

# Appendix A

## System Validation Plots

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# 1. D2450V2-SN: 904 Validation Plot

Date: 21.08.2022

Test Laboratory: Tianjin Dongdian Testing Service CO., Ltd

## 2450M

**DUT: Dipole 2450 MHz D2450V2; Serial: D2450V2 - SN:904**

Communication System: UID 0, CW (0); Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz; Communication System PAR: 0 dB; PMF: 1  
Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.785$  S/m;  $\epsilon_r = 37.31$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3906; ConvF(7.69, 7.69, 7.69); Calibrated: 27.02.2022;
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1366; Calibrated: 21.01.2022
- Phantom: SAM(30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1752
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

**Configuration/tilt/Area Scan (6x11x1):** Measurement grid:  $dx=10$ mm,  $dy=10$ mm  
Maximum value of SAR (measured) = 15.5 W/kg

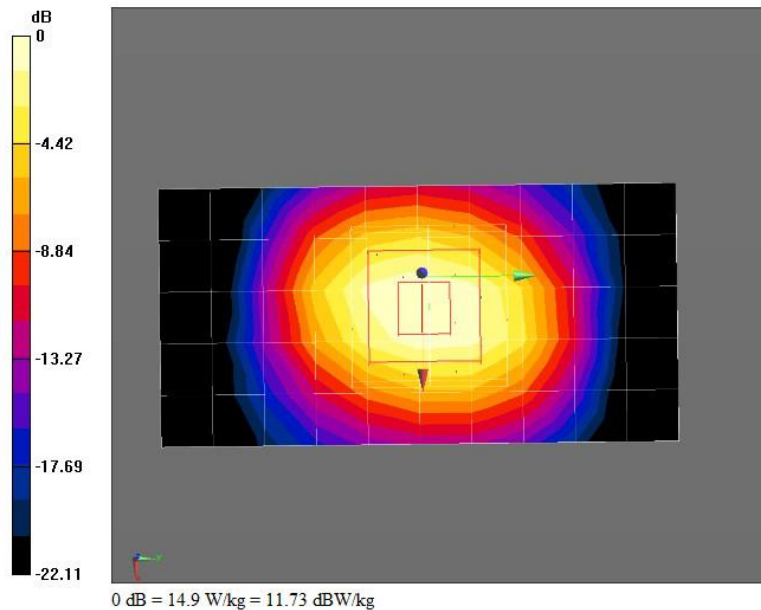
**Configuration/tilt/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 91.86 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 27.7 W/kg

SAR(1 g) = 13.2 W/kg; SAR(10 g) = 6.17 W/kg

Maximum value of SAR (measured) = 14.9 W/kg



## 2. D5GHzV2-SN: 1148 Validation Plot

Date: 22.08.2022

Test Laboratory: Tianjin Dongdian Testing Service CO., Ltd

### 5200M

**DUT: Dipole D5GHzV2; Serial: D5GHzV2 - SN:1148**

Communication System: UID 0, CW (0); Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5200 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used:  $f = 5200$  MHz;  $\sigma = 4.51$  S/m;  $\epsilon_r = 36.99$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

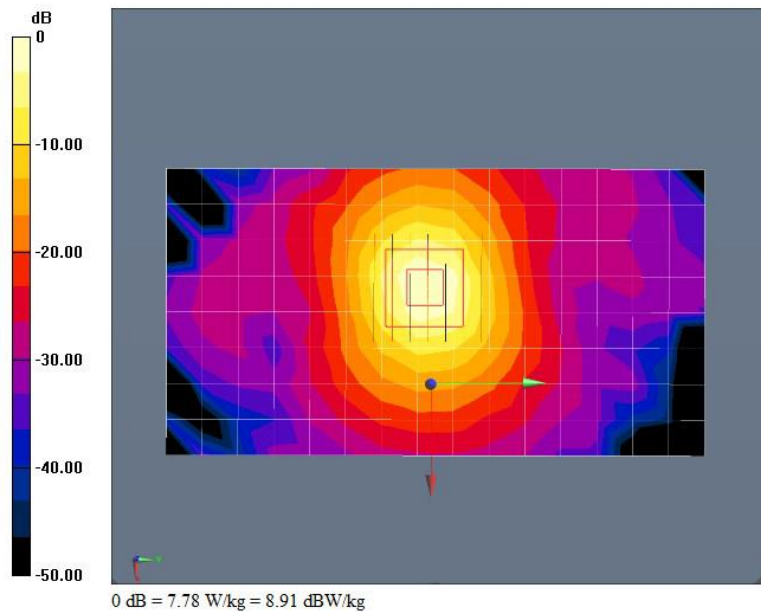
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

