

Appendix A:

Validation Test Plots

Test Laboratory: Kyocera-Wireless Corp.

835Mhz Validation @ 20dBm Probe 1664, DAE 527 and Dipole 467

Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1

Medium: HSL900, Medium parameters used: $f = 835$ MHz; $\sigma = 0.915$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1664, ConvF(6.73, 6.73, 6.73), Calibrated: 7/16/2007

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE4 Sn527, Calibrated: 9/14/2007

Measurement SW: DASY4, V4.7 Build 55

Postprocessing SW: SEMCAD, V1.8 Build 171

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

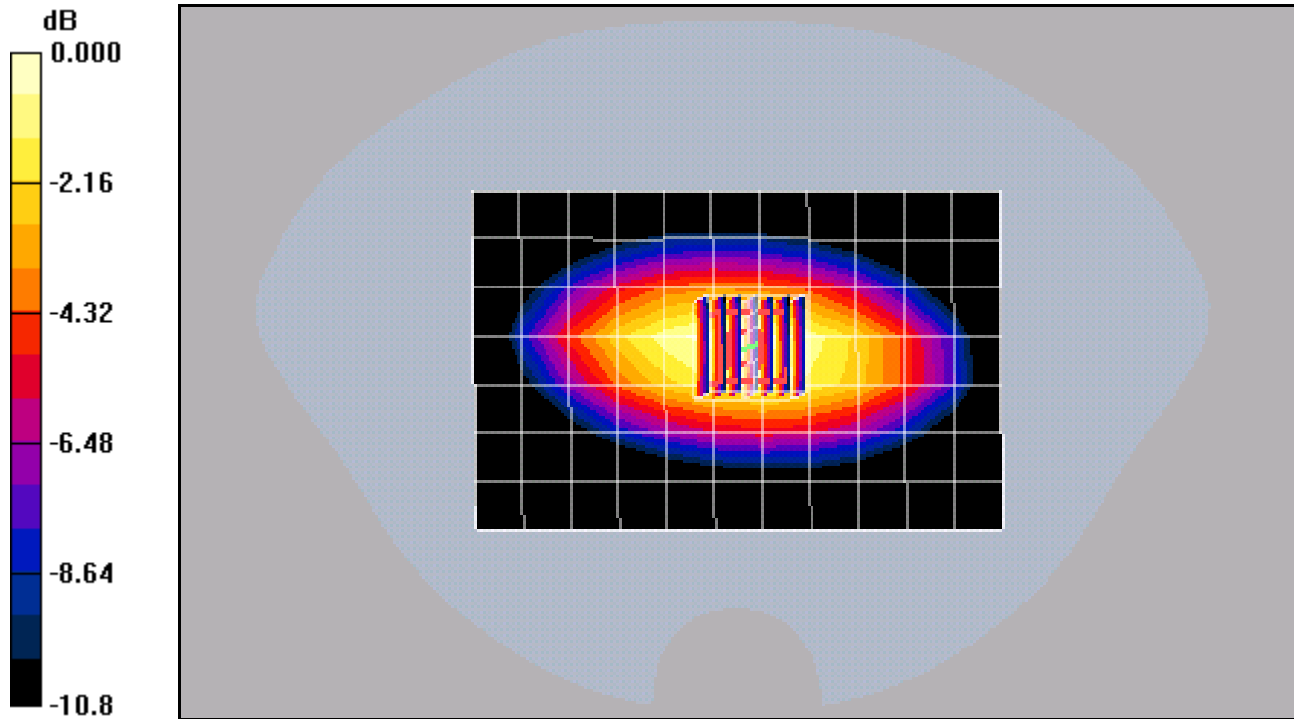
835MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 33.5 V/m; Power Drift = -0.145 dB

Peak SAR (extrapolated) = 1.40 W/kg

SAR(1 g) = 0.933 mW/g; SAR(10 g) = 0.604 mW/g

Maximum value of SAR (measured) = 1.01 mW/g



0 dB = 1.01mW/g

Test Laboratory: Kyocera-Wireless Corp.

