



## Appendix B. SAR Measurement Plots

Table of contents
<b>GSM 850 MHz Body</b>
<b>GSM 1900 MHz Body</b>
<b>UMTS Band V Body</b>
<b>UMTS Band II Body</b>
<b>WiFi 2450 MHz Body</b>

Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 GSM850 GPRS 3TS 251CH Front side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-GSM/GPRS/EGPRS-3TS (0); Frequency: 848.8 MHz; Duty Cycle: 1:2.77013

Medium parameters used:  $f = 849$  MHz;  $\sigma = 0.979$  S/m;  $\epsilon_r = 53.876$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(6.06, 6.06, 6.06); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 1.06 W/kg

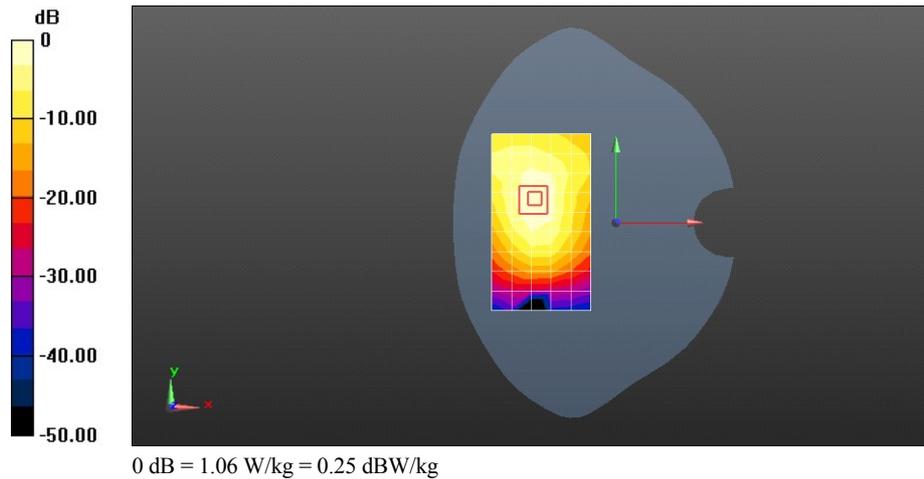
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 5.033 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 1.44 W/kg

**SAR(1 g) = 0.928 W/kg; SAR(10 g) = 0.566 W/kg**

Maximum value of SAR (measured) = 1.10 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

**E8231s-6 GSM850 GPRS 3TS 251CH Front side 5mm-repeated**

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-GSM/GPRS/EGPRS-3TS (0); Frequency: 848.8 MHz; Duty Cycle: 1:2.77013

Medium parameters used:  $f = 849$  MHz;  $\sigma = 0.979$  S/m;  $\epsilon_r = 53.876$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(6.06, 6.06, 6.06); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 1.09 W/kg

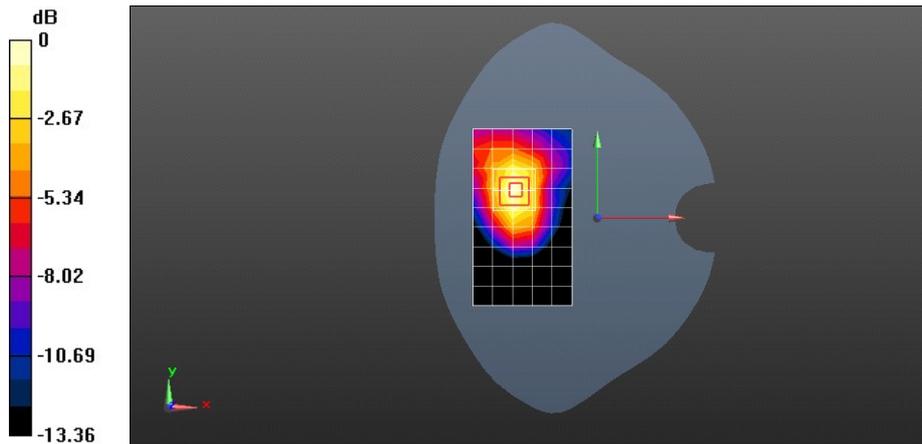
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 5.256 V/m; Power Drift = 0.13 dB

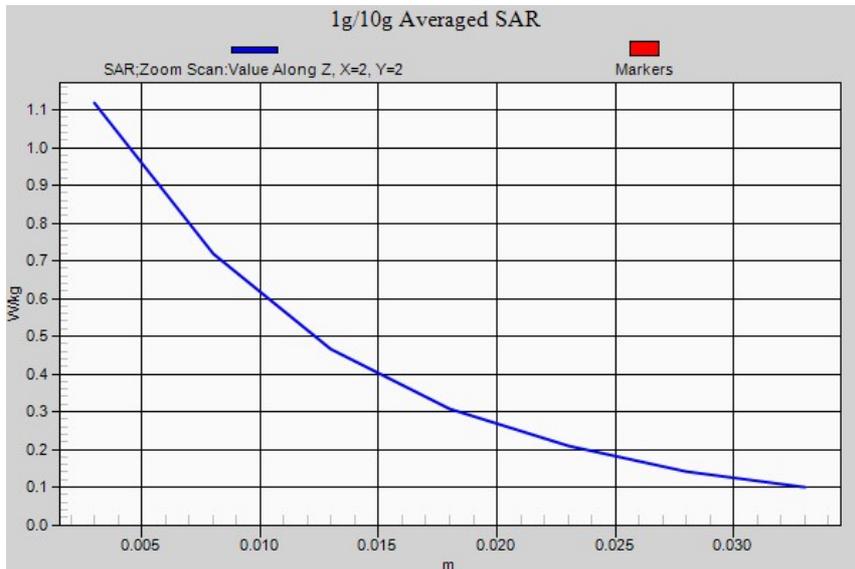
Peak SAR (extrapolated) = 1.50 W/kg

**SAR(1 g) = 0.933 W/kg; SAR(10 g) = 0.563 W/kg**

Maximum value of SAR (measured) = 1.12 W/kg



0 dB = 1.12 W/kg = 0.49 dBW/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 GSM850 GPRS 3TS 190CH Front side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-GSM/GPRS/EGPRS-3TS (0); Frequency: 836.6 MHz; Duty Cycle: 1:2.77013

Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.975$  S/m;  $\epsilon_r = 54.015$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(6.06, 6.06, 6.06); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.851 W/kg

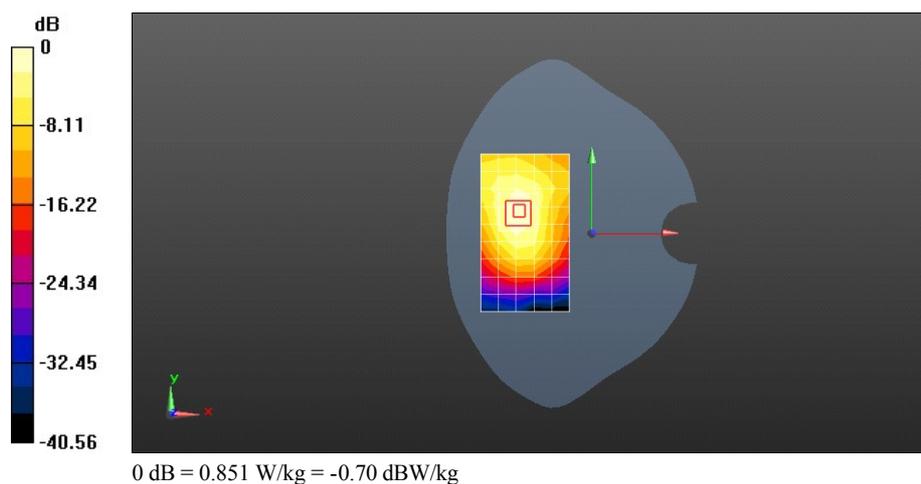
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 4.249 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 1.15 W/kg

**SAR(1 g) = 0.733 W/kg; SAR(10 g) = 0.446 W/kg**

Maximum value of SAR (measured) = 0.877 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 GSM850 GPRS 3TS 128CH Front side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-GSM\GPRS\EGPRS-3TS (0); Frequency: 824.2 MHz; Duty Cycle: 1:2.77013

Medium parameters used (interpolated):  $f = 824.2$  MHz;  $\sigma = 0.955$  S/m;  $\epsilon_r = 53.946$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(6.06, 6.06, 6.06); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

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

Maximum value of SAR (measured) = 0.653 W/kg

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

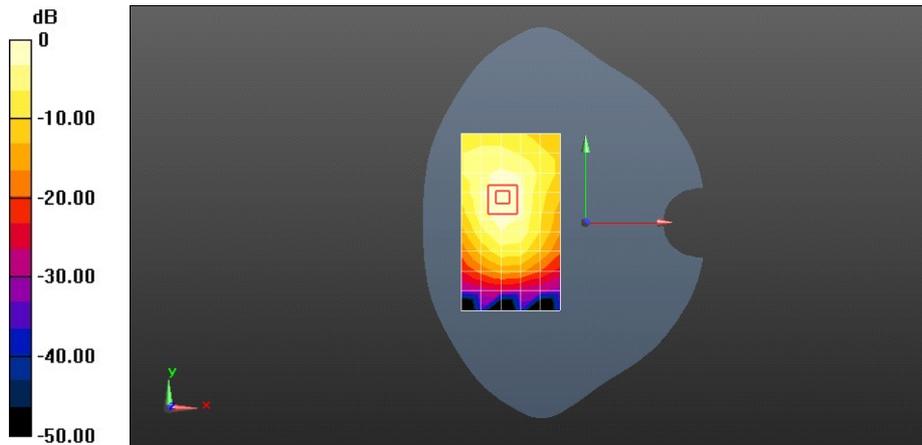
Reference Value = 4.041 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 0.887 W/kg

