Appendix A:

Validation Test Plots

Test Laboratory: Kyocera

835Mhz Validation, Probe 1664, DAE 602, Dipole 495

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

Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.901 mho/m; ε_r = 42; ρ = 1000 kg/m^3

Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1664, ConvF(6.77, 6.77, 6.77), Calibrated: 6/15/2005
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn602,Calibrated: 8/30/2005
Measurement SW: DASY4, V4.6 Build 19
Postprocessing SW: SEMCAD, V1.8 Build 160

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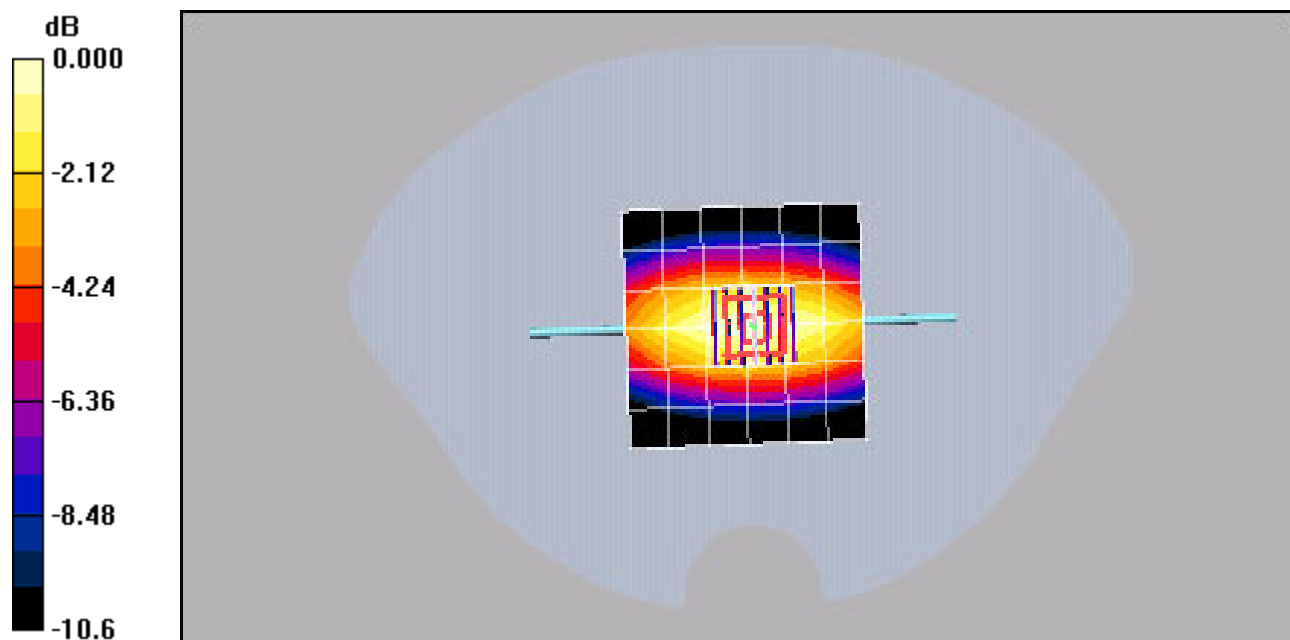Room T = 21.8 +/− 1 deg C, Liquid T = 22.0 +/− 1 deg C

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

Reference Value = 35.2 V/m; Power Drift = 0.012 dB
Peak SAR (extrapolated) = 1.46 W/kg
SAR(1 g) = 0.961 mW/g; SAR(10 g) = 0.621 mW/g
Maximum value of SAR (measured) = 1.03 mW/g

0 dB = 1.03mW/g

Test Laboratory: Kyocera

835Mhz Validation, Probe 1664, DAE 602, Dipole 495

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

Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.901 mho/m; ε_r = 42.1; ρ = 1000 kg/m^3

Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1664, ConvF(6.77, 6.77, 6.77), Calibrated: 6/15/2005
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn602,Calibrated: 8/30/2005
Measurement SW: DASY4, V4.6 Build 19
Postprocessing SW: SEMCAD, V1.8 Build 160

