MOTOROLA SOLUTIONS

SAMM 826

CERTIFICATE 2518.05

DECLARATION OF COMPLIANCE SAR ASSESSMENT PCII Report 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: 04/05/2024
Report Revision: B

Responsible Engineer:	Yee Yeong Yeng (EME Engineer)
Report Author:	Muhammad Zakwan Bin Zaidi (EME Senior Technician)
Date/s Tested:	01/20/2024-1/21/2024, 02/14/2024, 02/19/2024, 03/11/2024-03/12/2024, 3/20/2024-03/21/2024.
Manufacturer:	Motorola Solutions Inc.
Manufacturer Location:	Sanmina, Penang
DUT Description:	Handheld Portable – BC300D 403-470MHz
Test TX mode(s):	CW (PTT)
Max. Power output:	Refer table 3
Nominal Power:	Refer table 3
Tx Frequency Bands:	Refer table 3
Signaling type:	Refer table 3
Model(s) Tested:	BC300D (PMUE5508A)
Model(s) Certified:	BC300D (PMUE5508A), BPR 40d (PMUE5766A).
Serial Number(s):	0275VM4526
Classification:	Occupational/Controlled Environment
Firmware Version :	D01.27 (BC300D), R01.00 (BPR 40d)
Applicant Name:	Motorola Solutions Inc.
Applicant Address:	Plot 2A, Medan Bayan Lepas, Mukim 12 SWD, 11900 Bayan Lepas, Penang, Malaysia
FCC ID:	AZ489FT4955 This report contains results that are immaterial for FCC equipment approval, which are clearly identified.
FCC Test Firm Registration Number:	823256
IC:	109U-89FT4955 This report contains results that are immaterial for ISED equipment approval, which are clearly identified.
ISED Test Site registration:	24843

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.

Saw Sun Hock (Approval Signatory)
Approved Date: 04/05/2024

Appendix D

System Verification Check Scans

Motorola Solutions, Inc. EME Laboratory

Date/Time: 3/21/2024 7:36:57 AM

Robot#: DASY5-PG-3 | Run#: BAD-SYSP-450H-240321-03
Dipole Model# D450V3
Phantom#: ELI4 1028
Tissue Temp: 20.1 (C)
Serial#: 1053
Test Freq: 450.0000 (MHz)
Start Power: 250 (mW)
Rotation (1D): 0.16 dB
Adjusted SAR (1W): 4.88 mW/g (1g)

Comments: Probe Distance 2mm

Communication System Band: Dipole 450, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 450 MHz; σ = 0.848 S/m; ε_r = 42.642; ρ = 1000 kg/m^3
Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 450 MHz, ConvF(11.86, 11.86, 11.86) @ 450 MHz
Electronics: DAE4 Sn684, Calibrated: 2/22/2022

Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x221x1):

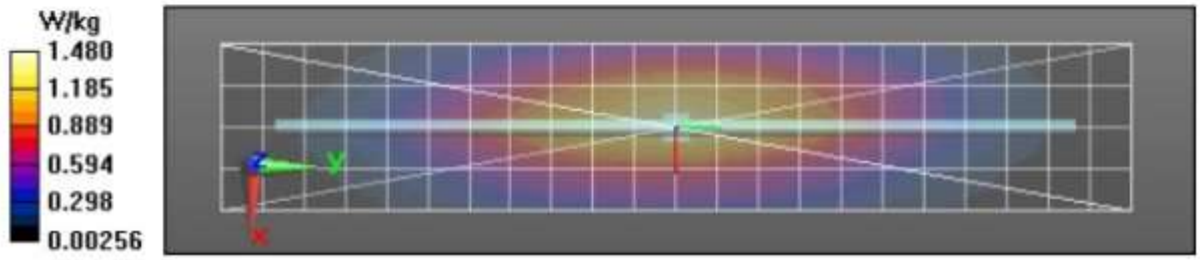
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 43.04 V/m; Power Drift = -0.04 dB
Fast SAR: SAR(1 g) = 1.27 W/kg; SAR(10 g) = 0.877 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 1.51 W/kg

