

RF Exposure Report

Report No.: SABEOA-WTW-P21031188

FCC ID: BYG-MMR99

Test Model: MMR-99

Received Date: Mar. 31, 2021

Test Date: Jun. 12 to Jul. 23, 2021

Issued Date: Feb. 15, 2022

Applicant: Sangean Electronics Inc.

Address: No. 18, Lane 7, Li-De Street, Chung Ho District, New Taipei City, 235, Taiwan

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

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FCC Registration /
Designation Number: 198487 / TW2021



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Release Control Record

Issue No.	Description	Date Issued
SABEOA-WTW-P21031188	Original release.	Feb. 15, 2022

1 Certificate of Conformity

Product: AM/FM/WX/BLEETOOTH/AUX IN QUAD-POWER EMERGENCY RADIO

Brand: SANGEAN

Test Model: MMR-99

Sample Status: Engineering sample

Applicant: Sangean Electronics Inc.

Test Date: Jun. 12 to Jul. 23, 2021

Standards: FCC Part 2 (Section 2.1091)

References Test Guidance: KDB 447498 D01 General RF Exposure Guidance v06

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 :



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Date:

Feb. 15, 2022

Approved by :



Jeremy Lin / Project Engineer

Date:

Feb. 15, 2022

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				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

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 Average Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2402-2480 (BTLE)	-0.72	1.927	20	0.0003	1
2402-2480 (BT EDR)	-0.71	1.927	20	0.0003	1

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

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