

Page 1 of 27

Report No.: HK2310094666-E

# FCC TEST REPORT

Test report On Behalf of Guangdong Weili Intelligent Development Co., Ltd. For RC/Racing Boat Model No.: WL917, Please refer to page 6 for series models

# FCC ID: 2ASUS-WL917

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:	Oct. 07, 2023 ~ Oct. 13, 2023
Date of Report:	Oct. 13, 2023
Report Number:	HK2310094666-E

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	TEST RESULT CERTIFICATION
Applicant's name:	Guangdong Weili Intelligent Development Co., Ltd.
Address:	D Zone, Xiehe Industrial Park, South of Laimei Road, Chenghai District, Shantou, 515800 China
Manufacture's Name	Guangdong Weili Intelligent Development Co., Ltd.
Address:	D Zone, Xiehe Industrial Park, South of Laimei Road, Chenghai District, Shantou, 515800 China
Product description	
Trade Mark:	N/A
Product name:	RC/Racing Boat
Model and/or type reference :	WL917, Please refer to page 6 for series models
Standards	FCC Rules and Regulations Part 15 Subpart C Section 15.249 ANSI C63.10: 2013

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Date of Test	
Date (s) of performance of tests:	Oct. 07, 2023 ~ Oct. 13, 2023
Date of Issue:	Oct. 13, 2023
Test Result	Pass

Testing Engineer

Jan

(Gary Qian)

Technical Manager

(Eden Hu)

Authorized Signatory :

(Jason Zhou)

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### Page 3 of 27

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		Table of Contents	SALTESTING OF	Page
1	. TEST SUMMARY			5
2	GENERAL INFORMA	TION		6
	2.1 General Description	of EUT		6
	2.2 Carrier Frequency o	f Channels		7
	2.3 Operation of EUT du	uring testing		7
	2.4 Description of Test S	Setup		8
	2.5 Description of Supp	ort Units		9
	2.6 Measurement Instru	ments List		10
3	. CONDUCTED EMIS	SIONS TEST		HUNK 11
	3.1 Conducted Power L	ine Emission Limit		11
	3.2 Test Setup			11
	3.3 Test Procedure			11 TESTING
	3.4 Test Result			12
4	RADIATED EMISSION	TEST		13
	4.1 Radiation Limit			13
	4.2 Test Setup			13
	4.3 Test Procedure			14
	4.4 Test Result			14
5	BAND EDGE			20
	5.1 Limits			20
	5.2 Test Procedure			20
	5.3 Test Result			21
6	OCCUPIED BANDWID	TH MEASUREMEN	IT 🔍	23
	6.1 Test Setup			23
	6.2 Test Procedure			23
	6.3 Measurement Equip	ment Used		23
	6.4 Test Result			23
7	ANTENNA REQUIREM	ENT		25
8	PHOTOGRAPH OF TE	ST 🔊 👘 🔍		26
	8.1 Radiated Emission			26
9	PHOTOS OF THE EUT	TESTING		27

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# \*\* Modified History \*\*

Revision	Description	Issued Data	Remark	
Revision 1.0	Initial Test Report Release	Oct. 13, 2023	Jason Zhou	
TESTING	ETING TESTING	TESTING TESTIN	G	
HUAN	HUAN	HUAN	HUAN	

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# **1. TEST SUMMARY**

1.1 Test Procedures And Results

DESCRIPTION OF TEST	Olen Olen	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 Radiated emission expanded uncertainty(9kHz-30MHz) Radiated emission expanded uncertainty(30MHz-1000MHz) Radiated emission expanded uncertainty(Above 1GHz) = 2.23dB, k=2

- = 3.08dB, k=2
- = 4.42dB, k=2
- = 4.06dB, k=2

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Page 6 of 27

FICATION.