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 = 43.04 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.82 W/kg
SAR(1 g) = 1.22 W/kg; SAR(10 g) = 0.815 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 = 66.2%
Maximum value of SAR (measured) = 1.52 W/kg

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) = 1.52 W/kg



Appendix E

DUT Scans

Assessments for LMR at Body

Table 17

Motorola Solutions, Inc. EME Laboratory

Date/Time: 2/19/2024 4:16:33 PM

Robot#: DASY5-PG-3 | Run#: ZIQ-AB-240219-04
Model#: PMUE5508A
Phantom#: ELI4 1103
Tissue Temp: 19.8 (C)
Serial#: 0275VM4526
Antenna: PMAE4104A
Test Freq: 406.1250 (MHz)
Battery: PMNN4075BR
Carry Acc: RLN5644A
Audio Acc: PMLN6531A
Start Power: 4.74 (W)

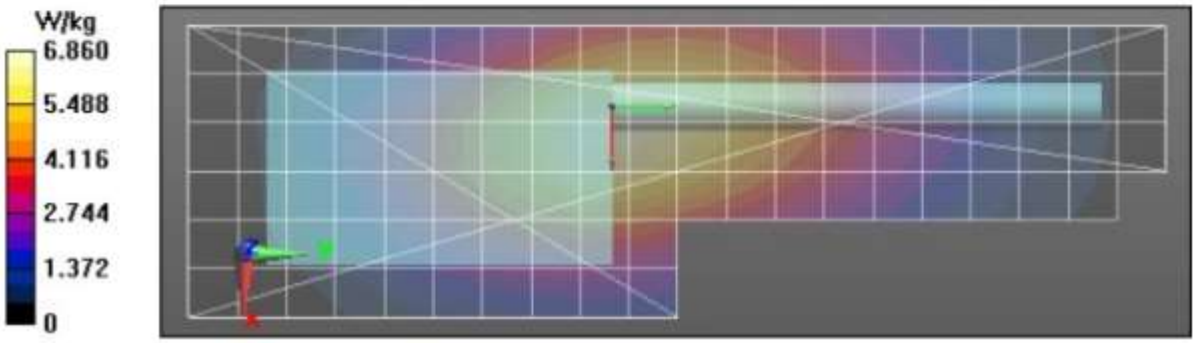
Comments: EX Probe 2mm

Communication System Band: Bearcom, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 406.125 MHz; σ = 0.901 S/m; ε_r = 56.978; ρ = 1000 kg/m^3
Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 406.125 MHz, ConvF(12.07, 12.07, 12.07) @ 406.125 MHz
Electronics: DAE4 Sn684, Calibrated: 2/22/2022

Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x201x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 86.89 V/m; Power Drift = -0.29 dB
Fast SAR: SAR(1 g) = 5.99 W/kg; SAR(10 g) = 4.36 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 6.91 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 = 86.89 V/m; Power Drift = -0.33 dB
Peak SAR (extrapolated) = 7.77 W/kg
SAR(1 g) = 5.9 W/kg; SAR(10 g) = 4.4 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 = 74.5%
Maximum value of SAR (measured) = 6.80 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) = 6.81 W/kg



Assessments for LMR at Face –

Table 17

Motorola Solutions, Inc. EME Laboratory

Date/Time: 3/11/2024 7:21:59 PM

Robot#: DASY5-PG-3 | Run#: EMR-FACE-240311-06
Model#: BC300D (PMUE5508A) yesyed with battery PMNN4075BR
Phantom#: ELI4 1028
Tissue Temp: 20.2 (C)
Serial#: 0275VM4526
Antenna: PMAE4104A
Test Freq: 422.1000 (MHz)
Battery: PMNN4075BR
Carry Acc: @ front
Audio Acc: N/A
Start Power: 4.60 (W)

