



# FCC Test Report

**Test Report  
On Behalf of  
Shenzhen Atongmu Technology Co., LTD  
For  
Projector**

**Model No.: GC06C, Please refer to the series models on page 7  
FCC ID: 2BAAR-GC06C**

**Prepared For:** Shenzhen Atongmu Technology Co., LTD  
Room 605,Office A Dong,Qiaohongsheng Wenhua Chuangyiyuan,Yintian  
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**Prepared By:** Shenzhen HUAK Testing Technology Co., Ltd.  
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Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

**Date of Test:** Jun. 06, 2025 ~ Jun. 27, 2025  
**Date of Report:** Jun. 27, 2025  
**Report Number:** HK2506032867-1E

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## Test Result Certification

**Applicant's Name** ..... : Shenzhen Atongmu Technology Co., LTD  
Room 605,Office A Dong,Qiaohongsheng Wenhua Chuangyiyuan,  
Address ..... : Yintian Gongyequ,Yantian Shequ, Xixiang Jiedao,Baoan Qu,  
Shenzhen Shi,Guangdong, 518000 China

**Manufacturer's Name** ..... : Shenzhen Atongmu Technology Co., LTD  
Room 605,Office A Dong,Qiaohongsheng Wenhua Chuangyiyuan,  
Address ..... : Yintian Gongyequ,Yantian Shequ, Xixiang Jiedao,Baoan Qu,  
Shenzhen Shi,Guangdong, 518000 China

### Product Description

Trade Mark ..... :



Product Name ..... : Projector

Model and/or Type Reference : GC06C, Please refer to the series models on page 7

Standards ..... : FCC Rules and Regulations Part 15 Subpart C Section 15.247  
ANSI C63.10: 2013

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**Date of Test** ..... :

Date (s) of Performance of Tests ..... : Jun. 06, 2025 ~ Jun. 27, 2025

Date of Issue ..... : Jun. 27, 2025

Test Result ..... : Pass

Testing Engineer



Len Liao

Technical Manager



Sliver Wan

Authorized Signatory



Jason Zhou

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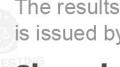
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## \*\* Modified History \*\*

Revision	Description	Issued Data	Remark
Revision 1.0	Initial Test Report Release	Jun.27, 2025	Jason Zhou

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## 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.

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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	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:	Projector
Model Name:	GC06C
Series Model:	GC06D, GC06E, GC06F, GC06C Rro, GC06D Rro, GC06E Rro, GC06F Rro, ATV06A, ATV06B, ATV06C, ATV06D, AT-M86V, AT-M86, AT-M350A, AT-M350B, AT-M350C, AT-M350D
Model Difference:	All model's the function, software and electric circuit are the same, only with a product color and product model named different. Test sample mode: GC06C.
FCC ID:	2BAAR-GC06C
Antenna Type:	Internal Antenna
Antenna Gain:	1.73dBi
Operation Frequency:	802.11b/g/n (HT20):2412~2462 MHz 802.11n (HT40): 2422~2452MHz
Number of Channels:	802.11b/g/n(HT20): 11CH 802.11n (HT40): 7CH
Modulation Type:	DSSS, OFDM
Power Source:	AC 100~240V 50/60Hz
Power Rating:	AC 100~240V 50/60Hz
Hardware Version:	ATM-269A713-V2.0
Software Version:	11-RS-20250515.1644

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.

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## 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	--	--

Channel List For 802.11n (HT40)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
--	--	04	2427	07	2442	--	--
--	--	05	2432	08	2447	--	--
03	2422	06	2437	09	2452	--	--

### 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

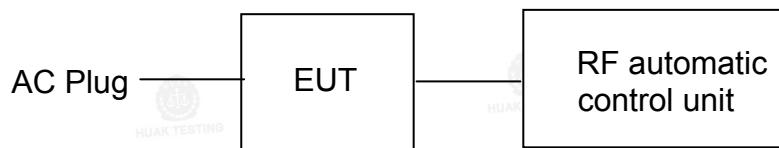
High Channel: 2452MHz

## 2.4 Description of Test Setup

## Operation of EUT during radiation testing and AC Conducted testing:



### Operation of EUT during RF Conducted 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.

## 2.5 Description of Support Units

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

Item	Equipment	Trade Mark	Model/Type No.	Specification	Remark
1	Projector		GC06C	N/A 	EUT
					

**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.



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### 3. General Information

### 3.1 Test Environment and Mode

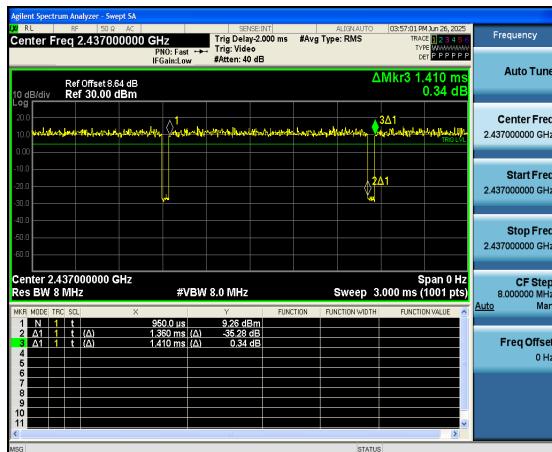
<b>Operating Environment:</b>	
Temperature:	25.0 °C
Humidity:	56 % RH
Atmospheric Pressure:	1010 mbar
<b>Test Mode:</b>	
Engineering Mode:	Keep the EUT in continuous transmitting by select channel and modulations
We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:	
<b>Per-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.</b>	
Mode	Data rate
802.11b	1Mbps
802.11g	6Mbps
802.11n(HT20)	6.5Mbps
802.11n(HT40)	13.5Mbps
<b>Final Test Mode:</b>	
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(HT20), 13.5Mbps for 802.11n(HT40).	
3. Mode Test Duty Cycle	
Mode	Duty Cycle
802.11b	0.96
802.11g	0.96
802.11n(HT20)	0.96
802.11n(HT40)	0.93

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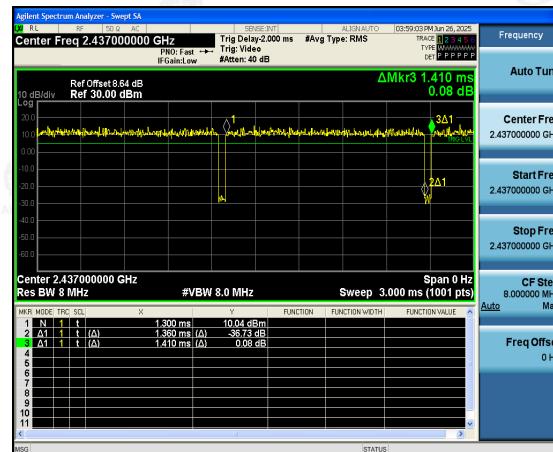


