

Figure 264 Z-Scan at power reference point (Body, Towards Ground, Open WCDMA Band II HSDPA Channel 9262)

Date/Time: 12/27/2008 7:49:08 AM

### WCDMA Band II Left Cheek High Close

Communication System: WCDMA Band II; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1908$  MHz;  $\sigma = 1.42$  mho/m;  $\epsilon_r = 39.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek High/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.12 mW/g

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

Reference Value = 9.34 V/m; Power Drift = 0.192 dB

Peak SAR (extrapolated) = 1.39 W/kg

**SAR(1 g) = 0.888 mW/g; SAR(10 g) = 0.527 mW/g**

Maximum value of SAR (measured) = 1.11 mW/g

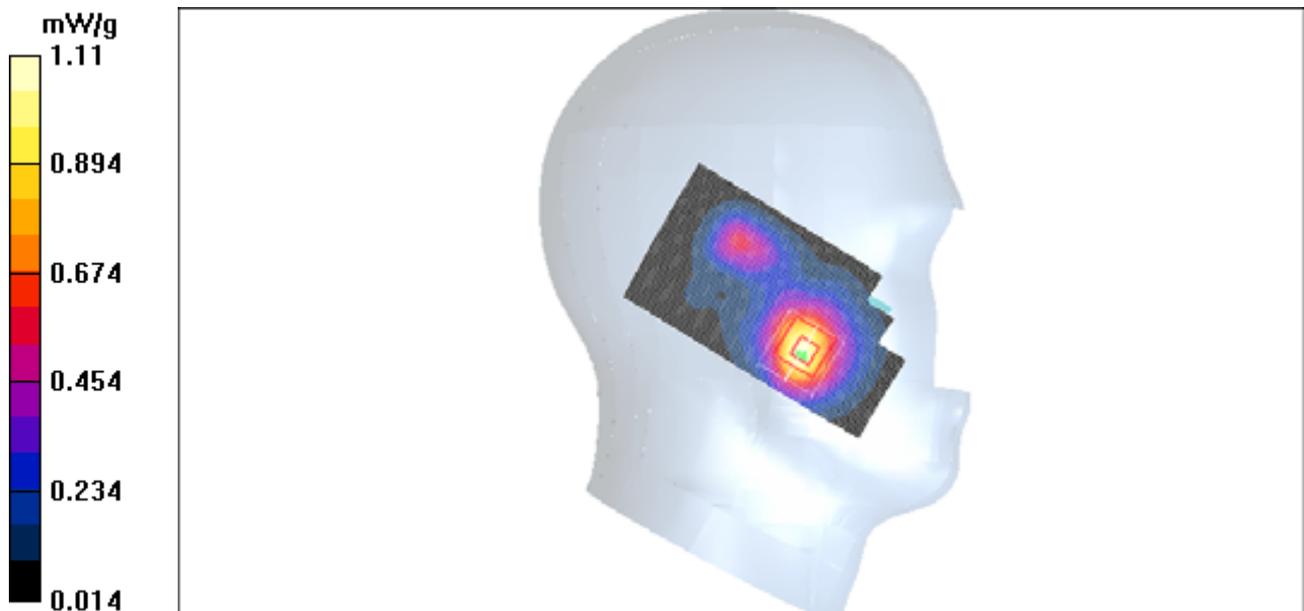


Figure 265 Left Hand Touch Cheek Close WCDMA Band II Channel 9538

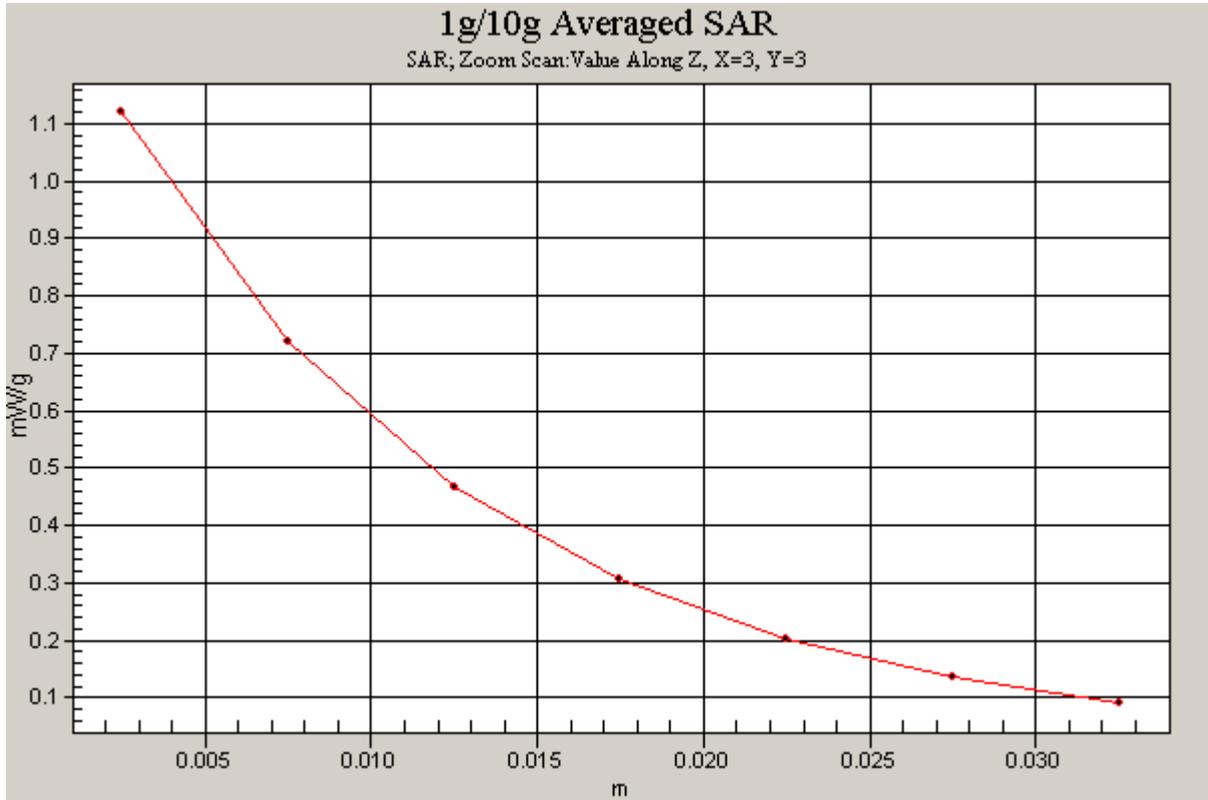


Figure 266 Z-Scan at power reference point (Left Hand Touch Cheek Close WCDMA Band II Channel 9538)

Date/Time: 12/27/2008 8:12:05 AM

### WCDMA Band II Left Cheek Middle Close

Communication System: WCDMA Band II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.39$  mho/m;  $\epsilon_r = 40.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.03 mW/g

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

Reference Value = 10.1 V/m; Power Drift = -0.197 dB

Peak SAR (extrapolated) = 1.28 W/kg

**SAR(1 g) = 0.820 mW/g; SAR(10 g) = 0.491 mW/g**

Maximum value of SAR (measured) = 1.03 mW/g

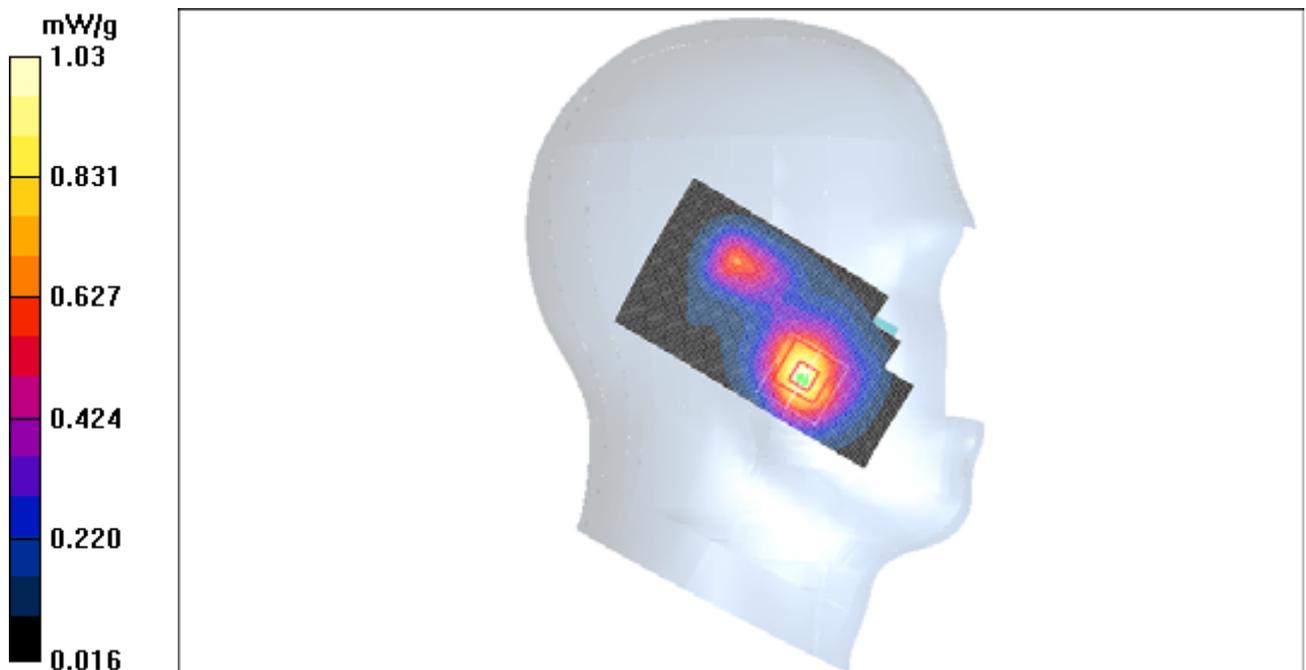


Figure 267 Left Hand Touch Cheek Close WCDMA Band II Channel 9400

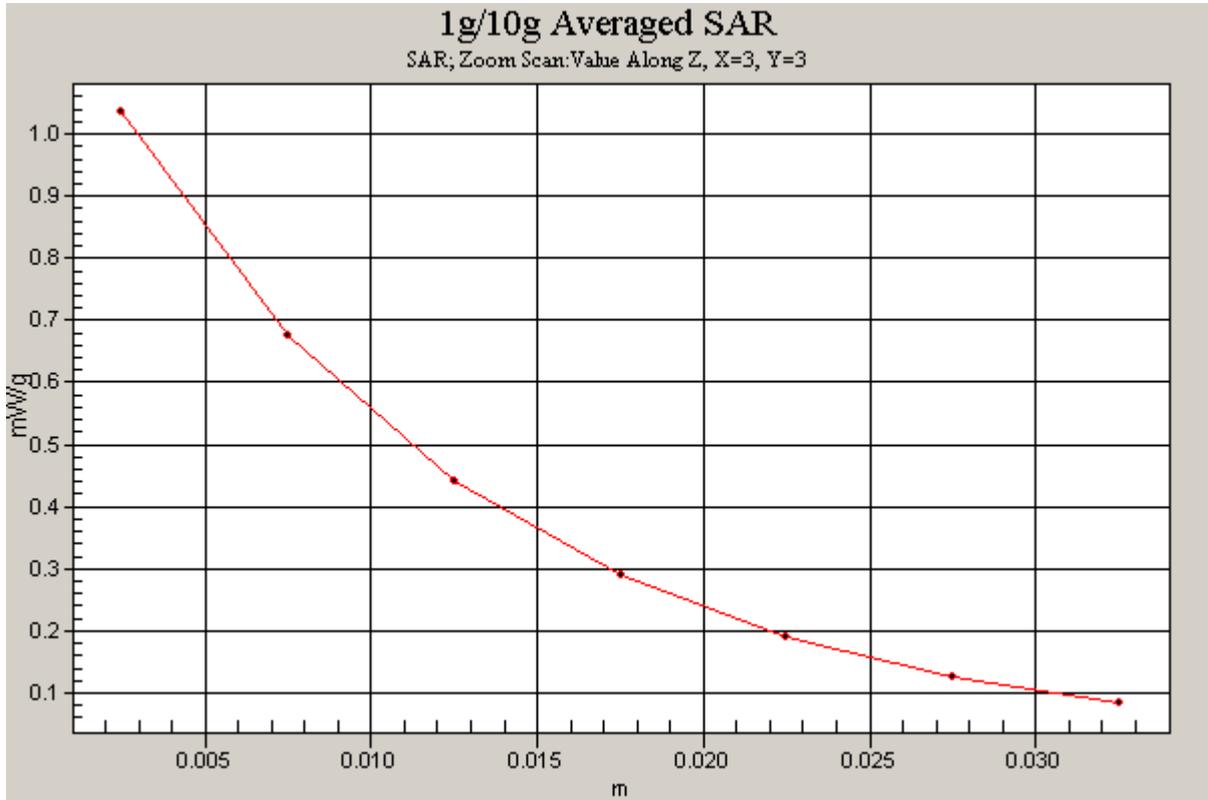


Figure 268 Z-Scan at power reference point (Left Hand Touch Cheek Close WCDMA Band II Channel 9400)

Date/Time: 12/27/2008 8:31:16 AM

### WCDMA Band II Left Cheek Low Close

Communication System: WCDMA Band II; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.37$  mho/m;  $\epsilon_r = 40.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek Low/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.871 mW/g

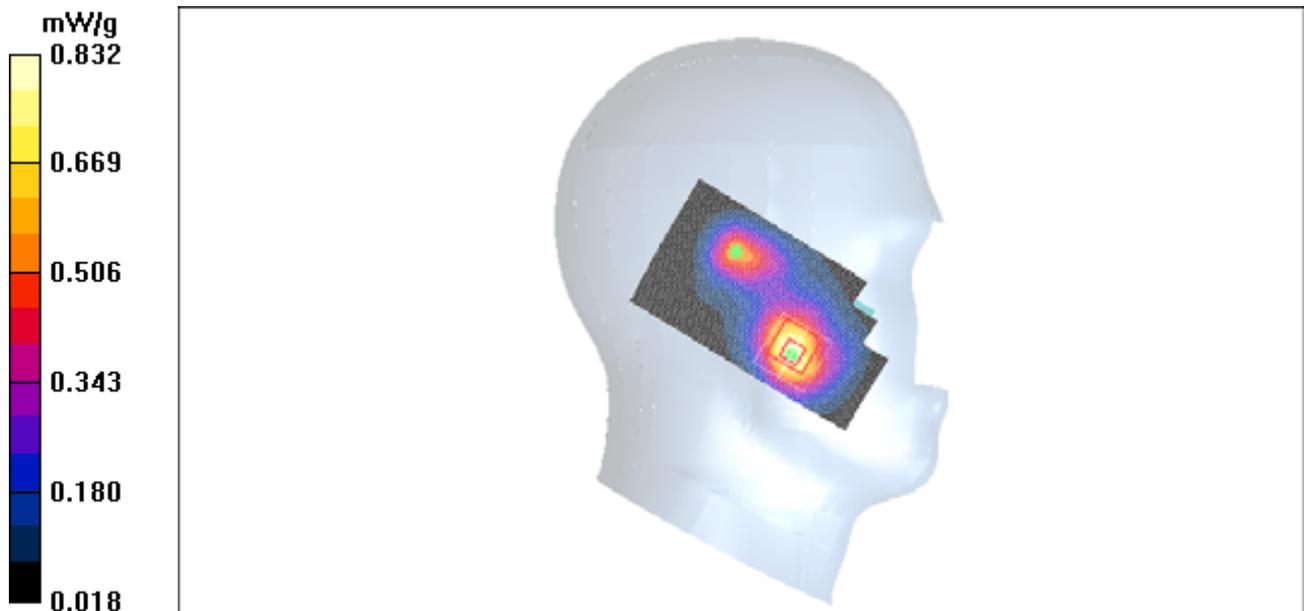
**Cheek Low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.0 V/m; Power Drift = -0.151 dB

Peak SAR (extrapolated) = 1.03 W/kg

**SAR(1 g) = 0.664 mW/g; SAR(10 g) = 0.400 mW/g**

Maximum value of SAR (measured) = 0.832 mW/g



Communication System: WCDMA Band II; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.37$  mho/m;  $\epsilon_r = 40.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek Low/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.871 mW/g

**Cheek Low/Zoom Scan (7x7x7)/Cube 1:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.0 V/m; Power Drift = -0.151 dB

Peak SAR (extrapolated) = 0.705 W/kg

**SAR(1 g) = 0.448 mW/g; SAR(10 g) = 0.258 mW/g**

Maximum value of SAR (measured) = 0.559 mW/g

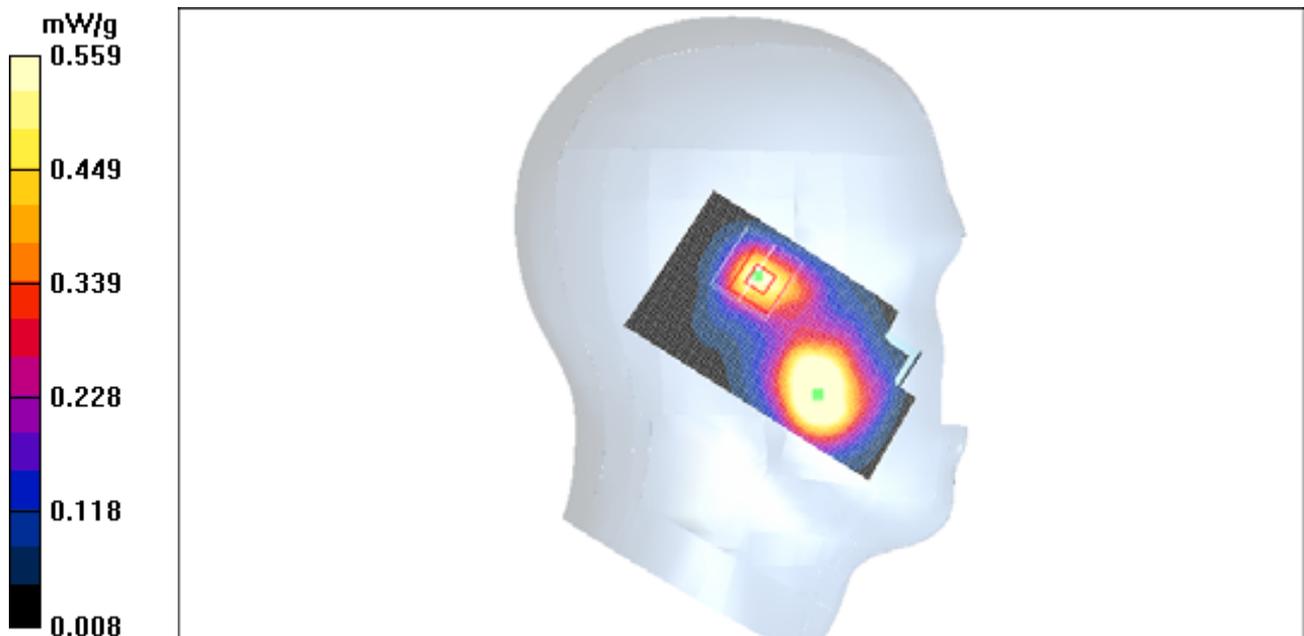


Figure 269 Left Hand Touch Cheek Close WCDMA Band II Channel 9262

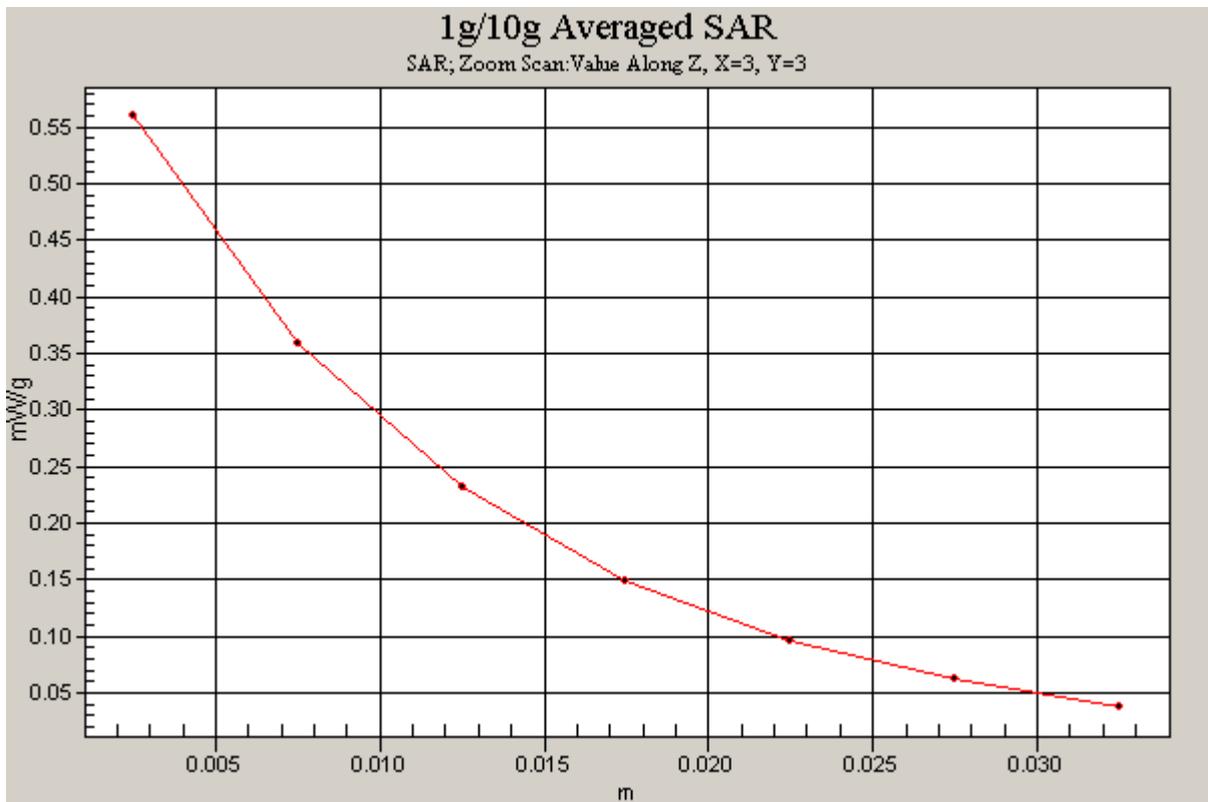
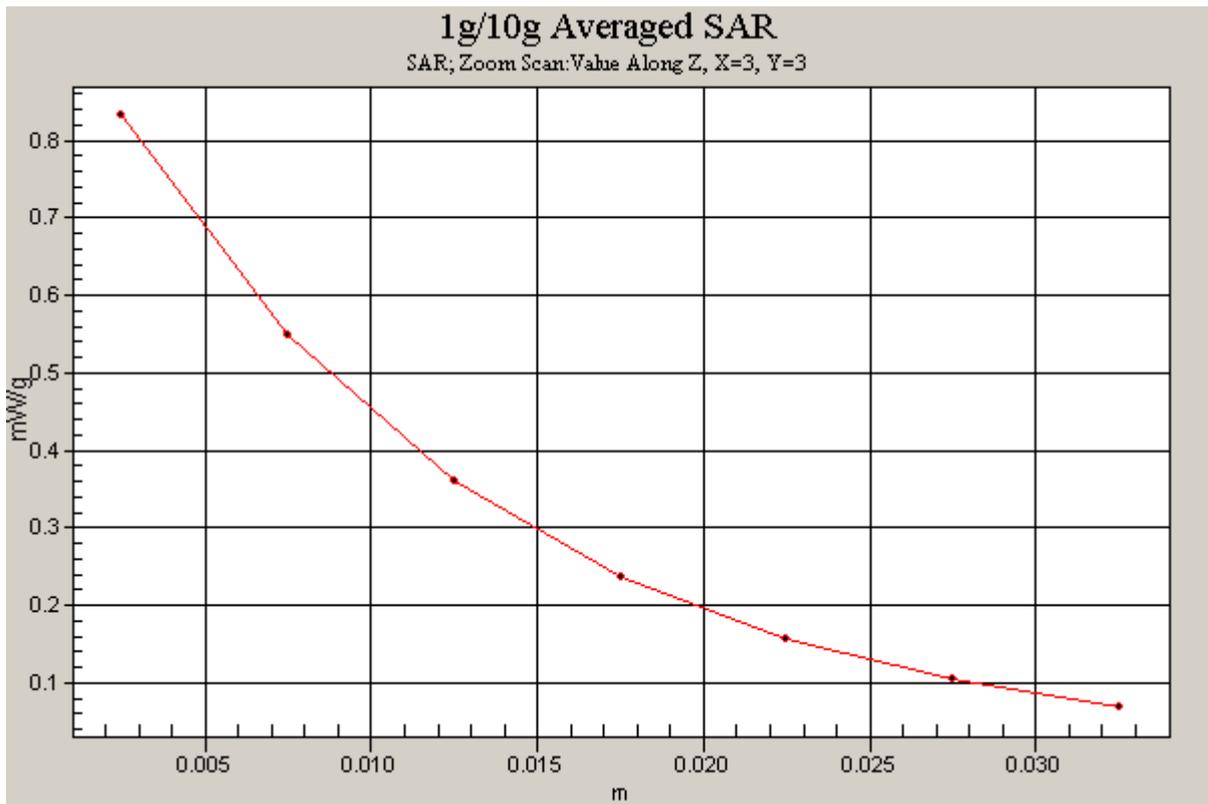


Figure 270 Z-Scan at power reference point (Left Hand Touch Cheek Close WCDMA Band II Channel 9262)

Date/Time: 12/27/2008 9:48:13 AM

### WCDMA Band II Left Tilt High Close

Communication System: WCDMA Band II; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1908$  MHz;  $\sigma = 1.42$  mho/m;  $\epsilon_r = 39.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt High/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.478 mW/g

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

Reference Value = 12.7 V/m; Power Drift = 0.183 dB

Peak SAR (extrapolated) = 0.585 W/kg

**SAR(1 g) = 0.369 mW/g; SAR(10 g) = 0.209 mW/g**

Maximum value of SAR (measured) = 0.466 mW/g

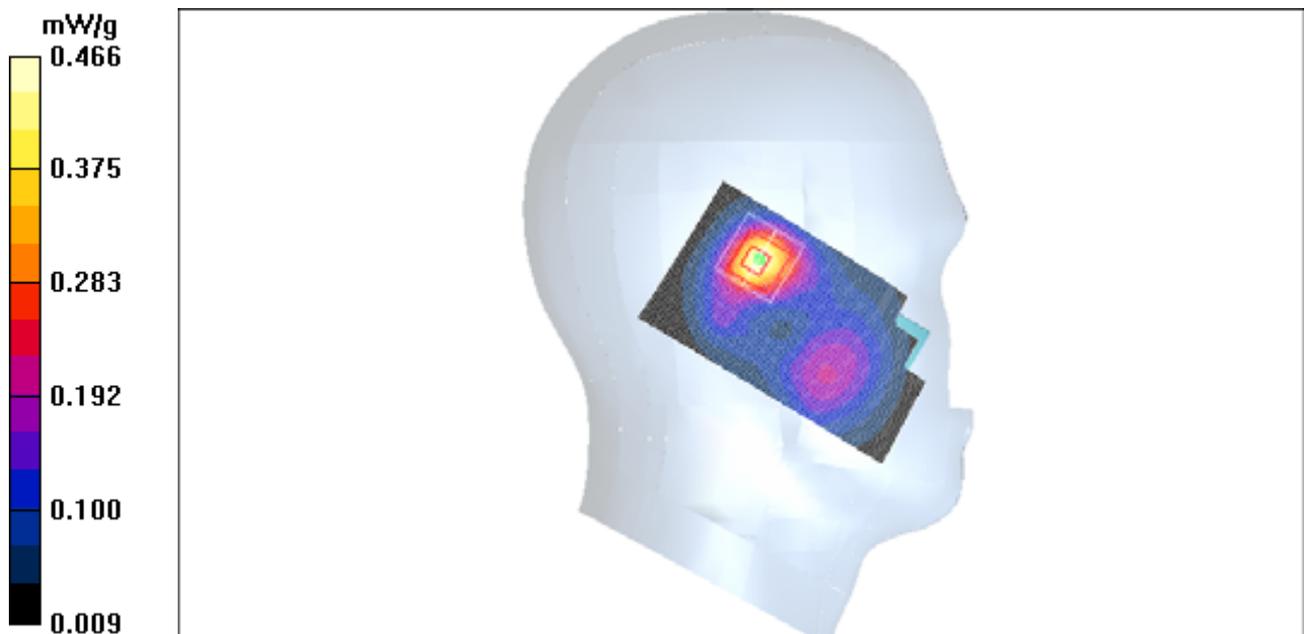


Figure 271 Left Hand Tilt 15° Close WCDMA Band II Channel 9538

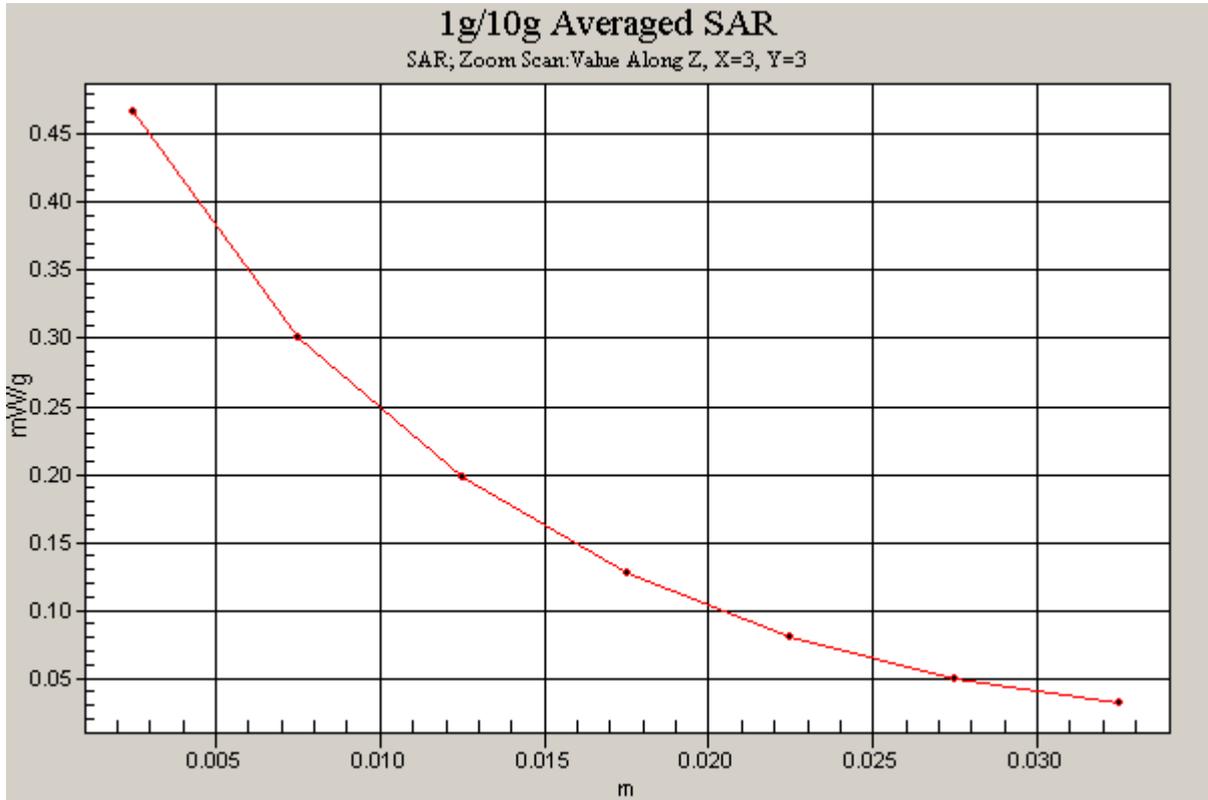


Figure 272 Z-Scan at power reference point (Left Hand Tilt 15° Close WCDMA Band II Channel 9538)

Date/Time: 12/27/2008 9:29:52 AM

**WCDMA Band II Left Tilt Middle Close**

Communication System: WCDMA Band II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.39$  mho/m;  $\epsilon_r = 40.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.479 mW/g

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

Reference Value = 12.9 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 0.567 W/kg

**SAR(1 g) = 0.364 mW/g; SAR(10 g) = 0.209 mW/g**

Maximum value of SAR (measured) = 0.456 mW/g

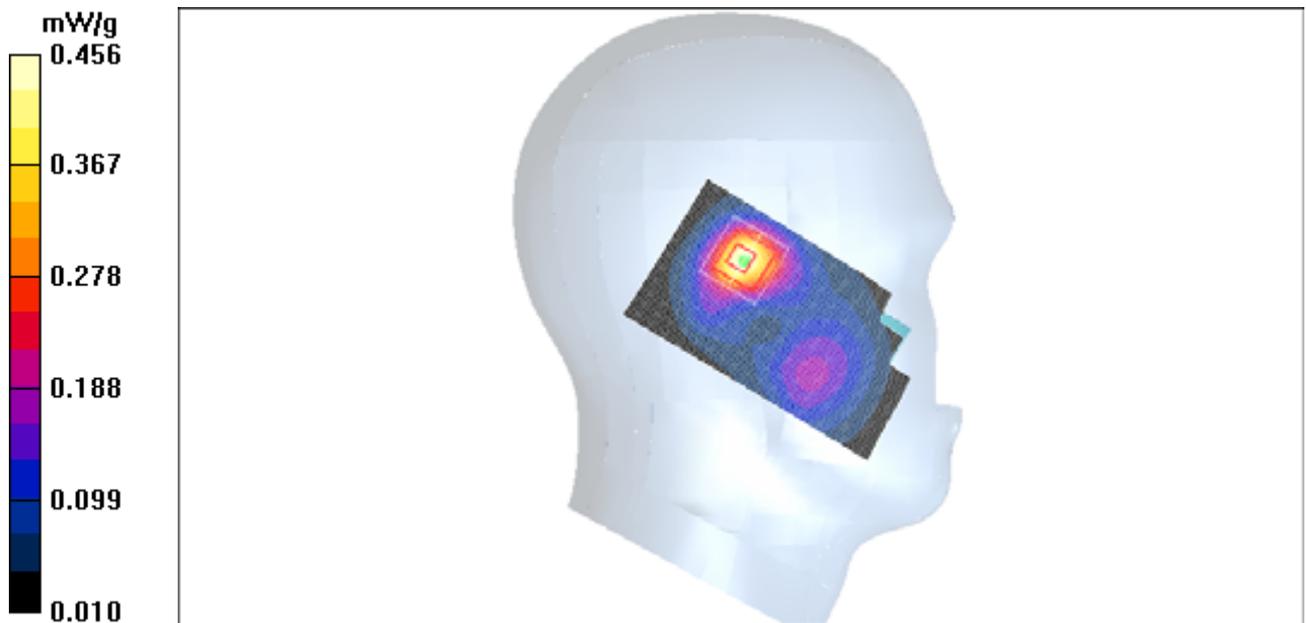


Figure 273 Left Hand Tilt 15°Close WCDMA Band II Channel 9400

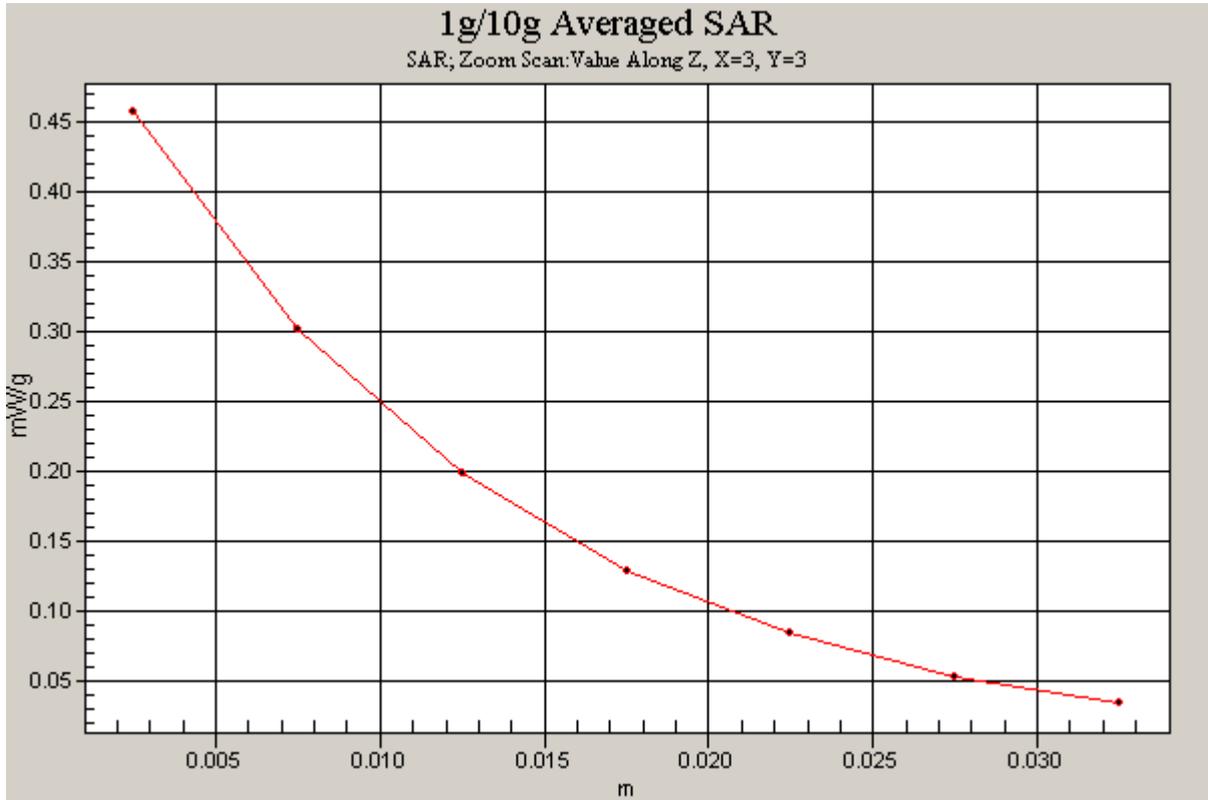


Figure 274 Z-Scan at power reference point (Left Hand Tilt 15° Close WCDMA Band II Channel 9400)

Date/Time: 12/27/2008 9:07:45 AM

**WCDMA Band II Left Tilt Low Close**

Communication System: WCDMA Band II; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.37$  mho/m;  $\epsilon_r = 40.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt Low/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.448 mW/g

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

Reference Value = 12.6 V/m; Power Drift = 0.074 dB

Peak SAR (extrapolated) = 0.520 W/kg

**SAR(1 g) = 0.333 mW/g; SAR(10 g) = 0.192 mW/g**

Maximum value of SAR (measured) = 0.418 mW/g

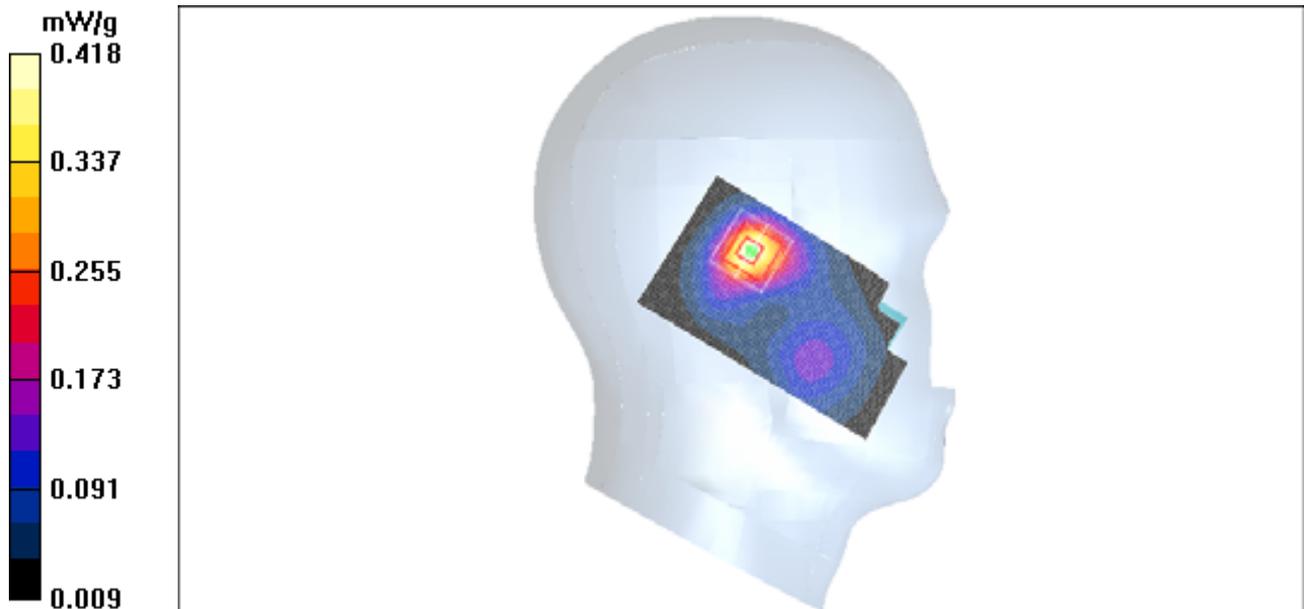


Figure 275 Left Hand Tilt 15°Close WCDMA Band II Channel 9262

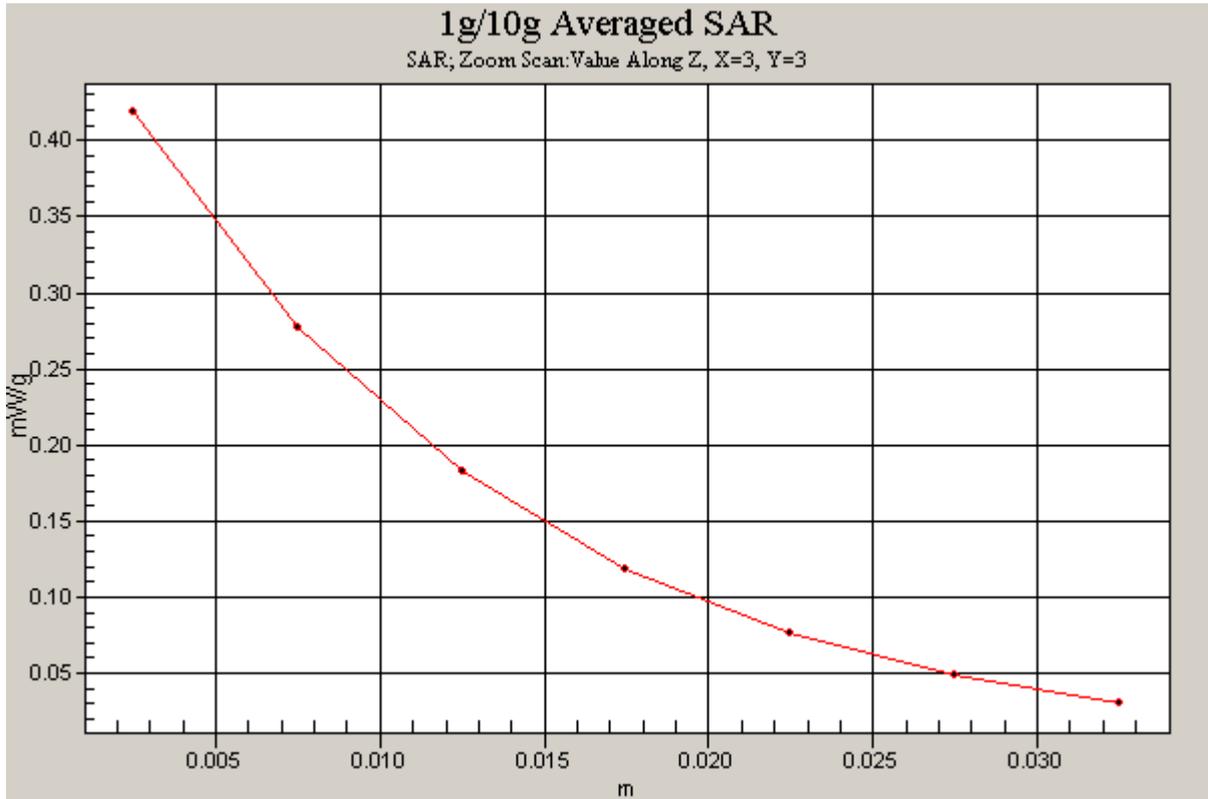


Figure 276 Z-Scan at power reference point (Left Hand Tilt 15° Close WCDMA Band II Channel 9262)

**WCDMA Band II Right Cheek High Close**

Communication System: WCDMA Band II; Frequency: 1907.6 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 1908$  MHz;  $\sigma = 1.42$  mho/m;  $\epsilon_r = 39.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Right Section  
DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek High/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.802 mW/g

**Cheek High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 15.0 V/m; Power Drift = 0.011 dB  
Peak SAR (extrapolated) = 0.960 W/kg  
**SAR(1 g) = 0.664 mW/g; SAR(10 g) = 0.428 mW/g**  
Maximum value of SAR (measured) = 0.787 mW/g

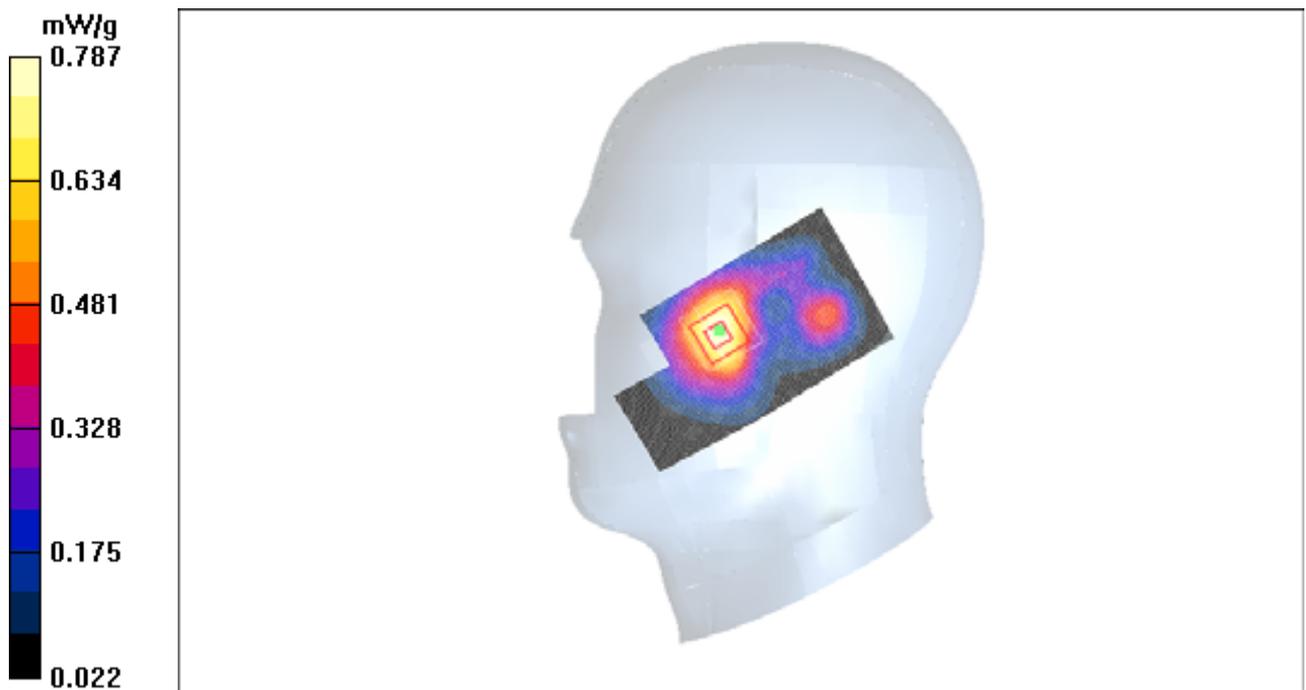


Figure 277 Right Hand Touch Cheek Close WCDMA Band II Channel 9538

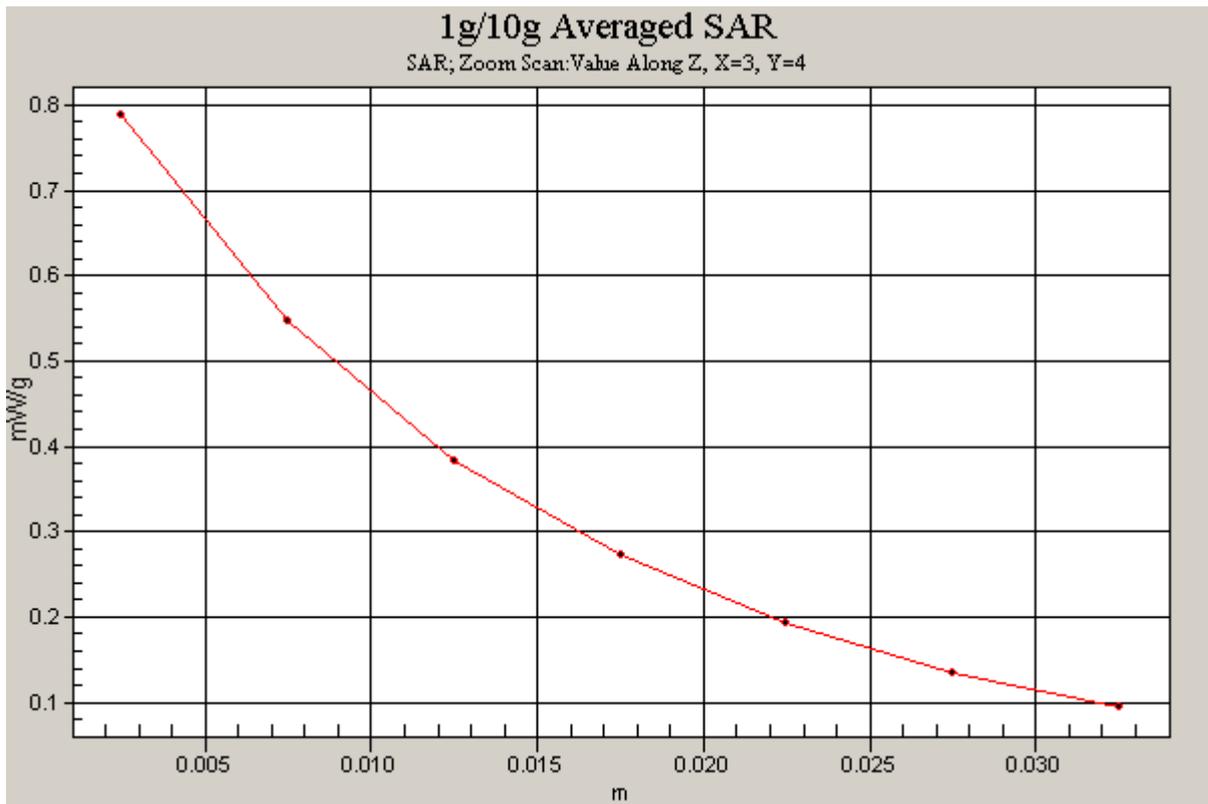


Figure 278 Z-Scan at power reference point (Right Hand Touch Cheek Close WCDMA Band II Channel 9538)

### WCDMA Band II Right Cheek Middle Close

Communication System: WCDMA Band II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.39$  mho/m;  $\epsilon_r = 40.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.758 mW/g

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

Reference Value = 15.2 V/m; Power Drift = 0.016 dB

Peak SAR (extrapolated) = 0.879 W/kg

**SAR(1 g) = 0.616 mW/g; SAR(10 g) = 0.396 mW/g**

Maximum value of SAR (measured) = 0.735 mW/g

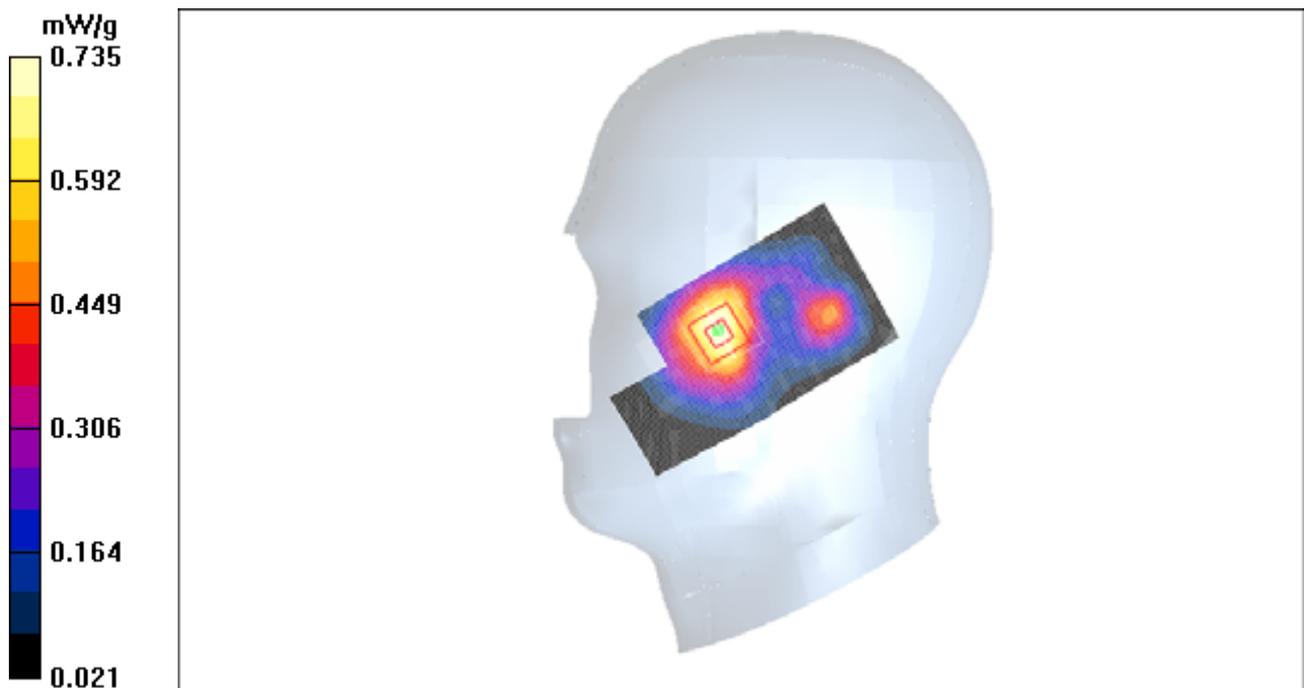


Figure 279 Right Hand Touch Cheek Close WCDMA Band II Channel 9400

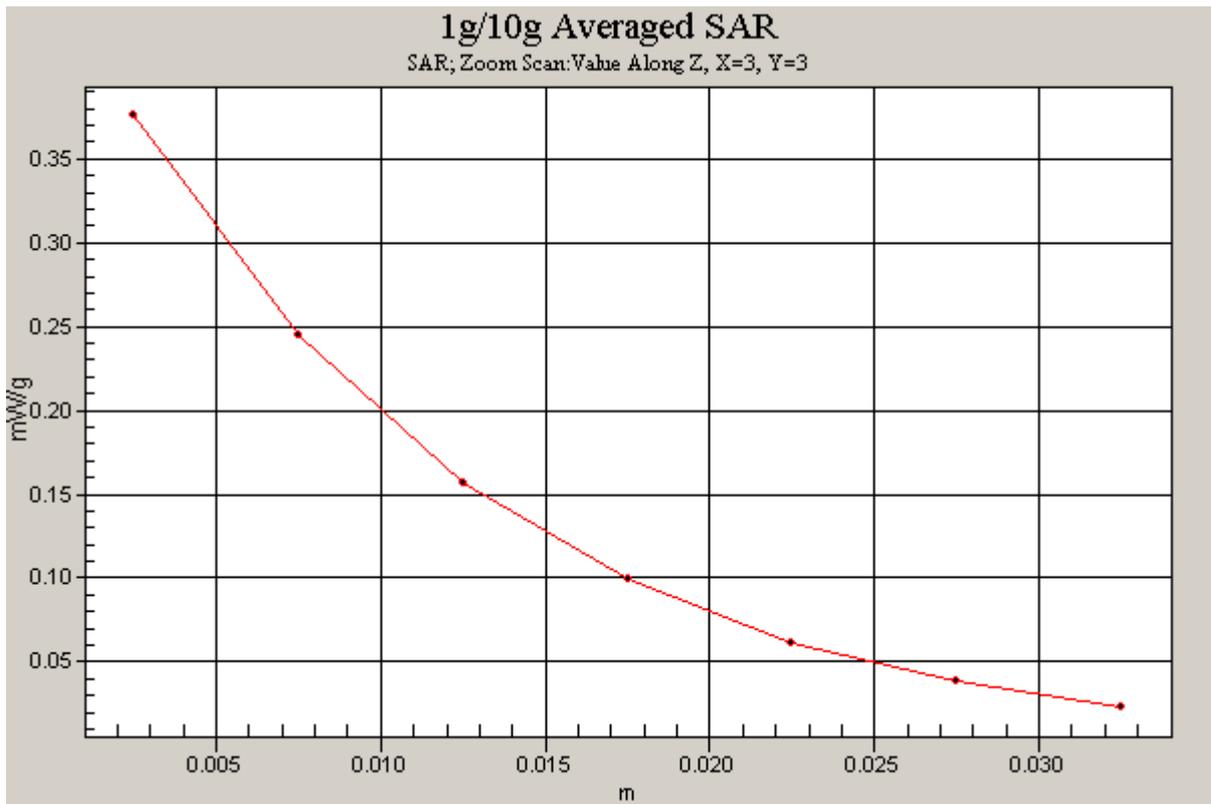


Figure 280 Z-Scan at power reference point (Right Hand Touch Cheek Close WCDMA Band II Channel 9400)

