Appendix A:

Validation Test Plots

Test Laboratory: Kyocera-Wireless Corp.

835Mhz Validation @ 20dBm with Probe 1618, DAE 527 and Dipole 467

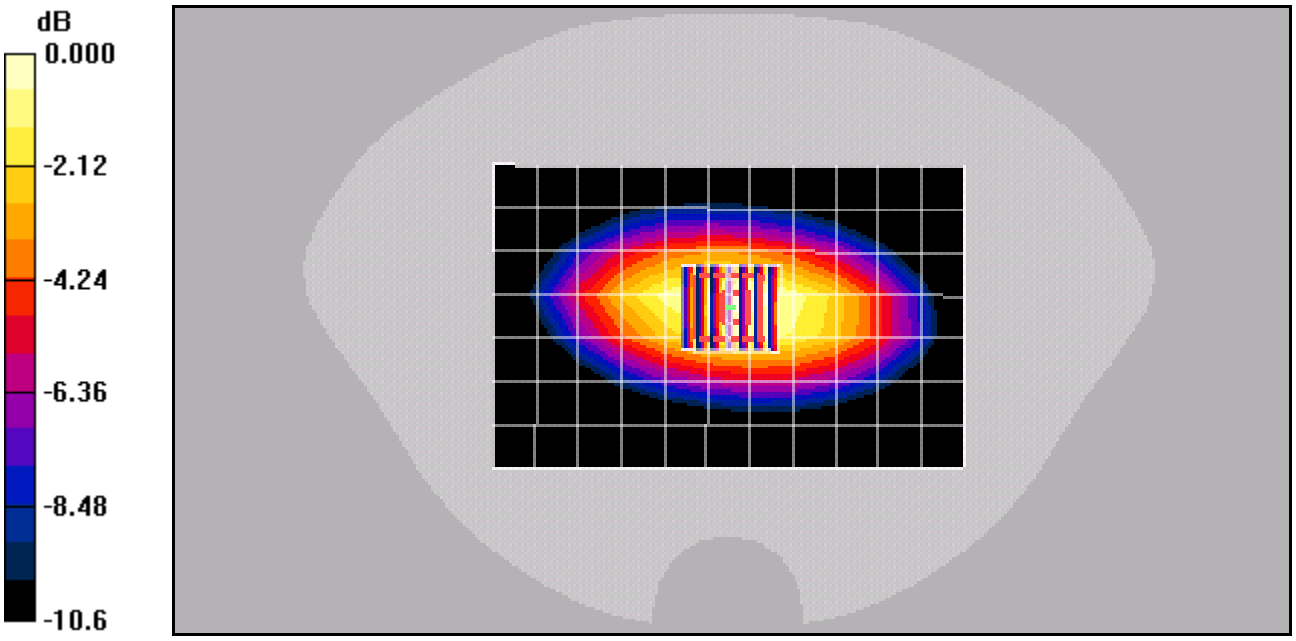
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.872 mho/m; ε_r = 40.5; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1618, ConvF(6.98, 6.98, 6.98), Calibrated: 9/19/2007
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE4 Sn527,Calibrated: 9/14/2007
Measurement SW: DASY4, V4.7 Build 71
Postprocessing SW: SEMCAD, V1.8 Build 176

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 = 35.1 V/m; Power Drift = -0.063 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.952 mW/g; SAR(10 g) = 0.620 mW/g
Maximum value of SAR (measured) = 1.04 mW/g



0 dB = 1.04mW/g

Test Laboratory: Kyocera-Wireless Corp.

