



FCC TEST REPORT

Test report
On Behalf of
PINGHU WELLYE ELECTRICAL CO.,LTD
For
REMOTE CONTROL
Model No.: TX6, TX9

FCC ID: 2AJ2H-TX6

Prepared For: PINGHU WELLYE ELECTRICAL CO.,LTD

NO.8 Jinhui Road, Xingcang Town Pinghu, China

Prepared By: Shenzhen HUAK Testing Technology Co., Ltd.

1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping,

Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Date of Test: Feb. 23, 2022~Mar. 04, 2022

Date of Report: Mar. 04, 2022

Report Number: HK2202210502-E



TEST RESULT CERTIFICATION

Applicant's name:	PINGHU WELLYE ELECTRICAL	CO.,LTD
-------------------	--------------------------	---------

Address: NO.8 Jinhui Road, Xingcang Town Pinghu, China

Manufacture's Name.....: PINGHU WELLYE ELECTRICAL CO.,LTD

Address NO.8 Jinhui Road, Xingcang Town Pinghu, China

Product description

Trade Mark: N/A

Product name REMOTE CONTROL

Model and/or type reference : TX6, TX9

FCC Rules and Regulations Part 15 Subpart C Section 15.249

Report No.: HK2202210502-E

Standards ANSI C63.10: 2013

This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen HUAK Testing Technology Co., Ltd. is acknowledged as copyright owner and source of the material. Shenzhen HUAK Testing Technology Co., Ltd. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

Date of Test.....

Date (s) of performance of tests Feb. 23, 2022~Mar. 04, 2022

Test Result Pass

Testing Engineer : Lang thin

(Gary Qian)

Technical Manager : 2

(Eden Hu)

Authorized Signatory: Jason How

(Jason Zhou)

25

26



Table of Contents Page 1. TEST SUMMARY 5 1.1. Test Procedures and Results 1.2 . Information of the Test Laboratory 1.3 . Measurement Uncertainty 5 2 . GENERAL INFORMATION 6 2.1. General Description of EUT 2.2 . Operation of EUT During Testing 2.3 .Description of Test Setup 8 2.4 .Measurement Instruments List CONDUCTED EMISSIONS TEST 10 3.1. Conducted Power Line Emission Limit 10 3.2. Test Setup 10 3.3. Test Procedure 10 3.4. Test Result 11 4. RADIATED EMISSION TEST 12 4.1. Radiation Limit 12 4.2. Test Setup 12 4.3. Test Procedure 13 4.4. Test Result 13 5. BAND EDGE 19 5.1. Limits 19 5.2. Test Procedure 19 5.3. Test Result 20 OCCUPIED BANDWIDTH MEASUREMENT 22 6.1. Test Setup 22 6.2. Test Procedure 22 6.3. Measurement Equipment Used 22 6.4. Test Result 22 7. ANTENNA REQUIREMENT 24

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannont be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

8. PHOTOGRAPH OF TEST

9. PHOTOS OF THE EUT



Page 4 of 26

STING

Report No.: HK2202210502-E

** Modified History **

-1100	The Three	CI.	-211/2
Revision	Description	Issued Data	Remark
Revision 1.0	Initial Test Report Release	Mar. 04, 2022	Jason Zhou



1. TEST SUMMARY

1.1. Test Procedures and Results

DESCRIPTION OF TEST	SECTION NUMBER	RESULT
CONDUCTED EMISSIONS TEST	15.207	N/A
RADIATED EMISSION TEST	15.249(a)/15.209	COMPLIANT
BAND EDGE	15.249(d)/15.205	COMPLIANT
OCCUPIED BANDWIDTH MEASUREMENT	15.215 (c)	COMPLIANT
ANTENNA REQUIREMENT	15.203	COMPLIANT

1.2. Information of the Test Laboratory

Shenzhen HUAK Testing Technology Co., Ltd.

Add.: 1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Testing Laboratory Authorization:

A2LA Accreditation Code is 4781.01. FCC Designation Number is CN1229. Canada IC CAB identifier is CN0045. CNAS Registration Number is L9589.

