Appendix A. System Check Data

Test Laboratory: DEKRA Date: 2023-09-11

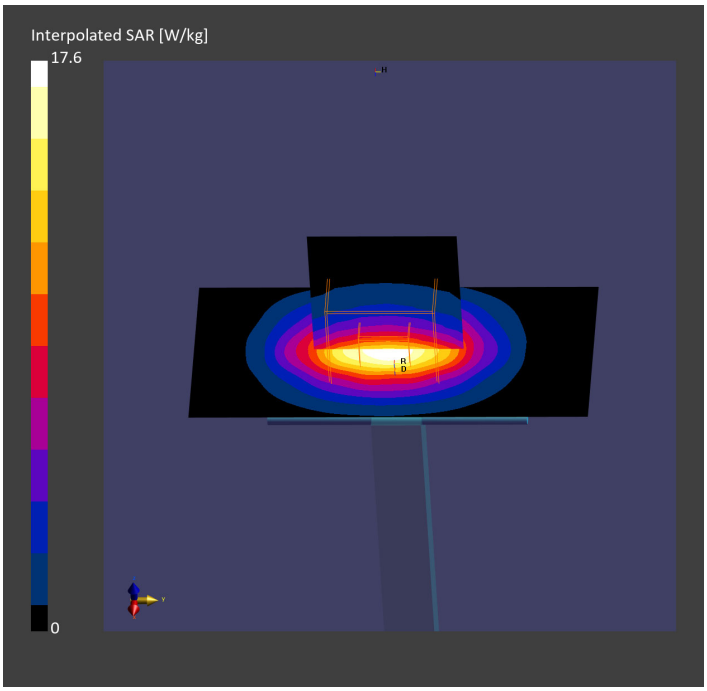
System Performance Check_2450MHz-Head

Communication System: UID 0--, CW; Frequency: 2450.000 MHz
Medium parameters used: f = 2450.000 MHz; Conductivity = 1.83 S/m; Permittivity = 40.3
Phantom section: Flat
DASY Configuration:

- Probe: EX3DV4 - SN7784; ConvF(6.59, 6.82, 6.72); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: ELI V8.0 (20deg probe tilt)
- Measurement SW: V16.2.4.2524

Area Scan (40.0 mm x 80.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.27 W/kg

Zoom Scan (30.0 mm x 30.0 mm x 30.0 mm): Measurement grid: 5.0 mm x 5.0 mm x 1.5 mm
Power Drift = 0.01 dB
SAR(1 g) = 13.8 W/kg; SAR(10 g) = 6.50 W/kg
Smallest distance from peaks to all points 3 dB below = 9.0
Ratio of SAR at M2 to SAR at M1 = 78.0



