



TESTING CERT # 2518.01

DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 2

Enterprise Mobility Solutions
EME Test Laboratory
 8000 West Sunrise Blvd
 Fort Lauderdale, FL. 33322.

Date of Report: 11/11/2010
Report Revision: A
Report ID: SAR PCII rpt_PMUF1063C_Rev A
 101111 SR8629 & SR8745

Responsible Engineer: Veeramani Veerapan (Senior EME Engineer)
Report Author: Veeramani Veerapan (Senior EME Engineer)
Date/s Tested: 7/14/10~9/8/10
Manufacturer/Location: Motorola, Penang
Sector/Group/Div.: EMS
Date submitted for test: 6/17/10 & 6/25/10
DUT Description: ATS2500/GP540/PRO5750/PRO5650 P XCVR 800M 2.5W POP 1.5PPM, Non-Keypad
Test TX mode(s): CW (PTT)
Max. Power output: 2.95W (806-825MHz) & 2.40W (851-870MHz)
Nominal Power: 2.5W (806-825MHz) & 2.0W (851-870MHz)
Tx Frequency Bands: 806-825 MHz & 851-870 MHz
Signaling type: FM
Model(s) Tested: PMUF1063C
Model(s) Certified: PMUF1063C
Serial Number(s): 019TES1026
Classification: Occupational/Controlled
FCC ID: AZ489FT5837
FCC Rule Part(s): 90 (806-824, 851-869 MHz)
IC ID: 109U-89FT5837
IC standard(s): RSS-102 (2010)



*** Refer to section 15 of part 1 highest SAR summary results.**

The test results clearly demonstrate compliance with FCC Occupational/Controlled RF Exposure limits of 8 W/kg averaged over 1 gram per the requirements of 47 CFR 2.1093(d). The 10 grams results are not applicable to FCC filing. The test results clearly demonstrate compliance with ICNIRP (1998) Guidelines for limiting exposure in time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz), Health Physics 74, 494-522 RF Exposure limits of 10 W/kg averaged over 10grams of contiguous tissue.

Based on the information and the testing results provided herein, the undersigned certifies that when used as stated in the operating instructions supplied, said product complies with the national and international reference standards and guidelines listed in section 3.0 of this report. This report shall not be reproduced without written approval from an officially designated representative of the Motorola EME Laboratory. I attest to the accuracy of the data and assume full responsibility for the completeness of these measurements. This reporting format is consistent with the suggested guidelines of the TIA TSB-150 December 2004. The results and statements contained in this report pertain only to the device(s) evaluated.

Deanna Zakharia – signature on file
Deanna Zakharia
EMS EME Lab Senior Resource Manager,
Laboratory Director

Approval Date: 12/14/2010

Certification Date: 12/14/2010

Certification No.: 101217AD & 101216AD

Appendix C
Dipole Calibration Certificates

**Calibration Laboratory of
Schmid & Partner
Engineering AG**
Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
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S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **Motorola CGISS**

Certificate No: **D835V2-435_Sep08**

CALIBRATION CERTIFICATE

Object **D835V2 - SN: 435**

Calibration procedure(s) **QA CAL-05.v7
Calibration procedure for dipole validation kits**

Calibration date: **September 22, 2008**

Condition of the calibrated item **In Tolerance**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-07 (No. 217-00736)	Oct-08
Power sensor HP 8481A	US37292783	04-Oct-07 (No. 217-00736)	Oct-08
Reference 20 dB Attenuator	SN: 5086 (20g)	01-Jul-08 (No. 217-00864)	Jul-09
Type-N mismatch combination	SN: 5047.2 / 06327	01-Jul-08 (No. 217-00867)	Jul-09
Reference Probe ES3DV2	SN: 3025	28-Apr-08 (No. ES3-3025_Apr08)	Apr-09
DAE4	SN: 601	14-Mar-08 (No. DAE4-601_Mar08)	Mar-09

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-07)	In house check: Oct-09
RF generator R&S SMT-06	100005	4-Aug-99 (in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-07)	In house check: Oct-08

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: September 22, 2008

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

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Zeughausstrasse 43, 8004 Zurich, Switzerland



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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V5.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V4.9	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	835 MHz \pm 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.5	0.90 mho/m
Measured Head TSL parameters	(22.0 \pm 0.2) °C	40.2 \pm 6 %	0.88 mho/m \pm 6 %
Head TSL temperature during test	(22.5 \pm 0.2) °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.39 mW / g
SAR normalized	normalized to 1W	9.56 mW / g
SAR for nominal Head TSL parameters ¹	normalized to 1W	9.51 mW / g \pm 17.0 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.57 mW / g
SAR normalized	normalized to 1W	6.28 mW / g
SAR for nominal Head TSL parameters ¹	normalized to 1W	6.24 mW / g \pm 16.5 % (k=2)

¹ Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

Appendix**Antenna Parameters with Head TSL**

Impedance, transformed to feed point	50.0 Ω -8.9 $j\Omega$
Return Loss	- 21.0 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.392 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	December 15, 2000

DASY5 Validation Report for Head TSL

Date/Time: 22.09.2008 10:19:42

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:435

Communication System: CW-835; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL 900 MHz

Medium parameters used: $f = 835$ MHz; $\sigma = 0.901$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV2 - SN3025; ConvF(5.97, 5.97, 5.97); Calibrated: 28.04.2008
- Sensor-Surface: 3.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 14.03.2008
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- Measurement SW: DASY5, V5.0 Build 119; SEMCAD X Version 13.2 Build 87

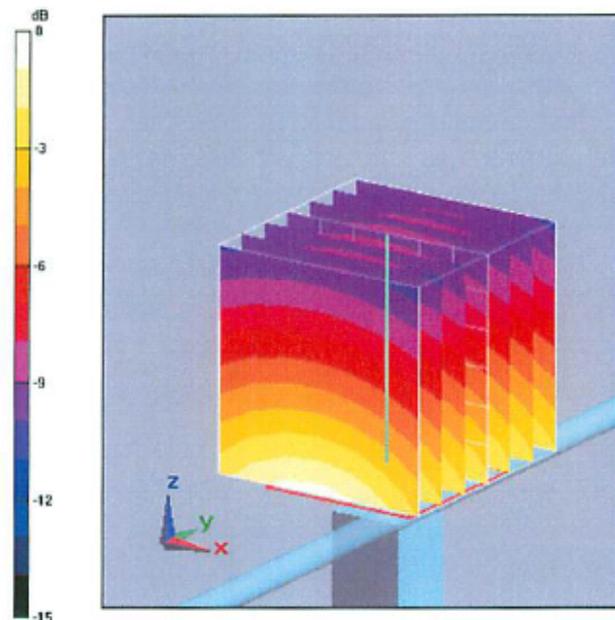
Pin=250mW; dip=15mm; dist=3.4mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56 V/m; Power Drift = 0.020 dB

