Appendix A:

Validation Test Plots

Test Laboratory: Kyocera-Wireless Corp.

835Mhz Validation in Head Liquid @ 20dBm with Probe 1664, DAE 493 and Dipole 454

Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.916 mho/m; ε_r = 41.7; 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: DAE3 Sn493,Calibrated: 11/7/2006
Measurement SW: DASY4, V4.7 Build 53
Postprocessing SW: SEMCAD, V1.8 Build 160
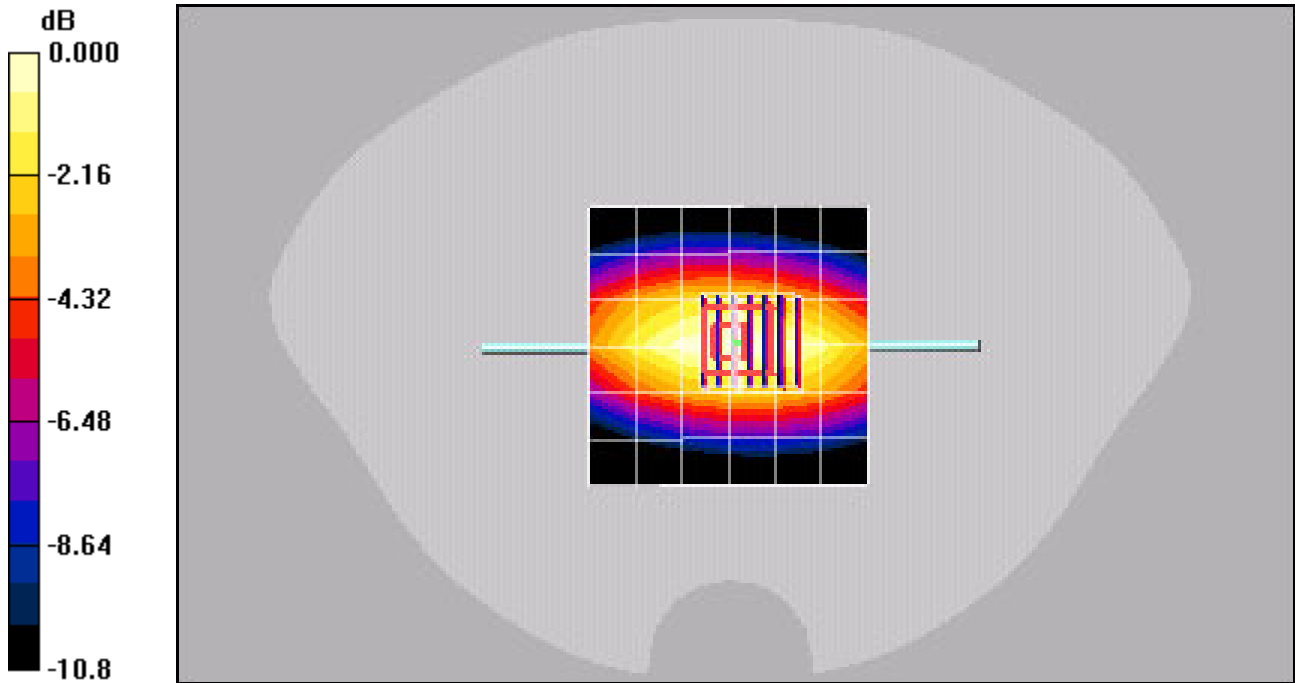
Temperature:
Room T = 21.8 +/− 1 deg C, Liquid T = 22.0 +/− 1 deg C

20 dbm validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 34.8 V/m; Power Drift = -0.038 dB
Peak SAR (extrapolated) = 1.28 W/kg
SAR(1 g) = 0.917 mW/g; SAR(10 g) = 0.601 mW/g

0 dB = 0.990mW/g

Test Laboratory: Kyocera-Wireless Corp.

