


 <b>MOTOROLA SOLUTIONS</b>	  <p>MS ISO/IEC 17025 TESTING SAMM No. 0826</p>	  <p><b>ACCREDITED</b> CERTIFICATE 2518.05</p>
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**DECLARATION OF COMPLIANCE SAR ASSESSMENT**

<p><b>Motorola Solutions Inc.</b>  <b>EME Test Laboratory</b>                  Motorola Solutions Malaysia Sdn Bhd                  Plot 2A, Medan Bayan Lepas,                  Mukim 12 SWD 11900 Bayan Lepas Penang, Malaysia.</p>	<p><b>Date of Report:</b> 07/22/2021  <b>Report Revision:</b> B</p>
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<p><b>Responsible Engineer:</b>  <b>Report Author:</b>  <b>Assessment Date/s:</b>  <b>Manufacturer:</b>  <b>DUT Description:</b>  <b>TX mode(s):</b>  <b>Max. Power output:</b>  <b>Tx Frequency Bands:</b>  <b>Signaling type:</b>  <b>Model(s) Certified:</b>  <b>Classification:</b>  <b>FCC ID:</b>  <b>ISED:</b>  <b>Applicant Name:</b>  <b>Applicant Address:</b>  <b>ISED Test Site registration:</b>  <b>FCC Test Firm Registration Number:</b></p>	<p>Puteri Alifah Ilyana binti Nor Rahim (EME Engineer)                  Puteri Alifah Ilyana binti Nor Rahim (EME Engineer)                  1/14/ 2021                  Motorola Solutions Inc                  WP300 Remote Control Pod                  Bluetooth                  10mW (BT and BT LE)                  2402 - 2480 MHz (BT and BT LE)                  GFSK, <math>\pi/4</math> DQPSK, 8DPSK (BT and BT LE)                  PMLN8298A                  General population/Uncontrolled Environment                  AZ489FT6028                  109U-89FT6028                  Motorola Solutions Inc.                  8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322                  24843                  823256</p>
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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.

<p><b>Sun Hock Saw</b>  <b>Approved Signatory</b>  <b>Approval Date: 7/26/2021</b></p>	
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**Report Revision History**

Date	Revision	Comments
1/27/2021	A	Initial release
7/22/2021	B	Update the classification

## 1.0 Introduction

This report details RF Exposure assessment for Wireless Remote Control Pod model number PMLN8298A. This device classified as General Population / Uncontrolled Environment.

## 2.0 Referenced Standards and Guidelines

This product is designed to comply with the following applicable national and international standards and guidelines.

- IEC62209-1 (2016) Procedure to determine the specific absorption rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)
- Federal Communications Commission, “Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields”, OET Bulletin 65, FCC, Washington, D.C.: 1997.
- IEEE 1528 (2013), Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
- American National Standards Institute (ANSI) / Institute of Electrical and Electronics Engineers (IEEE) C95. 1-1992
- Institute of Electrical and Electronics Engineers (IEEE) C95.1-2005
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998
- Ministry of Health (Canada) Safety Code 6 (2015), Limits of Human Exposure to Radio frequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz
- RSS-102 (Issue 5) – Radio Frequency (RF) Exposure Compliance of Radio communication Apparatus (All Frequency Bands)
- Australian Communications Authority Radio communications (Electromagnetic Radiation - Human Exposure) Standard (2014)
- ANATEL, Brazil Regulatory Authority, Resolution No. 303 of July 2, 2002 "Regulation of the limitation of exposure to electrical, magnetic, and electromagnetic fields in the radio frequency range between 9 kHz and 300 GHz." and “Attachment to resolution # 303 from July 2, 2002”
- IEC62209-2 Edition 1.0 2010-03, Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures – Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz).

- FCC KDB – 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB – 865664 D02 RF Exposure Reporting v01r02
- FCC KDB – 447498 D01 General RF Exposure Guidance v06

### 3.0 SAR Limits

**Table 2**

EXPOSURE LIMITS	SAR (W/kg)	
	(General Population / Uncontrolled Exposure Environment)	(Occupational / Controlled Exposure Environment)
Spatial Average - ANSI - (averaged over the whole body)	0.08	0.4
Spatial Peak - ANSI - (averaged over any 1-g of tissue)	1.6	8.0
Spatial Peak – ICNIRP/ANSI - (hands/wrists/feet/ankles averaged over 10-g)	4.0	20.0
Spatial Peak - ICNIRP - (Head and Trunk 10-g)	2.0	10.0

### 4.0 Description of Device Under Test (DUT)

This device incorporates Bluetooth and Bluetooth LE operates at frequency spectrum 2.40 GHz to 2.48 GHz with maximum duty cycle is 77%.

Table 2 below summarized devices information.

**Table 2**

Technologies	Antenna Description	Frequency	Max Power (mW)
BT	Internal BT antenna; 1.5 dBi gain	2402-2480 MHz	10.0
BT LE	Internal BT antenna; 1.5 dBi gain	2402-2480 MHz	10.0

## 5.0 Assessment at the Bluetooth band

### 5.1 FCC Requirement

Per guidelines in KDB 447498, the following formula was used to determine the test exclusion for standalone Bluetooth transmitter;

$$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] * [\sqrt{F_{\text{(GHz)}}}] = 2.4 \text{ W/kg, which is } \leq 3 \text{ W/kg (1g)}$$

Where:

Max. Power = 7.7 mW (10.0mW\*77.00 % duty cycle)

Min. test separation distance = 5mm for actual test separation < 5mm

F(GHz) = 2.48 GHz

Per the result from the calculation above, SAR test is not required.

### 5.2 ISED Canada Requirement

Based on RSS-102 Issue 5, exemption limits for SAR evaluation for controlled devices at Bluetooth frequency band with separation distance  $\leq$  5mm is 20 mW.

Standalone Bluetooth transmitter operates at

Maximum conducted power:

$$= 10.0 \text{ mW} * 77.00\%$$

$$= 7.7 \text{ mW or } 8.86 \text{ dBm}$$

Equivalent isotropically radiated power (e.i.r.p):

$$= \text{Maximum conducted power, dBm} + \text{Antenna gain, dBi}$$

$$= 8.86 \text{ dBm} + 1.5 \text{ dBi}$$

$$= 10.36 \text{ dBm or } 10.90 \text{ mW.}$$

Equivalent isotropically radiated power, e.i.r.p 10.90 mW is below the threshold power level 20 mW (at separation distance of  $\leq$  5mm). Hence SAR test is not required.

## 6.0 Results Summary

Based on SAR assessments in section 5.0, SAR testing is not required.