

 MOTOROLA SOLUTIONS	   																																								
DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 2																																									
Motorola Solutions Inc. EME Test Laboratory Motorola Solutions Malaysia Sdn Bhd Plot 2A, Medan Bayan Lepas, Mukim 12 SWD 11900 Bayan Lepas Penang, Malaysia.	Date of Report: 08/04/2023 Report Revision: B																																								
<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Responsible Engineer:</td> <td>Alfred Hoe (EME Engineer)</td> </tr> <tr> <td>Report Author:</td> <td>Muhammad Zakwan Bin Zaidi (EME Senior technician)</td> </tr> <tr> <td>Date/s Tested:</td> <td>05/02/23-05/23/23, 05/25/23-06/13/23</td> </tr> <tr> <td>Manufacturer:</td> <td>Motorola Solutions Inc.</td> </tr> <tr> <td>DUT Description:</td> <td>Handheld Portable – APX N50 VHF MODEL 2 PORTABLE – APX N50 VHF HAZLOC MODEL 2 PORTABLE</td> </tr> <tr> <td>Test TX mode(s):</td> <td>FM, BT & WLAN</td> </tr> <tr> <td>Max. Power output:</td> <td>Refer table 3</td> </tr> <tr> <td>Nominal Power:</td> <td>Refer table 3</td> </tr> <tr> <td>Tx Frequency Bands:</td> <td>Refer table 3</td> </tr> <tr> <td>Signaling type:</td> <td>FM (LMR), 802.11b/g/n/a/ac (WLAN), FHSS (Bluetooth / Bluetooth LE)</td> </tr> <tr> <td>Model(s) Tested:</td> <td>H25KDF9PW6AN (PMUD1977A) & H25KDF9PW6AN-H (PMUD1977A)</td> </tr> <tr> <td>Serial Number(s):</td> <td>287TZH0132, 287TZH0121 & 287TZH0070</td> </tr> <tr> <td>Classification:</td> <td>Occupational/Controlled Environment</td> </tr> <tr> <td>Firmware Version:</td> <td>D30.81.19</td> </tr> <tr> <td>Applicant Name:</td> <td>Motorola Solutions Inc.</td> </tr> <tr> <td>Applicant Address:</td> <td>8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322</td> </tr> <tr> <td>FCC ID:</td> <td>AZ489FT7162</td> </tr> <tr> <td>FCC Test Firm Registration Number:</td> <td>823256</td> </tr> <tr> <td>IC:</td> <td>109U-89FT7162</td> </tr> <tr> <td>ISED Test Site registration:</td> <td>24843</td> </tr> </table> This report contains results that are immaterial for FCC equipment approval, which are clearly identified. This report contains results that are immaterial for ISED equipment approval, which are clearly identified. The test results clearly demonstrate compliance with Occupational/Controlled RF Exposure limits of 8 W/kg averaged over 1 gram per the requirements of FCC 47 CFR § 2.1093 and RSS-102 (Issue 5) 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 (no deviation from standard methods). 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.		Responsible Engineer:	Alfred Hoe (EME Engineer)	Report Author:	Muhammad Zakwan Bin Zaidi (EME Senior technician)	Date/s Tested:	05/02/23-05/23/23, 05/25/23-06/13/23	Manufacturer:	Motorola Solutions Inc.	DUT Description:	Handheld Portable – APX N50 VHF MODEL 2 PORTABLE – APX N50 VHF HAZLOC MODEL 2 PORTABLE	Test TX mode(s):	FM, BT & WLAN	Max. Power output:	Refer table 3	Nominal Power:	Refer table 3	Tx Frequency Bands:	Refer table 3	Signaling type:	FM (LMR), 802.11b/g/n/a/ac (WLAN), FHSS (Bluetooth / Bluetooth LE)	Model(s) Tested:	H25KDF9PW6AN (PMUD1977A) & H25KDF9PW6AN-H (PMUD1977A)	Serial Number(s):	287TZH0132, 287TZH0121 & 287TZH0070	Classification:	Occupational/Controlled Environment	Firmware Version:	D30.81.19	Applicant Name:	Motorola Solutions Inc.	Applicant Address:	8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322	FCC ID:	AZ489FT7162	FCC Test Firm Registration Number:	823256	IC:	109U-89FT7162	ISED Test Site registration:	24843
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 Saw Sun Hock (Approval Signatory) Approval Date: 8/4/2023																																									

Appendix D

System Verification Check Scans

Motorola Solutions, EME Laboratory

2023-06-03, 07:59

System Performance Check Report

Summary

Dipole	Frequency [MHz]	TSL	Power [dBm]	Dev. 1g [%]	Dev. 10g [%]
CLA-150 - SN4005	150.0	HSL	30.0	6.7	5.2

Exposure Conditions

Phantom Section, TSL	Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	0		CW, 0--	150.0, 0	12.09	0.722	51.9

Hardware Setup

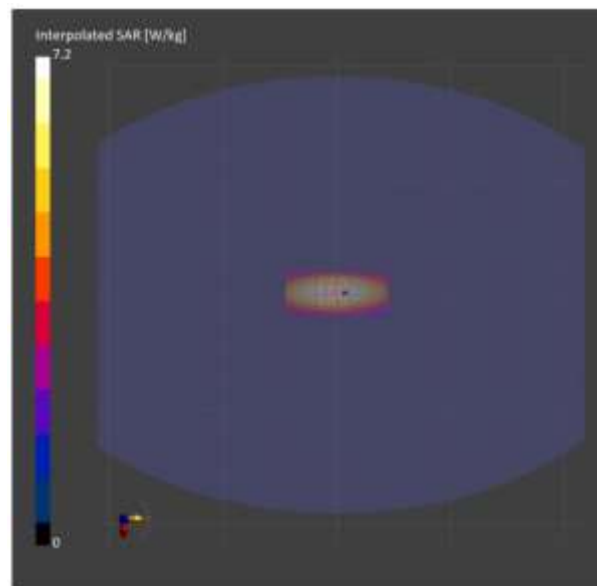
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - ELI4 1016	HSL150, 2023-Jun-03	EX3DV4 - SN7511, 2021-06-18	DAE4 Sn729, 2021-06-09

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-06-03, 07:59	2023-06-03, 08:06
psSAR1g [W/Kg]	4.16	4.11
psSAR10g [W/Kg]	2.98	2.69
Power Drift [dB]	0.04	0.02
TSL Correction	Positive / Negative	Positive / Negative



Motorola Solutions, Inc. EME Laboratory
Date/Time: 5/11/2023 10:51:20 AM

Robot#: DASY5-PG-3 | Run#: MFR(MHN)-SYSP-2450H-230511-06
 Dipole Model#: D2450V2
 Phantom#: ELI4 1028
 Tissue Temp: 20.7 (C)
 Serial#: 781
 Test Freq: 2450.0000 (MHz)
 Start Power: 250 (mW)
 Rotation (1D): 0.14 dB
 Adjusted SAR (1W): 49.20 mW/g (1g)

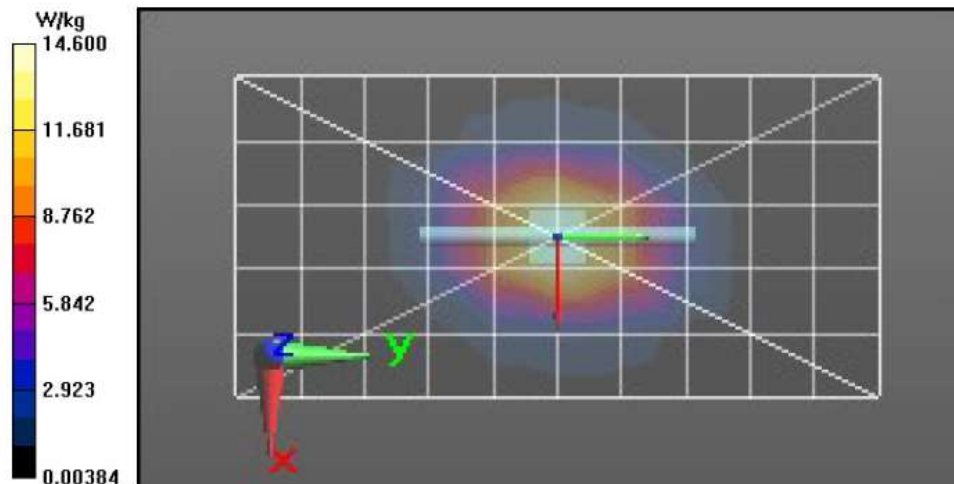
Comments:

