

**Fig. 5-1 Z-Scan at power reference point (WCDMA 850)**

## WCDMA 850 Body Rear Middle

Date: 2016-05-11

Electronics: DAE4 Sn777

Medium: Body 850 MHz

Medium parameters used (interpolated):  $f = 836.4$  MHz;  $\sigma = 0.984$  mho/m;  $\epsilon_r = 56.214$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 23.0°C      Liquid Temperature: 22.5°C

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

Probe: EX3DV4 - SN3617 ConvF(9.71, 9.71, 9.71)

**Area Scan (111x71x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 0.470 W/kg

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

Reference Value = 19.55 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.537 W/kg

**SAR(1 g) = 0.412 W/kg; SAR(10 g) = 0.308 W/kg**

Maximum value of SAR (measured) = 0.431 W/kg

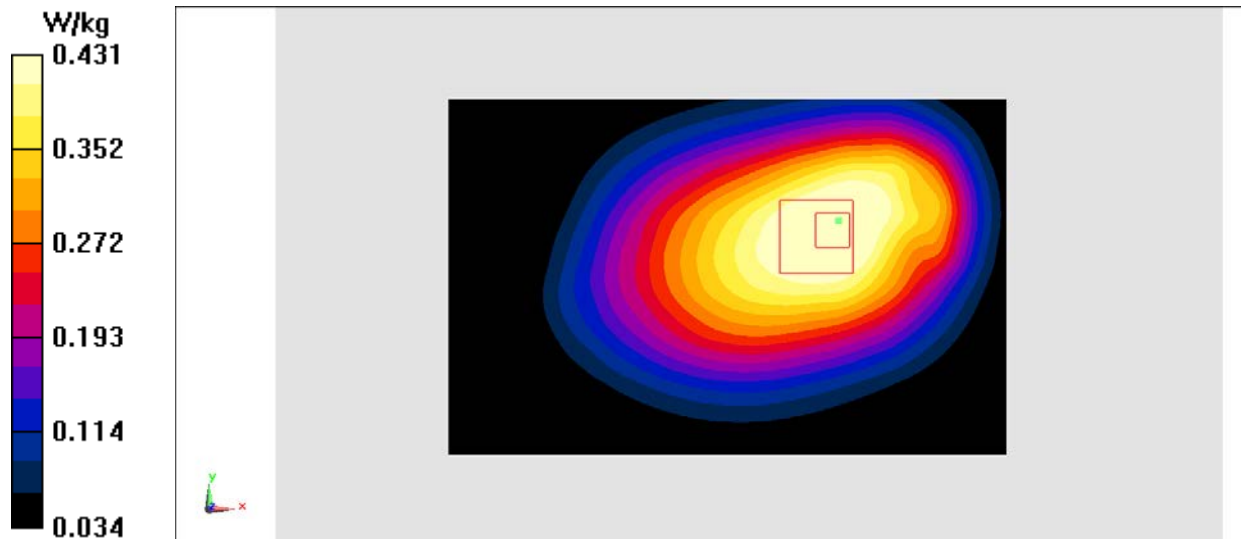
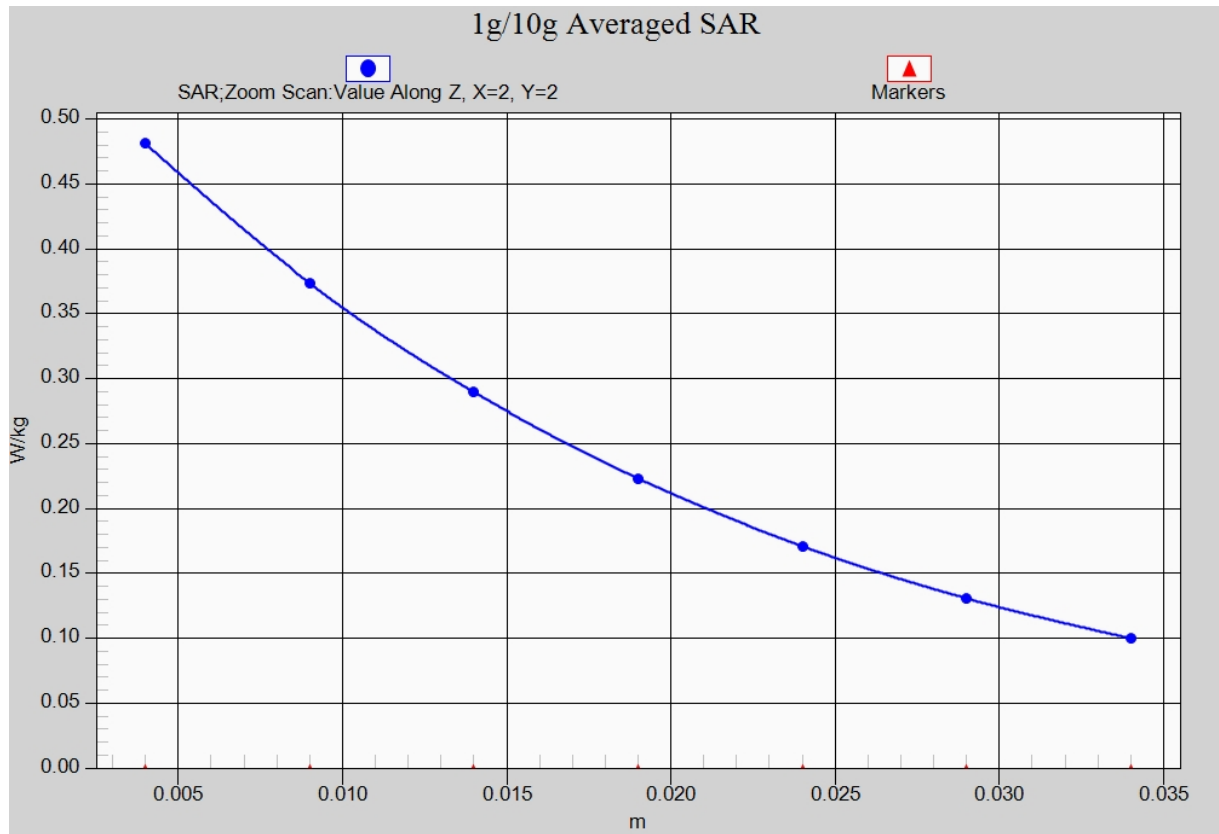


Fig.6 WCDMA 850



**Fig. 6-1 Z-Scan at power reference point (WCDMA850)**

### WCDMA 1700 Left Cheek High

Date: 2016-1-12

Electronics: DAE4 Sn777

Medium: Head 1750 MHz

Medium parameters used (interpolated):  $f = 1752.6$  MHz;  $\sigma = 1.354$  mho/m;  $\epsilon_r = 41.395$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 23.0°C      Liquid Temperature: 22.5°C

Communication System: WCDMA 1700 Frequency: 1752.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(8.34, 8.34, 8.34)

**Area Scan (71x111x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.676 W/kg

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

Reference Value = 4.605 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 0.807 W/kg

