

# **FCC Test Report**

Test report
On Behalf of
Nexight INC
For

**Dash Cam** 

Model No.: D621, D620, D622, D624, D626, D628, D640, D641, D642, D644, D646, D648

FCC ID: 2AWDN-D621

Prepared For: Nexight INC

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

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Date of Test: Mar. 27, 2023 ~ Apr. 03, 2023

Date of Report: Apr. 03, 2023

Report Number: HK2303271063-2E

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Report No.: HK2303271063-2E

#### **Test Result Certification**

Applicant's name		Nexight INC
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Manufacture's Name...... Nexight INC

**Product description** 

Trade Mark: NexiGo, NexiGo

Product name...... Dash Cam

Model and/or type reference .: D621, D620, D622, D624, D626, D628, D640, D641, D642,

D644, D646, D648

FCC Rules and Regulations Part 15 Subpart E Section 15.407

ANSI C63.10: 2013

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Date of Test .....

Date of Issue...... Apr. 03, 2023

Test Result..... Pass

Prepared by:

Project Engineer

Gary Dian

Reviewed by:

Project Supervisor

LAK TEL

Approved by:

**Technical Director** 



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\*\* Modified History \*\*

Revision	Description	Issued Data	Remark
Revision 1.0	Initial Test Report Release	Apr. 03, 2023	Jason Zhou
TING	TING	TING	G TING

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# 1. Test Result Summary

#### 1.1. Test Procedures and Results

Requirement CFR 47 Section		Result
Antenna requirement	§15.203	PASS
AC Power Line Conducted Emission	§15.207	N/A
Maximum Conducted Output Power	§15.407(a)	PASS
6dB Emission Bandwidth	§15.407(e)	N/A
26dB Emission Bandwidth& 99% Occupied Bandwidth	§15.407(a)	PASS
Power Spectral Density	§15.407(a)	PASS
Band edge	§15.407(b)/15.209/15.205	PASS
Radiated Emission	§15.407(b)/15.209/15.205	PASS
Frequency Stability	§15.407(g)	PASS

#### 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. 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.

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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
<sub>MG</sub> 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	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

Equipment:	Dash Cam
Model Name:	D621
Serial No.:	D620, D622, D624, D626, D628, D640, D641, D642, D644, D646, D648
Trade Mark:	NEXIGO, NexiGo
Model Difference:	All model's the function, software and electric circuit are the same, only with a product color and model named different. Test sample model: D621.
FCC ID:	2AWDN-D621
Operation Frequency:	IEEE 802.11a/n/ac(HT20) 5.180GHz-5.240GHz IEEE 802.11n/ac(HT40) 5.190GHz-5.230GHz IEEE 802.11ac(HT80) 5.210GHz
Modulation Technology:	IEEE 802.11a/n/ac
Modulation Type:	CCK/OFDM/DBPSK/DAPSK
Antenna Type:	FPC Antenna
Antenna Gain:	0.88dBi
Power Source:	DC 12V from Type-C
Power Supply:	DC 12V from Type-C

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2.2. Operation Frequency Each of Channel

	02.11n(HT20) lac(HT20)		1n(HT40)/ ac(HT40)	802.11a	c(HT80)
Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180	38	5190	42	5210
40	5200	46	5230	-m/G	
44	5220	AK TES	TING	- MAKTES	TING
48	5240		HUAKTES	0	HUAKTE
9		WG (III)		-TING	0
	HUAKTES		15 mm 14	JAKTES	
TESTING	OK TESTING	TESTING	XTESTING (II)	TEST	IG W TESTING
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#### 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

For 802.11a/n (HT20)/ac(HT20)

		1 1	
Band I (5150 - 5250 MHz)			
Channel Number	Channel	Frequency (MHz)	
36	Low	5180	
40	Mid	5200	
48	High	5240	

For 802.11n (HT40)/ ac(HT40)

40(111.10)	7	Marie Ho
Band I (5150 - 5250 MHz)		
Channel Number	Channel	Frequency (MHz)
38	Low	5190
46	High	5230

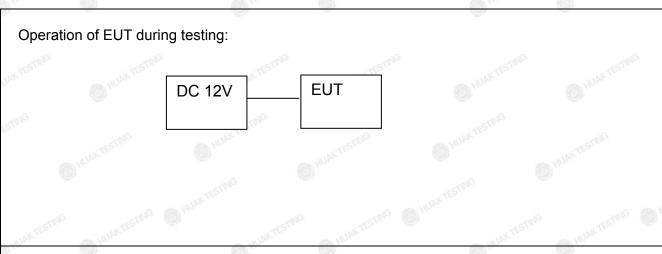
For 802.11ac(HT80)

Band I (5150 - 5250 MHz)		
Channel Number	Frequency (MHz)	
42	5210	

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### 2.4. Description of Test Setup



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 Z position.

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3. Genera Information

Operation mode:

#### 3.1. Test Environment and Mode

Operating Environment:		
Temperature:	25.0 °C	HUAK TES
Humidity:	56 % RH	-
Atmospheric Pressure:	1010 mbar	A TESTING
Test Mode:		
Engineering mode:	Keep the EUT in continuous by select channel and modu value of duty cycle is 100%)	lations(The

The sample was placed 0.8m/1.5m for blow/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.

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.

