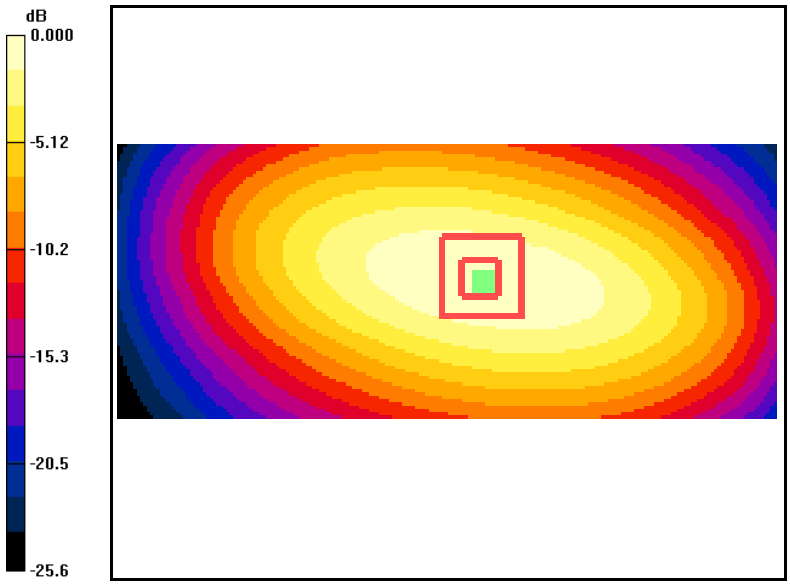
Validation for HEAD

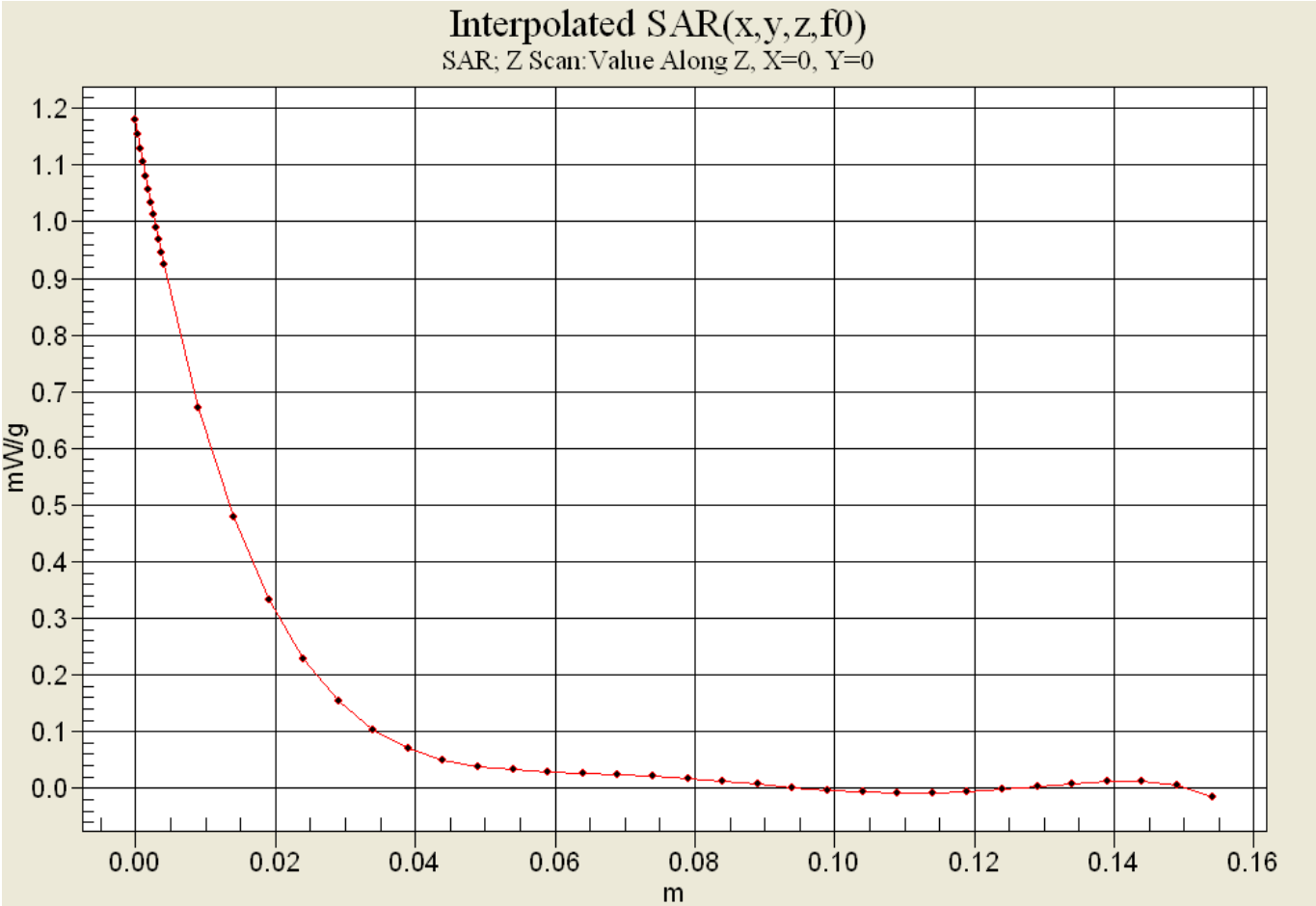
835MHz Validation , Probe #3035, DAE #530, Dipole #467
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: Head 835 MHz,Medium parameters used (interpolated): f = 835 MHz; σ = 0.92 mho/m; ε_r = 43.2; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section
DASY4 Configuration:
Probe: ES3DV3 - SN3035, ConvF(6.04, 6.04, 6.04), Calibrated: 2/22/2012
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE4 Sn530,Calibrated: 5/30/2012
Measurement SW: DASY4, V4.7 Build 80
Postprocessing SW: SEMCAD, V1.8 Build 186
Temperature:
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