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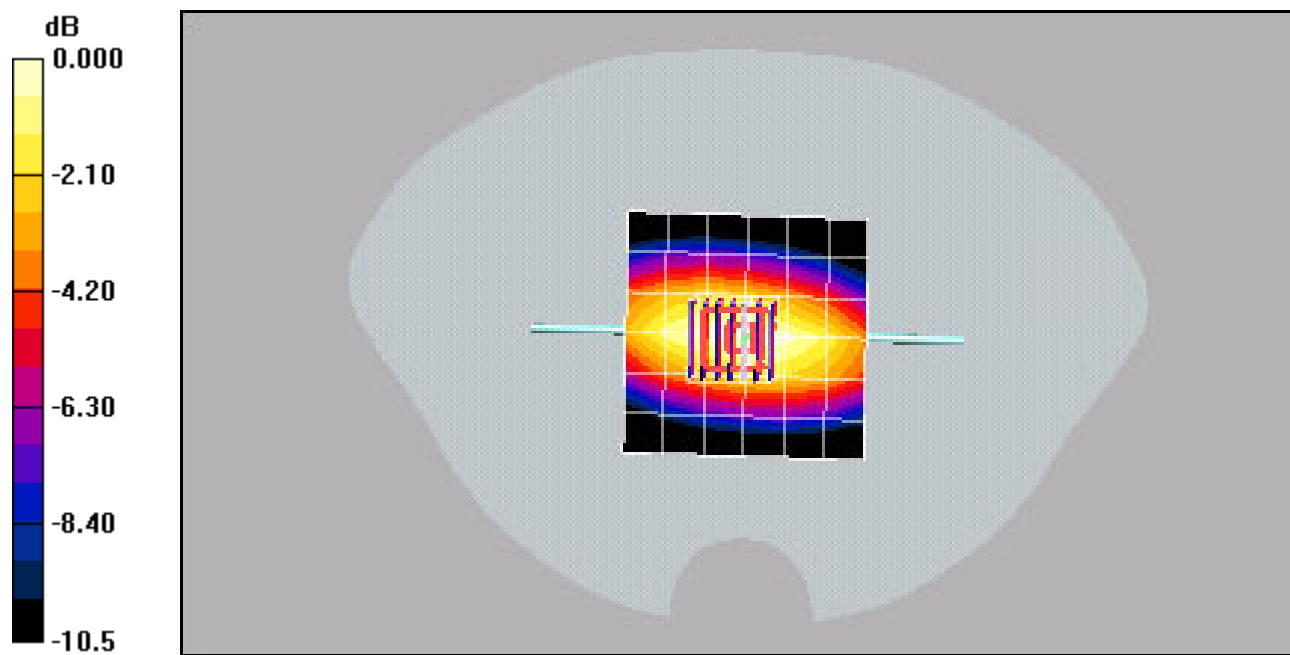Room T = 21.8 +/− 1 deg C, Liquid T = 22.0 +/− 1 deg C

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

Reference Value = 35.8 V/m; Power Drift = -0.019 dB
Peak SAR (extrapolated) = 1.43 W/kg
SAR(1 g) = 0.970 mW/g; SAR(10 g) = 0.636 mW/g
Maximum value of SAR (measured) = 1.04 mW/g

0 dB = 1.04mW/g

Test Laboratory: Kyocera

835Mhz Validation, Probe 1664, DAE 602, Dipole 495

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

Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.902 mho/m; ε_r = 42.3; ρ = 1000 kg/m^3

Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1664, ConvF(6.77, 6.77, 6.77), Calibrated: 6/15/2005
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn602,Calibrated: 8/30/2005
Measurement SW: DASY4, V4.6 Build 19
Postprocessing SW: SEMCAD, V1.8 Build 160

