

850 Body Towards Phantom Low with GPRS- - Slide up

Date/Time: 2010-10-8 16:30:26

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 55.8$; $\rho = 1000$ kg/m³

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

Communication System: GSM 850 GPRS Frequency: 824.2 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

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

Maximum value of SAR (interpolated) = 0.674 mW/g

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

Reference Value = 25.9 V/m; Power Drift = -0.101 dB

Peak SAR (extrapolated) = 0.794 W/kg

SAR(1 g) = 0.632 mW/g; SAR(10 g) = 0.475 mW/g

Maximum value of SAR (measured) = 0.663 mW/g

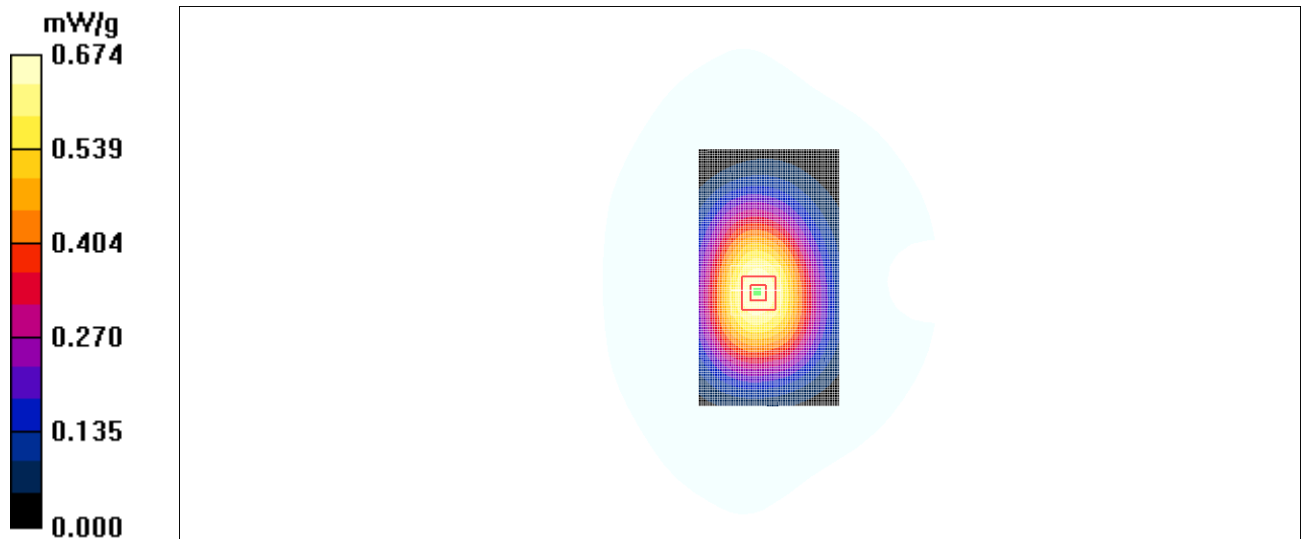


Fig. 81 850 MHz CH128

850 Body Towards Ground High with GPRS- - Slide up

Date/Time: 2010-10-8 16:45:53

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.95$ mho/m; $\epsilon_r = 54.5$; $\rho = 1000$ kg/m³

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

Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Ground High/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.761 mW/g

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

Reference Value = 28.4 V/m; Power Drift = -0.131 dB

Peak SAR (extrapolated) = 0.901 W/kg

SAR(1 g) = 0.710 mW/g; SAR(10 g) = 0.517 mW/g

Maximum value of SAR (measured) = 0.745 mW/g

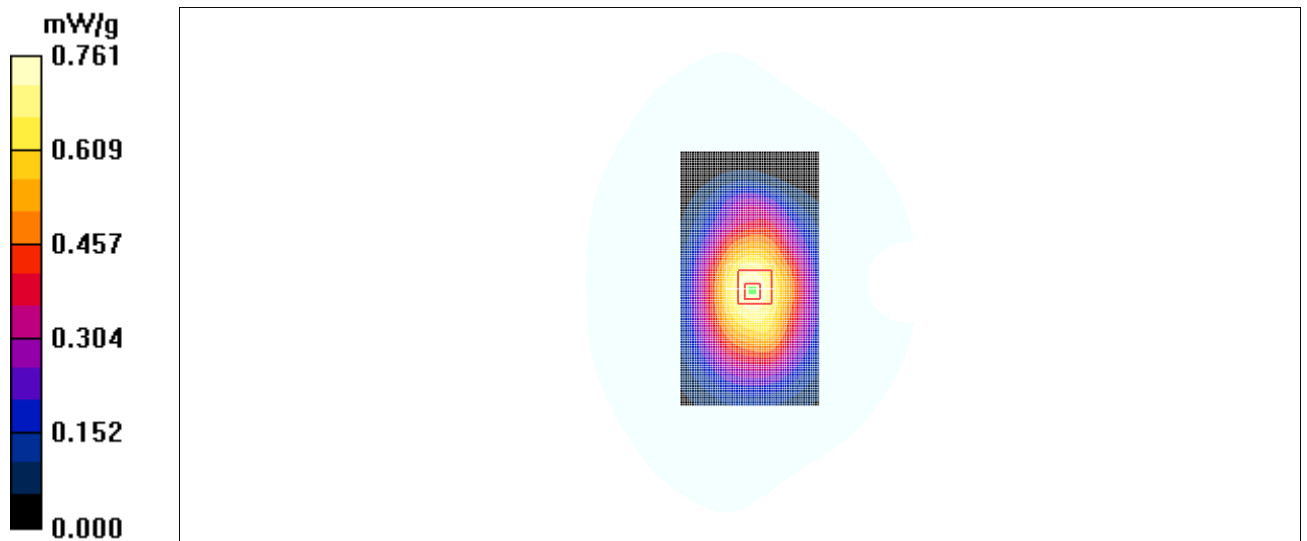


Fig. 82 850 MHz CH251

850 Body Towards Ground Middle with GPRS- - Slide up

Date/Time: 2010-10-8 17:01:25

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.96$ mho/m; $\epsilon_r = 54.8$; $\rho = 1000$ kg/m³

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

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

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Ground Middle/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 27.5 V/m; Power Drift = -0.196 dB

Peak SAR (extrapolated) = 0.844 W/kg

SAR(1 g) = 0.679 mW/g; SAR(10 g) = 0.503 mW/g

Maximum value of SAR (measured) = 0.708 mW/g

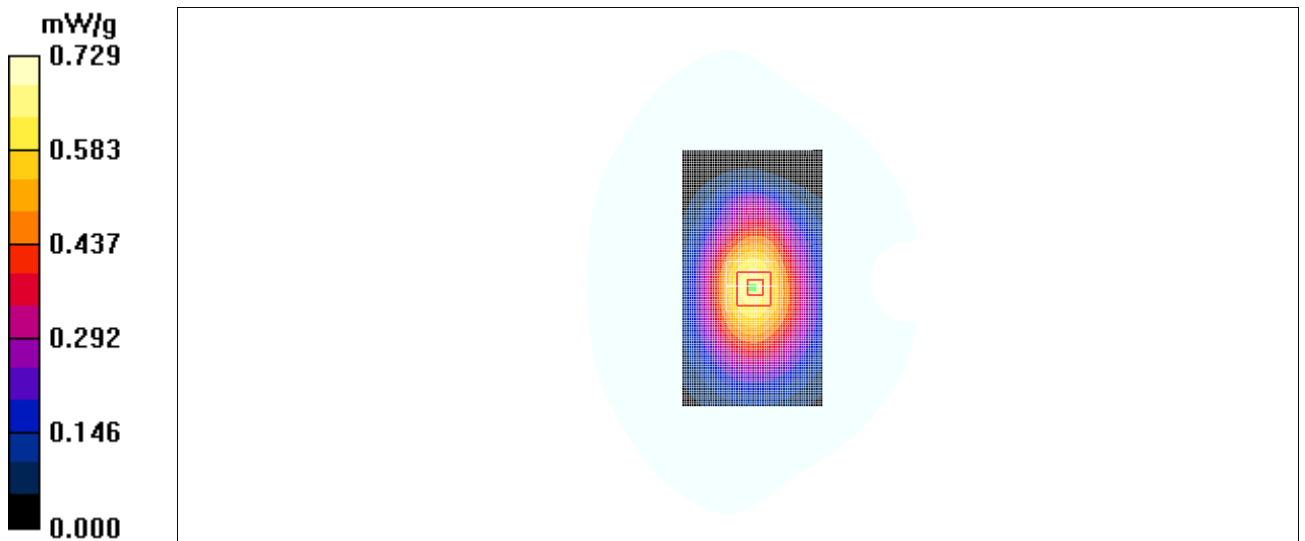


Fig. 83 850 MHz CH190

850 Body Towards Ground Low with GPRS- Slide up

Date/Time: 2010-10-8 17:16:49

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used: $f = 825$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 55.8$; $\rho = 1000$ kg/m³

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

Communication System: GSM 850 GPRS Frequency: 824.2 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

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

Maximum value of SAR (interpolated) = 0.685 mW/g

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

Reference Value = 26.8 V/m; Power Drift = -0.199 dB

Peak SAR (extrapolated) = 0.813 W/kg

SAR(1 g) = 0.646 mW/g; SAR(10 g) = 0.479 mW/g

Maximum value of SAR (measured) = 0.648 mW/g

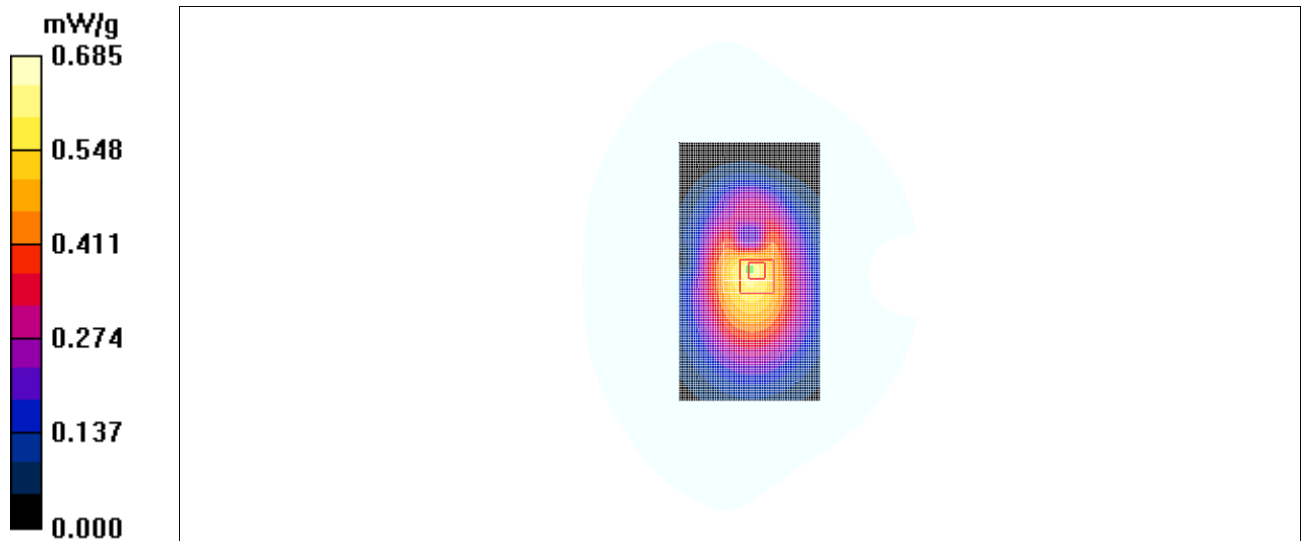


Fig. 84 850 MHz CH128

850 Body Towards Ground High with EGPRS- Slide down

Date/Time: 2010-10-8 17:33:05

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used: $f = 848.8$ MHz; $\sigma = 0.95$ mho/m; $\epsilon_r = 54.5$; $\rho = 1000$ kg/m³

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

Communication System: GSM 850 GPRS Frequency: 824.2 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Ground High/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.17 mW/g

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

Reference Value = 35.3 V/m; Power Drift = -0.190 dB

Peak SAR (extrapolated) = 1.50 W/kg

SAR(1 g) = 1.12 mW/g; SAR(10 g) = 0.803 mW/g

Maximum value of SAR (measured) = 1.17 mW/g

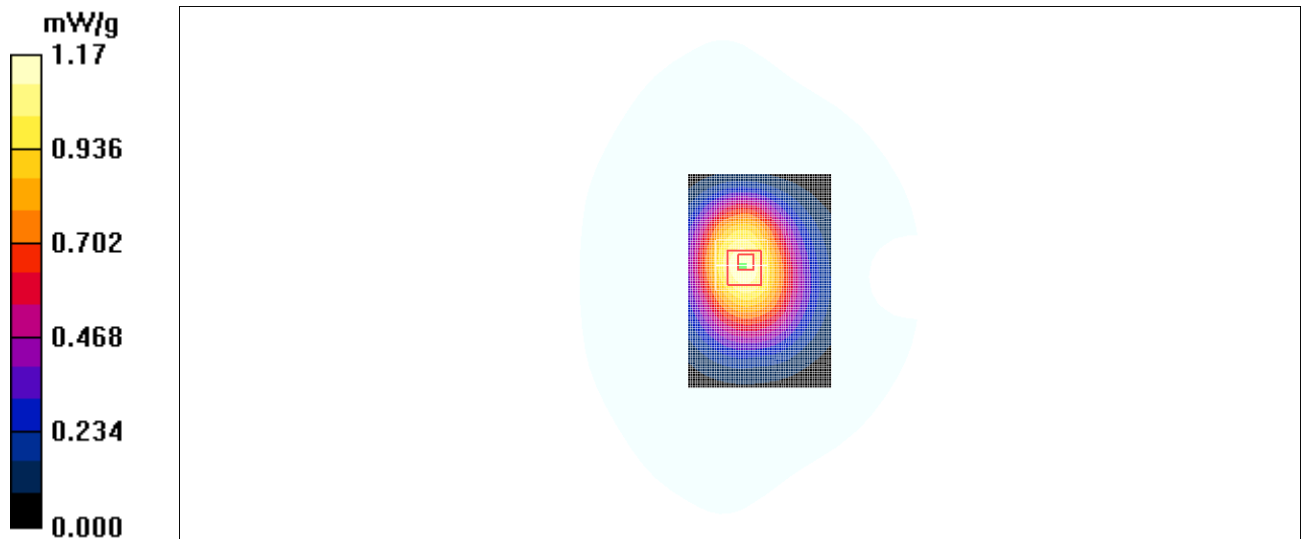


Fig. 85 850 MHz CH251

850 Body Towards Ground High with Headset_CCB3160A10C0- Slide down

Date/Time: 2010-10-8 17:50:11

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used: $f = 848.8$ MHz; $\sigma = 0.95$ mho/m; $\epsilon_r = 54.5$; $\rho = 1000$ kg/m³

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

Communication System: GSM 850 GPRS Frequency: 824.2 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Ground High/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.836 mW/g

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

Reference Value = 29.0 V/m; Power Drift = 0.046 dB

Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.799 mW/g; SAR(10 g) = 0.582 mW/g

Maximum value of SAR (measured) = 0.848 mW/g

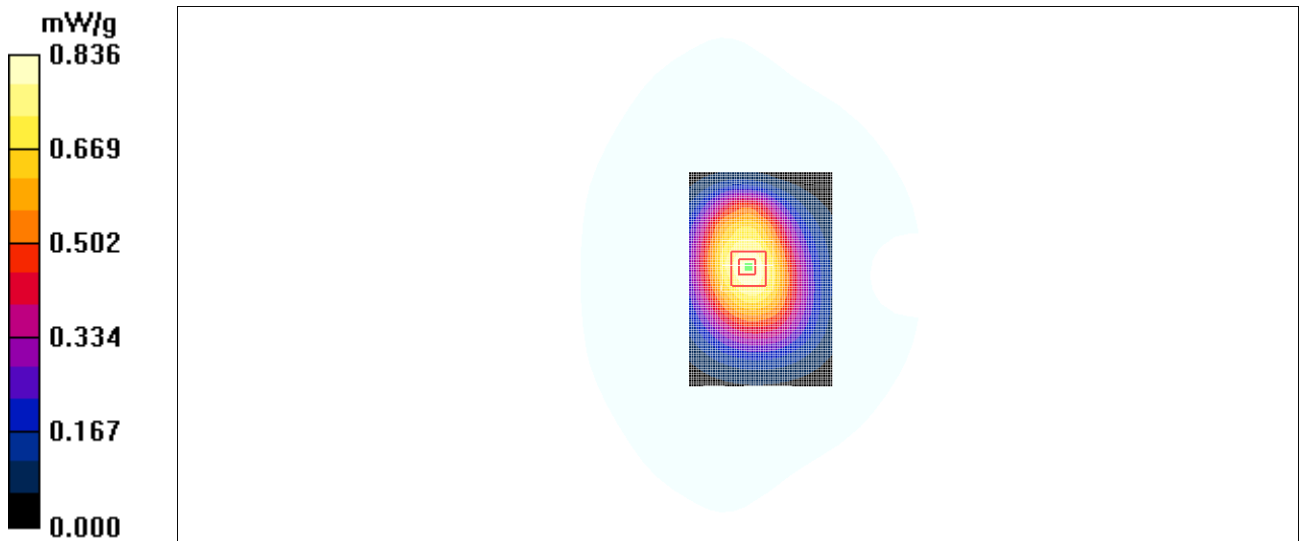


Fig. 86 850 MHz CH251

850 Body Towards Ground High with Headset_CCB3160A10C2- Slide down

Date/Time: 2010-10-8 18:06:52

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used: $f = 848.8$ MHz; $\sigma = 0.95$ mho/m; $\epsilon_r = 54.5$; $\rho = 1000$ kg/m³

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

Communication System: GSM 850 GPRS Frequency: 824.2 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

Toward Ground High/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 27.5 V/m; Power Drift = -0.117 dB

Peak SAR (extrapolated) = 0.928 W/kg

SAR(1 g) = 0.715 mW/g; SAR(10 g) = 0.517 mW/g

Maximum value of SAR (measured) = 0.757 mW/g

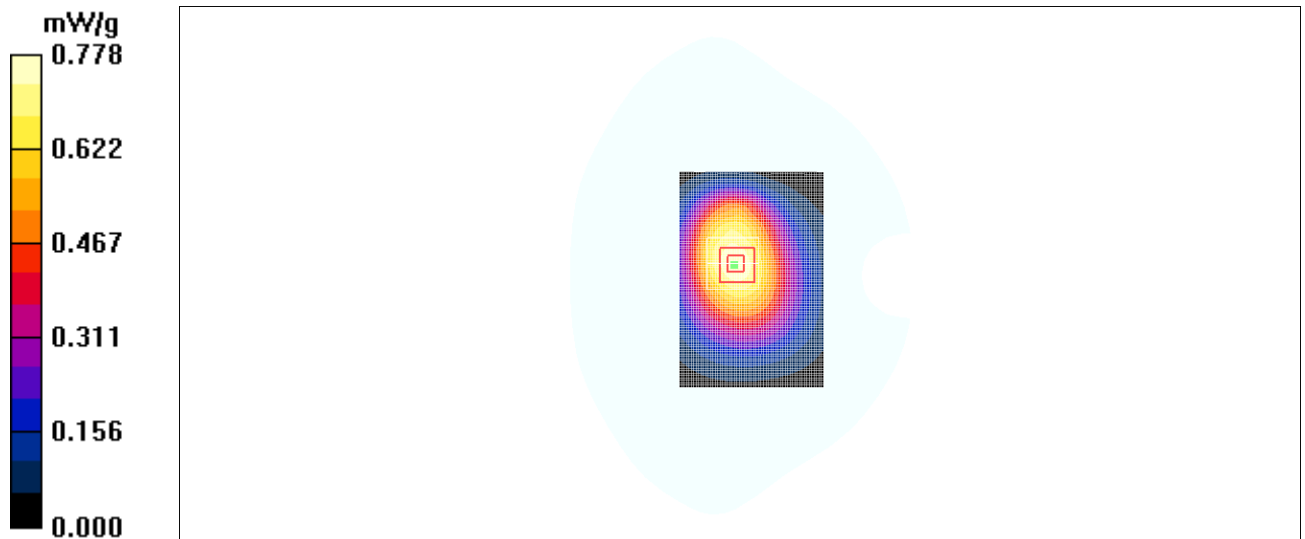


Fig. 87 850 MHz CH251

1900 Body Towards Phantom High with GPRS- Slide down

Date/Time: 2010-10-10 14:39:52

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.4$; $\rho = 1000$ kg/m³

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

Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Phantom High/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 7.00 V/m; Power Drift = 0.030 dB

Peak SAR (extrapolated) = 0.806 W/kg

SAR(1 g) = 0.267 mW/g; SAR(10 g) = 0.168 mW/g

Maximum value of SAR (measured) = 0.294 mW/g

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

Reference Value = 7.00 V/m; Power Drift = 0.030 dB

Peak SAR (extrapolated) = 0.297 W/kg

SAR(1 g) = 0.196 mW/g; SAR(10 g) = 0.126 mW/g

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

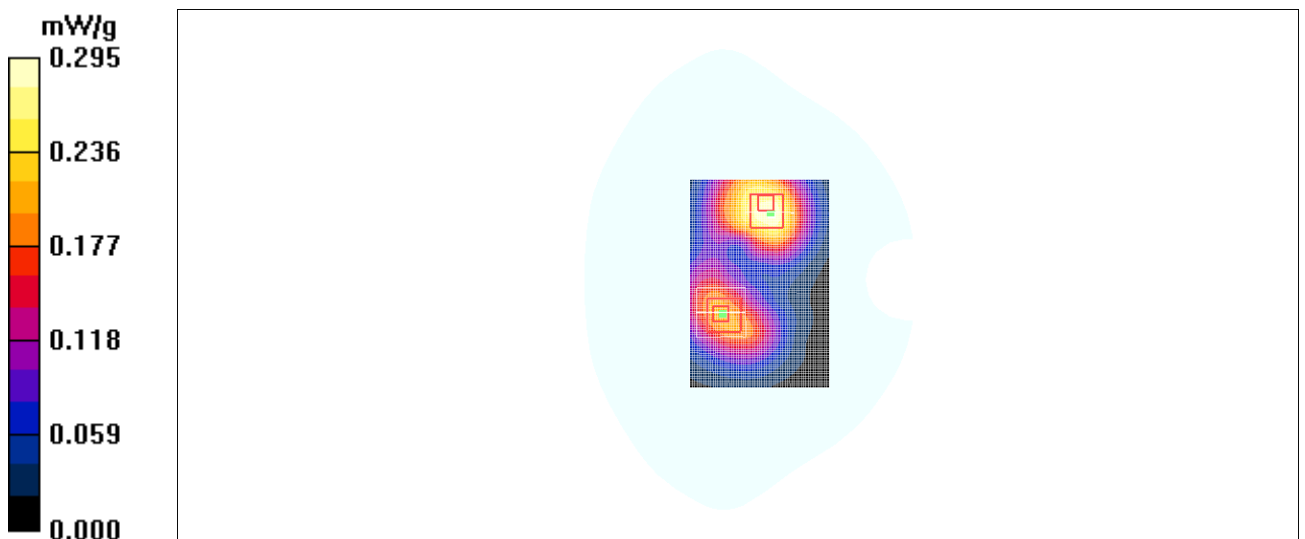


Fig. 88 1900 MHz CH810

1900 Body Towards Phantom Middle with GPRS- Slide down

Date/Time: 2010-10-10 14:55:30

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

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

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

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Phantom Middle/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.278 mW/g

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

Reference Value = 7.21 V/m; Power Drift = 0.077 dB

Peak SAR (extrapolated) = 0.418 W/kg

SAR(1 g) = 0.257 mW/g; SAR(10 g) = 0.159 mW/g

Maximum value of SAR (measured) = 0.275 mW/g

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

Reference Value = 7.21 V/m; Power Drift = 0.077 dB

Peak SAR (extrapolated) = 0.296 W/kg

SAR(1 g) = 0.195 mW/g; SAR(10 g) = 0.127 mW/g

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

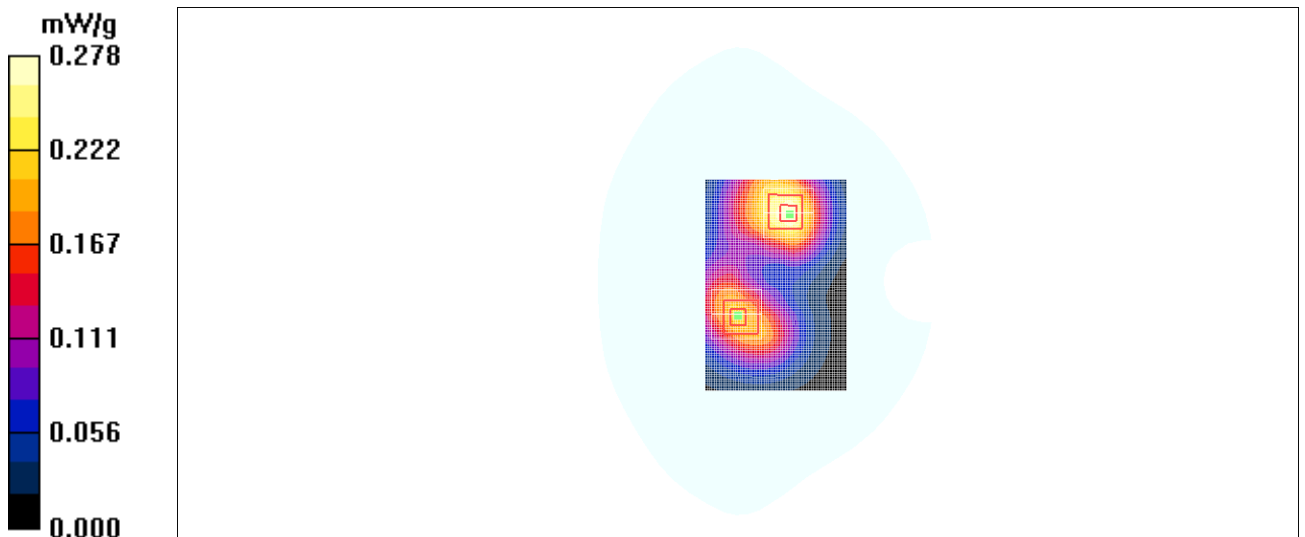


Fig. 89 1900 MHz CH661

1900 Body Towards Phantom Low with GPRS- Slide down

Date/Time: 2010-10-10 15:10:54

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 53.3$; $\rho = 1000$ kg/m³

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

Communication System: GSM 1900MHz GPRS Frequency: 1850.2 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Phantom Low/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.274 mW/g

