WCDMA 1900 Test Position 5 with IBM Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz Frequency: 1880 MHz Duty Cycle: 1:1

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 5/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.389 mW/g

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

Reference Value = 15.0 V/m; Power Drift = -0.188 dB

Peak SAR (extrapolated) = 0.572 W/kg

SAR(1 g) = 0.361 mW/g; SAR(10 g) = 0.223 mW/g
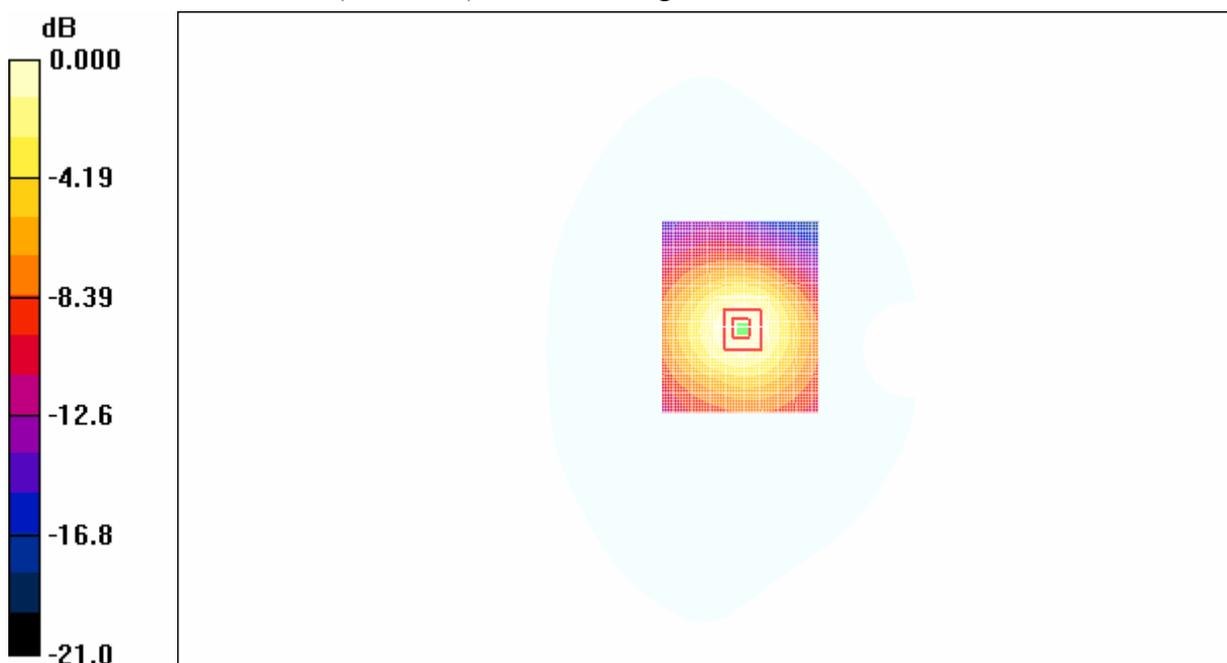
Maximum value of SAR (measured) = 0.389 mW/g

0 dB = 0.389mW/g

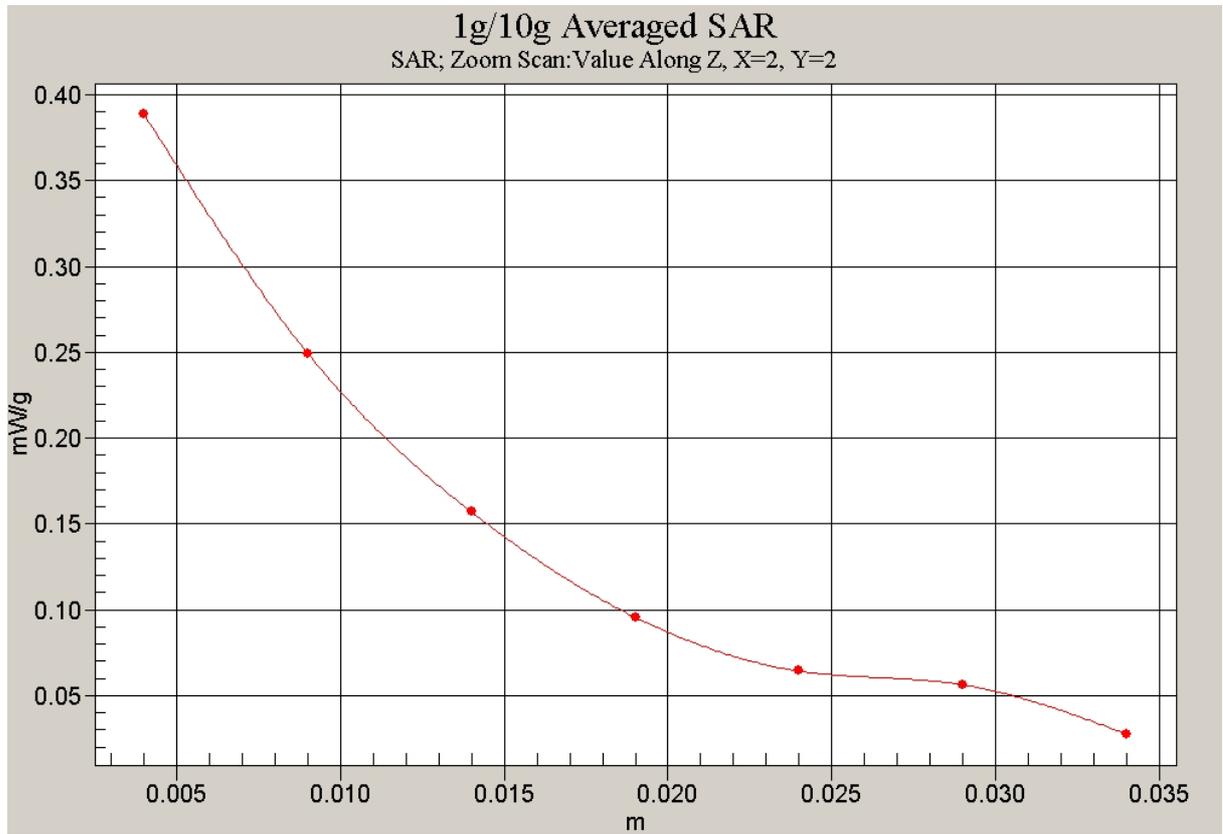**Fig.125 WCDMA 1900 CH9400 Test Position 5**

Fig.126 Z-Scan at power reference point (WCDMA 1900 CH9400 Test Position 5)

HSDPA 1900 Test Position 1 with DELL Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C　　　　Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz Frequency: 1880 MHz Duty Cycle: 1:2

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.487 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.8 V/m; Power Drift = -0.069 dB

Peak SAR (extrapolated) = 0.777 W/kg

SAR(1 g) = 0.453 mW/g; SAR(10 g) = 0.264 mW/g
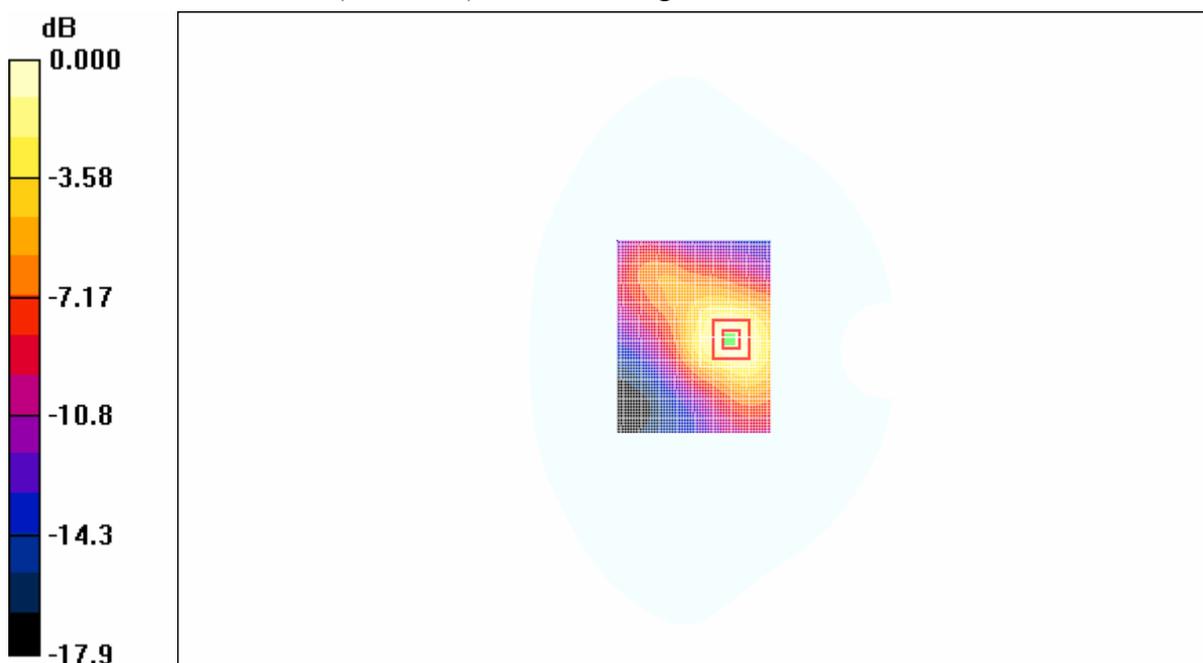
Maximum value of SAR (measured) = 0.492 mW/g

0 dB = 0.492mW/g

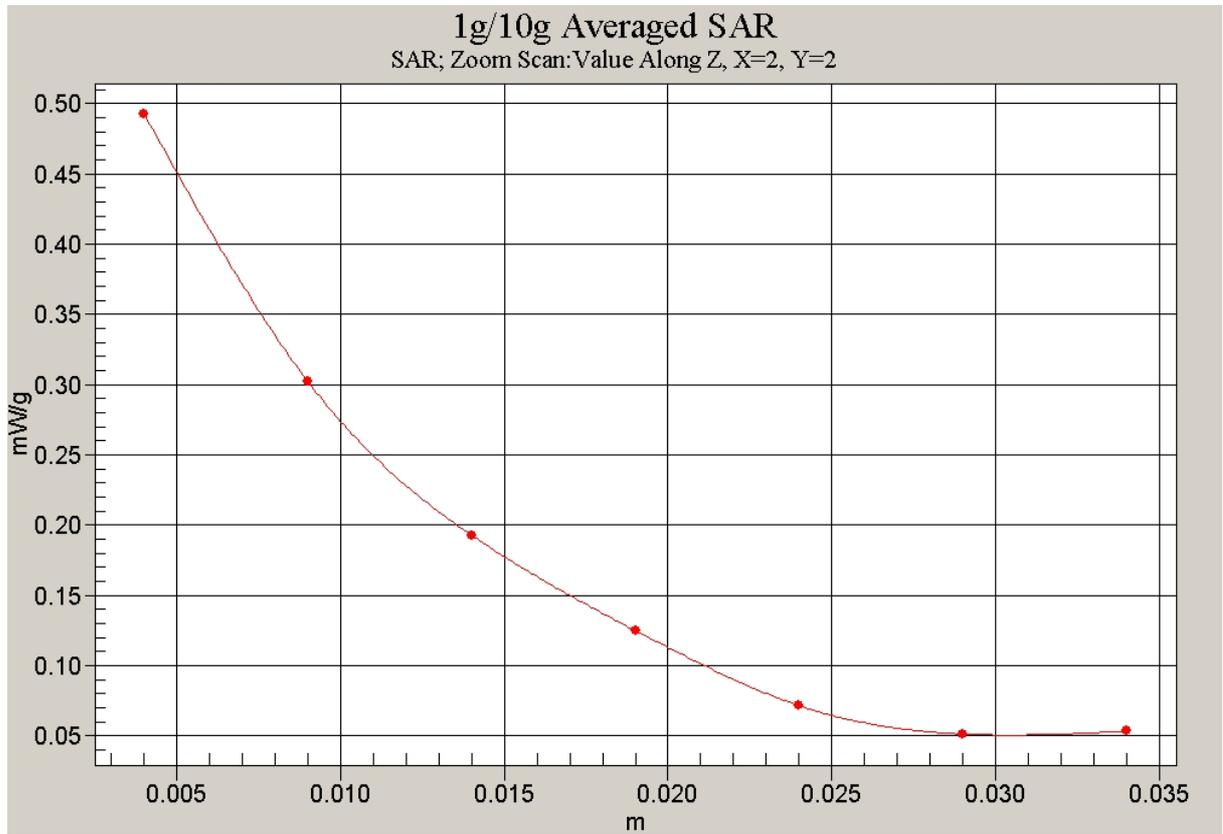**Fig.127 HSDPA 1900 CH9400 Test Position 1**

Fig.128 Z-Scan at power reference point (HSDPA 1900 CH9400 Test Position 1)

HSDPA 1900 Test Position 1 with HP Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz Frequency: 1880 MHz Duty Cycle: 1:2

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

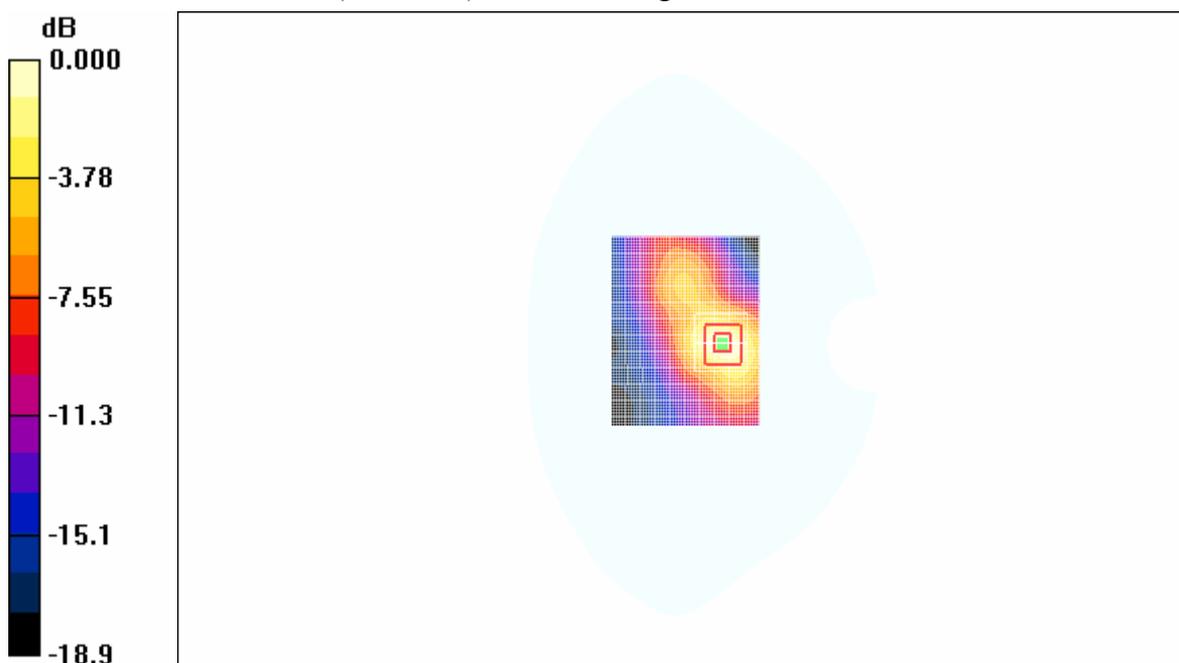Maximum value of SAR (interpolated) = 0.763 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.6 V/m; Power Drift = 0.182 dB

Peak SAR (extrapolated) = 1.25 W/kg

SAR(1 g) = 0.710 mW/g; SAR(10 g) = 0.392 mW/g

Maximum value of SAR (measured) = 0.790 mW/g

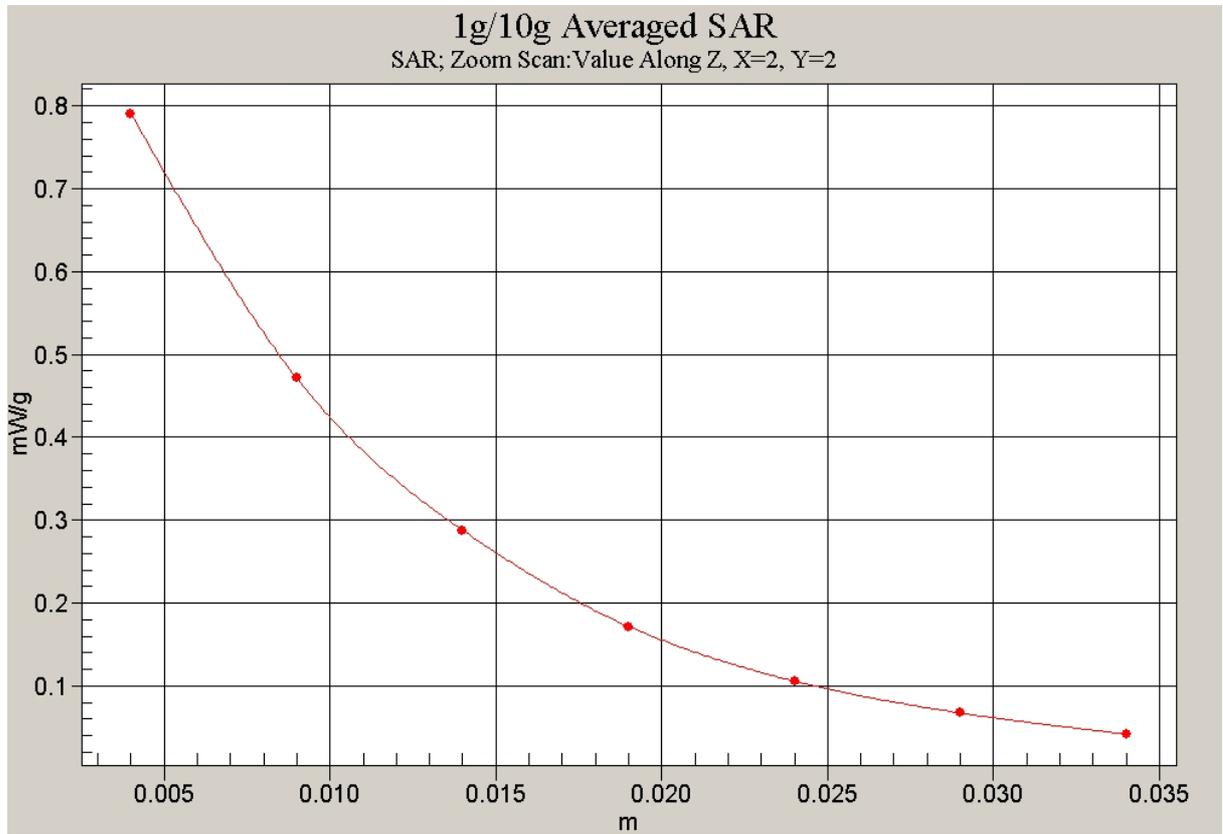0 dB = 0.790mW/g

Fig.129 HSDPA 1900 CH9400 Test Position 1

Fig.130 Z-Scan at power reference point (HSDPA 1900 CH9400 Test Position 1)

HSDPA 1900 Test Position 1 with IBM Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz Frequency: 1880 MHz Duty Cycle: 1:2

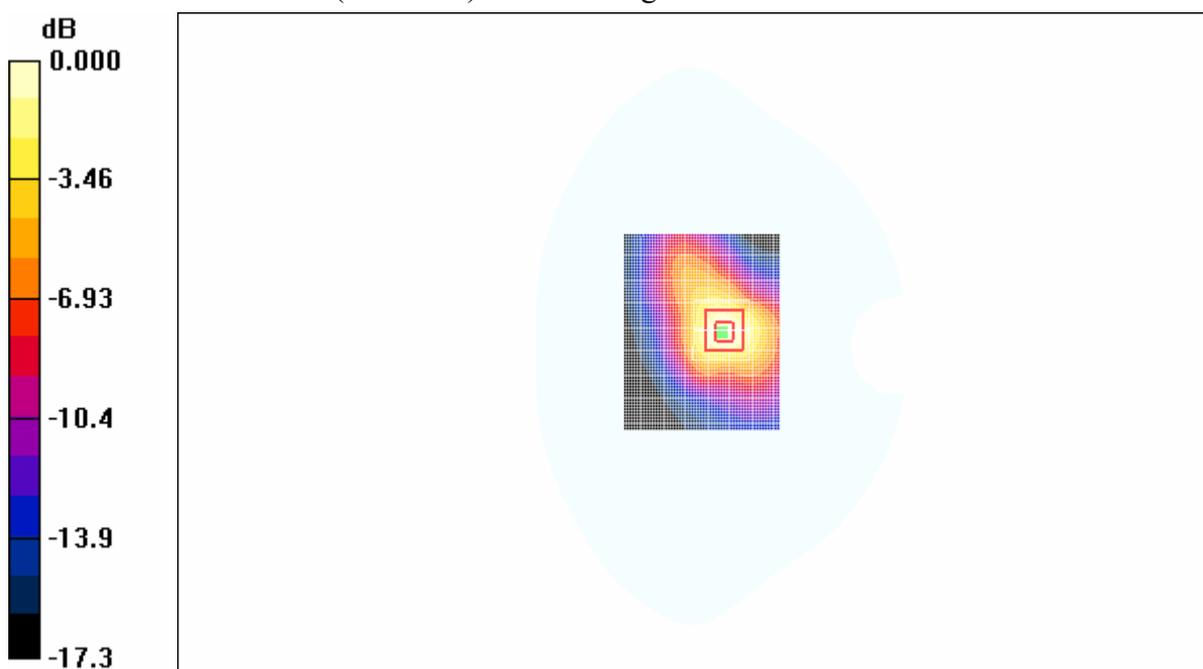Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 1 open/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.07 mW/g

Test Position 1 open/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.9 V/m; Power Drift = 0.015 dB

Peak SAR (extrapolated) = 1.67 W/kg

SAR(1 g) = 0.977 mW/g; SAR(10 g) = 0.548 mW/g

Maximum value of SAR (measured) = 1.06 mW/g

0 dB = 1.06mW/g

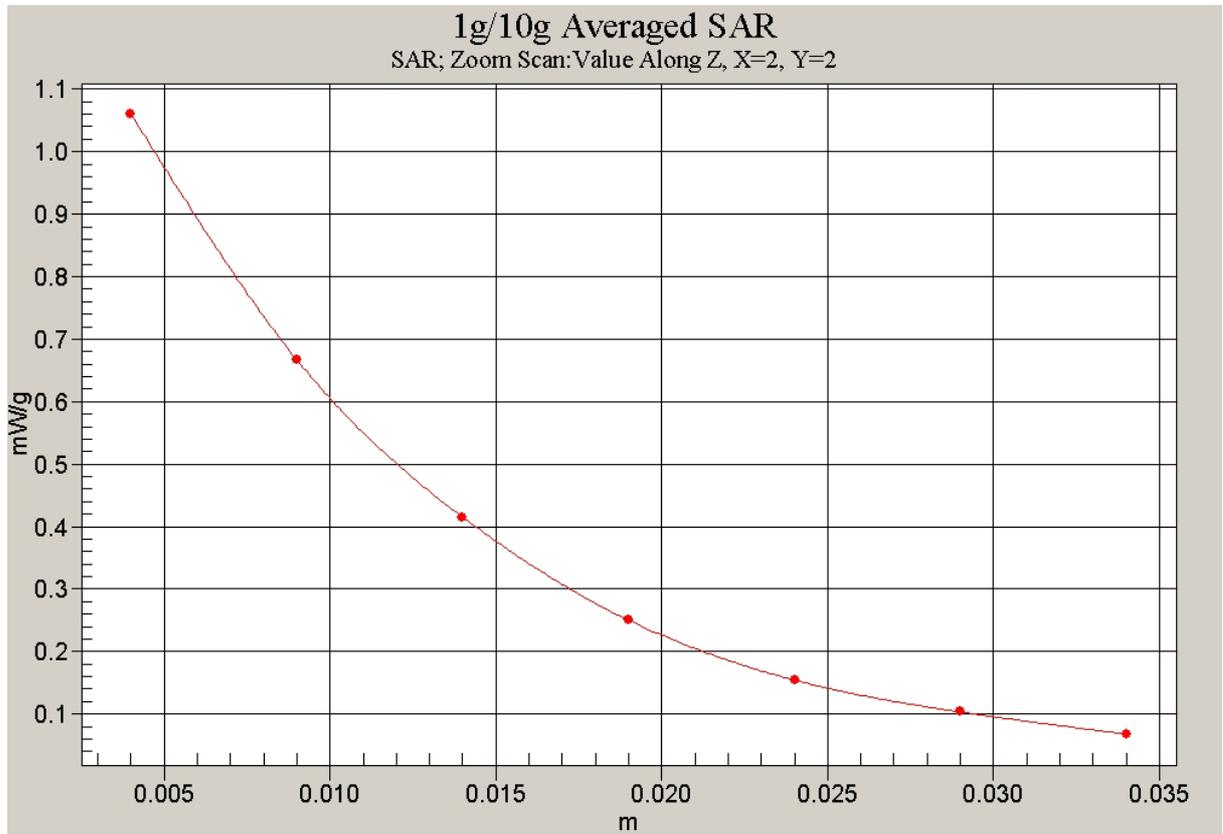**Fig.131 HSDPA 1900 CH9400 Test Position 1**

Fig.132 Z-Scan at power reference point (HSDPA 1900 CH9400 Test Position 1)

850MHz GPRS Test Position 1 with DELL Laptop (4 timeslots in uplink)

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:2

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position open/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

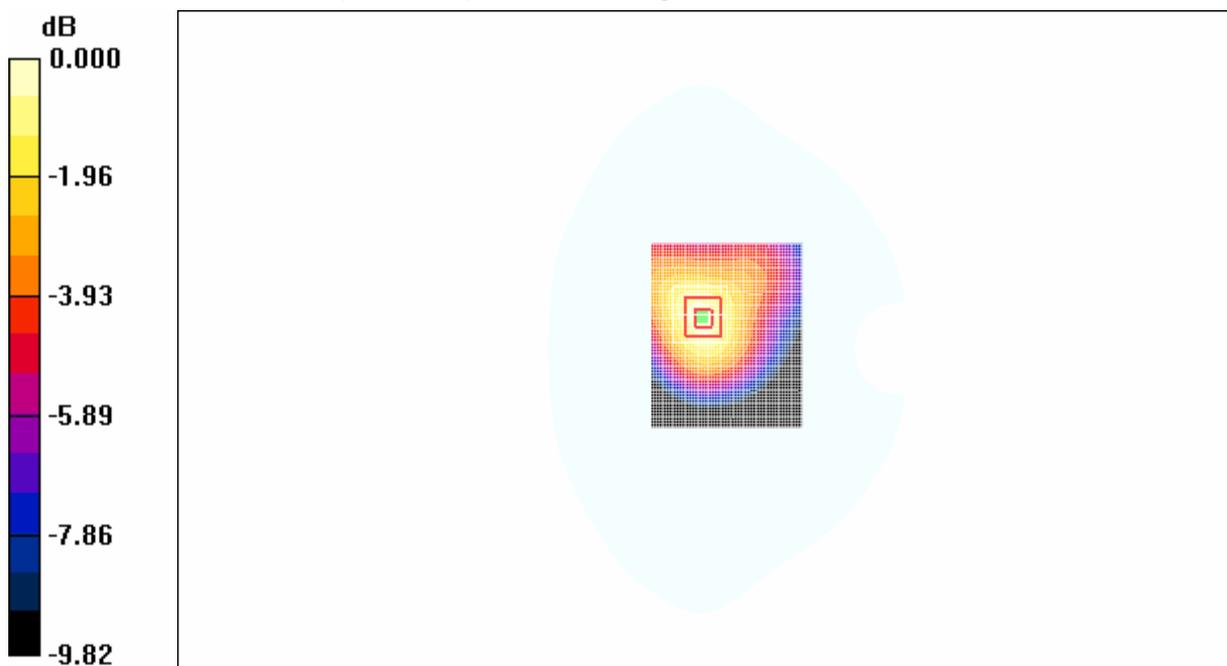Maximum value of SAR (interpolated) = 0.444 mW/g

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

Reference Value = 18.5 V/m; Power Drift = 0.075 dB

Peak SAR (extrapolated) = 0.607 W/kg

SAR(1 g) = 0.448 mW/g; SAR(10 g) = 0.310 mW/g

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

0 dB = 0.479mW/g

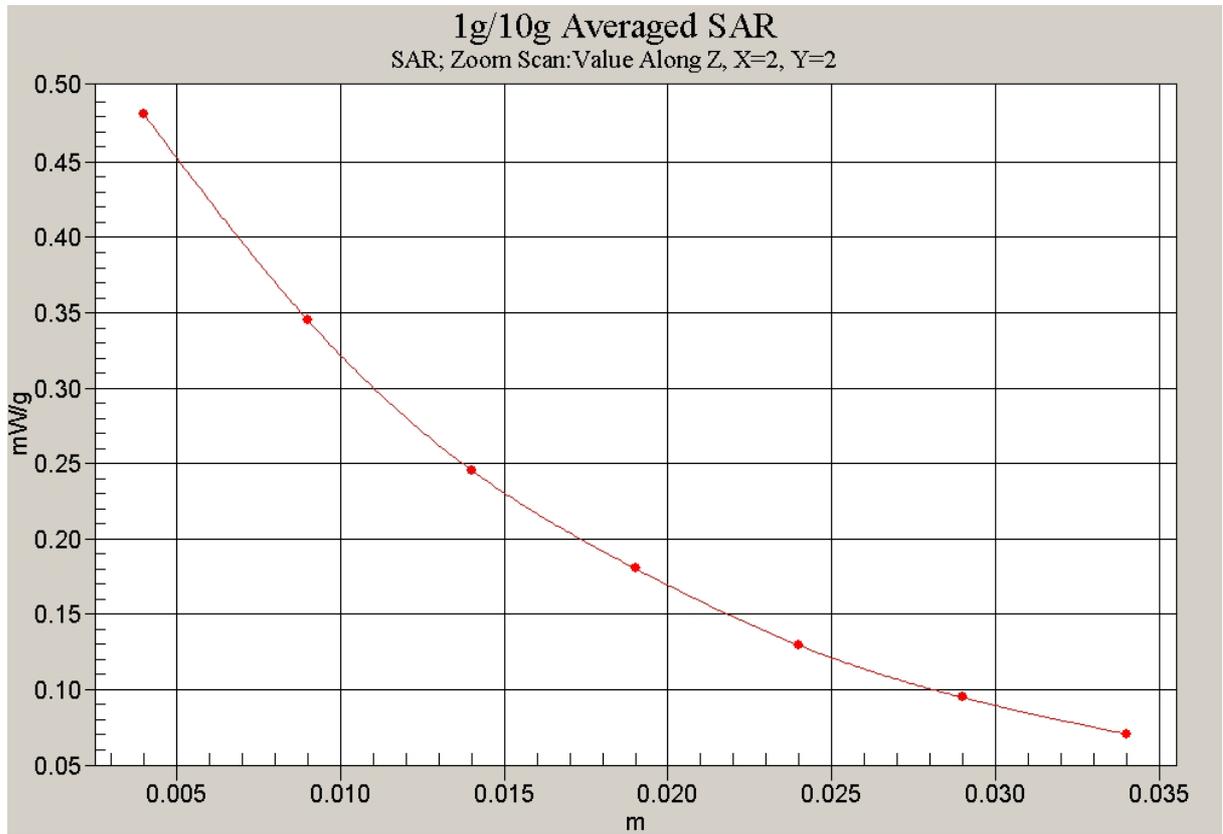**Fig.133 850MHz GPRS CH190 with DELL Laptop (4 timeslots in uplink)**

Fig.134 Z-Scan at power reference point (850MHz GPRS CH190 with DELL Laptop -4 timeslots in uplink)

850MHz GPRS Test Position 1 with DELL Laptop (3 timeslots in uplink)

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:2.67

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position open/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

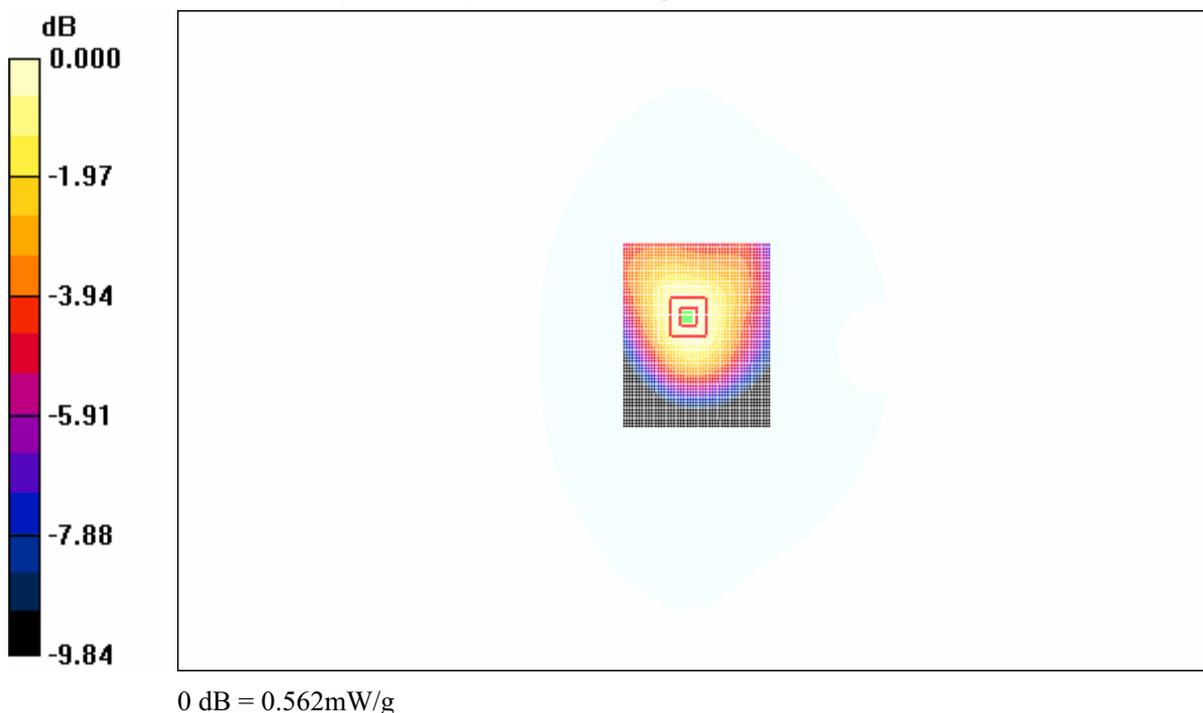Maximum value of SAR (interpolated) = 0.560 mW/g

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

Reference Value = 20.7 V/m; Power Drift = -0.090 dB

Peak SAR (extrapolated) = 0.710 W/kg

SAR(1 g) = 0.528 mW/g; SAR(10 g) = 0.368 mW/g

Maximum value of SAR (measured) = 0.562 mW/g

0 dB = 0.562mW/g

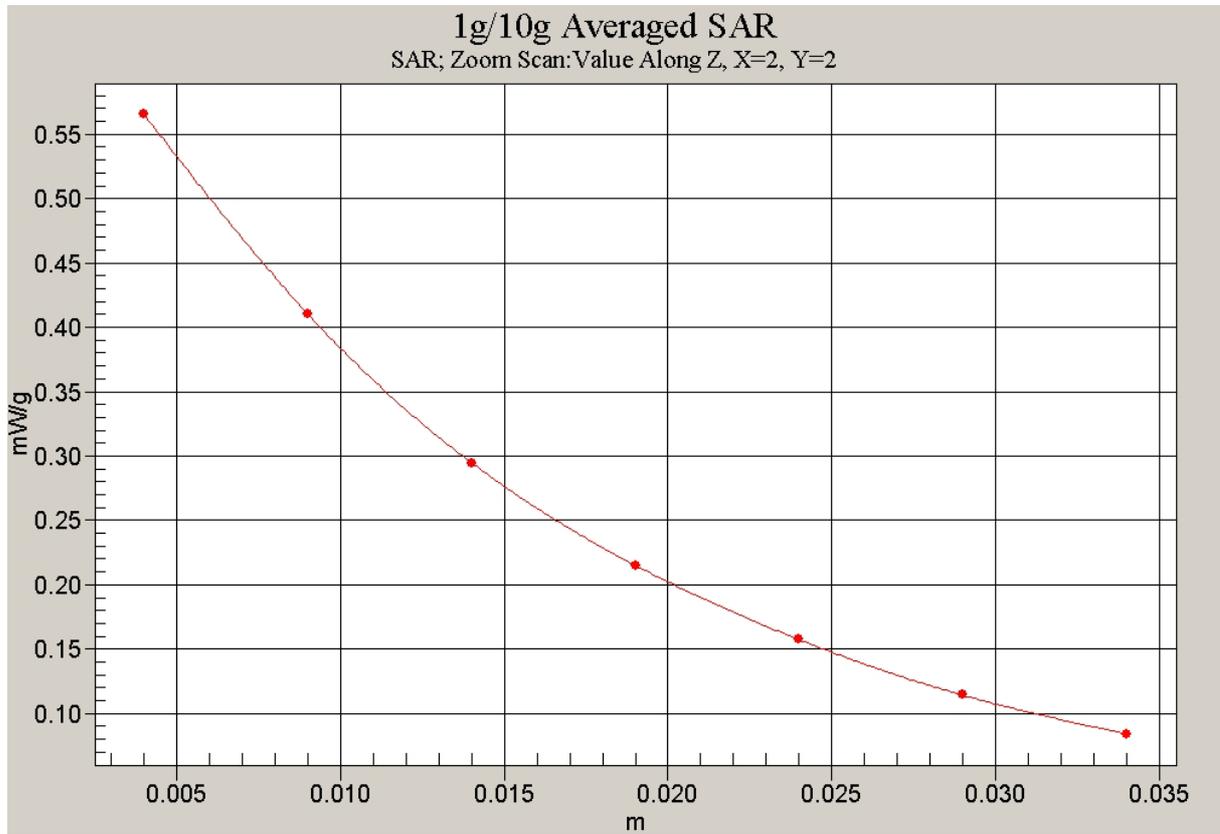**Fig.135 850MHz GPRS CH190 with DELL Laptop (3 timeslots in uplink)**

Fig.136 Z-Scan at power reference point (850MHz GPRS CH190 with DELI Laptop -3 timeslots in uplink)

850MHz GPRS Test Position 1 with DELL Laptop (2 timeslots in uplink)

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm
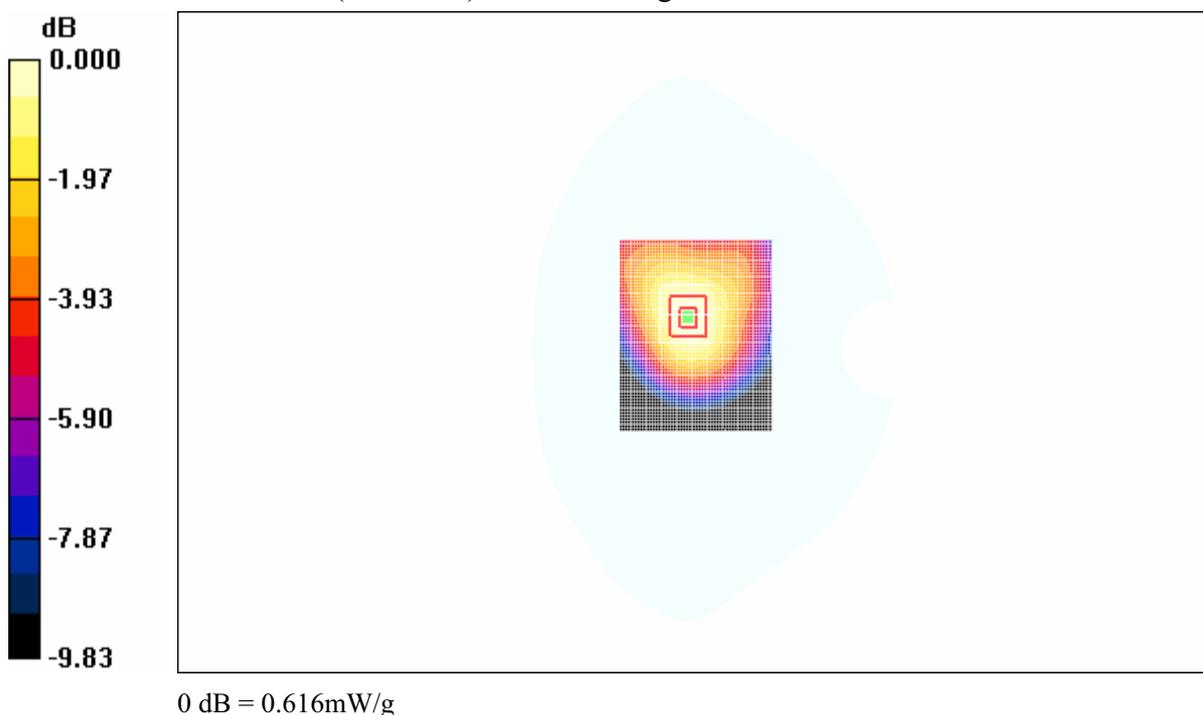
Maximum value of SAR (interpolated) = 0.617 mW/g

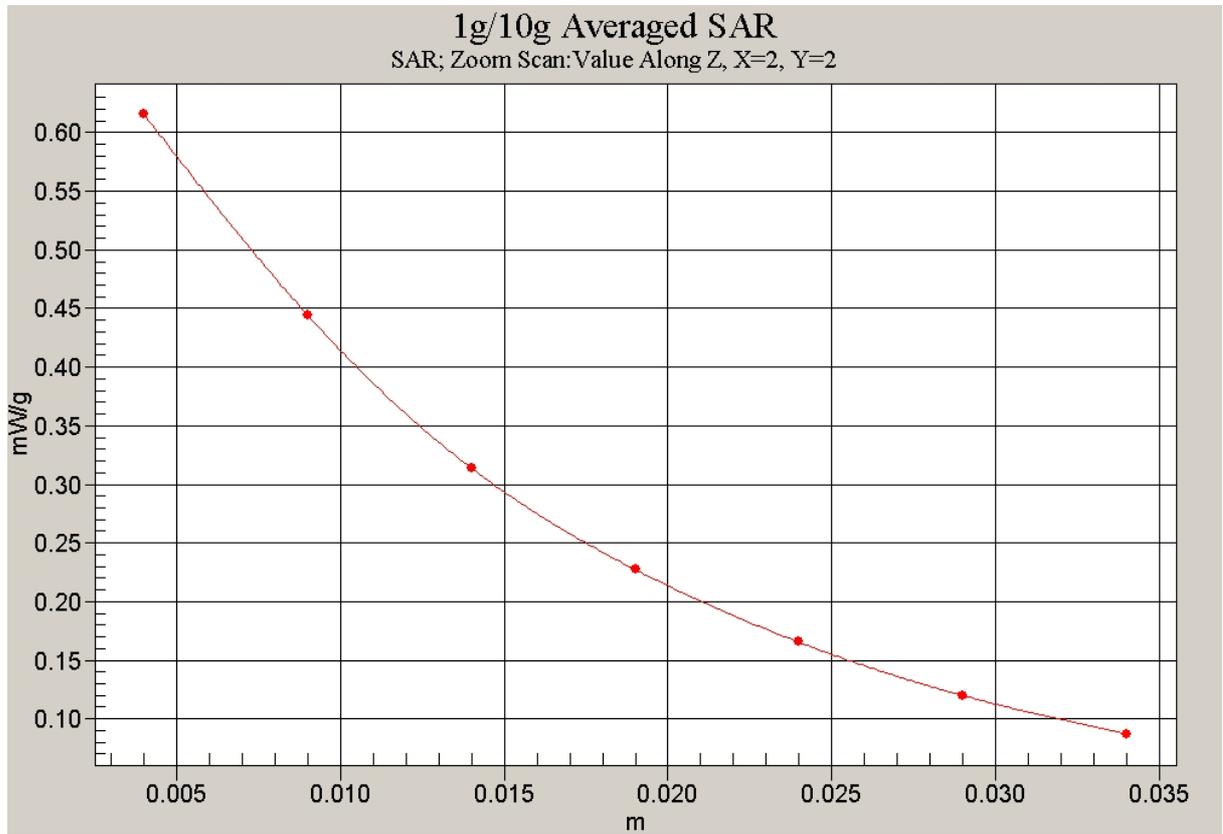**Test Position open/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.5 V/m; Power Drift = -0.091 dB

Peak SAR (extrapolated) = 0.774 W/kg

SAR(1 g) = 0.574 mW/g; SAR(10 g) = 0.397 mW/g

Maximum value of SAR (measured) = 0.616 mW/g

0 dB = 0.616mW/g

Fig.137 850MHz GPRS CH190 with DELL Laptop (2 timeslots in uplink)

Fig.138 Z-Scan at power reference point
(850MHz GPRS CH190 with DELL Laptop -2 timeslots in uplink)

850MHz GPRS Test Position 1 with DELL Laptop (1 timeslot in uplink)

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:8

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

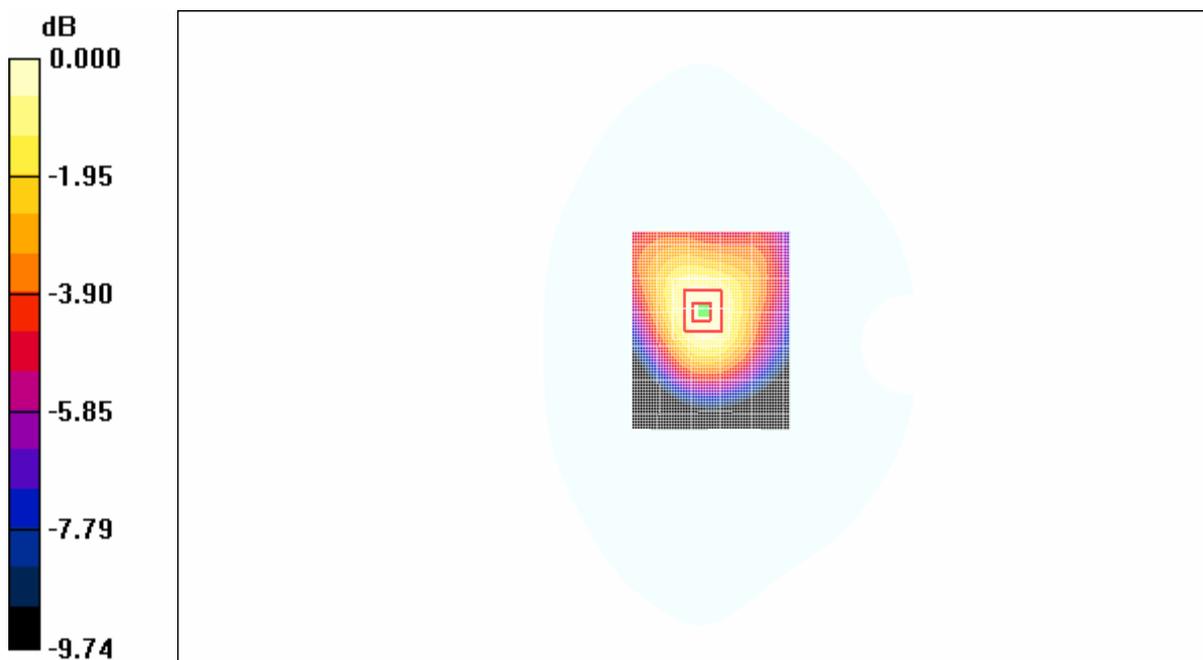Maximum value of SAR (interpolated) = 0.504 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.5 V/m; Power Drift = -0.102 dB
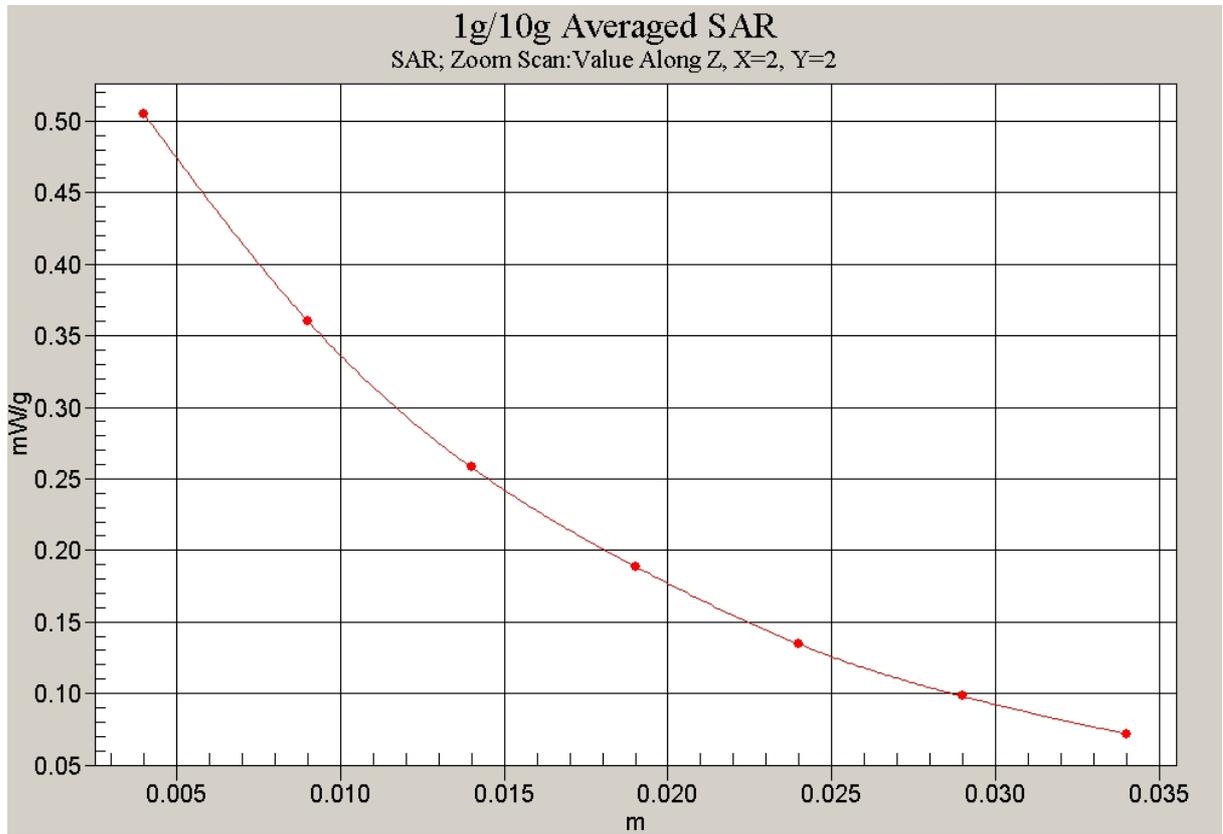
Peak SAR (extrapolated) = 0.645 W/kg

SAR(1 g) = 0.470 mW/g; SAR(10 g) = 0.326 mW/g

Maximum value of SAR (measured) = 0.504 mW/g

0 dB = 0.504mW/g

Fig.139 850MHz GPRS CH190 with DELL Laptop (1 timeslot in uplink)

Fig.140 Z-Scan at power reference point
(850MHz GPRS CH190 with DELL Laptop -1 timeslot in uplink)

850MHz GPRS Test Position 1 with DELL Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

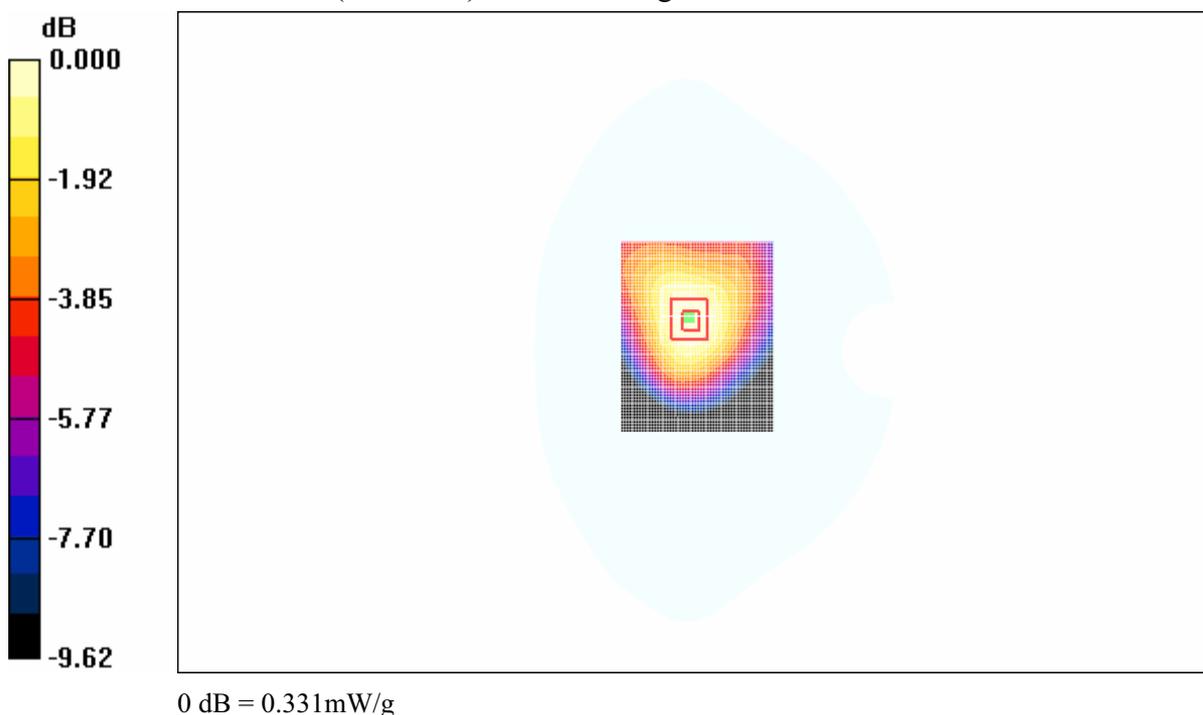Maximum value of SAR (interpolated) = 0.340 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.6 V/m; Power Drift = -0.127 dB

Peak SAR (extrapolated) = 0.426 W/kg

SAR(1 g) = 0.313 mW/g; SAR(10 g) = 0.218 mW/g

Maximum value of SAR (measured) = 0.331 mW/g

0 dB = 0.331mW/g

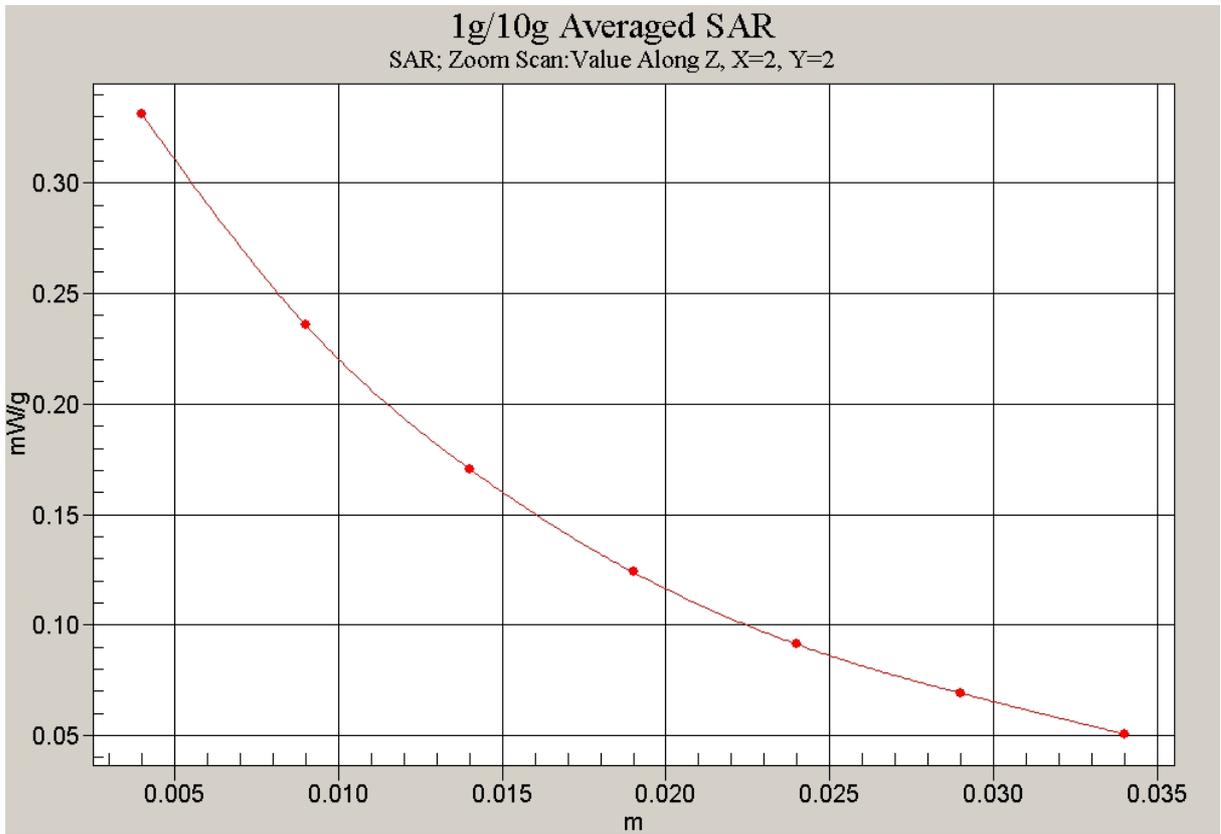**Fig.141 850MHz GPRS CH190 Test Position 1**

Fig.142 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 1)

850 GPRS Test Position 2 with DELL Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

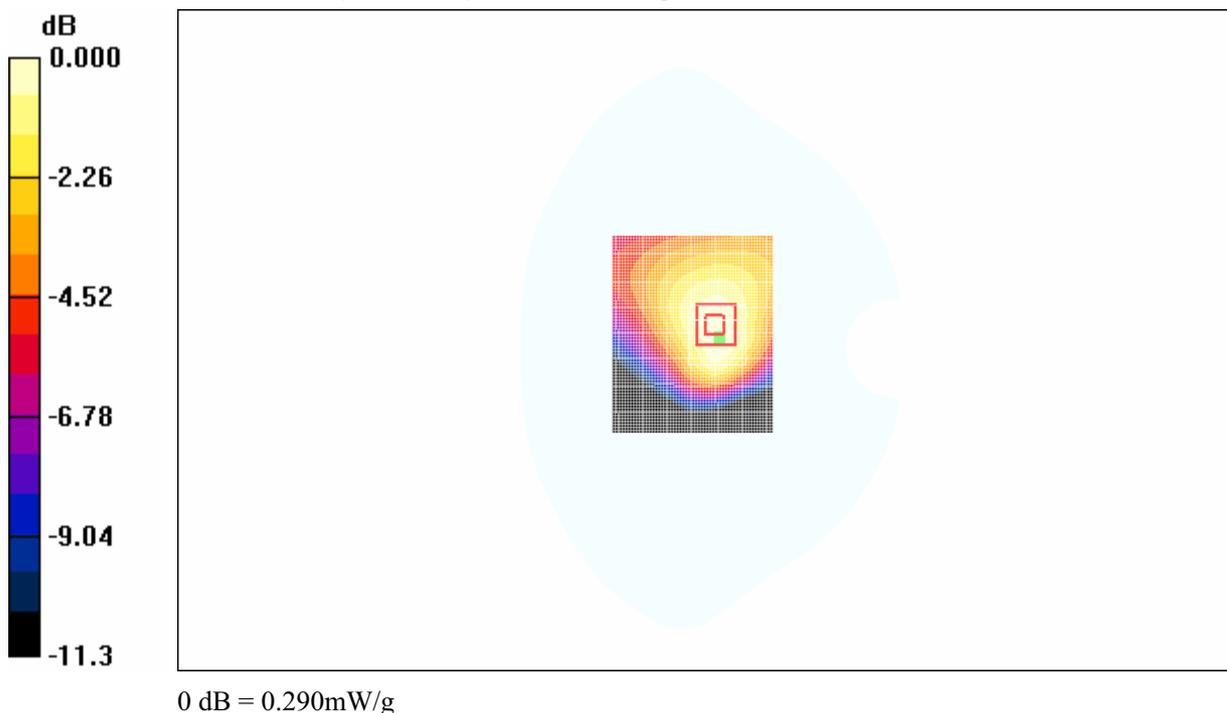Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 2/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.295 mW/g

Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.1 V/m; Power Drift = 0.059 dB

