

# **TEST REPORT**

#### FOR FCC PART 15 SUBPART C 15.249

Report Reference No. ..... CTL2504183021-WF

Compiled by: ( position+printed name+signature)

Happy Guo (File administrators)

Tested by: ( position+printed name+signature)

Lydia Ou (Test Engineer)

Approved by: ( position+printed name+signature)

Ivan Xie (Manager)



Product Name ...... Remote control series

Model/Type reference ...... 7726

List Model(s)..... Please look at page 2

Trade Mark.....: N/A

FCC ID...... 2BPI5-RCS7726

Applicant's name ...... Shantou Yujinlong Toys Co., Ltd.

Test Firm...... Shenzhen CTL Testing Technology Co., Ltd.

Floor 1-A, Baisha Technology Park, No.3011, Shahexi Road, Address of Test Firm .....:

Nanshan District, Shenzhen, China 518055

Test specification.....:

Standard ......: FCC Part 15.249:Operation within the bands 920-928 MHz,

2400-2483.5 MHz, 5725-5850 MHz and 24.0 - 24.25 GHz.

TRF Originator ...... Shenzhen CTL Testing Technology Co., Ltd.

Master TRF.....: Dated 2011-01

Date of receipt of test item .....: Apr. 20, 2025

Date of Test Date...... Apr. 20, 2025-May. 12, 2025

**Data of Issue**.....: May. 13, 2025

Result..... Pass

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V1.0 Page 2 of 44 Report No.: CTL2504183021-WF

## **TEST REPORT**

Test Report No. :	CTL2504183021-WF	May. 13, 2025
	C1L2304103021-WF	Date of issue

Equipment under Test : Remote control series

Sample No. CTL2504183021

Model /Type : 7726

: 5002-18A, 7705, 7705A, 7705B, 7706, 7706A, 7710,

7710A, 7716, 716A, 7719A, 7720A, 7722, 7722A, 7723, 7723A, 7724, 7724A, 7724B, 7725, 7725A, 7726A, 7727, 7727A, 7728, 7728A, 7729, 7729A, 7730, 7730A, 7731, 7731A, 7732, 7732A, 7736, 7736A.

Listed Models 7733A, 7734, 7734A, 7735, 7735A, 7736A, 7737, 7737A, 7738A, 7739A, 7739A, 7740,

7740A, 7741, 7741A, 7742, 7742A, 7743, 7743A, 7744, 7744A, 7745, 7745A, 7746, 7746A, 7747, 7747A, 7748, 7748A, 7749, 7749A, 7750, 7750A, 7751, 7751A, 7752, 7752A, 7753, 7753A, 7754,

7754A, 7755

Applicant : Shantou Yujinlong Toys Co., Ltd.

Address : No. 8, Lane 8, Xinning Wantou Pig Farm, Fengxiang

Street, Chenghai District, Shantou City, Guangdong

Province, China

Manufacturer : Shantou Yujinlong Toys Co., Ltd.

Address : No. 8, Lane 8, Xinning Wantou Pig Farm, Fengxiang

Street, Chenghai District, Shantou City, Guangdong

Province, China

Test result Pass *
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<sup>\*</sup> In the configuration tested, the EUT complied with the standards specified page 5.

The test results presented in this report relate only to the object tested.

This report shall not be reproduced, except in full, without the written approval of the issuing testing laboratory.

## \*\* Modified History \*\*

Report No.: CTL2504183021-WF

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Revision	Description	Issued Data	Report No.	Remark	
Version 1.0	Initial Test Report Release	2025-05-13	CTL2504183021-WF	Tracy Qi	
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	Table of Contents	Page
1. SU	MMARY	5
1.1.	TEST STANDARDS	
1.2.	TEST DESCRIPTION	
1.3.	TEST FACILITY	6
1.4.	STATEMENT OF THE MEASUREMENT UNCERTAINTY	6
2. GE	NERAL INFORMATION	
2.1.	ENVIRONMENTAL CONDITIONS	
2.2.	GENERAL DESCRIPTION OF EUT	8
2.3.	DESCRIPTION OF TEST MODES AND TEST FREQUENCY	
2.4.	EQUIPMENTS USED DURING THE TEST	10
2.5.	RELATED SUBMITTAL(S) / GRANT(S)	10
2.6.	MODIFICATIONS	12
3. TE	ST CONDITIONS AND RESULTS	13
3.1.	CONDUCTED EMISSIONS TEST	13
3.2.	RADIATED EMISSIONS AND BAND EDGE	14
3.3.	Occupied Bandwidth Measurement	35
3.4.	Antenna Requirement	
4. TE	ST SETUP PHOTOS OF THE EUT	38
5. EX	TERNAL AND INTERNAL PHOTOS OF THE EUT	39

V1.0 Page 5 of 44 Report No.: CTL2504183021-WF

## 1. SUMMARY

#### 1.1. TEST STANDARDS

The tests were performed according to following standards:

FCC Rules Part 15.249: Operation within the bands 902 - 928 MHz, 2400 - 2483.5 MHz, 5725 - 5875 MHz, and 24.0 - 24.25 GHz.

ANSI C63.10:2013: American National Standard for Testing Unlicensed Wireless Devices

## 1.2. Test Description

FCC PART 15.249		
FCC Part 15.249(a)	Field Strength of Fundamental	PASS
FCC Part 15.209	Spurious Emission	PASS
FCC Part 15.209	Band edge	PASS
FCC Part 15.215(c)	20dB bandwidth	PASS
FCC Part 15.207	Conducted Emission	N/A
FCC Part 15.203	Antenna Requirement	PASS

V1.0 Page 6 of 44 Report No.: CTL2504183021-WF

#### 1.3. Test Facility

#### 1.3.1 Address of the test laboratory

Shenzhen CTL Testing Technology Co., Ltd.

Floor 1-A, Baisha Technology Park, No.3011, Shahexi Road, Nanshan District, Shenzhen, China 518055

There is one 3m semi-anechoic chamber and two line conducted labs for final test. The Test Sites meet the requirements in documents ANSI C63.4 and CISPR 32/EN 55032 requirements.

#### 1.3.2 Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L7497

Shenzhen CTL Testing Technology Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories.

#### A2LA-Lab Cert. No. 4343.01

Shenzhen CTL Testing Technology Co., Ltd, EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

IC Registration No.: 9618B

**CAB identifier: CN0041** 

The 3m alternate test site of Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements with Registration No.: 9618B.

