

# **Appendix A: Validation Test Plots**

Test Laboratory: Kyocera-Wireless Corp.

## 835Mhz Validation @ 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;  $\sigma = 0.91$  mho/m;  $\epsilon_r = 41.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

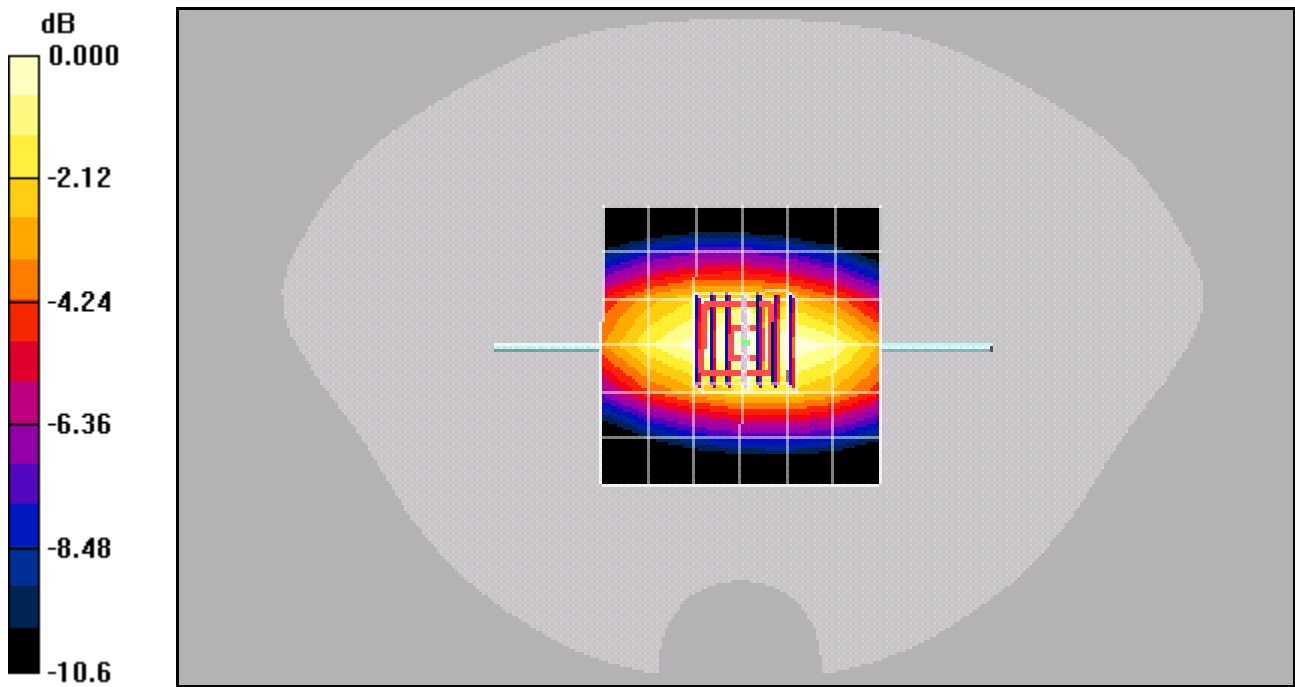
## 20 dbm validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 35.3 V/m; Power Drift = -0.017 dB

Peak SAR (extrapolated) = 1.33 W/kg

SAR(1 g) = 0.942 mW/g; SAR(10 g) = 0.621 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 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;  $\sigma = 1.43$  mho/m;  $\epsilon_r = 39.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

