

APPENDIX A:  
Validation Plots  
For  
Model KX2

Date/Time: 12/03/03 10:00:43

Test Laboratory: Kyocera Wireless Corporation  
 File Name: [835MHz Validation\(Muscle\) for FCC, Probe 1618, DAE 527, Dipole #453, 12-08-03.dat](#)

**835MHz Validation, Probe 1618, DAE 527, Dipole #453, 12-08-03**

DUT: Dipole 835 MHz

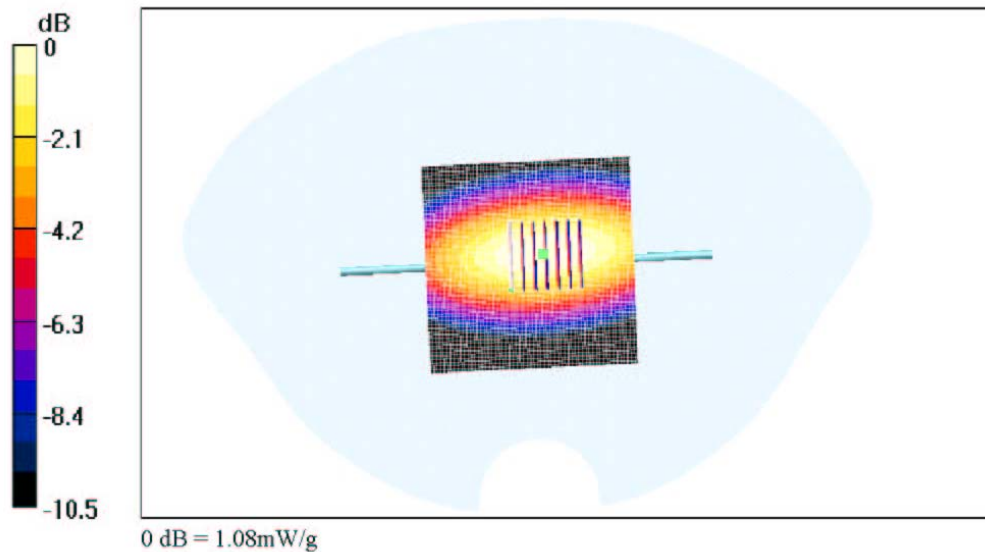
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1  
 Medium: Head 835 MHz, ( $\sigma = 0.904$  mho/m,  $\epsilon_r = 42.68$ ,  $\rho = 1000$  kg/m<sup>3</sup>)  
 Phantom: SAM 12, Phantom section: Flat Section

**DASY4 Configuration:**  
 Probe: ET3DV6 - SN1618, ConvF(6.9, 6.9, 6.9), Calibrated: 10/10/2003  
 Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),  
 Electronics: DAE3 Sn527, Calibrated: DAE not calibrated  
 Measurement SW: DASY4, V4.1 Build 47  
 Postprocessing SW: SEMCAD, V1.6 Build 115

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

**835MHz/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm  
 Reference Value = 35.1 V/m  
 Power Dnft = -0.1 dB  
 Maximum value of SAR = 1.09 mW/g

**835MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Peak SAR (extrapolated) = 1.41 W/kg  
 SAR(1 g) = 0.994 mW/g; SAR(10 g) = 0.648 mW/g  
 Reference Value = 35.1 V/m  
 Power Dnft = -0.1 dB  
 Maximum value of SAR = 1.08 mW/g



file://C:\FCC%\20Reports\K10\HTML%20-%20VALIDATION-800\835MHZ%20Validat... 12/16/2003

Date/Time: 12/09/03 08:23:51

Test Laboratory: Kyocera Wireless Corporation  
 File Name: [835MHz Validation\(Muscle\) for FCC, Probe 1618, DAE 527, Dipole #453, 12-09-03.dat](#)

