



**FCC TEST REPORT** 

Test report
On Behalf of
Shenzhen Kingsun Enterprises Co., Ltd.
For

**Wireless Mouse** 

Model No.: CP-7085, G10, G13, G16, G26, FBWM1200, FBWM1200-NOC

FCC ID: 2AAPK-CP7085

Prepared for: Shenzhen Kingsun Enterprises Co., Ltd.

25/F, CEC Information Building, Xinwen Rd., Shenzhen, Guangdong,

Shenzhen, 518034 China

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

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Date of Test: Jul. 19, 2023 ~ Aug. 03, 2023

Date of Report: Aug. 03, 2023

Report Number: HK2307133016-E

# TEST RESULT CERTIFICATION

Report No.: HK2307133016-E

Applicant's name ...... Shenzhen Kingsun Enterprises Co., Ltd.

Shenzhen, 518034 China

Manufacture's Name ...... Dongguan Pengbo Technology Co., Ltd.

Building 2, No. 105, Yati South 1st Road, Qiaotou Town, Dongguan City,

Guangdong Province, China

**Product description** 

Trade Mark: N/A

Product name .....: Wireless Mouse

Model and/or type reference : CP-7085, G10, G13, G16, G26, FBWM1200, FBWM1200-NOC

FCC Rules and Regulations Part 15 Subpart C Section 15.249

Standards ...... ANSI C63.10: 2013

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Date of Test .....

Date (s) of performance of tests...... Jul. 19, 2023 ~ Aug. 03, 2023

Date of Issue ..... : Aug. 03, 2023

Test Result..... Pass

Testing Engineer

(Gary Qian)

Technical Manager

(Eden Hu)

Authorized Signatory:

(Jason Zhou)



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# \*\* Modified History \*\*

Revi	ision	Description	1	Issued Data	Remark		
Revisi	on 1.0	Initial Test Report F	Release	e Aug. 03, 2023 Jason 2			
TESTING	TE	STING TESTING	ŒST	nn's	STING TESTING		
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# 1. TEST SUMMARY

# 1.1 TEST PROCEDURES AND RESULTS

DESCRIPTION OF TEST	Dia Dia	RESULT
CONDUCTED EMISSIONS TEST	§ 15.207	N/A THE TEST
RADIATED EMISSION TEST	§ 15.249 (a) / §15.209	COMPLIANT
BAND EDGE	§ 15.249 (d)/ §15.209	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 = 2.23dB, k=2
Radiated emission expanded uncertainty(9kHz-30MHz) = 3.08dB, k=2
Radiated emission expanded uncertainty(30MHz-1000MHz) = 4.42dB, k=2
Radiated emission expanded uncertainty(Above 1GHz) = 4.06dB, k=2

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# 2. GENERAL INFORMATION

# 2.1 GENERAL DESCRIPTION OF EUT

Equipment	Wireless Mouse	-cTNG	CTING
Model Name	CP-7085	HUAKTE	HUAKTE
Serial Model	G10, G13, G16, G26, FBWM12	200, FBWM120	0-NOC
Model Difference	All model's the function, softwa same, only with model named CP-7085.		
FCC ID	2AAPK-CP7085	ESTING	9
Antenna Type	PCB Antenna	-o/G	TING
Antenna Gain	2.34dBi	HUAKTEST	HUAK TES
Equipment	Wireless Mouse		
Operation frequency	2402MHz~2479MHz		
Number of Channels	16CH	LAKTESTING	LAK TESTING
Modulation Type	GFSK	9	
Power Source	DC 1.5V from Battery	TESTING	19
Power Rating	DC 1.5V from Battery	HUAR	NKTESTING
Firmware Version	V2.0	. 6	HU
Hardware Version	V2.0	ESTINA	

ICATION.



