

APPENDIX A: SAR TEST DATA

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

Communication System: GSM850 GPRS; 2 Tx slots; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.6 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-30-2009; Ambient Temp: 24.2°C; Tissue Temp: 23.1°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: GSM850 GPRS, Body SAR, Bottom Position, Mid Ch, 2Tx Slot

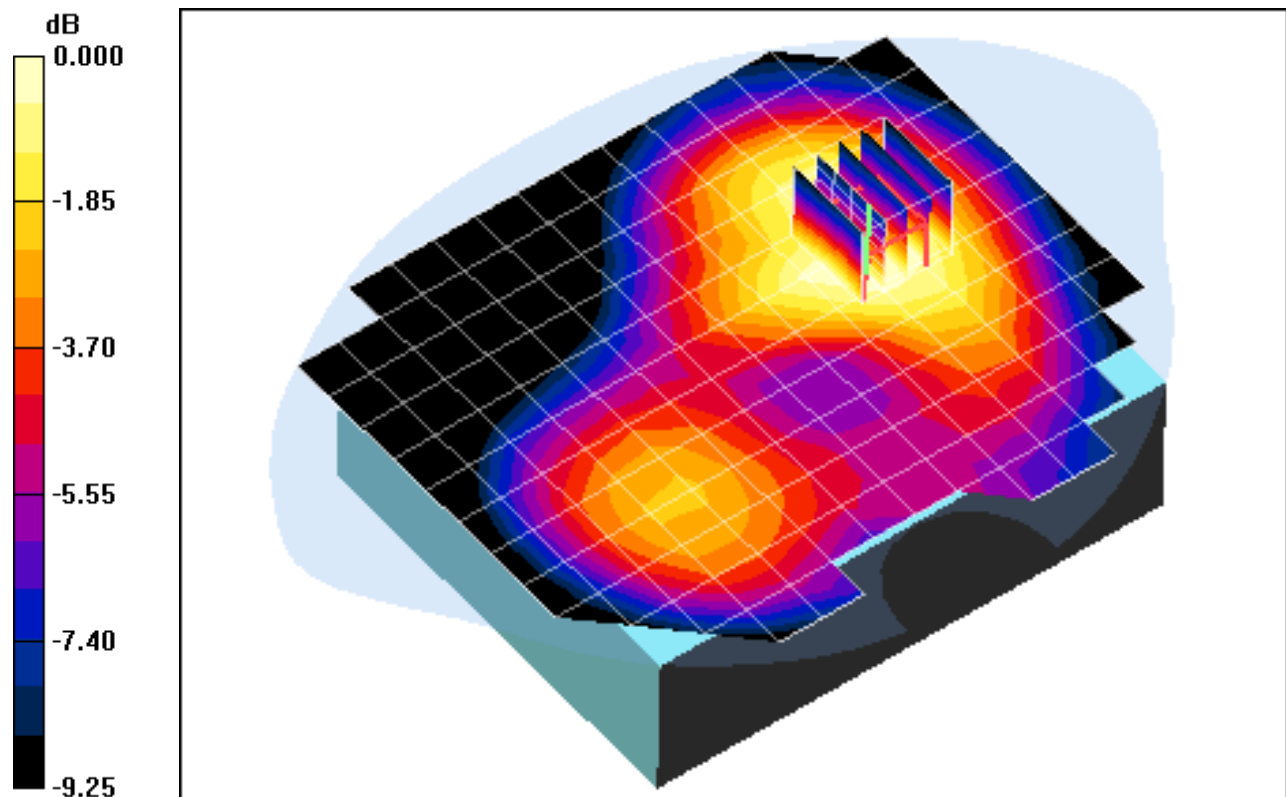
Area Scan (13x15x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 16.8 V/m

Peak SAR (extrapolated) = 0.332 W/kg

SAR(1 g) = 0.238 mW/g; SAR(10 g) = 0.169 mW/g



0 dB = 0.267mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

Communication System: GSM850 GPRS; 2 Tx slots; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.6 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-30-2009; Ambient Temp: 24.2°C; Tissue Temp: 23.1°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: GSM850 GPRS, Body SAR, Edge Position, Bottom Side, Mid Ch, 2Tx Slot

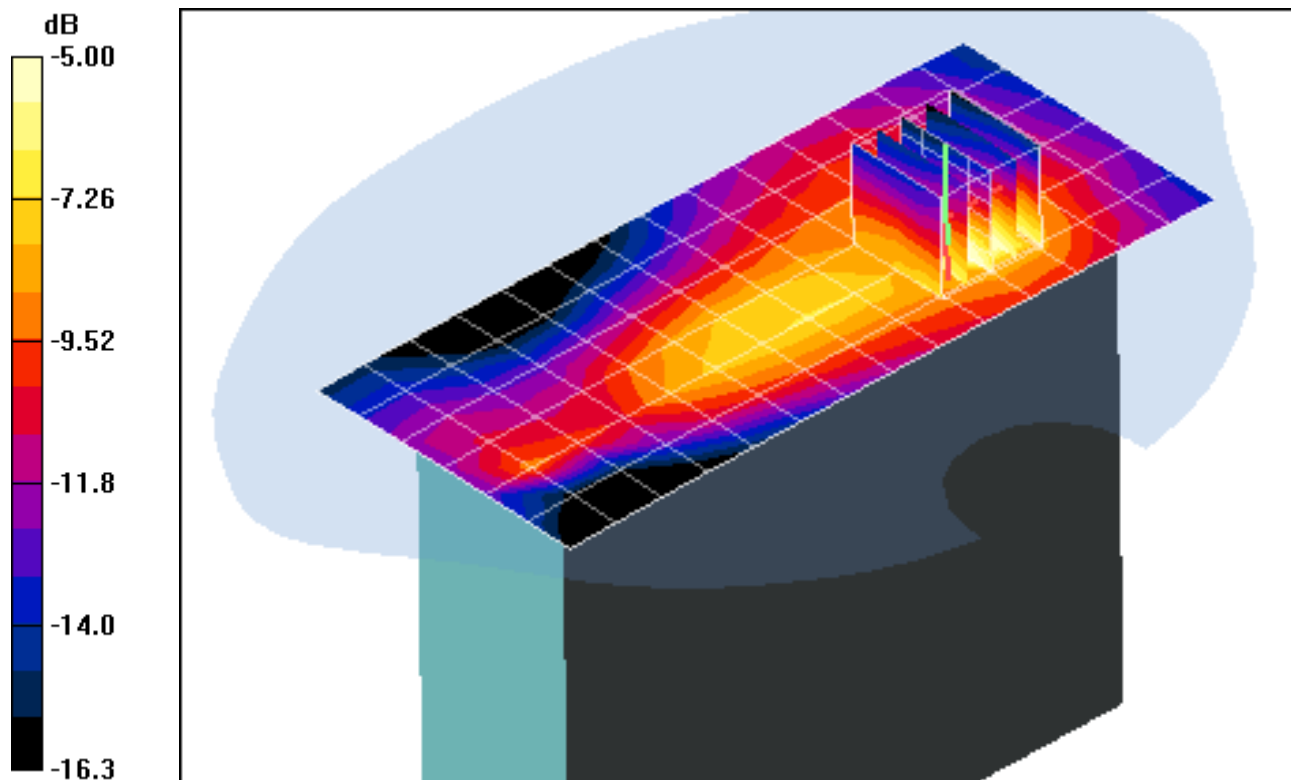
Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 10.7 V/m

Peak SAR (extrapolated) = 0.243 W/kg

SAR(1 g) = 0.081 mW/g; SAR(10 g) = 0.034 mW/g



0 dB = 0.137mW/g

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Communication System: GSM850 GPRS; 2 Tx slots; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.6 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-30-2009; Ambient Temp: 24.2°C; Tissue Temp: 23.1°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: GSM850 GPRS, Body SAR, Edge Position, Right Side, Mid Ch, 2Tx Slot

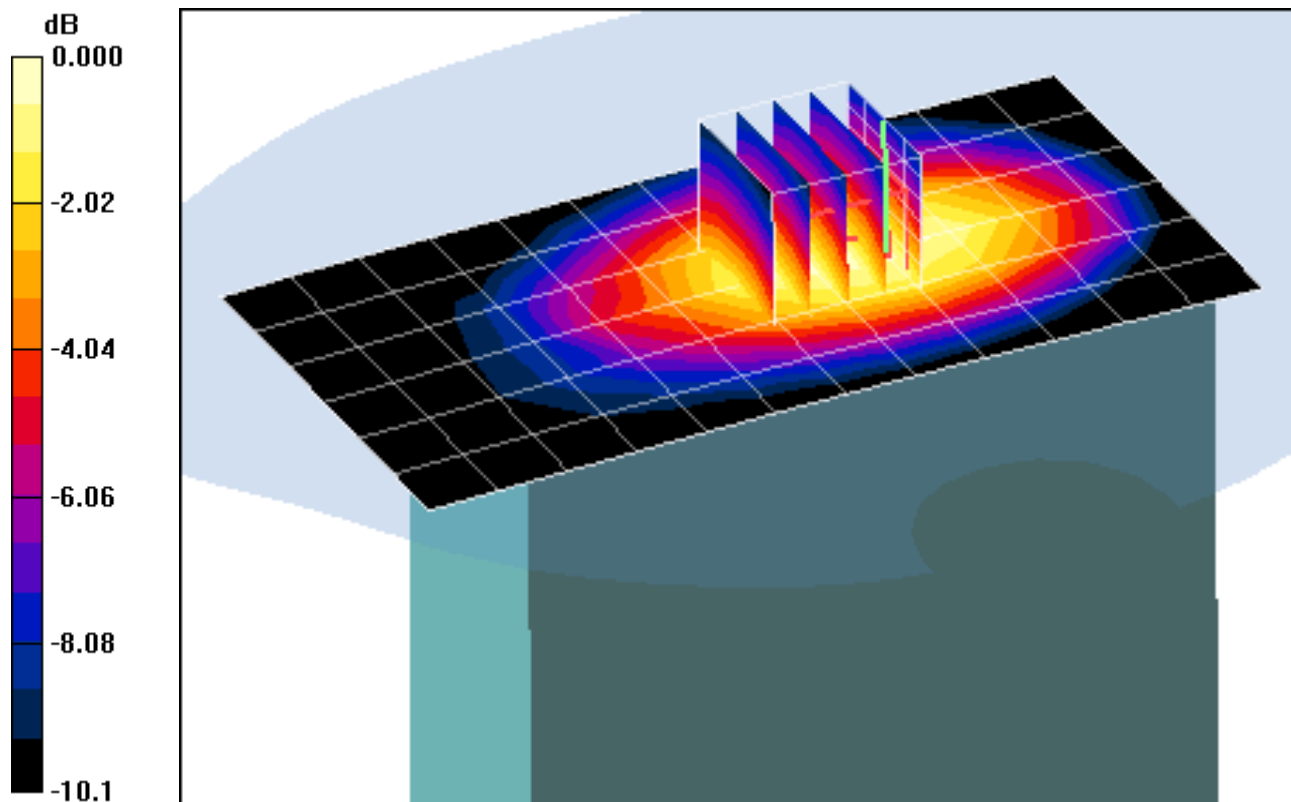
Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 10.1 V/m

Peak SAR (extrapolated) = 0.290 W/kg

SAR(1 g) = 0.213 mW/g; SAR(10 g) = 0.149 mW/g



0 dB = 0.239mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

Communication System: GSM850 GPRS; 2 Tx slots; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.6 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-30-2009; Ambient Temp: 24.2°C; Tissue Temp: 23.1°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: GSM850 GPRS, Body SAR, Edge Position, Left Side, Mid Ch, 2Tx Slot

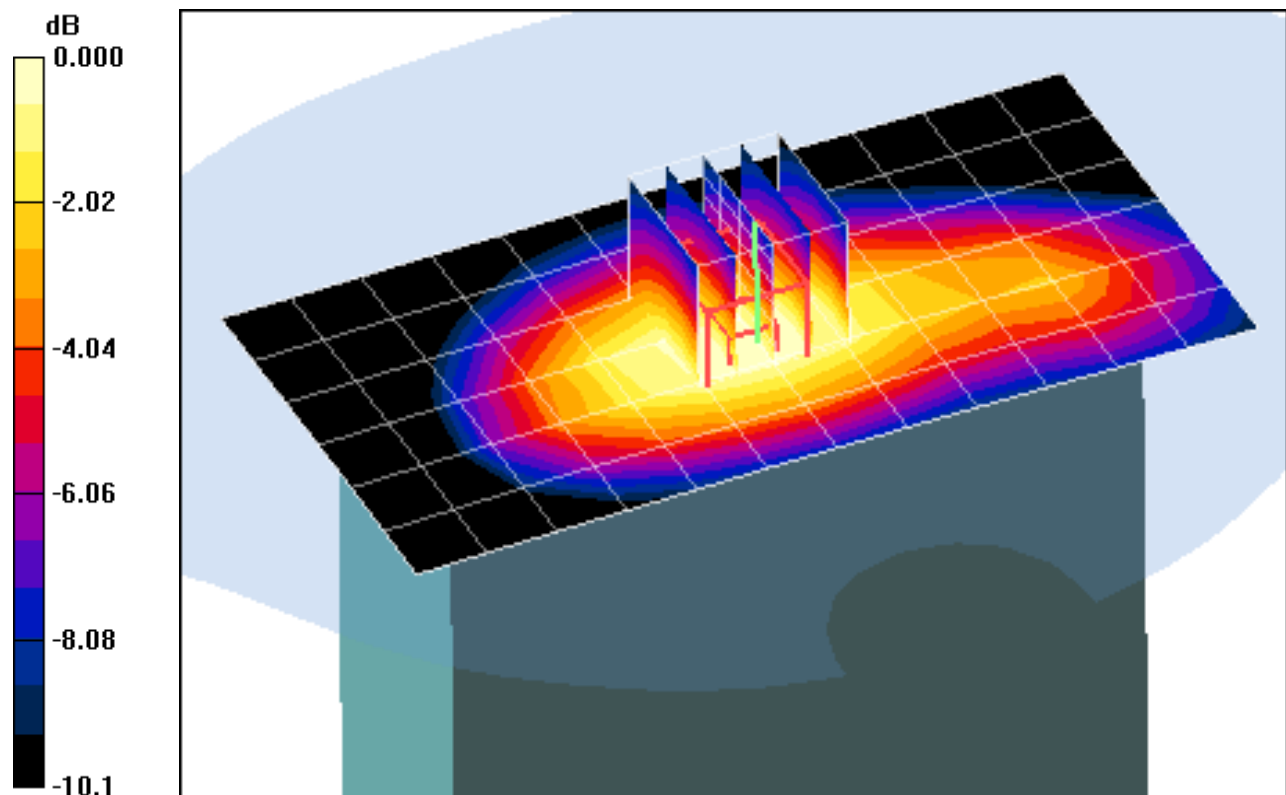
Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 18.0 V/m

Peak SAR (extrapolated) = 0.686 W/kg

SAR(1 g) = 0.507 mW/g; SAR(10 g) = 0.358 mW/g



0 dB = 0.574mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

Communication System: GSM1900 GPRS; 2 Tx slots; Frequency: 1880 MHz; Duty Cycle: 1:4.15
Medium: 1900 Muscle; Medium parameters used:
 $f = 1880 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-28-2009; Ambient Temp: 23.7°C; Tissue Temp: 22.6°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: GSM1900 GPRS, Body SAR, Bottom Position, Mid Ch, 2Tx Slots

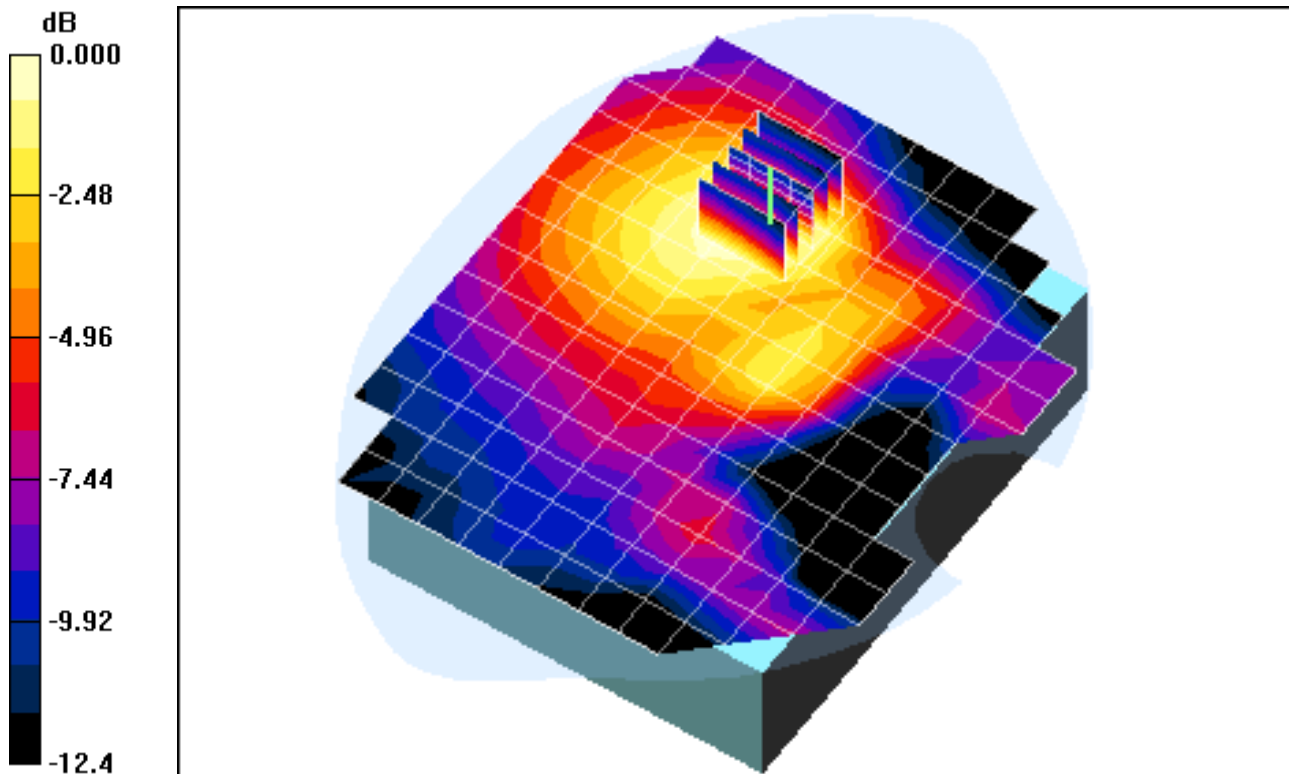
Area Scan (13x15x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 7.26 V/m

Peak SAR (extrapolated) = 0.143 W/kg

SAR(1 g) = 0.095 mW/g; SAR(10 g) = 0.061 mW/g



0 dB = 0.111mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

Communication System: GSM1900 GPRS; 2 Tx slots; Frequency: 1880 MHz; Duty Cycle: 1:4.15

Medium: 1900 Muscle; Medium parameters used:

$f = 1880 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-28-2009; Ambient Temp: 23.7°C; Tissue Temp: 22.6°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/21/2009

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: GSM1900 GPRS, Body SAR, Edge Position, Bottom Side, Mid Ch, 2Tx Slot

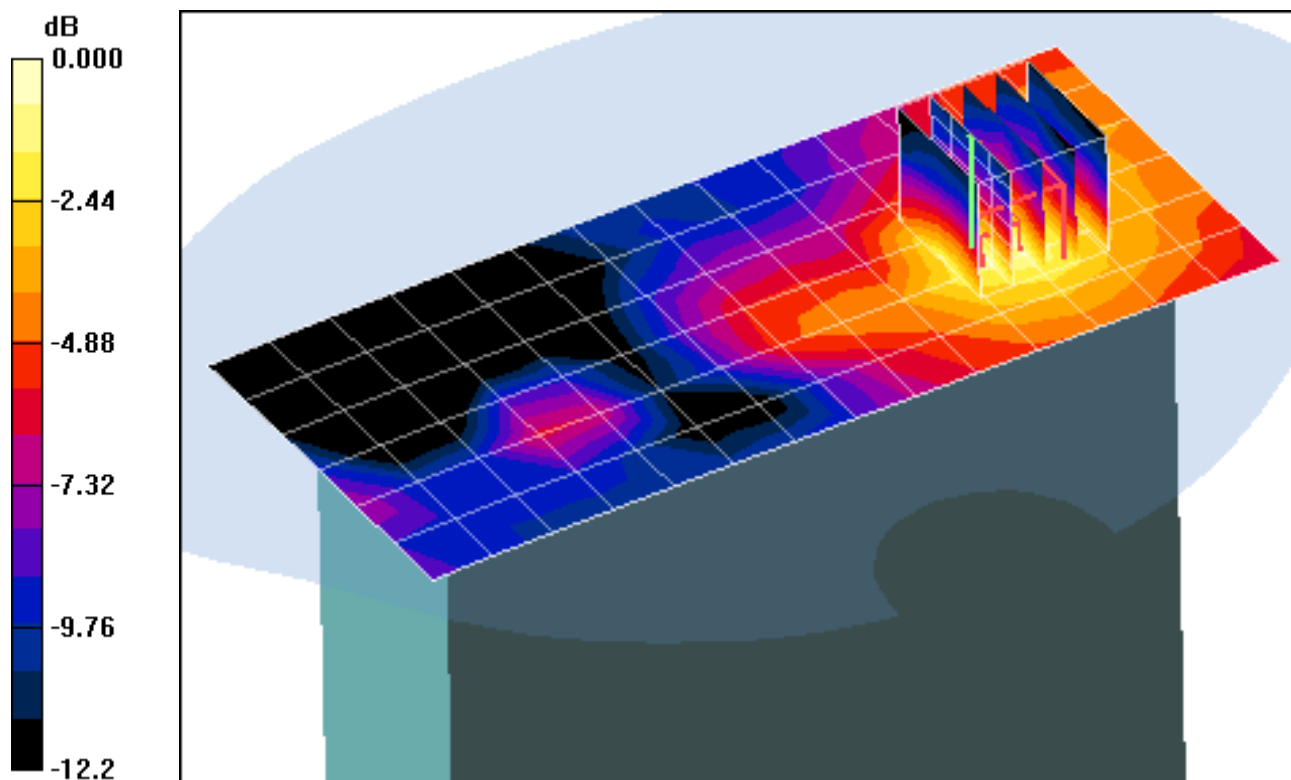
Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 5.24 V/m

Peak SAR (extrapolated) = 0.051 W/kg

SAR(1 g) = 0.033 mW/g; SAR(10 g) = 0.020 mW/g



0 dB = 0.039mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

Communication System: GSM 1900 GPRS; 2 Tx slots; Frequency: 1880 MHz; Duty Cycle: 1:4.15
Medium: 1900 Muscle; Medium parameters used:
 $f = 1880 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-28-2009; Ambient Temp: 23.7°C; Tissue Temp: 22.6°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: GSM1900 GPRS, Body SAR, Edge Position, Right Side, Mid Ch, 2Tx Slot

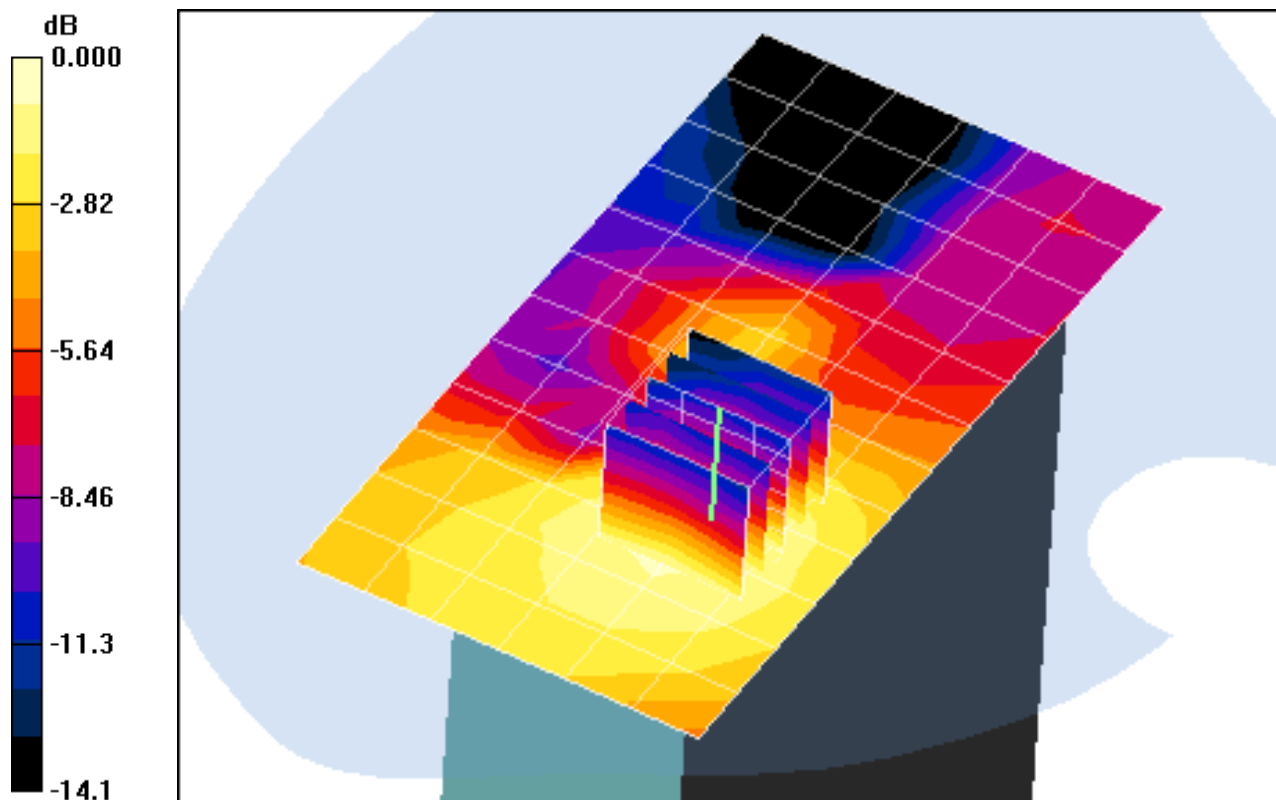
Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 3.67 V/m

Peak SAR (extrapolated) = 0.032 W/kg

SAR(1 g) = 0.021 mW/g; SAR(10 g) = 0.012 mW/g



0 dB = 0.025mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

Communication System: GSM1900 GPRS; 2 Tx slots; Frequency: 1880 MHz; Duty Cycle: 1:4.15

Medium: 1900 Muscle; Medium parameters used:

$f = 1880 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-28-2009; Ambient Temp: 23.7°C; Tissue Temp: 22.6°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/21/2009

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: GSM1900 GPRS, Body SAR, Edge Position, Left Side, Mid Ch, 2Tx Slot

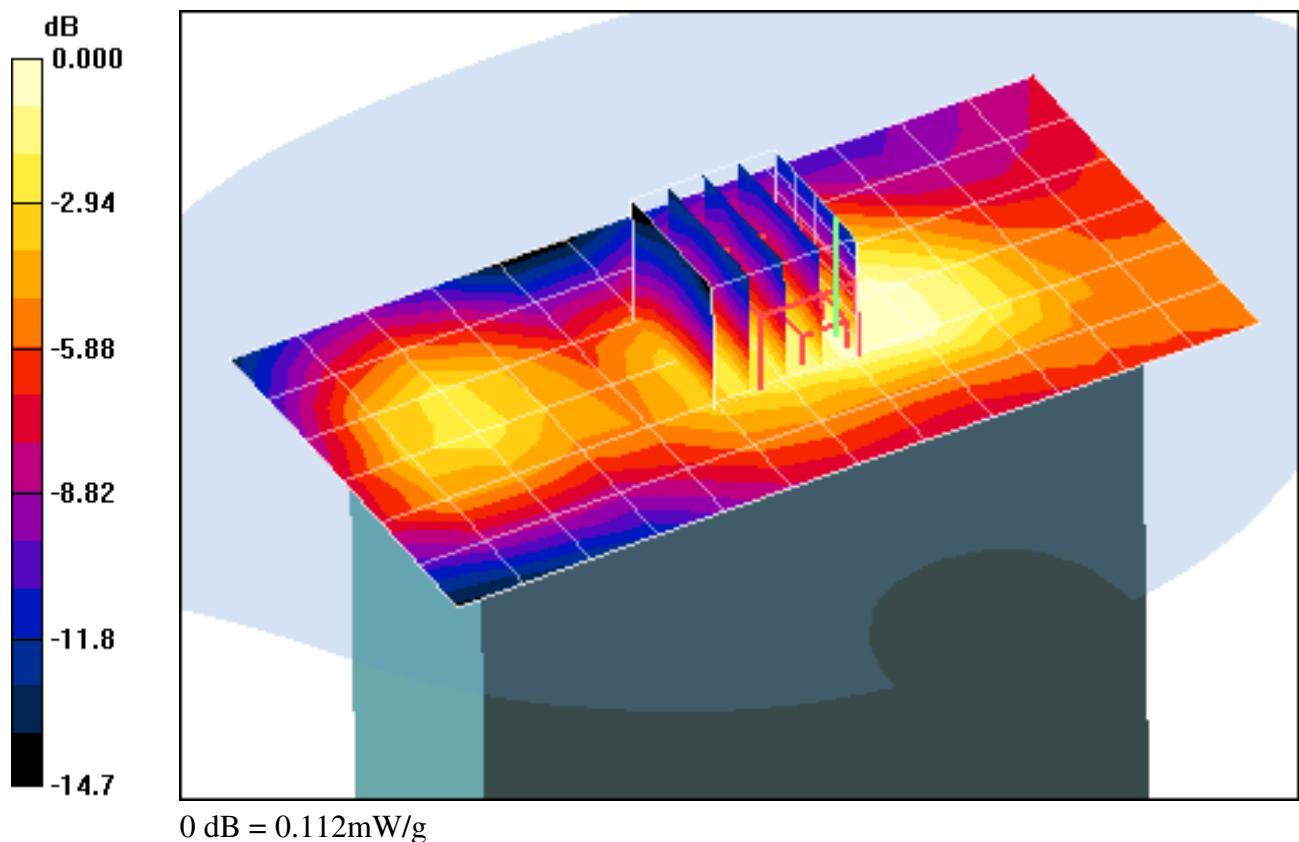
Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 7.46 V/m

Peak SAR (extrapolated) = 0.145 W/kg

SAR(1 g) = 0.083 mW/g; SAR(10 g) = 0.049 mW/g



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SN: 9GKSA00076**

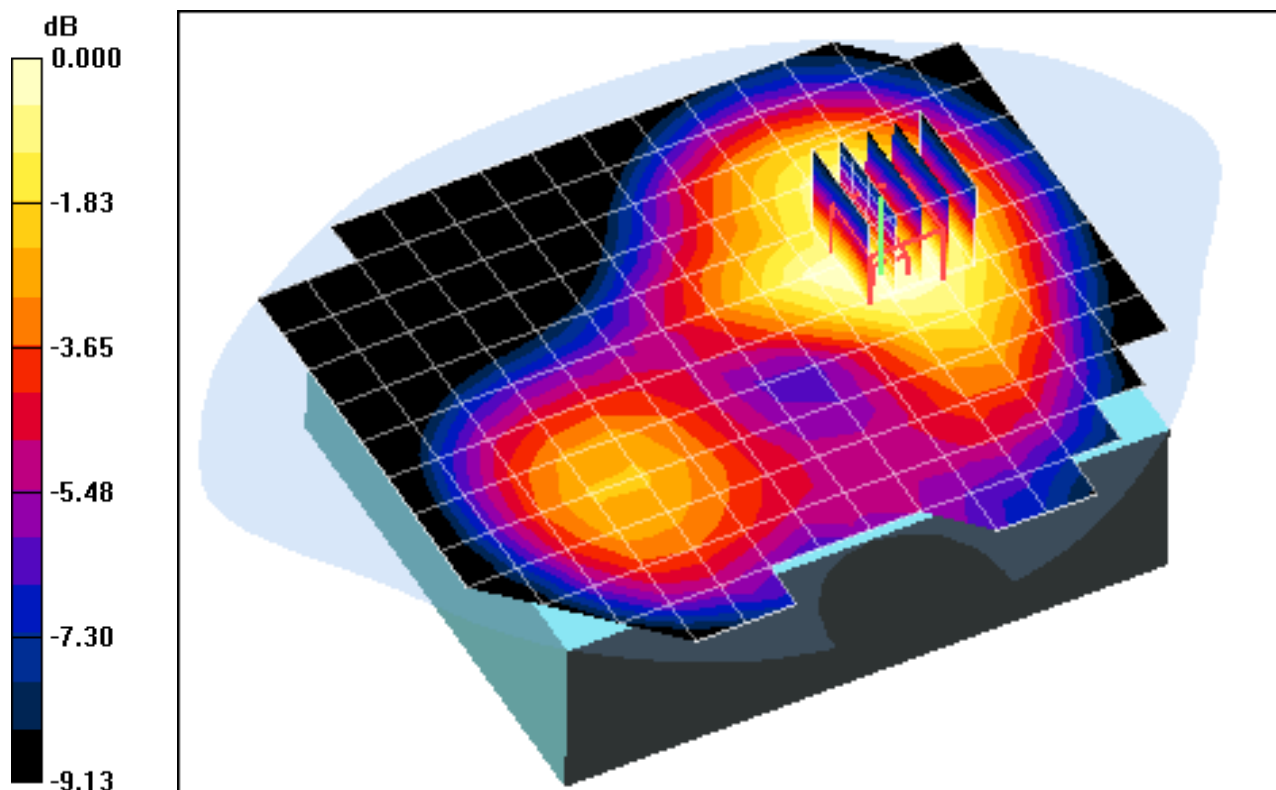
Communication System: WCDMA850; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.6 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 10-02-2009; Ambient Temp: 24.3°C; Tissue Temp: 23.4°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: WCDMA850, Body SAR, Bottom Position, Mid Ch

Area Scan (13x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.2 V/m
Peak SAR (extrapolated) = 0.308 W/kg
SAR(1 g) = 0.225 mW/g; SAR(10 g) = 0.161 mW/g



0 dB = 0.252mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

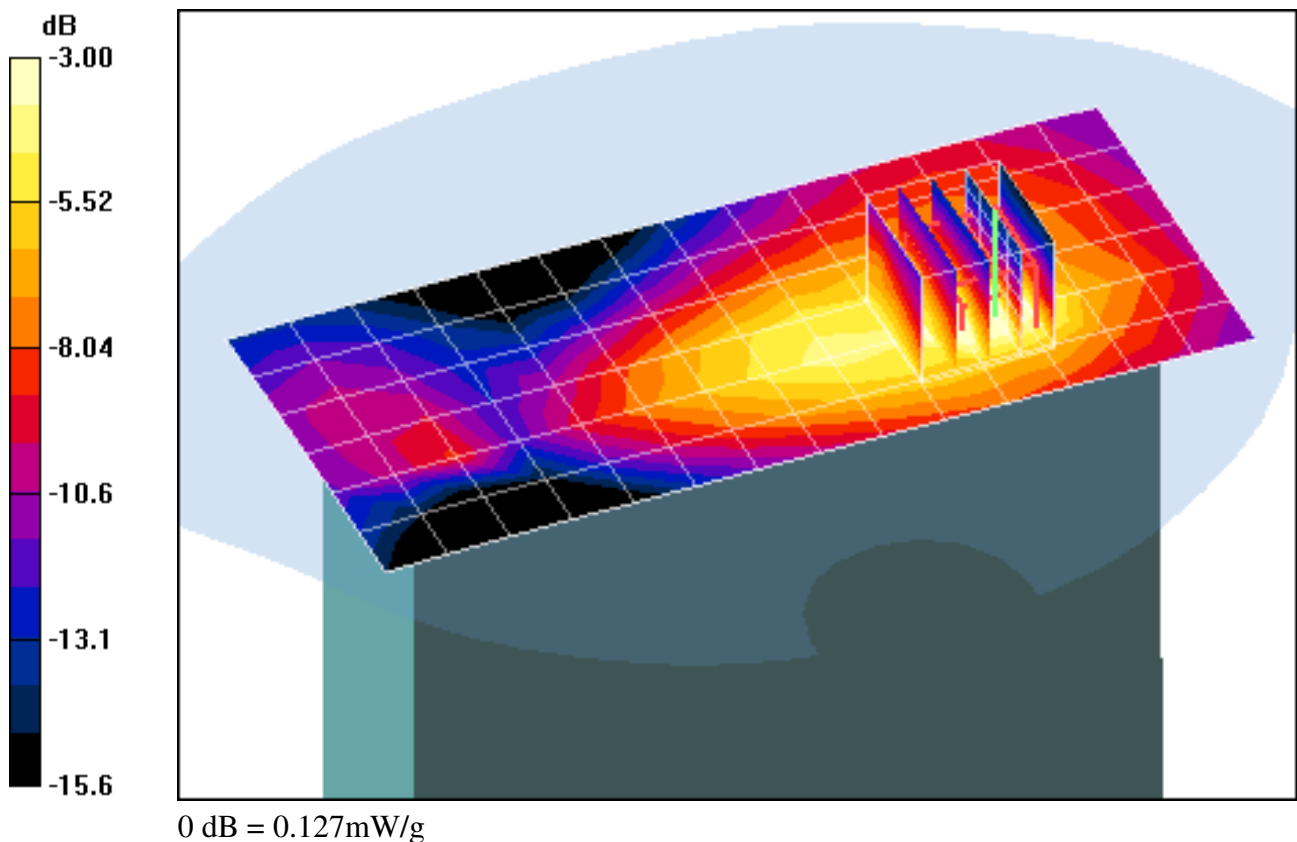
Communication System: WCDMA850; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.6 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 10-02-2009; Ambient Temp: 24.3°C; Tissue Temp: 23.4°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: WCDMA850, Body SAR, Edge Position, Bottom Side, Mid Ch

Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.2 V/m
Peak SAR (extrapolated) = 0.298 W/kg
SAR(1 g) = 0.104 mW/g; SAR(10 g) = 0.045 mW/g



