

# TEST REPORT

**Applicant:** Dimton Co., Ltd.  
**Address:** 1F, NO. 137, Xingfu W, Rd., Xingzhuang Dist., New Taipei City 242, Taiwan (R.O.C.)  
**Equipment Type:** Bluetooth helmet headset  
**Model Name:** Hi  
**Brand Name:** BlueRider  
**FCC ID:** VON-761870  
**Test Standard:** 47 CFR Part 2.1093  
KDB 447498 D01 v06  
**Test Date:** Dec. 08, 2021 - Dec. 15, 2021  
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## ISSUED BY:

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### Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Jun. 08, 2022</u>	<u>Initial Issue</u>

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# 1 GENERAL INFORMATION

## 1.1 Identification of the Testing Laboratory

Company Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe West Road, Nanshan District, ShenZhen, GuangDong Province, China
Phone Number	+86 755 6685 0100

## 1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe West Road, Nanshan District, ShenZhen, GuangDong Province, China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.
Description	All measurement facilities used to collect the measurement data are located at Block B, 1/F, Baisha Science and Technology Park, Shahe West Road, Nanshan District, ShenZhen, GuangDong Province, China

## 2 PRODUCT INFORMATION

### 2.1 Applicant Information

Applicant	Dimton Co., Ltd.
Address	1F, NO. 137, Xingfu W, Rd., Xingzhuang Dist., New Taipei City 242, Taiwan (R.O.C.)

### 2.2 Manufacturer Information

Manufacturer	Dimfeng Electronic Technology (Shenzhen) Co., Ltd.
Address	2006, One Building, Jinhui, No.1, Jiangshi Road, Shek Wai Residential Quater, Matian Street, Guangming District, Shenzhen City, Guangdong Province, China

### 2.3 Factory Information

Factory	N/A
Address	N/A

### 2.4 General Description for Equipment under Test (EUT)

EUT Name	Bluetooth helmet headset
Model Name Under Test	Hi
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	BlueRider Hi H1
Software Version	BlueRider Hi S1
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

### 2.5 Ancillary Equipment

Note: Not applicable.

## 2.6 Technical Information

Network and Wireless connectivity	Bluetooth BR
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The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	Bluetooth	
Frequency Range	Bluetooth	2400 ~ 2483.5 MHz
Antenna Type	Bluetooth	PCB Antenna
Exposure Category	General Population/Uncontrolled Exposure	
EUT Stage	Portable Device	

### 3 SUMMARY OF TEST RESULT

#### 3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2.1093	Radiofrequency radiation exposure evaluation: portable devices
2	KDB 447498 D01 v06	KDB 447498 General RF Exposure Guidance D01 v06

## 4 DEVICE CATEGORY AND LEVELS LIMITS

### Portable Derives:

CFR Title 47 §2.1093(b)

(b) For purposes of this section, a portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user.

### FCC KDB 447498 D01 General RF Exposure Guidance v06 Limit

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition, listed below, is satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander.

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances

$\leq 50$  mm are determined by:

$$\left[ \frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR}$$

Where

- o  $f$  (GHz) is the RF channel transmit frequency in GHz
- o Power and distance are rounded to the nearest mW and mm before calculation
- o The result is rounded to one decimal place for comparison

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 is applied to determine SAR test exclusion.

## 5 ASSESSMENT RESULT

### 5.1 Output Power

Bluetooth			
Mode	GFSK		
	Low Channel	Middle Channel	High Channel
Peak Power (dBm)	3.44	4.08	<b>4.41</b>
Note: This report listed the worst case power value, please refer to RF test report for more details.			

### 5.2 Tune-up power

Mode	Peak Power Range (dBm)
Bluetooth	3.00-5.00

### 5.3 RF Exposure Evaluation Result

Mode	Tune-up limit power (dBm)	Distance (mm)	Calculation Frequency (MHz)	Calculation Results	Threshold Value	Verdict
Bluetooth	5.0	5	2480	1.00	3.0	Compliance

### 5.4 Conclusion

This EUT is deemed to comply with the reference level limits, therefore the basic restrictions are compliant with human exposure limits.



## Statement

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7. Any objection shall be raised to the laboratory within 30 days after receiving the report.

--END OF REPORT--