# 2. GENERAL INFORMATION

**HUAK TESTING** 

# 2.1 General Description of EUT

Equipment	RC/Racing Boat	STING	STING	STING
Model Name	WL917	HUAKTL	HUAKTL	HUAKIL
	WL911, WL912, \	WL913, WL914,	WL915, WL916,	WL918, WL919,
	WL920, WL911-A,	WL912-A, WL9	13-A, WL914-A, \	WL915-A,
	WL916-A, WL917-	-A, WL918-A, WI	_919-A, WL920-A	, WL922,
	WL923, WL924, \	WL925, WL926,	WL927, WL928,	WL929, WL930,
	WL931, WL933, \	WL934, WL935,	WL936, WL937,	WL938, WL939,
Serial Model	WL940, WL941, V	WL942, WL955,	WL956, WL957,	WL958, WL959,
	WL960, WL961, \	WL962, WL963,	WL964, WL966,	WL967, WL968,
	WL969, WL970, \	WL971, WL972,	WL973, WL974,	WL975, WL977,
3	WL978, WL979, V	WL980, WL981,	WL982, WL983,	WL984, WL985,
	WL986, WL988, V	WL989, WL990,	WL991, WL992,	WL993, WL994,
	WL995, WL996, W	VL997		
Model Difference	All model's the funct	tion, software and	electric circuit are t	the same, only with
	model named differe	ent. Test sample m	nodel: WL917.	HLAKTESTIN
FCC ID	2ASUS-WL917		TING	0
Antenna Type	Internal Antenna		HUAKTES	
Antenna Gain	2.53dBi			ING - WAKTESTING
Equipment	RC/Racing Boat	0.	O Hou	0
Operation				
frequency	2410MHz~2475M	TZ CSTING		-csmuG
Number of	66CH	HUAK	HUAK	HUAK
Channels	00011	w.		
Modulation Type	GFSK			TING
Power Source	DC 3V from Batter	Yuu	0.	HUAKTE
Power Rating	DC 3V from Batter	у	STING	
Firmware Version	V2.0	- 01m	HUAK	a Dan De
Hardware Version	V2.0	HUAKTES	MAKTES	HUAKTES

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### 2.2 Carrier Frequency of Channels

KTESTING	and requeries		Description	of Channel		KTESTING	IAK TESTIN
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2410	18	2427	35	2444	52	2461
2	2411	19	2428	36	2445	53	2462
3	2412	20 🔘	2429	37	2446	54	2463
como 4	2413	21	2430	38	2447	se 55	2464
5	2414	22	2431	39	2448	56	2465
6	2415	23	2432	40	2449	57	2466
7	2416	24	2433	41	2450	58	2467
8	2417	25	2434	42	2451	59	2468
9	2418	26	2435	43	2452	60	2469
10	2419	27	2436	44	2453	61	2470
11	2420	28	2437	45	2454	62	2771
12	2421	29	2438	46	2455	63	2472
13	2422	30	2439	47	2456	64	2473
14	2423	31	2440	48	2457	65	2474
15	2424	32	2441	49	2458	66	2475
16	2425	33	2442	50	2459	0.	
17	2426	34	2443	51	2460		

2.3 Operation of EUT during testing

Operating Mode The mode is used: **Transmitting mode** 

Channel1: 2410MHz Channel2: 2442MHz Channel3: 2475MHz

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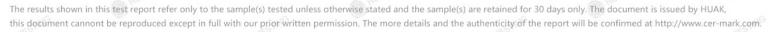
Report No.: HK2310094666-E

2.4 Description of Test Setup

Operation of EUT during conducted testing and radiation testing:



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
ACTES!	RC/Racing Boat	N/A	WL917	N/A	EUT
	0			0	
MNO.	.6	W TESTIN		AK TESTING	G
	WAKTESTA	O HOLD	- WAKTESTIN	O Home	- JUAN TESTING
	0	TING	0	TING	9

#### Note:

All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
 Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.
 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. Interval	
1.	L.I.S.N. Artificial Mains Network	rtificial Mains R&S		ENV216 HKE-002		1 Year	
2.	Receiver	R&S	ESR-7	HKE-010	Feb. 17, 2023	<sup>©</sup> 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	
7.00	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 EZ-EMC	Tonscend	JY3120-B Version	6 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>0</sup> 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	

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### 3. CONDUCTED EMISSIONS TEST

