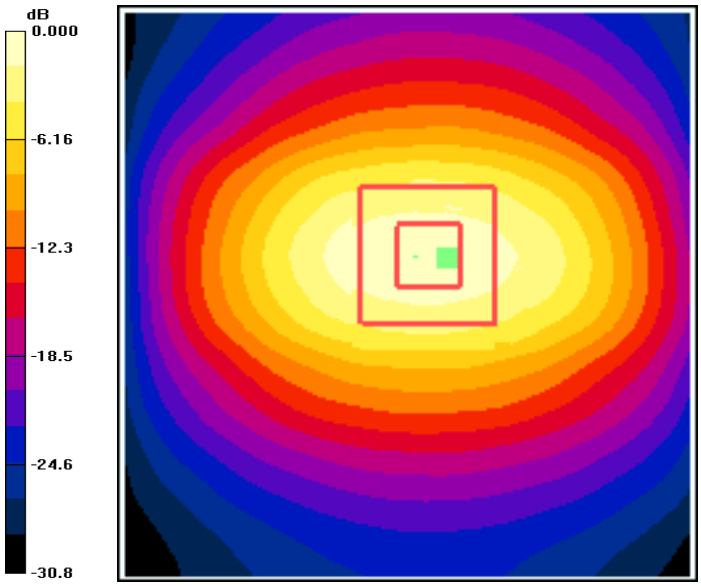
Validation for HEAD

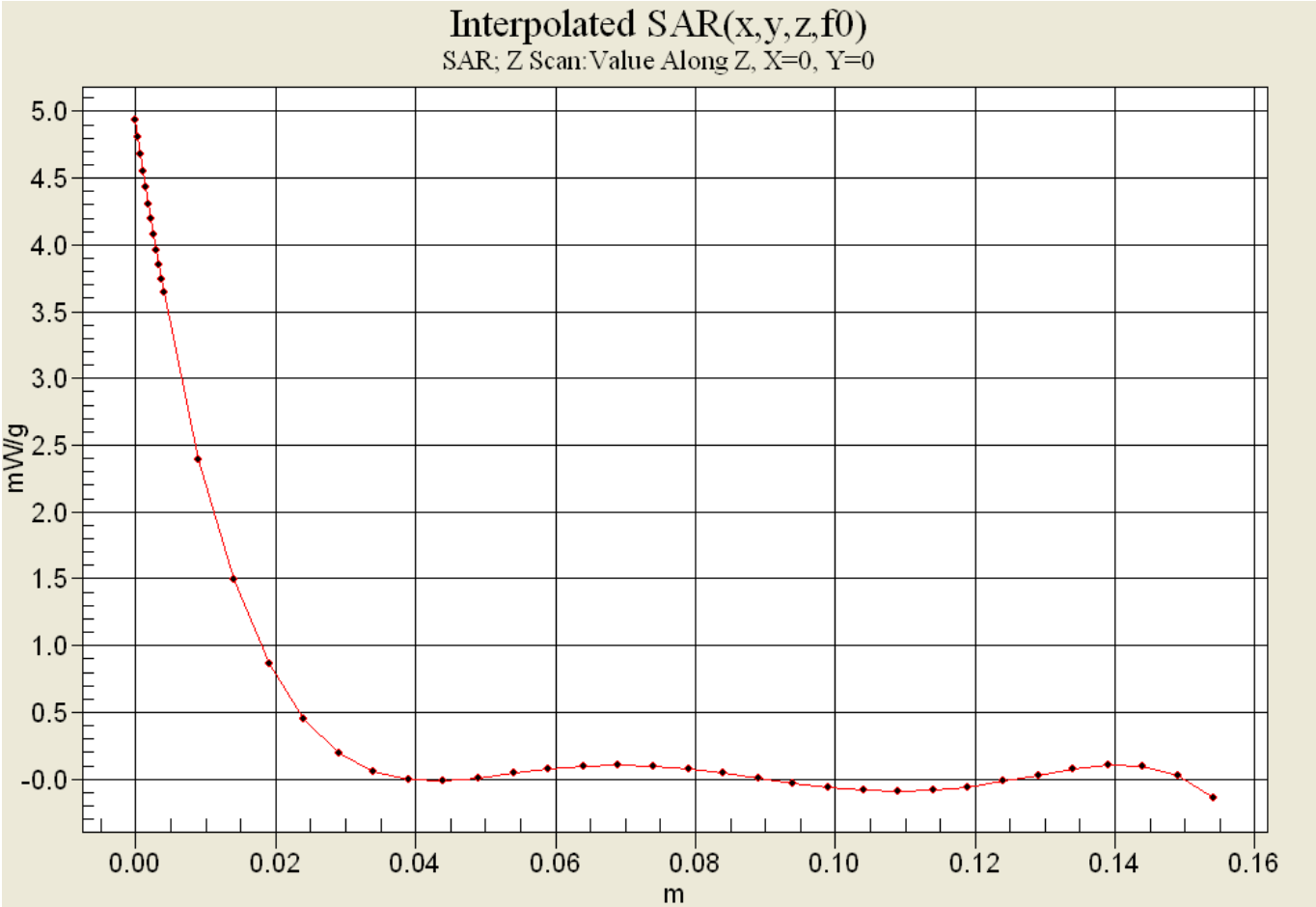
1900Mhz Validation @ 20dBm Probe 1618, DAE 603 and Dipole 5d016
Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: HSL1900,Medium parameters used (interpolated): f = 1900 MHz; σ = 1.44 mho/m; ε_r = 38.9; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section
DASY4 Configuration:
Probe: ET3DV6 - SN1618, ConvF(5.04, 5.04, 5.04), Calibrated: 9/19/2011
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

