



FCC TEST REPORT

Test report
On Behalf of
Guangdong Weili Intelligent Development Co., Ltd.
For
RC aircraft.
Model No.: A500

FCC ID: 2ASUS-A500

Prepared for: Guangdong Weili Intelligent Development Co., Ltd.

D Zone, Xiehe Industrial Park, South of Laimei Road, Chenghai District,

Shantou, 515800 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: Sep. 26, 2023 ~ Oct. 11, 2023

Date of Report: Oct. 11, 2023

Report Number: HK2309264475-E

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.



TEST RESULT CERTIFICATION

Applicant's name Guangdong Weili Intelligent Development Co., Ltd.

D Zone, Xiehe Industrial Park, South of Laimei Road, Chenghai District, Address.....

Shantou, 515800 China

Manufacture's Name: Guangdong Weili Intelligent Development Co., Ltd.

D Zone, Xiehe Industrial Park, South of Laimei Road, Chenghai District,

Shantou, 515800 China

Product description

Trade Mark..... N/A

Product name RC aircraft.

Model and/or type reference : A500

FCC Rules and Regulations Part 15 Subpart C Section 15.249

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.....: Sep. 26, 2023 ~ Oct. 11, 2023

Date of Issue: Oct. 11, 2023

Test Result.....

Testing Engineer

(Gary Qian)

Technical Manager

(Eden Hu)

Authorized Signatory:

(Jason Zhou)

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



26



Table of Contents Page 1. TEST SUMMARY 5 2. GENERAL INFORMATION 6 2.1 General Description of EUT 6 2.2 Carrier Frequency of Channels 7 2.3 Operation of EUT during testing 2.4 Description of Test Setup 2.5 Description of Support Units 2.6 Measurement Instruments List 3. CONDUCTED EMISSIONS TEST 10 3.1 Conducted Power Line Emission Limit 10 3.2 Test Setup 10 10 3.3 Test Procedure 3.4 Test Result 11 4 RADIATED EMISSION TEST 12 4.1 Radiation Limit 12 4.2 Test Setup 12 13 4.3 Test Procedure 4.4 Test Result 13 5 BAND EDGE 19 5.1 Limits 19 5.2 Test Procedure 19 5.3 Test Result 20 6 OCCUPIED BANDWIDTH MEASUREMENT 22 22 6.1 Test Setup 6.2 Test Procedure 22 22 6.3 Measurement Equipment Used 6.4 Test Result 22 7 ANTENNA REQUIREMENT 24 8 PHOTOGRAPH OF TEST 25 8.1 Radiated Emission 25

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.

9 PHOTOS OF THE EUT



Page 4 of 26

Report No.: HK2309264475-E

** Modified History **

Revision		Description	1	Issued Data	Remark	
Revisi	on 1.0	Initial Test Report I	Release	Oct. 11, 2023	Jason Zhou	
TESTING	.TE	TESTING	ESTI	N ^G	3 TESTING	
AUAR	HUAN	White.	HUAN	HUAN	HUAR	

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.

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

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



1. TEST SUMMARY

1.1 Test Procedures And Results

DESCRIPTION OF TEST	ang ang	RESULT
CONDUCTED EMISSIONS TEST	§ 15.207	N/A
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

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

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



2. GENERAL INFORMATION

2.1 General Description of EUT

Equipment	RC aircraft.	STING	STING
Model Name	A500	HUAKTE	HUAKTE
Serial Model	N/A		
Model Difference	N/A	WAY TESTING	TING
FCC ID	2ASUS-A500		HUAKTES.
Antenna Type	Internal Antenna	ESTING (9
Antenna Gain	2.97dBi	e olG	TING
Equipment	RC aircraft.	HUAKTESI	HUAKTES
Operation frequency	2405MHz~2475MHz	9	
Number of Channels	3CH		2
Modulation Type	GFSK	JAK TESTING	LAK TESTING
Power Source	DC 6V from Battery	O HO	0
Power Rating	DC 6V from Battery	TESTING	
Firmware Version	V2.0	HUAN	N. TESTING
Hardware Version	V2.0		HUM

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,

A FICATION



Page 7 of 26 Report No.: HK2309264475-E

2.2 Carrier Frequency of Channels

AK TESTING	JUAN TESTIL	Description	of Channel:	MAKTESTIN	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2405	2	2440	3	2475

2.3 Operation of EUT during testing

Operating Mode

The mode is used: Transmitting mode

Channel1: 2405MHz Channel2: 2440MHz Channel3: 2475MHz

2.4 Description of Test Setup

Operation of EUT during conducted testing and 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

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.