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SN: 9GKSA00076**

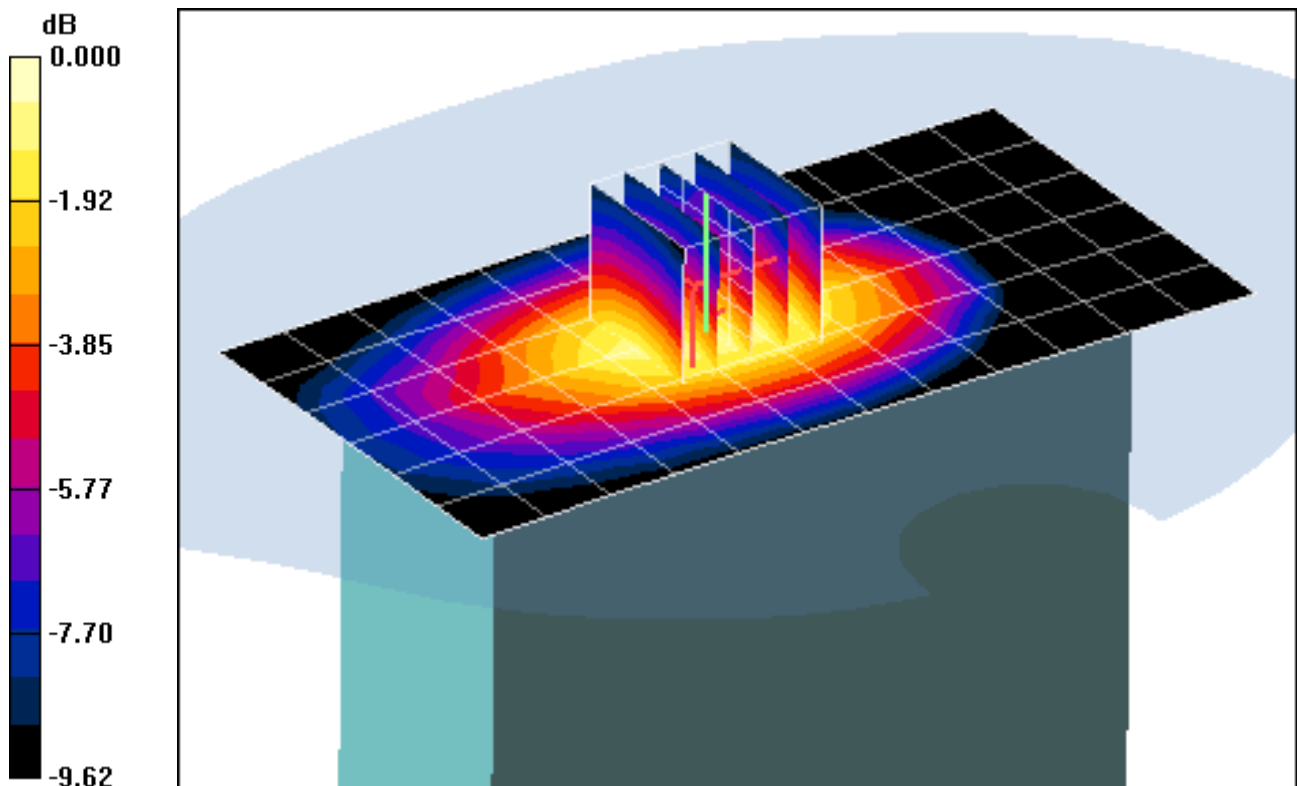
Communication System: WCDMA850; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.6 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 10-02-2009; Ambient Temp: 24.3°C; Tissue Temp: 23.4°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: WCDMA850, Body SAR, Edge Position, Right Side, Mid Ch

Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.4 V/m
Peak SAR (extrapolated) = 0.191 W/kg
SAR(1 g) = 0.137 mW/g; SAR(10 g) = 0.094 mW/g



0 dB = 0.161mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

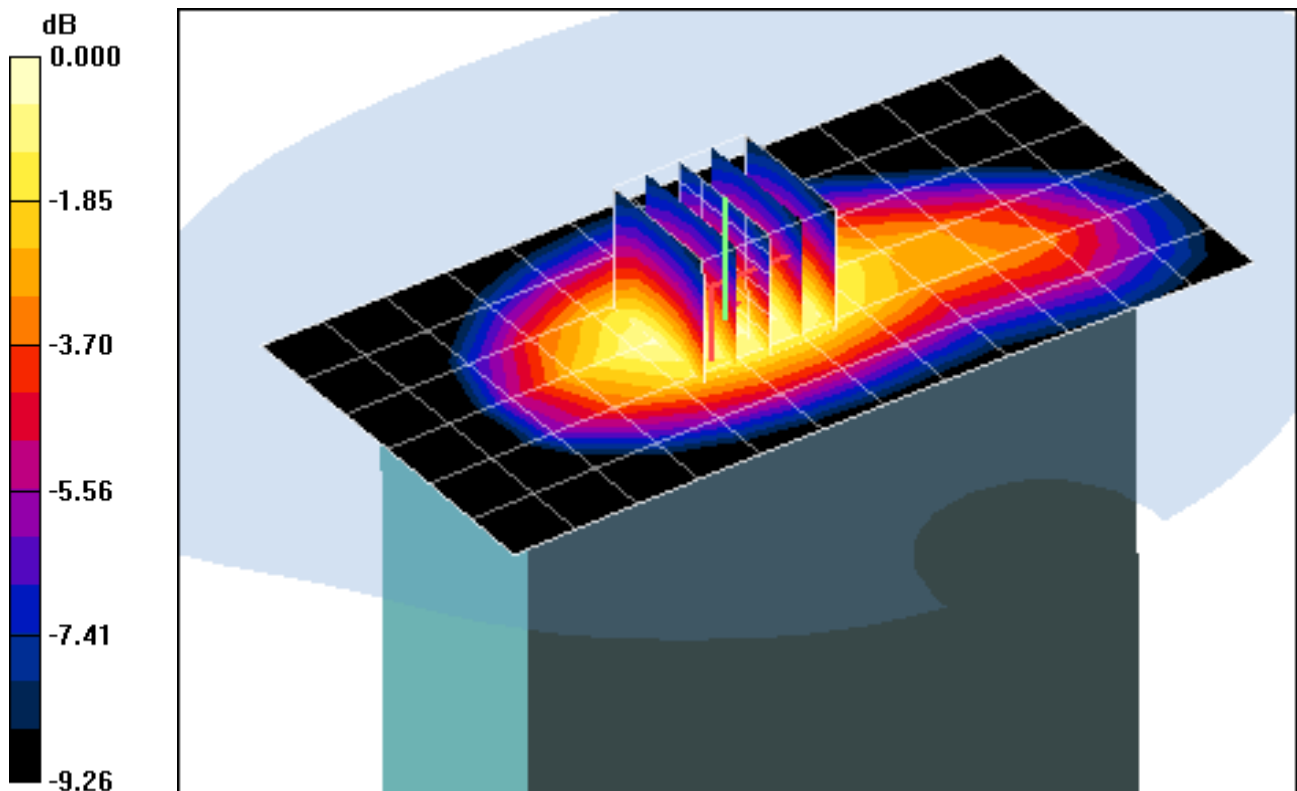
Communication System: WCDMA850; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.6 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 10-02-2009; Ambient Temp: 24.3°C; Tissue Temp: 23.4°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: WCDMA850, Body SAR, Edge Position, Left Side, Mid Ch

Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.5 V/m
Peak SAR (extrapolated) = 0.564 W/kg
SAR(1 g) = 0.424 mW/g; SAR(10 g) = 0.303 mW/g



0 dB = 0.476mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

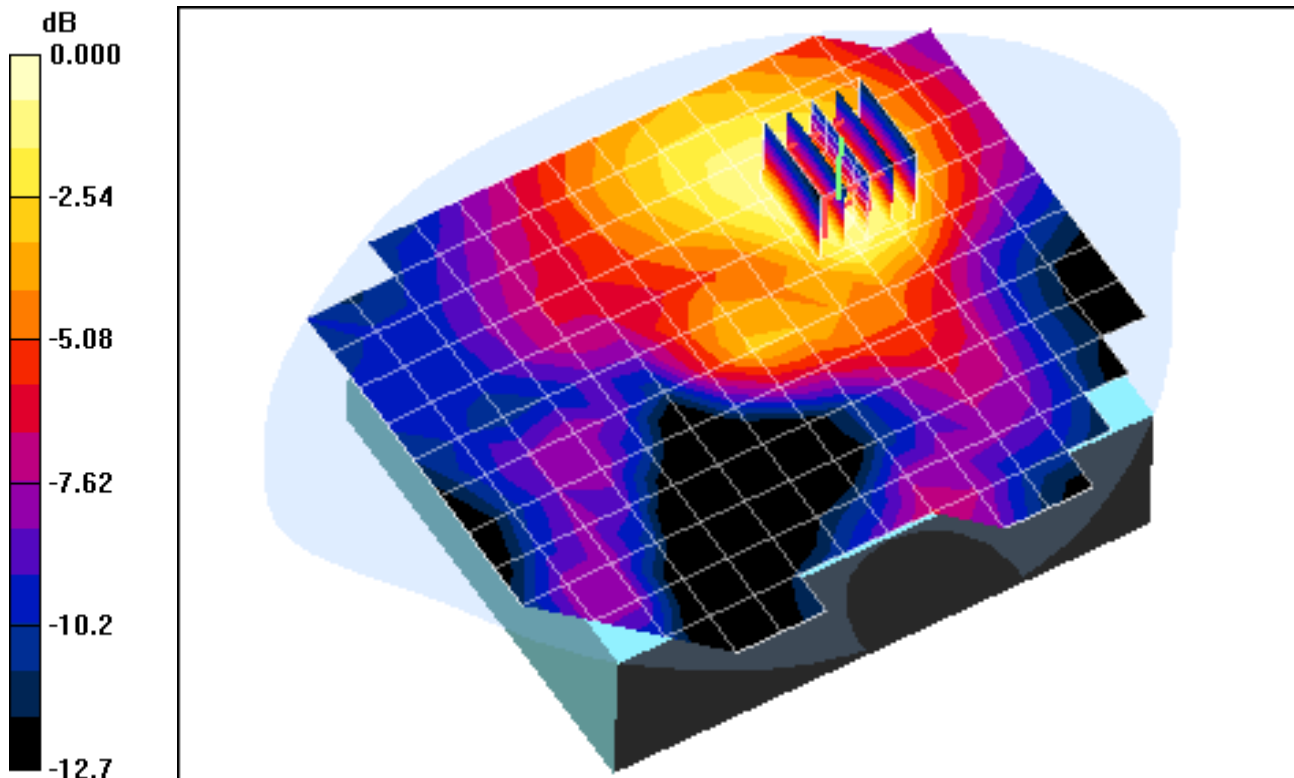
Communication System: WCDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Muscle; Medium parameters used:
 $f = 1880 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-28-2009; Ambient Temp: 23.7°C; Tissue Temp: 22.6°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: WCDMA1900, Body SAR, Bottom Position, Mid Ch

Area Scan (13x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.86 V/m
Peak SAR (extrapolated) = 0.175 W/kg
SAR(1 g) = 0.115 mW/g; SAR(10 g) = 0.073 mW/g



0 dB = 0.135mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

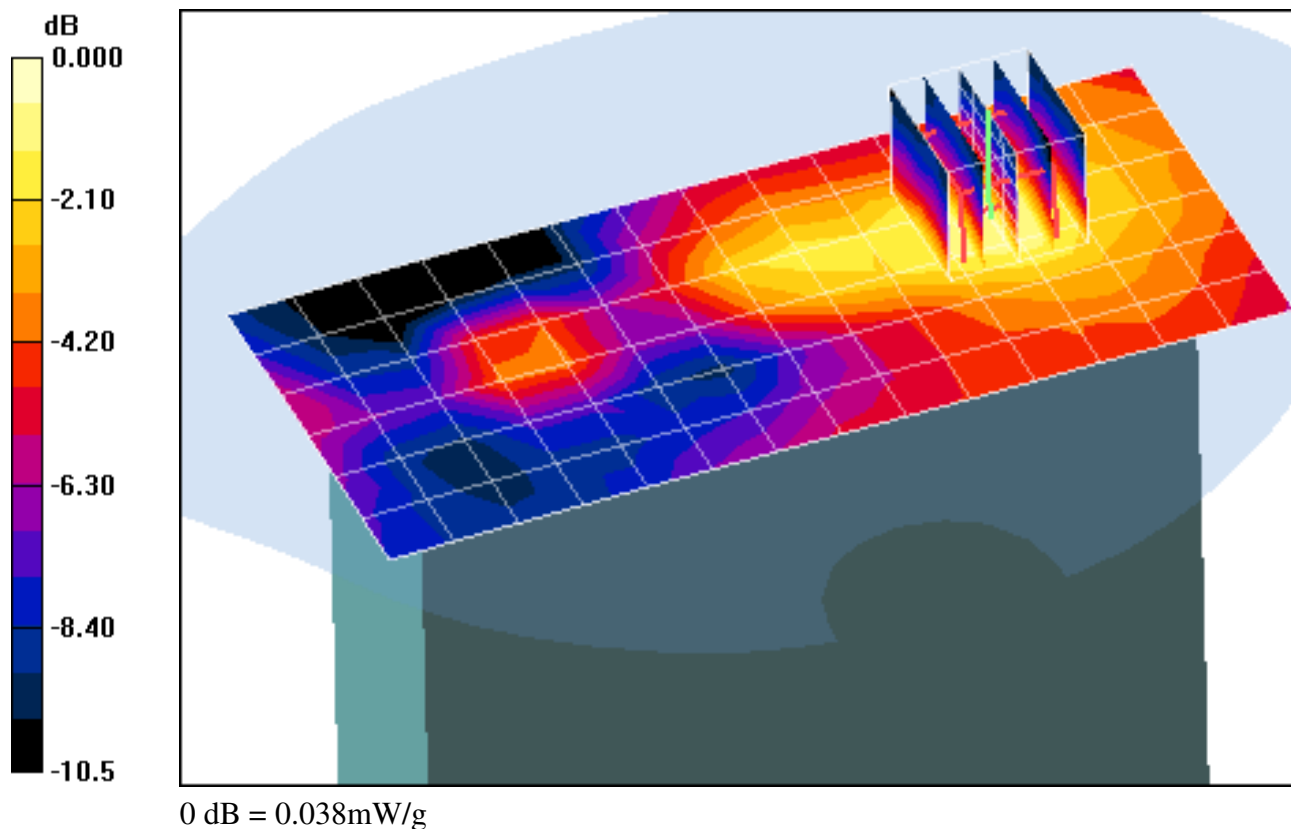
Communication System: WCDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Muscle; Medium parameters used:
 $f = 1880 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-28-2009; Ambient Temp: 23.7°C; Tissue Temp: 22.6°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: WCDMA1900, Body SAR, Edge Position, Bottom Side, Mid Ch

Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.22 V/m
Peak SAR (extrapolated) = 0.048 W/kg
SAR(1 g) = 0.032mW/g; SAR(10 g) = 0.019 mW/g



PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

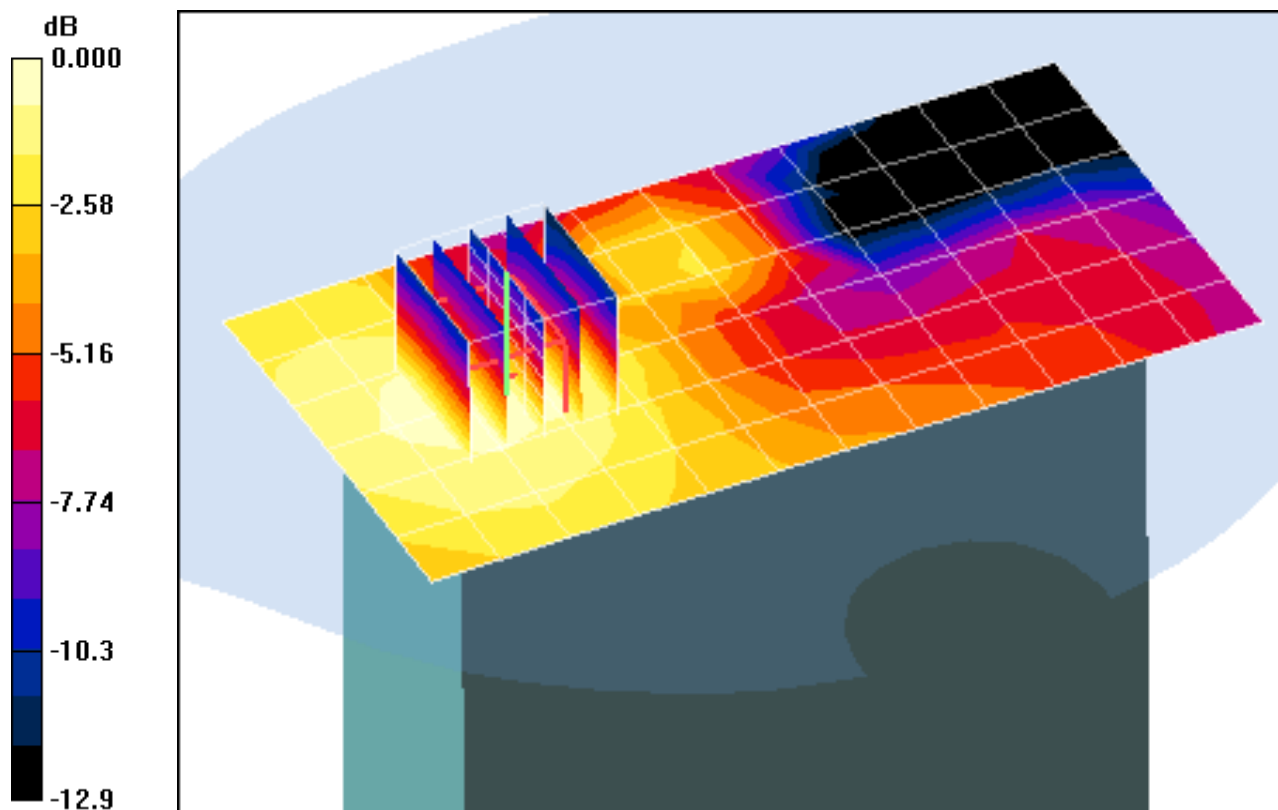
Communication System: WCDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Muscle; Medium parameters used:
 $f = 1880 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-28-2009; Ambient Temp: 23.7°C; Tissue Temp: 22.6°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: WCDMA1900, Body SAR, Edge Position, Right Side, Mid Ch

Area Scan (7x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 3.50 V/m
Peak SAR (extrapolated) = 0.086 W/kg
SAR(1 g) = 0.059 mW/g; SAR(10 g) = 0.039 mW/g



0 dB = 0.068mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

Communication System: WCDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Muscle; Medium parameters used:

$$f = 1880 \text{ MHz}; \sigma = 1.47 \text{ mho/m}; \epsilon_r = 52.3; \rho = 1000 \text{ kg/m}^3$$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-28-2009; Ambient Temp: 23.7°C; Tissue Temp: 22.6°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/21/2009

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: WCDMA1900, Body SAR, Edge Position, Left Side, Mid Ch

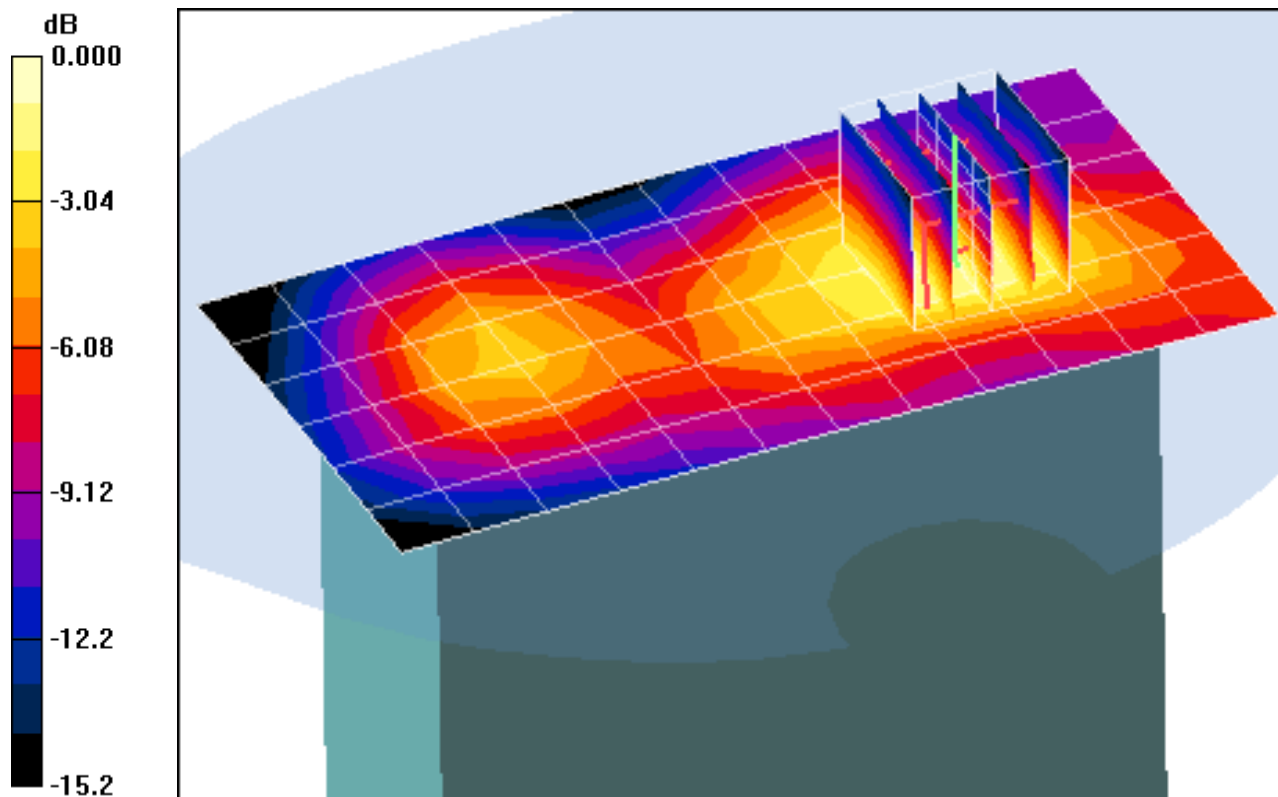
Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 5.50 V/m

Peak SAR (extrapolated) = 0.266 W/kg

SAR(1 g) = 0.161 mW/g; SAR(10 g) = 0.092 mW/g



0 dB = 0.197mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

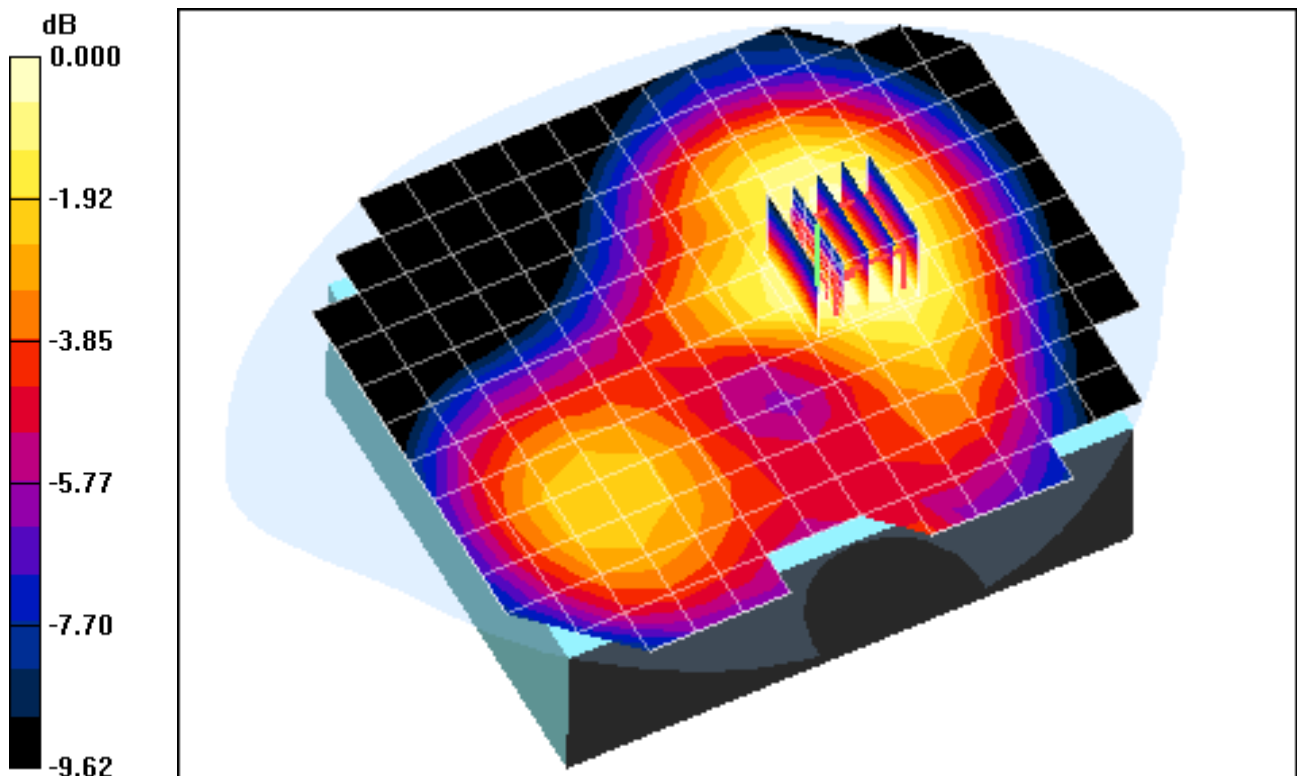
Communication System: Cellular CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.52 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 10-02-2009; Ambient Temp: 24.3°C; Tissue Temp: 23.4°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: Cellular CDMA, Body SAR, Bottom Position, Mid Ch, RC3/TDSO32

Area Scan (13x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.9 V/m
Peak SAR (extrapolated) = 0.297 W/kg
SAR(1 g) = 0.212 mW/g; SAR(10 g) = 0.151 mW/g



0 dB = 0.242mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

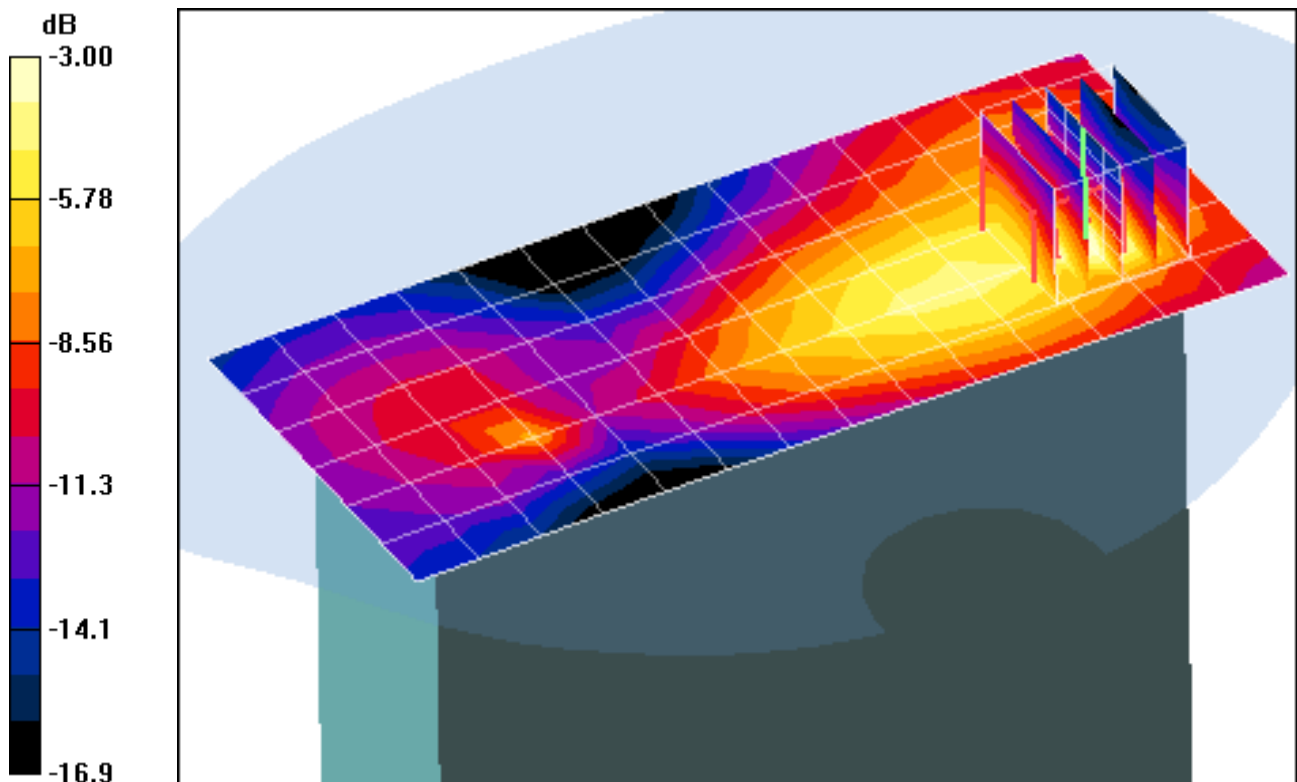
Communication System: Cellular CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.52 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 10-02-2009; Ambient Temp: 24.3°C; Tissue Temp: 23.4°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: Cellular CDMA, Body SAR, Edge Position, Bottom Side, Mid Ch, RC3/TDSO32

Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.31 V/m
Peak SAR (extrapolated) = 0.266 W/kg
SAR(1 g) = 0.090 mW/g; SAR(10 g) = 0.039 mW/g



0 dB = 0.131mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

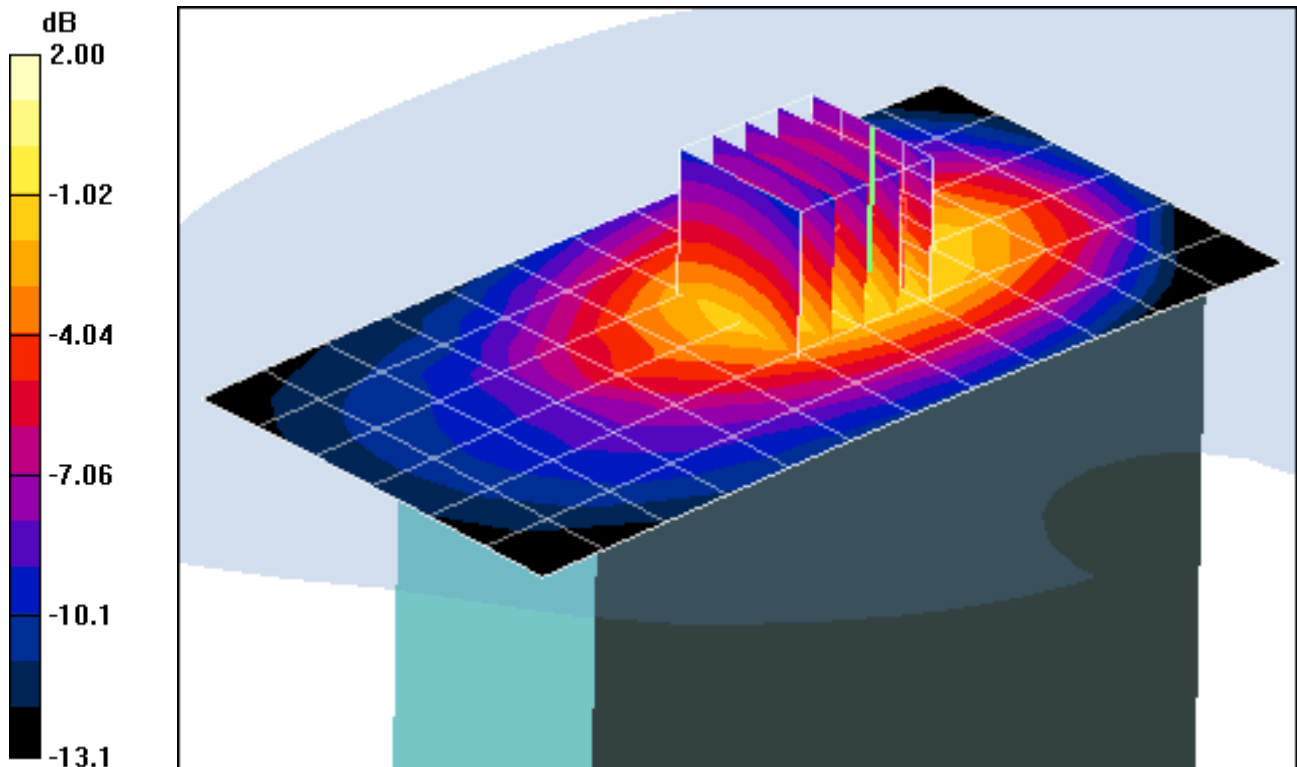
Communication System: Cellular CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.52 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 10-02-2009; Ambient Temp: 24.3°C; Tissue Temp: 23.4°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: Cellular CDMA, BodySAR, Edge Position, Right Side, Mid Ch, RC3/TDSO32

Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.0 V/m
Peak SAR (extrapolated) = 0.174 W/kg
SAR(1 g) = 0.126 mW/g; SAR(10 g) = 0.087 mW/g



0 dB = 0.144mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

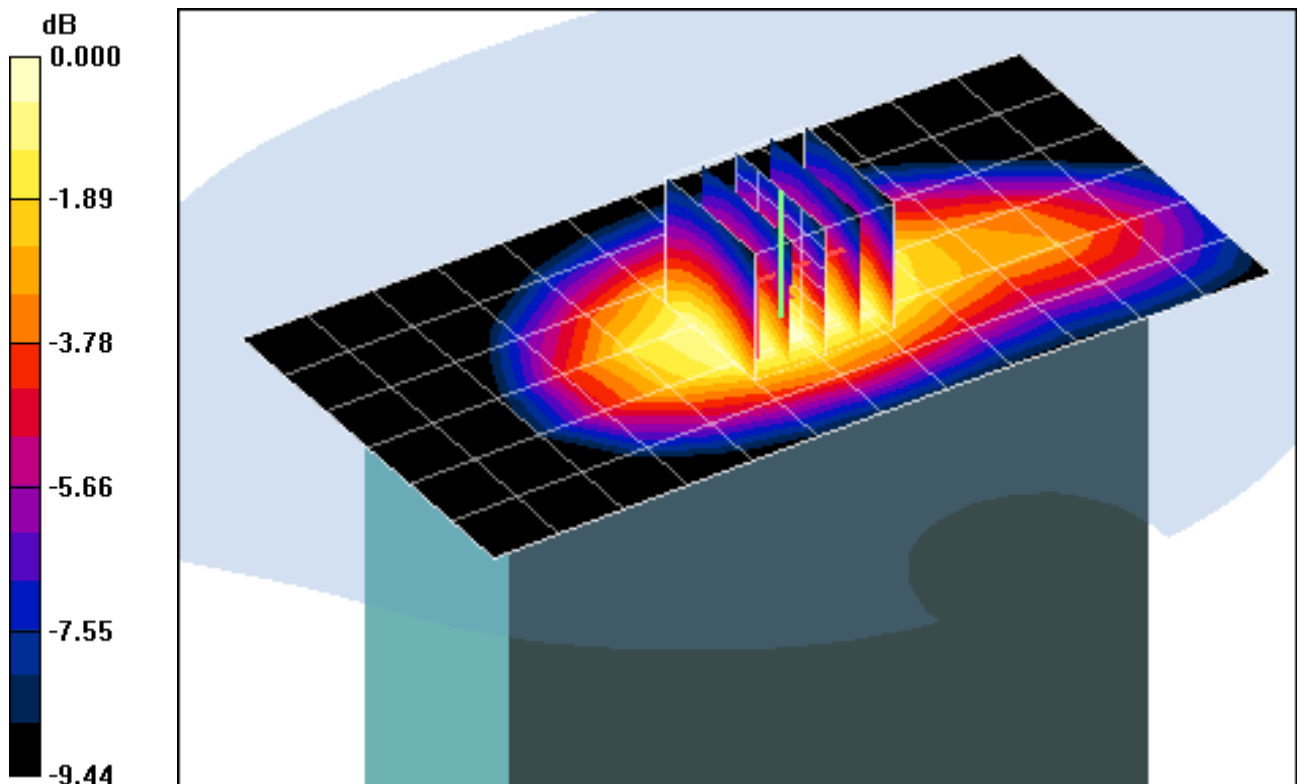
Communication System: Cellular CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.52 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 10-02-2009; Ambient Temp: 24.3°C; Tissue Temp: 23.4°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: Cellular CDMA, Body SAR, Edge Position, Left Side, Mid Ch, RC3/TDSO32

Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.5 V/m
Peak SAR (extrapolated) = 0.512 W/kg
SAR(1 g) = 0.394 mW/g; SAR(10 g) = 0.279 mW/g



0 dB = 0.442mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

Communication System: PCS CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: 1900 Muscle; Medium parameters used:

$f = 1880 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-29-2009; Ambient Temp: 23.9°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/21/2009

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: PCS CDMA, Body SAR, Bottom Position, Mid Ch, RC3/TDSO32

