Appendix A:

Validation Test Plots

Date/Time: 8/18/2006 12:53:40 AM

Test Laboratory: Kyocera-Wireless Corp.

835Mhz Validation @ 20dBm Probe 1664, DAE 527 and Dipole 453

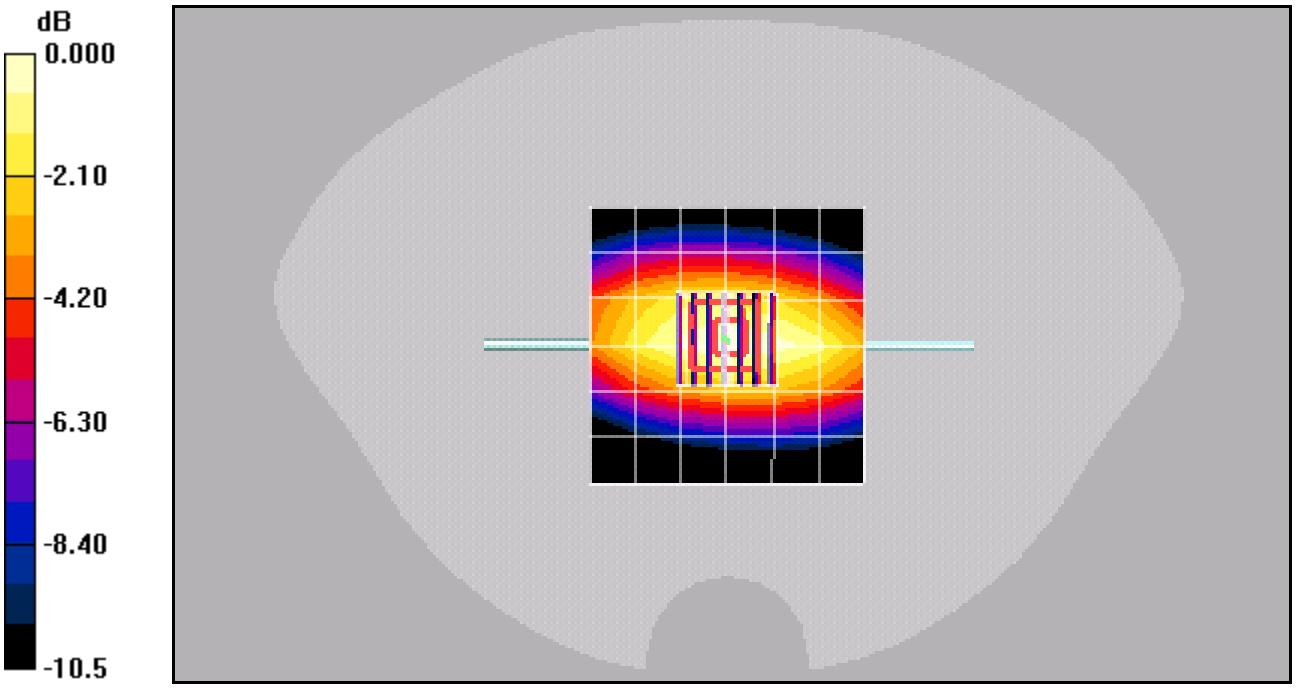
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.918 mho/m; ε_r = 42; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1664, ConvF(6.77, 6.77, 6.77), Calibrated: 6/22/2006
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn527,Calibrated: 9/22/2005
Measurement SW: DASY4, V4.6 Build 23
Postprocessing SW: SEMCAD, V1.8 Build 160

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

835Mhz Validation @ 20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 35.0 V/m; Power Drift = -0.033 dB
Peak SAR (extrapolated) = 1.31 W/kg
SAR(1 g) = 0.909 mW/g; SAR(10 g) = 0.599 mW/g
Maximum value of SAR (measured) = 0.982 mW/g



0 dB = 0.982mW/g

Date/Time: 8/19/2006 12:27:19 AM

Test Laboratory: Kyocera-Wireless Corp.

