



FCC TEST REPORT

Test report
On Behalf of
Shenzhen Lingmeng Electronic Technology Co., Ltd
For

Backup Camera System

Model No.: D-WX, D-7In1T1, D-7In1T2, D-7In1T1DVR, D-7InWX,
D-AD-1T1, D-Cam-1T1, D-Cam-AD1T1, D-Cam-1T1S,
D-CAM-Side, D-LnsCam2Atn

FCC ID: 2A4PT-D-WX

Prepared For: Shenzhen Lingmeng Electronic Technology Co., Ltd

No.95, Ma'anshan West, Ma'anshan Community, Shajing Street, Baoan District,

Shenzhen, Guangdong, 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. 03, 2022

Date of Report: Mar. 03, 2022

Report Number: HK2202210542-E



TEST RESULT CERTIFICATION

Applicant's name: Shenzhen Lingmeng Electronic Technology Co., Ltd

No.95, Ma'anshan West, Ma'anshan Community, Shajing Street,

Baoan District, Shenzhen, Guangdong, China

Manufacture's Name.....: Shenzhen Lingmeng Electronic Technology Co., Ltd

No.95, Ma'anshan West, Ma'anshan Community, Shajing Street,

Baoan District, Shenzhen, Guangdong, China

Product description

Trade Mark: N/A

Product name Backup Camera System

D-WX, D-7In1T1, D-7In1T2, D-7In1T1DVR, D-7InWX, D-AD-1T1,

Report No.: HK2202210542-E

Model and/or type reference : D-Cam-1T1, D-Cam-AD1T1, D-Cam-1T1S, D-CAM-Side,

D-LnsCam2Atn

FCC Rules and Regulations Part 15 Subpart C Section 15.249

Standards : ANSI C63.10: 2013

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Date of Test

Date of Issue...... Mar. 03, 2022

Test Result Pass

Testing Engineer : Lam Dia

(Gary Qian)

Technical Manager : 7

(Eden Hu)

Authorized Signatory: Jason Thou

(Jason Zhou)

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Report No.: HK2202210542-E

** Modified History **

Revision	Description	Issued Data	Remark
Revision 1.0	Initial Test Report Release	Mar. 03, 2022	Jason Zhou

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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:	Backup Camera System
Model Name:	D-WX
	D-7ln1T1, D-7ln1T2, D-7ln1T1DVR, D-7lnWX, D-AD-1T1,
Series Model:	D-Cam-1T1, D-Cam-AD1T1, D-Cam-1T1S, D-CAM-Side,
	D-LnsCam2Atn
	All model's the function, software and electric circuit are the
Model Difference:	same, only with a product color, appearance and model named
	different. Test sample model: D-WX.
FCC ID:	2A4PT-D-WX
Antenna Type:	External Antenna
Antenna Gain:	1dBi
Operation frequency:	2406-2478MHz
Number of Channels:	19CH
Modulation Type:	GFSK
Power Source:	DC 12V HIMETER
Power Rating:	DC 12V

TEICATION





2.1.1. Carrier Frequency of Channels

As I have	a LATE	AK IV	"IAI"	. ale	"IAI"
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
-STING 1	2406	8 VIII	2432	15	2465
2	2409	9	2442	16	2468
3	2415	10	2445	17	2472
4	2418	11	2448	18	2475
5 HUA	2422	12	2452	19	2478
6	2425	13	2455	W W	
7	2428	14	2458		

2.2. Operation of EUT During Testing

Operating Mode

The mode is used: Transmitting mode

Low Channel: 2406MHz Middle Channel: 2442MHz High Channel: 2478MHz



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2.3. Description of Test Setup

Operation of EUT during testing:

DC 12V

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.



2.4. Measurement Instruments List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.
JK TEST	L.I.S.N.	HUAKTESIN	HUAKTESIN	HUAKT	ESI.	KTESI
1.	Artificial Mains Network	R&S	ENV216	HKE-002	Dec. 09, 2021	1 Year
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
7.7	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 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

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3. CONDUCTED EMISSIONS TEST

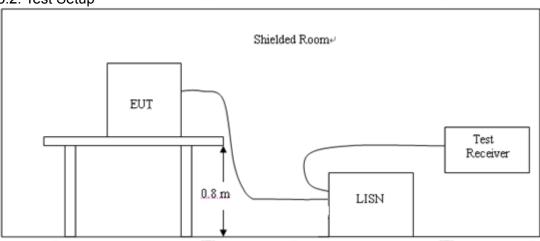
3.1. Conducted Power Line Emission Limit

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

Fraguenav	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 onthe 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