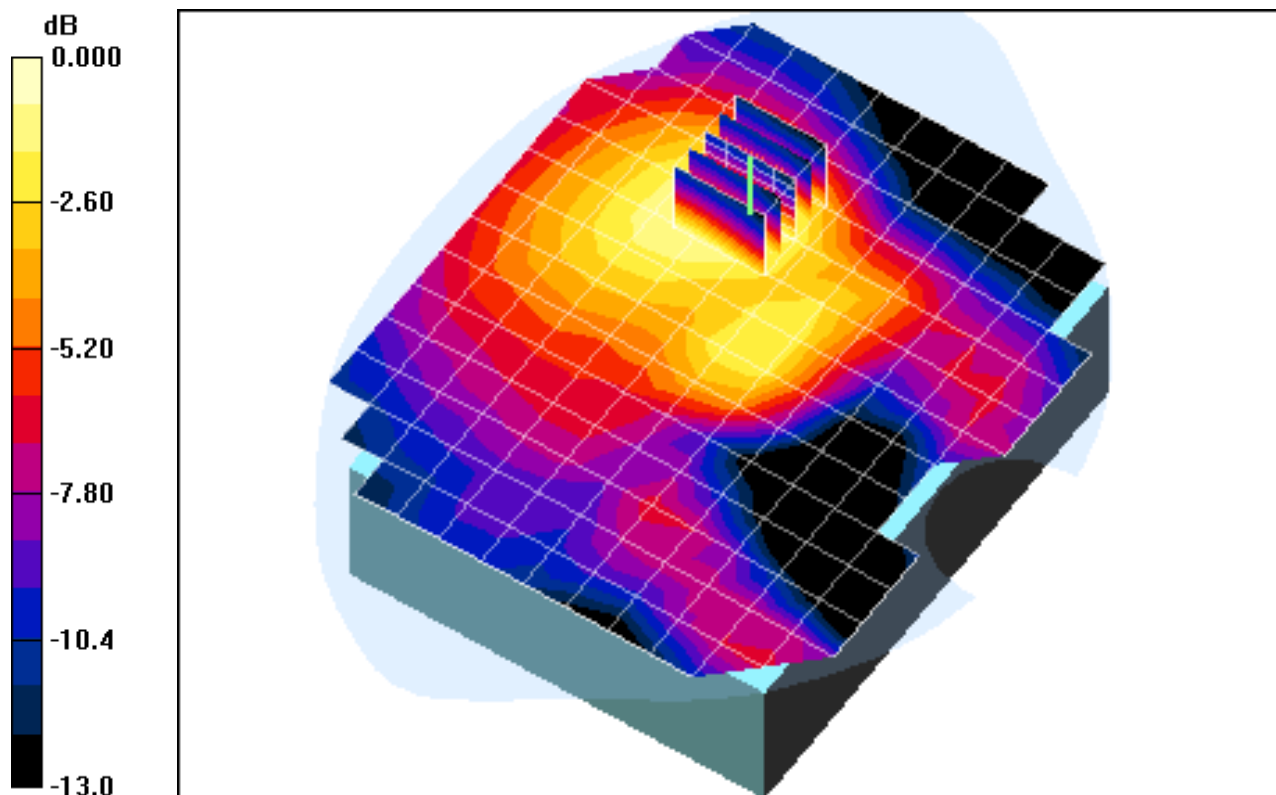
Area Scan (13x15x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 9.65 V/m

Peak SAR (extrapolated) = 0.172 W/kg

SAR(1 g) = 0.114 mW/g; SAR(10 g) = 0.073 mW/g



0 dB = 0.133mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

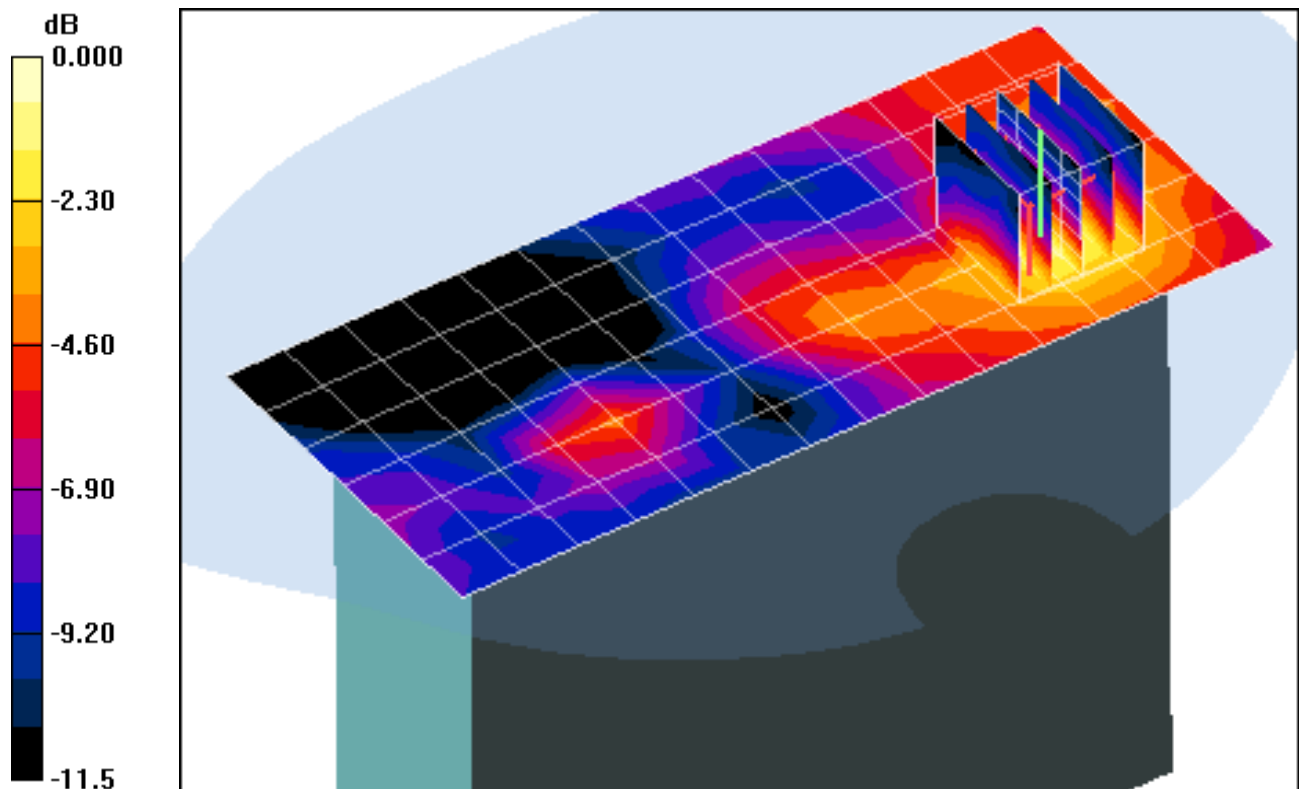
Communication System: PCS CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Muscle; Medium parameters used:
 $f = 1880 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-29-2009; Ambient Temp: 23.9°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: PCS CDMA, Body SAR, Edge Position, Bottom Side, Mid Ch, RC3/TDSO32

Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.91 V/m
Peak SAR (extrapolated) = 0.053 W/kg
SAR(1 g) = 0.033 mW/g; SAR(10 g) = 0.020 mW/g



0 dB = 0.040mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

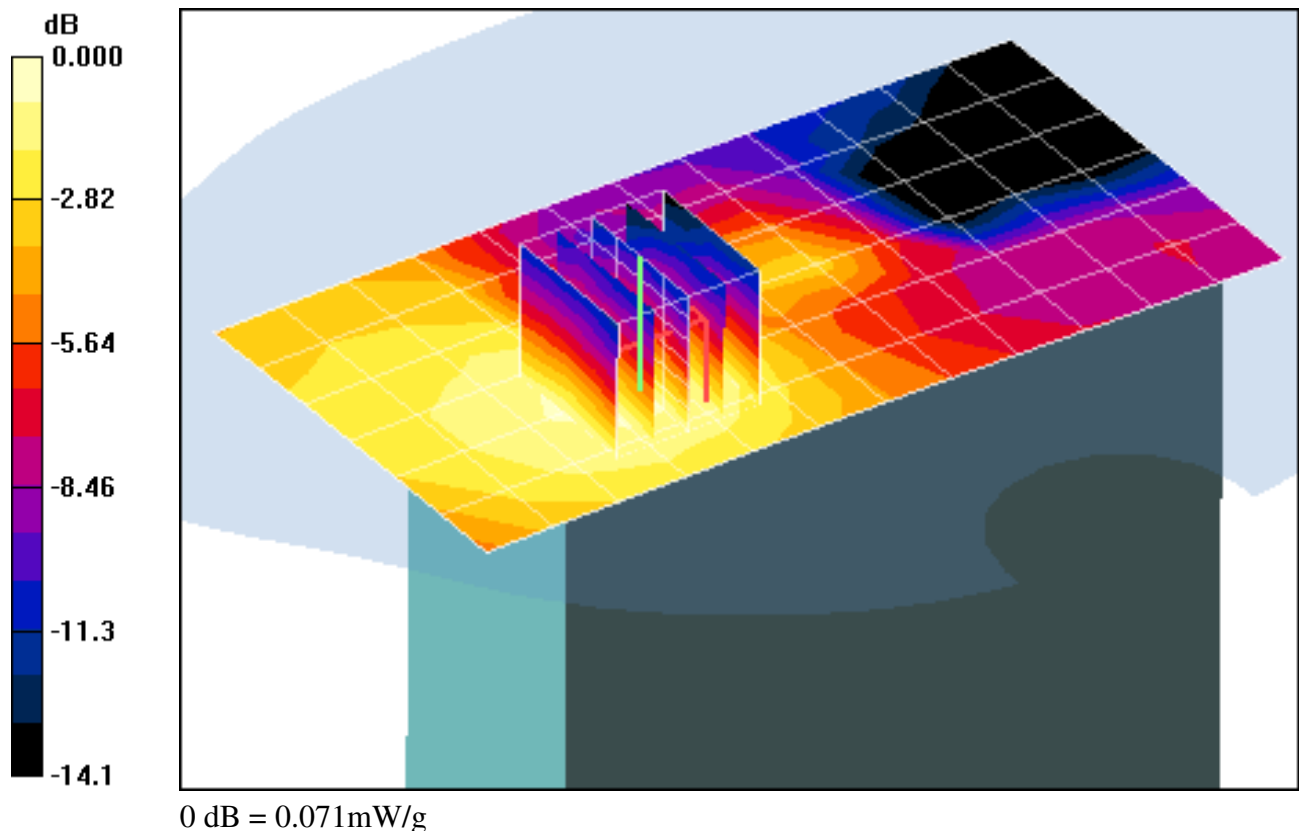
Communication System: PCS CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Muscle; Medium parameters used:
 $f = 1880 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-29-2009; Ambient Temp: 23.9°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: PCS CDMA, Body SAR, Edge Position, Right Side, Mid Ch, RC3/TDSO32

Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.18 V/m
Peak SAR (extrapolated) = 0.092 W/kg
SAR(1 g) = 0.060 mW/g; SAR(10 g) = 0.038 mW/g



PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

Communication System: PCS CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Muscle; Medium parameters used:

$f = 1880 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-29-2009; Ambient Temp: 23.9°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/21/2009

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: PCS CDMA, Body SAR, Edge Position, Left Side, Mid Ch, RC3/TDSO32

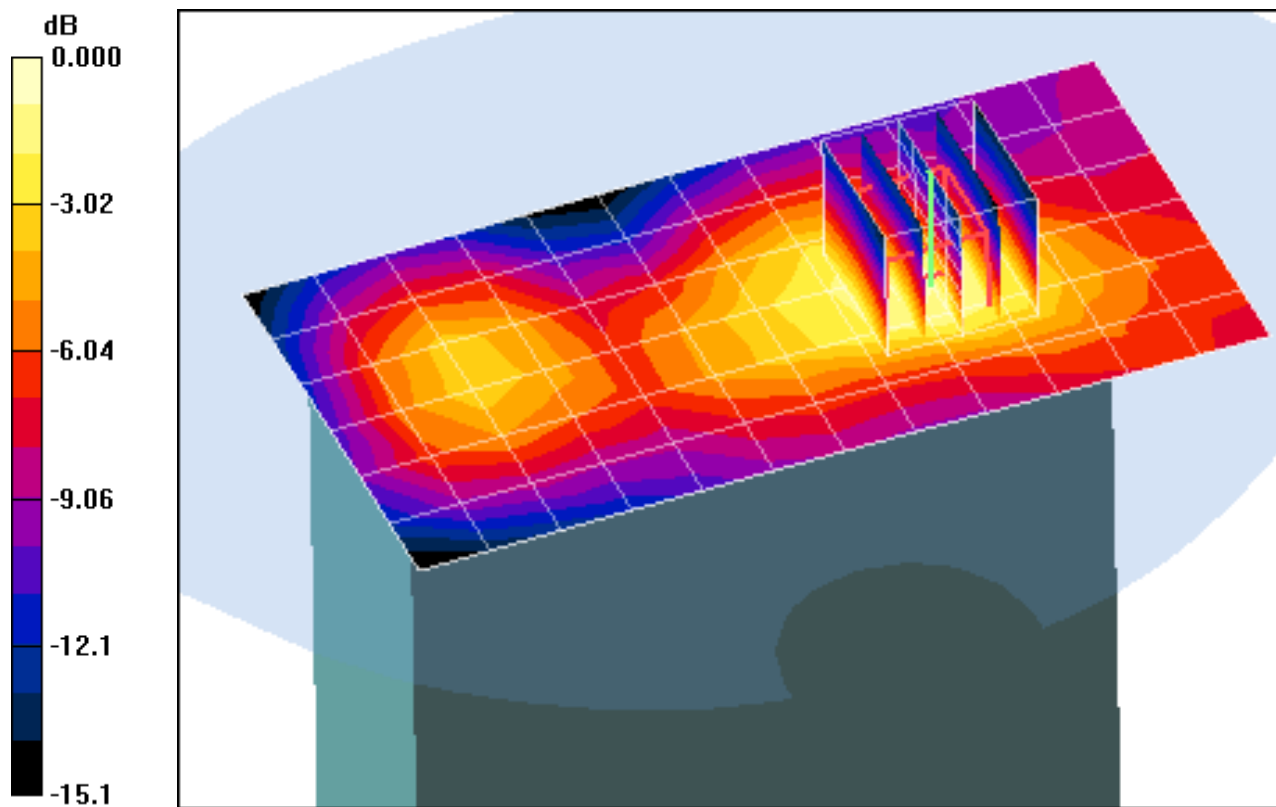
Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 6.86 V/m

Peak SAR (extrapolated) = 0.220 W/kg

SAR(1 g) = 0.130 mW/g; SAR(10 g) = 0.074 mW/g



0 dB = 0.158mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

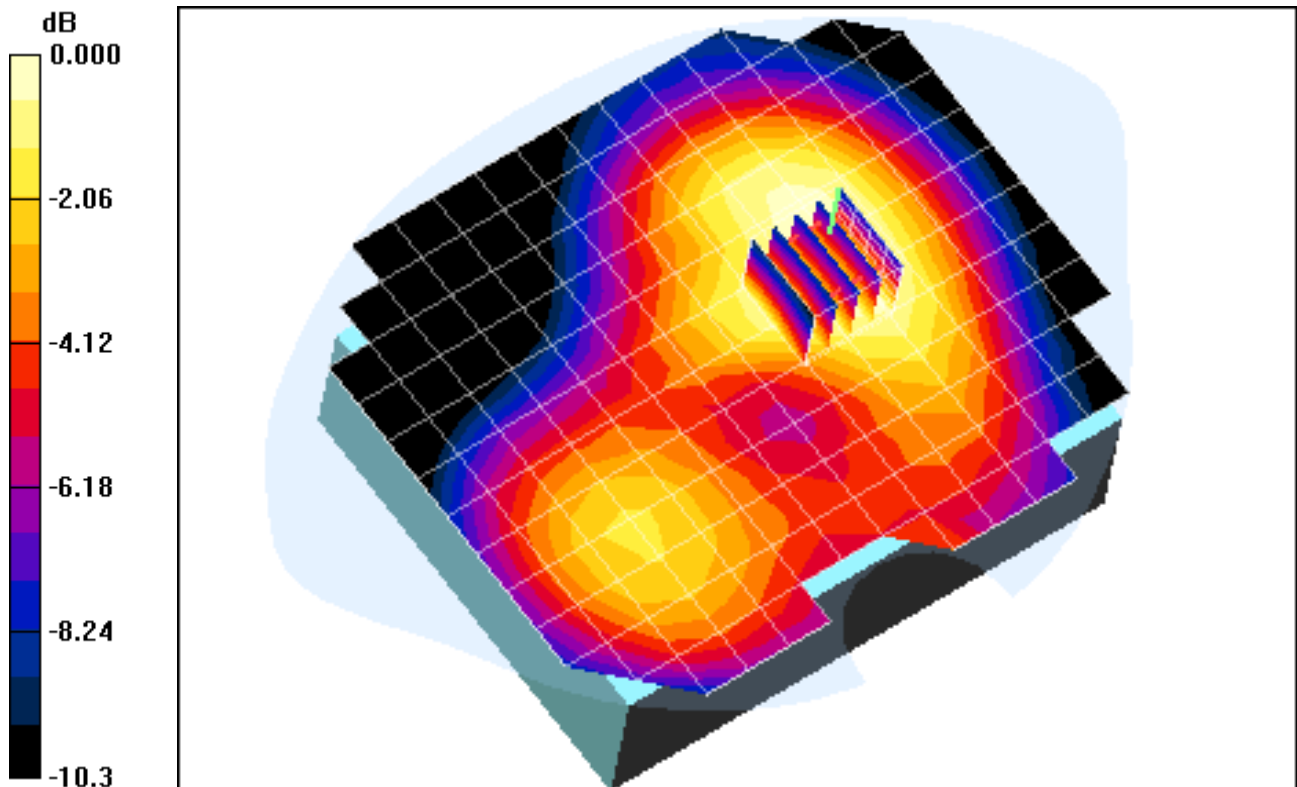
Communication System: Cellular CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.52 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 10-02-2009; Ambient Temp: 24.3°C; Tissue Temp: 23.4°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: Cellular EVDO, Rev.0, Body SAR, Bottom Position, Mid Ch, RTAP

Area Scan (13x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.2 V/m
Peak SAR (extrapolated) = 0.269 W/kg
SAR(1 g) = 0.190 mW/g; SAR(10 g) = 0.135 mW/g



0 dB = 0.211mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

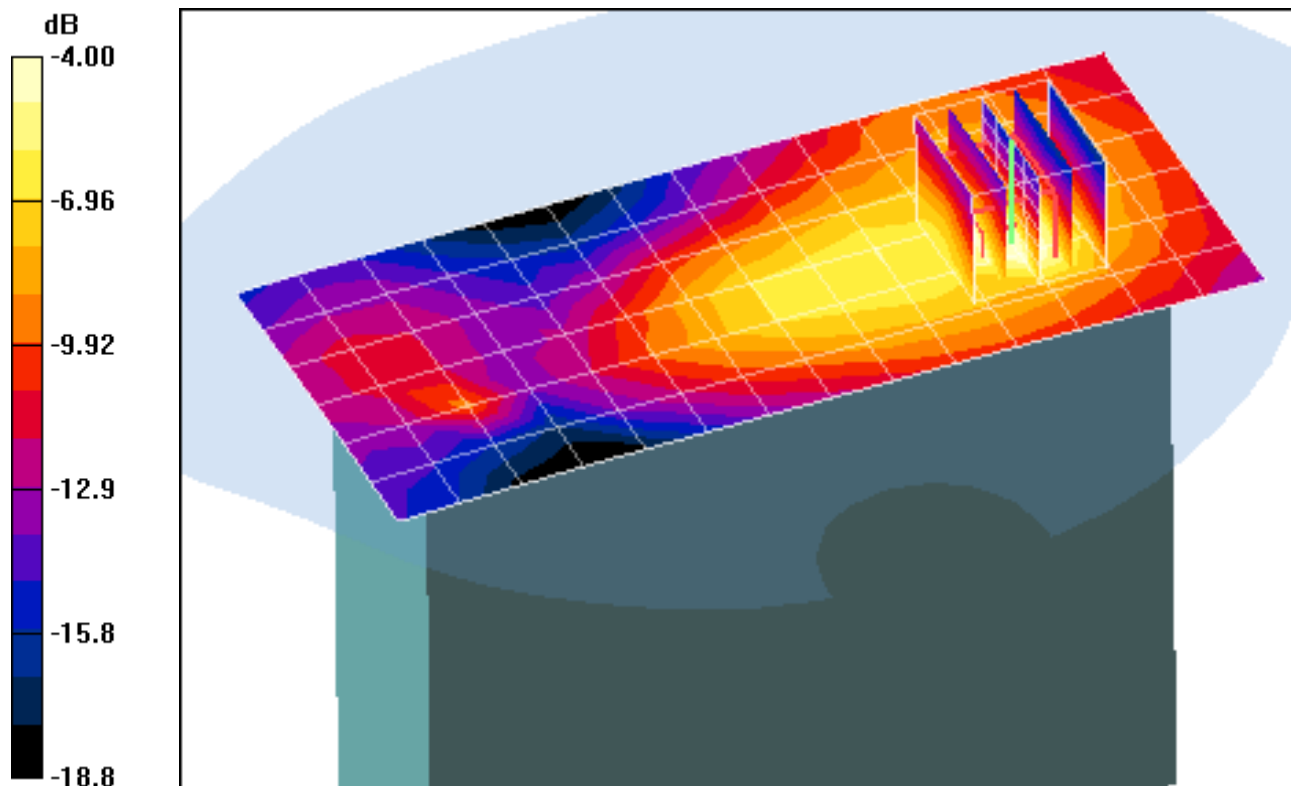
Communication System: Cellular CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.52 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 10-02-2009; Ambient Temp: 24.3°C; Tissue Temp: 23.4°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: Cellular EVDO, Rev.0, Body SAR, Edge Position, Bottom Side, Mid Ch, RTAP

Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.8 V/m
Peak SAR (extrapolated) = 0.315 W/kg
SAR(1 g) = 0.100 mW/g; SAR(10 g) = 0.041 mW/g



0 dB = 0.153mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

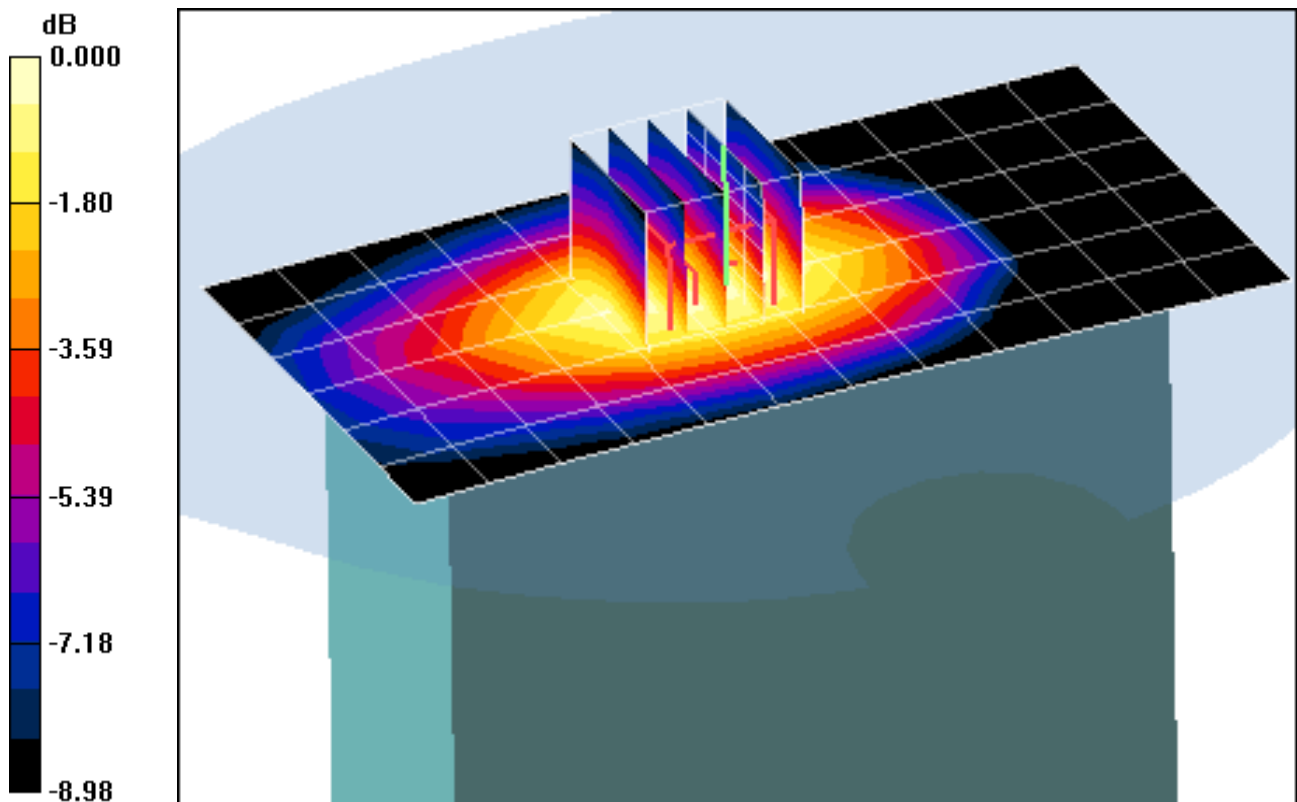
Communication System: Cellular CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.52 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 10-02-2009; Ambient Temp: 24.3°C; Tissue Temp: 23.4°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: Cellular EVDO, Rev.0, Body SAR, Edge Position, Right Side, Mid Ch, FTAP

Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.2 V/m
Peak SAR (extrapolated) = 0.140 W/kg
SAR(1 g) = 0.102 mW/g; SAR(10 g) = 0.072 mW/g



0 dB = 0.116mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

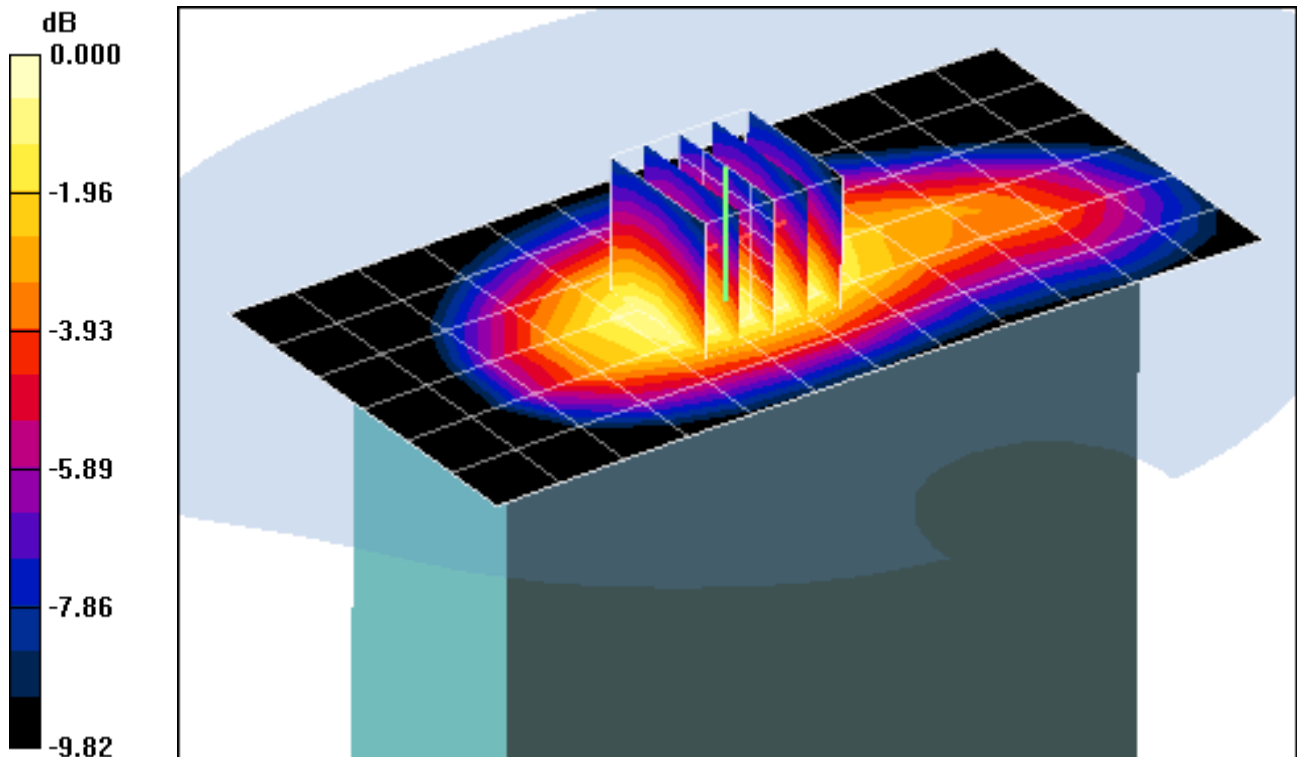
Communication System: Cellular CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.52 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 10-02-2009; Ambient Temp: 24.3°C; Tissue Temp: 23.4°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: Cellular EVDO, Rev.0, Body SAR, Edge Position, Left Side, Mid Ch, RTAP

Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.5 V/m
Peak SAR (extrapolated) = 0.507 W/kg
SAR(1 g) = 0.385 mW/g; SAR(10 g) = 0.273 mW/g



0 dB = 0.427mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

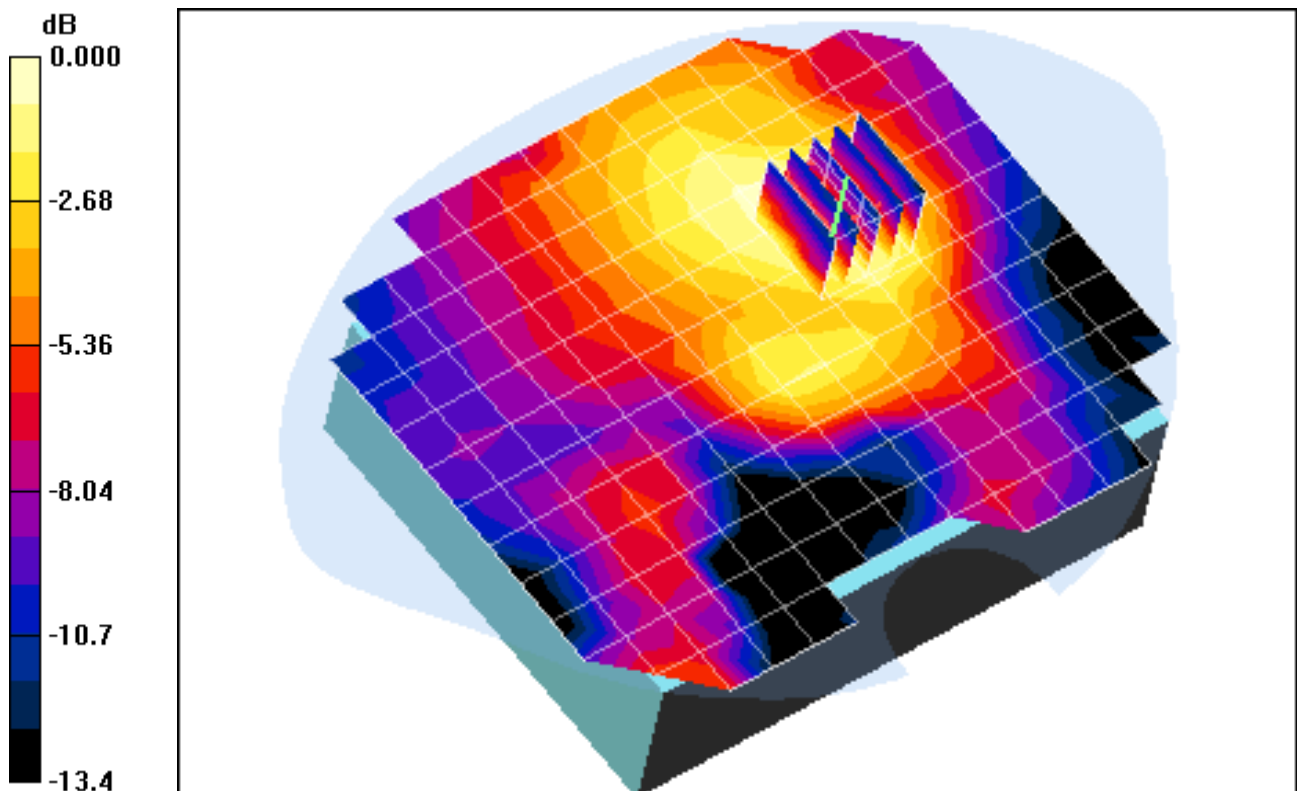
Communication System: PCS CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Muscle; Medium parameters used:
 $f = 1880 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-29-2009; Ambient Temp: 23.9°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: PCS EVDO Rev.0, Body SAR, Bottom Position, Mid Ch, FTAP

Area Scan (13x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.85 V/m
Peak SAR (extrapolated) = 0.192 W/kg
SAR(1 g) = 0.091 mW/g; SAR(10 g) = 0.058 mW/g



0 dB = 0.106mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

Communication System: PCS CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Muscle; Medium parameters used:
 $f = 1880 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-29-2009; Ambient Temp: 23.9°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: PCS EVDO Rev.0, Body SAR, Edge Position, Bottom Side, Mid Ch, FTAP

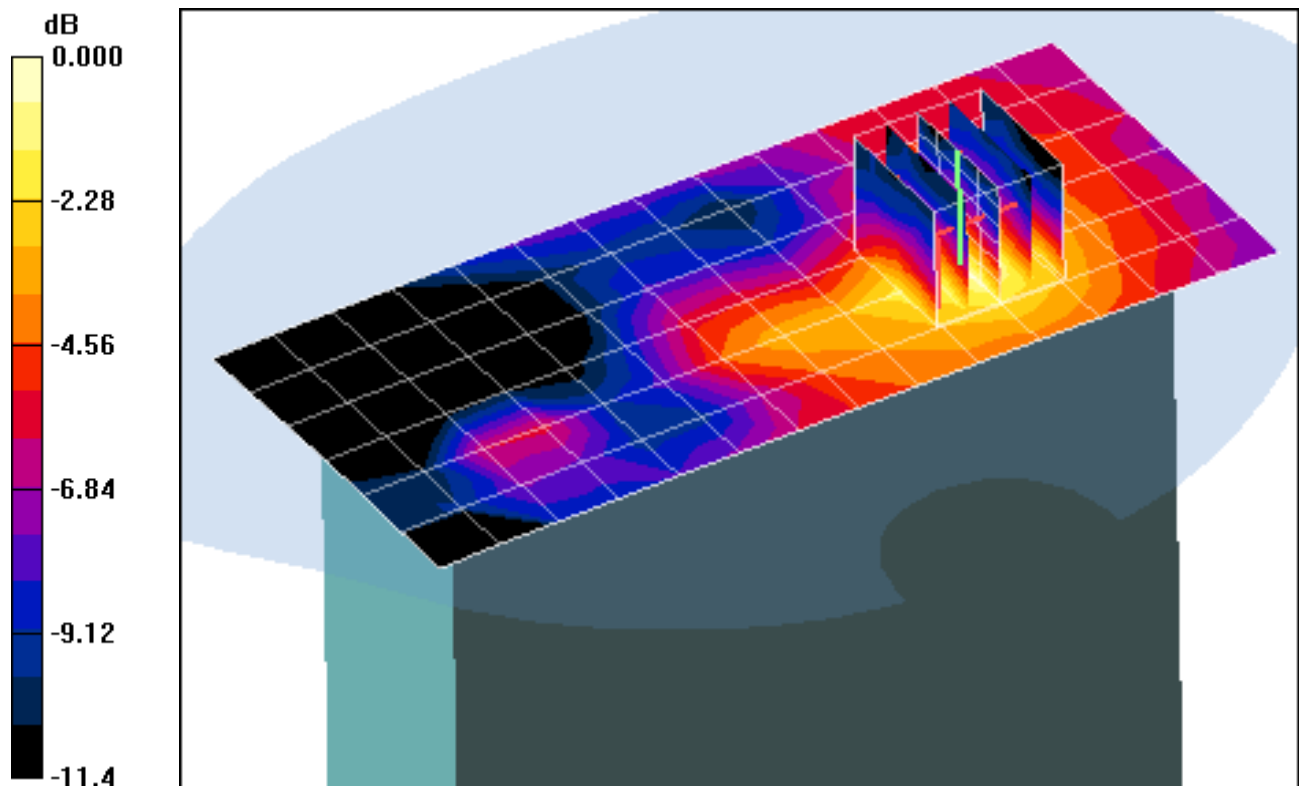
Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 3.04 V/m

Peak SAR (extrapolated) = 0.054 W/kg

SAR(1 g) = 0.033 mW/g; SAR(10 g) = 0.019 mW/g



0 dB = 0.039mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

Communication System: PCS CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Muscle; Medium parameters used:

$f = 1880 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-29-2009; Ambient Temp: 23.9°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/21/2009

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: PCS EVDO Rev.0, Body SAR, Edge Position, Right Side, Mid Ch, FTAP

