

Test Laboratory: UL CCS SAR Lab A

## 01\_Bottom Face\_UMTS1900\_Band II

Communication System: WCDMA (UMTS); Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.494$  mho/m;  $\epsilon_r = 52.37$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(6.99, 6.99, 6.99); Calibrated: 1/24/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1239; Calibrated: 11/17/2010
- Phantom: ELI v4.0(B); Type: QDOVA001BB; Serial: 1099
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**UMTS/L-ch/Area Scan (161x201x1):** Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (interpolated) = 1.300 mW/g

**UMTS/L-ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

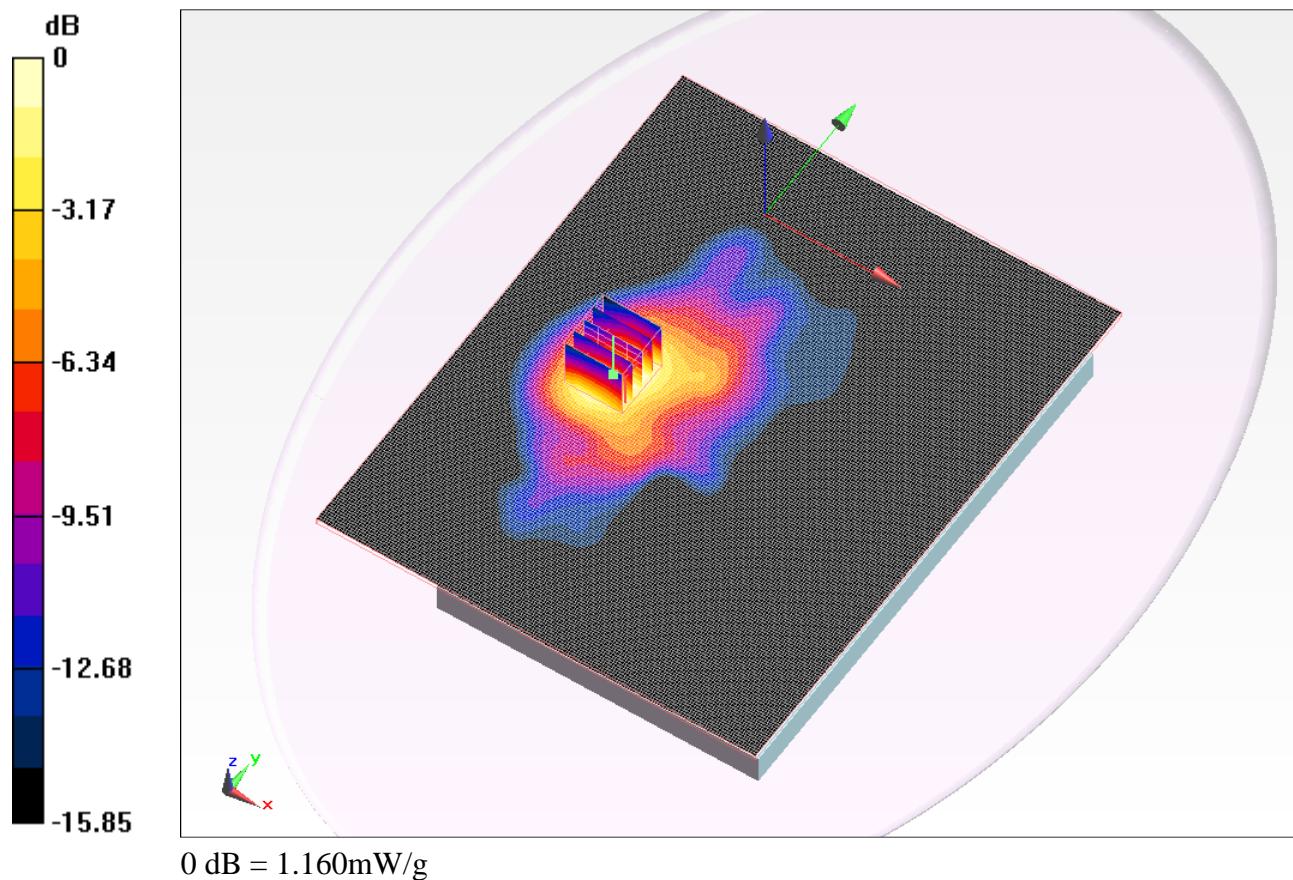
Reference Value = 27.258 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 1.480 W/kg

**SAR(1 g) = 0.961 mW/g; SAR(10 g) = 0.608 mW/g**

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

Maximum value of SAR (measured) = 1.164 mW/g



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## 02\_Bottom Face\_UMTS1900\_Band II

Communication System: WCDMA (UMTS); Frequency: 1880 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.525$  mho/m;  $\epsilon_r = 52.26$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(6.99, 6.99, 6.99); Calibrated: 1/24/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1239; Calibrated: 11/17/2010
- Phantom: ELI v4.0(B); Type: QDOVA001BB; Serial: 1099
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**UMTS/M-ch/Area Scan (161x201x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.552 mW/g

