WCDMA 1700 Left Cheek Middle

Date: 2016-6-22
Electronics: DAE4 Sn777
Medium: Head 1750 MHz
Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.361 mho/m; εr = 41.495; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: WCDMA 1750 Frequency: 1732.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(8.34, 8.34, 8.34)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.146 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.468 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.178 W/kg
SAR(1 g) = 0.123 W/kg; SAR(10 g) = 0.079 W/kg
Maximum value of SAR (measured) = 0.142 W/kg

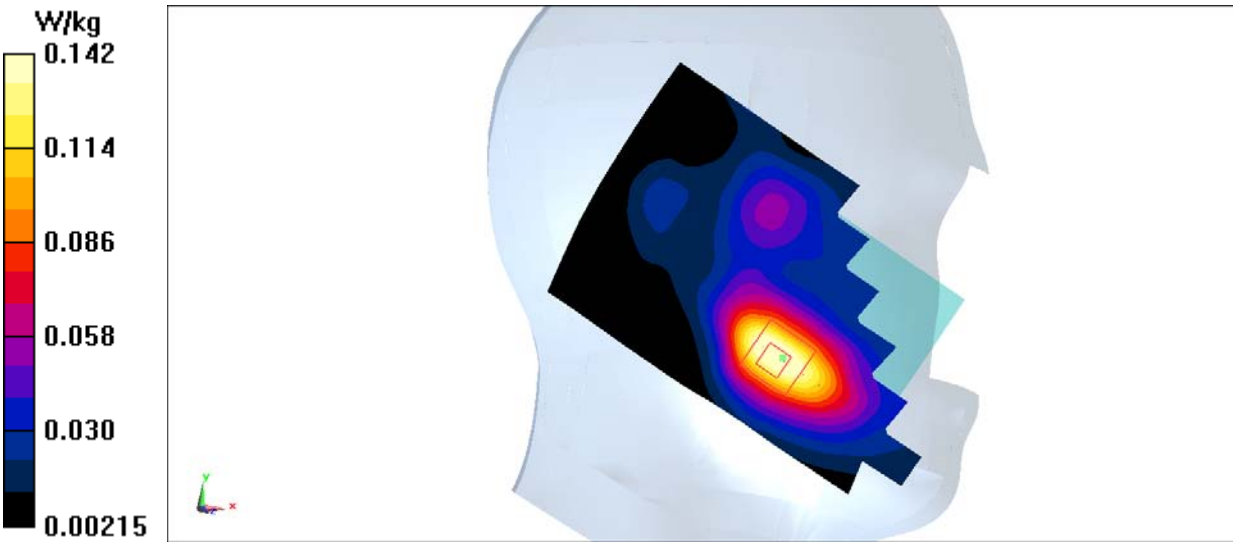

Fig.7 WCDMA1700

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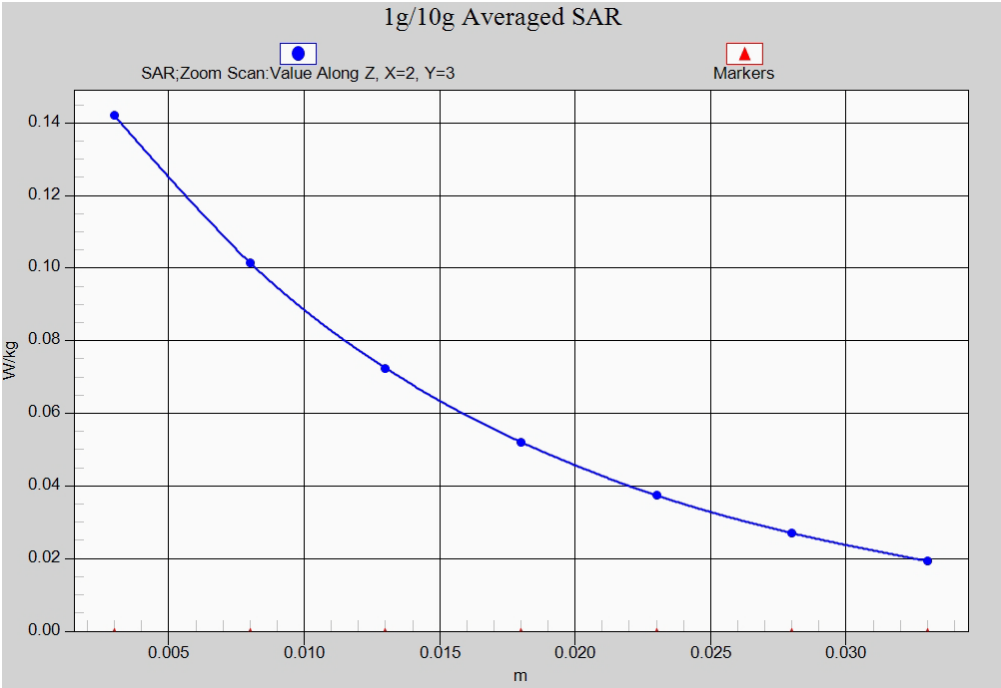

Fig. 7-1 Z-Scan at power reference point (WCDMA1700)

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WCDMA 1700 Body Bottom Middle

Date: 2016-6-22
Electronics: DAE4 Sn777
Medium: Body 1750 MHz
Medium parameters used: f = 1732.4 MHz; σ = 1.539 mho/m; εr = 55.41; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: WCDMA 1750 Frequency: 1732.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(7.96, 7.96, 7.96)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.40 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 24.82 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.81 W/kg
SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.594 W/kg
Maximum value of SAR (measured) = 1.36 W/kg

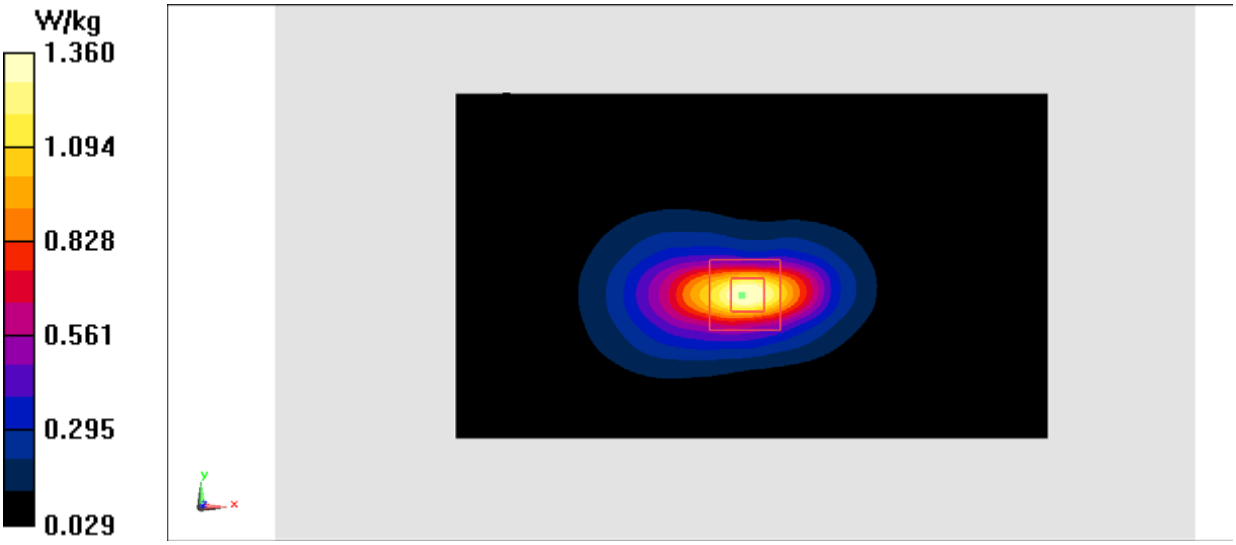

Fig.8 WCDMA1700

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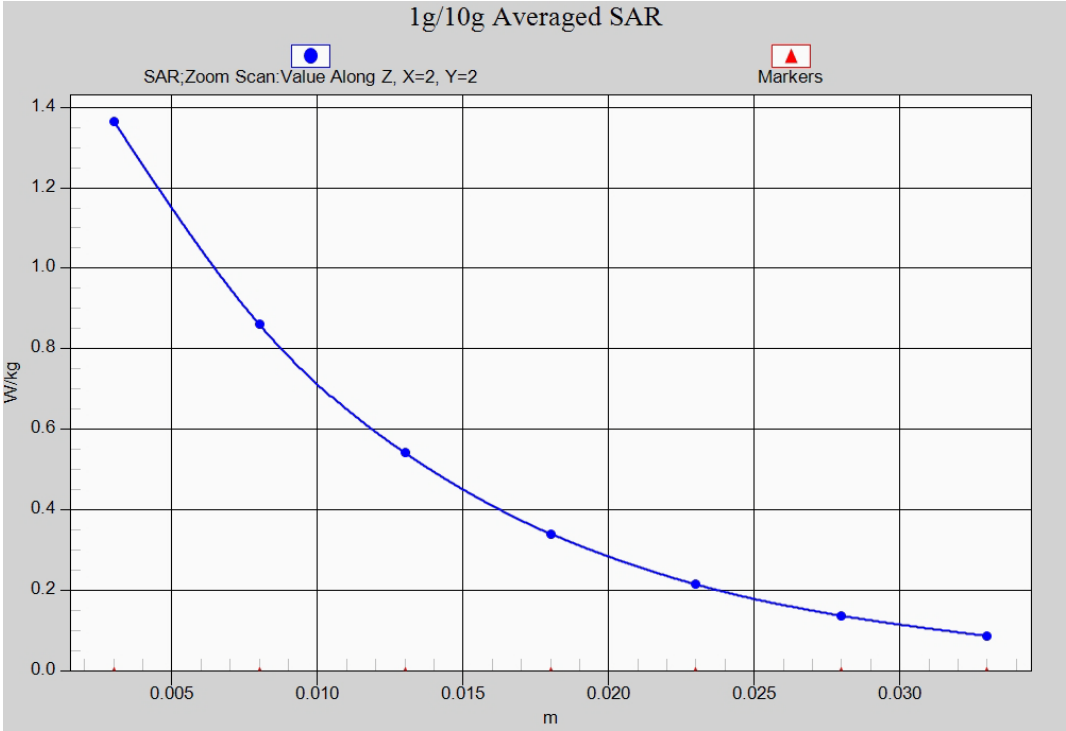

Fig. 8-1 Z-Scan at power reference point (WCDMA1700)

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WCDMA 1900 Left Cheek High

Date: 2016-6-23
Electronics: DAE4 Sn777
Medium: Head 1900 MHz
Medium parameters used (interpolated): f = 1907.6 MHz; σ = 1.411 mho/m; εr = 40.685; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: WCDMA 1900 Frequency: 1907.6 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) = 0.302 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.068 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.379 W/kg
SAR(1 g) = 0.251 W/kg; SAR(10 g) = 0.158 W/kg
Maximum value of SAR (measured) = 0.295 W/kg

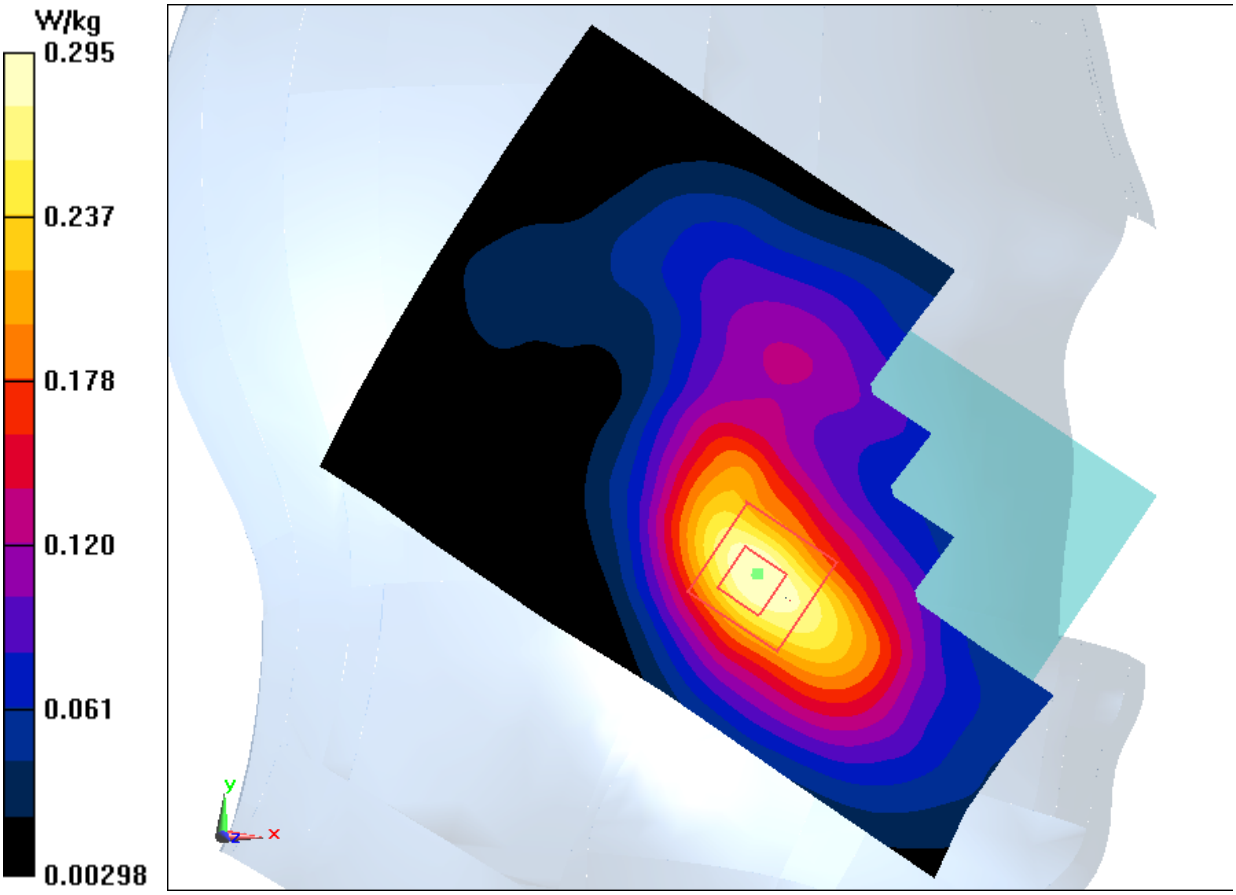

Fig.9 WCDMA1900

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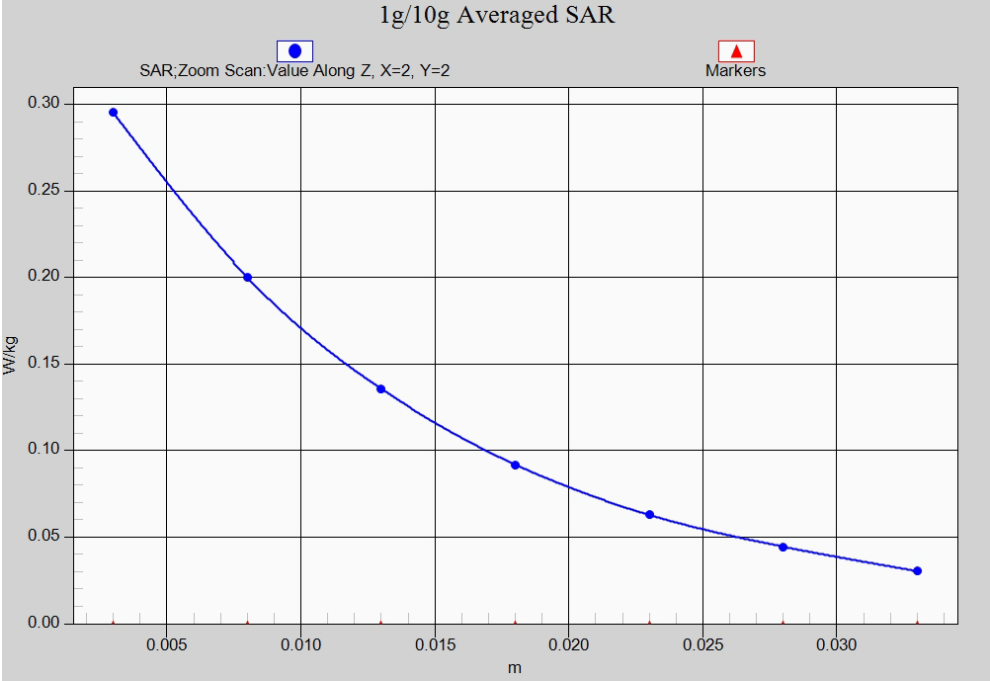

