

Appendix No.: SYBH(Z-SAR)20180207022001-2A

## Appendix A. System Check Plots

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Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D835-ES-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;  $\sigma = 0.891$  S/m;  $\varepsilon_r = 40.34$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

#### DASY Configuration:

- ¿ Probe: ES3DV3 SN3168; ConvF(6.55, 6.55, 6.55); Calibrated: 2017-9-28;
- $\stackrel{\cdot}{\epsilon}$  Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- ¿ Electronics: DAE4 Sn852; Calibrated: 2017-4-27
- ¿ Phantom: SAM3; Type: SAM; Serial: TP-1597
- ¿ DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

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

Maximum value of SAR (measured) = 2.52 W/kg

#### Configuration/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

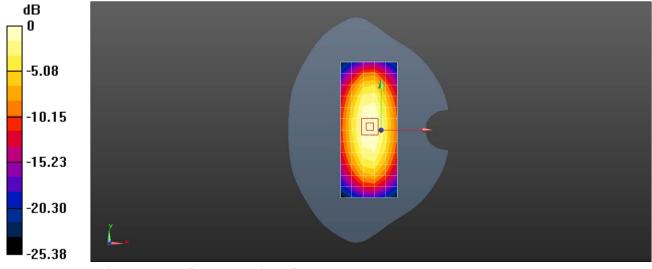
dx=8mm, dy=8mm, dz=5mm

Reference Value = 56.69 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 3.58 W/kg

SAR(1 g) = 2.4 W/kg; SAR(10 g) = 1.57 W/kg

Maximum value of SAR (measured) = 2.82 W/kg



0 dB = 2.52 W/kg = 4.01 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D1750-ES-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;  $\sigma = 1.378$  S/m;  $\varepsilon_r = 41.344$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

#### DASY Configuration:

- ¿ Probe: ES3DV3 SN3168; ConvF(5.54, 5.54, 5.54); Calibrated: 2017-9-28;
- $\geq$  Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- ¿ Electronics: DAE4 Sn852; Calibrated: 2017-4-27
- ¿ Phantom: SAM3; Type: SAM; Serial: TP-1597
- ¿ DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

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

Maximum value of SAR (measured) = 8.70 W/kg

#### Configuration/d=10mm pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

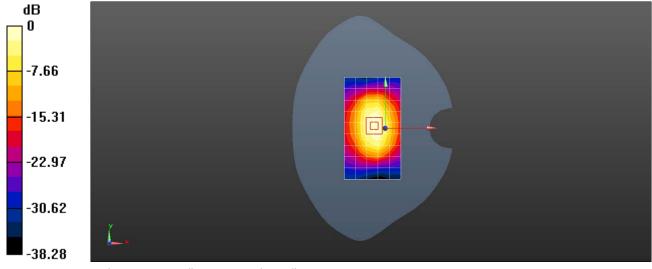
dx=8mm, dy=8mm, dz=5mm

Reference Value = 82.06 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 15.2 W/kg

SAR(1 g) = 8.55 W/kg; SAR(10 g) = 4.56 W/kg

Maximum value of SAR (measured) = 10.7 W/kg



0 dB = 8.70 W/kg = 9.40 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 (interpolated): f = 1900 MHz;  $\sigma = 1.438 \text{ S/m}$ ;  $\varepsilon_r = 38.805$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

#### DASY Configuration:

- ε Probe: EX3DV4 SN3736; ConvF(7.73, 7.73, 7.73); Calibrated: 2017-4-27;
- ¿ Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- ¿ Electronics: DAE4 Sn1236; Calibrated: 2017-7-21
- ¿ Phantom: SAM1; Type: SAM; Serial: TP-1475
- ¿ DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

## Configuration/d=10mm, Pin=250mW/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 15.0 W/kg

#### Configuration/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm

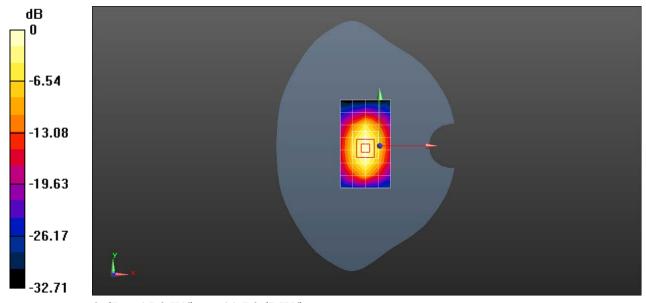
Reference Value = 105.6 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 17.9 W/kg

