

## Appendix A. SAR Validation Data

Date/Time: 12/10/2021

Test Laboratory: DEKRA Lab

System Check body 2450MHz

**DUT: Dipole 2450 MHz D2450V2; Type: D2450V2**

Communication System: UID 0, CW; Communication System Band: D2450; Duty Cycle: 1:1; Frequency: 2450 MHz; Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.865$  S/m;  $\epsilon_r = 39.74$ ;  $\rho = 1000$  kg/m<sup>3</sup>; Phantom section: Flat Section ; Input Power=250mW

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.36, 7.36, 7.36); Calibrated: 4/9/2021
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 3/11/2021
- Phantom: ELI1; Type: QDOVA002AA; Serial: TP:2106
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Configuration/System Check body 2450MHz/Area Scan**

**(7x11x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 13.2 W/kg

**Configuration/System Check body 2450MHz/Zoom Scan**

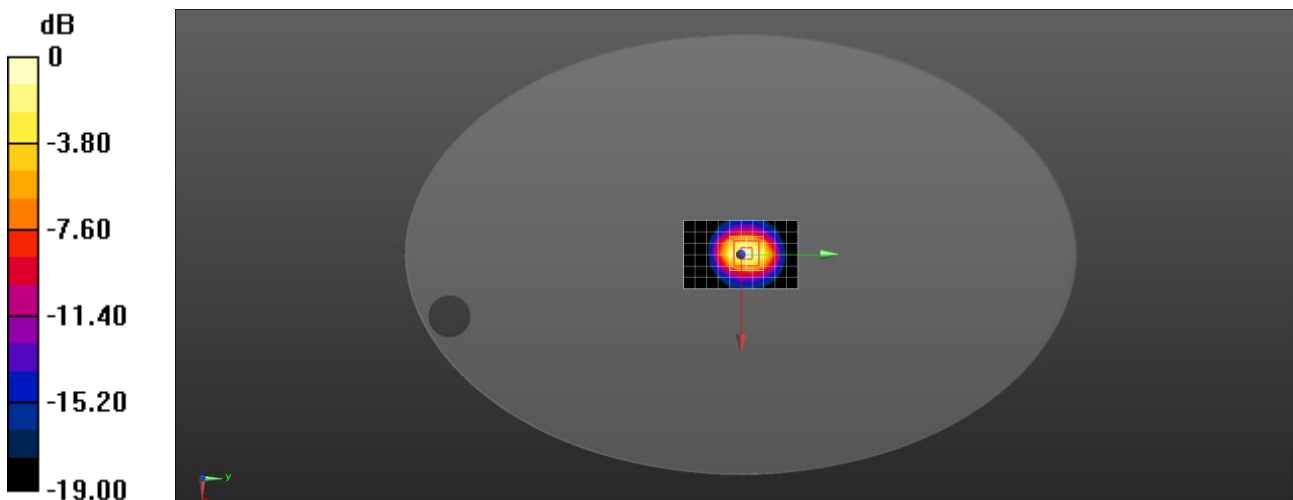
**(7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 84.33 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 24.7 W/kg

**SAR(1 g) = 12.3 W/kg; SAR(10 g) = 5.7 W/kg**

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



0 dB = 14.1 W/kg = 11.49 dBW/kg

Date/Time: 12/11/2021

Test Laboratory: DEKRA Lab

System Check Body 5250MHz

**DUT: Dipole D5GHzV2; Type: D5GHzV2**

Communication System: UID 0, CW (0); Communication System Band: 5GHz; Duty Cycle: 1:1; Frequency: 5250 MHz; Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.532$  S/m;  $\epsilon r = 35.287$ ;  $\rho = 1000$  kg/m<sup>3</sup> ;

Phantom section: Flat Section ; Input Power=100mW

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(5.3, 5.3, 5.3); Calibrated: 4/9/2021
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 3/11/2021
- Phantom: ELI1; Type: QDOVA002AA; Serial: TP:2106
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Configuration/System Check Body 5250MHz/Area Scan**

