

Fig. 7-1 Z-Scan at power reference point (WCDMA1900 CH9262)

**WCDMA 1900 Body Rear Low**

Date: 2013-4-6

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.464$  mho/m;  $\epsilon_r = 52.98$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.7°C      Liquid Temperature: 22.2°C

Communication System: WCDMA 1900 Frequency: 1852.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(4.64, 4.64, 4.64)

**Rear Low/Area Scan (61x111x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.03 W/kg

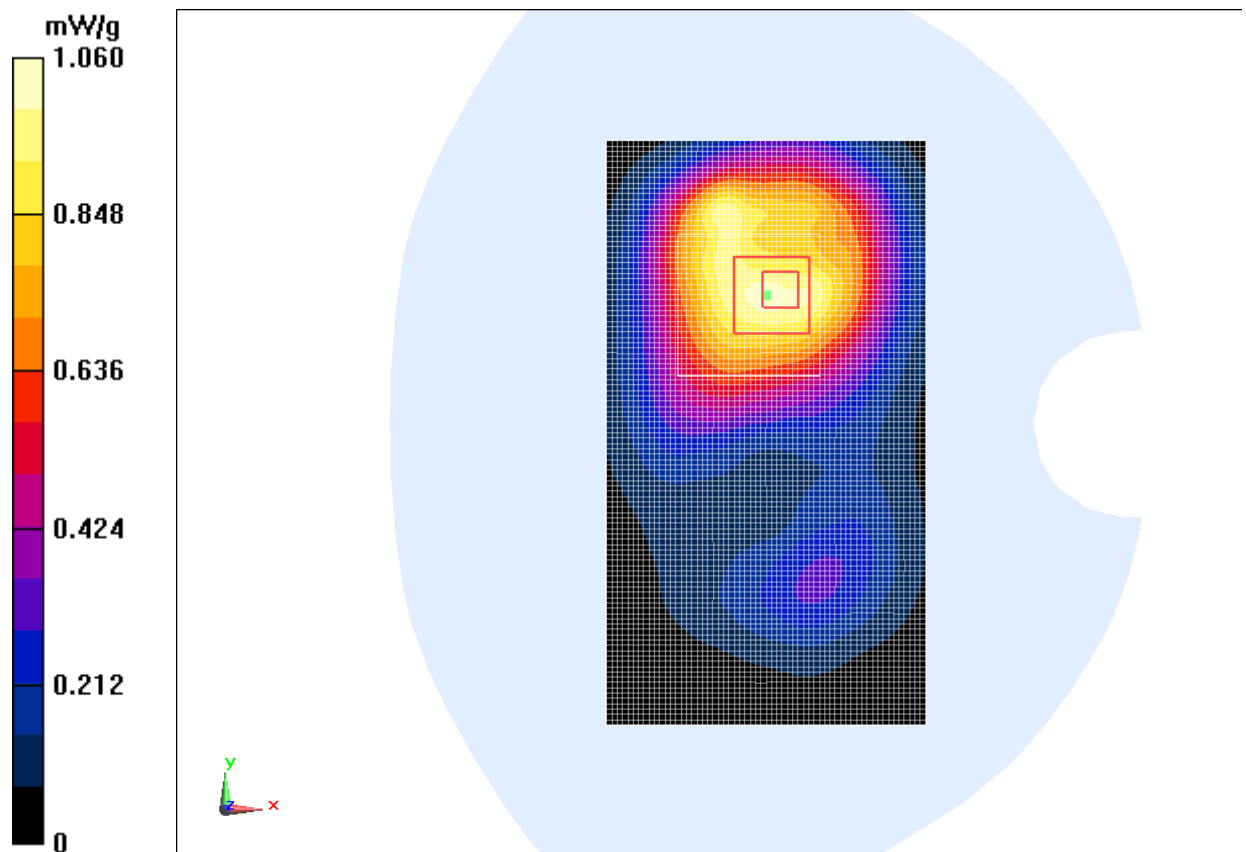
**Rear Low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.884 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 1.561 W/kg

**SAR(1 g) = 0.983 W/kg; SAR(10 g) = 0.617 W/kg**

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



**Fig.8 WCDMA1900 CH9262**

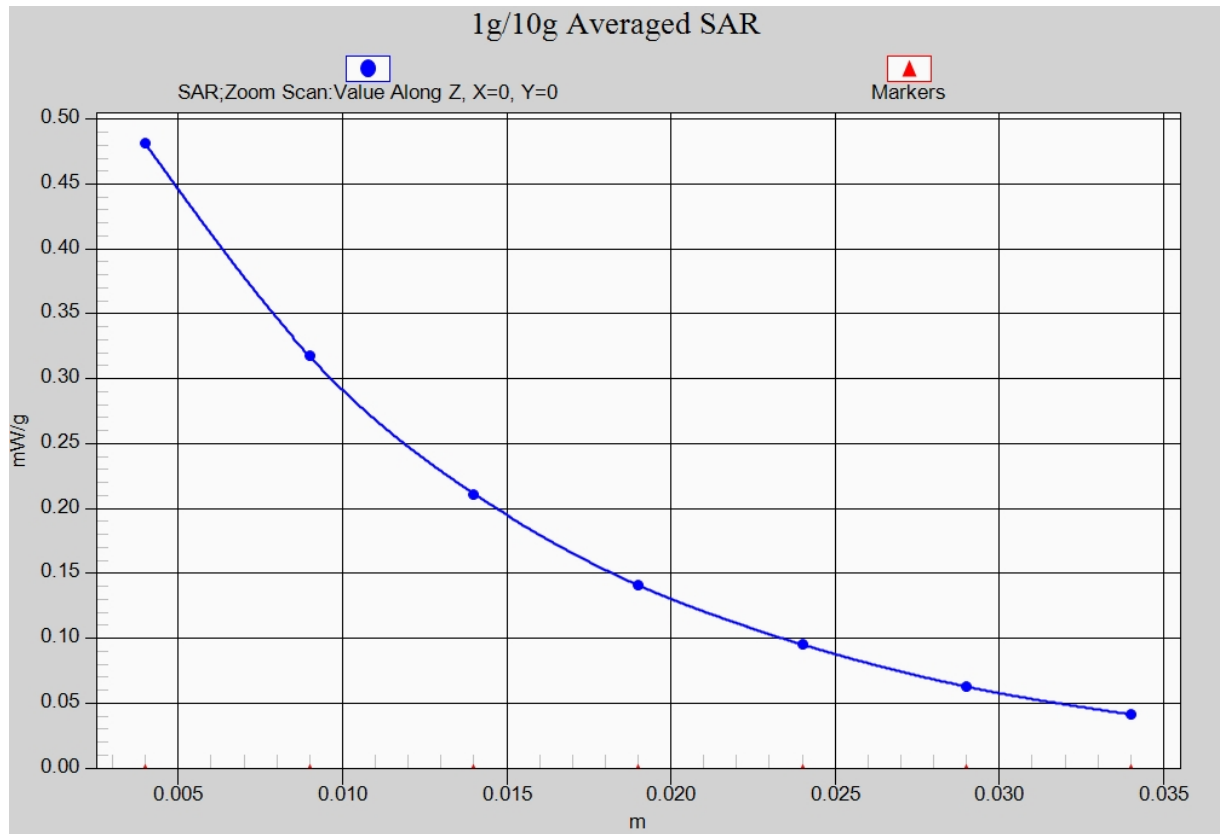


Fig. 8-1 Z-Scan at power reference point (WCDMA1900 CH9262)

**LTE Band4 Left Cheek Middle with QPSK\_20M\_1RB\_High**

Date: 2013-10-30

Electronics: DAE4 Sn771

Medium: Head 1750 MHz

Medium parameters used (interpolated):  $f = 1732.5$  MHz;  $\sigma = 1.353$  mho/m;  $\epsilon_r = 40.739$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.3°C      Liquid Temperature: 21.8°C

Communication System: LTE Band4 Frequency: 1732.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3846 ConvF(8.39, 8.39, 8.39)

**Cheek Middle/Area Scan (61x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.389 W/kg

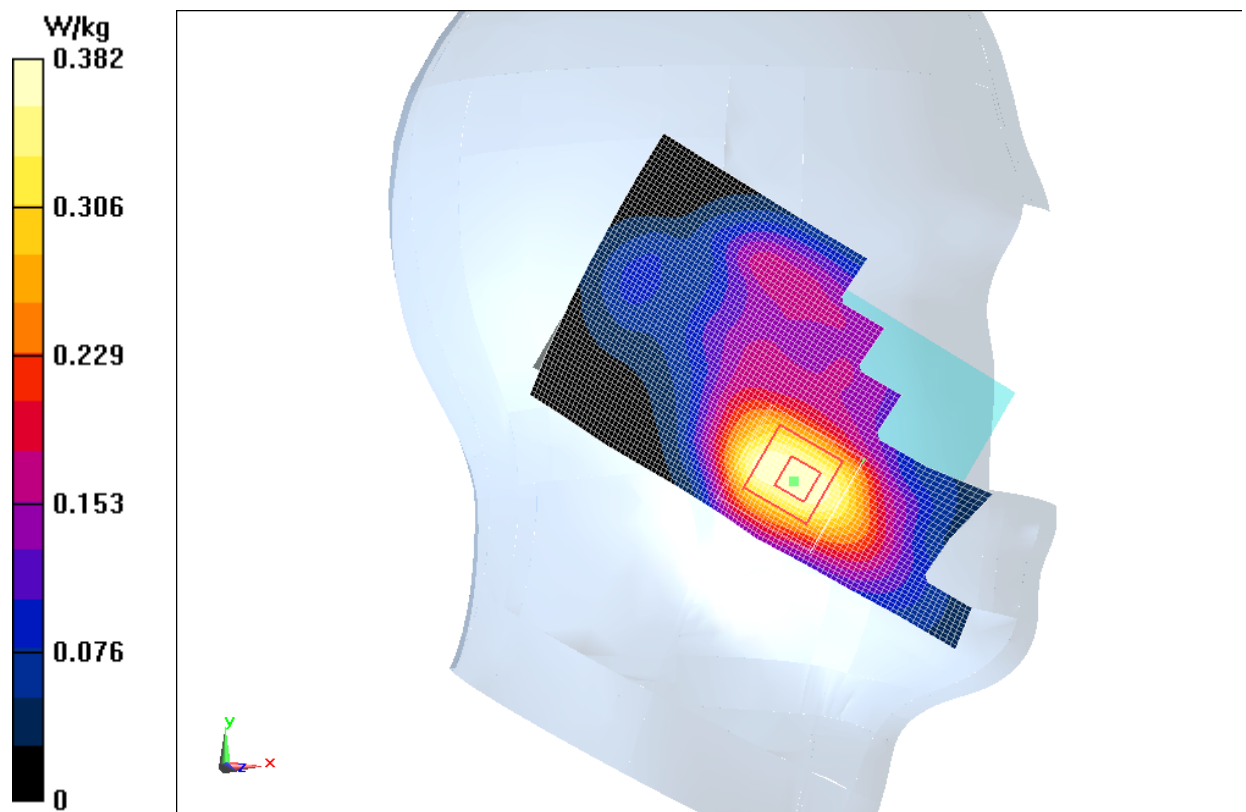
**Cheek Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.682 V/m; Power Drift = 0.13 dB