### WCDMA Band II Right Cheek Low Close

Communication System: WCDMA Band II; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.37$  mho/m;  $\epsilon_r = 40.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek Low/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.614 mW/g

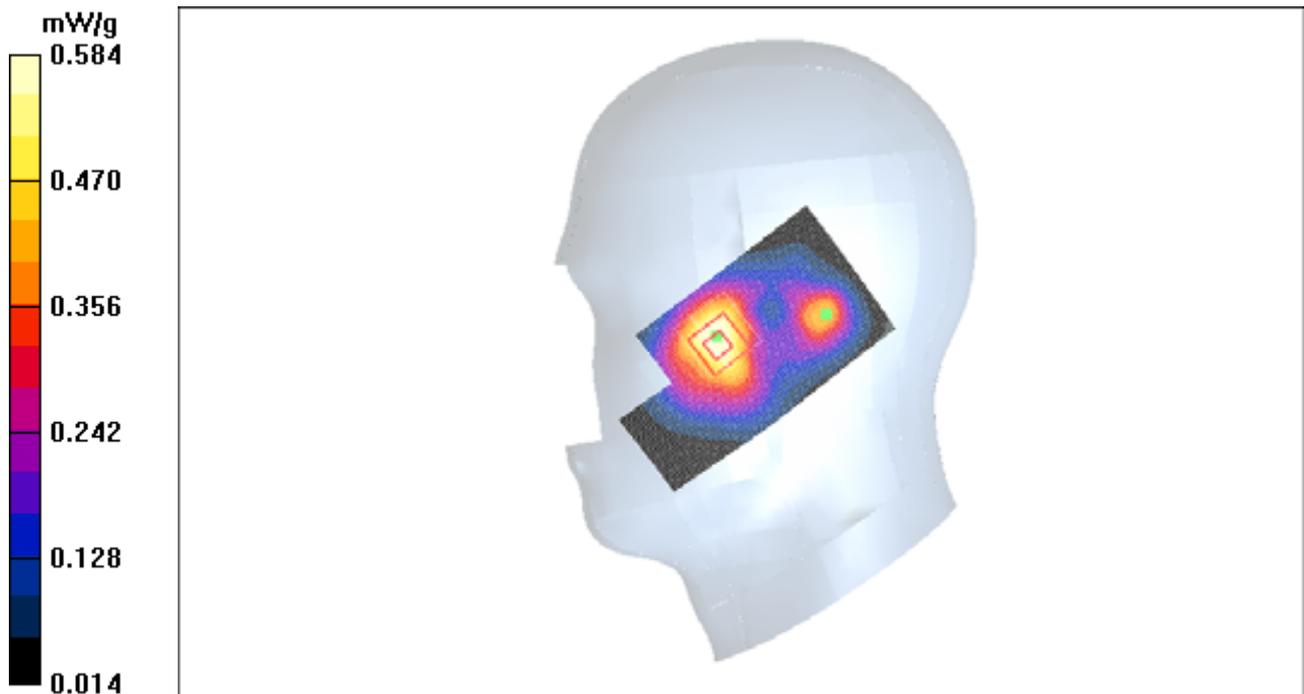
**Cheek Low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.7 V/m; Power Drift = -0.012 dB

Peak SAR (extrapolated) = 0.698 W/kg

**SAR(1 g) = 0.498 mW/g; SAR(10 g) = 0.323 mW/g**

Maximum value of SAR (measured) = 0.584 mW/g



# TA Technology (Shanghai) Co., Ltd. Test Report

No. RZA2008-1618

Page 330 of 484

Communication System: WCDMA Band II; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.37$  mho/m;  $\epsilon_r = 40.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek Low/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.614 mW/g

**Cheek Low/Zoom Scan (7x7x7)/Cube 1:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.7 V/m; Power Drift = -0.012 dB

Peak SAR (extrapolated) = 0.531 W/kg

**SAR(1 g) = 0.343 mW/g; SAR(10 g) = 0.196 mW/g**

Maximum value of SAR (measured) = 0.427 mW/g

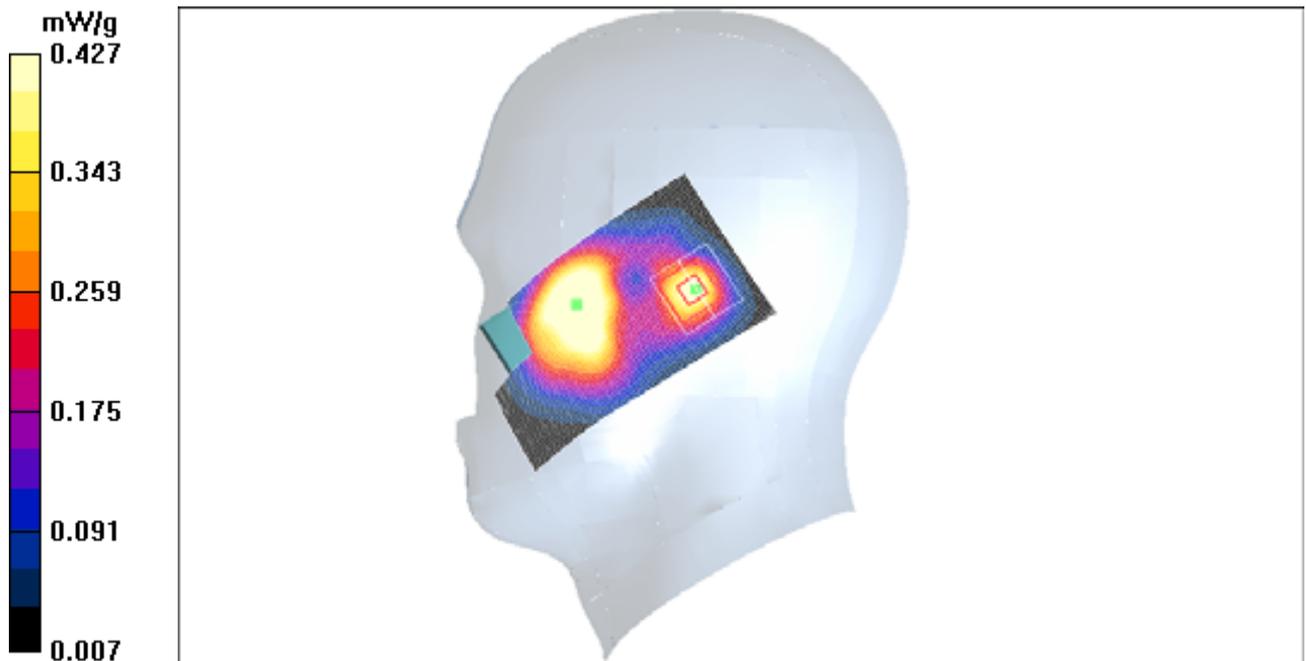


Figure 281 Right Hand Touch Cheek Close WCDMA Band II Channel 9262

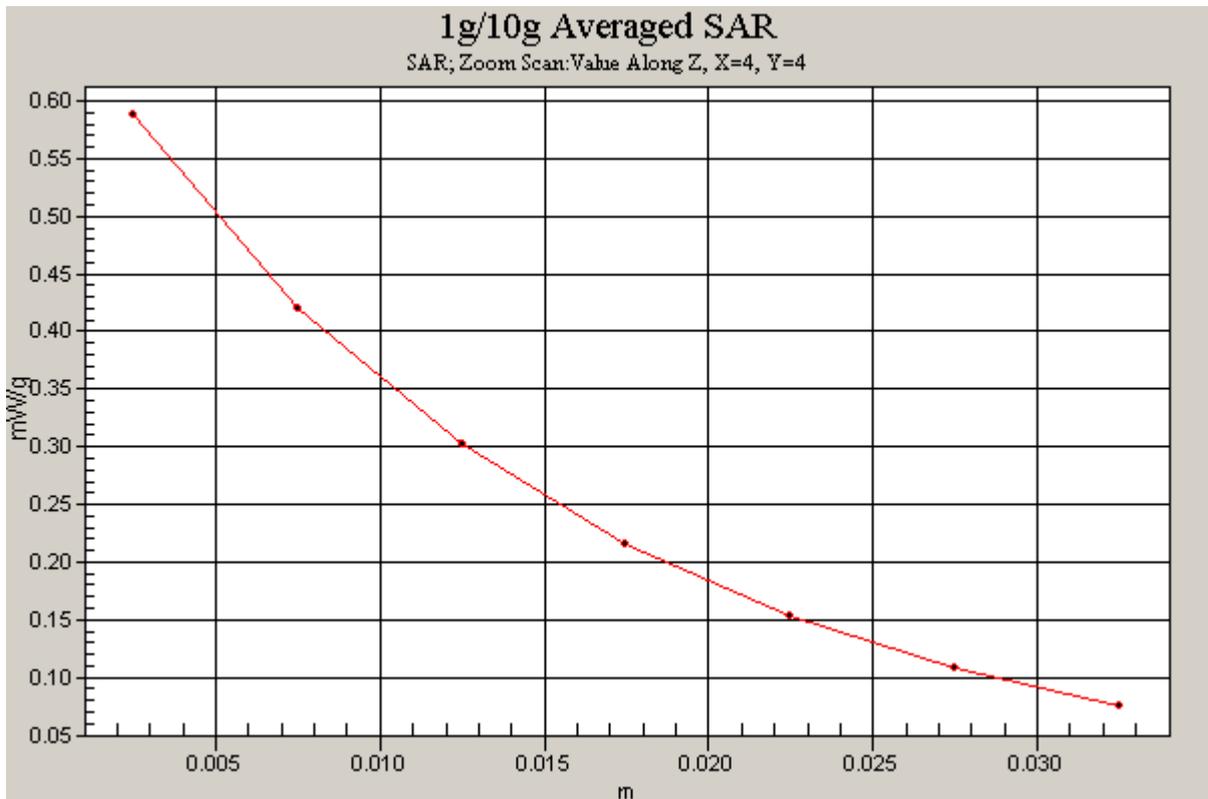
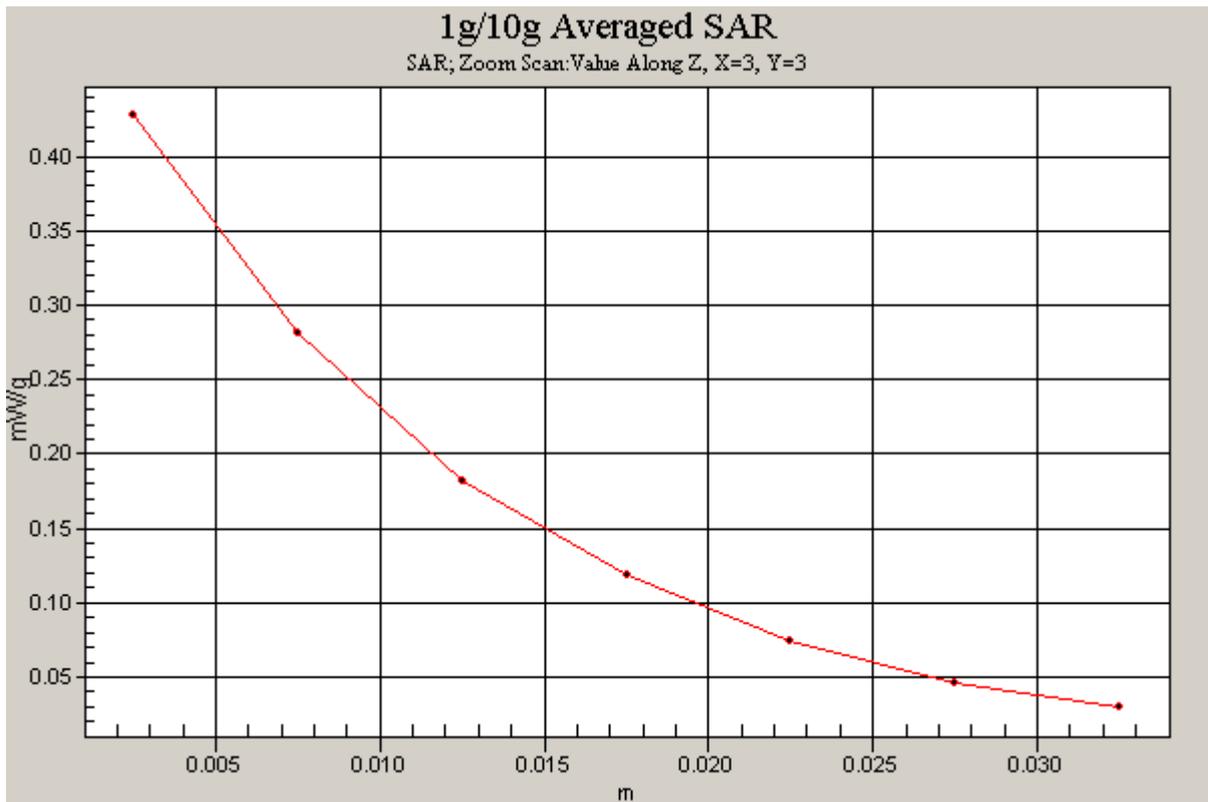


Figure 282 Z-Scan at power reference point (Right Hand Touch Cheek Close WCDMA Band II Channel 9262)

Date/Time: 12/27/2008 7:03:26 AM

### WCDMA Band II Right Tilt High Close

Communication System: WCDMA Band II; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1908$  MHz;  $\sigma = 1.42$  mho/m;  $\epsilon_r = 39.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt High/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.422 mW/g

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

Reference Value = 15.2 V/m; Power Drift = -0.050 dB

Peak SAR (extrapolated) = 0.481 W/kg

**SAR(1 g) = 0.309 mW/g; SAR(10 g) = 0.178 mW/g**

Maximum value of SAR (measured) = 0.386 mW/g

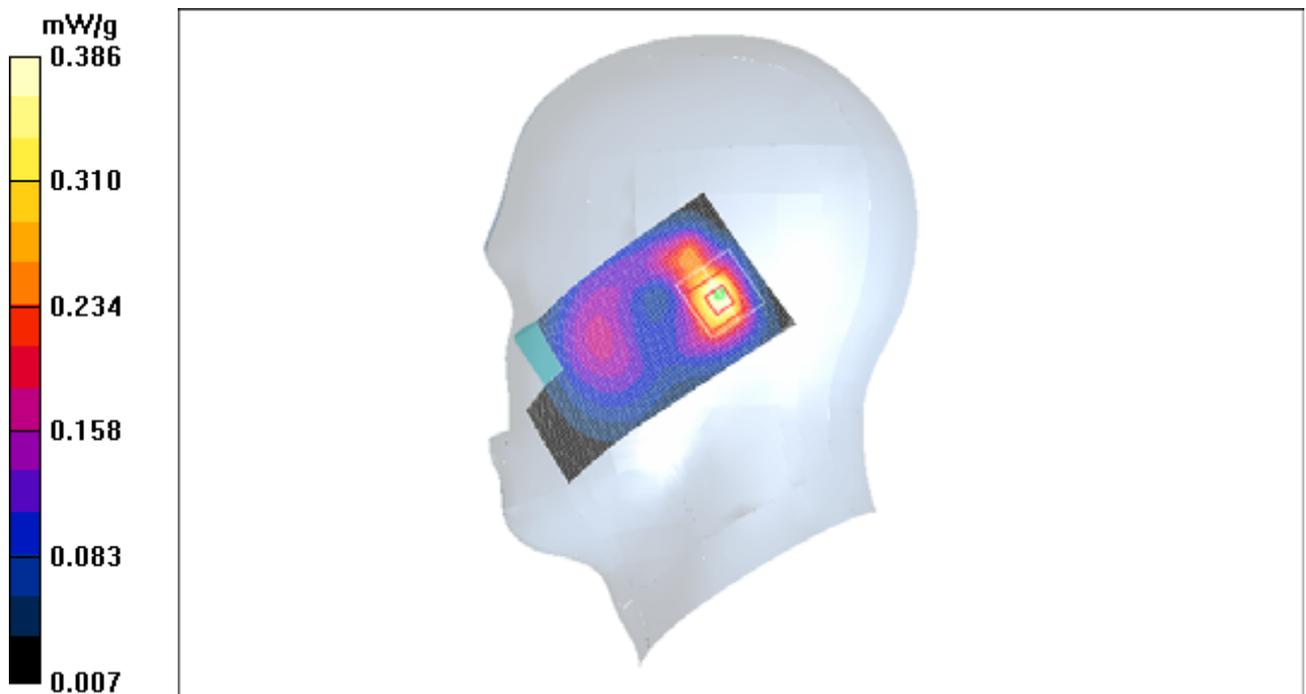


Figure 283 Right Hand Tilt 15° Close WCDMA Band II Channel 9538

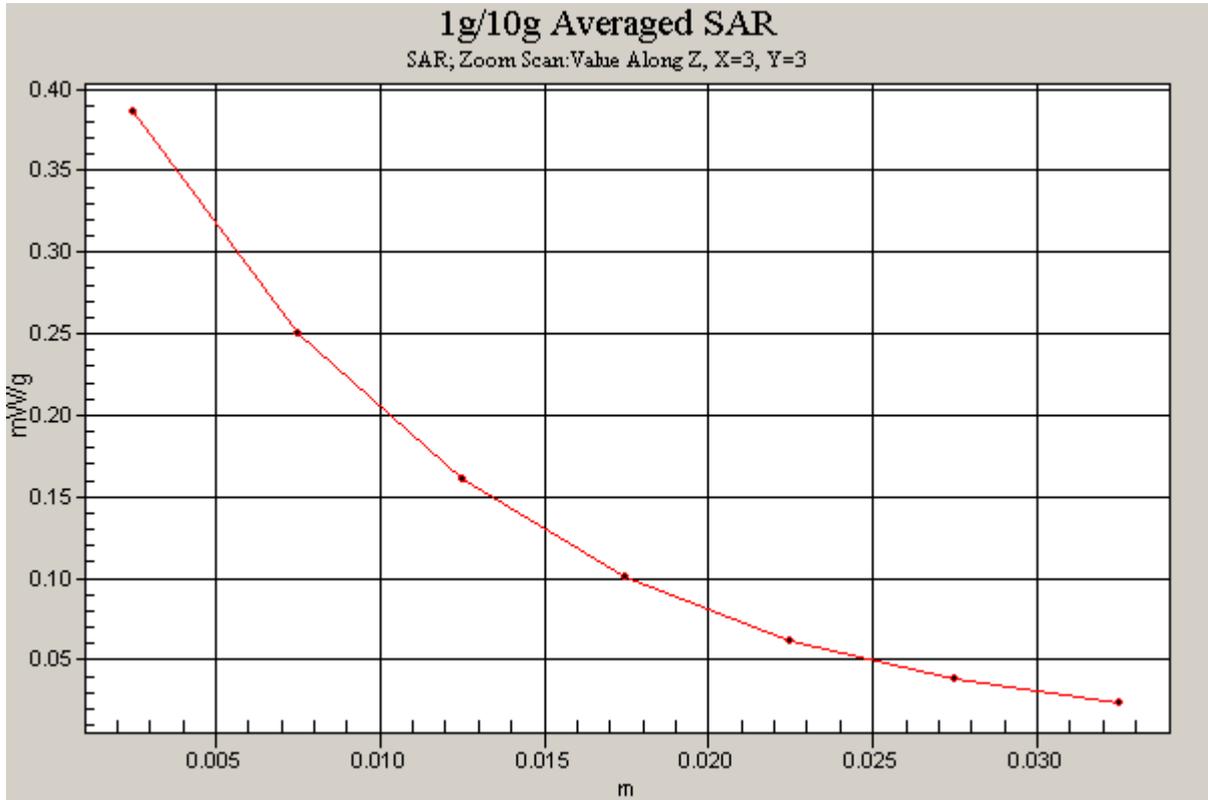


Figure 284 Z-Scan at power reference point (Right Hand Tilt 15° Close WCDMA Band II Channel 9538)

Date/Time: 12/27/2008 7:22:58 AM

### WCDMA Band II Right Tilt Middle Close

Communication System: WCDMA Band II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.39$  mho/m;  $\epsilon_r = 40.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.407 mW/g

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

Reference Value = 14.6 V/m; Power Drift = 0.164 dB

Peak SAR (extrapolated) = 0.470 W/kg

**SAR(1 g) = 0.303 mW/g; SAR(10 g) = 0.174 mW/g**

Maximum value of SAR (measured) = 0.376 mW/g

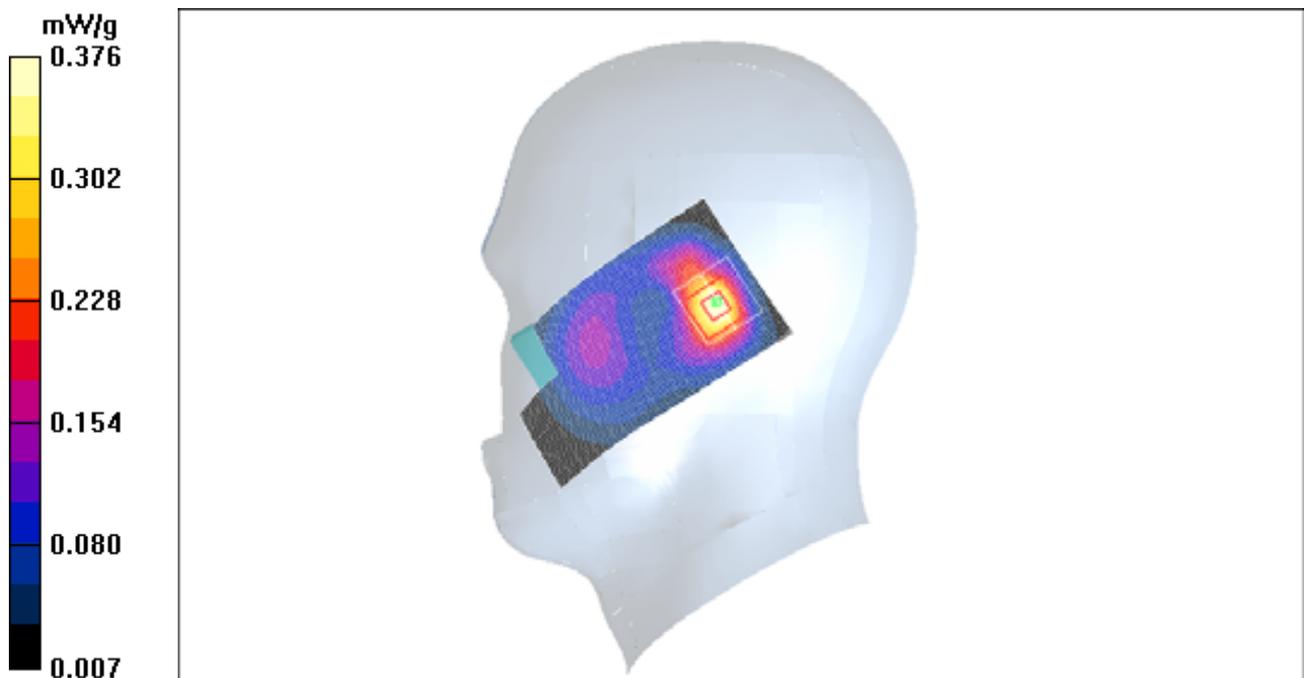


Figure 285 Right Hand Tilt 15° Close WCDMA Band II Channel 9400

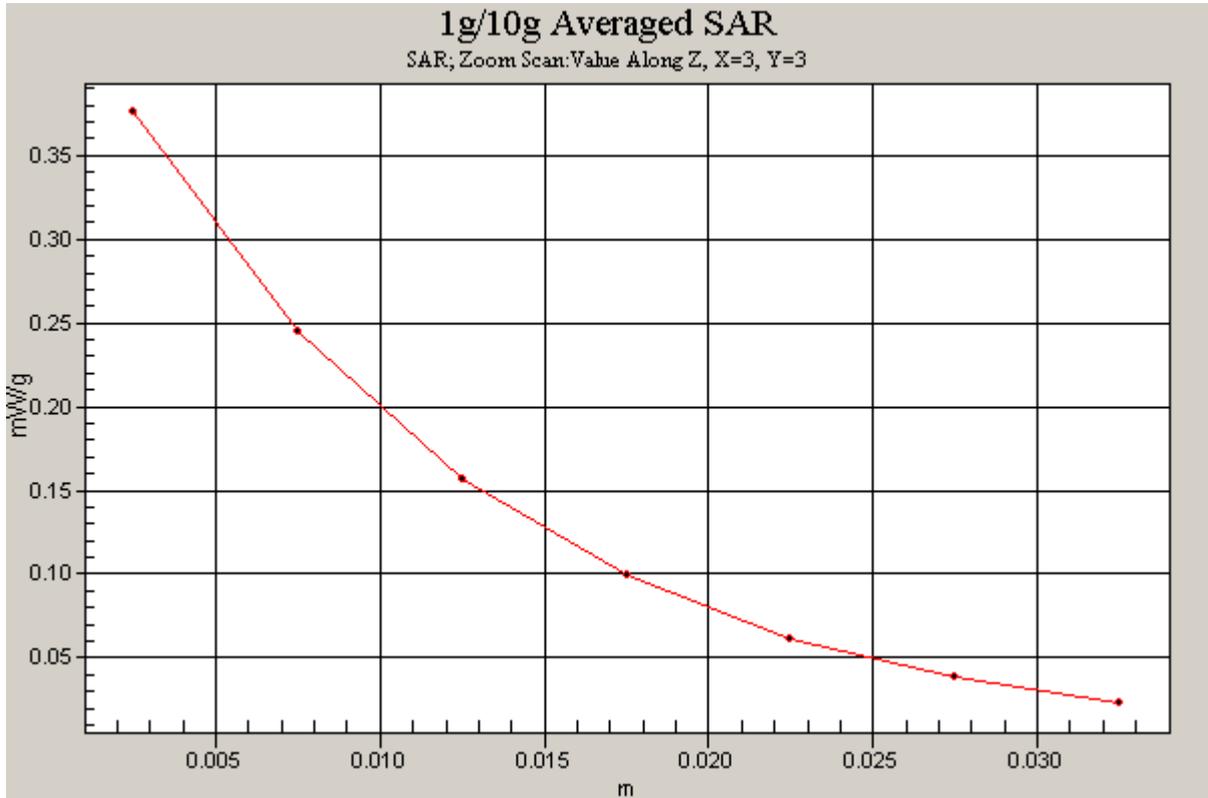


Figure 286 Z-Scan at power reference point (Right Hand Tilt 15° Close WCDMA Band II Channel 9400)

Date/Time: 12/27/2008 6:35:19 AM

### WCDMA Band II Right Tilt Low Close

Communication System: WCDMA Band II; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.37$  mho/m;  $\epsilon_r = 40.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt Low/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.359 mW/g

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

Reference Value = 14.1 V/m; Power Drift = 0.126 dB

Peak SAR (extrapolated) = 0.408 W/kg

**SAR(1 g) = 0.264 mW/g; SAR(10 g) = 0.152 mW/g**

Maximum value of SAR (measured) = 0.327 mW/g

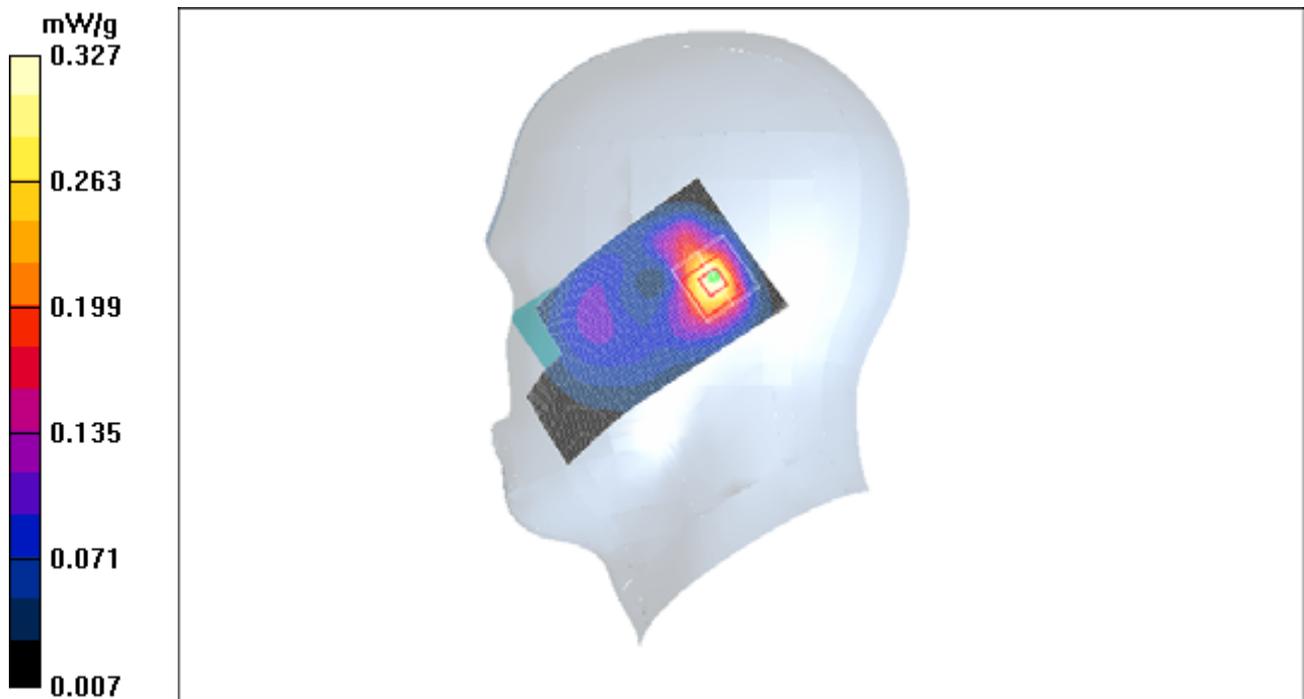


Figure 287 Right Hand Tilt 15° Close WCDMA Band II Channel 9262

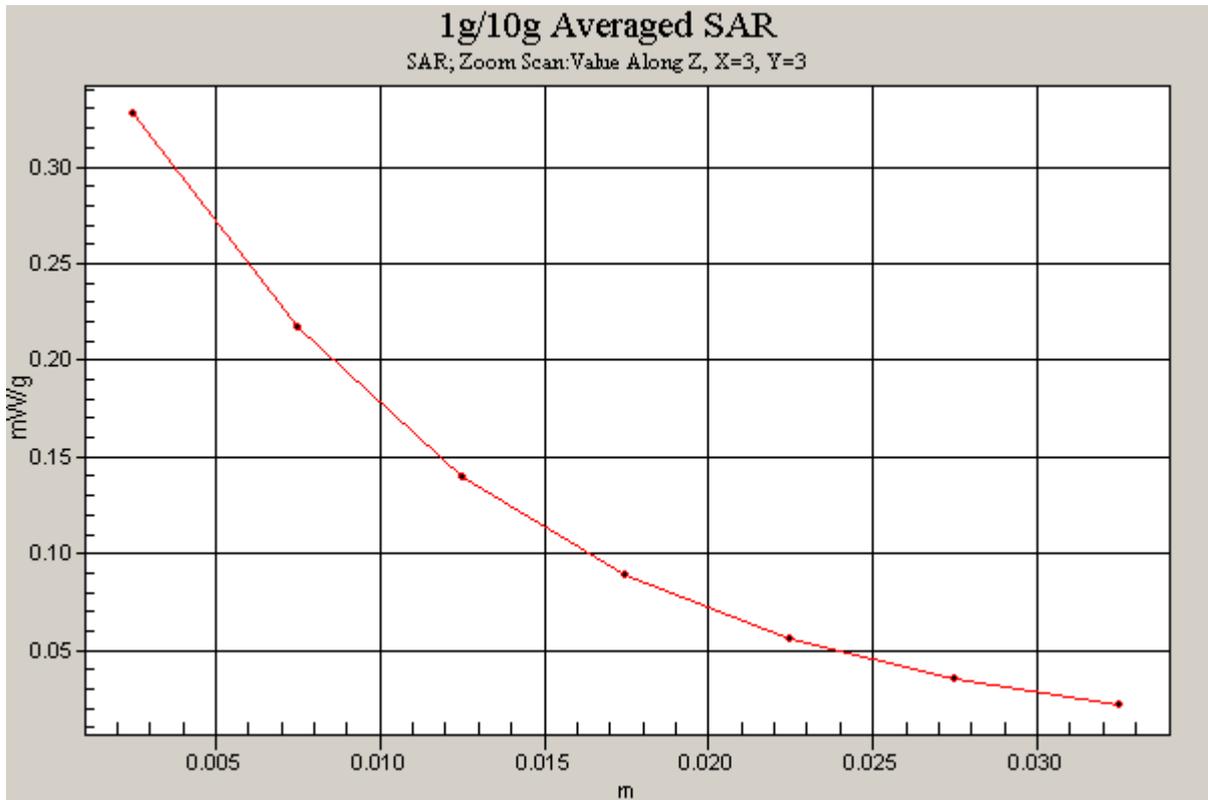


Figure 288 Z-Scan at power reference point (Right Hand Tilt 15° Close WCDMA Band II Channel 9262)

Date/Time: 12/28/2008 9:09:34 AM

### WCDMA Band II Towards Ground High Close

Communication System: WCDMA Band II; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1908$  MHz;  $\sigma = 1.57$  mho/m;  $\epsilon_r = 53.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.45, 7.45, 7.45); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground High/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.23 mW/g

**Towards Ground High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.95 V/m; Power Drift = 0.102 dB

Peak SAR (extrapolated) = 1.41 W/kg

**SAR(1 g) = 0.867 mW/g; SAR(10 g) = 0.520 mW/g**

Maximum value of SAR (measured) = 1.08 mW/g

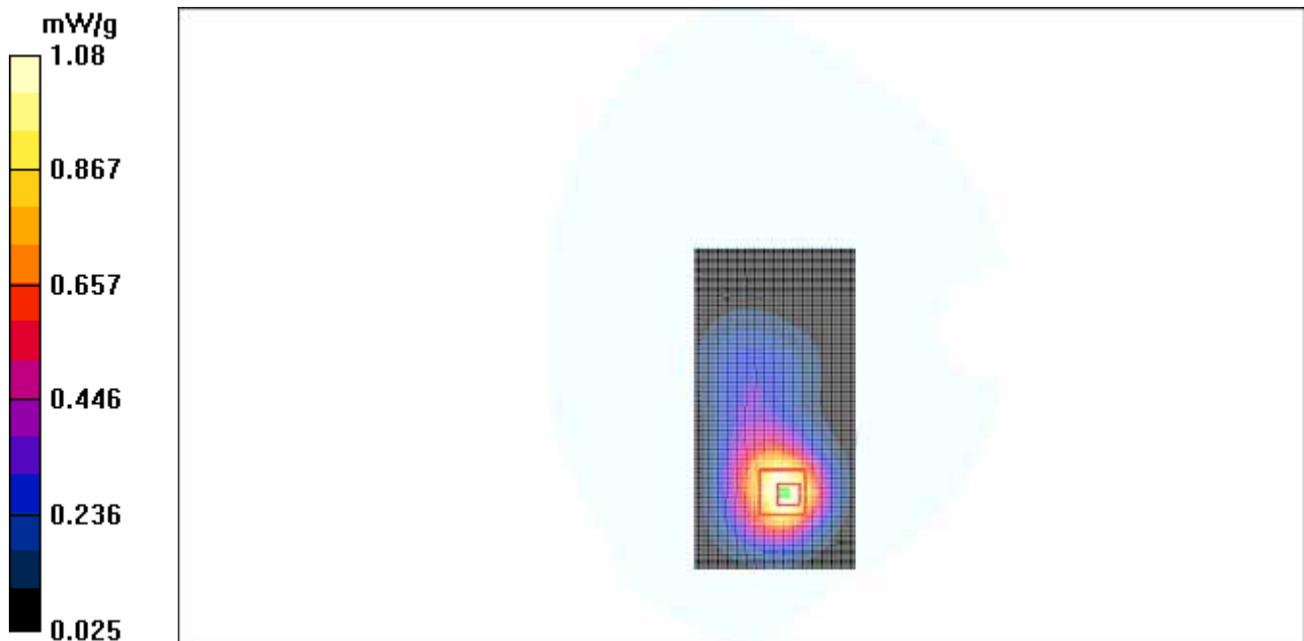


Figure 289 Body, Towards Ground, Close WCDMA Band II Channel 9538

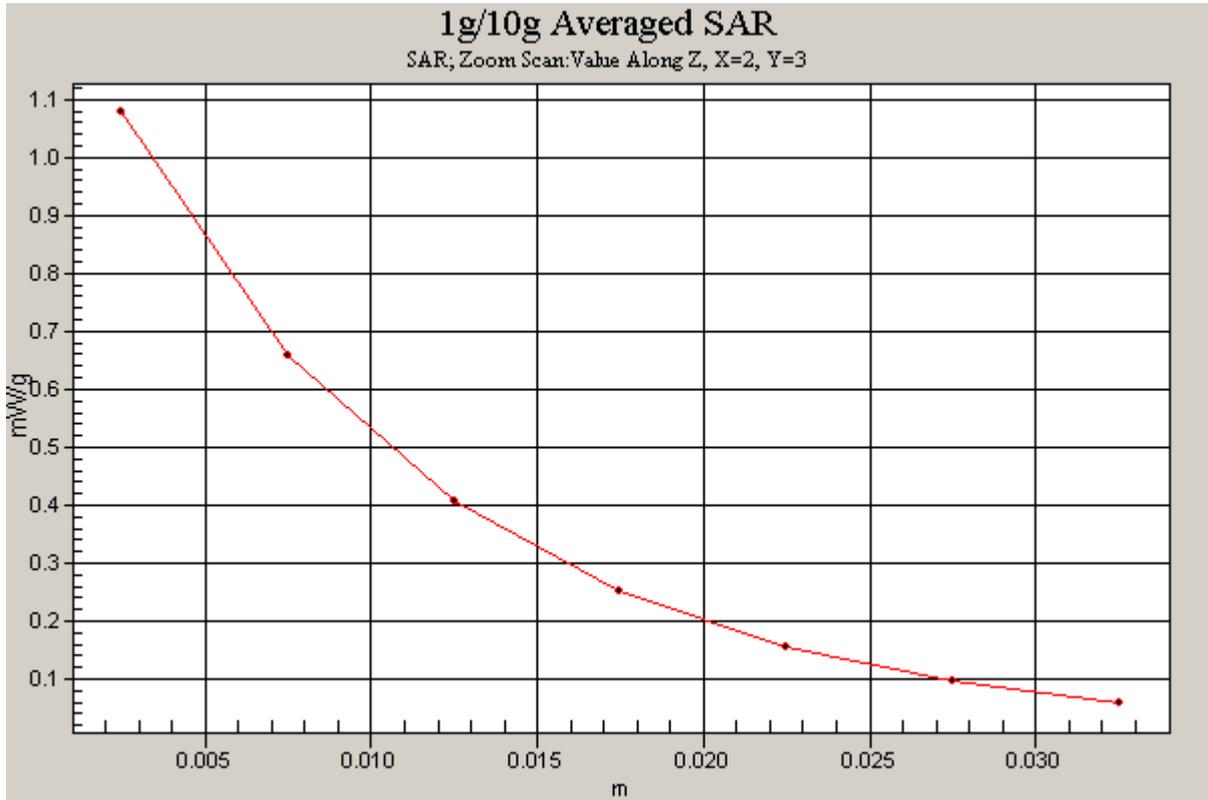


Figure 290 Z-Scan at power reference point (Body, Towards Ground, Close WCDMA Band II Channel 9538)

Date/Time: 12/28/2008 8:50:35 AM

### WCDMA Band II Towards Ground Middle Close

Communication System: WCDMA Band II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.54$  mho/m;  $\epsilon_r = 53.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.45, 7.45, 7.45); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground Middle/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.14 mW/g

**Towards Ground Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.25 V/m; Power Drift = -0.024 dB

Peak SAR (extrapolated) = 1.35 W/kg

**SAR(1 g) = 0.820 mW/g; SAR(10 g) = 0.486 mW/g**

Maximum value of SAR (measured) = 1.03 mW/g

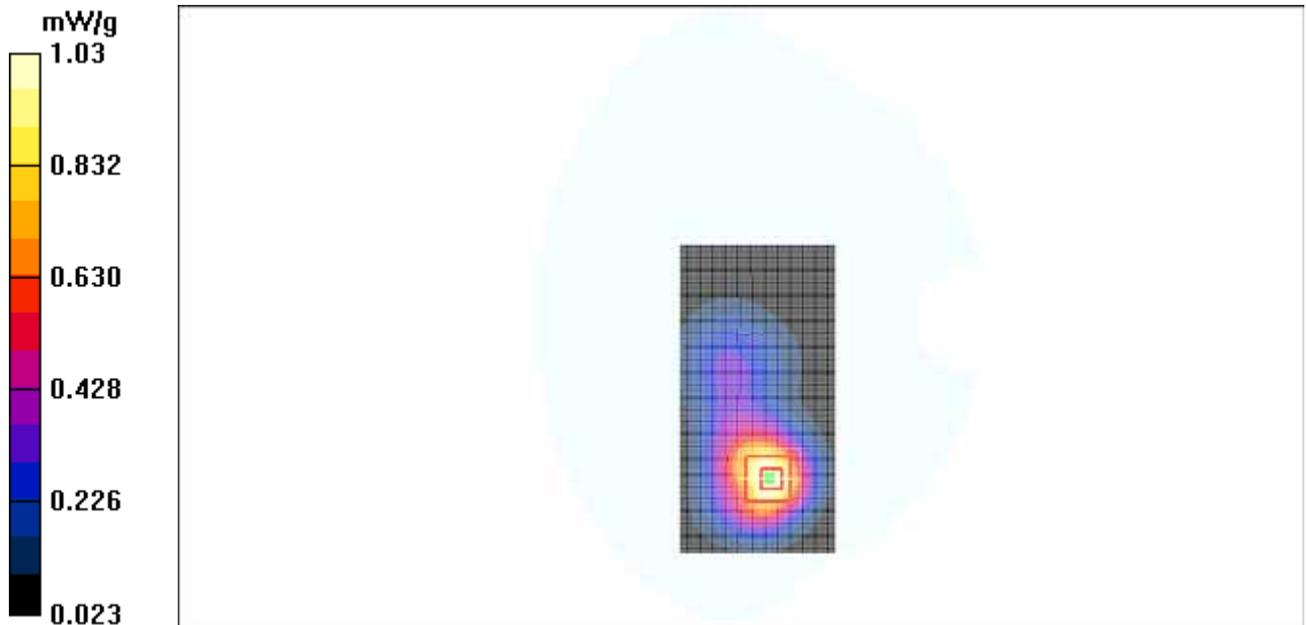


Figure 291 Body, Towards Ground, Close WCDMA Band II Channel 9400

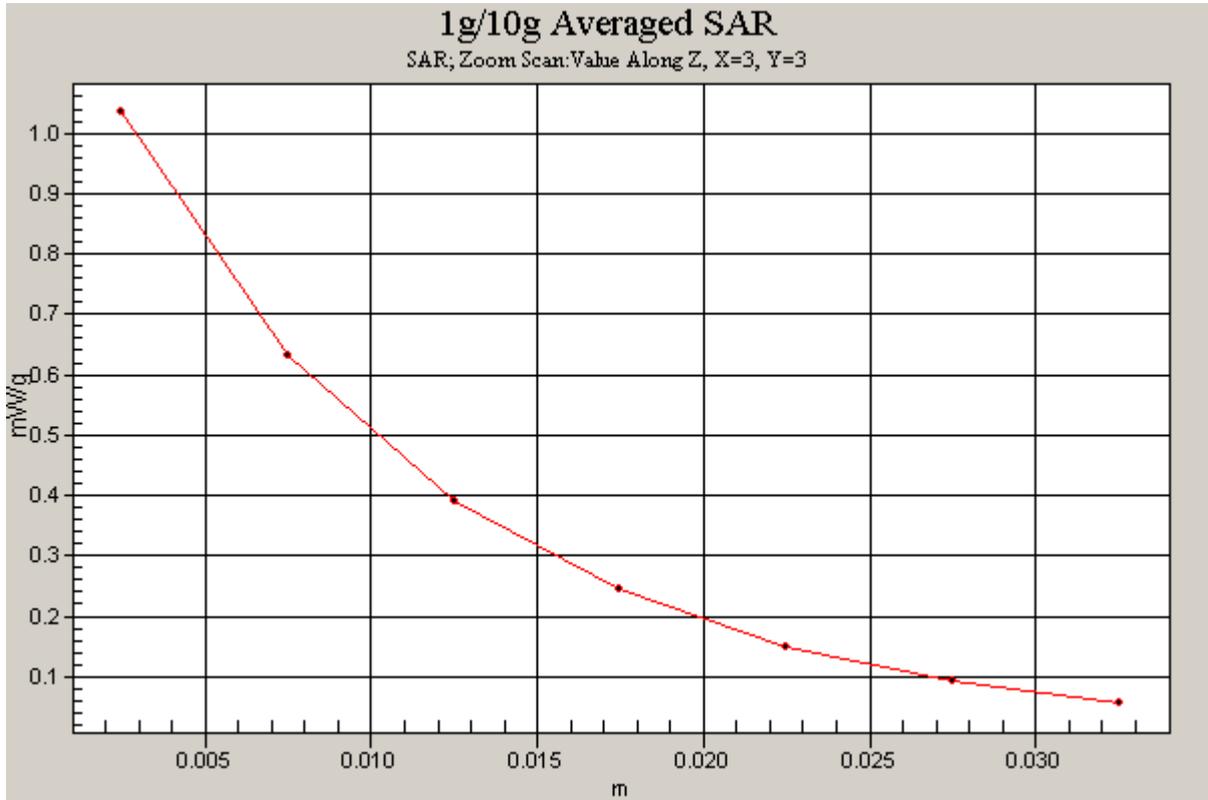


Figure 292 Z-Scan at power reference point (Body, Towards Ground, Close WCDMA Band II Channel 9400)

Date/Time: 12/28/2008 8:30:33 AM

### WCDMA Band II Towards Ground Low Close

Communication System: WCDMA Band II; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.45, 7.45, 7.45); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground Low/Area Scan (61x101x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.877 mW/g

**Towards Ground Low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.86 V/m; Power Drift = -0.143 dB

Peak SAR (extrapolated) = 1.06 W/kg

**SAR(1 g) = 0.643 mW/g; SAR(10 g) = 0.378 mW/g**

Maximum value of SAR (measured) = 0.804 mW/g

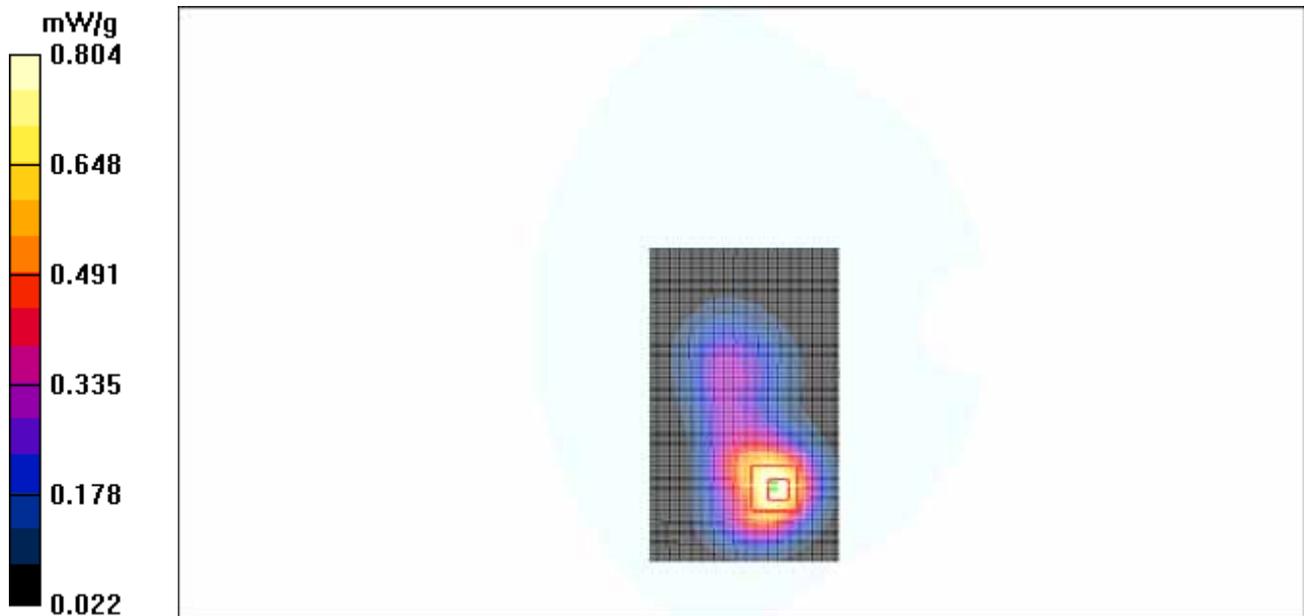


Figure 293 Body, Towards Ground, Close WCDMA Band II Channel 9262

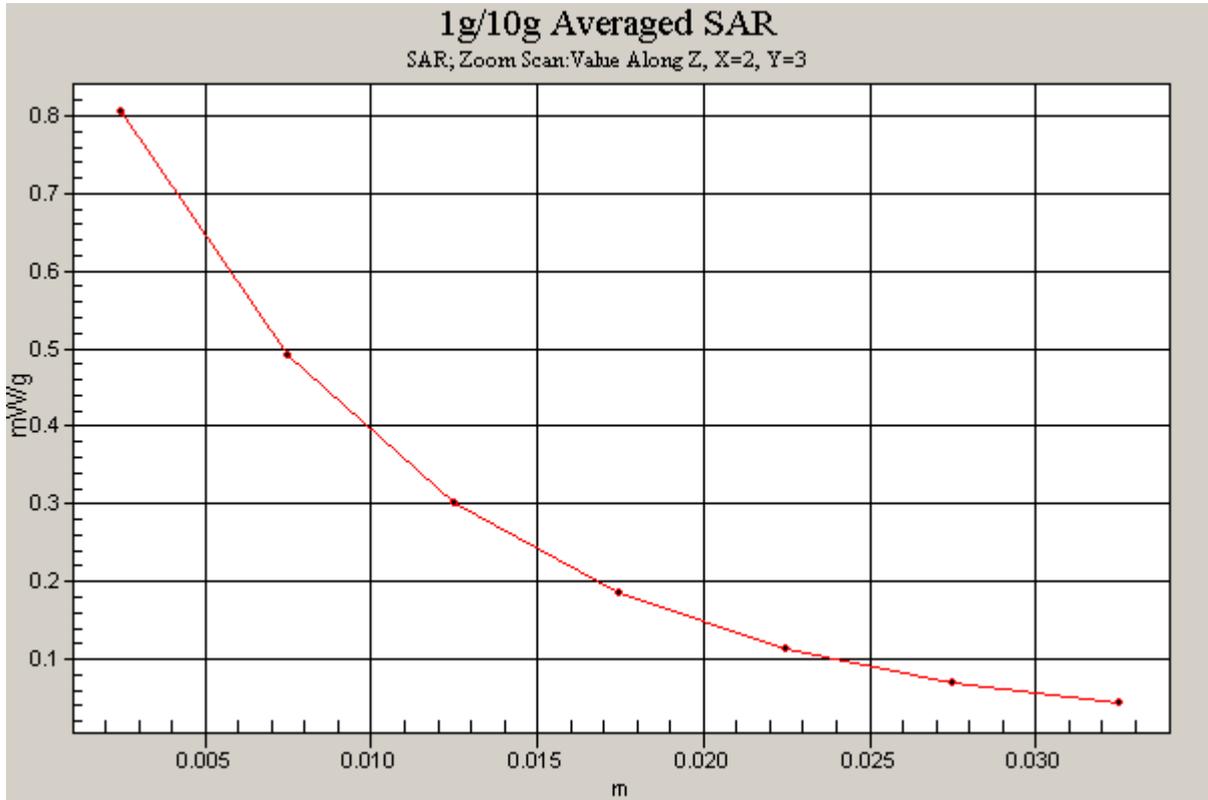


Figure 294 Z-Scan at power reference point (Body, Towards Ground, Close WCDMA Band II Channel 9262)

Date/Time: 12/28/2008 7:26:49 AM

### WCDMA Band II Towards Phantom High Close

Communication System: WCDMA Band II; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1908$  MHz;  $\sigma = 1.57$  mho/m;  $\epsilon_r = 53.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.45, 7.45, 7.45); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Phantom High/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.263 mW/g

**Towards Phantom High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.90 V/m; Power Drift = 0.024 dB

Peak SAR (extrapolated) = 0.340 W/kg

**SAR(1 g) = 0.219 mW/g; SAR(10 g) = 0.140 mW/g**

Maximum value of SAR (measured) = 0.269 mW/g

**Towards Phantom High/Zoom Scan (7x7x7)/Cube 1:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.90 V/m; Power Drift = 0.024 dB

Peak SAR (extrapolated) = 0.229 W/kg

**SAR(1 g) = 0.148 mW/g; SAR(10 g) = 0.090 mW/g**

Maximum value of SAR (measured) = 0.183 mW/g

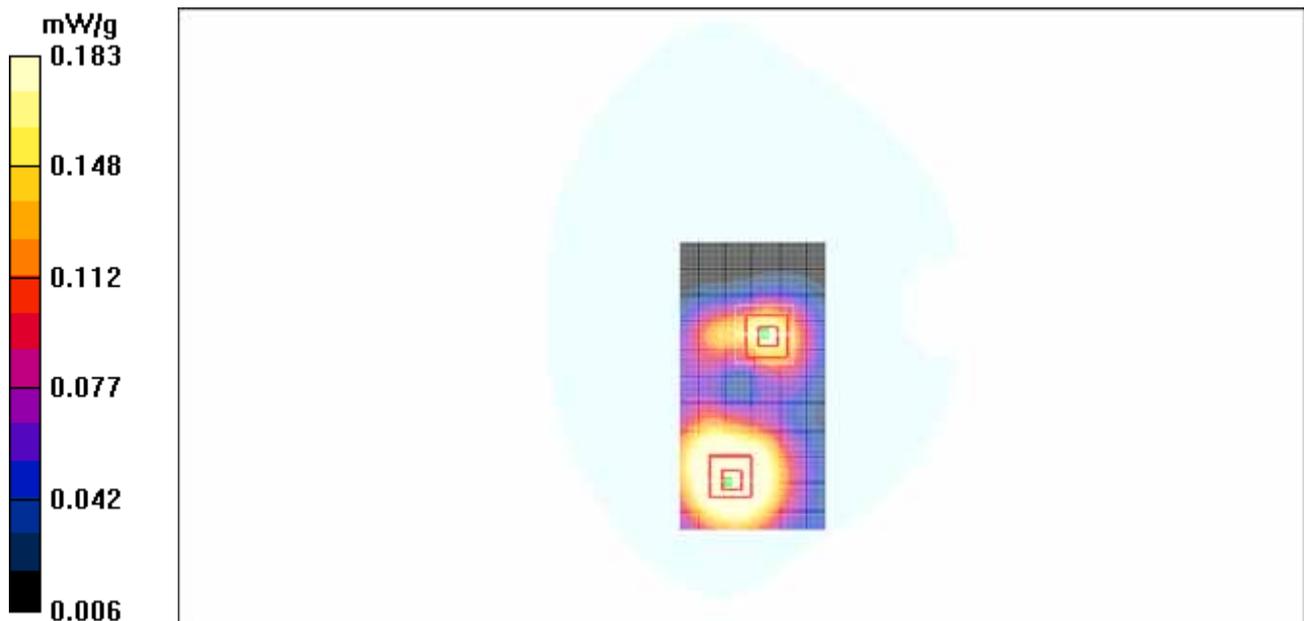


Figure 295 Body, Towards Phantom, Close WCDMA Band II Channel 9538

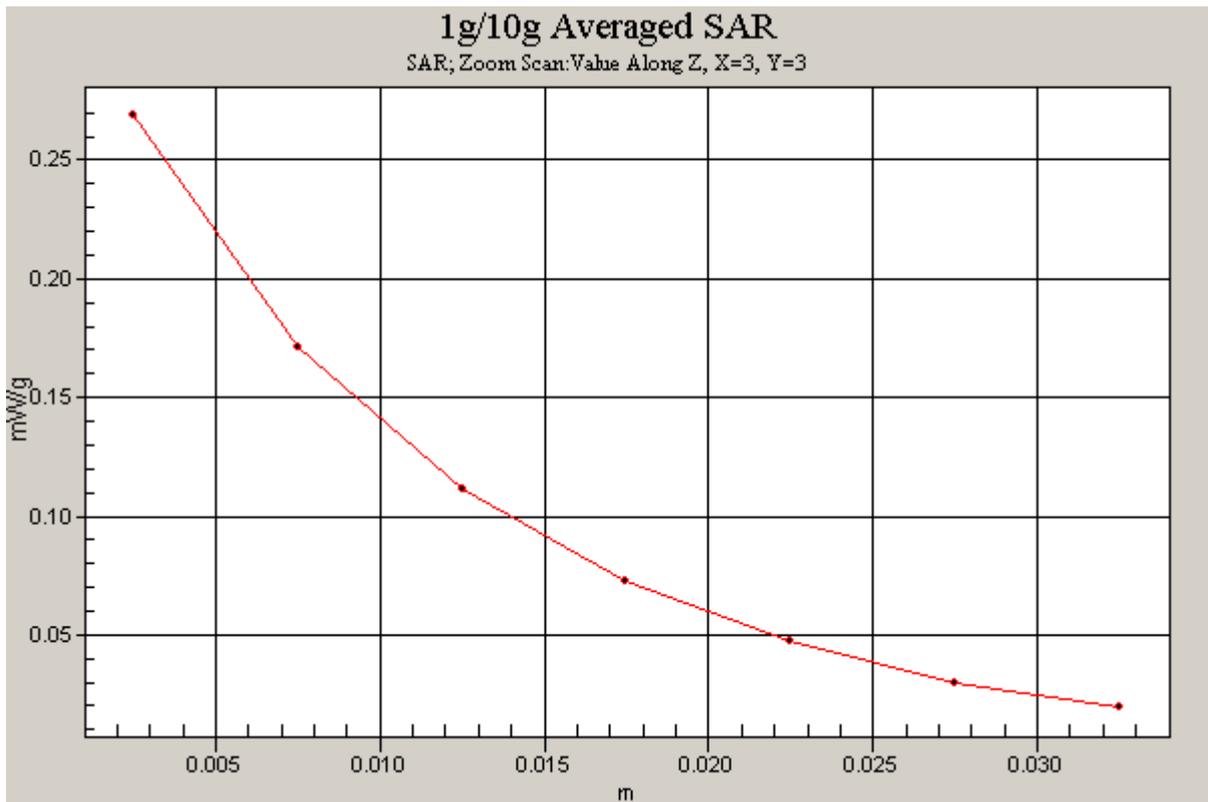


Figure 296 Z-Scan at power reference point (Body, Towards Phantom, Close WCDMA Band II Channel 9538)

