

 <b>MOTOROLA SOLUTIONS</b>	 <b>CERTIFICATE 2518.01</b>
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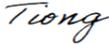
**DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 2**

<b>Motorola Solutions Inc.</b> <b>EME Test Laboratory</b> 8000 West Sunrise Blvd Fort Lauderdale, FL. 33322	<b>Date of Report:</b> 3/10/2016 <b>Report Revision:</b> B
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**Responsible Engineer:** Tiong Nguk Ing  
**Report Author:** Tiong Nguk Ing  
**Date/s Tested:** 09/26/2015, 09/29/2015, 10/12/2015, 10/16/2015, 1/28/2016  
**Manufacturer:** Motorola Solutions Inc.  
**DUT Description:** 450-520 MHz 1-5W, 136-174 MHz 1-6W, 6.25K/12.5K/25 Basic Top Display Model W/GPS. Capable of digital and analog FM transmission. Also capable of TDMA transmission  
**Test TX mode(s):** CW (PTT)  
**Max. Power output:** 5.6 W (UHF R2), 6.6 W (VHF)  
**Nominal Power:** 5.0 W (UHF R2), 6.0 W (VHF)  
**Tx Frequency Bands:** 450-520 MHz (UHF R2), 136-174 MHz (VHF)  
**Signaling type:** FM, TDMA  
**Model(s) Tested:** H97TGD9PW1AN (MNUT1015A)  
**Model(s) Certified:** H97TGD9PW1AN (MNUT1015A)  
**Serial Number(s):** CAI1004W9P  
**Classification:** Occupational/Controlled  
**FCC ID:** AZ489FT4893 ; UHF R2 450-512 MHz, VHF 150.8-173.4 MHz  
 This report contains results that are immaterial for FCC equipment approval, which are clearly identified.  
**IC:** 109U-89FT4893; This report contains results that are immaterial for IC equipment approval, which are identified.

The test results clearly demonstrate compliance with FCC General Population/Uncontrolled RF Exposure limits of 1.6 W/kg averaged over 1 gram per the requirements of OET Bulletin 65. The 10 grams result is 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 2 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 4.0 of this report. This report shall not be reproduced without written approval from an officially designated representative of the Motorola Solutions Inc 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.

 <b>Tiong Nguk Ing</b> <b>Deputy Technical Manager</b> <b>Approval Date:</b> 3/10/2016	<b>Certification Date:</b> 2/16/2016  <b>Certification No.:</b> 160104AD
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## Appendix D

### System Verification Check Scans

**Motorola Solutions, Inc. EME Laboratory**  
Date/Time: 10/12/2015 7:26:54 AM

Robot#: DASY5-FL-3 | Run#: HvH-SYSP-150B-151012-01  
 Dipole Model# CLA150  
 Phantom#: OVAL1109  
 Tissue Temp: 22.4 (C)  
 Serial#: 4005  
 Test Freq: 150 (MHz)  
 Start Power: 1000 (mW)  
 Rotation (1D): 0.140 dB  
 Adjusted SAR (1W): 3.84 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 150$  MHz;  $\sigma = 0.81$  S/m;  $\epsilon_r = 59.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: EX3DV4 - SN3638, Frequency: 150 MHz, ConvF(11.55, 11.55, 11.55); Calibrated: 1/26/2015  
 Electronics: DAE4 Sn729, Calibrated: 4/27/2015

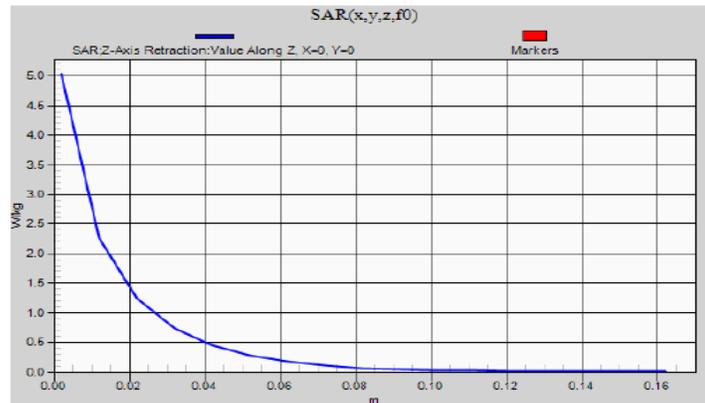
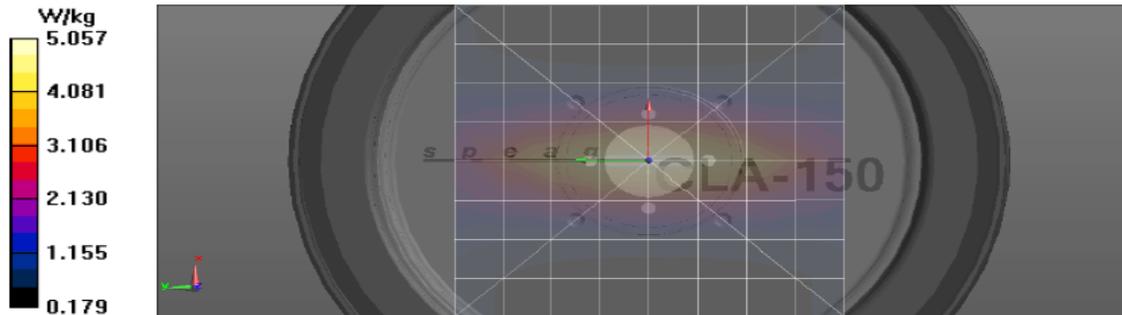
**Below 2 GHz-Rev.1/System Performance Check/Dipole Area Scan 2 (81x81x1):**