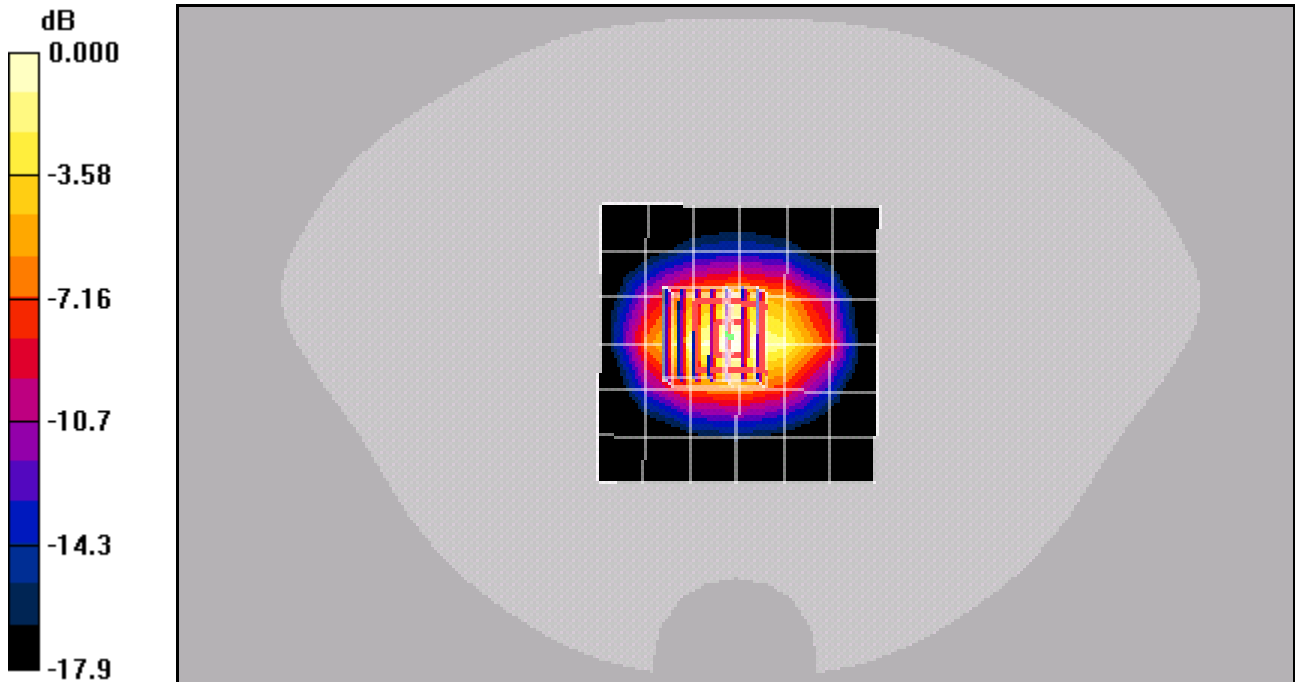
Reference Value = 57.9 V/m; Power Drift = -0.042 dB

Peak SAR (extrapolated) = 6.61 W/kg

SAR(1 g) = 3.82 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 @ 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;  $\sigma = 1.45$  mho/m;  $\epsilon_r = 38.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

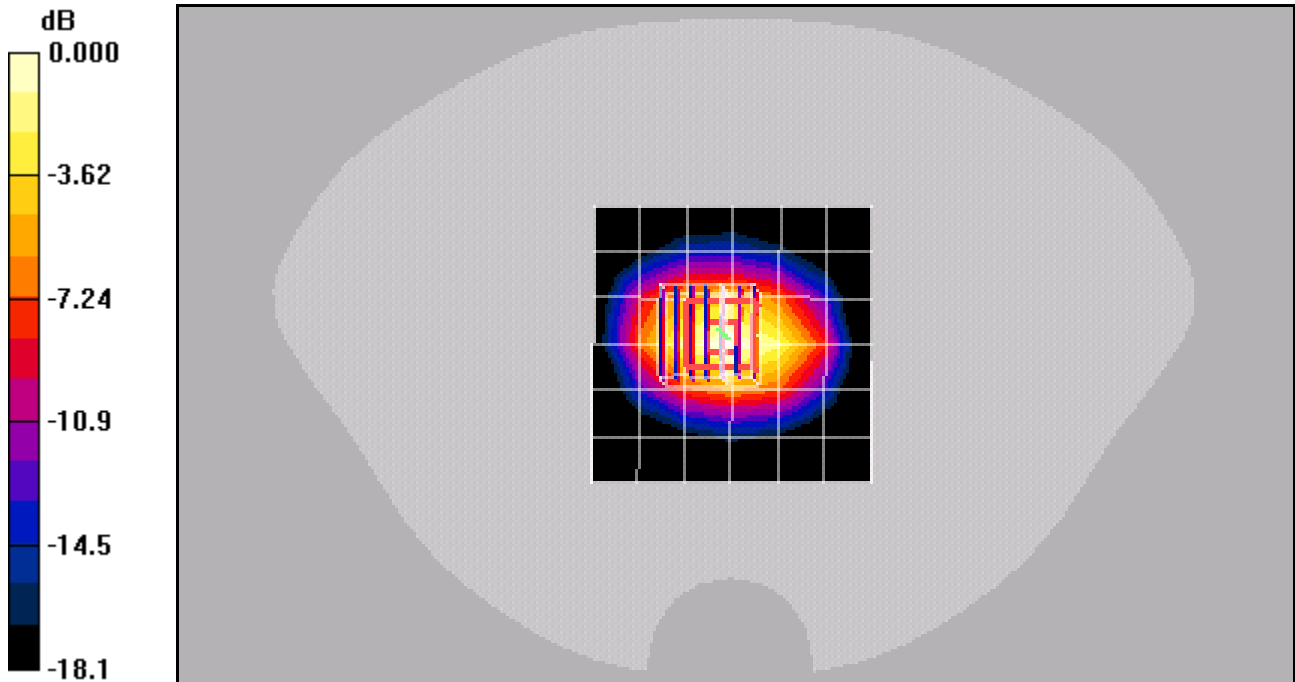
Reference Value = 57.5 V/m; Power Drift = -0.050 dB

Peak SAR (extrapolated) = 6.66 W/kg

SAR(1 g) = 3.79 mW/g; SAR(10 g) = 1.99 mW/g

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

Maximum value of SAR (measured) = 4.31 mW/g



0 dB = 4.31mW/g