

Page 1 of 71

FCC Test Report

Test report On Behalf of Shenzhen sinocam Technology Co., Ltd. For WIFI Camera

Model No.: QW6, QW2, QW3, QW4, QW5, QW7, QW8, QW9, BW4PLUS, QG4, QG5, QG6, QG7, QG8, QG9, MW3, MA3, PG1, PW1, TY-Q2, TY-Q3, BW5, BW6

FCC ID: 2AF5Z-QW6

Prepared For : Shenzhen sinocam Technology Co., Ltd. 4th Floor, Building 2, Xinwuxiebaolong Industrial Zone, No. 32 Cuibao Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China

Prepared By : Shenzhen HUAK Testing Technology Co., Ltd. 1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

 Date of Test:
 Mar. 03, 2025 ~ Mar. 13, 2025

 Date of Report:
 Mar. 13, 2025

 Report Number:
 HK2503030877-1E

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

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



H



Test Result Certification

Applicant's name	Shenzhen sinocam Technology Co., Ltd.				
Address	4th Floor, Building 2, Xinwuxiebaolong Industrial Zone, No. 32 Cuibao Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China				
Manufacturer's Name	Shenzhen sinocam Technology Co., Ltd.				
Address	4th Floor, Building 2, Xinwuxiebaolong Industrial Zone, No. 32 Cuibao Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China				
Product description					
Trade Mark	N/A				
Product name:	WIFI Camera				
Model and/or type reference .:	QW6, QW2, QW3, QW4, QW5, QW7, QW8, QW9, BW4PLUS, QG4, QG5, QG6, QG7, QG8, QG9, MW3, MA3, PG1, PW1, TY-Q2, TY-Q3, BW5, BW6				
Standards	FCC Rules and Regulations Part 15 Subpart C Section 15.247 ANSI C63.10: 2013				

This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen HUAK Testing Technology Co., Ltd. is acknowledged as copyright owner and source of the material. Shenzhen HUAK Testing Technology Co., Ltd. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

Date of Test	
Date (s) of performance of tests:	Mar. 03, 2025 ~ Mar. 13, 2025
Date of Issue:	Mar. 13, 2025
Test Result	Pass

Testing Engineer

(Len Liao)

Technical Manager

Sliver Non

(Sliver Wan)

Authorized Signatory :

ason Upou

(Jason Zhou)

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

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



NG

^{PR}

Table of Contents

1.	Test Result Summary	5
	1.1. Test Procedures and Results	
	1.2. Information of the Test Laboratory	5
	1.3. Measurement Uncertainty	
2.	EUT Description	
	2.1. General Description of EUT	7
	2.2. Carrier Frequency of Channels	8
	2.3. Operation of EUT During Testing	
	2.4. Description of Test Setup	9
	2.5. Description of Support Units	10
3.	Genera Information	11
	3.1. Test Environment and Mode	. 11
4.	Test Results and Measurement Data	
	4.1. Conducted Emission	13
	4.2. Test Result	
	4.3. Maximum Conducted Output Power	
	4.4. Emission Bandwidth	19
	4.5. Power Spectral Density	
	4.6. Conducted Band Edge and Spurious Emission Measurement	32
	4.7. Radiated Spurious Emission Measurement	42
	4.8. Antenna Requirement	68
5.	Photograph of Test	69
6.	Photos of the EUT	71

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.



Т 691

** Modified History **

Revision	Description	Issued Data	Remark	
Revision 1.0	Initial Test Report Release	Mar. 13, 2025	Jason Zhou	
MG	WG MUG	-mile -mile	G	

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

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

HUAK TESTING

1. Test Result Summary

1.1. Test Procedures and Results

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

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

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

FICATION



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 %.

