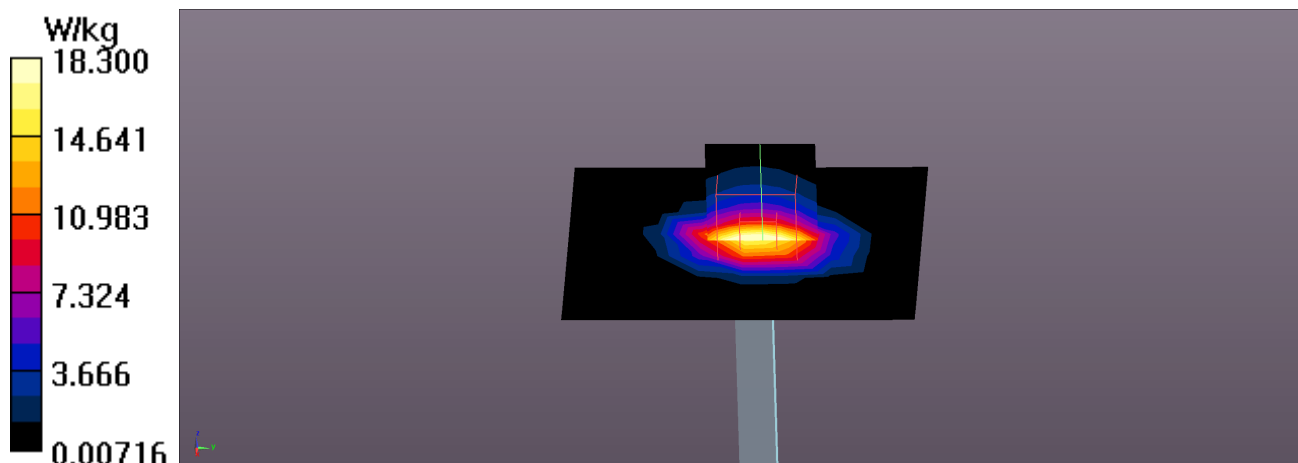
Peak SAR (extrapolated) = 25.4 W/kg

SAR(1 g) = 13 W/kg; SAR(10 g) = 6.12 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 51.9%

Maximum value of SAR (measured) = 21.1 W/kg



Test Laboratory: DEKRA

Date: 2024/05/23

System Performance Check_5250MHz-Head**DUT: D5GHzV2; Type: D5GHzV2**

Communication System: UID 0, CW (0); Frequency: 5250 MHz

Communication System PAR: 0 dB

Medium parameters used: $f = 5250$ MHz; $\sigma = 4.78$ S/m; $\epsilon_r = 36.43$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: EX3DV4 - SN3698; ConvF(4.71, 4.71, 4.71) @ 5250 MHz; Calibrated: 2023/11/21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1207; Calibrated: 2023/11/22
- Phantom: ELI 5.0; Type: QDOVA002AA; Serial: 1199
- Measurement SW: DASYS2, Version 52.10 (4);

Configuration/5250MHz-Head/Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 13.7 W/kg

Configuration/5250MHz-Head/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 70.53 V/m; Power Drift = 0.06 dB