**SAR(1 g) = 0.569 W/kg; SAR(10 g) = 0.346 W/kg**

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

Maximum value of SAR (measured) = 0.681 W/kg



0 dB = 0.653 W/kg = -1.85 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 GSM850 GPRS 3TS 251CH Back side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-GSM/GPRS/EGPRS-3TS (0); Frequency: 848.8 MHz; Duty Cycle: 1:2.77013

Medium parameters used:  $f = 849$  MHz;  $\sigma = 0.979$  S/m;  $\epsilon_r = 53.876$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(6.06, 6.06, 6.06); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.974 W/kg

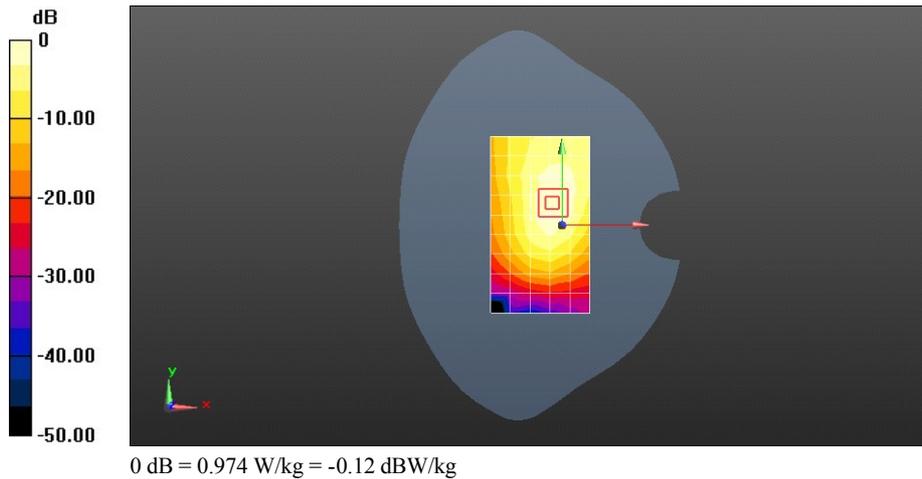
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 23.211 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.32 W/kg

**SAR(1 g) = 0.845 W/kg; SAR(10 g) = 0.517 W/kg**

Maximum value of SAR (measured) = 1.02 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 GSM850 GPRS 3TS 190CH Back side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-GSM/GPRS/EGPRS-3TS (0); Frequency: 836.6 MHz; Duty Cycle: 1:2.77013

Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.975$  S/m;  $\epsilon_r = 54.015$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(6.06, 6.06, 6.06); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.846 W/kg

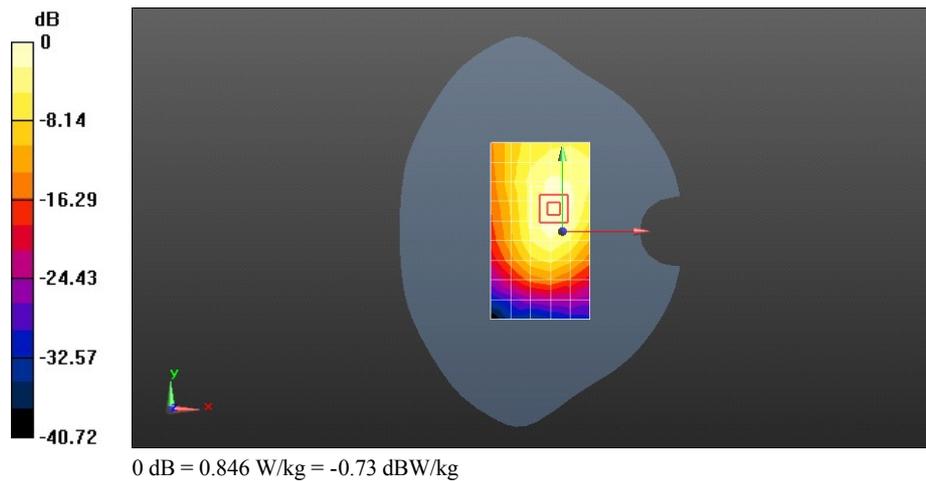
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 21.587 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 1.13 W/kg

**SAR(1 g) = 0.727 W/kg; SAR(10 g) = 0.447 W/kg**

Maximum value of SAR (measured) = 0.878 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 GSM850 GPRS 3TS 128CH Back side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-GSM/GPRS/EGPRS-3TS (0); Frequency: 824.2 MHz; Duty Cycle: 1:2.77013

Medium parameters used (interpolated):  $f = 824.2$  MHz;  $\sigma = 0.955$  S/m;  $\epsilon_r = 53.946$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(6.06, 6.06, 6.06); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (measured) = 0.680 W/kg

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

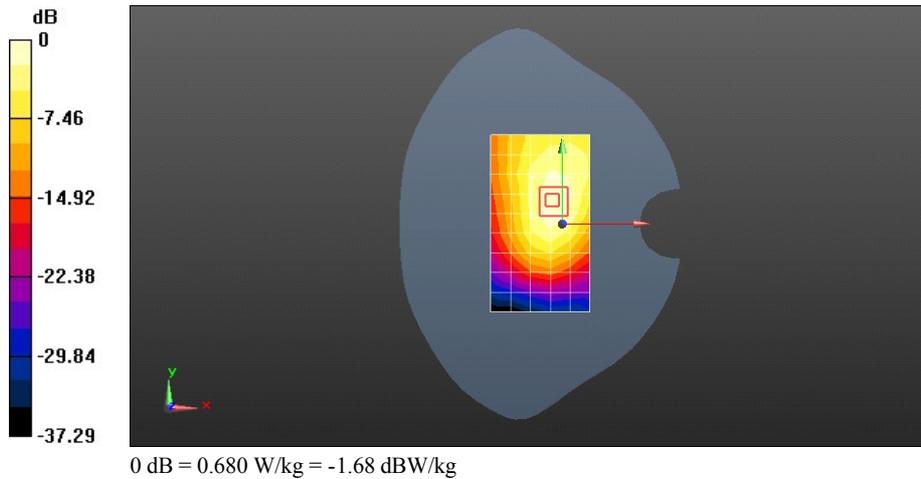
Reference Value = 19.741 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.916 W/kg

**SAR(1 g) = 0.587 W/kg; SAR(10 g) = 0.362 W/kg**

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

Maximum value of SAR (measured) = 0.708 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 GSM850 GPRS 3TS 190CH Left side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-GSM/GPRS/EGPRS-3TS (0); Frequency: 836.6 MHz; Duty Cycle: 1:2.77013

Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.975$  S/m;  $\epsilon_r = 54.015$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(6.06, 6.06, 6.06); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.262 W/kg

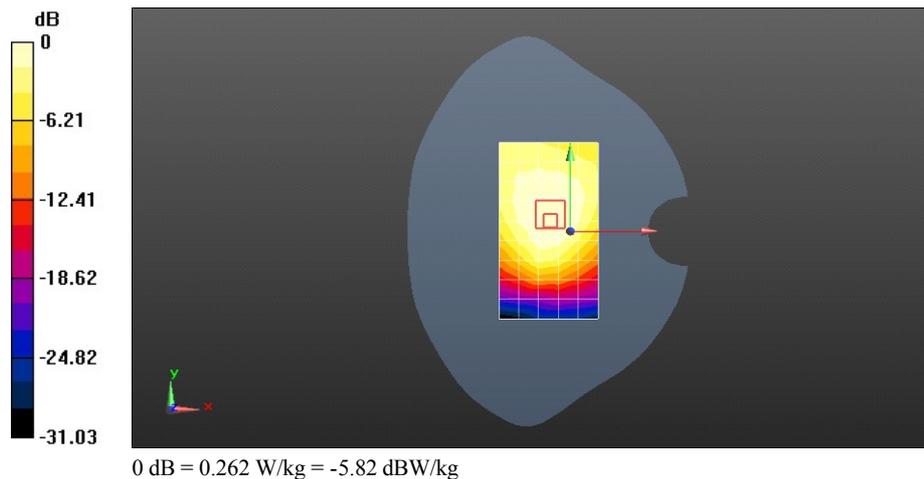
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 16.055 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.347 W/kg

**SAR(1 g) = 0.232 W/kg; SAR(10 g) = 0.161 W/kg**

Maximum value of SAR (measured) = 0.266 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 GSM850 GPRS 3TS 190CH Right side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-GSM/GPRS/EGPRS-3TS (0); Frequency: 836.6 MHz; Duty Cycle: 1:2.77013

Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.975$  S/m;  $\epsilon_r = 54.015$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(6.06, 6.06, 6.06); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.385 W/kg