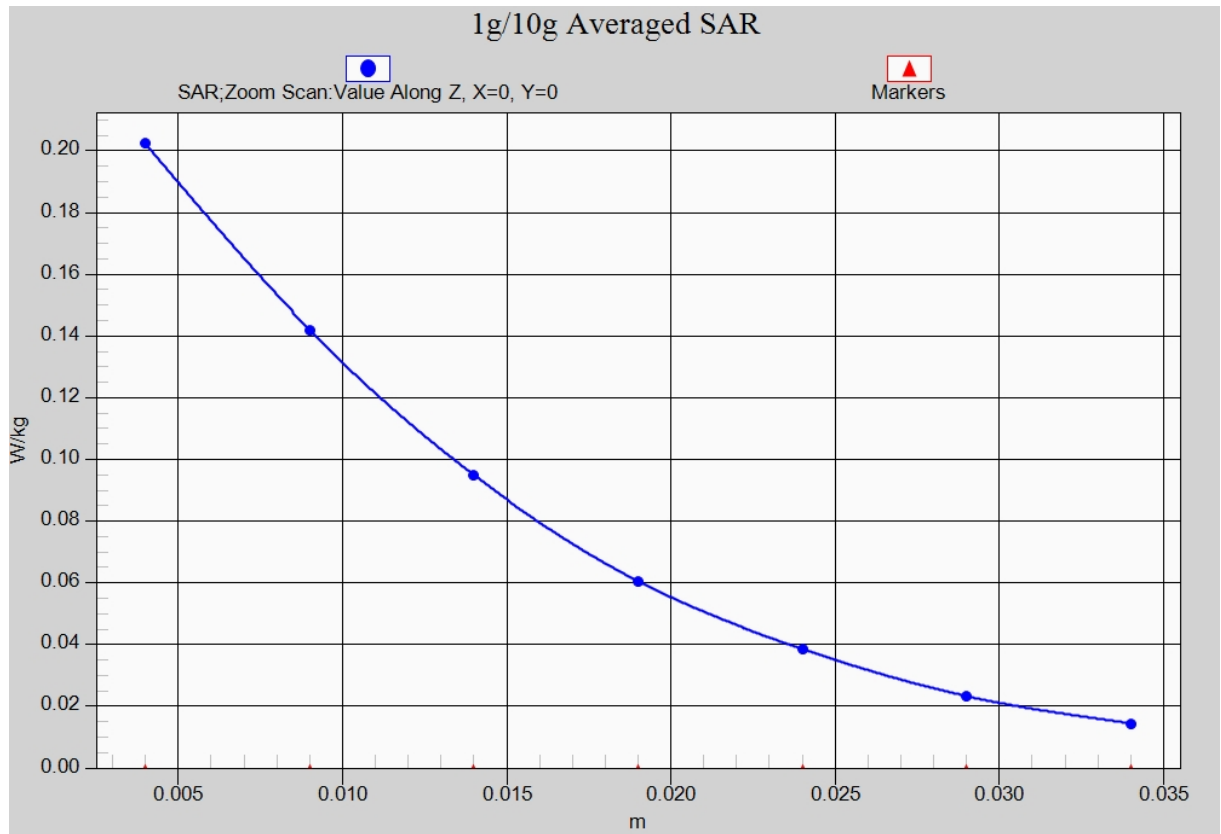
Peak SAR (extrapolated) = 0.492 W/kg

**SAR(1 g) = 0.354 W/kg; SAR(10 g) = 0.231 W/kg**

Maximum value of SAR (measured) = 0.382 W/kg



**Fig.9 LTE Band4 CH20175**



**Fig. 9-1 Z-Scan at power reference point (LTE Band4 CH20175)**

**LTE Band4 Body Bottom Edge Middle with QPSK\_20M\_1RB\_High**

Date: 2013-10-30

Electronics: DAE4 Sn771

Medium: Body 1750 MHz

Medium parameters used (interpolated):  $f = 1732.5$  MHz;  $\sigma = 1.468$  mho/m;  $\epsilon_r = 54.451$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.3°C      Liquid Temperature: 21.8°C

Communication System: LTE Band4 Frequency: 1732.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3846 ConvF(7.63, 7.63, 7.63)

**Bottom Edge Middle/Area Scan (71x111x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.848 W/kg

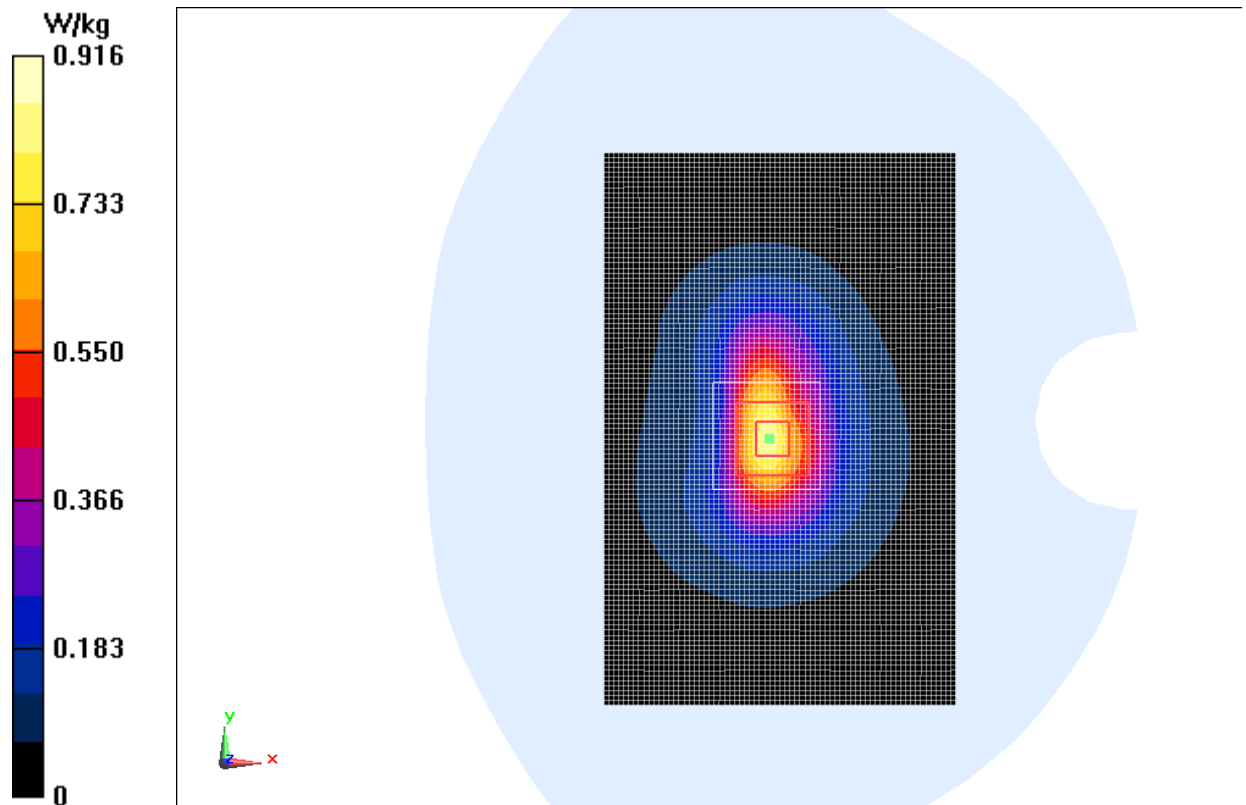
**Bottom Edge Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.105 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.20 W/kg

**SAR(1 g) = 0.804 W/kg; SAR(10 g) = 0.454 W/kg**

Maximum value of SAR (measured) = 0.916 W/kg



**Fig.10 LTE Band4 CH20175**

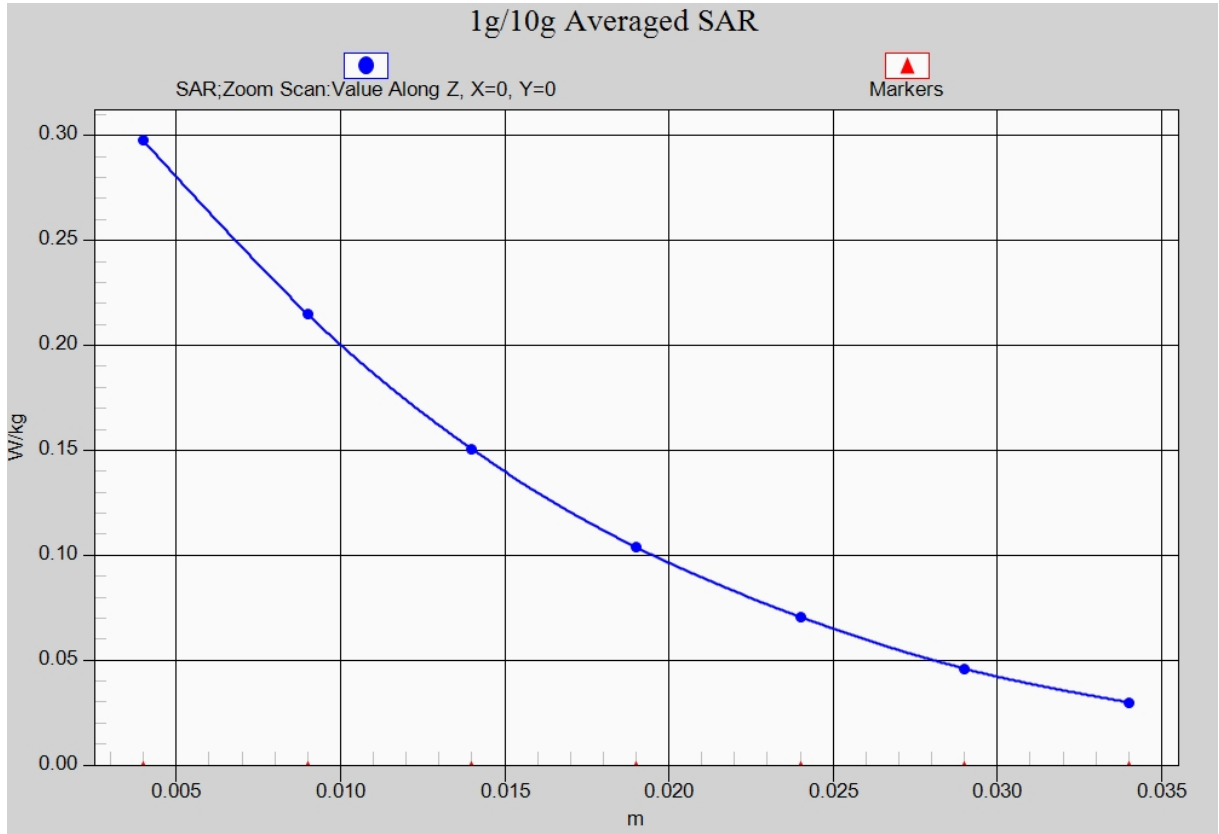


Fig. 10-1 Z-Scan at power reference point (LTE Band4 CH20175)