835Mhz Validation (In Muscle) @ 20dBm Probe 1664, DAE 527 and Dipole 467

Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1

Medium: M900,Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.94 \text{ mho/m}$; $\epsilon_r = 55.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1664, ConvF(6.49, 6.49, 6.49), Calibrated: 7/16/2007

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE4 Sn527,Calibrated: 9/14/2007

Measurement SW: DASY4, V4.7 Build 55

Postprocessing SW: SEMCAD, V1.8 Build 171

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

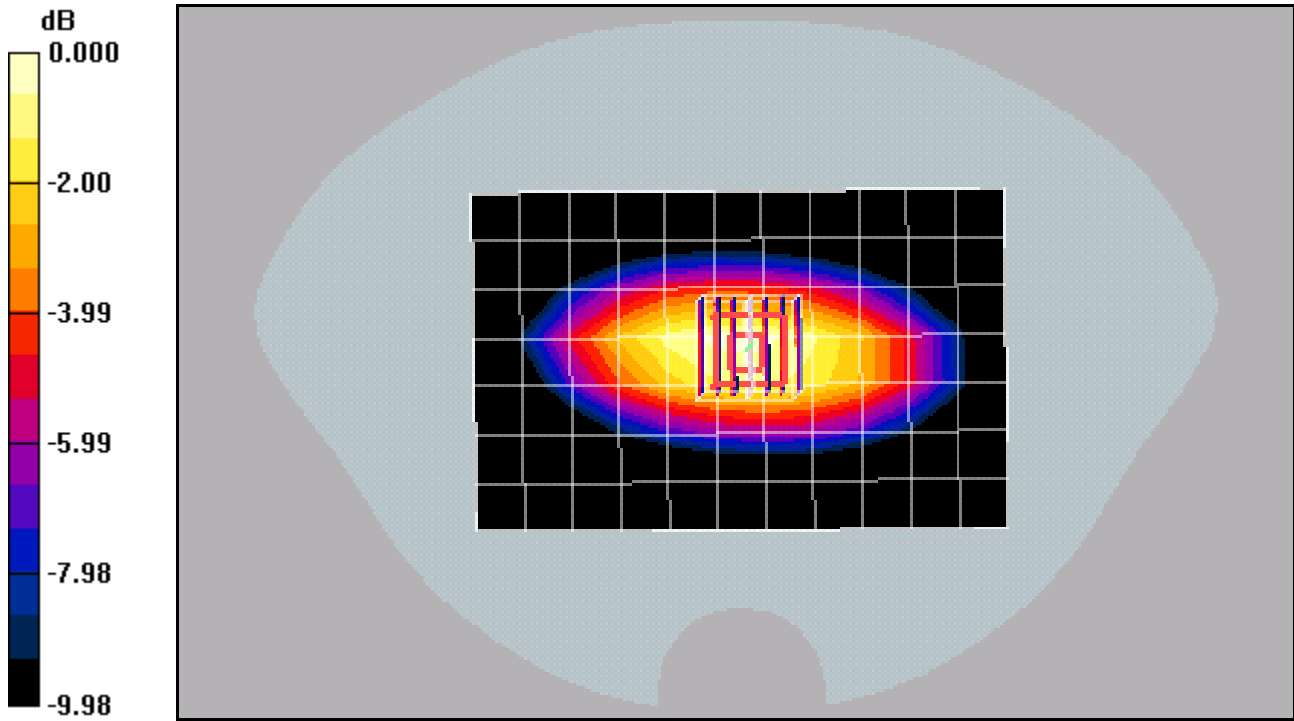
835MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 34.3 V/m; Power Drift = 0.063 dB

Peak SAR (extrapolated) = 1.47 W/kg

SAR(1 g) = 0.995 mW/g; SAR(10 g) = 0.652 mW/g

Maximum value of SAR (measured) = 1.07 mW/g



0 dB = 1.07mW/g

Test Laboratory: Kyocera-Wireless Corp.

835Mhz Validation (In Muscle) @ 20dBm Probe 1664, DAE 527 and Dipole 467

Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1

Medium: M900, Medium parameters used: $f = 835$ MHz; $\sigma = 0.93$ mho/m; $\epsilon_r = 55.4$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1664, ConvF(6.49, 6.49, 6.49), Calibrated: 7/16/2007

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE4 Sn527, Calibrated: 9/14/2007