1900MHz Validation @20dBm/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 5.30 mW/g

1900MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.3 V/m; Power Drift = 0.151 dB
Peak SAR (extrapolated) = 7.49 W/kg
SAR(1 g) = 4.21 mW/g; SAR(10 g) = 2.19 mW/g
Maximum value of SAR (measured) = 4.75 mW/g



0 dB = 5.30mW/g



Test Laboratory: Comptest/Kyocera Date: 08/23/2012

2450MHz Validation, Probe #3036, DAE #603, Dipole #776

Communication System: CW, Frequency: 2450 MHz, Duty Cycle: 1:1

Medium: HSL2450,Medium parameters used: f = 2450 MHz; σ = 1.86 mho/m; ε_r = 38.6; ρ = 1000 kg/m^3

Phantom: SAM 12,Phantom section: Flat Section

DASY4 Configuration:

Probe: ES3DV3 - SN3036, ConvF(4.22, 4.22, 4.22), 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

2450MHz Validation @20dBm/Area Scan (61x71x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 6.90 mW/g

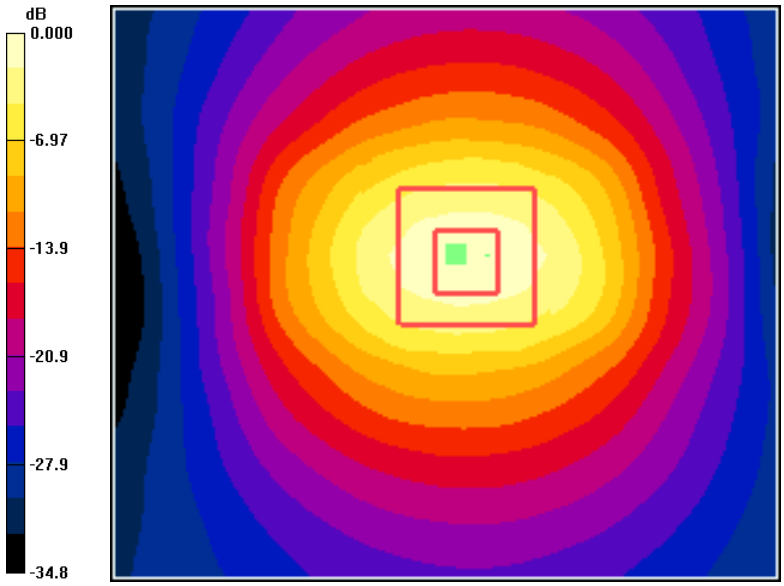
2450MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 52.3 V/m; Power Drift = 0.002 dB

