Appendix A:

Validation Test Plots

Test Laboratory: Kyocera

835MHz Validation @ 20dBm, Probe #3036, DAE #493 and Dipole #454

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 = 42.1; ρ = 1000 kg/m^3

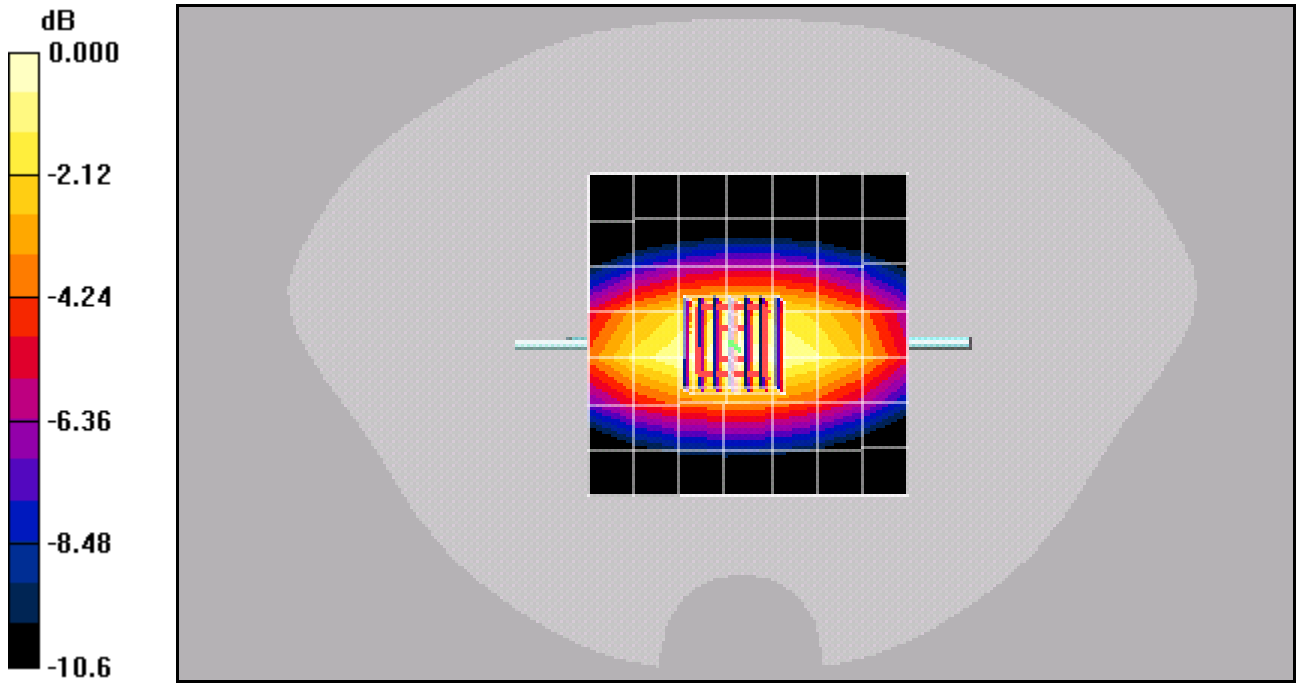
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ES3DV2 - SN3036, ConvF(5.99, 5.99, 5.99), Calibrated: 10/25/2005
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE3 Sn493,Calibrated: 11/14/2005
Measurement SW: DASY4, V4.4 Build 3
Postprocessing SW: SEMCAD, V1.8 Build 160

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 = 35.5 V/m; Power Drift = -0.011 dB
Peak SAR (extrapolated) = 1.57 W/kg
SAR(1 g) = 1.04 mW/g; SAR(10 g) = 0.677 mW/g
Maximum value of SAR (measured) = 1.13 mW/g