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

Reference Value = 8.07 V/m; Power Drift = -0.119 dB

Peak SAR (extrapolated) = 0.414 W/kg

SAR(1 g) = 0.254 mW/g; SAR(10 g) = 0.156 mW/g

Maximum value of SAR (measured) = 0.274 mW/g

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

Reference Value = 8.07 V/m; Power Drift = -0.119 dB

Peak SAR (extrapolated) = 0.390 W/kg

SAR(1 g) = 0.198 mW/g; SAR(10 g) = 0.129 mW/g

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

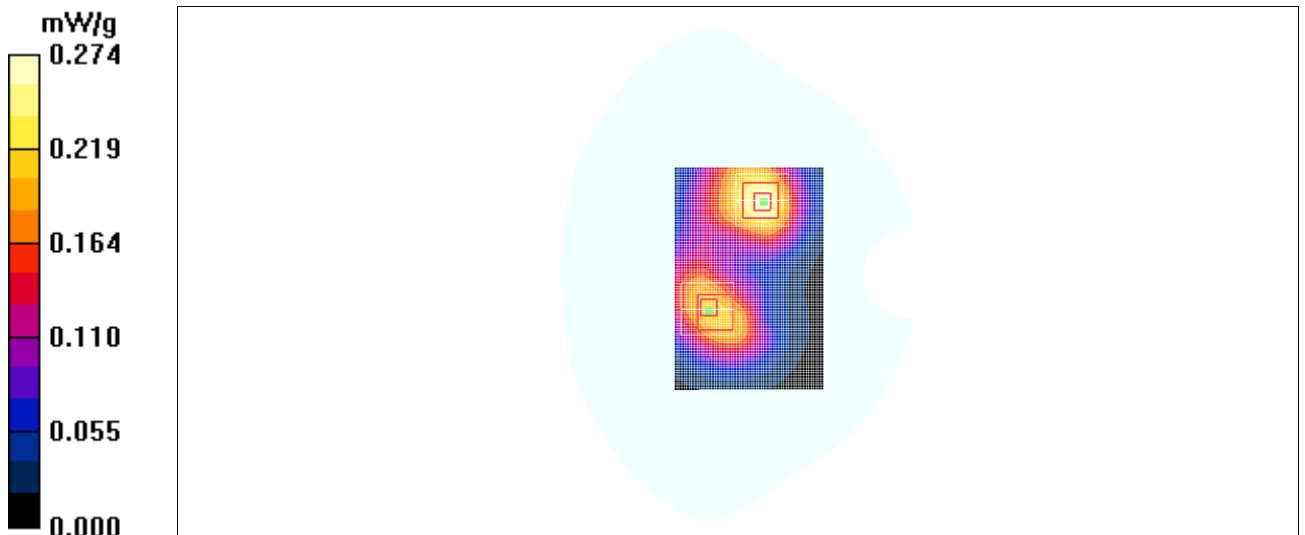


Fig. 90 1900 MHz CH512

1900 Body Towards Ground High with GPRS- Slide down

Date/Time: 2010-10-10 15:26:29

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.4$; $\rho = 1000$ kg/m³

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

Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Ground High/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 10.1 V/m; Power Drift = 0.048 dB

Peak SAR (extrapolated) = 1.00 W/kg

SAR(1 g) = 0.581 mW/g; SAR(10 g) = 0.334 mW/g

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

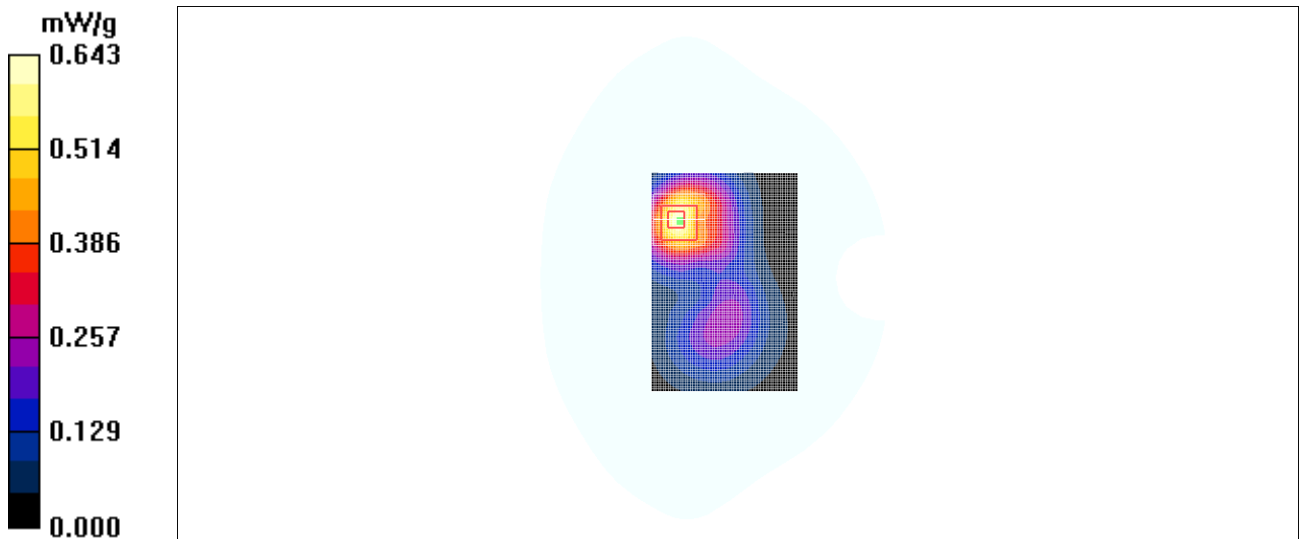


Fig. 91 1900 MHz CH810

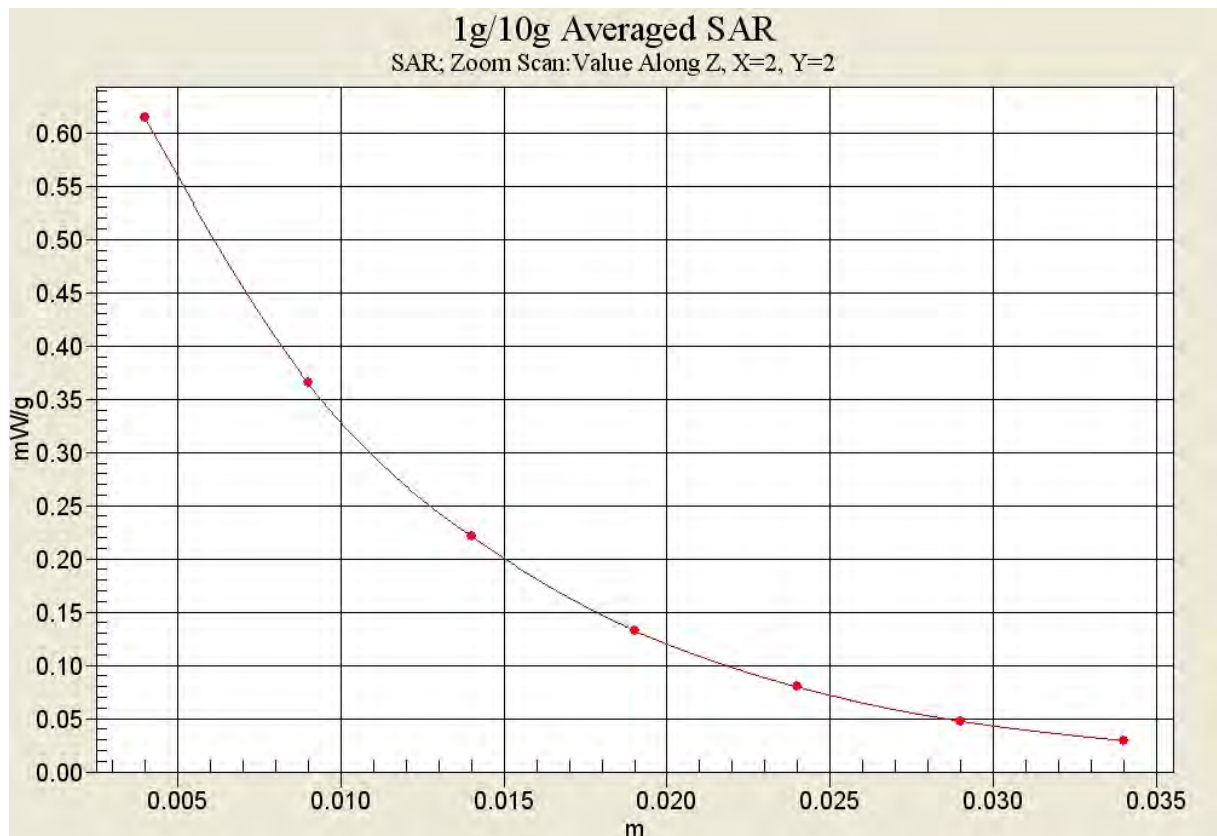


Fig. 91-1 Z-Scan at power reference point (1900 MHz CH810)

1900 Body Towards Ground Middle with GPRS- Slide down

Date/Time: 2010-10-10 15:41:53

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

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

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

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Ground Middle/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.590 mW/g

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

Reference Value = 10.3 V/m; Power Drift = -0.120 dB

Peak SAR (extrapolated) = 0.920 W/kg

SAR(1 g) = 0.531 mW/g; SAR(10 g) = 0.308 mW/g

Maximum value of SAR (measured) = 0.583 mW/g

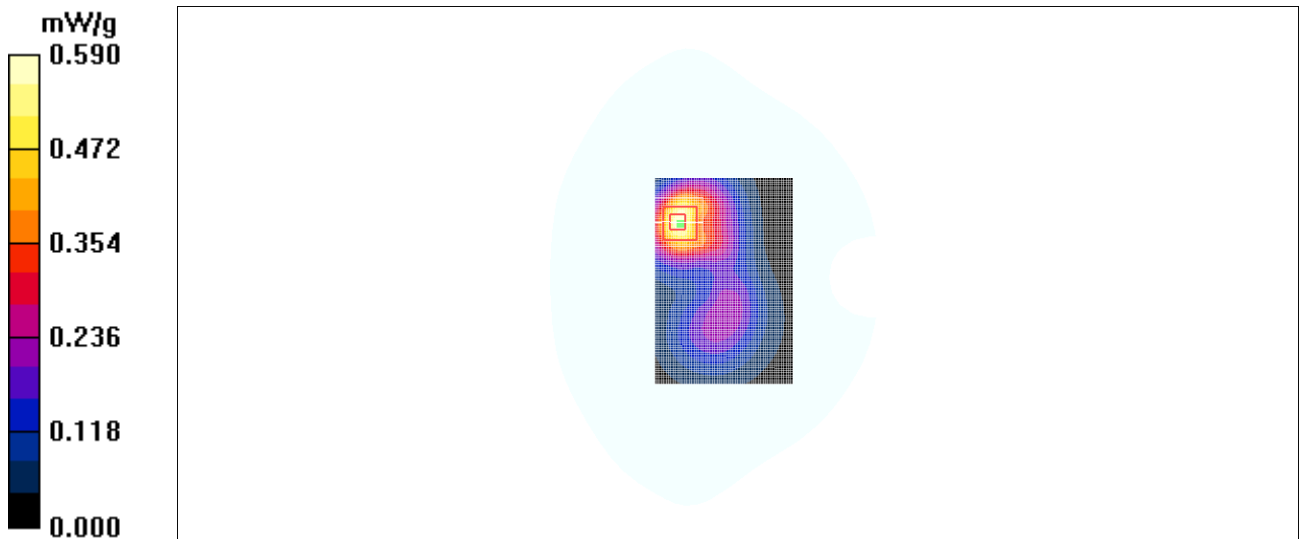


Fig. 92 1900 MHz CH661

1900 Body Towards Ground Low with GPRS- Slide down

Date/Time: 2010-10-10 15:57:28

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 53.3$; $\rho = 1000$ kg/m³

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

Communication System: GSM 1900MHz GPRS Frequency: 1850.2 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Ground Low/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.579 mW/g

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

Reference Value = 10.2 V/m; Power Drift = 0.064 dB

Peak SAR (extrapolated) = 0.841 W/kg

SAR(1 g) = 0.506 mW/g; SAR(10 g) = 0.295 mW/g

Maximum value of SAR (measured) = 0.565 mW/g

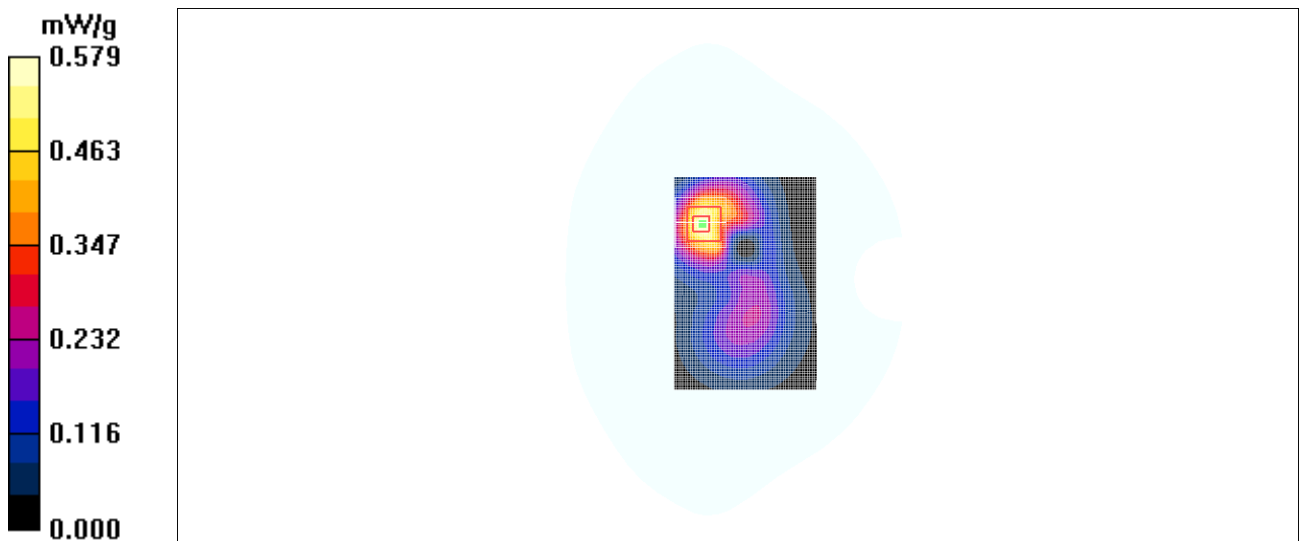


Fig. 93 1900 MHz CH512

1900 Body Towards Phantom High with GPRS- Slide up

Date/Time: 2010-10-10 16:14:01

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.4$; $\rho = 1000$ kg/m³

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

Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Phantom High/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 8.45 V/m; Power Drift = -0.145 dB

Peak SAR (extrapolated) = 0.297 W/kg

SAR(1 g) = 0.191 mW/g; SAR(10 g) = 0.121 mW/g

Maximum value of SAR (measured) = 0.205 mW/g

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

Reference Value = 8.45 V/m; Power Drift = -0.145 dB

Peak SAR (extrapolated) = 0.273 W/kg

SAR(1 g) = 0.177 mW/g; SAR(10 g) = 0.112 mW/g

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

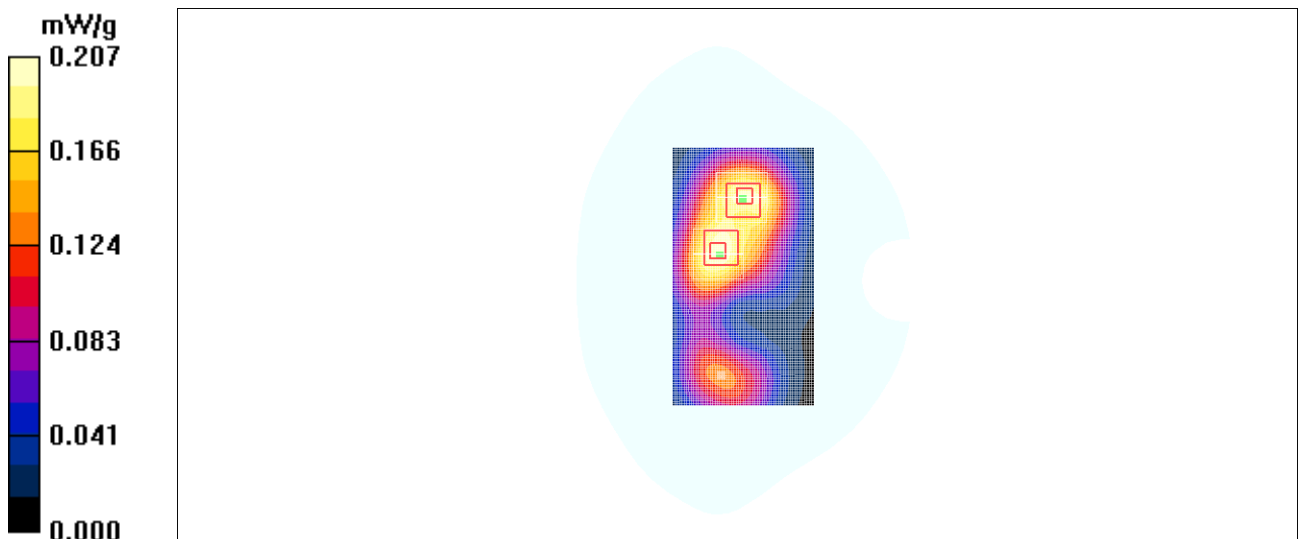


Fig. 94 1900 MHz CH810

1900 Body Towards Phantom Middle with GPRS- Slide up

Date/Time: 2010-10-10 16:29:30

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

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

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

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Phantom Middle/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.208 mW/g

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

Reference Value = 8.19 V/m; Power Drift = 0.005 dB

Peak SAR (extrapolated) = 0.300 W/kg

SAR(1 g) = 0.195 mW/g; SAR(10 g) = 0.124 mW/g

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

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

Reference Value = 8.19 V/m; Power Drift = 0.005 dB

Peak SAR (extrapolated) = 0.266 W/kg

SAR(1 g) = 0.167 mW/g; SAR(10 g) = 0.106 mW/g

Maximum value of SAR (measured) = 0.176 mW/g

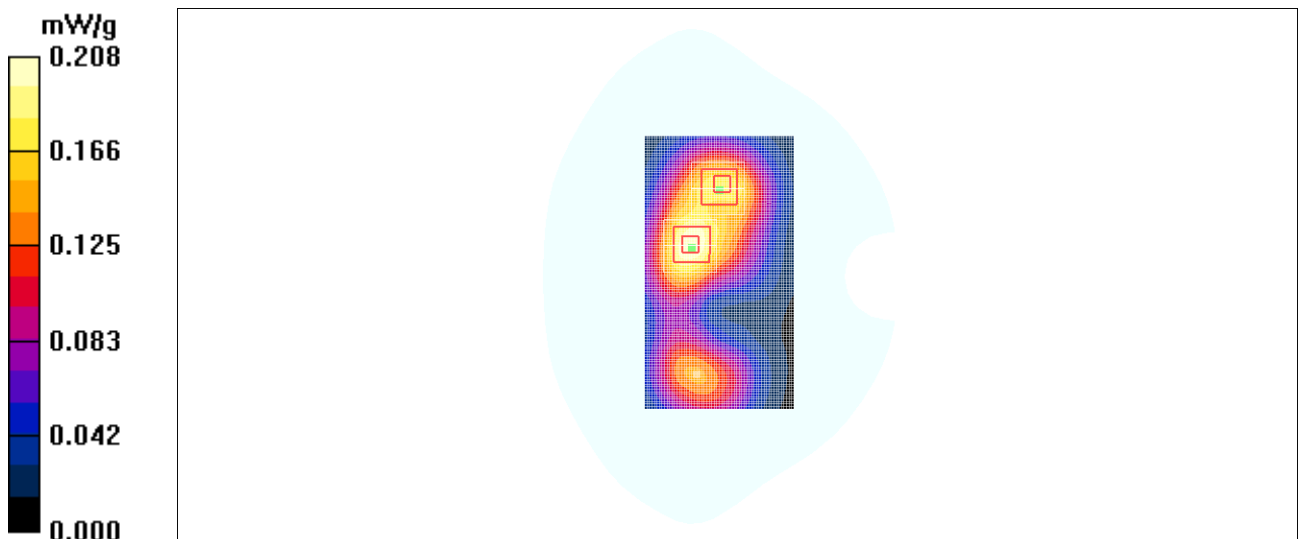


Fig. 95 1900 MHz CH661

1900 Body Towards Phantom Low with GPRS- Slide up

Date/Time: 2010-10-10 16:44:52

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 53.3$; $\rho = 1000$ kg/m³

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

Communication System: GSM 1900MHz GPRS Frequency: 1850.2 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Phantom Low/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.252 mW/g

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

Reference Value = 9.05 V/m; Power Drift = 0.052 dB

Peak SAR (extrapolated) = 0.355 W/kg

SAR(1 g) = 0.234 mW/g; SAR(10 g) = 0.150 mW/g

Maximum value of SAR (measured) = 0.251 mW/g

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

Reference Value = 9.05 V/m; Power Drift = 0.052 dB

Peak SAR (extrapolated) = 0.310 W/kg

SAR(1 g) = 0.174 mW/g; SAR(10 g) = 0.111 mW/g

Maximum value of SAR (measured) = 0.205 mW/g

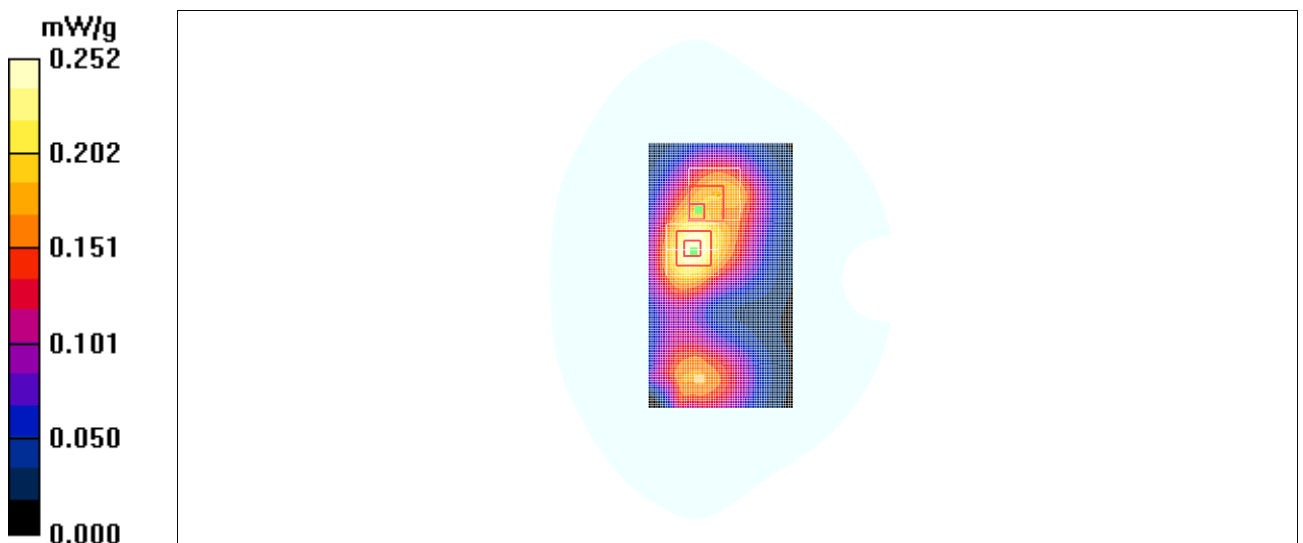


Fig. 96 1900 MHz CH512

1900 Body Towards Ground High with GPRS- Slide up

Date/Time: 2010-10-10 17:00:27

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.4$; $\rho = 1000$ kg/m³

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

Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Ground High/Area Scan (61x111x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (interpolated) = 0.506 mW/g

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

Reference Value = 11.6 V/m; Power Drift = 0.090 dB

Peak SAR (extrapolated) = 0.727 W/kg

SAR(1 g) = 0.437 mW/g; SAR(10 g) = 0.264 mW/g

Maximum value of SAR (measured) = 0.475 mW/g

Toward Ground High/Zoom Scan (7x7x7)/Cube 1: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 11.6 V/m; Power Drift = 0.090 dB