Measurement SW: DASY4, V4.7 Build 55

Postprocessing SW: SEMCAD, V1.8 Build 171

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

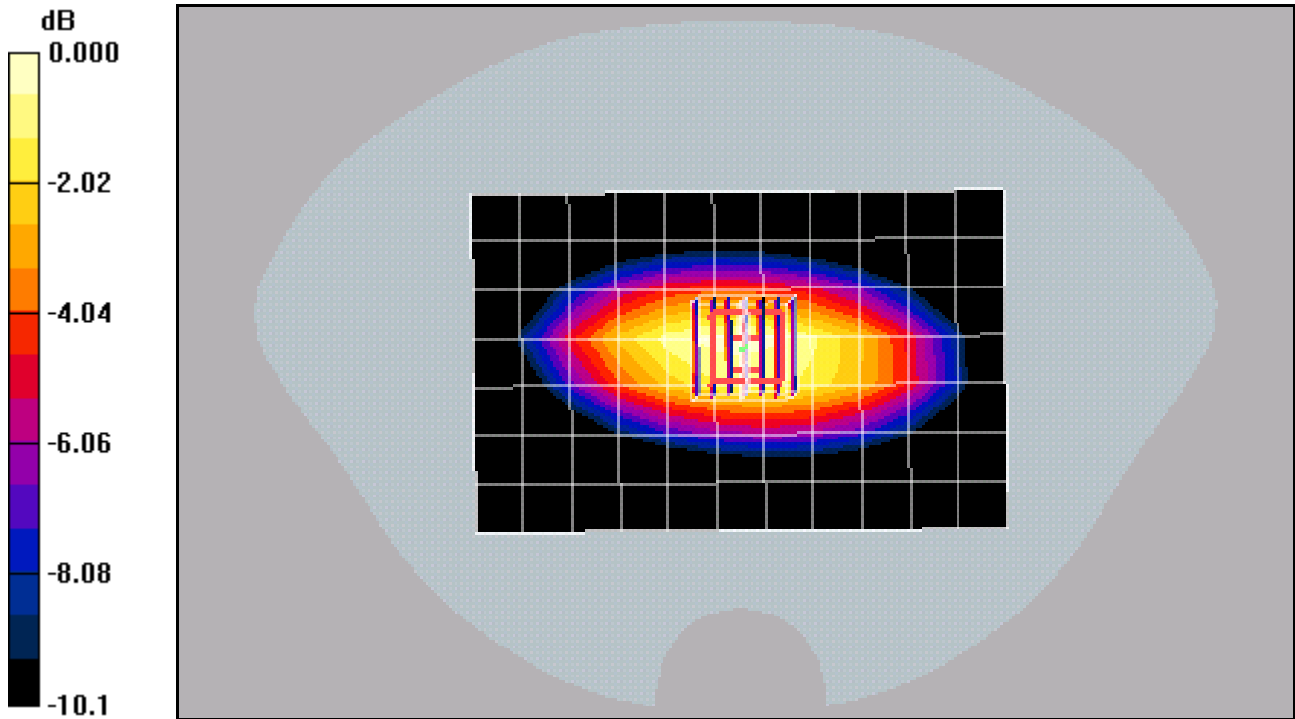
835MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 34.5 V/m; Power Drift = -0.056 dB

Peak SAR (extrapolated) = 1.45 W/kg

SAR(1 g) = 0.976 mW/g; SAR(10 g) = 0.639 mW/g

Maximum value of SAR (measured) = 1.06 mW/g



0 dB = 1.06mW/g

Test Laboratory: Kyocera-Wireless Corp.

1800Mhz Validation @ 20dBm Probe 1664, DAE 527 and Dipole 220

Communication System: CW, Frequency: 1800 MHz, Duty Cycle: 1:1

Medium: HSL1800,Medium parameters used (extrapolated): $f = 1800$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 39.3$; $\rho = 1000$ kg/m³

Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1664, ConvF(5.3, 5.3, 5.3), Calibrated: 7/16/2007

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE4 Sn527,Calibrated: 9/14/2007