Communication System Band: Dipole 2450, Communication System UID: 0, Duty Cycle: 1:1,
 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.75$ S/m; $\epsilon_r = 41.1$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN7519, Calibrated: 2/28/2022, Frequency: 2450 MHz, ConvF(7.71, 7.71, 7.71) @ 2450 MHz
 Electronics: DAE4 Sn684, Calibrated: 2/22/2022

2-3 GHz-Rev.3/System Performance Check/Dipole Area Scan 2 (51x101x1): Interpolated
 grid: $dx=1.200$ mm, $dy=1.200$ mm
 Reference Value = 109.9 V/m; Power Drift = -0.18 dB
Fast SAR: SAR(1 g) = 12.7 W/kg; SAR(10 g) = 5.82 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 20.5 W/kg

2-3 GHz-Rev.3/System Performance Check/0-Degree Cube (7x7x7)/Cube 0: Measurement
 grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
 Reference Value = 109.9 V/m; Power Drift = -0.18 dB
 Peak SAR (extrapolated) = 24.8 W/kg
SAR(1 g) = 12.2 W/kg; SAR(10 g) = 5.75 W/kg (SAR corrected for target medium)
 Smallest distance from peaks to all points 3 dB below = 9 mm
 Ratio of SAR at M2 to SAR at M1 = 49.1%
 Maximum value of SAR (measured) = 20.0 W/kg

2-3 GHz-Rev.3/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid:
 $dx=20$ mm, $dy=20$ mm, $dz=10$ mm
 Maximum value of SAR (measured) = 20.0 W/kg



Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/14/2023 2:08:35 AM

Robot#: DASY5-PG-3 | Run#: IRA-SYSP-5250H-230514-01
 Dipole Model#: D5GHzV2
 Phantom#: ELI4 1028
 Tissue Temp: 20.8 (C)
 Serial#: 1026
 Test Freq: 5250.0000 (MHz)
 Start Power: 100 (mW)
 Rotation (1D): 0.078 dB
 Adjusted SAR (1W): 75.70 mW/g (1g)

Comments:

Communication System Band: Dipole 5000, Communication System UID: 0, Duty Cycle: 1:1,
 Medium parameters used: $f = 5250$ MHz; $\sigma = 4.47$ S/m; $\epsilon_r = 38.2$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN7519, Calibrated: 2/28/2022, Frequency: 5250 MHz, ConvF(5.6, 5.6, 5.6) @ 5250 MHz
 Electronics: DAE4 Sn684, Calibrated: 2/22/2022

4-6 GHz-Rev.5/System Performance Check/Dipole Area Scan 2 (61x61x1): Interpolated grid:

dx=0.9000 mm, dy=0.9000 mm

Reference Value = 72.37 V/m; Power Drift = 0.14 dB

Fast SAR: SAR(1 g) = 7.34 W/kg; SAR(10 g) = 2.03 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 18.9 W/kg

4-6 GHz-Rev.5/System Performance Check/0-Degree Cube (8x8x12)/Cube 0: Measurement

grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 72.37 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 28.8 W/kg

SAR(1 g) = 7.57 W/kg; SAR(10 g) = 2.18 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 7.2 mm

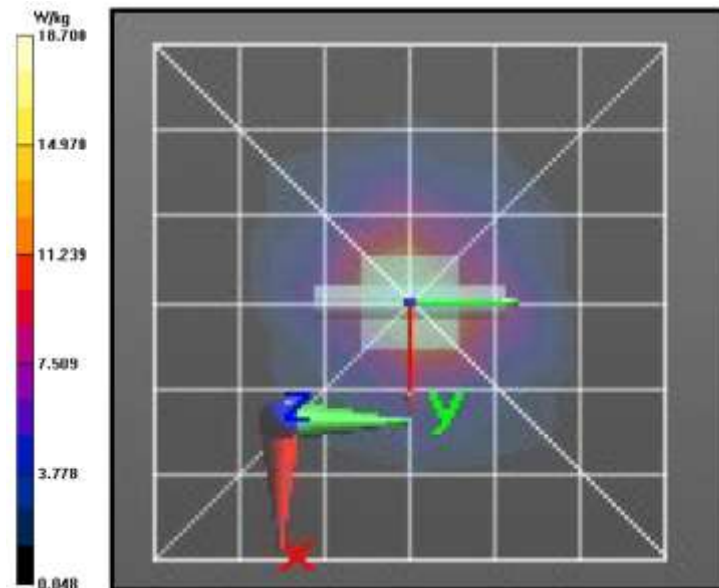
Ratio of SAR at M2 to SAR at M1 = 56.2%

Maximum value of SAR (measured) = 16.9 W/kg

4-6 GHz-Rev.5/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid:

dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 20.3 W/kg



Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/19/2023 12:57:48 AM

Robot#: DASY5-PG-3 | Run#: MFR(MHN)-SYSP-5600H-230519-01
 Dipole Model#: D5GHzV2
 Phantom#: ELI4 1028
 Tissue Temp: 21.4 (C)
 Serial#: 1026
 Test Freq: 5600.0000 (MHz)
 Start Power: 100 (mW)
 Rotation (1D): 0.17 dB
 Adjusted SAR (1W): 92.10 mW/g (1g)

Comments:

Communication System Band: Dipole 5000, Communication System UID: 0, Duty Cycle: 1:1,
 Medium parameters used: $f = 5600$ MHz; $\sigma = 4.78$ S/m; $\epsilon_r = 37.5$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN7519, Calibrated: 2/28/2022, Frequency: 5600 MHz, ConvF(4.83, 4.83, 4.83) @ 5600 MHz
 Electronics: DAE4 Sn684, Calibrated: 2/22/2022

4-6 GHz-Rev.5/System Performance Check/Dipole Area Scan 2 (61x61x1): Interpolated grid:

dx=0.9000 mm, dy=0.9000 mm

Reference Value = 76.34 V/m; Power Drift = -0.15 dB

Fast SAR: SAR(1 g) = 8.53 W/kg; SAR(10 g) = 2.34 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 23.0 W/kg

4-6 GHz-Rev.5/System Performance Check/0-Degree Cube (8x8x12)/Cube 0: Measurement

grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 76.34 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 36.4 W/kg

SAR(1 g) = 9.21 W/kg; SAR(10 g) = 2.65 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 7.2 mm

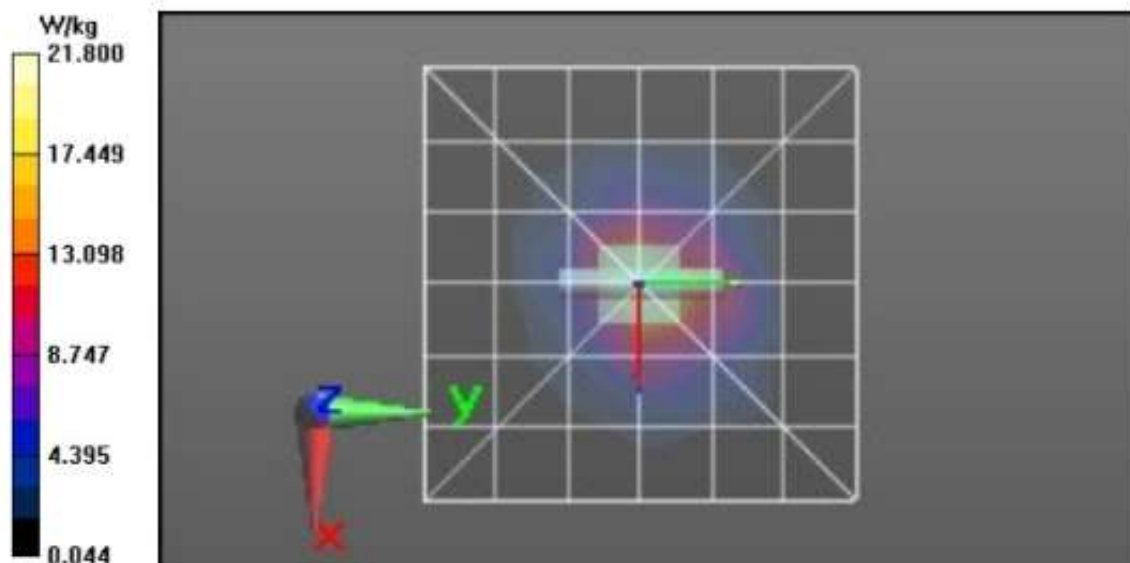
Ratio of SAR at M2 to SAR at M1 = 55.2%

Maximum value of SAR (measured) = 21.0 W/kg

4-6 GHz-Rev.5/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid:

dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 22.5 W/kg



Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/23/2023 3:35:05 PM

Robot#: DASY5-PG-3 | Run#: MFR(MHN)-SYSP-5750H-230523-06
 Dipole Model#: D5GHzV2
 Phantom#: ELI4 1028
 Tissue Temp: 21.9 (C)
 Serial#: 1027
 Test Freq: 5750.0000 (MHz)
 Start Power: 100 (mW)
 Rotation (1D): 0.15 dB
 Adjusted SAR (1W): 75.80 mW/g (1g)

