Appendix A. System Check Plots

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Date: 2018-10-10

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D835-ES-Head

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

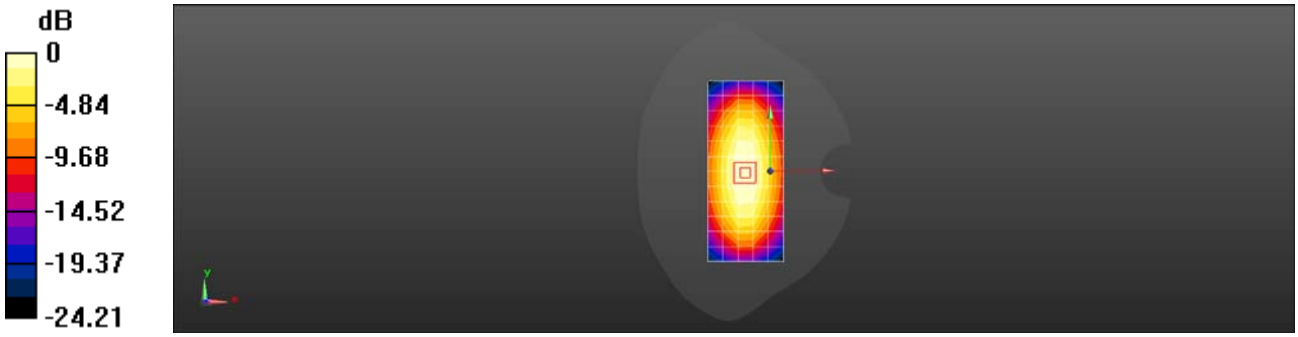
Communication System: UID 0, CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.928 S/m; ε_r = 39.86; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3071; ConvF(5.92, 5.92, 5.92) @ 835 MHz; Calibrated: 2017-12-18
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- 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=15mm, dy=15mm
Maximum value of SAR (measured) = 2.59 W/kg

Configuration/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 57.90 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 3.73 W/kg
SAR(1 g) = 2.49 W/kg; SAR(10 g) = 1.62 W/kg
Maximum value of SAR (measured) = 2.93 W/kg



0 dB = 2.59 W/kg = 4.14 dBW/kg

Date: 2018-10-14

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D835-ES-Head

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

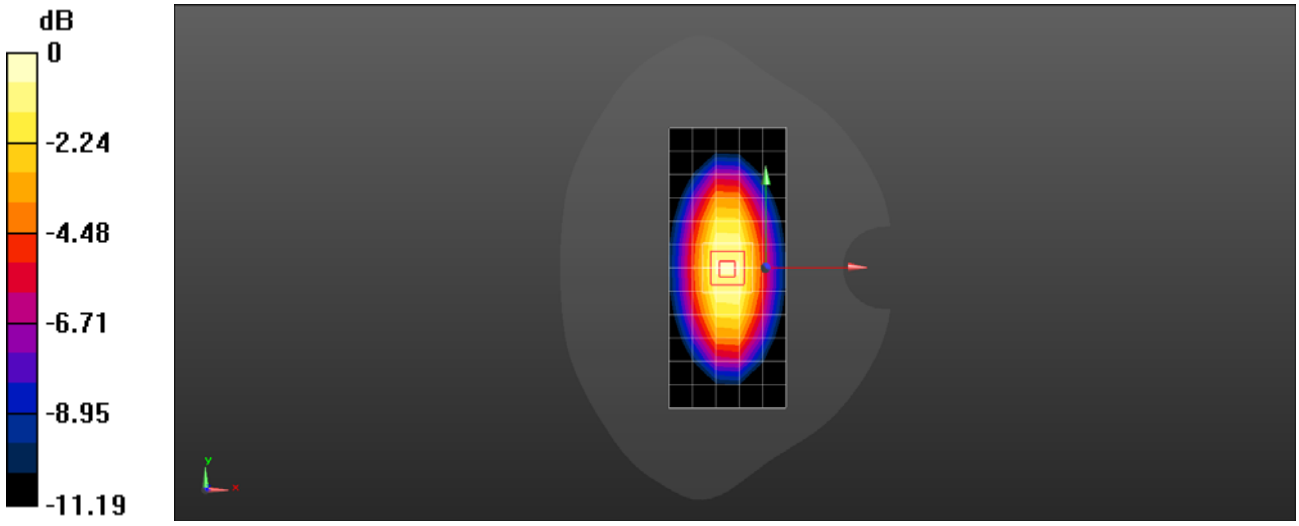
Communication System: UID 0, CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.93 S/m; ε_r = 40.05; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3071; ConvF(5.92, 5.92, 5.92) @ 835 MHz; Calibrated: 2017-12-18
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- 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=15mm, dy=15mm
Maximum value of SAR (measured) = 2.47 W/kg

Configuration/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 57.12 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 3.69 W/kg
SAR(1 g) = 2.42 W/kg; SAR(10 g) = 1.55 W/kg
Maximum value of SAR (measured) = 2.85 W/kg



0 dB = 2.85 W/kg = 4.55 dBW/kg

Date: 2018-10-12

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D1750-ES-Head

DUT: Dipole 1750 MHz D1750V2; Type: 1750V2; Serial: D1750 V2 -SN1145

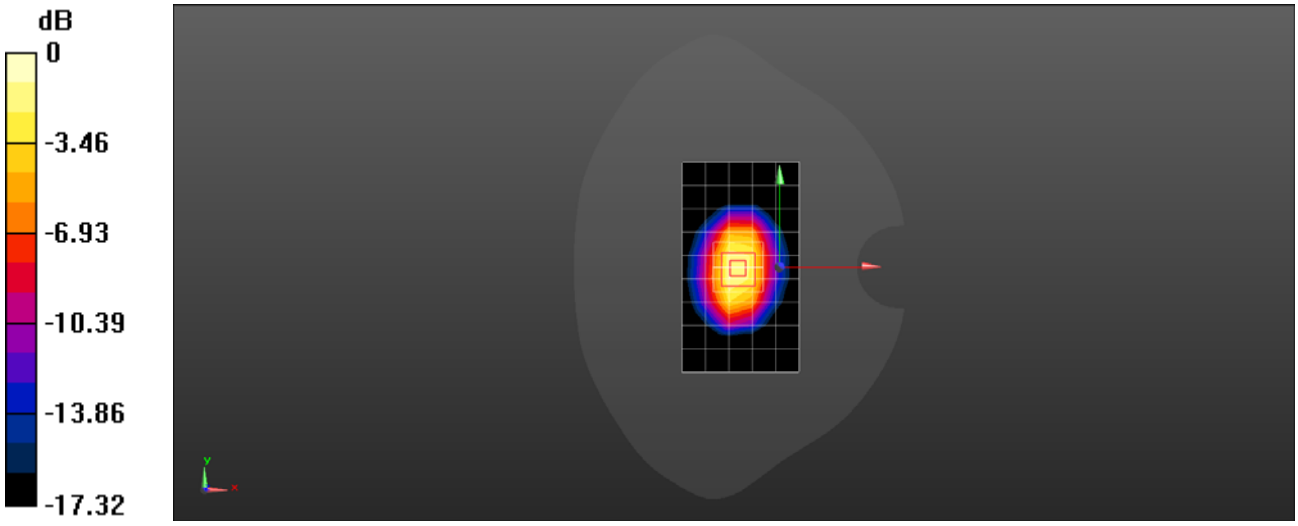
Communication System: UID 0, CW (0); Frequency: 1750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.385 S/m; ε_r = 39.09; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3071; ConvF(5.08, 5.08, 5.08) @ 1750 MHz; Calibrated: 2017-12-18
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- 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=10mm Pin=250mW/Area Scan (6x10x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 9.17 W/kg