Fig. 9-1 Z-Scan at power reference point (WCDMA1900)

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WCDMA 1900 Body Bottom Middle

Date: 2016-6-23
Electronics: DAE4 Sn777
Medium: Body 1900 MHz
Medium parameters used: f = 1880 MHz; σ = 1.568 mho/m; εr = 52.64; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: WCDMA 1900 Frequency: 1880 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(7.74, 7.74, 7.74)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.35 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.51 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 1.85 W/kg
SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.579 W/kg
Maximum value of SAR (measured) = 1.34 W/kg

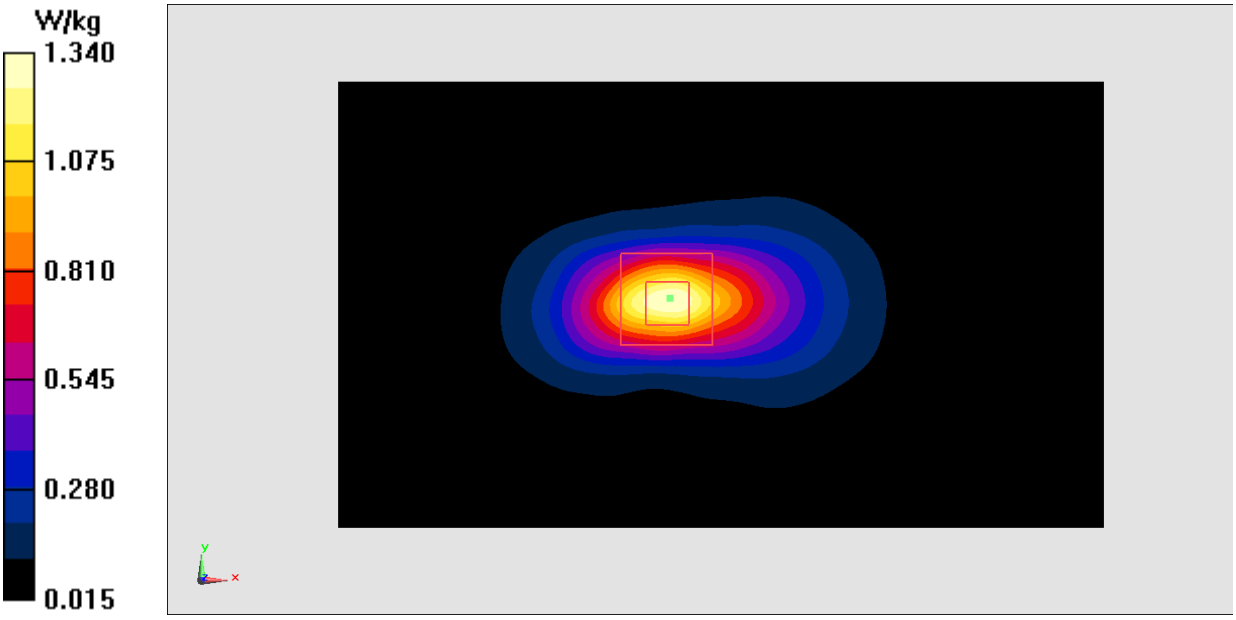

Fig.10 WCDMA1900

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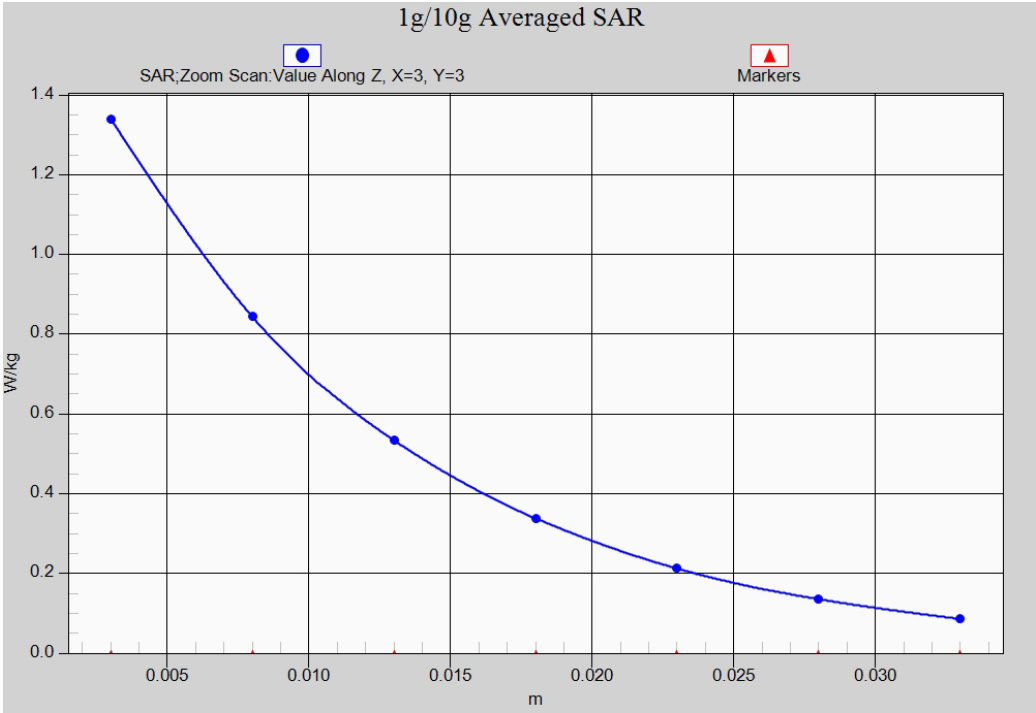

Fig. 10-1 Z-Scan at power reference point (WCDMA1900)

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LTE Band2 Left Cheek Low with QPSK_20M_1RB_High

Date: 2016-6-23
Electronics: DAE4 Sn777
Medium: Head 1900 MHz
Medium parameters used: f = 1860 MHz; σ = 1.393. mho/m; εr = 40.693; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band2 Frequency: 1860 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) = 0.198 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.838 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.252 W/kg
SAR(1 g) = 0.165 W/kg; SAR(10 g) = 0.102 W/kg
Maximum value of SAR (measured) = 0.196 W/kg

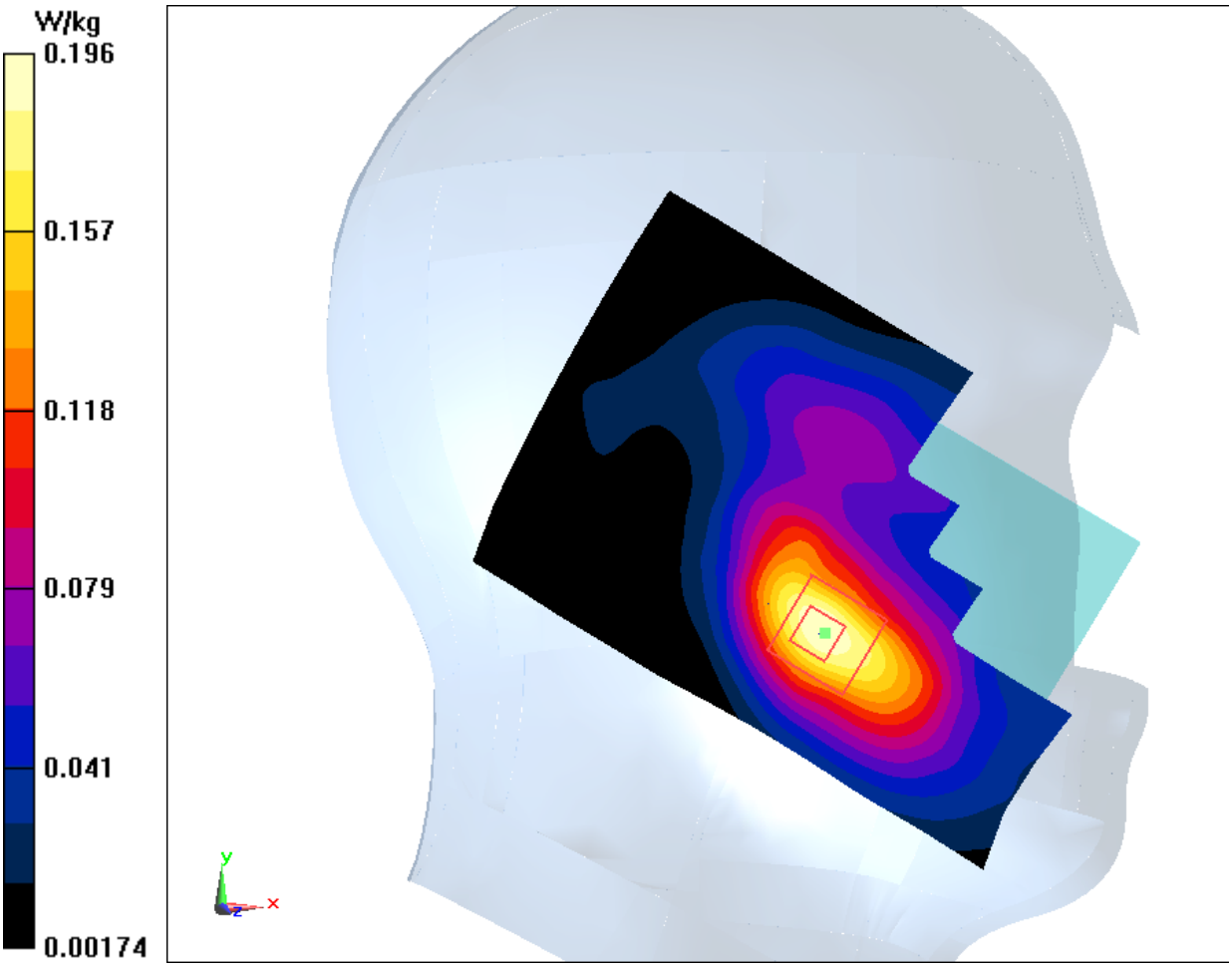

Fig.11 LTE Band2

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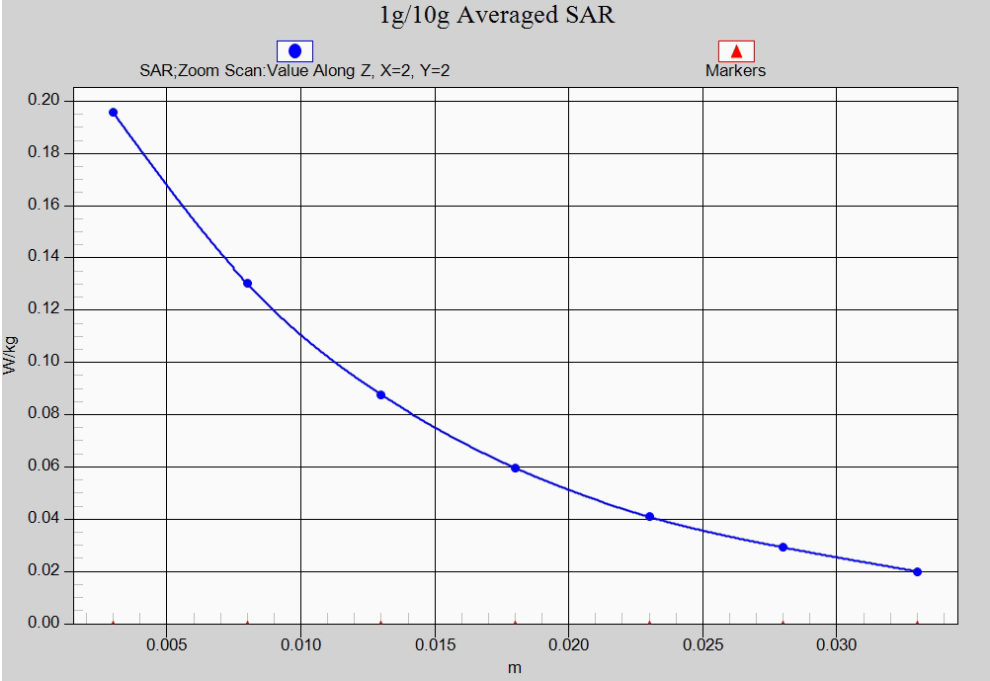

Fig. 11-1 Z-Scan at power reference point (LTE Band2)

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LTE Band2 Body Rear High with QPSK_20M_1RB_High

Date: 2016-6-23
Electronics: DAE4 Sn777
Medium: Body 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.575 mho/m; εr = 52.62; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band4 Frequency: 1900 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(7.74, 7.74, 7.74)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.27 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.15 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.85 W/kg
SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.581 W/kg
Maximum value of SAR (measured) = 1.28 W/kg

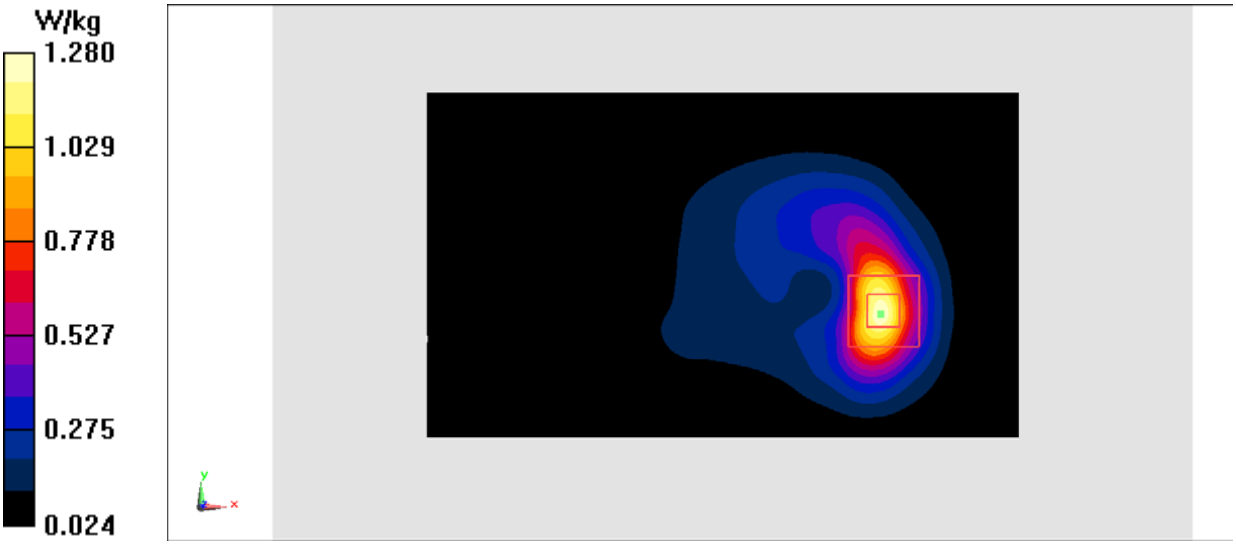

Fig.12 LTE Band2

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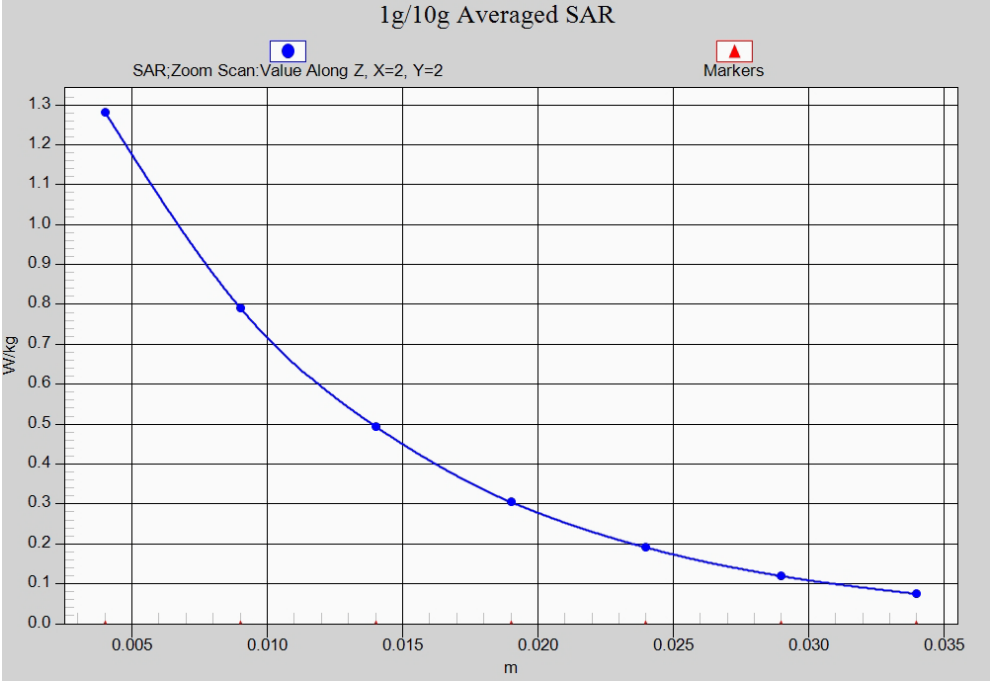

