

RF Exposure Report

Report No.: SA160104C01C

FCC ID: VPYLB1GC

Test Model: Type 1PS

Series Model: Type 1GC

Received Date: Sep. 11, 2019

Test Date: Sep. 19 ~ Oct. 01, 2019

Issued Date: Oct. 17, 2019

Applicant: Murata Manufacturing Co., Ltd.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

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FCC Registration / 788550 / TW0003
Designation Number:



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Release Control Record

| Issue No. | Description | Date Issued |
|--------------|-------------------|---------------|
| SA160104C01C | Original release. | Oct. 17, 2019 |

1 Certificate of Conformity

Product: Communication Module

Brand: MURATA

Test Model: Type 1PS

Series Model: Type 1GC

Sample Status: Engineering sample

Applicant: Murata Manufacturing Co., Ltd.

Test Date: Sep. 19 ~ Oct. 01, 2019

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by :  , **Date:** Oct. 17, 2019
Polly Chien / Specialist

Approved by :  , **Date:** Oct. 17, 2019
Bruce Chen / Senior Project Engineer

2 RF Exposure

2.1 Limits for Maximum Permissible Exposure (MPE)

| Frequency Range (MHz) | Electric Field Strength (V/m) | Magnetic Field Strength (A/m) | Power Density (mW/cm ²) | Average Time (minutes) |
|---|-------------------------------|-------------------------------|-------------------------------------|------------------------|
| Limits For General Population / Uncontrolled Exposure | | | | |
| 0.3-1.34 | 614 | 1.63 | (100)* | 30 |
| 1.34-30 | 824/f | 2.19/f | (180/f ²)* | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1500 | ... | ... | f/1500 | 30 |
| 1500-100,000 | ... | ... | 1.0 | 30 |

f = Frequency in MHz; *Plane-wave equivalent power density

2.2 MPE Calculation Formula

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

r = distance between observation point and center of the radiator in cm

2.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as Mobile Device.

3 Calculation Result of Maximum Conducted Power

| Frequency Band (MHz) | Max Power (dBm) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm ²) | Limit (mW/cm ²) |
|----------------------|-----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| WLAN 2412~2462 | 21.21 | 1.2 | 20 | 0.035 | 1 |
| WLAN 5180~5240 | 12.07 | 2.5 | 20 | 0.006 | 1 |
| WLAN 5260~5320 | 11.97 | 2.5 | 20 | 0.006 | 1 |
| WLAN 5500~5720 | 12.12 | 2.5 | 20 | 0.006 | 1 |
| WLAN 5745~5825 | 11.91 | 2.5 | 20 | 0.005 | 1 |

* The 2.4GHz and 5GHz cannot transmit simultaneously.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

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