Peak SAR (extrapolated) = 3.48 W/kg

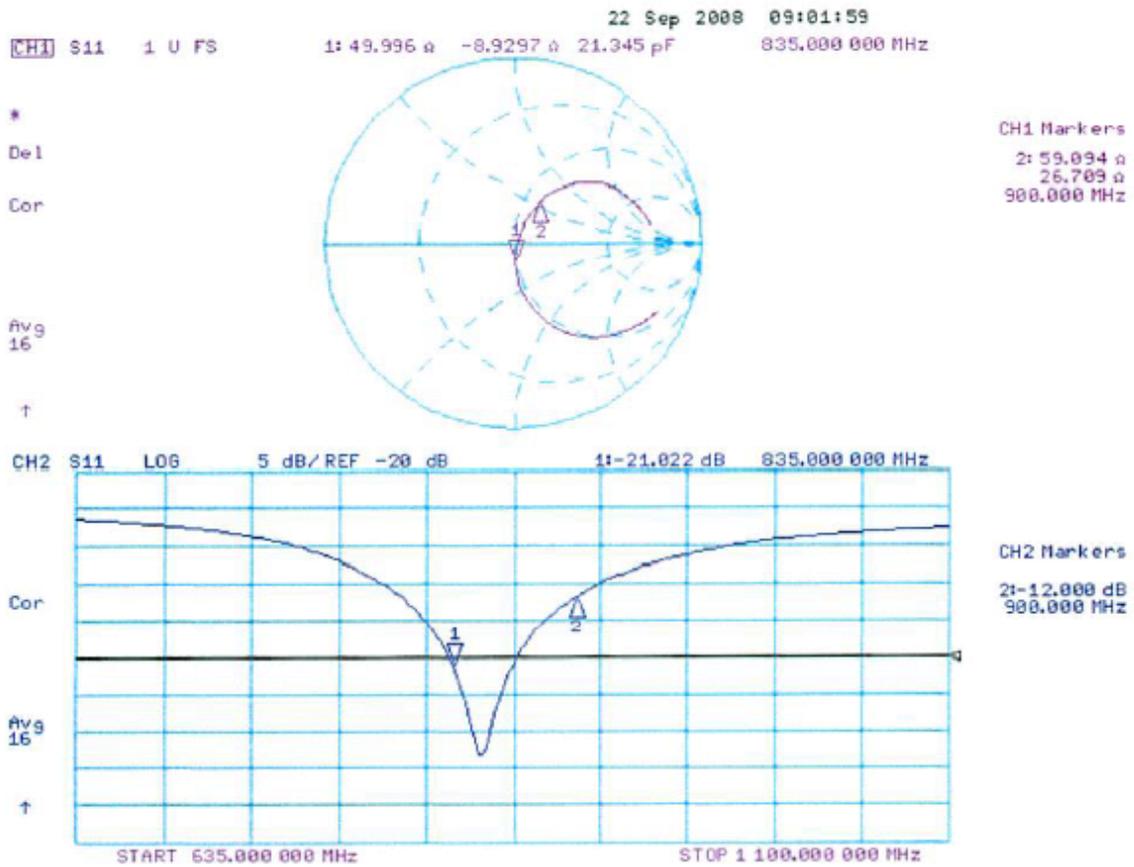
SAR(1 g) = 2.39 mW/g; SAR(10 g) = 1.57 mW/g

Maximum value of SAR (measured) = 2.69 mW/g



0 dB = 2.69mW/g

Impedance Measurement Plot for Head TSL



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Accreditation No.: **SCS 108**

Client **Motorola EME**

Certificate No: **D900V2-084_Mar10**

CALIBRATION CERTIFICATE

Object **D900V2 - SN: 084**

Calibration procedure(s) **QA CAL-05.v7
Calibration procedure for dipole validation kits**

Calibration date: **March 22, 2010**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	06-Oct-09 (No. 217-01086)	Oct-10
Power sensor HP 8481A	US37292783	06-Oct-09 (No. 217-01086)	Oct-10
Reference 20 dB Attenuator	SN: 5086 (20g)	31-Mar-09 (No. 217-01025)	Mar-10
Type-N mismatch combination	SN: 5047.2 / 06327	31-Mar-09 (No. 217-01029)	Mar-10
Reference Probe ES3DV3	SN: 3205	26-Jun-09 (No. ES3-3205_Jun09)	Jun-10
DAE4	SN: 601	02-Mar-10 (No. DAE4-601_Mar10)	Mar-11

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-09)	In house check: Oct-11
RF generator R&S SMT-06	100005	4-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-09)	In house check: Oct-10

Calibrated by: **Dimce Iliev** Function: **Laboratory Technician** Signature: *D. Iliev*

Approved by: **Katja Pokovic** Technical Manager *K. Pokovic*

Issued: March 22, 2010

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

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Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V5.2
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V4.9	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	900 MHz \pm 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.2 °C	41.5	0.97 mho/m
Measured Head TSL parameters	(22.0 \pm 0.2) °C	42.2 \pm 6 %	0.97 mho/m \pm 6 %
Head TSL temperature during test	(21.5 \pm 0.2) °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.74 mW / g
SAR normalized	normalized to 1W	11.0 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	11.0 mW / g \pm 17.0 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.75 mW / g
SAR normalized	normalized to 1W	7.00 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	7.01 mW / g \pm 16.5 % (k=2)

Appendix**Antenna Parameters with Head TSL**

Impedance, transformed to feed point	49.7 Ω - 7.8 $j\Omega$
Return Loss	- 22.1 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.391 ns
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After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	September 20, 2000

DASY5 Validation Report for Head TSL

Date/Time: 22.03.2010 12:28:12

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:084

Communication System: CW; Frequency: 900 MHz; Duty Cycle: 1:1

Medium: HSL900

Medium parameters used: $f = 900$ MHz; $\sigma = 0.97$ mho/m; $\epsilon_r = 42$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(5.88, 5.88, 5.88); Calibrated: 26.06.2009
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 02.03.2010
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- Measurement SW: DASY5, V5.2 Build 157; SEMCAD X Version 14.0 Build 57

Pin=250 mW /d=15mm, dist=3.0mm (ES-Probe) /Zoom Scan (7x7x7) /Cube 0: Measurement

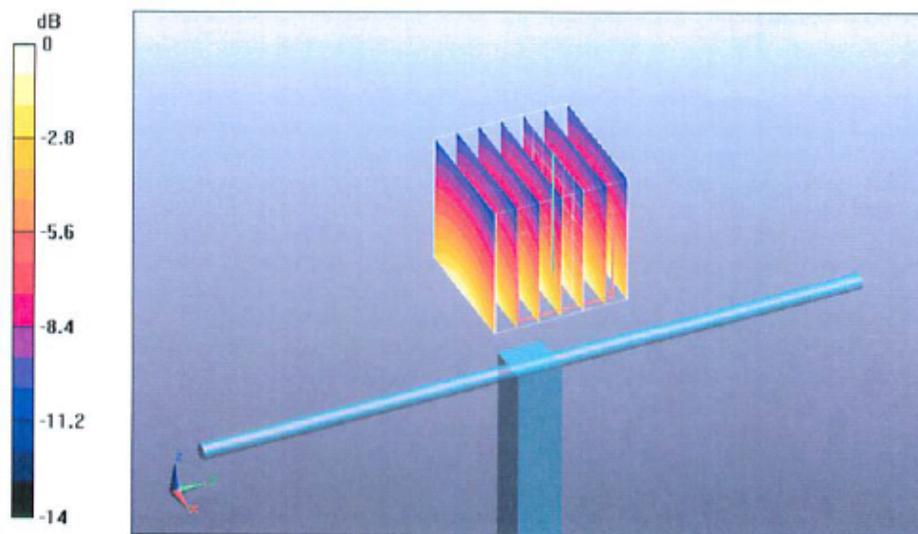
grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 58.8 V/m; Power Drift = 0.036 dB

