



Appendix B SAR Measurement Plots

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Test Laboratory: HUAWEI SAR/HAC Lab

R227h GSM 850 GPRS 2TS 128CH Back side 10mm

DUT: R227h; Type: Mobile WiFi; Serial: SAR3

Communication System: UID 0, HW-GSM\GPRS\EGPRS-2TS (0); Frequency: 836.6 MHz; Duty Cycle: 1:4.10015

Medium parameters used: $f = 837$ MHz; $\sigma = 1.003$ S/m; $\epsilon_r = 54.796$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7381; ConvF(9.78, 9.78, 9.78); Calibrated: 2016/9/29;
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn1492; Calibrated: 2016/9/28
- ε Phantom: SAM6; Type: QD 000 P40 CD; Serial: 1892
- ε DASY52 52.8.8(1222); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (8x11x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

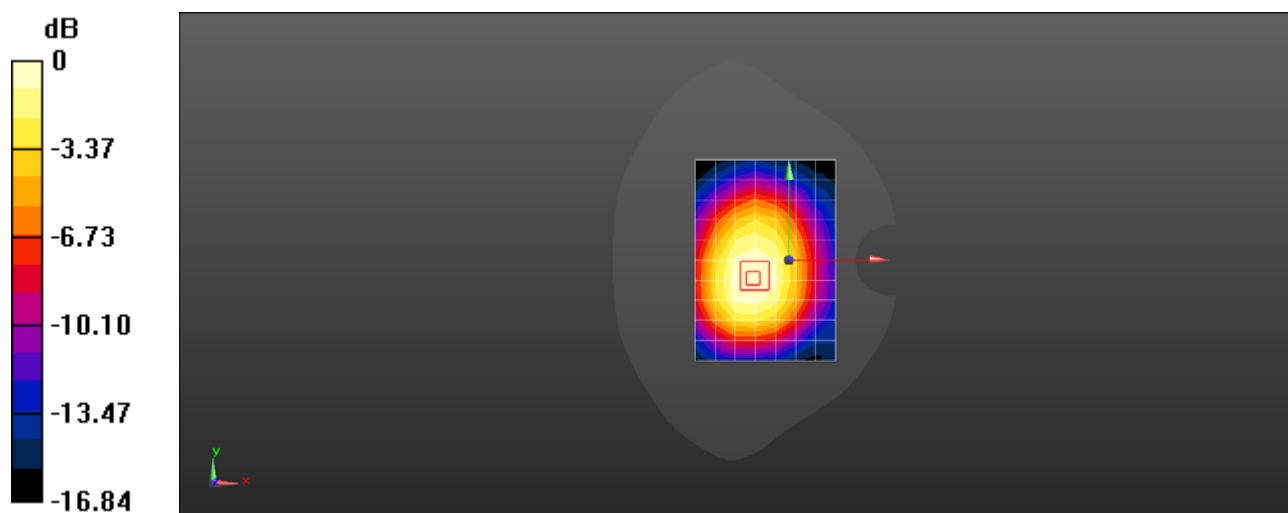
Maximum value of SAR (measured) = 0.645 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 22.10 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.683 W/kg

SAR(1 g) = 0.551 W/kg; SAR(10 g) = 0.415 W/kg



0 dB = 0.645 W/kg = -1.90 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

R227h GSM 1900 GPRS 2TS 810CH Back side 10mm

DUT: R227h; Type: Mobile WiFi; Serial: SAR3

Communication System: UID 0, HW-GSM\GPRS\EGPRS-2TS (0); Frequency: 1909.8 MHz; Duty Cycle: 1:4.10015

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.573$ S/m; $\epsilon_r = 53.687$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7381; ConvF(7.95, 7.95, 7.95); Calibrated: 2016/9/29;
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn1492; Calibrated: 2016/9/28
- ε Phantom: SAM6; Type: QD 000 P40 CD; Serial: 1892
- ε DASY52 52.8.8(1222); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (8x11x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.543 W/kg