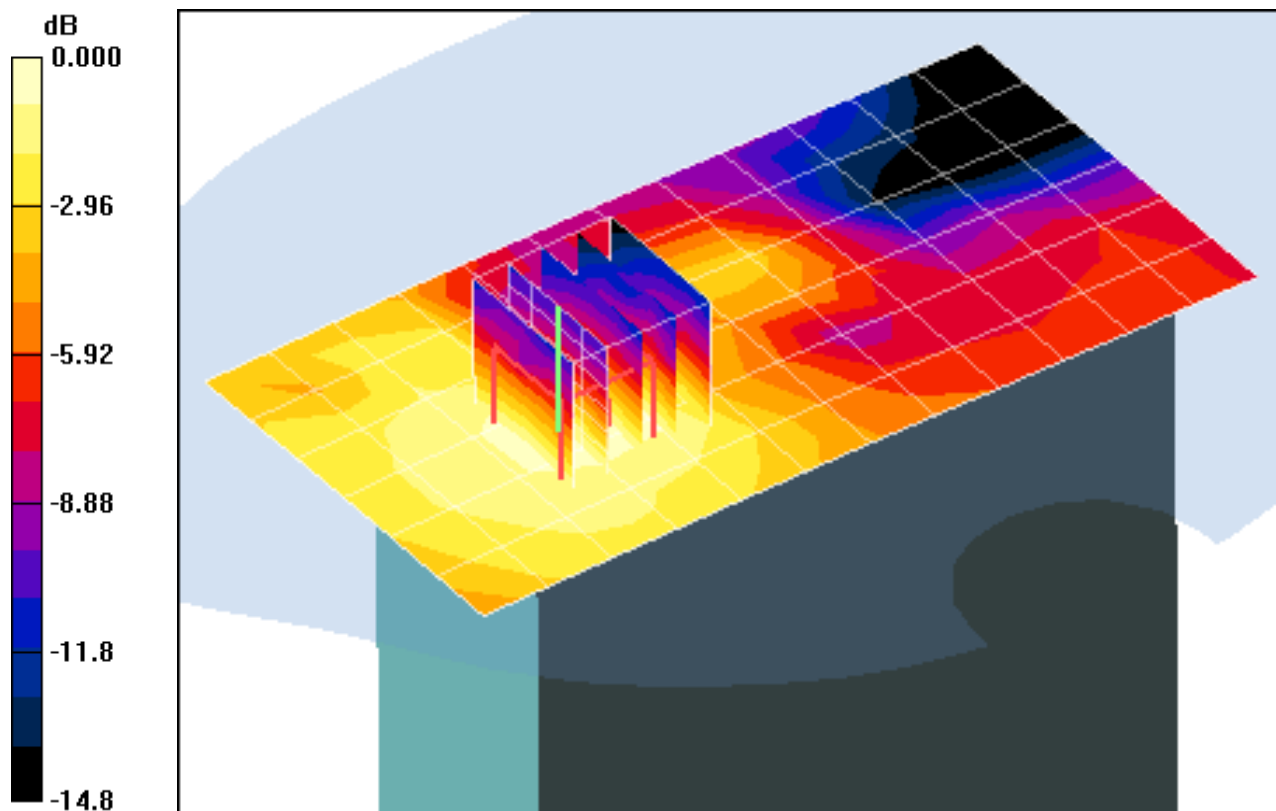
Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 5.02 V/m

Peak SAR (extrapolated) = 0.103 W/kg

SAR(1 g) = 0.062 mW/g; SAR(10 g) = 0.039 mW/g



0 dB = 0.073mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN
SN: 9GKSA00076**

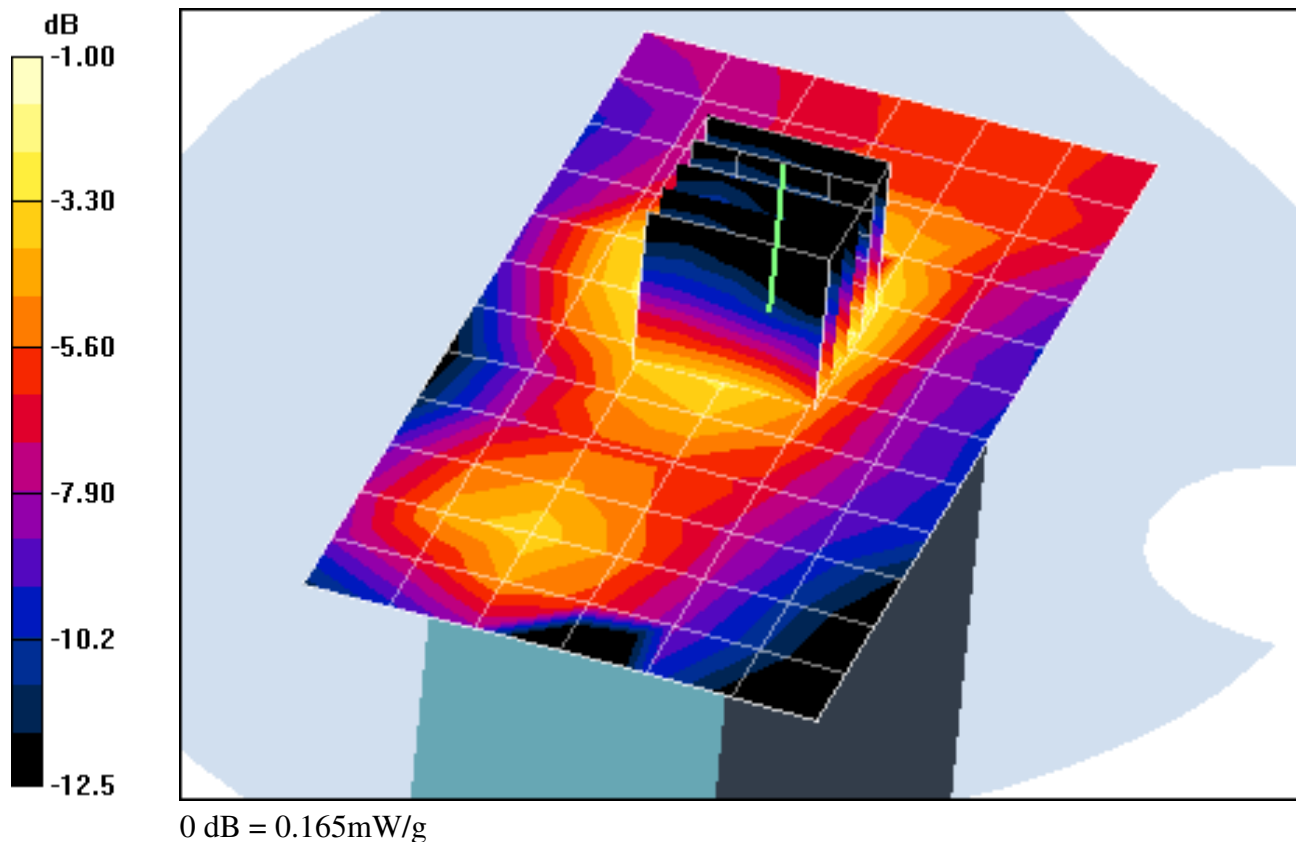
Communication System: PCS CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Muscle; Medium parameters used:
 $f = 1880 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-29-2009; Ambient Temp: 23.9°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: PCS EVDO Rev.0, Body SAR, Edge Position, Left Side, Mid Ch, FTAP

Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.6 V/m
Peak SAR (extrapolated) = 0.230 W/kg
SAR(1 g) = 0.135 mW/g; SAR(10 g) = 0.068 mW/g



PCTEST ENGINEERING LABORATORY, INC.

DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1

Medium: 2450 Muscle ($\sigma = 1.93$ mho/m, $\epsilon_r = 51.84$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.6°C

Probe: EX3DV4 - SN3561; ConvF(6.15, 6.15, 6.15); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: Bluetooth, Body SAR, Bottom Position, Mid Ch

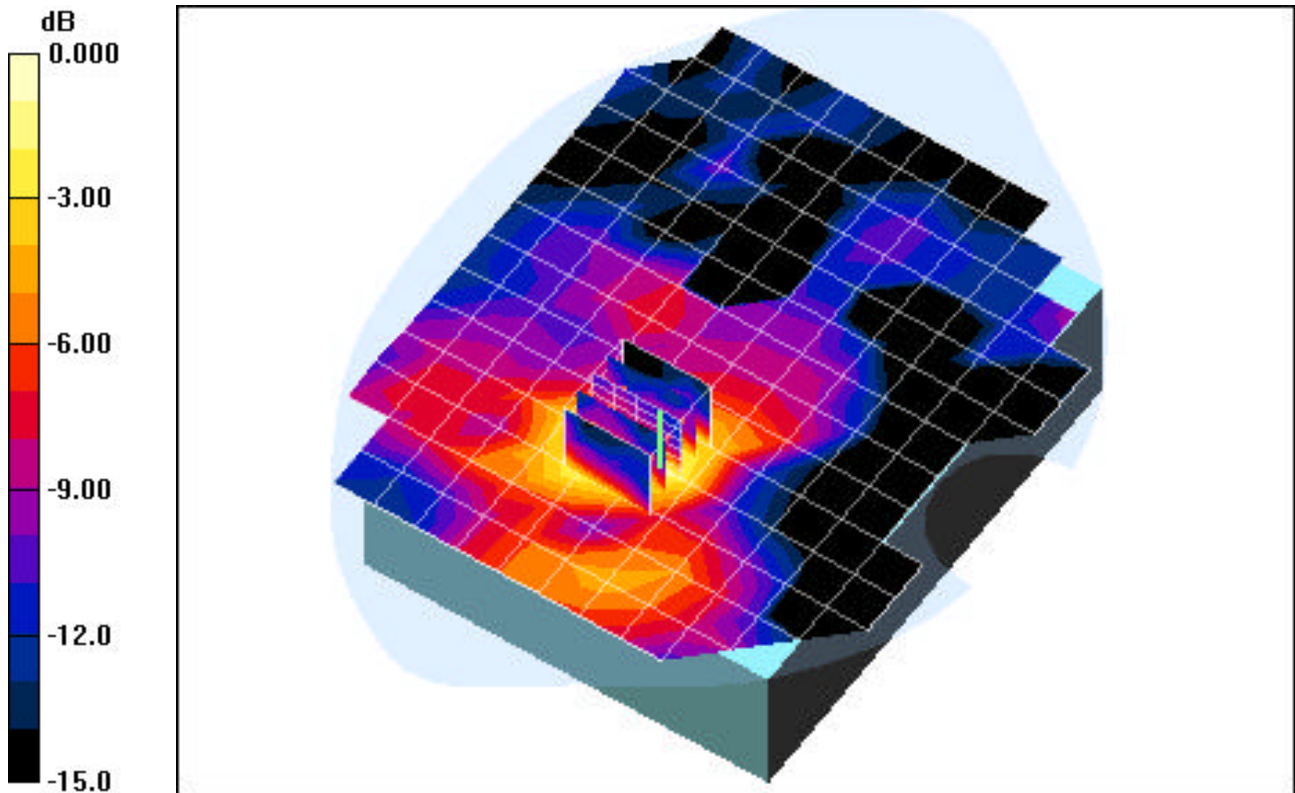
Area Scan (13x15x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 1.81 V/m

Peak SAR (extrapolated) = 0.099 W/kg

SAR(1 g) = 0.051 mW/g; SAR(10 g) = 0.028 mW/g



0 dB = 0.063mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1

Medium: 2450 Muscle ($\sigma = 1.93$ mho/m, $\epsilon_r = 51.84$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.6°C

Probe: EX3DV4 - SN3561; ConvF(6.15, 6.15, 6.15); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: Bluetooth, Body SAR, Edge Position, Mid Ch

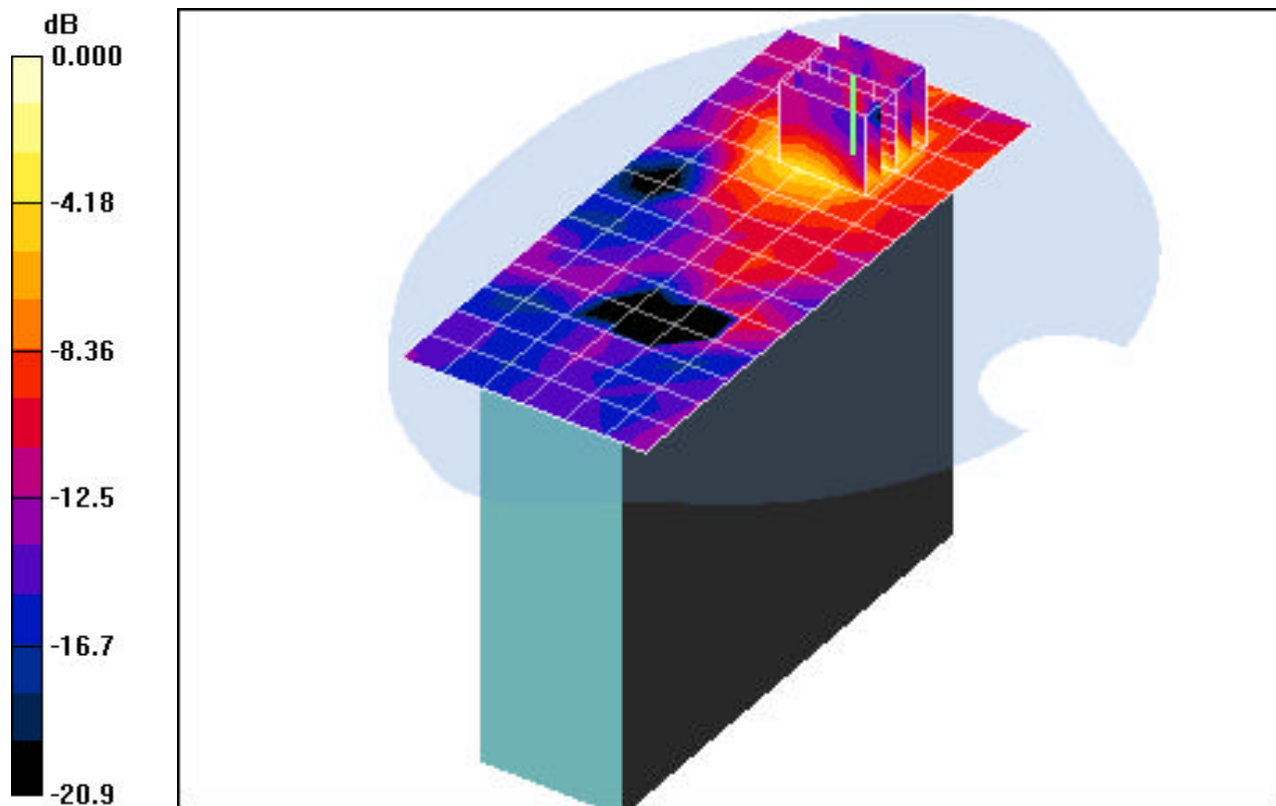
Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 1.44 V/m

Peak SAR (extrapolated) = 0.109 W/kg

SAR(1 g) = 0.052 mW/g; SAR(10 g) = 0.025 mW/g



0 dB = 0.066mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11b; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: 2450 Muscle ($\sigma = 1.93$ mho/m, $\epsilon_r = 51.84$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.6°C

Probe: EX3DV4 - SN3561; ConvF(6.15, 6.15, 6.15); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11b, Body SAR, Bottom Position, Mid Ch, 1Mbps

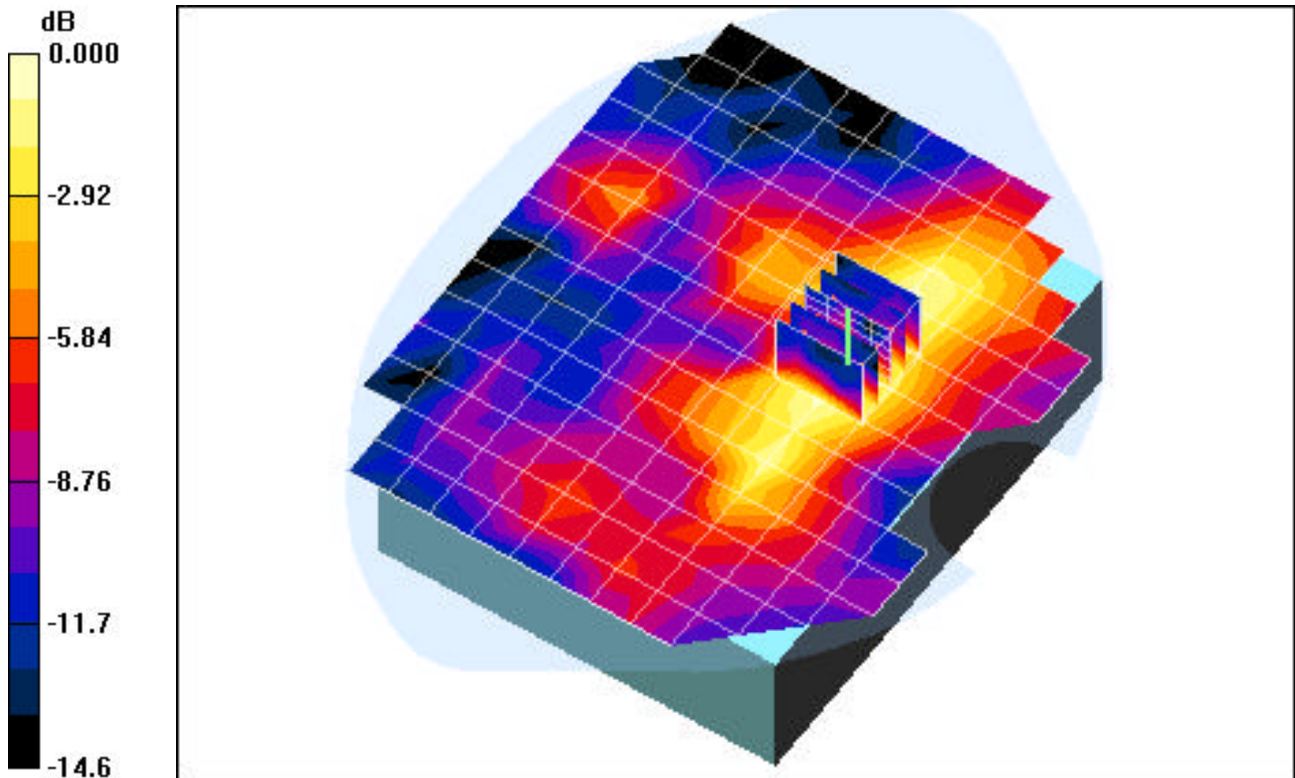
Area Scan (13x15x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 6.08 V/m

Peak SAR (extrapolated) = 0.120 W/kg

SAR(1 g) = 0.061 mW/g; SAR(10 g) = 0.034 mW/g



0 dB = 0.074mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: 2450 Muscle ($\sigma = 1.93$ mho/m, $\epsilon_r = 51.84$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.6°C

Probe: EX3DV4 - SN3561; ConvF(6.15, 6.15, 6.15); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11b, Body SAR, Edge Position, High Ch, 1Mbps

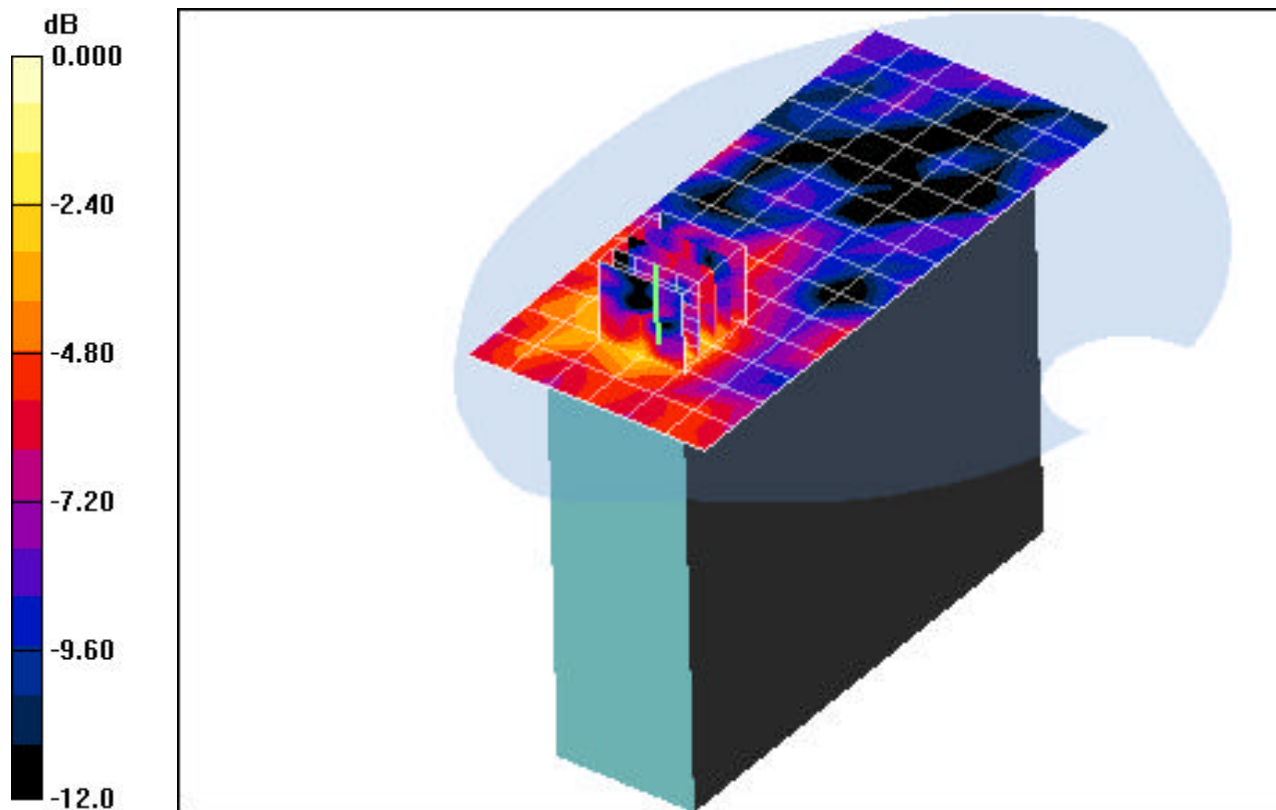
Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 3.25 V/m

Peak SAR (extrapolated) = 0.040 W/kg

SAR(1 g) = 0.021 mW/g; SAR(10 g) = 0.012 mW/g



0 dB = 0.028mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11g; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: 2450 Muscle ($\sigma = 1.93$ mho/m, $\epsilon_r = 51.84$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.6°C

Probe: EX3DV4 - SN3561; ConvF(6.15, 6.15, 6.15); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11g, Body SAR, Bottom Position, Low Ch, 6Mbps

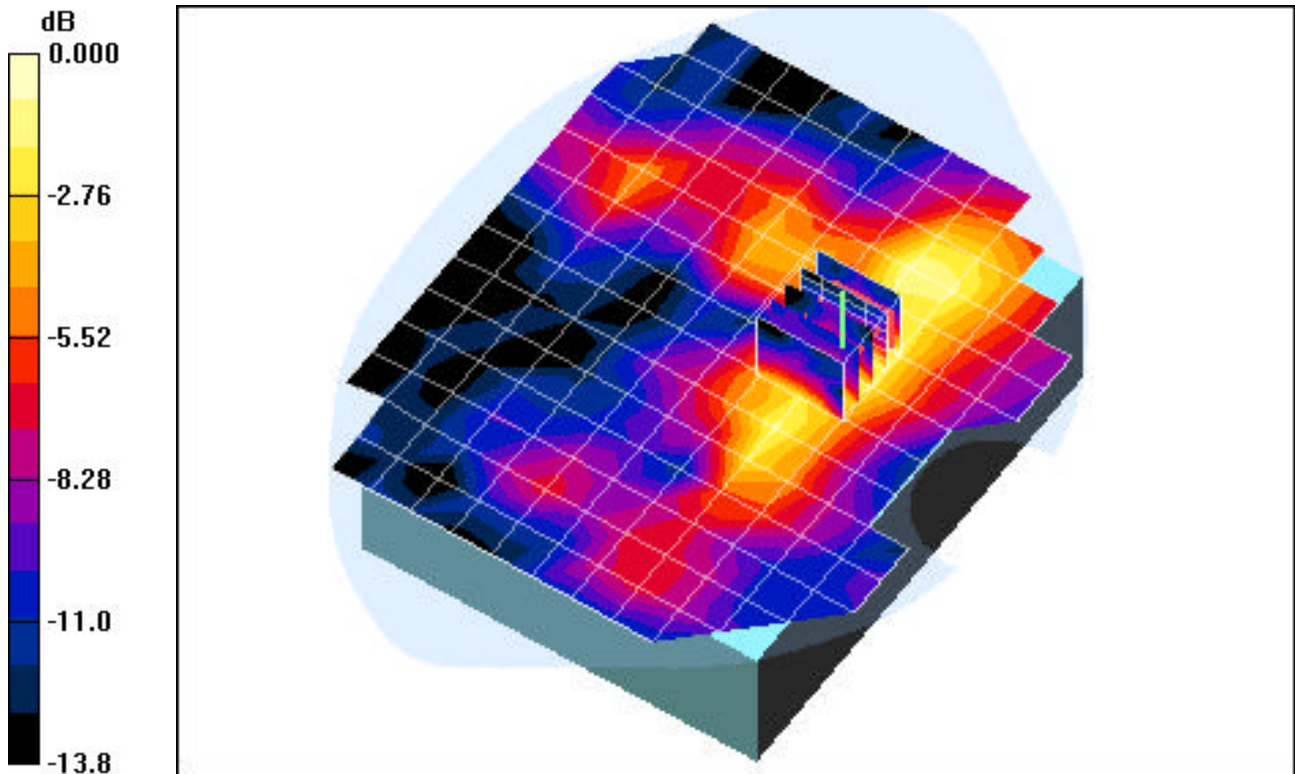
Area Scan (13x15x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 5.59 V/m

Peak SAR (extrapolated) = 0.101 W/kg

SAR(1 g) = 0.051 mW/g; SAR(10 g) = 0.028 mW/g



0 dB = 0.063mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11g; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: 2450 Muscle ($\sigma = 1.93$ mho/m, $\epsilon_r = 51.84$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.6°C

Probe: EX3DV4 - SN3561; ConvF(6.15, 6.15, 6.15); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11g, Body SAR, Edge Position, Mid Ch, 6Mbps

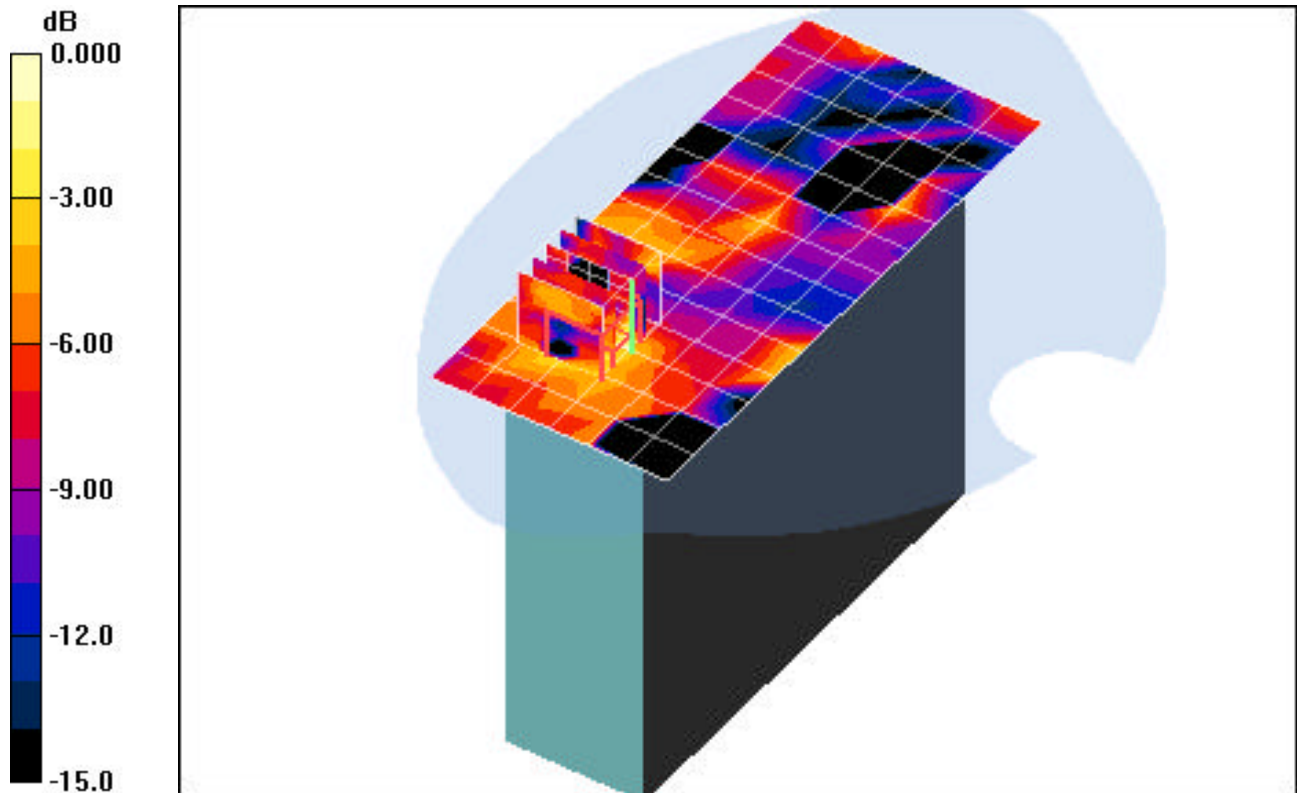
Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 2.45 V/m

Peak SAR (extrapolated) = 0.037 W/kg

SAR(1 g) = 0.018 mW/g; SAR(10 g) = 0.00781 mW/g



0 dB = 0.028mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11n; Frequency: 2422 MHz; Duty Cycle: 1:1

Medium: 2450 Muscle ($\sigma = 1.93$ mho/m, $\epsilon_r = 51.84$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.6°C

Probe: EX3DV4 - SN3561; ConvF(6.15, 6.15, 6.15); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11n 2.4GHz, Body SAR, Bottom Position, Low Ch, 13.5Mbps

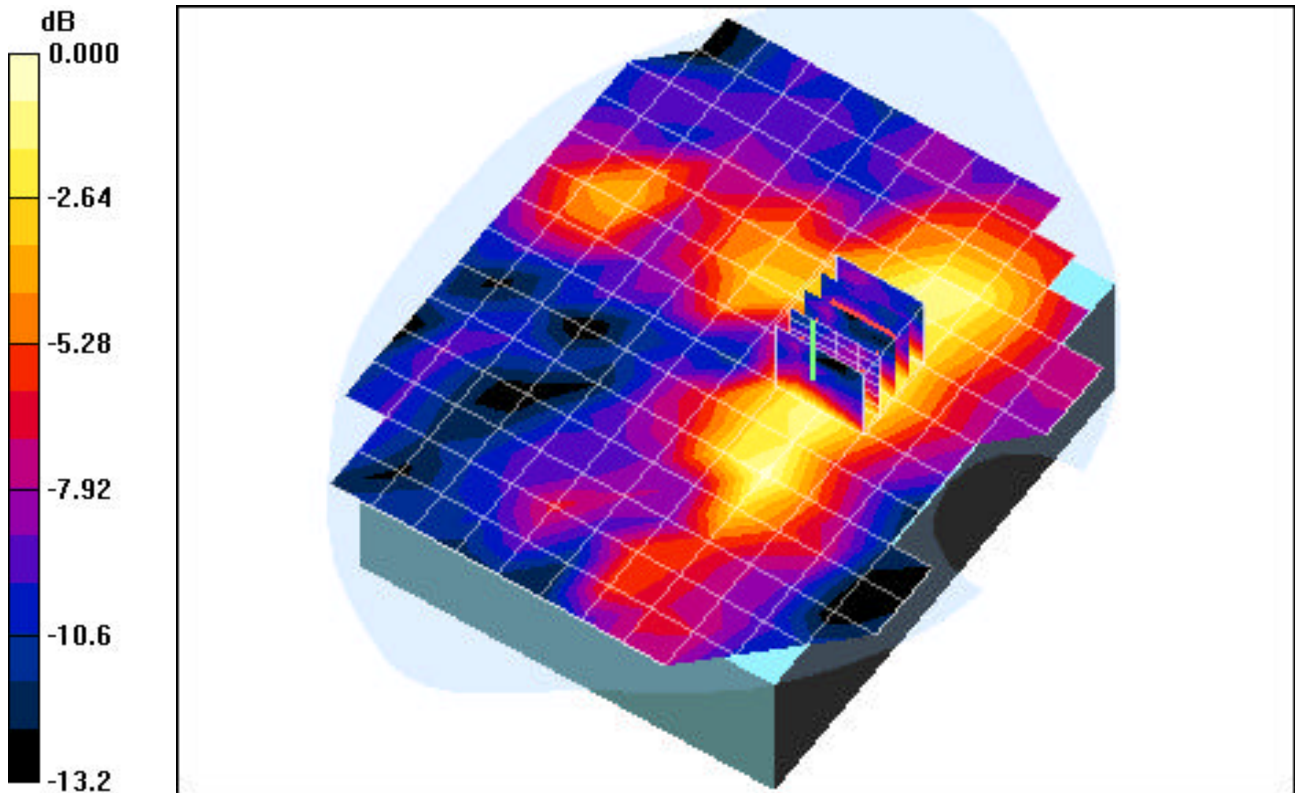
Area Scan (13x15x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 5.07 V/m

Peak SAR (extrapolated) = 0.100 W/kg

SAR(1 g) = 0.045 mW/g; SAR(10 g) = 0.024 mW/g



0 dB = 0.054mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11n; Frequency: 2452 MHz; Duty Cycle: 1:1

Medium: 2450 Muscle ($\sigma = 1.93$ mho/m, $\epsilon_r = 51.84$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.6°C

Probe: EX3DV4 - SN3561; ConvF(6.15, 6.15, 6.15); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11n 2.4GHz, Body SAR, Bottom Position, High Ch, 13.5Mbps

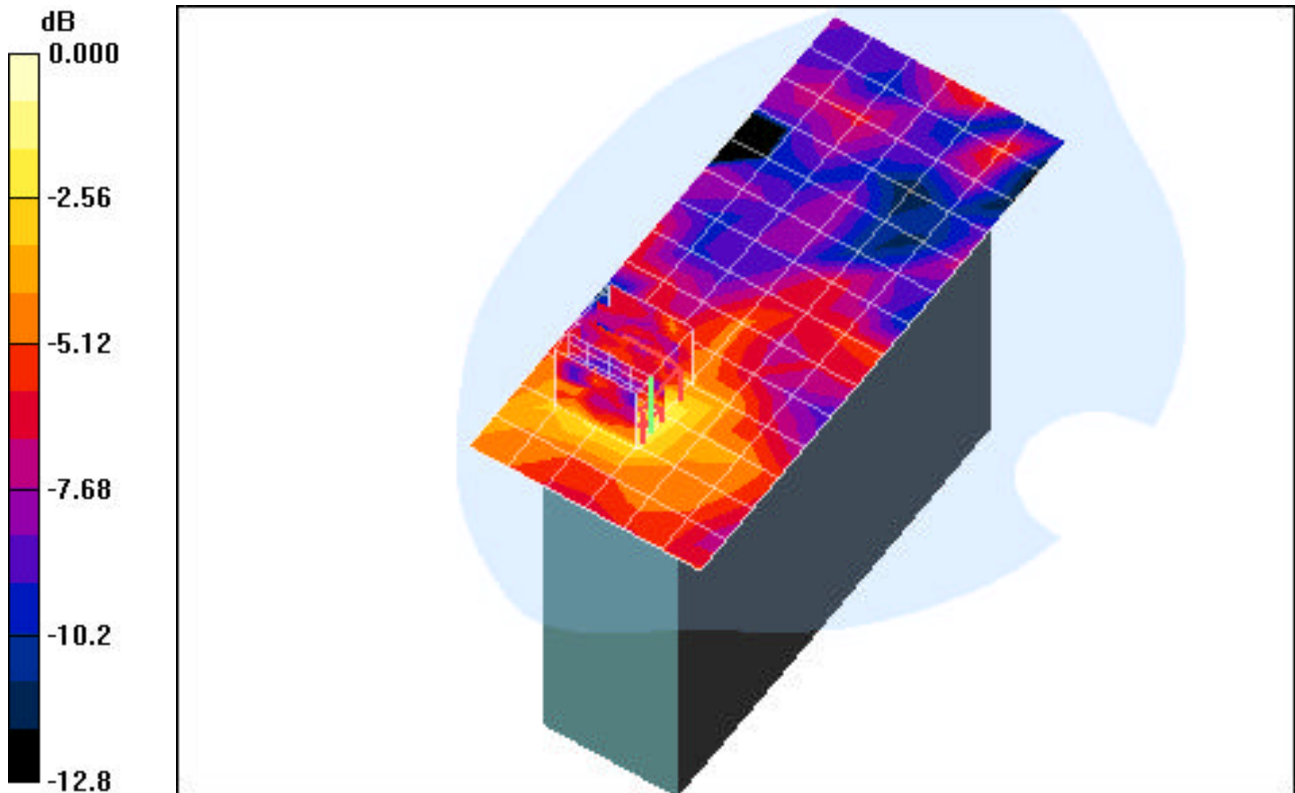
Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 2.77 V/m

Peak SAR (extrapolated) = 0.033 W/kg

SAR(1 g) = 0.017 mW/g; SAR(10 g) = 0.0089 mW/g



0 dB = 0.022mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11a 5.2GHz Band; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: 5300 Muscle ($\sigma = 5.41$ mho/m, $\epsilon_r = 49.81$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.7°C

Probe: EX3DV4 - SN3561; ConvF(3.83, 3.83, 3.83); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11a 5.2GHz, Body SAR, Bottom Position, Ch.40, 6Mbps

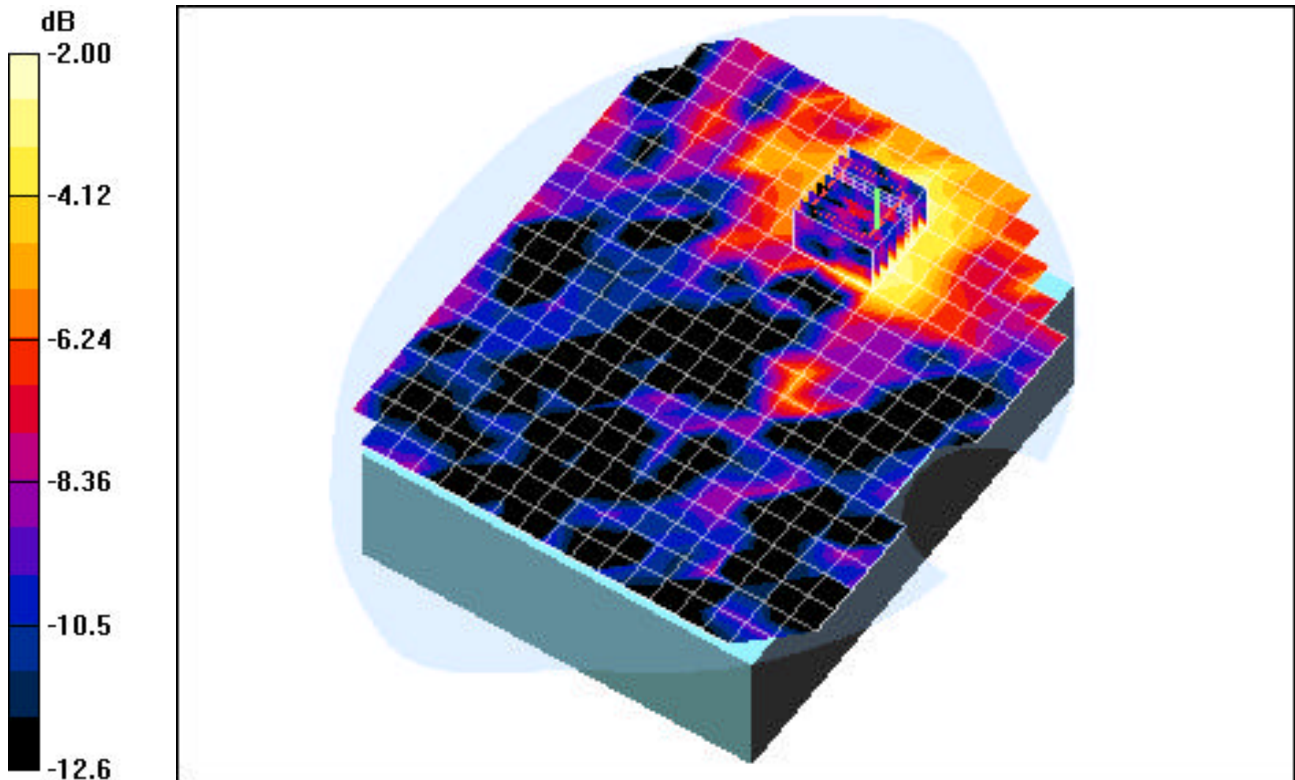
Area Scan (18x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 4.68 V/m

