

**Appendix A. System Check Plots**

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Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D750-EX-Head

**DUT: Dipole 750 MHz D750V3; Type: D750V3; Serial: D750V3 - SN:1044**

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.875 \text{ S/m}$ ;  $\epsilon_r = 41.808$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7489; ConvF(10.79, 10.79, 10.79) @ 750 MHz; Calibrated: 2018-1-9
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn852; Calibrated: 2018-4-23
- ε Phantom: SAM3; Type: SAM; Serial: 1597
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=15mm, Pin=250mW/Area Scan (6x14x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 2.60 W/kg

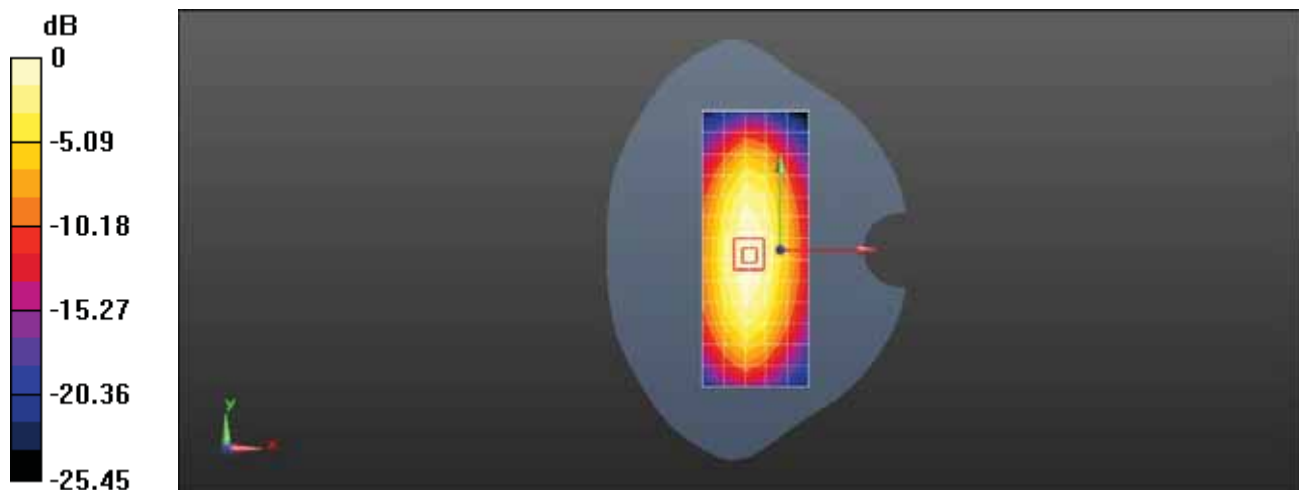
**Configuration/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 47.70 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 2.93 W/kg

**SAR(1 g) = 2.01 W/kg; SAR(10 g) = 1.34 W/kg**

Maximum value of SAR (measured) = 2.64 W/kg



0 dB = 2.60 W/kg = 4.15 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D835-EX-Head

**DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2 - SN:4d059**

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.906$  S/m;  $\epsilon_r = 42.25$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN3744; ConvF(8.96, 8.96, 8.96) @ 835 MHz; Calibrated: 2018-7-25
- ε Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- ε Phantom: SAM1; Type: SAM; Serial: 1475
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=15mm, Pin=250mW/Area Scan (6x13x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 2.41 W/kg

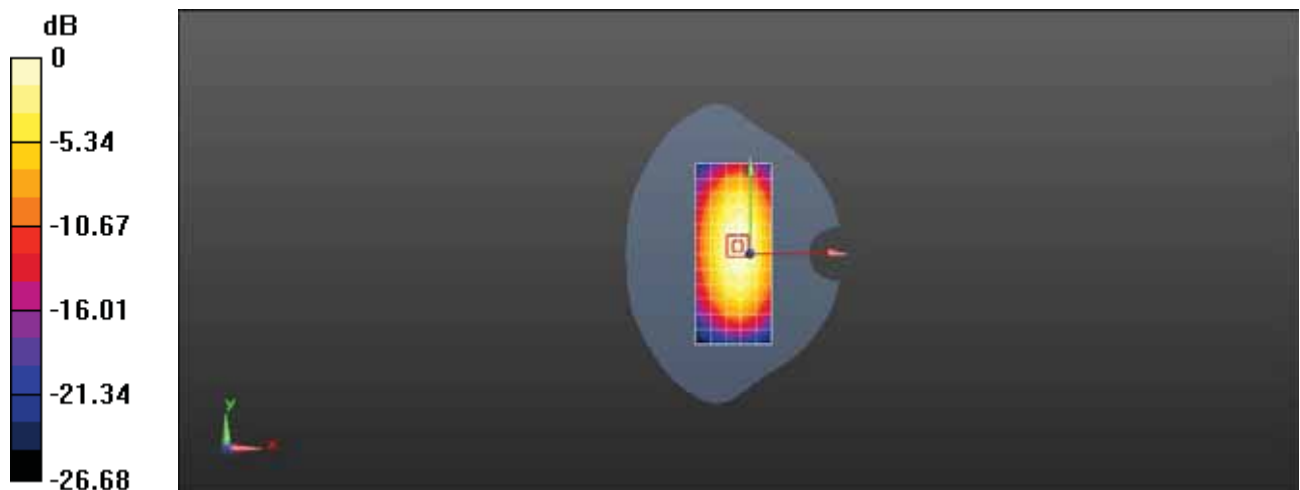
**Configuration/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 48.61 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 3.18 W/kg

**SAR(1 g) = 2.17 W/kg; SAR(10 g) = 1.44 W/kg**

Maximum value of SAR (measured) = 2.53 W/kg



0 dB = 2.41 W/kg = 3.82 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D835-EX-Head

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d126**

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.927$  S/m;  $\epsilon_r = 39.608$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7381; ConvF(10.09, 10.09, 10.09) @ 835 MHz; Calibrated: 2017-10-24
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1531; Calibrated: 2018-1-3
- Phantom: SAM8; Type: SAM; Serial: 1940
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=15mm, Pin=250mW/Area Scan (6x13x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 2.49 W/kg

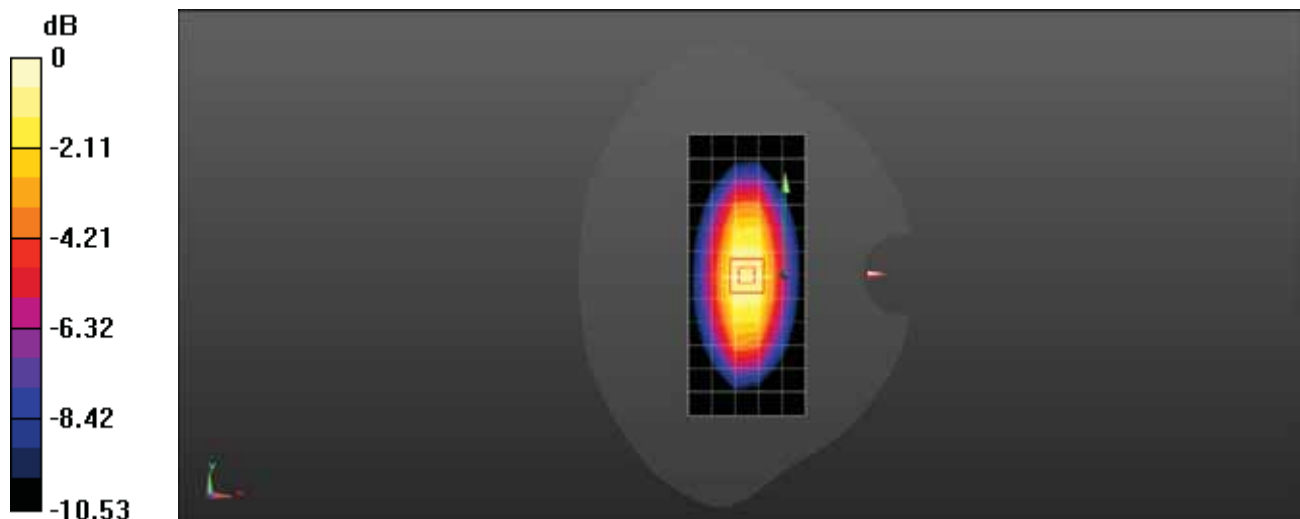
**Configuration/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 57.46 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 3.22 W/kg

**SAR(1 g) = 2.19 W/kg; SAR(10 g) = 1.45 W/kg**

Maximum value of SAR (measured) = 2.90 W/kg



0 dB = 2.90 W/kg = 4.62 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D1750-EX-Head

**DUT: Dipole 1750 MHz D1750V2; Type: D1750V2; Serial: D1750V2 - SN:1123**

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.335$  S/m;  $\epsilon_r = 38.434$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7489; ConvF(8.9, 8.9, 8.9) @ 1750 MHz; Calibrated: 2018-1-9
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn852; Calibrated: 2018-4-23
- ε Phantom: SAM3; Type: SAM; Serial: 1597
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm pin=250mW/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 11.6 W/kg

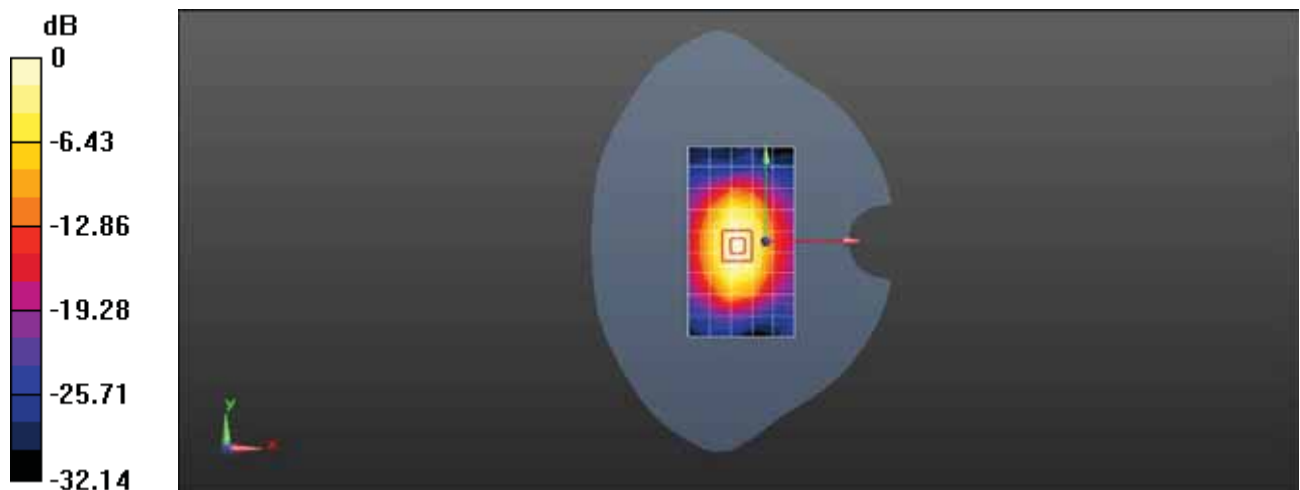
**Configuration/d=10mm pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 100.7 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 16.0 W/kg