**SAR(1 g) = 0.531 W/kg; SAR(10 g) = 0.335 W/kg**

Maximum value of SAR (measured) = 0.678 W/kg

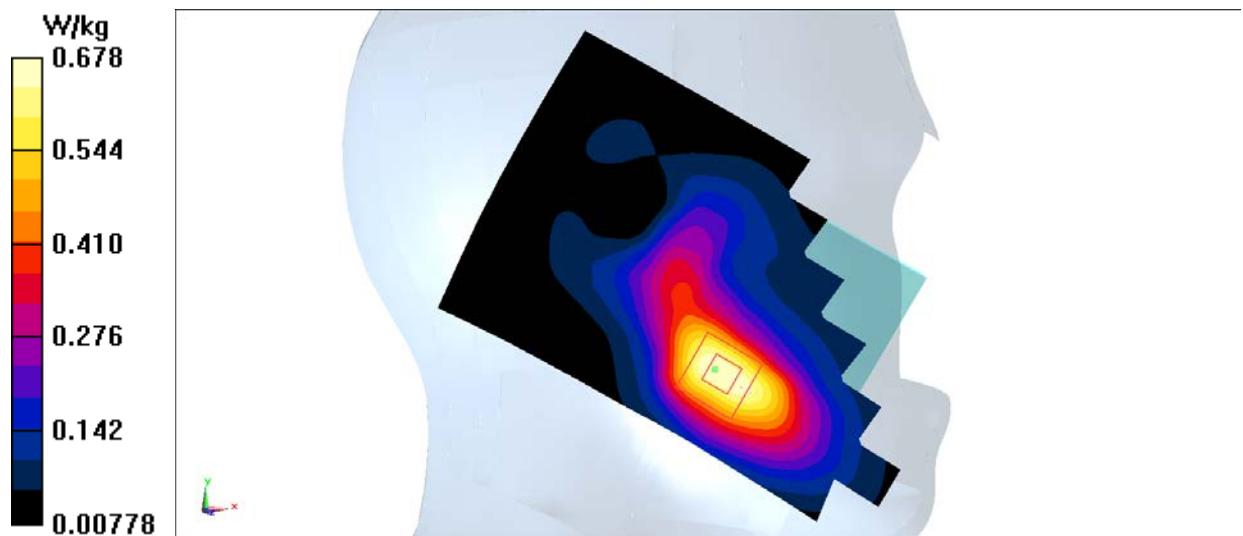
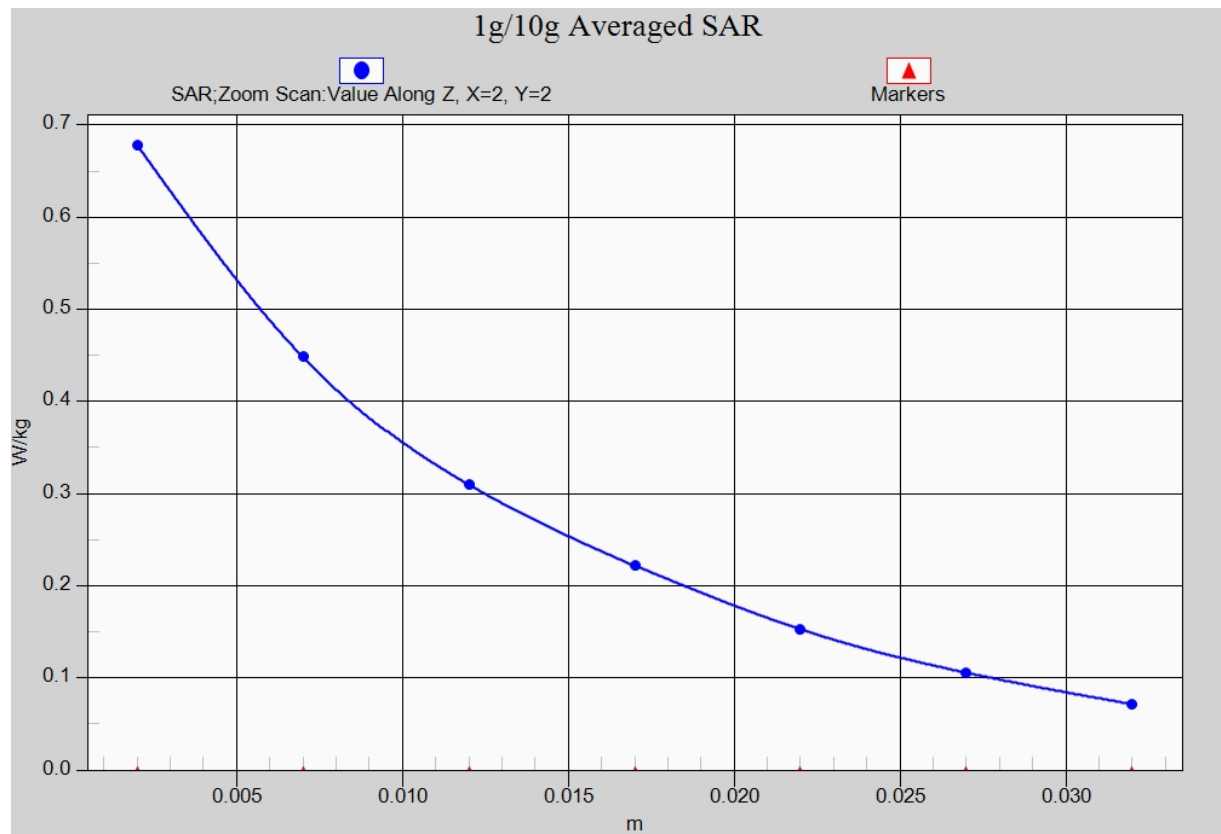


Fig.7 1700MHz



**Fig. 7-1 Z-Scan at power reference point (1700 MHz)**

### WCDMA 1700 Body Rear Low

Date: 2016-05-12

Electronics: DAE4 Sn777

Medium: Body 1750 MHz

Medium parameters used (interpolated):  $f = 1712.4$  MHz;  $\sigma = 1.386$  mho/m;  $\epsilon_r = 54.526$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 23.0°C      Liquid Temperature: 22.5°C

Communication System: WCDMA 1700 Frequency: 1712.4 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(7.96, 7.96, 7.96)

**Area Scan (111x71x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.13 W/kg

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

Reference Value = 15.47 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.45 W/kg