HUAK TESTING

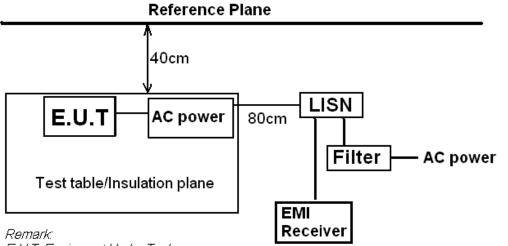
- 3.1 Conducted Power Line Emission Limit
- For unintentional device, according to § 15.107(a) Line Conducted Emission Limits is as following

	Maximum RF Line Voltag			ine Voltage (d	BμV)	
	(MHz)	Frequency (MHz) CLASS A		CLASS B		
111	(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	3

\* 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



E.U.T: Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m

- 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.

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# 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

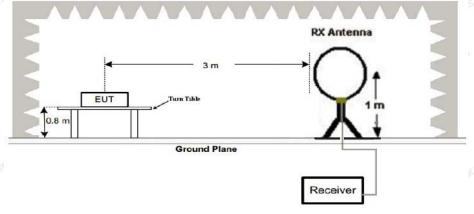
For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

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

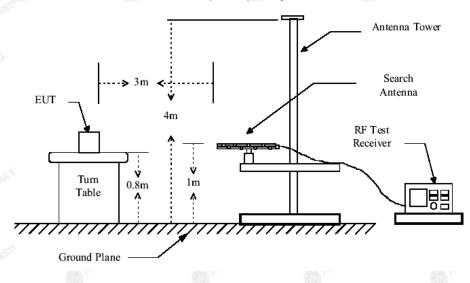
For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

### 4.2 Test Setup

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



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

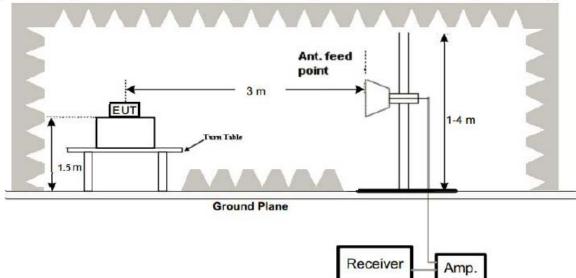


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(3) Radiated Emission Test-Up Frequency Above 1GHz



- 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

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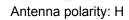
Page 15 of 27

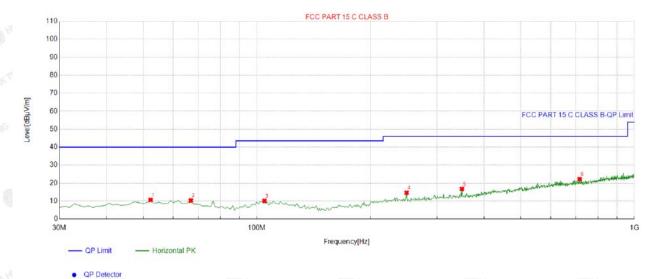
Report No.: HK2310094666-E

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E

Below 1GHz Test Results:





Suspected List

NG	Freq.	Factor	Reading	Level	Limit	Margin	Height	Angle	
NO.	[MHz]	[dB]	[dBµV/m]	[dBµV/m]	[dBµV/m]	[dB]	[cm]	[°]	Polarity
1	52.332332	-14.35	24.95	10.60	40.00	29.40	100	55	Horizontal
2	66.896897	-15.28	25.56	10.28	40.00	29.72	100	176	Horizontal
3	104.76476	-14.83	24.90	10.07	43.50	33.43	100	209	Horizontal
4	249.43943	-13.15	27.78	14.63	46.00	31.37	100	99	Horizontal
5	349.44944	-11.23	27.99	16.76	46.00	29.24	100	173	Horizontal
6	716.47647	-3.58	25.83	22.25	46.00	23.75	100	36	Horizontal