**835MHz Validation, Probe 1618, DAE 527, Dipole #453, 12-09-03**

DUT: Dipole 835 MHz

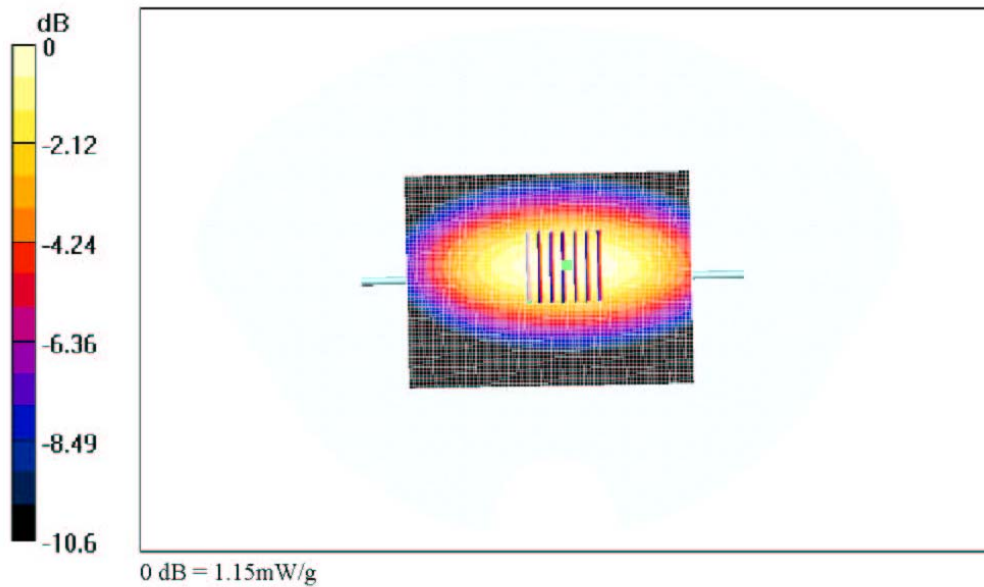
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1  
 Medium: Head 835 MHz, ( $\sigma = 0.908$  mho/m,  $\epsilon_r = 42.01$ ,  $\rho = 1000$  kg/m<sup>3</sup>)  
 Phantom: SAM 12, Phantom section: Flat Section

**DASY4 Configuration:**  
 Probe: ET3DV6 - SN1618, ConvF(6.9, 6.9, 6.9), Calibrated: 10/10/2003  
 Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),  
 Electronics: DAE3 Sn527, Calibrated: DAE not calibrated  
 Measurement SW: DASY4, V4.1 Build 47  
 Postprocessing SW: SEMCAD, V1.6 Build 115

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

**835MHz/Area Scan (61x81x1):** Measurement grid: dx=15mm, dy=15mm  
 Reference Value = 35.8 V/m  
 Power Dnft = -0.1 dB  
 Maximum value of SAR = 1.15 mW/g

**835MHz/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Peak SAR (extrapolated) = 1.52 W/kg  
 SAR(1 g) = 1.07 mW/g, SAR(10 g) = 0.695 mW/g  
 Reference Value = 35.8 V/m  
 Power Dnft = -0.1 dB  
 Maximum value of SAR = 1.15 mW/g



file://C:\FCC%\20Reports\K10\HTML%20-%20VALIDATION-800\835MHZ%20Validat... 12/16/2003

Date/Time: 12/04/03 12:51:28

Test Laboratory: Kyocera Wireless Corporation  
 File Name: [835MHz Validation for FCC\\_Probe 1618\\_DAE 527\\_Dipole #453\\_12-04-03.dad](#)

**835MHz Validation, Probe 1618, DAE 527, Dipole #453, 12-04-03**

DUT: Dipole 835 MHz

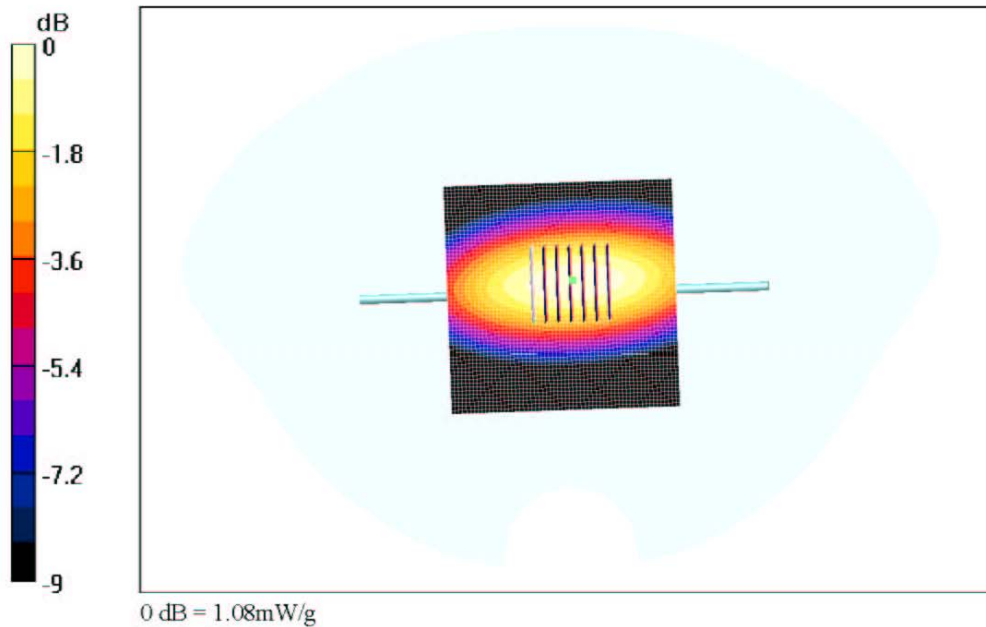
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1  
 Medium: Head 835 MHz, ( $\sigma = 0.908 \text{ mho/m}$ ,  $\epsilon_r = 42.89$ ,  $\rho = 1000 \text{ kg/m}^3$ )  
 Phantom: SAM 12, Phantom section: Flat Section