## 1.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods — Part 4: Uncertainty in EMC Measurements" and is documented in the Shenzhen CTL Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for CTL laboratory is reported:

Test	Measurement Uncertainty	Notes
Transmitter power conducted	±0.57 dB	(1)
Transmitter power Radiated	±2.20 dB	(1)
Conducted spurious emission 9KHz-40 GHz	±2.20 dB	(1)
Occupied Bandwidth	±0.01ppm	(1)
Radiated Emission9KHz~30MHz	±3.66dB	(1)
Radiated Emission 30~1000MHz	±4.08dB	(1)
Radiated Emission Above 1GHz	±4.32dB	(1)

Conducted Disturbance0.15~30MHz	±3.20dB	(1)
20dB Emission Bandwidth	±1.9%	(1)
Carrier Frequency Separation	±1.9%	(1)
Maximum Power Spectral Density Level	±0.98 dB	(1)
Number of Hopping Channel	±1.9%	(1)
Time of Occupancy	±0.11%	(1)
Max Peak Conducted Output Power	±0.98 dB	(1)
Band-edge Spurious Emission	±1.21dB	(1)
Conducted RF Spurious Emission	9kHz-7GHz:±1.09dB	(1)
Conducted NF Spunous Emission	7GHz-26.5GHz: ±3.27dB	(1)

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

V1.0 Page 8 of 44 Report No.: CTL2504183021-WF

#### 2. GENERAL INFORMATION

#### 2.1. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

	·
Normal Temperature:	25°C
Relative Humidity:	55 %
Air Pressure:	101 kPa

#### 2.2. General Description of EUT

Product Name:	Remote control series
Model/Type reference:	7726
Power supply:	DC 3V from battery
Test Voltage	DC 3V
2.4G	
Modulation:	GFSK
Operation frequency:	2405MHz~2475MHz
Channel number:	33
Antenna type:	Built-in Antenna
Antenna gain:	0.17dBi

Note1: For more details, please refer to the user's manual of the EUT.

Note2: Antenna gain provided by the applicant.

Note3: The product cannot be configured to operate outside the current frequency band plan through software configuration, Third parties are not allowed to change any software parameter configuration of the product.

### 2.3. Description of Test Modes and Test Frequency

The EUT has been tested under typical operating condition. The Applicant provides communication tools software to control the EUT for staying in continuous transmitting and receiving mode for testing. There are 33 channels provided to the EUT and Channel 01/19/33 were selected for testing.

#### **Operation Frequency List:**

Channel	Frequency (MHz)
01	2405
02	2406
03	2407
04	2408
05	2409
06	2410
07	2411
08	2414
09	2418
10	2422
11	2425
12	2427
13	2428
14	2430

33	2475
32	2474
31	2473
30	2472
29	2471
28	2470
27	2469
26	2462
25	2459
24	2456
23	2454
22	2453
21	2452
20	2446
19	2445
18	2442
17	2439
16	2437
15	2435

Note: The line display in grey is the channel selected to perform test.

V1.0 Page 10 of 44 Report No.: CTL2504183021-WF

## 2.4. Equipments Used during the Test

Conduc	cted Emission			P.		
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due
EMI T	est Receiver	ROHDE & SCHWARZ	ESCI	1166.5950.03	2025/04/28	2026/04/27
	LISN	ROHDE & SCHWARZ	ESH2-Z5	860014/010	2025/04/28	2026/04/27
L	imitator	ROHDE & SCHWARZ	ESH3-Z2	100408	2025/04/28	2026/04/27
Software:						
Name of Software:			Version:			
ES-K1			V1.71			

Test Equipment	Manufacturer	Mode	l No	Serial No.	Calibration	Calibration		
Tool Equipment	Manadatarer	Wood	1110.	Conditio.	Date	Due Date		
Active Loop Antenna	Da Ze	ZN30	900A	/	2025/04/28	2026/04/27		
Double cone logarithmic antenna	Schwarzbeck	VU 910		824	2023/02/13	2026/02/12		
Horn Antenna	Sunol Sciences Corp.	DRH	-118	A062013	2024/11/25	2027/11/24		
Horn Antenna	Ocean Microwave	OBH <sup>2</sup>		26999002	2025/02/21	2028/02/20		
Amplifier	MRT Technology(S uzhou)Co., Ltd	MRT-AP0 1M06				S-001	2025/04/28	2026/04/27
Amplifier	Agilent	844	9B	3008A02306	2025/04/28	2026/04/27		
Amplifier	Brief&Smart	LNA-	4018	2104197	2025/05/01	2026/04/30		
EMI Test Receiver	ROHDE & SCHWARZ	ES	CI	1166.5950.03	2025/04/28	2026/04/27		
Spectrum Analyzer	RS	FS	SP.	1164.4391.38	2025/05/01	2026/04/30		
Test software		•		1	Vicari			
Name of Software				Version				
EZ_EMC(Below 1GHz)				V1.1.4.2				
EZ EMC(Above 1GHz)				V1.1.4.2				

Maximum Peak Output Power & 20dB Bandwidth & Frequency Separation & Number of hopping frequency & Dwell Time & Out-of-band Emissions								
Test Equipment	Calibration Calibrati							
Spectrum Analyzer	Keysight	N9	020A	MY53420874	2025/04/29	2026/04/28		
Temperature/Humidity Meter	Ji Yu	MC501		/	2025/05/02	2026/05/01		
Test Software								
Name of So		Version						
TST-PA	V2.0							

Conduc	Conducted Emission								
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due			
EMI Test Receiver		ROHDE & SCHWARZ	ESCI	1166.5950.03	2024/04/30	2025/04/29			
LISN		ROHDE & SCHWARZ	ESH2-Z5	860014/010	2024/04/30	2025/04/29			
I imitator		ROHDE & SCHWARZ	ESH3-Z2	100408	2024/04/30	2025/04/29			
Software:									
	Name	of Software:		Version:					
		ES-K1		V1.71					

Radiated Emissions and E	Band Edge					120		
Test Equipment	Manufacturer	ırer Mode		Serial No.	Calibration Date	Calibration Due Date		
Active Loop Antenna	Da Ze	ZN30	900A	/	2024/04/30	2025/04/29		
Double cone logarithmic antenna	Schwarzbeck	VU 91		824	2023/02/13	2026/02/12		
Horn Antenna	Sunol Sciences Corp.	DRH	-118	A062013	2021/12/23	2024/12/22		
Horn Antenna	Ocean Microwave	OBH1004 00		26999002	2021/12/22	2024/12/21		
Amplifier	MRT Technology(S uzhou)Co., Ltd	MRT-AP0 1M06				S-001	2024/04/30	2025/04/29
Amplifier	Agilent	844	9B 3008A02306		2024/04/30	2025/04/29		
Amplifier	Brief&Smart	LNA-	4018	2104197	2024/05/03	2025/05/02		
EMI Test Receiver	ROHDE & SCHWARZ	ES	CI	1166.5950.03	2024/04/30	2025/04/29		
Spectrum Analyzer	RS	FS	SP	1164.4391.38	2024/05/03	2025/05/02		
Test software								
Name of So	oftware	1	Version					
EZ_EMC(Below 1GHz) V1.1.4.2								

EZ_EMC(Above 1GHz)	V1.1.4.2
= \	2 1 1000 1000 1000

Maximum Peak Output Power & 20dB Bandwidth & Frequency Separation & Number of hopping frequency & Dwell Time & Out-of-band Emissions								
Test Equipment	Manufacturer	Manufacturer Model No. Serial No. Calibration						
Spectrum Analyzer	Keysight	N9020A		N9020A MY53420874		2025/04/30		
Temperature/Humidity Meter	Ji Yu	MC501		MC501		/	2024/05/04	2025/05/03
Test Software								
Name of So		Version						
TST-PA		V2.0						

## 2.5. Related Submittal(s) / Grant(s)

This submittal(s) (test report) is intended to comply with Section 15.249 of the FCC Part 15, Subpart C Rules.