**(6x8x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 5.14 W/kg

**Configuration/System Check Body 5250MHz/Zoom Scan**

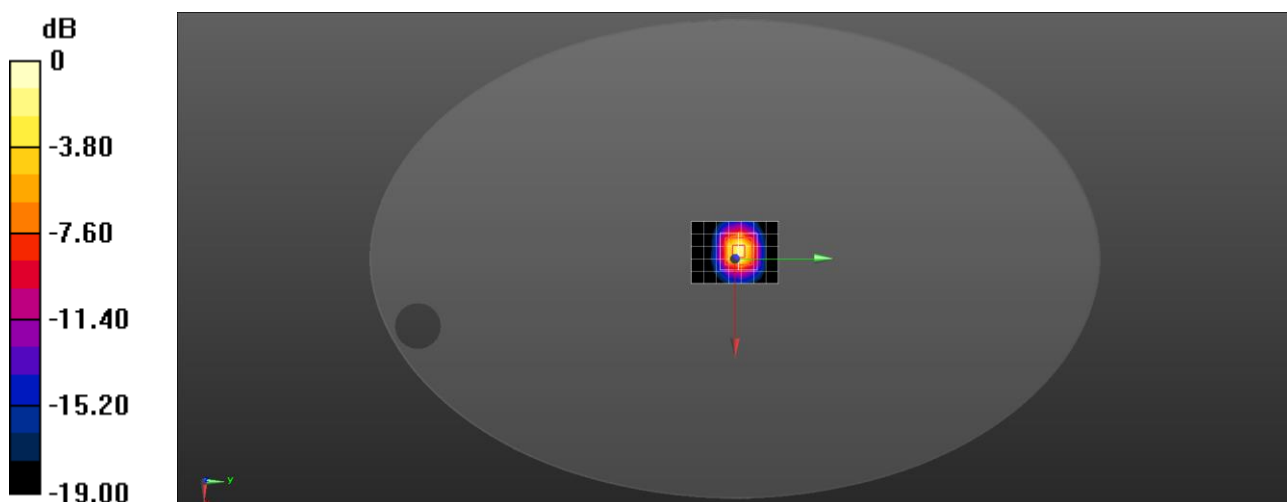
**(7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 31.00 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 41.2 W/kg

**SAR(1 g) = 7.12 W/kg; SAR(10 g) = 2.01 W/kg**

Maximum value of SAR (measured) = 6.16 W/kg



0 dB = 6.16 W/kg = 7.90 dBW/kg

Date/Time: 12/12/2021

Test Laboratory: DEKRA Lab

System Check Body 5600MHz

**DUT: Dipole D5GHzV2; Type: D5GHzV2**

Communication System: UID 0, CW (0); Communication System Band: 5GHz; Duty Cycle: 1:1; Frequency: 5600 MHz; Medium parameters used:  $f = 5600$  MHz;  $\sigma = 4.919$  S/m;  $\epsilon r = 34.68$ ;  $\rho = 1000$  kg/m<sup>3</sup> ;

Phantom section: Flat Section ; Input Power=100mW

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(4.75, 4.75, 4.75); Calibrated: 4/9/2021
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 3/11/2021
- Phantom: ELI1; Type: QDOVA002AA; Serial: TP:2106
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Configuration/System Check Body 5600MHz/Area Scan**

**(6x8x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 5.26 W/kg

**Configuration/System Check Body 5600MHz/Zoom Scan**

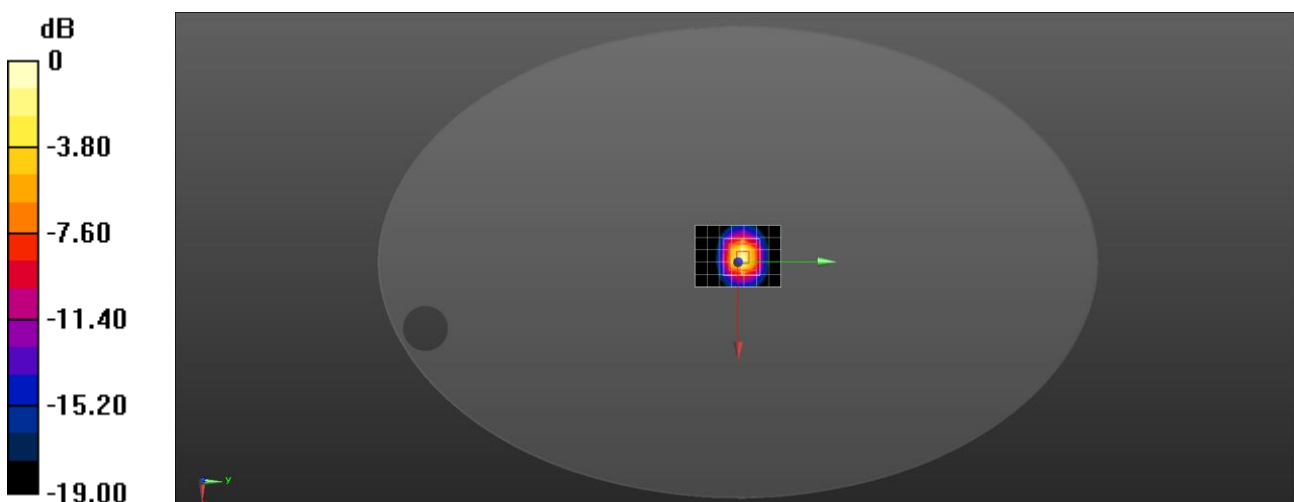
**(7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 31.17 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 17.5 W/kg