**LTE Band17 Left Cheek Low with QPSK\_10M\_1RB\_Middle**

Date: 2013-4-3

Electronics: DAE4 Sn771

Medium: Head 750 MHz

Medium parameters used (interpolated):  $f = 709$  MHz;  $\sigma = 0.859$  mho/m;  $\epsilon_r = 42.209$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.6°C      Liquid Temperature: 22.1°C

Communication System: LTE Band17 Frequency: 709 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(6.5, 6.5, 6.5)

**Cheek Low/Area Scan (61x101x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.360 W/kg

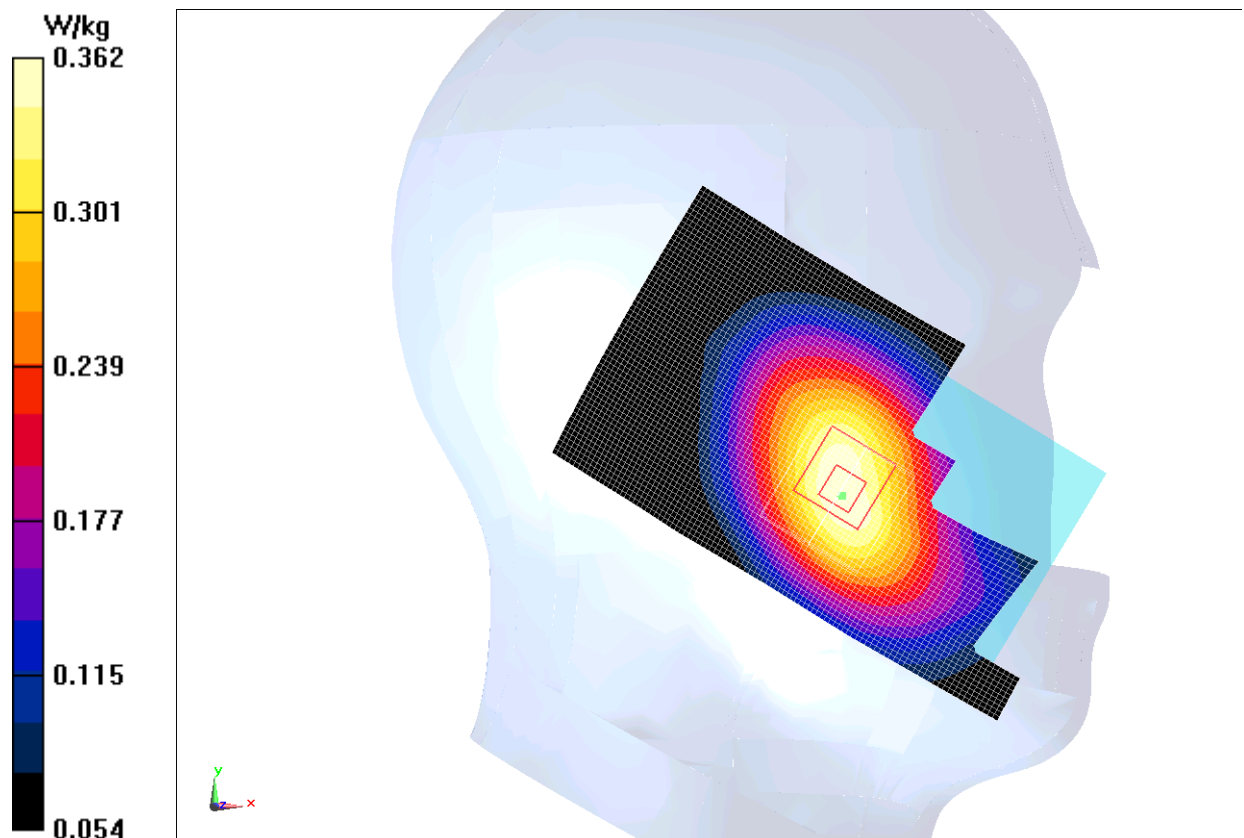
**Cheek Low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.191 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.407 W/kg

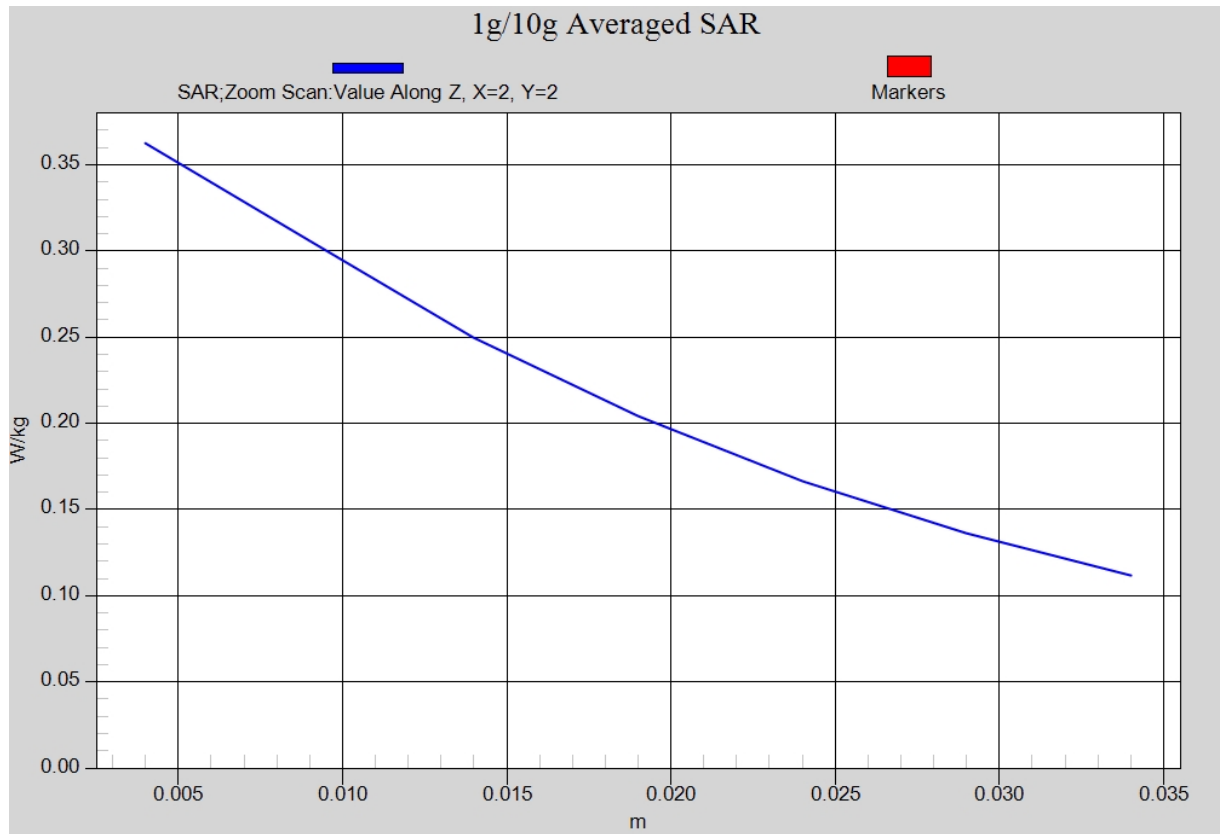
**SAR(1 g) = 0.347 W/kg; SAR(10 g) = 0.278 W/kg**

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



**Fig.11 LTE Band17 CH23780**





**Fig. 11-1 Z-Scan at power reference point (LTE Band17 CH23780)**

**LTE Band17 Body Rear Low with QPSK\_10M\_1RB\_Middle**

Date: 2013-4-3

Electronics: DAE4 Sn771

Medium: Body 750 MHz

Medium parameters used (interpolated):  $f = 709$  MHz;  $\sigma = 0.949$  mho/m;  $\epsilon_r = 57.13$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.6°C      Liquid Temperature: 22.1°C

Communication System: LTE Band17 Frequency: 709 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(6.29, 6.29, 6.29)

**Rear Low/Area Scan (61x101x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.639 W/kg

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

Reference Value = 24.791 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.725 W/kg

