

**Appendix A. System Check Plots**

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Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D835-EX-Head

**DUT: Dipole; Type: D835V2; Serial: 4d126**

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

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.936$  S/m;  $\epsilon_r = 41.724$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3744; ConvF(8.96, 8.96, 8.96) @ 835 MHz; Calibrated: 2018-7-25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- Phantom: SAM9; Type: SAM; Serial: 1958
- 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) = 3.24 W/kg

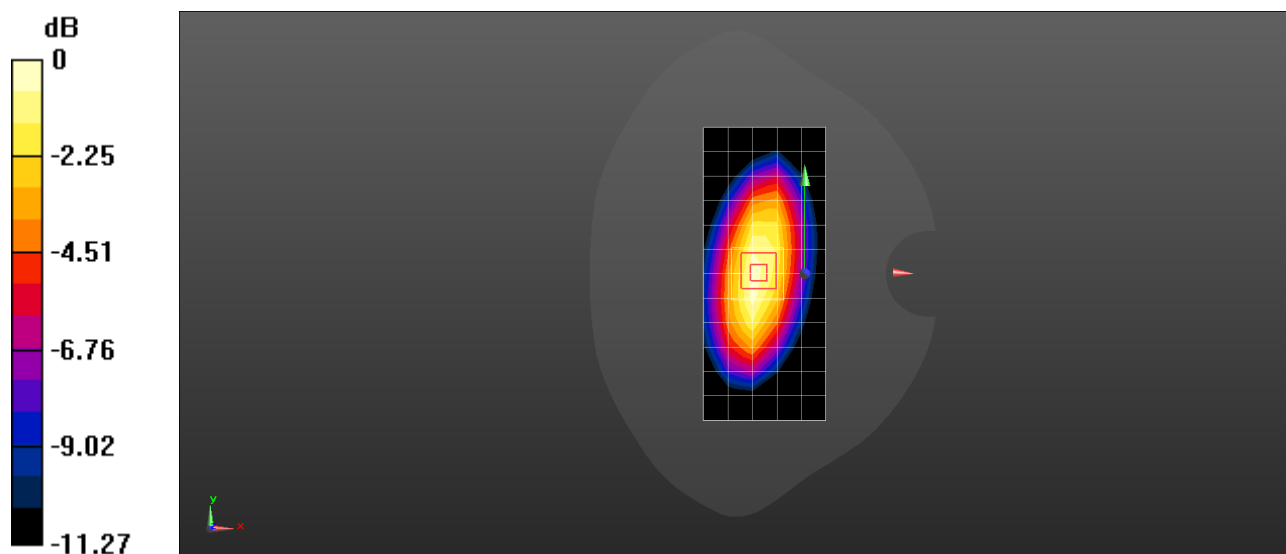
**Configuration/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 61.99 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 3.95 W/kg

**SAR(1 g) = 2.48 W/kg; SAR(10 g) = 1.6 W/kg**

Maximum value of SAR (measured) = 3.42 W/kg



0 dB = 3.42 W/kg = 5.34 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D1750-ES-Head

**DUT: Dipole; Type: D1750V2; Serial: 1123**

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

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.38$  S/m;  $\epsilon_r = 38.751$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(5.43, 5.43, 5.43) @ 1750 MHz; Calibrated: 2018-9-27
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1492; Calibrated: 2018-11-14
- Phantom: SAM1; Type: SAM; Serial: 1475
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm, pin=250mW/Area Scan (6x11x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 10.2 W/kg

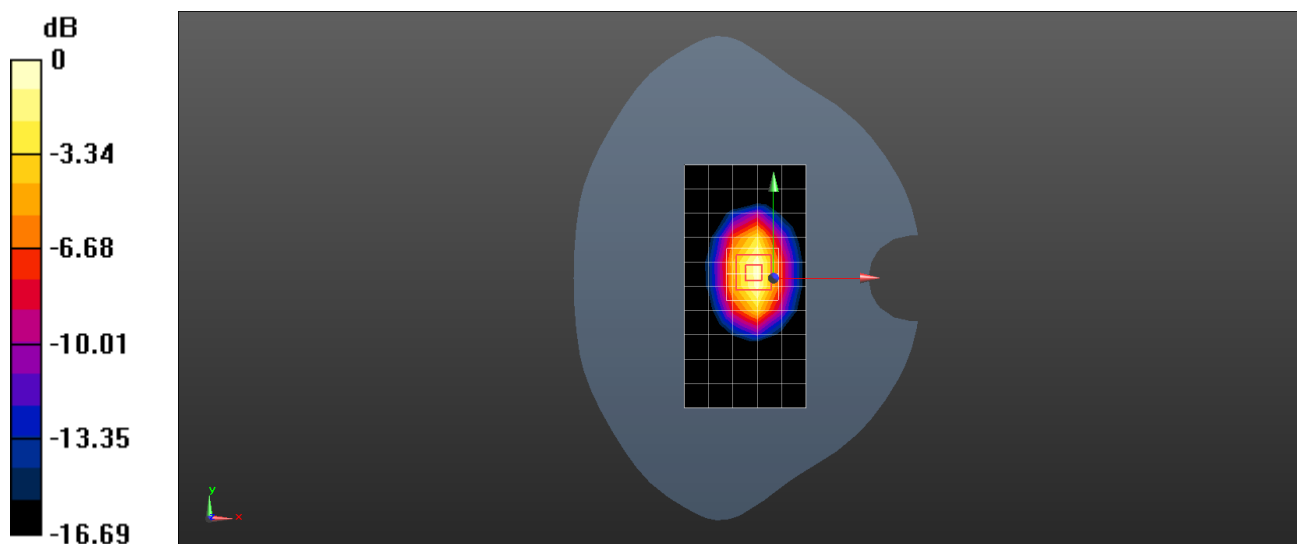
**Configuration/d=10mm, pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 86.28 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 15.5 W/kg