1.3. Measurement Uncertainty

Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.71dB, k=2 Radiated emission expanded uncertainty(9kHz-30MHz) = 3.90dB, k=2 Radiated emission expanded uncertainty(30MHz-1000MHz) = 3.90dB, k=2 Radiated emission expanded uncertainty(Above 1GHz) = 4.28dB, k=2



2. GENERAL INFORMATION

2.1.General Description of EUT

Equipment:	REMOTE CONTROL
Model Name:	TX6
Series Model:	TX9
Model Difference:	All model's the function, software and electric circuit are the same, only with a product color, appearance and model named different. Test sample model:TX6.
FCC ID:	2AJ2H-TX6
Antenna Type:	PCB Antenna
Antenna Gain:	0dBi O
Operation frequency:	2405-2479MHz
Number of Channels:	74CH
Modulation Type:	GFSK MINITED TO THE PARTY OF TH
Power Source:	DC 3V
Power Rating:	DC 3V NUMETES

FICATION



2.1.1. Carrier Frequency of Channels

AK TES.	MAKTE	AKTES.	"IAKTE	N TES	MAKTE
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
STING 1	2405	27	2431	53	2457
2	2406	28	2432	54	2458
3	2407	29	2433	55	2459
4	2408	30	2434	56	2460
5 HUA	2409	31	2435	57	2461
6	2410	32	2436	58	2462
7	2411	33	2437	59	2463
8	2412	34	2438	60	2464
9	2413	35	2439	61	2465
10	2414	36	2440	62	2466
_m11	2415	37	2441	63	2467
12	2416	38	2442	64	2468
13	2417	39	2443	65	2469
14	2418	40	2444	66 AMETES THE	2470
15	2419	41	2445	67	2471
16	2420	42	2446	68	2472
17	2421	43	2447	69	2474
18	2422	44	2448	70	2475
19	2423	45	2449	71	2476
20	2424	46	2450	72	2477
21	2425	47	2451	73	2478
22	2426	48	2452	74	2479
23	2427	49	2453	0	
24	2428	50	2454	AK TES	
25	2429	51	2455	HU	100
26	2430	52	2456	ING IS	

2.2. Operation of EUT During Testing

Operating Mode

The mode is used: Transmitting mode

Low Channel: 2405MHz Middle Channel: 2440MHz High Channel: 2479MHz

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannont be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

HUAK Testing Lab TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com



2.3. Description of Test Setup

100000	Operation of EUT during testing:			
1	JAK TESTING BUT	HUAKTESTING		
	STING	STING		

The sample was placed (0.8m below 1GHz, 1.5m above 1GHz) above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages. The worst case is X position.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannont be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com

HUAK Testing Lab TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com
1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China



2.4. Measurement Instruments List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.
IK TEST	L.I.S.N.	- WAKTEST	MAKTESIN	- JUAK T		KTESI
1.	Artificial Mains	R&S	ENV216	HKE-002	Dec. 09, 2021	1 Year
	Network	TESTING		TESTIN	3	
2.	Receiver	R&S	ESCI 7	HKE-010	Dec. 09, 2021	1 Year
3.	RF automatic control unit	Tonscend	JS0806-2	HKE-060	Dec. 09, 2021	1 Year
4.	Spectrum analyzer	R&S	FSP40	HKE-025	Dec. 09, 2021	1 Year
5.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 09, 2021	1 Year
6.	Preamplifier	Schwarzbeck	BBV 9743	HKE-006	Dec. 09, 2021	1 Year
Zime	EMI Test Receiver	Rohde & Schwarz	ESCI 7	HKE-010	Dec. 09, 2021	1 Year
8.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	HKE-012	Dec. 09, 2021	1 Year
9.	Loop Antenna	Schwarzbeck	FMZB 1519 B	HKE-014	Dec. 09, 2021	¹ 1 Year
10.	Horn Antenna	Schewarzbeck	9120D	HKE-013	Dec. 09, 2021	1 Year
11.	Pre-amplifier	EMCI	EMC051845S E	HKE-015	Dec. 09, 2021	1 Year
12.	Pre-amplifier	Agilent	83051A	HKE-016	Dec. 09, 2021	1 Year
13.	EMI Test Software EZ-EMC	Tonscend	JY3120-B Version	HKE-083	N/A	N/A
14.	Power Sensor	Agilent	E9300A	HKE-086	Dec. 09, 2021	1 Year
15.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 09, 2021	1 Year
16.	Signal generator	Agilent	N5182A	HKE-029	Dec. 09, 2021	1 Year
17.	Signal Generator	Agilent	83630A	HKE-028	Dec. 09, 2021	1 Year
18.	Shielded room	Shiel Hong	4*3*3	HKE-039	Dec. 09, 2021	3 Year
19.	Hight gain antenna	Schwarzbeck	LB-180400KF	HKE-054	Dec. 09, 2021	1 Year