0 dB = 1.13mW/g

Test Laboratory: Kyocera

835MHz Validation @ 20dBm, Probe #3036, DAE #493 and Dipole #454

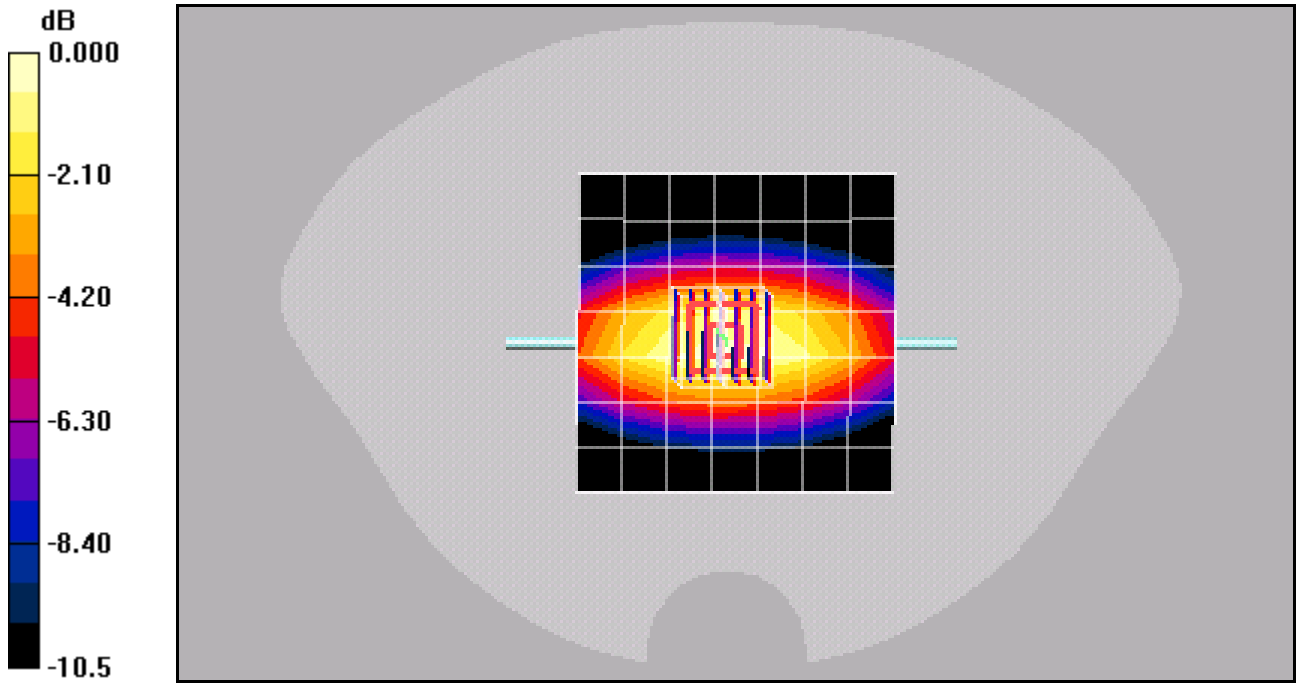
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.91 mho/m; ε_r = 42; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ES3DV2 - SN3036, ConvF(5.99, 5.99, 5.99), Calibrated: 10/25/2005
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE3 Sn493,Calibrated: 11/14/2005
Measurement SW: DASY4, V4.4 Build 3
Postprocessing SW: SEMCAD, V1.8 Build 160

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 = 35.3 V/m; Power Drift = -0.082 dB
Peak SAR (extrapolated) = 1.53 W/kg
SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.657 mW/g
Maximum value of SAR (measured) = 1.10 mW/g



0 dB = 1.10mW/g

Test Laboratory: Kyocera

835MHz Validation @ 20dBm, Probe #3036, DAE #493 and Dipole #454

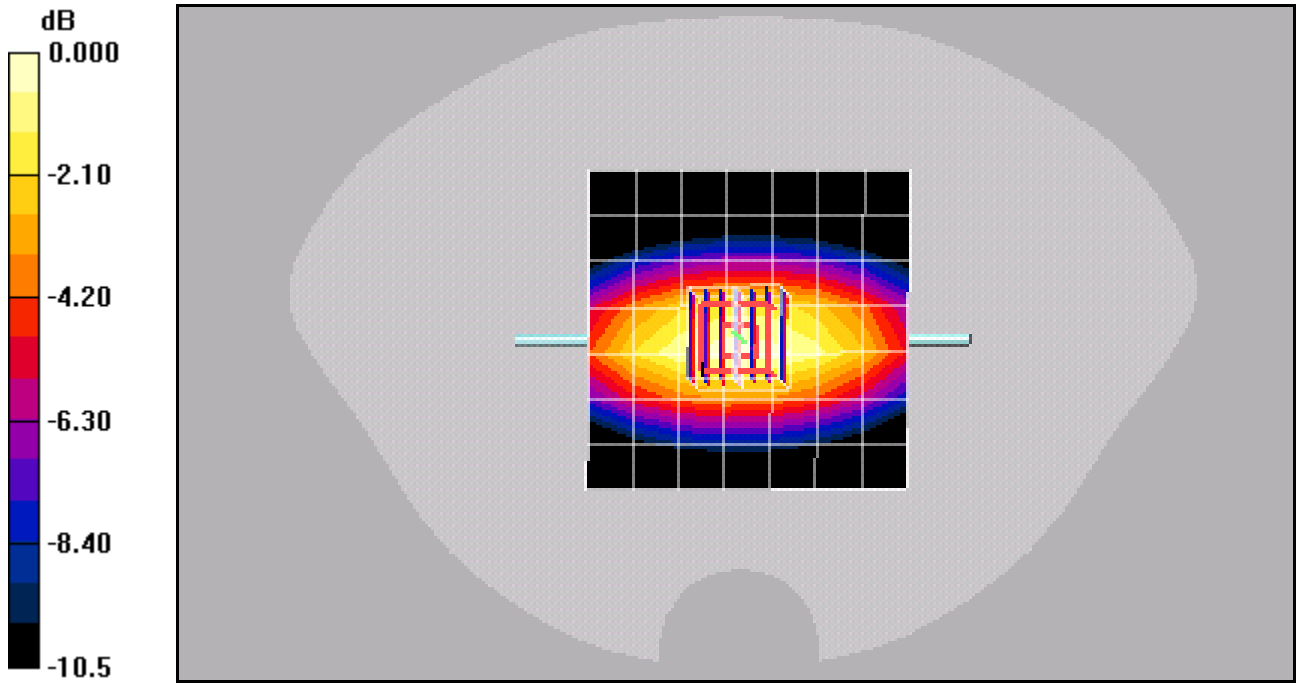
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.9 mho/m; ε_r = 42.9; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ES3DV2 - SN3036, ConvF(5.99, 5.99, 5.99), Calibrated: 10/25/2005
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE3 Sn493,Calibrated: 11/14/2005
Measurement SW: DASY4, V4.4 Build 3
Postprocessing SW: SEMCAD, V1.8 Build 160