**SAR(1 g) = 0.993 W/kg; SAR(10 g) = 0.654 W/kg**

Maximum value of SAR (measured) = 1.04 W/kg

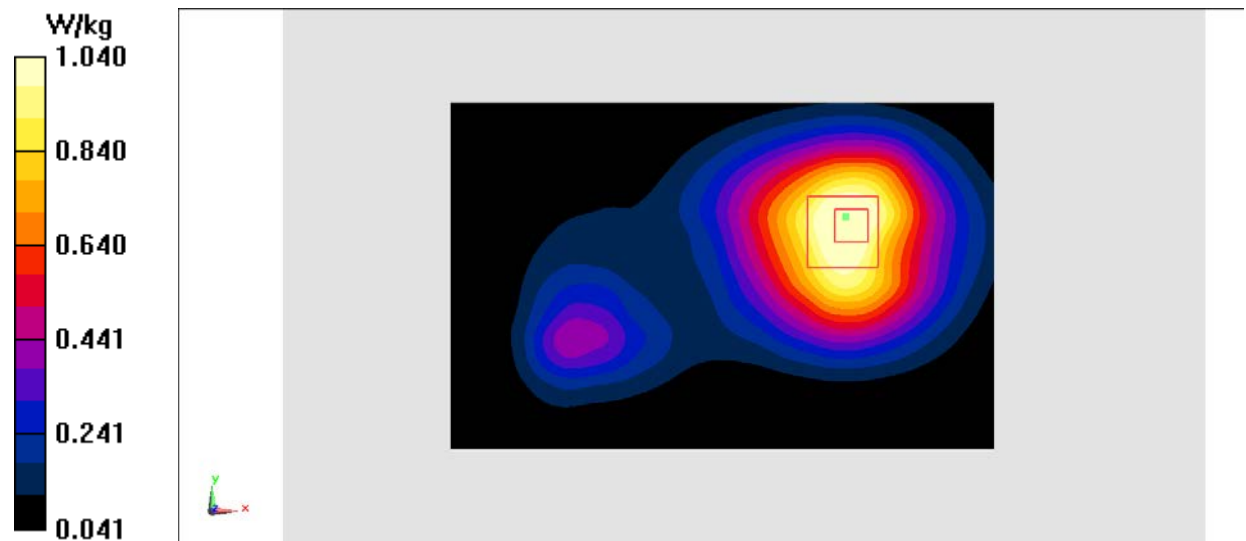
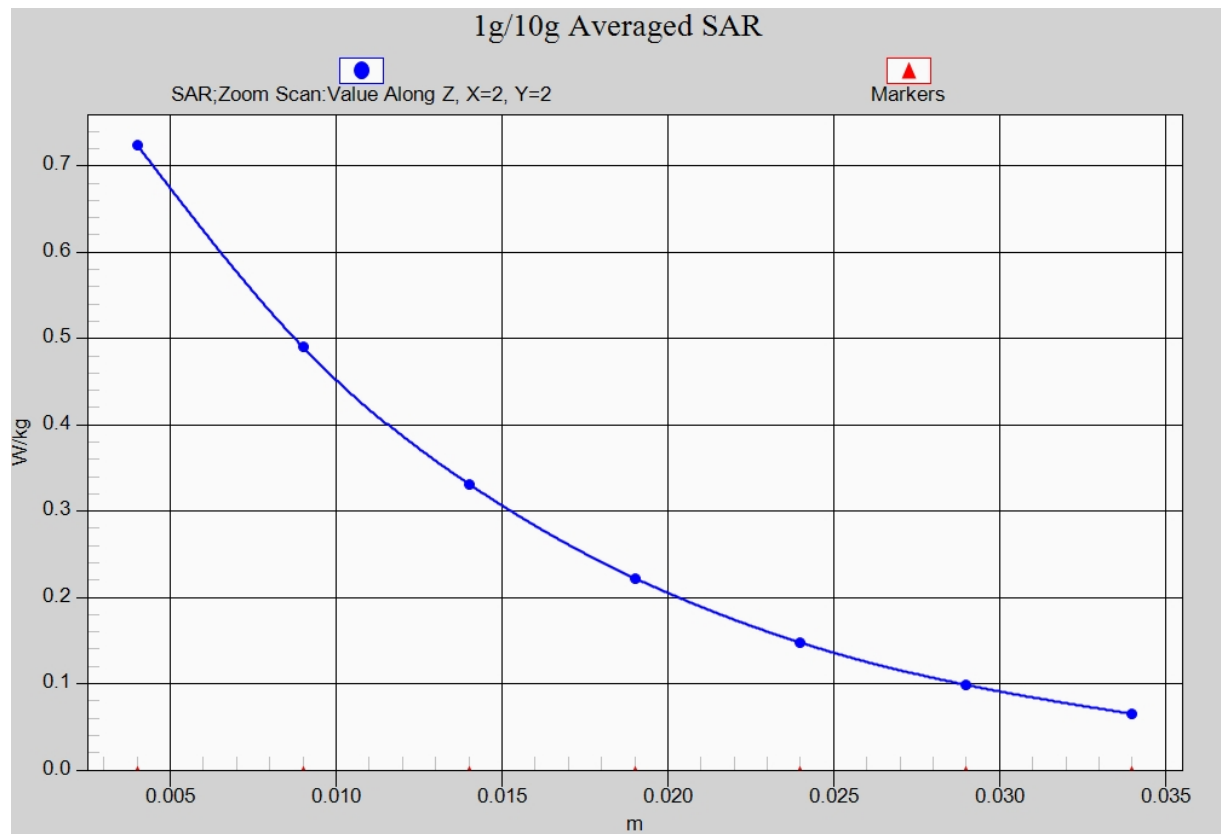


Fig.8 1700 MHz



**Fig. 8-1 Z-Scan at power reference point (1700 MHz)**

### WCDMA 1900 Left Cheek Low

Date: 2016-1-13

Electronics: DAE4 Sn777

Medium: Head 1900 MHz

Medium parameters used (interpolated):  $f = 1852.4$  MHz;  $\sigma = 1.33$  mho/m;  $\epsilon_r = 41.987$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 23.0°C      Liquid Temperature: 22.5°C

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

Probe: EX3DV4 - SN3617 ConvF(8.07, 8.07, 8.07)

**Area Scan (71x111x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.857 W/kg

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

Reference Value = 7.272 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.08 W/kg

**SAR(1 g) = 0.708 W/kg; SAR(10 g) = 0.427 W/kg**

Maximum value of SAR (measured) = 0.844 W/kg

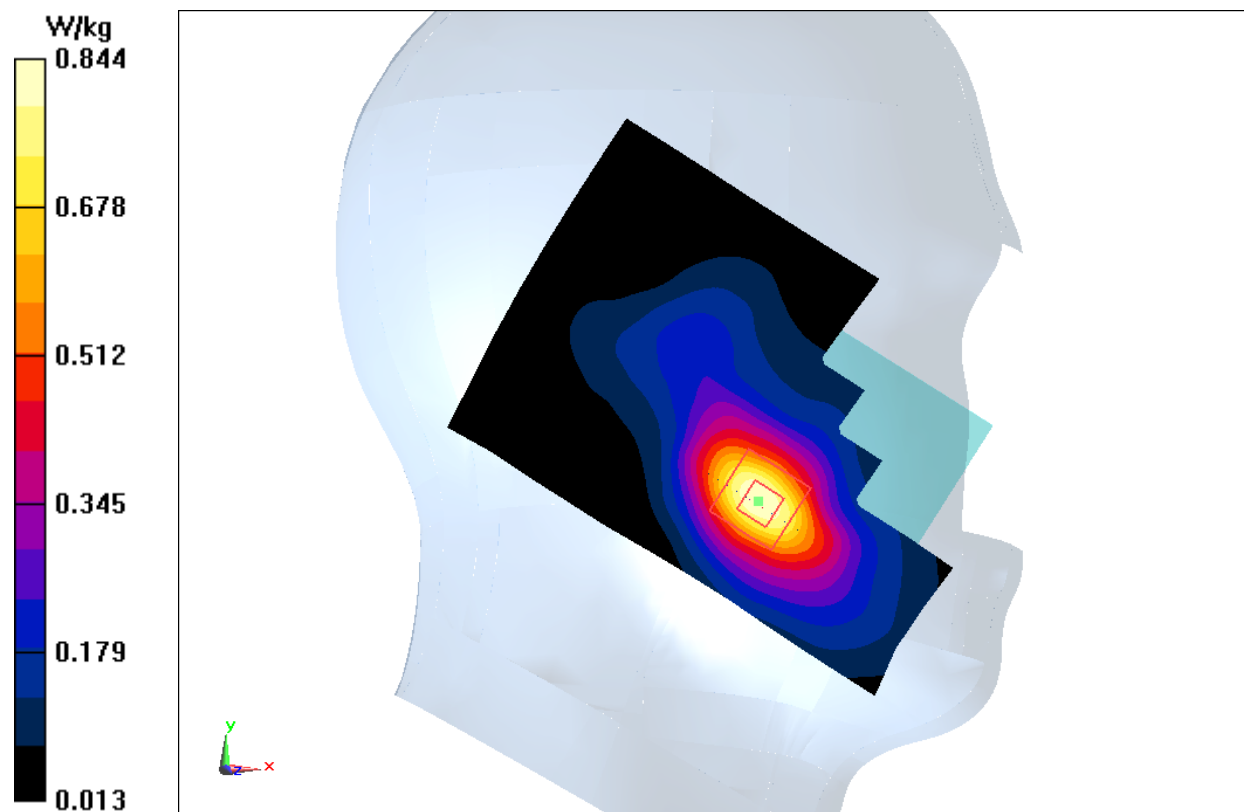
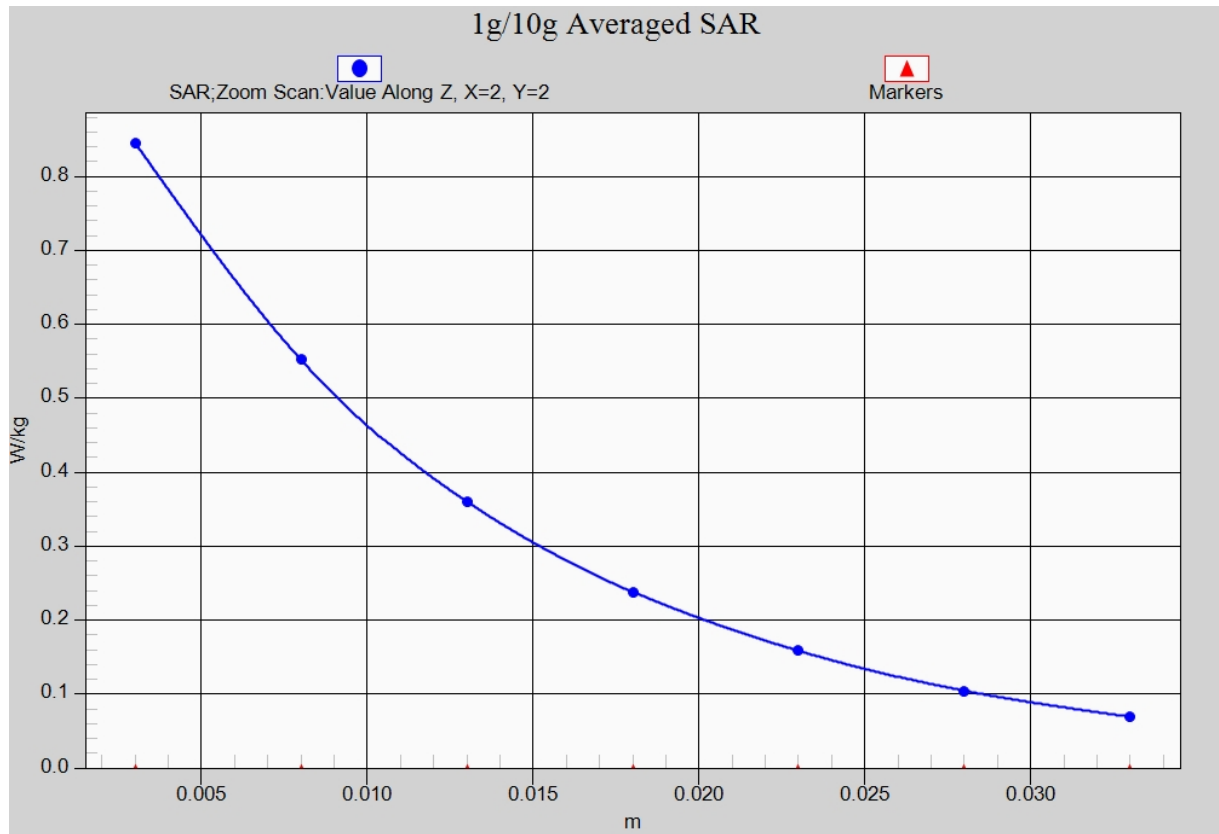