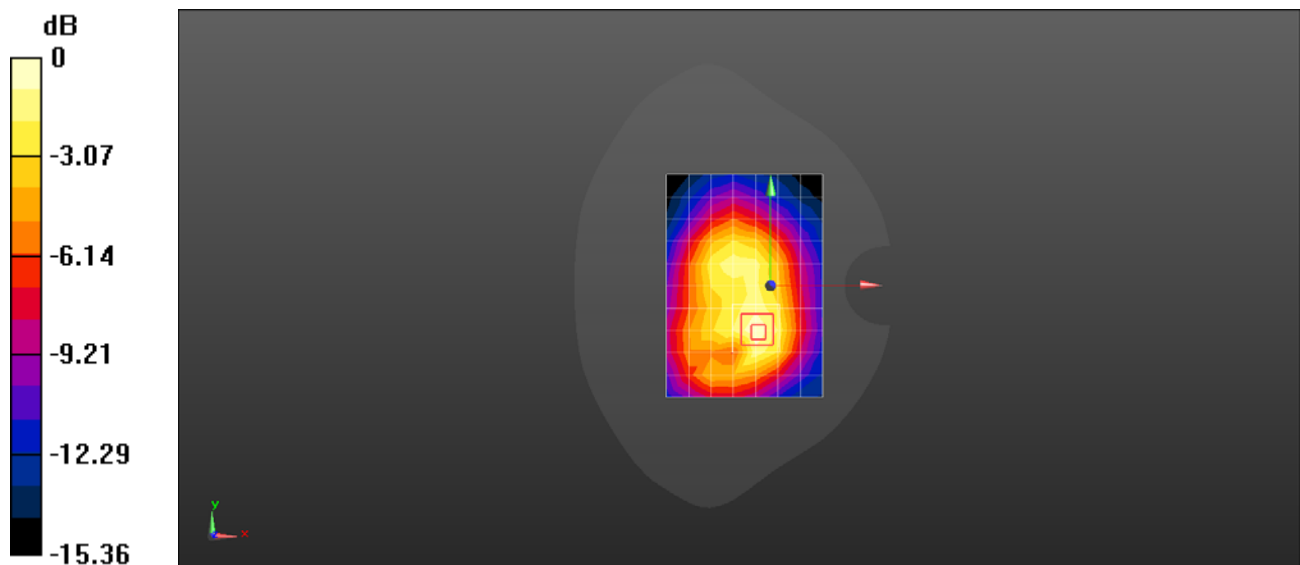
Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 13.52 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.618 W/kg

SAR(1 g) = 0.395 W/kg; SAR(10 g) = 0.242 W/kg

Maximum value of SAR (measured) = 0.536 W/kg



0 dB = 0.543 W/kg = -2.65 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

R227h UMTS Band II 9262CH Front side 10mm

DUT: R227h; Type: Mobile WiFi; Serial: SAR3

Communication System: UID 0, HW-UMTS-FDD(WCDMA) (0); Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.527$ S/m; $\epsilon_r = 53.79$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7381; ConvF(7.95, 7.95, 7.95); Calibrated: 2016/9/29;
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn1492; Calibrated: 2016/9/28
- ε Phantom: SAM6; Type: QD 000 P40 CD; Serial: 1892
- ε DASY52 52.8.8(1222); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (8x11x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

Maximum value of SAR (measured) = 0.887 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

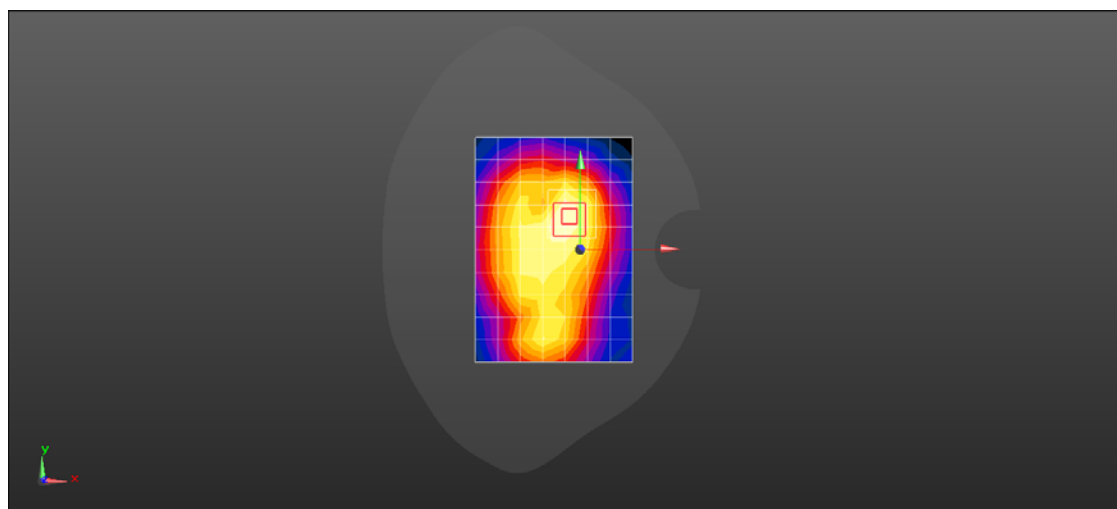
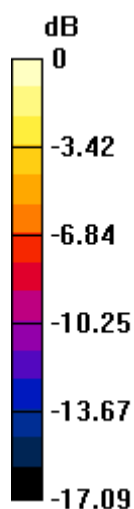
Reference Value = 17.87 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.05 W/kg

