

FCC PART 15C TEST REPORT FOR CERTIFICATION
On Behalf of

Funai Electric R & D (Shenzhen) Co., Ltd.

WiFi module

Model No.: U9W43

FCC ID: 2AU3BU9W43

Prepared for : Funai Electric R & D (Shenzhen) Co., Ltd.
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District, Shenzhen, China 518067

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Date of Report : Feb.28, 2022

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Appendix A. Photograph of Test

Appendix B. Photo of the EUT

TEST REPORT

Applicant : Funai Electric R & D (Shenzhen) Co., Ltd.
Manufacturer : Funai Electric R & D (Shenzhen) Co., Ltd.
Product : WiFi module
FCC ID : 2AU3BU9W43
(A) Model No. : U9W43
(B) Test Voltage : DC 5V From PC Input AC 120V/60Hz

Tested for comply with:
FCC CFR 47 Part 15 Subpart C

Test procedure used:
ANSI C63.10: 2020
KDB 558074 D01v05

The device described above is tested by Audix Technology (Shenzhen) Co., Ltd. to confirm comply with all the FCC Part 15 Subpart C requirements. The test results are contained in this test report and Audix Technology (Shenzhen) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these tests. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC and IC requirements. This report contains data that are not covered by the NVLAP accreditation.

This Report is made under FCC Part 2.1075. No modifications were required during testing to bring this product into compliance.

This report applies to single evaluation of one sample of above mentioned product and shall not be reproduced in part without written approval of Audix Technology (Shenzhen) Co., Ltd..

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test : Dec.09, 2021~Jan.08, 2022 Report of date: Feb.28, 2022

Prepared by : Honey Y1 Reviewed by : Sunny Lu
Honey Y1 / Assistant Sunny Lu / Deputy Manager

 信華科技(深圳)有限公司
Audix Technology (Shenzhen) Co., Ltd.
EMC 部門報告專用章
Stamp only for EMC Dept. Report
Signature: David Jin
David Jin / Deputy General Manager

Approved & Authorized Signer : Signature: David Jin
David Jin / Deputy General Manager

1. SUMMARY OF STANDARDS AND RESULTS

1.1. Description of Standards and Results

The EUT has been tested according to the applicable standards as referenced below.

EMISSION		
Description of Test Item	Standard	Results
Power Line Conducted Emission	FCC Part 15: 15.207	PASS
Radiated Emission	FCC Part 15: 15.209 FCC Part 15: 15.205	PASS
Band Edge Compliance	FCC Part 15: 15.247(d)	PASS
Conducted spurious emissions	FCC Part 15: 15.247(d)	PASS
6dB Bandwidth	FCC Part 15: 15.247(a)(2)	PASS
Peak Output Power	FCC Part 15: 15.247(b)(3)	PASS
Power Spectral Density	FCC Part 15: 15.247(e)	PASS
Antenna requirement	FCC Part 15: 15.203	PASS

Note: Measurement uncertainty affection to the result is considered, the EUT is technically compliant with standard requirements.

2. GENERAL INFORMATION

2.1. Description of Equipment Under Test

Applicant	Funai Electric R & D (Shenzhen) Co., Ltd.
Applicant Address	B303 Technology Building II, 1057 Nanhai Road, Nanshan District, Shenzhen, China 518067
Manufacturer	Funai Electric R & D (Shenzhen) Co., Ltd.
Manufacturer Address	B303 Technology Building II, 1057 Nanhai Road, Nanshan District, Shenzhen, China 518067
Factory	Funai (Thailand) Company Limited
Factory Address	835 Moo18, Pakchong-Lumsompung Road, Tambon, Chantuek, Amphur Pakchong, Nakhon Ratchasima 30130, Thailand
Product	WiFi module
Model No.	U9W43
FCC ID	2AU3BU9W43
Sample Type	Prototype production
Date of Receipt	Nov.30,2021
Date of Test	Dec.09, 2021~Jan.08, 2022
Remark: This report only for WIFI 2.4GHz.	

