

Appendix A

System Validation Plots

Table of Contents

1. D2450V2-SN: 904 Validation Plot 3

1. D2450V2-SN: 904 Validation Plot

Date: 16.12.2024

Test Laboratory: Guangdong Dongdian Testing Service Co., Ltd.

2450

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

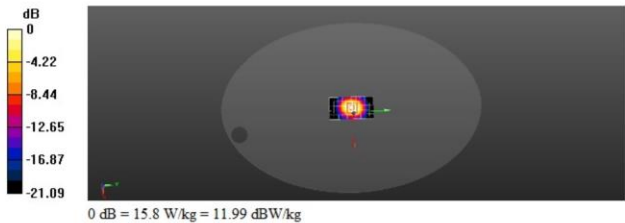
Communication System: UID 0, CW (0); Communication System Band: D2450 (2450.0 MHz); Frequency: 2450 MHz; Communication System PAR: 0 dB; PMF: 1
Medium parameters used: $f = 2450$ MHz; $\sigma = 1.817$ S/m; $\epsilon_r = 40.237$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: EX3DV4 - SN3906; ConvF(7.95, 7.95, 7.95) @ 2450 MHz; Calibrated: 29.04.2024
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1366; Calibrated: 29.04.2024
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1197
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Configuration/tilt/Area Scan (6x11x1): Measurement grid: $dx=10$ mm, $dy=10$ mm
Maximum value of SAR (measured) = 16.2 W/kg

Configuration/tilt/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 90.83 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 28.4 W/kg
SAR(1 g) = 13.8 W/kg; SAR(10 g) = 6.52 W/kg
Smallest distance from peaks to all points 3 dB below = 10 mm
Ratio of SAR at M2 to SAR at M1 = 50.4%
Maximum value of SAR (measured) = 15.8 W/kg



Date: 19.12.2024

Test Laboratory: Guangdong Dongdian Testing Service Co., Ltd.

5200

DUT: Dipole D5GHzV2; Type: 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; $\sigma = 4.493$ S/m; $\epsilon_r = 36.966$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

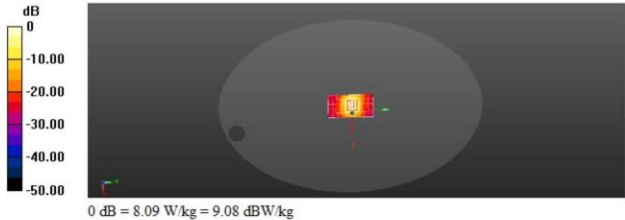
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

- Probe: EX3DV4 - SN3906; ComF(5.65, 5.65, 5.65) @ 5200 MHz; Calibrated: 29.04.2024
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1366; Calibrated: 29.04.2024
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP-1197
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Configuration/5200/Area Scan (6x11x1): Measurement grid: $dx=10$ mm, $dy=10$ mm
Maximum value of SAR (measured) = 9.19 W/kg

Configuration/5200/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 35.77 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 42.4 W/kg
SAR(1 g) = 8.11 W/kg; SAR(10 g) = 2.25 W/kg
Smallest distance from peaks to all points 3 dB below = 7.3 mm
Ratio of SAR at M2 to SAR at M1 = 52%
Maximum value of SAR (measured) = 8.09 W/kg



Date: 19.12.2024

Test Laboratory: Guangdong Dongdian Testing Service Co., Ltd.

5300

DUT: Dipole D5GHzV2; Type: 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: $f = 5300 \text{ MHz}$; $\sigma = 4.628 \text{ S/m}$; $\epsilon_r = 36.705$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3906; ComF(5.51, 5.51, 5.51) @ 5300 MHz; Calibrated: 29.04.2024
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1366; Calibrated: 29.04.2024
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP-1197
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Configuration/5300/Area Scan (6x11x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 7.74 W/kg

Configuration/5300/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 35.11 V/m; Power Drift = 0.10 dB

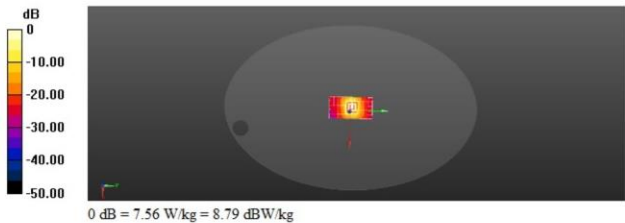
Peak SAR (extrapolated) = 41.3 W/kg

SAR(1 g) = 7.68 W/kg; SAR(10 g) = 2.12 W/kg

Smallest distance from peaks to all points 3 dB below = 7.6 mm

Ratio of SAR at M2 to SAR at M1 = 41.3%

Maximum value of SAR (measured) = 7.56 W/kg



Date: 19.12.2024

Test Laboratory: Guangdong Dongdian Testing Service Co., Ltd.