Item	MU
Conducted Emission	±2.71dB
RF power, conducted	±0.37dB
Spurious emissions, conducted	±0.11dB
All emissions, radiated(<1G)	±3.90dB
All emissions, radiated(>1G)	±4.28dB
Temperature	±0.1°C
Humidity	±1.0%
	Conducted Emission RF power, conducted Spurious emissions, conducted All emissions, radiated(<1G) All emissions, radiated(>1G) Temperature

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

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



2. EUT Description

HUAK TESTING

2.1. General Description of EUT

Equipment:	WIFI Camera	- WUAK TESTING	- WAK TESTIN			
Model Name:	QW6	0	0.			
Series Model:	QW2, QW3, QW4, QW5, QW7, QW8, QW9, BW4PLUS, QG4, QG5, QG6, QG7, QG8, QG9, MW3, MA3, PG1, PW1, TY-Q2, TY-Q3, BW5, BW6					
Model Difference:	All model's the function, soft same, only with a product m sample mode: QW6.					
FCC ID:	2AF5Z-QW6					
Antenna Type:	External Antenna	HUAKTESTING	HUAKTESTI			
Antenna Gain:	3.25dBi	-mic				
Operation frequency:	802.11b/g/n 20:2412~2462 I 802.11n 40: 2422~2452MHz		HUAKTESTING			
Number of Channels:	802.11b/g/n20: 11CH 802.11n 40: 7CH	INK TESTING	9			
Modulation Type:	DSSS, OFDM					
Power Source:	DC5V From Adapter or DC 3	3.7V From Battery	/			
Power Rating:	DC5V From Adapter or DC 3	3.7V From Battery	/			

Note:

- 1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- 2. Antenna gain Refer to the antenna specifications.
- 3. The cable loss data is obtained from the supplier.
- 4. The test results in the report only apply to the tested sample.

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

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





2.2. Carrier Frequency of Channels

Channel List For 802.11b/802.11g/802.11n (HT20)							
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	-STING	

Channel List For 802.11n (HT40)							O HOM
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
STING	KTESTING C	04	2427	07	2442	TESTIN	wTE
@ H		05	2432	08	2447	HUAN	CO-HOM
03	2422	06	2437	09	2452	I	

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

The mode is used: Transmitting mode for 802.11n (HT40)

Low Channel: 2422MHz Middle Channel: 2437MHz High Channel: 2452MHz

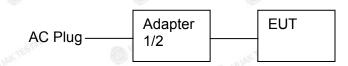
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannont be reproduced except in full with our prior written permission. The more details and the authenticity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

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



2.4. Description of Test Setup

Operation of EUT during conducted testing and radiation testing:



The sample was placed (0.8m below 1GHz, 1.5m above 1GHz) above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages. The worst case is X position.

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

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



2.5. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

UP	ltem	Equipment	Trade Mark	Model/Type No.	Specification	Remark
	1	WIFI Camera	N/A	QW6	N/A	EUT
10	ິ 2	USB cable	N/A	N/A	Length:1.0m	Accessory
	3	Adapter1	N/A	N/A	Input: AC100-240V, 50/60Hz, 0.75A Output: 5V 2A	Peripheral
	4	Adapter2	N/A	MDY-10-EH	Input: 100-240VAC, 50/60Hz, 0.7A Output: 5V 3A/9V 3A/12V 2.25A/20V 1.35A	Peripheral
8		O HUM		O HUM	O HUM	
	TESTING		TES	ING CONTRACTOR	TESTING	

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.

- 2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.
- 3. For conducted measurements (Output Power, 6dB Emission Bandwidth, Power Spectral Density, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.

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



3. Genera Information

3.1. Test Environment and Mode

-						
S	Temperature:	25.0 °C	HUAKTESI	HUAKTEST		
	Humidity:	56 % RH		0		
3	Atmospheric Pressure:	1010 mbar	K TESTING			

Test Mode:

Engineering mode ^r	Keep the EUT in continuous transmitting
A HUR	by select channel and modulations

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.

_				
з	Mode		Data rate	
	802.11b	TESTING	1Mbps	TESTING
0	802.11g	AUAK	6Mbps	HUAK
-	802.11n(H20)		6.5Mbps	
TING	802.11n(H40)	-csTING	13.5Mbps	-STM
		·		

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), 13.5Mbps for 802.11n(H40).

