



# **RF Test Report**

# For

# Hunan Vathin Medical Instrument Co., Ltd.

	Part 15C Subpart C §15.247			
Test Standards:	RSS 247 Issue 3			
Product Name:	Digital Video Monitor			
Tested Model:	DVM-D1			
FCC ID:	2AY4E-DVMD			
IC:	27001-DVMD			
Classification	(DTS) Digital Transmission System			
Report No.:	EC2207002RF01			
Tested Date:	2023-05-30 to 2023-08-08			
Issued Date:	2023-08-08			
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Note: The test results in this report apply exclusively to the tested model / sample. Without written approval of Hunan Ecloud Testing Technology Co., Ltd., the test report shall not be reproduced except in full.



# **Report Revise Record**

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	2023-08-08	Valid	Original Report



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# **Summary Of Test Result**

FCC Rule	IC Rule	Description	Limit	Result	Remark
15.247(a)(2)	RSS-247 5.2(a)	6dB Bandwidth	≥ 0.5MHz	Pass	Test Engineer: Luo Xiang
-	RSS-Gen 6.7	99% Bandwidth	-	Pass	Test Engineer: Luo Xiang
15.247(b)(3)	RSS-247 A5.4(d)	Output Power	≤ 30dBm	Pass	Test Engineer: Luo Xiang
15.247(e)	RSS-247 5.2(b)	Power Spectral Density	≤ 8dBm/3kHz	Pass	Test Engineer: Luo Xiang
15.247(d)	RSS-247 5.5	Conducted Band Edges and Spurious Emission	≤ 30dBc	Pass	Test Engineer: Luo Xiang
15.247(d)	RSS-247 5.5 RSS-GEN 8.9	Radiated Band Edges and Spurious Emission	15.209(a) & 15.247(d) RSS-GEN 8.9	Pass	Under limit 3.66 dB at 2483.66 MHz
-	RSS-Gen 7.4	Receiver Radiated Emissions	Below 1G:2nW Above 1G:5nW	Pass	Test Engineer: Luo Xiang
15.207	RSS-GEN 8.8	AC Conducted Emission	15.207(a)	Pass	Under limit 0.67 dB at 0.208 MHz
15.203 & 15.247(b)	RSS-GEN 6.8	Antenna Requirement	15.203 & 15.247(b) RSS-GEN 6.8	Pass	-



# 1 Test Laboratory

## 1.1 Test facility

## CNAS (accreditation number: L11138)

Hunan Ecloud Testing Technology Co., Ltd. has obtained the accreditation of China National Accreditation

Service for Conformity Assessment (CNAS).

# FCC (Designation number: CN1244, Test Firm Registration Number:

## 793308)

Hunan Ecloud Testing Technology Co., Ltd. has been listed on the US Federal Communications Commission

list of test facilities recognized to perform electromagnetic emissions measurements.

## ISED(CAB identifier: CN0012, ISED# :24347)

Hunan Ecloud Testing Technology Co., Ltd. has been listed on the Wireless Device Testing Laboratories list of

innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements.

## A2LA (Certificate Code : 4895.01)

Hunan Ecloud Testing Technology Co., Ltd. has been listed by American Association for Laboratory

Accreditation to perform electromagnetic emission measurement.



2.3

# 2 General Description

## 2.1 Applicant

#### Hunan Vathin Medical Instrument Co., Ltd.

1/F, Building 12, Innovation and Entrepreneurship Service Center, No 9 Chuanqi west road, Jiuhua Economic Development Zone, 411100 Xiangtan, Hunan, China

## 2.2 Manufacturer

#### Hunan Vathin Medical Instrument Co., Ltd.

**General Description Of EUT** 

1/F, Building 12, Innovation and Entrepreneurship Service Center, No 9 Chuanqi west road, Jiuhua Economic Development Zone, 411100 Xiangtan, Hunan, China

Product	Digital Video Monitor			
Model No.	DVM-D1			

Model No.	DVM-D1	
Additional No.	N/A	
Difference Description	N/A	
FCC ID	2AY4E-DVMD	
IC	27001-DVMD	
Power Supply	15Vdc from Adapter(Input 100-240Vac)	
	10.8Vdc from Battery	
Modulation Technology	CCK, DQPSK, DBPSK for DSSS	
modulation recimology	64QAM, 16QAM, QPSK, BPSK for OFDM	
Modulation Type	802.11b : DSSS	
Modulation Type	802.11g/n : OFDM	
Operating Frequency	2412-2462MHz	
Number Of Channel	11	
	802.11b: 16.13 dBm (0.0410 W)	
Max. Output Power	802.11g: 16.10 dBm (0.0407 W) 802.11n HT20: 15.58 dBm (0.0361 W)	
Max. E.I.R.P.	18.13 dBm (0.0650 W)	
Antenna Type	FPC Antenna with 2 dBi gain	
HW Version	V1	
SW Version	DVM-D1:V1	
Sample no.	2207002R-B-1/1	
Sample Received Date	2023/05/30	
I/O Ports	Refer to user's manual	

#### NOTE:



- 1. The above EUT information is declared by manufacturer. Our laboratory is not responsible for the information provided by the manufacturer.For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- 2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report. EUT can support charging mode and battery operation mode, only the worst charging mode data is listed in the report
- 3. The EUT was powered by the following adapters:

Adapter	
Brand:	SINPRO
Model:	HPU63A-106
Input:	AC 100-240V~47-63Hz,1.62-0.72A
Output:	DC 15V, 4.2A max

4. The EUT matched the following cable:

SDI Cable	
Brand:	N/A
Model:	N/A
Signal Line:	2.7 Meter/shielded

D-SUB9 Cable		
Brand:	N/A	
Model:	N/A	
Signal Line:	1.89 Meter/shielded	

HDMI Cable	
Brand:	N/A
Model:	N/A
Signal Line:	2.7 Meter/shielded

## 2.4 Modification of EUT

No modifications are made to the EUT during all test items.

## 2.5 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

• FCC Part 15 Subpart C §15.247



- ANSI C63.10-2013
- KDB 558074 D01 15.247 Meas Guidance v05r02
- IC RSS-247 Issue 3
  - IC RSS-Gen Issue 5

#### Remark:

1. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, ICES-003 recorded in a separate test report.



# **3** Test Configuration of Equipment Under Test

## 3.1 Descriptions of Test Mode

11 channels are provided for 802.11b, 802.11g and 802.11n(HT20):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2412 MHz	7	2442 MHz
2	2417 MHz	8	2447 MHz
3	2422 MHz	9	2452 MHz
4	2427 MHz	10	2457 MHz
5	2432 MHz	11	2462 MHz
6	2437 MHz		

The transmitter has a maximum peak conducted output power as follows:

Frequency Range(MHz)	Mode	Rate	Output Power(dBm)
2412~2462	802.11b	1Mbps	16.13
2412~2462	802.11g	6Mbps	16.10
2412~2462	802.11n HT20	MCS0	15.58

a. Radiated emission and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.



## 3.2 Test Mode

#### 3.2.1 Antenna Port Conducted Measurement

Summary table of Test Cases			
Test Item Modulation			
rest item	802.11 b	802.11 g	802.11n HT20
Conducted	Mode 1: CH01	Mode 1: CH01	Mode 1: CH01
Test Cases	Mode 2: CH06	Mode 2: CH06	Mode 2: CH06
	Mode 3: CH11	Mode 3: CH11	Mode 3: CH11

#### 3.2.2 Radiated Emission Test (Below 1GHz)

Radiated	802.11 b	
Test Cases	Mode 3: CH11	

Note : 1. Pre-Scan has been conducted to determine the worst-case mode from all possible

combinations between available modulations, XYZ axis, antenna ports (if EUT with antenna

diversity architecture) and packet type. X orientation was worst-case orientation; therefore, all

final radiated testing was performed with the EUT in X orientation.

2. Following channel(s) was (were) selected for the final test as listed above

#### 3.2.3 Radiated Emission Test (Above 1GHz)

Test Item	Modulation		
rest tiell	802.11 b	802.11 g	802.11n HT20
Radiated	Mode 1: CH01	Mode 1: CH01	Mode 1: CH01
	Mode 2: CH06	Mode 2: CH06	Mode 2: CH06
Test Cases	Mode 3: CH11	Mode 3: CH11	Mode 3: CH11

Note : 1. The fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z it was determined that X orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X orientation.

2. Following channel(s) was (were) selected for the final test as listed above

3. For frequency above 18GHz, the measured value is much lower than the limit, therefore, it is not reflected in the report.

#### 3.2.4 Power Line Conducted Emission Test:

AC Conducted	Mode 1 : WLAN(2.4G) Link + SDI + RJ-45 + HDMI + USB Disk +
Emission	H-Steriscope + D-SUBS9 + REMOTE +Adapter



#### 3.2.5 Radiated receiver emissions Test:

Radiated Test Cases

Mode 1 : 802.11 b CH11

#### 3.2.6 Support Equipment

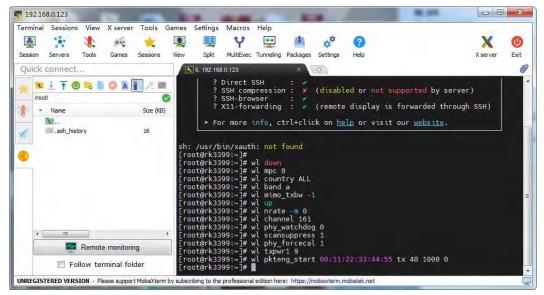
Manufacturer	Description	Model	Serial Number	FCC ID
Lenovo	Notebook Computer	ThinkPad E580	PF-12XLH6	FCC SDoC
NETGARE	WLAN AP	R7800	4H487A590021A	PY315100319
Lenovo	Notebook Computer	ThinkPad E470C	PF-OP4YX1	FCC SDoC
Vathin	H-Steriscope	BCV1-W2	217	FCC SDoC
Vathin	H-Steriscope	BCV1-W2	218	FCC SDoC
MEAN WELL	AC Adapter	GSM60A12	EC052C0458	FCC SDoC
JUSHA	LCD Monitor	E190C	DE190C12CBF29012	FCC SDoC
DELTA ELECTRONICS, INC.	AC Adapter	MDS-150AAS24B	E0NW9CK004Y	FCC SDoC
JUSHA	LCD Monitor	E240C	DE240C11CAC04009	FCC SDoC
N/A	3.5mm Audio Cable	N1/A	N/A	FCC SDoC
IN/A	N/A (Remote Port) N/A		IN/A	
UGREEN	D-SUB9 To USB Converter	N/A	N/A	N/A
QUECTEL	USB Storage	N/A	N/A	N/A

## 3.3 Test Setup

The EUT is continuously communicating to the WIFI tester during the tests.

EUT was set in the Hidden menu mode to enable WIFI communications.

The following picture is a screenshot of the test software

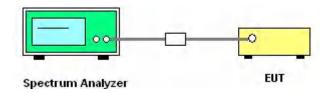


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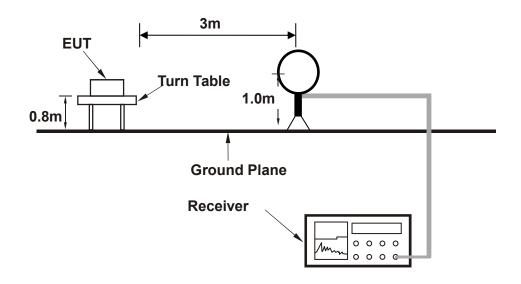
Tel.:+86-731-89634887 Fax.: +86-731-89634887



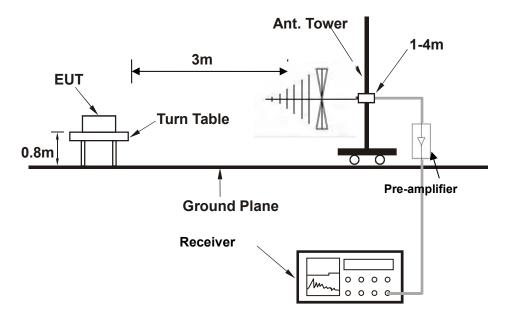
#### Setup diagram for Conducted Test



#### Setup diagram for Radiation(9KHz~30MHz) Test

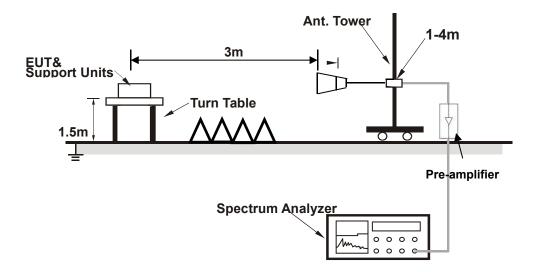


#### Setup diagram for Radiation(Below 1G) Test

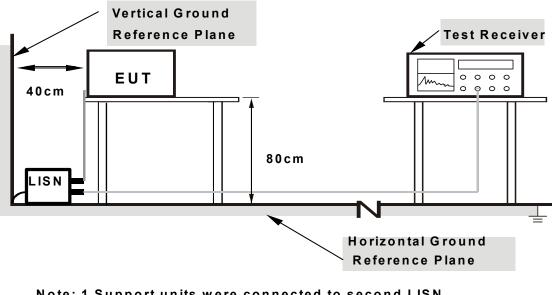




#### Setup diagram for Radiation(Above1G) Test



Setup diagram for AC Conducted Emission Test



Note: 1.Support units were connected to second LISN. 2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes



## .4 Measurement Results Explanation Example

#### For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example:

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 5 dB and 10dB attenuator.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 5 + 10 = 15 (dB)

#### For all radiated test items:

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level Over Limit (dB  $\mu$  V/m) = Level(dB  $\mu$  V/m) - Limit Level (dB  $\mu$  V/m)



## 4 Test Result

## 4.1 DTS and Occupied Channel Bandwidth Measurement

#### 4.1.1 Limit of 6dB Bandwidth

FCC §15.247 (a) (2)

IC RSS-247 5.2(a)

The minimum 6 dB bandwidth shall be at least 500 kHz.

#### 4.1.2 Test Procedures

- 1. The testing follows FCC KDB Publication No. 558074 DTS D01 Meas. Guidance v05r02.
- 2. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 3. Turn on the EUT and connect it to measurement instrument.
- 4. Set to the maximum power setting and enable Transmitting the EUT transmit continuously
- 5. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) setting should be 1%-5% of OBW, please revise and set the Video bandwidth (VBW) ≥3\* RBW.
- According to RSS-GEN section 6.7, for IC 6 dB bandwidth measurement, the spectrum analyzer's resolution bandwidth (RBW) setting should be 1%-5% of OBW, and set the Video bandwidth (VBW) ≥3\* RBW.

### 4.1.3 Test Result of 6dB Bandwidth

Refer to Appendix A of this test report.

### 4.1.4 Test Result of 99% Bandwidth

Refer to Appendix B of this test report.

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## 4.2 Maximum Conducted Output Power Measurement

#### 4.2.1 Limit of Output Power

#### FCC §15.247 (b)(3)

For systems using digital modulation in the 2400-2483.5 MHz bands: 30dBm. IC RSS-247 A5.4(d) For DTSs employing digital modulation techniques operating in the bands 902-928MHz and 2400-2483.5MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e)

#### 4.2.2 Test Procedures

- 1. The testing follows the Measurement Procedure of ANSI C63.10-2013 section 11.9.2.2.4 Measurement using a spectrum analyzer.
- 2. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 3. Turn on the EUT and connect it to spectrum analyzer.
- 4. Set to the maximum power setting and enaBle Transmitting the EUT transmit continuously
- 5. Measure the duty cycle, x, of the transmitter output signal as described in below:
  - a. Set the center frequency of the instrument to the center frequency of the transmission.
  - b. Set RBW to the largest available Transmitting value.
  - c. Set detector = peak
- Set span to at least 1.5\*OBW.Set RBW=510KHz,VBW=2MHz, Number of points in sweep ≥ 2/3\* span, Sweep time = auto. Detector = RMS
- 7. Allow the sweep to "free run". Trace average 100 traces in RMS mode
- 8. Compute power by integrating the spectrum across the OBW of the signal using the instrument's Channel power measurement function with band limits set equal to the OBW band edges.
- 9. Add 10 log (1/x), where x is the duty cycle. The duty cycle factor has been compensated to the "offset" of the spectrum analyser.

#### 4.2.3 Test Result of Output Power

Refer to Appendix C of this test report.

#### 4.2.4 Test Result of Duty Cycle

Refer to Appendix D of this test report.



## 4.3 Maximum Power Spectral Density Measurement

#### 4.3.1 Limits of Power Spectral Density

FCC§15.247(e)

IC RSS-247 5.2(b)

The peak power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.

#### 4.3.2 Test Procedure

- The testing follows Measurement Procedure 8.4 DTS maximum power spectral density level in the fundamental emission of ANSI C63.10-2013 section 11.10.5
- 2. Turn on the EUT and connect it to measurement instrument.
- 3. Measure the duty cycle, x, of the transmitter output signal as described in below:
  - a. Set the center frequency of the instrument to the center frequency of the transmission.
    - b. Set RBW to the largest availaBle Transmitting value.
    - c. Set detector = peak
- Set span to at least 1.5\*OBW.Set RBW= 30 KHz,VBW=100 KHz, Number of points in sweep ≥ 2/3\* span, Sweep time = auto.
- 5. Detector = power averaging (rms), Sweep time = auto couple, Trace mode = averaging (rms) mode over a minimum of 100 traces. Use the peak marker function to determine the maximum power level.
- 6. Add 10 log (1/x), where x is the duty cycle.
- 7. Measure and record the results in the test report.
- 8. The Measured power density (dBm)/ 100kHz is a reference level and used as 30dBc down limit line for Conducted Band Edges and Conducted Spurious Emission.
- 9. Add 10 log(1/x), where x is the duty cycle. The duty cycle factor has been compensated to the 'offset " of the spectrum analyser.

#### 4.3.3 Test Result of Power Spectral Density

Refer to Appendix E of this test report.



## 4.4 Band Edges and Spurious Emission Measurement

#### 4.4.1 Limit of Conducted Band Edges and Spurious Emission

FCC §15.247 (d)

IC RSS-247 5.5

Maximum conducted (average) output power was used to determine compliance, then the peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 30 dBc).

#### 4.4.2 Test Procedures

- 1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2. Turn on the EUT and connect it to measurement instrument.
- 3. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
- 4. Measure and record the results in the test report.
- 5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

#### 4.4.3 Test Result of Conducted Band Edges

Refer to Appendix F of this test report.

