

# Shenzhen HTT Technology Co., Ltd.

# TEST REPORT FCC Rules and Regulations Part PART 15.249

Report Reference No...... HTT202307374F01

FCC ID...... 2AVXUS-015

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Testing Laboratory Name ...... Shenzhen HTT Technology Co.,Ltd.

1F, Building B, Huafeng International Robotics Industrial Park, 

District, Shenzhen, Guangdong, China

Applicant's name...... CHENGHAI XINDONGLI PLASTIC TOYS FACTORY

Address.....CITY GUANGDONG CHINA WAIPU GONGYEQU FENGXIANG CHENGHAI DISTRICT SHANTOU

Standard ...... FCC Rules and Regulations Part PART 15.249

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Test item descriptio	າRC TOYS
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Trade Mark .....LS TOYS

Manufacturer ...... CHENGHAI XINDONGLI PLASTIC TOYS FACTORY

Model/Type reference..... S-015

S-010, S-011, S-012, S-013, S-014, S-016, S-017, S-018, S-019,

S-020, S-021, S-022, KF22, KF23, KF24, KF25, KF26, KF27, KF28,

Heber He
Bruce Zhu
Kevin Yang

Listed Models ..... KF29, 1615, 1616, 1617, 1618, 1619, X-02, X-010, X-011, X-012,

X-013, X-014, X-015, X-016, X-017, X-018, X-019, X-020, X-021

Modulation ...... GFSK

Ratings...... DC 3.0V From Battery

Result......PASS

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### TEST REPORT

Equipment under Test : RC TOYS

Model /Type : S-015

Listed Models

: S-010, S-011, S-012, S-013, S-014, S-016, S-017, S-018, S-019,

S-020, S-021, S-022, KF22, KF23, KF24, KF25, KF26, KF27, KF28, KF29, 1615, 1616, 1617, 1618, 1619, X-02, X-010, X-011, X-012, X-013, X-014, X-015, X-016, X-017, X-018, X-010, X-020, X-021

X-013, X-014, X-015, X-016, X-017, X-018, X-019, X-020, X-021

Applicant : CHENGHAI XINDONGLI PLASTIC TOYS FACTORY

Address : WAIPU GONGYEQU FENGXIANG CHENGHAI DISTRICT

SHANTOU CITY GUANGDONG CHINA

Manufacturer : CHENGHAI XINDONGLI PLASTIC TOYS FACTORY

Address : WAIPU GONGYEQU FENGXIANG CHENGHAI DISTRICT

SHANTOU CITY GUANGDONG CHINA

Test Result:	PASS
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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# 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

ANSI C63.4: 2014: –American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40GHz Range of 9 kHz to 40GHz

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# 2. SUMMARY

## 2.1. General Remarks

Date of receipt of test sample	• •	Jul. 17, 2023
Testing commenced on		Jul. 17, 2023
Testing concluded on	:	Jul. 27, 2023

# 2.2. Product Description

Name of EUT	RC TOYS
Model Number	S-015
List Model:	S-010, S-011, S-012, S-013, S-014, S-016, S-017, S-018, S-019, S-020, S-021, S-022, KF22, KF23, KF24, KF25, KF26, KF27, KF28, KF29, 1615, 1616, 1617, 1618, 1619, X-02, X-010, X-011, X-012, X-013, X-014, X-015, X-016, X-017, X-018, X-019, X-020, X-021
Power Rating	DC 3.0V From Battery
Sample ID:	HTT202307374-1#(Engineer sample) HTT202307374-2#(Normal sample)
Operation frequency	2410MHz~2473MHz
Modulation	GFSK
Antenna Type	Wire antenna
Antenna Gain	0.17 dBi

### 2.3. Equipment Under Test

### Power supply system utilised

Power supply voltage	0	230V / 50 Hz	0	120V / 60Hz
	0	12 V DC	0	24 V DC
	•	Other (specified in blank below)		

DC 3.0V From Battery

# 2.4. Short description of the Equipment under Test (EUT)

This is a RC TOYS

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

## 2.5. EUT operation mode

The Applicant use Key to control the EUT for staying in continuous transmitting and receiving mode for testing .There is 3 channels provided to the EUT. Channel Low,Mid and High was selected to test.

