

Appendix A:

Validation Test Plots

Test Laboratory: Kyocera

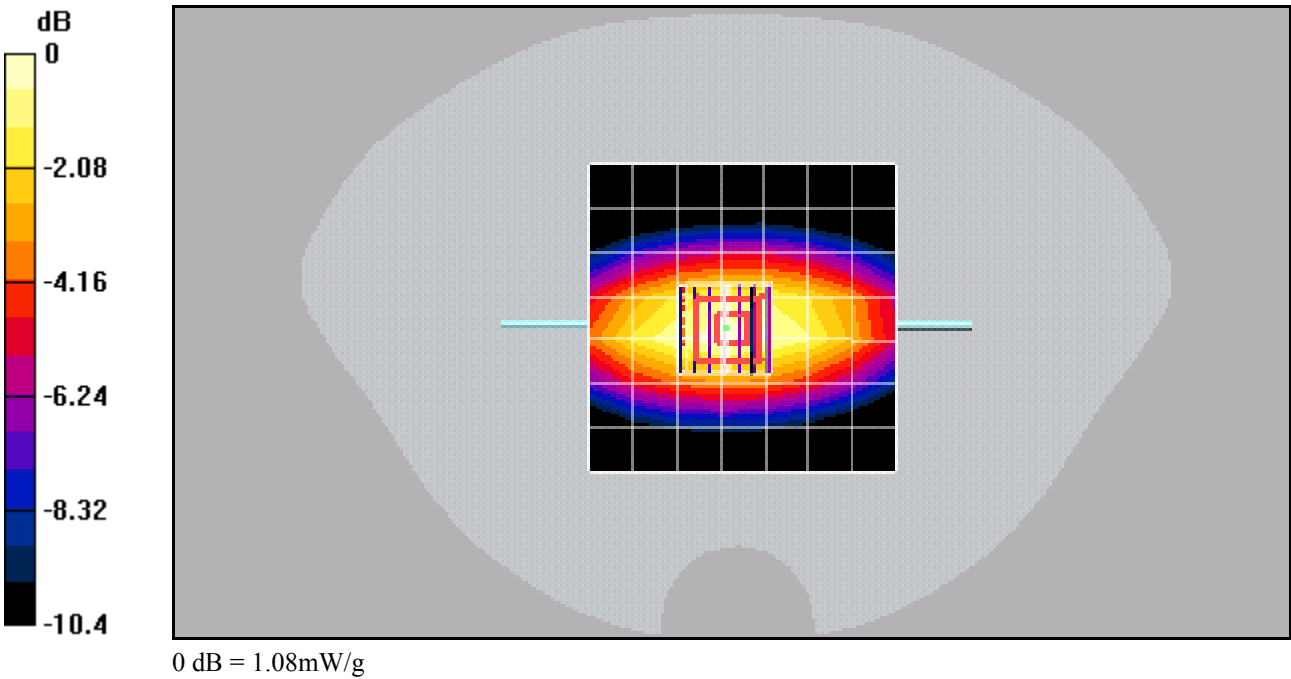
835MHz Validation, Probe#1713, DAE#530, Dipole#454, 08-08-05

Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: HSL900,Medium parameters used: f = 835 MHz; $\sigma = 0.888$ mho/m; $\epsilon_r = 40.7$; $\rho = 1000$ kg/m³
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1713, ConvF(6.29, 6.29, 6.29), Calibrated: 5/19/2005
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn530,Calibrated: 1/4/2005
Measurement SW: DASY4, V4.4 Build 3
Postprocessing SW: SEMCAD, V1.8 Build 130

Temperature:
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

Validation Flat/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 36.1 V/m; Power Drift = -0.0006 dB
Peak SAR (extrapolated) = 1.47 W/kg
SAR(1 g) = 0.994 mW/g; SAR(10 g) = 0.649 mW/g
Maximum value of SAR (measured) = 1.08 mW/g