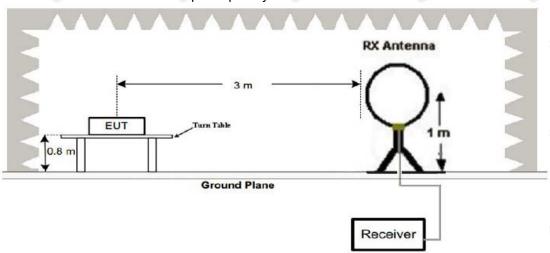
For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

	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

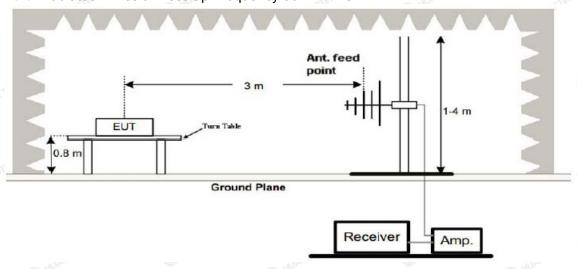
For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

4.2. Test Setup

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



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

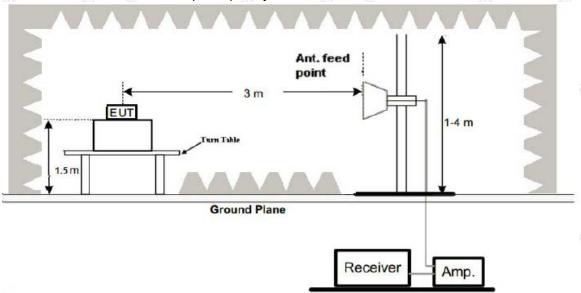


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(3) Radiated Emission Test-Up Frequency Above 1GHz



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 high estemissions.
- 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

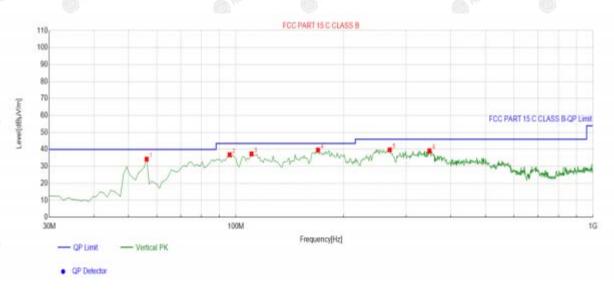


		•								
	Suspe	cted List								
<	NO	Freq.	Factor	Reading	Level	Limit	Margin	Height	Angle	Dalasitu
1	NO.	[MHz]	[dB]	[dBµV/m]	[dBµV/m]	[dBµV/m]	[dB]	[cm]	[°]	Polarity
	1	57.1872	-14.74	45.32	30.58	40.00	9.42	100	219	Horizontal
,	2	145.5455	-19.05	55.62	36.57	43.50	6.93	100	1	Horizontal
	3	163.9940	-17.85	53.98	36.13	43.50	7.37	100	290	Horizontal
	4	198.9489	-15.16	51.60	36.44	43.50	7.06	100	52	Horizontal
	5	263.0330	-13.57	53.93	40.36	46.00	5.64	100	243	Horizontal
g	6	305.7558	-12.66	53.14	40.48	46.00	5.52	100	9	Horizontal

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



Antenna polarity: V



Suspected List									
NO.	Freq. [MHz]	Factor [dB]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	56.2162	-14.59	48.86	34.27	40.00	5.73	100	340	Vertical
2	96.0260	-16.06	52.93	36.87	43.50	6.63	100	344	Vertical
3	110.5906	-15.53	52.88	37.35	43.50	6.15	100	320	Vertical
4	169.8198	-17.32	56.92	39.60	43.50	3.90	100	129	Vertical
5	269.8298	-13.66	53.41	39.75	46.00	6.25	100	94	Vertical
6	348.4785	-11.68	50.88	39.20	46.00	6.80	100	30	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)		
HUANTES	HLANTES.	- HUAKTES.		
	e <u></u>	-STING		
THE HUAK'TE	- MG HU	ICI		
NY TESTIN	"LAKTESTI" - HUAKTES!	"LAK TESTI" HUAK TEST		

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 (2406MHz)

Horizontal:

13.37	. 0.7%	. 0.16		- 4/4 -	210
Meter Reading	Factor	Emission Level	Limits	Margin	O HOM
(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
105.67	-5.84	99.83	114	-14.17	peak
85.09	-5.84	79.25	94	-14.75	AVG
56.75	-3.64	53.11	74	-20.89	peak
43.01	-3.64	39.37	54	-14.63	AVG
52.83	-0.95	51.88	74	-22.12	peak
40.23	-0.95	39.28	54	-14.72	AVG
	(dBμV) 105.67 85.09 56.75 43.01 52.83	(dBµV) (dB) 105.67 -5.84 85.09 -5.84 56.75 -3.64 43.01 -3.64 52.83 -0.95	(dBμV) (dB) (dBμV/m) 105.67 -5.84 99.83 85.09 -5.84 79.25 56.75 -3.64 53.11 43.01 -3.64 39.37 52.83 -0.95 51.88	(dBμV) (dB) (dBμV/m) (dBμV/m) 105.67 -5.84 99.83 114 85.09 -5.84 79.25 94 56.75 -3.64 53.11 74 43.01 -3.64 39.37 54 52.83 -0.95 51.88 74	(dBμV) (dB) (dBμV/m) (dBμV/m) (dBμV/m) 105.67 -5.84 99.83 114 -14.17 85.09 -5.84 79.25 94 -14.75 56.75 -3.64 53.11 74 -20.89 43.01 -3.64 39.37 54 -14.63 52.83 -0.95 51.88 74 -22.12

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	HUAKTES.
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2406	106.34	-5.84	100.5	114	-13.5	peak
2406	83.76	-5.84	77.92	94	-16.08	AVG
4812	53.55	-3.64	49.91	74	-24.09	peak
4812	43.18	-3.64	39.54	54	-14.46	AVG
7218	53.62	-0.95	52.67	74	-21.33	peak
7218	41.87	-0.95	40.92	54	-13.08	AVG

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

CH Middle (2442MHz)

Horizontal:

requency	Meter Reading	Factor	Emission Level	Limits	Margin	Detecto
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type
2442	109.23	-5.71	103.52	114	-10.48	peak
2442	79.61	-5.71	73.9	94	-20.1	AVG
4884	54.52	-3.51	51.01	74	-22.99	peak
4884	42.72	-3.51	39.21	54	-14.79	AVG
7326	52.17	-0.82	51.35	74	-22.65	peak
7326	41.09	-0.82	40.27	54	-13.73	AVG

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	DIESTING
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2442	108.41	-5.71	102.7	114	-11.3	peak
2442	81.67	-5.71	75.96	94	-18.04	AVG
4884	56.72	-3.51	53.21	74	-20.79	peak
4884	44.02	-3.51	40.51	54	-13.49	AVG
7326	52.37	-0.82	51.55	74	-22.45	peak
7326	41.15	-0.82	40.33	54	-13.67	AVG

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

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MAX



CH High (2478MHz)

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2478	103.42	-5.65	97.77	114	-16.23	peak
2478	82.61	-5.65	76.96	94	-17.04	AVG
4956	56.07	-3.43	52.64	74	-21.36	peak
4956	44.23	-3.43	40.8	54	-13.2	AVG
7434	51.53	-0.75	50.78	74	-23.22	peak
7434	42.88	-0.75	42.13	54	-11.87	AVG

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

Vertical:

(1)22	10	(3220)	(3/22/9	(1020)		(3239)
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2478	105.43	-5.65	99.78	114	-14.22	peak
2478	82.73	-5.65	77.08	94 N. TESTIN	-16.92	AVG
4956	56.27	-3.43	52.84	74	-21.16	peak
4956	43.07	-3.43	39.64	54	-14.36	AVG
7434	56.62	-0.75	55.87	74	-18.13	peak
7434	40.22	-0.75	39.47	54	-14.53	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.

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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 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 (2406MHz)

Horizontal (Worst case)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2310	56.32	-5.81	50.51	74	-23.49	peak
2310	TSTAG ON	-5.81	TING /	54	ING	AVG
2390	55.16	-5.84	49.32	74	-24.68	peak
2390	1	-5.84	1	54	1	AVG
2400	54.36	-5.84	48.52	74	-25.48	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	57.28	-5.81	51.47	74	-22.53	peak
2310	N TE TING	-5.81	NG /	54	K TESTING	AVG
2390	56.77	-5.84	50.93	74	-23.07	peak
2390	1	-5.84	1	54	TING /	AVG
2400	55.32	-5.84	49.48	74	-24.52	peak
2400	/	-5.84	1	54	1	AVG

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



Operation Mode: TX CH High (2478MHz)

Horizontal (Worst case)