Configuration/d=10mm Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 95.59 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 16.6 W/kg
SAR(1 g) = 9.17 W/kg; SAR(10 g) = 4.85 W/kg
Maximum value of SAR (measured) = 11.6 W/kg



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

Date: 2018-10-11

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D1900-ES-Head

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d142

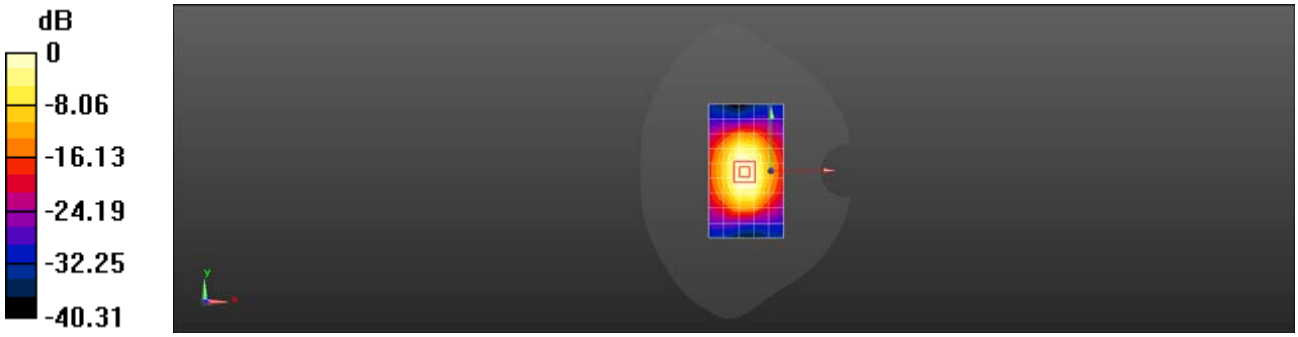
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.455 S/m; ε_r = 38.73; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3071; ConvF(4.87, 4.87, 4.87) @ 1900 MHz; Calibrated: 2017-12-18
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- 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=10mm, Pin=250mW/Area Scan (6x10x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 9.57 W/kg

Configuration/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 98.82 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 19.0 W/kg
SAR(1 g) = 10.4 W/kg; SAR(10 g) = 5.39 W/kg
Maximum value of SAR (measured) = 13.3 W/kg



0 dB = 9.57 W/kg = 9.81 dBW/kg

Date: 2018-11-14

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D2450-EX-Head

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:978

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2450 MHz; σ = 1.811 S/m; ε_r = 37.99; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

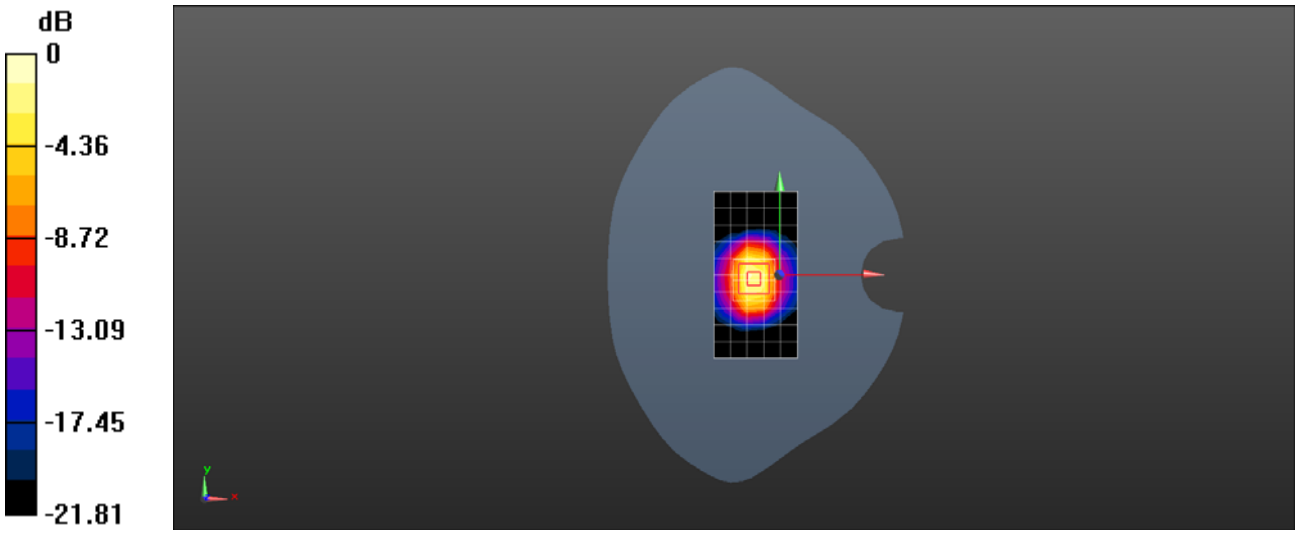
- Probe: EX3DV4 - SN3736; ConvF(7.13, 7.13, 7.13) @ 2450 MHz; Calibrated: 2018-4-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1554; Calibrated: 2018-6-5
- Phantom: SAM3; Type: SAM; Serial: 1597
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

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

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 16.7 W/kg

Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 108.5 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 26.1 W/kg
SAR(1 g) = 12.5 W/kg; SAR(10 g) = 5.81 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 21.1 W/kg



0 dB = 21.1 W/kg = 13.24 dBW/kg

Date: 2018-11-16

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D2450-EX-Head

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:978

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2450 MHz; σ = 1.859 S/m; ε_r = 38.29; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

