

Applicant:	Kyocera
FCC ID:	V65S2151
Report #:	CT- S2151-9A-1112-R0

**EXHIBIT 9 APPENDIX A: SAR VALIDATION PLOTS** 

# Validation for HEAD



Applicant:	Kyocera
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Date: 11/15/2012

### 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;  $\sigma$  = 0.9 mho/m;  $\epsilon_r$  = 40.7;  $\rho$  = 1000 kg/m<sup>3</sup> 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) = 1.09 mW/g

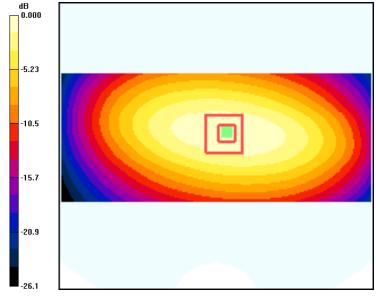
835MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 35.0 V/m; Power Drift = -0.178 dB

Peak SAR (extrapolated) = 1.49 W/kg

SAR(1 g) = 0.992 mW/g; SAR(10 g) = 0.645 mW/g

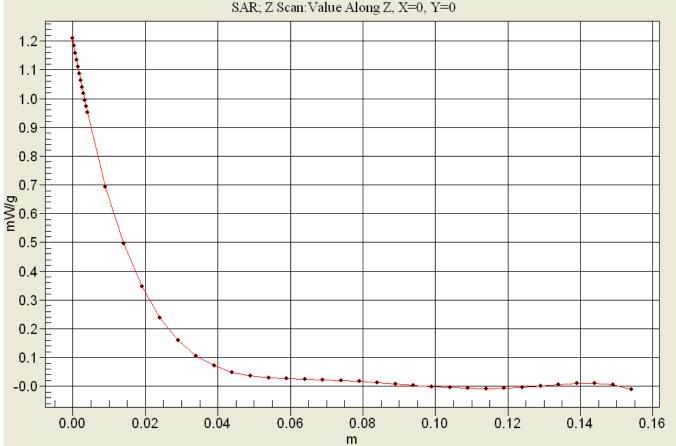
Maximum value of SAR (measured) = 1.08 mW/g



0 dB = 1.09 mW/g



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### 1900Mhz Validation @ 20dBm Probe 1618, DAE 675 and Dipole 5d016

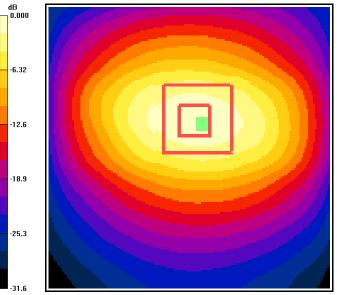
Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1 Medium: HSL1900,Medium parameters used (interpolated): f = 1900 MHz;  $\sigma$  = 1.46 mho/m;  $\epsilon_r$  = 38;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom: SAM 12,Phantom section: Flat Section **DASY4 Configuration:** Probe: ET3DV6 - SN1618, ConvF(5.17, 5.17, 5.17), Calibrated: 9/13/2012 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) = 4.61 mW/g

**1900MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 50.9 V/m; Power Drift = -0.100 dB

Peak SAR (extrapolated) = 6.27 W/kg

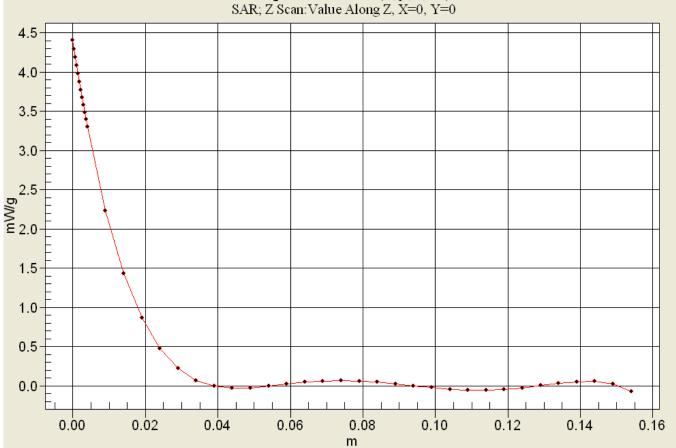
SAR(1 g) = 3.75 mW/g; SAR(10 g) = 1.98 mW/g Maximum value of SAR (measured) = 4.20 mW/g