**SAR(1 g) = 0.598 W/kg; SAR(10 g) = 0.467 W/kg**

Maximum value of SAR (measured) = 0.620 W/kg

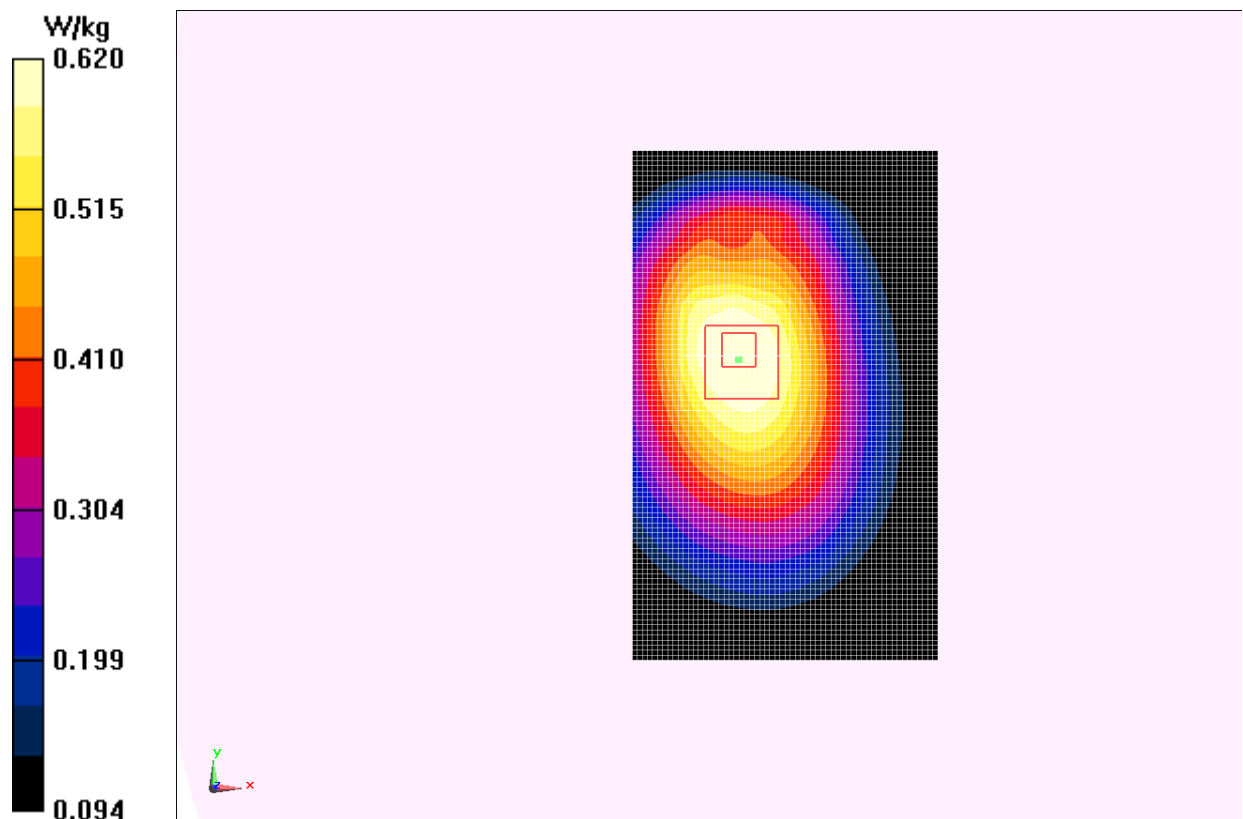
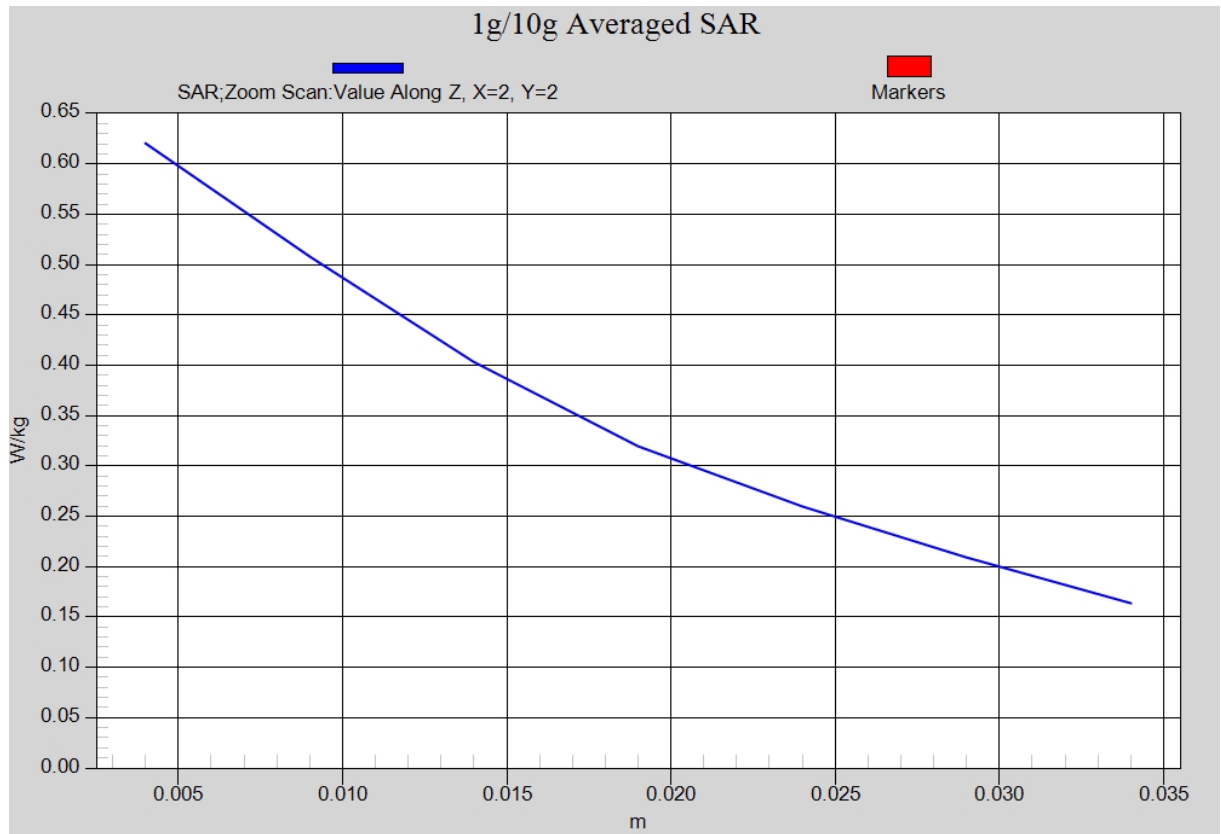


Fig.12 LTE Band17 CH23780



**Fig. 12-1 Z-Scan at power reference point (LTE Band17 CH23780)**

### Wifi 802.11b Right Cheek Channel 1

Date: 2013-4-7

Electronics: DAE4 Sn771

Medium: Head 2450 MHz

Medium parameters used (interpolated):  $f = 2412$  MHz;  $\sigma = 1.747$  mho/m;  $\epsilon_r = 39.756$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.4°C      Liquid Temperature: 21.9°C

Communication System: WLAN 2450 Frequency: 2412 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(4.49, 4.49, 4.49)

**Cheek Low/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.278 W/kg

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

Reference Value = 5.344 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.502 W/kg

**SAR(1 g) = 0.244 W/kg; SAR(10 g) = 0.123 W/kg**

Maximum value of SAR (measured) = 0.267 W/kg

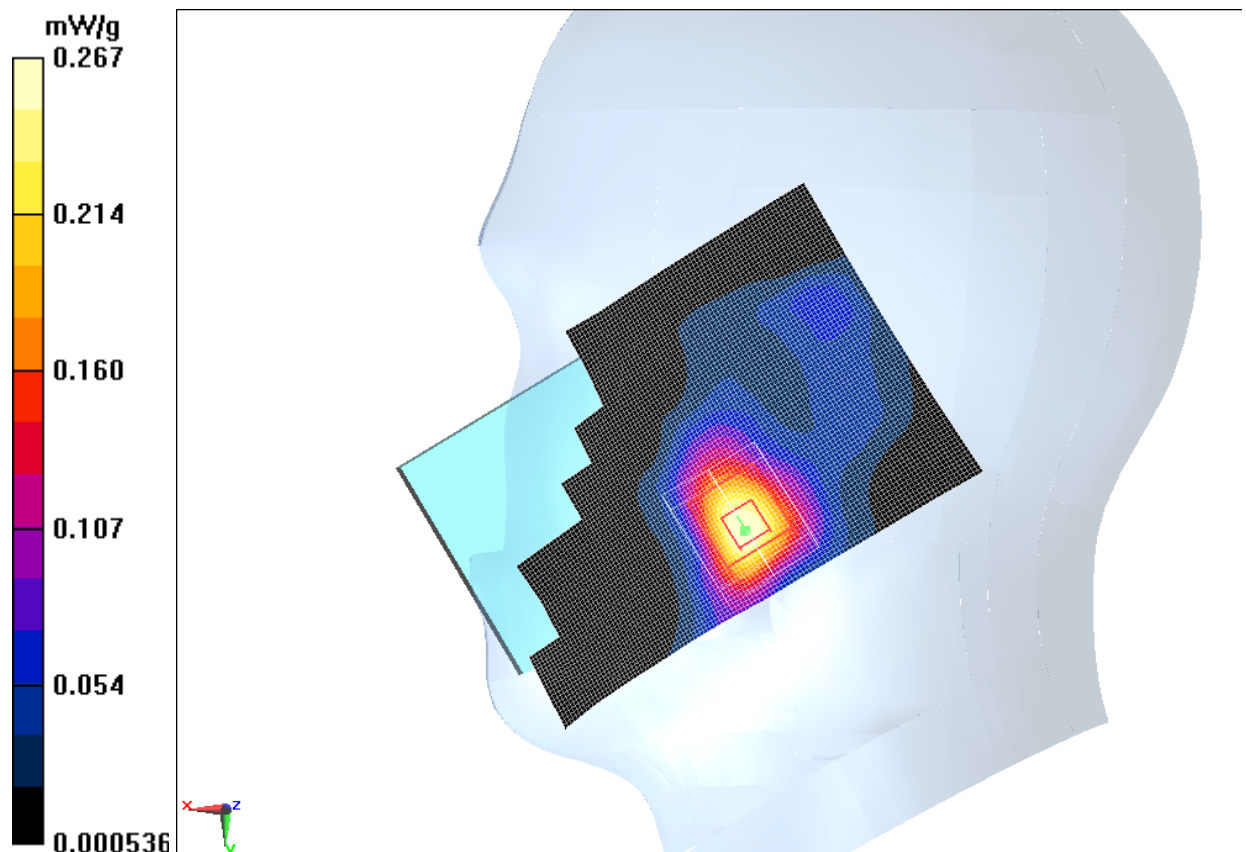
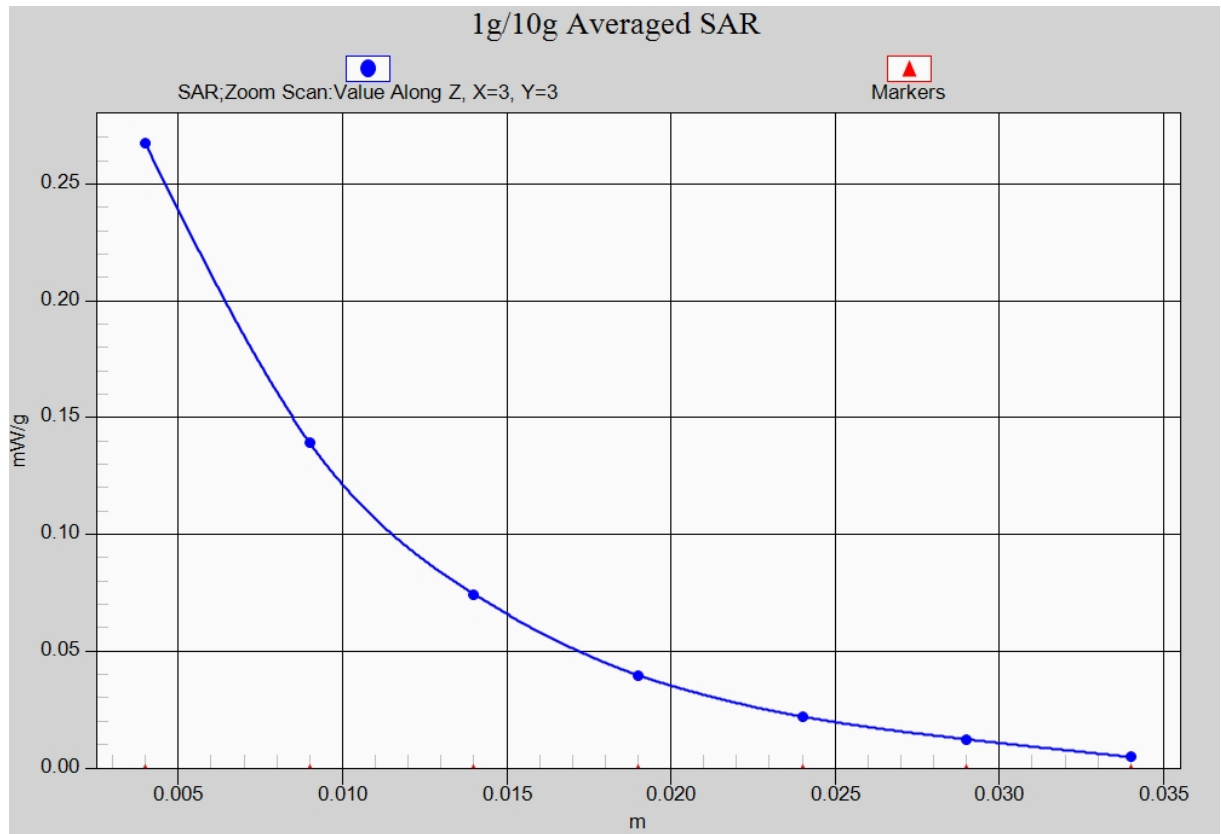