#### 4.4.4 Test Result of Conducted Spurious Emission

Refer to Appendix G of this test report.



### 4.5 Radiated Band Edges and Spurious Emission Measurement

#### 4.5.1 Limit of Radiated Band Edges and Spurious Emission

#### FCC §15.247 (d)

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 30 dB below the highest emission level within the authorized band. In addition, radiated emissions which fall in the restricted bands must also comply with the FCC section 15.209 limits as below.

Frequency	Field Strength	Measurement Distance
(MHz)	(microvolts/meter)	(meters)
0.009 - 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

RSS-GEN 8.9

Frequency	Magnetic field strength	Measurement Distance
(MHz)	(H-Field) (µA/m)	(meters)
0.009 - 0.490	6.37/F (F in kHz)	300
0.490 – 1.705	6.37/F (F in kHz)	30
1.705 – 30.0	0.08	30

Frequency	Field Strength	Measurement Distance
(MHz)	(microvolts/meter)	(meters)
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

#### 4.5.2 Test Procedures

- 1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
- 2. The measurement distance is 3 meter.
- 3. For each suspected emission, the EUT was arranged to its worst case and then tune the

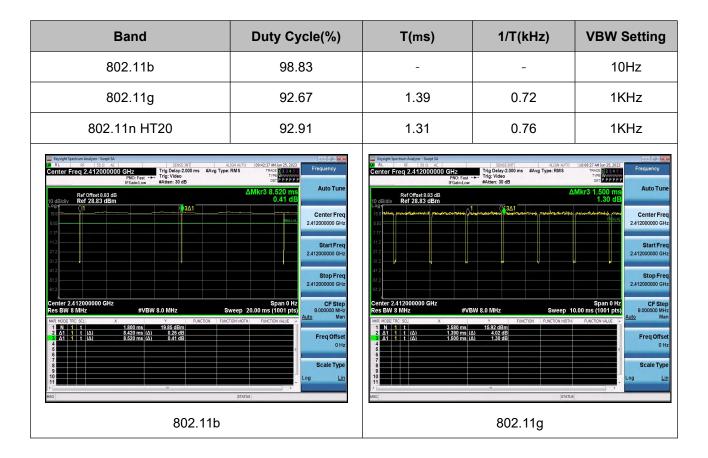


Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.

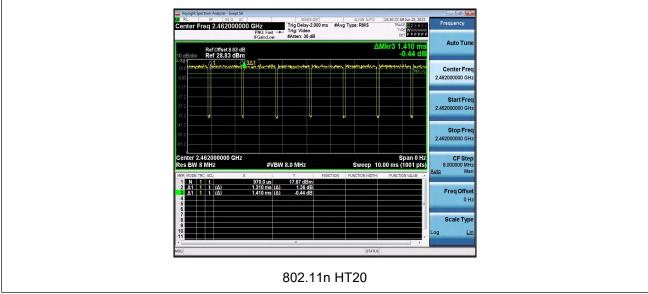
- 4. Set to the maximum power setting and enable the EUT transmit continuously.
- 5. Use the following spectrum analyzer settings:
  - (1) Span shall wide enough to fully capture the emission being measured;
  - (2) Set RBW=100 kHz for f < 1 GHz, RBW=1MHz for f>1GHz ; VBW≥3×RBW; Sweep = auto; Detector function = peak; Trace = max hold for peak
  - (3) For average measurement:

VBW = 10 Hz, when duty cycle is no less than 98 percent.

VBW  $\geq$  1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.





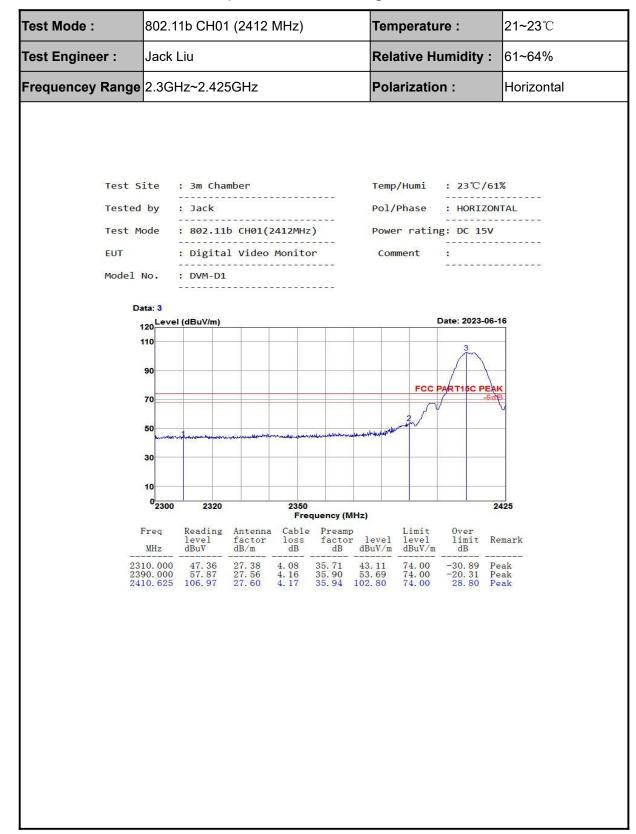


- 6. Corrected Reading: Antenna Factor + Cable Loss + Read Level Preamp Factor = Level
- 7. Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

#### 4.5.3 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

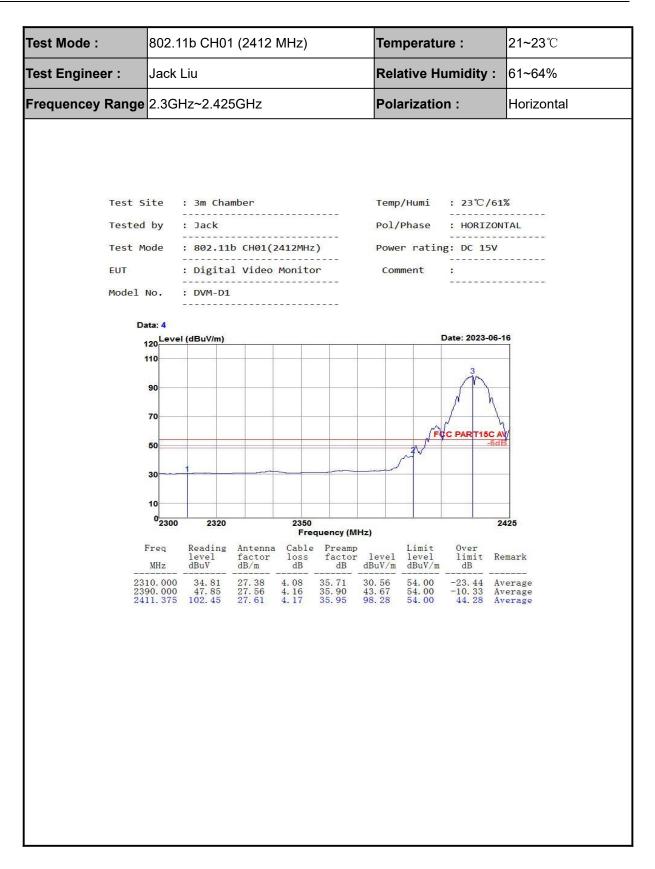
The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.