835Mhz Validation @ 20dBm with Probe 1618, DAE 527 and Dipole 467

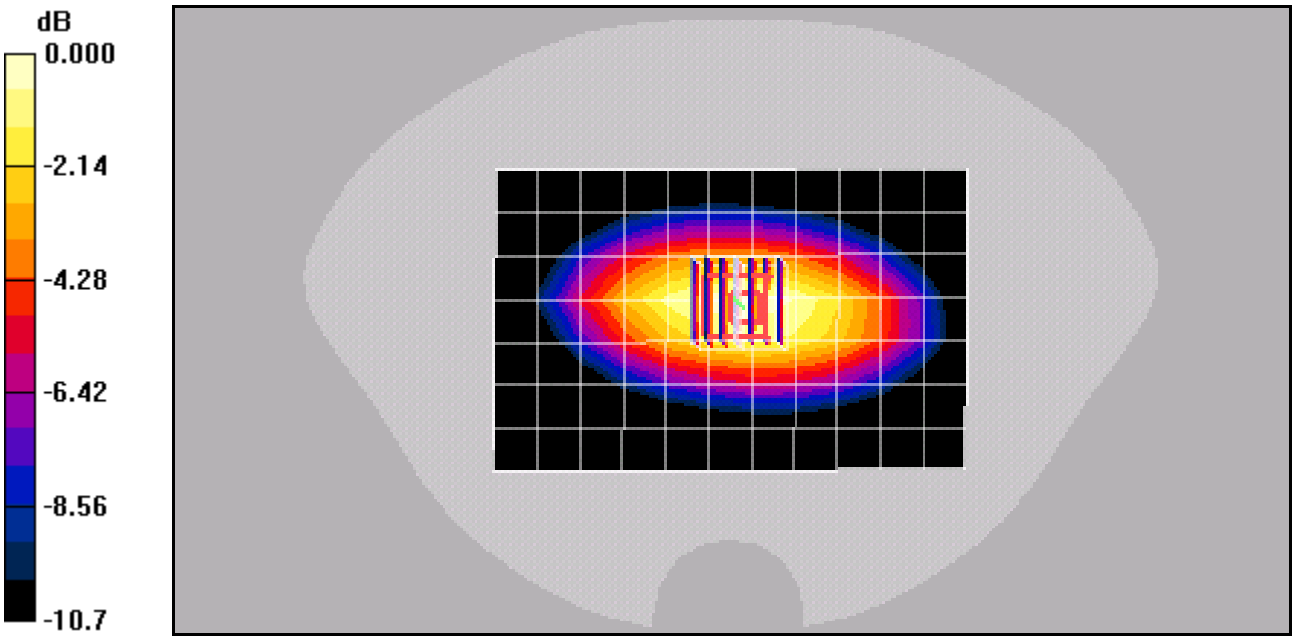
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.87 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1618, ConvF(6.98, 6.98, 6.98), Calibrated: 9/19/2007
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE4 Sn527,Calibrated: 9/14/2007
Measurement SW: DASY4, V4.7 Build 71
Postprocessing SW: SEMCAD, V1.8 Build 176

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 = 34.6 V/m; Power Drift = -0.075 dB
Peak SAR (extrapolated) = 1.41 W/kg
SAR(1 g) = 0.953 mW/g; SAR(10 g) = 0.619 mW/g
Maximum value of SAR (measured) = 1.03 mW/g



0 dB = 1.03mW/g

Test Laboratory: Kyocera-Wireless Corp.