Comments:

Communication System Band: Dipole 5000, Communication System UID: 0, Duty Cycle: 1:1,
 Medium parameters used: $f = 5750$ MHz; $\sigma = 4.82$ S/m; $\epsilon_r = 36.1$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN7519, Calibrated: 2/28/2022, Frequency: 5750 MHz, ConvF(5.05, 5.05, 5.05) @ 5750 MHz
 Electronics: DAE4 Sn684, Calibrated: 2/22/2022

4-6 GHz-Rev.5/System Performance Check/Dipole Area Scan 2 (61x61x1): Interpolated grid:

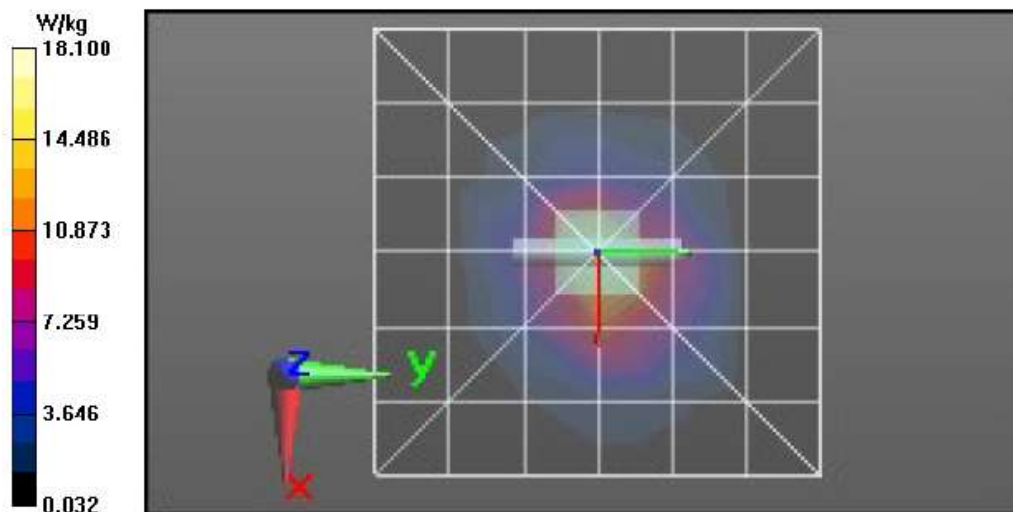
$dx=0.9000$ mm, $dy=0.9000$ mm
 Reference Value = 71.30 V/m; Power Drift = 0.15 dB
 Fast SAR: SAR(1 g) = 7.1 W/kg; SAR(10 g) = 1.97 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 19.4 W/kg

4-6 GHz-Rev.5/System Performance Check/0-Degree Cube (8x8x12)/Cube 0: Measurement

grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm
 Reference Value = 71.30 V/m; Power Drift = 0.15 dB
 Peak SAR (extrapolated) = 32.9 W/kg
 SAR(1 g) = 7.58 W/kg; SAR(10 g) = 2.17 W/kg (SAR corrected for target medium)
 Smallest distance from peaks to all points 3 dB below = 7.5 mm
 Ratio of SAR at M2 to SAR at M1 = 52.9%
 Maximum value of SAR (measured) = 17.9 W/kg

4-6 GHz-Rev.5/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid:

$dx=20$ mm, $dy=20$ mm, $dz=10$ mm
 Maximum value of SAR (measured) = 19.8 W/kg



Appendix E

DUT Scans

Assessments at FCC LMR Body - Table 18

Motorola Solutions, EME Laboratory

2023-05-05, 15:53

Measurement Report for PMUD1977A, 287TZH0132, BACK, Custom Band, CW, Channel 165900 (165.9 MHz)

Device Under Test Properties

Model	Serial Number	Dimensions [mm]
PMUD1977A	287TZH0132	136.0 x 67.0 x 43.0

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0---	165.9, 165900	12.09	0.791	49.8

Hardware Setup

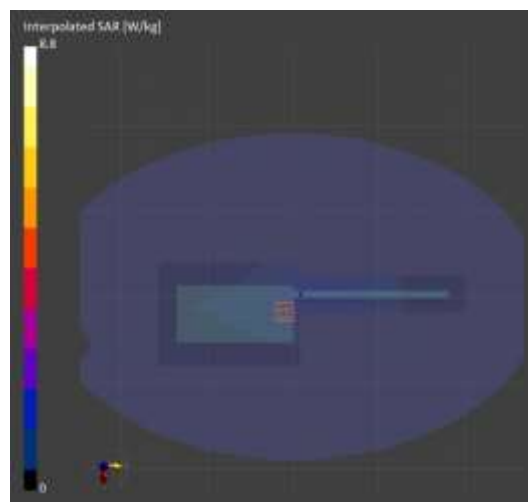
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - ELI4 1016	HSL150 , 2023-May-05	EX3DV4 - SN7511, 2021-06-18	DAE4 Sn729, 2021-06-09

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 360.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-05-05, 15:53	2023-05-05, 16:12
psSAR1g [W/Kg]	2.85	3.02
psSAR10g [W/Kg]	1.95	1.70
Power Drift [dB]	-0.05	-0.33
TSL Correction	Positive only	Positive only
M2/M1 [%]		62.4
Dist 3dB Peak [mm]		11.4



Assessments at FCC LMR Face - Table 22

Motorola Solutions, EME Laboratory

2023-05-07, 23:47

Measurement Report for PMUD1977A, 287TZH0121, FRONT, Custom Band, CW, Channel 173400 (173.4 MHz)

Device Under Test Properties

Model	Serial Number	Dimensions [mm]
PMUD1977A	287TZH0121	136.0 x 67.0 x 43.0

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	FRONT, 25.00	Custom Band	CW, 0---	173.4, 173400	12.09	0.797	48.8

Hardware Setup

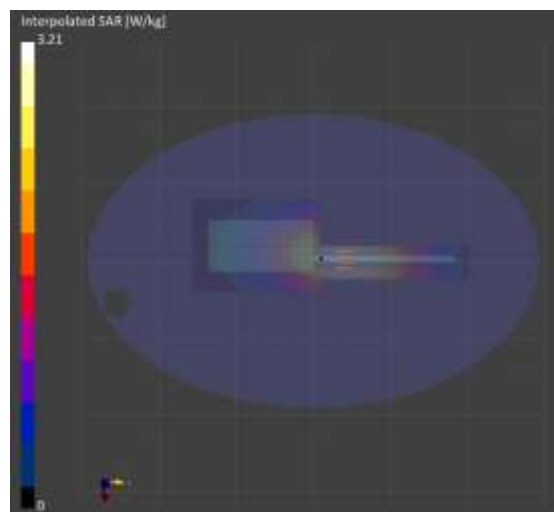
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - ELI4 1016	HSL150, 2023-May-07	EX3DV4 - SN7511, 2021-06-18	DAE4 Sn729, 2021-06-09

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 360.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-05-07, 23:47	2023-05-07, 23:55
psSAR1g [W/Kg]	2.05	2.06
psSAR10g [W/Kg]	1.57	1.57
Power Drift [dB]	-0.10	-0.96
TSL Correction	Positive only	Positive only
M2/M1 [%]		84.0
Dist 3dB Peak [mm]		> 15.0



Assessment at Outside FCC Frequency Range LMR Body – Table 23

Motorola Solutions, EME Laboratory

2023-05-05, 23:22

Measurement Report for PMUD1977A, 287TZH0132, BACK, CLA150, CW, Channel 38 (138.0 MHz)

Device Under Test Properties

Model	Serial Number	Dimensions [mm]
PMUD1977A	287TZH0132	136.0 x 67.0 x 43.0

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	CLA150	CW, 0---	138.0, 38	12.09	0.767	51.7