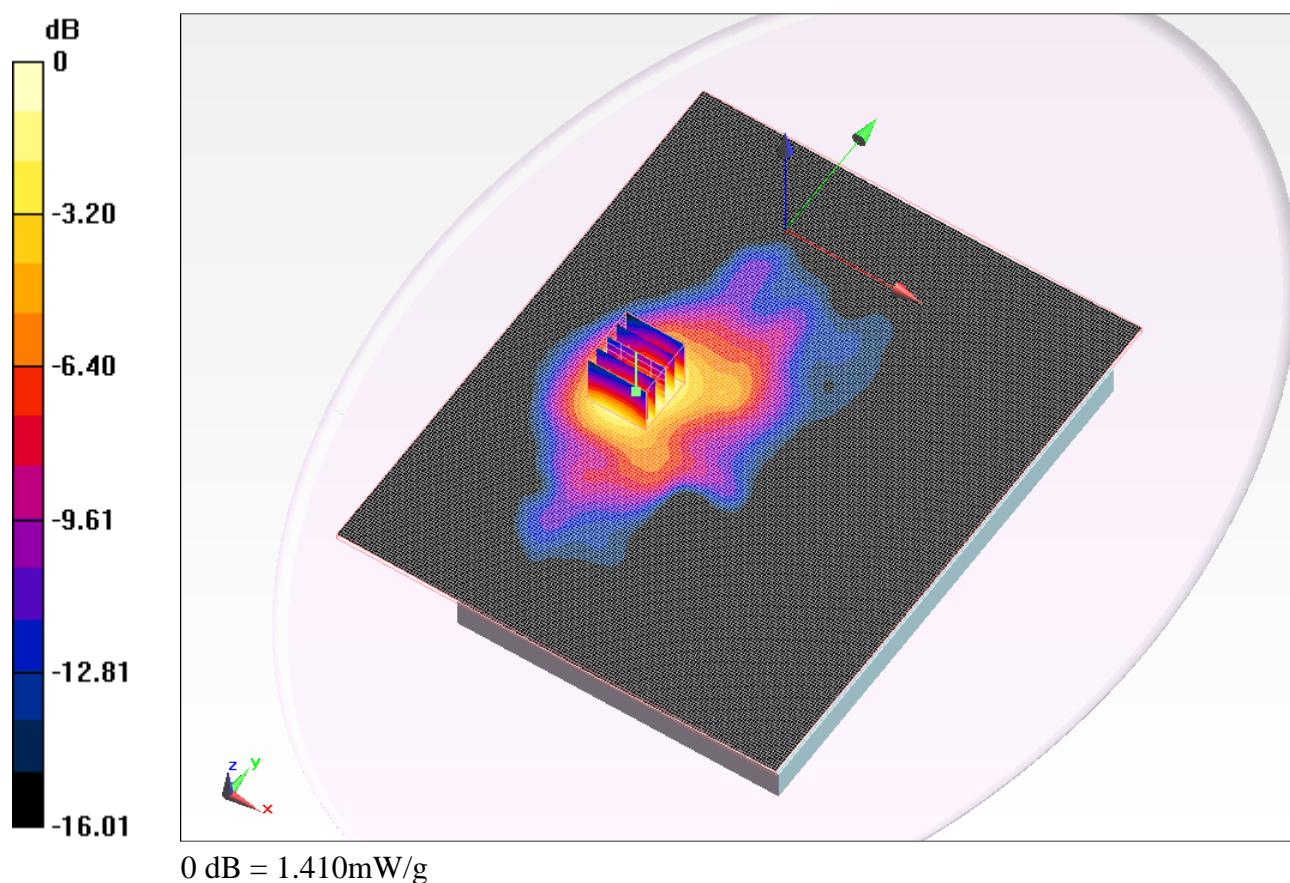
**UMTS/M-ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 29.678 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.783 W/kg