Date/Time: 12/28/2008 6:55:15 AM

### WCDMA Band II Towards Phantom Middle Close

Communication System: WCDMA Band II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.54$  mho/m;  $\epsilon_r = 53.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.45, 7.45, 7.45); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Phantom Middle/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.259 mW/g

**Towards Phantom Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.58 V/m; Power Drift = 0.048 dB

Peak SAR (extrapolated) = 0.324 W/kg

**SAR(1 g) = 0.208 mW/g; SAR(10 g) = 0.133 mW/g**

Maximum value of SAR (measured) = 0.223 mW/g

**Towards Phantom Middle/Zoom Scan (7x7x7)/Cube 1:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.58 V/m; Power Drift = 0.048 dB

Peak SAR (extrapolated) = 0.263 W/kg

**SAR(1 g) = 0.170 mW/g; SAR(10 g) = 0.105 mW/g**

Maximum value of SAR (measured) = 0.185 mW/g

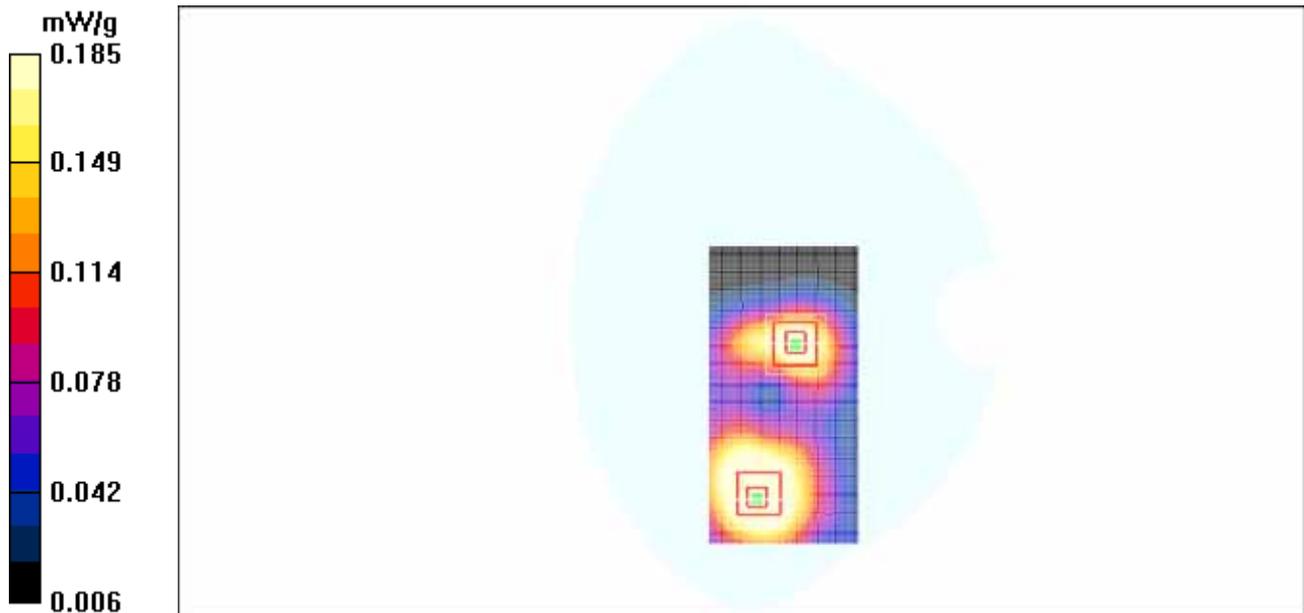


Figure 297 Body, Towards Phantom, Close WCDMA Band II Channel 9400

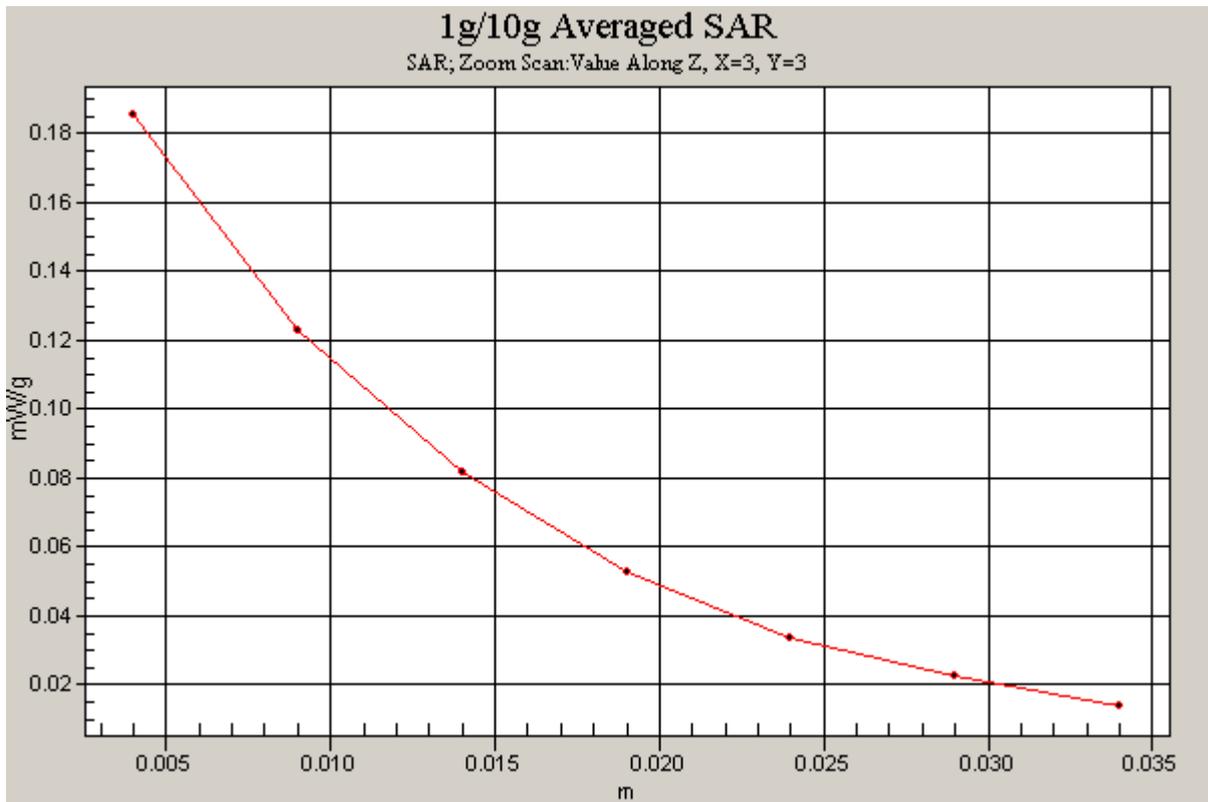
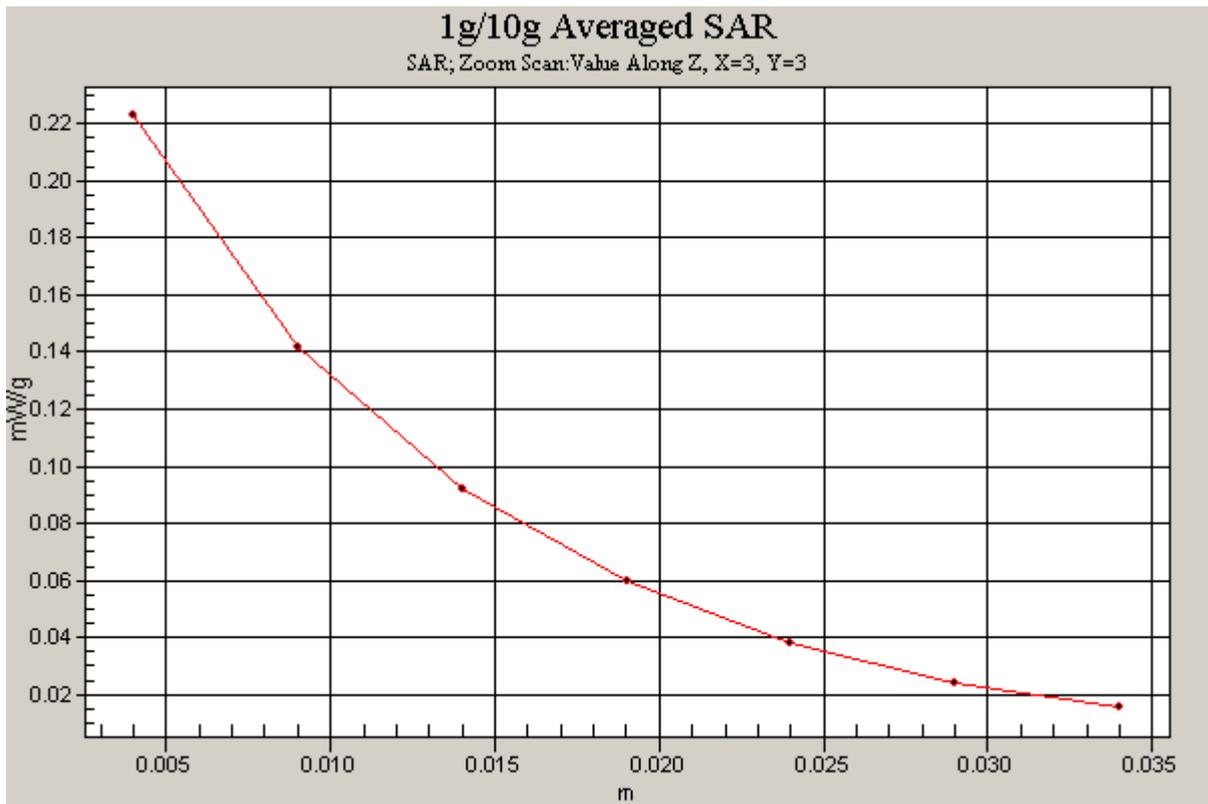


Figure 298 Z-Scan at power reference point (Body, Towards Phantom, Close WCDMA Band II Channel 9400)

Date/Time: 12/28/2008 9:30:42 AM

### WCDMA Band II Towards Phantom Low Close

Communication System: WCDMA Band II; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 53.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.45, 7.45, 7.45); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Phantom Low/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.234 mW/g

**Towards Phantom Low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.84 V/m; Power Drift = 0.021 dB

Peak SAR (extrapolated) = 0.296 W/kg

**SAR(1 g) = 0.192 mW/g; SAR(10 g) = 0.123 mW/g**

Maximum value of SAR (measured) = 0.236 mW/g

**Towards Phantom Low/Zoom Scan (7x7x7)/Cube 1:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.84 V/m; Power Drift = 0.021 dB

Peak SAR (extrapolated) = 0.268 W/kg

**SAR(1 g) = 0.177 mW/g; SAR(10 g) = 0.111 mW/g**

Maximum value of SAR (measured) = 0.216 mW/g

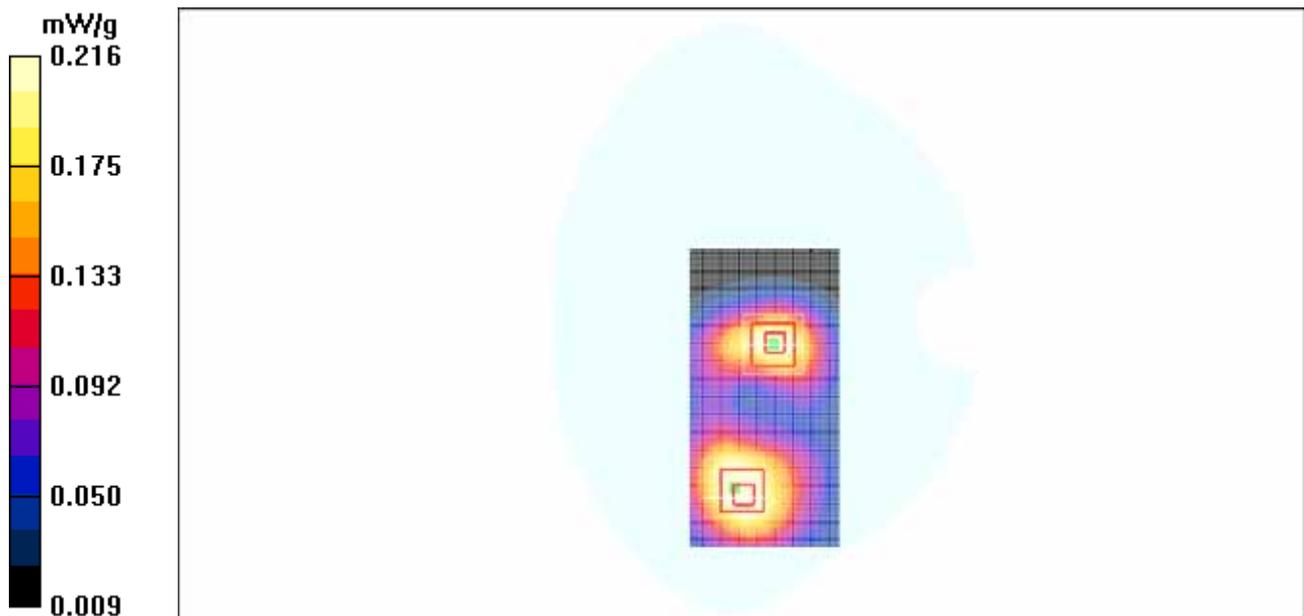


Figure 299 Body, Towards Phantom, Close WCDMA Band II Channel 9262

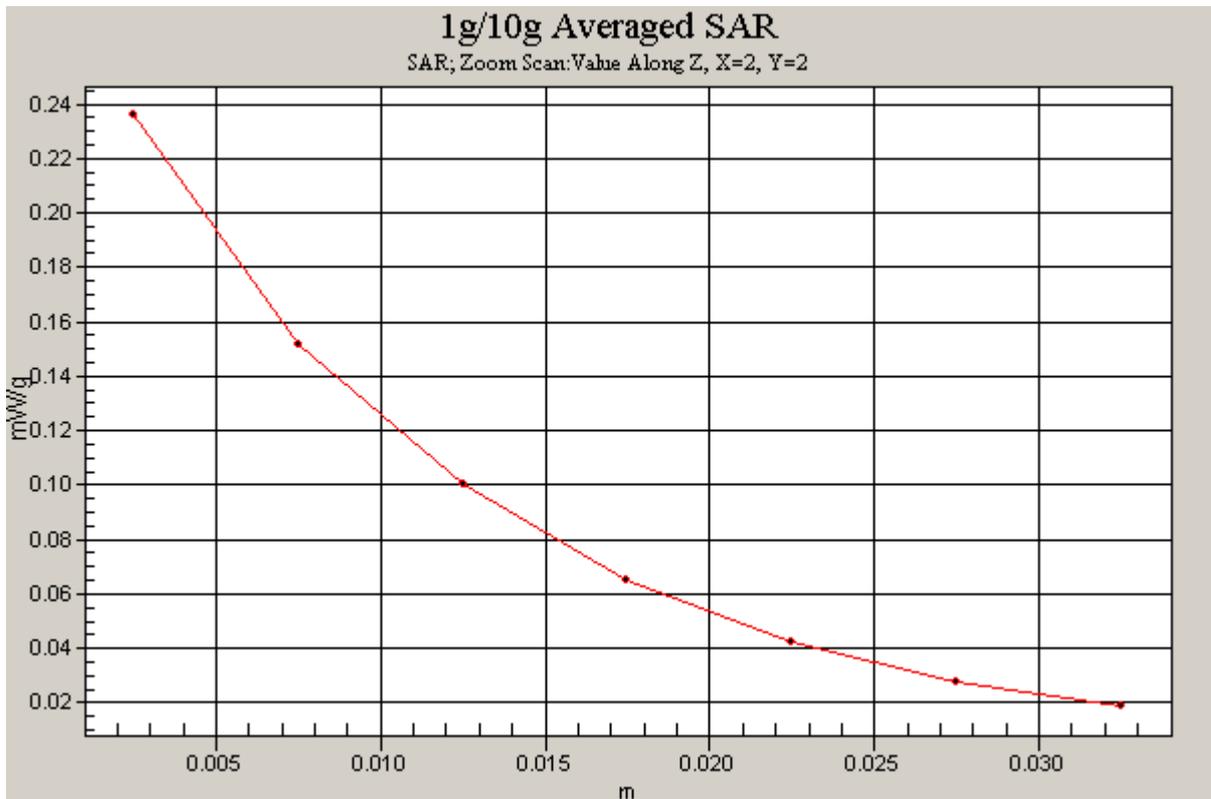
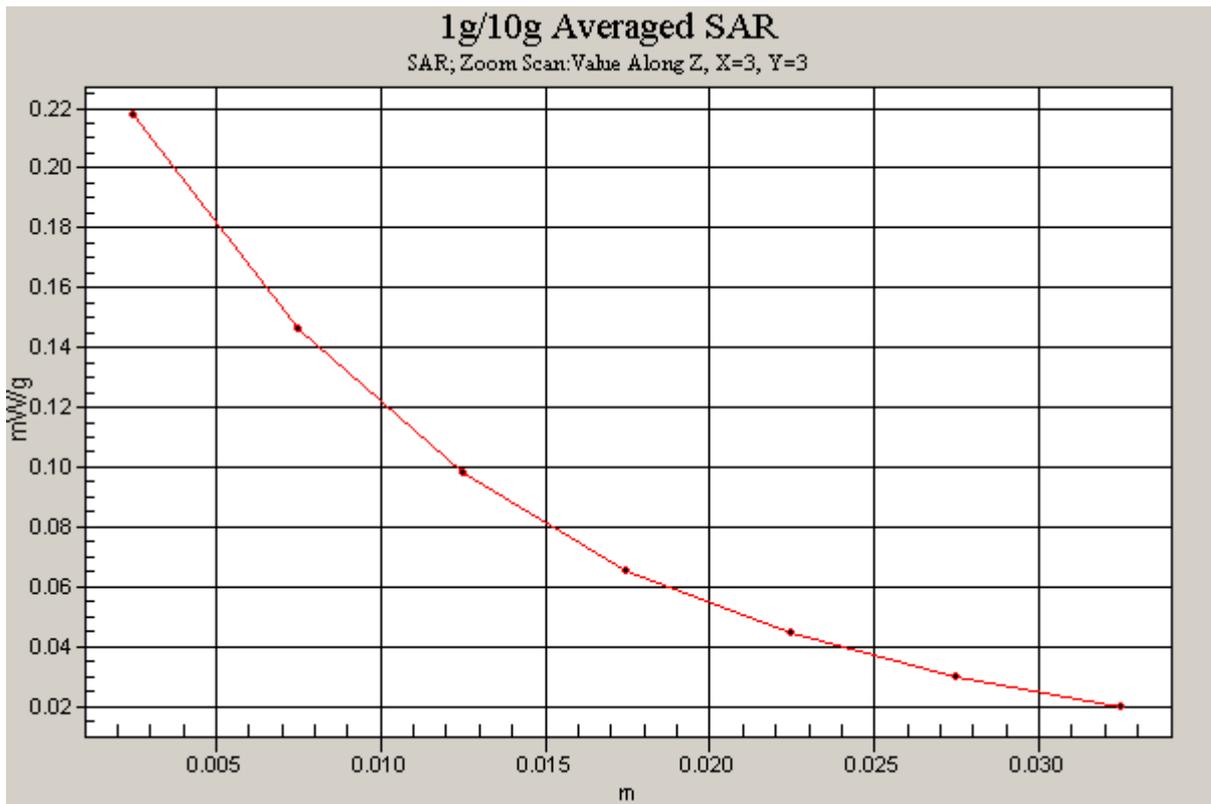


Figure 300 Z-Scan at power reference point (Body, Towards Phantom, Close WCDMA Band II Channel 9262)

Date/Time: 12/28/2008 10:14:47 PM

### WCDMA Band II Earphone Towards Ground High Close

Communication System: WCDMA Band II; Frequency: 1907.6 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 1908$  MHz;  $\sigma = 1.57$  mho/m;  $\epsilon_r = 53.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.45, 7.45, 7.45); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground High/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.877 mW/g

**Towards Ground High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.65 V/m; Power Drift = 0.041 dB

Peak SAR (extrapolated) = 1.17 W/kg

**SAR(1 g) = 0.704 mW/g; SAR(10 g) = 0.408 mW/g**

Maximum value of SAR (measured) = 0.905 mW/g

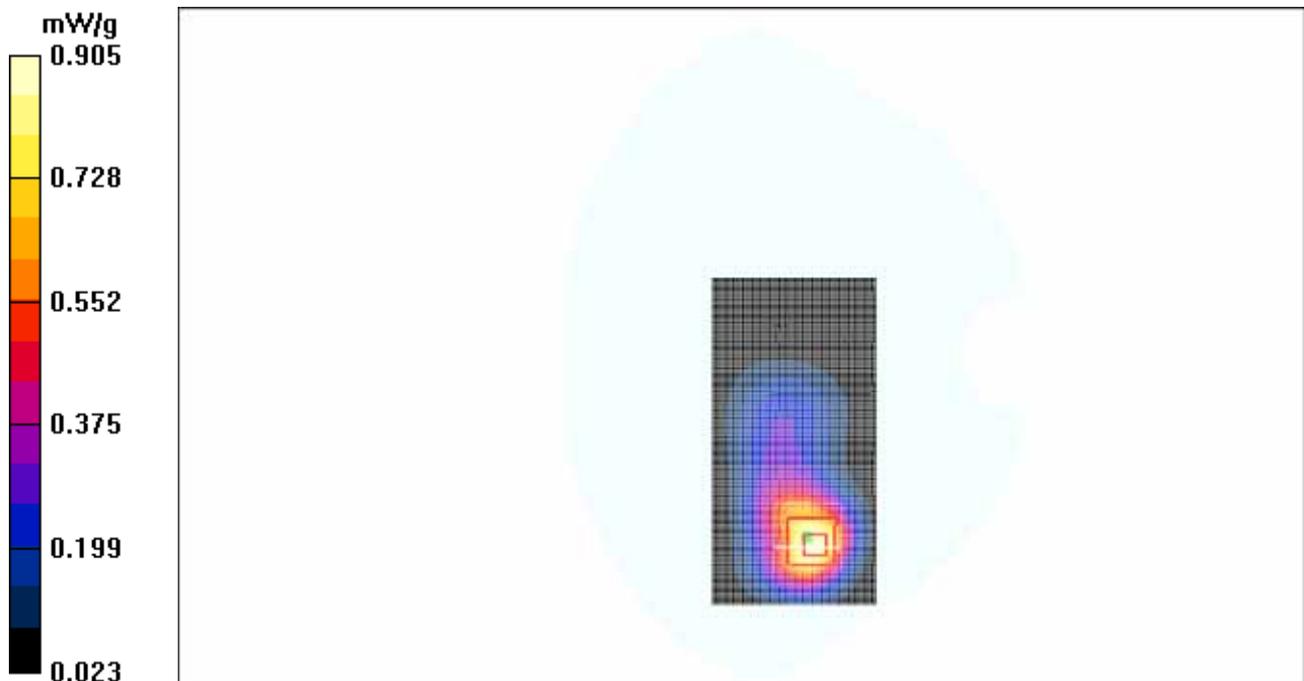


Figure 301 Body with Earphone, Towards Ground, Close WCDMA Band II, Channel 9538

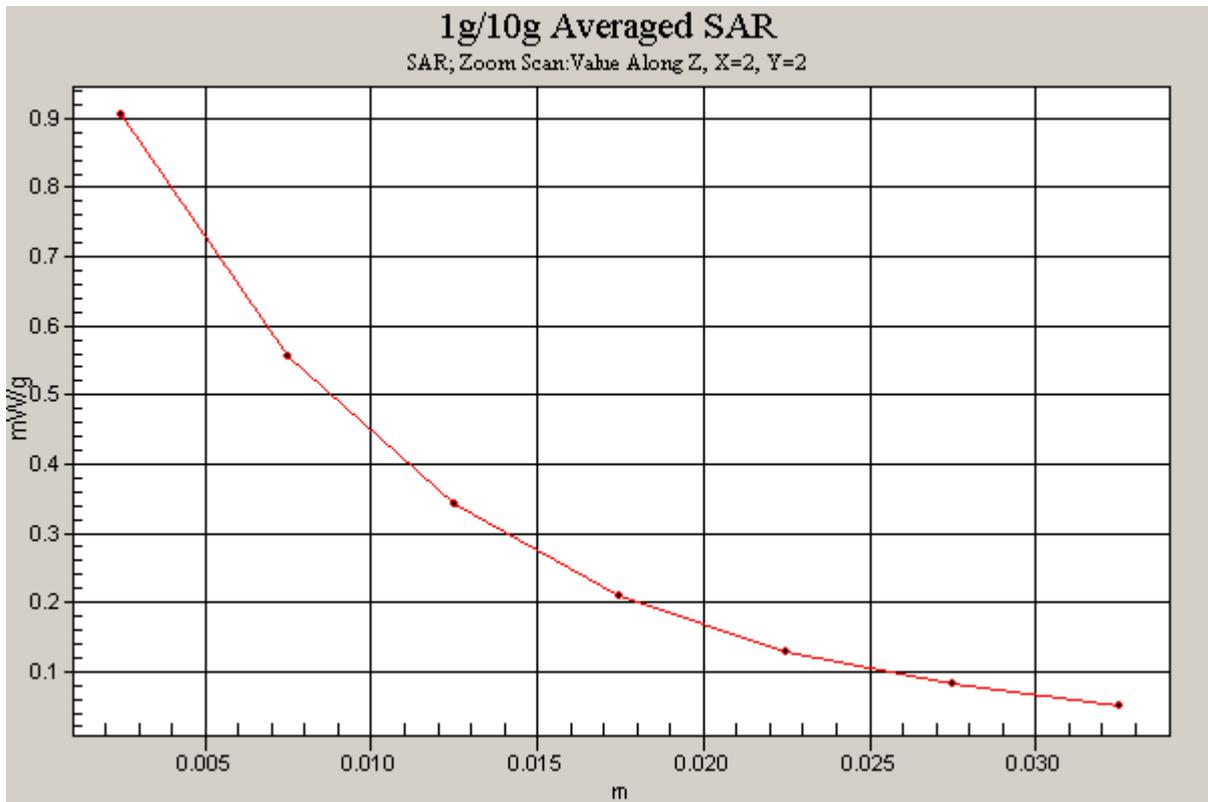


Figure 302 Z-Scan at power reference point (Body, with Earphone, Towards Ground, Close WCDMA Band II, Channel 9538)

Date/Time: 1/5/2009 11:07:32 AM

**WCDMA Band II Bluetooth Earphone Towards Ground High Close**

Communication System: WCDMA Band II; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1908$  MHz;  $\sigma = 1.57$  mho/m;  $\epsilon_r = 53.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(7.45, 7.45, 7.45); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground High/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.24 mW/g

**Towards Ground High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.96 V/m; Power Drift = -0.136 dB

Peak SAR (extrapolated) = 1.44 W/kg

**SAR(1 g) = 0.893 mW/g; SAR(10 g) = 0.539 mW/g**

Maximum value of SAR (measured) = 1.11 mW/g

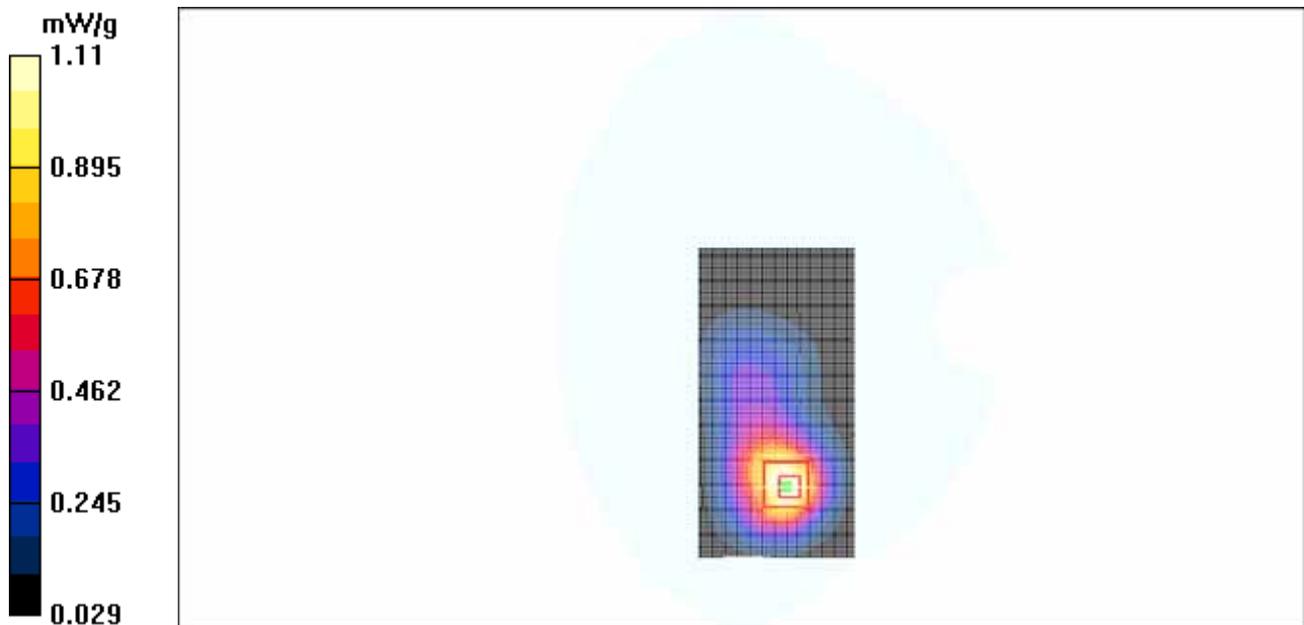


Figure 303 Body with Bluetooth Earphone, Towards Ground, Close WCDMA Band II, Channel 9538

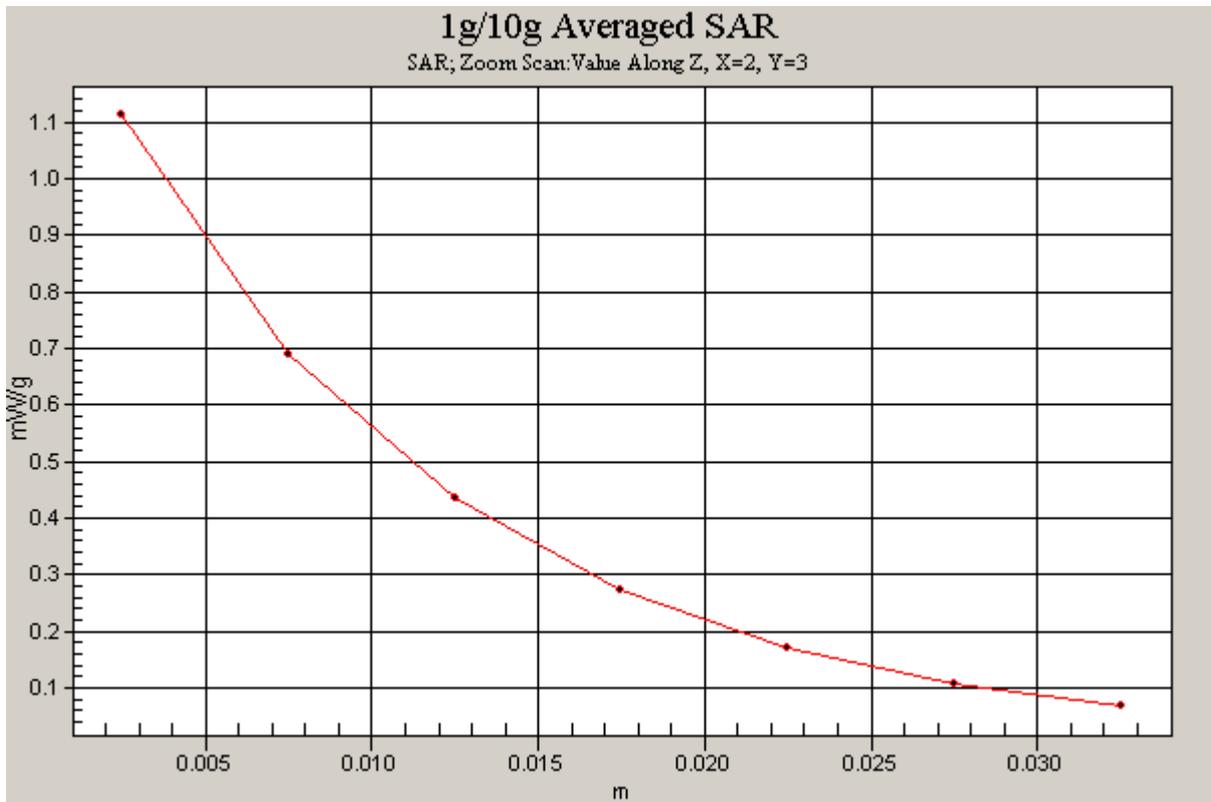


Figure 304 Z-Scan at power reference point (Body, with Bluetooth Earphone, Towards Ground, Close WCDMA Band II, Channel 9538)

Date/Time: 12/28/2008 11:51:47 PM

### WCDMA Band II HSDPA Towards Ground High Close

Communication System: WCDMA Band II+HSDPA; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1908$  MHz;  $\sigma = 1.57$  mho/m;  $\epsilon_r = 53.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

- Probe: EX3DV4 - SN3660; ConvF(7.45, 7.45, 7.45); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM000 T01 ; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground High/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.976 mW/g

**Towards Ground High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.67 V/m; Power Drift = -0.150 dB

Peak SAR (extrapolated) = 1.16 W/kg

**SAR(1 g) = 0.717 mW/g; SAR(10 g) = 0.432 mW/g**

Maximum value of SAR (measured) = 0.899 mW/g

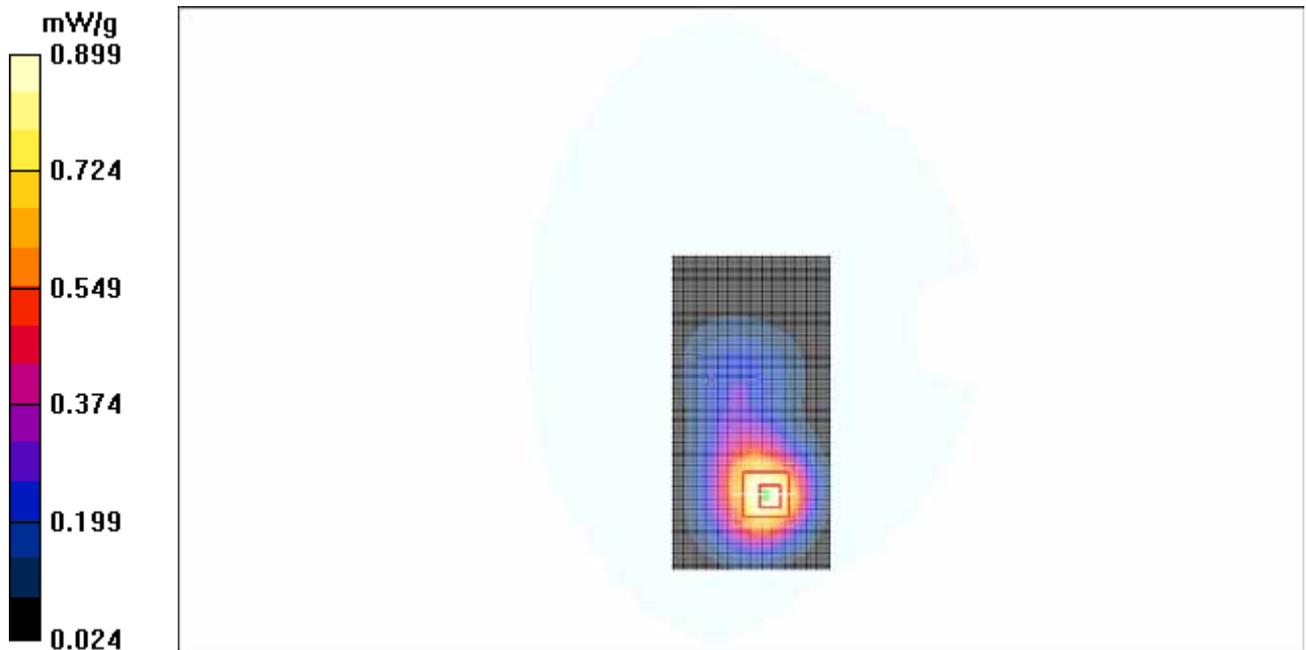


Figure 305 Body, Towards Ground, Close WCDMA Band II HSDPA, Channel 9538

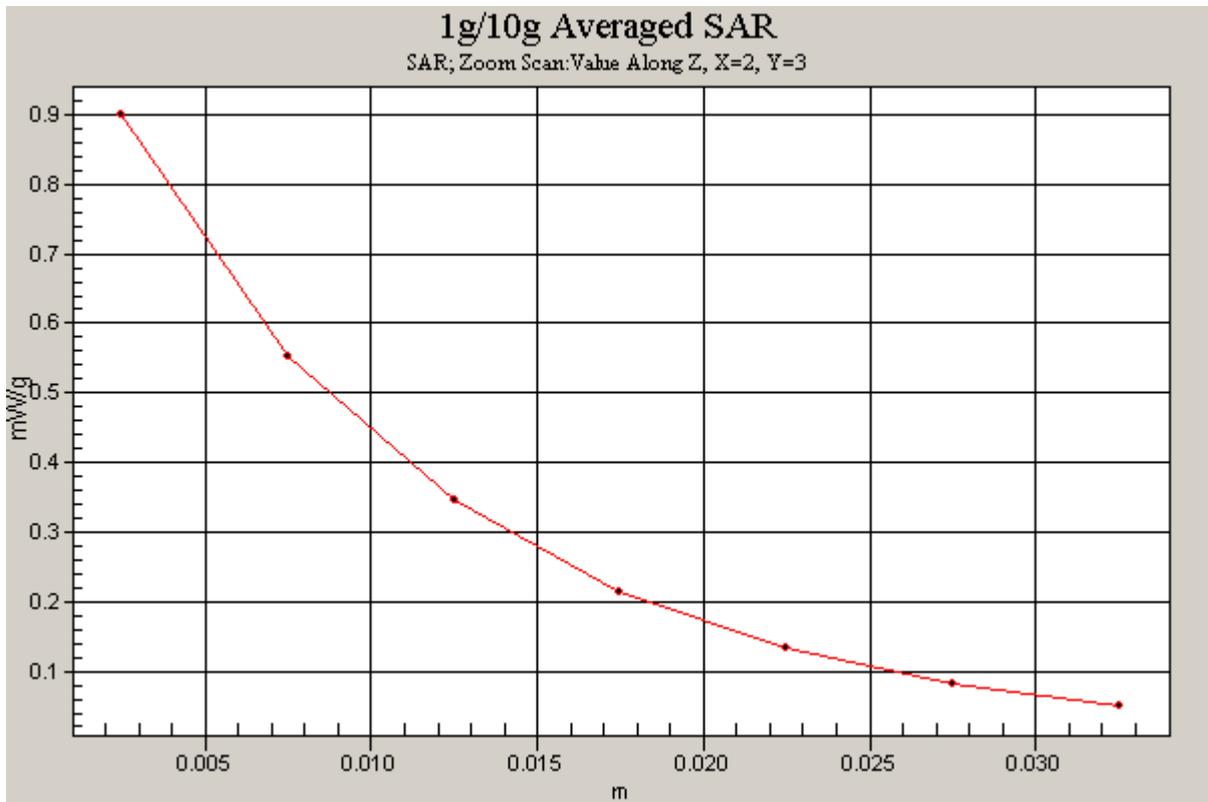


Figure 306 Z-Scan at power reference point (Body, Towards Ground, Close WCDMA Band II HSDPA, Channel 9538)

Date/Time: 12/27/2008 1:50:00 PM

### WCDMA Band V Left Cheek High

Communication System: WCDMA Band V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 847$  MHz;  $\sigma = 0.899$  mho/m;  $\epsilon_r = 41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek High/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.643 mW/g

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

Reference Value = 11.6 V/m; Power Drift = -0.026 dB

Peak SAR (extrapolated) = 0.701 W/kg

**SAR(1 g) = 0.556 mW/g; SAR(10 g) = 0.415 mW/g**

Maximum value of SAR (measured) = 0.625 mW/g

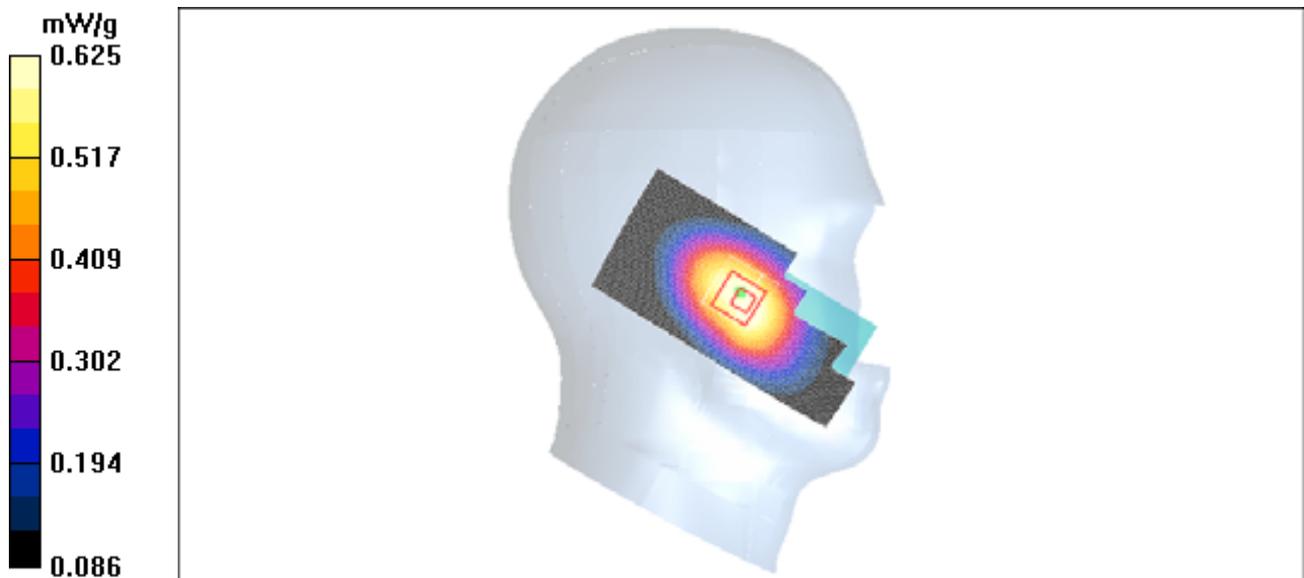


Figure 307 Left Hand Touch Cheek Open WCDMA Band V Channel 4233

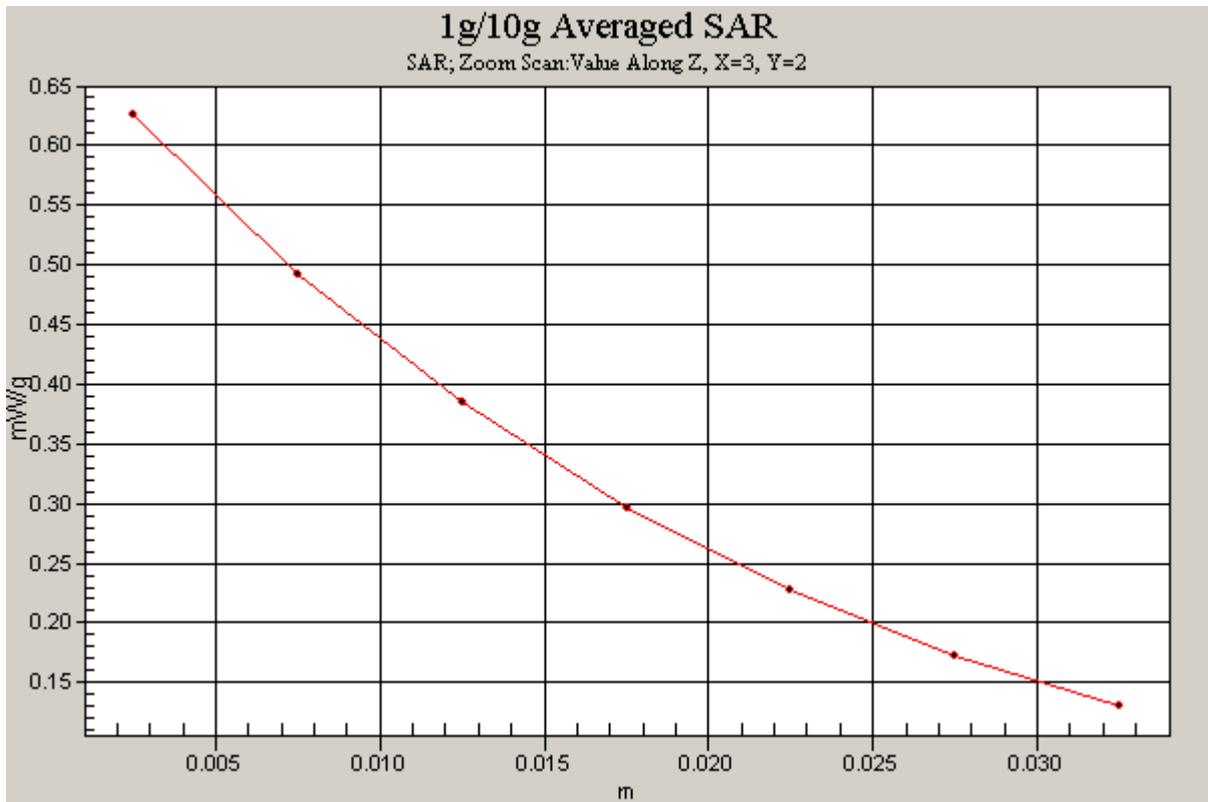


Figure 308 Z-Scan at power reference point (Left Hand Touch Cheek Open WCDMA Band V Channel 4233)

Date/Time: 12/27/2008 2:10:07 PM

### WCDMA Band V Left Cheek Middle Open

Communication System: WCDMA Band V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.888$  mho/m;  $\epsilon_r = 41.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek Middle/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.564 mW/g

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

Reference Value = 10.7 V/m; Power Drift = 0.019 dB

Peak SAR (extrapolated) = 0.630 W/kg

**SAR(1 g) = 0.496 mW/g; SAR(10 g) = 0.369 mW/g**

Maximum value of SAR (measured) = 0.563 mW/g

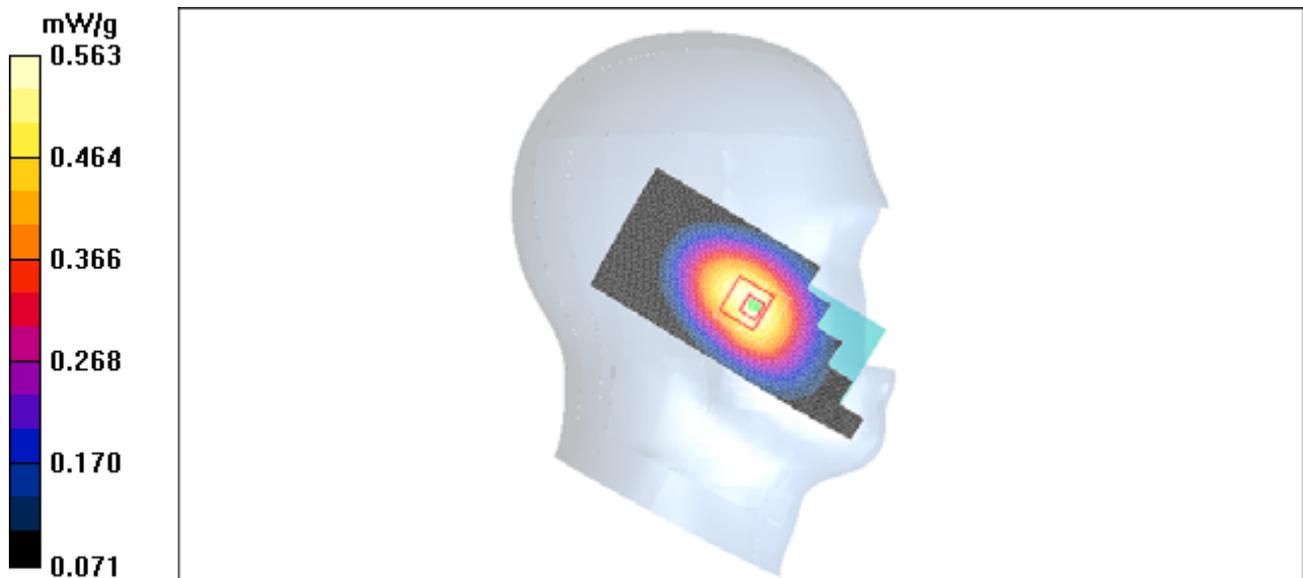


Figure 309 Left Hand Touch Cheek Open WCDMA Band V Channel 4182

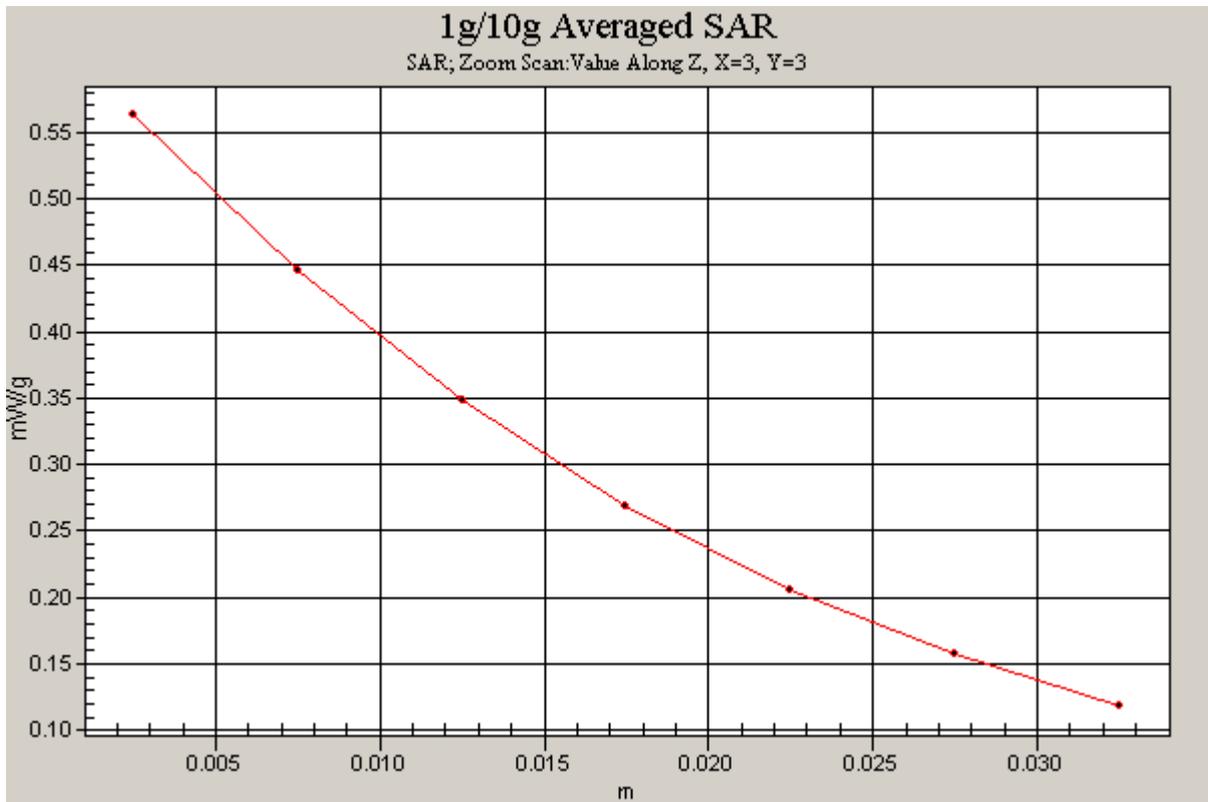


Figure 310 Z-Scan at power reference point (Left Hand Touch Cheek Open WCDMA Band V Channel 4182)

Date/Time: 12/27/2008 2:29:19 PM

### WCDMA Band V Left Cheek Low Open

Communication System: WCDMA Band V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 826.4$  MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek Low/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.625 mW/g

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

Reference Value = 11.4 V/m; Power Drift = -0.117 dB

Peak SAR (extrapolated) = 0.686 W/kg

**SAR(1 g) = 0.544 mW/g; SAR(10 g) = 0.407 mW/g**

Maximum value of SAR (measured) = 0.613 mW/g

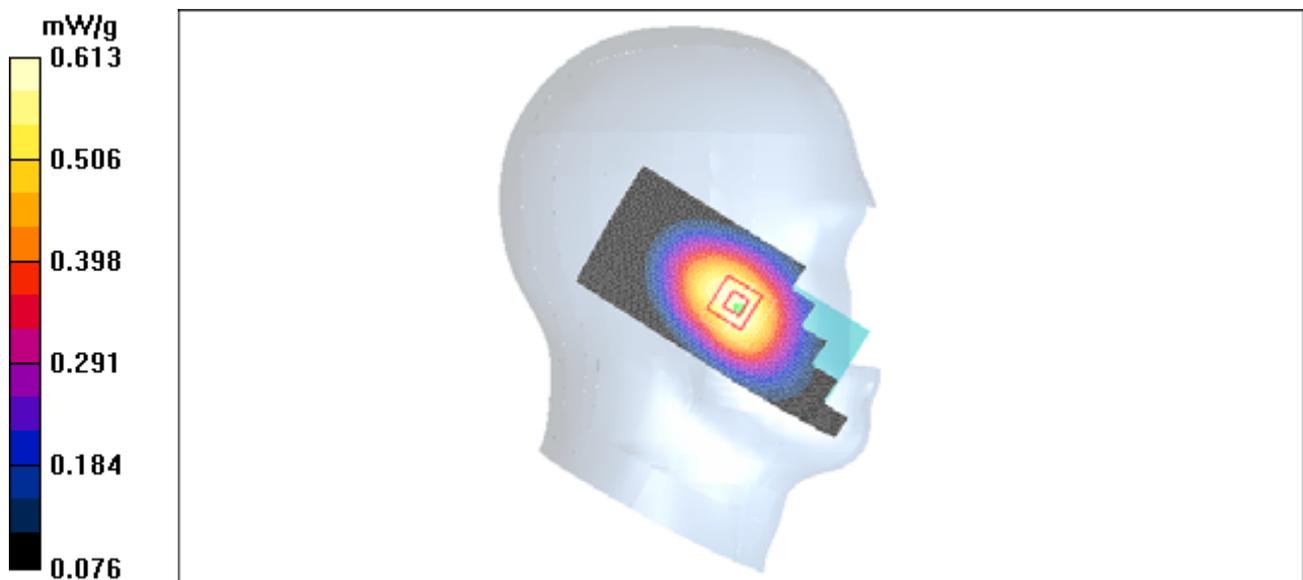


Figure 311 Left Hand Touch Cheek Open WCDMA Band V Channel 4132

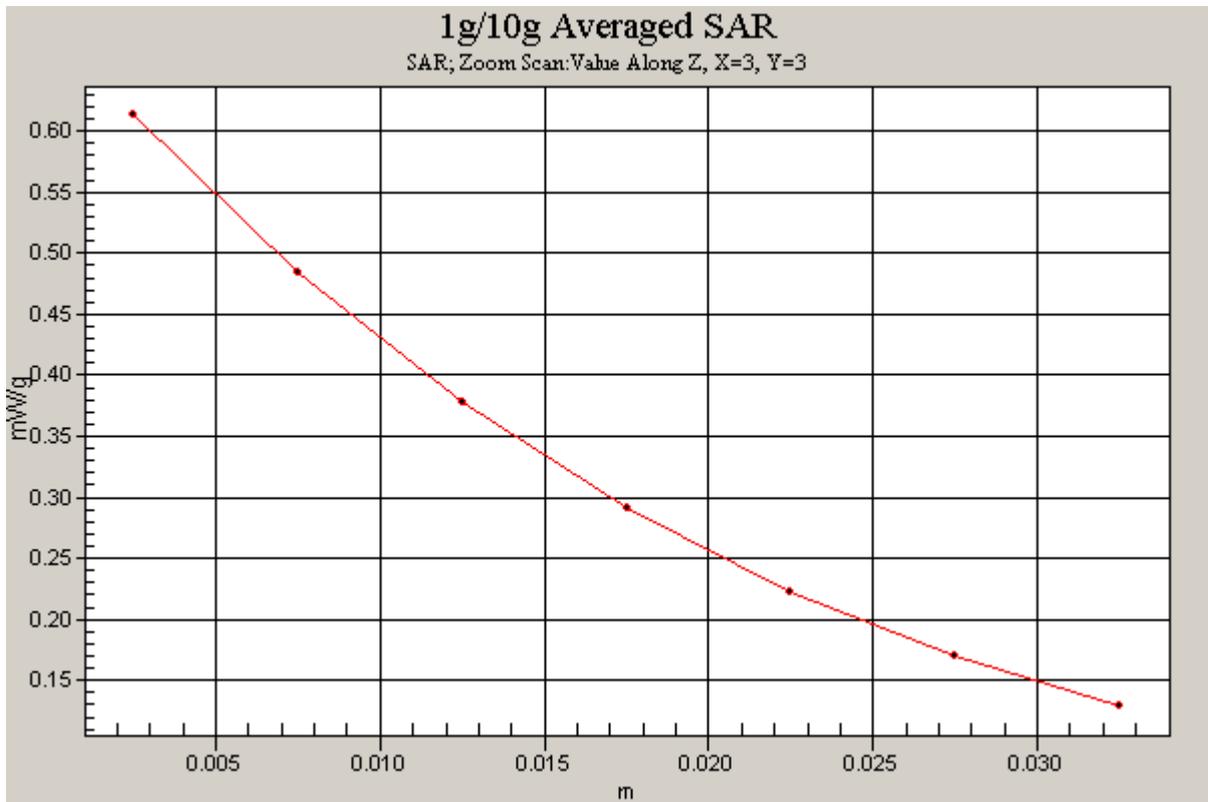


Figure 312 Z-Scan at power reference point (Left Hand Touch Cheek Open WCDMA Band V Channel 4132)