Peak SAR (extrapolated) = 0.375 W/kg

SAR(1 g) = 0.274 mW/g; SAR(10 g) = 0.193 mW/g

Maximum value of SAR (measured) = 0.290 mW/g

0 dB = 0.290mW/g

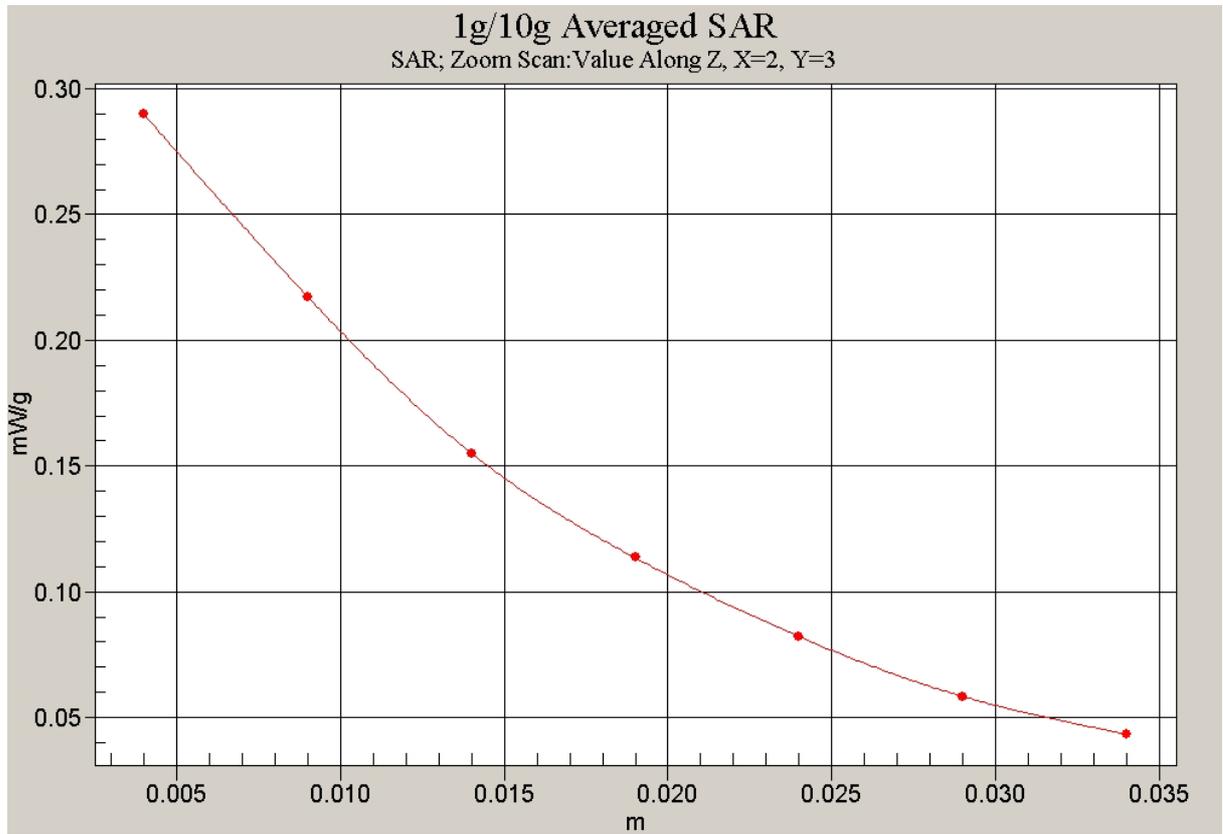**Fig.143 850MHz GPRS CH190 Test Position 2**

Fig.144 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 2)

850 GPRS Test Position 3 with DELL Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 3/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

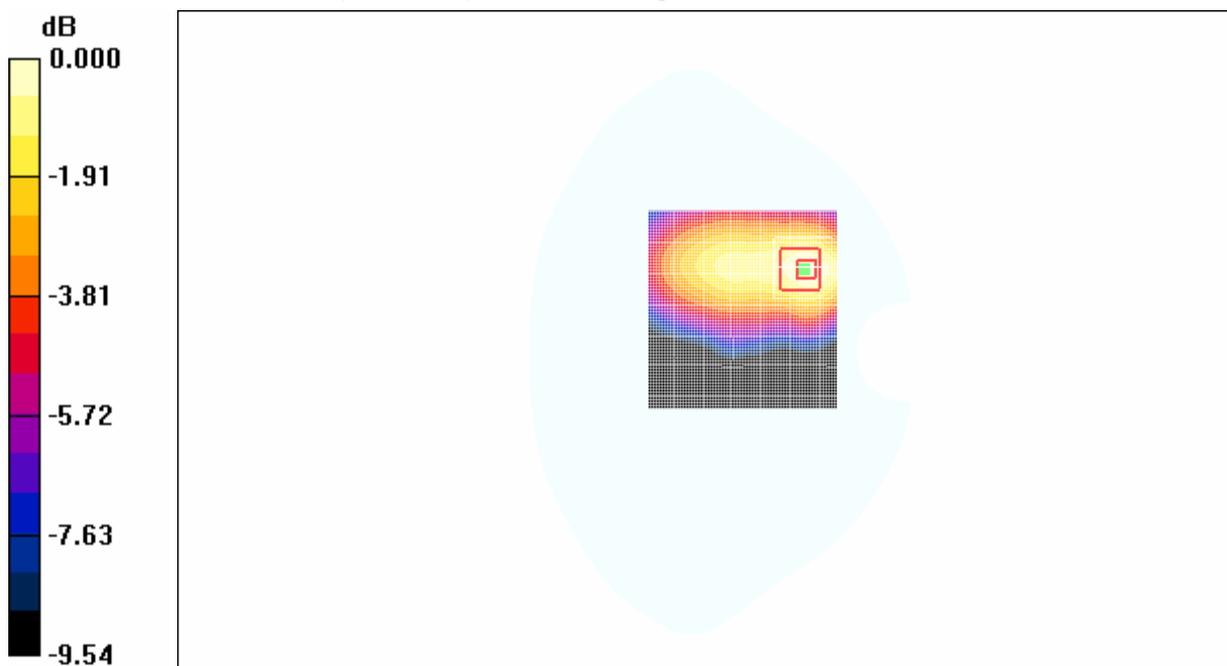Maximum value of SAR (interpolated) = 0.110 mW/g

Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.00 V/m; Power Drift = 0.087 dB

Peak SAR (extrapolated) = 0.144 W/kg

SAR(1 g) = 0.103 mW/g; SAR(10 g) = 0.071 mW/g

Maximum value of SAR (measured) = 0.111 mW/g

0 dB = 0.111mW/g

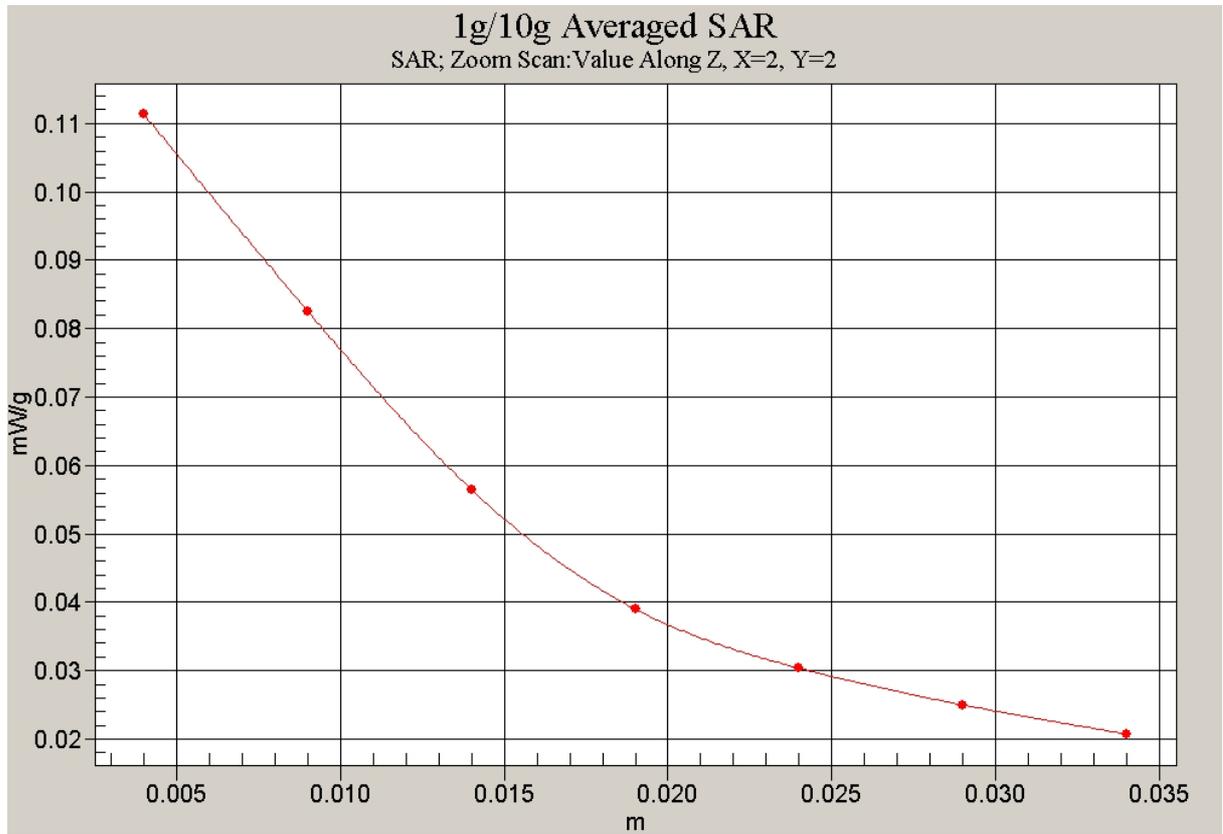**Fig.145 850MHz GPRS CH190 Test Position 3**

Fig.146 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 3)

850MHz GPRS Test Position 4 with DELL Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 4/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.051 mW/g

Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.78 V/m; Power Drift = -0.123 dB

Peak SAR (extrapolated) = 0.119 W/kg

SAR(1 g) = 0.068 mW/g; SAR(10 g) = 0.042 mW/g

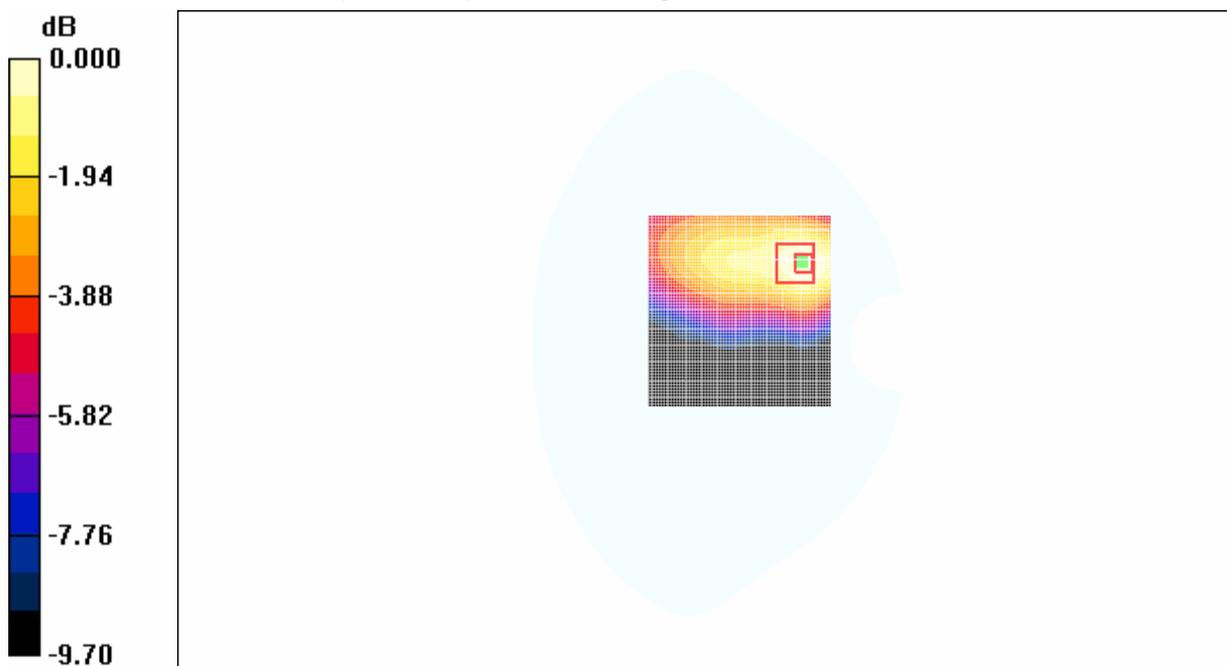Maximum value of SAR (measured) = 0.091 mW/g

0 dB = 0.091mW/g

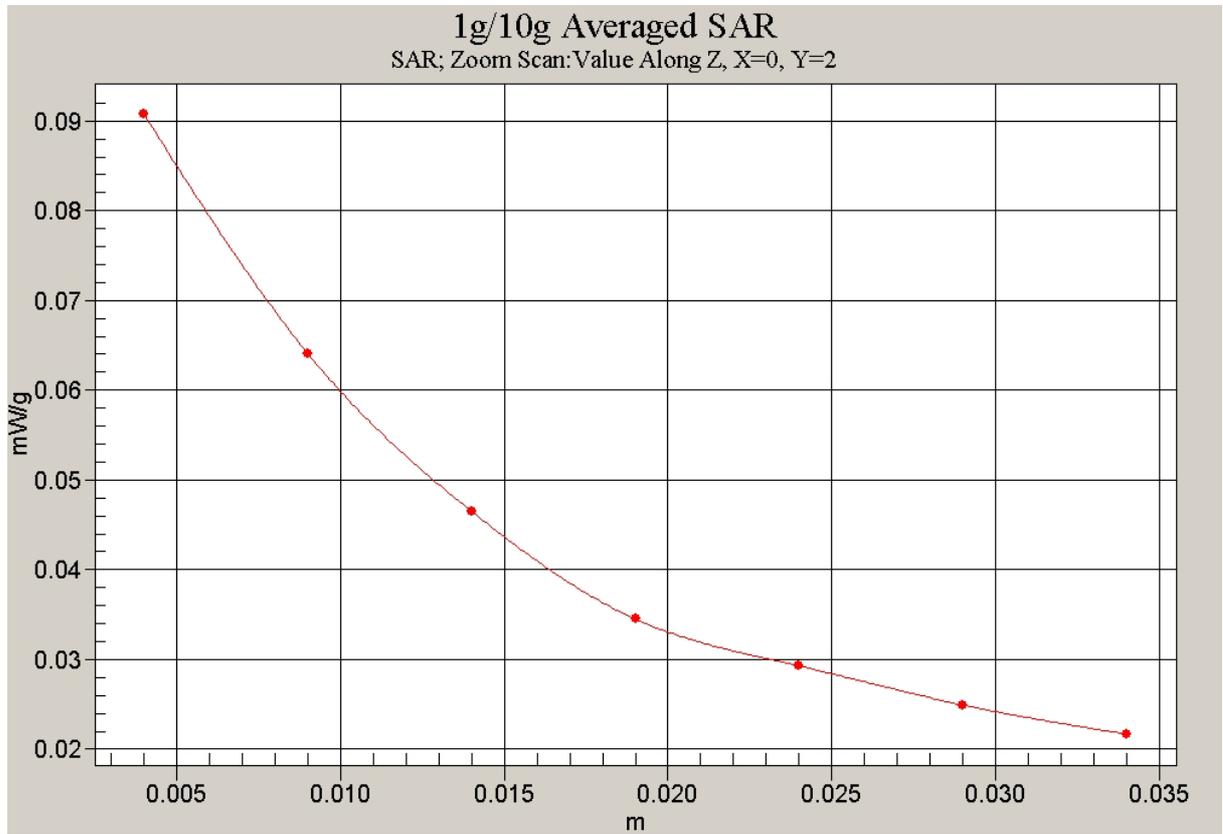**Fig.147 850MHz GPRS CH190 Test Position 4**

Fig.148 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 4)

850 GPRS Test Position 5 with DELL Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 5/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 5.07 V/m; Power Drift = -0.154 dB

Peak SAR (extrapolated) = 0.058 W/kg

SAR(1 g) = 0.030 mW/g; SAR(10 g) = 0.018 mW/g

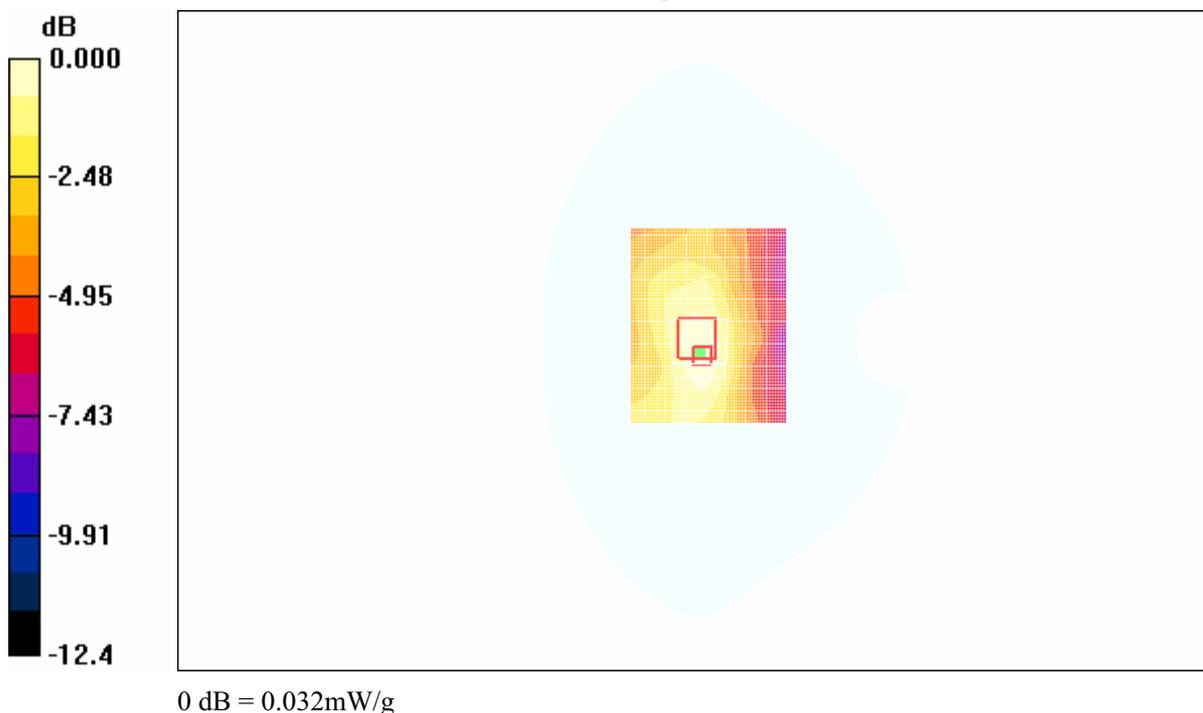Maximum value of SAR (measured) = 0.032 mW/g

0 dB = 0.032mW/g

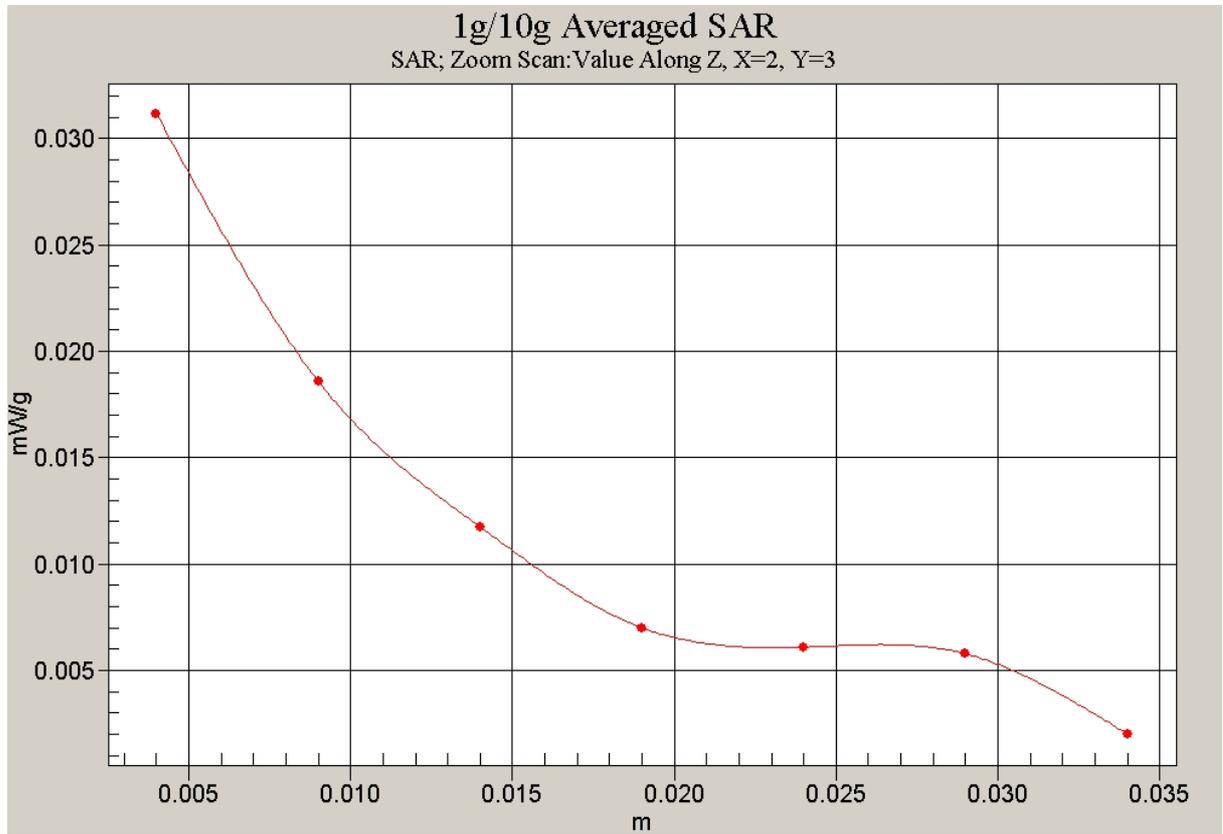**Fig.149 850MHz CH190 GPRS Test Position 5**

Fig.150 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 5)

850 GPRS Test Position 1 with DELL Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

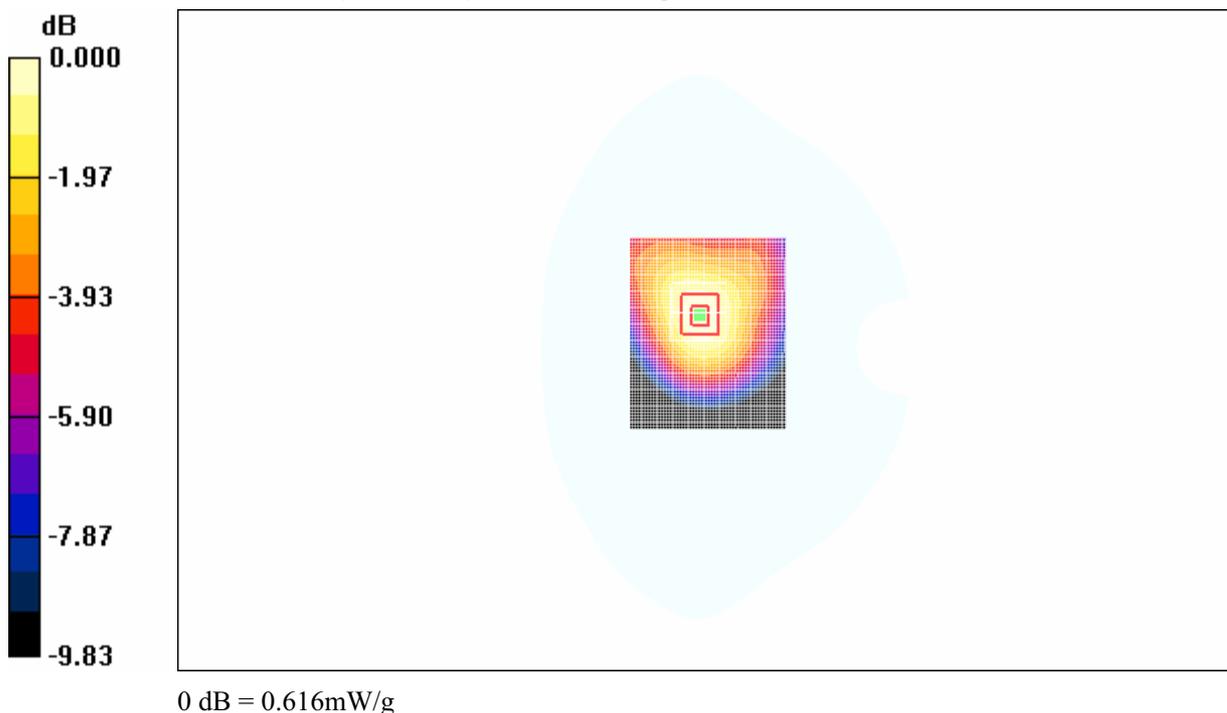Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.617 mW/g

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

Reference Value = 21.5 V/m; Power Drift = -0.091 dB

Peak SAR (extrapolated) = 0.774 W/kg

SAR(1 g) = 0.574 mW/g; SAR(10 g) = 0.397 mW/g

Maximum value of SAR (measured) = 0.616 mW/g

0 dB = 0.616mW/g

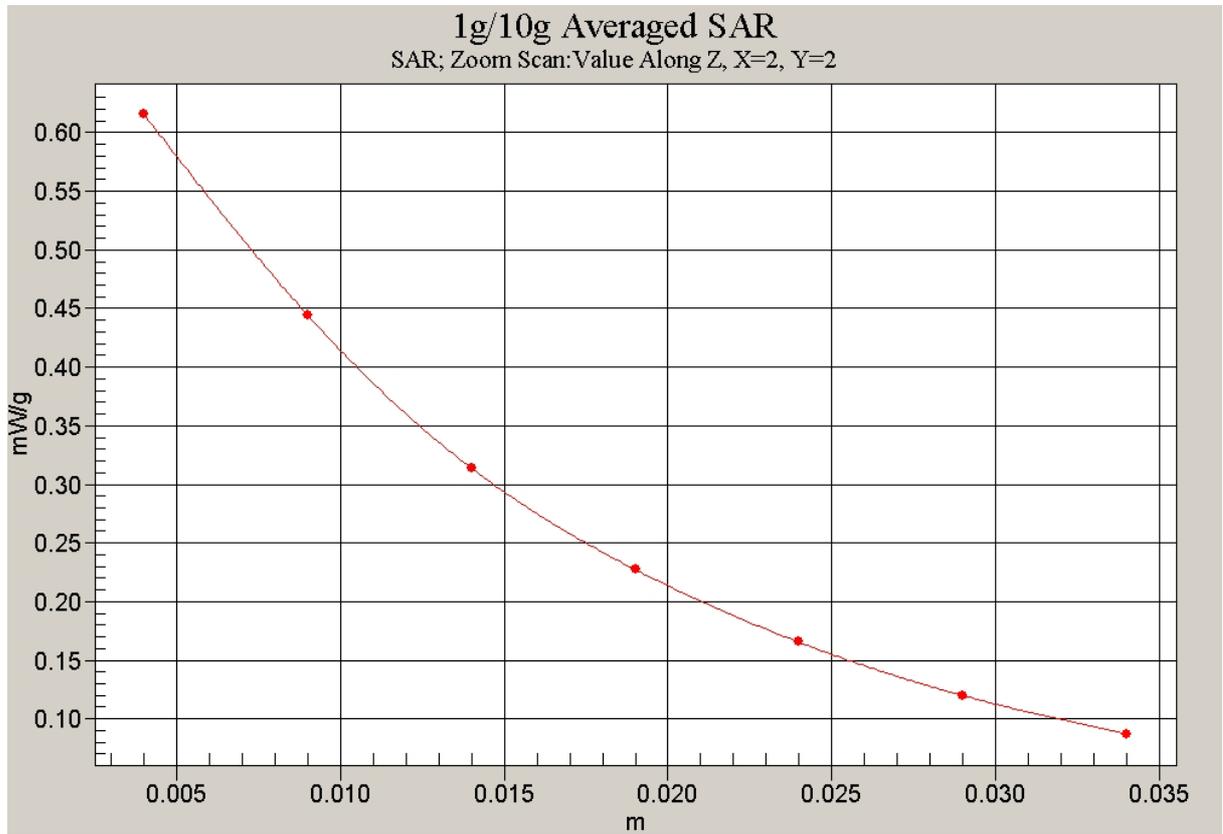**Fig.151 850MHz GPRS CH190 Test Position 1**

Fig.152 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 1)

850 GPRS Test Position 2 with DELL Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

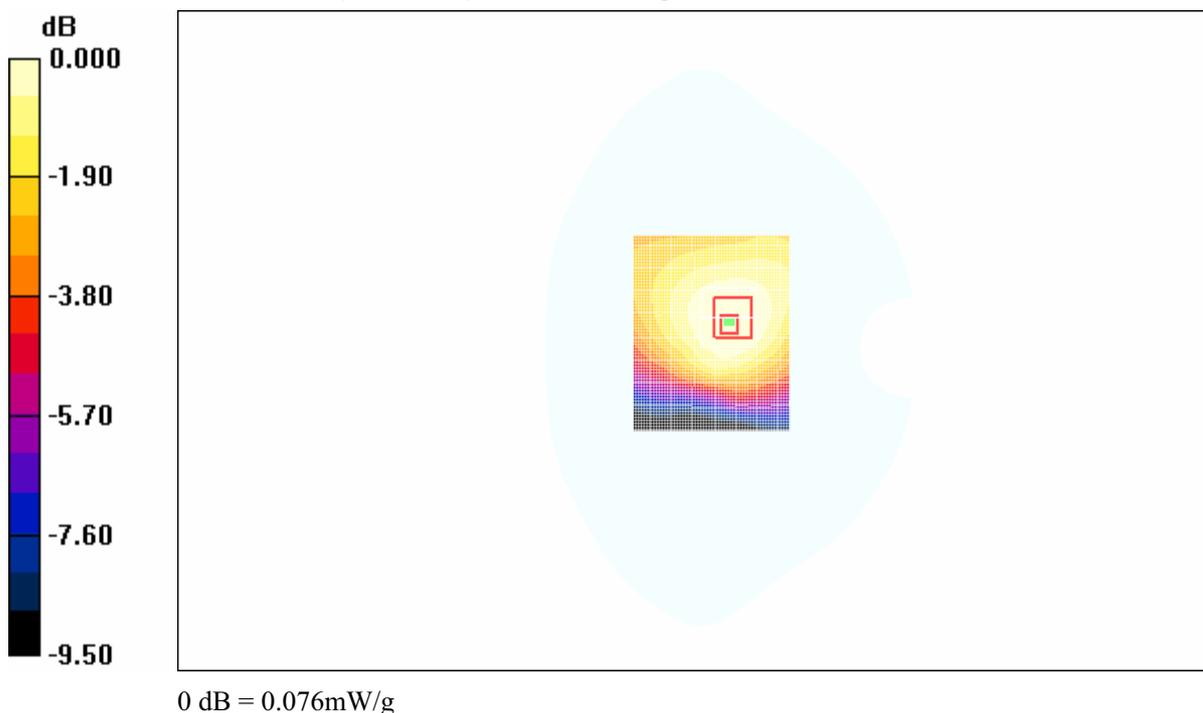Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 2/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.079 mW/g

Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.87 V/m; Power Drift = -0.105 dB

Peak SAR (extrapolated) = 0.092 W/kg

SAR(1 g) = 0.073 mW/g; SAR(10 g) = 0.053 mW/g

Maximum value of SAR (measured) = 0.076 mW/g

0 dB = 0.076mW/g

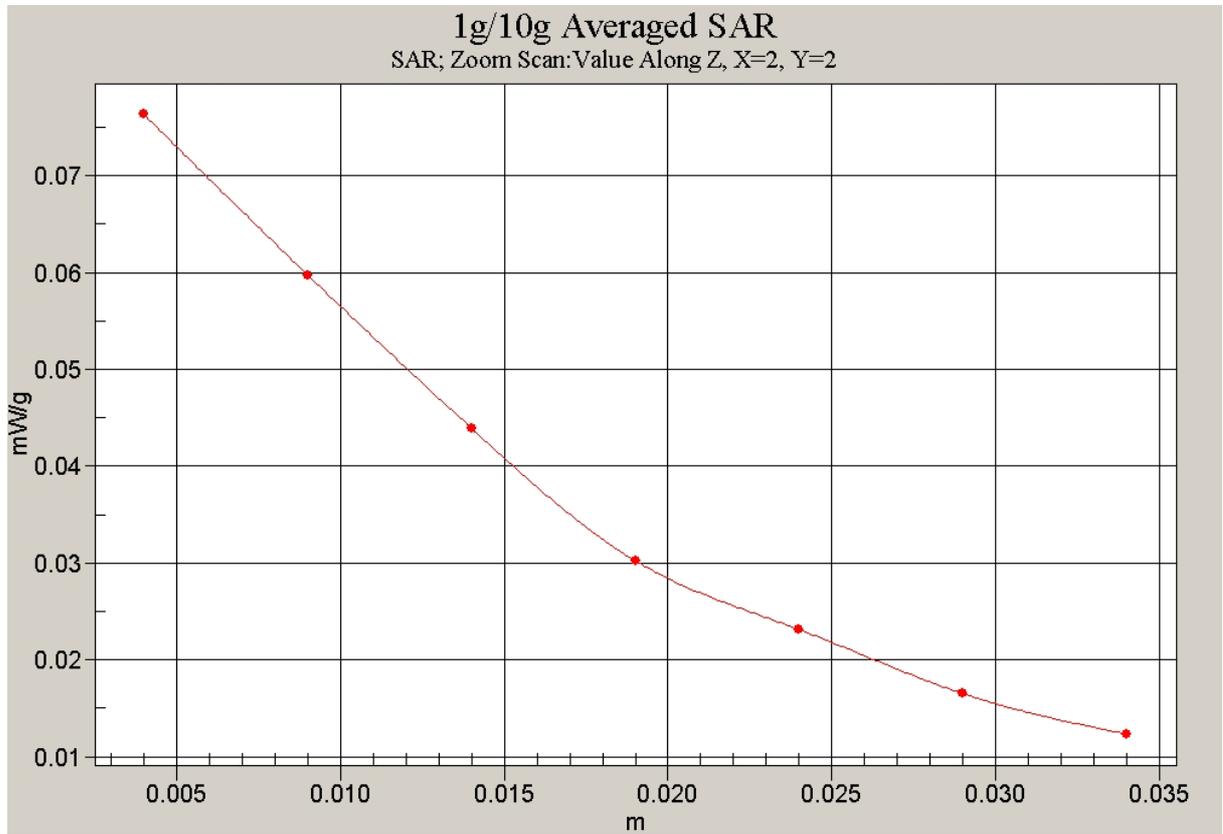**Fig.153 850MHz GPRS CH190 Test Position 2**

Fig.154 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 2)

850 GPRS Test Position 3 with DELL Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 3/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

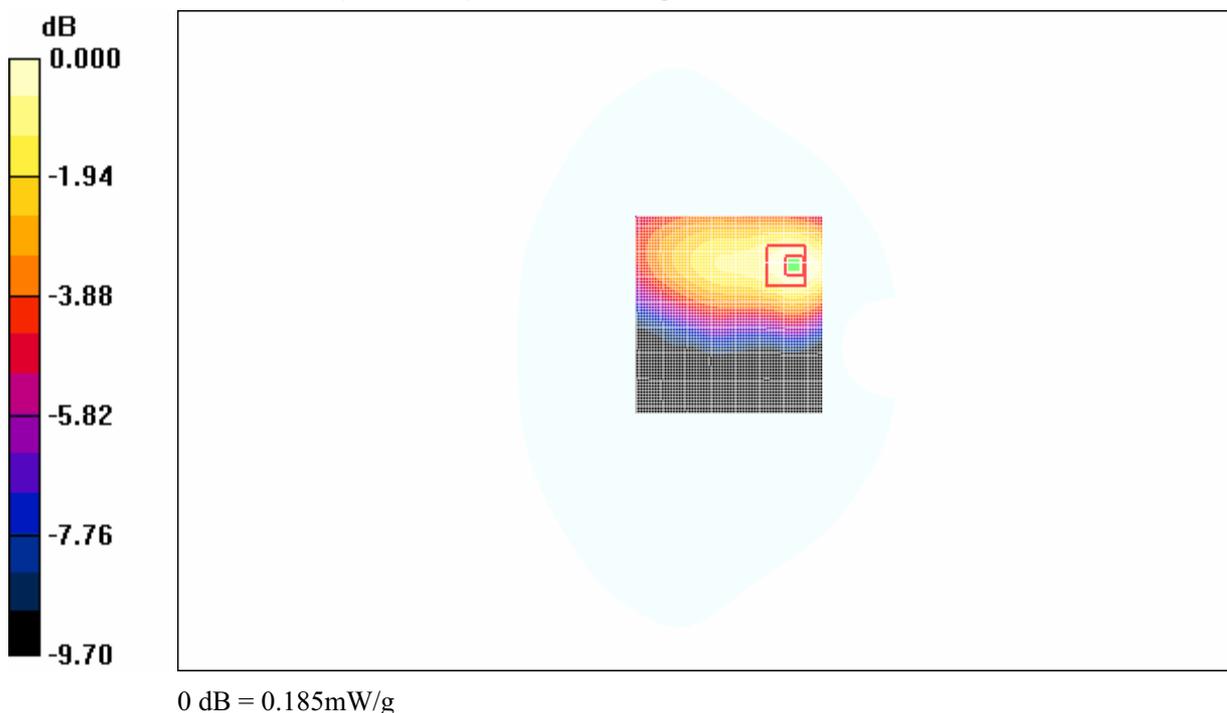Maximum value of SAR (interpolated) = 0.190 mW/g

Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.61 V/m; Power Drift = -0.200 dB

Peak SAR (extrapolated) = 0.261 W/kg

SAR(1 g) = 0.174 mW/g; SAR(10 g) = 0.118 mW/g

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

0 dB = 0.185mW/g

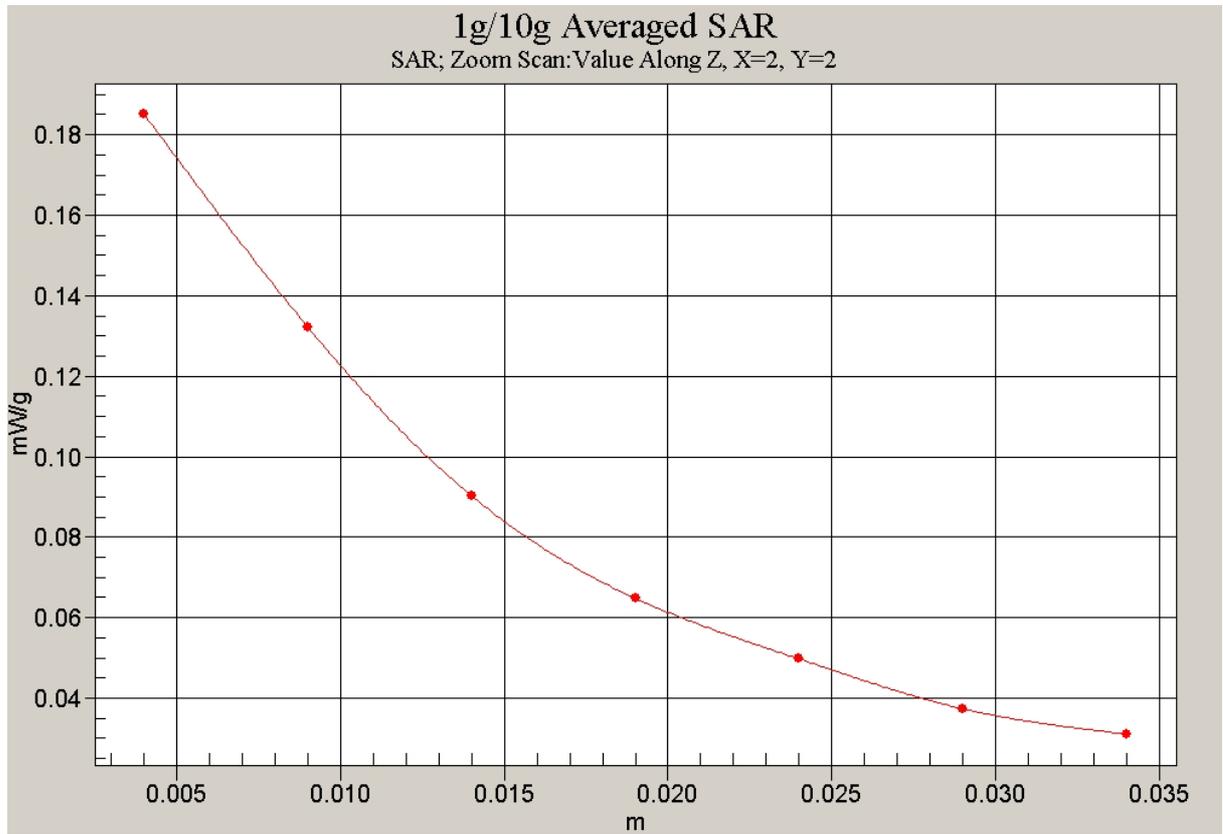**Fig.155 850MHz GPRS CH190 Test Position 3**

Fig.156 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 3)

850 GPRS Test Position 4 with DELL Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 4/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.149 mW/g

Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.46 V/m; Power Drift = -0.121 dB

Peak SAR (extrapolated) = 0.209 W/kg

SAR(1 g) = 0.150 mW/g; SAR(10 g) = 0.104 mW/g
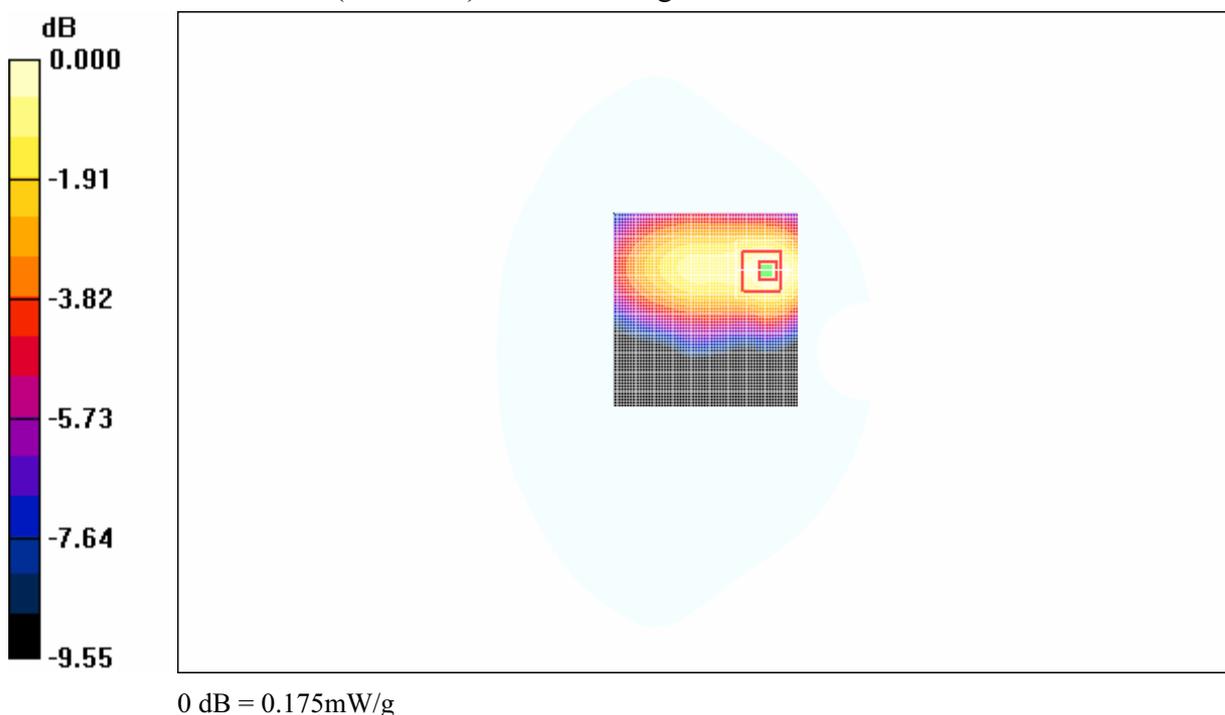
Maximum value of SAR (measured) = 0.175 mW/g

0 dB = 0.175mW/g

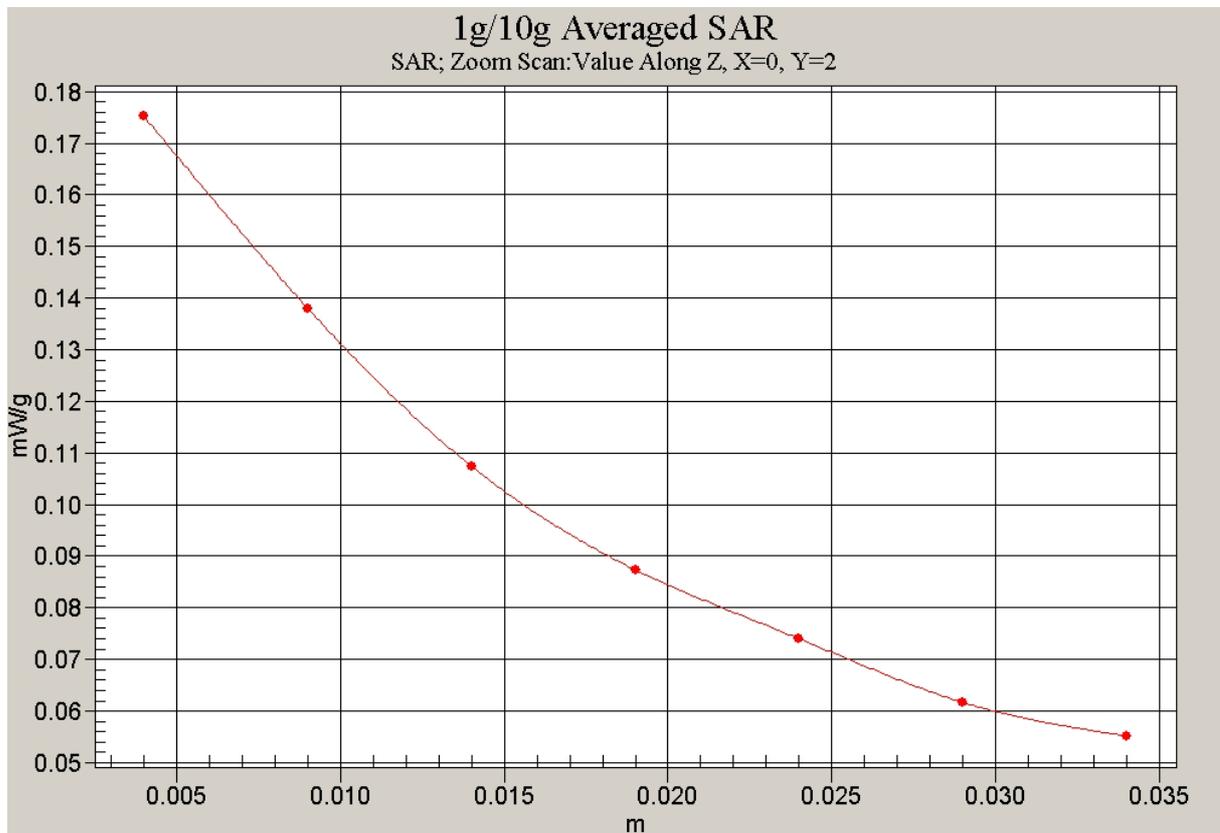**Fig.157 850MHz GPRS CH190 Test Position 4**

Fig.158 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 4)

850 GPRS Test Position 5 with DELL Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 5/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.051 mW/g

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

Reference Value = 6.03 V/m; Power Drift = -0.108 dB

Peak SAR (extrapolated) = 0.064 W/kg

SAR(1 g) = 0.047 mW/g; SAR(10 g) = 0.032 mW/g

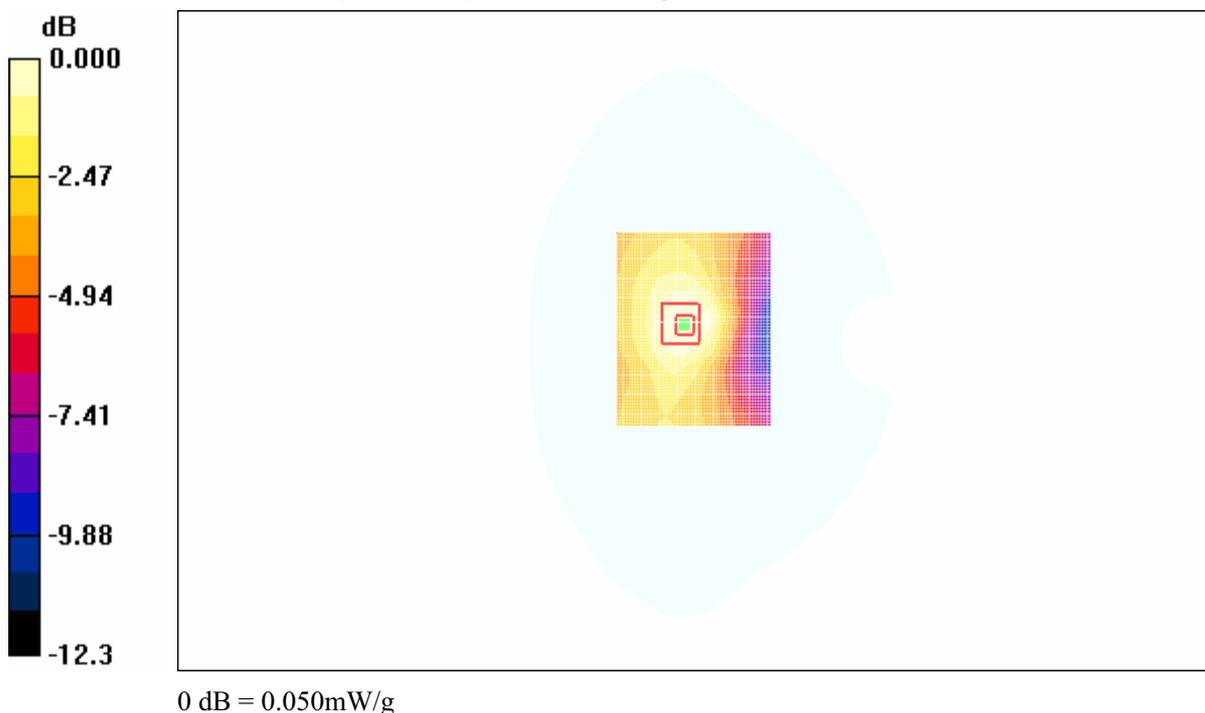Maximum value of SAR (measured) = 0.050 mW/g

0 dB = 0.050mW/g

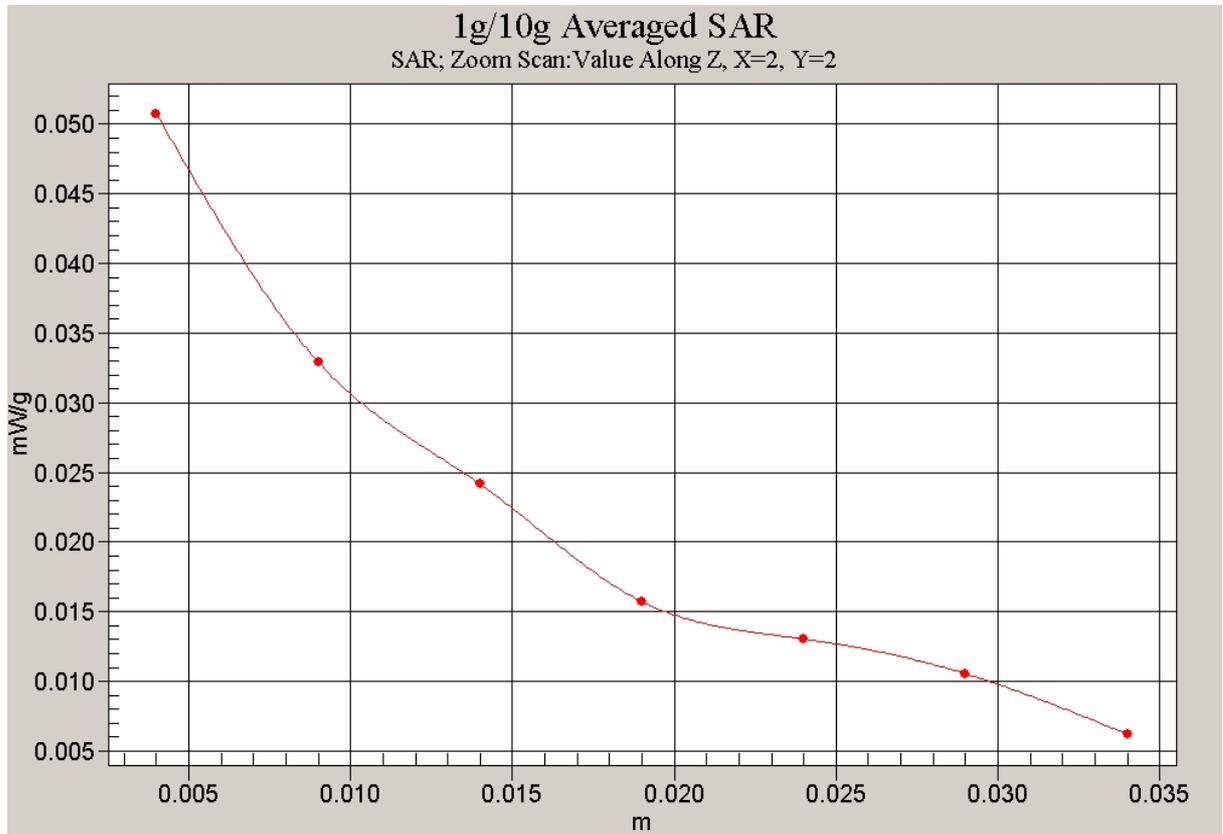**Fig.159 850MHz CH190 GPRS Test Position 5**

Fig.160 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 5)

850 GPRS Test Position 1 with HP Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

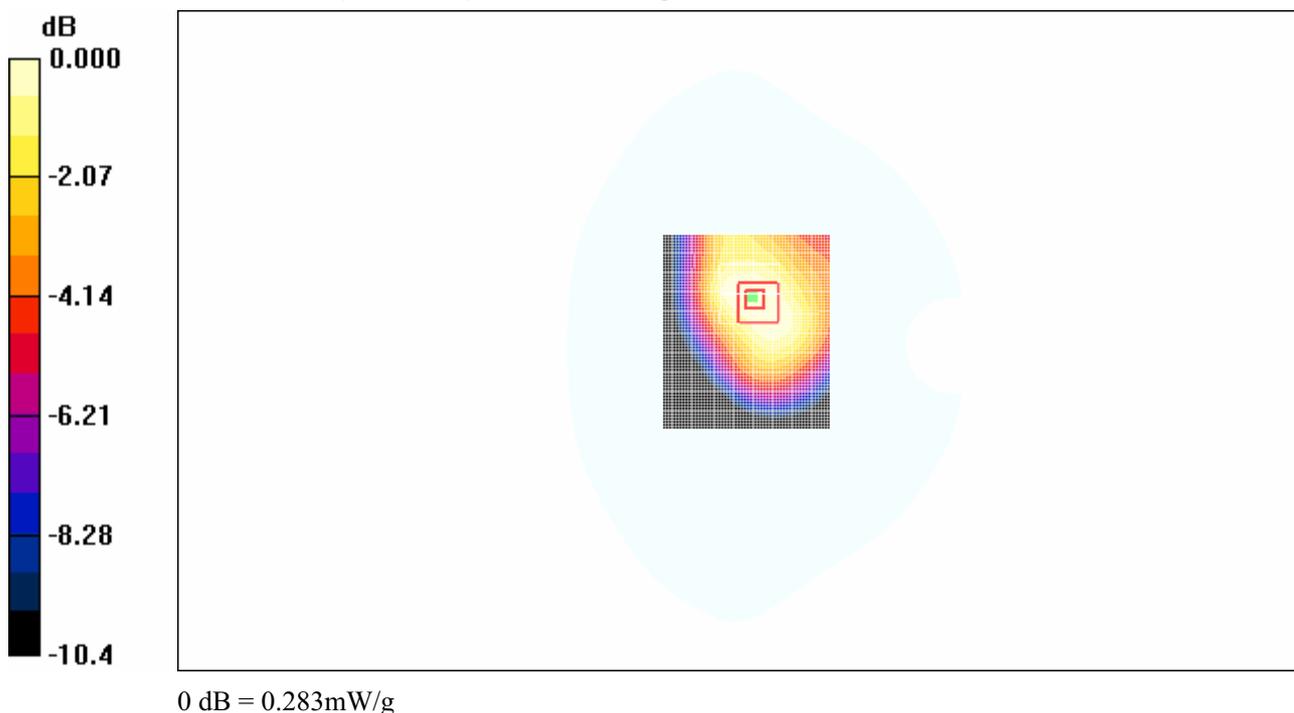Maximum value of SAR (interpolated) = 0.299 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.6 V/m; Power Drift = -0.092 dB

Peak SAR (extrapolated) = 0.356 W/kg

SAR(1 g) = 0.266 mW/g; SAR(10 g) = 0.189 mW/g

Maximum value of SAR (measured) = 0.283 mW/g

0 dB = 0.283mW/g

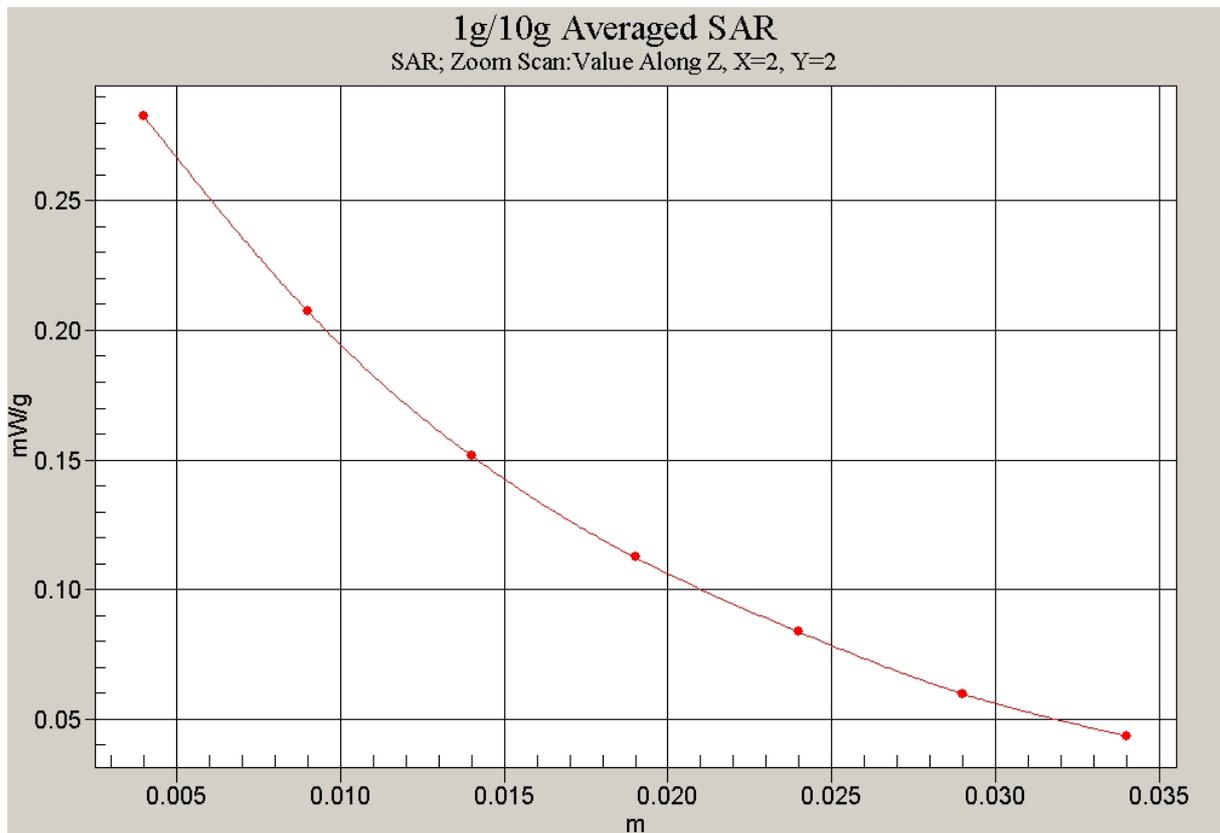**Fig.161 850MHz GPRS CH190 Test Position 1**

Fig.162 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 1)

850 GPRS Test Position 2 with HP Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 2/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