Test Laboratory: Kyocera

835MHz Validation, Probe#1713, DAE#530, Dipole#454, 08-09-05

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

Medium: HSL900, Medium parameters used: $f = 835$ MHz; $\sigma = 0.901$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1713, ConvF(6.29, 6.29, 6.29), Calibrated: 5/19/2005

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE4 Sn530, Calibrated: 1/4/2005

Measurement SW: DASY4, V4.4 Build 3

Postprocessing SW: SEMCAD, V1.8 Build 130

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

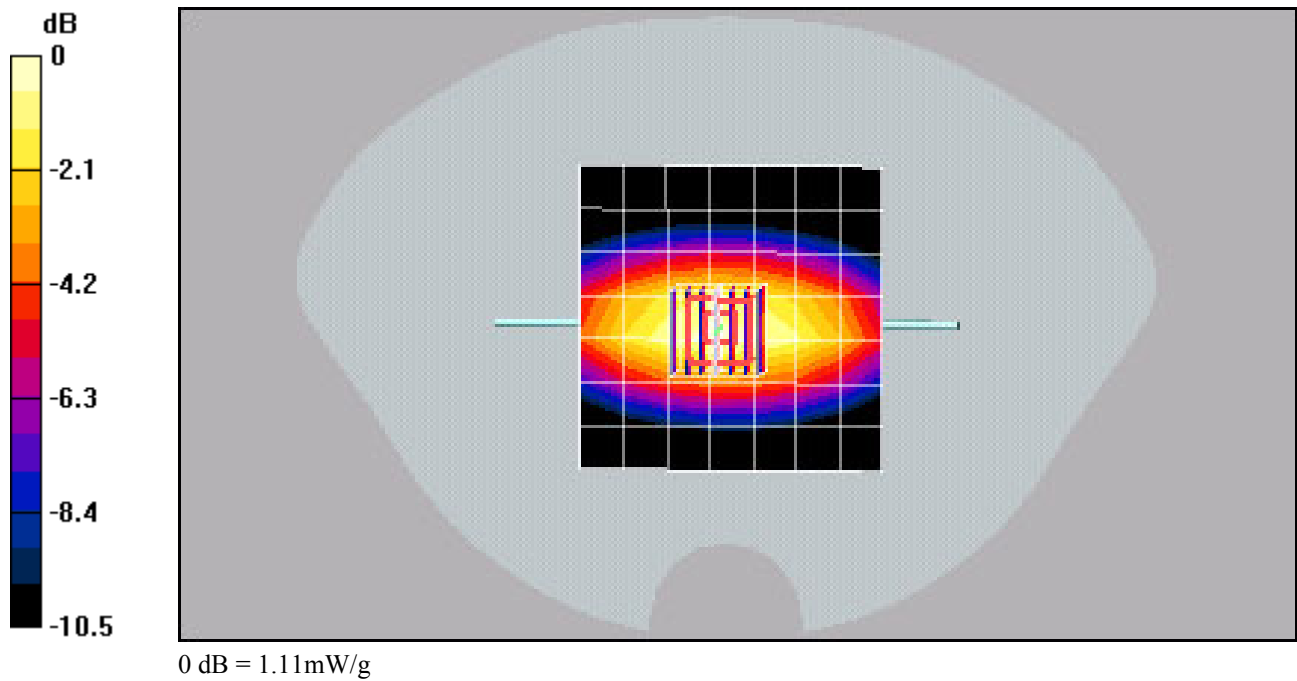
Validation Flat/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 36.3 V/m; Power Drift = -0.005 dB