**SAR(1 g) = 9.26 W/kg; SAR(10 g) = 5.07 W/kg**

Maximum value of SAR (measured) = 13.8 W/kg



0 dB = 11.6 W/kg = 10.64 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D1750-EX-Head

**DUT: Dipole 1750 MHz D1750V2; Type: D1750V2; Serial: D1750V2 - SN:1123**

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.31$  S/m;  $\epsilon_r = 39.874$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7489; ConvF(8.9, 8.9, 8.9) @ 1750 MHz; Calibrated: 2018-1-9
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn852; Calibrated: 2018-4-23
- ε Phantom: SAM3; Type: SAM; Serial: 1597
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm pin=250mW/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 11.9 W/kg

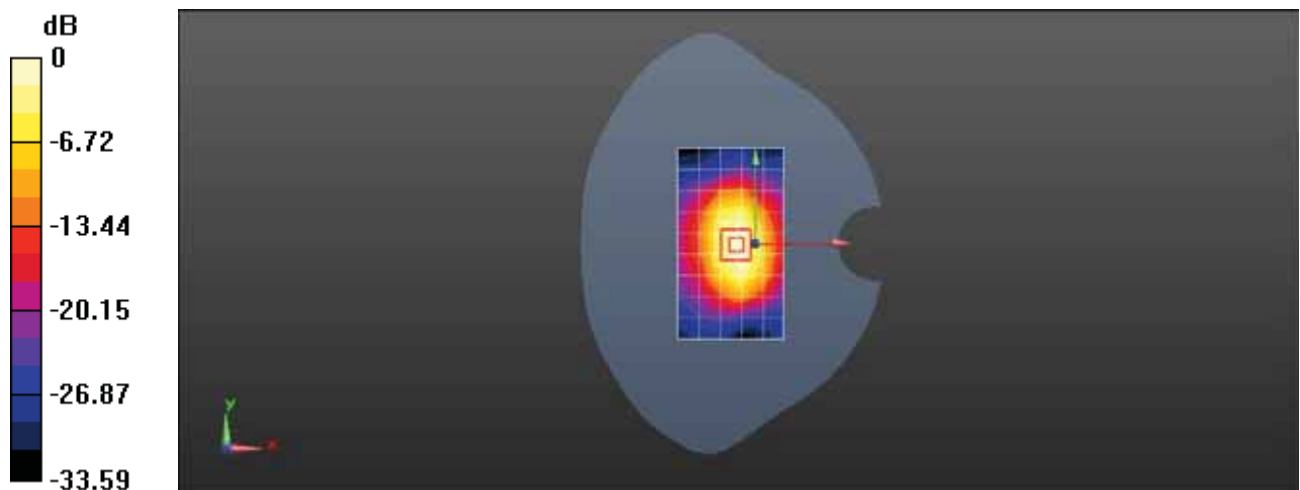
**Configuration/d=10mm pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 99.83 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 15.6 W/kg

**SAR(1 g) = 9.04 W/kg; SAR(10 g) = 4.95 W/kg**

Maximum value of SAR (measured) = 13.5 W/kg



0 dB = 11.9 W/kg = 10.76 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D1900-EX-Head

**DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d143**

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.37$  S/m;  $\epsilon_r = 39.147$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN3744; ConvF(7.99, 7.99, 7.99) @ 1900 MHz; Calibrated: 2018-7-25
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- ε Phantom: SAM1; Type: SAM; Serial: 1475
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm pin=250mW/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 14.8 W/kg

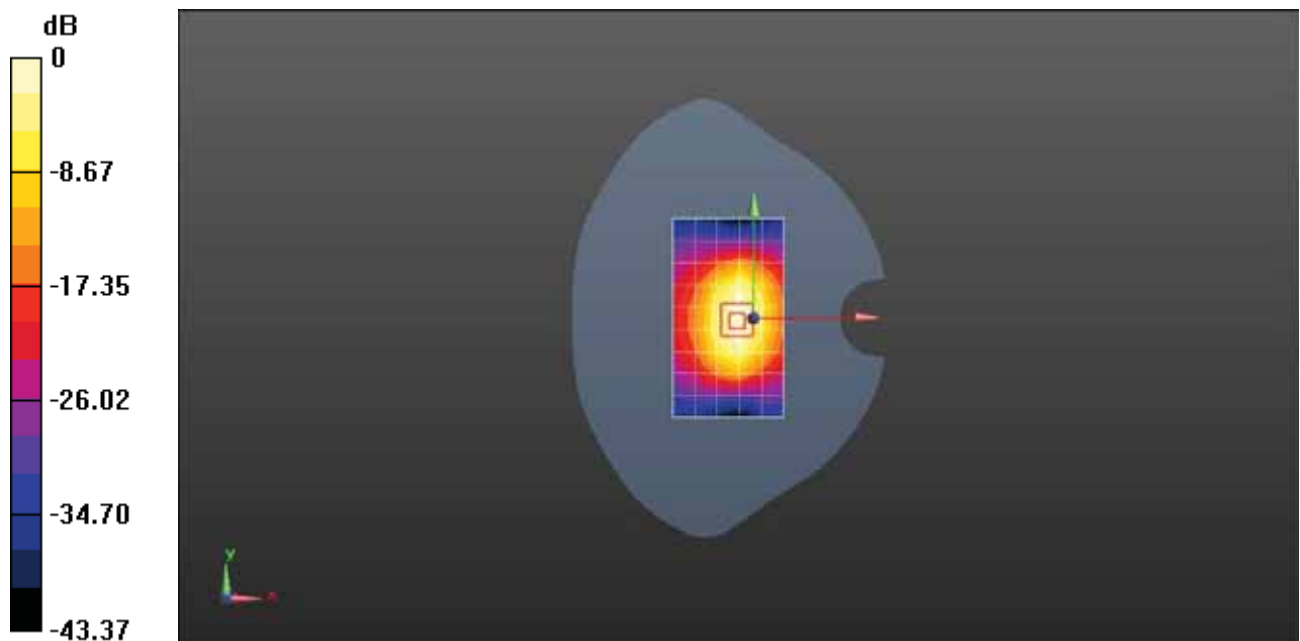
**Configuration/d=10mm pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 96.01 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 20.0 W/kg

**SAR(1 g) = 10.2 W/kg; SAR(10 g) = 5.28 W/kg**

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



0 dB = 14.8 W/kg = 11.70 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D1900-EX-Head

**DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d143**

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.446$  S/m;  $\epsilon_r = 40.972$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN3744; ConvF(7.99, 7.99, 7.99) @ 1900 MHz; Calibrated: 2018-7-25
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- ε Phantom: SAM1; Type: SAM; Serial: 1475
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm, pin=250mW/Area Scan (6x13x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 14.6 W/kg

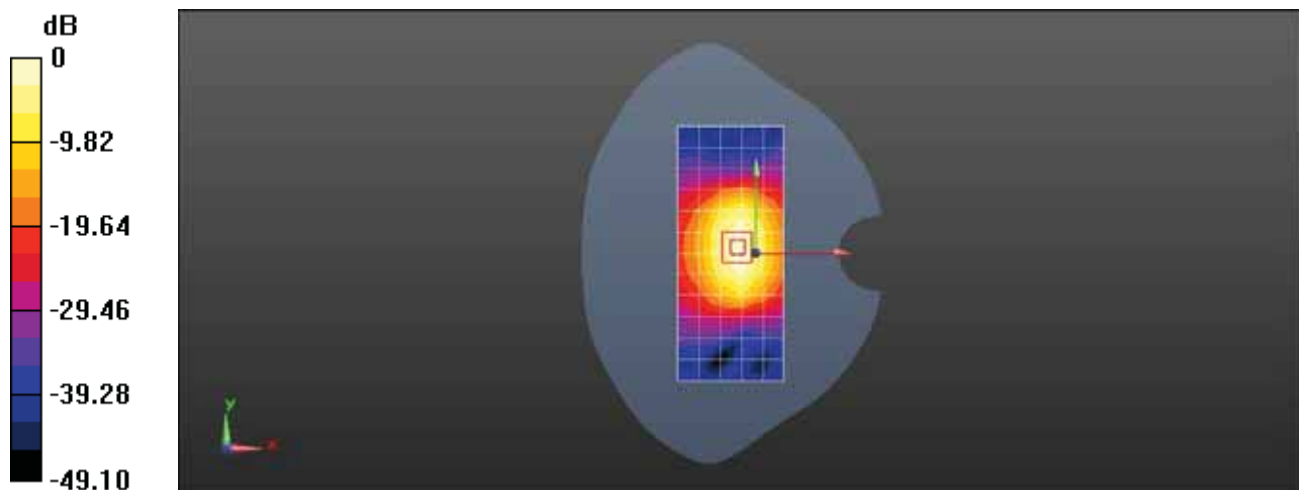
**Configuration/d=10mm, pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 96.58 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 19.7 W/kg

**SAR(1 g) = 9.86 W/kg; SAR(10 g) = 5.05 W/kg**

Maximum value of SAR (measured) = 15.9 W/kg



0 dB = 14.6 W/kg = 11.64 dBW/kg



Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D2450-EX-Head

**DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:860**

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.85$  S/m;  $\epsilon_r = 38.716$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7489; ConvF(8.04, 8.04, 8.04) @ 2450 MHz; Calibrated: 2018-1-9
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn852; Calibrated: 2018-4-23
- ε Phantom: SAM3; Type: SAM; Serial: 1597
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm, Pin=250mW/Area Scan (6x11x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm

Maximum value of SAR (measured) = 21.5 W/kg

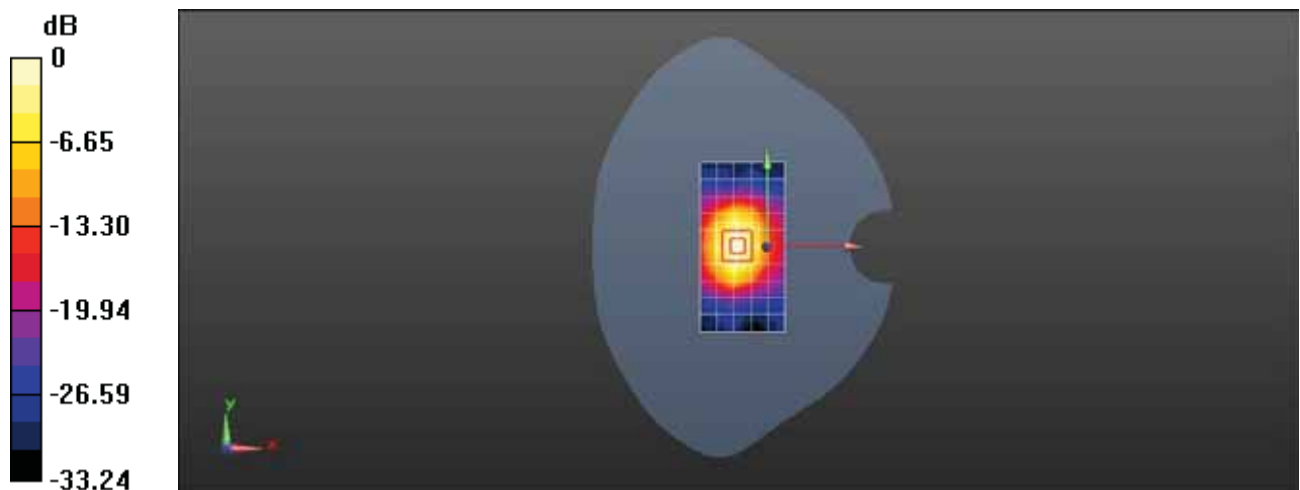
**Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 104.0 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 27.8 W/kg

**SAR(1 g) = 13.7 W/kg; SAR(10 g) = 6.47 W/kg**

Maximum value of SAR (measured) = 22.5 W/kg



0 dB = 21.5 W/kg = 13.32 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D2600-EX-Head

**DUT: Dipole 2600 MHz D2600V2; Type: D2600V2; Serial: D2600V2 - SN:1021**

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.902$  S/m;  $\epsilon_r = 40.307$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN3744; ConvF(6.9, 6.9, 6.9) @ 2600 MHz; Calibrated: 2018-7-25
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- ε Phantom: SAM1; Type: SAM; Serial: 1475
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm, Pin=250mW/Area Scan (8x11x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm

Maximum value of SAR (measured) = 24.6 W/kg

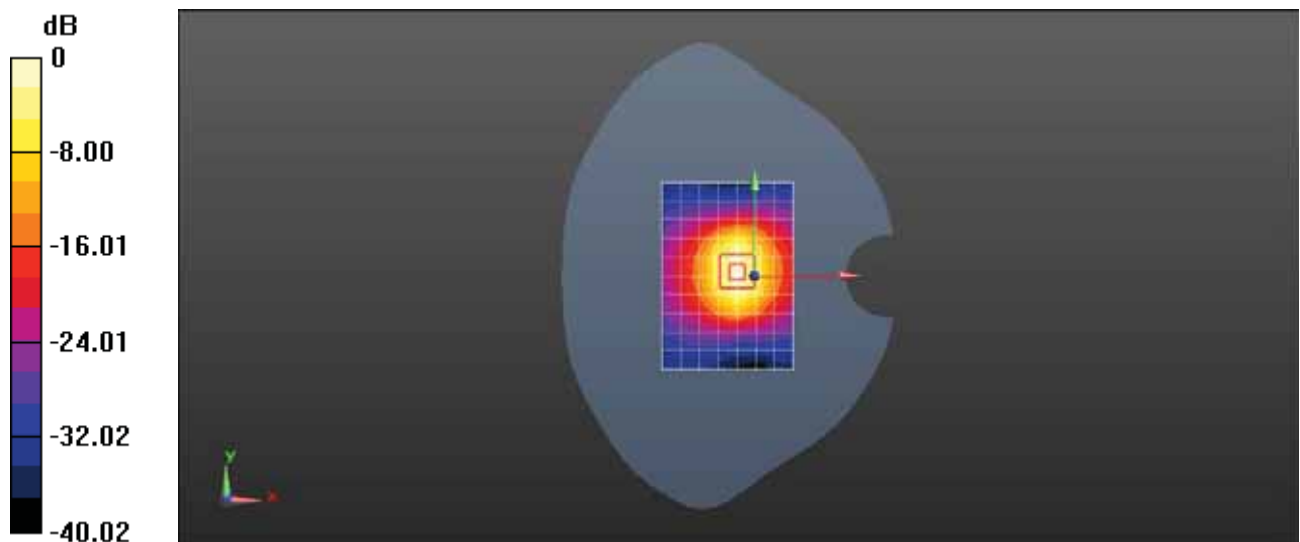
**Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 102.3 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 31.6 W/kg

**SAR(1 g) = 14.3 W/kg; SAR(10 g) = 6.41 W/kg**

Maximum value of SAR (measured) = 24.7 W/kg



0 dB = 24.6 W/kg = 13.91 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D5250-EX-Head

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1155**

Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1

Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.531$  S/m;  $\epsilon_r = 35.91$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN3736; ConvF(4.73, 4.73, 4.73) @ 5250 MHz; Calibrated: 2018-4-27
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 25.0$
- ε Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- ε Phantom: SAM1; Type: SAM; Serial: 1475
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5250 MHz/Area Scan (10x10x1):** Measurement grid: dx=10mm, dy=10mm  
Maximum value of SAR (measured) = 19.5 W/kg

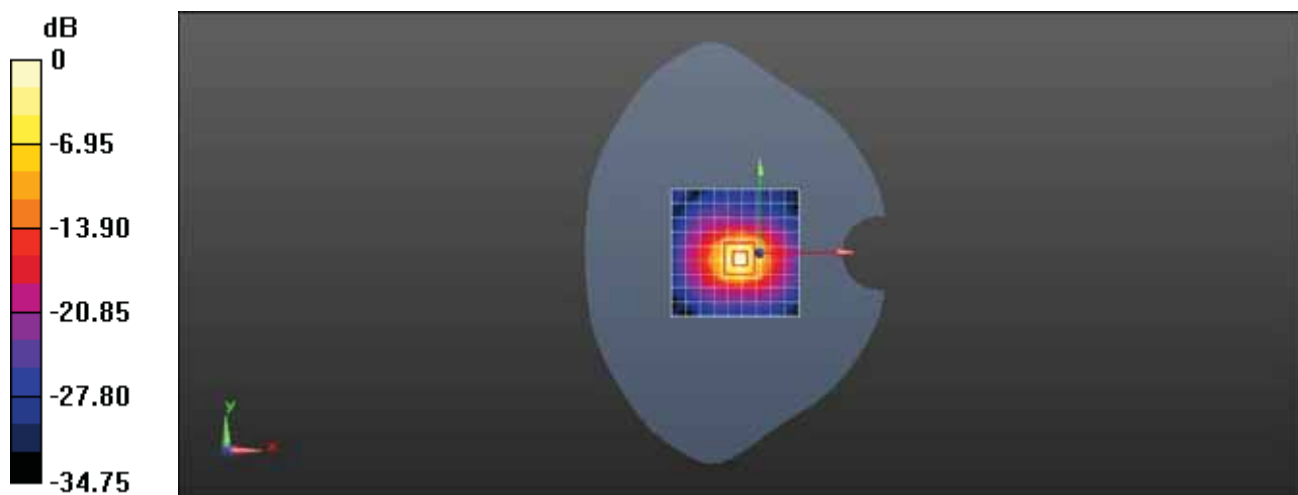
**System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5250 MHz/Zoom Scan (4x4x1.4mm, graded), dist=1.4mm (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 63.72 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 33.2 W/kg

**SAR(1 g) = 8.54 W/kg; SAR(10 g) = 2.45 W/kg**

Maximum value of SAR (measured) = 19.9 W/kg



0 dB = 19.5 W/kg = 12.90 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D5600-EX-Head

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1155**

Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1

Medium parameters used:  $f = 5600$  MHz;  $\sigma = 4.847$  S/m;  $\epsilon_r = 34.541$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN3736; ConvF(4.38, 4.38, 4.38) @ 5600 MHz; Calibrated: 2018-4-27
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 25.0$
- ε Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- ε Phantom: SAM1; Type: SAM; Serial: 1475
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm,  
Pin=100mW, f=5600 MHz/Area Scan (10x10x1):** Measurement grid: dx=10mm, dy=10mm  
Maximum value of SAR (measured) = 19.2 W/kg