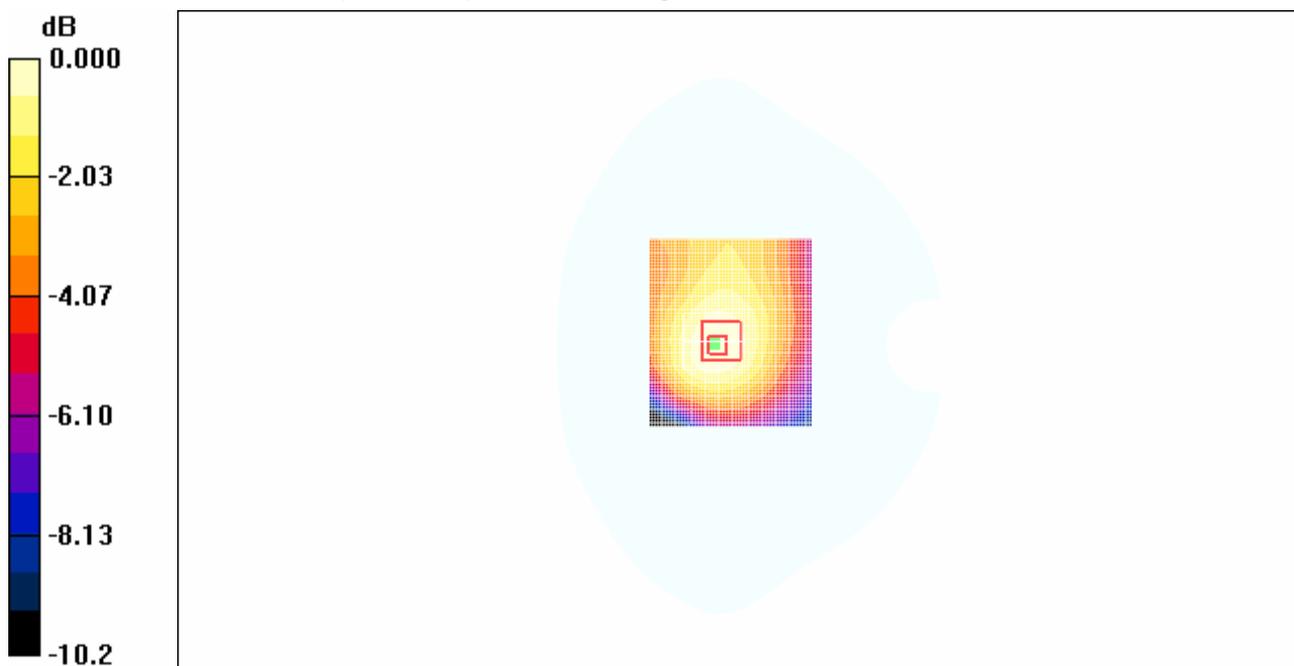Maximum value of SAR (interpolated) = 0.099 mW/g

Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.45 V/m; Power Drift = 0.033 dB

Peak SAR (extrapolated) = 0.124 W/kg

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

Maximum value of SAR (measured) = 0.100 mW/g

0 dB = 0.100mW/g

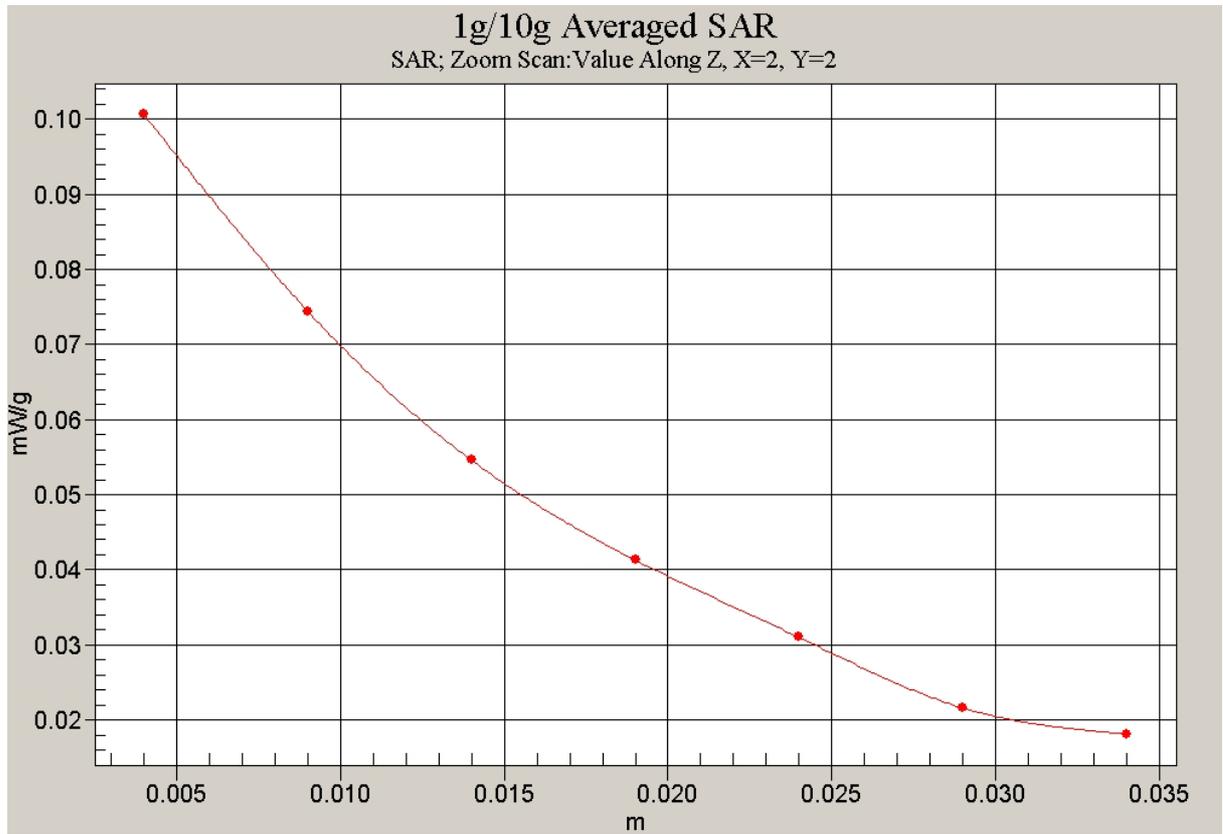**Fig.163 850MHz GPRS CH190 Test Position 2**

Fig.164 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 2)

850 GPRS Test Position 3 with HP Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; $ε_r$ = 56; ρ = 1000 kg/m³

Ambient Temperature:23.3°C   Liqiud Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 3/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

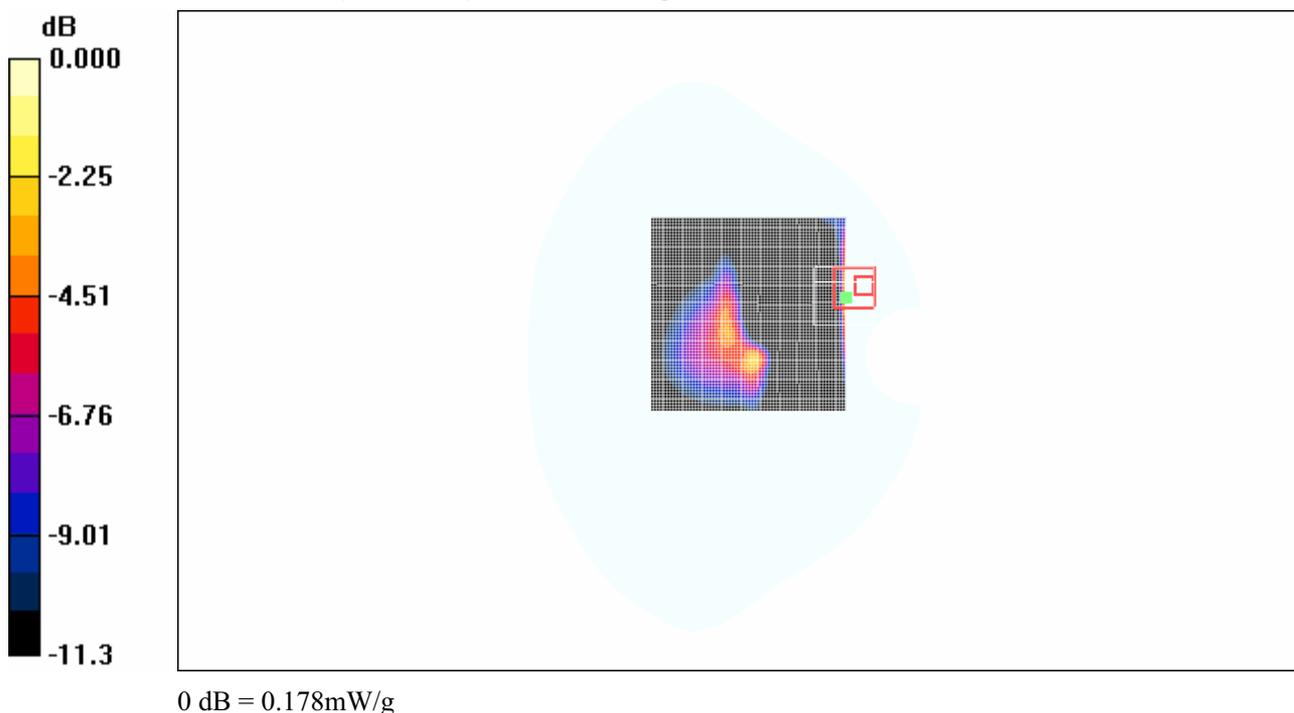Maximum value of SAR (interpolated) = 0.126 mW/g

Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.51 V/m; Power Drift = -0.048 dB

Peak SAR (extrapolated) = 0.227 W/kg

SAR(1 g) = 0.151 mW/g; SAR(10 g) = 0.098 mW/g

Maximum value of SAR (measured) = 0.178 mW/g

0 dB = 0.178mW/g

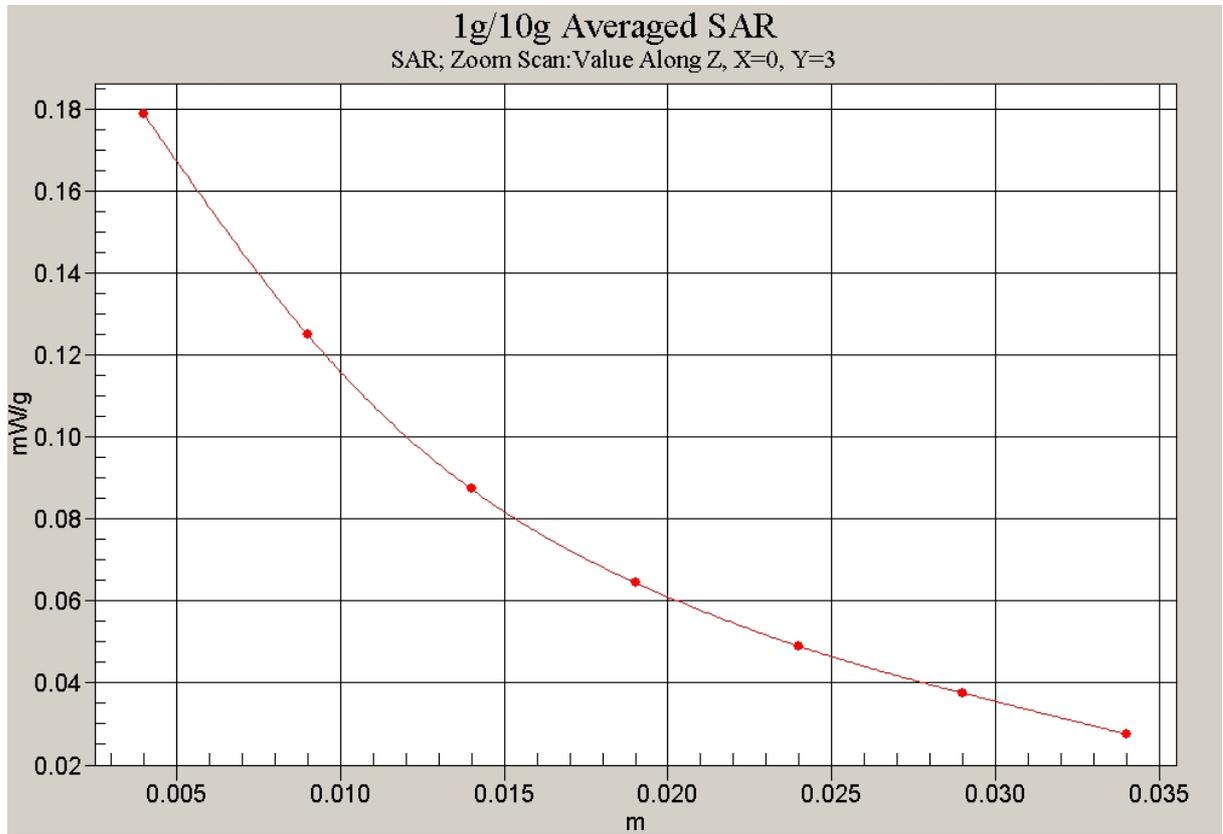**Fig.165 850MHz GPRS CH190 Test Position 3**

Fig.166 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 3)

850 GPRS Test Position 4 with HP Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 4/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.034 mW/g

Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.25 V/m; Power Drift = -0.087 dB

Peak SAR (extrapolated) = 0.052 W/kg

SAR(1 g) = 0.035 mW/g; SAR(10 g) = 0.024 mW/g

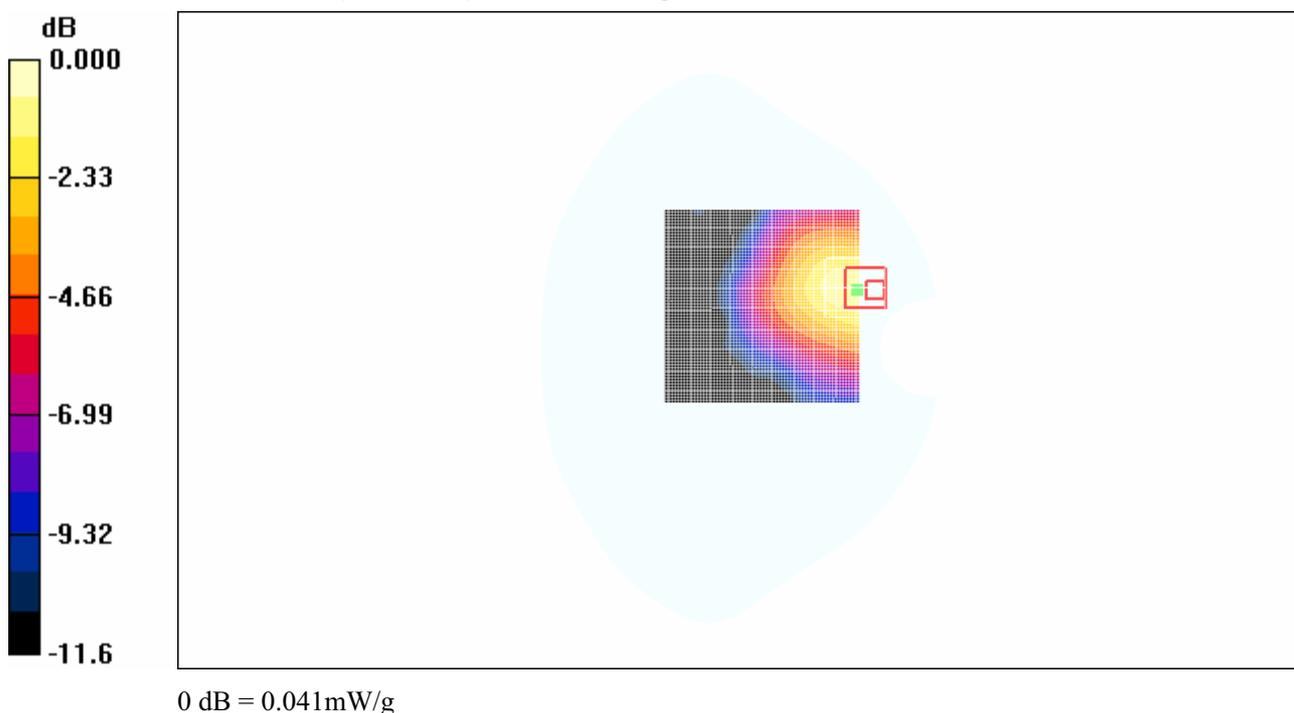Maximum value of SAR (measured) = 0.041 mW/g

0 dB = 0.041mW/g

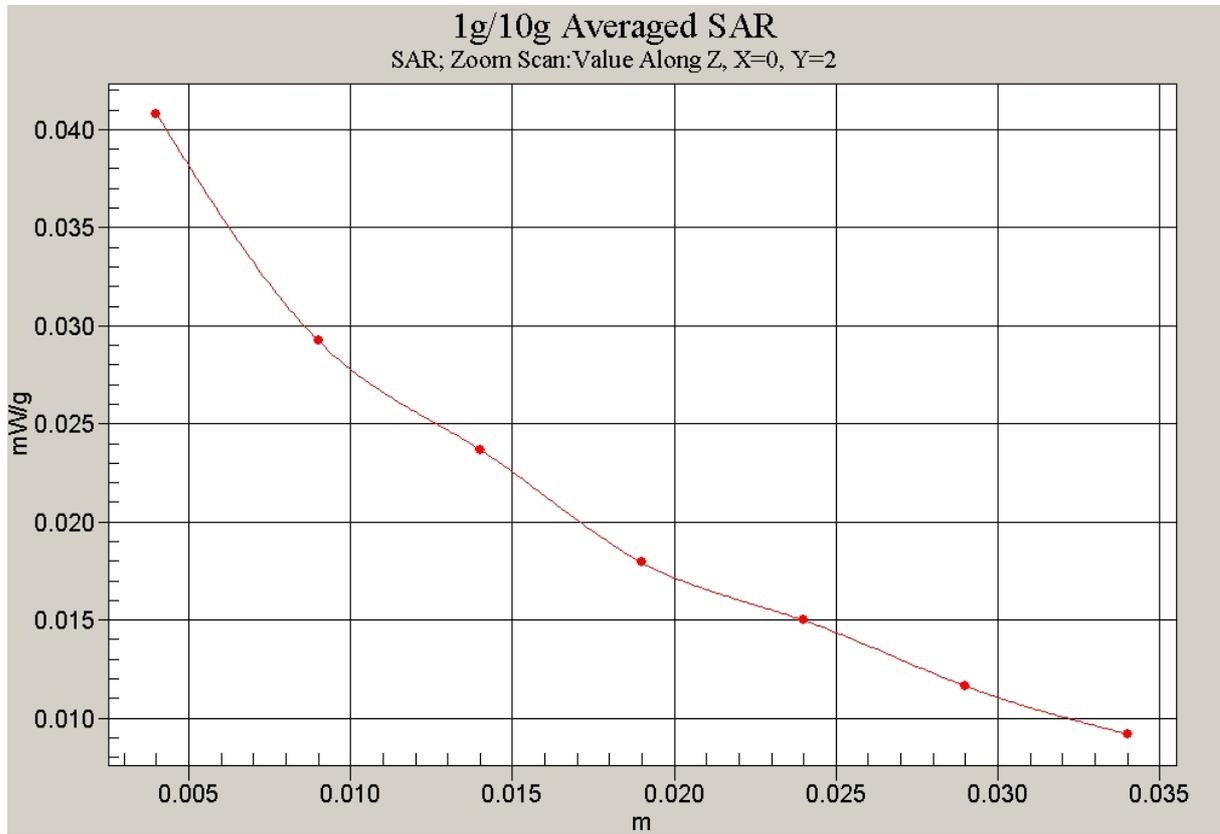**Fig.167 850MHz GPRS CH190 Test Position 4**

Fig.168 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 4)

850 GPRS Test Position 5 with HP Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; $ε_r$ = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 5/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.025 mW/g

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

Reference Value = 3.78 V/m; Power Drift = -0.159 dB

Peak SAR (extrapolated) = 0.075 W/kg

SAR(1 g) = 0.028 mW/g; SAR(10 g) = 0.014 mW/g

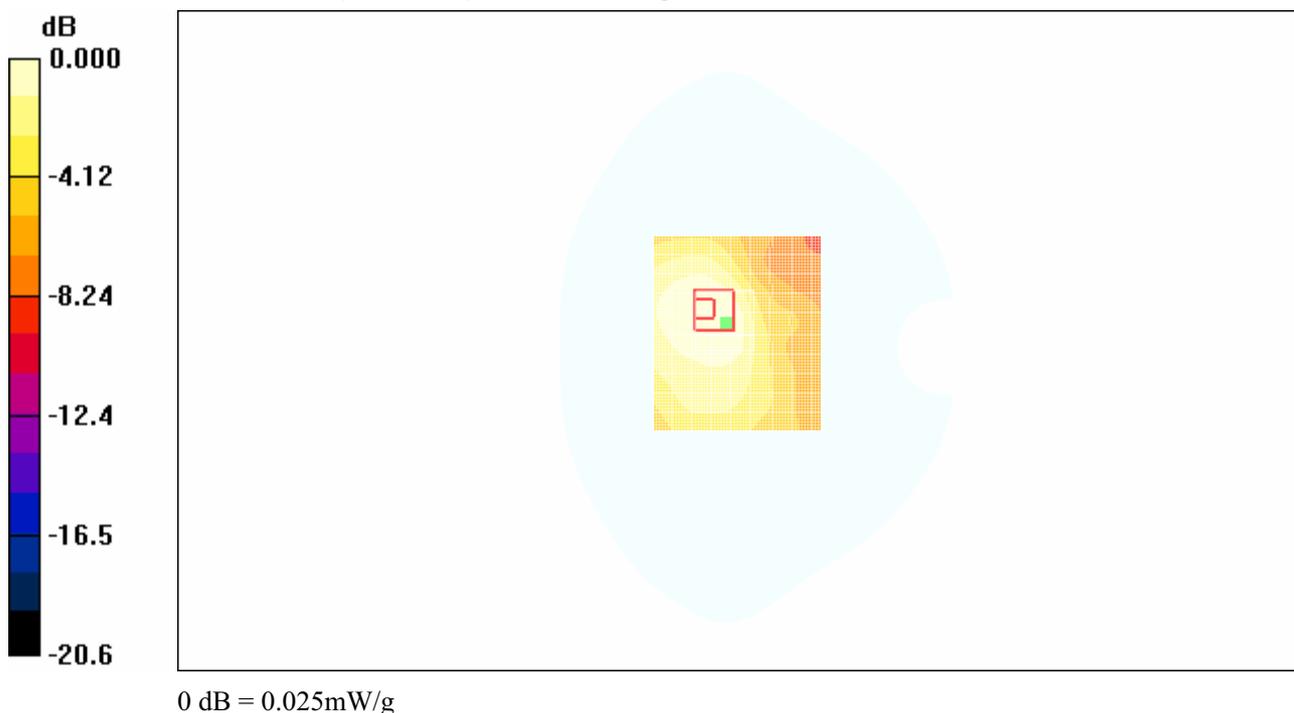Maximum value of SAR (measured) = 0.025 mW/g

0 dB = 0.025mW/g

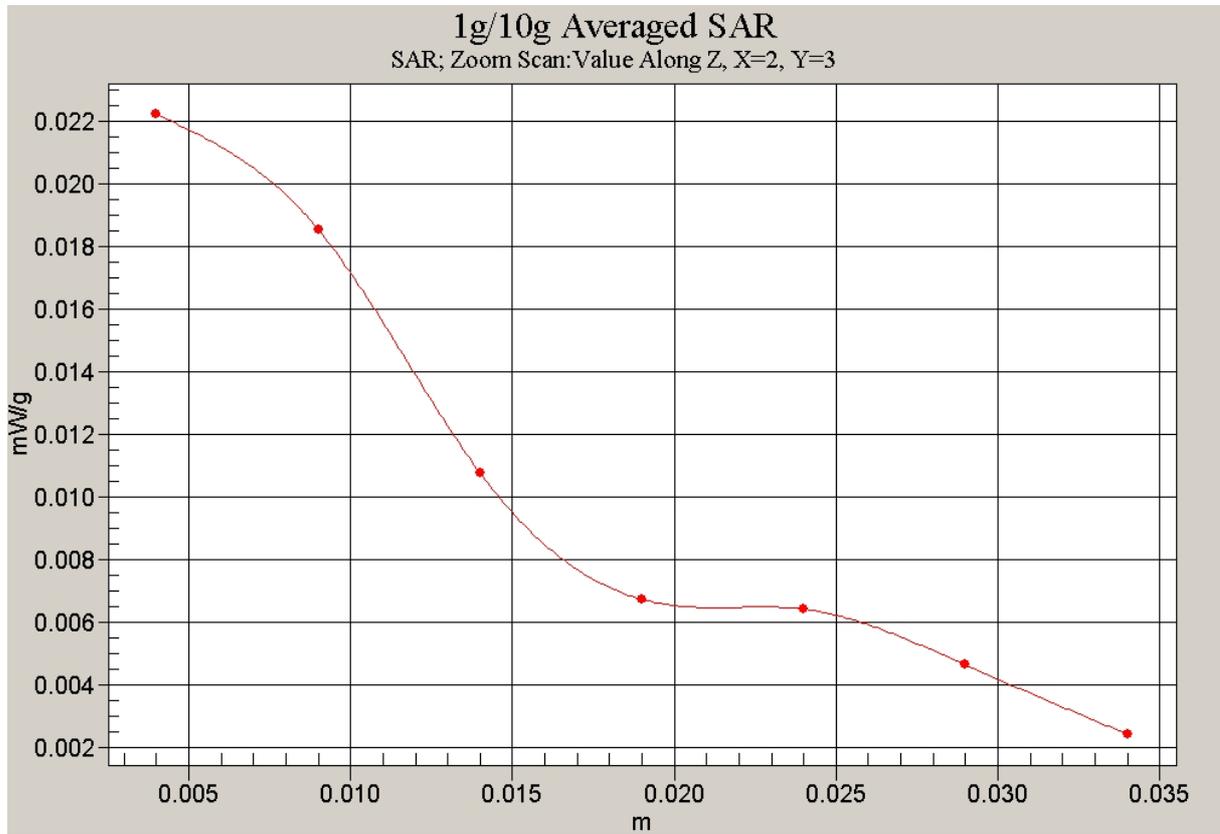**Fig.169 850MHz CH190 GPRS Test Position 5**

Fig.170 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 5)

850MHz GPRS Test Position 1 with HP Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm
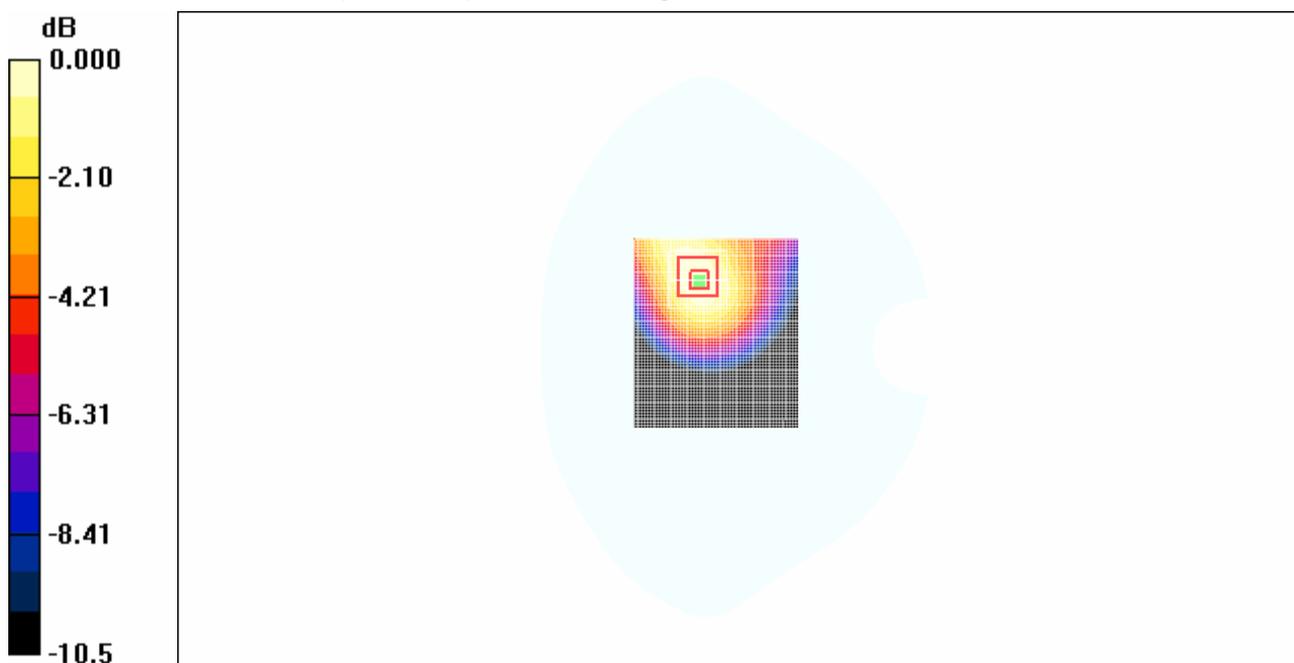
Maximum value of SAR (interpolated) = 0.612 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.3 V/m; Power Drift = -0.183 dB

Peak SAR (extrapolated) = 0.776 W/kg

SAR(1 g) = 0.556 mW/g; SAR(10 g) = 0.376 mW/g

Maximum value of SAR (measured) = 0.597 mW/g

0 dB = 0.597mW/g

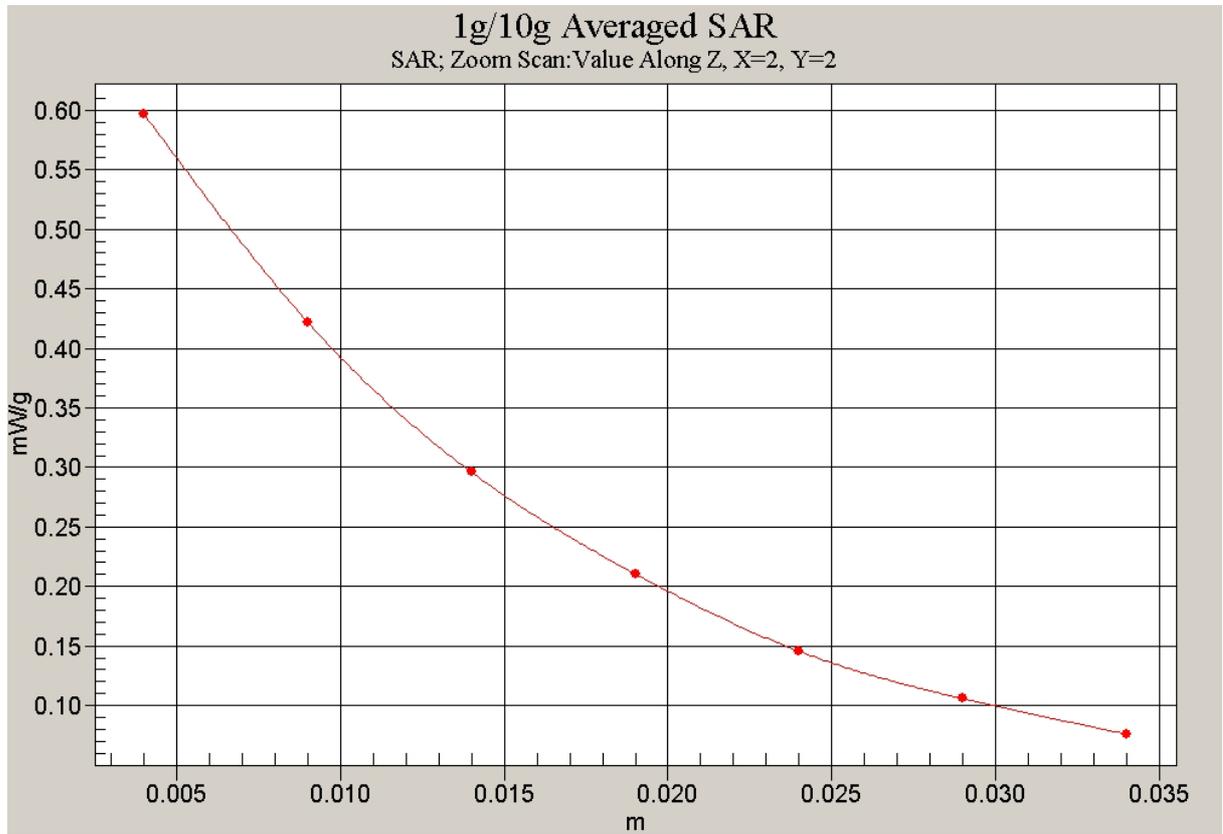**Fig.171 850MHz GPRS CH190 Test Position 1**

Fig.172 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 1)

850 GPRS Test Position 2 with HP Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 2/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.203 mW/g

Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.5 V/m; Power Drift = 0.163 dB

Peak SAR (extrapolated) = 0.271 W/kg

SAR(1 g) = 0.202 mW/g; SAR(10 g) = 0.142 mW/g

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

0 dB = 0.214mW/g
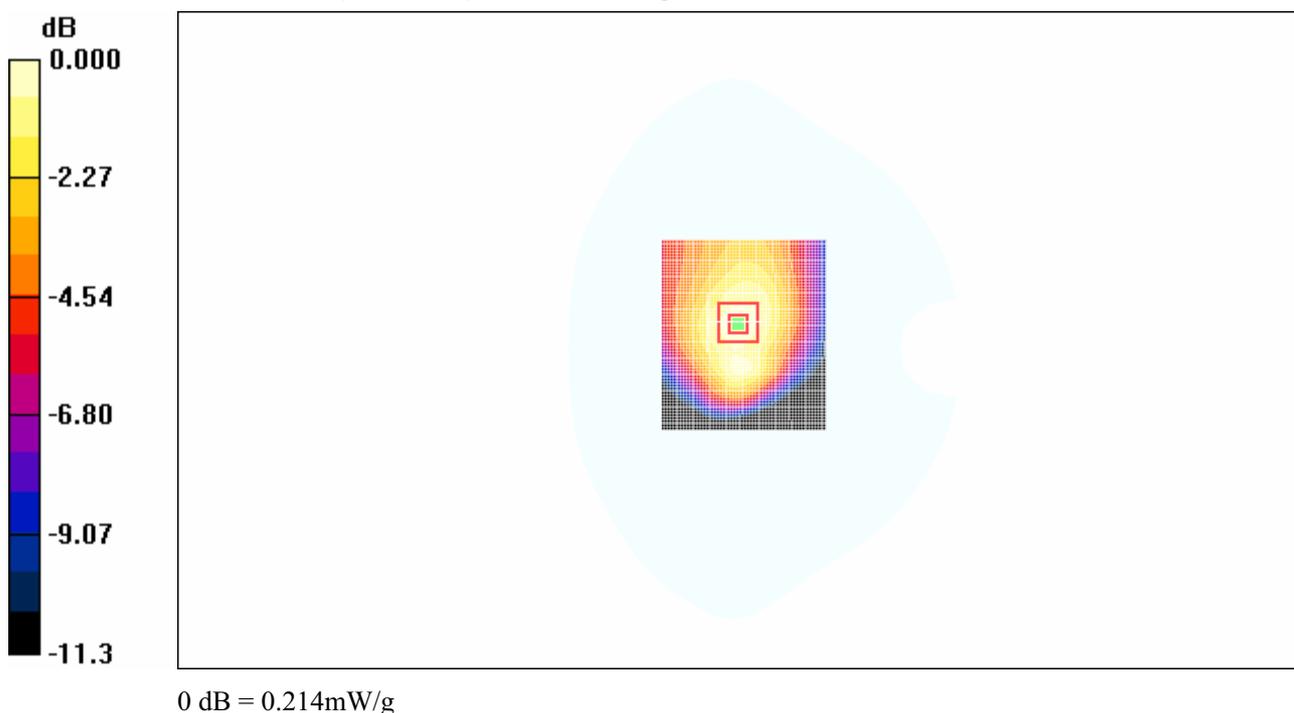
Fig.173 850MHz GPRS CH190 Test Position 2

Fig.174 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 2)

850 GPRS Test Position 3 with HP Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; $ε_r$ = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 3/Area Scan (81x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.244 mW/g

Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.78 V/m; Power Drift = 0.032 dB

Peak SAR (extrapolated) = 0.489 W/kg

SAR(1 g) = 0.283 mW/g; SAR(10 g) = 0.178 mW/g

Maximum value of SAR (measured) = 0.337 mW/g
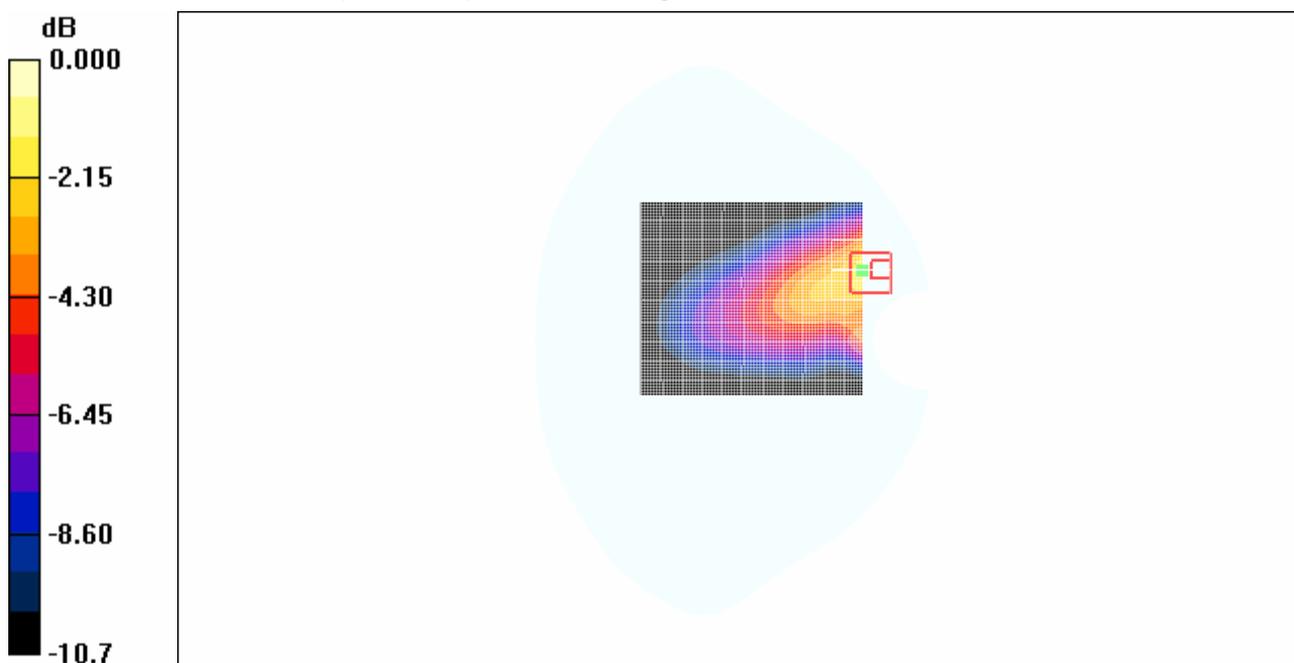
0 dB = 0.337mW/g

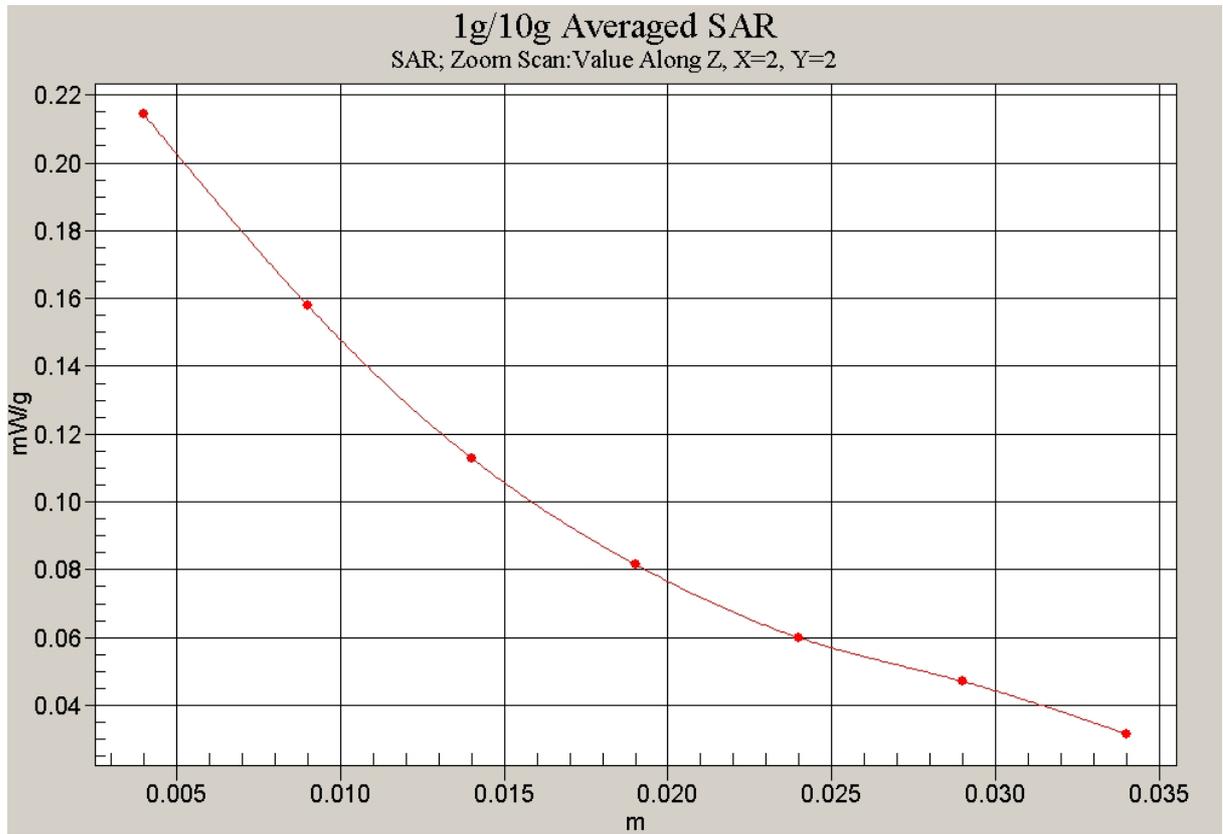**Fig.175 850MHz GPRS CH190 Test Position 3**

Fig.176 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 3)

850MHz GPRS Test Position 4 with HP Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 4/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

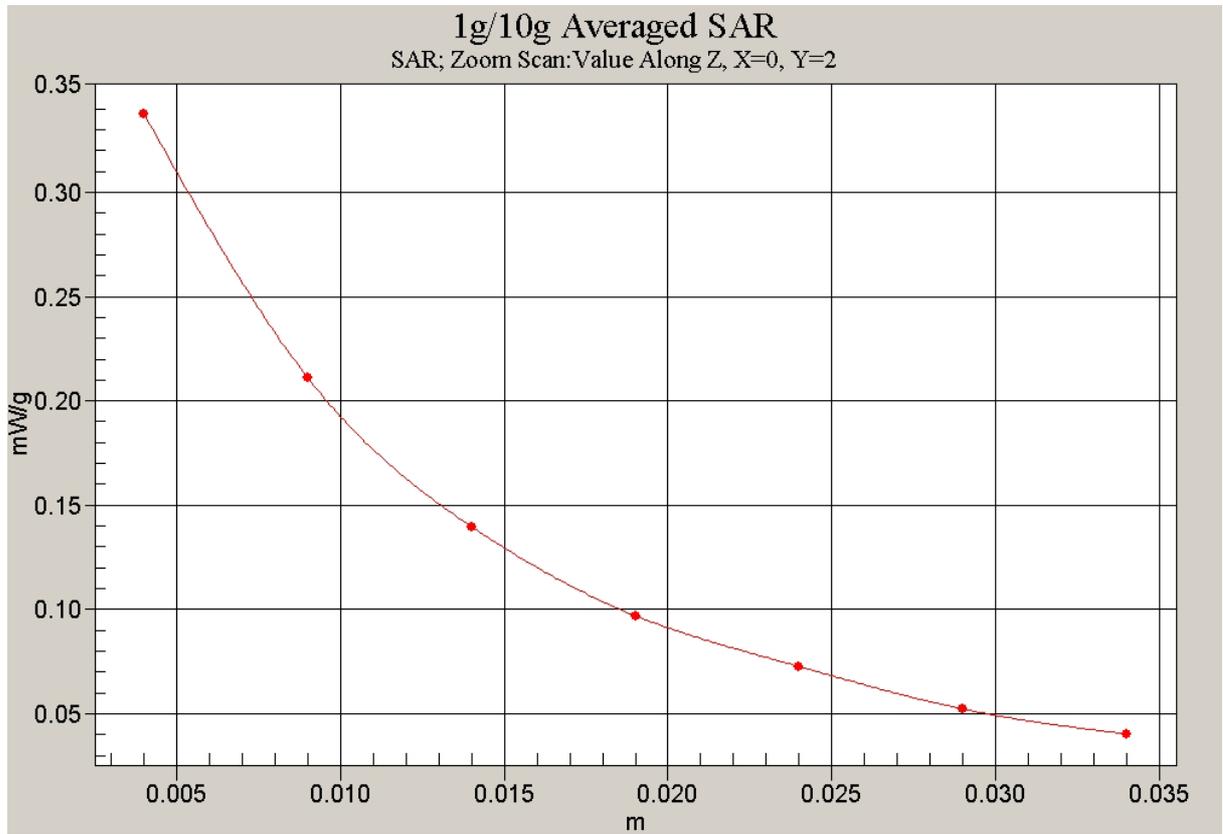Maximum value of SAR (interpolated) = 0.105 mW/g

Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.57 V/m; Power Drift = 0.089 dB

Peak SAR (extrapolated) = 0.146 W/kg

SAR(1 g) = 0.106 mW/g; SAR(10 g) = 0.075 mW/g

Maximum value of SAR (measured) = 0.120 mW/g
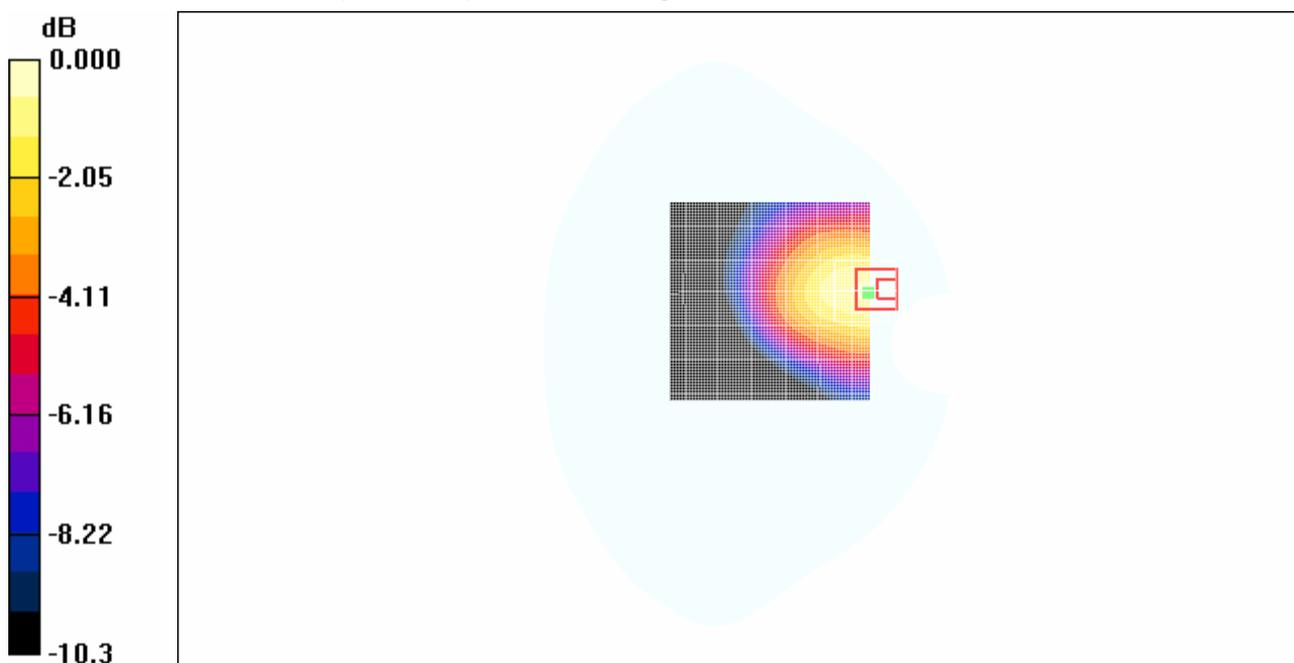
0 dB = 0.120mW/g

Fig.177 850MHz GPRS CH190 Test Position 4

Fig.178 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 4)

850 GPRS Test Position 5 with HP Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 5/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm
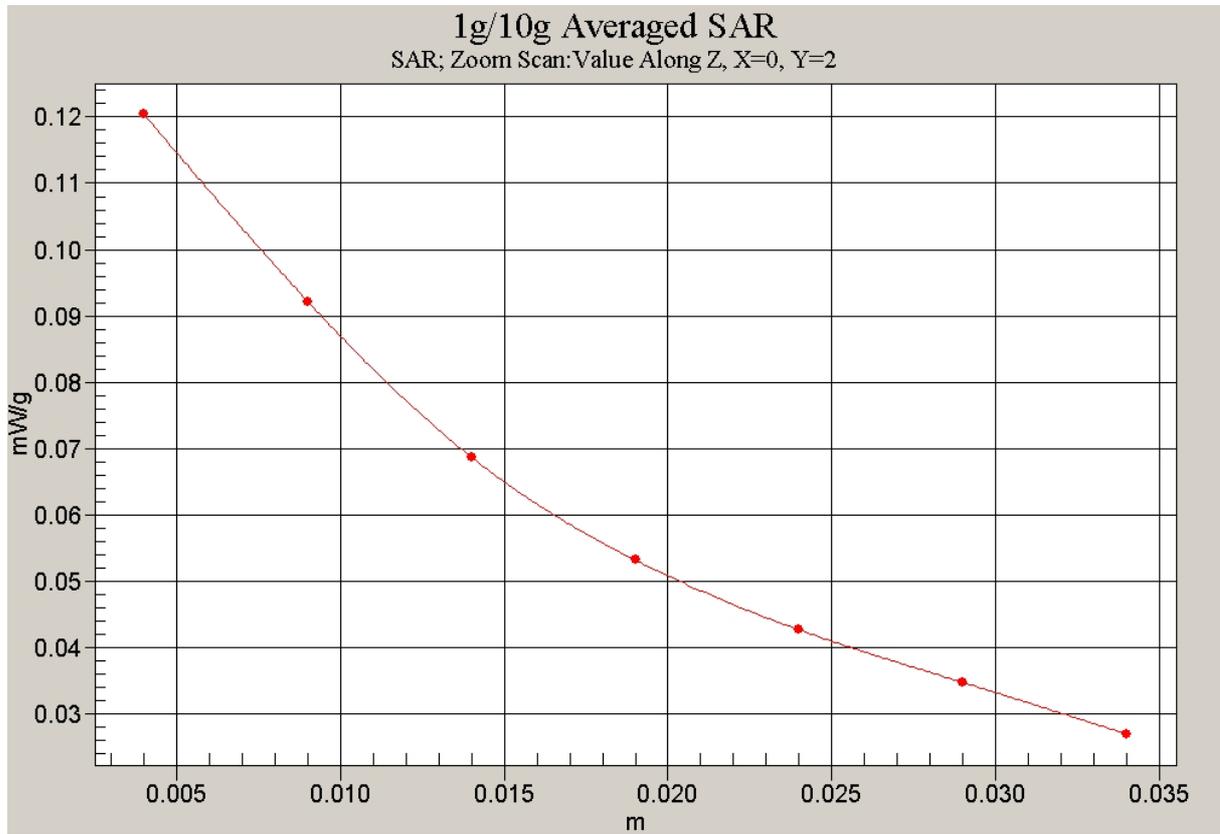
Maximum value of SAR (interpolated) = 0.111 mW/g

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

Reference Value = 8.09 V/m; Power Drift = 0.127 dB

Peak SAR (extrapolated) = 0.150 W/kg

SAR(1 g) = 0.109 mW/g; SAR(10 g) = 0.075 mW/g

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

0 dB = 0.116mW/g

Fig.179 850MHz CH190 GPRS Test Position 5

Fig.180 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 5)

850MHz GPRS Test Position 1 with IBM Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

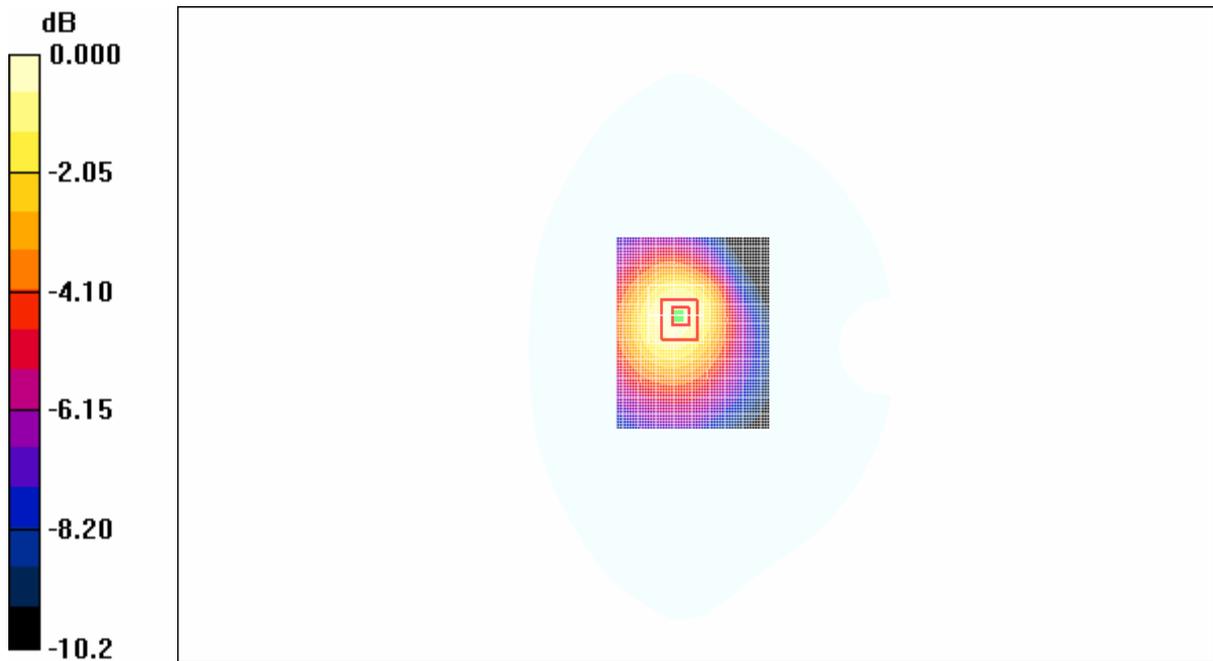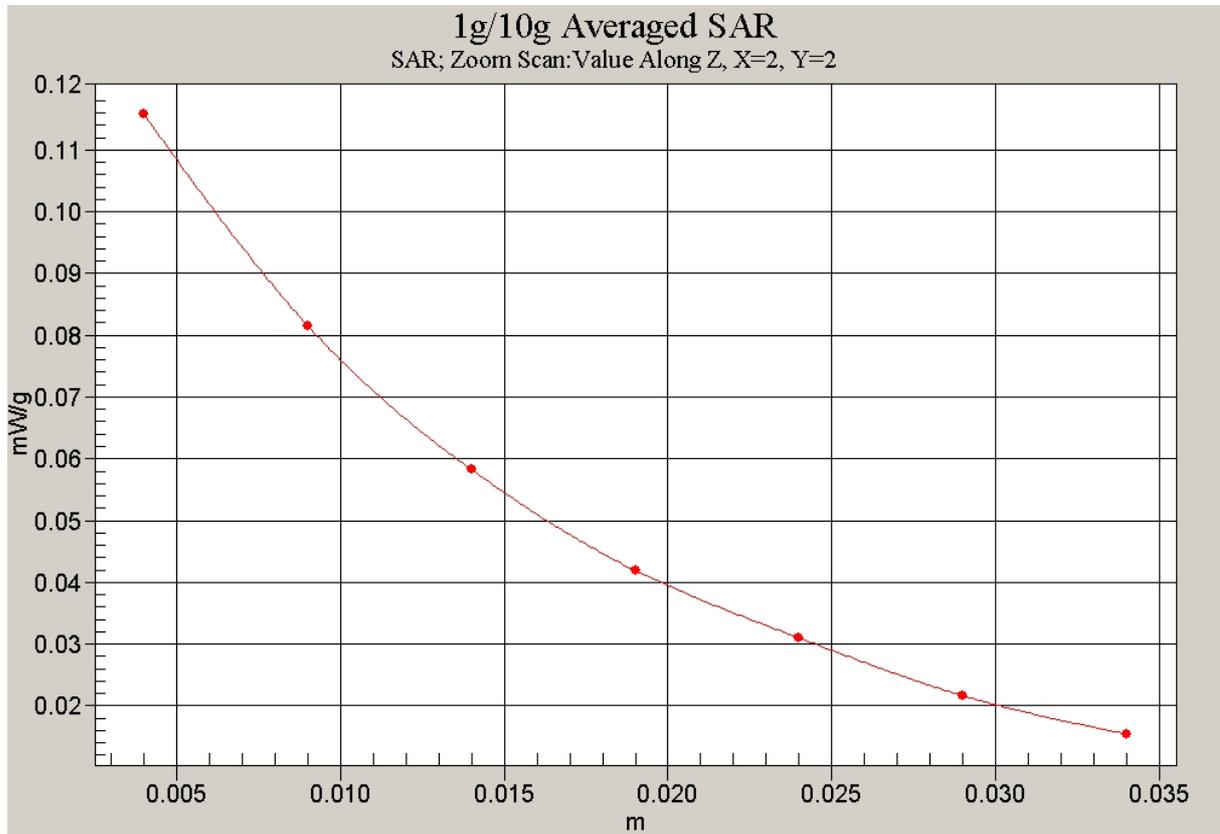Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.485 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.5 V/m; Power Drift = -0.082 dB

Peak SAR (extrapolated) = 0.621 W/kg

SAR(1 g) = 0.434 mW/g; SAR(10 g) = 0.289 mW/g

Maximum value of SAR (measured) = 0.465 mW/g
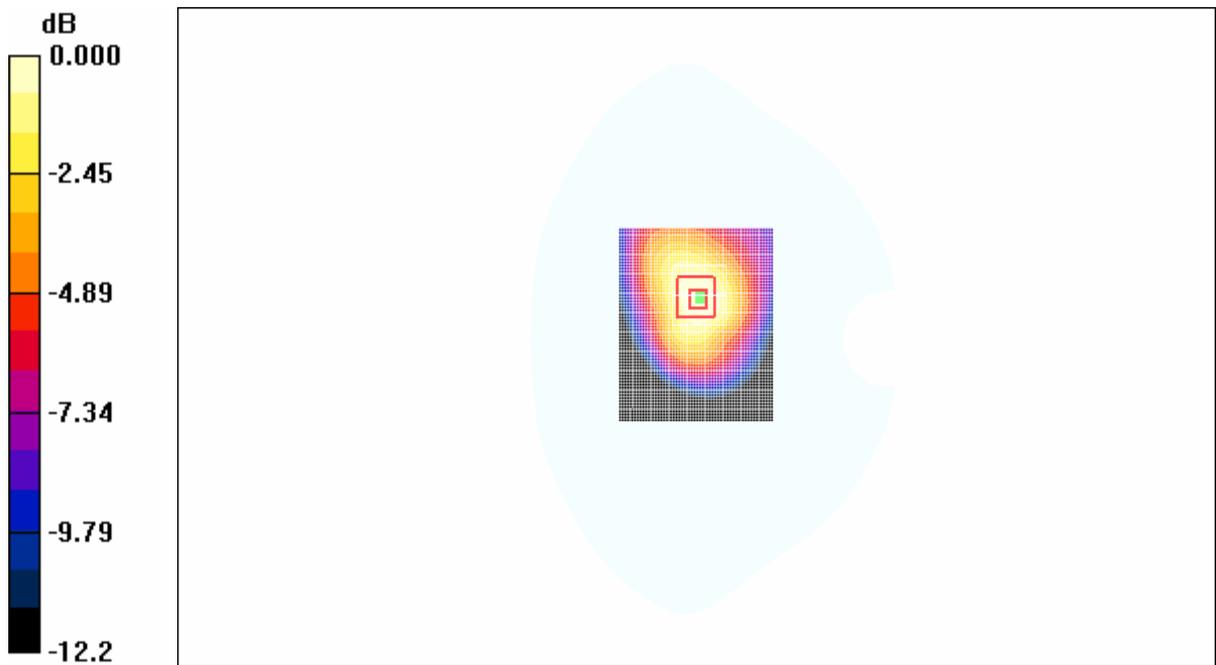
0 dB = 0.465mW/g

Fig.181 850MHz GPRS CH190 Test Position 1

Fig.182 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 1)

850 GPRS Test Position 2 with IBM Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C　　　　Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 2/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