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

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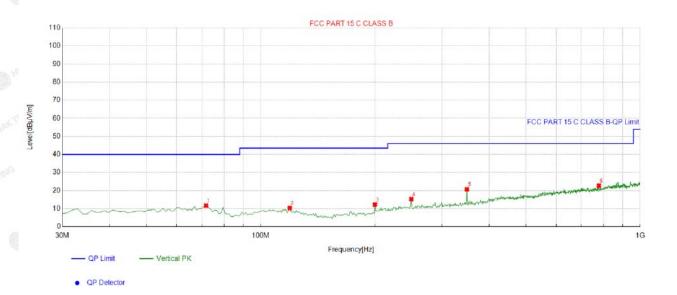
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Page 16 of 27

Report No.: HK2310094666-E

Antenna polarity: V



# Suspected List

2										
	NO	Freq.	Factor	Reading	Level	Limit	Margin	Height	Angle	Delevity
6	NO.	[MHz]	[dB]	[dBµV/m]	[dBµV/m]	[dBµV/m]	[dB]	[cm]	[°]	Polarity
s	1	71.751752	-16.40	28.09	11.69	40.00	28.31	100	236	Vertical
	2	119.32932	-15.50	25.81	10.31	43.50	33.19	100	106	Vertical
	3	199.91992	-15.27	27.49	12.22	43.50	31.28	100	305	Vertical
	4	249.43943	-13.15	28.48	15.33	46.00	30.67	100	164	Vertical
1	5	349.44944	-11.23	31.96	20.73	46.00	25.27	100	197	Vertical
	6	778.61861	-2.40	25.11	22.71	46.00	23.29	100	321	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.

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Report No.: HK2310094666-E

# Above 1 GHz Test Results: CH Middle (2410MHz) Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	DUSSING
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2410	95.05	-5.71	89.34	114	-24.66	peak
2410	78.02	-5.71	72.31	94	-21.69	AVG
4820	50.6	-3.51	47.09	74	-26.91	peak
4820	33.23	-3.51	29.72	54	-24.28	AVG
6 7230	47.18	-0.82	46.36	74	-27.64	peak
7230	31.05	-0.82	30.23	54	-23.77	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
2410	96.18	-5.71	90.47	114	-23.53	peak
2410	76.59	-5.71	70.88	94	-23.12	AVG
4820	51.56	-3.51	48.05	74	-25.95	peak
4820	32.82	-3.51	29.31	54	-24.69	AVG
7230	47.91	-0.82	47.09	74	-26.91	peak
7230	29.45	-0.82	28.63	54	-25.37	AVG
emark: Factor	= Antenna Fa	octor + Cable I	oss – Pre-amplifier			

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

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Page 18 of 27

Report No.: HK2310094666-E

FICATION

CH Middle (2442MHz)

# Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datast
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2442	95.15	-5.71	89.44	114	-24.56	peak
2442	77.04	-5.71	71.33	94 MARC	-22.67	AVG
4884	52.49	-3.51	48.98	74	-25.02	peak
4884	31.99	-3.51	28.48	54	-25.52	AVG
7326	46.31	-0.82	45.49	74	-28.51	peak
7326	30.98	-0.82	30.16	54	-23.84	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)	Detector Type
2442	93.99	-5.71	88.28	114	-25.72	peak
2442	77.32	-5.71	71.61	94	-22.39	AVG
4884	52.04	-3.51	48.53	74	-25.47	peak
4884	32.89	-3.51	29.38	54	-24.62	AVG
7326	46.52	-0.82	45.7	74	-28.3	peak
7326	29.99	-0.82	29.17	se 54	-24.83	AVG

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

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Report No.: HK2310094666-E

HUAK TESTING

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2475	93.97	-5.65	88.32	114	-25.68	peak
2475	77.01	-5.65	71.36	94	-22.64	AVG
4950	51.18	-3.43	47.75	74	-26.25	peak
4950	33.33	-3.43	29.9	54	-24.1	AVG
7425	48.09	-0.75	47.34	74	-26.66	peak
7425	28.84	-0.75	28.09	54	-25.91	AVG

Page 19 of 27

Vertical:

101			"LAK TES	11	IK TEO	NAK TES	
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type	
2475	94.53	-5.65	88.88	114	-25.12	peak	
2475	75.98	-5.65	70.33	94	-23.67	AVG	
4950	50.60	-3.43	47.17	74	-26.83	peak	
4950	31.99	-3.43	28.56	54	-25.44	AVG	
7425	47.97	-0.75	47.22	74	-26.78	peak	
7425	28.14	-0.75	27.39	54	-26.61	AVG	
Remark: Factor	- = Antenna Fac	ctor + Cable L	.oss – Pre-amplifier.				