Interpolated grid: dx=1.500 mm, dy=1.500 mm  
 Reference Value = 78.00 V/m; Power Drift = 0.01 dB  
 Fast SAR: SAR(1 g) = 4.23 W/kg; SAR(10 g) = 3.01 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 5.06 W/kg

**Below 2 GHz-Rev.1/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:**

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
 Reference Value = 78.00 V/m; Power Drift = 0.01 dB  
 Peak SAR (extrapolated) = 6.24 W/kg  
 SAR(1 g) = 3.84 W/kg; SAR(10 g) = 2.55 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (measured) = 5.03 W/kg

**Below 2 GHz-Rev.1/System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm



**Motorola Solutions, Inc. EME Laboratory**  
Date/Time: 10/16/2015 8:25:41 AM

Robot#: DASY5-FL-3 | Run#: HvH-SYSP-150H-151016-01  
 Dipole Model#: CLA150  
 Phantom#: OVAL1108  
 Tissue Temp: 22.0 (C)  
 Serial#: 4005  
 Test Freq: 150 (MHz)  
 Start Power: 1000 (mW)  
 Rotation (1D): 0.140 dB  
 Adjusted SAR (1W): 3.57 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 150$  MHz;  $\sigma = 0.77$  S/m;  $\epsilon_r = 53.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: EX3DV4 - SN3638, , Frequency: 150 MHz, ConvF(12.32, 12.32, 12.32); Calibrated: 1/26/2015  
 Electronics: DAE4 Sn729, Calibrated: 4/27/2015

**Below 2 GHz-Rev.1/System Performance Check/Dipole Area Scan 2 (81x81x1):**

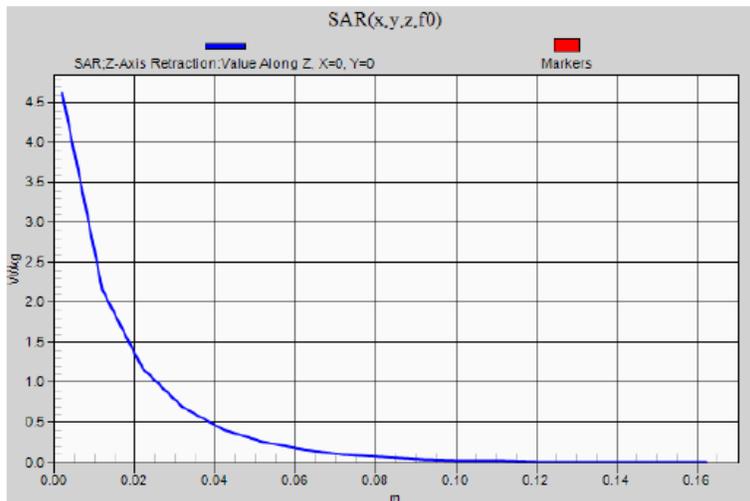
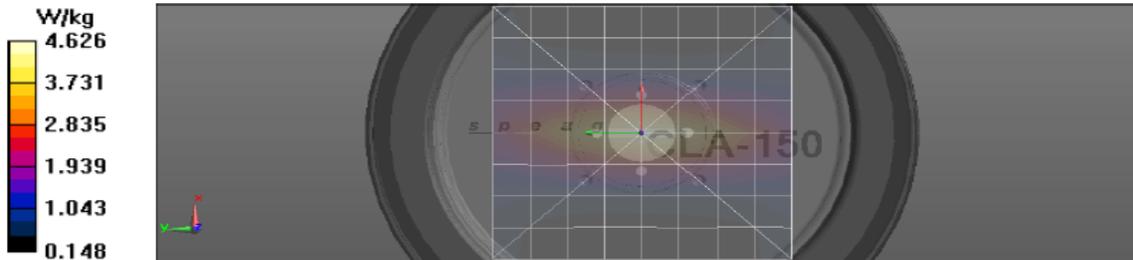
Interpolated grid: dx=1.500 mm, dy=1.500 mm  
 Reference Value = 77.37 V/m; Power Drift = -0.02 dB  
 Fast SAR: SAR(1 g) = 3.91 W/kg; SAR(10 g) = 2.78 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 4.63 W/kg

**Below 2 GHz-Rev.1/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:**

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
 Reference Value = 77.37 V/m; Power Drift = -0.02 dB  
 Peak SAR (extrapolated) = 5.59 W/kg  
 SAR(1 g) = 3.57 W/kg; SAR(10 g) = 2.39 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (measured) = 4.60 W/kg

**Below 2 GHz-Rev.1/System Performance Check/Z-Axis Retraction (1x1x17):** Measurement

grid: dx=20mm, dy=20mm, dz=10mm  
 Maximum value of SAR (measured) = 4.62 W/kg



**Motorola Solutions, Inc. EME Laboratory**  
Date/Time: 9/26/2015 5:24:03 AM

Robot#: DASY5-FL-3 | Run#: HvH-SYSP-450B-150926-01  
 Dipole Model#: D450V3  
 Phantom#: OVAL1021  
 Tissue Temp: 22.4 (C)  
 Serial#: 1075  
 Test Freq: 450 (MHz)  
 Start Power: 250 (mW)  
 Rotation (1D): 0.052 dB  
 Adjusted SAR (1W): 4.52 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.89$  S/m;  $\epsilon_r = 54.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3147, , Frequency: 450 MHz, ConvF(6.96, 6.96, 6.96); Calibrated: 5/27/2015  
 Electronics: DAE4 Sn729, Calibrated: 4/27/2015