**DASY4 Configuration:**  
 Probe: ET3DV6 - SN1618, ConvF(6.9, 6.9, 6.9), Calibrated: 10/10/2003  
 Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),  
 Electronics: DAE3 Sn527, Calibrated: DAE not calibrated  
 Measurement SW: DASY4, V4.1 Build 47  
 Postprocessing SW: SEMCAD, V1.6 Build 115

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

**835MHz/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm  
 Reference Value = 34.4 V/m  
 Power Drift = 0.009 dB  
 Maximum value of SAR = 1.06 mW/g

**835MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Peak SAR (extrapolated) = 1.45 W/kg  
 SAR(1 g) = 1 mW/g, SAR(10 g) = 0.649 mW/g  
 Reference Value = 34.4 V/m  
 Power Drift = 0.009 dB  
 Maximum value of SAR = 1.08 mW/g



file://C:\FCC%20Reports\K10\HTML%20-%20VALIDATION-800\835MHz%20Validat... 12/12/2003

Date/Time: 12/05/03 00:36:01

Test Laboratory: Kyocera Wireless Corporation  
 File Name: [835MHz Validation for FCC, Probe 1618, DAE 527, Dipole #453, 12-05-03.dad](#)

**835MHz Validation, Probe 1618, DAE 527, Dipole #453, 12-05-03**

DUT: Dipole 835 MHz

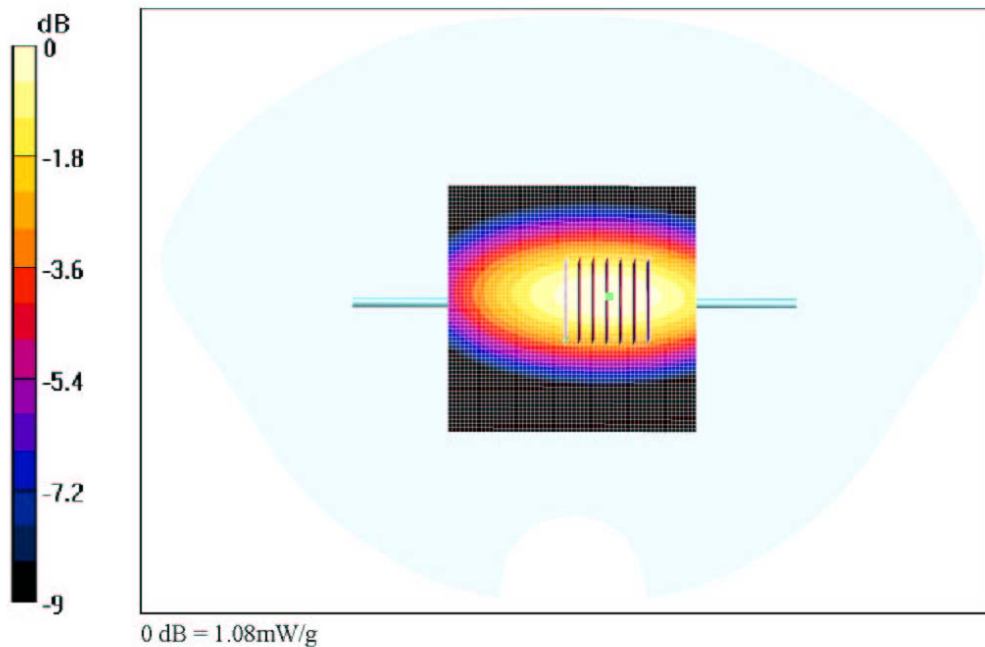
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1  
 Medium: Head 835 MHz, ( $\sigma = 0.884 \text{ mho/m}$ ,  $\epsilon_r = 41.6$ ,  $\rho = 1000 \text{ kg/m}^3$ )  
 Phantom: SAM 12, Phantom section: Flat Section