#### Remark :

(1) Measuring frequencies from 1 GHz to the 25 GHz  $\circ$ 

(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.

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5.3 Test Result

PASS

Radiated Band Edge Test: Operation Mode: TX CH Low (2410MHz) Horizontal (Worst case)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2310	56.02	-5.81	50.21	74	-23.79	peak
2310	TESTING OH	-5.81	anno / resinv	54		AVG
2390	55.72	-5.84	49.88	74	-24.12	peak
2390	/	-5.84	/	54	/	AVG
2400	54.54	-5.84	48.7	<sup>6</sup> 74	-25.3	peak
2400	HUAN	-5.84	T HURN	54	1	AVG

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

/ertical:						
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2310	56.25	-5.81	50.44	74	-23.56	peak
2310	1	-5.81	/	54	1	AVG
2390	55.02	-5.84	49.18	74	-24.82	peak
2390	1	-5.84	1	54	1	AVG
2400	54.16	-5.84	48.32	74	-25.68	peak
2400	ESIM	-5.84	MINY TESTIN	54	1	AVG

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# Operation Mode: TX CH High (2475MHz) Horizontal (Worst case)

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
2483.50	54.02	-5.65	48.37	74	-25.63	peak
2483.50	TING /	-5.65	/ Inig	54	STAN /	AVG
2500.00	55.27	-5.65	49.62	74	-24.38	peak
2500.00	1	-5.65	1	54	1	AVG
Remark: Eactor	r = Antenna Factor	+ Cable Loss	– Pre-amplifier	OMIAN	TING	STING

Vertical:

NKIL	174				
eading Result	Factor	Emission Level	Limits	Margin	
(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
54.39	-5.65	48.74	74	-25.26	peak
/	-5.65	01	54	ы <u>с</u> I	AVG
55.72	-5.65	50.07	74	-23.93	peak
AKTE	-5.65	HUAKTE	54	HUNTESI	AVG
	(dBµV) 54.39 /	(dBµV)     (dB)       54.39     -5.65       /     -5.65       55.72     -5.65	C         C <thc< th=""> <thc< th=""> <thc< th=""> <thc< th=""></thc<></thc<></thc<></thc<>	C         C <thc< th=""> <thc< th=""> <thc< th=""> <thc< th=""></thc<></thc<></thc<></thc<>	C         C <thc< th=""> <thc< th=""> <thc< th=""> <thc< th=""></thc<></thc<></thc<></thc<>

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

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

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### 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	n JOK
2410 MHz	2.526	PASS	
2442 MHz	1.589	PASS	
2475 MHz	4.508	PASS	

CH: 2410MHz



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## CH: 2442MHz



CH: 2475MHz



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#### Page 25 of 27

# 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**

40 50 60

202

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 2.53dBi.

### ANTENNA



0 10500 80 80 20 60 20 40 30 50 10100 80 80 20 60 20 40 30 5

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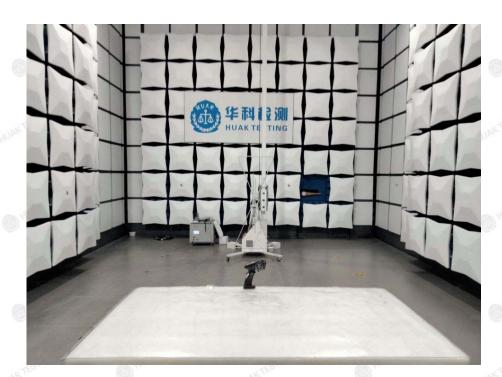


Page 26 of 27

Report No.: HK2310094666-E

8 PHOTOGRAPH OF TEST

8.1 Radiated Emission





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Report No.: HK2310094666-E

PAT

# 9 PHOTOS OF THE EUT

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

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

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