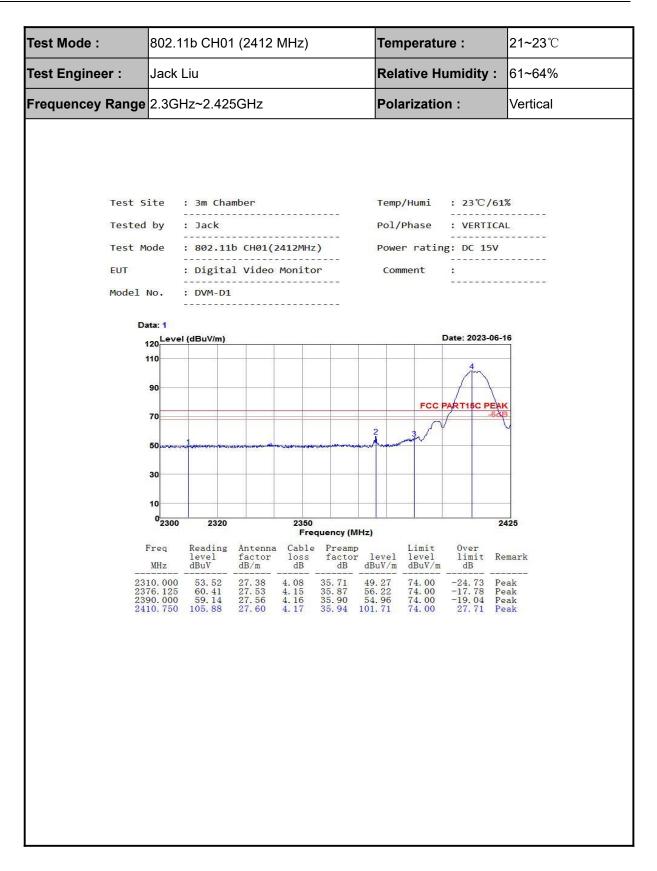


#### 4.5.4 Test Result of Radiated Spurious at Band Edges

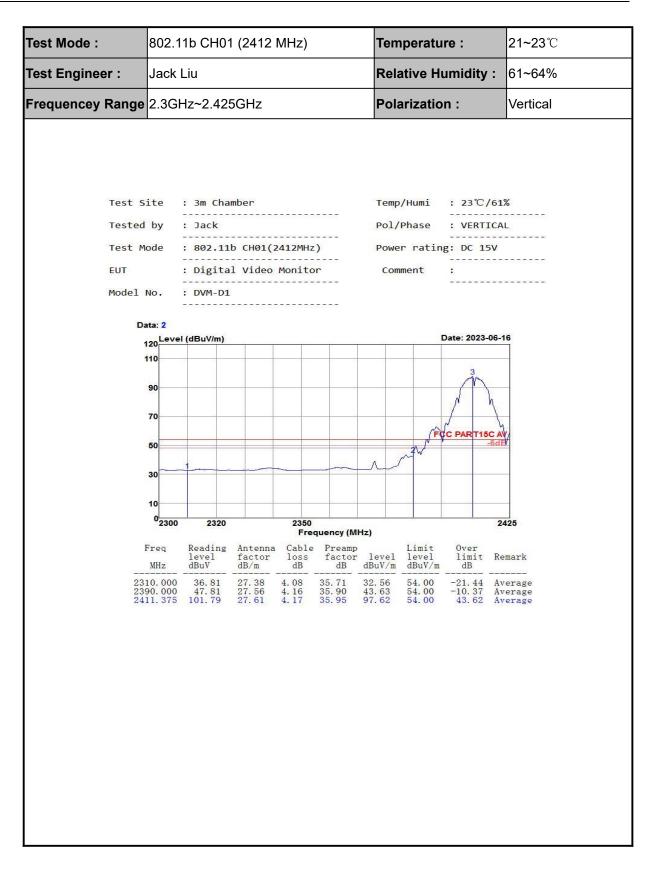




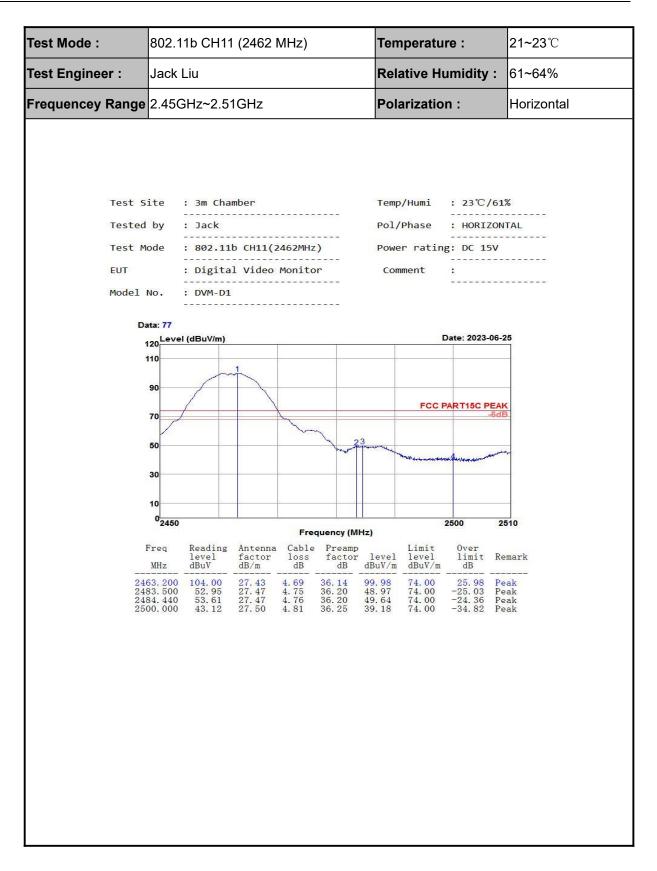




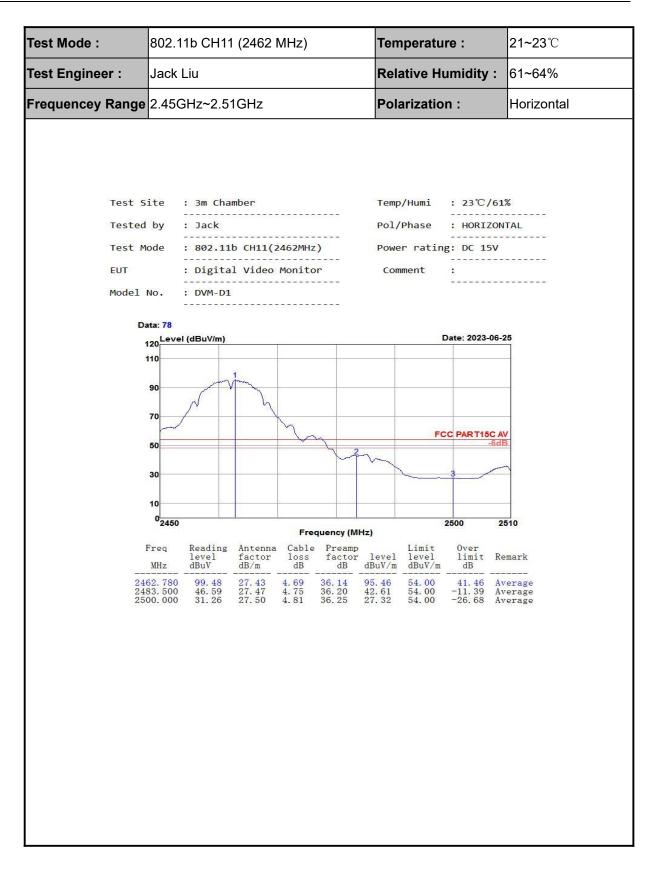




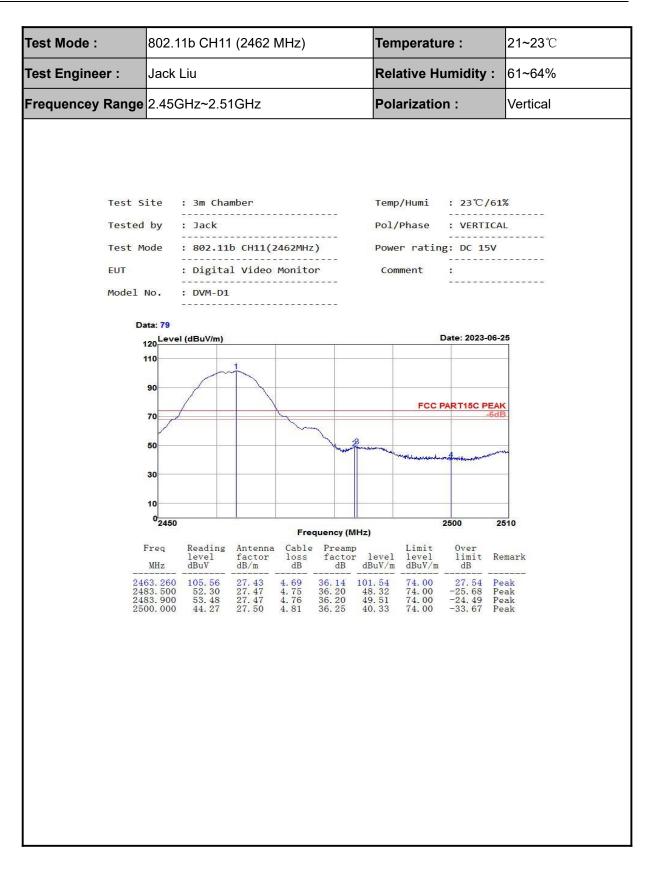




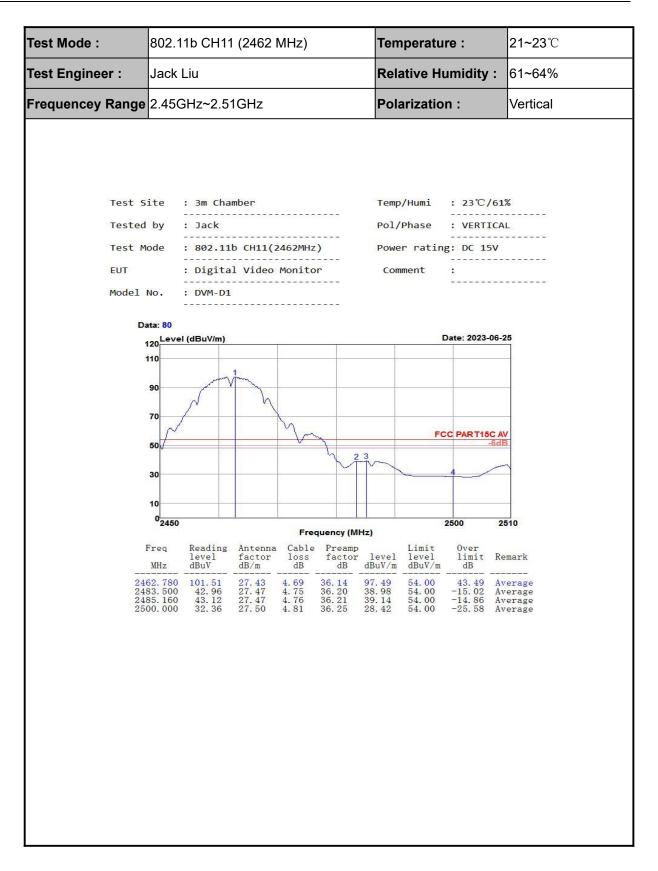




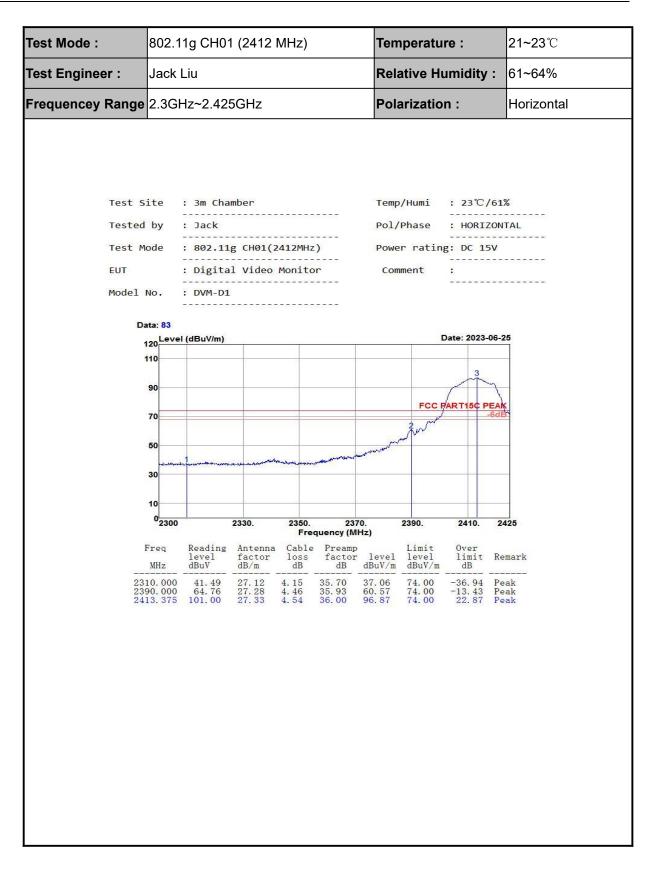




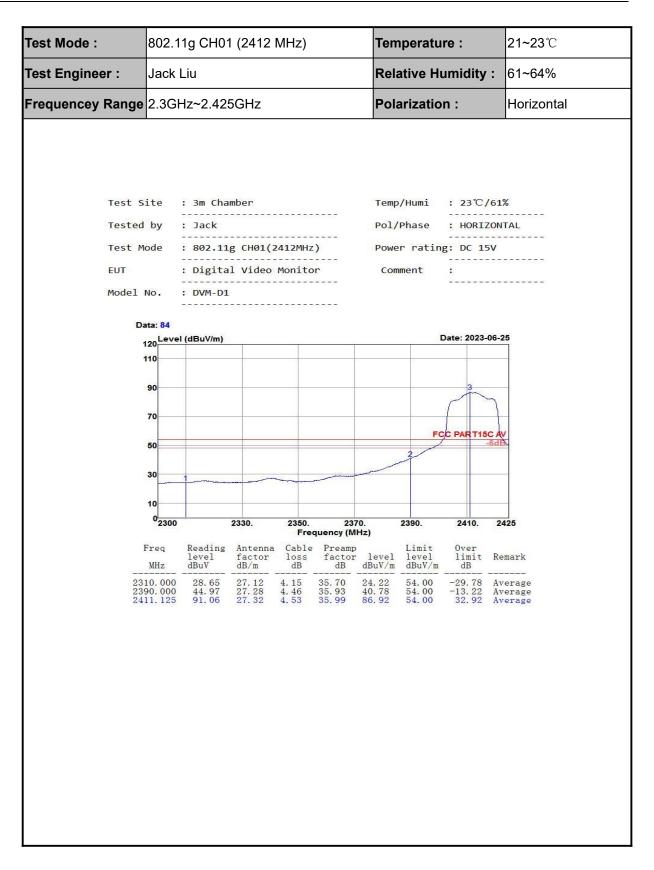




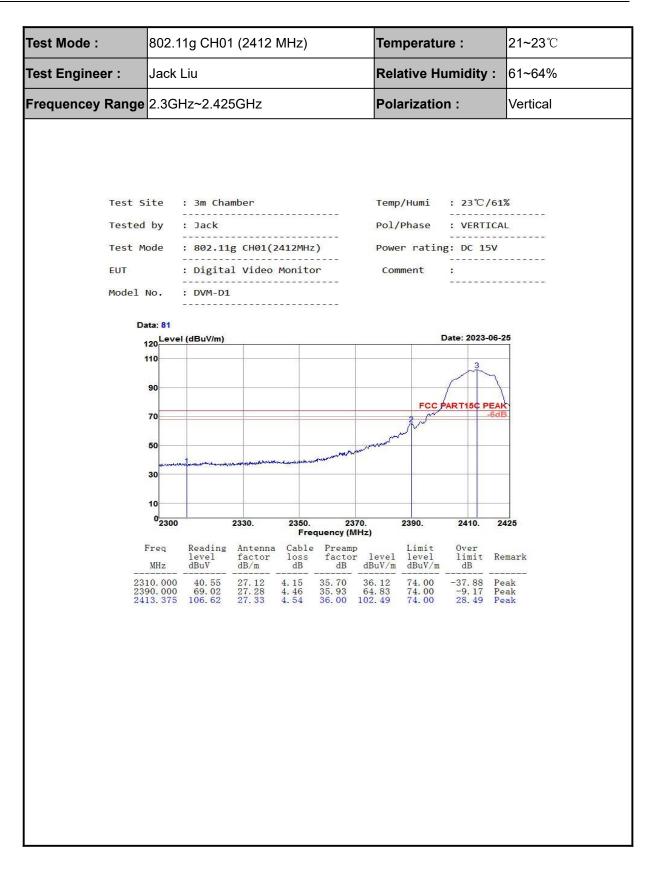




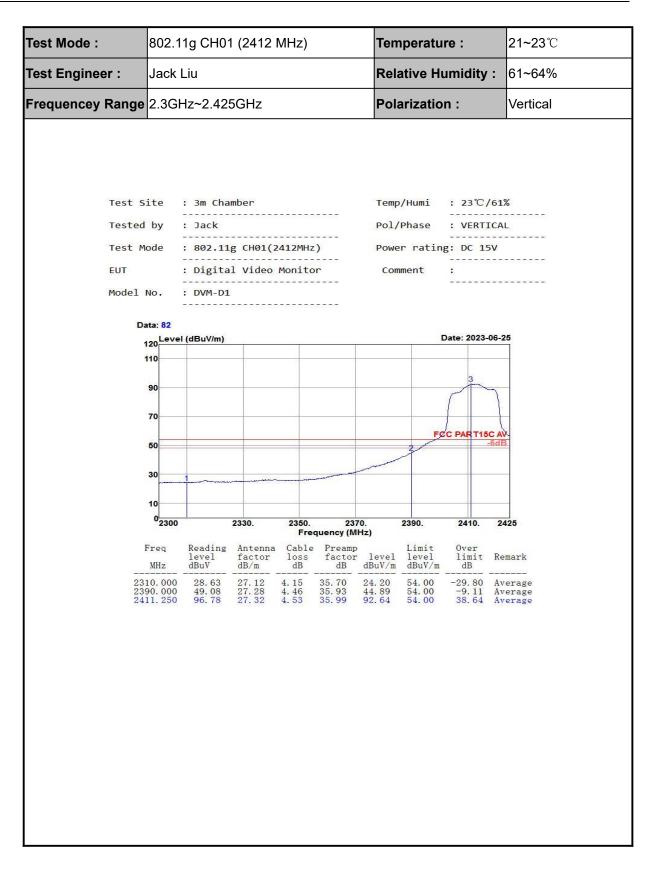




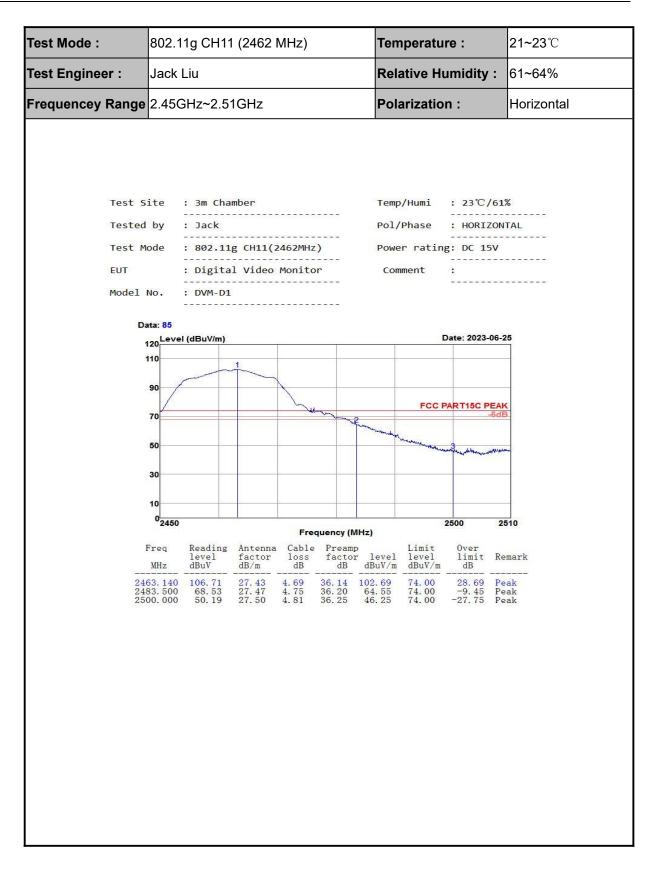




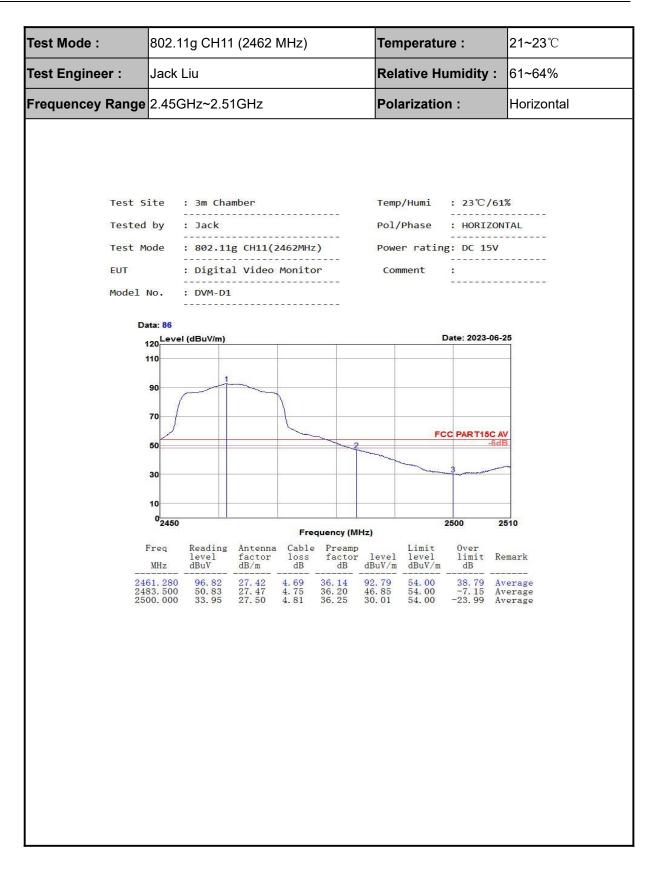




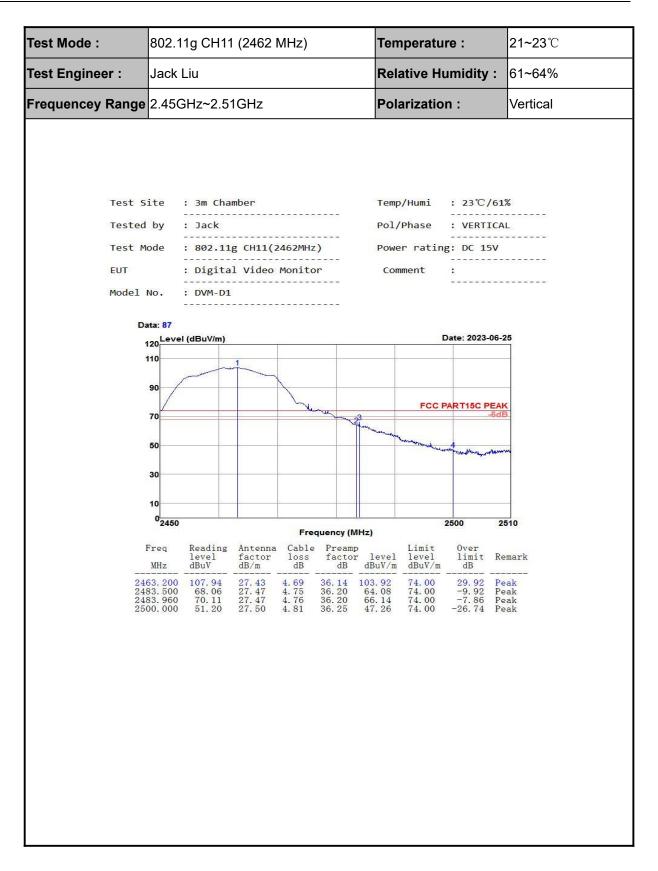




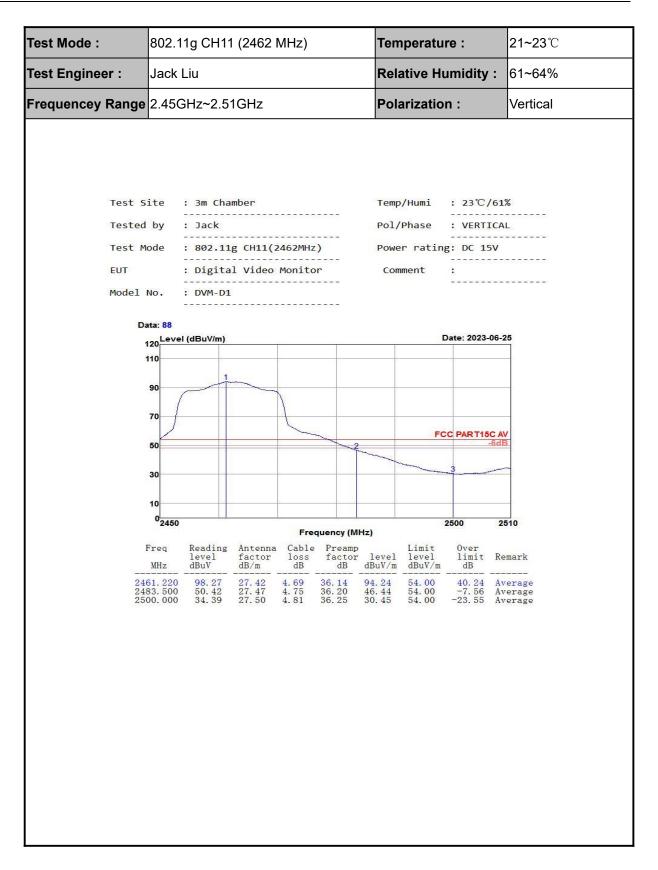








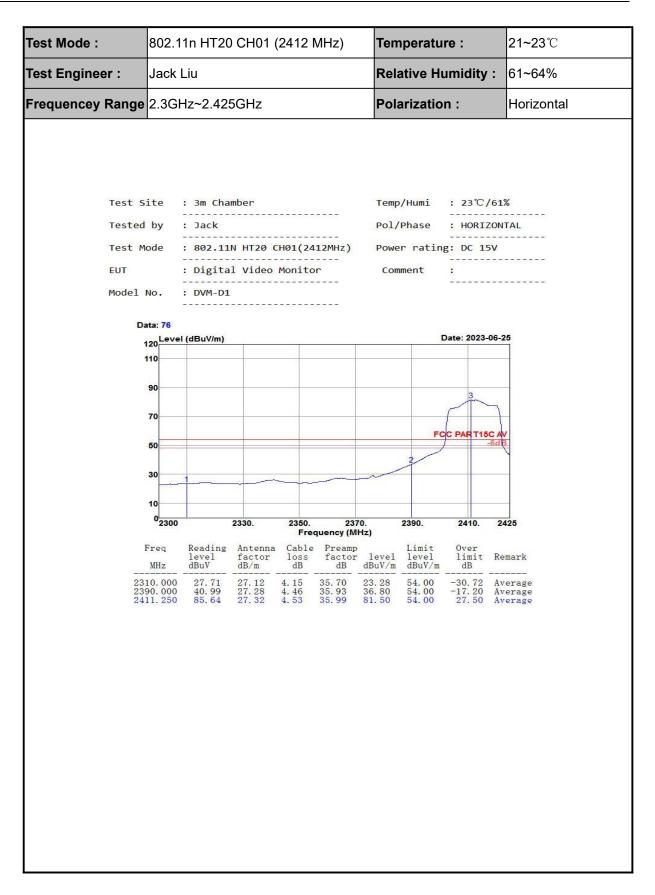




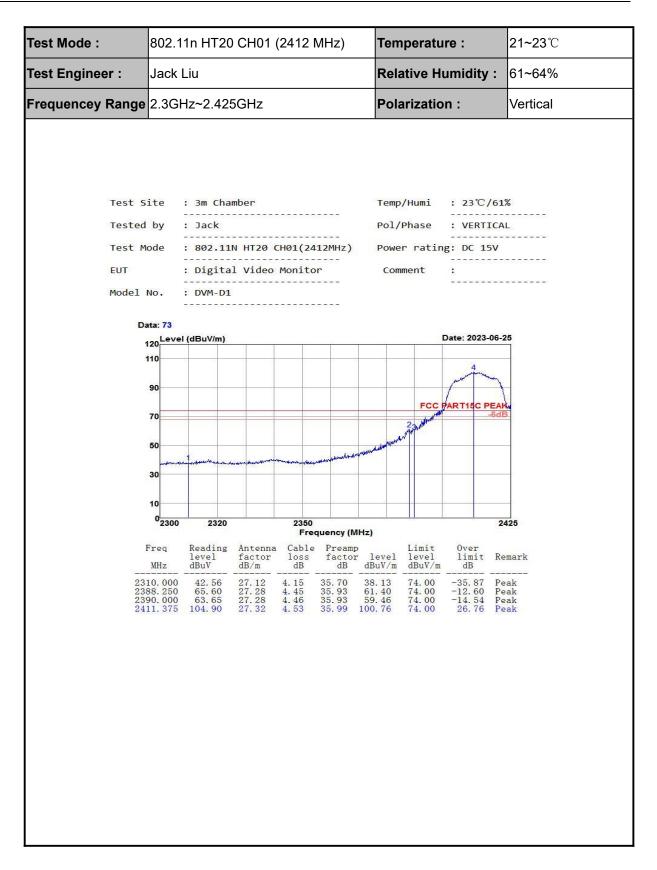




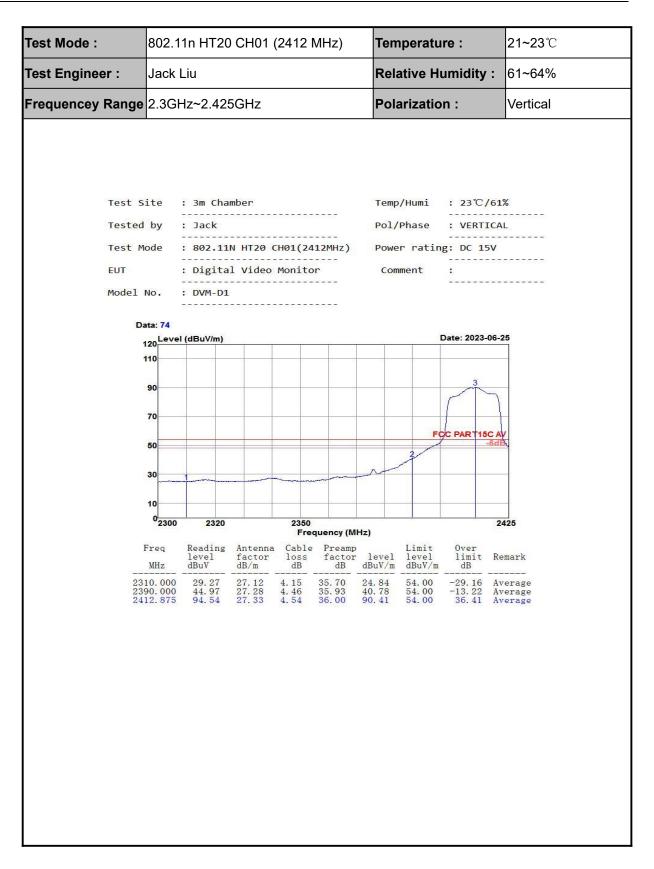




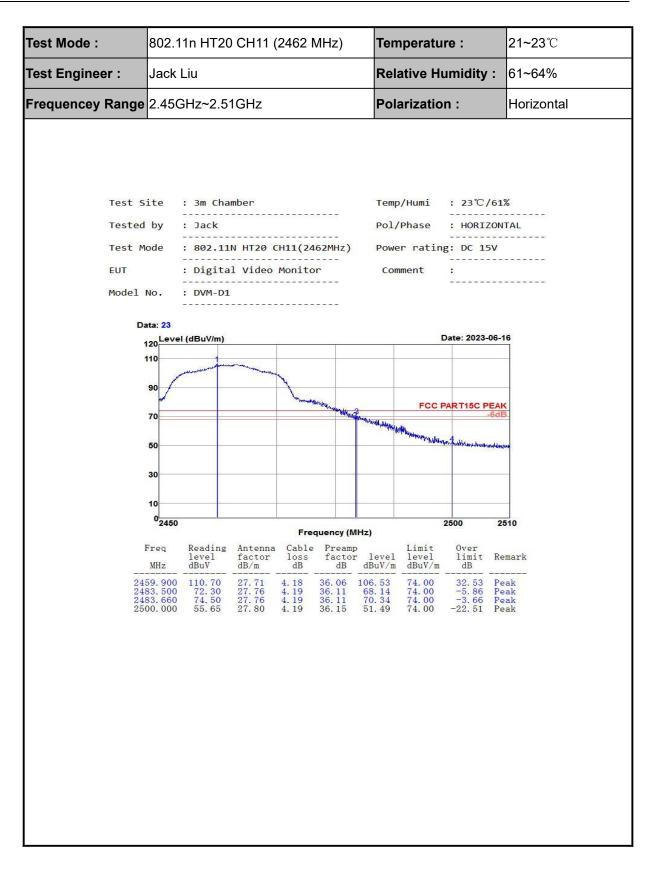




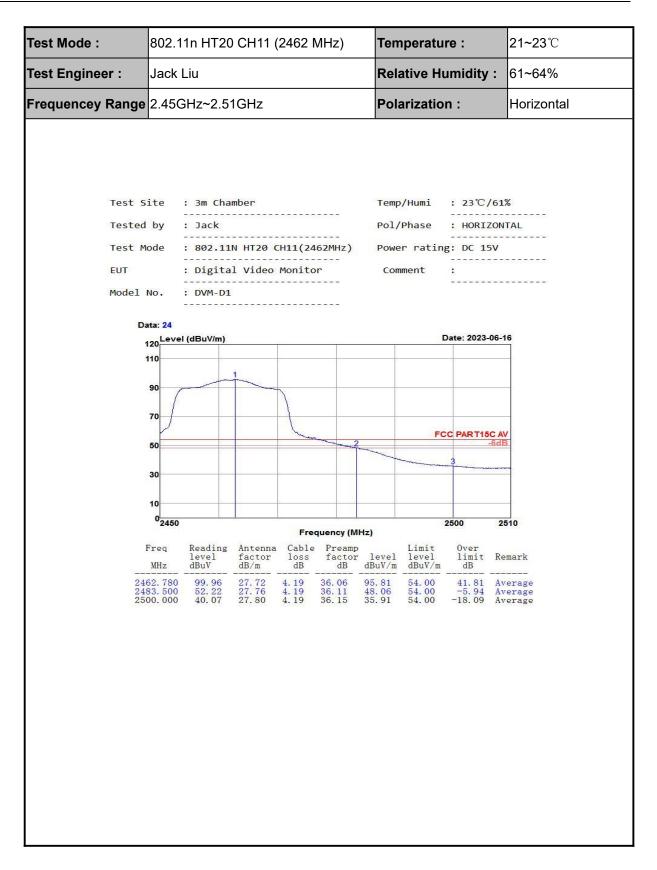




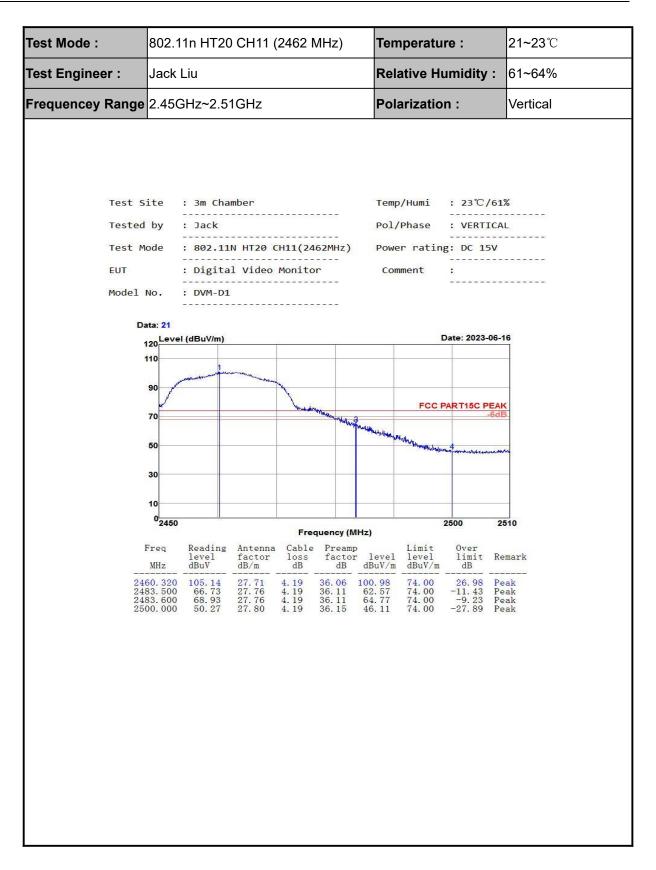




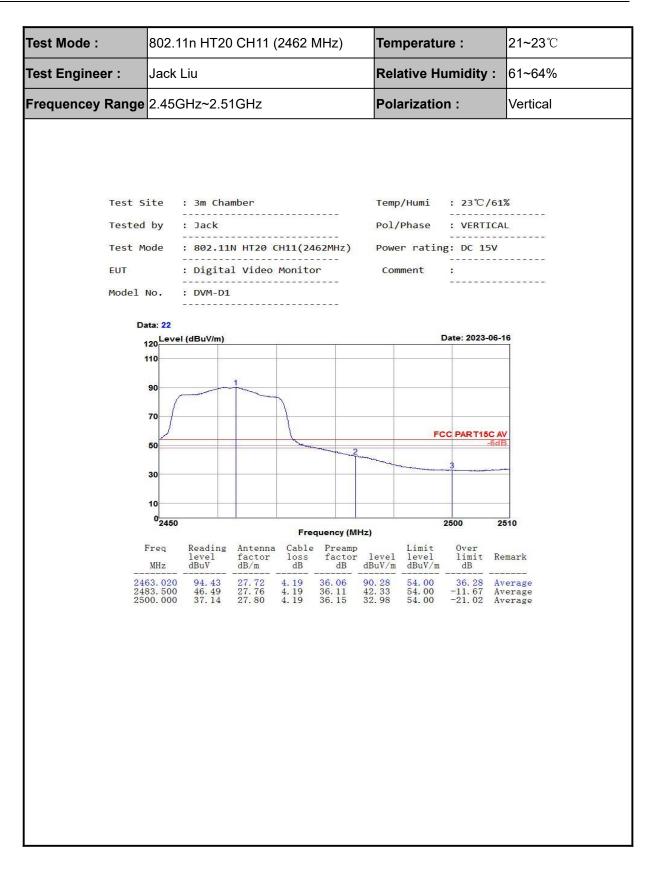










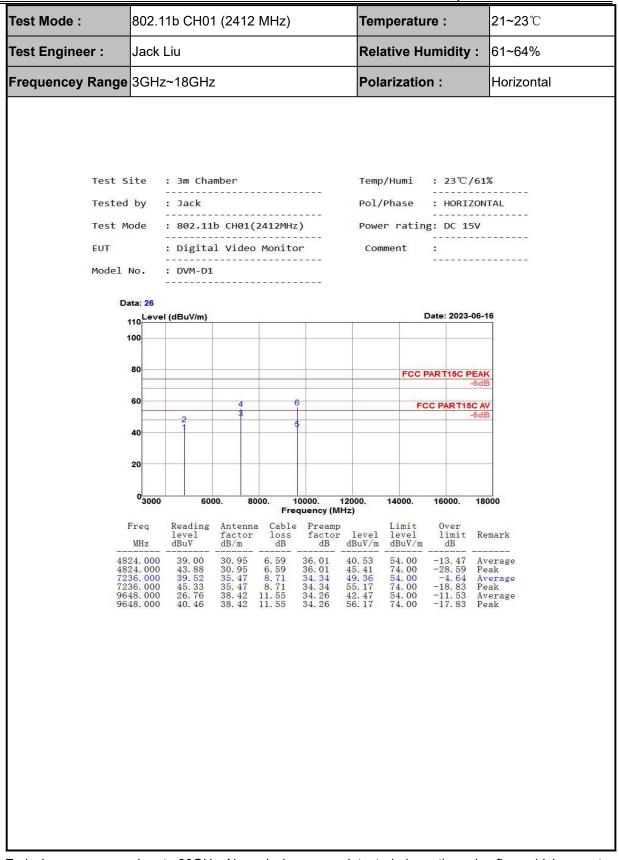