Peak SAR (extrapolated) = 0.697 W/kg

SAR(1 g) = 0.403 mW/g; SAR(10 g) = 0.246 mW/g

Maximum value of SAR (measured) = 0.454 mW/g

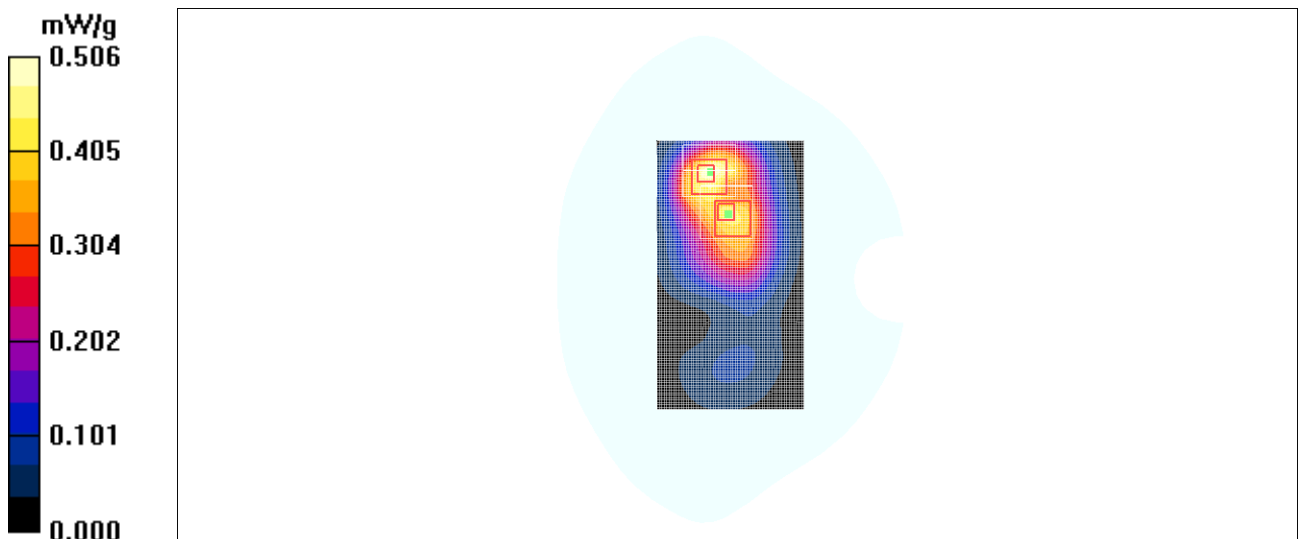


Fig. 97 1900 MHz CH810

1900 Body Towards Ground Middle with GPRS- Slide up

Date/Time: 2010-10-10 17:15:49

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

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

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

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Ground Middle/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.438 mW/g

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

Reference Value = 13.0 V/m; Power Drift = 0.020 dB

Peak SAR (extrapolated) = 0.625 W/kg

SAR(1 g) = 0.380 mW/g; SAR(10 g) = 0.232 mW/g

Maximum value of SAR (measured) = 0.406 mW/g

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

Reference Value = 13.0 V/m; Power Drift = 0.020 dB

Peak SAR (extrapolated) = 0.653 W/kg

SAR(1 g) = 0.398 mW/g; SAR(10 g) = 0.246 mW/g

Maximum value of SAR (measured) = 0.426 mW/g

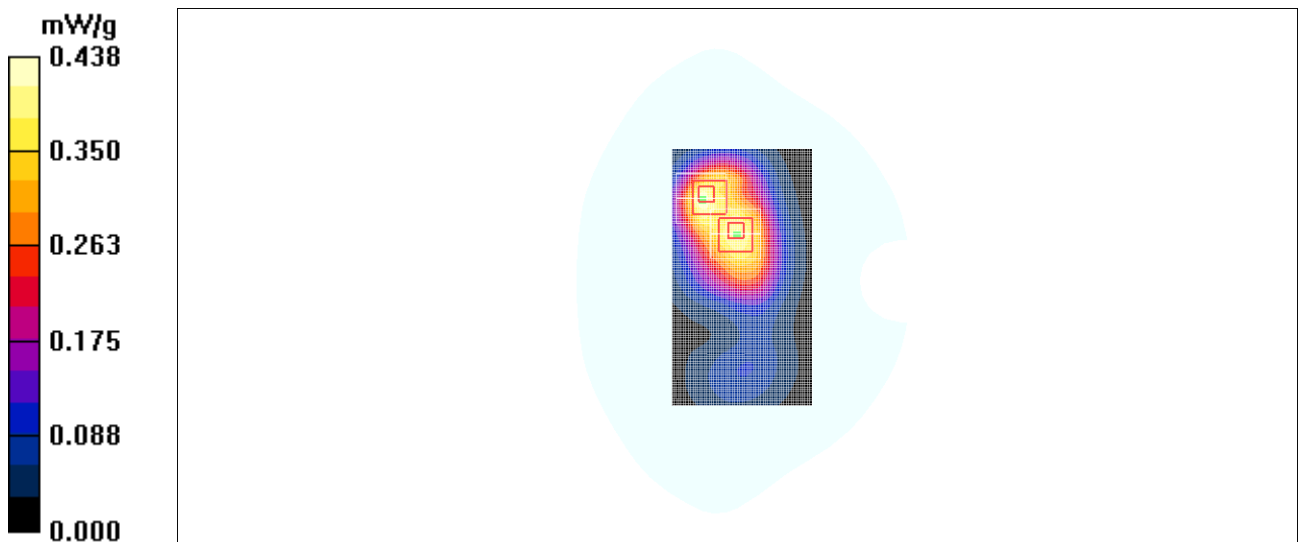


Fig. 98 1900 MHz CH661

1900 Body Towards Ground Low with GPRS- Slide up

Date/Time: 2010-10-10 17:31:16

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 53.3$; $\rho = 1000$ kg/m³

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

Communication System: GSM 1900MHz GPRS Frequency: 1850.2 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

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

Maximum value of SAR (interpolated) = 0.472 mW/g

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

Reference Value = 14.0 V/m; Power Drift = -0.022 dB

Peak SAR (extrapolated) = 0.720 W/kg

SAR(1 g) = 0.452 mW/g; SAR(10 g) = 0.278 mW/g

Maximum value of SAR (measured) = 0.483 mW/g

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

Reference Value = 14.0 V/m; Power Drift = -0.022 dB

Peak SAR (extrapolated) = 0.693 W/kg

SAR(1 g) = 0.385 mW/g; SAR(10 g) = 0.235 mW/g

Maximum value of SAR (measured) = 0.446 mW/g

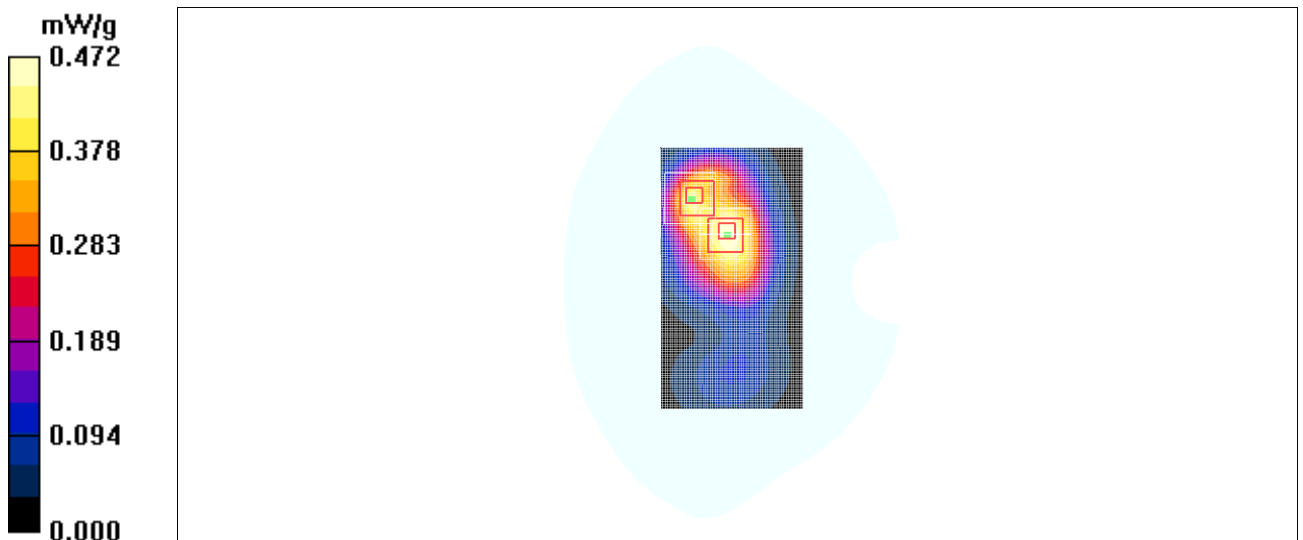


Fig. 99 1900 MHz CH512

1900 Body Towards Ground High with EGPRS- Slide down

Date/Time: 2010-10-10 17:48:33

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.4$; $\rho = 1000$ kg/m³

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

Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:2

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Ground High/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.636 mW/g

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

Reference Value = 10.1 V/m; Power Drift = -0.033 dB

Peak SAR (extrapolated) = 0.905 W/kg

SAR(1 g) = 0.557 mW/g; SAR(10 g) = 0.319 mW/g

Maximum value of SAR (measured) = 0.618 mW/g

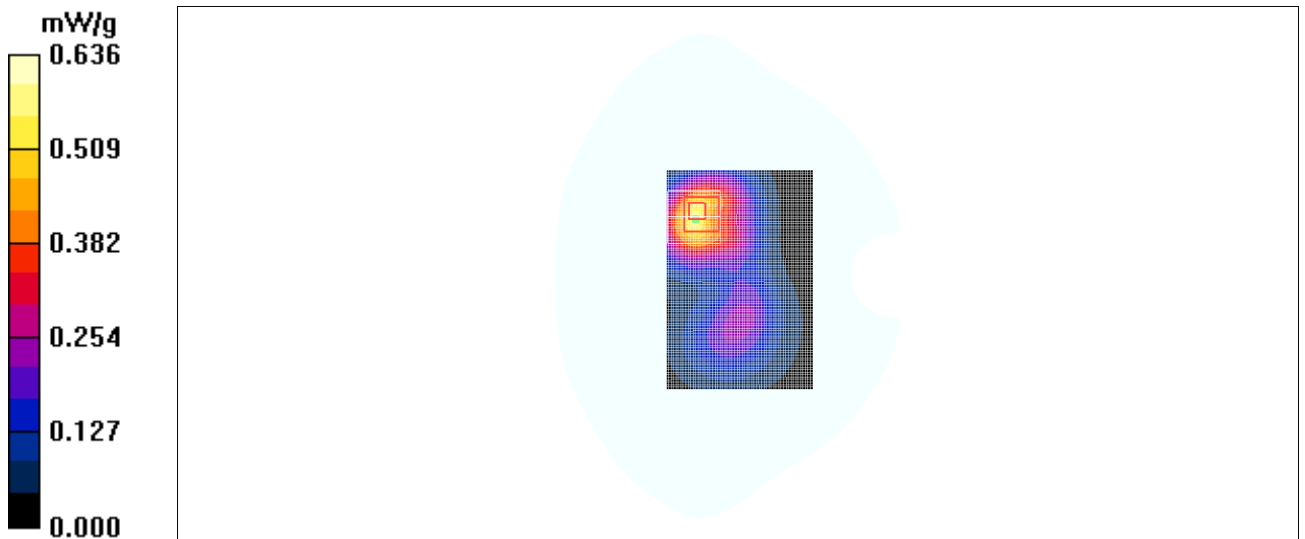


Fig. 100 1900 MHz CH810

1900 Body Towards Ground High with Headset_CCB3160A10C0- Slide down

Date/Time: 2010-10-10 18:05:27

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.4$; $\rho = 1000$ kg/m³

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

Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Ground High/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.367 mW/g

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

Reference Value = 7.39 V/m; Power Drift = -0.146 dB

Peak SAR (extrapolated) = 0.554 W/kg

SAR(1 g) = 0.325 mW/g; SAR(10 g) = 0.193 mW/g

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

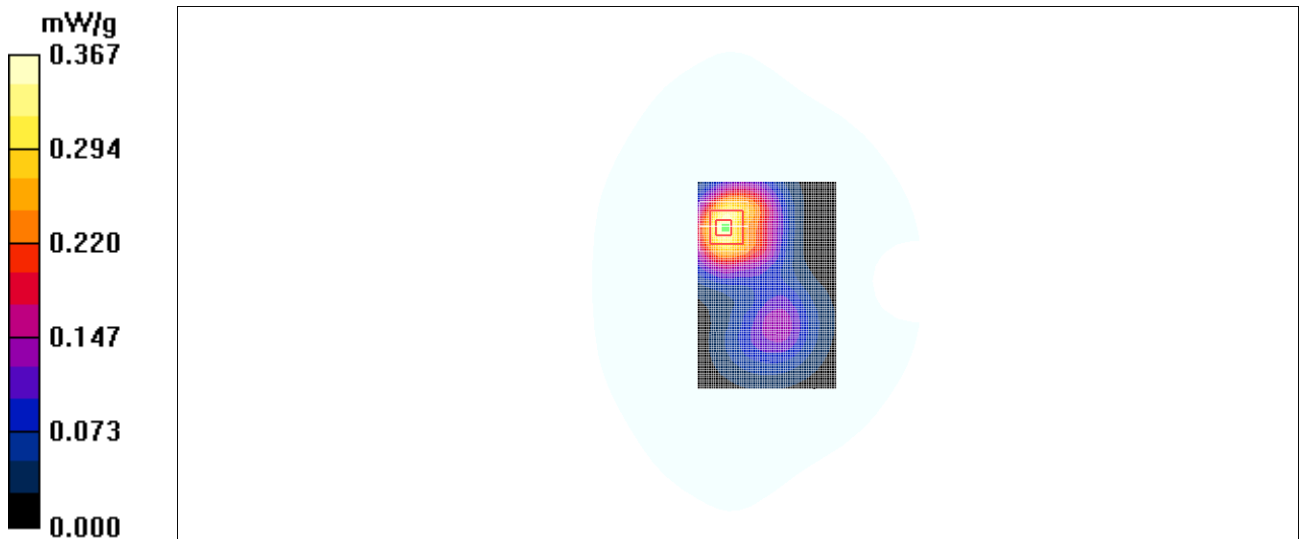


Fig. 101 1900 MHz CH810

1900 Body Towards Ground High with Headset_CCB3160A10C2- Slide down

Date/Time: 2010-10-10 18:21:44

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.4$; $\rho = 1000$ kg/m³

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

Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

Toward Ground High/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.325 mW/g

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

Reference Value = 7.87 V/m; Power Drift = -0.169 dB

Peak SAR (extrapolated) = 0.496 W/kg

SAR(1 g) = 0.289 mW/g; SAR(10 g) = 0.170 mW/g

Maximum value of SAR (measured) = 0.305 mW/g

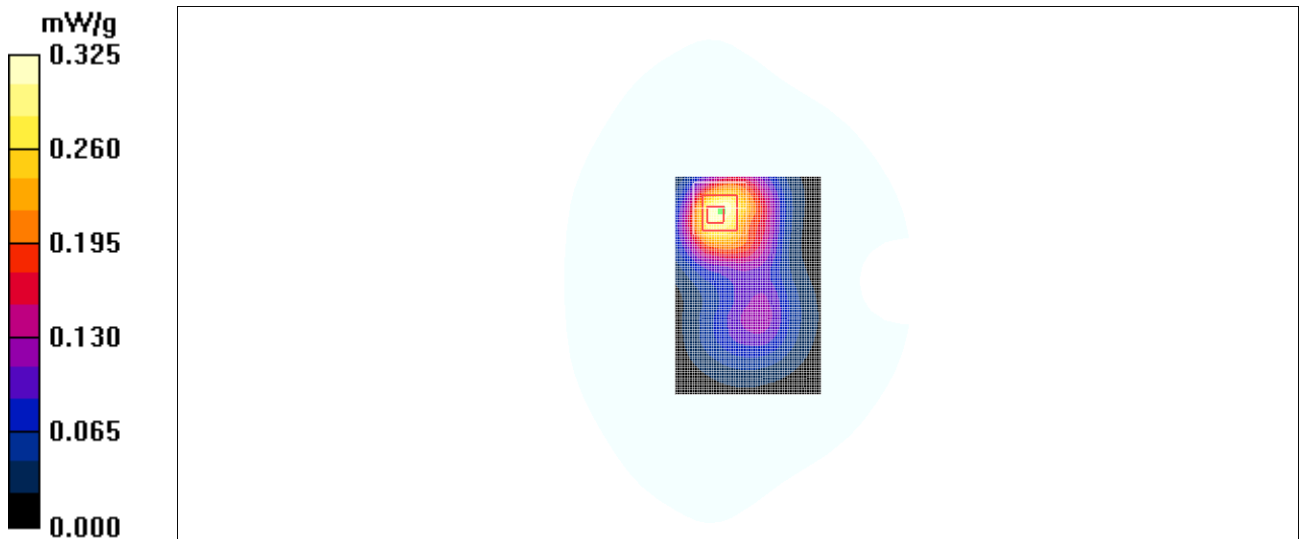


Fig. 102 1900 MHz CH810

WCDMA 1700 Body Towards Phantom High - Slide down

Date/Time: 2010-10-9 14:34:50

Electronics: DAE4 Sn771

Medium: Body 1800 MHz

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

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

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

Probe: ES3DV3 - SN3149 ConvF(4.97, 4.97, 4.97)

Toward Phantom High/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 7.70 V/m; Power Drift = 0.175 dB

Peak SAR (extrapolated) = 0.288 W/kg

SAR(1 g) = 0.183 mW/g; SAR(10 g) = 0.114 mW/g

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

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

Reference Value = 7.70 V/m; Power Drift = 0.175 dB

Peak SAR (extrapolated) = 0.184 W/kg

SAR(1 g) = 0.128 mW/g; SAR(10 g) = 0.086 mW/g

Maximum value of SAR (measured) = 0.135 mW/g

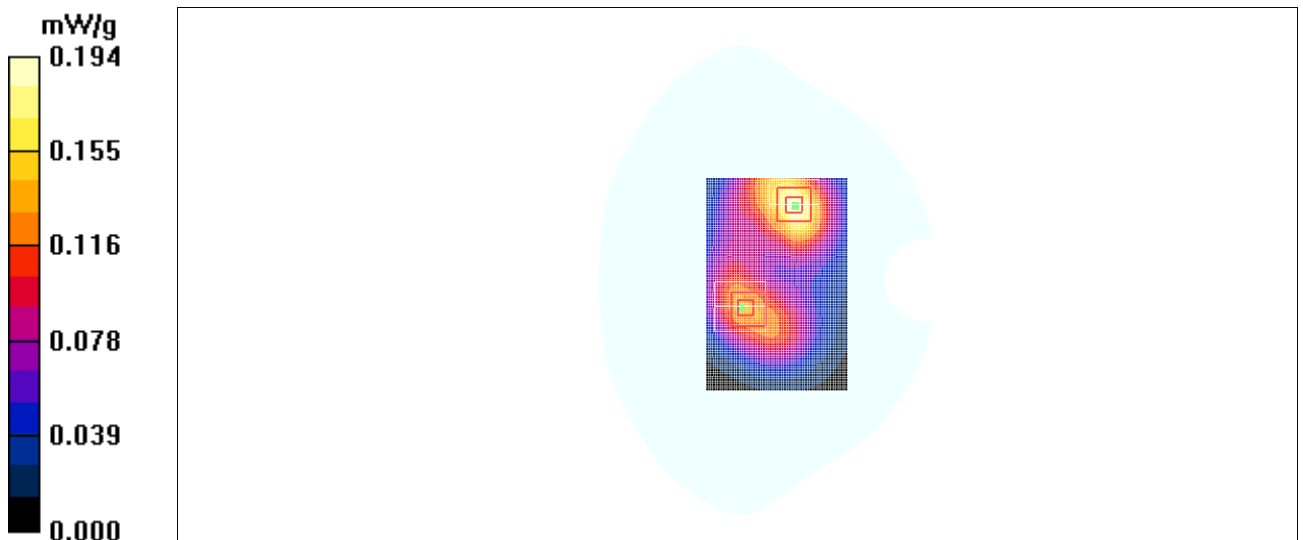


Fig. 103 1700 MHz CH1513

WCDMA 1700 Body Towards Phantom Middle - Slide down

Date/Time: 2010-10-9 14:50:14

Electronics: DAE4 Sn771

Medium: Body 1800 MHz

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1732.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(4.97, 4.97, 4.97)

Toward Phantom Middle/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 8.96 V/m; Power Drift = 0.181 dB

Peak SAR (extrapolated) = 0.355 W/kg

SAR(1 g) = 0.228 mW/g; SAR(10 g) = 0.143 mW/g

Maximum value of SAR (measured) = 0.247 mW/g

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

Reference Value = 8.96 V/m; Power Drift = 0.181 dB

Peak SAR (extrapolated) = 0.240 W/kg

SAR(1 g) = 0.166 mW/g; SAR(10 g) = 0.111 mW/g

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

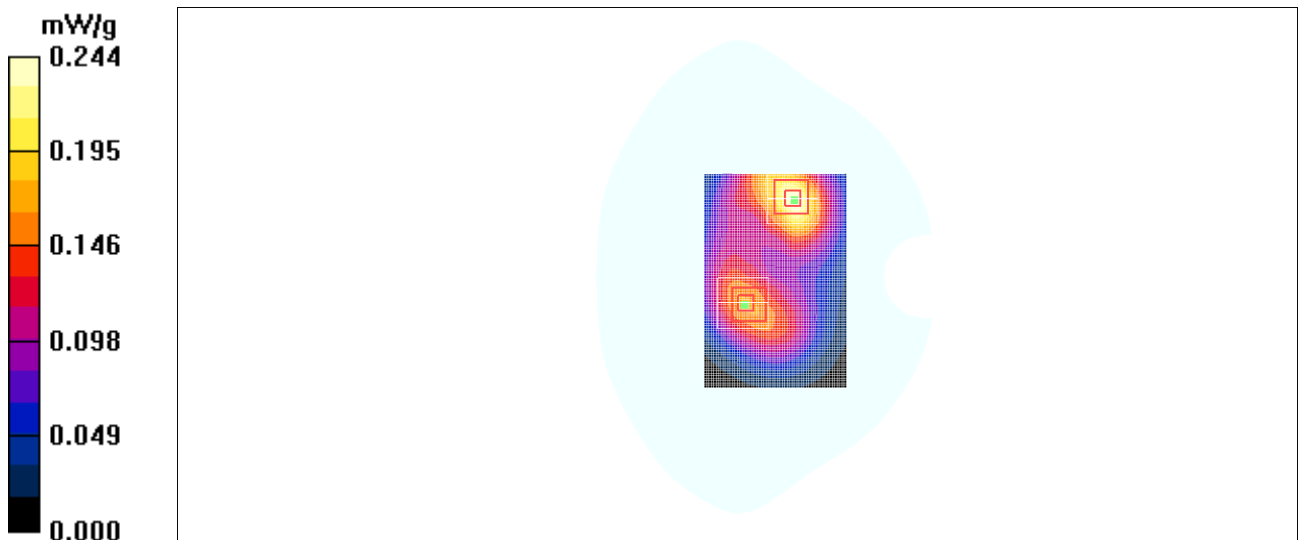


Fig. 104 1700 MHz CH1412

WCDMA 1700 Body Towards Phantom Low - Slide down

Date/Time: 2010-10-9 15:05:41

Electronics: DAE4 Sn771

Medium: Body 1800 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

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

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

Probe: ES3DV3 - SN3149 ConvF(4.97, 4.97, 4.97)

Toward Phantom Low/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.248 mW/g

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

Reference Value = 9.71 V/m; Power Drift = 0.003 dB

Peak SAR (extrapolated) = 0.367 W/kg

SAR(1 g) = 0.236 mW/g; SAR(10 g) = 0.149 mW/g

Maximum value of SAR (measured) = 0.256 mW/g

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

Reference Value = 9.71 V/m; Power Drift = 0.003 dB

Peak SAR (extrapolated) = 0.247 W/kg

SAR(1 g) = 0.173 mW/g; SAR(10 g) = 0.118 mW/g

Maximum value of SAR (measured) = 0.184 mW/g

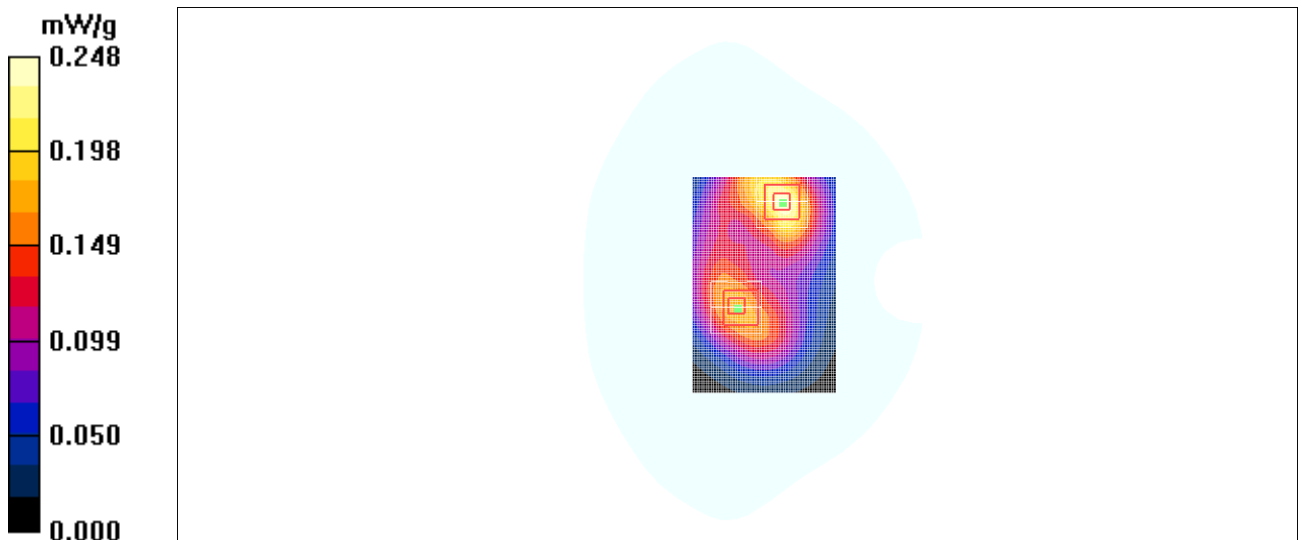


Fig. 105 1700 MHz CH1312

WCDMA 1700 Body Towards Ground High - Slide down

Date/Time: 2010-10-9 15:21:13

Electronics: DAE4 Sn771

Medium: Body 1800 MHz

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

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

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

Probe: ES3DV3 - SN3149 ConvF(4.97, 4.97, 4.97)

Toward Ground High/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.497 mW/g