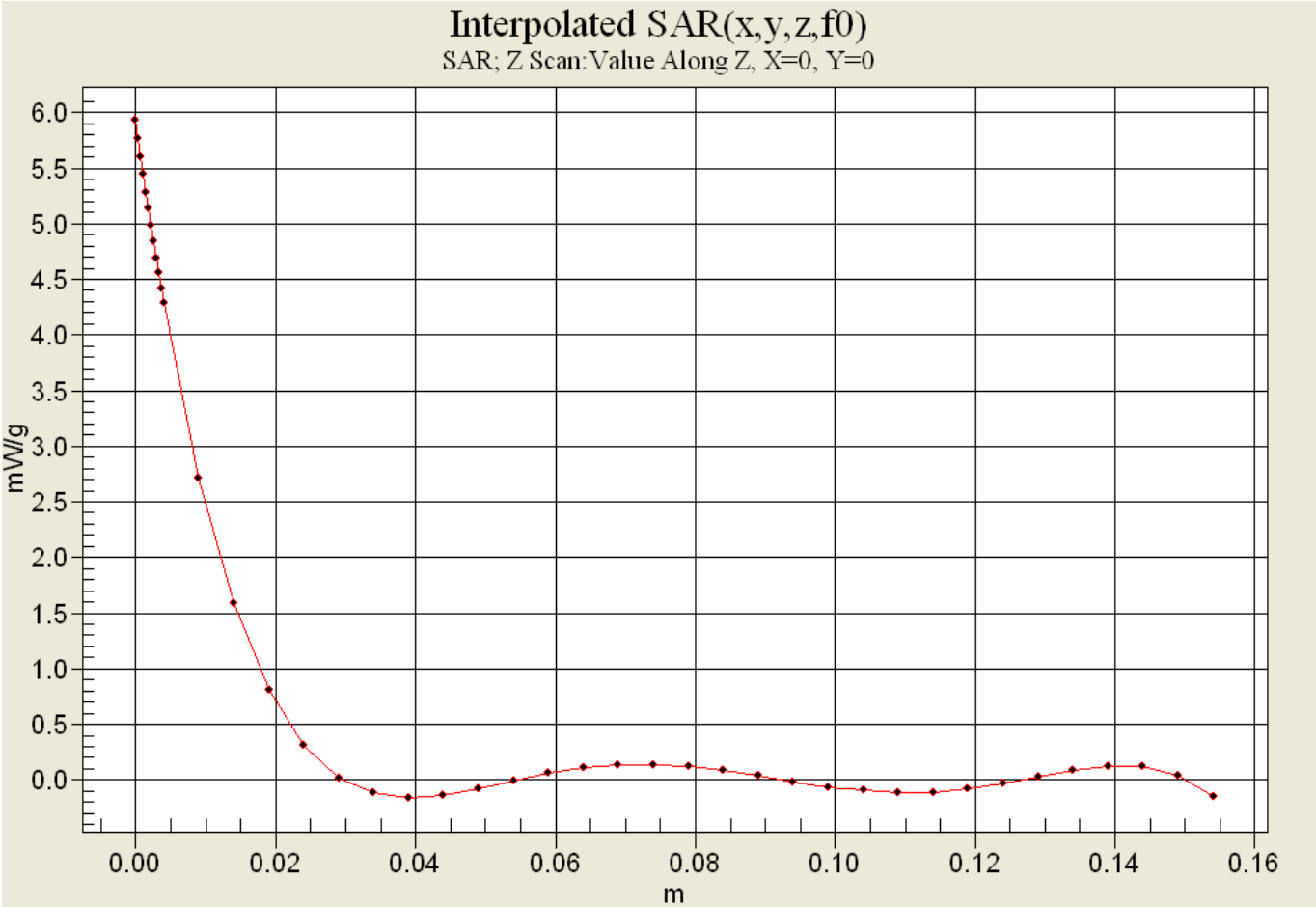
Peak SAR (extrapolated) = 12.1 W/kg

SAR(1 g) = 5.51 mW/g; SAR(10 g) = 2.49 mW/g

Maximum value of SAR (measured) = 6.19 mW/g



0 dB = 6.90mW/g

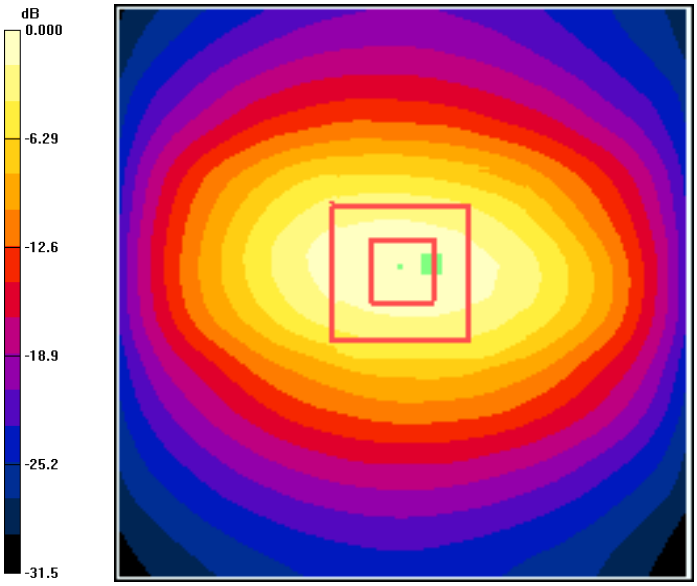


Validation for BODY

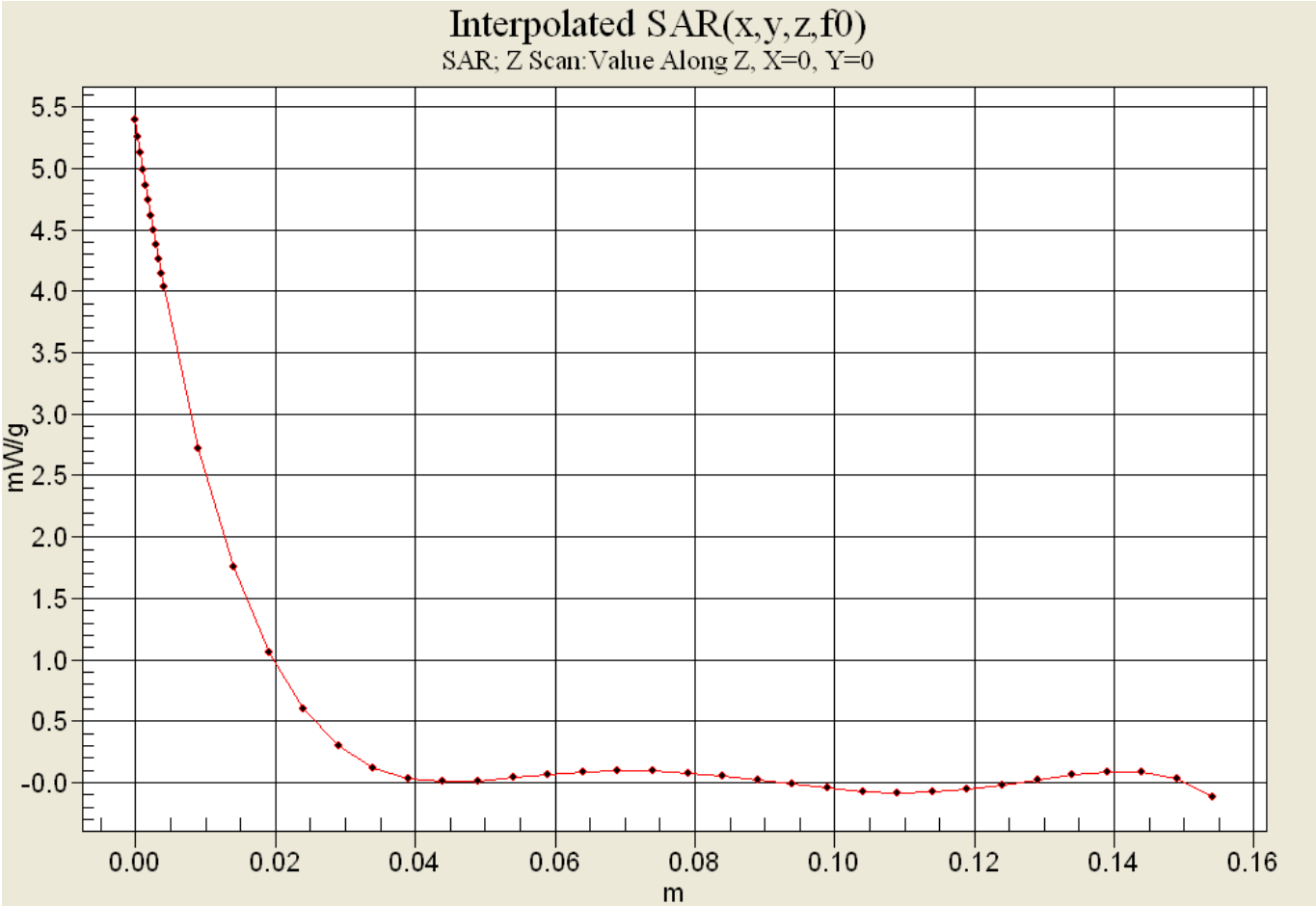
1900Mhz Validation (Muscle) @ 20dBm Probe 3078, DAE 675 and Dipole 5d016
Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: M1800,Medium parameters used (interpolated): f = 1900 MHz; σ = 1.53 mho/m; ε_r = 51.9; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section
DASY4 Configuration:
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) = 4.93 mW/g