Measurement SW: DASY4, V4.7 Build 55

Postprocessing SW: SEMCAD, V1.8 Build 171

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

1800MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

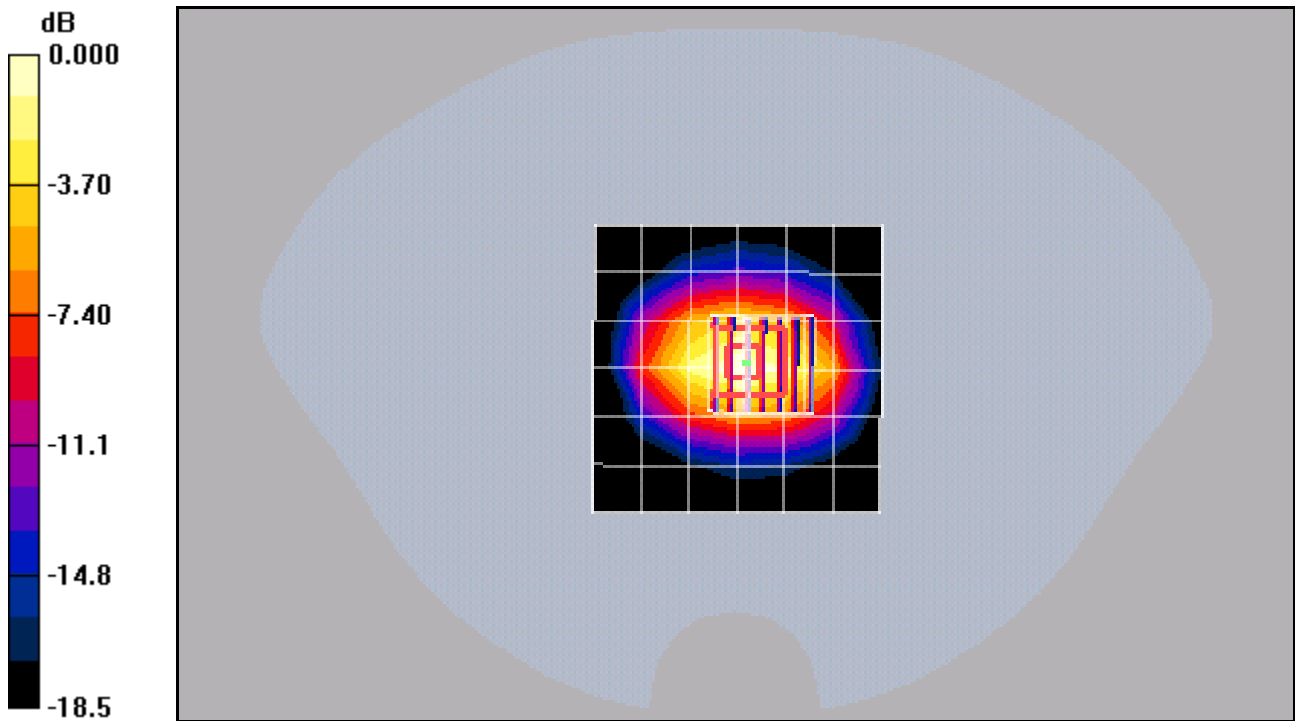
Reference Value = 56.6 V/m; Power Drift = -0.068 dB

Peak SAR (extrapolated) = 6.36 W/kg

SAR(1 g) = 3.66 mW/g; SAR(10 g) = 1.92 mW/g

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

Maximum value of SAR (measured) = 4.14 mW/g



0 dB = 4.14mW/g

Test Laboratory: Kyocera-Wireless Corp.

1800Mhz Validation (In Muscle) @ 20dBm Probe 1664, DAE 527 and Dipole 220

Communication System: CW, Frequency: 1800 MHz, Duty Cycle: 1:1

Medium: M1700, Medium parameters used (extrapolated): $f = 1800 \text{ MHz}$; $\sigma = 1.54 \text{ mho/m}$; $\epsilon_r = 55.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1664, ConvF(4.88, 4.88, 4.88), Calibrated: 7/16/2007

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE4 Sn527, Calibrated: 9/14/2007