835Mhz Validation (In Muscle) @ 20dBm with Probe 1618, DAE 527 and Dipole 467

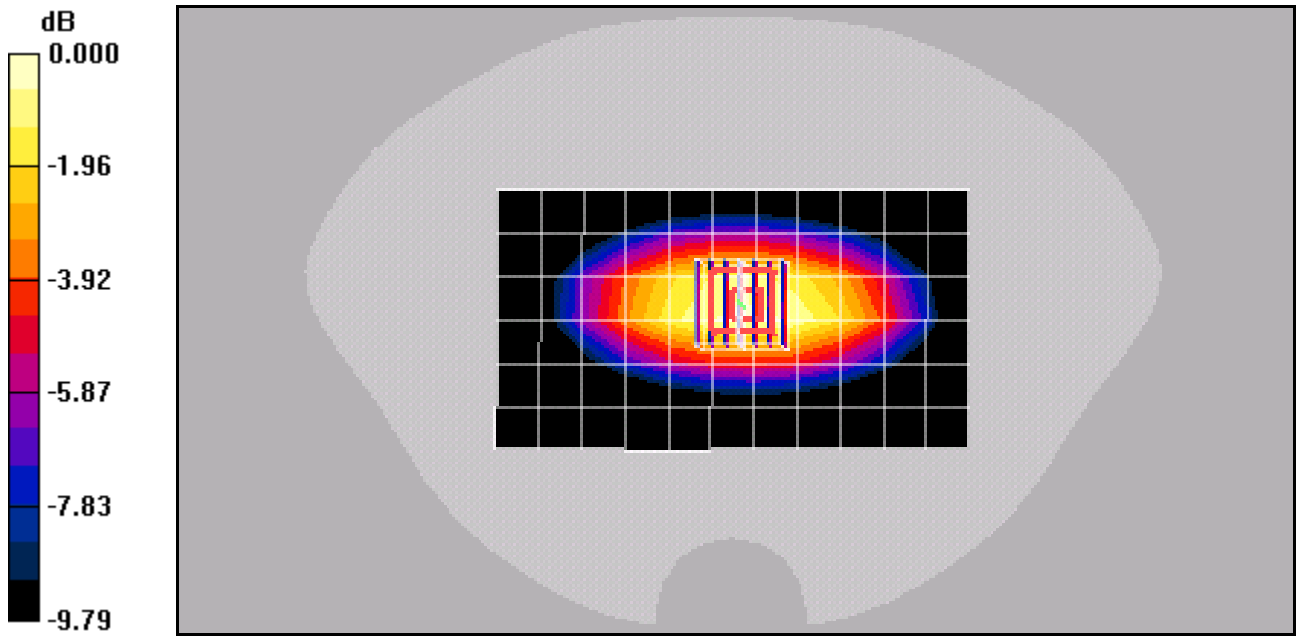
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: M900,Medium parameters used: f = 835 MHz; σ = 0.951 mho/m; ε_r = 53.5; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1618, ConvF(6.6, 6.6, 6.6), Calibrated: 9/19/2007
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE4 Sn527,Calibrated: 9/14/2007
Measurement SW: DASY4, V4.7 Build 71
Postprocessing SW: SEMCAD, V1.8 Build 176

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

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

Reference Value = 33.7 V/m; Power Drift = 0.016 dB
Peak SAR (extrapolated) = 1.42 W/kg
SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.679 mW/g
Maximum value of SAR (measured) = 1.10 mW/g



0 dB = 1.10mW/g

Test Laboratory: Kyocera-Wireless Corp.

835Mhz Validation (In Muscle) @ 20dBm with Probe 1618, DAE 527 and Dipole 467

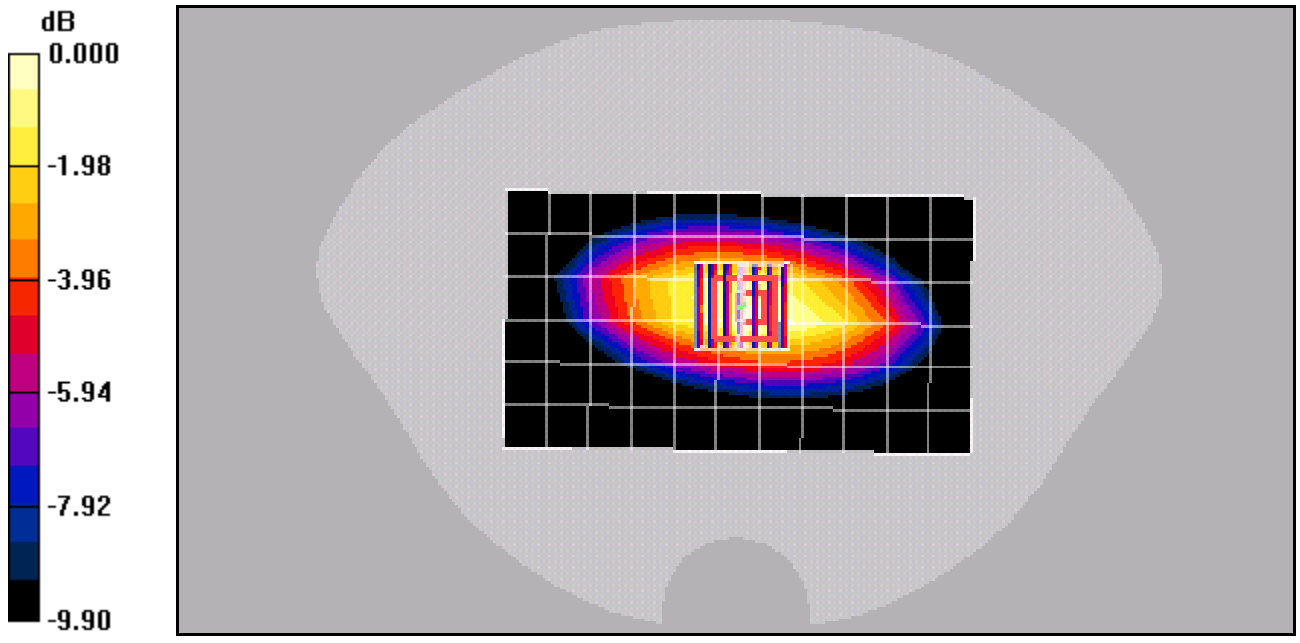
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: M900,Medium parameters used: f = 835 MHz; σ = 0.94 mho/m; ε_r = 56.9; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1618, ConvF(6.6, 6.6, 6.6), Calibrated: 9/19/2007
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE4 Sn527,Calibrated: 9/14/2007
Measurement SW: DASY4, V4.7 Build 71
Postprocessing SW: SEMCAD, V1.8 Build 176