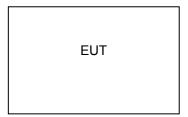
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Operation Frequency each of channel						
Channel	Frequency	Channel	Frequency	Channel	Frequency	
1	2410MHz	4	2437MHz	7	2473MHz	
2	2415MHz	5	2445MHz	1	1	
3	2427MHz	6	2450MHz	/	1	

Test frequency:

Channel	Frequency
The lowest channel	2410MHz
The middle channel	2445MHz
The Highest channel	2473MHz

# 2.6. Block Diagram of Test Setup



# 2.7. Modifications

No modifications were implemented to meet testing criteria.

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# 3. TEST ENVIRONMENT

### 3.1. Address of the test laboratory

### Shenzhen HTT Technology Co.,Ltd.

1F, Building B, Huafeng International Robotics Industrial Park, Hangcheng Road, Nanchang Community, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China

### 3.2. Test Facility

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

### FCC-Registration No.: 779513 Designation Number: CN1319

Shenzhen HTT Technology Co.,Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

#### A2LA-Lab Cert. No.: 6435.01

Shenzhen HTT Technology Co.,Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

#### 3.3. Environmental conditions

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

#### Radiated Emission:

	_
Temperature:	23 ° C
Humidity:	48 %
Atmospheric pressure:	950-1050mbar

#### AC Main Conducted testing:

ie mani eenaastea teemigi	
Temperature:	24 ° C
Humidity:	45 %
Atmospheric pressure:	950-1050mbar

### Conducted testing:

° C
° C
%
0-1050mbar

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## 3.4. Summary of measurement results

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		

## 3.5. Statement of the measurement uncertainty

Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.66dB, k=2
Radiated emission expanded uncertainty(9kHz-30MHz) = 3.08dB, k=2
Radiated emission expanded uncertainty(30MHz-1000MHz) = 3.45dB, k=2
Radiated emission expanded uncertainty(Above 1GHz) = 4.06dB, k=2
RF Conducted = 0.16 dB, k=2

## 3.6. Equipments Used during the Test

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	Shenzhen C.R.T technology co., LTD	9*6*6	HTT-E028	Aug. 10 2021	Aug. 09 2024
2	Control Room	Shenzhen C.R.T technology co., LTD	4.8*3.5*3.0	HTT-E030	Aug. 10 2021	Aug. 09 2024
3	EMI Test Receiver	Rohde&Schwar	ESCI7	HTT-E022	Apr. 26 2023	Apr. 25 2024
4	Spectrum Analyzer	Rohde&Schwar	FSP	HTT-E037	Apr. 26 2023	Apr. 25 2024
5	Coaxial Cable	ZDecl	ZT26-NJ-NJ-0.6M	HTT-E018	Apr. 26 2023	Apr. 25 2024
6	Coaxial Cable	ZDecl	ZT26-NJ-SMAJ-2M	HTT-E019	Apr. 26 2023	Apr. 25 2024
7	Coaxial Cable	ZDecl	ZT26-NJ-SMAJ-0.6M	HTT-E020	Apr. 26 2023	Apr. 25 2024
8	Coaxial Cable	ZDecl	ZT26-NJ-SMAJ-8.5M	HTT-E021	Apr. 26 2023	Apr. 25 2024
9	Composite logarithmic antenna	Schwarzbeck	VULB 9168	HTT-E017	May. 21 2023	May. 20 2024
10	Horn Antenna	Schwarzbeck	BBHA9120D	HTT-E016	May. 20 2023	May. 19 2024
11	Loop Antenna	Zhinan	ZN30900C	HTT-E039	Apr. 26 2023	Apr. 25 2024
12	Horn Antenna	Beijing Hangwei Dayang	OBH100400	HTT-E040	Apr. 26 2023	Apr. 25 2024
13	low frequency Amplifier	Sonoma Instrument	310	HTT-E015	Apr. 26 2023	Apr. 25 2024
14	high-frequency Amplifier	HP	8449B	HTT-E014	Apr. 26 2023	Apr. 25 2024
15	Variable frequency power supply	Shenzhen Anbiao Instrument Co., Ltd	ANB-10VA	HTT-082	Apr. 26 2023	Apr. 25 2024
16	EMI Test Receiver	Rohde & Schwarz	ESCS-0150	HTT-E004	Apr. 26 2023	Apr. 25 2024
17	Artificial Mains	Rohde & Schwarz	ESH3-Z5	HTT-E006	May. 23 2023	May. 22 2024
18	Artificial Mains	Rohde & Schwarz	ENV-216	HTT-E038	May. 23 2023	May. 22 2024
19	Cable Line	Robinson	Z302S-NJ-BNCJ-1.5M	HTT-E001	Apr. 26 2023	Apr. 25 2024
20	Attenuator	Robinson	6810.17A	HTT-E007	Apr. 26 2023	Apr. 25 2024
21	Variable frequency power	Shenzhen Yanghong	YF-650 (5KVA)	HTT-E032	Apr. 26 2023	Apr. 25 2024