3. Mode Test Duty Cycle

Mode	Duty Cycle
802.11b	0.99
802.11g	0.96
802.11n(H20)	0.95
802.11n(H40)	0.93
TING	TING

Test plots as follows:

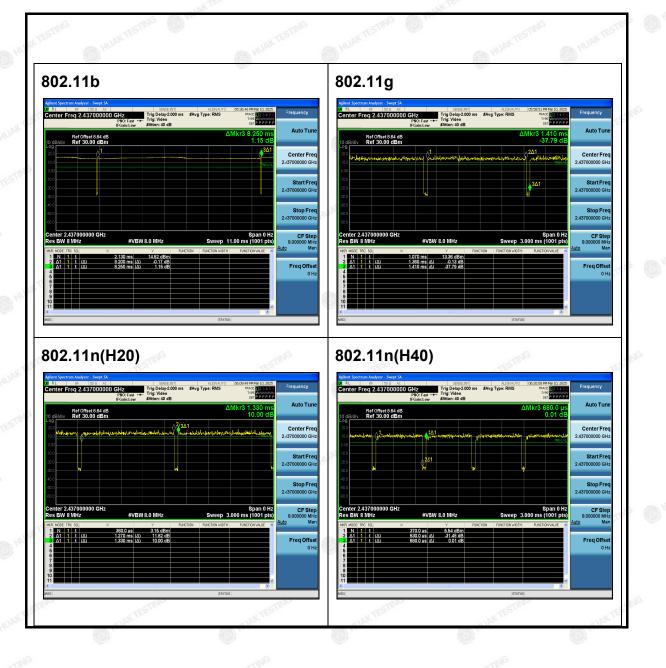
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannont be reproduced except in full with our prior written permission. The more details and the authenticity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

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



Page 12 of 71

FICATION



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

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



4. Test Results and Measurement Data

4.1. Conducted Emission

Test Specification

stopechication	Participe -	ESTING	TEATING	.50			
Test Requirement:	FCC Part15 C Section	on 15.207	AKI	HUAK			
Test Method:	ANSI C63.10:2013						
Frequency Range:	150 kHz to 30 MHz						
Receiver setup:	RBW=9 kHz, VBW=	30 kHz, Sweep	time=auto				
	Frequency range	Limit (dBuV)	10			
	(MHz)	Quasi-peak	Average	AKTESIN			
Limits:	0.15-0.5	66 to 56*	56 to 46*				
	0.5-5	56	46				
	5-30	60	50				
	UAK TESTING	ESTING	OK TESTING	NK TES			
	Refe	rence Plane					
	40cn	1					
	NUTES TOUT	•					
	Remark E.U.T: Equipment Under Test LISN: Line Impedence Stabiliza Test table height=0.8m	tion Network					
Test Mode:	transmitting with mo	dulation	AK TESTING	UNAK TES			
Test Procedure:	 The E.U.T is contline impedance is provides a 500hr measuring equipm The peripheral de power through a coupling impedan refer to the bloc photographs). Both sides of A. conducted interfe emission, the relate the interface cab ANEL C62 10: 200 	stabilization networks n/50uH coupling nent. vices are also couple LISN that province with 50ohm ck diagram of C. line are chore rence. In order tive positions of les must be chore	work (L.I.S.N g impedance onnected to the ides a 50ohr termination. (the test setu ecked for ma to find the ma equipment ar nanged accor	.). Thi for the main/50ul (Please up and aximur aximur ad all c ding to			
			magairamar	1			
Test Result:	PASS	3 on conducted	measuremer	nt.			

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.



