

# FCC TEST REPORT

Test report On Behalf of REXING INC. For Dash Camera Model No.: V1P Max FCC ID: 2AW5W-V1PMAX

Prepared For : REXING INC.

264 Quarry Rd., Unit D Milford, Connecticut 06460 United States

**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:
 Aug. 03, 2021 ~ Aug. 31, 2021

 Date of Report:
 Aug. 31, 2021

 Report Number:
 HK2108032694-E

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## **TEST RESULT CERTIFICATION**

Applicant's name:	REXING INC.	
Address	264 Quarry Rd., Unit D Milford, Conne States	cticut 06460 United
Manufacture's Name:	KA FUNG TECHNOLOGY CO LIMITE	D AK TESTING
Address	Rm.202, C5 Building, Hengfeng Indust Rd., Hangcheng Subdistrict, Bao'an Di	
Product description		
Trade Mark:	REXING	
Product name:	Dash Camera	
Model and/or type reference :	V1P Max	
Standards	FCC Rules and Regulations Part 15 Su ANSI C63.10: 2013	bpart C Section 15.247

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Date of	Test	•
Date of	1631	•

Date (s) of performance of tests:	Aug. 03, 2021 ~ Aug. 31, 2021
Date of Issue	Aug. 31, 2021
Test Result	Pass

Testing Engineer

rang Dian

(Gary Qian)

Technical Manager

(Eden Hu)

Authorized Signatory:

asin Uniu

(Jason Zhou)

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**T** 691

# \*\* Modified History \*\*

Revision	Description	Issued Data	Remark	
Revision 1.0	Initial Test Report Release	Aug. 31, 2021	Jason Zhou	
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# 1. TEST RESULT SUMMARY

# **1.1. TEST PROCEDURES AND RESULTS**

Result	CFR 47 Section	Requirement	
PASS	§15.203/§15.247(b)(4)	Antenna requirement	
N/A	§15.207	AC Power Line Conducted Emission	
PASS	§15.247(b)(3)	Conducted Peak Output Power	
PASS	§15.247(a)(2)	6dB Emission Bandwidth	
PASS	§15.247(e)	Power Spectral Density	
PASS	§15.247(d)	Band Edge	
PASS	§15.205/§15.209	Spurious Emission	
A	§15.247(a)(2) §15.247(e) §15.247(d)	Power 6dB Emission Bandwidth Power Spectral Density Band Edge	

#### Note:

1. PASS: Test item meets the requirement.

- 2. Fail: Test item does not meet the requirement.
- 3. N/A: Test case does not apply to the test object.
- 4. The test result judgment is decided by the limit of test standard.

# **1.2. TEST FACILITY**

Test Firm : Shenzhen HUAK Testing Technology Co., Ltd.

Address

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

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# **1.3. MEASUREMENT UNCERTAINTY**

The reported uncertainty of measurement  $y \pm U$ , where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

No.	Item	MU
1	Conducted Emission	±2.71dB
2	RF power, conducted	±0.37dB
3	Spurious emissions, conducted	±0.11dB
4	All emissions, radiated(<1G)	±3.90dB
5.00	All emissions, radiated(>1G)	±4.28dB
6	Temperature	±0.1°C
7	Humidity	±1.0%

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# 2. EUT DESCRIPTION

# 2.1. GENERAL DESCRIPTION OF EUT

TESTIN	TESTING TESTING
Equipment:	Dash Camera
Model Name:	V1P Max
Serial No.:	N/A O
Model Difference:	N/A
FCC ID:	2AW5W-V1PMAX
Antenna Type:	Internal Antenna
Antenna Gain:	2.46dBi
Operation frequency:	802.11b/g/n 20: 2412~2462 MHz
Number of Channels:	802.11b/g/n20: 11CH
Modulation Type:	CCK/OFDM/DBPSK/DAPSK
Power Source:	DC 5V from car charger
Power Rating:	DC 5V from car charger

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# 2.2. CARRIER FREQUENCY OF CHANNELS

		Ch	annel List	t for 802.11b	/802.11g/8	02.11n (HT2	D)	
STA	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
	01	2412	04	2427	07	2442	10	2457
	02	2417	05	2432	08	2447	11	2462
	03	2422	06	2437	09	2452	TSTNG	

#### Note:

In section 15.31(*m*), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

# 2.3. OPERATION OF EUT DURING TESTING

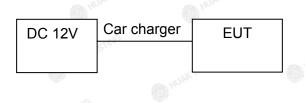
Operating Mode The mode is used: Transmitting mode for 802.11b/802.11g/802.11n (HT20) Low Channel: 2412MHz Middle Channel: 2437MHz High Channel: 2462MHz

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# 2.4. DESCRIPTION OF TEST SETUP

Operation of EUT during testing:



Car charger information Input: DC 12V-24V Output: DC 5V-2.5A

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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# 3. GENERA INFORMATION

# **3.1. TEST ENVIRONMENT AND MODE**

Temperature:	25.0 °C
Humidity:	56 % RH
Atmospheric Pressure:	1010 mbar

	Keep the EUT in continuous transmitting
700 · · · · · · · · · · · · · · · · · ·	by select channel and modulations(The
UAK	value of duty cycle is 98.46%)

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. For the full battery state and The output power to the maximum state.

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Per-scan all kind of data rate in lowest channel, and found the follow list which it
was worst case.

TED	Mode	HUAKTES	Data rate	
	802.11b		1Mbps	Ŵ
lan	802.11g	TING	6Mbps	NG
	802.11n(HT20)	AUAK TEST	6.5Mbps	HUAN TES

#### Final Test Mode:

Operation mode:

Keep the EUT in continuous transmitting with modulation

1. For WIFI function, the engineering test program was provided and enabled to make EUT continuous transmit/receive.

2.According to ANSI C63.10 standards, the test results are both the "worst case" and "worst setup" 1Mbps for 802.11b, 6Mbps for 802.11g, 6.5Mbps for 802.11n(H20). Duty cycle setting during the transmission is 98.5% with maximum power setting for all modulations.