## 4.5.1 Test Result of Radiated Spurious Emission (1GHz ~ 10<sup>th</sup> Harmonic)

Test Mode :	802.1	1b CH01	(2412 N	ИHz)		Tem	nperatu	ire :	<b>21~23</b> ℃
lest Engineer :	Jack	Liu				Rela	ative H	umidity :	61~64%
Frequencey Range	1GHz	~3GHz				Pola	arizatio	on :	Horizonta
1	by bde No. ta: 56 20 Leve 10 90 70	: 802.11	b CH01(24 l Video I	412MHz) Monitor	)	Pol/ Powe	ment FCC	: 23°C/6 : HORIZO ng: DC 15V : Date: 2023-06 PART15C PE/	-25
								-60 CC PART15C	IB AV IB
	30	human	in a start and the	ahannon	and the second	uturoundu	andlount	Wellen moder	and a
	10								
	01000	1100 1200		1500 Freq	uency (MF	2000 Iz)			3000
F	req MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	factor		Limit level dBuV/m		lemark
241	.2. 000	99. 03	27. 32	4. 04	35. 99	94.90	74.00	20.90 F	еак

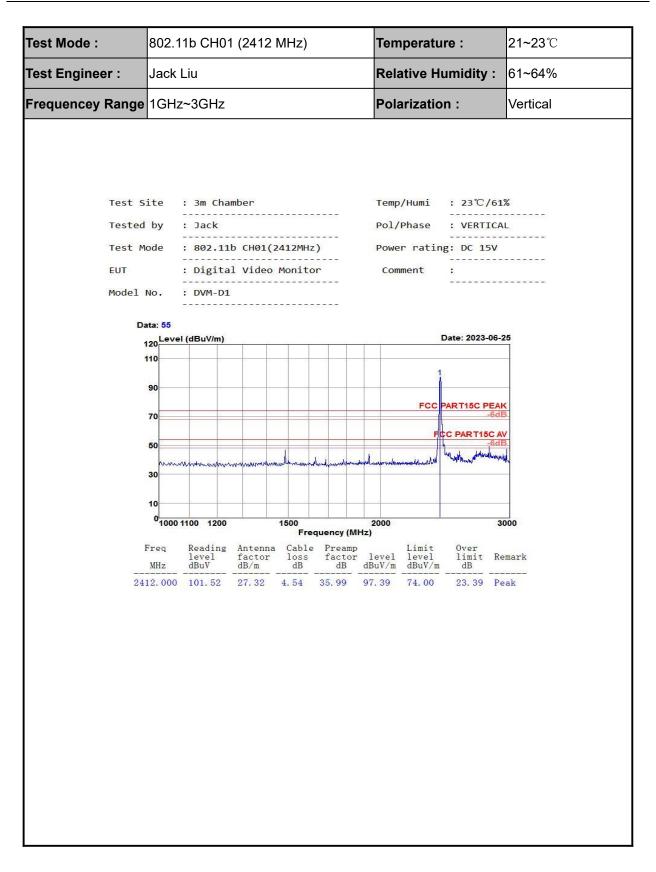




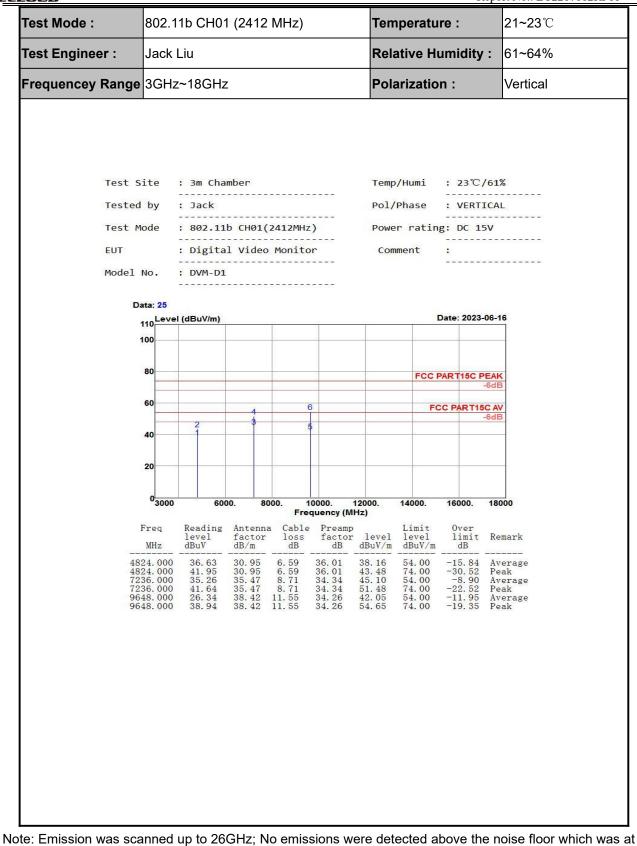
Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at

least 20dB below the specification limit.



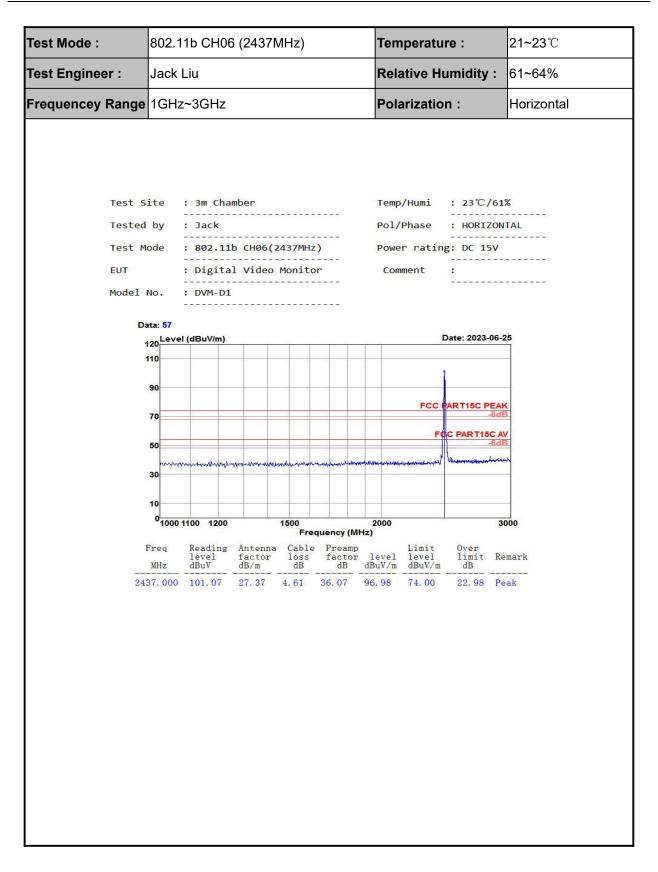




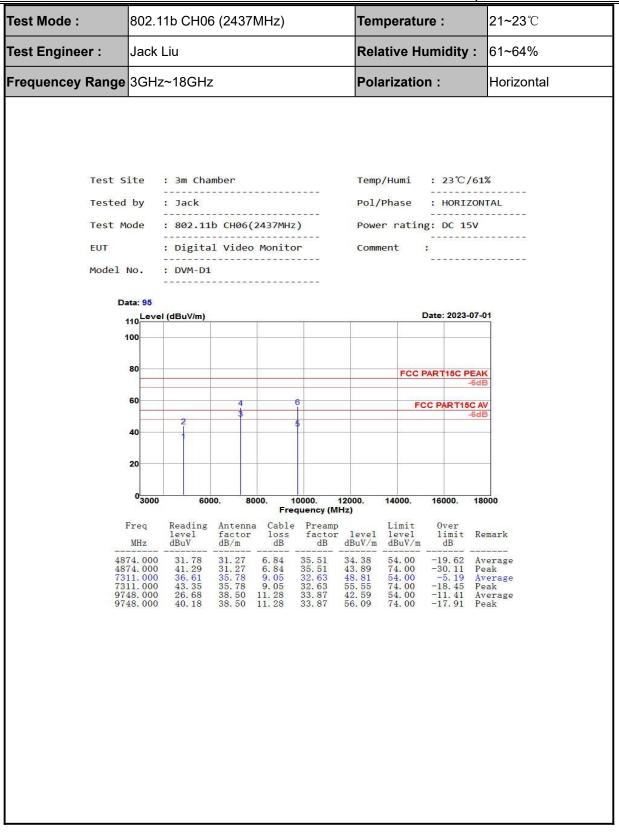


least 20dB below the specification limit.