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	supply	Electric Co., Ltd				
22	Control Room	Shenzhen C.R.T technology co., LTD	8*4*3.5	HTT-E029	Aug. 10 2021	Aug. 09 2024
23	DC power supply	Agilent	E3632A	HTT-E023	Apr. 26 2023	Apr. 25 2024
24	EMI Test Receiver	Agilent	N9020A	HTT-E024	Apr. 26 2023	Apr. 25 2024
25	Analog signal generator	Agilent	N5181A	HTT-E025	Apr. 26 2023	Apr. 25 2024
26	Vector signal generator	Agilent	N5182A	HTT-E026	Apr. 26 2023	Apr. 25 2024
27	Power sensor	Keysight	U2021XA	HTT-E027	Apr. 26 2023	Apr. 25 2024
28	Temperature and humidity meter	Shenzhen Anbiao Instrument Co., Ltd	TH10R	HTT-074	Apr. 28 2023	Apr. 27 2024
29	Radiated Emission Test Software	Farad	EZ-EMC	N/A	N/A	N/A
30	Conducted Emission Test Software	Farad	EZ-EMC	N/A	N/A	N/A
31	RF Test Software	panshanrf	TST	N/A	N/A	N/A

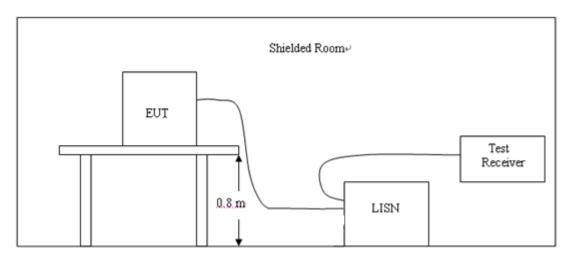
Note: The Cal.Interval was one year.

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## 4. TEST CONDITIONS AND RESULTS

#### 4.1. AC Power Conducted Emission

#### **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.
- 2, Support equipment, if needed, was placed as per ANSI C63.10.
- 3, All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
- 4, If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received 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.

#### **AC Power Conducted Emission Limit**

For intentional device, according to § 15.207(a) AC Power Conducted Emission Limits is as following:

Frequency range (MHz)	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			
* Decreases with the logarithm of the frequency.					

#### **TEST RESULTS**

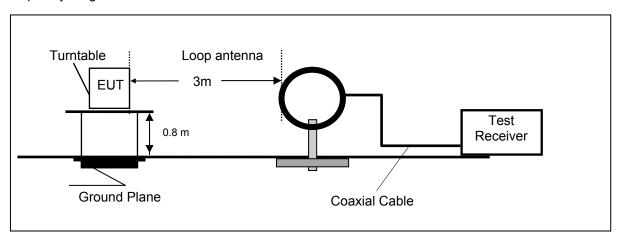
The EUT is Powered by the Battery, So This test item is not applicable for the EUT.

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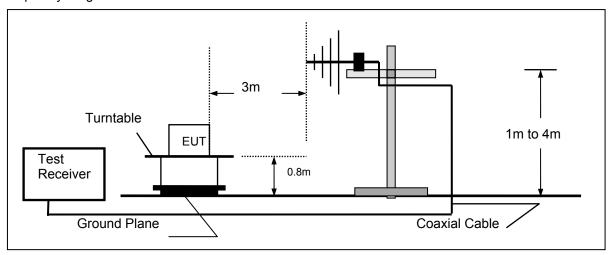
## 4.2. Radiated Emission and Band Edges