SAR(1 g) = 0.699 W/kg; SAR(10 g) = 0.430 W/kg

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

Maximum value of SAR (measured) = 0.928 W/kg



0 dB = 0.887 W/kg = -0.52 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

R227h UMTS Band V 4182CH Front side 10mm

DUT: R227h; Type: Mobile WiFi; Serial: SAR3

Communication System: UID 0, HW-UMTS-FDD(WCDMA) (0); Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 1.003$ S/m; $\epsilon_r = 54.797$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7381; ConvF(9.78, 9.78, 9.78); Calibrated: 2016/9/29;
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn1492; Calibrated: 2016/9/28
- ε Phantom: SAM6; Type: QD 000 P40 CD; Serial: 1892
- ε DASY52 52.8.8(1222); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (8x11x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

Maximum value of SAR (measured) = 0.531 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

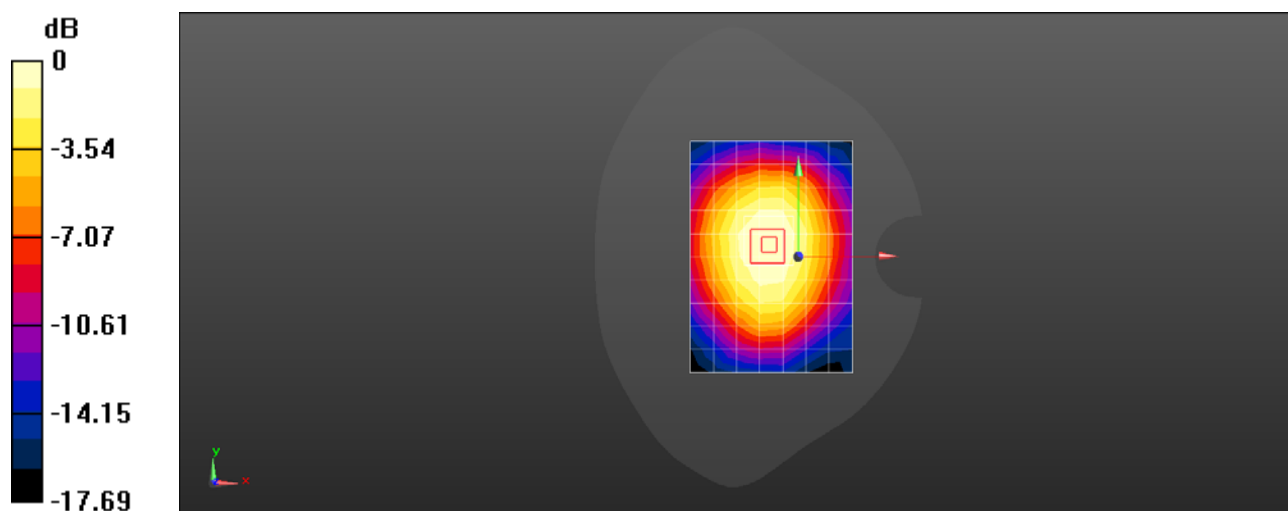
Reference Value = 21.23 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.555 W/kg