Peak SAR (extrapolated) = 4.14 W/kg

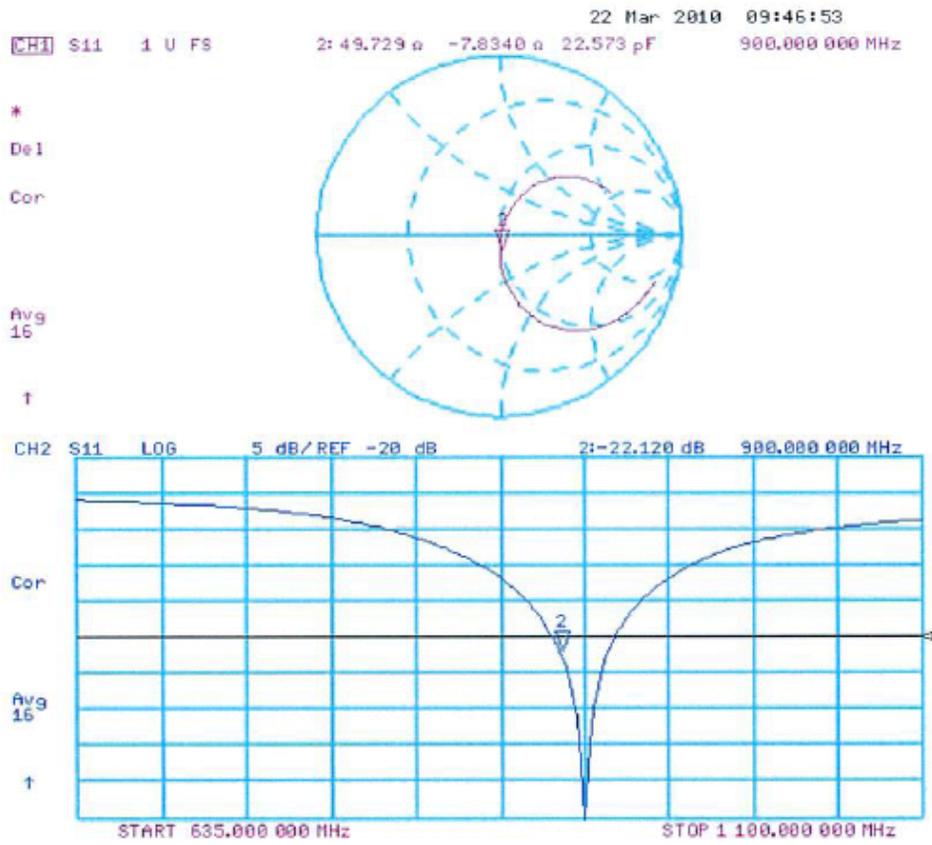
SAR(1 g) = 2.74 mW/g; SAR(10 g) = 1.75 mW/g

Maximum value of SAR (measured) = 3.19 mW/g



0 dB = 3.19mW/g

Impedance Measurement Plot for Head TSL



Appendix D

Test System Verification Scans

The SAR result indicated on the Manufacture's Calibrated certificate for dipole D835V2 S/N 435 and D900V2 S/N 084 was not used due to the following:

- The and the FCC OET-65 Supplement C, System Verification section indicated that "The measured 1-g SAR should be within 10% of the expected target values specified for the specific phantom and RF source used in the system verification measurement."
- SPEAG calibration certificate indicated that the allowed tolerance for this dipole is higher than +/- 10% (e.g. 9.51 +/-17 % at k=2 for the D835V2 S/N 435 and 11.0 +/- 17% at K=2 for the D900V2 S/N 084).
- The allowed tolerance for the probes is also higher than +/- 10% (e.g. 11% at k=2 at 900MHz for the probe being used to assess this product).

Due to probe, dipole and system tolerances noted above, the lab averages dipole results across multiple probes to establish a set of averaged targets for each dipole using the following procedure:

- The System Validation was conducted per IEEE1528-2003 and IEC62209-2 Edition 1.0 2010-03 standards using the simulated head tissue and multiple probes that are available and applicable for the dipole under test to verify the System Validation. Results for this dipole are within the measurement system uncertainty of the reference SAR values indicated within IEC62209-2 Edition 1.0 2010-03 when using flat phantom with 2mm thickness is used. These results then are averaged and used as the target for the daily system performance check when the simulated head tissue is used.
- The dipole targets for the body are set immediately following the same process noted above. Since there is no standard referencing the SAR values for the System Validation using the simulated body tissue, the compliant System Validation results using the simulated head tissue are used to justify the use of the System Validation results using the simulated body tissue due to the same setup except for the simulated tissue type.

The targets set in this report were conducted following the above process.

Noted that the target set for the tested dipole, when used the simulated head tissue, meets the requirement for the system validation per IEEE1528-2003, IEC62209-2 Edition 1.0 2010-03 standards, and the difference between this result and the result from the manufacture's dipole calibration certificate is 5.6 % for the D835V2 S/N435 and 5.7 % for the D900V2 S/N084 dipoles which are well within the measurement uncertainty of the measurement system at k=2.

To assess the isotropic characteristics of the measurement probe, a probe rotation was performed using the "Rotation (1D)" function in the DASY software with a measured isotropy tolerance of +/- 0.5dB.

Motorola Enterprise Mobility Solutions EME Laboratory
Date/Time: 7/14/2010 4:50:08 PM

Robot# / Run#: DASY4-FL-3 / MeC-SYSP-835B-100714-01
Phantom# / Tissue Temp.: OVAL1019 / 20.6 (C)
Dipole Model# / Serial#: D835V2 / 435
TX Freq. / Start power: 835 (MHz) / 250 (mW)

Target SAR (1W): 10.04 mW/g (1g)
Adjusted SAR (1W): 9.68 mW/g (1g)
Percent from Target (+/-): 3.6 % (1g)
Rotation (1D): 0.053 dB

Note: Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 2.33 mW/g (1g); 1.53 mW/g (10g)

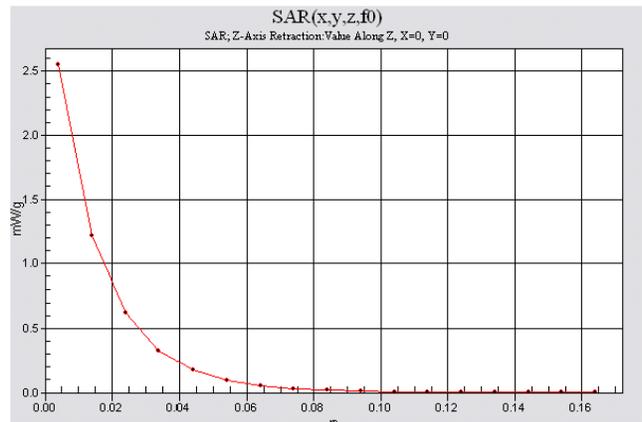
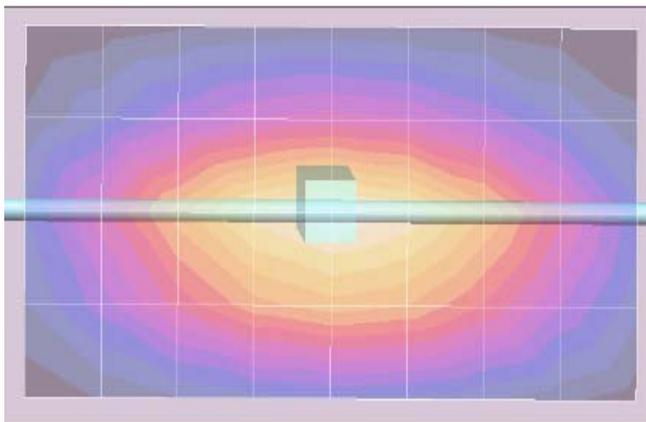
Comments:

Probe: ES3DV3 - SN3163, Calibrated: 4/23/2010, ConvF(5.95, 5.95, 5.95)
Electronics: DAE3 Sn363, Calibrated: 4/16/2010
Duty Cycle: 1:1, Medium parameters used: $f = 835$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 55.3$; $\rho = 1000$ kg/m³

System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 51.3 V/m; Power Drift = 0.00939 dB
Peak SAR (extrapolated) = 3.43 W/kg
SAR(1 g) = 2.33 mW/g; SAR(10 g) = 1.53 mW/g
Maximum value of SAR (measured) = 2.52 mW/g

System Performance Check/Dipole Area Scan 2 (41x81x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 51.3 V/m; Power Drift = 0.00939 dB
Motorola Fast SAR: SAR(1 g) = 2.33 mW/g; SAR(10 g) = 1.57 mW/g
Maximum value of SAR (interpolated) = 2.50 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 2.51 mW/g



Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 7/21/2010 7:31:52 AM

Robot# / Run#: DASY4-FL-1 / ErC-SYSP-835B-100721-01
 Phantom# / Tissue Temp.: OVAL1021 / 21.5 (C)
 Dipole Model# / Serial#: D835V2 / 435
 TX Freq. / Start power: 835 (MHz) / 250 (mW)

Target SAR (1W): 10.04 mW/g (1g)
 Adjusted SAR (1W): 10.80 mW/g (1g)
 Percent from Target (+/-): 7.6 % (1g)
 Rotation (1D): 0.2 dB

Note:
 Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 2.70 mW/g (1g); 1.78 mW/g (10g)

Comments:

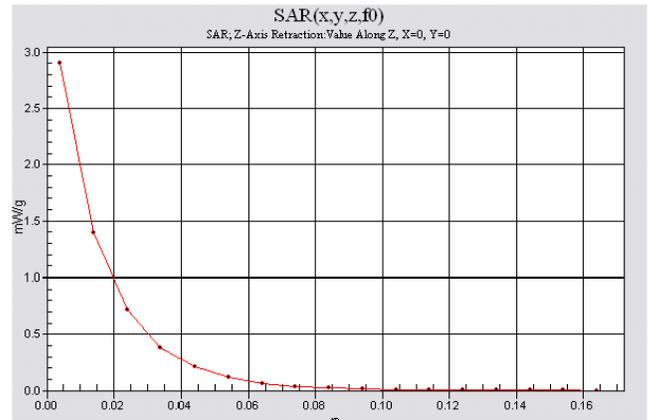
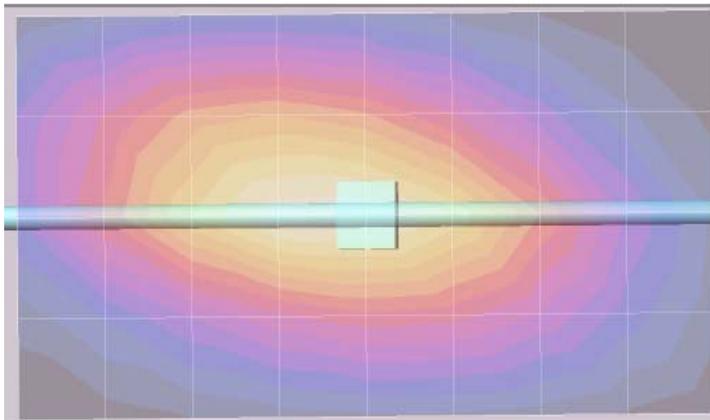
Probe: ES3DV3 - SN3185, Calibrated: 11/23/2009, ConvF(5.48, 5.48, 5.48)
 Electronics: DAE3 Sn374, Calibrated: 4/15/2010
 Duty Cycle: 1:1, Medium parameters used: $f = 835$ MHz; $\sigma = 0.99$ mho/m; $\epsilon_r = 56.2$; $\rho = 1000$ kg/m³

System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 54.5 V/m; Power Drift = 0.0415 dB
 Peak SAR (extrapolated) = 3.92 W/kg
 SAR(1 g) = 2.67 mW/g; SAR(10 g) = 1.76 mW/g
 Maximum value of SAR (measured) = 2.88 mW/g

System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 2.81 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 2.90 mW/g



Motorola Enterprise Mobility Solutions EME Laboratory
Date/Time: 8/16/2010 2:53:05 PM

Robot# / Run#: DASY4-FL-1 / JsT-SYSP-835H-100816-02
Phantom# / Tissue Temp.: OVAL1020 / 21.2 (C)
Dipole Model# / Serial#: D835V2 / 435
TX Freq. / Start power: 835 (MHz) / 250 (mW)

Target SAR (1W): 10.04 mW/g (1g)
Adjusted SAR (1W): 9.44 mW/g (1g)
Percent from Target (+/-): 6.0 % (1g)
Rotation (1D): 0.066 dB

Note:
Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 2.36 mW/g (1g); 1.53 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3185, Calibrated: 11/23/2009, ConvF(5.63, 5.63, 5.63)
Electronics: DAE3 Sn401, Calibrated: 7/8/2010
Duty Cycle: 1:1, Medium parameters used: $f = 835$ MHz; $\sigma = 0.91$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³

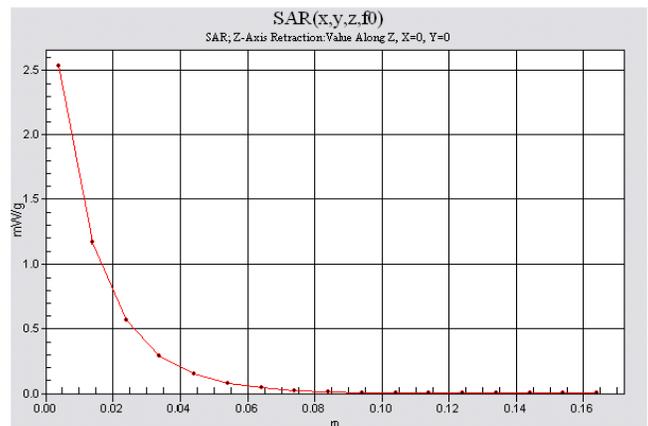
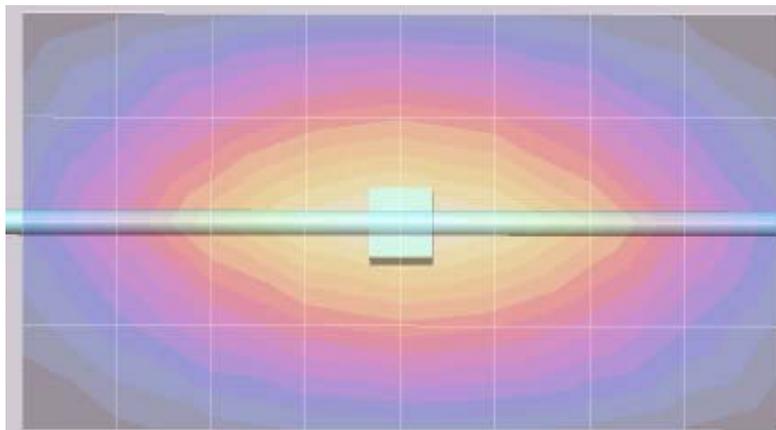
System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 53.3 V/m; Power Drift = -0.0016 dB
Peak SAR (extrapolated) = 3.50 W/kg
SAR(1 g) = 2.35 mW/g; SAR(10 g) = 1.53 mW/g
Maximum value of SAR (measured) = 2.53 mW/g

System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 2.54 mW/g



Motorola Enterprise Mobility Solutions EME Laboratory
Date/Time: 9/8/2010 4:06:12 PM

Robot# / Run#: DASY4-FL-3 / MeC-SYSP-900H-100908-01
Phantom# / Tissue Temp.: OVAL1020 / 21.3 (C)
Dipole Model# / Serial#: D900V2 / 084
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target SAR (1W): 11.63 mW/g (1g)
Adjusted SAR (1W): 11.24 mW/g (1g)
Percent from Target (+/-): 3.4 % (1g)
Rotation (1D): 0.032 dB

Note: Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 2.81 mW/g (1g); 1.80 mW/g (10g)