HS ⊢FF

All and a second s	1 · · · ·	Allan HU	- SICEN. *	ATTING AND	SET			
	Conducted Emission Shielding Room Test Site (843)							
Equipment Manufacturer Model Serial Number Calibration Calib Date								
Receiver	R&S	ESR-7	HKE-005	Feb. 19, 2025	Feb. 18, 2026			
LISN	R&S	ENV216	HKE-002	Feb. 19, 2025	Feb. 18, 2026			
LISN	R&S	ENV216	HKE-059	Feb. 19, 2025	Feb. 18, 2026			
Coax cable (9KHz-30MHz)	Times	381806-002	N/A	Feb. 19, 2025	Feb. 18, 2026			
EMI Test Software	Tonscend	JS32-CE 2.5.0.6	HKE-081	N/A	N/A			
10dB Attenuator	Schwarzbeck	VTSD9561F	HKE-153	Feb. 19, 2025	Feb. 18, 2026			

Test Instruments

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

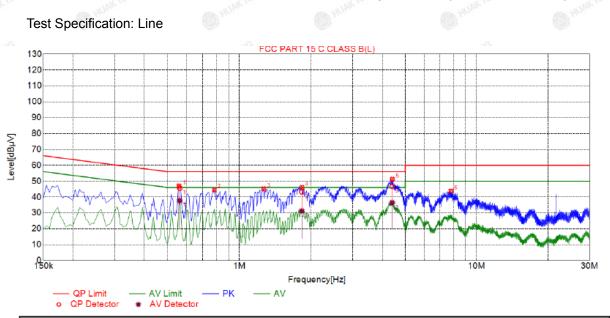
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannont be reproduced except in full with our prior written permission. The more details and the authenticity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

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



4.2. Test Result

Remark: All the test modes completed for test. only the worst result Of was reported as below: Conducted Emission on Line Terminal of the power line (150 kHz to 30MHz)



Sus	Suspected List								
NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Туре	
1	0.5595	46.90	19.86	56.00	9.10	27.04	PK	L	
2	0.7845	44.46	19.86	56.00	11.54	24.60	PK	L	
3	1.2660	45.10	19.90	56.00	10.90	25.20	PK	L	
4	1.8330	46.07	19.96	56.00	9.93	26.11	PK	L	
5	4.4115	51.26	20.09	56.00	4.74	31.17	PK	L	
6	7.8000	43.78	20.04	60.00	16.22	23.74	PK	L	

Final Data List

NO.	Freq. [MHz]	Correction factor[dB]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	QP Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	A∨ Margin [dB]	AV Reading [dBµV]	Туре
1	0.5636	19.87	45.54	56.00	10.46	25.67	37.73	46.00	8.27	17.86	L
2	1.8308	19.96	43.14	56.00	12.86	23.18	31.26	46.00	14.74	11.30	L
3	4.4060	20.09	46.63	56.00	9.37	26.54	36.46	46.00	9.54	16.37	L

Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss Level=Test receiver reading + correction factor

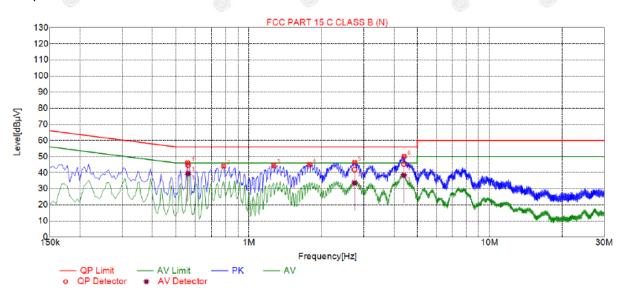
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannont be reproduced except in full with our prior written permission. The more details and the authenticity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

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



Page 16 of 71

Test Specification: Neutral



S	Sus	spected	l List							Yp.
N	10.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Туре	
	1	0.5595	46.07	19.75	56.00	9.93	26.32	PK	N	
:	2	0.7845	44.07	19.74	56.00	11.93	24.33	PK	N	
	3	1.2660	44.56	19.77	56.00	11.44	24.79	РК	N	13
	4	1.7835	45.05	19.83	56.00	10.95	25.22	PK	N	
	5	2.7510	46.36	19.92	56.00	9.64	26.44	PK	N	
	6	4.4115	50.15	19.98	56.00	5.85	30.17	PK	N	