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# **3.2. 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.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
1	IG I HUNKTEST	s I	HULK TESTIN	2 I

#### Note:

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- 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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# 4. TEST RESULTS AND MEASUREMENT DATA

# 4.1. CONDUCTED EMISSION

### **Test Specification**

stopeomodion					
Test Requirement:	FCC Part15 C Section 15.207				
Test Method:	ANSI C63.10:2013				
Frequency Range:	150 kHz to 30 MHz				
Receiver setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto				
Limits:	Frequency range (MHz)         Limit (dBuV)           0.15-0.5         66 to 56*         56 to 46*           0.5-5         56         46           5-30         60         50				
Test Setup:	Reference Plane 40cm 80cm LISN Filter AC power Filter AC power Fest table/Insulation plane Remark E.U.T. Equipment Under Test LISN Line Impedence Stabilization Network Test table height=0.8m				
Test Mode:	Charging + transmitting with modulation				
Test Procedure:	<ol> <li>The E.U.T is connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment.</li> <li>The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and</li> </ol>				
	<ul> <li>photographs).</li> <li>3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all o the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.</li> </ul>				

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Test	Instruments
1014	

AUDA Y Y 405203		All the second s					
Conducted Emission Shielding Room Test Site (843)							
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due		
Receiver	R&S	ESCI 7	HKE-010	Dec. 10, 2020	Dec. 09, 2021		
L.I.S.N. Artificial Mains Network	R&S	ENV216	HKE-002	Dec. 10, 2020	Dec. 09, 2021		
LISN	R&S	ENV216	HKE-059	Dec. 10, 2020	Dec. 09, 2021		
Conducted test software	Tonscend	TS+ Rev 2.5.0.0	HKE-081	N/A	N/A		

**Note:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

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# 4.2. TEST RESULT

Not applicable.

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

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# 4.3. MAXIMUM CONDUCTED OUTPUT POWER

### **Test Specification**

Test Requirement:	FCC Part15 C Section 15	5.247 (b)(3)
Test Method:	KDB 558074	O HUM
Limit:	30dBm	ok resting
Test Setup:	Power meter	EUT
Test Mode:	Transmitting mode with n	nodulation
Test Procedure:	<ul> <li>FCC KDB 558074 D0 v05r02.</li> <li>2. The RF output of EUT meter by RF cable an compensated to the rest of the maximum por EUT transmit continuous continuou</li></ul>	Measurement Procedure of 1 15.247 Meas Guidance was connected to the power d attenuator. The path loss was esults for each measurement. ower setting and enable the ously. but power and record the results
Test Result:	PASS	

### **Test Instruments**

RF Test Room						
EquipmentManufacturerModelSerial NumberCalibrationCalibratiDateDue						
Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 10, 2020	Dec. 09, 2021	
Power meter	Agilent	E4419B	HKE-085	Dec. 10, 2020	Dec. 09, 2021	
Power Sensor	Agilent	E9300A	HKE-086	Dec. 10, 2020	Dec. 09, 2021	
RF cable	Times	1-40G	HKE-034	Dec. 10, 2020	Dec. 09, 2021	
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Dec. 10, 2020	Dec. 09, 2021	

**Note:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

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### Test Data

TING	Plan	TX 802.11b Mode	Day Day
Test	Frequency	Maximum Peak Conducted Output Power	LIMIT
Channel	(MHz)	(dBm)	dBm
CH01	2412	15.88	30
CH06	2437	13.42	30
CH11	2462	14.68	30
AUAK TESTING	HUAKTESTA	TX 802.11g Mode	WANTESTING HUANTESTING
CH01	2412	14.75	30
CH06	2437	13.03	30
CH11	2462	14.64	30 HUM TEST
JG		TX 802.11n20 Mode	WG
CH01	2412	14.10	30 msm
CH06	2437	12.50	30
CH11	2462	13.65	30

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## 4.4. EMISSION BANDWIDTH

### **Test Specification**

Test Requirement:	FCC Part15 C Section 1	FCC Part15 C Section 15.247 (a)(2)				
Test Method:	KDB 558074	O HUM	O HOM			
Limit:	>500kHz	OK TESTING	-NG			
Test Setup:	Spectrum Analyzer	EUT	HUAKTESTIC			
Test Mode:	Transmitting mode with r	modulation				
Test Procedure:	<ol> <li>The testing follows FC Meas Guidance v05rd</li> <li>Set to the maximum p EUT transmit continue</li> <li>Make the measurement resolution bandwidth Video bandwidth (VB an accurate measure be greater than 500 k</li> <li>Measure and record th</li> </ol>	02. ower setting and e ously. nt with the spectru (RBW) = 100 kHz W) = 300 kHz. In o ment. The 6dB ba	enable the im analyzer's . Set the order to make ndwidth must			
Test Result:	PASS	O HUM	O Ho			

### **Test Instruments**

ATTAL YOY ATTAL	10°		All the YVY	All NY	Allah VV	
RF Test Room						
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due	
Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 10, 2020	Dec. 09, 2021	
RF cable	Times	1-40G	HKE-034	Dec. 10, 2020	Dec. 09, 2021	
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Dec. 10, 2020	Dec. 09, 2021	

**Note:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

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## Test data

Tost shannal	6dB Emission Bandwidth (MHz)				
Test channel	802.11b	802.11g	802.11n(H20)		
Lowest	9.16	16.44	17.68		
Middle	9.16	16.48	17.72		
Highest	9.20	16.44	17.64		
Limit:	NG HUANTES	>500KHz	G ANG HUA		
Test Result:	WARTESTING	PASS	UAKTESTING HUAKTESTIC		

Test plots as follows:

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#### 802.11b Modulation

Lowest channel



#### Middle channel



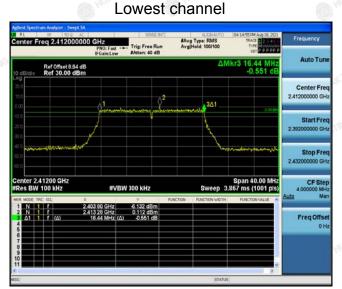
### Highest channel



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#### 802.11g Modulation



Middle channel



### Highest channel

 
 Algories Sections Adapter Servers 3A
 Unite Set
 Algories Sections
 Prequency
 Frequency

 Center Freq 2.452000000 GHz BrGeinLow
 Trig: Free Run BrGeinLow
 Algories Section
 Trig: Free Run Augisted: foortoo
 Trig: Free Run Augisted: foortoo
 Trig: Free Run Center Freq 2.462000000 GHz
 Frequency
 Aluto Tune

 0
 Biblioty
 Ref Offset 8.94 dB
 CAMkr3 16, 444 MHz
 Center Freq 2.46200000 GHz
 Aluto Tune

 0
 Biblioty
 Ref Offset 8.94 dB
 Center Freq 2.46200000 GHz
 Start Freq 2.46200000 GHz
 Start Freq 2.46200000 GHz
 Start Freq 2.46200000 GHz

 0
 Start Freq 2.46200000 GHz
 Trig: Free Run 2.4620000 GHz
 Start Freq 2.46200000 GHz
 Start Freq 2.46200000 GHz

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 Start Freq 2.46200000 GHz
 Trig: Free Run 2.4620000 GHz
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 Start Freq 2.46200000 GHz
 Trig: Free Run 2.46200000 GHz
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 Start Freq 2.46200000 GHz
 Start Freq 2.46200000 GHz