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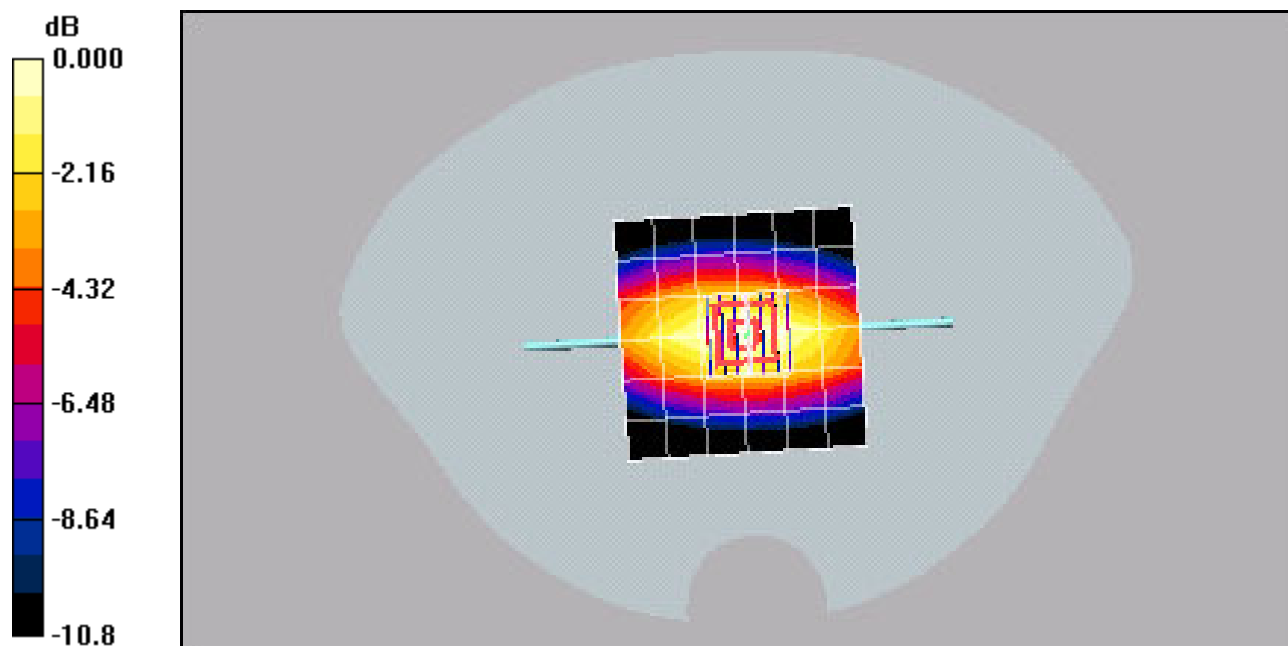Room T = 21.8 +/− 1 deg C, Liquid T = 22.0 +/− 1 deg C

20 dbm validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 35.1 V/m; Power Drift = 0.000 dB
Peak SAR (extrapolated) = 1.57 W/kg
SAR(1 g) = 0.990 mW/g; SAR(10 g) = 0.627 mW/g
Maximum value of SAR (measured) = 1.07 mW/g

0 dB = 1.07mW/g

Test Laboratory: Kyocera

835Mhz Validation, Probe 1664, DAE 602, Dipole 495

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

Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.895 mho/m; ε_r = 41.2; ρ = 1000 kg/m^3

Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1664, ConvF(6.77, 6.77, 6.77), Calibrated: 6/15/2005
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn602,Calibrated: 8/30/2005
Measurement SW: DASY4, V4.6 Build 19
Postprocessing SW: SEMCAD, V1.8 Build 160