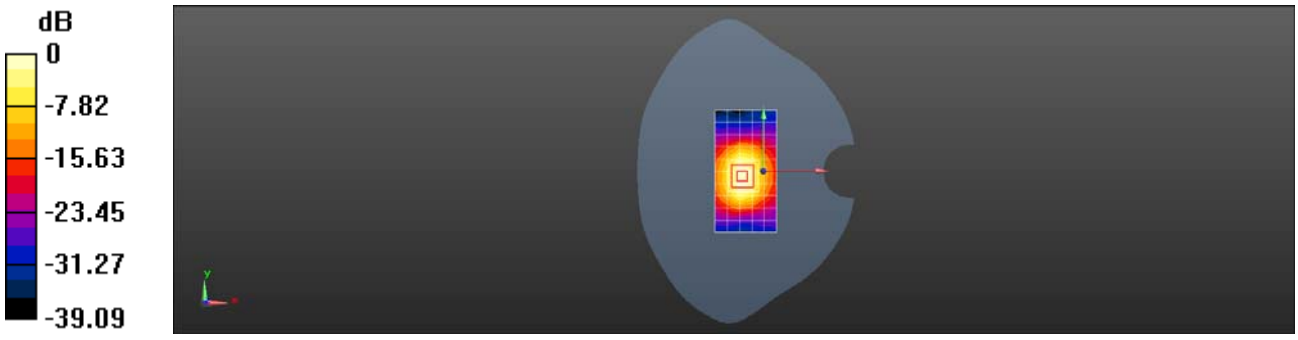
- Probe: EX3DV4 - SN3736; ConvF(7.13, 7.13, 7.13) @ 2450 MHz; Calibrated: 2018-4-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1554; Calibrated: 2018-6-5
- Phantom: SAM3; Type: SAM; Serial: 1597
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

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

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 18.0 W/kg

Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 102.1 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 25.6 W/kg
SAR(1 g) = 12.3 W/kg; SAR(10 g) = 5.7 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 20.7 W/kg



0 dB = 18.0 W/kg = 12.55 dBW/kg

Date: 2018-10-22

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D2600-EX-Head

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

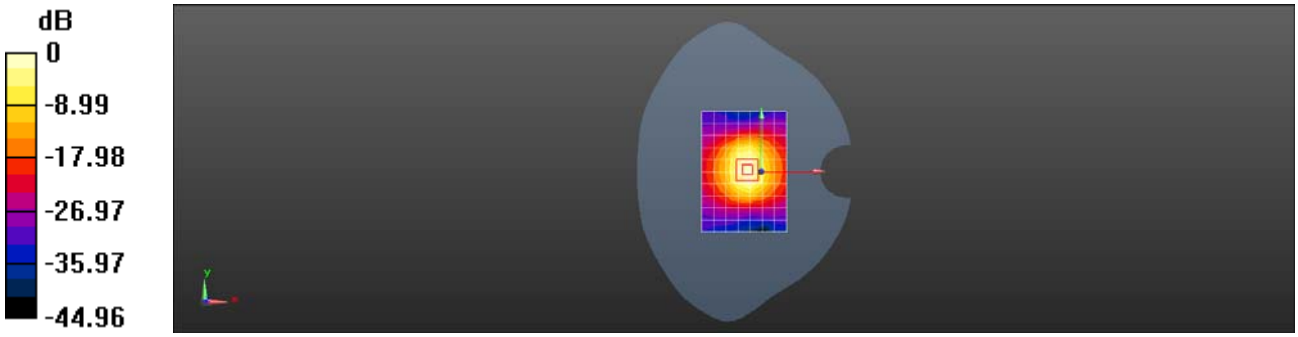
Communication System: UID 0, CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 1.909 S/m; ε_r = 37.26; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3736; ConvF(6.93, 6.93, 6.93) @ 2600 MHz; Calibrated: 2018-4-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn851; Calibrated: 2018-7-18
- Phantom: SAM1; Type: SAM; Serial: 1475
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Configuration/d=10mm, Pin=250mW/Area Scan (8x11x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 23.2 W/kg

Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 114.3 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 32.3 W/kg
SAR(1 g) = 14.7 W/kg; SAR(10 g) = 6.56 W/kg
Maximum value of SAR (measured) = 25.5 W/kg



0 dB = 23.2 W/kg = 13.65 dBW/kg

Date: 2018-10-25

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D2600-EX-Head

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

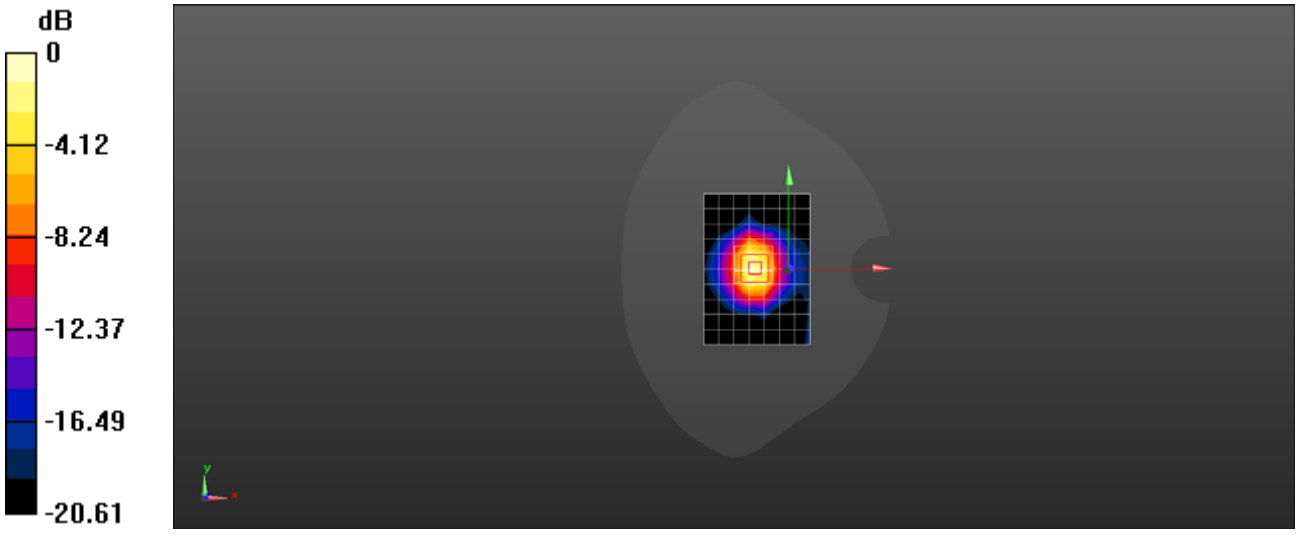
Communication System: UID 0, CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 1.964 S/m; ε_r = 37.48; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7505; ConvF(7.18, 7.18, 7.18) @ 2600 MHz; Calibrated: 2018-6-12
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1235; Calibrated: 2017-11-16
- Phantom: SAM5; Type: SAM; Serial: 1892
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Configuration/d=10mm, Pin=250mW/Area Scan (8x11x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 20.8 W/kg

Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 112.6 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 28.6 W/kg
SAR(1 g) = 14.5 W/kg; SAR(10 g) = 6.85 W/kg
Maximum value of SAR (measured) = 23.2 W/kg



0 dB = 23.2 W/kg = 13.65 dBW/kg

Date: 2018-10-10

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D835-EX-Body

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

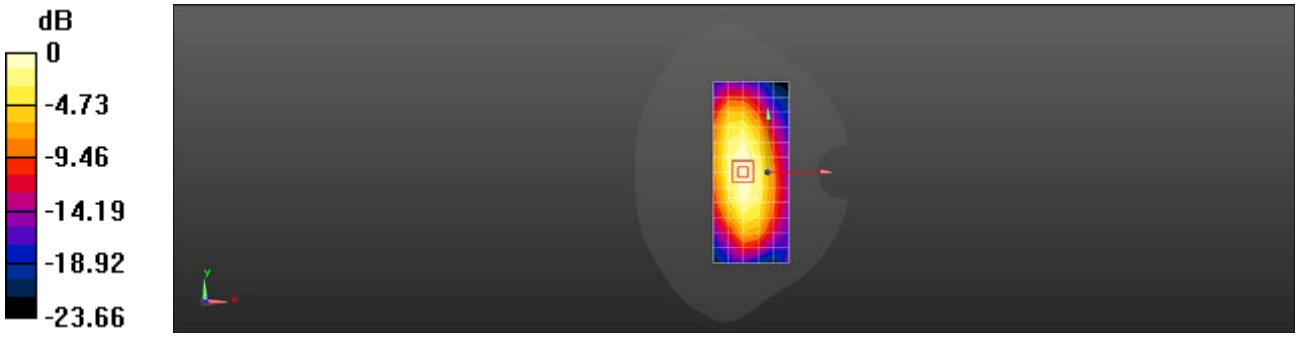
Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 1.012 S/m; ε_r = 54.87; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7505; ConvF(9.73, 9.73, 9.73) @ 835 MHz; Calibrated: 2018-6-12
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1235; Calibrated: 2017-11-16
- Phantom: SAM6; Type: SAM; Serial: 1894
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Configuration/d=15mm, Pin=250mW/Area Scan (6x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.24 W/kg

Configuration/d=15mm, Pin=250mW/Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 53.62 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 3.37 W/kg
SAR(1 g) = 2.48 W/kg; SAR(10 g) = 1.71 W/kg
Maximum value of SAR (measured) = 3.10 W/kg



0 dB = 3.24 W/kg = 5.10 dBW/kg

Date: 2018-10-12

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D835-EX-Body

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

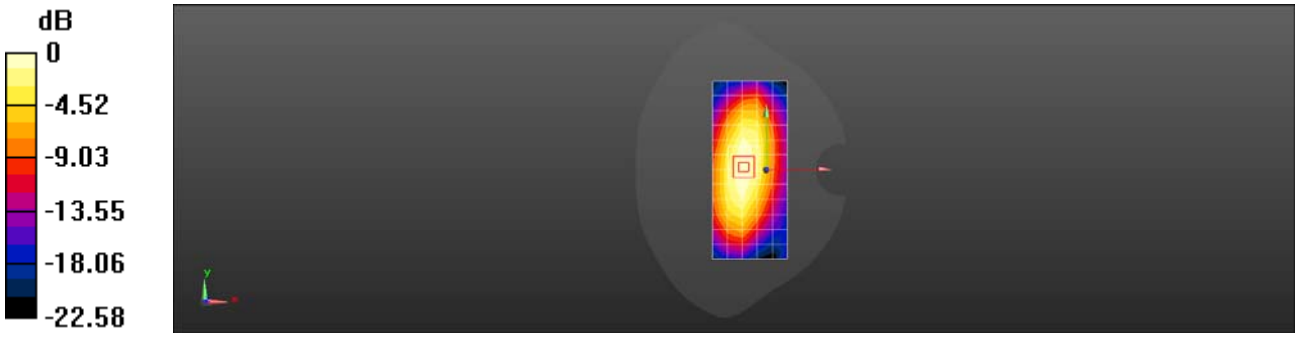
Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.982 S/m; ε_r = 53.22; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7505; ConvF(9.73, 9.73, 9.73) @ 835 MHz; Calibrated: 2018-6-12
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1235; Calibrated: 2017-11-16
- Phantom: SAM6; Type: SAM; Serial: 1894
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Configuration/d=15mm, Pin=250mW/Area Scan (6x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.12 W/kg

Configuration/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 55.99 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 3.34 W/kg
SAR(1 g) = 2.44 W/kg; SAR(10 g) = 1.67 W/kg
Maximum value of SAR (measured) = 3.07 W/kg



0 dB = 3.12 W/kg = 4.95 dBW/kg

Date: 2018-10-15

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D1750-EX-Body

DUT: Dipole 1750 MHz D1750V2; Type: D1750V2; Serial: D1750V2 - SN:1145

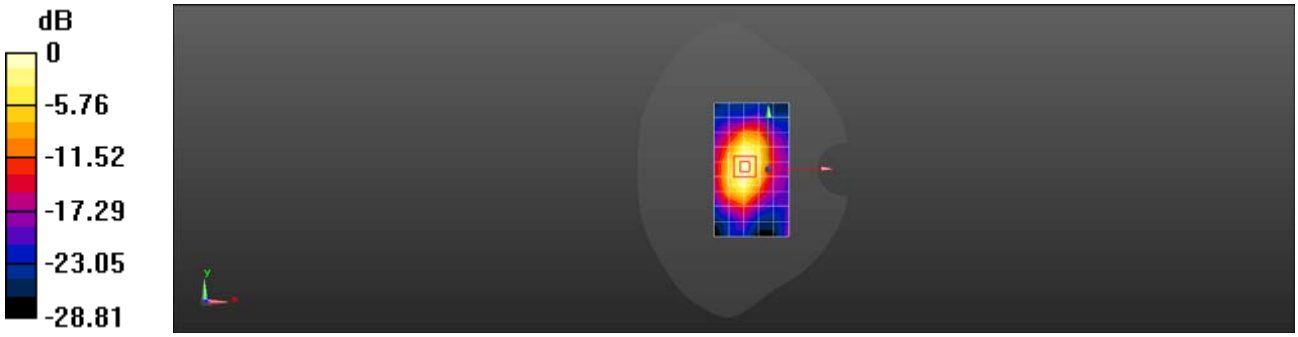
Communication System: UID 0, CW (0); Frequency: 1750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.474 S/m; ε_r = 53.54; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7505; ConvF(8.23, 8.23, 8.23) @ 1750 MHz; Calibrated: 2018-6-12
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1235; Calibrated: 2017-11-16
- Phantom: SAM6; Type: SAM; Serial: 1894
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Configuration/d=10mm pin=250mW/Area Scan (6x10x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 11.8 W/kg