Test Laboratory: DEKRA Date: 2023-09-12

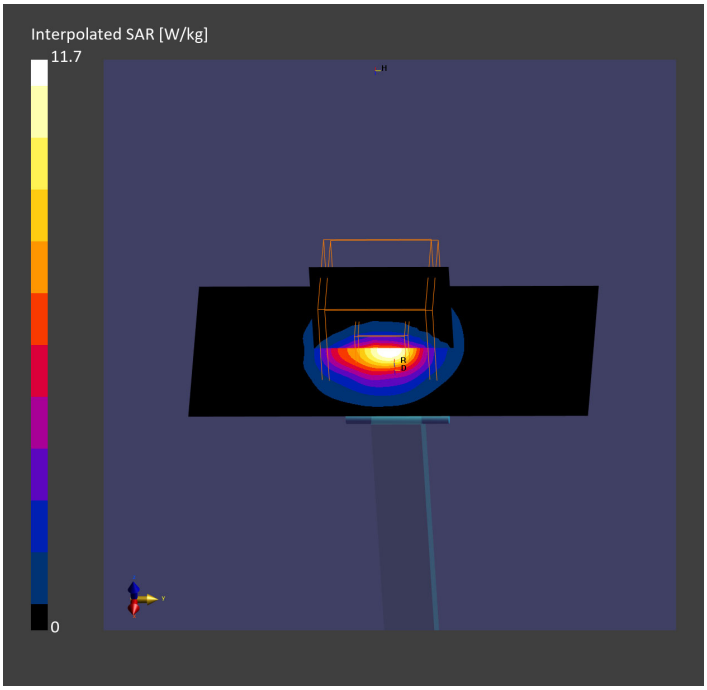
System Performance Check_5250MHz-Head

Communication System: UID 0--, CW; Frequency: 5250.000 MHz
Medium parameters used: f = 5250.000 MHz; Conductivity = 4.62 S/m; Permittivity = 36.6
Phantom section: Flat
DASY Configuration:

- Probe: EX3DV4 - SN7784; ConvF(5.22, 5.31, 5.26); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: ELI V8.0 (20deg probe tilt)
- Measurement SW: V16.2.4.2524

Area Scan (40.0 mm x 80.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 7.48 W/kg; SAR(10 g) = 2.23 W/kg

Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 4.0 mm x 4.0 mm x 1.4 mm
Power Drift = 0.00 dB
SAR(1 g) = 8.38 W/kg; SAR(10 g) = 2.41 W/kg
Smallest distance from peaks to all points 3 dB below = 7.4
Ratio of SAR at M2 to SAR at M1 = 63.5



Test Laboratory: DEKRA Date: 2023-09-12

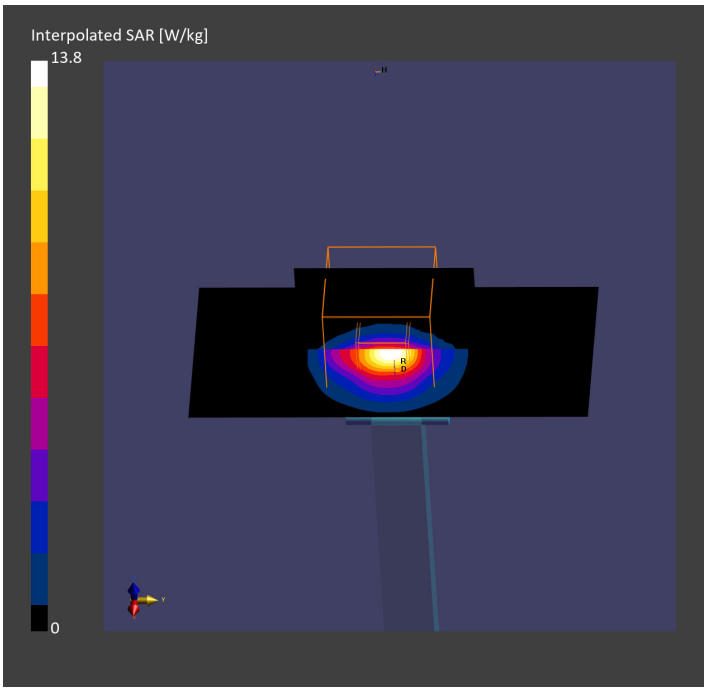
System Performance Check_5600MHz-Head

Communication System: UID 0--, CW; Frequency: 5600.000 MHz
Medium parameters used: f = 5600.000 MHz; Conductivity = 5.08 S/m; Permittivity = 35.6
Phantom section: Flat
DASY Configuration:

- Probe: EX3DV4 - SN7784; ConvF(4.31, 4.62, 4.51); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: ELI V8.0 (20deg probe tilt)
- Measurement SW: V16.2.4.2524

Area Scan (40.0 mm x 80.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 8.56 W/kg; SAR(10 g) = 2.42 W/kg

Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 4.0 mm x 4.0 mm x 1.4 mm
Power Drift = 0.01 dB
SAR(1 g) = 9.10 W/kg; SAR(10 g) = 2.59 W/kg
Smallest distance from peaks to all points 3 dB below = 7.2
Ratio of SAR at M2 to SAR at M1 = 62.9