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### 2.2 Carrier Frequency of Channels

OKTESTING	MAKTESTIL		Description	of Channel		NK TESTING	MAKTESTIL
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2402	5	2421	9	2446	13	2468
2	2408	6	2423	10	2456	14	2474
3	2417	7 💮	2428	11	2460	15	2478
4	2419	8	2437	12	2451	№ 16	2479

# 2.3 Operation of EUT during testing

**Operating Mode** 

The mode is used: Transmitting mode

Channel1: 2402MHz Channel9: 2446MHz Channel16: 2479MHz

# 2.4 DESCRIPTION OF TEST SETUP

Operation of EUT during radiation testing:

**EUT** 

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

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# 2.5 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Specification	Note
KTET	Wireless Mouse	N/A	CP-7085	N/A	EUT
	0,	(a)	9	0,	
ING	-	Y TESTINI		V TESTING	-
	MAKTESTING	Mush	MAKTESTANS	MARIA ILA	KTESTAIG
	0	-m/G	0		

#### Note:

- 1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
- 2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.
- 3. For conducted measurements (Output Power, 6dB Emission Bandwidth, Power Spectral Density, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.

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# 2.6 MEASUREMENT INSTRUMENTS LIST

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.
K TESTING	L.I.S.N.	TESTING	TEST	4G	STING	TESTING
1.	Artificial Mains	R&S	ENV216	HKE-002	Feb. 17, 2023	1 Year
	Network	TING				
2.	Receiver	R&S	ESR-7	HKE-010	Feb. 17, 2023	1 Year
3.	RF automatic control unit	Tonscend	JS0806-2	HKE-060	Feb. 17, 2023	1 Year
4.	Spectrum analyzer	R&S	FSP40	HKE-025	Feb. 17, 2023	1 Year
5.	Spectrum analyzer	Agilent	N9020A	HKE-048	Feb. 17, 2023	1 Year
6.	Preamplifier	Schwarzbeck	BBV 9743	HKE-006	Feb. 17, 2023	1 Year
7.7	EMI Test Receiver	Rohde & Schwarz	ESCI 7	HKE-010	Feb. 17, 2023	1 Year
8.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	HKE-012	Feb. 17, 2023	1 Year
9.	Loop Antenna	Schwarzbeck	FMZB 1519 B	HKE-014	Feb. 17, 2023	1 Year
10.	Horn Antenna	Schewarzbeck	9120D	HKE-013	Feb. 17, 2023	1 Year
11.	Pre-amplifier	EMCI	EMC051845S E	HKE-015	Feb. 17, 2023	1 Year
12.	Pre-amplifier	Agilent	83051A	HKE-016	Feb. 17, 2023	1 Year
13.	EMI Test Software	Tonscend	JY3120-B Version	HKE-083	N/A	N/A
14.	Power Sensor	Agilent	E9300A	HKE-086	Feb. 17, 2023	1 Year
15.	Spectrum analyzer	Agilent	N9020A	HKE-048	Feb. 17, 2023	1 Year
16.	Signal generator	Agilent	N5182A	HKE-029	Feb. 17, 2023	<sup>1</sup> Year
17.	Signal Generator	Agilent	83630A	HKE-028	Feb. 17, 2023	1 Year
18.	Shielded room	Shiel Hong	4*3*3	HKE-039	Dec. 09, 2021	3 Year
19.	High gain antenna	Schewarzbeck	LB-180400KF	HKE-054	Feb. 17, 2023	1 Year

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## 3. CONDUCTED EMISSIONS TEST

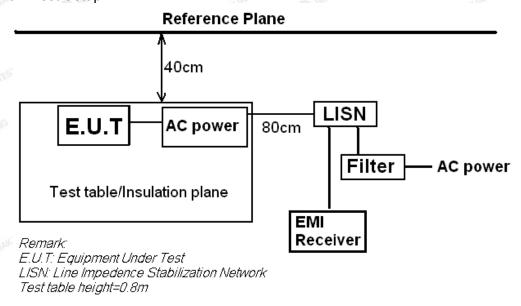
### 3.1 Conducted Power Line Emission Limit

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

Erogueneu	Maximum RF Line Voltage (dΒμV)						
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			

<sup>\*</sup> 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/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.