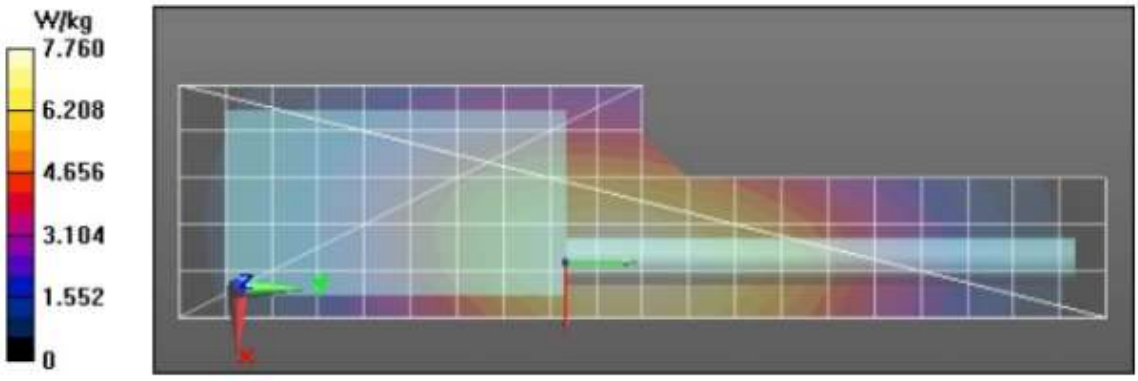
Comments:

Communication System Band: Bearcom, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 422.1 MHz; σ = 0.859 S/m; ε_r = 44.604; ρ = 1000 kg/m^3
Probe: EX3DV4 - SN7594, Calibrated: 12/7/2023, Frequency: 422.1 MHz, ConvF(12, 12, 12) @ 422.1 MHz
Electronics: DAE4 Sn850, Calibrated: 4/14/2022

Below 2 GHz-Rev.2/Face Scan/1-Area Scan (51x201x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 96.14 V/m; Power Drift = -0.33 dB
Fast SAR: SAR(1 g) = 6.71 W/kg; SAR(10 g) = 4.92 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 7.82 W/kg

Below 2 GHz-Rev.2/Face Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 96.14 V/m; Power Drift = -0.42 dB
Peak SAR (extrapolated) = 8.34 W/kg
SAR(1 g) = 6.46 W/kg; SAR(10 g) = 4.88 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 = 76%
Maximum value of SAR (measured) = 7.45 W/kg

Below 2 GHz-Rev.2/Face Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 7.33 W/kg



ISED Body Assessments (406-430MHz)

Table 18

Motorola Solutions, Inc. EME Laboratory

Date/Time: 2/19/2024 4:16:33 PM

Robot#: DASY5-PG-3 | Run#: ZIQ-AB-240219-04
Model#: PMUE5508A
Phantom#: ELI4 1103
Tissue Temp: 19.8 (C)
Serial#: 0275VM4526
Antenna: PMAE4104A
Test Freq: 406.1250 (MHz)
Battery: PMNN4075BR
Carry Acc: RLN5644A
Audio Acc: PMLN6531A
Start Power: 4.74 (W)

