



MOTOROLA SOLUTIONS



DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 2

Motorola Solutions Inc.
EME Test Laboratory
 Motorola Solutions Malaysia Sdn Bhd (Innoplex)
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Date of Report: 11/28/2016
Report Revision: A

Responsible Engineer: Chang Chi Chern
Report Author: Chang Chi Chern
Date/s Tested: 11/23/2016
Manufacturer: Motorola Solutions Inc.
DUT Description: T100 GMRS/FRS consumer radio 462-467 MHz Blue Color
Test TX mode(s): CW (PTT)
Max. Power output: 0.55W (GMRS and FRS)
Nominal Power: 0.45W (GMRS and FRS)
Tx Frequency Bands: FRS 467.5625 - 467.7125 MHz
 FRS 462.5625 – 462.7125 MHz
 GMRS 462.5500 – 462.7250 MHz

Signaling type: FM
Model(s) Tested: T100 (PMUE5066B)
Model(s) Certified: T100 (PMUE5066B)
Serial Number(s): 6904SW0002
Classification: General Population/Uncontrolled
FCC ID: AZ489FT4932; FRS 467.5625 - 467.7125 MHz, FRS 462.5625 – 462.7125 MHz, GMRS 462.5500 – 462.7250 MHz
 This report contains results that are immaterial for FCC equipment approval, which are clearly identified.

IC: 109U-89FT4932; This report contains results that are immaterial for IC equipment approval, which are clearly 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.

Tiong

Tiong Nguk Ing
Deputy Technical Manager
Approval Date: 12/23/2016

Certification Date: 12/23/2016

Certification No: L1161209

Appendix D

System Verification Check Scans

Motorola Solutions, Inc. EME Laboratory

Date/Time: 11/23/2016 8:19:42 AM

Robot#: DASY5-PG-3 | Run#: ZWS-SYSP-450H-161123-01
Dipole Model# D450V3
Phantom#: ELI5 1147
Tissue Temp: 21.0 (C)
Serial#: 1077
Test Freq: 450.0000 (MHz)
Start Power: 250 (mW)
Rotation (1D): 0.097 dB
Adjusted SAR (1W): 4.44 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 450$ MHz; $\sigma = 0.88$ S/m; $\epsilon_r = 43.6$; $\rho = 1000$ kg/m³
Probe: ES3DV3 - SN3096, Frequency: 450 MHz, ConvF(6.7, 6.7, 6.7); Calibrated: 4/29/2016
Electronics: DAE4 Sn1483, Calibrated: 9/27/2016

Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x201x1):

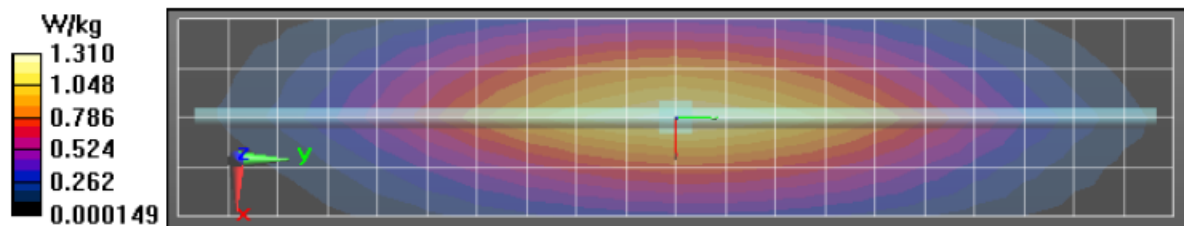
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 39.12 V/m; Power Drift = 0.01 dB
Fast SAR: SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.784 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 1.30 W/kg

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 = 39.12 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.74 W/kg
SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.730 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 1.31 W/kg

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 Face for FRS band
Table 17

Motorola Solutions, Inc. EME Laboratory
Date/Time: 11/23/2016 5:06:39 PM

Robot#: DASY5-PG-02 | Run#: ARF-FACE-161123-05
 Model#: T100 (PMUE5066B)
 Phantom#: ELI5 1147
 Tissue Temp: 21.0 (C)
 Serial#: 6904SV0002
 Antenna: Fixed
 Test Freq: 467.6375 (MHz)
 Battery: 3xAAA Alkaline
 Carry Acc: None
 Audio Acc: None
 Start Power: 0.409 (W)