Mode	Data rate
802.11a	6 Mbps
802.11n(HT20)	MCS0
802.11n(HT40)	MCS0
802.11ac(HT20)/ac(HT40)/ac(HT80)	MCS0
Final Test Mode:	
Operation mode:	Keep the EUT in continuous transmitting

with modulation



### 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	NG I HUANTEST	I SIMG	I HUAKTESTIN	1 STING

#### 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, 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

### 4.1.1. Test Specification

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Test Requirement:	FCC Part15 C Section 15.207				
Test Method:	ANSI C63.10:2013				
Frequency Range:	150 kHz to 30 MHz	MIAN I	LAKTESTING		
Receiver setup:	RBW=9 kHz, VBW=30	kHz, Sweep time	=auto		
	Frequency range	Limit (c	dBuV)		
	(MHz)	Quasi-peak	Average		
Limits:	0.15-0.5	66 to 56*	56 to 46*		
	0.5-5	56	46		
	5-30	60	50		
	Reference	e Plane	TESTA		
Test Setup:	Test table/Insulation plane  Remark E.U.T Equipment Under Test LISN: Line Impedence Stabilization No Test table height=0.8m	EMI Receiver	– AC power		
Test Mode:	Tx Mode				
Test Procedure:	<ol> <li>The E.U.T and simulators are 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 photographs).</li> <li>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 of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.</li> </ol>				
Test Result:	N/A OHUMA	WHUAR S	Why		

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### 4.1.2. Test Instruments

Conducted Emission Shielding Room Test Site (843)					
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Receiver	R&S	ESR-7	HKE-005	Feb. 17, 2023	Feb. 16, 2024
LISN	R&S	ENV216	HKE-002	Feb. 17, 2023	Feb. 16, 2024
Coax cable (9KHz-30MHz)	Times	381806-002	N/A	Feb. 17, 2023	Feb. 16, 2024
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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Test data

Not applicable.

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



# 4.2. Maximum Conducted Output Power

### 4.2.1. Test Specification

Test Requirement:	FCC Part15 E Section 15.407(a)		
Test Method:	KDB789033 D02 General UNII Test Procedures New Rules v02.r01 Section E		
Limit:	Frequency Band (MHz)		
	5150-5250 1W for indoor access points device		
Test Setup:	Power meter EUT		
Test Mode:	Transmitting mode with modulation		
Test Procedure:	<ol> <li>The testing follows the Measurement Procedure of KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section E, 3, a.</li> <li>The RF output of EUT was connected to the power meter 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>Measure the conducted output power and record the results in the test report.</li> </ol>		
Test Result:	PASS		
Remark:	Conducted output power= measurement power +10log(1/x) X is duty cycle=1, so 10log(1/1)=0 Conducted output power= measurement power		

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### 4.2.2. Test Instruments

RF Test Room					
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Spectrum analyzer	Agilent	N9020A	HKE-048	Feb. 17, 2023	Feb. 16, 2024
Power meter	Agilent	E4419B	HKE-085	Feb. 17, 2023	Feb. 16, 2024
Power Sensor	Agilent	E9300A	HKE-086	Feb. 17, 2023	Feb. 16, 2024
RF cable	Times	1-40G	HKE-034	Feb. 17, 2023	Feb. 16, 2024
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Feb. 17, 2023	Feb. 16, 2024

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



# **Test Data**

Configuration Band I (5150 - 5250 MHz )						
Mode	Test channel Maximum Conducted Output Power (dBm)		FCC Limit (dBm)	Result		
11a	CH36	18.24	30	PASS		
11a	CH40	16.71	30	PASS		
11a	CH48	18.74	30	PASS		
11n(HT20)	CH36	18.03	30	PASS		
11n(HT20)	CH40	17.57	30	PASS		
11n(HT20)	CH48	17.68	30	PASS		
11n(HT40)	CH38	16.37	30	PASS		
11n(HT40)	CH46	17.83	30	PASS		
11ac(HT20)	CH36	11.89	30	PASS		
11ac(HT20)	CH40	16.57	30	PASS		
11ac(HT20)	CH48	15.66	30	PASS		
11ac(HT40)	CH38	17.28	30	PASS		
11ac(HT40)	CH46	16.79	<sub></sub> 30	PASS		
11ac(HT80)	CH42	16.10	30	PASS		

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### 4.3. 6db Emission Bandwidth

### 4.3.1. Test Specification

Test Requirement:	FCC CFR47 Part 15 Section 15.407(e)
Test Method:	KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section C
Limit:	>500kHz
Test Setup:	Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	<ol> <li>KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section C.</li> <li>Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6dB bandwidth must be greater than 500 kHz.</li> <li>Measure and record the results in the test report.</li> </ol>
Test Result:	N/A TESTING WAY TESTING OF THE

#### 4.3.2. Test Instruments

- 44	- 444	16.6	- 1/4	114		
RF Test Room						
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due	
Spectrum analyzer	Agilent	N9020A	HKE-048	Feb. 17, 2023	Feb. 16, 2024	
RF cable	Times	_ 1-40G	HKE-034	Feb. 17, 2023	Feb. 16, 2024	
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Feb. 17, 2023	Feb. 16, 2024	

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

#### 4.3.3Test data

N/A

0

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# 4.4. 26db Bandwidth and 99% Occupied Bandwidth

### 4.4.1. Test Specification

Test Requirement:	47 CFR Part 15C Section 15.407			
Test Method:	KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section C			
Limit:	No restriction limits			
Test Setup:	Spectrum Analyzer EUT			
Test Mode:	Transmitting mode with modulation			
Test Procedure:	<ol> <li>KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section C.</li> <li>Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>Make the measurement with the spectrum analyzer's resolution bandwidth RBW = 1% EBW, VBW≥3RBW, In order to make an accurate measurement.</li> <li>Measure and record the results in the test report.</li> </ol>			
Test Result:	PASS			

#### 4.4.2. Test Instruments

RF Test Room					
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Spectrum analyzer	Agilent	N9020A	HKE-048	Feb. 17, 2023	Feb. 16, 2024
RF cable	Times	1-40G	HKE-034	Feb. 17, 2023	Feb. 16, 2024
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Feb. 17, 2023	Feb. 16, 2024