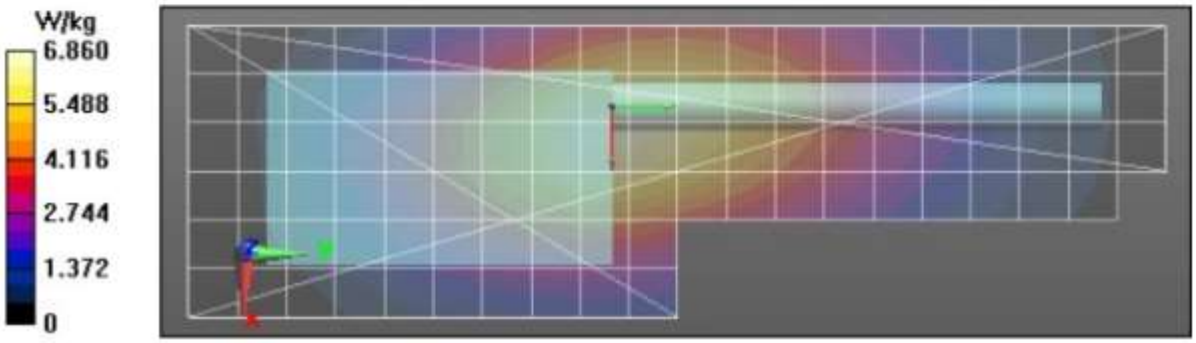
Comments: EX Probe 2mm

Communication System Band: Bearcom, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 406.125 MHz; σ = 0.901 S/m; ε_r = 56.978; ρ = 1000 kg/m^3
Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 406.125 MHz, ConvF(12.07, 12.07, 12.07) @ 406.125 MHz
Electronics: DAE4 Sn684, Calibrated: 2/22/2022

Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x201x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 86.89 V/m; Power Drift = -0.29 dB
Fast SAR: SAR(1 g) = 5.99 W/kg; SAR(10 g) = 4.36 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 6.91 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 = 86.89 V/m; Power Drift = -0.33 dB
Peak SAR (extrapolated) = 7.77 W/kg
SAR(1 g) = 5.9 W/kg; SAR(10 g) = 4.4 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 = 74.5%
Maximum value of SAR (measured) = 6.80 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) = 6.81 W/kg



ISED Face Assessments (406-430MHz)

Table 18

Motorola Solutions, Inc. EME Laboratory

Date/Time: 3/11/2024 7:21:59 PM

Robot#: DASY5-PG-3 | Run#: EMR-FACE-240311-06
Model#: BC300D (PMUE5508A) yesyed with battery PMNN4075BR
Phantom#: ELI4 1028
Tissue Temp: 20.2 (C)
Serial#: 0275VM4526
Antenna: PMAE4104A
Test Freq: 422.1000 (MHz)
Battery: PMNN4075BR
Carry Acc: @ front
Audio Acc: N/A
Start Power: 4.60 (W)

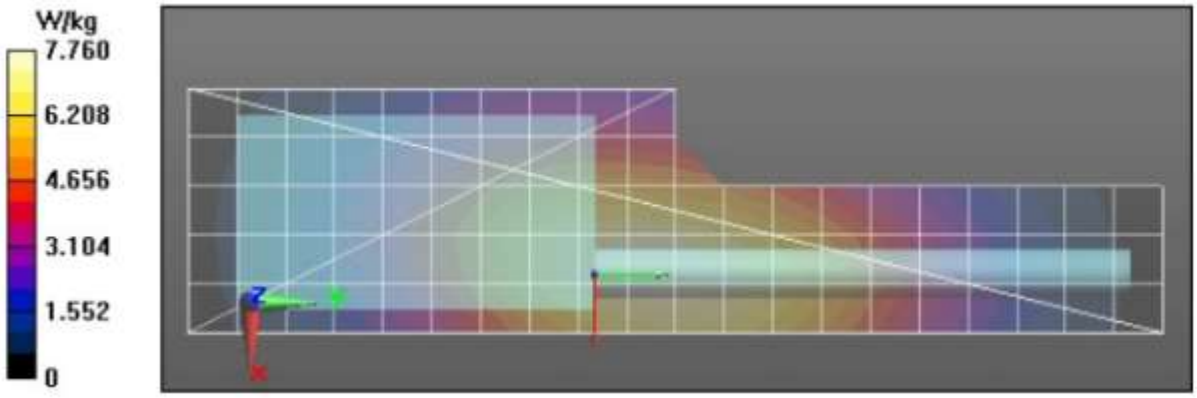
Comments:

Communication System Band: Bearcom, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 422.1 MHz; σ = 0.859 S/m; ε_r = 44.604; ρ = 1000 kg/m^3
Probe: EX3DV4 - SN7594, Calibrated: 12/7/2023, Frequency: 422.1 MHz, ConvF(12, 12, 12) @ 422.1 MHz
Electronics: DAE4 Sn850, Calibrated: 4/14/2022

Below 2 GHz-Rev.2/Face Scan/1-Area Scan (51x201x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 96.14 V/m; Power Drift = -0.33 dB
Fast SAR: SAR(1 g) = 6.71 W/kg; SAR(10 g) = 4.92 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 7.82 W/kg