SAR(1 g) = 9.64 W/kg; SAR(10 g) = 5 W/kg

#### Info: Interpolated medium parameters used for SAR evaluation.

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



0 dB = 15.0 W/kg = 11.76 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 (interpolated): f = 1900 MHz;  $\sigma = 1.449 \text{ S/m}$ ;  $\varepsilon_r = 39.563$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

#### DASY Configuration:

- ¿ Probe: EX3DV4 SN3736; ConvF(7.73, 7.73, 7.73); Calibrated: 2017-4-27;
- $\geq$  Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- ¿ Electronics: DAE4 Sn1236; Calibrated: 2017-7-21
- ¿ Phantom: SAM1; Type: SAM; Serial: TP-1475
- ¿ DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

## Configuration/d=10mm, Pin=250mW/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 17.1 W/kg

#### Configuration/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm

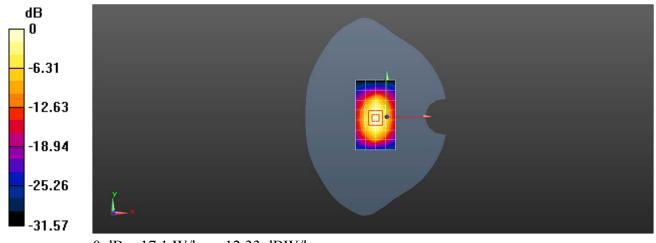
Reference Value = 113.2 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 20.4 W/kg

SAR(1 g) = 10.7 W/kg; SAR(10 g) = 5.63 W/kg

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 16.8 W/kg



0 dB = 17.1 W/kg = 12.33 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;  $\varepsilon_r = 39.726$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

#### DASY Configuration:

¿ Probe: EX3DV4 - SN3744; ConvF(8, 8, 8); Calibrated: 2017-7-24;

 $\geq$  Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0

¿ Electronics: DAE4 Sn905; Calibrated: 2017-6-20

¿ Phantom: SAM1; Type: SAM; Serial: TP-1475

¿ DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

# Configuration/d=10mm, Pin=250mW/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 14.4 W/kg

#### Configuration/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

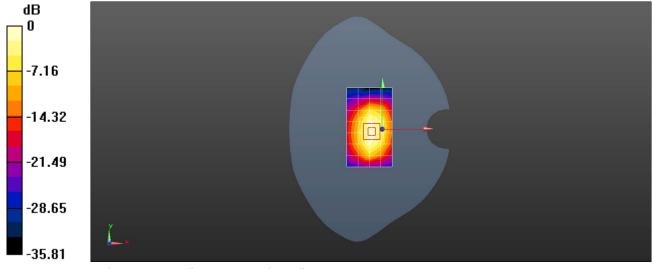
dx=8mm, dy=8mm, dz=5mm

Reference Value = 104.9 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 18.7 W/kg

SAR(1 g) = 10.1 W/kg; SAR(10 g) = 5.23 W/kg

Maximum value of SAR (measured) = 15.6 W/kg



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

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D2450-ES-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;  $\sigma = 1.86 \text{ S/m}$ ;  $\varepsilon_r = 40.135$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

#### DASY Configuration:

- ¿ Probe: ES3DV3 SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2017-9-28;
- $\geq$  Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- ε Electronics: DAE4 Sn852; Calibrated: 2017-4-27
- ¿ Phantom: SAM3; Type: SAM; Serial: TP-1597
- ¿ DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

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

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

### Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid:

