

Appendix A: SAR Plots of System Verification

Test Laboratory: TÜV Rheinland (Shenzhen) Co., Ltd.

Date: 2023/2/4

System Check-D750V2_H750

DUT: Dipole 750 MHz D750V3 SN:1109

Communication System: CW; Frequency: 750 MHz; Duty Cycle: 1:1

Medium: H750 Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.891 \text{ S/m}$; $\epsilon_r = 41.112$; $\rho = 1000 \text{ kg/m}^3$

DASY5 Configuration:

- Probe: EX3DV4 - SN7506; ConvF(10.44, 10.44, 10.44) @ 750 MHz; Calibrated: 2022/5/31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn662; Calibrated: 2022/3/24
- Phantom: SAM 1; Type: QD 000 P40 CB; Serial: 1961
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=250 mW/Area Scan (71x141x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 2.79 W/kg

Pin=250 mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 59.53 V/m ; Power Drift = -0.00 dB

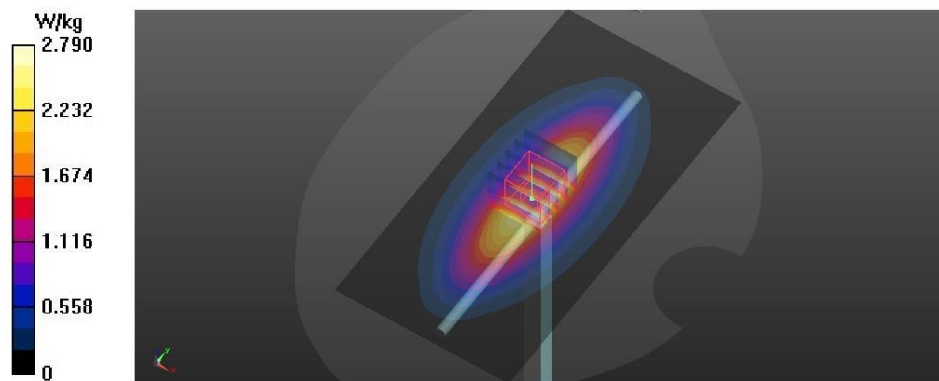
Peak SAR (extrapolated) = 3.23 W/kg

SAR(1 g) = 2.14 W/kg ; SAR(10 g) = 1.41 W/kg

Smallest distance from peaks to all points 3 dB below = 16 mm

Ratio of SAR at M2 to SAR at M1 = 66.3%

Maximum value of SAR (measured) = 2.87 W/kg



Test Laboratory: TÜV Rheinland (Shenzhen) Co., Ltd.

Date: 2023/2/4

System Check-D835V2_H835

DUT: Dipole 835 MHz D835V2 SN:4d242

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: H835 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.922 \text{ S/m}$; $\epsilon_r = 40.887$; $\rho = 1000 \text{ kg/m}^3$

DASY5 Configuration:

- Probe: EX3DV4 - SN7506; ConvF(10.39, 10.39, 10.39) @ 835 MHz; Calibrated: 2022/5/31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn662; Calibrated: 2022/3/24
- Phantom: SAM 1; Type: QD 000 P40 CB; Serial: 1961
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=250 mW/Area Scan (71x121x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 3.18 W/kg

Pin=250 mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 64.92 V/m ; Power Drift = -0.01 dB

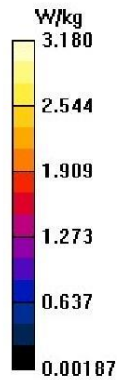
Peak SAR (extrapolated) = 3.63 W/kg

SAR(1 g) = 2.34 W/kg ; SAR(10 g) = 1.52 W/kg

Smallest distance from peaks to all points 3 dB below = 16 mm

Ratio of SAR at M2 to SAR at M1 = 64.5%

Maximum value of SAR (measured) = 3.18 W/kg



Test Laboratory: TÜV Rheinland (Shenzhen) Co., Ltd.