Below 2 GHz-Rev.2/Face Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 96.14 V/m; Power Drift = -0.42 dB
Peak SAR (extrapolated) = 8.34 W/kg
SAR(1 g) = 6.46 W/kg; SAR(10 g) = 4.88 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 = 76%
Maximum value of SAR (measured) = 7.45 W/kg

Below 2 GHz-Rev.2/Face Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 7.33 W/kg



ISED Body Assessments (450-470MHz)

Table 19

Motorola Solutions, Inc. EME Laboratory

Date/Time: 3/21/2024 1:39:36 AM

Robot#: DASY5-PG-3 | Run#: ZIQ-AB-240321-01@
Model#: BC300D
Phantom#: ELI4 1022
Tissue Temp: 21.3 (C)
Serial#: 0275VM4526
Antenna: PMAE4104A
Test Freq: 450.0000 (MHz)
Battery: PMNN4075BR
Carry Acc: RLN5644A
Audio Acc: PMLN6531A
Start Power: 4.76 (W)

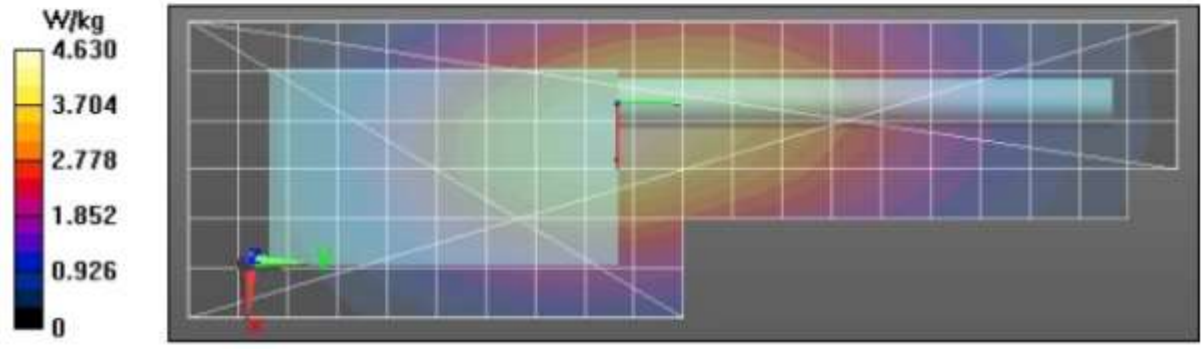
Comments: EX Probe 2mm

Communication System Band: Bearcom, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 450 MHz; σ = 0.983 S/m; ε_r = 55.951; ρ = 1000 kg/m^3
Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 450 MHz, ConvF(12.07, 12.07, 12.07) @ 450 MHz
Electronics: DAE4 Sn684, Calibrated: 2/22/2022

Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x201x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 68.86 V/m; Power Drift = -0.40 dB
Fast SAR: SAR(1 g) = 3.92 W/kg; SAR(10 g) = 2.84 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 4.67 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 = 68.86 V/m; Power Drift = -0.47 dB
Peak SAR (extrapolated) = 5.25 W/kg
SAR(1 g) = 3.8 W/kg; SAR(10 g) = 2.79 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 = 72.7%
Maximum value of SAR (measured) = 4.54 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) = 4.54 W/kg



ISED Face Assessments (450-470MHz)

Table 19

Motorola Solutions, Inc. EME Laboratory

Date/Time: 3/21/2024 10:24:34 AM

Robot#: DASY5-PG-03 | Run#: BAD-FACE-240321-05
Model#: BC300D (PMUE5508A)
Phantom#: ELI4 1028
Tissue Temp: 20.3 (C)
Serial#: 0275VM4526
Antenna: PMAE4104A
Test Freq: 450.0000 (MHz)
Battery: PMNN4075BR
Carry Acc: @ front
Audio Acc: N/A
Start Power: 4.73 (W)

