MOTOROLA SOLUTIONS

ACCREDITED
TESTING CERT # 2518.01

DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 2

Motorola Solutions Inc.
EME Test Laboratory
8000 West Sunrise Blvd
Fort Lauderdale, FL. 33322

Date of Report: 6/12/2013
Report Revision: A
Report ID: SR11015 PMUD3256A VHF MURS Rev A 130612

Responsible Engineer:	Michael Sailsman(Senior Staff EME Engineer)
Report Author:	Michael Sailsman (Senior Staff EME Engineer)
Date/s Tested:	4/11/13-4/12/13
Manufacturer/Location:	Motorola, Penang
Sector/Group/Div.:	Radio Product & Accessories
Date submitted for test:	3/11/13
DUT Description:	RMM2050 VHF MURS BRUS, 5Ch,Non-Display, Fixed Antenna, 2.0Watts, Black, Li-Ion
Test TX mode(s):	CW (PTT)
Max. Power output:	2.0 W
Nominal Power:	1.5-1.9 W
Tx Frequency Bands:	151.82MHz – 154.6MHz
Signaling type:	FM
Model(s) Tested:	PMUD3256A
Model(s) Certified:	PMUD3256A
Serial Number(s):	024TPD0240, 024TPD0242
Classification:	General Population/Uncontrolled Environment
FCC ID:	AZ489FT3832; Rule Part 95 (151.82-154.6MHz)

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

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 47 CFR 2.1093(d). The 10 grams result is not applicable to FCC filing. Results outside FCC bands are not applicable for FCC compliance demonstration.
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 2.0 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 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.

Deanna Zakharia
Zakharia Deanna-EDC015
Digitally signed by Zakharia Deanna-EDC015
DN: cn=Zakharia Deanna-EDC015
Date: 2013.06.12 16:22:45 -04'00'

Deanna Zakharia
EMS EME Lab Senior Resource Manager, Laboratory Director
Approval Date: 6/12/2013

Certification Date: 5/14/2013

Certification No.: L1130508

APPENDIX D
System Check Scans

Motorola Solutions, Inc. EME Laboratory

Date/Time: 4/11/2013 8:59:39 AM

Robot#: DASY5-FL-3 | Run#: ErC-SYSP 300B-130411-01
Dipole Model# D300V3
Phantom#: OVAL1090
Tissue Temp: 20.9 (C)
Serial#: 1015
Test Freq: 300 (MHz)
Start Power: 250 (mW)
Rotation (1D): 0.037 dB
Adjusted SAR (1W): 2.70 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: f = 300 MHz; σ = 0.91 mho/m; ε_r = 55.5; ρ = 1000 kg/m^3
Probe: ES3DV3 - SN3291, , ConvF(7.36, 7.36, 7.36); Calibrated: 7/23/2012
Electronics: DAE4 Sn1231, Calibrated: 3/12/2013

Below 3 GHz-Rev.4a/System Performance Check/Dipole Area Scan 2 (5x9x1):

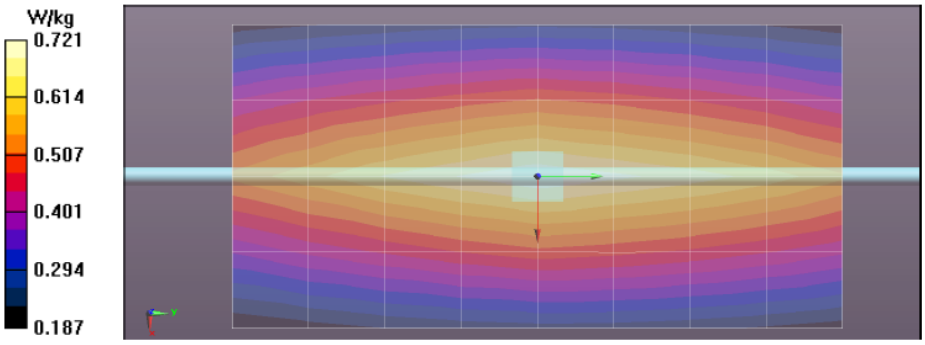
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.721 W/kg