Date: 2023/2/3

System Check-D1750V2_H1750

DUT: Dipole 1750 MHz D1750V2 SN:1166

Communication System: CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: H1750 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.374$ S/m; $\epsilon_r = 40.158$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7506; ConvF(8.79, 8.79, 8.79) @ 1750 MHz; Calibrated: 2022/5/31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn662; Calibrated: 2022/3/24
- Phantom: SAM 1; Type: QD 000 P40 CB; Serial: 1961
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=250 mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 14.7 W/kg

Pin=250 mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 106.2 V/m; Power Drift = 0.04 dB

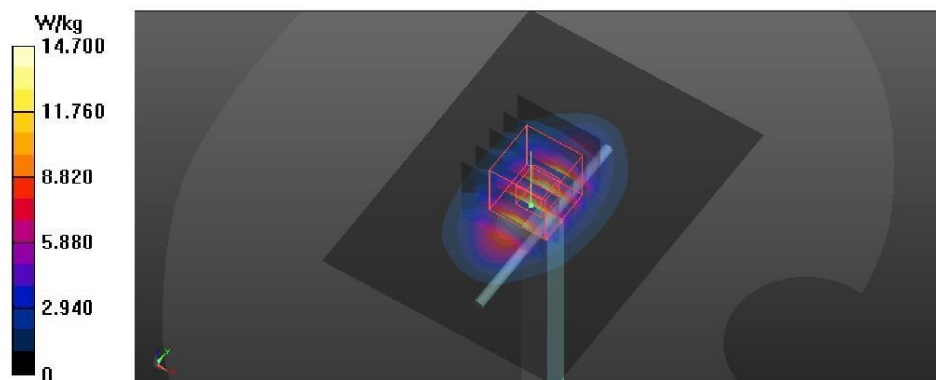
Peak SAR (extrapolated) = 18.0 W/kg

SAR(1 g) = 9.48 W/kg; SAR(10 g) = 5.01 W/kg

Smallest distance from peaks to all points 3 dB below = 10.1 mm

Ratio of SAR at M2 to SAR at M1 = 53%

Maximum value of SAR (measured) = 14.7 W/kg



Test Laboratory: TÜV Rheinland (Shenzhen) Co., Ltd.

Date: 2023/2/2

System Check-D1900V2_H1900

DUT: Dipole 1900 MHz D1900V2 SN:5d229

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: H1900 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.448$ S/m; $\epsilon_r = 39.937$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7506; ConvF(8.43, 8.43, 8.43) @ 1900 MHz; Calibrated: 2022/5/31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn662; Calibrated: 2022/3/24
- Phantom: SAM 1; Type: QD 000 P40 CB; Serial: 1961
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=250 mW/Area Scan (61x81x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm
Maximum value of SAR (interpolated) = 17.0 W/kg

Pin=250 mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm
Reference Value = 111.2 V/m; Power Drift = -0.09 dB

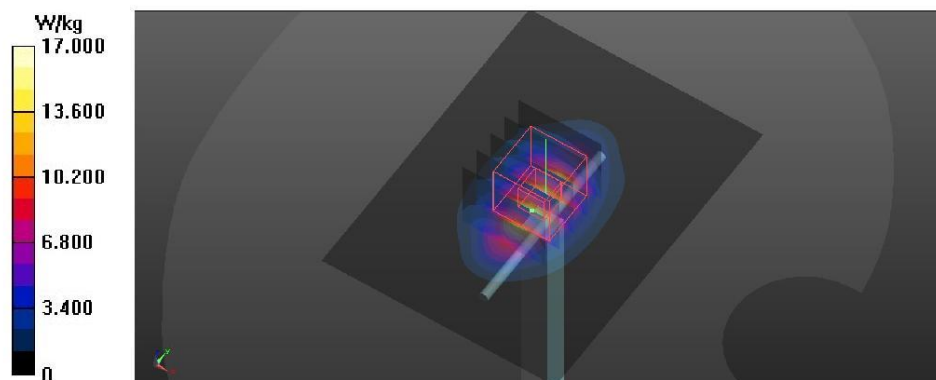
Peak SAR (extrapolated) = 19.7 W/kg

SAR(1 g) = 10.6 W/kg; SAR(10 g) = 5.52 W/kg

Smallest distance from peaks to all points 3 dB below = 10.1 mm

Ratio of SAR at M2 to SAR at M1 = 54.3%

Maximum value of SAR (measured) = 16.2 W/kg



Test Laboratory: TÜV Rheinland (Shenzhen) Co., Ltd.