Page 8 of 26 Report No.: HK2309264475-E

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
1	RC aircraft.	N/A	A500	N/A	EUT
		0	®	(iii)	9
Vic.		, K TESTIN) G	OK TESTING	i.G.
	WAX TESTING	(i) HOW	- WAKTESTING	€ Home	UAK TESTINE
	0	TING	0	TING.	9

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.

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.



2.6 Measurement Instruments List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.
TESTING	L.I.S.N.	TESTING	TEST	JG . T	STING	TESTING
1.	Artificial Mains	R&S	ENV216	HKE-002	Feb. 17, 2023	1 Year
N ^G	Network	TING	2.172.10		. 65. 11, 2626	
2.	Receiver	R&S	ESR-7	HKE-010	Feb. 17, 2023	⁰ 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.	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	⁰ 1 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
20.	10dB Attenuator	Schwarzbeck	VTSD9561F	HKE-153	Feb. 17, 2023	1 Year

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.



3. CONDUCTED EMISSIONS TEST

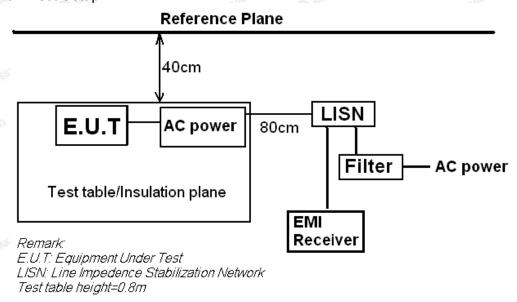
3.1 Conducted Power Line Emission Limit

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

Fraguency	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/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.

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.



3.4 Test Result

Not applicable

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

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.



4 RADIATED EMISSION TEST

4.1 Radiation Limit

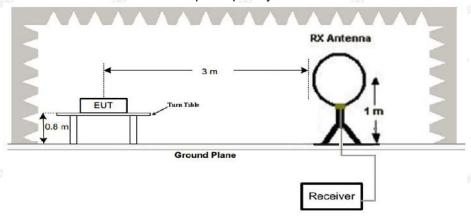
For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

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

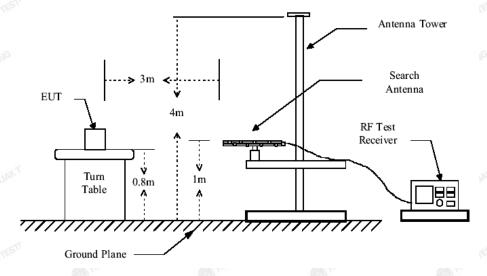
For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

4.2 Test Setup

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



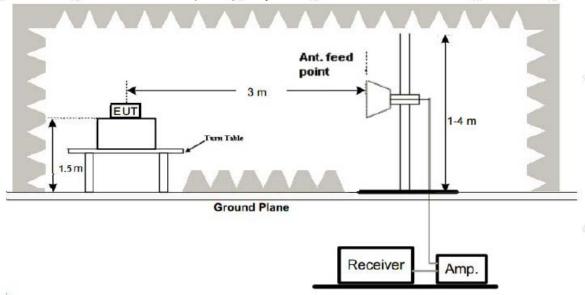
(2) Radiated Emission Test-Up Frequency 30MHz~1GHz



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.



(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.
- 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.

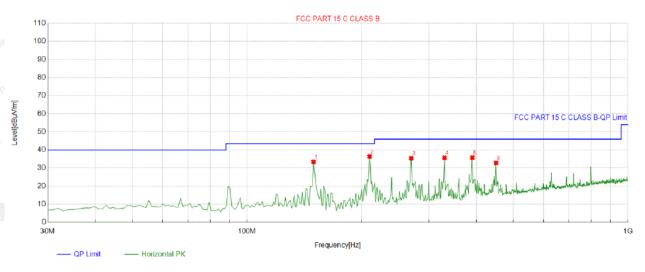
4.4 Test Result

PASS

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.