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 2.4528 GHz
 Start Freq 2.46200000 GHz
 Start Freq 2.46200000 GHz

 2
 N 1 1

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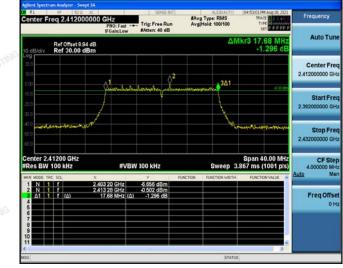


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#### 802.11n (HT20) Modulation

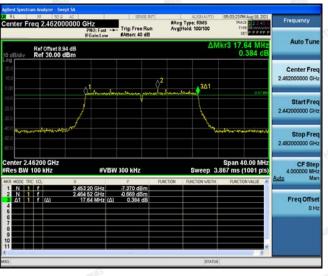
Lowest channel



#### Middle channel



### **Highest channel**



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# 4.5. POWER SPECTRAL DENSITY

# **Test Specification**

Test Requirement:	FCC Part15 C Section 15.24	-7 (e)			
Test Method:	KDB 558074	HUAKTES	HUAKTES		
Limit:	The average power spectral than 8dBm in any 3kHz ba continuous transmission.				
Test Setup:	Spectrum Analyzer	EUI	AIG HUAKTESTING		
Test Mode:	Transmitting mode with mod	Transmitting mode with modulation			
Test Procedure:	<ol> <li>The testing follows Measu method PKPSD of FCC M Meas Guidance v05r02.</li> <li>The RF output of EUT was analyzer by RF cable and was compensated to the measurement.</li> <li>Set to the maximum powe EUT transmit continuousl</li> <li>Make the measurement w resolution bandwidth (RB kHz. Video bandwidth VB to at least 1.5 times the C</li> <li>Detector = Peak, Sweep ti</li> <li>Employ trace averaging (F of 100 traces. Use the pe determine the maximum 7. Measure and record the re</li> </ol>	KDB 558074 E s connected to d attenuator. T results for eac er setting and o y. ith the spectru W): 3 kHz $\leq$ F SW $\geq$ 3 x RBW DBW. ime = auto co Peak) mode ov eak marker fur power level.	001 15.247 the spectrum he path loss ch enable the um analyzer's RBW $\leq$ 100 $\ell$ . Set the span uple. ver a minimum action to		
Test Result:	PASS	HUAN	TESTING		

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### **Test Instruments**

RF Test Room							
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due		
Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 10, 2020	Dec. 09, 2021		
RF Cable (9KHz-26.5GHz)	Tonscend	170660	N/A	Dec. 10, 2020	Dec. 09, 2021		
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Dec. 10, 2020	Dec. 09, 2021		
RF test software	Tonscend	JS1120-B Version 2.6	HKE-083	N/A	N/A		

**Note:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

#### Test data

EUT Set Mode	Channel	Result (dBm/30kHz)	Result (dBm/3kHz)				
	Lowest	4.31	-5.69				
802.11b	Middle	3.2	-6.8				
	Highest	2.35	-7.65				
802.11g	Lowest	-4.85	-14.85				
	Middle	-5.18	-15.18				
	Highest	-4.29	-14.29				
	Lowest	-5.78	-15.78				
802.11n(H20)	Middle	-6.45	-16.45				
	Highest	-5.56	-15.56				
PSD test result (dBm/3	3kHz)= PSD tes	t result (dBm/30kHz)-10					
Limit: 8dBm/3kHz							
Test Result:	PASS						

Test plots as follows:

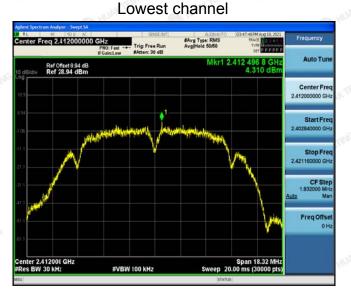
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FICATION

#### 802.11b Modulation



#### Middle channel



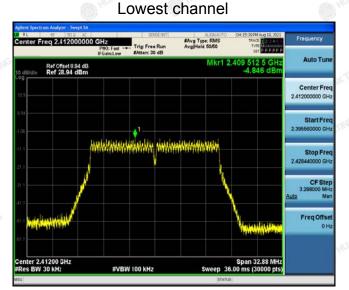
#### **Highest channel**



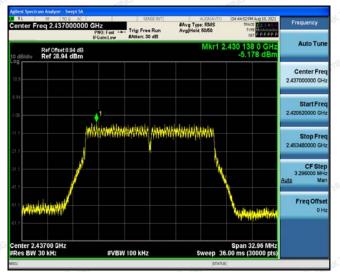
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#### 802.11g Modulation



#### Middle channel



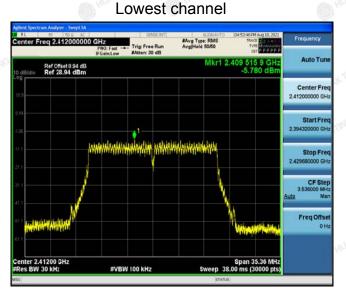
### Highest channel

 Ref Offset 94 dB
 USXE 501
 USXE 501

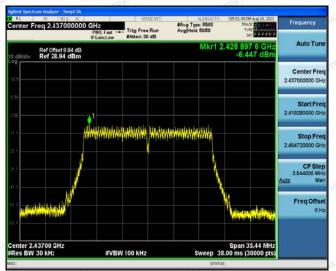
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#### 802.11n (HT20) Modulation



Middle channel



### Highest channel

 
 Ref Offset 8 94 dB
 Mkr 1 2.469 fb7 C GHz Bround 1
 Mkr 1 2.469 fb7 C GHz Center Freq 2.46200000 GHz
 Frequency Auguste 800 fb7 C GHz Bround 1
 Center Freq 2.45200000 GHz
 Center Freq 2.45200000 GHz
 Frequency Auto Tune

 100 Black
 Ref Offset 8 94 dB
 Mkr 1 2.469 fb7 C GHz Start 20 dB
 Center Freq 2.452000000 GHz
 Center Freq 2.45200000 GHz
 Center Freq 2.4520000 GHz
 Center Freq 2.4520000 GHz
 Center Freq 2.4520000 GHz
 Center Freq 2.4520000 GHz
 Center Freq 2.452000 GHz</

