



RADIO TEST REPORT

Report No: STS2111211H02

Issued for

Lifeworks Technology Group LLC.

530 7th Ave 21st Fl, New York, NY 10018, United States

Product Name:	Monster DNA One
Brand Name:	Monster
Model Name:	2MNSK0485
Series Model:	2MNBD1115B0L2, C-2MNBD1115B0L2, 2MNBD1115W0L2, C-2MNBD1115W0L2
FCC ID:	WWE-2MNSK0485
Test Standard:	FCC 47CFR §2.1091

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Test Report Certification

Applicant's Name : Lifeworks Technology Group LLC.

Address : 530 7th Ave 21st Fl, New York, NY 10018, United States

Manufacturer's Name : Lifeworks Technology Group LLC.

Address : 530 7th Ave 21st Fl, New York, NY 10018, United States

Product Description

Product Name : Monster DNA One

Brand Name : Monster

Model Name : 2MNSK0485

Series Model : 2MNBD1115B0L2,C-2MNBD1115B0L2,2MNBD1115W0L2,
C-2MNBD1115W0L2

Standards : FCC 47CFR §2.1091

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Date of Test :

Date of receipt of test item : 28 Feb. 2022

Date (s) of performance of tests : 28 Feb. 2022 ~ 15 Mar. 2022

Date of Issue : 15 Mar. 2022

Test Result : **Pass**

Testing Engineer :

(Chris Chen)

Technical Manager :

(Sean She)

Authorized Signatory :

(Bovey Yang)





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**Revision History**

Rev.	Issue Date	Report No.	Effect Page	Contents
00	15 Mar. 2022	STS2111211H02	ALL	Initial Issue





1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Monster DNA One								
Brand Name	Monster								
Model Name	2MNSK0485								
Series Model	2MNBD1115B0L2, C-2MNBD1115B0L2, 2MNBD1115W0L2, C-2MNBD1115W0L2								
Model Difference	All the model are the same circuit and RF module, except the model name.								
Product Description	<p>The EUT is Monster DNA One</p> <table border="1"><tr><td>Operation Frequency:</td><td>2402 – 2480 MHz</td></tr><tr><td>Modulation Type:</td><td>BT:GFSK(1Mbps), π/4-DQPSK(2Mbps), 8DPSK(3Mbps) BLE: GFSK</td></tr><tr><td>Antenna gain:</td><td>0dBi</td></tr><tr><td>Antenna Designation:</td><td>PCB</td></tr></table>	Operation Frequency:	2402 – 2480 MHz	Modulation Type:	BT:GFSK(1Mbps), π/4-DQPSK(2Mbps), 8DPSK(3Mbps) BLE: GFSK	Antenna gain:	0dBi	Antenna Designation:	PCB
Operation Frequency:	2402 – 2480 MHz								
Modulation Type:	BT:GFSK(1Mbps), π/4-DQPSK(2Mbps), 8DPSK(3Mbps) BLE: GFSK								
Antenna gain:	0dBi								
Antenna Designation:	PCB								
Adapter	Input: 90VAC to 264VAC Output: +5/9V/12V Ripple 250mV, (Loading condition 0-3A)								
Battery	Rated Voltage: 7.4V Charge Limit Voltage: 8.45V Capacity: 2600mAh								
Rating	Input: DC5V/2.0A Output: 5V/1.5A								
Hardware Version	R32ADNAONEmain-1100R								
Software Version	DNA_ONE_220124_01R.XUV								

1.2 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01



2. FCC 47CFR §2.1091 REQUIREMENT

2.1 TEST STANDARDS

The limit for Maximum Permissible Exposure (MPE) specified in FCC 1.1310 is followed. The gain of the antennas used in the product is extracted from the Antenna data sheets provided and also the maximum total power input to the antenna is measured. Through the Friis transmission formula and the maximum gain of the antenna, we can calculate the distance, away from the product, where the limit of MPE is reached.

Although the Friis Transmission formula is far field assumption, the calculated result of that is an over-prediction for near field power density. It is taken as worst case to specify the safety range.

2.2 LIMIT

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environmental impact of the 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)
Limits for Occupational / controlled Exposures			
300 - 1500	--	--	F/300
1500 – 100000	--	--	5.0
Limits for General population / Uncontrolled Exposure			
300 - 1500	--	--	F/1500
1500 – 100000	--	--	1.0

F= Frequency in MHz

Friis Formula

Friis Transmission 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

π = 3.1416

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

If we know the maximum gain of the antenna and the total output power to the antenna, through calculation, we will know MPE value at distance 20cm.

2.3 EUT OPERATION CONDITION

EUT was enabled to transmit and receive at lowest, middle and highest channels.

2.4 CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. Warning statement to the user for keeping at least 20cm or more separation distance from the antenna should be included in the User manual. So, this device is classified as Mobile device.



2.5 TEST RESULT

Maximum measured transmitter power.

BT BLE The Worst Case

Mode	frequency	Maximum AV Output Power	Tune up tolerance	Max Tune up
	GHz	dBm	dBm	dBm
BT	2.402	3.88	3±1	4
BLE	2.402	5.44	5±1	6

Remark: The worst case gain of the antenna is 0dBi.

0dBi logarithmic terms convert to numeric result is nearly 1.

Protocol	Max Turn up Power (dBm)	Max Turn up Power (mW)	ANT Gain(gain of antenna in linear scale)	Power Density (mW/cm ²)	Limit (mW/c m ²)	Ratio	Result
BT	4	2.51	1	0.00050	1	0.00050	Pass
BLE	6	3.98	1	0.00079	1	0.00079	Pass

*****END OF THE REPORT*****