

Test Laboratory: UL CCS SAR Lab B

## UMTS Band V\_Body\_Primary Portrait

Communication System: UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 836.6$  MHz;  $\sigma = 0.982$  mho/m;  $\epsilon_r = 54.687$ ;  $\rho = 1000$  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 - SN3773; ConvF(8.67, 8.67, 8.67); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Mid-Ch/Area Scan (81x141x1):** Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (interpolated) = 0.306 mW/g

**Mid-Ch/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm

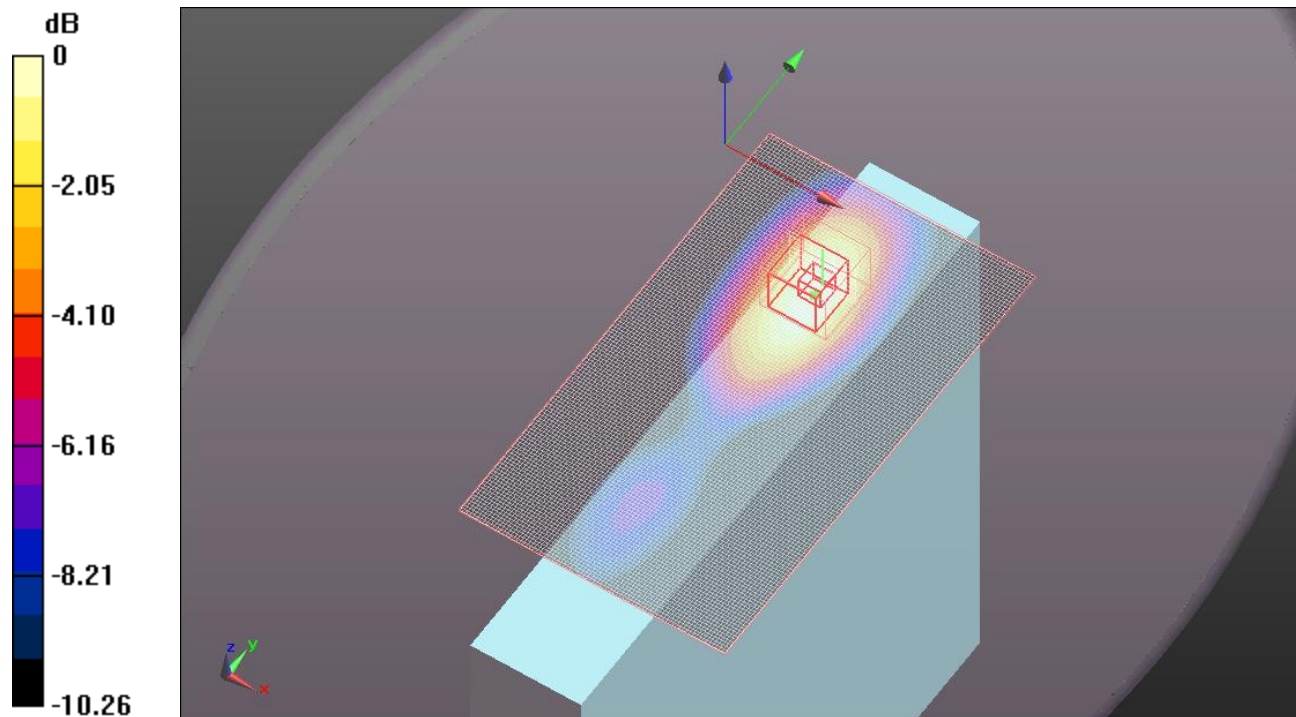
Reference Value = 17.088 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.394 W/kg

**SAR(1 g) = 0.241 mW/g; SAR(10 g) = 0.155 mW/g**

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

Maximum value of SAR (measured) = 0.302 mW/g



0 dB = 0.300mW/g

Test Laboratory: UL CCS SAR Lab B

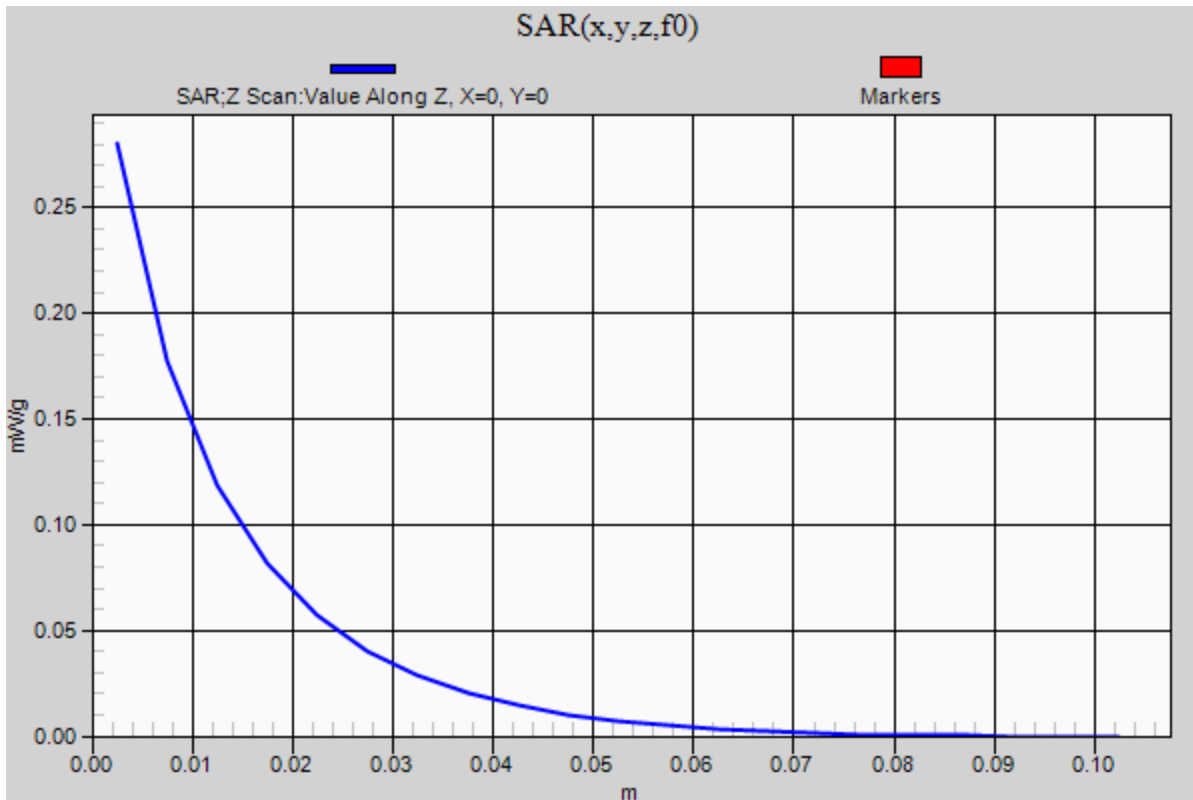
## UMTS Band V\_Body\_Primary Portrait

Communication System: UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1

**Mid-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) = 0.280 mW/g



Test Laboratory: UL CCS SAR Lab B

## UMTS Band II\_Body\_Primary Portrait

Communication System: UMTS-FDD (WCDMA); Frequency: 1880 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.434$  mho/m;  $\epsilon_r = 53.281$ ;  $\rho = 1000$  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 - SN3773; ConvF(7.37, 7.37, 7.37); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Mid-Ch/Area Scan (81x141x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.063 mW/g