835Mhz Validation @ 20dBm Probe 1664, DAE 527 and Dipole 453

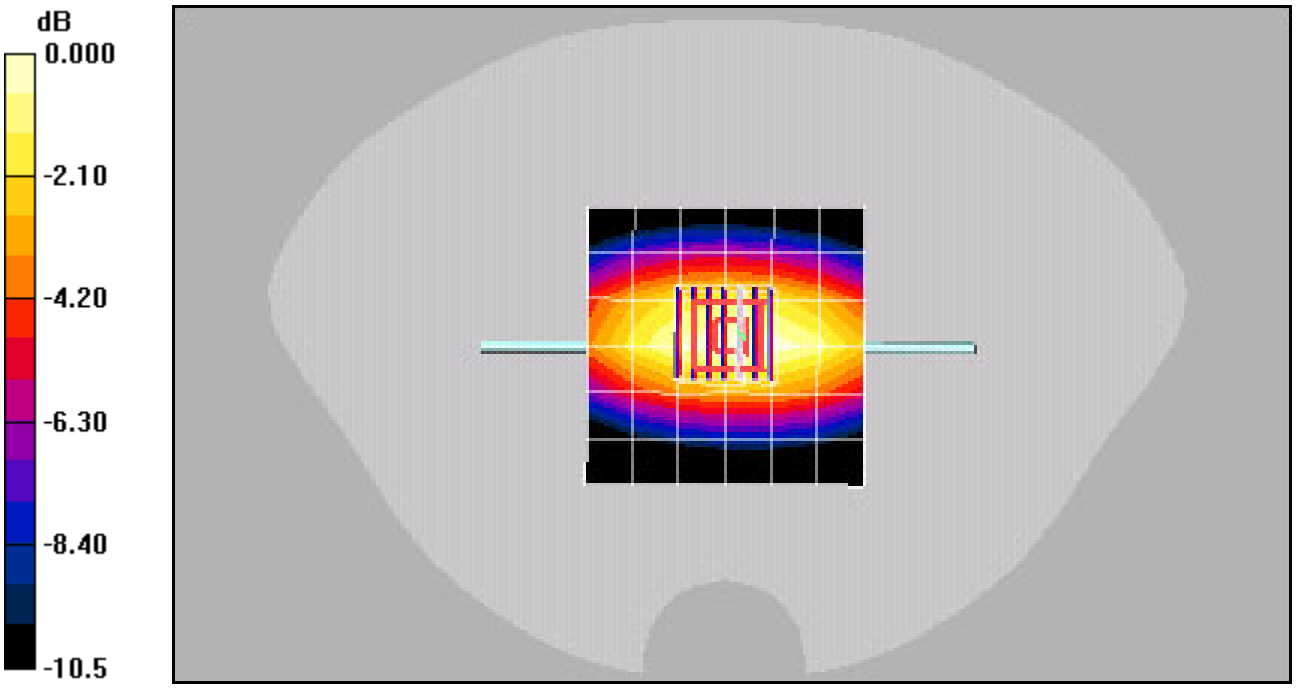
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.912 mho/m; ε_r = 41.4; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1664, ConvF(6.77, 6.77, 6.77), Calibrated: 6/22/2006
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn527,Calibrated: 9/22/2005
Measurement SW: DASY4, V4.6 Build 23
Postprocessing SW: SEMCAD, V1.8 Build 160

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

835Mhz Validation @ 20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 34.1 V/m; Power Drift = -0.020 dB
Peak SAR (extrapolated) = 1.35 W/kg
SAR(1 g) = 0.921 mW/g; SAR(10 g) = 0.602 mW/g
Maximum value of SAR (measured) = 0.993 mW/g



0 dB = 0.993mW/g

Date/Time: 8/20/2006 12:31:02 AM

Test Laboratory: Kyocera-Wireless Corp.