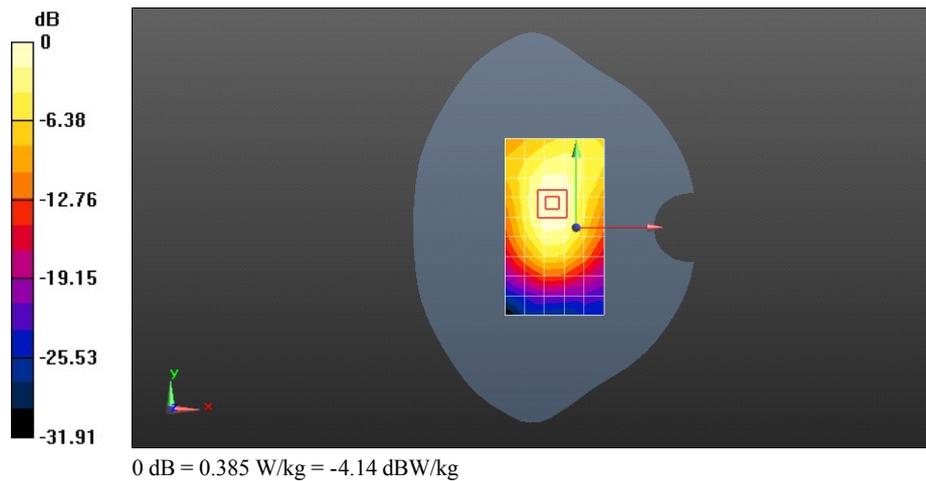
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 19.793 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.606 W/kg

**SAR(1 g) = 0.373 W/kg; SAR(10 g) = 0.227 W/kg**

Maximum value of SAR (measured) = 0.444 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

**E8231s-6 GSM1900 GPRS 2TS 810CH Front side 5mm**

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

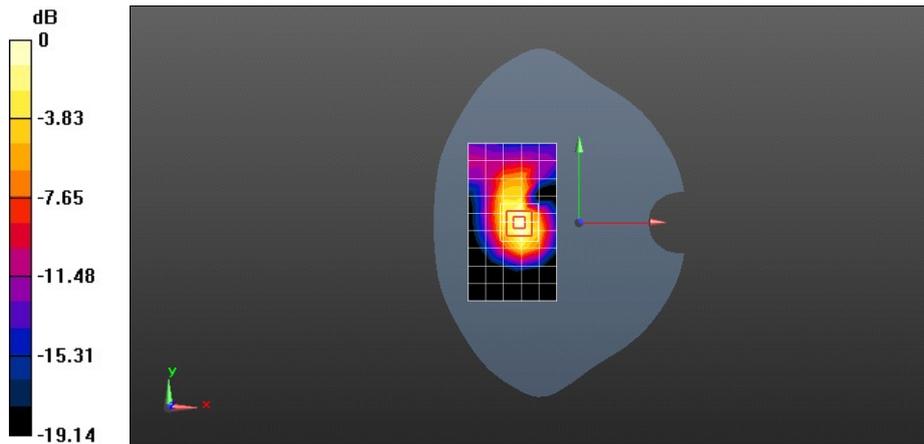
Communication System: UID 0, HW-GSM/GPRS/EGPRS-2TS (0); Frequency: 1909.8 MHz; Duty Cycle: 1:4.10015  
 Medium parameters used:  $f = 1910$  MHz;  $\sigma = 1.56$  S/m;  $\epsilon_r = 52.395$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

DASY Configuration:

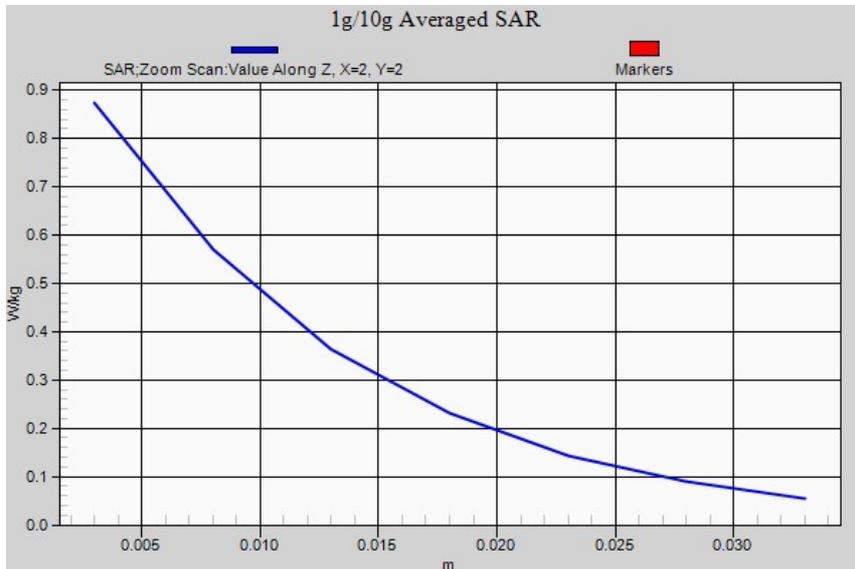
- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm  
 Maximum value of SAR (measured) = 0.824 W/kg

**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm  
 Reference Value = 4.008 V/m; Power Drift = 0.19 dB  
 Peak SAR (extrapolated) = 1.15 W/kg  
**SAR(1 g) = 0.726 W/kg; SAR(10 g) = 0.411 W/kg**  
 Maximum value of SAR (measured) = 0.874 W/kg



0 dB = 0.874 W/kg = -0.58 dBW/kg



Test Laboratory: HUAWEI SAR/HAC Lab

**E8231s-6 GSM1900 GPRS 2TS 661CH Front side 5mm**

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-GSM/GPRS/EGPRS-2TS (0); Frequency: 1880 MHz;Duty Cycle: 1:4.10015

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.528$  S/m;  $\epsilon_r = 52.498$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.784 W/kg

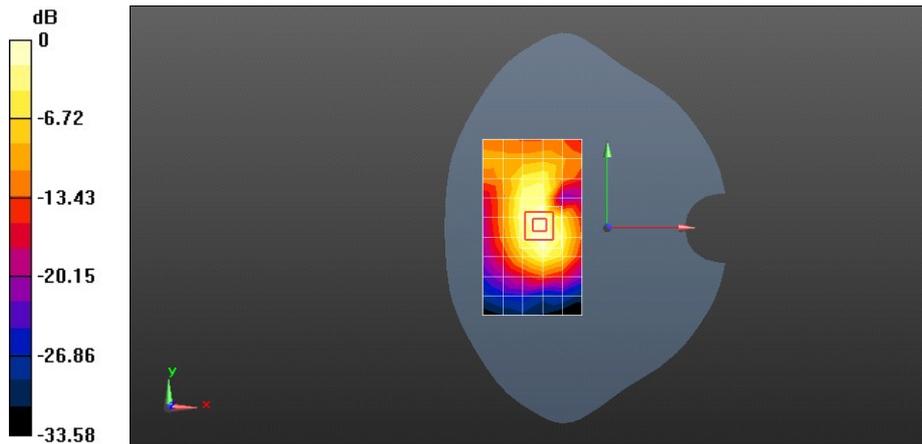
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 4.023 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 1.14 W/kg

**SAR(1 g) = 0.715 W/kg; SAR(10 g) = 0.406 W/kg**

Maximum value of SAR (measured) = 0.855 W/kg



0 dB = 0.784 W/kg = -1.06 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 GSM1900 GPRS 2TS 512CH Front side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-GSM/GPRS/EGPRS-2TS (0); Frequency: 1850.2 MHz; Duty Cycle: 1:4.10015

Medium parameters used (interpolated):  $f = 1850.2$  MHz;  $\sigma = 1.493$  S/m;  $\epsilon_r = 52.593$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

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

Maximum value of SAR (measured) = 0.719 W/kg

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

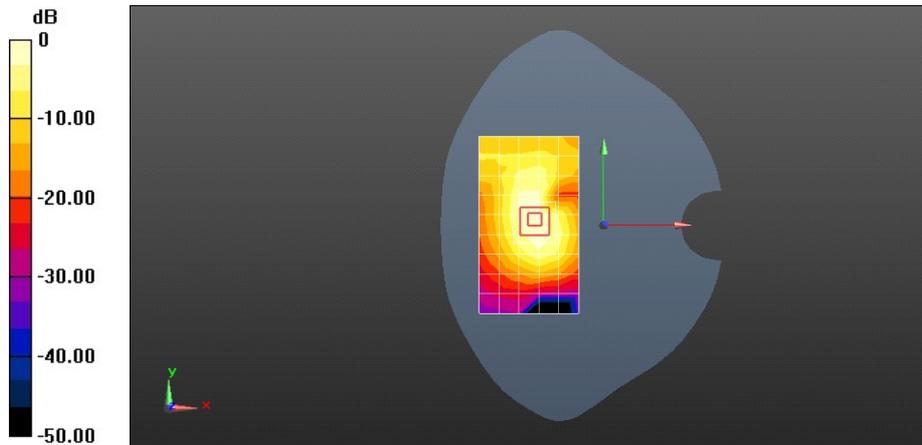
Reference Value = 3.889 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.05 W/kg

**SAR(1 g) = 0.645 W/kg; SAR(10 g) = 0.367 W/kg**

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

Maximum value of SAR (measured) = 0.764 W/kg



0 dB = 0.719 W/kg = -1.43 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 GSM1900 GPRS 2TS 810CH Back side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

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;  $\sigma = 1.56$  S/m;  $\epsilon_r = 52.395$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.719 W/kg