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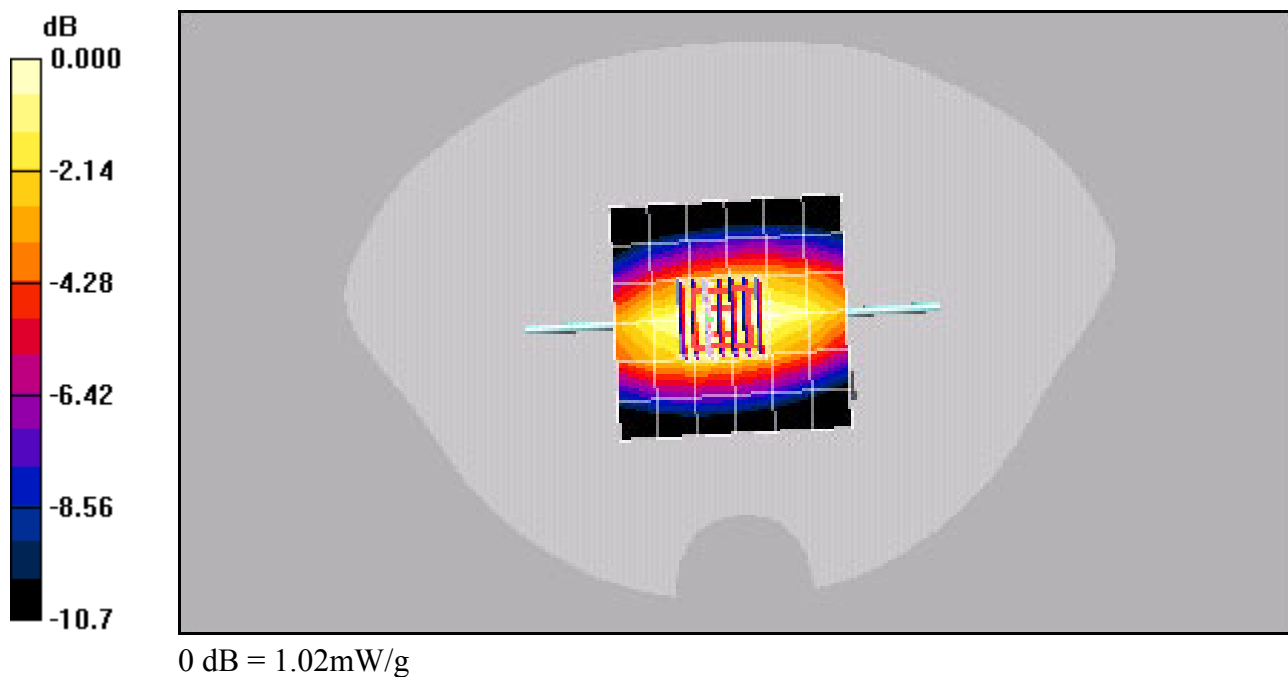Room T = 21.8 +/− 1 deg C, Liquid T = 22.0 +/− 1 deg C

20 dbm validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 35.4 V/m; Power Drift = -0.008 dB
Peak SAR (extrapolated) = 1.45 W/kg
SAR(1 g) = 0.939 mW/g; SAR(10 g) = 0.603 mW/g
Maximum value of SAR (measured) = 1.02 mW/g

0 dB = 1.02mW/g

Test Laboratory: Kyocera

835Mhz Validation Probe 1664, DAE 602, Dipole 495

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

Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.924 mho/m; ε_r = 43; ρ = 1000 kg/m^3

Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3DV6 - SN1664, ConvF(6.77, 6.77, 6.77), Calibrated: 6/15/2005
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn602,Calibrated: 8/30/2005
Measurement SW: DASY4, V4.6 Build 19
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/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.04 mW/g