3.4 Test Result

Not applicable

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

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# 4 RADIATED EMISSION TEST

### 4.1 Radiation Limit

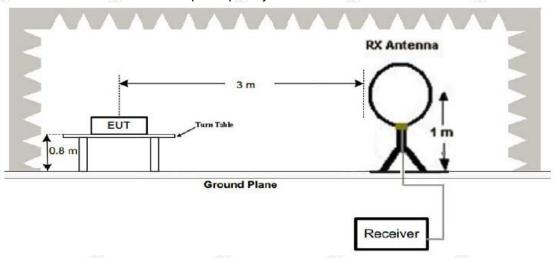
For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency (MHz)	Distance (Meters)	Radiated (dBµV/m)	Radiated (µV/m)
30-88	3	40	100
88-216	3	43.5	150
216-960	3	46	200
Above 960	3	54	500

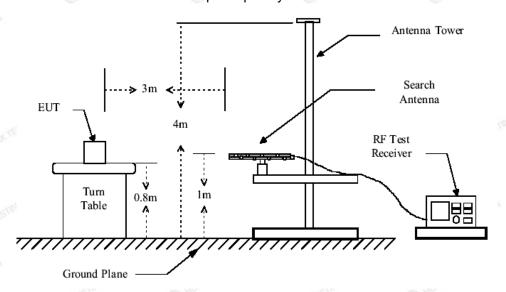
For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

# 4.2 Test Setup

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



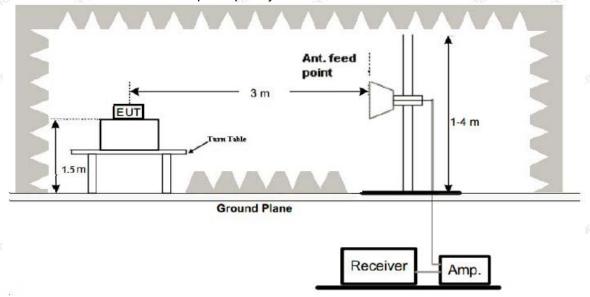
# (2) Radiated Emission Test-Up Frequency 30MHz~1GHz



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### (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 highest emissions.
- 4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 5. 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 to 25GHz per FCC PART 15.33(a).

#### Note

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

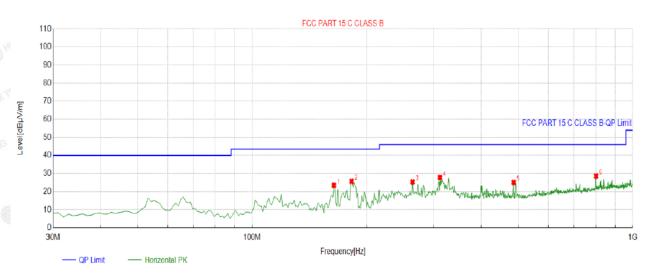
### 4.4 Test Result

### **PASS**

Remark: All modes have been tested, and the report only shows the worst mode: Channel1: 2402MHz

### Below 1GHz Test Results:

# Antenna polarity: H



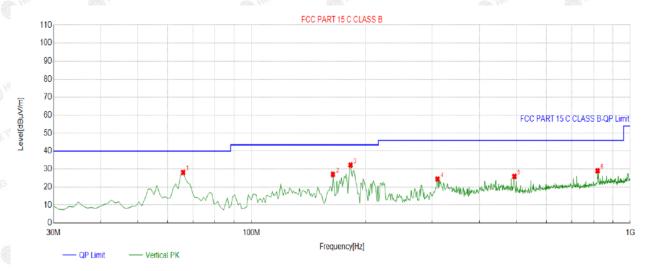
QP Detector

Suspe	cted List								
NO.	Freq.	Factor	Reading	Level	Limit	Margin	Height	Angle	Polarity
	[MHz]	[dB]	[dBµV/m]	[dBµV/m]	[dBµV/m]	[dB]	[cm]	[°]	
1	163.9940	-17.19	40.68	23.49	43.50	20.01	100	104	Horizontal
2	182.4424	-16.80	42.47	25.67	43.50	17.83	100	360	Horizontal
3	264.0040	-12.71	38.12	25.41	46.00	20.59	100	167	Horizontal
4	311.5816	-11.80	39.62	27.82	46.00	18.18	100	252	Horizontal
5	486.3564	-7.62	32.71	25.09	46.00	20.91	100	181	Horizontal
6	800.9510	-1.81	30.41	28.60	46.00	17.40	100	244	Horizontal