Peak SAR (extrapolated) = 0.400 W/kg

SAR(1 g) = 0.090 mW/g; SAR(10 g) = 0.044 mW/g



0 dB = 0.129mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11a 5.2GHz Band; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: 5300 Muscle ($\sigma = 5.41$ mho/m, $\epsilon_r = 49.81$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.7°C

Probe: EX3DV4 - SN3561; ConvF(3.83, 3.83, 3.83); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11a 5.2GHz, Body SAR, Edge Position, Ch.40, 6Mbps

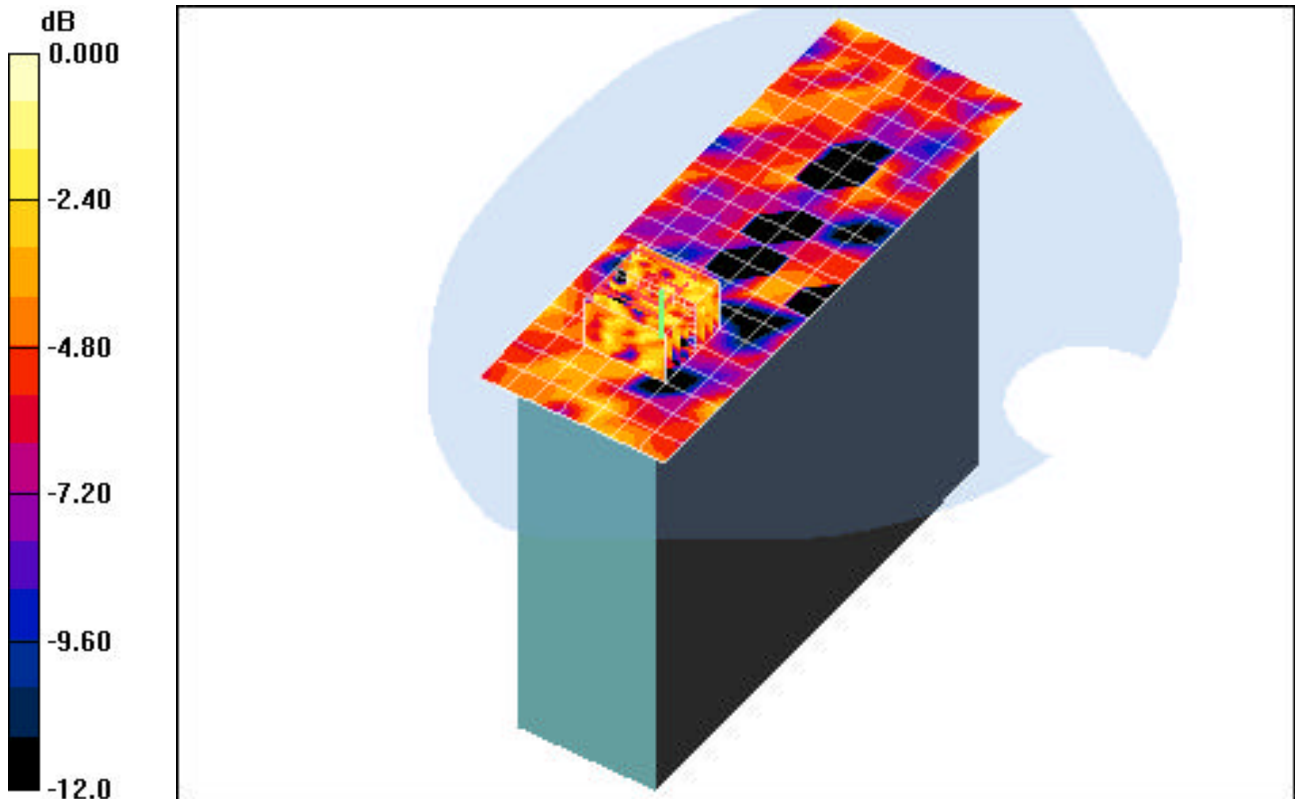
Area Scan (8x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 2.60 V/m

Peak SAR (extrapolated) = 0.095 W/kg

SAR(1 g) = 0.016 mW/g; SAR(10 g) = 0.011 mW/g



0 dB = 0.034mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11n 5.2GHz Band; Frequency: 5190 MHz; Duty Cycle: 1:1

Medium: 5200 Muscle ($\sigma = 5.41$ mho/m, $\epsilon_r = 49.81$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.7°C

Probe: EX3DV4 - SN3561; ConvF(3.83, 3.83, 3.83); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11n 5.2GHz, Body SAR, Bottom Position, Ch.38, 13.5Mbps

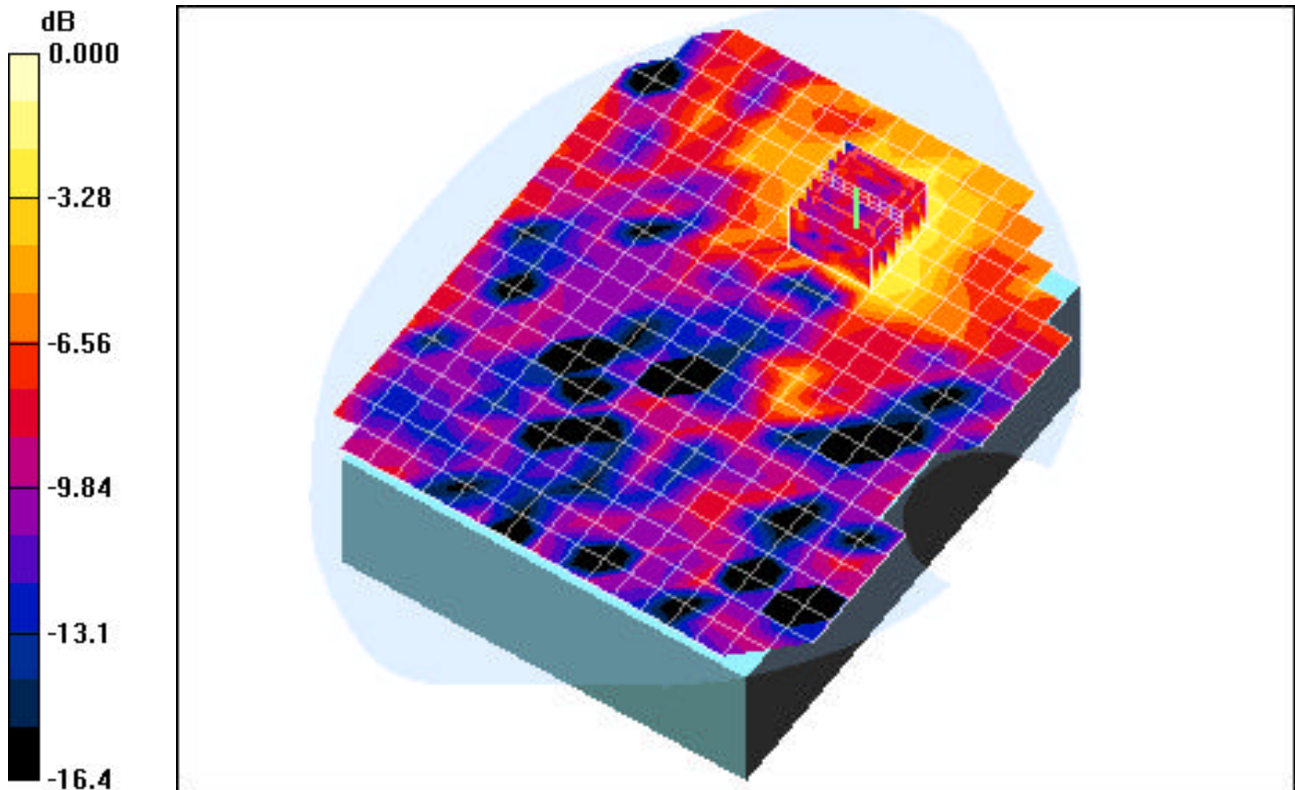
Area Scan (18x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 4.15 V/m

Peak SAR (extrapolated) = 0.464 W/kg

SAR(1 g) = 0.093 mW/g; SAR(10 g) = 0.046 mW/g



0 dB = 0.116mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11n 5.2GHz Band; Frequency: 5230 MHz; Duty Cycle: 1:1

Medium: 5200 Muscle ($\sigma = 5.41$ mho/m, $\epsilon_r = 49.81$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.7°C

Probe: EX3DV4 - SN3561; ConvF(3.83, 3.83, 3.83); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11n 5.2GHz, Body SAR, Edge Position, Ch.46, 13.5Mbps

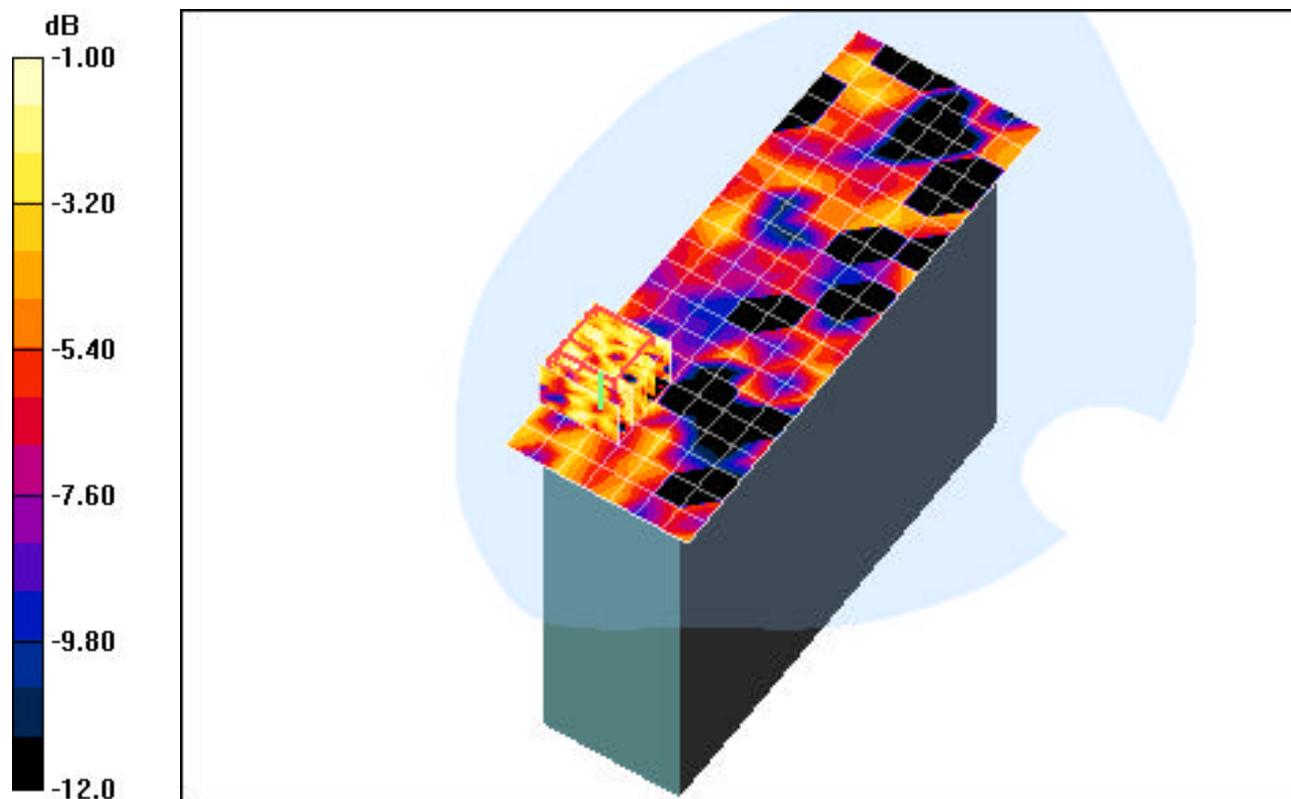
Area Scan (8x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 1.72 V/m

Peak SAR (extrapolated) = 0.089 W/kg

SAR(1 g) = 0.016 mW/g; SAR(10 g) = 0.011 mW/g



0 dB = 0.032mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11a 5.3GHz Band; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium: 5300 Muscle ($\sigma = 5.32$ mho/m, $\epsilon_r = 47.59$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.7°C

Probe: EX3DV4 - SN3561; ConvF(3.67, 3.67, 3.67); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11a 5.3GHz, Body SAR, Bottom Position, Ch.60, 6Mbps

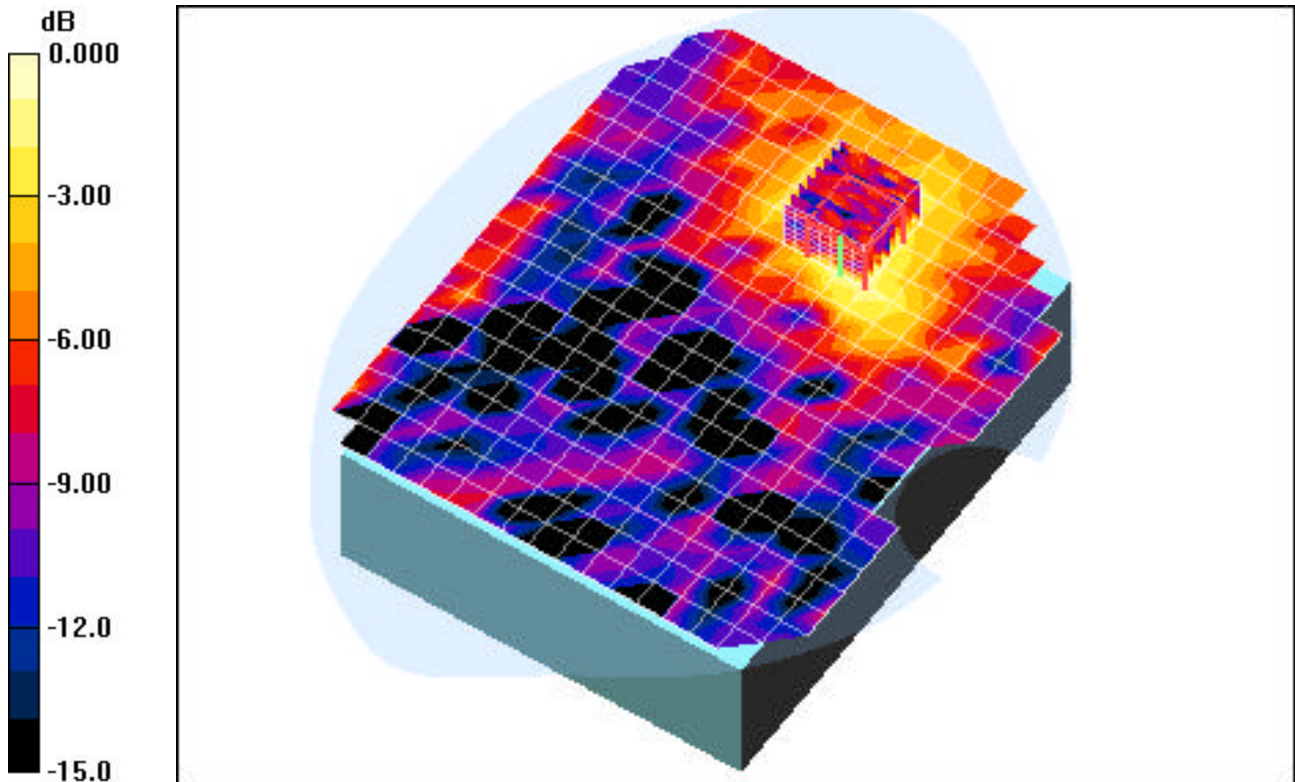
Area Scan (18x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 3.85 V/m

Peak SAR (extrapolated) = 0.479 W/kg

SAR(1 g) = 0.068 mW/g; SAR(10 g) = 0.035 mW/g



0 dB = 0.098mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11a 5.3GHz Band; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium: 5300 Muscle ($\sigma = 5.32$ mho/m, $\epsilon_r = 47.59$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.7°C

Probe: EX3DV4 - SN3561; ConvF(3.67, 3.67, 3.67); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11a 5.3GHz, Body SAR, Edge Position, Ch.60, 6Mbps

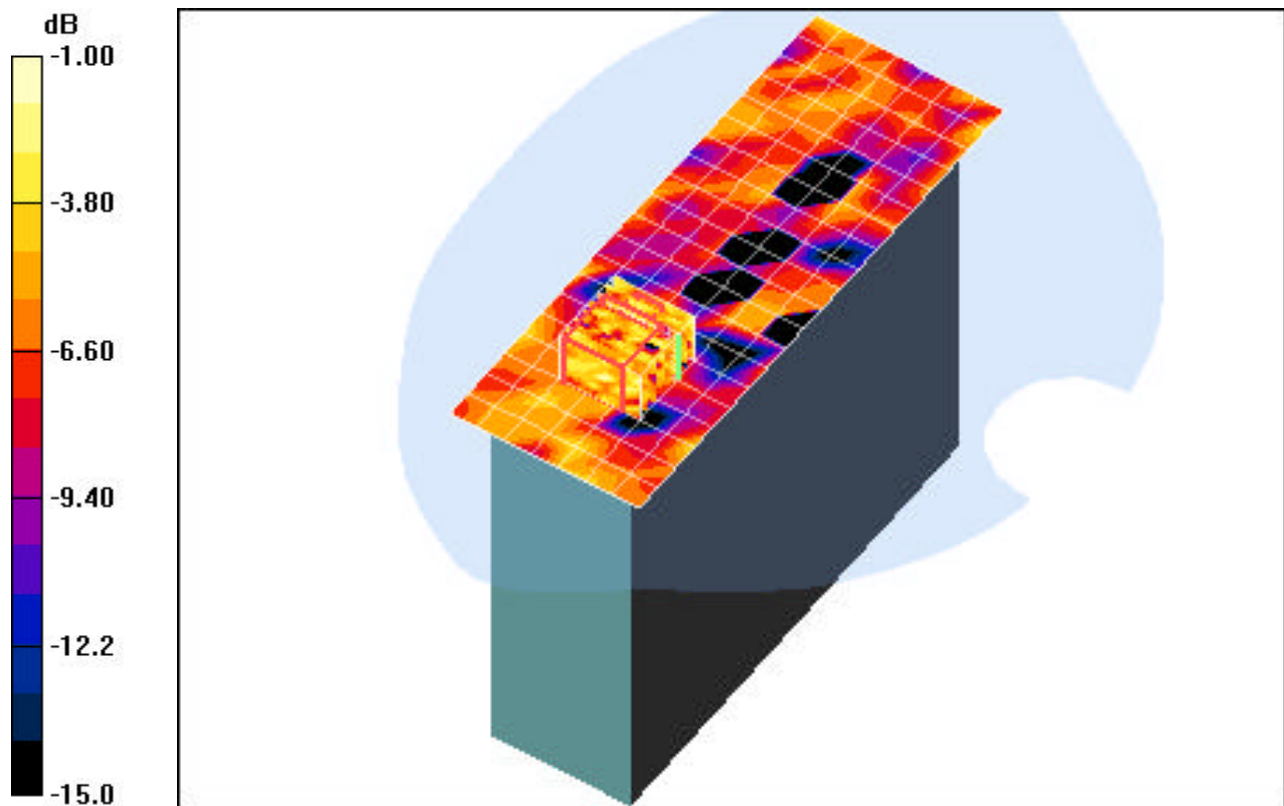
Area Scan (8x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 2.84 V/m

Peak SAR (extrapolated) = 0.084 W/kg

SAR(1 g) = 0.019 mW/g; SAR(10 g) = 0.011 mW/g



0 dB = 0.048mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11n 5.3GHz Band; Frequency: 5270 MHz; Duty Cycle: 1:1

Medium: 5300 Muscle ($\sigma = 5.32$ mho/m, $\epsilon_r = 47.59$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.7°C

Probe: EX3DV4 - SN3561; ConvF(3.67, 3.67, 3.67); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11n 5.3GHz, Body SAR, Bottom Position, Ch.54, 13.5Mbps

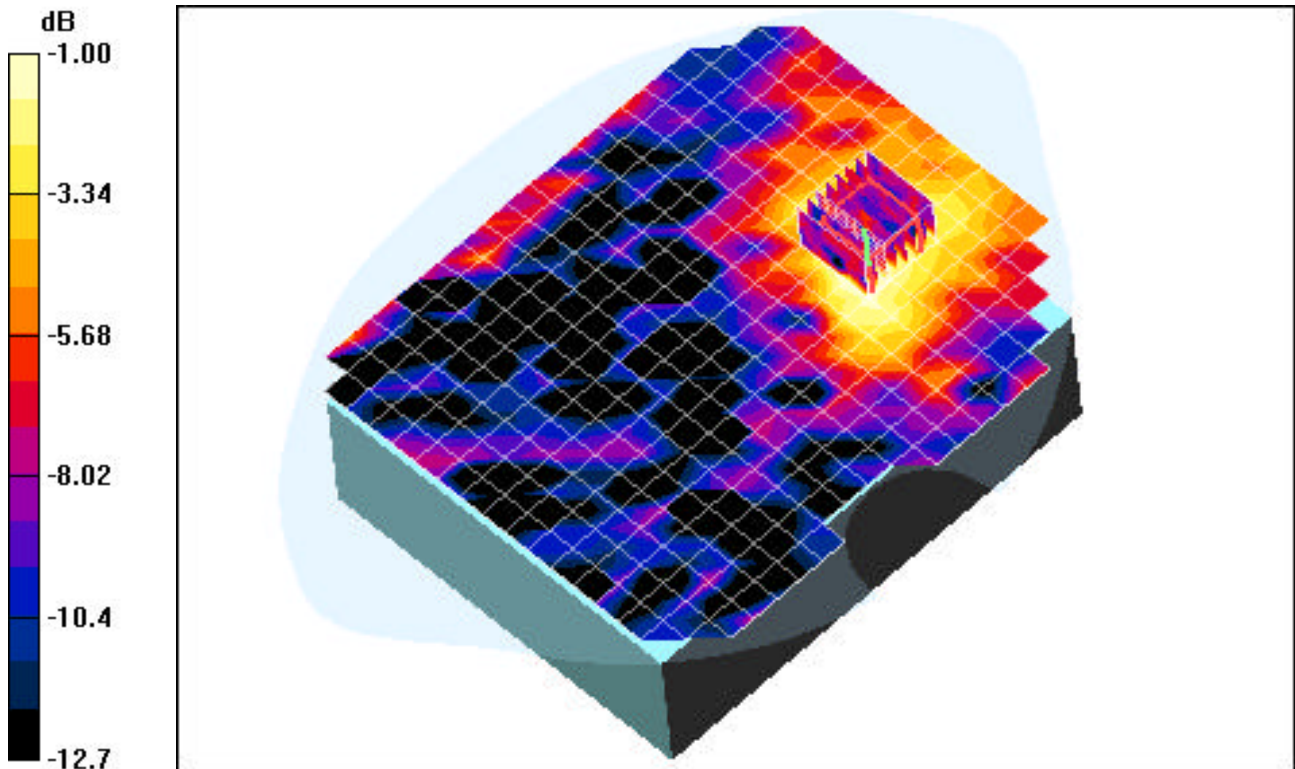
Area Scan (18x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 3.83 V/m

Peak SAR (extrapolated) = 0.438 W/kg

SAR(1 g) = 0.077 mW/g; SAR(10 g) = 0.039 mW/g



0 dB = 0.098mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11n 5.3GHz Band; Frequency: 5270 MHz; Duty Cycle: 1:1

Medium: 5300 Muscle ($\sigma = 5.32$ mho/m, $\epsilon_r = 47.59$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.7°C

Probe: EX3DV4 - SN3561; ConvF(3.67, 3.67, 3.67); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11n 5.3GHz, Body SAR, Edge Position, Ch.54, 13.5Mbps

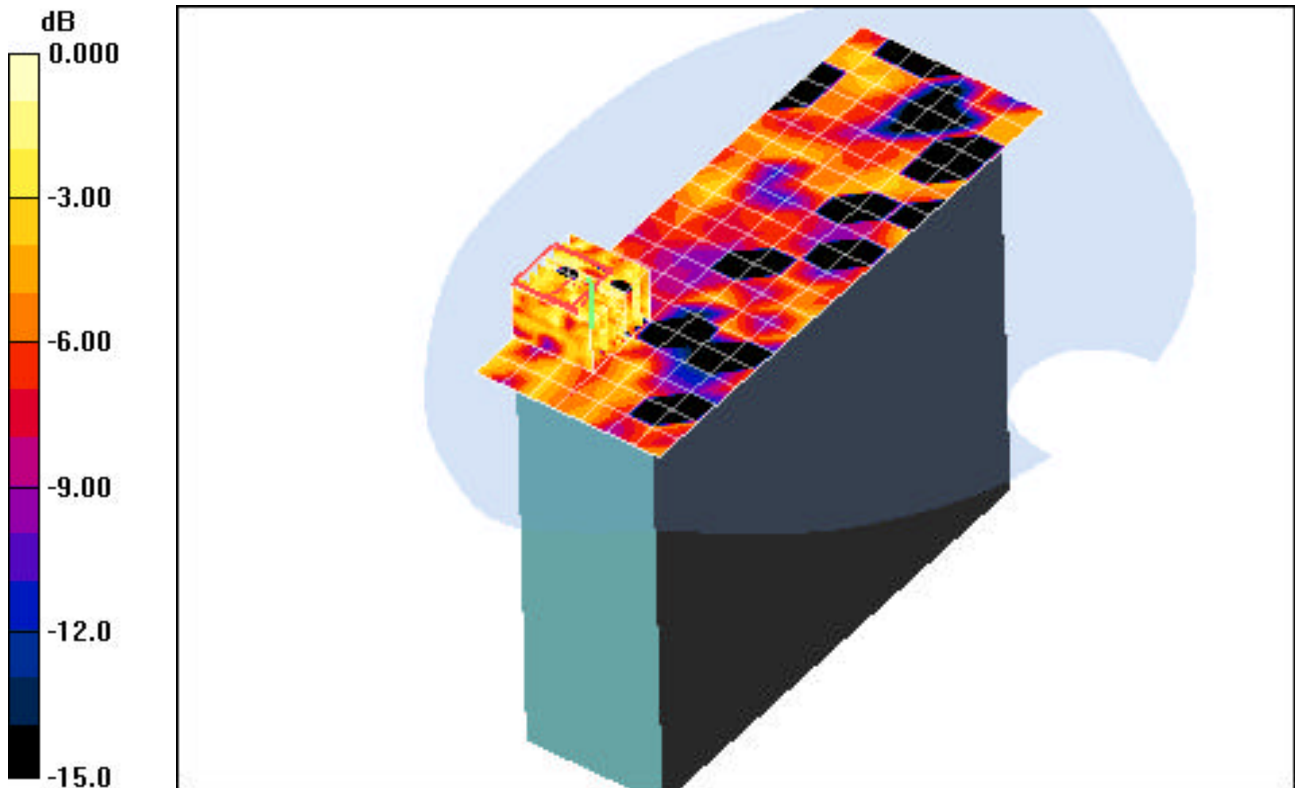
Area Scan (8x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 1.26 V/m

Peak SAR (extrapolated) = 0.072 W/kg

SAR(1 g) = 0.015 mW/g; SAR(10 g) = 0.011 mW/g



0 dB = 0.033mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11a 5.5GHz Band; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: 5500 Muscle ($\sigma = 5.90$ mho/m, $\epsilon_r = 49.41$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-12-2008; Ambient Temp: 23.6°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN3561; ConvF(3.81, 3.81, 3.81); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11a 5.5GHz, Body SAR, Bottom Position, Ch.120, 6Mbps

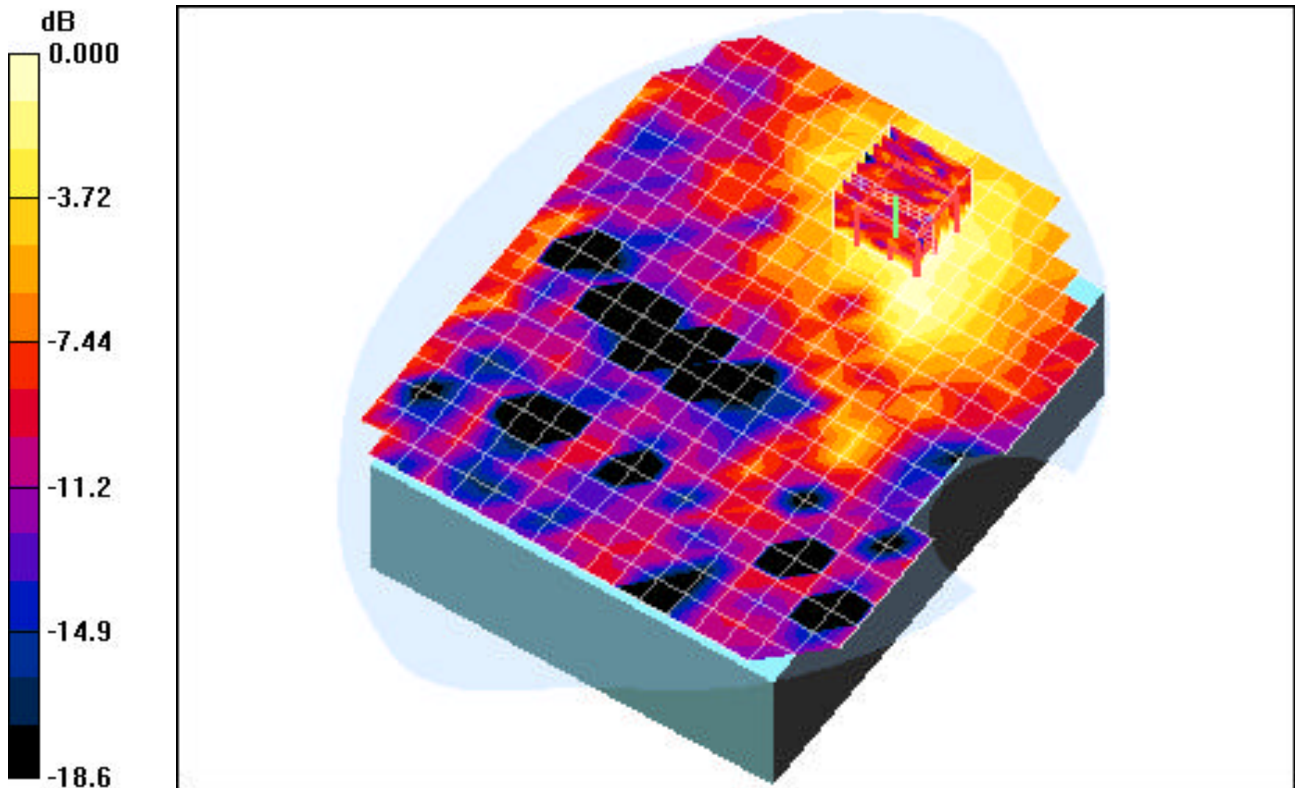
Area Scan (18x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 4.63 V/m

Peak SAR (extrapolated) = 0.813 W/kg

SAR(1 g) = 0.104 mW/g; SAR(10 g) = 0.049 mW/g



0 dB = 0.129mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11a 5.5GHz Band; Frequency: 5500 MHz; Duty Cycle: 1:1

Medium: 5500 Muscle ($\sigma = 5.82$ mho/m, $\epsilon_r = 49.31$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-12-2008; Ambient Temp: 23.6°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN3561; ConvF(3.67, 3.67, 3.67); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11a 5.5GHz, Body SAR, Edge Position, Ch.100, 6Mbps

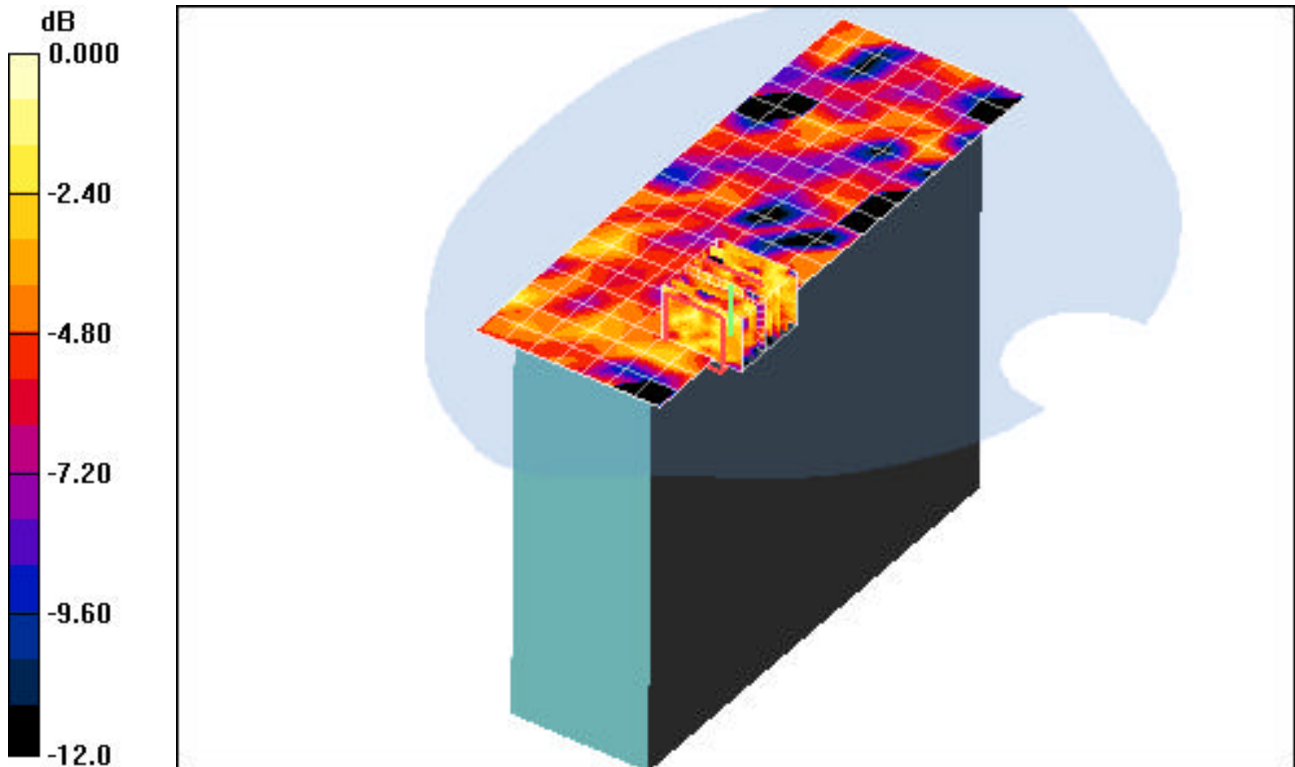
Area Scan (8x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 2.08 V/m

Peak SAR (extrapolated) = 0.116 W/kg

SAR(1 g) = 0.022 mW/g; SAR(10 g) = 0.013 mW/g



0 dB = 0.076mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11n 5.5GHz Band; Frequency: 5590 MHz; Duty Cycle: 1:1

Medium: 5500 Muscle ($\sigma = 5.90$ mho/m, $\epsilon_r = 49.41$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-12-2008; Ambient Temp: 23.6°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN3561; ConvF(3.81, 3.81, 3.81); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11n 5.5GHz, Body SAR, Bottom Position, Ch.118, 13.5Mbps