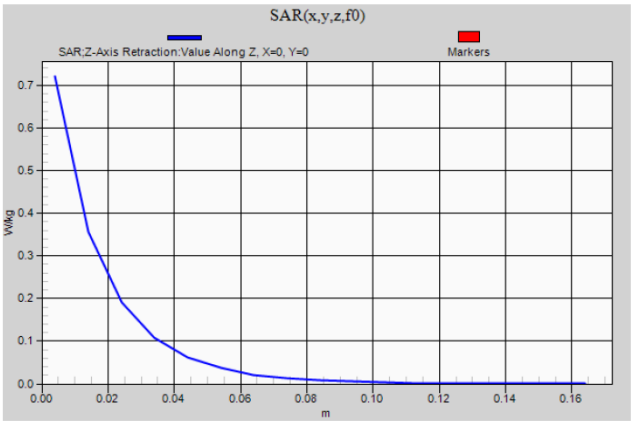
Below 3 GHz-Rev.4a/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 28.529 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.978 mW/g
SAR(1 g) = 0.674 mW/g; SAR(10 g) = 0.464 mW/g (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.722 W/kg

Below 3 GHz-Rev.4a/System Performance Check/Z-Axis Retraction (1x1x17):

Measurement grid: dx=20mm, dy=20mm, dz=10mm





Motorola Solutions, Inc. EME Laboratory

Date/Time: 4/12/2013 7:56:42 PM

Robot#: DASY5-FL-3 | Run#: CM-SYSP 300H-130412-13
Dipole Model# D300V3
Phantom#: OVAL1109
Tissue Temp: 21.0 (C)
Serial#: 1015
Test Freq: 300 (MHz)
Start Power: 250 (mW)
Rotation (1D): 2.82 dB
Adjusted SAR (1W): 0.056 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: f = 300 MHz; σ = 0.9 mho/m; ε_r = 44.9; ρ = 1000 kg/m^3
Probe: ES3DV3 - SN3291, , ConvF(7.4, 7.4, 7.4); Calibrated: 7/23/2012
Electronics: DAE4 Sn1231, Calibrated: 3/12/2013

Below 3 GHz-Rev.4a/System Performance Check/Dipole Area Scan 2 (41x81x1):

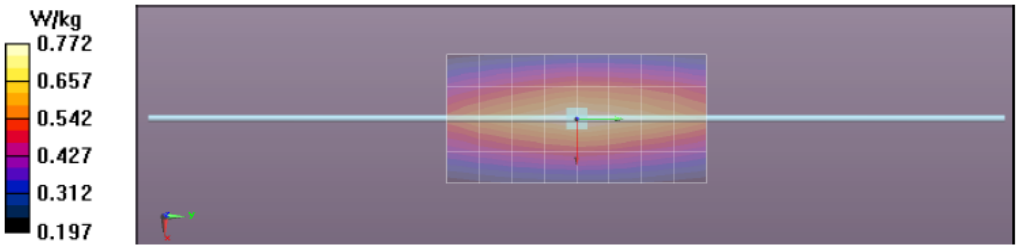
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 29.396 V/m; Power Drift = 0.01 dB
Fast SAR: SAR(1 g) = 0.709 mW/g; SAR(10 g) = 0.514 mW/g (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 0.774 W/kg