Date: 2023/2/10

System Check-D2450V2_H2450

DUT: Dipole 2450 MHz D2450V2 SN:1014

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: H2450 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.872$ S/m; $\epsilon_r = 38.152$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7506; ConvF(7.85, 7.85, 7.85) @ 2450 MHz; Calibrated: 2022/5/31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn662; Calibrated: 2022/3/24
- Phantom: SAM 1; Type: QD 000 P40 CB; Serial: 1961
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=250 mW/Area Scan (61x61x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm
Maximum value of SAR (interpolated) = 22.6 W/kg

Pin=250 mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 113.9 V/m; Power Drift = 0.01 dB

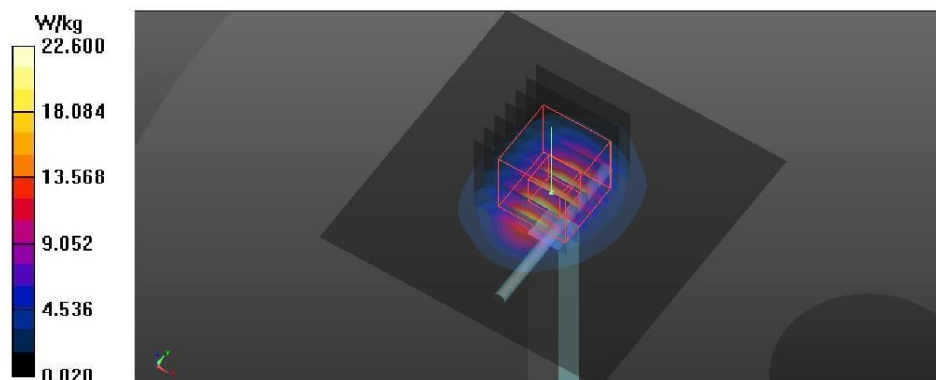
Peak SAR (extrapolated) = 28.4 W/kg

SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.22 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 47.9%

Maximum value of SAR (measured) = 22.7 W/kg



Test Laboratory: TÜV Rheinland (Shenzhen) Co., Ltd.

Date: 2023/2/5

System Check-D2600V2_H2600

DUT: Dipole 2600 MHz D2600V2 SN:1153

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: H2600 Medium parameters used: $f = 2600$ MHz; $\sigma = 1.994$ S/m; $\epsilon_r = 37.895$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7506; ConvF(7.65, 7.65, 7.65) @ 2600 MHz; Calibrated: 2022/5/31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn662; Calibrated: 2022/3/24
- Phantom: SAM 1; Type: QD 000 P40 CB; Serial: 1961
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=250 mW/Area Scan (61x61x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm
Maximum value of SAR (interpolated) = 25.3 W/kg

Pin=250 mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 117.6 V/m; Power Drift = -0.11 dB

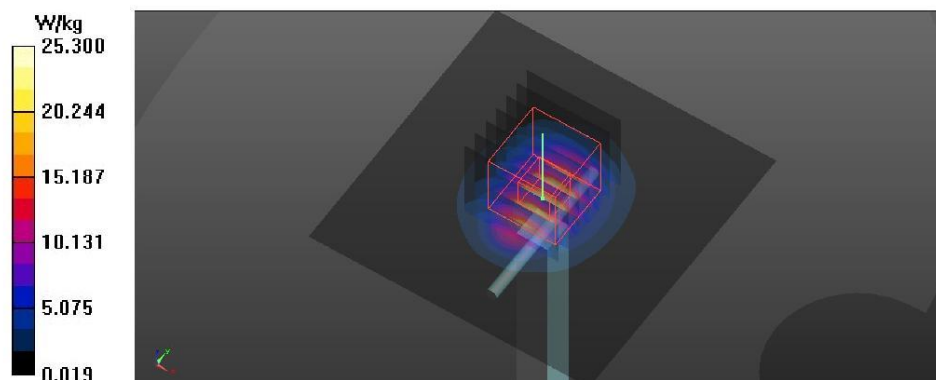
Peak SAR (extrapolated) = 31.6 W/kg

SAR(1 g) = 14.9 W/kg; SAR(10 g) = 6.72 W/kg

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

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

Maximum value of SAR (measured) = 25.4 W/kg



Test Laboratory: TÜV Rheinland (Shenzhen) Co., Ltd.

Date: 2023/2/7

System Check-D5GHz_H5250

DUT: Dipole D5GHzV2 SN:1280

Communication System: CW; Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: H5G Medium parameters used: $f = 5250$ MHz; $\sigma = 4.734$ S/m; $\epsilon_r = 36.297$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7506; ConvF(5.45, 5.45, 5.45) @ 5250 MHz; Calibrated: 2022/5/31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn662; Calibrated: 2022/3/24
- Phantom: SAM 1; Type: QD 000 P40 CB; Serial: 1961
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 19.4 W/kg

Pin=100mW/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 73.16 V/m; Power Drift = 0.04 dB