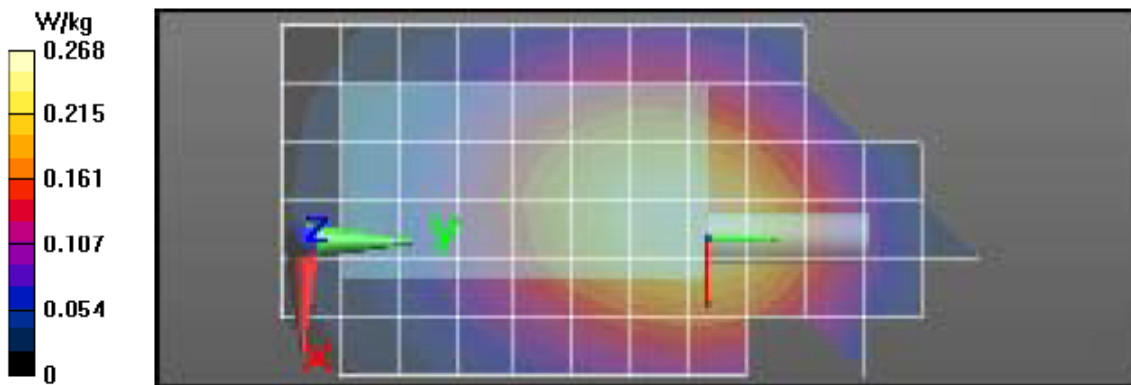
Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 468 \text{ MHz}$, $\sigma = 0.9 \text{ S/m}$, $\epsilon_r = 43.2$, $\rho = 1000 \text{ kg/m}^3$
 Probe: ES3DV3 - SN3096, , Frequency: 467.637 MHz, ConvF(6.7, 6.7, 6.7); Calibrated: 4/29/2016
 Electronics: DAE4 Sml 483, Calibrated: 9/27/2016

Below 2 GHz-Rev.2/FACE Scan/1-Area Scan (61x121x1): Interpolated grid: $dx=1.500 \text{ mm}$,
 $dy=1.500 \text{ mm}$
 Reference Value = 17.26 V/m; Power Drift = -0.35 dB
Fast SAR: SAR(1 g) = 0.243 W/kg; SAR(10 g) = 0.176 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 0.274 W/kg

Below 2 GHz-Rev.2/FACE Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5 \text{ mm}$,
 $dy=7.5 \text{ mm}$, $dz=5 \text{ mm}$
 Reference Value = 17.26 V/m; Power Drift = -1.53 dB
 Peak SAR (extrapolated) = 0.318 W/kg
SAR(1 g) = 0.227 W/kg; SAR(10 g) = 0.162 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 0.257 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) = 0.251 W/kg



**Assessments at the Face for GRMS/FRS band
Table 19**

Motorola Solutions, Inc. EME Laboratory
Date/Time: 11/23/2016 4:35:45 PM

Robot#: DASY5-PG-02 | Run#: ARF-FACE-161123-04
 Model#: T100 (PMUE5066B)
 Phantom#: EL15 1147
 Tissue Temp: 21.2 (C)
 Serial#: 6904SW00002
 Antenna: Fixed
 Test Freq: 462.6375 (MHz)
 Battery: 3xAAA Alkaline
 Carry Acc: None
 Audio Acc: None
 Start Power: 0.414 (W)

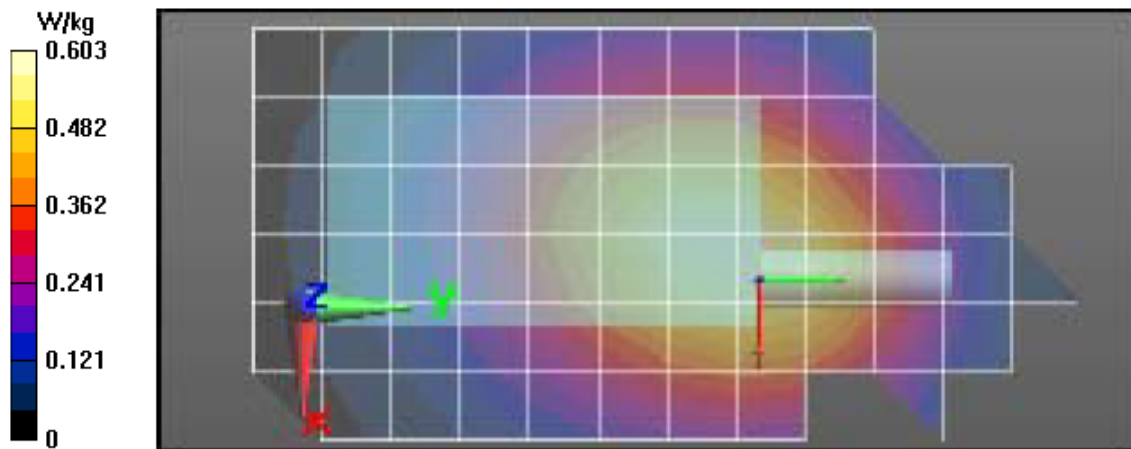
Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 463 \text{ MHz}$, $\sigma = 0.89 \text{ S/m}$, $\epsilon_r = 43.3$, $\rho = 1000 \text{ kg/m}^3$
 Probe: ES3DV3 - SN3096, , Frequency: 462.637 MHz, ConvF(6.7, 6.7, 6.7); Calibrated 4/29/2016
 Electronics: DAE4 Snl 483, Calibrated 9/27/2016