Hardware Setup

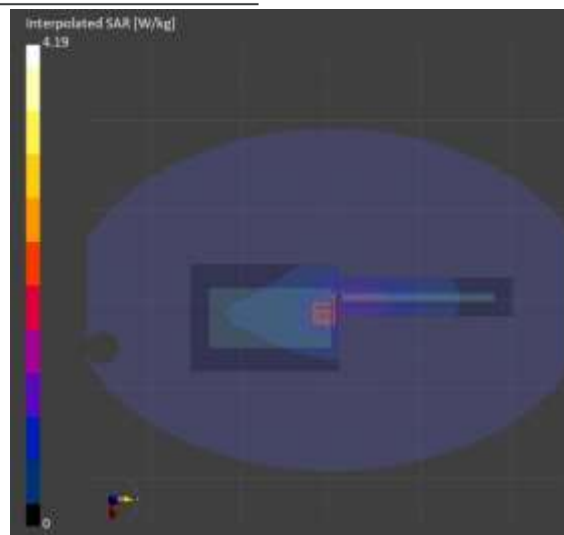
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) – ELI4 1016	HSL150, 2023-May-05	EX3DV4 – SN7511, 2021-06-18	DAE4 Sn729, 2021-06-09

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 360.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-05-05, 23:22	2023-05-05, 23:28
psSAR1g [W/Kg]	1.54	1.60
psSAR10g [W/Kg]	1.08	0.970
Power Drift [dB]	-0.12	-0.29
TSL Correction	Positive only	Positive only
M2/M1 [%]		65.9
Dist 3dB Peak [mm]		13.2



Assessment at Outside FCC Frequency Range LMR Face – Table 23

Motorola Solutions, EME Laboratory

2023-05-06, 02:44

Measurement Report for PMUD1977A, 287TZH0132, FRONT, Custom Band, CW, Channel 144400 (144.4 MHz)

Device Under Test Properties

Model	Serial Number	Dimensions [mm]
PMUD1977A	287TZH0132	136.0 x 67.0 x 43.0

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	FRONT, 25.00	Custom Band	CW, 0--	144.4, 144400	12.09	0.773	51.3

Hardware Setup

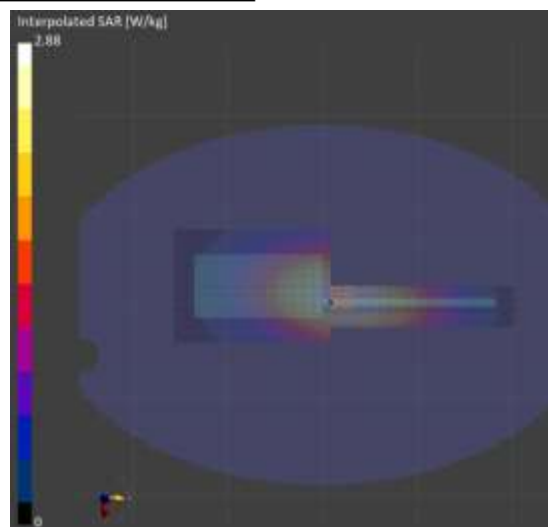
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) – ELI4 1016	HSL150 , 2023-May-05	EX3DV4 – SN7511, 2021-06-18	DAE4 Sn729, 2021-06-09

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 360.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-05-06, 02:44	2023-05-06, 02:50
psSAR1g [W/Kg]	1.86	1.83
psSAR10g [W/Kg]	1.44	1.40
Power Drift [dB]	-0.10	-0.40
TSL Correction	Positive only	Positive only
M2/M1 [%]		83.4
Dist 3dB Peak [mm]		> 15.0



Assessments at ISED LMR Body - Table 25

Motorola Solutions, EME Laboratory

2023-05-07, 13:32

Measurement Report for PMUD1977A, 287TZH0121, BACK, Custom Band, CW, Channel 158300 (158.3 MHz)

Device Under Test Properties

Model	Serial Number	Dimensions [mm]
PMUD1977A	287TZH0121	136.0 x 67.0 x 43.0

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0--	158.3, 158300	12.09	0.786	49.6

Hardware Setup

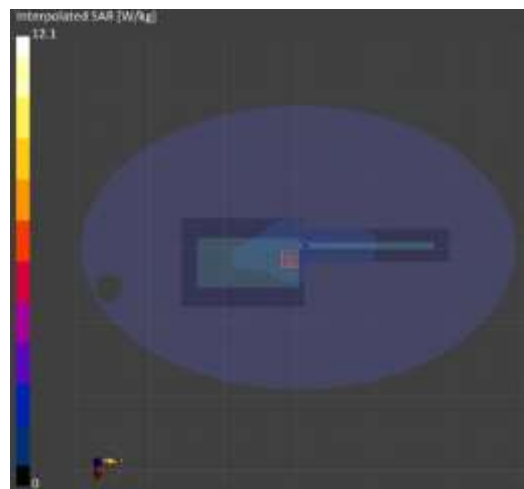
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - ELI4 1016	HSL150 , 2023-May-07	EX3DV4 - SN7511 , 2021-06-18	DAE4 Sn729, 2021-06-09

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 360.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-05-07, 13:32	2023-05-07, 13:38
psSAR1g [W/Kg]	3.54	4.04
psSAR10g [W/Kg]	2.43	2.17
Power Drift [dB]	-0.02	-0.10
TSL Correction	Positive only	Positive only
M2/M1 [%]		62.1
Dist 3dB Peak [mm]		10.8



Assessments at ISED LMR Face - Table 25

Motorola Solutions, EME Laboratory

2023-05-07, 23:47

Measurement Report for PMUD1977A, 287TZH0121, FRONT, Custom Band, CW, Channel 173400 (173.4 MHz)

Device Under Test Properties

Model	Serial Number	Dimensions [mm]
PMUD1977A	287TZH0121	136.0 x 67.0 x 43.0

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	FRONT, 25.00	Custom Band	CW, 0---	173.4, 173400	12.09	0.797	48.8

Hardware Setup

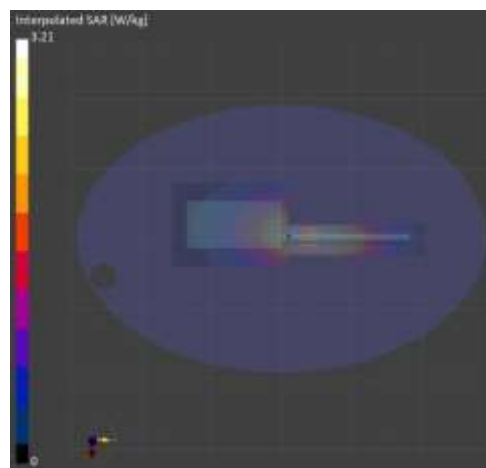
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - ELI4 1016	HSL150, 2023-May-07	EX3DV4 - SN7511, 2021-06-18	DAE4 Sn729, 2021-06-09

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 360.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-05-07, 23:47	2023-05-07, 23:55
psSAR1g [W/Kg]	2.05	2.06
psSAR10g [W/Kg]	1.57	1.57
Power Drift [dB]	-0.10	-0.96
TSL Correction	Positive only	Positive only
M2/M1 [%]		84.0
Dist 3dB Peak [mm]		> 15.0



Assessments at FCC WLAN 2.4GHz Body - Table 27

Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/11/2023 3:20:02 PM

Robot#: DASY5-PG-3 | Run#: MFR(MHN)-AB-230511-08
 Model#: H25KDF9PW6AN (PMUD1977A)
 Phantom#: ELI4 1028
 Tissue Temp: 20.3 (C)
 Serial#: 287TZH0070
 Antenna: AN000421A01
 Test Freq: 2412.0000 (MHz)
 Battery: PMNN4813A
 Carry Acc: PMLN8369A
 Audio Acc: None
 Start Power: 0.0455 (W)

Comments: Shorten Scan

Communication System Band: WLAN 2.4GHz (2412.0 - 2484.0 MHz), Communication System UID: 10415 - AAA, Duty Cycle: 1:1.4243,

Medium parameters used: $f = 2412$ MHz; $\sigma = 1.72$ S/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN7519, Calibrated: 2/28/2022, Frequency: 2412 MHz, ConvF(7.71, 7.71, 7.71) @ 2412 MHz

Electronics: DAE4 Sn684, Calibrated: 2/22/2022

2-3 GHz-Rev.3/Ab Scan/1-Area Scan (81x291x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Reference Value = 5.790 V/m; Power Drift = -0.50 dB

Fast SAR: SAR(1 g) = 0.045 W/kg; SAR(10 g) = 0.024 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.0665 W/kg

2-3 GHz-Rev.3/Ab Scan/2-Volume 2D Scan (61x61x1): Interpolated grid: dx=0.5000 mm, dy=0.5000

mm, dz=1.000 mm

Reference Value = 5.790 V/m; Power Drift = 0.51 dB

Fast SAR: SAR(1 g) = 0.041 W/kg; SAR(10 g) = 0.021 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.0650 W/kg