**Mid-Ch/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 5.842 V/m; Power Drift = -0.06 dB, Peak SAR (extrapolated) = 0.073 W/kg

**SAR(1 g) = 0.048 mW/g; SAR(10 g) = 0.028 mW/g**

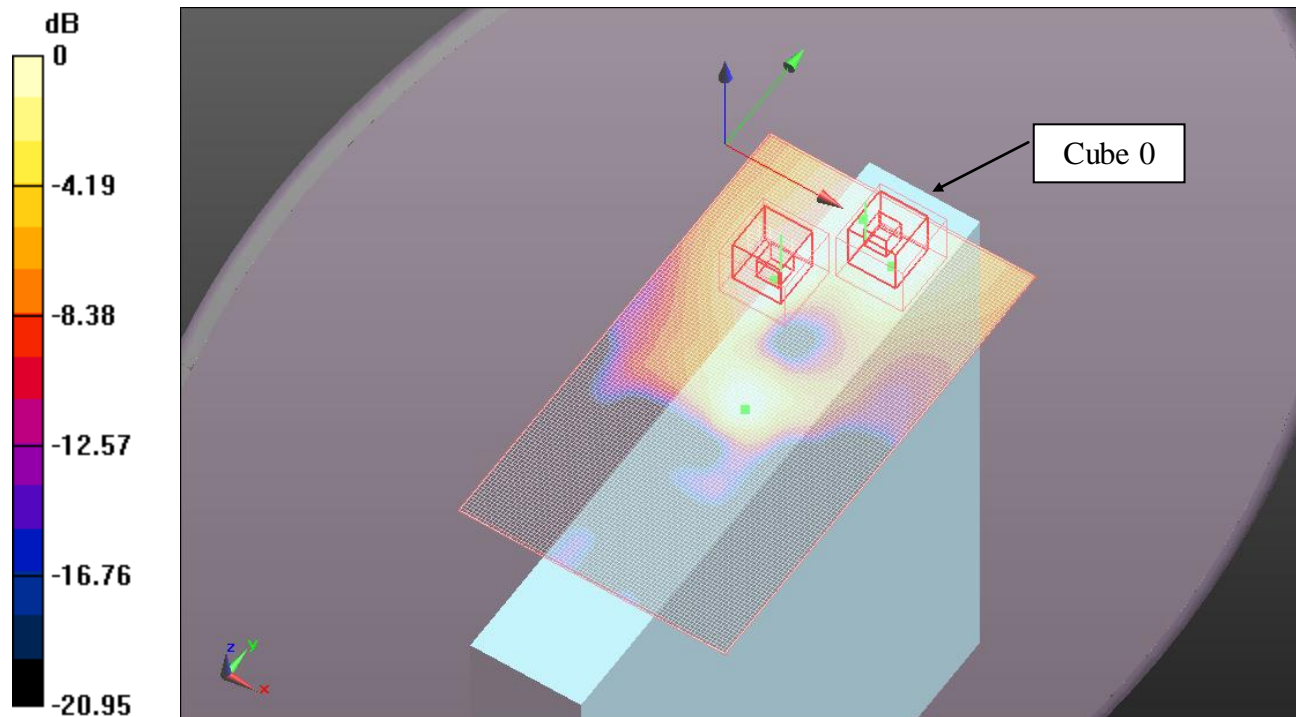
Maximum value of SAR (measured) = 0.059 mW/g

**Mid-Ch/Zoom Scan (7x7x9)/Cube 1:** Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 5.842 V/m; Power Drift = -0.06 dB, Peak SAR (extrapolated) = 0.060 W/kg