**SAR(1 g) = 1.17 mW/g; SAR(10 g) = 0.724 mW/g**

Maximum value of SAR (measured) = 1.410 mW/g

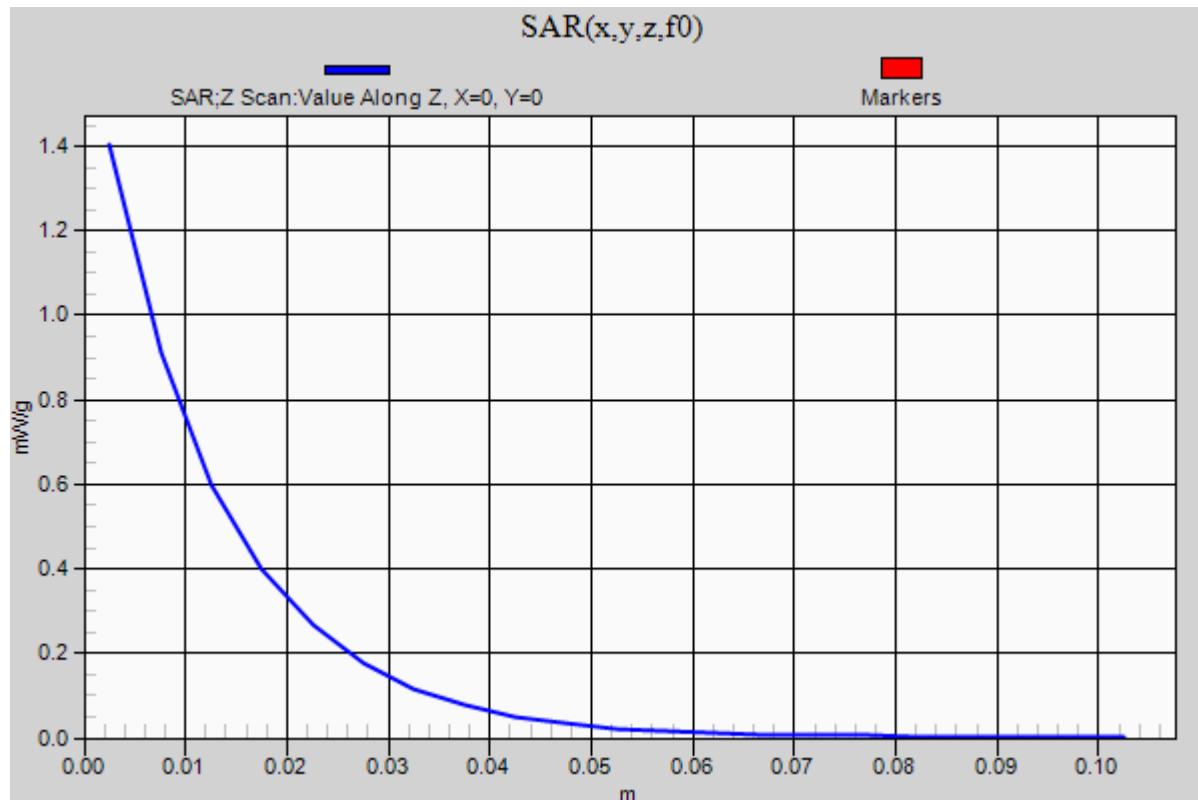


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## 02\_Bottom Face\_UMTS1900\_Band II

Communication System: WCDMA (UMTS); Frequency: 1880 MHz; Duty Cycle: 1:1

**UMTS/M-ch/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm  
Maximum value of SAR (measured) = 1.404 mW/g



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## 03\_Bottom Face\_UMTS1900\_Band II

Communication System: WCDMA (UMTS); Frequency: 1907.6 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 1907.6$  MHz;  $\sigma = 1.556$  mho/m;  $\epsilon_r = 52.164$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(6.99, 6.99, 6.99); Calibrated: 1/24/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1239; Calibrated: 11/17/2010
- Phantom: ELI v4.0(B); Type: QDOVA001BB; Serial: 1099
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**UMTS/H-ch/Area Scan (161x201x1):** Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (interpolated) = 1.558 mW/g

**UMTS/H-ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

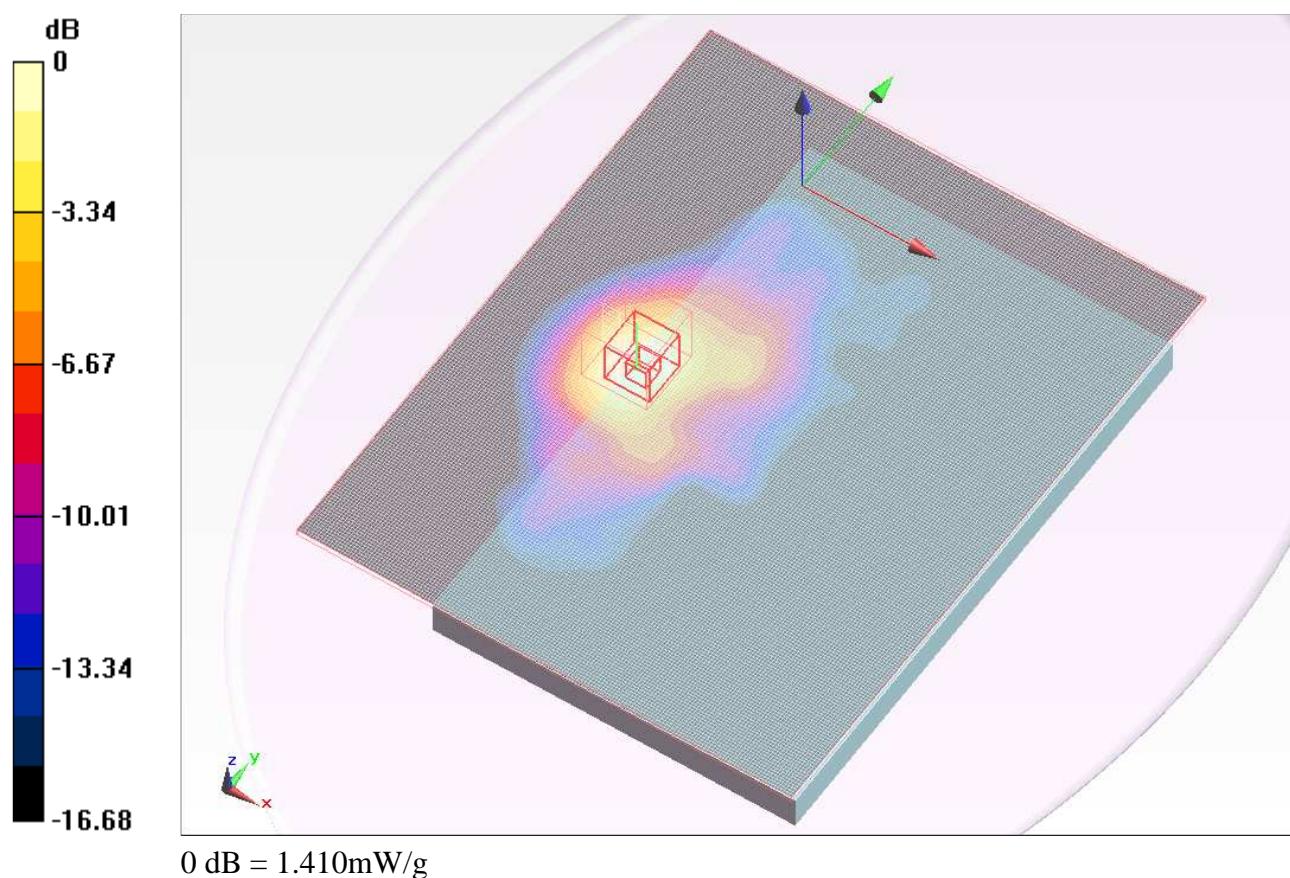
Reference Value = 29.764 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.799 W/kg