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



### Test data

# Band I

Mode	Test channel	Frequency (MHz)	26 dB Bandwidth (MHz)	Verdict
11a	CH36	5180	29.84	PASS
11a	CH40	5200	22.00	PASS
11a	CH48	5240	28.04	PASS
11n(HT20)	CH36	5180	21.20	PASS
11n(HT20)	CH40	5200	26.04	PASS
11n(HT20)	CH48	5240	24.16	PASS
11n(HT40)	CH38	5190	51.76	PASS
11n(HT40)	CH46	5230	52.96	PASS
11ac(HT20)	CH36	5180	23.32	PASS
11ac(HT20)	CH40	5200	22.72	PASS
11ac(HT20)	CH48	5240	26.08	PASS
11ac(HT40)	CH38	5190	56.08	PASS
11ac(HT40)	CH46	5230	72.00	PASS
11ac(HT80)	CH42	5210	86.08	PASS

Test plots as follows:

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Band I (5150 - 5250 MHz)

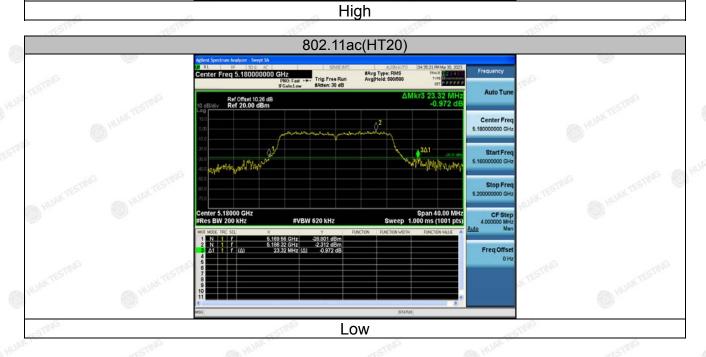




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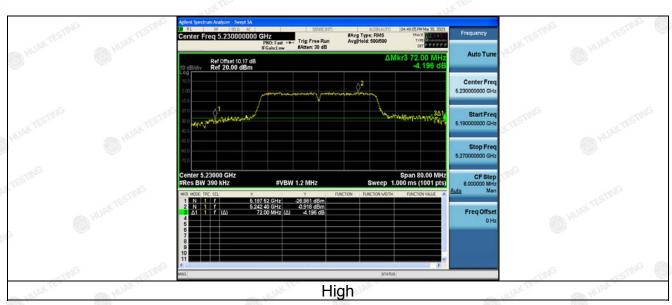


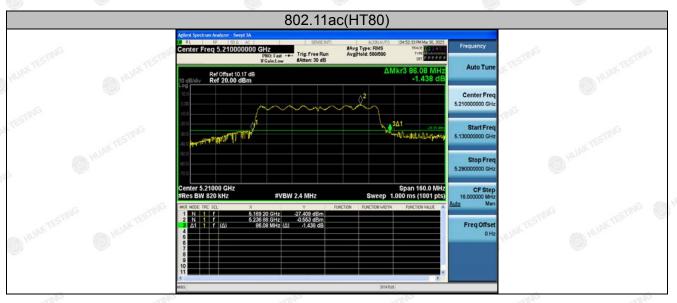






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### 4.5. POWER SPECTRAL DENSITY

# 4.5.1. Test Specification

Test Requirement:	FCC Part15 E Section 15.407 (a)				
Test Method:	KDB789033 D02 General UNII Test Procedures New Rules v02r01 Section F				
Limit:	≤11.00dBm/MHz for Band I 5150MHz-5250MHz ≤17dBm/MHz for indoor access device				
Test Setup:	Spectrum Analyzer EUT				
Test Mode:	Transmitting mode with modulation				
Test Procedure:	<ol> <li>Set the spectrum analyzer or EMI receiver span to view the entire emission bandwidth.</li> <li>Set RBW = 1 MHz, VBW ≥ 3*RBW, Sweep time = Auto, Detector = RMS.</li> <li>Allow the sweeps to continue until the trace stabilizes.</li> <li>Use the peak marker function to determine the maximum amplitude level.</li> <li>The E.I.R.P spectral density used radiated test method. At a test site that has been validated using the procedures of ANSI C63.4 or the latest CISPR 16-1-4 for measurements above 1 GHz, so as to simulate a near free-space environment.</li> </ol>				
Test Result:	PASS				

#### 4.5.2. Test Instruments

RF Test Room								
Equipment	Manufacturer	nufacturer Model Serial Nu		Calibration Calibration Date Due				
Spectrum analyzer	Agilent	N9020A	HKE-048	Feb. 17, 2023	Feb. 16, 2024			
RF cable	Times	1-40G	HKE-034	Feb. 17, 2023	Feb. 16, 2024			
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Feb. 17, 2023	Feb. 16, 2024			