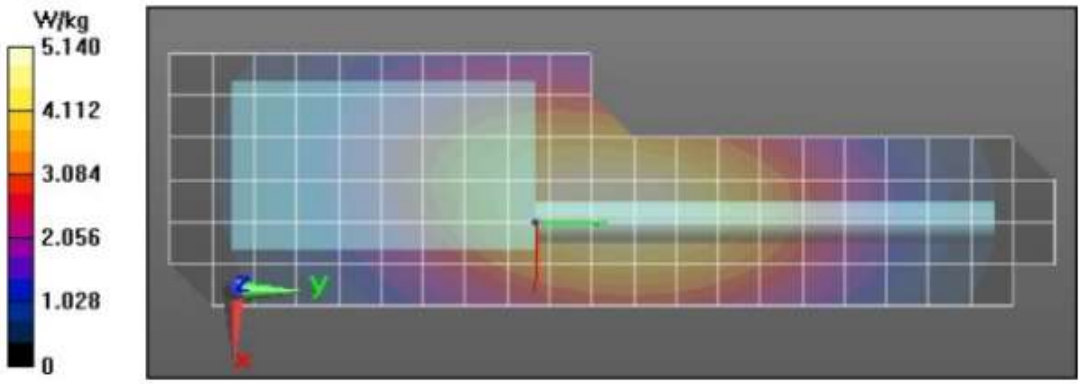
Comments:

Communication System Band: Bearcom, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 450 MHz; σ = 0.848 S/m; ε_r = 42.642; ρ = 1000 kg/m^3
Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 450 MHz, ConvF(11.86, 11.86, 11.86) @ 450 MHz
Electronics: DAE4 Sn684, Calibrated: 2/22/2022

Below 2 GHz-Rev.2/Face Scan/1-Area Scan (61x221x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 80.66 V/m; Power Drift = -0.30 dB
Fast SAR: SAR(1 g) = 4.5 W/kg; SAR(10 g) = 3.29 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 5.26 W/kg

Below 2 GHz-Rev.2/Face Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 80.66 V/m; Power Drift = -0.37 dB
Peak SAR (extrapolated) = 5.74 W/kg
SAR(1 g) = 4.35 W/kg; SAR(10 g) = 3.25 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 = 74.3%
Maximum value of SAR (measured) = 5.06 W/kg

Below 2 GHz-Rev.2/Face Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 5.05 W/kg



APPENDIX F

Shortened Scan of Highest SAR configuration

Shortened Scan

Table 19

Motorola Solutions, Inc. EME Laboratory

Date/Time: 3/12/2024 1:28:23 PM

Robot#: DASY5-PG-1 | Run#: BL-FACE-240312-09
Model#: PMUE5508A
Phantom#: ELI4 1109
Tissue Temp: 20.6 (C)
Serial#: 0275VM4526
Antenna: PMAE4104A
Test Freq: 422.1000 (MHz)
Battery: PMNN4075BR
Carry Acc: @ front
Audio Acc: N/A
Start Power: 4.66 (W)

Comments: EX Probe 2mm

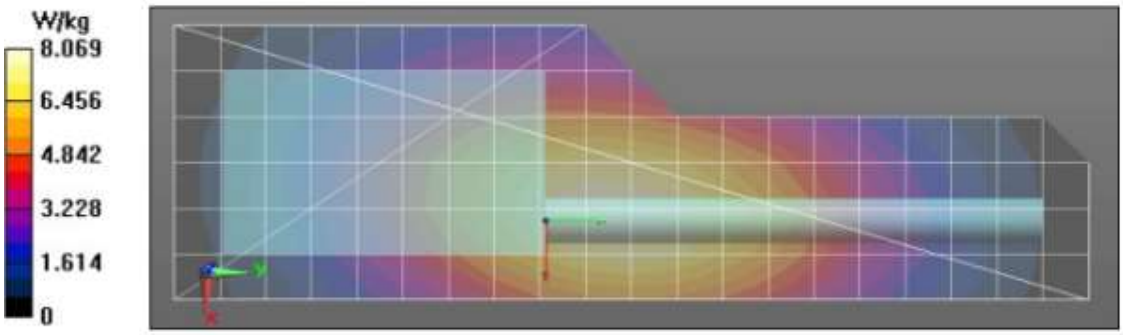
Communication System Band: Bearcom, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 422.1 MHz; σ = 0.861 S/m; ε_r = 45.59; ρ = 1000 kg/m^3
Probe: EX3DV4 - SN7594, Calibrated: 12/7/2023, Frequency: 422.1 MHz, ConvF(12, 12, 12) @ 422.1 MHz
Electronics: DAE4 Sn850, Calibrated: 4/14/2022