835Mhz Validation in Muscle Liquid @ 20dBm with Probe 1664, DAE 493 and Dipole 454

Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: M900,Medium parameters used: f = 835 MHz; σ = 0.941 mho/m; ε_r = 53.5; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1664, ConvF(6.43, 6.43, 6.43), Calibrated: 6/22/2006
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE3 Sn493,Calibrated: 11/7/2006
Measurement SW: DASY4, V4.7 Build 53
Postprocessing SW: SEMCAD, V1.8 Build 160
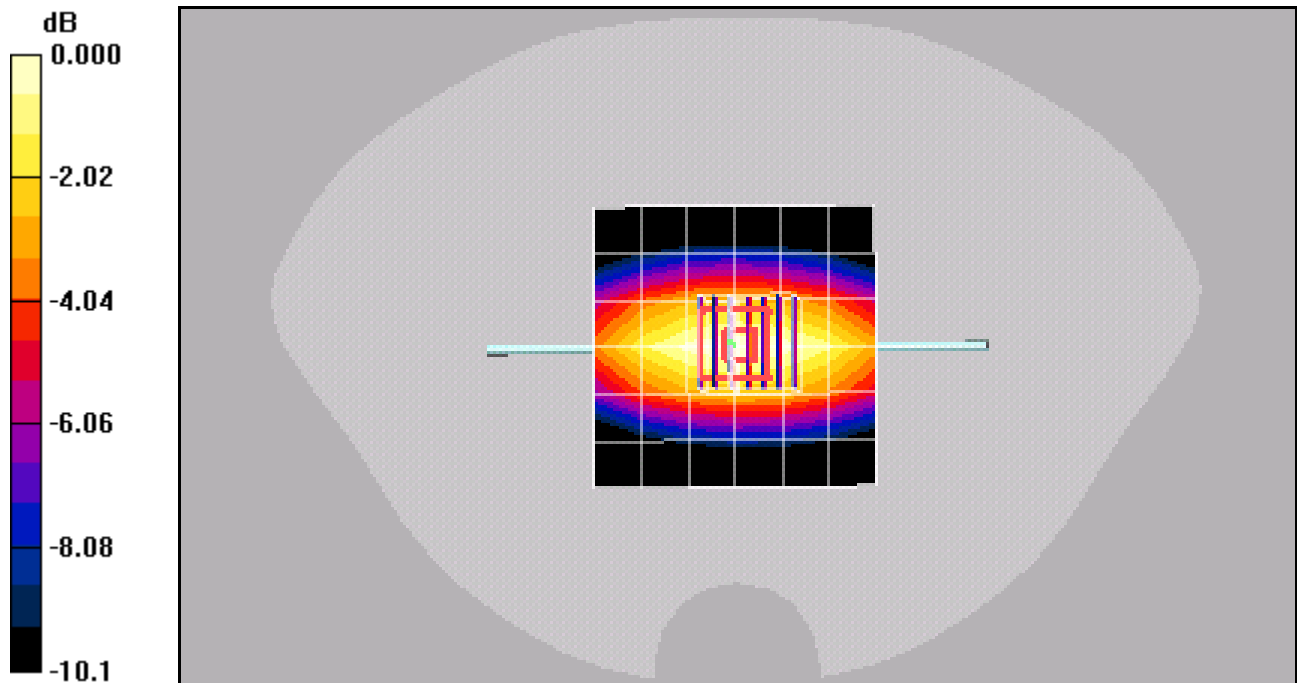
Temperature:
Room T = 21.8 +/− 1 deg C, Liquid T = 22.0 +/− 1 deg C

20 dbm validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 35.1 V/m; Power Drift = -0.002 dB
Peak SAR (extrapolated) = 1.36 W/kg
SAR(1 g) = 0.980 mW/g; SAR(10 g) = 0.650 mW/g

0 dB = 1.06mW/g

Test Laboratory: Kyocera-Wireless Corp.