**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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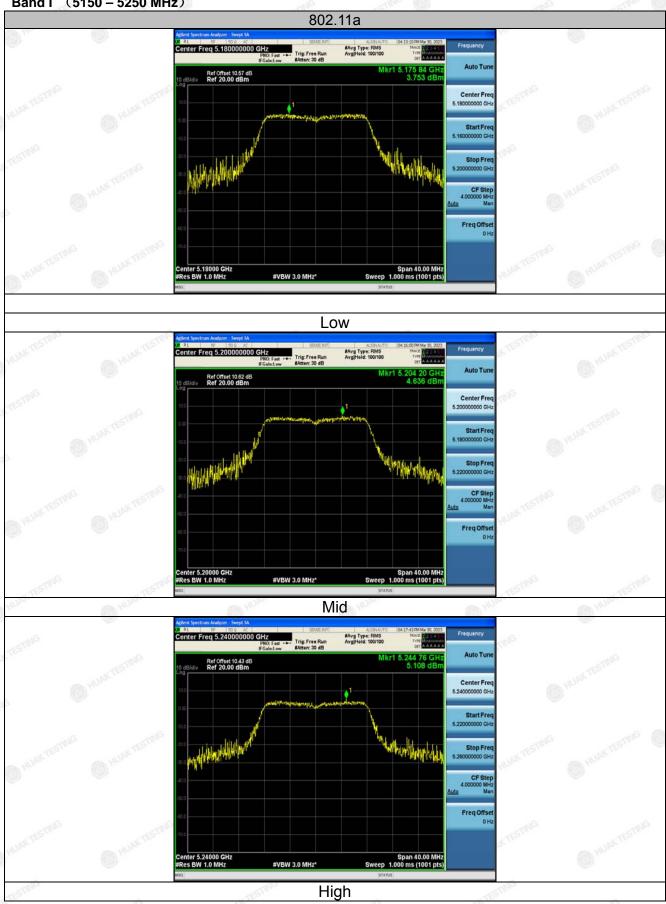


# 4.5.3. Test data

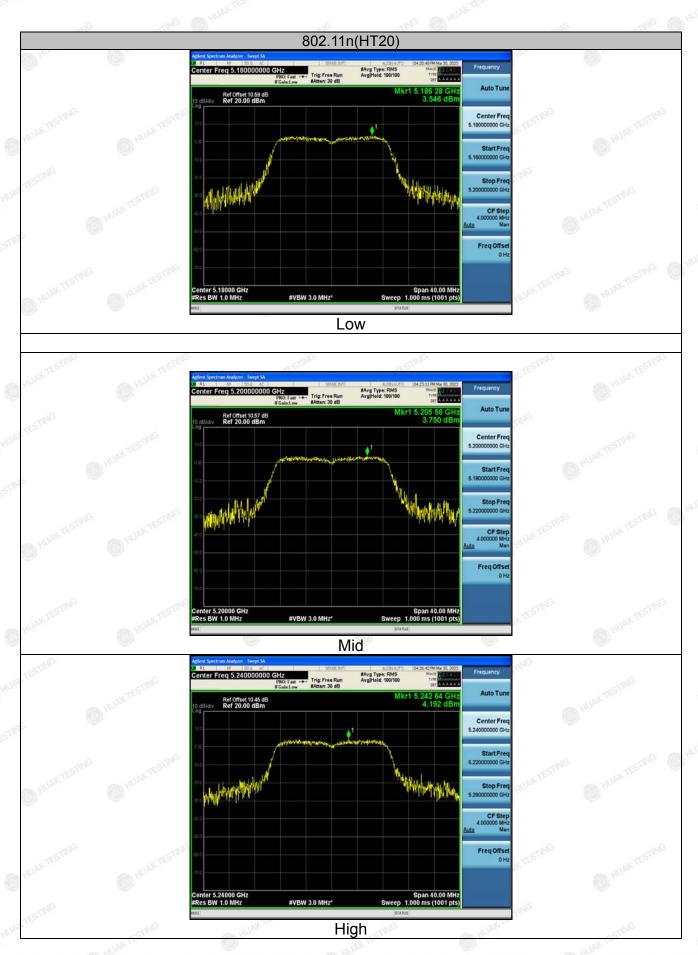
Configuration Band I (5150 - 5250 MHz )							
Mode	Mode Test channel		Limit (dBm/MHz)	Result			
11a	CH36	3.75	17	PASS			
11a	CH40	4.64	17	PASS			
11a	CH48	5.11	17	PASS			
11n(HT20)	CH36	3.55	17	PASS			
11n(HT20)	CH40	3.75	17 🙈 🗥	PASS			
11n(HT20)	CH48	4.19	17	PASS			
11n(HT40)	CH38	1.57	17	PASS			
11n(HT40)	CH46	1.04	17 HUAN	PASS			
11ac(HT20)	CH36	7.04	17	PASS			
11ac(HT20)	CH40	4.97	17	PASS			
11ac(HT20)	CH48	4.59	17	PASS			
11ac(HT40)	CH38	1.14	17	PASS			
11ac(HT40)	CH46	2.28	17	PASS			
11ac(HT80)	CH42	0.1	17	PASS			

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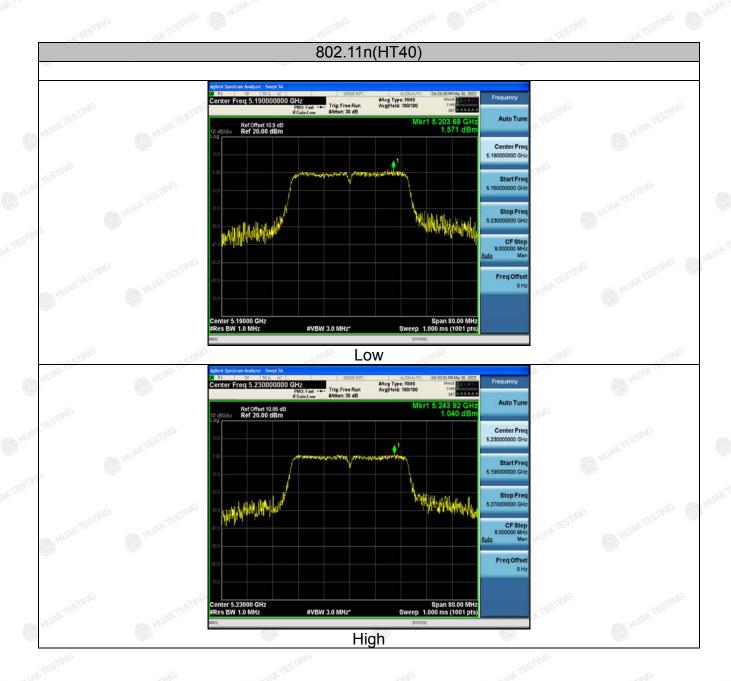