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

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

Reference Value = 32.5 V/m; Power Drift = 0.017 dB
Peak SAR (extrapolated) = 1.31 W/kg
SAR(1 g) = 0.938 mW/g; SAR(10 g) = 0.625 mW/g
Maximum value of SAR (measured) = 1.02 mW/g



0 dB = 1.02mW/g

Test Laboratory: Kyocera-Wireless Corp.

1900Mhz Validation @ 20dBm with Probe 1618, DAE 527 and Dipole 5d016

Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: HSL1800,Medium parameters used (interpolated): f = 1900 MHz; σ = 1.4 mho/m; ε_r = 41.2; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

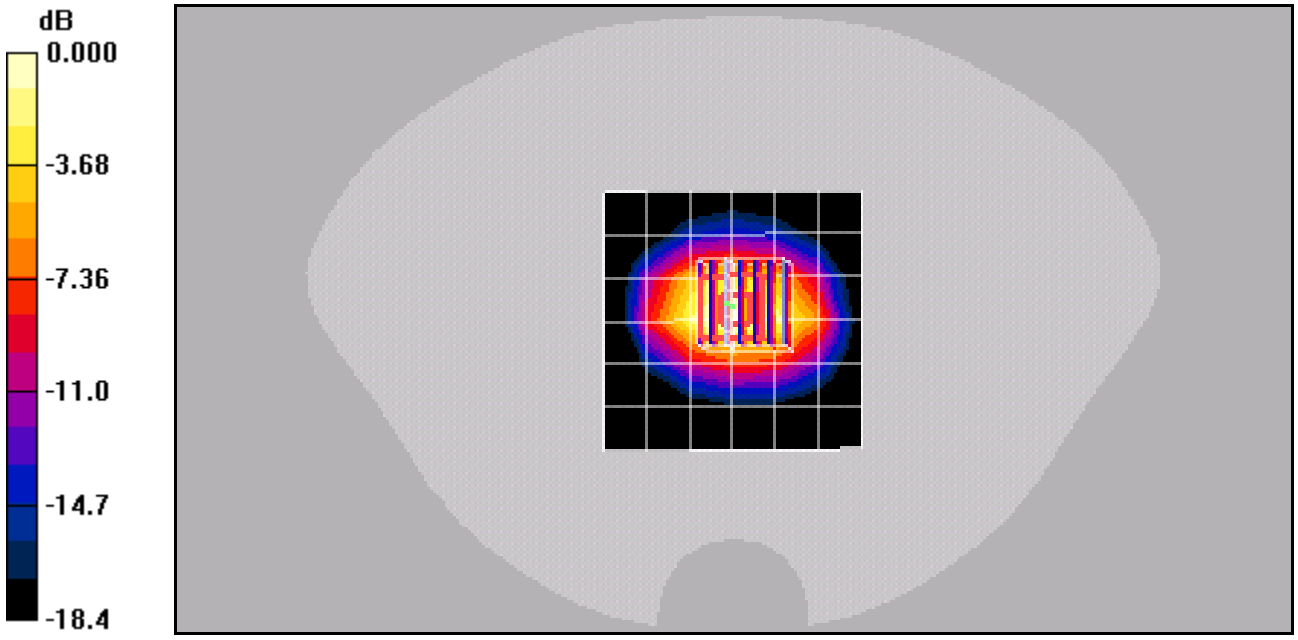
DASY4 Configuration:
Probe: ET3DV6 - SN1618, ConvF(5.31, 5.31, 5.31), Calibrated: 9/19/2007
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE4 Sn527,Calibrated: 9/14/2007
Measurement SW: DASY4, V4.7 Build 71
Postprocessing SW: SEMCAD, V1.8 Build 176