Fig.13 2450 MHz CH1



**Fig. 13-1 Z-Scan at power reference point (2450 MHz CH1)**

### Wifi 802.11b Body Rear Channel 1

Date: 2013-4-7

Electronics: DAE4 Sn771

Medium: Body 2450 MHz

Medium parameters used (interpolated):  $f = 2412$  MHz;  $\sigma = 1.895$  mho/m;  $\epsilon_r = 52.17$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.4°C      Liquid Temperature: 21.9°C

Communication System: WLAN 2450 Frequency: 2412 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(4.15, 4.15, 4.15)

**Rear Low/Area Scan (101x161x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.377 W/kg

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

Reference Value = 10.064 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 0.647 W/kg

**SAR(1 g) = 0.287 W/kg; SAR(10 g) = 0.124 W/kg**

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

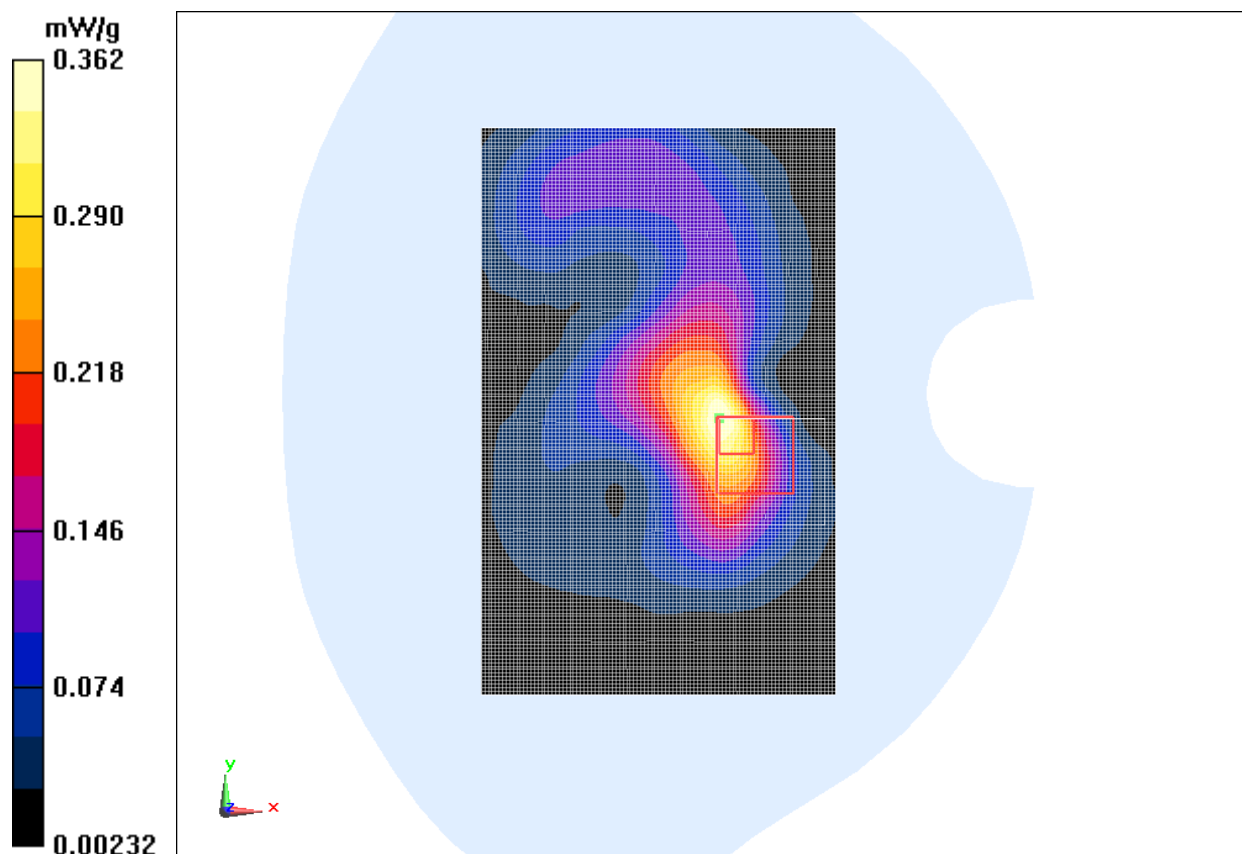
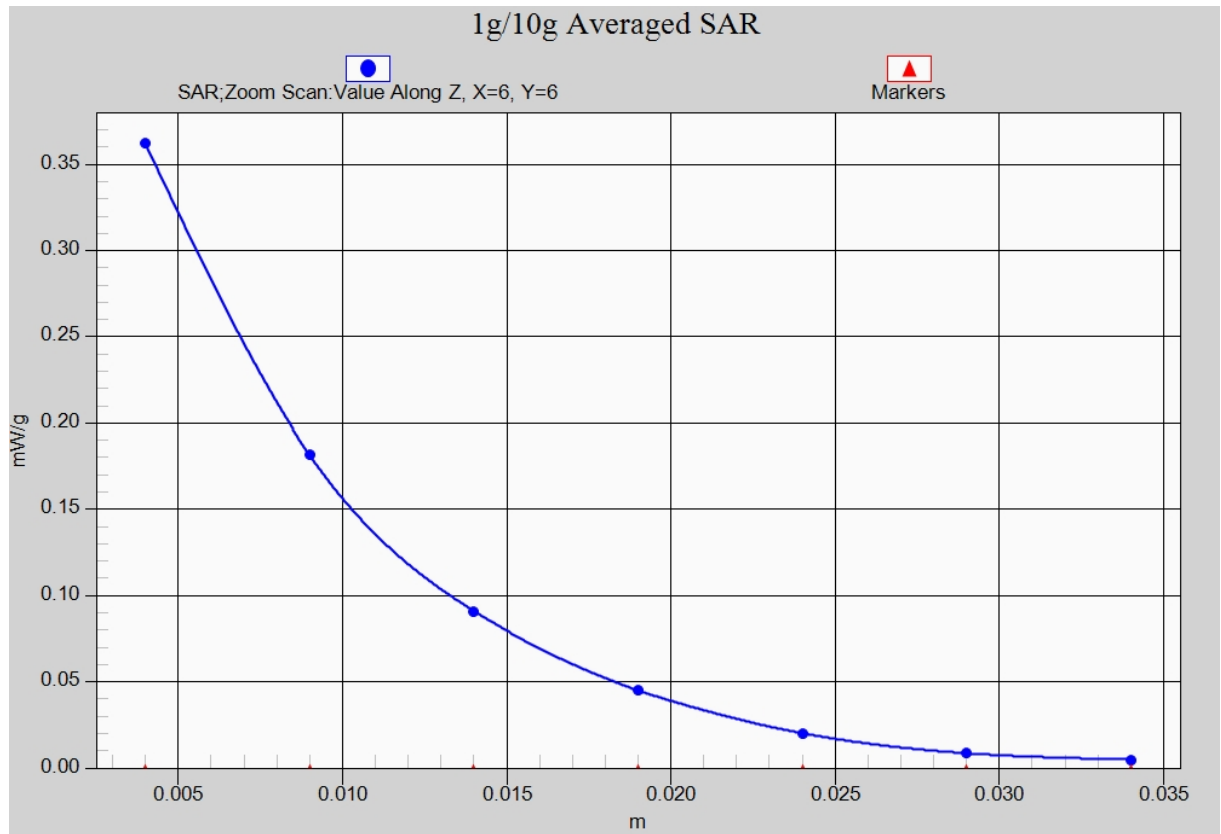


Fig.14 2450 MHz CH1



**Fig. 14-1 Z-Scan at power reference point (2450 MHz CH1)**

**Wifi 802.11a Right Cheek Channel 149**

Date: 2013-4-8

Electronics: DAE4 Sn771

Medium: Head 5800 MHz

Medium parameters used:  $f = 5745$  MHz;  $\sigma = 5.236$  mho/m;  $\epsilon_r = 35.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.5°C      Liquid Temperature: 22.0°C

Communication System: Wlan 5G Frequency: 5745 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3846 ConvF(4.28, 4.28, 4.28)

**Cheek/Area Scan (101x161x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.0967 W/kg

**Cheek/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=4mm

Reference Value = 0.826 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 0.470 W/kg