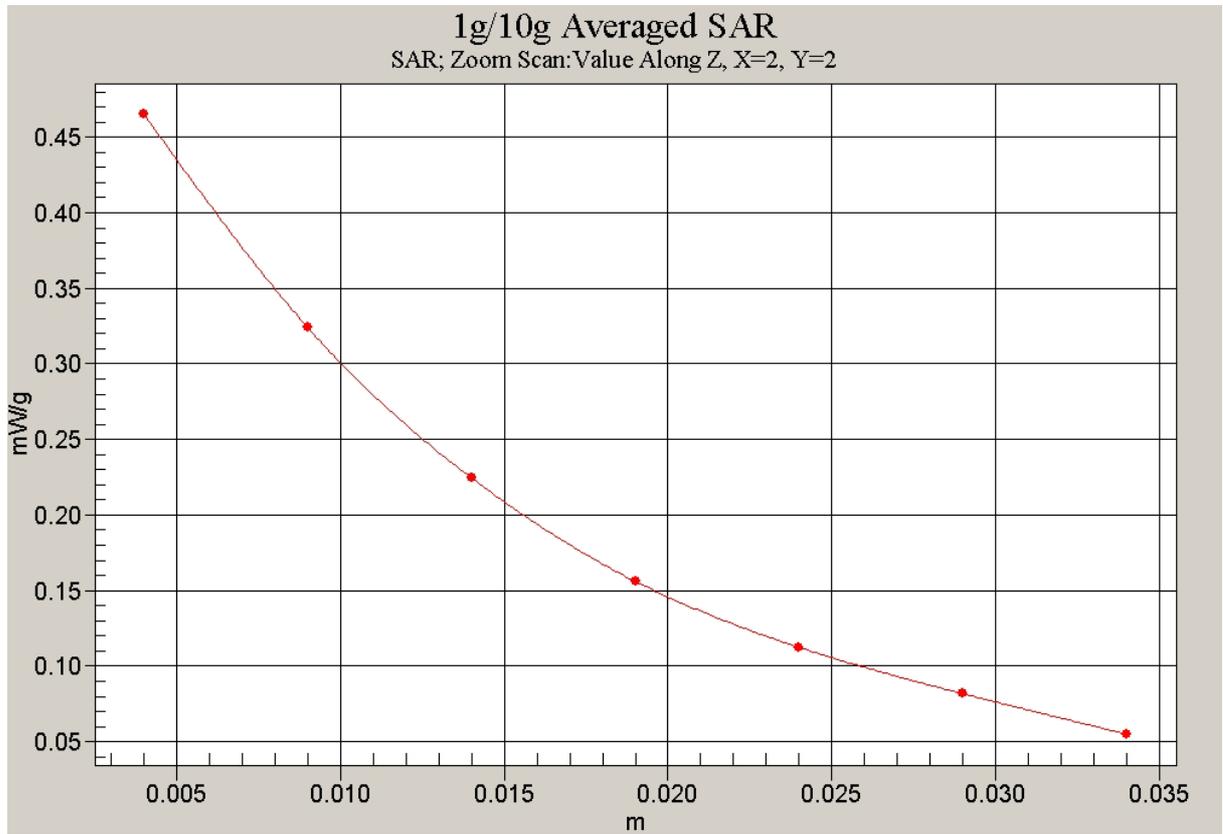Maximum value of SAR (interpolated) = 0.179 mW/g

Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.8 V/m; Power Drift = -0.138 dB

Peak SAR (extrapolated) = 0.224 W/kg

SAR(1 g) = 0.167 mW/g; SAR(10 g) = 0.118 mW/g

Maximum value of SAR (measured) = 0.177 mW/g

0 dB = 0.177mW/g

Fig.183 850MHz GPRS CH190 Test Position 2

Fig.184 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 2)

850 GPRS Test Position 3 with IBM Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

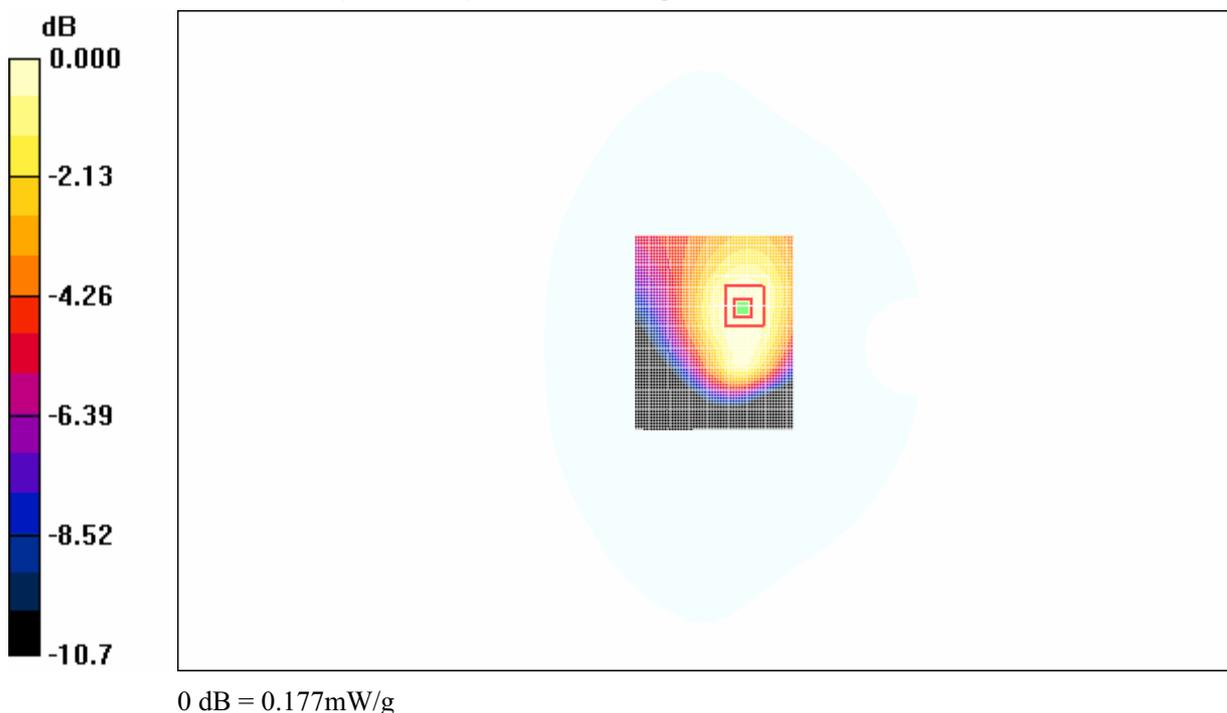Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 3/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.112 mW/g

Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.97 V/m; Power Drift = -0.050 dB

Peak SAR (extrapolated) = 0.535 W/kg

SAR(1 g) = 0.134 mW/g; SAR(10 g) = 0.078 mW/g

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

0 dB = 0.219mW/g
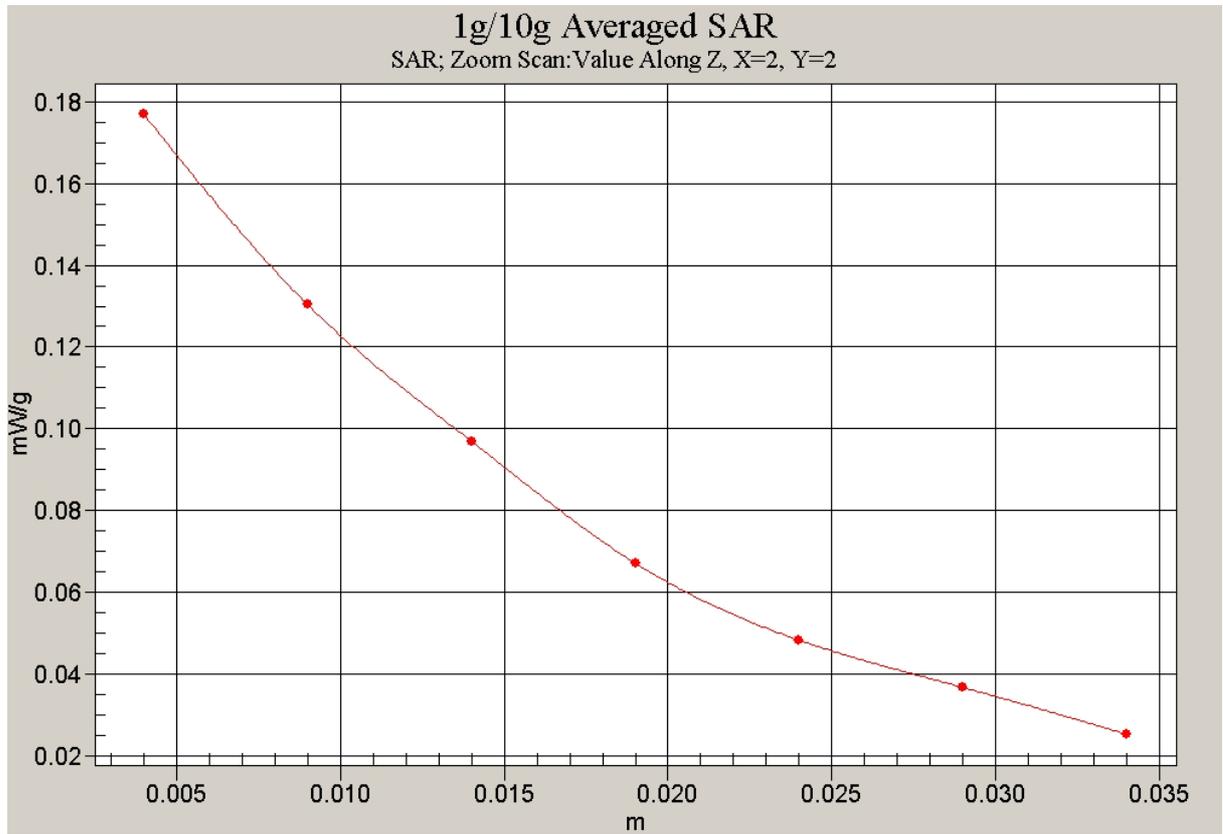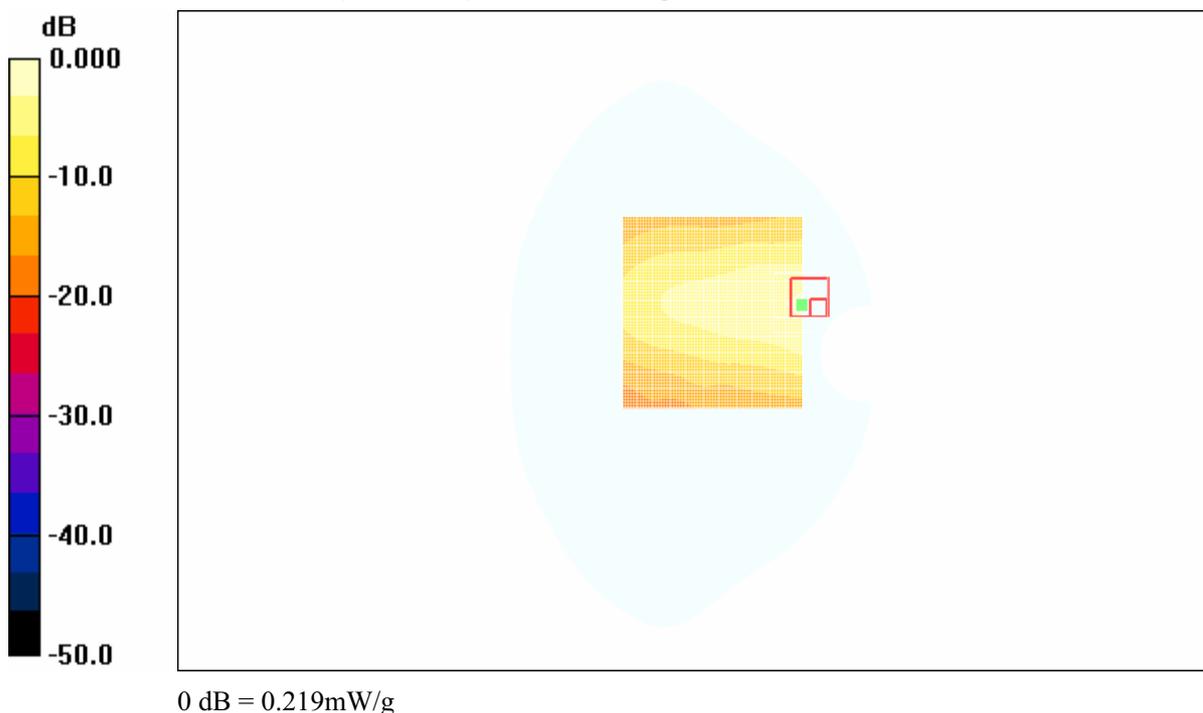

Fig.185 850MHz GPRS CH190 Test Position 3

Fig.186 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 3)

850 GPRS Test Position 4 with IBM Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 4/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.031 mW/g

Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.95 V/m; Power Drift = 0.131 dB

Peak SAR (extrapolated) = 0.050 W/kg

SAR(1 g) = 0.034 mW/g; SAR(10 g) = 0.023 mW/g

Maximum value of SAR (measured) = 0.042 mW/g

0 dB = 0.042mW/g
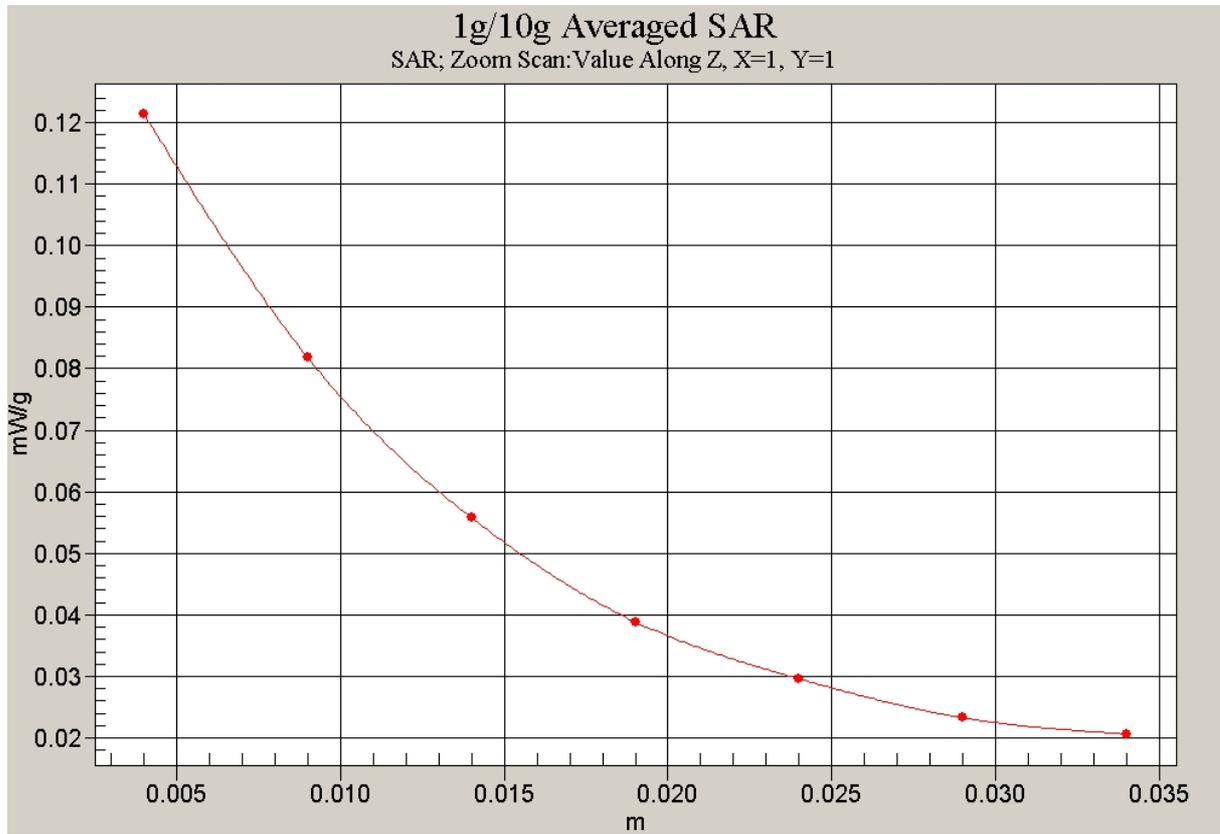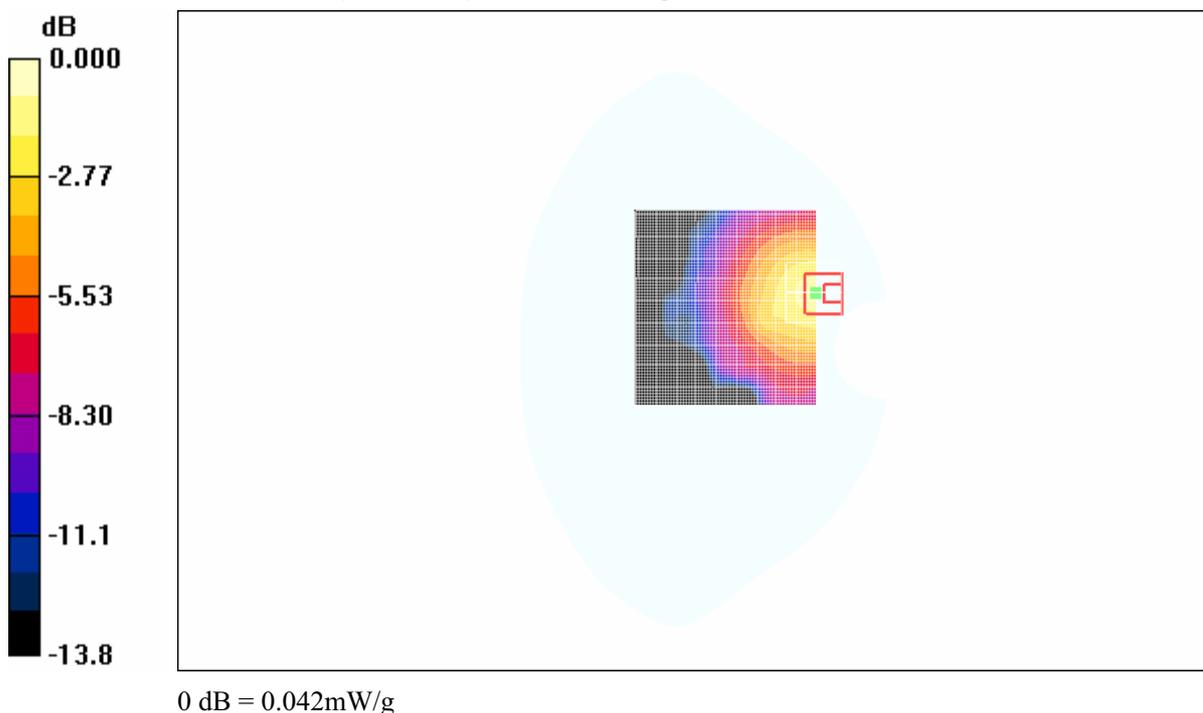

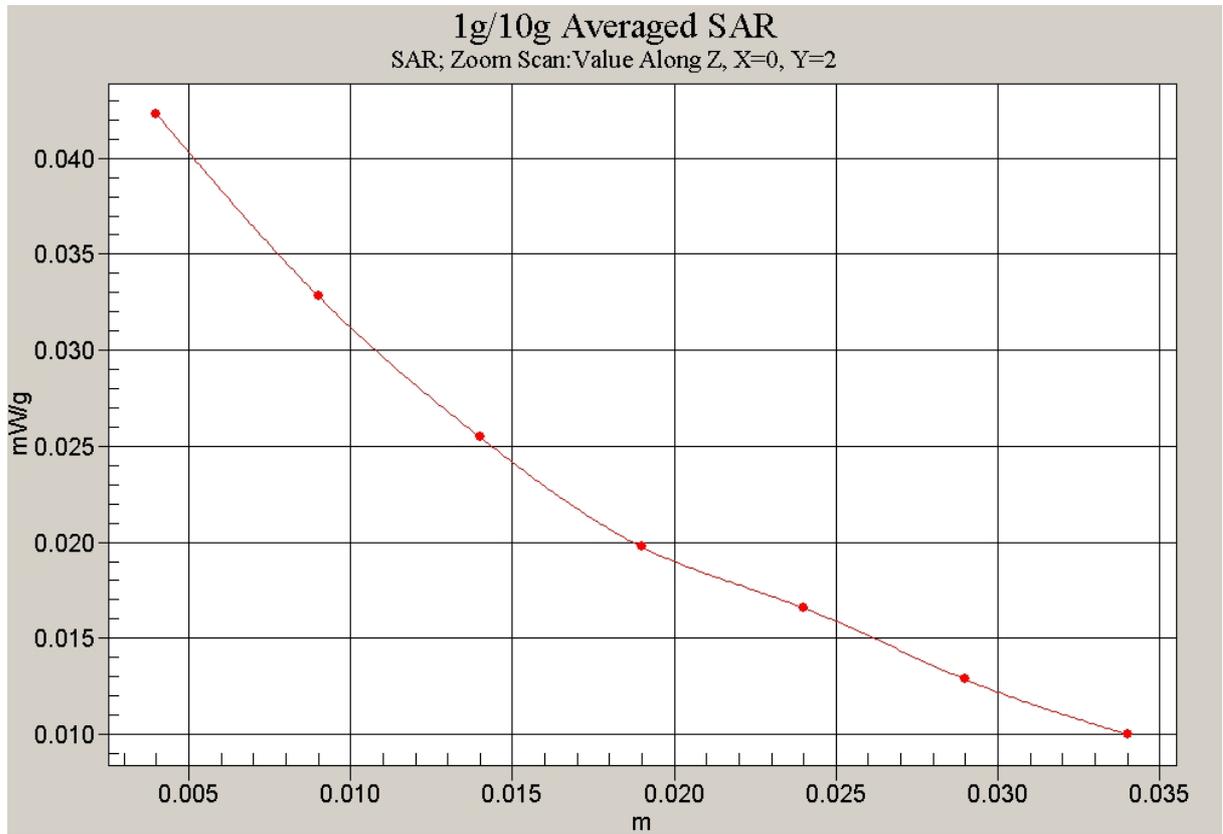**Fig.187 850MHz GPRS CH190 Test Position 4**

Fig.188 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 4)

850 GPRS Test Position 5 with IBM Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; $ε_r$ = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 5/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.022 mW/g

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

Reference Value = 4.41 V/m; Power Drift = -0.169 dB

Peak SAR (extrapolated) = 0.046 W/kg

SAR(1 g) = 0.021 mW/g; SAR(10 g) = 0.013 mW/g

Maximum value of SAR (measured) = 0.022 mW/g

0 dB = 0.022mW/g
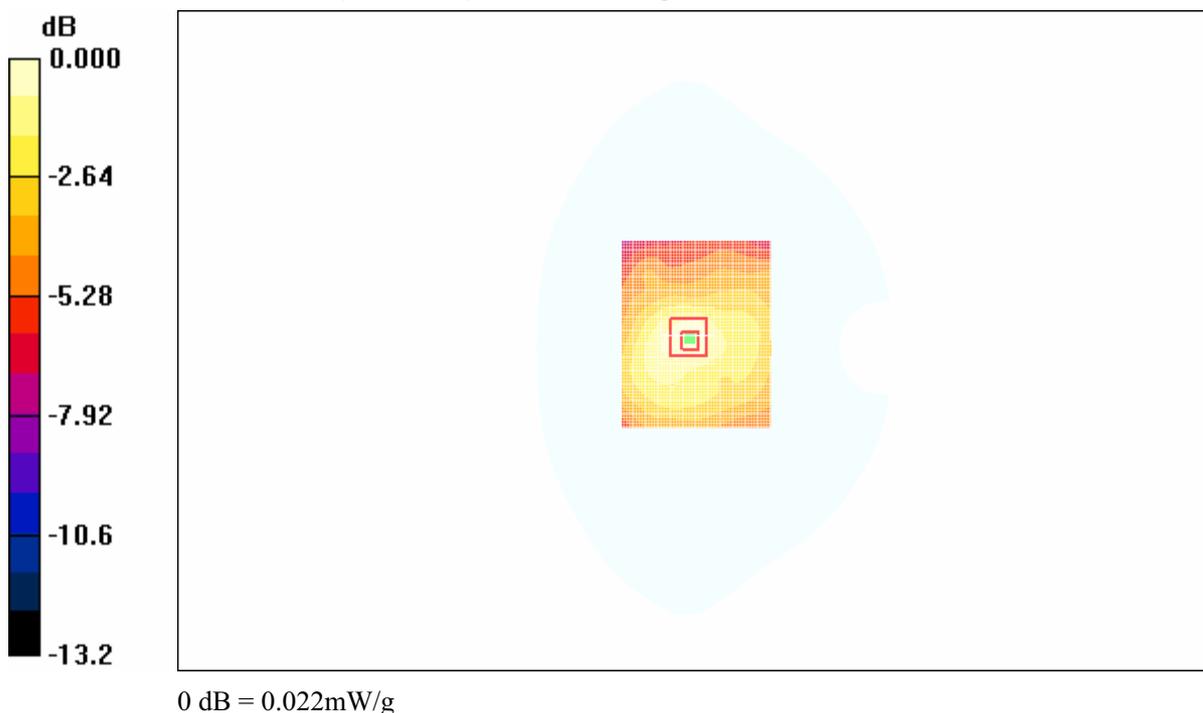
Fig.189 850MHz CH190 GPRS Test Position 5

Fig.190 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 5)

850MHz GPRS Test Position 1 with IBM Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.883 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.7 V/m; Power Drift = -0.193 dB

Peak SAR (extrapolated) = 1.14 W/kg

SAR(1 g) = 0.798 mW/g; SAR(10 g) = 0.530 mW/g

Maximum value of SAR (measured) = 0.863 mW/g
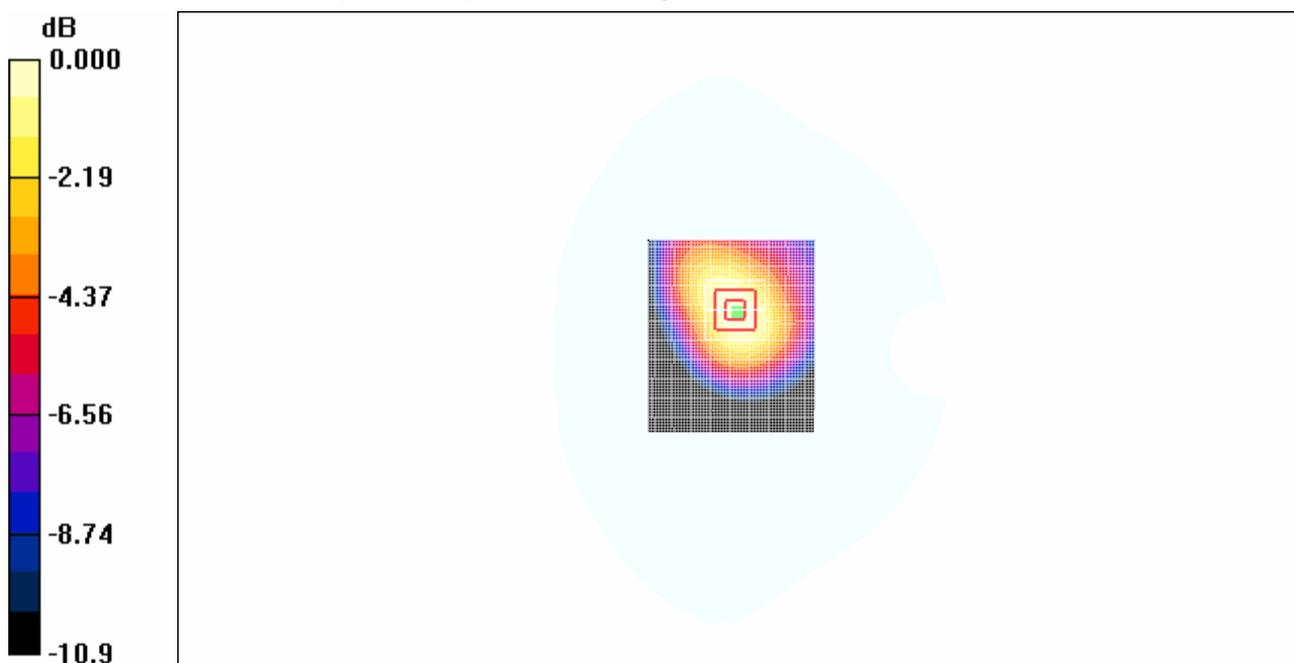
0 dB = 0.863mW/g
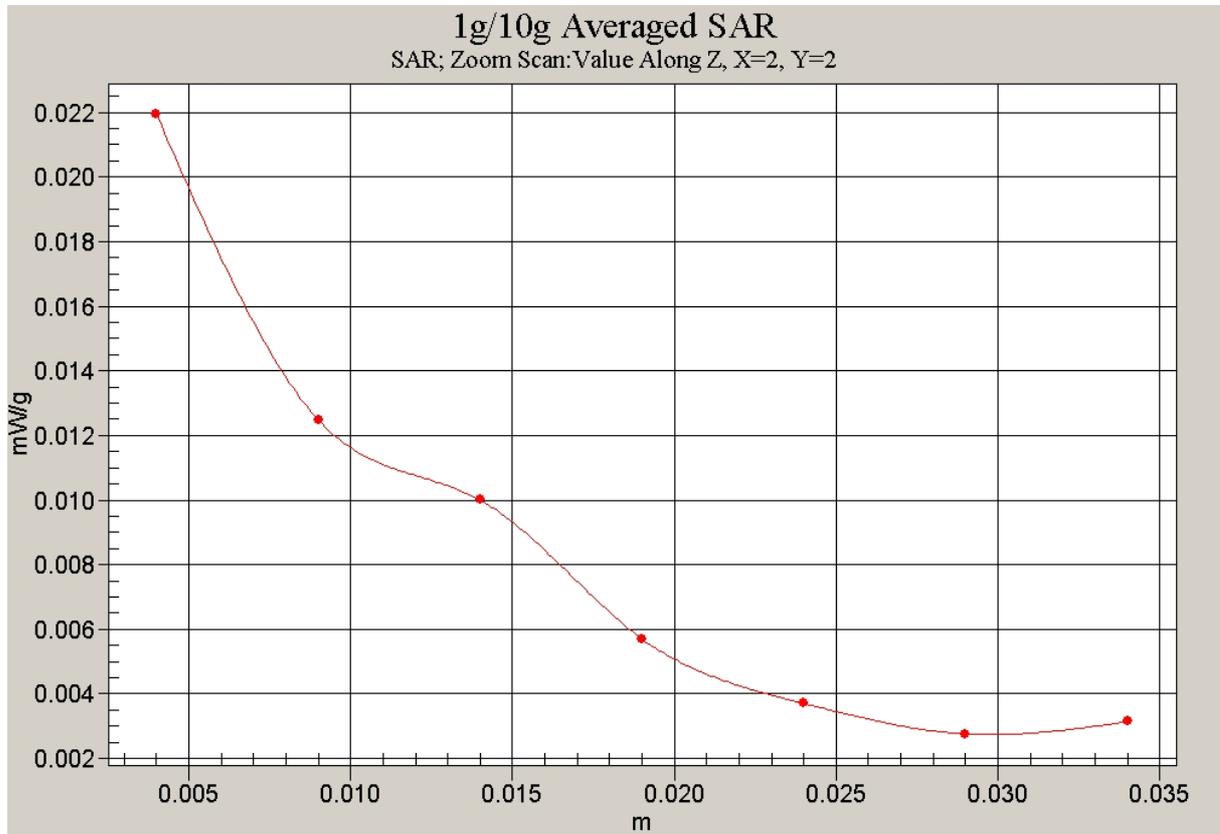

Fig.191 850MHz GPRS CH190 Test Position 1

Fig.192 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 1)

850MHz GPRS Test Position 2 with IBM Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 2/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

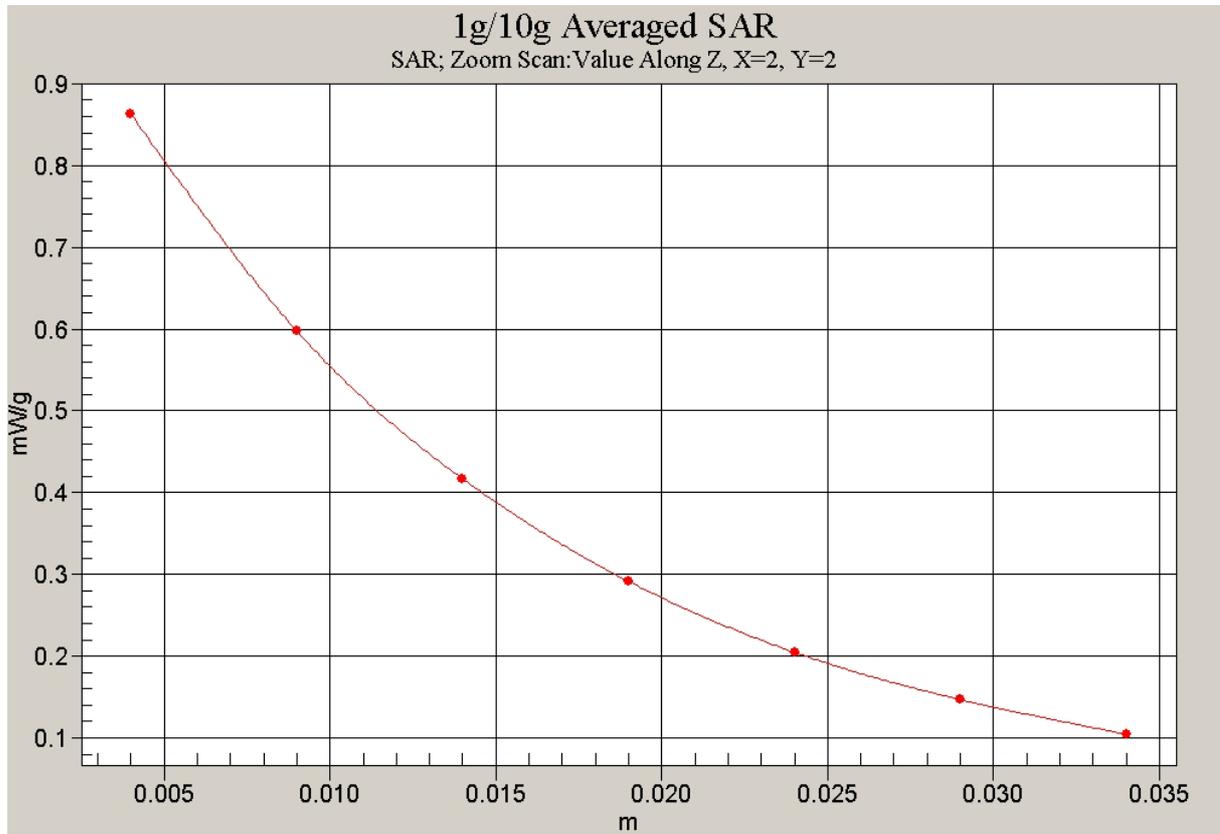Maximum value of SAR (interpolated) = 0.087 mW/g

Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.36 V/m; Power Drift = -0.128 dB

Peak SAR (extrapolated) = 0.108 W/kg

SAR(1 g) = 0.083 mW/g; SAR(10 g) = 0.059 mW/g

Maximum value of SAR (measured) = 0.088 mW/g
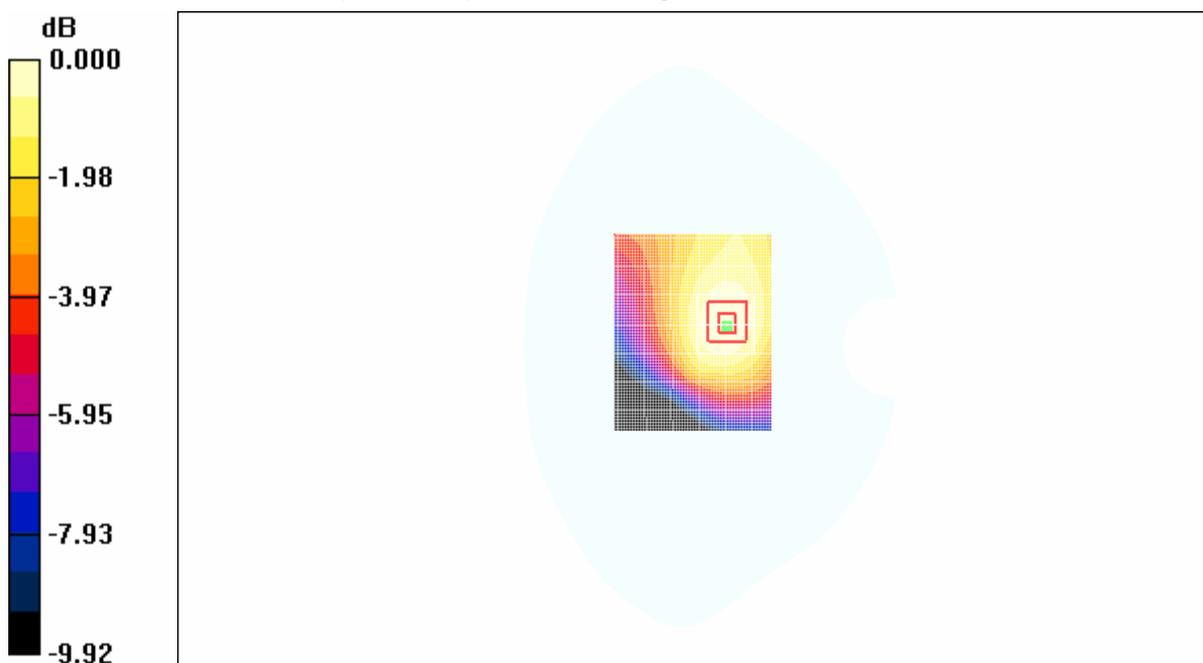
0 dB = 0.088mW/g

Fig.193 850MHz GPRS CH190 Test Position 2

Fig.194 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 2)

850MHz GPRS Test Position 3 with IBM Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 3/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

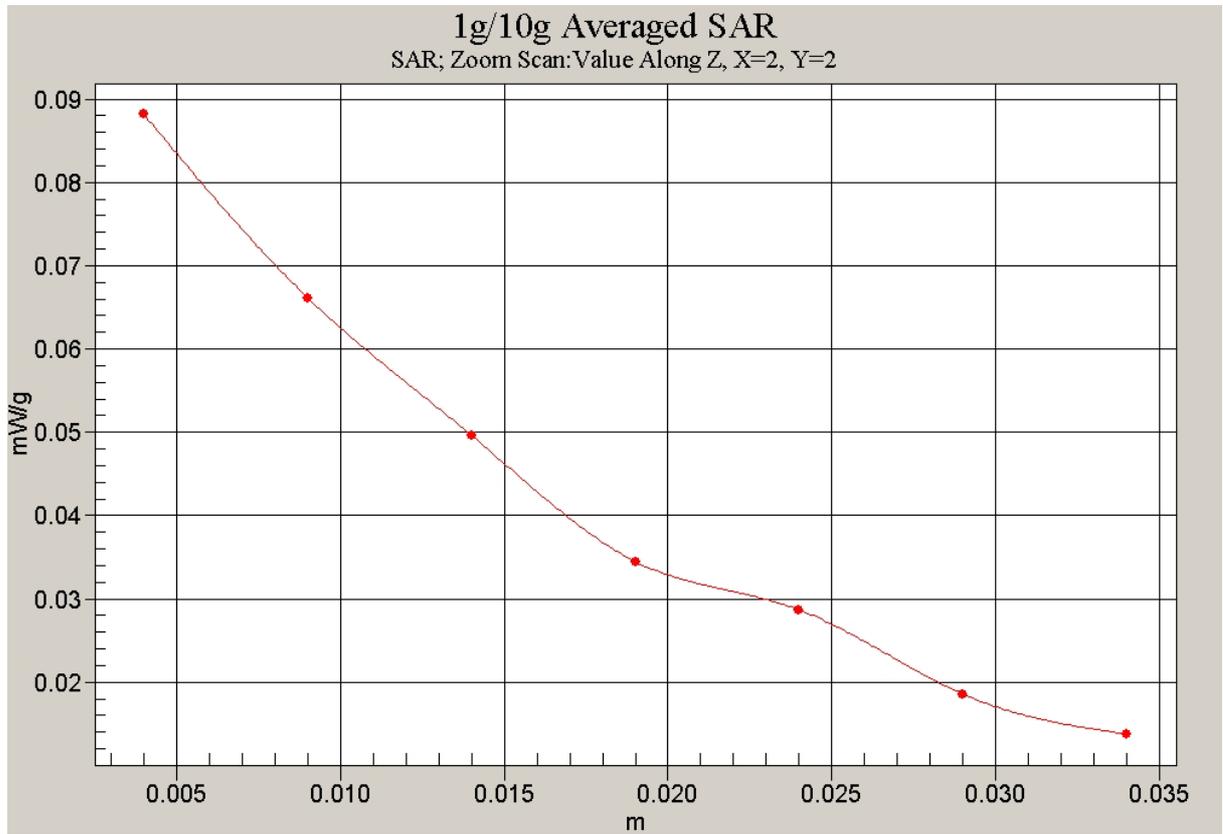Maximum value of SAR (interpolated) = 0.229 mW/g

Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.93 V/m; Power Drift = -0.156 dB

Peak SAR (extrapolated) = 1.32 W/kg

SAR(1 g) = 0.286 mW/g; SAR(10 g) = 0.167 mW/g

Maximum value of SAR (measured) = 0.459 mW/g
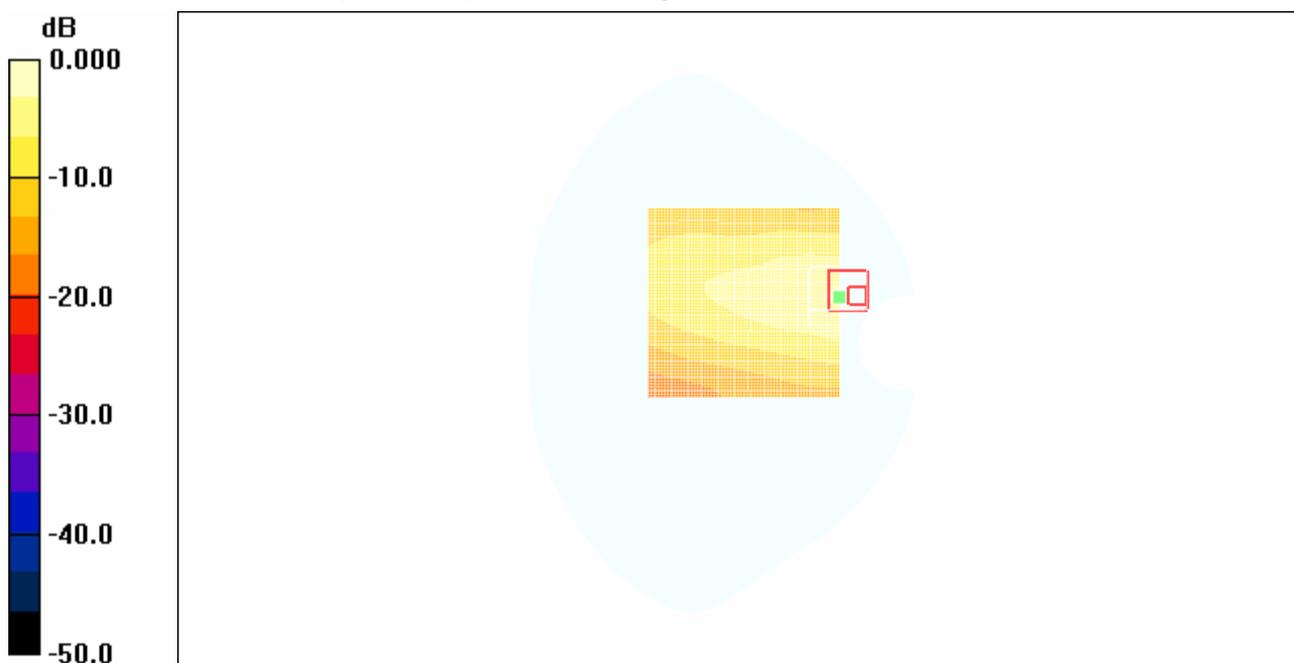
0 dB = 0.459mW/g

Fig.195 850MHz GPRS CH190 Test Position 3

Fig.196 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 3)

850MHz GPRS Test Position 4 with IBM Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 850 Body

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 4/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

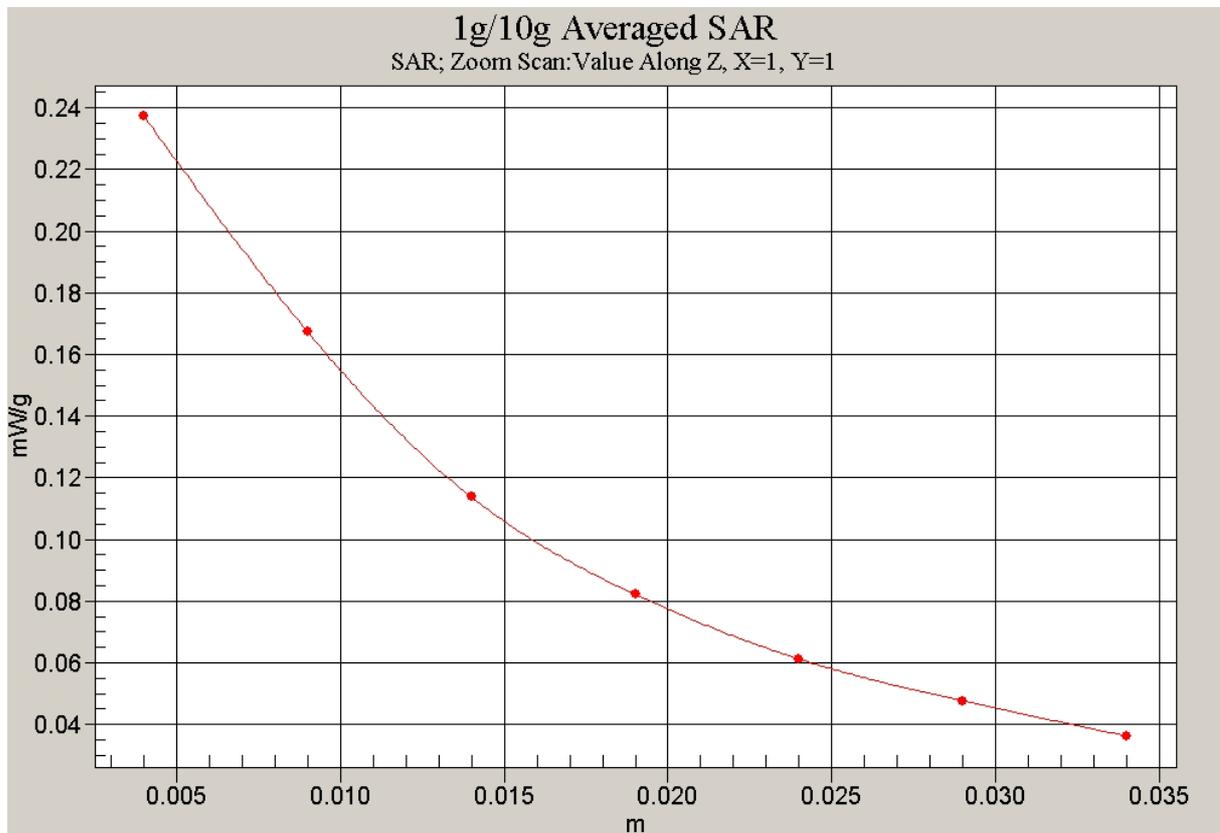Maximum value of SAR (interpolated) = 0.124 mW/g

Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.33 V/m; Power Drift = -0.121 dB

Peak SAR (extrapolated) = 0.163 W/kg

SAR(1 g) = 0.120 mW/g; SAR(10 g) = 0.085 mW/g

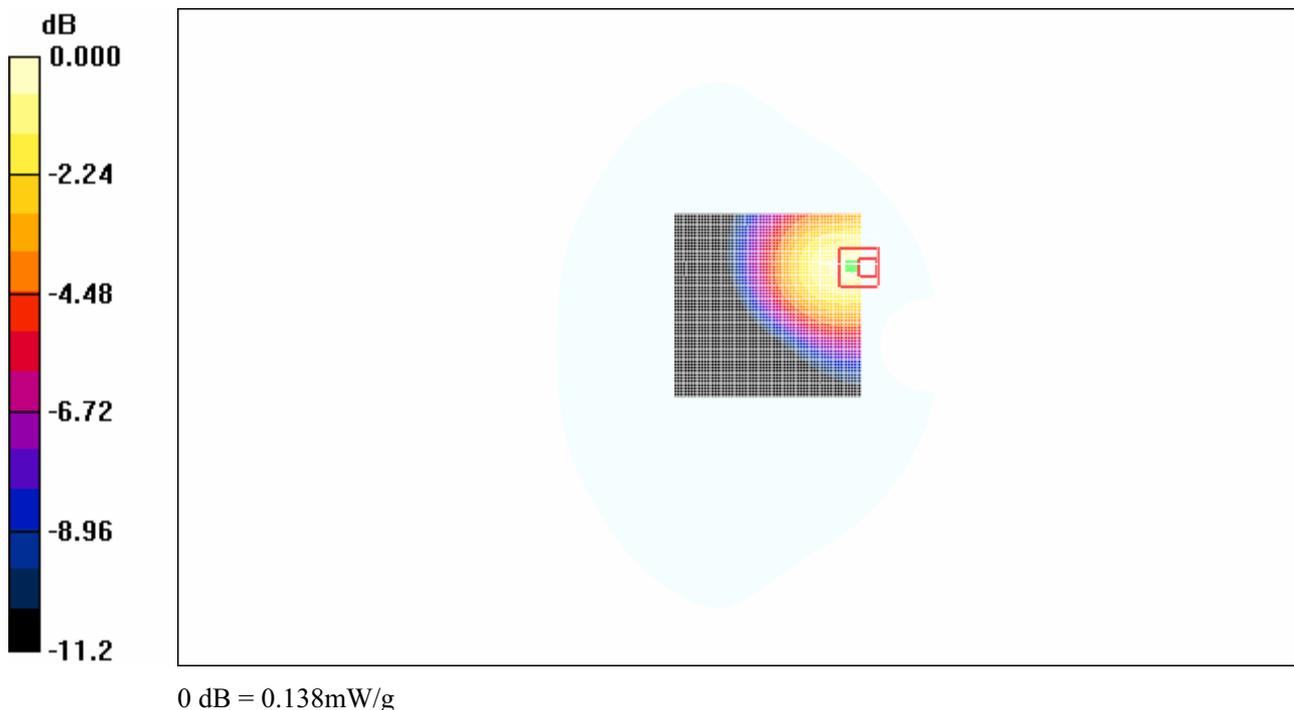Maximum value of SAR (measured) = 0.138 mW/g

0 dB = 0.138mW/g

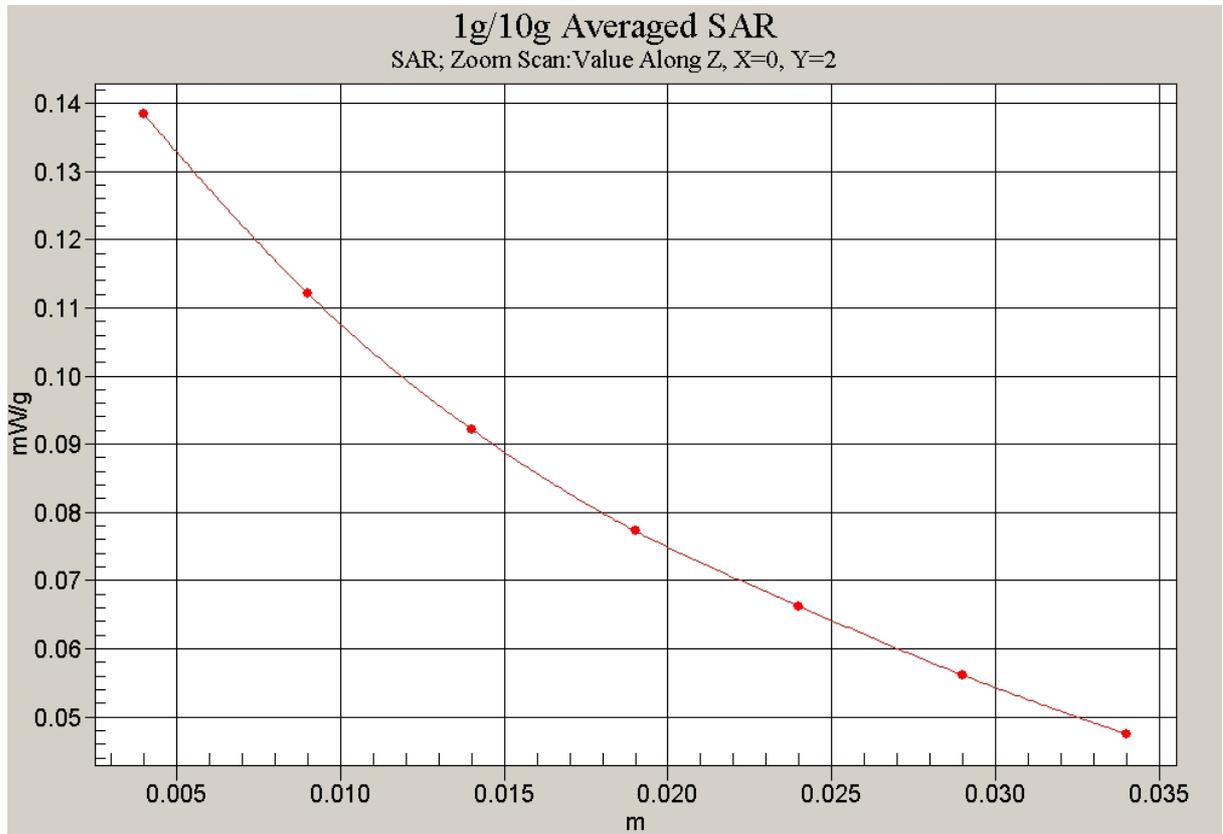**Fig.197 850MHz GPRS CH190 Test Position 4**

Fig.198 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 4)

850MHz GPRS Test Position 5 with IBM Laptop-antenna unfolded
Electronics: DAE3 Sn536
Medium: 850 Body
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.977 mho/m; ε_r = 56; ρ = 1000 kg/m^3
Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C
Communication System: GSM 850 GPRS Frequency: 836.6 MHz Duty Cycle: 1:4
Probe: ET3DV6 - SN1736 ConvF(6.45, 6.45, 6.45)

Test Position 5/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.108 mW/g

Test Position 5/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.46 V/m; Power Drift = -0.097 dB
Peak SAR (extrapolated) = 0.139 W/kg
SAR(1 g) = 0.100 mW/g; SAR(10 g) = 0.068 mW/g
Maximum value of SAR (measured) = 0.107 mW/g

0 dB = 0.107mW/g
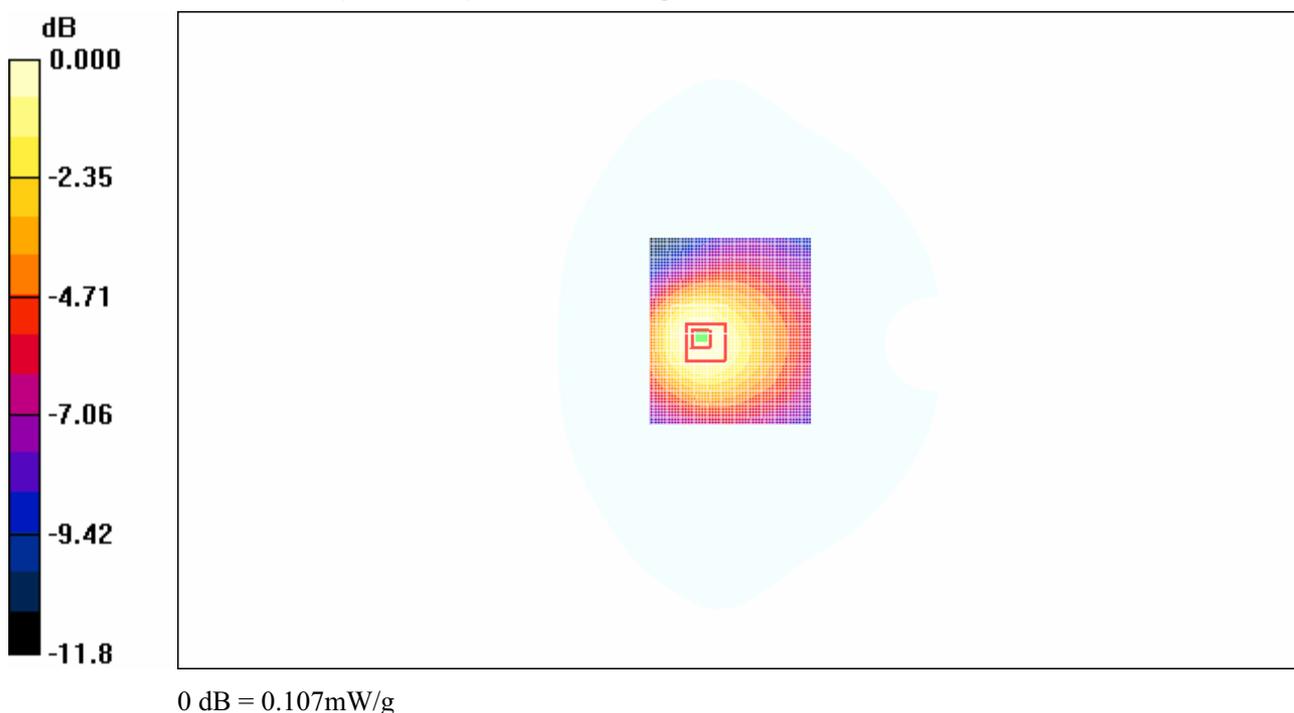
Fig.199 850MHz CH190 GPRS Test Position 5

Fig.200 Z-Scan at power reference point (850 MHz GPRS CH190 Test Position 5)

1900MHz GPRS Test Position 1 with DELL Laptop-antenna unfolded (4 timeslots in uplink)

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:2

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm
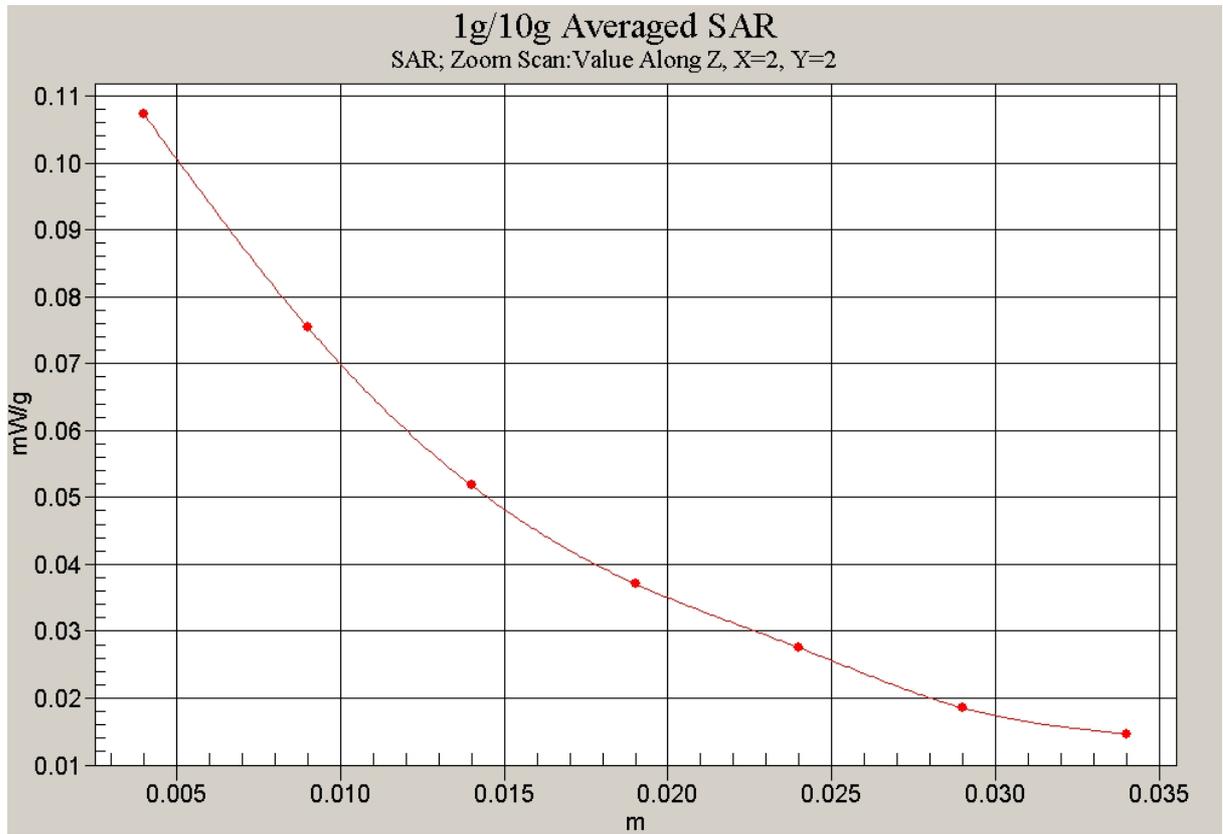
Maximum value of SAR (interpolated) = 0.198 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.25 V/m; Power Drift = 0.084 dB