#### 2.6. Modifications

No modifications were implemented to meet testing criteria.

V1.0 Page 13 of 44 Report No.: CTL2504183021-WF

#### 3. TEST CONDITIONS AND RESULTS

#### 3.1. Conducted Emissions Test

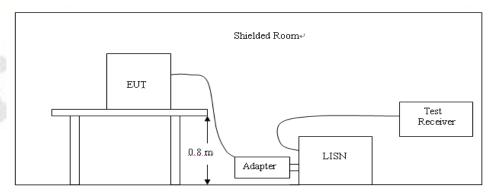
#### LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.207

Fraguency range (MUZ)	Limit (dBuV)					
Frequency range (MHz)	Quasi-peak	Average				
0.15-0.5	66 to 56*	56 to 46*				
0.5-5	56	46				
5-30	60	50				

<sup>\*</sup> Decreases with the logarithm of the frequency.

#### **TEST CONFIGURATION**



#### **TEST PROCEDURE**

- 1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system; a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10:2013.
- 2. Support equipment, if needed, was placed as per ANSI C63.10:2013.
- 3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10:2013.
- 4. If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5. All support equipments received AC power from a second LISN, if any.
- 6. The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7. Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
- 8. During the above scans, the emissions were maximized by cable manipulation.

#### **TEST RESULTS**

Battery powered products do not require this test.

V1.0 Page 14 of 44 Report No.: CTL2504183021-WF

#### 3.2. Radiated Emissions and Band Edge

#### Limit

According 15.249, the field strength of emissions from intentional radiators operated within 2400MHz-2483.5 MHz shall not exceed 94dBµV/m (50mV/m):

FCC PART 15.249(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a)

Radiated emission limits

Frequency (MHz) Distance (Meters)		Radiated (dBµV/m)	Radiated (µV/m)
0.009-0.49	3	20log(2400/F(KHz))+40log(300/3)	2400/F(KHz)
0.49-1.705	3	20log(24000/F(KHz))+ 40log(30/3)	24000/F(KHz)
1.705-30	3	20log(30)+ 40log(30/3)	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

According to §15.249 (a): Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)		
902-928 MHz	50	500		
2400-2483.5 MHz	50	500		
5725-5875 MHz	50	500		
24.0-24.25 GHz	250	2500		

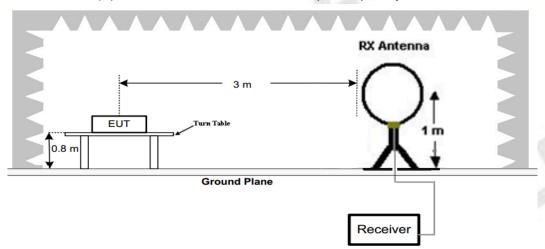
<sup>\*</sup> Field strength limits are specified at a distance of 3 meters.

<sup>\*</sup> As shown in §15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a) and (b) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b) of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.

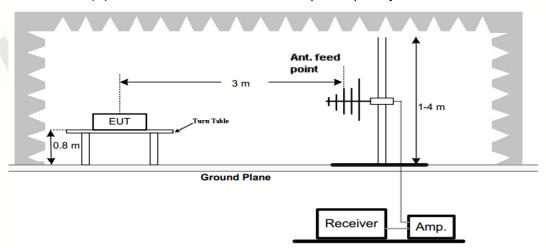
<sup>\*</sup> Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

#### **TEST CONFIGURATION**

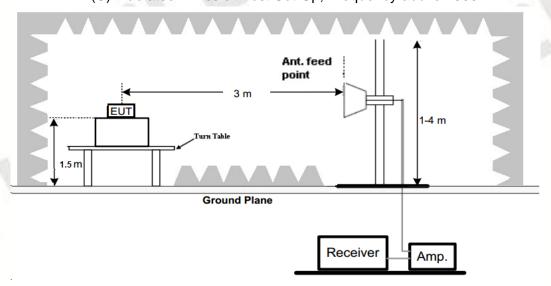
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency below 1000MHz



(C) Radiated Emission Test Set-Up, Frequency above 1000MHz



#### **Test Procedure**

- 1. Below 1GHz measurement the EUT is placed on a turntable which is 0.8m above ground plane, and above 1GHz measurement EUT was placed on a low permittivity and low loss tangent turn table which is 1.5m above ground plane.
- 2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0° to 360° to acquire the highest emissions from EUT
- 3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 4. Repeat above procedures until all frequency measurements have been completed.
- 5. Radiated emission test frequency band from 9KHz to 25GHz.
- 6. The distance between test antenna and EUT as following table states:

Test Frequency range	Test Antenna Type	Test Distance
9KHz-30MHz	Active Loop Antenna	3
30MHz-1GHz	Bilog Antenna	3
1GHz-18GHz	Horn Antenna	3
18GHz-25GHz	Horn Anternna	1

7. Setting test receiver/spectrum as following table states:

Test Frequency	Test Receiver/Spectrum Setting	Detector	
range			
9KHz-150KHz	RBW=200Hz/VBW=3KHz,Sweep time=Auto	QP	
150KHz-30MHz	RBW=9KHz/VBW=100KHz,Sweep time=Auto	QP	
30MHz-1GHz	RBW=120KHz/VBW=1000KHz,Sweep	QP	
301VII 12-1 G 1 12	time=Auto		
	Peak Value: RBW=1MHz/VBW=3MHz,		
1GHz-40GHz	Sweep time=Auto	Peak	
	Average Value: RBW=1MHz/VBW=10Hz,		
	Sweep time=Auto		

#### **TEST RESULTS**

#### Remark:

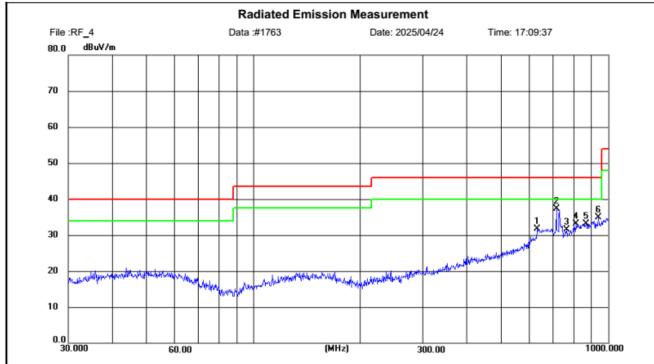
- 1. We measured Radiated Emission at GFSK mode from 9 KHz to 25GHz and recorded worst case.
- 2. For below 1GHz testing recorded worst at GFSK low channel.
- Radiated emission test from 9 KHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9 KHz to 30MHz and not recorded in this report.