Date/Time: 12/27/2008 3:29:53 PM

### WCDMA Band V Left Tilt High Open

Communication System: WCDMA Band V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 847$  MHz;  $\sigma = 0.899$  mho/m;  $\epsilon_r = 41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt High/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.383 mW/g

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

Reference Value = 14.9 V/m; Power Drift = -0.080 dB

Peak SAR (extrapolated) = 0.452 W/kg

**SAR(1 g) = 0.342 mW/g; SAR(10 g) = 0.248 mW/g**

Maximum value of SAR (measured) = 0.393 mW/g

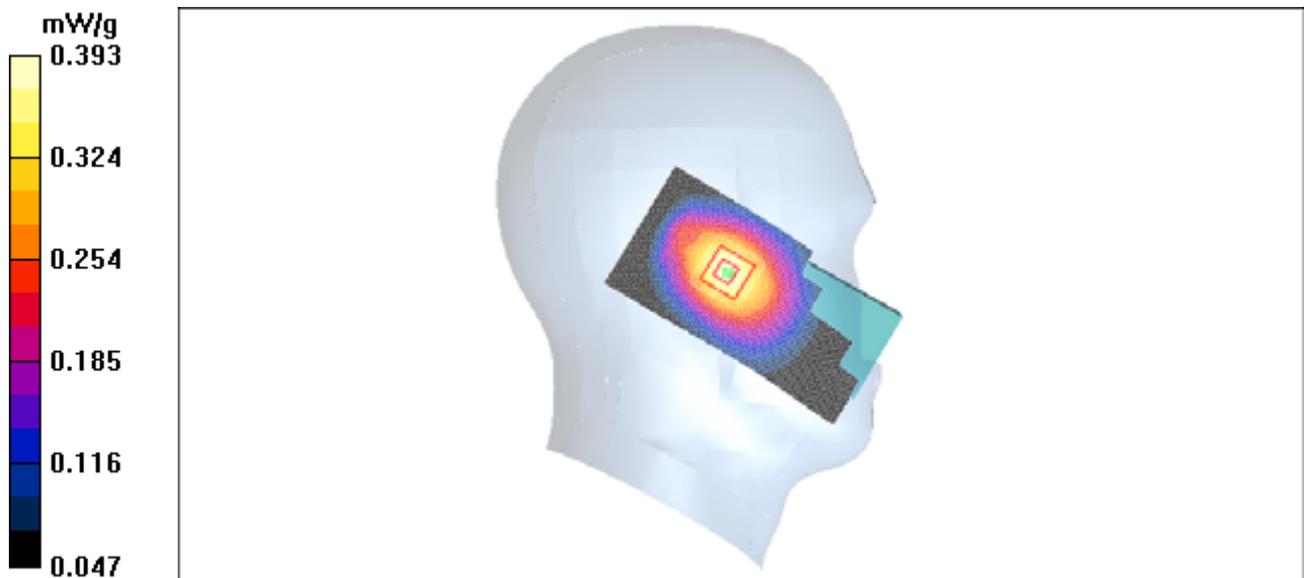


Figure 313 Left Hand Tilt 15° Open WCDMA Band V Channel 4233

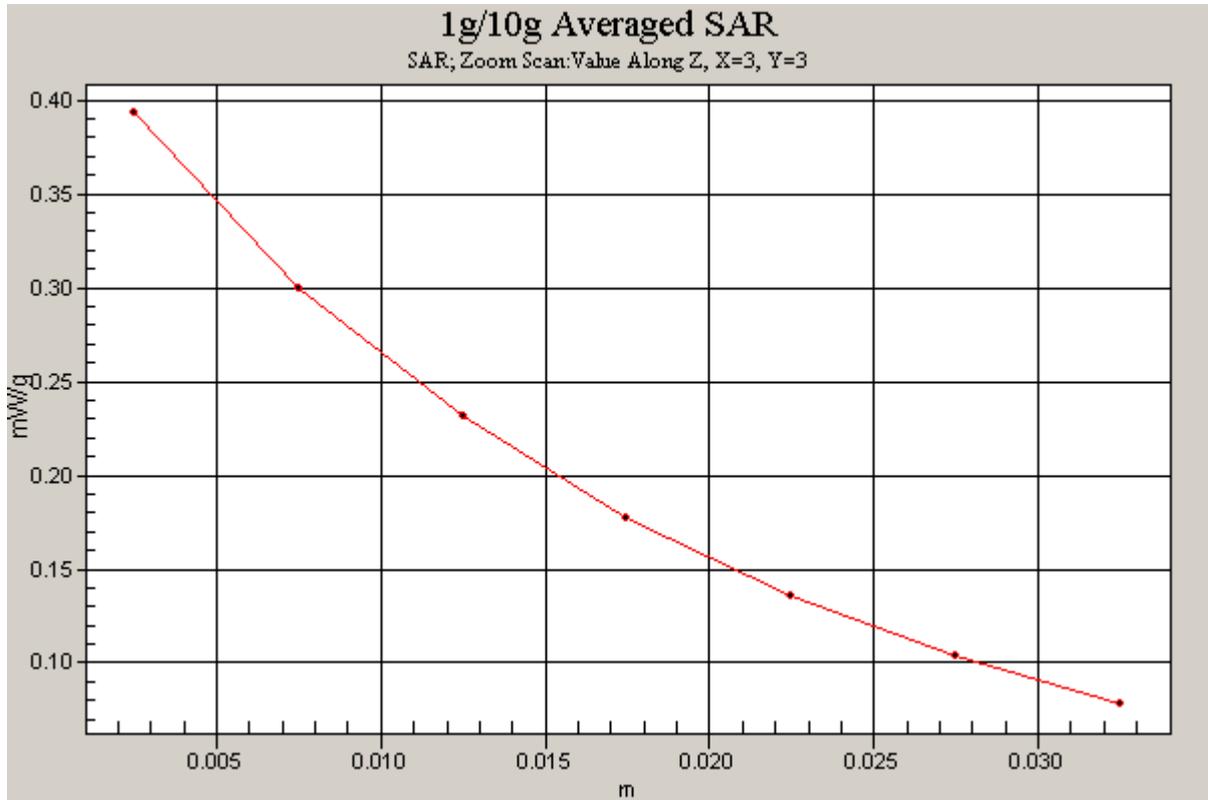


Figure 314 Z-Scan at power reference point (Left Hand Tilt 15° Open WCDMA Band V Channel 4233)

Date/Time: 12/27/2008 3:11:17 PM

### WCDMA Band V Left Tilt Middle Open

Communication System: WCDMA Band V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.888$  mho/m;  $\epsilon_r = 41.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt Middle/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.314 mW/g

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

Reference Value = 13.6 V/m; Power Drift = -0.171 dB

Peak SAR (extrapolated) = 0.369 W/kg

**SAR(1 g) = 0.279 mW/g; SAR(10 g) = 0.203 mW/g**

Maximum value of SAR (measured) = 0.321 mW/g

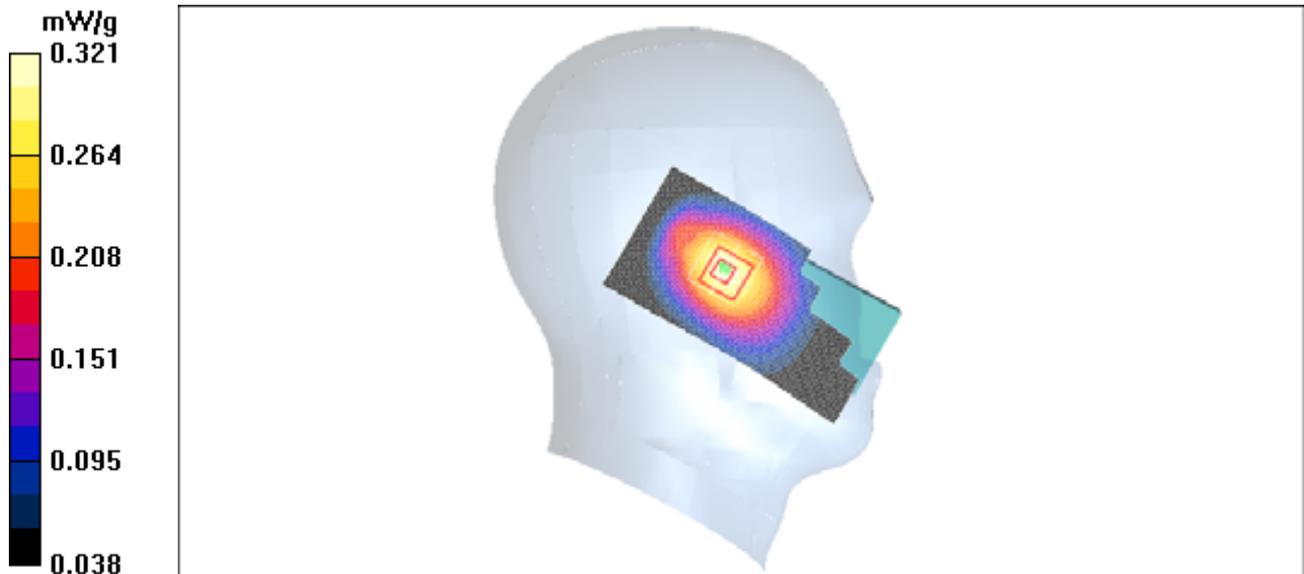


Figure 315 Left Hand Tilt 15° Open WCDMA Band V Channel 4182

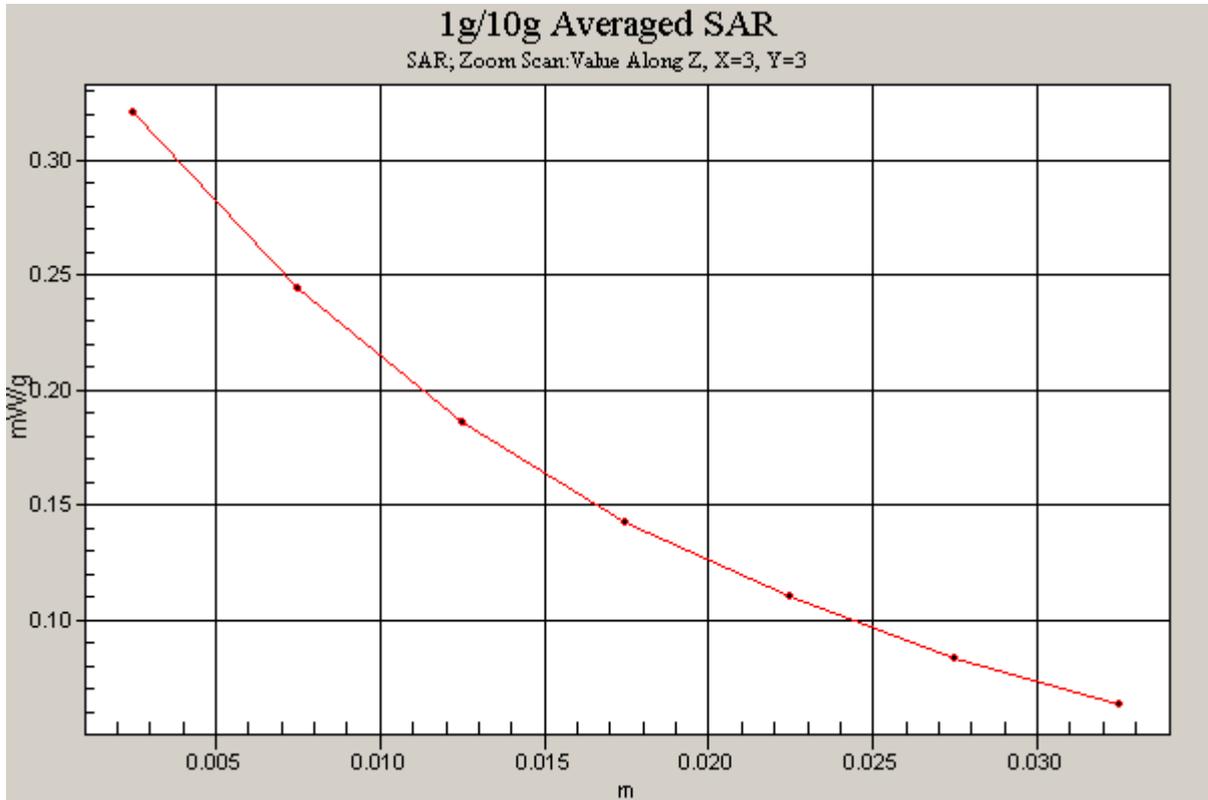


Figure 316 Z-Scan at power reference point (Left Hand Tilt 15° Open WCDMA Band V Channel 4182)

Date/Time: 12/27/2008 2:52:41 PM

**WCDMA Band V Left Tilt Low Open**

Communication System: WCDMA Band V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 826.4$  MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt Low/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.390 mW/g

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

Reference Value = 15.4 V/m; Power Drift = -0.023 dB

Peak SAR (extrapolated) = 0.457 W/kg

**SAR(1 g) = 0.347 mW/g; SAR(10 g) = 0.253 mW/g**

Maximum value of SAR (measured) = 0.396 mW/g

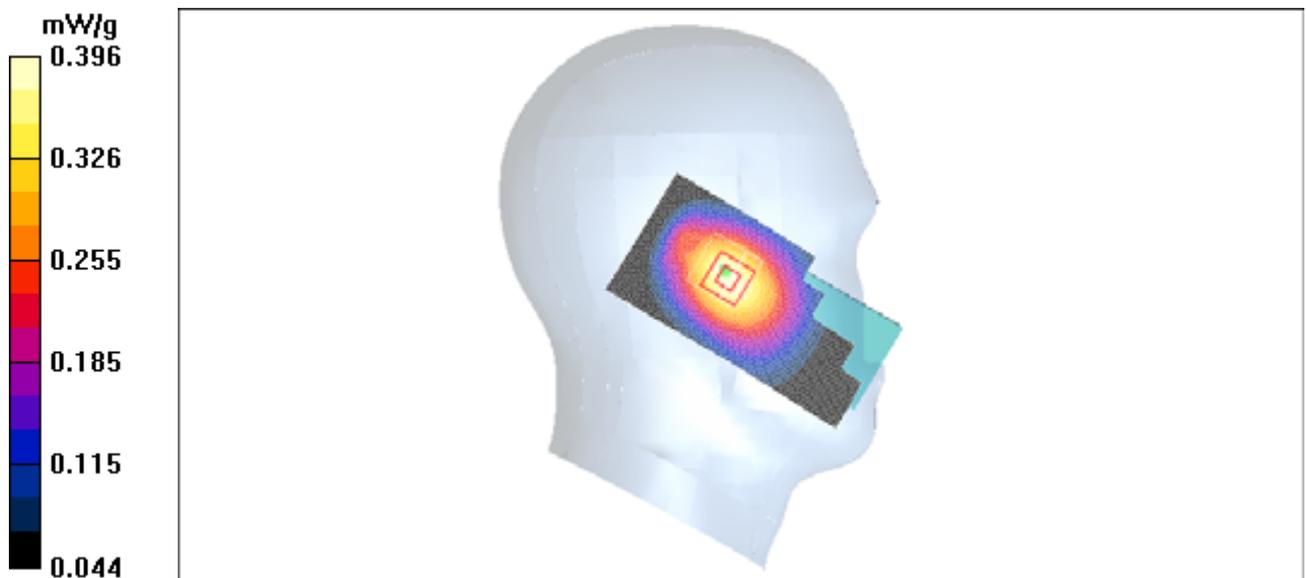


Figure 317 Left Hand Tilt 15° Open WCDMA Band V Channel 4132

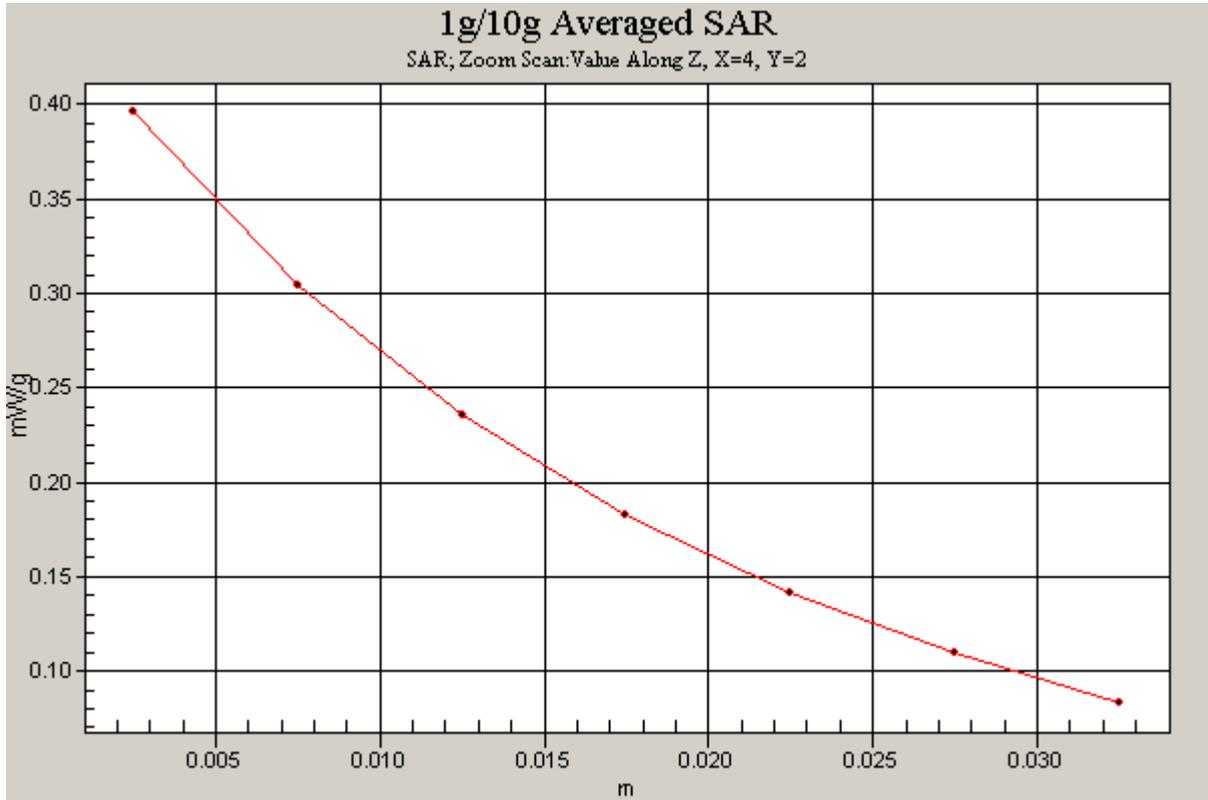


Figure 318 Z-Scan at power reference point (Left Hand Tilt 15° Open WCDMA Band V Channel 4132)

Date/Time: 12/29/2008 4:07:05 AM

### WCDMA Band V Right Cheek High Open

Communication System: WCDMA Band V; Frequency: 846.6 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 847$  MHz;  $\sigma = 0.899$  mho/m;  $\epsilon_r = 41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek High/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.626 mW/g

**Cheek High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 10.5 V/m; Power Drift = -0.049 dB  
Peak SAR (extrapolated) = 0.695 W/kg  
**SAR(1 g) = 0.551 mW/g; SAR(10 g) = 0.408 mW/g**  
Maximum value of SAR (measured) = 0.621 mW/g

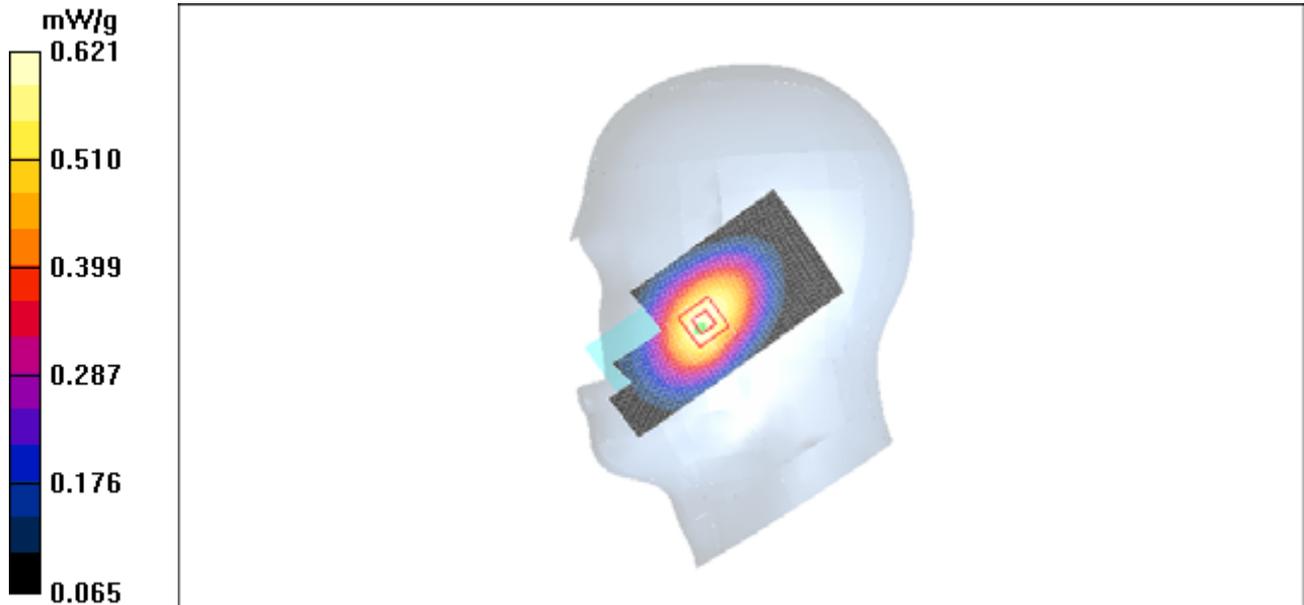


Figure 319 Right Hand Touch Cheek Open WCDMA Band V Channel 4233

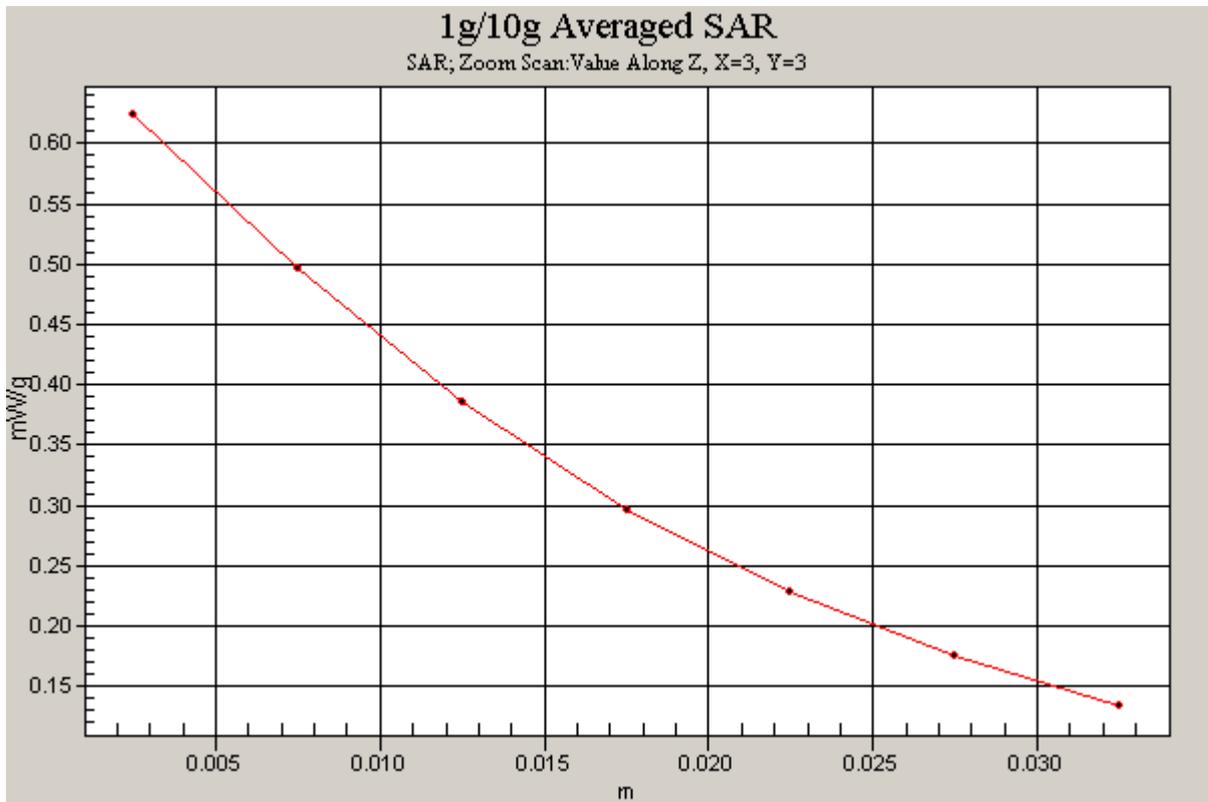


Figure 320 Z-Scan at power reference point (Right Hand Touch Cheek Open WCDMA Band V Channel 4233)

### WCDMA Band V Right Cheek Middle Open

Communication System: WCDMA Band V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.888$  mho/m;  $\epsilon_r = 41.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek Middle/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.570 mW/g

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

Reference Value = 10.1 V/m; Power Drift = -0.129 dB

Peak SAR (extrapolated) = 0.610 W/kg

**SAR(1 g) = 0.484 mW/g; SAR(10 g) = 0.361 mW/g**

Maximum value of SAR (measured) = 0.546 mW/g

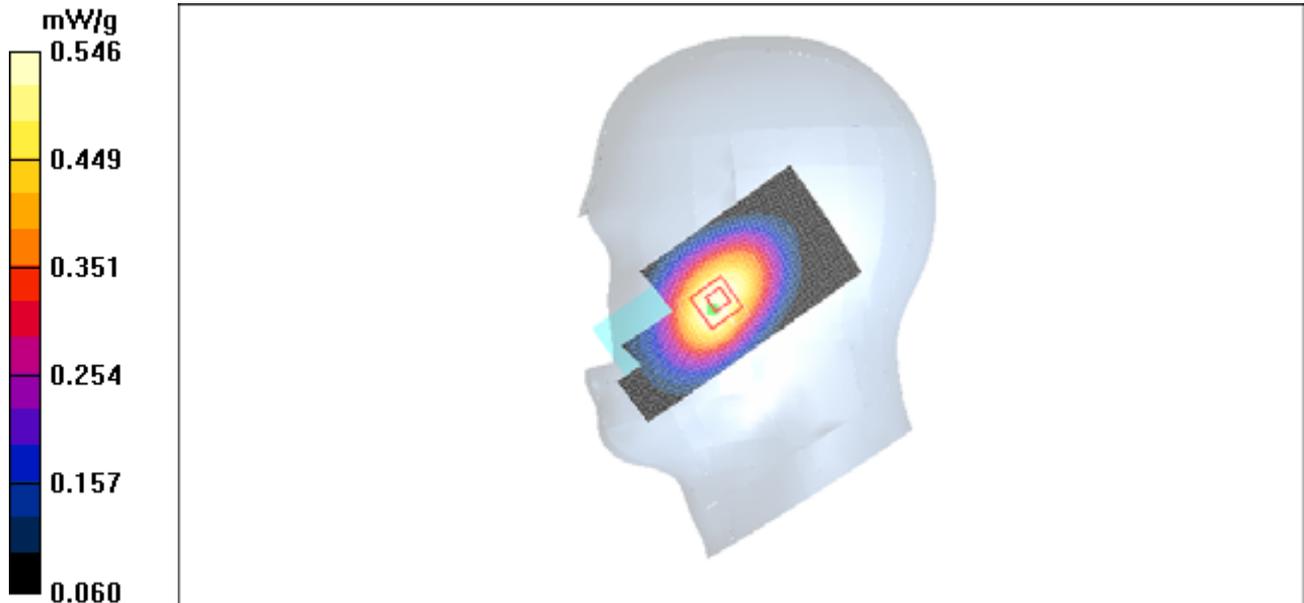


Figure 321 Right Hand Touch Cheek Open WCDMA Band V Channel 4182

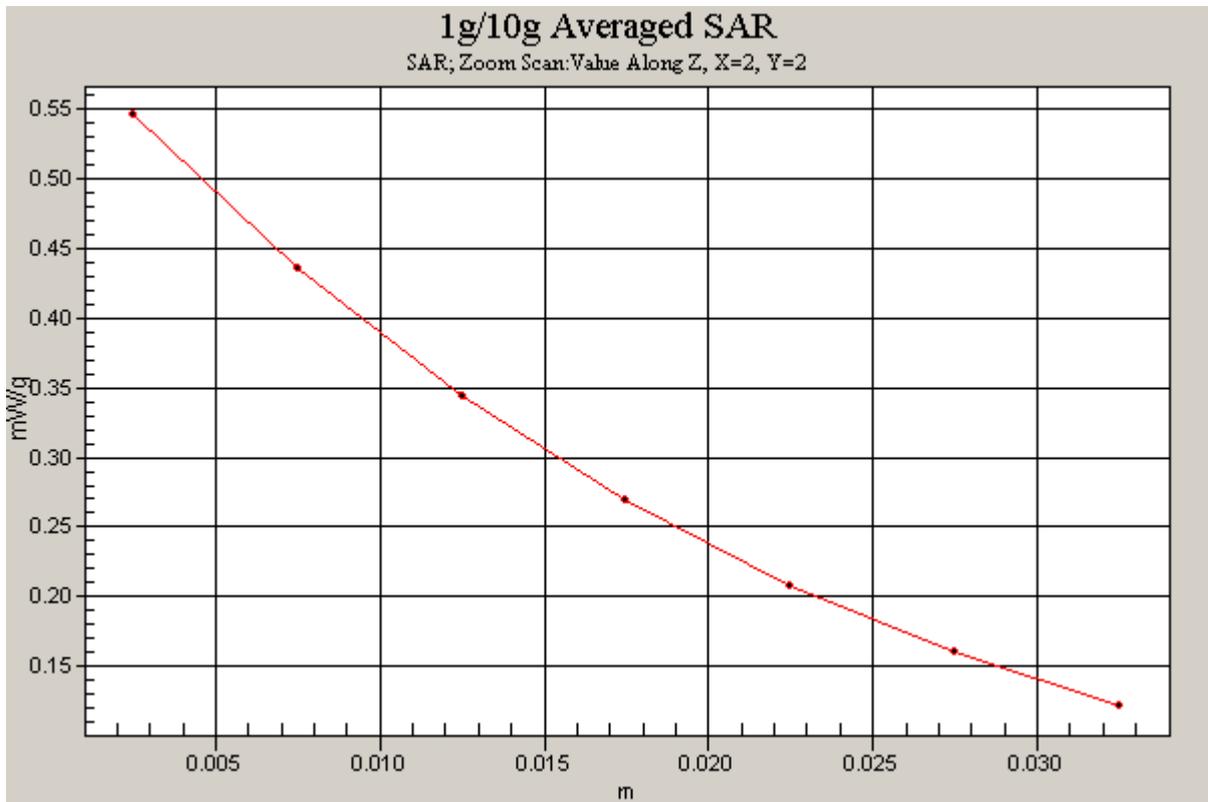


Figure 322 Z-Scan at power reference point (Right Hand Touch Cheek Open WCDMA Band V Channel 4182)

Date/Time: 12/29/2008 3:28:48 AM

### WCDMA Band V Right Cheek Low Open

Communication System: WCDMA Band V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 826.4$  MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek Low/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.625 mW/g

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

Reference Value = 10.6 V/m; Power Drift = -0.101 dB

Peak SAR (extrapolated) = 0.683 W/kg

**SAR(1 g) = 0.537 mW/g; SAR(10 g) = 0.401 mW/g**

Maximum value of SAR (measured) = 0.609 mW/g

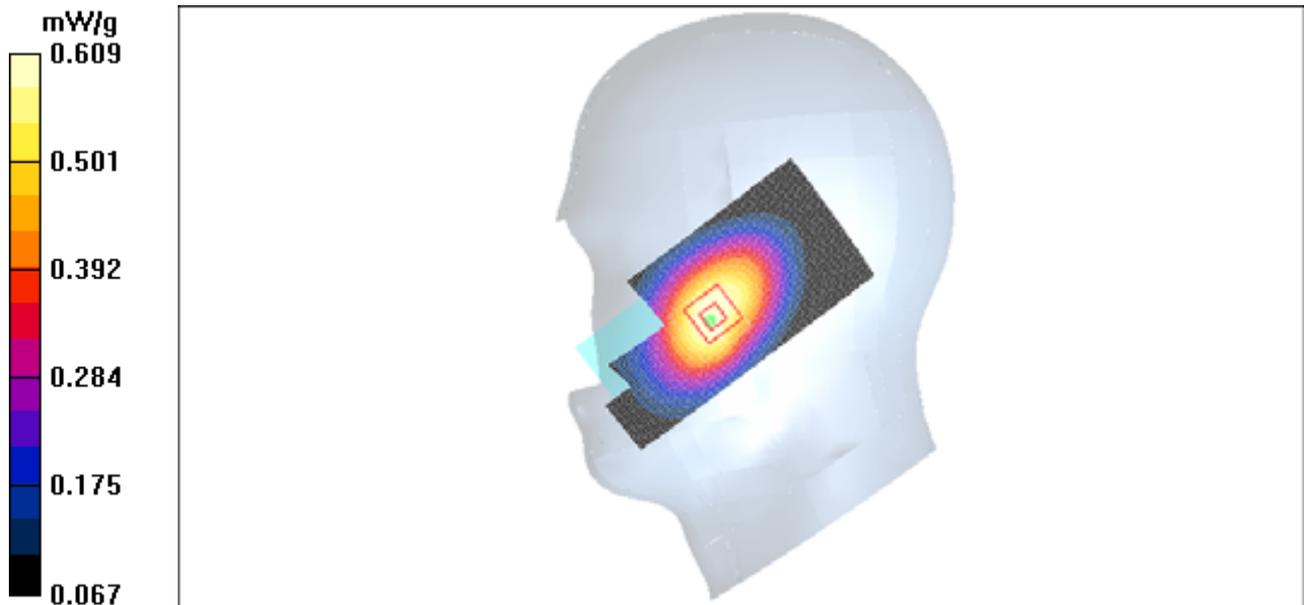


Figure 323 Right Hand Touch Cheek Open WCDMA Band V Channel 4132



Figure 324 Z-Scan at power reference point (Right Hand Touch Cheek Open WCDMA Band V Channel 4132)

Date/Time: 12/29/2008 4:28:44 AM

### WCDMA Band V Right Tilt High Open

Communication System: WCDMA Band V; Frequency: 846.6 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 847$  MHz;  $\sigma = 0.899$  mho/m;  $\epsilon_r = 41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt High/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.384 mW/g

**Tilt High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 14.6 V/m; Power Drift = -0.020 dB  
Peak SAR (extrapolated) = 0.437 W/kg  
**SAR(1 g) = 0.331 mW/g; SAR(10 g) = 0.242 mW/g**  
Maximum value of SAR (measured) = 0.381 mW/g

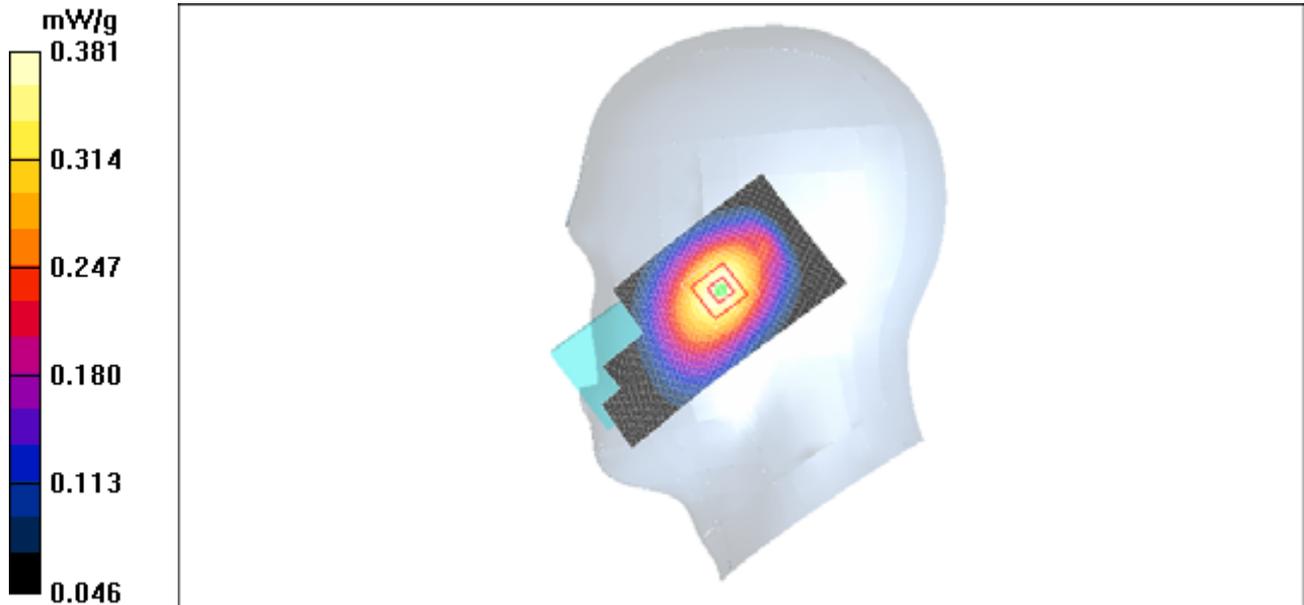


Figure 325 Right Hand Tilt 15° Open WCDMA Band V Channel 4233

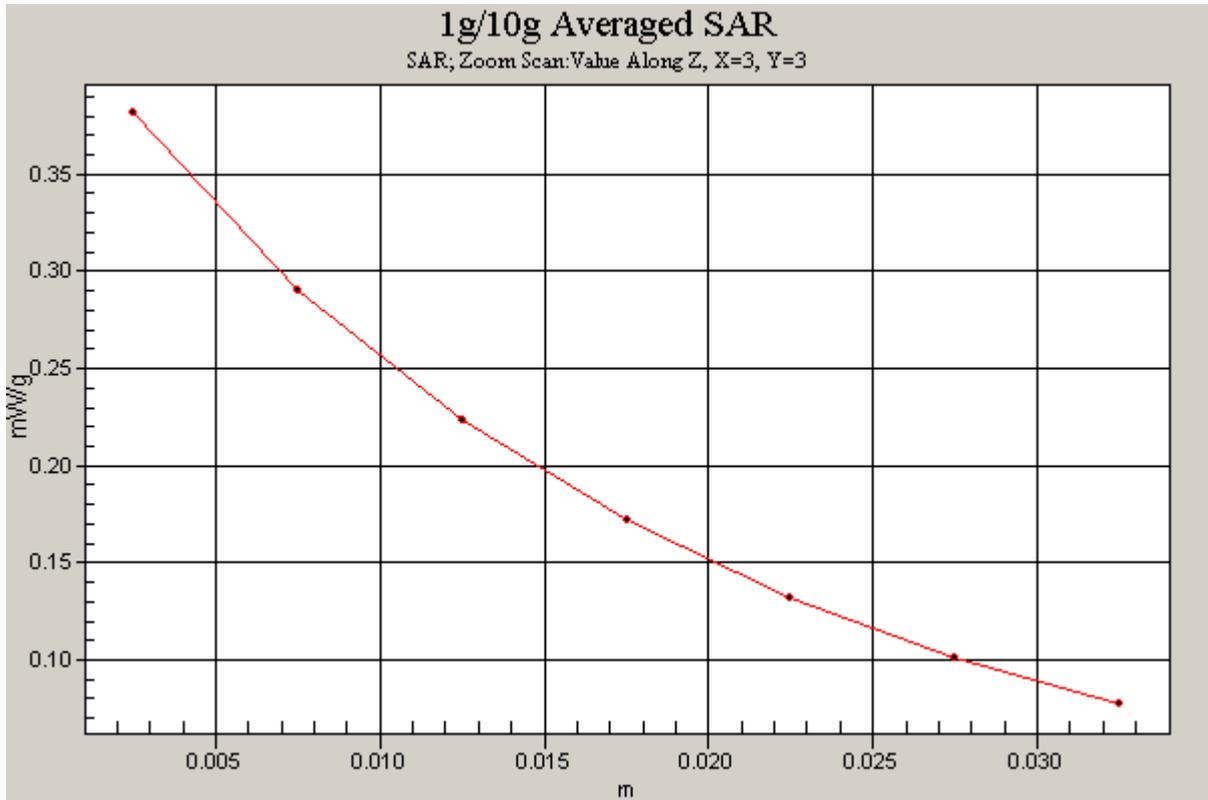


Figure 326 Z-Scan at power reference point (Right Hand Tilt 15° Open WCDMA Band V Channel 4233)

Date/Time: 12/29/2008 4:57:58 AM

### WCDMA Band V Right Tilt Middle Open

Communication System: WCDMA Band V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.888$  mho/m;  $\epsilon_r = 41.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt Middle/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.299 mW/g

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

Reference Value = 12.8 V/m; Power Drift = -0.004 dB

Peak SAR (extrapolated) = 0.347 W/kg

**SAR(1 g) = 0.263 mW/g; SAR(10 g) = 0.192 mW/g**

Maximum value of SAR (measured) = 0.304 mW/g

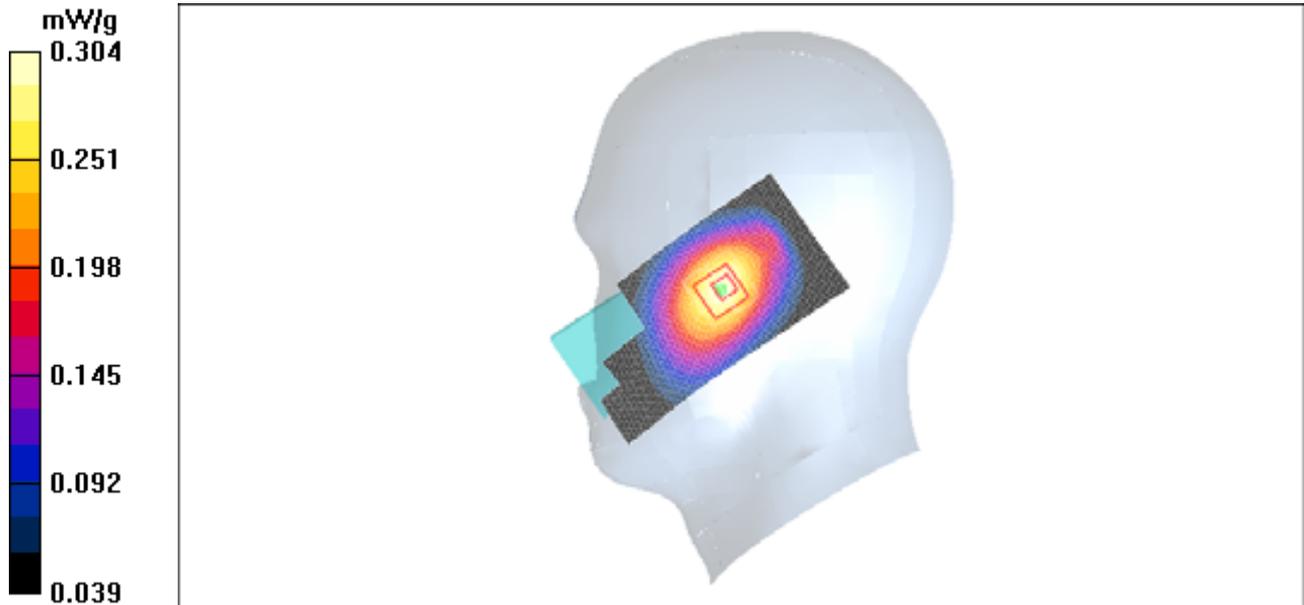


Figure 327 Right Hand Tilt 15° Open WCDMA Band V Channel 4182

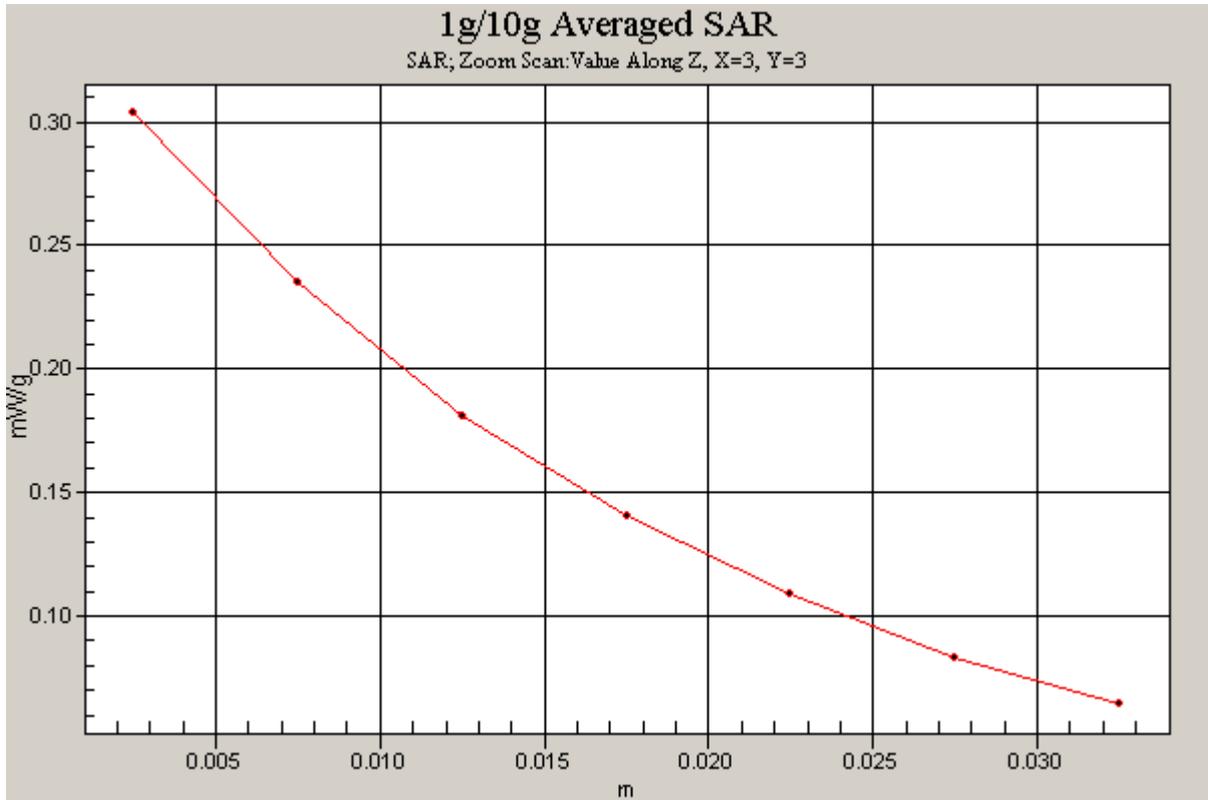


Figure 328 Z-Scan at power reference point (Right Hand Tilt 15° Open WCDMA Band V Channel 4182)

Date/Time: 12/29/2008 5:16:50 AM

### WCDMA Band V Right Tilt Low Open

Communication System: WCDMA Band V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 826.4$  MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt Low/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.360 mW/g

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

Reference Value = 14.2 V/m; Power Drift = -0.110 dB

Peak SAR (extrapolated) = 0.413 W/kg

**SAR(1 g) = 0.317 mW/g; SAR(10 g) = 0.234 mW/g**

Maximum value of SAR (measured) = 0.362 mW/g

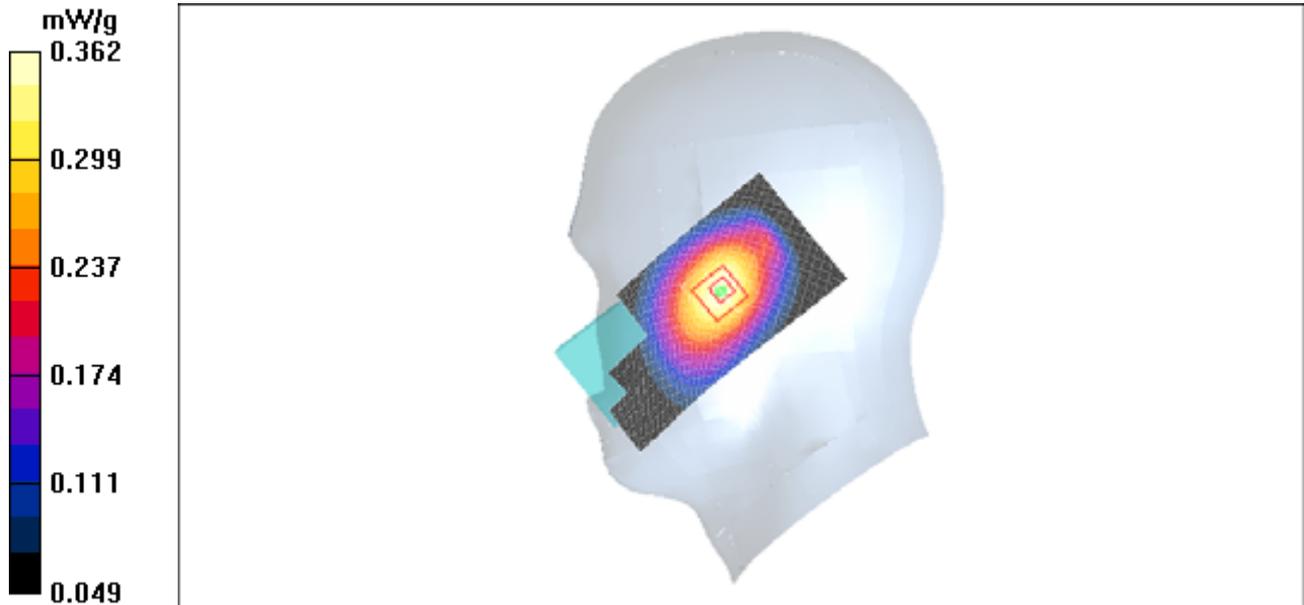


Figure 329 Right Hand Tilt 15° Open WCDMA Band V Channel 4132

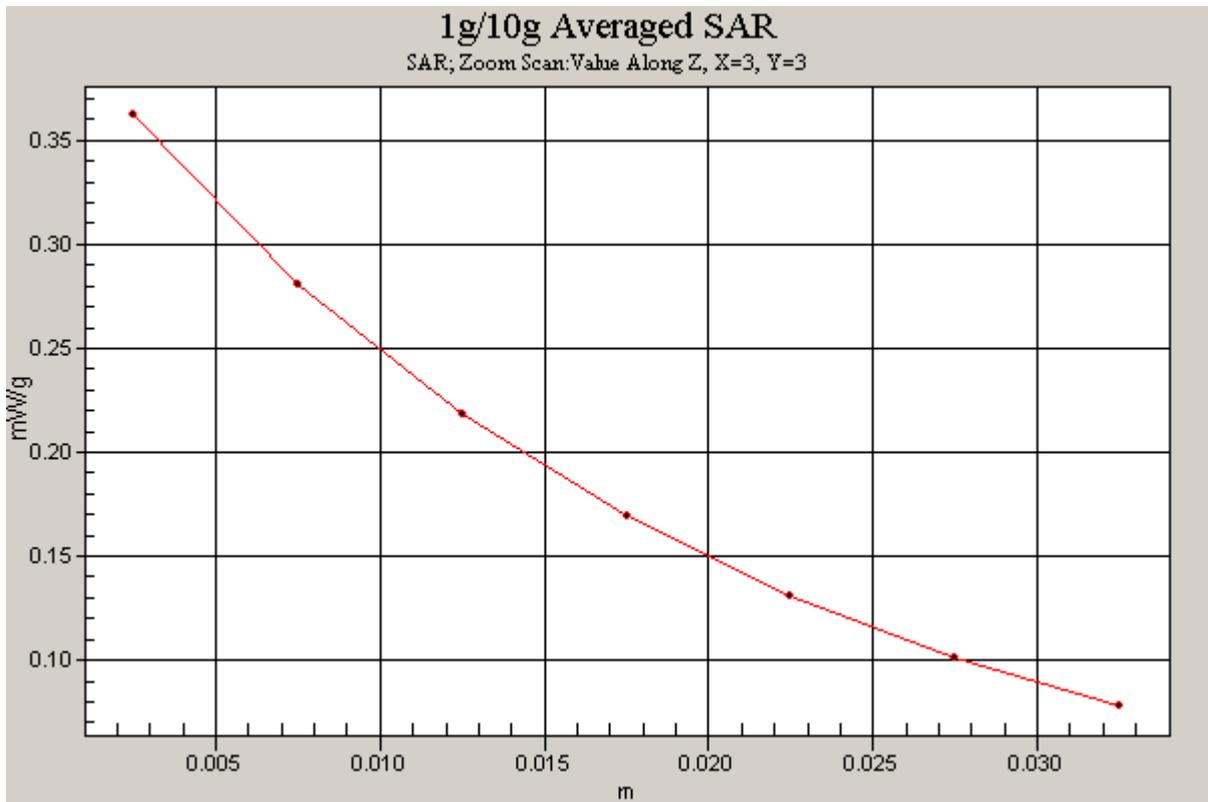


Figure 330 Z-Scan at power reference point (Right Hand Tilt 15° Open WCDMA Band V Channel 4132)

Date/Time: 12/29/2008 4:37:36 PM

### WCDMA Band V Towards Ground High Open

Communication System: WCDMA Band V; Frequency: 846.6 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 847$  MHz;  $\sigma = 0.995$  mho/m;  $\epsilon_r = 54.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground High/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.777 mW/g