Configuration/d=10mm pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 78.52 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 13.5 W/kg
SAR(1 g) = 8.5 W/kg; SAR(10 g) = 4.78 W/kg
Maximum value of SAR (measured) = 11.9 W/kg



0 dB = 11.8 W/kg = 10.71 dBW/kg

Date: 2018-11-16

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; σ = 1.503 S/m; ε_r = 52.64; ρ = 1000 kg/m^3

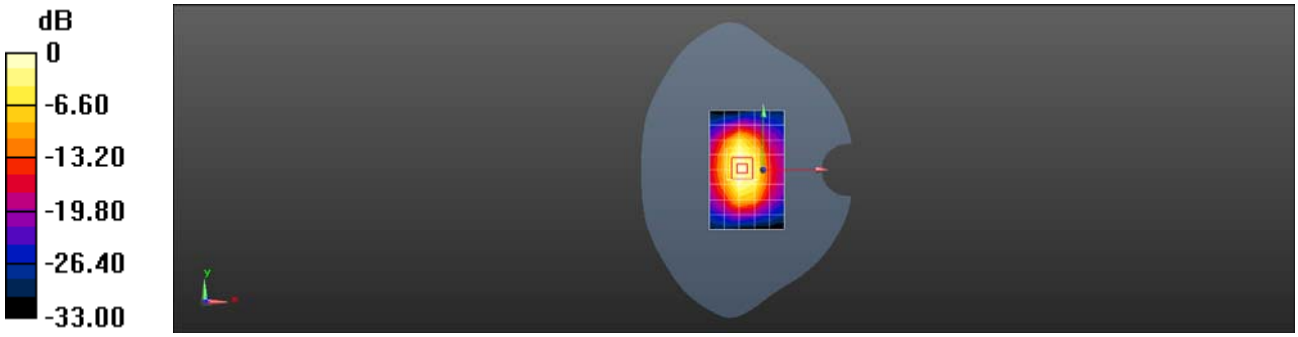
Phantom section: Flat Section

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: DAE3 Sn393; Calibrated: 2018-8-14
- Phantom: SAM2; Type: SAM; Serial: 1474
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Configuration/d=10mm, Pin=250mW/Area Scan (6x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 11.7 W/kg

Configuration/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 92.29 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 15.5 W/kg
SAR(1 g) = 8.58 W/kg; SAR(10 g) = 4.54 W/kg
Maximum value of SAR (measured) = 13.0 W/kg



0 dB = 11.7 W/kg = 10.69 dBW/kg

Date: 2018-10-13

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D1900-EX-Body

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d142

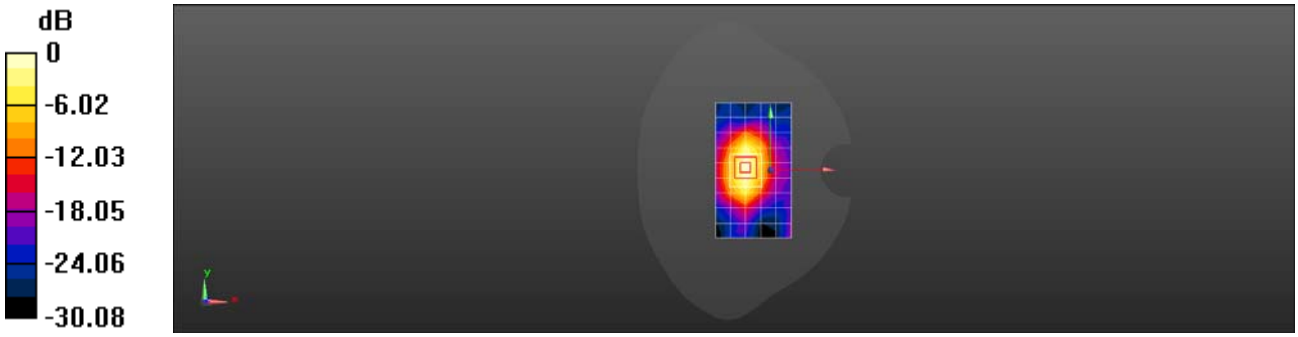
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.567 S/m; ε_r = 51.53; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7505; ConvF(7.87, 7.87, 7.87) @ 1900 MHz; Calibrated: 2018-6-12
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1235; Calibrated: 2017-11-16
- Phantom: SAM6; Type: SAM; Serial: 1894
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Configuration/d=10mm pin=250mW/Area Scan (6x10x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 14.6 W/kg

Configuration/d=10mm pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 79.89 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 16.4 W/kg
SAR(1 g) = 9.97 W/kg; SAR(10 g) = 5.4 W/kg
Maximum value of SAR (measured) = 14.4 W/kg



0 dB = 14.6 W/kg = 11.63 dBW/kg

Date: 2018-10-15

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D1900-EX-Body

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d142

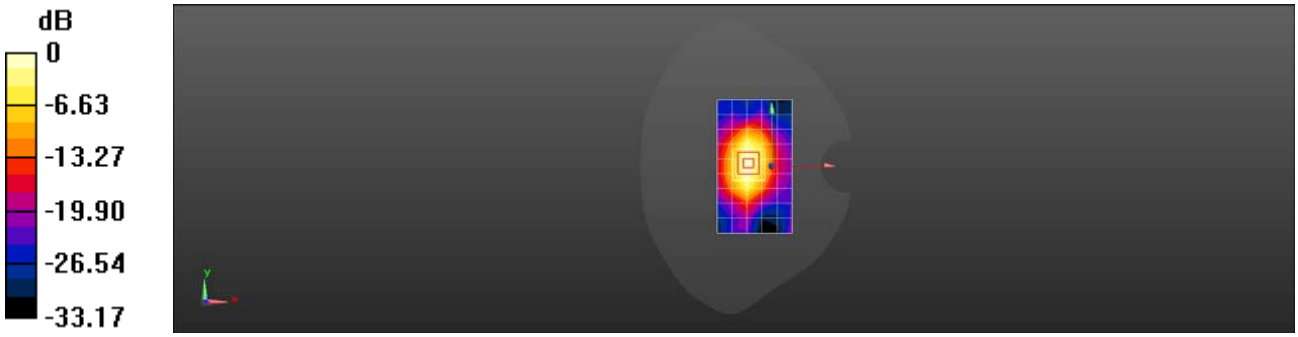
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.581 S/m; ε_r = 53.06; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7505; ConvF(7.87, 7.87, 7.87) @ 1900 MHz; Calibrated: 2018-6-12
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1235; Calibrated: 2017-11-16
- Phantom: SAM6; Type: SAM; Serial: 1894
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Configuration/d=10mm pin=250mW/Area Scan (6x10x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 14.5 W/kg