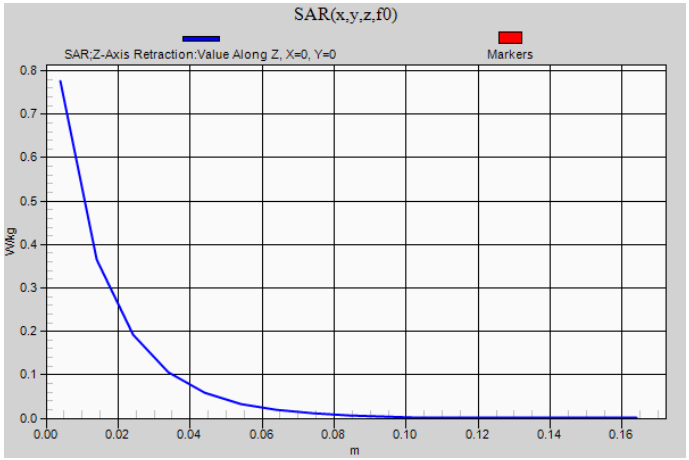
Below 3 GHz-Rev.4a/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 29.396 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.111 mW/g
SAR(1 g) = 0.706 mW/g; SAR(10 g) = 0.476 mW/g (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.778 W/kg

Below 3 GHz-Rev.4a/System Performance Check/Z-Axis Retraction (1x1x17):

Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.776 W/kg





APPENDIX E
DUT Scans (Shortened Scan and Highest SAR configurations)

Shortened Scan Result
Table 17

Motorola Solutions, Inc. EME Laboratory
Date/Time: 4/11/2013 6:34:13 PM

Robot#: DASY5-FL-3 | Run#: CM-Ab-130411-14
Model#: PMUD3256A
Phantom#: OVAL1090
Tissue Temp: 20.4 (C)
Serial#: 024TPD0242
Antenna: Fixed
Test Freq: 151.94 (MHz)
Battery: PMNN4434AR
Carry Acc: PMLN6455A
Audio Acc: HMN9026D
Start Power: 1.89 (W)

Comments: Shortened scan

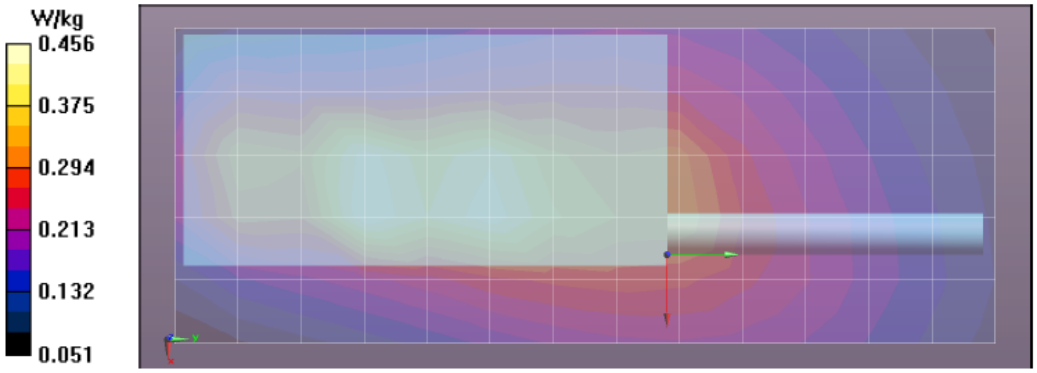
Duty Cycle: 1:1, Medium parameters used: f = 152 MHz; σ = 0.8 mho/m; ε_r = 60; ρ = 1000 kg/m^3
Probe: ES3DV3 - SN3291, , ConvF(8.2, 8.2, 8.2); Calibrated: 7/23/2012
Electronics: DAE4 Sn1231, Calibrated: 3/12/2013

Below 3 GHz-Rev.5/Ab Scan/1-Area Scan (51x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 19.932 V/m; Power Drift = -0.27 dB
Fast SAR: SAR(1 g) = 0.458 mW/g; SAR(10 g) = 0.324 mW/g (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 0.502 W/kg

Below 3 GHz-Rev.5/Ab Scan/1-Area Scan (6x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.456 W/kg

Below 3 GHz-Rev.5/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.460 W/kg

Below 3 GHz-Rev.5/Ab Scan/3-Zoom Scan (6x8x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 25.624 V/m; Power Drift = -0.47 dB
Peak SAR (extrapolated) = 1.080 mW/g
SAR(1 g) = 0.547 mW/g; SAR(10 g) = 0.350 mW/g (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.570 W/kg