**SAR(1 g) = 0.088 W/kg; SAR(10 g) = 0.024 W/kg**

Maximum value of SAR (measured) = 0.0846 W/kg

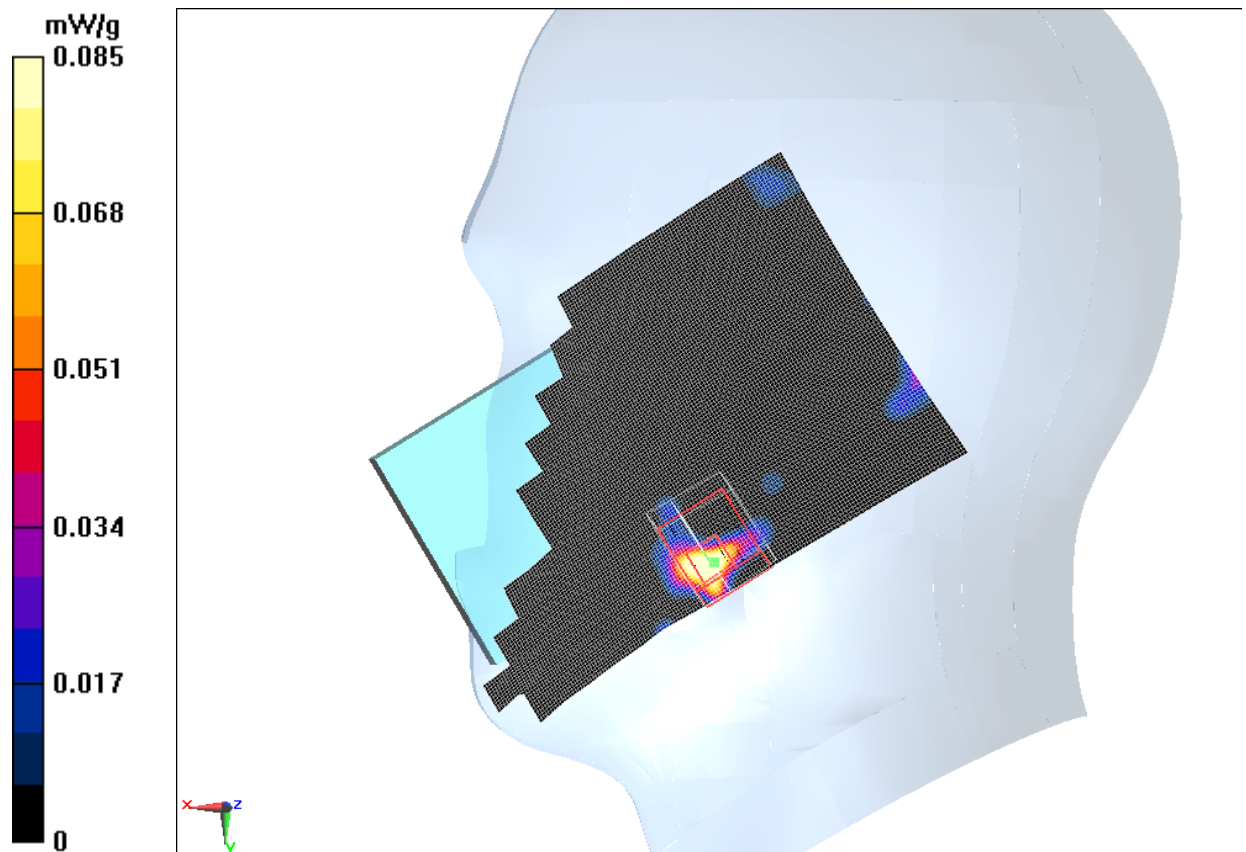
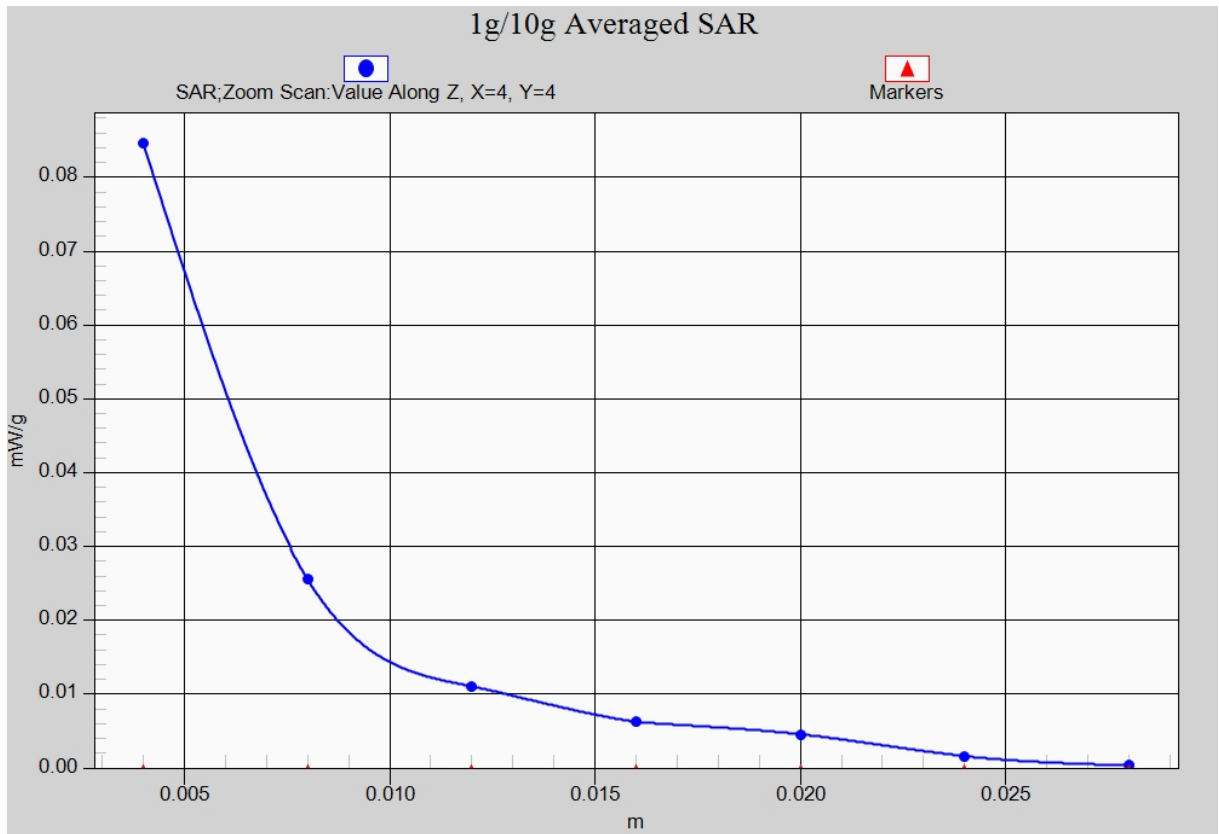


Fig.15 5GHz CH149





**Fig. 15-1 Z-Scan at power reference point (5GHz CH149)**

**Wifi 802.11a Right Edge Channel 149**

Date: 2013-4-8

Electronics: DAE4 Sn771

Medium: Body 5800 MHz

Medium parameters used:  $f = 5745$  MHz;  $\sigma = 5.986$  mho/m;  $\epsilon_r = 47.624$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.5°C      Liquid Temperature: 22.0°C

Communication System: WLan 5G Frequency: 5745 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3846 ConvF(3.92, 3.92, 3.92)

**Right Edge/Area Scan (101x161x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.214 W/kg

**Right Edge/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=4mm

Reference Value = 2.095 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.659 W/kg

**SAR(1 g) = 0.119 W/kg; SAR(10 g) = 0.041 W/kg**

Maximum value of SAR (measured) = 0.102 W/kg

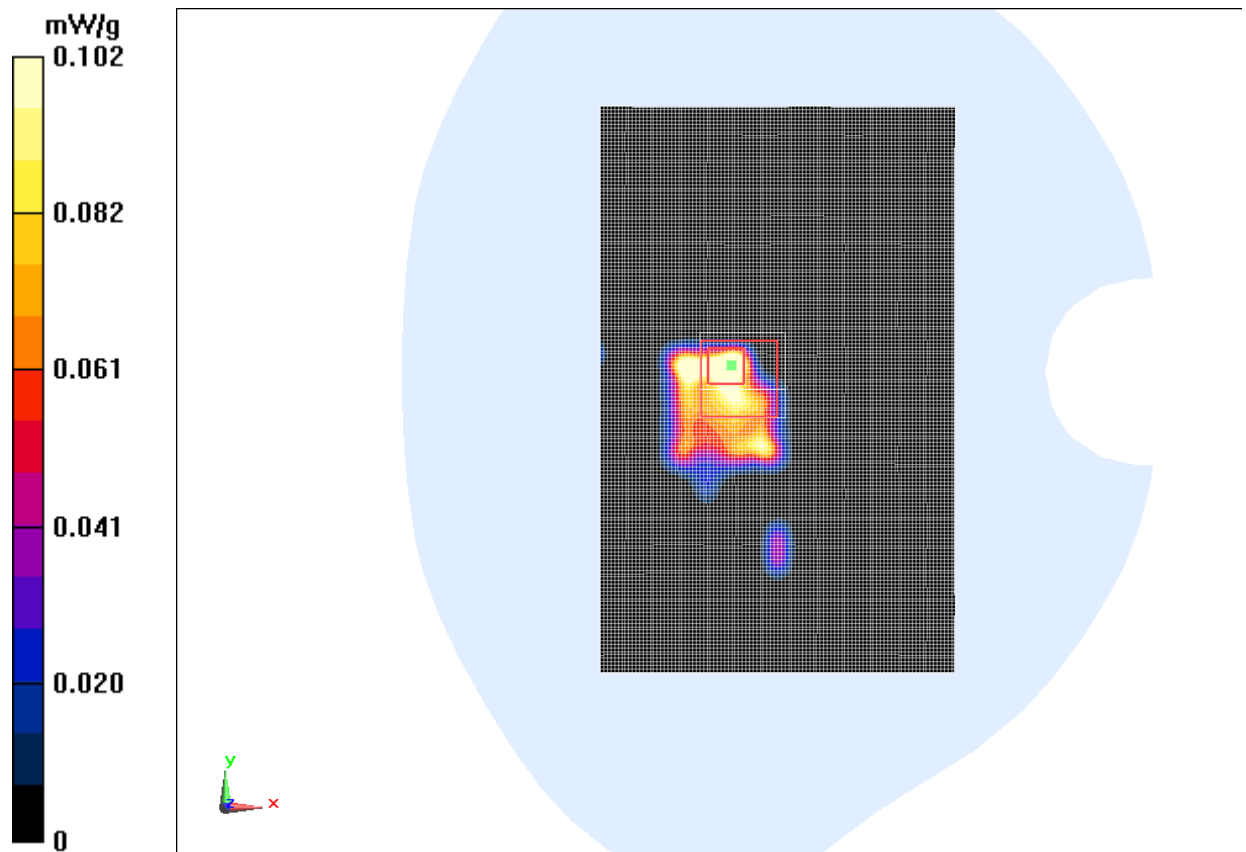
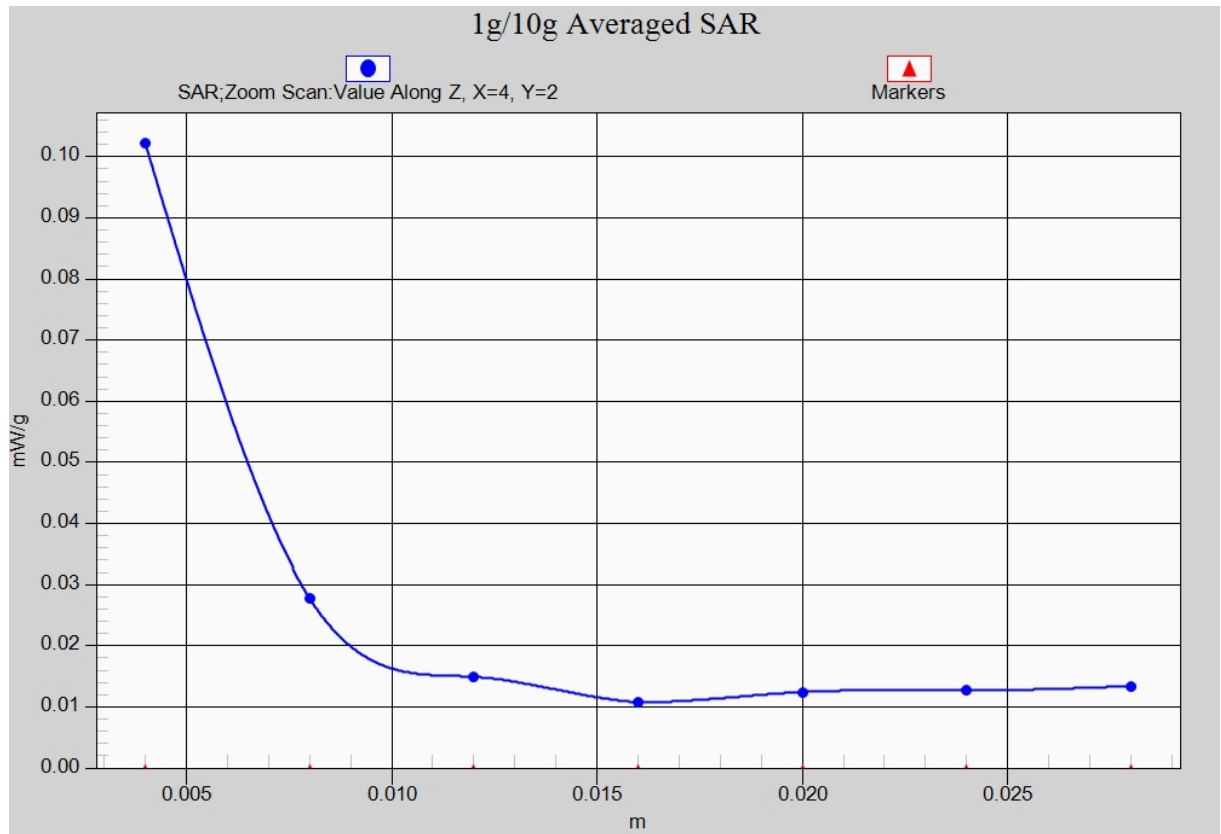