Fig.9 WCDMA1900





**Fig. 9-1 Z-Scan at power reference point (WCDMA1900)**

## WCDMA 1900 Body Bottom High – AP ON

Date: 2016-05-13

Electronics: DAE4 Sn777

Medium: Body 1900 MHz

Medium parameters used:  $f = 1907.6$  MHz;  $\sigma = 1.663$  mho/m;  $\epsilon_r = 54.253$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: WCDMA 1900 Frequency: 1907.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(7.74, 7.74, 7.74)

**Area Scan (111x71x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 1.24 W/kg

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

Reference Value = 23.77 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.76 W/kg

**SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.521 W/kg**

Maximum value of SAR (measured) = 1.31 W/kg

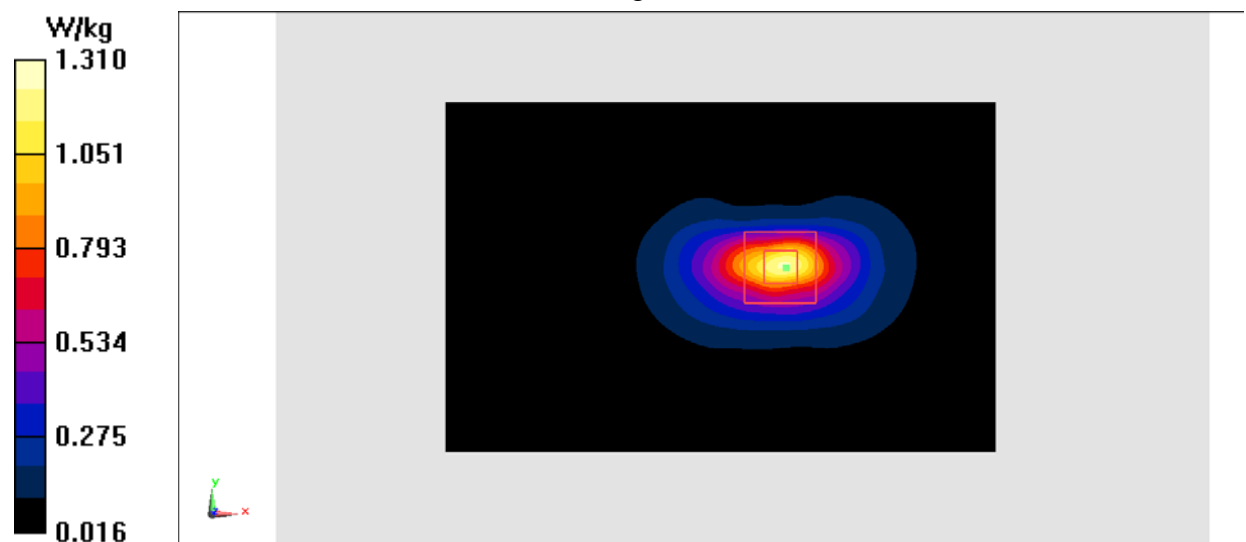
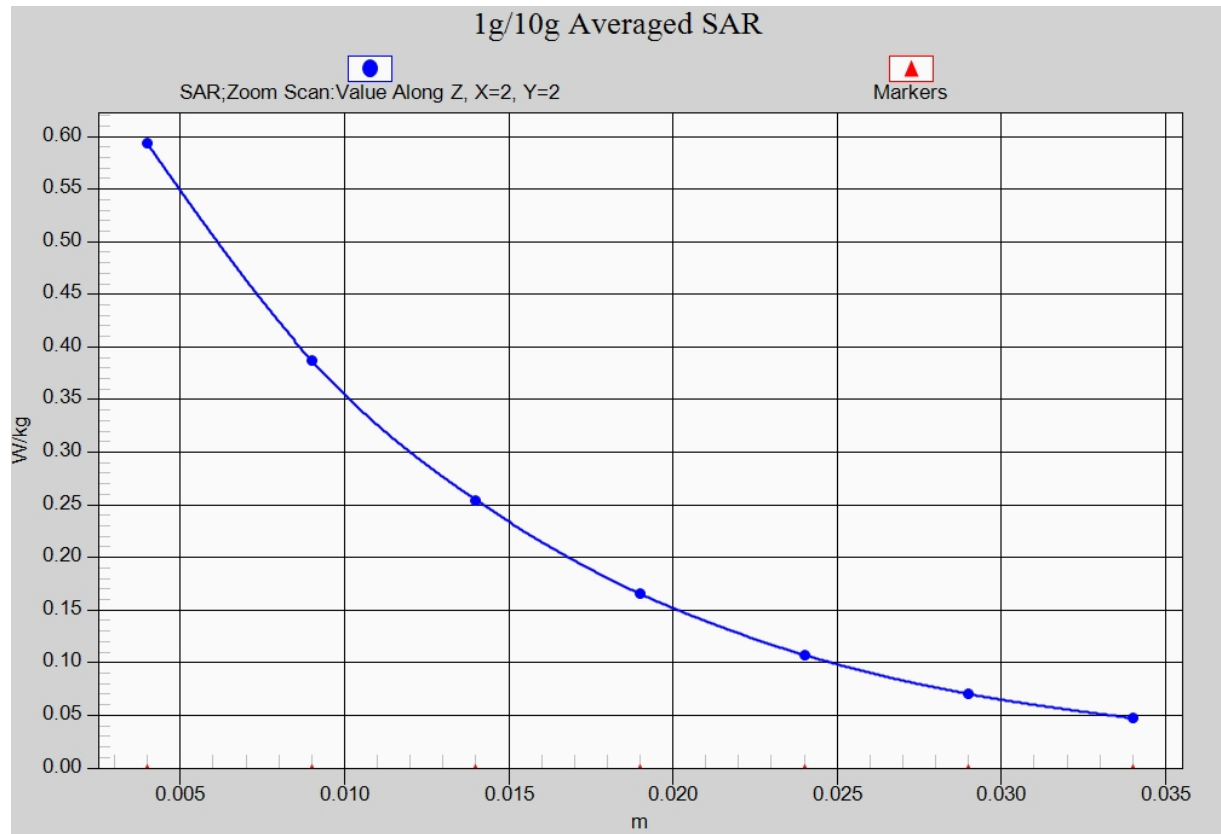