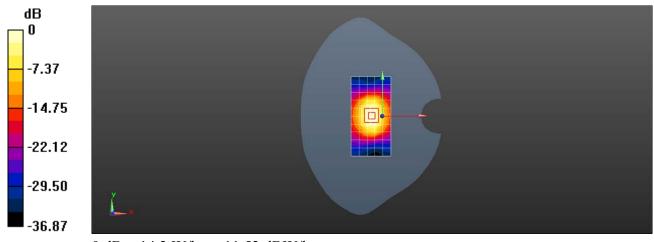
dx=5mm, dy=5mm, dz=5mm

Reference Value = 101.5 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 25.5 W/kg

SAR(1 g) = 12.6 W/kg; SAR(10 g) = 5.86 W/kg

Maximum value of SAR (measured) = 16.5 W/kg



0 dB = 14.2 W/kg = 11.52 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;  $\sigma = 1.804 \text{ S/m}$ ;  $\varepsilon_r = 40.155$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

#### DASY Configuration:

- ¿ Probe: EX3DV4 SN3898; ConvF(7.55, 7.55, 7.55); Calibrated: 2017-6-27;
- $\geq$  Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- ¿ Electronics: DAE4 Sn1236; Calibrated: 2017-7-21
- ¿ Phantom: SAM3; Type: SAM; Serial: TP-1597
- ¿ DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

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

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

### Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid:

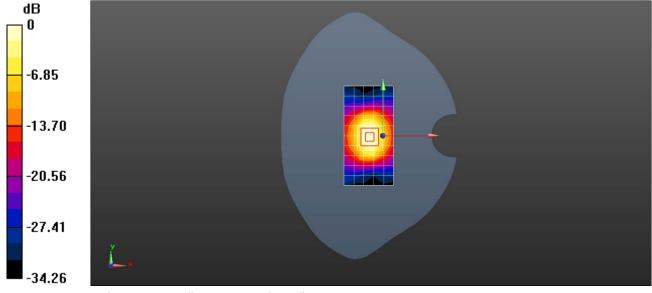
dx=5mm, dy=5mm, dz=5mm

Reference Value = 98.66 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 27.6 W/kg

SAR(1 g) = 13.1 W/kg; SAR(10 g) = 6.03 W/kg

Maximum value of SAR (measured) = 17.4 W/kg



0 dB = 13.9 W/kg = 11.43 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;  $\sigma = 1.952 \text{ S/m}$ ;  $\varepsilon_r = 38.376$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

#### DASY Configuration:

- ¿ Probe: EX3DV4 SN3736; ConvF(7.01, 7.01, 7.01); Calibrated: 2017-4-27;
- $\geq$  Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- ¿ Electronics: DAE4 Sn1236; Calibrated: 2017-7-21
- ¿ Phantom: SAM1; Type: SAM; Serial: TP-1475
- ¿ DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

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

Maximum value of SAR (measured) = 22.9 W/kg

#### Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid:

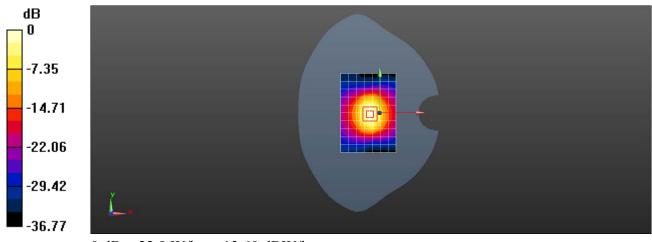
dx=5mm, dy=5mm, dz=5mm

Reference Value = 116.3 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 33.2 W/kg

SAR(1 g) = 15.3 W/kg; SAR(10 g) = 6.88 W/kg

Maximum value of SAR (measured) = 26.0 W/kg



0 dB = 22.9 W/kg = 13.60 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D835-ES-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 MHz;  $\sigma = 0.944$  S/m;  $\varepsilon_r = 54.395$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

#### DASY Configuration:

- ¿ Probe: ES3DV3 SN3168; ConvF(6.27, 6.27, 6.27); Calibrated: 2017-9-28;
- $\stackrel{\cdot}{\epsilon}$  Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- ε Electronics: DAE4 Sn852; Calibrated: 2017-4-27
- ¿ Phantom: SAM4; Type: SAM; Serial: TP-1620
- ¿ DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