Shortened scan reflect highest SAR producing configuration; approximate run time is 6 minutes.
Representative full scan run time was 18 minutes.
"Shortened" scan max calculated SAR using SAR drift: 1-g Avg. = 0.32 mW/g; 10-g Avg. = 0.21 mW/g.
Zoom scan max calculated SAR using SAR drift (see part 1 table 14): 1-g Avg. = 0.30 mW/g; 10-g Avg. = 0.20mW/g.

Body - Highest SAR Configuration Result
Table 14

Motorola Solutions, Inc. EME Laboratory
Date/Time: 4/11/2013 2:58:10 PM

Robot#: DASY5-FL-3 | Run#: ErC-Ab-130411-10
Model#: PMUD3256A
Phantom#: OVAL1090
Tissue Temp: 20.5 (C)
Serial#: 024TPD0242
Antenna: Fixed
Test Freq: 151.94 (MHz)
Battery: PMNN4434AR
Carry Acc: PMLN6455A
Audio Acc: HMN9026D
Start Power: 1.89 (W)

Comments:

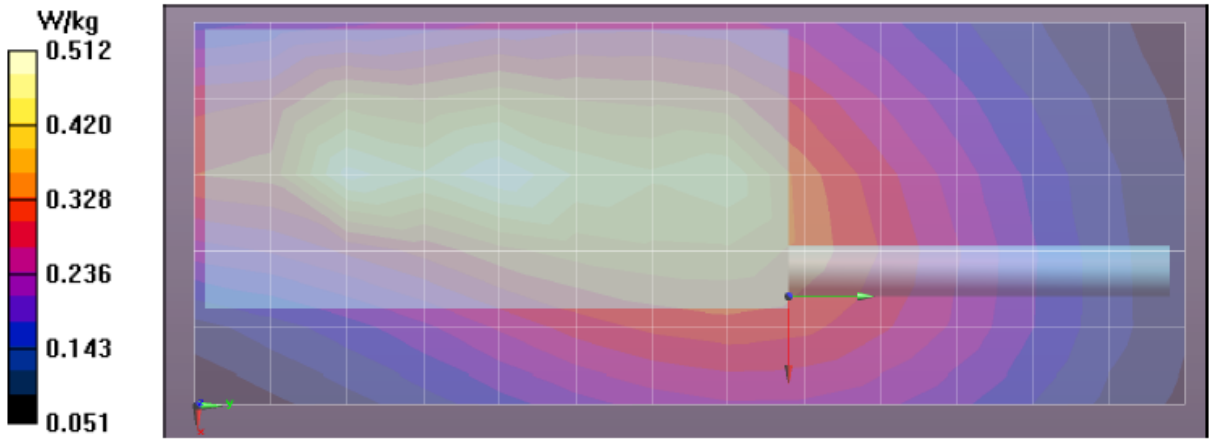
Duty Cycle: 1:1, Medium parameters used: f = 152 MHz; σ = 0.8 mho/m; ε_r = 60; ρ = 1000 kg/m^3
Probe: ES3DV3 - SN3291, , ConvF(8.2, 8.2, 8.2); Calibrated: 7/23/2012
Electronics: DAE4 Sn1231, Calibrated: 3/12/2013

Below 3 GHz-Rev.5/Ab Scan/1-Area Scan (51x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 21.313 V/m; Power Drift = -0.53 dB
Fast SAR: SAR(1 g) = 0.475 mW/g; SAR(10 g) = 0.340 mW/g (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 0.512 W/kg

Below 3 GHz-Rev.5/Ab Scan/1-Area Scan (6x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.512 W/kg

Below 3 GHz-Rev.5/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 21.313 V/m; Power Drift = -0.78 dB
Peak SAR (extrapolated) = 0.769 mW/g
SAR(1 g) = 0.466 mW/g; SAR(10 g) = 0.315 mW/g (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.493 W/kg