**SAR(1 g) = 8.92 W/kg; SAR(10 g) = 4.77 W/kg**

Maximum value of SAR (measured) = 11.2 W/kg



0 dB = 11.2 W/kg = 10.49 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D1900-EX-Head

**DUT: Dipole; Type: D1900V2; Serial: 5d143**

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

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.445$  S/m;  $\epsilon_r = 40.321$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7505; ConvF(8.23, 8.23, 8.23) @ 1900 MHz; Calibrated: 2018-6-12
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1554; Calibrated: 2018-6-5
- Phantom: SAM5; Type: SAM; Serial: 1892
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm, pin=250mW/Area Scan (6x11x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

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

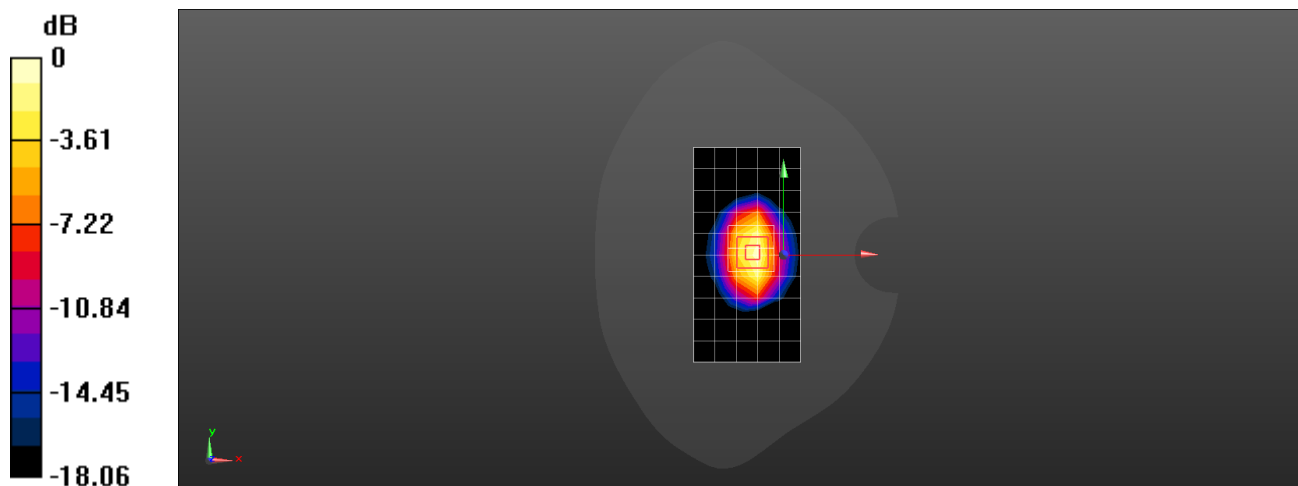
**Configuration/d=10mm, pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 103.4 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 18.7 W/kg

**SAR(1 g) = 10.1 W/kg; SAR(10 g) = 5.27 W/kg**

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



0 dB = 15.6 W/kg = 11.92 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D2450-ES-Head

**DUT: Dipole; Type: D2450V2; Serial: 860**

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

Medium parameters used (interpolated):  $f = 2450$  MHz;  $\sigma = 1.875$  S/m;  $\epsilon_r = 38.943$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.7, 4.7, 4.7) @ 2450 MHz; Calibrated: 2018-9-27
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1492; Calibrated: 2018-11-14
- Phantom: SAM1; Type: SAM; Serial: 1475
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm, pin=250mW/Area Scan (7x14x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 15.2 W/kg

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

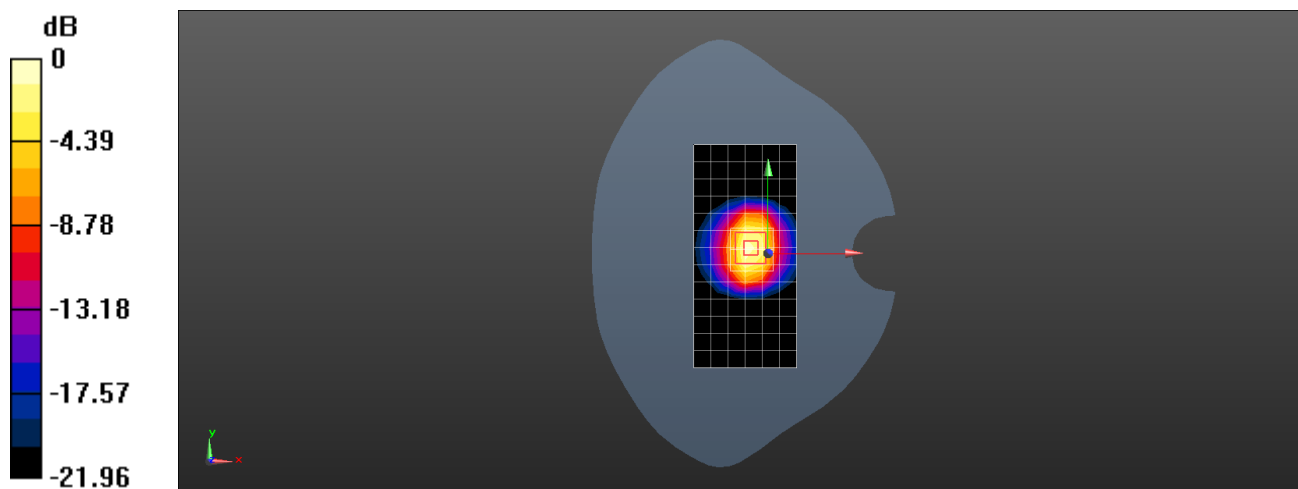
Reference Value = 89.53 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 27.4 W/kg

**SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.21 W/kg**

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 17.6 W/kg



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

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D2600-ES-Head

**DUT: Dipole; Type: D2600V2; Serial: 1032**

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

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.998$  S/m;  $\epsilon_r = 38.677$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.57, 4.57, 4.57) @ 2600 MHz; Calibrated: 2018-9-27
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1492; Calibrated: 2018-11-14
- Phantom: SAM1; Type: SAM; Serial: 1475
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm, pin=250mW/Area Scan (7x14x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm

Maximum value of SAR (measured) = 18.1 W/kg

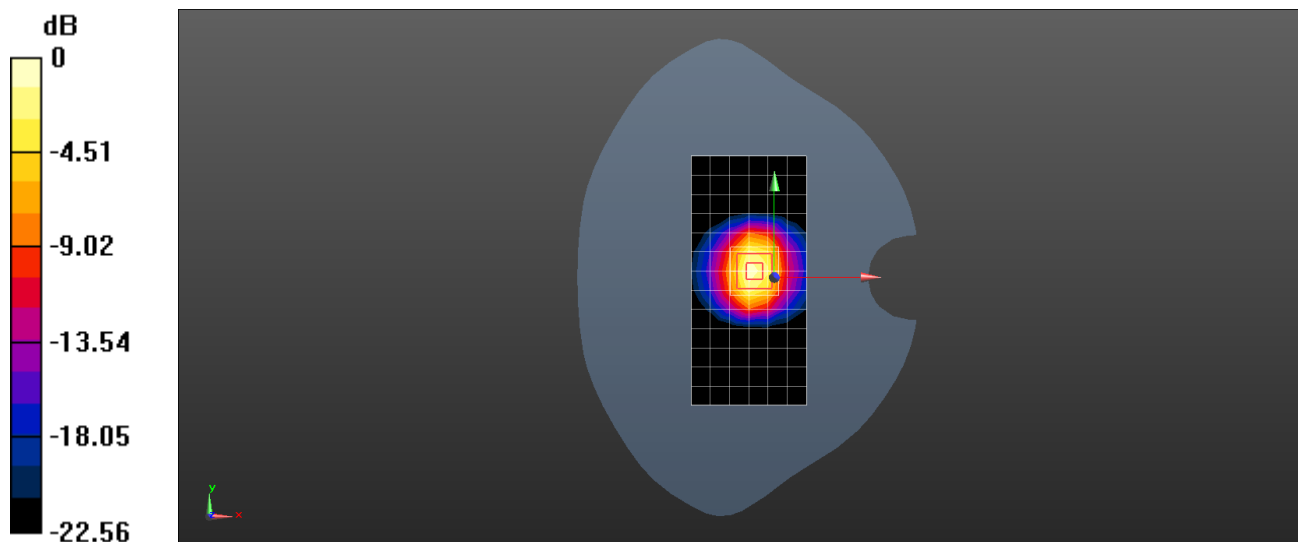
**Configuration/d=10mm, pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 93.80 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 31.0 W/kg

**SAR(1 g) = 14.7 W/kg; SAR(10 g) = 6.66 W/kg**

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



0 dB = 19.8 W/kg = 12.96 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D835-EX-Body

**DUT: Dipole; Type: D835V2; Serial: 4d126**

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

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.998$  S/m;  $\epsilon_r = 54.114$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3744; ConvF(9.12, 9.12, 9.12) @ 835 MHz; Calibrated: 2018-7-25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- Phantom: SAM9; Type: SAM; Serial: 1958
- 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) = 2.76 W/kg

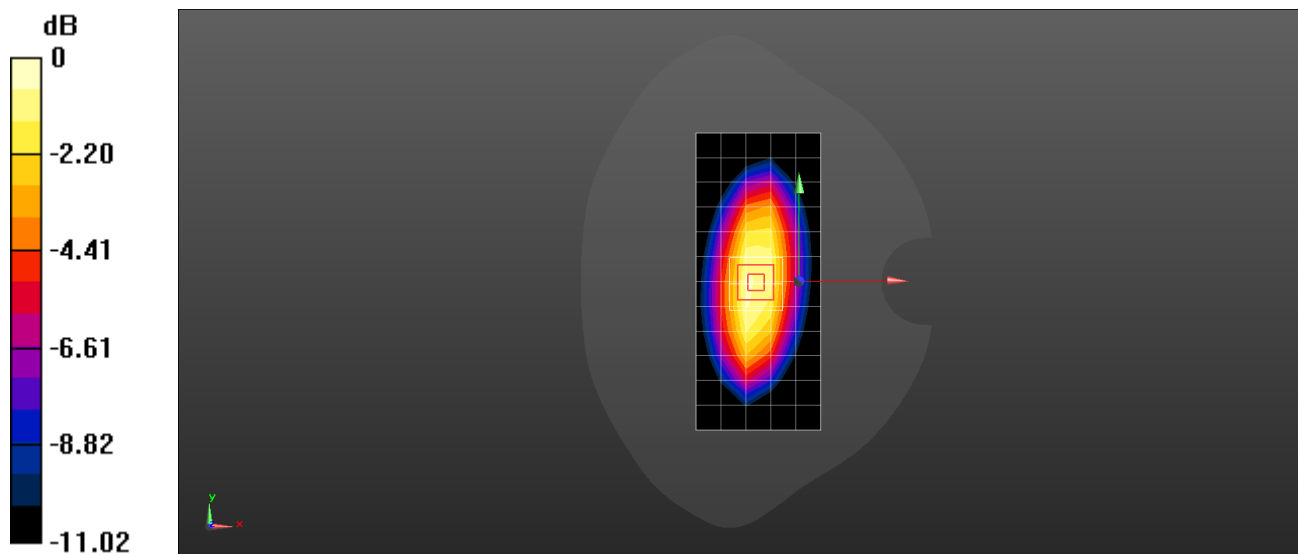
**Configuration/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 58.92 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 3.58 W/kg