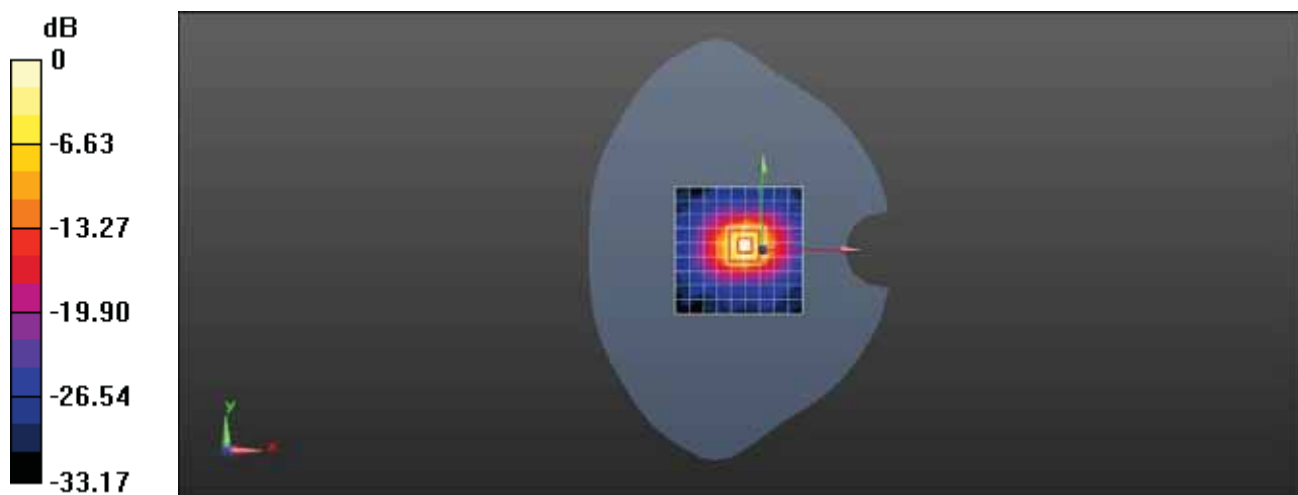
**System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm,  
Pin=100mW, f=5600 MHz/Zoom Scan (4x4x1.4mm, graded), dist=1.4mm  
(8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 60.95 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 32.2 W/kg

**SAR(1 g) = 7.97 W/kg; SAR(10 g) = 2.26 W/kg**

Maximum value of SAR (measured) = 18.8 W/kg



0 dB = 19.2 W/kg = 12.83 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D5750-EX-Head

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1155**

Communication System: UID 0, CW (0); Frequency: 5750 MHz;Duty Cycle: 1:1

Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.211$  S/m;  $\epsilon_r = 35.063$ ;  $\rho = 1000$  kg/m<sup>3</sup>

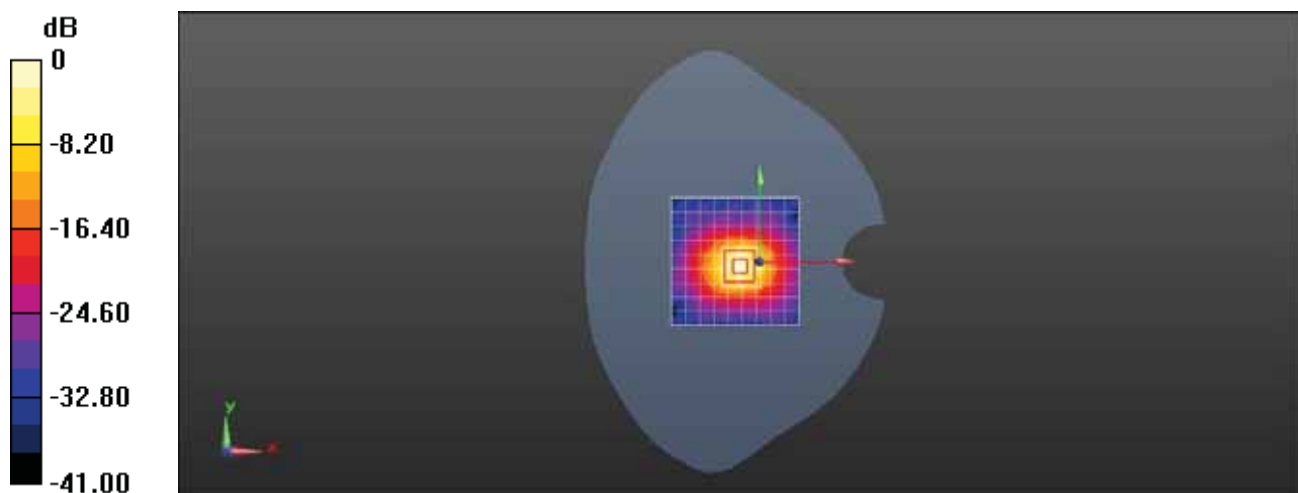
Phantom section: Flat Section

DASY Configuration:

- ι Probe: EX3DV4 - SN3736; ConvF(4.62, 4.62, 4.62) @ 5750 MHz; Calibrated: 2018-4-27
- ι Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 25.0$
- ι Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- ι Phantom: SAM1; Type: SAM; Serial: 1475
- ι DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5600 MHz/Area Scan (10x10x1):** Measurement grid: dx=10mm, dy=10mm  
Maximum value of SAR (measured) = 19.0 W/kg

**System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5600 MHz/Zoom Scan (4x4x1.4mm, graded), dist=1.4mm (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm  
Reference Value = 59.97 V/m; Power Drift = -0.08 dB  
Peak SAR (extrapolated) = 34.6 W/kg  
**SAR(1 g) = 8.17 W/kg; SAR(10 g) = 2.32 W/kg**  
Maximum value of SAR (measured) = 20.3 W/kg



0 dB = 19.0 W/kg = 12.79 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D750-EX-Body

**DUT: Dipole 750 MHz D750V3; Type: D750V3; Serial: D750V3 - SN:1044**

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.948$  S/m;  $\epsilon_r = 54.218$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7489; ConvF(11.1, 11.1, 11.1) @ 750 MHz; Calibrated: 2018-1-9
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn852; Calibrated: 2018-4-23
- ε Phantom: SAM4; Type: SAM; Serial: 1620
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=15mm, pin=250mW/Area Scan (6x13x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 2.54 W/kg

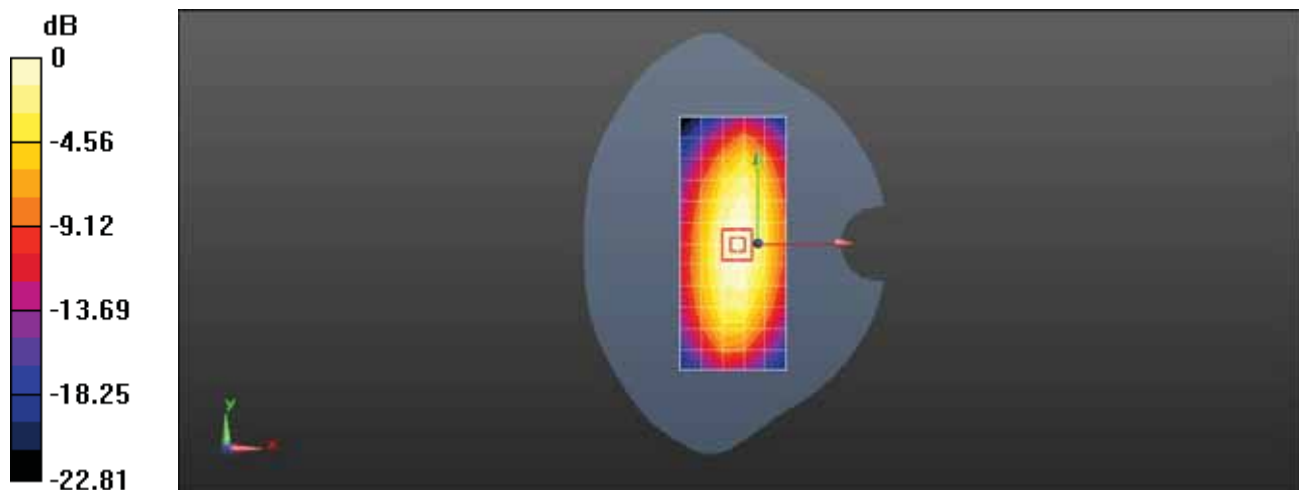
**Configuration/d=15mm, pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 55.24 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 2.99 W/kg

**SAR(1 g) = 2.06 W/kg; SAR(10 g) = 1.38 W/kg**

Maximum value of SAR (measured) = 2.69 W/kg



0 dB = 2.54 W/kg = 4.05 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D835-EX-Body

**DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2 - SN:4d059**

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.958 \text{ S/m}$ ;  $\epsilon_r = 53.661$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7489; ConvF(10.8, 10.8, 10.8) @ 835 MHz; Calibrated: 2018-1-9
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn852; Calibrated: 2018-4-23
- ε Phantom: SAM4; Type: SAM; Serial: 1620
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=15mm, Pin=250mW/Area Scan (6x13x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (measured) = 3.03 W/kg

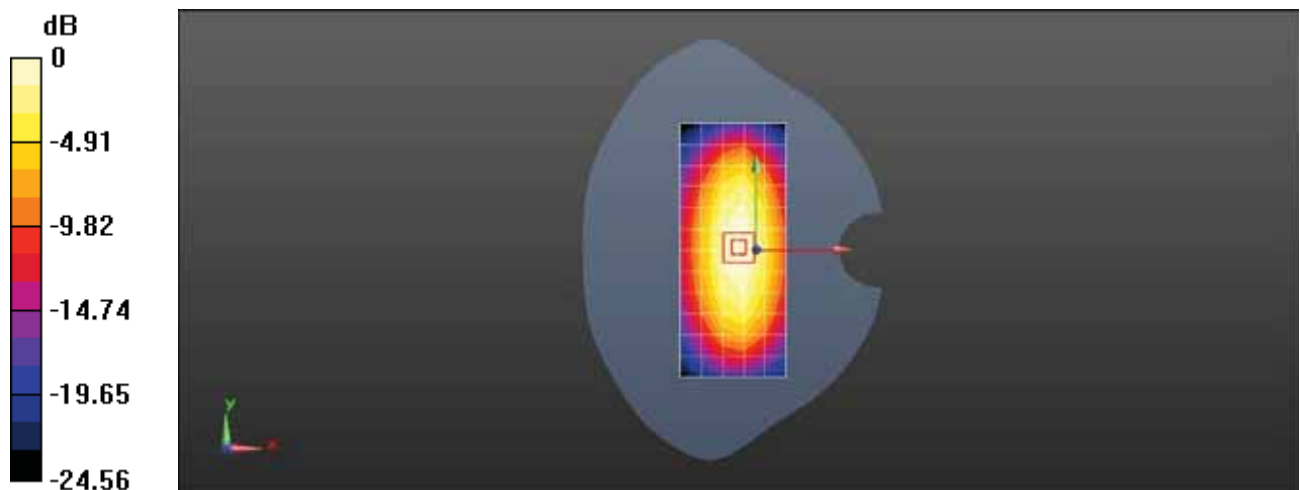
**Configuration/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 58.46 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 3.60 W/kg