Final Data List

1	NO.	Freq. [MHz]	Correction factor[dB]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	QP Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	A∨ Margin [dB]	AV Reading [dBµV]	Туре
	1	0.5623	19.75	44.66	56.00	11.34	24.91	39.47	46.00	6.53	19.72	N
	2	2.7464	19.92	41.87	56.00	14.13	21.95	33.60	46.00	12.40	13.68	N
	3	4.4018	19.98	45.28	56.00	10.72	25.30	38.33	46.00	7.67	18.35	N

Remark: Margin = Limit – Level Correction factor = Cable lose + LISN insertion loss Level=Test receiver reading + correction factor

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

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

HUAK TESTING

4.3. Maximum Conducted Output Power

Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)
Test Method:	KDB 558074 D01 15.247 Meas Guidance v05r02
Limit:	30dBm
Test Setup:	RF automatic control unit
Test Mode:	Transmitting mode with modulation
Test Procedure:	 The testing follows the Measurement Procedure of FCC KDB 558074 D01 15.247 Meas Guidance v05r02. The RF output of EUT was connected to the RF automatic control unit by RF cable. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. Measure the Peak output power and record the results in the test report.
Test Result:	PASS

Test Instruments

	RF Test Room							
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due			
Spectrum analyzer	Agilent	N9020A	HKE-048	Feb. 19, 2025	Feb. 18, 2026			
Power meter	Agilent	E4419B	HKE-085	Feb. 19, 2025	Feb. 18, 2026			
Power Sensor	Agilent	E9300A	HKE-086	Feb. 19, 2025	Feb. 18, 2026			
RF cable	Times	1-40G	HKE-034	Feb. 19, 2025	Feb. 18, 2026			
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Feb. 19, 2025	Feb. 18, 2026			
RF Test Software	Tonscend	JS1120-3 Version 3.5.39	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).

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

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



FICATION

Test Data

Mode	Test Channel	Frequency	Maximum Peak Conducted Output Power	LIMIT
	onumer	(MHz)	(dBm)	dBm
802.11b	CH01	2412	11.33	30
802.11b	CH06	2437	11.29	30
802.11b	CH11	2462	11.53	30
802.11g	CH01	2412	10.55	30
802.11g	CH06	2437	11.91	30
802.11g	CH11	🧼 2462	12.14	30
802.11n(HT20)	CH01	2412	11.46	30
802.11n(HT20)	CH06	2437	11.40	× ⁶⁰ 30
802.11n(HT20)	CH11	2462	11.67	30
802.11n(HT40)	CH03	2422	11.83	30
802.11n(HT40)	CH06	2437	11.25	30
802.11n(HT40)	CH09	2452	11.37	30

Note: 1.The test results including the cable lose.

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

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



Page 19 of 71

4.4. Emission Bandwidth

Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (a)(2)			
Test Method:	KDB 558074 D01 15.247 Meas Guidance v05r02			
Limit:	>500kHz			
Test Setup:	Spectrum Analyzer EUT			
Test Mode:	Transmitting mode with modulation			
Test Procedure:	 The testing follows FCC KDB Publication 558074 D01 15.247 Meas Guidance v05r02. Set to the maximum power setting and enable the EUT transmit continuously. 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. Measure and record the results in the test report. 			
Test Result:	PASS			

Test Instruments

RF Test Room					
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Spectrum analyzer	Agilent	N9020A	HKE-048	Feb. 19, 2025	Feb. 18, 2026
RF cable	Times	1-40G	HKE-034	Feb. 19, 2025	Feb. 18, 2026
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Feb. 19, 2025	Feb. 18, 2026
RF Test Software	Tonscend	JS1120-3 Version 3.5.39	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).

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

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



Test data

Test channel	6dB Emission Bandwidth (MHz)				
	802.11b	802.11g	802.11n(H20)	802.11n(H40)	
Lowest	9.040	16.320	17.320	35.840	
Middle	8.560	16.360	17.080	35.520	
Highest	9.080	16.320	17.040	35.760	
Limit:	S HUAKTES	>5	500kHz		
Test Result:	- Lak	ESTING HUAK TESTIC	PASS	TING HUNK TESTIN	

Test plots as follows:

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

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



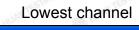
Page 21 of 71

NG

IK.