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

Maximum value of SAR (measured) = 3.06 W/kg

#### Configuration/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

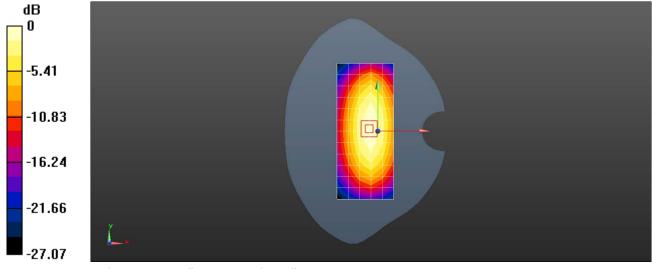
dx=8mm, dy=8mm, dz=5mm

Reference Value = 56.89 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 3.20 W/kg

SAR(1 g) = 2.33 W/kg; SAR(10 g) = 1.63 W/kg

Maximum value of SAR (measured) = 2.65 W/kg



0 dB = 3.06 W/kg = 4.86 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D835-ES-Body

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

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1 Medium parameters used: f = 835 MHz;  $\sigma = 1.012$  S/m;  $\varepsilon_r = 56.286$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

#### DASY Configuration:

- ¿ Probe: ES3DV3 SN3168; ConvF(6.27, 6.27, 6.27); Calibrated: 2017-9-28;
- $\geq$  Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- ε Electronics: DAE4 Sn852; Calibrated: 2017-4-27
- ¿ Phantom: SAM4; Type: SAM; Serial: TP-1620
- ¿ DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

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

Maximum value of SAR (measured) = 2.80 W/kg

#### Configuration/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

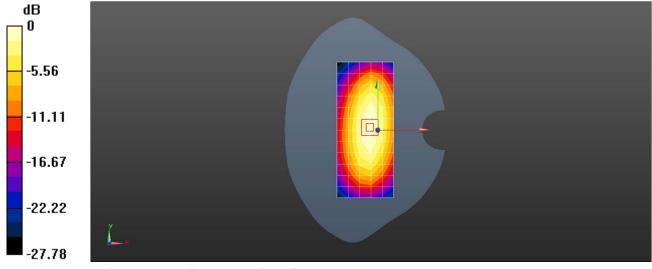
dx=8mm, dy=8mm, dz=5mm

Reference Value = 51.75 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 3.20 W/kg

SAR(1 g) = 2.36 W/kg; SAR(10 g) = 1.64 W/kg

Maximum value of SAR (measured) = 2.70 W/kg



0 dB = 2.80 W/kg = 4.47 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D1750-ES-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;  $\sigma = 1.47$  S/m;  $\varepsilon_r = 53.252$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

#### DASY Configuration:

- ¿ Probe: ES3DV3 SN3168; ConvF(5.18, 5.18, 5.18); Calibrated: 2017-9-28;
- $\geq$  Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- ε Electronics: DAE4 Sn852; Calibrated: 2017-4-27
- ¿ Phantom: SAM4; Type: SAM; Serial: TP-1620
- ¿ DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

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

Maximum value of SAR (measured) = 10.0 W/kg

### Configuration/d=10mm pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

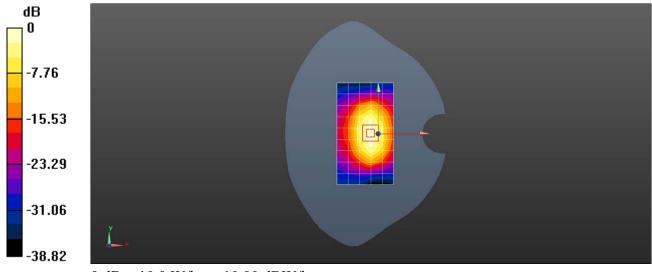
dx=8mm, dy=8mm, dz=5mm

Reference Value = 72.81 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 14.2 W/kg

SAR(1 g) = 8.95 W/kg; SAR(10 g) = 5.15 W/kg

Maximum value of SAR (measured) = 10.9 W/kg



0 dB = 10.0 W/kg = 10.00 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D1900-EX-Body

### DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d091

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1 Medium parameters used: f = 1900 MHz;  $\sigma = 1.468$  S/m;  $\varepsilon_r = 51.618$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

