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TEST REPORT

FCC MPE Test for WSM-M3W
Certification

APPLICANT
WOOSIM SYSTEMS INC.

REPORT NO.
HCT-RF-2208-FI009

DATE OF ISSUE
August 25, 2022

Tested by
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Additional Model
-

Applicant	**WOOSIM SYSTEMS INC.** 60, Sandan-ro 388beon-gil, Galsan-myeon, Hongseong-gun, Chungcheongnam-do, Republic of Korea
Eut Type Model Name	Bluetooth Module WSM-M3W
FCC ID	QDDWSM-M3W
Frequency range	2 402 MHz – 2 480 MHz (Bluetooth)

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.
This test results were applied only to the test methods required by the standard.

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	August 25, 2022	Initial Release

Engineering Statement:
The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of the FCC Rules under normal use and maintenance

Test Report Statement:
The above Test Report is not related to the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS(Korea Laboratory Accreditation Scheme) / A2LA(American Association for Laboratory Accreditation), which signed the ILAC-MRA.

If this report is required to confirmation of authenticity, please contact to www.hct.co.kr

RF Exposure Statement

1. Limit

According to § 1.1310, § 2.1091 RF exposure is calculated.

(B) Limits for General Population/Uncontrolled Exposures

Frequency range (MHz)	Electric field Strength (V/m)	Magnetic field Strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
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. Maximum Permissible Exposure Prediction

Prediction of MPE limit at a given distance

$$S = PG/4\pi R^2$$

S = Power density

P = Power input to antenna

G = Power gain to the antenna in the direction of interest relative to an isotropic radiator

R = Distance to the center of radiation of the antenna

3. RESULTS

3-1. Bluetooth

Peak output Power at antenna input terminal	10.00	dBm
Peak output Power at antenna input terminal	10.00	mW
Prediction distance	20.00	cm
Prediction frequency	2402 – 2480	MHz
Antenna Gain(typical)	-1.07	dBi
Antenna Gain(numeric)	0.782	-
Power density at prediction frequency(S)	0.0016	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

2.1091

EIRP	8.93	(dBm)
ERP	6.78	(dBm)
ERP	0.005	(W)
ERP Limit	3.00	(W)
MARGIN	27.99	(dB)

3-1. BT LE

Peak output Power at antenna input terminal	7.00	dBm
Peak output Power at antenna input terminal	5.01	mW
Prediction distance	20.00	cm
Prediction frequency	2402 – 2480	MHz
Antenna Gain(typical)	-1.07	dBi
Antenna Gain(numeric)	0.782	-
Power density at prediction frequency(S)	0.0008	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

2.1091

EIRP	5.93	(dBm)
ERP	3.78	(dBm)
ERP	0.002	(W)
ERP Limit	3.00	(W)
MARGIN	30.99	(dB)