835Mhz Validation @ 20dBm Probe 1664, DAE 527 and Dipole 453

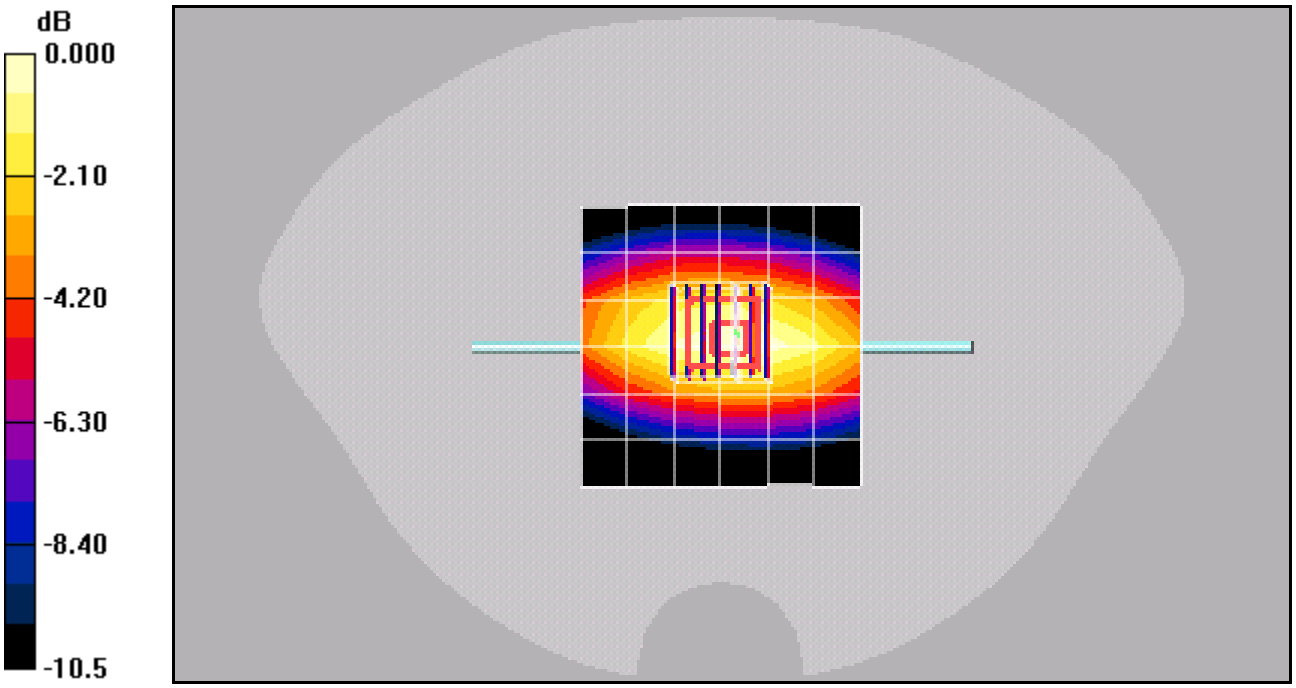
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.898 mho/m; ε_r = 41.1; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1664, ConvF(6.77, 6.77, 6.77), Calibrated: 6/22/2006
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn527,Calibrated: 9/22/2005
Measurement SW: DASY4, V4.6 Build 23
Postprocessing SW: SEMCAD, V1.8 Build 160

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

835Mhz Validation @ 20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 34.3 V/m; Power Drift = 0.007 dB
Peak SAR (extrapolated) = 1.38 W/kg
SAR(1 g) = 0.942 mW/g; SAR(10 g) = 0.615 mW/g
Maximum value of SAR (measured) = 1.02 mW/g



0 dB = 1.02mW/g

Date/Time: 8/21/2006 8:04:53 AM

Test Laboratory: Kyocera-Wireless Corp.

835Mhz Validation @ 20dBm Probe 1664, DAE 527 and Dipole 453

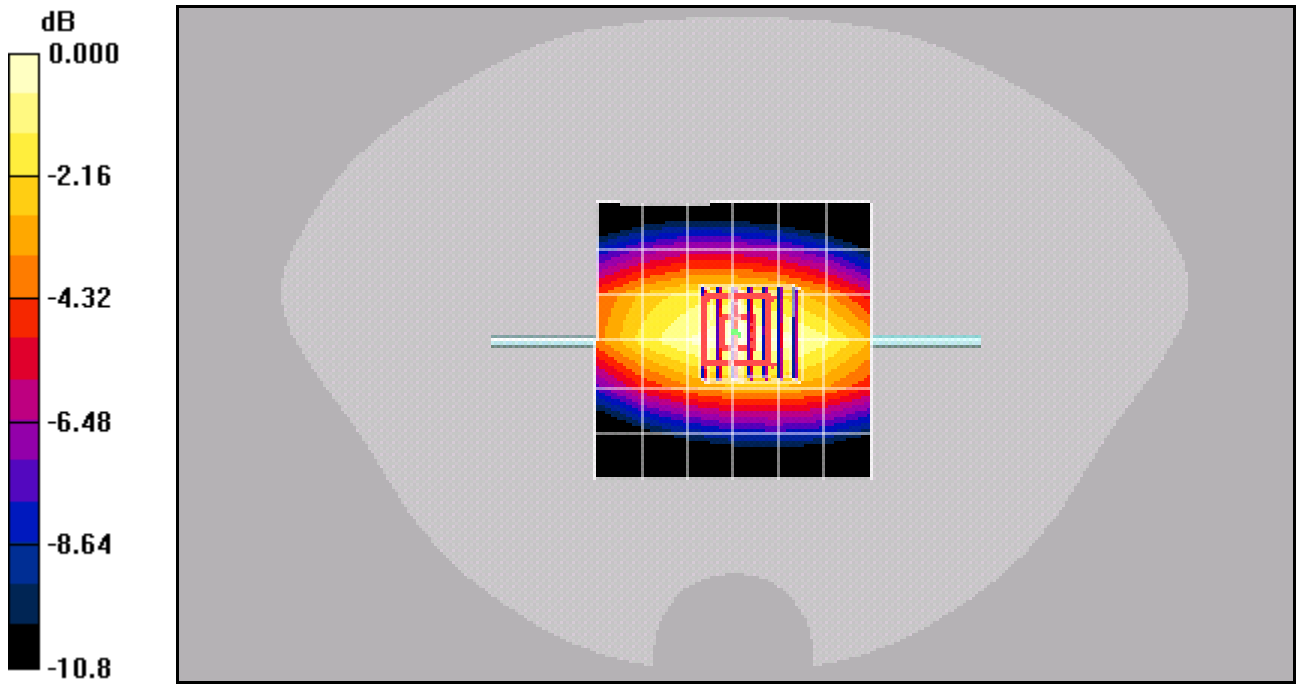
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.898 mho/m; ε_r = 41.1; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1664, ConvF(6.58, 6.58, 6.58), Calibrated: 6/22/2006
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn527,Calibrated: 9/22/2005
Measurement SW: DASY4, V4.6 Build 23
Postprocessing SW: SEMCAD, V1.8 Build 160