Fig. 12-1 Z-Scan at power reference point (LTE Band2)

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LTE Band4 Right Cheek Low with QPSK_20M_1RB_Low

Date: 2016-6-22
Electronics: DAE4 Sn777
Medium: Head 1750 MHz
Medium parameters used: f = 1720 MHz; σ = 1.359 mho/m; εr = 41.499; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band4 Frequency: 1720 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(8.34, 8.34, 8.34)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.207 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.265 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.250 W/kg
SAR(1 g) = 0.174 W/kg; SAR(10 g) = 0.114 W/kg
Maximum value of SAR (measured) = 0.204 W/kg

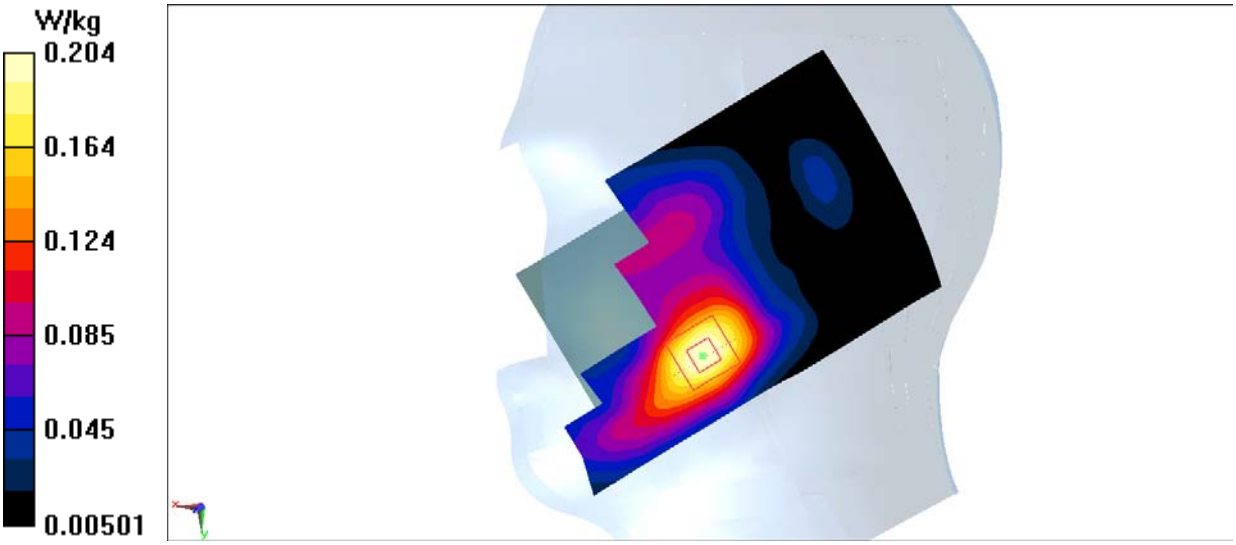

Fig.13 LTE Band4

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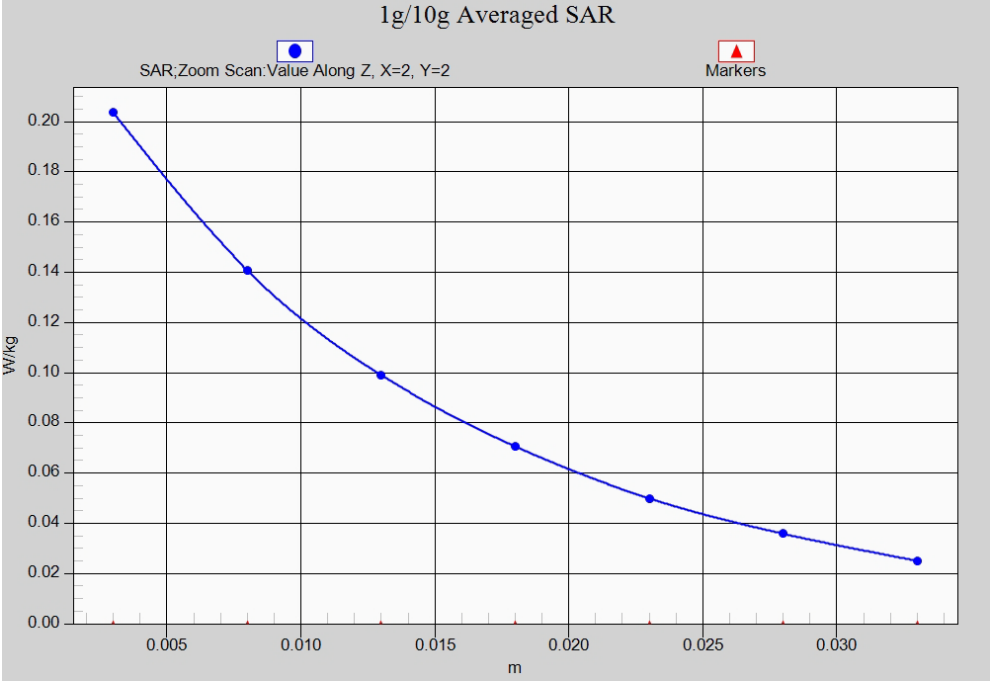

Fig. 13-1 Z-Scan at power reference point (LTE Band4)

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LTE Band4 Body Rear Low with QPSK_20M_1RB_Low

Date: 2016-6-22
Electronics: DAE4 Sn777
Medium: Body 1750 MHz
Medium parameters used: f = 1720 MHz; σ = 1.535 mho/m; εr = 55.416; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band4 Frequency: 1720 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(7.96, 7.96, 7.96)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.10 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.26 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.54 W/kg
SAR(1 g) = 0.933 W/kg; SAR(10 g) = 0.509 W/kg
Maximum value of SAR (measured) = 1.06 W/kg

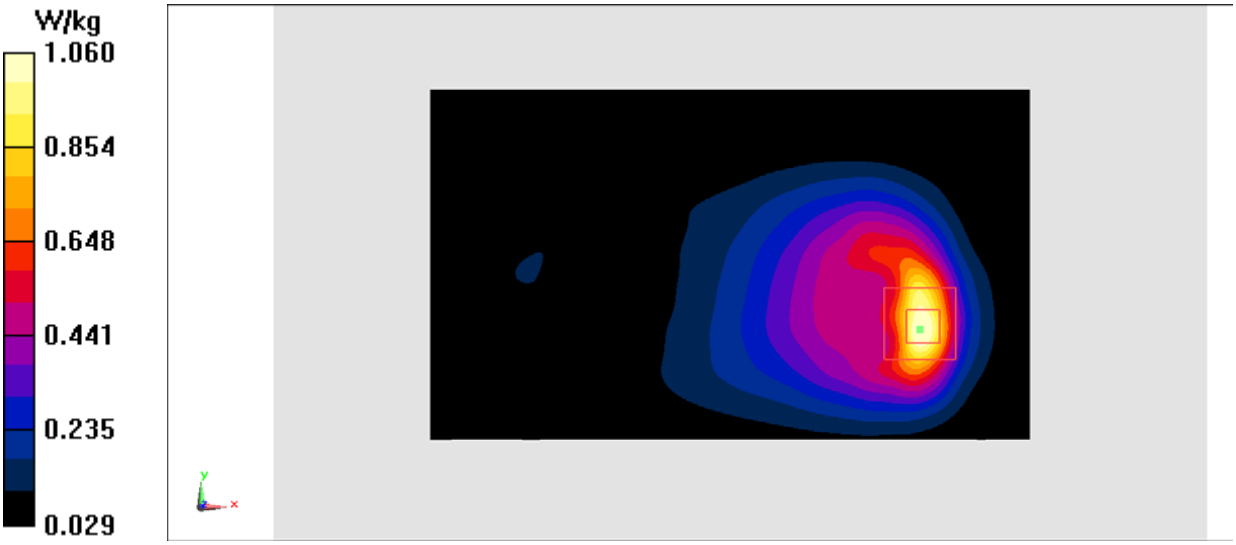

Fig.14 LTE Band4

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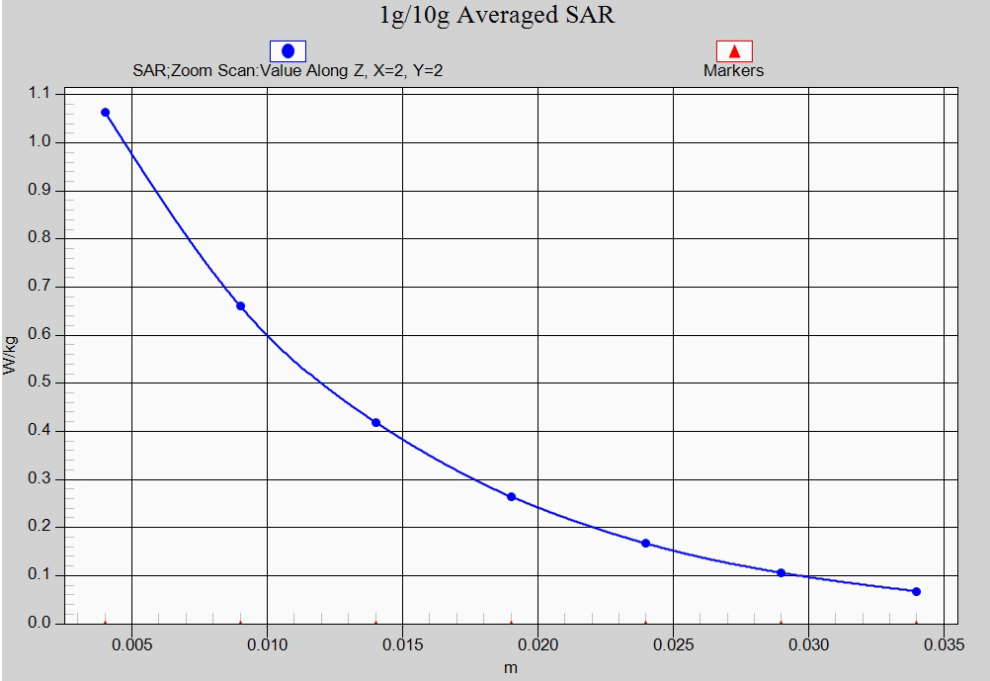

Fig. 14-1 Z-Scan at power reference point (LTE Band4)

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LTE Band5 Right Cheek Low with QPSK_10M_1RB_Low

Date: 2016-6-21
Electronics: DAE4 Sn777
Medium: Head 835 MHz
Medium parameters used: f = 829 MHz; σ =0.919 mho/m; εr = 42.96; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band5 Frequency: 829 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(9.56, 9.56, 9.56)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.163 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.853 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.184 W/kg
SAR(1 g) = 0.148 W/kg; SAR(10 g) = 0.115 W/kg
Maximum value of SAR (measured) = 0.154 W/kg