**Towards Ground High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.1 V/m; Power Drift = 0.005 dB

Peak SAR (extrapolated) = 0.888 W/kg

**SAR(1 g) = 0.682 mW/g; SAR(10 g) = 0.499 mW/g**

Maximum value of SAR (measured) = 0.778 mW/g

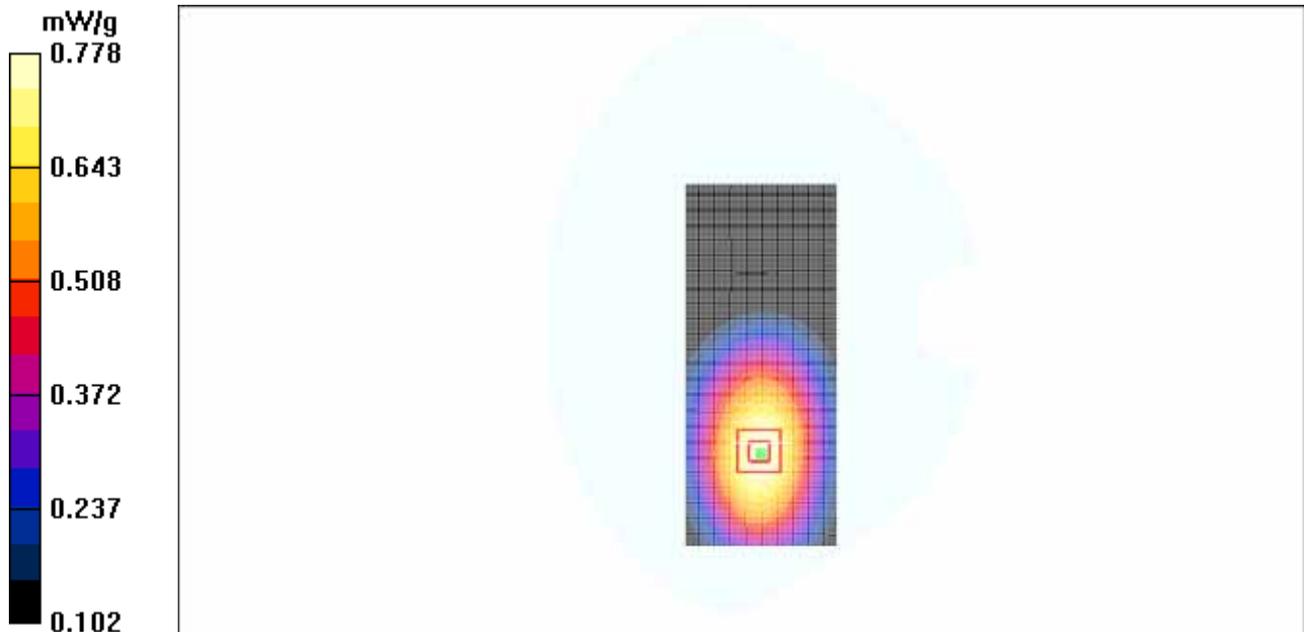


Figure 331 Body, Towards Ground, Open WCDMA Band V Channel 4233

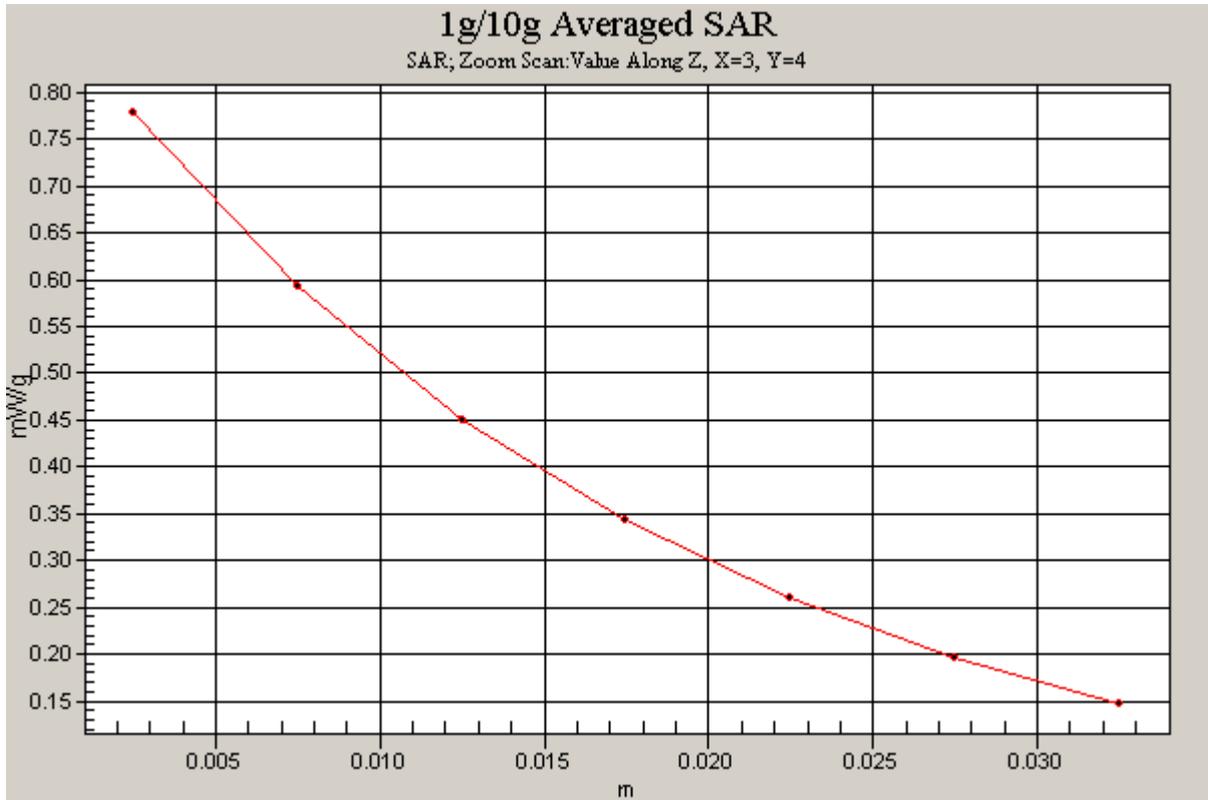


Figure 332 Z-Scan at power reference point (Body, Towards Ground, Open WCDMA Band V Channel 4233)

Date/Time: 12/29/2008 4:18:02 PM

### WCDMA Band V Towards Ground Middle Open

Communication System: WCDMA Band V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.986$  mho/m;  $\epsilon_r = 54.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground Middle/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.741 mW/g

**Towards Ground Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.6 V/m; Power Drift = 0.081 dB

Peak SAR (extrapolated) = 0.860 W/kg

**SAR(1 g) = 0.659 mW/g; SAR(10 g) = 0.483 mW/g**

Maximum value of SAR (measured) = 0.752 mW/g

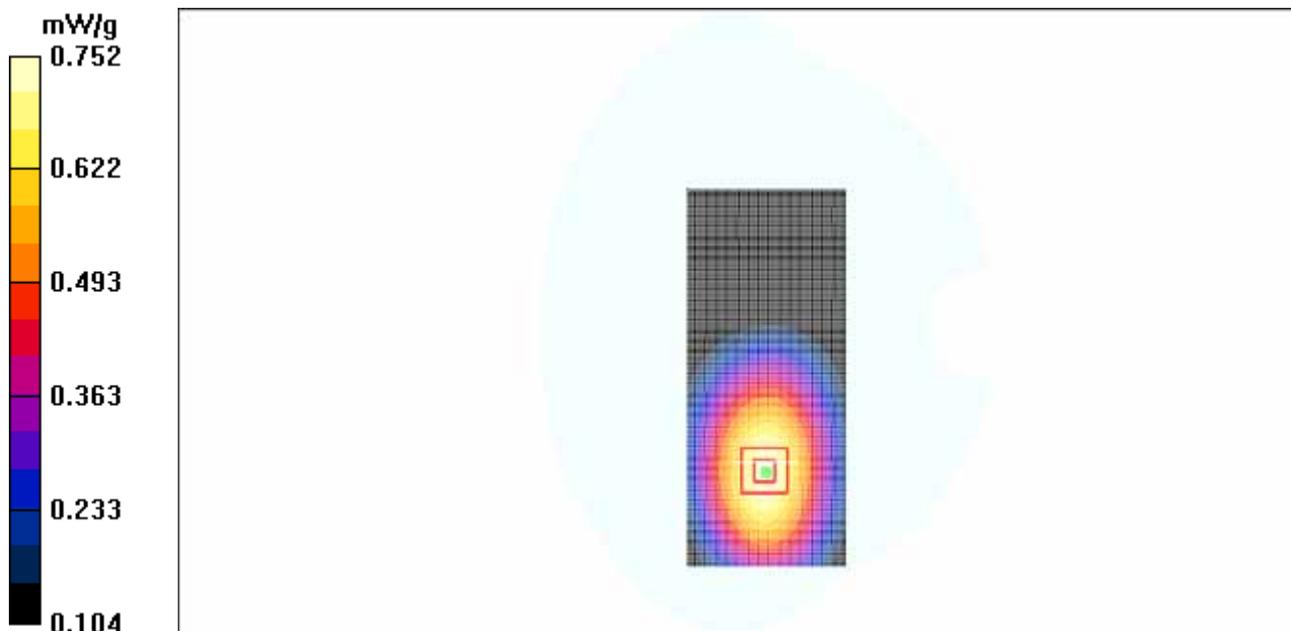


Figure 333 Body, Towards Ground, Open WCDMA Band V Channel 4182

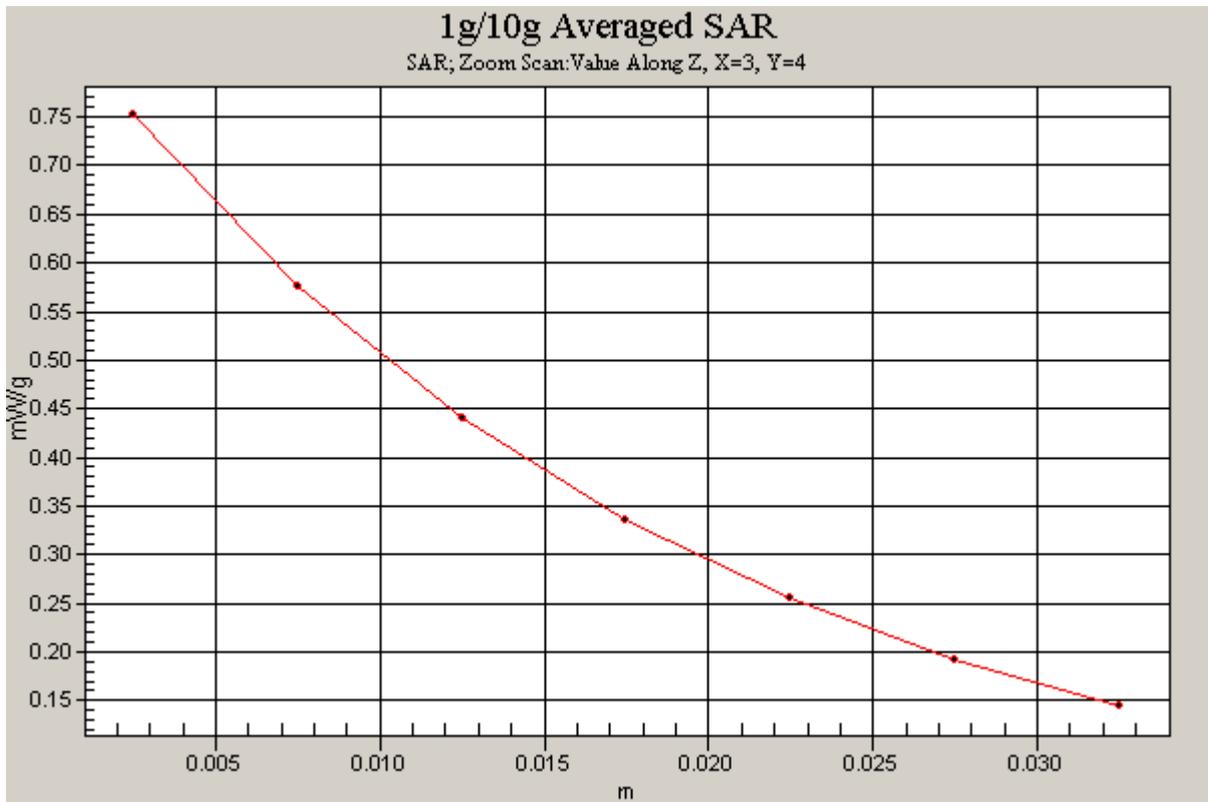


Figure 334 Z-Scan at power reference point (Body, Towards Ground, Open WCDMA Band V Channel 4182)

Date/Time: 12/29/2008 9:13:50 AM

### WCDMA Band V Towards Ground Low Open

Communication System: WCDMA Band V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 826.4$  MHz;  $\sigma = 0.974$  mho/m;  $\epsilon_r = 54.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground Low/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.759 mW/g

**Towards Ground Low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.1 V/m; Power Drift = 0.022 dB

Peak SAR (extrapolated) = 0.854 W/kg

**SAR(1 g) = 0.656 mW/g; SAR(10 g) = 0.485 mW/g**

Maximum value of SAR (measured) = 0.750 mW/g

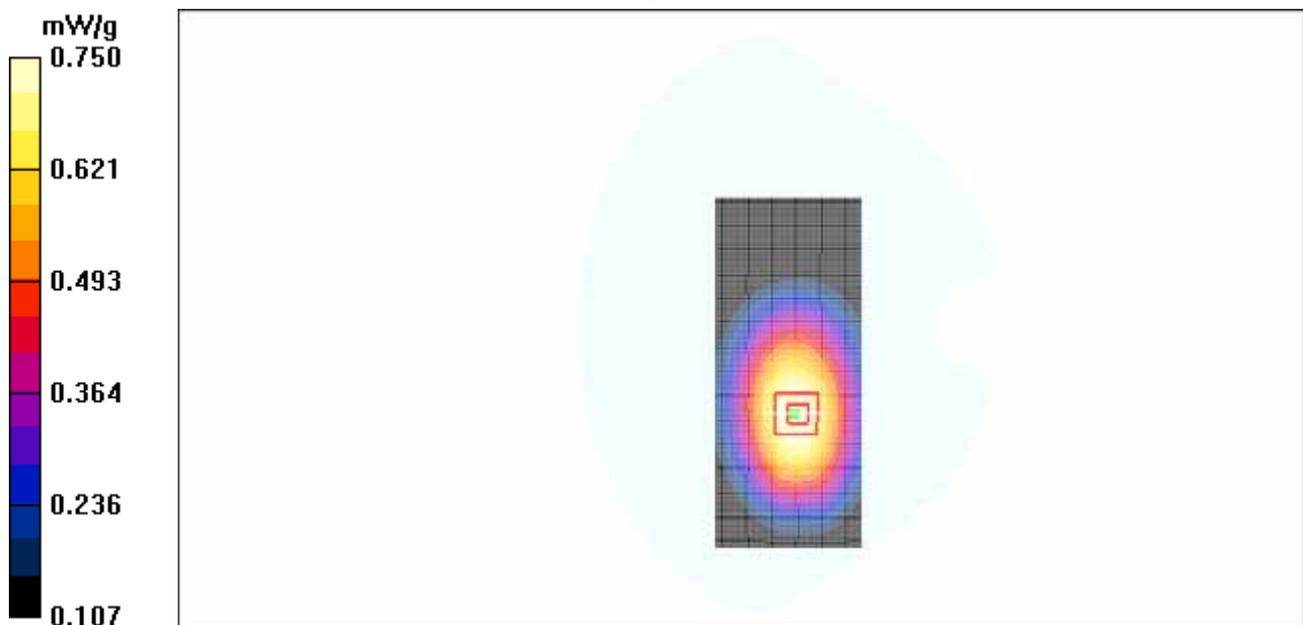


Figure 335 Body, Towards Ground, Open WCDMA Band V Channel 4132

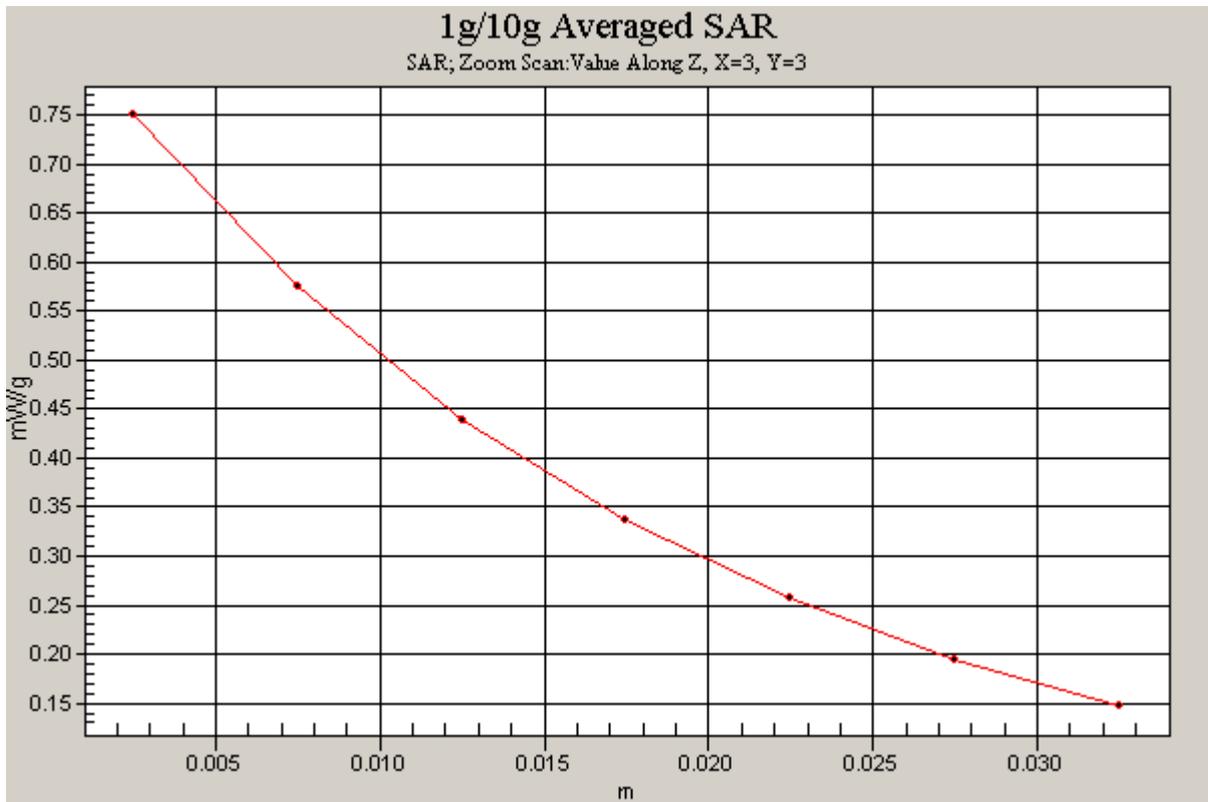


Figure 336 Z-Scan at power reference point (Body, Towards Ground, Open WCDMA Band V Channel 4132)

Date/Time: 12/29/2008 5:25:15 PM

### WCDMA Band V Towards Phantom High Open

Communication System: WCDMA Band V; Frequency: 846.6 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 847$  MHz;  $\sigma = 0.995$  mho/m;  $\epsilon_r = 54.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Phantom High/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.731 mW/g

**Towards Phantom High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.8 V/m; Power Drift = -0.024 dB

Peak SAR (extrapolated) = 0.833 W/kg

**SAR(1 g) = 0.628 mW/g; SAR(10 g) = 0.459 mW/g**

Maximum value of SAR (measured) = 0.729 mW/g

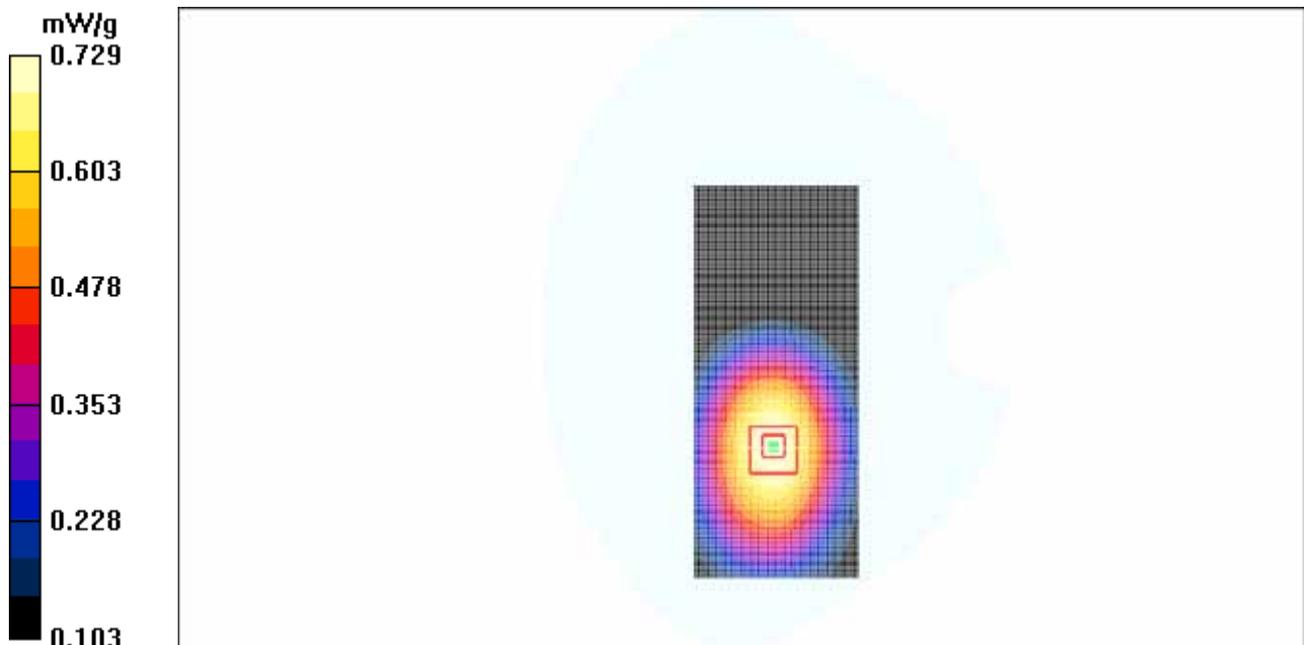


Figure 337 Body, Towards Phantom, Open WCDMA Band V Channel 4233

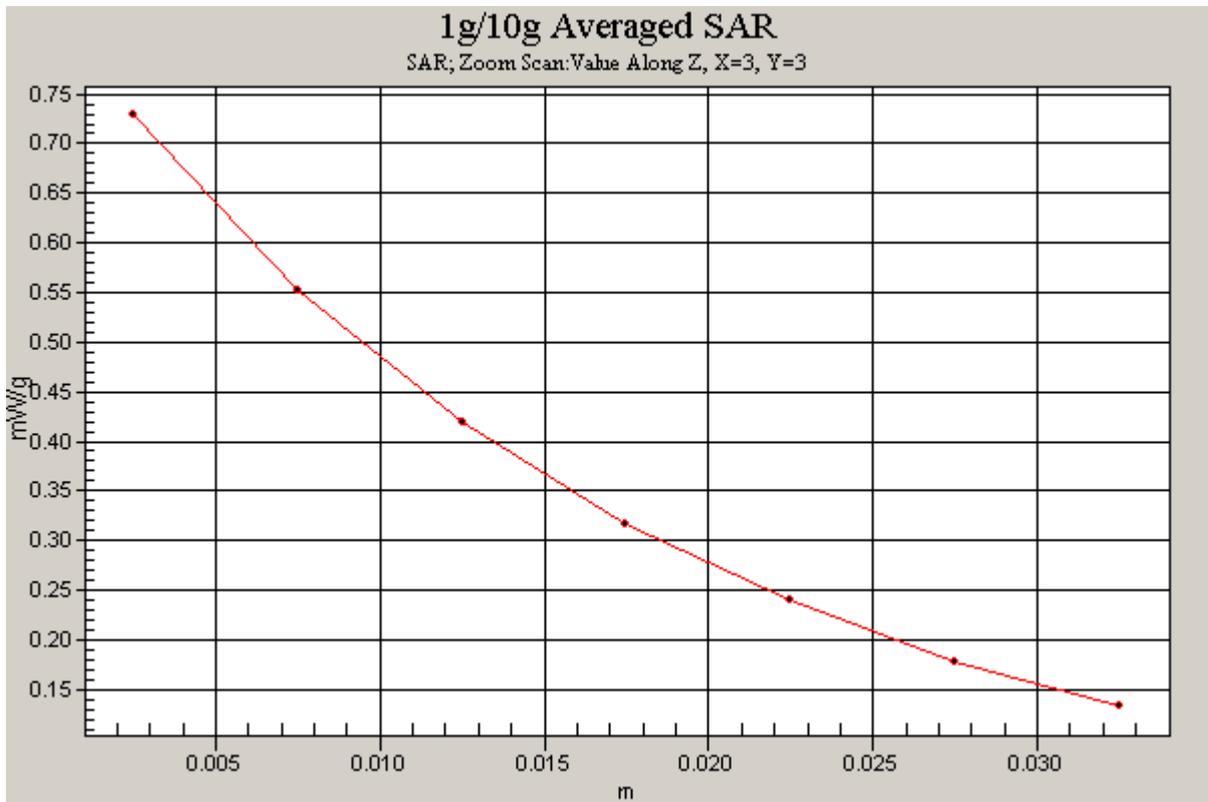


Figure 338 Z-Scan at power reference point (Body, Towards Phantom, Open WCDMA Band V Channel 4233)

Date/Time: 12/29/2008 5:44:39 PM

### WCDMA Band V Towards Phantom Middle Open

Communication System: WCDMA Band V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.986$  mho/m;  $\epsilon_r = 54.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Phantom Middle/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.673 mW/g

**Towards Phantom Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.0 V/m; Power Drift = -0.079 dB

Peak SAR (extrapolated) = 0.769 W/kg

**SAR(1 g) = 0.588 mW/g; SAR(10 g) = 0.432 mW/g**

Maximum value of SAR (measured) = 0.619 mW/g

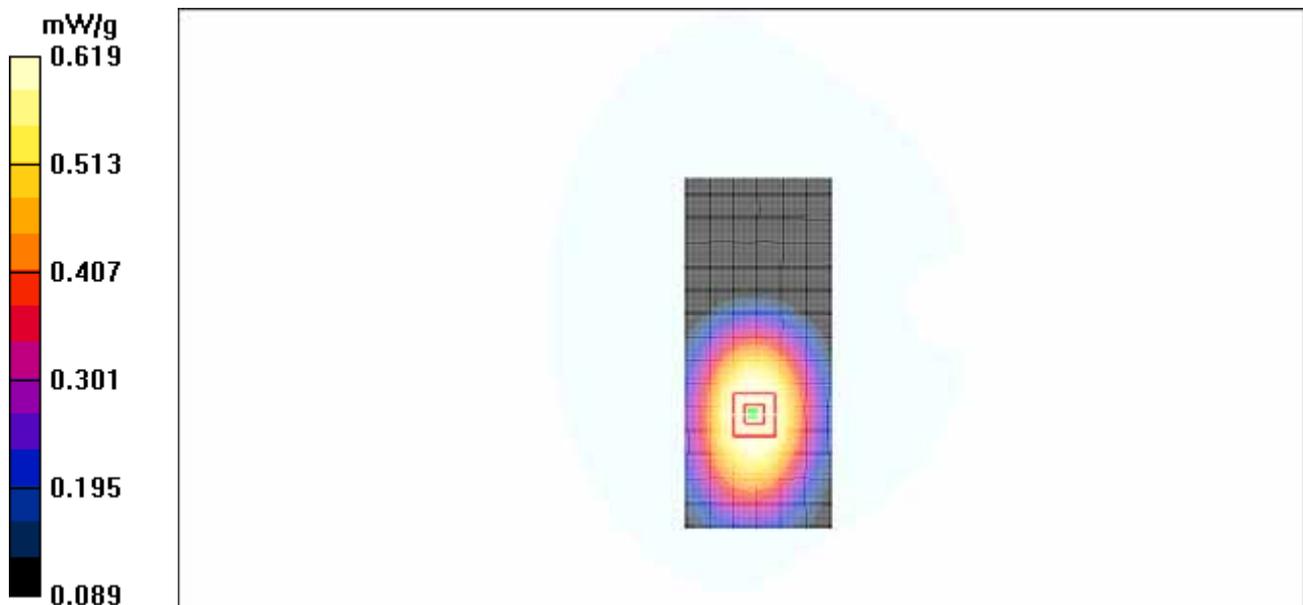


Figure 339 Body, Towards Phantom, Open WCDMA Band V Channel 4182

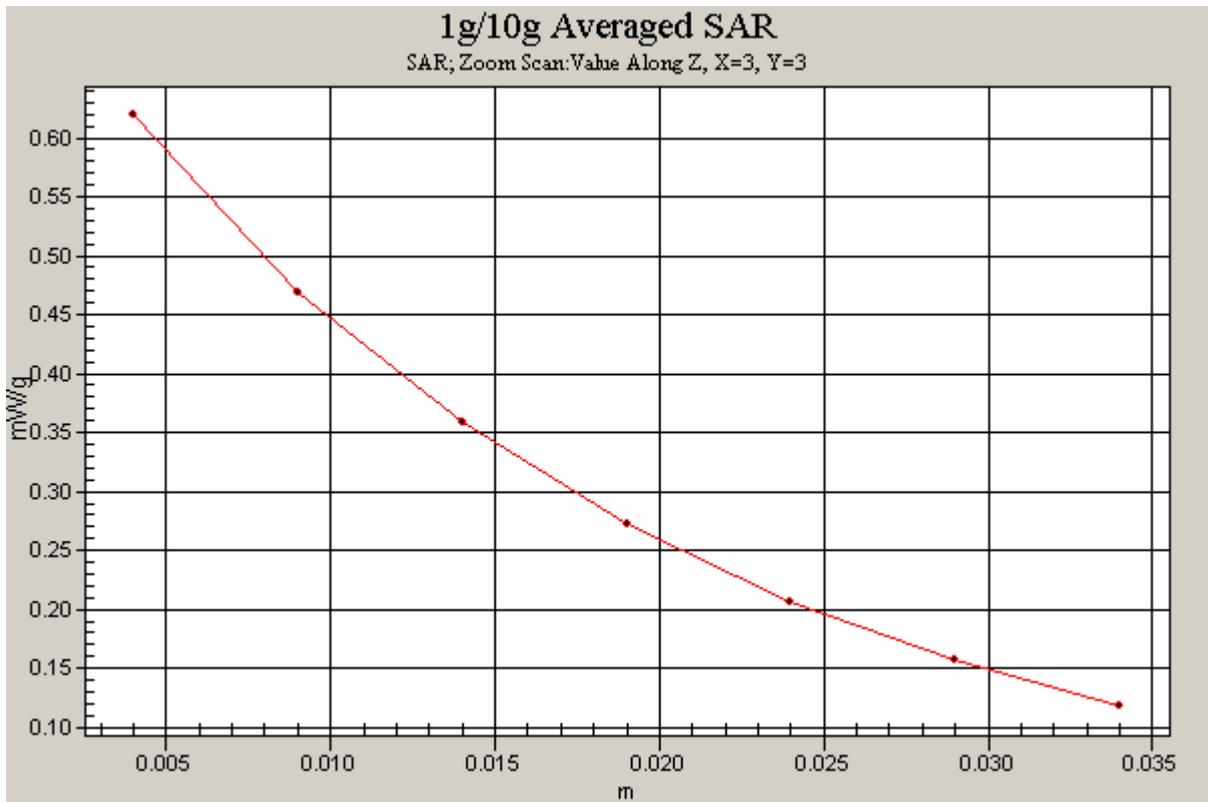


Figure 340 Z-Scan at power reference point (Body, Towards Phantom, Open WCDMA Band V Channel 4182)

Date/Time: 12/29/2008 6:04:03 PM

### WCDMA Band V Towards Phantom Low Open

Communication System: WCDMA Band V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 826.4$  MHz;  $\sigma = 0.974$  mho/m;  $\epsilon_r = 54.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Phantom Low/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.731 mW/g

**Towards Phantom Low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.6 V/m; Power Drift = -0.082 dB

Peak SAR (extrapolated) = 0.849 W/kg

**SAR(1 g) = 0.646 mW/g; SAR(10 g) = 0.474 mW/g**

Maximum value of SAR (measured) = 0.743 mW/g

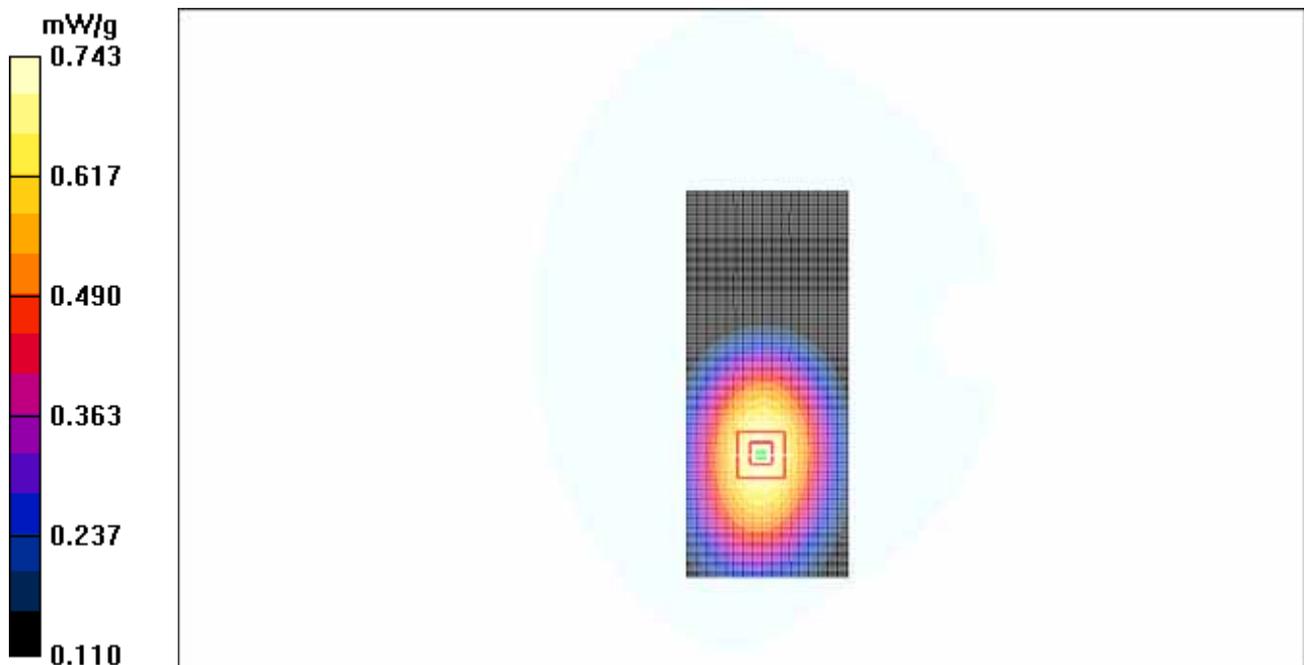


Figure 341 Body, Towards Phantom, Open WCDMA Band V Channel 4132

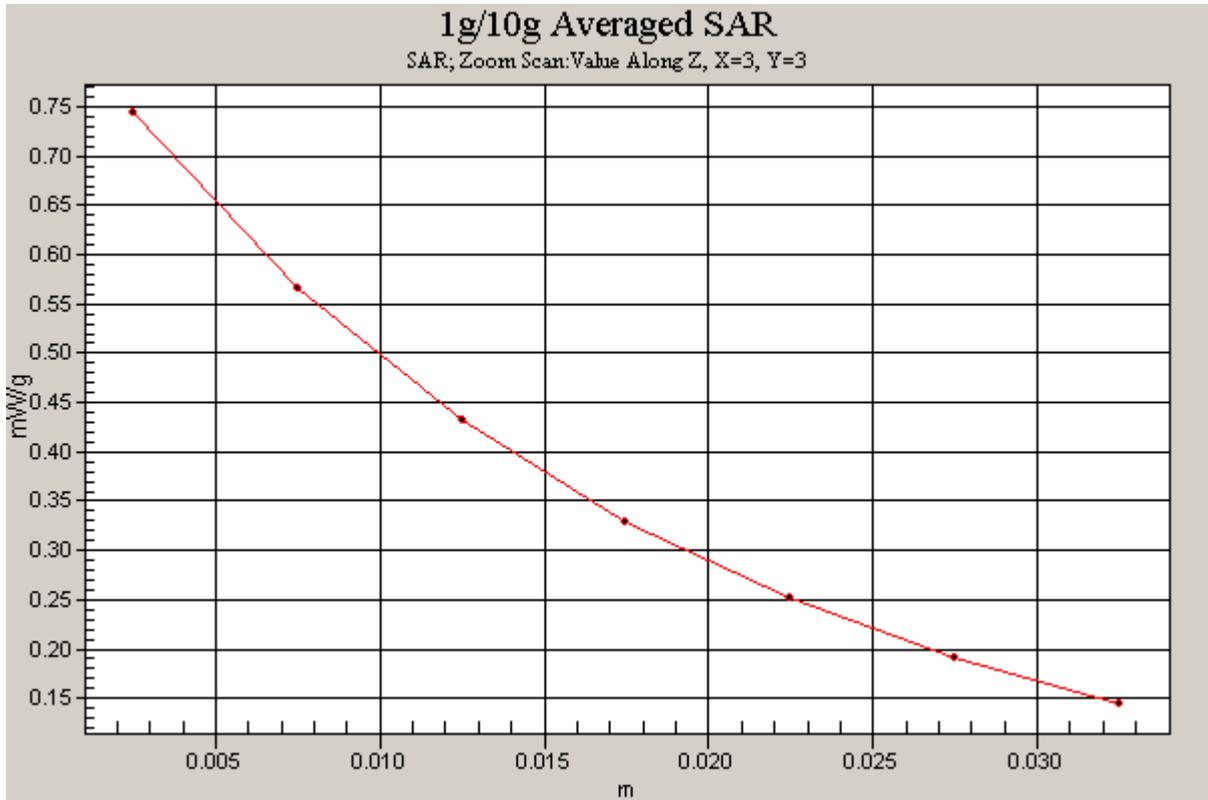


Figure 342 Z-Scan at power reference point (Body, Towards Ground, Open WCDMA Band V, Channel 4132)

Date/Time: 12/29/2008 6:04:03 PM

### WCDMA Band V Earphone Towards Ground High Open

Communication System: WCDMA Band V; Frequency: 846.6 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 847$  MHz;  $\sigma = 0.995$  mho/m;  $\epsilon_r = 54.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground High/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.517 mW/g

**Towards Ground High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.5 V/m; Power Drift = 0.002 dB

Peak SAR (extrapolated) = 0.591 W/kg

**SAR(1 g) = 0.453 mW/g; SAR(10 g) = 0.332 mW/g**

Maximum value of SAR (measured) = 0.518 mW/g

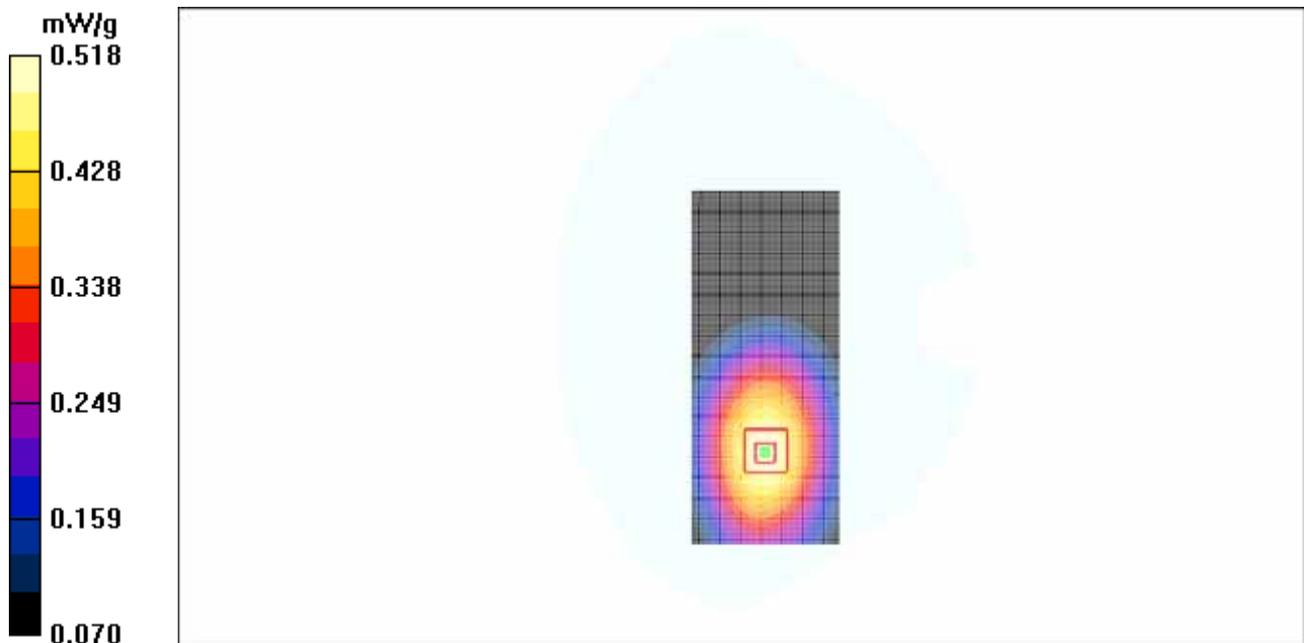


Figure 343 Body with Earphone, Towards Ground, Open WCDMA Band V, Channel 4233

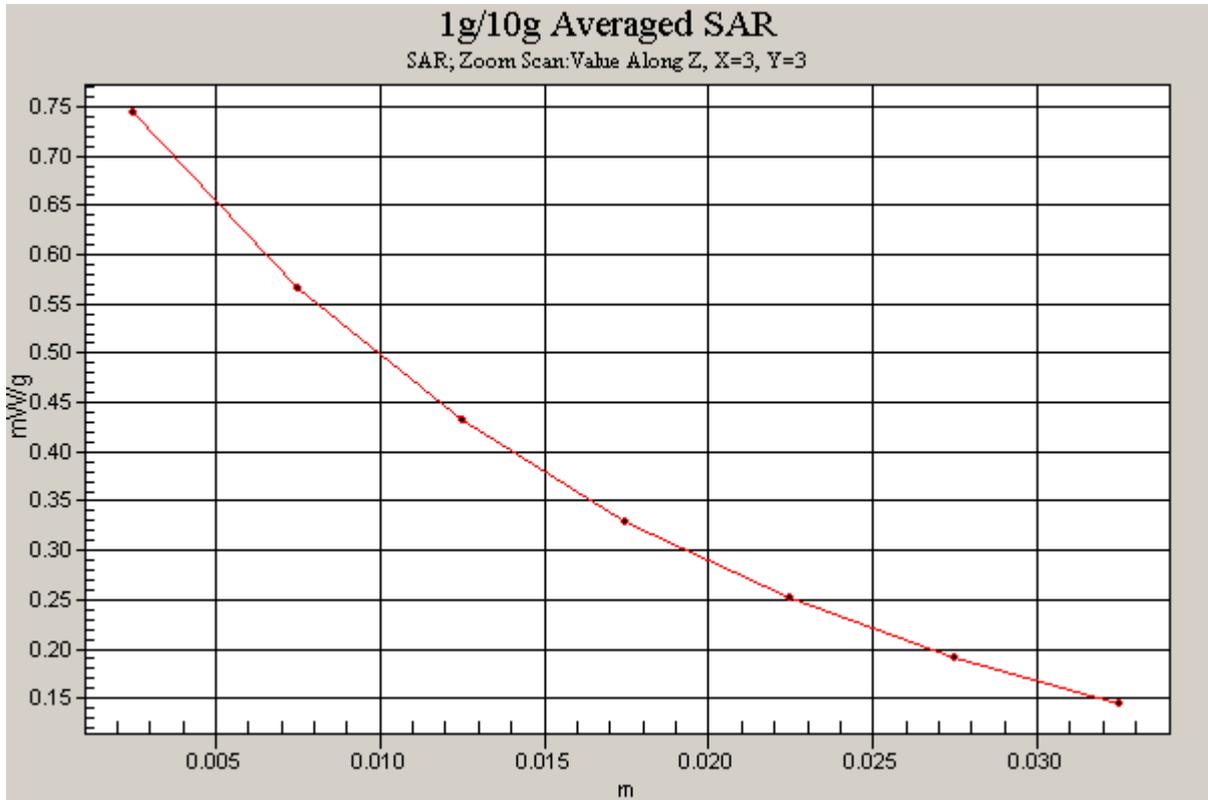


Figure 344 Z-Scan at power reference point (Body with Earphone, Towards Ground, Open WCDMA Band V, Channel 4233)

Date/Time: 1/5/2009 10:33:54 AM

### WCDMA Band V Bluetooth Earphone Towards Ground High Open

Communication System: WCDMA Band V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 847$  MHz;  $\sigma = 0.995$  mho/m;  $\epsilon_r = 54.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground High/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.707 mW/g

**Towards Ground High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.6 V/m; Power Drift = -0.098 dB

Peak SAR (extrapolated) = 0.806 W/kg

**SAR(1 g) = 0.612 mW/g; SAR(10 g) = 0.448 mW/g**

Maximum value of SAR (measured) = 0.700 mW/g

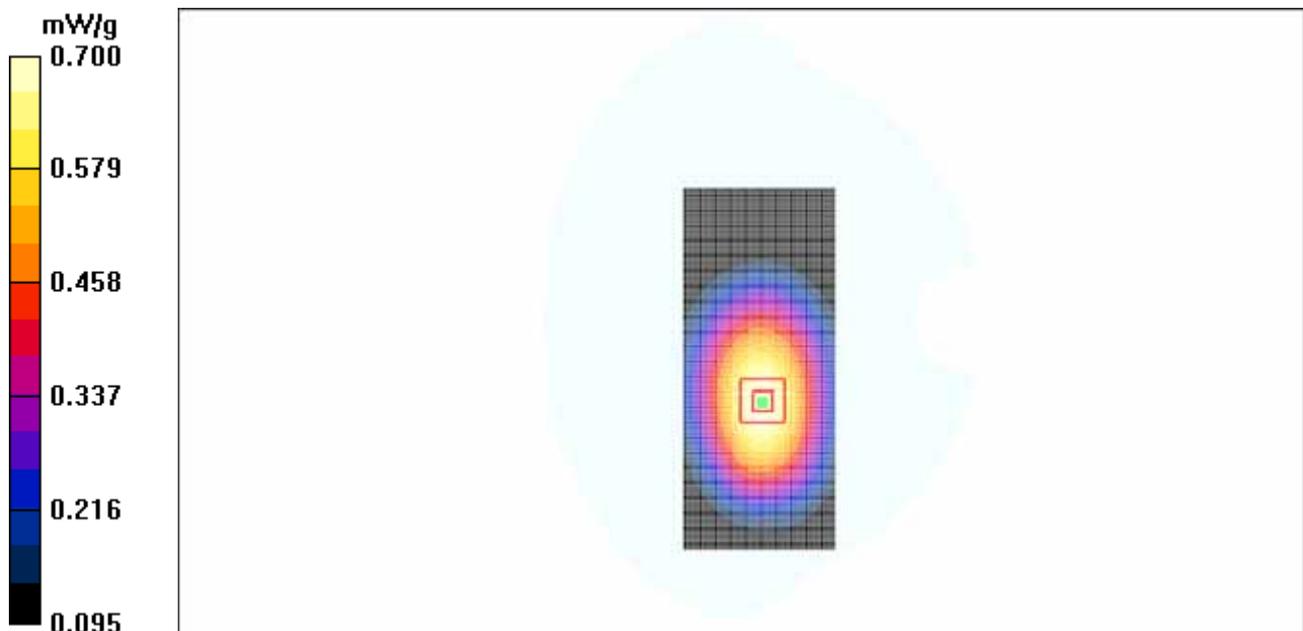


Figure 345 Body with Bluetooth Earphone, Towards Ground, Open WCDMA Band V, Channel 4233

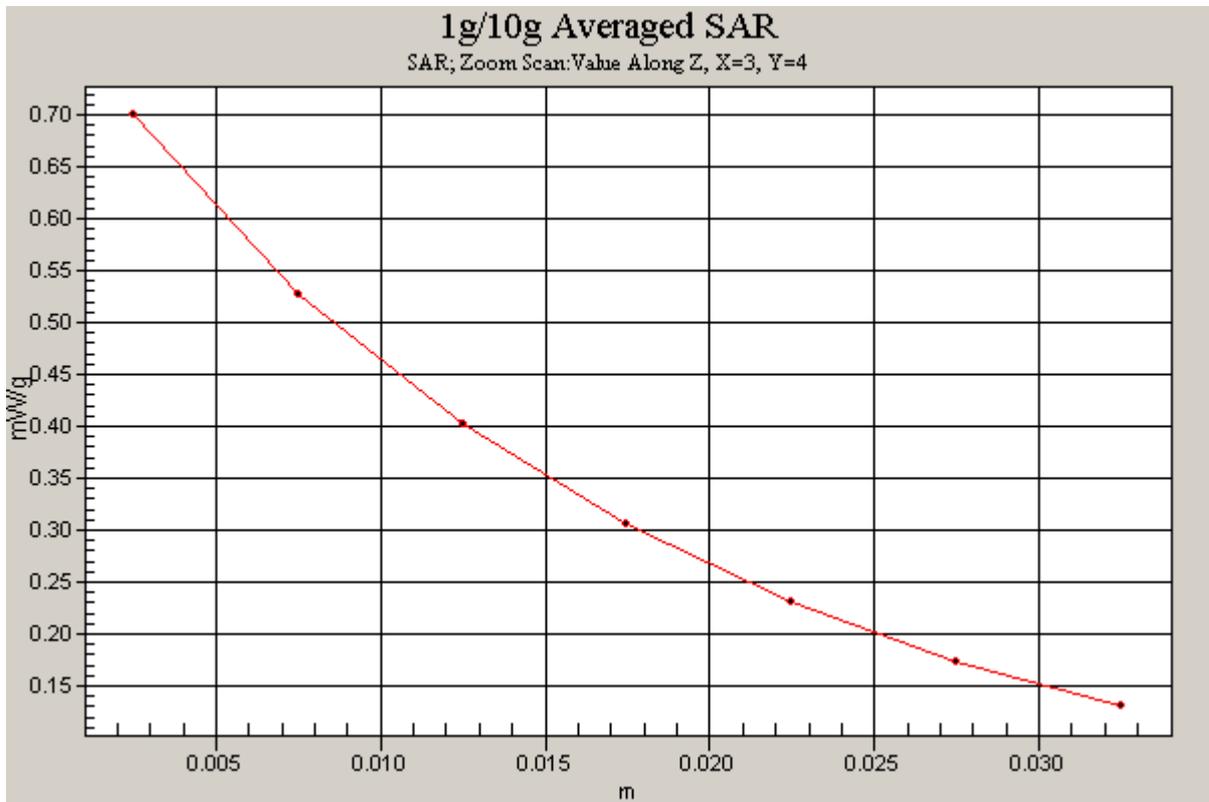


Figure 346 Z-Scan at power reference point (Body with Bluetooth Earphone, Towards Ground, Open WCDMA Band V, Channel 4233)

Date/Time: 12/31/2008 5:34:42 PM

### WCDMA Band V HSDPA Towards Ground High Open

Communication System: WCDMA Band V+HSDPA; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 847$  MHz;  $\sigma = 0.995$  mho/m;  $\epsilon_r = 54.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground High/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.776 mW/g

**Towards Ground High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.4 V/m; Power Drift = -0.131 dB

Peak SAR (extrapolated) = 0.869 W/kg

**SAR(1 g) = 0.669 mW/g; SAR(10 g) = 0.492 mW/g**

Maximum value of SAR (measured) = 0.762 mW/g

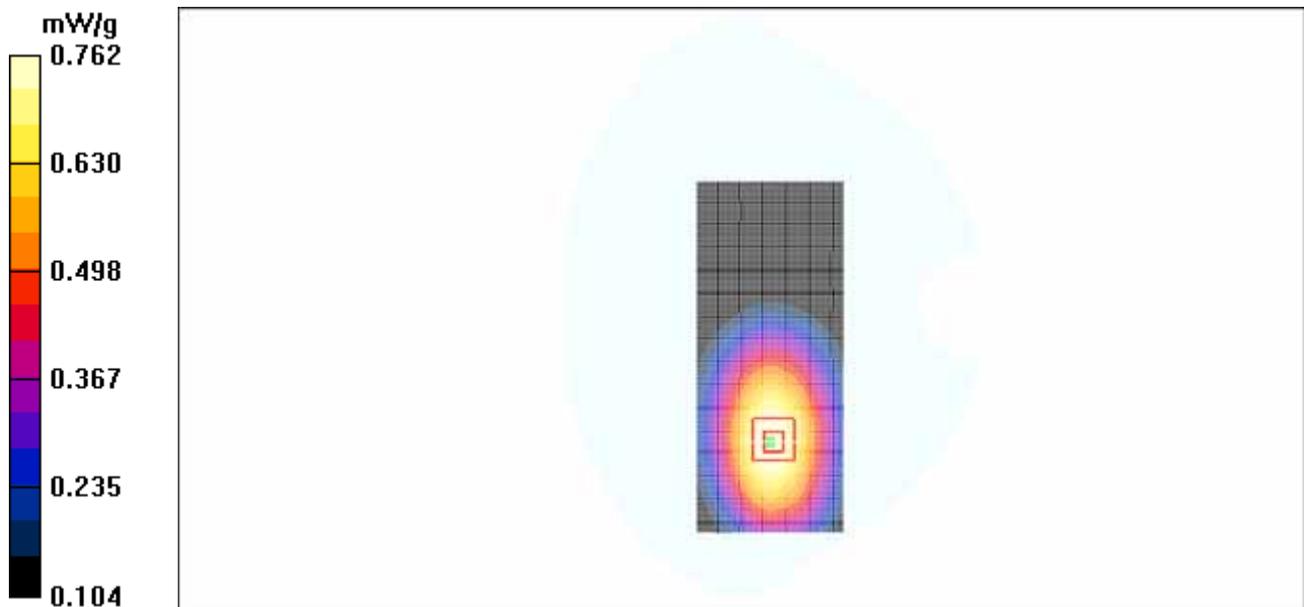


Figure 347 Body, Towards Ground, Open WCDMA Band V HSDPA Channel 4233

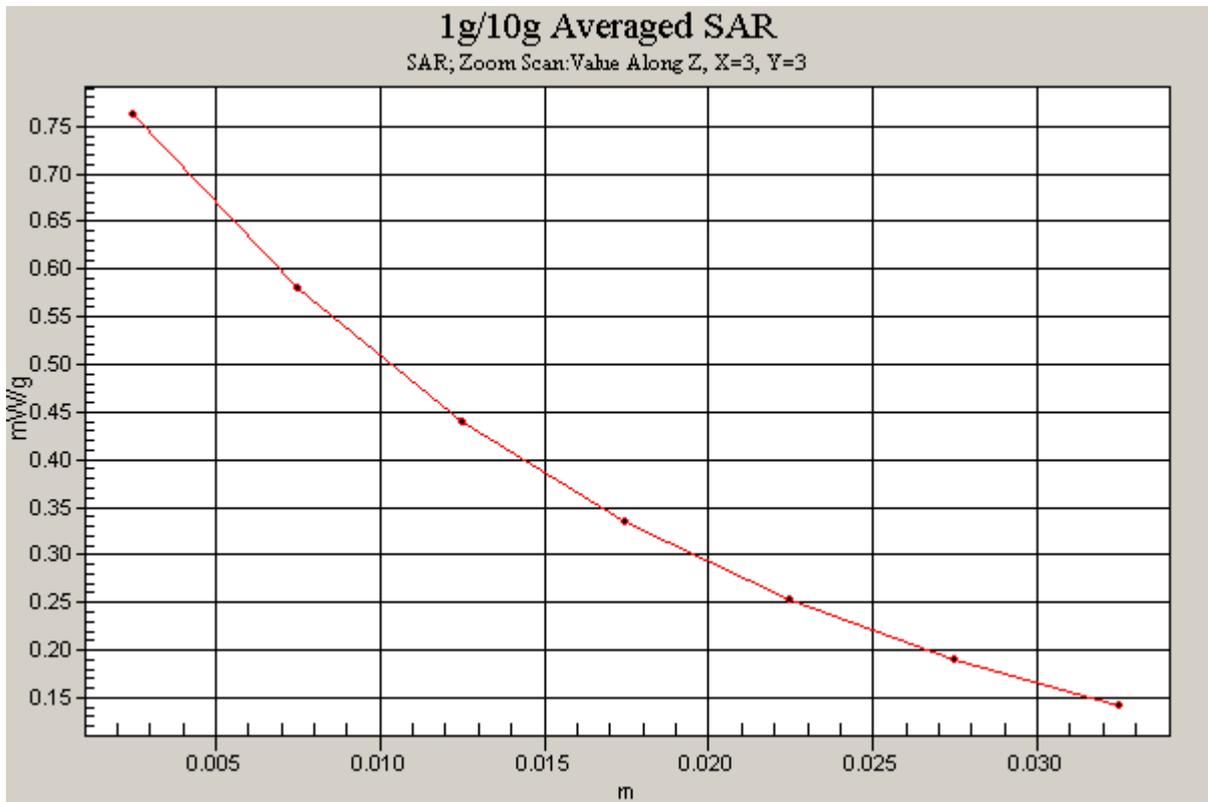


Figure 348 Z-Scan at power reference point (Body, Towards Ground, Open WCDMA Band V HSDPA Channel 4233)

Date/Time: 12/27/2008 3:53:49 PM

### WCDMA Band V Left Cheek High Close

Communication System: WCDMA Band V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 847$  MHz;  $\sigma = 0.899$  mho/m;  $\epsilon_r = 41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek High/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.214 mW/g