**SAR(1 g) = 0.039 mW/g; SAR(10 g) = 0.025 mW/g**

Maximum value of SAR (measured) = 0.049 mW/g



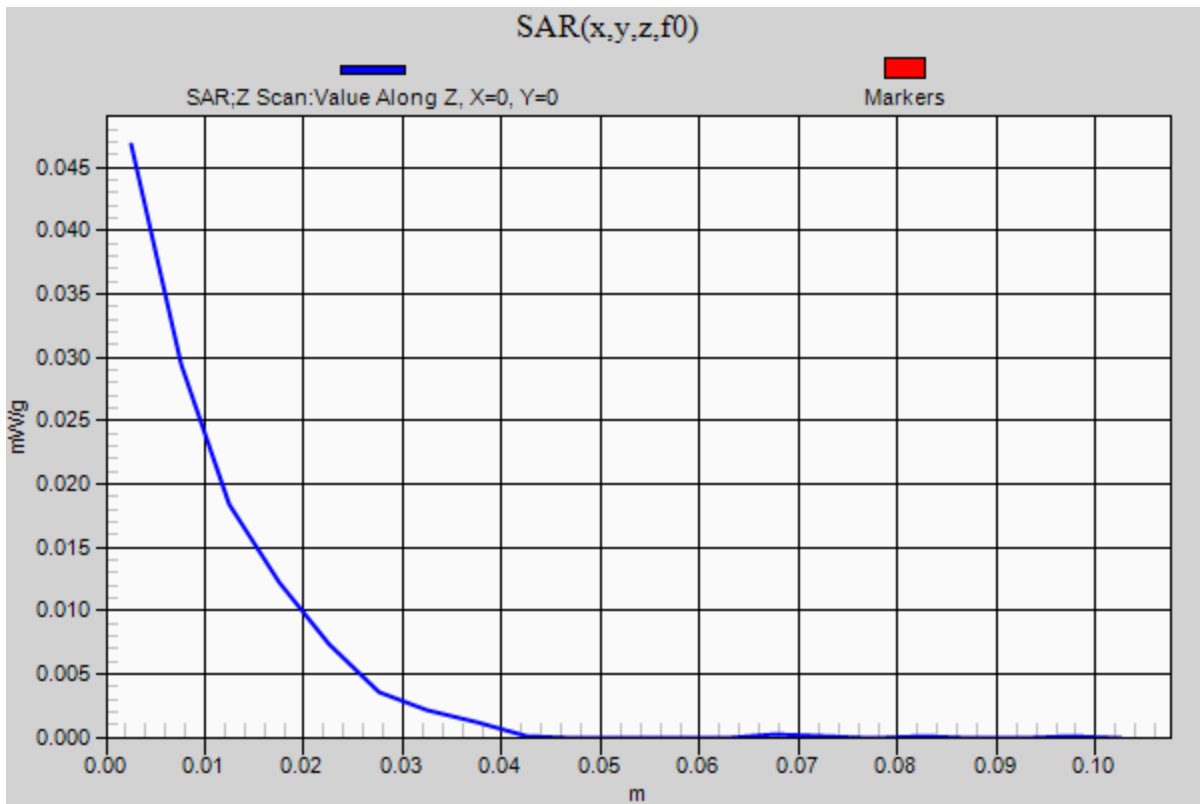
0 dB = 0.050mW/g

Test Laboratory: UL CCS SAR Lab B

### UMTS Band II\_Body\_Primary Portrait

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

**Mid-Ch/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm  
Maximum value of SAR (measured) = 0.047 mW/g



Test Laboratory: UL CCS SAR Lab B

## UMTS Band V\_Body\_Secondary Landscape

Communication System: UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 836.6$  MHz;  $\sigma = 0.982$  mho/m;  $\epsilon_r = 54.687$ ;  $\rho = 1000$  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 - SN3773; ConvF(8.67, 8.67, 8.67); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Mid-Ch/Area Scan (81x201x1):** Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (interpolated) = 0.053 mW/g

**Mid-Ch/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 7.297 V/m; Power Drift = 0.09 dB, Peak SAR (extrapolated) = 0.069 W/kg

**SAR(1 g) = 0.045 mW/g; SAR(10 g) = 0.030 mW/g**

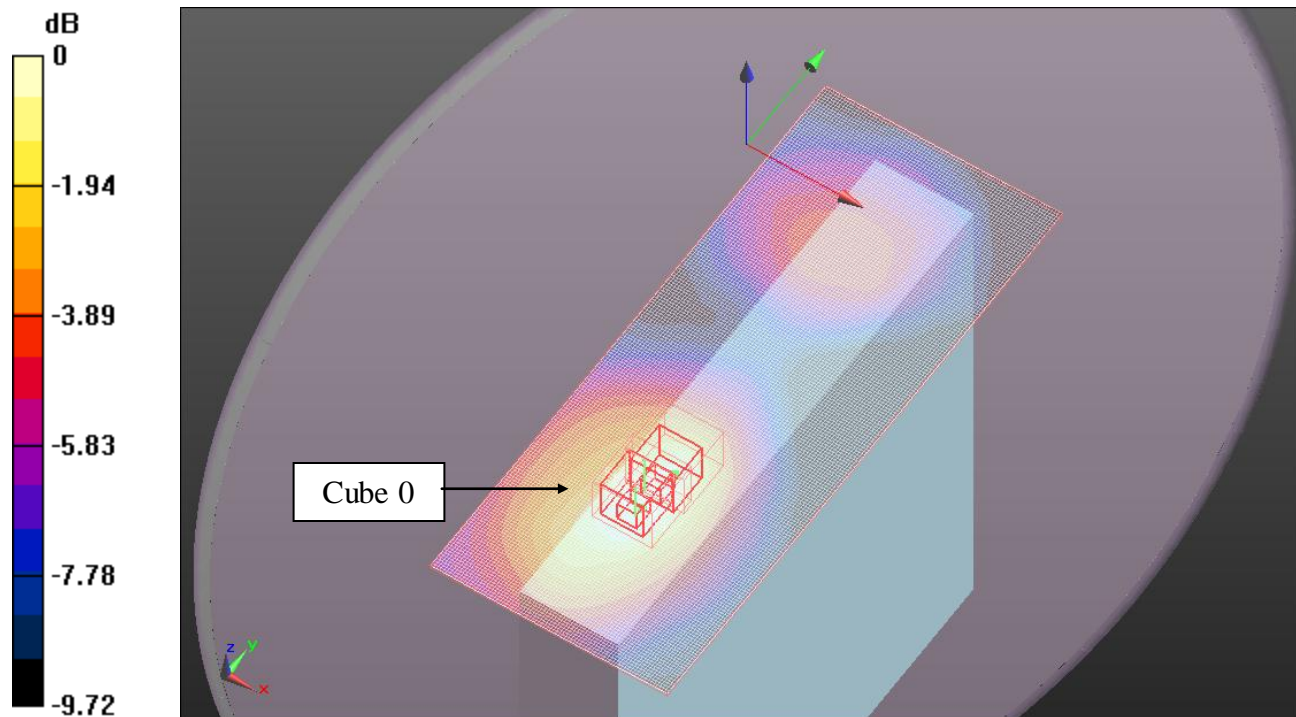
Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.054 mW/g

**Mid-Ch/Zoom Scan (7x7x9)/Cube 1:** Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 7.297 V/m; Power Drift = 0.09 dB, Peak SAR (extrapolated) = 0.059 W/kg

**SAR(1 g) = 0.042 mW/g; SAR(10 g) = 0.028 mW/g**

Info: Interpolated medium parameters used for SAR evaluation. Maximum value of SAR (measured) = 0.051 mW/g



0 dB = 0.050mW/g

Test Laboratory: UL CCS SAR Lab B

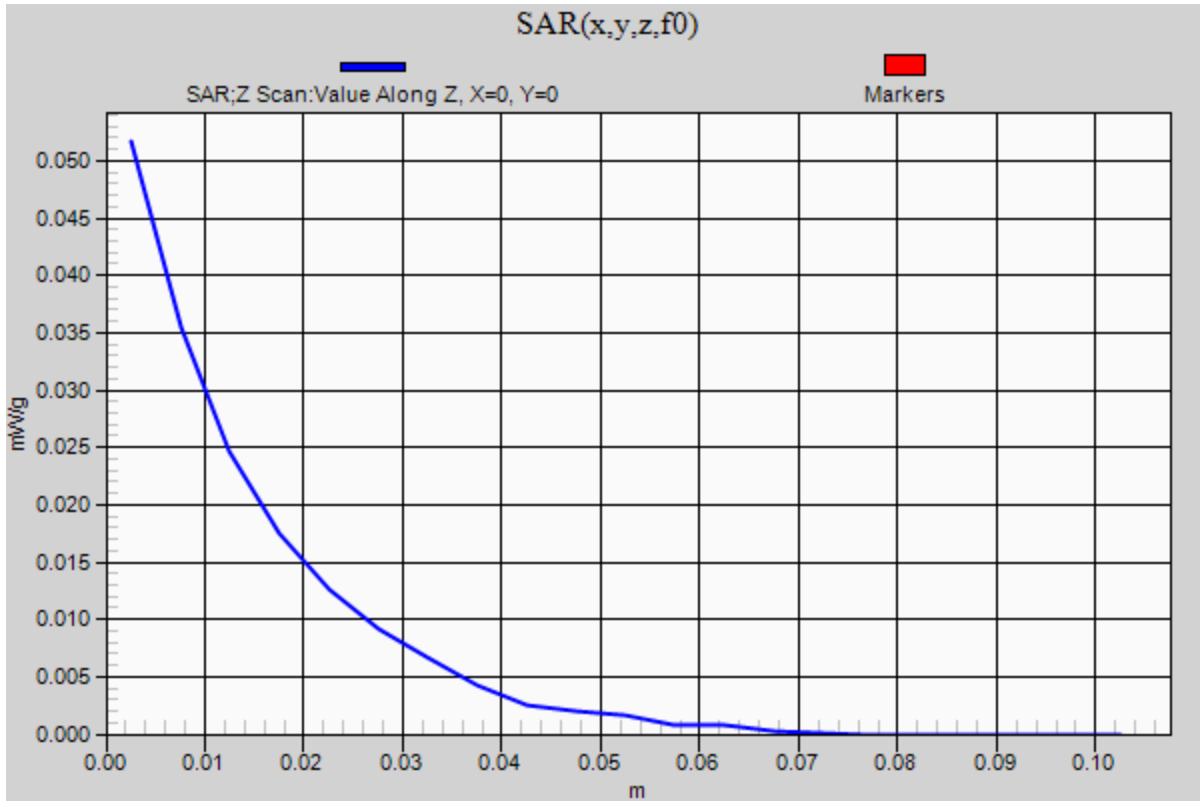
## UMTS Band V\_Body\_Secondary Landscape