Configuration/d=10mm pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 83.65 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 16.7 W/kg
SAR(1 g) = 10.2 W/kg; SAR(10 g) = 5.53 W/kg
Maximum value of SAR (measured) = 14.8 W/kg



0 dB = 14.5 W/kg = 11.61 dBW/kg

Date: 2018-11-13

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D2450-EX-Body

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:978

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2450 MHz; σ = 1.998 S/m; ε_r = 51.86; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

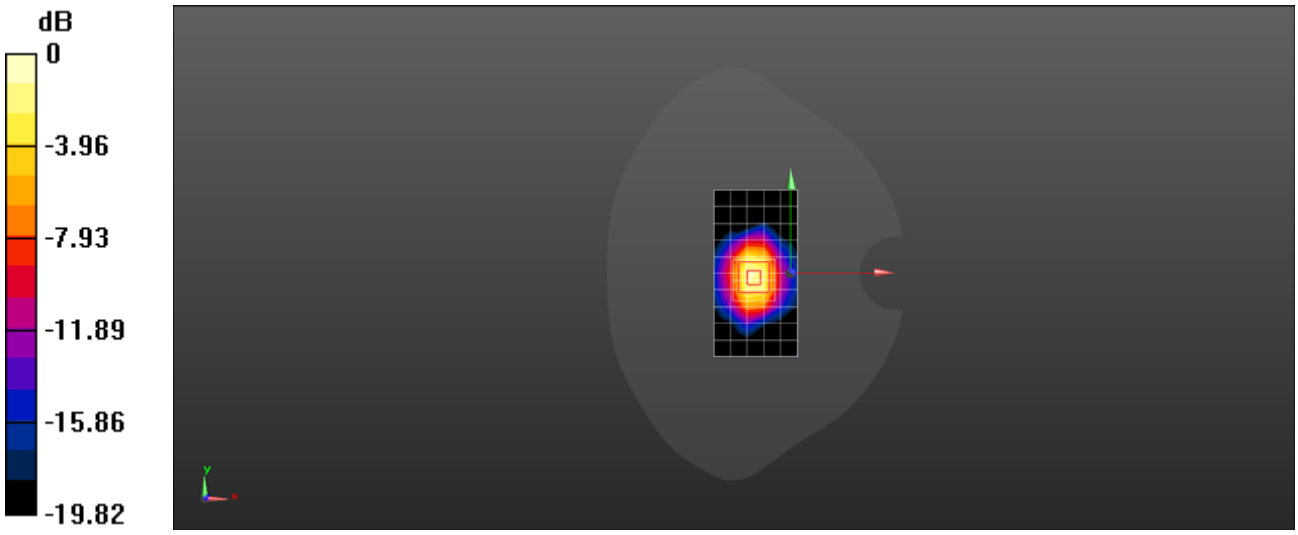
- Probe: EX3DV4 - SN7505; ConvF(7.28, 7.28, 7.28) @ 2450 MHz; Calibrated: 2018-6-12
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn916; Calibrated: 2017-12-14
- Phantom: SAM6; Type: SAM; Serial: 1894
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

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

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 13.2 W/kg

Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 84.56 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 21.2 W/kg
SAR(1 g) = 12 W/kg; SAR(10 g) = 5.89 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 15.4 W/kg



0 dB = 15.4 W/kg = 11.88 dBW/kg

Date: 2018-10-17

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D2600-EX-Body

DUT: Dipole 2600 MHz D2600V2; Type: D2600V2; Serial: D2600V2 - SN:1058

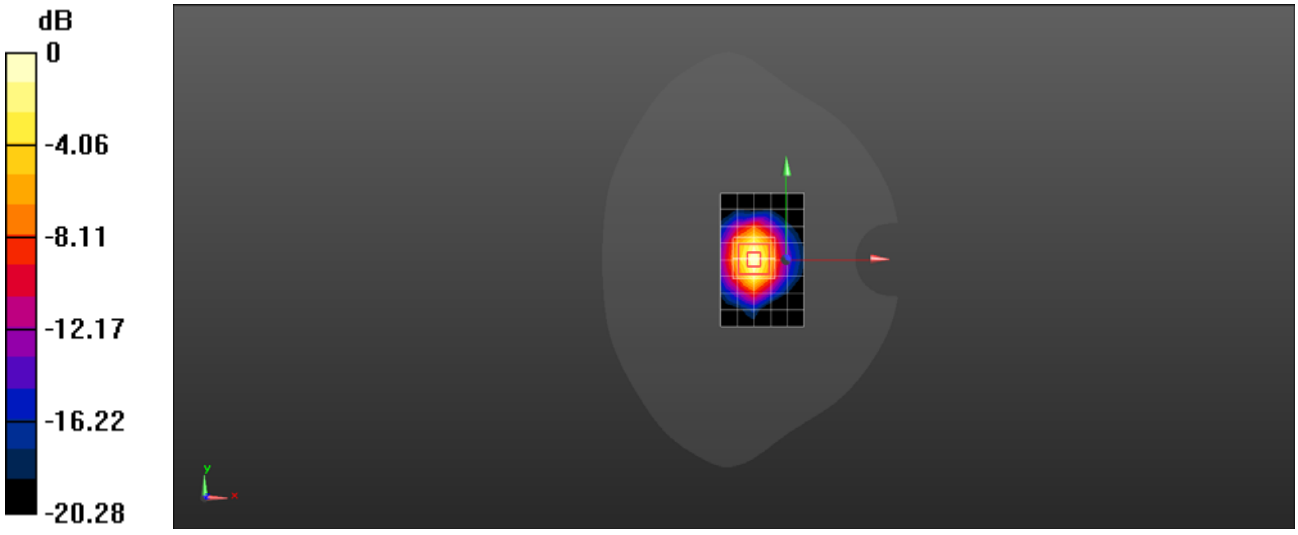
Communication System: UID 0, CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 2.16 S/m; ε_r = 53.04; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7505; ConvF(7.23, 7.23, 7.23) @ 2600 MHz; Calibrated: 2018-6-12
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1235; Calibrated: 2017-11-16
- Phantom: SAM6; Type: SAM; Serial: 1894
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Configuration/d=10mm, Pin=250mW/Area Scan (6x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 22.4 W/kg

Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 84.98 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 24.8 W/kg
SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.33 W/kg
Maximum value of SAR (measured) = 21.1 W/kg