#### DASY Configuration:

- ¿ Probe: EX3DV4 SN3744; ConvF(7.7, 7.7, 7.7); Calibrated: 2017-7-24;
- $\geq$  Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- ¿ Electronics: DAE4 Sn1236; Calibrated: 2017-7-21
- ¿ Phantom: SAM2; Type: SAM; Serial: TP:1474
- ¿ DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

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

Maximum value of SAR (measured) = 11.0 W/kg

#### Configuration/d=10mm pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

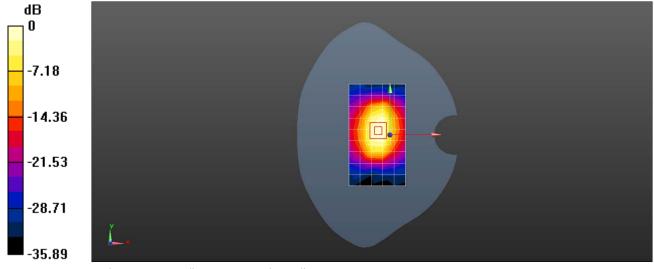
dx=8mm, dy=8mm, dz=5mm

Reference Value = 101.2 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 17.6 W/kg

SAR(1 g) = 9.54 W/kg; SAR(10 g) = 4.89 W/kg

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



0 dB = 11.0 W/kg = 10.41 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;  $\sigma = 1.499$  S/m;  $\epsilon_r = 51.182$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

#### DASY Configuration:

- ¿ Probe: EX3DV4 SN3744; ConvF(7.7, 7.7, 7.7); Calibrated: 2017-7-24;
- $\geq$  Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- ¿ Electronics: DAE4 Sn905; Calibrated: 2017-6-20
- ¿ Phantom: SAM2; Type: SAM; Serial: TP:1474
- ε DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

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

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

### Configuration/d=10mm pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

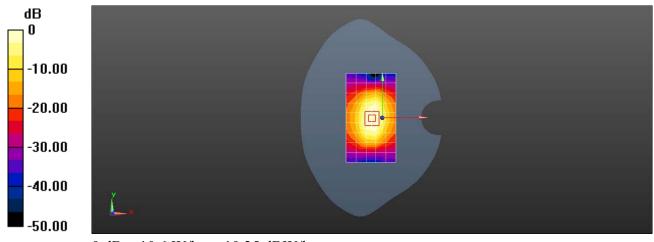
dx=8mm, dy=8mm, dz=5mm

Reference Value = 107.1 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 20.1 W/kg

SAR(1 g) = 10.1 W/kg; SAR(10 g) = 5.06 W/kg

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



0 dB = 10.6 W/kg = 10.25 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;  $\sigma = 1.866 \text{ S/m}$ ;  $\varepsilon_r = 54.236$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

#### DASY Configuration:

- ¿ Probe: ES3DV3 SN3168; ConvF(4.59, 4.59, 4.59); Calibrated: 2017-9-28;
- $\geq$  Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- ε Electronics: DAE4 Sn852; Calibrated: 2017-4-27
- ¿ Phantom: SAM4; Type: SAM; Serial: TP-1620
- ¿ DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

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

Maximum value of SAR (measured) = 14.4 W/kg

### Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid:

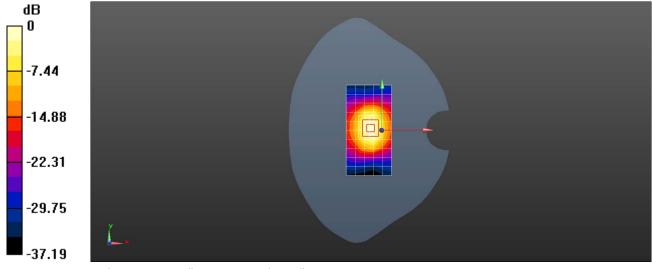
dx=5mm, dy=5mm, dz=5mm

Reference Value = 94.37 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 24.6 W/kg