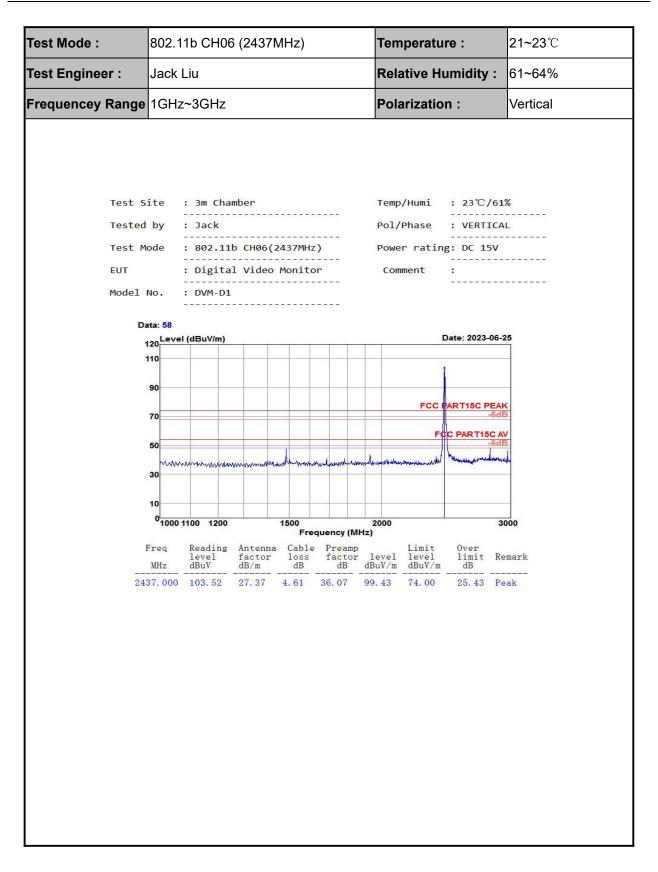








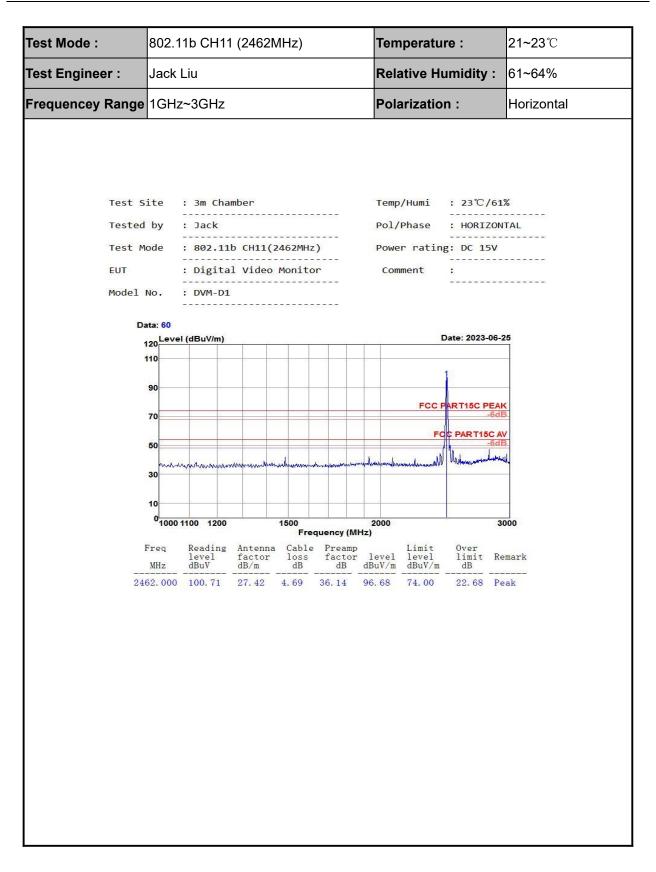






Test Mode :	802.1	1b CH06	6 (2437)	MHz)		Tem	peratu	re :	<b>21~23</b> ℃
lest Engineer :	Jack	Liu				Rela	ative H	umidity	: 61~64%
Frequencey Range	3GHz	~18GHz				Pola	arizatio	n :	Vertical
	•					•			
Test S	ite	: 3m Cha	mber			Temp	/Humi	: 23℃/	/61%
Tested	by	: Jack				Pol/	Phase	: VERT	
Test M	ode	: <mark>802.11</mark>				Powe	r ratin	g: DC 1	
EUT		: Digita				Comm	ent	:	
Model	No.	: DVM-D1							
D	ata: 96								
		(dBuV/m)					I	Date: 2023-	07-01
	100								
	80					- C-	FCC F	PART15C P	
	60		4		6		FC	C PART15	-6dB
	40	2	3		5				-6dB
	20								
	03000	600	0. 80		0000. quency (M	12000. Hz)	14000.	16000.	18000
	Freq	Reading level	factor	Cable loss	Preamp factor	level	Limit level		Remark
	MHz 74.000	dBuV 35.81	dB/m 31.27	dB 6.84	dB 35. 51	38. 41	dBuV/m 54.00		Average
73	74.000 11.000 11.000	40.93 35.74 42.42	31.27 35.78 35.78	6.84 9.05 9.05	35.51 32.63 32.63	43.53 47.94 54.62	74.00 54.00 74.00	-30.47 -6.06 -19.38	Average
97	48.000 48.000	26.53 39.67	38.50	11.28	33. 87 33. 87	42.44 55.58	54.00 74.00	-11.56 -18.42	Average

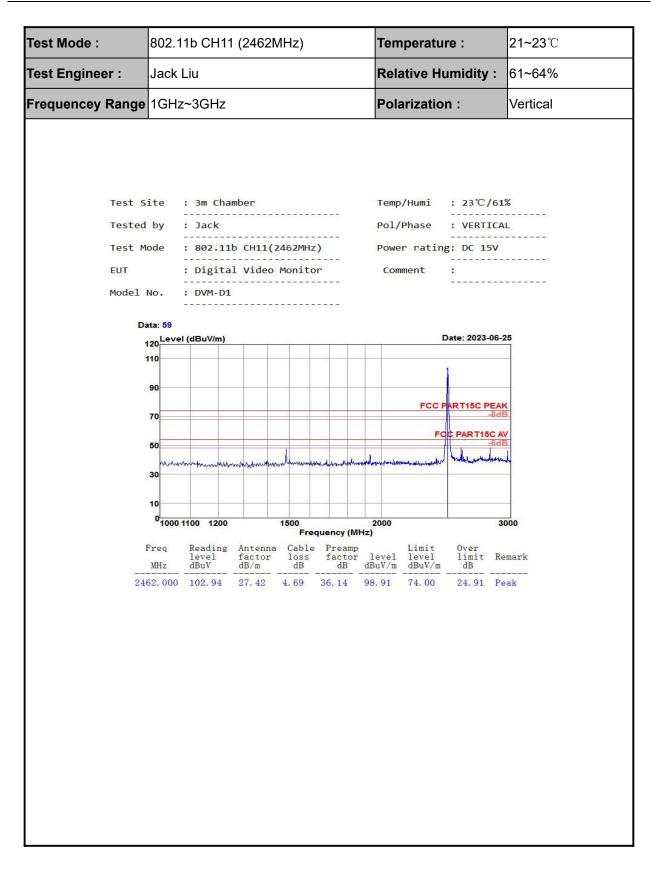






est Engineer :  Jack Liu  Relative Humidity :  61~64%    requencey Range  3GHz~18GHz  Polarization :  Horizontal    Test Site :  3m Chamber  Temp/Humi :  23°C/61%    Tested by :  Jack  Pol/Phase :  HORIZONTAL    Test Mode :  802.11b CH11(2462MHz)  Power rating: DC 15V  EUT    EUT :  Digital Video Monitor  Comment :  Comment :    Model No.  :  DVM-D1  Date: 2023-07-01    100  100  100  100  100    80  PCC PART18C PEAK  Pol/PEAK	Test Mode :	802.1	1b CH11	(2462	MHz)		Tem	peratu	re :	<b>21~23</b> ℃
Test Site  : 3m Chamber  Temp/Humi  : 23°C/61%    Tested by  : Jack  Pol/Phase  : HORIZONTAL    Test Mode  : 802.11b CH11(2462MHz)  Power rating: DC 15V    EUT  : Digital Video Monitor  Comment  :    Model No.  : DVM-D1	est Engineer :	Jack	Liu				Rela	ative Hu	umidity	: 61~64%
Tested by  : Jack  Pol/Phase  : HORIZONTAL    Test Mode  : 802.11b CH11(2462MHz)  Power rating: DC 15V    EUT  : Digital Video Monitor  Comment    Model No.  : DVM-D1    Data: 94    110  Level (dBuV/m)    80  Date: 2023-07-01    80  FCC PART15C PEAK	Frequencey Range	3GHz	~18GHz				Pola	arizatio	n :	Horizontal
60 4 6 FCC PART15C AV	Tested Test M EUT Model Da	by ode No. ata: 94 110 80	: Jack : 802.11 : Digita : DVM-D1	b CH11(:	2462MHz Monito	) 	Pol/ Powe	Phase r ratin ent	: HORIZ g: DC 15 : 	007-01
		0 <mark>3000</mark>	600	0. 80				14000.	16000.	18000
0 3000 6000. 8000. 12000. 12000. 14000. 16000. 18000 Frequency (MHz)		Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable	Preamp	level	Limit level dBuV/m	Over limit dB	Remark
<b>Frequency (MHz)</b> Freq Reading Antenna Cable Preamp Limit Over level factor loss factor level level limit Remark	49 73 73	24.000 24.000 86.000 86.000 48.000 48.000	28. 11 40. 76 33. 12 41. 05 26. 72 40. 19	31.36 31.36 35.95 35.95 38.54 38.54	11.54	34.04	31.22 43.87 45.69 53.62 42.76	54.00 74.00 54.00 74.00	-30.13	Average Peak Average

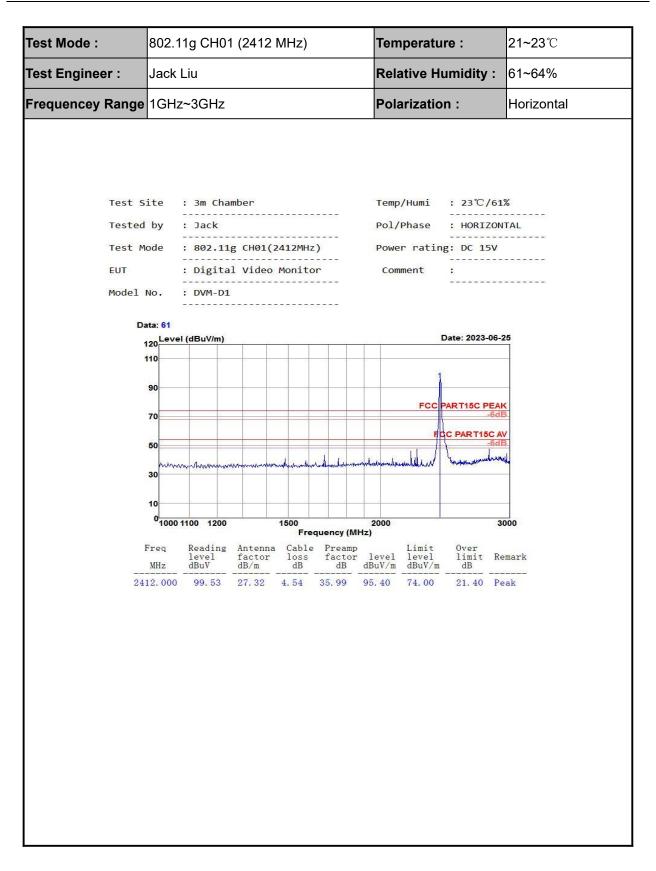




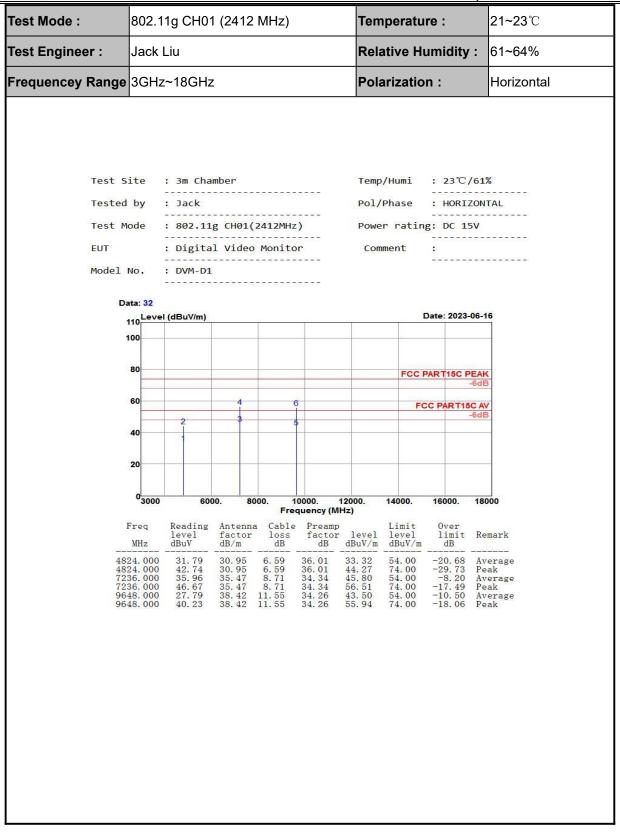


Test Mode :	802.1	1b CH11	(2462	MHz)		Tem	peratu	re :	<b>21~23</b> ℃
fest Engineer :	Jack I	Liu				Rela	ative H	umidity	: 61~64%
Frequencey Range	3GHz	~18GHz				Pola	arizatio	n :	Vertical
	by ode No. ata: 93	: 3m Char : Jack : 802.111 : Digita : DVM-D1	b CH11( l Video	2462MHz Monito	:) pr	Pol/		/61% ICAL SV	
	110 100	(dBuv/m)						Jale. 2023-	07-01
	80						FCC F	PART15C P	EAK -6dB
	60		4		6		FC	C PART15	
	40	2	3		5				-6dB
	2000								
	20								
	0 <mark>3000</mark>	600	10. <mark>8</mark> 0		0000. quency (M	12000. Hz)	14000.	16000.	18000
1	Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable		level	Limit level dBuV/m	Over limit dB	Remark
492 738 738 984	24.000 24.000 86.000 86.000 48.000 48.000	29.03 41.16 33.27 41.96 26.78 40.25		11.54	35.51 35.51 32.76 32.76 34.04 34.04	42.82	54.0074.0054.0074.0054.0074.0074.00	-29.73	Average Peak Average