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

Reference Value = 8.94 V/m; Power Drift = -0.055 dB

Peak SAR (extrapolated) = 0.765 W/kg

SAR(1 g) = 0.455 mW/g; SAR(10 g) = 0.259 mW/g

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

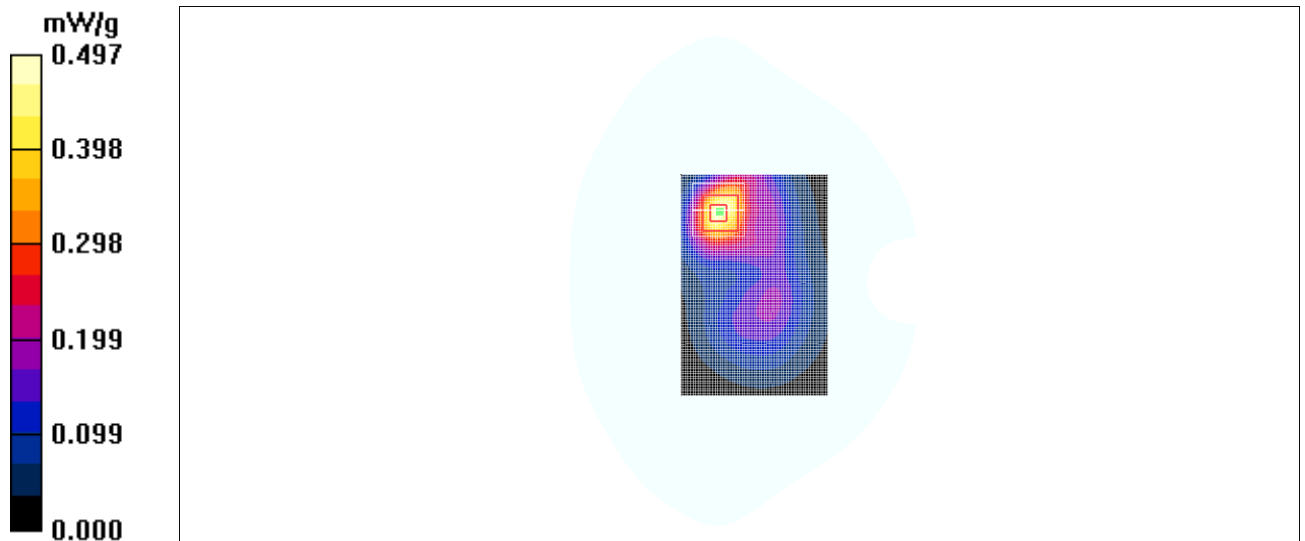


Fig. 106 1700 MHz CH1513

WCDMA 1700 Body Towards Ground Middle -Slide down

Date/Time: 2010-10-9 15:36:38

Electronics: DAE4 Sn771

Medium: Body 1800 MHz

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1732.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(4.97, 4.97, 4.97)

Toward Ground Middle/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.596 mW/g

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

Reference Value = 9.94 V/m; Power Drift = -0.027 dB

Peak SAR (extrapolated) = 0.917 W/kg

SAR(1 g) = 0.548 mW/g; SAR(10 g) = 0.311 mW/g

Maximum value of SAR (measured) = 0.612 mW/g

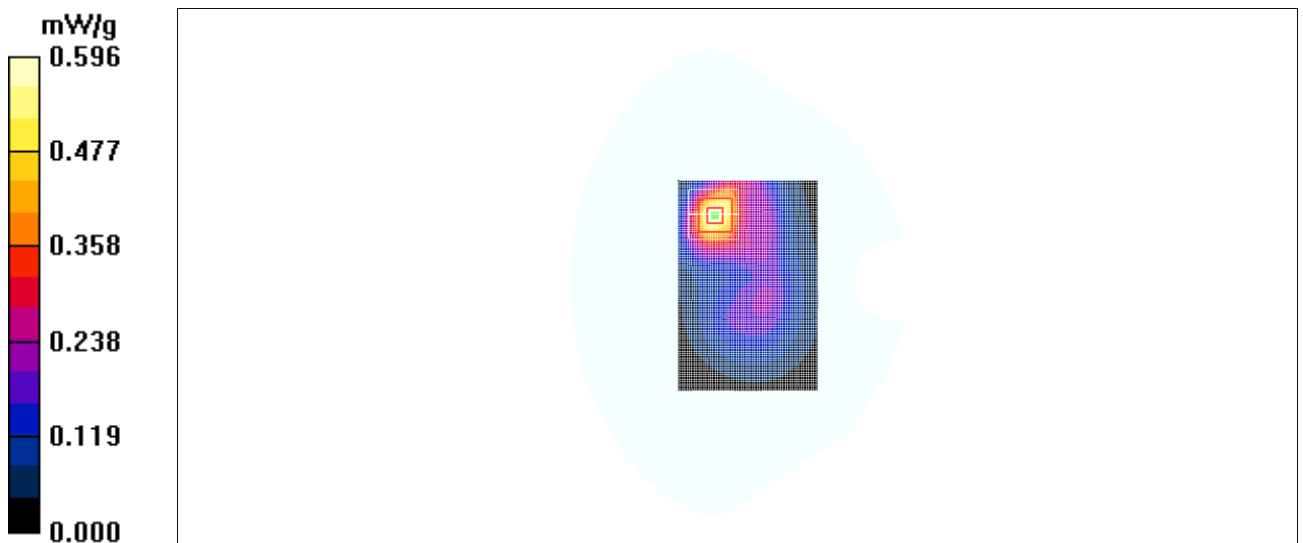


Fig. 107 1700 MHz CH1412

WCDMA 1700 Body Towards Ground Low - Slide down

Date/Time: 2010-10-9 15:51:58

Electronics: DAE4 Sn771

Medium: Body 1800 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

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

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

Probe: ES3DV3 - SN3149 ConvF(4.97, 4.97, 4.97)

Toward Ground Low/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 11.3 V/m; Power Drift = 0.047 dB

Peak SAR (extrapolated) = 0.948 W/kg

SAR(1 g) = 0.561 mW/g; SAR(10 g) = 0.317 mW/g

Maximum value of SAR (measured) = 0.622 mW/g



Fig. 108 1700 MHz CH1312

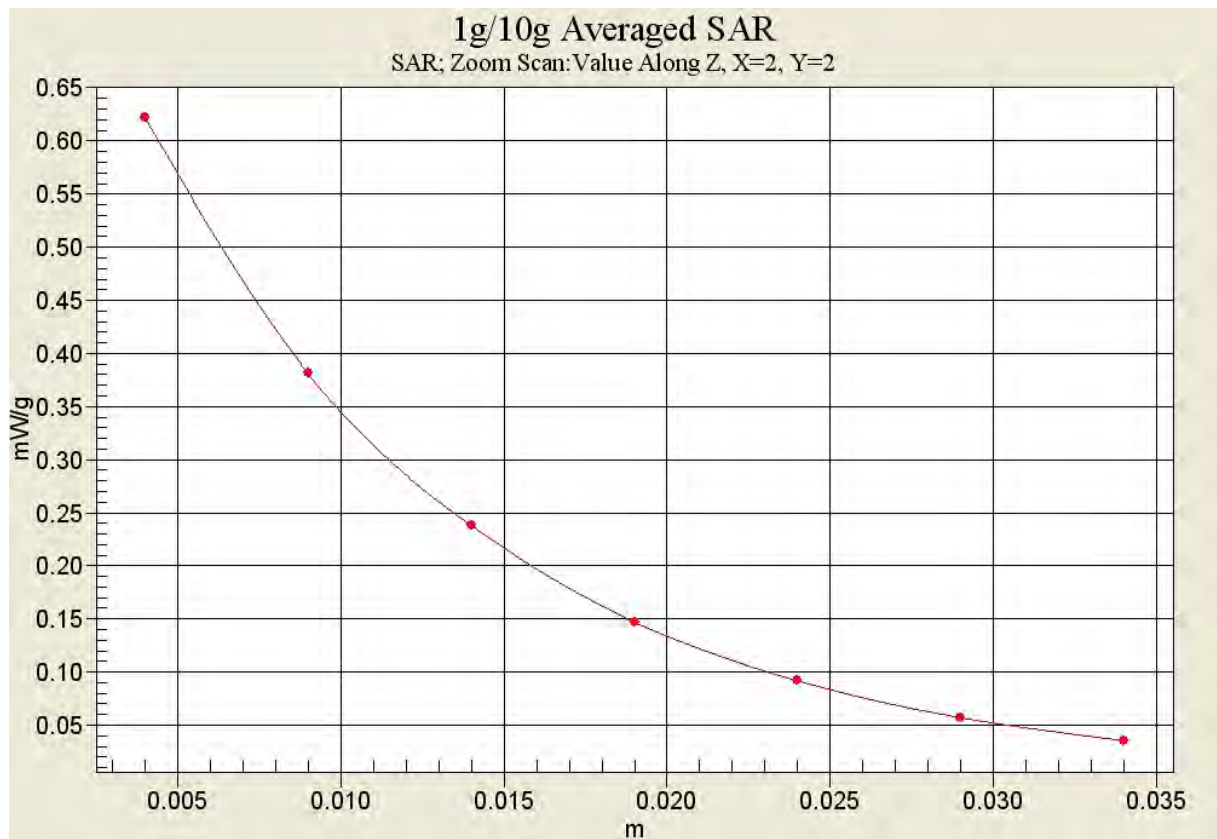


Fig. 108-1 Z-Scan at power reference point (1700 MHz CH1312)

WCDMA 1700 Body Towards Phantom High - Slide up

Date/Time: 2010-10-9 16:07:37

Electronics: DAE4 Sn771

Medium: Body 1800 MHz

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

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

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

Probe: ES3DV3 - SN3149 ConvF(4.97, 4.97, 4.97)

Toward Phantom High/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 7.07 V/m; Power Drift = -0.110 dB

Peak SAR (extrapolated) = 0.333 W/kg

SAR(1 g) = 0.224 mW/g; SAR(10 g) = 0.145 mW/g

Maximum value of SAR (measured) = 0.242 mW/g

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

Reference Value = 7.07 V/m; Power Drift = -0.110 dB

Peak SAR (extrapolated) = 0.221 W/kg

SAR(1 g) = 0.153 mW/g; SAR(10 g) = 0.103 mW/g

Maximum value of SAR (measured) = 0.164 mW/g

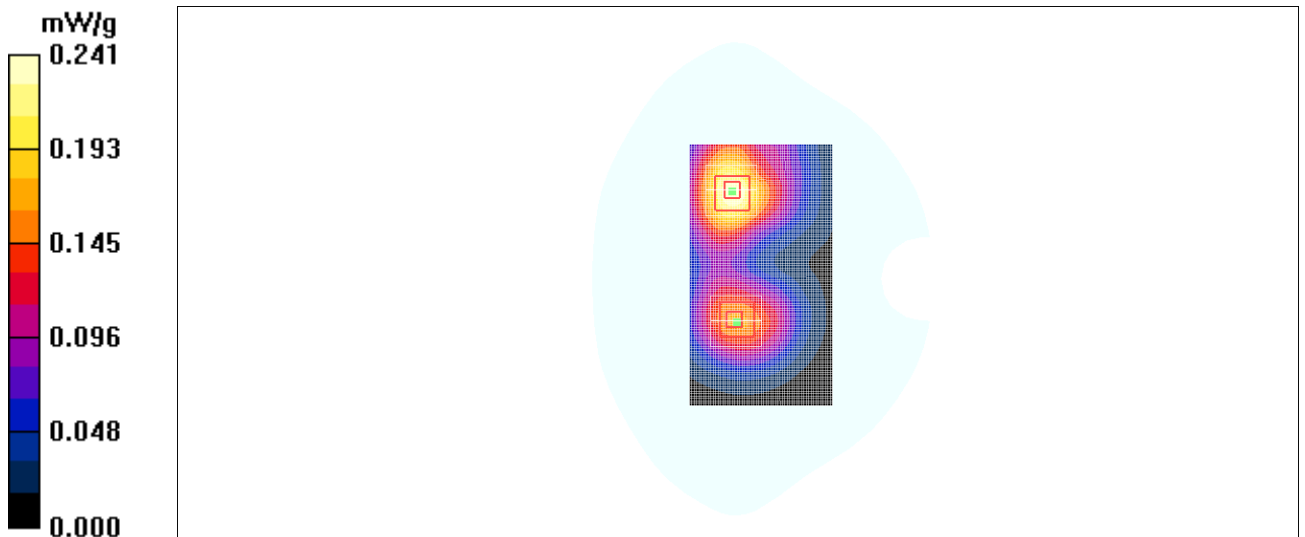


Fig. 109 1700 MHz CH1513

WCDMA 1700 Body Towards Phantom Middle - Slide up

Date/Time: 2010-10-9 16:23:01

Electronics: DAE4 Sn771

Medium: Body 1800 MHz

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1732.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(4.97, 4.97, 4.97)

Toward Phantom Middle/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.320 mW/g

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

Reference Value = 8.54 V/m; Power Drift = 0.009 dB

Peak SAR (extrapolated) = 0.441 W/kg

SAR(1 g) = 0.298 mW/g; SAR(10 g) = 0.194 mW/g

Maximum value of SAR (measured) = 0.322 mW/g

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

Reference Value = 8.54 V/m; Power Drift = 0.009 dB

Peak SAR (extrapolated) = 0.317 W/kg

SAR(1 g) = 0.220 mW/g; SAR(10 g) = 0.148 mW/g

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

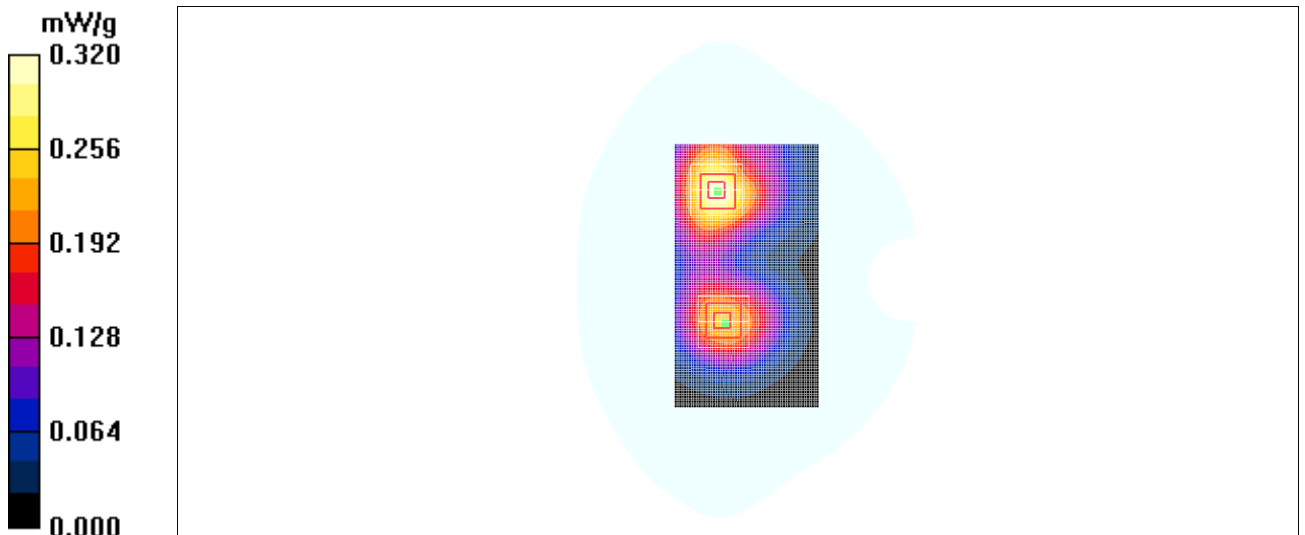


Fig. 110 1700 MHz CH1412

WCDMA 1700 Body Towards Phantom Low - Slide up

Date/Time: 2010-10-9 16:38:27

Electronics: DAE4 Sn771

Medium: Body 1800 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

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

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

Probe: ES3DV3 - SN3149 ConvF(4.97, 4.97, 4.97)

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

Maximum value of SAR (interpolated) = 0.346 mW/g

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

Reference Value = 9.37 V/m; Power Drift = 0.082 dB

Peak SAR (extrapolated) = 0.469 W/kg

SAR(1 g) = 0.321 mW/g; SAR(10 g) = 0.212 mW/g

Maximum value of SAR (measured) = 0.343 mW/g

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

Reference Value = 9.37 V/m; Power Drift = 0.082 dB

Peak SAR (extrapolated) = 0.355 W/kg

SAR(1 g) = 0.248 mW/g; SAR(10 g) = 0.167 mW/g

Maximum value of SAR (measured) = 0.264 mW/g

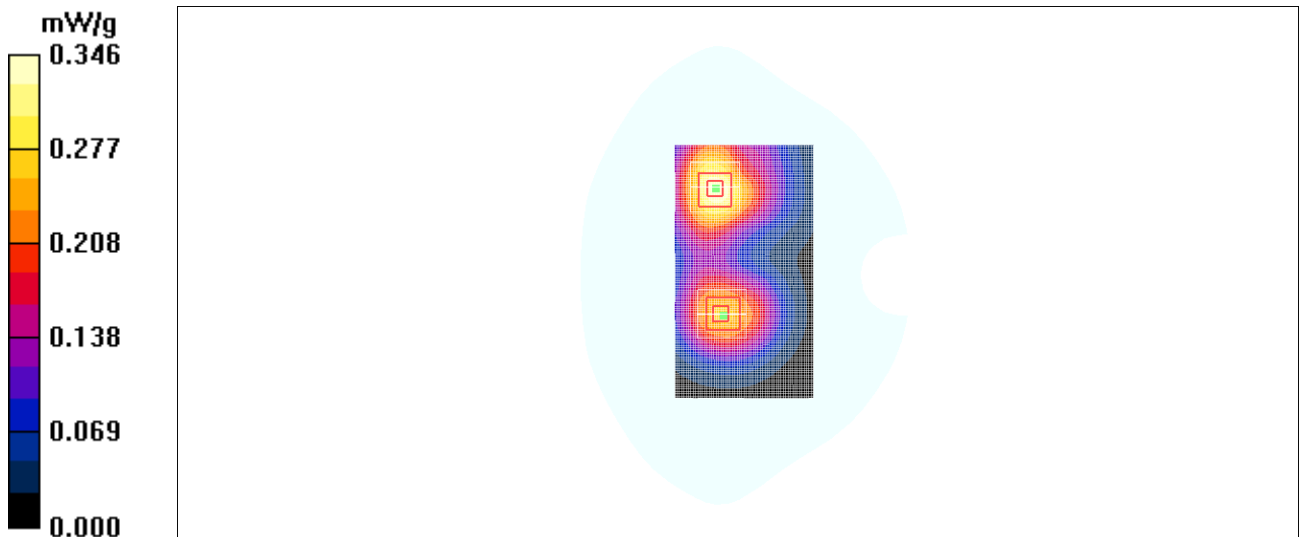


Fig. 111 1700 MHz CH1312

WCDMA 1700 Body Towards Ground High - Slide up

Date/Time: 2010-10-9 16:53:50

Electronics: DAE4 Sn771

Medium: Body 1800 MHz

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

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

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

Probe: ES3DV3 - SN3149 ConvF(4.97, 4.97, 4.97)

Toward Ground High/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.370 mW/g

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

Reference Value = 10.9 V/m; Power Drift = 0.108 dB

Peak SAR (extrapolated) = 0.532 W/kg

SAR(1 g) = 0.346 mW/g; SAR(10 g) = 0.222 mW/g

Maximum value of SAR (measured) = 0.370 mW/g

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

Reference Value = 10.9 V/m; Power Drift = 0.108 dB

Peak SAR (extrapolated) = 0.499 W/kg

SAR(1 g) = 0.305 mW/g; SAR(10 g) = 0.180 mW/g

Maximum value of SAR (measured) = 0.334 mW/g

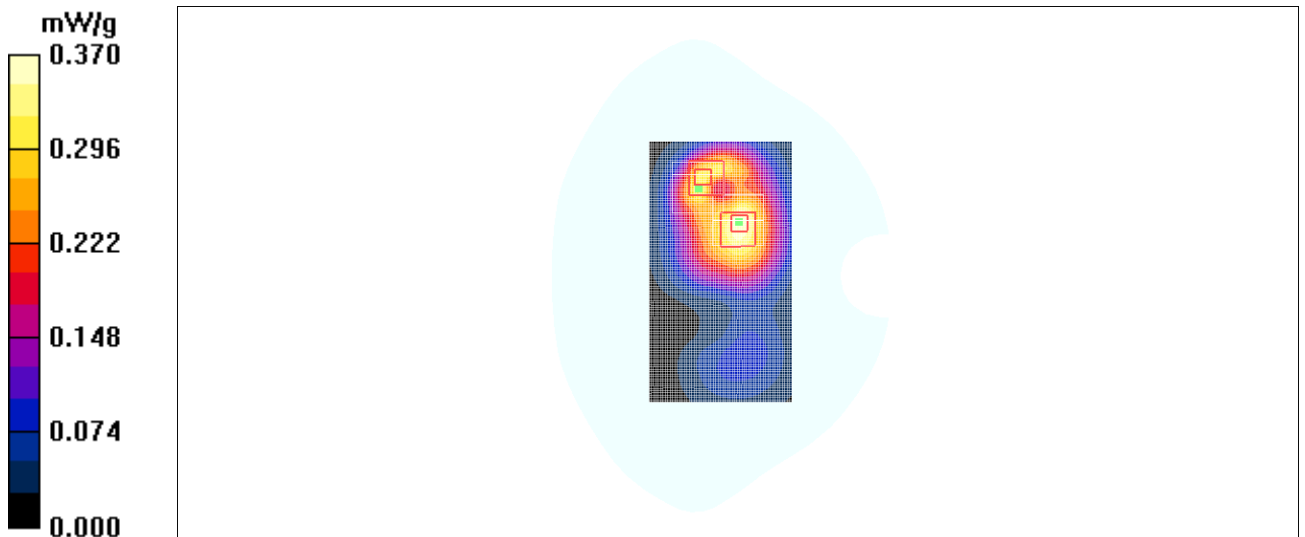


Fig. 112 1700 MHz CH1513

WCDMA 1700 Body Towards Ground Middle - Slide up

Date/Time: 2010-10-9 17:09:21

Electronics: DAE4 Sn771

Medium: Body 1800 MHz

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ kg/m³

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

Communication System: WCDMA 1700 Frequency: 1732.4 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(4.97, 4.97, 4.97)

Toward Ground Middle/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.488 mW/g

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

Reference Value = 12.2 V/m; Power Drift = 0.081 dB

Peak SAR (extrapolated) = 0.695 W/kg

SAR(1 g) = 0.455 mW/g; SAR(10 g) = 0.293 mW/g

Maximum value of SAR (measured) = 0.483 mW/g

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

Reference Value = 12.2 V/m; Power Drift = 0.081 dB

Peak SAR (extrapolated) = 0.617 W/kg

SAR(1 g) = 0.362 mW/g; SAR(10 g) = 0.214 mW/g

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

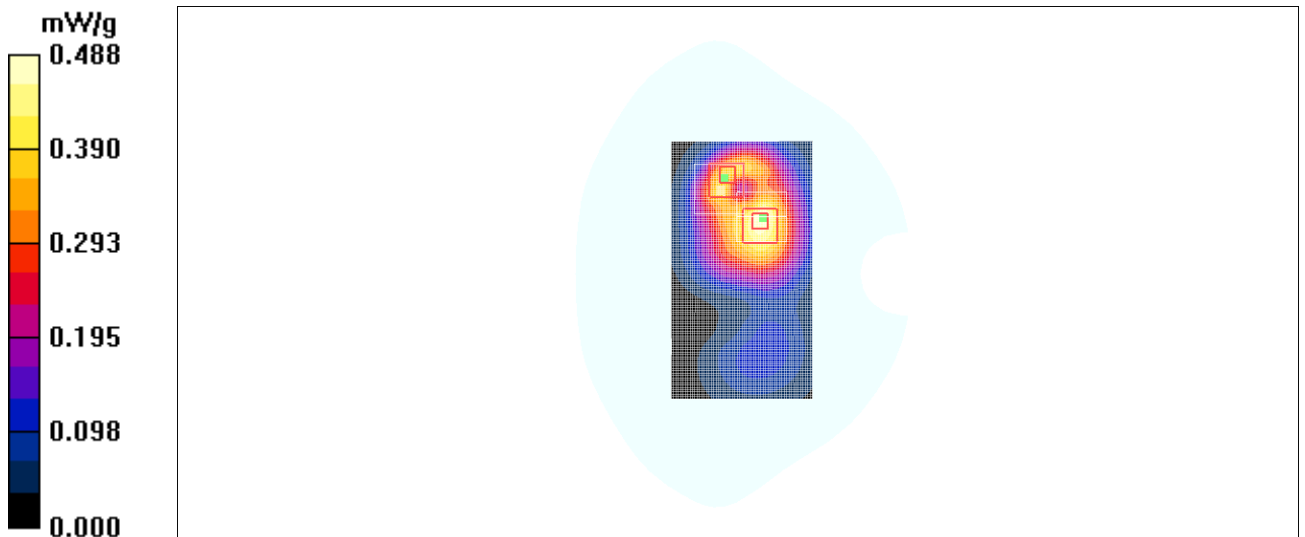


Fig. 113 1700 MHz CH1412

WCDMA 1700 Body Towards Ground Low - Slide up

Date/Time: 2010-10-9 17:24:44

Electronics: DAE4 Sn771

Medium: Body 1800 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

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

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

Probe: ES3DV3 - SN3149 ConvF(4.97, 4.97, 4.97)