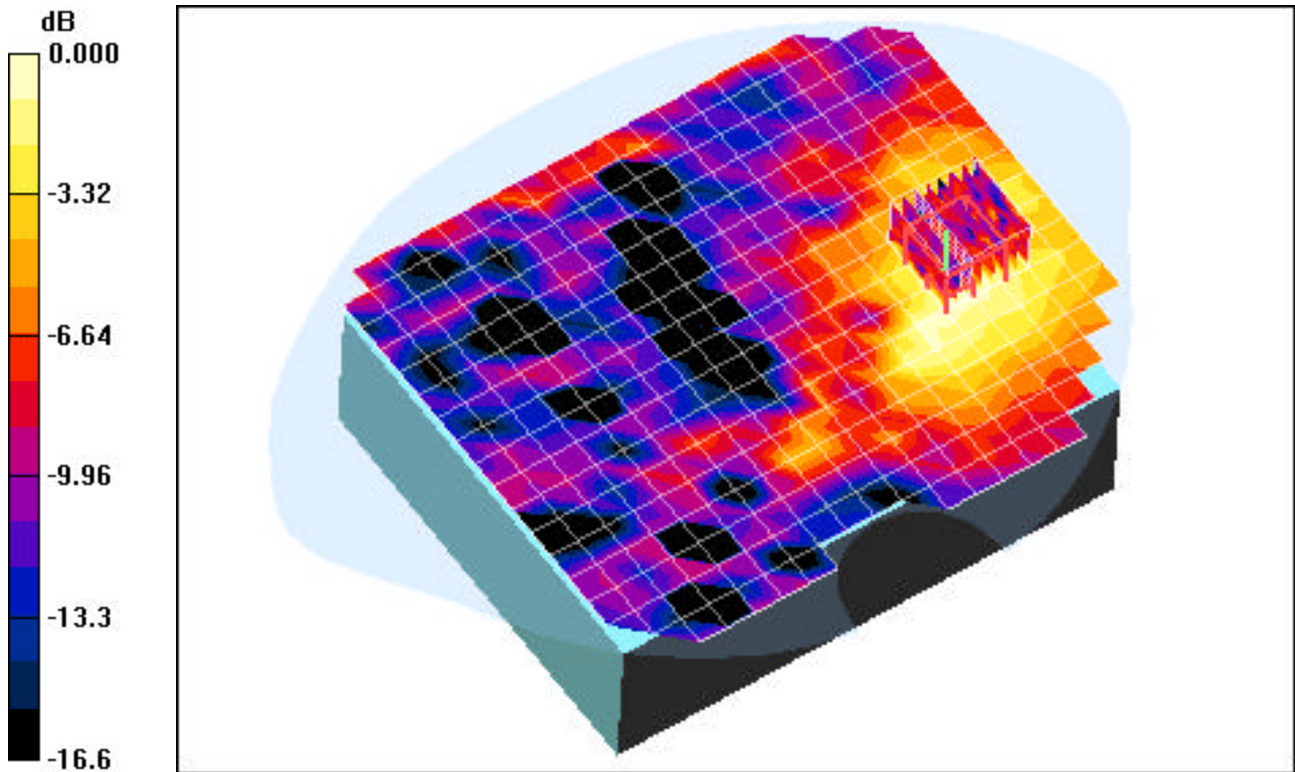
Area Scan (18x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 4.62 V/m

Peak SAR (extrapolated) = 0.811 W/kg

SAR(1 g) = 0.103 mW/g; SAR(10 g) = 0.049 mW/g



0 dB = 0.129mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11n 5.5GHz Band; Frequency: 5510 MHz; Duty Cycle: 1:1

Medium: 5500 Muscle ($\sigma = 5.82$ mho/m, $\epsilon_r = 49.31$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-12-2008; Ambient Temp: 23.6°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN3561; ConvF(3.67, 3.67, 3.67); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASYS4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11n 5.5GHz, Body SAR, Edge Position, Ch.102, 13.5Mbps

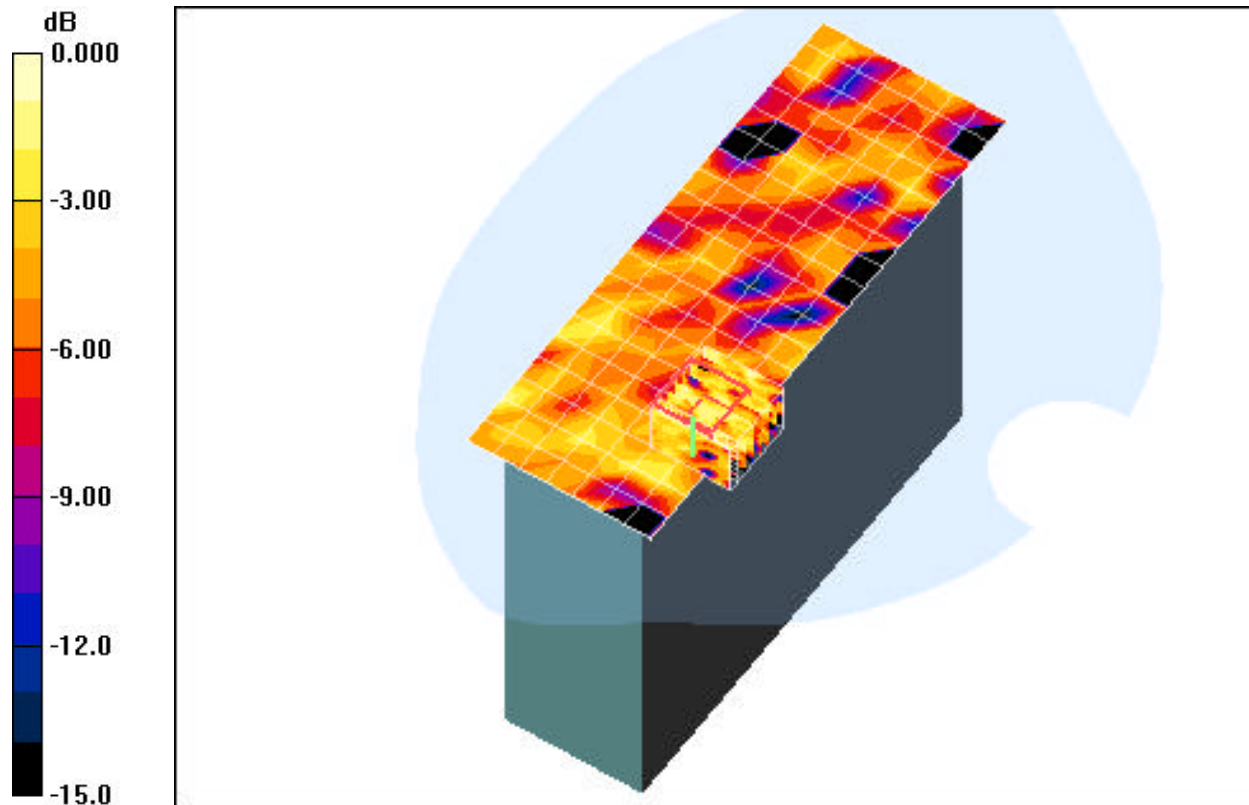
Area Scan (8x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 2.09 V/m

Peak SAR (extrapolated) = 0.116 W/kg

SAR(1 g) = 0.022 mW/g; SAR(10 g) = 0.013 mW/g



0 dB = 0.076mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11a 5.8GHz Band; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium: 5800 Muscle ($\sigma = 6.22$ mho/m, $\epsilon_r = 49.63$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-12-2008; Ambient Temp: 23.8°C; Tissue Temp: 22.7°C

Probe: EX3DV4 - SN3561; ConvF(3.75, 3.75, 3.75); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11a 5.8GHz, Body SAR, Bottom Position, Low Ch, 6Mbps

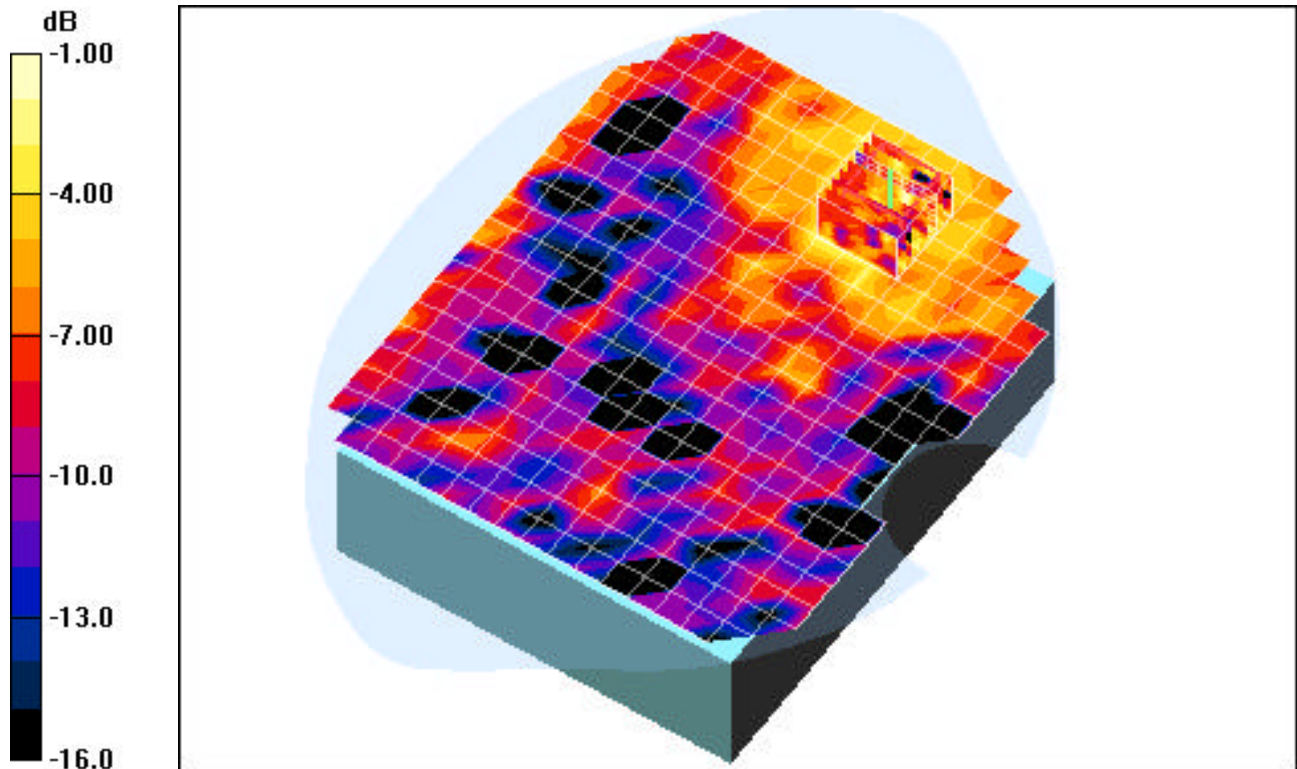
Area Scan (18x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 3.81 V/m

Peak SAR (extrapolated) = 0.323 W/kg

SAR(1 g) = 0.064 mW/g; SAR(10 g) = 0.035 mW/g



0 dB = 0.104mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11a 5.8GHz Band; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium: 5800 Muscle ($\sigma = 6.22$ mho/m, $\epsilon_r = 49.63$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-12-2008; Ambient Temp: 23.8°C; Tissue Temp: 22.7°C

Probe: EX3DV4 - SN3561; ConvF(3.75, 3.75, 3.75); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11a 5.8GHz, Body SAR, Edge Position, Low Ch, 6Mbps

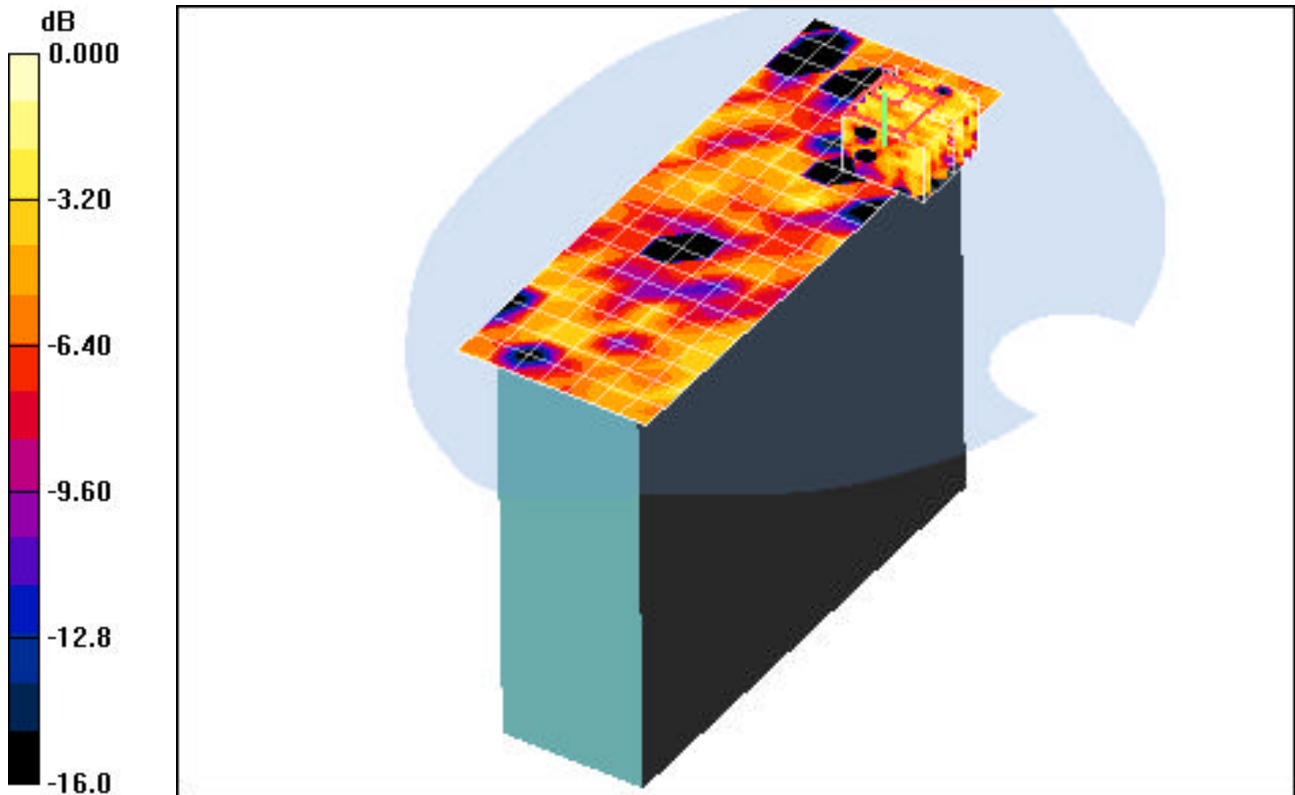
Area Scan (8x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 1.13 V/m

Peak SAR (extrapolated) = 0.110 W/kg

SAR(1 g) = 0.020 mW/g; SAR(10 g) = 0.013 mW/g



0 dB = 0.042mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11n 5.8GHz Band; Frequency: 5795 MHz; Duty Cycle: 1:1

Medium: 5800 Muscle ($\sigma = 6.22$ mho/m, $\epsilon_r = 49.63$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-12-2008; Ambient Temp: 23.8°C; Tissue Temp: 22.7°C

Probe: EX3DV4 - SN3561; ConvF(3.75, 3.75, 3.75); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11n 5.8GHz, Body SAR, Bottom Position, Ch.159, 13.5Mbps

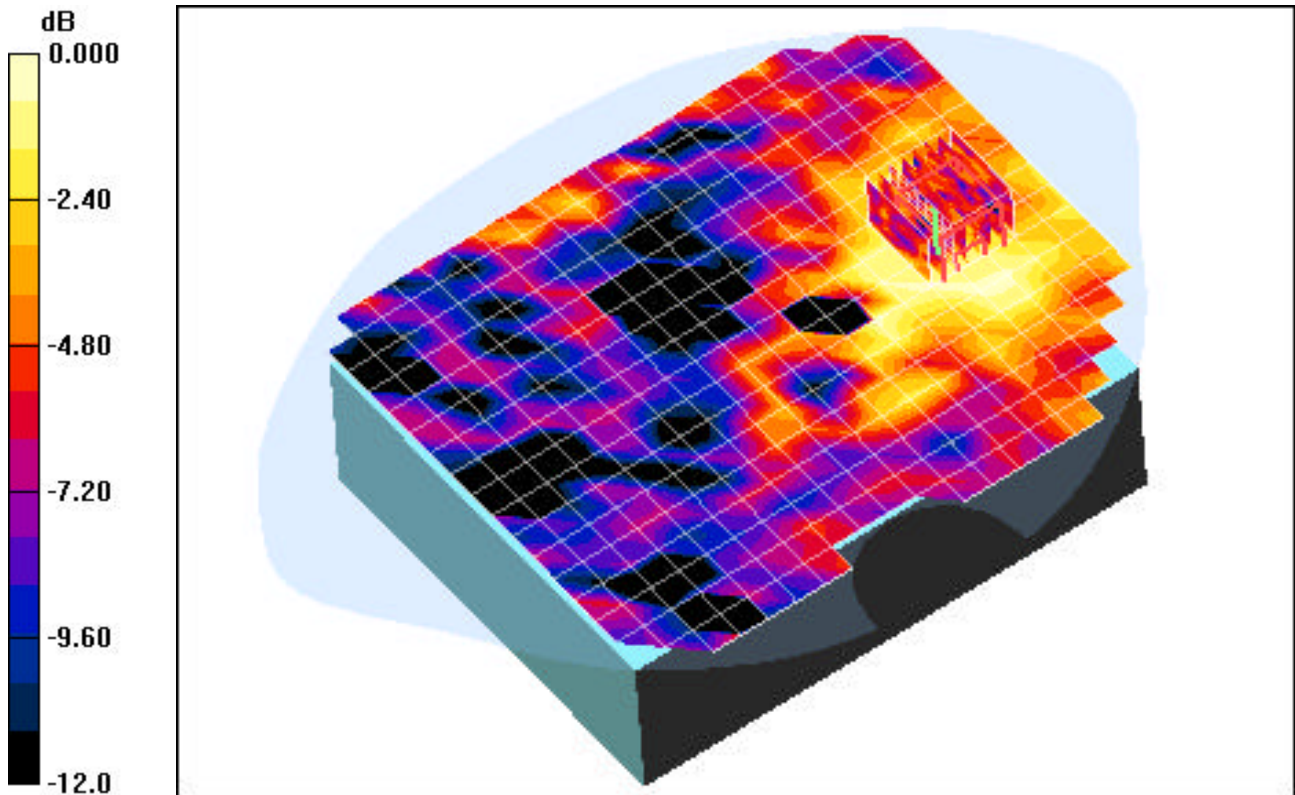
Area Scan (18x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 2.88 V/m

Peak SAR (extrapolated) = 0.182 W/kg

SAR(1 g) = 0.044 mW/g; SAR(10 g) = 0.025 mW/g



0 dB = 0.068mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11n 5.8GHz Band; Frequency: 5755 MHz; Duty Cycle: 1:1

Medium: 5800 Muscle ($\sigma = 6.22$ mho/m, $\epsilon_r = 49.63$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-12-2008; Ambient Temp: 23.8°C; Tissue Temp: 22.7°C

Probe: EX3DV4 - SN3561; ConvF(3.75, 3.75, 3.75); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11n 5.8GHz, Body SAR, Edge Position, Ch.151, 13.5Mbps

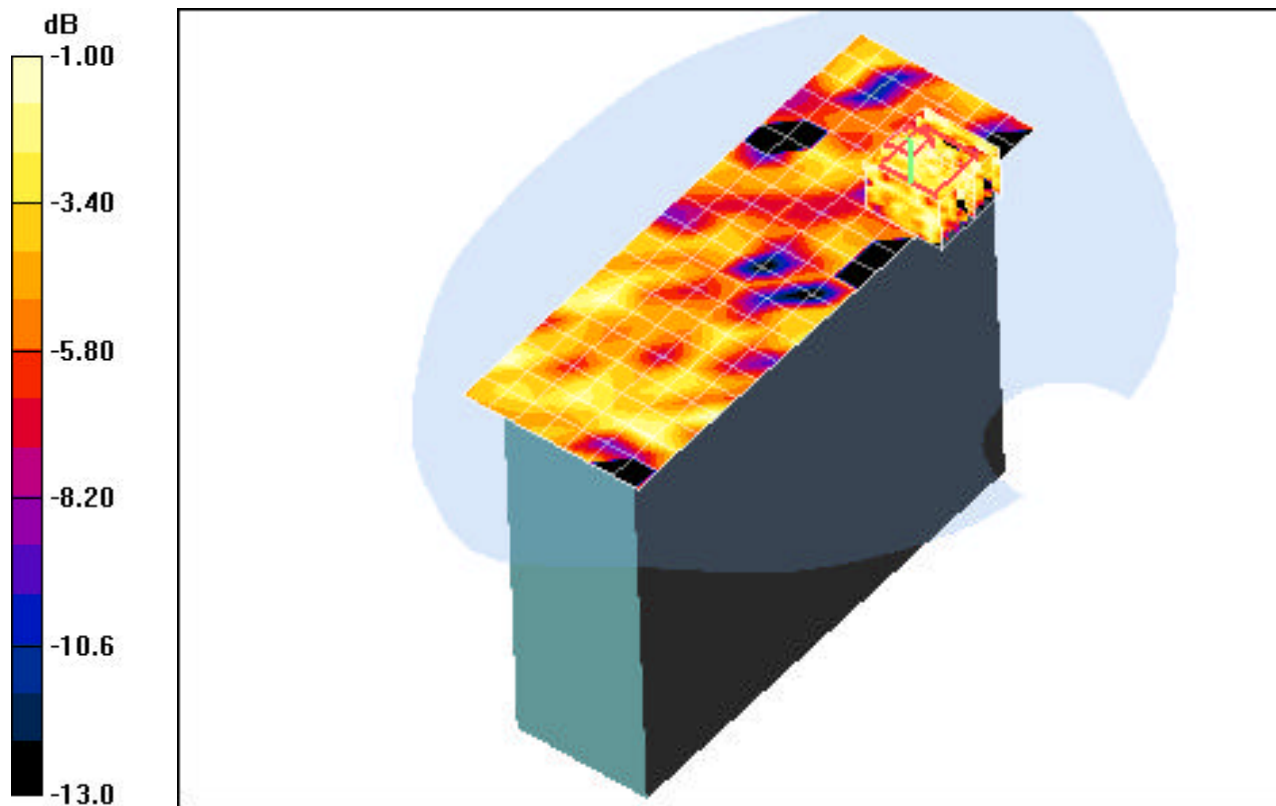
Area Scan (8x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 1.55 V/m

Peak SAR (extrapolated) = 0.047 W/kg

SAR(1 g) = 0.021 mW/g; SAR(10 g) = 0.00982 mW/g



0 dB = 0.032mW/g

PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth, and WWAN
SN: 9GKSA00076**

Communication System: GSM850 GPRS; 2 Tx slots; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
Medium: 835 Muscle; Medium parameters used (interpolated):
 $f = 836.6 \text{ MHz}$; $\sigma = 0.998 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-30-2009; Ambient Temp: 24.2°C; Tissue Temp: 23.1°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: GSM850 GPRS, Body SAR, Edge Position, Left Side, Mid Ch, 2Tx Slot

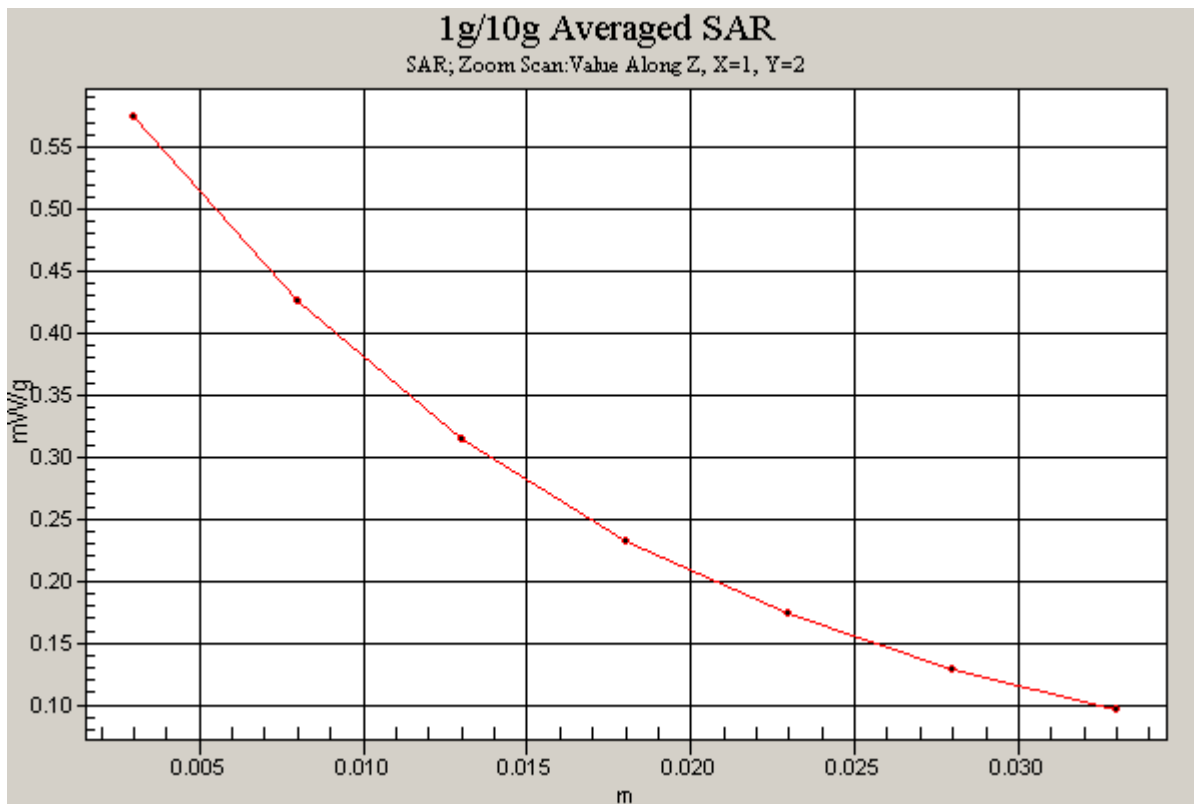
Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 18.0 V/m

Peak SAR (extrapolated) = 0.686 W/kg

SAR(1 g) = 0.507 mW/g; SAR(10 g) = 0.358 mW/g



PCTEST ENGINEERING LABORATORY, INC.

**DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth, and WWAN
SN: 9GKSA00076**

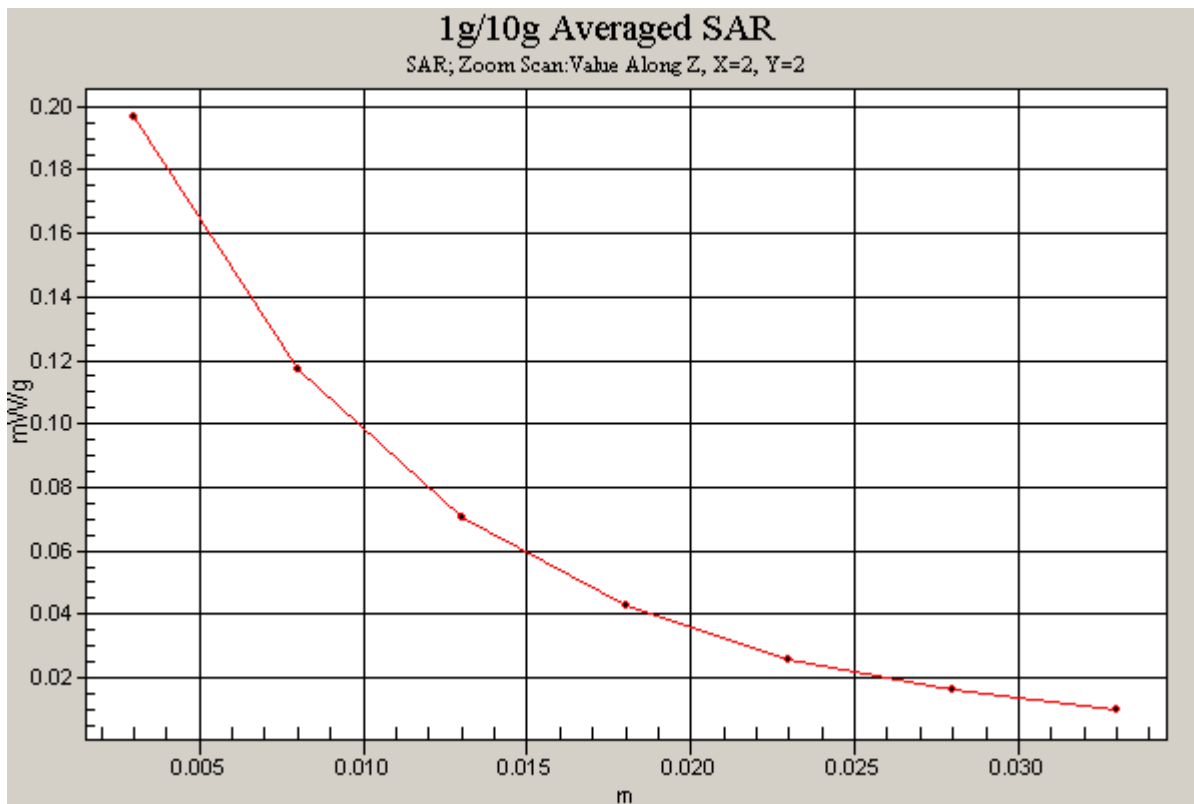
Communication System: WCDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Muscle; Medium parameters used:
 $f = 1880 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 09-28-2009; Ambient Temp: 23.7°C; Tissue Temp: 22.6°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn649; Calibrated: 1/21/2009
Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114
Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: WCDMA1900, Body SAR, Edge Position, Left Side, Mid Ch

Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.50 V/m
Peak SAR (extrapolated) = 0.266 W/kg
SAR(1 g) = 0.161 mW/g; SAR(10 g) = 0.092 mW/g



PCTEST ENGINEERING LABORATORY, INC.

DUT: CF-U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11b; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: 2450 Muscle ($\sigma = 1.93$ mho/m, $\epsilon_r = 51.84$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.6°C

Probe: EX3DV4 - SN3561; ConvF(6.15, 6.15, 6.15); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11b, Body SAR, Bottom Position, Mid Ch, 1Mbps

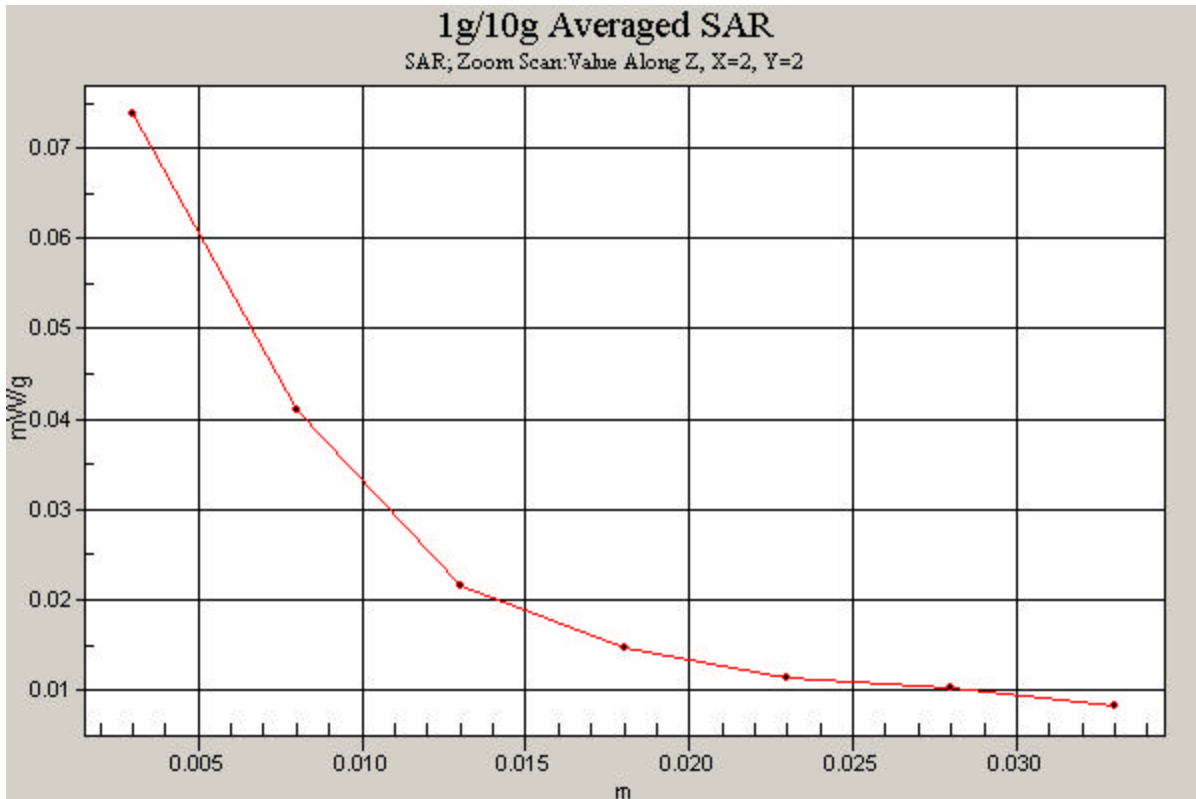
Area Scan (13x15x1): Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 6.08 V/m

Peak SAR (extrapolated) = 0.120 W/kg

SAR(1 g) = 0.061 mW/g; SAR(10 g) = 0.034 mW/g



PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11n; Frequency: 5190 MHz; Duty Cycle: 1:1

Medium: 5200 Muscle ($\sigma = 5.41$ mho/m, $\epsilon_r = 49.81$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.7°C

Probe: EX3DV4 - SN3561; ConvF(3.83, 3.83, 3.83); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11n 5.2GHz, Body SAR, Edge Position, Ch.38, 13.5Mbps

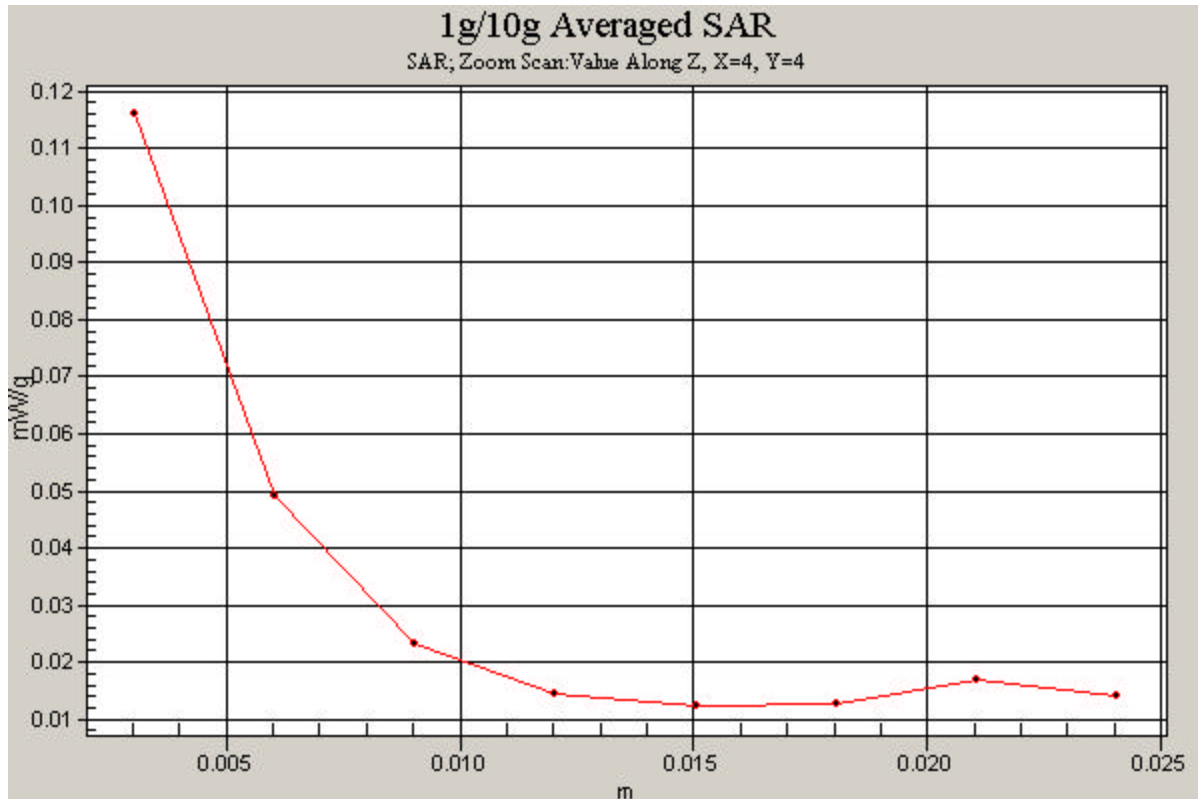
Area Scan (18x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 4.15 V/m

Peak SAR (extrapolated) = 0.464 W/kg

SAR(1 g) = 0.093 mW/g; SAR(10 g) = 0.046 mW/g



PCTEST ENGINEERING LABORATORY, INC.

DUT: CF - U1; Type: Handheld PC with 802.11abgn, Bluetooth and WWAN; SN: SAR 1

Communication System: IEEE 802.11a 5.5GHz Band; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: 5500 Muscle ($\sigma = 5.90$ mho/m, $\epsilon_r = 49.41$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-12-2008; Ambient Temp: 23.6°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN3561; ConvF(3.81, 3.81, 3.81); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

Mode: IEEE 802.11a 5.5GHz, Body SAR, Bottom Position, Ch.120, 6Mbps

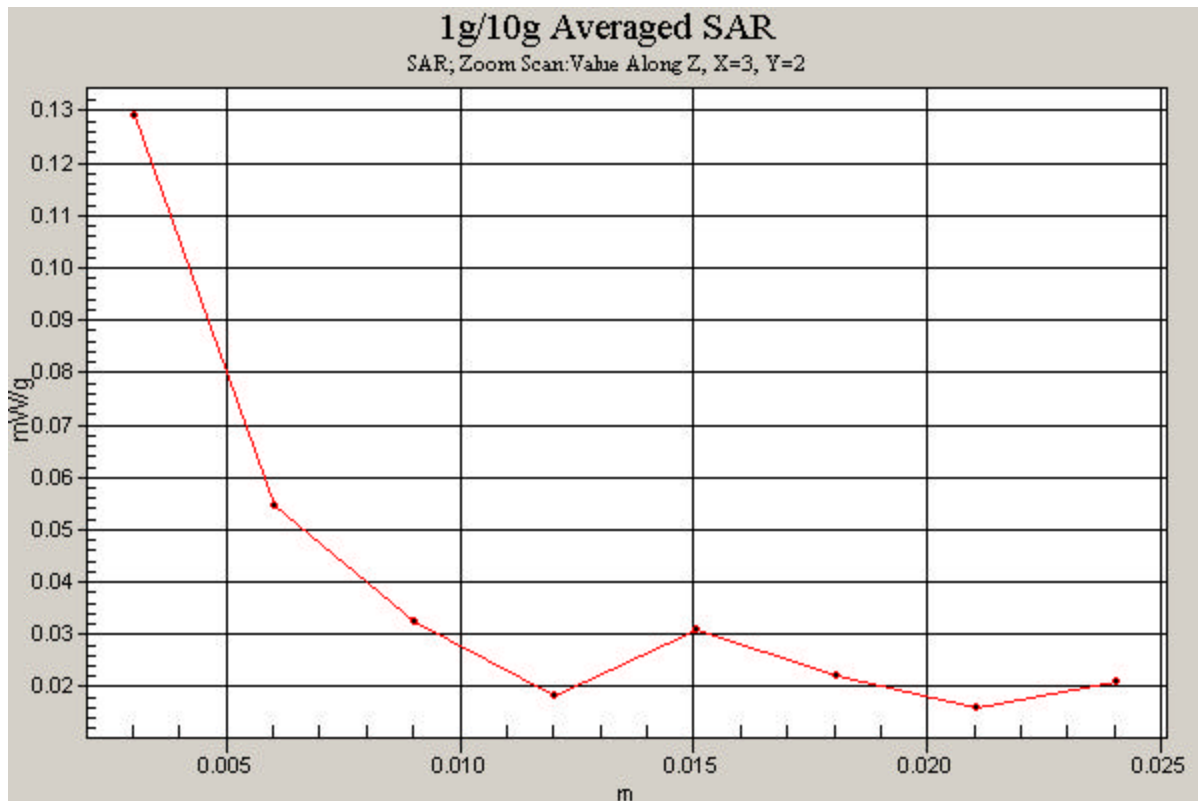
Area Scan (18x21x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 4.63 V/m

Peak SAR (extrapolated) = 0.813 W/kg

SAR(1 g) = 0.104 mW/g; SAR(10 g) = 0.049 mW/g



PCTEST ENGINEERING LABORATORY, INC.