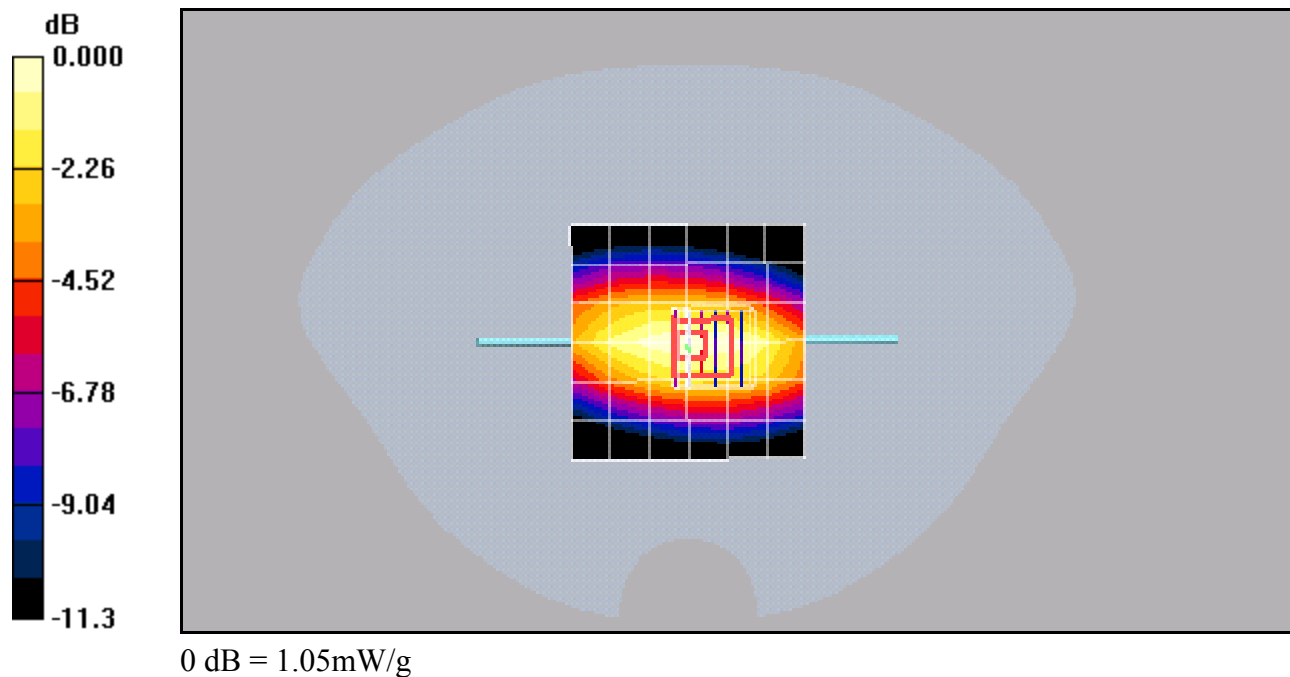## 20 dbm validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 34.1 V/m; Power Drift = 0.051 dB
Peak SAR (extrapolated) = 1.54 W/kg
SAR(1 g) = 0.983 mW/g; SAR(10 g) = 0.621 mW/g
Maximum value of SAR (measured) = 1.05 mW/g

0 dB = 1.05mW/g

Test Laboratory: Kyocera

835Mhz Validation, Probe 1664, DAE 602, Dipole 495

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: ET3DV6 - SN1664, ConvF(6.77, 6.77, 6.77), Calibrated: 6/15/2005
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE4 Sn602,Calibrated: 8/30/2005
Measurement SW: DASY4, V4.6 Build 19
Postprocessing SW: SEMCAD, V1.8 Build 160

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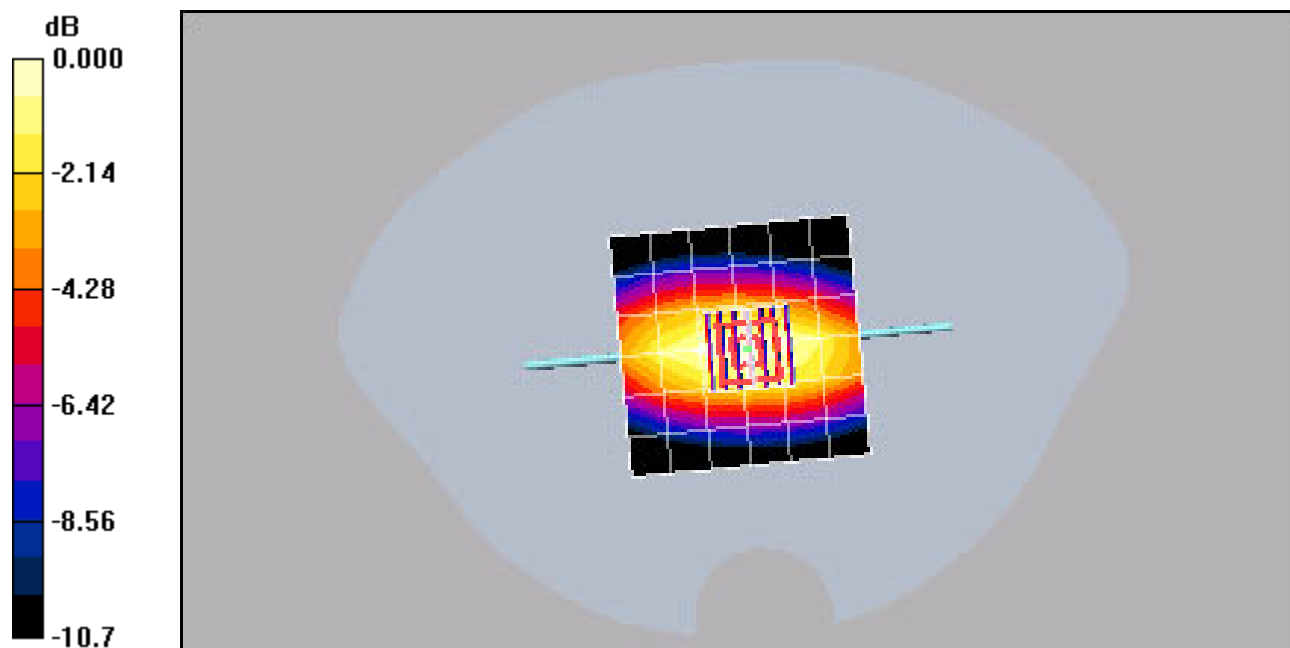Room T = 21.8 +/− 1 deg C, Liquid T = 22.0 +/− 1 deg C