3. CONDUCTED EMISSIONS TEST

3.1. Conducted Power Line Emission Limit

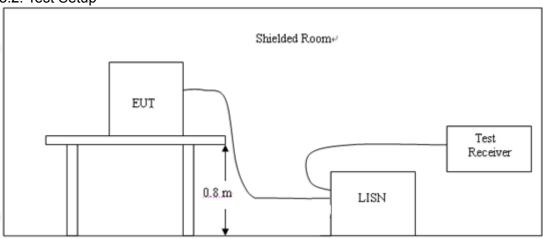
For unintentional device, according to § 15.107(a) Line Conducted Emission Limits is as following.

- Eramuanav	Maximum RF Line Voltage (dBμV)				
Frequency (MHz)	CLAS	SS A	CLASS B		
(11112)	Q.P.	Ave.	Q.P.	Ave.	
0.15 - 0.50	79	66	66-56*	56-46*	
0.50 - 5.00	73	60	56	46	
5.00 - 30.0	73	60	60	50	

^{*} Decreasing linearly with the logarithm of the frequency.

For intentional device, according to §15.207(a) Line Conducted Emission Limit is same as above table.

3.2. Test Setup



3.3.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 AC120V/60Hzpower 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 1connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1connected 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.



3.4.Test Result

Not applicable. Note: EUT power supply by DC Power, so this test item not applicable.



4. RADIATED EMISSION TEST

4.1. Radiation Limit

For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

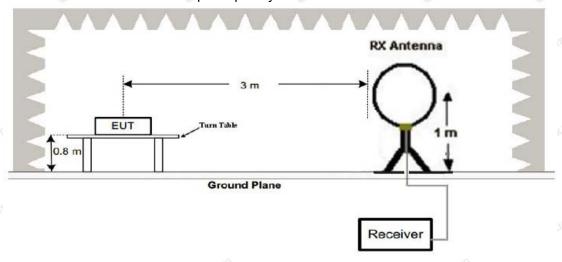
Report No.: HK2202210502-E

	AUD.			
35	Frequency (MHz)	Distance (Meters)	Radiated (dBµV/m)	Radiated (µV/m)
	0.009-0.490	300	20log 2400/F (kHz)	2400/F (kHz)
3	0.490-1.705	30	20log 24000/F (kHz)	24000/F (kHz)
	1.705-30	30	20log 30	30
	30-88	3	10 W	100
	88-216	3	43.5	150
	216-960	TESTING 3	46	200
	Above 960	3	54	500

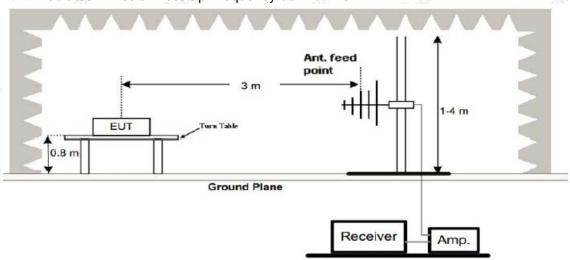
For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

4.2. Test Setup

(1) Radiated Emission Test-Up Frequency Below 30MHz



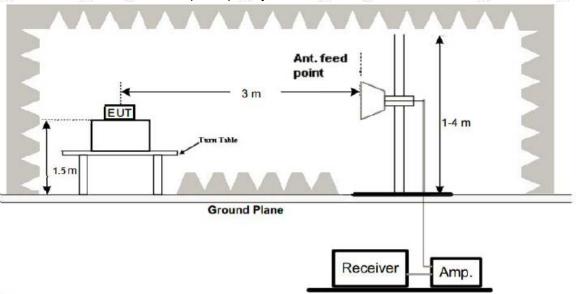
(2) Radiated Emission Test-Up Frequency 30MHz~1GHz



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

HUAK Testing Lab TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com

(3) Radiated Emission Test-Up Frequency Above 1GHz



4.3.Test Procedure

- 1. Below 1GHz measurement the EUT is placed on turntable which is 0.8m above ground plane. And above 1GHz measurement EUT was placed on low permittivity and low tangent turn table which is 1.5m above ground plane.
- 2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highestemissions.
- 4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 6. Repeat above procedures until the measurements for all frequencies are complete.
- 7. The test frequency range from 9KHz to25GHz per FCC PART 15.33(a).