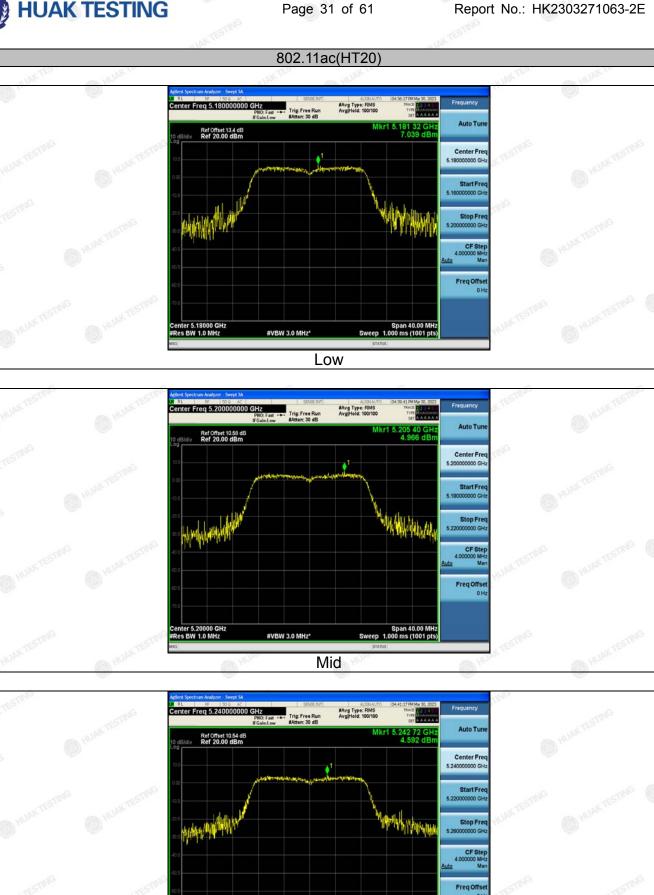






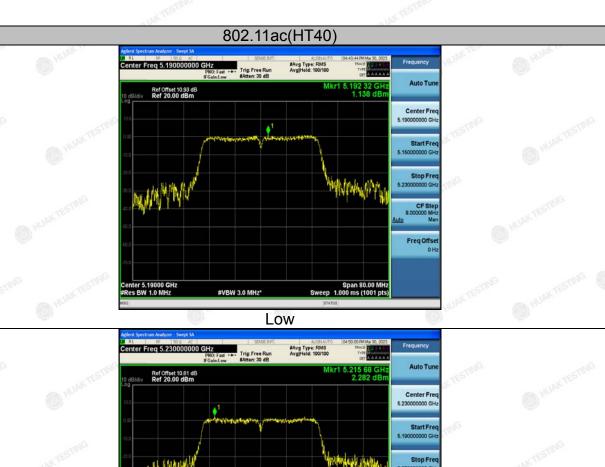


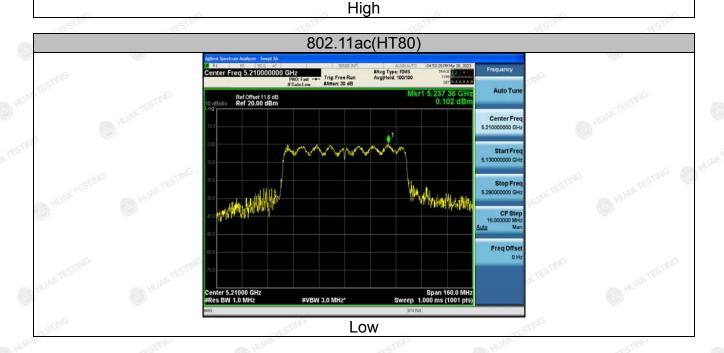
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High







# 4.6. BAND EDGE

# 4.6.1. Test Specification

Test Requirement:	FCC CFR47 Part 15E Section 15.407					
Test Method:	ANSI C63.10 2013					
Limit:	For band I&II&III: E[dBμV/m] = EIRP[dBm] + 95.2=68.2 dBμV/m, for EIRP(dBm)= -27dBm  For transmitters operating in the 5.725-5.85 GHz band:  All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.  For band IV(5715-5725MHz&5850-5860MHz): E[dBμV/m] = EIRP[dBm] + 95.2=78.2 dBμV/m, for EIRP(dBm)= -27dBm;					
Test Setup:	95.2=68.2 dBµV/m, for EIRP(dBm)= -27dBm  Ant. feed point  Ground Plane  Receiver Amp.					
Test Mode:	Transmitting mode with modulation					
Test Procedure:	<ol> <li>The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.</li> <li>The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</li> <li>The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.</li> </ol>					

TING STINE OF	TING TING TING TING
Test Procedure:	<ol> <li>For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.</li> <li>The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</li> <li>If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi peak or average method as specified and then reported in a data sheet.</li> </ol>
Test Result:	PASS