835Mhz Validation in Muscle Liquid @ 20dBm with Probe 1664, DAE 493 and Dipole 454

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 = 54.2; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1664, ConvF(6.43, 6.43, 6.43), Calibrated: 6/22/2006
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE3 Sn493,Calibrated: 11/7/2006
Measurement SW: DASY4, V4.7 Build 53
Postprocessing SW: SEMCAD, V1.8 Build 160

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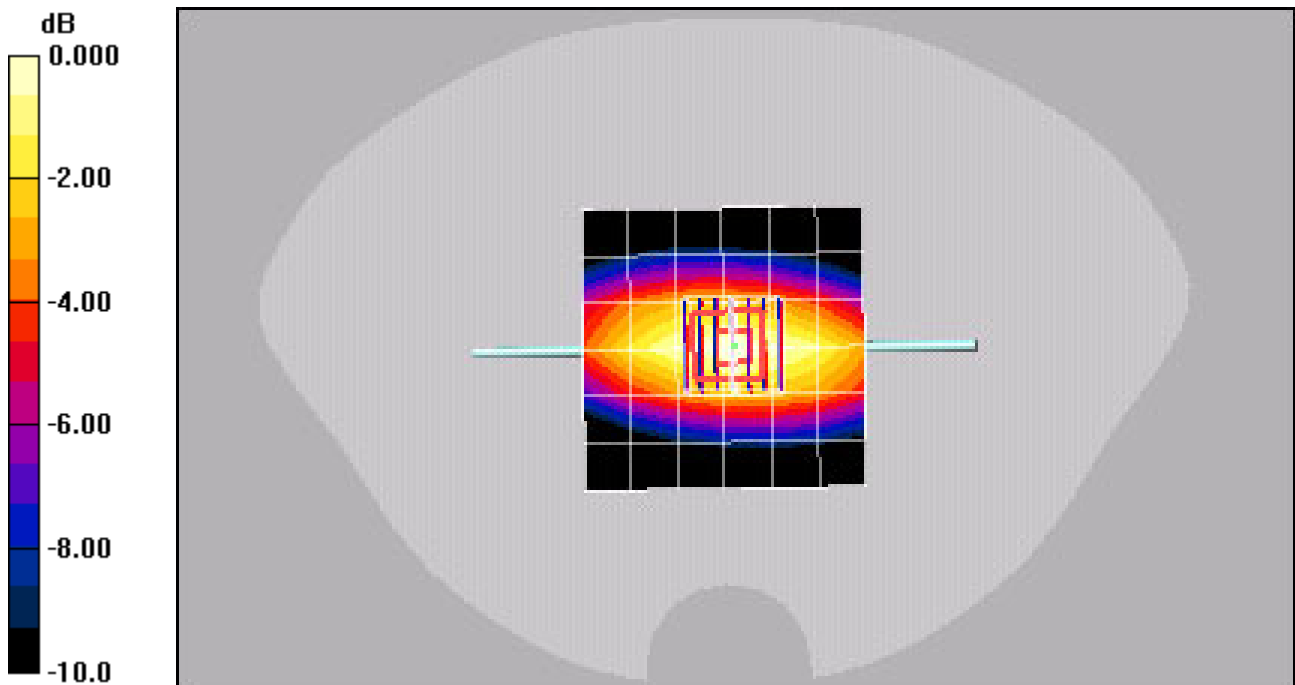Room T = 21.8 +/− 1 deg C, Liquid T = 22.0 +/− 1 deg C

20 dbm validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 35.6 V/m; Power Drift = 0.003 dB
Peak SAR (extrapolated) = 1.45 W/kg
SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.666 mW/g
Maximum value of SAR (measured) = 1.10 mW/g

0 dB = 1.10mW/g

Test Laboratory: Kyocera-Wireless Corp.