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## 4.6. CONDUCTED BAND EDGE AND SPURIOUS EMISSION MEASUREMENT

#### **Test Specification**

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	KDB558074
Limit:	In any 100 kHz bandwidth outside of the authorized frequency band, the emissions which fall in the non-restricted bands shall be attenuated at least 20 dB / 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement and radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).
Test Setup:	Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Toot Procedures	<ol> <li>The testing follows FCC KDB 558074 D01 15.247 Meas Guidance v05r02.</li> <li>The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.</li> <li>Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band</li> </ol>
Test Procedure:	<ul> <li>shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).</li> <li>5. Measure and record the results in the test report.</li> <li>6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.</li> </ul>
Test Result:	PASS

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RF Test Room							
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due		
Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 10, 2020	Dec. 09, 2021		
High pass filter unit	Tonscend	JS0806-F	HKE-055	Dec. 10, 2020	Dec. 09, 2021		
RF Cable (9KHz-26.5GHz)	Tonscend	170660	N/A	Dec. 10, 2020	Dec. 09, 2021		
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Dec. 10, 2020	Dec. 09, 2021		
RF test software	Tonscend	JS1120-B Version 2.6	HKE-083	N/A	N/A		

## **Test Instruments**

**Note:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

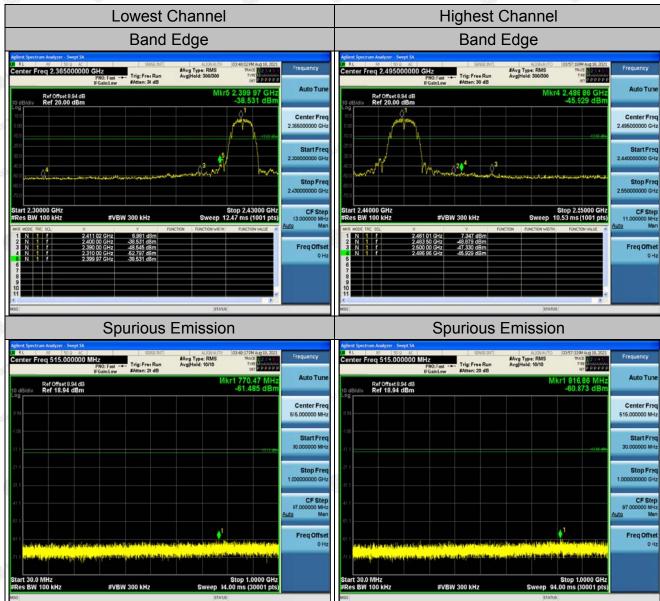
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### Test Data



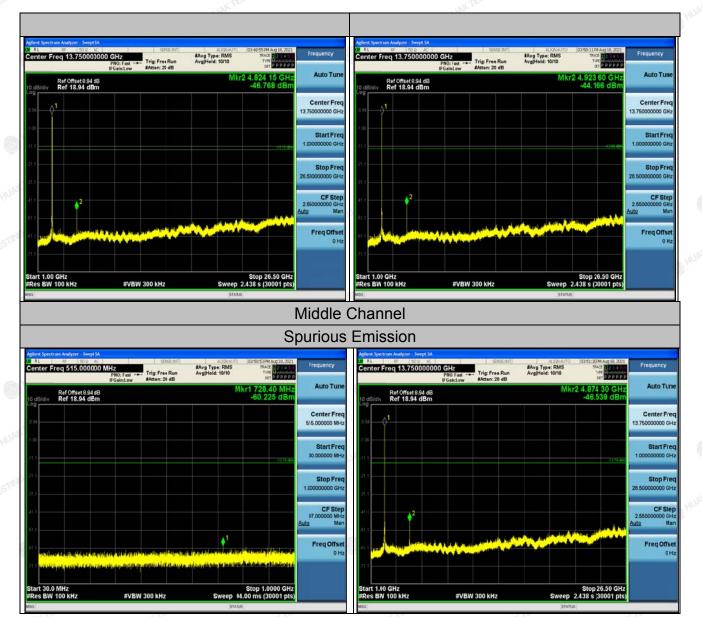


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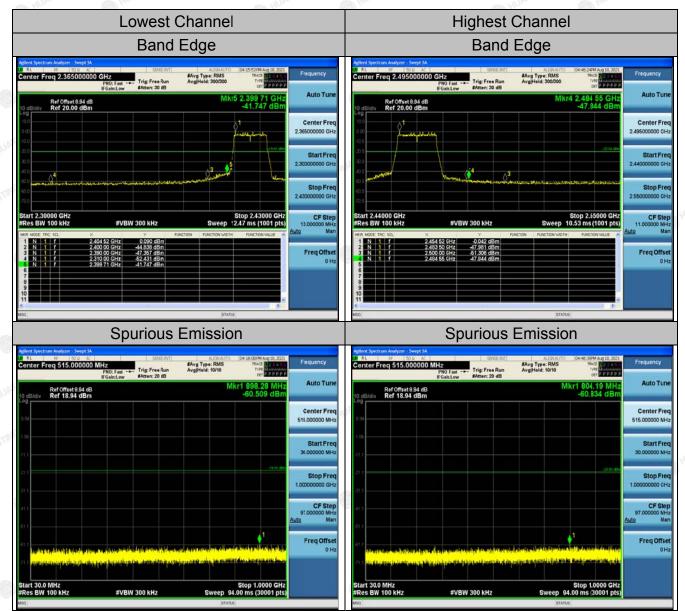