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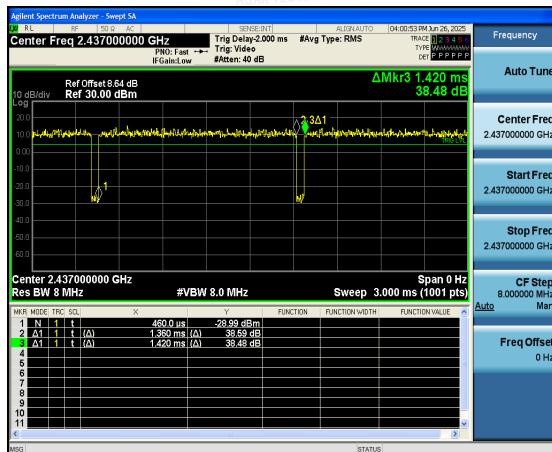
## 802.11b



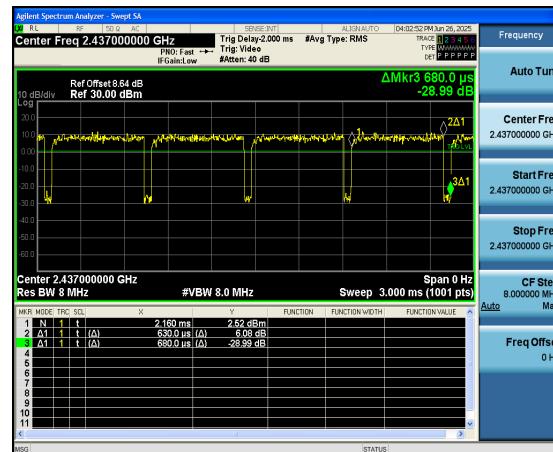
802.11g



## 802.11n(HT20)



## 802.11n(HT40)



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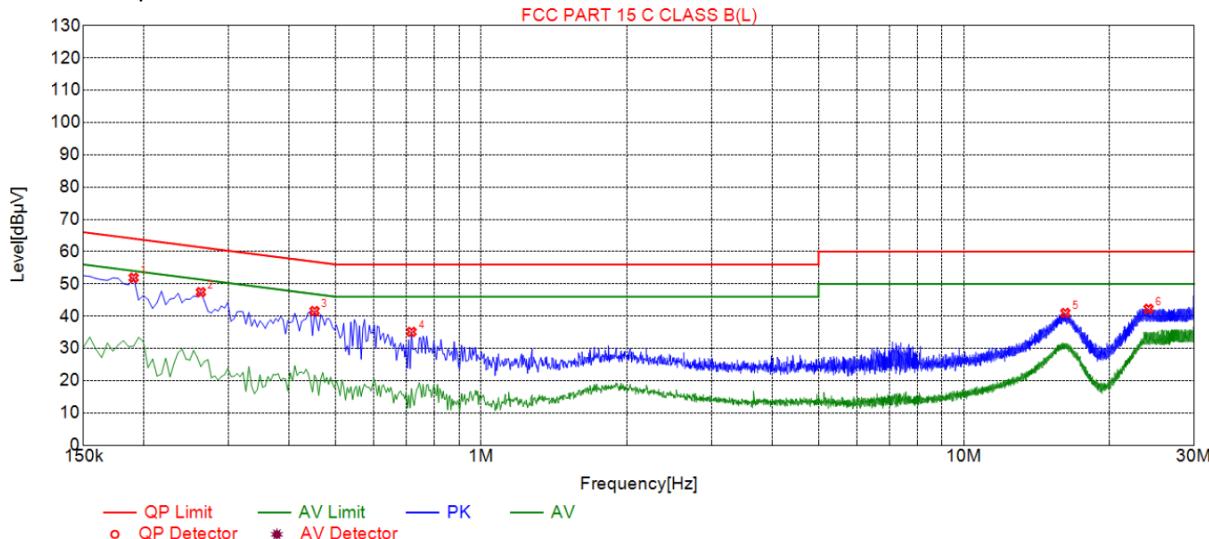
## Test Instruments

Conducted Emission Shielding Room Test Site (843)					
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Receiver	R&S	ESR	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

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

## 4.2 Test Result

## Test Specification: Line



## Suspected List

NO.	Freq. [MHz]	Level [dB $\mu$ V]	Factor [dB]	Limit [dB $\mu$ V]	Margin [dB]	Reading [dB $\mu$ V]	Detector	Type
1	0.1905	51.90	19.78	64.01	12.11	32.12	PK	L
2	0.2625	47.44	19.83	61.35	13.91	27.61	PK	L
3	0.4515	41.58	19.84	56.85	15.27	21.74	PK	L
4	0.7170	35.13	19.66	56.00	20.87	15.47	PK	L
5	16.2240	40.99	22.13	60.00	19.01	18.86	PK	L
6	24.1305	42.27	24.11	60.00	17.73	18.16	PK	L

Remark: Margin = Limit – Level

Correction factor = Cable loss + LISN insertion loss

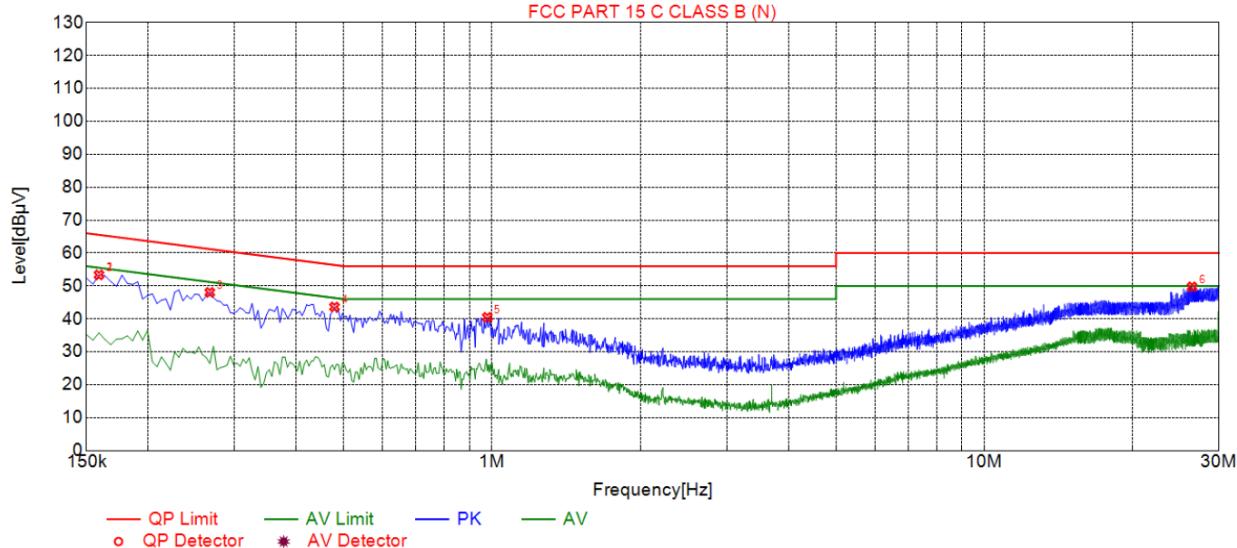
Level=Test receiver reading + correction factor