PE

802.11b Modulation





Middle channel



Highest channel



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

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



Page 22 of 71

802.11g Modulation

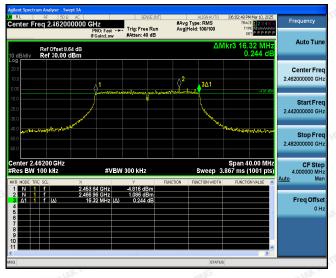
Lowest channel



Middle channel



Highest channel



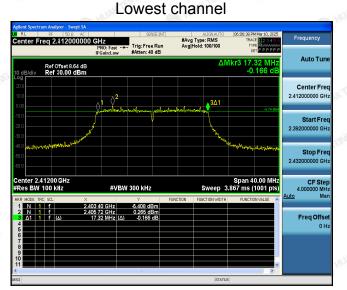
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannont be reproduced except in full with our prior written permission. The more details and the authenticity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

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



Page 23 of 71

802.11n (HT20) Modulation



Middle channel



Highest channel



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

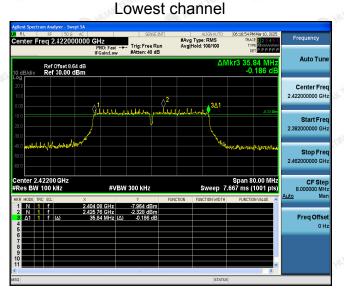
TEL:+86-755 2302 9901 FAX:+86-755 2302 9901 E-mail: service@cer-mark.com



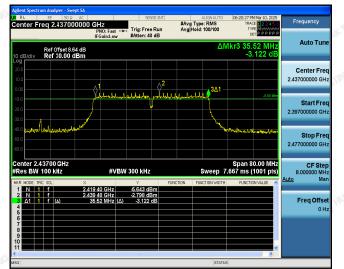
Page 24 of 71

TEICATION

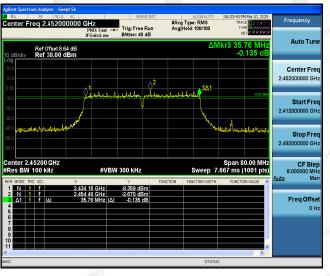
802.11n (HT40) Modulation



Middle channel



Highest channel



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

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



4.5. Power Spectral Density

Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (e)				
Test Method:	KDB 558074 D01 15.247 Meas Guidance v05r02				
Limit:	The average power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.				
Test Setup:	Spectrum Analyzer				
Test Mode:	Transmitting mode with modulation				
Test Procedure:	 Transmitting mode with modulation 1. The testing follows Measurement procedure 10.2 method PKPSD of FCC KDB Publication 558074 D01 15.247 Meas Guidance v05r02. 2. The RF output of EUT was connected to the spectrum analyzer by RF cable. The path loss was compensated to the results for each measurement. 3. Set to the maximum power setting and enable the EUT transmit continuously. 4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW): 3 kHz ≤ RBW ≤ 100 kHz. Video bandwidth VBW ≥ 3 x RBW. Set the span to at least 1.5 times the OBW. 5. Detector = Peak, Sweep time = auto couple. 6. Employ trace averaging (Peak) mode over a minimum of 100 traces. Use the peak marker function to determine the maximum power level. 7. Measure and record the results in the test report. 				
Test Result:	PASS				

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



Test Instruments

RF Test Room					
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Spectrum analyzer	Agilent	N9020A	HKE-025	Feb. 19, 2025	Feb. 18, 2026
RF cable	Times	1-40G	HKE-034	Feb. 19, 2025	Feb. 18, 2026
RF automatic control unit	Tonscend	JS0806-2	HKE-060	Feb. 19, 2025	Feb. 18, 2026
RF Test Software	Tonscend	JS1120-3 Version 3.5.39	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).