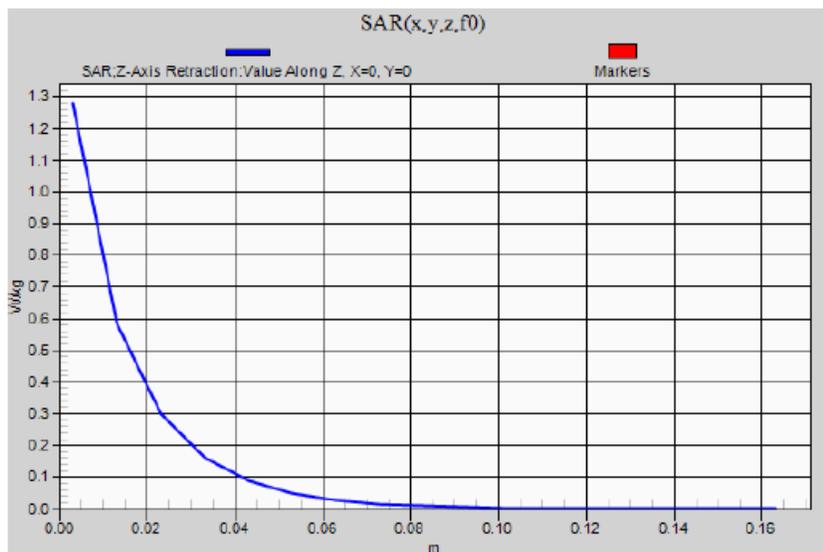
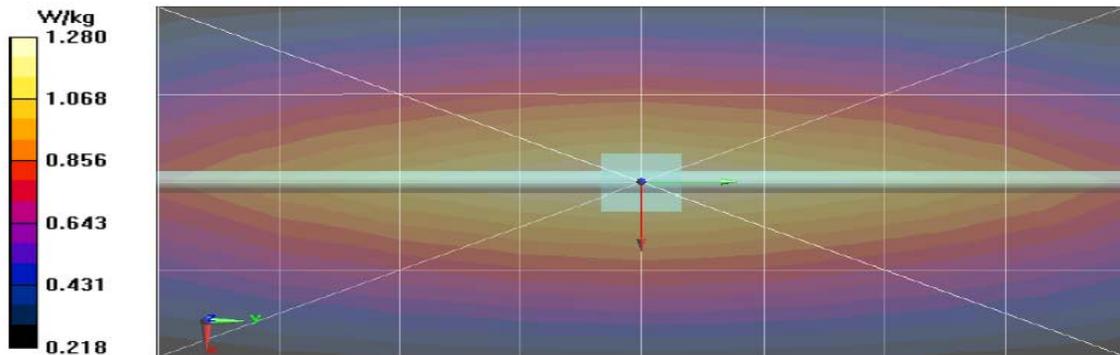
**Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x81x1):**

Interpolated grid: dx=1.500 mm, dy=1.500 mm  
 Reference Value = 38.37 V/m; Power Drift = 0.01 dB  
 Fast SAR: SAR(1 g) = 1.17 W/kg; SAR(10 g) = 0.814 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 1.28 W/kg

**Below 2 GHz-Rev.2/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:**

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
 Reference Value = 38.37 V/m; Power Drift = 0.01 dB  
 Peak SAR (extrapolated) = 1.69 W/kg  
 SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.752 W/kg (SAR corrected for target medium)

**Below 2 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm



**Motorola Solutions, Inc. EME Laboratory**  
Date/Time: 1/28/2016 8:30:20 AM

Robot#: DASY5-FL-3 | Run#: PS-SYSP-450B-160128-01  
 Dipole Model# D450V3  
 Phantom#: OVAL1018  
 Tissue Temp: 20.9 (C)  
 Serial#: 1075  
 Test Freq: 450 (MHz)  
 Start Power: 250 (mW)  
 Rotation (1D): 0.045 dB  
 Adjusted SAR (1W): 4.52 mW/g (1g)

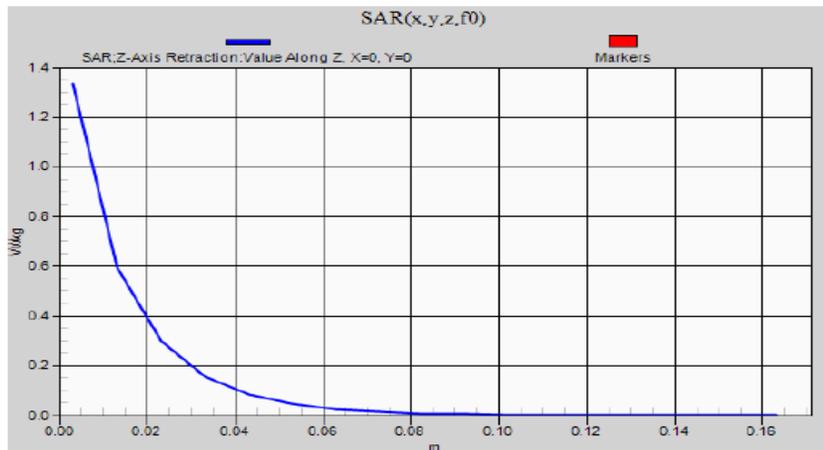
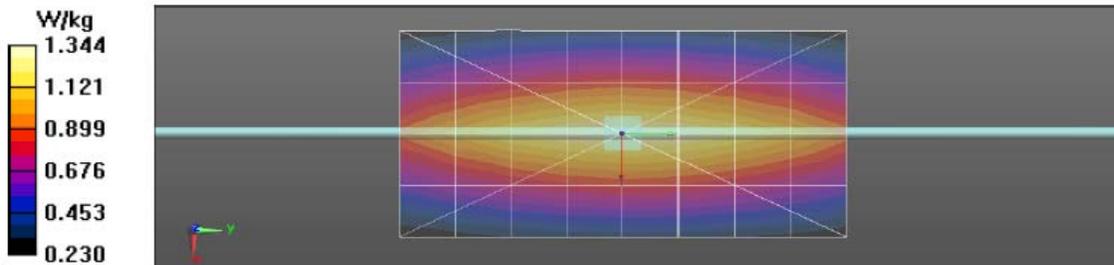
Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.95$  S/m;  $\epsilon_r = 54.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3147, , Frequency: 450 MHz, ConvF(6.96, 6.96, 6.96); Calibrated: 5/27/2015  
 Electronics: DAE4 Sn729, Calibrated: 4/27/2015

**Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement**  
 grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 1.34 W/kg

**Below 2 GHz-Rev.2/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:**  
 Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
 Reference Value = 38.13 V/m; Power Drift = -0.04 dB  
 Peak SAR (extrapolated) = 1.79 W/kg  
 SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.744 W/kg (SAR corrected for target medium)

**Below 2 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17): Measurement**  
 grid: dx=20mm, dy=20mm, dz=10mm  
 Maximum value of SAR (measured) = 1.33 W/kg



**Motorola Solutions, Inc. EME Laboratory**  
Date/Time: 9/29/2015 7:29:43 AM

Robot#: DASY5-FL-3 | Run#: HvH-SYSP-450H-150929-01  
 Dipole Model#: D450V3  
 Phantom#: OVAL1022  
 Tissue Temp: 21.1 (C)  
 Serial#: 1075  
 Test Freq: 450 (MHz)  
 Start Power: 250 (mW)  
 Rotation (1D): 0.042 dB  
 Adjusted SAR (1W): 4.40 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.88$  S/m;  $\epsilon_r = 44.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3147, , Frequency: 450 MHz, ConvF(6.72, 6.72, 6.72); Calibrated: 5/27/2015  
 Electronics: DAE4 Sn729, Calibrated: 4/27/2015

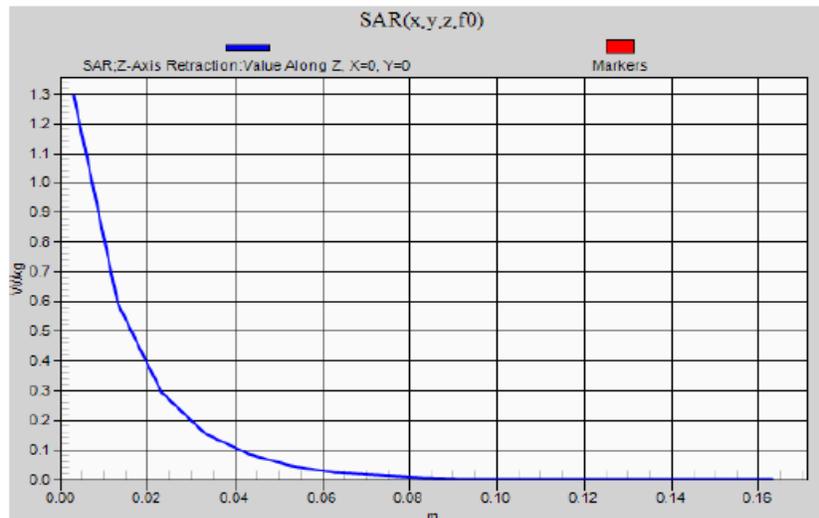
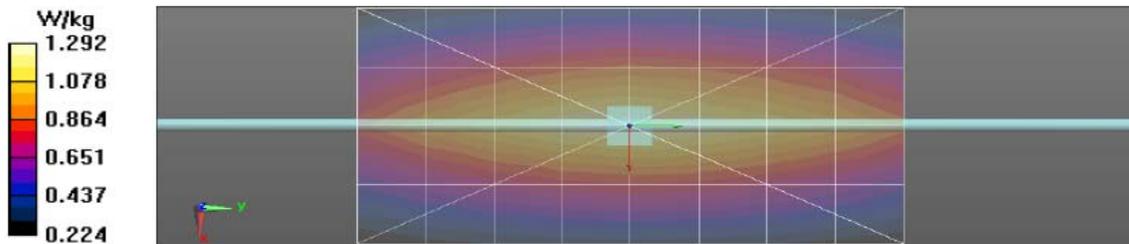
**Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x81x1):**

Interpolated grid: dx=1.500 mm, dy=1.500 mm  
 Reference Value = 39.62 V/m; Power Drift = 0.00 dB  
 Fast SAR: SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.794 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 1.29 W/kg

**Below 2 GHz-Rev.2/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:**

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
 Reference Value = 39.62 V/m; Power Drift = 0.00 dB  
 Peak SAR (extrapolated) = 1.61 W/kg  
 SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.735 W/kg (SAR corrected for target medium)

**Below 2 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm



## **Appendix E**

### **DUT Scans**

Assessments at the Body for VHF  
Table 16

Motorola Solutions, Inc. EME Laboratory  
Date/Time: 10/12/2015 1:13:09 PM

Robot#: DASY5-FL-3 | Run#: HvH-Ab-151012-07  
Model#: H97TGD9PW1AN(MNUT1015A)  
Phantom#: OVAL1109  
Tissue Temp: 21.8 (C)  
Serial#: CAI1004W9P  
Antenna: PMAT4001A  
Test Freq: 173.4000 (MHz)  
Battery: PMNN4485A  
Carry Acc: HLN6875A  
Audio Acc: RMN5058A  
Start Power: 6.35 (W)