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Test Specification: Neutral



## Suspected List

NO.	Freq. [MHz]	Level [dB $\mu$ V]	Factor [dB]	Limit [dB $\mu$ V]	Margin [dB]	Reading [dB $\mu$ V]	Detector	Type
1	0.1590	53.36	19.61	65.52	12.16	33.75	PK	N
2	0.1590	53.36	19.61	65.52	12.16	33.75	PK	N
3	0.2670	48.04	19.65	61.21	13.17	28.39	PK	N
4	0.4785	43.63	19.73	56.37	12.74	23.90	PK	N
5	0.9780	40.48	19.76	56.00	15.52	20.72	PK	N
6	26.4435	49.75	24.68	60.00	10.25	25.07	PK	N

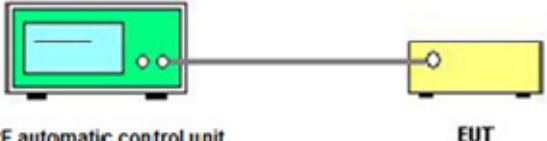
Remark: Margin = Limit – Level

Correction factor = Cable loss + LISN insertion loss

Level=Test receiver reading + correction factor

### 4.3 Maximum Conducted Output Power

## Test Specification

<b>Test Requirement:</b>	FCC Part15 C Section 15.247 (b)(3)
<b>Test Method:</b>	KDB 558074 D01 15.247 Meas Guidance v05r02
<b>Limit:</b>	30dBm
<b>Test Setup:</b>	 <p>The diagram illustrates the test setup. On the left, a green rectangular box represents the 'RF automatic control unit'. On the right, a yellow rectangular box represents the 'EUT'. A black horizontal line with a small circle at each end connects the two boxes, representing an 'RF cable'. The text 'RF automatic control unit' is centered below the green box, and 'EUT' is centered below the yellow box.</p>
<b>Test Mode:</b>	Transmitting mode with modulation
<b>Test Procedure:</b>	<ol style="list-style-type: none"><li>1. The testing follows the Measurement Procedure of FCC KDB 558074 D01 15.247 Meas Guidance v05r02.</li><li>2. 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.</li><li>3. Set to the maximum power setting and enable the EUT transmit continuously.</li><li>4. Measure the Peak output power and record the results in the test report.</li></ol>
<b>Test Result:</b>	PASS

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## 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
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).



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## Test Data

Mode	Test Channel	Frequency	Maximum Peak Conducted Output Power	LIMIT
		(MHz)	(dBm)	dBm
802.11b	CH01	2412	13.30	30
802.11b	CH06	2437	13.46	30
802.11b	CH11	2462	14.11	30
802.11g	CH01	2412	11.38	30
802.11g	CH06	2437	12.69	30
802.11g	CH11	2462	12.18	30
802.11n(HT20)	CH01	2412	12.12	30
802.11n(HT20)	CH06	2437	12.45	30
802.11n(HT20)	CH11	2462	12.17	30
802.11n(HT40)	CH03	2422	12.63	30
802.11n(HT40)	CH06	2437	12.67	30
802.11n(HT40)	CH09	2452	13.92	30

Note: The test results including the cable loss.



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## 4.4 Emission Bandwidth

### Test Specification

<b>Test Requirement:</b>	FCC Part15 C Section 15.247 (a)(2)
<b>Test Method:</b>	KDB 558074 D01 15.247 Meas Guidance v05r02
<b>Limit:</b>	>500kHz
<b>Test Setup:</b>	 <p><b>Spectrum Analyzer</b>      <b>EUT</b></p>
<b>Test Mode:</b>	Transmitting mode with modulation
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>1. The testing follows FCC KDB Publication 558074 D01 15.247 Meas Guidance v05r02.</li> <li>2. Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>3. 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>4. Measure and record the results in the test report.</li> </ol>
<b>Test Result:</b>	PASS

### 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).

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### Test Data

Test channel	6dB Emission Bandwidth (MHz)			
	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)
Lowest	8.080	16.320	16.440	36.160
Middle	8.520	16.320	17.520	35.680
Highest	9.000	16.320	17.600	35.840
Limit:	>500kHz			
Test Result:	PASS			

### Test plots as follows:



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**802.11b Modulation****Lowest channel****Middle channel****Highest channel**

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## 802.11g Modulation

## Lowest channel



## Middle channel



## Highest channel



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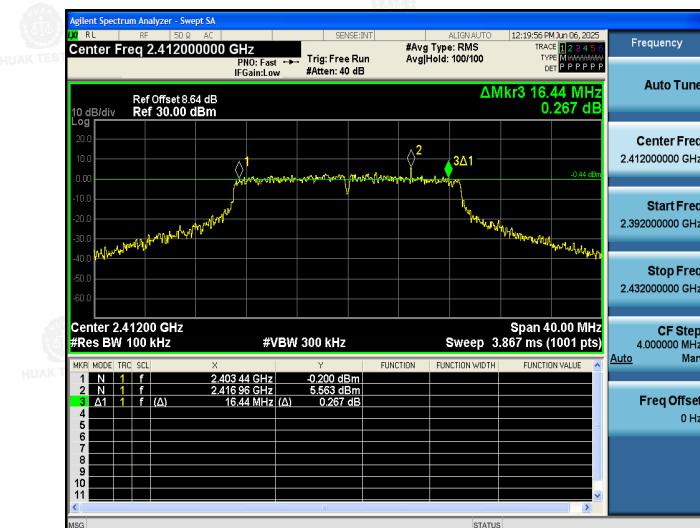
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## 802.11n (HT20) Modulation

## Lowest channel



## Middle channel



## Highest channel



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## 4.5 Power Spectral Density

## Test Specification

<b>Test Requirement:</b>	FCC Part15 C Section 15.247 (e)
<b>Test Method:</b>	KDB 558074 D01 15.247 Meas Guidance v05r02
<b>Limit:</b>	The average power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.
<b>Test Setup:</b>	 <p>HUAK TESTING</p>
<b>Test Mode:</b>	Transmitting mode with modulation
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>1. The testing follows Measurement procedure 10.2 method PKPSD of FCC KDB Publication 558074 D01 15.247 Meas Guidance v05r02.</li> <li>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.</li> <li>3. Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW): <math>3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}</math>. Video bandwidth <math>\text{VBW} \geq 3 \times \text{RBW}</math>. Set the span to at least 1.5 times the OBW.</li> <li>5. Detector = Peak, Sweep time = auto couple.</li> <li>6. Employ trace averaging (Peak) mode over a minimum of 100 traces. Use the peak marker function to determine the maximum power level.</li> <li>7. Measure and record the results in the test report.</li> </ol>
<b>Test Result:</b>	PASS



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## 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).