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

Reference Value = 5.09 V/m; Power Drift = 0.024 dB

Peak SAR (extrapolated) = 0.303 W/kg

**SAR(1 g) = 0.187 mW/g; SAR(10 g) = 0.119 mW/g**

Maximum value of SAR (measured) = 0.235 mW/g

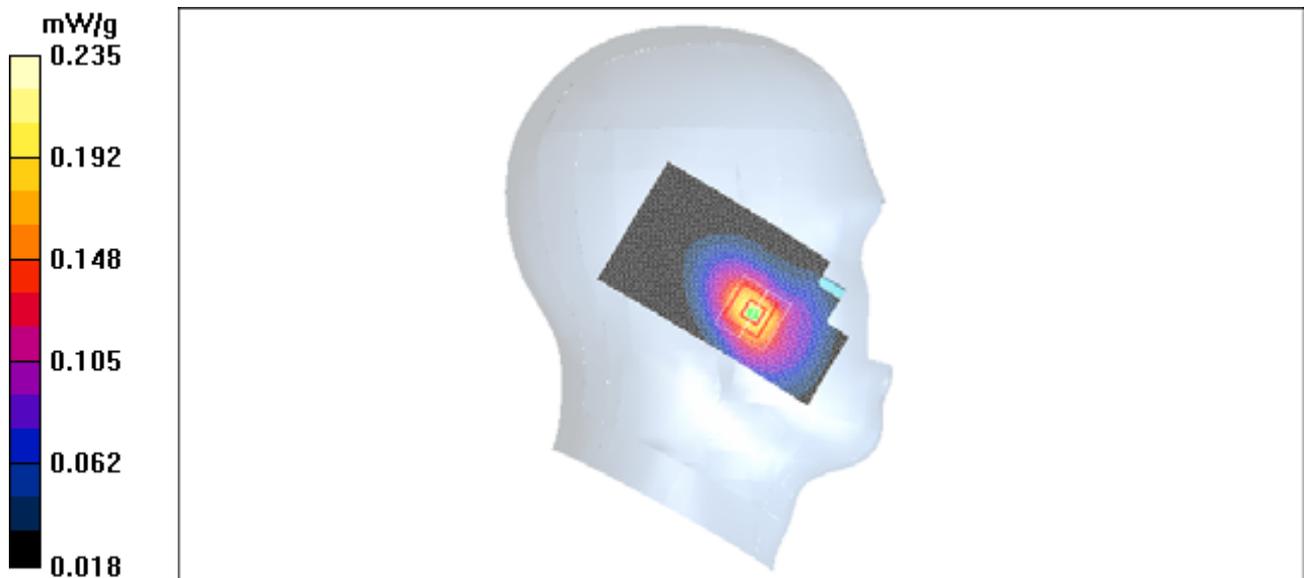


Figure 349 Left Hand Touch Cheek Close WCDMA Band V Channel 4233

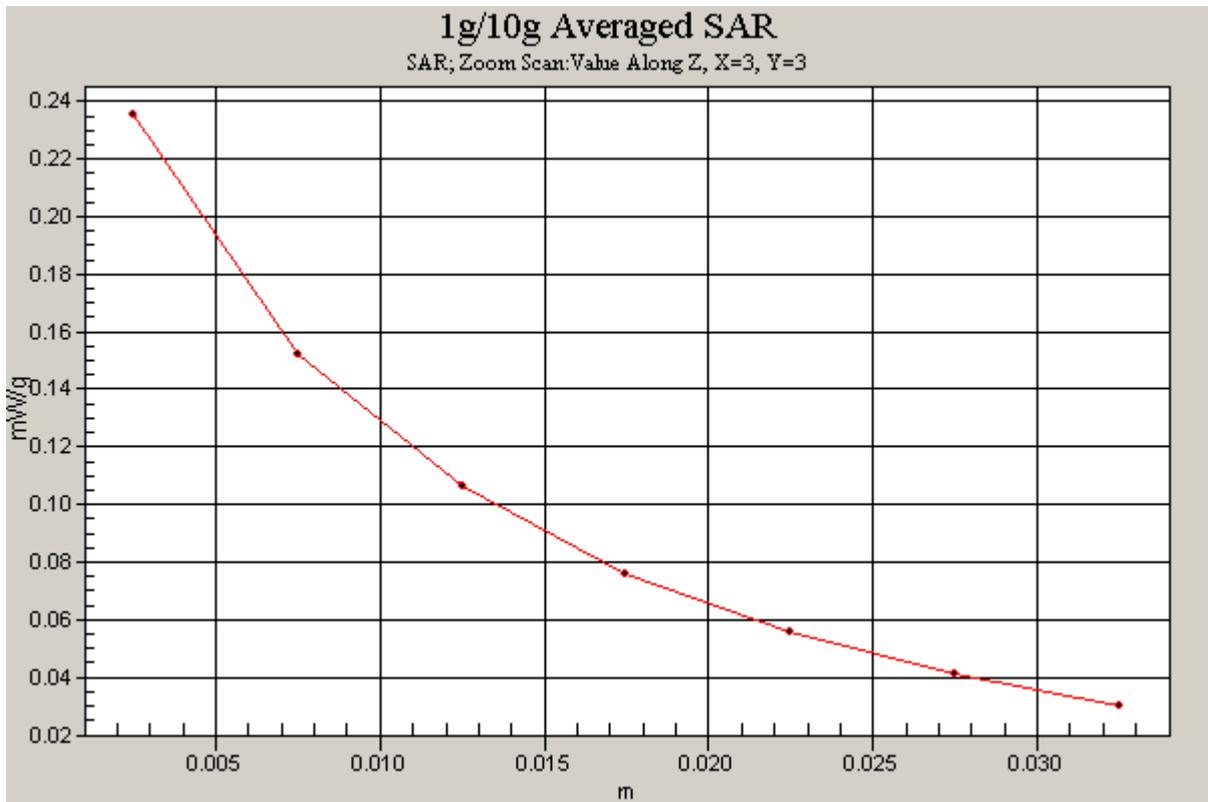


Figure 350 Z-Scan at power reference point (Left Hand Touch Cheek Close WCDMA Band V Channel 4233)

Date/Time: 12/27/2008 4:13:59 PM

### WCDMA Band V Left Cheek Middle Close

Communication System: WCDMA Band V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.888$  mho/m;  $\epsilon_r = 41.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.354 mW/g

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

Reference Value = 6.50 V/m; Power Drift = -0.163 dB

Peak SAR (extrapolated) = 0.481 W/kg

**SAR(1 g) = 0.301 mW/g; SAR(10 g) = 0.194 mW/g**

Maximum value of SAR (measured) = 0.378 mW/g

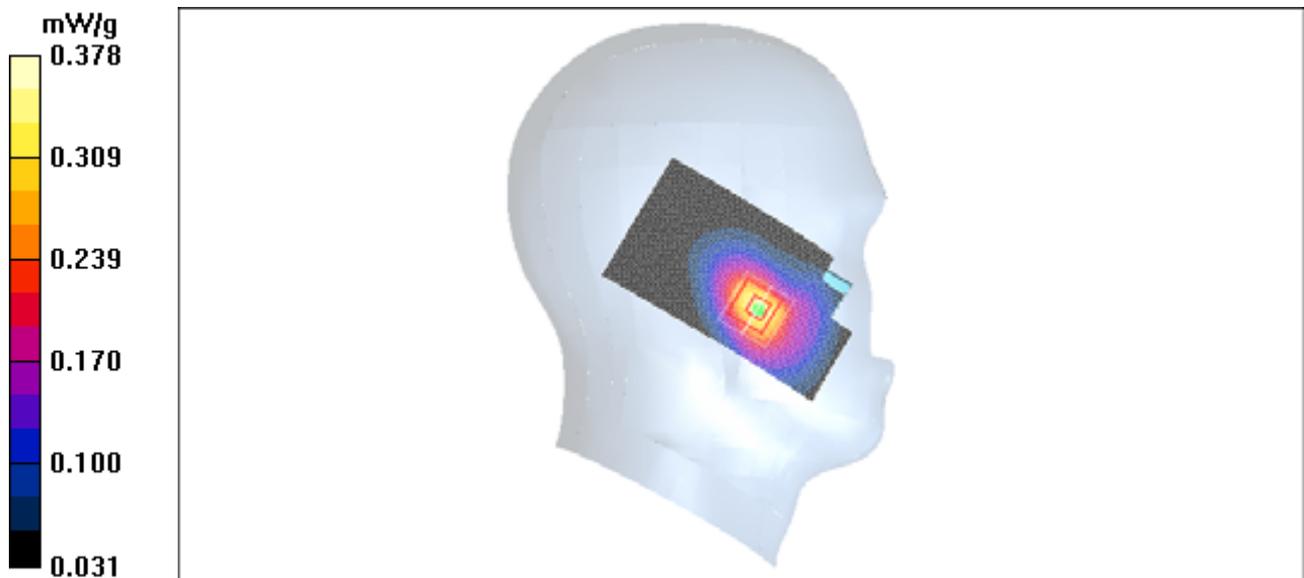


Figure 351 Left Hand Touch Cheek Close WCDMA Band V Channel 4182

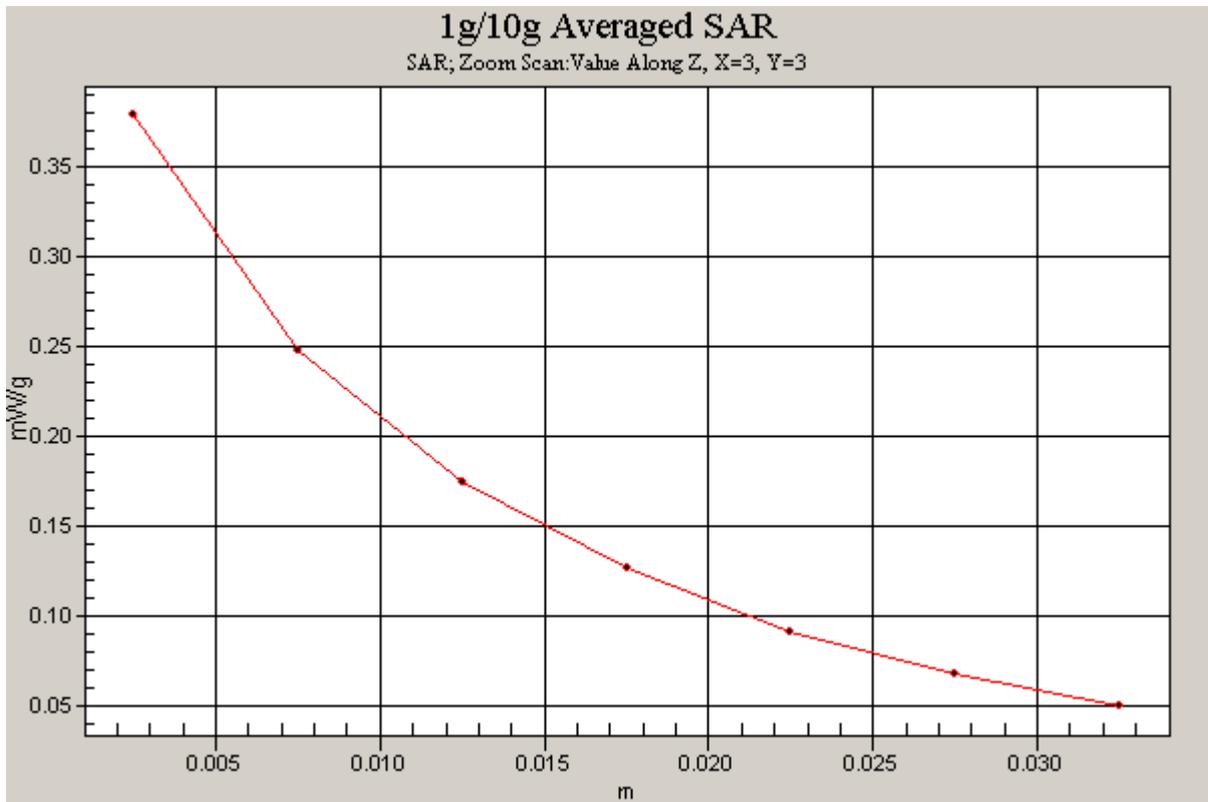


Figure 352 Z-Scan at power reference point (Left Hand Touch Cheek Close WCDMA Band V Channel 4182)

Date/Time: 12/27/2008 4:33:05 PM

### WCDMA Band V Left Cheek Low Close

Communication System: WCDMA Band V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 826.4$  MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek Low/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.207 mW/g

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

Reference Value = 4.81 V/m; Power Drift = 0.152 dB

Peak SAR (extrapolated) = 0.278 W/kg

**SAR(1 g) = 0.179 mW/g; SAR(10 g) = 0.117 mW/g**

Maximum value of SAR (measured) = 0.219 mW/g

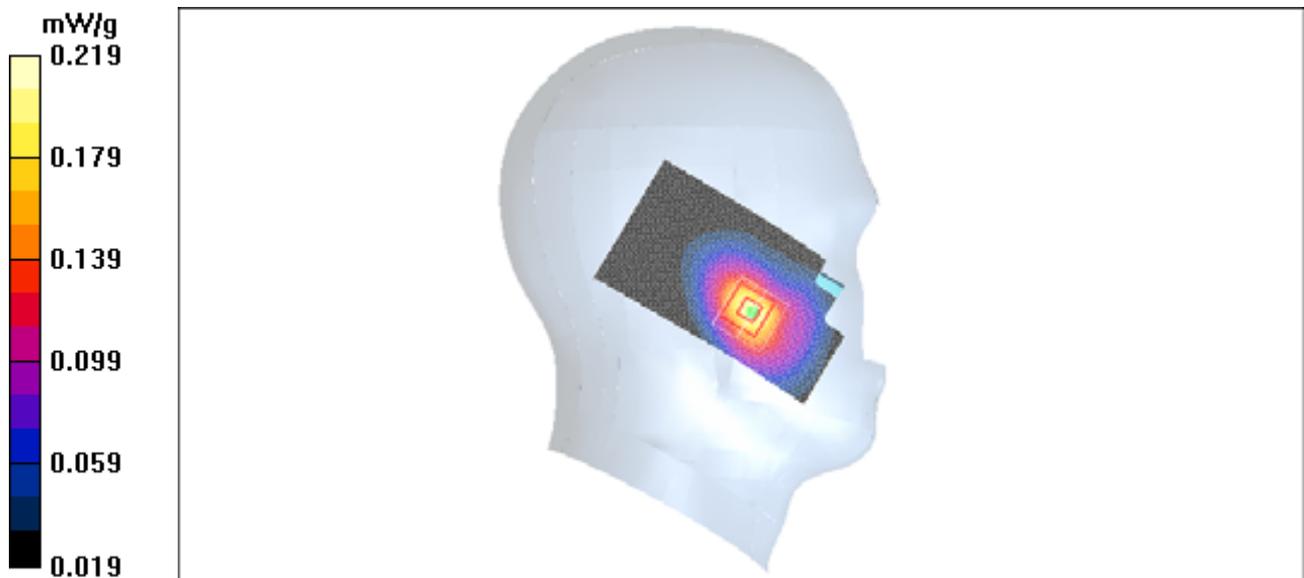


Figure 353 Left Hand Touch Cheek Close WCDMA Band V Channel 4132

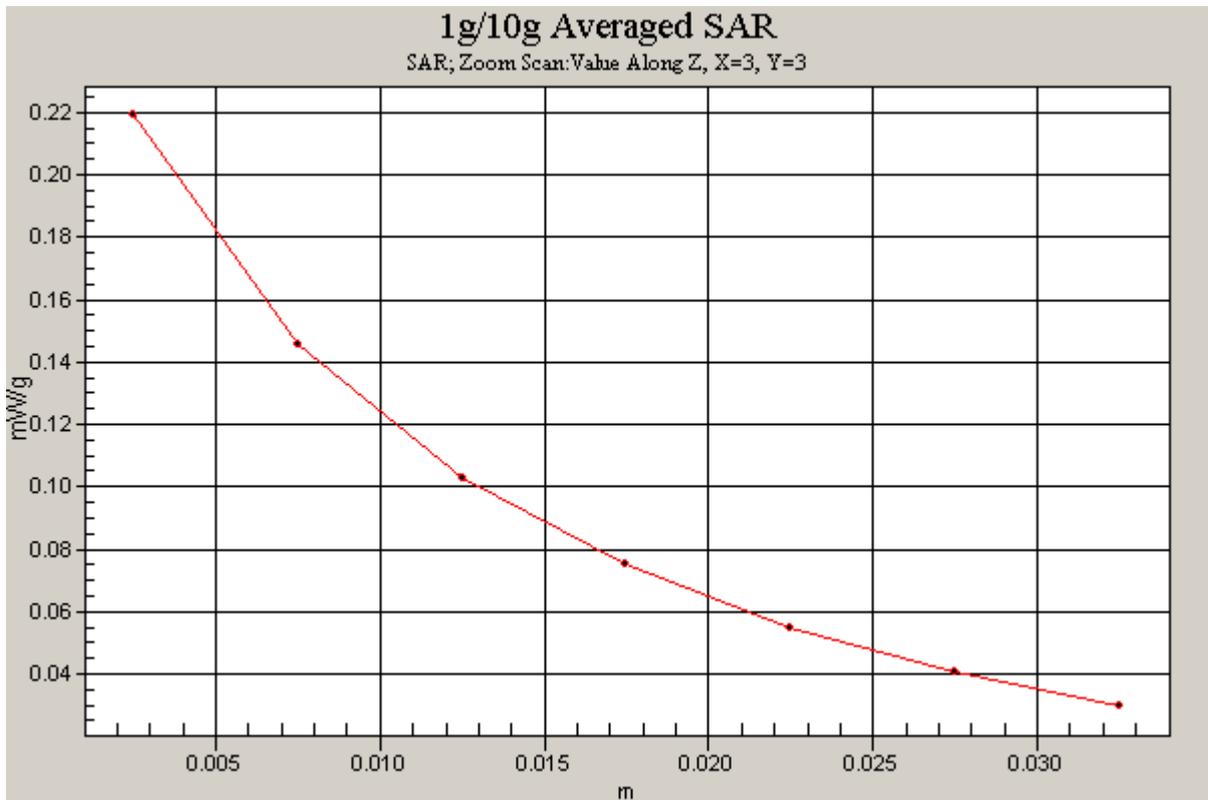


Figure 354 Z-Scan at power reference point (Left Hand Touch Cheek Close WCDMA Band V Channel 4132)

Date/Time: 12/27/2008 5:35:17 PM

### WCDMA Band V Left Tilt High Close

Communication System: WCDMA Band V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 847$  MHz;  $\sigma = 0.899$  mho/m;  $\epsilon_r = 41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt High/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.108 mW/g

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

Reference Value = 7.73 V/m; Power Drift = 0.187 dB

Peak SAR (extrapolated) = 0.126 W/kg

**SAR(1 g) = 0.095 mW/g; SAR(10 g) = 0.069 mW/g**

Maximum value of SAR (measured) = 0.109 mW/g

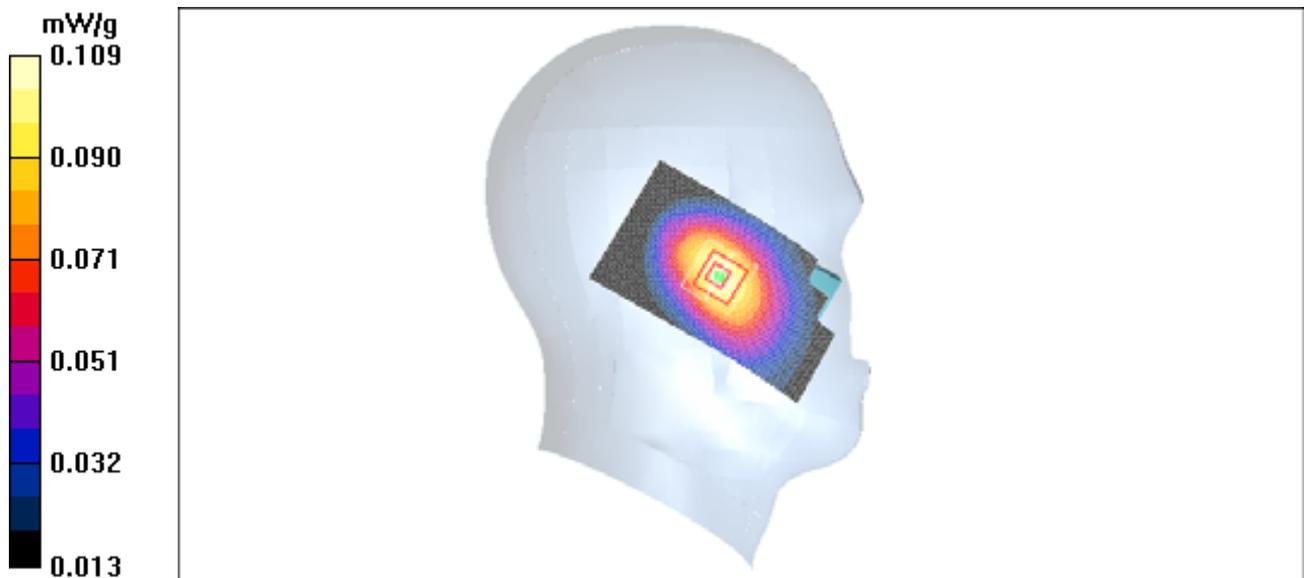


Figure 355 Left Hand Tilt 15°Close WCDMA Band V Channel 4233

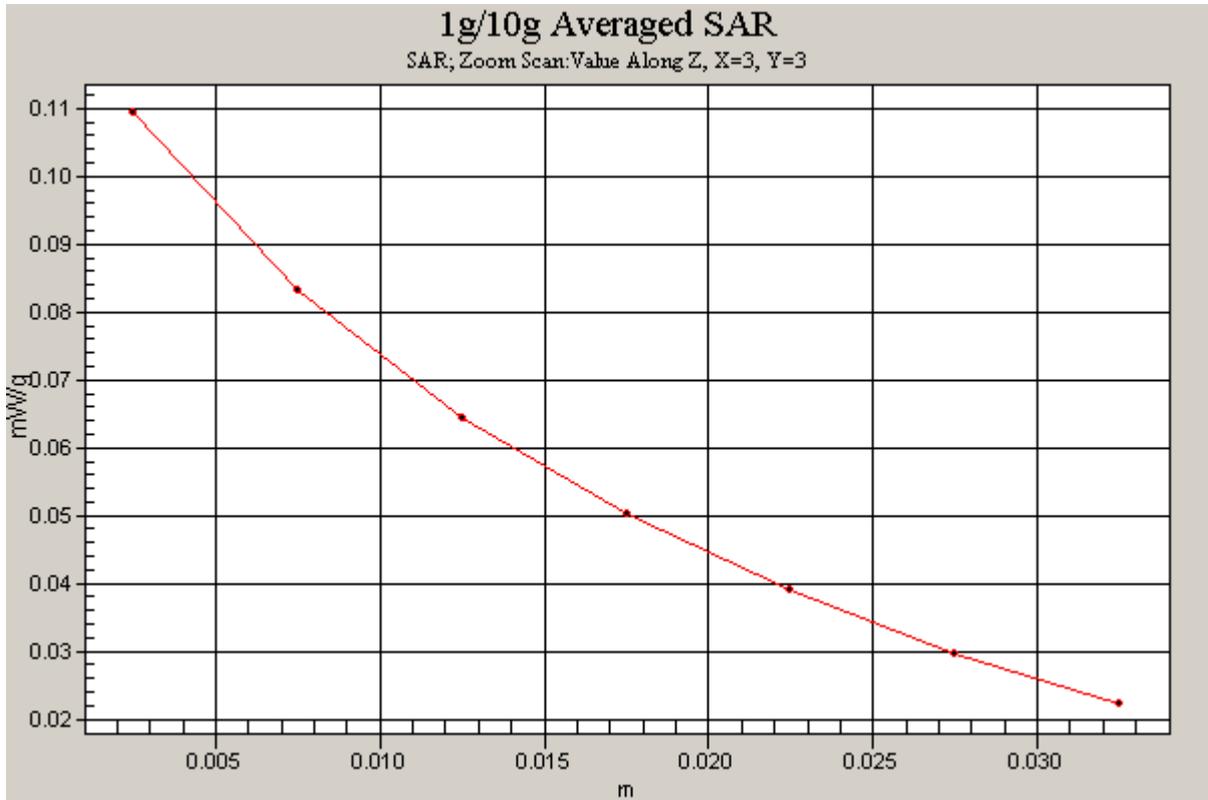


Figure 356 Z-Scan at power reference point (Left Hand Tilt 15° Close WCDMA Band V Channel 4233)

Date/Time: 12/27/2008 5:17:02 PM

### WCDMA Band V Left Tilt Middle Close

Communication System: WCDMA Band V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.888$  mho/m;  $\epsilon_r = 41.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.194 mW/g

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

Reference Value = 10.4 V/m; Power Drift = -0.093 dB

Peak SAR (extrapolated) = 0.218 W/kg

**SAR(1 g) = 0.167 mW/g; SAR(10 g) = 0.122 mW/g**

Maximum value of SAR (measured) = 0.190 mW/g

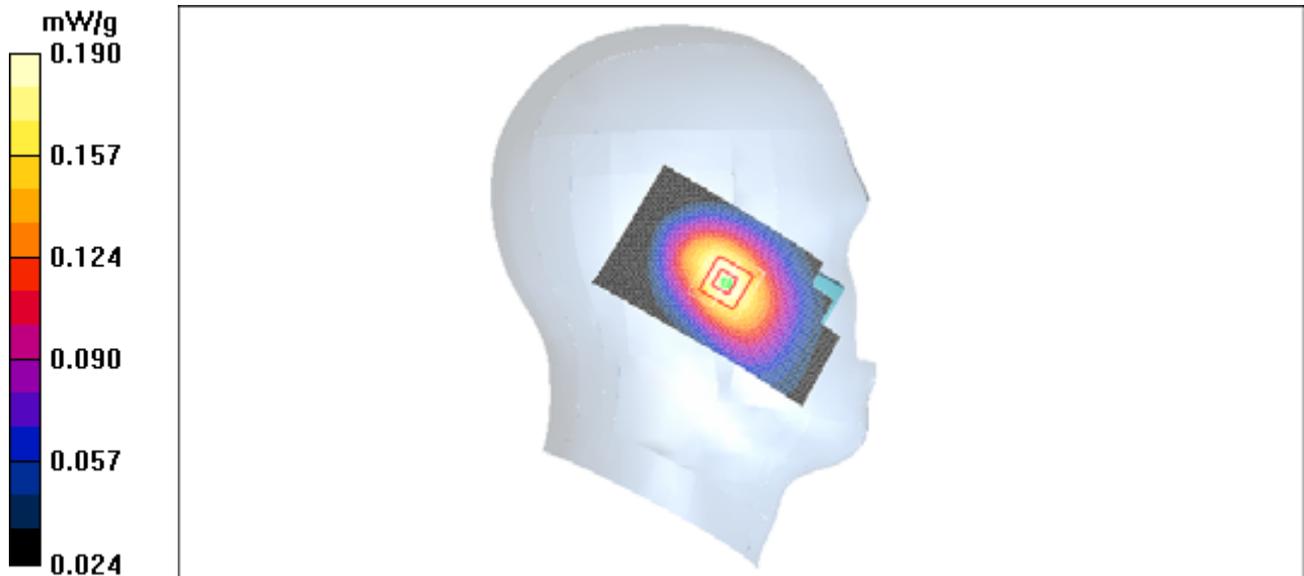


Figure 357 Left Hand Tilt 15°Close WCDMA Band V Channel 4182

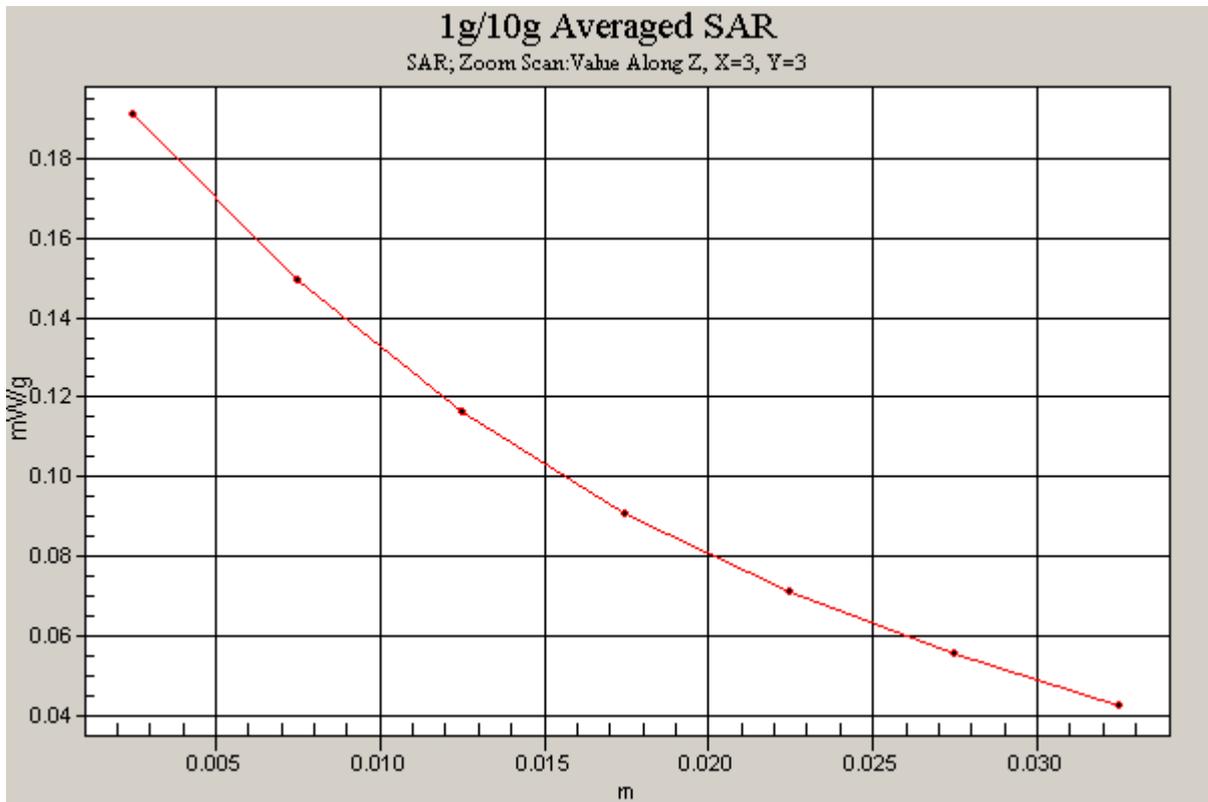


Figure 358 Z-Scan at power reference point (Left Hand Tilt 15° Close WCDMA Band V Channel 4182)

Date/Time: 12/27/2008 4:58:49 PM

### WCDMA Band V Left Tilt Low Close

Communication System: WCDMA Band V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 826.4$  MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt Low/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.121 mW/g

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

Reference Value = 8.29 V/m; Power Drift = 0.113 dB

Peak SAR (extrapolated) = 0.133 W/kg

**SAR(1 g) = 0.101 mW/g; SAR(10 g) = 0.075 mW/g**

Maximum value of SAR (measured) = 0.116 mW/g

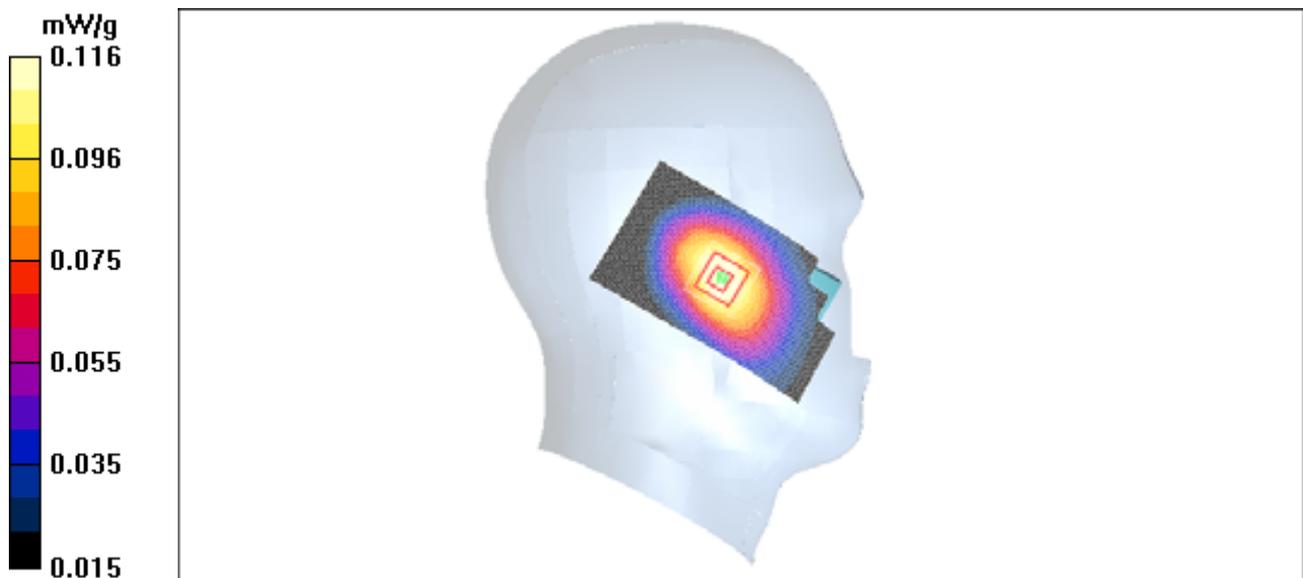


Figure 359 Left Hand Tilt 15° Close WCDMA Band V Channel 4132

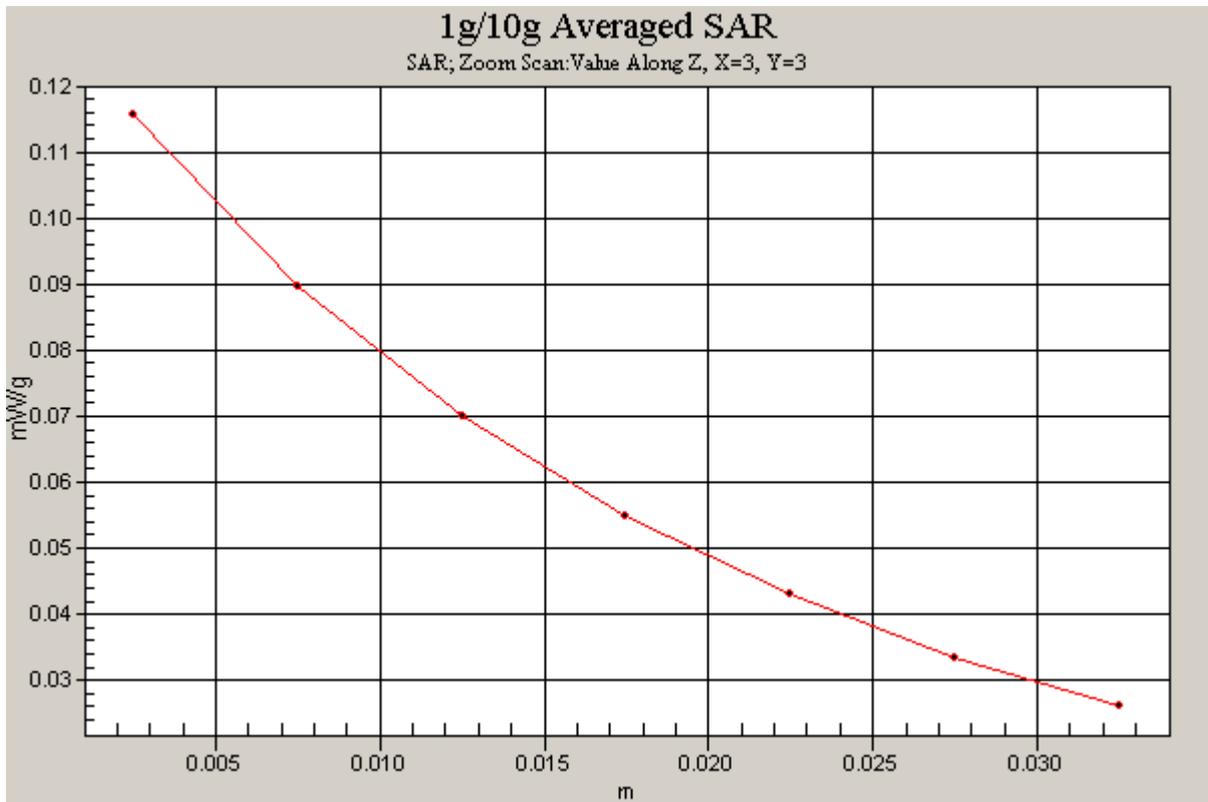


Figure 360 Z-Scan at power reference point (Left Hand Tilt 15° Close WCDMA Band V Channel 4132)

Date/Time: 12/29/2008 1:04:08 AM

### WCDMA Band V Right Cheek High Close

Communication System: WCDMA Band V; Frequency: 846.6 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 847$  MHz;  $\sigma = 0.899$  mho/m;  $\epsilon_r = 41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek High/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.188 mW/g

**Cheek High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 5.20 V/m; Power Drift = -0.104 dB  
Peak SAR (extrapolated) = 0.230 W/kg  
**SAR(1 g) = 0.155 mW/g; SAR(10 g) = 0.105 mW/g**  
Maximum value of SAR (measured) = 0.189 mW/g

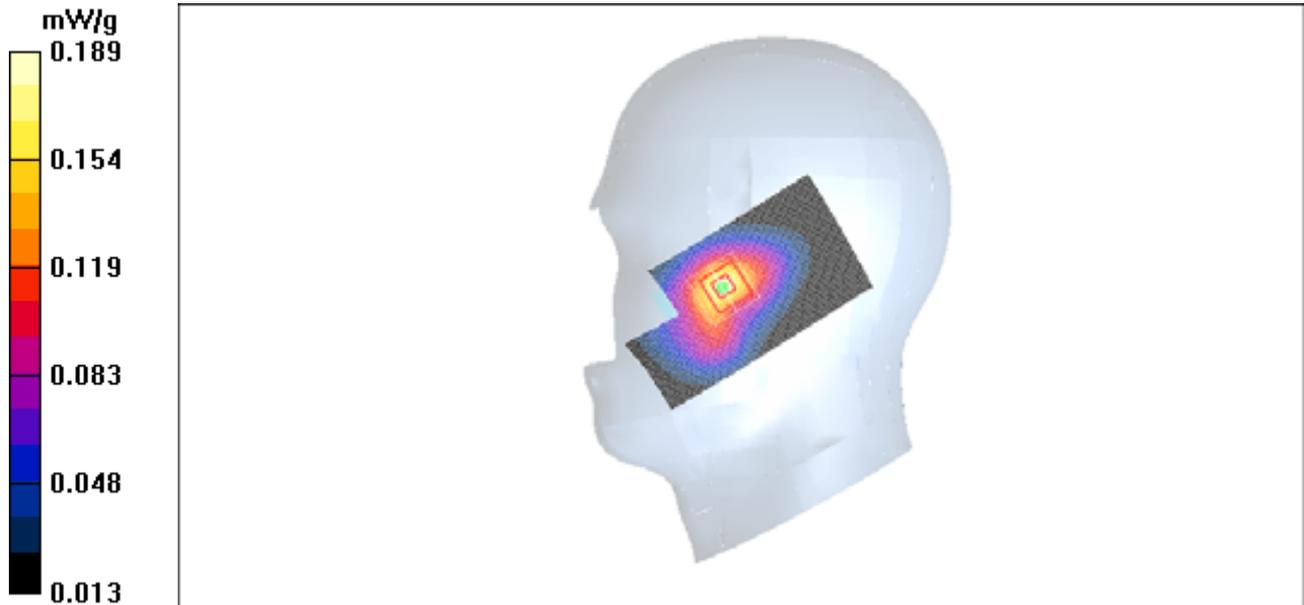


Figure 361 Right Hand Touch Cheek Close WCDMA Band V Channel 4233

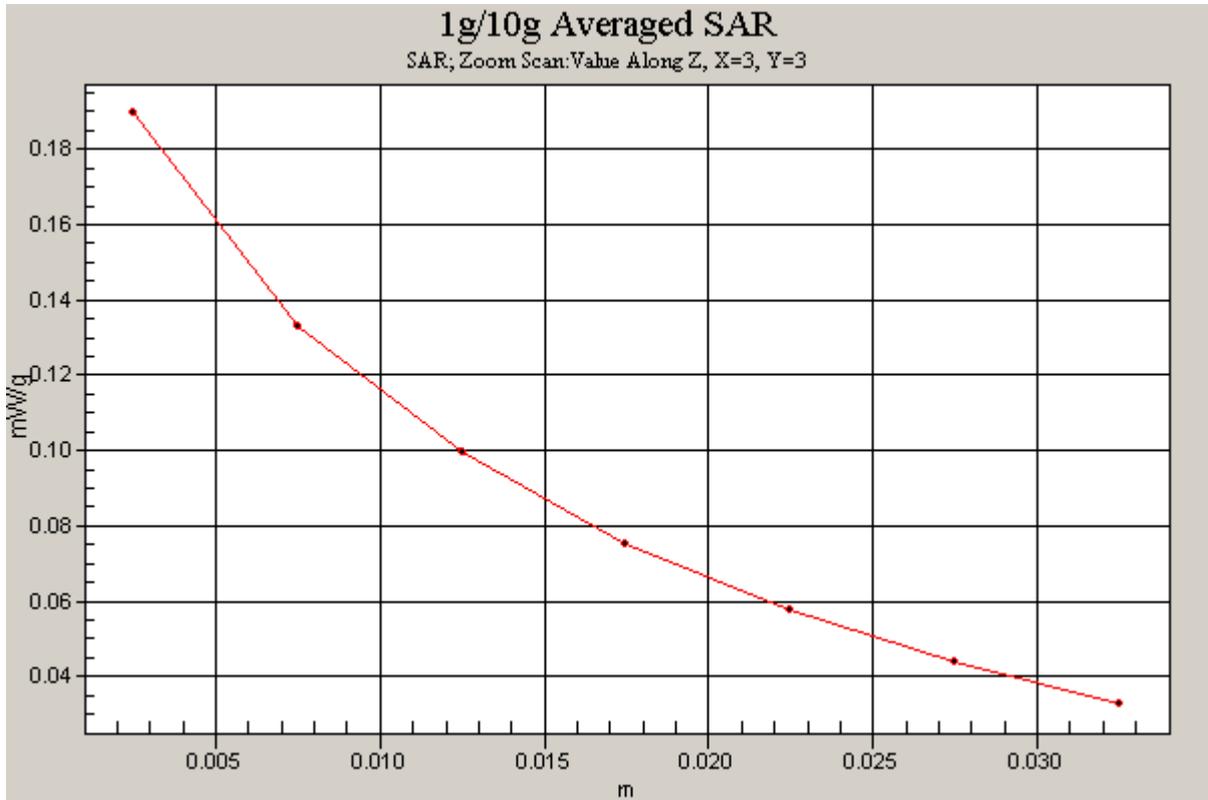


Figure 362 Z-Scan at power reference point (Right Hand Touch Cheek Close WCDMA Band V Channel 4233)

Date/Time: 12/29/2008 12:42:12 AM

### WCDMA Band V Right Cheek Middle Close

Communication System: WCDMA Band V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.888$  mho/m;  $\epsilon_r = 41.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.337 mW/g

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

Reference Value = 6.92 V/m; Power Drift = -0.021 dB

Peak SAR (extrapolated) = 0.414 W/kg

**SAR(1 g) = 0.277 mW/g; SAR(10 g) = 0.186 mW/g**

Maximum value of SAR (measured) = 0.338 mW/g

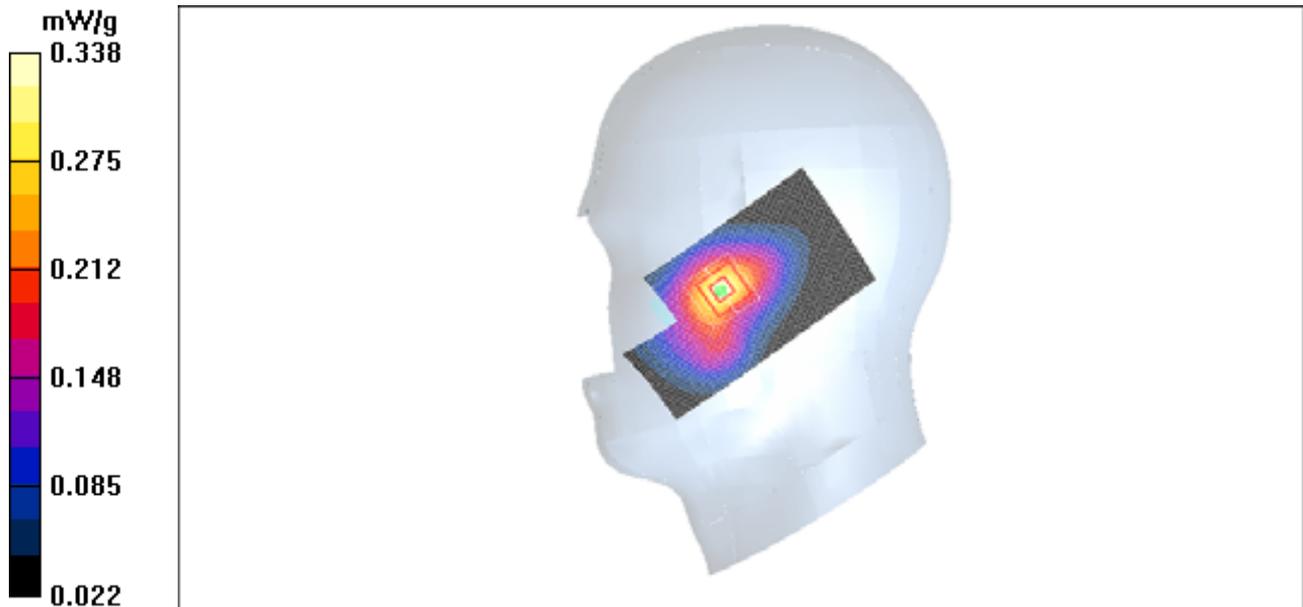


Figure 363 Right Hand Touch Cheek Close WCDMA Band V Channel 4182

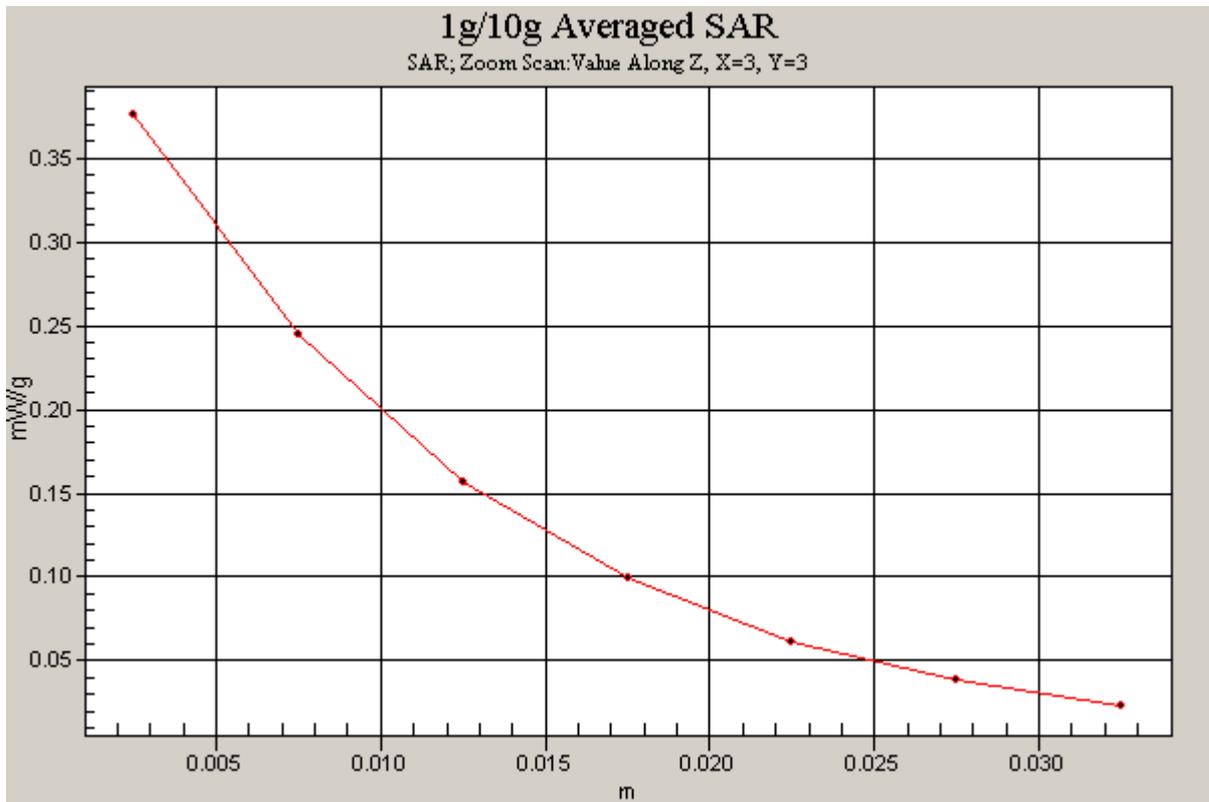


Figure 364 Z-Scan at power reference point (Right Hand Touch Cheek Close WCDMA Band V Channel 4182)

Date/Time: 12/29/2008 12:22:51 AM

### WCDMA Band V Right Cheek Low Close

Communication System: WCDMA Band V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 826.4$  MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Cheek Low/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.212 mW/g

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

Reference Value = 5.62 V/m; Power Drift = 0.000 dB

Peak SAR (extrapolated) = 0.260 W/kg

**SAR(1 g) = 0.170 mW/g; SAR(10 g) = 0.113 mW/g**

Maximum value of SAR (measured) = 0.209 mW/g

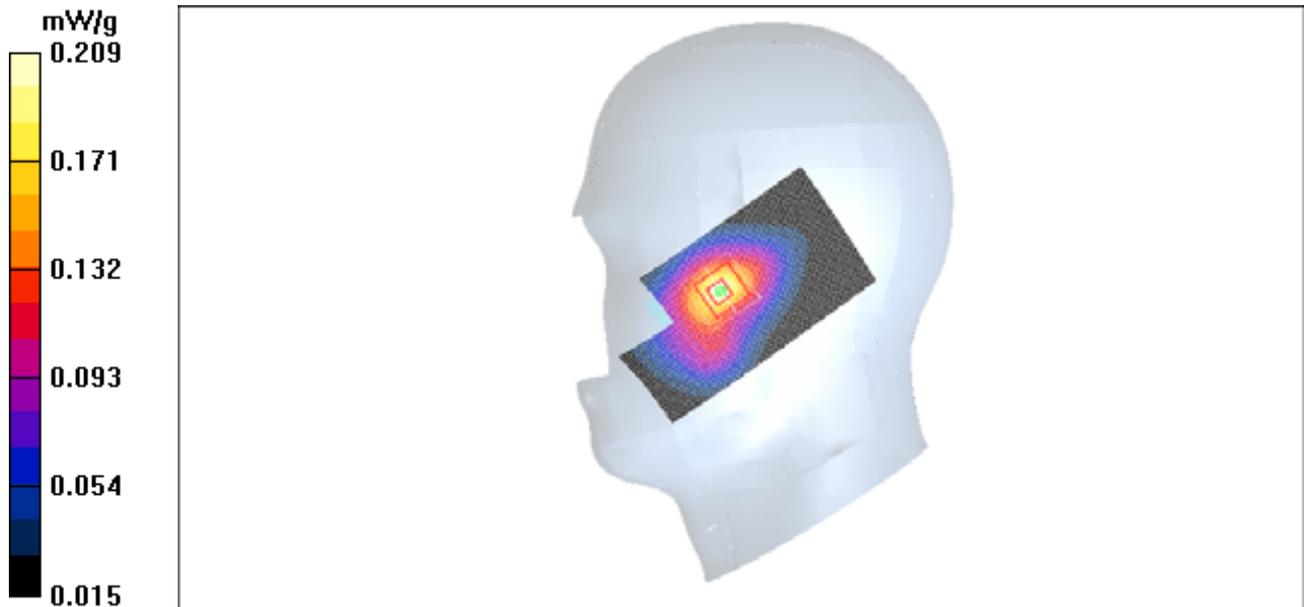


Figure 365 Right Hand Touch Cheek Close WCDMA Band V Channel 4132

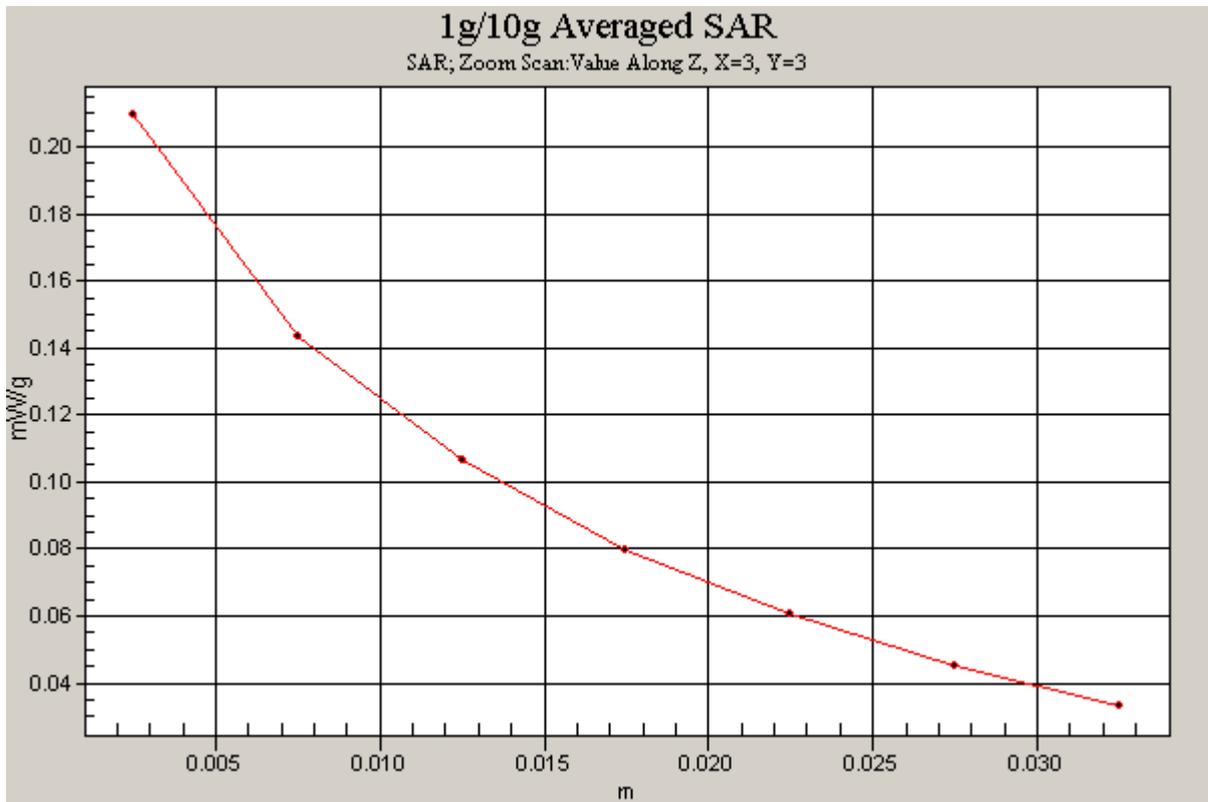


Figure 366 Z-Scan at power reference point (Right Hand Touch Cheek Close WCDMA Band V Channel 4132)

Date/Time: 12/29/2008 1:23:26 AM

### WCDMA Band V Right Tilt High Close

Communication System: WCDMA Band V; Frequency: 846.6 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 847$  MHz;  $\sigma = 0.899$  mho/m;  $\epsilon_r = 41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt High/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.129 mW/g

**Tilt High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 8.70 V/m; Power Drift = -0.063 dB  
Peak SAR (extrapolated) = 0.150 W/kg  
**SAR(1 g) = 0.114 mW/g; SAR(10 g) = 0.083 mW/g**  
Maximum value of SAR (measured) = 0.130 mW/g