Communication System: UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1

**Mid-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) = 0.052 mW/g



Test Laboratory: UL CCS SAR Lab B

## UMTS Band II\_Body\_Secondary Landscape

Communication System: UMTS-FDD (WCDMA); Frequency: 1880 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.434$  mho/m;  $\epsilon_r = 53.281$ ;  $\rho = 1000$  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 - SN3773; ConvF(7.37, 7.37, 7.37); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Mid-Ch/Area Scan (81x201x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.085 mW/g

**Mid-Ch/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 7.811 V/m; Power Drift = 0.11 dB, Peak SAR (extrapolated) = 0.106 W/kg

**SAR(1 g) = 0.071 mW/g; SAR(10 g) = 0.045 mW/g**

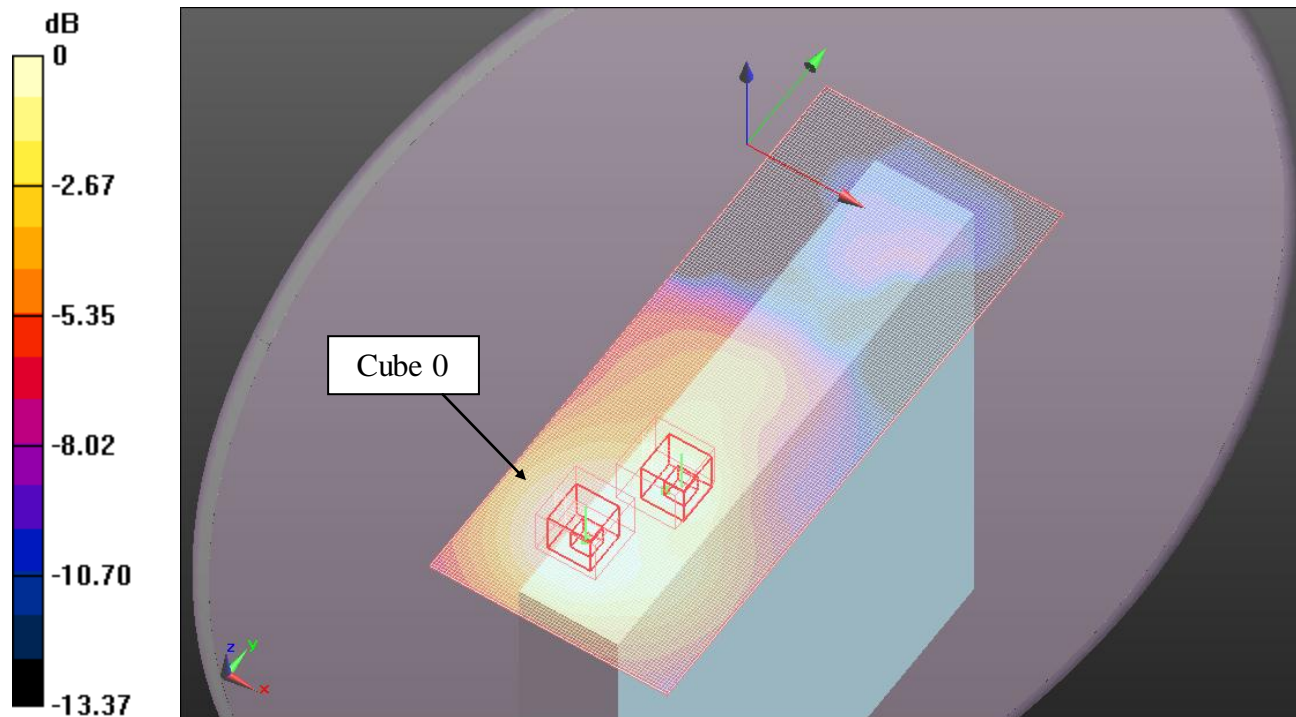
Maximum value of SAR (measured) = 0.086 mW/g

**Mid-Ch/Zoom Scan (7x7x9)/Cube 1:** Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 7.811 V/m; Power Drift = 0.11 dB, Peak SAR (extrapolated) = 0.076 W/kg