835MHz/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.07 mW/g

835MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 34.6 V/m; Power Drift = -0.192 dB
Peak SAR (extrapolated) = 1.48 W/kg
SAR(1 g) = 0.992 mW/g; SAR(10 g) = 0.647 mW/g
Maximum value of SAR (measured) = 1.07 mW/g



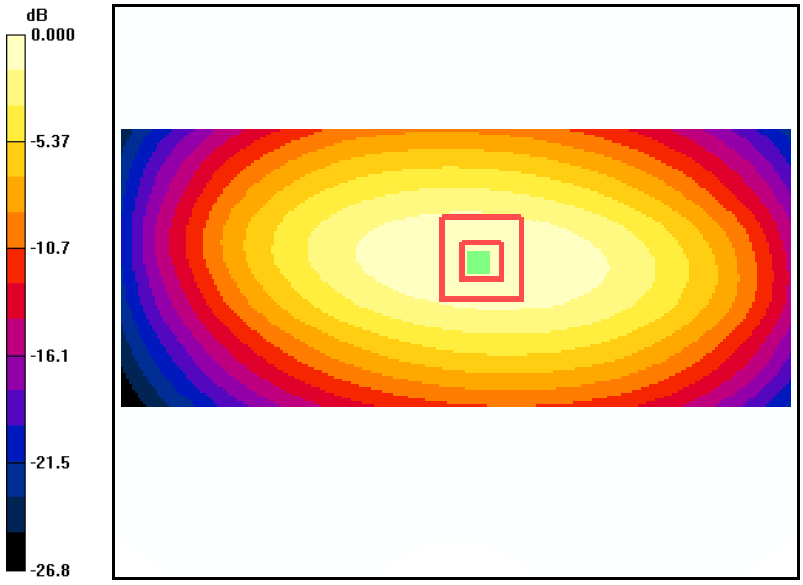
0 dB = 1.07mW/g



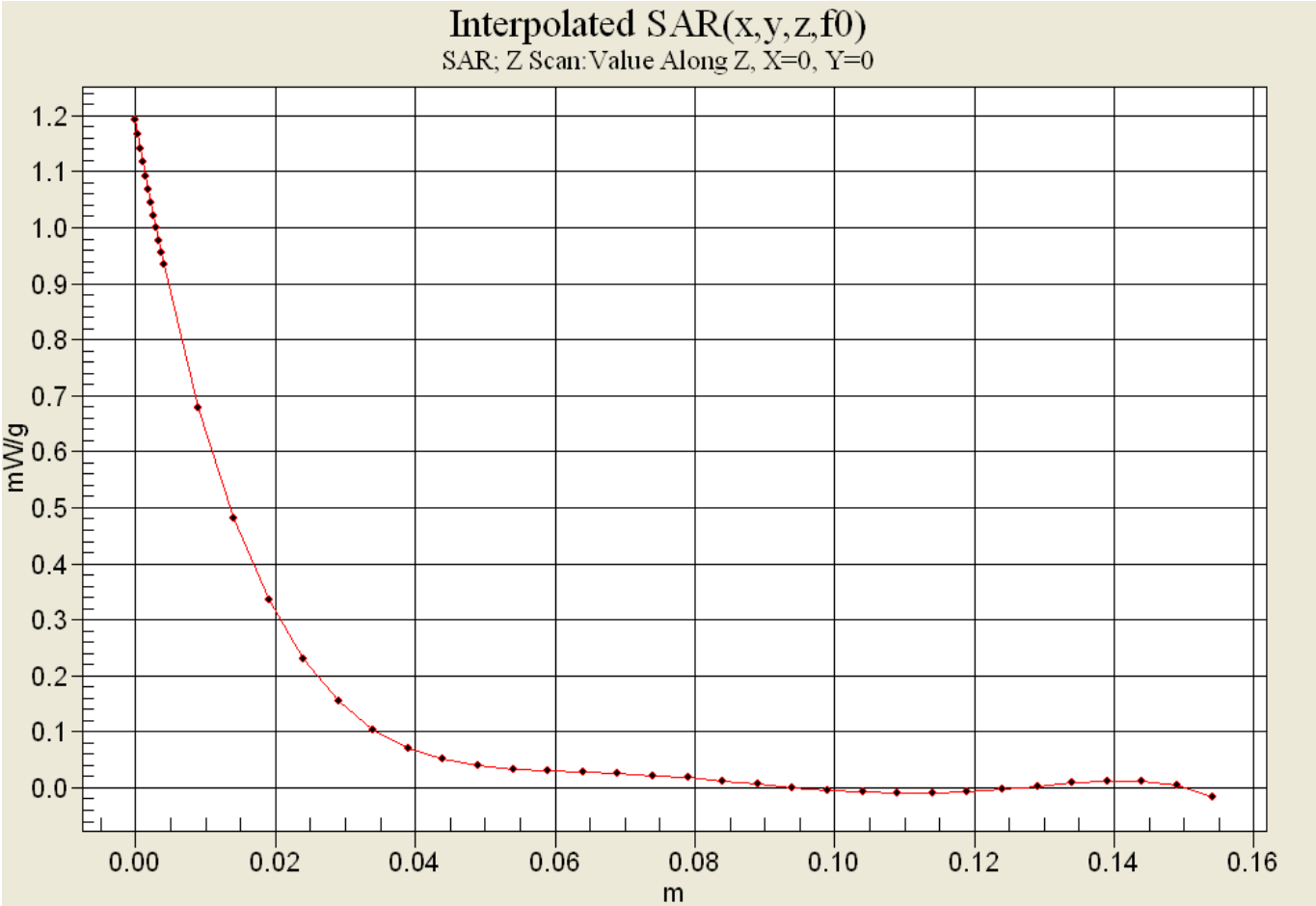
835MHz Validation , Probe #3035, DAE #530, Dipole #467
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: Head 835 MHz,Medium parameters used (interpolated): f = 835 MHz; σ = 0.91 mho/m; ε_r = 42.7; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section
DASY4 Configuration:
Probe: ES3DV3 - SN3035, ConvF(6.04, 6.04, 6.04), Calibrated: 2/22/2012
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE4 Sn530,Calibrated: 5/30/2012
Measurement SW: DASY4, V4.7 Build 80
Postprocessing SW: SEMCAD, V1.8 Build 186
Temperature:
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