Measurement SW: DASY4, V4.7 Build 55

Postprocessing SW: SEMCAD, V1.8 Build 171

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

1800MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

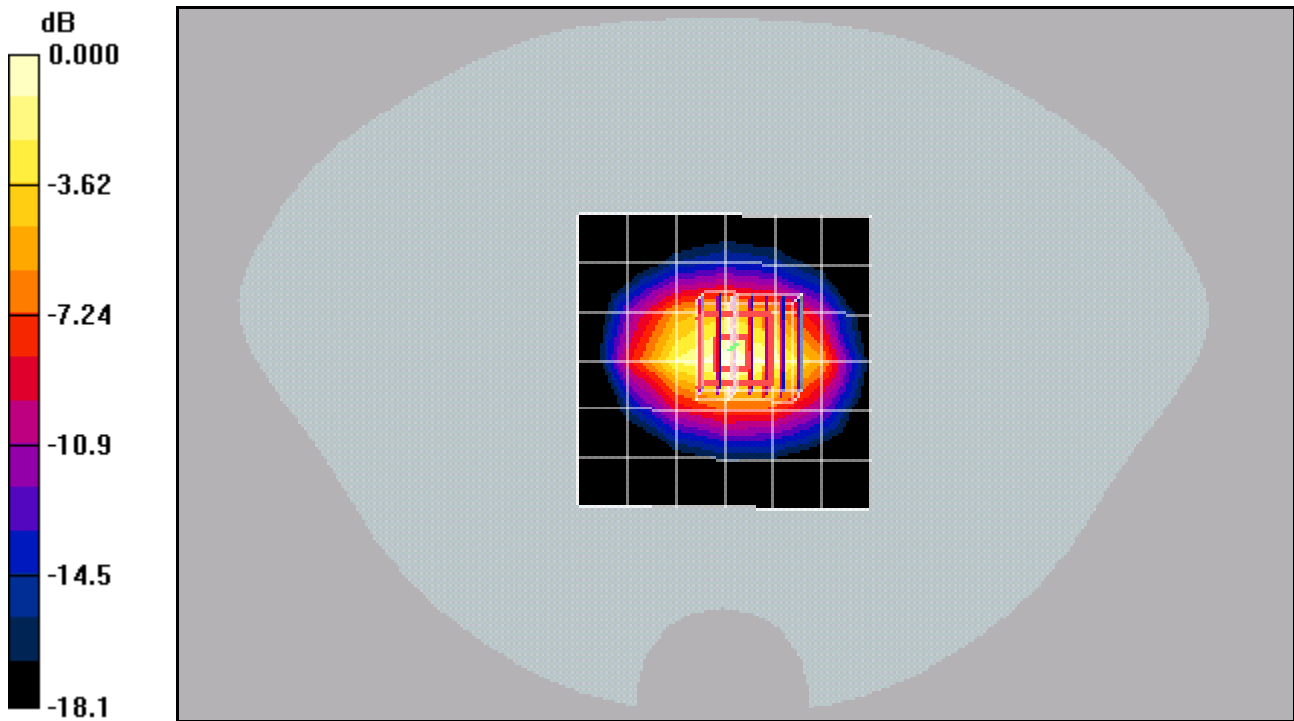
Reference Value = 53.6 V/m; Power Drift = 0.049 dB

Peak SAR (extrapolated) = 6.47 W/kg

SAR(1 g) = 3.77 mW/g; SAR(10 g) = 1.99 mW/g

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

Maximum value of SAR (measured) = 4.29 mW/g



Test Laboratory: Kyocera-Wireless Corp.

1800Mhz Validation (In Muscle) @ 20dBm Probe 1664, DAE 527 and Dipole 220

Communication System: CW, Frequency: 1800 MHz, Duty Cycle: 1:1

Medium: M1700, Medium parameters used (extrapolated): $f = 1800 \text{ MHz}$; $\sigma = 1.54 \text{ mho/m}$; $\epsilon_r = 54.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1664, ConvF(4.88, 4.88, 4.88), Calibrated: 7/16/2007

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE4 Sn527, Calibrated: 9/14/2007

Measurement SW: DASY4, V4.7 Build 55

Postprocessing SW: SEMCAD, V1.8 Build 171

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

1800MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

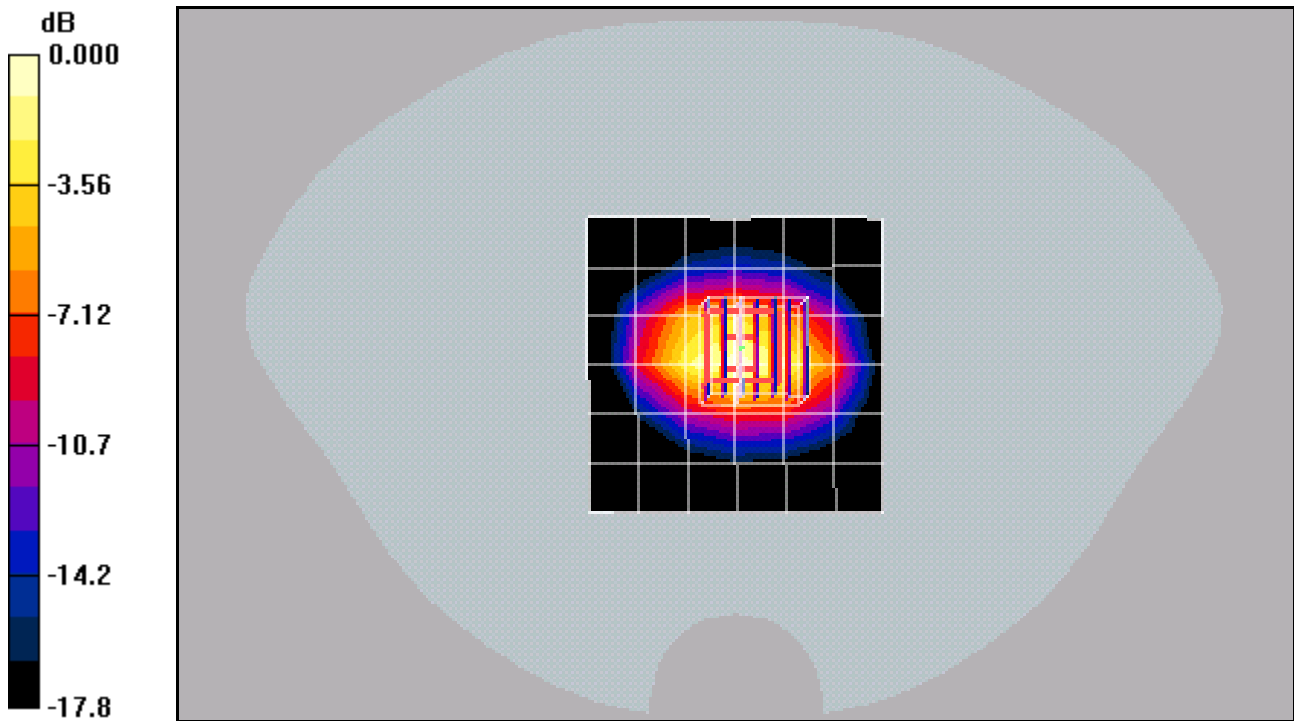
Reference Value = 53.6 V/m; Power Drift = 0.064 dB