**SAR(1 g) = 0.050 mW/g; SAR(10 g) = 0.030 mW/g**

Maximum value of SAR (measured) = 0.061 mW/g



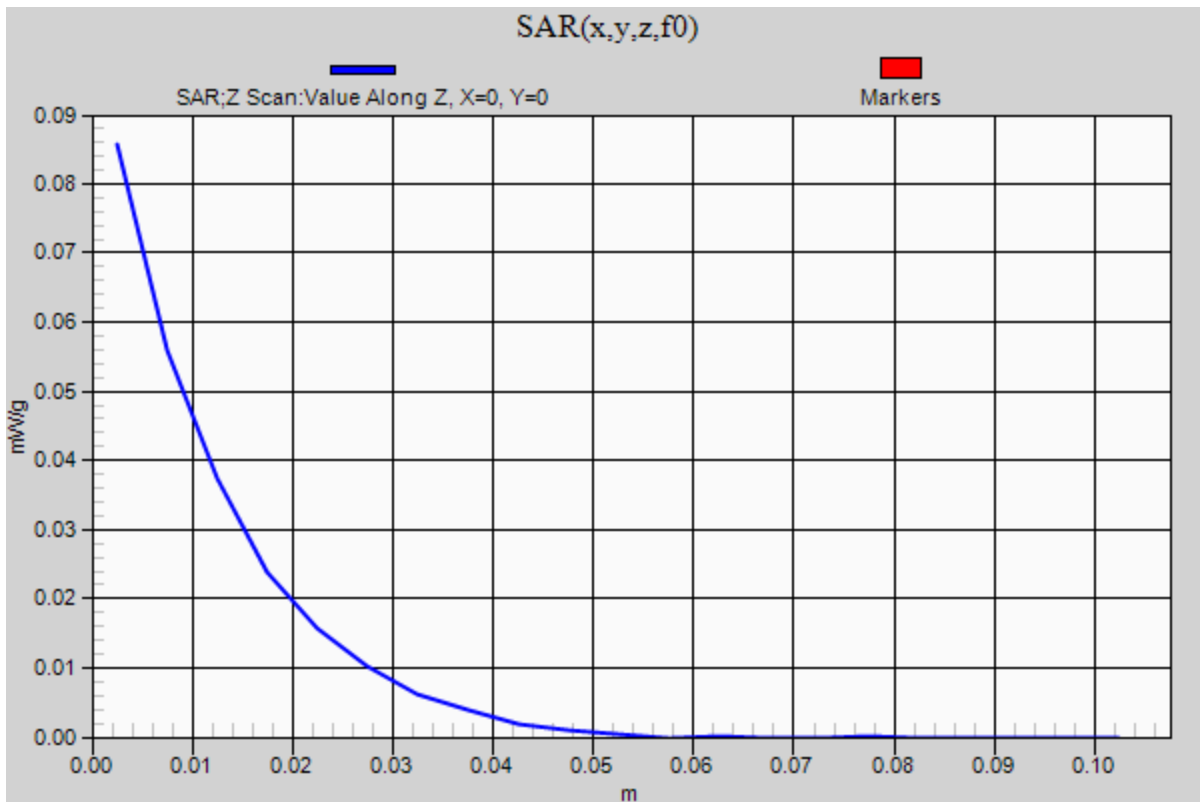
0 dB = 0.060mW/g

Test Laboratory: UL CCS SAR Lab B

## UMTS Band II\_Body\_Secondary Landscape

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

**Mid-Ch/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm  
Maximum value of SAR (measured) = 0.086 mW/g





Test Laboratory: UL CCS SAR Lab B

## UMTS Band V\_Body\_Bottom

Communication System: UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 836.6$  MHz;  $\sigma = 0.982$  mho/m;  $\epsilon_r = 54.687$ ;  $\rho = 1000$  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 - SN3773; ConvF(8.67, 8.67, 8.67); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Mid-Ch/Area Scan (241x241x1):** Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (interpolated) = 0.045 mW/g

**Mid-Ch/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 6.586 V/m; Power Drift = 0.11 dB, Peak SAR (extrapolated) = 0.050 W/kg

**SAR(1 g) = 0.037 mW/g; SAR(10 g) = 0.027 mW/g**

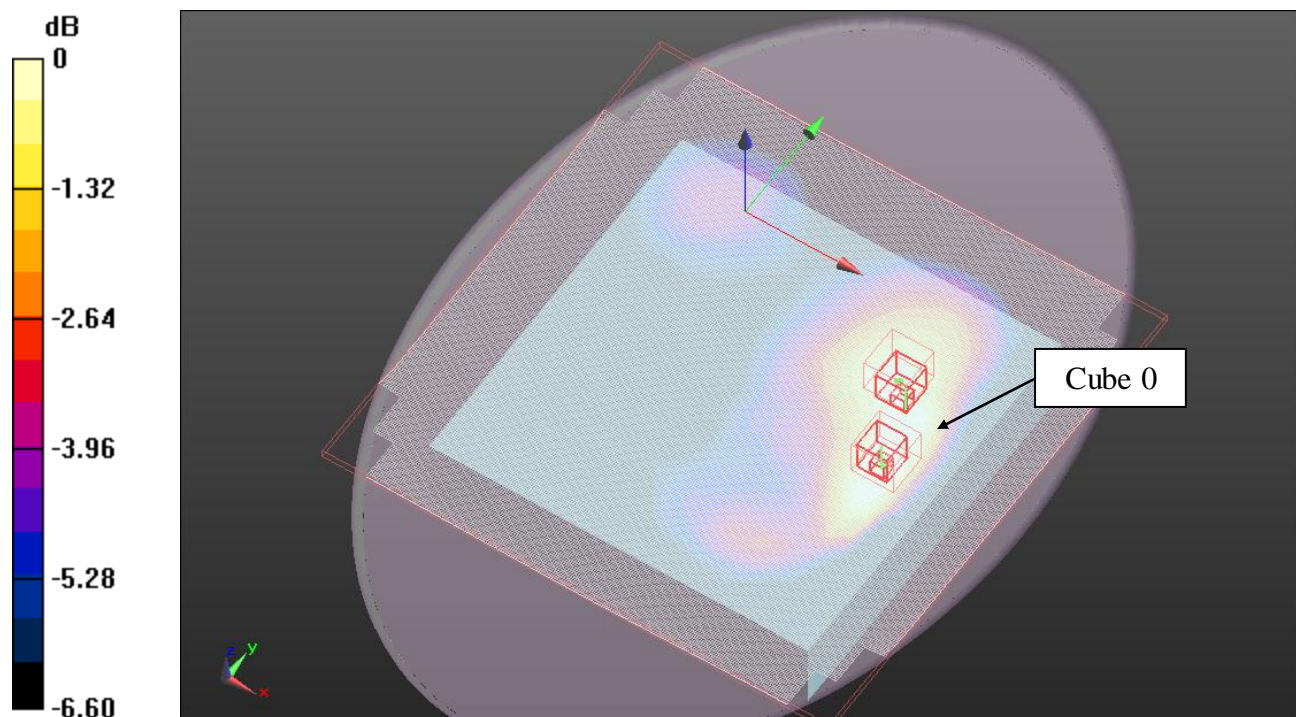
[Info: Interpolated medium parameters used for SAR evaluation.](#) Maximum value of SAR (measured) = 0.042 mW/g

**Mid-Ch/Zoom Scan (7x7x9)/Cube 1:** Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 6.586 V/m; Power Drift = 0.11 dB, Peak SAR (extrapolated) = 0.042 W/kg

**SAR(1 g) = 0.032 mW/g; SAR(10 g) = 0.024 mW/g**

[Info: Interpolated medium parameters used for SAR evaluation.](#) Maximum value of SAR (measured) = 0.037 mW/g