835MHz/Area Scan (51x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.05 mW/g

835MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 34.3 V/m; Power Drift = 0.012 dB
Peak SAR (extrapolated) = 1.46 W/kg
SAR(1 g) = 0.977 mW/g; SAR(10 g) = 0.638 mW/g
Maximum value of SAR (measured) = 1.06 mW/g



0 dB = 1.05mW/g

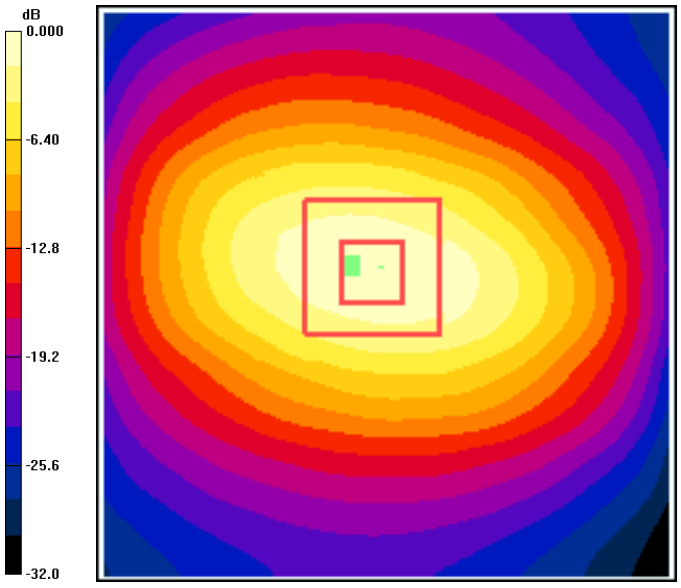


Test Laboratory: Comptest/Kyocera Date: 08/13/2012

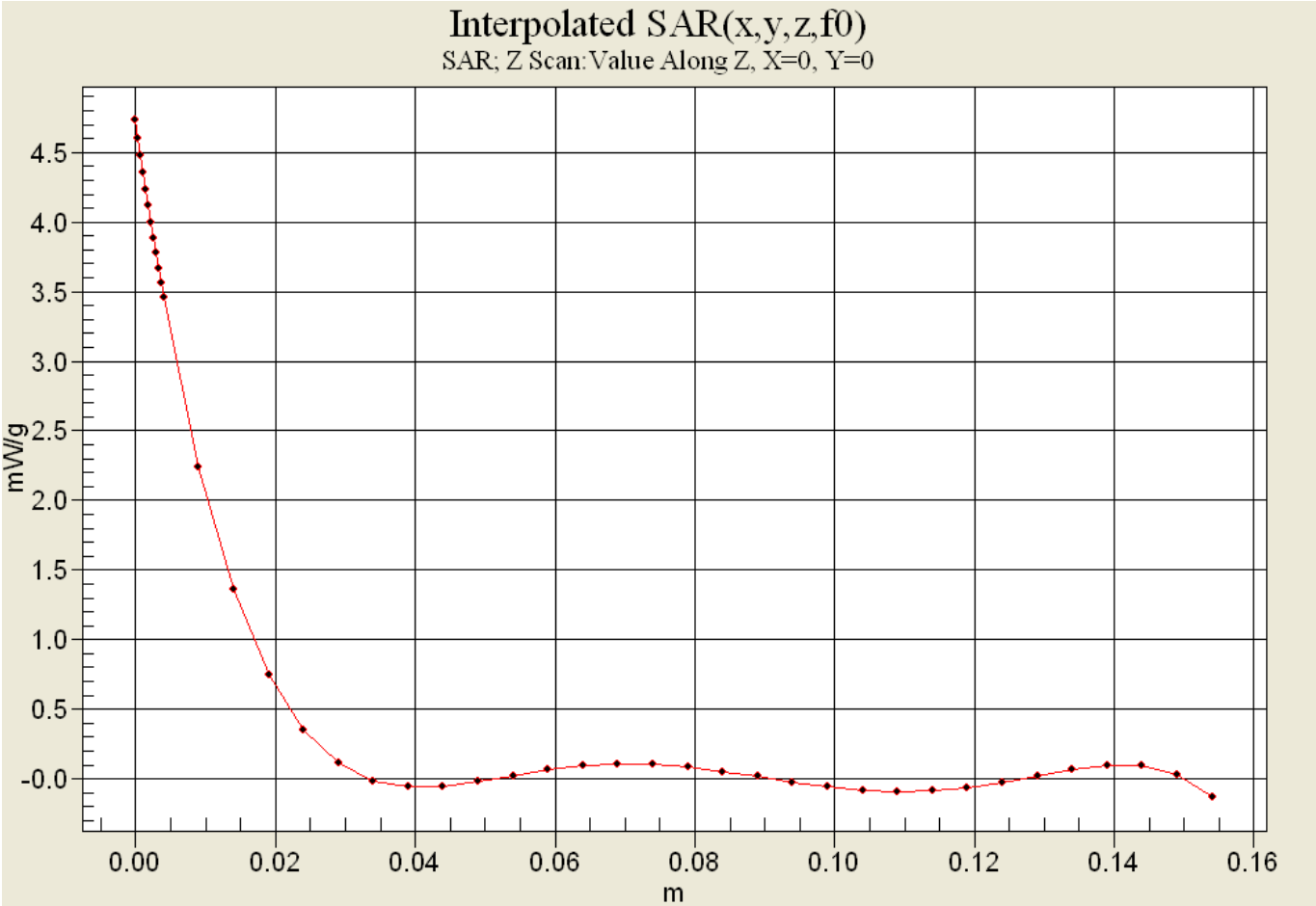
1800Mhz Validation @ 20dBm Probe 3078, DAE 675 and Dipole 220
Communication System: CW, Frequency: 1800 MHz, Duty Cycle: 1:1
Medium: HSL1800,Medium parameters used (extrapolated): f = 1800 MHz; σ = 1.43 mho/m; ε_r = 38.3; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section
DASY4 Configuration:
Probe: ES3DV3 - SN3078, ConvF(5.22, 5.22, 5.22), Calibrated: 7/19/2012
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE4 Sn675,Calibrated: 5/23/2012
Measurement SW: DASY4, V4.7 Build 80
Postprocessing SW: SEMCAD, V1.8 Build 186
Temperature:
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

1800MHz Validation @20dBm/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 4.32 mW/g

1800MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 51.6 V/m; Power Drift = 0.028 dB
Peak SAR (extrapolated) = 6.92 W/kg
SAR(1 g) = 3.64 mW/g; SAR(10 g) = 1.85 mW/g
Maximum value of SAR (measured) = 4.08 mW/g