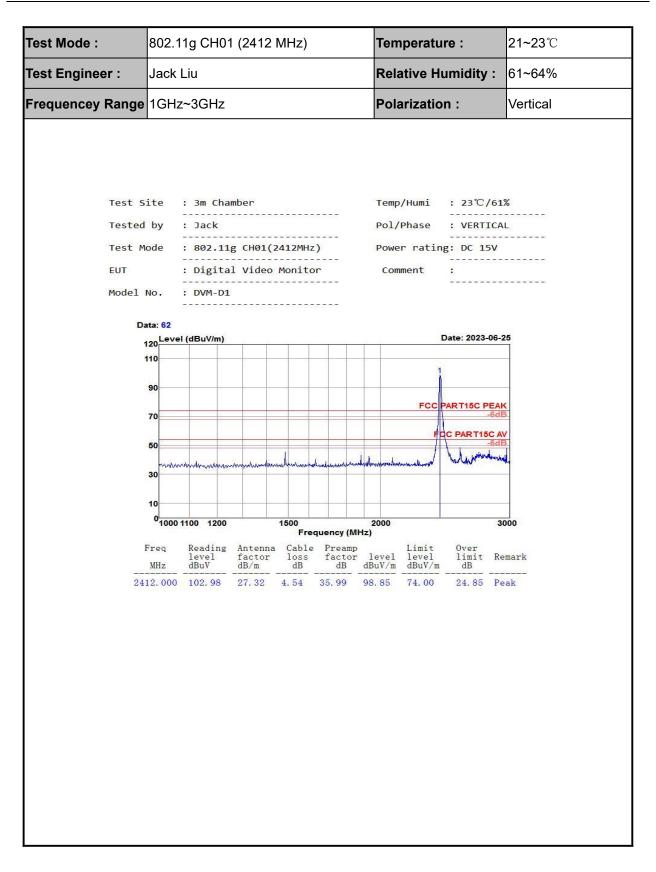








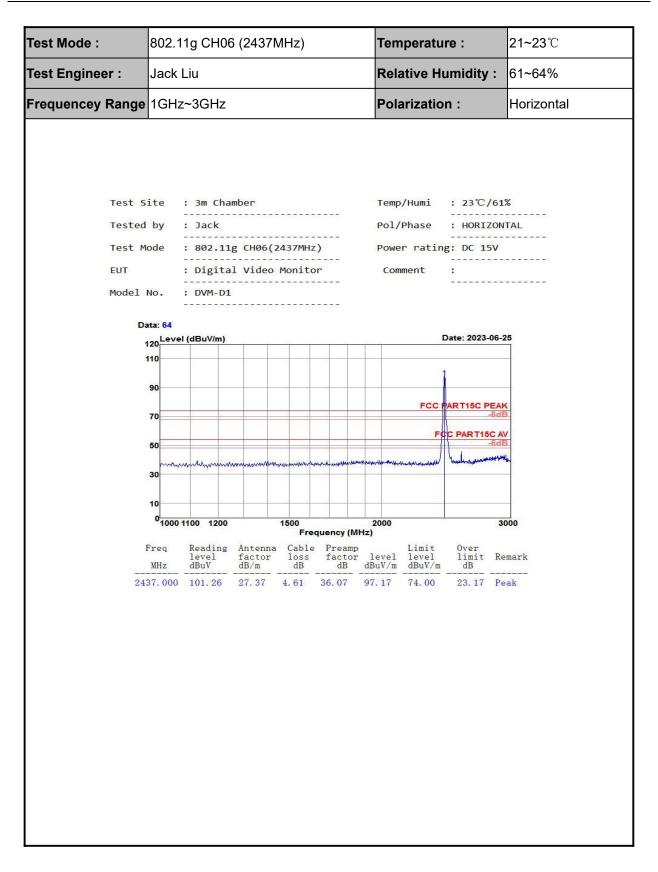






Tested by: JackPol/Phase: VERTICATest Mode: 802.11g CH01(2412MHz)Power rating: DC 15VEUT: Digital Video MonitorCommentModel No.: DVM-D1	
Test Site : 3m Chamber Temp/Humi : 23°C/61 Tested by : Jack Pol/Phase : VERTICA Test Mode : 802.11g CH01(2412MHz) Power rating: DC 15V EUT : Digital Video Monitor Comment : Model No. : DVM-D1	% 
Tested by: JackPol/Phase: VERTICATest Mode: 802.11g CH01(2412MHz)Power rating: DC 15VEUT: Digital Video MonitorComment:Model No.: DVM-D1	
Data: 31 110 100 80 80 100 100 100 100	16
60 4 6 FCC PART15C A	
40 <u>2</u> <u>3</u> <u>5</u> <u>-6dt</u>	3
20	
0 3000 6000. 8000. 10000. 12000. 14000. 16000. 180 Frequency (MHz)	000
Freq Reading Antenna Cable Preamp Limit Over level factor loss factor level level limit Re MHz dBuV dB/m dB dB dBuV/m dBuV/m dB	emark
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	eak verage eak verage

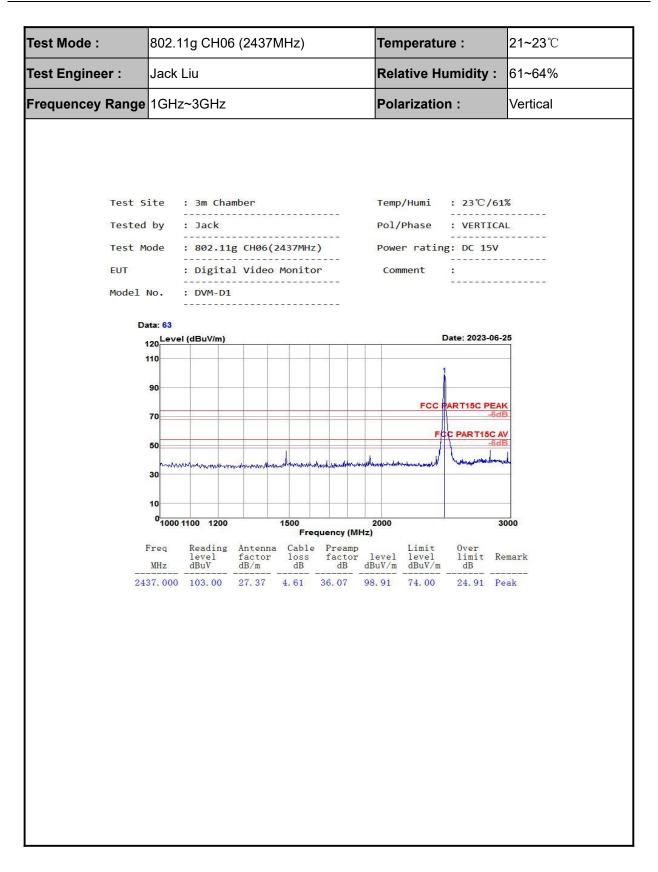






Fest Mode :	802.1	1g CH06	6 (2437 <b>1</b>	MHz)		Tem	peratu	ire :	<b>21~23</b> ℃		
est Engineer :	Jack	Liu				Rela	ative H	umidity	v: 61~64%		
Frequencey Range	3GHz	~18GHz				Pola	arizatio	on :	Horizontal		
Test S Tested Test M EUT Model	by ode	: Jack : 802.11 : Digita	g CH06(2 l Video	2437MHz Monito	) r	Pol/ Powe	Temp/Humi : 23°C/61% Pol/Phase : HORIZONTAL Power rating: DC 15V Comment :				
D	ata: 33										
		l (dBuV/m)						Date: 2023-	-06-16		
	100										
	80						FCC	PART15C F			
	60		4		6		F	CC PART15	-6dB		
	40	2	3		5				-6dB		
	20										
	0 <mark>3000</mark>	600	0. <mark>8</mark> 0		0000. quency (Mi	12000. Hz)	14000.	16000.	18000		
	Freq	Reading level	Antenna factor	Cable	Preamp		Limit level	Over limit	Remark		
	MHz 74.000	dBuV 31.77	dB/m 31.02	dB 6.97	dB 35.98	dBuV/m 33.78	dBuV/m 54.00	dB -20.22	Average		
48 73 73	74.000 11.000 11.000	42.18 35.65 46.95	31.02 35.65 35.65	6.97 8.95 8.95	35.98 34.41 34.41	44.19 45.84 57.14	74.00 54.00	-29.81	Peak Average		
97 97	48.000 48.000	27.97 40.28	38.50 38.50	11.20	34.30 34.30	43.37 55.68	54.00 74.00		Average		

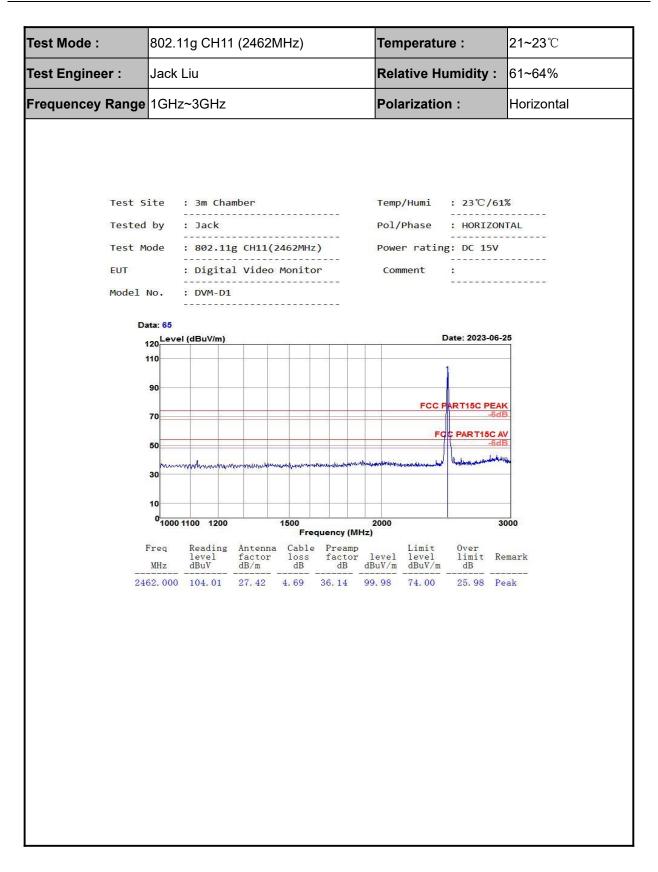






Test Mode :	802.1	1g CH06	6 (2437)	MHz)		Tem	peratu	re :	<b>21~23</b> ℃
lest Engineer :	Jack	Liu				Rela	ative H	umidity	: 61~64%
Frequencey Range	3GHz	~18GHz				Pola	arizatio	n :	Vertical
						·			
Test	Site	: 3m Cha	mber			Temp	/Humi	: 23℃,	/61%
Teste	l by	: Jack					Phase	: VERT	ICAL
Test M	lode	: 802.11	g СНØ6(2	2437MHz	)	Powe	r ratin	g: DC 1	
EUT		: <mark>Dig</mark> ita	l Video		r	Com	ment	:	
Model	No.	: DVM-D1							
	ata: 34								
	100000	(dBuV/m)						Date: 2023-	-06-1 <mark>6</mark>
	100			C				-	
	80						FCC	PART15C P	EAK
	60		4		6		FC	C PART15	
	40	2	3		5				-6dB
	2000								
	20								
	0 <mark>3000</mark>	600	IO. 80		0000. quency (M	12000. Hz)	14000.	16000.	18000
	Freq	Reading level	factor	Cable loss	Preamp factor	level			Remark
	MHz 374.000	dBuV 30. 76	dB/m 31.02	dB 6.97	dB 35. 98	32.77	dBuV/m 54.00	dB -21.23	
73	374.000 311.000 311.000	41.56 34.30 41.79	31.02 35.65 35.65	6.97 8.95 8.95	35.98 34.41 34.41	43.57 44.49 51.98	74.00 54.00 74.00	-30.43 -9.51 -22.02	Average
97	48.000 48.000	27.88 39.52		11.20	34.30		54.00 74.00	-10.72 -19.08	Average

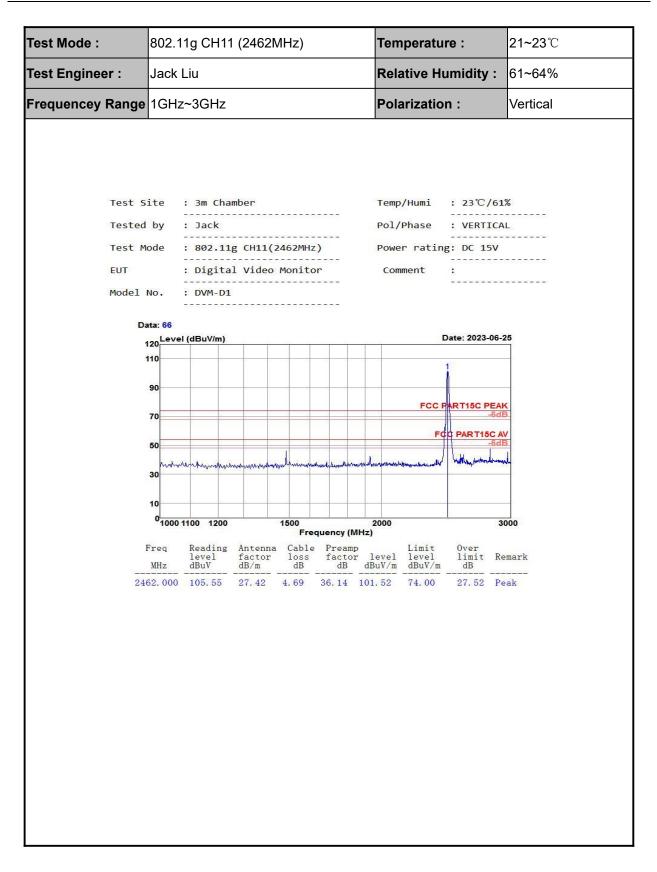






Test Mode :	802.1	1g CH11	(2462)	ИHz)		Tem	peratu	ire :	<b>21~23</b> ℃
Test Engineer :	Jack	Liu				Rela	ative H	umidity	: 61~64%
Frequencey Range	3GHz	~18GHz				Pola	arizatio	on :	Horizonta
Test S			mber 				/Humi		
Tested Test M		: Jack					Phase		
EUT		: 802.11 : Digita					ment	ng: DC 1	
Model						com			
	ata: 92	l (dBuV/m)						Date: 2023-	06-25
	100								
	80							DAD THE O	
							FCC	PART15C F	-6dB
	60		4		6		F	CC PART15	-6dB
	40	2	3		5				
	20								
	0								
	0 <sup>1</sup> 3000	600	i0. 80i		0000. quency (M	12000. Hz)	14000.	16000.	18000
	Freq MHz	Reading level dBuV	Antenna factor dB/m		Preamp factor dB	level	Limit level dBuV/m		Remark
	24.000	29.58 40.77	31.36 31.36	6. 04 6. 04	35. 51 35. 51	31.47 42.66	54.00 74.00		Average Peak
73 73	86.000 86.000	30.14 42.13	35.95 35.95	6.17 6.17	32.76 32.76	39.50 51.49	54.00 74.00	-14.50 -22.51	Average Peak
98	48.000 48.000	$27.31 \\ 40.54$	38.54 38.54	7.73	$34.04 \\ 34.04$	39.54 52.77	54.00 74.00	-14.46 -21.23	Average Peak

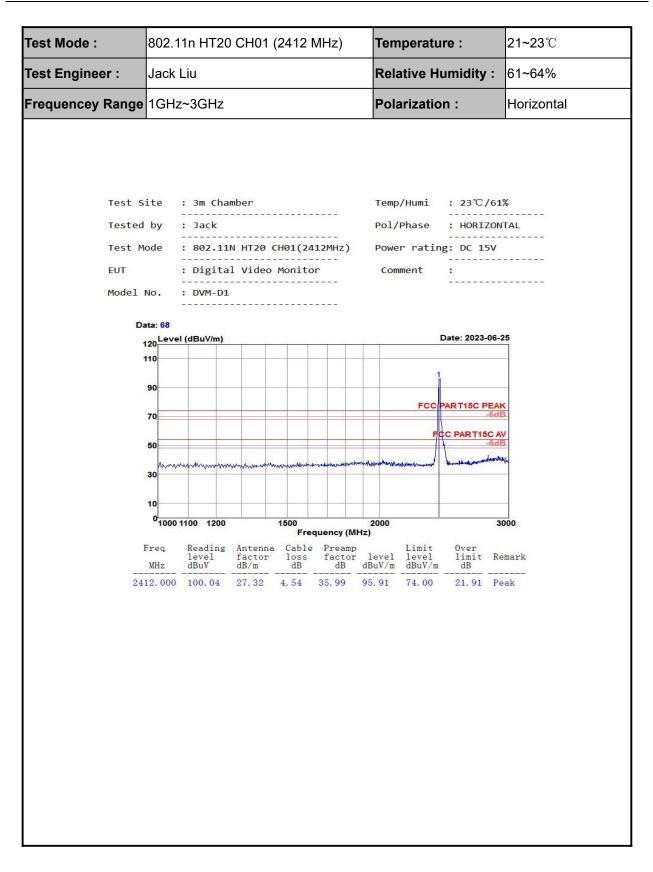




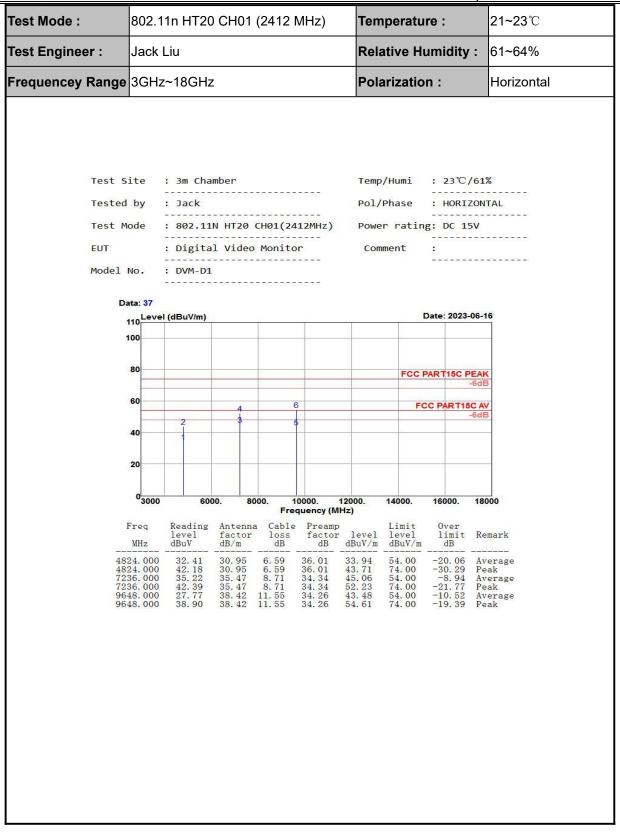


Fest Mode :	802.1	1g CH11	(2462)	ИHz)		Tem	peratu	ire :	21-
fest Engineer :	Jack	Liu				Rela	ative H	umidity	: 61 <sup>-</sup>
Frequencey Range	3GHz	~18GHz	:			Pola	arizatio	on :	Vei
Test S	ite	: 3m Cha	mber			Temp	/Humi	: 23°C,	/61%
Tested							Phase	: VERT	
Test M	ode	: <mark>802.11</mark>	g CH11(2	2462MHz		Powe	r ratir	g: DC 1	5 <mark>V</mark>
EUT		: Digita	l Video	Monito		Com	ment		
Model	No.	: DVM-D1							
	ata: 91								
	and the second s	l (dBuV/m)						Date: 2023-	-06-25
	100								
	80						FCC	PART15C P	-6dB
	60		4		6		F	CC PART15	IC AV
	40	2	3		5				-6dB
	20								
	03000	600	0. 80		0000. quency (M	12000. Hz)	14000.	16000.	18000
	Freq MHz	Reading level dBuV	Antenna factor dB/m		Preamp factor dB	level	Limit level dBuV/m		Remark
	24. 000 24. 000	32.13 40.89	31.36 31.36	6. 04 6. 04	35.51 35.51	34. 02 42. 78	54.00 74.00		Averag
73 73	86.000 86.000	30.50 44.12 27.30	35.95 35.95 38.54	6.17 6.17	32.76 32.76 34.04	39.86 53.48	54.00 74.00		Averag Peak
98	48.000	41.35	38.54	7.73	34.04	53. 58	54.00 74.00	-20.42	Peak