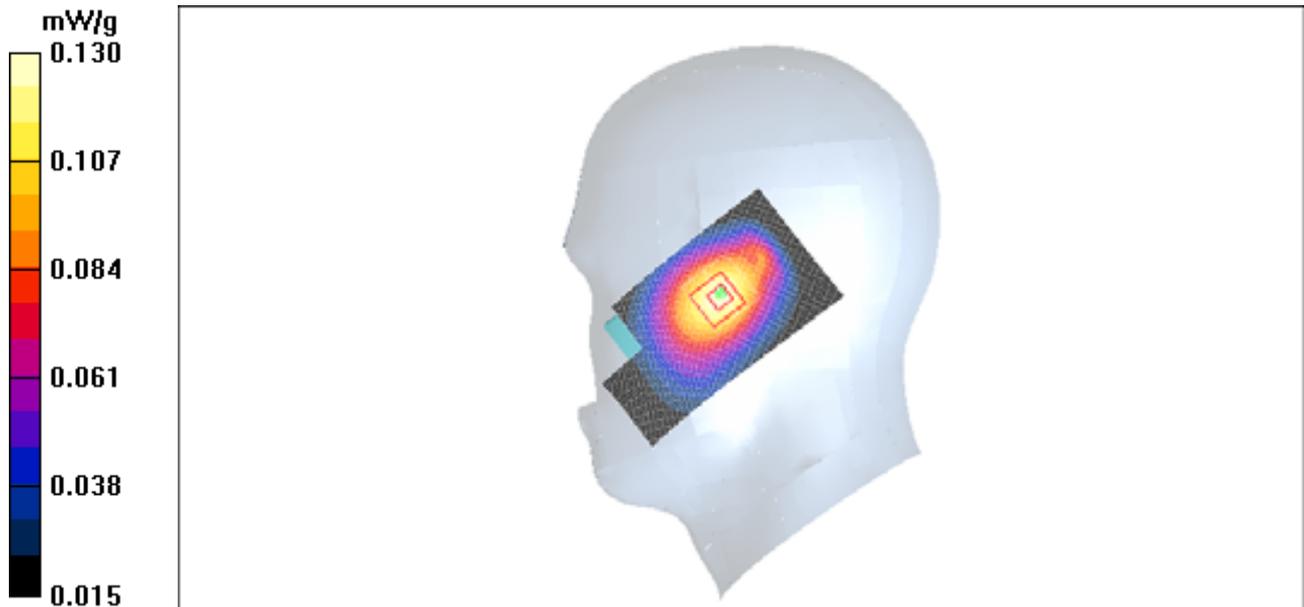


Figure 367 Right Hand Tilt 15° Close WCDMA Band V Channel 4233

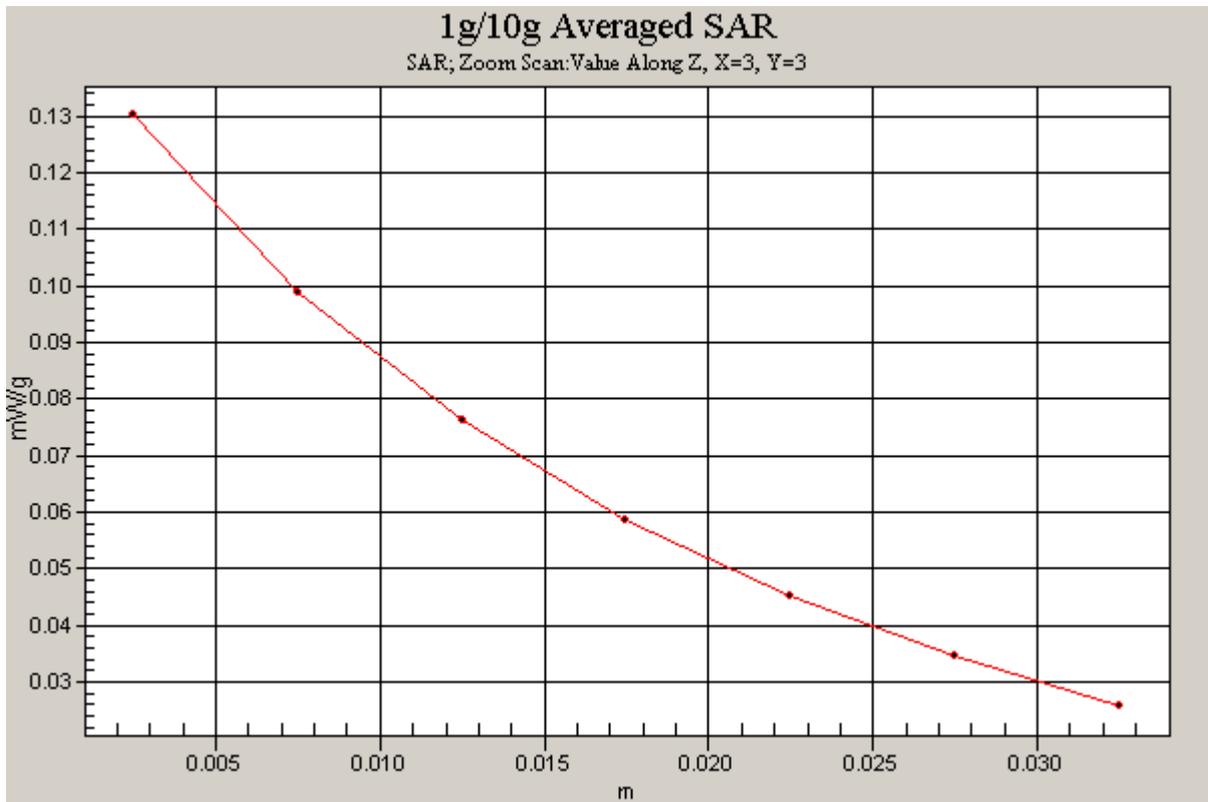


Figure 368 Z-Scan at power reference point (Right Hand Tilt 15° Close WCDMA Band V Channel 4233)

Date/Time: 12/29/2008 2:38:01 AM

### WCDMA Band V Right Tilt Middle Close

Communication System: WCDMA Band V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.888$  mho/m;  $\epsilon_r = 41.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.197 mW/g

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

Reference Value = 10.7 V/m; Power Drift = -0.019 dB

Peak SAR (extrapolated) = 0.224 W/kg

**SAR(1 g) = 0.171 mW/g; SAR(10 g) = 0.126 mW/g**

Maximum value of SAR (measured) = 0.197 mW/g

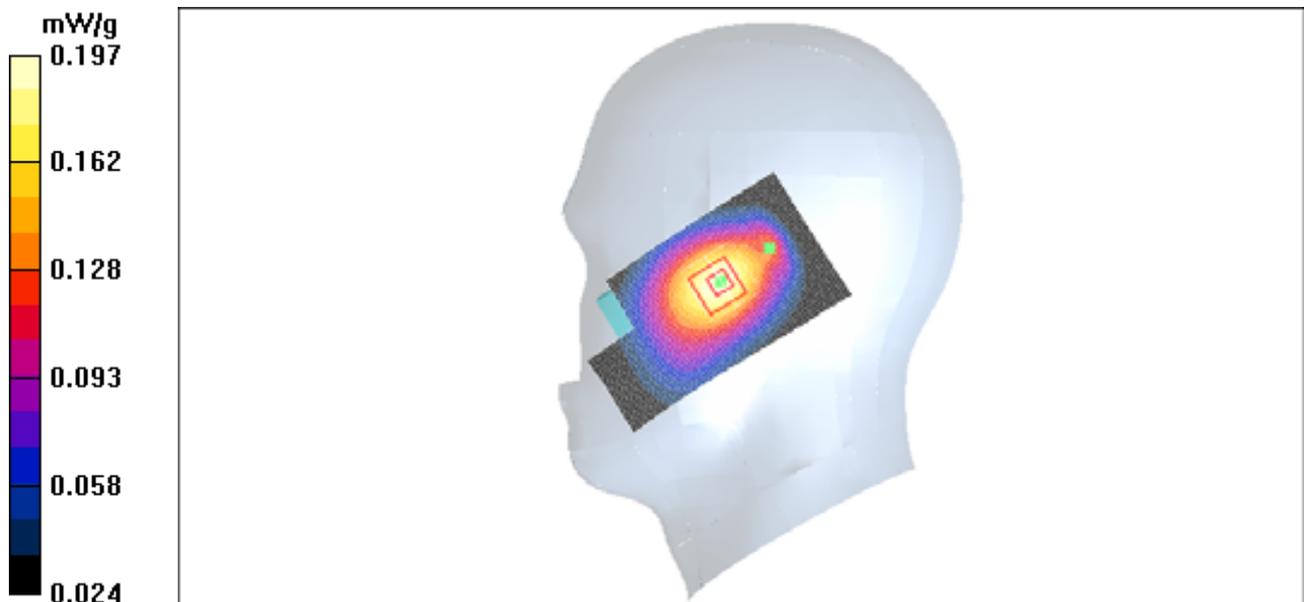


Figure 369 Right Hand Tilt 15° Close WCDMA Band V Channel 4182

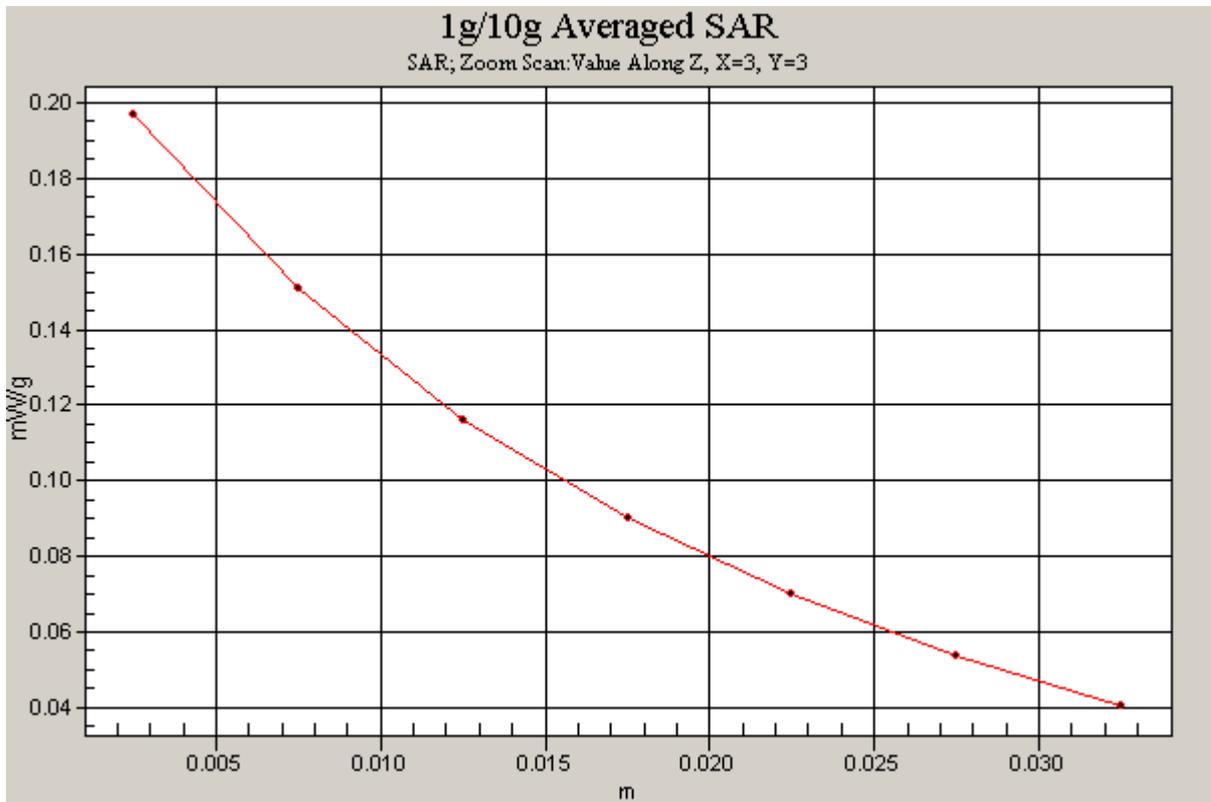


Figure 370 Z-Scan at power reference point (Right Hand Tilt 15° Close WCDMA Band V Channel 4182)

Date/Time: 12/29/2008 3:07:53 AM

### WCDMA Band V Right Tilt Low Close

Communication System: WCDMA Band V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 826.4$  MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

- Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Tilt Low/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.116 mW/g

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

Reference Value = 8.17 V/m; Power Drift = 0.146 dB

Peak SAR (extrapolated) = 0.138 W/kg

**SAR(1 g) = 0.105 mW/g; SAR(10 g) = 0.078 mW/g**

Maximum value of SAR (measured) = 0.121 mW/g

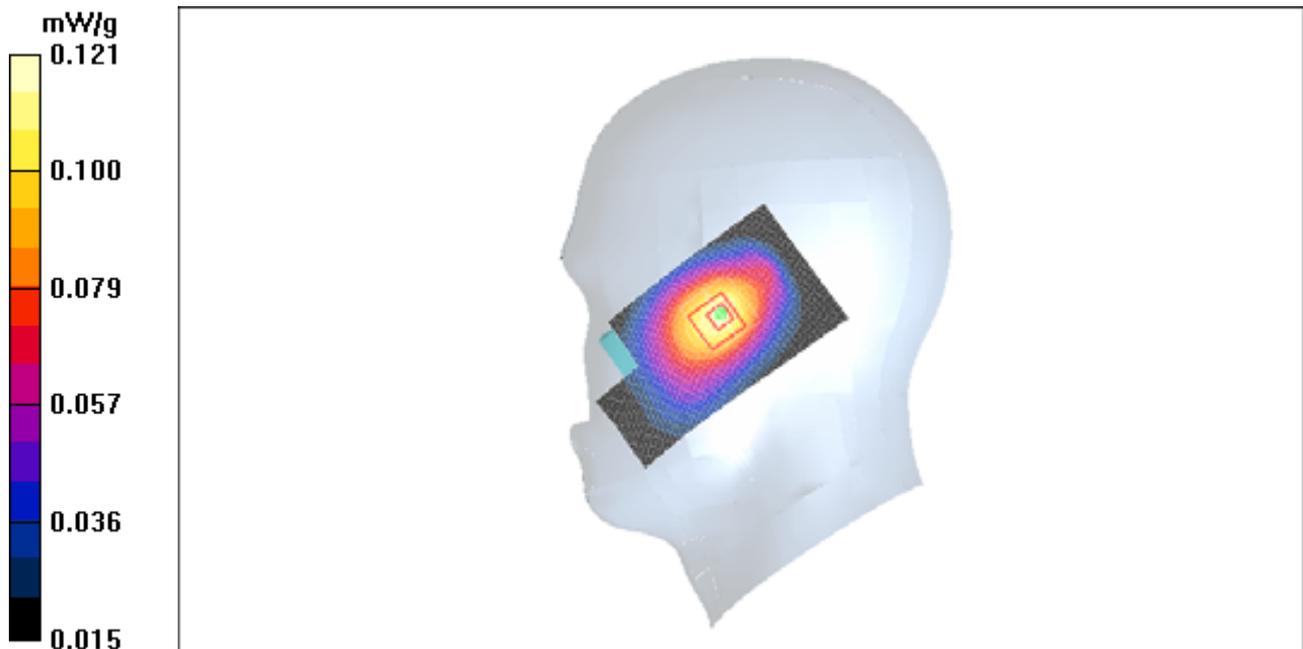


Figure 371 Right Hand Tilt 15°Close WCDMA Band V Channel 4132

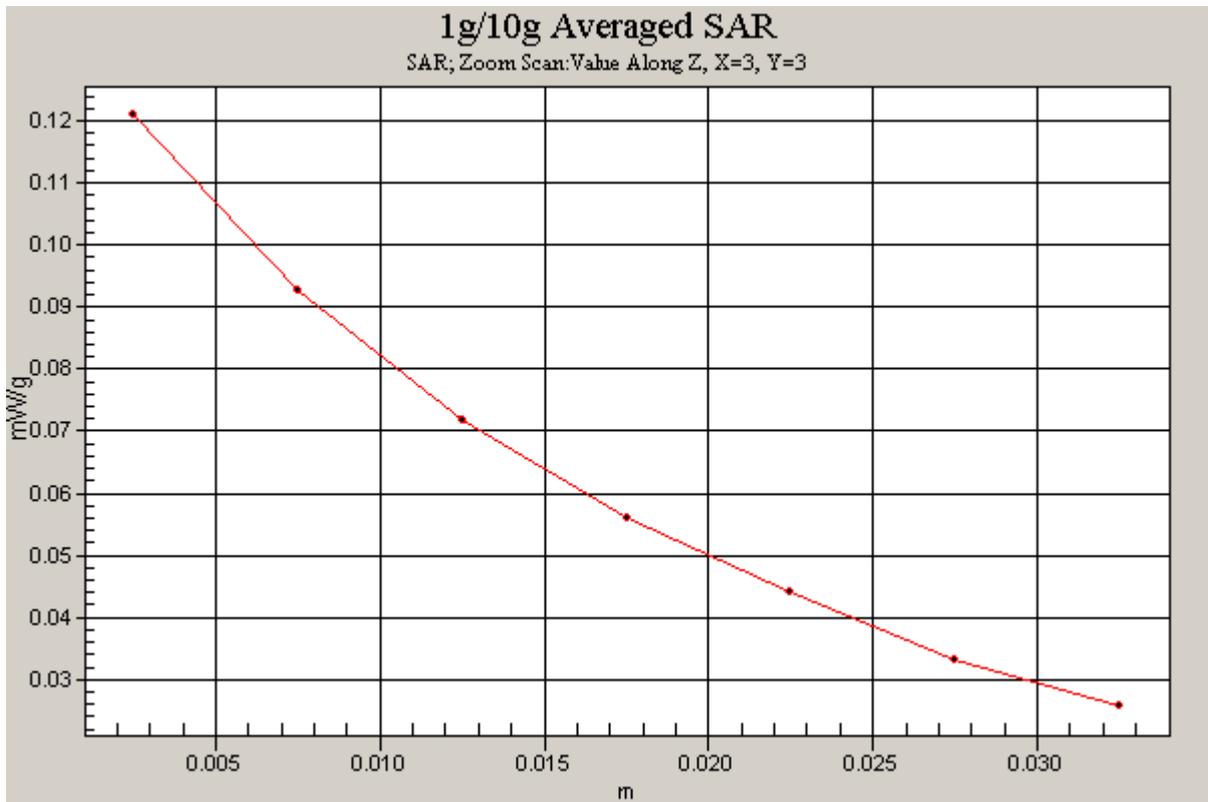


Figure 372 Z-Scan at power reference point (Right Hand Tilt 15° Close WCDMA Band V Channel 4132)

Date/Time: 12/29/2008 7:07:02 AM

### WCDMA Band V Towards Ground High Close

Communication System: WCDMA Band V; Frequency: 846.6 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 847$  MHz;  $\sigma = 0.995$  mho/m;  $\epsilon_r = 54.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section  
DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground High/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (interpolated) = 0.361 mW/g

**Towards Ground High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.46 V/m; Power Drift = -0.038 dB

Peak SAR (extrapolated) = 0.433 W/kg

**SAR(1 g) = 0.293 mW/g; SAR(10 g) = 0.194 mW/g**

Maximum value of SAR (measured) = 0.352 mW/g

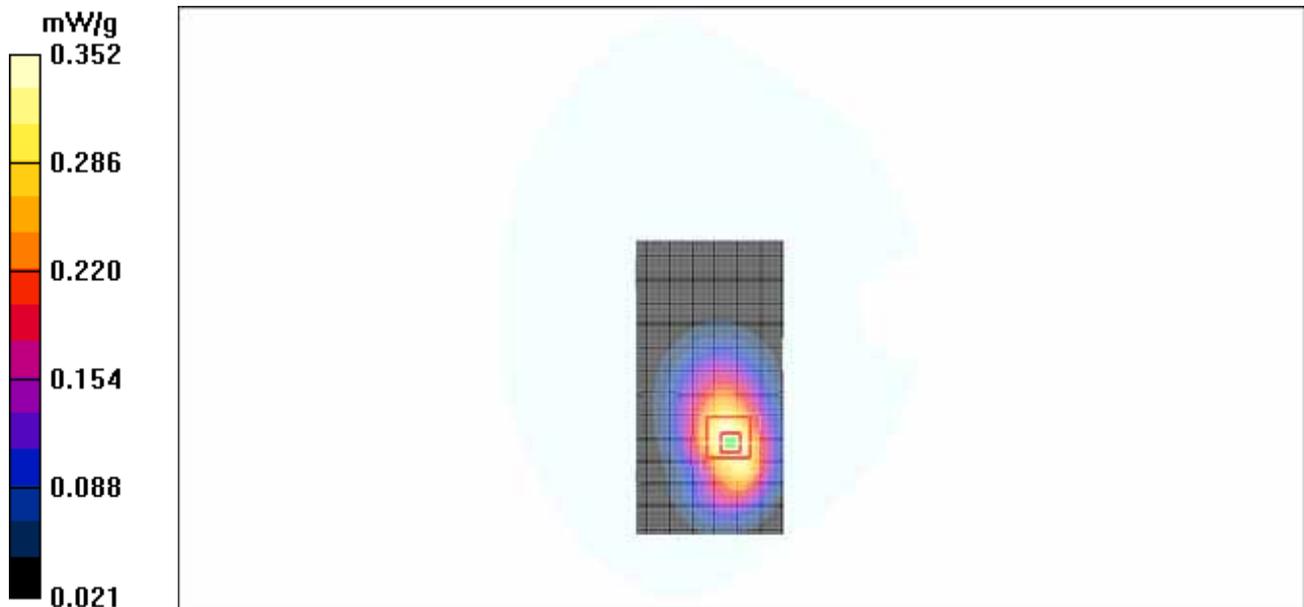


Figure 373 Body, Towards Ground, Close WCDMA Band V Channel 4233

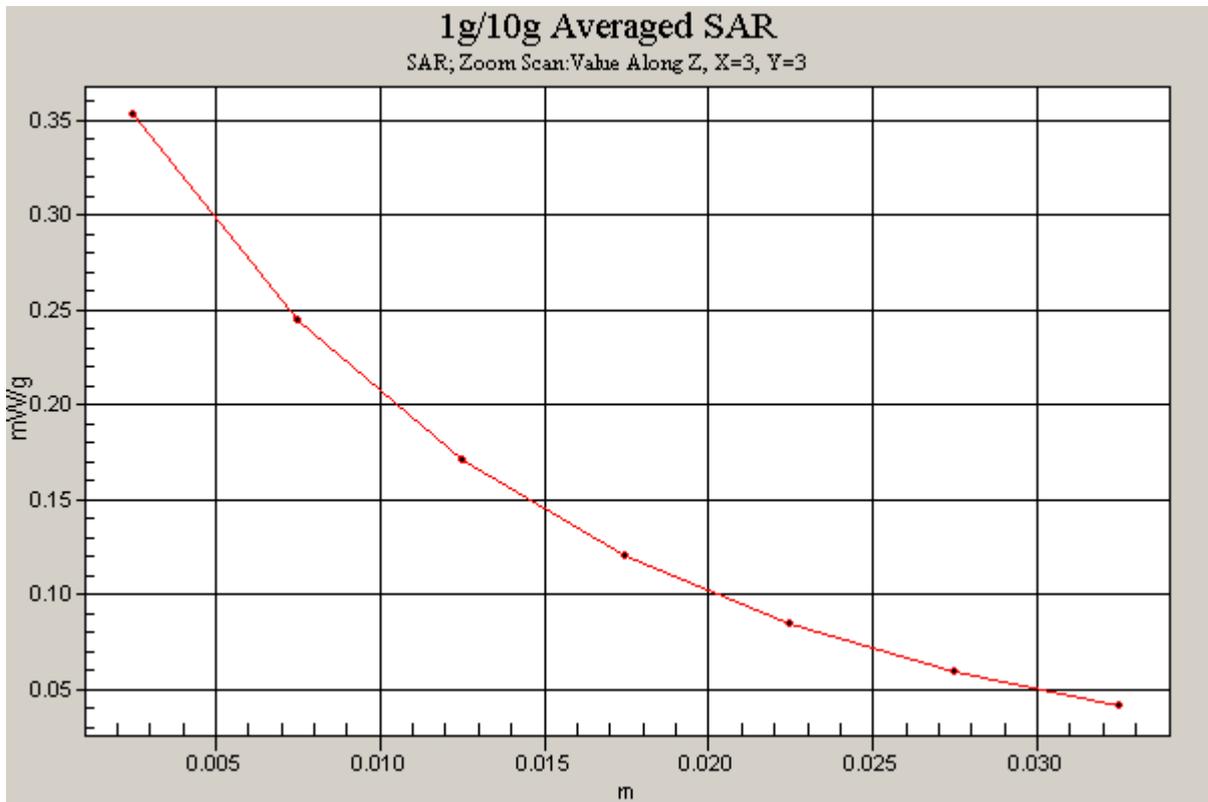


Figure 374 Z-Scan at power reference point (Body, Towards Ground, Close WCDMA Band V Channel 4233)

Date/Time: 12/29/2008 8:21:04 AM

### WCDMA Band V Towards Ground Middle Close

Communication System: WCDMA Band V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.986$  mho/m;  $\epsilon_r = 54.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.549 mW/g

**Towards Ground Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.42 V/m; Power Drift = 0.052 dB

Peak SAR (extrapolated) = 0.668 W/kg

**SAR(1 g) = 0.462 mW/g; SAR(10 g) = 0.309 mW/g**

Maximum value of SAR (measured) = 0.551 mW/g

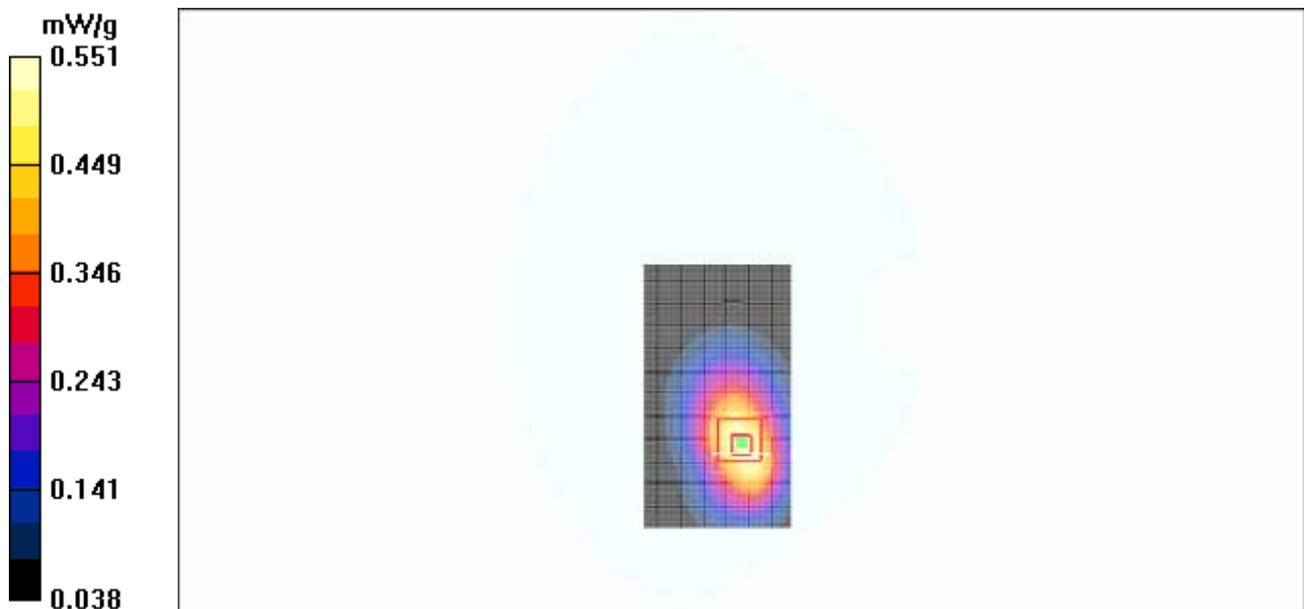


Figure 375 Body, Towards Ground, Close WCDMA Band V Channel 4182

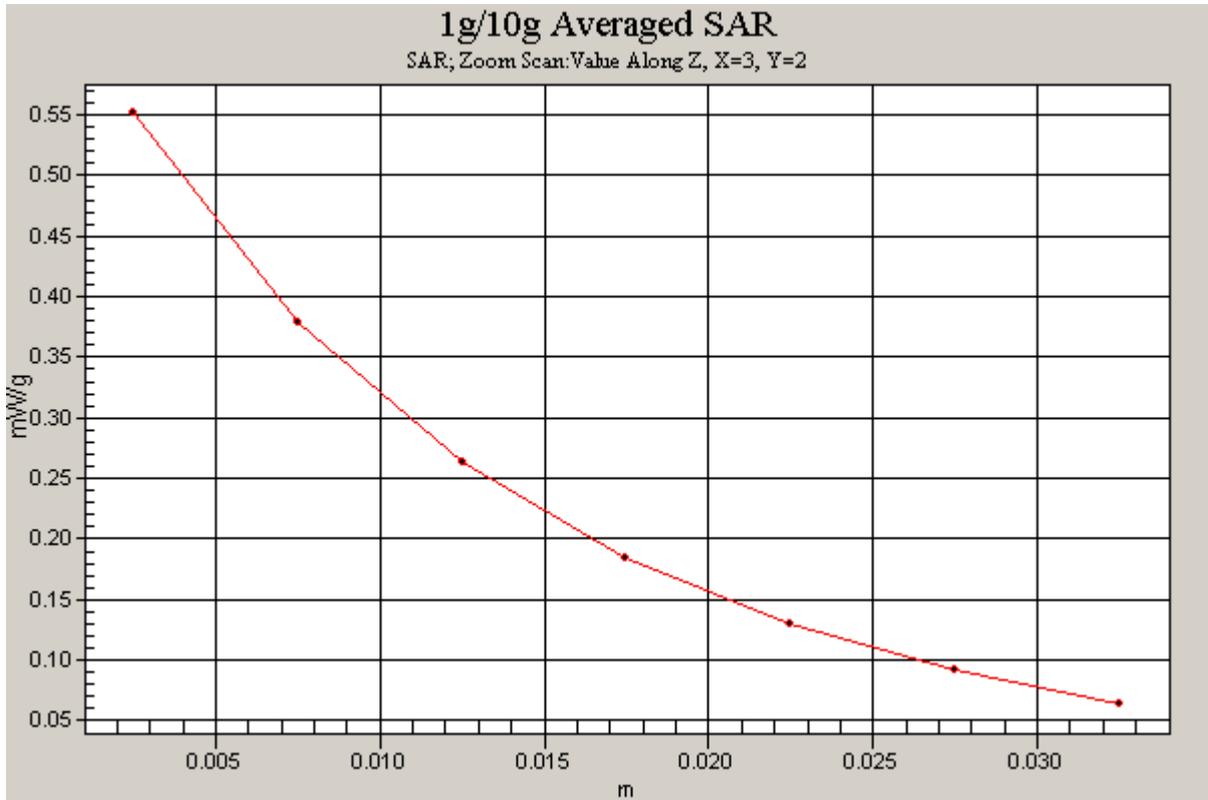


Figure 376 Z-Scan at power reference point (Body, Towards Ground, Close WCDMA Band V Channel 4182)

Date/Time: 12/29/2008 8:42:40 AM

### WCDMA Band V Towards Ground Low Close

Communication System: WCDMA Band V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 826.4$  MHz;  $\sigma = 0.974$  mho/m;  $\epsilon_r = 54.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground Low/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.319 mW/g

**Towards Ground Low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.44 V/m; Power Drift = -0.133 dB

Peak SAR (extrapolated) = 0.390 W/kg

**SAR(1 g) = 0.266 mW/g; SAR(10 g) = 0.178 mW/g**

Maximum value of SAR (measured) = 0.320 mW/g

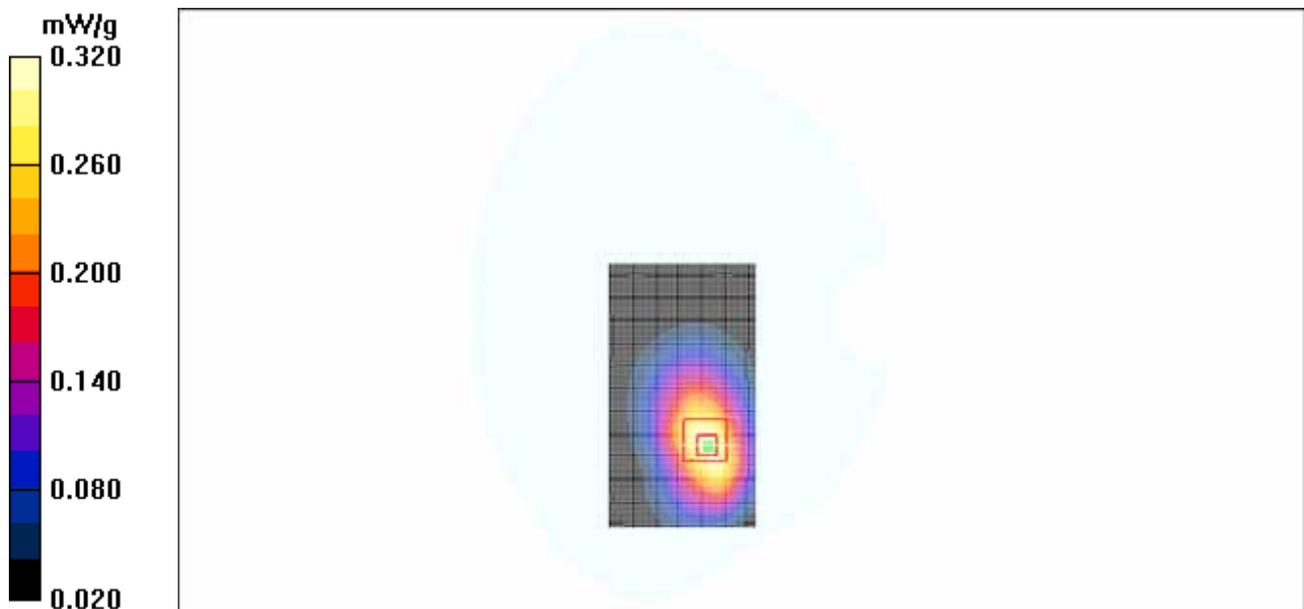


Figure 377 Body, Towards Ground, Close WCDMA Band V Channel 4132

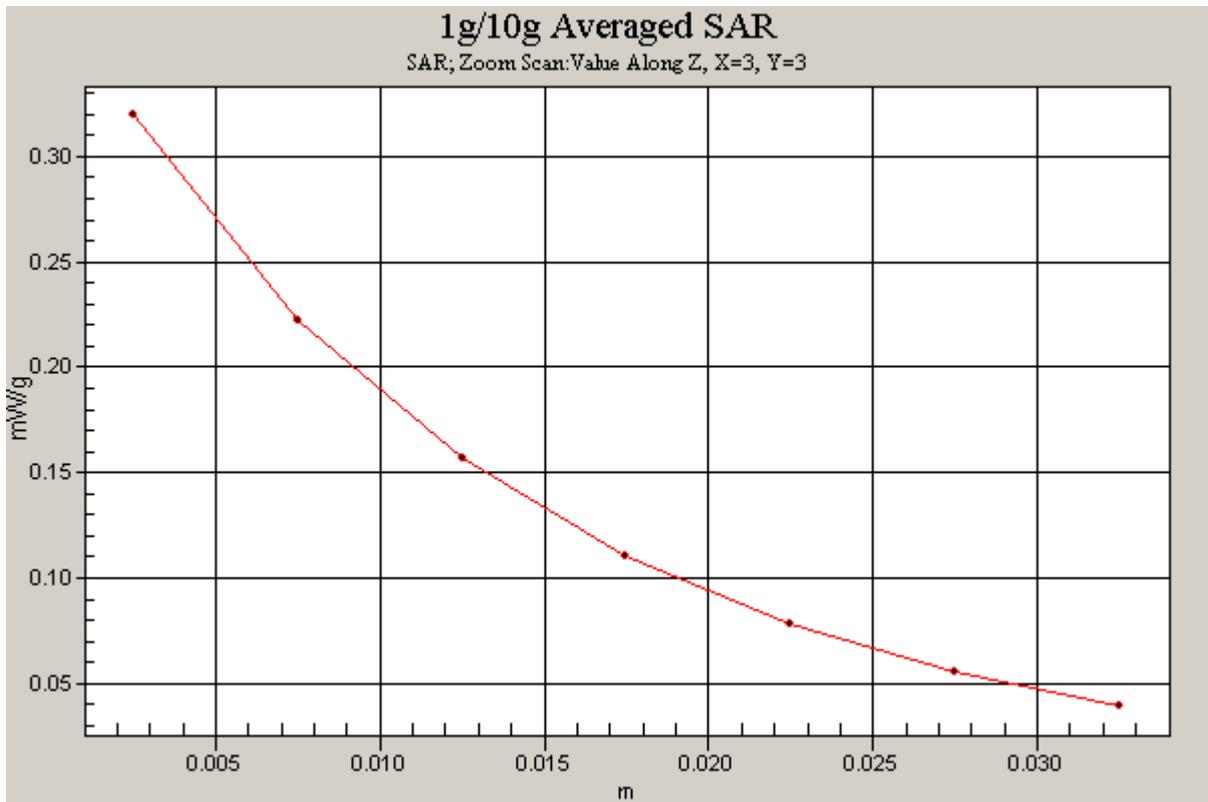


Figure 378 Z-Scan at power reference point (Body, Towards Ground, Close WCDMA Band V Channel 4132)

Date/Time: 12/29/2008 6:47:24 AM

### WCDMA Band V Towards Phantom High Close

Communication System: WCDMA Band V; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 847$  MHz;  $\sigma = 0.995$  mho/m;  $\epsilon_r = 54.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Phantom High/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.104 mW/g

**Towards Phantom High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.44 V/m; Power Drift = 0.072 dB

Peak SAR (extrapolated) = 0.125 W/kg

**SAR(1 g) = 0.091 mW/g; SAR(10 g) = 0.065 mW/g**

Maximum value of SAR (measured) = 0.106 mW/g

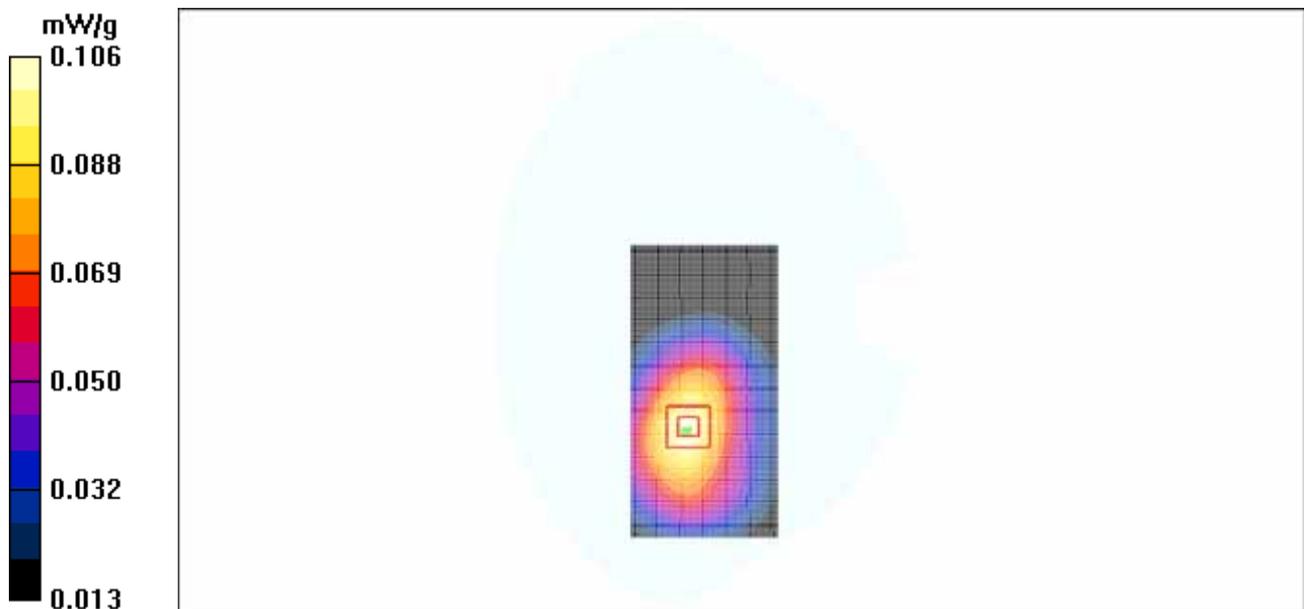


Figure 379 Body, Towards Phantom, Close WCDMA Band V Channel 4233

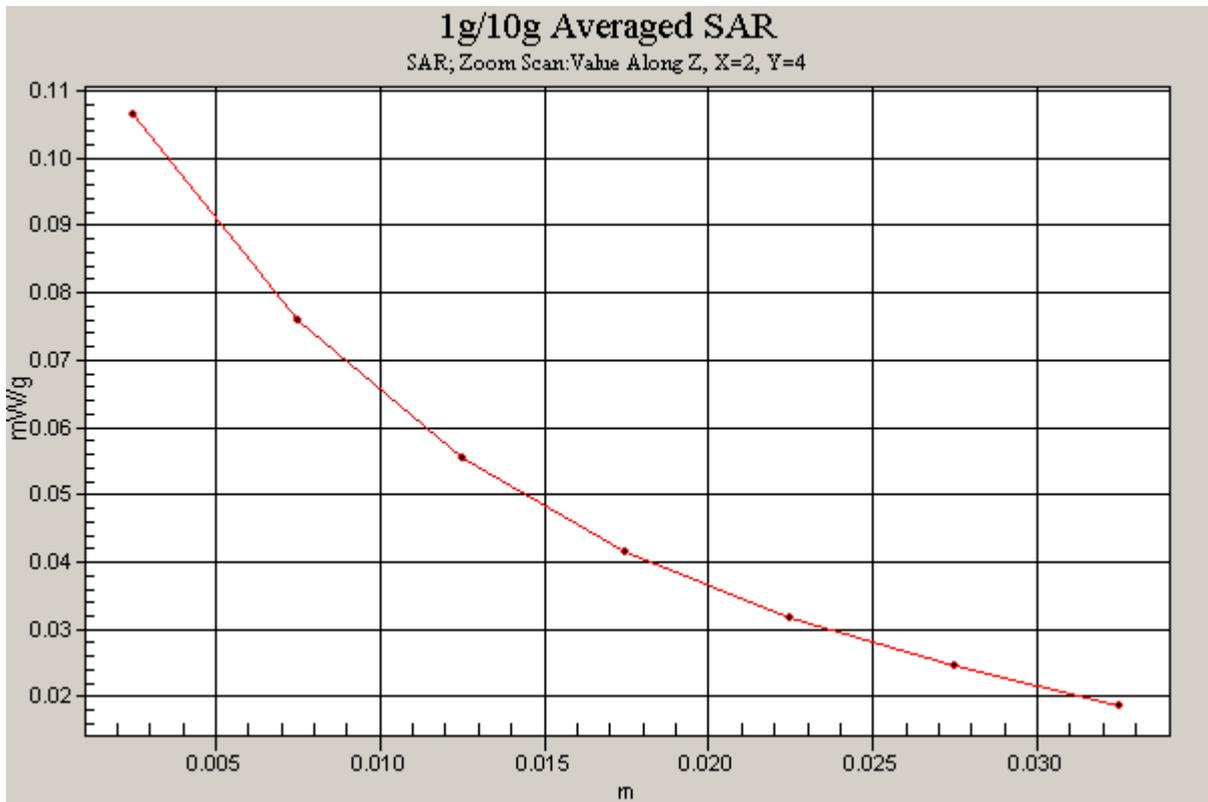


Figure 380 Z-Scan at power reference point (Body, Towards Phantom, Close WCDMA Band V Channel 4233)

Date/Time: 12/29/2008 6:29:14 AM

### WCDMA Band V Towards Phantom Middle Close

Communication System: WCDMA Band V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.986$  mho/m;  $\epsilon_r = 54.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Phantom Middle/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.189 mW/g

**Towards Phantom Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.06 V/m; Power Drift = 0.041 dB

Peak SAR (extrapolated) = 0.217 W/kg

**SAR(1 g) = 0.161 mW/g; SAR(10 g) = 0.116 mW/g**

Maximum value of SAR (measured) = 0.172 mW/g

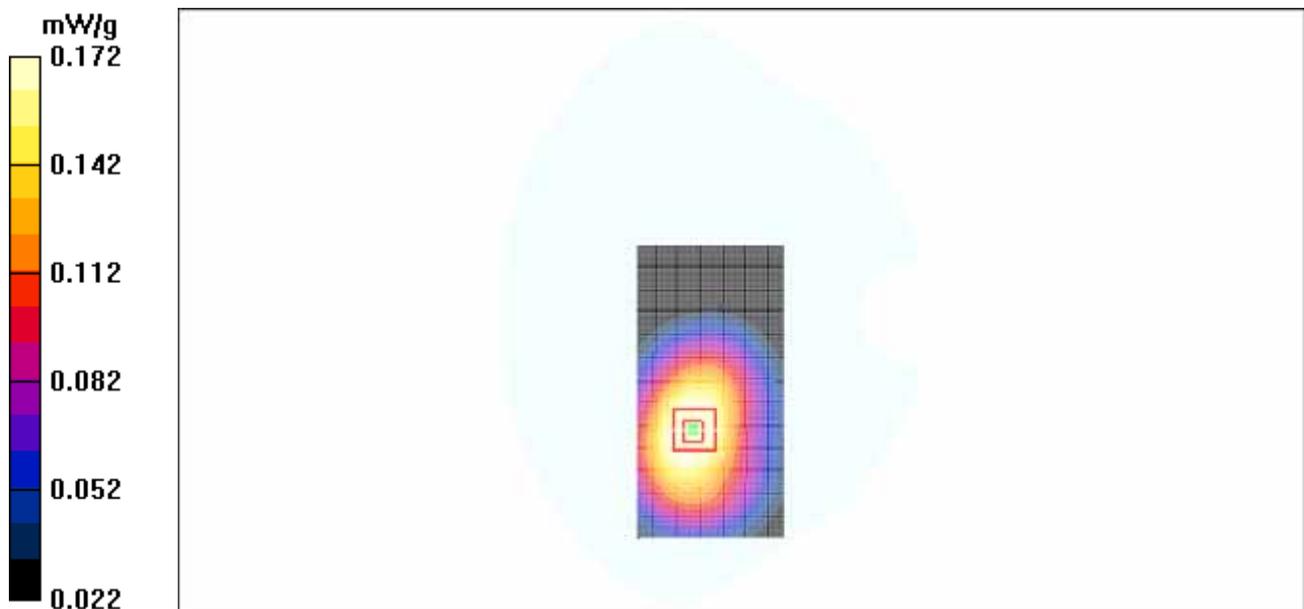


Figure 381 Body, Towards Phantom, Close WCDMA Band V Channel 4182

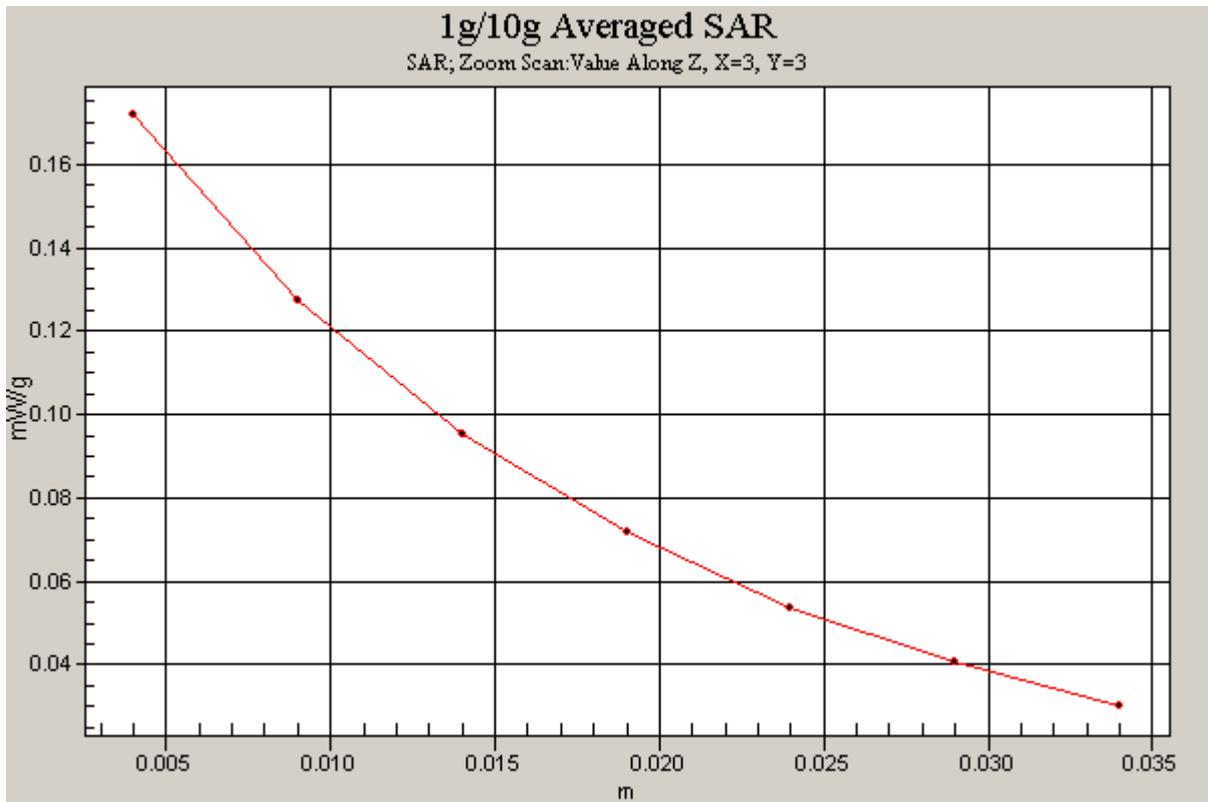


Figure 382 Z-Scan at power reference point (Body, Towards Phantom, Close WCDMA Band V Channel 4182)

Date/Time: 12/29/2008 6:10:28 AM

### WCDMA Band V Towards Phantom Low Close

Communication System: WCDMA Band V; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 826.4$  MHz;  $\sigma = 0.974$  mho/m;  $\epsilon_r = 54.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Phantom Low/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.114 mW/g

**Towards Phantom Low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.94 V/m; Power Drift = -0.153 dB

Peak SAR (extrapolated) = 0.126 W/kg

**SAR(1 g) = 0.093 mW/g; SAR(10 g) = 0.067 mW/g**

Maximum value of SAR (measured) = 0.108 mW/g

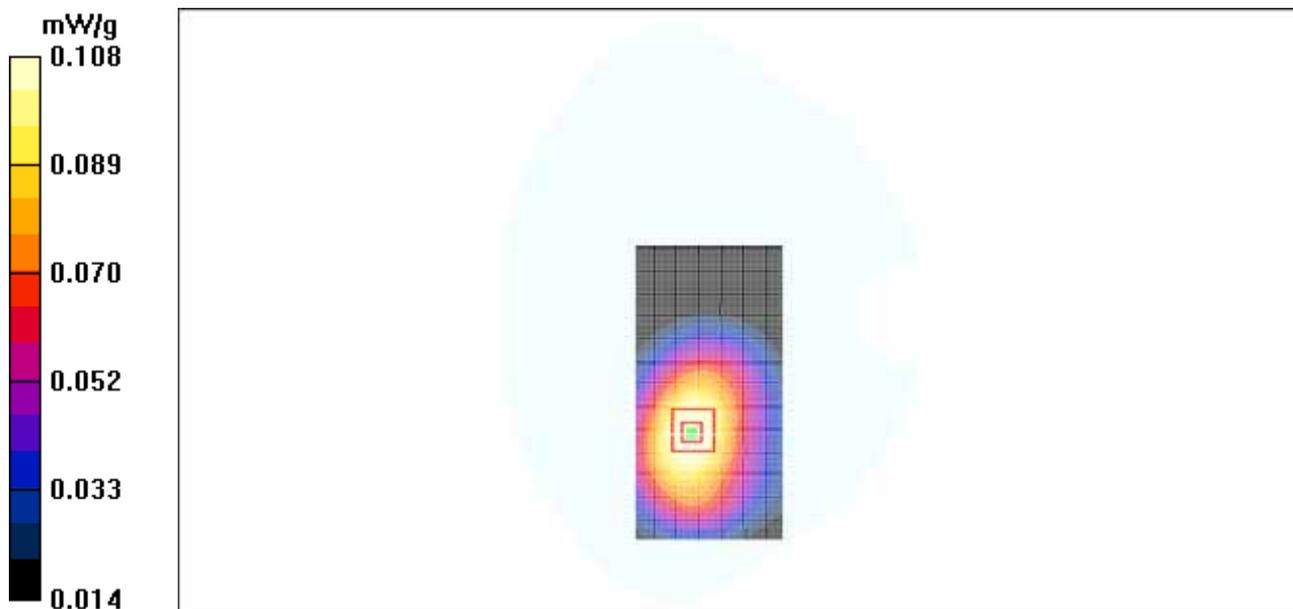


Figure 383 Body, Towards Phantom, Close WCDMA Band V Channel 4132

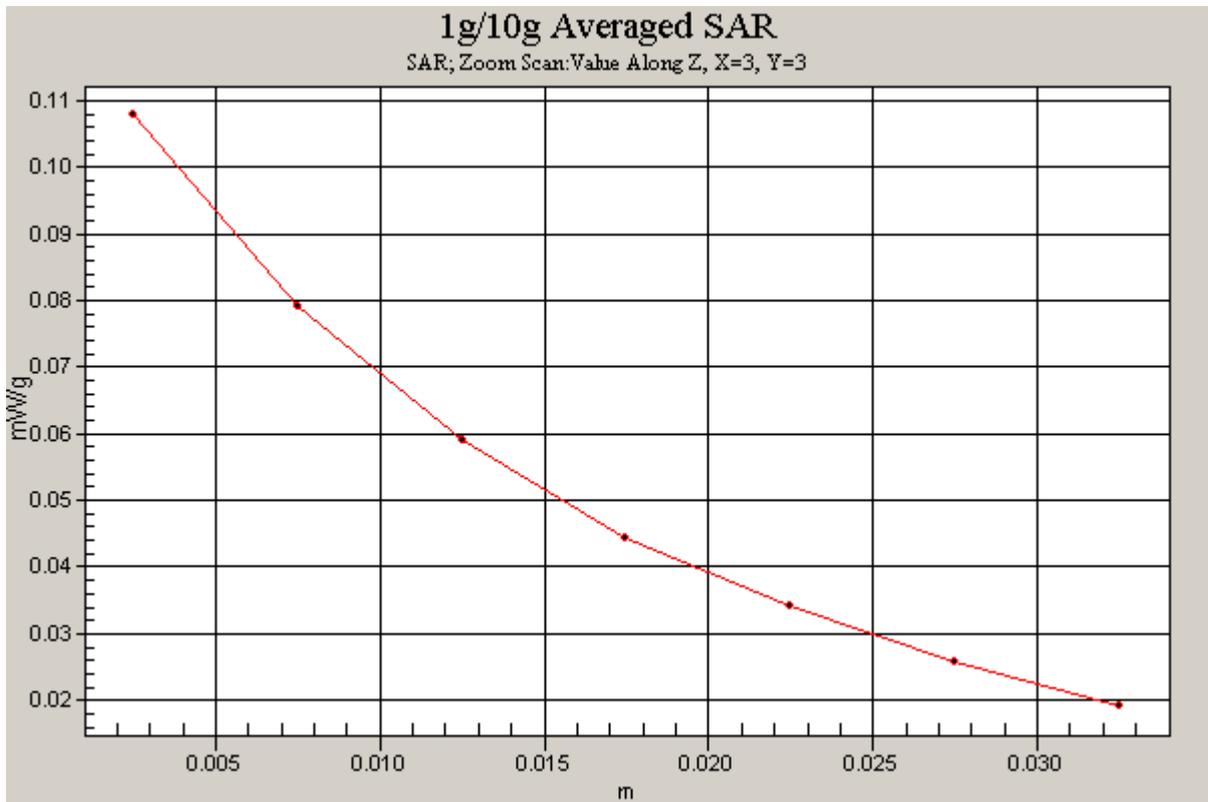


Figure 384 Z-Scan at power reference point (Body, Towards Phantom, Close WCDMA Band V Channel 4132)

Date/Time: 12/31/2008 4:34:12 PM

### WCDMA Band V Earphone Towards Ground Middle Close

Communication System: WCDMA Band V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.986$  mho/m;  $\epsilon_r = 54.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.411 mW/g

**Towards Ground Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.21 V/m; Power Drift = -0.016 dB

Peak SAR (extrapolated) = 0.512 W/kg

**SAR(1 g) = 0.355 mW/g; SAR(10 g) = 0.237 mW/g**

Maximum value of SAR (measured) = 0.427 mW/g

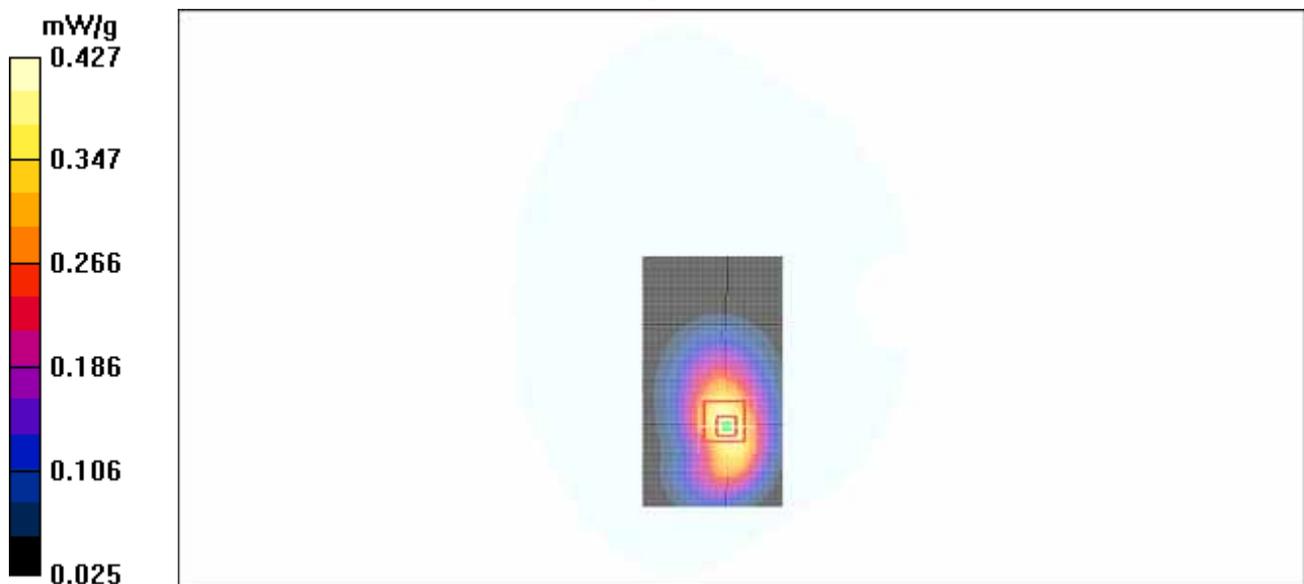


Figure 385 Body with earphone, Towards Ground, Close WCDMA Band V HSDPA, Channel 4182