#### DASY Configuration:

- Probe: EX3DV4 - SN3906; ConvF(5.7, 5.7, 5.7); Calibrated: 27.02.2022;
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1366; Calibrated: 21.01.2022
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1752
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

**Configuration/tilt 2/Area Scan (9x16x1):** Measurement grid:  $dx=10$ mm,  $dy=10$ mm  
Maximum value of SAR (measured) = 8.49 W/kg**Configuration/tilt 2/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm  
Reference Value = 31.95 V/m; Power Drift = -0.01 dB  
Peak SAR (extrapolated) = 40.4 W/kg  
**SAR(1 g) = 7.74 W/kg; SAR(10 g) = 2.15 W/kg**

Maximum value of SAR (measured) = 7.78 W/kg



Test Laboratory: Tianjin Dongdian Testing Service CO., Ltd

**5300M**

**DUT: Dipole D5GHzV2; Serial: D5GHzV2 - SN:1148**

Communication System: UID 0, CW (0); Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5300 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used:  $f = 5300$  MHz;  $\sigma = 4.619$  S/m;  $\epsilon_r = 36.68$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

**DASY Configuration:**

- Probe: EX3DV4 - SN3906; ConvF(5.51, 5.51, 5.51); Calibrated: 27.02.2022;
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1366; Calibrated: 21.01.2022
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1752
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

**Configuration/tilt 2/Area Scan (9x16x1):** Measurement grid:  $dx=10$ mm,  $dy=10$ mm

Maximum value of SAR (measured) = 6.92 W/kg

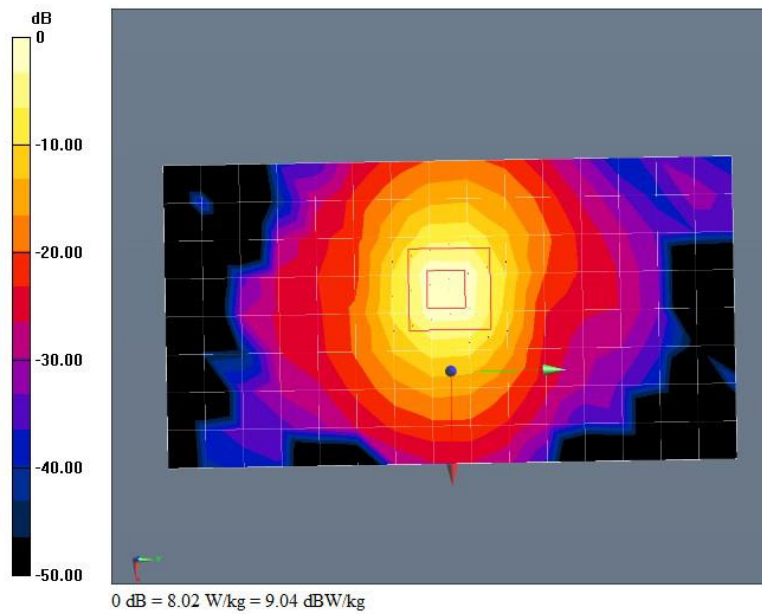
**Configuration/tilt 2/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 35.24 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 41.8 W/kg

**SAR(1 g) = 7.96 W/kg; SAR(10 g) = 2.16 W/kg**

Maximum value of SAR (measured) = 8.02 W/kg



Date: 23.08.2022

Test Laboratory: Tianjin Dongdian Testing Service CO., Ltd

**5500M****DUT: Dipole D5GHzV2; Serial: D5GHzV2 - SN:1148**

Communication System: UID 0, CW (0); Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5500 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used:  $f = 5500$  MHz;  $\sigma = 4.822$  S/m;  $\epsilon_r = 35.96$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

## DASY Configuration:

- Probe: EX3DV4 - SN3906; ConvF(5.14, 5.14, 5.14); Calibrated: 27.02.2022;
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1366; Calibrated: 21.01.2022
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1752
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