**DASY4 Configuration:**  
 Probe: ET3DV6 - SN1618, ConvF(6.9, 6.9, 6.9), Calibrated: 10/10/2003  
 Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),  
 Electronics: DAE3 Sn527, Calibrated: DAE not calibrated  
 Measurement SW: DASY4, V4.1 Build 47  
 Postprocessing SW: SEMCAD, V1.6 Build 115

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

**835MHz/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm  
 Reference Value = 35.4 V/m  
 Power Drift = -0.3 dB  
 Maximum value of SAR = 1.09 mW/g

**835MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Peak SAR (extrapolated) = 1.43 W/kg  
 SAR(1g) = 0.997 mW/g; SAR(10g) = 0.649 mW/g  
 Reference Value = 35.4 V/m  
 Power Drift = -0.3 dB  
 Maximum value of SAR = 1.08 mW/g



file://C:\FCC%\Reports\K10\HTML%20-%20VALIDATION-800\835MHz%20Validat... 12/12/2003

Date/Time: 12/06/03 00:31:01

Test Laboratory: Kyocera Wireless Corporation  
 File Name: [835MHz Validation for FCC, Probe 1618, DAE 527, Dipole #453, 12-06-03.dad](#)

### 835MHz Validation, Probe 1618, DAE 527, Dipole #453, 12-06-03

DUT: Dipole 835 MHz

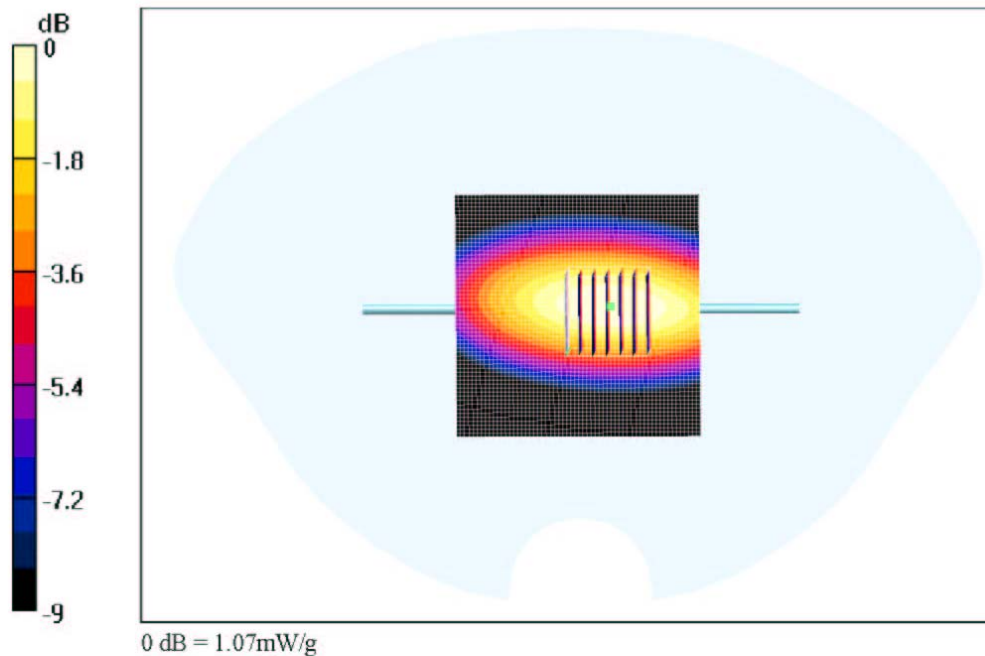
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1  
 Medium: Head 835 MHz, ( $\sigma = 0.893 \text{ mho/m}$ ,  $\epsilon_r = 41.6$ ,  $\rho = 1000 \text{ kg/m}^3$ )  
 Phantom: SAM 12, Phantom section: Flat Section

**DASY4 Configuration:**  
 Probe: ET3DV6 - SN1618, ConvF(6.9, 6.9, 6.9), Calibrated: 10/10/2003  
 Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),  
 Electronics: DAE3 Sn527, Calibrated: DAE not calibrated  
 Measurement SW: DASY4, V4.1 Build 47  
 Postprocessing SW: SEMCAD, V1.6 Build 115

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

**835MHz/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm  
 Reference Value = 34.8 V/m  
 Power Drift = -0.1 dB  
 Maximum value of SAR = 1.09 mW/g