SAR(1 g) = 0.449 W/kg; SAR(10 g) = 0.343 W/kg

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

Maximum value of SAR (measured) = 0.524 W/kg



0 dB = 0.531 W/kg = -2.75 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

R227h LTE Band V 10M QPSK 50% RB 13 offset 20525CH Front side 10mm

DUT: R227h; Type: Mobile WiFi; Serial: SAR3

Communication System: UID 0, LTE-FDD (SC-FDMA, 10MHz, QPSK/16-QAM) (0); Frequency: 836.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 1.003$ S/m; $\epsilon_r = 54.796$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7381; ConvF(9.78, 9.78, 9.78); Calibrated: 2016/9/29;
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn1492; Calibrated: 2016/9/28
- ε Phantom: SAM6; Type: QD 000 P40 CD; Serial: 1892
- ε DASY52 52.8.8(1222); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (8x11x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

Maximum value of SAR (measured) = 0.676 W/kg

Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

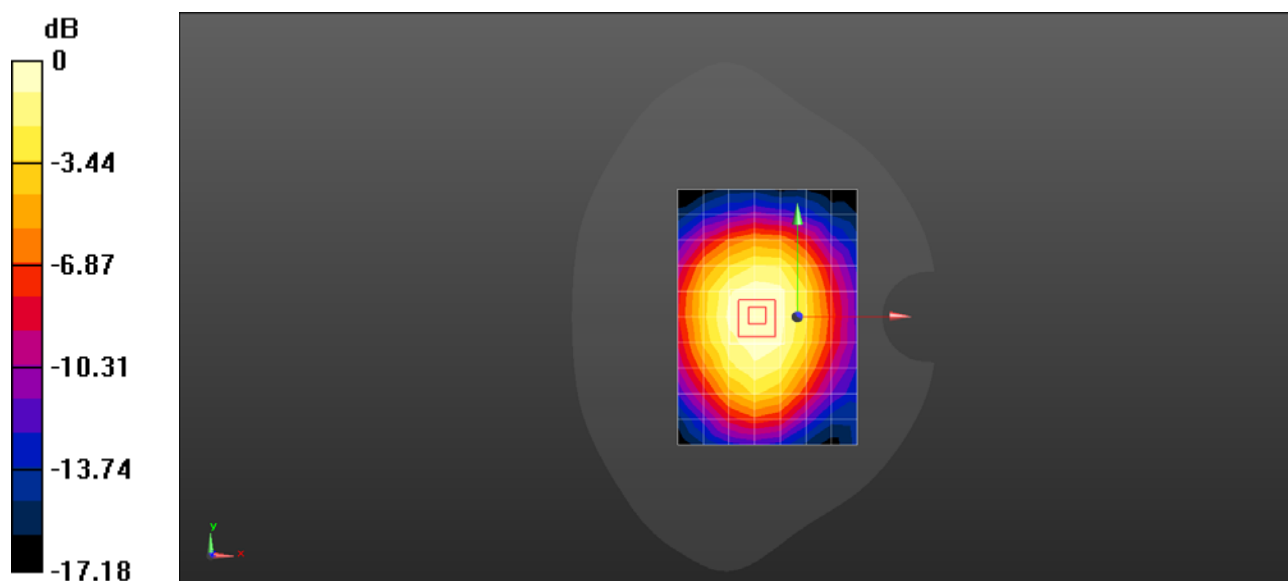
Reference Value = 23.65 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.693 W/kg

SAR(1 g) = 0.559 W/kg; SAR(10 g) = 0.428 W/kg

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

Maximum value of SAR (measured) = 0.654 W/kg



0 dB = 0.676 W/kg = -1.70 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

R227h LTE Band VII 20M QPSK 1 RB 99 offset 21100CH Front side 10mm

DUT: R227h; Type: Mobile WiFi; Serial: SAR3

Communication System: UID 0, LTE-FDD (SC-FDMA, 20MHz, QPSK/16-QAM) (0); Frequency: 2535 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2535 \text{ MHz}$; $\sigma = 2.126 \text{ S/m}$; $\epsilon_r = 52.816$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7381; ConvF(7.19, 7.19, 7.19); Calibrated: 2016/9/29;
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn1492; Calibrated: 2016/9/28
- ε Phantom: SAM6; Type: QD 000 P40 CD; Serial: 1892
- ε DASY52 52.8.8(1222); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (10x14x1): Measurement grid: $dx=12\text{mm}$, $dy=12\text{mm}$

