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<http://www.ltalab.com>

Dates of Tests: January 20, 2025 ~ March 25, 2025

Test Site : LTA CO., LTD.

## CERTIFICATION OF COMPLIANCE

FCC ID.

**2BODGSHT-250CR**

APPLICANT

**SUHYUNTECH CO., LTD.**

Equipment Class	:	Digital Transmission System (DTS)
Manufacturing Description	:	Smart Earplug Cradle
Manufacturer	:	SUHYUNTECH CO., LTD.
Model name	:	SHT-250CR
Variant Model name	:	-
Test Device Serial No.:	:	Identical prototype
Rule Part(s)	:	FCC Part 15.247 Subpart C ; ANSI C63.10 - 2020
Frequency Range	:	2402 MHz ~ 2480 MHz
Max. Output Power	:	Max 6.91 dBm - Conducted
Data of issue	:	March 31, 2025

This test report is issued under the authority of:

Eun-Hwan Jung, Manager

The test was supervised by:

In-Sun Lee, Test Engineer

**This test result only responds to the tested sample. It is not allowed to copy this report even partly without the allowance of the test laboratory.**

**This test report is not related to KS Q ISO/IEC 17025 and KOLAS accreditation.**

**TABLE OF CONTENTS**

1. GENERAL INFORMATION ----- 3

2. INFORMATION ABOUT TEST ITEM ----- 4

3. TEST REPORT ----- 5

    3.1 SUMMARY OF TESTS ----- 5

    3.2 RF EXPOSURE EVULATION----- 6

## 1. General information

### 1-1 Test Performed

Company name : LTA Co., Ltd.  
 Address : 243, Jubug-ri, Yangji-Myeon, Youngin-Si, Kyunggi-Do, Korea. 449-822  
 Web site : <http://www.ltalab.com>  
 E-mail : [chahn@ltalab.com](mailto:chahn@ltalab.com)  
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Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the “General requirements for the competents of calibration and testing laboratory”.

### 1-2 Accredited agencies

LTA Co., Ltd. is approved to perform EMC testing by the following agencies:

Agency	Country	Accreditation No.	Validity	Reference
RRA	KOREA	KR0049	-	EMC accredited Lab.
FCC	U.S.A	649054	2026-03-29	FCC CAB
VCCI	JAPAN	C-4948,	2026-09-10	VCCI registration
VCCI	JAPAN	T-2416,	2026-09-10	VCCI registration
VCCI	JAPAN	R-4483(10 m),	2026-10-15	VCCI registration
VCCI	JAPAN	G-847	2027-12-13	VCCI registration
IC	CANADA	5799A-1	2025-08-15	IC filing

## 2. Information about test item

### 2-1 Client & Manufacturer

Client Company name : SUHYUNTECH CO., LTD.  
 Address : 814, Lucestarbiz, 594-7, Dongtangiheung-ro, Hwaseong-si, Gyeonggi-do,  
 18469, Republic of Korea  
 Tel / Fax : +82-10-2585-3752 / -  
 Manufacturer : SUHYUNTECH CO., LTD.  
 Address : 814, Lucestarbiz, 594-7, Dongtangiheung-ro, Hwaseong-si, Gyeonggi-do,  
 18469, Republic of Korea  
 Tel / Fax : +82-10-2585-3752 / -

### 2-2 Equipment Under Test (EUT)

Model name : SHT-250CR  
 Serial number : Identical prototype  
 Date of receipt : January 20, 2025  
 EUT condition : Pre-production, not damaged  
 Antenna type : Cradle : SMD Antenna (Gain : 2.1 dBi)  
 Frequency Range : 2402 MHz ~ 2480MHz  
 RF output power : Max 6.91 dBm – Conducted  
 Type of Modulation : GFSK  
 Power Source : DC 3.7 V

### 2-3 Tested frequency

	LOW	MID	HIGH
Frequency (MHz)	2402	2440	2480

### 2-4 Ancillary Equipment

Equipment	Model No.	Serial No.	Manufacturer
Notebook	-	PF1PN83X	LENOVO

3. Test Report

3.1 Summary of tests

FCC Part Section(s)	Parameter	Limit	Test Condition	Status (note 1)
§1.1310 and §2.1091	RF EXPOSURE EVULATION	-	-	C

*Note 1:* C=Complies    NC=Not Complies    NT=Not Tested    NA=Not Applicable

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### 3.2 RF EXPOSURE EVULATION

#### 1.1 Limit

According to §1.1310 and §2.1091 RF exposure is calculated.

(B) Limits for General Population/Uncontrolled Exposures

Frequency range (MHz)	Electric field Strength	Magnetic field Strength	Power density (mW/cm <sup>2</sup> )	Averaging time
1.34 - 30.....	824/f	2.19/f	*(180/ f <sup>2</sup> )	30
30 - 300.....	27.5	0.073	0.2	30
300 - 1500.....	.....	.....	<b>f/1500</b>	30
1500 - 100.000.....	.....	.....	1.0	30

F = frequency in MHz

\* = Plane-wave equivalent power density

#### 1.2 MAXIMUM PERMISSIBLE EXPOSURE Prediction

Prediction of MPE limit at a given distance

**Power density at the specific separation:**

$S = PG/(4R^2 \pi)$ $S = (4.91 * 1.62) / (4 * 5^2 * \pi)$ $S = 0.0016 \text{ mW/cm}^2$	<p>Where,</p> <p>S = Maximum power density (mW/cm<sup>2</sup>)</p> <p>P = Power input to the antenna (mW)</p> <p>G = Numeric power gain of the antenna</p> <p>R = Distance to the center of the radiation of the antenna (5 mm = limit for MPE)</p>
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### 1.3 MAXIMUM PERMISSIBLE EXPOSURE Prediction

- Calculated under the worst-case conditions of each mode.

(Measured power 30 dBm  $\pm$  0.5dB)

#### 3-1. Test mode : Cradle

Max Peak output Power at antenna input terminal	6.91	dBm
Max Peak output Power at antenna input terminal	4.91	mW
Prediction distance	5	mm
Prediction frequency	2440	MHz
Antenna Gain(typical)	2.1	dBi
Antenna Gain(numeric)	1.62	-

SAR Test exclusion thresholds for 100MHz to 6GHz at test separation distance  $\leq$  50 mm = **Used**

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

$= [4.91 / 5] * [\sqrt{2.440}] = 1.53 \leq 3.0$ , for 1g SAR

**Thus, SAR for this device is not required.**