Peak SAR (extrapolated) = 1.53 W/kg

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.665 mW/g

Maximum value of SAR (measured) = 1.11 mW/g



Test Laboratory: Kyocera

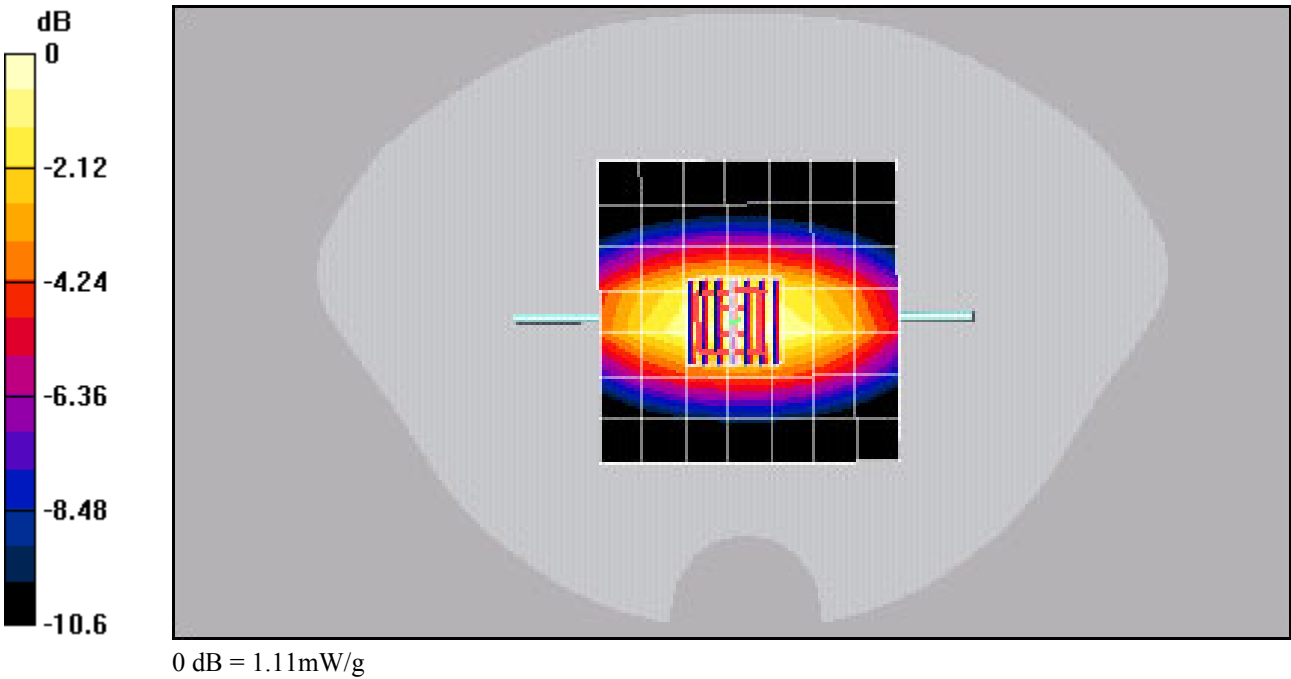
835MHz Validation, Probe#1713, DAE#530, Dipole#454, 08-10-05

Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: HSL900,Medium parameters used: f = 835 MHz; $\sigma = 0.895$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1713, ConvF(6.29, 6.29, 6.29), Calibrated: 5/19/2005
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn530,Calibrated: 1/4/2005
Measurement SW: DASY4, V4.4 Build 3
Postprocessing SW: SEMCAD, V1.8 Build 130

Temperature:
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

Validation Flat/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 36.7 V/m; Power Drift = -0.1 dB
Peak SAR (extrapolated) = 1.53 W/kg
SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.661 mW/g
Maximum value of SAR (measured) = 1.11 mW/g