#### For 30MHz-1GHz

#### Horizontal



Shenzhen CTL Testing Technology Co., Ltd Tel: +86-755-89486194



Site LAB Chamber 2 Polarization: *Horizontal* Temperature: 25(C)

Limit: FCC Part15 RE-Class C\_30-1000MHz Power: Humidity: 50 %

EUT: Distance: 3m

M/N: 7726 Mode: 2405MHz

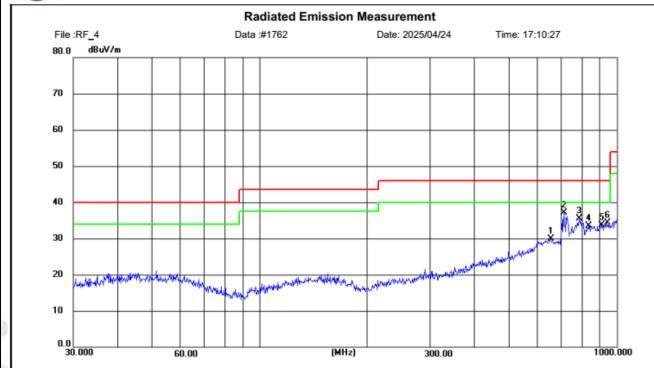
Note: YuJinlong Toys Factory???

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	632.2423	9.12	22.54	31.66	46.00	14.34	peak	100	180	Р	
2	715.1130	14.13	23.09	37.22	46.00	8.78	peak	100	194	Р	
3	764.7152	6.63	24.87	31.50	46.00	14.50	peak	100	137	Р	
4	810.9760	7.16	25.88	33.04	46.00	12.96	peak	100	137	Р	
5	866.8474	6.95	26.16	33.11	46.00	12.89	peak	100	123	Р	
6	942.1304	7.84	27.10	34.94	46.00	11.06	peak	100	95	Р	

#### Vertical



Shenzhen CTL Testing Technology Co., Ltd Tel: +86-755-89486194



Site LAB Chamber 2 Polarization: Vertical Temperature: 25(C)

Limit: FCC Part15 RE-Class C\_30-1000MHz Power: Humidity: 50 %

EUT: Distance: 3m

M/N: 7726 Mode: 2405MHz

Note: YuJinlong Toys Factory???

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	654.5187	7.41	22.58	29.99	46.00	16.01	peak	100	53	Р	
2	713.5475	13.97	23.05	37.02	46.00	8.98	peak	100	194	Р	
3	785.7819	10.24	25.33	35.57	46.00	10.43	peak	100	124	Р	
4	836.2443	7.50	25.98	33.48	46.00	12.52	peak	100	209	Р	
5	908.8696	7.11	26.64	33.75	46.00	12.25	peak	100	167	Р	
6	942.1305	7.23	27.10	34.33	46.00	11.67	peak	100	336	Р	

V1.0 Page 19 of 44 Report No.: CTL2504183021-WF

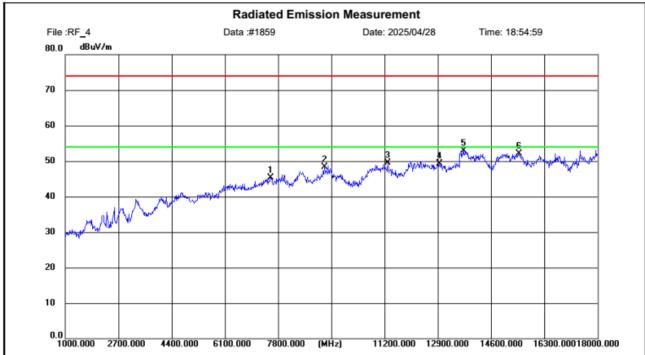
## For 1GHz to 10GHz

#### 2405MHz

#### Horizontal



Shenzhen CTL Testing Technology Co., Ltd Tel: +86-755-89486194



Site LAB Chamber 2 Polarization: *Horizontal* Temperature: 25(C)
Limit: FCC Part15 RE-Class C\_Above 1GHz\_PK Power: Humidity: 50 %

EUT: Distance: 3m

M/N: 7726 Mode: 2405MHz

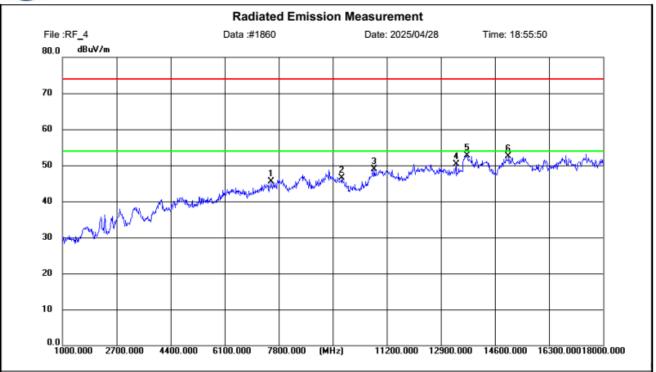
Note: YuJinlong Toys Factory

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	7564.125	48.11	-2.75	45.36	74.00	28.64	peak	150	252	Р	
2	9289.625	48.20	0.10	48.30	74.00	25.70	peak	150	252	Р	
3	11304.125	48.76	0.80	49.56	74.00	24.44	peak	150	252	Р	
4	12955.250	47.42	1.97	49.39	74.00	24.61	peak	150	252	Р	
5	13722.375	49.02	3.87	52.89	74.00	21.11	peak	150	252	Р	
6	15492.500	48.22	3.85	52.07	74.00	21.93	peak	150	252	Р	

Vertical



Shenzhen CTL Testing Technology Co., Ltd Tel: +86-755-89486194



Site LAB Chamber 2

Limit: FCC Part15 RE-Class C\_Above 1GHz\_PK

EUT:

M/N: 7726 Mode: 2405MHz

Note: YuJinlong Toys Factory

Polarization: Vertical Temperature: 25(C)

Power: Humidity: 50 %

Report No.: CTL2504183021-WF

Frequency Reading Factor Level Limit Margin Height Azimuth Detector P/F No. Remark (deg.) (MHz) (dBuV) (dB/m) (dBuV/m) (dBuV/m) (dB) (cm) 7564.125 Р 1 48.24 -2.75 45.49 74.00 28.51 peak 150 346 Р 9801.750 45.99 0.52 27.49 150 2 46.51 74.00 peak 317 10815.375 48.54 0.46 74.00 150 3 49.00 25.00 peak 119 Ρ 4 13380.250 46.86 3.45 50.31 74.00 23.69 peak 150 5 Ρ 5 13720.250 48.93 3.86 52.79 74.00 21.21 peak 150 90 Ρ 15025.000 49.05 3.36 52.41 74.00 21.59 150 Ρ peak

Distance: 3m

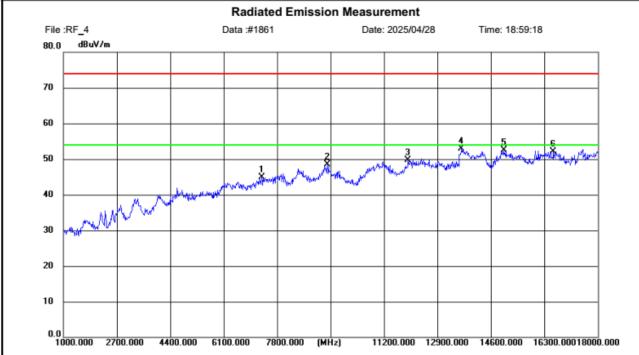
V1.0 Page 21 of 44 Report No.: CTL2504183021-WF