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## 802.11g Modulation

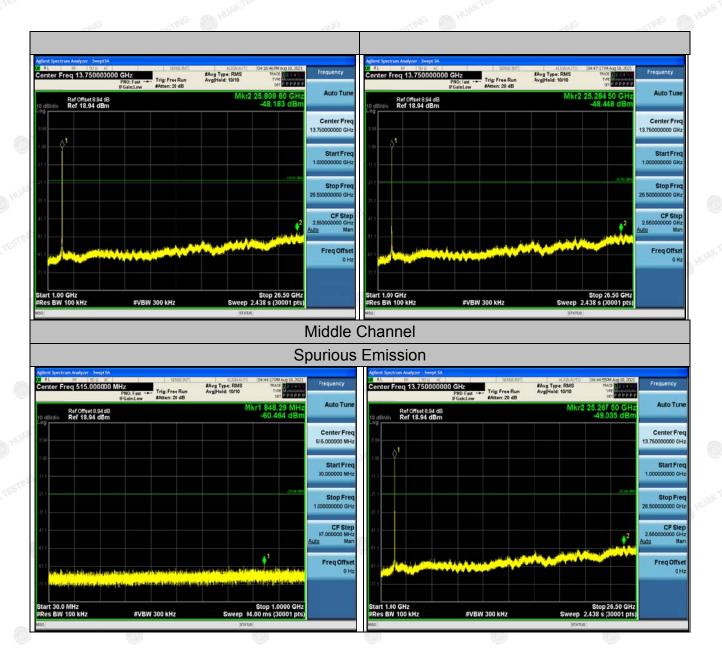


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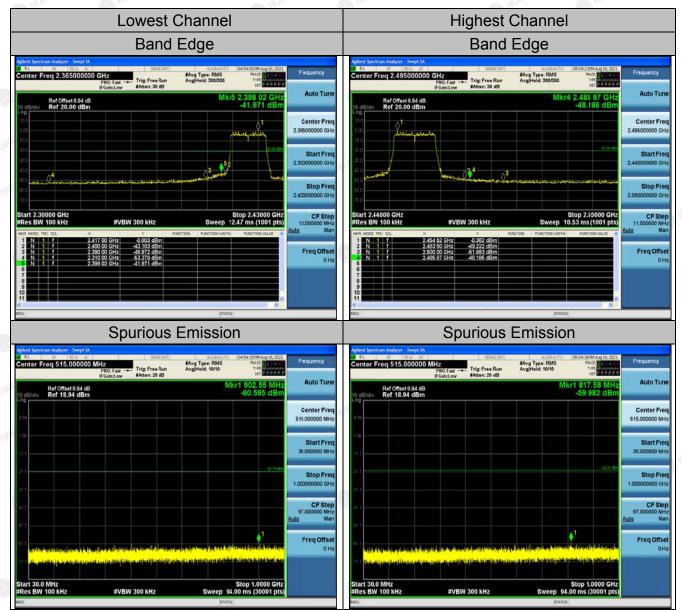
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### 802.11n (HT20) Modulation



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# 4.7. RADIATED SPURIOUS EMISSION MEASUREMENT

### **Test Specification**

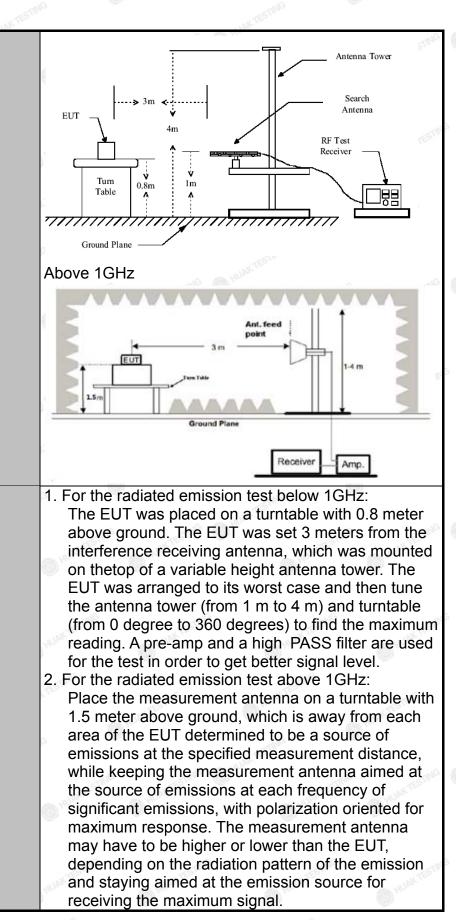
Test Requirement:	FCC Part15	FCC Part15 C Section 15.209						
Test Method:	ANSI C63.10	ANSI C63.10: 2013						
Frequency Range:	9 kHz to 25 GHz							
Measurement Distance:	3 m						TESTING	
Antenna Polarization:	Horizontal & Vertical						HOME	
Operation mode:	Transmitting mode with modulation							
	Frequency 9kHz-150kHz	Detector Quasi-peak		RBW 200Hz	VBW 1kHz	Remark Quasi-peak Value		
Receiver Setup:	150kHz- 30MHz	Quasi-peak		9kHz	30kHz		si-peak Value	
	30MHz-1GHz	Quasi-pe Peak	ак	120KHz 1MHz	300KHz 3MHz	-	si-peak Value eak Value	
	Above 1GHz	Peak	2	1MHz	10Hz		erage Value	
	Frequency			Field Strength (microvolts/meter)		Measurement Distance (meters)		
		0.009-0.490		2400/F(k			300	
	0.490-1.7				24000/F(KHz)		30	
	30-88	1.705-30		<u> </u>		<u> </u>		
	88-216			150			3	
Limit:	216-960			200		3 7551		
	Above 960			500	500 3			
	Frequency		Field Strength (microvolts/meter)		Measuremen Distance (meters)		Detector	
	Above 1GHz	500			2007 BA		Average	
		5		000	Peak			
	For radiated emissions below 30MHz							
Test setup:			- 3 Table	m Plane			and and	
	30MHz to 10	GHz			Receive	er		
alG	Dia				G			

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CATION



**Test Procedure:** 

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ALA	1 BX
Test Procedure:	<ul> <li>The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.</li> <li>Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.</li> <li>For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.</li> <li>Use the following spectrum analyzer settings: (1) Span shall wide enough to fully capture the emission being measured;</li> </ul>
	<ul> <li>(2) Set RBW=100 kHz for f &lt; 1 GHz; VBW ≥RBW; Sweep = auto; Detector function = peak; Trace = max hold;</li> <li>(3) Set RBW = 1 MHz, VBW= 3MHz for f 1 GHz for peak measurement.</li> <li>6. For average measurement: VBW = 10 Hz, when duty cycle is no less than 98 percent.VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.</li> </ul>
Test results:	PASS

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## Test Instruments

	Radi	ated Emission	n Test Site (9	66)	- AN2
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Receiver	R&S	ESCI-7	HKE-010	Dec. 10, 2020	Dec. 09, 2021
Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 10, 2020	Dec. 09, 2021
Spectrum analyzer	R&S	FSP40	HKE-025	Dec. 10, 2020	Dec. 09, 2021
High gain antenna	Schwarzbeck	LB-180400K F	HKE-054	Dec. 10, 2020	Dec. 09, 2021
Preamplifier	Schwarzbeck	BBV 9743	HKE-006	Dec. 10, 2020	Dec. 09, 2021
Preamplifier	EMCI	EMC051845 SE	HKE-015	Dec. 10, 2020	Dec. 09, 2021
Preamplifier	Agilent	83051A	HKE-016	Dec. 10, 2020	Dec. 09, 2021
Loop antenna	Schwarzbeck	FMZB 1519 B	HKE-014	Dec. 10, 2020	Dec. 09, 2021
Broadband antenna	Schwarzbeck	VULB 9163	HKE-012	Dec. 10, 2020	Dec. 09, 2021
Horn antenna	Schwarzbeck	9120D	HKE-013	Dec. 10, 2020	Dec. 09, 2021
High pass filter unit	Tonscend	JS0806-F	HKE-055	Dec. 10, 2020	Dec. 09, 2021
Antenna Mast	Keleto	CC-A-4M	N/A	N/A	N/A
Position controller	Taiwan MF	MF7802	HKE-011	Dec. 10, 2020	Dec. 09, 2021
Radiated test software	Tonscend	TS+ Rev 2.5.0.0	HKE-082	N/A	N/A
RF cable	Times	9kHz-1GHz	HKE-117	Dec. 10, 2020	Dec. 09, 2021
RF cable	Times	1-40G	HKE-034	Dec. 10, 2020	Dec. 09, 2021
Horn Antenna	Schewarzbeck	BBHA 9170	HKE-017	Dec. 10, 2020	Dec. 09, 2021

