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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.

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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>
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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

3.2 RF EXPOSURE EVALUATION

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 ²)	Averaging time
1.34 - 30.....	824/f	2.19/f	*(180/ f ²)	30
30 - 300.....	27.5	0.073	0.2	30
300 - 1500.....	f/1500	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:

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

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.