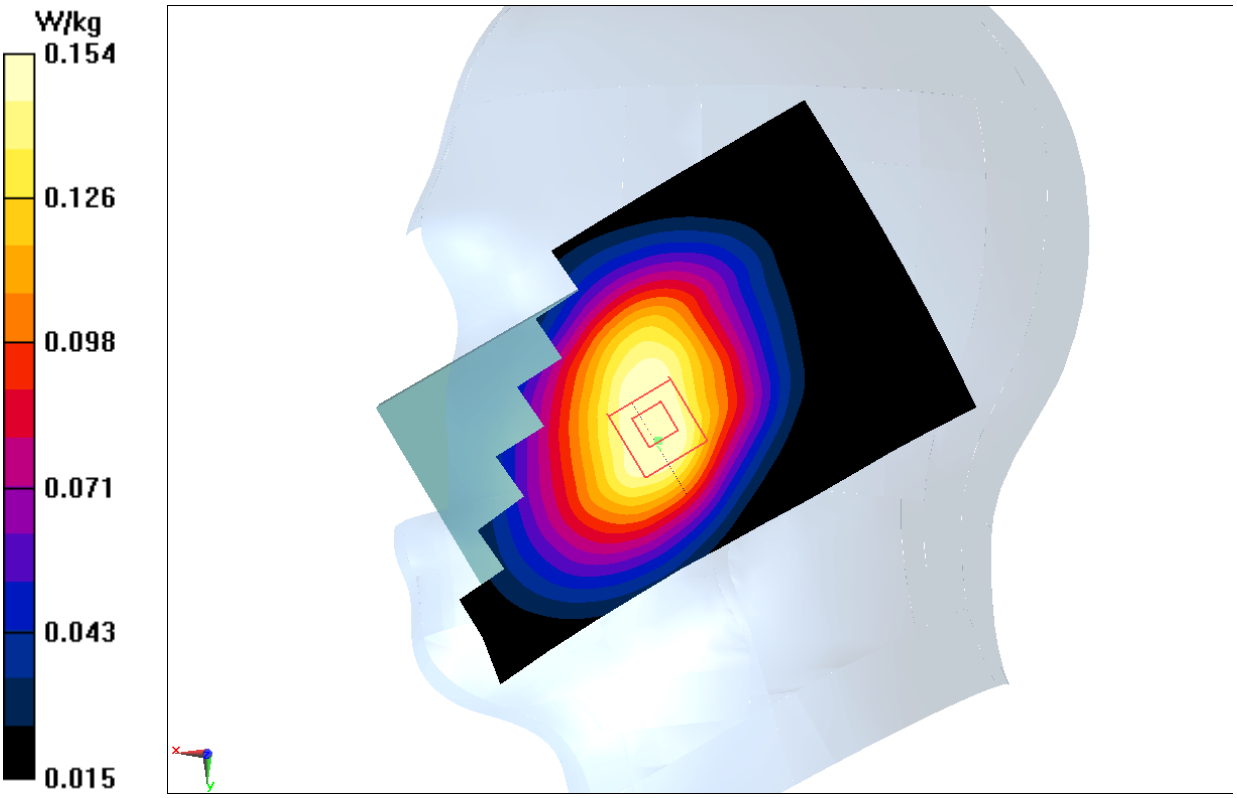

Fig.15 LTE Band5

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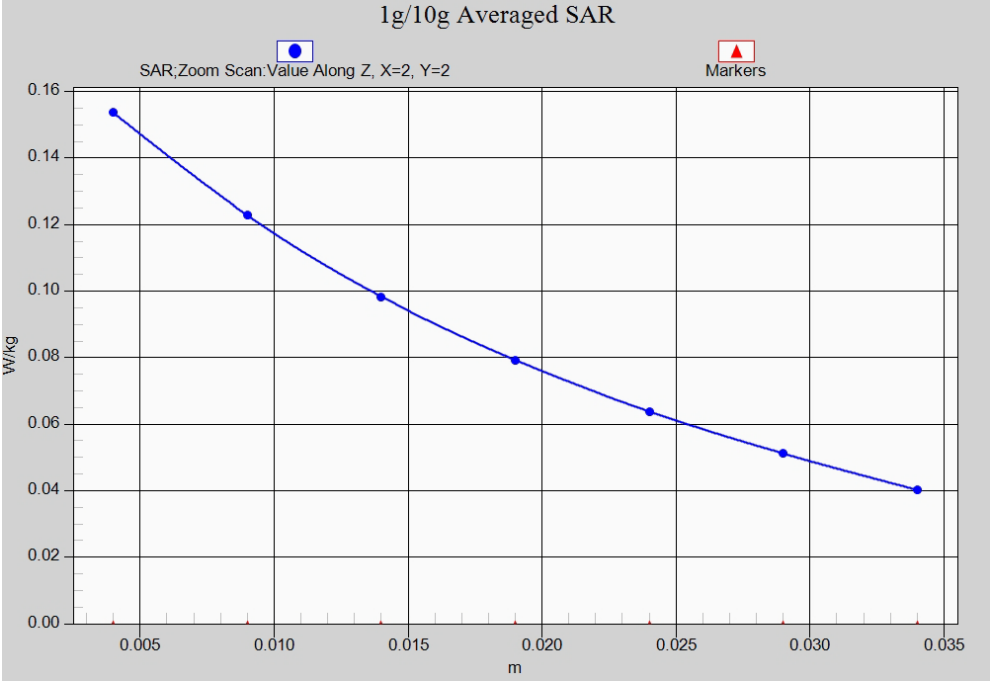

Fig. 15-1 Z-Scan at power reference point (LTE Band5)

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LTE Band5 Body Rear Low with QPSK_10M_1RB_Low

Date: 2016-6-21
Electronics: DAE4 Sn777
Medium: Body 835 MHz
Medium parameters used: f = 829 MHz; σ = 0.988 mho/m; εr = 57.33; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band5 Frequency: 829 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(9.71, 9.71, 9.71)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.277 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.92 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.308 W/kg
SAR(1 g) = 0.252 W/kg; SAR(10 g) = 0.196 W/kg
Maximum value of SAR (measured) = 0.262 W/kg

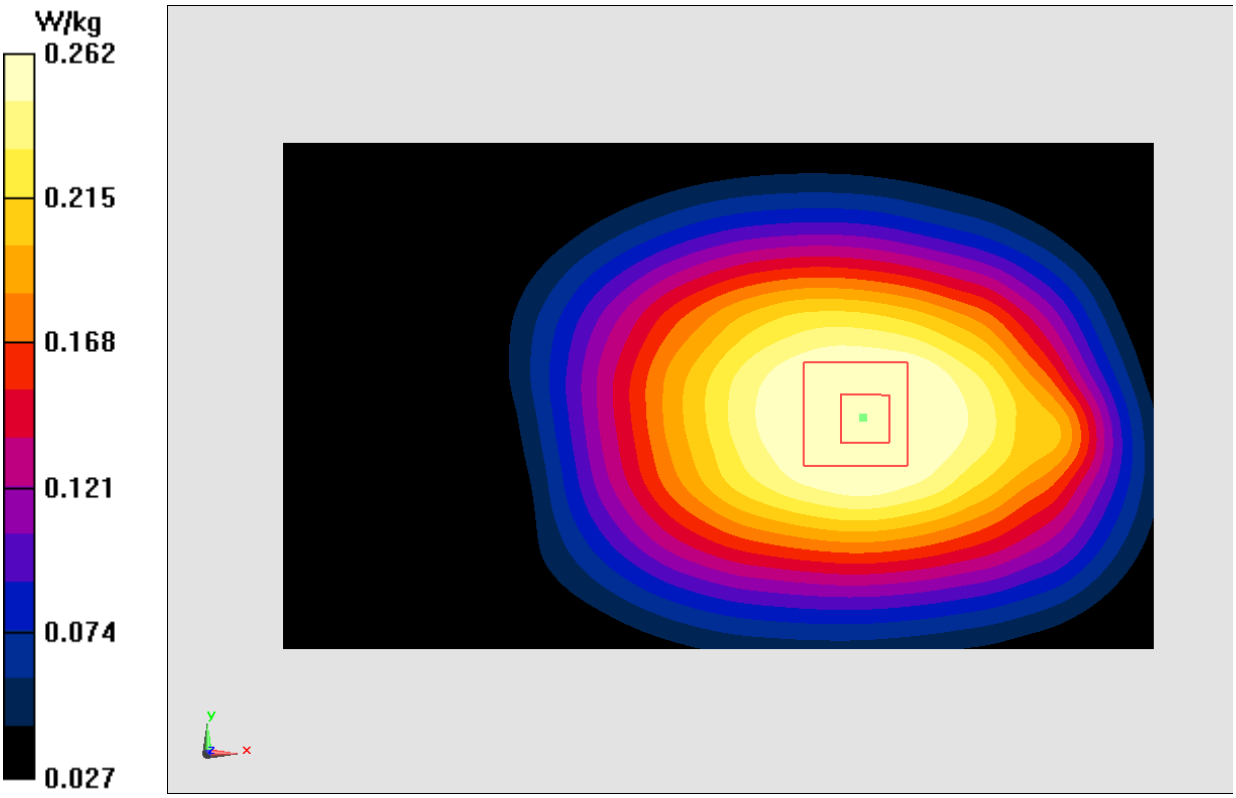

Fig.16 LTE Band5

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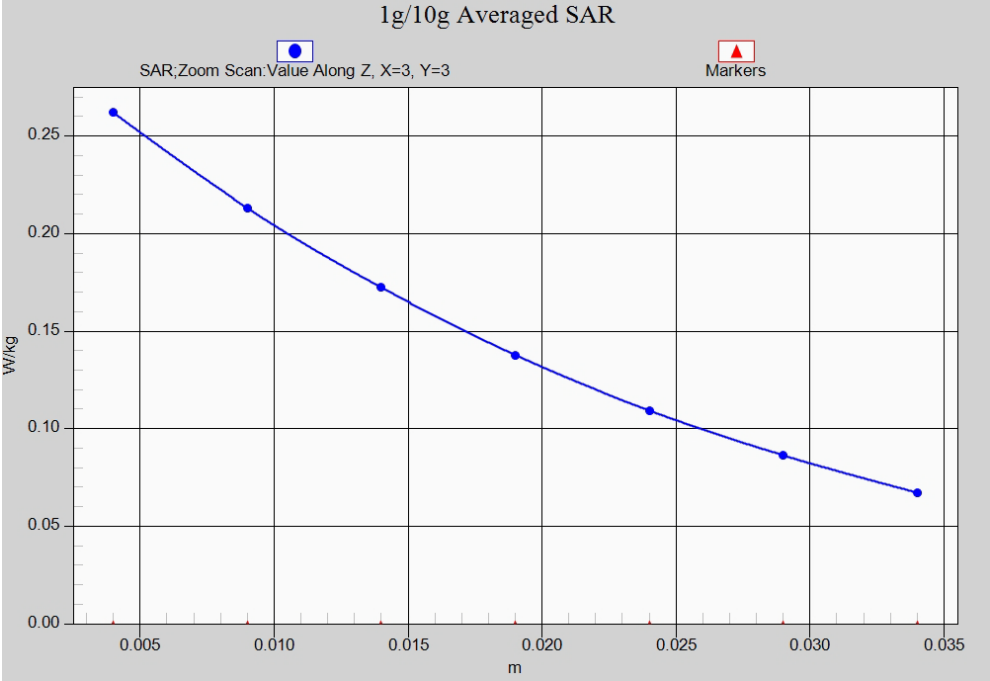

Fig. 16-1 Z-Scan at power reference point (LTE Band5)

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LTE Band7 Right Cheek High with QPSK_20M_1RB_Low

Date: 2016-6-24
Electronics: DAE4 Sn777
Medium: Head 2600 MHz
Medium parameters used: f = 2560 MHz; σ = 1.985 mho/m; εr = 39.02; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band7 Frequency: 2560 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(7.21, 7.21, 7.21)

Area Scan (91x141x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.808 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.775 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.00 W/kg
SAR(1 g) = 0.552 W/kg; SAR(10 g) = 0.291 W/kg
Maximum value of SAR (measured) = 0.780 W/kg

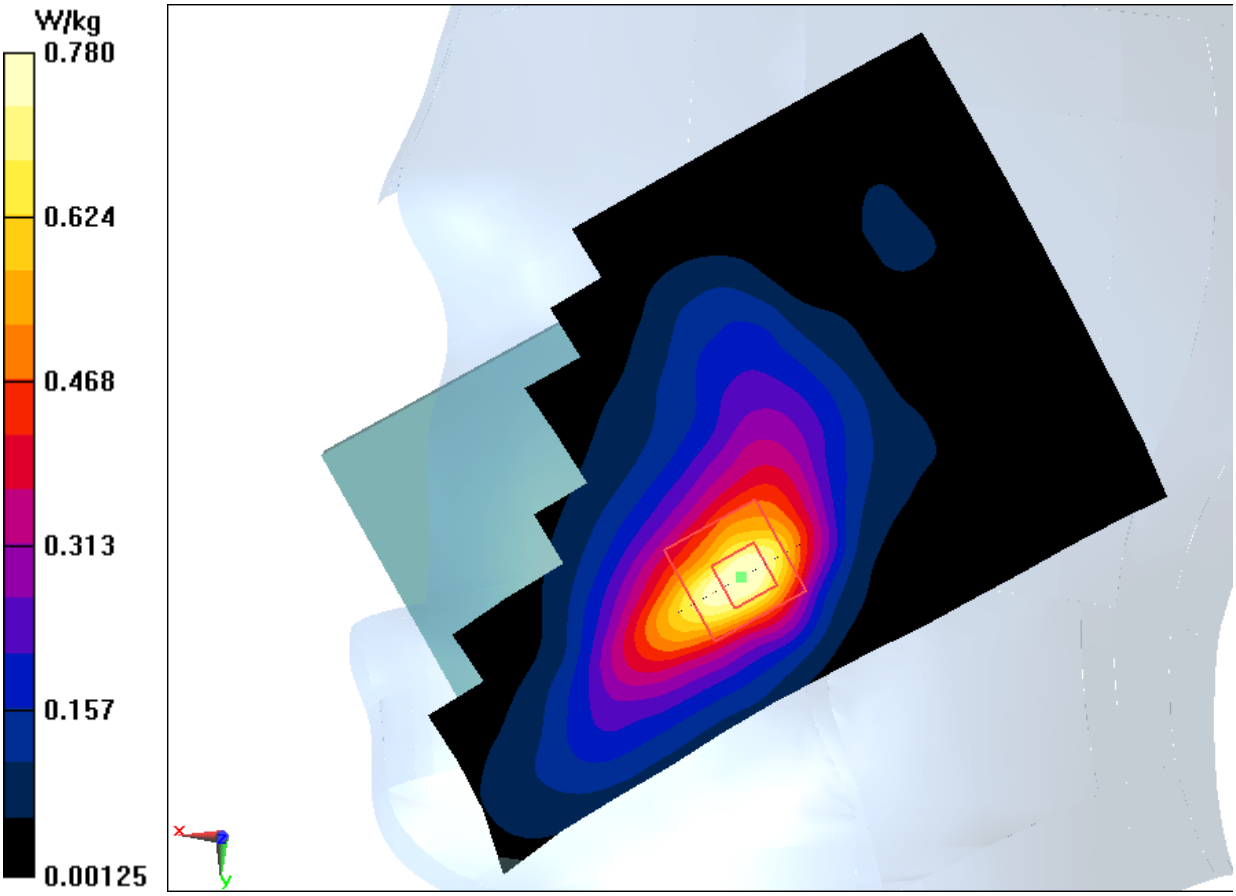

Fig.17 LTE Band7

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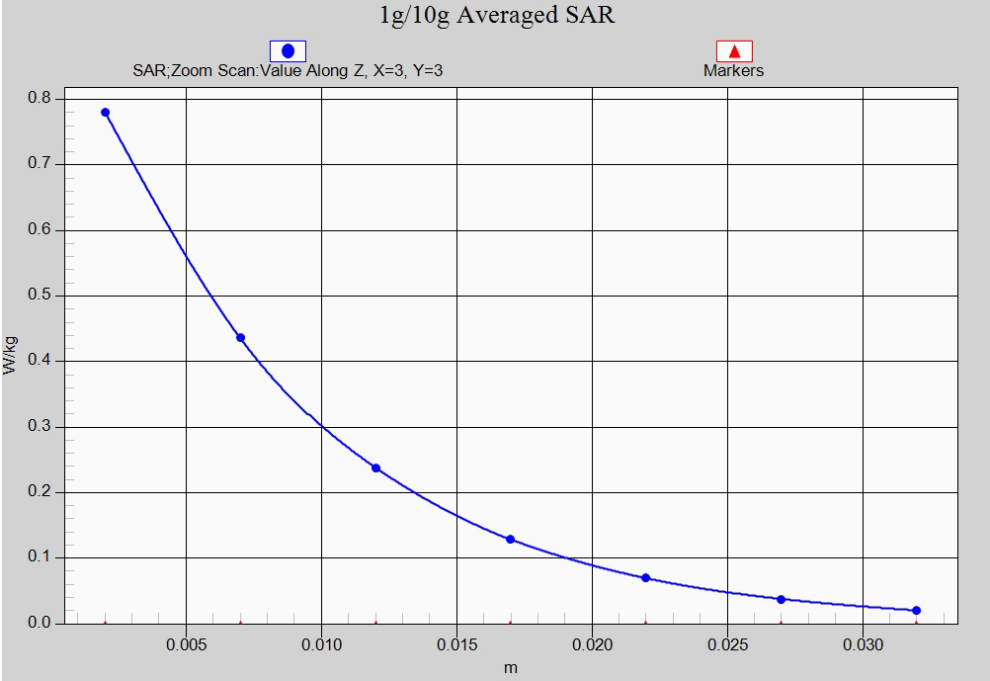

Fig. 17-1 Z-Scan at power reference point (LTE Band7)

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LTE Band7 Body Bottom High with QPSK_20M_1RB_Low

Date: 2016-6-24
Electronics: DAE4 Sn777
Medium: Body 2600 MHz
Medium parameters used: f = 2560 MHz; σ = 2.183 mho/m; εr = 51.31; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band7 Frequency: 2560 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(7.20, 7.20, 7.20)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.874 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.737 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.72 W/kg
SAR(1 g) = 0.793 W/kg; SAR(10 g) = 0.334 W/kg
Maximum value of SAR (measured) = 0.920 W/kg