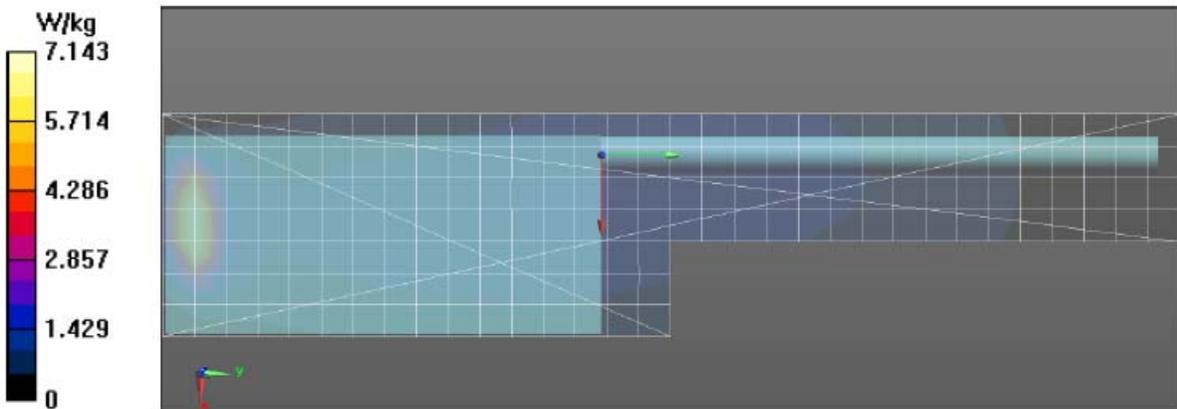
Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 173$  MHz;  $\sigma = 0.82$  S/m;  $\epsilon_r = 59$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Probe: EX3DV4 - SN3638, Frequency: 173.4 MHz, ConvF(11.55, 11.55, 11.55); Calibrated: 1/26/2015  
Electronics: DAE4 Sn729, Calibrated: 4/27/2015

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (71x321x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Reference Value = 41.74 V/m; Power Drift = -0.35 dB  
Fast SAR: SAR(1 g) = 5.6 W/kg; SAR(10 g) = 3.16 W/kg (SAR corrected for target medium)  
Maximum value of SAR (interpolated) = 7.56 W/kg

**Below 2 GHz-Rev.2/Ab Scan/2-Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 85.01 V/m; Power Drift = -0.28 dB  
Peak SAR (extrapolated) = 13.6 W/kg  
SAR(1 g) = 3.77 W/kg; SAR(10 g) = 1.67 W/kg (SAR corrected for target medium)  
Maximum value of SAR (measured) = 6.35 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm  
Maximum value of SAR (measured) = 6.82 W/kg



Assessments at the Face for VHF  
Table 16

Motorola Solutions, Inc. EME Laboratory  
Date/Time: 10/16/2015 12:54:35 PM

Robot#: DASY5-FL-3 | Run#: HvH-Face-151016-05  
Model#: H97TGD9PW1AN(MNUT1015A)  
Phantom#: OVAL1108  
Tissue Temp: 21.7 (C)  
Serial#: CAI1004W9P  
Antenna: PMAT4001A (136-174, 380-520, GPS)  
Test Freq: 173.4000 (MHz)  
Battery: PMNN4485A  
Carry Acc: None, Front facing phantom  
Audio Acc: None  
Start Power: 6.34 (W)

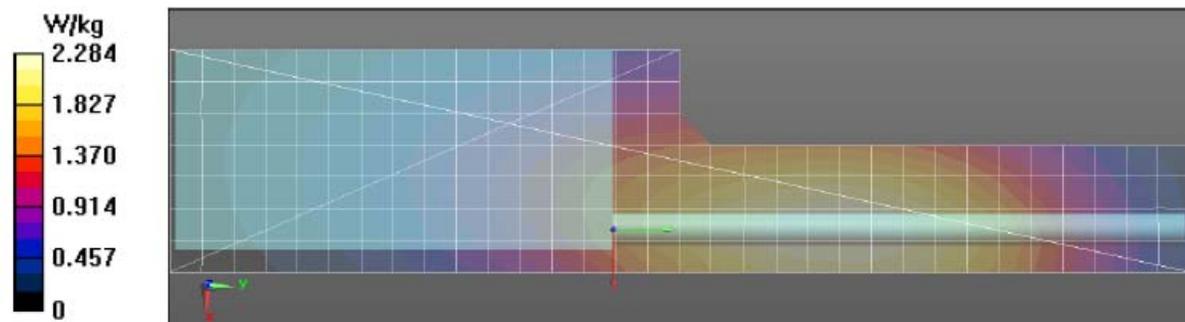
Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 173 \text{ MHz}$ ;  $\sigma = 0.79 \text{ S/m}$ ;  $\epsilon_r = 52.1$ ;  $\rho = 1000 \text{ kg/m}^3$   
Probe: EX3DV4 - SN3638, , Frequency: 173.4 MHz, ConvF(12.32, 12.32, 12.32); Calibrated: 1/26/2015  
Electronics: DAE4 Sn729, Calibrated: 4/27/2015

**Below 2 GHz-Rev.2/Face Scan/1-Area Scan (71x321x1):** Interpolated grid:  $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$   
Reference Value = 51.75 V/m; Power Drift = -0.41 dB  
Fast SAR: SAR(1 g) = 1.97 W/kg; SAR(10 g) = 1.51 W/kg (SAR corrected for target medium)  
Maximum value of SAR (interpolated) = 2.29 W/kg