**Note:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

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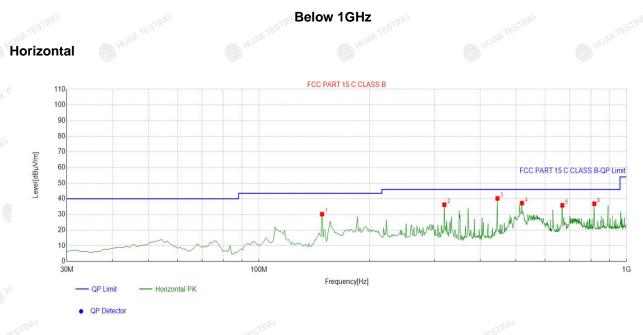
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NG

## **Test Data**

#### All the test modes completed for test. only the worst result of (802.11b at 2412MHz) was reported as below:



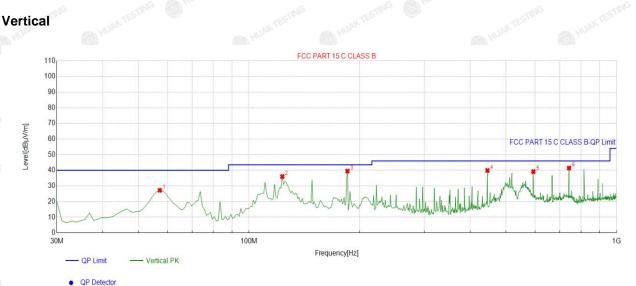
CC 2				1007						
	Suspe	cted List								
		Freq.	Factor	Reading	Level	Limit	Margin	Height	Angle	Delevity
2	NO.	[MHz]	[dB]	[dBµV/m]	[dBµV/m]	[dBµV/m]	[dB]	[cm]	[°]	Polarity
	1	148.4585	-18.98	49.17	30.19	43.50	13.31	100	132	Horizontal
	2	319.3493	-12.13	48.35	36.22	46.00	9.78	100	358	Horizontal
	3	445.5756	-9.18	49.41	40.23	46.00	5.77	100	120	Horizontal
8	4	519.3694	-7.75	45.04	37.29	46.00	8.71	100	36	Horizontal
8	5	668.8989	-4.63	40.47	35.84	46.00	10.16	100	239	Horizontal
	6	817.4575	-2.77	39.60	36.83	46.00	9.17	100	223	Horizontal

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

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#### • Qi Dele

Suspe	Suspected List											
NO.	Freq. [MHz]	Factor [dB]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity			
	[ivii iz]	[ab]	[app win]	[abµ win]	[dDp v/m]	[ab]	leuil	1.1				
1	57.1872	-14.74	41.93	27.19	40.00	12.81	100	58	Vertical			
2	123.2132	-17.57	53.56	35.99	43.50	7.51	100	283	Vertical			
3	185.3554	-16.40	55.89	39.49	43.50	4.01	100	157	Vertical			
4	445.5756	-9.18	49.06	39.88	46.00	6.12	100	204	Vertical			
5	594.1341	-6.50	45.63	39.13	46.00	6.87	100	98	Vertical			
6	742.6927	-4.02	45.44	41.42	46.00	4.58	100	260	Vertical			

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

#### Harmonics and Spurious Emissions

#### Frequency Range (9kHz-30MHz)

	Frequency (MHz)	Level@3m (dBµV/m)	Limit@3m (dBµV/m)
>3	HURN -	HUAN HUAN	HUAN HUAN
		<u> </u>	
TIMO		TESTING	TESTING
	TESTING	HUGH - TESTING	HUAA

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.

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Above 1GHz

## RADIATED EMISSION TEST

#### LOW CH1 (802.11b Mode)/2412

Horizontal:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4824	57.12	-3.64	53.48	74	-20.52	peak
4824	41.69	-3.64	38.05	54	-15.95	AVG
7236	54.03	-0.95	53.08	74	-20.92	peak
7236	40.73	-0.95	39.78	54	-14.22	AVG

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4824	56.28	-3.64	52.64	74	-21.36	peak
4824	42.16	-3.64	38.52	54	-15.48	AVG
7236	53.22	-0.95	52.27	74	-21.73	peak
7236	41.79	-0.95	40.84	54	-13.16	AVG

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

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## MID CH6 (802.11b Mode)/2437

Horizontal:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4874	56.14	-3.51	52.63	74	-21.37	peak
4874	42.41	-3.51	38.9	54	-15.1	AVG
7311	52.87	-0.82	52.05	74	-21.95	peak
7311	41.08	-0.82	40.26	54	-13.74	AVG
Remark: Factor	r = Antenna Factor	+ Cable Loss –	Pre-amplifier.	e Ou	TESTING	KTESTIN

Vertical:

	requency	Reading Result	Factor	Emission Level	🞺 Limits	Margin	Detector
	(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
NG	4874	56.49	-3.51	52.98	74	-21.02	peak
	4874	42.36	-3.51	38.85	54	-15.15	AVG
	7311	53.22	-0.82	52.4	74	-21.6	peak
	7311	40.17	-0.82	39.35	54	-14.65	AVG
2	mark: Fastar	= Antenna Factor -	L Cabla Laga	Dro. omnlifier	1000	TESTING	NTEST.

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

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#### HIGH CH11 (802.11b Mode)/2462

Horizontal:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	<sup>∭G</sup> (dBµV/m)	(dB)	Туре
4924	55.69	-3.43	52.26	74 🕚	-21.74	peak
4924	42.18	-3.43	38.75	54	-15.25	AVG
7386	52.66	-0.75	51.91	74	-22.09	peak
7386	40.37	-0.75	39.62	54	-14.38	AVG

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

#### Vertical:

Reading Result	Factor	Emission Louis			
	1 dotor	Emission Level	Limits	Margin	Detector
(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
57.27	-3.43	53.84	74	-20.16	peak
42.58	-3.43	39.15	54	-14.85	AVG
<sup>66</sup> 54.23	-0.75	53.48	74	-20.52	peak
40.09	-0.75	39.34	54	-14.66	AVG
	57.27 42.58 54.23	57.27         -3.43           42.58         -3.43           54.23         -0.75	57.27         -3.43         53.84           42.58         -3.43         39.15           54.23         -0.75         53.48	57.27         -3.43         53.84         74           42.58         -3.43         39.15         54           54.23         -0.75         53.48         74	57.27         -3.43         53.84         74         -20.16           42.58         -3.43         39.15         54         -14.85           54.23         -0.75         53.48         74         -20.52

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.

