

RF Exposure Evaluation Report

Report Reference No......: **MTEB24090121-H**

FCC ID.....: **2BFR2-S6**

Compiled by

(position+printed name+signature)..: File administrators Alisa Luo

Supervised by

(position+printed name+signature)..: Test Engineer Sunny Deng

Approved by

(position+printed name+signature)..: Manager Yvette Zhou

Date of issue.....: **Sep.10, 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: **FOSHAN SOMAN GEAR CO.,LTD**

Address: No.22, No. 6 Junye North Road, Area C, Shishan Science Park,
Shishan Town,Foshan City,China

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

47 CFR Part 2.1093

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

Shenzhen Most Technology Service Co., Ltd. All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen Most Technology Service Co., Ltd. is acknowledged as copyright owner and source of the material. Shenzhen Most Technology Service Co., Ltd. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

Test item description: **HELMET WIRELESS EARPHONE**

Trade Mark: N/A

Model/Type reference.....: S6

Listed Models: N/A

Modulation Type: GFSK, $\pi/4$ DQPSK, 8DPSK

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

Hardware Version.....: V1.4

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 : S6

Listed Models : N/A

Remark : N/A

Applicant : **FOSHAN SOMAN GEAR CO.,LTD**

Address : No.22, No. 6 Junye North Road, Area C, Shishan Science Park,
Shishan Town,Foshan City,China

Manufacturer : **FOSHAN SOMAN GEAR CO.,LTD**

Address : No.22, No. 6 Junye North Road, Area C, Shishan Science Park,
Shishan Town,Foshan City,China

| | |
|---------------------|-------------|
| Test Result: | PASS |
|---------------------|-------------|

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 | 2024.09.10 | 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:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \left[\sqrt{f(\text{GHz})} \right]$$

 ≤ 3.0 for 1-g SAR and ≤ 7.5 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) | 1.581 | 1.581 ± 1 | 2.581 |
| Middle(2441MHz) | 1.614 | 1.614 ± 1 | 2.614 |
| Highest(2480MHz) | 1.414 | 1.414 ± 1 | 2.414 |

| π /4DQPSK | | | |
|------------------|----------------------------|----------------------------|-----------------------|
| Test channel | Peak Output Power (dBm) | Tune up tolerance (dBm) | Maximum tune-up Power |
| | | | (dBm) |
| Lowest(2402MHz) | 2.432 | 2.432 ± 1 | 3.432 |
| Middle(2441MHz) | 2.514 | 2.514 ± 1 | 3.514 |
| Highest(2480MHz) | 2.311 | 2.311 ± 1 | 3.311 |

| 8DPSK | | | |
|------------------|----------------------------|----------------------------|-----------------------|
| Test channel | Peak Output Power (dBm) | Tune up tolerance (dBm) | Maximum tune-up Power |
| | | | (dBm) |
| Lowest(2402MHz) | 2.886 | 2.886 ± 1 | 3.886 |
| Middle(2441MHz) | 2.941 | 2.941 ± 1 | 3.941 |
| Highest(2480MHz) | 2.709 | 2.709 ± 1 | 3.709 |

| Worst case: 8DPSK | | | | | | |
|-------------------|--|--------------------------|------|---------------------|------------------------|-----------------------|
| Channel | Maximum Peak Conducted Output Power (dBm) | Maximum tune-up Power | | Calculated value | Exclusion threshold | SAR Test Exclusion |
| | | (dBm) | (mW) | | | |
| Middle(2441MHz) | 2.941 | 3.941 | 2.48 | 0.77 | 3.0 | Yes |

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