20 dbm validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 34.7 V/m; Power Drift = 0.028 dB
Peak SAR (extrapolated) = 1.38 W/kg
SAR(1 g) = 0.926 mW/g; SAR(10 g) = 0.603 mW/g
Maximum value of SAR (measured) = 0.998 mW/g

0 dB = 0.998mW/g

Test Laboratory: Kyocera

835MHz Validation, Probe #3036, DAE #493, Dipole #453

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

Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.93 mho/m; ε_r = 42.3; 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, V4.6 Build 23
Postprocessing SW: SEMCAD, V1.8 Build 160

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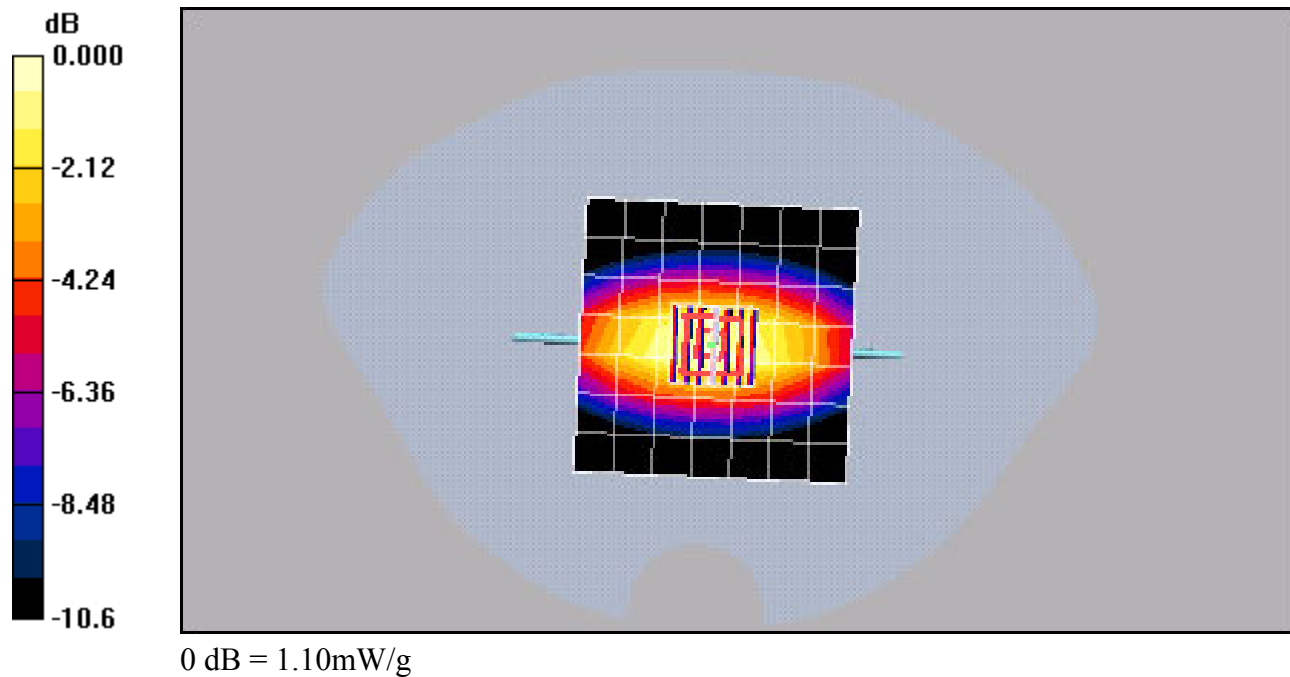Room T = 21.8 +/− 1 deg C, Liquid T = 22.0 +/− 1 deg C