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 = 35.2 V/m; Power Drift = 0.026 dB
Peak SAR (extrapolated) = 1.55 W/kg
SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.663 mW/g
Maximum value of SAR (measured) = 1.11 mW/g



0 dB = 1.11mW/g

Test Laboratory: Kyocera

1900MHz Validation @ 20dBm, Probe 3036, DAE #493 and Dipole #5d003

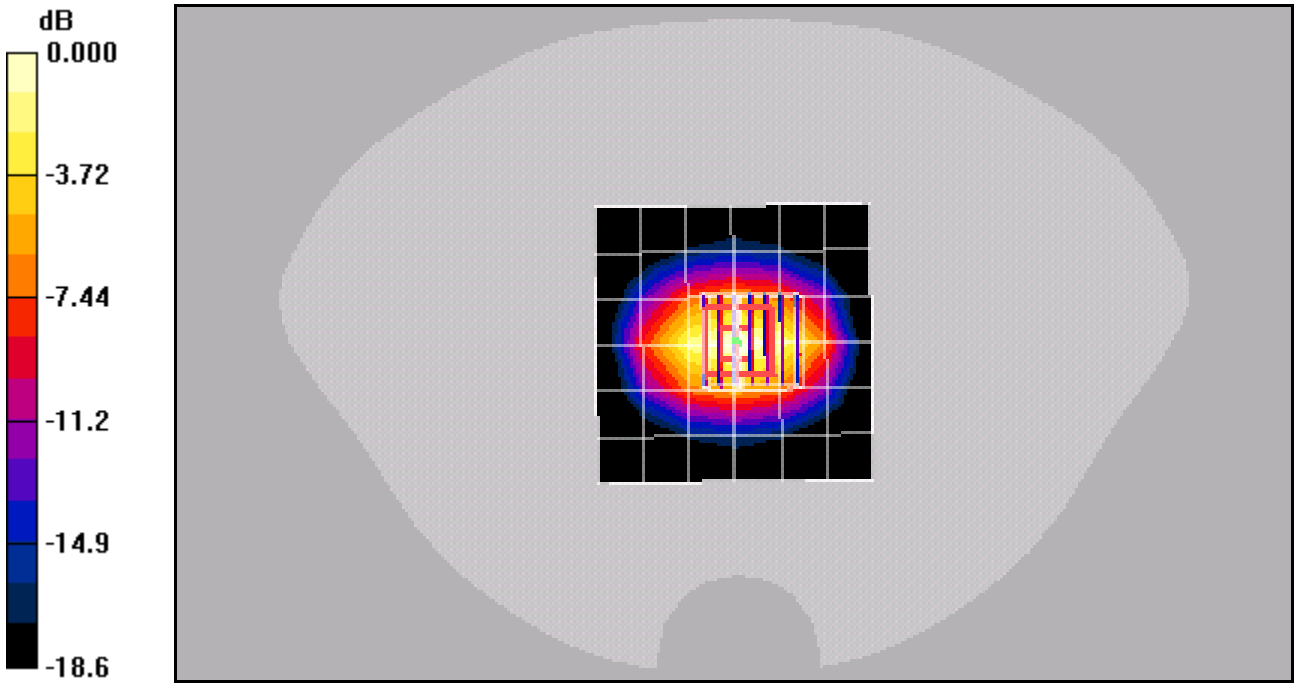
Communication System: CW 1900, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: HSL1800,Medium parameters used (interpolated): f = 1900 MHz; σ = 1.37 mho/m; ε_r = 39.7; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ES3DV2 - SN3036, ConvF(4.64, 4.64, 4.64), Calibrated: 10/25/2005
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE3 Sn493,Calibrated: 11/14/2005
Measurement SW: DASY4, V4.4 Build 3
Postprocessing SW: SEMCAD, V1.8 Build 160