1900MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 54.0 V/m; Power Drift = 0.091 dB
Peak SAR (extrapolated) = 7.44 W/kg
SAR(1 g) = 4.16 mW/g; SAR(10 g) = 2.18 mW/g
Maximum value of SAR (measured) = 4.76 mW/g



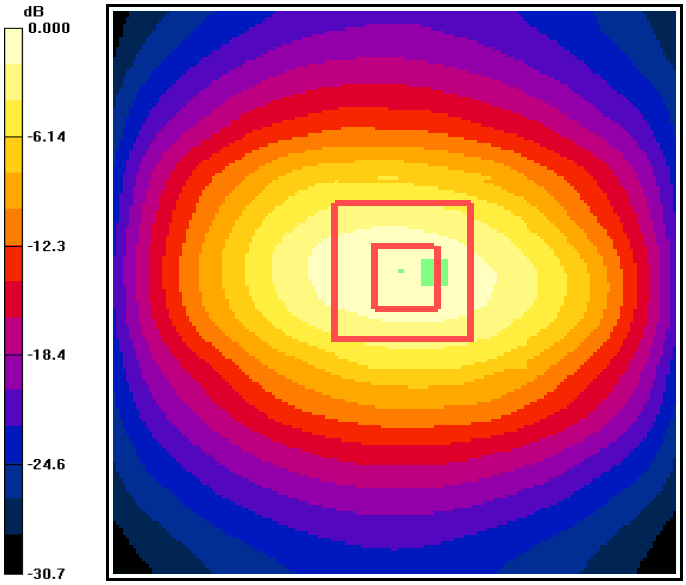
0 dB = 4.93mW/g



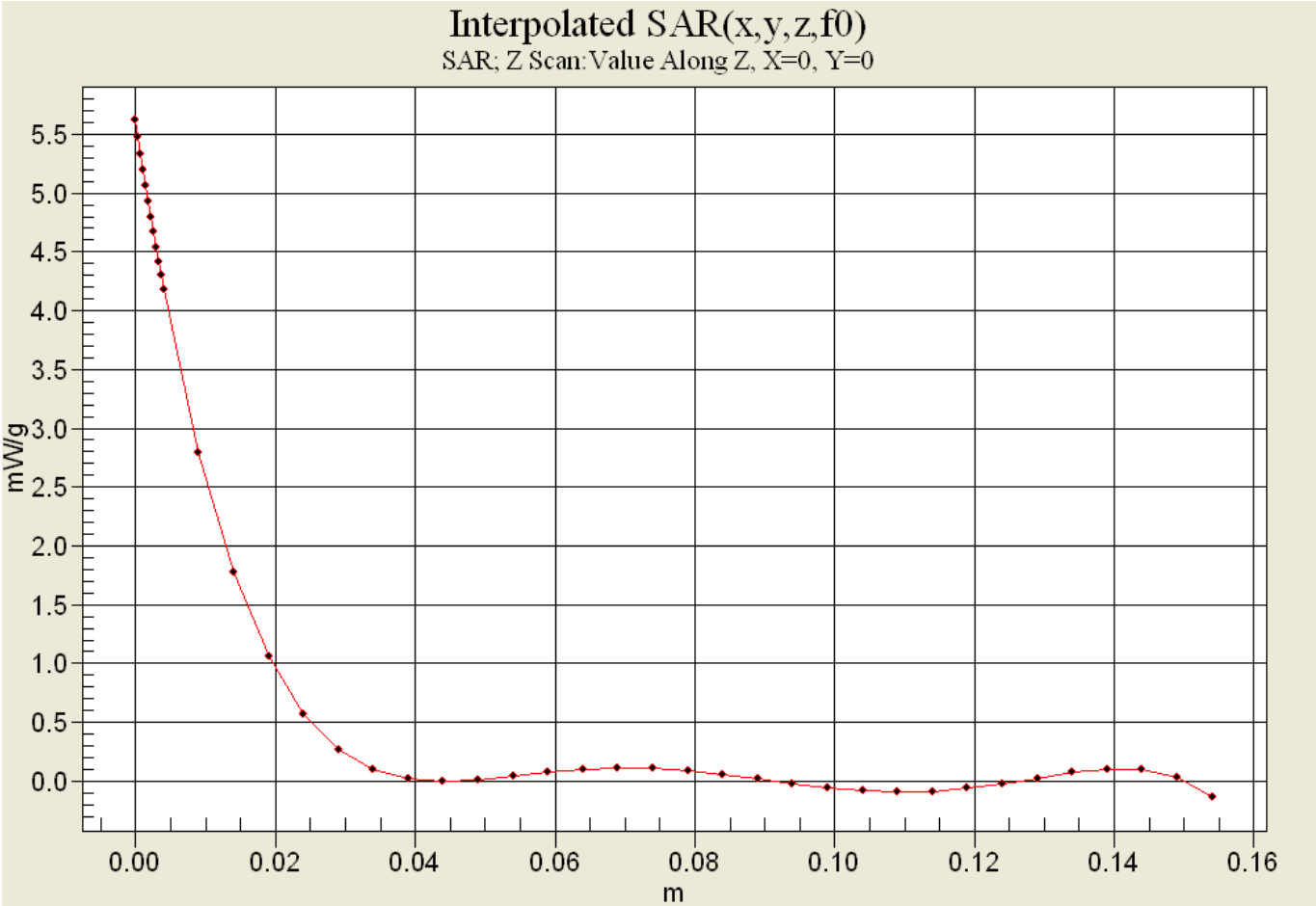
1900Mhz Validation (Muscle) @ 20dBm Probe 3078, DAE 675 and Dipole 5d016
Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1
Medium: M1800,Medium parameters used (interpolated): f = 1900 MHz; σ = 1.53 mho/m; ε_r = 51.9; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section
DASY4 Configuration:
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) = 4.82 mW/g