### 4.6.2. Test Instruments

Radiated Emission Test Site (966)							
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due		
Receiver	R&S	ESRP3	HKE-005	Feb. 17, 2023	Feb. 16, 2024		
Spectrum analyzer	Agilent	N9020A	HKE-048	Feb. 17, 2023	Feb. 16, 2024		
Preamplifier	EMCI	EMC051845S E	HKE-015	Feb. 17, 2023	Feb. 16, 2024		
Preamplifier	Agilent	83051A	HKE-016	Feb. 17, 2023	Feb. 16, 2024		
Loop antenna	Schwarzbeck	FMZB 1519 B	HKE-014	Feb. 17, 2023	Feb. 16, 2024		
Broadband antenna	Schwarzbeck	VULB 9163	HKE-012	Feb. 17, 2023	Feb. 16, 2024		
Horn antenna	Schwarzbeck	9120D	HKE-013	Feb. 17, 2023	Feb. 16, 2024		
Antenna Mast	Keleto	CC-A-4M	N/A	N/A	N/A		
Position controller	Taiwan MF	MF7802	HKE-011	Feb. 17, 2023	Feb. 16, 2024		
Radiated test Tonscei		TS+ Rev 2.5.0.0	HKE-082	N/A	N/A		
RF cable (9KHz-1GHz)	Times	381806-001	N/A	N/A	N/A		
Hf antenna Schwarzbeck		LB-180400-K F	HKE-031	Feb. 17, 2023	Feb. 16, 2024		
RF cable	Tonscend	1-18G	HKE-099	Feb. 17, 2023	Feb. 16, 2024		
RF cable	Times	1-40G	HKE-034	Feb. 17, 2023	Feb. 16, 2024		

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



### 4.6.3. Test Data

Radiated Band Edge Test:

Operation Mode: 802.11a Mode with 5.2G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	HUAKTE	
5150	56.31	-2.49	53.82	74	-20.18	peak	
5150	W. IESTING O	-2.49	STING / OKTES	54	TESTING	AVG	

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

#### Vertical:

			100			
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	TESTING
5150	54.25	-2.49	51.76	74	-22.24	peak
5150	1	-2.49	1	54	1	AVG
-	THE STATE OF THE PARTY OF THE P			AVC DETRO	-	-010-

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



Operation Mode: TX CH High with 5.2G

# Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	HUAKTE
5350	55.81	-2.11	53.7	74	-20.3	peak
5350	STING /	-2.11	1 STING	54	KTESTIN /	AVG

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

## Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
5350	54.29	-2.11	52.18	74	-21.82	peak
5350	M HUAN /	-2.11	HUAR	54	HUAR	AVG

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



TSTING TSTING

Operation Mode: 802.11n20 Mode with 5.2G TX CH Low

# Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(a)
5150	53.46	-2.49	50.97	74	-23.03	peak
5150	1	-2.49	HI JE	54	1	AVG

# Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
5150	51.79	-2.49	49.3	74	-24.7	peak
5150	STING /	-2.49	1 STING	54	KTESTING	AVG

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



Operation Mode: TX CH High with 5.2G

# Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	HUAK TES A
5350	54.72	-2.11	52.61	74	-21.39	peak
5350	ETING /	-2.11	/ STING	54	EST /	AVG

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

# Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
5350	52.64	-2.11	50.53	74	-23.47	peak
5350	HUAN	-2.11	A HUM	54	MAR	AVG

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

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Operation Mode: 802.11 n40 Mode with 5.2G TX CH Low

# Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
5150	53.74	-2.49	51.25	74 <sub>HUAK</sub>	-22.75	peak
5150	1	-2.49	HUAK	54	1	AVG

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

# Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	O HUAN
5150	52.09	-2.49	49.6	74	-24.4	peak
5150	STITUTE /	-2.49	HUANTESTING	54	1	AVG

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



Operation Mode: TX CH High with 5.2G

# Horizontal

	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
P. C.	(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	HUAK TESS
63	5350	55.49	-2.11	53.38	74	-20.62	peak
5	5350	STING /	-2.11	STING	54	ES.	AVG

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

# Vertical:

-611	60	-61	100		-611	667
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	]
5350	53.61	-2.11	51.5	74	-22.5	peak
5350	HIPA'S	-2.11	Andrew .	54	WALL /	AVG
	-					-

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

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2 of 61 Report No.: HK2303271063-2E

Operation Mode: 802.11 ac20 Mode with 5.2G TX CH Low

# Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	MUAK IL
5150	53.28	-2.49	50.79	74	-23.21	peak
5150	ESTING /	-2.49	LAK ESTING	54	1	AVG

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

## Vertical:

41 M		47/2	400 100		476	400
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	<sup>√</sup> (dBµV/m)	(dB)	TESTING
5150	51.47	-2.49	48.98	74	-25.02	peak
§ 5150	1	-2.49	1	54	ESTING /	AVG
	TINE	1/201-	-Mc	11/25		10°C

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





Operation Mode: TX CH High with 5.2G

# Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	HUAKTE
5350	55.06	-2.11	52.95	74	-21.05	peak
5350	ESTING /	-2.11	/ STING	54	KTES!	AVG

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

## Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	, , , , , , , , , , , , , , , , , , ,
5350	52.91	-2.11	50.8	74	-23.2	peak
5350	MHON /	-2.11	( HOM	54	HUM	AVG

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



Operation Mode: 802.11 ac40 Mode with 5.2G TX CH Low

# Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
5150	55.13	-2.49	52.64	74	-21.36	peak
5150	1	-2.49	HUAKTE	54	1	AVG

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

## Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	HUAKTESTING
5150	53.79	-2.49	51.3	74	-22.7	peak
5150	STING /	-2.49	1 CTING	54	ESTING /	AVG

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

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Operation Mode: TX CH High with 5.2G

# Horizontal

	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type	
130	(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	HUAK TESS	
63	5350	54.08	-2.11	51.97	74	-22.03	peak	
	5350	STING /	-2.11	/ STING	54	1	AVG	