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

Maximum value of SAR (interpolated) = 0.542 mW/g

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

Reference Value = 12.9 V/m; Power Drift = 0.038 dB

Peak SAR (extrapolated) = 0.776 W/kg

SAR(1 g) = 0.509 mW/g; SAR(10 g) = 0.328 mW/g

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

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

Reference Value = 12.9 V/m; Power Drift = 0.038 dB

Peak SAR (extrapolated) = 0.718 W/kg

SAR(1 g) = 0.381 mW/g; SAR(10 g) = 0.229 mW/g

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

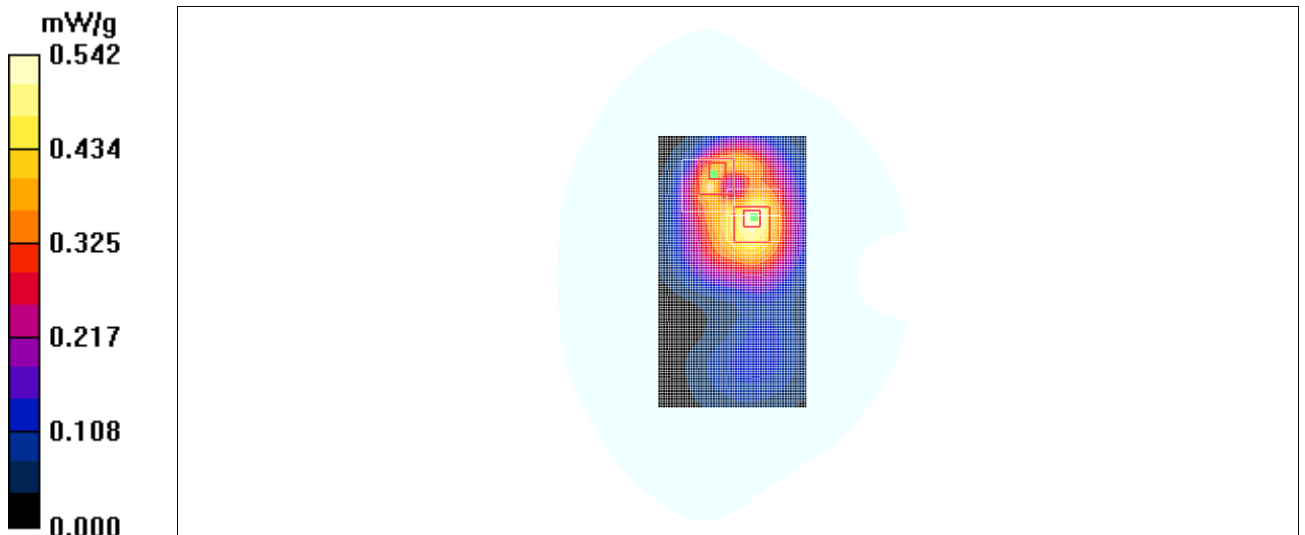


Fig. 114 1700 MHz CH1312

WCDMA 1700 Body Towards Ground Low with Headset_CCB3160A10C0 - Slide down

Date/Time: 2010-10-9 17:41:29

Electronics: DAE4 Sn771

Medium: Body 1800 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

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

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

Probe: ES3DV3 - SN3149 ConvF(4.97, 4.97, 4.97)

Toward Ground Low/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.509 mW/g

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

Reference Value = 13.8 V/m; Power Drift = 0.075 dB

Peak SAR (extrapolated) = 0.741 W/kg

SAR(1 g) = 0.448 mW/g; SAR(10 g) = 0.264 mW/g

Maximum value of SAR (measured) = 0.495 mW/g

Toward Ground Low CCB3160A10C0/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.8 V/m; Power Drift = 0.075 dB

Peak SAR (extrapolated) = 0.620 W/kg

SAR(1 g) = 0.381 mW/g; SAR(10 g) = 0.240 mW/g

Maximum value of SAR (measured) = 0.409 mW/g

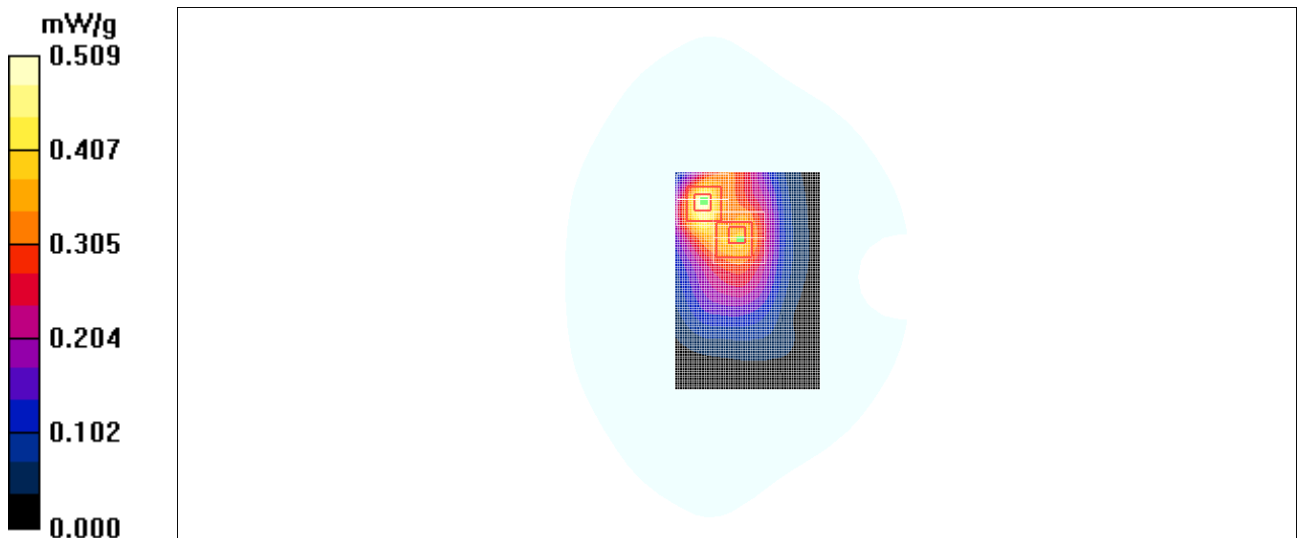


Fig. 115 1700 MHz CH1312

WCDMA 1700 Body Towards Ground Low with Headset_CCB3160A10C2 - Slide down

Date/Time: 2010-10-9 17:57:54

Electronics: DAE4 Sn771

Medium: Body 1800 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

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

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

Probe: ES3DV3 - SN3149 ConvF(4.97, 4.97, 4.97)

Toward Ground Low/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.449 mW/g

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

Reference Value = 13.8 V/m; Power Drift = 0.070 dB

Peak SAR (extrapolated) = 0.665 W/kg

SAR(1 g) = 0.406 mW/g; SAR(10 g) = 0.240 mW/g

Maximum value of SAR (measured) = 0.442 mW/g

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

Reference Value = 13.8 V/m; Power Drift = 0.070 dB

Peak SAR (extrapolated) = 0.670 W/kg

SAR(1 g) = 0.398 mW/g; SAR(10 g) = 0.222 mW/g

Maximum value of SAR (measured) = 0.435 mW/g

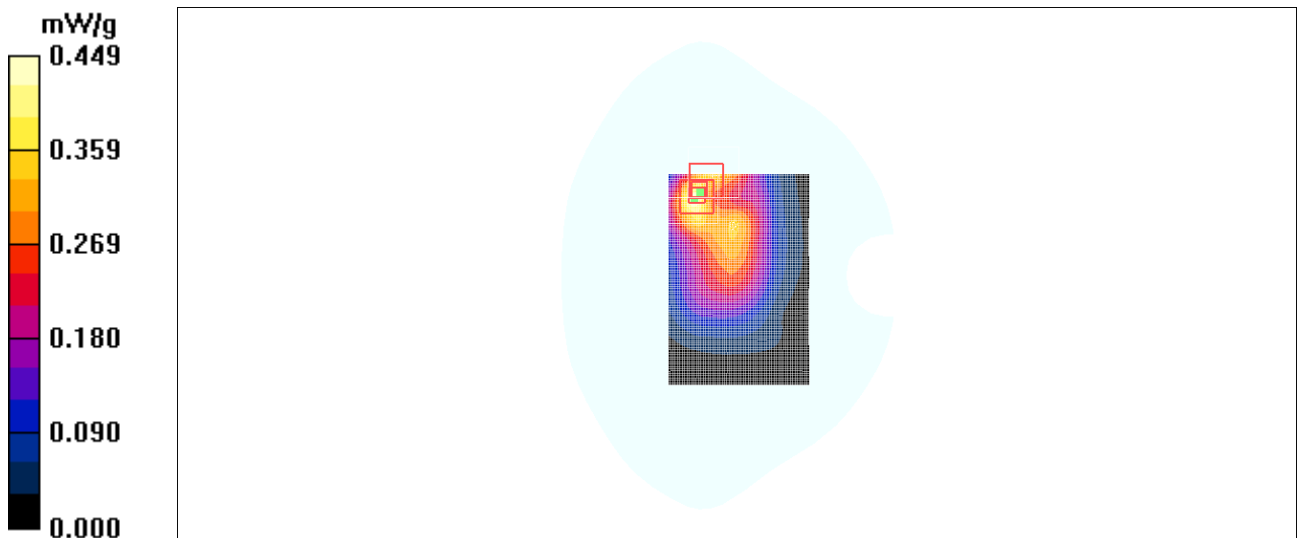


Fig. 116 1700 MHz CH1312

WiFi 802.11b 1Mbps Left Cheek Channel 11 – Slide down

Date/Time: 2010-10-11 8:11:24

Electronics: DAE4 Sn771

Medium: Head 2450 MHz

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

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

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

Probe: EX3DV4 - SN3617 ConvF(7.19, 7.19, 7.19)

Cheek High/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.045 mW/g

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

Reference Value = 4.45 V/m; Power Drift = -0.190 dB

Peak SAR (extrapolated) = 0.202 W/kg

SAR(1 g) = 0.041 mW/g; SAR(10 g) = 0.022 mW/g

Maximum value of SAR (measured) = 0.047 mW/g

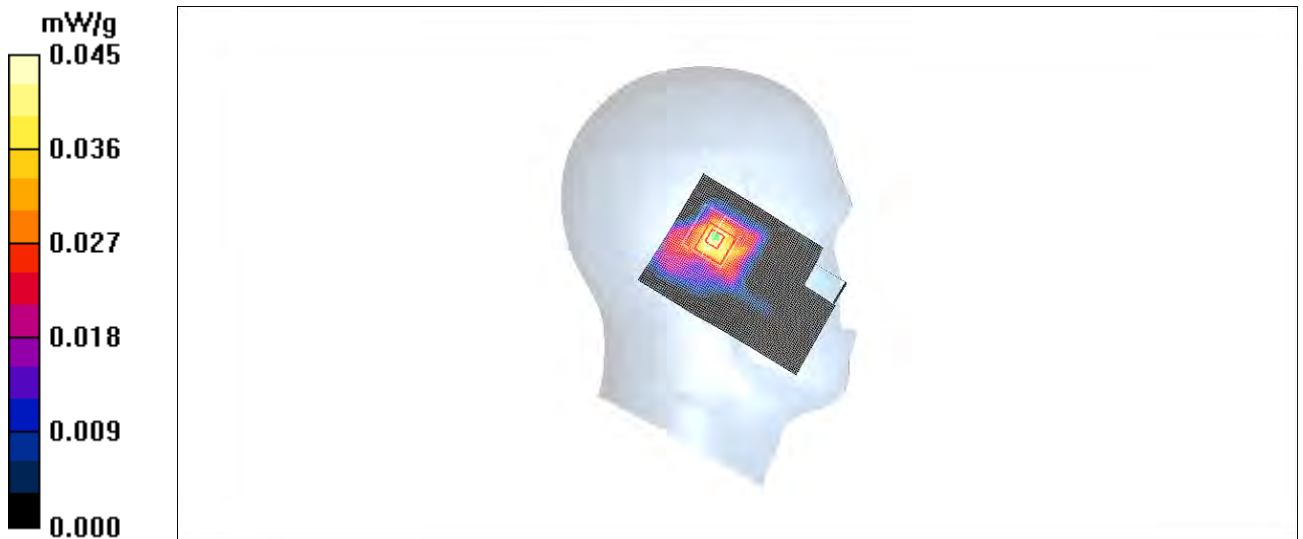


Fig.117 802.11b 1Mbps CH11

WiFi 802.11b 1Mbps Left Tilt Channel 11 – Slide down

Date/Time: 2010-10-11 8:25:51

Electronics: DAE4 Sn771

Medium: Head 2450 MHz

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

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

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

Probe: EX3DV4 - SN3617 ConvF(7.19, 7.19, 7.19)

Tilt High/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.072 mW/g

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

Reference Value = 5.36 V/m; Power Drift = 0.148 dB

Peak SAR (extrapolated) = 0.100 W/kg

SAR(1 g) = 0.054 mW/g; SAR(10 g) = 0.027 mW/g

Maximum value of SAR (measured) = 0.059 mW/g



Fig.118 802.11b 1Mbps CH11

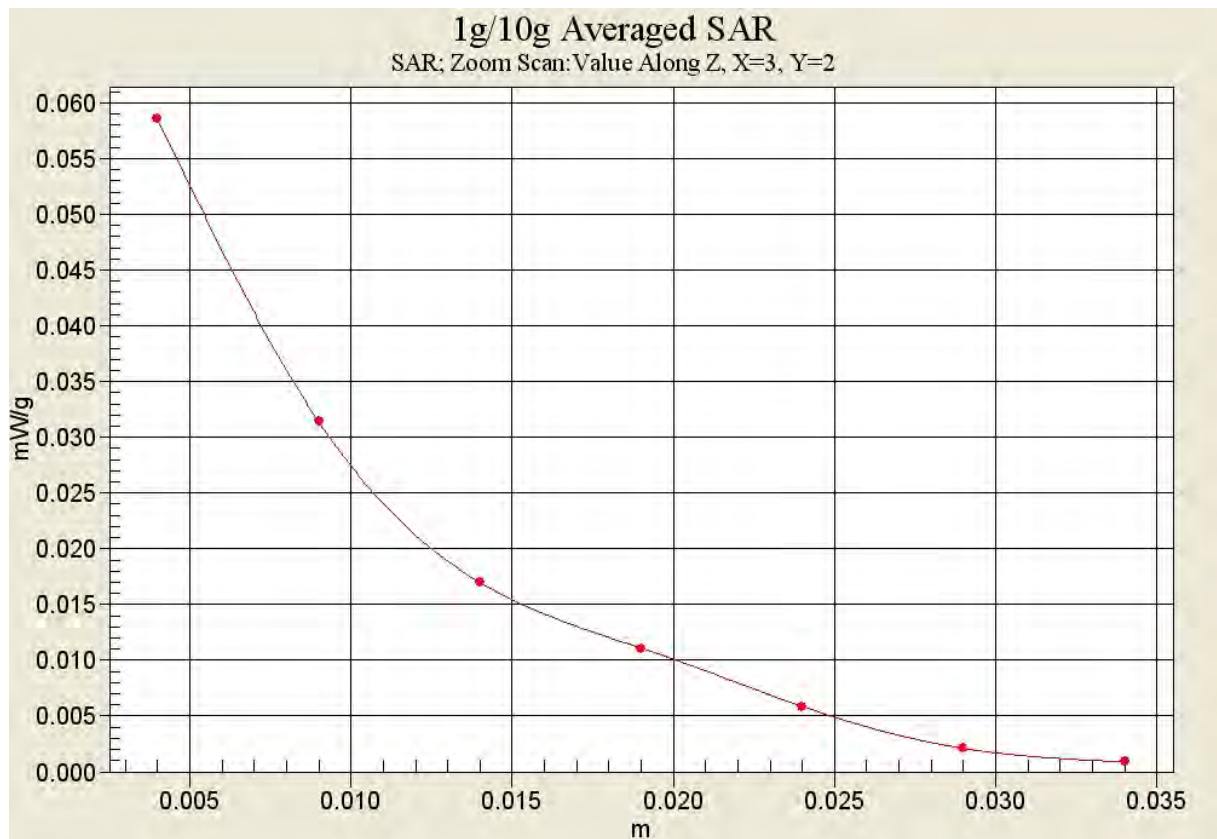


Fig. 118-1 Z-Scan at power reference point (2462 MHz CH11)

WiFi 802.11b 1Mbps Right Cheek Channel 11 – Slide down

Date/Time: 2010-10-11 8:40:22

Electronics: DAE4 Sn771

Medium: Head 2450 MHz

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

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

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

Probe: EX3DV4 - SN3617 ConvF(7.19, 7.19, 7.19)

Cheek High/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 3.03 V/m; Power Drift = 0.132 dB

Peak SAR (extrapolated) = 0.067 W/kg

SAR(1 g) = 0.032 mW/g; SAR(10 g) = 0.015 mW/g

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

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

Reference Value = 3.03 V/m; Power Drift = 0.132 dB

Peak SAR (extrapolated) = 0.034 W/kg

SAR(1 g) = 0.020 mW/g; SAR(10 g) = 0.010 mW/g

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

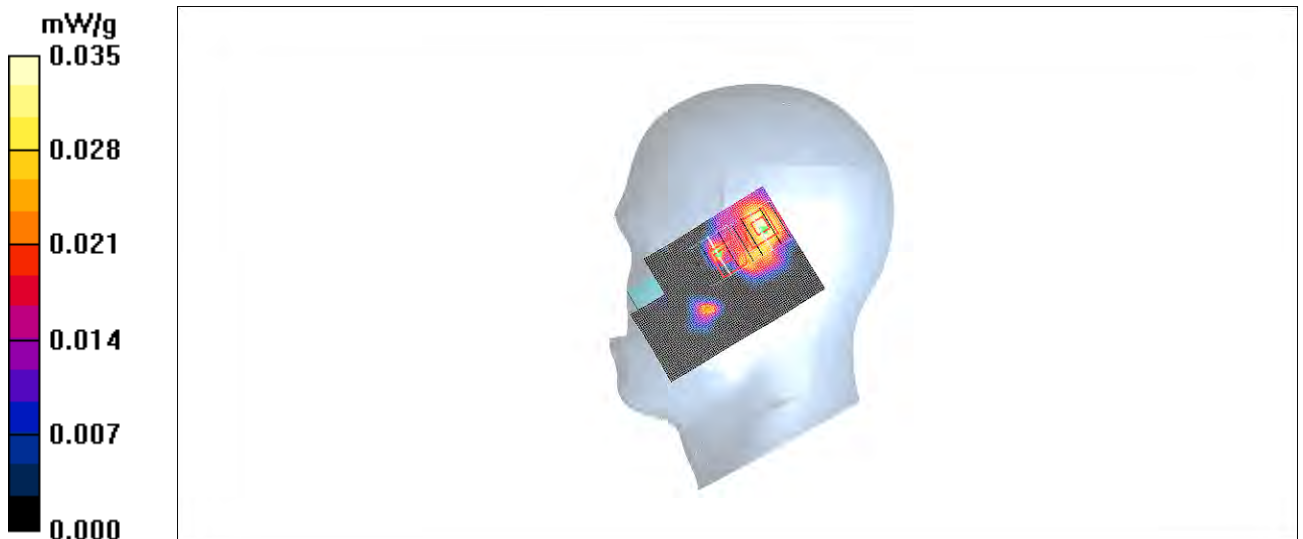


Fig.119 802.11b 1Mbps CH11

WiFi 802.11b 1Mbps Right Tilt Channel 11 – Slide down

Date/Time: 2010-10-11 8:54:49

Electronics: DAE4 Sn771

Medium: Head 2450 MHz

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

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

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

Probe: EX3DV4 - SN3617 ConvF(7.19, 7.19, 7.19)

Tilt High/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.053 mW/g

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

Reference Value = 4.66 V/m; Power Drift = -0.103 dB

Peak SAR (extrapolated) = 0.104 W/kg

SAR(1 g) = 0.039 mW/g; SAR(10 g) = 0.020 mW/g

Maximum value of SAR (measured) = 0.045 mW/g



Fig.120 802.11b 1Mbps CH11

WiFi 802.11b 1Mbps Left Cheek Channel 11 – Slide up

Date/Time: 2010-10-11 9:09:11

Electronics: DAE4 Sn771

Medium: Head 2450 MHz

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

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

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

Probe: EX3DV4 - SN3617 ConvF(7.19, 7.19, 7.19)

Cheek High/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.030 mW/g

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

Reference Value = 1.29 V/m; Power Drift = 0.153 dB

Peak SAR (extrapolated) = 0.027 W/kg

SAR(1 g) = 0.013 mW/g; SAR(10 g) = 0.00523 mW/g

Maximum value of SAR (measured) = 0.015 mW/g

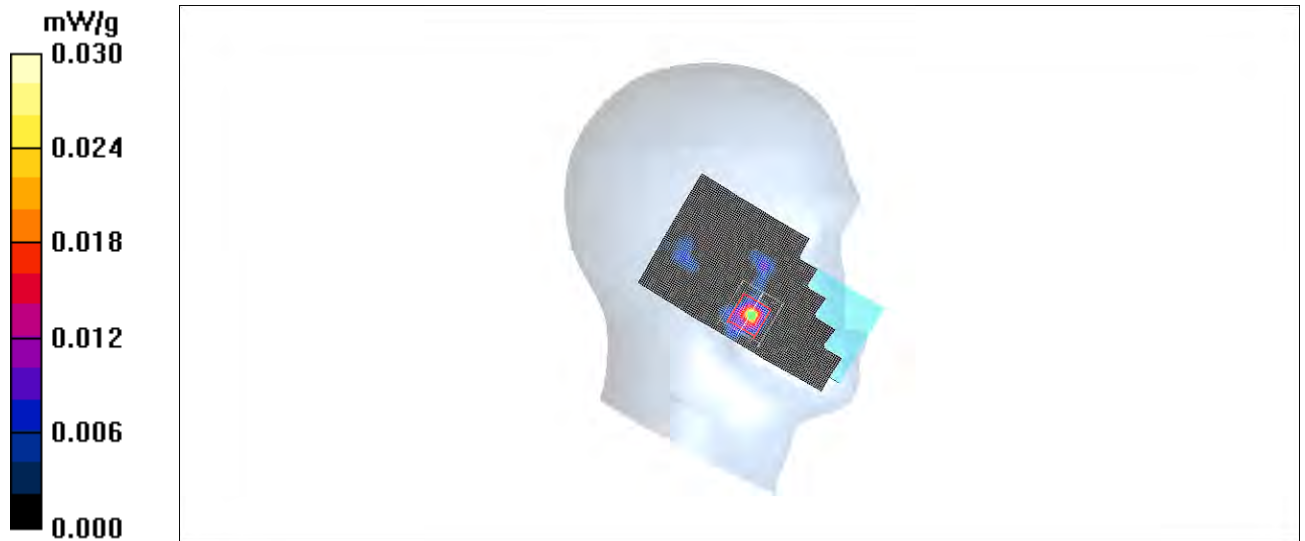


Fig.121 802.11b 1Mbps CH11

WiFi 802.11b 1Mbps Left Tilt Channel 11 – Slide up

Date/Time: 2010-10-11 9:23:30

Electronics: DAE4 Sn771

Medium: Head 2450 MHz

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

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

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

Probe: EX3DV4 - SN3617 ConvF(7.19, 7.19, 7.19)

Tilt High/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.012 mW/g

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

Reference Value = 2.41 V/m; Power Drift = 0.115 dB

Peak SAR (extrapolated) = 0.022 W/kg

SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.00403 mW/g

Maximum value of SAR (measured) = 0.013 mW/g

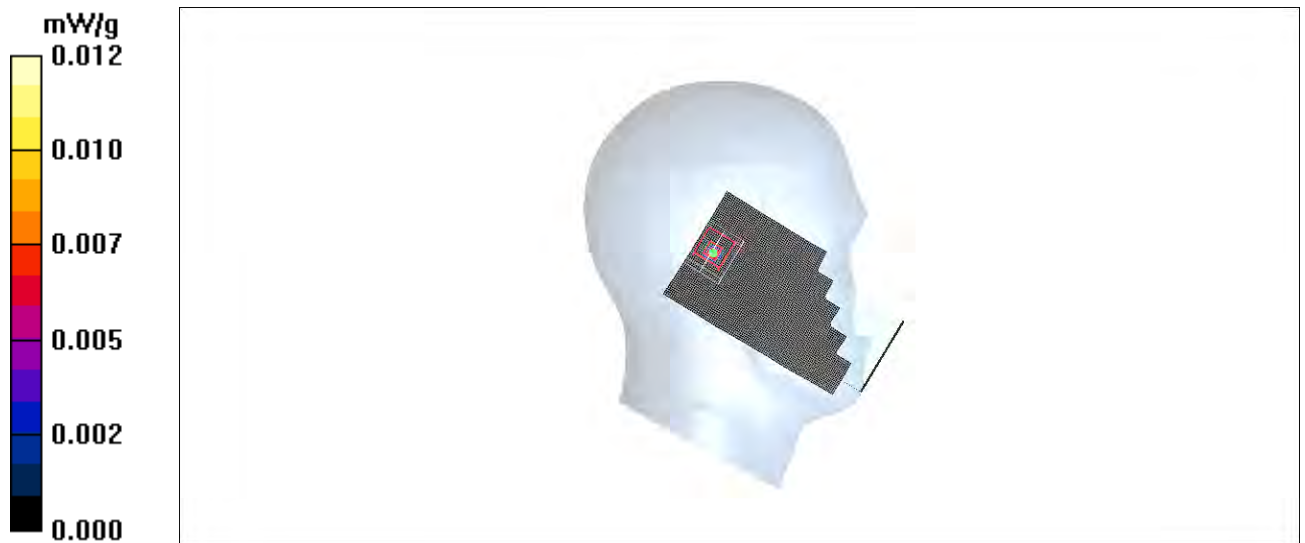


Fig.122 802.11b 1Mbps CH11

WiFi 802.11b 1Mbps Right Cheek Channel 11 – Slide up

Date/Time: 2010-10-11 9:37:54

Electronics: DAE4 Sn771

Medium: Head 2450 MHz

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

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

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

Probe: EX3DV4 - SN3617 ConvF(7.19, 7.19, 7.19)

Cheek High/Area Scan (71x111x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 0.574 V/m; Power Drift = 0.141 dB