**Below 2 GHz-Rev.2/Face Scan/2-Zoom Scan (61x61x1)/Cube 0:** Interpolated grid:  $dx=0.5000 \text{ mm}$ ,  $dy=0.5000 \text{ mm}$ ,  $dz=1.000 \text{ mm}$   
Reference Value = 51.75 V/m; Power Drift = -0.54 dB  
Fast SAR: SAR(1 g) = 1.78 W/kg; SAR(10 g) = 1.35 W/kg (SAR corrected for target medium)  
Maximum value of SAR (interpolated) = 2.09 W/kg

**Below 2 GHz-Rev.2/Face Scan/4-Z-Axis Scan (1x1x17):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$ ,  $dz=10\text{mm}$   
Maximum value of SAR (measured) = 2.06 W/kg



### Assessments at the Body for UHF R2 Table 17

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 1/28/2016 1:58:10 PM

Robot#: DASY5-FL-3 | Run#: PS-AB-160128-06  
 Model#: H97TGD9PW1AN(MNUT1015A)  
 Phantom#: OVAL1018  
 Tissue Temp: 21.1 (C)  
 Serial#: CAI1004W9P  
 Antenna: PMAE4065A  
 Test Freq: 450.0000 (MHz)  
 Battery: PMNN4485A  
 Carry Acc: AY000222A01  
 Audio Acc: None  
 Start Power: 5.29 (W)

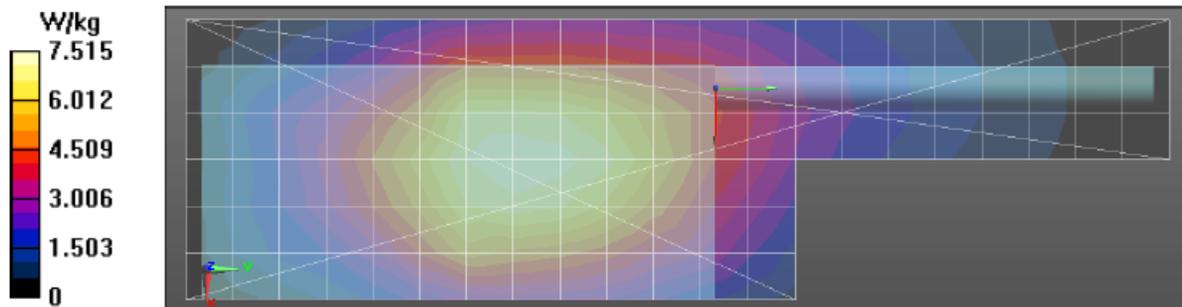
Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 450 \text{ MHz}$ ;  $\sigma = 0.95 \text{ S/m}$ ;  $\epsilon_r = 54.8$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Probe: ES3DV3 - SN3147, , Frequency: 450 MHz, ConvF(6.96, 6.96, 6.96); Calibrated: 5/27/2015  
 Electronics: DAE4 Sn729, Calibrated: 4/27/2015

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (7x22x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 7.51 W/kg

**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
 Reference Value = 90.38 V/m; Power Drift = -0.03 dB  
 Peak SAR (extrapolated) = 9.09 W/kg  
 SAR(1 g) = 6.72 W/kg; SAR(10 g) = 4.99 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (measured) = 7.49 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm  
 Maximum value of SAR (measured) = 7.47 W/kg



**Assessments at the Face for UHF R2  
Table 17**

**Motorola Solutions, Inc. EME Laboratory  
Date/Time: 9/29/2015 11:39:09 AM**

Robot#: DASY5-FL-3 | Run#: HvH-Face-150929-04  
 Model#: H97TGD9PW1AN(MNUT1015A)  
 Phantom#: OVAL1022  
 Tissue Temp: 21.4 (C)  
 Serial#: CAI1004W9P  
 Antenna: PMAE4065A (380-520, GPS)  
 Test Freq: 465.5000 (MHz)  
 Battery: PMNN4485A  
 Carry Acc: None; PSM's front facing phantom  
 Audio Acc: PMMN4059B  
 Start Power: 5.52 (W)

Duty Cycle: 1:1, Medium parameters used:  $f = 466 \text{ MHz}$ ;  $\sigma = 0.9 \text{ S/m}$ ;  $\epsilon_r = 44.2$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Probe: ES3DV3 - SN3147, , Frequency: 465.5 MHz, ConvF(6.72, 6.72, 6.72); Calibrated: 5/27/2015  
 Electronics: DAE4 Sn729, Calibrated: 4/27/2015