0 dB = 0.040mW/g

Test Laboratory: UL CCS SAR Lab B

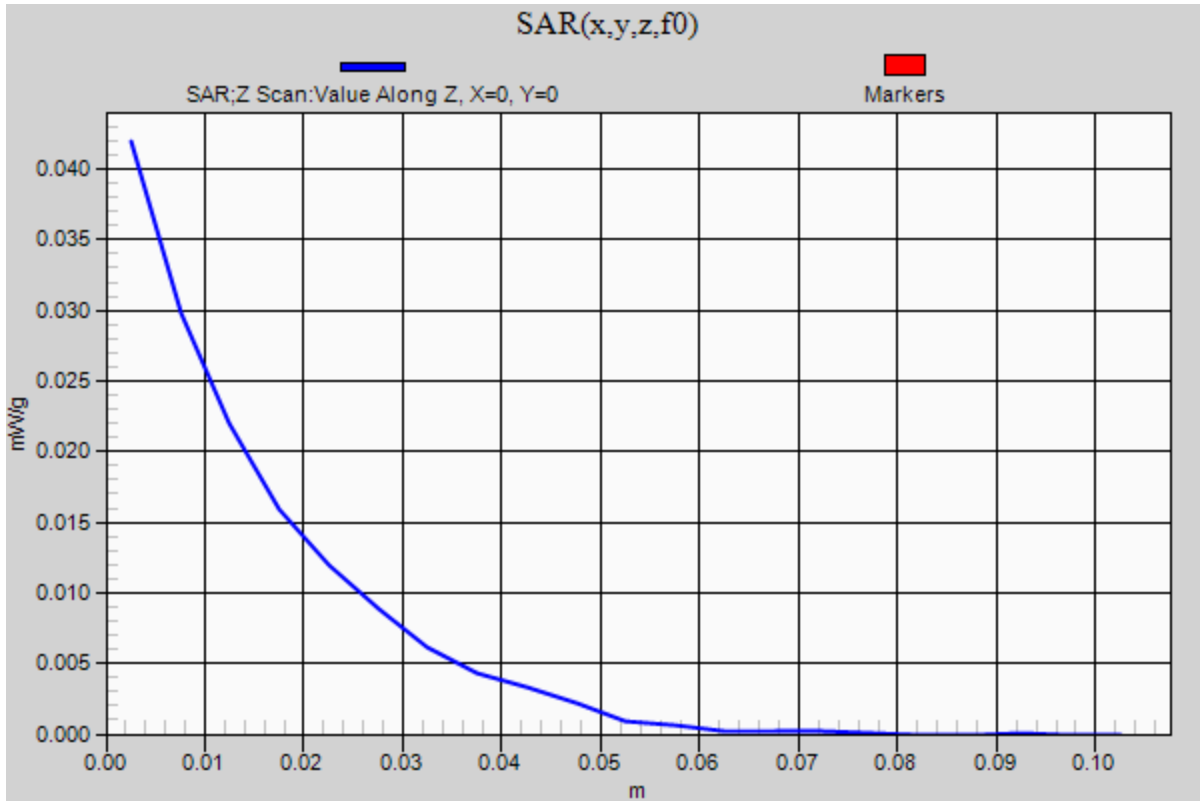
## UMTS Band V\_Body\_Bottom

Communication System: UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1

**Mid-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) = 0.042 mW/g



Test Laboratory: UL CCS SAR Lab B

## UMTS Band II\_Body\_Bottom

Communication System: UMTS-FDD (WCDMA); Frequency: 1880 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.434$  mho/m;  $\epsilon_r = 53.281$ ;  $\rho = 1000$  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 - SN3773; ConvF(7.37, 7.37, 7.37); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1258; Calibrated: 5/2/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

**Mid-Ch/Area Scan (241x241x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.033 mW/g

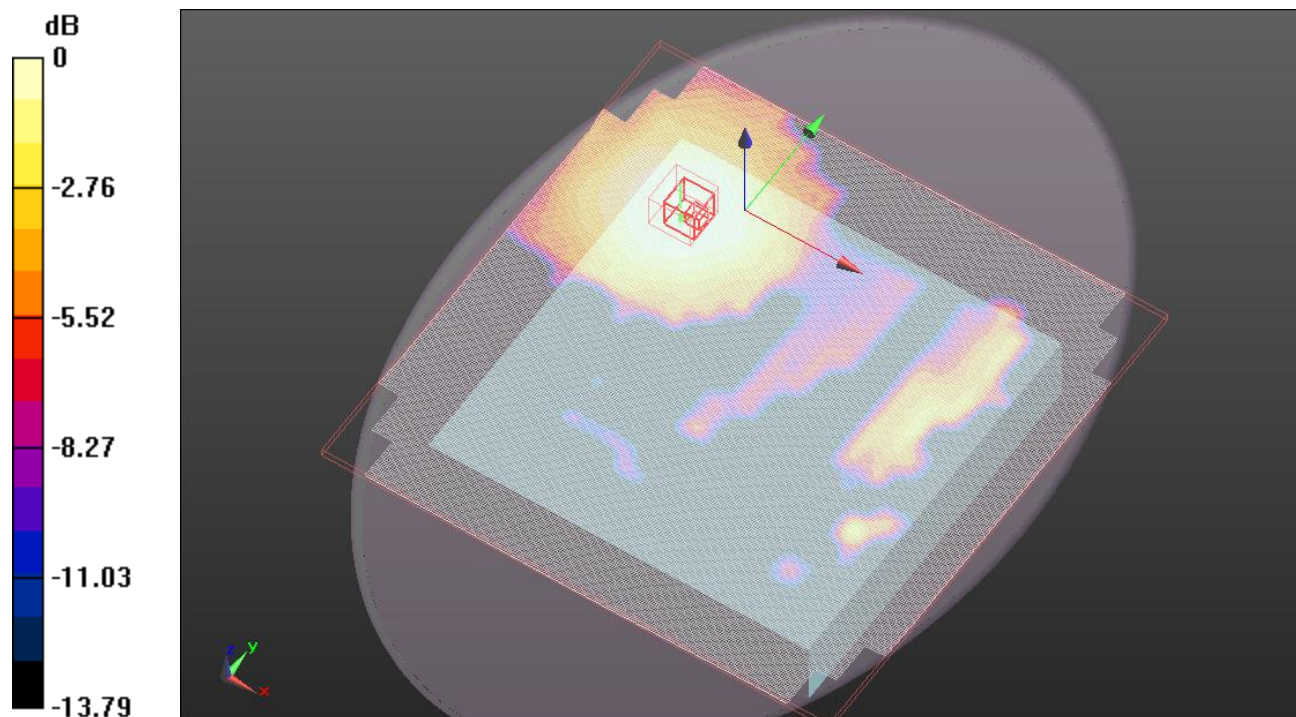
**Mid-Ch/Zoom Scan(1st) (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 4.730 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.041 W/kg