#### 2445MHz

#### Horizontal



Shenzhen CTL Testing Technology Co., Ltd Tel: +86-755-89486194



Site LAB Chamber 2 Polarization: *Horizontal* Temperature: 25(C)

Limit: FCC Part15 RE-Class C\_Above 1GHz\_PK Power: Humidity: 50 %

EUT: Distance: 3m

M/N: 7726 Mode: 2445MHz

Note: YuJinlong Toys Factory

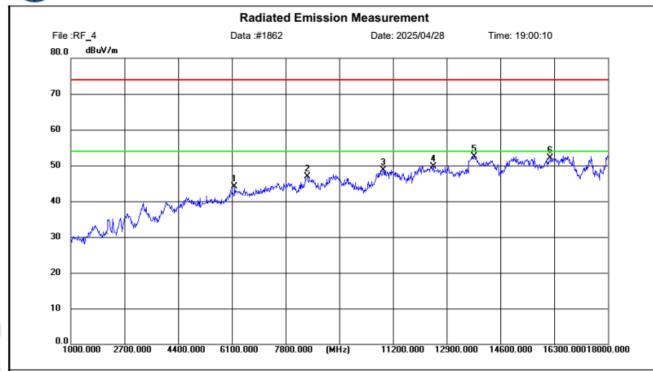
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	7321.875	47.97	-2.97	45.00	74.00	29.00	peak	150	226	Р	
2	9408.625	48.30	0.22	48.52	74.00	25.48	peak	150	113	Р	
3	11967.125	47.51	2.10	49.61	74.00	24.39	peak	150	70	Р	
4	13671.375	49.07	3.91	52.98	74.00	21.02	peak	150	226	Р	
5	15008.000	49.10	3.35	52.45	74.00	21.55	peak	150	298	Р	
6	16595.375	45.80	6.28	52.08	74.00	21.92	peak	150	99	Р	

#### Vertical

Report No.: CTL2504183021-WF



Shenzhen CTL Testing Technology Co., Ltd Tel: +86-755-89486194



Temperature: 25(C) Site LAB Chamber 2 Polarization: Vertical Limit: FCC Part15 RE-Class C\_Above 1GHz\_PK Humidity: 50 %

Power:

EUT: Distance: 3m

M/N: 7726 Mode: 2445MHz

Note: YuJinlong Toys Factory

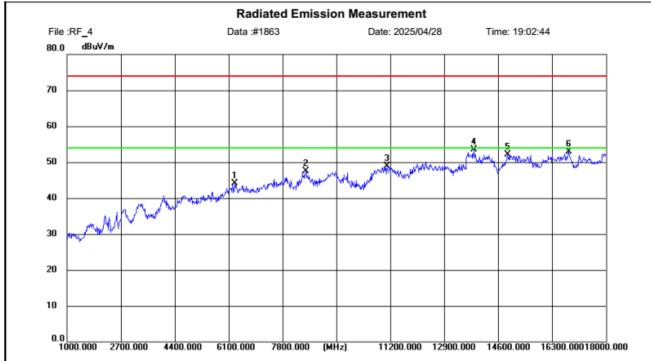
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	6191.375	49.03	-5.00	44.03	74.00	29.97	peak	150	61	Р	
2	8499.125	48.70	-1.75	46.95	74.00	27.05	peak	150	217	Р	
3	10894.000	48.17	0.61	48.78	74.00	25.22	peak	150	4	Р	
4	12475.000	47.53	2.26	49.79	74.00	24.21	peak	150	103	Р	
5	13773.375	48.70	3.78	52.48	74.00	21.52	peak	150	360	Р	
6	16185.250	46.84	5.19	52.03	74.00	21.97	peak	150	317	Р	

#### 2475MHz

#### Horizontal



Shenzhen CTL Testing Technology Co., Ltd Tel: +86-755-89486194



Site LAB Chamber 2 Polarization: *Horizontal* Temperature: 25(C)

Limit: FCC Part15 RE-Class C\_Above 1GHz\_PK Power: Humidity: 50 %

EUT: Distance: 3m

M/N: 7726 Mode: 2475MHz

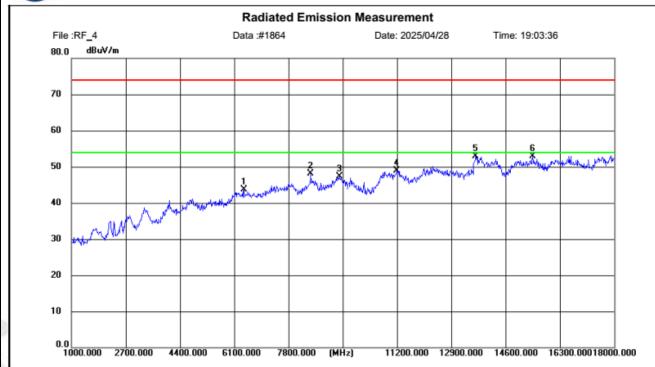
Note: YuJinlong Toys Factory

No	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	6299.750	48.86	-4.78	44.08	74.00	29.92	peak	150	340	Р	
2	8541.625	49.21	-1.73	47.48	74.00	26.52	peak	150	355	Р	
3	11104.375	48.04	0.77	48.81	74.00	25.19	peak	150	170	Р	
4	13839.250	49.73	3.74	53.47	74.00	20.53	peak	150	255	Р	
5	14914.500	48.87	3.18	52.05	74.00	21.95	peak	150	185	Р	
6	16827.000	46.25	6.59	52.84	74.00	21.16	peak	150	156	Р	

#### Vertical



Shenzhen CTL Testing Technology Co., Ltd Tel: +86-755-89486194



Site LAB Chamber 2 Polarization: Vertical Temperature: 25(C)

Limit: FCC Part15 RE-Class C\_Above 1GHz\_PK Power: Humidity: 50 %

EUT: Distance: 3m

M/N: 7726 Mode: 2475MHz

Note: YuJinlong Toys Factory

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	6406.000	48.34	-4.57	43.77	74.00	30.23	peak	150	346	Р	
2	8505.500	49.78	-1.74	48.04	74.00	25.96	peak	150	304	Р	
3	9398.000	47.04	0.21	47.25	74.00	26.75	peak	150	19	Р	
4	11193.625	48.12	0.83	48.95	74.00	25.05	peak	150	247	Р	
5	13667.125	48.91	3.92	52.83	74.00	21.17	peak	150	91	Р	
6	15452.125	49.04	3.82	52.86	74.00	21.14	peak	150	190	Р	

#### **REMARKS:**

- 1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
- 2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 3. Margin value = Limit value- Emission level.
- 4. The other emission levels were very low against the limit.
- 5. RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz Peak detector is for AV value.
- 6. For fundamental frequency, RBW 3MHz VBW 3MHz Peak detector is for PK Value; RMS detector is for AV value.