**SAR(1 g) = 2.31 W/kg; SAR(10 g) = 1.5 W/kg**

Maximum value of SAR (measured) = 3.15 W/kg



0 dB = 3.15 W/kg = 4.98 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D835-EX-Body

**DUT: Dipole; Type: D835V2; Serial: 4d126**

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

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.954$  S/m;  $\epsilon_r = 56.901$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN7381; ConvF(10.46, 10.46, 10.46) @ 835 MHz; Calibrated: 2018-9-28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1236; Calibrated: 2018-7-18
- Phantom: Triple Flat Phantom 5.1C; Type: MFP V5.1 C; Serial: 1176/2
- 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) = 3.17 W/kg

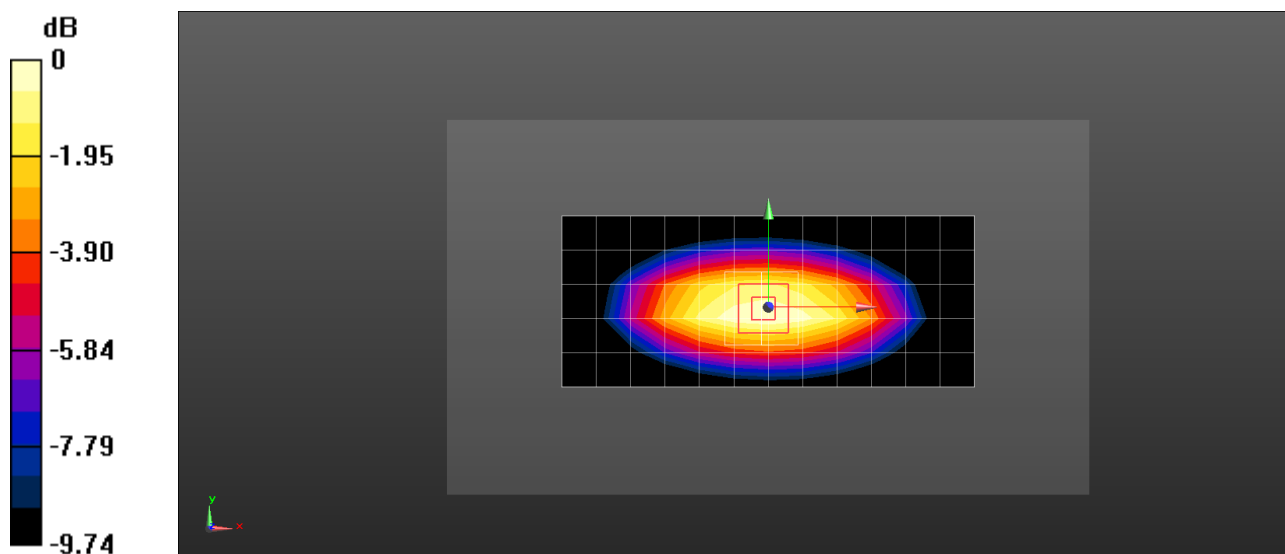
**Configuration/d=15mm Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 58.50 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 3.49 W/kg

**SAR(1 g) = 2.36 W/kg; SAR(10 g) = 1.58 W/kg**

Maximum value of SAR (measured) = 3.12 W/kg



0 dB = 3.12 W/kg = 4.94 dBW/kg



Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D1750-EX-Body

**DUT: Dipole; Type: D1750V2; Serial: 1123**

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

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.484$  S/m;  $\epsilon_r = 51.568$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3744; ConvF(7.74, 7.74, 7.74) @ 1750 MHz; Calibrated: 2018-7-25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- Phantom: SAM9; Type: SAM; Serial: 1958
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm, Pin=250mW/Area Scan (6x9x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 11.2 W/kg