(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 Fundamental73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54dBuV/m(AV Limit), the Average Detected not need to completed.

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E FIF

## LOW CH1 (802.11g Mode)/2412

Horizontal:

Frequency	Reading Result	Factor	Emission Level	Jimits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4824	56.23	-3.64	52.59	74	-21.41	peak
4824	42.63	-3.64	38.99	54	-15.01	AVG
7236	52.89	-0.95	51.94	74	-22.06	peak
7236	40.15	-0.95	39.2	54	-14.8	AVG
Remark: Facto	r = Antenna Factor -	+ Cable Loss -	- Pre-amplifier.		JAK TESTING	UNAK TESTAIL

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
4824	57.11	-3.64	53.47	74	-20.53	peak
4824	42.23	-3.64	38.59	54	-15.41	AVG
7236	53.67	-0.95	52.72	74	-21.28	peak
7236	40.55	-0.95	39.6	54	-14.4	AVG

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PB PB

## MID CH6 (802.11g Mode)/2437

Horizontal:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4874	57.21	-3.51	53.7	74	-20.3	peak
4874	41.52	-3.51	38.01	54	-15.99	AVG
7311	53.79	-0.82	52.97	74	-21.03	peak
7311	40.03	-0.82	39.21	54	-14.79	AVG
Remark: Factor	r = Antenna Factor +	Cable Loss	- Pre-amplifier.	G OHUMA	TING	TSTING

Vertical:

Frequency	Reading Result	Factor Emission Level	Limits	Margin	Detector	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4874	56.93	-3.51	53.42	74	-20.58	peak
4874	42.27	-3.51	38.76	54	-15.24	AVG
7311	53.54	-0.82	52.72	74	-21.28	peak
7311	41.17	-0.82	40.35	54	-13.65	AVG
Remark: Factor	r = Antenna Factor	+ Cable Loss	- Pre-amplifier.	0	TESTING	KTESTINE

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#### HIGH CH11 (802.11g Mode)/2462

Horizontal:

Reading Result	Factor	Emission Level	Limits	Margin	Detector
(dBµV)	(dB)	(dBµV/m)	<sup>∞</sup> (dBµV/m)	(dB)	Туре
57.33	-3.43	53.9	74 🌒	-20.1	peak
42.39	-3.43	38.96	54	-15.04	AVG
54.51	-0.75	53.76	74	-20.24	peak
40.66	-0.75	39.91	54	-14.09	AVG
	(dBµV) 57.33 42.39 54.51	(dBµV)     (dB)       57.33     -3.43       42.39     -3.43       54.51     -0.75	(dBµV)         (dB)         (dBµV/m)           57.33         -3.43         53.9           42.39         -3.43         38.96           54.51         -0.75         53.76	(dBµV)         (dB)         (dBµV/m)         (dBµV/m)           57.33         -3.43         53.9         74           42.39         -3.43         38.96         54           54.51         -0.75         53.76         74	(dBµV)         (dB)         (dBµV/m)         (dBµV/m)         (dBµ           57.33         -3.43         53.9         74         -20.1           42.39         -3.43         38.96         54         -15.04           54.51         -0.75         53.76         74         -20.24

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

Vertical:

Reading Result	Factor Emis		Limits	Margin	Detector
(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
56.85	-3.43	53.42	74 🔍	-20.58	peak
41.22	-3.43	37.79	54	-16.21	AVG
53.67	-0.75	52.92	74	-21.08	peak
40.19	-0.75	39.44	54 norma	-14.56	AVG
	56.85       41.22       53.67	56.85     -3.43       41.22     -3.43       53.67     -0.75	56.85     -3.43     53.42       41.22     -3.43     37.79       53.67     -0.75     52.92	56.85     -3.43     53.42     74       41.22     -3.43     37.79     54       53.67     -0.75     52.92     74	56.85       -3.43       53.42       74       -20.58         41.22       -3.43       37.79       54       -16.21         53.67       -0.75       52.92       74       -21.08

#### 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.

(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 Fundamental73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54dBuV/m(AV Limit), the Average Detected not need to completed.

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#### LOW CH1 (802.11n/H20 Mode)/2412

Horizontal:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	<sup>∞</sup> (dBµV/m)	(dB)	Туре
4824	56.26	-3.64	52.62	74	-21.38	peak
4824	41.57	-3.64	37.93	54	-16.07	AVG
7236	53.26	-0.95	52.31	74	-21.69	peak
7236	40.77	-0.95	39.82	54	-14.18	AVG

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

Vertical:

Frequency	Frequency Reading Result	Factor Emission Level	s Limits	Margin	Detector	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4824	56.05	-3.64	52.41	74	-21.59	peak
4824	43.12	-3.64	39.48	54	-14.52	AVG
7236	52.67	-0.95	51.72	74	-22.28	peak
7236	40.18	-0.95	39.23	54	-14.77	AVG
Remark: Factor	r = Antenna Factor	+ Cable Loss	– Pre-amplifier.	0	W TESTING	AKTESTING

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## MID CH6 (802.11n/H20 Mode)/2437

Horizontal:

Frequency	Reading Result	Factor	Emission Level	🔊 Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4874	56.69	-3.51	53.18	74.00	-20.82	peak
4874	42.38	-3.51	38.87	54.00	-15.13	AVG
7311	53.05	-0.82	52.23	74.00	-21.77	peak
7311	40.22	-0.82	39.40	54.00	-14.60	AVG
Remark: Factor	= Antenna Factor	+ Cable Loss -	Pre-amplifier.		AKTESTING	WAKTESTIN

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4874	56.24	-3.51	52.73	74.00	-21.27	peak
4874	41.38	-3.51	37.87	54.00	-16.13	AVG
7311	52.69	-0.82	51.87	74.00	-22.13	peak
7311	40.73	-0.82	39.91	54.00	-14.09	AVG

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

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#### HIGH CH11 (802.11n/H20 Mode)/2462

#### Horizontal:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Turc
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4924	57.06	-3.43	53.63	74	-20.37	peak
4924	42.38	-3.43	38.95	54	-15.05	AVG
7386	53.12	-0.75	52.37	74	-21.63	peak
7386	40.93	-0.75	40.18	54	-13.82	AVG
Remark: Factor	= Antenna Factor +	- Cable Loss	- Pre-amplifier.	ING O HUAN	TING	esting