2-3 GHz-Rev.3/Ab Scan/3-Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm,

dz=5mm

Reference Value = 7.055 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 0.0980 W/kg

SAR(1 g) = 0.053 W/kg; SAR(10 g) = 0.028 W/kg (SAR corrected for target medium)

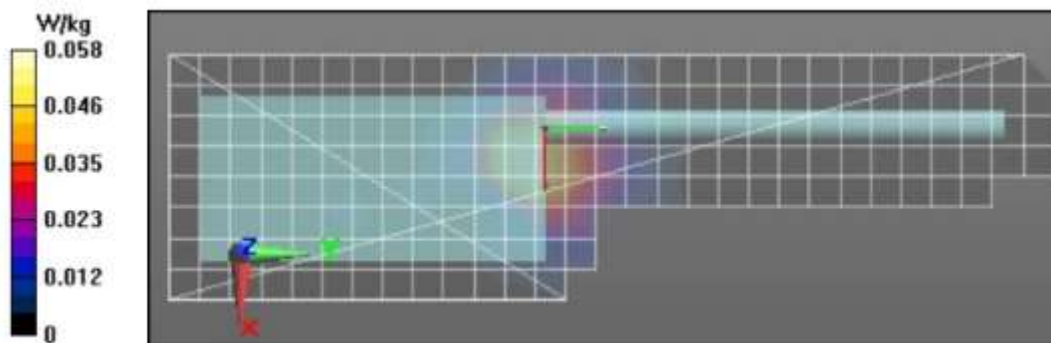
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 53.3%

Maximum value of SAR (measured) = 0.0791 W/kg

2-3 GHz-Rev.3/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 0.0632 W/kg



Assessments at FCC WLAN 2.4GHz Face - Table 27

Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/12/2023 2:19:51 AM

Robot#: DASY5-PG-3 | Run#: IRA-FACE-230512-02
 Model#: H25KDF9PW6AN (PMUD1977A)
 Phantom#: ELI4 1028
 Tissue Temp: 20.3 (C)
 Serial#: 287TZH0070
 Antenna: AN000410A01
 Test Freq: 2412.0000 (MHz)
 Battery: PMNN4813A
 Carry Acc: Radio @ front 2.5cm
 Audio Acc: None
 Start Power: 0.0313 (W)

Comments:

Communication System Band: WLAN 2.4GHz (2412.0 - 2484.0 MHz), Communication System UID: 10415 - AAA, Duty Cycle: 1:1.4243,

Medium parameters used: $f = 2412$ MHz; $\sigma = 1.78$ S/m; $\epsilon_r = 38.8$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN7519, Calibrated: 2/28/2022, Frequency: 2412 MHz, ConvF(7.71, 7.71, 7.71) @ 2412 MHz

Electronics: DAE4 Sn684, Calibrated: 2/22/2022

2-3 GHz-Rev.3/Face Scan/1-Area Scan (81x281x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Reference Value = 3.992 V/m; Power Drift = 0.64 dB

Fast SAR: SAR(1 g) = 0.017 W/kg; SAR(10 g) = 0.010 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.0316 W/kg

2-3 GHz-Rev.3/Face Scan/3-Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.992 V/m; Power Drift = -0.21 dB

Peak SAR (extrapolated) = 0.0360 W/kg

SAR(1 g) = 0.018 W/kg; SAR(10 g) = 0.00974 W/kg (SAR corrected for target medium)

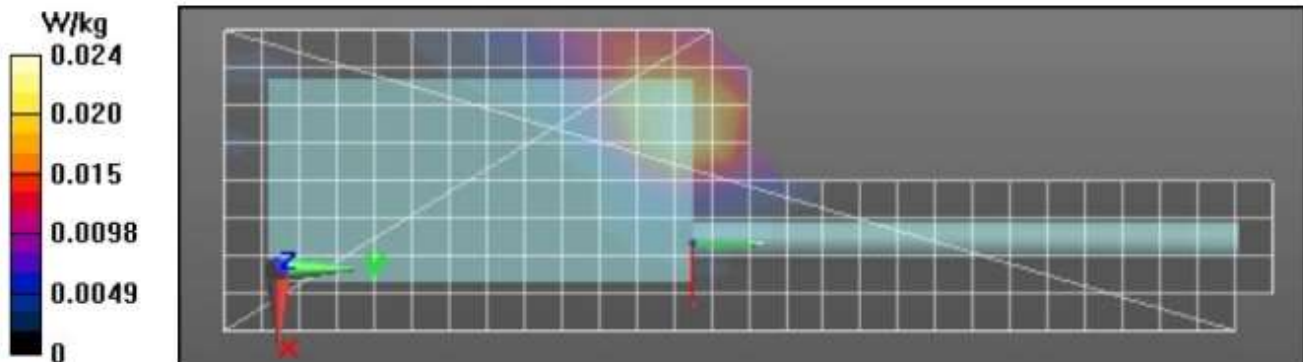
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 50.2%

Maximum value of SAR (measured) = 0.0297 W/kg

2-3 GHz-Rev.3/Face Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 0.0255 W/kg



Assessments at ISSED WLAN 2.4GHz ISSED Body - Table 28

Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/11/2023 8:41:32 PM

Robot#: DASY5-PG-3 | Run#: IRA-AB-230511-10
 Model#: H25KDF9PW6AN (PMUD1977A)
 Phantom#: ELI4 1028
 Tissue Temp: 20.0 (C)
 Serial#: 287TZH0070
 Antenna: AN000421A01
 Test Freq: 2437.0000 (MHz)
 Battery: PMNN4813A
 Carry Acc: PMLN8369A
 Audio Acc: None
 Start Power: 0.0309 (W)

Comments:

Communication System Band: WLAN 2.4GHz (2412.0 - 2484.0 MHz), Communication System UID: 10415 - AAA, Duty Cycle: 1:1.4243,

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.74$ S/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN7519, Calibrated: 2/28/2022, Frequency: 2437 MHz, ConvF(7.71, 7.71, 7.71) @ 2437 MHz

Electronics: DAE4 Sn684, Calibrated: 2/22/2022

2-3 GHz-Rev.3/Ab Scan/1-Area Scan (81x291x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Reference Value = 6.442 V/m; Power Drift = -0.35 dB

Fast SAR: SAR(1 g) = 0.071 W/kg; SAR(10 g) = 0.037 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.113 W/kg

2-3 GHz-Rev.3/Ab Scan/3-Zoom Scan (7x9x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.442 V/m; Power Drift = -0.41 dB

Peak SAR (extrapolated) = 0.113 W/kg

SAR(1 g) = 0.061 W/kg; SAR(10 g) = 0.032 W/kg (SAR corrected for target medium)

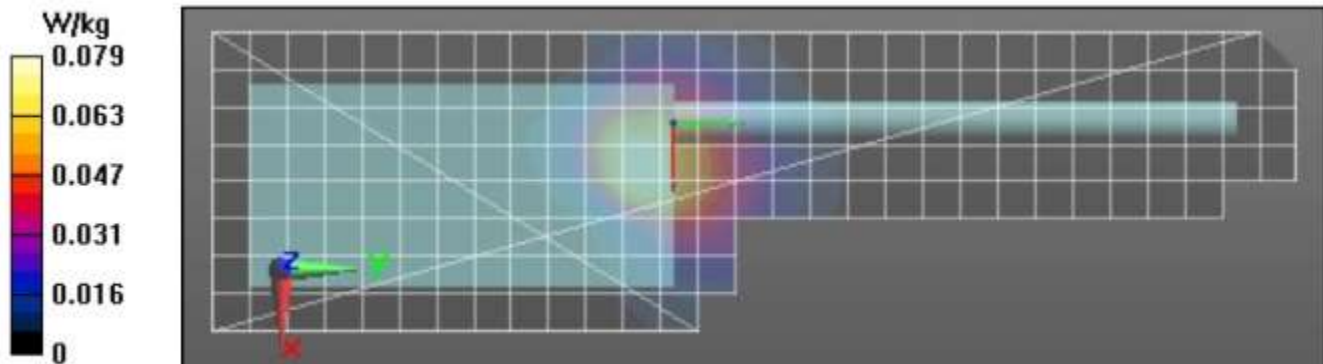
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 52.6%

Maximum value of SAR (measured) = 0.0924 W/kg

2-3 GHz-Rev.3/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 0.0912 W/kg



Assessments at ISSED WLAN 2.4GHz Face - Table 28

Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/12/2023 2:19:51 AM

Robot#: DASY5-PG-3 | Run#: IRA-FACE-230512-02
 Model#: H25KDF9PW6AN (PMUD1977A)
 Phantom#: ELI4 1028
 Tissue Temp: 20.3 (C)
 Serial#: 287TZH0070
 Antenna: AN000410A01
 Test Freq: 2412.0000 (MHz)
 Battery: PMNN4813A
 Carry Acc: Radio @ front 2.5cm
 Audio Acc: None
 Start Power: 0.0313 (W)