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## Test data

EUT Set Mode	Channel	Result (dBm/30KHz)	Result (dBm/3kHz)
802.11b	Lowest	2.16	-7.84
	Middle	2.26	-7.74
	Highest	2.79	-7.21
802.11g	Lowest	2.81	-7.19
	Middle	1.60	-8.4
	Highest	3.20	-6.8
802.11n(H20)	Lowest	0.47	-9.53
	Middle	1.74	-8.26
	Highest	1.43	-8.57
802.11n(HT40 )	Lowest	2.58	-7.42
	Middle	4.23	-5.77
	Highest	3.27	-6.73
PSD Test Result (dBm/3kHz)= PSD Test Result (dBm/30kHz)-10			
Limit: 8dBm/3kHz			
Test Result:	PASS		

## Test plots as follows:

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## 802.11b Modulation

## Lowest channel



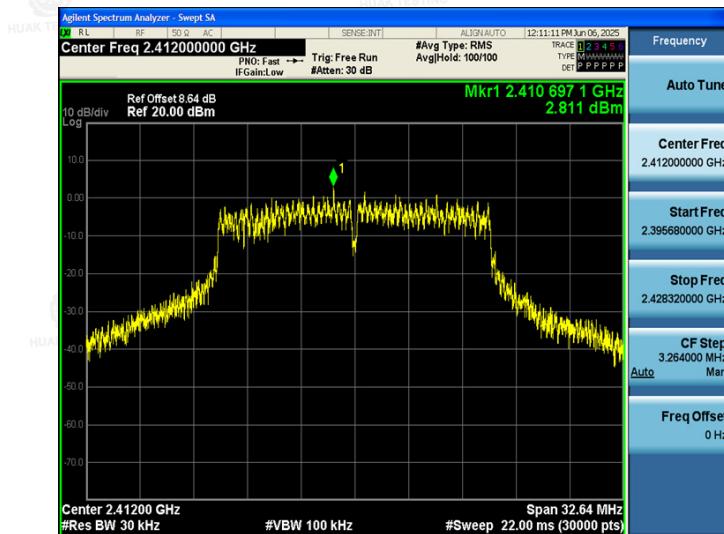
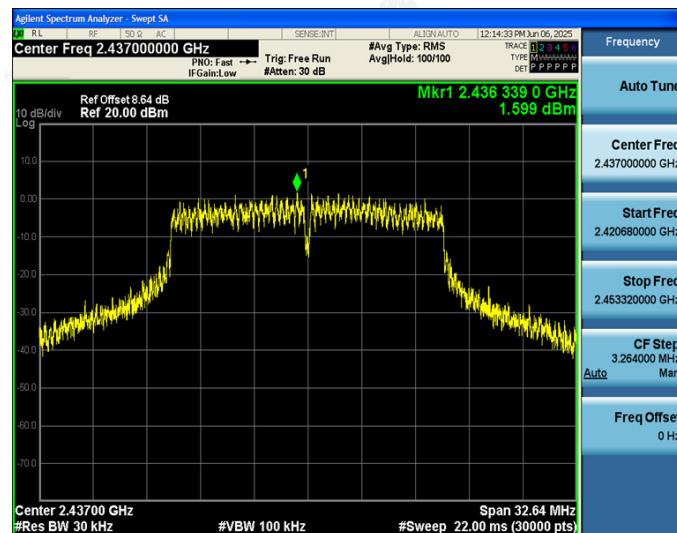
## Middle channel



## Highest channel



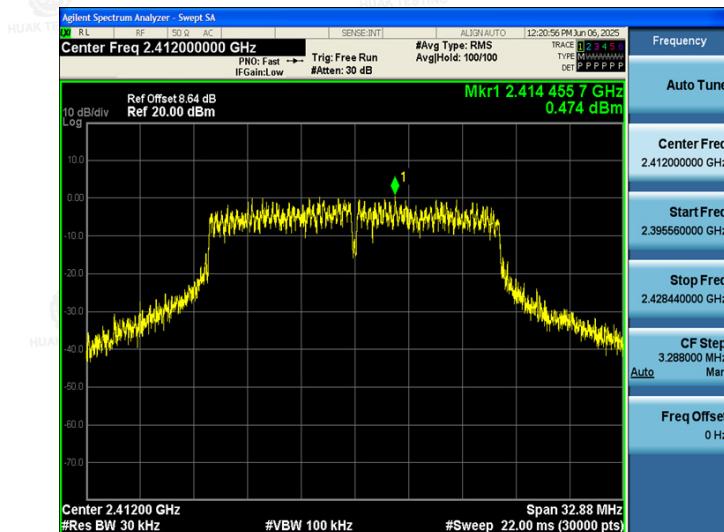
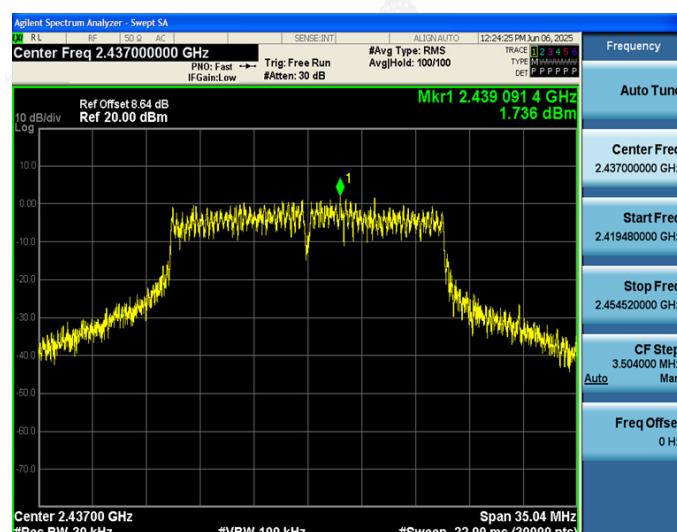
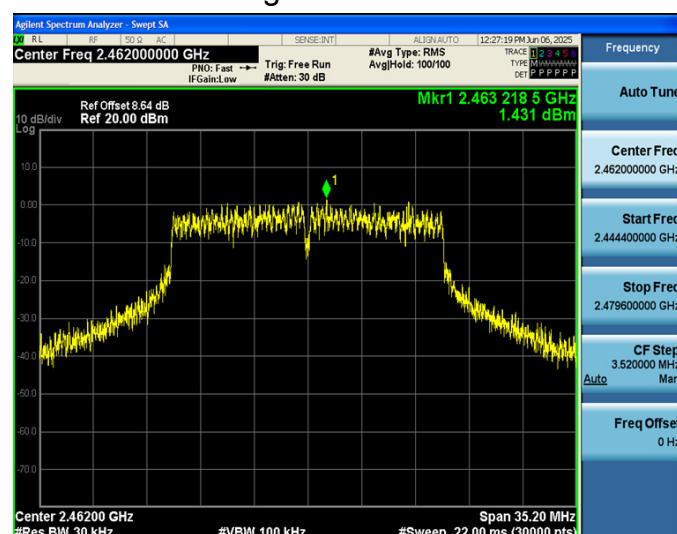
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**802.11g Modulation****Lowest channel****Middle channel****Highest channel**