Below 2 GHz-Rev.2/Face Scan/1-Area Scan (61x201x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 98.64 V/m; Power Drift = -0.39 dB
Fast SAR: SAR(1 g) = 6.99 W/kg; SAR(10 g) = 5.11 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 8.13 W/kg

Below 2 GHz-Rev.2/Face Scan/2-Volume 2D Scan (41x41x1): Interpolated grid: dx=0.7500 mm, dy=0.7500 mm, dz=1.000 mm
Reference Value = 98.64 V/m; Power Drift = -0.44 dB
Fast SAR: SAR(1 g) = 6.74 W/kg; SAR(10 g) = 5 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 7.75 W/kg

Below 2 GHz-Rev.2/Face Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 101.8 V/m; Power Drift = -0.26 dB
Peak SAR (extrapolated) = 9.39 W/kg
SAR(1 g) = 7.24 W/kg; SAR(10 g) = 5.44 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 = 75.5%
Maximum value of SAR (measured) = 8.34 W/kg

Below 2 GHz-Rev.2/Face Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 7.68 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)
Shorten scan (zoom)	20	9	3.71
Full scan (area & zoom)	17	20	3.96

APPENDIX G

DUT Test Position Photos

1.0 Highest SAR Test Position per location

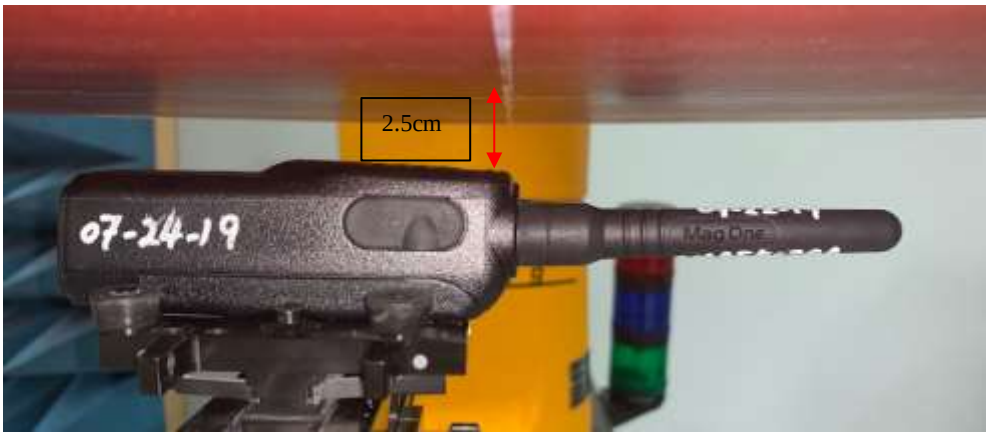
1.1 Body

DUT with antenna PMAE4104A, battery PMNN4075BR and body worn RLN5644A positioned against the phantom with audio accessory PMLN6531A attached.

Antenna kit #	Separation Distances (mm)		
	@ bottom surface of DUT	@ base of antenna	@ tip of antenna
PMAE4104A	5	30	61

1.2 Face

Front of DUT with antenna PMAE4104A and battery PMNN4075BR separated 2.5cm from the phantom without an audio accessory attached.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of DUT	@ base of antenna	@ tip of antenna
PMAE4104A	30	34	41

APPENDIX H

DUT, Body worn and audio accessories Photos

Battery PMNN4075BR - Front, back & side view