Test Laboratory: DEKRA Date: 2023-09-12

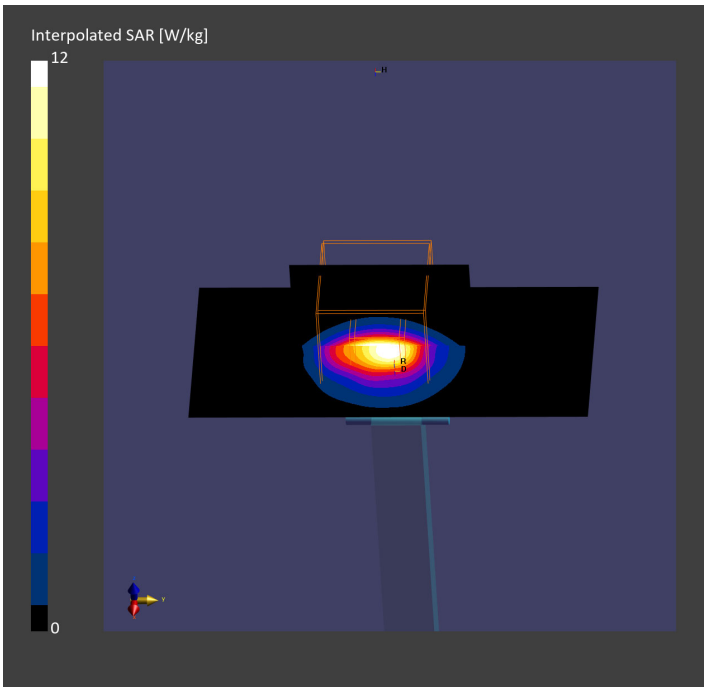
System Performance Check_5800MHz-Head

Communication System: UID 0--, CW; Frequency: 5800.000 MHz
Medium parameters used: f = 5800.000 MHz; Conductivity = 5.36 S/m; Permittivity = 35.1
Phantom section: Flat
DASY Configuration:

- Probe: EX3DV4 - SN7784; ConvF(4.45, 4.57, 4.5); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- Phantom: ELI V8.0 (20deg probe tilt)
- Measurement SW: V16.2.4.2524

Area Scan (40.0 mm x 80.0 mm): Measurement grid: 10.0 mm x 10.0 mm
SAR(1 g) = 7.93 W/kg; SAR(10 g) = 2.34 W/kg

Zoom Scan (22.0 mm x 22.0 mm x 22.0 mm): Measurement grid: 4.0 mm x 4.0 mm x 1.4 mm
Power Drift = -0.00 dB
SAR(1 g) = 8.80 W/kg; SAR(10 g) = 2.50 W/kg
Smallest distance from peaks to all points 3 dB below = 7.2
Ratio of SAR at M2 to SAR at M1 = 61.2