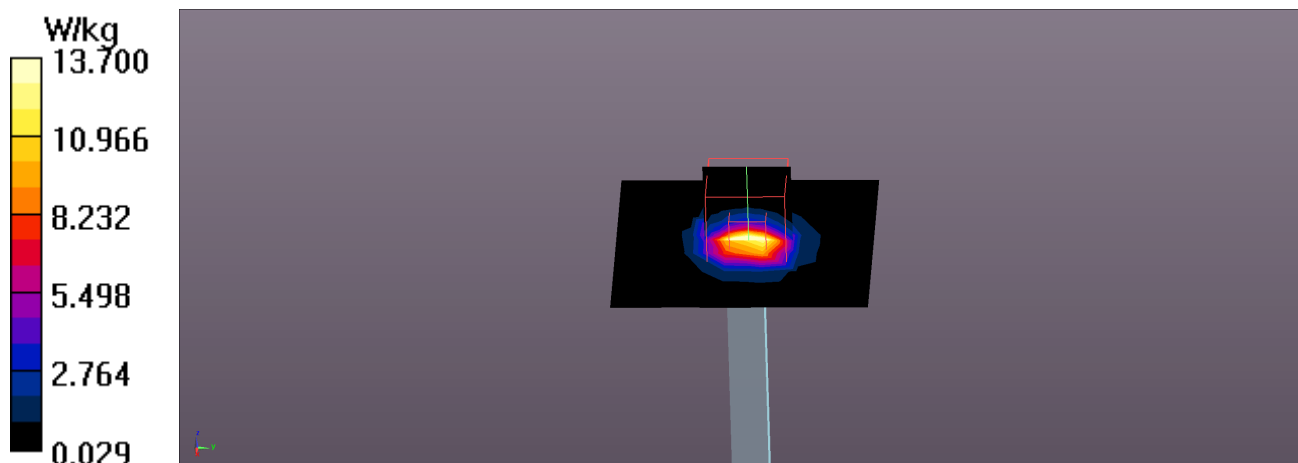
Peak SAR (extrapolated) = 26.9 W/kg

SAR(1 g) = 7.91 W/kg; SAR(10 g) = 2.27 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 66%

Maximum value of SAR (measured) = 19.6 W/kg



Test Laboratory: DEKRA

Date: 2024/05/23

System Performance Check_5600MHz-Head**DUT: D5GHzV2; Type: D5GHzV2**

Communication System: UID 0, CW (0); Frequency: 5600 MHz

Communication System PAR: 0 dB

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.25$ S/m; $\epsilon_r = 35.46$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: EX3DV4 - SN3698; ConvF(4.41, 4.41, 4.41) @ 5600 MHz; Calibrated: 2023/11/21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1207; Calibrated: 2023/11/22
- Phantom: ELI 5.0; Type: QDOVA002AA; Serial: 1199
- Measurement SW: DASYS2, Version 52.10 (4);

Configuration/5600MHz-Head/Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 14.1 W/kg

Configuration/5600MHz-Head/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 70.33 V/m; Power Drift = 0.06 dB