Validation Flat/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 34.8 V/m; Power Drift = 0.006 dB
Peak SAR (extrapolated) = 1.53 W/kg
SAR(1 g) = 1.02 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, Probe #3036, DAE #493, Dipole #453

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

Medium: HSL900,Medium parameters used: f = 835 MHz; σ = 0.919 mho/m; ε_r = 42.3; 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, V4.6 Build 23
Postprocessing SW: SEMCAD, V1.8 Build 160

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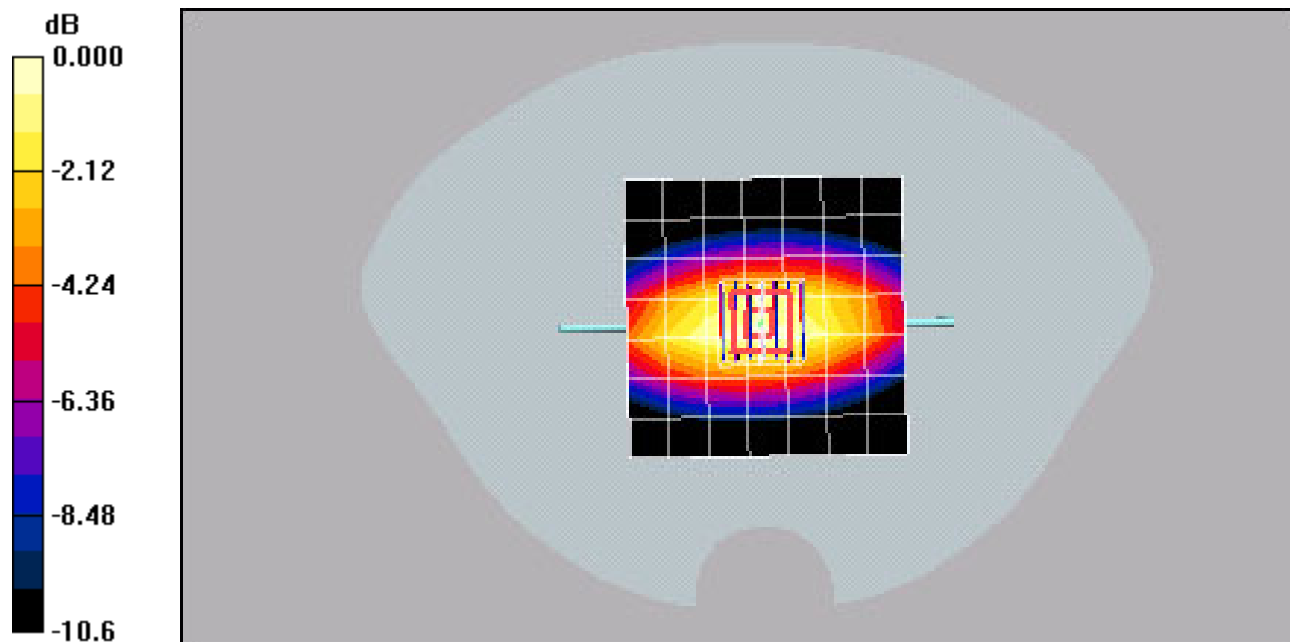Room T = 21.8 +/− 1 deg C, Liquid T = 22.0 +/− 1 deg C

Validation Flat/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 34.4 V/m; Power Drift = 0.015 dB
Peak SAR (extrapolated) = 1.48 W/kg
SAR(1 g) = 0.982 mW/g; SAR(10 g) = 0.636 mW/g
Maximum value of SAR (measured) = 1.06 mW/g

