

RF Exposure Evaluation Report

Report Reference No..... : MTEB24050138-H

FCC ID..... : 2BGI4-A20

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Date of issue.....: **May 16,2024**

Representative Laboratory Name.: **Shenzhen Most Technology Service Co., Ltd.**

Address.....: No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China.

Applicant's name.....: **ShenZhen ShiNian Xi Shi Ye You Xian Gong Si**

Address.....: B308-B090, Building B, Guanghong Meiju, No. 163 Pingxin North Road, Hehua Community, Pinghu Street, Longgang District, Shenzhen

Test specification/ Standard.....: **47 CFR Part 1.1307**

47 CFR Part 2.1093

TRF Originator.....: Shenzhen Most Technology Service Co., Ltd.

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Test item description.....: HELMET WIRELESS EARPHONE

Trade Mark.....: N/A

Model/Type reference.....: A20

Listed Models: A20S, A20-2X , A22, A22S, A23,A23S , A24,A24S

Modulation Type.....: GFSK, π/4DQPSK, 8DPSK

Operation Frequency.....: From 2402MHz to 2480MHz

Hardware Version.....: V1.0

Software Version.....: V1.2

Rating.....: DC 3.7V by Battery

DC 5V by USB Port

Result.....: **PASS**

TEST REPORT

Equipment under Test : HELMET WIRELESS EARPHONE

Model /Type : A20

Listed Models : A20S, A20-2X , A22, A22S, A23,A23S , A24,A24S

Remark Only the model name is different, other designs are the same

Applicant : **ShenZhenShiNianXiShiYeYouXianGongSi**

Address : B308-B090, Building B, Guanghong Meiju, No. 163 Pingxin North Road, Hehua Community, Pinghu Street, Longgang District, Shenzhen

Manufacturer : **Shenzhen Yixi Technology Co., LTD**

Address : Second Floor, Building B, Area A, Longquan Science Park, Dalang Huaxing Road, Longhua District, Shenzhen City,China

Test Result:	PASS
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

1. Revision History

Revision	Issue Date	Revisions	Revised By
00	2024.05.16	Initial Issue	Alisa Luo

2. SAR Evaluation

2.1 RF Exposure Compliance Requirement

2.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

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 Exclusion Threshold condition, listed below, is satisfied.

2.1.2 Limits

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:

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

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 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

2.1.3 EUT RF Exposure

Measurement Data

BT classic

GFSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402MHz)	0.187	0.187±1	1.187
Middle(2441MHz)	-0.035	-0.035±1	0.965
Highest(2480MHz)	-0.736	-0.736±1	0.264

$\pi/4$ DQPSK

Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402MHz)	0.960	0.960±1	1.96
Middle(2441MHz)	0.708	0.708±1	1.708
Highest(2480MHz)	0.043	0.043±1	1.043

8DPSK

Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402MHz)	1.195	1.195±1	2.195
Middle(2441MHz)	1.009	1.009±1	2.009
Highest(2480MHz)	0.395	0.395±1	1.395

Worst case: 8DPSK

Channel	Maximum Peak Conducted Output Power (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold	SAR Test Exclusion
		(dBm)	(mW)			
Lowest(2402MHz)	1.195	2.195	1.66	0.51	3.0	Yes

.....THE END OF REPORT.....