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

835Mhz Validation @ 20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 34.5 V/m; Power Drift = -0.009 dB
Peak SAR (extrapolated) = 1.34 W/kg
SAR(1 g) = 0.923 mW/g; SAR(10 g) = 0.602 mW/g
Maximum value of SAR (measured) = 1.00 mW/g



0 dB = 1.00mW/g

Date/Time: 8/22/2006 1:08:43 AM

Test Laboratory: Kyocera-Wireless Corp.

835Mhz Validation @ 20dBm Probe 1664, DAE 527 and Dipole 453

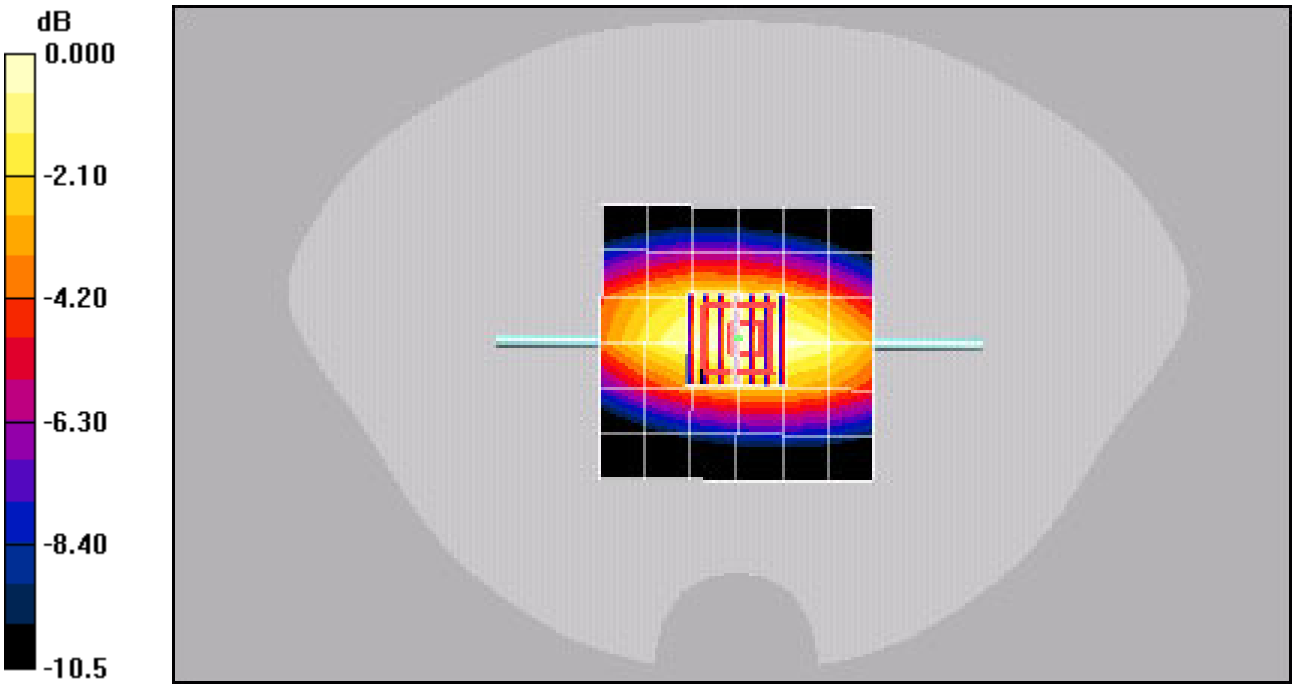
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.92 mho/m; ε_r = 41.5; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1664, ConvF(6.58, 6.58, 6.58), Calibrated: 6/22/2006
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn527,Calibrated: 9/22/2005
Measurement SW: DASY4, V4.6 Build 23
Postprocessing SW: SEMCAD, V1.8 Build 160