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 = 57.2 V/m; Power Drift = -0.009 dB
Peak SAR (extrapolated) = 6.48 W/kg
SAR(1 g) = 3.88 mW/g; SAR(10 g) = 2.06 mW/g

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 4.41 mW/g



0 dB = 4.41mW/g

Test Laboratory: Kyocera-Wireless Corp.

1900Mhz Validation (In Muscle) @ 20dBm with Probe 1618, DAE 527 and Dipole 5d016

Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: M1800,Medium parameters used (interpolated): f = 1900 MHz; σ = 1.47 mho/m; ε_r = 53.7; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

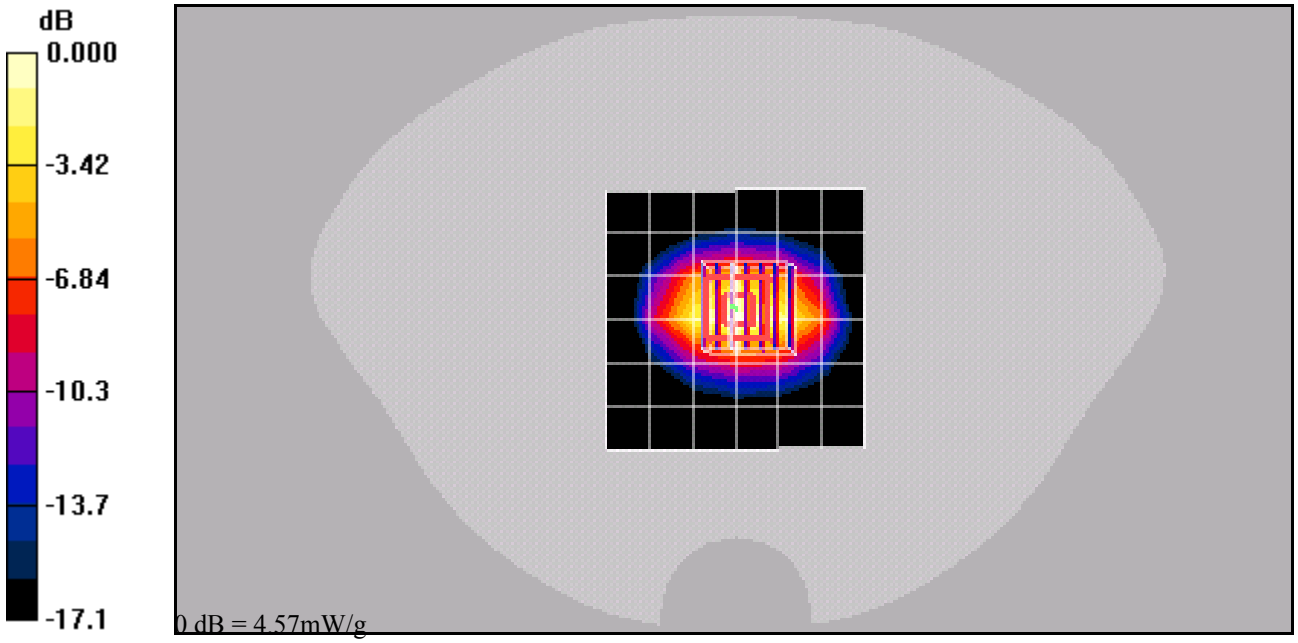
DASY4 Configuration:
Probe: ET3DV6 - SN1618, ConvF(4.72, 4.72, 4.72), Calibrated: 9/19/2007
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE4 Sn527,Calibrated: 9/14/2007
Measurement SW: DASY4, V4.7 Build 71
Postprocessing SW: SEMCAD, V1.8 Build 176