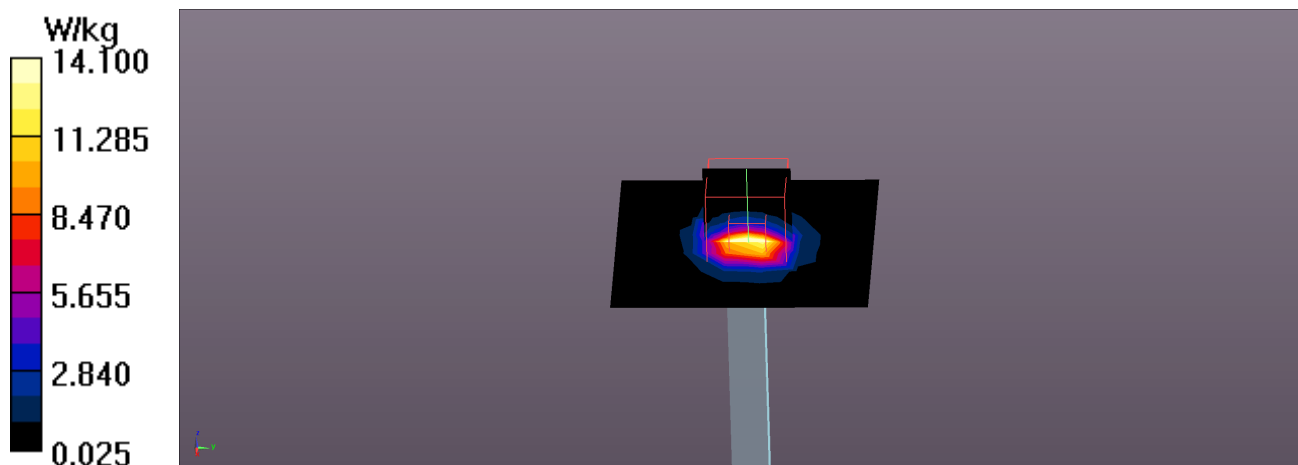
Peak SAR (extrapolated) = 30.2 W/kg

SAR(1 g) = 7.99 W/kg; SAR(10 g) = 2.3 W/kg

Smallest distance from peaks to all points 3 dB below = 7.4 mm

Ratio of SAR at M2 to SAR at M1 = 63.3%

Maximum value of SAR (measured) = 20.4 W/kg



Test Laboratory: DEKRA

Date: 2024/05/23

System Performance Check_5800MHz-Head**DUT: D5GHzV2; Type: D5GHzV2**

Communication System: UID 0, CW; Frequency: 5800 MHz

Communication System PAR: 0 dB

Medium parameters used: $f = 5800$ MHz; $\sigma = 5.51$ S/m; $\epsilon_r = 34.91$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: EX3DV4 - SN3698; ConvF(4.6, 4.6, 4.6) @ 5800 MHz; Calibrated: 2023/11/21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1207; Calibrated: 2023/11/22
- Phantom: ELI 5.0; Type: QDOVA002AA; Serial: 1199
- Measurement SW: DASYS2, Version 52.10 (4);

Configuration/5800MHz-Head/Area Scan (8x8x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 14.8 W/kg

Configuration/5800MHz-Head/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 68.86 V/m; Power Drift = -0.06 dB

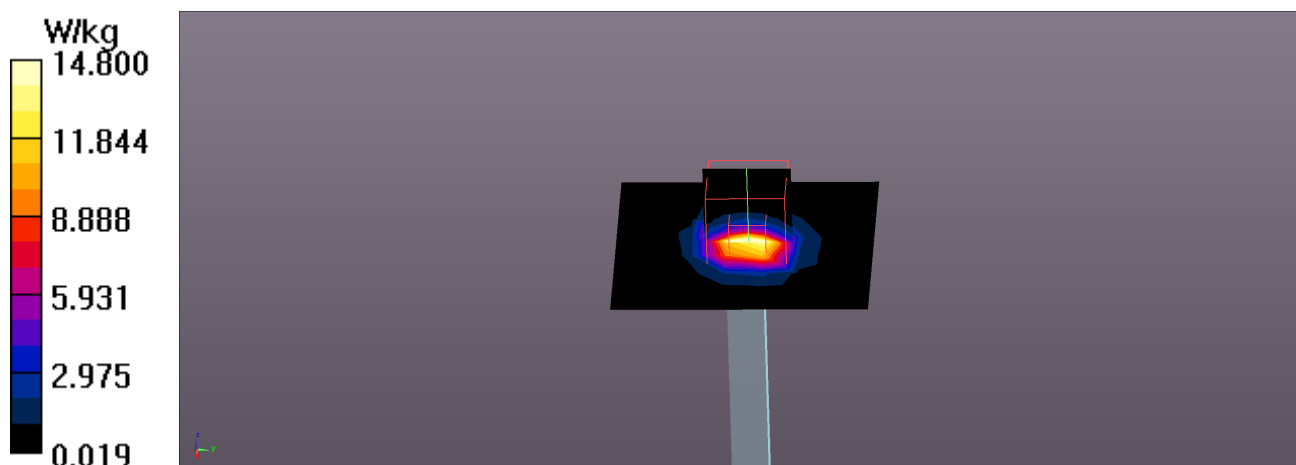
Peak SAR (extrapolated) = 32.8 W/kg

SAR(1 g) = 8.27 W/kg; SAR(10 g) = 2.35 W/kg

Smallest distance from peaks to all points 3 dB below = 7.5 mm

Ratio of SAR at M2 to SAR at M1 = 61.6%

Maximum value of SAR (measured) = 21.2 W/kg



Test Laboratory: DEKRA

Date: 2024-05-12

System Performance Check_6500MHz-Head

Communication System: UID 0--, CW; Frequency: 6500.000 MHz

Medium parameters used: $f = 6500.000$ MHz; Conductivity = 6.01 S/m; Permittivity = 35.5