**Configuration/tilt 2/Area Scan (9x16x1):** Measurement grid:  $dx=10$ mm,  $dy=10$ mm

Maximum value of SAR (measured) = 7.48 W/kg

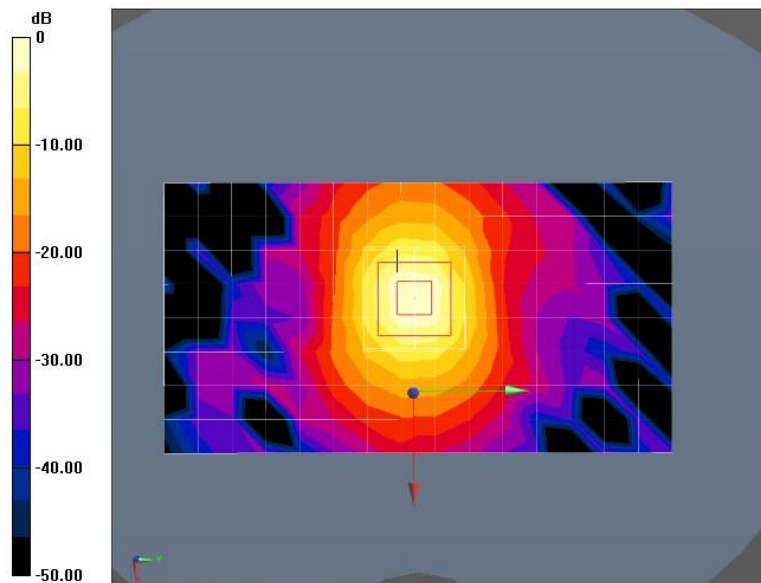
**Configuration/tilt 2/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 33.66 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 48.5 W/kg

**SAR(1 g) = 8.29 W/kg; SAR(10 g) = 2.24 W/kg**

Maximum value of SAR (measured) = 7.89 W/kg



Date: 23.08.2022

Test Laboratory: Tianjin Dongdian Testing Service CO., Ltd

**5600M****DUT: Dipole D5GHzV2; Serial: D5GHzV2 - SN:1148**

Communication System: UID 0, CW (0); Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5600 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used:  $f = 5600$  MHz;  $\sigma = 4.917$  S/m;  $\epsilon_r = 35.81$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

## DASY Configuration:

- Probe: EX3DV4 - SN3906; ConvF(4.99, 4.99, 4.99); Calibrated: 27.02.2022;
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1366; Calibrated: 21.01.2022
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP-1752
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

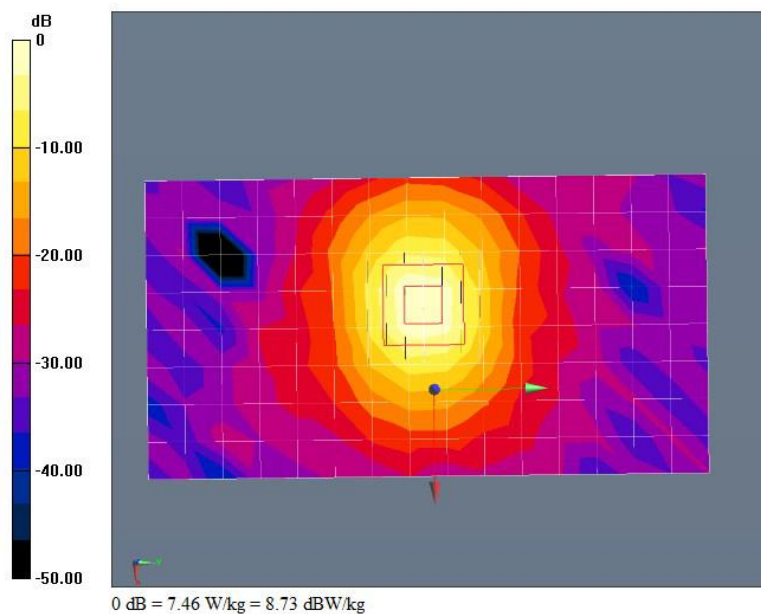
**Configuration/tilt 2/Area Scan (9x16x1):** Measurement grid:  $dx=10$ mm,  $dy=10$ mm  
Maximum value of SAR (measured) = 6.97 W/kg**Configuration/tilt 2/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 33.03 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 49.4 W/kg

SAR(1 g) = 8.01 W/kg; SAR(10 g) = 2.13 W/kg

Maximum value of SAR (measured) = 7.46 W/kg



Date: 23.08.2022

Test Laboratory: Tianjin Dongdian Testing Service CO., Ltd

**5800M****DUT: Dipole D5GHzV2; Serial: D5GHzV2 - SN:1148**

Communication System: UID 0, CW (0); Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5800 MHz; Communication System PAR: 0 dB; PMF: 1

Medium parameters used:  $f = 5800$  MHz;  $\sigma = 5.124$  S/m;  $\epsilon_r = 35.29$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

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

## DASY Configuration:

- Probe: EX3DV4 - SN3906; ConvF(4.96, 4.96, 4.96); Calibrated: 27.02.2022;
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1366; Calibrated: 21.01.2022
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1752
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

**Configuration/tilt 2/Area Scan (9x16x1):** Measurement grid:  $dx=10$ mm,  $dy=10$ mm  
Maximum value of SAR (measured) = 8.53 W/kg**Configuration/tilt 2/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm  
Reference Value = 27.60 V/m; Power Drift = -0.06 dB  
Peak SAR (extrapolated) = 51.3 W/kg  
**SAR(1 g) = 7.99 W/kg; SAR(10 g) = 2.12 W/kg**

Maximum value of SAR (measured) = 7.19 W/kg