**SAR(1 g) = 1.18 mW/g; SAR(10 g) = 0.718 mW/g**

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

Maximum value of SAR (measured) = 1.411 mW/g



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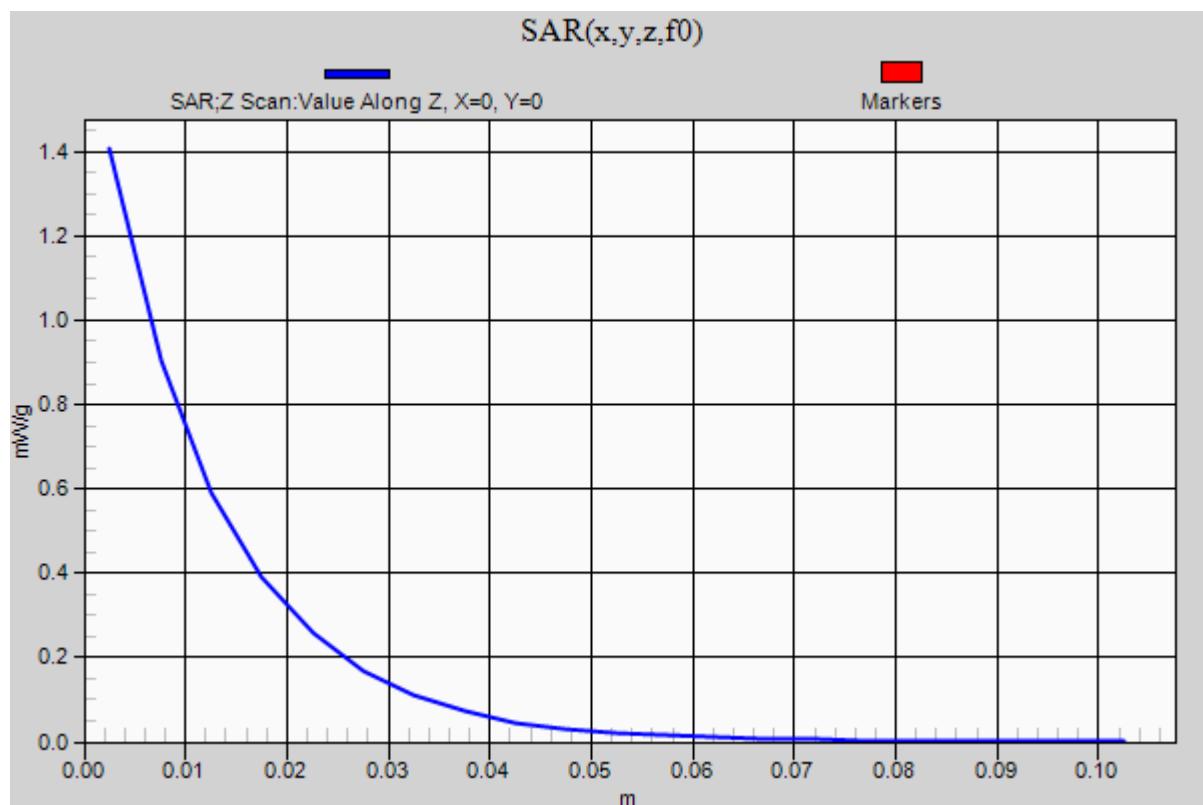
## 03\_Bottom Face\_UMTS1900\_Band II

Communication System: WCDMA (UMTS); Frequency: 1907.6 MHz; Duty Cycle: 1:1

**UMTS/H-ch/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.407 mW/g



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## 04\_Secondary Landscape\_UMTS1900\_Band II

Communication System: WCDMA (UMTS); Frequency: 1852.4 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.494$  mho/m;  $\epsilon_r = 52.37$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(6.99, 6.99, 6.99); Calibrated: 1/24/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1239; Calibrated: 11/17/2010
- Phantom: ELI v4.0(B); Type: QDOVA001BB; Serial: 1099
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**UMTS/L-ch/Area Scan (81x201x1):** Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (interpolated) = 1.174 mW/g