Test Laboratory: Kyocera

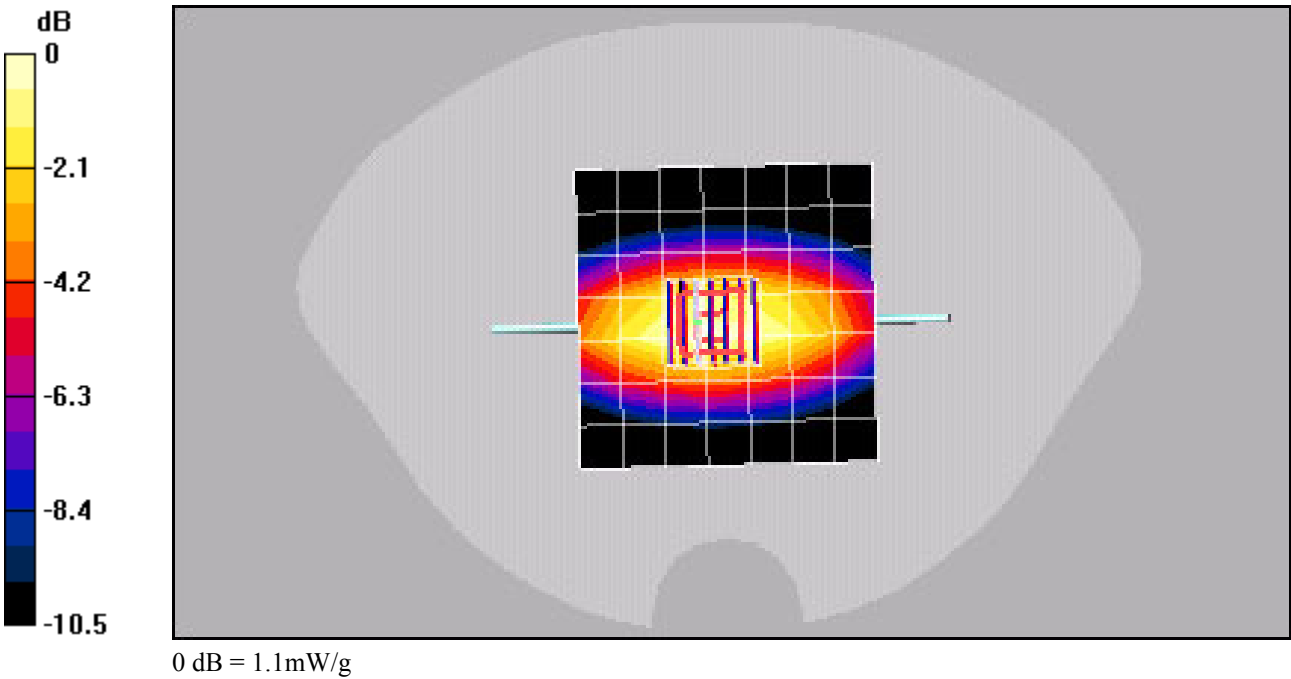
835MHz Validation, Probe#1713, DAE#530, Dipole#454, 08-11-05

Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: HSL900,Medium parameters used: f = 835 MHz; $\sigma = 0.904$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1713, ConvF(6.29, 6.29, 6.29), Calibrated: 5/19/2005
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn530,Calibrated: 1/4/2005
Measurement SW: DASY4, V4.4 Build 3
Postprocessing SW: SEMCAD, V1.8 Build 130

Temperature:
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

Validation Flat/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 36 V/m; Power Drift = 0.007 dB
Peak SAR (extrapolated) = 1.52 W/kg
SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.660 mW/g
Maximum value of SAR (measured) = 1.1 mW/g