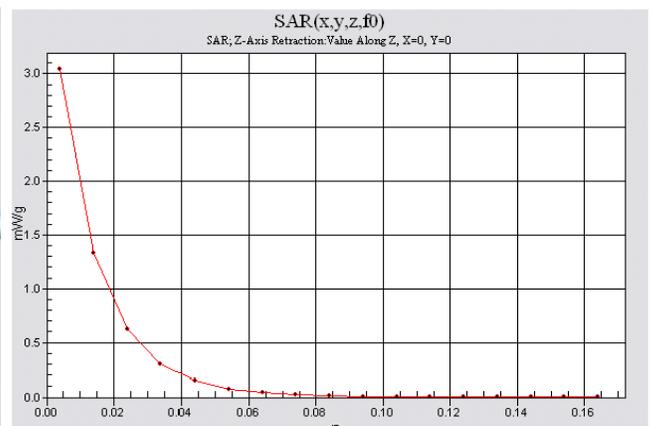
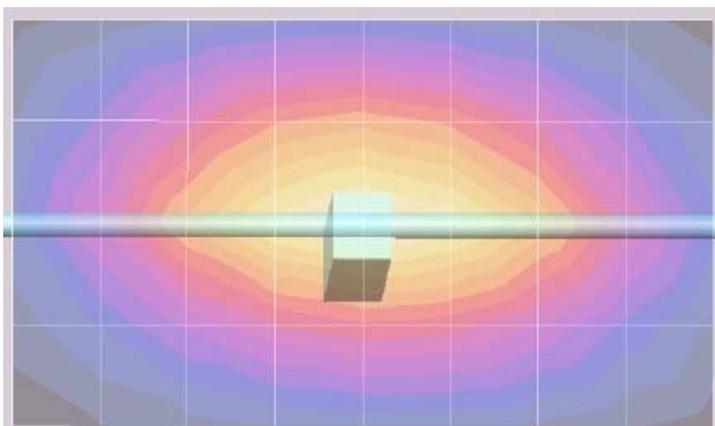
Comments:

Probe: ES3DV3 - SN3163, Calibrated: 4/23/2010, ConvF(5.93, 5.93, 5.93)
Electronics: DAE3 Sn363, Calibrated: 4/16/2010
Duty Cycle: 1:1, Medium parameters used: f = 900 MHz; $\sigma = 0.99$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 55.9 V/m; Power Drift = 0.0128 dB
Peak SAR (extrapolated) = 4.29 W/kg
SAR(1 g) = 2.81 mW/g; SAR(10 g) = 1.8 mW/g
Maximum value of SAR (measured) = 3.05 mW/g

System Performance Check/Dipole Area Scan 2 (41x81x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 55.9 V/m; Power Drift = 0.0128 dB
Motorola Fast SAR: SAR(1 g) = 2.83 mW/g; SAR(10 g) = 1.9 mW/g
Maximum value of SAR (interpolated) = 3.05 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 3.04 mW/g



DIPOLE SAR TARGET - BODY

Date: 10/28/09 Frequency (MHz): 835
 Lab Location: FL08-G&PS Mixture Type: Body
 DAE Serial #: 850 Ambient Temp.(°C): 22

Tissue Characteristics
 Permittivity: 54.0 Phantom Type/SN: OVAL1021
 Conductivity: 0.98 Distance (mm): 15
 Tissue Temp.(°C): 20.1

Reference Source: Dipole Power to Dipole: 250 mW
 Reference SN: 435

New Target:
 Average Measured SAR Value: 10.04 mW/g(1g avg.),

Probe SN #s	1-G Cube	Diff from Ave	Robot
3163	9.92	-1.2%	R1
3007	10.16	1.2%	R1
Average		New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: Ed Church Initial: EC

DIPOLE SAR TARGET - HEAD

Date: 10/28/09 Frequency (MHz): 835
 Lab Location: FL08-G&PS Mixture Type: IEEE Head
 DAE Serial #: 850 Ambient Temp.(°C): 22

Tissue Characteristics
 Permittivity: 41.7 Phantom Type/SN: OVAL1019
 Conductivity: 0.91 Distance (mm): 15
 Tissue Temp.(°C): 20

Reference Source: Dipole Power to Dipole: 250 mW
 Reference SN: 435

Target 1g-SAR Value (mW/g, normalized to 1.0 W):

9.56

Difference from Target

5.02% (1g-SAR)

New Target:

Average 1g-SAR Value (mW/g): **10.04**

Passes K=2

Percent Difference From Target (MUST be within k=2 Uncertainty):

Probe SN #s	1g-SAR (Cube)	Diff from Ave	Robot
3007	10.20	1.6%	R1
3163	9.88	-1.6%	R1
Average 10.0400		New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: Ed Church Initial: ERC

DIPOLE SAR TARGET - BODY

Date: 04/16/10 Frequency (MHz): 900
 Lab Location: FL08-G&PS Mixture Type: Body
 DAE Serial #: 850 Ambient Temp.(°C): 22

Tissue Characteristics

Permittivity: 53.1 Phantom Type/SN: OVAL1019
 Conductivity: 1.05 Distance (mm): 15
 Tissue Temp.(°C): 20.9

Reference Source: Dipole Power to Dipole: 250 mW
 Reference SN: 84

New Target:

Average Measured SAR Value: 11.60 mW/g(1g avg.),

Probe SN #s	1-G Cube	Diff from Ave	Robot
3006	11.64	0.3%	R3
1547	11.48	-1.0%	R3
3147	11.68	0.7%	R3
Average		New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: Ed Church Initial: EC

DIPOLE SAR TARGET - HEAD

Date: 04/16/10 Frequency (MHz): 900
 Lab Location: FL08-G&PS Mixture Type: IEEE Head
 DAE Serial #: 850 Ambient Temp.(°C): 22

Tissue Characteristics
 Permittivity: 40.3 Phantom Type/SN: SAMTP1022
 Conductivity: 0.97 Distance (mm): 15
 Tissue Temp.(°C): 21.7

Reference Source: Dipole Power to Dipole: 250 mW
 Reference SN: 84

Target 1g-SAR Value (mW/g, normalized to 1.0 W):

10.9

Difference from Target

6.67% (1g-SAR)

New Target:

Average 1g-SAR Value (mW/g): **11.63**

Passes K=2

Percent Difference From Target (MUST be within k=2 Uncertainty):

Probe SN #s	1g-SAR (Cube)	Diff from Ave	Robot
3147	11.64	0.1%	R3
1547	11.40	-1.9%	R3
3006	11.84	1.8%	R3
Average 11.6267		New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: Ed Church Initial: EC

Appendix E
FCC Part 90 (806-824MHz & 851-869MHz)
DUT Scans (Shortened Scan and Highest SAR configurations)

Shortened Scan Results

Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 7/21/2010 9:10:20 PM

Robot# / Run#: DASY4-FL-1 / CM-Ab-100721-13
 Phantom# / Tissue Temp.: OVAL1021 / 21.7 (C)
 DUT Model# / Serial#: PMUF1063C / 019TES1026
 Antenna / TX Freq.: PMAF4000A / 806.0125 (MHz)
 Battery: PMNN4156A
 Carry Acc. / Cable Acc.: None / BDN6768A with RMN5117A
 Start Power: 3.22 (W)

Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 10.53 mW/g (1g); 7.57 mW/g (10g)

Comments: Back of DUT facing phantom, antenna at 2.5 cm parallel; Shorten scan

Probe: ES3DV3 - SN3185, Calibrated: 11/23/2009, ConvF(5.48, 5.48, 5.48)

Electronics: DAE3 Sn374, Calibrated: 4/15/2010

Duty Cycle: 1:1, Medium parameters used: $f = 815.5$ MHz; $\sigma = 0.97$ mho/m; $\epsilon_r = 56.4$; $\rho = 1000$ kg/m³

Body Scan/1-Area Scan (61x211x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 113.1 V/m; Power Drift = -0.842 dB

Motorola Fast SAR: SAR(1 g) = 10.8 mW/g; SAR(10 g) = 7.56 mW/g

Maximum value of SAR (interpolated) = 11.5 mW/g

Body Scan/2-Volume 2D Scan (41x41x1): Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 113.1 V/m; Power Drift = -0.875 dB