0 dB = 4.32mW/g

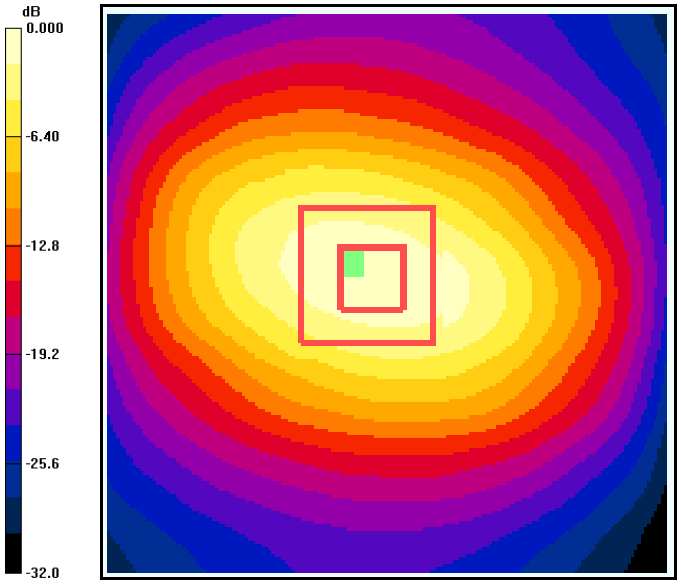


Test Laboratory: Comptest/Kyocera Date: 08/09/2012

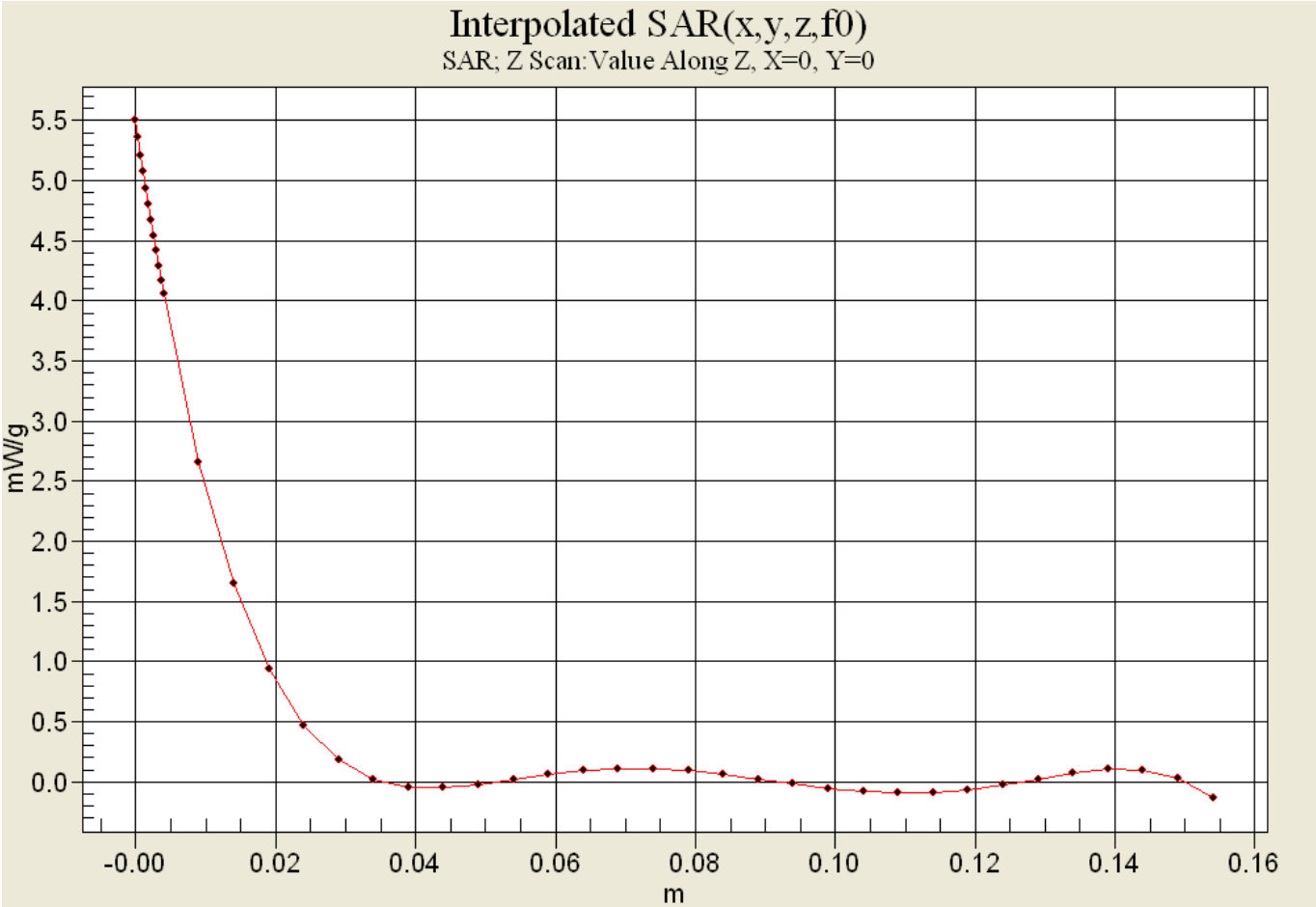
1900Mhz Validation @ 20dBm Probe 3078, DAE 675 and Dipole 5d016
Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: HSL1900,Medium parameters used (interpolated): f = 1900 MHz; σ = 1.44 mho/m; ε_r = 38.9; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section
DASY4 Configuration:
Probe: ES3DV3 - SN3078, ConvF(4.97, 4.97, 4.97), Calibrated: 7/19/2012
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE4 Sn675,Calibrated: 5/23/2012
Measurement SW: DASY4, V4.7 Build 80
Postprocessing SW: SEMCAD, V1.8 Build 186
Temperature:
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

1900MHz Validation @20dBm/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 4.87 mW/g

1900MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.8 V/m; Power Drift = 0.007 dB
Peak SAR (extrapolated) = 7.65 W/kg
SAR(1 g) = 4.06 mW/g; SAR(10 g) = 2.08 mW/g
Maximum value of SAR (measured) = 4.47 mW/g