Fig.10 WCDMA1900



**Fig. 10-1 Z-Scan at power reference point (WCDMA1900)**

## WCDMA 1900 Body Rear High – AP OFF

Date: 2016-05-13

Electronics: DAE4 Sn777

Medium: Body 1900 MHz

Medium parameters used:  $f = 1907.6$  MHz;  $\sigma = 1.663$  mho/m;  $\epsilon_r = 54.253$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

Communication System: WCDMA 1900 Frequency: 1907.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(7.74, 7.74, 7.74)

**Area Scan (111x71x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Maximum value of SAR (interpolated) = 0.640 W/kg

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

Reference Value = 14.18 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.845 W/kg

**SAR(1 g) = 0.547 W/kg; SAR(10 g) = 0.329 W/kg**

Maximum value of SAR (measured) = 0.655 W/kg

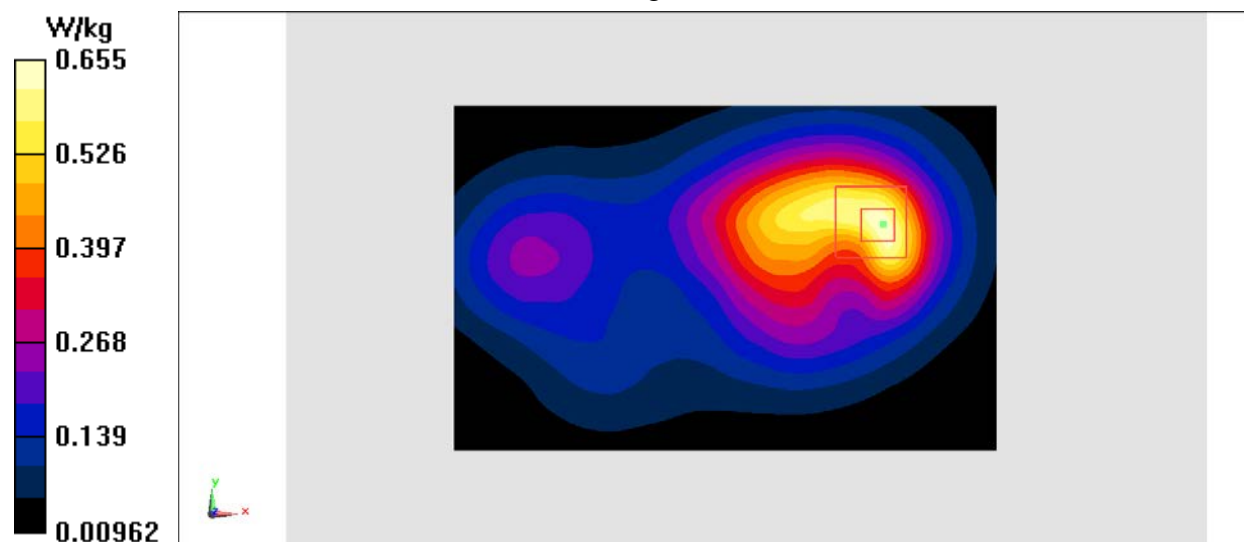
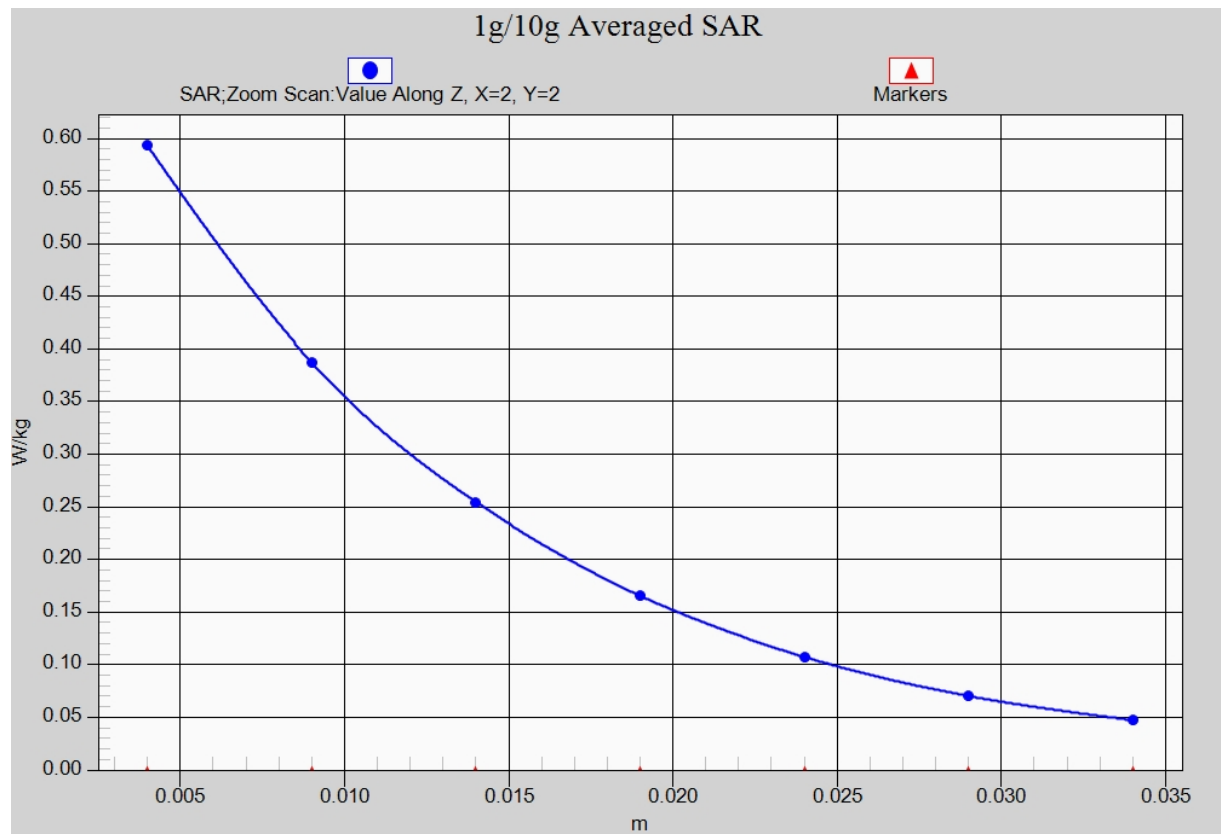


Fig.10 WCDMA1900



**Fig. 10-1 Z-Scan at power reference point (WCDMA1900)**

### Wifi 802.11b Right Cheek Channel 6

Date: 2016-1-14

Electronics: DAE4 Sn777

Medium: Head 2450 MHz

Medium parameters used (interpolated):  $f = 2437$  MHz;  $\sigma = 1.814$  mho/m;  $\epsilon_r = 39.973$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 23.0°C      Liquid Temperature: 22.5°C

Communication System: Wlan 2450 Frequency: 2437 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(7.24, 7.24, 7.24)

**Area Scan (81x141x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.68 W/kg

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

Reference Value = 16.99 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 2.56 W/kg

**SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.524 W/kg**

Maximum value of SAR (measured) = 1.47 W/kg

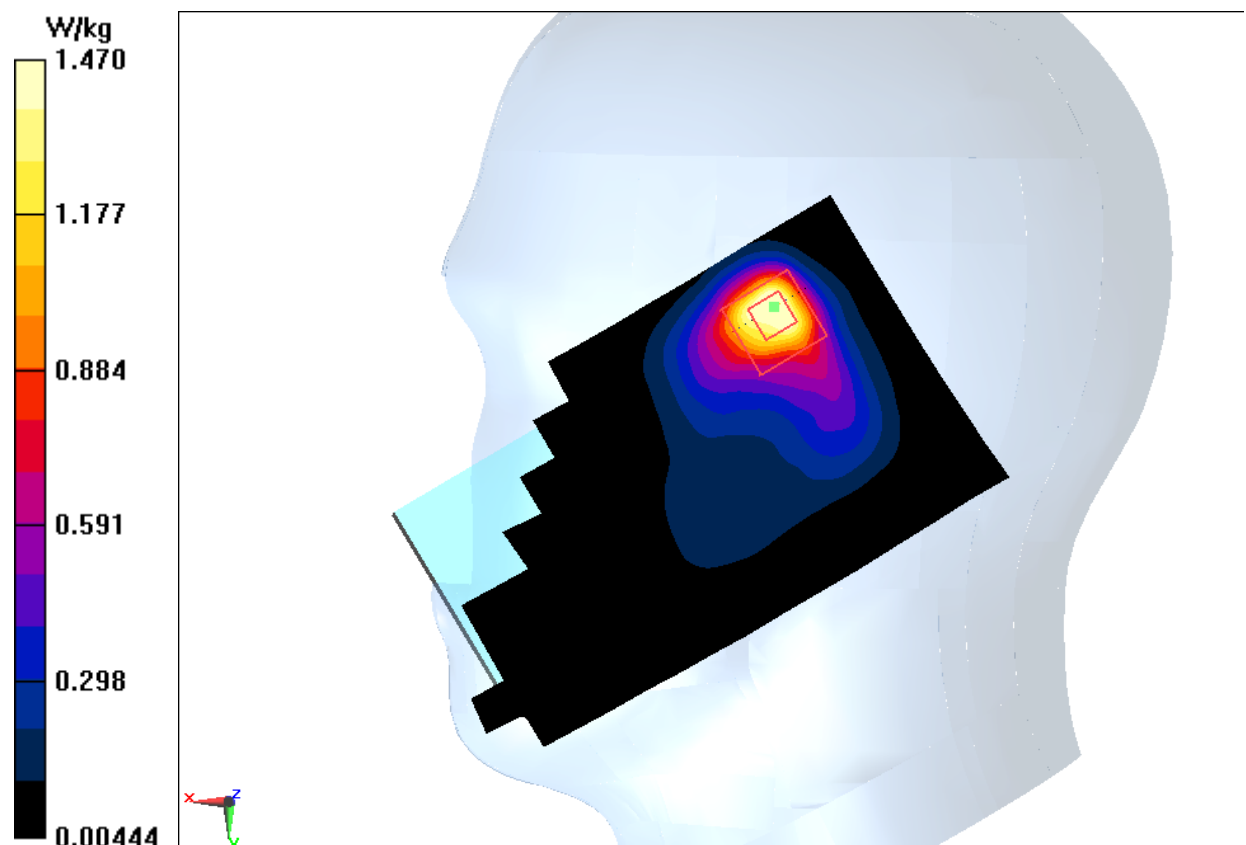
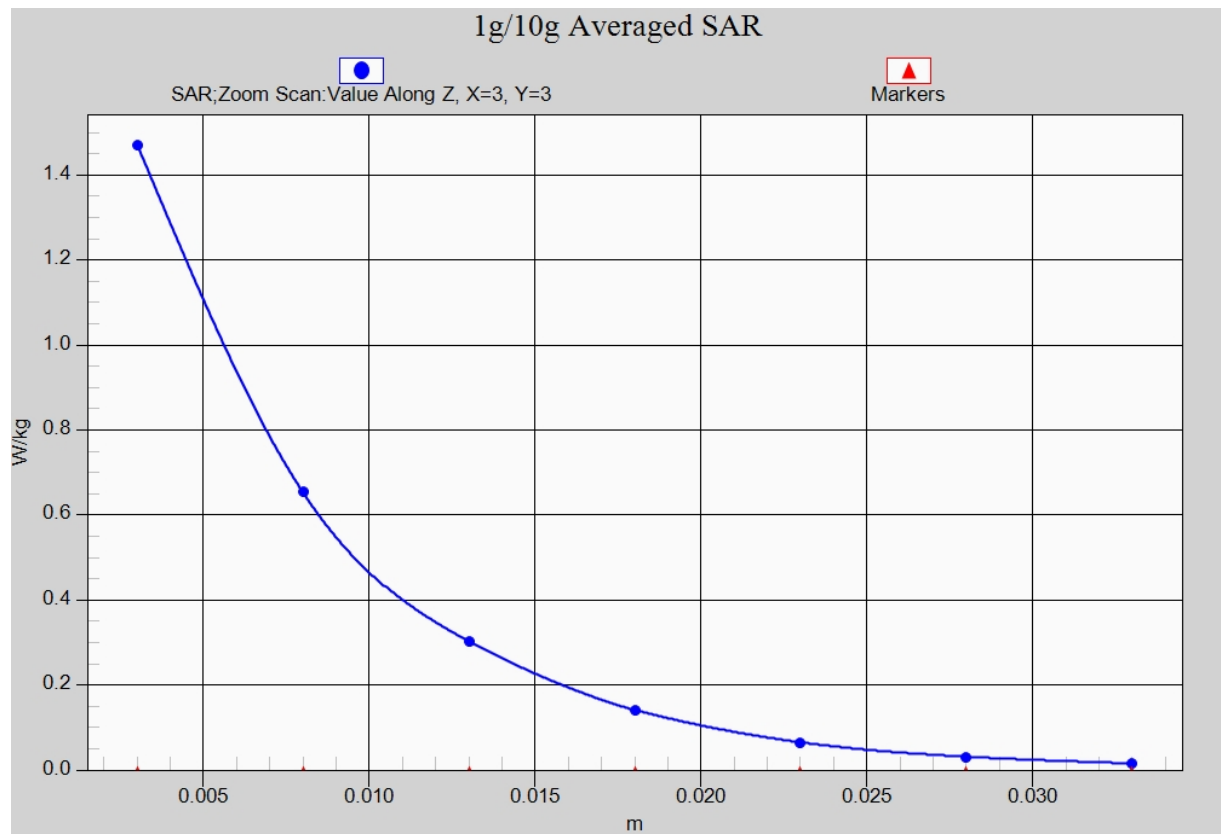


Fig.11 2450 MHz



**Fig. 11-1 Z-Scan at power reference point (2450 MHz)**

### Wifi 802.11b Body Rear Channel 11

Date: 2016-05-14

Electronics: DAE4 Sn777

Medium: Body 2450 MHz

Medium parameters used (interpolated):  $f = 2462$  MHz;  $\sigma = 2.009$  mho/m;  $\epsilon_r = 51.784$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 23.0°C      Liquid Temperature: 22.5°C

Communication System: WLan 2450 Frequency: 2462 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(7.35, 7.35, 7.35)

**Area Scan (141x81x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.370 W/kg

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

Reference Value = 5.011 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.558 W/kg