Maximum value of SAR (measured) = 1.24 W/kg

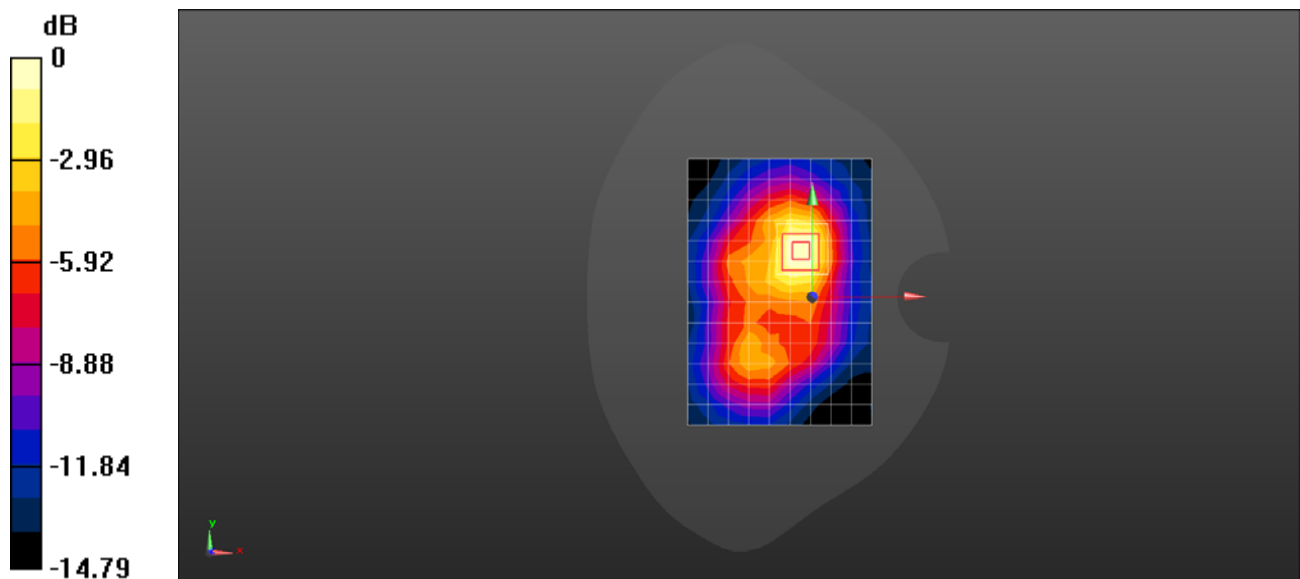
Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.69 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 1.81 W/kg

SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.542 W/kg

Maximum value of SAR (measured) = 1.55 W/kg



0 dB = 1.24 W/kg = 0.95 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

R227h LTE Band XXXVIII 20M QPSK 1 RB 0 offset 38150CH Front side 10mm

DUT: R227h; Type: Mobil WiFi; Serial: SAR3

Communication System: UID 0, LTE-TDD (SC-FDMA, 20MHz, QPSK/16-QAM) (0); Frequency: 2610 MHz; Duty Cycle: 1:1.58855

Medium parameters used: $f = 2610$ MHz; $\sigma = 2.181$ S/m; $\epsilon_r = 52.228$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7381; ConvF(7.19, 7.19, 7.19); Calibrated: 2016/9/29;
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn1492; Calibrated: 2016/9/28
- ε Phantom: SAM6; Type: QD 000 P40 CD; Serial: 1892
- ε DASY52 52.8.8(1222); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (10x14x1): Measurement grid: $dx=12$ mm, $dy=12$ mm