0 dB = 4.87mW/g



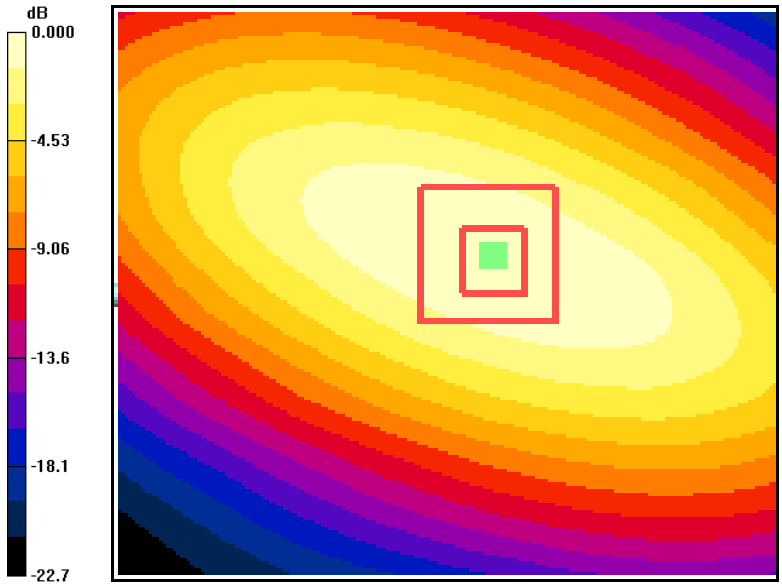
Validation for BODY

Test Laboratory: Comptest/Kyocera Date: 08/13/2012

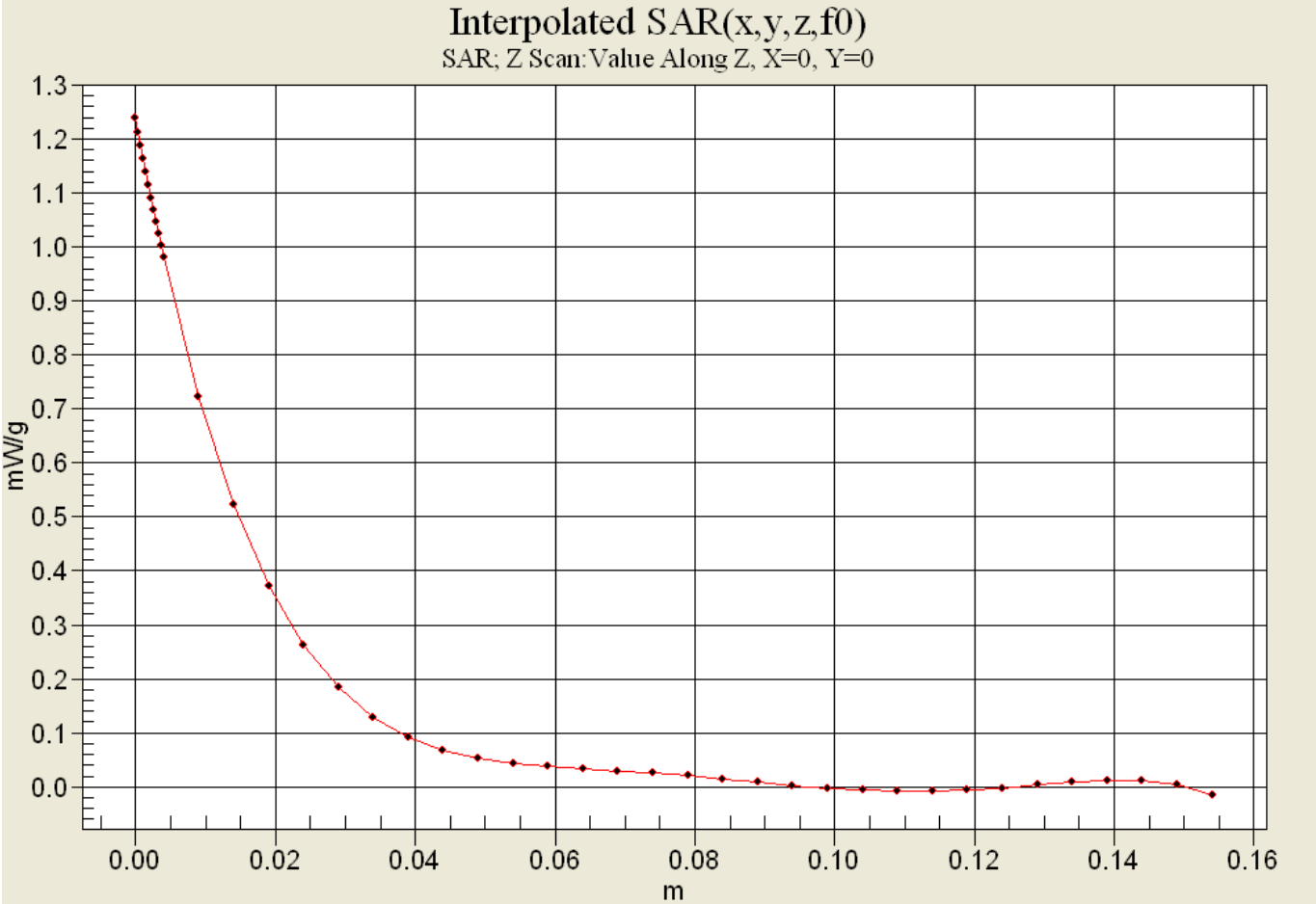
835MHz Validation(Muscle), Probe #3036, DAE #603, Dipole #5d016
Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1
Medium: M800,Medium parameters used: f = 835 MHz; σ = 0.94 mho/m; ε_r = 54.6; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section
DASY4 Configuration:
Probe: ES3DV3 - SN3036, ConvF(5.83, 5.83, 5.83), Calibrated: 5/29/2012
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE4 Sn603,Calibrated: 9/27/2011
Measurement SW: DASY4, V4.7 Build 80
Postprocessing SW: SEMCAD, V1.8 Build 186
Temperature:
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