Reading Result	Factor	Emission Level	Limits	Margin	
(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
55.32	-5.65	49.67	74	-24.33	peak
1	-5.65	1	54	K TESTING	AVG
53.16	-5.65	47.51	74	-26.49	peak
/	-5.65	1	54	1 1	AVG
	(dBµV) 55.32	(dBµV) (dB) 55.32 -5.65 / -5.65 53.16 -5.65	(dBμV) (dB) (dBμV/m) 55.32 -5.65 49.67 / -5.65 / 53.16 -5.65 47.51	(dBμV) (dB) (dBμV/m) (dBμV/m) 55.32 -5.65 49.67 74 / -5.65 / 54 53.16 -5.65 47.51 74	(dBμV) (dB) (dBμV/m) (dBμV/m) (dBμV/m) 55.32 -5.65 49.67 74 -24.33 / -5.65 / 54 / 53.16 -5.65 47.51 74 -26.49

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

Vertical:

	- Clia-	-01/2		410	Cla-	Clin.	La.
HUAK	Frequency	Reading Result	Factor	Emission Level	Limits	Margin	- Detector Type
and the	(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	- Detector Type
TEST	2483.50	56.43	-5.65	50.78	74	-23.22	peak
	2483.50	1	-5.65	O HUAN	54	1 6	AVG
	2500.00	55.64	-5.65	49.99	74	-24.01	peak
LIL.	2500.00	HIAKTESTIN	-5.65	STING / HUAK TES	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=39KHz. VBW= 120 KHz, Span=10MHz.
- 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

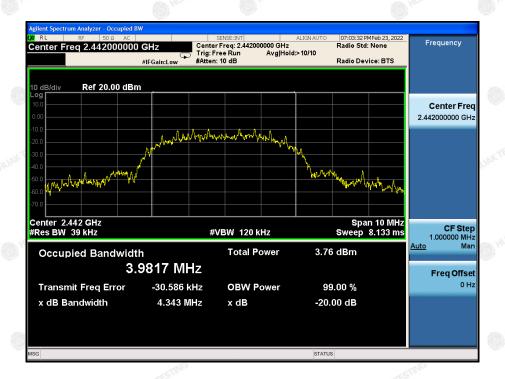
Frequency	20dB Bandwidth (MHz)	Result
2406 MHz	4.342	PASS
2442 MHz	4.343	PASS
2478 MHz	4.346	PASS

CH: 2406MHz





CH: 2442MHz



CH: 2478MHz





7. ANTENNA REQUIREMENT

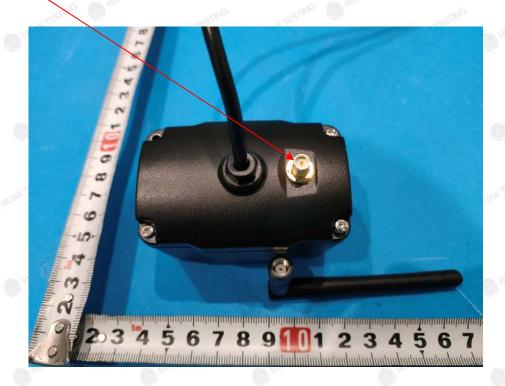
Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed toensure 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 External Antenna, which have non-standard antenna jack. It conforms to the standard requirements. The directional gains of antenna used for transmitting is1dBi.

ANTENNA



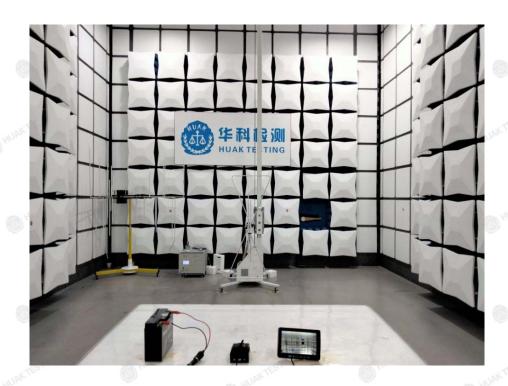
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannon be reproduced except in full with our prior written permission. The more details and the authenticity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

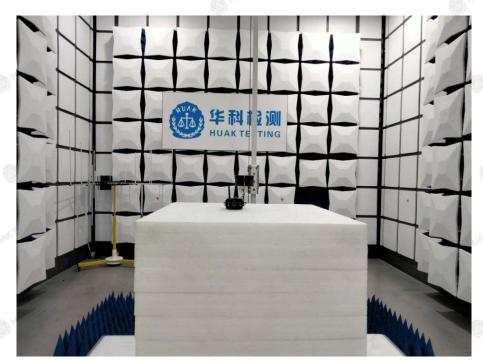
HUAK Testing Lab TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com



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-