

## TEST REPORT

Report Number .....	90747-25-72-25-PP002	
Date of issue .....	2025-08-18	
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Standard(s) .....	§15.247(i), §2.1093	
Test item description .....	TRUE WIRELESS EARBUDS	
Trade Mark .....	N/A	
Model/Type reference .....	TWSSQUPM52-CP, TWSSQUPM52-CTC, TWSSQUPM52-LC, TWSSQUPM52-ASST	
FCC ID .....	2BH5P-TWSSQUPM52	
Date of receipt of test item .....	2025-06-09	
Date (s) of performance of test:	2025-06-10 to 2025-06-25	
Summary of Test Results .....	Pass	

The Summary of Test Results based on a technical opinion belongs to the standard(s).

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## Modified History

Report No.	Revision Date	Summary
90747-25-72-25-PP002	2025-08-18	Original Report

## 1. EUT Specification

Characteristics	Description
<b>Product:</b>	WIRELESS SPEAKER
<b>Model Number:</b>	TWSSQUPM52-CP, TWSSQUPM52-CTC, TWSSQUPM52-LC, TWSSQUPM52-ASST (All models are identical except for the model name and color; All tests were performed on model TWSSQUPM52-CP)
<b>Sample:</b>	1#
<b>Device Type:</b>	Bluetooth V5.4
<b>Data Rate:</b>	DSS: 1Mbps for GFSK modulation 2Mbps for pi/4-DQPSK modulation
<b>Modulation:</b>	DSS: GFSK, pi/4-DQPSK
<b>Operating Frequency Range(s) :</b>	2402-2480MHz
<b>Number of Channels:</b>	DSS: 79 channels
<b>Transmit Power Max:</b>	DSS: 2.07 dBm
<b>Antenna Gain:</b>	2.5 dBi
<b>Power supply:</b>	Input: DC 5V 1A Charging box: DC 3.7V 200mAh Battery Capacity: DC 3.7V 25mAh
<b>Evaluation applied:</b>	<input type="checkbox"/> MPE Evaluation <input checked="" type="checkbox"/> SAR Evaluation

## 2. Test Requirement:

### RF EXPOSURE EVALUATION

According to §15.247(i) and §1.1307(b)(1), 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:

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

- $f_{(\text{GHz})}$  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.

### 3. Measurement Result

Transmit Frequency(MHz)	Mode	Measured Power(dBm)	Tune upPower(dBm)	Max tune up power(dBm)	Calculation Result	1-g SAR
2402	GFSK	-3.91	-3±1	-2	0.195576	3
2441	GFSK	-3.03	-3±1	-2	0.197158	3
2480	GFSK	-3.62	-3±1	-2	0.198727	3
2402	pi/4-DQPSK	-3.00	-3±1	-2	0.195576	3
2441	pi/4-DQPSK	-2.07	-2±1	-1	0.248207	3
2480	pi/4-DQPSK	-2.56	-2±1	-1	0.250182	3

According to KDB 447498 D01 General RF Exposure Guidance v06, no stand-alone required for BT antenna, and no simultaneous SAR measurement is required.

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

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