#### Frequency bands 2405MHz

Report No.: CTL2504183021-WF

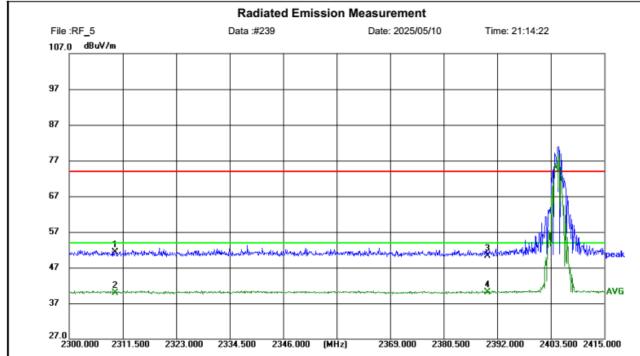
Humidity:

50 %

#### Horizontal



Shenzhen CTL Testing Technology Co., Ltd Tel: +86-755-89486194



Site LAB Chamber 2 Polarization: Horizontal Temperature: 25(C)

Power:

EUT: Distance: 3m

M/N:

Mode: 2405MHz TX Note: CTL2504183021-WF

Limit: FCC Part 15 C

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2310.000	41.61	9.69	51.30	74.00	22.70	peak	150	0	Р	
2	2310.000	30.28	9.69	39.97	54.00	14.03	AVG	150	0	Р	
3	2390.000	40.57	9.77	50.34	74.00	23.66	peak	150	0	Р	
4	2390.000	30.29	9.77	40.06	54.00	13.94	AVG	150	0	Р	

#### Report No.: CTL2504183021-WF

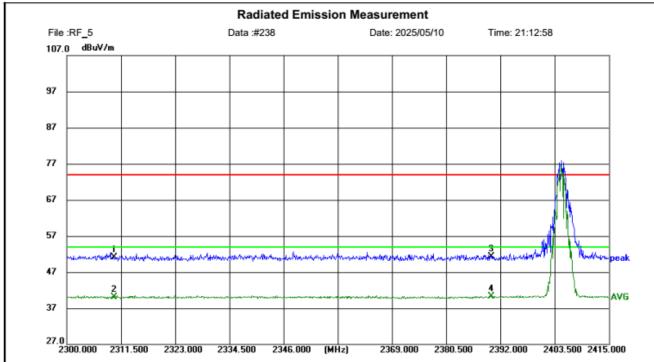
Humidity:

50 %

#### Vertical



Shenzhen CTL Testing Technology Co., Ltd Tel: +86-755-89486194



Site LAB Chamber 2 Polarization: Vertical Temperature: 25(C)

Power:

EUT: Distance: 3m

M/N:

Mode: 2405MHz TX Note: CTL2504183021-WF

Limit: FCC Part 15 C

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2310.000	41.43	9.69	51.12	74.00	22.88	peak	150	360	Р	
2	2310.000	30.36	9.69	40.05	54.00	13.95	AVG	150	360	Р	
3	2390.000	41.43	9.77	51.20	74.00	22.80	peak	150	360	Р	
4	2390.000	30.57	9.77	40.34	54.00	13.66	AVG	150	360	Р	

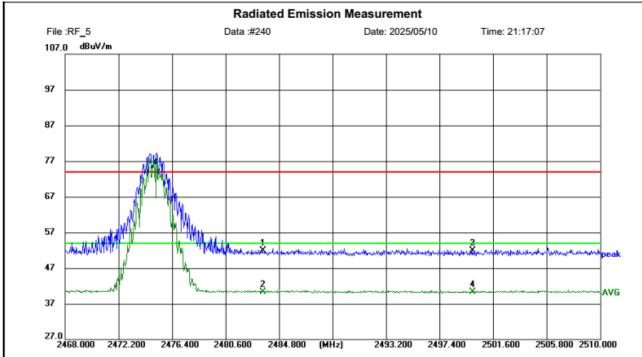
V1.0 Page 27 of 44 Report No.: CTL2504183021-WF

#### **Frequency bands** 2475MHz

#### Horizontal



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Site LAB Chamber 2 Temperature: Polarization: Horizontal Limit: FCC Part 15 C Humidity: 50 %

25(C)

EUT: Distance: 3m

M/N:

Mode: 2475MHz TX Note: CTL2504183021-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2483.500	41.97	9.93	51.90	74.00	22.10	peak	150	360	Р	
2	2483.500	30.44	9.93	40.37	54.00	13.63	AVG	150	360	Р	
3	2500.000	41.94	10.00	51.94	74.00	22.06	peak	150	360	Р	
4	2500.000	30.36	10.00	40.36	54.00	13.64	AVG	150	360	Р	

Power:

Temperature:

Humidity:

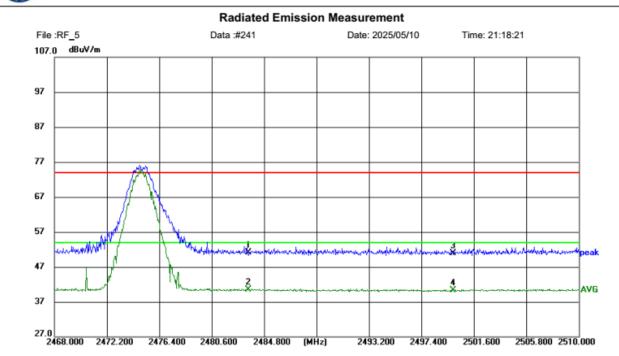
25(C)

50 %

#### Vertical



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Site LAB Chamber 2 Polarization: Vertical
Limit: FCC Part 15 C Power:

EUT: Distance: 3m

M/N:

Mode: 2475MHz TX Note: CTL2504183021-WF

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2483.500	41.15	9.93	51.08	74.00	22.92	peak	150	0	Р	
2	2483.500	30.49	9.93	40.42	54.00	13.58	AVG	150	0	Р	
3	2500.000	40.94	10.00	50.94	74.00	23.06	peak	150	0	Р	
4	2500.000	30.20	10.00	40.20	54.00	13.80	AVG	150	0	Р	

V1.0 Page 29 of 44 Report No.: CTL2504183021-WF

#### **Field Strength of Fundamental**

Remark: This test was performed with EUT in X, Y, Z position and the worst case was found when EUT in X position.

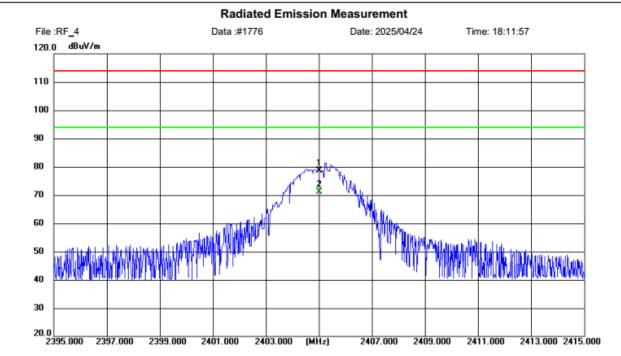
#### 2405MHz

#### Horizontal



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Tel: +86-755-89486194



Power:

114.00

94.00

Distance: 3m

Polarization: Horizontal

35.36

22.86

peak

AVG

Site LAB Chamber 2

Limit: 114

EUT:

No.