SAR(1 g) = 12.9 W/kg; SAR(10 g) = 6.38 W/kg

Maximum value of SAR (measured) = 16.4 W/kg



0 dB = 14.4 W/kg = 11.58 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;  $\sigma = 2.094 \text{ S/m}$ ;  $\varepsilon_r = 52.807$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

#### DASY Configuration:

- ¿ Probe: EX3DV4 SN7489; ConvF(7.91, 7.91, 7.91); Calibrated: 2018-1-9;
- $\geq$  Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- ¿ Electronics: DAE4 Sn905; Calibrated: 2017-6-20
- ¿ Phantom: SAM2; Type: SAM; Serial: TP:1474
- ¿ DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

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

Maximum value of SAR (measured) = 20.6 W/kg

#### Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid:

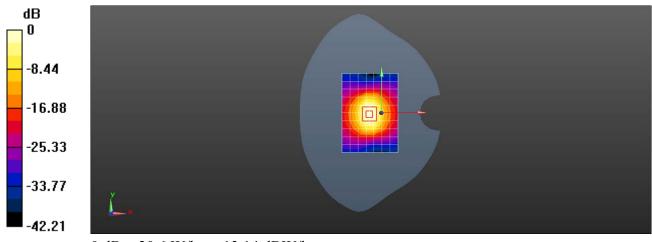
dx=5mm, dy=5mm, dz=5mm

Reference Value = 97.93 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 25.5 W/kg

SAR(1 g) = 13.1 W/kg; SAR(10 g) = 6.42 W/kg

Maximum value of SAR (measured) = 20.9 W/kg



0 dB = 20.6 W/kg = 13.14 dBW/kg



#### **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.	DATE	PROBE	PROBE	PROBE CAL		PERM	COND		CW VALIDATI	ON	MOD.VALIDATION			
[Mhz]	22	SN	TYPE	POIN	INT	(Er)	(σ)	SENSI- TIVITY	PROBE LINARITY	PROBE ISOTROPY	MOD. TYPE	DUTY. FACTORE	PAR	
750	2017/10/27	3168	ES3DV3	750	Head	40.98	0.858	PASS	PASS	PASS	N/A	N/A	N/A	
835	2017/11/18	3168	ES3DV3	835	Head	42.22	0.905	PASS	PASS	PASS	GMSK	PASS	N/A	
900	2017/11/13	3168	ES3DV3	900	Head	40.45	0.932	PASS	PASS	PASS	GMSK	PASS	N/A	
1750	2017/11/30	3168	ES3DV3	1750	Head	40.31	1.318	PASS	PASS	PASS	NA	NA	N/A	
1900	2017/11/02	3168	ES3DV3	1900	Head	41.28	1.441	PASS	PASS	PASS	GMSK	PASS	N/A	
2000	2017/12/03	3168	ES3DV3	2000	Head	38.99	1.453	PASS	PASS	PASS	N/A	N/A	N/A	
2300	2017/12/03	3168	ES3DV3	2300	Head	38.31	1.695	PASS	PASS	PASS	N/A	N/A	N/A	
2450	2017/11/11	3168	ES3DV3	2450	Head	40.61	1.860	PASS	PASS	PASS	OFDM/TDD	PASS	PASS	
2600	2017/11/14	3168	ES3DV3	2600	Head	39.55	1.966	PASS	PASS	PASS	TDD	PASS	N/A	
750	2017/10/27	3168	ES3DV3	750	Body	56.04	0.940	PASS	PASS	PASS	N/A	N/A	N/A	
835	2017/11/23	3168	ES3DV3	835	Body	54.65	1.010	PASS	PASS	PASS	GMSK	PASS	N/A	
1750	2017/11/14	3168	ES3DV3	1750	Body	51.24	1.450	PASS	PASS	PASS	N/A	N/A	N/A	
1900	2017/11/11	3168	ES3DV3	1900	Body	51.67	1.533	PASS	PASS	PASS	GMSK	PASS	N/A	
2300	2017/12/03	3168	ES3DV3	2300	Body	51.30	1.799	PASS	PASS	PASS	N/A	N/A	N/A	
2450	2017/11/10	3168	ES3DV3	2450	Body	54.21	1.948	PASS	PASS	PASS	OFDM/TDD	PASS	PASS	
2600	2017/11/28	3168	ES3DV3	2600	Body	51.01	2.088	PASS	PASS	PASS	TDD	PASS	N/A	