Fig.16 5GHz CH149



**Fig. 16-1 Z-Scan at power reference point (5GHz CH149)**

### Wifi 802.11n Right Cheek Channel 149

Date: 2013-4-8

Electronics: DAE4 Sn771

Medium: Head 5800 MHz

Medium parameters used:  $f = 5745$  MHz;  $\sigma = 5.236$  mho/m;  $\epsilon_r = 35.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.5°C      Liquid Temperature: 22.0°C

Communication System: WLAN 5G Frequency: 5745 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3846 ConvF(4.28, 4.28, 4.28)

**Cheek/Area Scan (101x161x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.149 W/kg

**Cheek/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=4mm

Reference Value = 1.144 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.713 W/kg

**SAR(1 g) = 0.075 W/kg; SAR(10 g) = 0.00851 W/kg**

Maximum value of SAR (measured) = 0.0930 W/kg

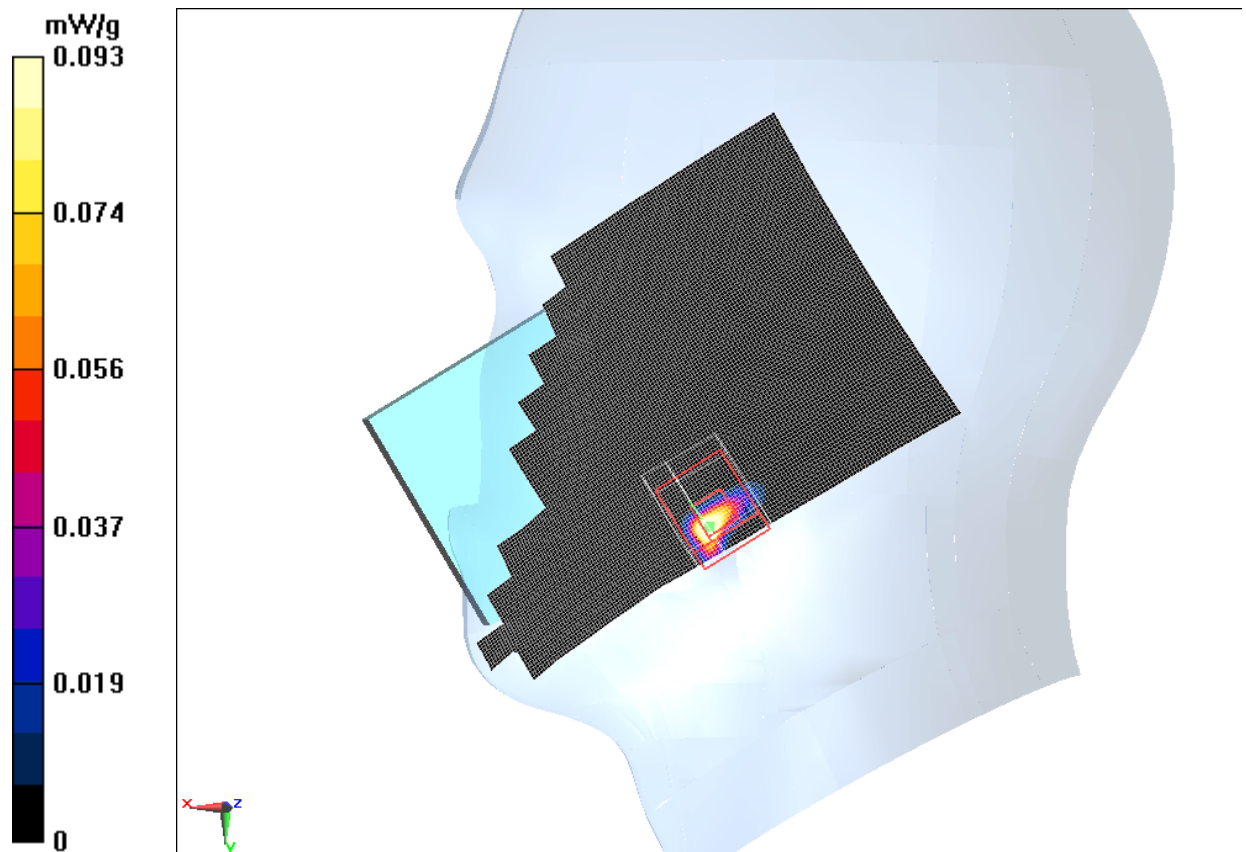


Fig.17 5GHz CH149

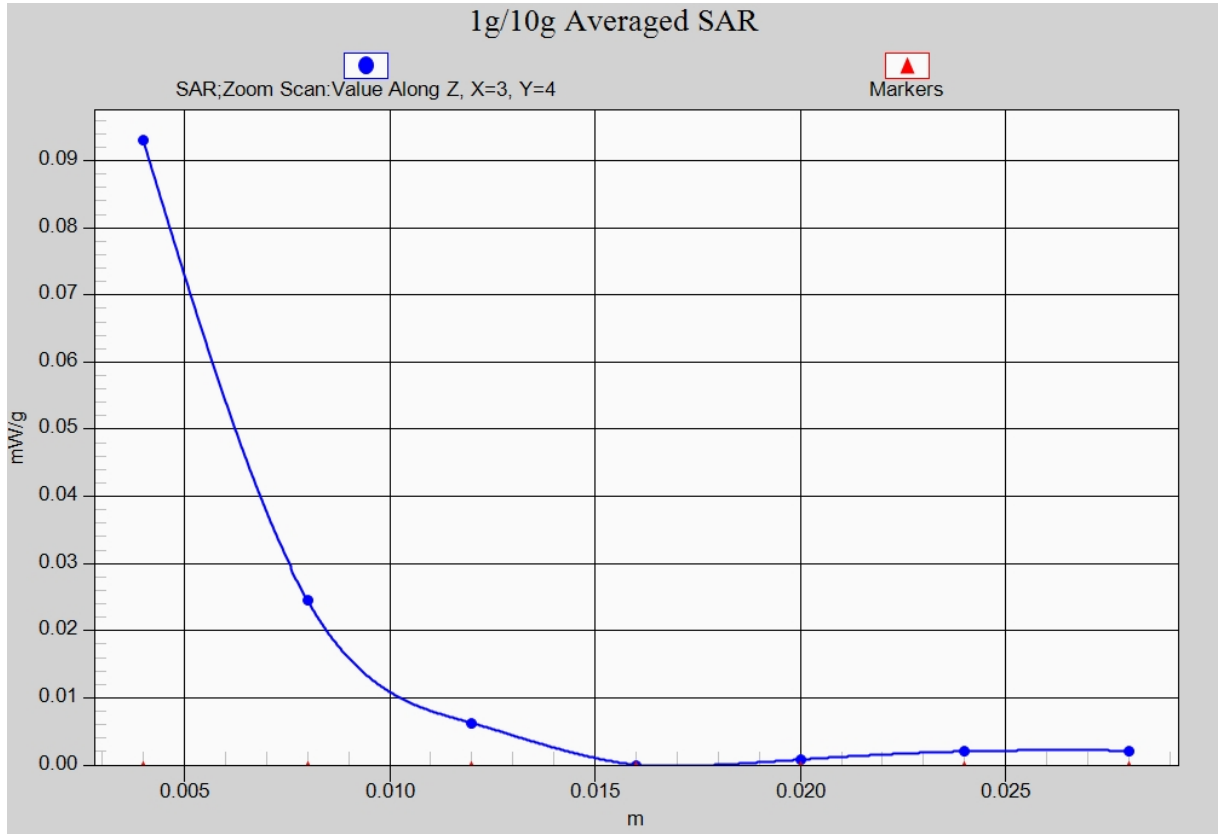


Fig. 17-1 Z-Scan at power reference point (5GHz CH149)

**Wifi 802.11n Rear Channel 149**

Date: 2013-4-8

Electronics: DAE4 Sn771

Medium: Body 5800 MHz

Medium parameters used:  $f = 5745$  MHz;  $\sigma = 5.986$  mho/m;  $\epsilon_r = 47.624$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.5°C      Liquid Temperature: 22.0°C