**SAR(1 g) = 2.44 W/kg; SAR(10 g) = 1.61 W/kg**

Maximum value of SAR (measured) = 3.21 W/kg



0 dB = 3.03 W/kg = 4.81 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D835-EX-Body

**DUT: Dipole 835 MHz D835V2; Type: D835V2; Serial: D835V2 - SN:4d126**

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 835$  MHz;  $\sigma = 1.016$  S/m;  $\epsilon_r = 53.718$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7381; ConvF(10.37, 10.37, 10.37) @ 835 MHz; Calibrated: 2017-10-24
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1531; Calibrated: 2018-1-3
- Phantom: SAM8; Type: QD000P41AA; Serial: 1940
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=15mm, Pin=250mW/Area Scan (6x13x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 2.24 W/kg

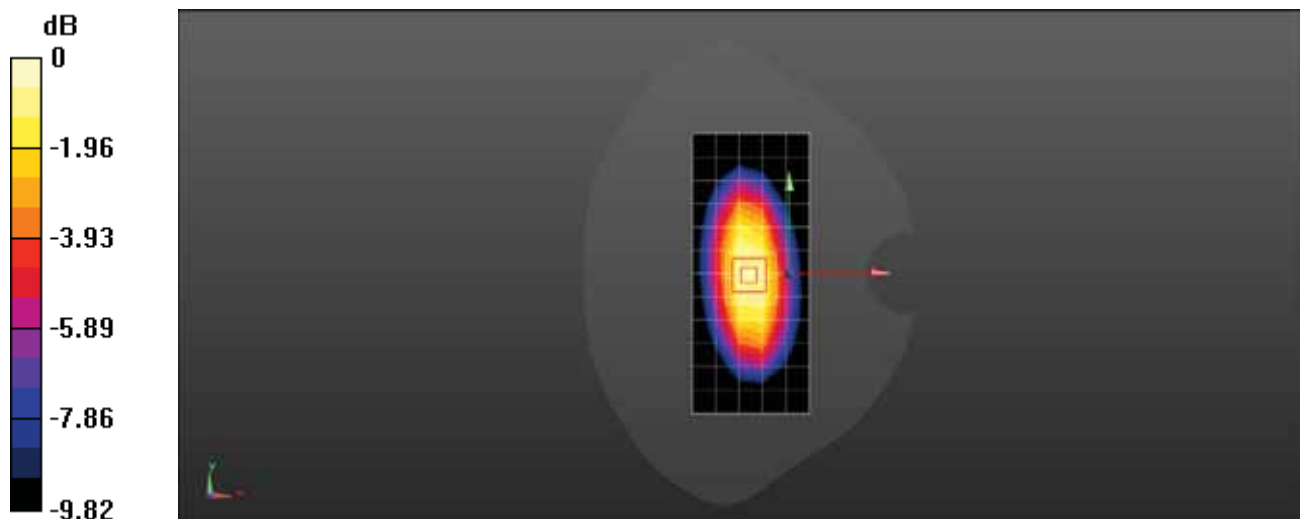
**Configuration/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 51.18 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 3.11 W/kg

**SAR(1 g) = 2.2 W/kg; SAR(10 g) = 1.48 W/kg**

Maximum value of SAR (measured) = 2.55 W/kg



0 dB = 2.55 W/kg = 4.07 dBW/kg



Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D1750-EX-Body

**DUT: Dipole 1750 MHz D1750V2; Type: D1750V2; Serial: D1750V2 - SN:1123**

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.489$  S/m;  $\epsilon_r = 54.155$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7489; ConvF(8.99, 8.99, 8.99) @ 1750 MHz; Calibrated: 2018-1-9
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn852; Calibrated: 2018-4-23
- ε Phantom: SAM4; Type: SAM; Serial: 1620
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm pin=250mW/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 10.3 W/kg

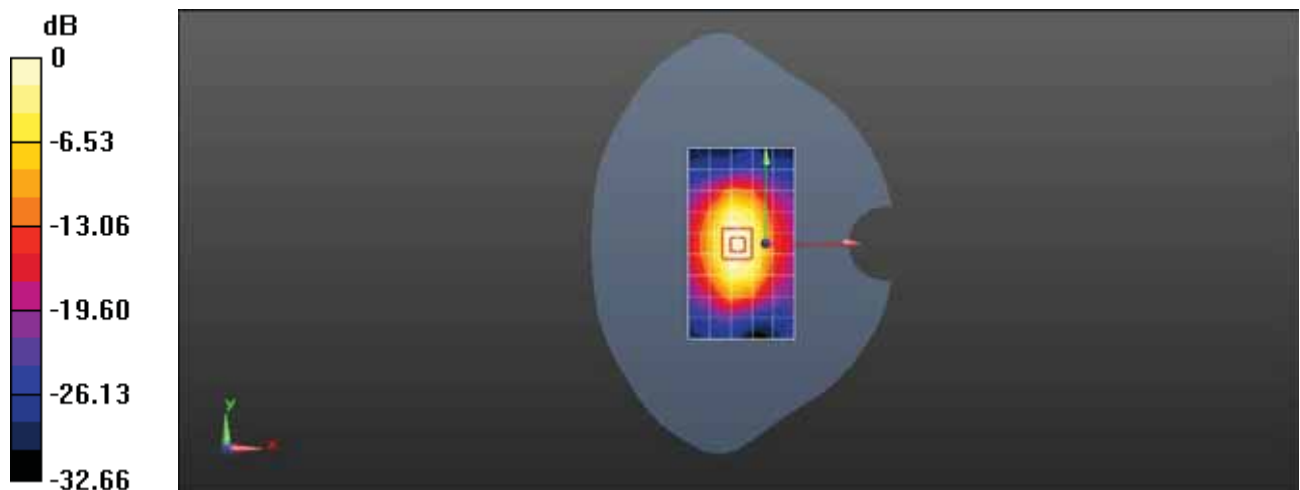
**Configuration/d=10mm pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 97.54 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 15.3 W/kg

**SAR(1 g) = 8.9 W/kg; SAR(10 g) = 4.79 W/kg**

Maximum value of SAR (measured) = 13.3 W/kg



0 dB = 10.3 W/kg = 10.13 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D1750-EX-Body

**DUT: Dipole 1750 MHz D1750V2; Type: D1750V2; Serial: D1750V2 - SN:1123**

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.52$  S/m;  $\epsilon_r = 53.948$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7489; ConvF(8.99, 8.99, 8.99) @ 1750 MHz; Calibrated: 2018-1-9
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn852; Calibrated: 2018-4-23
- ε Phantom: SAM4; Type: SAM; Serial: 1620
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm pin=250mW/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 10.6 W/kg

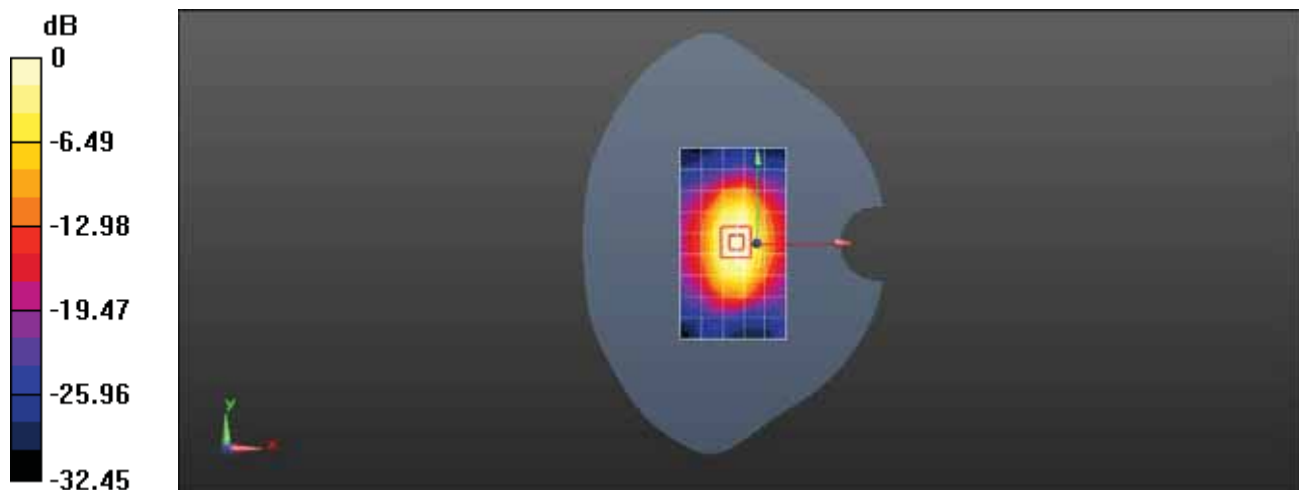
**Configuration/d=10mm pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 97.56 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 16.0 W/kg

**SAR(1 g) = 9.3 W/kg; SAR(10 g) = 5 W/kg**

Maximum value of SAR (measured) = 13.9 W/kg



0 dB = 10.6 W/kg = 10.25 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D1900-EX-Body

**DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d143**

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.58$  S/m;  $\epsilon_r = 51.656$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN3744; ConvF(7.6, 7.6, 7.6) @ 1900 MHz; Calibrated: 2018-7-25
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- ε Phantom: SAM2; Type: SAM; Serial: 1474
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm pin=250mW/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