Peak SAR (extrapolated) = 0.030 W/kg

SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.0035 mW/g

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

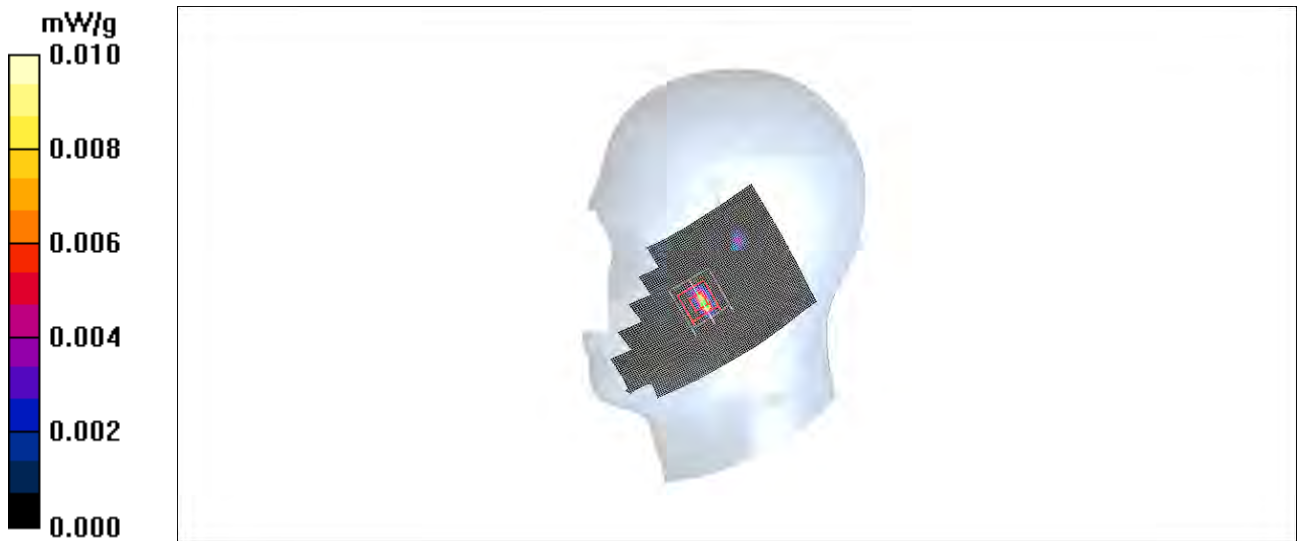


Fig.123 802.11b 1Mbps CH11

WiFi 802.11b 1Mbps Right Tilt Channel 11 – Slide up

Date/Time: 2010-10-11 9:52:30

Electronics: DAE4 Sn771

Medium: Head 2450 MHz

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

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

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

Probe: EX3DV4 - SN3617 ConvF(7.19, 7.19, 7.19)

Tilt High/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.012 mW/g

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

Reference Value = 2.08 V/m; Power Drift = 0.103 dB

Peak SAR (extrapolated) = 0.026 W/kg

SAR(1 g) = 0.00798 mW/g; SAR(10 g) = 0.00304 mW/g

Maximum value of SAR (measured) = 0.008 mW/g



Fig.124 802.11b 1Mbps CH11

WiFi 802.11b 1Mbps Toward Phantom Channel 11 – Slide down

Date/Time: 2010-10-11 10:50:17

Electronics: DAE4 Sn771

Medium: Body 2450 MHz

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.98$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

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

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

Probe: EX3DV4 - SN3617 ConvF(6.88, 6.88, 6.88)

Toward Phantom High/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.033 mW/g

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

Reference Value = 2.46 V/m; Power Drift = 0.177 dB

Peak SAR (extrapolated) = 0.039 W/kg

SAR(1 g) = 0.022 mW/g; SAR(10 g) = 0.012 mW/g

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

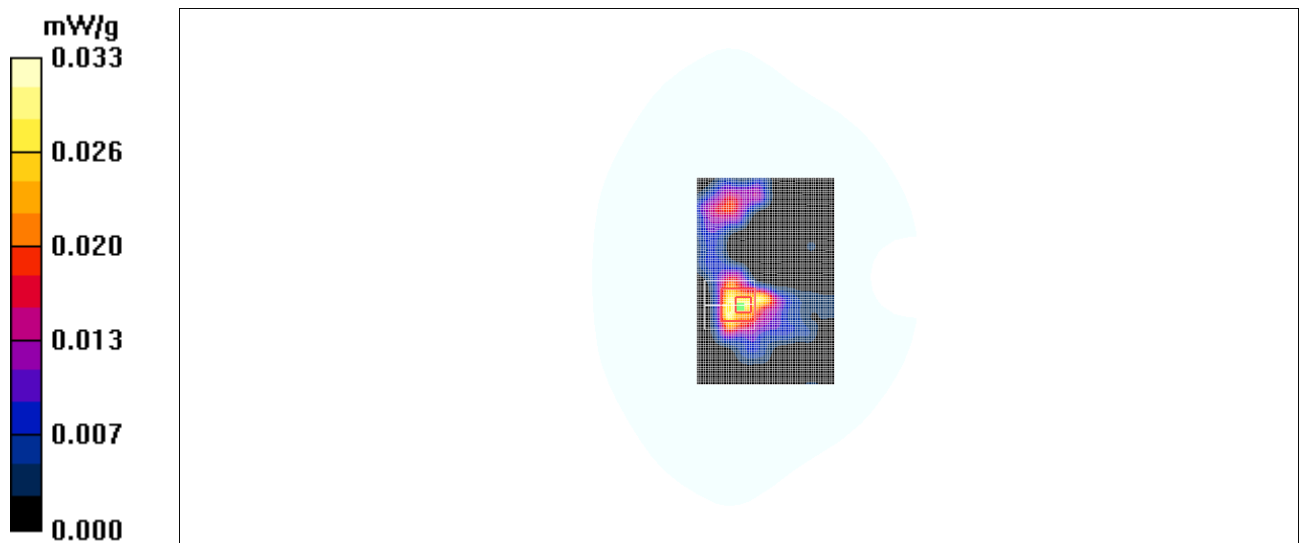


Fig.125 802.11b 1Mbps CH11

WiFi 802.11b 1Mbps Toward Ground Channel 11 – Slide down

Date/Time: 2010-10-11 11:05:42

Electronics: DAE4 Sn771

Medium: Body 2450 MHz

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.98$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

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

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

Probe: EX3DV4 - SN3617 ConvF(6.88, 6.88, 6.88)

Toward Ground High/Area Scan (61x91x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 1.75 V/m; Power Drift = 0.155 dB

Peak SAR (extrapolated) = 0.092 W/kg

SAR(1 g) = 0.030 mW/g; SAR(10 g) = 0.013 mW/g

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

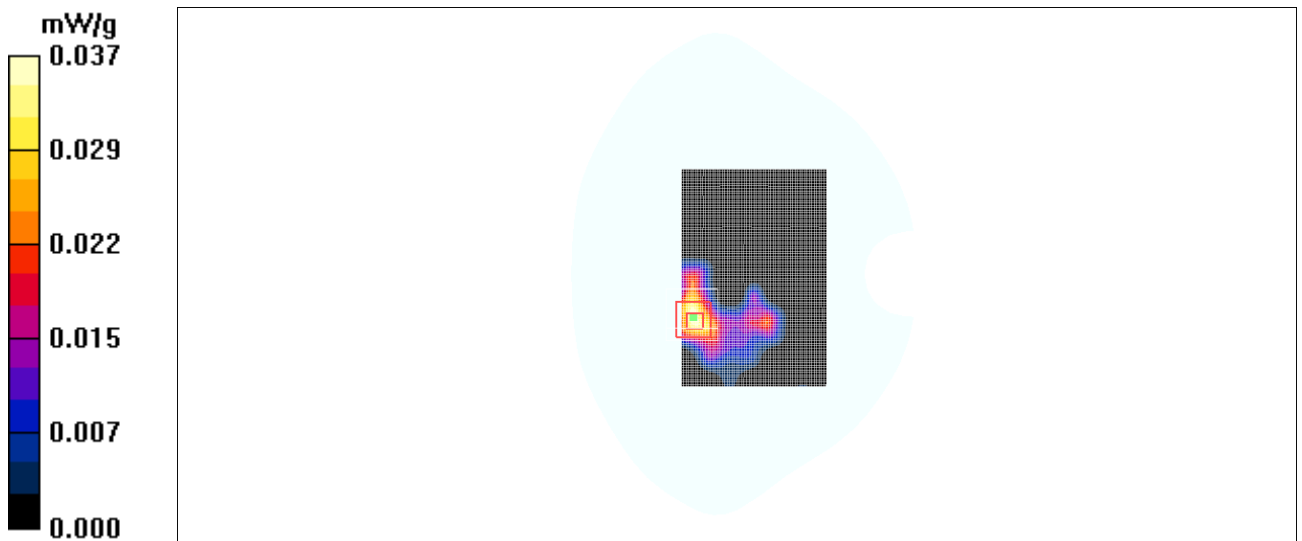


Fig.126 802.11b 1Mbps CH11

WiFi 802.11b 1Mbps Toward Phantom Channel 11 – Slide up

Date/Time: 2010-10-11 11:21:18

Electronics: DAE4 Sn771

Medium: Body 2450 MHz

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.98$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

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

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

Probe: EX3DV4 - SN3617 ConvF(6.88, 6.88, 6.88)

Toward Phantom High/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.009 mW/g

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

Reference Value = 1.41 V/m; Power Drift = 0.126 dB

Peak SAR (extrapolated) = 0.011 W/kg

SAR(1 g) = 0.00587 mW/g; SAR(10 g) = 0.00241 mW/g

Maximum value of SAR (measured) = 0.007 mW/g

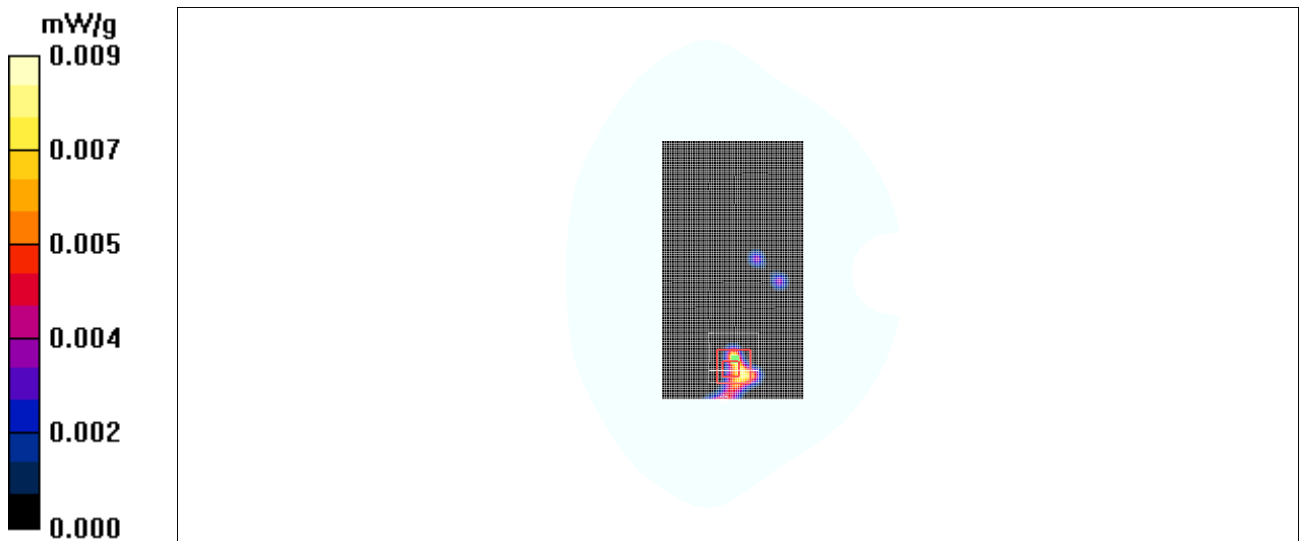


Fig.127 802.11b 1Mbps CH11

WiFi 802.11b 1Mbps Toward Ground Channel 11 – Slide up

Date/Time: 2010-10-11 11:36:40

Electronics: DAE4 Sn771

Medium: Body 2450 MHz

Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.98$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

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

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

Probe: EX3DV4 - SN3617 ConvF(6.88, 6.88, 6.88)

Toward Ground High/Area Scan (61x111x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 3.14 V/m; Power Drift = 0.166 dB

Peak SAR (extrapolated) = 0.057 W/kg

SAR(1 g) = 0.032 mW/g; SAR(10 g) = 0.016 mW/g

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

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

Reference Value = 3.14 V/m; Power Drift = 0.166 dB

Peak SAR (extrapolated) = 0.038 W/kg

SAR(1 g) = 0.019 mW/g; SAR(10 g) = 0.00786 mW/g

Maximum value of SAR (measured) = 0.021 mW/g

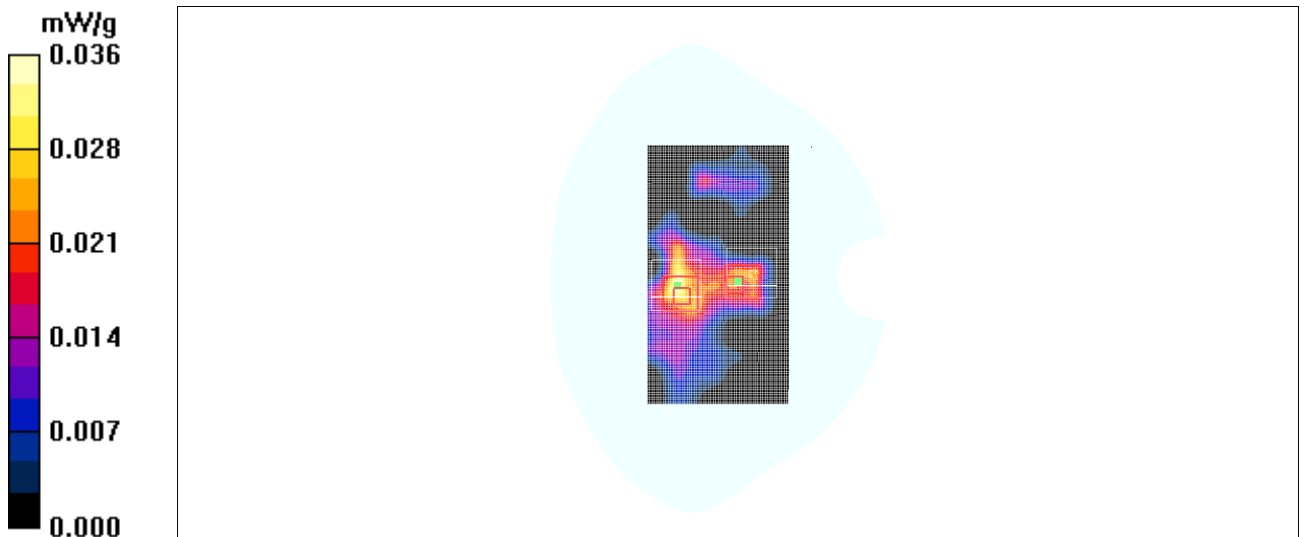


Fig.128 802.11b 1Mbps CH11

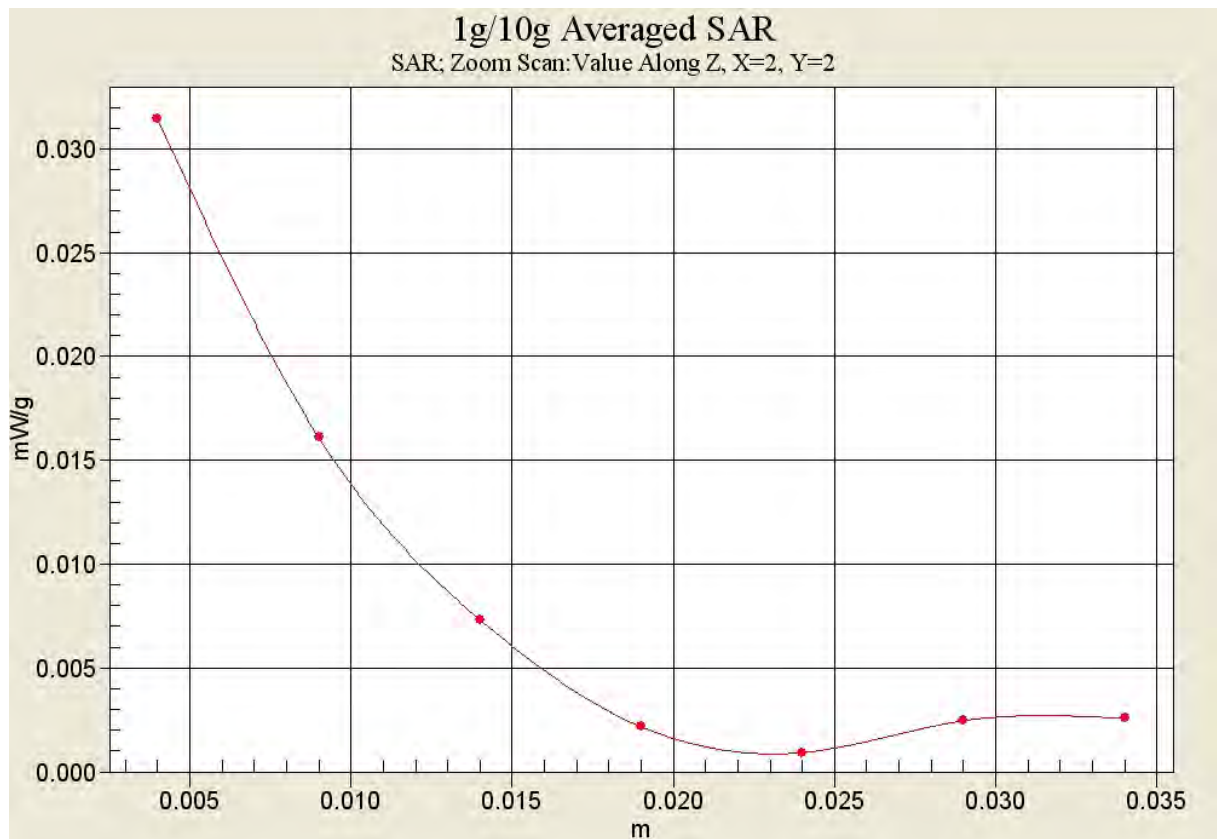


Fig. 128-1 Z-Scan at power reference point (2462 MHz CH11)

ANNEX D SYSTEM VALIDATION RESULTS

835MHz

Date/Time: 2010-10-8 7:26:41

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.7$; $\rho = 1000 \text{ kg/m}^3$

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

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

Probe: ES3DV3 - SN3149 ConvF(6.56, 6.56, 6.56)

System Validation /Area Scan (101x101x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (interpolated) = 2.53 mW/g

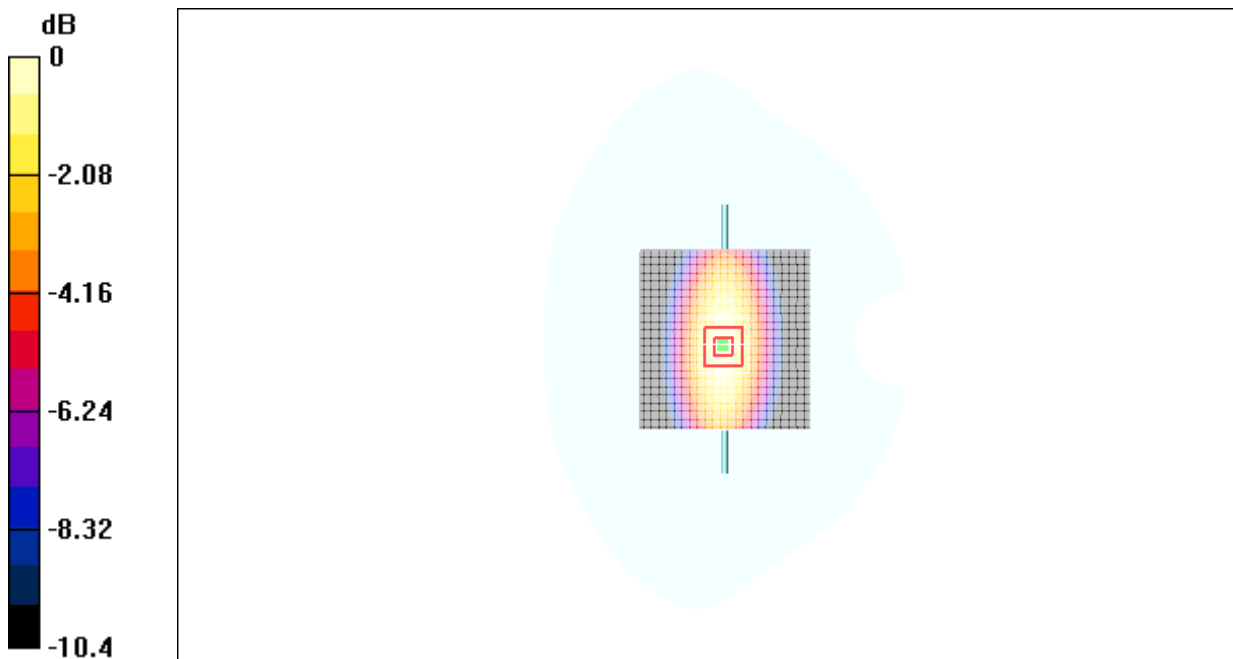
System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 54.9 V/m ; Power Drift = -0.079 dB

Peak SAR (extrapolated) = 3.35 W/kg

SAR(1 g) = 2.31 mW/g ; SAR(10 g) = 1.47 mW/g

Maximum value of SAR (measured) = 2.46 mW/g



0 dB = 2.46 mW/g

Fig.129 validation 835MHz 250mW

835MHz

Date/Time: 2010-10-8 14:01:22

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.95 \text{ mho/m}$; $\epsilon_r = 55.0$; $\rho = 1000 \text{ kg/m}^3$

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

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

Probe: ES3DV3 - SN3149 ConvF(6.22, 6.22, 6.22)

System Validation /Area Scan (101x101x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (interpolated) = 2.46 mW/g

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

Reference Value = 49.5 V/m ; Power Drift = 0.086 dB

Peak SAR (extrapolated) = 3.26 W/kg

SAR(1 g) = 2.33 mW/g ; SAR(10 g) = 1.50 mW/g

Maximum value of SAR (measured) = 2.41 mW/g

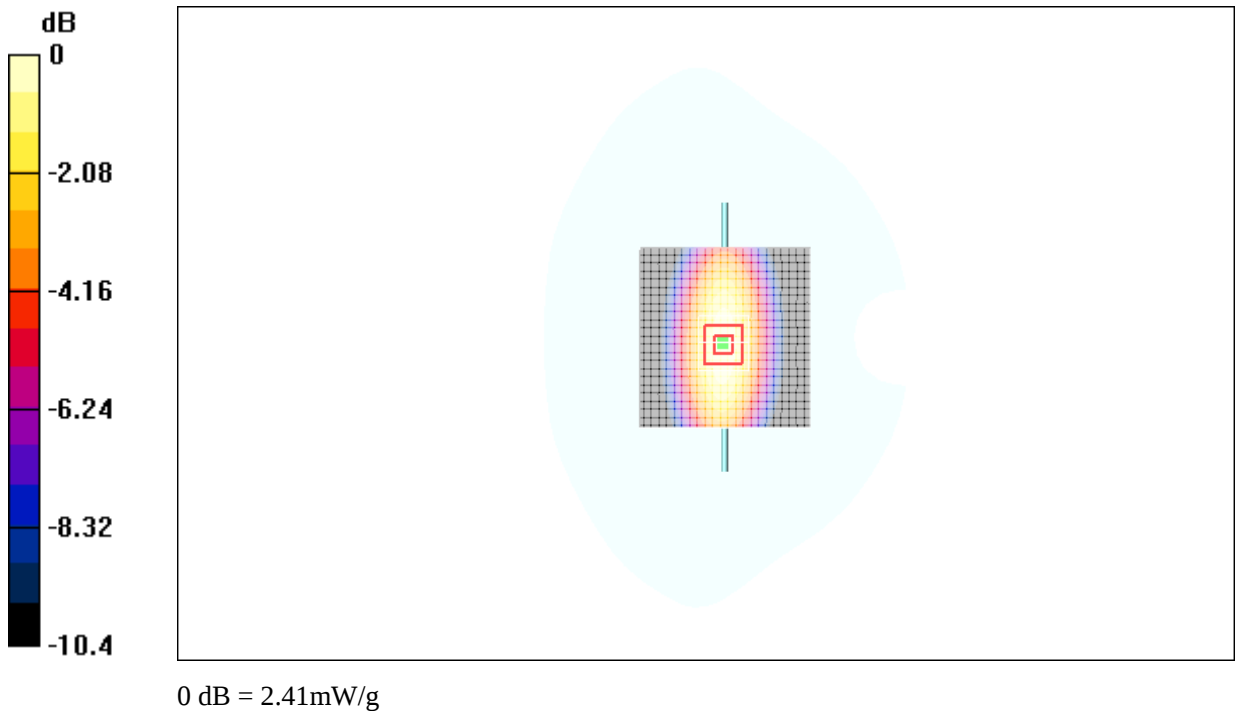


Fig.130 validation 835MHz 250mW

1800MHz

Date/Time: 2010-10-9 7:27:58

Electronics: DAE4 Sn771

Medium: Head 1800 MHz

Medium parameters used: $f=1800$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³

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

Communication System: CW Frequency: 1800 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(5.18, 5.18, 5.18)

System Validation/Area Scan (101x101x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 13.5 mW/g