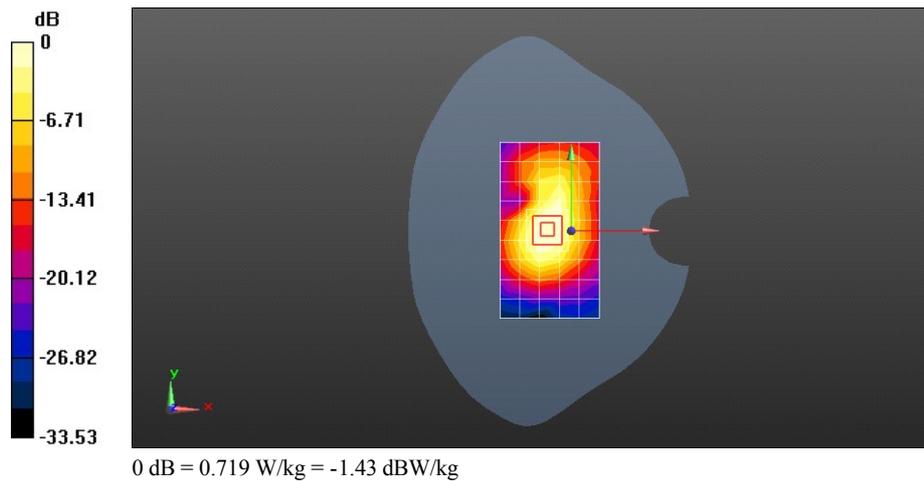
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 22.776 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.13 W/kg

**SAR(1 g) = 0.713 W/kg; SAR(10 g) = 0.406 W/kg**

Maximum value of SAR (measured) = 0.859 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 GSM1900 GPRS 2TS 661CH Back side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-GSM/GPRS/EGPRS-2TS (0); Frequency: 1880 MHz; Duty Cycle: 1:4.10015

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.528$  S/m;  $\epsilon_r = 52.498$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.703 W/kg

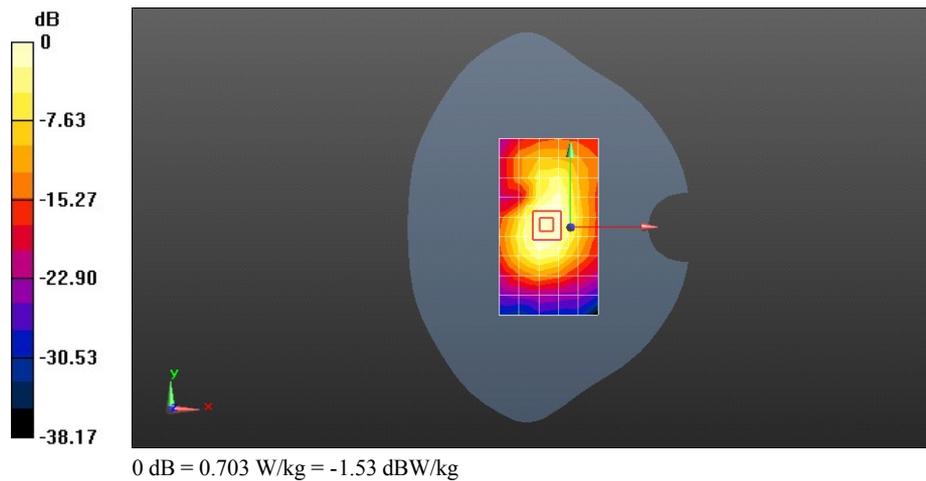
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 23.055 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.12 W/kg

**SAR(1 g) = 0.711 W/kg; SAR(10 g) = 0.406 W/kg**

Maximum value of SAR (measured) = 0.852 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 GSM1900 GPRS 2TS 512CH Back side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-GSM/GPRS/EGPRS-2TS (0); Frequency: 1850.2 MHz; Duty Cycle: 1:4.10015

Medium parameters used (interpolated):  $f = 1850.2$  MHz;  $\sigma = 1.493$  S/m;  $\epsilon_r = 52.593$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (measured) = 0.629 W/kg

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

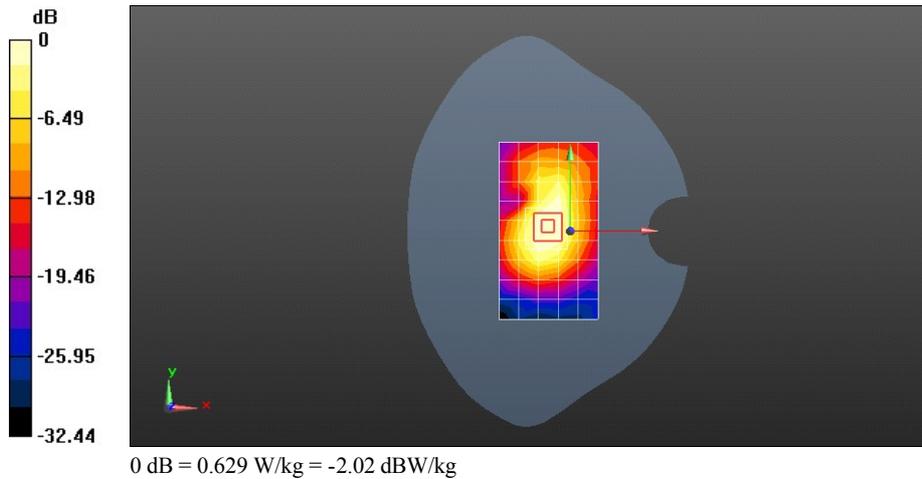
Reference Value = 22.395 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.05 W/kg

**SAR(1 g) = 0.658 W/kg; SAR(10 g) = 0.377 W/kg**

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

Maximum value of SAR (measured) = 0.789 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 GSM1900 GPRS 2TS 661CH Left side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-GSM/GPRS/EGPRS-2TS (0); Frequency: 1880 MHz; Duty Cycle: 1:4.10015

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.528$  S/m;  $\epsilon_r = 52.498$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.315 W/kg

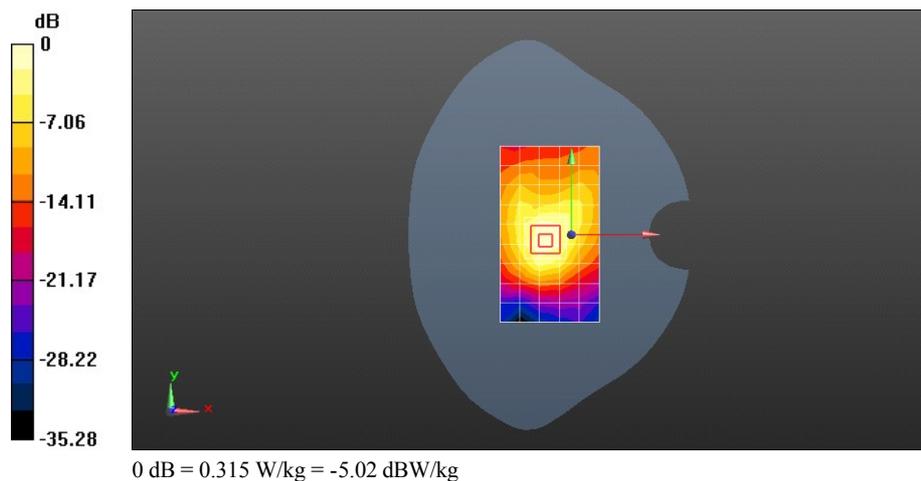
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 14.479 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.483 W/kg

**SAR(1 g) = 0.283 W/kg; SAR(10 g) = 0.154 W/kg**

Maximum value of SAR (measured) = 0.351 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 GSM1900 GPRS 2TS 661CH Right side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-GSM/GPRS/EGPRS-2TS (0); Frequency: 1880 MHz; Duty Cycle: 1:4.10015

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.528$  S/m;  $\epsilon_r = 52.498$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 0.591 W/kg

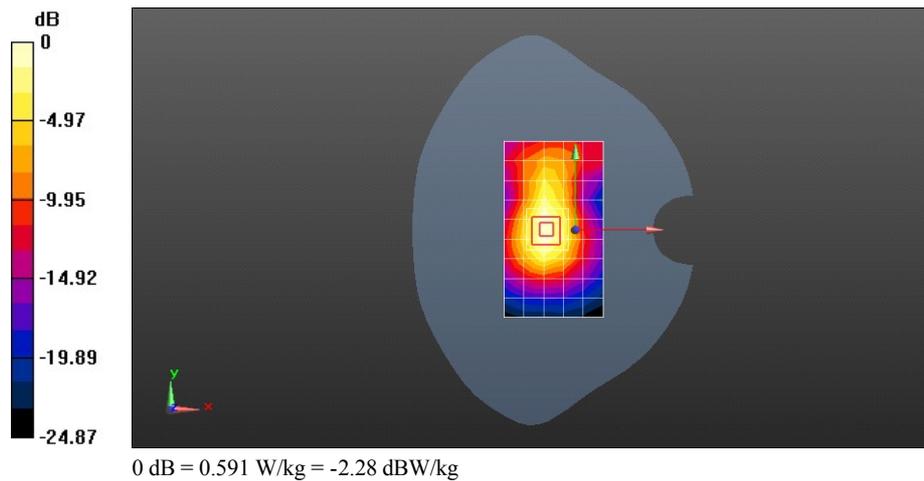
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 18.986 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 0.900 W/kg

**SAR(1 g) = 0.540 W/kg; SAR(10 g) = 0.298 W/kg**

Maximum value of SAR (measured) = 0.664 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 UMTS Band V 4182CH Front side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

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

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.969$  S/m;  $\epsilon_r = 53.797$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(6.06, 6.06, 6.06); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (measured) = 0.622 W/kg