**SAR(1 g) = 0.280 W/kg; SAR(10 g) = 0.133 W/kg**

Maximum value of SAR (measured) = 0.324 W/kg

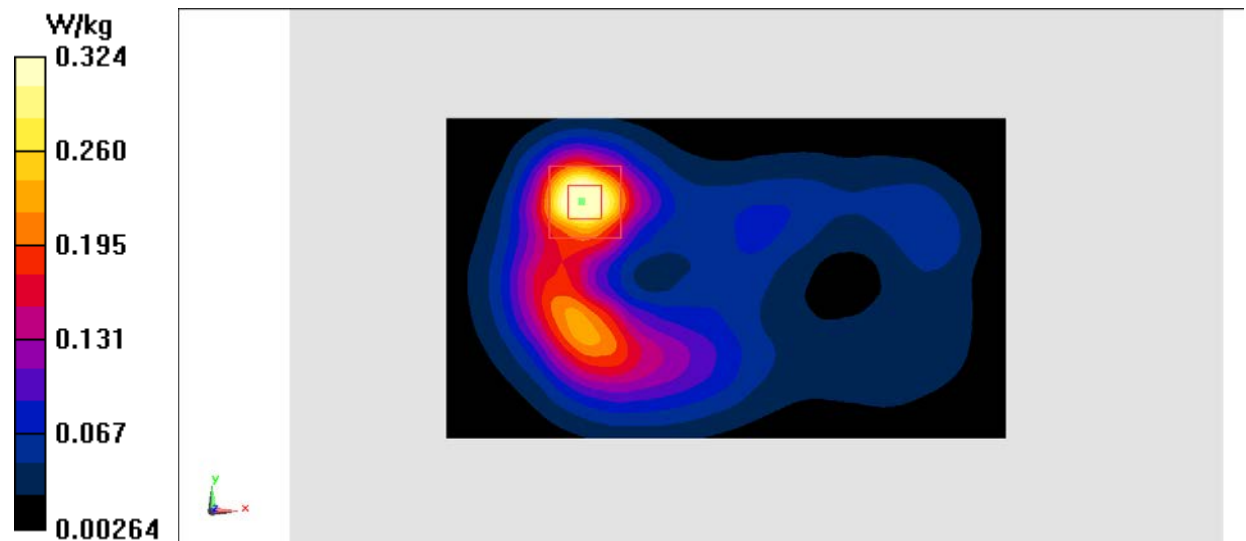
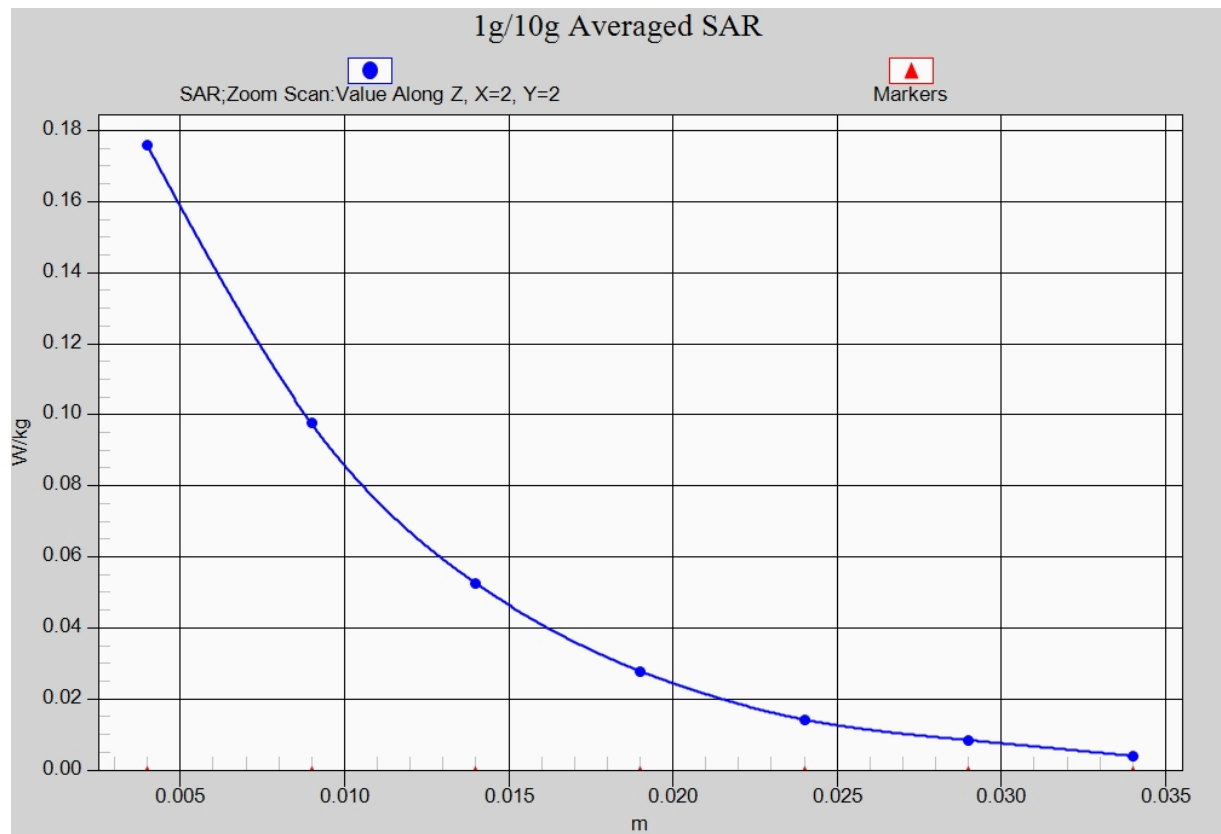


Fig.12 2450 MHz





**Fig. 12-1 Z-Scan at power reference point (2450 MHz)**

## ANNEX B System Verification Results

### 835MHz

Date: 2016-01-11

Electronics: DAE4 Sn777

Medium: Head 850 MHz

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.915$  S/m;  $\epsilon_r = 41.85$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C

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

Probe: EX3DV4 – SN3617 ConvF(9.56, 9.56, 9.56)

**System Validation /Area Scan (81x161x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 50.281 V/m; Power Drift = 0.07 dB

**Fast SAR: SAR(1 g) = 2.23 W/kg; SAR(10 g) = 1.44 W/kg**

Maximum value of SAR (interpolated) = 2.49 W/kg

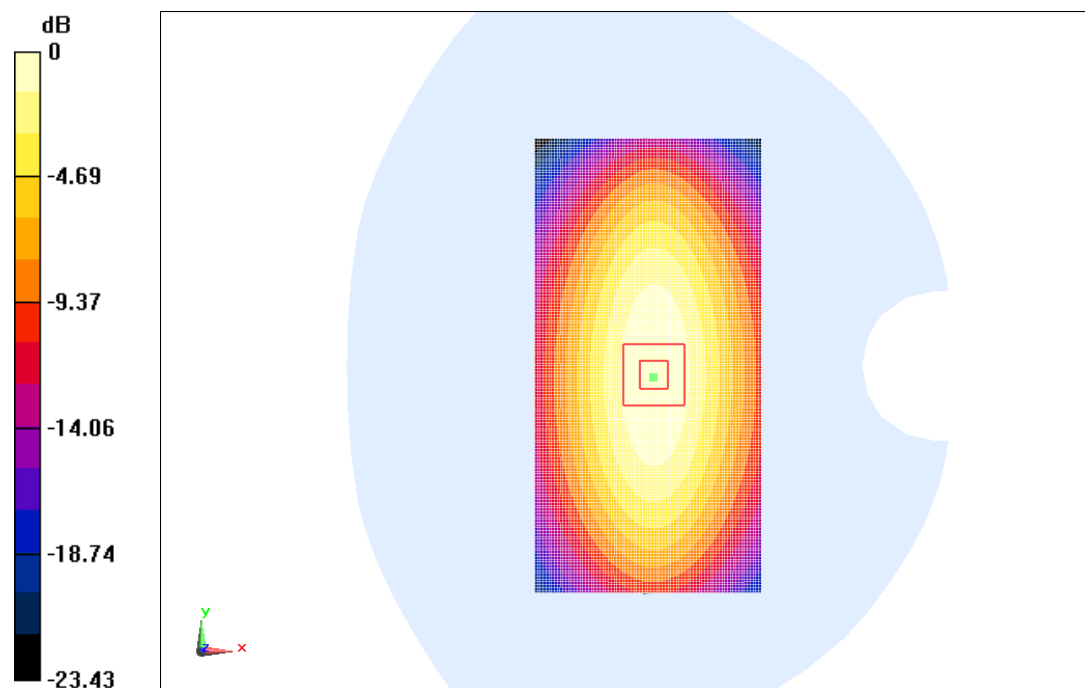
**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 50.281 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 3.58 W/kg

**SAR(1 g) = 2.27 W/kg; SAR(10 g) = 1.47 W/kg**

Maximum value of SAR (measured) = 2.54 W/kg



0 dB = 2.54 W/kg = 4.01 dBW/kg

**Fig.B.1 validation 835MHz 250mW**

## 1750MHz

Date: 2016-01-12

Electronics: DAE4 Sn777

Medium: Head 1750 MHz

Medium parameters used:  $f=1750$  MHz;  $\sigma=1.351$  mho/m;  $\epsilon_r=41.41$ ;  $\rho=1000$  kg/m<sup>3</sup>