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

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## Antenna polarity: V



#### QP Detector

Suspe	Suspected List								
NO.	Freq. [MHz]	Factor [dB]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	65.9259	-15.14	43.29	28.15	40.00	11.85	100	254	Vertical
2	163.9940	-17.19	44.22	27.03	43.50	16.47	100	163	Vertical
3	182.4424	-16.80	49.06	32.26	43.50	11.24	100	171	Vertical
4	309.6396	-11.84	36.29	24.45	46.00	21.55	100	357	Vertical
5	494.1241	-7.29	33.17	25.88	46.00	20.12	100	17	Vertical
6	819.3994	-1.47	30.51	29.04	46.00	16.96	100	358	Vertical

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

#### Remark:

- (1) Measuring frequencies from 9 KHz to the 1 GHz, Radiated emission test from 9KHz to 30MHz was verified, and no any emission was found except system noise floor.
- (2) \* 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.
- (3) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.



Above 1 GHz Test Results:

NOVO 1 OTIZ TOOLITOOUTO
CH Middle (2402MHz)
Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type
2402	96.31	-5.71	90.6	114	-23.4	peak
2402	78.04	-5.71	72.33	94	-21.67	AVG
4804	55.04	-3.51	51.53	74	-22.47	peak
4804	33.9	-3.51	30.39	54	-23.61	AVG
7206	49.01	-0.82	48.19	74	-25.81	peak
7206	34.25	-0.82	33.43	54	-20.57	AVG

Remark: Factor = Antenna Factor + Cable Loss - Pre-amplifier; Level = Reading + Factor; Margin = Level

# Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	© Margin	D-16-1
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2402	96.06	-5.71	90.35	114	-23.65	peak
2402	79.67	-5.71	73.96	94	-20.04	AVG
4804	53.7	-3.51	50.19	74	-23.81	peak
4804	36.17	-3.51	32.66	54	-21.34	AVG
7206	50.85	-0.82	50.03	74	-23.97	peak
<sup>©</sup> 7206	34.62	-0.82	33.8	54	-20.2	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier; Level = Reading + Factor; Margin = Level Limit



# CH Middle (2446MHz)

# Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datasta
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2446	94.35	-5.71	88.64	114	-25.36	peak
2446	77.96	-5.71	72.25	94 HUAK	-21.75	AVG
4892	55.57	-3.51	52.06	74	-21.94	peak
4892	35.08	-3.51	31.57	54 ESTING	-22.43	AVG
7338	51.65	-0.82	50.83	74	-23.17	peak
7338	33.12	-0.82	32.3	54	-21.7	AVG

# Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastas
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2446	93.75	-5.71	88.04	114	-25.96	peak
2446	80.1	-5.71	74.39	94	-19.61	AVG
4892	53.38	-3.51	49.87	74	-24.13	peak
4892	34.54	-3.51	31.03	54	-22.97	AVG
7338	51.53	-0.82	50.71	74	-23.29	peak
7338	32.39	-0.82	31.57	<sub>w</sub> 54	-22.43	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier; Level = Reading + Factor; Margin = Level - Limit

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CH High (2479MHz)

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	D - 4 4
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2479	94.1	-5.65	88.45	114	-25.55	peak
2479	77.84	-5.65	72.19	94	-21.81	AVG
4958	53.15	-3.43	49.72	74	-24.28	peak
4958	34.16	-3.43	30.73	54	-23.27	AVG
7437	49.45	-0.75	48.7	74	-25.3	peak
<sup>©</sup> 7437	33.74	-0.75	32.99	54	-21.01	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier; Level = Reading + Factor; Margin = Level - Limit

### Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	் (dBμV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2479	93.6	-5.65	87.95	114	-26.05	peak
2479	78.68	-5.65	73.03	94	-20.97	AVG
4958	53.24	-3.43	49.81	74	-24.19	peak
4958	34.39	-3.43	30.96	54	-23.04	AVG
7437	50.65	-0.75	49.9	74	-24.1	peak
7437	34.09	-0.75	33.34	54	-20.66	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier; Level = Reading + Factor; Margin = Level - Limit

#### 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

1MHz and video bandwidth is 3MHz for peak measurement with peak detector at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and 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.

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# **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.

## 5.2 Test Procedure

The band edge compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10 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. The conducted RF band edge was measured by using a spectrum analyzer. Set span wide enough to capture the highest in-band emission and the emission at the band edge. Set RBW to 1MHz and VBW to 3MHz, to measure the conducted peak band edge.



