

# TEST REPORT

**Product Name** : Personal Alarm  
**Model Number** : SWIFI-MPRS  
**FCC ID** : VMIMPRS

Prepared for : Swann Communications U.S.A. Inc.  
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Prepared by : EMTEK (DONGGUAN) CO., LTD.  
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Report Number : EDG2308110147E00702R  
Date(s) of Tests : August 11, 2023 to August 30, 2023  
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## 1. TEST RESULT CERTIFICATION

Applicant : Swann Communications U.S.A. Inc.  
 Address : 12636 Clark Street Santa Fe Springs California United States  
 Manufacturer : Swann Communications Pty Ltd  
 Address : Unit 5B, 706 Lorimer Street, Port Melbourne, Victoria 3207, Australia  
 Factory : Swann Communications Pty Ltd  
 Address : Unit 5B, 706 Lorimer Street, Port Melbourne, Victoria 3207, Australia  
 EUT : Personal Alarm  
 Model Name : SWIFI-MPRS  
 Trademark : Swann

Measurement Procedure Used:

| APPLICABLE STANDARDS            |             |
|---------------------------------|-------------|
| STANDARD                        | TEST RESULT |
| § 15.247(i), § 15.249, § 2.1093 | PASS        |


The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules § 15.247(i), § 15.249, § 2.1093.

The test results of this report relate only to the tested sample identified in this report

Date of Test : August 11, 2023 to August 30, 2023

Prepared by : 

Xia Yang /Editor

Reviewer : 

Tim Dong/ Supervisor

Approved & Authorized Signer : 

Sam Lv / Manager



## Modified History

| Version | Report No.           | Revision Date | Summary         |
|---------|----------------------|---------------|-----------------|
|         | EDG2308110147E00702R | /             | Original Report |
|         |                      |               |                 |
|         |                      |               |                 |



## 2. EUT Specification

| Characteristics                       | Description   |
|---------------------------------------|---|
| <b>Product:</b>                       | Personal Alarm  |
| <b>Model Number:</b>                  | SWIFI-MPRS  |
| <b>Sample:</b>                        | 1#  |
| <b>Device Type:</b>                   | Bluetooth V5.2  |
| <b>Data Rate:</b>                     | 1Mbps, 2Mbps  |
| <b>Modulation:</b>                    | GFSK  |
| <b>Operating Frequency Range(s) :</b> | 2402-2480MHz  |
| <b>Number of Channels:</b>            | 40 Channels for BLE   |
| <b>Transmit Power Max:</b>            | -1.02 dBm(0.000791 W)   |
| <b>Antenna Type:</b>                  | PCB Antenna   |
| <b>Antenna Gain:</b>                  | -12.25 dBi  |
| <b>Power supply:</b>                  | DC 3.0V from battery  |
| <b>Evaluation applied:</b>            | <input type="checkbox"/> MPE Evaluation<br><input checked="" type="checkbox"/> SAR Evaluation |

### 3. Test Requirement

#### RF EXPOSURE EVALUATION

According to 447498 D01 V06, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

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:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR,<sup>24</sup> where

- $f_{(\text{GHz})}$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation<sup>25</sup>
- 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.

Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval. One antenna is available for the EUT. The minimum separation distance is 5mm.

## 4. Measurement Result

Antenna gain: -12.25 dBi

The measurement results are as follows:

BLE

| Mode    | Channel Frequency (MHz) | Measured Power (dBm) | E.I.R.P (dBm) | Tune upPower (dBm) | Max tune up power(dBm) | Calculation Result | 1-g SAR |
|---------|-------------------------|----------------------|---------------|--------------------|------------------------|--------------------|---------|
| GFSK_1M | 2402                    | -1.10                | -13.35        | -2±1               | -1                     | 0.2462161          | 3       |
|         | 2440                    | -1.32                | -13.57        | -2±1               | -1                     | 0.2482069          | 3       |
|         | 2480                    | -1.61                | -13.86        | -2±1               | -1                     | 0.2501819          | 3       |
| GFSK_2M | 2402                    | -1.02                | -13.27        | -2±1               | -1                     | 0.2462161          | 3       |
|         | 2440                    | -1.34                | -13.59        | -2±1               | -1                     | 0.2482069          | 3       |
|         | 2480                    | -1.61                | -13.86        | -2±1               | -1                     | 0.2501819          | 3       |

According to KDB 447498, no stand-alone required for antenna, and no simultaneous SAR measurement is required.

\*\*\* End of Report \*\*\*