



RF Exposure Evaluation Declaration

FCC ID: 2AT2J-MS11902
APPLICANT: SHENZHEN JMT TECH LTD.

Application Type: Certification
Product: Monster Bluetooth Speaker
Model No.: MS11902
Brand Name: MONSTER
FCC Classification: FCC Part 15 Spread Spectrum Transmitter (DSS)

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The test results relate only to the samples tested.
The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.
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Revision History

Report No.	Version	Description	Issue Date	Note
1908RSU007-U2	Rev. 01	Initial Report	10-12-2019	Valid

1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name:	Monster Bluetooth Speaker
Model No.:	MS11902
Brand Name:	MONSTER
Bluetooth Version:	v4.2 (Single mode for BR/EDR)
Power Supply:	By Internal Battery
Battery Specification:	3.7V, 4000mAh, 14.8Wh

1.2. Product Specification Subjective

Operating Frequency:	2402~2480MHz
Channel Number:	79
Type of Modulation:	GFSK, Pi/4 DQPSK, 8DPSK
Data Rate:	1Mbps(GFSK), 2Mbps(Pi/4 DQPSK), 3Mbps (8DPSK)
Antenna Type:	PCB Antenna
Antenna Gain:	2dBi

Note: For other features of this EUT, test report will be issued separately.

2. RF Exposure Evaluation

2.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

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)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	f/1500	6
1500-100,000	--	--	1	30

f= Frequency in MHz

Calculation Formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

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

P_d is the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2.2. Test Result of RF Exposure Evaluation

Product	Monster Bluetooth Speaker
Test Item	RF Exposure Evaluation

Frequency Band (MHz)	Maximum Peak Power		Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm ²)	Limit (mW/cm ²)
	(dBm)	(mW)			
2402 ~ 2480	3.02	2.00	2	0.0006	1

CONCLUSION:

The max Power Density at R (20 cm) = 0.0006mW/cm² < 1mW/cm².

Therefore, the Min Safety Distance is 20cm.

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Appendix A - Test Setup Photograph

Refer to "1908RSU007-UT" file.

Appendix B - EUT Photograph

Refer to "1908RSU007-UE" file.