Peak SAR (extrapolated) = 6.60 W/kg

SAR(1 g) = 3.88 mW/g; SAR(10 g) = 2.05 mW/g

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

Maximum value of SAR (measured) = 4.36 mW/g



0 dB = 4.36mW/g

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; $\sigma = 1.42$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1664, ConvF(5.14, 5.14, 5.14), Calibrated: 7/16/2007

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE4 Sn527,Calibrated: 9/14/2007

Measurement SW: DASY4, V4.7 Build 55

Postprocessing SW: SEMCAD, V1.8 Build 171

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

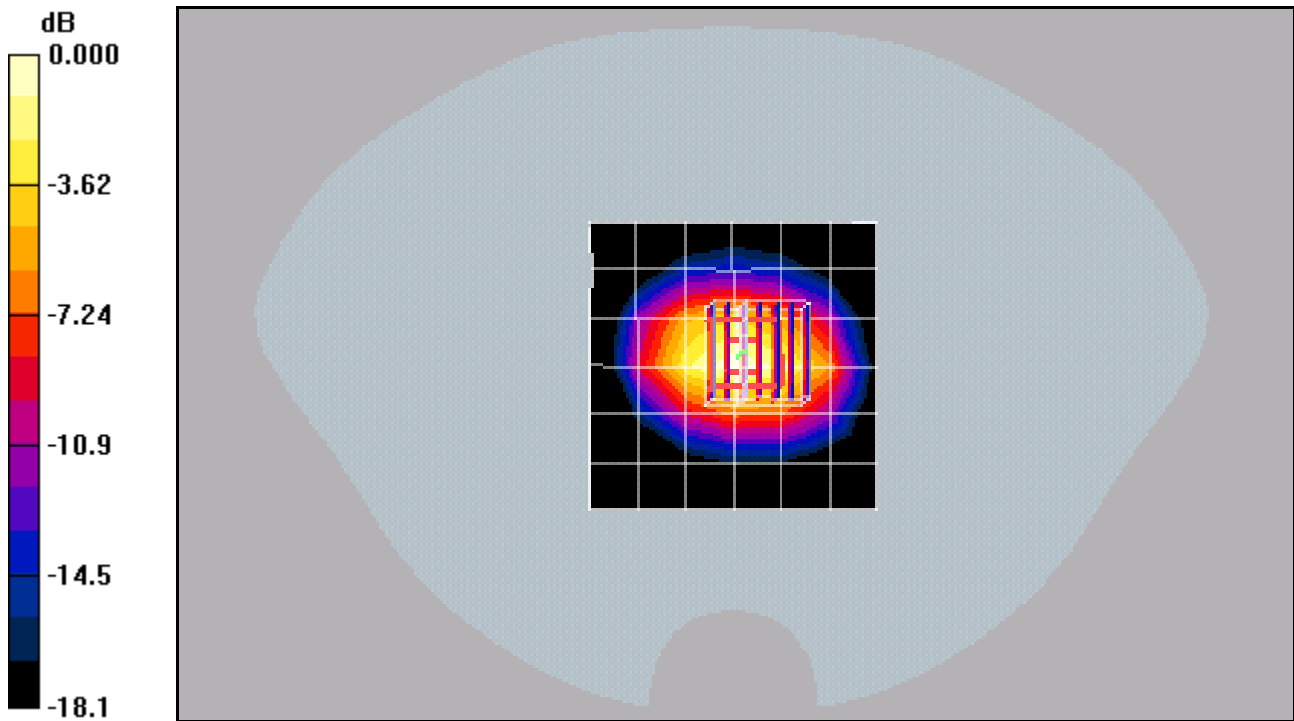
Reference Value = 58.2 V/m; Power Drift = 0.058 dB