5500

DUT: Dipole D5GHzV2; Type: 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; $\epsilon_r = 35.952$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3906; ComF(5.06, 5.06, 5.06) @ 5500 MHz; Calibrated: 29.04.2024
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1366; Calibrated: 29.04.2024
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP-1197
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Configuration/5500/Area Scan (6x11x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 9.51 W/kg

Configuration/5500/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 34.44 V/m; Power Drift = 0.02 dB

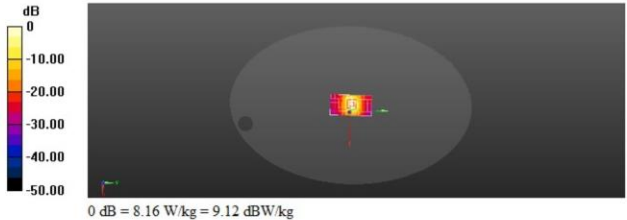
Peak SAR (extrapolated) = 51.6 W/kg

SAR(1 g) = 8.76 W/kg; SAR(10 g) = 2.38 W/kg

Smallest distance from peaks to all points 3 dB below = 7.6 mm

Ratio of SAR at M2 to SAR at M1 = 59.9%

Maximum value of SAR (measured) = 8.16 W/kg



Date: 19.12.2024

Test Laboratory: Guangdong Dongdian Testing Service Co., Ltd.

5600

DUT: Dipole D5GHzV2; Type: 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; $\sigma = 4.921$ S/m; $\epsilon_r = 35.756$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3906; ComF(4.9, 4.9, 4.9) @ 5600 MHz; Calibrated: 29.04.2024
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1366; Calibrated: 29.04.2024
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP-1197
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Configuration/5600/Area Scan (6x11x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 7.30 W/kg

Configuration/5600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 34.67 V/m; Power Drift = 0.16 dB

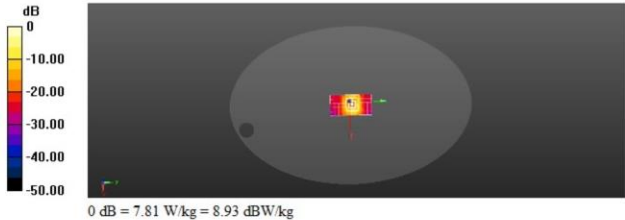
Peak SAR (extrapolated) = 54.1 W/kg

SAR(1 g) = 8.67 W/kg; SAR(10 g) = 2.34 W/kg

Smallest distance from peaks to all points 3 dB below = 7.6 mm

Ratio of SAR at M2 to SAR at M1 = 49.1%

Maximum value of SAR (measured) = 7.81 W/kg



Date: 19.12.2024

Test Laboratory: Guangdong Dongdian Testing Service Co., Ltd.

5800

DUT: Dipole D5GHzV2; Type: 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: $f = 5800 \text{ MHz}$; $\sigma = 5.121 \text{ S/m}$; $\epsilon_r = 35.309$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

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

DASY Configuration:

- Probe: EX3DV4 - SN3906; ComF(4.98, 4.98, 4.98) @ 5800 MHz; Calibrated: 29.04.2024
- Sensor-Surface: 3mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1366; Calibrated: 29.04.2024
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP-1197
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Configuration/5800/Area Scan (6x11x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 9.42 W/kg

Configuration/5800/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 41.00 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 23.7 W/kg

SAR(1 g) = 7.14 W/kg; SAR(10 g) = 2.11 W/kg

Smallest distance from peaks to all points 3 dB below = 7.6 mm

Ratio of SAR at M2 to SAR at M1 = 47.8%

Maximum value of SAR (measured) = 9.06 W/kg