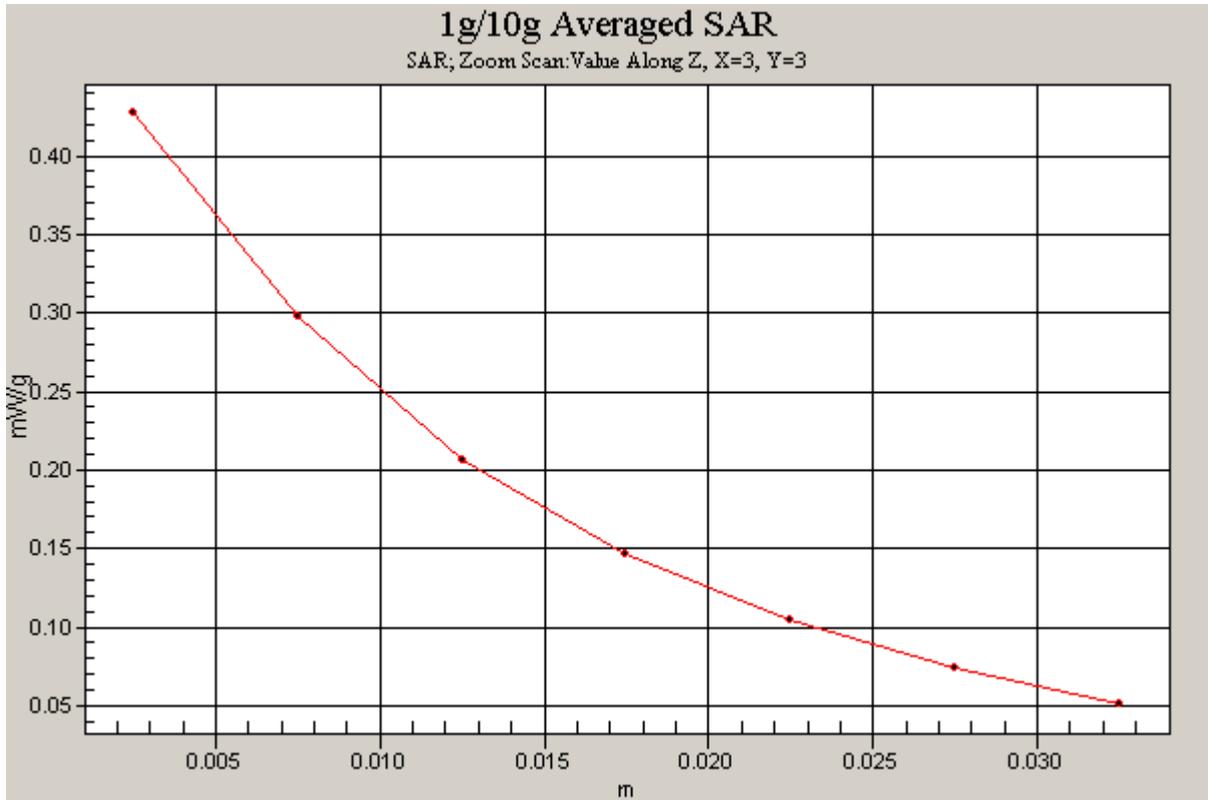


Figure 386 Z-Scan at power reference point (Body with earphone, Towards Ground, Close WCDMA Band V HSDPA, Channel 4182)

Date/Time: 1/5/2009 10:14:31 AM

### WCDMA Band V Earphone Towards Ground Middle Close

Communication System: WCDMA Band V; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.986$  mho/m;  $\epsilon_r = 54.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.600 mW/g

**Towards Ground Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.84 V/m; Power Drift = 0.159 dB

Peak SAR (extrapolated) = 0.710 W/kg

**SAR(1 g) = 0.488 mW/g; SAR(10 g) = 0.330 mW/g**

Maximum value of SAR (measured) = 0.581 mW/g

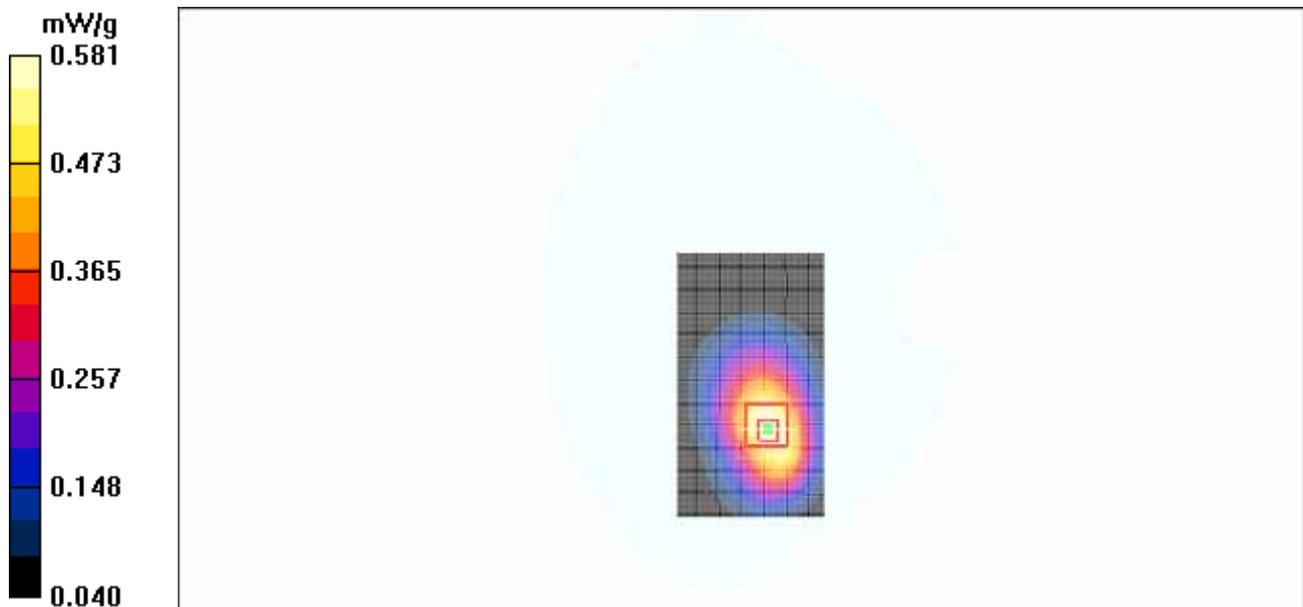


Figure 387 Body with earphone, Towards Ground, Close WCDMA Band V HSDPA, Channel 4182

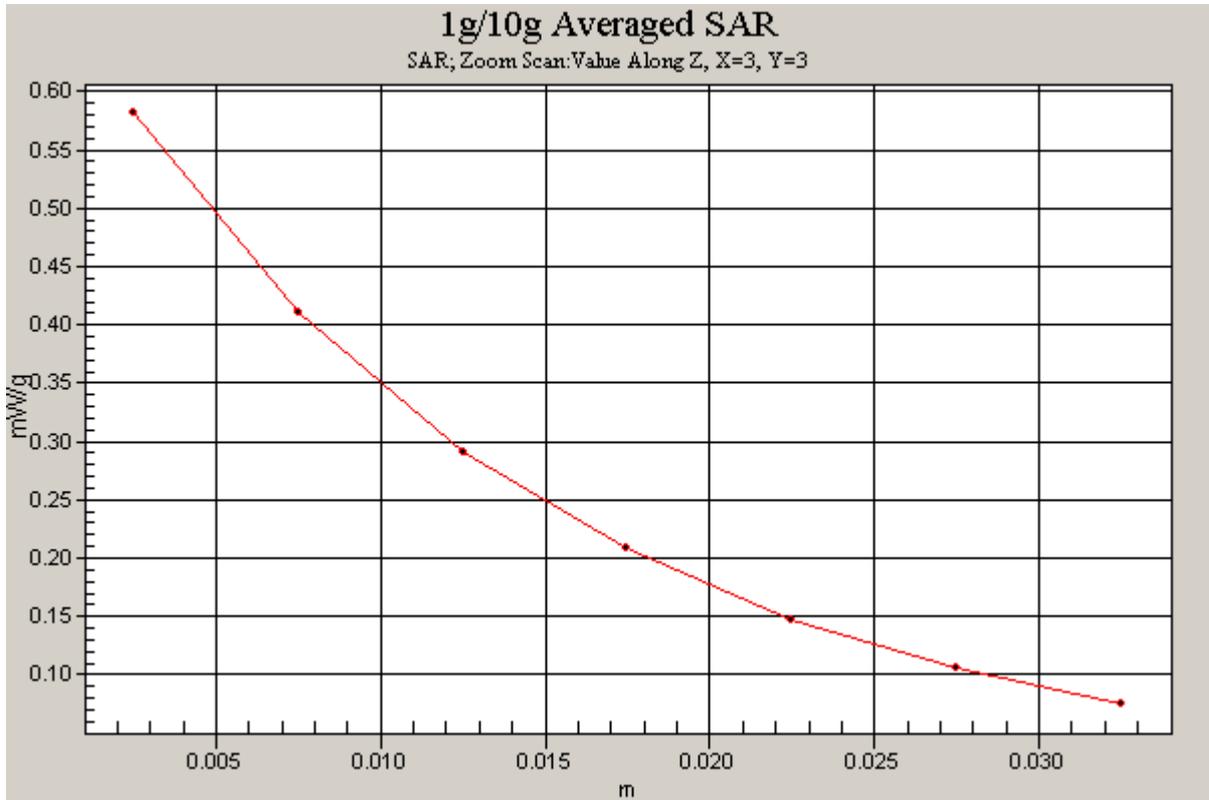


Figure 388 Z-Scan at power reference point (Body with earphone, Towards Ground, Close WCDMA Band V HSDPA, Channel 4182)

Date/Time: 12/31/2008 5:12:08 PM

### WCDMA Band V HSDPA Towards Ground Middle Close

Communication System: WCDMA Band V+HSDPA; Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.986$  mho/m;  $\epsilon_r = 54.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3660; ConvF(9.1, 9.1, 9.1); Calibrated: 9/3/2008
- Electronics: DAE3 Sn536; Calibrated: 8/28/2008
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1246
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 176

**Towards Ground Middle/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.551 mW/g

**Towards Ground Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.47 V/m; Power Drift = -0.567 dB

Peak SAR (extrapolated) = 0.647 W/kg

**SAR(1 g) = 0.458 mW/g; SAR(10 g) = 0.309 mW/g**

Maximum value of SAR (measured) = 0.543 mW/g

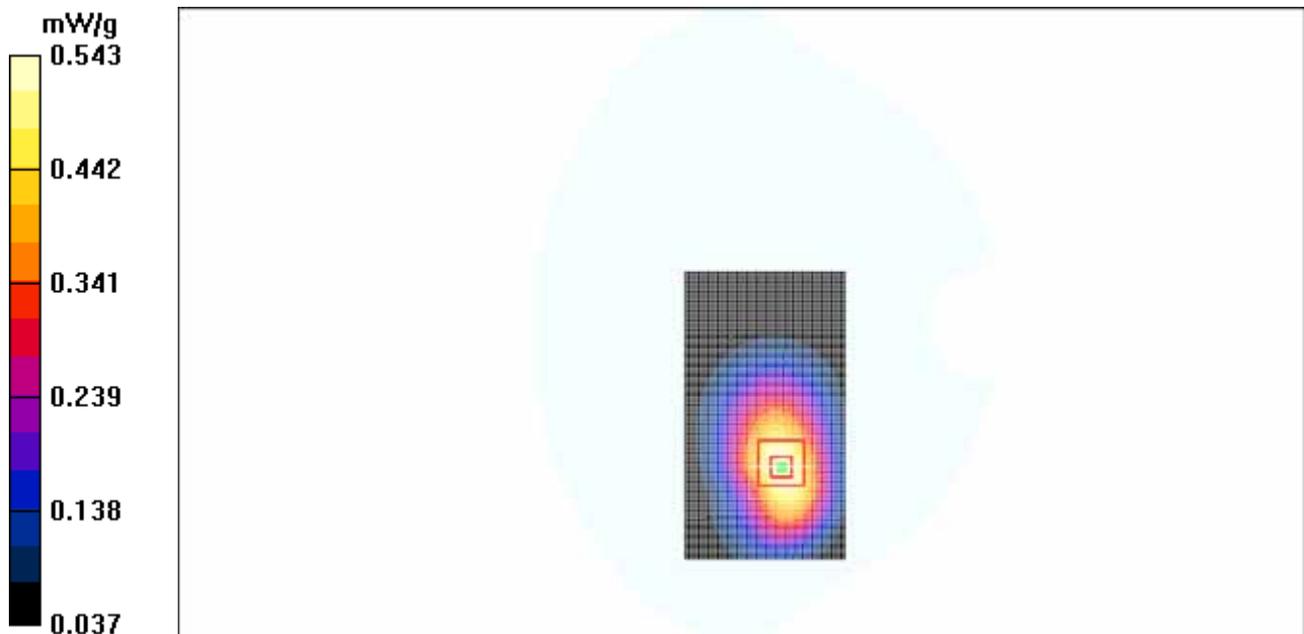


Figure 389 Body, Towards Ground, Close WCDMA Band V HSDPA, Channel 4182

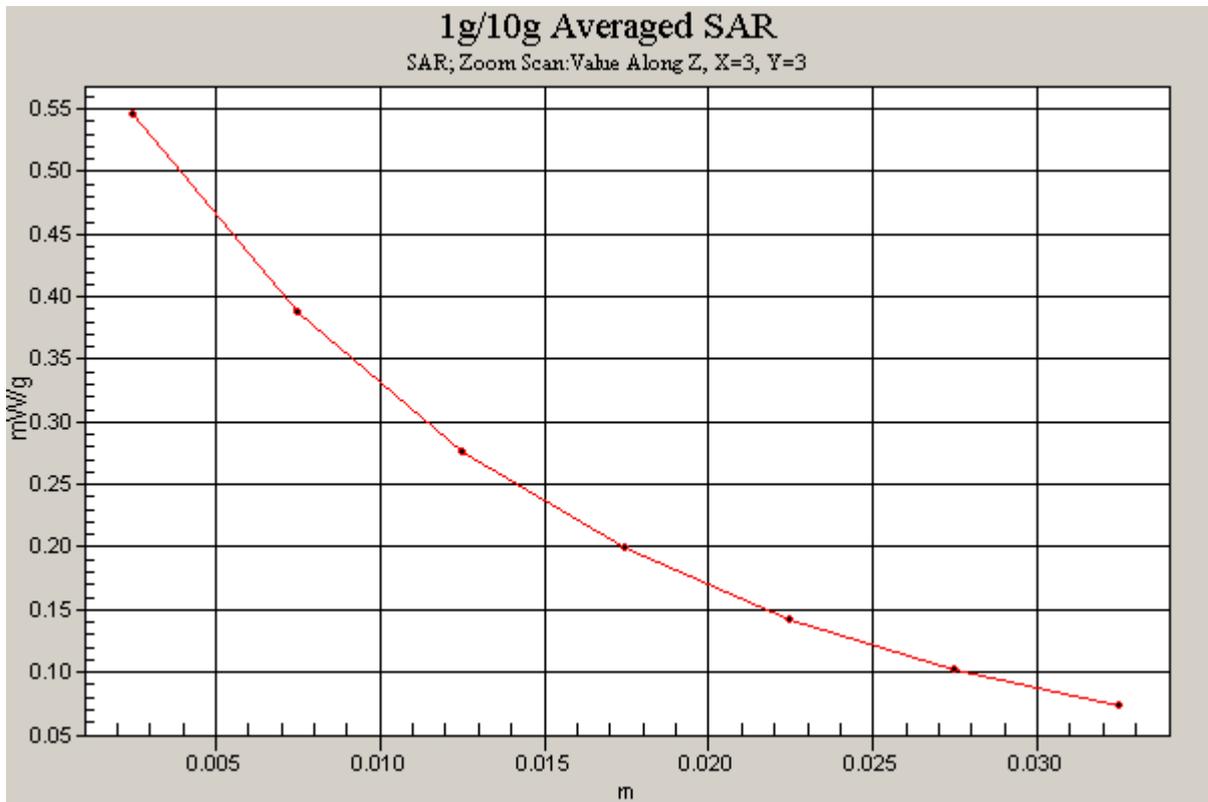


Figure 390 Z-Scan at power reference point (Body, Towards Ground, Close WCDMA Band V HSDPA, Channel 4182)

## ANNEX C : SYSTEM VALIDATION RESULTS

### System Performance Check at 835 MHz

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d020

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.89$  mho/m;  $\epsilon_r = 41.21$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: EX3DV4 - SN3660; ConvF(9.19, 9.19, 9.19);

Electronics: DAE3 Sn536;

**d=15mm, Pin=250mW/Area Scan (101x121x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.81 mW/g

**d=15mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.8 V/m; Power Drift = -0.060 dB

Peak SAR (extrapolated) = 3.50 W/kg

**SAR(1 g) = 2.3 mW/g; SAR(10 g) = 1.5 mW/g**

Maximum value of SAR (measured) = 2.83 mW/g

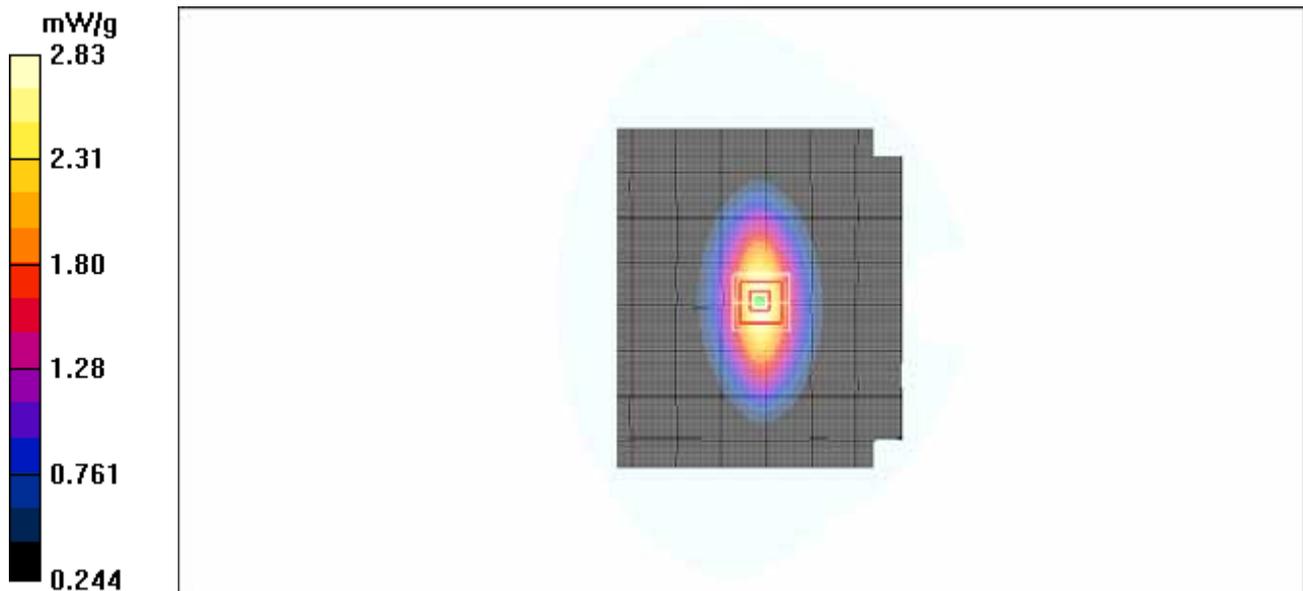


Figure 391 System Performance Check 835MHz 250mW

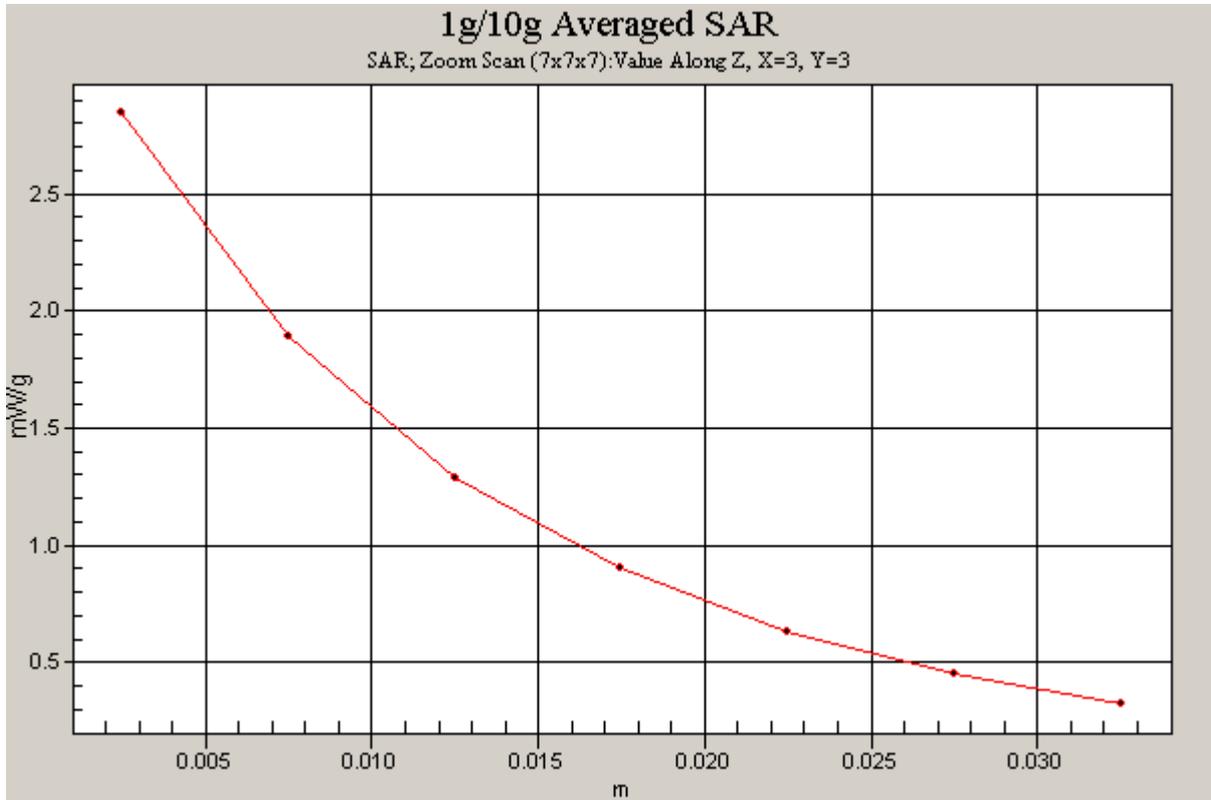


Figure 392 Z-Scan at power reference point (system validation at 835 MHz dipole)

### System Performance Check at 1900 MHz

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d060**

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.406$  mho/m;  $\epsilon_r = 39.98$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: EX3DV4 - SN3660; ConvF(7.35, 7.35, 7.35);

Electronics: DAE3 Sn536;

**d=10mm, Pin=250mW/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.4 mW/g

**d=10mm, Pin=250mW/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 93.1 V/m; Power Drift = -0.006 dB

Peak SAR (extrapolated) = 16.9 W/kg

**SAR(1 g) = 9.74 mW/g; SAR(10 g) = 5.09 mW/g**

Maximum value of SAR (measured) = 11.1 mW/g

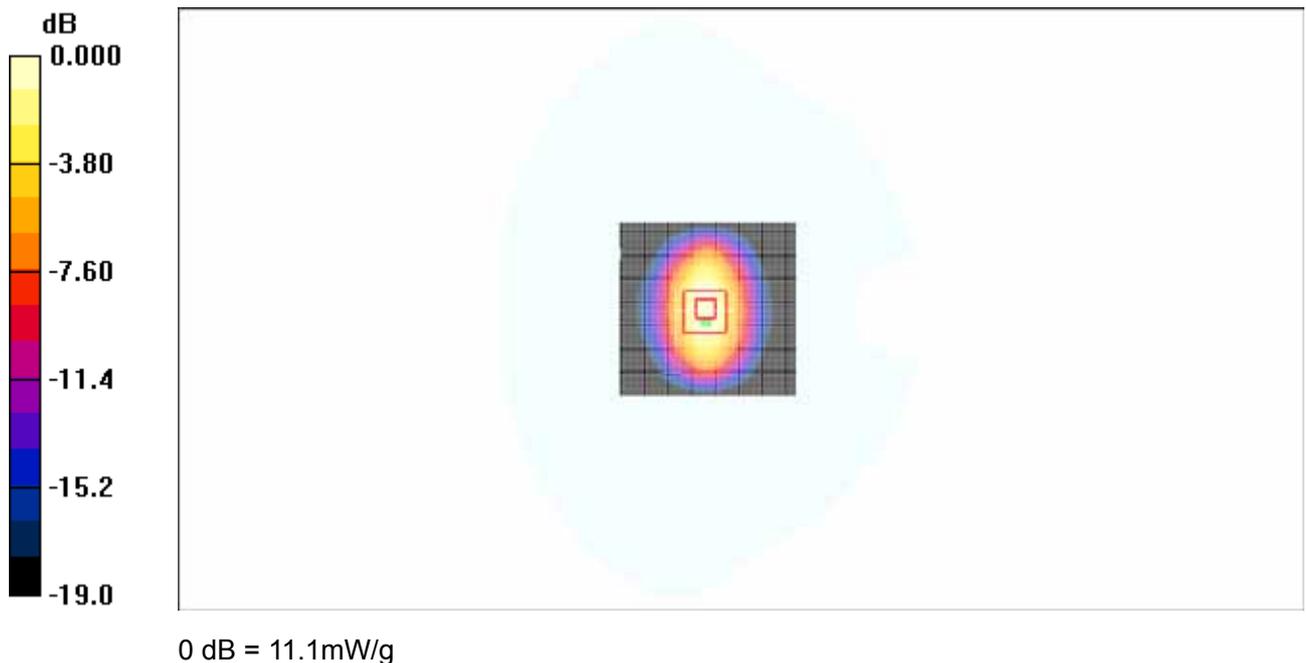


Figure 393 System Performance Check 1900MHz 250mW

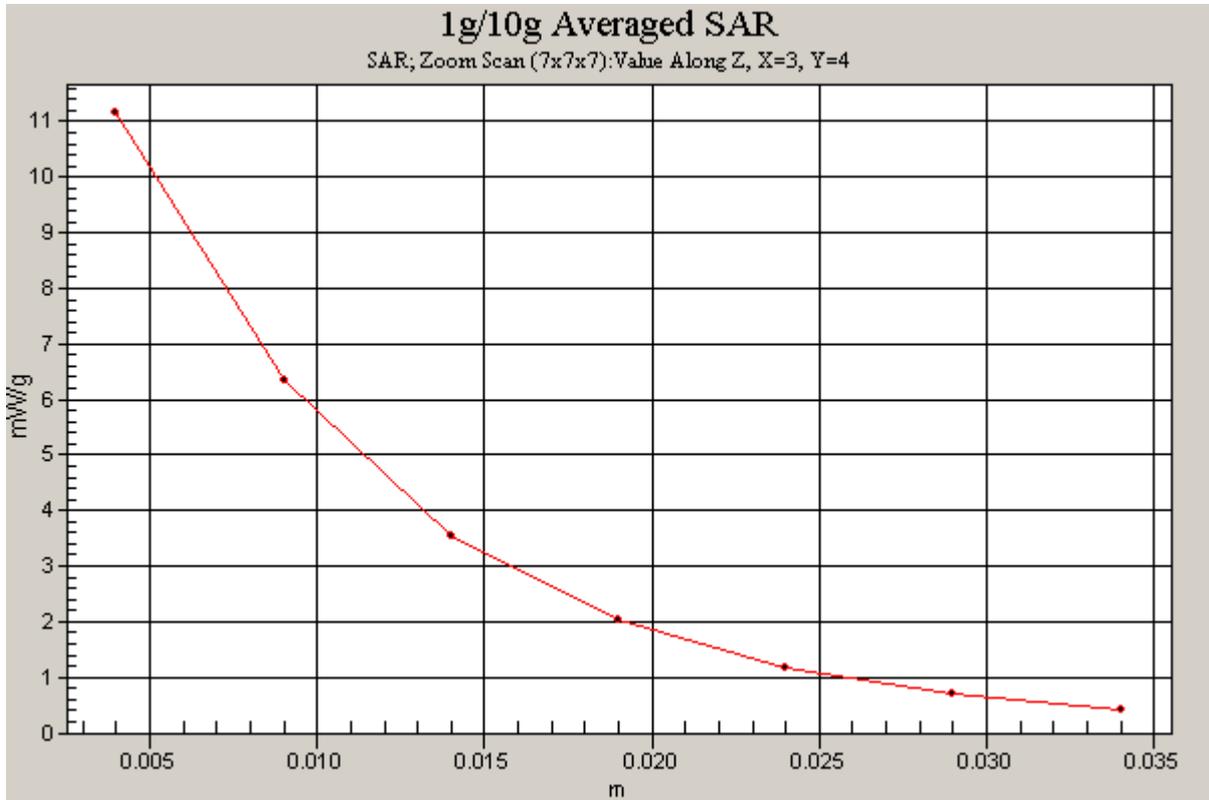


Figure 394 Z-Scan at power reference point (system validation at 1900 MHz dipole)

# TA Technology (Shanghai) Co., Ltd. Test Report

No. RZA2008-1618

Page 444 of 484

## ANNEX D : PROBE CALIBRATION CERTIFICATE

**Calibration Laboratory of  
Schmid & Partner  
Engineering AG**  
Zeughausstrasse 43, 8004 Zurich, Switzerland




S Schweizerischer Kalibrierdienst  
S Service suisse d'étalonnage  
S Servizio svizzero di taratura  
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS) Accreditation No.: **SCS 106**  
 The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

Client: **TA (Auden)**

Certificate No.: **EX3-3660\_Sep08**

### CALIBRATION CERTIFICATE

Object: **EX3DV4 - SN:3660**

Calibration procedure(s): **QA CAL-01.v6 and QA CAL-23.v3  
Calibration procedure for dosimetric E-field probes**

Calibration date: **September 3, 2008**

Condition of the calibrated item: **In Tolerance**

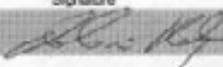
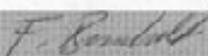
This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility; environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	1-Apr-08 (No. 217-00788)	Apr-09
Power sensor E4412A	MY41495277	1-Apr-08 (No. 217-00788)	Apr-09
Power sensor E4412A	MY41498087	1-Apr-08 (No. 217-00788)	Apr-09
Reference 3 dB Attenuator	SN: 85054 (3c)	1-Jul-08 (No. 217-00868)	Jul-09
Reference 30 dB Attenuator	SN: 55066 (30b)	31-Mar-08 (No. 217-00787)	Apr-09
Reference 30 dB Attenuator	SN: 55129 (30b)	1-Jul-08 (No. 217-00868)	Jul-09
Reference Probe ESS3UVZ	SN: 3013	2-Jan-08 (No. ESS-3013_Jan08)	Jan-09
DAE4	SN: 800	3-Sep-07 (No. DAE4-660_Sep07)	Sep-08

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-08 (in house check Oct-07)	In house check: Oct-08
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-07)	In house check: Oct-08

	Name	Function	Signature
Calibrated by:	Kata POKOVIĆ	Technical Manager	
Approved by:	Flir Dornbusch	R&D Director	

Issued: September 3, 2008

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: EX3-3660\_Sep08

Page 1 of 9

# TA Technology (Shanghai) Co., Ltd. Test Report

No. RZA2008-1618

Page 445of 484

**Calibration Laboratory of  
Schmid & Partner  
Engineering AG**  
Zeughausstrasse 43, 8004 Zurich, Switzerland



**S** Schweizerischer Kalibrierdienst  
**S** Service suisse d'étalonnage  
**C** Servizio svizzero di taratura  
**S** Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 100**

## Glossary:

TSL	tissue simulating liquid
NORM <sub>x,y,z</sub>	sensitivity in free space
ConvF	sensitivity in TSL / NORM <sub>x,y,z</sub>
DCP	diode compression point
Polarization $\phi$	$\phi$ rotation around probe axis
Polarization $\theta$	$\theta$ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\theta = 0$ is normal to probe axis

## Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005

## Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\theta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not effect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub>** = NORM<sub>x,y,z</sub> \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep (no uncertainty required). DCP does not depend on frequency nor media.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.

EX3DV4 SN:3660

September 3, 2008

# Probe EX3DV4

## SN:3660

Manufactured:	April 29, 2008
Calibrated:	September 3, 2008

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

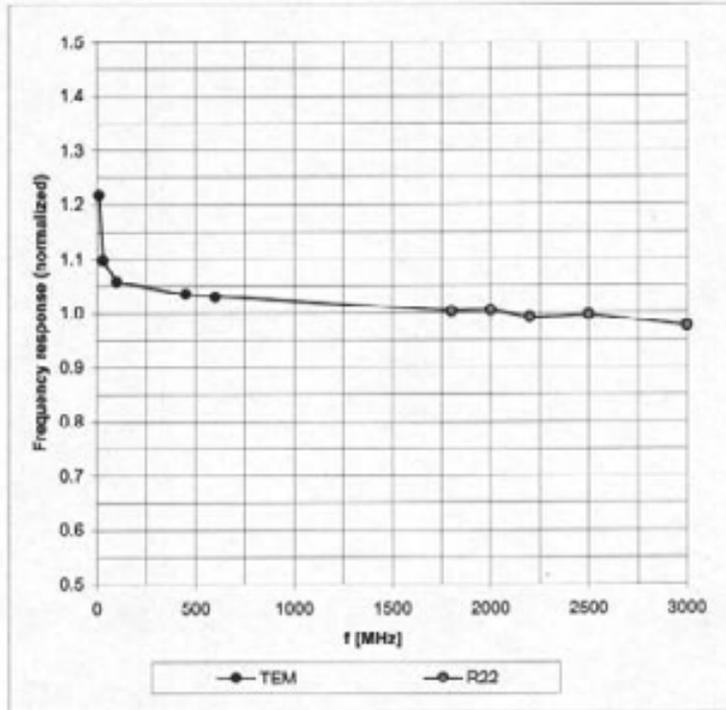


EX3DV4 SN:3660

September 3, 2008

### Frequency Response of E-Field

(TEM-Cell: ifi110 EXX, Waveguide: R22)

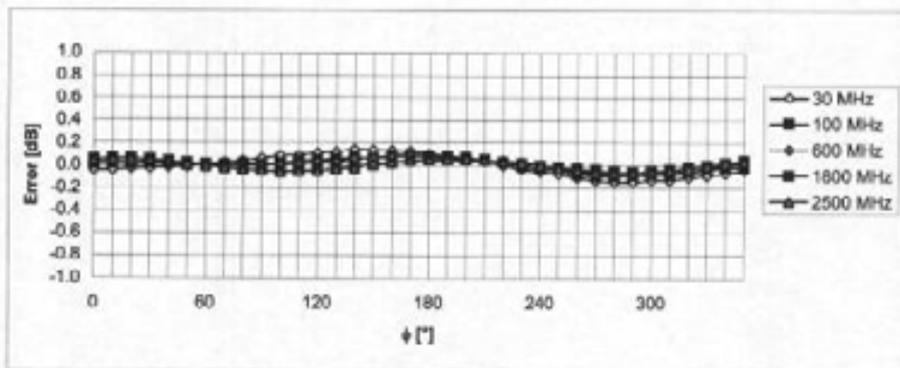
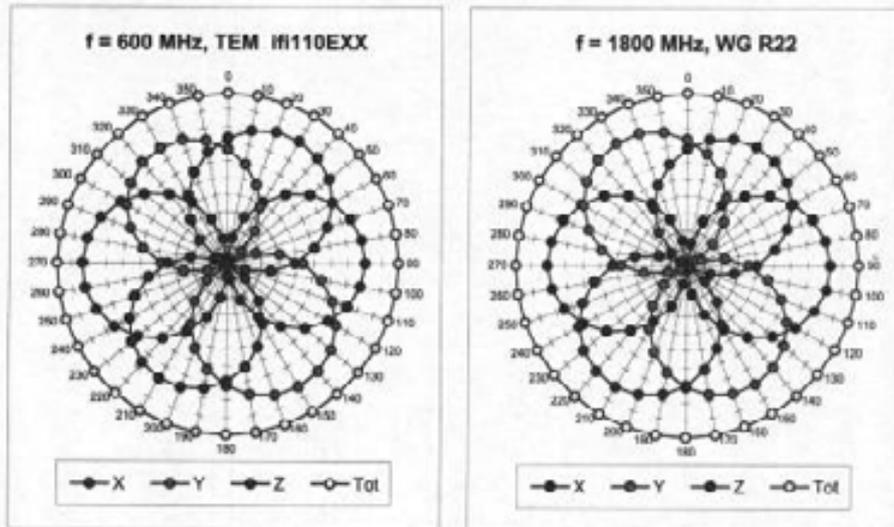


Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  (k=2)

EX3DV4 SN:3660

September 3, 2008

Receiving Pattern ( $\phi$ ),  $\theta = 0^\circ$

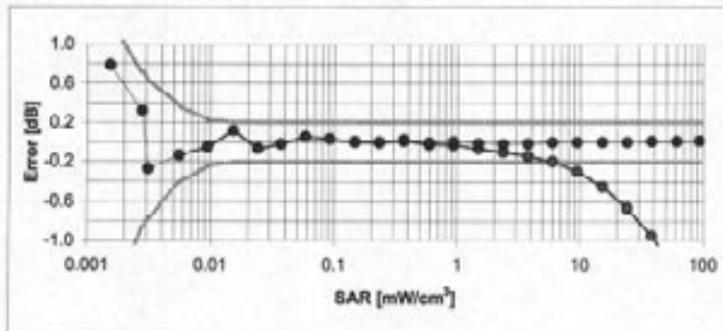
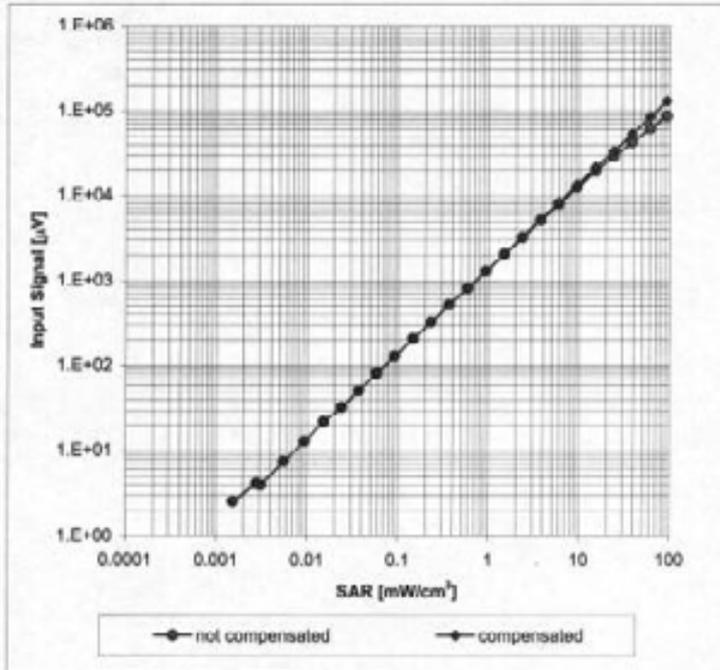


Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  (k=2)

EX3DV4 SN:3660

September 3, 2008

**Dynamic Range  $f(SAR_{head})$**   
(Waveguide R22,  $f = 1800$  MHz)

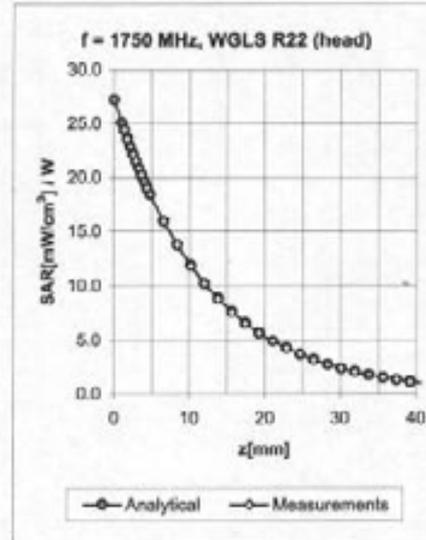
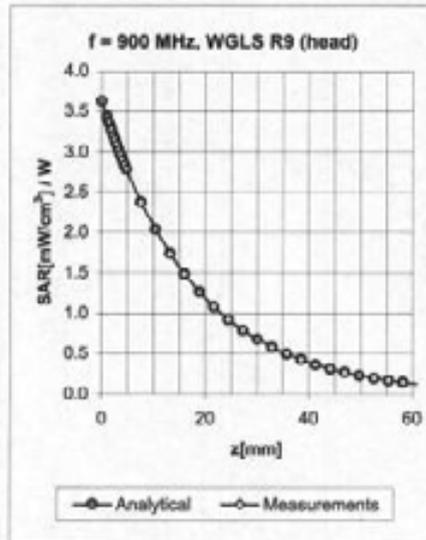


Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

EX3DV4 SN:3660

September 3, 2008

### Conversion Factor Assessment



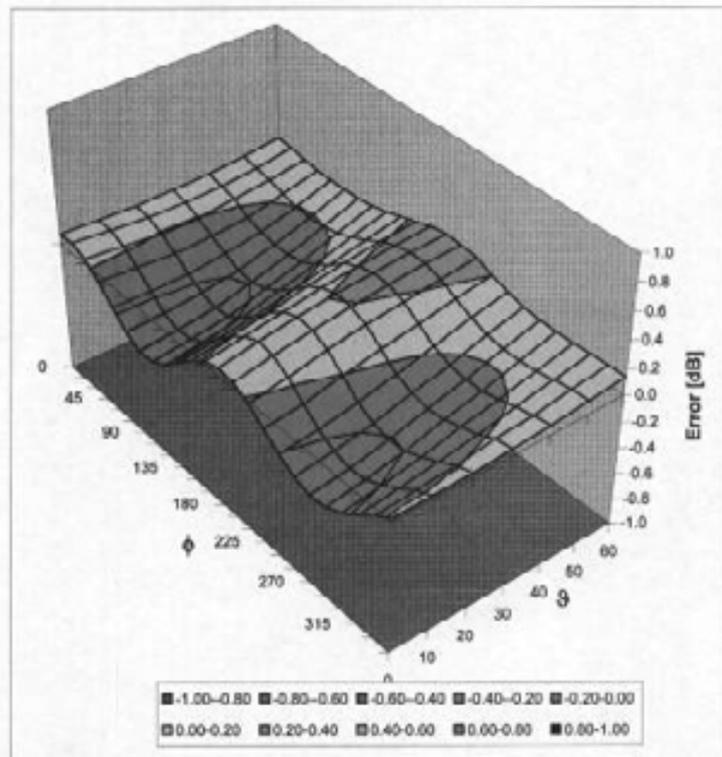
f [MHz]	Validity [MHz] <sup>c</sup>	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
835	± 50 / ± 100	Head	41.5 ± 5%	0.90 ± 5%	0.49	0.76	9.19 ± 11.0% (k=2)
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.43	0.83	8.84 ± 11.0% (k=2)
1750	± 50 / ± 100	Head	40.1 ± 5%	1.37 ± 5%	0.68	0.63	7.79 ± 11.0% (k=2)
1950	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.31	0.80	7.35 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.32	0.85	6.94 ± 11.0% (k=2)
835	± 50 / ± 100	Body	55.2 ± 5%	0.97 ± 5%	0.63	0.71	9.10 ± 11.0% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.30	1.06	8.76 ± 11.0% (k=2)
1750	± 50 / ± 100	Body	53.4 ± 5%	1.49 ± 5%	0.34	0.66	7.55 ± 11.0% (k=2)
1950	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.60	0.67	7.45 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.30	1.15	6.75 ± 11.0% (k=2)

<sup>c</sup> The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

EX3DV4 SN:3660

September 3, 2008

**Deviation from Isotropy in HSL**  
Error ( $\phi$ ,  $\theta$ ),  $f = 900$  MHz



Uncertainty of Spherical Isotropy Assessment:  $\pm 2.6\%$  ( $k=2$ )

**TA Technology (Shanghai) Co., Ltd.**  
**Test Report**

No. RZA2008-1618

Page 453 of 484

**ANNEX E : D835V2 DIPOLE CALIBRATION CERTIFICATE**

**Calibration Laboratory of  
Schmid & Partner  
Engineering AG**  
Zaughausstrasse 43, 8004 Zurich, Switzerland



**S** Schweizerischer Kalibrierdienst  
**C** Service suisse d'étalonnage  
**S** Servizio svizzero di taratura  
**S** Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **Auden**

Certificate No: **D835V2-4d020\_Jul08**

**CALIBRATION CERTIFICATE**

Object **D835V2 - SN: 4d020**

Calibration procedure(s) **QA CAL-05.v7  
Calibration procedure for dipole validation kits**

Calibration date: **July 21, 2008**

Condition of the calibrated item **In Tolerance**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-07 (No. 217-00736)	Oct-08
Power sensor HP 8481A	US37292783	04-Oct-07 (No. 217-00736)	Oct-08
Reference 20 dB Attenuator	SN: 5086 (20g)	01-Jul-08 (No. 217-00864)	Jul-09
Type-N mismatch combination	SN: 5047.2 / 08327	01-Jul-08 (No. 217-00867)	Jul-09
Reference Probe ES3DV2	SN: 3025	28-Apr-08 (No. ES3-3025_Apr08)	Apr-09
DAF4	SN: 601	14-Mar-08 (No. DAE4-601_Mar08)	Mar-09
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-07)	in house check: Oct-09
RF generator R&S SMT-06	100005	4-Aug-90 (in house check Oct-07)	in house check: Oct-09
Network Analyzer HP 8753E	US37300585 B4206	18-Oct-01 (in house check Oct-07)	in house check: Oct-08

Calibrated by: **Jeton Kastrot** (Name), **Laboratory Technician** (Function), *[Signature]* (Signature)

Approved by: **Katja Pokovic** (Name), **Technical Manager** (Function), *[Signature]* (Signature)

Issued: July 21, 2008

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

**Calibration Laboratory of  
Schmid & Partner  
Engineering AG**  
Zaughausstrasse 43, 8004 Zurich, Switzerland



**S** Schweizerischer Kalibrierdienst  
**C** Service suisse d'étalonnage  
**S** Servizio svizzero di taratura  
**S** Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

**Glossary:**

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

**Calibration is Performed According to the Following Standards:**

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65
- EN 50361, "Basic standard for the measurement of specific absorption rate related to human exposure to electromagnetic fields from mobile phones (300 MHz - 3 GHz)", July 2001

**Additional Documentation:**

- DASY4 System Handbook

**Methods Applied and Interpretation of Parameters:**

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

**Measurement Conditions**

DASY system configuration, as far as not given on page 1.

<b>DASY Version</b>	DASY4	V4.7
<b>Extrapolation</b>	Advanced Extrapolation	
<b>Phantom</b>	Modular Flat Phantom V4.9	
<b>Distance Dipole Center - TSL</b>	15 mm	with Spacer
<b>Zoom Scan Resolution</b>	dx, dy, dz = 5 mm	
<b>Frequency</b>	835 MHz ± 1 MHz	

**Head TSL parameters**

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
<b>Nominal Head TSL parameters</b>	22.0 °C	41.5	0.90 mho/m
<b>Measured Head TSL parameters</b>	(22.0 ± 0.2) °C	41.0 ± 6 %	0.89 mho/m ± 6 %
<b>Head TSL temperature during test</b>	(21.6 ± 0.2) °C	---	---

**SAR result with Head TSL**

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.30 mW / g
SAR normalized	normalized to 1W	9.20 mW / g
SAR for nominal Head TSL parameters <sup>1</sup>	normalized to 1W	<b>9.20 mW / g ± 17.0 % (k=2)</b>

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.52 mW / g
SAR normalized	normalized to 1W	6.08 mW / g
SAR for nominal Head TSL parameters <sup>1</sup>	normalized to 1W	<b>6.07 mW / g ± 16.5 % (k=2)</b>

<sup>1</sup> Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

**Body TSL parameters**

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	55.2	0.97 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	53.6 ± 6 %	1.0 mho/m ± 6 %
Body TSL temperature during test	(22.0 ± 0.2) °C	---	---

**SAR result with Body TSL**

SAR averaged over 1 cm <sup>3</sup> (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.41 mW / g
SAR normalized	normalized to 1W	9.64 mW / g <sup>2</sup>
SAR for nominal Body TSL parameters <sup>2</sup>	normalized to 1W	9.28 mW / g ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Body TSL	condition	
SAR measured	250 mW input power	1.59 mW / g
SAR normalized	normalized to 1W	6.36 mW / g
SAR for nominal Body TSL parameters <sup>2</sup>	normalized to 1W	6.19 mW / g ± 16.5 % (k=2)

<sup>2</sup> Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

**Appendix**

**Antenna Parameters with Head TSL**

Impedance, transformed to feed point	53.7 $\Omega$ -3.7 j $\Omega$
Return Loss	- 25.9 dB

**Antenna Parameters with Body TSL**

Impedance, transformed to feed point	49.4 $\Omega$ -5.1 j $\Omega$
Return Loss	- 25.8 dB

**General Antenna Parameters and Design**

Electrical Delay (one direction)	1.390 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

**Additional EUT Data**

Manufactured by	SPEAG
Manufactured on	April 22, 2004

**DASY4 Validation Report for Head TSL**

Date/Time: 21.07.2008 10:08:05

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d020**

Communication System: CW-835; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL 900 MHz;

Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.89 \text{ mho/m}$ ;  $\epsilon_r = 40.9$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

**DASY4 Configuration:**

- Probe: ES3DV2 - SN3025; ConvF(5.97, 5.97, 5.97); Calibrated: 28.04.2008
- Sensor-Surface: 3.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 14.03.2008
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; ;
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

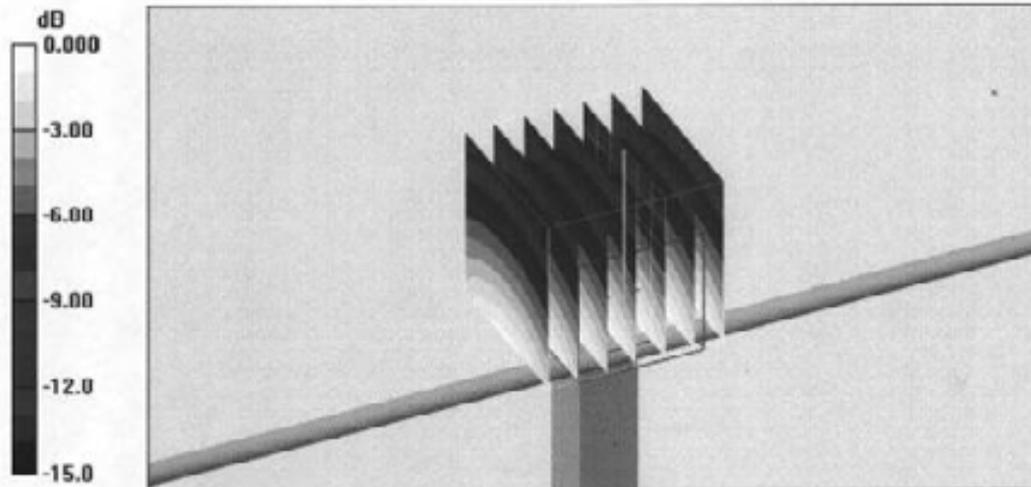
**Pin=250mW; dip=15mm; dist=3.4mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.4 V/m; Power Drift = 0.011 dB

Peak SAR (extrapolated) = 3.36 W/kg

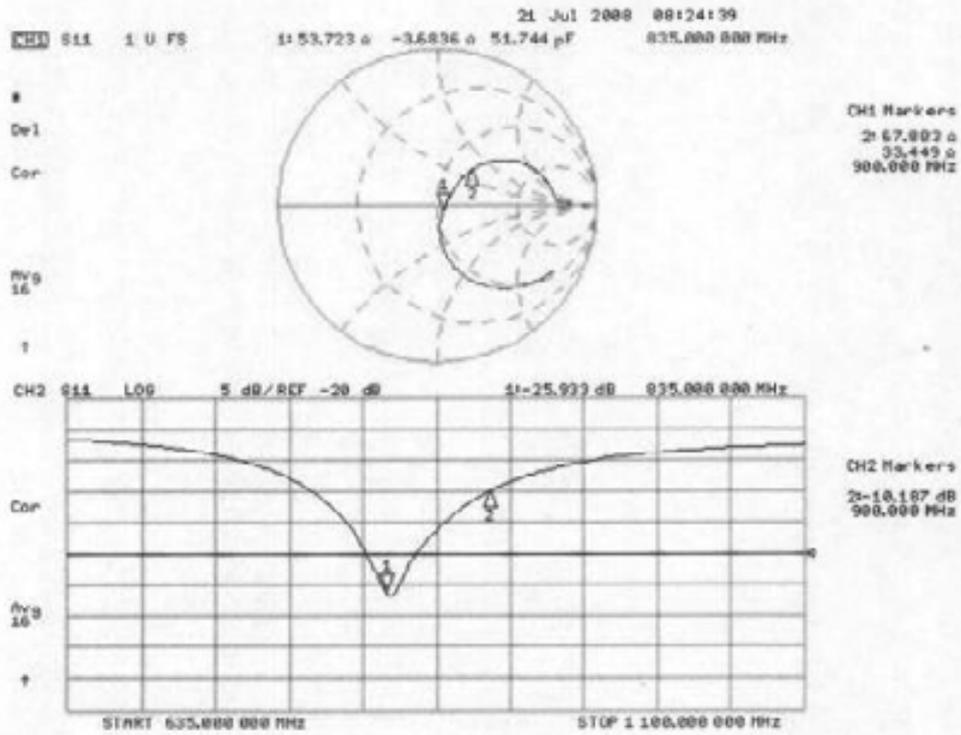
**SAR(1 g) = 2.3 mW/g; SAR(10 g) = 1.52 mW/g**

Maximum value of SAR (measured) = 2.61 mW/g



0 dB = 2.61 mW/g

Impedance Measurement Plot for Head TSL



**DASY4 Validation Report for Body TSL**

Date/Time: 14.07.2008 09:46:38

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d020**

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL900;

Medium parameters used:  $f = 835$  MHz;  $\sigma = 1$  mho/m;  $\epsilon_r = 53.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

**DASY4 Configuration:**

- Probe: ES3DV2 - SN3025; ConvF(5.9, 5.9, 5.9); Calibrated: 28.04.2008
- Sensor-Surface: 3.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 14.03.2008
- Phantom: Flat Phantom 4.9L, Type: QD000P49AA, ,
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

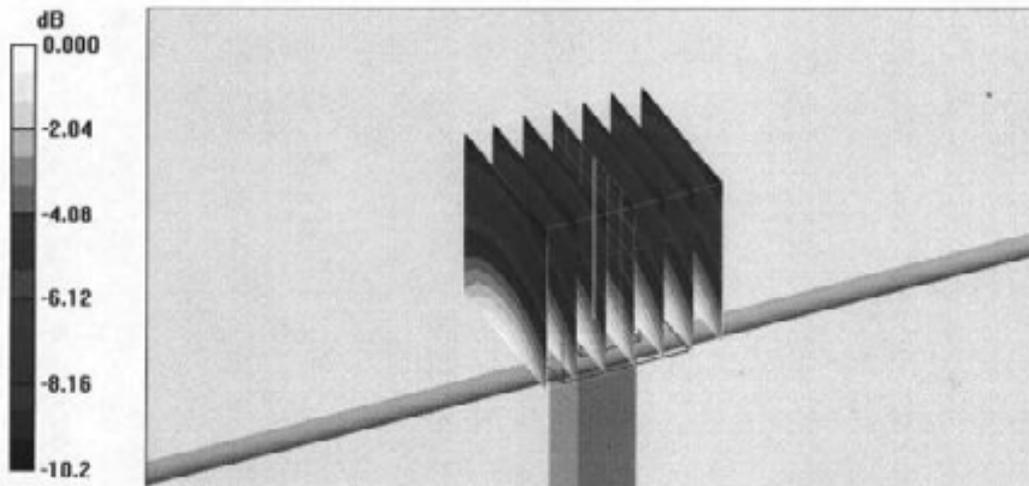
**Pin = 250mW, d = 15mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.3 V/m; Power Drift = 0.008 dB

Peak SAR (extrapolated) = 3.49 W/kg

**SAR(1 g) = 2.41 mW/g; SAR(10 g) = 1.59 mW/g**

Maximum value of SAR (measured) = 2.73 mW/g



0 dB = 2.73mW/g