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Turne
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	<ul> <li>Detector Type</li> </ul>
4924	56.83	-3.43	53.4	74	-20.6	peak
4924	41.77	-3.43	38.34	54	-15.66	AVG
7386	53.17	-0.75	52.42	74	-21.58	peak
7386	40.08	-0.75	39.33	54	-14.67	AVG

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

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#### Test Result of Radiated Spurious at Band edges

Operation Mode:

802.11b Mode TX CH Low (2412MHz)

Horizontal

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Tomo
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	ه (dB)	Detector Type
2310.00	57.96	-5.81	52.15	74	-21.85	peak
2310.00	46.23	-5.81	40.42	54	-13.58	AVG
2390.00	56.76	-5.84	50.92	74	-23.08	peak
2390.00	45.21	-5.84	39.37		-14.63	AVG

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Ture
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2310.00	58.73	-5.81	52.92	74	-21.08	peak
2310.00	47.54	-5.81	41.73	54	-12.27	AVG
2390.00	56.28	-5.84	50.44	74	-23.56	peak
2390.00	46.31	-5.84	40.47	54	-13.53	AVG

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

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## Operation Mode: TX CH High (2462MHz)

#### Horizontal

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Data star Tura
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.50	58.13	-5.81	52.32	74 HUAN	-21.68	peak
2483.50	45.69	-5.81	39.88	54	-14.12	AVG
2500.00	57.22	-6.06	51.16	74	-22.84	peak
2500.00	44.87	-6.06	38.81	54	-15.19	AVG

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits 🔘	Margin	Detector Turne
MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.50	58.39	-5.81	52.58	74	-21.42	peak
2483.50	46.22	-5.81	40.41	54	-13.59	AVG
2500.00	57.31	-6.06	51.25	74	-22.75	peak
2500.00	45.82	-6.06	39.76	54	-14.24	AVG
0.00			1000			2523

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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## Operation Mode: 802.11g Mode TX CH Low (2412MHz)

#### Horizontal

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Turc
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2310.00	58.69	-5.81	52.88	74	-21.12	peak
2310.00	47.38	-5.81	41.57	54	-12.43	AVG
2390.00	56.95	-5.84	51.11	74	-22.89	peak
2390.00	45.23	-5.84	39.39	54	-14.61	AVG

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Datastar Tura
, (MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2310.00	58.69	-5.81	52.88	74 HUM	-21.12	peak
2310.00	47.22	-5.81	41.41	54	-12.59	AVG
2390.00	56.71	-5.84	50.87	74	-23.13	peak
2390.00	46.76	-5.84	40.92	54	-13.08	AVG

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## Operation Mode: TX CH High (2462MHz)

### Horizontal

Frequency	Reading Result	Factor	Emission Level	% Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.50	58.23	-5.65	52.58	74	-21.42	peak
2483.50	48.31	-5.65	42.66	54	-11.34	AVG
2500.00	56.58	-5.65	50.93	74	-23.07	peak
2500.00	46.37	-5.65	40.72	54	-13.28	AVG

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Turne
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.50	57.33	-5.65	51.68	74	-22.32	peak
2483.50	46.25	-5.65	40.6	54	-13.4	AVG
2500.00	55.26	-5.65	49.61	74	-24.39	peak
2500.00	45.19	-5.65	39.54	54	-14.46	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.

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FICATION

Operation Mode: 802.11n/H20 Mode TX CH Low (2412MHz)

## Horizontal

Frequency	Reading Result	Factor	Emission Level	🔎 Limits	Margin	Detector Turne
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	<ul> <li>Detector Type</li> </ul>
2310.00	58.66	-5.81	52.85	74	-21.15	peak
2310.00	47.25	-5.81	41.44	54	-12.56	AVG
2390.00	56.29	-5.84	50.45	74	-23.55	peak
2390.00	46.76	-5.84	40.92	54	-13.08	AVG
Remark: Factor	r = Antenna Factor	+ Cable Loss -	Pre-amplifier.		V TESTING	OKTESTAD

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Ture
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	<ul> <li>Detector Type</li> </ul>
<sup>©</sup> 2310.00	58.96	-5.81	53.15	74	-20.85	peak
2310.00	46.33	-5.81	40.52	54	-13.48	AVG
2390.00	57.96	-5.84	52.12	74	-21.88	peak
2390.00	45.72	-5.84	39.88	54	-14.12	AVG

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

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### Operation Mode: TX CH High (2462MHz)

#### Horizontal

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Data star Tura
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.50	57.66	-5.65	52.01	74	-21.99	peak
2483.50	45.21	-5.65	39.56	54	-14.44	AVG
2500.00	55.86	-5.65	50.21	74	-23.79	peak
2500.00	44.29	-5.65	38.64	54	-15.36	AVG

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Turce
MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.50	58.42	-5.65	52.77	74 🔘 🕅	-21.23	peak
2483.50	46.72	-5.65	41.07	54	-12.93	AVG
2500.00	57.66	-5.65	52.01	74	-21.99	peak
2500.00	45.93	-5.65	40.28	54	-13.72	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.



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## 5.

## 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. And according to FCC 47 CFR Section 15.247, if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

#### Refer to statement below for compliance.

The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

#### **Antenna Connected Construction**

The antenna used in this product is a Internal Antenna, need professional installation. It conforms to the standard requirements. The directional gains of antenna used for transmitting is 2.46dBi.

#### WIFI ANTENNA



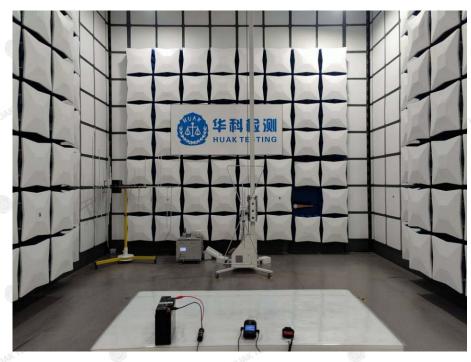
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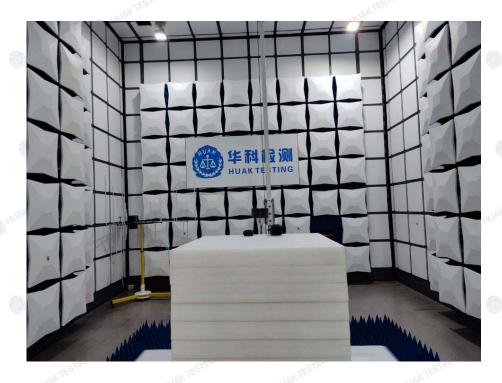


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# 6. PHOTOGRAPH OF TEST

## **Radiated Emissions**





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**IFICATION** 

# 7. 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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