Comments:

Communication System Band: WLAN 2.4GHz (2412.0 - 2484.0 MHz), Communication System UID: 10415 - AAA, Duty Cycle: 1:1.4243,

Medium parameters used: $f = 2412$ MHz; $\sigma = 1.78$ S/m; $\epsilon_r = 38.8$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN7519, Calibrated: 2/28/2022, Frequency: 2412 MHz, ConvF(7.71, 7.71, 7.71) @ 2412 MHz

Electronics: DAE4 Sn684, Calibrated: 2/22/2022

2-3 GHz-Rev.3/Face Scan/1-Area Scan (81x281x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Reference Value = 3.992 V/m; Power Drift = 0.64 dB

Fast SAR: SAR(1 g) = 0.017 W/kg; SAR(10 g) = 0.010 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.0316 W/kg

2-3 GHz-Rev.3/Face Scan/3-Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.992 V/m; Power Drift = -0.21 dB

Peak SAR (extrapolated) = 0.0360 W/kg

SAR(1 g) = 0.018 W/kg; SAR(10 g) = 0.00974 W/kg (SAR corrected for target medium)

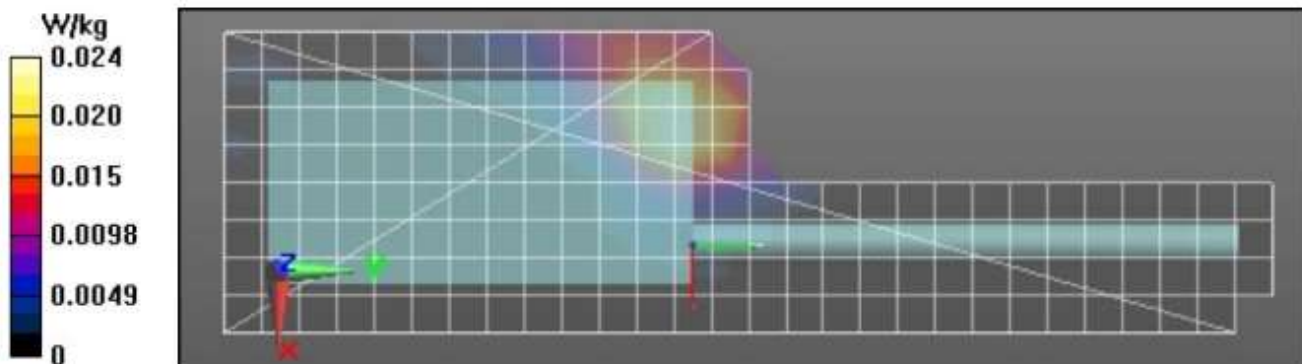
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 50.2%

Maximum value of SAR (measured) = 0.0297 W/kg

2-3 GHz-Rev.3/Face Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 0.0255 W/kg



Assessments at FCC/ISED WLAN 5GHz UNII 2A Body – Table 30 and Table 33

Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/14/2023 7:22:04 AM

Robot#: DASY5-PG-3 | Run#: ZIQ-AB-230514-03
 Model#: H25KDF9PW6AN (PMUD1977A)
 Phantom#: ELI4 1028
 Tissue Temp: 20.7 (C)
 Serial#: 287TZH0070
 Antenna: AN000410A01
 Test Freq: 5260.0000 (MHz)
 Battery: PMNN4813A
 Carry Acc: PMLN8369A
 Audio Acc: None
 Start Power: 0.0256 (W)

Comments: Full Scan, Shorten Scan

Communication System Band: WLAN 5GHz (4915.0 - 5825.0 MHz), Communication System UID: 10417 - AAC, Duty Cycle: 1:6.64967,

Medium parameters used: $f = 5260$ MHz; $\sigma = 4.48$ S/m; $\epsilon_r = 38.2$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN7519, Calibrated: 2/28/2022, Frequency: 5260 MHz, ConvF(5.6, 5.6, 5.6) @ 5260 MHz

Electronics: DAE4 Sn684, Calibrated: 2/22/2022

4-6 GHz-Rev.5/Shortened Ab Scan/1-Area Scan (121x381x1): Interpolated grid: $dx=0.9000$ mm, $dy=0.9000$ mm

Reference Value = 4.214 V/m; Power Drift = -0.44 dB

Fast SAR: SAR(1 g) = 0.036 W/kg; SAR(10 g) = 0.015 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.129 W/kg

4-6 GHz-Rev.5/Shortened Ab Scan/2-Zoom Scan (11x9x12)/Cube 0: Measurement grid:

$dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 3.674 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.112 W/kg

SAR(1 g) = 0.028 W/kg; SAR(10 g) = 0.011 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

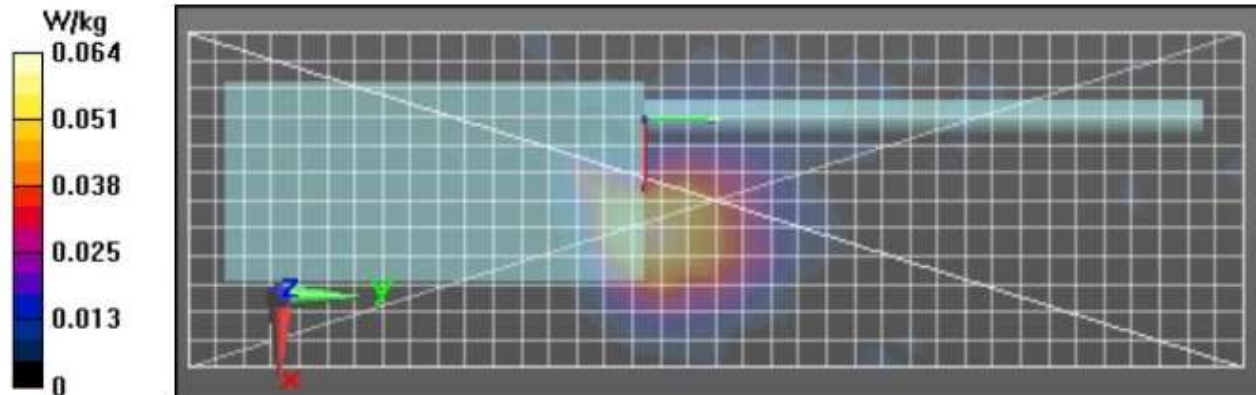
Ratio of SAR at M2 to SAR at M1 = 43.4%

Maximum value of SAR (measured) = 0.0682 W/kg

4-6 GHz-Rev.5/Shortened Ab Scan/3-Z-Axis Scan (1x1x17): Measurement grid: $dx=20$ mm,

$dy=20$ mm, $dz=10$ mm

Maximum value of SAR (measured) = 0.0627 W/kg



Assessments at FCC/ISED WLAN 5GHz UNII 2A Face – Table 30 and Table 33

Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/16/2023 10:46:09 AM

Robot#: DASY5-PG-3 | Run#: ZIQ-FACE-230516-06
 Model#: H25KDF9PW6AN-H (PMUD1977A)
 Phantom#: ELI4 1028
 Tissue Temp: 21.9 (C)
 Serial#: 287TZH0025
 Antenna: AN000421A01
 Test Freq: 5260.0000 (MHz)
 Battery: PMNN4815A
 Carry Acc: Radio @ front 2.5cm
 Audio Acc: None
 Start Power: 0.0256 (W)

Comments: Shorten scan

Communication System Band: WLAN 5GHz (4915.0 - 5825.0 MHz), Communication System UID: 10417 - AAC, Duty Cycle: 1:6.64967,

Medium parameters used: $f = 5260$ MHz; $\sigma = 4.25$ S/m; $\epsilon_r = 33.9$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN7519, Calibrated: 2/28/2022, Frequency: 5260 MHz, ConvF(5.6, 5.6, 5.6) @ 5260 MHz

Electronics: DAE4 Sn684, Calibrated: 2/22/2022

4-6 GHz-Rev.5/Shortened Face Scan/1-Area Scan (11x39x1): Interpolated grid: $dx=0.9000$ mm, $dy=0.9000$ mm

Reference Value = 3.905 V/m; Power Drift = -1.22 dB

Fast SAR: SAR(1 g) = 0.022 W/kg; SAR(10 g) = 0.00683 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.0554 W/kg

