

**MOTOROLA SOLUTIONS**

CERTIFICATE 2518.05

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: 9/28/2016**Report Revision:** A

Responsible Engineer: Chang Chi Chern (EME Engineer)
Report Author: Chang Chi Chern (EME Engineer)
Date/s Tested: 9/19/2016
Manufacturer: Vertex Standard LMR, Inc.
DUT Description: Handheld Portable – Vertex EVX-S24-G6-3 403-480MHz 3W
Test TX mode(s): CW (PTT)
Max. Power output: 3.2 W (TDMA) , 2.2 W (FM)
Nominal Power: 3.0 W (TDMA) , 2.0 W (FM)
Tx Frequency Bands: LMR 403-480MHz
Signaling type: FM and TDMA
Model(s) Tested: AC146U002 (EVX-S24-G6-3)
Model(s) Certified: AC146U002 (EVX-S24-G6-3)
Serial Number(s): 2D6G200051
Classification: Occupational/Controlled
FCC ID: AXI11464620; LMR 406.125-480 MHz
 This report contains results that are immaterial for FCC equipment approval, which are clearly identified.
IC: 10239A-11464620; This report contains results that are immaterial for IC equipment approval, which are clearly identified.

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 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 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 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 Nguk Ing
Deputy Technical Manager
Approval Date: 10/05/2016

Certification Date: 10/05/2016**Certification No.:** 161002AD

Appendix D

System Verification Check Scans

Motorola Solutions, Inc. EME Laboratory
Date/Time: 9/19/2016 2:35:44 PM

Robot#: DASY5-PG-3 | Run#: ZR-SYSP-450B-160919-01
 Dipole Model#: D450V3
 Phantom#: OVAL 1109
 Tissue Temp: 21.7 (C)
 Serial#: 1077
 Test Freq: 450.0000 (MHz)
 Start Power: 250 (mW)
 Rotation (1D): 0.027 dB
 Adjusted SAR (1W): 4.60 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 450$ MHz; $\sigma = 0.98$ S/m; $\epsilon_r = 54.4$; $\rho = 1000$ kg/m³
 Probe: ES3DV3 - SN3196, , Frequency: 450 MHz, ConvF(7.06, 7.06, 7.06); Calibrated: 11/17/2015
 Electronics: DAE4 Sn688, Calibrated: 4/21/2016

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 = 38.26 V/m; Power Drift = -0.05 dB

Fast SAR: SAR(1 g) = 1.19 W/kg; SAR(10 g) = 0.828 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 1.41 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

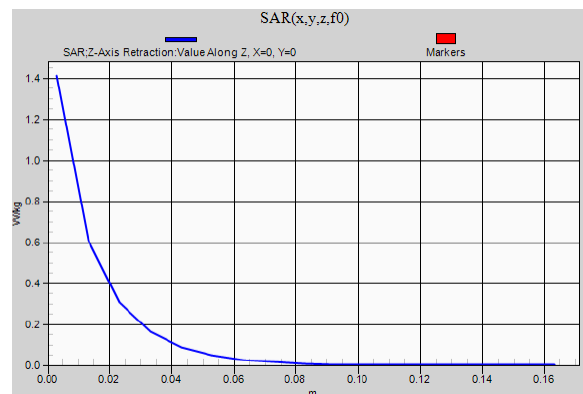
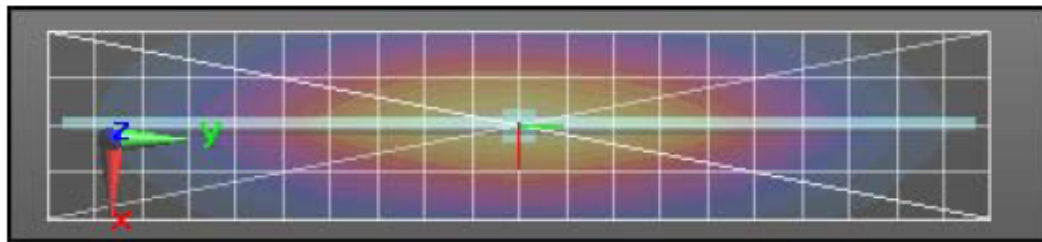
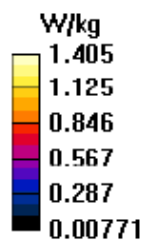
Reference Value = 38.26 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.95 W/kg

SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.758 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.41 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 Body

Table 17

Motorola Solutions, Inc. EME Laboratory

Date/Time: 9/19/2016 4:48:12 PM

Robot#: DASY5-PG-3 | Run#: ZR-AB-160919-03
 Model#: EVX-S24-G6-3
 Phantom#: OVAL 1109
 Tissue Temp: 21.6 (C)
 Serial#: 2D6G200051
 Antenna: ATU-6B
 Test Freq: 430.0000 (MHz)
 Battery: FNB-V142LI
 Carry Acc: LCC-S24
 Audio Acc: MH-89A4B
 Start Power: 2.14 (W)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 430$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 54.6$; $\rho = 1000$ kg/m³

Probe: ES3DV3 - SN3196, , Frequency: 430 MHz, ConvF(7.06, 7.06, 7.06); Calibrated: 11/17/2015

Electronics: DAE4 Sn688, Calibrated: 4/21/2016

Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (71x211x1): Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Reference Value = 90.05 V/m; Power Drift = -0.20 dB

Fast SAR: SAR(1 g) = 6.77 W/kg; SAR(10 g) = 4.82 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 7.63 W/kg

Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (6x6x7)/Cube 0: Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 90.05 V/m; Power Drift = -0.32 dB

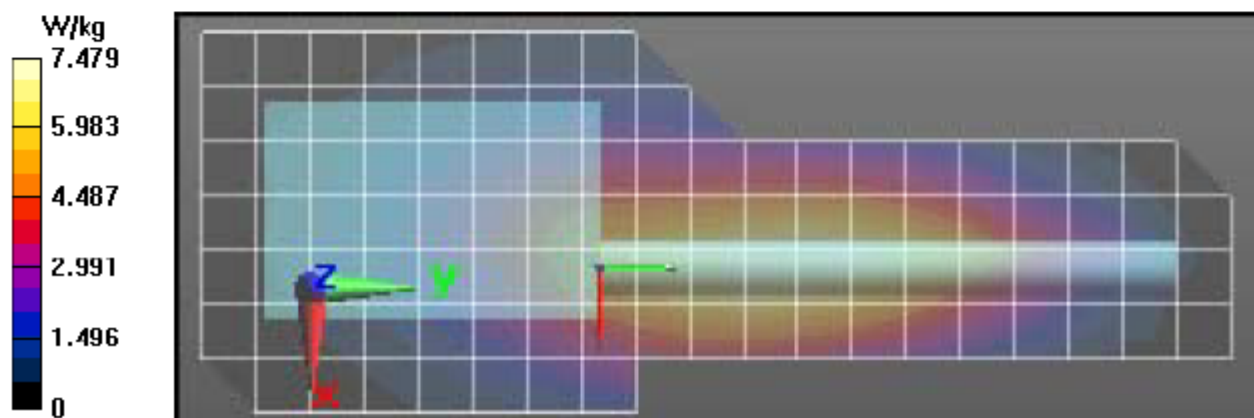
Peak SAR (extrapolated) = 9.69 W/kg

SAR(1 g) = 6.31 W/kg; SAR(10 g) = 4.36 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 7.25 W/kg

Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: $dx=20$ mm, $dy=20$ mm, $dz=10$ mm

Maximum value of SAR (measured) = 7.16 W/kg



APPENDIX F

Shortened Scan of Highest SAR configuration

Shortened Scan
Table 18
Motorola Solutions, Inc. EME Laboratory
Date/Time: 9/19/2016 5:38:52 PM

Robot#: DASY5-PG-3 | Run#: ZR-AB-160919-04
Model#: EVX-S24-G6-3
Phantom#: OVAL 1109
Tissue Temp: 21.6 (C)
Serial#: 2D6G200051
Antenna: ATU-6B
Test Freq: 430.0000 (MHz)
Battery: FNB-V142LI
Carry Acc: LCC-S24
Audio Acc: MH-89A4B
Start Power: 2.14 (W)

Comments: Shorten Scan

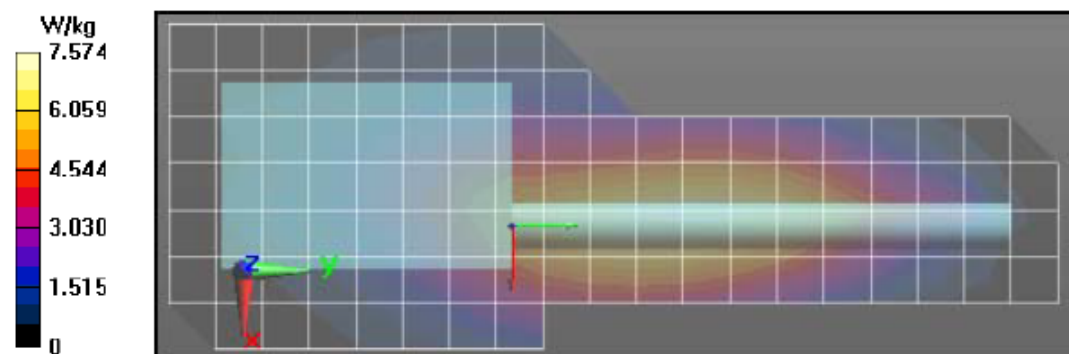
Duty Cycle: 1:1, Medium parameters used: $f = 430$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 54.6$; $\rho = 1000$ kg/m³
Probe: ES3DV3 - SN3196, Frequency: 430 MHz, ConvF(7.06, 7.06, 7.06); Calibrated: 11/17/2015
Electronics: DAE4 Sn688, Calibrated: 4/21/2016

Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (71x211x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 89.84 V/m; Power Drift = -0.22 dB
Fast SAR: SAR(1 g) = 6.81 W/kg; SAR(10 g) = 4.84 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 7.69 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 = 89.84 V/m; Power Drift = -0.26 dB
Fast SAR: SAR(1 g) = 6.73 W/kg; SAR(10 g) = 4.82 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 7.50 W/kg

Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 95.13 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 11.2 W/kg
SAR(1 g) = 7.33 W/kg; SAR(10 g) = 5.08 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 8.41 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) = 7.32 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)	18	8	3.88	2.69
Full scan (area & zoom)	17	25	3.49	2.41

APPENDIX G

DUT Test Position Photos

Body (Highest SAR configuration)

DUT with offered antenna ATU-6B with battery FNB-V142LI and new leather case, belt loop accessory LCC-S24 again phantom with an audio accessory MH-89A4B.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
ATU-6B	14	20	8

APPENDIX H

Body worn accessory



**LCC-S24
Front View**



**LCC-S24
Side View**



**LCC-S24
Back View**

New offered leather case, belt loop LCC-S24

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