Maximum value of SAR (measured) = 0.578 W/kg

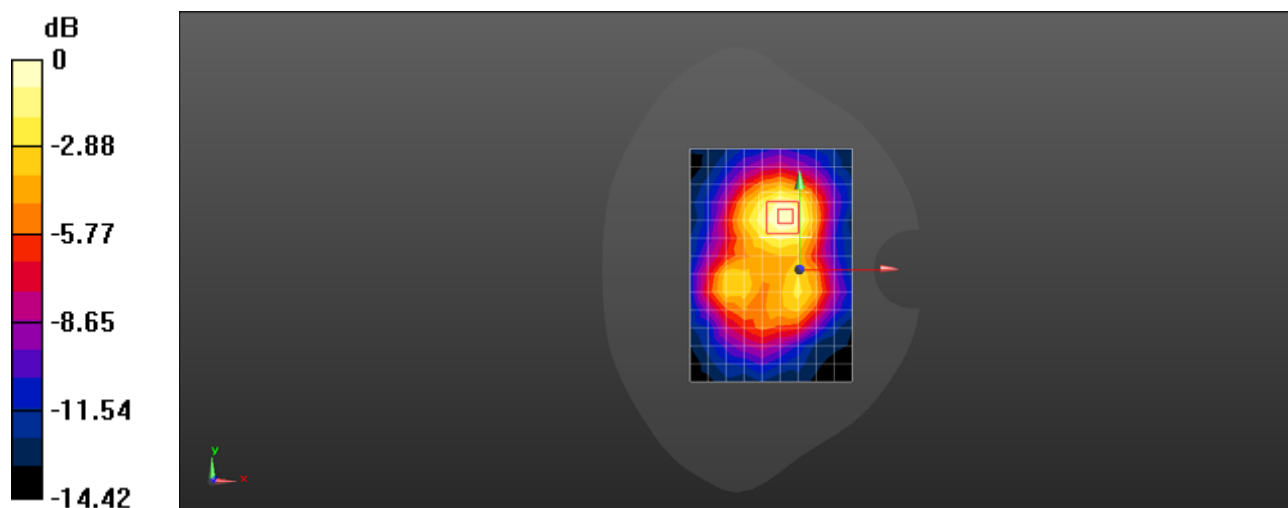
Configuration/Body/Zoom Scan (8x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 8.072 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 0.729 W/kg

SAR(1 g) = 0.419 W/kg; SAR(10 g) = 0.245 W/kg

Maximum value of SAR (measured) = 0.614 W/kg



0 dB = 0.578 W/kg = -2.38 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

R227h WIFI 2.4G 802.11b 10CH Top side 10mm-Ant 2

DUT: R227h; Type: Mobile WiFi ; Serial: SAR3

Communication System: UID 0, WiFi(802.11a/b/g/n) (0); Frequency: 2457 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 2457$ MHz; $\sigma = 2.004$ S/m; $\epsilon_r = 50.137$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7381; ConvF(7.45, 7.45, 7.45); Calibrated: 2016/9/29;
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- ε Electronics: DAE4 Sn1492; Calibrated: 2016/9/28
- ε Phantom: SAM6; Type: QD 000 P40 CD; Serial: 1892
- ε DASY52 52.8.8(1222); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (6x14x1): Measurement grid: $dx=12$ mm, $dy=12$ mm

Maximum value of SAR (measured) = 0.332 W/kg

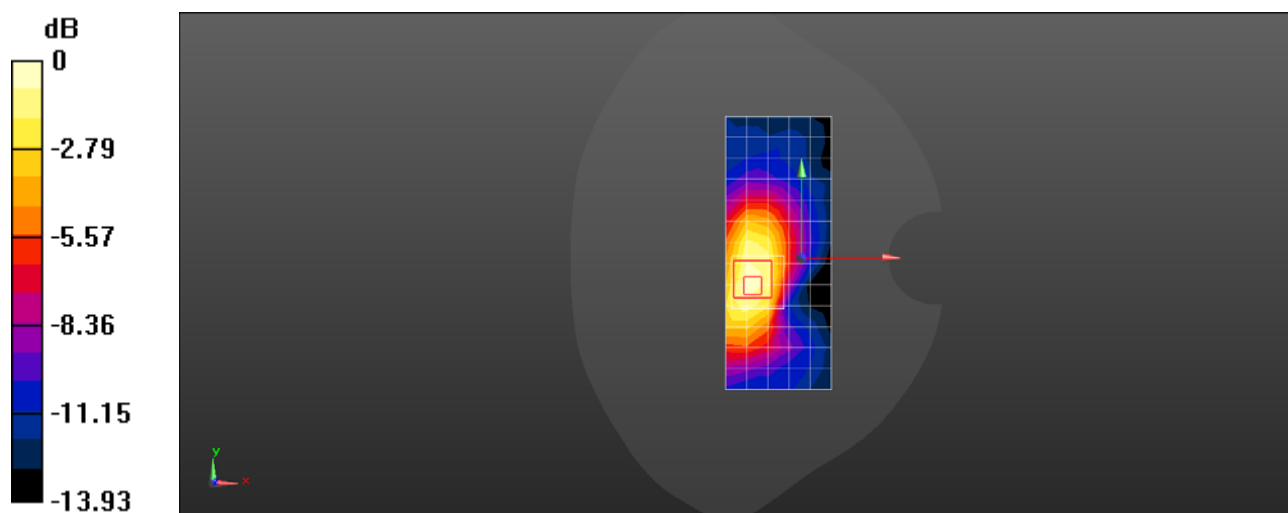
Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 8.652 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.432 W/kg