Below 1GHz Test Results:

Antenna polarity: H



QP Detector

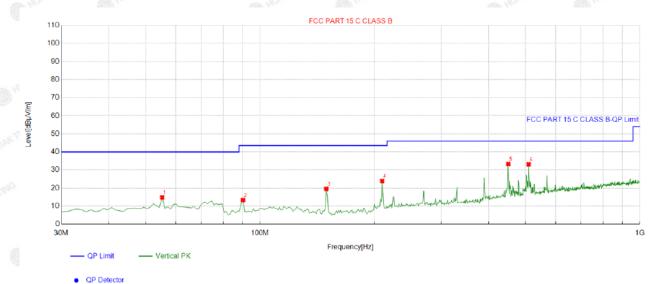
1	Suspe	cted List								
	NO	Freq.	Factor	Reading	Level	Limit	Margin	Height	Angle	Delevity
	NO.	[MHz]	[dB]	[dBµV/m]	[dBµV/m]	[dBµV/m]	[dB]	[cm]	[°]	Polarity
3	1	149.42942	-18.78	52.26	33.48	43.50	10.02	100	260	Horizontal
	2	209.62963	-14.60	50.99	36.39	43.50	7.11	100	268	Horizontal
	3	269.82983	-12.69	48.15	35.46	46.00	10.54	100	279	Horizontal
	4	330.03003	-11.59	47.28	35.69	46.00	10.31	100	195	Horizontal
8	5	390.23023	-10.03	45.82	35.79	46.00	10.21	100	52	Horizontal
1	6	450.43043	-8.21	41.01	32.80	46.00	13.20	100	49	Horizontal

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

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.



Antenna polarity: V



Suspe	Suspected List										
NO	Freq.	Factor	Reading	Level	Limit	Margin	Height	Angle	Delevity		
NO.	[MHz]	[dB]	[dBµV/m]	[dBµV/m]	[dBµV/m]	[dB]	[cm]	[°]	Polarity		
1	55.245245	-14.32	29.15	14.83	40.00	25.17	100	277	Vertical		
2	90.2002	-16.88	30.25	13.37	43.50	30.13	100	181	Vertical		
3	149.42942	-18.78	38.33	19.55	43.50	23.95	100	192	Vertical		
4	209.62963	-14.60	38.48	23.88	43.50	19.62	100	203	Vertical		
5	450.43043	-8.21	41.54	33.33	46.00	12.67	100	124	Vertical		
6	509.65966	-7.14	40.29	33.15	46.00	12.85	100	230	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.

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.



Above 1 GHz Test Results: CH Middle (2405MHz) Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type
2405	93.85	-5.71	88.14	114	-25.86	peak
2405	77.36	-5.71	71.65	94	-22.35	AVG
4810	52.63	-3.51	49.12	74	-24.88	peak
4810	33.95	-3.51	30.44	54	-23.56	AVG
7215	47.91	-0.82	47.09	74	-26.91	peak
7215	28.82	-0.82	28	54	-26	AVG

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

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Dotootor
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2405	96.07	-5.71	90.36	114	-23.64	peak
2405	77.04	-5.71	71.33	94	-22.67	AVG
4810	53.11	-3.51	49.6	74	-24.4	peak
4810	32.81	-3.51	29.3	54	-24.7	AVG
7215	46.06	-0.82	45.24	74	-28.76	peak
7215	29.26	-0.82	28.44	54	-25.56	AVG
emark: Factor	= Antenna Fa	actor + Cable I	oss – 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.

CH Middle (2440MHz)

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datasta
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2440	94.58	-5.71	88.87	114	-25.13	peak
2440	78.54	-5.71	72.83	94	-21.17	AVG
4880	53.07	-3.51	49.56	74	-24.44	peak
4880	31.71	-3.51	28.2	54	-25.8	AVG
7320	45.92	-0.82	45.1	74	-28.9	peak
7320	30.43	-0.82	29.61	54	-24.39	AVG

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Dotootor
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2440	97.58	-5.71	91.87	114	-22.13	peak
2440	77.42	-5.71	71.71	94	-22.29	AVG
4880	53.89	-3.51	50.38	74	-23.62	peak
4880	33.16	-3.51	29.65	54	-24.35	AVG
7320	49.32	-0.82	48.5	74	-25.5	peak
7320	31.96	-0.82	31.14	54	-22.86	AVG
Pomark: Easta	r - Antonna Fa	otor + Cable I	occ Pro amplifior			

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.