 $0 \, dB = 4.61 \, mW/g$ 



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## Validation for BODY



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Date: 11/16/2012

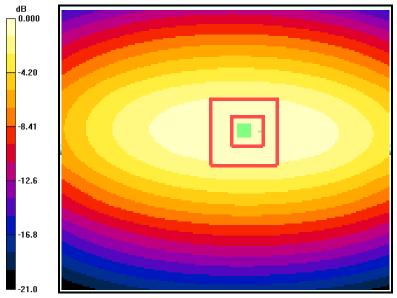
#### 835MHz Validation(Muscle), Probe #3036, DAE #603, Dipole #5d016

Communication System: CW, Frequency: 835 MHz, Duty Cycle: 1:1 Medium: M800,Medium parameters used: f = 835 MHz;  $\sigma$  = 0.95 mho/m;  $\epsilon_r$  = 53.8;  $\rho$  = 1000 kg/m<sup>3</sup> 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) = 1.06 mW/g

835MHz Validation @20dBm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 31.9 V/m; Power Drift = 0.038 dB Peak SAR (extrapolated) = 1.43 W/kg SAR(1 g) = 0.986 mW/g; SAR(10 g) = 0.653 mW/g

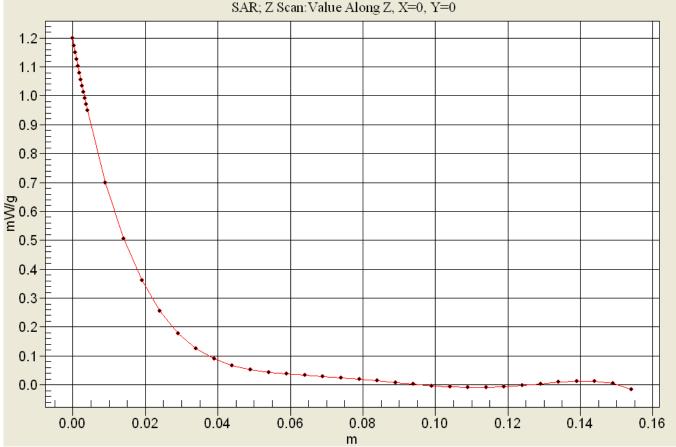
Maximum value of SAR (measured) = 1.07 mW/g



0 dB = 1.06 mW/g



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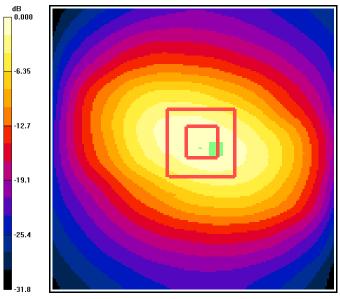
### 1900Mhz Validation (Muscle) @ 20dBm Probe 1618, DAE 675 and Dipole 5d016

Communication System: CW, Frequency: 1900 MHz, Duty Cycle: 1:1 Medium: M1800,Medium parameters used (interpolated): f = 1900 MHz;  $\sigma$  = 1.55 mho/m;  $\epsilon_r$  = 51.3;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom: SAM 12,Phantom section: Flat Section **DASY4 Configuration:** Probe: ET3DV6 - SN1618, ConvF(4.42, 4.42, 4.42), Calibrated: 9/13/2012 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(Muscle) Validation @20dBm/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 4.58 mW/g

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

Reference Value = 57.0 V/m; Power Drift = -0.048 dB Peak SAR (extrapolated) = 5.71 W/kg SAR(1 g) = 3.77 mW/g; SAR(10 g) = 2.06 mW/g Maximum value of SAR (measured) = 4.28 mW/g



 $0 \, dB = 4.58 mW/g$ 



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