1

M/N: 7726

Mode: 2405MHz

Note: YuJinlong Toys Factory

Frequency

(MHz)

2405.000

2405.000

Reading

(dBuV)

78.44

70.94

Factor

(dB/m)

0.20

0.20

Level

(dBuV/m)

78.64

71.14

Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark

360

360

Ρ

Р

150

150

Temperature:

Humidity:

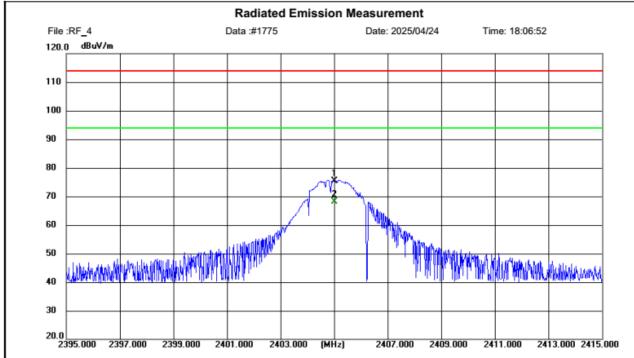
25(C)

50 %

#### Vertical



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Site LAB Chamber 2

Limit: 114

EUT:

M/N: 7726 Mode: 2405MHz

Note: YuJinlong Toys Factory

Polarization:	Vertical	Temperature:	25(C)
Power:		Humidity: 5	60 %

Report No.: CTL2504183021-WF

Distance: 3m

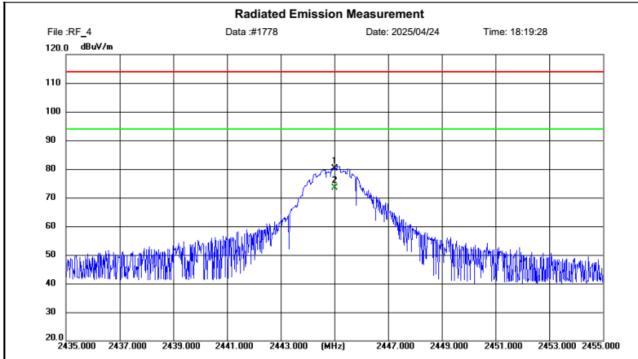
No.		Reading (dBuV)			Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2405.000	75.07	0.20	75.27	114.00	38.73	peak	150	360	Р	
2	2405.000	67.91	0.20	68.11	94.00	25.89	AVG	150	0	Р	

# Field Strength of Fundamental 2445MHz

#### Horizontal



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Site LAB Chamber 2

Limit: 114

EUT:

No.

1

M/N: 7726 Mode: 2445MHz

Note: YuJinlong Toys Factory

Frequency

(MHz)

2445.000

2445.000

Reading

(dBuV)

79.91

73.26

Polarization: Horizontal

Power:

94.00

Level

(dBuV/m)

80.13

73.48

Factor

(dB/m)

0.22

0.22

wer:

20.52

Distance: 3m

Temperature: 25(C)

Humidity: 50 %

Limit Height Margin Azimuth Detector P/F Remark (dBuV/m) (cm) (deg.) (dB) 114.00 33.87 peak 150 360 Ρ

360

Ρ

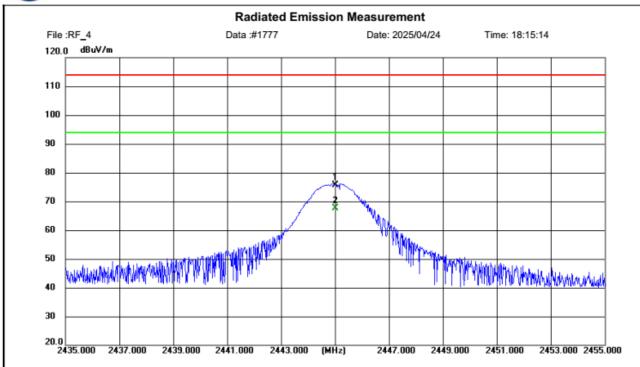
150

#### Vertical

Report No.: CTL2504183021-WF



Shenzhen CTL Testing Technology Co., Ltd Tel: +86-755-89486194



Polarization:

Distance: 3m

Power:

94.00

26.38

Site LAB Chamber 2

Limit: 114

No.

1

2

EUT:

M/N: 7726 Mode: 2445MHz

Note: YuJinlong Toys Factory

Frequency

(MHz)

2445.000

2445.000

67.40

0.22

67.62

											١
	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark	
ı	75.53	0.22	75.75	114.00	38.25	peak	150	0	Р		

AVG

150

Vertical

Temperature:

Р

Humidity:

25(C)

50 %

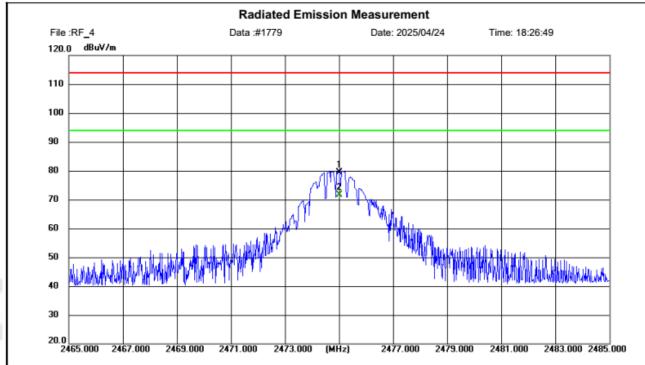
V1.0 Page 33 of 44 Report No.: CTL2504183021-WF

# Field Strength of Fundamental 2475MHz

#### Horizontal



Shenzhen CTL Testing Technology Co., Ltd Tel: +86-755-89486194



Site LAB Chamber 2

Limit: 114

EUT: Distance: 3m

M/N: 7726 Mode: 2475MHz

Note: YuJinlong Toys Factory

No.	Frequency (MHz)	Reading (dBuV)		Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2475.000	79.00	0.32	79.32	114.00	34.68	peak	150	0	Р	
2	2475.000	71.35	0.32	71.67	94.00	22.33	AVG	150	0	Р	

Power:

Polarization: Horizontal

Temperature:

Humidity:

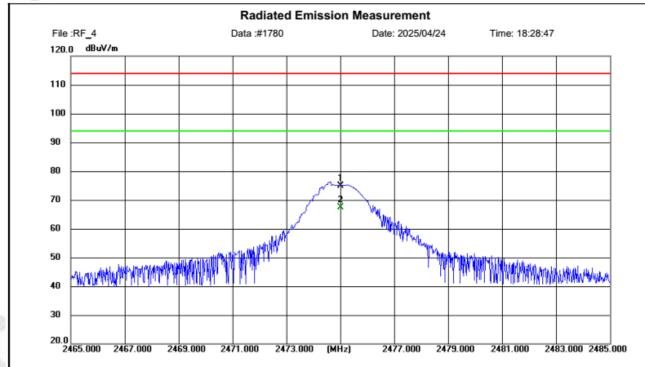
25(C)

50 %

#### Vertical



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Site LAB Chamber 2

Limit: 114

EUT:

M/N: 7726

Mode: 2475MHz

Note: YuJinlong Toys Factory

Polarization:	Vertical	Temperature:	2
Power:		Humidity: 5	0 %

25(C)

Distance: 3m

No.	Frequency (MHz)	Reading (dBuV)				Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2475.000	74.59	0.32	74.91	114.00	39.09	peak	150	360	Р	
2	2475.000	67.07	0.32	67.39	94.00	26.61	AVG	150	360	Р	

#### **REMARKS**:

- 1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
- 2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 3. Margin value = Limit value- Emission level.
- 4. -- Mean the PK detector measured value is below average limit.
- 5. The other emission levels were very low against the limit.
- 6. RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz Peak detector is for AV value.
- 7. For fundamental frequency, RBW 3MHz VBW 3MHz Peak detector is for PK Value; RMS detector is for AV value.