FREQ.	DATE	PROBE	PROBE	PROBE CAL POINT		PERM	COND		CW VALIDATI	ON	MOE	MOD.VALIDATION			
[Mhz]	DAIL	SN	TYPE			(Er)	(σ)	SENSI- TIVITY	PROBE LINARITY	PROBE ISOTROPY	MOD. TYPE	DUTY. FACTORE	PAR		
750	2017/10/23	3744	EX3DV4	750	Head	41.53	0.890	PASS	PASS	PASS	N/A	N/A	N/A		
835	2017/10/16	3744	EX3DV4	835	Head	41.41	0.913	PASS	PASS	PASS	GMSK	PASS	N/A		
900	2017/09/27	3744	EX3DV4	900	Head	41.16	0.982	PASS	PASS	PASS	GMSK	PASS	N/A		
1750	2017/10/14	3744	EX3DV4	1750	Head	38.80	1.407	PASS	PASS	PASS	NA	NA	N/A		
1900	2017/11/02	3744	EX3DV4	1900	Head	39.23	1.375	PASS	PASS	PASS	GMSK	PASS	N/A		
2000	2017/09/28	3744	EX3DV4	2000	Head	38.87	1.444	PASS	PASS	PASS	N/A	N/A	N/A		
2300	2017/11/04	3744	EX3DV4	2300	Head	39.69	1.740	PASS	PASS	PASS	N/A	N/A	N/A		
2450	2017/11/25	3744	EX3DV4	2450	Head	39.03	1.845	PASS	PASS	PASS	OFDM/TDD	PASS	PASS		
2600	2017/11/22	3744	EX3DV4	2600	Head	38.55	1.968	PASS	PASS	PASS	TDD	PASS	N/A		
750	2017/10/25	3744	EX3DV4	750	Body	53.50	0.950	PASS	PASS	PASS	N/A	N/A	N/A		
835	2017/10/18	3744	EX3DV4	835	Body	53.65	0.971	PASS	PASS	PASS	GMSK	PASS	N/A		
1750	2017/10/12	3744	EX3DV4	1750	Body	51.43	1.440	PASS	PASS	PASS	N/A	N/A	N/A		
1900	2017/08/26	3744	EX3DV4	1900	Body	52.47	1.553	PASS	PASS	PASS	GMSK	PASS	N/A		
2300	2017/11/03	3744	EX3DV4	2300	Body	51.30	1.799	PASS	PASS	PASS	N/A	N/A	N/A		
2450	2017/11/18	3744	EX3DV4	2450	Body	53.20	1.878	PASS	PASS	PASS	OFDM/TDD	PASS	PASS		
2600	2017/08/26	3744	EX3DV4	2600	Body	50.58	2.182	PASS	PASS	PASS	TDD	PASS	N/A		



FREQ.				PROBE PROBE CAL D						CW VALIDATI	V VALIDATION MOD.VALIDATION				
[Mhz]	DATE	SN	TYPE	POINT		(εr)	<b>(</b> 0)	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	24.52	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	PROBE	PROBE CAL PERI		PERM	COND		CW VALIDATION MOD.VALIDATION				
[Mhz]		SN TYPE	PO	POINT (εr)		(σ)	SENSI-	PROBE	PROBE	MOD.	DUTY.	PAR	
								TIVITY	LINARITY	ISOTROPY	TYPE	FACTORE	
2450	2018/03/28	3898	EX3DV4	2450	Head	40.13	1.860	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
5250	2018/04/03	3898	EX3DV4	5250	Body	50.62	5.210	PASS	PASS	PASS	OFDM	PASS	N/A
5600	2018/04/03	3898	EX3DV4	5600	Body	47.99	5.834	PASS	PASS	PASS	OFDM	PASS	N/A
5750	2018/04/03	3898	EX3DV4	5750	Body	47.60	6.060	PASS	PASS	PASS	OFDM	PASS	N/A

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 (>5dB), such as OFDM according to KDB 865664.