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

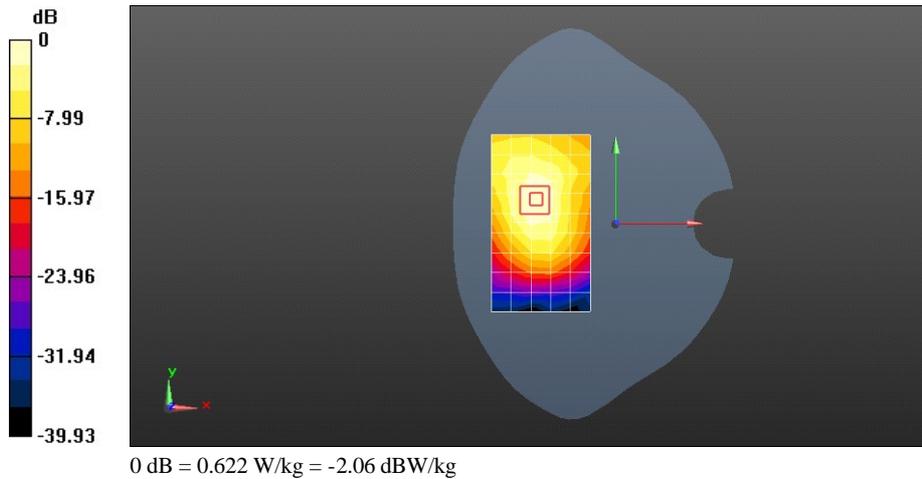
Reference Value = 4.296 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.879 W/kg

**SAR(1 g) = 0.565 W/kg; SAR(10 g) = 0.345 W/kg**

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

Maximum value of SAR (measured) = 0.668 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

**E8231s-6 UMTS Band V 4182CH Back side 5mm**

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-UMTS-FDD (0); Frequency: 836.4 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.969$  S/m;  $\epsilon_r = 53.797$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(6.06, 6.06, 6.06); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.696 W/kg

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

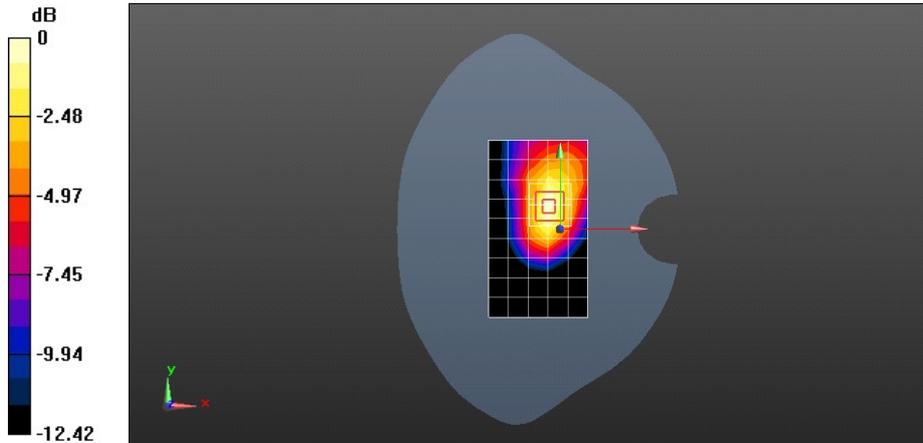
Reference Value = 20.333 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 0.907 W/kg

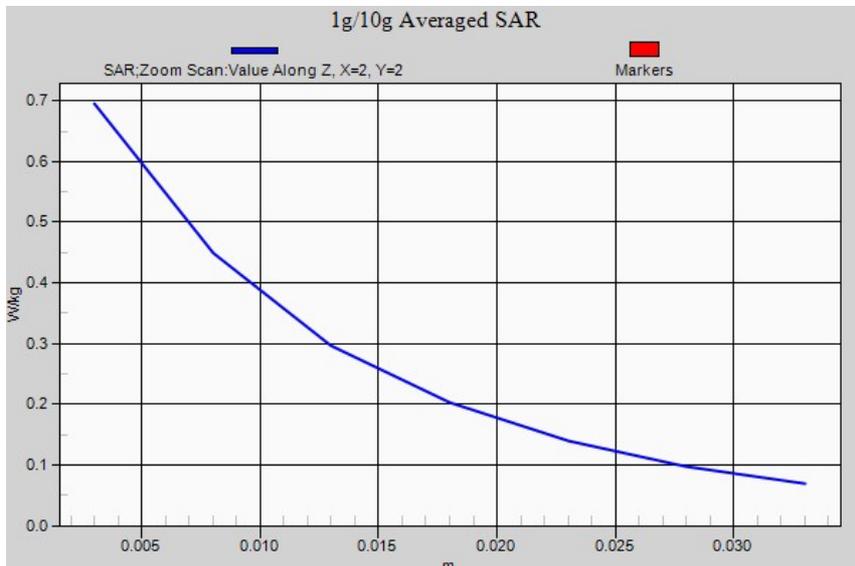
**SAR(1 g) = 0.576 W/kg; SAR(10 g) = 0.351 W/kg**

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.695 W/kg



0 dB = 0.695 W/kg = -1.58 dBW/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 UMTS Band V 4182CH Left side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

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

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.969$  S/m;  $\epsilon_r = 53.797$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(6.06, 6.06, 6.06); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

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

Maximum value of SAR (measured) = 0.188 W/kg

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

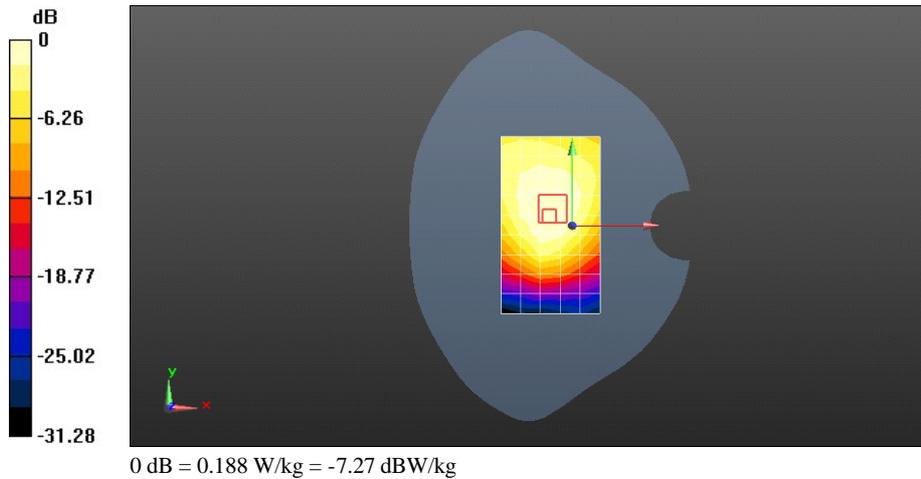
Reference Value = 12.900 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.229 W/kg

**SAR(1 g) = 0.155 W/kg; SAR(10 g) = 0.109 W/kg**

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

Maximum value of SAR (measured) = 0.178 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 UMTS Band V 4182CH Right side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

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

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.969$  S/m;  $\epsilon_r = 53.797$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(6.06, 6.06, 6.06); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (measured) = 0.339 W/kg

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

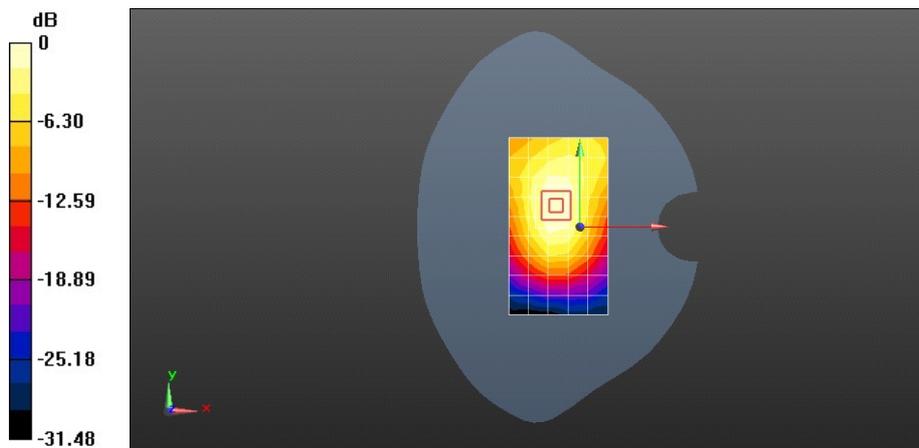
Reference Value = 17.295 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.519 W/kg

**SAR(1 g) = 0.332 W/kg; SAR(10 g) = 0.205 W/kg**

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

Maximum value of SAR (measured) = 0.396 W/kg



0 dB = 0.339 W/kg = -4.70 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 UMTS Band II 9538CH Front side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-UMTS-FDD (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1908$  MHz;  $\sigma = 1.56$  S/m;  $\epsilon_r = 52.368$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 1.21 W/kg