835MHz Validation @20dBm/Area Scan (61x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.08 mW/g

835MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 31.0 V/m; Power Drift = 0.184 dB
Peak SAR (extrapolated) = 1.46 W/kg
SAR(1 g) = 1 mW/g; SAR(10 g) = 0.664 mW/g
Maximum value of SAR (measured) = 1.08 mW/g



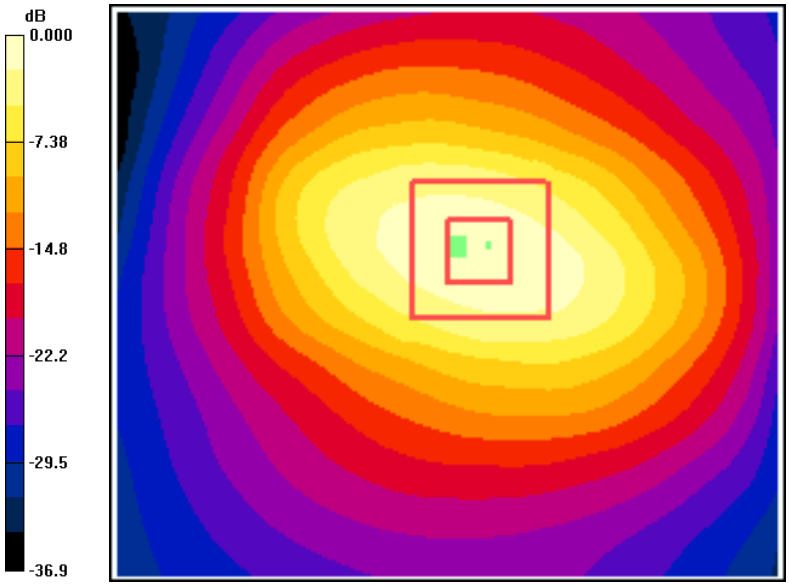
0 dB = 1.08mW/g



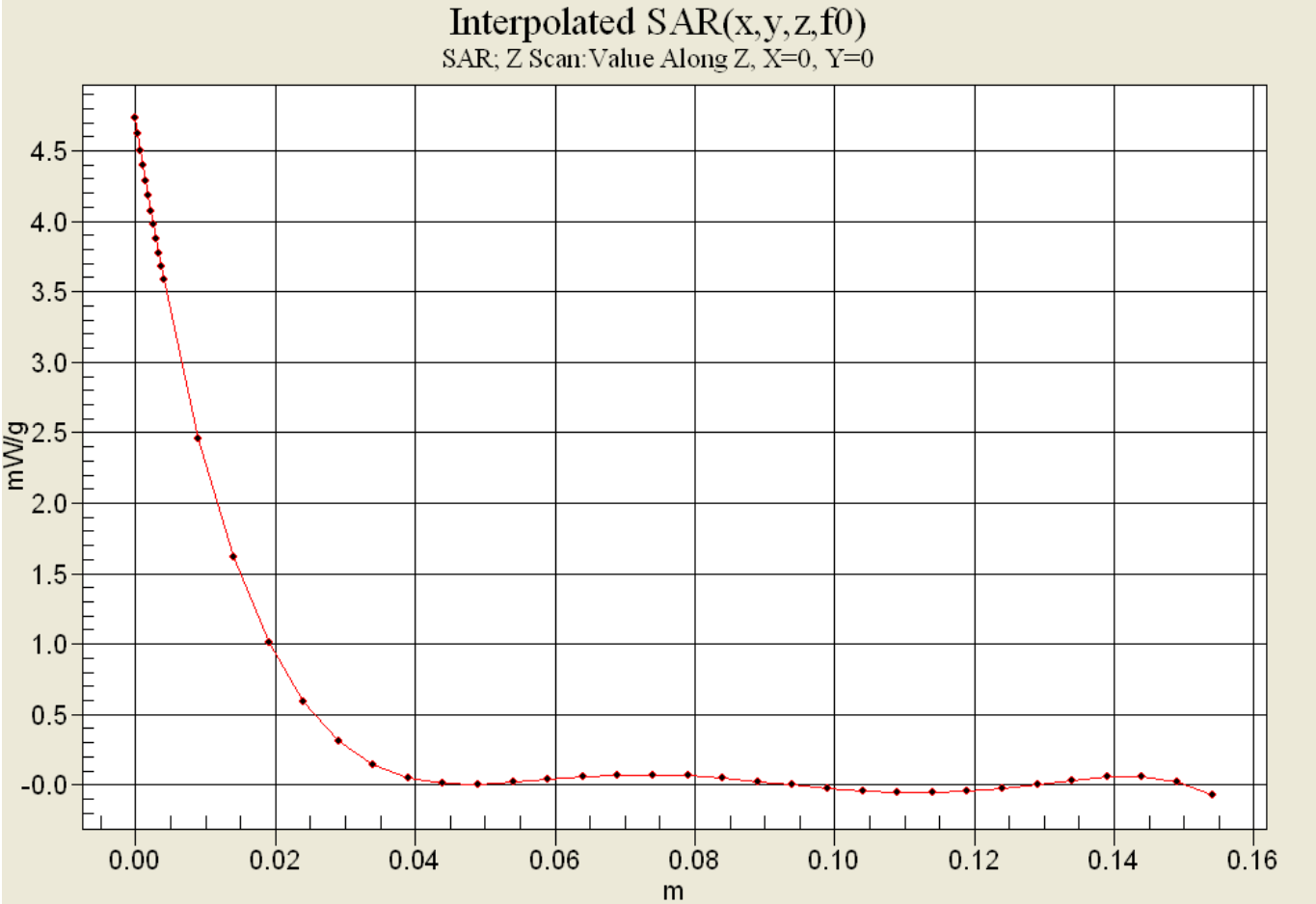
1800MHz Validation(Muscle), Probe #3036, DAE #603, Dipole #220
Communication System: CW, Frequency: 1800 MHz, Duty Cycle: 1:1
Medium: M1800,Medium parameters used: f = 1800 MHz; σ = 1.55 mho/m; ε_r = 51.5; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section
DASY4 Configuration:
Probe: ES3DV3 - SN3036, ConvF(4.7, 4.7, 4.7), Calibrated: 5/29/2012
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE4 Sn603,Calibrated: 9/27/2011
Measurement SW: DASY4, V4.7 Build 80
Postprocessing SW: SEMCAD, V1.8 Build 186
Temperature:
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

1800MHz Validation @20dBm/Area Scan (61x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 5.14 mW/g