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

Reference Value = 91.0 V/m; Power Drift = 0.053 dB

Peak SAR (extrapolated) = 14.6 W/kg

SAR(1 g) = 9.49 mW/g; SAR(10 g) = 4.85 mW/g

Maximum value of SAR (measured) = 12.7 mW/g

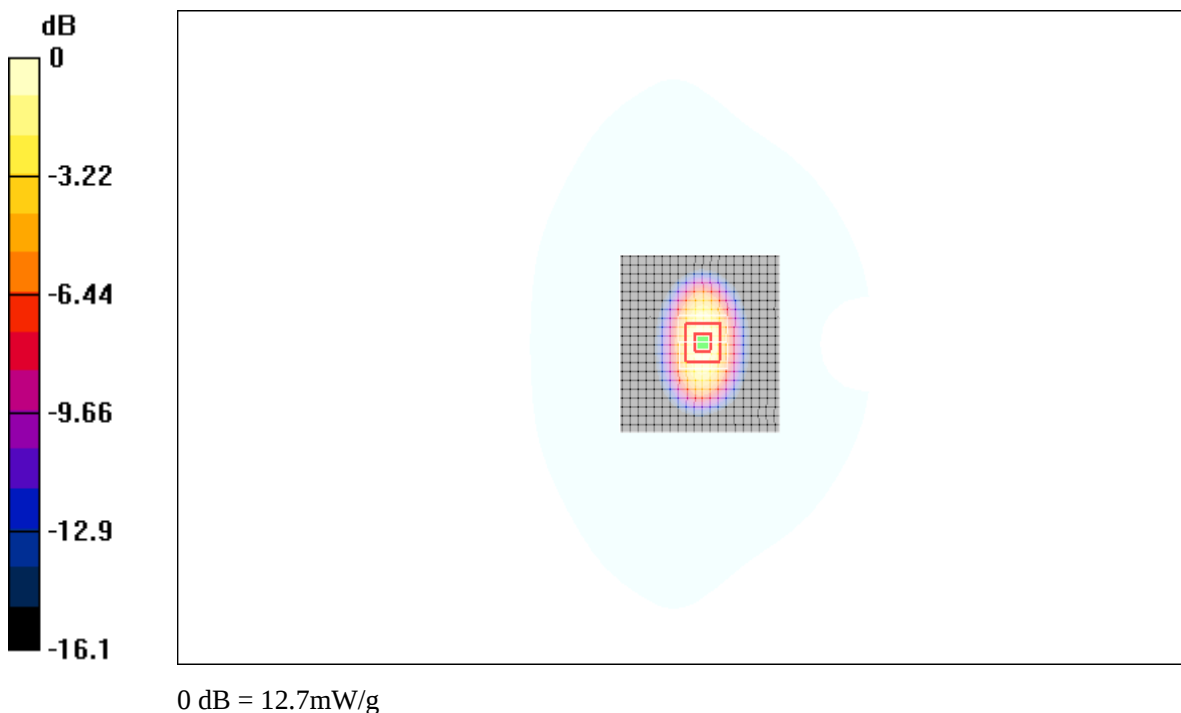


Fig.131 validation 1800MHz 250mW

1800MHz

Date/Time: 2010-10-9 14:09:46

Electronics: DAE4 Sn771

Medium: Body 1800 MHz

Medium parameters used: $f=1800$ MHz; $\sigma = 1.50$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

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

Communication System: CW Frequency: 1800 MHz Duty Cycle: 1:1

Probe: ES3DV3 - SN3149 ConvF(4.97, 4.97, 4.97)

System Validation/Area Scan (101x101x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 13.2 mW/g

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

Reference Value = 96.1 V/m; Power Drift = -0.049 dB

Peak SAR (extrapolated) = 14.7 W/kg

SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.19 mW/g

Maximum value of SAR (measured) = 12.9 mW/g

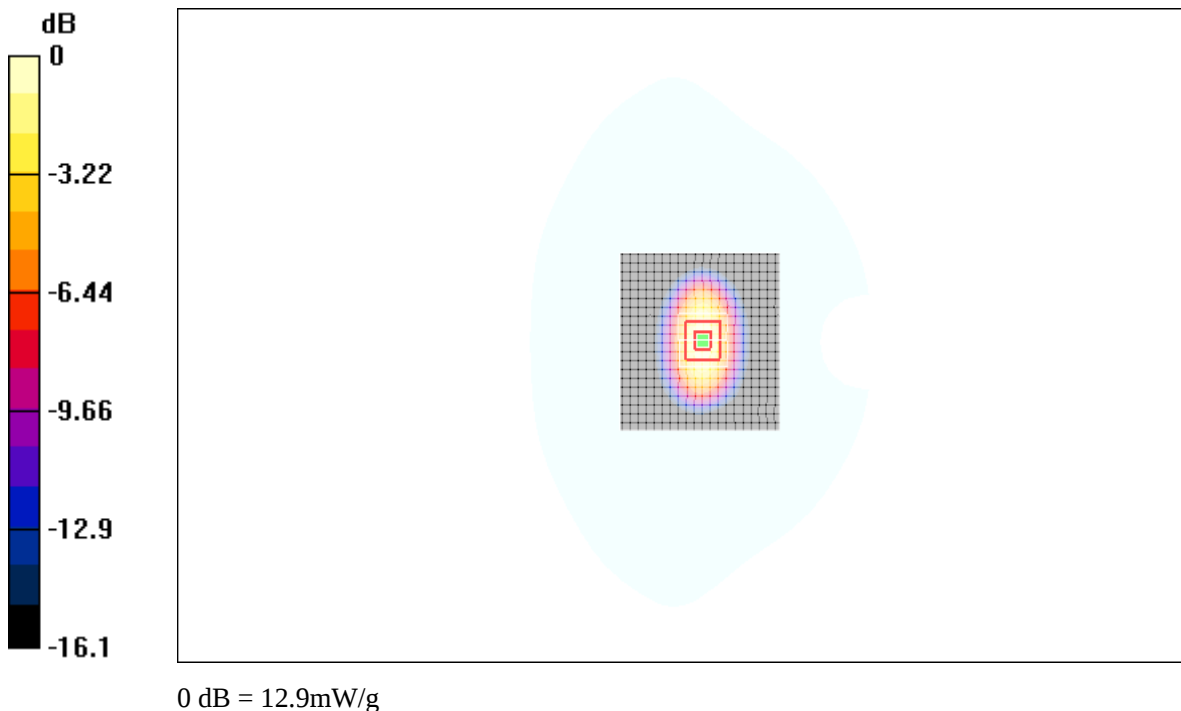


Fig.132 validation 1800MHz 250mW

1900MHz

Date/Time: 2010-10-10 7:27:05

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.41 \text{ mho/m}$; $\epsilon_r = 40.8$; $\rho = 1000 \text{ kg/m}^3$

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

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

Probe: ES3DV3 - SN3149 ConvF(5.03, 5.03, 5.03)

System Validation/Area Scan (101x101x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (interpolated) = 11.3 mW/g

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

Reference Value = 88.9 V/m ; Power Drift = 0.070 dB

Peak SAR (extrapolated) = 14.8 W/kg

SAR(1 g) = 9.66 mW/g ; SAR(10 g) = 4.95 mW/g

Maximum value of SAR (measured) = 10.6 mW/g

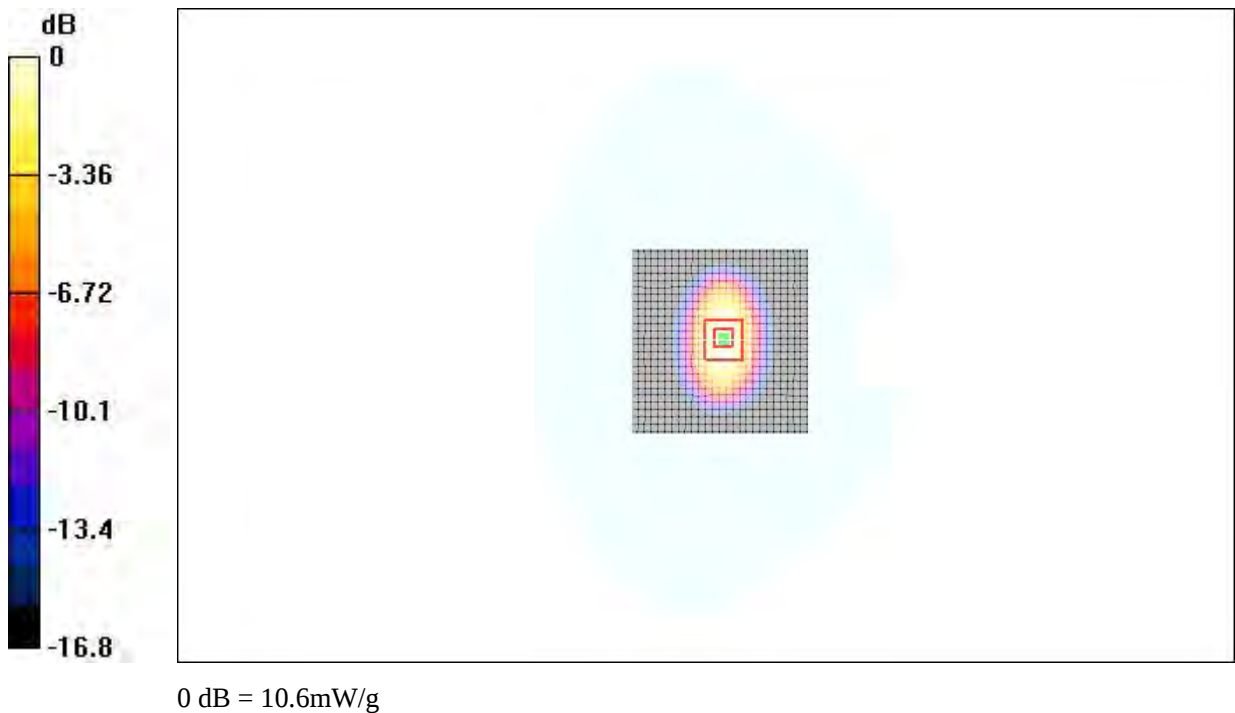


Fig.133 validation 1900MHz 250mW

1900MHz

Date/Time: 2010-10-10 14:15:23

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.52 \text{ mho/m}$; $\epsilon_r = 52.6$; $\rho = 1000 \text{ kg/m}^3$

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

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

Probe: ES3DV3 - SN3149 ConvF(4.68, 4.68, 4.68)

System Validation/Area Scan (101x101x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (interpolated) = 11.3 mW/g

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

Reference Value = 91.6 V/m ; Power Drift = -0.051 dB

Peak SAR (extrapolated) = 15.9 W/kg

SAR(1 g) = 10.2 mW/g ; SAR(10 g) = 5.15 mW/g

Maximum value of SAR (measured) = 10.9 mW/g

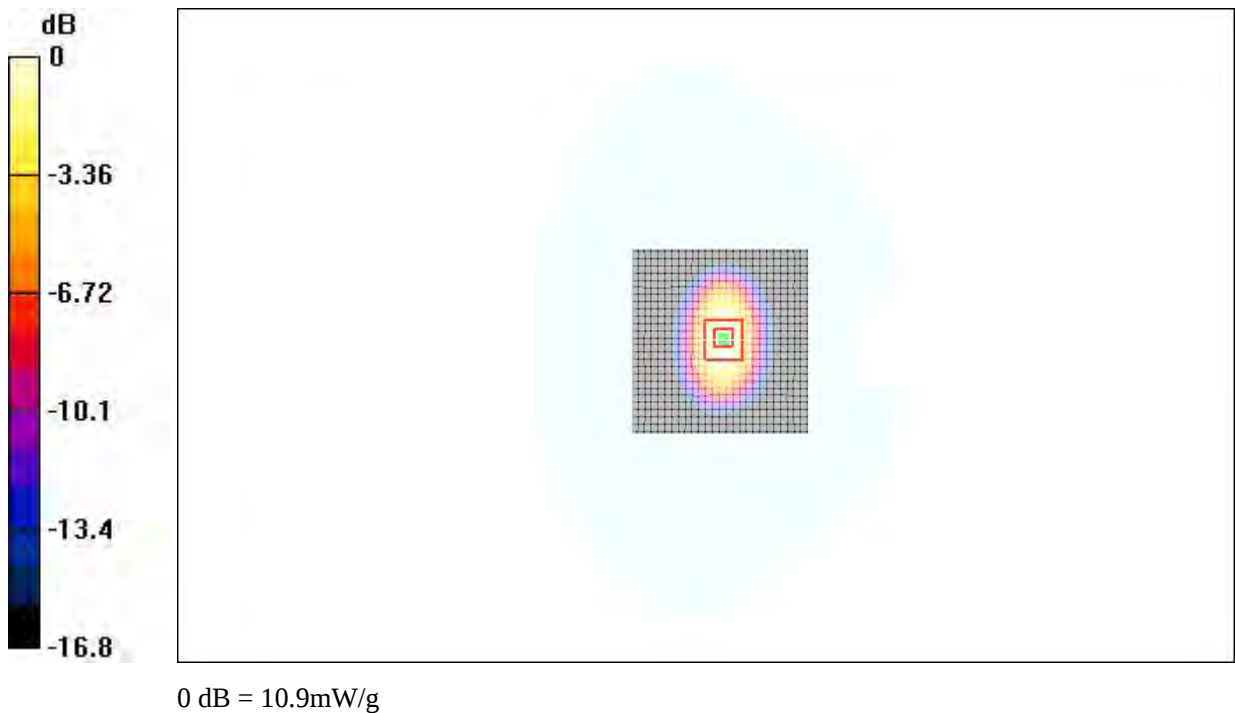


Fig.134 validation 1900MHz 250mW

2450MHz

Date/Time: 2010-10-11 7:30:04

Electronics: DAE4 Sn771

Medium: Head 2450 MHz

Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.80 \text{ mho/m}$; $\epsilon_r = 39.5$; $\rho = 1000 \text{ kg/m}^3$

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

Communication System: CW Frequency: 2450 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(7.19, 7.19, 7.19)

System Validation/Area Scan (101x101x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (interpolated) = 14.2 mW/g

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

Reference Value = 85.5 V/m ; Power Drift = 0.068 dB

Peak SAR (extrapolated) = 18.6 W/kg

SAR(1 g) = 12.7 mW/g ; SAR(10 g) = 5.75 mW/g

Maximum value of SAR (measured) = 14.0 mW/g

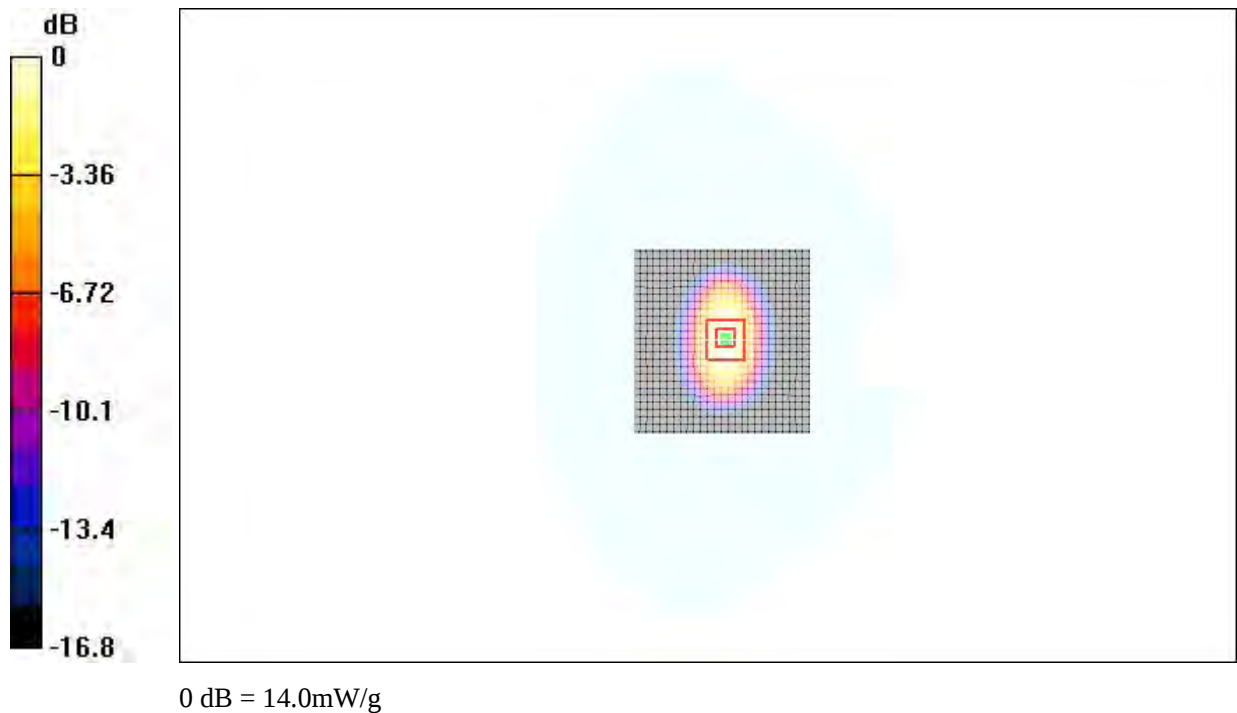


Fig.135 validation 2450MHz 250mW

2450MHz

Date/Time: 2010-10-11 10:24:09

Electronics: DAE4 Sn771

Medium: Body 2450 MHz

Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.96 \text{ mho/m}$; $\epsilon_r = 52.1$; $\rho = 1000 \text{ kg/m}^3$

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

Communication System: CW Frequency: 2450 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3617 ConvF(6.88, 6.88, 6.88)

System Validation/Area Scan (101x101x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (interpolated) = 15.9 mW/g

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

Reference Value = 83.0 V/m; Power Drift = -0.081 dB

Peak SAR (extrapolated) = 24.4 W/kg

SAR(1 g) = 13.0 mW/g; SAR(10 g) = 5.93 mW/g

Maximum value of SAR (measured) = 14.6 mW/g

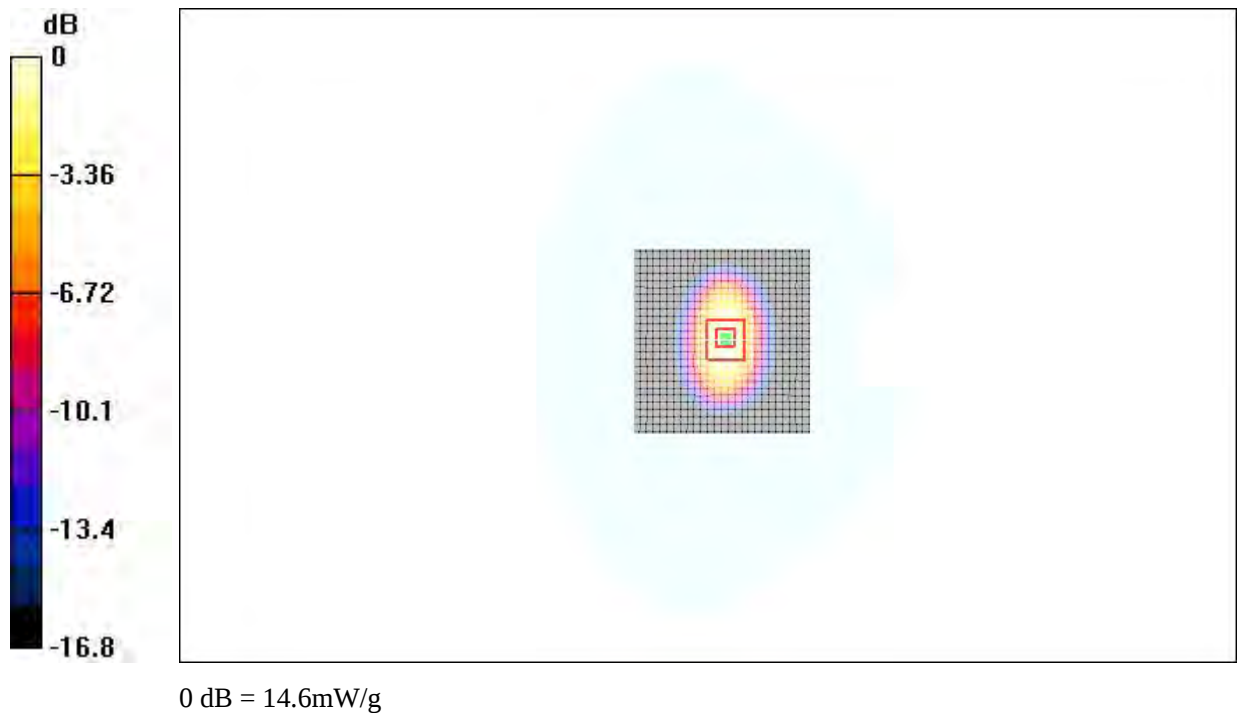


Fig.136 validation 2450MHz 250mW

ANNEX E PROBE CALIBRATION CERTIFICATE

**Calibration Laboratory of
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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **TMC China**

Certificate No: **ES3DV3-3149_Sep10**

CALIBRATION CERTIFICATE

Object	ES3DV3-SN: 3149
Calibration procedure(s)	QA CAL-01.v6 Calibration procedure for dosimetric E-field probes
Calibration date:	September 25, 2010
Condition of the calibrated item	In Tolerance

This calibration certify documents the traceability to national standards, which realize the physical units of measurements(SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.
All calibrations have been conducted at an environment temperature $(22\pm 3)^{\circ}\text{C}$ 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	GB41293874	5-May-10 (METAS, NO. 251-00388)	May-11
Power sensor E4412A	MY41495277	5-May-10 (METAS, NO. 251-00388)	May-11
Reference 3 dB Attenuator	SN:S5054 (3c)	10-Aug-10 (METAS, NO. 251-00403)	Aug-11
Reference 20 dB Attenuator	SN:S5086 (20b)	3-May-10 (METAS, NO. 251-00389)	May-11
Reference 30 dB Attenuator	SN:S5129 (30b)	10-Aug-10 (METAS, NO. 251-00404)	Aug-11
DAE4	SN:617	10-Jun-10 (SPEAG, NO.DAE4-907_Jun10)	Jun-11
Reference Probe ES3DV2	SN: 3013	12-Jan-10 (SPEAG, NO. ES3-3013_Jan10)	Jan-11

Secondary Standards	ID#	Check Data (in house)	Scheduled Calibration
RF generator HP8648C	US3642U01700	4-Aug-99(SPEAG, in house check Oct-09)	In house check: Oct-10
Network Analyzer HP 8753E	US37390585	18-Oct-01(SPEAG, in house check Nov-09)	In house check: Nov-10

Name	Function	Signature
Calibrated by: Katja Pokovic	Technical Manager	
Approved by: Niels Kuster	Quality Manager	

Issued: **September 25, 2010**

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

Certificate No: **ES3DV3-3149_Sep10**

Page 1 of 9

Calibration Laboratory of
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Accreditation No.: SCS 108

Glossary:

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConF	sensitivity in TSL / NORM _{x,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:

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

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}: Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not effect the E^2 -field uncertainty inside TSL (see below *ConvF*).
- NORM(f)_{x,y,z} = NORM_{x,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*.
- DCP_{x,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 NORM_{x,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.

ES3DV3 SN: 3149

September 25, 2010

Probe ES3DV3

SN: 3149

Manufactured: June 12, 2007

Calibrated: September 25, 2010

Calibrated for DASY4 System

ES3DV3 SN: 3149

September 25, 2010

DASY – Parameters of Probe: ES3DV3 SN:3149

Sensitivity in Free Space^A

Diode Compression^B

NormX	1.14±10.1%	$\mu V/(V/m)^2$	DCP X	94mV
NormY	1.23±10.1%	$\mu V/(V/m)^2$	DCP Y	95mV
NormZ	1.29±10.1%	$\mu V/(V/m)^2$	DCP Z	91mV

Sensitivity in Tissue Simulating Liquid (Conversion Factors)

Please see Page 8

Boundary Effect

TSL 900MHz Typical SAR gradient: 5% per mm

Sensor Center to Phantom Surface Distance		3.0 mm	4.0 mm
SARbe[%]	Without Correction Algorithm	3.8	1.6
SARbe[%]	With Correction Algorithm	0.8	0.7

TSL 1810MHz Typical SAR gradient: 10% per mm

Sensor Center to Phantom Surface Distance		3.0 mm	4.0 mm
SARbe[%]	Without Correction Algorithm	6.8	3.6
SARbe[%]	With Correction Algorithm	0.4	0.2

Sensor Offset

Probe Tip to Sensor Center 2.0 mm

The reported uncertainty of measurement is stated as the standard uncertainty of Measurement multiplied by the coverage factor $k=2$, which for a normal distribution Corresponds to a coverage probability of approximately 95%.

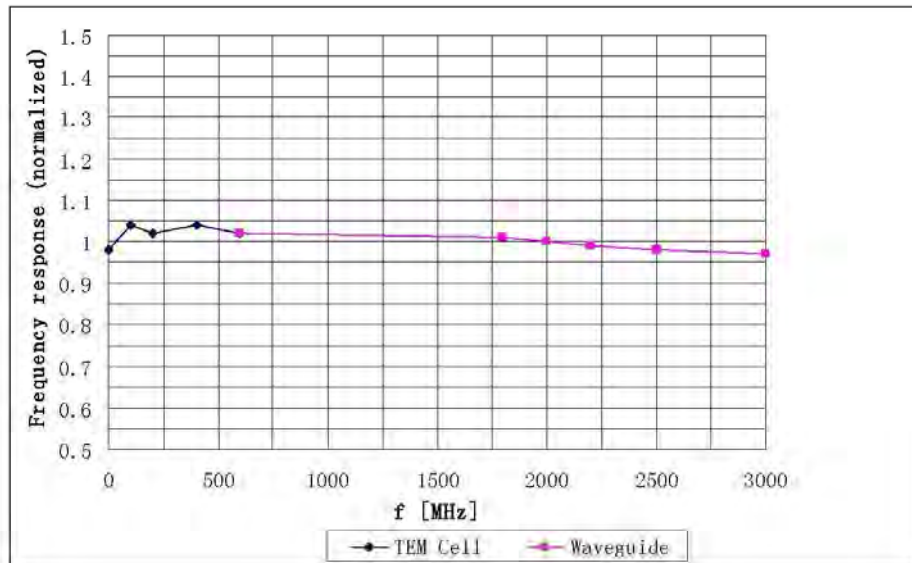
^A The uncertainties of NormX,Y,Z do not affect the E^2 -field uncertainty inside TSL (see Page 8).

^B Numerical linearization parameter: uncertainty not required.