**SAR(1 g) = 0.026 mW/g; SAR(10 g) = 0.017 mW/g**

Maximum value of SAR (measured) = 0.032 mW/g



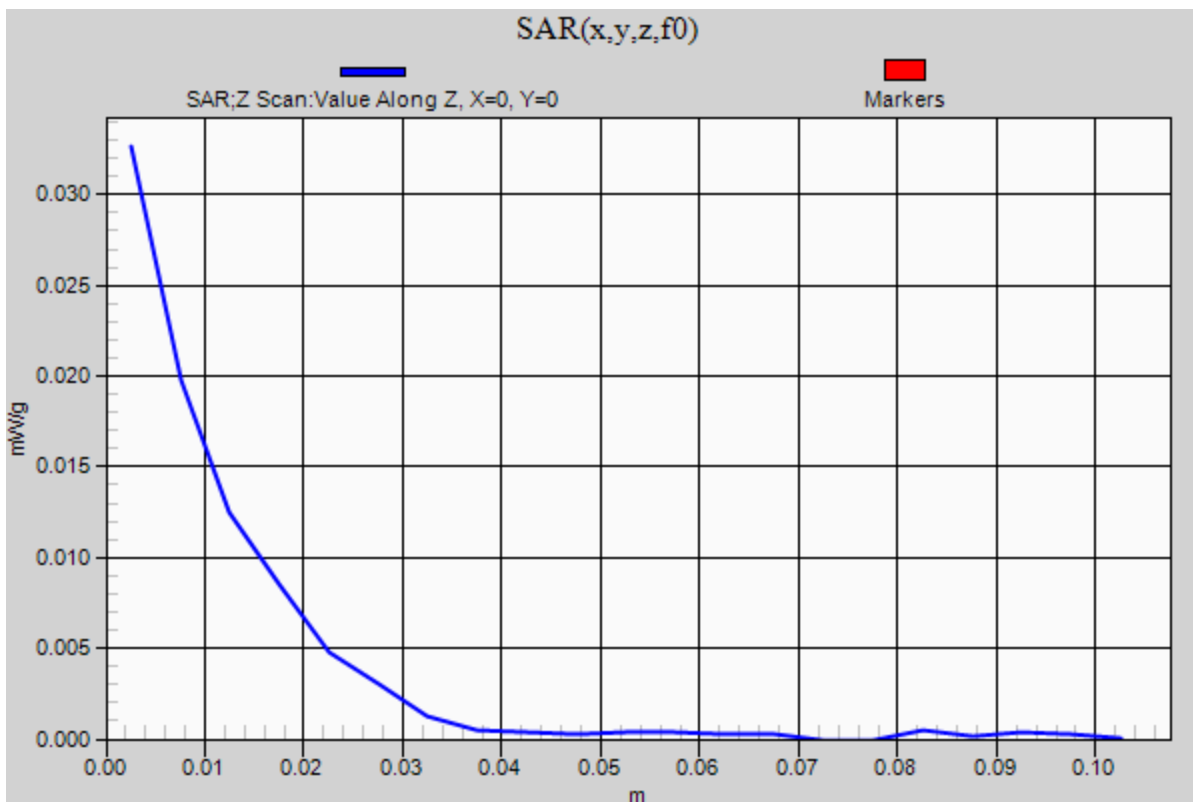
0 dB = 0.030mW/g

Test Laboratory: UL CCS SAR Lab B

### UMTS Band II\_Body\_Bottom

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

**Mid-Ch/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm  
Maximum value of SAR (measured) = 0.033 mW/g



Test Laboratory: UL CCS SAR Lab C

## UMTS Band V\_Body\_Base\_Tilt

Communication System: UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1  
 Medium parameters used (interpolated):  $f = 836.6$  MHz;  $\sigma = 0.984$  mho/m;  $\epsilon_r = 55.021$ ;  $\rho = 1000$  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 - SN3773; ConvF(8.67, 8.67, 8.67); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1239; Calibrated: 10/18/2011
- Phantom: ELI v5.0 (A); Type: QDOVA001BB; Serial: 1117
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.4 (4989)

**Mid-Ch 2/Area Scan (121x121x1):** Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (interpolated) = 0.355 mW/g

**Mid-Ch 2/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

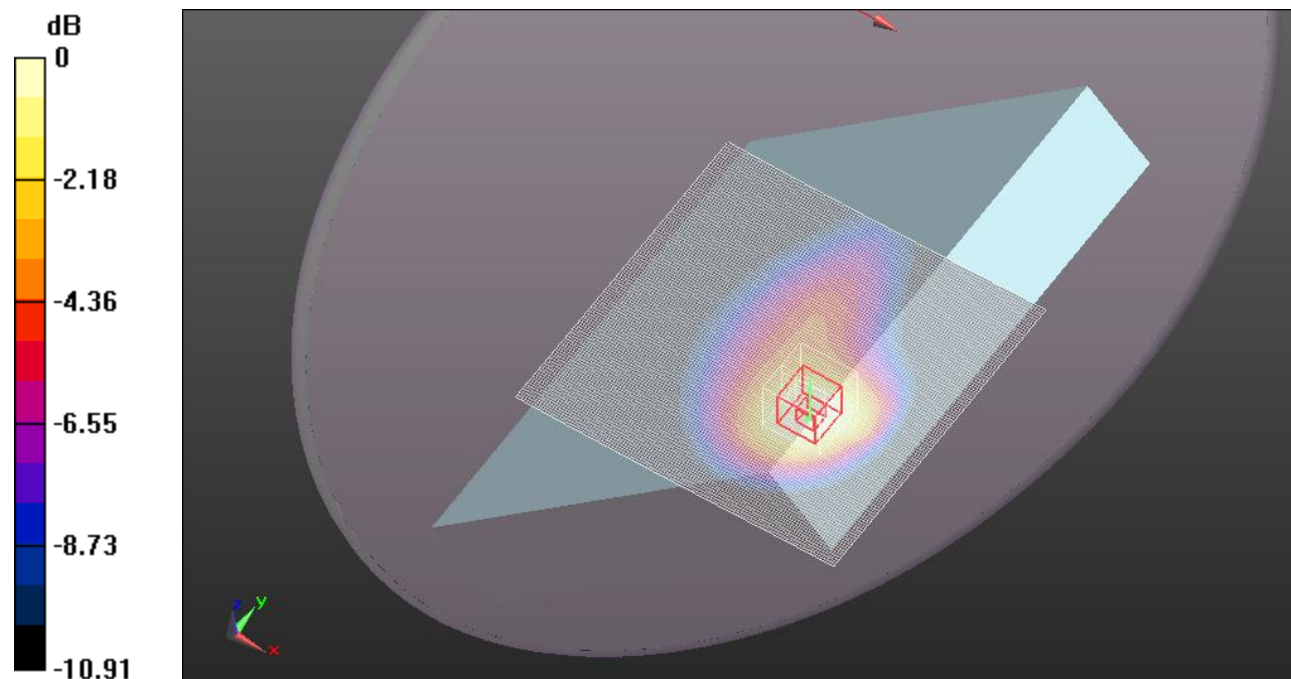
Reference Value = 18.496 V/m; Power Drift = -0.0089 dB