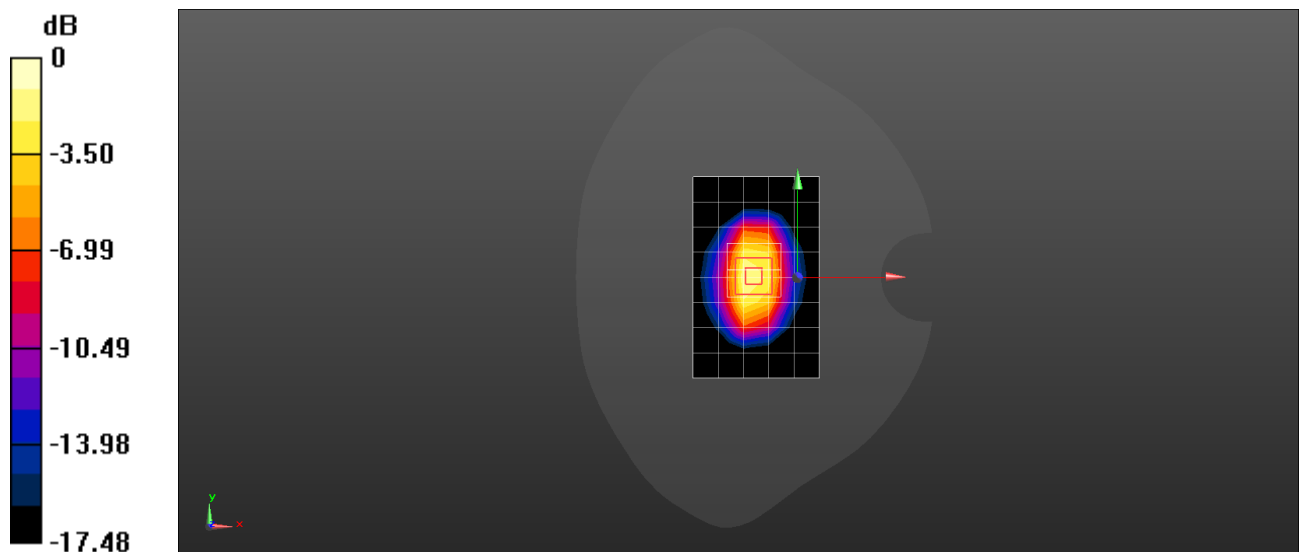
**Configuration/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 104.9 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 17.8 W/kg

**SAR(1 g) = 9.8 W/kg; SAR(10 g) = 5.21 W/kg**

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



0 dB = 14.7 W/kg = 11.67 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D1900-EX-Body

**DUT: Dipole; Type: D1900V2; Serial: 5d143**

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

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.525$  S/m;  $\epsilon_r = 54.974$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN7381; ConvF(8.22, 8.22, 8.22) @ 1900 MHz; Calibrated: 2018-9-28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1236; Calibrated: 2018-7-18
- Phantom: Triple Flat Phantom 5.1C; Type: MFP V5.1 C; Serial: 1176/2
- 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) = 9.15 W/kg

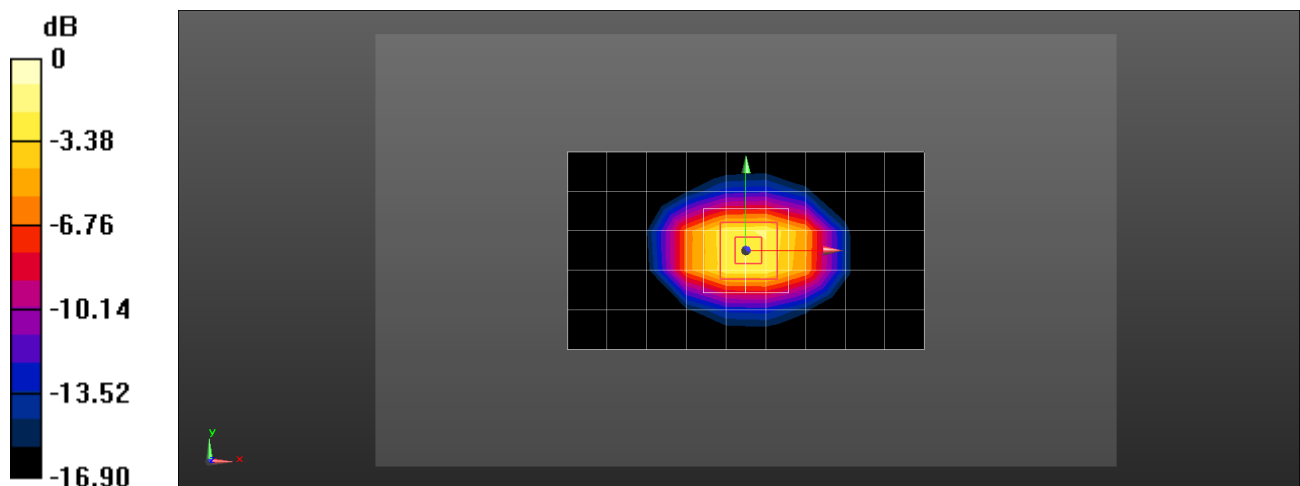
**Configuration/d=10mm Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 102.5 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 17.6 W/kg

**SAR(1 g) = 10 W/kg; SAR(10 g) = 5.3 W/kg**

Maximum value of SAR (measured) = 15.1 W/kg



0 dB = 15.1 W/kg = 11.79 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D2450-EX-Body

**DUT: Dipole; Type: D2450V2; Serial: 860**

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

Medium parameters used (interpolated):  $f = 2450$  MHz;  $\sigma = 1.973$  S/m;  $\epsilon_r = 53.979$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7375; ConvF(7.81, 7.81, 7.81) @ 2450 MHz; Calibrated: 2018-12-13
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1235; Calibrated: 2018-11-14
- Phantom: SAM4; Type: SAM; Serial: 1620
- 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