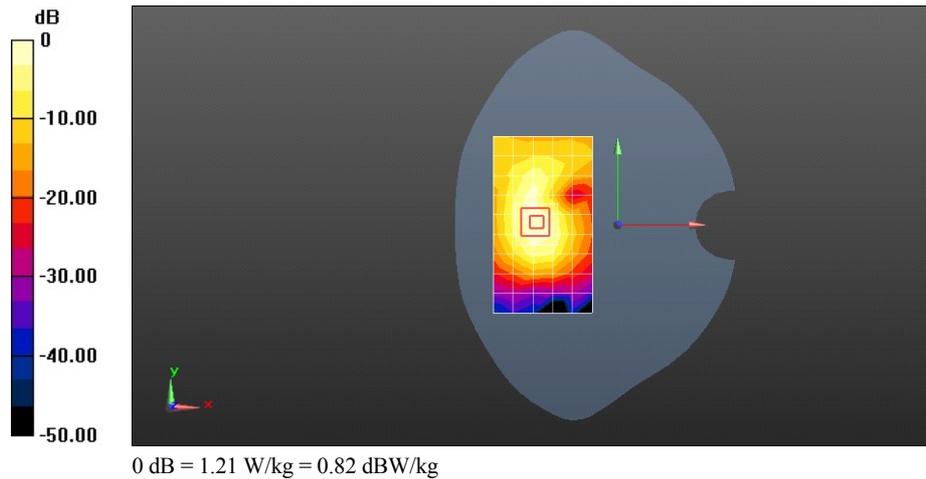
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 2.505 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.67 W/kg

**SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.588 W/kg**

Maximum value of SAR (measured) = 1.26 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 UMTS Band II 9400CH Front side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-UMTS-FDD (0); Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.528$  S/m;  $\epsilon_r = 52.498$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

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

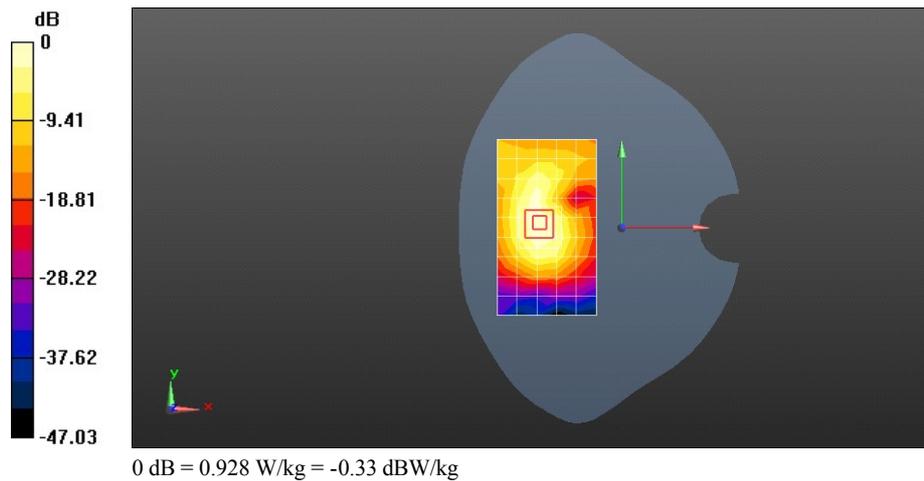
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 2.205 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 1.27 W/kg

**SAR(1 g) = 0.791 W/kg; SAR(10 g) = 0.444 W/kg**

Maximum value of SAR (measured) = 0.946 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 UMTS Band II 9262CH Front side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

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

Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.495$  S/m;  $\epsilon_r = 52.535$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (measured) = 0.986 W/kg

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

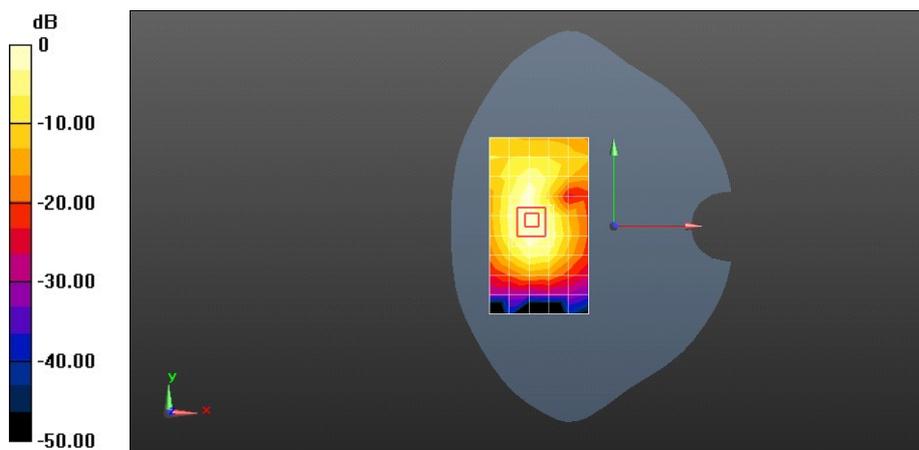
Reference Value = 2.301 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 1.38 W/kg

**SAR(1 g) = 0.845 W/kg; SAR(10 g) = 0.476 W/kg**

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

Maximum value of SAR (measured) = 1.00 W/kg



0 dB = 0.986 W/kg = -0.06 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 UMTS Band II 9538CH Back side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-UMTS-FDD (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1908$  MHz;  $\sigma = 1.56$  S/m;  $\epsilon_r = 52.368$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 1.12 W/kg

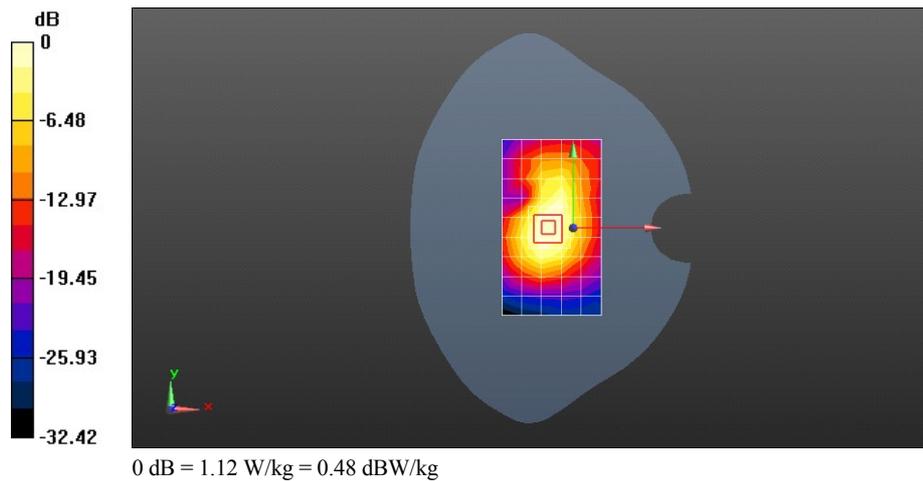
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 28.301 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 1.70 W/kg

**SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.615 W/kg**

Maximum value of SAR (measured) = 1.30 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

**E8231s-6 UMTS Band II 9538CH Back side 5mm-repeated**

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

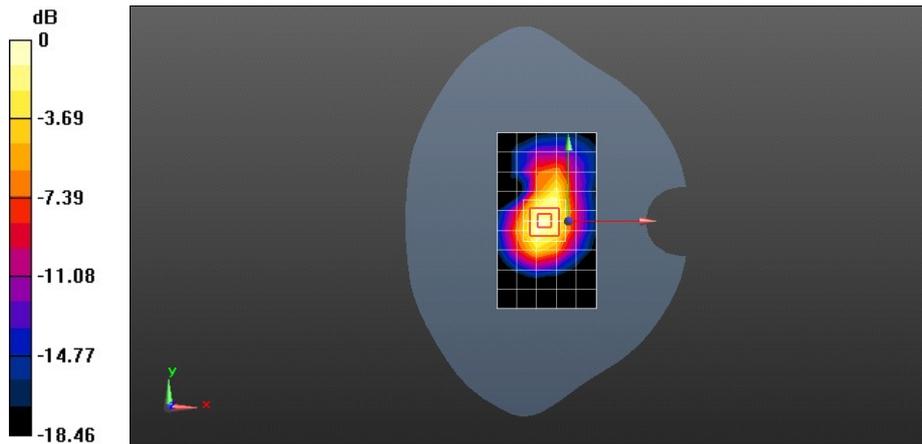
Communication System: UID 0, HW-UMTS-FDD (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 1908$  MHz;  $\sigma = 1.56$  S/m;  $\epsilon_r = 52.368$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

DASY Configuration:

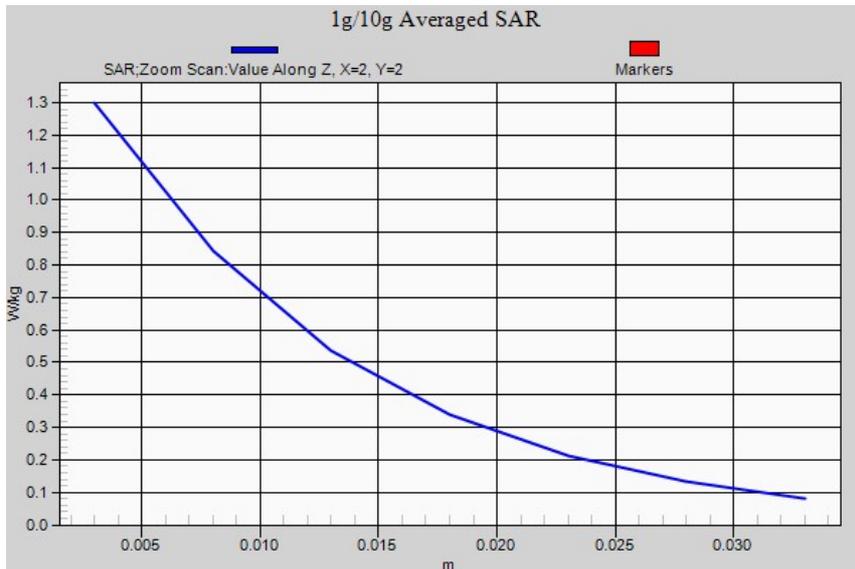
- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm  
 Maximum value of SAR (measured) = 1.11 W/kg