Below 3 GHz-Rev.5/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.475 W/kg



Face - Highest SAR Configuration Result
Table 16

Motorola Solutions, Inc. EME Laboratory
Date/Time: 4/12/2013 10:06:04 PM

Robot#: DASY5-FL-3 | Run#: CM-Face-130412-17
Model#: PMUD3256A
Phantom#: OVAL1109
Tissue Temp: 21.1 (C)
Serial#: 024TPD0240
Antenna: Fixed
Test Freq: 151.94 (MHz)
Battery: PMNN4434AR
Carry Acc: None
Audio Acc: None
Start Power: 1.89 (W)

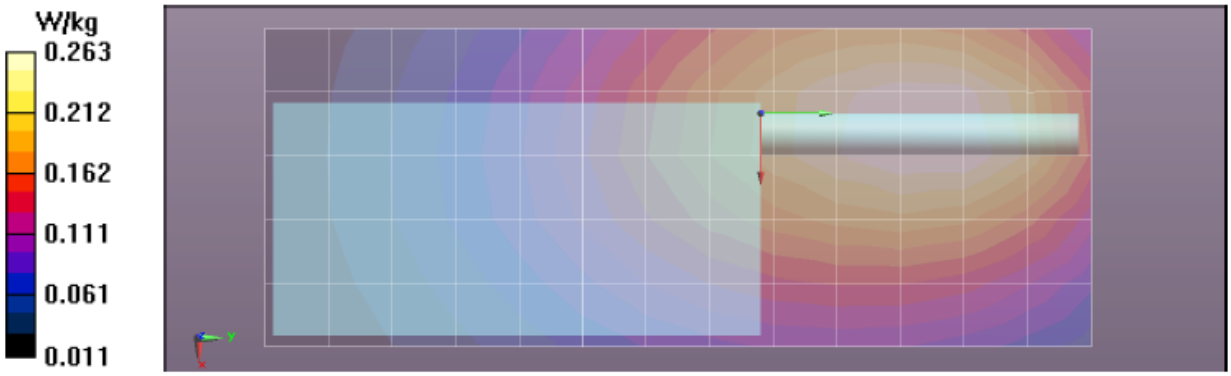
Comments:

Duty Cycle: 1:1, Medium parameters used: f = 152 MHz; σ = 0.78 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Probe: ES3DV3 - SN3291, , ConvF(8.5, 8.5, 8.5); Calibrated: 7/23/2012
Electronics: DAE4 Sn1231, Calibrated: 3/12/2013

Below 3 GHz-Rev.5/Ab Scan/1-Area Scan (51x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 19.868 V/m; Power Drift = -0.82 dB
Fast SAR: SAR(1 g) = 0.259 mW/g; SAR(10 g) = 0.195 mW/g (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 0.271 W/kg

Below 3 GHz-Rev.5/Ab Scan/3-Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 19.206 V/m; Power Drift = -0.80 dB
Peak SAR (extrapolated) = 0.367 mW/g
SAR(1 g) = 0.260 mW/g; SAR(10 g) = 0.190 mW/g (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.274 W/kg

Below 3 GHz-Rev.5/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.248 W/kg



APPENDIX F
DUT Scans - FCC Part 95 (151.82-154.6 MHz band)

Assessments at the Body with Body worn PMLN6455A
Table 14

Motorola Solutions, Inc. EME Laboratory
Date/Time: 4/11/2013 2:58:10 PM

Robot#: DASY5-FL-3 | Run#: ErC-Ab-130411-10
Model#: PMUD3256A
Phantom#: OVAL1090
Tissue Temp: 20.5 (C)
Serial#: 024TPD0242
Antenna: Fixed
Test Freq: 151.94 (MHz)
Battery: PMNN4434AR
Carry Acc: PMLN6455A
Audio Acc: HMN9026D
Start Power: 1.89 (W)