Test Laboratory: Kyocera

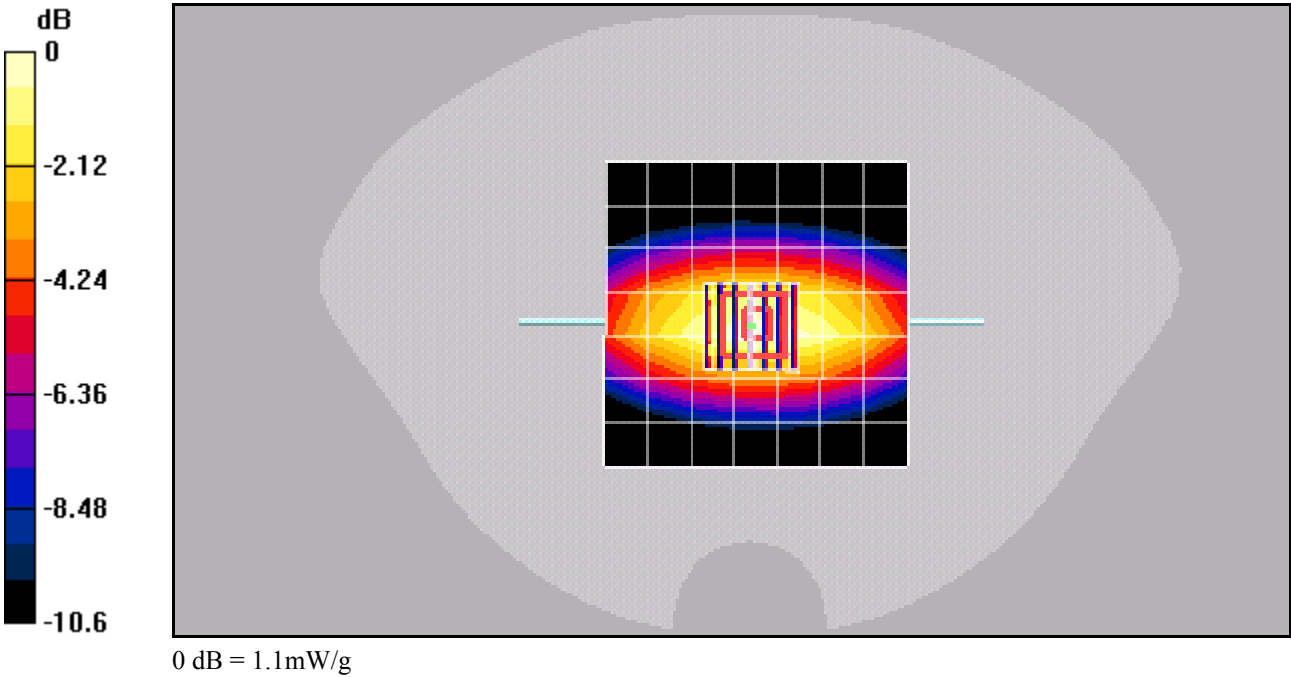
835MHz Validation, Probe#1713, DAE#530, Dipole#454, 08-12-05

Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: HSL900,Medium parameters used: f = 835 MHz; $\sigma = 0.905$ mho/m; $\epsilon_r = 42$; $\rho = 1000$ kg/m³
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1713, ConvF(6.29, 6.29, 6.29), Calibrated: 5/19/2005
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn530,Calibrated: 1/4/2005
Measurement SW: DASY4, V4.4 Build 3
Postprocessing SW: SEMCAD, V1.8 Build 130

Temperature:
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

Validation Flat/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 36.1 V/m; Power Drift = 0.004 dB
Peak SAR (extrapolated) = 1.53 W/kg
SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.662 mW/g
Maximum value of SAR (measured) = 1.1 mW/g



Test Laboratory: Kyocera

1900MHz Validation @ 20dBm, Probe 1713, DAE 530, Dipole #5d005, 08-12-05

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

Medium: HSL1800, Medium parameters used (interpolated): $f = 1900$ MHz; $\sigma = 1.39$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1713, ConvF(5.18, 5.18, 5.18), Calibrated: 5/19/2005

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE4 Sn530, Calibrated: 1/4/2005

Measurement SW: DASY4, V4.4 Build 3

Postprocessing SW: SEMCAD, V1.8 Build 130

Temperature:

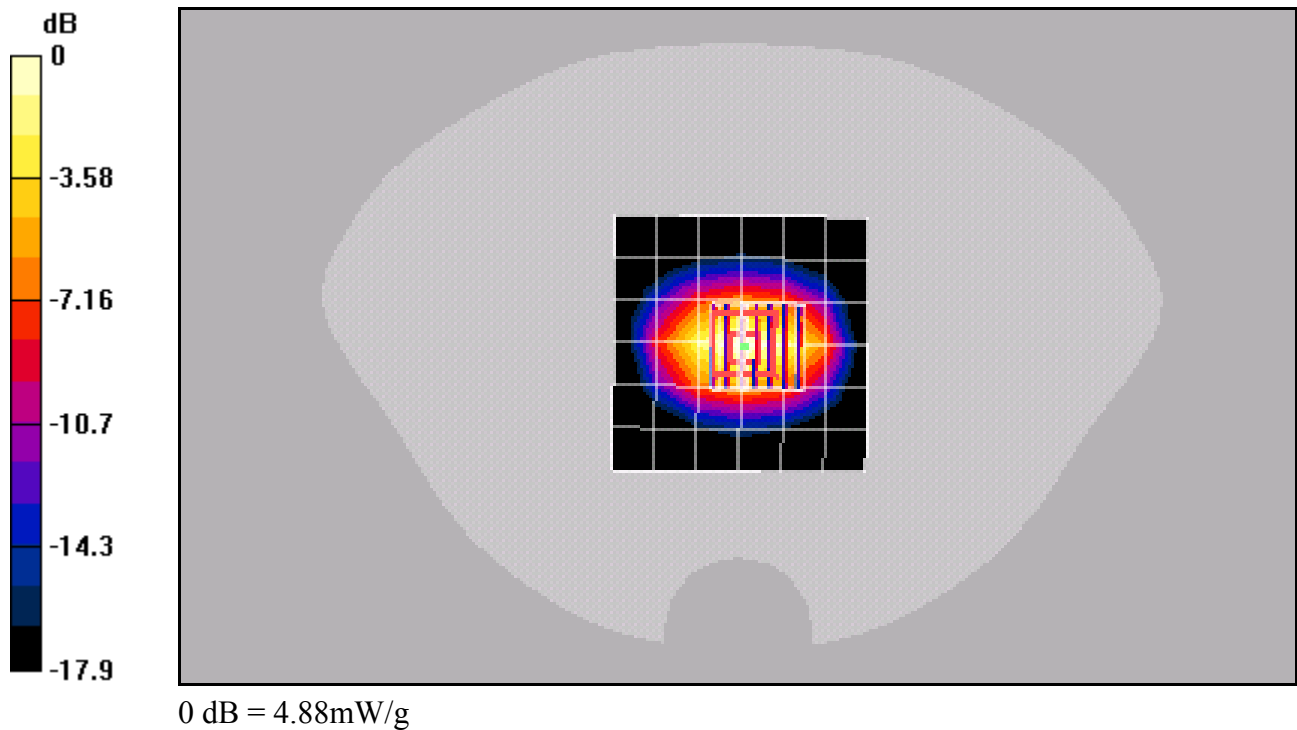
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

1900Mhz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 61.8 V/m; Power Drift = -0.006 dB