1900MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.2 V/m; Power Drift = 0.001 dB
Peak SAR (extrapolated) = 7.34 W/kg
SAR(1 g) = 4.09 mW/g; SAR(10 g) = 2.14 mW/g
Maximum value of SAR (measured) = 4.71 mW/g



0 dB = 4.82mW/g

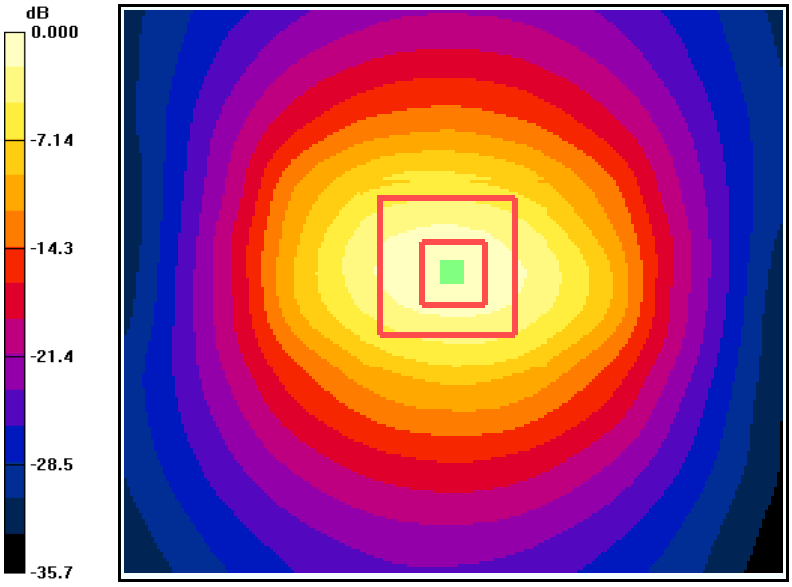


Test Laboratory: Comptest/Kyocera Date: 08/23/2012

2450MHz Validation (in Muscle), Probe #3078, DAE #675, Dipole #776
Communication System: CW, Frequency: 2450 MHz, Duty Cycle: 1:1
Medium: M2450,Medium parameters used (interpolated): f = 2450 MHz; σ = 1.98 mho/m; ε_r = 52.7; ρ = 1000 kg/m^3
Phantom: SAM 12,Phantom section: Flat Section
DASY4 Configuration:
Probe: ES3DV3 - SN3078, ConvF(4.16, 4.16, 4.16), Calibrated: 9/19/2011
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

2450MHz Validation @20dBm/Area Scan (61x71x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 6.03 mW/g

2450MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 50.3 V/m; Power Drift = 0.123 dB
Peak SAR (extrapolated) = 10.2 W/kg
SAR(1 g) = 4.82 mW/g; SAR(10 g) = 2.21 mW/g
Maximum value of SAR (measured) = 5.51 mW/g



0 dB = 6.03mW/g