Communication System: Wlan 5G Frequency: 5745 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3846 ConvF(3.92, 3.92, 3.92)

**Rear/Area Scan (101x161x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.185 W/kg

**Rear/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=4mm

Reference Value = 1.879 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.594 W/kg

**SAR(1 g) = 0.120 W/kg; SAR(10 g) = 0.040 W/kg**

Maximum value of SAR (measured) = 0.146 W/kg

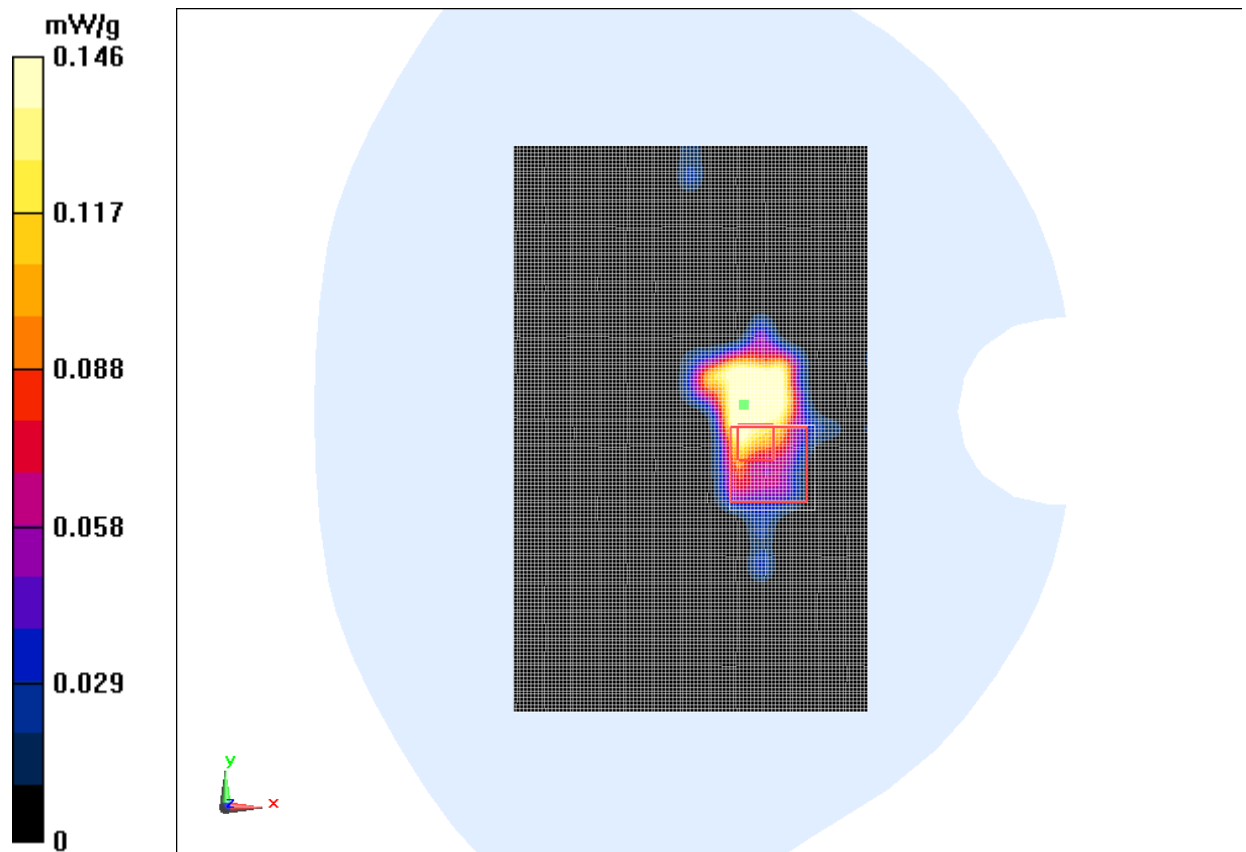
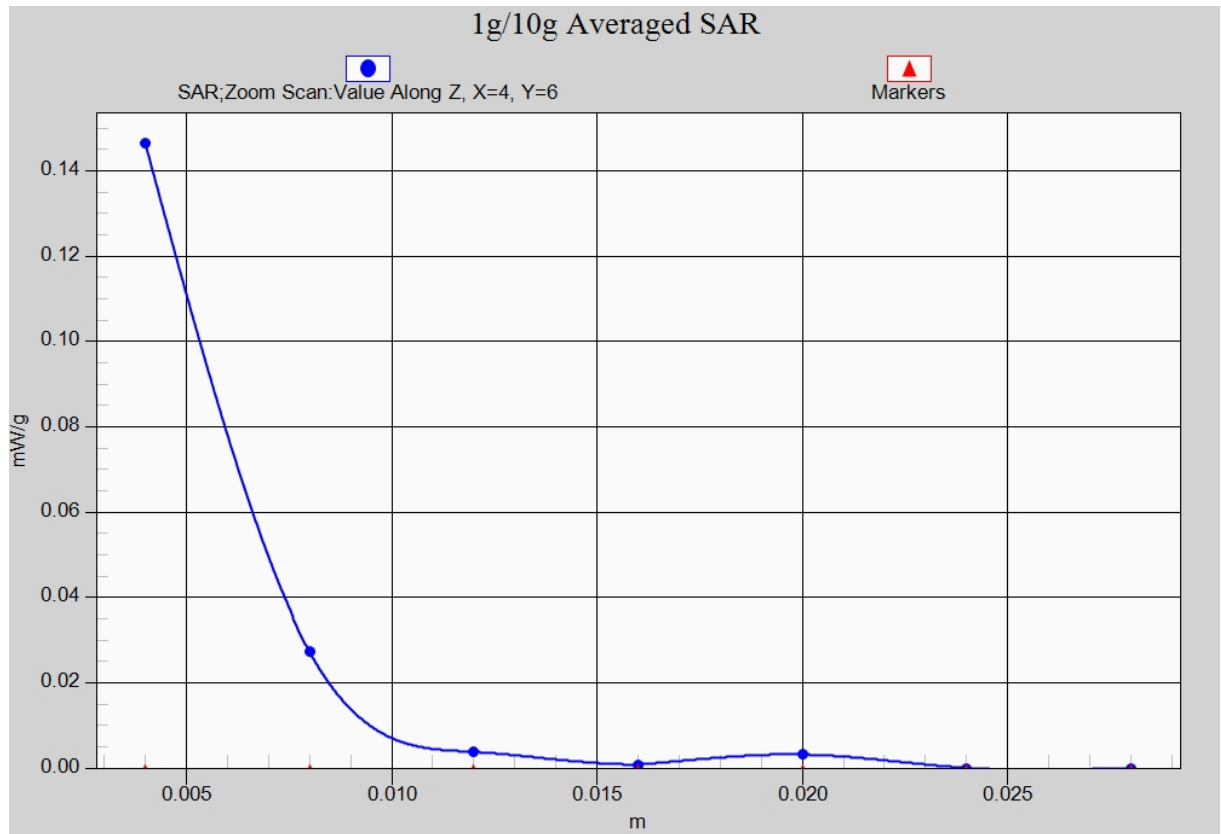


Fig.18 5GHz CH149



**Fig. 18-1 Z-Scan at power reference point (5GHz CH149)**

## ANNEX B System Verification Results

### 750MHz

Date: 2013-4-3

Electronics: DAE4 Sn771

Medium: Head 750 MHz

Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.90$  mho/m;  $\epsilon_r = 42.52$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.6°C      Liquid Temperature: 22.1°C

Communication System: CW Frequency: 750 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(6.5, 6.5, 6.5)

**System Validation /Area Scan (81x191x1):** Measurement grid: dx=10mm, dy=10mm

Reference Value = 50.133 V/m; Power Drift = -0.03 dB

**Fast SAR: SAR(1 g) = 2.13 W/kg; SAR(10 g) = 1.45 W/kg**

Maximum value of SAR (interpolated) = 2.28 W/kg

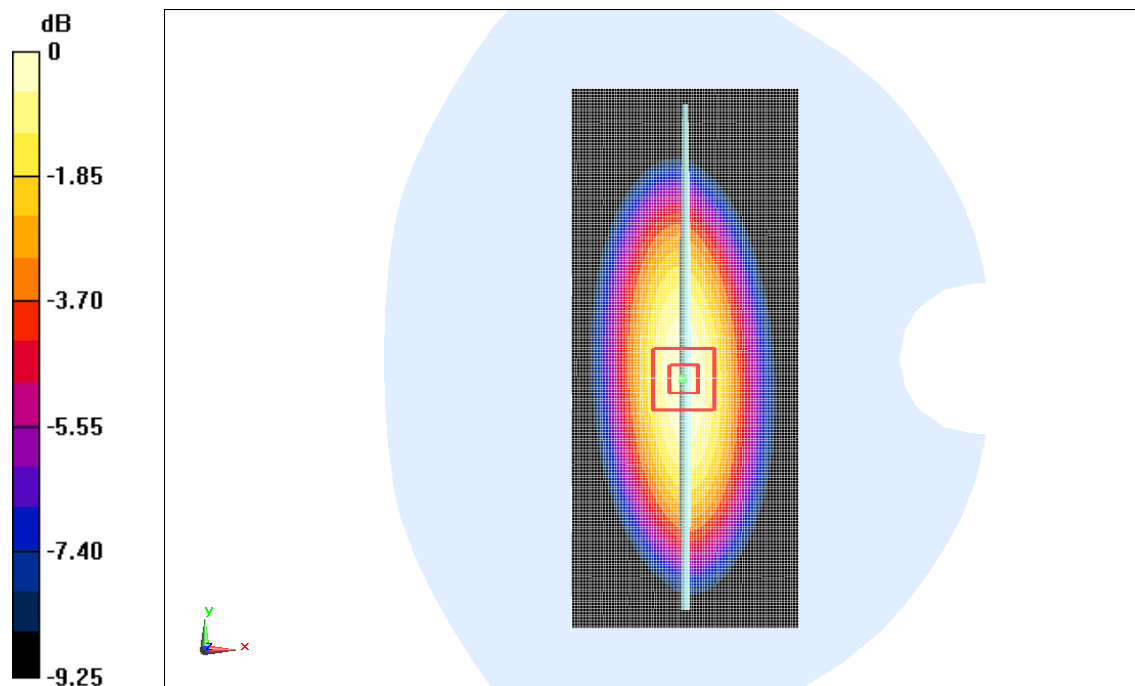
**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 50.133 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 3.01 W/kg

**SAR(1 g) = 2.12 W/kg; SAR(10 g) = 1.44 W/kg**

Maximum value of SAR (measured) = 2.28 W/kg



0 dB = 2.28 W/kg = 3.58 dB W/kg

**Fig.B.1 validation 750MHz 250mW**