Peak SAR (extrapolated) = 6.93 W/kg

SAR(1 g) = 4.01 mW/g; SAR(10 g) = 2.1 mW/g

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

Maximum value of SAR (measured) = 4.59 mW/g



0 dB = 4.59mW/g

Test Laboratory: Kyocera-Wireless Corp.

1900Mhz Validation (In Muscle) @ 20dBm Probe 1664, DAE 527 and Dipole 5d003

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

Medium: M1800, Medium parameters used (extrapolated): $f = 1900 \text{ MHz}$; $\sigma = 1.47 \text{ mho/m}$; $\epsilon_r = 54.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1664, ConvF(4.88, 4.88, 4.88), Calibrated: 7/16/2007

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE4 Sn527, Calibrated: 9/14/2007

Measurement SW: DASY4, V4.7 Build 55

Postprocessing SW: SEMCAD, V1.8 Build 171

Temperature:

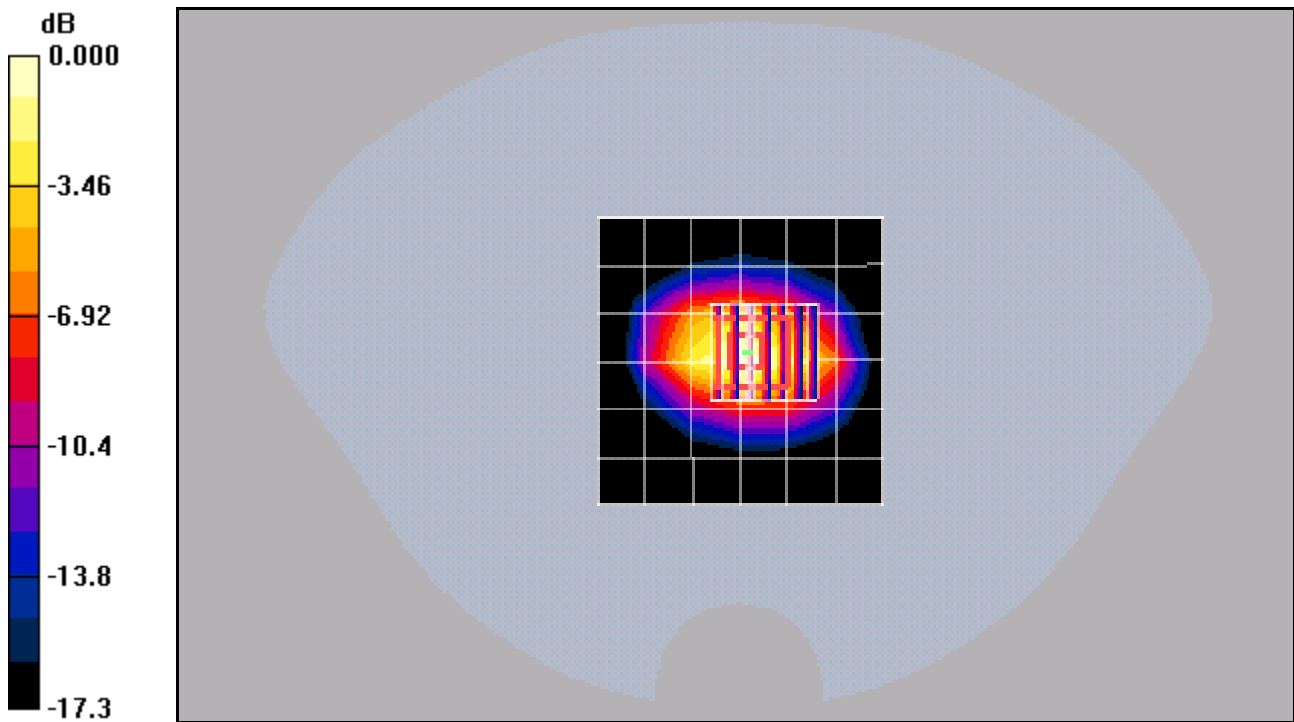
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

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

Reference Value = 58.4 V/m; Power Drift = 0.093 dB

Peak SAR (extrapolated) = 6.84 W/kg

SAR(1 g) = 4.09 mW/g; SAR(10 g) = 2.2 mW/g



0 dB = 4.65mW/g

Test Laboratory: Kyocera-Wireless Corp.