Peak SAR (extrapolated) = 7.47 W/kg

SAR(1 g) = 4.28 mW/g; SAR(10 g) = 2.27 mW/g



Test Laboratory: Kyocera

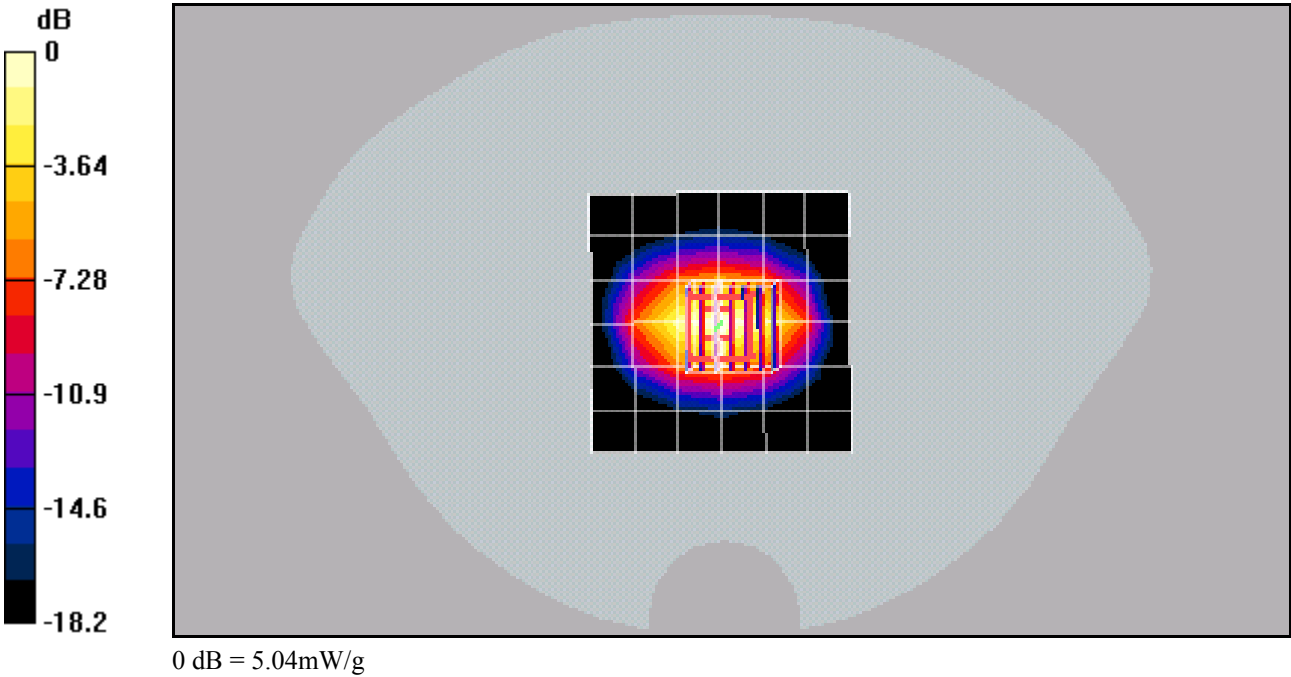
1900MHz Validation, Probe 1713, DAE 530, Dipole #5d005, 08-13-05

Communication System: CW 1900, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: HSL1800,Medium parameters used (interpolated): f = 1900 MHz; $\sigma = 1.39$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1713, ConvF(5.18, 5.18, 5.18), Calibrated: 5/19/2005
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn530,Calibrated: 1/4/2005
Measurement SW: DASY4, V4.4 Build 3
Postprocessing SW: SEMCAD, V1.8 Build 130

Temperature:
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

1900Mhz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 63.5 V/m; Power Drift = 0.0 dB
Peak SAR (extrapolated) = 7.76 W/kg
SAR(1 g) = 4.44 mW/g; SAR(10 g) = 2.34 mW/g
[Info: Interpolated medium parameters used for SAR evaluation!](#)
Maximum value of SAR (measured) = 5.04 mW/g



