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Report No.: 2003RSU022-U2 Report Version: V01 Issue Date: 04-02-2020

# **RF Exposure Evaluation Declaration**

**FCC ID**: 2AVD2-MH11905

**APPLICANT:** Shenzhen Monster Creative Technology Co., Ltd.

**Application Type:** Certification

**Product:** Monster Bluetooth Headphones

Model No.: MH11905

**Brand Name:** MONSTER

FCC Classification: FCC Part 15 Spread Spectrum Transmitter (DSS)

Test Procedure(s): KDB 447498 D01v06

Reviewed By:

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Approved By:

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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
2003RSU022-U2	Rev. 01	Initial Report	04-02-2020	Valid

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### 1. PRODUCT INFORMATION

### 1.1. Equipment Description

Product Name:	Monster Bluetooth Headphones	
Model No.:	MH11905	
Brand Name:	MONSTER	
Bluetooth Version:	V5.0 (Single mode for BR/EDR)	
Power Supply:	By Internal Battery	

### 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:	Ceramic Antenna
Antenna Gain:	5.54dBi

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### 2. RF Exposure Evaluation

#### 2.1. Limits

#### SAR Test Exclusion Thresholds for 100 MHz - 6 GHz and ≤ 50 mm

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table. The equation and threshold in Note 1 must be applied to determine SAR test exclusion.

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	SAR Test
300	27	55	82	110	137	Exclusion
450	22	45	67	89	112	Threshold
835	16	33	49	66	82	(mW)
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	10	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	
MHz	0.0					
IVII IZ	30	35	40	45	50	mm
150	30 232	35 271	40 310	45 349	50 387	mm SAR Test
150	232	271	310	349	387	SAR Test
150 300	232 164	271 192	310 219	349 246	387 274	SAR Test Exclusion
150 300 450	232 164 134	271 192 157	310 219 179	349 246 201	387 274 224	SAR Test Exclusion Threshold
150 300 450 835	232 164 134 98	271 192 157 115	310 219 179 131	349 246 201 148	387 274 224 164	SAR Test Exclusion Threshold
150 300 450 835 900	232 164 134 98 95	271 192 157 115 111	310 219 179 131 126	349 246 201 148 142	387 274 224 164 158	SAR Test Exclusion Threshold
150 300 450 835 900 1500	232 164 134 98 95 73	271 192 157 115 111 86	310 219 179 131 126 98	349 246 201 148 142 110	387 274 224 164 158 122	SAR Test Exclusion Threshold
150 300 450 835 900 1500 1900	232 164 134 98 95 73 65	271 192 157 115 111 86 76	310 219 179 131 126 98 87	349 246 201 148 142 110 98	387 274 224 164 158 122 109	SAR Test Exclusion Threshold
150 300 450 835 900 1500 1900 2450	232 164 134 98 95 73 65 57	271 192 157 115 111 86 76 67	310 219 179 131 126 98 87 77	349 246 201 148 142 110 98 86	387 274 224 164 158 122 109 96	SAR Test Exclusion Threshold
150 300 450 835 900 1500 1900 2450 3600	232 164 134 98 95 73 65 57 47	271 192 157 115 111 86 76 67 55	310 219 179 131 126 98 87 77 63	349 246 201 148 142 110 98 86 71	387 274 224 164 158 122 109 96 79	SAR Test Exclusion Threshold
150 300 450 835 900 1500 1900 2450 3600 5200	232 164 134 98 95 73 65 57 47	271 192 157 115 111 86 76 67 55 46	310 219 179 131 126 98 87 77 63 53	349 246 201 148 142 110 98 86 71 59	387 274 224 164 158 122 109 96 79 66	SAR Test Exclusion Threshold

Note: The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:



[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] \*  $[\sqrt{f(GHz)}] \le 3.0$  for 1-g SAR and  $\le 7.5$  for 10-g extremity SAR, where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum test separation distance is  $\leq$  50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

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#### 2.2. Test Result of RF Exposure Evaluation

Product	Monster Bluetooth Headphones
Test Item	RF Exposure Evaluation

Test Mode	Frequency Band	Maximum Tune-up Power		SAR Test Exclusion Threshold
	(MHz)	(dBm)	(mW)	(mW)
Bluetooth	2402 ~ 2480	-2.00	0.63	10

Note: Per FCC KDB 447498 D01v06, the SAR exclusion threshold for distances<50mm is defined by the following equation:

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] [ $\sqrt{f(GHz)}$ ]  $\leq 3.0$ 

$$\left(\frac{0.63\text{mW}}{5}\right) * \sqrt{2.441} = 0.20 < 3.00$$

Based on the maximum conducted power of Bluetooth and the antenna to use separation distance, Bluetooth SAR was not required;

Note: When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

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