### **TEST CONFIGURATION**

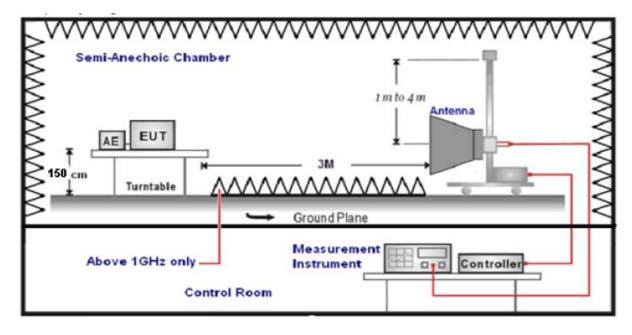
Frequency range 9 KHz - 30MHz



Frequency range 30MHz - 1000MHz



Frequency range above 1GHz-25GHz



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#### **TEST PROCEDURE**

- 1. The EUT was placed on a turn table which is 0.8m above ground plane when testing frequency range 9 KHz –25GHz.
- 2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from  $0^{\circ}$ C to 360°C to acquire the highest emissions from EUT.
- 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. The EUT minimum operation frequency was 26MHz and maximum operation frequency was 1910MHz.so 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	Ultra-Broadband Antenna	3
1GHz-18GHz	Double Ridged Horn Antenna	3
18GHz-25GHz	Horn Anternna	1

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

Test Frequency range Test Receiver/Spectrum Setting		Detector
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 time=Auto	QP
	Peak Value: RBW=1MHz/VBW=3MHz,	
1GHz-40GHz	Sweep time=Auto	Peak
10112-400112	Average Value: RBW=1MHz/VBW=10Hz,	reak
	Sweep time=Auto	

#### Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

#### FS = RA + AF + CL - AG

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

Transd=AF +CL-AG

#### **RADIATION 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

#### **TEST RESULTS**

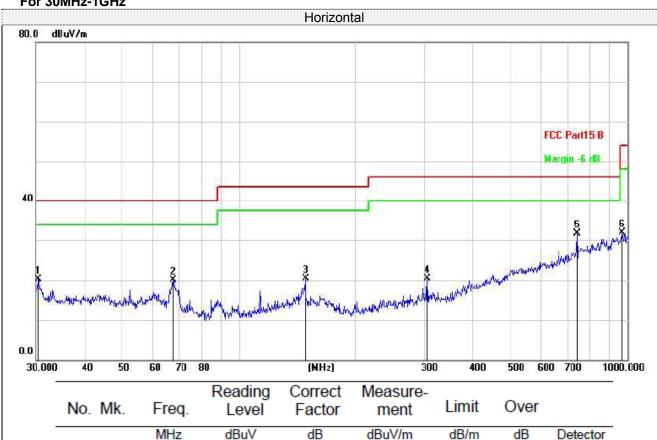
Remark:

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

- Both modes of GFSK were tested at Low, Middle, and High channel and recorded worst mode at GFSK 2.
- 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



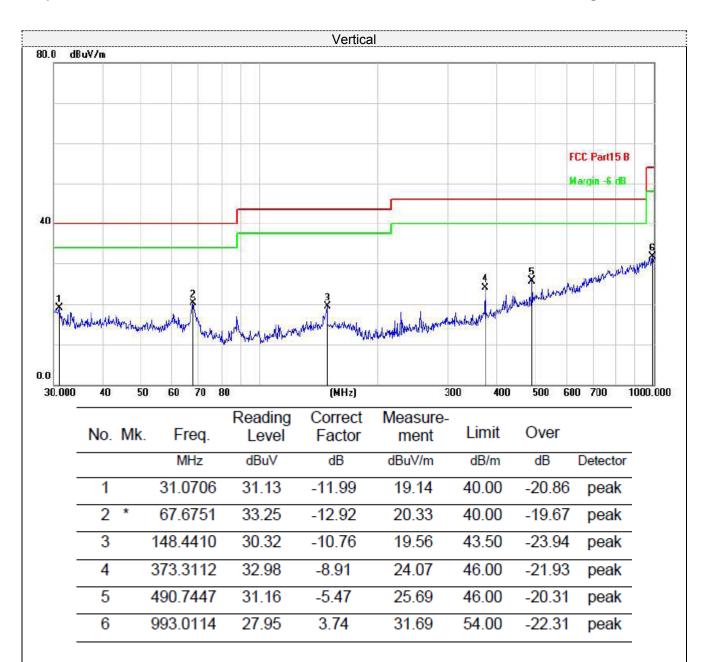
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		30.5306	32.49	-12.11	20.38	40.00	-19.62	peak
2		67.6751	33.11	-12.92	20.19	40.00	-19.81	peak
3		148.4410	31.28	-10.76	20.52	43.50	-22.98	peak
4		305.6800	30.85	-10.42	20.43	46.00	-25.57	peak
5	*	742.2587	32.21	-0.53	31.68	46.00	-14.32	peak
6		968.9338	28.34	3.51	31.85	54.00	-22.15	peak