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 13.4 W/kg

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

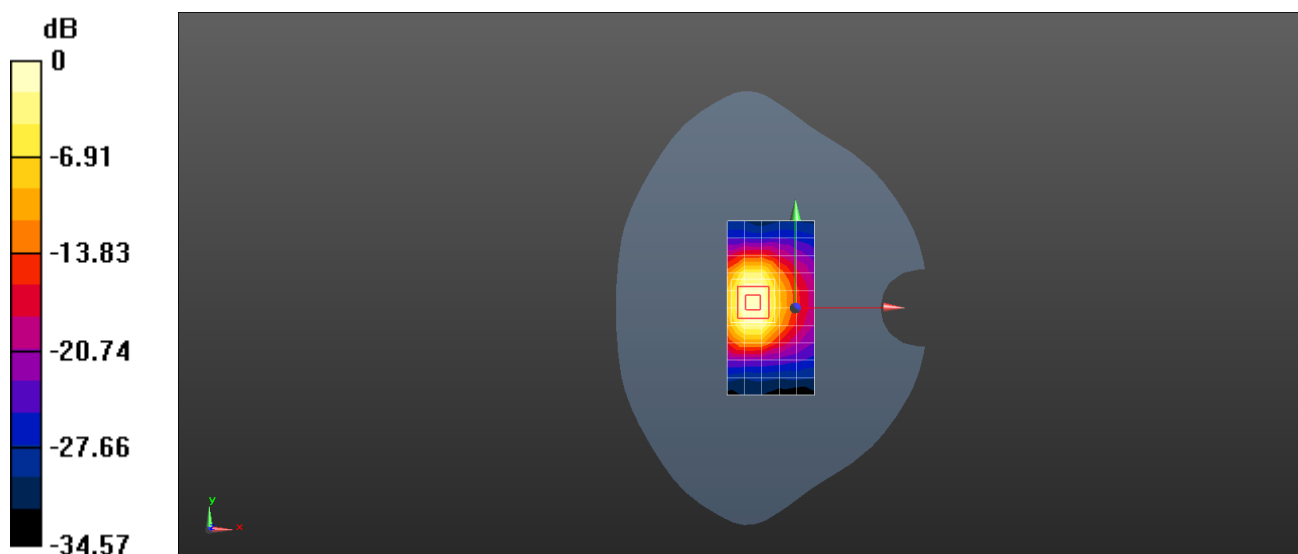
Reference Value = 54.66 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 24.2 W/kg

**SAR(1 g) = 12.3 W/kg; SAR(10 g) = 5.79 W/kg**

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 20.0 W/kg



0 dB = 13.4 W/kg = 11.27 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

## SystemPerformanceCheck-D2600-EX-Body

**DUT: Dipole; Type: D2600V2; Serial: 1032**

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

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.125$  S/m;  $\epsilon_r = 53.396$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN7381; ConvF(7.53, 7.53, 7.53) @ 2600 MHz; Calibrated: 2018-9-28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection),  $z = 1.0, 31.0$
- Electronics: DAE4 Sn1236; Calibrated: 2018-7-18
- Phantom: Triple Flat Phantom 5.1C; Type: MFP V5.1 C; Serial: 1176/2
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

**Configuration/d=10mm Pin=250mW/Area Scan (11x6x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm

Maximum value of SAR (measured) = 18.4 W/kg

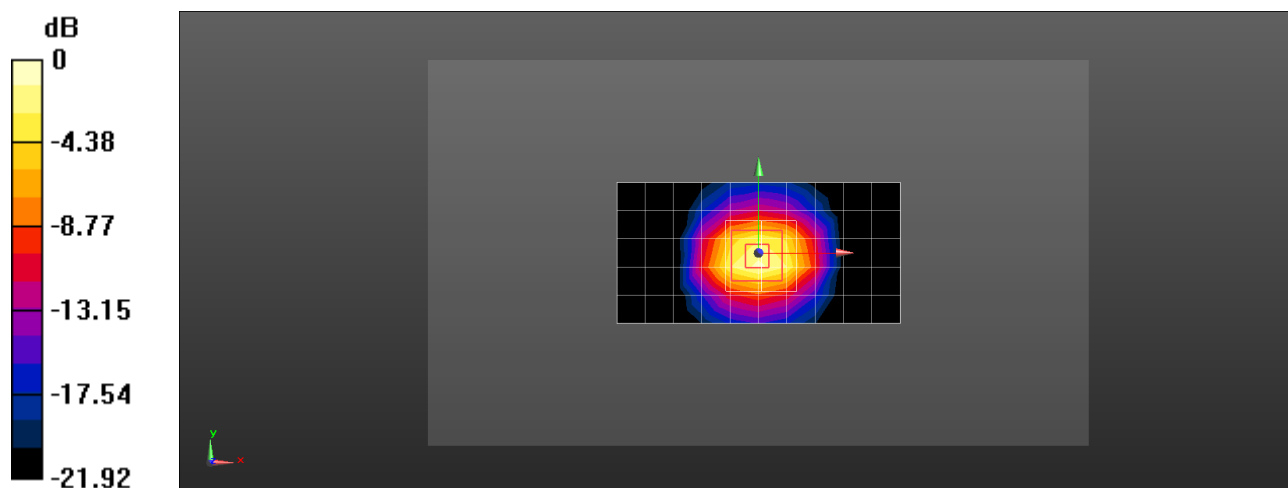
**Configuration/d=10mm Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 104.5 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 28.3 W/kg

**SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.3 W/kg**

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



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

## **System Validation**

Per FCC KDB 865664 D02v01, 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.