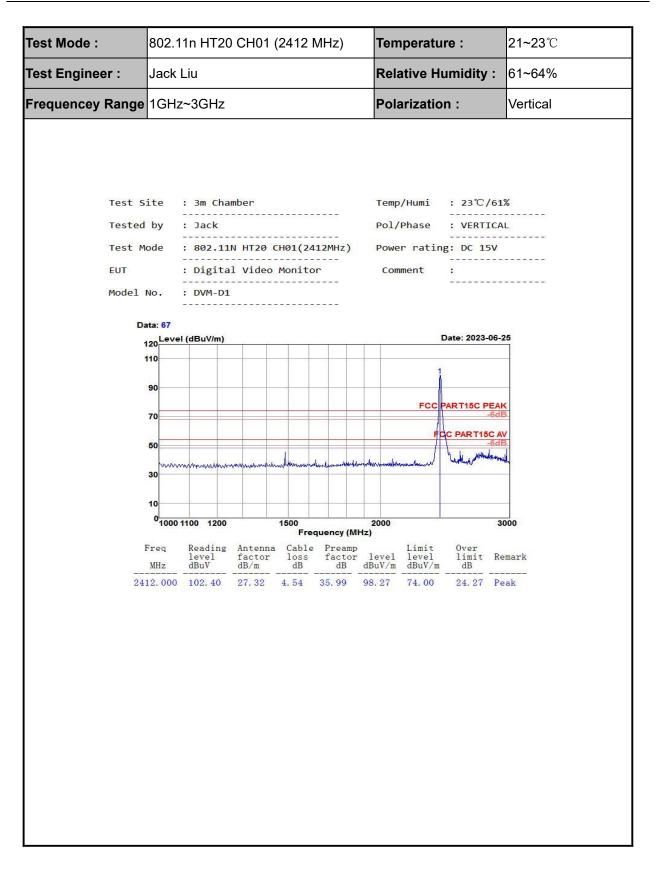








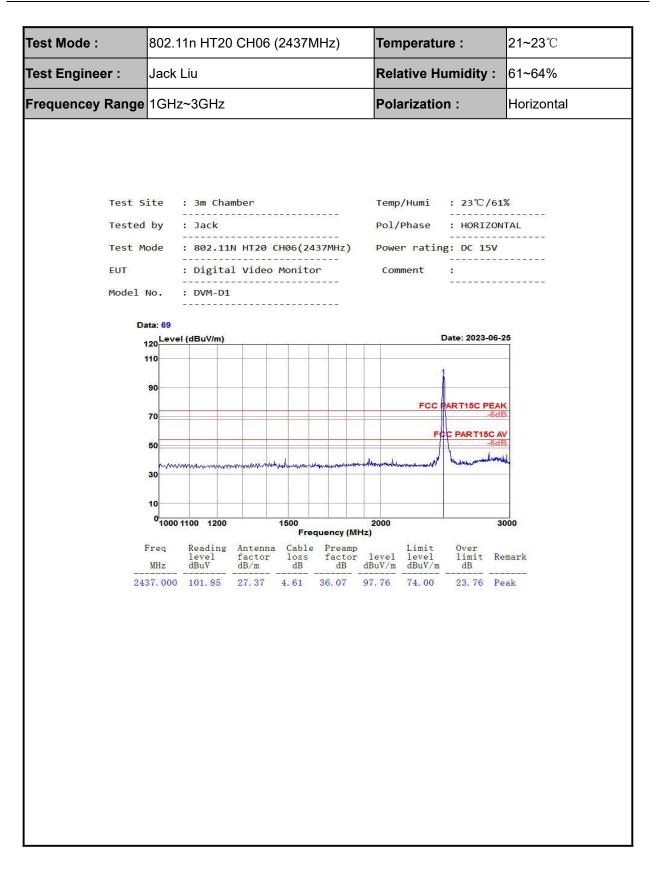




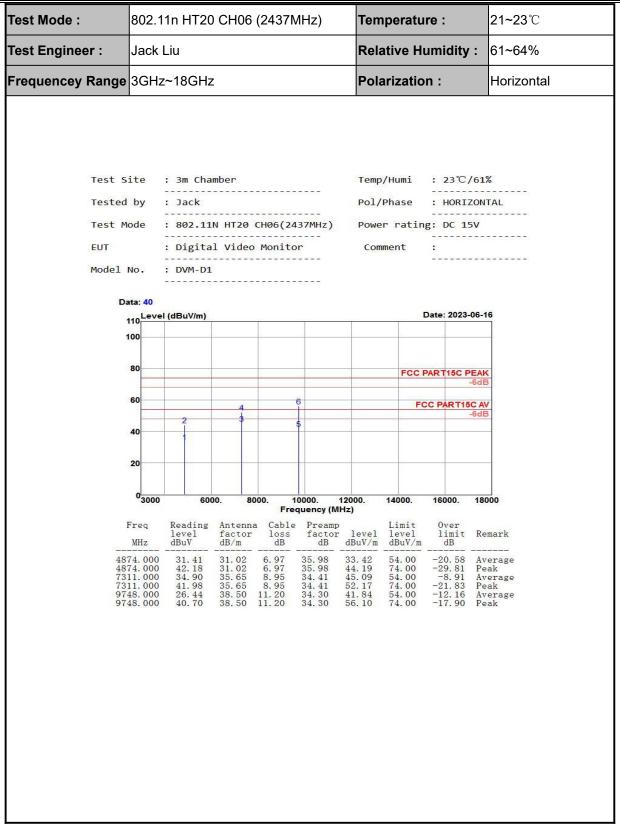


Test Mode :	802.1	1n HT20	CH01	(2412	MHz)	Tem	peratu	ire :	21~
est Engineer :	Jack	Liu				Rela	Relative Humidity :		
requencey Range	3GHz	~18GHz				Pola	arizatio	on :	Ver
Test		: 3m Cha	mban			Tomp	/11	· 22°C	1619
Test S	Tested by : Jack					/Humi Phase	: 23°C,		
				CH01(24					
EUT		: Digita	l Video	Monito	 r	Com	ment	:	
Model	No.	: DVM-D1							
	ata: 38								
	in the second	(dBuV/m)						Date: 2023-	-06-16
	100			1					
	80						FCC	PART15C P	-6dB
	60		4	e			F	CC PART15	
	40	2	3						-6dB
	20								
	0 <mark>3000</mark>	600	0. 80		0000. quency (M	12000. Hz)	14000.	16000.	18000
	Freq MHz	Reading level dBuV	Antenna factor dB/m		Preamp factor dB	level	Limit level dBuV/m		Remark
	24.000	32. 78 42. 72	30. 95 30. 95	6.59 6.59	36.01 36.01	34.31 44.25	54.00 74.00	-19.69 -29.75	
72 72	36.000 36.000	34.78 41.63 27.39	35.47 35.47 38.42	8.71 8.71 11.55	34.34 34.34 34.26	44.62 51.47 43.10	54.00 74.00		Average Peak
96	48.000	40.56	38.42	11.55	34.26	56.27	74.00	-17.73	Peak

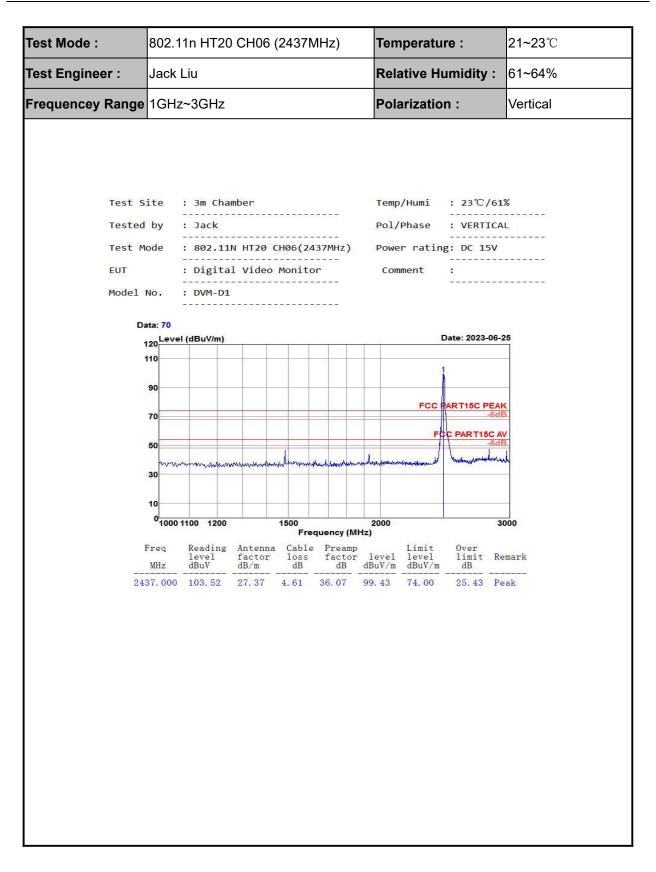








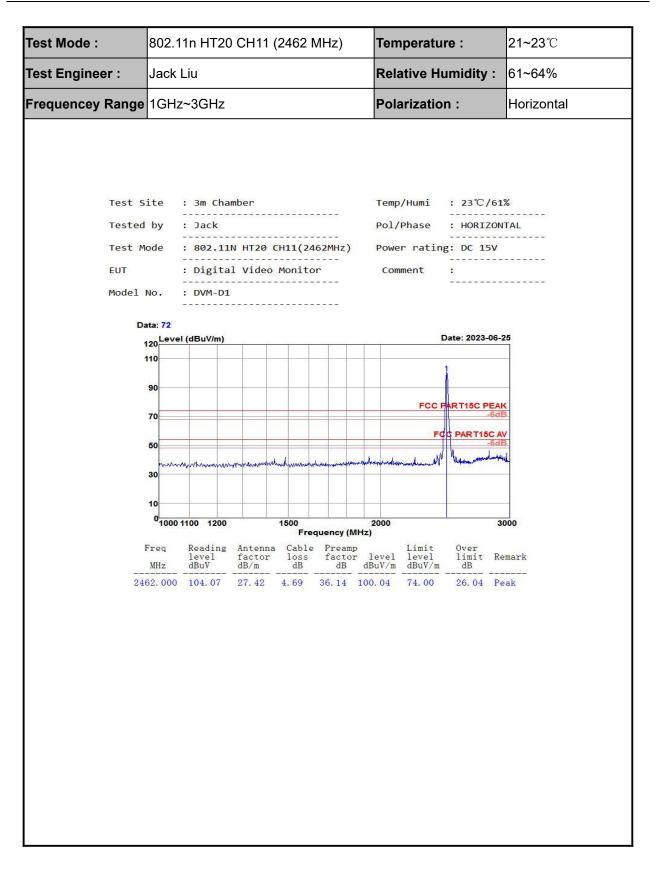




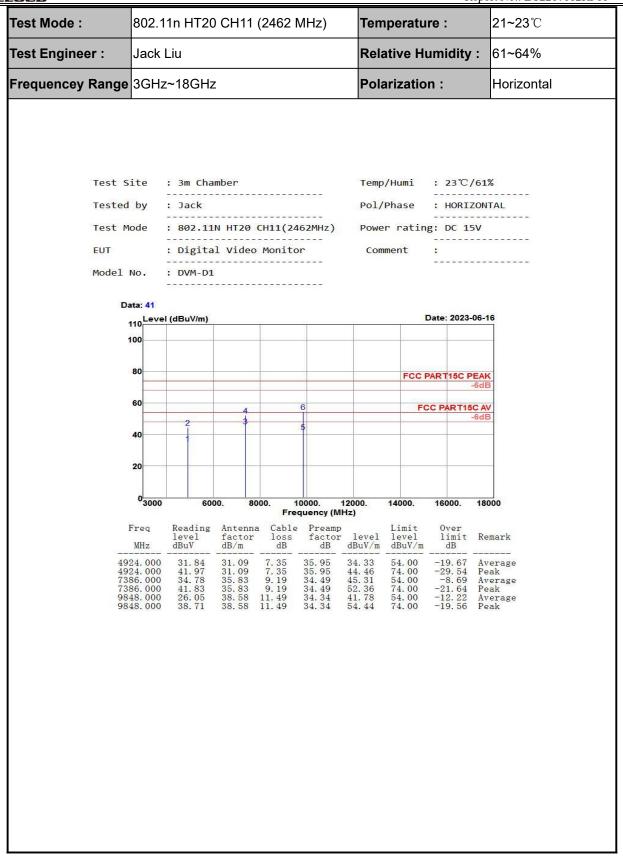


Test Mode :	802.1	1n HT20	CH06	(2437N	/Hz)	Tem	peratu	ire :	21~
est Engineer :	Jack	Liu				Rela	ative H	umidity	v: 61~
requencey Range	3GHz	~18GHz				Pola	arizatio	on :	Ver
Test S	ite	: 3m Cha	mber			Temp	/Humi	: 23℃,	/61%
Tested	: Jack					Phase	: VERT		
Test M	lode	: <mark>802.11</mark>				Powe	r ratir	ng: DC 1	
EUT		: Digita	l Video			Com	ment		
Model	No.	: DVM-D1							
D	ata: 39								
	110 Leve	(dBuV/m)			1			Date: 2023-	-06-1 <mark>6</mark>
	100								
	80				_		FCC	PART15C F	-6dB
	60		1		6		F	CC PART15	
	40	2	3		5				-6dB
	20								
	0 <mark>3000</mark>	600	00. <mark>8</mark> 0		0000. quency (M	12000. Hz)	14000.	16000.	18000
	Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable	Preamp	level	Limit level dBuV/m		Remark
	74.000	31.31	31,02	6.97	35.98	33. 32	54.00	-20.68	Average
73 73	$\begin{array}{c} 74.\ 000 \\ 11.\ 000 \\ 11.\ 000 \end{array}$	42.17 33.29 41.23	31.02 35.65 35.65		35.98 34.41 34.41			-22.58	Average Peak
97 97	48.000 48.000	26.89 38.15	38.50 38.50	11.20 11.20	34. 30 34. 30	42.29 53.55	$54.00 \\ 74.00$	-11.71 -20.45	Average Peak





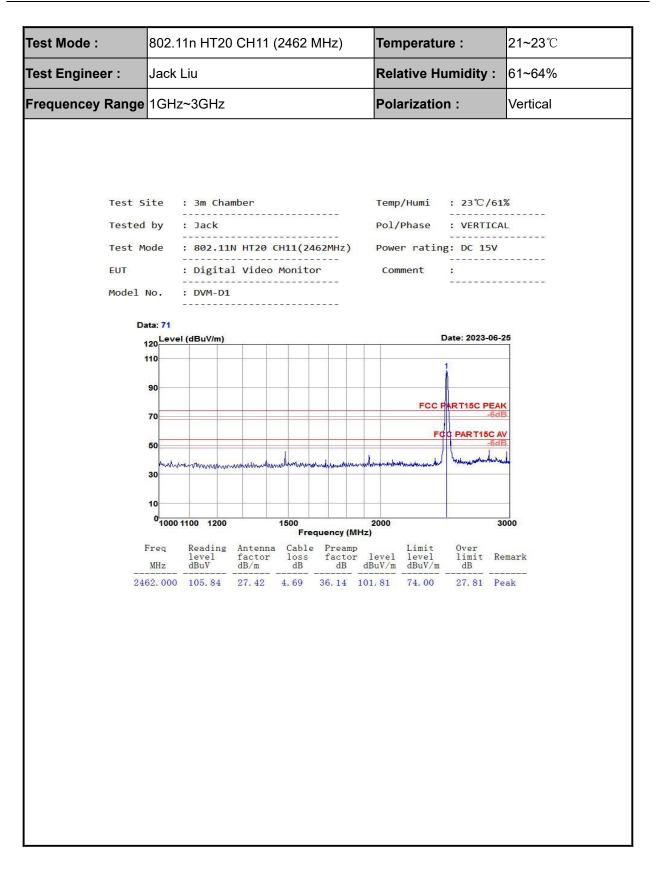




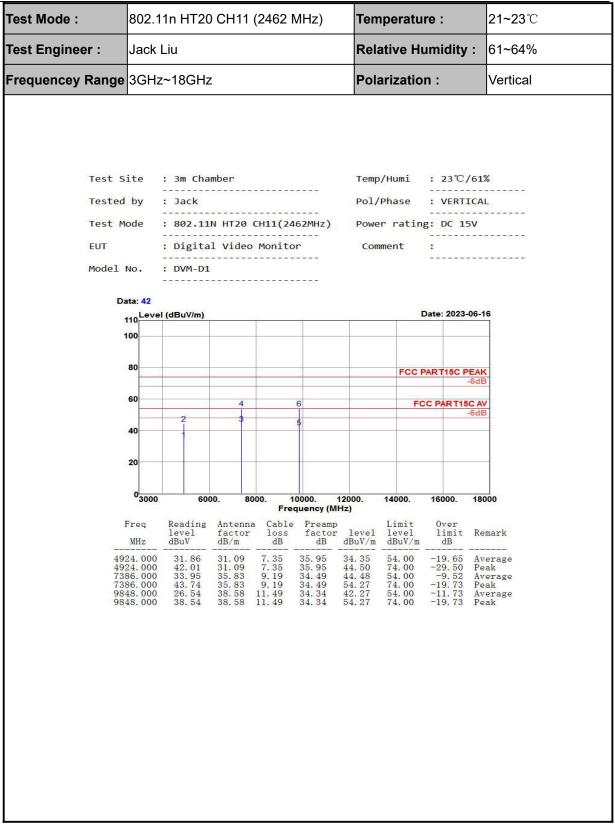
Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at

least 20dB below the specification limit.