**835MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Peak SAR (extrapolated) = 1.42 W/kg  
 SAR(1 g) = 0.992 mW/g, SAR(10 g) = 0.645 mW/g  
 Reference Value = 34.8 V/m  
 Power Drift = -0.1 dB  
 Maximum value of SAR = 1.07 mW/g



file://C:\FCC%\Reports\K10\HTML%20-%20VALIDATION-800\835MHz%20Validat... 12/12/2003



Date/Time: 12/07/03 08:04:43

Test Laboratory: Kyocera Wireless Corporation  
 File Name: [835MHz Validation for FCC, Probe 1618, DAE 527, Dipole #453, 12-07-03.dad](#)

**835MHz Validation, Probe 1618, DAE 527, Dipole #453, 12-07-03**

DUT: Dipole 835 MHz

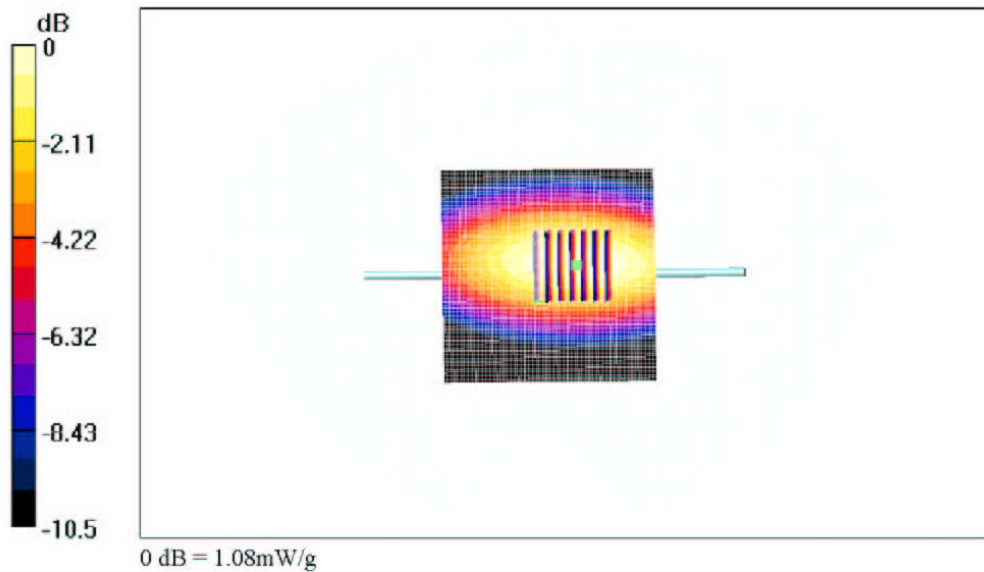
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1  
 Medium: Head 835 MHz, ( $\sigma = 0.901$  mho/m,  $\epsilon_r = 40.91$ ,  $\rho = 1000$  kg/m<sup>3</sup>)  
 Phantom: SAM 12, Phantom section: Flat Section

**DASY4 Configuration:**  
 Probe: ET3DV6 - SN1618, ConvF(6.9, 6.9, 6.9), Calibrated: 10/10/2003  
 Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),  
 Electronics: DAE3 Sn527, Calibrated: DAE not calibrated  
 Measurement SW: DASY4, V4.1 Build 47  
 Postprocessing SW: SEMCAD, V1.6 Build 115

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

**835MHz/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm  
 Reference Value = 34.2 V/m  
 Power Dnft = -0.1 dB  
 Maximum value of SAR = 1.09 mW/g

**835MHz/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Peak SAR (extrapolated) = 1.41 W/kg  
 SAR(1 g) = 1 mW/g, SAR(10 g) = 0.652 mW/g  
 Reference Value = 34.2 V/m  
 Power Dnft = -0.1 dB  
 Maximum value of SAR = 1.08 mW/g



file://C:\FCC%\20Reports\K10\HTML%20-%20VALIDATION-800\835MHZ%20Validat... 12/16/2003

Date/Time: 12/12/03 15:02:04

Test Laboratory: Kyocera Wireless Corporation  
 File Name: [835MHz Validation for FCC, Probe 1618, DAE 527, Dipole #453, 12-12-03.dad](#)