0 dB = 21.1 W/kg = 13.24 dBW/kg

Date: 2018-10-22

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D2600-EX-Body

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

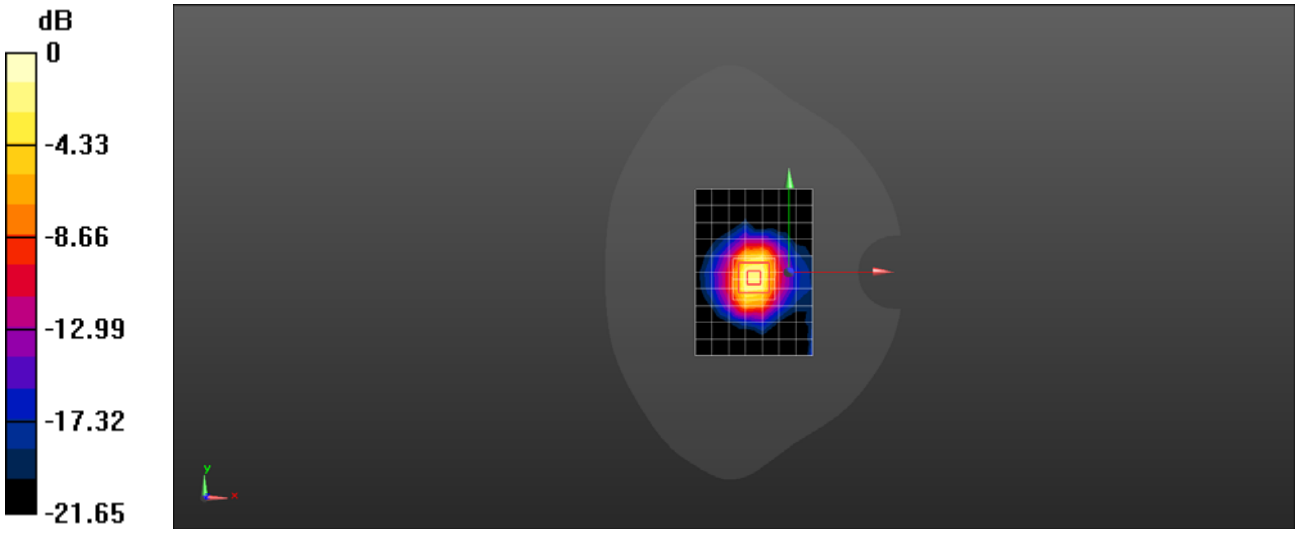
Communication System: UID 0, CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 2.188 S/m; ε_r = 50.94; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7505; ConvF(7.23, 7.23, 7.23) @ 2600 MHz; Calibrated: 2018-6-12
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1235; Calibrated: 2017-11-16
- Phantom: SAM6; Type: SAM; Serial: 1894
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Configuration/d=10mm, Pin=250mW/Area Scan (8x11x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 15.2 W/kg

Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 102.2 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 25.9 W/kg
SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.27 W/kg
Maximum value of SAR (measured) = 21.8 W/kg



0 dB = 21.8 W/kg = 13.38 dBW/kg

Date: 2018-10-24

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D2600-EX-Body

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

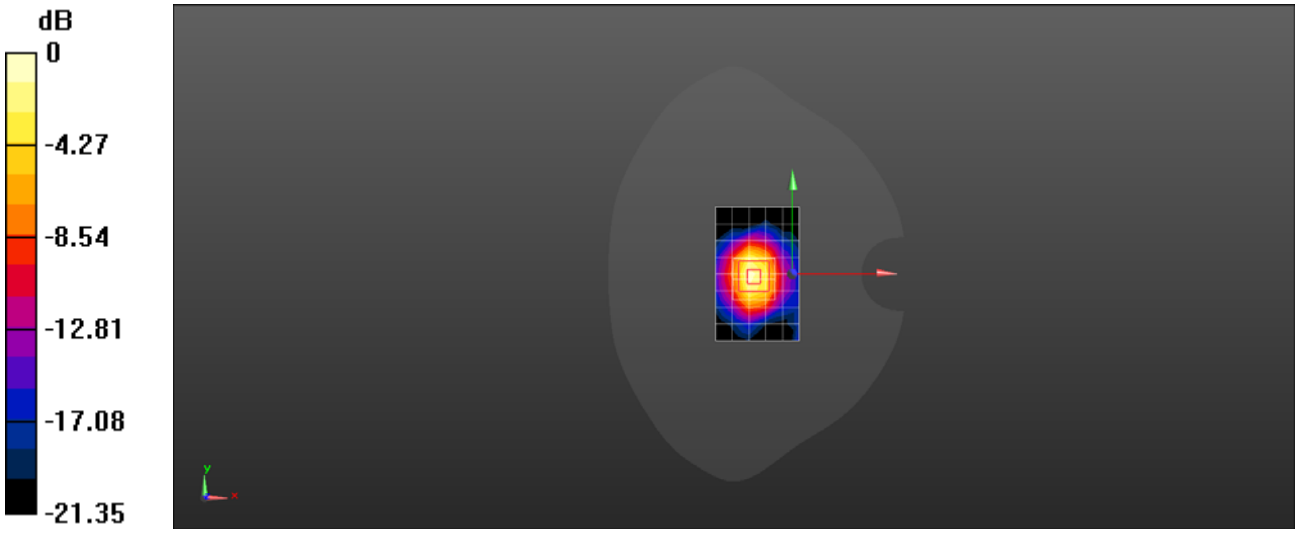
Communication System: UID 0, CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 2.204 S/m; ε_r = 51.98; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN7505; ConvF(7.23, 7.23, 7.23) @ 2600 MHz; Calibrated: 2018-6-12
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE4 Sn1235; Calibrated: 2017-11-16
- Phantom: SAM6; Type: SAM; Serial: 1894
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Configuration/d=10mm, Pin=250mW/Area Scan (6x9x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 20.3 W/kg

Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 101.3 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 26.4 W/kg
SAR(1 g) = 13.8 W/kg; SAR(10 g) = 6.47 W/kg
Maximum value of SAR (measured) = 22.1 W/kg