Test Laboratory: Kyocera

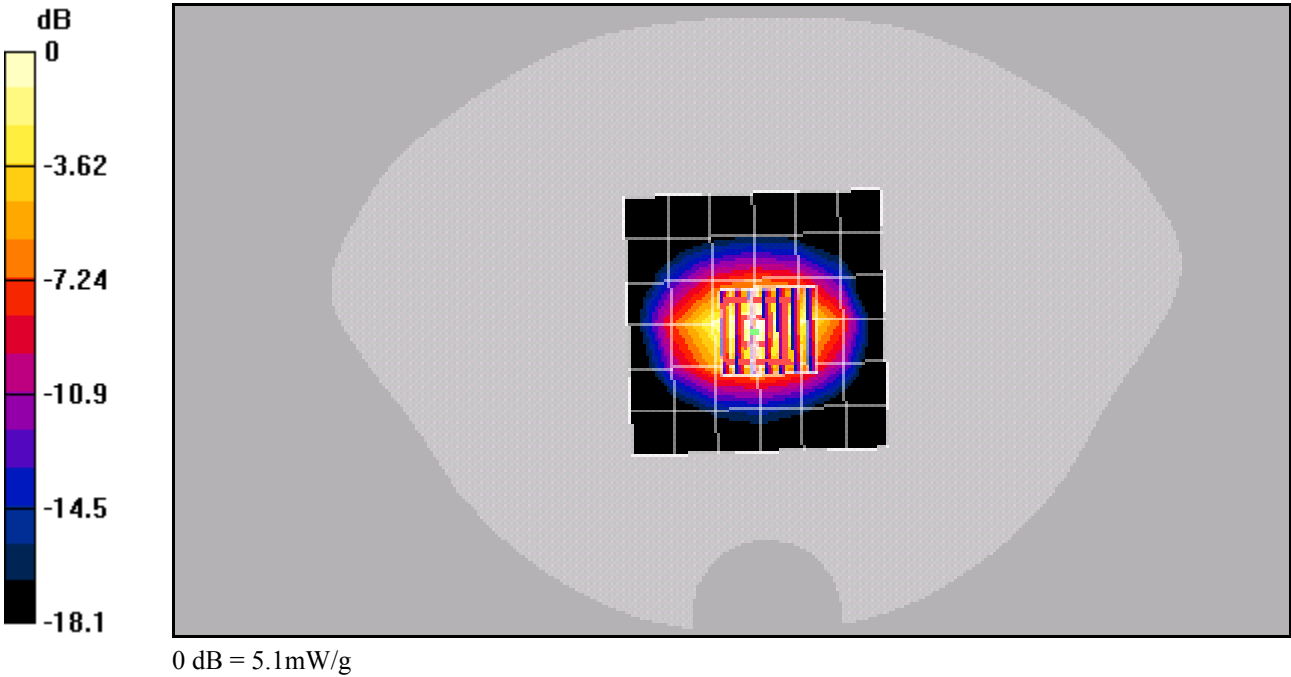
1900MHz Validation, Probe 1713, DAE 530, Dipole #5d005, 08-15-05

Communication System: CW 1900, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: HSL1800,Medium parameters used (interpolated): f = 1900 MHz; $\sigma = 1.39$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1713, ConvF(5.18, 5.18, 5.18), Calibrated: 5/19/2005
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn530,Calibrated: 1/4/2005
Measurement SW: DASY4, V4.4 Build 3
Postprocessing SW: SEMCAD, V1.8 Build 130

Temperature:
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

1900Mhz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 62.3 V/m; Power Drift = 0.0 dB
Peak SAR (extrapolated) = 7.76 W/kg
SAR(1 g) = 4.46 mW/g; SAR(10 g) = 2.37 mW/g
[Info: Interpolated medium parameters used for SAR evaluation!](#)
Maximum value of SAR (measured) = 5.1 mW/g



Test Laboratory: Kyocera

1900MHz Validation @ 20dBm, Probe 1713, DAE 530, Dipole #5d005, 08-16-05

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

Medium: HSL1800, Medium parameters used (interpolated): $f = 1900$ MHz; $\sigma = 1.4$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1713, ConvF(5.18, 5.18, 5.18), Calibrated: 5/19/2005

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE4 Sn530, Calibrated: 1/4/2005

Measurement SW: DASY4, V4.4 Build 3

Postprocessing SW: SEMCAD, V1.8 Build 130

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

1900Mhz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 62.2 V/m; Power Drift = -0.0 dB

Peak SAR (extrapolated) = 7.38 W/kg

SAR(1 g) = 4.23 mW/g; SAR(10 g) = 2.23 mW/g

[Info: Interpolated medium parameters used for SAR evaluation!](#)