

# FCC RF Exposure Report

For

**Guangzhou Skydance Co., Ltd.**

**1-3F, No.19, ChuangYuan Road, Zhongcun Street, Panyu District, Guangzhou, China**

**511495**

**Model: V5-L(WT)**

Report Number: WSCT-ANAB-R&E250700056A

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FCC ID: 2BDBM-V5-L

Prepared By:

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## Modified History

REV.	Modification Description	Issued Date	Remark
REV.1.0	Initial Test Report Release	18 August 2025	Li Huaibi

## 1 General information

### 1.1 Notes

The test results of this test report relate exclusively to the test item specified in this test report. Shenzhen Timeway Testing Laboratories does not assume responsibility for any conclusions and generalisations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report is not to be reproduced or published in full without the prior written permission.



## 1.2 EUT Information

Device Information:	
Product Type:	LED Controller
Model:	V5-L(WT)
Trade Name:	Skydance
Device Type:	Portable device
Exposure Category:	uncontrolled environment / general population
Production Unit or Identical Prototype:	Production Unit
Antenna Type :	Wire antenna
Antenna Gain:	2.5dBi.
Modulation:	GFSK
Operation Frequency:	2478MHz
Operating Voltage:	DC 24V from DC source(Product operating voltage range:12-48V)

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2. The antenna gain is provided by the customer. For any reported data issues caused by the antenna gain, World Standardization Certification&Testing Group (Shenzhen) Co., Ltd assumes no responsibility.

3. V5-L (WT), V5-L (WB), V5-L (WZ), V5-L only have different names, everything else is completely consistent.V5-L(WT) is the main test model, and only a single RF source.

4. EUT built-in CBU exists 2.4GWIFI and BLE modules, but the whole machine only supports transmitting 2478MHz RF signals



## 2 Testing laboratory

Test Site	World Standardization Certification & Testing Group (Shenzhen) Co., Ltd.
Laboratory A:	Building A-B, Baoli'an Industrial Park, No.58 and 60, Tangtou Avenue, Shiyuan Street, Bao'an District, Shenzhen City, Guangdong Province, China
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## 3 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025:2017.

USA	ANAB - Certificate Number: AT-3951
China	CNAS (Registration Number: L3732)
Canada	ISED(CAB identifier:CN0178)

Copies of granted accreditation certificates are available for downloading from our web site, <http://www.wsct-cert.com>

## 4 Applicant and Manufacturer

<b>Applicant/Client Name:</b>	Guangzhou Skydance Co., Ltd.
<b>Applicant Address:</b>	1-3F, No.19, ChuangYuan Road, Zhongcun Street, Panyu District, Guangzhou, China 511495
<b>Manufacturer Name:</b>	Guangzhou Skydance Co., Ltd.
<b>Manufacturer Address:</b>	1-3F, No.19, ChuangYuan Road, Zhongcun Street, Panyu District, Guangzhou, China 511495
<b>Factory Name:</b>	Guangzhou Skydance Co., Ltd.
<b>Factory Address:</b>	1-3F, No.19, ChuangYuan Road, Zhongcun Street, Panyu District, Guangzhou, China 511495



## 5 Test standard/s:

No.	Identity	Document Title
1	47 CFR Part 1.1307	Actions that may have a significant environmental effect
2	47 CFR Part 15C	Intentional Radiators

## 6 Test result

According to § 1.1307(b)(3)(i):

For single RF sources (i.e., any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

- (A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);
- (B) Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold  $P_{th}$  (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive).  $P_{th}$  is given by:

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

Where

$$x = -\log_{10} \left( \frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$$

$d$  = the separation distance (cm);



Since the product is a stationary RF source, test distance greater than 20cm, P<sub>th</sub> (mW)=3060