1900Mhz Validation in Head Liquid @ 20dBm with Probe 1664, DAE 493 and Dipole 5d003

Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: HSL1800,Medium parameters used (interpolated): f = 1900 MHz; σ = 1.38 mho/m; ε_r = 40.2; 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: DAE3 Sn493,Calibrated: 11/7/2006
Measurement SW: DASY4, V4.7 Build 53
Postprocessing SW: SEMCAD, V1.8 Build 160

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

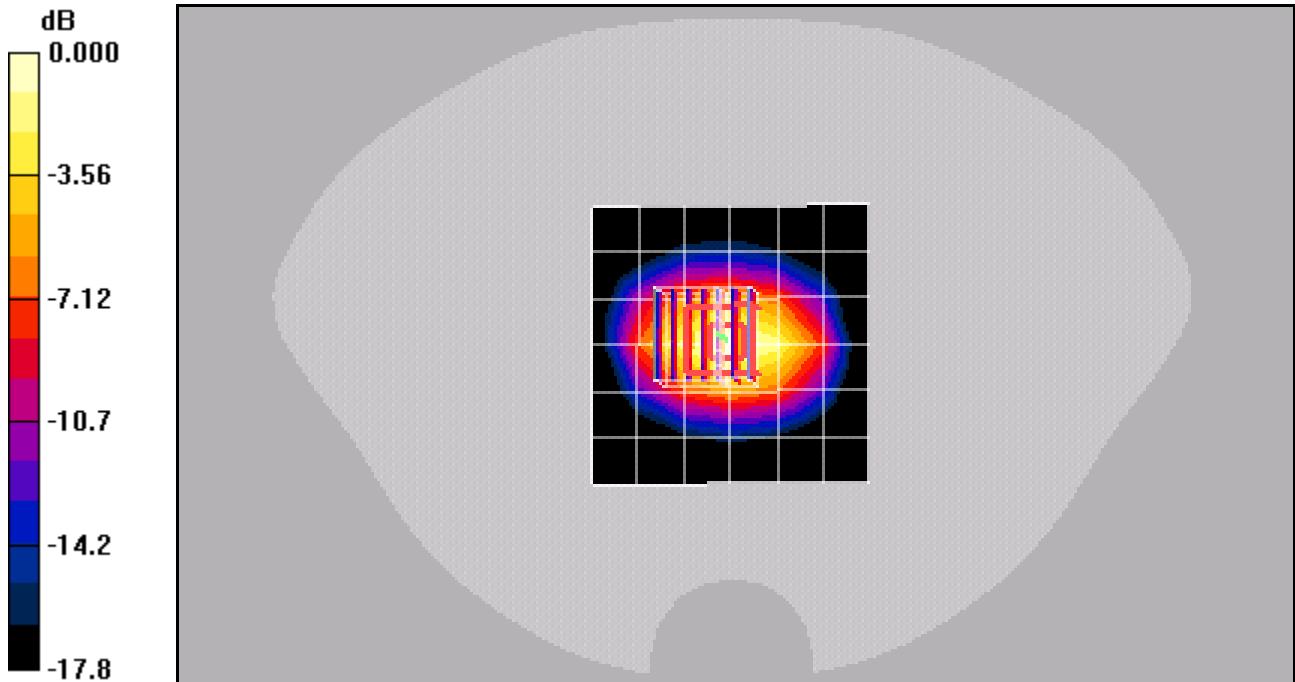## 1900MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 59.1 V/m; Power Drift = -0.049 dB
Peak SAR (extrapolated) = 6.54 W/kg
SAR(1 g) = 3.8 mW/g; SAR(10 g) = 2.02 mW/g

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 4.29 mW/g

0 dB = 4.29mW/g

Test Laboratory: Kyocera-Wireless Corp.