Note:1).Level ( $dB\mu V/m$ )= Reading ( $dB\mu V$ )+ Factor (dB/m)

2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dB $\mu$ V/m) - Level (dB $\mu$ V/m)

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Note:1).Level ( $dB\mu V/m$ )= Reading ( $dB\mu V$ )+ Factor (dB/m)

3). Margin(dB) = Limit (dB $\mu$ V/m) - Level (dB $\mu$ V/m)

<sup>2).</sup> Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

### For 1GHz to 25GHz

## GFSK (above 1GHz)

CH Low (2410MHz)

Frequency (MHz)	Level@3m (dBµV/m)	Antenna Polarity	Limit@3m (dBµV/m)
2410	94.78(PK)	Н	114(Peak)/ 94(AV)
2410	90.22(PK)	V	114(Peak)/ 94(AV)
4820	52.26(PK)	Н	74(Peak)/ 54(AV)
4820	46.85(PK)	V	74(Peak)/ 54(AV)
7230		H/V	74(Peak)/ 54(AV)
9640		H/V	74(Peak)/ 54(AV)
12050		H/V	74(Peak)/ 54(AV)
14460		H/V	74(Peak)/ 54(AV)
16870		H/V	74(Peak)/ 54(AV)
19280		H/V	74(Peak)/ 54(AV)
21690		H/V	74(Peak)/ 54(AV)
24100		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp

CH Middle (2445MHz)

Frequency (MHz)	Level@3m (dBµV/m)	Antenna Polarity	Limit@3m (dBµV/m)
2445	91.52(PK)	Н	114(Peak)/ 94(AV)
2445	88.62(PK)	V	114(Peak)/ 94(AV)
4890	51.34(PK)	Н	74(Peak)/ 54(AV)
4890	45.84(PK)	V	74(Peak)/ 54(AV)
7335		H/V	74(Peak)/ 54(AV)
9780		H/V	74(Peak)/ 54(AV)
12225		H/V	74(Peak)/ 54(AV)
14670		H/V	74(Peak)/ 54(AV)
17115		H/V	74(Peak)/ 54(AV)
19560		H/V	74(Peak)/ 54(AV)
22005		H/V	74(Peak)/ 54(AV)
24450		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp

<sup>2.</sup> Remark "---" means that the emissions level is too low to be measured

<sup>2.</sup> Remark "---" means that the emissions level is too low to be measured

# CH High (2473MHz)

Frequency (MHz)	Level@3m (dBµV/m)	Antenna Polarity	Limit@3m (dBµV/m)
2473	90.59(PK)	Н	114(Peak)/ 94(AV)
2473	85.06(PK)	V	114(Peak)/ 94(AV)
4946	47.45 (PK)	Н	74(Peak)/ 54(AV)
4946	44.13(PK)	V	74(Peak)/ 54(AV)
7419		H/V	74(Peak)/ 54(AV)
9892		H/V	74(Peak)/ 54(AV)
12365		H/V	74(Peak)/ 54(AV)
14838		H/V	74(Peak)/ 54(AV)
17311		H/V	74(Peak)/ 54(AV)
19784		H/V	74(Peak)/ 54(AV)
22257		H/V	74(Peak)/ 54(AV)
24730		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp

<sup>2.</sup> Remark "---" means that the emissions level is too low to be measured

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### Results of Band Edges Test (Radiated)

Operation Mode: GFSK (2410MHz)

Horizontal (Worst case)

Reading	Factor	Emission Level	Limits	Margin	Detector
(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type
53.39	-5.68	47.71	74	-26.29	peak
41.63	-5.68	35.95	54	-18.05	AVG
52.06	-5.68	46.38	74	-27.62	peak
40.05	-5.68	34.37	54	-19.63	AVG
	(dBµV) 53.39 41.63 52.06	(dBμV) (dB) 53.39 -5.68 41.63 -5.68 52.06 -5.68	(dBμV)     (dB)     (dBμV/m)       53.39     -5.68     47.71       41.63     -5.68     35.95       52.06     -5.68     46.38       5.68     34.37	(dBμV)     (dB)     (dBμV/m)     (dBμV/m)       53.39     -5.68     47.71     74       41.63     -5.68     35.95     54       52.06     -5.68     46.38     74	(dBμV)     (dB)     (dBμV/m)     (dBμV/m)     (dBμV/m)       53.39     -5.68     47.71     74     -26.29       41.63     -5.68     35.95     54     -18.05       52.06     -5.68     46.38     74     -27.62       5.68     34.37     54     10.63