**SAR(1 g) = 7.52 W/kg; SAR(10 g) = 2.16 W/kg**

Maximum value of SAR (measured) = 6.53 W/kg



0 dB = 6.53 W/kg = 8.15 dBW/kg

Date/Time: 12/13/2021

Test Laboratory: DEKRA Lab

System Check Body 5750MHz

**DUT: Dipole D5GHzV2; Type: D5GHzV2**

Communication System: UID 0, CW (0); Communication System Band: 5GHz; Duty Cycle: 1:1; Frequency: 5750 MHz; Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.09$  S/m;  $\epsilon_r = 34.425$ ;  $\rho = 1000$  kg/m<sup>3</sup> ;

Phantom section: Flat Section ; Input Power=100mW

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(4.8, 4.8, 4.8); Calibrated: 4/9/2021
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1220; Calibrated: 3/11/2021
- Phantom: ELI1; Type: QDOVA002AA; Serial: TP:2106
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Configuration/System Check Body 5750MHz/Area Scan**

**(6x8x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 4.91 W/kg

**Configuration/System Check Body 5750MHz/Zoom Scan**

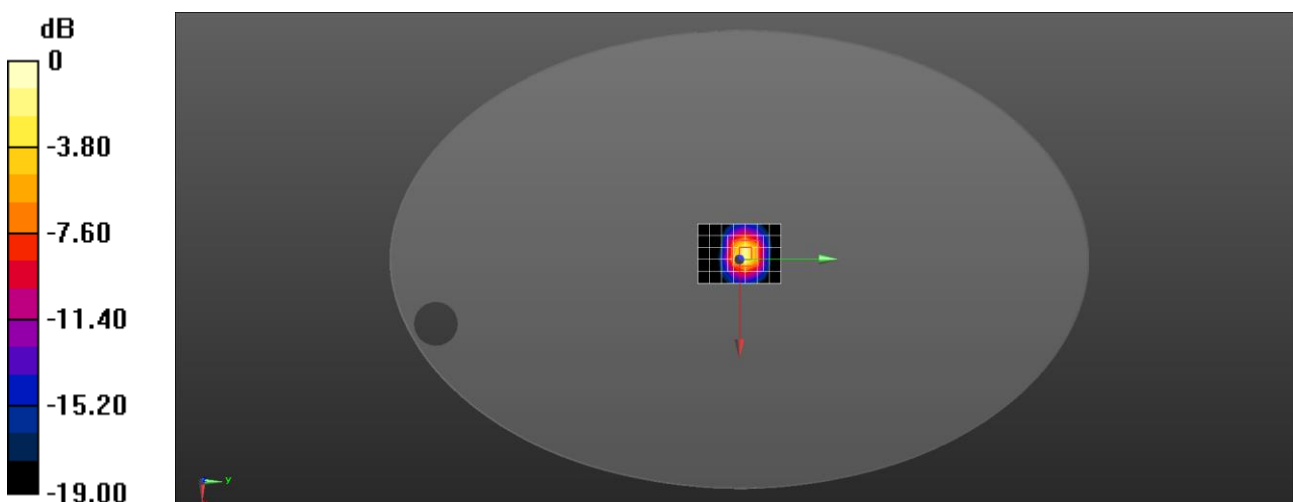
**(7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 32.94 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 17.3 W/kg

**SAR(1 g) = 7.45 W/kg; SAR(10 g) = 2.16 W/kg**

Maximum value of SAR (measured) = 6.38 W/kg



0 dB = 6.38 W/kg = 8.05 dBW/kg

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The End