4-6 GHz-Rev.5/Shortened Face Scan/2-Zoom Scan (9x9x12)/Cube 0: Measurement grid:

$dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 3.839 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.261 W/kg

SAR(1 g) = 0.020 W/kg; SAR(10 g) = 0.00832 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

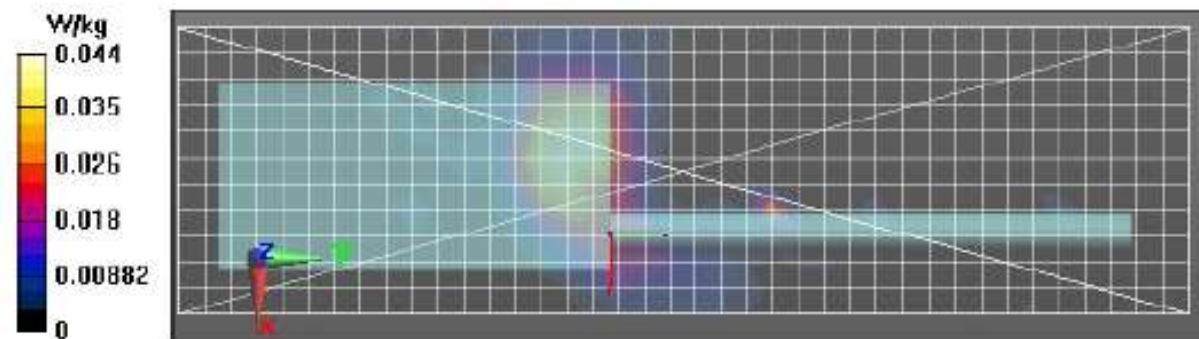
Ratio of SAR at M2 to SAR at M1 = 40.8%

Maximum value of SAR (measured) = 0.0570 W/kg

4-6 GHz-Rev.5/Shortened Face Scan/3-Z-Axis Scan (1x1x17): Measurement grid: $dx=20$ mm,

$dy=20$ mm, $dz=10$ mm

Maximum value of SAR (measured) = 0.0552 W/kg



Assessments at FCC/ISED WLAN 5GHz UNII 2C Body - Table 31 and Table 34

Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/13/2023 5:38:45 PM

Robot#: DASY5-PG-1 | Run#: SHM-AB-230613-07
 Model#: H25KDF9PW6AN (PMUD1977A)
 Phantom#: EL14 1028
 Tissue Temp: 20.9 (C)
 Serial#: 287TZH0070
 Antenna: AN000421A01
 Test Freq: 5640.0000 (MHz)
 Battery: PMNN4813A
 Carry Acc: PMLN8370A
 Audio Acc: None
 Start Power: 0.0240 (W)

Comments: Full Scan

Communication System Band: WLAN 5GHz (4915.0 - 5825.0 MHz), Communication System UID: 10417 - AAC, Duty Cycle: 1:6.64967,

Medium parameters used: $f = 5640$ MHz; $\sigma = 4.8$ S/m; $\epsilon_r = 38.2$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN7486, Calibrated: 6/18/2021, Frequency: 5640 MHz, ConvF(4.73, 4.73, 4.73) @ 5640 MHz

Electronics: DAE4 Sn850, Calibrated: 4/14/2022

4-6 GHz-Rev.5/Full Ab Scan/1-Area Scan (101x291x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Reference Value = 3.685 V/m; Power Drift = -0.88 dB

Fast SAR: SAR(1 g) = 0.017 W/kg; SAR(10 g) = 0.00563 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.0463 W/kg

4-6 GHz-Rev.5/Full Ab Scan/2-Zoom Scan (9x9x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 3.685 V/m; Power Drift = -0.35 dB

Peak SAR (extrapolated) = 0.159 W/kg

SAR(1 g) = 0.014 W/kg; SAR(10 g) = 0.00538 W/kg (SAR corrected for target medium)

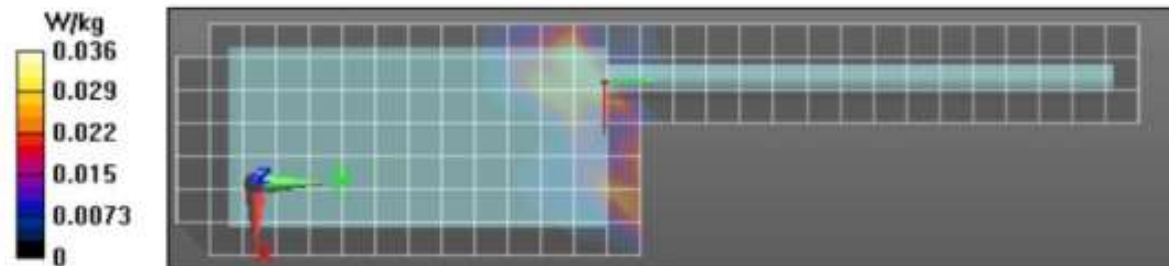
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 47.2%

Maximum value of SAR (measured) = 0.0523 W/kg

4-6 GHz-Rev.5/Full Ab Scan/3-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 0.0393 W/kg



Assessments at FCC/ISED WLAN 5GHz UNII 2C Face - Table 31 and Table 34

Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/21/2023 10:43:19 AM

Robot#: DASY5-PG-3 | Run#: IRA-FACE-230521-07
 Model#: H25KDF9PW6AN-H (PMUD1977A)
 Phantom#: ELI4 1028
 Tissue Temp: 22.0 (C)
 Serial#: 287TZH0025
 Antenna: AN000421A01
 Test Freq: 5640.0000 (MHz)
 Battery: PMNN4815A
 Carry Acc: Radio @ front 2.5cm
 Audio Acc: None
 Start Power: 0.0240 (W)
 Comments: Shorten Scan

Communication System Band: WLAN 5GHz (4915.0 - 5825.0 MHz), Communication System UID: 10417 - AAC, Duty Cycle: 1:6.64967,

Medium parameters used: $f = 5640$ MHz; $\sigma = 4.69$ S/m; $\epsilon_r = 34.4$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN7519, Calibrated: 2/28/2022, Frequency: 5640 MHz, ConvF(4.83, 4.83, 4.83) @ 5640 MHz

Electronics: DAE4 Sn684, Calibrated: 2/22/2022

4-6 GHz-Rev.5/Shortened Face Scan/1-Area Scan (101x381x1): Interpolated grid: $dx=0.9000$ mm, $dy=0.9000$ mm

Reference Value = 4.364 V/m; Power Drift = -0.23 dB

Fast SAR: SAR(1 g) = 0.042 W/kg; SAR(10 g) = 0.014 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.173 W/kg

4-6 GHz-Rev.5/Shortened Face Scan/2-Zoom Scan (9x9x12)/Cube 0: Measurement grid:

$dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 4.572 V/m; Power Drift = -0.61 dB

Peak SAR (extrapolated) = 0.269 W/kg

SAR(1 g) = 0.024 W/kg; SAR(10 g) = 0.00948 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

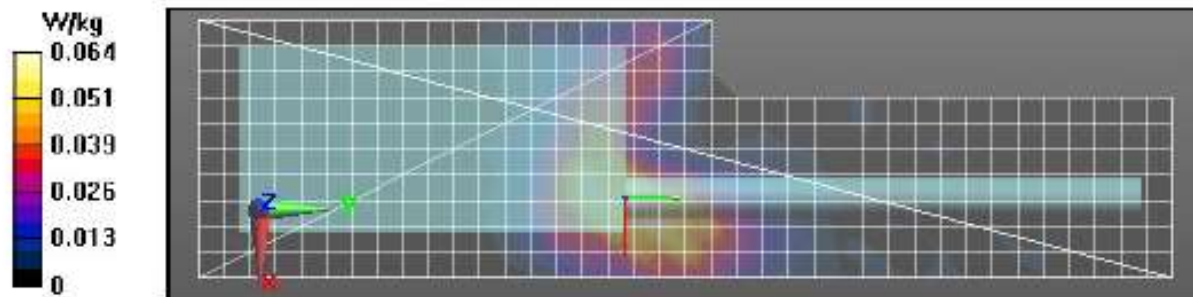
Ratio of SAR at M2 to SAR at M1 = 34.2%

Maximum value of SAR (measured) = 0.0735 W/kg

4-6 GHz-Rev.5/Shortened Face Scan/3-Z-Axis Scan (1x1x17): Measurement grid: $dx=20$ mm,