**Below 2 GHz-Rev.2/Face Scan/1-Area Scan (51x161x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

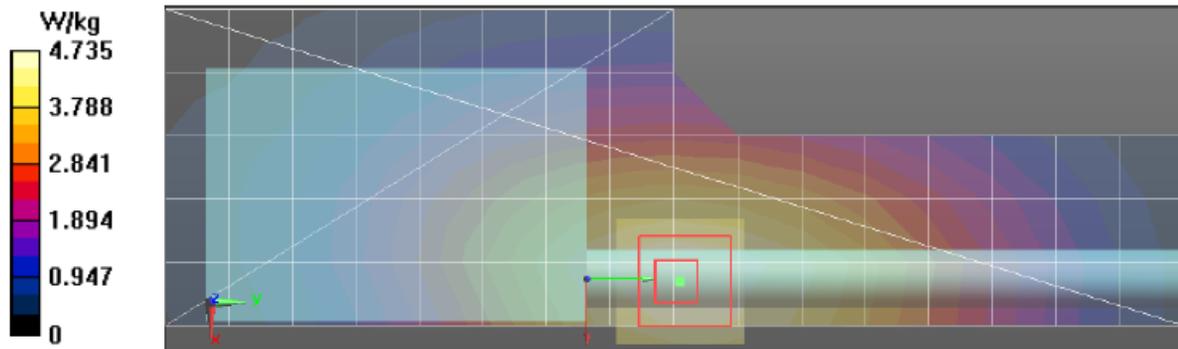
Reference Value = 67.67 V/m; Power Drift = -0.08 dB  
 Fast SAR: SAR(1 g) = 4.29 W/kg; SAR(10 g) = 3.12 W/kg (SAR corrected for target medium)

**Below 2 GHz-Rev.2/Face Scan/2-Volume Scan 2D (41x41x1):** Interpolated grid:  $dx=0.7500 \text{ mm}$ ,  $dy=0.7500 \text{ mm}$ ,  $dz=1.000 \text{ mm}$

Reference Value = 67.67 V/m; Power Drift = -0.10 dB  
 Fast SAR: SAR(1 g) = 4.31 W/kg; SAR(10 g) = 3.17 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 4.77 W/kg

**Below 2 GHz-Rev.2/Face Scan/4-Z-Axis Scan (1x1x17):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$ ,  $dz=10\text{mm}$

Maximum value of SAR (measured) = 4.76 W/kg



Assessments at the Body for Outside FCC Part 90  
Table 18

Motorola Solutions, Inc. EME Laboratory

Date/Time: 9/26/2015 9:48:30 AM

Robot#: DASY5-FL-3 | Run#: HvH-Ab-150926-07  
Model#: H97TGD9PW1AN(MNUT1015A)  
Phantom#: OVAL1021  
Tissue Temp: 21.8 (C)  
Serial#: CAI1004W9P  
Antenna: PMAE4065A  
Test Freq: 520.0000 (MHz)  
Battery: PMNN4485A  
Cary Acc: RLN4570A  
Audio Acc: NONE  
Start Power: 5.59 (W)

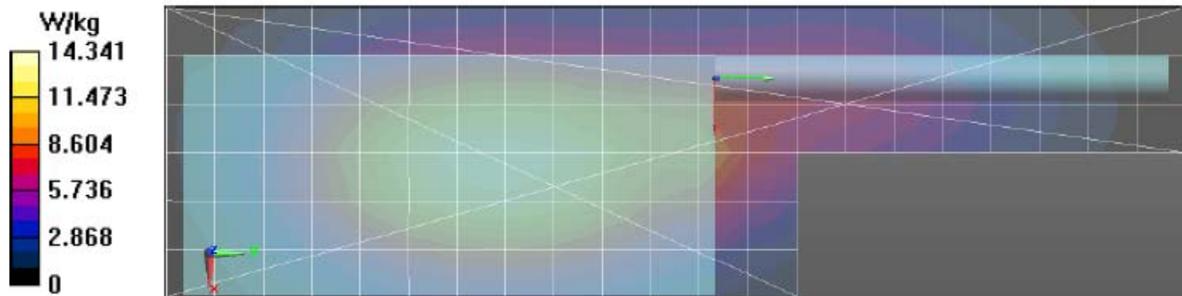
Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 520$  MHz;  $\sigma = 0.95$  S/m;  $\epsilon_r = 53.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Probe: ES3DV3 - SN3147, , Frequency: 520 MHz, ConvF(6.96, 6.96, 6.96); Calibrated: 5/27/2015  
Electronics: DAE4 Sn729, Calibrated: 4/27/2015

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x211x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 88.48 V/m; Power Drift = -0.00 dB  
Fast SAR: SAR(1 g) = 13 W/kg; SAR(10 g) = 9.37 W/kg (SAR corrected for target medium)  
Maximum value of SAR (interpolated) = 14.5 W/kg

**Below 2 GHz-Rev.2/Ab Scan/2-Volume 2D Scan (41x41x1):** Interpolated grid: dx=0.7500 mm, dy=0.7500 mm, dz=1.000 mm  
Reference Value = 88.48 V/m; Power Drift = -0.02 dB  
Fast SAR: SAR(1 g) = 13.2 W/kg; SAR(10 g) = 9.64 W/kg (SAR corrected for target medium)  
Maximum value of SAR (interpolated) = 14.7 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm  
Maximum value of SAR (measured) = 14.6 W/kg



**Assessments at the Face for Outside FCC Part 90  
Table 18**

**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 9/29/2015 1:59:00 PM

Robot#: DASY5-FL-3 | Run#: HvH-Face-150929-06  
 Model#: H97TGD9PW1AN(MNUT1015A)  
 Phantom#: OVAL1022  
 Tissue Temp: 21.6 (C)  
 Serial#: CAI1004W9P  
 Antenna: PMAE4065A (380-520, GPS)  
 Test Freq: 520.0000 (MHz)  
 Battery: PMNN4485A  
 Carry Acc: None, Back facing phantom  
 Audio Acc: None  
 Start Power: 5.59 (W)

Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 520 \text{ MHz}$ ;  $\sigma = 0.92 \text{ S/m}$ ;  $\epsilon_r = 42.8$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Probe: ES3DV3 - SN3147, , Frequency: 520 MHz, ConvF(6.72, 6.72, 6.72); Calibrated: 5/27/2015  
 Electronics: DAE4 Sn729, Calibrated: 4/27/2015