**835MHz Validation, Probe 1618, DAE 527, Dipole #453, 12-12-03**

DUT: Dipole 835 MHz

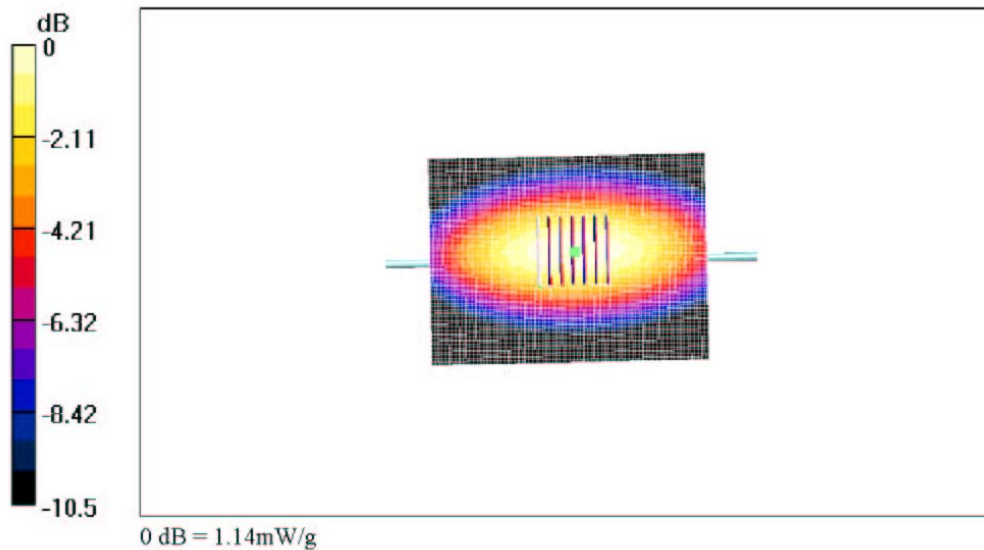
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1  
 Medium: Head 835 MHz, ( $\sigma = 0.917$  mho/m,  $\epsilon_r = 43.22$ ,  $\rho = 1000$  kg/m<sup>3</sup>)  
 Phantom: SAM 12, Phantom section: Flat Section

**DASY4 Configuration:**  
 Probe: ET3DV6 - SN1618, ConvF(6.9, 6.9, 6.9), Calibrated: 10/10/2003  
 Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),  
 Electronics: DAE3 Sn527, Calibrated: DAE not calibrated  
 Measurement SW: DASY4, V4.1 Build 47  
 Postprocessing SW: SEMCAD, V1.6 Build 115

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

**835MHz/Area Scan (61x81x1):** Measurement grid: dx=15mm, dy=15mm  
 Reference Value = 35.8 V/m  
 Power Dnft = 0.04 dB  
 Maximum value of SAR = 1.13 mW/g

**835MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Peak SAR (extrapolated) = 1.51 W/kg  
 SAR(1 g) = 1.05 mW/g, SAR(10 g) = 0.684 mW/g  
 Reference Value = 35.8 V/m  
 Power Dnft = 0.04 dB  
 Maximum value of SAR = 1.14 mW/g



file://C:\FCC\%20Reports\K10\HTML%20-%20VALIDATION-800\835MHZ%20Validat... 12/16/2003



Date/Time: 12/09/03 12:49:51

Test Laboratory: Kyocera Wireless Corporation  
 File Name: [1900MHz Validation for FCC, Probe 1618, DAE 527, Dipole #5d003, 12-09-03.dat](#)

**1900MHz Validation, Probe 1618, DAE 527, Dipole #5d003, 12-09-03**

DUT: Dipole 1900 MHz

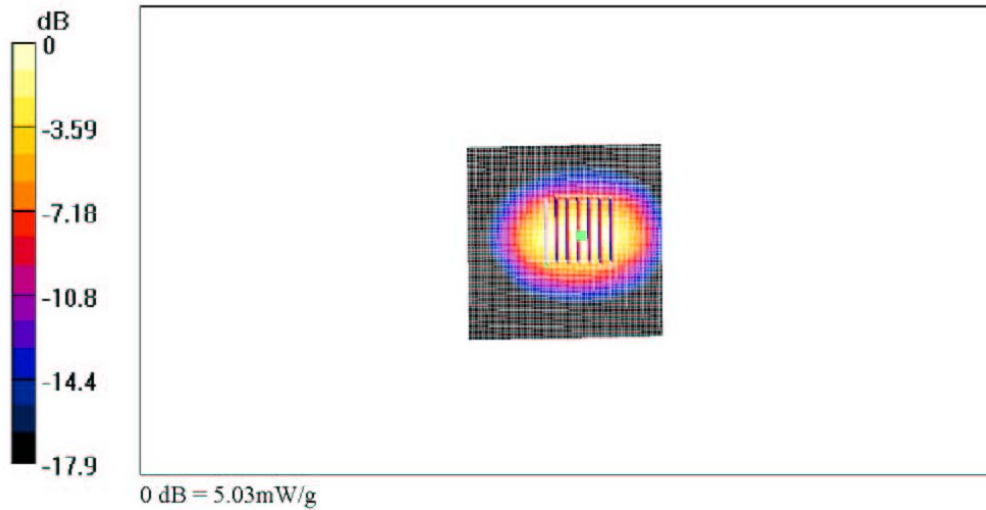
Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1  
 Medium: Head 1900 MHz, ( $\sigma = 1.44 \text{ mho/m}$ ,  $\epsilon_r = 40.18$ ,  $\rho = 1000 \text{ kg/m}^3$ )  
 Phantom: SAM 12, Phantom section: Flat Section