Peak SAR (extrapolated) = 11.1 W/kg

Motorola Fast SAR: SAR(1 g) = 10.5 mW/g; SAR(10 g) = 7.33 mW/g

Maximum value of SAR (interpolated) = 11.1 mW/g

Body Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 109.4 V/m; Power Drift = -0.213 dB

Peak SAR (extrapolated) = 13.8 W/kg

SAR(1 g) = 10.4 mW/g; SAR(10 g) = 7.5 mW/g

Maximum value of SAR (measured) = 11.0 mW/g

Body Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

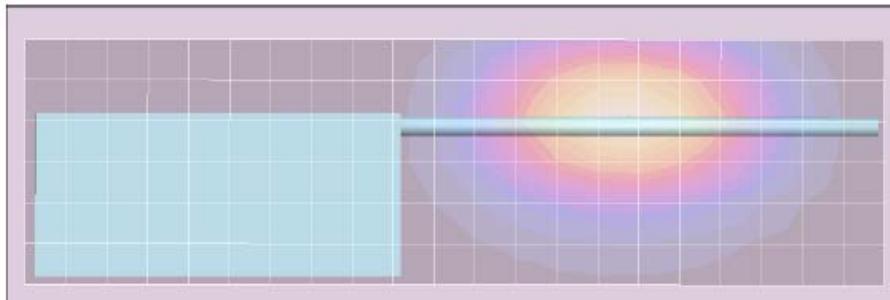
Shortened scan reflect highest SAR producing configuration: approximate run 8 minutes.

Representative zoom scan approximate run time 30 minutes

“Shortened” scan max calculated SAR using drift: 1-g Avg. = 5.53 mW/g; 10-g Avg. = 3.98 mW/g

Zoom scan max calculated SAR using SAR drift: 1-g Avg. = 5.58 mW/g; 10-g Avg. = 4.02 mW/g

(see part 1 of 2 section 13.0 run # MeC-Ab-100714-02)



Motorola Enterprise Mobility Solutions EME Laboratory
Date/Time: 8/17/2010 7:57:24 AM

Robot# / Run#: DASY4-FL-1 / JsT-Ab-100817-02
Phantom# / Tissue Temp.: OVAL1021 / 21.5 (C)
DUT Model# / Serial#: PMUF1063C / 019TES1026
Antenna / TX Freq.: PMAF4000A / 806.0125 (MHz)
Battery: PMNN4151AR
Carry Acc. / Cable Acc.: None / BDN6768A w/ RMN5117A
Start Power: 3.14 (W)

Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 9.88 mW/g (1g); 7.00 mW/g (10g)

Comments: Shortened Scan; Back- Antenna @ 2.5 cm.

Probe: ES3DV3 - SN3185, Calibrated: 11/23/2009, ConvF(5.48, 5.48, 5.48)

Electronics: DAE3 Sn401, Calibrated: 7/8/2010

Duty Cycle: 1:1, Medium parameters used: $f = 815.5$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 53.7$; $\rho = 1000$ kg/m³

Ab Scan/1-Area Scan (61x211x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 104.0 V/m; Power Drift = -0.635 dB

Motorola Fast SAR: SAR(1 g) = 9.32 mW/g; SAR(10 g) = 6.54 mW/g

Maximum value of SAR (interpolated) = 9.88 mW/g

Ab Scan/2-Volume 2D Scan (41x41x1): Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 104.0 V/m; Power Drift = -0.670 dB

Peak SAR (extrapolated) = 9.65 W/kg

Motorola Fast SAR: SAR(1 g) = 9.16 mW/g; SAR(10 g) = 6.39 mW/g

Maximum value of SAR (interpolated) = 9.65 mW/g

Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 109.6 V/m; Power Drift = -0.408 dB

Peak SAR (extrapolated) = 13.0 W/kg

SAR(1 g) = 9.71 mW/g; SAR(10 g) = 6.93 mW/g

Maximum value of SAR (measured) = 10.3 mW/g

Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 9.59 mW/g

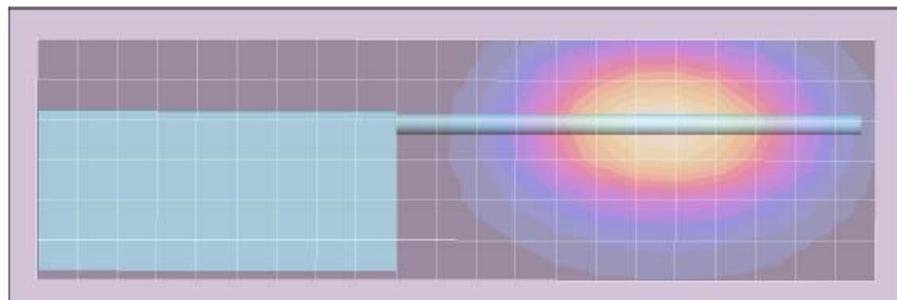
Shortened scan reflect highest SAR producing configuration: approximate run 7 minutes.

Representative zoom scan approximate run time 30 minutes

“Shortened” scan max calculated SAR using drift: 1-g Avg. = 5.43 mW/g; 10-g Avg. = 3.84 mW/g

Zoom scan max calculated SAR using SAR drift: 1-g Avg. = 5.33 mW/g; 10-g Avg. = 3.78 mW/g

(see part 1 of 2 section 13.0 run # JsT-Ab-100817-01)



Highest Body SAR Configuration Results

Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 7/14/2010 8:18:24 PM

Robot# / Run#: DASY4-FL-3 / MeC-Ab-100714-02
 Phantom# / Tissue Temp.: OVAL1019 / 20.6 (C)
 DUT Model# / Serial#: PMUF1063C / 019TES1026
 Antenna / TX Freq.: PMAF4000A / 806.0125 (MHz)
 Battery: PMNN4156A
 Carry Acc. / Cable Acc.: None / BDN6768A with RMN5117A
 Start Power: 3.05 (W)

Note: Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 9.47 mW/g (1g); 6.82 mW/g (10g)

Comments: Full Scan; Back of DUT facing phantom, antenna at 2.5 cm parallel

Probe: ES3DV3 - SN3163, Calibrated: 4/23/2010, ConvF(5.95, 5.95, 5.95)
 Electronics: DAE3 Sn363, Calibrated: 4/16/2010

Duty Cycle: 1:1, Medium parameters used: f = 815.5 MHz; $\sigma = 0.96$ mho/m; $\epsilon_r = 55.5$; $\rho = 1000$ kg/m³

Ab Scan/1-Area Scan (51x221x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 110.0 V/m; Power Drift = -0.596 dB

Motorola Fast SAR: SAR(1 g) = 9.68 mW/g; SAR(10 g) = 6.82 mW/g

Maximum value of SAR (interpolated) = 10.3 mW/g

Ab Scan/2-Volume 2D Scan (61x61x1): Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 110.0 V/m; Power Drift = -0.661 dB

Peak SAR (extrapolated) = 10.1 W/kg

Motorola Fast SAR: SAR(1 g) = 9.51 mW/g; SAR(10 g) = 6.69 mW/g

Maximum value of SAR (interpolated) = 10.1 mW/g

Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 110.0 V/m; Power Drift = -0.710 dB