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

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



HE:

Test data

EUT Set Mode	Channel	Test Result (dBm/30kHz)	Result (dBm/3kHz)
	Lowest	1.21	-8.79
802.11b	Middle	2.38	-7.62
	Highest	3.24	-6.76
	Lowest	-5.08	-15.08
802.11g	Middle	-4.32	-14.32
	Highest	-2.87	-12.87
802.11n(H20)	Lowest	-4.13	-14.13
	Middle	-4.10	-14.1
	Highest	-3.68	-13.68
	Lowest	-5.51	-15.51
802.11n(H40)	Middle	-5.50	-15.5
	Highest	-5.08	-15.08
PSD test result (dE	3m/3kHz)= PSD	test result (dBm/30k	Hz)-10
Limit: 8dBm/3kHz			
Test Result:	STAV	PASS	STING

Test plots as follows:

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

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



Page 28 of 71

١G

E

802.11b Modulation



Middle channel



Highest channel



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

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



Page 29 of 71

802.11g Modulation

Lowest channel Frequency #Avg Type: RMS Avg[Hold: 100/100 er Freq 2.412000000 GHz ast →→ Trig: Free Run #åtten: 30 dB Auto Tu 854 1 G -5.076 dE Ref Offset 8.64 dB Ref 20.00 dBm Center Fre 2.412000000 GH Start Fr 2.395680000 G Stop Fr CF S 3.264000 M Freq Offse Span 32.64 M #Sweep 22.00 ms (30000 p 2.41200 GHz #VBW 100 kHz

Middle channel



Highest channel

#Avg Type: RMS Avg|Hold: 100/100 Frequency nter Freq 2.462000000 GHz Trig: Free Run Auto Tun Ref Offset 8.64 dB Ref 20.00 dBm Center Fre 2.462000000 GH Start Fr Stop Fre CF St 3.264000 M **Freq Offs** er 2.46200 GHz BW 30 kHz Span 32.64 M N 100 kH:

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

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



Page 30 of 71

I I

802.11n (HT20) Modulation

Lowest channel Frequency #Avg Type: RMS Avg|Hold: 100/100 Center Freq 2.412000000 GH: Trig: Free Run Ref Offset 8.64 dB Ref 20.00 dBm 462 3 GI -4.128 dE Center Fre 2.412000000 GH Start Fre 2.394680000 GH Stop Fr 2.429320000 G CF S Freq Offs Span 34.64 Mł #Sweep 22.00 ms (30000 m 2.41200 GHz #VBW 100 kHz

Middle channel



Highest channel

#Avg Type: RMS Avg|Hold: 100/100 Frequency nter Freq 2.462000000 GHz Trig: Free Run Auto Tun Ref Offset 8.64 dB Ref 20.00 dBm 468 9 (3.679 c Center Fre 2.462000000 GH Start F Stop Fre CF Ste 3.408000 M **Freq Offs** .46200 GHz / 30 kHz Span 34.08 M #VBW 100 kH

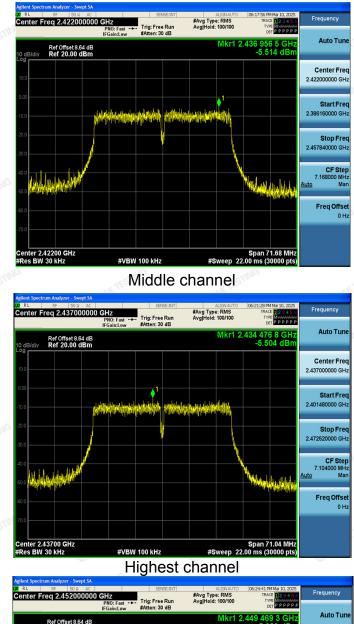
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannont be reproduced except in full with our prior written permission. The more details and the authenticity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

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



Lowest channel

802.11n (HT40) Modulation



Center Pred 2.452000000 FPG Hoans and the second s

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

4.6. Conducted Band Edge and Spurious Emission Measurement

Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (d)			
Test Method:	KDB 558074 D01 15.247 Meas Guidance v05r02			
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			
Test Mode:	Transmitting mode with modulation			
Test Procedure:				
Test Result:	PASS			

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

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