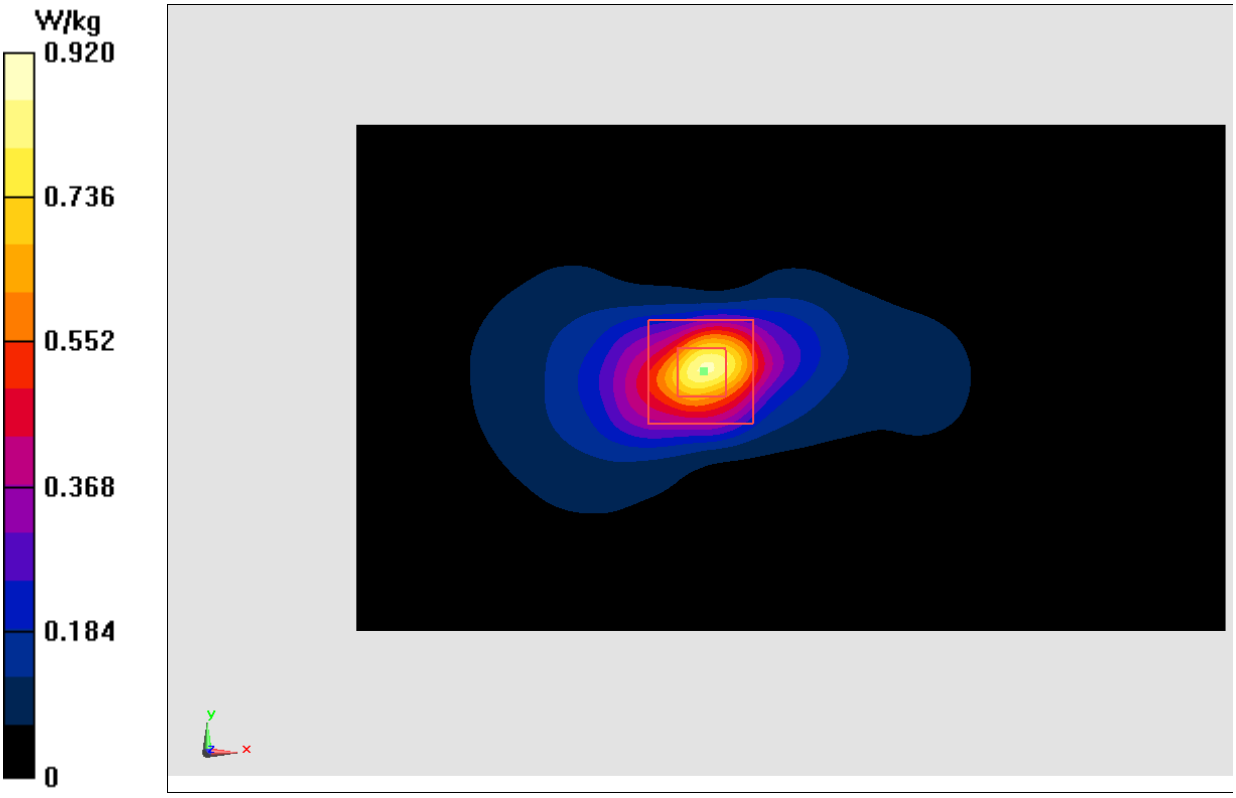

Fig.18 LTE Band7

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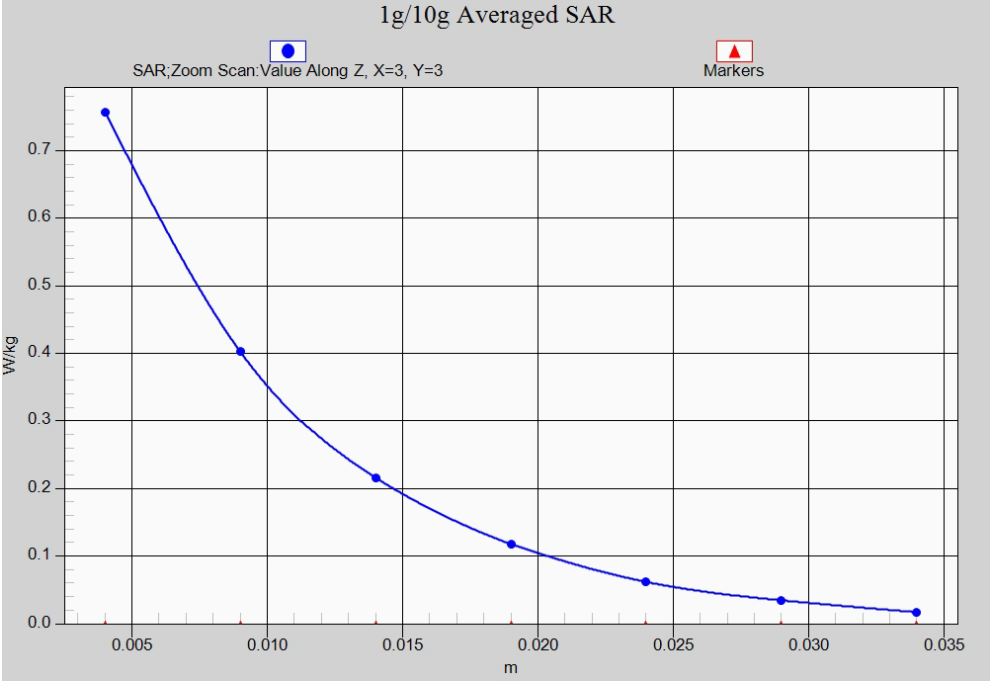

Fig. 18-1 Z-Scan at power reference point (LTE Band7)

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LTE Band12 Right Cheek High with QPSK_10M_1RB_Middle

Date: 2016-6-20
Electronics: DAE4 Sn777
Medium: Head 750 MHz
Medium parameters used (interpolated): f = 711 MHz; σ = 0.854 mho/m; εr = 43.69; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band17 Frequency: 711 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(9.98, 9.98, 9.98)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.206 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.535 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.227 W/kg
SAR(1 g) = 0.191 W/kg; SAR(10 g) = 0.154 W/kg
Maximum value of SAR (measured) = 0.199 W/kg

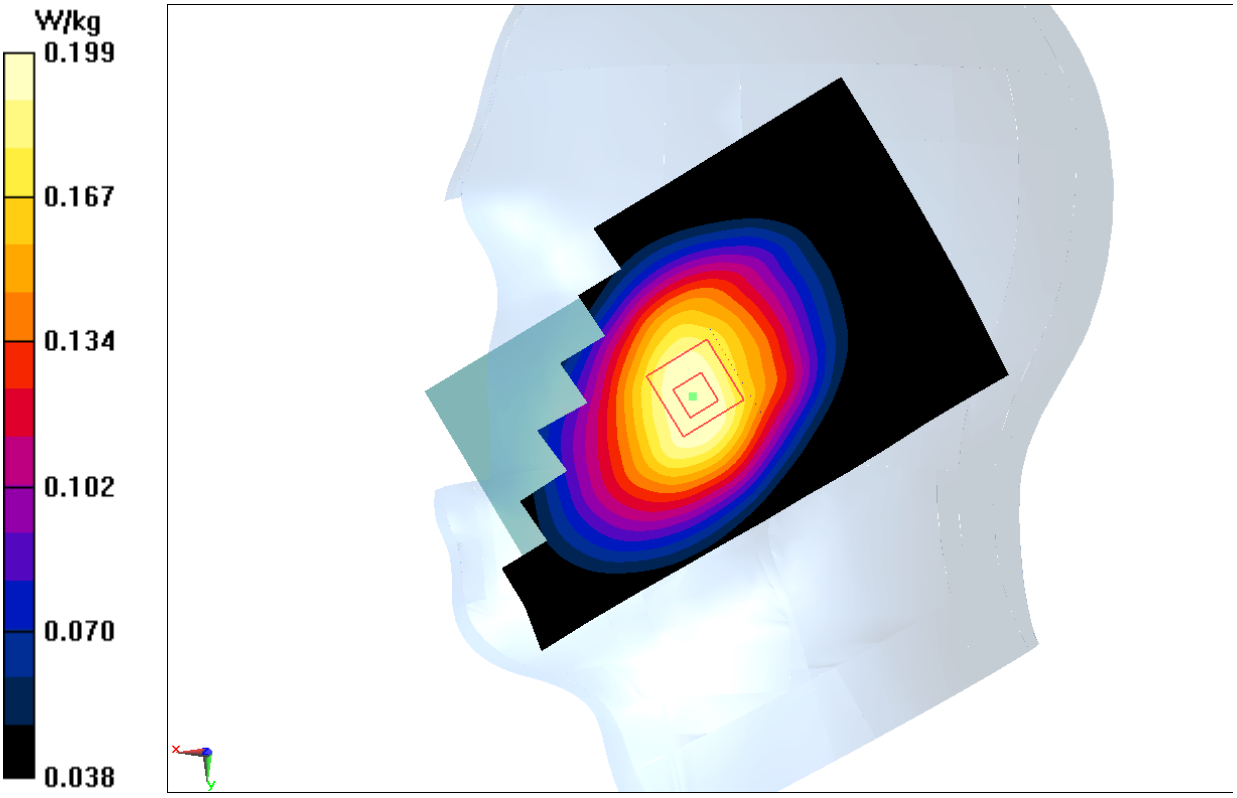

Fig.19 LTE Band12

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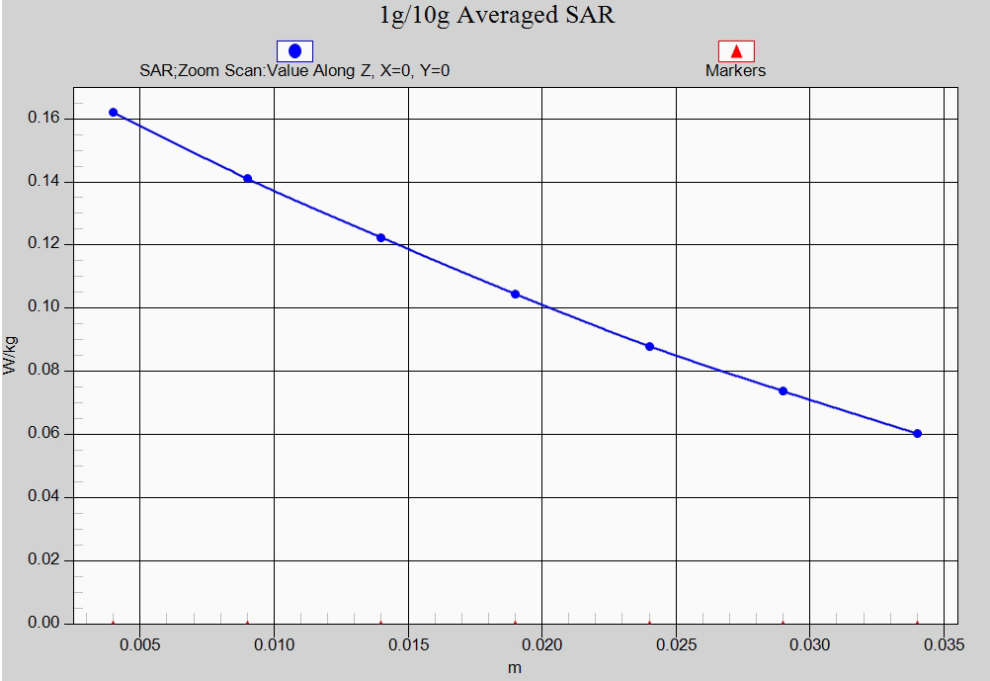

Fig. 19-1 Z-Scan at power reference point (LTE Band12)

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LTE Band12 Body Rear High with QPSK_10M_1RB_Middle

Date: 2016-6-20
Electronics: DAE4 Sn777
Medium: Body 750 MHz
Medium parameters used (interpolated): f = 711 MHz; σ = 0.934 mho/m; εr = 57.55; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band17 Frequency: 711 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(9.76, 9.76, 9.76)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.262 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.67 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.303 W/kg
SAR(1 g) = 0.252 W/kg; SAR(10 g) = 0.200 W/kg
Maximum value of SAR (measured) = 0.263 W/kg

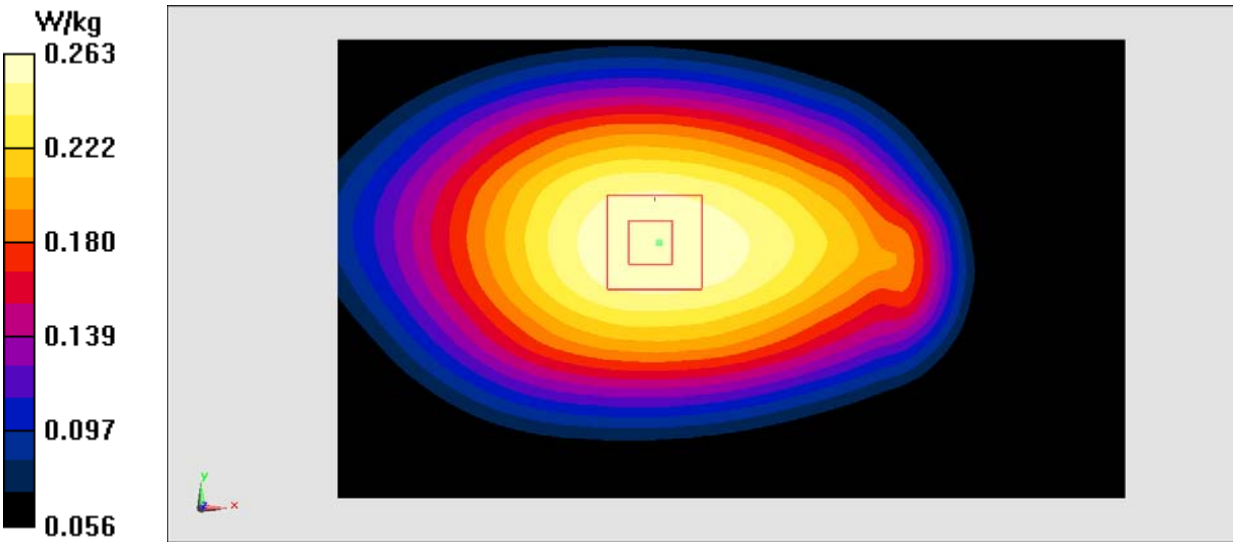

Fig.20 LTE Band12

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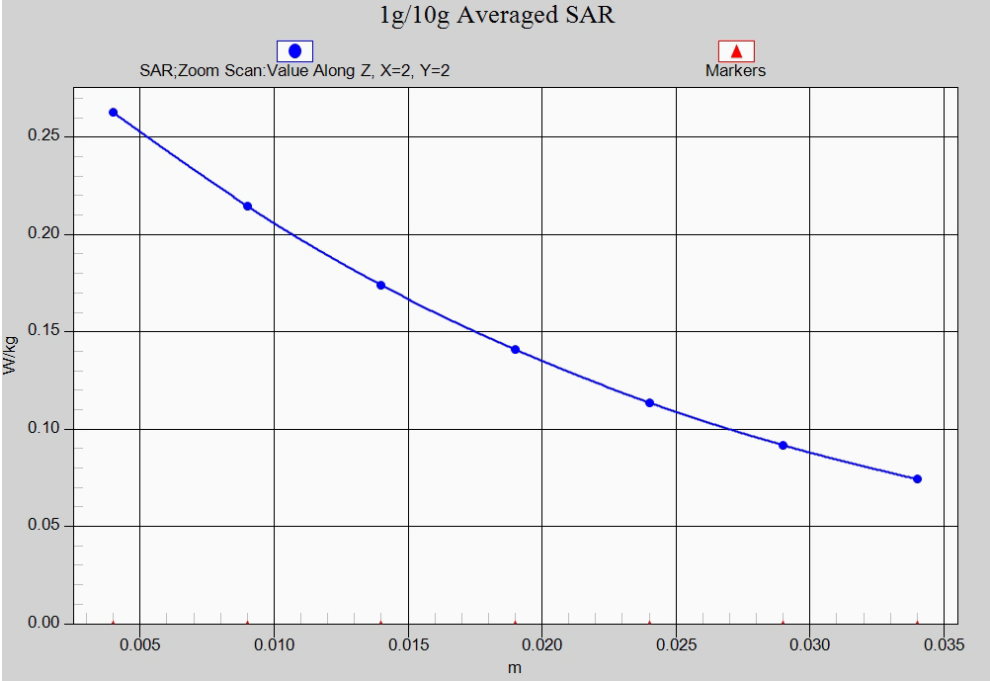