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**802.11n (HT20) Modulation****Lowest channel****Middle channel****Highest channel**

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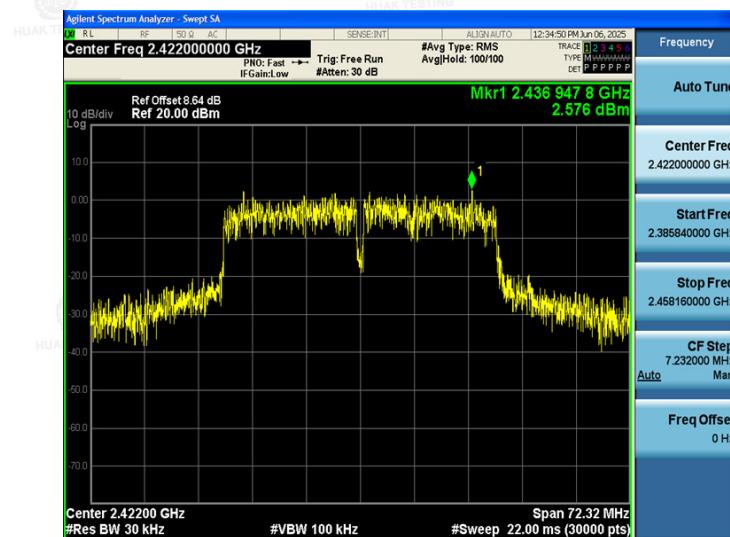
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## 802.11n (HT40) Modulation

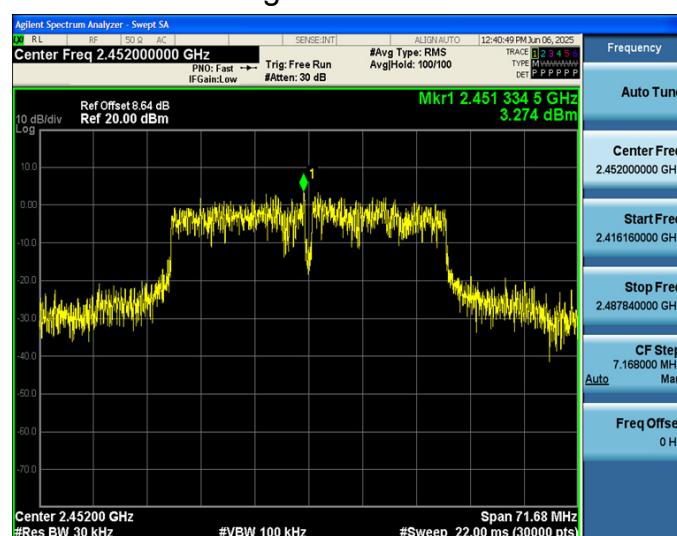
## Lowest channel



## Middle channel



## Highest channel



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## Test Instruments

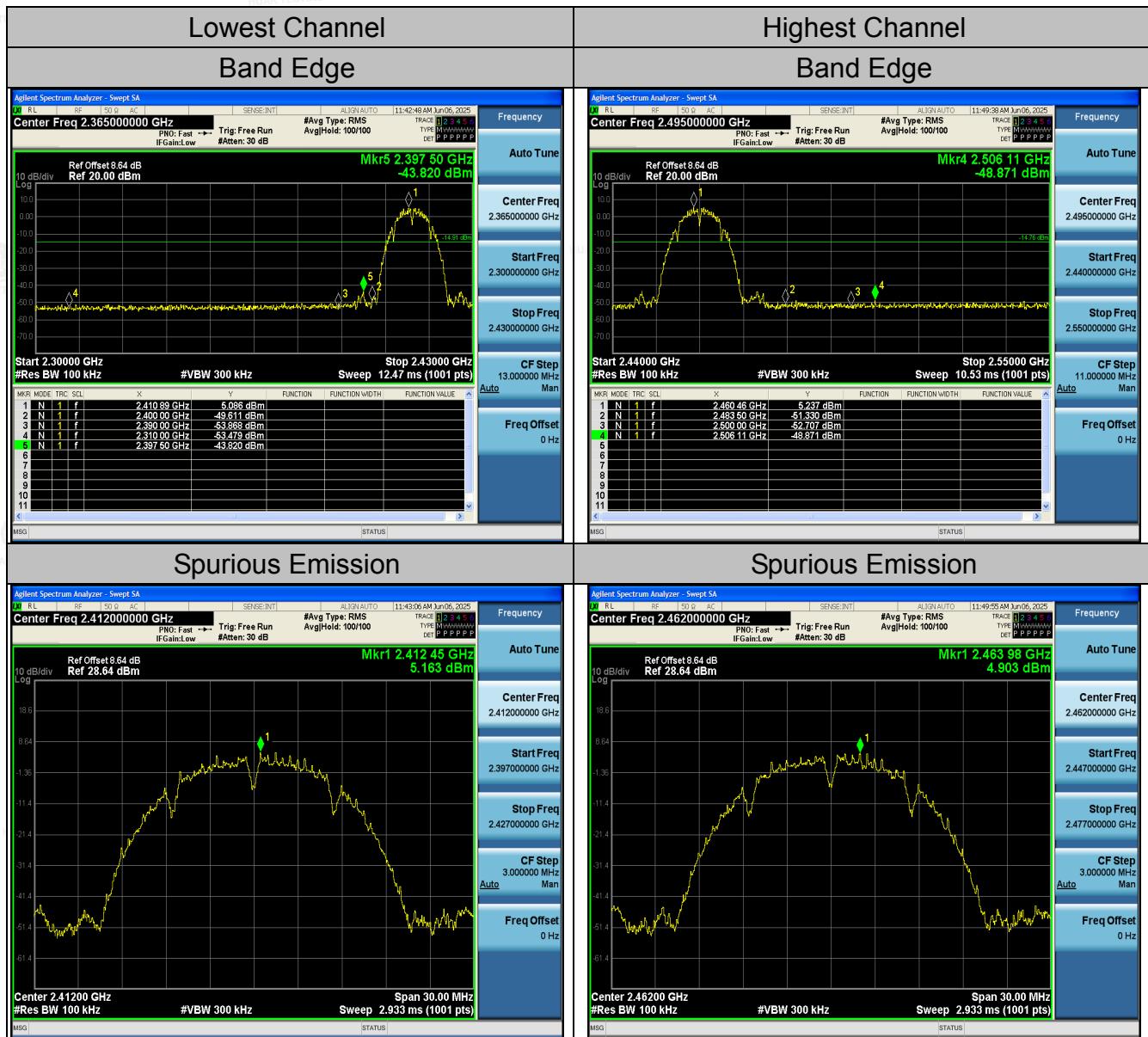
RF Test Room					
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Spectrum analyzer	Agilent	N9020A	HKE-025	Feb. 19, 2025	Feb. 18, 2026
High pass filter unit	Tonscend	JS0806-F	HKE-055	Feb. 19, 2025	Feb. 18, 2026
RF Cable (9KHz-26.5GHz)	Tonscend	170660	N/A	Feb. 19, 2025	Feb. 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