**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm  
 Reference Value = 28.229 V/m; Power Drift = -0.02 dB  
 Peak SAR (extrapolated) = 1.70 W/kg  
**SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.617 W/kg**  
 Maximum value of SAR (measured) = 1.30 W/kg



0 dB = 1.30 W/kg = 1.14 dBW/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 UMTS Band II 9400CH Back side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, HW-UMTS-FDD (0); Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.528$  S/m;  $\epsilon_r = 52.498$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

Maximum value of SAR (measured) = 1.00 W/kg

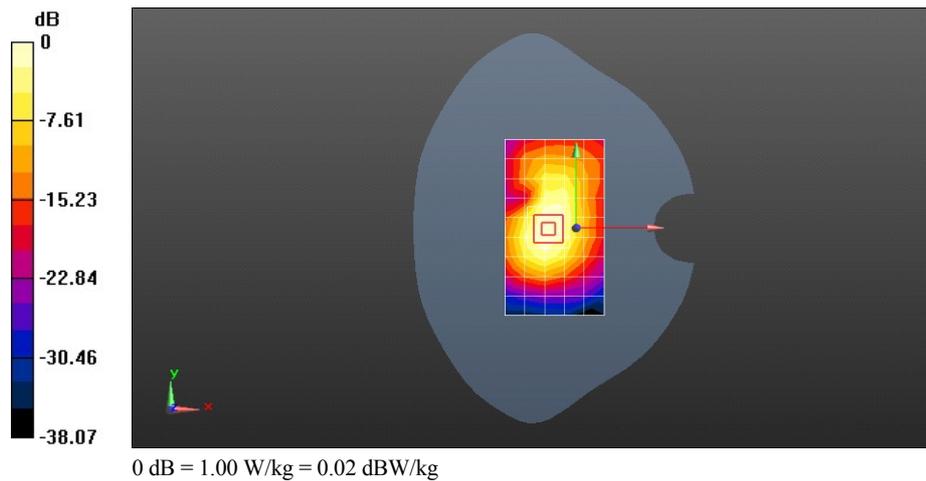
**Configuration/Body/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 25.618 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 1.40 W/kg

**SAR(1 g) = 0.881 W/kg; SAR(10 g) = 0.502 W/kg**

Maximum value of SAR (measured) = 1.06 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 UMTS Band II 9262CH Back side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

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

Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.495$  S/m;  $\epsilon_r = 52.535$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm

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

Maximum value of SAR (measured) = 0.846 W/kg

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

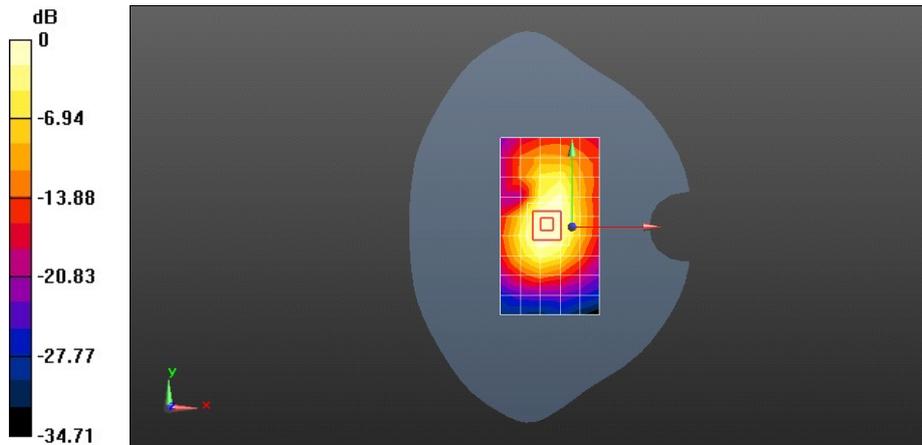
Reference Value = 25.587 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.43 W/kg

**SAR(1 g) = 0.896 W/kg; SAR(10 g) = 0.511 W/kg**

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

Maximum value of SAR (measured) = 1.09 W/kg



0 dB = 0.846 W/kg = -0.73 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 UMTS Band II 9262CH Left side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

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

Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.495$  S/m;  $\epsilon_r = 52.535$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (measured) = 0.330 W/kg

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

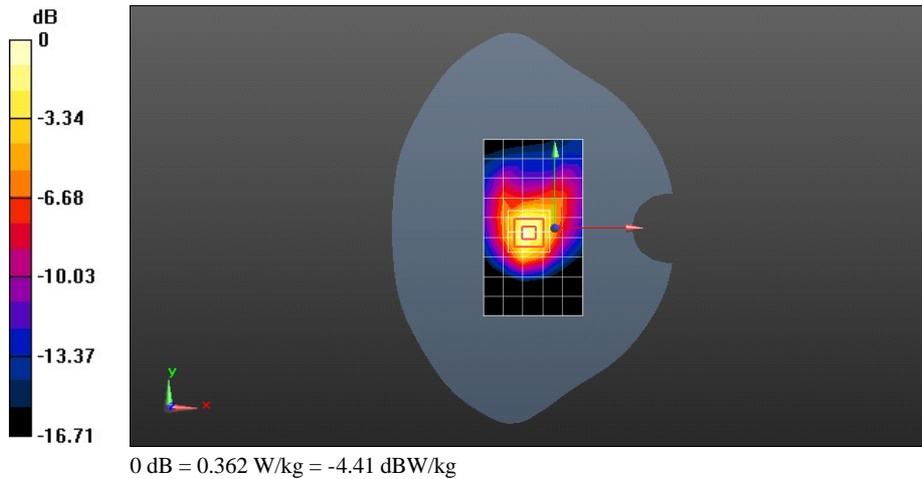
Reference Value = 14.855 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.501 W/kg

**SAR(1 g) = 0.291 W/kg; SAR(10 g) = 0.158 W/kg**

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

Maximum value of SAR (measured) = 0.362 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 UMTS Band II 9262CH Right side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

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

Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.495$  S/m;  $\epsilon_r = 52.535$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.72, 4.72, 4.72); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM1; Type: SAM; Serial: TP-1475
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (measured) = 0.641 W/kg

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

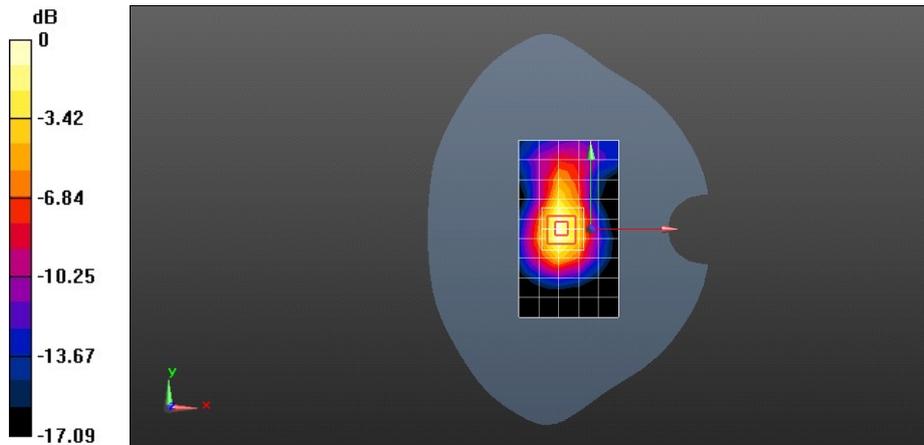
Reference Value = 20.059 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.959 W/kg

**SAR(1 g) = 0.576 W/kg; SAR(10 g) = 0.316 W/kg**

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

Maximum value of SAR (measured) = 0.711 W/kg



0 dB = 0.711 W/kg = -1.48 dBW/kg

Test Laboratory: HUAWEI SAR/HAC Lab

**E8231s-6 WIFI 802.11b 1CH Front side 5mm**

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

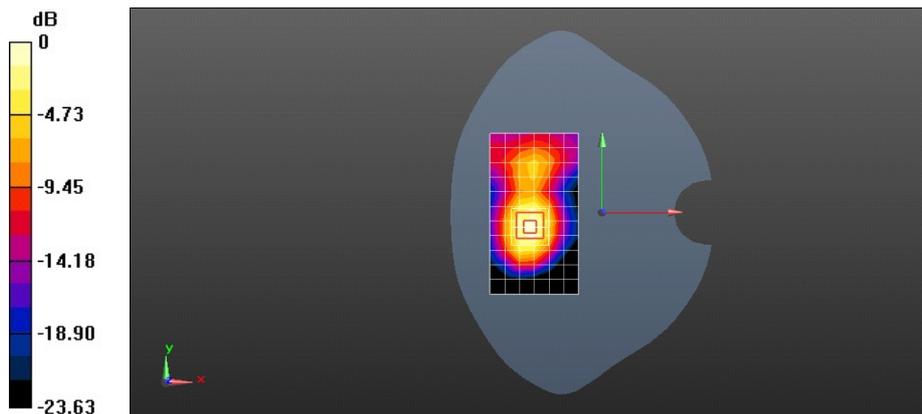
Communication System: UID 0, WiFi (802.11\*) (0); Frequency: 2412 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.976$  S/m;  $\epsilon_r = 50.859$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