**Below 2 GHz-Rev.2/Face Scan/1-Area Scan (61x211x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

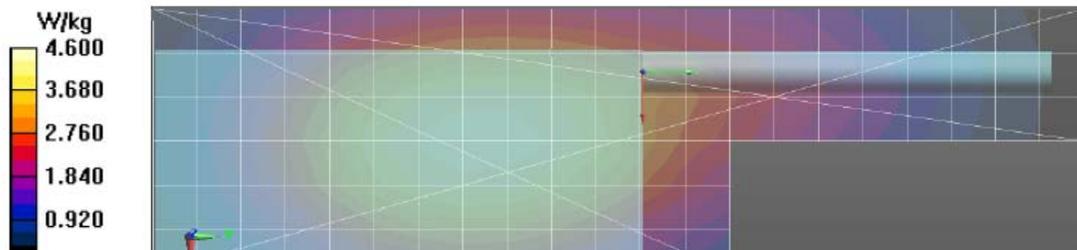
Reference Value = 65.26 V/m; Power Drift = -0.02 dB  
 Fast SAR: SAR(1 g) = 4.14 W/kg; SAR(10 g) = 3.02 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 4.62 W/kg

**Below 2 GHz-Rev.2/Face Scan/2-Volume Scan 2D (41x41x1):** Interpolated grid:  $dx=0.7500 \text{ mm}$ ,  $dy=0.7500 \text{ mm}$ ,  $dz=1.000 \text{ mm}$

Reference Value = 65.26 V/m; Power Drift = 0.04 dB  
 Fast SAR: SAR(1 g) = 4.2 W/kg; SAR(10 g) = 3.11 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 4.67 W/kg

**Below 2 GHz-Rev.2/Face Scan/4-Z-Axis Scan (1x1x17):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$ ,  $dz=10\text{mm}$

Maximum value of SAR (measured) = 4.72 W/kg



**APPENDIX F**  
**Shortened Scan of Highest SAR configuration**

**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 1/28/2016 2:27:39 PM

Robot#: DASY5-FL-3 | Run#: PS-AB-160128-07  
 Model#: H97TGD9PW1AN(MNUT1015A)  
 Phantom#: OVAL1018  
 Tissue Temp: 21.0 (C)  
 Serial#: CAI1004W9P  
 Antenna: PMAE4065A  
 Test Freq: 450.0000 (MHz)  
 Battery: PMNN4485A  
 Carry Acc: AY000222A01  
 Audio Acc: None  
 Start Power: 5.30 (W)

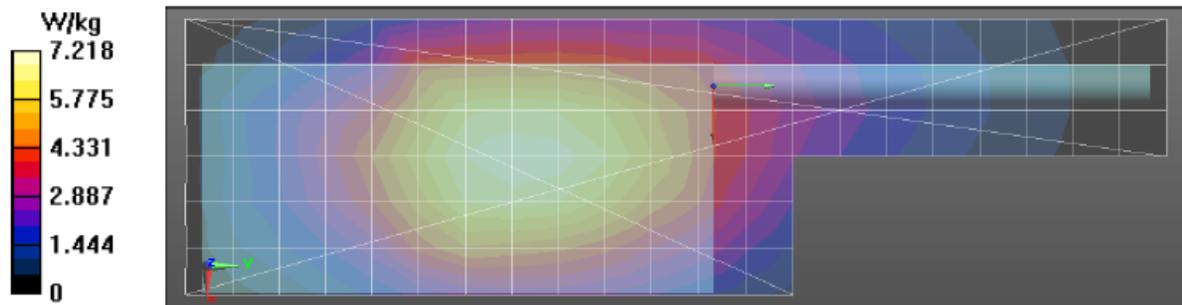
Comments: Shorten scan

Duty Cycle: 1:1, Medium parameters used: f = 450 MHz;  $\sigma = 0.95$  S/m;  $\epsilon_r = 54.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3147, , Frequency: 450 MHz, ConvF(6.96, 6.96, 6.96); Calibrated: 5/27/2015  
 Electronics: DAE4 Sn729, Calibrated: 4/27/2015

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (7x22x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 7.22 W/kg

**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
 Reference Value = 89.86 V/m; Power Drift = -0.02 dB  
 Peak SAR (extrapolated) = 8.95 W/kg  
 SAR(1 g) = 6.6 W/kg; SAR(10 g) = 4.91 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (measured) = 7.36 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm  
 Maximum value of SAR (measured) = 7.17 W/kg



Shortened scan reflects highest SAR producing configuration and is compared to the full scan.

Scan Description	Referenced Table	Test Time (min.)	SAR 1g (W/kg)	SAR 10g (W/kg)
Shorten scan (zoom)	19	7	3.50	2.61
Full scan (area & zoom)	17	32	3.58	2.66

## APPENDIX G DUT Test Position Photos

**Body (Highest SAR configuration)**

DUT w/ antenna PMAE4065A with new offered battery PMNN4485A and body worn accessory AY000222A01 again phantom without audio accessory.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAE4065A	0	38	55

**Face (Highest SAR configuration)**

PMMN4059B PSM with front side separated 2.5cm from phantom with antenna PMAE4065A and battery PMNN4485A.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAE4065A	32	34	39

**Face (Degraded SAR configuration required PCII filling)**

DUT with front side separated 2.5cm from phantom with antenna PMAT4001A and battery PMNN4485A without audio accessory attached.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAT4001A	26	34	47

## APPENDIX H Battery accessory Photo



**New offered battery PMNN4485A (front, side and back view)**

**For photos of other previously approved accessories please refer to previous filing report.**