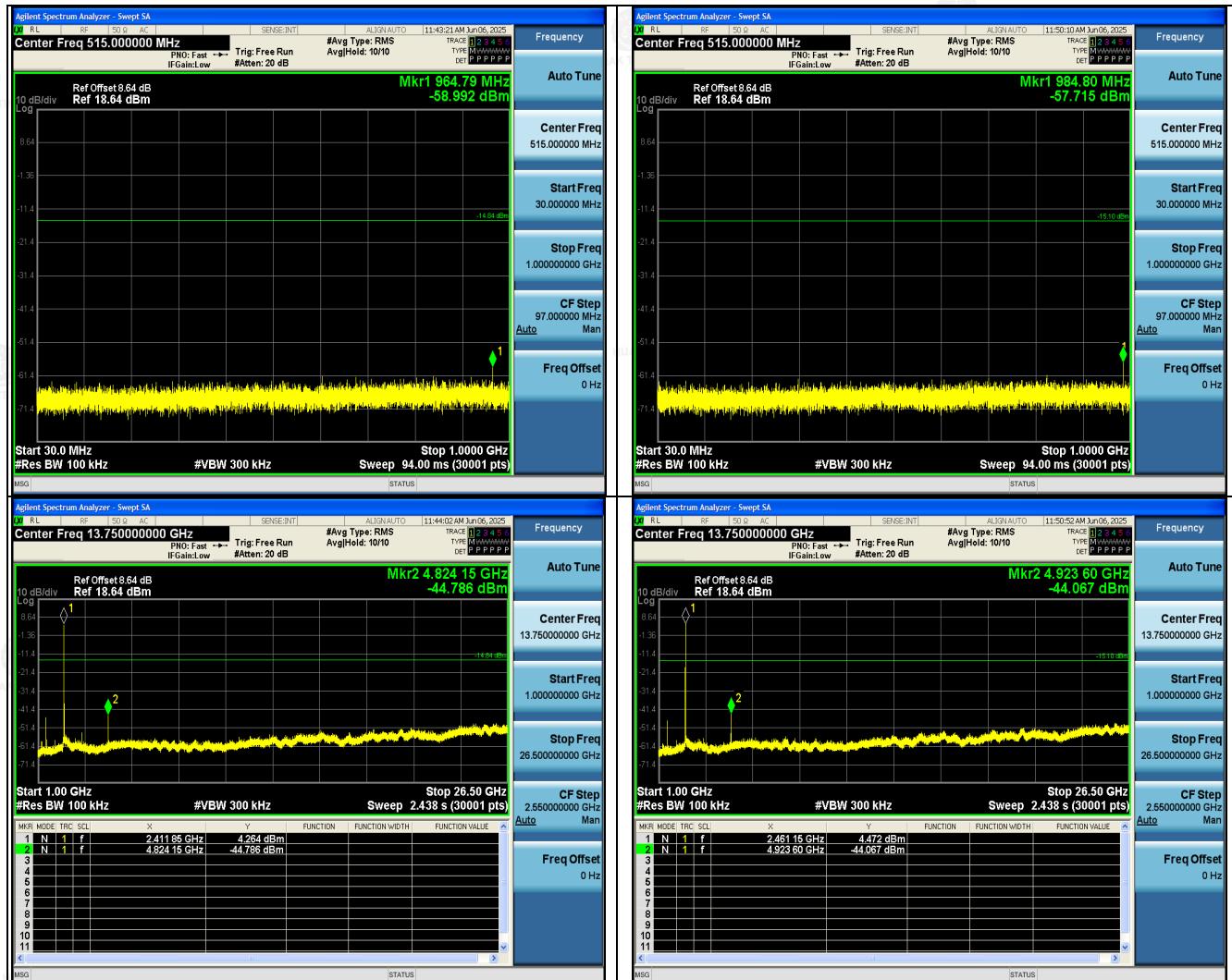
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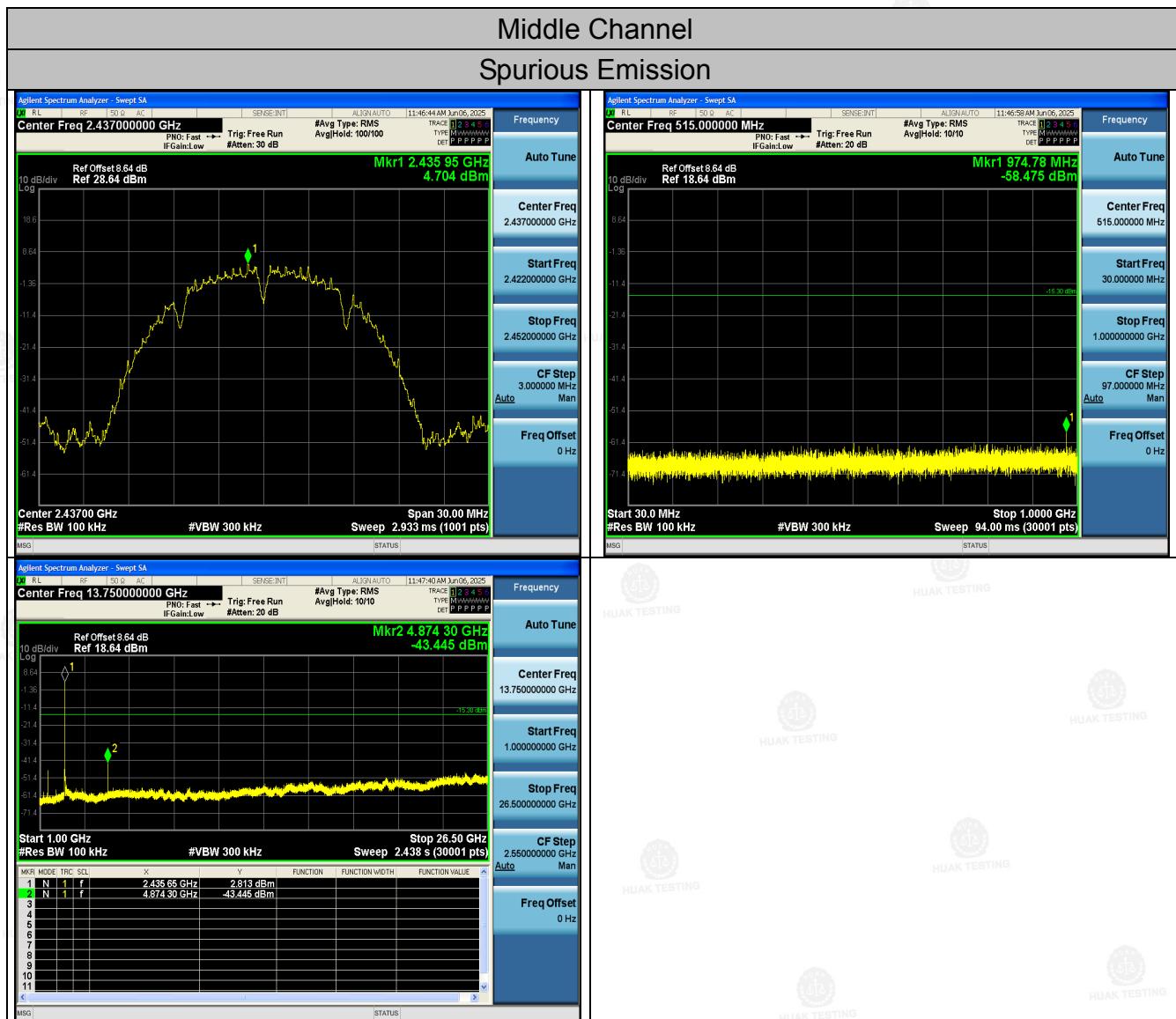
**Test Data****802.11b Modulation**