Peak SAR (extrapolated) = 0.324 W/kg

SAR(1 g) = 0.181 mW/g; SAR(10 g) = 0.108 mW/g
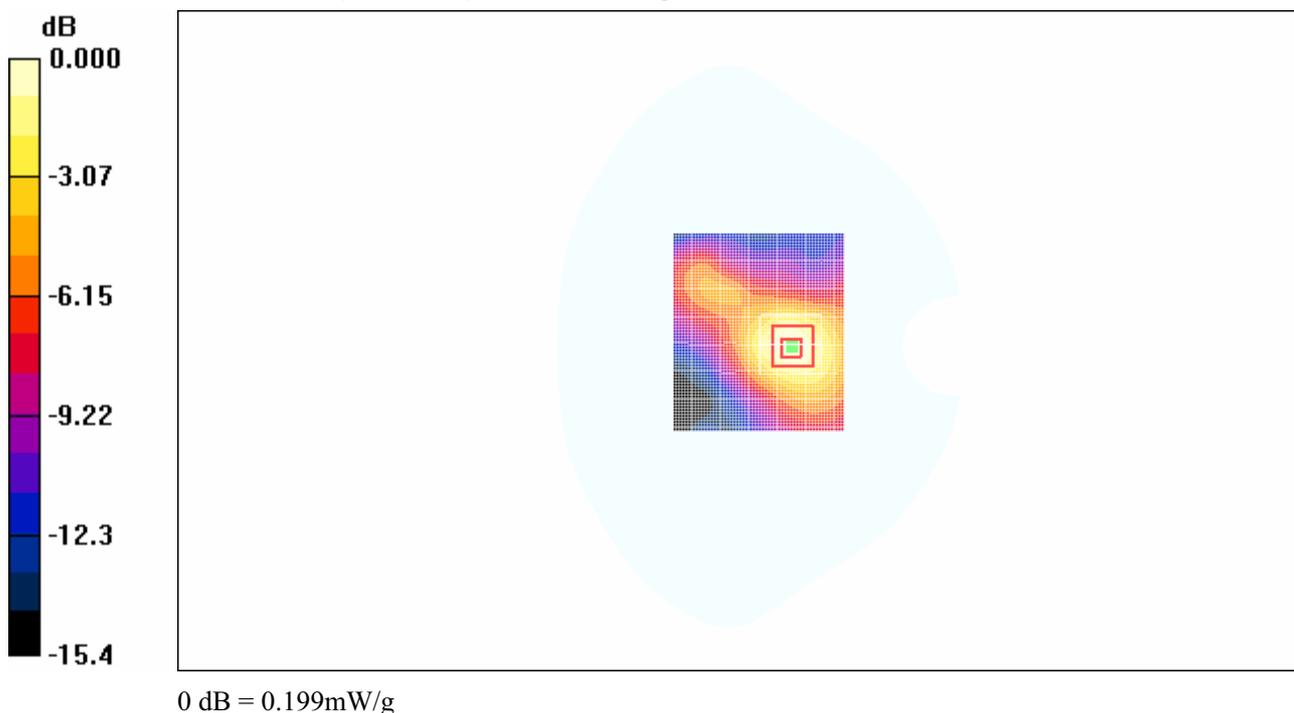
Maximum value of SAR (measured) = 0.199 mW/g

0 dB = 0.199mW/g

Fig.201 1900MHz GPRS CH661 with DELL Laptop (4 timeslots in uplink)

Fig.202 Z-Scan at power reference point (1900MHz GPRS CH661 with DELL Laptop -4 timeslots in uplink)

1900MHz GPRS Test Position 1 with DELL Laptop-antenna unfolded (3 timeslots in uplink)

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:2.67

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.237 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.2 V/m; Power Drift = 0.046 dB

Peak SAR (extrapolated) = 0.353 W/kg

SAR(1 g) = 0.214 mW/g; SAR(10 g) = 0.130 mW/g

Maximum value of SAR (measured) = 0.232 mW/g
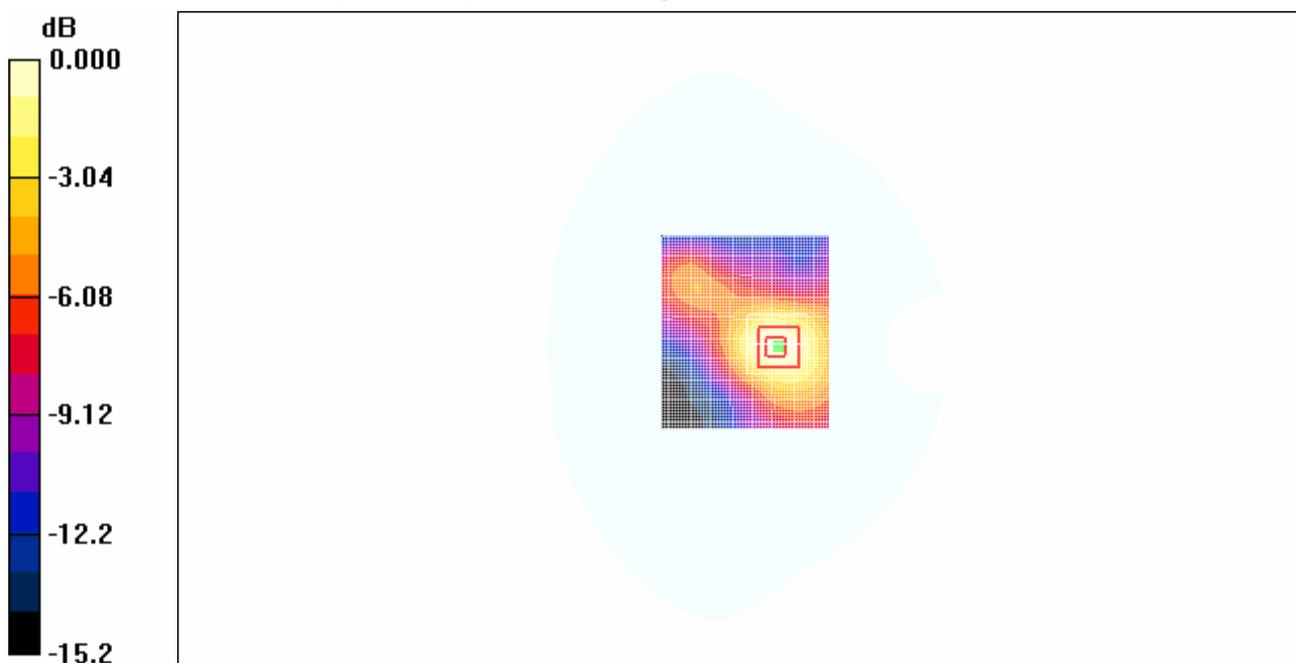
0 dB = 0.232mW/g

Fig.203 1900MHz GPRS CH661 with DELL Laptop (3 timeslots in uplink)
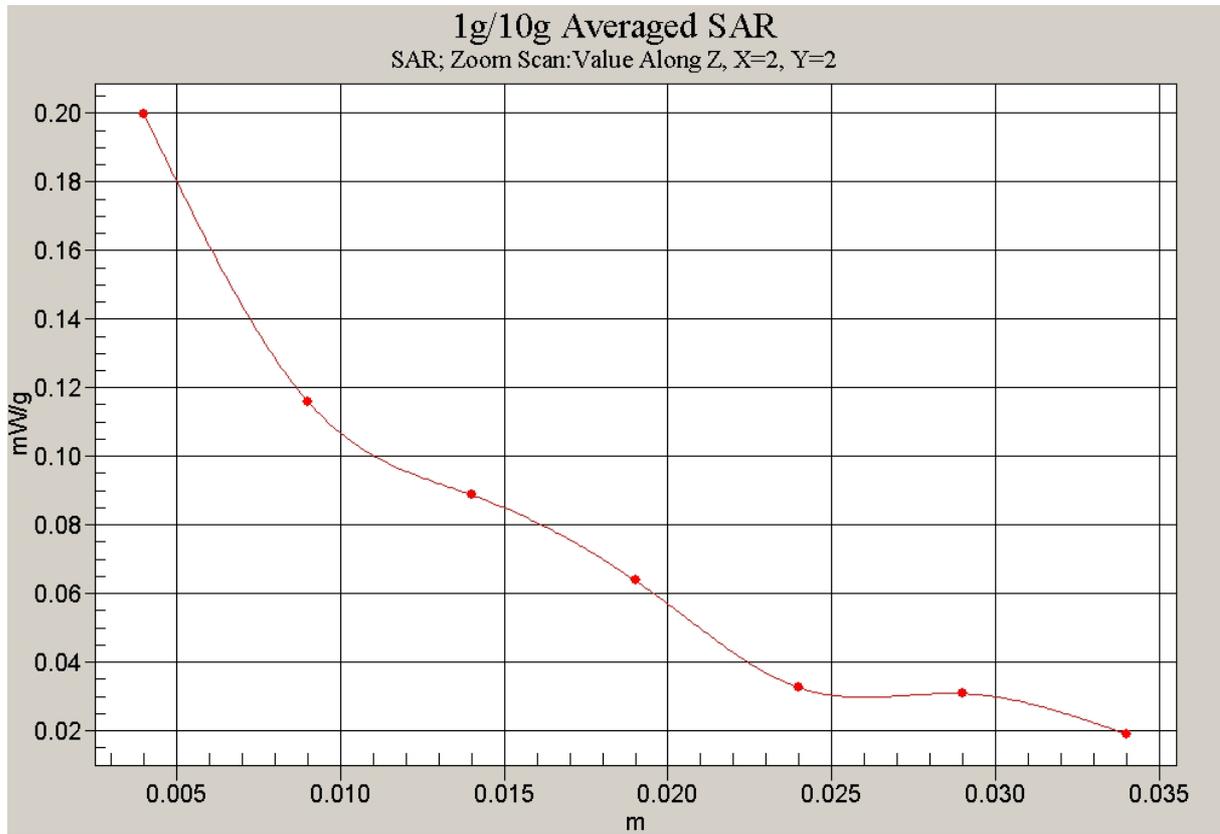
Fig.204 Z-Scan at power reference point (1900MHz GPRS CH661 with DELL Laptop -3 timeslots in uplink)

1900MHz GPRS Test Position 1 with DELL Laptop-antenna unfolded (2 timeslots in uplink)

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm
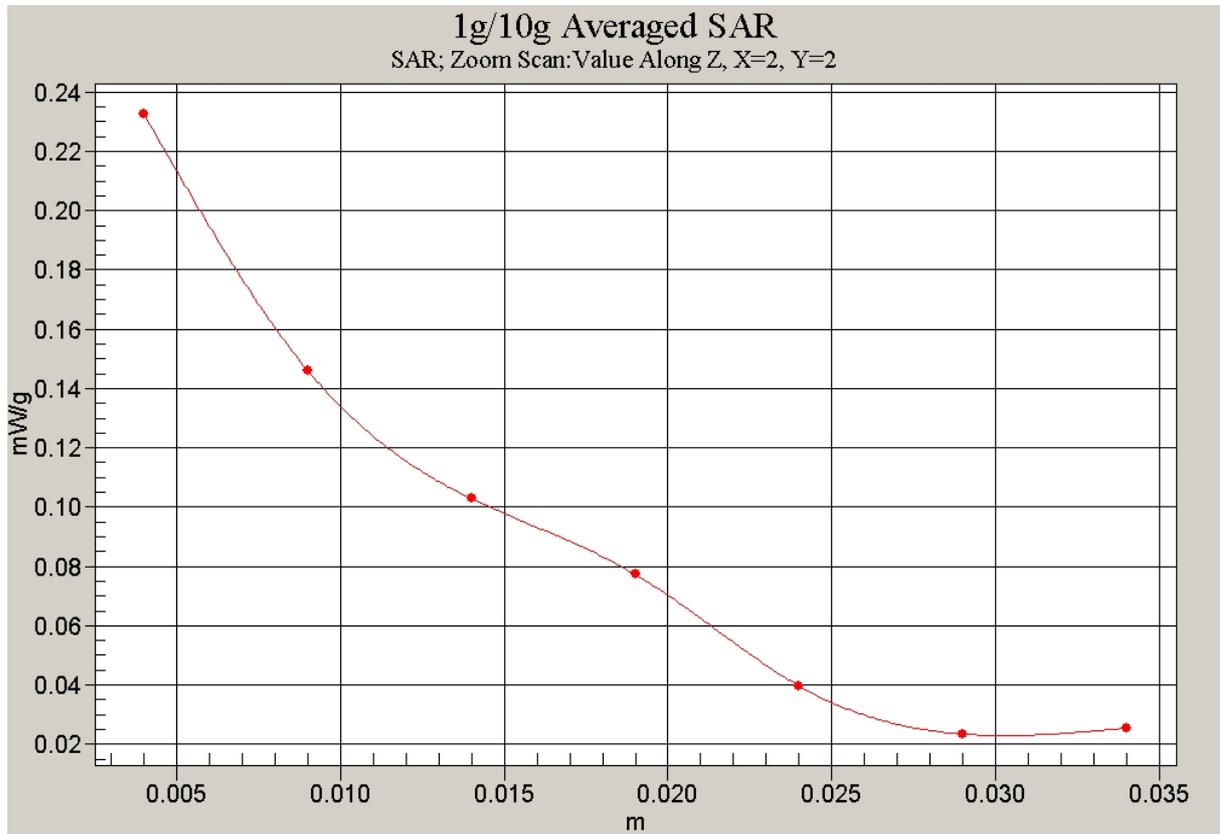
Maximum value of SAR (interpolated) = 0.267 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.6 V/m; Power Drift = -0.028 dB

Peak SAR (extrapolated) = 0.422 W/kg

SAR(1 g) = 0.246 mW/g; SAR(10 g) = 0.145 mW/g

Maximum value of SAR (measured) = 0.266 mW/g

0 dB = 0.266mW/g

Fig.205 1900MHz GPRS CH661 with DELL Laptop (2 timeslots in uplink)

Fig.206 Z-Scan at power reference point
(1900MHz GPRS CH661 with DELL Laptop -2 timeslots in uplink)

1900MHz GPRS Test Position 1 with DELL Laptop-antenna unfolded (1 timeslot in uplink)

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m³

Ambient Temperature:23.3°C   Liqiud Temperature: 22.5°C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:8

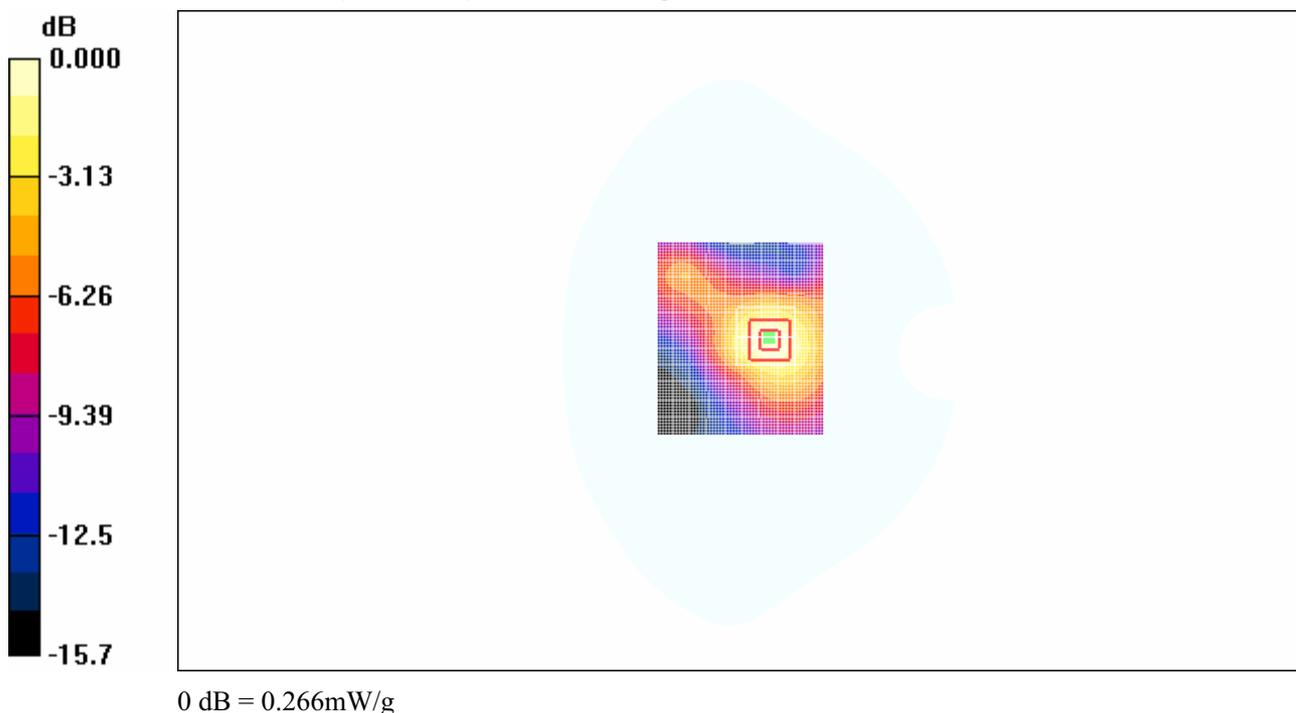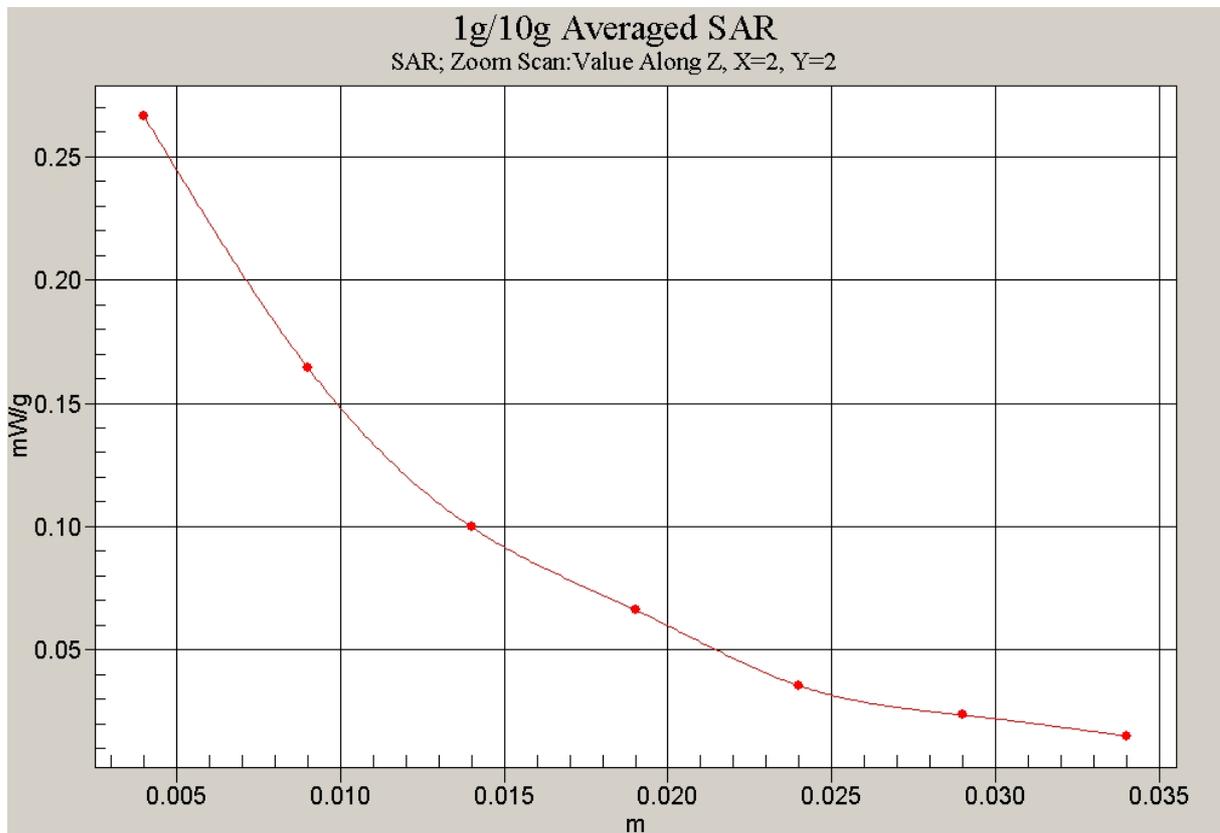Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position open/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.200 mW/g

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

Reference Value = 9.26 V/m; Power Drift = -0.040 dB

Peak SAR (extrapolated) = 0.302 W/kg

SAR(1 g) = 0.180 mW/g; SAR(10 g) = 0.107 mW/g

Maximum value of SAR (measured) = 0.196 mW/g

0 dB = 0.196mW/g

Fig.207 1900MHz GPRS CH661 with DELL Laptop (1 timeslot in uplink)

Fig.208 Z-Scan at power reference point
(1900MHz GPRS CH661 with DELL Laptop -1 timeslot in uplink)

1900MHz GPRS Test Position 1 with DELL Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4
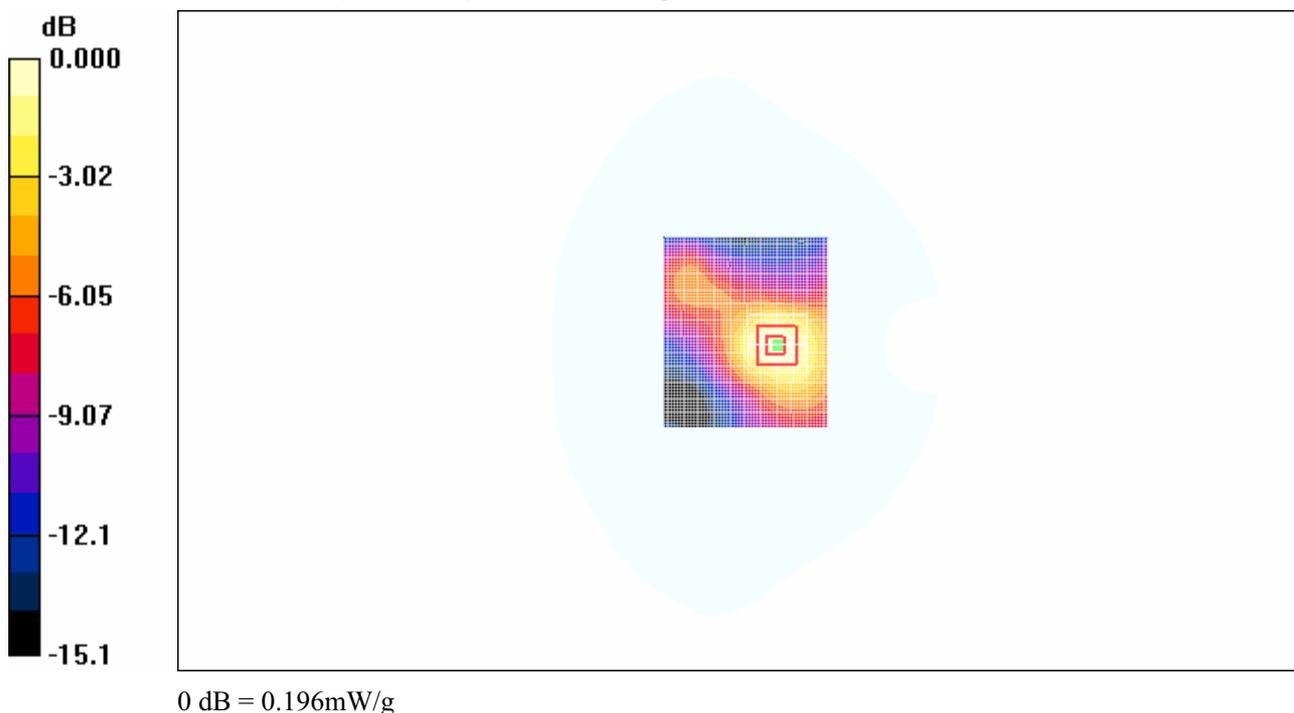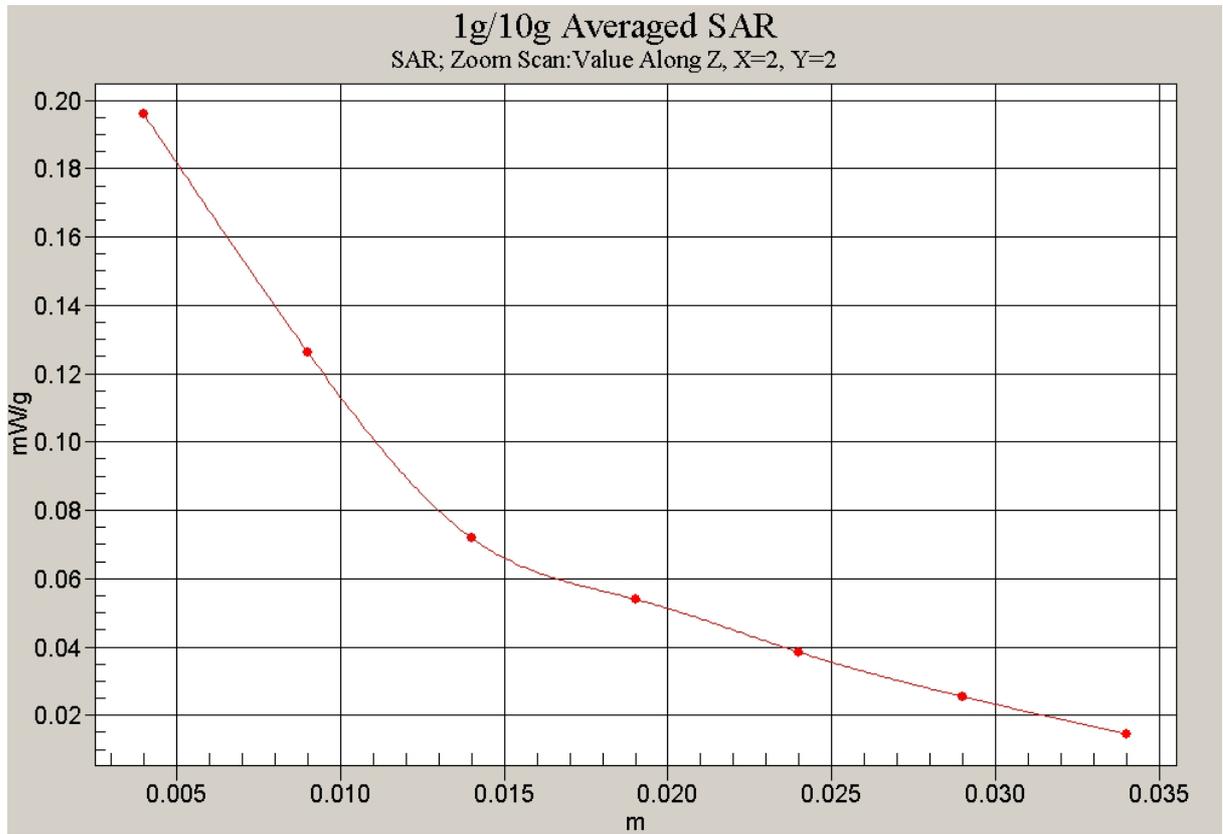
Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

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

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.70 V/m; Power Drift = -0.191 dB

Peak SAR (extrapolated) = 0.162 W/kg

SAR(1 g) = 0.096 mW/g; SAR(10 g) = 0.056 mW/g

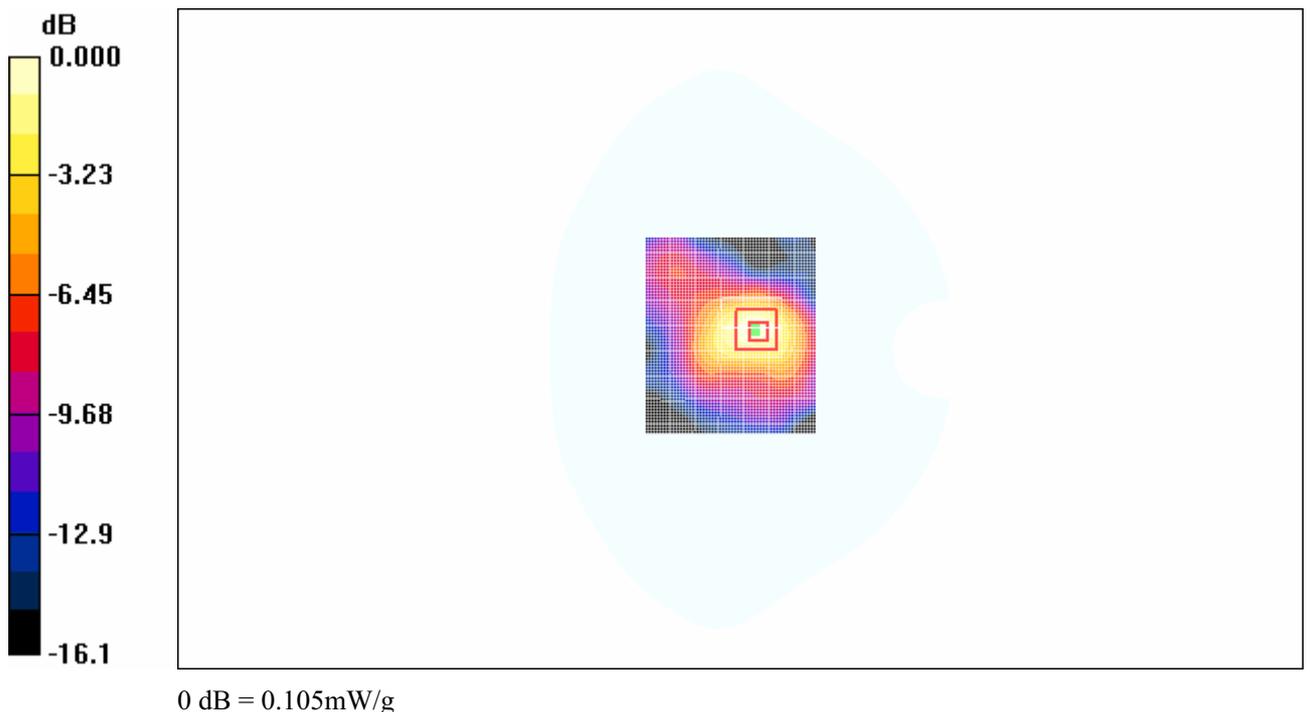Maximum value of SAR (measured) = 0.105 mW/g

0 dB = 0.105mW/g

Fig.209 1900MHz GPRS CH661 Test Position 1

Fig.210 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 1)

1900 GPRS Test Position 2 with DELL Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 2/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.075 mW/g

Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.35 V/m; Power Drift = -0.139 dB

Peak SAR (extrapolated) = 0.091 W/kg

SAR(1 g) = 0.067 mW/g; SAR(10 g) = 0.036 mW/g

Maximum value of SAR (measured) = 0.077 mW/g

0 dB = 0.077mW/g
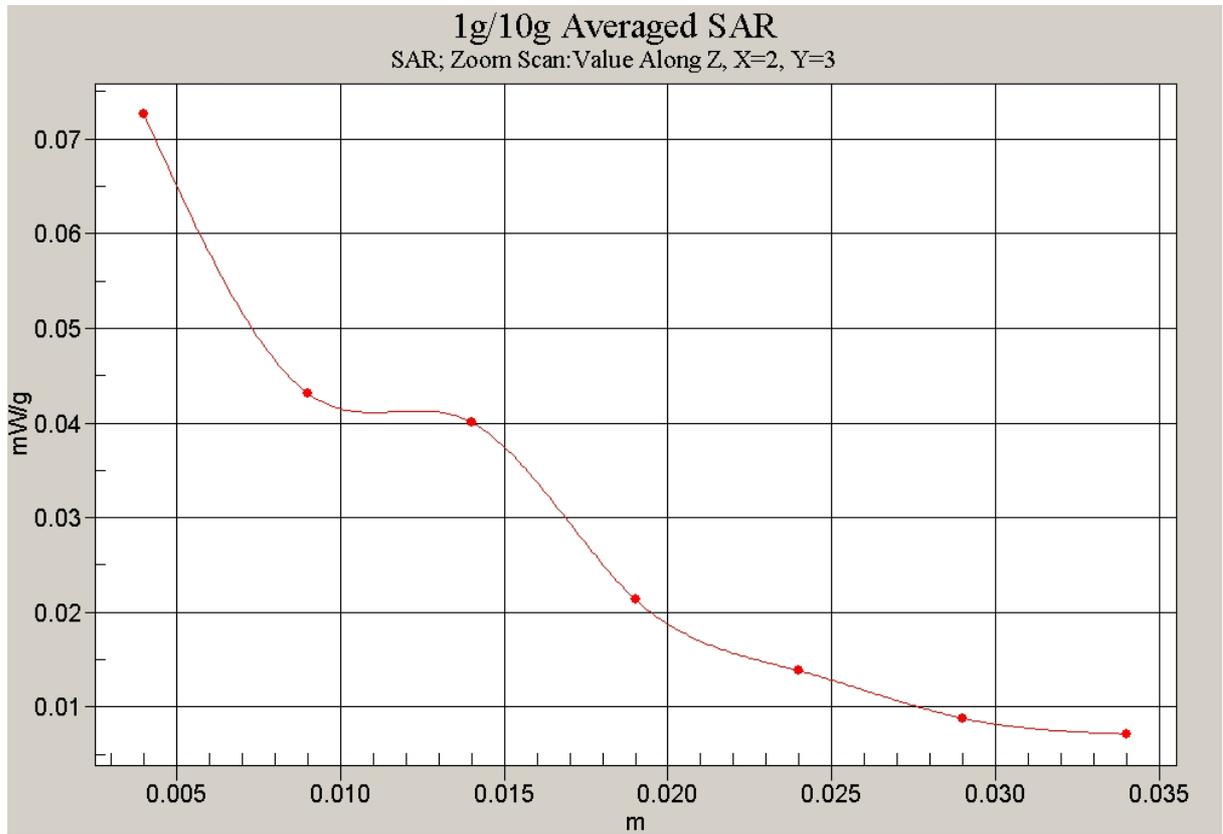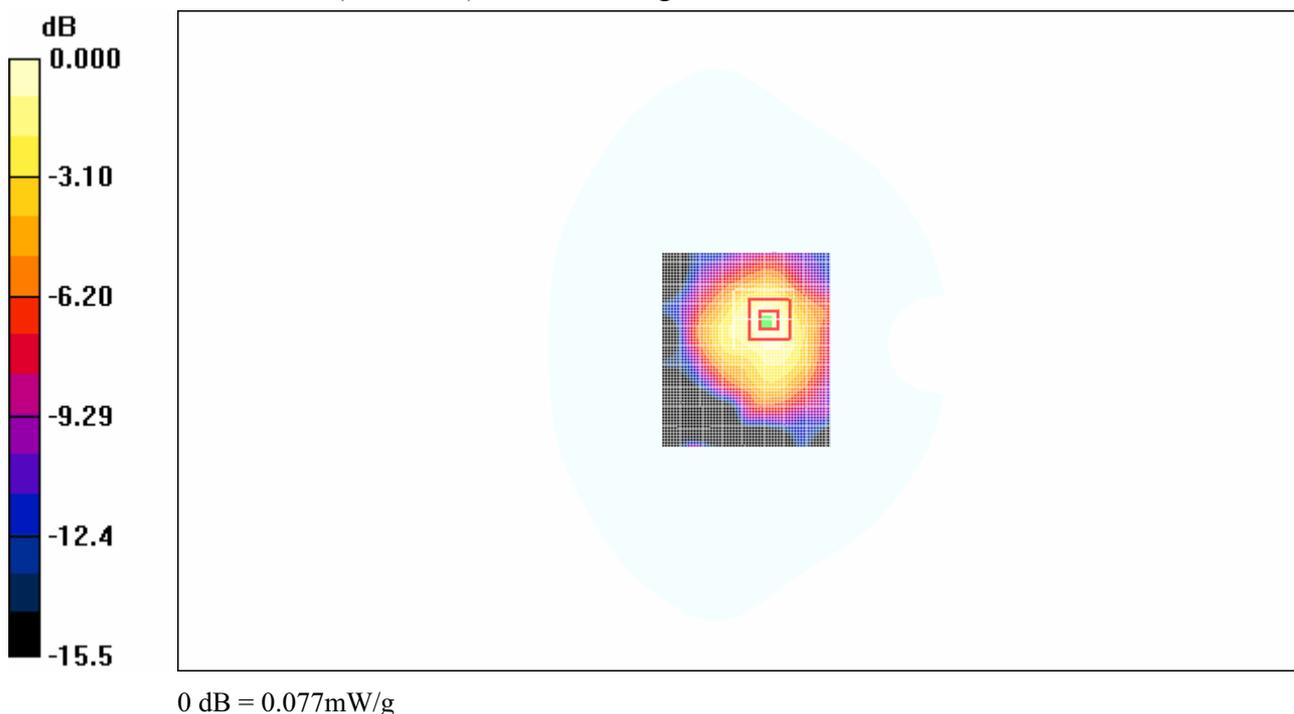

Fig.211 1900MHz GPRS CH661 Test Position 2

Fig.212 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 2)

1900 GPRS Test Position 3 with DELL Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 3/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.036 mW/g

Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.22 V/m; Power Drift = 0.094 dB

Peak SAR (extrapolated) = 0.106 W/kg

SAR(1 g) = 0.032 mW/g; SAR(10 g) = 0.018 mW/g

Maximum value of SAR (measured) = 0.035 mW/g

0 dB = 0.035mW/g
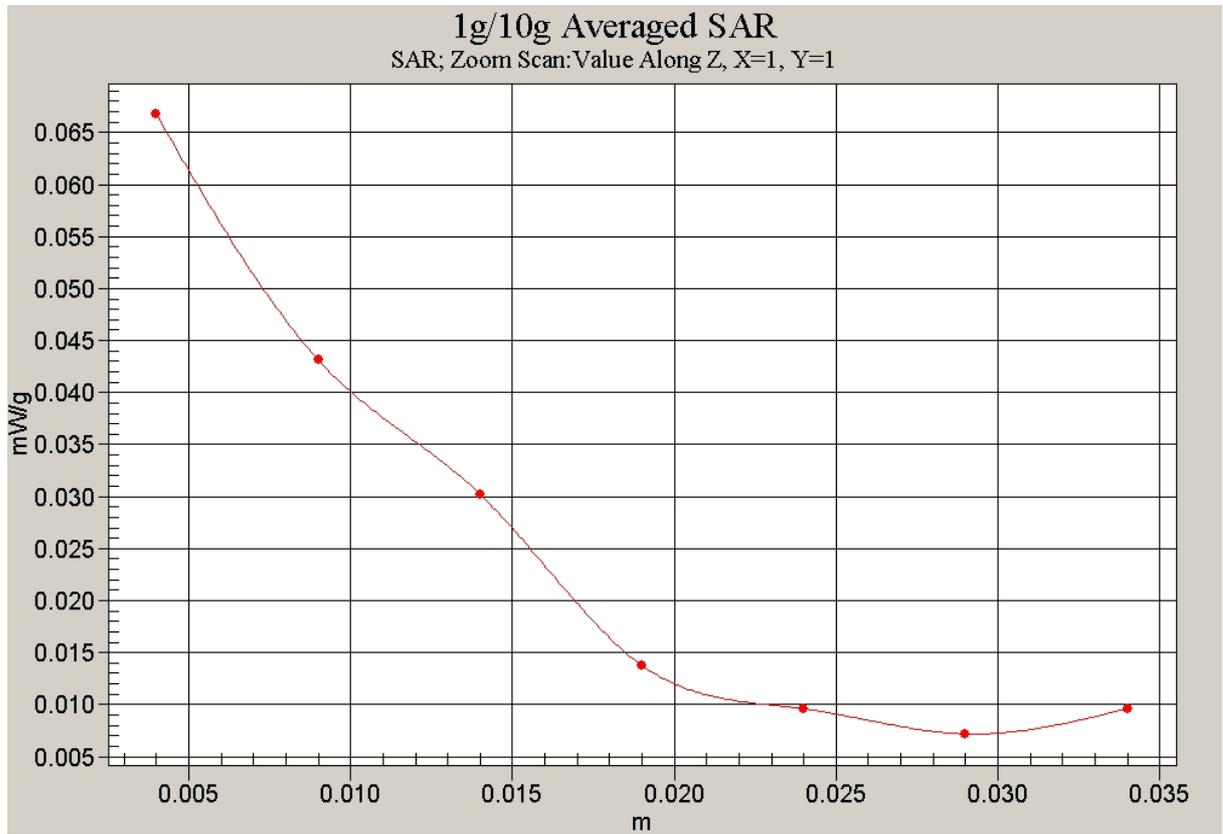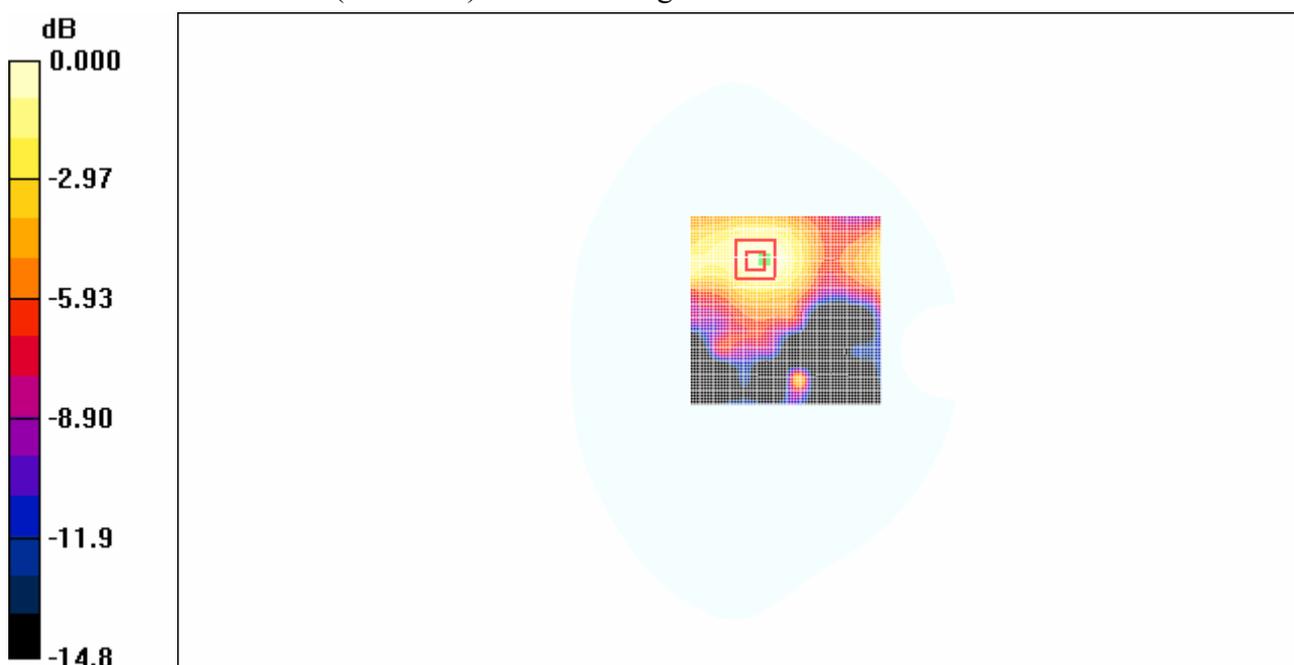

Fig.2131900MHz GPRS CH661 Test Position 3

Fig.214 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 3)

1900 GPRS Test Position 4 with DELL Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 4/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.010 mW/g

Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.28 V/m; Power Drift = 0.197 dB

Peak SAR (extrapolated) = 0.037 W/kg

SAR(1 g) = 0.00207 mW/g; SAR(10 g) = 0.000692 mW/g

Maximum value of SAR (measured) = 0.019 mW/g

0 dB = 0.019mW/g

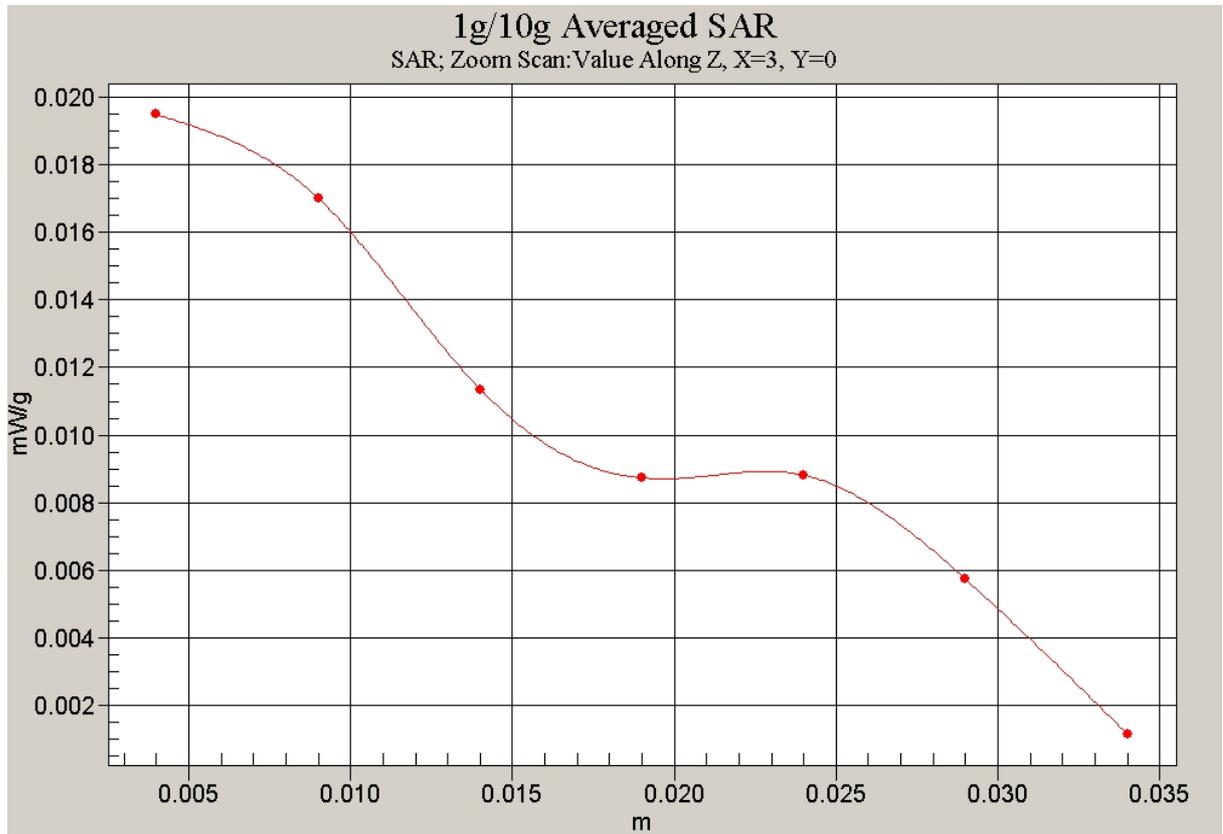**Fig.215 1900MHz GPRS CH661 Test Position 4**

Fig.216 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 4)

1900 GPRS Test Position 5 with DELL Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 5/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.042 mW/g

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

Reference Value = 5.50 V/m; Power Drift = 0.014 dB

Peak SAR (extrapolated) = 0.056 W/kg

SAR(1 g) = 0.038 mW/g; SAR(10 g) = 0.023 mW/g
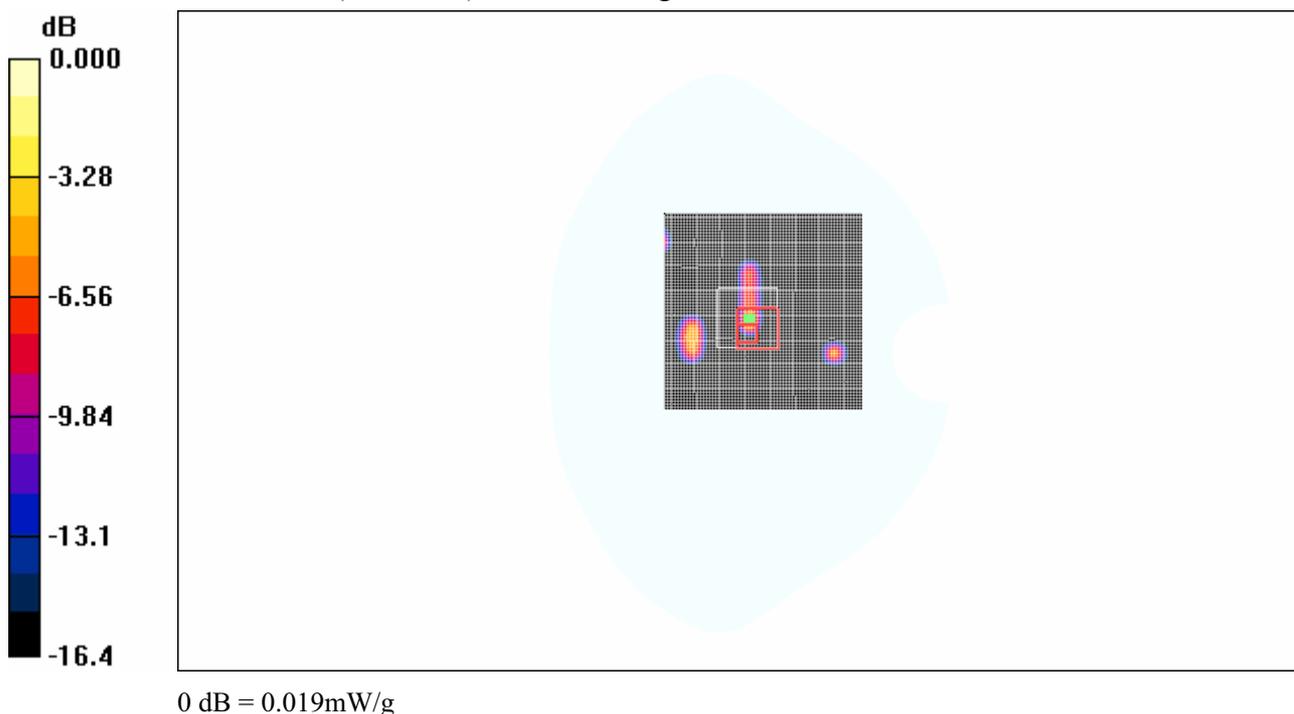
Maximum value of SAR (measured) = 0.040 mW/g

0 dB = 0.040mW/g

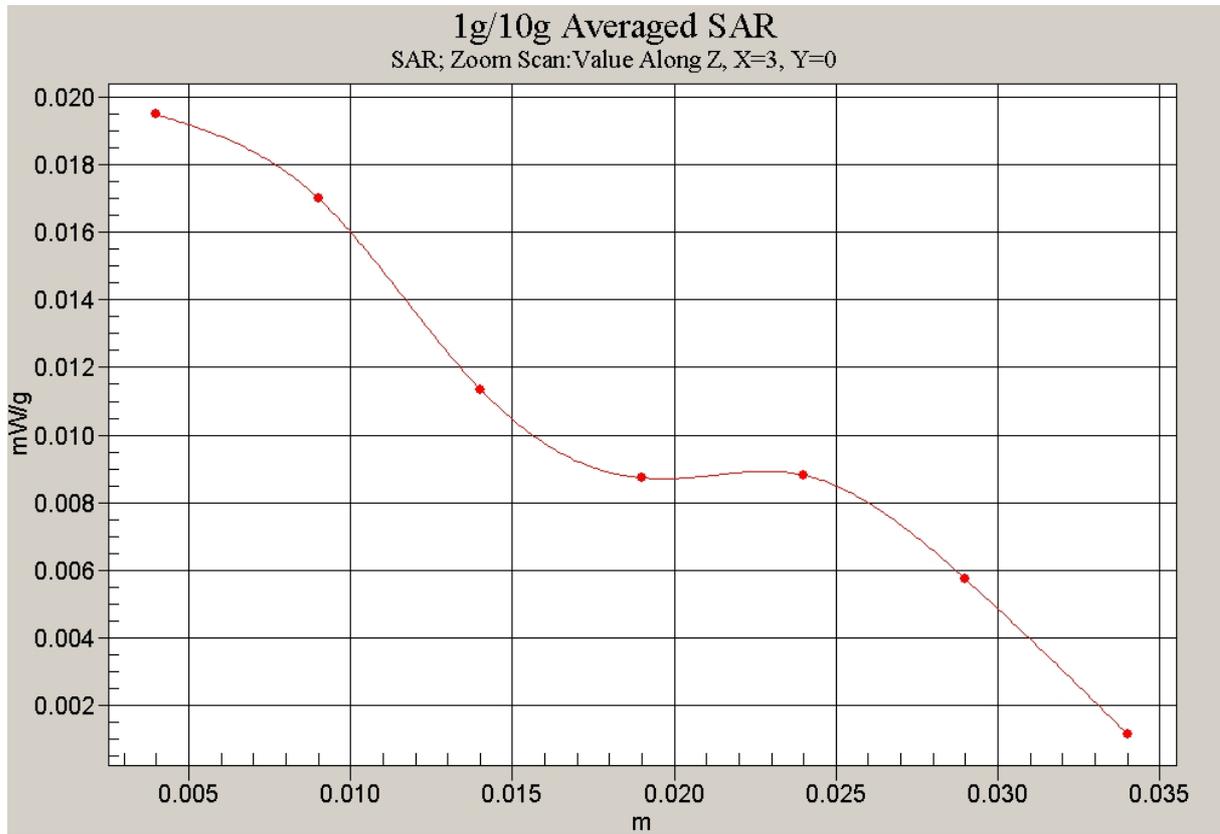**Fig.217 1900MHz GPRS CH661 Test Position 5**

Fig.218 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 5)

1900MHz GPRS Test Position 1 with DELL Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.267 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.6 V/m; Power Drift = -0.028 dB

Peak SAR (extrapolated) = 0.422 W/kg

SAR(1 g) = 0.246 mW/g; SAR(10 g) = 0.145 mW/g

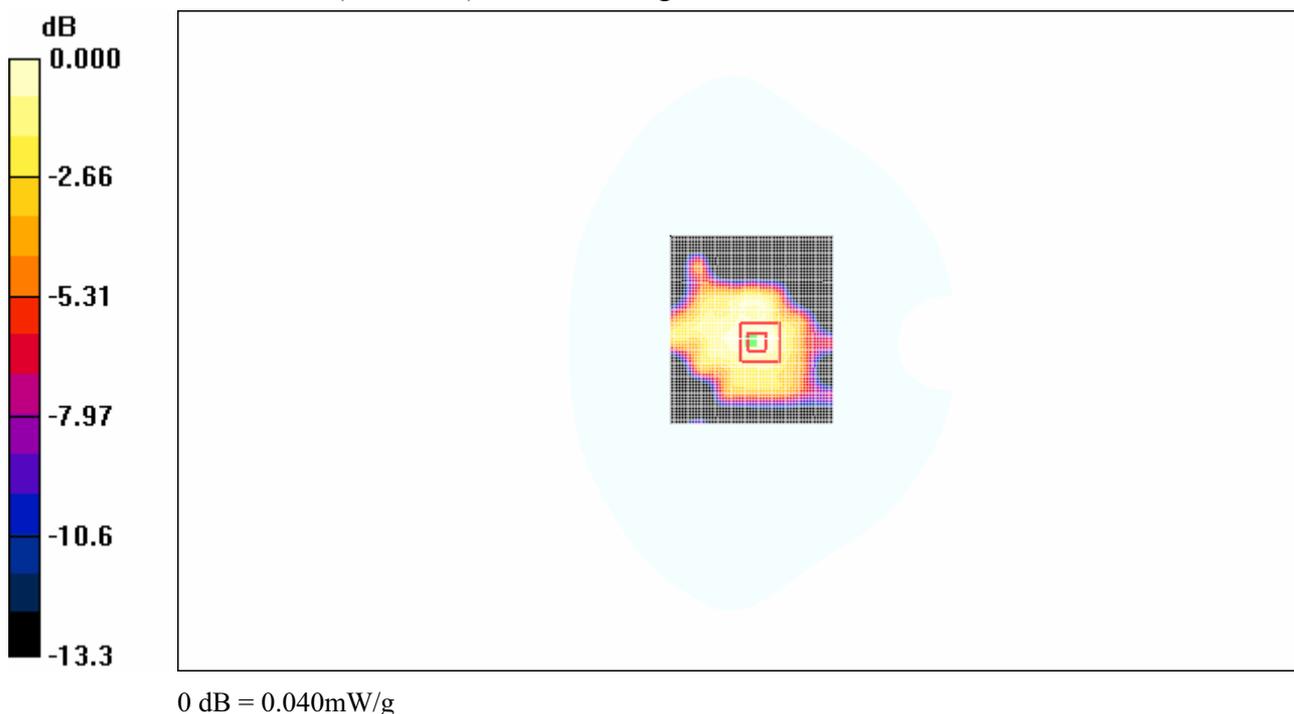Maximum value of SAR (measured) = 0.266 mW/g

0 dB = 0.266mW/g

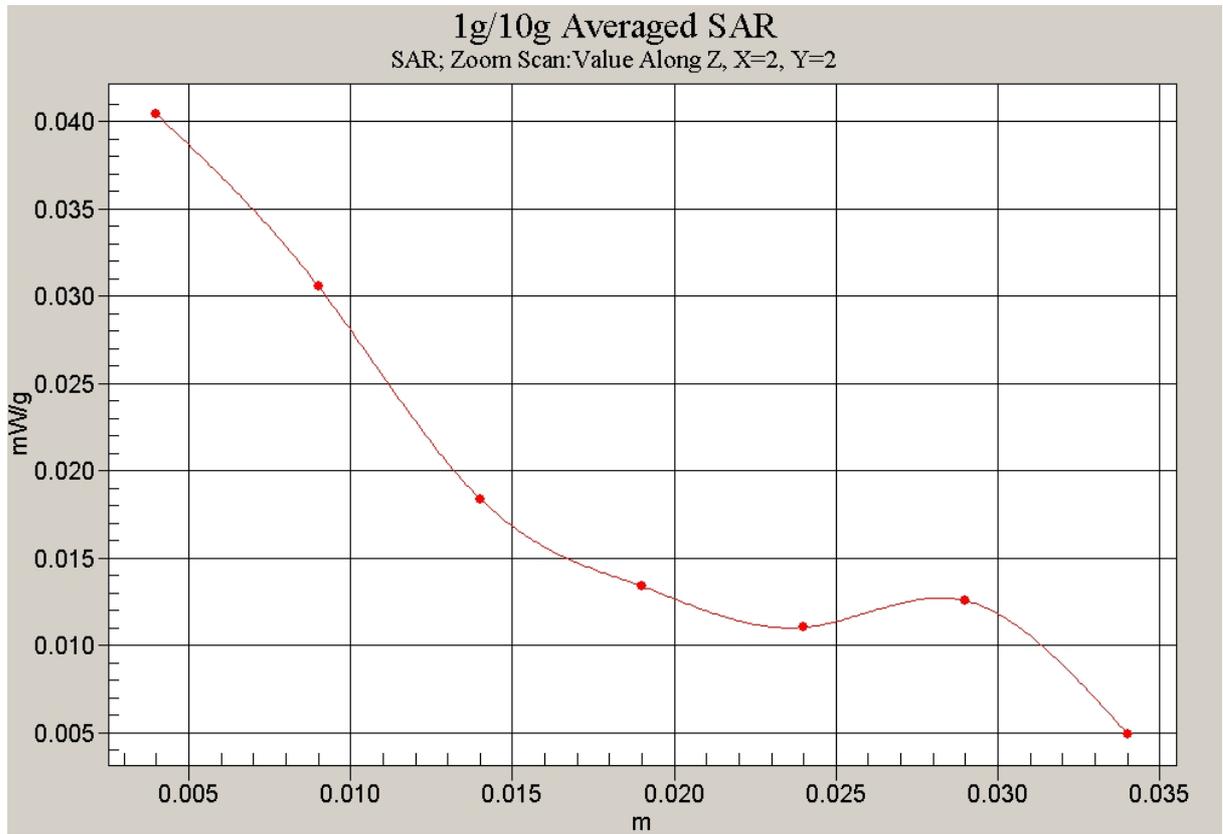**Fig.219 1900MHz GPRS CH661 Test Position 1**

Fig.220 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 1)

1900 GPRS Test Position 2 with DELL Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 2/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.101 mW/g
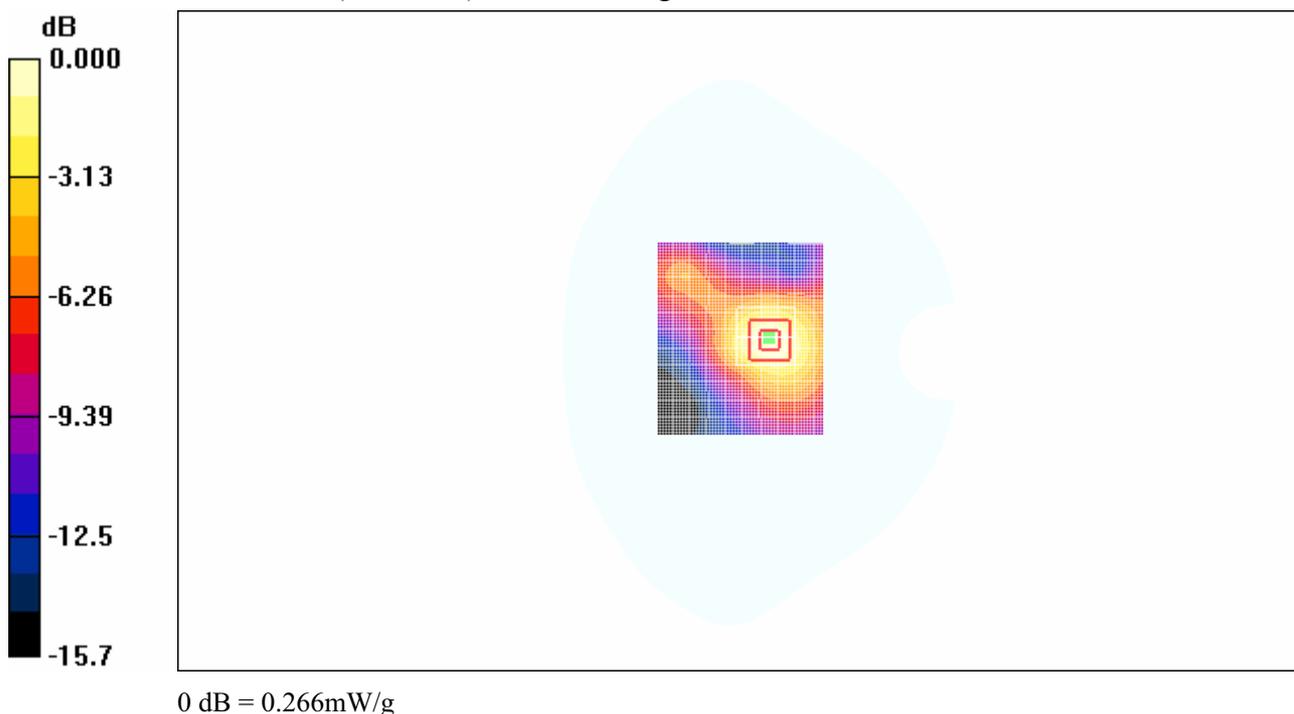

Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.82 V/m; Power Drift = 0.035 dB

Peak SAR (extrapolated) = 0.164 W/kg

SAR(1 g) = 0.095 mW/g; SAR(10 g) = 0.062 mW/g

Maximum value of SAR (measured) = 0.098 mW/g
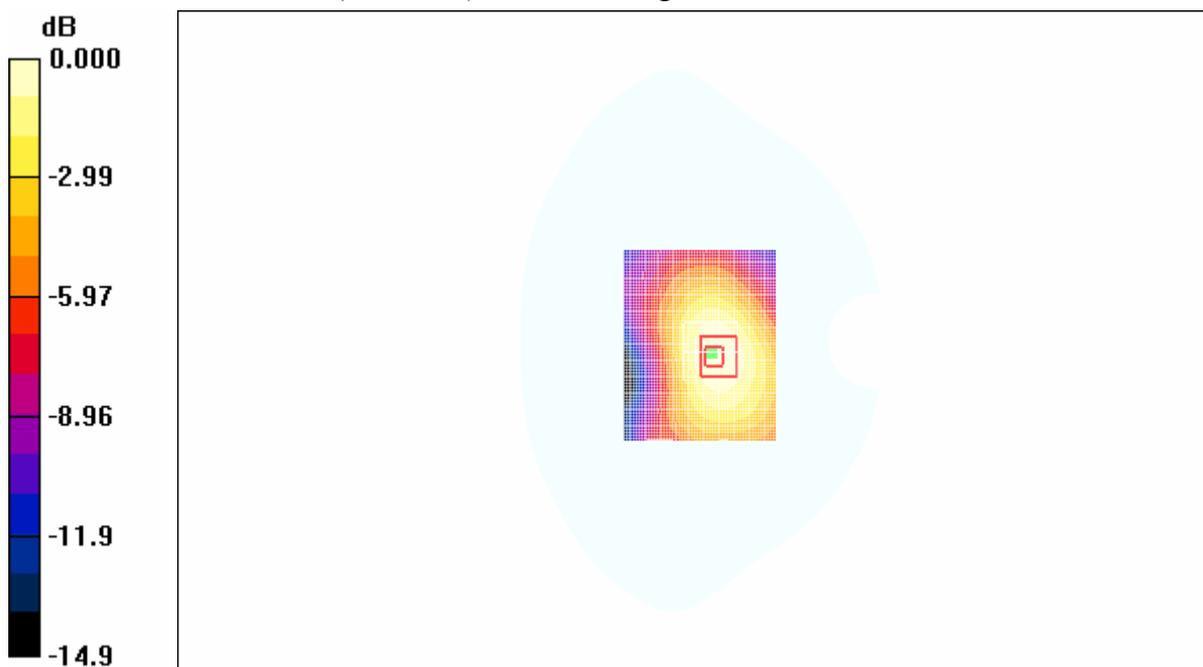
0 dB = 0.098mW/g

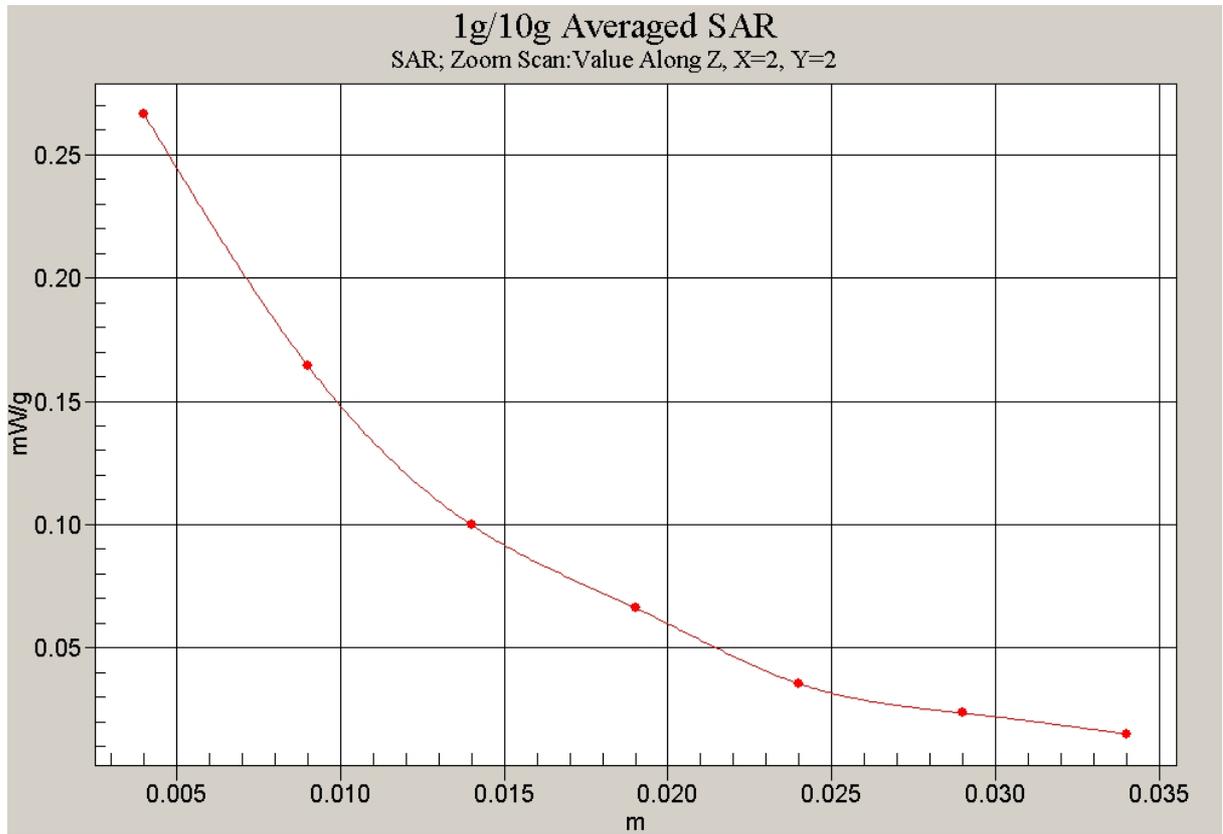**Fig.221 1900MHz GPRS CH661Test Position 2**

Fig.222 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 2)

1900MHz GPRS Test Position 3 with DELL Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 3/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.151 mW/g

Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.24 V/m; Power Drift = 0.113 dB

Peak SAR (extrapolated) = 0.242 W/kg

SAR(1 g) = 0.142 mW/g; SAR(10 g) = 0.089 mW/g

Maximum value of SAR (measured) = 0.154 mW/g

0 dB = 0.154mW/g
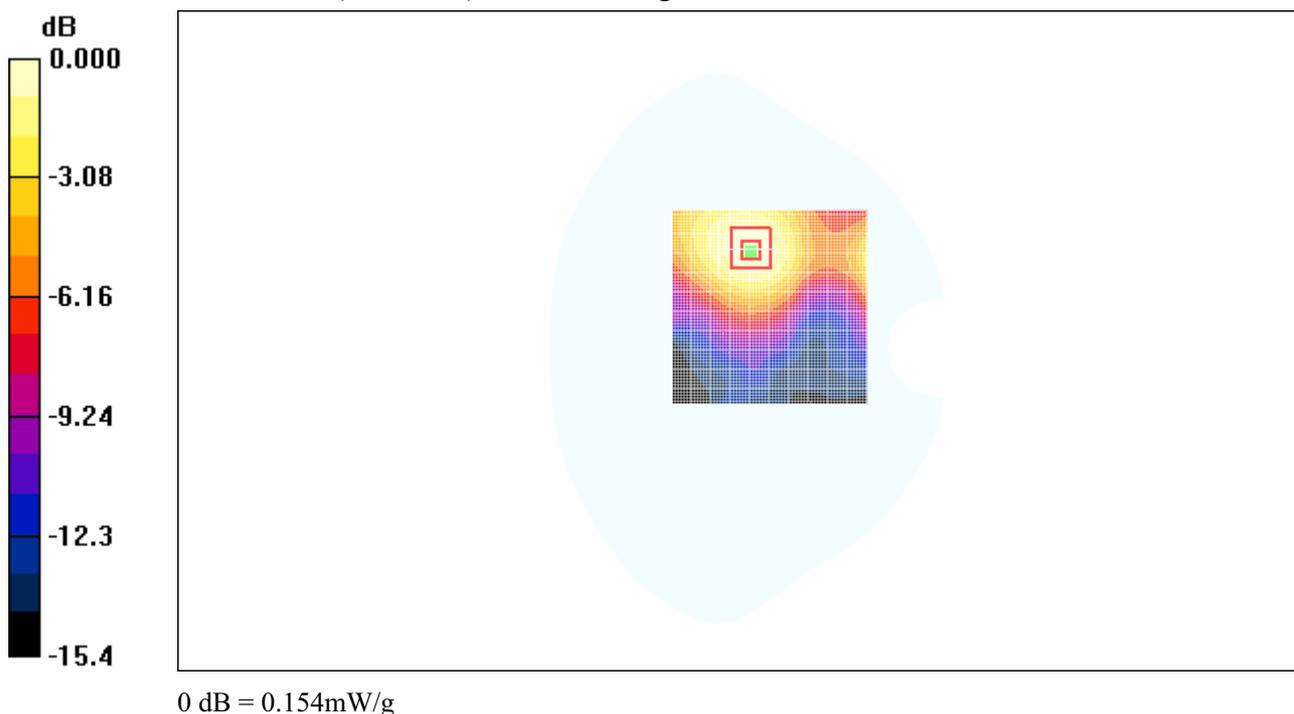
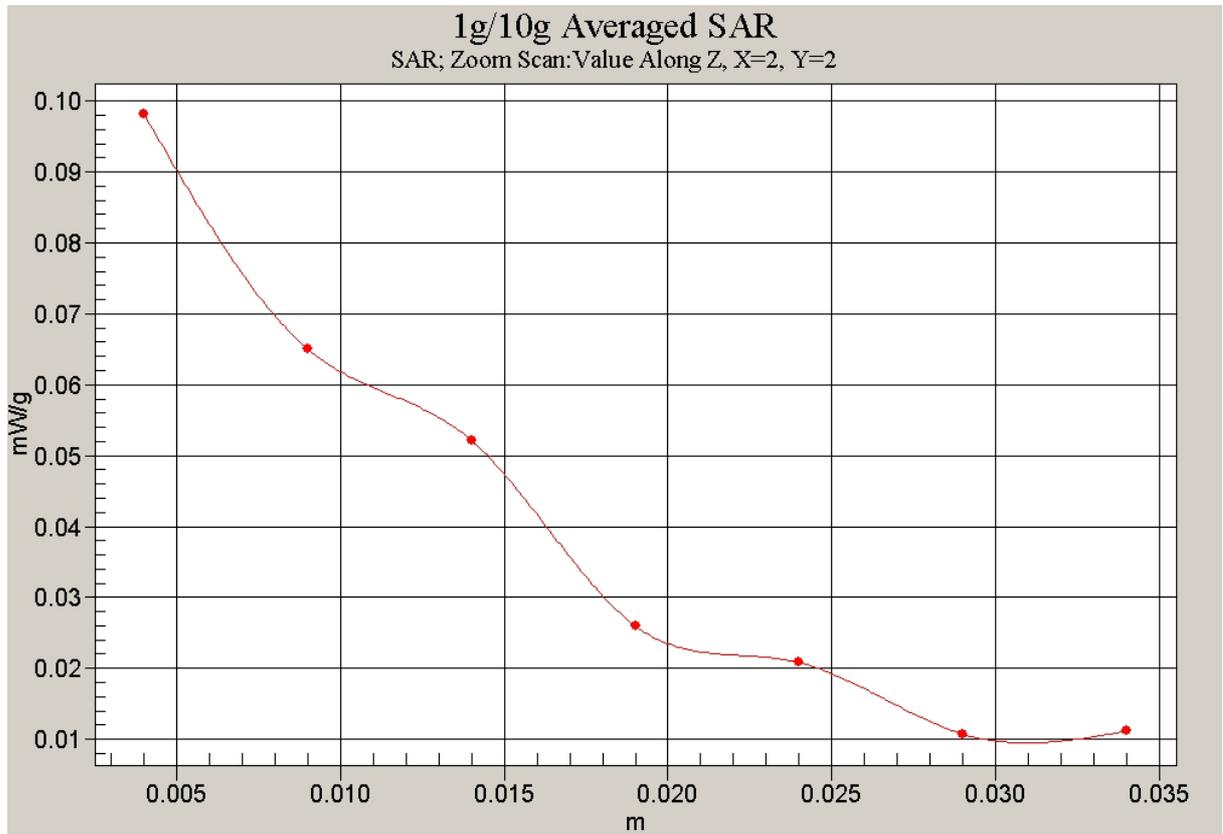**Fig.223 1900MHz GPRS CH661Test Position 3**

Fig.224 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 3)

1900 GPRS Test Position 4 with DELL Laptop-antenna unfolded
Electronics: DAE3 Sn536
Medium: 1900 Body
Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C
Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4
Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 4/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.046 mW/g

Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.46 V/m; Power Drift = 0.167 dB
Peak SAR (extrapolated) = 0.056 W/kg
SAR(1 g) = 0.039 mW/g; SAR(10 g) = 0.023 mW/g
Maximum value of SAR (measured) = 0.043 mW/g

0 dB = 0.043mW/g
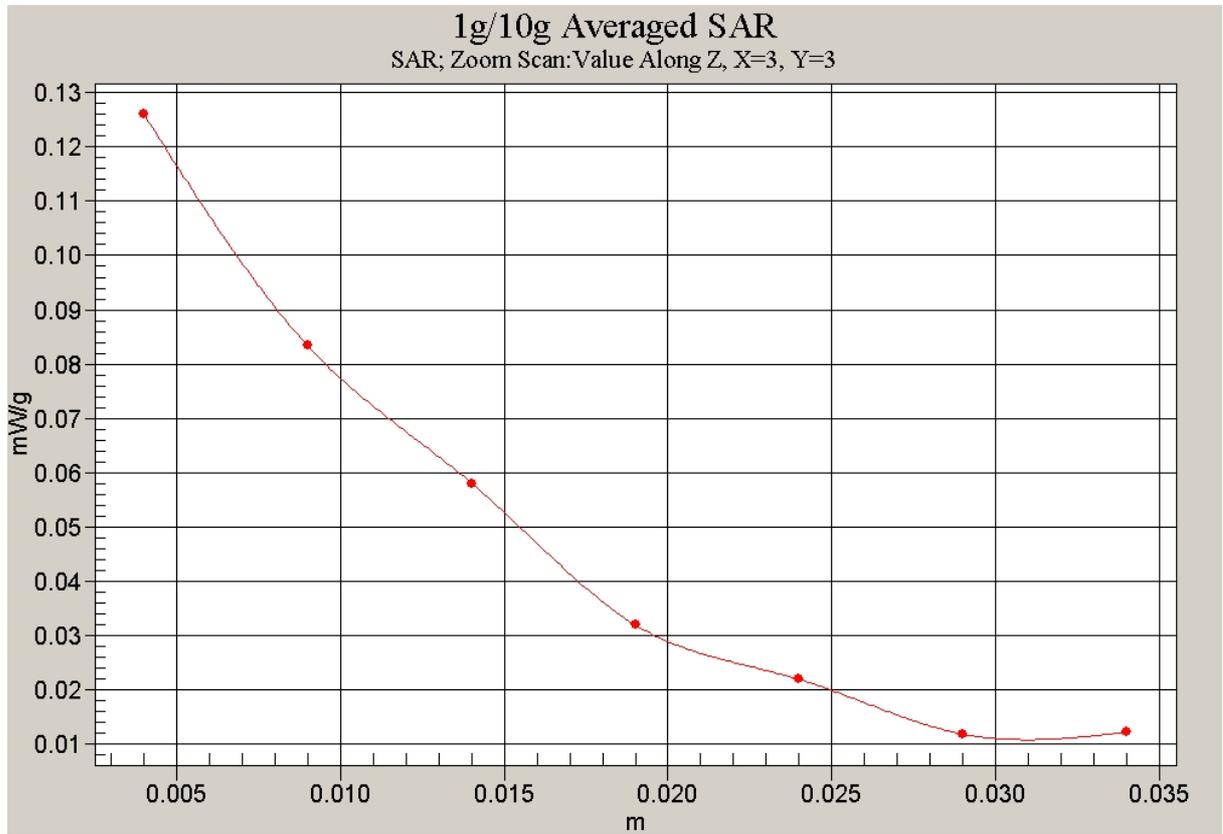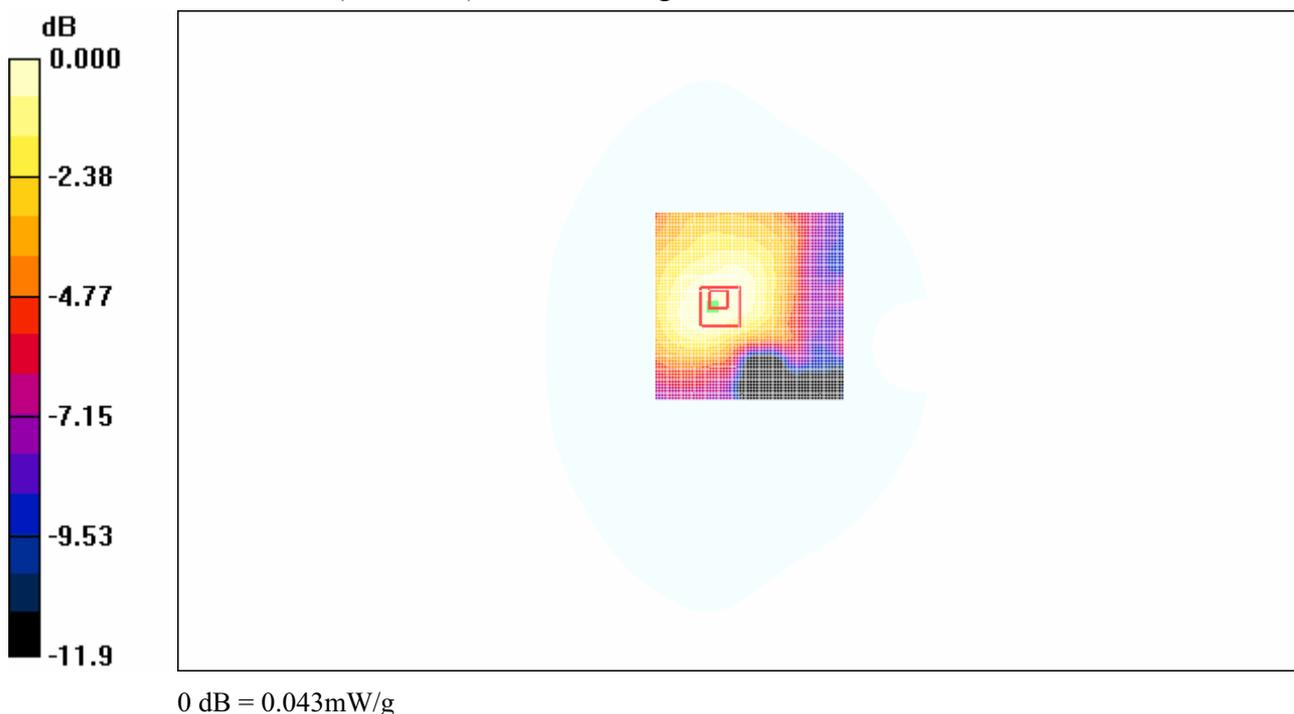
Fig.225 1900MHz GPRS CH661Test Position 4

Fig.226 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 4)

1900 GPRS Test Position 5 with DELL Laptop-antenna unfolded
Electronics: DAE3 Sn536
Medium: 1900 Body
Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C
Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4
Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 5/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.242 mW/g

Test Position 5/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.6 V/m; Power Drift = 0.044 dB
Peak SAR (extrapolated) = 0.338 W/kg
SAR(1 g) = 0.215 mW/g; SAR(10 g) = 0.134 mW/g
Maximum value of SAR (measured) = 0.229 mW/g

0 dB = 0.229mW/g

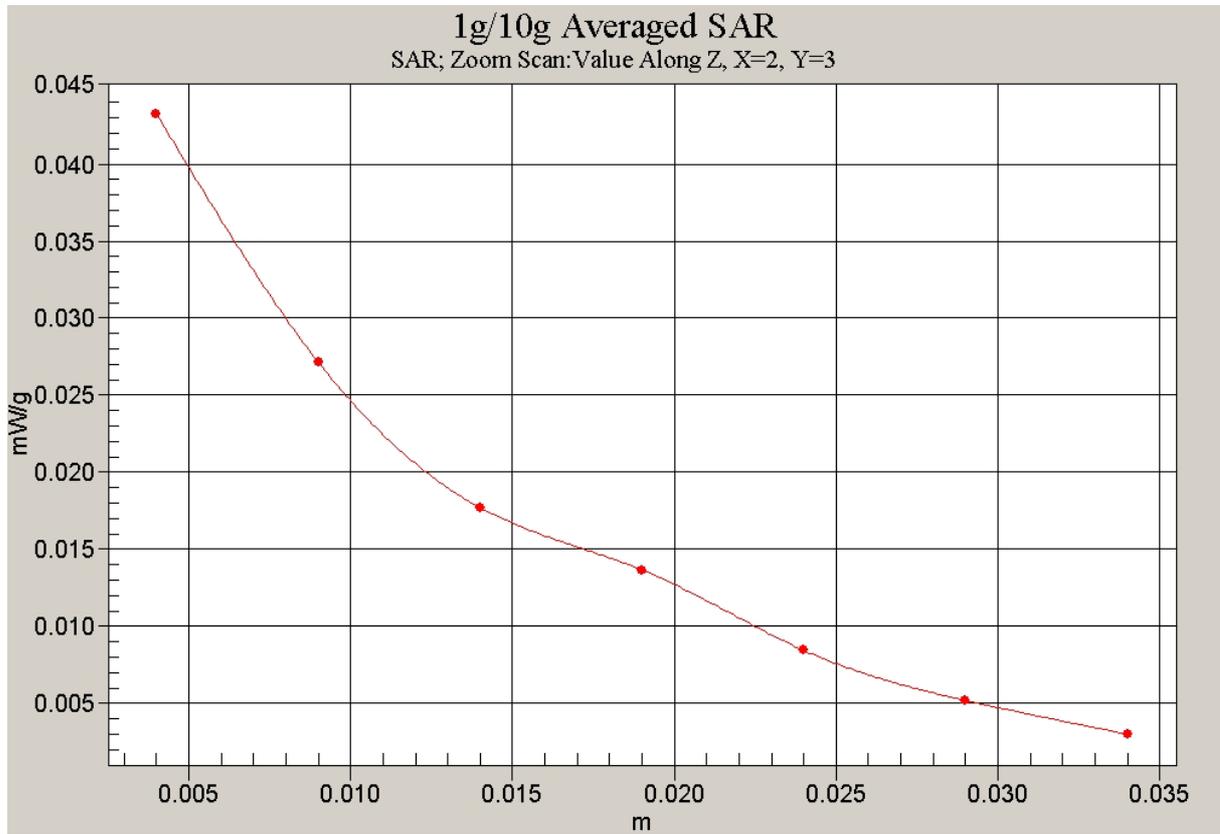**Fig.227 1900MHz GPRS CH661 Test Position 5**

Fig.228 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 5)

1900 GPRS Test Position 1 with HP Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS   Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

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

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.61 V/m; Power Drift = 0.043 dB

Peak SAR (extrapolated) = 0.299 W/kg

SAR(1 g) = 0.165 mW/g; SAR(10 g) = 0.088 mW/g

Maximum value of SAR (measured) = 0.180 mW/g
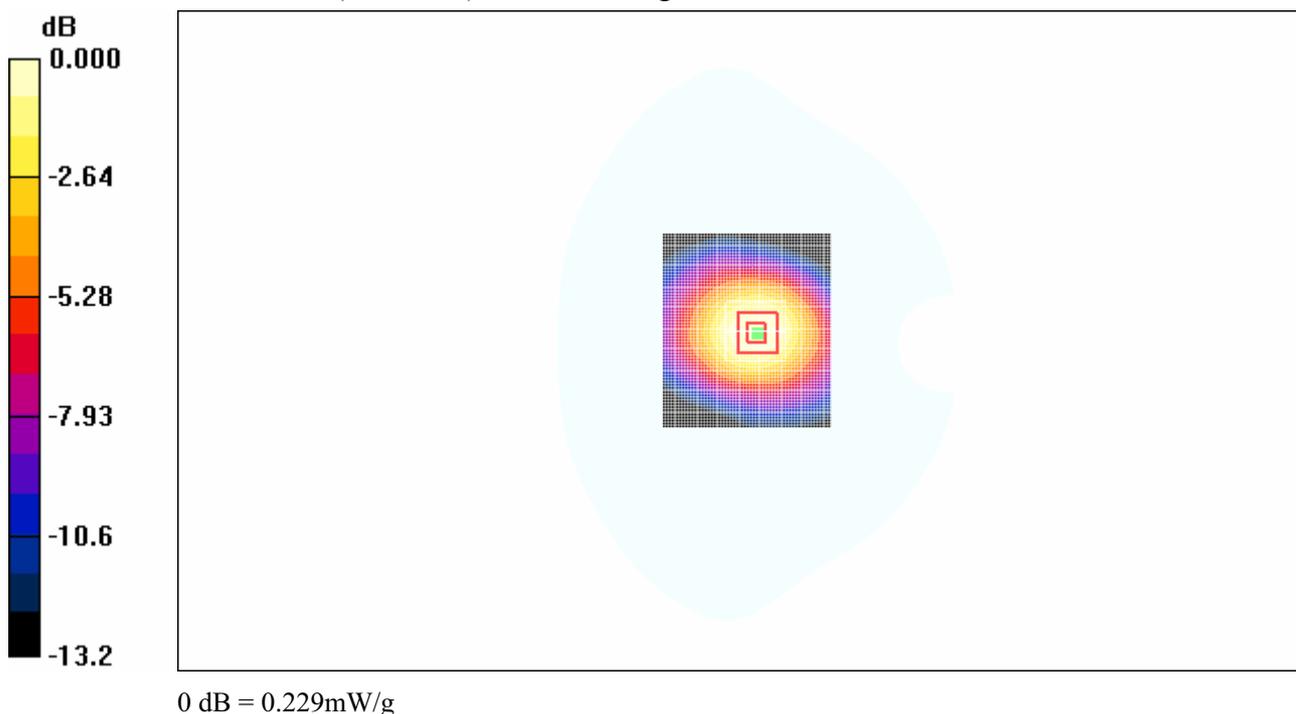

0 dB = 0.180mW/g
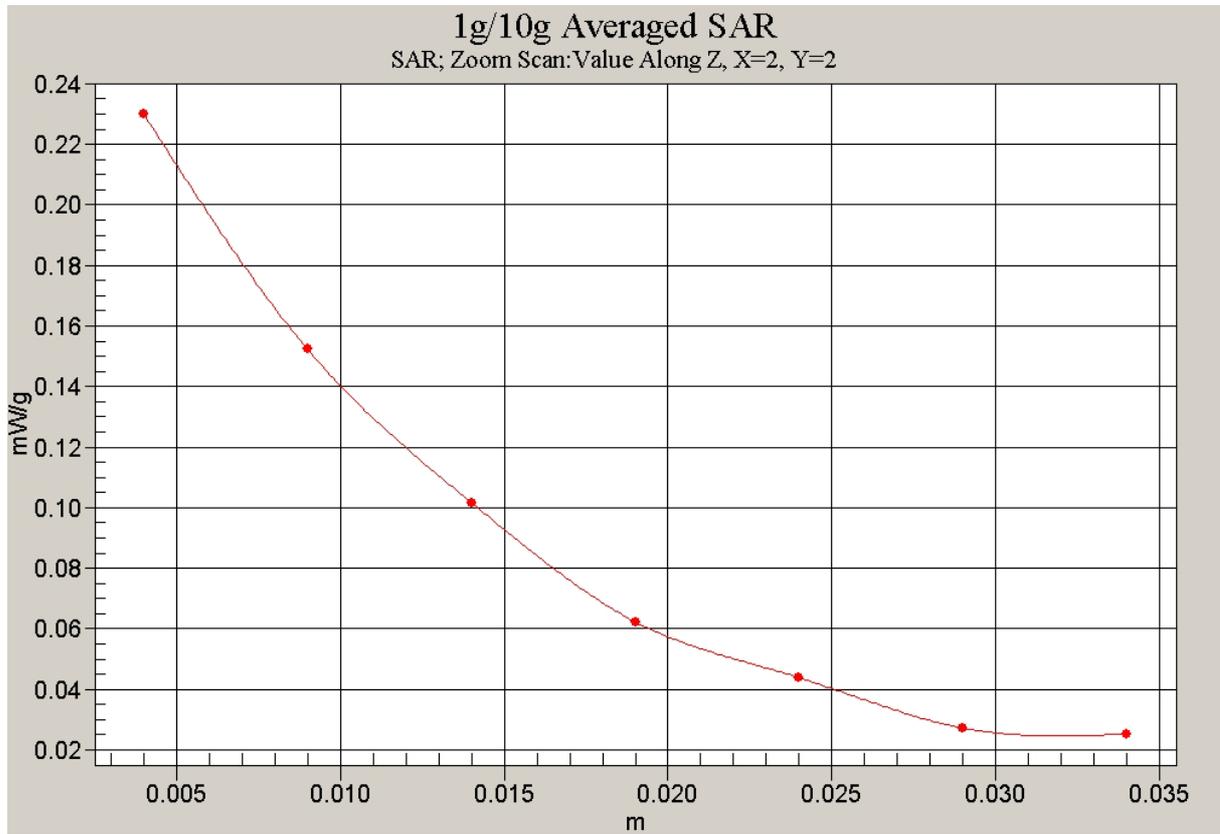
Fig.229 1900MHz GPRS CH661Test Position 1

Fig.230 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 1)

1900 GPRS Test Position 2 with HP Laptop-antenna folded
Electronics: DAE3 Sn536
Medium: 1900 Body
Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; $ε_r$ = 52.1; ρ = 1000 kg/m^3
Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C
Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4
Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 2/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.072 mW/g

Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.26 V/m; Power Drift = 0.132 dB
Peak SAR (extrapolated) = 0.138 W/kg
SAR(1 g) = 0.056 mW/g; SAR(10 g) = 0.027 mW/g
Maximum value of SAR (measured) = 0.057 mW/g
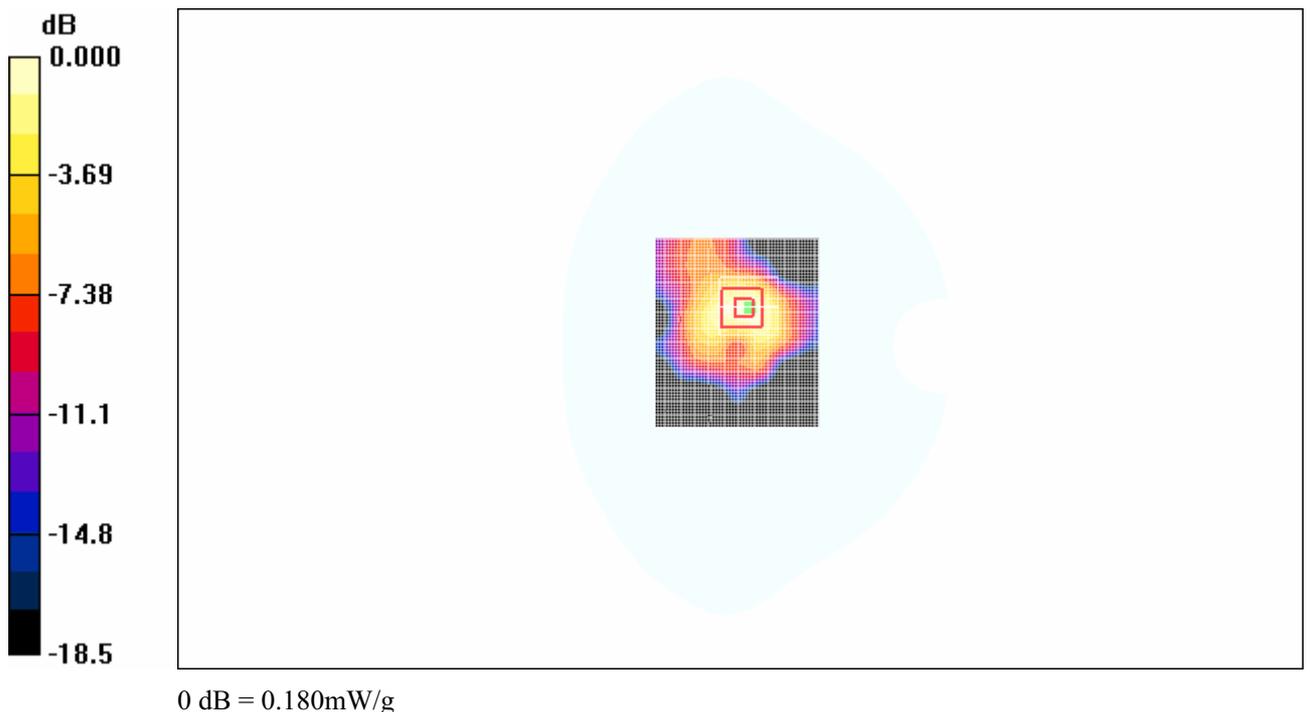

0 dB = 0.057mW/g

Fig.231 1900MHz GPRS CH661Test Position 2

Fig.232 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 2)

1900 GPRS Test Position 3 with HP Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS   Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 3/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.036 mW/g

Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.89 V/m; Power Drift = 0.159 dB

Peak SAR (extrapolated) = 0.082 W/kg

SAR(1 g) = 0.034 mW/g; SAR(10 g) = 0.018 mW/g

Maximum value of SAR (measured) = 0.036 mW/g
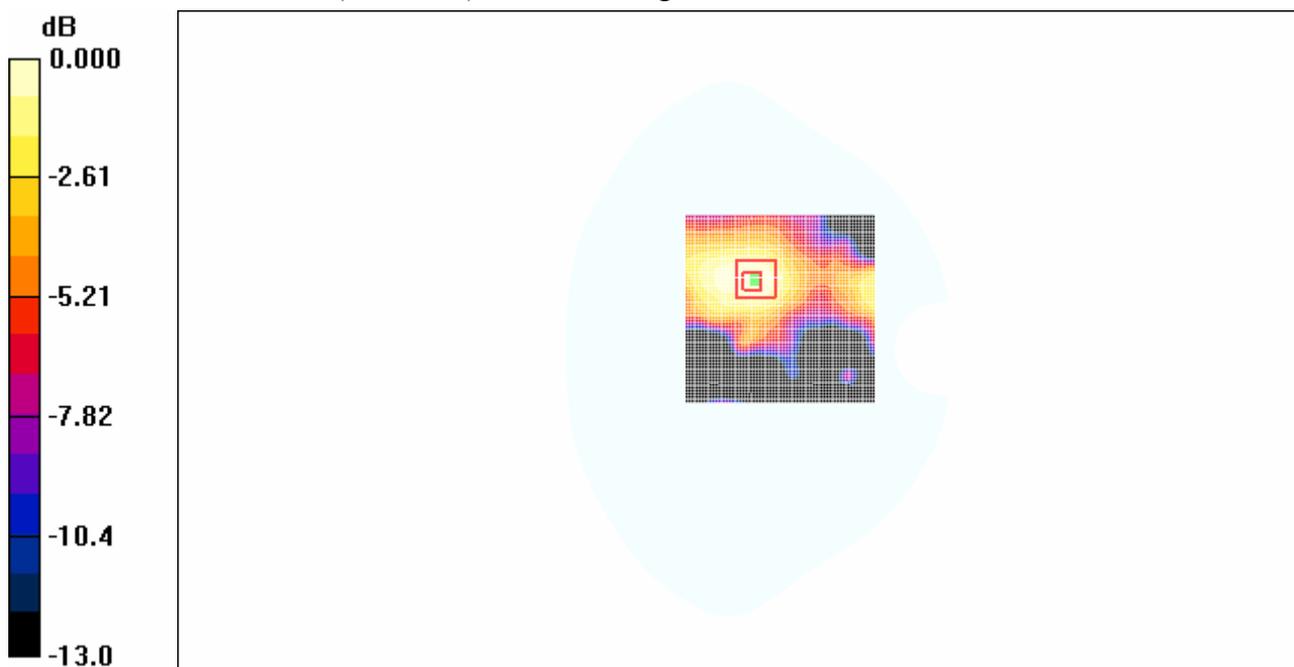
0 dB = 0.036mW/g
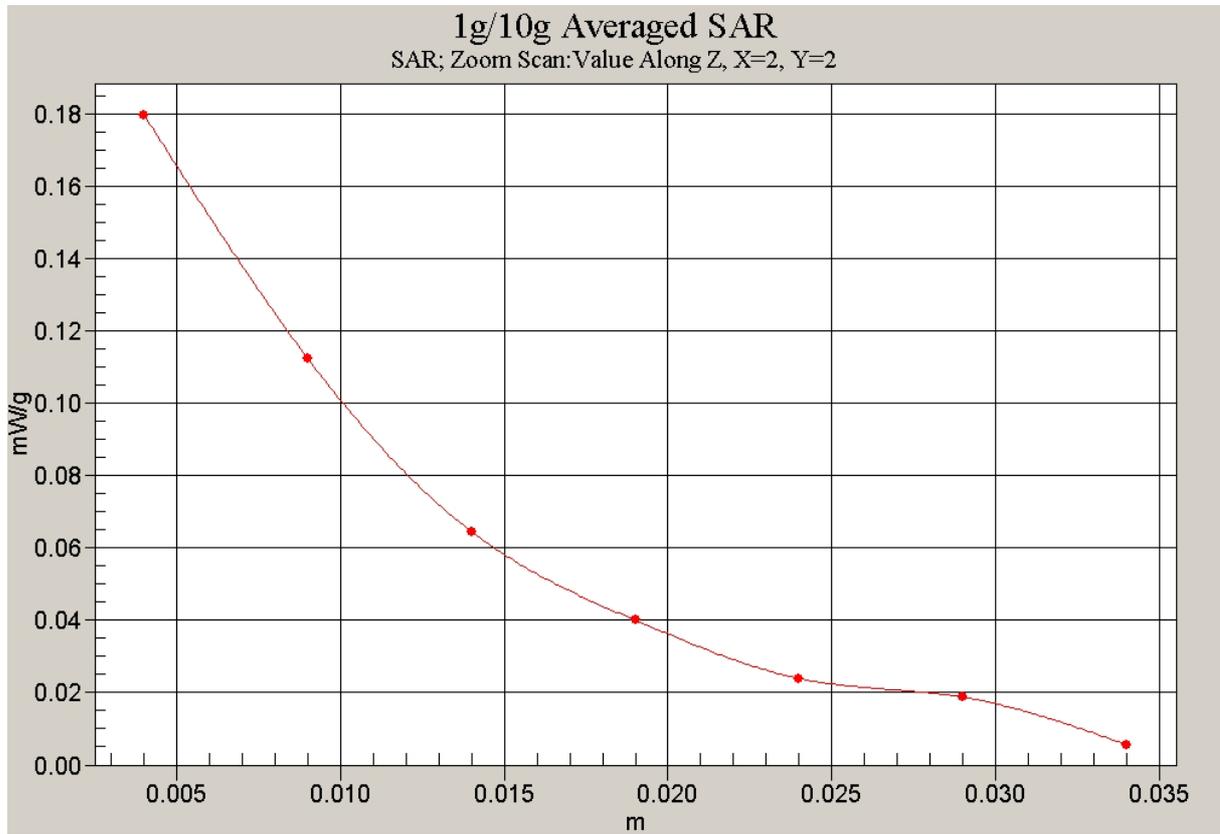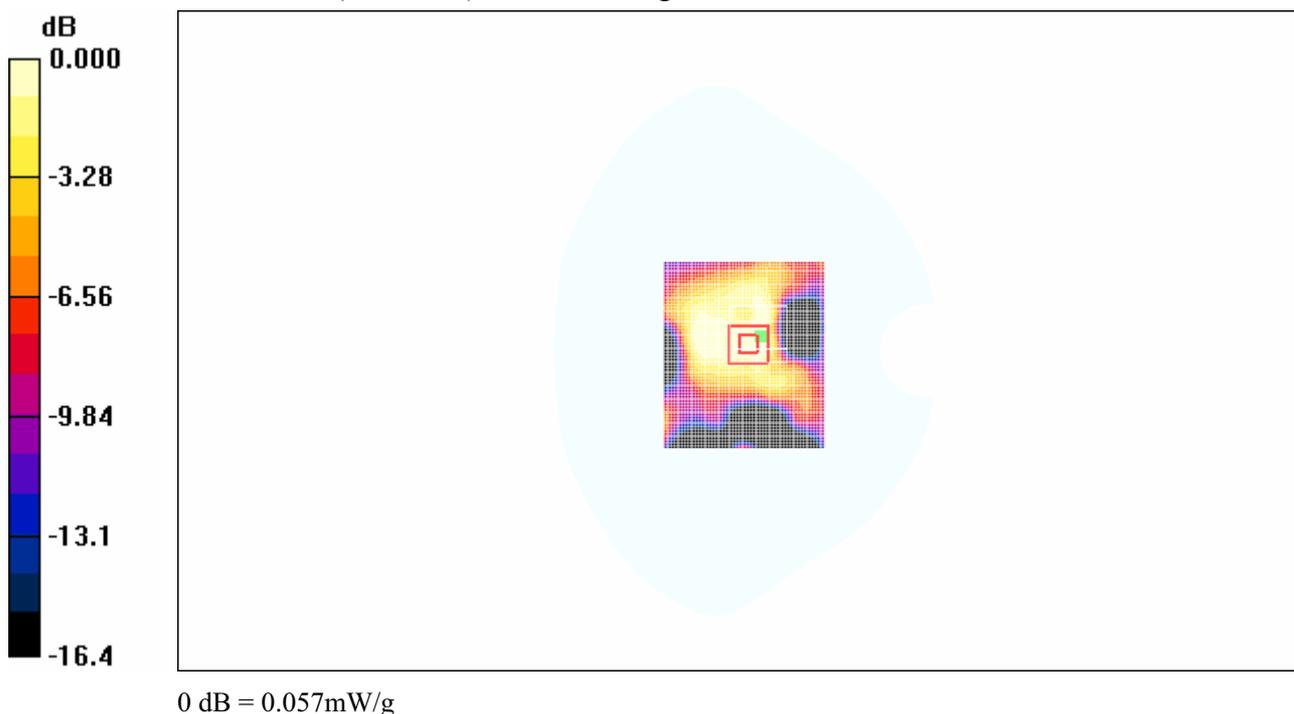
Fig.233 1900MHz GPRS CH661Test Position 3

Fig.234 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 3)

1900 GPRS Test Position 4 with HP Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.53$ mho/m; $\varepsilon_r = 52.1$; $\rho = 1000$ kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 4/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.028 mW/g

Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.56 V/m; Power Drift = -0.195 dB

Peak SAR (extrapolated) = 0.042 W/kg

SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.00483 mW/g

Maximum value of SAR (measured) = 0.038 mW/g

0 dB = 0.038mW/g
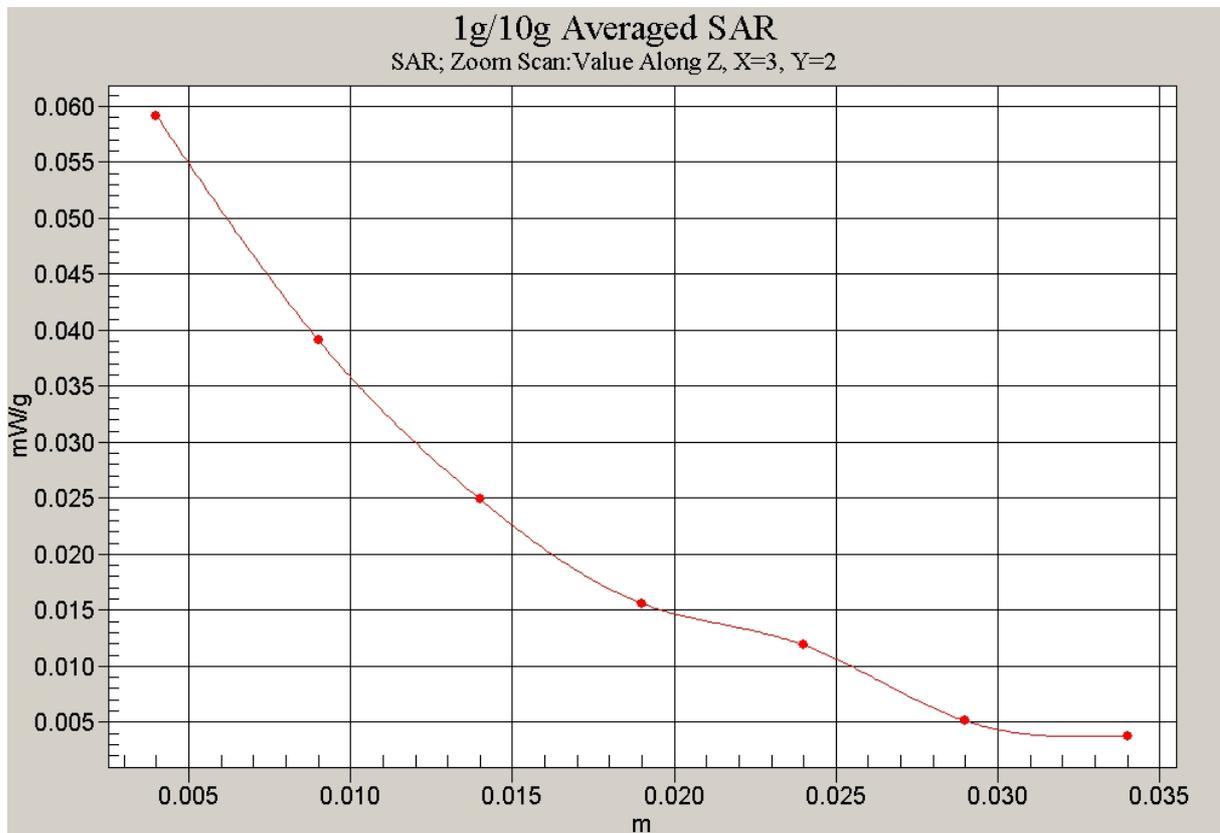

Fig.235 1900MHz GPRS CH661Test Position 4

Fig.236 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 4)

1900 GPRS Test Position 5 with HP Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 5/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.036 mW/g

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

Reference Value = 4.96 V/m; Power Drift = -0.179 dB

Peak SAR (extrapolated) = 0.069 W/kg

SAR(1 g) = 0.031 mW/g; SAR(10 g) = 0.016 mW/g

Maximum value of SAR (measured) = 0.035 mW/g

0 dB = 0.035mW/g
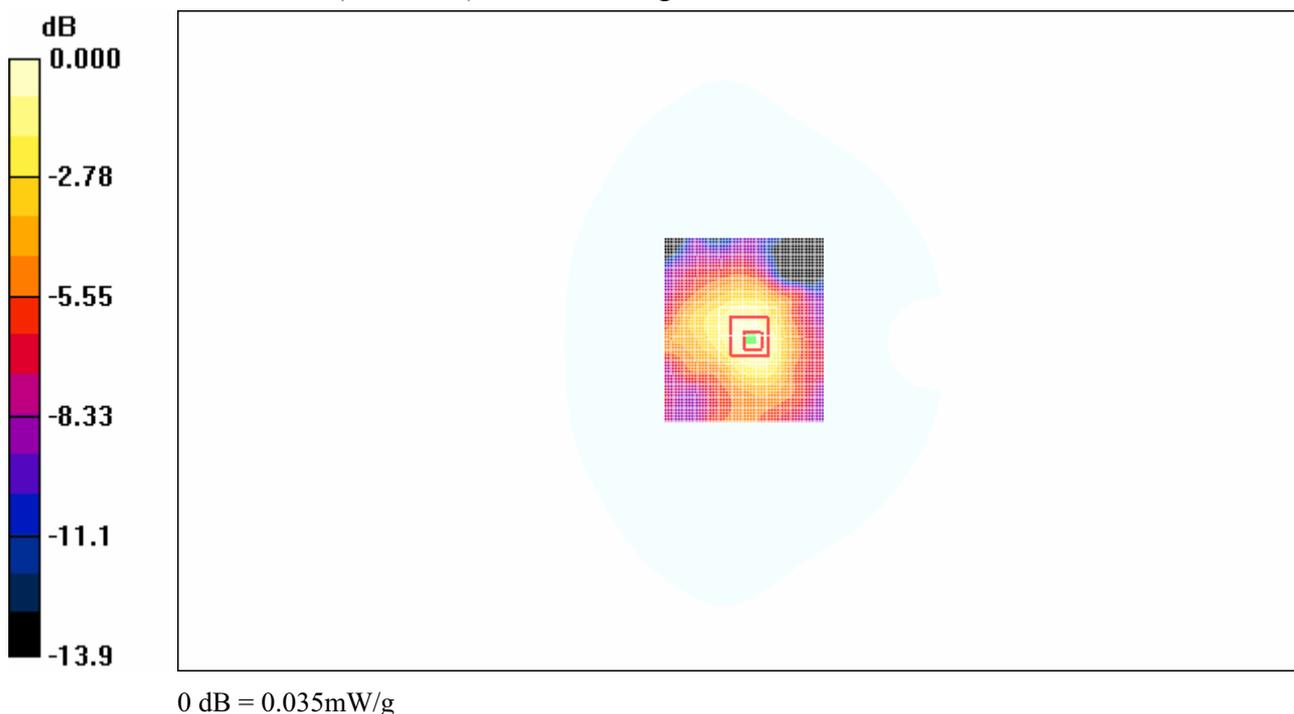
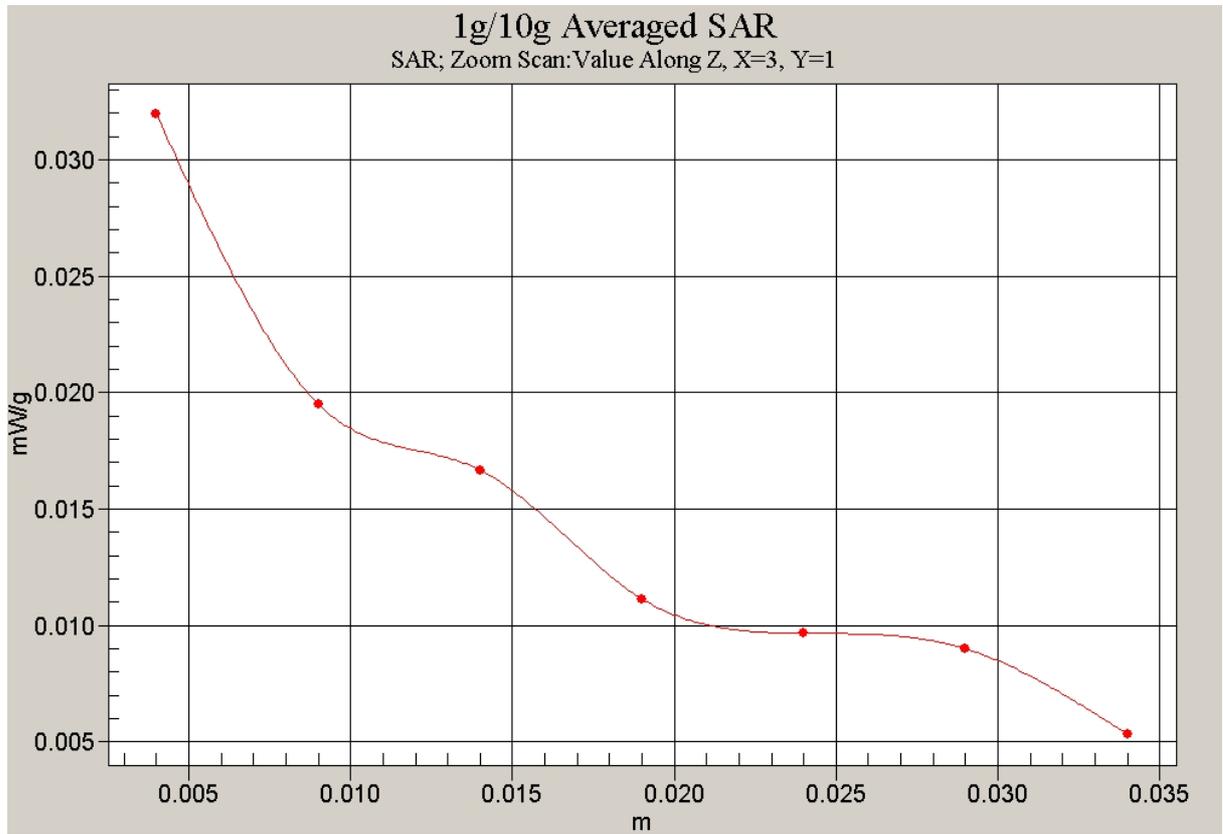**Fig.237 1900MHz GPRS CH661 Test Position 5**

Fig.238 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 5)

1900MHz GPRS Test Position 1 with HP Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.492 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.0 V/m; Power Drift = 0.017 dB

Peak SAR (extrapolated) = 0.754 W/kg

SAR(1 g) = 0.428 mW/g; SAR(10 g) = 0.238 mW/g

Maximum value of SAR (measured) = 0.425 mW/g
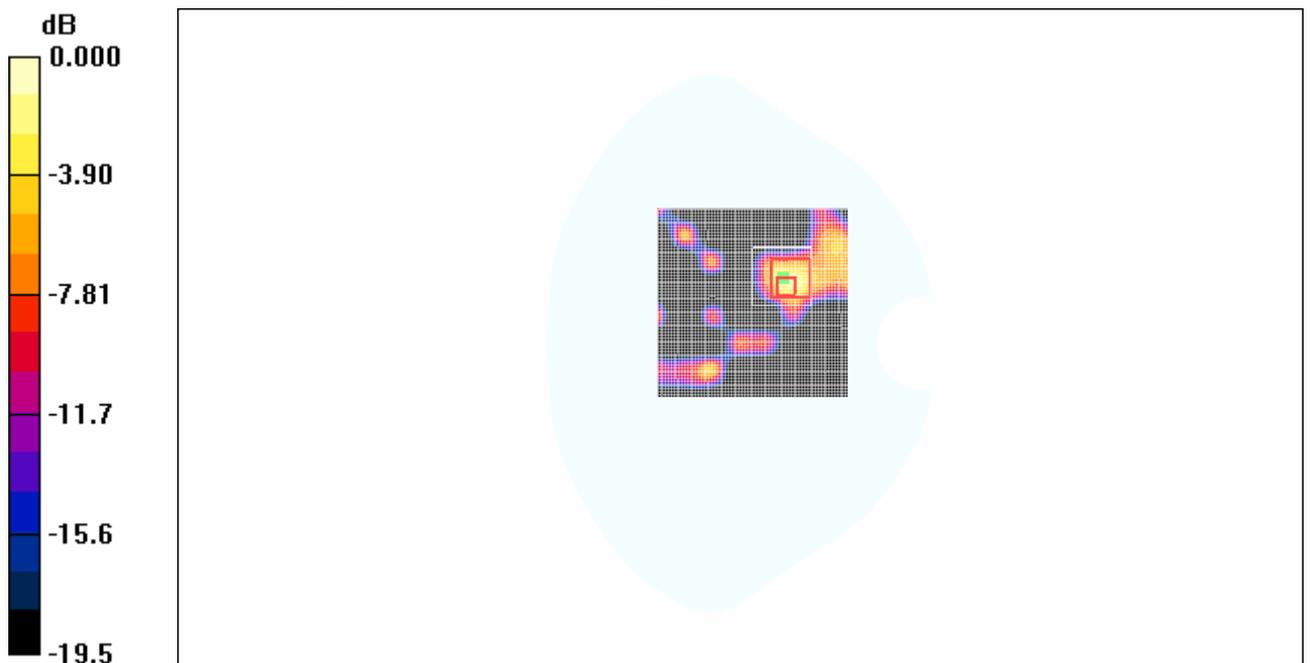

0 dB = 0.425mW/g

Fig.239 1900MHz GPRS CH661Test Position 1
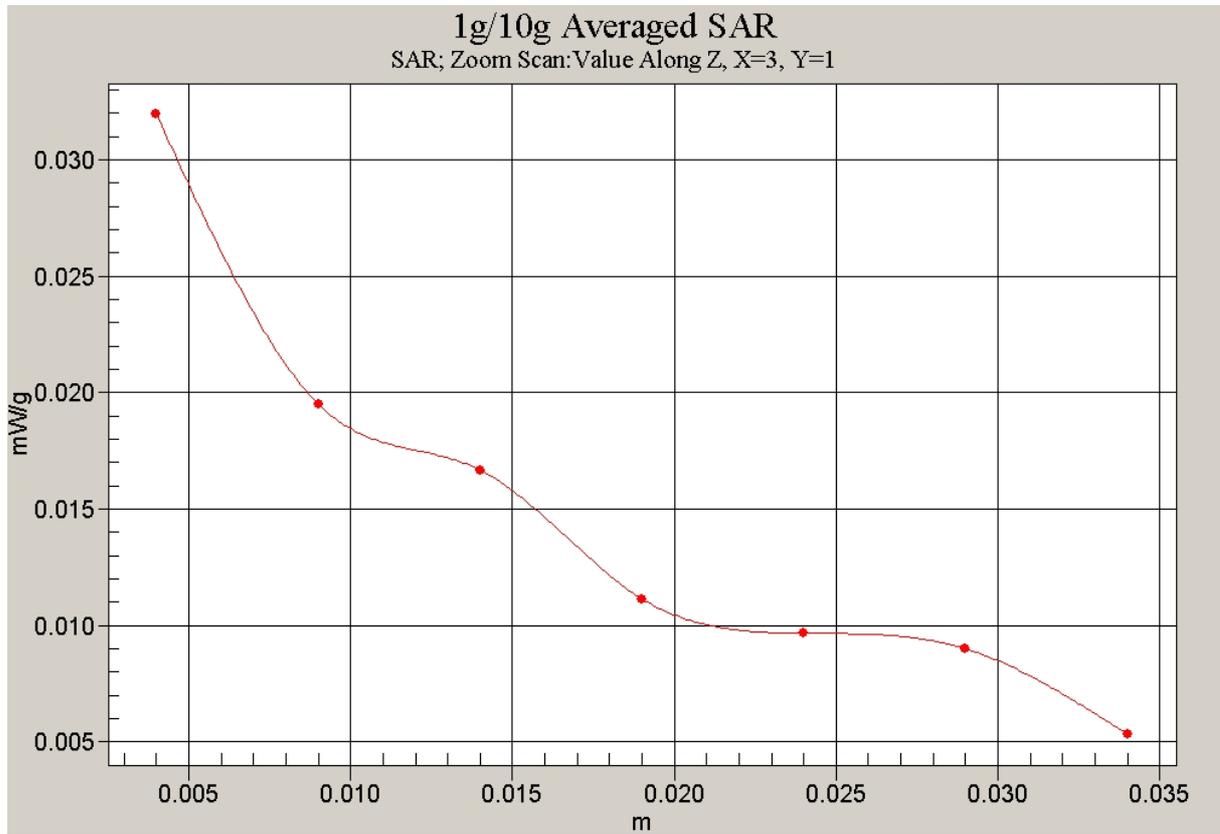
Fig.240 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 1)

1900 GPRS Test Position 2 with HP Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 2/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.066 mW/g

Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.87 V/m; Power Drift = 0.185 dB