Test Laboratory: DEKRA Date: 2023-09-06

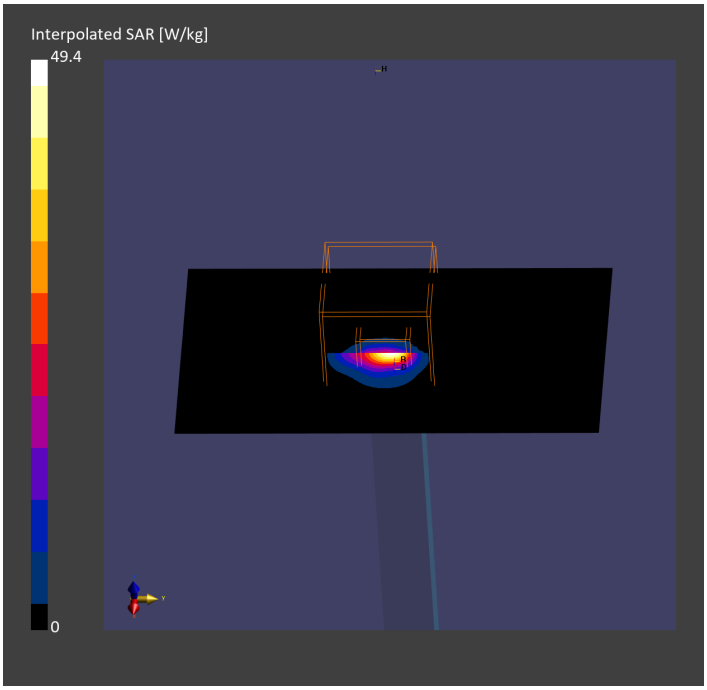
System Performance Check_6500MHz-Head

Communication System: UID 0--, CW; Frequency: 6500.000 MHz
Medium parameters used: f = 6500.000 MHz; Conductivity = 5.86 S/m; Permittivity = 34.7
Phantom section: Flat
DASY Configuration:

- Probe: EX3DV4 - SN7784; ConvF(4.63, 4.59, 4.78); Calibrated: 2023-02-01
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1791; Calibrated: 2023-02-01
- 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) = 26.7 W/kg; SAR(10 g) = 5.36 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) = 31.8 W/kg; SAR(10 g) = 5.87 W/kg
psAPD (4.0cm2, sq) = 145 W/m2
Smallest distance from peaks to all points 3 dB below = 4.6
Ratio of SAR at M2 to SAR at M1 = 49.4



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

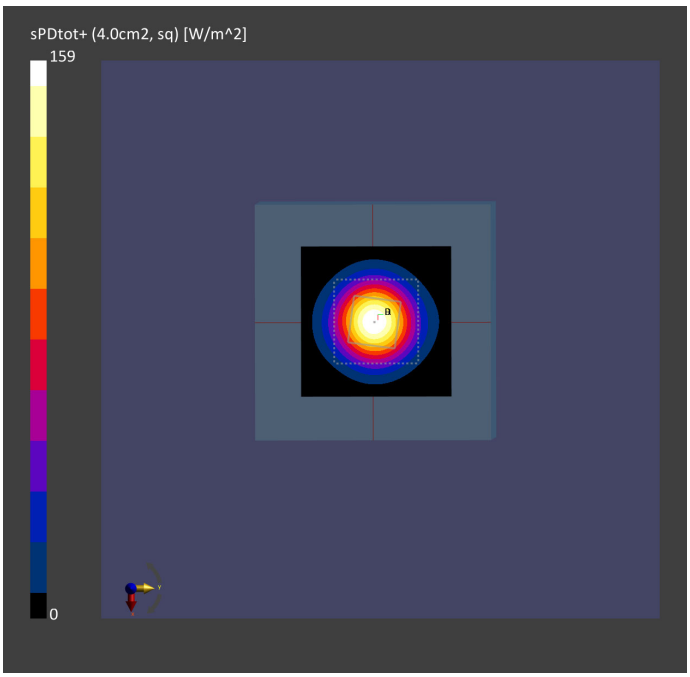
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 1068	Air---	EUmmWV4 - SN9546_F1-55GHz, 2023-04-18	DAE4 Sn1651, 2023-02-22

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	2023-09-09
Avg. Area [cm^2]	4.00
psPDn+ [W/m^2]	159
psPDtot+ [W/m^2]	159
psPDmod+ [W/m^2]	163
E_{max} [V/m]	282
Power Drift [dB]	-0.00



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, 2023-04-18	DAE4 Sn1651, 2023-02-22

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	2023-09-10
Avg. Area [cm^2]	4.00
psPDn+ [W/m^2]	168
psPDtot+ [W/m^2]	168
psPDmod+ [W/m^2]	173
E_{max} [V/m]	288
Power Drift [dB]	-0.00