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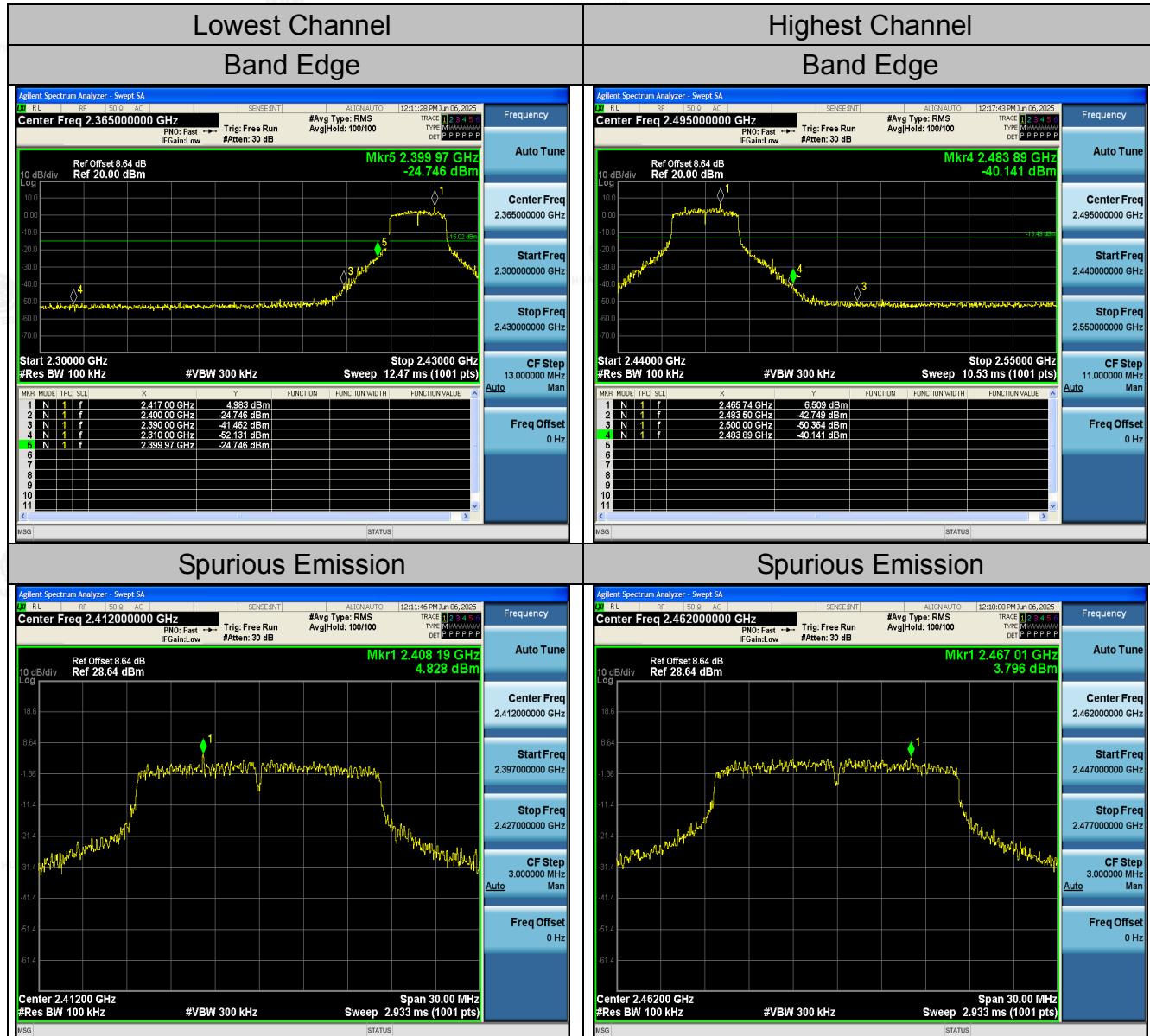