Comments:

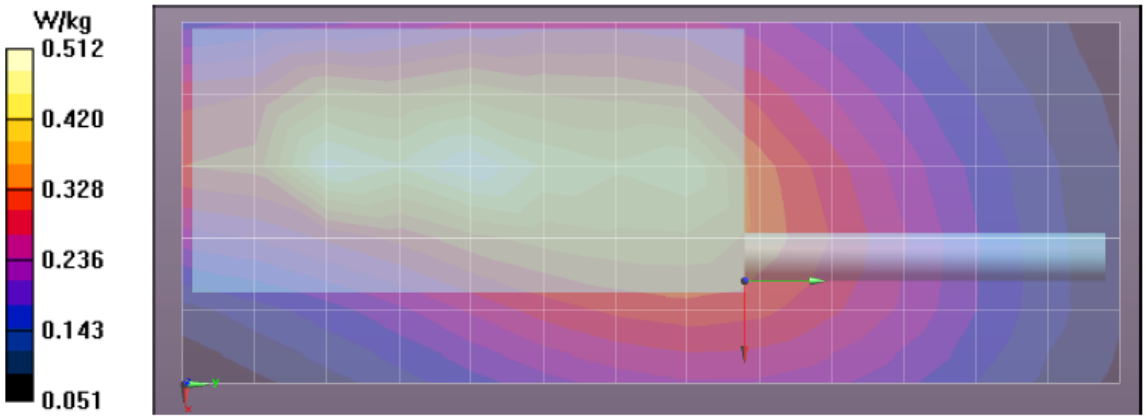
Duty Cycle: 1:1, Medium parameters used: f = 152 MHz; σ = 0.8 mho/m; ε_r = 60; ρ = 1000 kg/m^3
Probe: ES3DV3 - SN3291, , ConvF(8.2, 8.2, 8.2); Calibrated: 7/23/2012
Electronics: DAE4 Sn1231, Calibrated: 3/12/2013

Below 3 GHz-Rev.5/Ab Scan/1-Area Scan (51x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 21.313 V/m; Power Drift = -0.53 dB
Fast SAR: SAR(1 g) = 0.475 mW/g; SAR(10 g) = 0.340 mW/g (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 0.512 W/kg

Below 3 GHz-Rev.5/Ab Scan/1-Area Scan (6x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.512 W/kg

Below 3 GHz-Rev.5/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 21.313 V/m; Power Drift = -0.78 dB
Peak SAR (extrapolated) = 0.769 mW/g
SAR(1 g) = 0.466 mW/g; SAR(10 g) = 0.315 mW/g (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.493 W/kg

Below 3 GHz-Rev.5/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.475 W/kg



Assessment at the Body with other audio accessories

Assessment per "KDB 643646 D01 Body SAR Test Consideration for Audio Accessories without Built-in Antenna; Sec 1, A. when overall < 4.0 W/kg, SAR tested for that audio accessory is not necessary." This was applicable to all remaining accessories.

Assessment at the Face
Table 16

Motorola Solutions, Inc. EME Laboratory
Date/Time: 4/12/2013 10:06:04 PM

Robot#: DASY5-FL-3 | Run#: CM-Face-130412-17
Model#: PMUD3256A
Phantom#: OVAL1109
Tissue Temp: 21.1 (C)
Serial#: 024TPD0240
Antenna: Fixed
Test Freq: 151.94 (MHz)
Battery: PMNN4434AR
Carry Acc: None
Audio Acc: None
Start Power: 1.89 (W)