Below 2 GHz-Rev.2/FACE Scan/1-Area Scan (61x121x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
 Reference Value = 25.90 V/m; Power Drift = -0.55 dB
Fast SAR: SAR(1 g) = 0.542 W/kg; SAR(10 g) = 0.390 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 0.609 W/kg

Below 2 GHz-Rev.2/FACE Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5 \text{ mm}$, $dy=7.5 \text{ mm}$, $dz=5 \text{ mm}$
 Reference Value = 25.90 V/m; Power Drift = -0.79 dB
 Peak SAR (extrapolated) = 0.692 W/kg
SAR(1 g) = 0.495 W/kg; SAR(10 g) = 0.354 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 0.560 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) = 0.542 W/kg



APPENDIX F
Shortened Scan of Highest SAR configuration

Motorola Solutions, Inc. EME Laboratory
Date/Time: 11/23/2016 7:26:23 PM

Robot#: DASY5-PG-02 | Run#: ARF-FACE-161123-07
 Model#: T100 (PMUE5066B)
 Phantom#: EL15 1147
 Tissue Temp: 21.4 (C)
 Serial#: 6904S W0002
 Antenna: Fixed
 Test Freq: 462.6375 (MHz)
 Battery: 3xAAA Alkaline
 Carry Acc: None
 Audio Acc: None
 Start Power: 0.414 (W)

Comments:

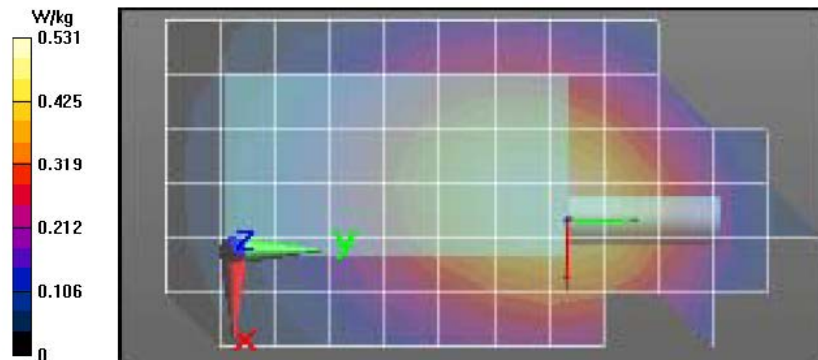
Duty Cycle: 1:1, Medium parameters used: $f = 463 \text{ MHz}$; $\sigma = 0.89 \text{ S/m}$; $\epsilon_r = 43.3$; $\rho = 1000 \text{ kg/m}^3$
 Probe: ES3DV3 - SN3096, Frequency: 462.637 MHz, ConvF(6.7, 6.7, 6.7); Calibrated: 4/29/2016
 Electronics: DAE4 Snl483, Calibrated: 9/27/2016

Below 2 GHz-Rev.2/FACE Scan/1-Area Scan (61x121x1): Interpolated grid: $dx=1.500 \text{ mm}$,
 $dy=1.500 \text{ mm}$
 Reference Value = 24.71 V/m; Power Drift = -0.59 dB
Fast SAR: SAR(1 g) = 0.481 W/kg; SAR(10 g) = 0.347 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 0.540 W/kg

Below 2 GHz-Rev.2/FACE Scan/2-Volume 2D Scan (5x5x1): Measurement grid: $dx=7.5 \text{ mm}$,
 $dy=7.5 \text{ mm}$, $dz=1 \text{ mm}$
 Reference Value = 24.71 V/m; Power Drift = -0.73 dB
 Maximum value of SAR (measured) = 0.501 W/kg

Below 2 GHz-Rev.2/FACE Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5 \text{ mm}$,
 $dy=7.5 \text{ mm}$, $dz=5 \text{ mm}$
 Reference Value = 26.86 V/m; Power Drift = -0.52 dB
 Peak SAR (extrapolated) = 0.712 W/kg
SAR(1 g) = 0.514 W/kg; SAR(10 g) = 0.370 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 0.578 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) = 0.491 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)	20	6	0.38	0.28
Full scan (area & zoom)	19	20	0.39	0.28

APPENDIX G
DUT Test Position Photos

Photos available in Exhibit 7B

APPENDIX H
DUT, Body worn and audio accessories Photos

Photos available in Exhibit 7B