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

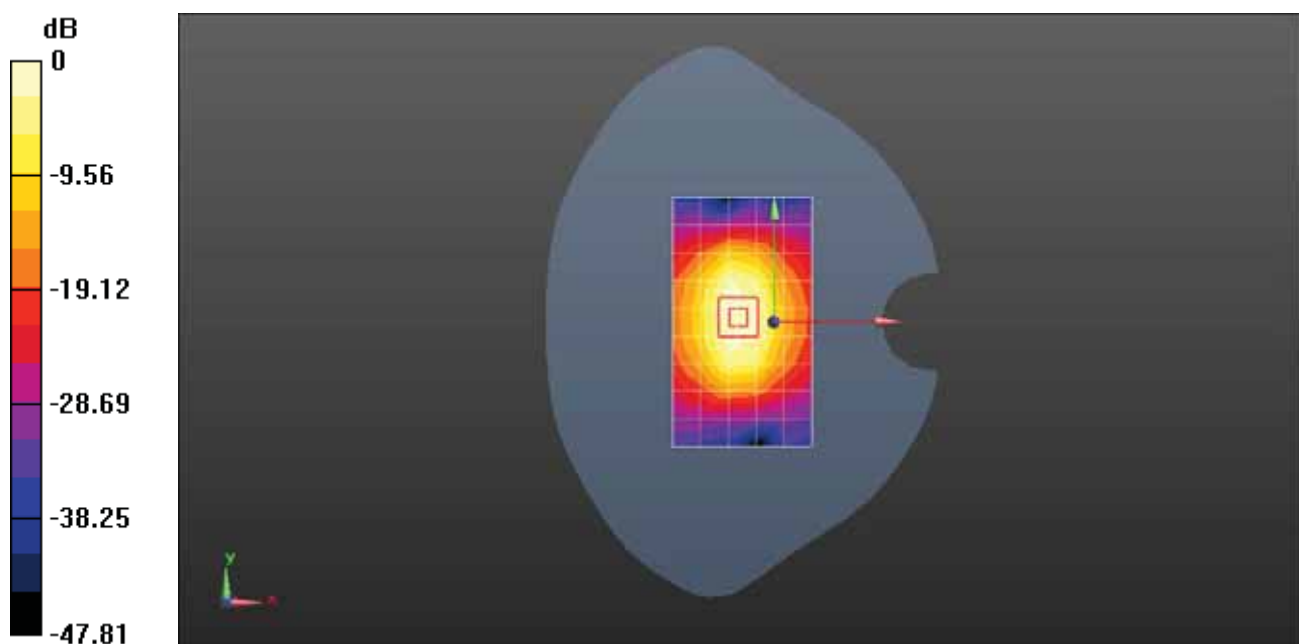
**Configuration/d=10mm pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 105.3 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 19.8 W/kg

**SAR(1 g) = 10.5 W/kg; SAR(10 g) = 5.36 W/kg**

Maximum value of SAR (measured) = 16.6 W/kg



0 dB = 13.2 W/kg = 11.21 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D1900-EX-Body

**DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d143**

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.573$  S/m;  $\epsilon_r = 51.138$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN3744; ConvF(7.6, 7.6, 7.6) @ 1900 MHz; Calibrated: 2018-7-25
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- ε Phantom: SAM2; Type: SAM; Serial: 1474
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm pin=250mW/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 12.7 W/kg

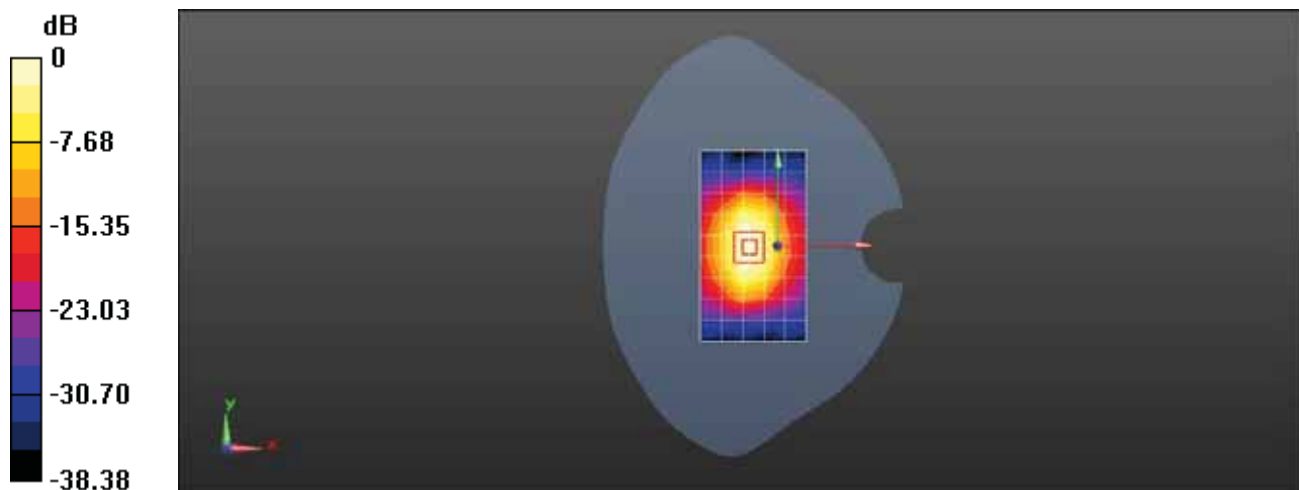
**Configuration/d=10mm pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 102.8 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 19.3 W/kg

**SAR(1 g) = 10.3 W/kg; SAR(10 g) = 5.29 W/kg**

Maximum value of SAR (measured) = 16.3 W/kg



0 dB = 12.7 W/kg = 11.04 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D2450-EX-Body

**DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:860**

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 2.022$  S/m;  $\epsilon_r = 51.218$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7489; ConvF(8.24, 8.24, 8.24) @ 2450 MHz; Calibrated: 2018-1-9
- ε Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn852; Calibrated: 2018-4-23
- ε Phantom: SAM4; Type: SAM; Serial: 1620
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm, Pin=250mW/Area Scan (6x11x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm

Maximum value of SAR (measured) = 14.2 W/kg

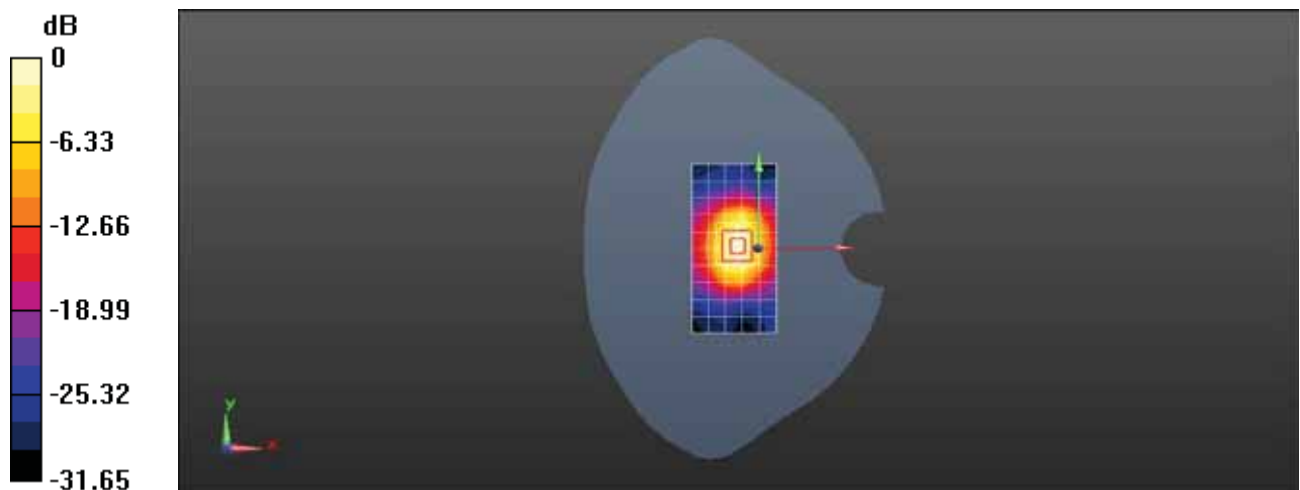
**Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 86.47 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 23.8 W/kg

**SAR(1 g) = 12 W/kg; SAR(10 g) = 5.64 W/kg**

Maximum value of SAR (measured) = 15.7 W/kg



0 dB = 14.2 W/kg = 11.52 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D2600-EX-Body

**DUT: Dipole 2600 MHz D2600V2; Type: D2600V2; Serial: D2600V2 - SN:1021**

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.21$  S/m;  $\epsilon_r = 51.012$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN3744; ConvF(7.35, 7.35, 7.35) @ 2600 MHz; Calibrated: 2018-7-25
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- ε Phantom: SAM2; Type: SAM; Serial: 1474
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm, Pin=250mW/Area Scan (8x11x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm

Maximum value of SAR (measured) = 23.3 W/kg

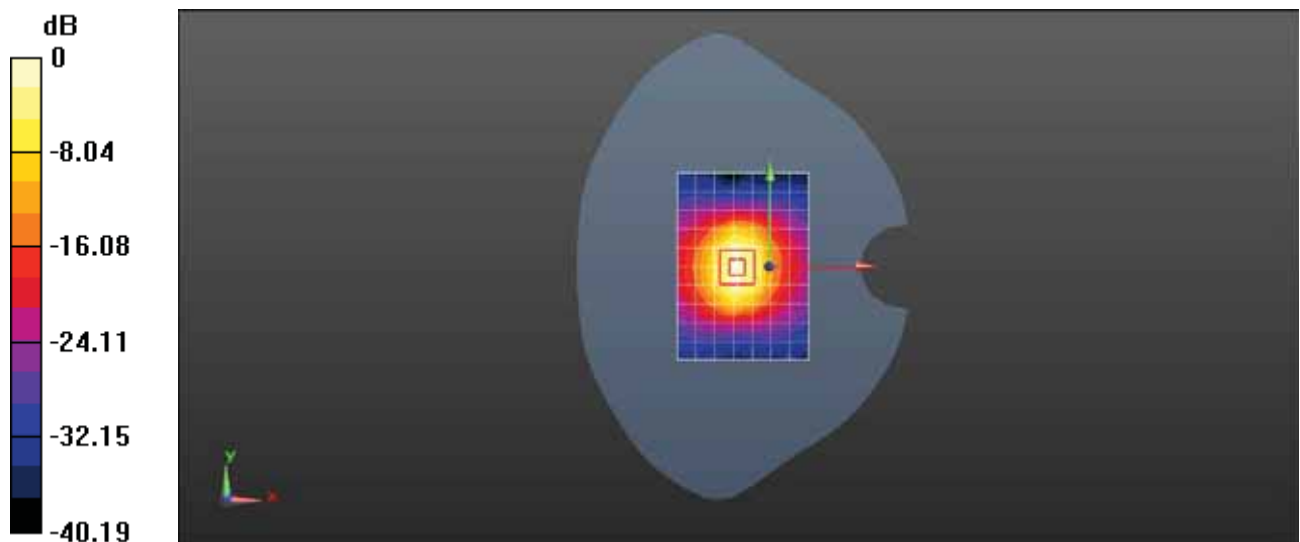
**Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 104.2 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 32.0 W/kg