Peak SAR (extrapolated) = 0.097 W/kg

SAR(1 g) = 0.062 mW/g; SAR(10 g) = 0.041 mW/g

Maximum value of SAR (measured) = 0.065 mW/g

0 dB = 0.065mW/g
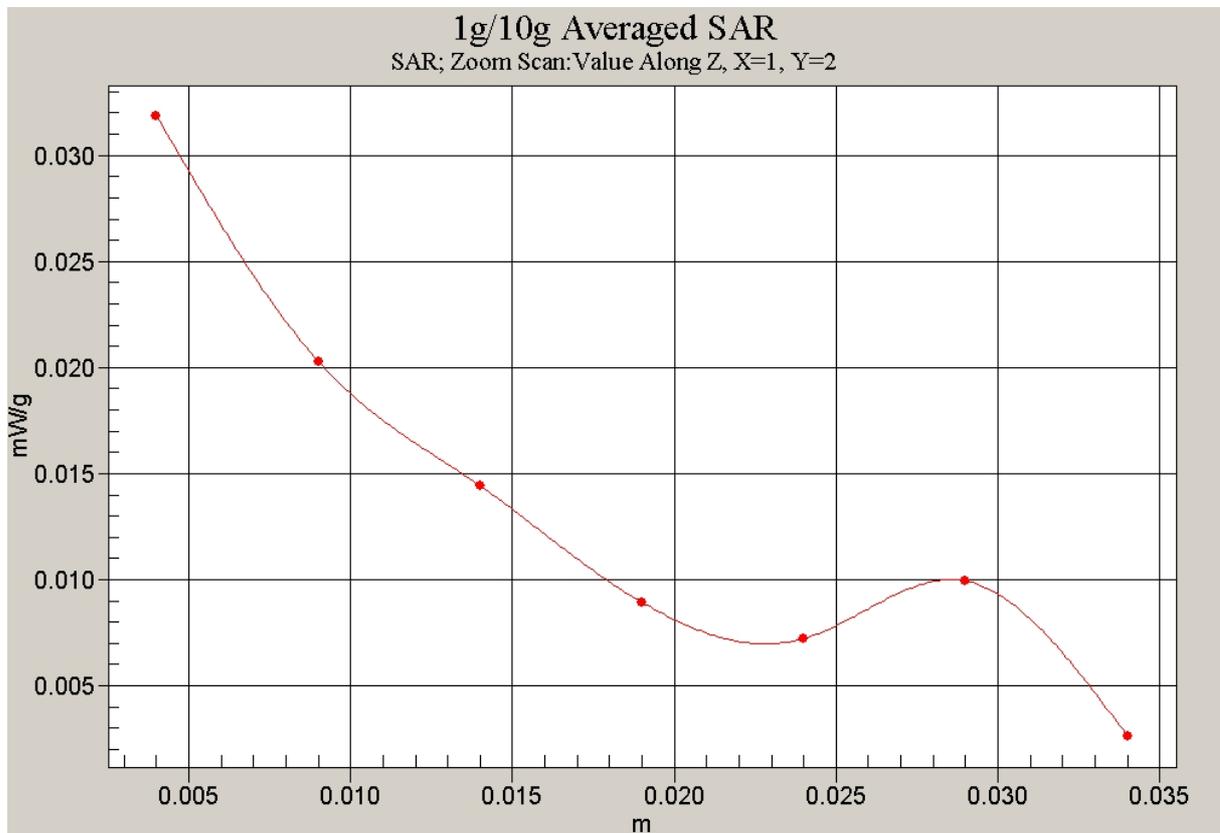
Fig.241 1900MHz GPRS CH661Test Position 2

Fig.242 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 2)

1900 GPRS Test Position 3 with HP Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 3/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.150 mW/g

Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.44 V/m; Power Drift = -0.109dB

Peak SAR (extrapolated) = 0.212 W/kg

SAR(1 g) = 0.140 mW/g; SAR(10 g) = 0.090 mW/g

Maximum value of SAR (measured) = 0.151 mW/g
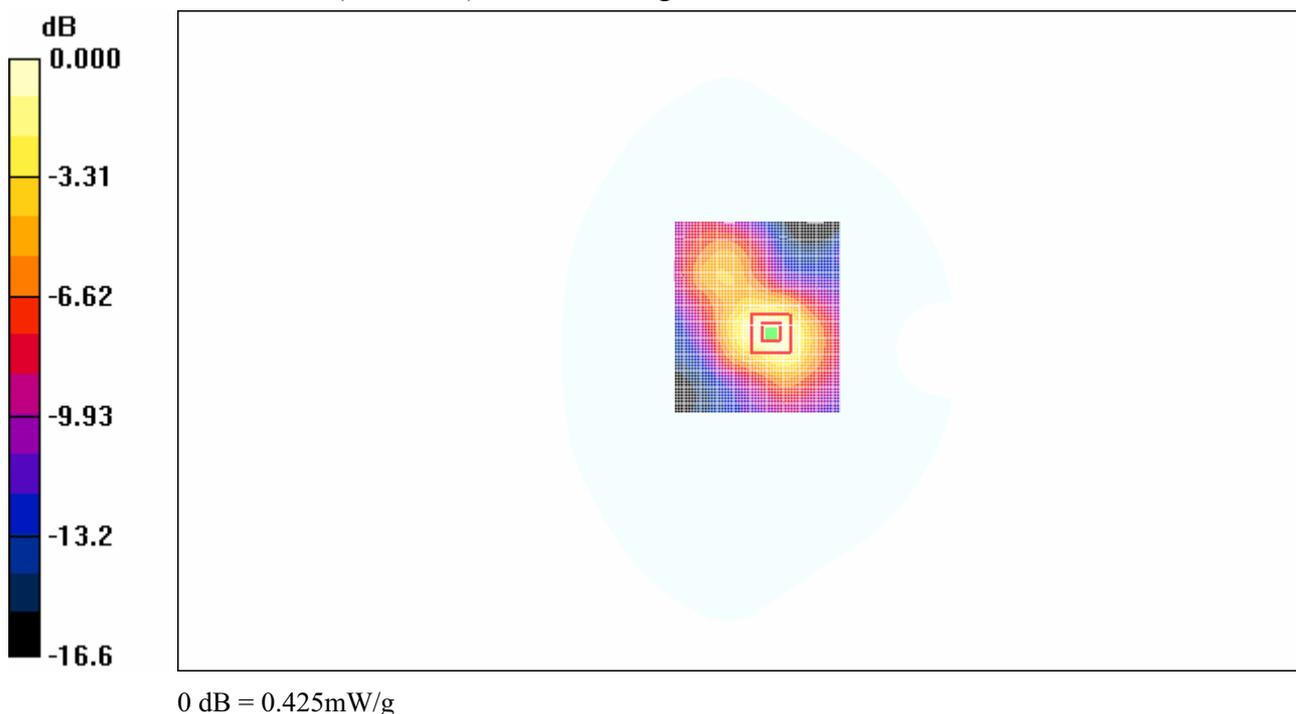

0 dB = 0.151mW/g
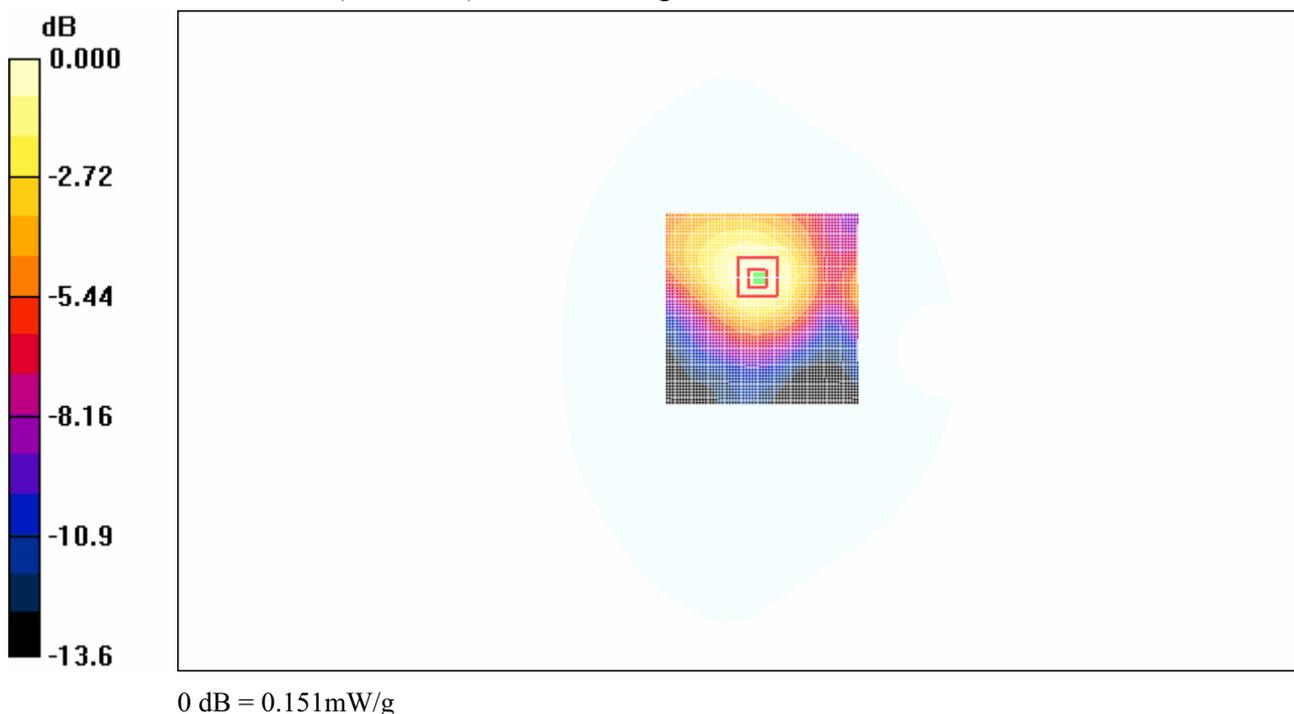
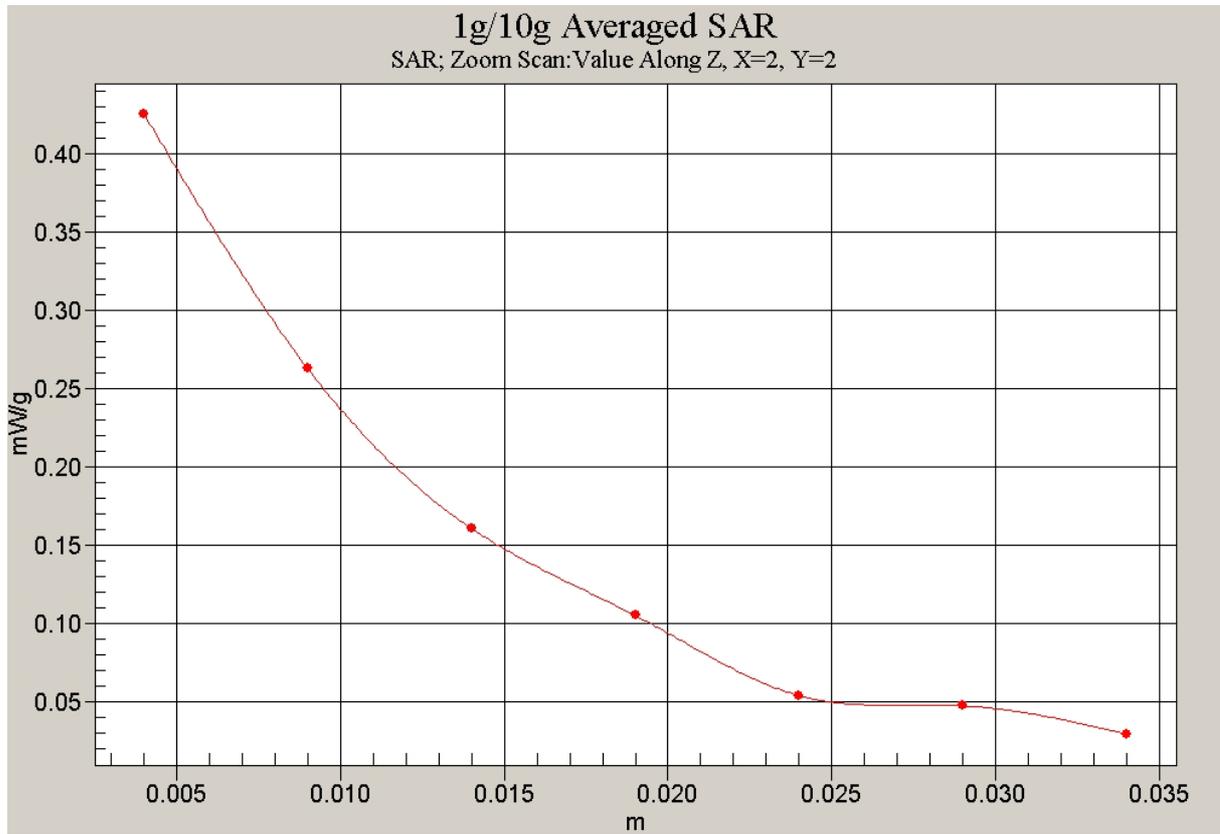**Fig.243 1900MHz GPRS CH661Test Position 3**

Fig.244 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 3)

1900 GPRS Test Position 4 with HP Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 4/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.071 mW/g

Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.09 V/m; Power Drift = 0.153 dB

Peak SAR (extrapolated) = 0.100 W/kg

SAR(1 g) = 0.069 mW/g; SAR(10 g) = 0.041 mW/g
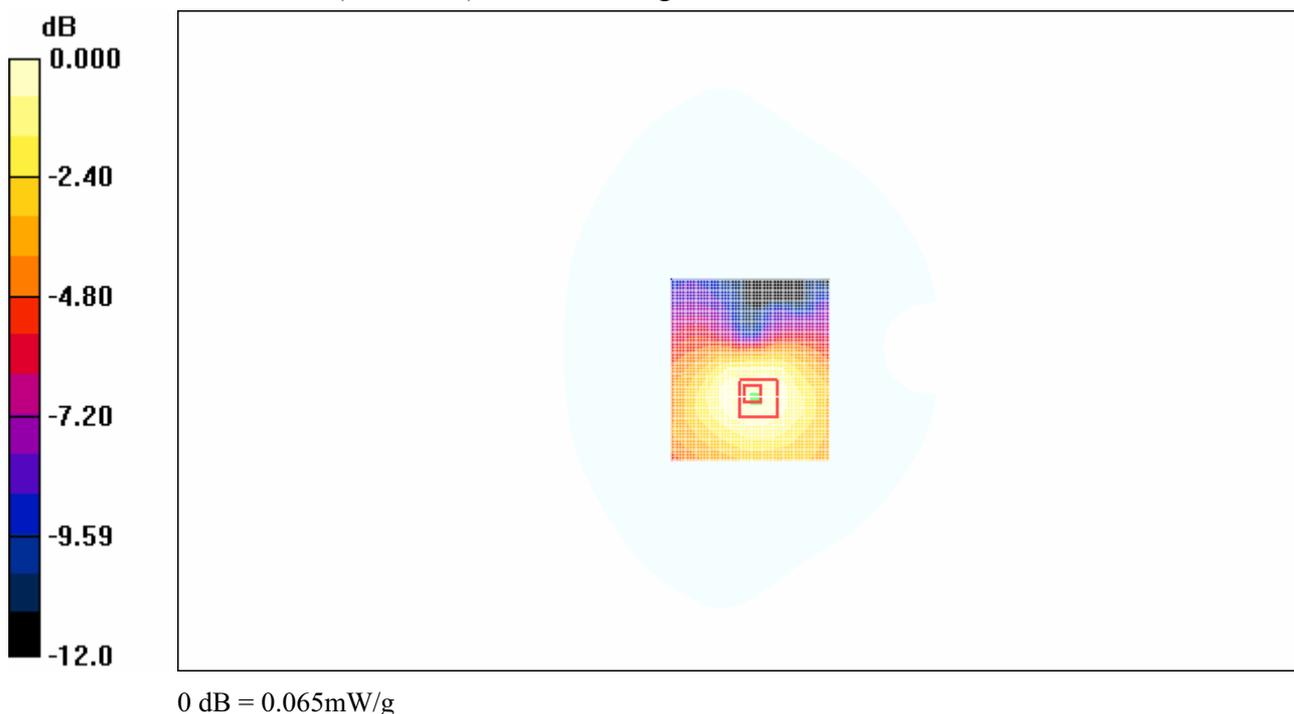
Maximum value of SAR (measured) = 0.071 mW/g

0 dB = 0.071mW/g
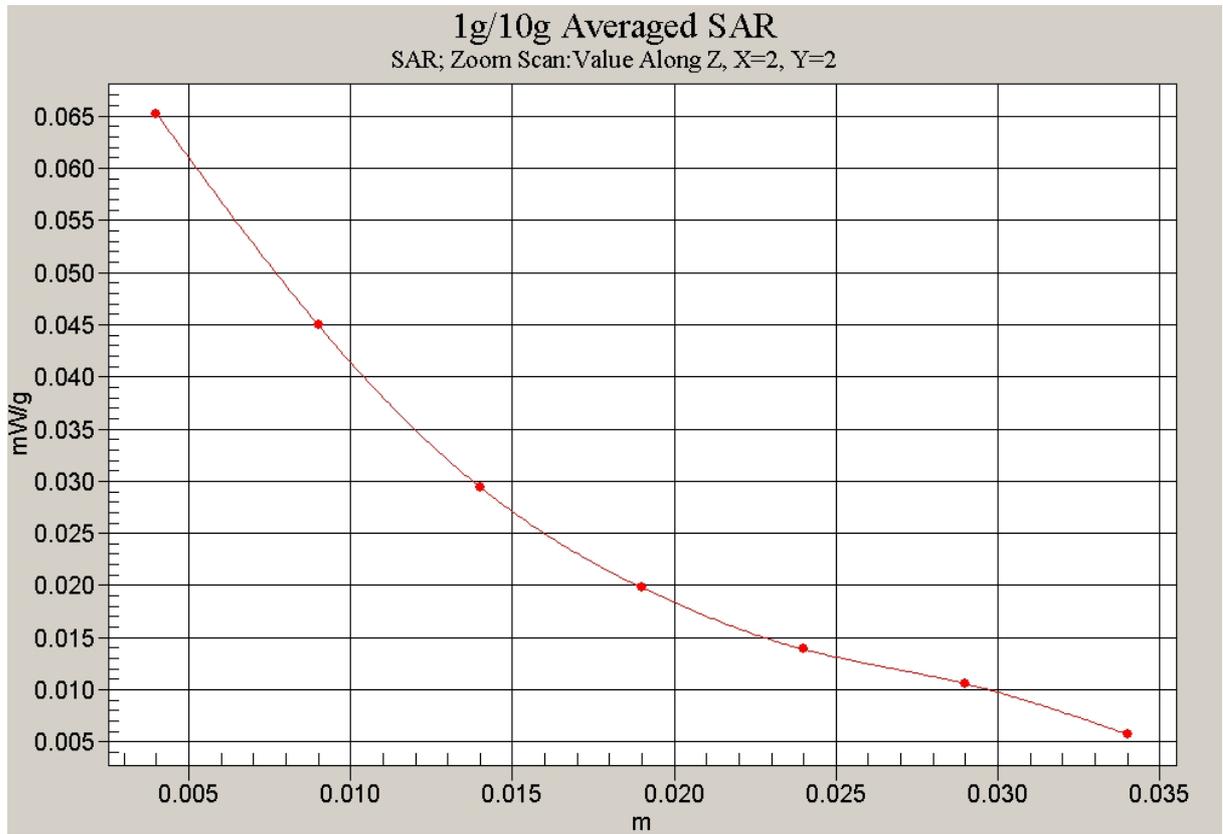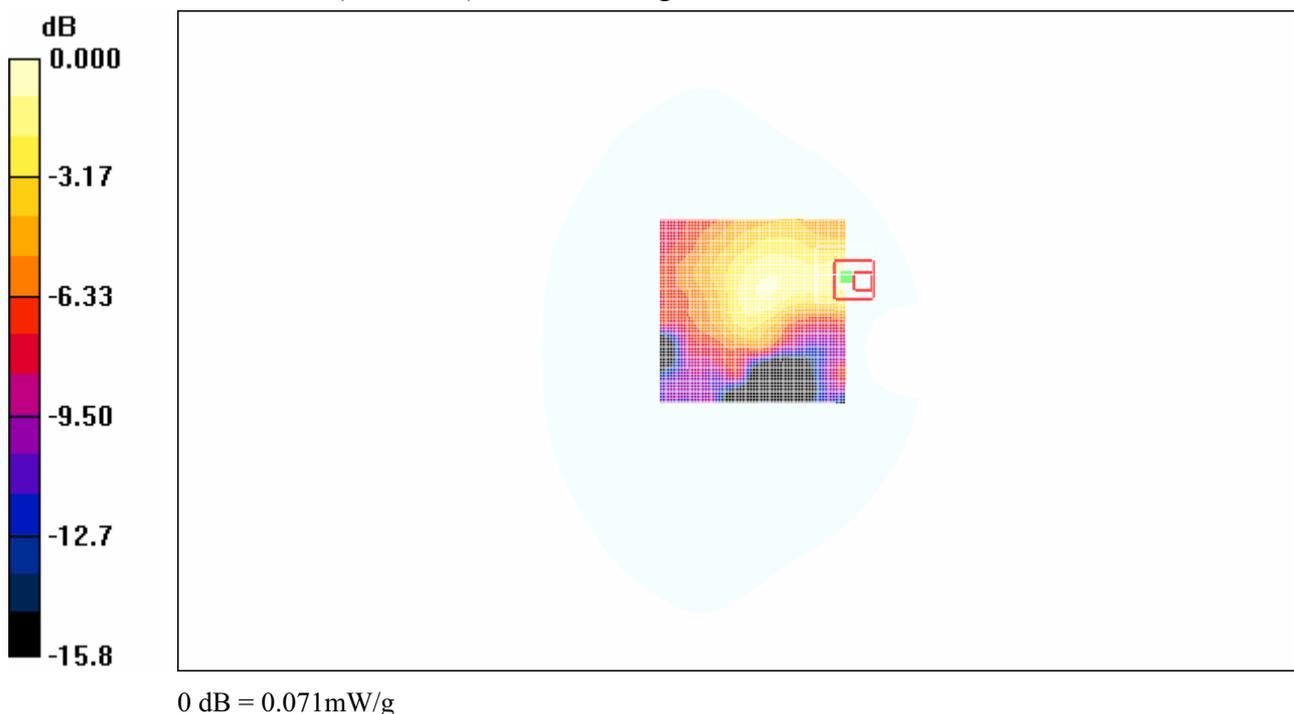
Fig.245 1900MHz GPRS CH661Test Position 4

Fig.246 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 4)

1900 GPRS Test Position 5 with HP Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 5/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.250 mW/g

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

Reference Value = 12.5 V/m; Power Drift = -0.114 dB

Peak SAR (extrapolated) = 0.364 W/kg

SAR(1 g) = 0.230 mW/g; SAR(10 g) = 0.141 mW/g

Maximum value of SAR (measured) = 0.246 mW/g

0 dB = 0.246mW/g

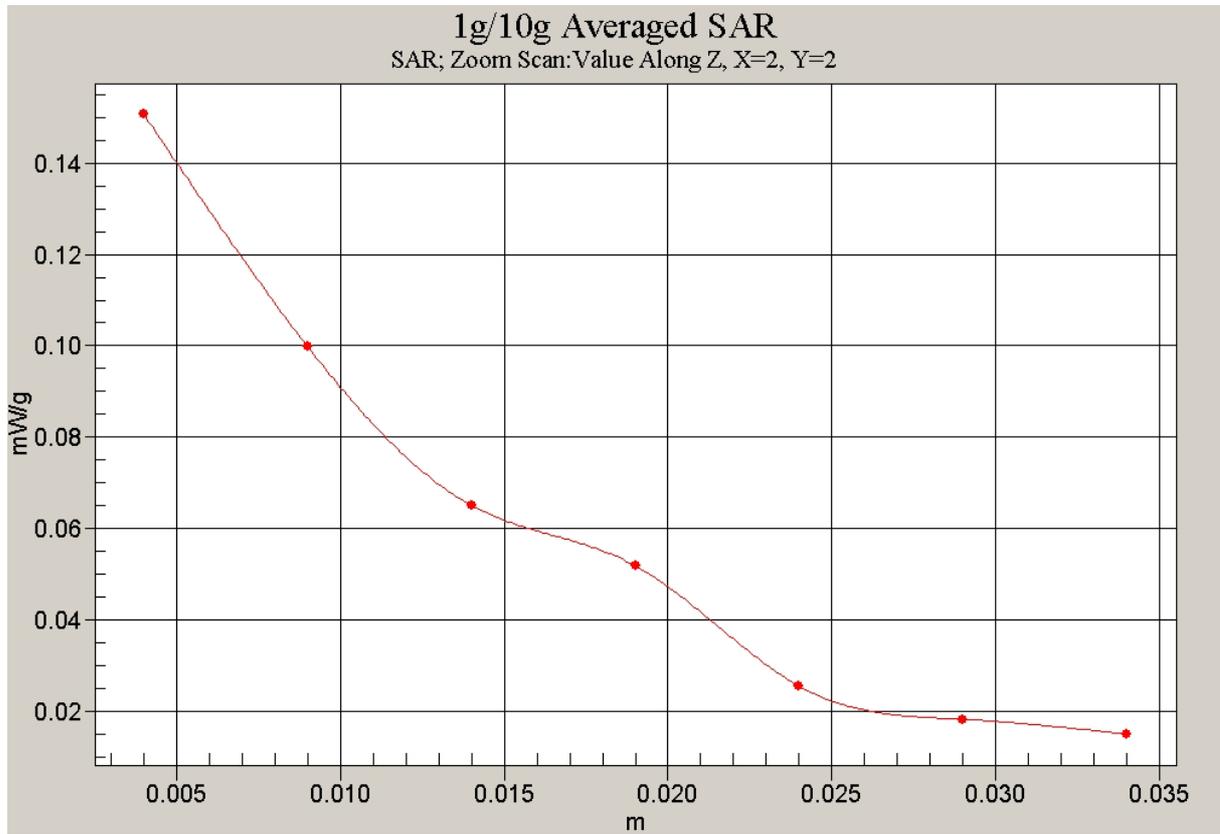**Fig.247 1900MHz GPRS CH661 Test Position 5**

Fig.248 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 5)

1900MHz GPRS Test Position 1 with IBM Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; $ε_r$ = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.232 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.9 V/m; Power Drift = -0.007 dB

Peak SAR (extrapolated) = 0.414 W/kg

SAR(1 g) = 0.226 mW/g; SAR(10 g) = 0.123 mW/g

Maximum value of SAR (measured) = 0.241 mW/g

0 dB = 0.241mW/g
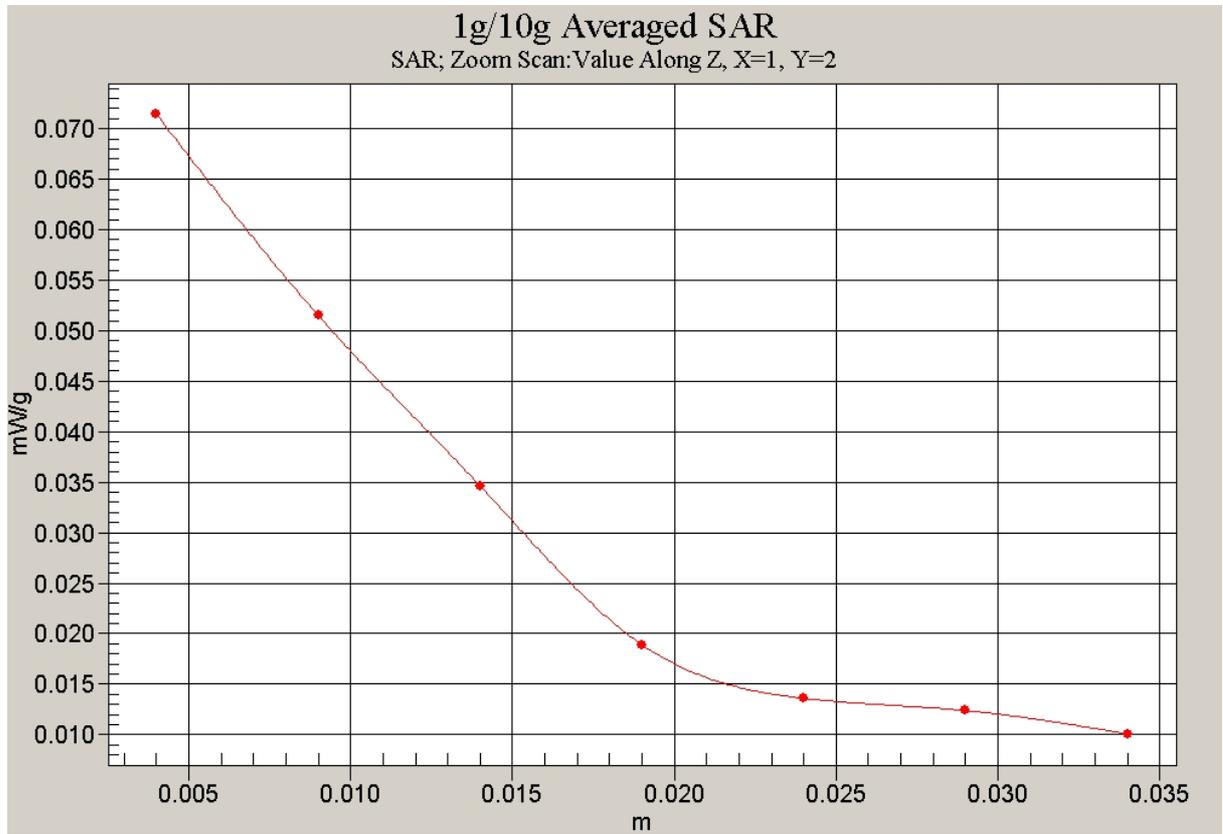

Fig.249 1900MHz GPRS CH661Test Position 1

Fig.250 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 1)

1900 GPRS Test Position 2 with IBM Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; $ε_r$ = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 2/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm
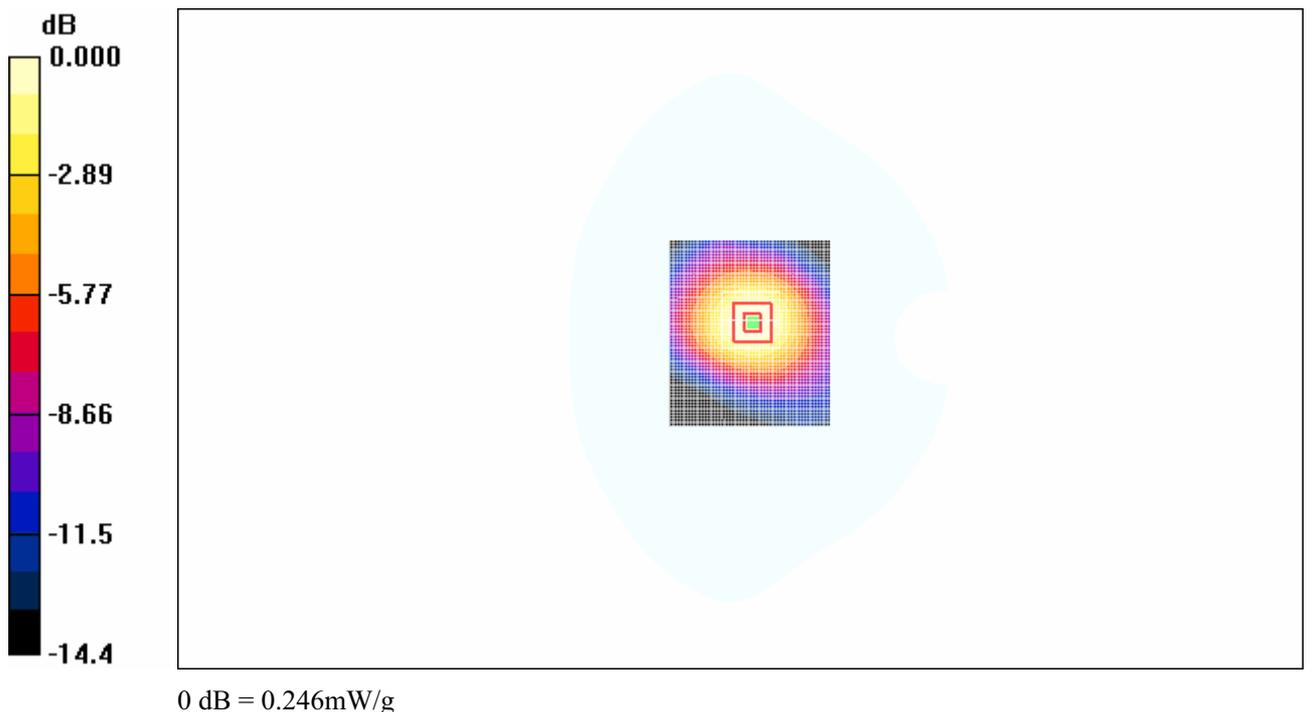
Maximum value of SAR (interpolated) = 0.065 mW/g

Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.29 V/m; Power Drift = -0.153dB

Peak SAR (extrapolated) = 0.146 W/kg

SAR(1 g) = 0.059 mW/g; SAR(10 g) = 0.033 mW/g

Maximum value of SAR (measured) = 0.068 mW/g

0 dB = 0.068mW/g
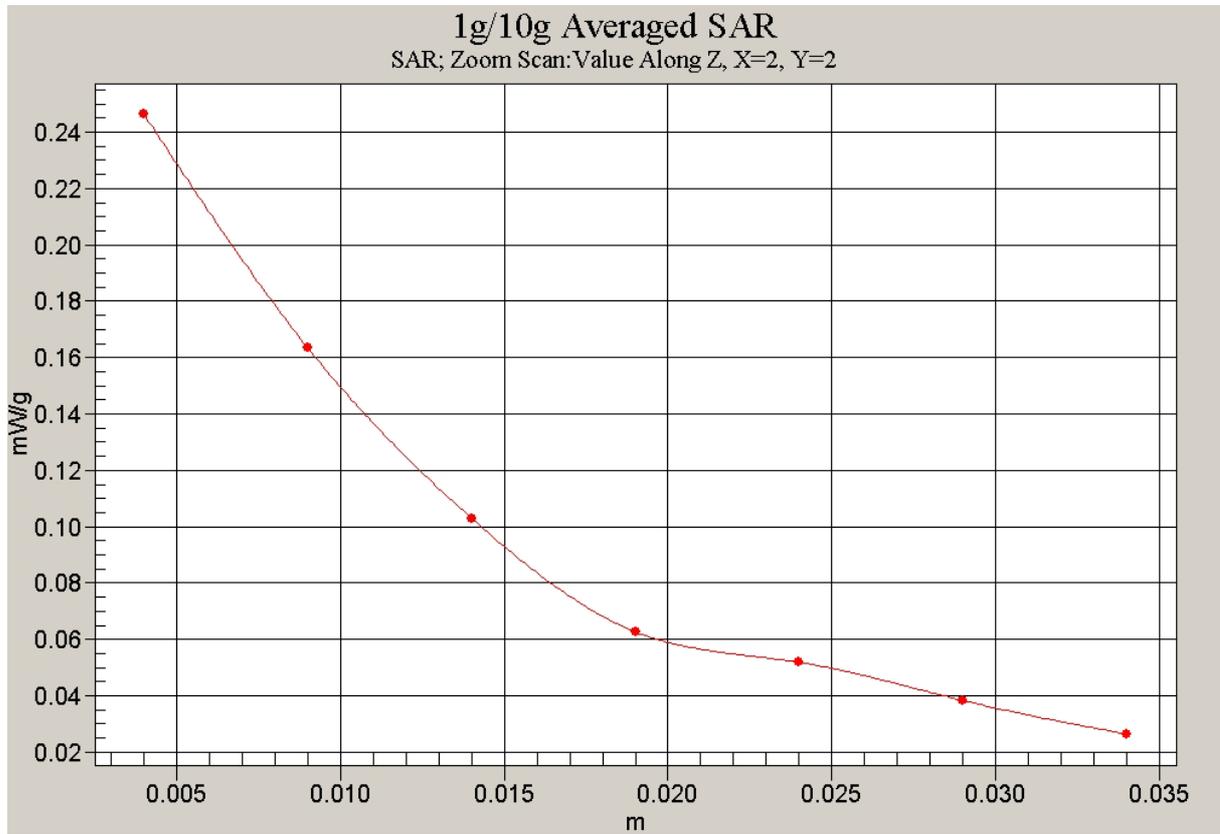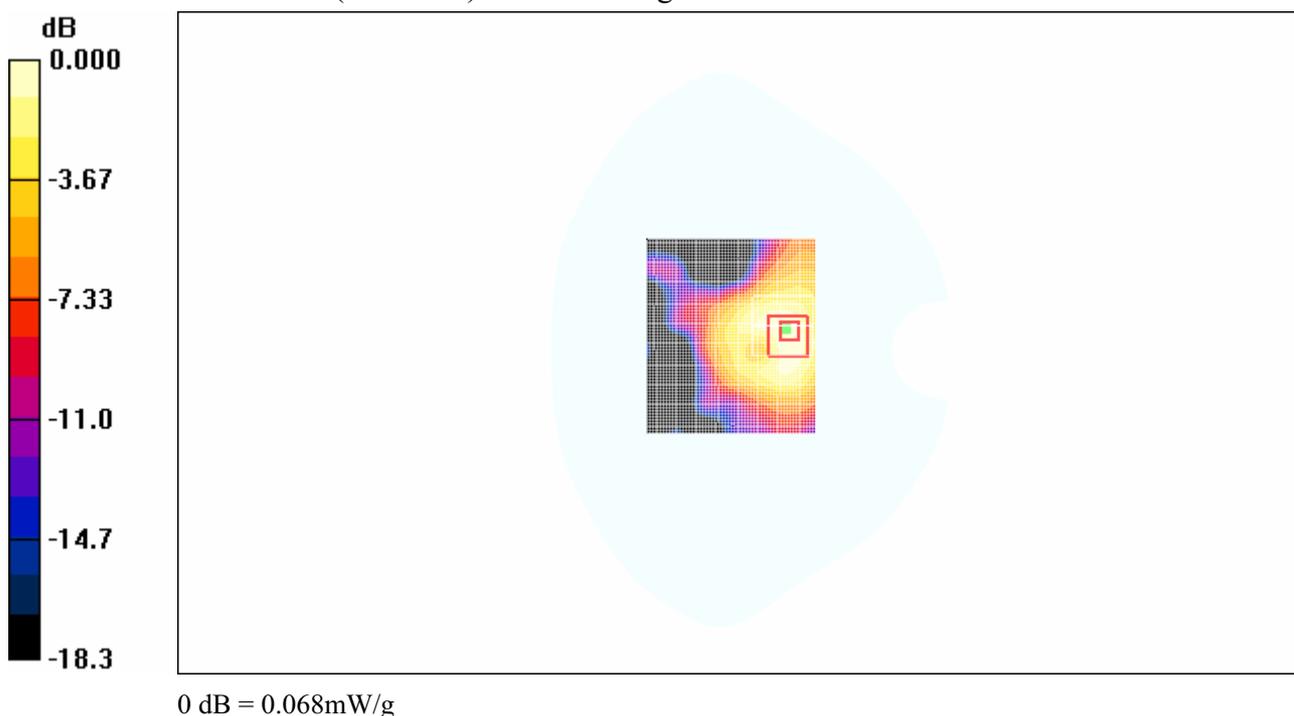

Fig.251 1900MHz GPRS CH661Test Position 2

Fig.252 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 2)

1900 GPRS Test Position 3 with IBM Laptop-antenna folded
Electronics: DAE3 Sn536
Medium: 1900 Body
Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C
Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4
Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 3/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.035 mW/g

Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.67 V/m; Power Drift = 0.200 dB
Peak SAR (extrapolated) = 0.103 W/kg
SAR(1 g) = 0.032 mW/g; SAR(10 g) = 0.016 mW/g
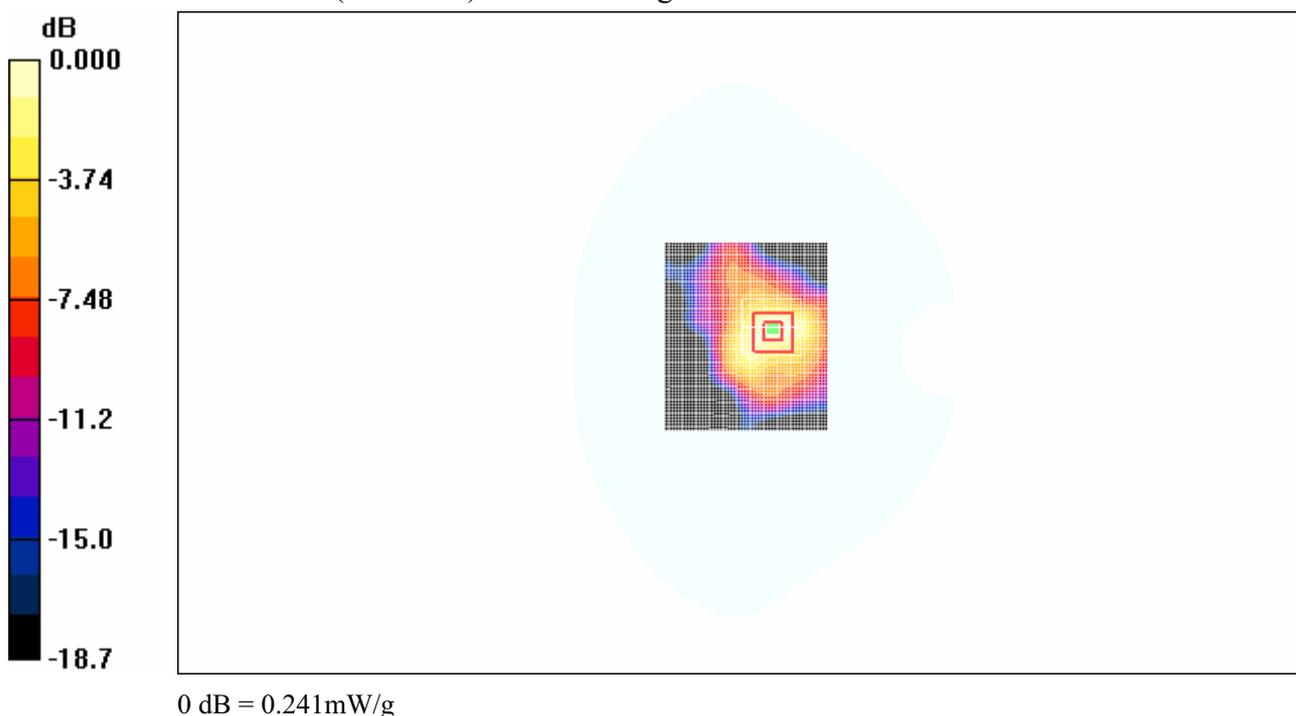Maximum value of SAR (measured) = 0.041 mW/g

0 dB = 0.041mW/g
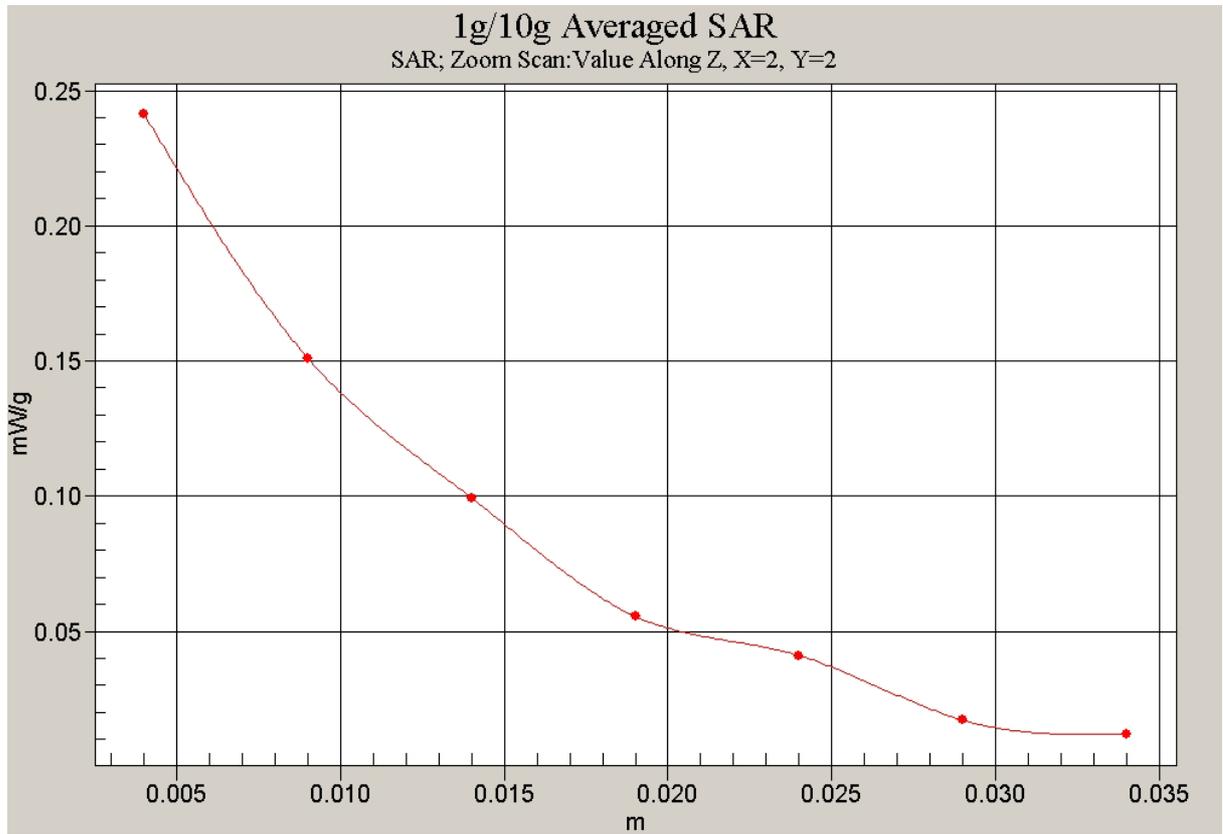
Fig.253 1900MHz GPRS CH661Test Position 3

Fig.254 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 3)

1900 GPRS Test Position 4 with IBM Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 4/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.011 mW/g

Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.62 V/m; Power Drift = -0.186 dB

Peak SAR (extrapolated) = 0.038 W/kg

SAR(1 g) = 0.00132 mW/g; SAR(10 g) = 0.000447 mW/g

Maximum value of SAR (measured) = 0.038 mW/g

0 dB = 0.038mW/g
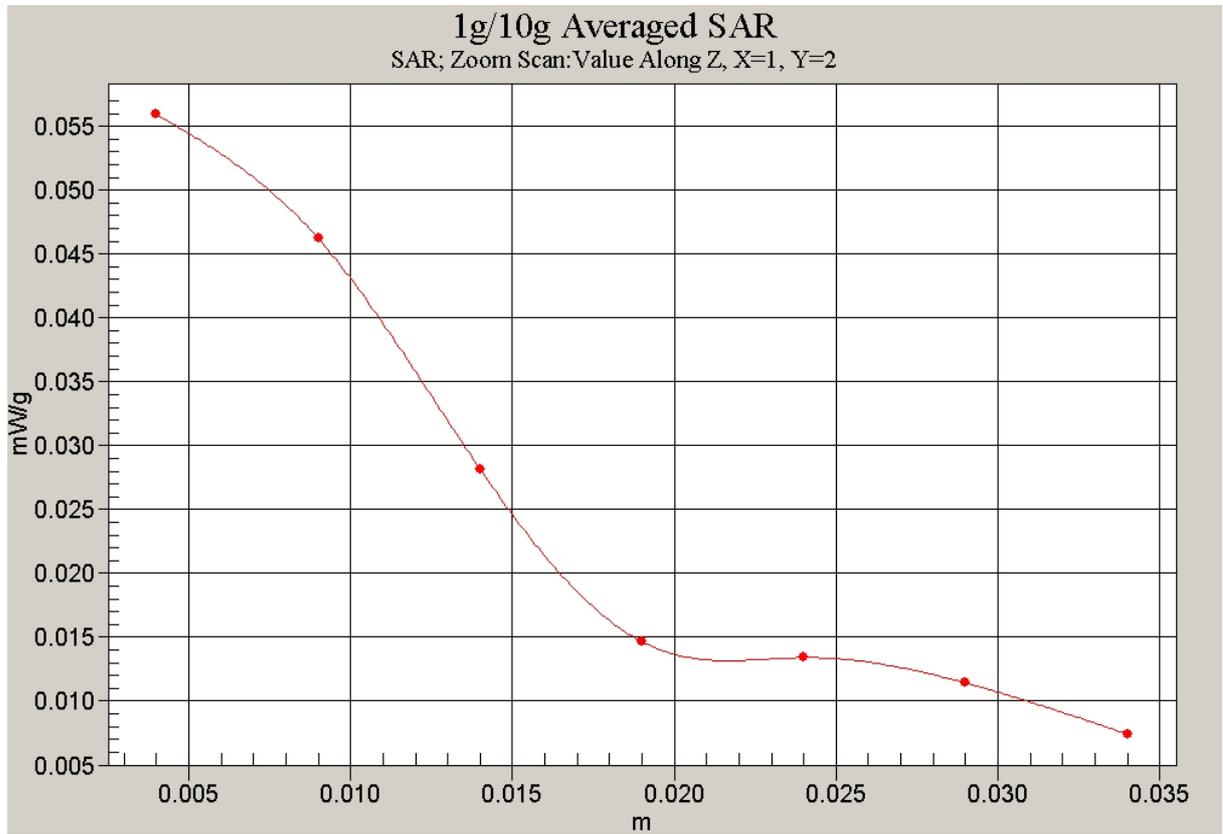
Fig.255 1900MHz GPRS CH661Test Position 4

Fig.256 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 4)

1900 GPRS Test Position 5 with IBM Laptop-antenna folded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 5/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.037 mW/g

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

Reference Value = 5.22 V/m; Power Drift = -0.032 dB

Peak SAR (extrapolated) = 0.051 W/kg

SAR(1 g) = 0.033 mW/g; SAR(10 g) = 0.022 mW/g
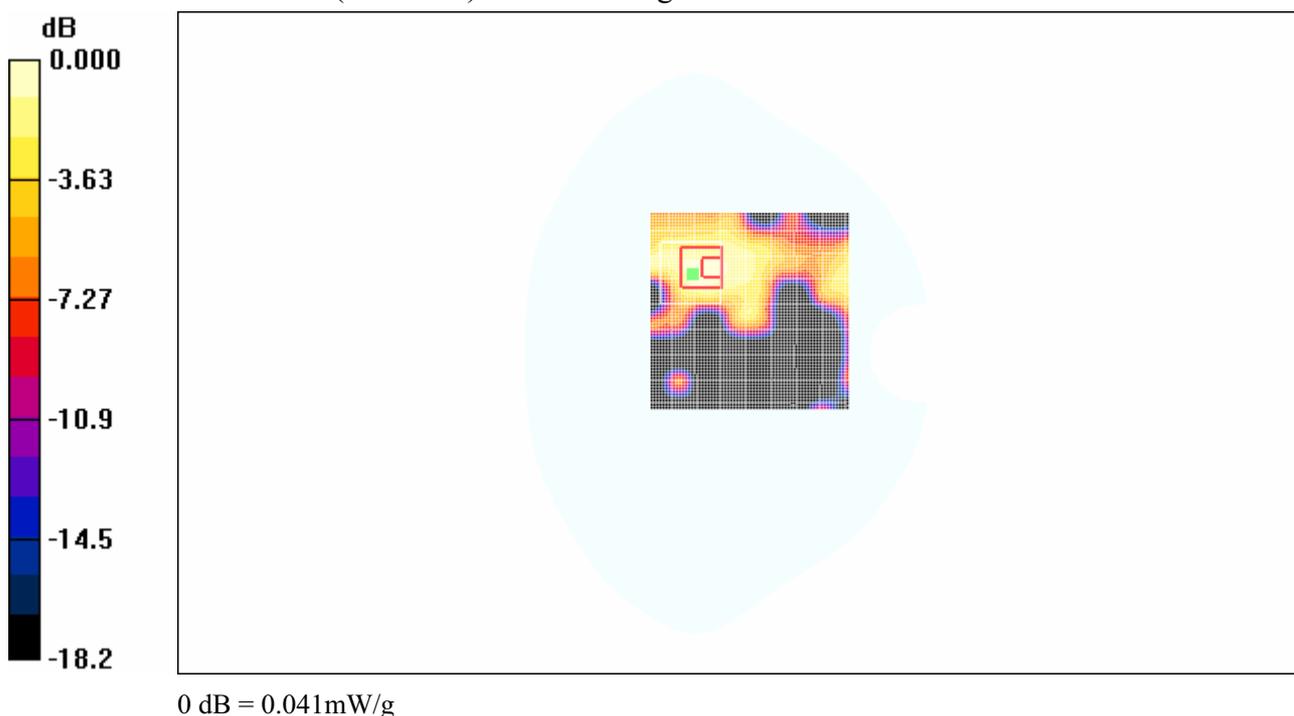
Maximum value of SAR (measured) = 0.037 mW/g
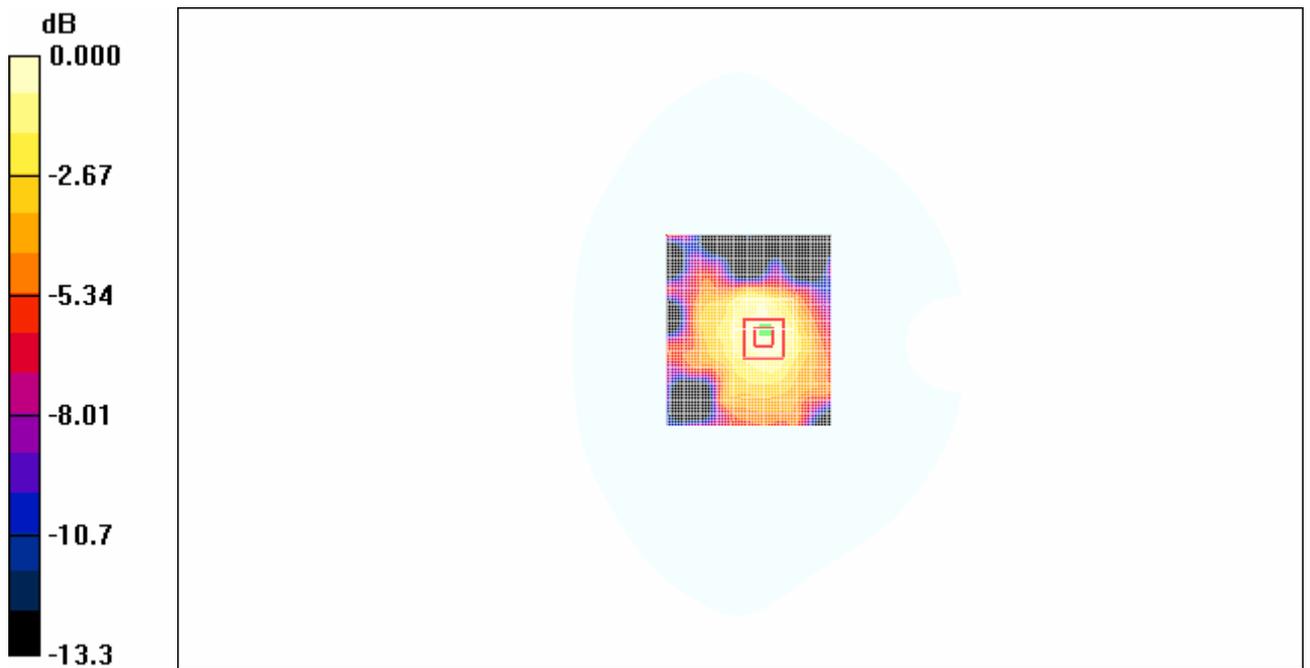
0 dB = 0.037mW/g

Fig.257 1900MHz GPRS CH661 Test Position 5
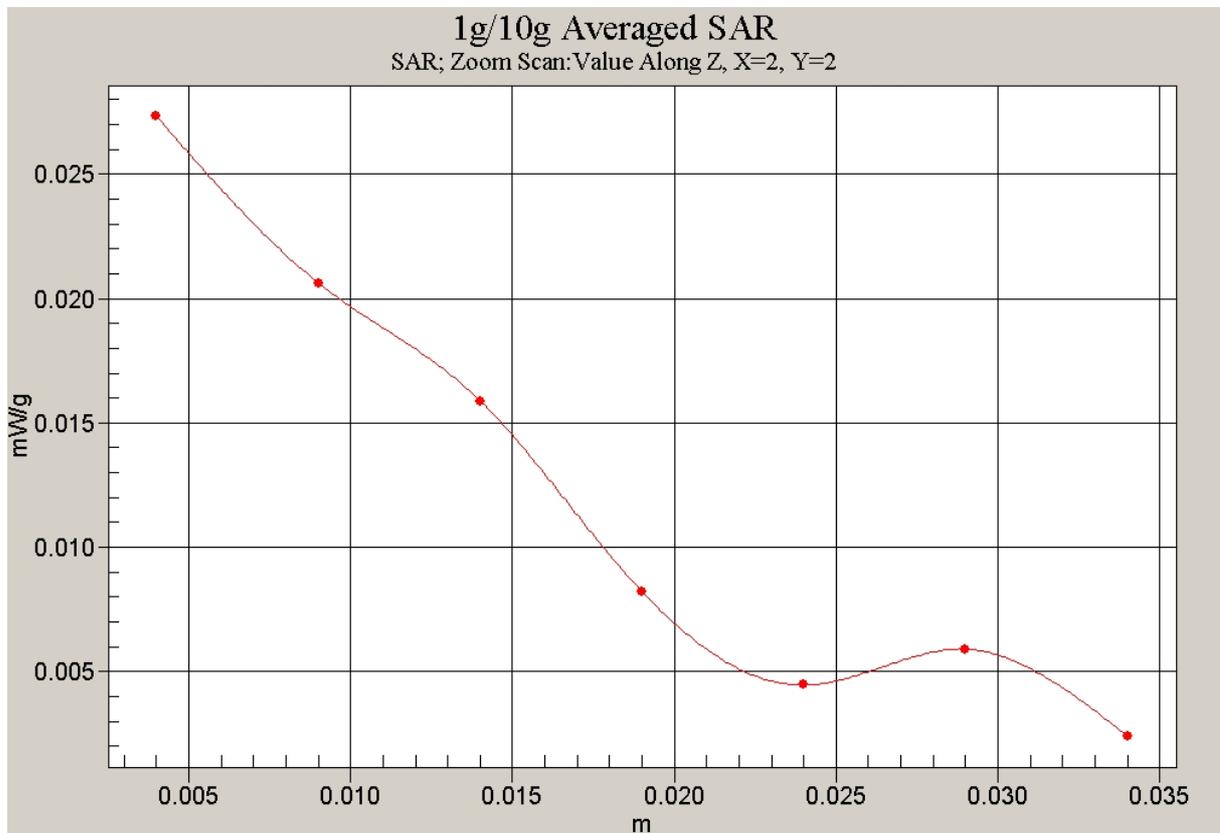
Fig.258 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 5)

1900MHz GPRS Test Position 1 with IBM Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 1/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

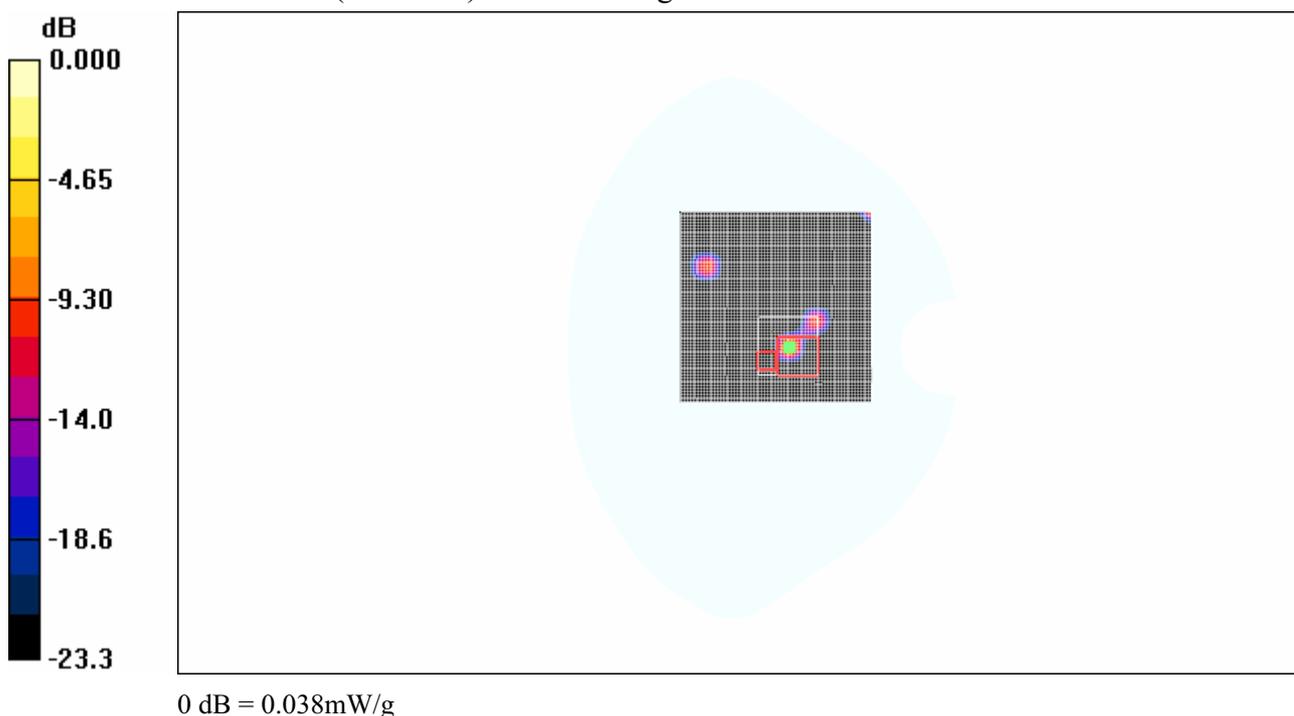Maximum value of SAR (interpolated) = 0.604 mW/g