1800MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 46.3 V/m; Power Drift = 0.134 dB
Peak SAR (extrapolated) = 7.56 W/kg
SAR(1 g) = 4.22 mW/g; SAR(10 g) = 2.24 mW/g
Maximum value of SAR (measured) = 4.70 mW/g



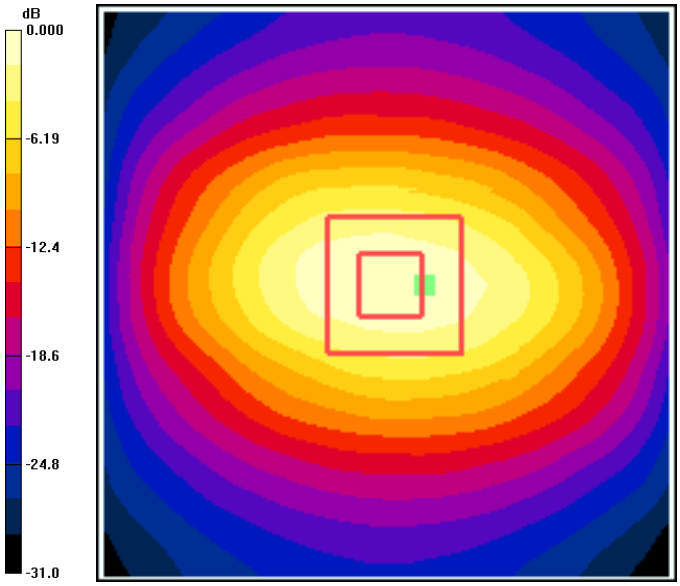
0 dB = 5.14mW/g



1900Mhz Validation (Muscle) @ 20dBm Probe 3078, DAE 675 and Dipole 5d016
Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: M1800,Medium parameters used (interpolated): f = 1900 MHz; σ = 1.53 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section
DASY4 Configuration:
Probe: ES3DV3 - SN3078, ConvF(4.55, 4.55, 4.55), Calibrated: 7/19/2012
Sensor-Surface: 4mm (Mechanical Surface Detection),
Electronics: DAE4 Sn675,Calibrated: 5/23/2012
Measurement SW: DASY4, V4.7 Build 80
Postprocessing SW: SEMCAD, V1.8 Build 186
Temperature:
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

1900MHz Validation @20dBm/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 4.78 mW/g

1900MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.5 V/m; Power Drift = 0.011 dB
Peak SAR (extrapolated) = 7.28 W/kg
SAR(1 g) = 4.07 mW/g; SAR(10 g) = 2.13 mW/g
Maximum value of SAR (measured) = 4.68 mW/g



0 dB = 4.78mW/g