5.3 Test Result

## **PASS**

Radiated Band Edge Test:

Operation Mode: TX CH Low (2402MHz)

Horizontal (Worst case)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type
2310	56.02	-5.81	50.21	74	-23.79	peak
2310	W. TESTING OF HE	-5.81	ETING / TESTING	54	TESTING	AVG
2390	54.11	-5.84	48.27	74	-25.73	peak
2390	1	-5.84	/	54	1	AVG
2400	53.62	-5.84	47.78	<sup>6</sup> 74	-26.22	peak
2400	HUPI	-5.84	( ) HUAL	54	1	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier; Level = Reading + Factor; Margin = Level

# Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2310	55.98	-5.81	50.17	74	-23.83	peak
2310	1	-5.81	/	54	1	AVG
2390	54.62	-5.84	48.78	74	-25.22	peak
2390	1	-5.84	D	54	1	AVG
2400	56.37	-5.84	50.53	74	-23.47	peak
2400	1	-5.84	HUN TEST	54	1	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier; Level = Reading + Factor; Margin = Level



Operation Mode: TX CH High (2479MHz)

Horizontal (Worst case)

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Tyro
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.50	54.16	-5.65	48.51	74	-25.49	peak
2483.50	TING /	-5.65	I CTING	54	ESTING /	AVG
2500.00	56.38	-5.65	50.73	74	-23.27	peak
2500.00	1	-5.65	1	54	1	AVG

Remark: Factor = Antenna Factor + Cable Loss - Pre-amplifier; Level = Reading + Factor; Margin = Level - Limit

# Vertical:

250	255			C11.		755
Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.50	55.37	-5.65	49.72	74	-24.28	peak
2483.50	1	-5.65	(a) (b)	54	<sub>10</sub> 1	AVG
2500.00	55.98	-5.65	50.33	74 MARIE	-23.67	peak
2500.00	HUAKTE /	-5.65	HUAKTE	54	HUNTES	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier; Level = Reading + Factor; Margin = Level - Limit

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= 15KHz. VBW= 47KHz, Span=3MHz.
- 4. The useful radiated emission from the EUT was detected by the spectrum analyser with peak detector.

# 6.3 Measurement Equipment Used

Same as Radiated Emission Measurement

## 6.4 Test Result

#### **PASS**

Frequency where	20dB Bandwidth (MHz)	Result
2402 MHz	1.174	PASS
2446 MHz	1.132	PASS
2479 MHz	1.147	PASS (STATE

CH: 2402MHz





# CH: 2446MHz



### CH: 2479MHz





# 7 ANTENNA REQUIREMENT

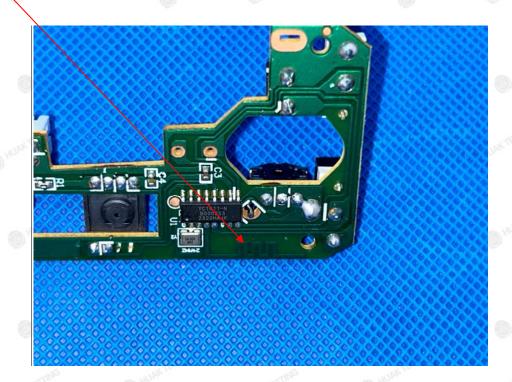
### Standard Applicable

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 2.34dBi.

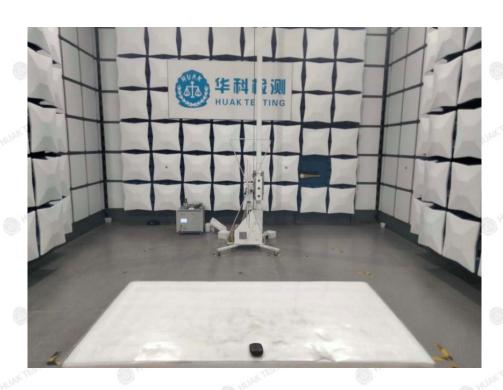
# **ANTENNA**





# **8 PHOTOGRAPH OF TEST**

# 8.1 Radiated Emission





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# 9 PHOTOS OF THE EUT

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

-----End of test report-----