Test Position 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.4 V/m; Power Drift = -0.033 dB

Peak SAR (extrapolated) = 0.930 W/kg

SAR(1 g) = 0.553 mW/g; SAR(10 g) = 0.317 mW/g

Maximum value of SAR (measured) = 0.608 mW/g

0 dB = 0.608mW/g

Fig.259 1900MHz GPRS CH661Test Position 1
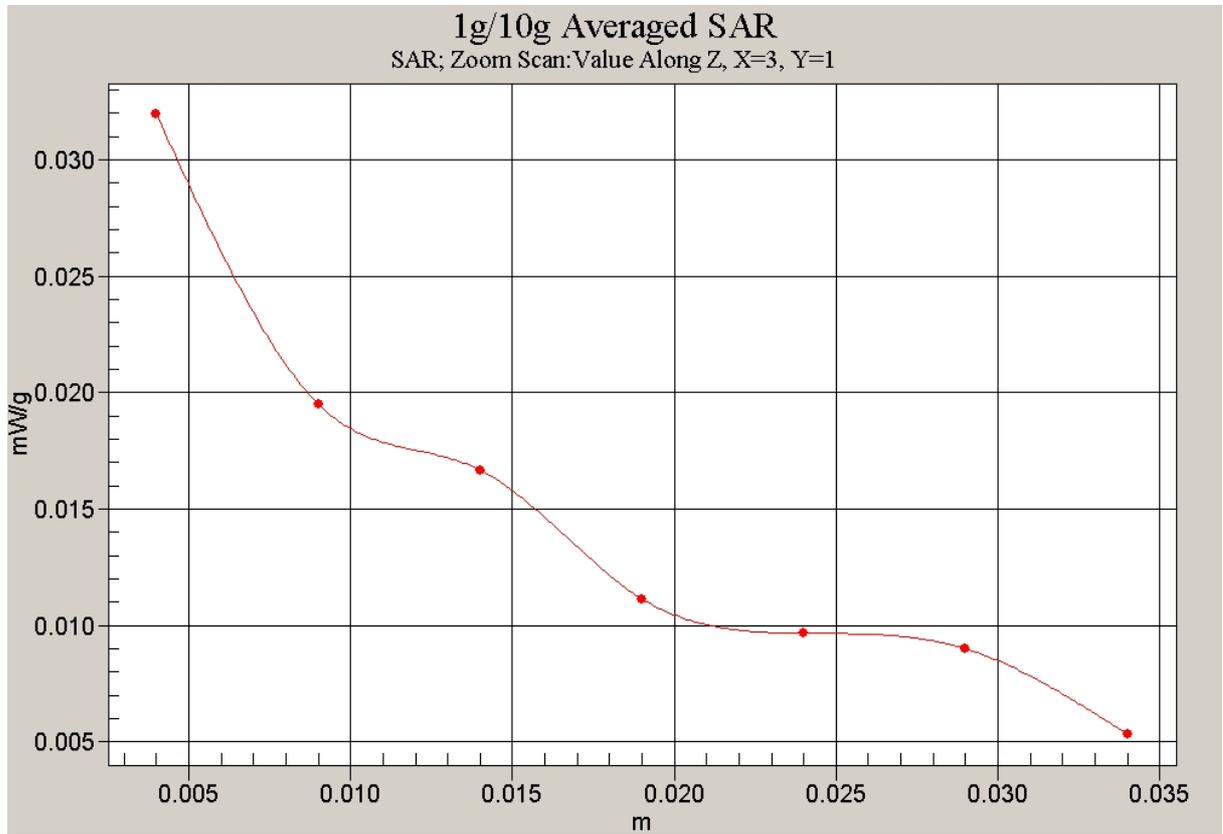
Fig.260 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 1)

1900MHz GPRS Test Position 2 with IBM Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 2/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.076 mW/g

Test Position 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.09 V/m; Power Drift = 0.060 dB

Peak SAR (extrapolated) = 0.107 W/kg

SAR(1 g) = 0.068 mW/g; SAR(10 g) = 0.045 mW/g

Maximum value of SAR (measured) = 0.073 mW/g

0 dB = 0.073mW/g
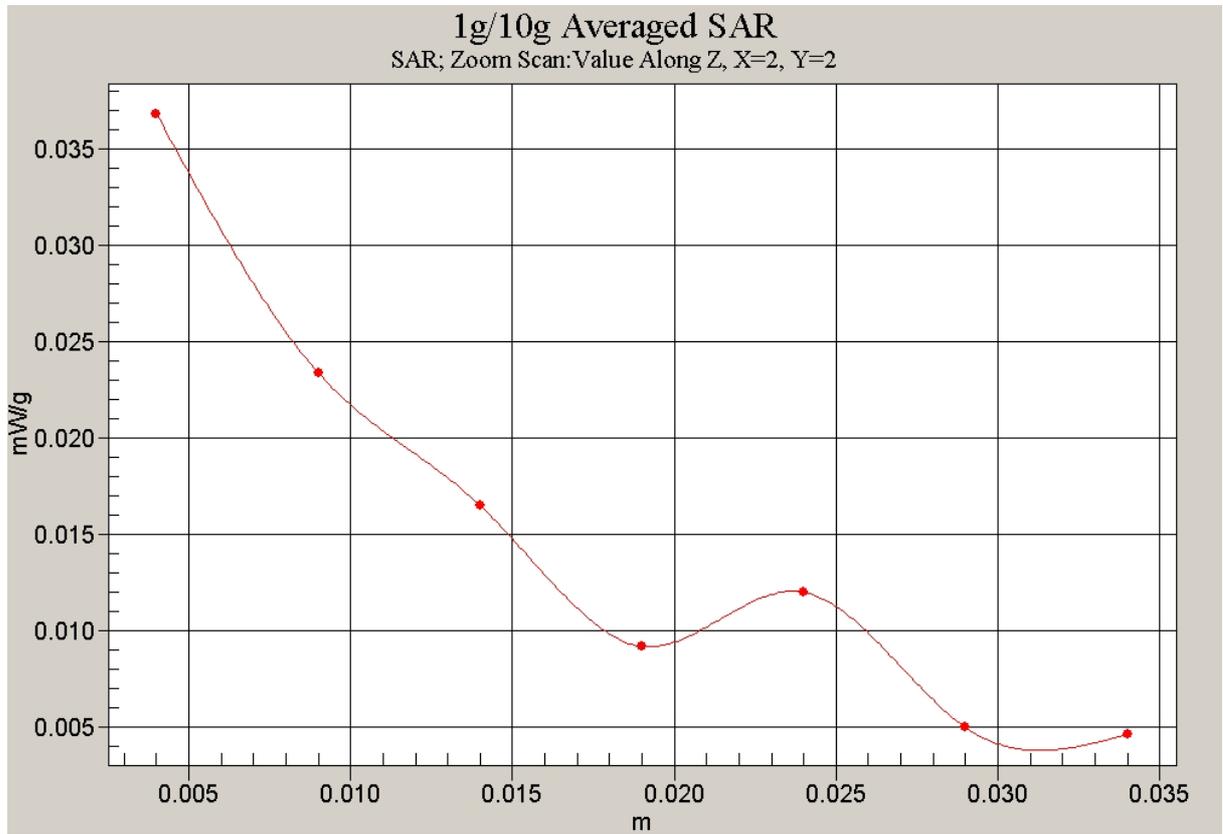
Fig.261 1900MHz GPRS CH661Test Position 2

Fig.262 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 2)

1900MHz GPRS Test Position 3 with IBM Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 3/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.168 mW/g

Test Position 3/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.98 V/m; Power Drift = -0.198 dB

Peak SAR (extrapolated) = 0.247 W/kg

SAR(1 g) = 0.157 mW/g; SAR(10 g) = 0.100 mW/g

Maximum value of SAR (measured) = 0.167 mW/g
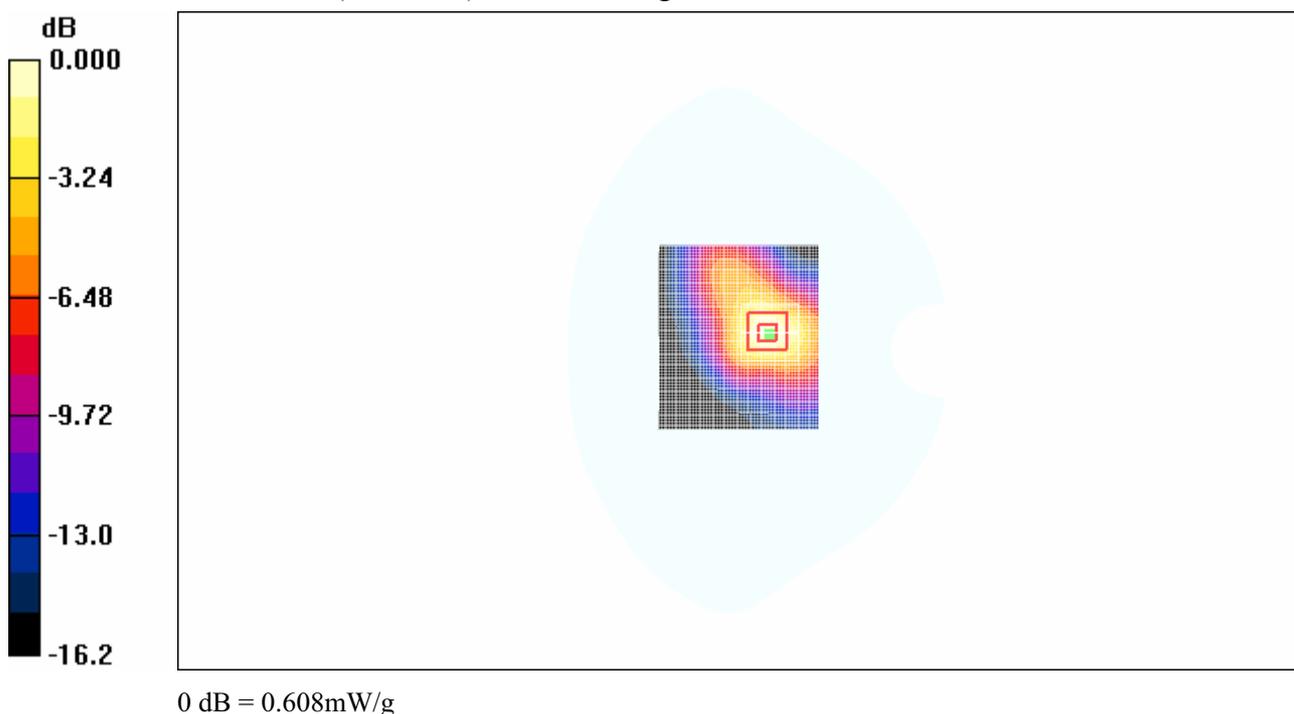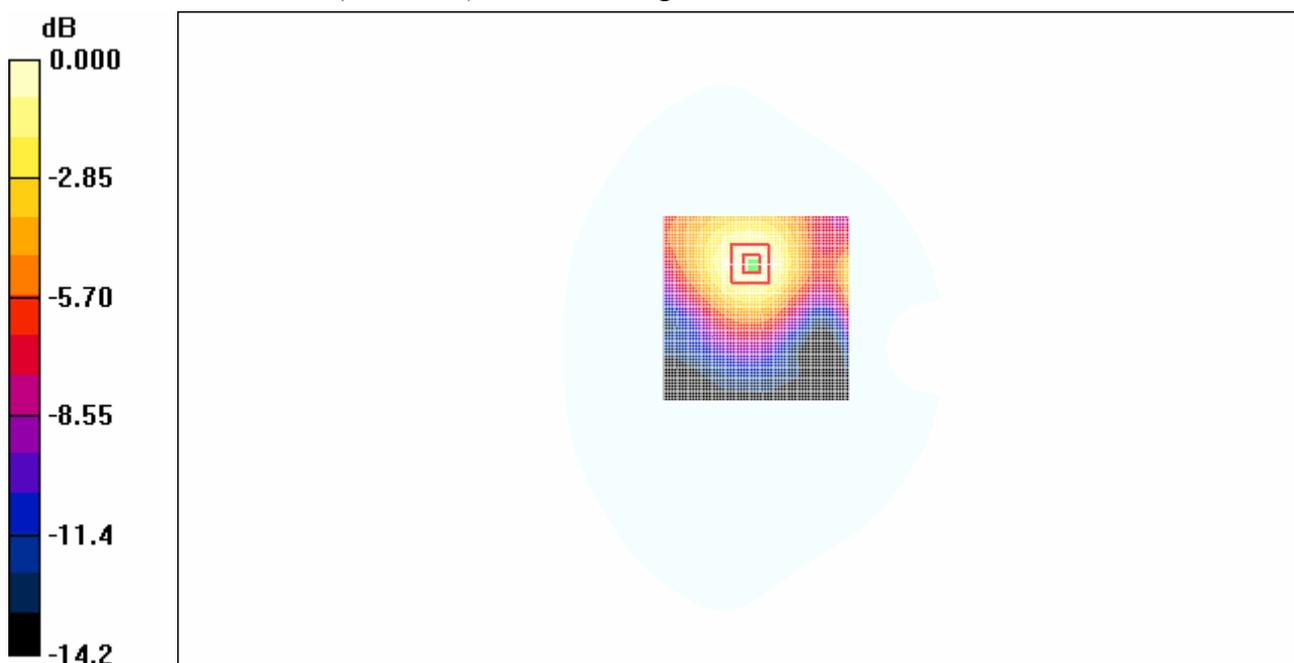

0 dB = 0.167mW/g

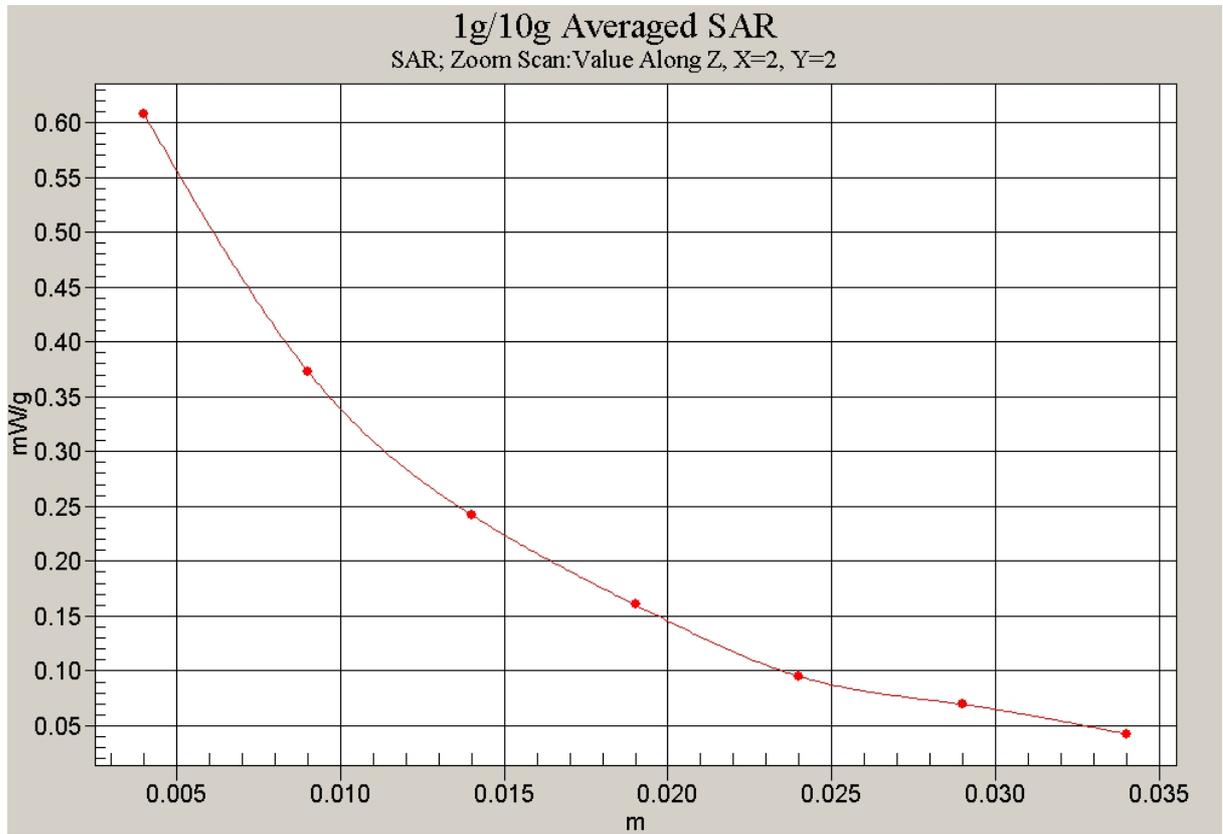**Fig.263 1900MHz GPRS CH661Test Position 3**

Fig.264 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 3)

1900MHz GPRS Test Position 4 with IBM Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 4/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.042 mW/g

Test Position 4/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.74 V/m; Power Drift = -0.067 dB

Peak SAR (extrapolated) = 0.072 W/kg

SAR(1 g) = 0.046 mW/g; SAR(10 g) = 0.028 mW/g
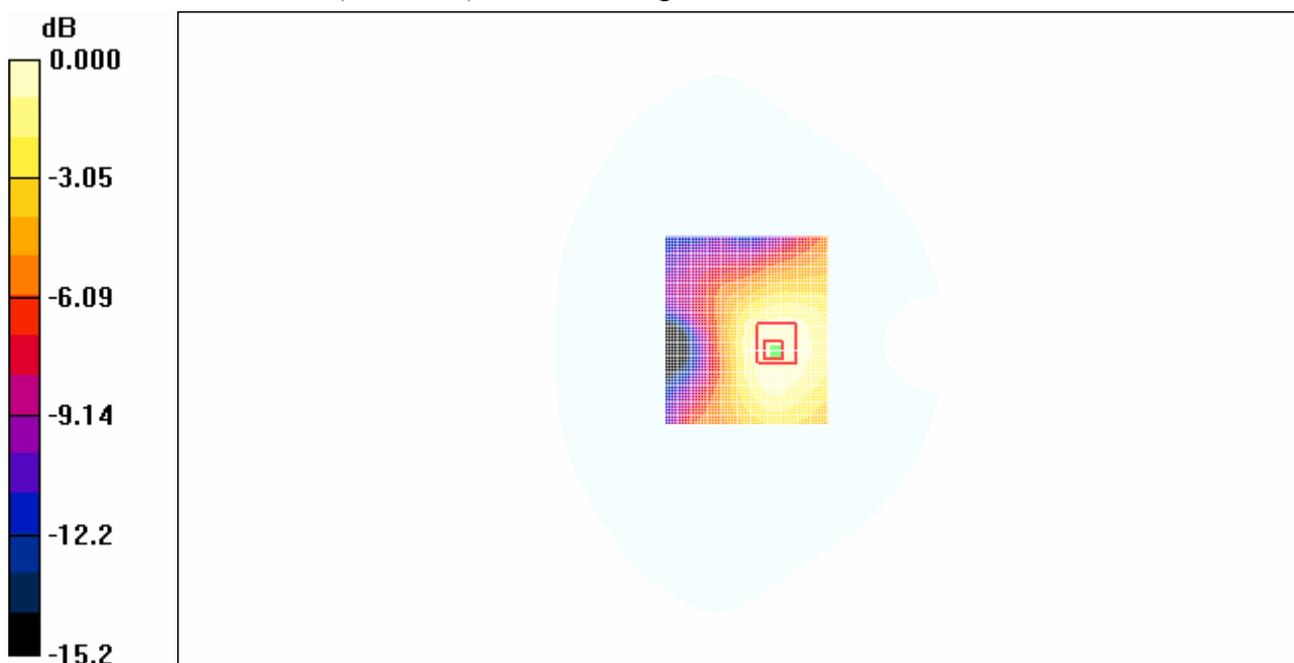
Maximum value of SAR (measured) = 0.049 mW/g
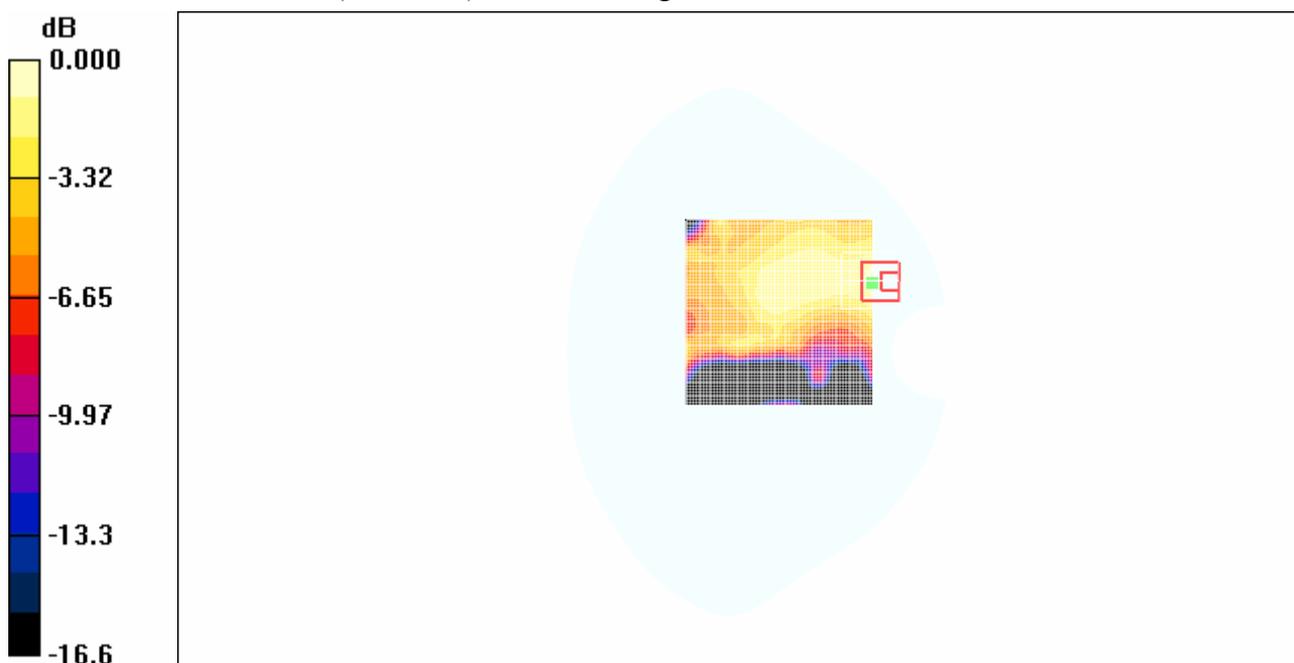
0 dB = 0.049mW/g

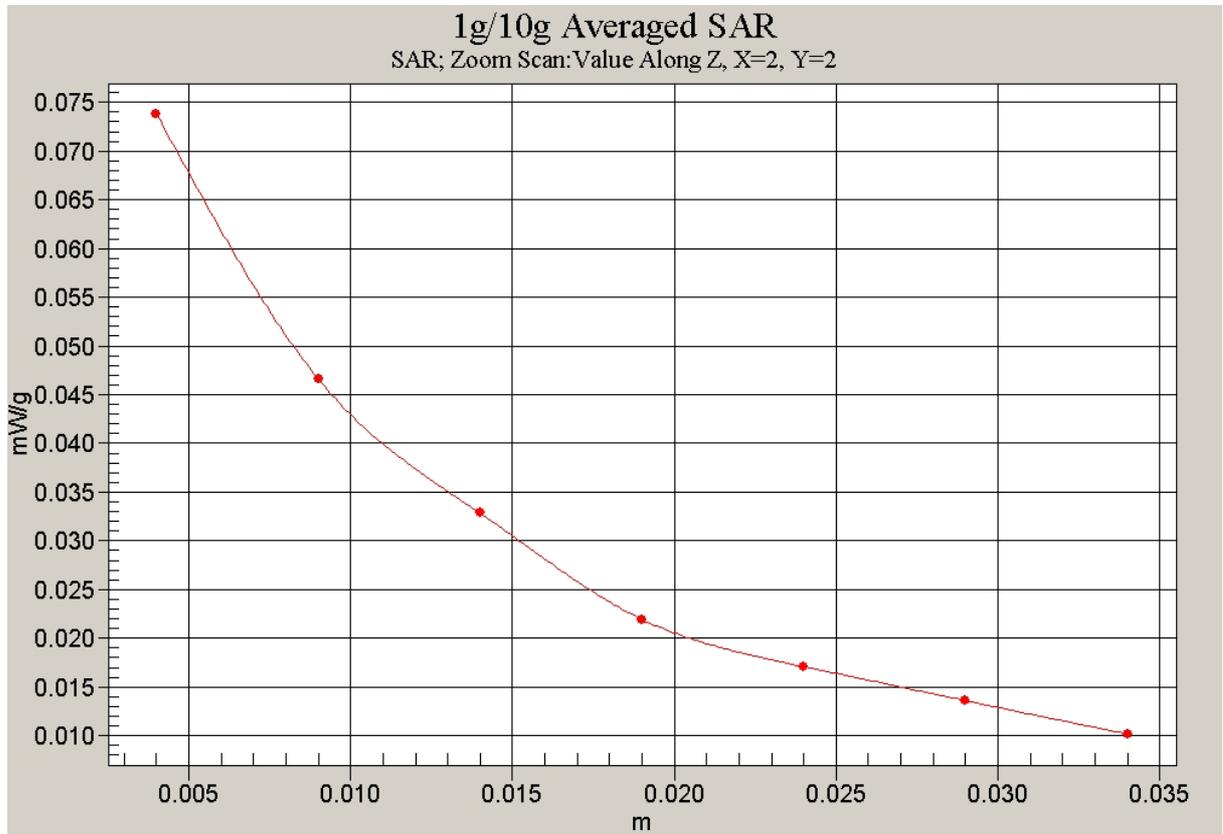v

Fig.265 1900MHz GPRS CH661Test Position 4
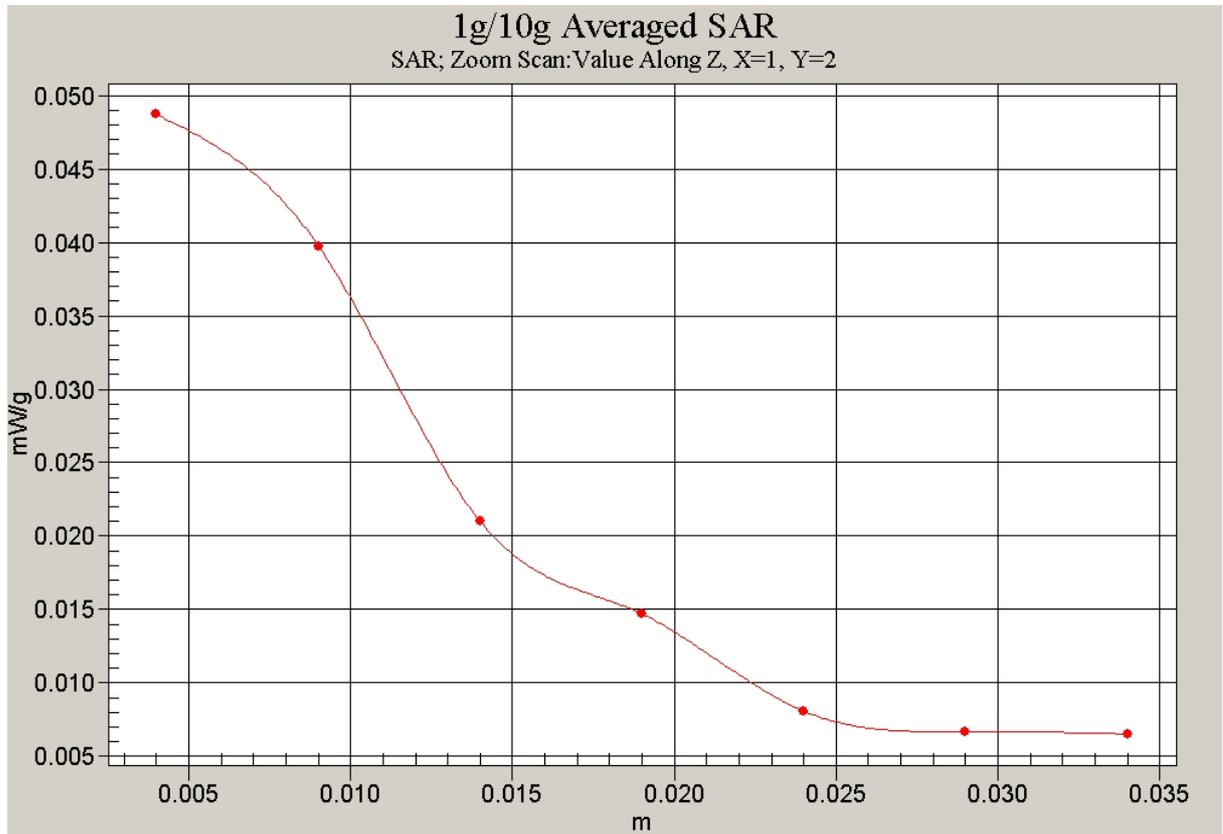
Fig.266 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 4)

1900MHz GPRS Test Position 5 with IBM Laptop-antenna unfolded

Electronics: DAE3 Sn536

Medium: 1900 Body

Medium parameters used: f = 1880 MHz; σ = 1.53 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.5^{o}C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:4

Probe: ET3DV6 - SN1736 ConvF(4.88, 4.88, 4.88)

Test Position 5/Area Scan (61x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.218 mW/g

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

Reference Value = 11.2 V/m; Power Drift = -0.026 dB

Peak SAR (extrapolated) = 0.321 W/kg

SAR(1 g) = 0.192 mW/g; SAR(10 g) = 0.119 mW/g

Maximum value of SAR (measured) = 0.205 mW/g

0 dB = 0.205mW/g
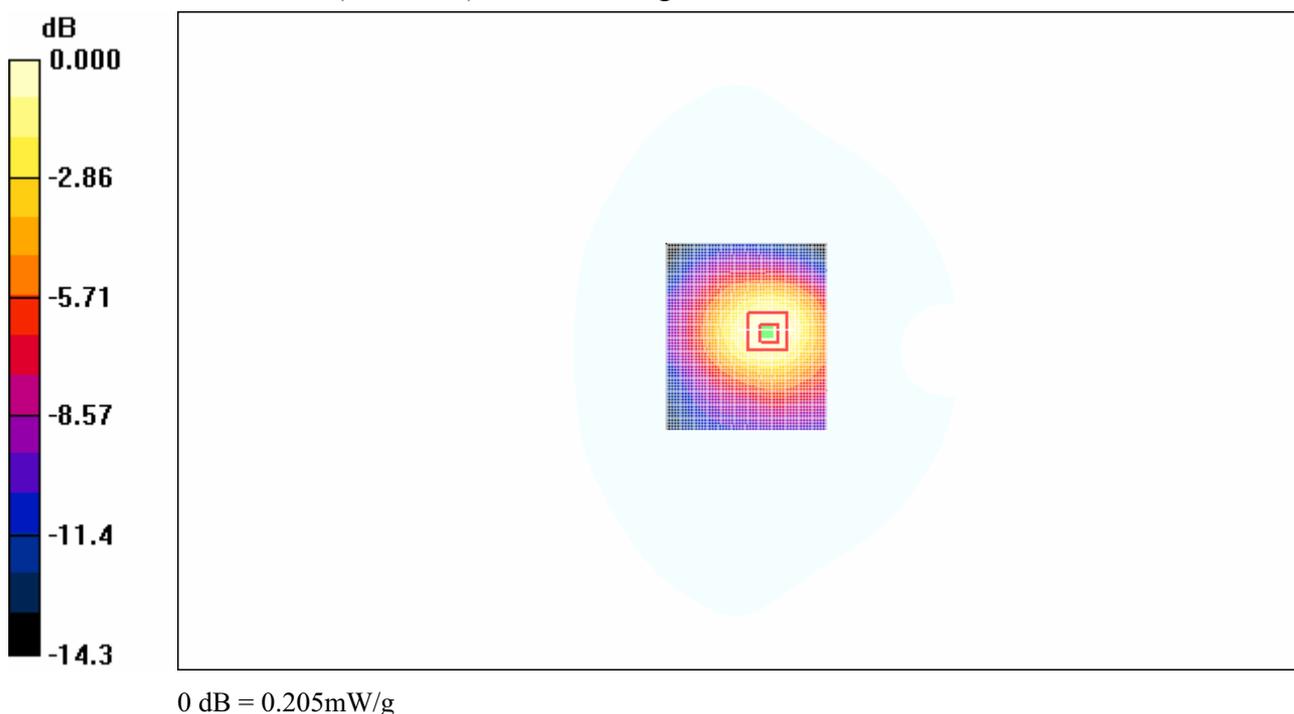
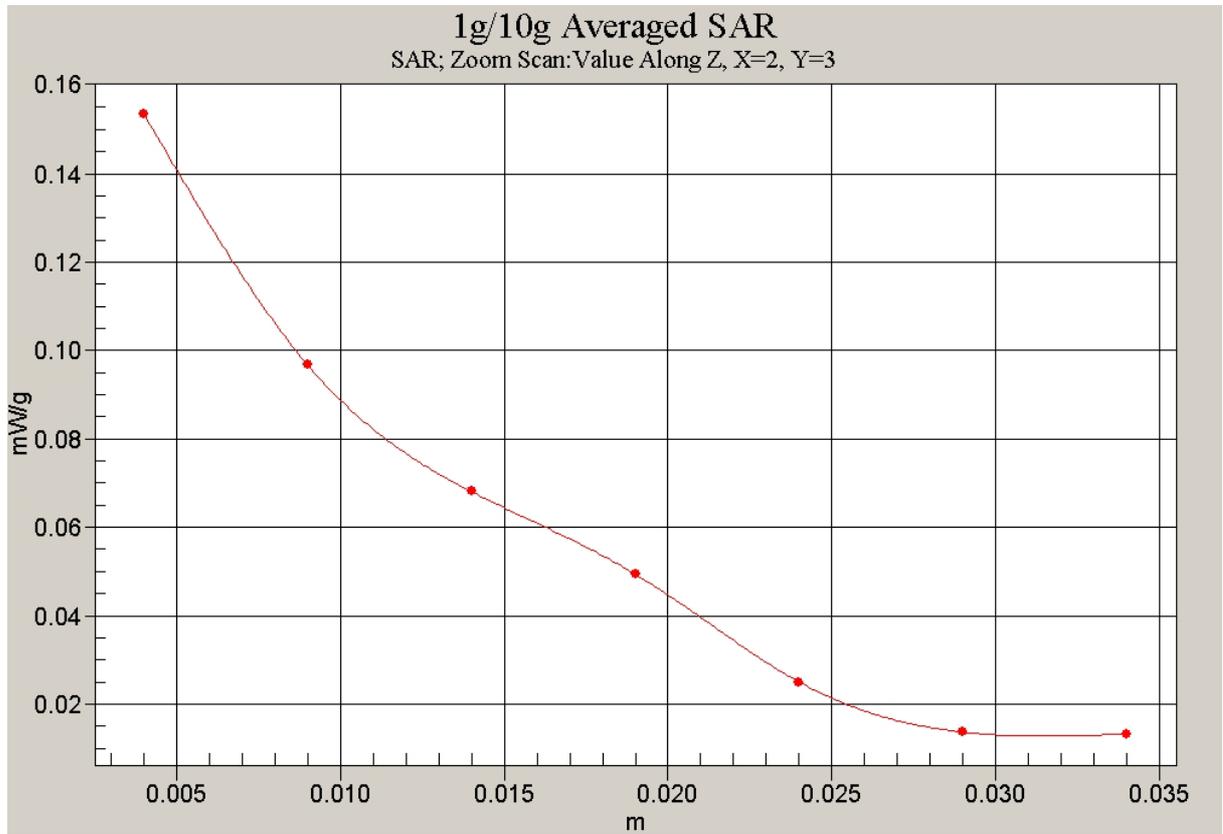**Fig.267 1900MHz GPRS CH661 Test Position 5**
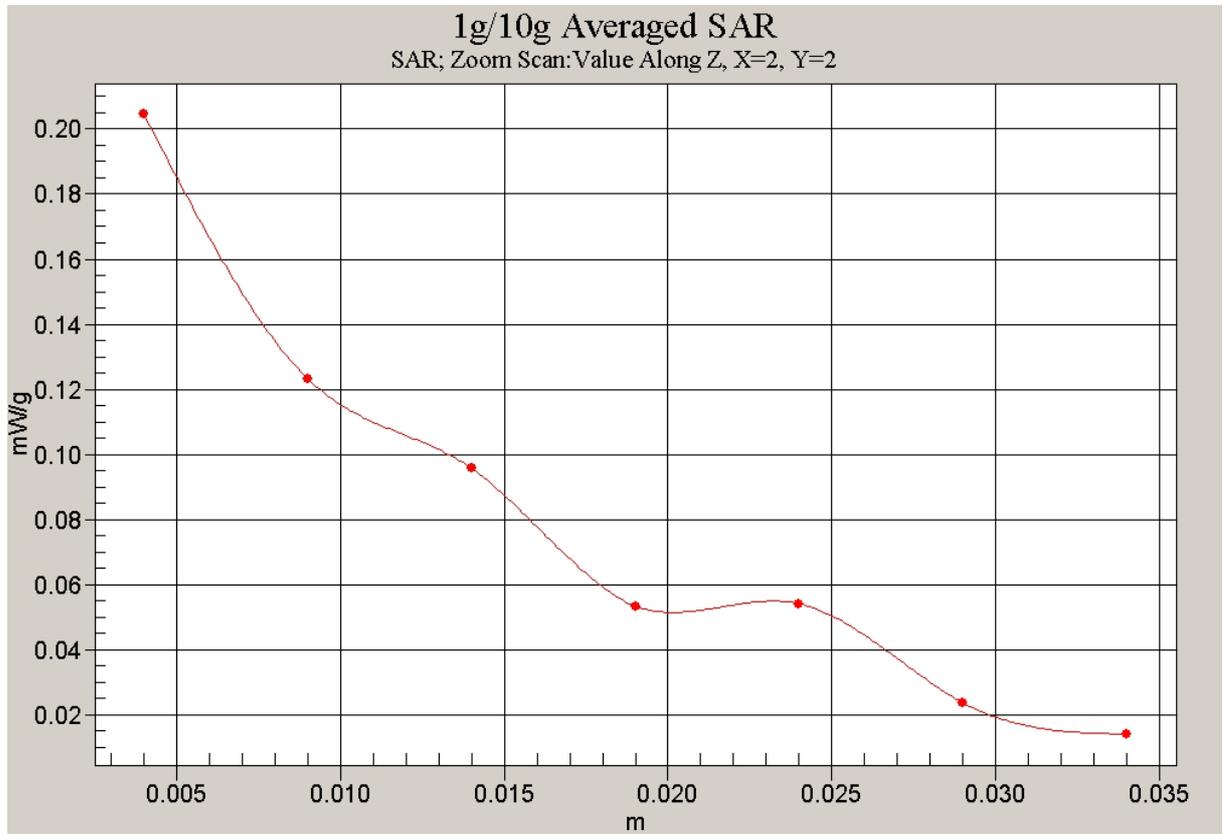
Fig.268 Z-Scan at power reference point (1900MHz GPRS CH661 Test Position 5)

ANNEX D: SYSTEM VALIDATION RESULTS

835MHzDAE589Probe1736

Electronics: DAE3 Sn536

Medium: 835 Head

Medium parameters used (interpolated): f = 835 MHz; σ = 0.88 mho/m; ε_r = 41.7; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.3^{o}C

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

Probe: ET3DV6 - SN1736 ConvF(6.51, 6.51, 6.51)

835MHz/Area Scan (101x101x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 2.68 mW/g

**835MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.8 V/m; Power Drift = -0.0 dB

Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.48 mW/g; SAR(10 g) = 1.62 mW/g

Maximum value of SAR (measured) = 2.69 mW/g
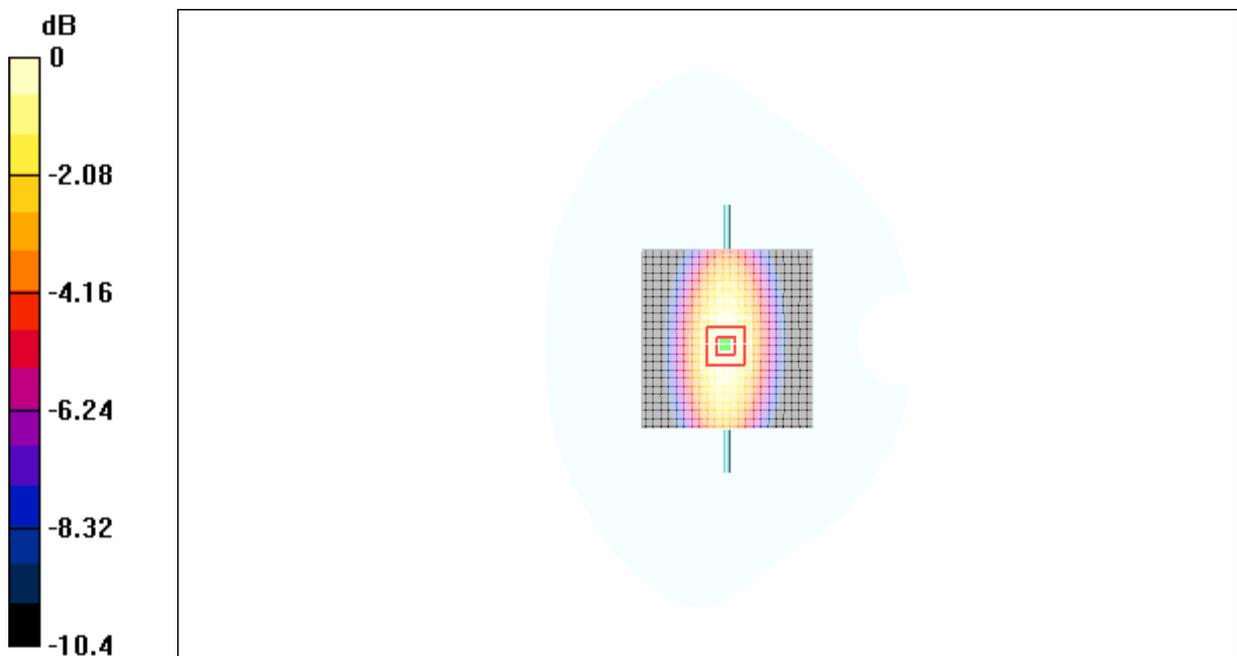
0 dB = 2.69mW/g

Fig.269 validation 835MHz 250mW

1900MHzDAE536Probe1736

Electronics: DAE3 Sn536

Medium: 1900 Head

Medium parameters used (interpolated): f = 1900MHz; σ = 1.45 mho/m; ε_r = 39.2; ρ = 1000 kg/m^3

Ambient Temperature:23.3^{o}C   Liqiud Temperature: 22.3^{o}C

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

Probe: ET3DV6 - SN1736 ConvF(5.4, 5.4, 5.4)

System Validation/Area Scan (101x101x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 11.2 mW/g

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

Reference Value = 92.1 V/m; Power Drift = 0.1 dB

Peak SAR (extrapolated) = 16.9 W/kg

SAR(1 g) = 9.91 mW/g; SAR(10 g) = 5.27 mW/g

Maximum value of SAR (measured) = 11.3 mW/g

0 dB = 11.3mW/g

Fig.270 validation 1900MHz 250mW
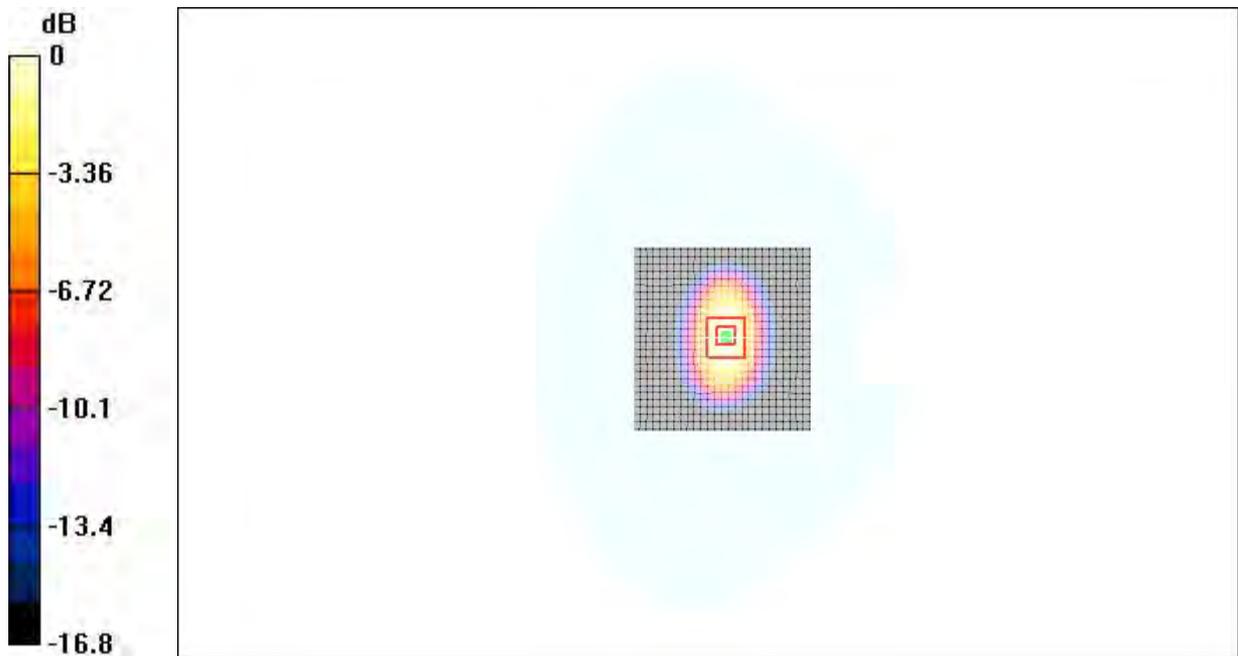
ANNEX E： PROBE CALIBRATION CERTIFICATE

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

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

Accredited by the Swiss Federal Office of metrology and Accreditation

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 **TMC China**   Certificate No: ET3DV6-1736_Dec06

CALIBRATION CERTIFICATE

Object	**ET3DV6-SN: 1736**
Calibration procedure(s)	**QA CAL-01.v5** **Calibration procedure for dosimetric E-field probes**
Calibration date:	**December 1, 2006**
Condition of the calibrated item	**In Tolerance**

This calibration certify documents the traceability to national standards, which realize the physical units of measurements(SI).

All calibrations have been conducted at an environment temperature (22±3)^{0}C and humidity<70%

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID#	Cal Data (Calibrated by, Certification NO.)	Scheduled Calibration
Power meter E4419B	GB341293874	22-May-06 (METAS, NO. 251-00466)	May-07
Power sensor E4412A	MY41495277	22-May-06 (METAS, NO. 251-00466)	May-07
Power sensor E4412A	MY41498087	22-May-06 (METAS, NO. 251-00466)	May-07
Reference 20 dB Attenuator	SN:S5086 (20b)	22-May-06 (METAS, NO. 251-00467)	May-07
Reference Probe ES3DV2	SN:S5086 (20b)	22-May-06 (METAS, NO. 251-00467)	May-07
DAE4	SN:3013	13-Jan-06 (SPEAG, NO. ES3-3013_Jan06)	Jan-07
Reference Probe ES3DV2	SN: 907	11-Jun-06 (SPEAG, NO.DAE4-907_Jun06)	Jun-07

Secondary Standards	ID#	Check Data (in house)	Scheduled Calibration
RF generator HP8648C	US3642U01700	4-Dec-05(SPEAG, in house check Dec-03)	In house check: Dec-09
Network Analyzer HP 8753E	US37390585	10-Nov-05(SPEAG, NO. DAE4-901_Nov-04)	In house check: Nov-09

	Name	Function	Signature
Calibrated by:	Nico Vetterli	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Director	

Issued: December 1, 2006

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

Certificate No: ET3DV6-1736_Dec06   Page 1 of 9

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

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

Accreditation No.: **SCS 108**

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis

Calibration is Performed According to the Following Standards:
   a) 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
   b) CENELEC 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

Methods Applied and Interpretation of Parameters:
   - *NORMx,y,z*: Assessed for E-field polarization $\vartheta = 0$ (f $\leq$ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not effect the E²-field uncertainty inside TSL (see below *ConvF*).
   - *NORM(f)x,y,z = NORMx,y,z * 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*.
   - *DCPx,y,z*: 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 NORMx,y,z * 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 ± 50 MHz to ± 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.

Probe ET3DV6

SN: 1736

Manufactured:	September 27, 2002
Last calibrated:	November 25, 2005
Recalibrated:	December 1, 2006

Calibrated for DASY System

ET3DV6 SN: 1736 December 1, 2006

DASY - Parameters of Probe: ET3DV6 SN:1736

Sensitivity in Free Space[A]

NormX	1.97 ± 10.1%	$\mu V/(V/m)^2$	
NormY	1.75 ± 10.1%	$\mu V/(V/m)^2$	
NormZ	1.97 ± 10.1%	$\mu V/(V/m)^2$	

Diode Compression[B]

DCP X	93 mV
DCP Y	93 mV
DCP Z	93 mV

Sensitivity in Tissue Simulating Liquid (Conversion Factors)

Please see Page 8.

Boundary Effect

TSL	900 MHz	Typical SAR gradient: 5 % per mm

		3.7 mm	4.7 mm
Sensor Center to Phantom Surface Distance			
SAR_{be} [%]	Without Correction Algorithm	9.6	5.0
SAR_{be} [%]	With Correction Algorithm	0.1	0.3

TSL	1810 MHz	Typical SAR gradient: 10 % per mm

		3.7 mm	4.7 mm
Sensor Center to Phantom Surface Distance			
SAR_{be} [%]	Without Correction Algorithm	13.2	8.8
SAR_{be} [%]	With Correction Algorithm	0.6	0.1

Sensor Offset

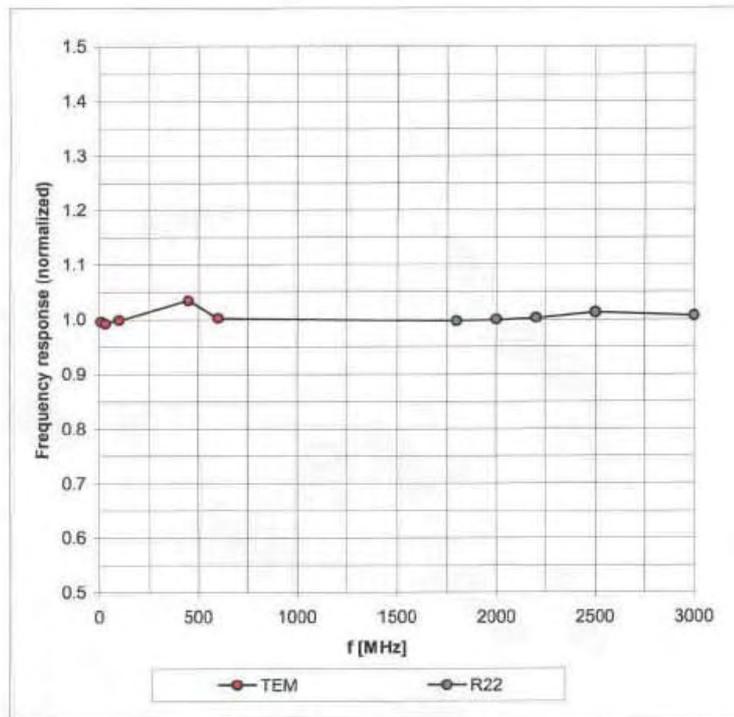| Probe Tip to Sensor Center	2.7 mm

ET3DV6 SN: 1736   December 1, 2006

Frequency Response of E-Field

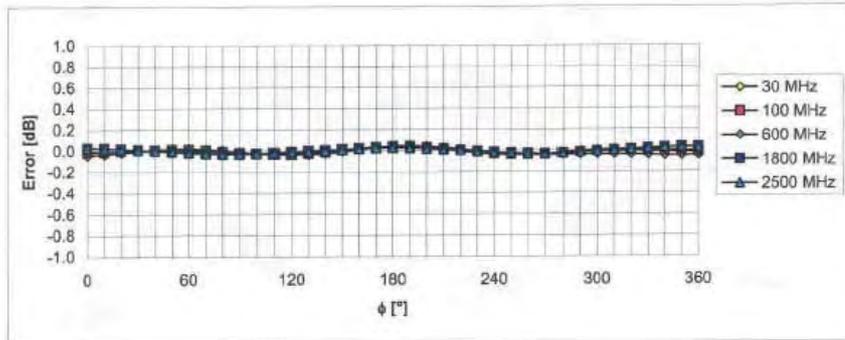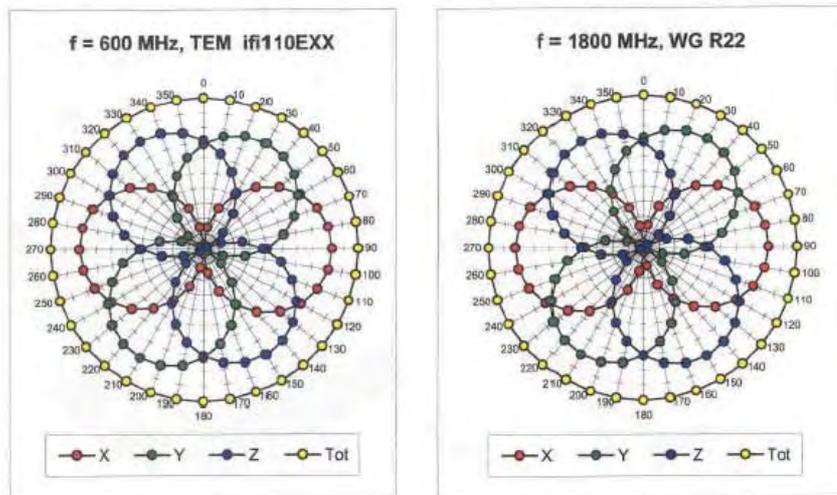### (TEM-Cell:ifi110 EXX, Waveguide: R22)

Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

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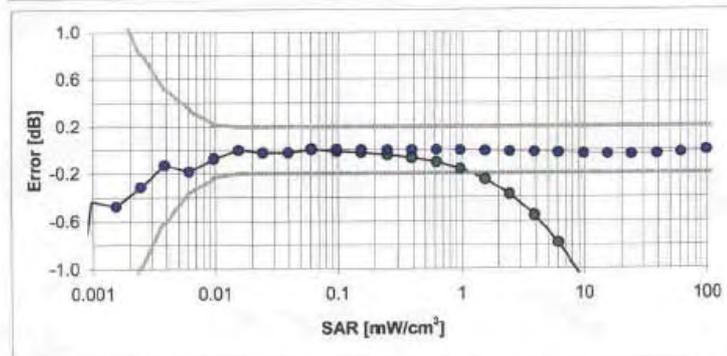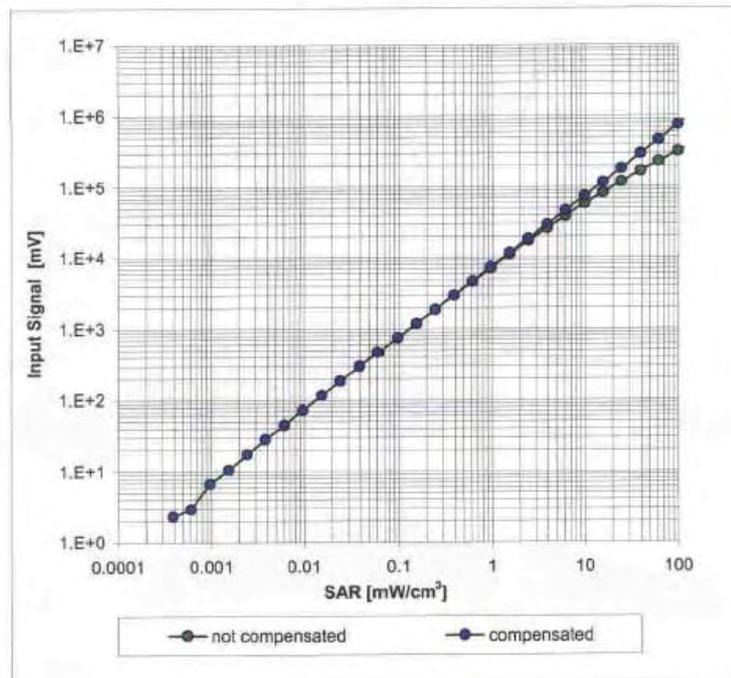
Receiving Pattern (ϕ), ϑ = 0°

f = 600 MHz, TEM ifi110EXX

f = 1800 MHz, WG R22

Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

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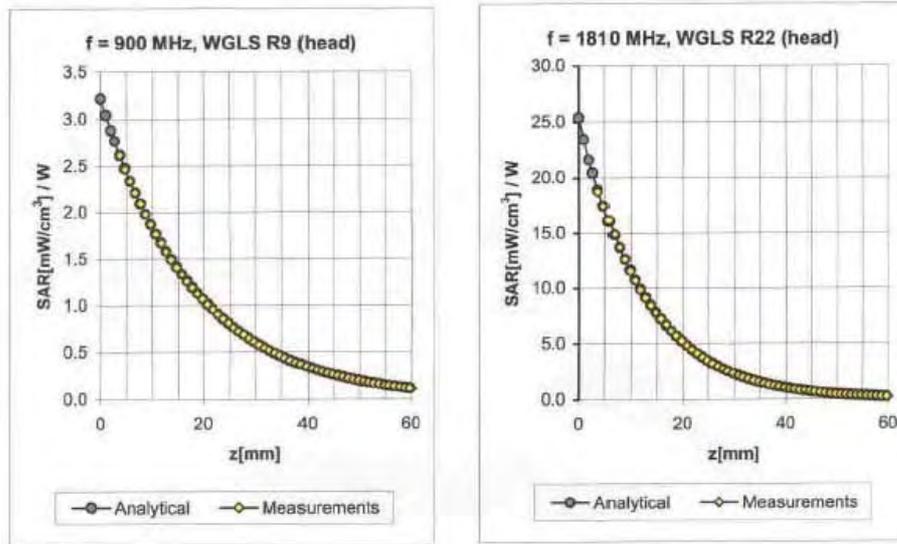
Dynamic Range f(SAR$_{head}$)
(Waveguide R22, f = 1800 MHz)

Uncertainty of Linearity Assessment: ± 0.6% (k=2)

ET3DV6 SN: 1736 December 1, 2006

Conversion Factor Assessment

f = 900 MHz, WGLS R9 (head)

f = 1810 MHz, WGLS R22 (head)

f [MHz]	Validity [MHz]^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF	Uncertainty
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.56	1.85	6.51	± 11.0% (k=2)
1810	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.57	2.47	5.40	± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.62	2.29	4.67	± 11.8% (k=2)
450	± 50 / ± 100	Body	56.7 ± 5%	0.94 ± 5%	0.12	1.61	7.74	± 13.3% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.47	2.15	6.45	± 11.0% (k=2)
1810	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.53	2.78	4.88	± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.65	2.11	4.35	± 11.8% (k=2)

ET3DV6 SN: 1736   December 1, 2006

Deviation from Isotropy in HSL
Error (φ, ϑ), f = 900 MHz
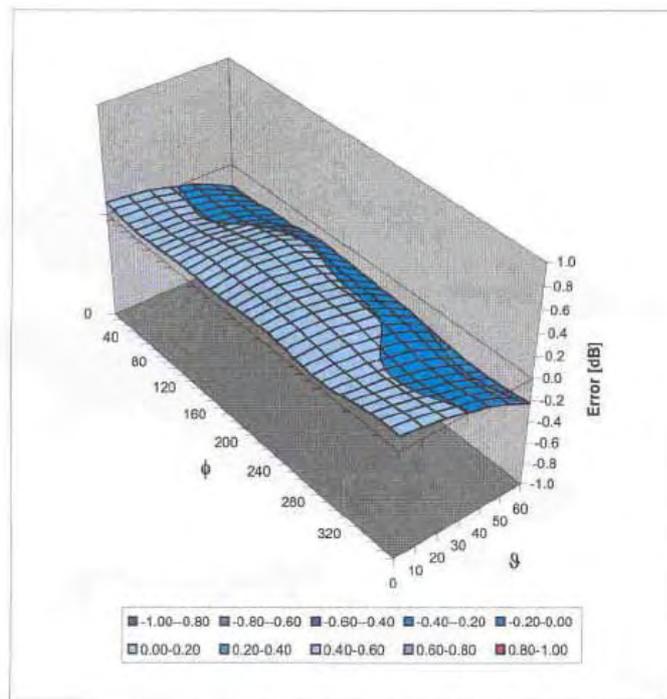
Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)