**UMTS/L-ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

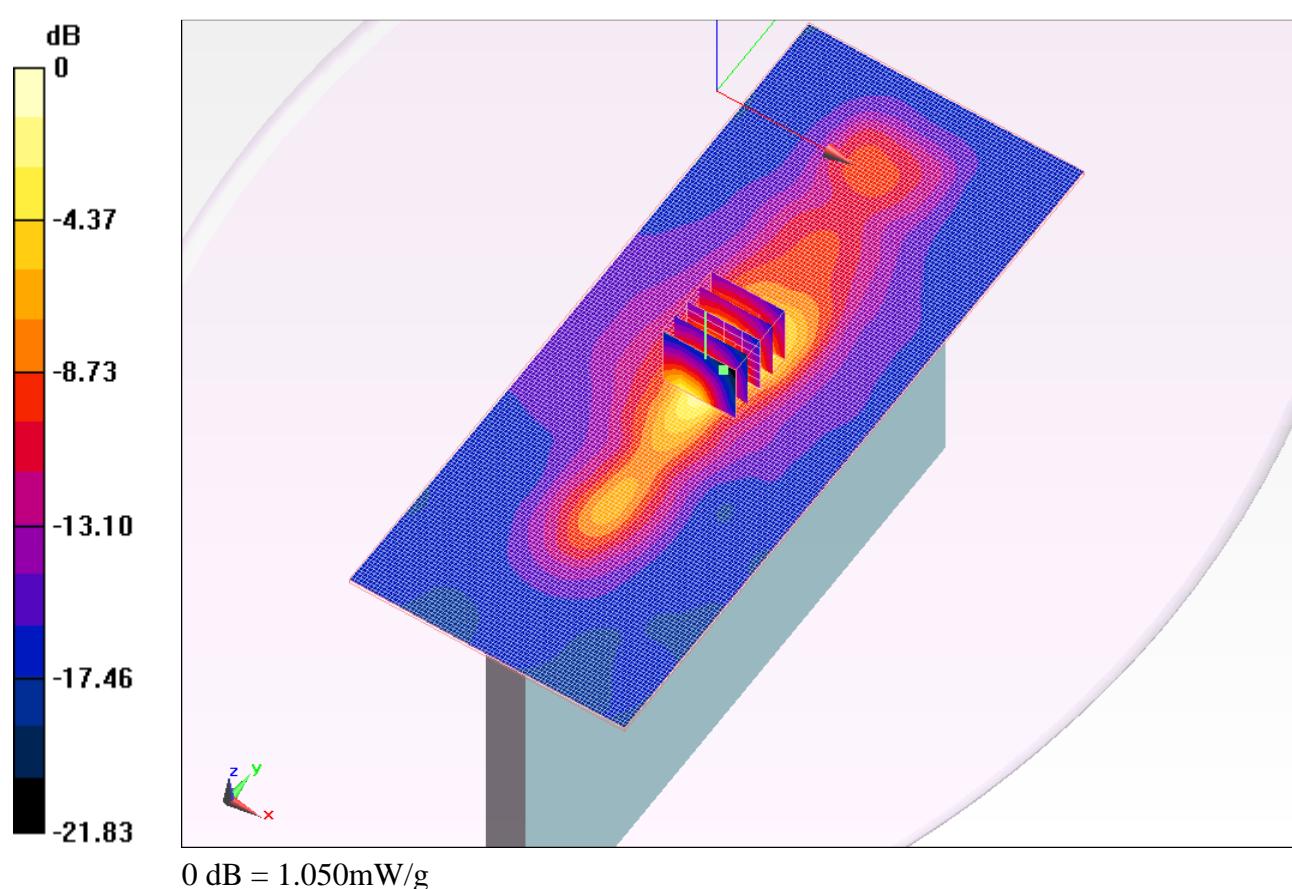
Reference Value = 22.633 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.555 W/kg

**SAR(1 g) = 0.820 mW/g; SAR(10 g) = 0.409 mW/g**

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

Maximum value of SAR (measured) = 1.046 mW/g



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## 05\_Secondary Landscape\_UMTS1900\_Band II

Communication System: WCDMA (UMTS); Frequency: 1880 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.525$  mho/m;  $\epsilon_r = 52.26$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(6.99, 6.99, 6.99); Calibrated: 1/24/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1239; Calibrated: 11/17/2010
- Phantom: ELI v4.0(B); Type: QDOVA001BB; Serial: 1099
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**UMTS/M-ch/Area Scan (81x201x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.018 mW/g

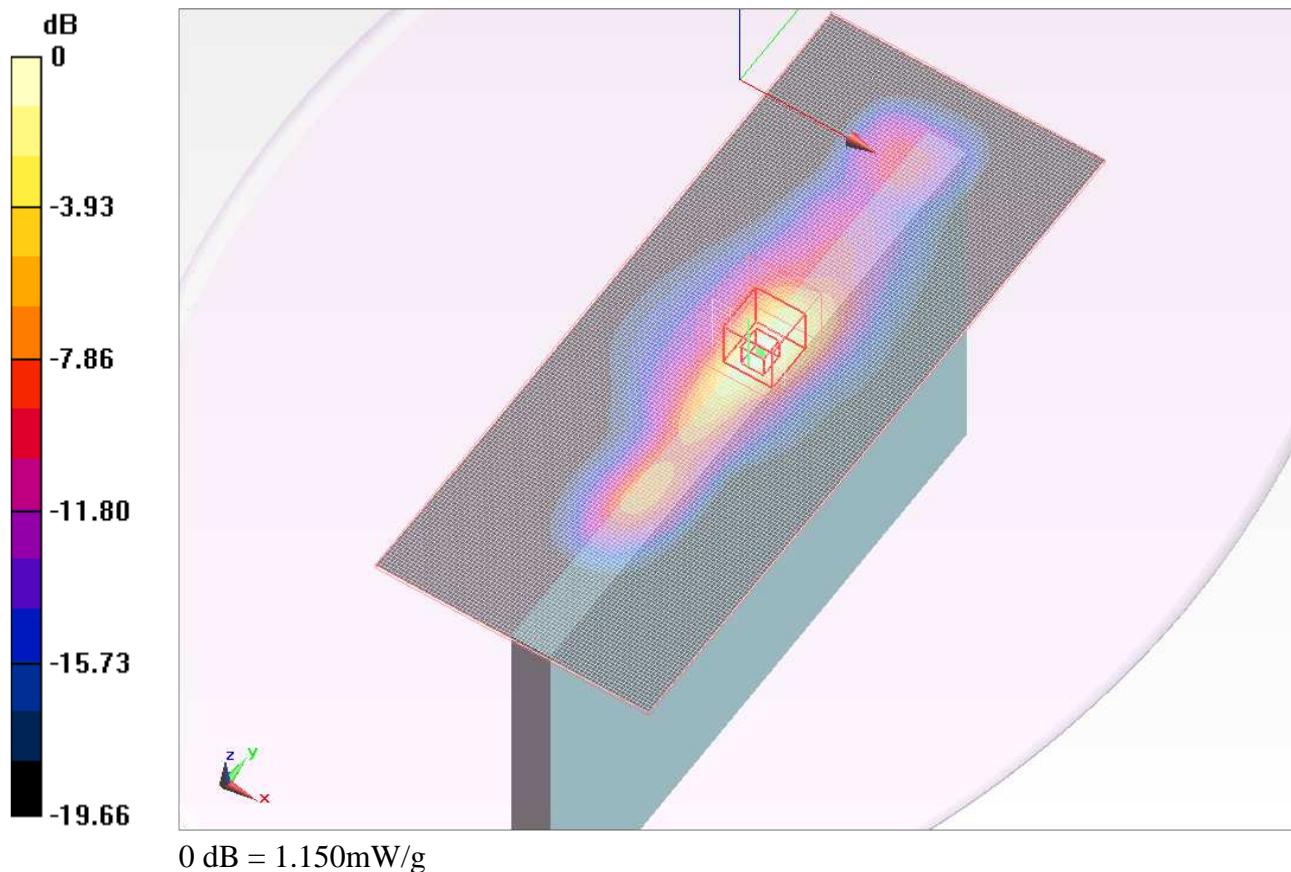
**UMTS/M-ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.321 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 1.594 W/kg