**SAR(1 g) = 14.4 W/kg; SAR(10 g) = 6.35 W/kg**

Maximum value of SAR (measured) = 25.2 W/kg



0 dB = 23.3 W/kg = 13.67 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## System Performance Check-D5250-EX-Body

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1155**

Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 5250$  MHz;  $\sigma = 5.428$  S/m;  $\epsilon_r = 47.647$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN3736; ConvF(4.01, 4.01, 4.01) @ 5250 MHz; Calibrated: 2018-4-27
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 25.0$
- ε Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- ε Phantom: SAM2; Type: SAM; Serial: 1474
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5250 MHz/Area Scan (10x10x1):** Measurement grid: dx=10mm, dy=10mm  
Maximum value of SAR (measured) = 17.6 W/kg

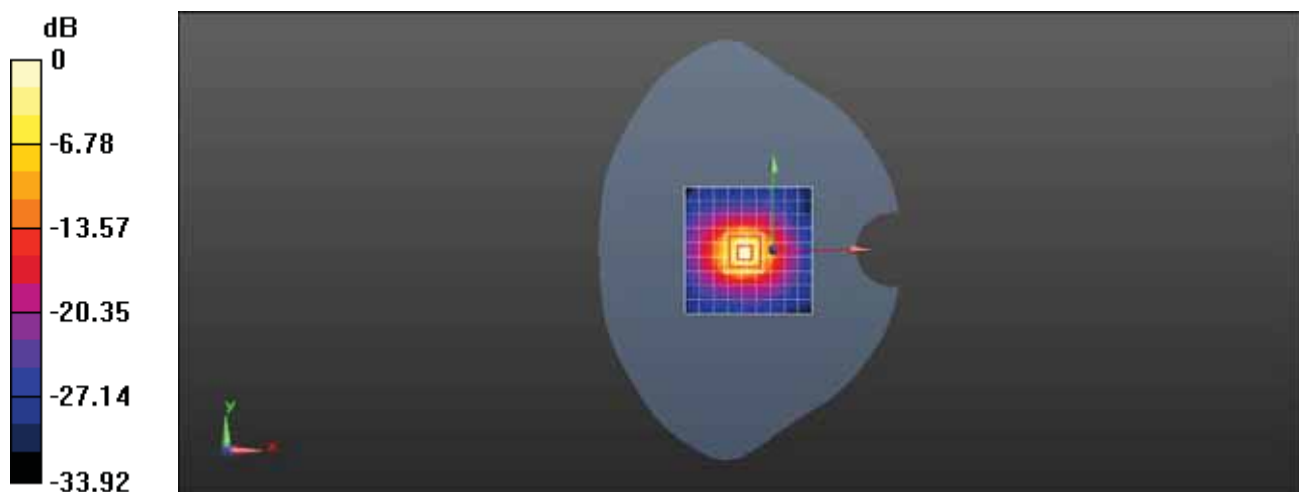
**System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5250 MHz/Zoom Scan (4x4x1.4mm, graded), dist=1.4mm (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 62.19 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 29.2 W/kg

**SAR(1 g) = 7.37 W/kg; SAR(10 g) = 2.07 W/kg**

Maximum value of SAR (measured) = 17.7 W/kg



0 dB = 17.6 W/kg = 12.46 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D5600-EX-Body

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1155**

Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1

Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.631$  S/m;  $\epsilon_r = 48.296$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ι Probe: EX3DV4 - SN3736; ConvF(3.58, 3.58, 3.58) @ 5600 MHz; Calibrated: 2018-4-27
- ι Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 25.0$
- ι Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- ι Phantom: SAM2; Type: SAM; Serial: 1474
- ι DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5600 MHz/Area Scan (10x10x1):** Measurement grid: dx=10mm, dy=10mm  
Maximum value of SAR (measured) = 14.4 W/kg

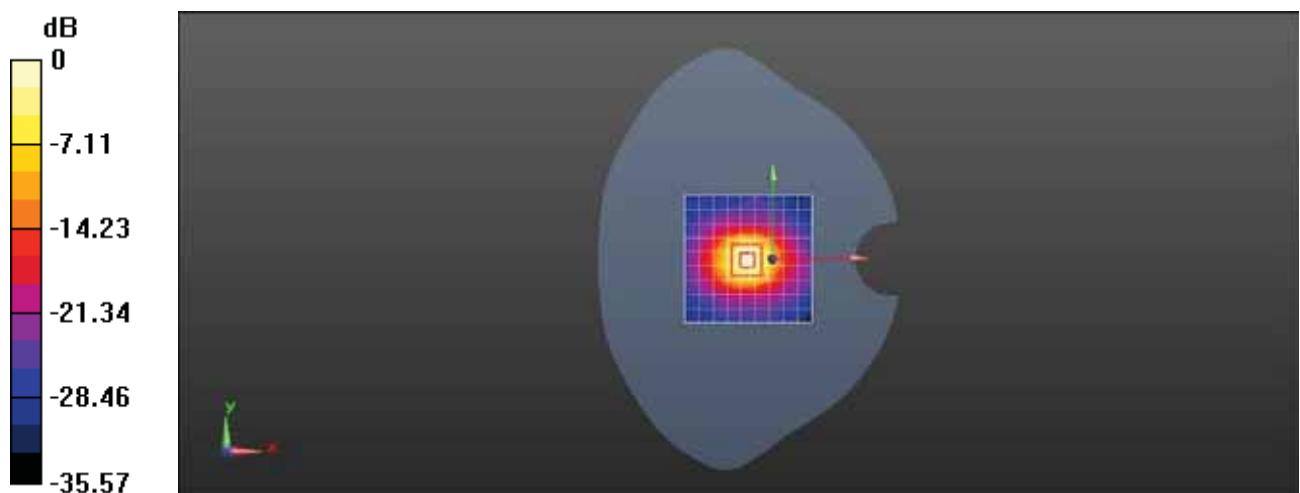
**System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5600 MHz/Zoom Scan (4x4x1.4mm, graded), dist=1.4mm (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 71.14 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 38.0 W/kg

**SAR(1 g) = 8.67 W/kg; SAR(10 g) = 2.39 W/kg**

Maximum value of SAR (measured) = 20.8 W/kg



0 dB = 14.4 W/kg = 11.58 dBW/kg



Test Laboratory: HUAWEI SAR/HAC Lab

## System Performance Check-D5750-EX-Body

**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1155**

Communication System: UID 0, CW (0); Frequency: 5750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 5750$  MHz;  $\sigma = 6.074$  S/m;  $\epsilon_r = 47.747$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN3736; ConvF(3.93, 3.93, 3.93) @ 5750 MHz; Calibrated: 2018-4-27
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 25.0$
- ε Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- ε Phantom: SAM2; Type: SAM; Serial: 1474
- ε DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5750 MHz/Area Scan (10x10x1):** Measurement grid: dx=10mm, dy=10mm  
Maximum value of SAR (measured) = 19.2 W/kg

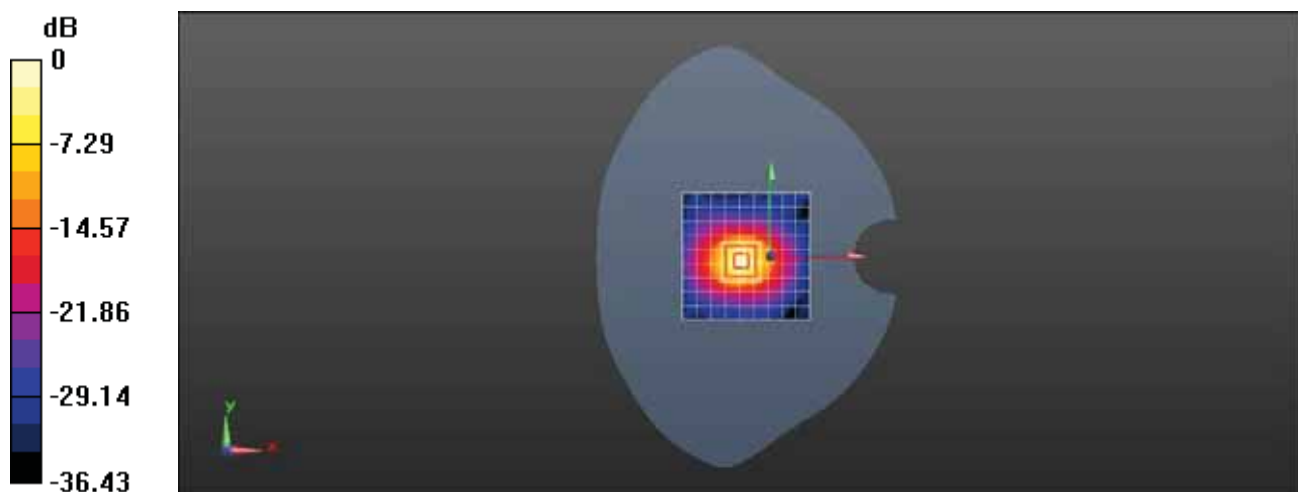
**System Performance Check with D5GHzV2 Dipole (graded grid)/d=10mm, Pin=100mW, f=5750 MHz/Zoom Scan (4x4x1.4mm, graded), dist=1.4mm (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 55.92 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 35.6 W/kg

**SAR(1 g) = 7.81 W/kg; SAR(10 g) = 2.15 W/kg**

Maximum value of SAR (measured) = 19.8 W/kg



0 dB = 19.2 W/kg = 12.83 dBW/kg



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### **System Validation**

Per FCC KDB 865664 D02, SAR system verification is required to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles are used with the required tissue-equivalent media for system validation, according to the procedures outlined in FCC KDB 865664 D01 and IEEE 1528-2013. Since SAR probe calibrations are frequency dependent, each probe calibration point must be validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media. A tabulated summary of the system validation status, measurement frequencies, SAR probes, calibrated signal type(s) and tissue dielectric parameters has been included.