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 = 57.7 V/m; Power Drift = 0.011 dB
Peak SAR (extrapolated) = 6.85 W/kg
SAR(1 g) = 3.86 mW/g; SAR(10 g) = 2.03 mW/g
Maximum value of SAR (measured) = 4.38 mW/g



0 dB = 4.38mW/g

Test Laboratory: Kyocera

1900MHz Validation @ 20dBm, Probe 3036, DAE #493 and Dipole #5d003

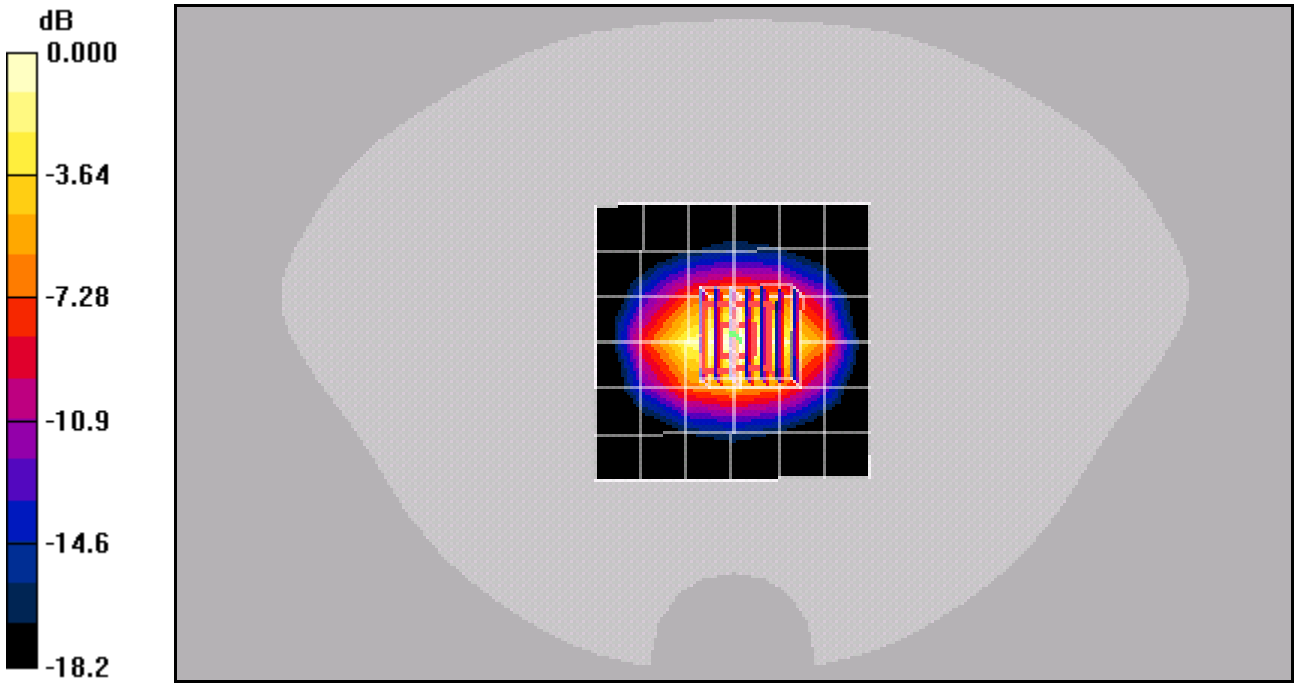
Communication System: CW 1900, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: HSL1800,Medium parameters used (interpolated): f = 1900 MHz; σ = 1.36 mho/m; ε_r = 40; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ES3DV2 - SN3036, ConvF(4.64, 4.64, 4.64), Calibrated: 10/25/2005
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE3 Sn493,Calibrated: 11/14/2005
Measurement SW: DASY4, V4.4 Build 3
Postprocessing SW: SEMCAD, V1.8 Build 160

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 = 59.3 V/m; Power Drift = 0.033 dB
Peak SAR (extrapolated) = 7.08 W/kg
SAR(1 g) = 4.02 mW/g; SAR(10 g) = 2.12 mW/g
Maximum value of SAR (measured) = 4.54 mW/g



0 dB = 4.54mW/g