**DASY4 Configuration:**  
 Probe: ET3DV6 - SN1618, ConvF(5 3, 5 3, 5 3), Calibrated: 10/10/2003  
 Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),  
 Electronics: DAE3 Sd527, Calibrated: DAE not calibrated  
 Measurement SW: DASY4, V4.1 Build 47  
 Postprocessing SW: SEMCAD, V1.6 Build 115

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

**1900MHz/Area Scan (61x61):** Measurement grid: dx=15mm, dy=15mm  
 Reference Value = 59.4 V/m  
 Power Dnft = 0.0003 dB  
 Maximum value of SAR = 5.17 mW/g

**1900MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Peak SAR (extrapolated) = 7.92 W/kg  
 SAR(1 g) = 4.47 mW/g, SAR(10 g) = 2.3 mW/g  
 Reference Value = 59.4 V/m  
 Power Dnft = 0.0003 dB  
 Maximum value of SAR = 5.03 mW/g



file://C:\FCC%\20Reports\K10\HTML%20-%20VALIDATION-800\1900MHz%20Valid... 12/16/2003

Date/Time: 12/10/03 00:56:06

Test Laboratory: Kyocera Wireless Corporation  
 File Name: [1900MHz Validation for FCC, Probe 1618, DAE 527, Dipole #5d003, 12-10-03.d4](#)

**1900MHz Validation Probe 1618, DAE 527, Dipole #5d003, 12-10-03**

DUT: Dipole 1900 MHz

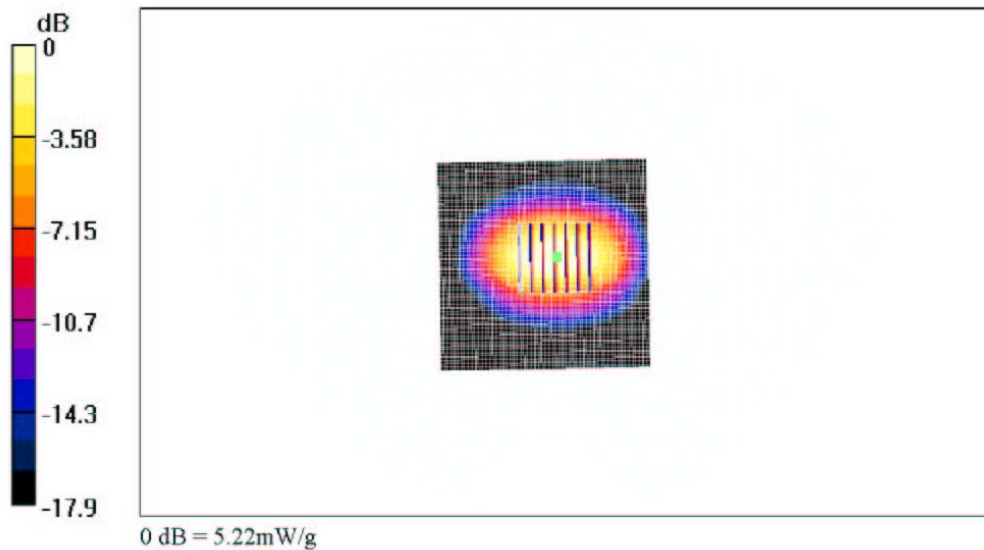
Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1  
 Medium: Head 1900 MHz, ( $\sigma = 1.47 \text{ mho/m}$ ,  $\epsilon_r = 39.54$ ,  $\rho = 1000 \text{ kg/m}^3$ )  
 Phantom: SAM 12, Phantom section: Flat Section