Peak SAR (extrapolated) = 0.4120

**SAR(1 g) = 0.300 mW/g; SAR(10 g) = 0.208 mW/g**

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

Maximum value of SAR (measured) = 0.353 mW/g



0 dB = 0.350mW/g = -9.12 dB mW/g

Test Laboratory: UL CCS SAR Lab C

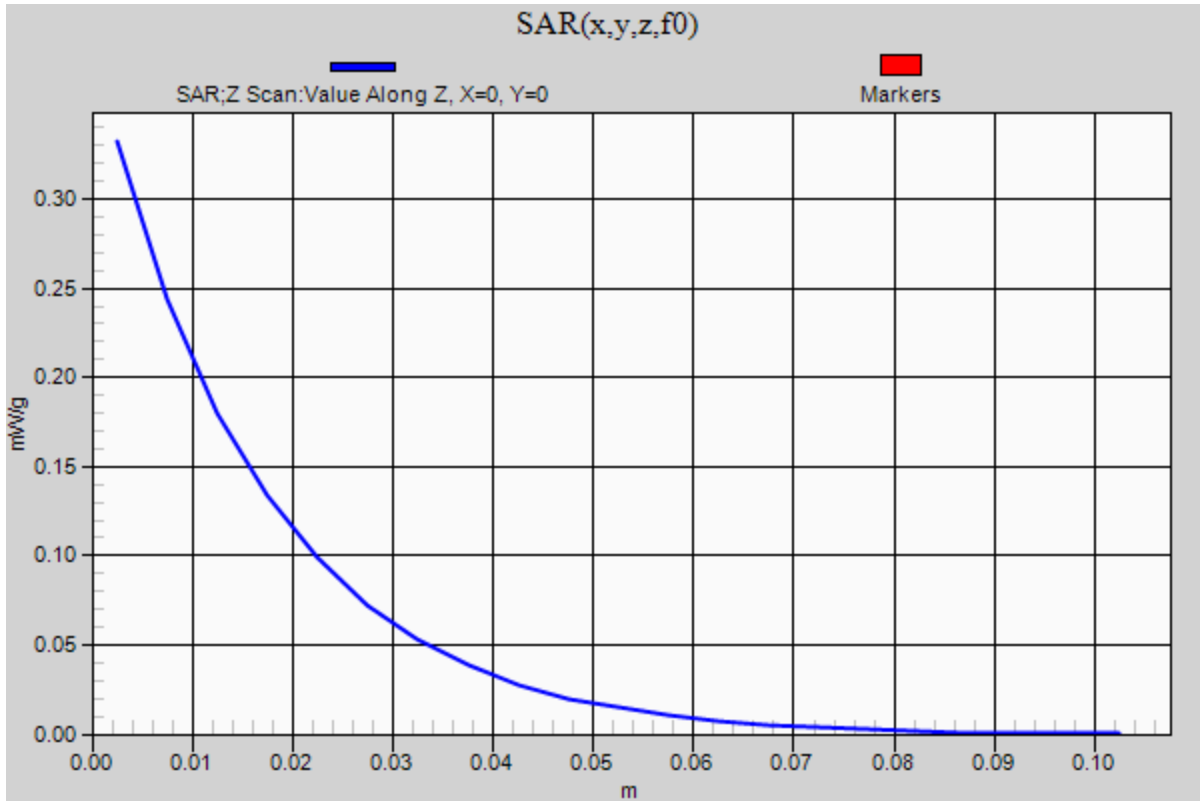
### UMTS Band V\_Body\_Base\_Tilt

Communication System: UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1

**Mid-Ch 2/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

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

Maximum value of SAR (measured) = 0.332 mW/g



Test Laboratory: UL CCS SAR Lab C

## UMTS Band II\_Body\_Base\_Tilt

Communication System: UMTS-FDD (WCDMA); Frequency: 1880 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.509$  mho/m;  $\epsilon_r = 54.115$ ;  $\rho = 1000$  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 - SN3773; ConvF(7.37, 7.37, 7.37); Calibrated: 5/3/2011
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1239; Calibrated: 10/18/2011
- Phantom: ELI v5.0 (B); Type: QDOVA001BB; Serial: 1118
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.4 (4989)

**Mid-Ch/Area Scan (121x121x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.557 mW/g

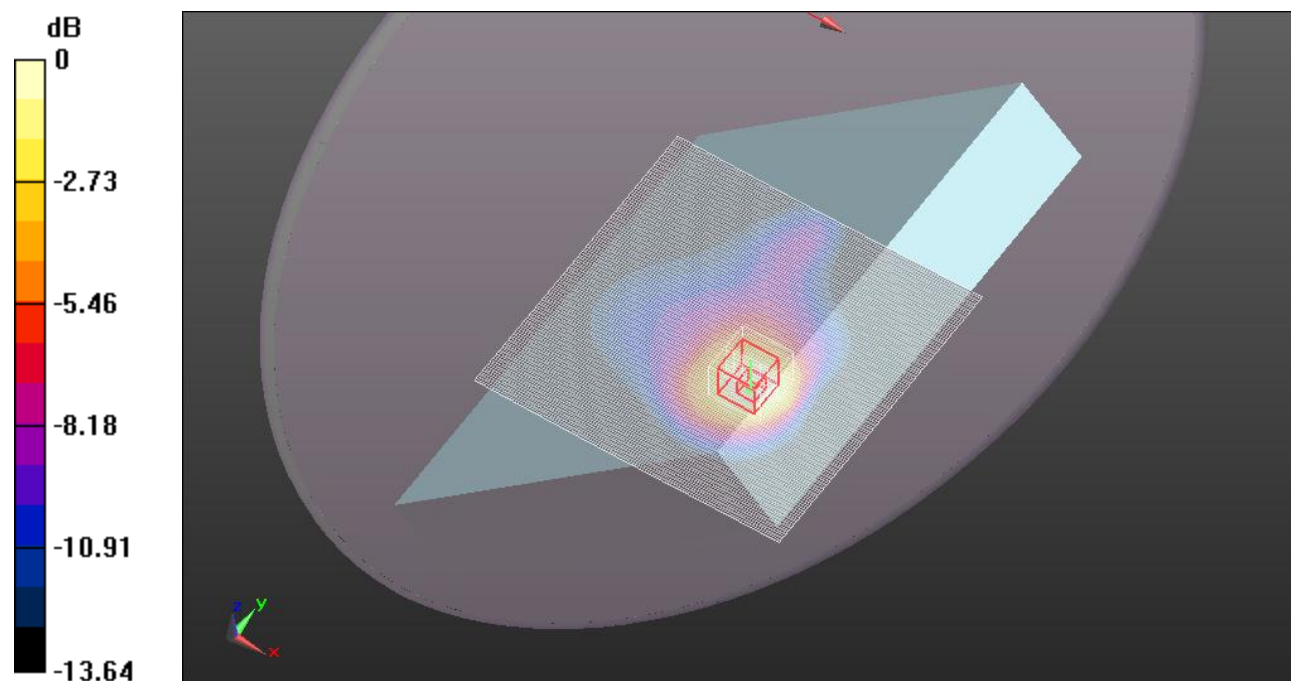
**Mid-Ch/Zoom Scan(1st) (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 18.727 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.6640

**SAR(1 g) = 0.420 mW/g; SAR(10 g) = 0.253 mW/g**

Maximum value of SAR (measured) = 0.526 mW/g



0 dB = 0.530mW/g = -5.51 dB mW/g

Test Laboratory: UL CCS SAR Lab C

### UMTS Band II\_Body\_Base\_Tilt

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

**Mid-Ch/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm  
Maximum value of SAR (measured) = 0.504 mW/g