Note:

For battery operated equipment, the equipment tests shall be performed using a new battery.

4.4. Test Result

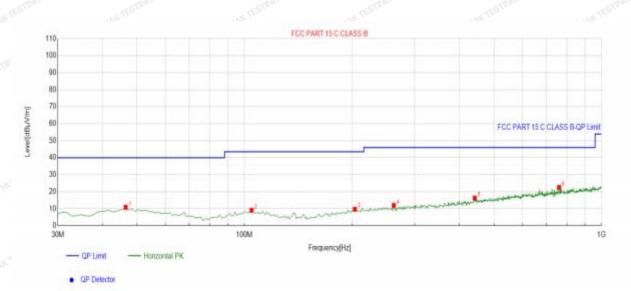
PASS

All the test modes completed for test. The worst case of Radiated Emission is CH 01; the test data of this mode was reported.



Below 1GHz Test Results:

Antenna polarity: H

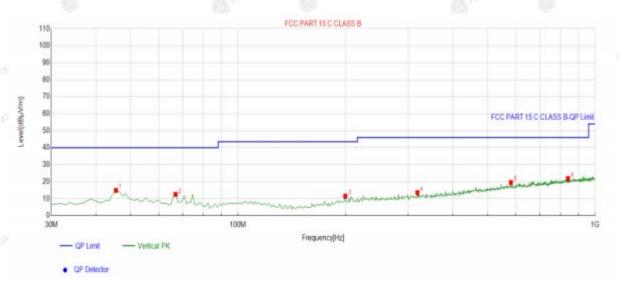


Sus	Suspected List								
NO.	Freq. [MHz]	Factor [dB]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	46.5065	-13.65	24.46	10.81	40.00	29.19	100	24	Horizontal
2	104.7648	-15.41	24.49	9.08	43.50	34.42	100	219	Horizontal
3	203.8038	-14.96	24.64	9.68	43.50	33.82	100	92	Horizontal
4	262.0621	-13.55	25.51	11.96	46.00	34.04	100	72	Horizontal
5	441.6917	-9.35	25.56	16.21	46.00	29.79	100	24	Horizontal
6	761.1411	-3.46	26.01	22.55	46.00	23.45	100	358	Horizontal

Remark: Factor = Cable loss + Antenna factor – Preamplifier; Level = Reading + Factor; Margin = Limit – Level



Antenna polarity: V



Suspe	Suspected List								
NO.	Freq. [MHz]	Factor [dB]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	45.5355	-13.65	28.54	14.89	40.00	25.11	100	193	Vertical
2	66.8969	-16.89	29.43	12.54	40.00	27.46	100	358	Vertical
3	199.9199	-15.07	26.57	11.50	43.50	32.00	100	34	Vertical
4	318.3784	-12.18	25.76	13.58	46.00	32.42	100	121	Vertical
5	581.5115	-6.62	26.15	19.53	46.00	26.47	100	359	Vertical
6	840.7608	-2.56	24.45	21.89	46.00	24.11	100	4	Vertical

Remark: Factor = Cable loss + Antenna factor – Preamplifier; Level = Reading + Factor; Margin = Limit – Level

Harmonics and Spurious Emissions

Frequency Range (9 kHz-30MHz)

Frequency (MHz)	Level@3m (dBµV/m)	Limit@3m (dBµV/m)		
HUAKTES	HLAK TES.	HUAK TES		
	3 <u></u>	-STING		
WE HAME	- NG NU	King MC		
NAK TESTING	JAKTESTIN WAKTES!	LAKTESTIN- HUAKTES		

Note: 1. Emission Level=Reading+ Cable loss+ Antenna factor-Amp factor.

2. The emission levels are 20 dB below the limit value, which are not reported. It is deemed to comply with the requirement.