Phantom section: Flat

DASY Configuration:

- Probe: EX3DV4 - SN7784; ConvF(4.71, 4.83, 4.78); Calibrated: 2024-04-22
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2024-04-22
- Phantom: ELI V8.0 (20deg probe tilt)
- Measurement SW: V16.2.4.2524

Area Scan (51.0 mm x 85.0 mm): Measurement grid: 8.5 mm x 8.5 mm

SAR (1 g) = 24.3 W/kg; SAR (10 g) = 5.01 W/kg

Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 3.4 mm x 3.4 mm x 1.4 mm

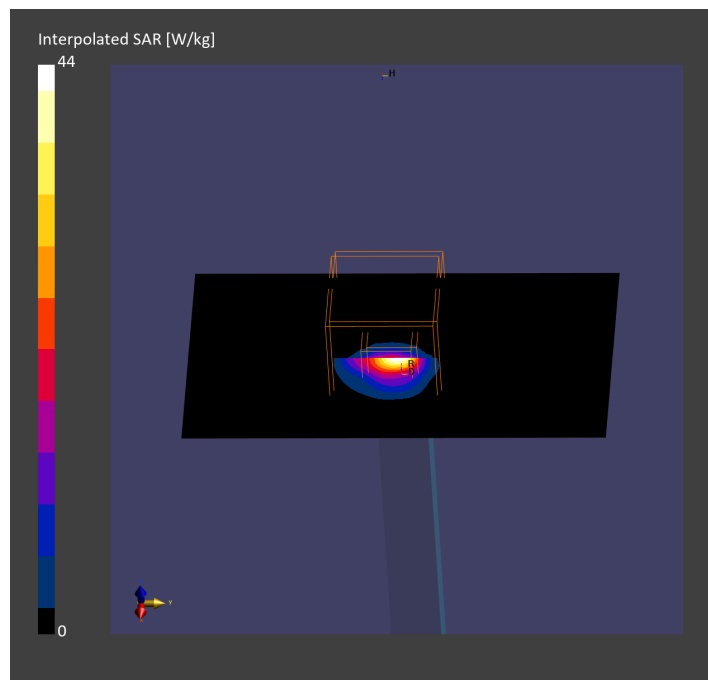
Power Drift = 0.01 dB

SAR(1 g) = 29.2 W/kg; SAR(10 g) = 5.60 W/kg

psAPD (4.0cm², sq) = 136 W/m²

Smallest distance from peaks to all points 3 dB below = 4.8

Ratio of SAR at M2 to SAR at M1 = 52.0



System Performance Check_10GHz

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
5G Verification Source 10 GHz	100.0 x 100.0 x 100.0	SN-2006	

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	FRONT, 10.00	Validation band	CW, 0--	10000.0, 10000	1.0

Hardware Setup

Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 1068	Air---	EUmmWV4 - SN9546_F1-55GHz, 2024-04-18	DAE4 Sn1651, 2024-02-15

Scan Setup

	5G Scan
Grid Extents [mm]	60.0 x 60.0
Grid Steps [lambda]	0.125 x 0.125
Sensor Surface [mm]	10.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2024-05-13
Avg. Area [cm ²]	4.00
psPDn+ [W/m ²]	184
psPDtot+ [W/m ²]	184
psPDmod+ [W/m ²]	189
E _{max} [V/m]	303
Power Drift [dB]	0.00