ES3DV3 SN: 3149

September 25, 2010

Frequency Response of E-Field

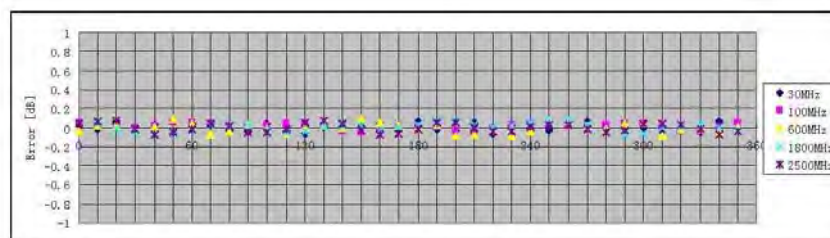
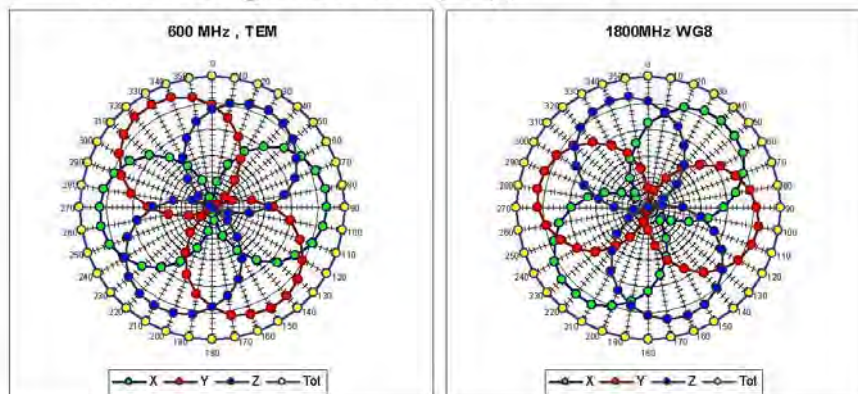


Uncertainty of Frequency Response of E-field: $\pm 5.0\%$ (k=2)

ES3DV3 SN: 3149

September 25, 2010

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

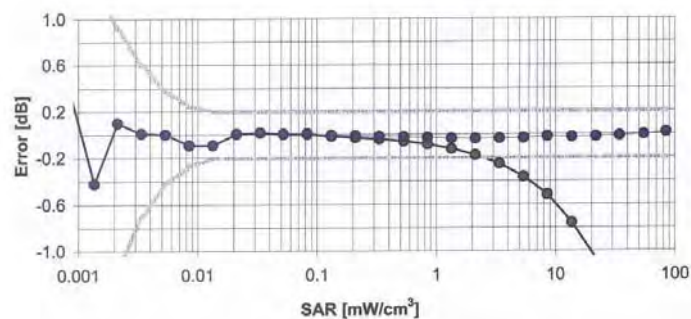
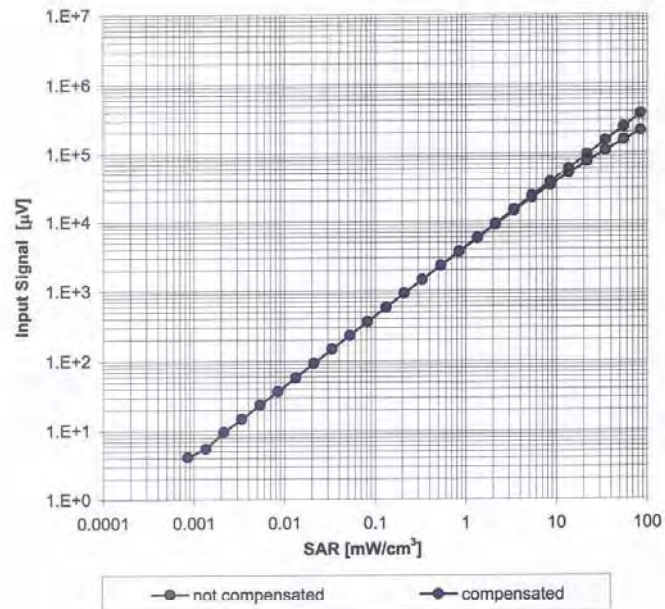


Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ (k=2)

ES3DV3 SN: 3149

September 25, 2010

Dynamic Range $f(\text{SAR}_{\text{head}})$ (Waveguide: WG8, $f = 1800 \text{ MHz}$)

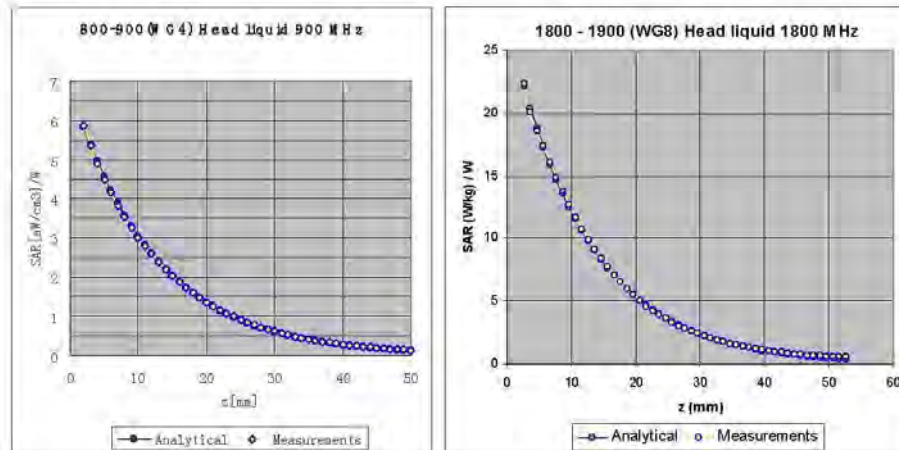


Uncertainty of Linearity Assessment: $\pm 0.5\%$ ($k=2$)

ES3DV3 SN: 3149

September 25, 2010

Conversion Factor Assessment



f[MHz]	Validity[MHz] ^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF	Uncertainty
850	±50 / ±100	Head	41.5±5%	0.90±5%	0.91	1.13	6.56	±11.0% (k=2)
900	±50 / ±100	Head	41.5±5%	0.97±5%	0.83	1.26	6.34	±11.0% (k=2)
1800	±50 / ±100	Head	40.0±5%	1.40±5%	0.69	1.47	5.18	±11.0% (k=2)
1900	±50 / ±100	Head	40.0±5%	1.40±5%	0.72	1.38	5.03	±11.0% (k=2)
2100	±50 / ±100	Head	39.8±5%	1.49±5%	0.66	1.34	4.58	±11.0% (k=2)
850	±50 / ±100	Body	55.2±5%	0.97±5%	0.76	1.26	6.22	±11.0% (k=2)
900	±50 / ±100	Body	55.0±5%	1.05±5%	0.99	1.06	6.02	±11.0% (k=2)
1800	±50 / ±100	Body	53.3±5%	1.52±5%	0.75	1.34	4.97	±11.0% (k=2)
1900	±50 / ±100	Body	53.3±5%	1.52±5%	0.62	1.33	4.68	±11.0% (k=2)
2100	±50 / ±100	Body	53.5±5%	1.57±5%	0.68	1.34	4.35	±11.0% (k=2)

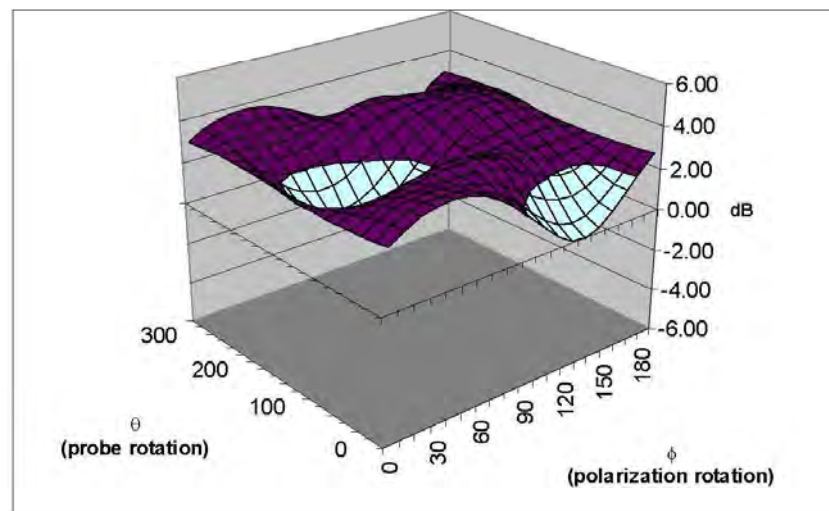
^c The validity of ±100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

ES3DV3 SN: 3149

September 25, 2010

Deviation from Isotropy

Error (ϕ , θ), $f = 900$ MHz



Uncertainty of Spherical Isotropy Assessment: $\pm 2.5\%$ ($k=2$)

**Calibration Laboratory of
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Accreditation No.: **SCS 108**

Client **TMC China**

Certificate No: **EX3DV4-3617_Jul10**

CALIBRATION CERTIFICATE

Object	EX3DV4-SN: 3617
Calibration procedure(s)	QA CAL-01.v6 Calibration procedure for dosimetric E-field probes
Calibration date:	July 9, 2010
Condition of the calibrated item	In Tolerance

This calibration certify documents the traceability to national standards, which realize the physical units of measurements(SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.
All calibrations have been conducted at an environment temperature $(22\pm3)^{\circ}\text{C}$ 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	GB41293874	6-May-10 (METAS, NO. 251-00388)	May-11
Power sensor E4412A	MY41495277	6-May-10 (METAS, NO. 251-00388)	May-11
Reference 3 dB Attenuator	SN:S5054 (3c)	12-Aug-09 (METAS, NO. 251-00403)	Aug-10
Reference 20 dB Attenuator	SN:S5086 (20b)	4-May-10 (METAS, NO. 251-00389)	May-11
Reference 30 dB Attenuator	SN:S5129 (30b)	12-Aug-09 (METAS, NO. 251-00404)	Aug-10
DAE4	SN:617	11-Jun-10 (SPEAG, NO.DAE4-907_Jun10)	Jun-11
Reference Probe ES3DV2	SN: 3013	13-Jan-10 (SPEAG, NO. ES3-3013_Jan10)	Jan-11
Secondary Standards	ID#	Check Data (in house)	Scheduled Calibration
RF generator HP8648C	US3642U01700	4-Aug-99(SPEAG, in house check Oct-09)	In house check: Oct-10
Network Analyzer HP 8753E	US37390585	18-Oct-01(SPEAG, in house check Nov-09)	In house check: Nov-10
	Name	Function	Signature

Calibrated by: **Katja Pokovic** **Technical Manager**

Approved by: **Niels Kuster** **Quality Manager**

Issued: **July 9, 2010**

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

Certificate No: **EX3DV4-3617_Jul10**

Page 1 of 9

Calibration Laboratory of
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Accreditation No.: SCS 108

Glossary:

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConF	sensitivity in TSL / NORM _{x,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:

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

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}:** Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not effect the E²-field uncertainty inside TSL (see below *ConvF*).
- NORM(f)_{x,y,z} = NORM_{x,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*.
- DCP_{x,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 NORM_{x,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.

EX3DV4 SN: 3617

July 9, 2010

Probe EX3DV4

SN: 3617

Manufactured: May 3, 2007

Calibrated: July 9, 2010

Calibrated for DASY4 System

EX3DV4 SN: 3617

July 9, 2010

DASY – Parameters of Probe: EX3DV4 SN:3617

Sensitivity in Free Space^A

Diode Compression^B

NormX	0.420±10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP X	89mV
NormY	0.440±10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP Y	88mV
NormZ	0.310±10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP Z	91mV

Sensitivity in Tissue Simulating Liquid (Conversion Factors)
Please see Page 8

Boundary Effect

TSL 2450MHz Typical SAR gradient: 11% per mm

Sensor Center to Phantom Surface Distance		2.0 mm	3.0 mm
SARbe[%]	Without Correction Algorithm	3.7	1.8
SARbe[%]	With Correction Algorithm	0.1	0.0

TSL 5200MHz Typical SAR gradient: 25% per mm

Sensor Center to Phantom Surface Distance		2.0 mm	3.0 mm
SARbe[%]	Without Correction Algorithm	10.1	3.7
SARbe[%]	With Correction Algorithm	0.2	0.1

Sensor Offset

Probe Tip to Sensor Center 1.0 mm

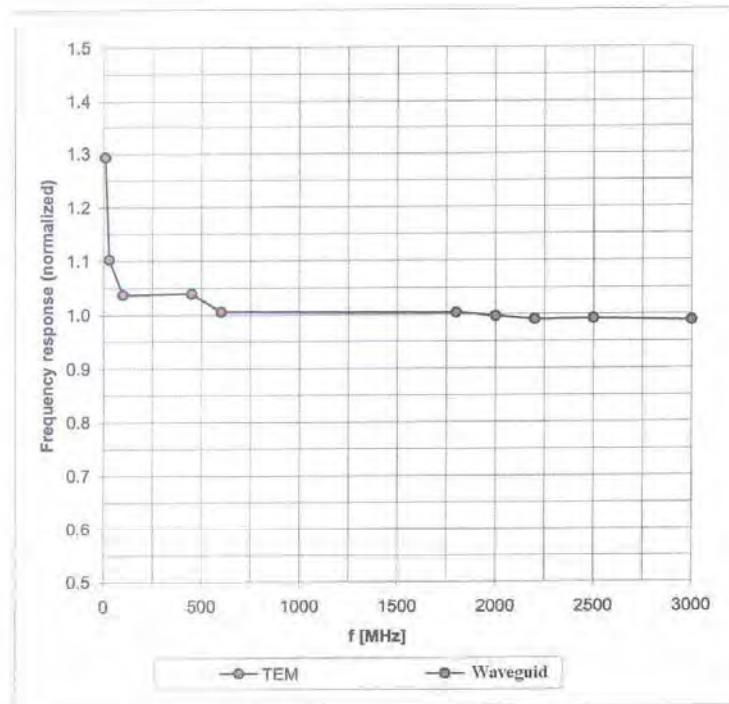
The reported uncertainty of measurement is stated as the standard uncertainty of Measurement multiplied by the coverage factor $k=2$, which for a normal distribution Corresponds to a coverage probability of approximately 95%.

^A The uncertainties of NormX,Y,Z do not affect the E²-field uncertainty inside TSL (see Page 8).
^B Numerical linearization parameter; uncertainty not required.

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Frequency Response of E-Field

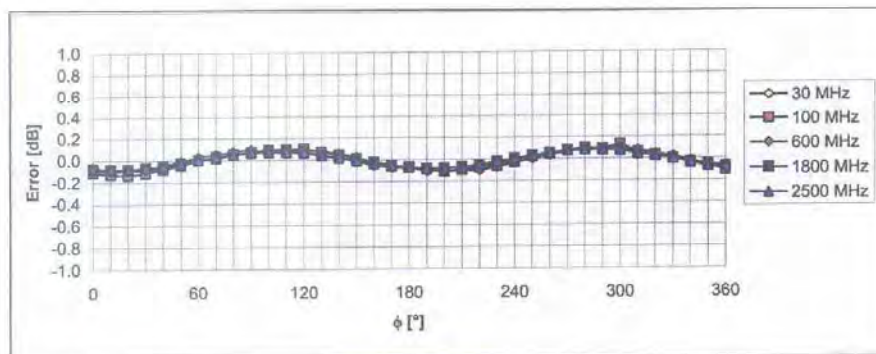
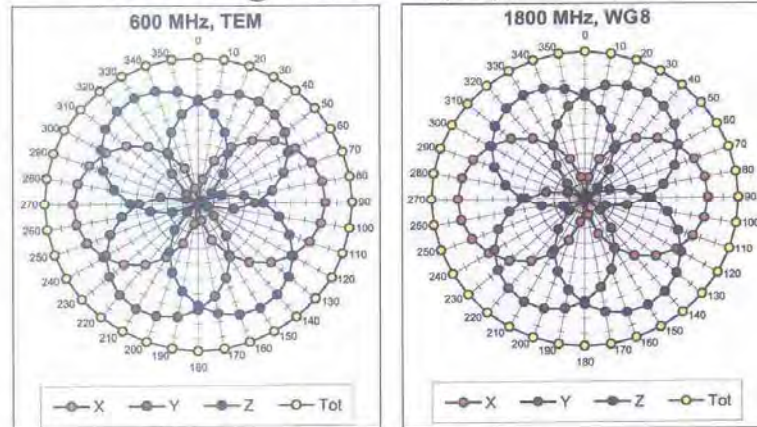


Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ (k=2)

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

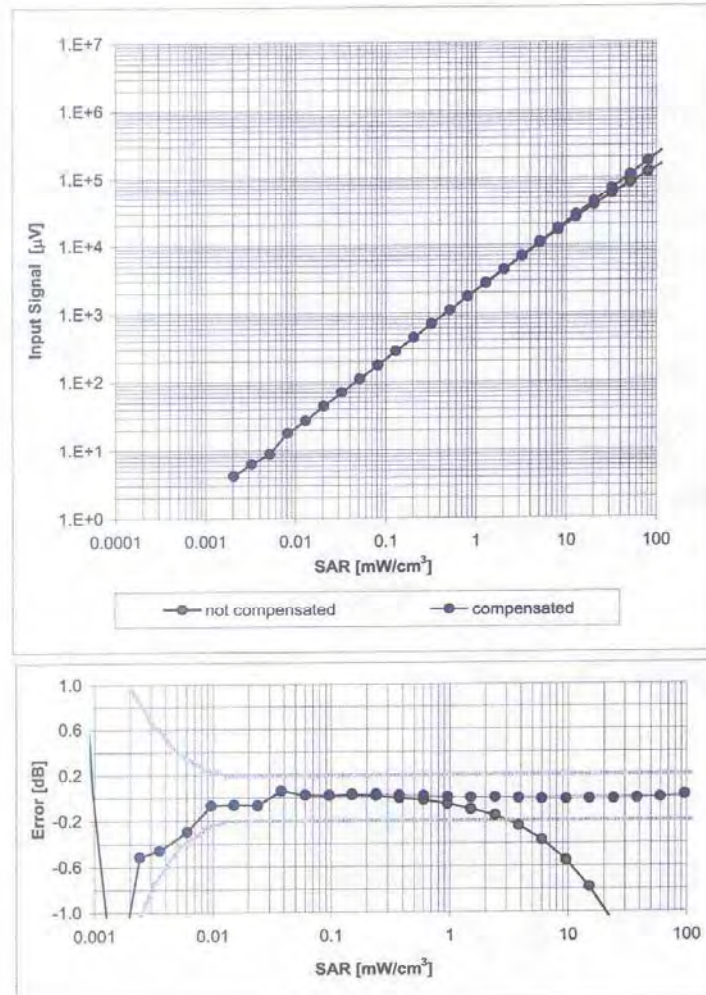


Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ ($k=2$)

EX3DV4 SN: 3617

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Dynamic Range $f(\text{SAR}_{\text{head}})$ (Waveguide: WG8, $f = 1800 \text{ MHz}$)

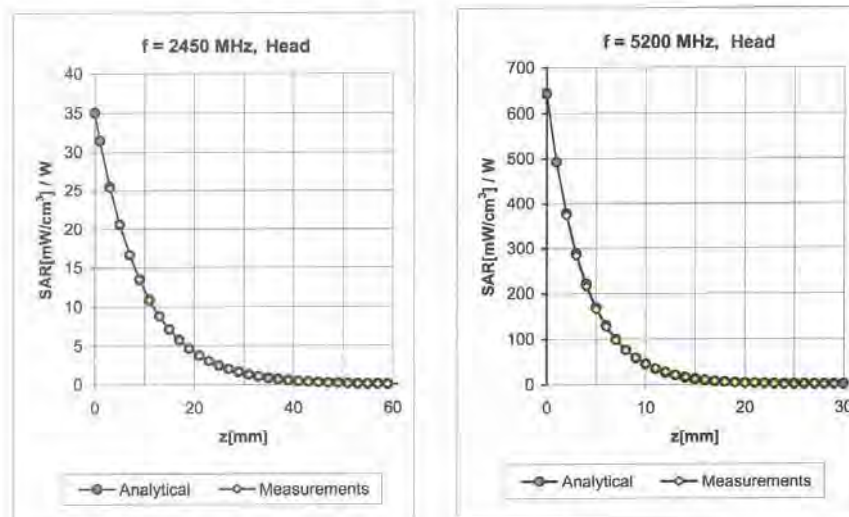


Uncertainty of Linearity Assessment: $\pm 0.6\%$ ($k=2$)

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Conversion Factor Assessment



f [MHz]	Validity [MHz] ^C	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF	Uncertainty
2300	± 50 / ± 100	Head	39.5 ± 5%	1.67 ± 5%	0.33	1.02	7.23	± 11.8% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.33	1.00	7.19	± 11.8% (k=2)
2600	± 50 / ± 100	Head	39.0 ± 5%	1.96 ± 5%	0.36	1.21	7.16	± 11.8% (k=2)
3500	± 50 / ± 100	Head	37.9 ± 5%	2.91 ± 5%	0.34	1.35	6.48	± 11.8% (k=2)
5200	± 50 / ± 100	Head	36.0 ± 5%	4.66 ± 5%	0.35	1.60	5.33	± 13.1% (k=2)
5800	± 50 / ± 100	Head	35.3 ± 5%	5.27 ± 5%	0.35	1.60	4.69	± 13.1% (k=2)
2300	± 50 / ± 100	Body	52.8 ± 5%	1.85 ± 5%	0.30	1.01	6.95	± 11.8% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.36	1.00	6.88	± 11.8% (k=2)
2600	± 50 / ± 100	Body	52.5 ± 5%	2.16 ± 5%	0.36	1.05	6.84	± 11.8% (k=2)
3500	± 50 / ± 100	Body	51.3 ± 5%	3.30 ± 5%	0.33	1.40	5.02	± 11.8% (k=2)
5200	± 50 / ± 100	Body	49.0 ± 5%	5.30 ± 5%	0.35	1.70	4.64	± 13.1% (k=2)
5800	± 50 / ± 100	Body	48.2 ± 5%	6.00 ± 5%	0.30	1.70	4.53	± 13.1% (k=2)

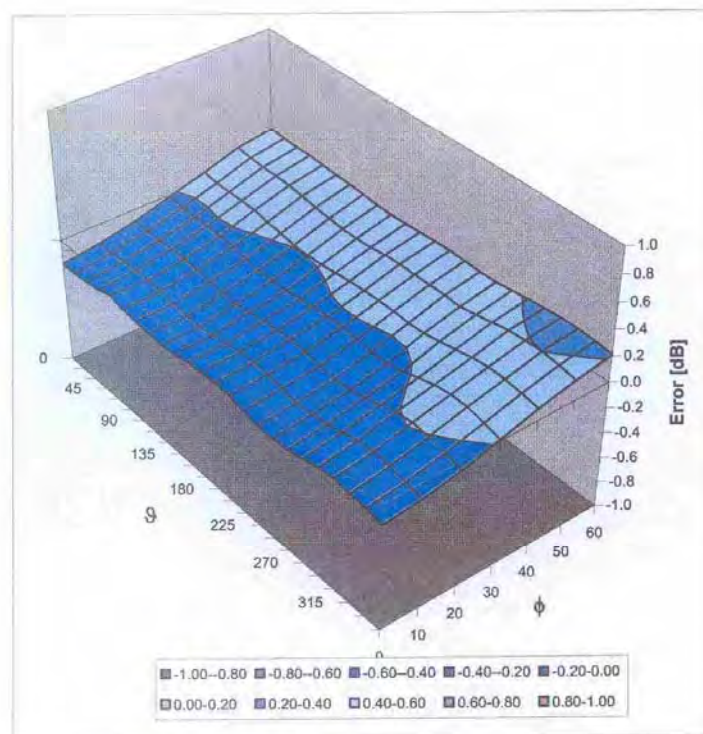
^C The validity of ±100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

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Deviation from Isotropy

Error (ϕ, θ), $f = 900$ MHz



Uncertainty of Spherical Isotropy Assessment: $\pm 2.6\%$ ($k=2$)

ANNEX F DIPOLE CALIBRATION CERTIFICATE

835 MHz Dipole Calibration Certificate

工业和信息化部通信计量中心
Telecommunication Metrology Center of MIIT






校准
CNAS L0442

Client **TMC**

Certificate No: **D835V2-443_Feb10**

CALIBRATION CERTIFICATE

Object: **D835V2 - SN: 443**

Calibration Procedure(s): **TMC-XZ-01-027
Calibration procedure for dipole validation kits**

Calibration date: **February 26, 2010**

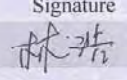
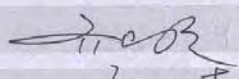
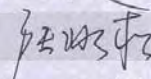
Condition of the calibrated item: **In Tolerance**

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRVD	101253	04-Sep-09 (TMC, No.JZ09-248)	Jun-10
Power sensor NRV-Z5	100333	04-Sep-09 (TMC, No. JZ09-248)	Jun-10
Reference Probe ES3DV3	SN 3149	25-Sep-09(SPEAG, No.ES3-3149_Sep09)	Sep-10
DAE4	SN 771	19-Nov-09(SPEAG, No.DAE4-771_Nov09)	Nov-10
RF generator E4438C	MY45092879	18-Jun-09(TMC, No.JZ09-302)	Jun-10
Network Analyzer 8753E	US38433212	29-Aug-09(TMC, No.JZ09-056)	Aug-10

	Name	Function	Signature
Calibrated by:	Lin Hao	SAR Test Engineer	
Reviewed by:	Qi Dianyuan	SAR Project Leader	
Approved by:	Lu Bingsong	Deputy Director of the laboratory	

Issued: February 26, 2010

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

Certificate No: D835V2-443_Feb10

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工业和信息化部通信计量中心

Telecommunication Metrology Center of MIIT



Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM _{x,y,z}
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) For hand-held devices used in close proximity to the ear (frequency range of 300MHz to 3GHz)", February 2005
- Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

- DASY System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions: Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay: One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured: SAR measured at the stated antenna input power.
- SAR normalized: SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the nominal SAR result.