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 = 57.8 V/m; Power Drift = 0.026 dB
Peak SAR (extrapolated) = 6.57 W/kg
SAR(1 g) = 4.02 mW/g; SAR(10 g) = 2.18 mW/g

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 4.57 mW/g



Test Laboratory: Kyocera-Wireless Corp.

1900Mhz Validation (In Muscle) @ 20dBm with Probe 1618, DAE 527 and Dipole 5d016

Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: M1800,Medium parameters used (interpolated): f = 1900 MHz; σ = 1.49 mho/m; ε_r = 53.8; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

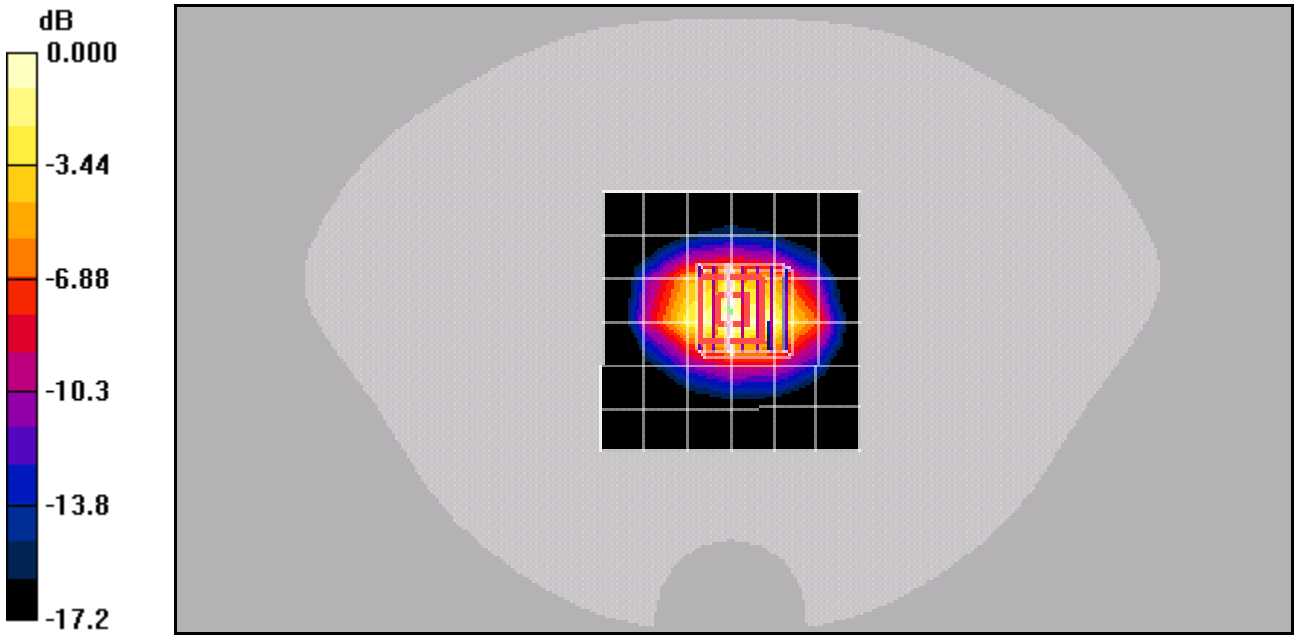
DASY4 Configuration:
Probe: ET3DV6 - SN1618, ConvF(4.72, 4.72, 4.72), Calibrated: 9/19/2007
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE4 Sn527,Calibrated: 9/14/2007
Measurement SW: DASY4, V4.7 Build 71
Postprocessing SW: SEMCAD, V1.8 Build 176

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 = 55.4 V/m; Power Drift = 0.041 dB
Peak SAR (extrapolated) = 6.38 W/kg
SAR(1 g) = 3.88 mW/g; SAR(10 g) = 2.11 mW/g

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 4.42 mW/g



0 dB = 4.42mW/g

Test Laboratory: Kyocera Wireless Corp.