DUT: 5GHz SAR Validation Dipole; Type: D5GHzV2; Serial: 1007

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: 5800 Muscle ($\sigma = 6.22$ mho/m, $\epsilon_r = 49.63$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 08-12-2008; Ambient Temp: 23.8°C; Tissue Temp: 22.7°C

Probe: EX3DV4 - SN3561; ConvF(3.75, 3.75, 3.75); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

5800MHz Dipole Validation

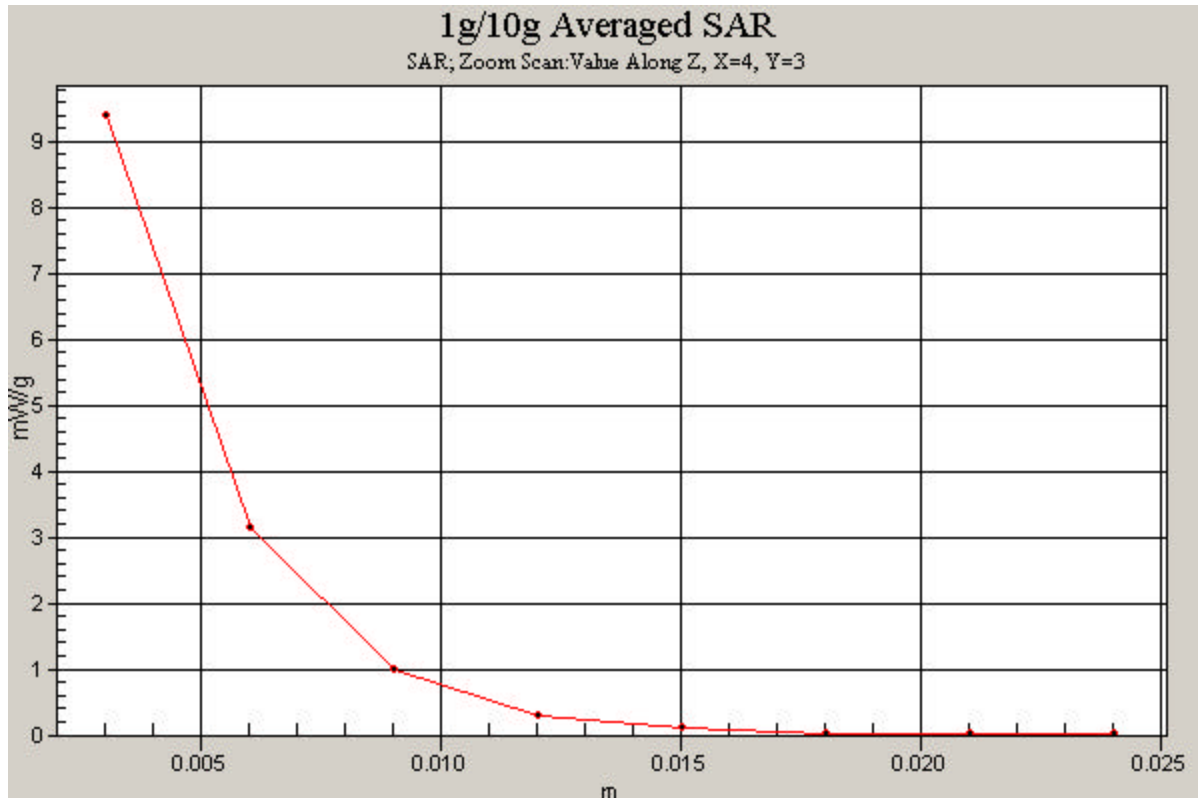
Area Scan (7x9x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Input Power = 20.0 dBm (100 mW)

SAR(1 g) = 7.04 mW/g; SAR(10 g) = 1.93 mW/g

Deviation = 4.61 %



APPENDIX B: DIPOLE VALIDATION

PCTEST ENGINEERING LABORATORY, INC.

DUT: SAR Dipole 1900 MHz; Type: D1900V2; Serial: 5d080

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

Medium: 1900 Muscle; Medium parameters used (interpolated):

$f = 1900 \text{ MHz}$; $\sigma = 1.49 \text{ mho/m}$; $\epsilon_r = 52.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 09-28-2009; Ambient Temp: 23.7°C; Tissue Temp: 22.6°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/21/2009

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

1900MHz SAR Dipole Validation

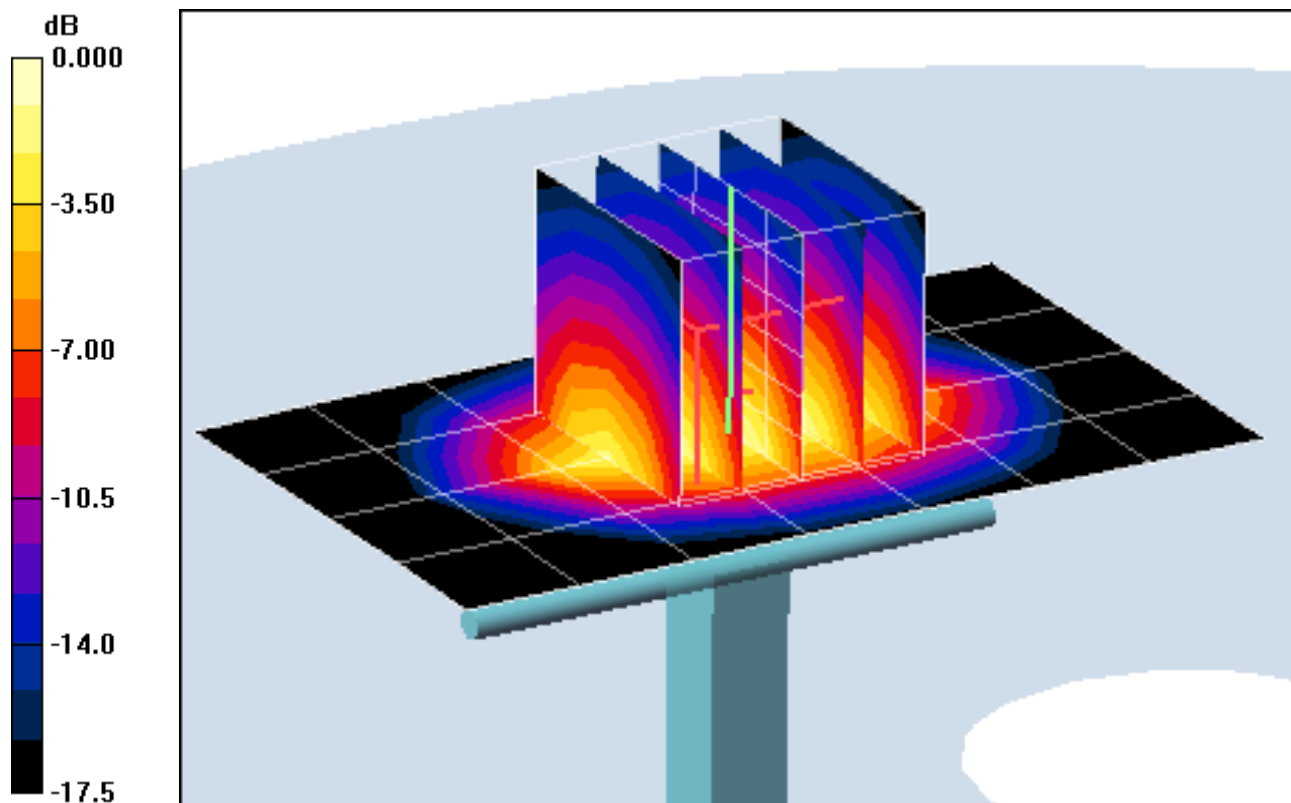
Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

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

Input Power = 20.0 dBm (100 mW)

SAR(1 g) = 4.27 mW/g; SAR(10 g) = 2.2 mW/g

Deviation = 5.43 %



0 dB = 5.47mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: SAR Dipole 1900 MHz; Type: D1900V2; Serial: 5d080

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

Medium: 1900 Muscle; Medium parameters used (interpolated):

$f = 1900 \text{ MHz}$; $\sigma = 1.49 \text{ mho/m}$; $\epsilon_r = 52.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 09-29-2009; Ambient Temp: 23.9°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3213; ConvF(4.52, 4.52, 4.52); Calibrated: 4/15/2009

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/21/2009

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

1900MHz SAR Dipole Validation

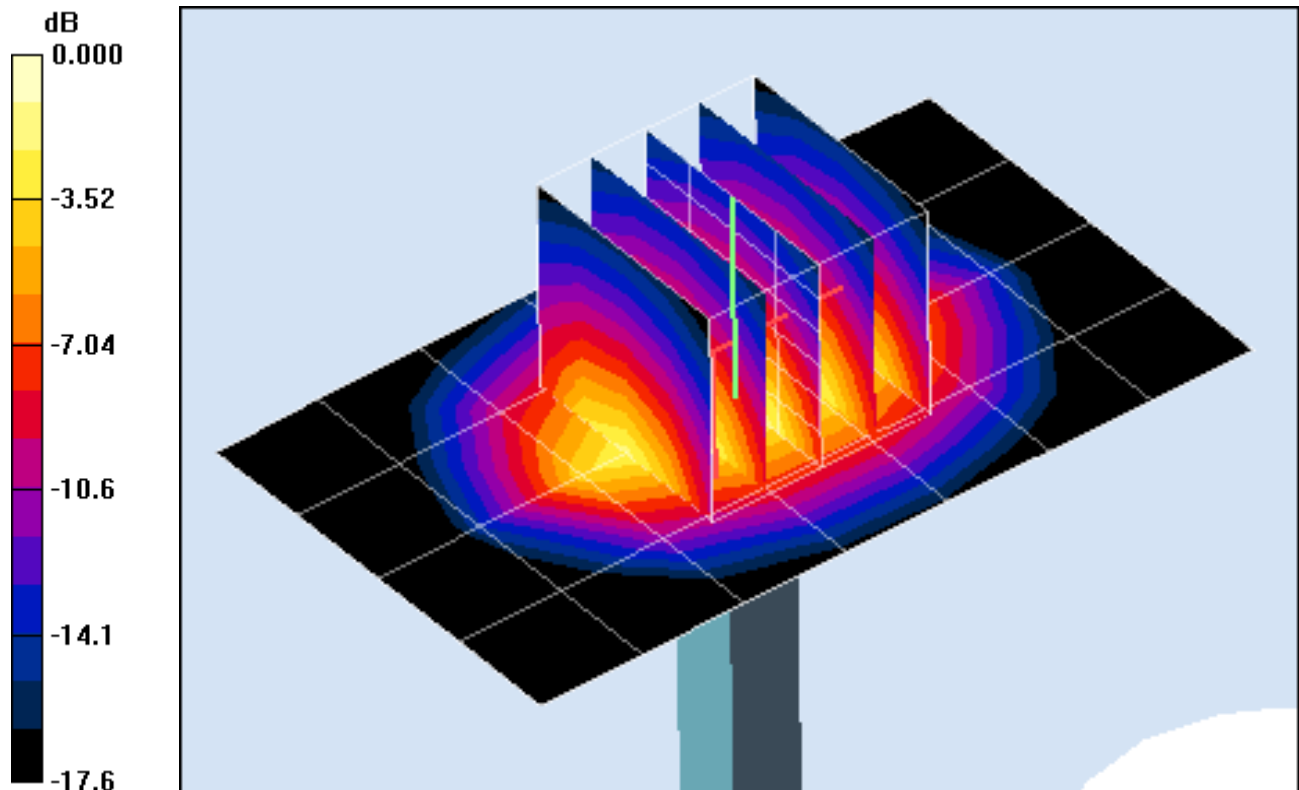
Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

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

Input Power = 20.0 dBm (100 mW)

SAR(1 g) = 4.19 mW/g; SAR(10 g) = 2.16 mW/g

Deviation = 3.46 %



0 dB = 5.33mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: 835MHz SAR Validation Dipole; Type: D835V2; Serial: 4d026

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

Medium: 835 Muscle; Medium parameters used:

$f = 835 \text{ MHz}$; $\sigma = 0.997 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 09-30-2009; Ambient Temp: 24.2°C; Tissue Temp: 23.1°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/21/2009

Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

835MHz SAR Dipole Validation

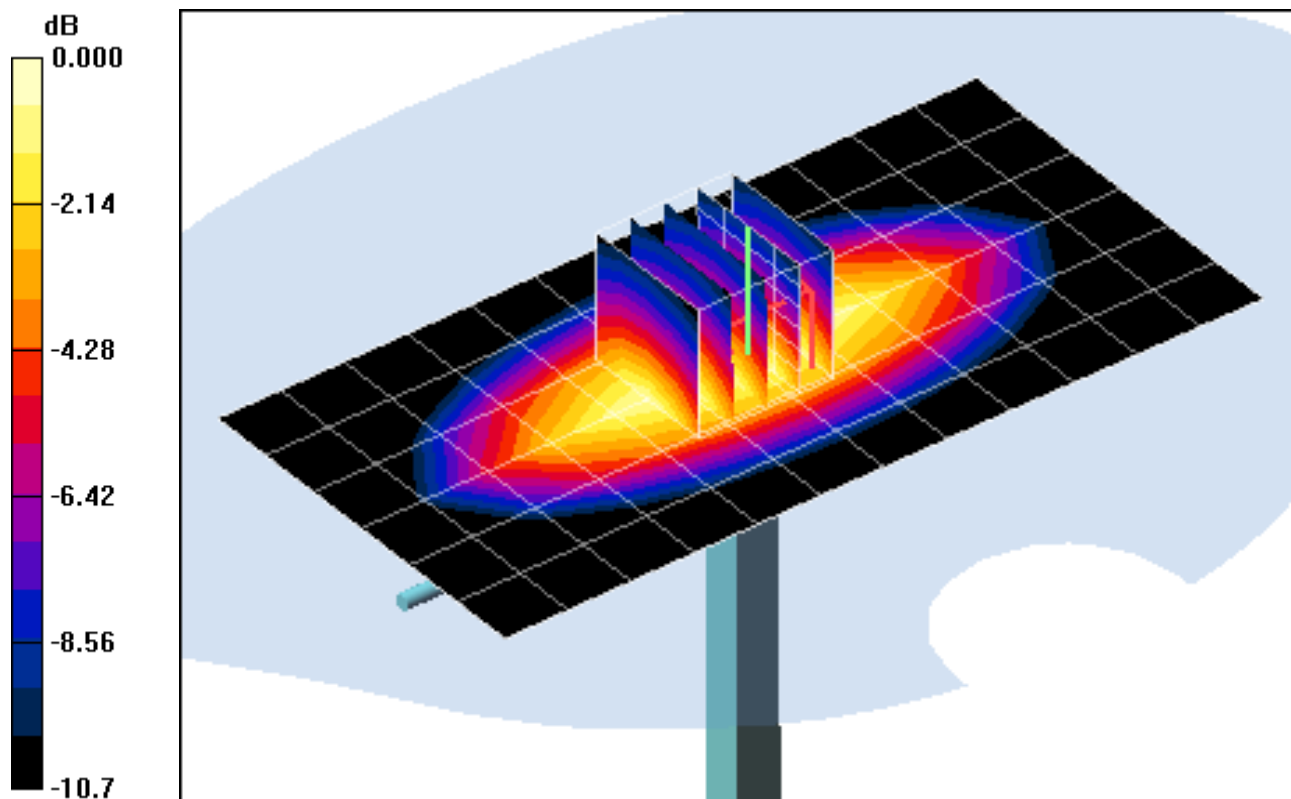
Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm

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

Input Power = 20.0 dBm (100 mW)

SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.663 mW/g

Deviation = 3.27 %



0 dB = 1.19mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: 835MHz SAR Validation Dipole; Type: D835V2; Serial: 4d026

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

Medium: 835 Muscle; Medium parameters used:

$f = 835 \text{ MHz}$; $\sigma = 0.997 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 10-02-2009; Ambient Temp: 24.3°C; Tissue Temp: 23.4°C

Probe: ES3DV3 - SN3213; ConvF(5.92, 5.92, 5.92); Calibrated: 4/15/2009

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/21/2009

Phantom: SAM Sub; Type: SAM 4.0; Serial: TP-1357

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

835MHz SAR Dipole Validation

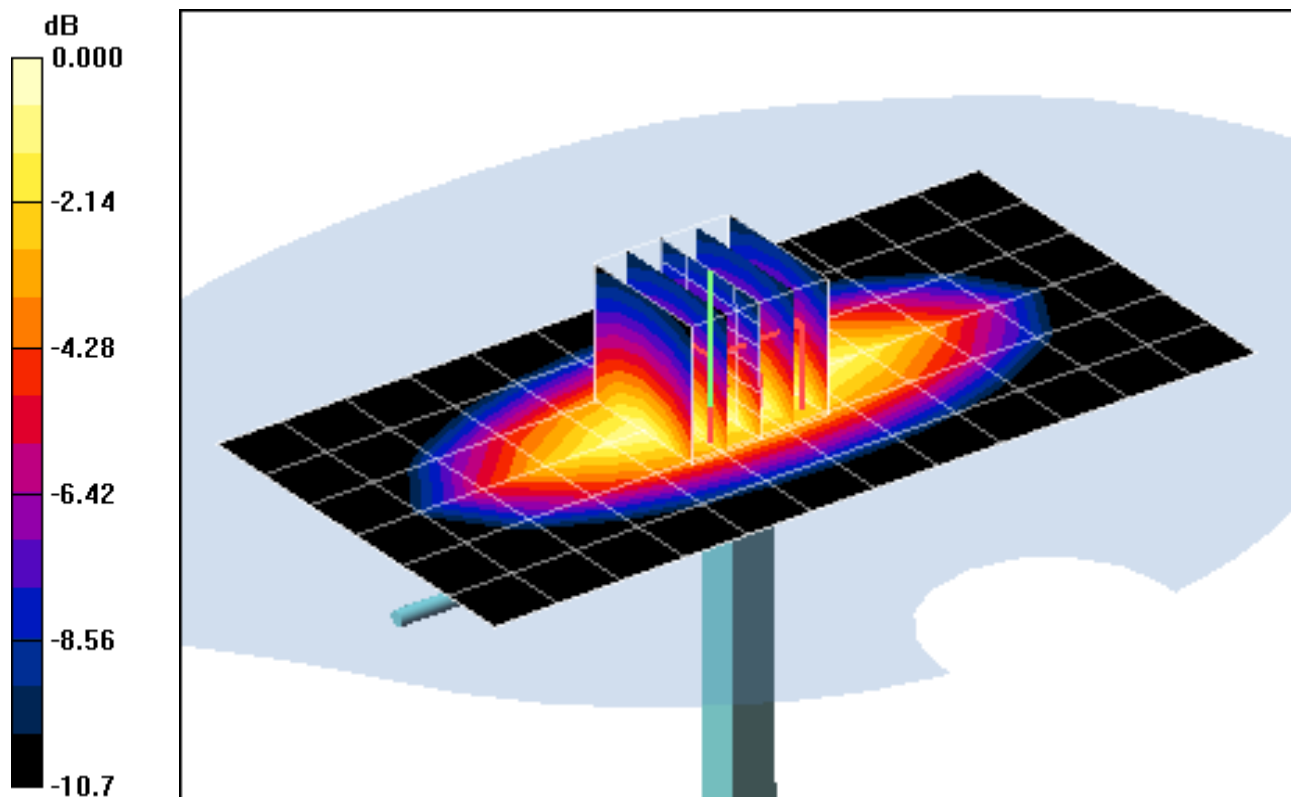
Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm

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

Input Power = 20.0 dBm (100 mW)

SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.671 mW/g

Deviation = 5.32 %



0 dB = 1.20mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: 2450MHz SAR Validation Dipole; Type: D2450V2; Serial: 797

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

Medium: 2450 Brain ($\sigma = 1.79$ mho/m, $\epsilon_r = 38.08$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.8°C; Tissue Temp: 22.5°C

Probe: EX3DV4 - SN3561; ConvF(6.26, 6.26, 6.26); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

2450MHz Dipole Validation

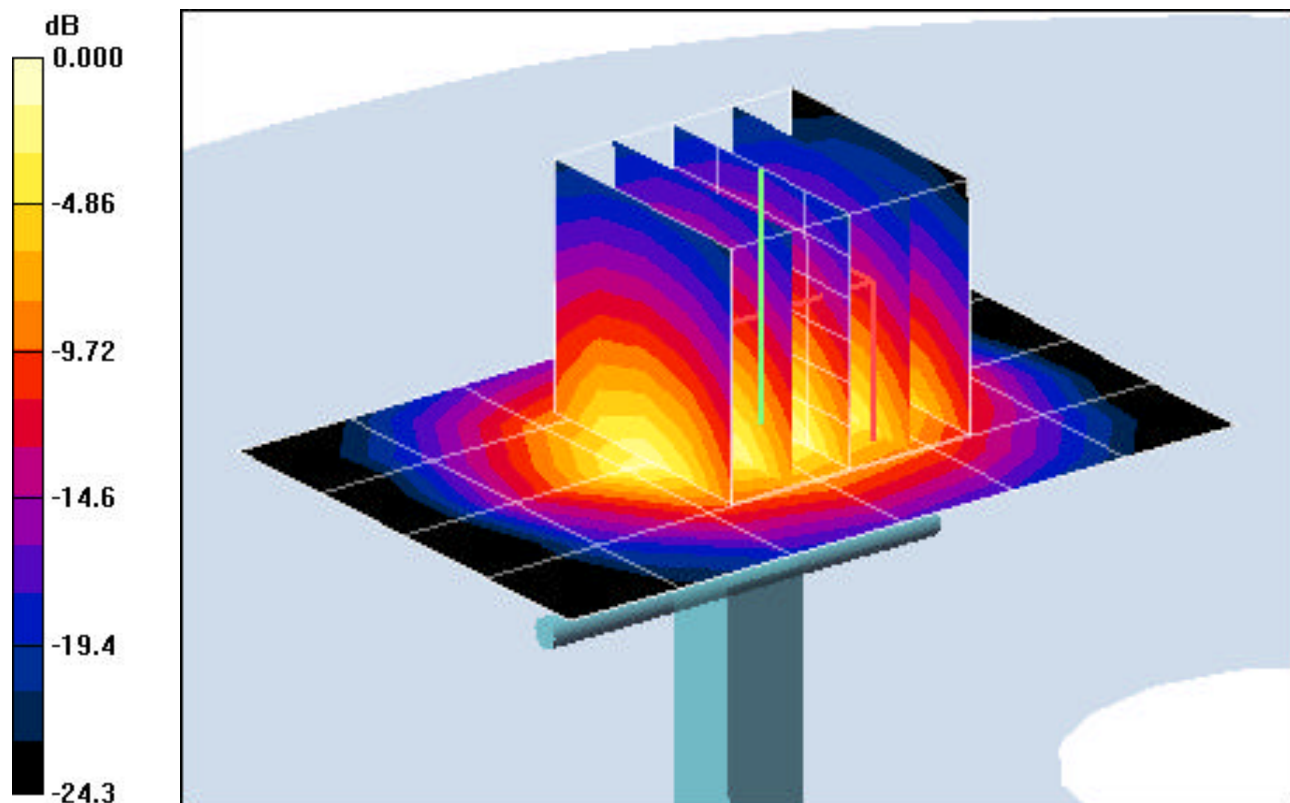
Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm

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

Input Power = 20.0 dBm (100 mW)

SAR(1 g) = 5.56 mW/g; SAR(10 g) = 2.53 mW/g

Deviation = 2.77 %



0 dB = 7.22mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: 5GHz SAR Validation Dipole; Type: D5GHzV2; Serial: 1007

Communication System: CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: 5300 Muscle ($\sigma = 5.41$ mho/m, $\epsilon_r = 49.81$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 08-11-2008; Ambient Temp: 23.9°C; Tissue Temp: 22.7°C

Probe: EX3DV4 - SN3561; ConvF(3.83, 3.83, 3.83); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

5200MHz Dipole Validation

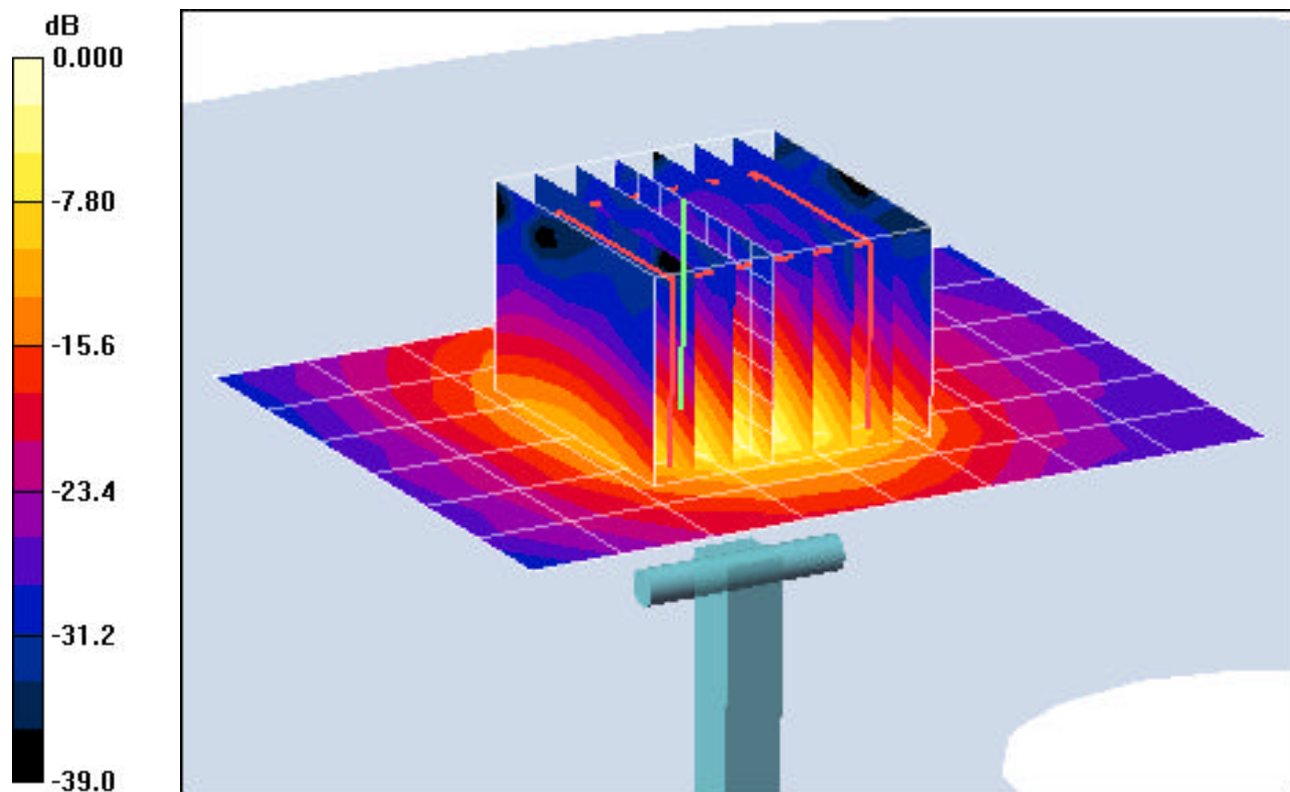
Area Scan (7x9x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Input Power = 20.0 dBm (100 mW)

SAR(1 g) = 7.7 mW/g; SAR(10 g) = 2.15 mW/g

Deviation = 6.50 %



0 dB = 11.0mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: 5GHz SAR Validation Dipole; Type: D5GHzV2; Serial: 1007

Communication System: CW; Frequency: 5500 MHz; Duty Cycle: 1:1

Medium: 5500 Muscle ($\sigma = 5.82$ mho/m, $\epsilon_r = 49.31$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 08-12-2008; Ambient Temp: 23.6°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN3561; ConvF(3.67, 3.67, 3.67); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

5500MHz Dipole Validation

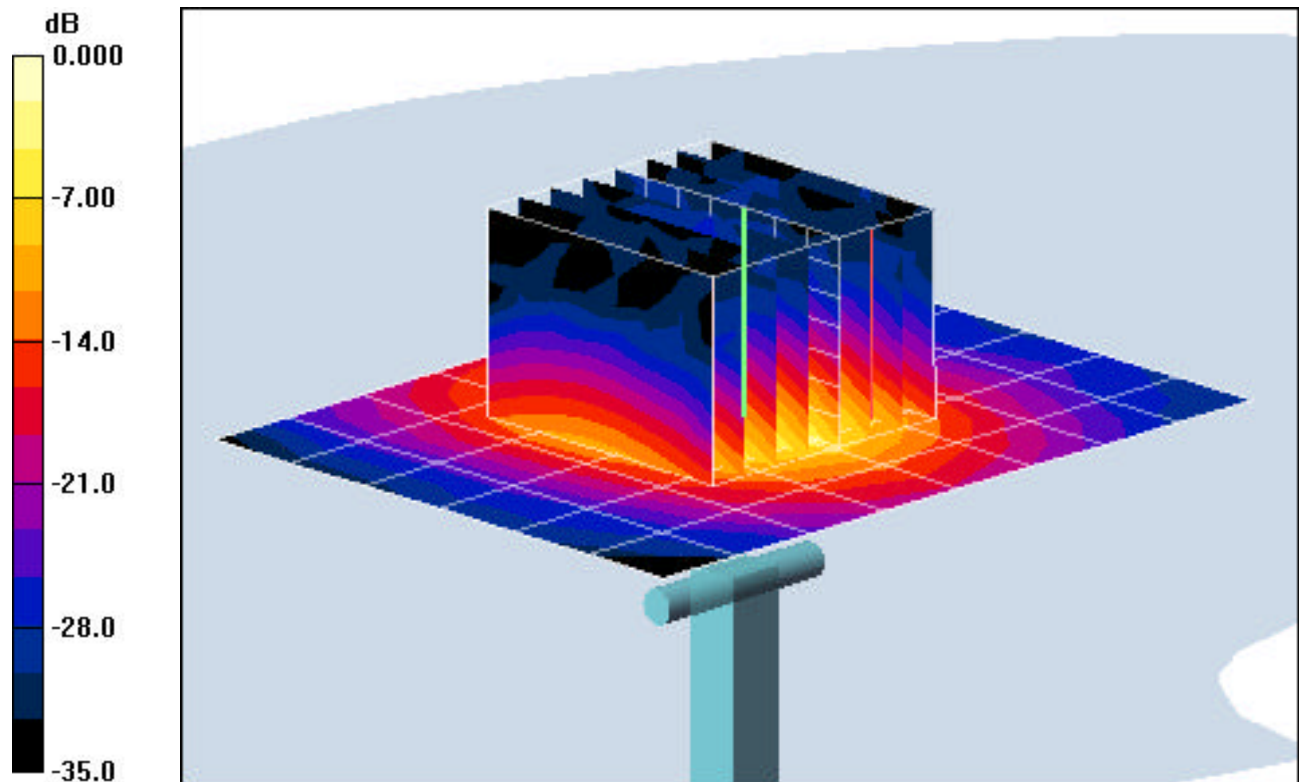
Area Scan (7x9x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Input Power = 20.0 dBm (100 mW)

SAR(1 g) = 8.22 mW/g; SAR(10 g) = 2.27 mW/g

Deviation = 7.03 %



0 dB = 11.4mW/g

PCTEST ENGINEERING LABORATORY, INC.

DUT: 5GHz SAR Validation Dipole; Type: D5GHzV2; Serial: 1007

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: 5800 Muscle ($\sigma = 6.22$ mho/m, $\epsilon_r = 49.63$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 08-12-2008; Ambient Temp: 23.8°C; Tissue Temp: 22.7°C

Probe: EX3DV4 - SN3561; ConvF(3.75, 3.75, 3.75); Calibrated: 8/30/2007

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn649; Calibrated: 1/30/2008

Phantom: SAM Main; Type: SAM 4.0; Serial: TP-1114

Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 172

5800MHz Dipole Validation

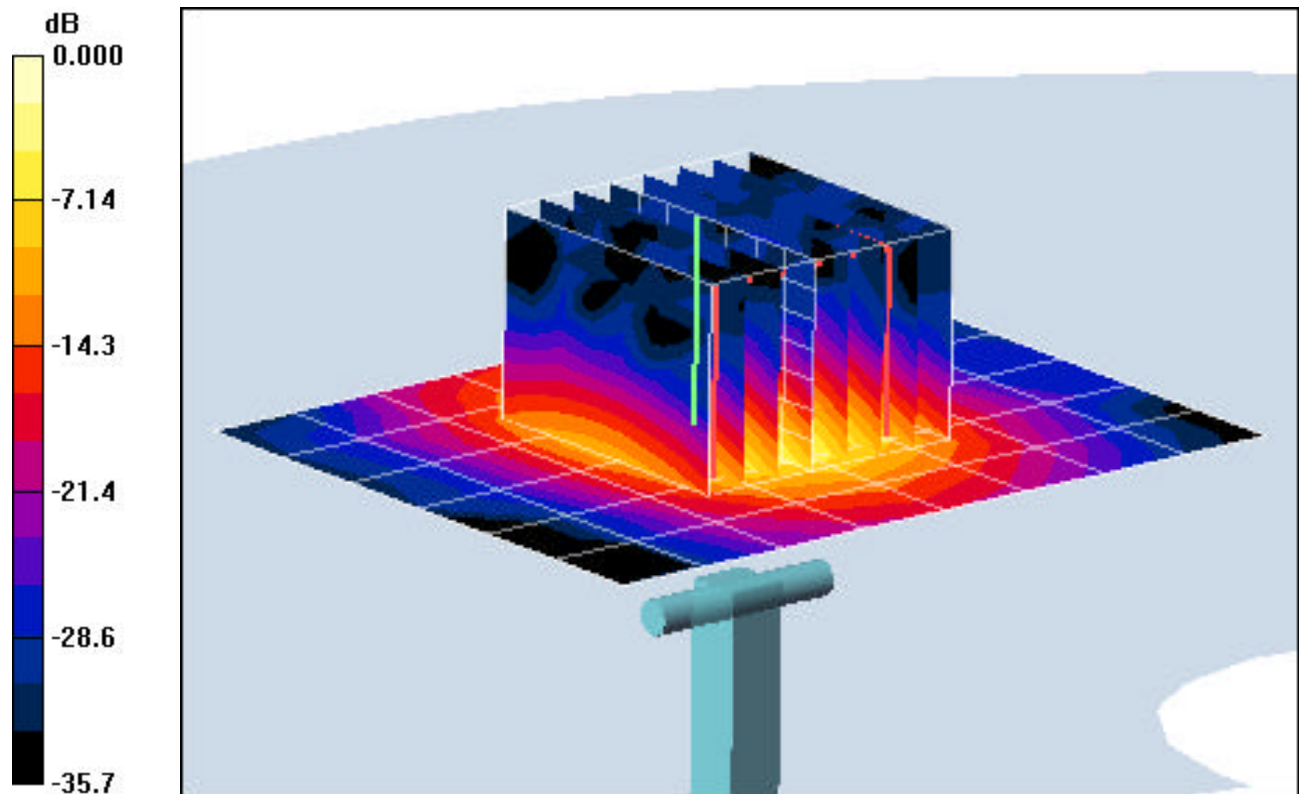
Area Scan (7x9x1): Measurement grid: dx=10mm, dy=10mm

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Input Power = 20.0 dBm (100 mW)

SAR(1 g) = 7.04 mW/g; SAR(10 g) = 1.93 mW/g

Deviation = 4.61 %



0 dB = 9.39mW/g

APPENDIX C: PROBE CALIBRATION



Accredited by the Swiss Accreditation Service (SAS)
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 **PC Test**

Certificate No: **ES3-3213_Apr09**

CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3213**

Calibration procedure(s) **QA CAL-01.v6 and QA CAL-23.v3
Calibration procedure for dosimetric E-field probes**

Calibration date: **April 15, 2009**

Condition of the calibrated item **In Tolerance**

*OK
4/23/09
SL*

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)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	1-Apr-09 (No. 217-01030)	Apr-10
Power sensor E4412A	MY41495277	1-Apr-09 (No. 217-01030)	Apr-10
Power sensor E4412A	MY41498087	1-Apr-09 (No. 217-01030)	Apr-10
Reference 3 dB Attenuator	SN: S5054 (3c)	31-Mar-09 (No. 217-01026)	Mar-10
Reference 20 dB Attenuator	SN: S5086 (20b)	31-Mar-09 (No. 217-01028)	Mar-10
Reference 30 dB Attenuator	SN: S5129 (30b)	31-Mar-09 (No. 217-01027)	Mar-10
Reference Probe ES3DV2	SN: 3013	2-Jan-09 (No. ES3-3013_Jan09)	Jan-10
DAE4	SN: 660	9-Sep-08 (No. DAE4-660_Sep08)	Sep-09
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-08)	In house check: Oct-09

Calibrated by:	Name Katja Pokovic	Function Technical Manager	Signature
Approved by:	Name Fin Bornhoff	Function R&D Director	Signature

Issued: April 15, 2009

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



Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

Glossary:

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConvF	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.