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

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





CH High (2475MHz) Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2475	95.85	-5.65	90.2	114	-23.8	peak
2475	77.04	-5.65	71.39	94	-22.61	AVG
4950	52.24	-3.43	48.81	74	-25.19	peak
4950	32.38	-3.43	28.95	54	-25.05	AVG
7425	48.08	-0.75	47.33	74	-26.67	peak
7425	28.41	-0.75	27.66	54	-26.34	AVG

Vertical:

	N 0 - 1	477	- 437	- 437		- 11000
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2475	94.01	-5.65	88.36	114	-25.64	peak
2475	77.37	-5.65	71.72	94	-22.28	AVG
4950	51.72	-3.43	48.29	74	-25.71	peak
4950	31.59	-3.43	28.16	54	-25.84	AVG
7425	46.32	-0.75	45.57	74	-28.43	peak
7425	30.91	-0.75	30.16	54	-23.84	AVG
Remark: Facto	r = Antenna Fa	actor + Cable L	oss – 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
- (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.

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,





Page 19 of 26 Report No.: HK2309264475-E

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.

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.



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	55.82	-5.81	50.01	74	-23.99	peak
2310	W.TESTING OF HO	-5.81	ETING / TESTING	54	TESTING/	AVG
2390	56.31	-5.84	50.47	74	-23.53	peak
2390	I	-5.84	/	54	/	AVG
2400	55.72	-5.84	49.88	⁶ 74	-24.12	peak
2400	HOM	-5.84	D HUM	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	55.01	-5.81	49.2	74	-24.8	peak
2310	1	-5.81	/	54	1	AVG
2390	56.39	-5.84	50.55	74	-23.45	peak
2390	1	-5.84	P	54	1	AVG
2400	57.14	-5.84	51.3	74 NAKTES	-22.7	peak
2400	1	-5.84	- MAY TES	54	1_40	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.



Operation Mode: TX CH High (2475MHz)

Horizontal (Worst case)

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Data eta a Tura a
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.50	55.82	-5.65	50.17	74	-23.83	peak
2483.50	TING /	-5.65	-CTING	54	STITUE /	AVG
2500.00	54.16	-5.65	48.51	74	-25.49	peak
2500.00	1	-5.65	/	54	1	AVG

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

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	D. HUMAN Town
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.50	55.63	-5.65	49.98	74	-24.02	peak
2483.50	1	-5.65	O ",	54	_M 1	AVG
2500.00	56.23	-5.65	50.58	74	-23.42	peak
2500.00	HUAKTE	-5.65	HUAKTE	54	HUAYTEST	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.

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.



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= 30KHz. VBW= 91 KHz, Span=6MHz.
- 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	20dB Bandwidth (MHz)	Result
2405 MHz	2.363	PASS
2440 MHz	2.370	PASS
2475 MHz	1.672	PASS

CH: 2405MHz



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.

CH: 2440MHz



CH: 2475MHz



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.



W.ESTI.

Report No.: HK2309264475-E

7 ANTENNA REQUIREMENT

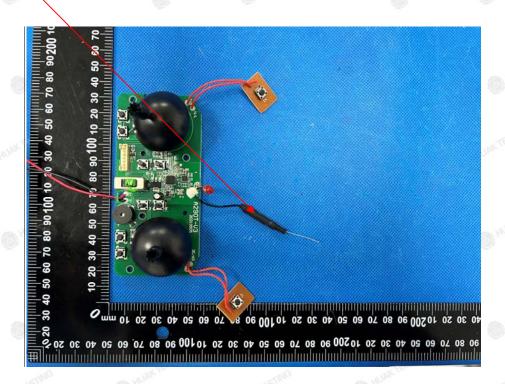
Standard Applicable

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 Internal Antenna which use a special interface and cannot easily replace, The directional gains of antenna used for transmitting is 2.97dBi.

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.



8 PHOTOGRAPH OF TEST

8.1 Radiated Emission





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.



9 PHOTOS OF THE EUT

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

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

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.