1900Mhz Validation in Head Liquid @ 20dBm with Probe 1664, DAE 493 and Dipole 5d003

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

Medium: HSL1800,Medium parameters used (interpolated): f = 1900 MHz; σ = 1.43 mho/m; $ε_r$ = 39.7; ρ = 1000 kg/m³

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: DAE3 Sn493,Calibrated: 11/7/2006
Measurement SW: DASY4, V4.7 Build 53
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
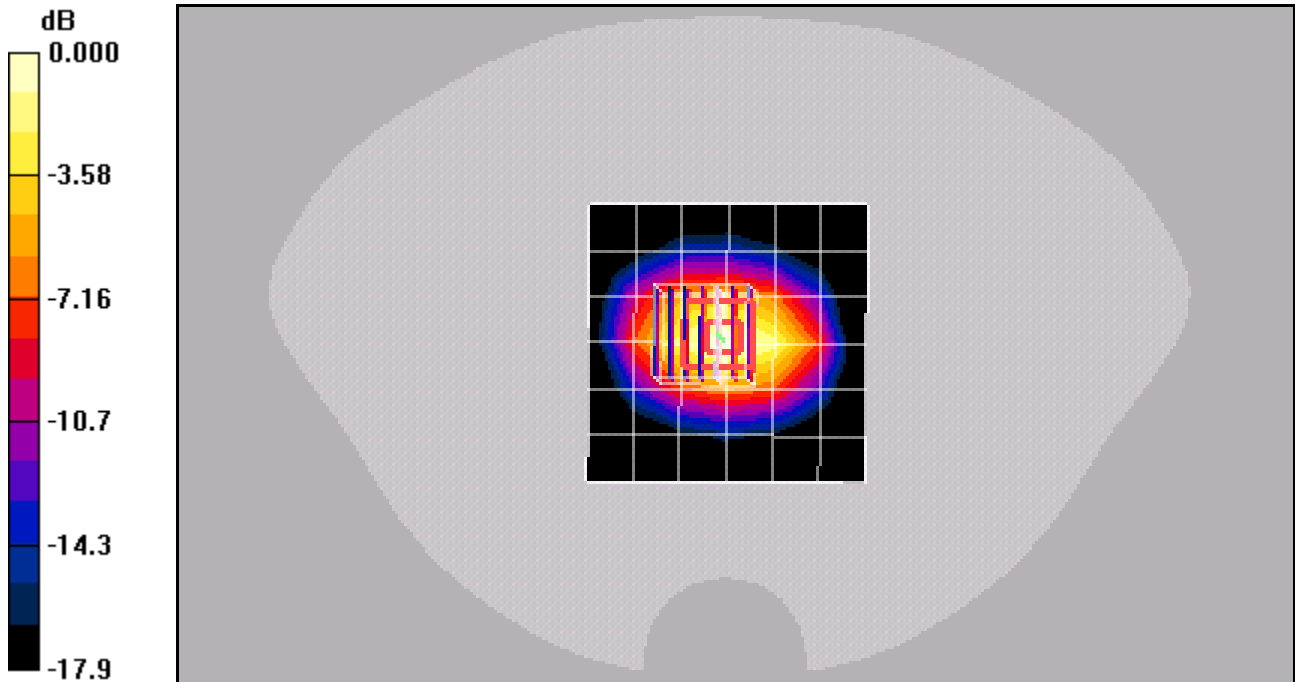
Reference Value = 58.8 V/m; Power Drift = -0.018 dB

Peak SAR (extrapolated) = 6.80 W/kg

SAR(1 g) = 3.92 mW/g; SAR(10 g) = 2.07 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 Liquid @ 20dBm with Probe 1664, DAE 493 and Dipole 5d003

Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: M1800,Medium parameters used: f = 1900 MHz; σ = 1.48 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1664, ConvF(4.57, 4.57, 4.57), Calibrated: 6/22/2006
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE3 Sn493,Calibrated: 11/7/2006
Measurement SW: DASY4, V4.7 Build 53
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 = 58.6 V/m; Power Drift = -0.020 dB
Peak SAR (extrapolated) = 6.95 W/kg
SAR(1 g) = 4.02 mW/g; SAR(10 g) = 2.15 mW/g
Maximum value of SAR (measured) = 4.52 mW/g

0 dB = 4.52mW/g