0 dB = 1.06mW/g

Test Laboratory: Kyocera

CDMA1900MHz Validation, Probe #3036, DAE #493, Dipole #5d005

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

Medium: HSL1800,Medium parameters used: f = 1900 MHz; σ = 1.37 mho/m; ε_r = 40.3; 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, V4.6 Build 23
Postprocessing SW: SEMCAD, V1.8 Build 160

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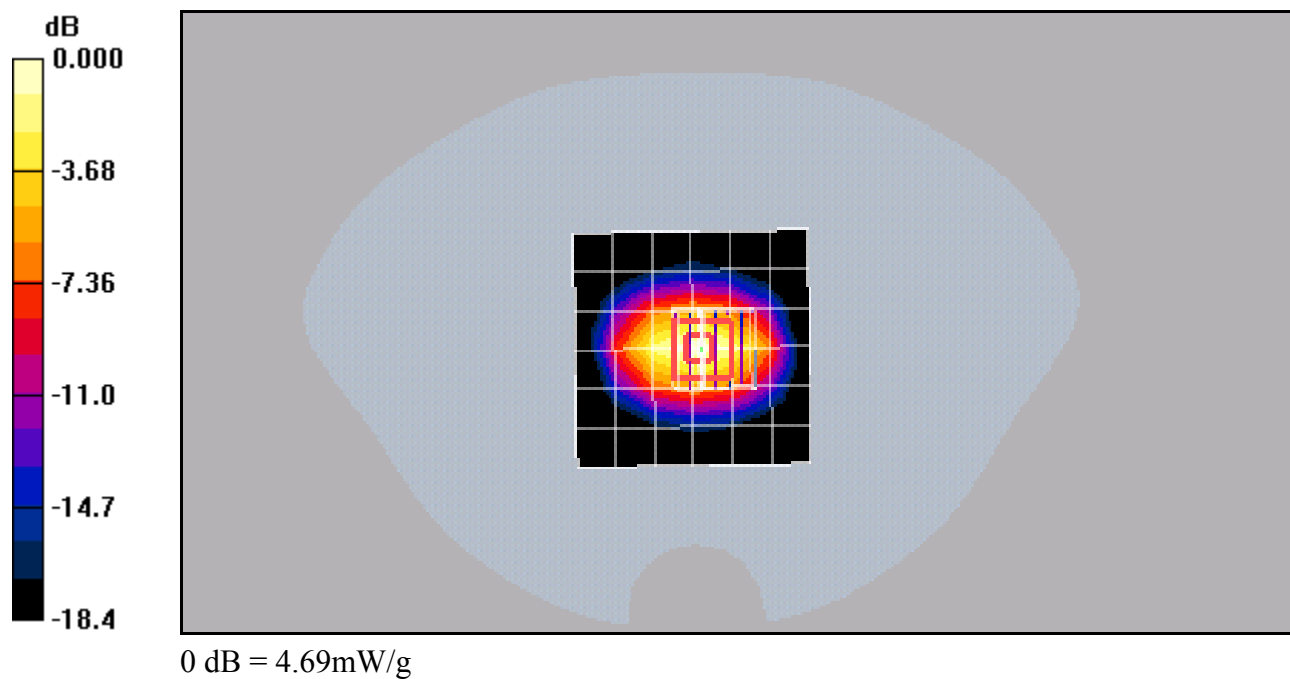Room T = 21.8 +/− 1 deg C, Liquid T = 22.0 +/− 1 deg C

1900Mhz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 59.6 V/m; Power Drift = 0.070 dB
Peak SAR (extrapolated) = 7.37 W/kg
SAR(1 g) = 4.13 mW/g; SAR(10 g) = 2.17 mW/g

Maximum value of SAR (measured) = 4.69 mW/g

0 dB = 4.69mW/g

Test Laboratory: Kyocera

1900MHz Validation, Probe #3036, DAE #493, Dipole #5d005

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

Medium: HSL1800,Medium parameters used: f = 1900 MHz; σ = 1.42 mho/m; ε_r = 40.2; 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, V4.6 Build 23
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 = 59.7 V/m; Power Drift = 0.004 dB
Peak SAR (extrapolated) = 7.63 W/kg
SAR(1 g) = 4.3 mW/g; SAR(10 g) = 2.26 mW/g

Maximum value of SAR (measured) = 4.90 mW/g

0 dB = 4.90mW/g