Table of SAR System validation summary:

FREQ. [Mhz]	DATE	PROBE SN	PROBE TYPE	PROBE CAL POINT		PERM	COND	CW VALIDATION			MOD.VALIDATION		
						( $\epsilon_r$ )	( $\sigma$ )	SENSI-TIVITY	PROBE LINARITY	PROBE ISOTROPY	MOD. TYPE	DUTY. FACTORE	PAR
835	2018-8-22	3744	EX3DV4	835	Head	42.18	0.864	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2018-8-23	3744	EX3DV4	1750	Head	38.48	1.347	PASS	PASS	PASS	NA	NA	N/A
1900	2018-8-22	3744	EX3DV4	1900	Head	39.15	1.370	PASS	PASS	PASS	GMSK	PASS	N/A
2450	2018-8-27	3744	EX3DV4	2450	Head	38.14	1.759	PASS	PASS	PASS	OFDM	PASS	PASS
2600	2018-8-24	3744	EX3DV4	2600	Head	40.31	1.903	PASS	PASS	PASS	TDD	PASS	N/A
5250	2018-8-27	3744	EX3DV4	5250	Head	35.43	4.889	PASS	PASS	PASS	OFDM	N/A	PASS
835	2018-8-22	3744	EX3DV4	835	Head	53.71	0.994	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2018-8-22	3744	EX3DV4	1750	Body	54.25	1.493	PASS	PASS	PASS	N/A	N/A	N/A
1900	2018-8-26	3744	EX3DV4	1900	Body	51.14	1.573	PASS	PASS	PASS	GMSK	PASS	N/A
2450	2018-8-27	3744	EX3DV4	2450	Body	50.95	1.941	PASS	PASS	PASS	OFDM	PASS	PASS
2600	2018-8-24	3744	EX3DV4	2600	Body	50.15	2.160	PASS	PASS	PASS	TDD	PASS	N/A
5750	2018-8-27	3744	EX3DV4	5750	Body	46.75	5.818	PASS	PASS	PASS	OFDM	N/A	PASS



Table of SAR System validation summary:

FREQ.	DATE	PROBE SN	PROBE TYPE	PROBE CAL POINT		PERM	CON D	CW VALIDATION			MOD.VALIDATION		
[Mhz]						( $\epsilon_r$ )	( $\sigma$ )	SENSI-TIVI TY	PROBE LINARITY	PROBE ISOTROPY	MOD. TYPE	DUTY. FACTORE	PAR
835	2017/12/7	3736	EX3DV4	835	Head	41.88	0.897	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2017/12/7	3736	EX3DV4	1750	Head	39.92	1.382	PASS	PASS	PASS	NA	NA	N/A
1900	2017/12/7	3736	EX3DV4	1900	Head	39.64	1.446	PASS	PASS	PASS	GMSK	PASS	N/A
2450	2017/12/7	3736	EX3DV4	2450	Head	38.85	1.859	PASS	PASS	PASS	OFDM	PASS	PASS
2600	2017/12/7	3736	EX3DV4	2600	Head	38.56	1.976	PASS	PASS	PASS	TDD	PASS	N/A
5250	2017/12/7	3736	EX3DV4	5250	Head	34.52	4.528	PASS	PASS	PASS	OFDM	N/A	PASS
5600	2017/12/7	3736	EX3DV4	5600	Head	33.89	4.905	PASS	PASS	PASS	OFDM	N/A	PASS
5750	2017/12/7	3736	EX3DV4	5750	Head	33.63	5.077	PASS	PASS	PASS	OFDM	N/A	PASS
835	2017/12/7	3736	EX3DV4	835	Body	56.40	0.971	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2017/12/7	3736	EX3DV4	1750	Body	54.73	1.476	PASS	PASS	PASS	N/A	N/A	N/A
1900	2017/12/7	3736	EX3DV4	1900	Body	54.49	1.568	PASS	PASS	PASS	GMSK	PASS	N/A
2450	2017/12/7	3736	EX3DV4	2450	Body	53.72	2.061	PASS	PASS	PASS	OFDM	PASS	PASS
2600	2017/12/7	3736	EX3DV4	2600	Body	53.42	2.205	PASS	PASS	PASS	TDD	PASS	N/A
5250	2017/12/7	3736	EX3DV4	5250	Body	48.26	5.490	PASS	PASS	PASS	OFDM	N/A	PASS
5600	2017/12/7	3736	EX3DV4	5600	Body	47.58	5.993	PASS	PASS	PASS	OFDM	N/A	PASS
5750	2017/12/7	3736	EX3DV4	5750	Body	47.31	6.226	PASS	PASS	PASS	OFDM	N/A	PASS



FREQ.	DATE	PROBE SN	PROBE TYPE	PROBE CAL POINT		PERM	COND	CW VALIDATION			MOD.VALIDATION		
						( $\epsilon_r$ )	( $\sigma$ )	SENSI-TIVITY	PROBE LINARITY	PROBE ISOTROPY	MOD. TYPE	DUTY. FACTORE	PAR
750	2018/02/08	7489	EX3DV4	750	Head	41.04	0.874	PASS	PASS	PASS	N/A	N/A	N/A
835	2018/02/08	7489	EX3DV4	835	Head	40.80	0.902	PASS	PASS	PASS	GMSK	PASS	N/A
900	2018/02/08	7489	EX3DV4	900	Head	38.87	1.313	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2018/02/08	7489	EX3DV4	1750	Head	38.87	1.313	PASS	PASS	PASS	NA	NA	N/A
1900	2018/02/08	7489	EX3DV4	1900	Head	38.67	1.410	PASS	PASS	PASS	GMSK	PASS	N/A
2000	2018/02/08	7489	EX3DV4	2000	Head	38.51	1.469	PASS	PASS	PASS	N/A	N/A	N/A
2300	2018/02/08	7489	EX3DV4	2300	Head	38.11	1.672	PASS	PASS	PASS	N/A	N/A	N/A
2450	2018/02/08	7489	EX3DV4	2450	Head	37.91	1.785	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
2600	2018/02/08	7489	EX3DV4	2600	Head	37.75	1.905	PASS	PASS	PASS	TDD	PASS	N/A
5250	2018/02/08	7489	EX3DV4	5250	Head	35.52	4.674	PASS	PASS	PASS	OFDM	PASS	N/A
5600	2018/02/08	7489	EX3DV4	5600	Head	34.89	5.071	PASS	PASS	PASS	OFDM	PASS	N/A
5750	2018/02/08	7489	EX3DV4	5750	Head	34.64	5.237	PASS	PASS	PASS	OFDM	PASS	N/A
750	2018/02/08	7489	EX3DV4	750	Body	55.56	0.942	PASS	PASS	PASS	N/A	N/A	N/A
835	2018/02/08	7489	EX3DV4	835	Body	55.35	0.974	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2018/02/08	7489	EX3DV4	1750	Body	53.56	1.454	PASS	PASS	PASS	N/A	N/A	N/A
1900	2018/02/08	7489	EX3DV4	1900	Body	53.38	1.574	PASS	PASS	PASS	GMSK	PASS	N/A
2300	2018/02/08	7489	EX3DV4	2300	Body	52.84	1.893	PASS	PASS	PASS	N/A	N/A	N/A
2450	2018/02/08	7489	EX3DV4	2450	Body	52.63	2.032	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
2600	2018/02/08	7489	EX3DV4	2600	Body	52.46	2.178	PASS	PASS	PASS	TDD	PASS	N/A
5250	2018/02/08	7489	EX3DV4	5250	Body	47.45	5.479	PASS	PASS	PASS	OFDM	PASS	N/A
5600	2018/02/08	7489	EX3DV4	5600	Body	46.74	5.984	PASS	PASS	PASS	OFDM	PASS	N/A
5750	2018/02/08	7489	EX3DV4	5750	Body	46.44	6.210	PASS	PASS	PASS	OFDM	PASS	N/A



FREQ.	DATE	PROBE SN	PROBE TYPE	PROBE CAL POINT		PERM	CON D	CW VALIDATION			MOD.VALIDATION		
[Mhz]						( $\epsilon_r$ )	( $\sigma$ )	SENSI-TIVI TY	PROBE LINARITY	PROBE ISOTROPY	MOD. TYPE	DUTY. FACTORE	PAR
835	2017/11/24	7381	EX3DV4	835	Head	42.28	0.930	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2017/11/25	7381	EX3DV4	1750	Head	40.24	1.301	PASS	PASS	PASS	NA	NA	N/A
1900	2017/11/23	7381	EX3DV4	1900	Head	40.34	1.367	PASS	PASS	PASS	GMSK	PASS	N/A
2450	2017/11/25	7381	EX3DV4	2450	Head	39.03	1.845	PASS	PASS	PASS	OFDM	PASS	PASS
2600	2017/11/21	7381	EX3DV4	2600	Head	39.56	1.855	PASS	PASS	PASS	TDD	PASS	N/A
5250	2017/12/03	7381	EX3DV4	5250	Head	35.86	4.676	PASS	PASS	PASS	OFDM	N/A	PASS
5600	2017/12/07	7381	EX3DV4	5600	Head	35.79	4.914	PASS	PASS	PASS	OFDM	N/A	PASS
5750	2017/12/06	7381	EX3DV4	5750	Head	35.32	5.269	PASS	PASS	PASS	OFDM	N/A	PASS
835	2017/11/19	7381	EX3DV4	835	Body	53.63	0.984	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2017/11/26	7381	EX3DV4	1750	Body	51.56	1.422	PASS	PASS	PASS	N/A	N/A	N/A
1900	2017/11/24	7381	EX3DV4	1900	Body	52.95	1.565	PASS	PASS	PASS	GMSK	PASS	N/A
2450	2017/11/27	7381	EX3DV4	2450	Body	51.54	1.875	PASS	PASS	PASS	OFDM	PASS	PASS
2600	2017/11/22	7381	EX3DV4	2600	Body	50.94	2.202	PASS	PASS	PASS	TDD	PASS	N/A
5250	2017/12/03	7381	EX3DV4	5250	Body	47.55	5.358	PASS	PASS	PASS	OFDM	N/A	PASS
5600	2017/12/09	7381	EX3DV4	5600	Body	47.34	5.911	PASS	PASS	PASS	OFDM	N/A	PASS
5750	2017/12/06	7381	EX3DV4	5750	Body	47.43	5.978	PASS	PASS	PASS	OFDM	N/A	PASS



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NOTE: While the probes have been calibrated for both CW and modulated signals, all measurements were performed using communication systems calibrated for CW signals only. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664D01 for scenarios when CW probe calibrations are used with other signal types. SAR systems were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio ( $>5\text{dB}$ ), such as OFDM according to KDB 865664.