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

# Vertical:

-611	600	-61	1000		-611	667	
Frequency	Frequency Meter Reading		Factor Emission Level Limits		Margin	Detector Type	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	]	
5350	53.68	-2.11	51.57	74	-22.43	peak	
5350	HUAL	-2.11	C HUPA	54	WALE /	AVG	
	-						

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



Operation Mode: 802.11 ac80 Mode with 5.2G TX CH Low

# Horizontal

Frequency	Meter Reading	ng Factor Emission Level		Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
5150	55.27	-2.49	52.78	74	-21.22	peak
5150	1	-2.49	HUNKTE	54	1 6	AVG

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

# Vertical:

Frequency	Meter Reading	Factor	Emission Level	Level Limits Margin		Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	HUAK TESTING
5150	53.16	-2.49	50.67	74	-23.33	peak
5150	STING /	-2.49	/ STING	54	ESTINA	AVG

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

Operation Mode: TX CH High with 5.2G

# Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
5350	52.49	-2.11	50.38	74	-23.62	peak
5350	KT STILL	-2.11	MAY /ESTINA	54	1	AVG

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

# Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	TING
5350	51.52	-2.11	49.41	74	-24.59	peak
5350	I	-2.11	1	54	1	AVG

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

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# 4.7. Spurious Emission

# 4.7.1.1. Test Specification

Test Requirement:	FCC CFR47	Part 15 Se	ction 15	.407	JG TESTIN			
Test Method:	KDB 789033	D02 v02r0	)1 (	HUM	White .			
Frequency Range:	9kHz to 40G	Hz		STING				
Measurement Distance:	3 m	ONTESTING	(A) PILL	AKTE	OK TESTING			
Antenna Polarization:	Horizontal &	Vertical		a)G	O HOW			
Operation mode:	Transmitting	mode with	modulat	ion	lia.			
Receiver Setup:	Frequency 9kHz- 150kHz 150kHz- 30MHz 30MHz-1GHz Above 1GHz	Detector Quasi-peak Quasi-peak Quasi-peak Peak Peak	RBW 200Hz 9kHz 120KHz 1MHz 1MHz	VBW 1kHz 30kHz 300KHz 3MHz 10Hz	Remark Quasi-peak Value Quasi-peak Value Quasi-peak Value Peak Value Average Value			
Limit:	(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.  (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.  The limit of frequency below 1GHz and which fall in rest							
Test setup:	For radiated    Some   Some	Turn Table Ground	m	RX Ante	1 m			

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Ant, feed point EUT Ground Plane Receiver Above 1GHz Receiver Amp. 1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical **Test Procedure:** polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect

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

Function and Specified Bandwidth with Maximum Hold

Mode.

6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would bere-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Test results:

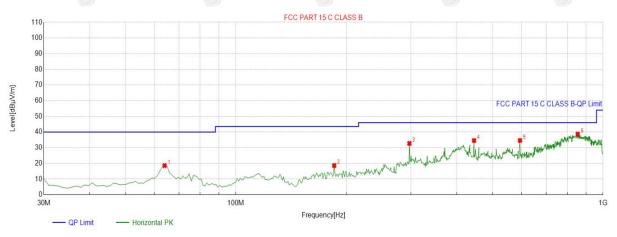
PASS



# 4.7.2. Test Data

# All the test modes completed for test. only the worst result of (802.11a at 5180MHz) was reported Below 1GHz

### **Horizontal**



QP Detector

Suspe	ected List								
NO.	Freq.	Factor	Reading	Level	Limit	Margin	Height	Angle	Polarity
NO.	[MHz]	[dB]	[dBµV/m]	[dBµV/m]	[dBµV/m]	[dB]	[cm]	[°]	Polarity
1	63.9840	-14.68	33.26	18.58	40.00	21.42	100	1	Horizontal
2	185.3554	-16.83	35.45	18.62	43.50	24.88	100	232	Horizontal
3	297.0170	-12.04	44.80	32.76	46.00	13.24	100	157	Horizontal
4	445.5756	-8.41	43.00	34.59	46.00	11.41	100	358	Horizontal
5	594.1341	-5.30	39.92	34.62	46.00	11.38	100	354	Horizontal
6	853.3834	-1.20	39.92	38.72	46.00	7.28	100	184	Horizontal

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



## **Vertical**



Suspe	Suspected List									
NO	Freq.	Factor	Reading	Level	Limit	Margin	Height	Angle	Dolovitu	
NO.	NO. [MHz]	[dB]	[dBµV/m]	[dBµV/m]	[dBµV/m]	[dB]	[cm]	[°]	Polarity	
1	63.9840	-14.68	39.76	25.08	40.00	14.92	100	112	Vertical	
2	133.8939	-17.31	40.71	23.40	43.50	20.10	100	198	Vertical	
3	236.8168	-13.41	36.28	22.87	46.00	23.13	100	19	Vertical	
4	445.5756	-8.41	35.74	27.33	46.00	18.67	100	222	Vertical	
5	594.1341	-5.30	37.82	32.52	46.00	13.48	100	304	Vertical	
6	868.9189	-1.02	30.27	29.25	46.00	16.75	100	235	Vertical	

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



# **Above 1GHz**

# LOW CH 36 (802.11 a Mode with 5.2G)/5180

## Horizontal:

Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
58.83	-4.59	54.24	74 AND	-19.76	peak
44.26	-4.59	39.67	54	-14.33	AVG
53.08	3.74	56.82	74 TEST	-17.18	peak
41.86	3.74	45.6	54	-8.4	AVG
	58.83 44.26 53.08	58.83 -4.59 44.26 -4.59 53.08 3.74	58.83     -4.59     54.24       44.26     -4.59     39.67       53.08     3.74     56.82	58.83     -4.59     54.24     74       44.26     -4.59     39.67     54       53.08     3.74     56.82     74	58.83     -4.59     54.24     74     -19.76       44.26     -4.59     39.67     54     -14.33       53.08     3.74     56.82     74     -17.18