Fig. 20-1 Z-Scan at power reference point (LTE Band12)

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LTE Band17 Right Cheek Low with QPSK_10M_1RB_Low

Date: 2016-6-20
Electronics: DAE4 Sn777
Medium: Head 750 MHz
Medium parameters used (interpolated): f = 709 MHz; σ = 0.853 mho/m; εr = 43.71; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band17 Frequency: 709 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(9.98, 9.98, 9.98)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.193 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.802 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.210 W/kg
SAR(1 g) = 0.177 W/kg; SAR(10 g) = 0.143 W/kg
Maximum value of SAR (measured) = 0.184 W/kg

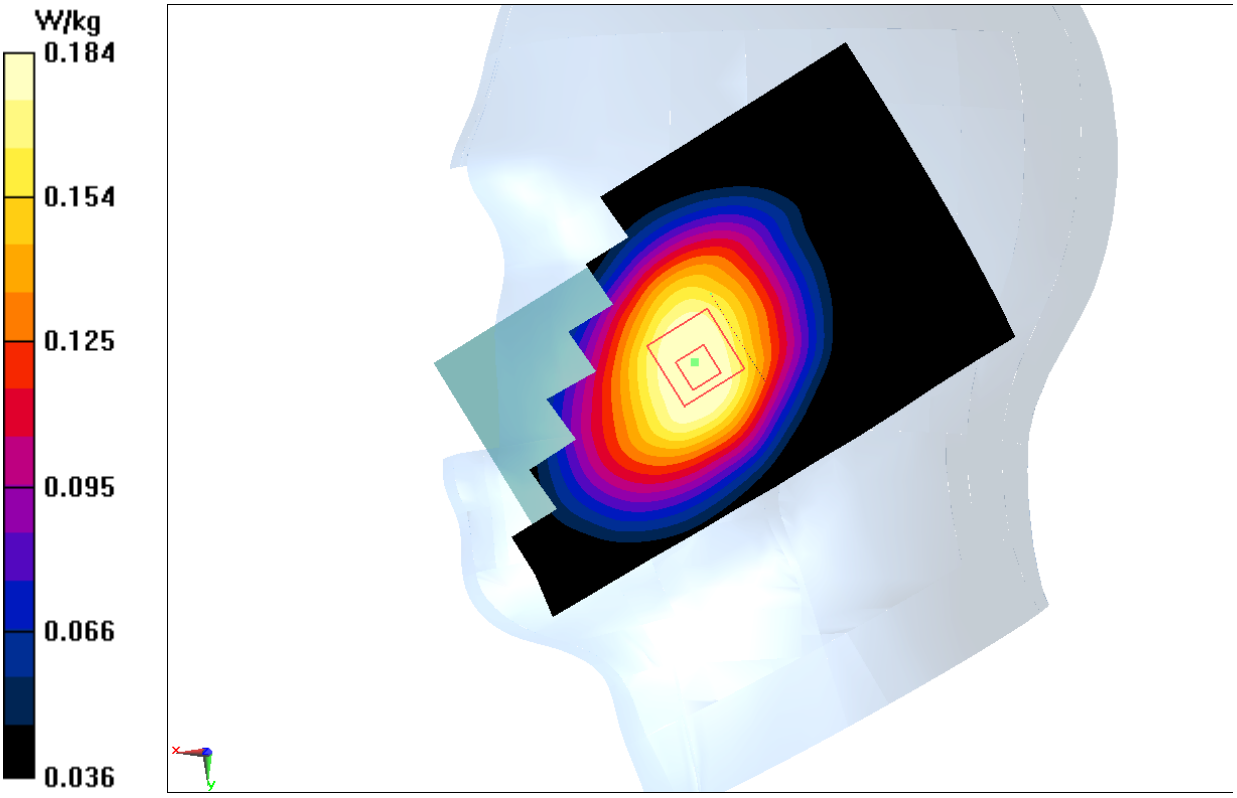

Fig.21 LTE Band17

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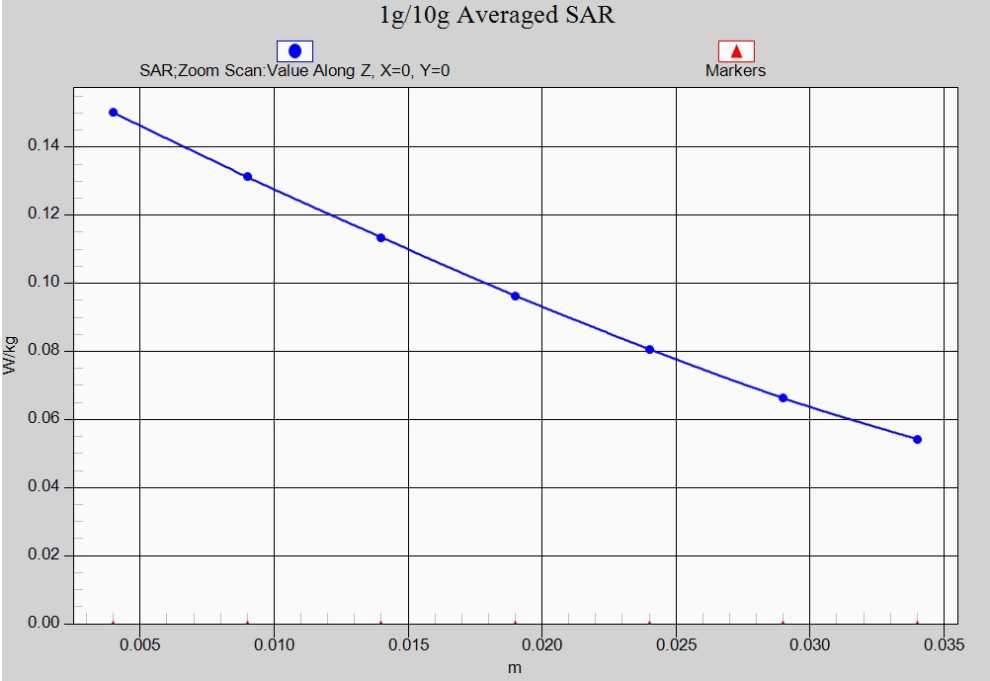

Fig. 21-1 Z-Scan at power reference point (LTE Band17)

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LTE Band17 Body Rear Low with QPSK_10M_25RB_High

Date: 2016-6-20
Electronics: DAE4 Sn777
Medium: Body 750 MHz
Medium parameters used (interpolated): f = 709 MHz; σ = 0.929 mho/m; εr = 57.56; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band17 Frequency: 709 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(9.76, 9.76, 9.76)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.227 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.58 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.260 W/kg
SAR(1 g) = 0.191 W/kg; SAR(10 g) = 0.137 W/kg
Maximum value of SAR (measured) = 0.203 W/kg

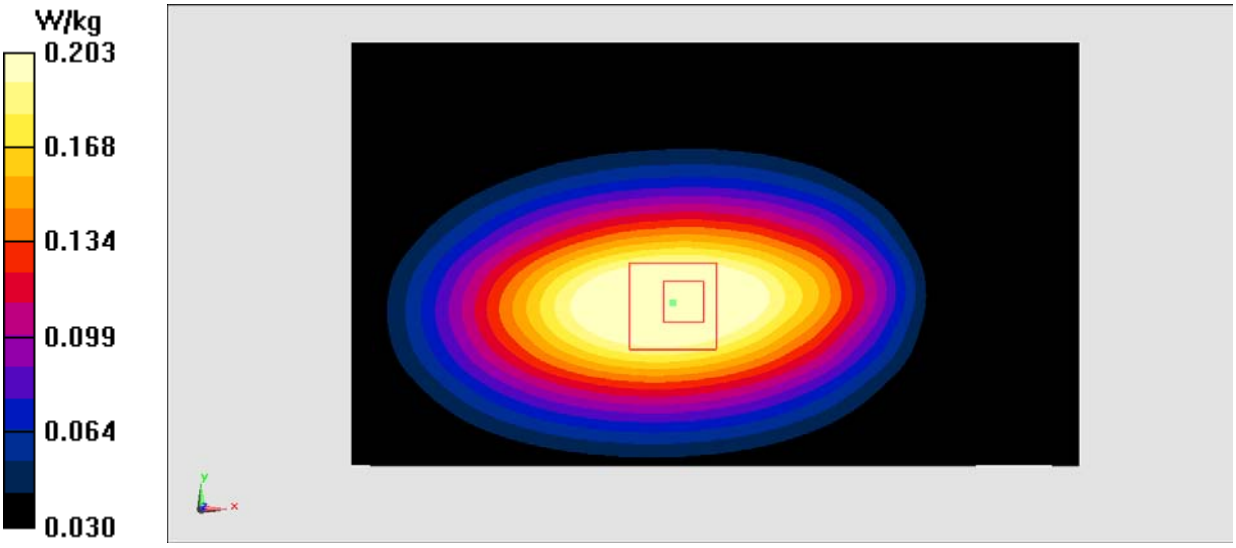

Fig.22 LTE Band17

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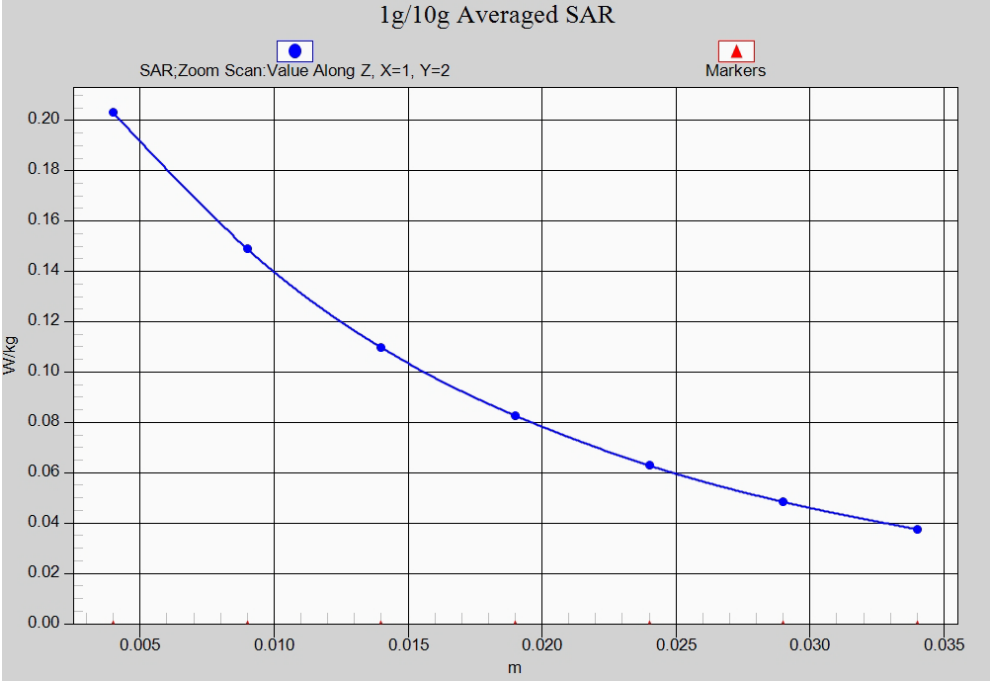

Fig. 22-1 Z-Scan at power reference point (LTE Band17)

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Wifi 802.11b Right Cheek Channel 6

Date: 2016-1-24
Electronics: DAE4 Sn777
Medium: Head 2450 MHz
Medium parameters used (interpolated): f = 2437 MHz; σ = 1.843 mho/m; ε_r = 40.022; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: WLan 2450 Frequency: 2437 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(7.24, 7.24, 7.24)

Area Scan (91x141x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.142 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.900 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.313 W/kg
SAR(1 g) = 0.120 W/kg; SAR(10 g) = 0.055 W/kg
Maximum value of SAR (measured) = 0.167 W/kg

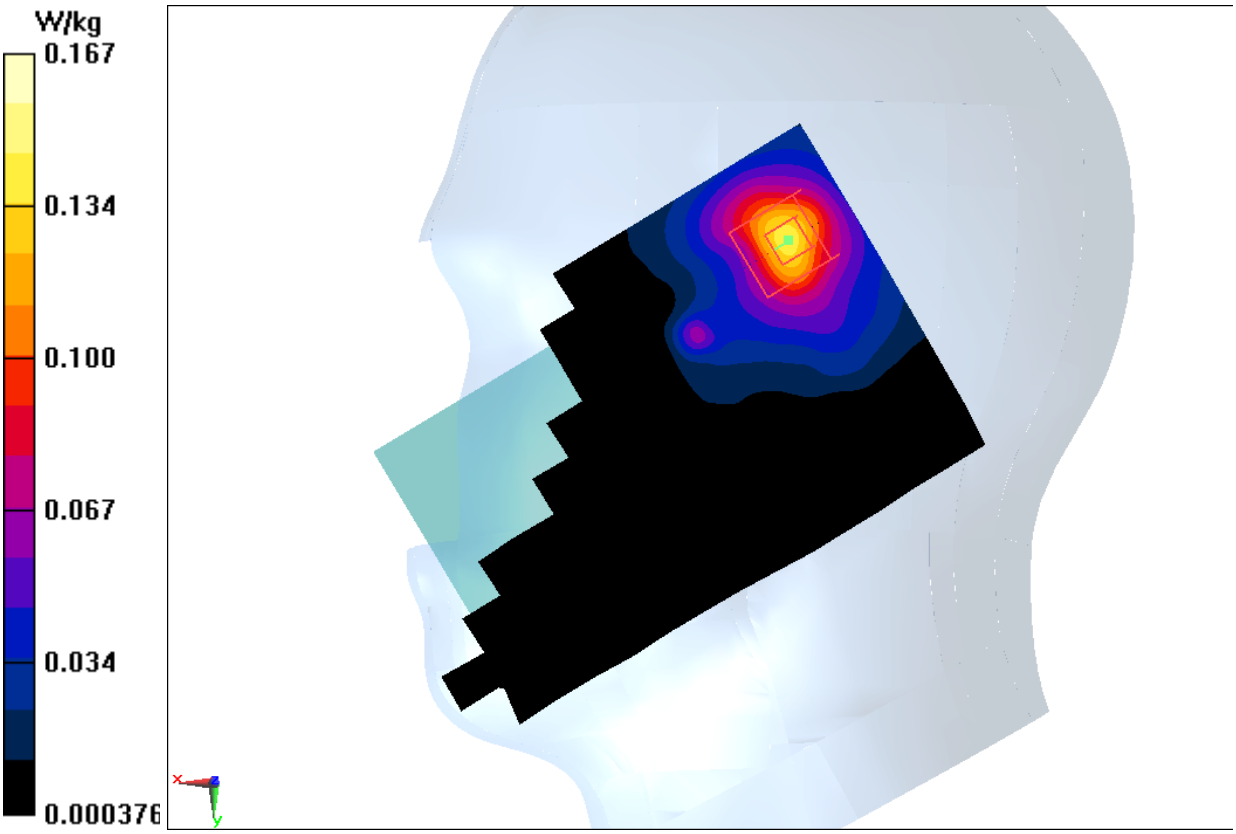

Fig.23 2450 MHz

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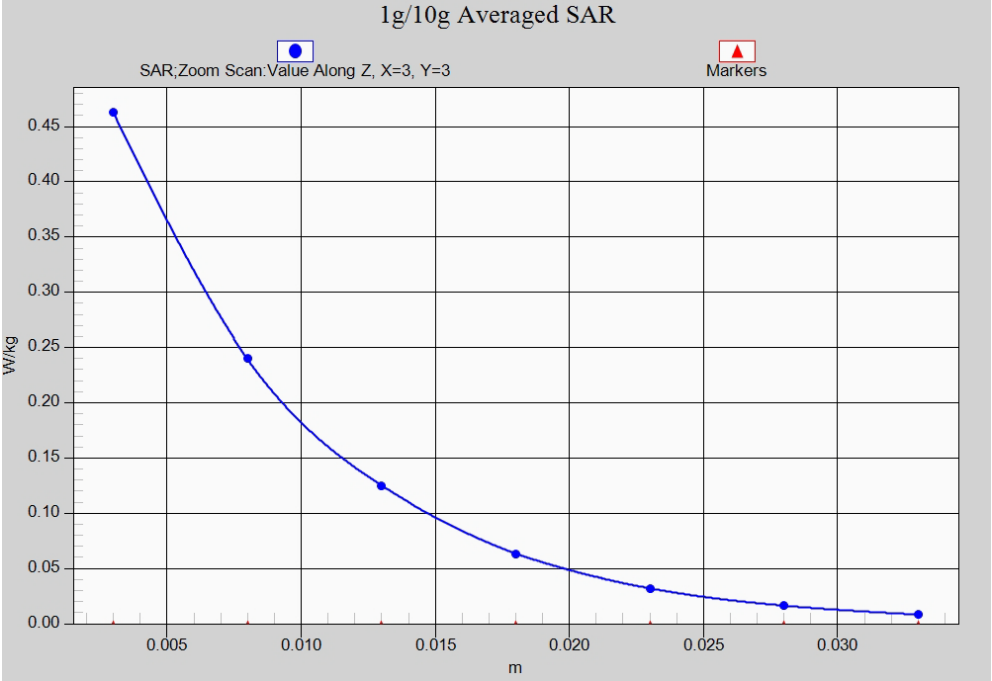