Above 1 GHz Test Results: CH Low (2405MHz)

Horizontal:

	. 0.75	. 0.75		. 0.10	. 0.70
Meter Reading	Factor	Emission Level	Limits	Margin	(1) HOW
(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
105.43	-5.84	99.59	114	-14.41	peak
85.21	-5.84	79.37	94	-14.63	AVG
56.98	-3.64	53.34	74	-20.66	peak
43.27	-3.64	39.63	54	-14.37	AVG
52.56	-0.95	51.61	74	-22.39	peak
40.15	-0.95	39.2	54	-14.8	AVG
or = Antenna Fac	tor + Cable Lo	ss – Pre-amplifier.	ING	ESTING	
	(dBµV) 105.43 85.21 56.98 43.27 52.56 40.15	(dBµV) (dB) 105.43 -5.84 85.21 -5.84 56.98 -3.64 43.27 -3.64 52.56 -0.95 40.15 -0.95	(dBμV) (dB) (dBμV/m) 105.43 -5.84 99.59 85.21 -5.84 79.37 56.98 -3.64 53.34 43.27 -3.64 39.63 52.56 -0.95 51.61	(dBμV) (dB) (dBμV/m) (dBμV/m) 105.43 -5.84 99.59 114 85.21 -5.84 79.37 94 56.98 -3.64 53.34 74 43.27 -3.64 39.63 54 52.56 -0.95 51.61 74 40.15 -0.95 39.2 54	(dBμV) (dB) (dBμV/m) (dBμV/m) (dBμV/m) 105.43 -5.84 99.59 114 -14.41 85.21 -5.84 79.37 94 -14.63 56.98 -3.64 53.34 74 -20.66 43.27 -3.64 39.63 54 -14.37 52.56 -0.95 51.61 74 -22.39 40.15 -0.95 39.2 54 -14.8

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	MAKTES.
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2405	106.65	-5.84	100.81	114	-13.19	peak
2405	82.18	-5.84	76.34	94	-17.66	AVG
4810	53.72	-3.64	50.08	74	-23.92	peak
4810	43.87	-3.64	40.23	54	-13.77	AVG
7215	53.21	-0.95	52.26	74	-21.74	peak
7215	41.08	-0.95	40.13	54	-13.87	AVG

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



CH Middle (2440MHz)

Horizontal:

requency	Meter Reading	Factor	Emission Level	Limits	Margin	Detecto
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type
2440	109.43	-5.71	103.72	114	-10.28	peak
2440	79.25	-5.71	73.54	94	-20.46	AVG
4880	54.07	-3.51	50.56	74	-23.44	peak
4880	42.66	-3.51	39.15	54	-14.85	AVG
7320	52.15	-0.82	51.33	74	-22.67	peak
7320	41.52	-0.82	40.7	54	-13.3	AVG

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type
2440	108.65	-5.71	102.94	114	-11.06	peak
2440	81.76	-5.71	76.05	94	-17.95	AVG
4880	56.54	-3.51 JAK	53.03	74	-20.97	peak
4880	44.04	-3.51	40.53	54	-13.47	AVG
7320	52.33	-0.82	51.51	74	-22.49	peak
7320	41.15	-0.82	40.33	54	-13.67	AVG

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

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannont be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

S FIL



CH High (2479MHz)

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2479	103.23	-5.65	97.58	114	-16.42	peak
2479	82.66	-5.65	77.01	94	-16.99	AVG
4958	56.85	-3.43	53.42	74	-20.58	peak
4958	44.19	-3.43	40.76	54	-13.24	AVG
7437	51.37	-0.75	50.62	74	-23.38	peak
7437	42.71	-0.75	41.96	54	-12.04	AVG

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

Vertical:

(3)	15 97	3229	(323)	(3220)		(3239)
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2479	105.54	-5.65	99.89	114	-14.11	peak
2479	82.52	-5.65	76.87	94	-17.13	AVG
4958	56.99	-3.43	53.56	74	-20.44	peak
4958	43.17	-3.43	39.74	54	-14.26	AVG
7437	56.76	-0.75	56.01	74	-17.99	peak
7437	40.43	-0.75	39.68	54	-14.32	AVG

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

Remark:

- (1) Measuring frequencies from 1 GHz to the 25 GHz.
- (2) "F" denotes fundamental frequency; "H" denotes spurious frequency; "E" denotes band edge frequency.
- (3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- (4) The emissions are attenuated more than 20dB below the permissible limits are not record in the report.
- (5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz. The resolution bandwidth of test receiver/spectrum analyzer is 1MHzand video bandwidth is 3MHz for peak measurement with peak detector at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1MHzand video bandwidth is 10Hz for Average measurement with peak detection at frequency above 1GHz.
- (6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.
- (7)All modes of operation were investigated and the worst-case emissions are reported.

STING

FIGATION



5. BAND EDGE

5.1. Limits

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.

Report No.: HK2202210502-E

5.2.Test Procedure

The band edge compliance of RF radiated emission should be measured by following the guidance in ANSIC63.10 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW to 1MHz and VBM to 3MHz to measure the peak field strength and set RBW to 1MHz and VBW to 10Hz to measure the average radiated field strength.