**SAR(1 g) = 0.824 mW/g; SAR(10 g) = 0.405 mW/g**

Maximum value of SAR (measured) = 1.152 mW/g

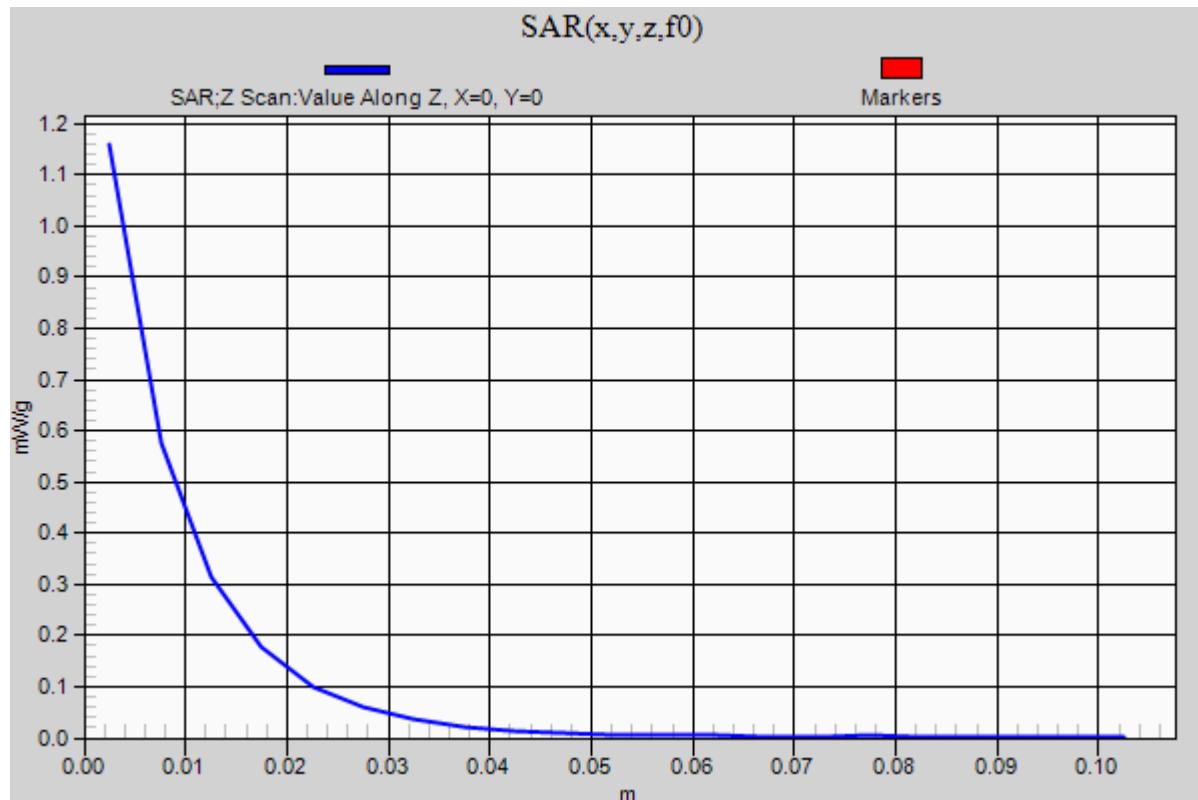


Test Laboratory: UL CCS SAR Lab A

## 05\_Secondary Landscape\_UMTS1900\_Band II

Communication System: WCDMA (UMTS); Frequency: 1880 MHz; Duty Cycle: 1:1

**UMTS/M-ch/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm  
Maximum value of SAR (measured) = 1.159 mW/g



Test Laboratory: UL CCS SAR Lab A

## 06\_Secondary Landscape\_UMTS1900\_Band II

Communication System: WCDMA (UMTS); Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1907.6$  MHz;  $\sigma = 1.556$  mho/m;  $\epsilon_r = 52.164$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3686; ConvF(6.99, 6.99, 6.99); Calibrated: 1/24/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1239; Calibrated: 11/17/2010
- Phantom: ELI v4.0(B); Type: QDOVA001BB; Serial: 1099
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**UMTS/H-ch/Area Scan (81x201x1):** Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (interpolated) = 1.025 mW/g