2400MHz Validation @ 20dBm with Probe 3078, DAE 675 and Dipole 776

Communication System: CW, Frequency: 2450 MHz, Duty Cycle: 1:1
Medium: HSL2450,Medium parameters used (interpolated): f = 2450 MHz; σ = 1.84 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

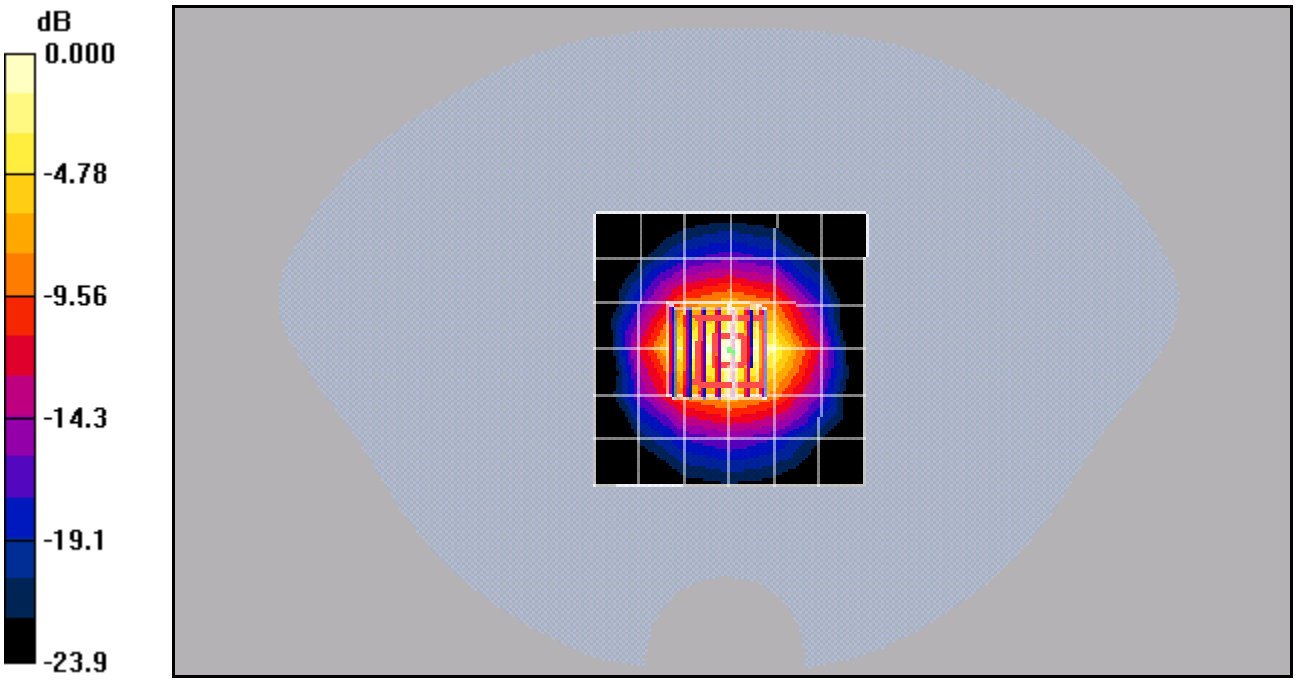
DASY4 Configuration:
Probe: ES3DV3 - SN3078, ConvF(4.46, 4.46, 4.46), Calibrated: 6/23/2008
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE4 Sn675,Calibrated: 4/21/2008
Measurement SW: DASY4, V4.7 Build 71
Postprocessing SW: SEMCAD, V1.8 Build 176

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

2450 Mhz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 58.4 V/m; Power Drift = -0.058 dB
Peak SAR (extrapolated) = 11.5 W/kg
SAR(1 g) = 5.31 mW/g; SAR(10 g) = 2.43 mW/g

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 6.06 mW/g



0 dB = 6.06mW/g

Test Laboratory: Kyocera Wireless Corp.