5.3. Test Result

PASS

Radiated Band Edge Test:

Operation Mode: TX CH Low (2405MHz)

Horizontal (Worst case)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2310	56.67	-5.81	50.86	74	-23.14	peak
2310	TSTAG ON	-5.81	TING / TST	54	ING	AVG
2390	55.84	-5.84	50	74	-24	peak
2390	1	-5.84	1	54	1	AVG
2400	54.03	-5.84	48.19	74	-25.81	peak
2400	HUAK	-5.84	HUAK	54	1	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
2310	57.89	-5.81	52.08	74	-21.92	peak
2310	W.TE. TING	-5.81	NG /	^{m^G} 54	K TESTING	AVG
2390	56.42	-5.84	50.58	74 🔘 🗥	-23.42	peak
2390	1	-5.84	1	54	mig /	AVG
2400	55.76	-5.84	49.92	74	-24.08	peak
2400	/	-5.84	1	54	1	AVG

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



Operation Mode: TX CH High (2479MHz)

Horizontal (Worst case)

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.50	55.24	-5.65	49.59	74	-24.41	peak
2483.50	I I	-5.65	1 auG	54	IK TESTING	AVG
2500.00	53.21	-5.65	47.56	74	-26.44	peak
2500.00	/	-5.65	1	54	NG 1	AVG

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

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Defeator Turo
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.50	56.42	-5.65	50.77	74	-23.23	peak
2483.50	1	-5.65	O HUAN	54	1 @	AVG
2500.00	55.07	-5.65	49.42	74	-24.58	peak
2500.00	HIAKTESTIN	-5.65	STING / HUAKTES	54	- JUAN TESTING	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.



6. OCCUPIED BANDWIDTH MEASUREMENT

6.1. Test Setup

Same as Radiated Emission Measurement

6.2.Test Procedure

- 1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 2. Set EUT as normal operation.
- 3. Based on ANSI C63.10 section 6.9.2: RBW=20KHz. VBW= 62 KHz, Span=3MHz.
- 4. The useful radiated emission from the EUT was detected by the spectrum analyzer with peak detector.

6.3. Measurement Equipment Used

Same as Radiated Emission Measurement

6.4. Test Result

PASS

Frequency	20dB Bandwidth (MHz)	Result
2405 MHz	0.8377	PASS
2440 MHz	0.8328	PASS
2479 MHz	0.8151	PASS

CH: 2405MHz



CH: 2440MHz



CH: 2479MHz





7. ANTENNA REQUIREMENT

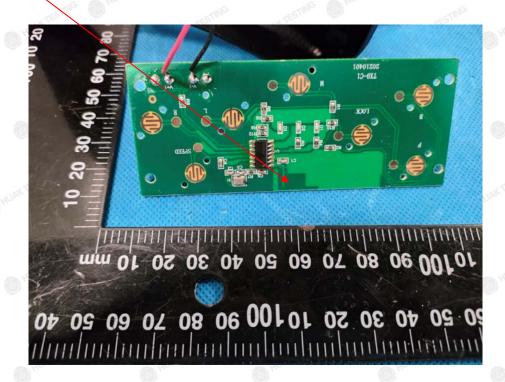
Standard Applicable

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

Antenna Connected Construction

The antenna used in this product is a PCB Antenna, which permanently attached. It conforms to the standard requirements. The directional gains of antenna used for transmitting is 0dBi.

ANTENNA



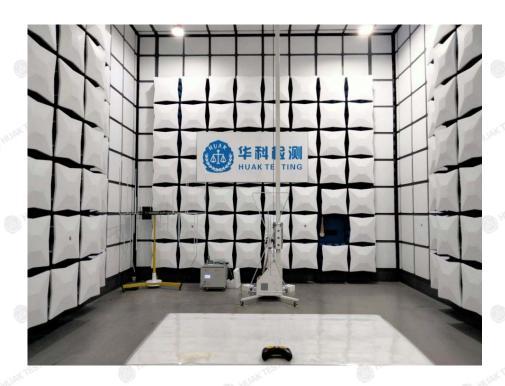
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannont be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com

HUAK Testing Lab TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com



8.PHOTOGRAPH OF TEST

Radiated Emission







9. PHOTOS OF THE EUT

Reference to the report: ANNEX A of external photos and ANNEX B of internal photos.

End of test report-