Fig. 23-1 Z-Scan at power reference point (2450 MHz)

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Wifi 802.11b Body Rear Channel 6

Date: 2016-1-24
Electronics: DAE4 Sn777
Medium: Body 2450 MHz
Medium parameters used (interpolated): f = 2437 MHz; σ = 2.053 mho/m; ε_r = 50.893; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: WLan 2450 Frequency: 2437 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(7.35, 7.35, 7.35)

Area Scan (141x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.376 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.816 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.536 W/kg
SAR(1 g) = 0.283 W/kg; SAR(10 g) = 0.134 W/kg
Maximum value of SAR (measured) = 0.327 W/kg

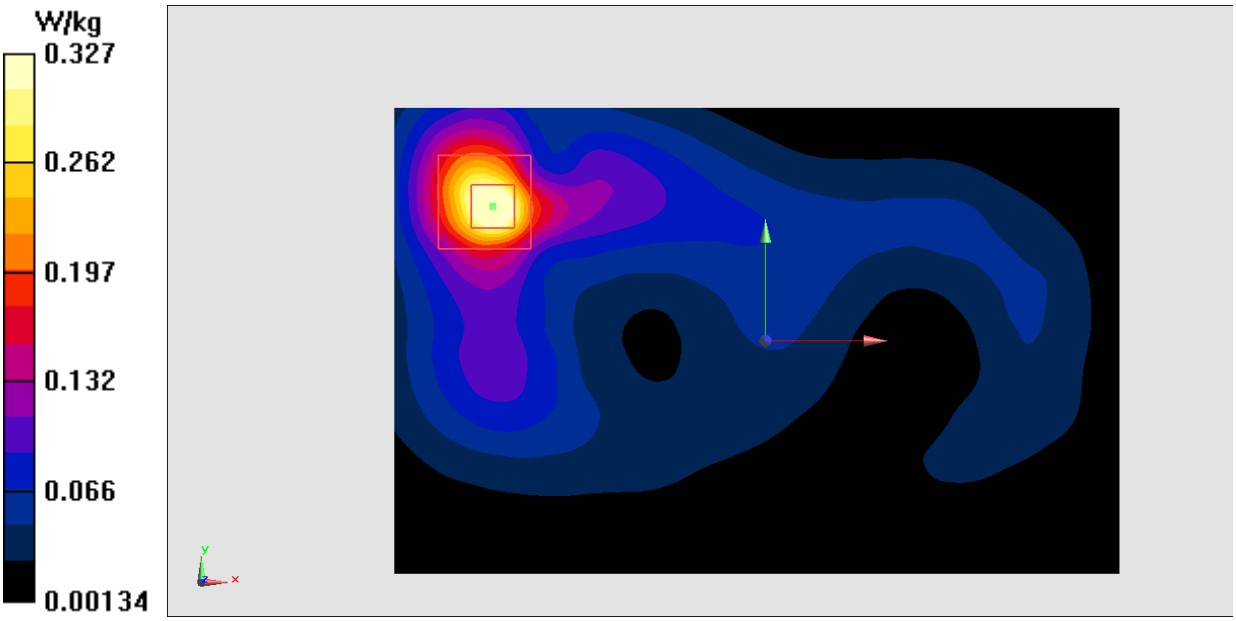

Fig.24 2450 MHz

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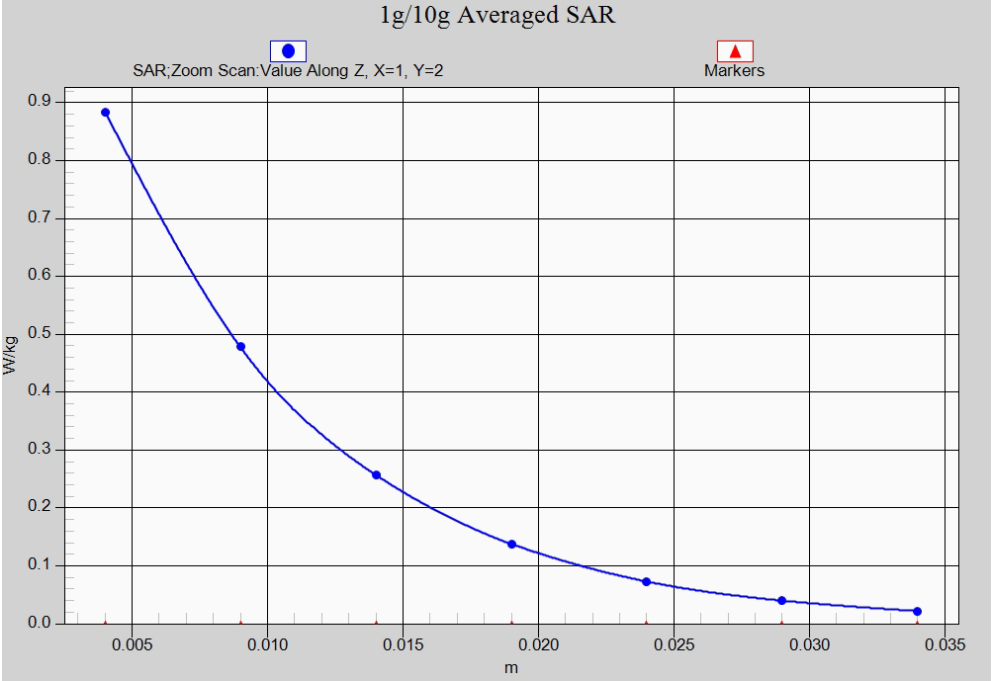

Fig. 24-1 Z-Scan at power reference point (2450 MHz)

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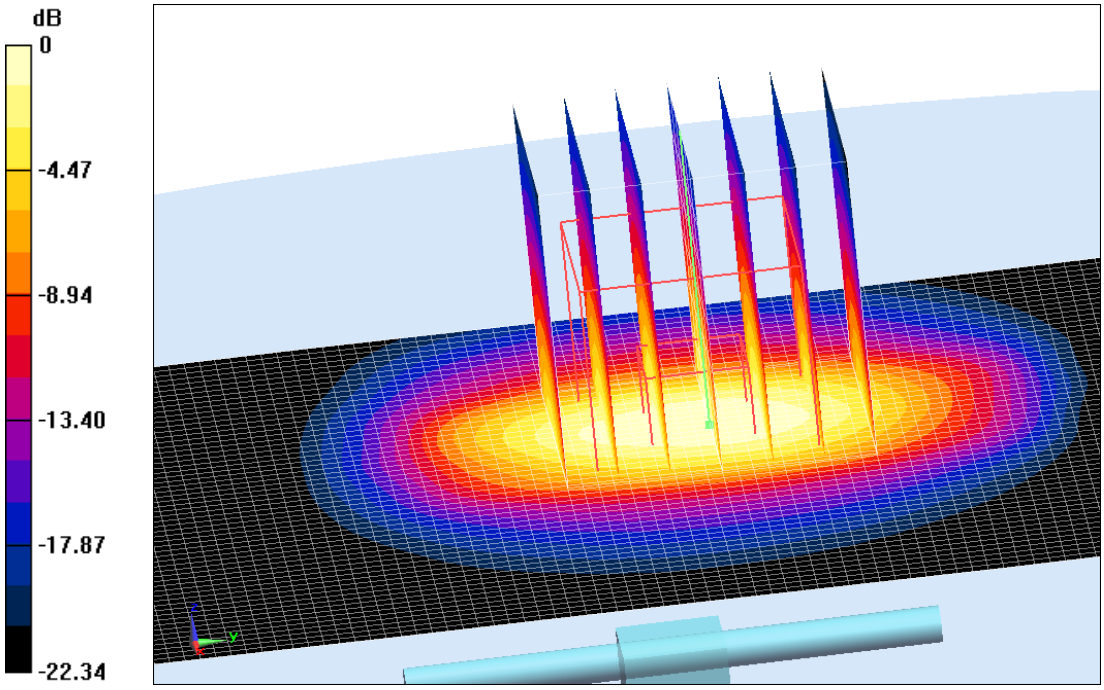
ANNEX B System Verification Results

2450MHz

Date: 2016-1-24
Electronics: DAE4 Sn777
Medium: Head 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 1.866 mho/m; ε_r = 40.22; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: CW Frequency: 2450 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(7.24, 7.24, 7.24)

System Validation /Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 91.464 V/m; Power Drift = -0.07 dB
SAR(1 g) = 13.6 W/kg; SAR(10 g) = 6.38 W/kg
Maximum value of SAR (interpolated) = 17.7 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 91.464 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 27.51 W/kg
SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.26 W/kg
Maximum value of SAR (measured) = 16.5 W/kg



0 dB = 16.5 W/kg = 12.17 dBW/kg

Fig.B.1 validation 2450MHz 250mW

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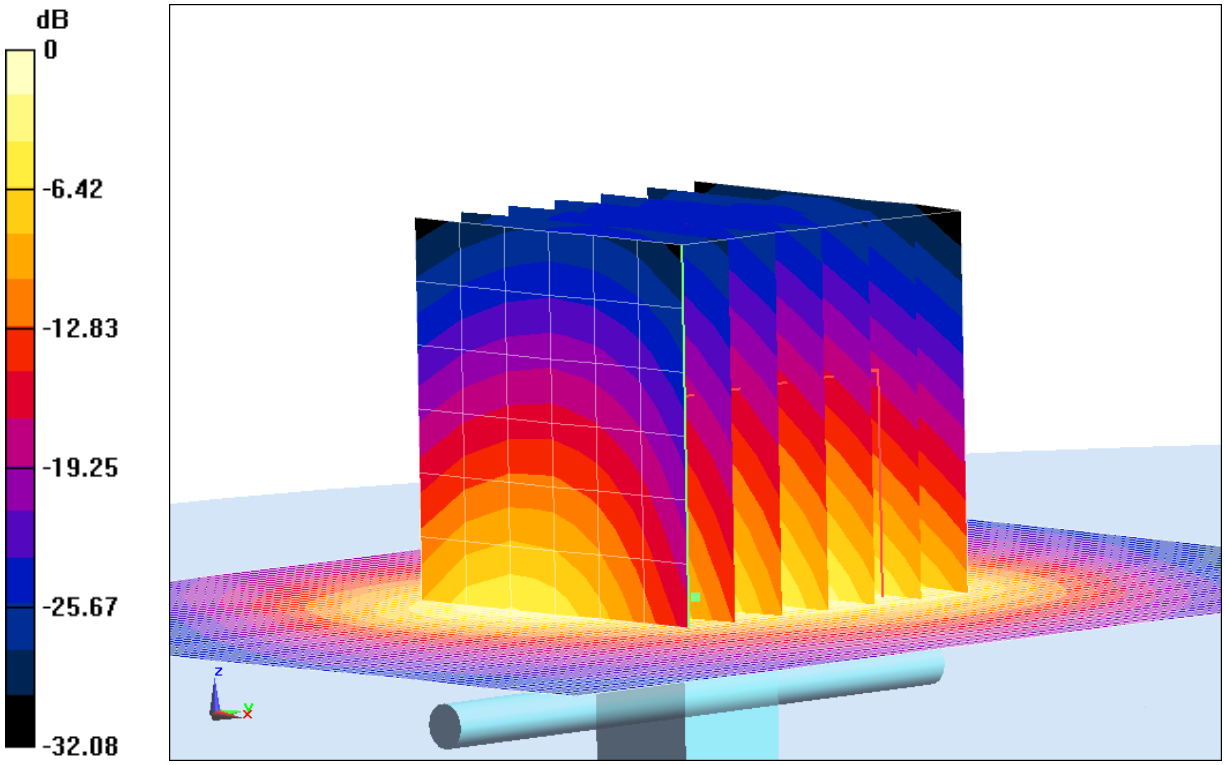
2450MHz

Date: 2016-1-24
Electronics: DAE4 Sn777
Medium: Body 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 2.018 S/m; ε_r = 50.88; ρ = 1000 kg/m^3
Ambient Temperature: 22.9^{o}C Liquid Temperature: 22.5^{o}C
Communication System: CW Frequency: 2450 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(7.35, 7.35, 7.35)

System Validation/Area Scan (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 91.325 V/m; Power Drift = -0.06 dB
SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.25 W/kg
Maximum value of SAR (interpolated) = 14.4 W/kg

System Validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 91.325 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 24.72 W/kg
SAR(1 g) = 13.1 W/kg; SAR(10 g) = 6.14 W/kg
Maximum value of SAR (measured) = 14.6 W/kg



0 dB = 14.6 W/kg = 11.64 dB W/kg

Fig.B.2 validation 2450MHz 250mW

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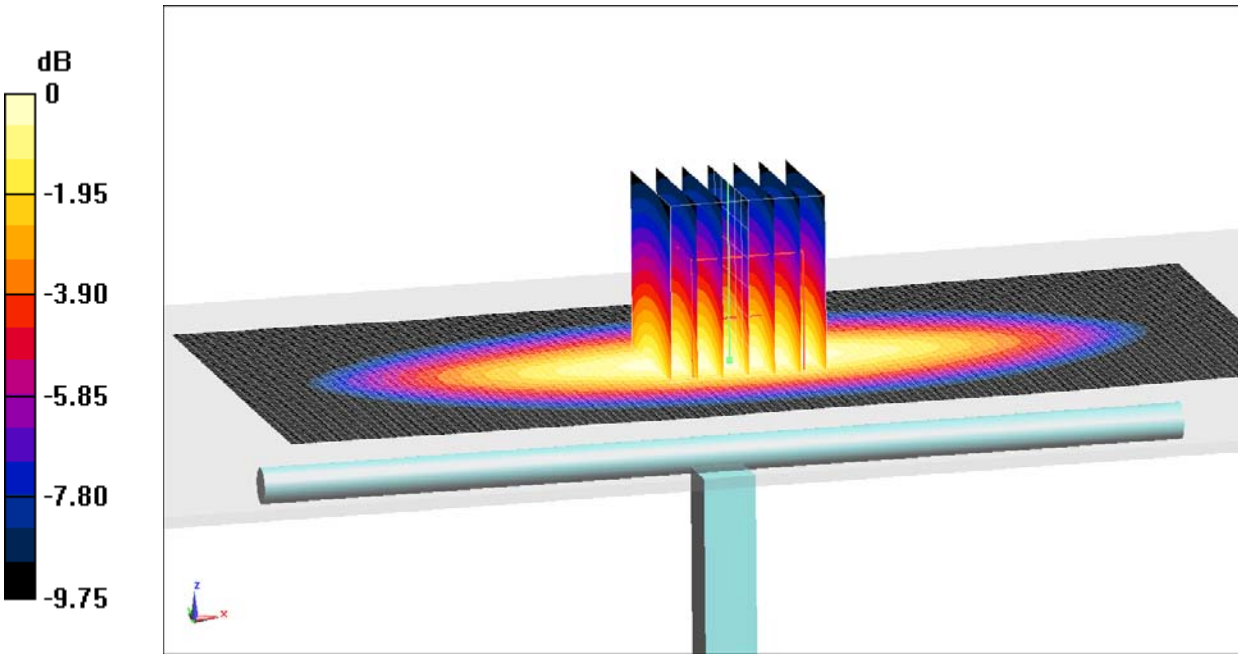
750MHz