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	N/A	N/A	N/A
1900	2018/8/22	3744	EX3DV4	1900	Head	39.15	1.370	PASS	PASS	PASS	GMSK	PASS	N/A
2300	2018/8/26	3744	EX3DV4	2300	Head	37.99	1.618	PASS	PASS	PASS	N/A	N/A	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
835	2018/8/22	3744	EX3DV4	835	Body	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
2300	2018/8/25	3744	EX3DV4	2300	Body	51.76	1.861	PASS	PASS	PASS	N/A	N/A	N/A
2450	2018/8/24	3744	EX3DV4	2450	Body	50.95	1.941	PASS	PASS	PASS	OFDM	PASS	PASS
2600	2018/8/22	3744	EX3DV4	2600	Body	52.20	2.159	PASS	PASS	PASS	TDD	PASS	N/A



FREQ. [Mhz]	DATE	PROBE SN	PROBE TYPE	PROBE CAL POINT		PERM	COND	CW VALIDATION			MOD.VALIDATION		
						( $\epsilon_r$ )	( $\sigma$ )	SENSI/TIVITY	PROBE LINARITY	PROBE ISOTRO PY	MOD. TYPE	DUTY. FACTORE	PAR
750	2018/10/23	3168	ES3DV3	750	Head	42.41	0.860	PASS	PASS	PASS	NA	NA	N/A
835	2018/10/23	3168	ES3DV3	835	Head	42.27	0.893	PASS	PASS	PASS	GMSK	PASS	N/A
900	2018/10/23	3168	ES3DV3	900	Head	43.57	0.930	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2018/10/23	3168	ES3DV3	1750	Head	41.49	1.307	PASS	PASS	PASS	NA	NA	N/A
1900	2018/10/23	3168	ES3DV3	1900	Head	41.28	1.398	PASS	PASS	PASS	GMSK	PASS	N/A
2000	2018/10/23	3168	ES3DV3	2000	Head	41.18	1.449	PASS	PASS	PASS	NA	NA	N/A
2300	2018/10/23	3168	ES3DV3	2300	Head	40.62	1.651	PASS	PASS	PASS	NA	NA	N/A
2450	2018/10/23	3168	ES3DV3	2450	Head	40.45	1.766	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
2600	2018/10/23	3168	ES3DV3	2600	Head	40.23	1.887	PASS	PASS	PASS	TDD	PASS	N/A
750	2018/10/23	3168	ES3DV3	750	Body	54.82	0.945	PASS	PASS	PASS	NA	NA	N/A
835	2018/10/23	3168	ES3DV3	835	Body	54.75	0.975	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2018/10/23	3168	ES3DV3	1750	Body	53.35	1.457	PASS	PASS	PASS	NA	NA	N/A
1900	2018/10/23	3168	ES3DV3	1900	Body	53.12	1.568	PASS	PASS	PASS	GMSK	PASS	N/A
2450	2018/10/23	3168	ES3DV3	2450	Body	52.47	2.019	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
2600	2018/10/23	3168	ES3DV3	2600	Body	52.20	2.159	PASS	PASS	PASS	TDD	PASS	N/A