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

### Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
3647	59.97	-4.59	55.38	74	-18.62	peak
3647	43.94	-4.59	39.35	54	-14.65	AVG
10360	50.46	3.74	54.2	74	-19.8	peak
10360	41.81	3.74	45.55	54	-8.45	AVG
Ho.	-	NOW HO	(853)		AND HIS	(0.00)

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

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# MID CH40 (802.11 a Mode with 5.2G)/5200

## Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Dottoolor Type
3647	60.38	-4.59	55.79	74	-18.21	peak
3647	43.51	-4.59	38.92	54	-15.08	AVG
10400	50.86	3.74	54.6	74	-19.4	peak
10400	42.18	3.74	45.92	54	-8.08	AVG

# Vertical:

- Alle	-110	-4	Man	-TIME	-11/100	
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	1
3647	60.66	-4.59	56.07	74	-17.93	peak
3647	41.44	-4.59	36.85	54	-17.15	AVG
10400	50.45	3.74	54.19	74	-19.81	peak
10400	40.82	3.74	44.56	54	-9.44	AVG
11/100	a Ho	11 Jan	NO HO		11/100	ASS. HO

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

AFICATION



HIGH CH 48 (802.11a Mode with 5.2G)/5240

### Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	_ Detector Type
3647	59.83	-4.59	55.24	74	-18.76	peak
3647	44.61	-4.59	40.02	54 mil	-13.98	AVG
10480	53.21	3.75	56.96	74	-17.04	peak
10480	42.77	3.75	46.52	54	-7.48	AVG
	- M.A. (Second)			- M. A. (Marine)		- 11.7

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

### Vertical:

Frequency	Meter Reading	Factor	Emission Level	State Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
3647	59.69	-4.59	55.1	74	-18.9	peak
3647	42.31	-4.59	37.72	54	-16.28	AVG
10480	54.61	3.75	58.36	74	-15.64	peak
10480	39.22	3.75	42.97	54	-11.03	AVG

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

### Remark:

- (1) Measuring frequencies from 1 GHz to the 40 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 recorded 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 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.



# 4.8. Frequency Stability Measurement

# 4.8.1. Test Specification

Test Requirement:	FCC Part15 Section 15.407(g)					
Test Method:	ANSI C63.10: 2013					
Limit:	The frequency tolerance shall be maintained within the band of operation frequency over a temperature variation of 0 degrees to 35 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.					
Test Setup:	Spectrum Analyzer EUT  AC/DC Power supply					
Test Procedure:	The EUT was placed inside the environmental test chamber and powered by nominal AC/DC voltage. b. Turn the EUT on and couple its output to a spectrum analyzer. c. Turn the EUT off and set the chamber to the highest temperature specified. d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize. e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature. f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.					
Test Result:	PASS					
Remark:	N/A MARTES THE MALE TESTS OF THE PROPERTY OF T					

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4.8.2. Test Instruments

RF Test Room									
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due				
Spectrum analyzer	Agilent	N9020A	HKE-048	Feb. 17, 2023	Feb. 16, 2024				
Temperature and humidity meter	Boyang	HTC-1	HKE-077	Feb. 17, 2023	Feb. 16, 2024				
programmable power supply	Agilent	E3646A	HKE-092	Feb. 17, 2023	Feb. 16, 2024				

**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 Result as follows:

Mode	Voltage (V)	FHL (5180MHz)	Deviation (KHz)	FHH (5240MHz)	Deviation (KHz)
(i)	10.2V	5179.969	-31	5239.957	-43
5.2G Band	12V	5179.971	-29	5239.981	-19
(C) HUAR	13.8V	5179.988	-12	5239.992	8-

Mode	Temperature (°C)	FHL (5180MHz)	Deviation (KHz)	FHH (5240MHz)	Deviation (KHz)
, NG	-30	5179.977	-23	5239.957	-43
ESTA HUAV	-20	5179.964	-36	5239.966	-34
G	-10	5180.019	19	5239.987	-13
HUANTESTIN	0 1111111	5179.985	-15	5239.973	-27
5.2G Band	10 KTESTIN	5179.973	-27	5239.954	-46
TESTING	20	5179.979	-21	5239.979	-21
W. W.	30	5179.965	-35	5239.968	-32
.G	40	5179.963	-37	5239.971	-29
ESTINA	50	5179.970	-30	5239.969	-31



# 4.9. 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.

### 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 FPC Antenna, need professional installation, not easy to remove. It conforms to the standard requirements. The directional gains of antenna used for transmitting is 0.88dBi.

## **WIFI ANTENNA**

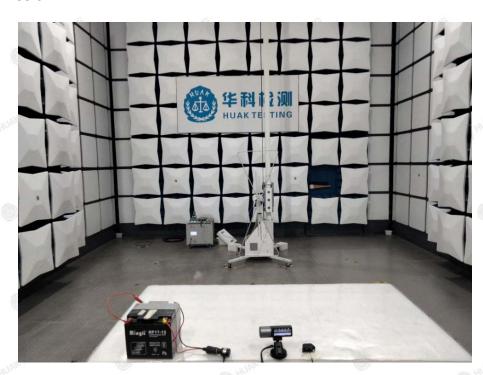


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# 5. Photographs of Test Setup

# **Radiated Emission**





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6. 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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