SAR(1 g) = 0.226 W/kg; SAR(10 g) = 0.128 W/kg

Maximum value of SAR (measured) = 0.340 W/kg



0 dB = 0.332 W/kg = -4.79 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

R227h WiFi 5G 802.11a 48CH Bottom side 10mm -ANT1

DUT: R227h; Type: Mobile WiFi; Serial: SAR3

Communication System: UID 0, WiFi(802.11a/b/g/n) (0); Frequency: 5240 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 5240$ MHz; $\sigma = 5.234$ S/m; $\epsilon_r = 47.952$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- ε Probe: EX3DV4 - SN7381; ConvF(4.56, 4.56, 4.56); Calibrated: 2016/9/29;
- ε Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 25.0$
- ε Electronics: DAE4 Sn1492; Calibrated: 2016/9/28
- ε Phantom: SAM6; Type: QD 000 P40 CD; Serial: 1892
- ε DASY52 52.8.8(1222); SEMCAD X 14.6.10(7373)

Configuration/Head/Area Scan (6x15x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 0.400 W/kg

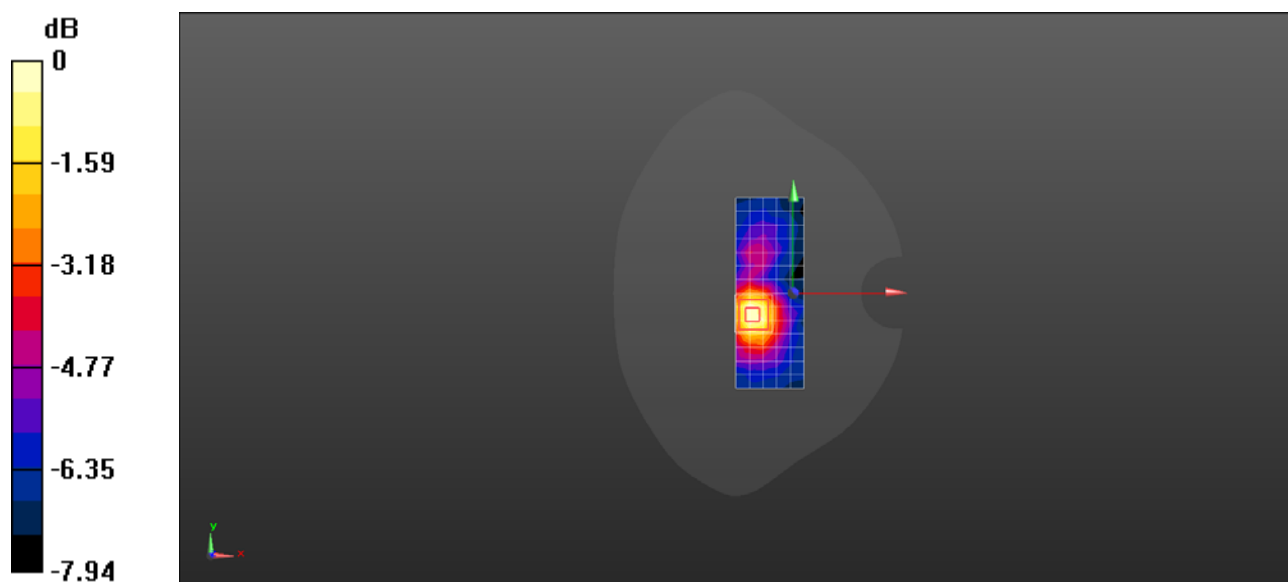
Configuration/Head/Zoom Scan (8x8x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 4.851 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.535 W/kg

SAR(1 g) = 0.261 W/kg; SAR(10 g) = 0.158 W/kg

Maximum value of SAR (measured) = 0.421 W/kg



0 dB = 0.400 W/kg = -3.97 dBW/kg