Date: 2016-06-20
Electronics: DAE4 Sn777
Medium: Head 750 MHz
Medium parameters used: f = 750 MHz; σ = 0.861 mho/m; ε_r = 43.64; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: CW Frequency: 750 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(9.98, 9.98, 9.98)

System Validation /Area Scan (81x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 50.514 V/m; Power Drift = -0.07 dB
Fast SAR: SAR(1 g) = 2.16 W/kg; SAR(10 g) = 1.41 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 = 50.514 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 2.93 W/kg
SAR(1 g) = 2.12 W/kg; SAR(10 g) = 1.38 W/kg
Maximum value of SAR (measured) = 2.24 W/kg



0 dB = 2.24 W/kg = 3.50 dB W/kg

Fig.B.3 validation 750MHz 250mW

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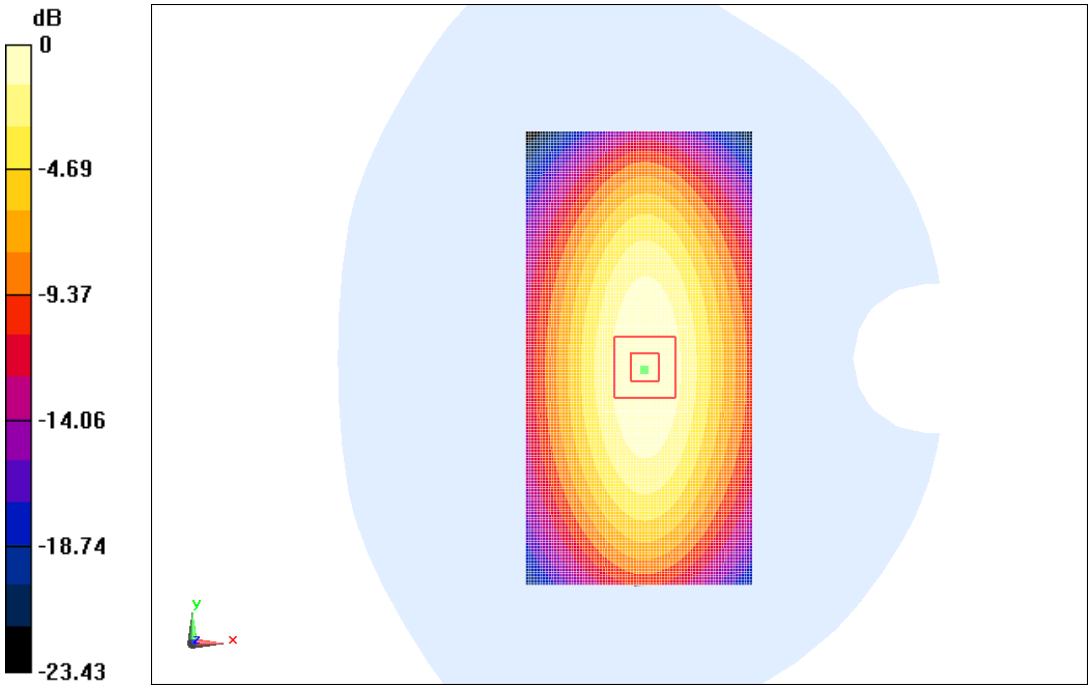
835MHz

Date: 2016-06-21
Electronics: DAE4 Sn777
Medium: Head 850 MHz
Medium parameters used: f = 835 MHz; σ = 0.93 S/m; ε_r = 42.79; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}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 = 51.08 V/m; Power Drift = -0.08 dB
Fast SAR: SAR(1 g) = 2.29 W/kg; SAR(10 g) = 1.46 W/kg
Maximum value of SAR (interpolated) = 2.60 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 51.08 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 3.65 W/kg
SAR(1 g) = 2.35 W/kg; SAR(10 g) = 1.51 W/kg
Maximum value of SAR (measured) = 2.66 W/kg



0 dB = 2.66 W/kg = 4.25 dBW/kg

Fig.B.4 validation 835MHz 250mW

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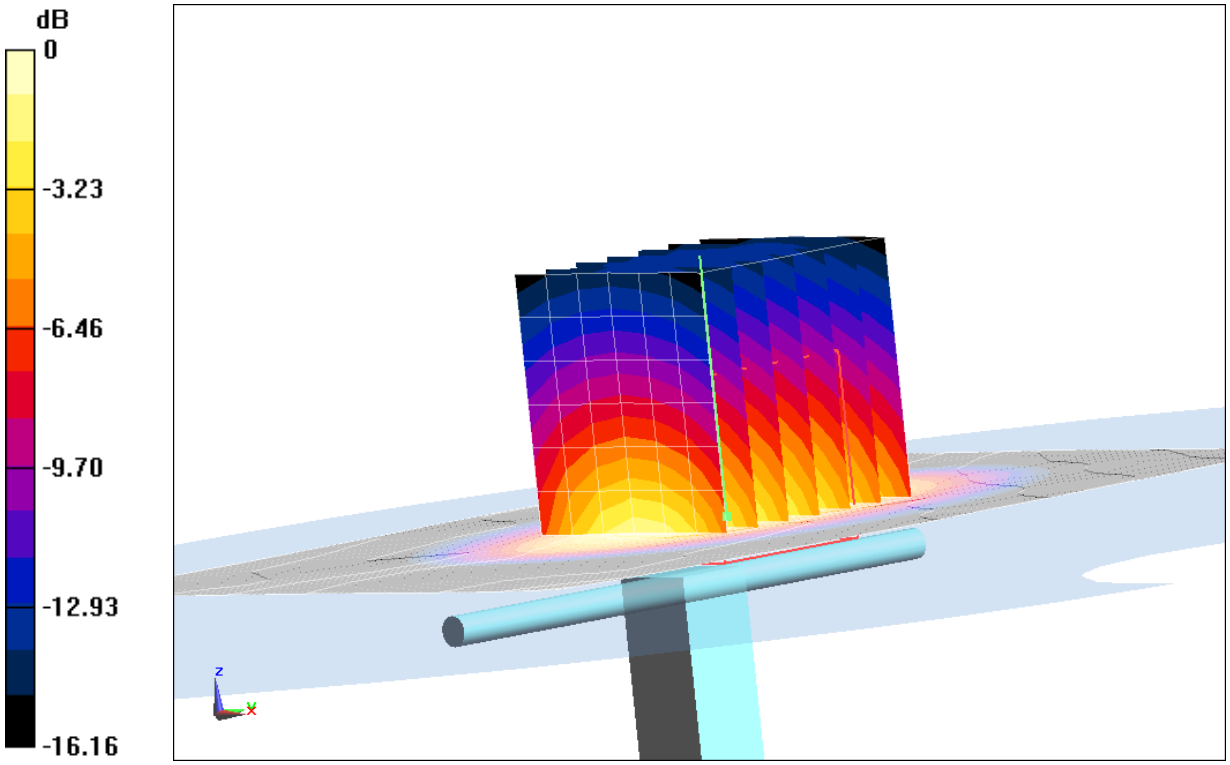
1750MHz

Date: 2016-06-22
Electronics: DAE4 Sn777
Medium: Head 1750 MHz
Medium parameters used: f=1750 MHz; σ =1.37 mho/m; εr = 41.48; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}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 = 91.157 V/m; Power Drift = -0.04 dB
Fast SAR: SAR(1 g) = 9.22 W/kg; SAR(10 g) = 4.99 W/kg
Maximum value of SAR (interpolated) = 10.2 W/kg

System Validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 91.157 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 15.87 W/kg
SAR(1 g) = 9.34 W/kg; SAR(10 g) = 5.06 W/kg
Maximum value of SAR (measured) = 10.3 W/kg



0 dB = 10.3 W/kg = 10.13 dB W/kg

Fig.B.5 validation 1750MHz 250mW

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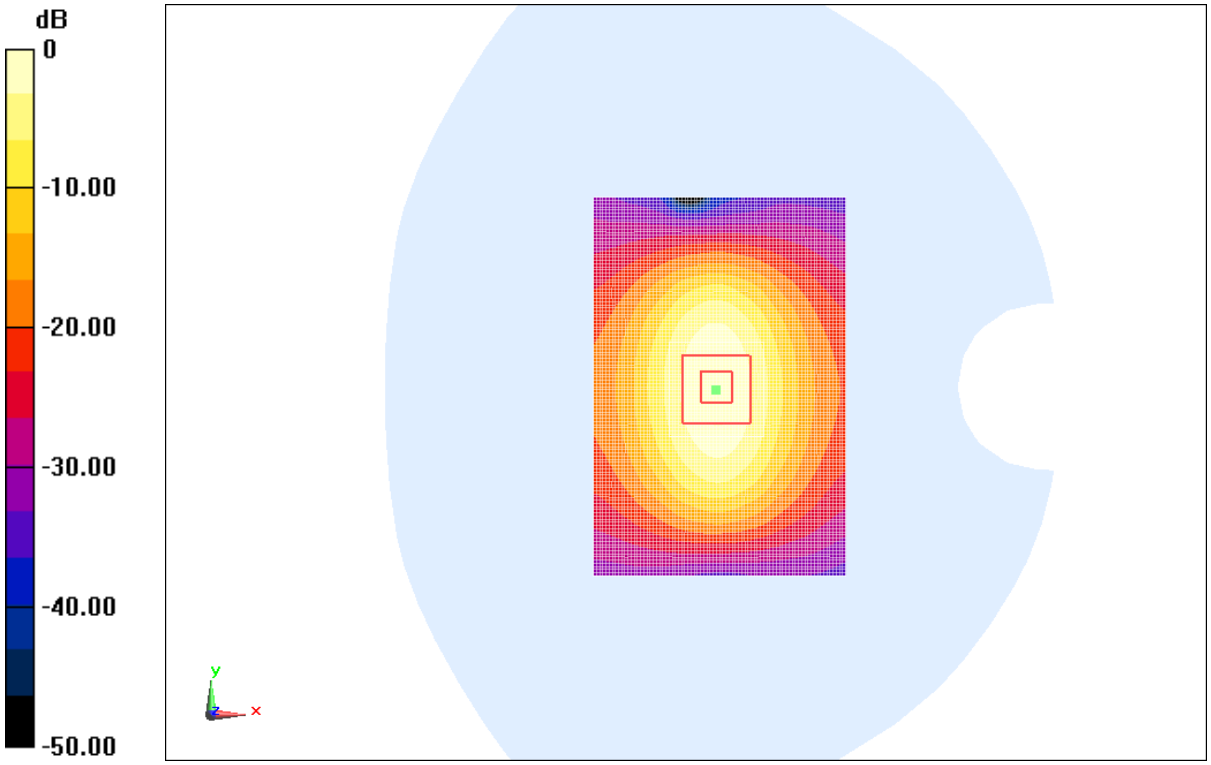
1900MHz

Date: 2016-06-23
Electronics: DAE4 Sn777
Medium: Head 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.409 S/m; ε_r = 40.69; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}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 = 91.803 V/m; Power Drift = -0.05 dB
Fast SAR: SAR(1 g) = 10.7 W/kg; SAR(10 g) = 5.67 W/kg
Maximum value of SAR (interpolated) = 12.1 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 91.803 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 19.11 W/kg
SAR(1 g) = 10.5 W/kg; SAR(10 g) = 5.52 W/kg
Maximum value of SAR (measured) = 11.9 W/kg



0 dB = 11.9 W/kg = 10.76 dBW/kg

Fig.B.6 validation 1900MHz 250mW

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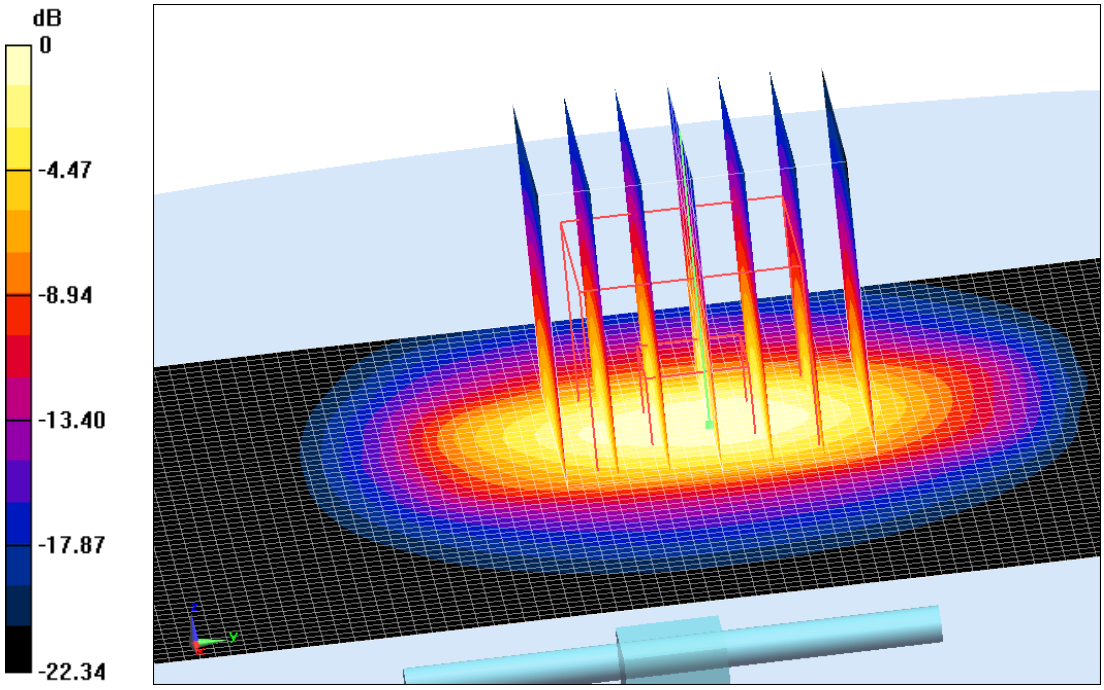
2450MHz

Date: 2016-06-25
Electronics: DAE4 Sn777
Medium: Head 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 1.825 mho/m; ε_r = 38.83; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: CW Frequency: 2450 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(7.24, 7.24, 7.24)

System Validation /Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 90.13 V/m; Power Drift = -0.02 dB
SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.46 W/kg
Maximum value of SAR (interpolated) = 17.1 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 90.13 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 27.37 W/kg
SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.29 W/kg
Maximum value of SAR (measured) = 16.5 W/kg



0 dB = 16.5 W/kg = 12.17 dBW/kg

Fig.B.7 validation 2450MHz 250mW

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