1900Mhz Validation (In Muscle) @ 20dBm Probe 1664, DAE 527 and Dipole 5d003

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

Medium: M1800, Medium parameters used (interpolated): $f = 1900$ MHz; $\sigma = 1.52$ mho/m; $\epsilon_r = 53.7$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1664, ConvF(4.66, 4.66, 4.66), Calibrated: 7/16/2007

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE4 Sn527, Calibrated: 9/14/2007

Measurement SW: DASY4, V4.7 Build 55

Postprocessing SW: SEMCAD, V1.8 Build 171

Temperature:

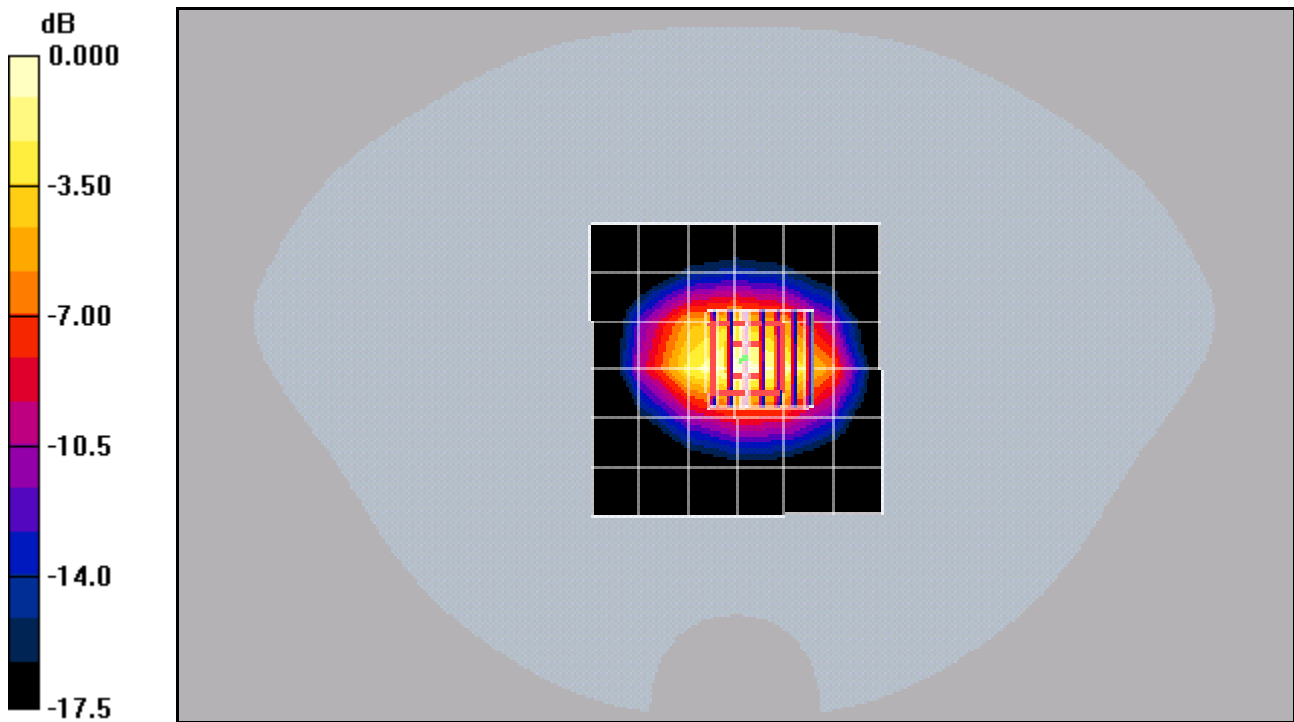
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

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

Reference Value = 56.1 V/m; Power Drift = 0.175 dB

Peak SAR (extrapolated) = 7.07 W/kg

SAR(1 g) = 4.12 mW/g; SAR(10 g) = 2.19 mW/g



0 dB = 4.69mW/g