835Mhz Validation @ 20dBm with Probe 1713, DAE 602 and Dipole 467

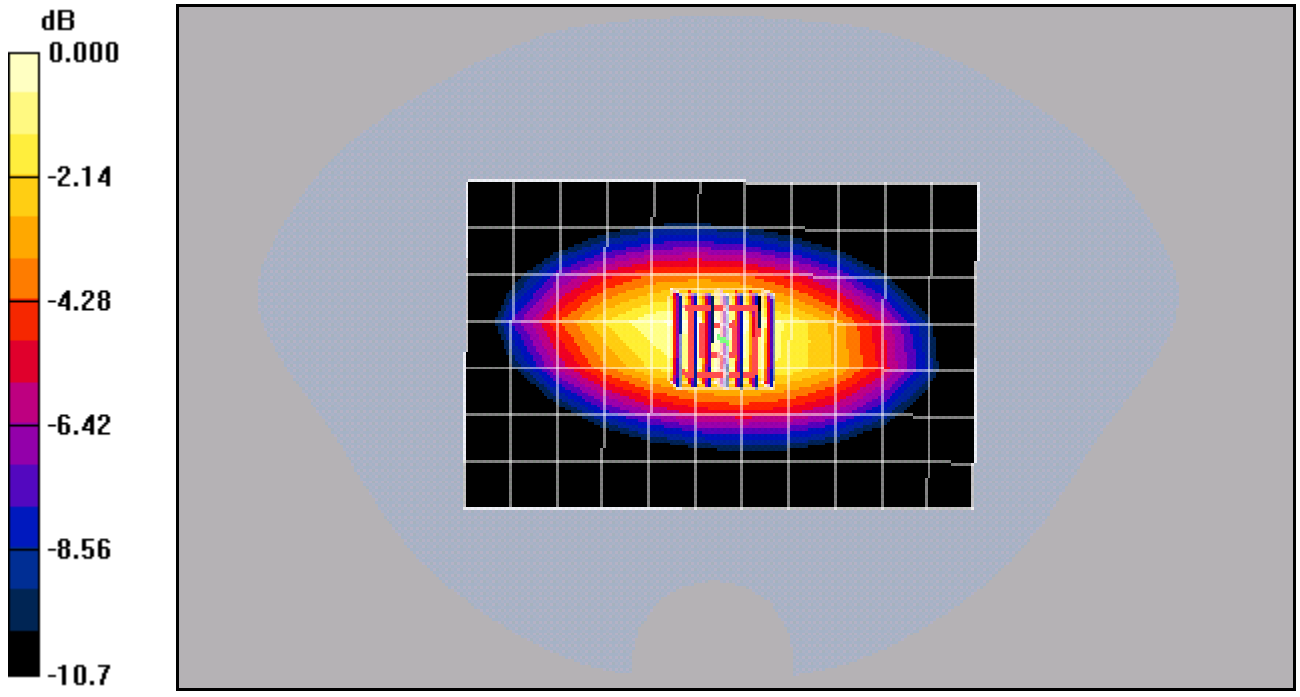
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.88 mho/m; ε_r = 39.9; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1713, ConvF(6.57, 6.57, 6.57), Calibrated: 4/22/2008
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE4 Sn602,Calibrated: 6/25/2008
Measurement SW: DASY4, V4.7 Build 71
Postprocessing SW: SEMCAD, V1.8 Build 176

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 = 35.8 V/m; Power Drift = 0.021 dB
Peak SAR (extrapolated) = 1.48 W/kg
SAR(1 g) = 0.995 mW/g; SAR(10 g) = 0.645 mW/g
Maximum value of SAR (measured) = 1.08 mW/g



0 dB = 1.08mW/g