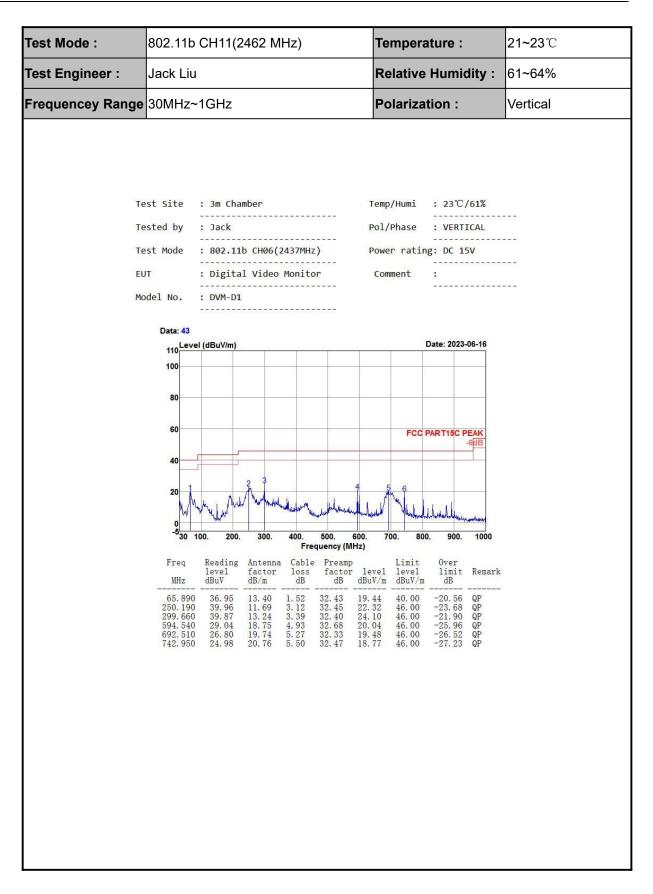




# 4.5.2 Test Result of Radiated Spurious Emission (30MHz ~ 1GHz)

Test Mode :	802.11b CH1	1(2462 MHz)	Tempera	ature :	<b>21~23</b> ℃	
Fest Engineer :	Jack Liu		Relative	Humidity :	61~64%	
Frequencey Range	30MHz~1GH	Z	Polariza	tion :	Horizontal	
T	ested by : Jac est Mode : 802 UT : Dig odel No. : DVM	.11b CH06(2437MHz) ital Video Monitor -D1	5	: 23°C/61% : HORIZONTAL ng: DC 15V : Date: 2023-06-16 PART15C PEAK -6BB -6		
	0 100.	200. 300. 400. 500.	600. 700. 80	. 900. 1000		
		ng Antenna Cable Pre	y (MHz)	0. 900. 1000		
	MHz dBuV	factor loss fac	tor level level B dBuV/m dBuV/m	limit Remark		
	191. 990 44. 3 245. 340 45. 9 299. 660 44. 8 315. 180 38. 3 594. 540 29. 3 891. 360 22. 8	11    11.80    3.06    32.4      38    13.24    3.39    32.4      35    13.47    3.47    32.4      35    13.47    3.47    32.4      35    18.75    4.93    32.6	15    28.32    46.00      10    29.11    46.00      15    22.84    46.00      16    20.35    46.00	-18.05 QP -17.68 QP -16.89 QP -23.16 QP -25.65 QP -28.09 QP		







## 4.6 Radiated receiver emissions Measurement

### 4.6.1 Limit of receiver conducted emissions

#### IC RSS-GEN 7.4

If the receiver has a detachable antenna of known impedance, an antenna-conducted spurious emissions measurement is permitted as an alternative to radiated measurement. However, the radiated method of RSS-GEN section 7.3 is preferred.

The antenna-conducted test shall be performed with the antenna disconnected and with the receiver antenna port connected to a measuring instrument having eq ual input impedance to that specified for the antenna. The RF cable connecting the receiver under test to the measuring instrument shall also have the same impedance to that specified for the receiver's antenna.

The spurious emissions from the receiver at any discrete frequency, measured at the antenna port by the antenna-conducted method, shall not exceed 2 n W in the frequency range 30-1000 MHz and 5 nW above 1 GHz.

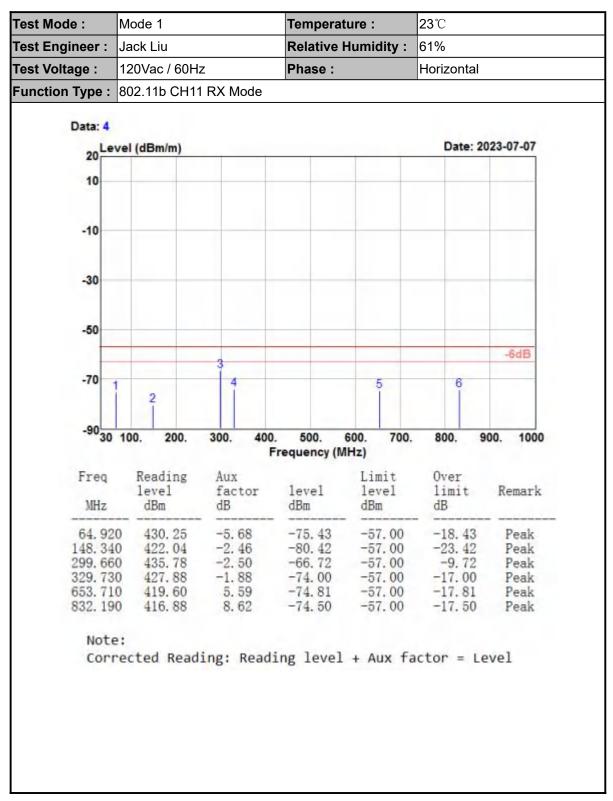
Radiated emission measurements shall be performed with the receiver antenna connected to the receiver antenna ports. The search for spurious emissions shall be from the lowest frequency internally generated or used in the receiver (e.g. local oscillator, intermediate or carrier frequency), or 30 MHz, whichever is higher, to at least five times the highest tunable or local oscillator frequency, whichever is higher.without exceeding40 GHz.

#### 4.6.2 Test Procedures

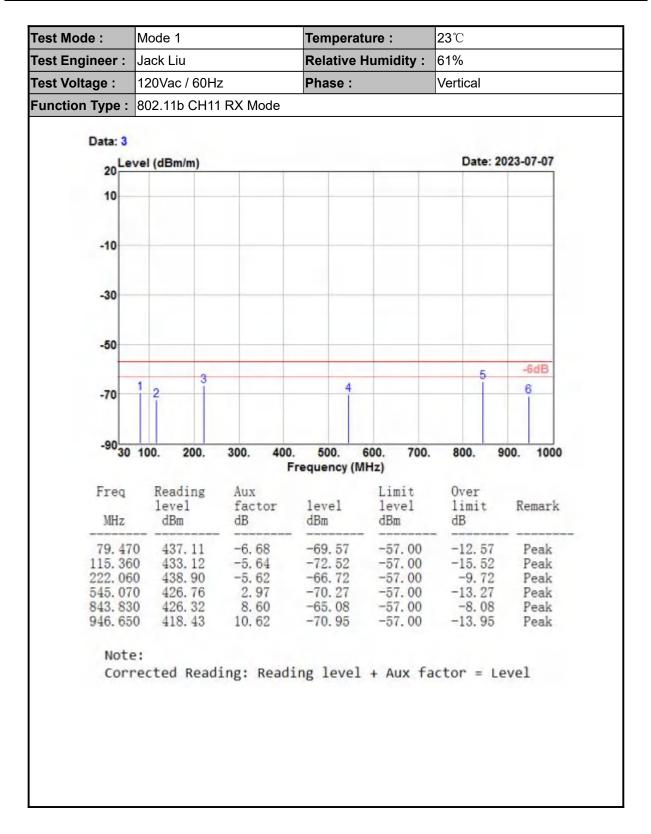
- 1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
- 2. The measurement distance is 3 meter.
- 3. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
- 4. Set to the maximum power setting and enable the EUT transmit continuously.
- 5. Use the following spectrum analyzer settings:
  - (1) Span shall wide enough to fully capture the emission being measured;
  - (2) Set RBW=100 kHz for f < 1 GHz, RBW=1MHz for f>1GHz ; VBW=3\* RBW; Sweep = auto; Detector function = peak; Trace = max hold for peak
  - (3) For average measurement: VBW = 10 Hz, when duty cycle is no less than 98 percent. VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.



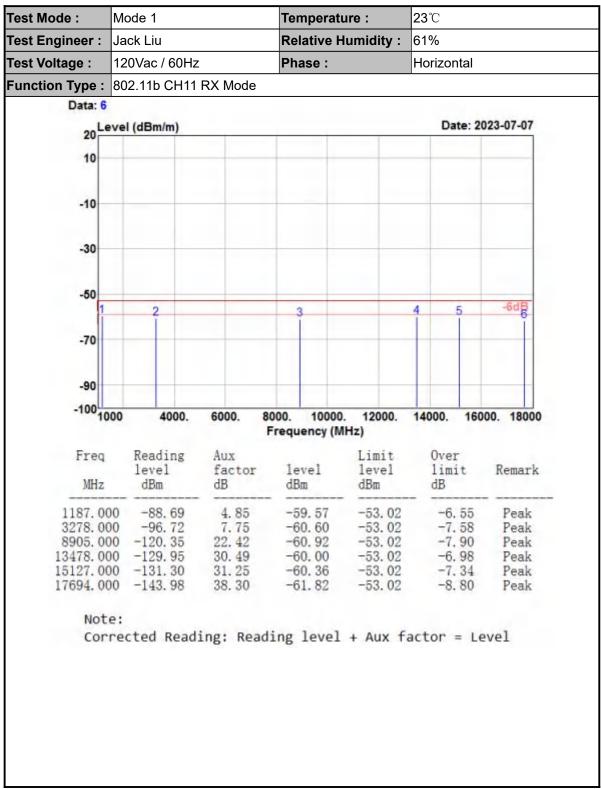
#### 4.6.3 Test Result of Radiated receiver emissions

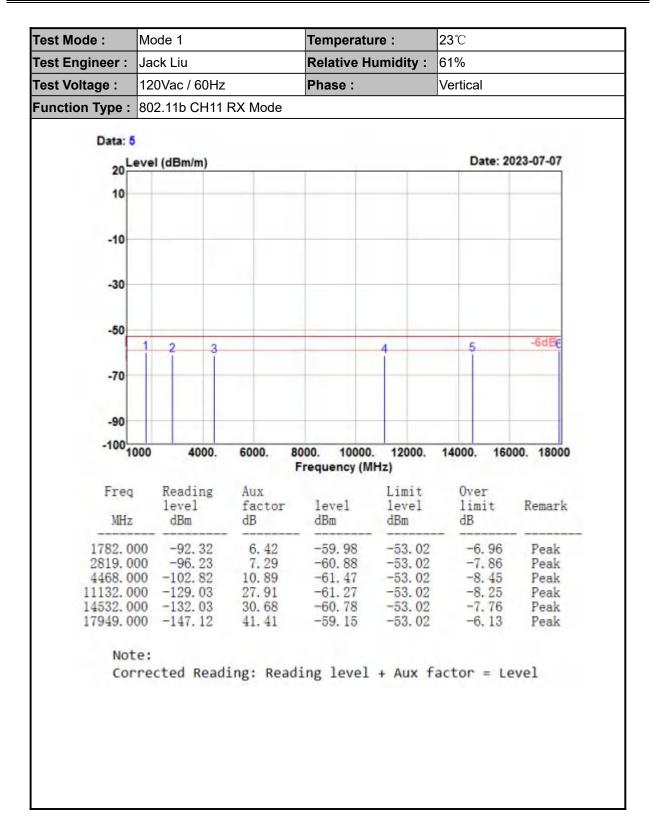














## 4.7 AC Conducted Emission Measurement

## 4.7.1 Limit of AC Conducted Emission

#### FCC §15.207

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency Range	Quasi Peak(dBµV)	Average(dBµV)
0.15-0.5	66 to 56*	56-46
0.5-5	56	46
5-30	60	50

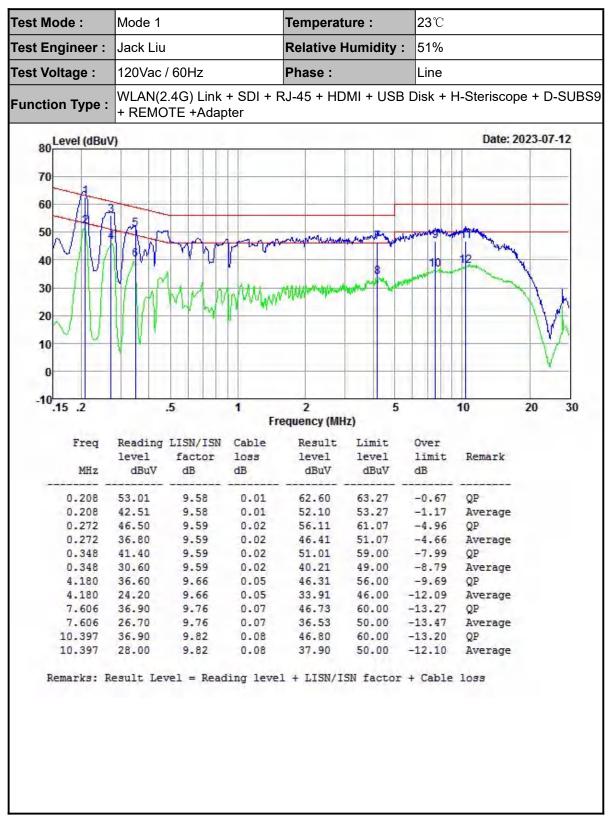
\*Decreases with the logarithm of the frequency.

### 4.7.2 Test Procedures

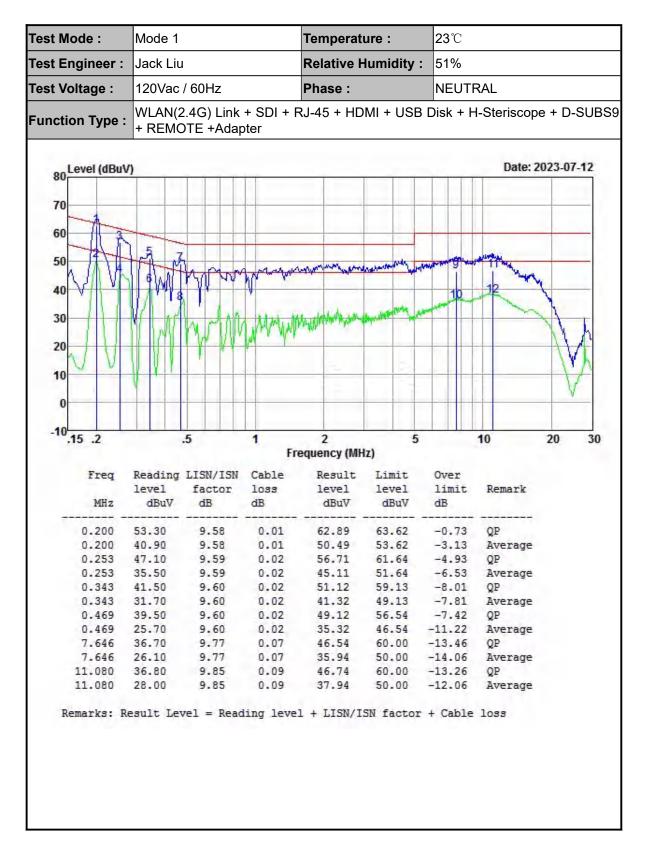
- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- 2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- 3. All the support units are connecting to the other LISN.
- 4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- 5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- 6. Both sides of AC line were checked for maximum conducted interference.
- 7. The frequency range from 150 kHz to 30 MHz was searched.
- Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.



### 4.7.3 Test Result of AC Conducted Emission









## 4.8 Antenna Requirements

### 4.8.1 Standard Applicable

According to antenna requirement of §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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be re-placed by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded..

And according to \$15.247(b)(4), The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### 4.8.2 Antenna Connected Construction

An FPC Antenna design is used.

### 4.8.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum output power limit.

# 5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Due Date	Remark
Spectrum Analyzer	Keysight	N9010A	MY56070788	2022-12-26	2023-12-25	Conducted
Thermal Chamber	Howkin	UHL-34	19111801	2022-12-23	2023-12-22	Conducted

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV 30	103728	2022-12-26	2023-12-25	Radiation
EMI Test Receiver	R&S	ESR3	102144	2022-12-21	2023-12-20	Radiation
Amplifier	Sonoma	310	363917	2022-12-26	2023-12-25	Radiation
Amplifier	Schwarzbeck	BBV 9718	327	2022-12-27	2023-12-26	Radiation
Amplifier	Narda	TTA1840-35-HG	2034380	2023-01-04	2024-01-03	Radiation
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-051	2023-02-12	2026-02-11	Radiation
Broadband Antenna	Schwarzbeck	VULB 9168	9168-757	2020-09-27	2023-09-26	Radiation
Horn Antenna	Schwarzbeck	BBHA 9120 D	1677	2023-02-12	2026-02-11	Radiation
Horn Antenna	COM-POWER	AH-1840	101117	2021-06-05	2024-06-04	Radiation
Test Software	Auidx	E3	6.111221a	N/A	N/A	Radiation
Filter	Micro-Tronics	BRM 50702	G266	N/A	N/A	Radiation

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Due Date	Remark
LISN	R&S	ENV216	102125	2023-12-19	2023-12-20	Conducted
LISN	R&S	ENV432	101327	2023-12-19	2023-12-20	Conducted
EMI Test Receiver	R&S	ESR3	102143	2023-12-19	2023-12-20	Conducted
EMI Test Software	Audix	E3	N/A	N/A	N/A	Conducted
Base Station	R&S	CMW 270	101231	2022-12-26	2023-12-25	Conducted

N/A: No Calibration Required



# 6 Uncertainty of Evaluation

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.00 dB
	30MHz ~ 1GHz	5.28 dB
Radiated emissions	1GHz ~ 18GHz	5.12 dB
	18GHz ~ 40GHz	5.27 dB

MEASUREMENT	UNCERTAINTY
Occupied Channel Bandwidth	±71.333Hz
RF output power, conducted	±0.78 dB
Power density, conducted	±2.02dB
Emissions, conducted	±2.00dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



# Appendix A: DTS Bandwidth

# **Test Result**

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
		2412	8.000	2408.040	2416.040	0.5	PASS
11B	Ant1	2437	8.040	2433.040	2441.080	0.5	PASS
		2462	7.080	2458.480	2465.560	0.5	PASS
	Ant1	2412	15.080	2404.480	2419.560	0.5	PASS
11G		2437	15.160	2429.440	2444.600	0.5	PASS
		2462	13.800	2455.760	2469.560	0.5	PASS
		2412	15.400	2404.480	2419.880	0.5	PASS
11N20SISO	Ant1	2437	15.320	2429.520	2444.840	0.5	PASS
		2462	15.160	2454.440	2469.600	0.5	PASS



## **Test Graphs**