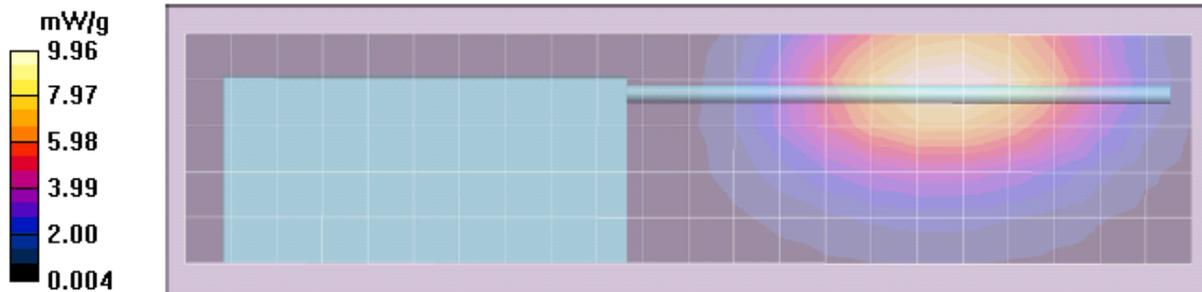
Peak SAR (extrapolated) = 12.4 W/kg

SAR(1 g) = 9.4 mW/g; SAR(10 g) = 6.79 mW/g

Maximum value of SAR (measured) = 9.97 mW/g

Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 9.96 mW/g



Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 8/17/2010 7:57:24 AM

Robot# / Run#: DASY4-FL-1 / JsT-Ab-100817-02
 Phantom# / Tissue Temp.: OVAL1021 / 21.5 (C)
 DUT Model# / Serial#: PMUF1063C / 019TES1026
 Antenna / TX Freq.: PMAF4000A / 806.0125 (MHz)
 Battery: PMNN4151AR
 Carry Acc. / Cable Acc.: None / BDN6768A w/ RMN5117A
 Start Power: 3.14 (W)

Note:
 Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 9.88 mW/g (1g); 7.00 mW/g (10g)

Comments: Shortened Scan; Back- Antenna @ 2.5 cm.

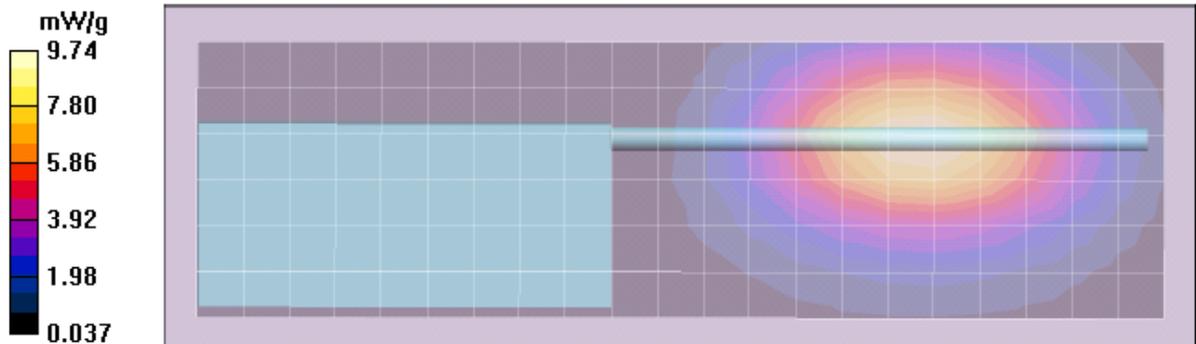
Probe: ES3DV3 - SN3185, Calibrated: 11/23/2009, ConvF(5.48, 5.48, 5.48)
 Electronics: DAE3 Sn401, Calibrated: 7/8/2010
 Duty Cycle: 1:1, Medium parameters used: f = 815.5 MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 53.7$; $\rho = 1000$ kg/m³

Ab Scan/1-Area Scan (61x211x1): Measurement grid: dx=15mm, dy=15mm
 Reference Value = 104.0 V/m; Power Drift = -0.635 dB
Motorola Fast SAR: SAR(1 g) = 9.32 mW/g; SAR(10 g) = 6.54 mW/g
 Maximum value of SAR (interpolated) = 9.88 mW/g

Ab Scan/2-Volume 2D Scan (41x41x1): Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm
 Reference Value = 104.0 V/m; Power Drift = -0.670 dB
 Peak SAR (extrapolated) = 9.65 W/kg
Motorola Fast SAR: SAR(1 g) = 9.16 mW/g; SAR(10 g) = 6.39 mW/g
 Maximum value of SAR (interpolated) = 9.65 mW/g

Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 109.6 V/m; Power Drift = -0.408 dB
 Peak SAR (extrapolated) = 13.0 W/kg
SAR(1 g) = 9.71 mW/g; SAR(10 g) = 6.93 mW/g
 Maximum value of SAR (measured) = 10.3 mW/g

Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 9.59 mW/g



Highest Face SAR Configuration Results

Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 7/21/2010 7:20:56 PM

Robot# / Run#: DASY4-FL-1 / CM-Face-100721-12
 Phantom# / Tissue Temp.: OVAL1020 / 21.6 (C)
 DUT Model# / Serial#: PMUF1063C / 019TES1026
 Antenna / TX Freq.: PMAF4000A / 815.5000 (MHz)
 Battery: PMNN4156A
 Carry Acc. / Cable Acc.: None / None
 Start Power: 3.27 (W)

Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 2.78 mW/g (1g); 2.06 mW/g (10g)

Comments: Full scan

Probe: ES3DV3 - SN3185, Calibrated: 11/23/2009, ConvF(5.63, 5.63, 5.63)

Electronics: DAE3 Sn374, Calibrated: 4/15/2010

Duty Cycle: 1:1, Medium parameters used: $f = 815.5 \text{ MHz}$; $\sigma = 0.9 \text{ mho/m}$; $\epsilon_r = 41.3$; $\rho = 1000 \text{ kg/m}^3$

Face Scan/1-Area Scan (51x211x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 62.3 V/m; Power Drift = -0.689 dB

Motorola Fast SAR: SAR(1 g) = 3.04 mW/g; SAR(10 g) = 2.19 mW/g

Maximum value of SAR (interpolated) = 3.21 mW/g

Face Scan/2-Volume 2D Scan (41x41x1): Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 62.3 V/m; Power Drift = -0.723 dB

Peak SAR (extrapolated) = 2.97 W/kg

Motorola Fast SAR: SAR(1 g) = 2.82 mW/g; SAR(10 g) = 2.03 mW/g

Maximum value of SAR (interpolated) = 2.97 mW/g

Face Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 62.3 V/m; Power Drift = -0.790 dB

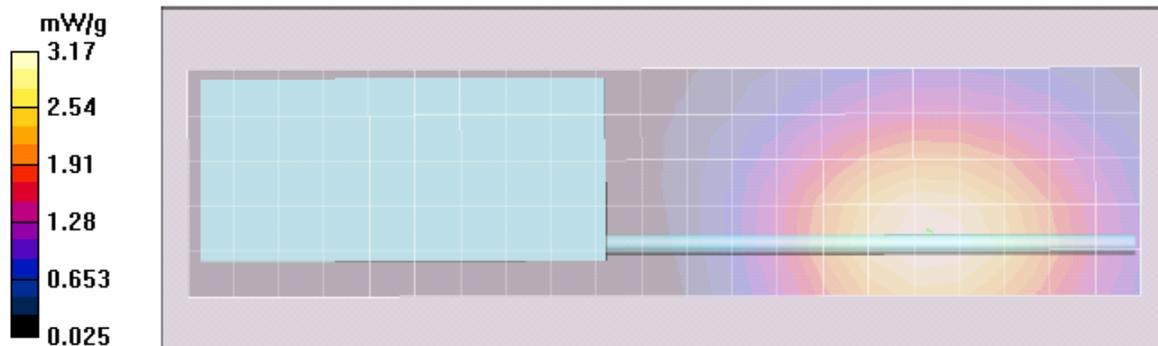
Peak SAR (extrapolated) = 3.62 W/kg

SAR(1 g) = 2.78 mW/g; SAR(10 g) = 2.06 mW/g

Maximum value of SAR (measured) = 2.92 mW/g

Face Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 2.93 mW/g



Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 9/8/2010 9:39:34 PM

Robot# / Run#: DASY4-FL-3 / MeC-Face-100908-04
 Phantom# / Tissue Temp.: OVAL1020 / 21.1 (C)
 DUT Model# / Serial#: PMUF1063C / 019TES1026
 Antenna / TX Freq.: PMAF4000A/ 815.5000 (MHz)
 Battery: PMNN4151AR
 Carry Acc. / Cable Acc.: None / None
 Start Power: 3.08 (W)