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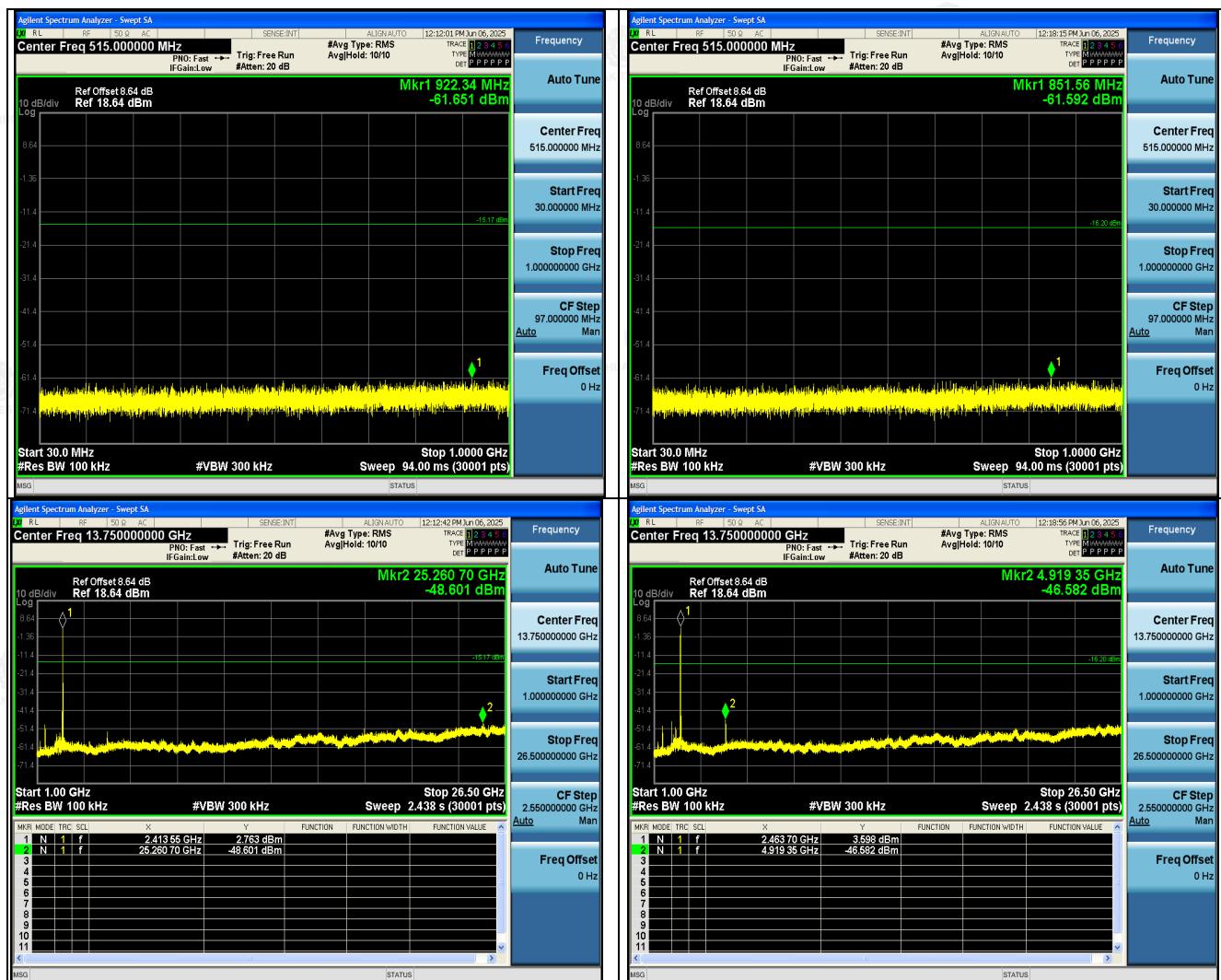
## 802.11g Modulation



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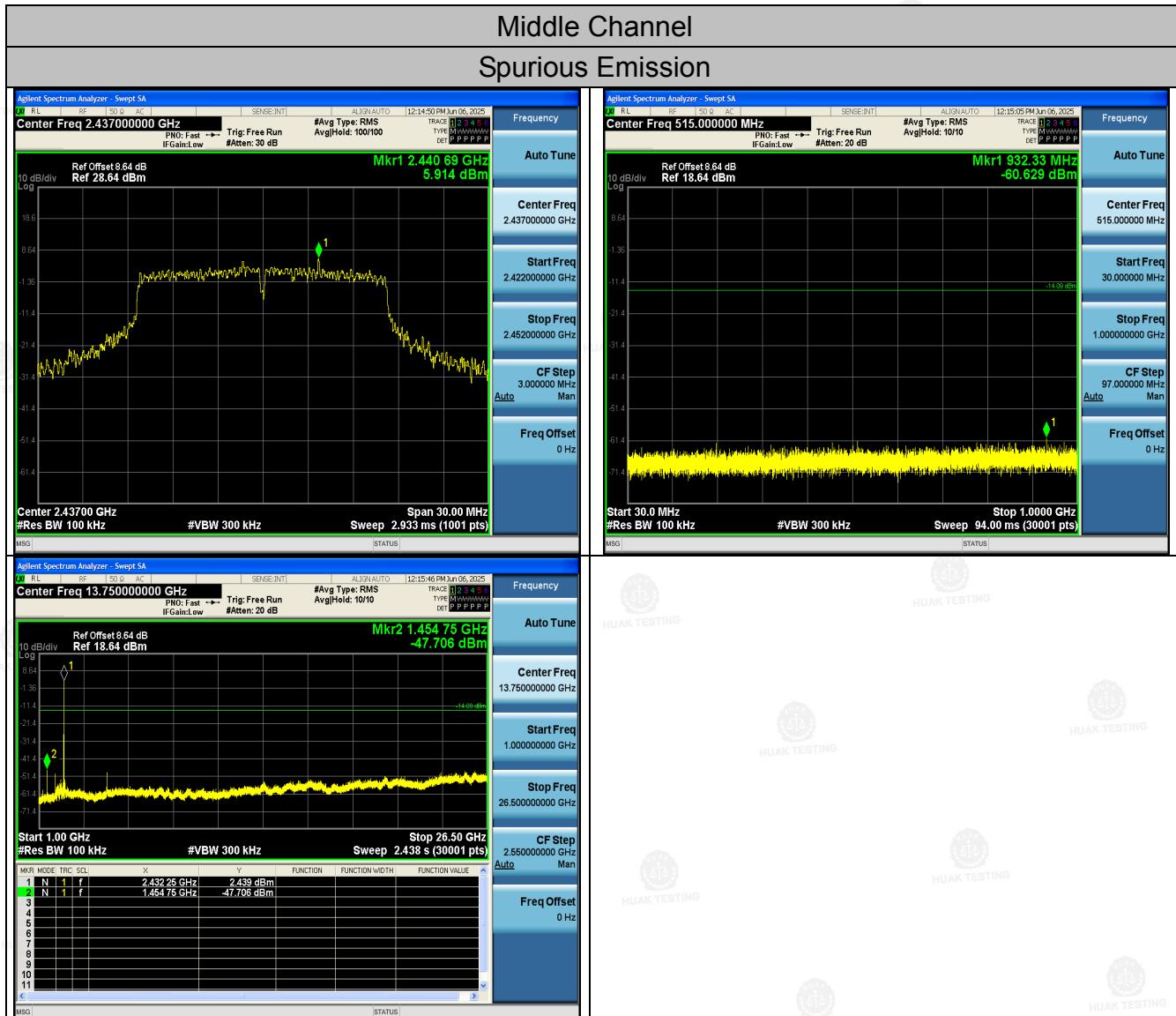
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