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

20 dbm validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 33.8 V/m; Power Drift = -0.009 dB
Peak SAR (extrapolated) = 1.31 W/kg
SAR(1 g) = 0.901 mW/g; SAR(10 g) = 0.589 mW/g
Maximum value of SAR (measured) = 0.981 mW/g



0 dB = 0.981mW/g

Date/Time: 8/16/2006 1:02:31 AM

Test Laboratory: Kyocera-Wireless Corp.

1900Mhz Validation @ 20dBm Probe 1664, DAE 527 and Dipole 5d003

Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: HSL1800,Medium parameters used (interpolated): f = 1900 MHz; σ = 1.42 mho/m; ε_r = 39.4; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

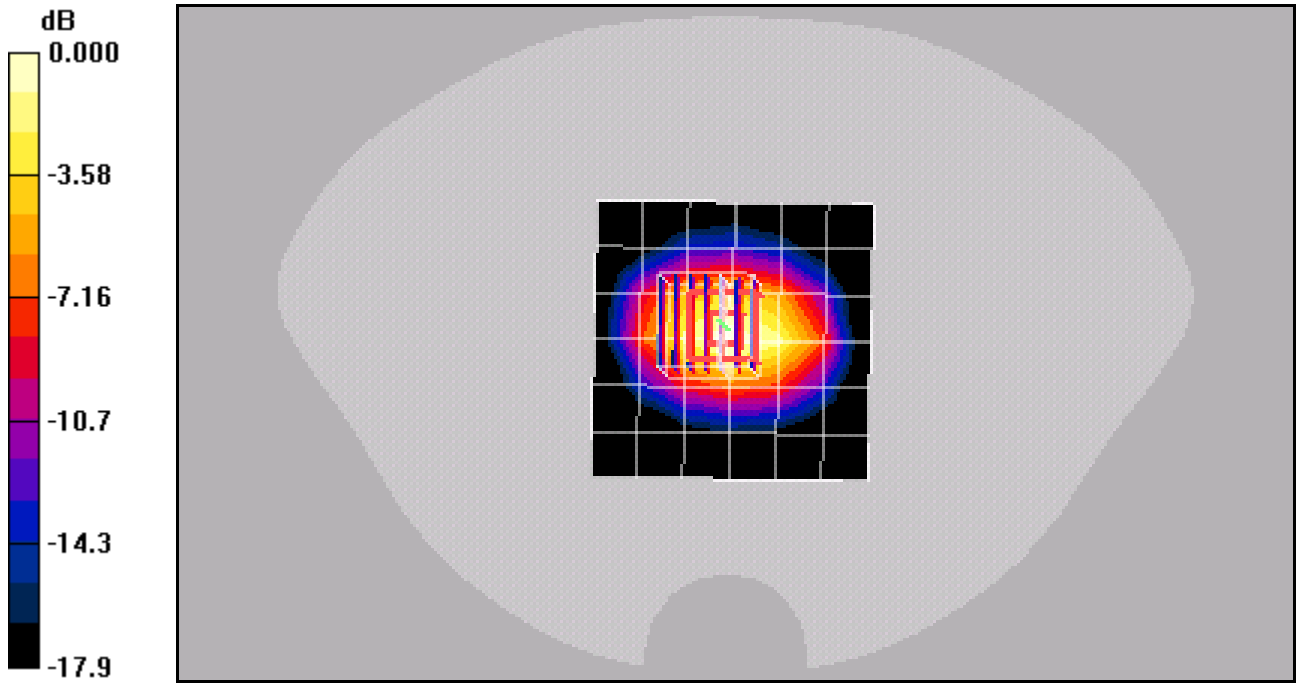
DASY4 Configuration:
Probe: ET3DV6 - SN1664, ConvF(5.05, 5.05, 5.05), Calibrated: 6/22/2006
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn527,Calibrated: 9/22/2005
Measurement SW: DASY4, V4.6 Build 23
Postprocessing SW: SEMCAD, V1.8 Build 160