$dy=20$ mm, $dz=10$ mm

Maximum value of SAR (measured) = 0.0733 W/kg



Assessments at FCC/ISED WLAN 5GHz UNII 3 Body - Table 32 and Table 35

Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/19/2023 2:22:44 PM

Robot#: DASY5-PG-2 | Run#: IRA-AB-230519-06
 Model#: H25KDF9PW6AN (PMUD1977A)
 Phantom#: ELI4 1028
 Tissue Temp: 20.9 (C)
 Serial#: 287TZH0070
 Antenna: AN000410A01
 Test Freq: 5660.0000 (MHz)
 Battery: PMNN4813A
 Carry Acc: PMLN8370A
 Audio Acc: None
 Start Power: 0.0237 (W)

Comments: Shorten Scan

Communication System Band: WLAN 5GHz (4915.0 - 5825.0 MHz), Communication System UID: 10417 - AAC, Duty Cycle: 1:6.64967,

Medium parameters used: $f = 5660$ MHz; $\sigma = 4.84$ S/m; $\epsilon_r = 37.4$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN7519, Calibrated: 2/28/2022, Frequency: 5660 MHz, ConvF(4.83, 4.83, 4.83) @ 5660 MHz

Electronics: DAE4 Sn684, Calibrated: 2/22/2022

4-6 GHz-Rev.5/Shortened Ab Scan/1-Area Scan (121x381x1): Interpolated grid: dx=0.9000 mm, dy=0.9000 mm

Reference Value = 2.960 V/m; Power Drift = -0.94 dB

Fast SAR: SAR(1 g) = 0.017 W/kg; SAR(10 g) = 0.00594 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.0712 W/kg

4-6 GHz-Rev.5/Shortened Ab Scan/2-Zoom Scan (9x9x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.657 V/m; Power Drift = 0.31 dB

Peak SAR (extrapolated) = 0.128 W/kg

SAR(1 g) = 0.00943 W/kg; SAR(10 g) = 0.00317 W/kg (SAR corrected for target medium)

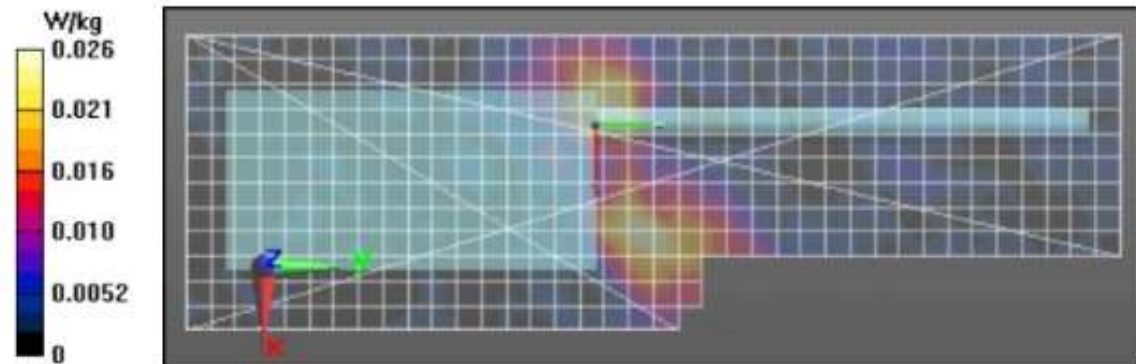
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 39.8%

Maximum value of SAR (measured) = 0.0283 W/kg

4-6 GHz-Rev.5/Shortened Ab Scan/3-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 0.0235 W/kg



Assessments at FCC/ISED WLAN 5GHz UNII 3 Face - Table 32 and Table 35

Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/29/2023 5:49:55 PM

Robot#: DASY5-PG-1 | Run#: BL-FACE-230529-08
 Model#: H25KDF9PW6AN (PMUD1977A)
 Phantom#: ELI4 1028
 Tissue Temp: 20.1 (C)
 Serial#: 287TZH0070
 Antenna: AN000410A01
 Test Freq: 5660.0000 (MHz)
 Battery: PMNN4813A
 Carry Acc: Radio @ front 2.5cm
 Audio Acc: None
 Start Power: 0.0237 (W)

Comments: Full Scan

Communication System Band: WLAN 5GHz (4915.0 - 5825.0 MHz), Communication System UID: 10417 - AAC, Duty Cycle: 1:6.64967,

Medium parameters used: $f = 5660$ MHz; $\sigma = 4.75$ S/m; $\epsilon_r = 33$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN7486, Calibrated: 6/18/2021, Frequency: 5660 MHz, ConvF(4.73, 4.73, 4.73) @ 5660 MHz

Electronics: DAE4 Sn850, Calibrated: 4/14/2022

4-6 GHz-Rev.5/Full Face Scan/1-Area Scan (81x291x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Reference Value = 4.566 V/m; Power Drift = -0.10 dB

Fast SAR: SAR(1 g) = 0.045 W/kg; SAR(10 g) = 0.017 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.155 W/kg

4-6 GHz-Rev.5/Full Face Scan/2-Zoom Scan (11x13x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 4.566 V/m; Power Drift = -0.34 dB

Peak SAR (extrapolated) = 0.206 W/kg

SAR(1 g) = 0.023 W/kg; SAR(10 g) = 0.00953 W/kg (SAR corrected for target medium)

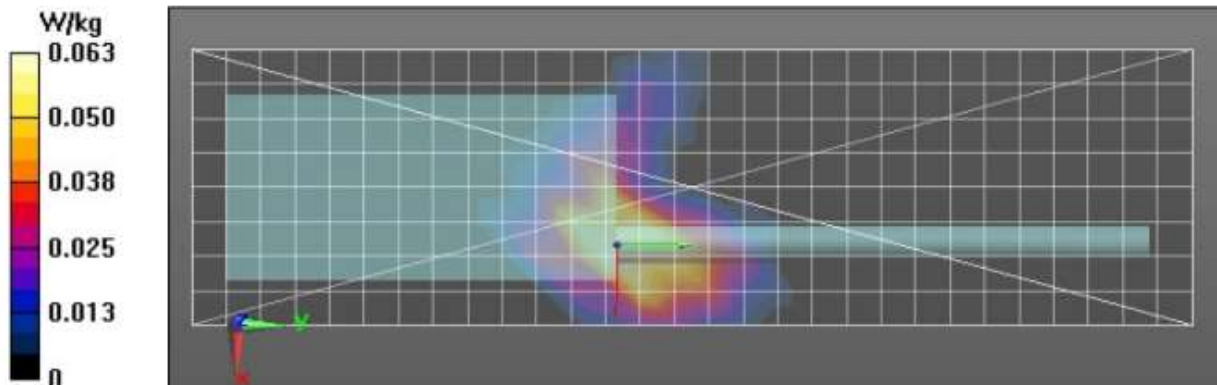
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 44.8%

Maximum value of SAR (measured) = 0.0701 W/kg

4-6 GHz-Rev.5/Full Face Scan/3-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 0.0542 W/kg



APPENDIX F

Shortened Scan of Highest SAR configuration

Shortened Scan Table 39

Motorola Solutions, EME Laboratory

2023-06-03, 11:15

Measurement Report for PMUD1977A, 287TZH0121, BACK, Custom Band, CW, Channel 158300 (158.3 MHz)

Device Under Test Properties

Model	Serial Number	Dimensions [mm]
PMUD1977A	287TZH0121	136.0 x 66.0 x 38.0

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0--	158.3, 158300	12.09	0.728	51.5

Hardware Setup

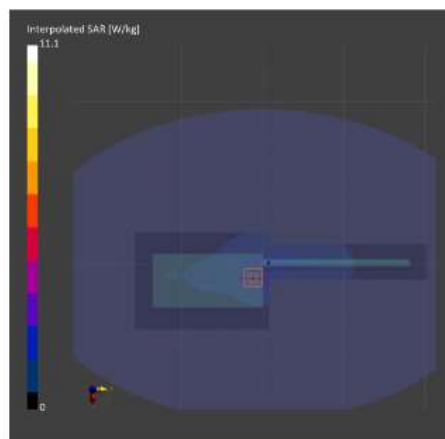
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - ELI4 1016	HSL150, 2023-Jun-03	EX3DV4 - SN7511, 2021-06-18	DAE4 Sn729, 2021-06-09

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 360.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS ± 6p	VMS ± 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-06-03, 11:15	2023-06-03, 11:35
psSAR1g [W/Kg]	3.42	3.83
psSAR10g [W/Kg]	2.35	2.07
Power Drift [dB]	-0.09	-0.06
TSL Correction	Positive only	Positive only
M2/M1 [%]		61.7
Dist 3dB Peak [mm]		10.8



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

Scan Description	Referenced Table	Test Time (min.)	SAR 1g (W/kg)
Shorten scan (zoom)	36	10	1.96
Full scan (area & zoom)	25	15	2.20

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