**DASY4 Configuration:**  
 Probe: ET3DV6 - SN1618, ConvF(5, 3, 5, 3, 5, 3), Calibrated: 10/10/2003  
 Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),  
 Electronics: DAE3 Sd527, Calibrated: DAE not calibrated  
 Measurement SW: DASY4, V4.1 Build 47  
 Postprocessing SW: SEMCAD, V1.6 Build 115

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

**1900MHz/Area Scan (61x61):** Measurement grid: dx=15mm, dy=15mm  
 Reference Value = 60 V/m  
 Power Dnft = -0.004 dB  
 Maximum value of SAR = 5.3 mW/g

**1900MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Peak SAR (extrapolated) = 8.34 W/kg  
 SAR(1 g) = 4.65 mW/g, SAR(10 g) = 2.37 mW/g  
 Reference Value = 60 V/m  
 Power Dnft = -0.004 dB  
 Maximum value of SAR = 5.22 mW/g



file://C:\FCC%\20Reports\K10\HTML%\20-%20VALIDATION-800\1900MHz%20Valid... 12/16/2003

Date/Time: 12/12/03 09:56:57

Test Laboratory: Kyocera Wireless Corporation  
 File Name: [1900MHz Validation@20dB for FCC, Probe 1618, DAE 527, Dipole #5d003, 12-12-03.d4](#)

**1900MHz Validation, Probe 1618, DAE 527, Dipole #5d003, 12-12-03**

DUT: Dipole 1900 MHz

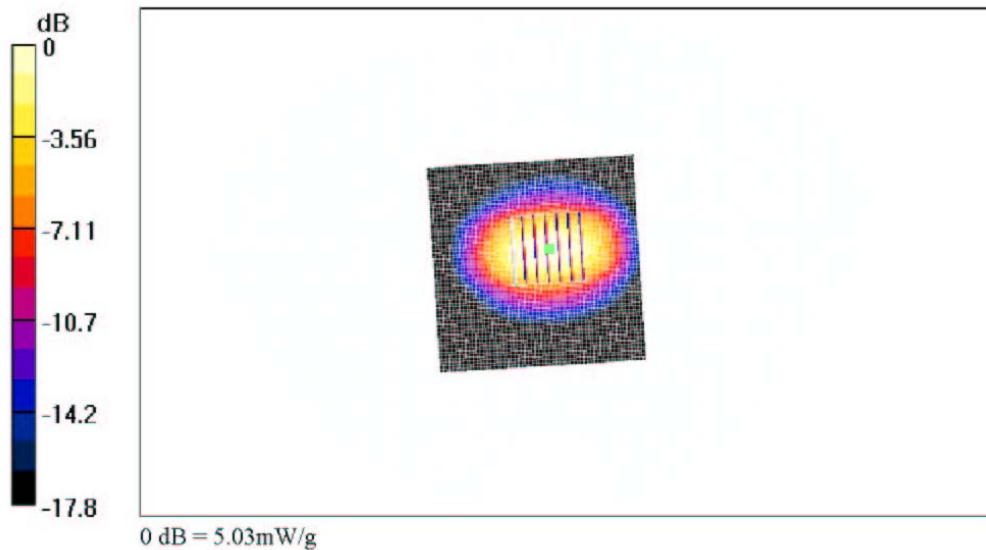
Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1  
 Medium: Head 1900 MHz, ( $\sigma = 1.46 \text{ mho/m}$ ,  $\epsilon_r = 40.45$ ,  $\rho = 1000 \text{ kg/m}^3$ )  
 Phantom: SAM 12, Phantom section: Flat Section

**DASY4 Configuration:**  
 Probe: ET3DV6 - SN1618, ConvF(5, 3, 5, 3, 5, 3), Calibrated: 10/10/2003  
 Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),  
 Electronics: DAE3 Sn527, Calibrated: DAE not calibrated  
 Measurement SW: DASY4, V4.1 Build 47  
 Postprocessing SW: SEMCAD, V1.6 Build 115

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

**1900MHz/Arm Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm  
 Reference Value = 55.7 V/m  
 Power Dnft = 0.009 dB  
 Maximum value of SAR = 5.16 mW/g

**1900MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
 Peak SAR (extrapolated) = 7.93 W/kg  
 SAR(1 g) = 4.44 mW/g, SAR(10 g) = 2.28 mW/g  
 Reference Value = 55.7 V/m  
 Power Dnft = 0.009 dB  
 Maximum value of SAR = 5.03 mW/g



file://C:\FCC%20Reports\K10\HTML%20-%20VALIDATION-800\1900MHz%20Valid... 12/16/2003