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

1900MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 57.0 V/m; Power Drift = -0.023 dB
Peak SAR (extrapolated) = 6.56 W/kg
SAR(1 g) = 3.85 mW/g; SAR(10 g) = 2.06 mW/g

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 4.35 mW/g



0 dB = 4.35mW/g

Date/Time: 8/17/2006 1:32:13 AM

Test Laboratory: Kyocera-Wireless Corp.

1900Mhz Validation @ 20dBm Probe 1664, DAE 527 and Dipole 5d003

Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: HSL1800,Medium parameters used (interpolated): f = 1900 MHz; σ = 1.42 mho/m; ε_r = 39.4; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

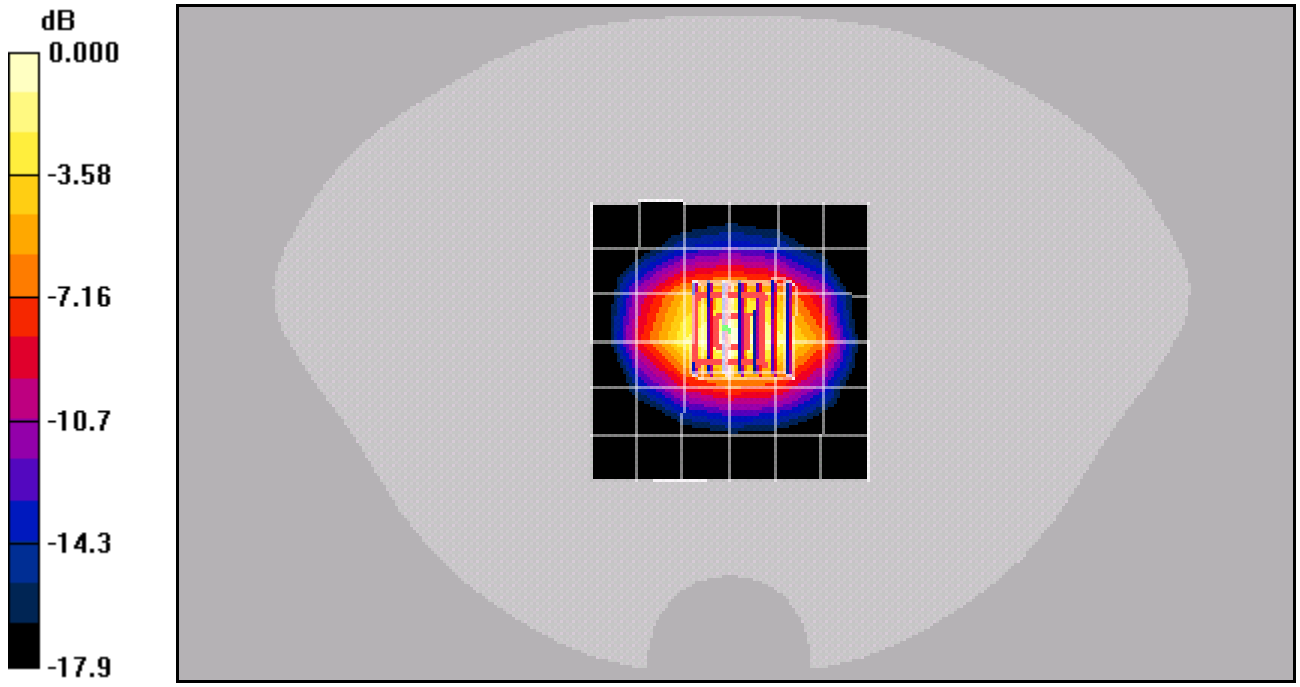
DASY4 Configuration:
Probe: ET3DV6 - SN1664, ConvF(5.05, 5.05, 5.05), Calibrated: 6/22/2006
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn527,Calibrated: 9/22/2005
Measurement SW: DASY4, V4.6 Build 23
Postprocessing SW: SEMCAD, V1.8 Build 160

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

1900Mhz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.6 V/m; Power Drift = -0.013 dB
Peak SAR (extrapolated) = 6.60 W/kg
SAR(1 g) = 3.8 mW/g; SAR(10 g) = 2.01 mW/g

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 4.33 mW/g



0 dB = 4.33mW/g