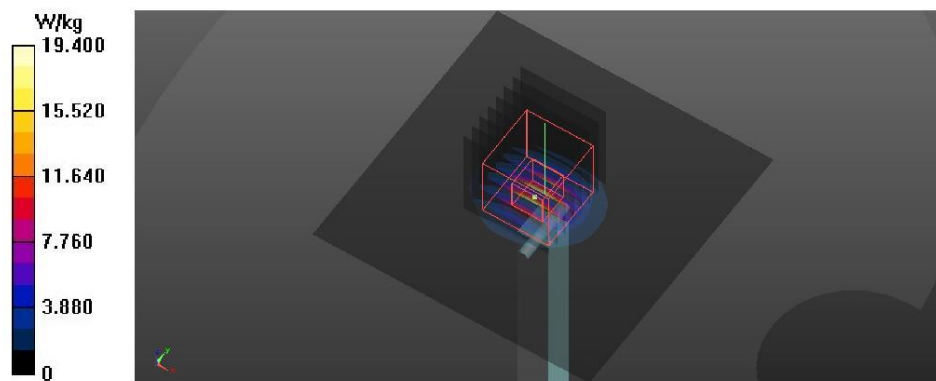
Peak SAR (extrapolated) = 35.1 W/kg

SAR(1 g) = 8.33 W/kg; SAR(10 g) = 2.34 W/kg

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

Ratio of SAR at M2 to SAR at M1 = 63.8%

Maximum value of SAR (measured) = 20.3 W/kg



Test Laboratory: TÜV Rheinland (Shenzhen) Co., Ltd.

Date: 2023/2/7

System Check-D5GHz_H5600

DUT: Dipole D5GHzV2 SN:1280

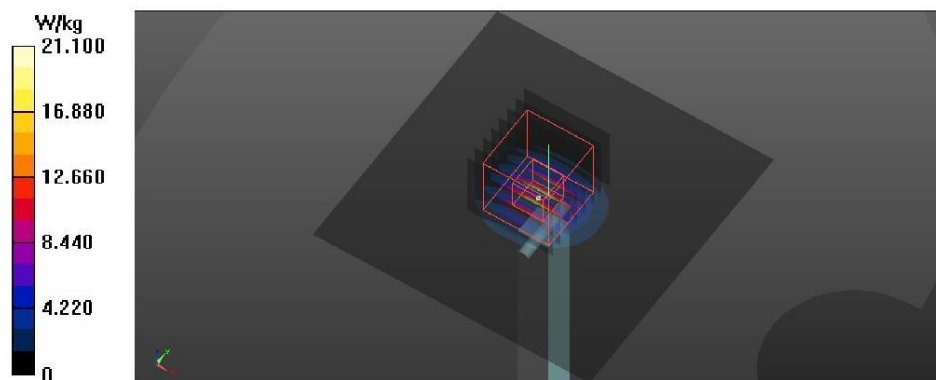
Communication System: CW; Frequency: 5600 MHz; Duty Cycle: 1:1
Medium: H5600 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.092$ S/m; $\epsilon_r = 35.786$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7506; ConvF(5, 5, 5) @ 5600 MHz; Calibrated: 2022/5/31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn662; Calibrated: 2022/3/24
- Phantom: SAM 1; Type: QD 000 P40 CB; Serial: 1961
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 21.1 W/kg

Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 73.12 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 39.1 W/kg
SAR(1 g) = 8.68 W/kg; SAR(10 g) = 2.44 W/kg
Smallest distance from peaks to all points 3 dB below = 7.2 mm
Ratio of SAR at M2 to SAR at M1 = 61.8%
Maximum value of SAR (measured) = 21.0 W/kg



Test Laboratory: TÜV Rheinland (Shenzhen) Co., Ltd.

Date: 2023/2/7

System Check-D5GHz_H5800

DUT: Dipole D5GHzV2 SN:1280

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: H5800 Medium parameters used: $f = 5800$ MHz; $\sigma = 5.305$ S/m; $\epsilon_r = 35.499$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Probe: EX3DV4 - SN7506; ConvF(4.95, 4.95, 4.95) @ 5800 MHz; Calibrated: 2022/5/31
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn662; Calibrated: 2022/3/24
- Phantom: SAM 1; Type: QD 000 P40 CB; Serial: 1961
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Pin=100mW/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 20.6 W/kg

Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 68.37 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 40.7 W/kg
SAR(1 g) = 8.56 W/kg; SAR(10 g) = 2.43 W/kg
Smallest distance from peaks to all points 3 dB below = 7.5 mm
Ratio of SAR at M2 to SAR at M1 = 59.8%
Maximum value of SAR (measured) = 21.3 W/kg