Ambient Temperature: 23.0°C      Liquid Temperature: 22.5°C

Communication System: CW Frequency: 1750 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(8.34, 8.34, 8.34)

**System Validation/Area Scan (81x121x1):** Interpolated grid:  $dx=1.000$  mm,  $dy=1.000$  mm

Reference Value = 90.78 V/m; Power Drift = -0.05 dB

**Fast SAR: SAR(1 g) = 8.99 W/kg; SAR(10 g) = 4.80 W/kg**

Maximum value of SAR (interpolated) = 10.03 W/kg

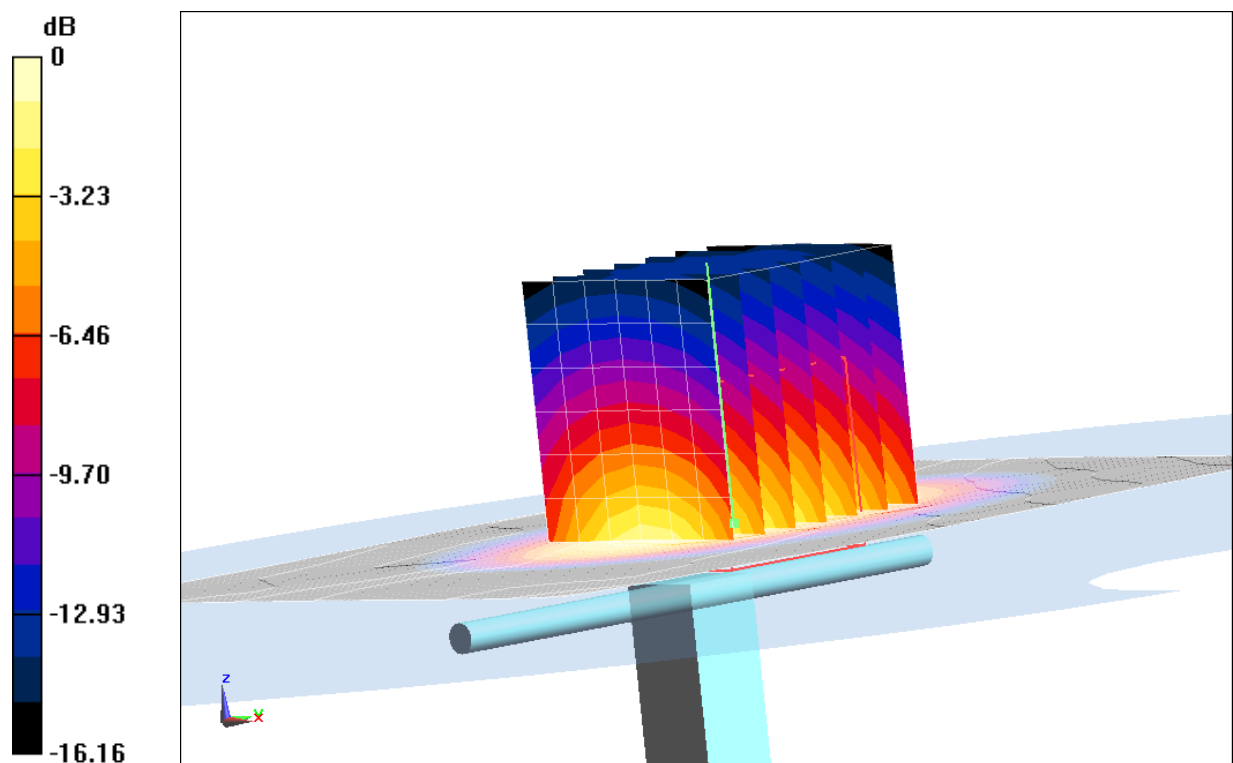
**System Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 90.78 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 15.64 W/kg

**SAR(1 g) = 9.12 W/kg; SAR(10 g) = 4.90 W/kg**

Maximum value of SAR (measured) = 10.14 W/kg



0 dB = 10.14 W/kg = 10.07 dB W/kg

**Fig.B.2 validation 1750MHz 250mW**

## 1900MHz

Date: 2016-01-13

Electronics: DAE4 Sn777

Medium: Head 1900 MHz

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.394$  S/m;  $\epsilon_r = 40.64$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 23.0°C      Liquid Temperature: 22.5°C

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

Probe: EX3DV4 - SN3617 ConvF(8.07, 8.07, 8.07)

**System Validation /Area Scan (81x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 90.339 V/m; Power Drift = 0.05 dB

**Fast SAR: SAR(1 g) = 10.55 W/kg; SAR(10 g) = 5.61 W/kg**

Maximum value of SAR (interpolated) = 11.98 W/kg

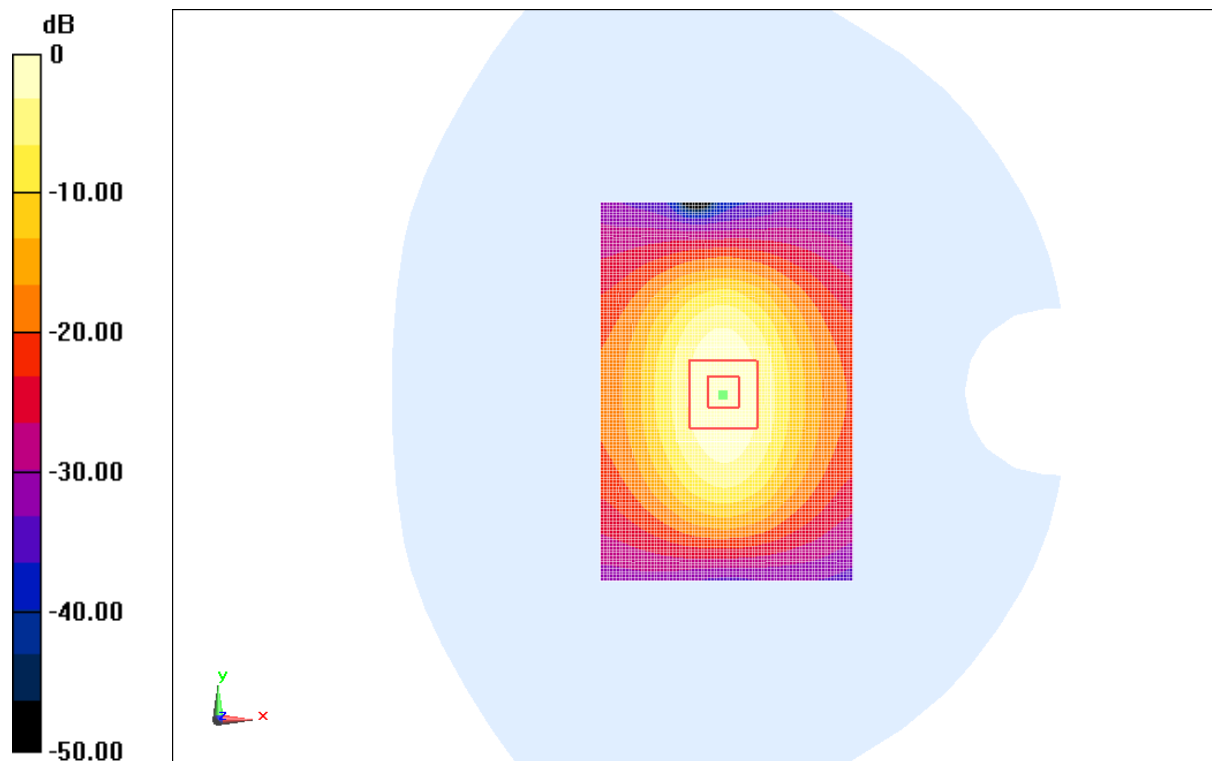
**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 90.339 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 18.99 W/kg

**SAR(1 g) = 10.35 W/kg; SAR(10 g) = 5.43 W/kg**

Maximum value of SAR (measured) = 11.75 W/kg



0 dB = 11.75 W/kg = 10.70 dBW/kg

**Fig.B.3 validation 1900MHz 250mW**