0 dB = 22.1 W/kg = 13.44 dBW/kg

Date: 2018-11-16

Test Laboratory: HUAWEI SAR/HAC Lab

SystemPerformanceCheck-D2600-EX-Body

DUT: Dipole 2600 MHz D2600V2; Type: D2600V2; Serial: D2600V2 - SN:1058

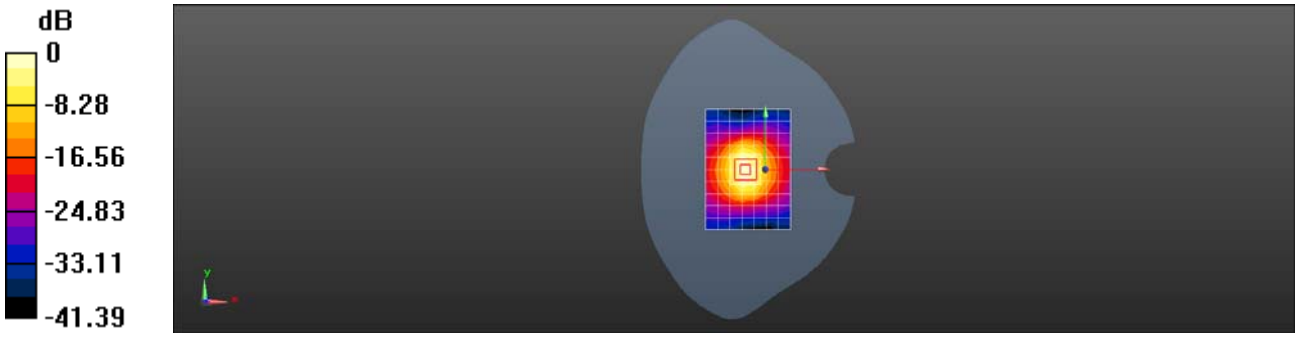
Communication System: UID 0, CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 2.201 S/m; ε_r = 51.53; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3744; ConvF(7.35, 7.35, 7.35) @ 2600 MHz; Calibrated: 2018-7-25
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 31.0
- Electronics: DAE3 Sn393; Calibrated: 2018-8-14
- Phantom: SAM2; Type: SAM; Serial: 1474
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Configuration/d=10mm, Pin=250mW/Area Scan (8x11x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 20.0 W/kg

Configuration/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 104.7 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 29.5 W/kg
SAR(1 g) = 13.7 W/kg; SAR(10 g) = 6.06 W/kg
Maximum value of SAR (measured) = 23.7 W/kg



0 dB = 20.0 W/kg = 13.01 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. [Mhz]	DATE	PROBE SN	PROBE TYPE	PROBE CAL POINT		PERM	COND	CW VALIDATION			MOD.VALIDATION		
						(εr)	(σ)	SENSI-TIVITY	PROBE LINARITY	PROBE ISOTROPY	MOD. TYPE	DUTY. FACTORE	PAR
750	2018-10-14	3744	EX3DV4	750	Head	43.55	0.880	PASS	PASS	PASS	NA	NA	N/A
835	2018-10-10	3744	EX3DV4	835	Head	41.02	0.927	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2018-10-14	3744	EX3DV4	1750	Head	41.82	1.324	PASS	PASS	PASS	NA	NA	N/A
1900	2018-10-10	3744	EX3DV4	1900	Head	39.14	1.424	PASS	PASS	PASS	GMSK	PASS	N/A
2000	2018-10-10	3744	EX3DV4	2000	Head	39.05	1.469	PASS	PASS	PASS	NA	NA	N/A
2300	2018-10-14	3744	EX3DV4	2300	Head	39.66	1.630	PASS	PASS	PASS	NA	NA	N/A
2450	2018-10-14	3744	EX3DV4	2450	Head	40.26	1.768	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
2600	2018-10-10	3744	EX3DV4	2600	Head	38.33	1.916	PASS	PASS	PASS	TDD	PASS	N/A
750	2018-10-17	3744	EX3DV4	750	Body	53.29	0.975	PASS	PASS	PASS	NA	NA	N/A
835	2018-10-17	3744	EX3DV4	835	Body	52.67	1.009	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2018-10-17	3744	EX3DV4	1750	Body	52.03	1.471	PASS	PASS	PASS	NA	NA	N/A
1900	2018-10-17	3744	EX3DV4	1900	Body	51.57	1.579	PASS	PASS	PASS	GMSK	PASS	N/A
2450	2018-10-17	3744	EX3DV4	2450	Body	52.19	2.044	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
2600	2018-10-17	3744	EX3DV4	2600	Body	51.94	2.190	PASS	PASS	PASS	TDD	PASS	N/A

Table of SAR System validation summary:

FREQ. [Mhz]	DATE	PROBE SN	PROBE TYPE	PROBE CAL POINT		PERM (εr)	COND (σ)	CW VALIDATION			MOD.VALIDATION		
								SENSI-TIVITY	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. [Mhz]	DATE	PROBE SN	PROBE TYPE	PROBE CAL POINT		PERM (εr)	COND (σ)	CW VALIDATION			MOD.VALIDATION		
								SENSI-TIVITY	PROBE LINARITY	PROBE ISOTROPY	MOD. TYPE	DUTY. FACTORE	PAR
750	2017/12/25	3071	EX3DV4	750	Head	41.04	0.874	PASS	PASS	PASS	N/A	N/A	N/A
835	2017/12/25	3071	EX3DV4	835	Head	40.80	0.902	PASS	PASS	PASS	GMSK	PASS	N/A
900	2017/12/25	3071	EX3DV4	900	Head	38.87	1.313	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2017/12/25	3071	EX3DV4	1750	Head	38.87	1.313	PASS	PASS	PASS	NA	NA	N/A
1900	2017/12/25	3071	EX3DV4	1900	Head	38.67	1.410	PASS	PASS	PASS	GMSK	PASS	N/A
2000	2017/12/25	3071	EX3DV4	2000	Head	38.51	1.469	PASS	PASS	PASS	N/A	N/A	N/A
2300	2017/12/25	3071	EX3DV4	2300	Head	38.11	1.672	PASS	PASS	PASS	N/A	N/A	N/A
2450	2017/12/25	3071	EX3DV4	2450	Head	37.91	1.785	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
2600	2017/12/25	3071	EX3DV4	2600	Head	37.75	1.905	PASS	PASS	PASS	TDD	PASS	N/A
750	2017/12/25	3071	EX3DV4	750	Body	55.56	0.942	PASS	PASS	PASS	N/A	N/A	N/A
835	2017/12/25	3071	EX3DV4	835	Body	55.35	0.974	PASS	PASS	PASS	GMSK	PASS	N/A
1750	2017/12/25	3071	EX3DV4	1750	Body	53.56	1.454	PASS	PASS	PASS	N/A	N/A	N/A
1900	2017/12/25	3071	EX3DV4	1900	Body	53.38	1.574	PASS	PASS	PASS	GMSK	PASS	N/A
2300	2017/12/25	3071	EX3DV4	2300	Body	52.84	1.893	PASS	PASS	PASS	N/A	N/A	N/A
2450	2017/12/25	3071	EX3DV4	2450	Body	52.63	2.032	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
2600	2017/12/25	3071	EX3DV4	2600	Body	52.46	2.178	PASS	PASS	PASS	TDD	PASS	N/A

FREQ.	DATE	PROBE SN	PROBE TYPE	PROBE CAL POINT		PERM	COND	CW VALIDATION			MOD.VALIDATION		
[Mhz]						(εr)	(σ)	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

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 KDB865664.