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

#### Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type
2390	50.05	-5.68	44.37	74	-29.63	peak
2390	39.48	-5.68	33.8	54	-20.2	AVG
2400	49.25	-5.68	43.57	74	-30.43	peak
2400	38.02	-5.68	32.34	54	-21.66	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Operation Mode: GFSK (2473MHz)

Horizontal (Worst case)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2483.5	52.78	-5.85	46.93	74	-27.07	peak
2483.5	40.59	-5.85	34.74	54	-19.26	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

## Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2483.5	50.92	-5.85	45.07	74	-28.93	peak
2483.5	39.66	-5.85	33.81	54	-20.19	AVG

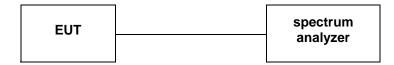
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.

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### 4.3. 20dB Bandwidth Measurement

### **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 30KHz RBW and 100KHz VBW.

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

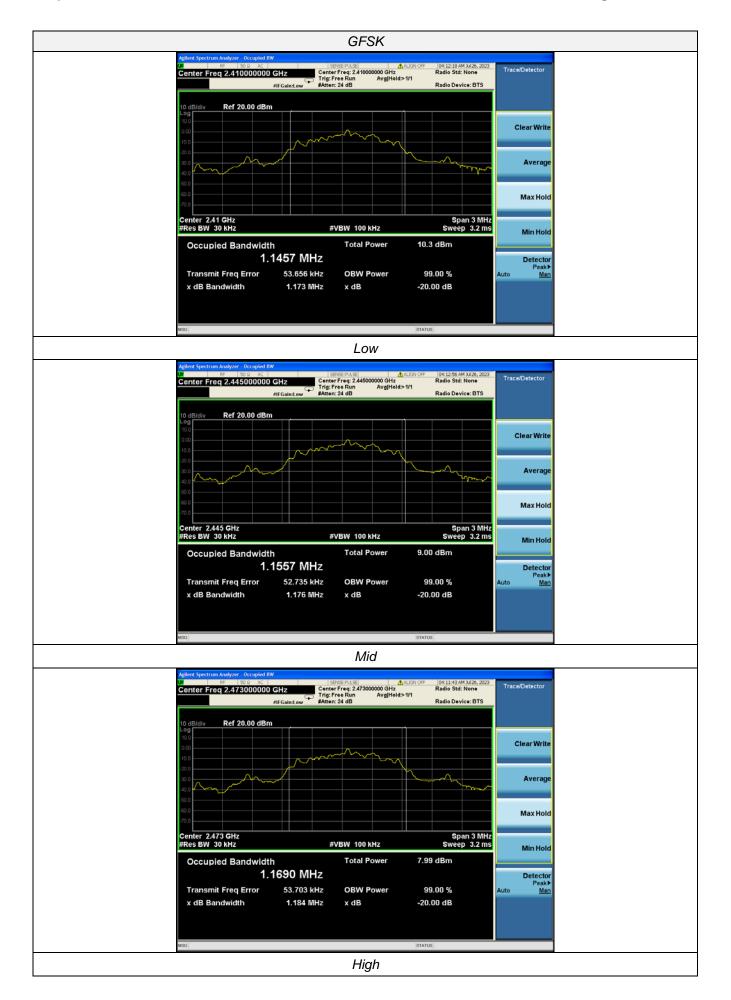
### **LIMIT**

N/A

### **TEST RESULTS**

Modulation	Channel	20dB bandwidth (MHz)	Result	
	2410MHz	1.173		
GFSK	2445MHz	1.176	PASS	
	2473MHz	1.184		

Note: 1.The test results including the cable lose.



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### 4.4. 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.

And according to FCC 47 CFR Section 15.247 (c), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

#### **Antenna Information**

The maximum gain of antenna was 0.0 dBi.

Remark: The antenna gain is provided by the customer, if the data provided by the customer is not accurate, Shenzhen HTT Technology Co., Ltd. does not assume any responsibility.

# 5. Test Setup Photos of the EUT

Reference to the appendix I for details

## 6. Test Photos of the EUT

Reference to the <b>appendix II</b> for details.	
	End of Report