DASY Configuration:

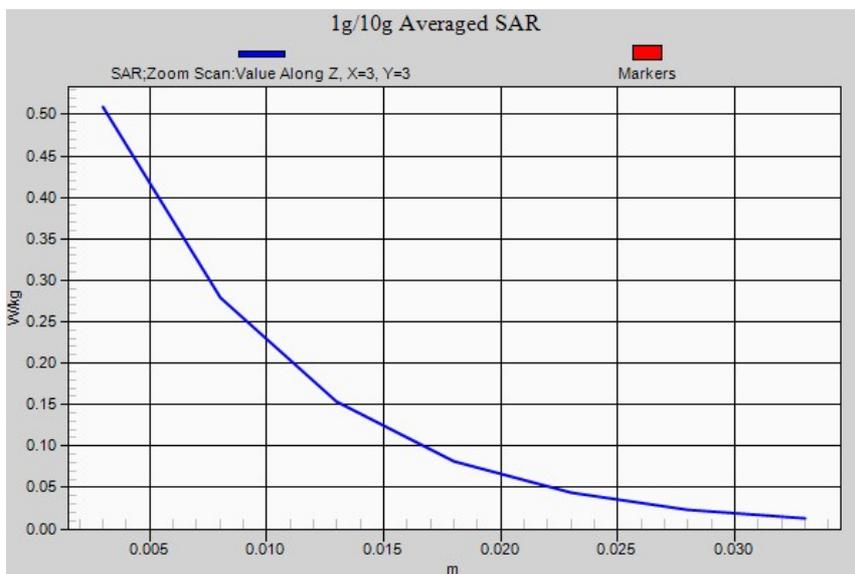
- Probe: ES3DV3 - SN3168; ConvF(4.25, 4.25, 4.25); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (7x12x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm  
 Maximum value of SAR (measured) = 0.444 W/kg

**Configuration/Body/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm  
 Reference Value = 0.844 V/m; Power Drift = 0.10 dB  
 Peak SAR (extrapolated) = 0.756 W/kg  
**SAR(1 g) = 0.398 W/kg; SAR(10 g) = 0.197 W/kg**  
 Maximum value of SAR (measured) = 0.509 W/kg



0 dB = 0.509 W/kg = -2.93 dBW/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 WIFI 802.11b 1CH Back side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, WiFi (802.11\*) (0); Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.976$  S/m;  $\epsilon_r = 50.859$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.25, 4.25, 4.25); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (7x12x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm

Maximum value of SAR (measured) = 0.392 W/kg

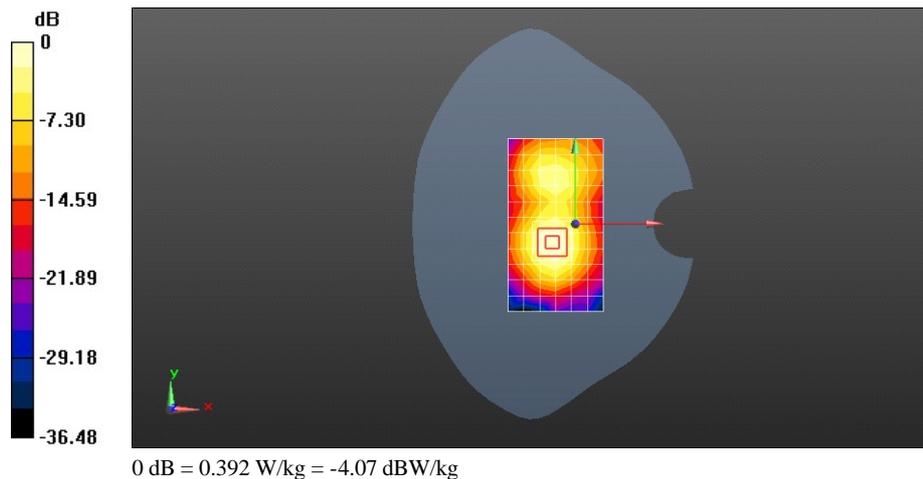
**Configuration/Body/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 10.442 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.629 W/kg

**SAR(1 g) = 0.335 W/kg; SAR(10 g) = 0.169 W/kg**

Maximum value of SAR (measured) = 0.422 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 WIFI 802.11b 1CH Left side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, WiFi (802.11\*) (0); Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.976$  S/m;  $\epsilon_r = 50.859$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.25, 4.25, 4.25); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (7x12x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm

Maximum value of SAR (measured) = 0.104 W/kg

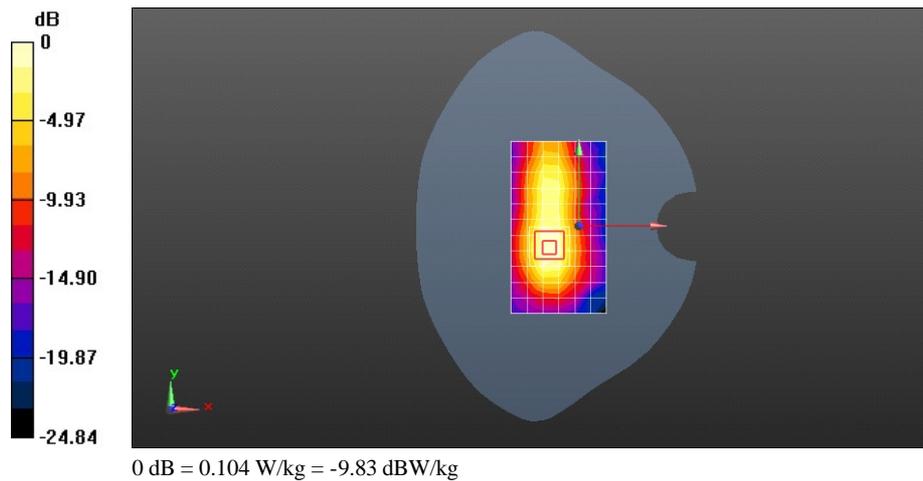
**Configuration/Body/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 6.003 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.217 W/kg

**SAR(1 g) = 0.095 W/kg; SAR(10 g) = 0.045 W/kg**

Maximum value of SAR (measured) = 0.125 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 WIFI 802.11b 1CH Right side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, WiFi (802.11\*) (0); Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.976$  S/m;  $\epsilon_r = 50.859$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.25, 4.25, 4.25); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (7x12x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm

Maximum value of SAR (measured) = 0.168 W/kg

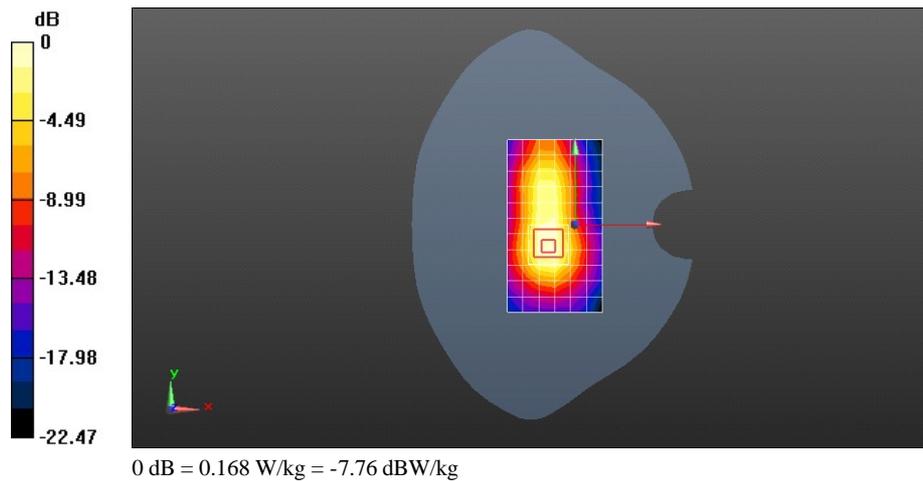
**Configuration/Body/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 8.124 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.314 W/kg

**SAR(1 g) = 0.152 W/kg; SAR(10 g) = 0.075 W/kg**

Maximum value of SAR (measured) = 0.197 W/kg



Test Laboratory: HUAWEI SAR/HAC Lab

### E8231s-6 WIFI 802.11b 1CH Tip side 5mm

**DUT: E8231s-6; Type: HUAWEI Wingle E8231; Serial: SAR1**

Communication System: UID 0, WiFi (802.11\*) (0); Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.976$  S/m;  $\epsilon_r = 50.859$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3168; ConvF(4.25, 4.25, 4.25); Calibrated: 2013-9-30;
- Sensor-Surface: 3mm (Mechanical Surface Detection),  $z = 2.0, 32.0$
- Electronics: DAE4 Sn1305; Calibrated: 2013-1-8
- Phantom: SAM 2; Type: SAM; Serial: TP-1474
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

**Configuration/Body/Area Scan (9x9x1):** Measurement grid:  $dx=12$ mm,  $dy=12$ mm

Maximum value of SAR (measured) = 0.106 W/kg

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

Reference Value = 6.749 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.204 W/kg

**SAR(1 g) = 0.079 W/kg; SAR(10 g) = 0.032 W/kg**

Maximum value of SAR (measured) = 0.109 W/kg