Built-in CBU module 2.4GWIFI and BLE conduction power

2.4GWIFI							
Mode	Channel	Freq.(MHz)	Conducted Peak power (dBm)	Antenna Gain	EIRP Power(dBm)	ERP Power(dBm)	Turn up
802.11b	1	2412	18.75	2.21	20.96	18.81	19.00
802.11b	6	2437	18.53	2.21	20.74	18.59	19.00
802.11b	11	2462	19.37	2.21	21.58	19.43	19.50
802.11g	1	2412	21.36	2.21	23.57	21.42	21.50
802.11g	6	2437	21.34	2.21	23.55	21.40	21.50
802.11g	11	2462	21.77	2.21	23.98	21.83	22.00
802.11n(HT20)	1	2412	20.84	2.21	23.08	20.93	21.00
802.11n(HT20)	6	2437	20.69	2.21	22.90	20.75	21.00
802.11n(HT20)	11	2462	21.28	2.21	23.49	21.34	21.50
802.11n(HT40)	3	2422	20.52	2.21	22.73	20.58	21.00
802.11n(HT40)	6	2437	20.09	2.21	22.30	20.15	20.50
802.11n(HT40)	9	2452	20.11	2.21	22.32	20.17	20.50

MAX EPR=22.00dBm≈158.49mw<3060

BLE

Mode	Date Rate	Channel	Freq.(MHz)	Conducted Peak power (dBm)	Antenna Gain	EIRP Power(dBm)	ERP Power(dBm)	Turn up
BLE	1Mbps	0	2402	5.65	2.21	7.86	5.71	6.00
BLE	1Mbps	19	2440	5.85	2.21	8.06	5.91	6.00
BLE	1Mbps	39	2478	5.98	2.21	8.19	6.04	6.50

MAX ERP=6.50dBm≈4.47mw<3060

The above 2.4GWIFI&BLE data see report FR0N2610A and FR0N2610B

EUT conduction power

Test channel	Conducted Peak power (dBm)	Antenna Gain	EIRP Power(dBm)	ERP Power(dBm)	Turn up
2478MHz	5.19	2.50	7.69	5.54	6.00

MAX ERP=6.00dBm≈3.98mw<3060

The above data see report WSCT-ANAB-R&E250700056A-2478MHz

Taking into account the possibility of simultaneous activation by WIFI and BLE



Either SAR-based or MPE-based exemption may be considered for test exemption for fixed, mobile, or portable device exposure conditions; therefore, the contributions from each exemption in conjunction with the measured SAR (Evaluated  $k$  term) shall be used to determine exemption for simultaneous transmission according to Formula

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} \leq 1$$

#### Note

- a number of fixed, mobile, or portable RF sources claiming exemption using the § 1.1307(b)(3)(i)(B) formula for  $P_{th}$ , including existing exempt transmitters and those being added.
- b number of fixed, mobile, or portable RF sources claiming exemption using the applicable § 1.1307(b)(3)(i)(C) Table 1 formula for Threshold ERP, including existing exempt transmitters and those being added
- c number of existing fixed, mobile, or portable RF sources with known evaluation for the specified minimum distance.
- $P_i$  the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source  $i$  at a distance between 0.5 cm and 40 cm (inclusive).
- $P_{th,i}$  the exemption threshold power ( $P_{th}$ ) according to the § 1.1307(b)(3)(i)(B) formula for fixed, mobile, or portable RF source  $i$ .
- $ERP_j$  the available maximum time-averaged power or the ERP, whichever is greater, of fixed, mobile, or portable RF source  $j$ .
- $ERP_{th,j}$  exemption threshold ERP for fixed, mobile, or portable RF source  $j$ , at a distance of at least  $\lambda/2\pi$ , according to the applicable § 1.1307(b)(3)(i)(C) Table 1 formula at the location in question.
- Evaluated the maximum reported SAR or MPE of fixed, mobile, or portable RF source  $k$  either in the device or at the transmitter site from an existing evaluation.
- Exposure Limit $_k$  either the general population/uncontrolled maximum permissible exposure (MPE) or specific absorption rate (SAR) limit for each fixed, mobile, or portable sources, as applicable



According to the above description, in the CBU independent module, the ERP value at 2478 MHz is measured, and in the EUT, the ERP value at 2478 MHz is measured. The larger value is selected for consideration.

therefore

$$a=2, b=0, c=2$$

According to the above formula and description

$$(158.49/3060 + 4.47/3060) + (158.49/3060 + 4.47/3060) \approx 0.1065 < 1$$

## 7 Conclusion

The test result is passed.

--END OF REPORT--