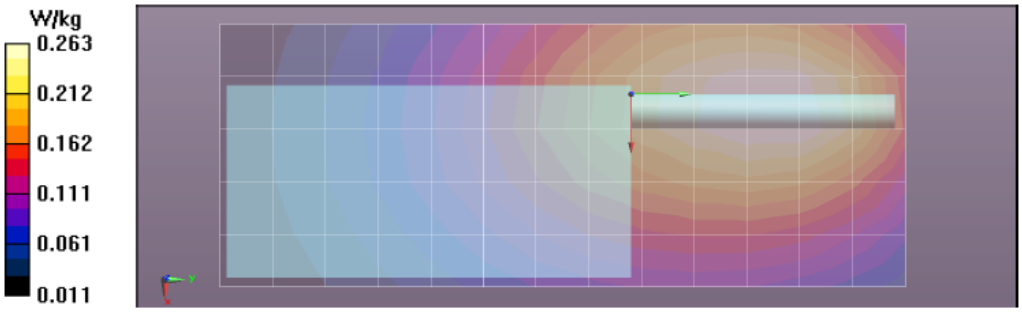
Comments:

Duty Cycle: 1:1, Medium parameters used: f = 152 MHz; σ = 0.78 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Probe: ES3DV3 - SN3291, , ConvF(8.5, 8.5, 8.5); Calibrated: 7/23/2012
Electronics: DAE4 Sn1231, Calibrated: 3/12/2013

Below 3 GHz-Rev.5/Ab Scan/1-Area Scan (51x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 19.868 V/m; Power Drift = -0.82 dB
Fast SAR: SAR(1 g) = 0.259 mW/g; SAR(10 g) = 0.195 mW/g (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 0.271 W/kg

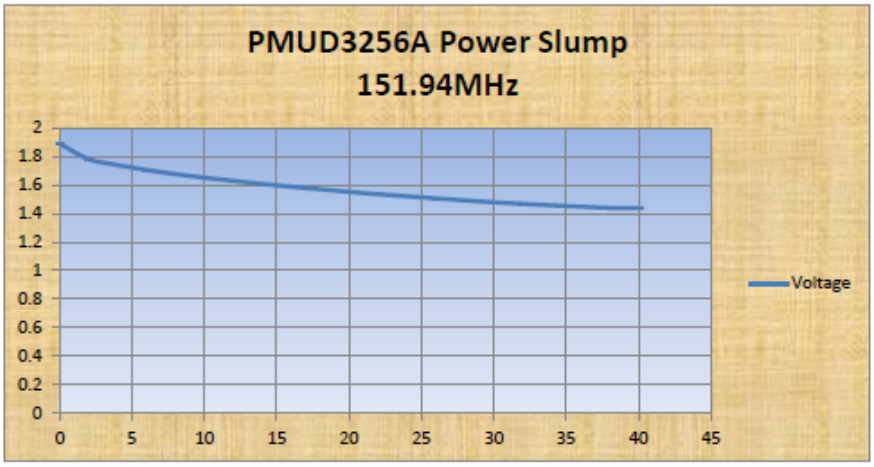
Below 3 GHz-Rev.5/Ab Scan/3-Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 19.206 V/m; Power Drift = -0.80 dB
Peak SAR (extrapolated) = 0.367 mW/g
SAR(1 g) = 0.260 mW/g; SAR(10 g) = 0.190 mW/g (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.274 W/kg

Below 3 GHz-Rev.5/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.248 W/kg



APPENDIX G
DUT Supplementary Data (Power slump)

Time (min)	dBm	Watts
0	32.76	1.890749
2	32.5	1.782482
4	32.4	1.740985
6	32.3	1.706305
8	32.22	1.676816
10	32.17	1.652149
12	32.09	1.629777
14	32.04	1.607915
16	32	1.588816
18	31.95	1.570653
20	31.9	1.552343
22	31.86	1.535905
24	31.81	1.521019
26	31.76	1.507063
28	31.73	1.492289
30	31.67	1.479338
32	31.64	1.467859
34	31.61	1.457567
36	31.58	1.448458
38	31.55	1.439912
40	31.55	1.439628



APPENDIX H
DUT Test Position Photos

Photos available in Exhibit 7B

APPENDIX I
DUT, Body worn and audio accessories Photos

Photos available in Exhibit 7B