**UMTS/H-ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

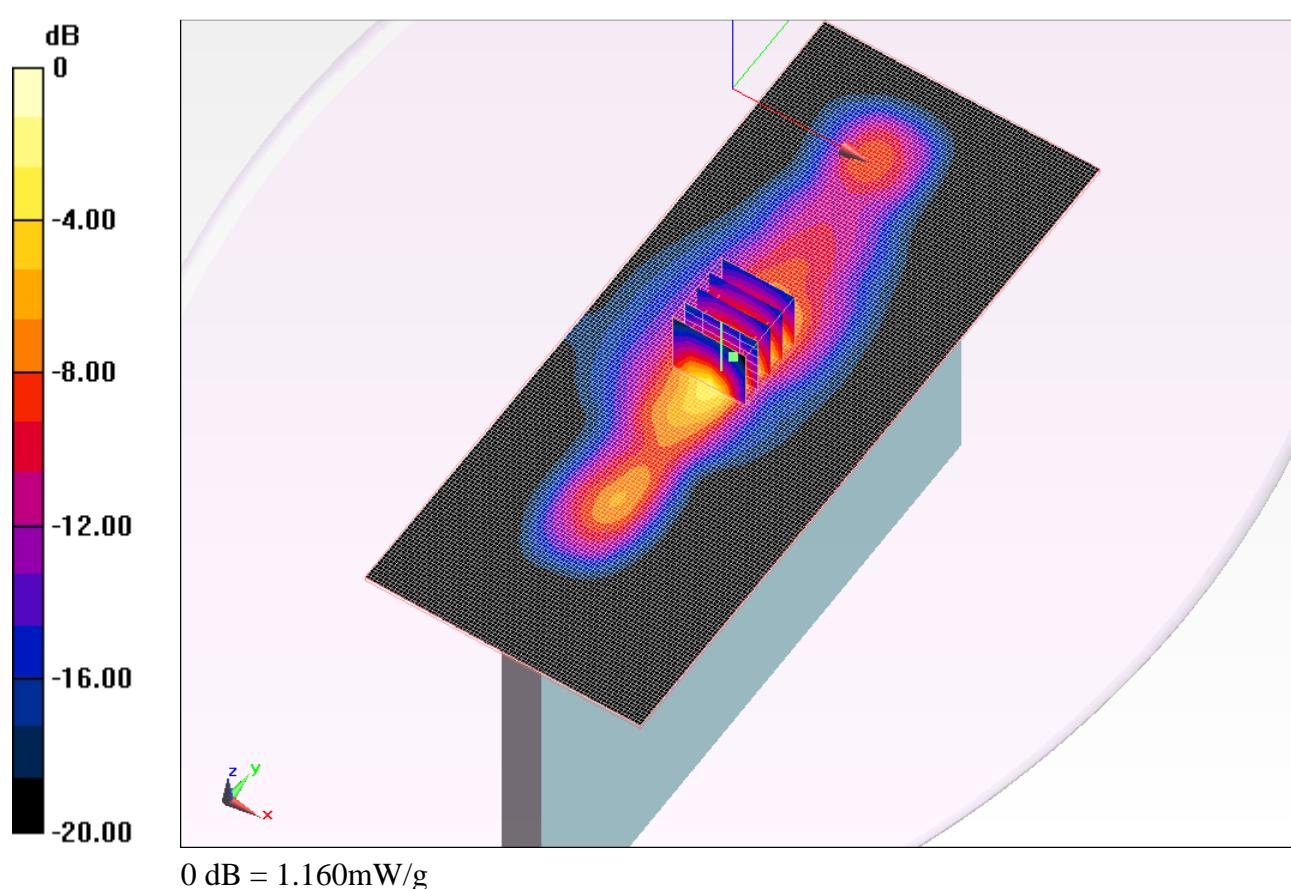
Reference Value = 22.461 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.580 W/kg

**SAR(1 g) = 0.813 mW/g; SAR(10 g) = 0.395 mW/g**

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

Maximum value of SAR (measured) = 1.160 mW/g



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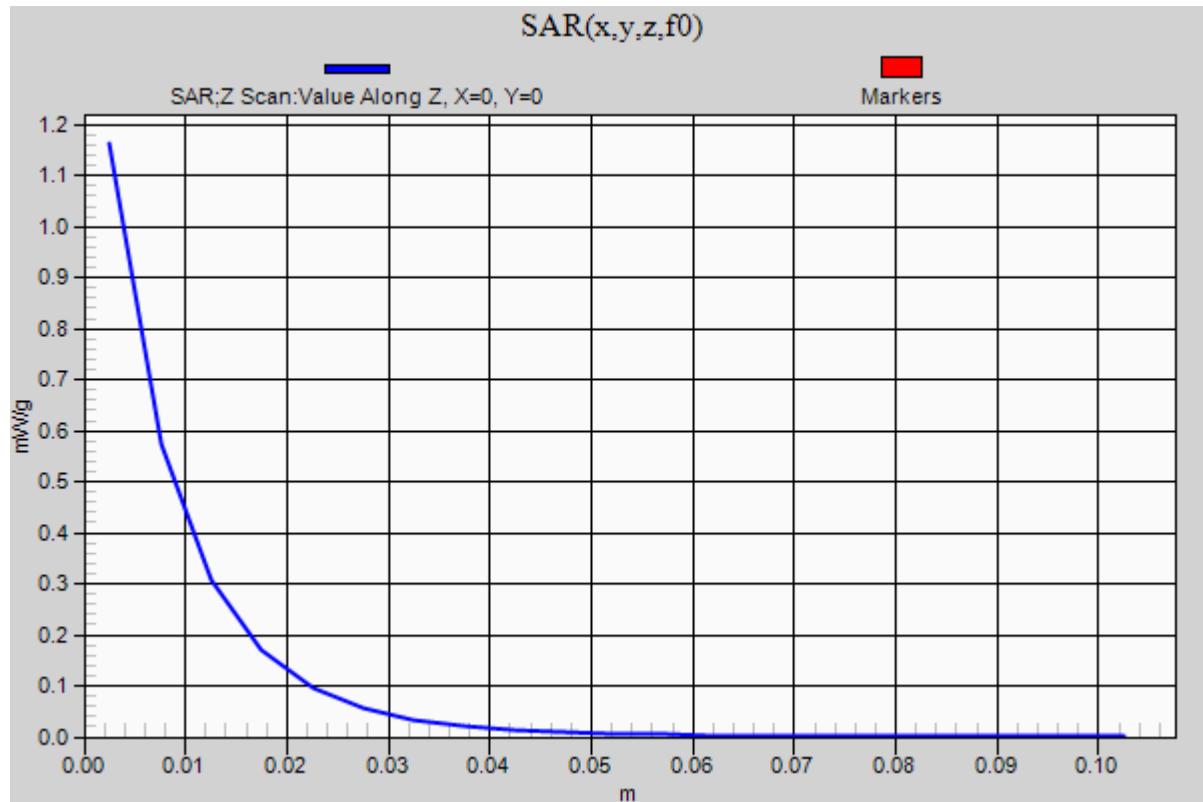
## 02\_Secondary Landscape\_UMTS1900\_Band II