FREQ.	DATE	PROB E SN	PROBE TYPE	PROBE CAL POINT		PERM	CON D	CW VALIDATION			MOD.VALIDATION		
						( $\epsilon_r$ )	( $\sigma$ )	SENSI-TIVI TY	PROBE LINARITY	PROBE ISOTROPY	MOD. TYPE	DUTY. FACTORE	PAR
835	2018/10/22	7381	EX3DV4	835	Head	39.49	0.916	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2018/10/22	7381	EX3DV4	1750	Head	38.63	1.398	PASS	PASS	PASS	NA	NA	N/A
1900	2018/10/22	7381	EX3DV4	1900	Head	39.96	1.399	PASS	PASS	PASS	GMSK	PASS	N/A
2450	2018/10/22	7381	EX3DV4	2450	Head	39.24	1.773	PASS	PASS	PASS	OFDM	PASS	PASS
2600	2018/10/22	7381	EX3DV4	2600	Head	37.06	2.016	PASS	PASS	PASS	TDD	PASS	N/A
5250	2018/10/22	7381	EX3DV4	5250	Head	35.90	4.492	PASS	PASS	PASS	OFDM	N/A	PASS
5600	2018/10/22	7381	EX3DV4	5600	Head	35.32	4.872	PASS	PASS	PASS	OFDM	N/A	PASS
5750	2018/10/22	7381	EX3DV4	5750	Head	35.11	5.065	PASS	PASS	PASS	OFDM	N/A	PASS
835	2018/10/23	7381	EX3DV4	835	Body	53.43	0.984	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2018/10/23	7381	EX3DV4	1750	Body	53.43	0.984	PASS	PASS	PASS	N/A	N/A	N/A
1900	2018/10/23	7381	EX3DV4	1900	Body	51.58	1.571	PASS	PASS	PASS	GMSK	PASS	N/A
2450	2018/10/23	7381	EX3DV4	2450	Body	50.95	2.009	PASS	PASS	PASS	OFDM	PASS	PASS
2600	2018/10/23	7381	EX3DV4	2600	Body	50.68	2.141	PASS	PASS	PASS	TDD	PASS	N/A
5250	2018/10/23	7381	EX3DV4	5250	Body	47.31	5.348	PASS	PASS	PASS	OFDM	N/A	PASS
5600	2018/10/23	7381	EX3DV4	5600	Body	46.67	5.852	PASS	PASS	PASS	OFDM	N/A	PASS
5750	2018/10/23	7381	EX3DV4	5750	Body	46.61	6.059	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	2018/7/11	7505	EX3DV4	750	Head	43.58	0.915	PASS	PASS	PASS	N/A	N/A	N/A
835	2018/7/11	7505	EX3DV4	835	Head	43.36	0.945	PASS	PASS	PASS	GMSK	PASS	N/A
900	2018/7/11	7505	EX3DV4	900	Head	43.19	0.970	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2018/7/11	7505	EX3DV4	1750	Head	41.51	1.374	PASS	PASS	PASS	NA	NA	N/A
1900	2018/7/11	7505	EX3DV4	1900	Head	41.28	1.464	PASS	PASS	PASS	GMSK	PASS	N/A
2000	2018/7/11	7505	EX3DV4	2000	Head	41.11	1.517	PASS	PASS	PASS	N/A	N/A	N/A
2300	2018/7/11	7505	EX3DV4	2300	Head	40.75	1.732	PASS	PASS	PASS	N/A	N/A	N/A
2450	2018/7/11	7505	EX3DV4	2450	Head	40.49	1.843	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
2600	2018/7/11	7505	EX3DV4	2600	Head	40.33	1.954	PASS	PASS	PASS	TDD	PASS	N/A
5250	2018/7/11	7505	EX3DV4	5250	Head	35.98	4.529	PASS	PASS	PASS	OFDM	PASS	N/A
5600	2018/7/11	7505	EX3DV4	5600	Head	35.29	4.941	PASS	PASS	PASS	OFDM	PASS	N/A
5750	2018/7/11	7505	EX3DV4	5750	Head	35.08	5.117	PASS	PASS	PASS	OFDM	PASS	N/A
750	2018/7/11	7505	EX3DV4	750	Body	54.84	0.957	PASS	PASS	PASS	N/A	N/A	N/A
835	2018/7/11	7505	EX3DV4	835	Body	54.68	0.991	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2018/7/11	7505	EX3DV4	1750	Body	53.15	1.469	PASS	PASS	PASS	N/A	N/A	N/A
1900	2018/7/11	7505	EX3DV4	1900	Body	53.02	1.577	PASS	PASS	PASS	GMSK	PASS	N/A
2300	2018/7/11	7505	EX3DV4	2300	Body	52.53	1.880	PASS	PASS	PASS	N/A	N/A	N/A
2450	2018/7/11	7505	EX3DV4	2450	Body	52.32	2.025	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
2600	2018/7/11	7505	EX3DV4	2600	Body	52.04	2.165	PASS	PASS	PASS	TDD	PASS	N/A
5250	2018/7/11	7505	EX3DV4	5250	Body	47.23	5.434	PASS	PASS	PASS	OFDM	PASS	N/A
5600	2018/7/11	7505	EX3DV4	5600	Body	46.60	5.922	PASS	PASS	PASS	OFDM	PASS	N/A
5750	2018/7/11	7505	EX3DV4	5750	Body	46.27	6.144	PASS	PASS	PASS	OFDM	PASS	N/A



Table of SAR System validation summary:

FREQ. [Mhz]	DATE	PROBE SN	PROBE TYPE	PROBE CAL POINT		PERM ( $\epsilon_r$ )	COND ( $\sigma$ )	CW VALIDATION			MOD.VALIDATION		
								SENSI- TIVITY	PROBE LINARITY	PROBE ISOTROPY	MOD. TYPE	DUTY. FACTORE	PAR
835	2019/2/24	7375	EX3DV4	835	Head	40.41	0.940	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2019/2/24	7375	EX3DV4	1900	Head	38.69	1.342	PASS	PASS	PASS	GMSK	PASS	N/A
1900	2019/2/24	7375	EX3DV4	1900	Head	38.46	1.441	PASS	PASS	PASS	GMSK	PASS	N/A
2450	2019/2/24	7375	EX3DV4	1900	Head	38.50	1.797	PASS	PASS	PASS	OFDM	PASS	N/A
2600	2019/2/24	7375	EX3DV4	1900	Head	38.38	1.970	PASS	PASS	PASS	TDD	PASS	N/A
5250	2019/2/24	7375	EX3DV4	5250	Head	34.67	4.560	PASS	PASS	PASS	OFDM	N/A	PASS
5600	2019/2/24	7375	EX3DV4	5600	Head	34.03	4.985	PASS	PASS	PASS	OFDM	N/A	PASS
5750	2019/2/24	7375	EX3DV4	5750	Head	33.74	5.153	PASS	PASS	PASS	OFDM	N/A	PASS
835	2019/2/24	7375	EX3DV4	835	Body	57.06	0.925	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2019/2/24	7375	EX3DV4	1750	Body	55.68	1.423	PASS	PASS	PASS	GMSK	N/A	N/A
1900	2019/2/24	7375	EX3DV4	1900	Body	55.47	1.517	PASS	PASS	PASS	GMSK	PASS	N/A
2450	2019/2/24	7375	EX3DV4	2450	Body	54.91	1.951	PASS	PASS	PASS	OFDM	PASS	PASS
2600	2019/2/24	7375	EX3DV4	2600	Body	54.81	2.085	PASS	PASS	PASS	TDD	PASS	N/A
5250	2019/2/24	7375	EX3DV4	5250	Body	50.40	5.574	PASS	PASS	PASS	OFDM	N/A	PASS
5600	2019/2/24	7375	EX3DV4	5600	Body	49.64	6.042	PASS	PASS	PASS	OFDM	N/A	PASS
5750	2019/2/24	7375	EX3DV4	5750	Body	49.36	6.169	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 865664D01v01 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.