Probe ES3DV3

SN:3213

Manufactured: October 14, 2008
Calibrated: April 15, 2009

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

DASY - Parameters of Probe: ES3DV3 SN:3213

Sensitivity in Free Space^A

Diode Compression^B

NormX	1.23 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP X	90 mV
NormY	1.40 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP Y	92 mV
NormZ	1.36 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP Z	94 mV

Sensitivity in Tissue Simulating Liquid (Conversion Factors)

Please see Page 8.

Boundary Effect

TSL 835 MHz Typical SAR gradient: 5 % per mm

Sensor Center to Phantom Surface Distance		3.0 mm	4.0 mm
SAR _{be} [%]	Without Correction Algorithm	10.4	6.1
SAR _{be} [%]	With Correction Algorithm	0.8	0.5

TSL 1750 MHz Typical SAR gradient: 10 % per mm

Sensor Center to Phantom Surface Distance		3.0 mm	4.0 mm
SAR _{be} [%]	Without Correction Algorithm	9.6	5.8
SAR _{be} [%]	With Correction Algorithm	0.8	0.6

Sensor Offset

Probe Tip to Sensor Center **2.0 mm**

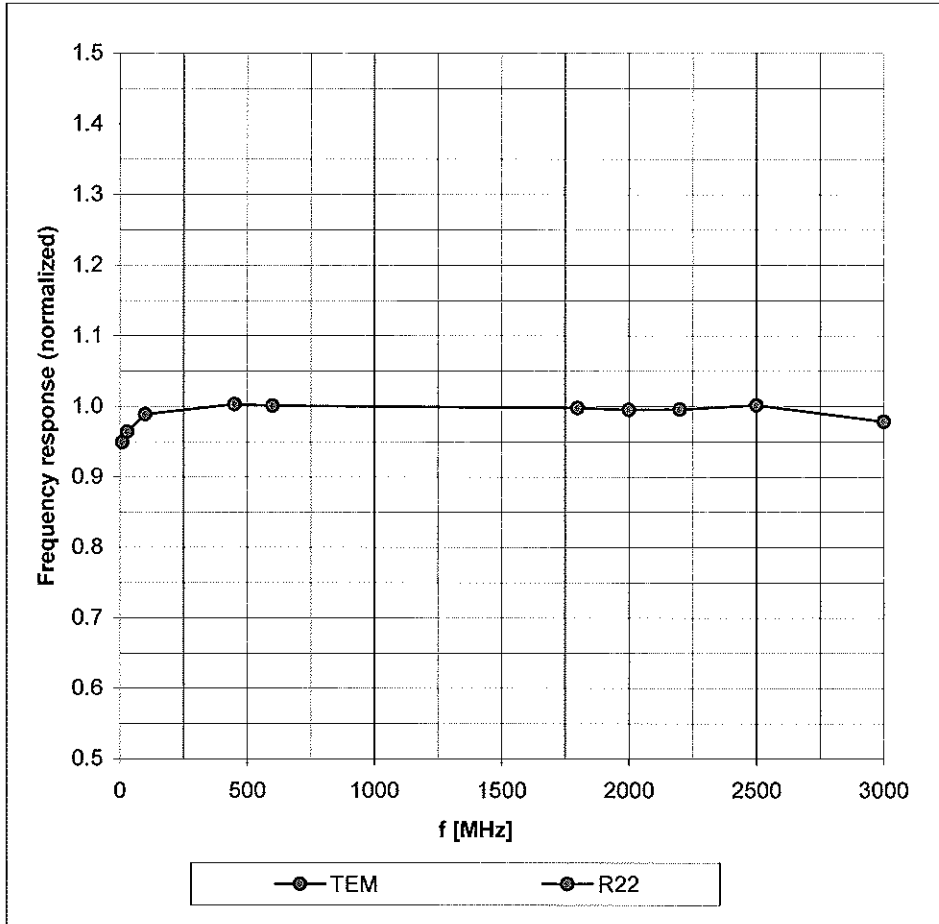
The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

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

^B Numerical linearization parameter: uncertainty not required.

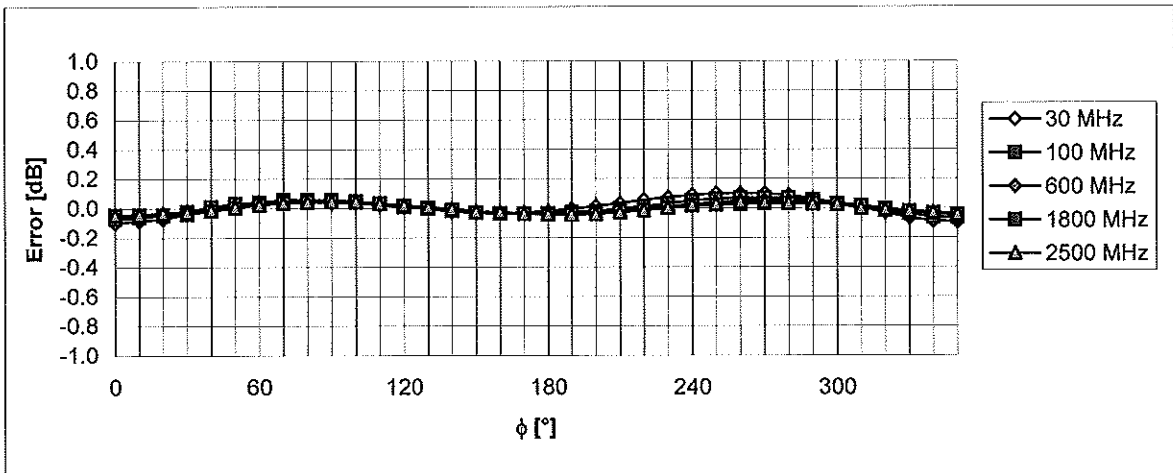
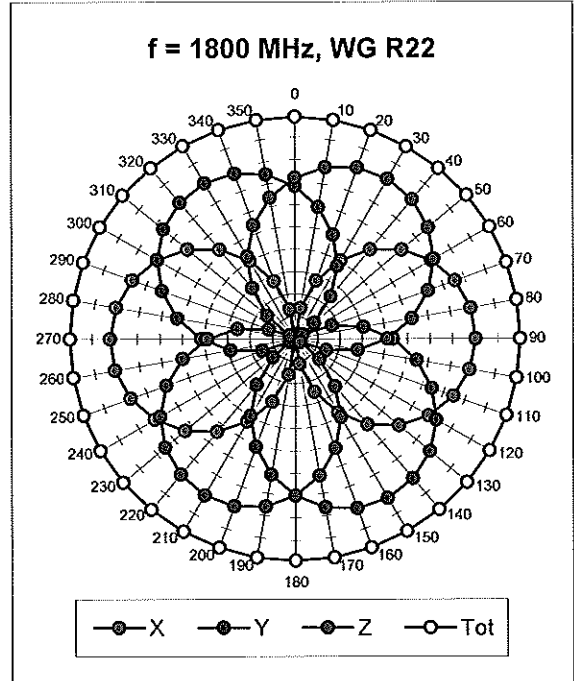
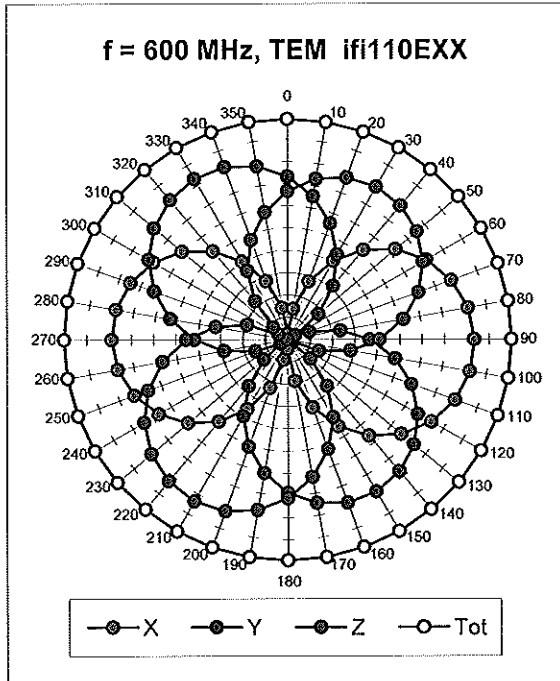
Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide: R22)



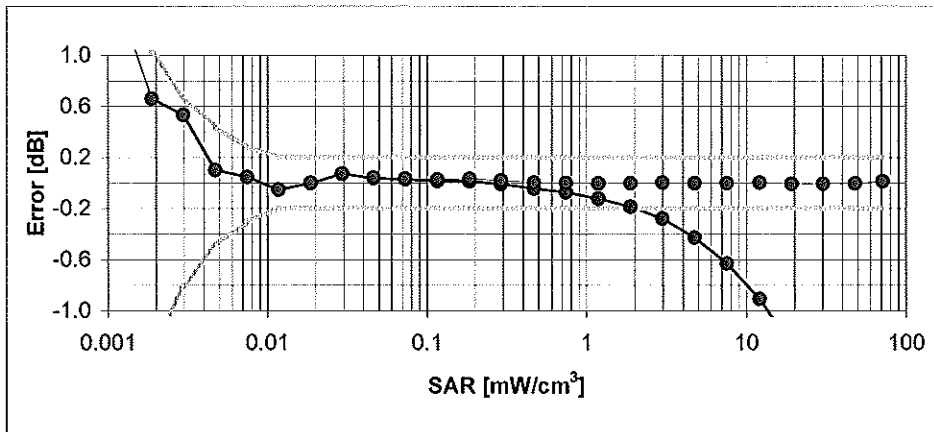
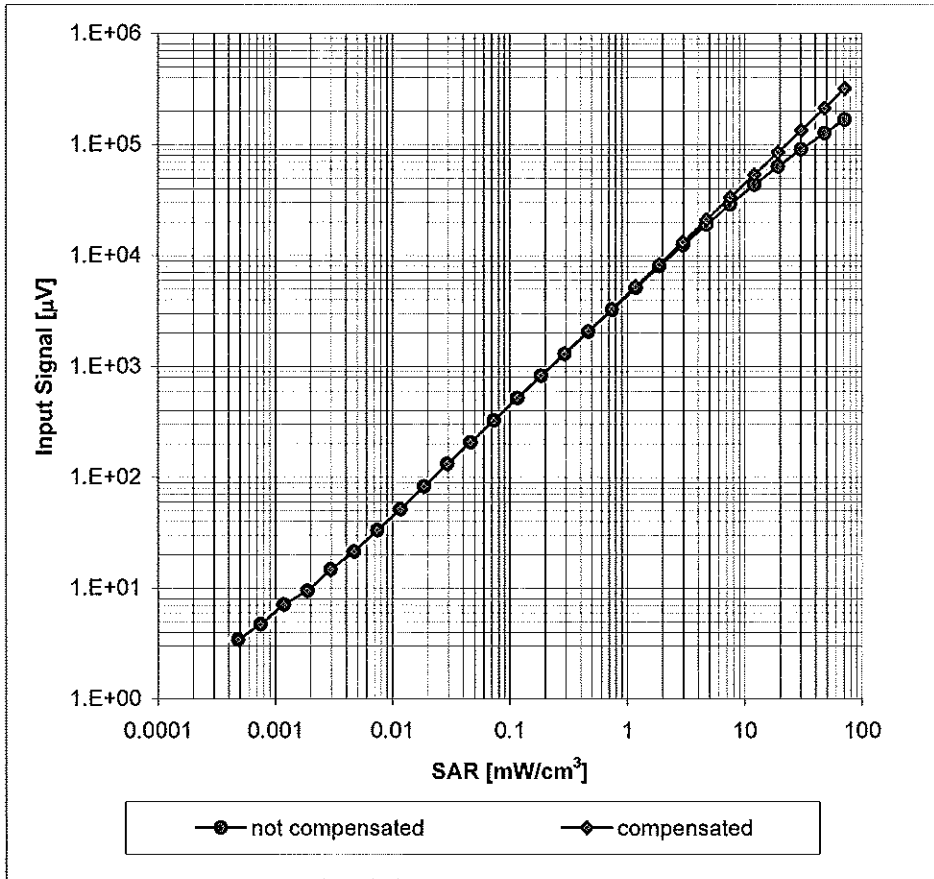
Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

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



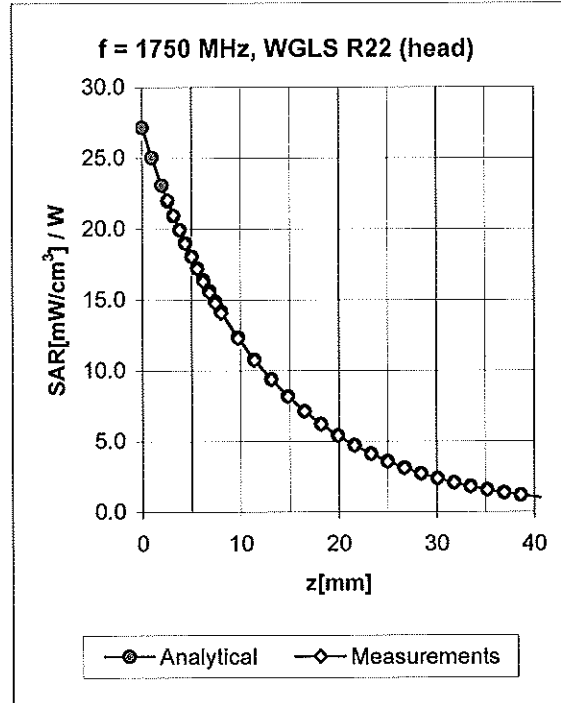
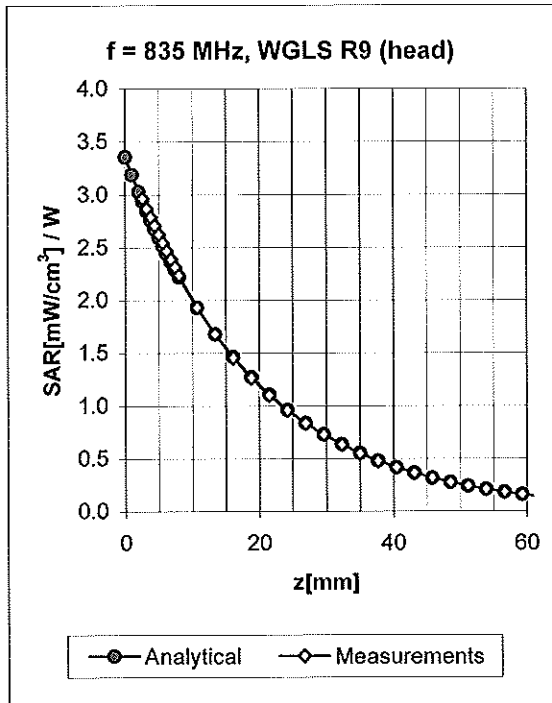
Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ ($k=2$)

Dynamic Range $f(\text{SAR}_{\text{head}})$ (Waveguide R22, $f = 1800 \text{ MHz}$)



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

Conversion Factor Assessment

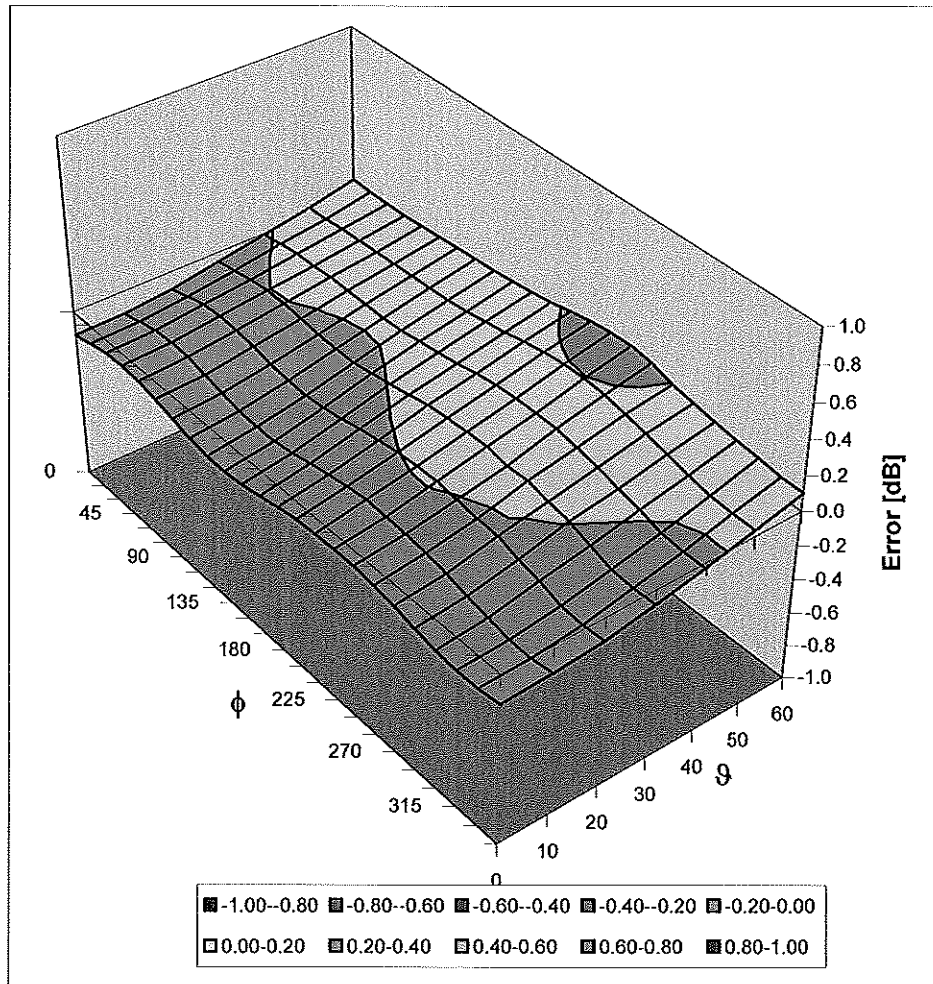


f [MHz]	Validity [MHz] ^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
835	± 50 / ± 100	Head	41.5 ± 5%	0.90 ± 5%	0.85	1.13	5.94 ± 11.0% (k=2)
1750	± 50 / ± 100	Head	40.1 ± 5%	1.37 ± 5%	0.51	1.48	5.23 ± 11.0% (k=2)
1900	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.46	1.60	5.02 ± 11.0% (k=2)
835	± 50 / ± 100	Body	55.2 ± 5%	0.97 ± 5%	0.75	1.21	5.92 ± 11.0% (k=2)
1750	± 50 / ± 100	Body	53.4 ± 5%	1.49 ± 5%	0.35	2.08	4.82 ± 11.0% (k=2)
1900	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.33	2.33	4.52 ± 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.

Deviation from Isotropy in HSL

Error (ϕ , θ), $f = 900$ MHz



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



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 **PC Test**

Certificate No: **EX3-3561_Aug07**

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3561**

Calibration procedure(s) **QA CAL-01.v6 and QA CAL-14.v3
Calibration procedure for dosimetric E-field probes**

Calibration date: **August 30, 2007**

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)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Power sensor E4412A	MY41495277	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Power sensor E4412A	MY41498087	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Reference 3 dB Attenuator	SN: S5054 (3c)	8-Aug-07 (METAS, No. 217-00719)	Aug-08
Reference 20 dB Attenuator	SN: S5086 (20b)	29-Mar-07 (METAS, No. 217-00671)	Mar-08
Reference 30 dB Attenuator	SN: S5129 (30b)	8-Aug-07 (METAS, No. 217-00720)	Aug-08
Reference Probe ES3DV2	SN: 3013	4-Jan-07 (SPEAG, No. ES3-3013_Jan07)	Jan-08
DAE4	SN: 654	20-Apr-07 (SPEAG, No. DAE4-654_Apr07)	Apr-08

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (SPEAG, in house check Nov-05)	In house check: Nov-07
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Oct-06)	In house check: Oct-07

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

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

Issued: August 30, 2007

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



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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.

Probe EX3DV4

SN:3561

Manufactured:	February 14, 2005
Last calibrated:	November 23, 2006
Recalibrated:	August 30, 2007

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

DASY - Parameters of Probe: EX3DV4 SN:3561**Sensitivity in Free Space^A****Diode Compression^B**

NormX	0.440 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP X	85 mV
NormY	0.490 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP Y	90 mV
NormZ	0.420 ± 10.1%	$\mu\text{V}/(\text{V}/\text{m})^2$	DCP Z	89 mV

Sensitivity in Tissue Simulating Liquid (Conversion Factors)

Please see Page 8.

Boundary Effect**TSL 835 MHz Typical SAR gradient: 5 % per mm**

Sensor Center to Phantom Surface Distance		2.0 mm	3.0 mm
SAR _{b0} [%]	Without Correction Algorithm	1.2	0.1
SAR _{b0} [%]	With Correction Algorithm	0.4	0.0

TSL 1900 MHz Typical SAR gradient: 10 % per mm

Sensor Center to Phantom Surface Distance		2.0 mm	3.0 mm
SAR _{b0} [%]	Without Correction Algorithm	3.0	5.0
SAR _{b0} [%]	With Correction Algorithm	0.2	0.1

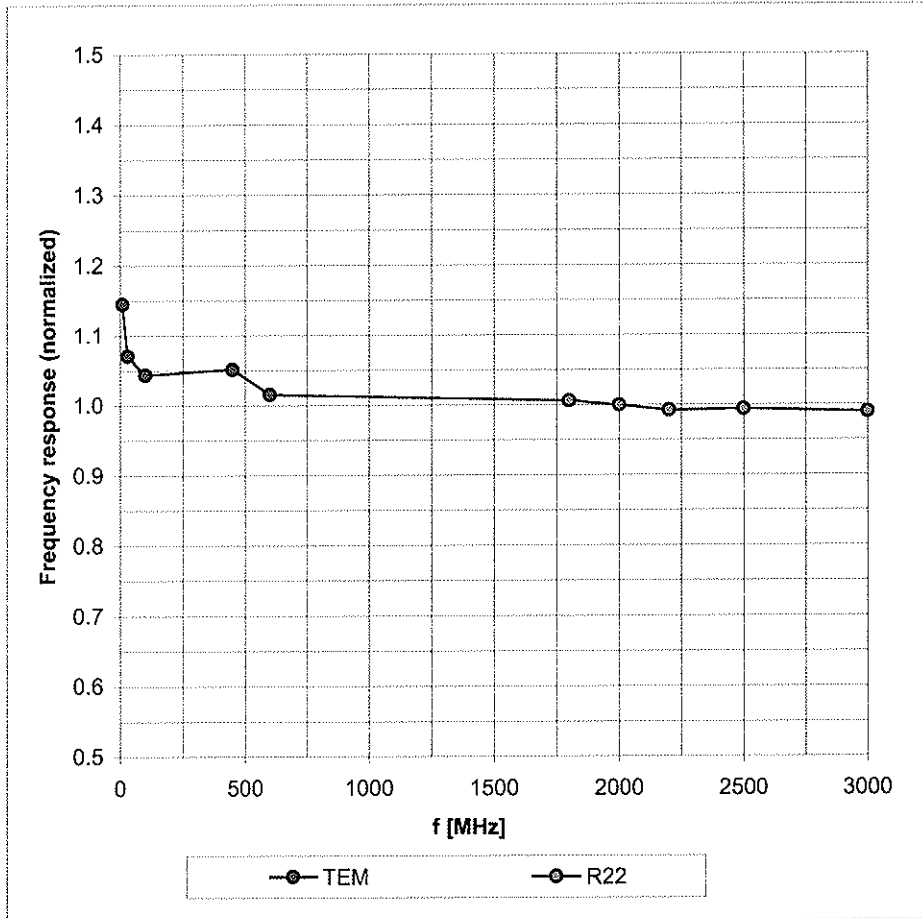
Sensor OffsetProbe Tip to Sensor Center **1.0 mm**

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.

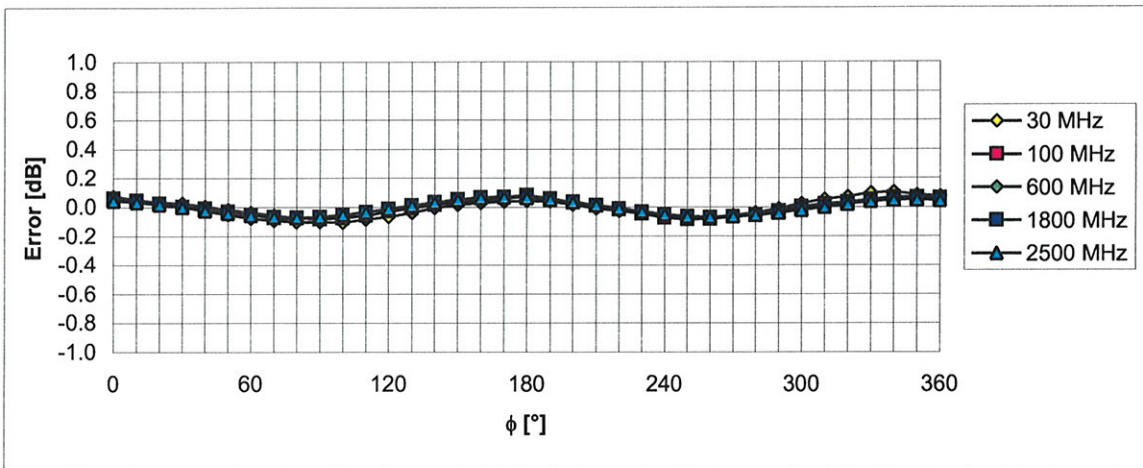
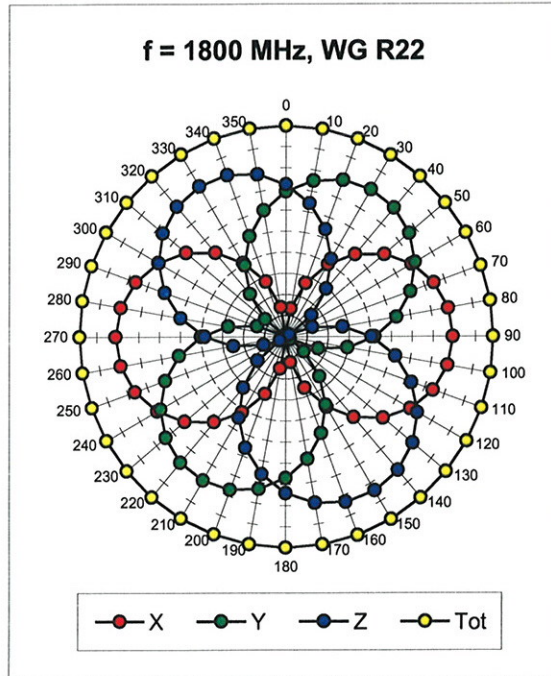
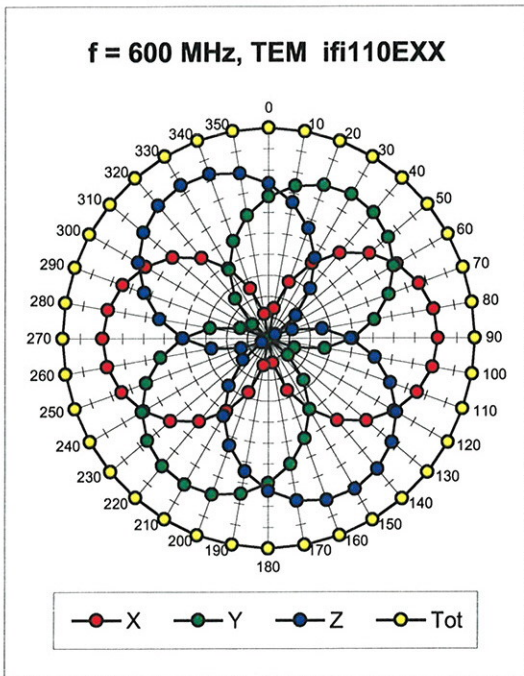
Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide: R22)



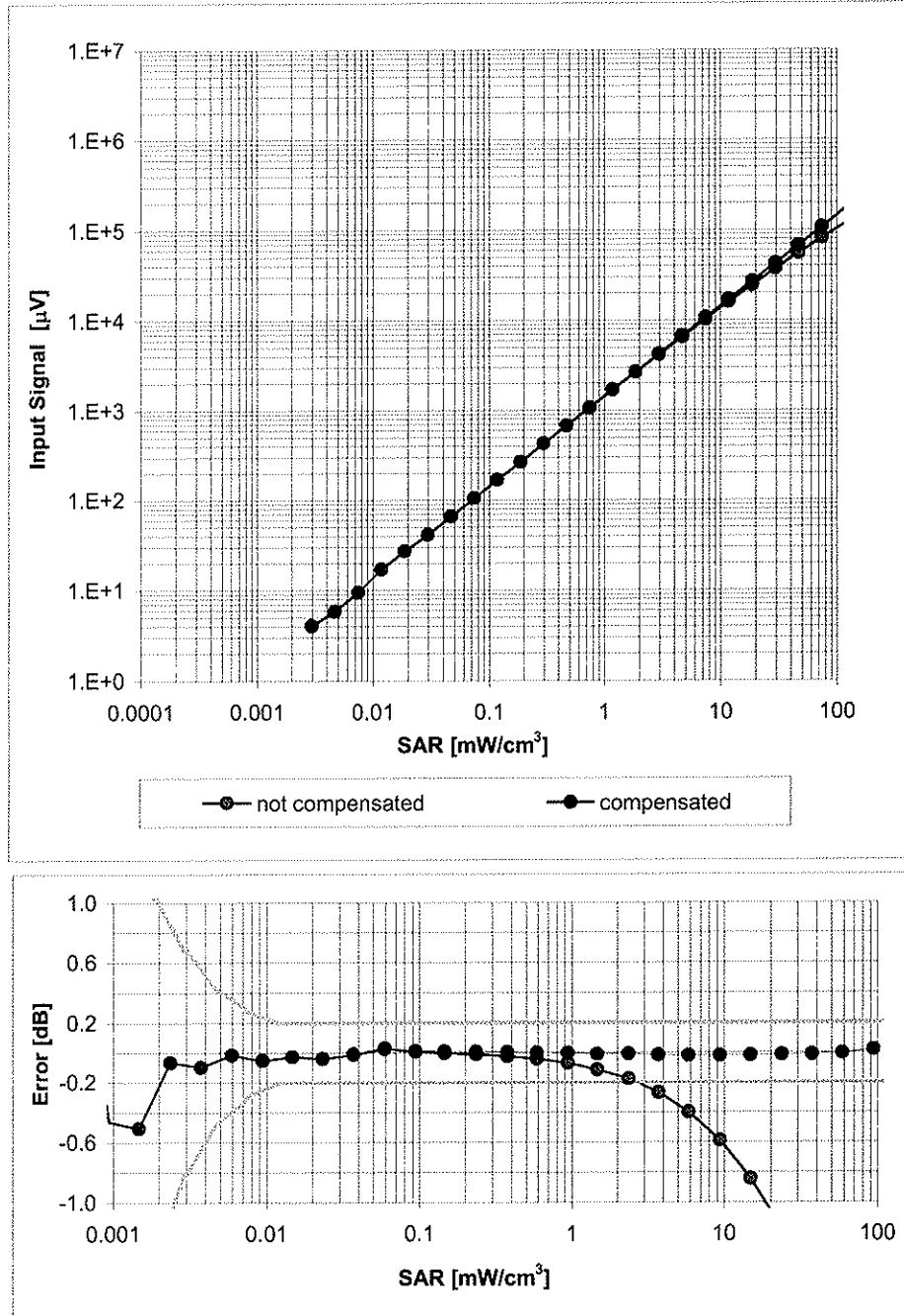
Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

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



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

Dynamic Range $f(\text{SAR}_{\text{head}})$ (Waveguide R22, $f = 1800 \text{ MHz}$)



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

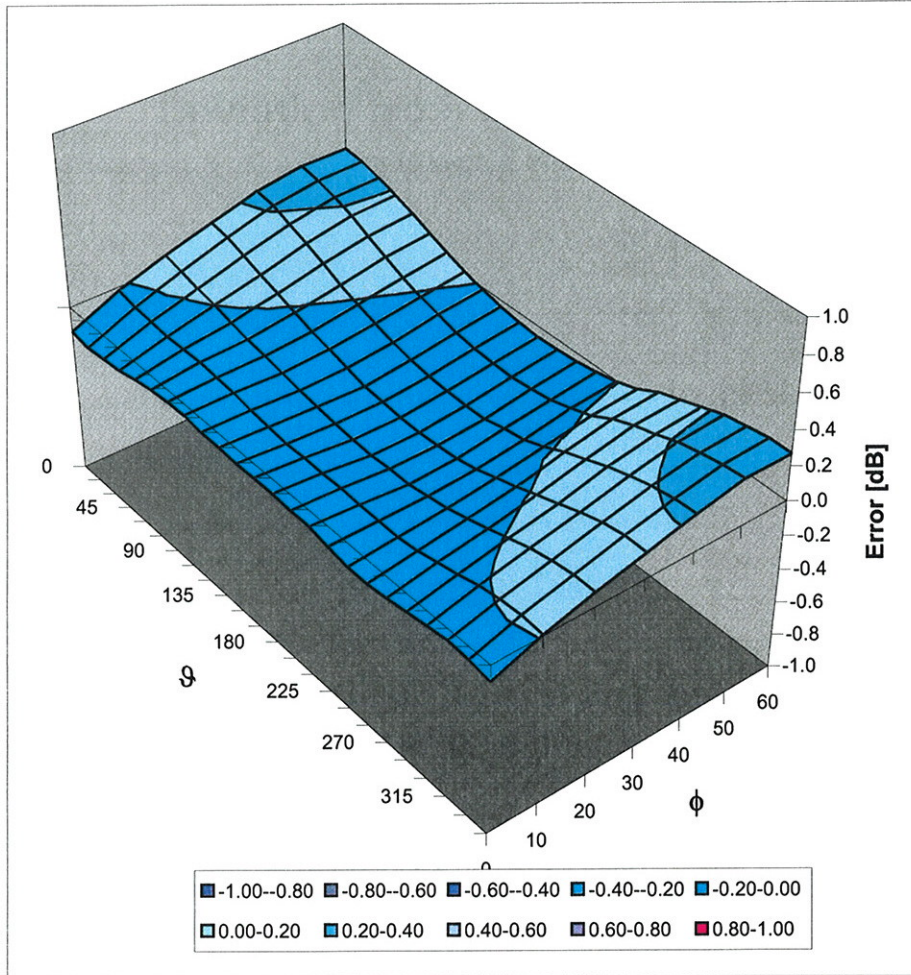
Conversion Factor Assessment

f [MHz]	Validity [MHz] ^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
835	± 50 / ± 100	Head	41.5 ± 5%	0.90 ± 5%	0.65	0.80	8.38 ± 11.0% (k=2)
1750	± 50 / ± 100	Head	40.1 ± 5%	1.37 ± 5%	0.29	1.00	6.85 ± 11.0% (k=2)
1900	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.23	1.10	6.71 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.41	1.00	6.26 ± 11.8% (k=2)
2600	± 50 / ± 100	Head	39.0 ± 5%	1.96 ± 5%	0.42	1.00	6.09 ± 11.8% (k=2)
4950	± 50 / ± 100	Head	36.3 ± 5%	4.40 ± 5%	0.44	1.45	4.77 ± 13.1% (k=2)
5200	± 50 / ± 100	Head	36.0 ± 5%	4.66 ± 5%	0.42	1.45	4.56 ± 13.1% (k=2)
5300	± 50 / ± 100	Head	35.9 ± 5%	4.76 ± 5%	0.40	1.45	4.26 ± 13.1% (k=2)
5500	± 50 / ± 100	Head	35.6 ± 5%	4.96 ± 5%	0.45	1.45	4.26 ± 13.1% (k=2)
5600	± 50 / ± 100	Head	35.5 ± 5%	5.07 ± 5%	0.42	1.45	4.06 ± 13.1% (k=2)
5800	± 50 / ± 100	Head	35.3 ± 5%	5.27 ± 5%	0.40	1.45	4.05 ± 13.1% (k=2)
835	± 50 / ± 100	Body	55.2 ± 5%	0.97 ± 5%	0.70	0.80	8.27 ± 11.0% (k=2)
1750	± 50 / ± 100	Body	53.4 ± 5%	1.49 ± 5%	0.19	1.26	6.82 ± 11.0% (k=2)
1900	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.19	1.25	6.60 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.48	1.00	6.15 ± 11.8% (k=2)
2600	± 50 / ± 100	Body	52.5 ± 5%	2.16 ± 5%	0.46	1.00	5.86 ± 11.8% (k=2)
4950	± 50 / ± 100	Body	49.4 ± 5%	5.01 ± 5%	0.43	1.65	4.06 ± 13.1% (k=2)
5200	± 50 / ± 100	Body	49.0 ± 5%	5.30 ± 5%	0.39	1.65	3.83 ± 13.1% (k=2)
5300	± 50 / ± 100	Body	48.9 ± 5%	5.42 ± 5%	0.38	1.65	3.67 ± 13.1% (k=2)
5500	± 50 / ± 100	Body	48.6 ± 5%	5.65 ± 5%	0.36	1.65	3.67 ± 13.1% (k=2)
5600	± 50 / ± 100	Body	48.5 ± 5%	5.77 ± 5%	0.36	1.65	3.81 ± 13.1% (k=2)
5800	± 50 / ± 100	Body	48.2 ± 5%	6.00 ± 5%	0.33	1.65	3.75 ± 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.

Deviation from Isotropy in HSL

Error (ϕ , ϑ), $f = 900$ MHz



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