Communication System: WCDMA (UMTS); Frequency: 1907.6 MHz; Duty Cycle: 1:1

**UMTS/H-ch/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.163 mW/g



Test Laboratory: UL CCS SAR Lab C

## @45 01\_Bottom Face\_UMTS1900\_Band II

Communication System: UMTS-FDD (WCDMA); Frequency: 1880 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.512$  mho/m;  $\epsilon_r = 52.297$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY5 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3772; ConvF(6.76, 6.76, 6.76); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1239; Calibrated: 11/17/2010
- Phantom: ELI v4.0 (A); Type: QDOVA001BB; Serial: 1117
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**UMTS/45 Degrees M-ch/Area Scan (81x201x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.211 mW/g

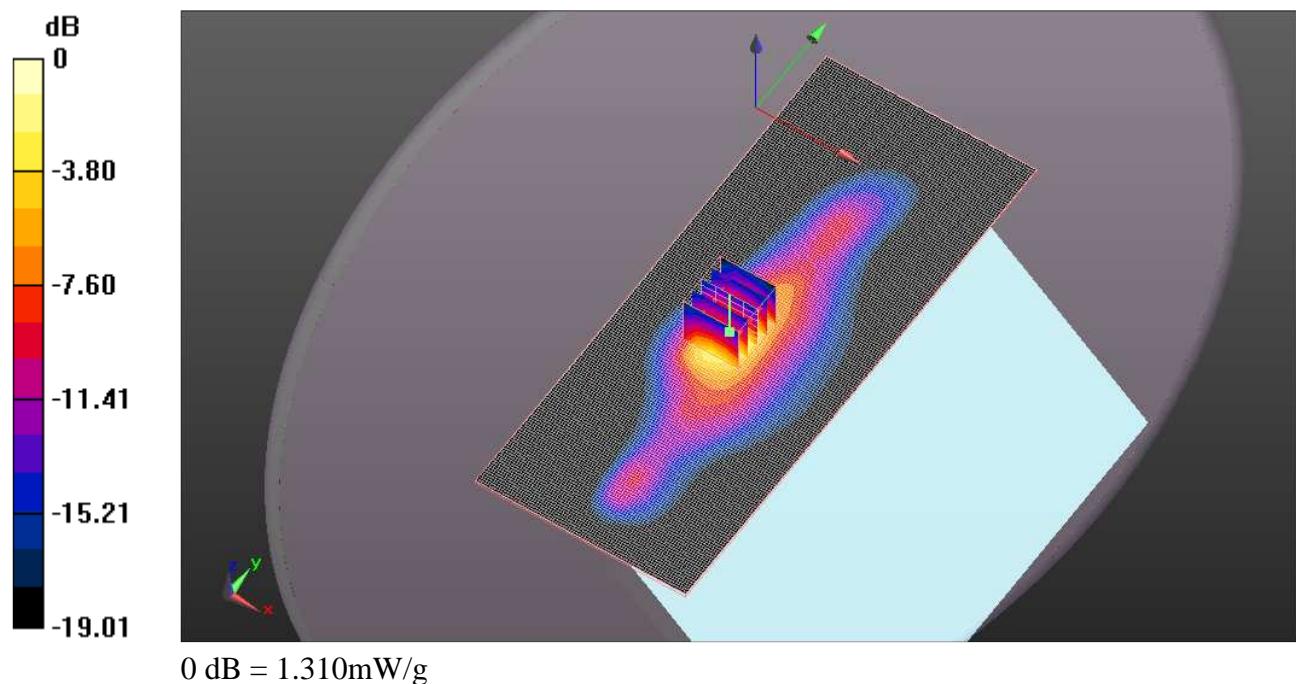
**UMTS/45 Degrees M-ch/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 23.614 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.808 W/kg

**SAR(1 g) = 0.952 mW/g; SAR(10 g) = 0.477 mW/g**

Maximum value of SAR (measured) = 1.307 mW/g



Test Laboratory: UL CCS SAR Lab C

## @45 01\_Bottom Face\_UMTS1900\_Band II

Communication System: UMTS-FDD (WCDMA); Frequency: 1880 MHz; Duty Cycle: 1:1

**UMTS/45 Degrees M-ch/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm  
Maximum value of SAR (measured) = 0.814 mW/g