Note: Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 2.62 mW/g (1g); 1.92 mW/g (10g)

Comments: Full Scan

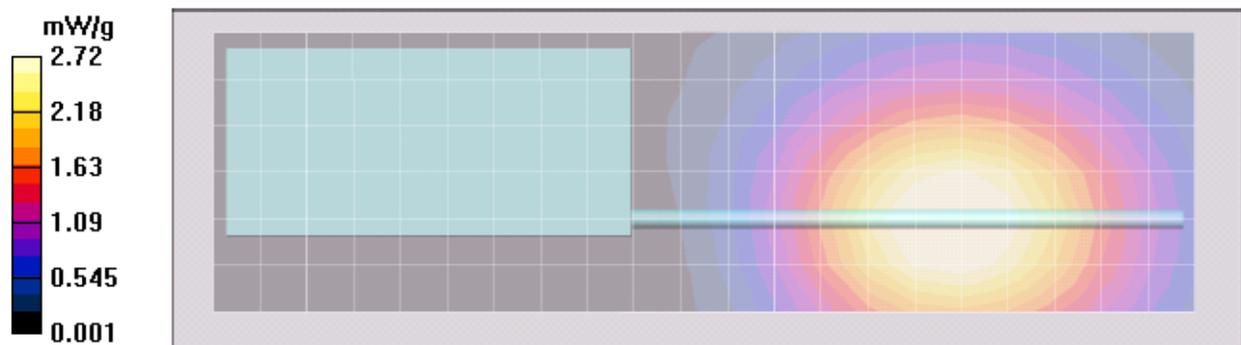
Probe: ES3DV3 - SN3163, Calibrated: 4/23/2010, ConvF(5.93, 5.93, 5.93)
 Electronics: DAE3 Sn363, Calibrated: 4/16/2010
 Duty Cycle: 1:1, Medium parameters used: f = 815.5 MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 42$; $\rho = 1000$ kg/m³

Face Scan/1-Area Scan (61x211x1): Measurement grid: dx=15mm, dy=15mm
 Reference Value = 61.2 V/m; Power Drift = -0.714 dB
Motorola Fast SAR: SAR(1 g) = 2.8 mW/g; SAR(10 g) = 2.02 mW/g
 Maximum value of SAR (interpolated) = 2.95 mW/g

Face Scan/2-Volume Scan 2D (41x41x1): Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm
 Reference Value = 61.2 V/m; Power Drift = -0.756 dB
 Peak SAR (extrapolated) = 2.76 W/kg
Motorola Fast SAR: SAR(1 g) = 2.63 mW/g; SAR(10 g) = 1.89 mW/g
 Maximum value of SAR (interpolated) = 2.76 mW/g

Face Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 61.2 V/m; Power Drift = -0.805 dB
 Peak SAR (extrapolated) = 3.42 W/kg
SAR(1 g) = 2.61 mW/g; SAR(10 g) = 1.91 mW/g
 Maximum value of SAR (measured) = 2.75 mW/g

Face Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 2.72 mW/g



Appendix F DUT Supplementary Data (Power Slump)

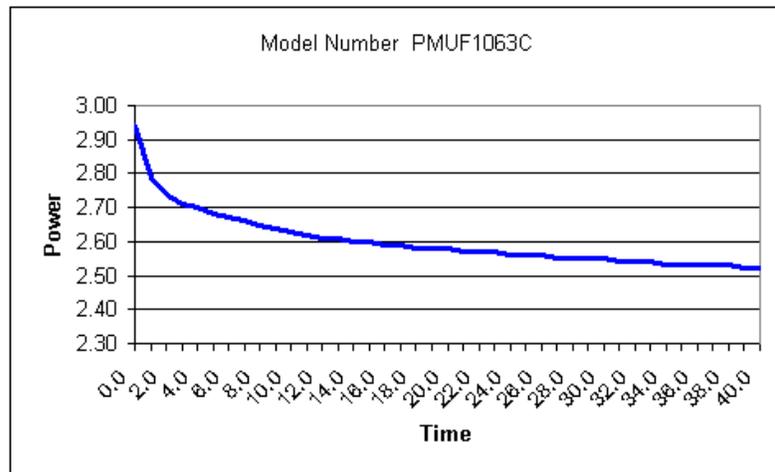
Model # PMUF1063C
Serial # 019TES1026

Battery # **PMNN4156A**
Frequency **806.0125 MHz**
Date **9/15/2010**

Transmit Mode **CW**
Audio Accessory **BDN6768A w/RMN5117A**

TX TIME
(Minutes) **Measured Power**
(Watts)

0.0	2.94
1.0	2.79
2.0	2.74
3.0	2.71
4.0	2.70
5.0	2.68
6.0	2.67
7.0	2.66
8.0	2.65
9.0	2.64
10.0	2.63
11.0	2.62
12.0	2.61
13.0	2.61
14.0	2.60
15.0	2.60
16.0	2.59
17.0	2.59
18.0	2.58
19.0	2.58
20.0	2.58
21.0	2.57
22.0	2.57
23.0	2.57
24.0	2.56
25.0	2.56
26.0	2.56
27.0	2.55
28.0	2.55
29.0	2.55
30.0	2.55
31.0	2.54
32.0	2.54
33.0	2.54
34.0	2.53
35.0	2.53
36.0	2.53
37.0	2.53
38.0	2.53
39.0	2.52
40.0	2.52



Appendix G
DUT Test Position Photos

1.0 Highest SAR Test Position per body location

1.1 Body

DUT w/ back of DUT facing phantom and antenna at 2.5cm from phantom with antenna PMAF4000A, battery PMNN4156A, audio BDN6768A w/ RMN5117A against phantom. Similar position for the other offered battery PMNN4151AR.



Antenna kit #	Body-worn Kit #	Battery Kit #	Separation Distances (mm)		
			@ bottom surface of the DUT	@ antenna`s base	@ antenna`s tip
PMAF4000A*	None, Ant at 2.5cm*	PMNN4156A	25	25	25
		PMNN4151AR	26	25	25

* Accessories that was previously reported.

1.2 Face

DUT w/ front side separated 2.5cm from phantom with antenna PMAF4000A and battery PMNN4156A. Similar position for other offered battery PMNN4151AR.



Antenna kit #	Battery Kit #	Separation Distances (mm)		
		@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAF4000A*	PMNN4156A	28	39	53
	PMNN4151AR	33	38	43
NAF5037A*	PMNN4156A	29	39	50
	PMNN4151AR	33	38	43

* Accessory that was previously reported.

1.3 Head

Not applicable.

1.4 Hand

Not applicable.

2.0 Other SAR tested position at the body:

2.1 Body worn

DUT w/ antenna PMAF4000A, battery PMNN4156A, audio cable RMN5015A tested with RKN4091A w/ HLN9716C and belt clip HLN9714A against the phantom. Similar position for other offered battery PMNN4151AR.



Antenna kit #	Body-worn Kit #	Battery Kit #	Separation Distances (mm)		
			@ bottom surface of the DUT	@ antenna`s base	@ antenna`s tip
PMAF4000A*	HLN9714A*	PMNN4156A	9	30	55
		PMNN4151AR	6	26	48

* Accessory that was previously reported.

Appendix H DUT and Body worn Accessory Photos

1.0 Tested body worn accessory



**DUT Side View
Belt clip HLN9714A**



**DUT Back View
Belt clip HLN9714A**