V1.0 Page 35 of 44 Report No.: CTL2504183021-WF

#### 3.3. Occupied Bandwidth Measurement

#### Limit

N/A

#### **Test Configuration**



#### **Test Procedure**

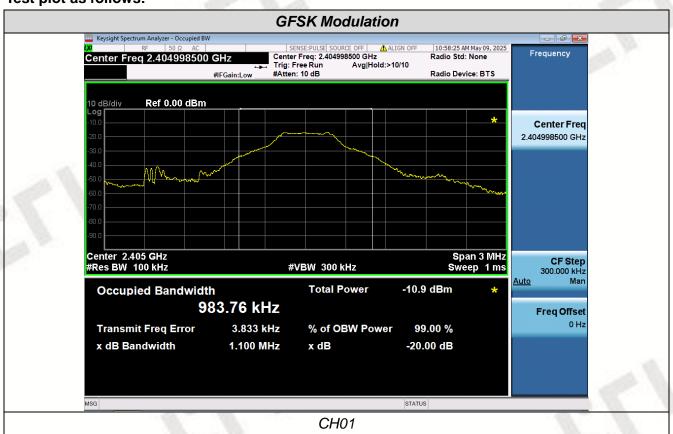
The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100KHz RBW and 300KHz VBW.

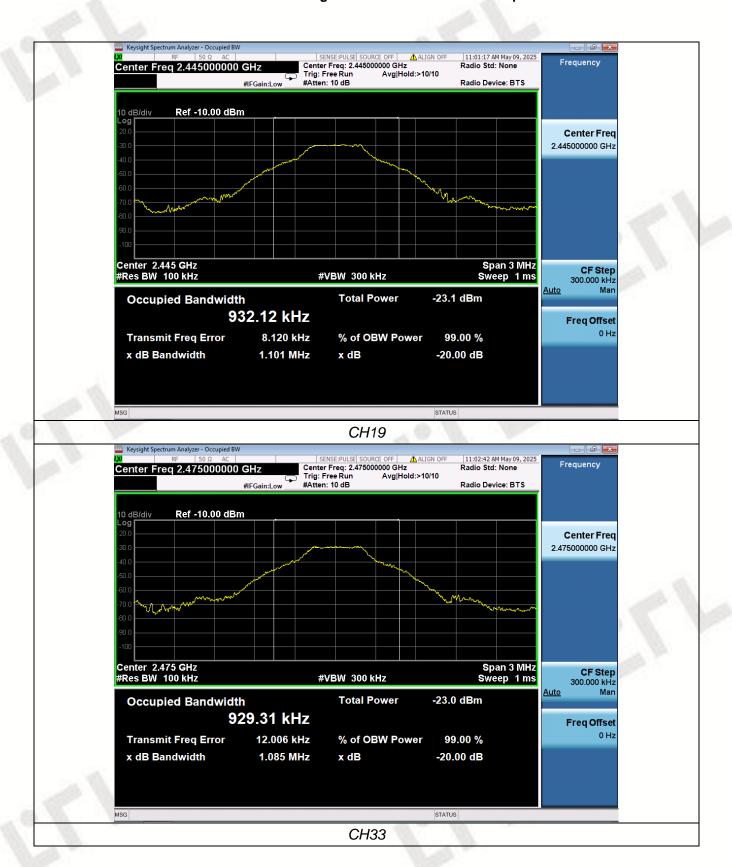
The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

#### **Test Results**

Modulation	Channel	99% OBW (MHz)	20dB bandwidth (MHz)	Result
	CH01	0.98376	1.10000	
GFSK	CH19	0.93212	1.10100	Pass
	CH33	0.92931	1.08500	- 0

#### Test plot as follows:





V1.0 Page 37 of 44 Report No.: CTL2504183021-WF

#### 3.4. Antenna Requirement

#### **Standard Applicable**

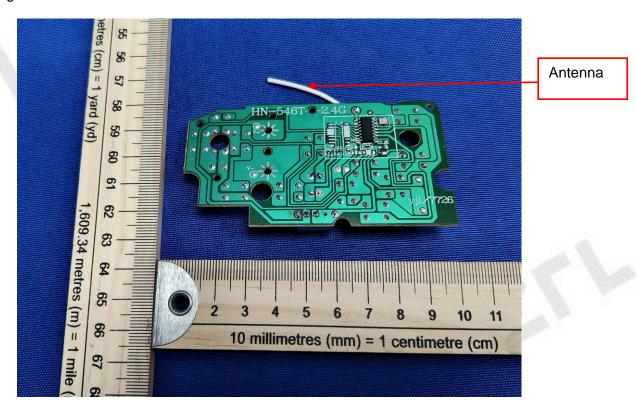
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

#### Refer to statement below for compliance.

The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

#### **Antenna Connected Construction**

The antenna used in this product is a Built-in Antenna, The directional gains of antenna used for transmitting is 0.17dBi.



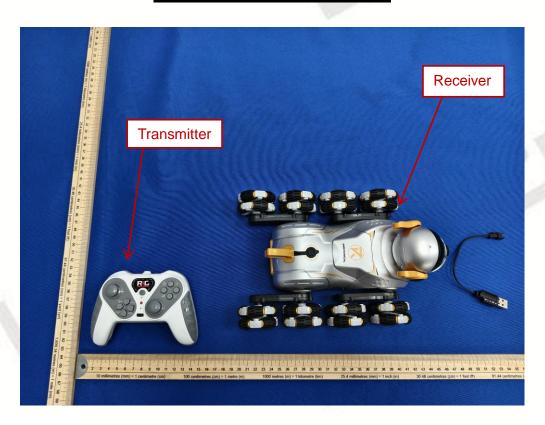
V1.0 Page 38 of 44 Report No.: CTL2504183021-WF

## 4. Test Setup Photos of the EUT





# 5. External and Internal Photos of the EUT <u>External Photos of EUT</u>













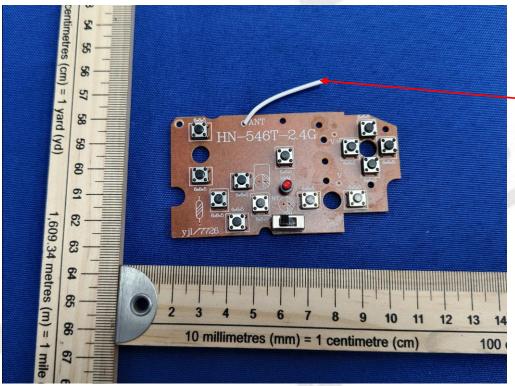




V1.0 Page 43 of 44 Report No.: CTL2504183021-WF

## **Internal Photos of EUT**





Transmit Antenna