2.2.Feature of Equipment Under Test

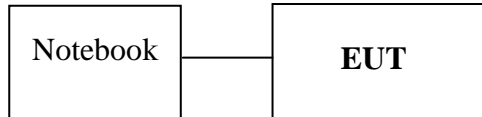
Product Feature & Specification		
Product	WiFi module	
Model No.	U9W43	
Radio	IEEE802.11 a/b/g/n/ac	
Power Source	<input type="checkbox"/> Commercial Power	AC 100 ~ 240V
	<input checked="" type="checkbox"/> External Power Source	DC 5V
	<input type="checkbox"/> Lithium battery	DC V, mAh
	<input type="checkbox"/> UM battery	DC V
Bluetooth		
Radio	BDR +EDR; BLE	
Frequency Range	2402-2480MHz	
Type of Modulation	GFSK, $\pi/4$ DQPSK, 8DPSK	
Data Rate	1Mbps, 2Mbps, 3Mbps	
Quantity of Channels	79/40	
Channel Separation	1MHz/2MHz	
2.4GHz Wi-Fi		
Support Modes	802.11b/g/n20/n40	
Frequency Range	2412-2462MHz	
Type of Modulation	802.11b(DSSS): CCK, QPSK, BPSK; 802.11g/n(OFDM): 64QAM,16QAM, QPSK, BPSK	
Data Rate	802.11b: 1/2/5.5/11 Mbps; 802.11g: 6/9/12/18/24/36/48/54 Mbps; 802.11n: up to 300Mbps	
Channel Separation	5MHz	
5GHz Wi-Fi		
Support Modes	802.11a/n20/n40/ac20/ac40/ac80	
Frequency Range	5180-5240MHz, 5745-5825MHz	
Type of Modulation	802.11a/n (OFDM): QPSK, BPSK, 16QAM, 64QAM 802.11ac (OFDM): QPSK, BPSK, 16QAM, 64QAM,256QAM	
Data Rate	802.11a: 6/9/12/18/24/36/48/54 Mbps; 802.11n: up to 300Mbps; 802.11ac: up to 867Mbps	
Channel Separation	5MHz	

Antenna System	
Type of Antenna	Bluetooth Antenna: External PCB Antenna WIFI Antenna: monopole Antenna
Antenna Peak Gain	Bluetooth Peak Gain: -0.42dBi DTS Band Peak Gain: ANT A: -1.04dBi; ANT B: -2.61dBi. U-NII-1 Band Peak Gain: ANT A: 1.42dBi; ANT B: 1.25dBi. U-NII-3 Band Peak Gain: ANT A: 0.98dBi; ANT B: -0.28dBi.

2.3. Tested Supporting System Details

No.	Description	ACS No.	Manufacturer	Model	Serial Number
1.	Notebook	N/A	acer	ZOW	NVX7C
USB Cable: Shielded, Detachable, 1.0m					

2.4. Block diagram of connection between the EUT and simulators



(EUT: WiFi module)

2.5. Test Information

A special test software (MT7663 Version: 0.0.2.6) was used to control EUT work in Continuous TX mode (The duty cycle of the test signal is 100%), and select test channel, wireless mode and data rate.

Tested mode, channel, and data rate information			
Mode	data rate (Mbps)(see Note)	Channel	Frequency (MHz)
IEEE 802.11b	1	Low :CH1	2412
	1	Middle: CH6	2437
	1	High: CH11	2462
IEEE 802.11g	6	Low :CH1	2412
	6	Middle: CH6	2437
	6	High: CH11	2462
IEEE 802.11n HT20	MCS0	Low :CH1	2412
	MCS0	Middle: CH6	2437
	MCS0	High: CH11	2462
IEEE 802.11n HT40	MCS0	Low :CH3	2422
	MCS0	Middle: CH6	2437
	MCS0	High: CH9	2452

Note: 1. According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.

Note: 2. This is MIMO 2*2 device for 2.4GHz band, test compliance with KDB 662911 D01, The radiated emission and band edge tested with two antenna transmit simultaneously for 11n mode. 11b/g mode support SISO, Choose antenna which has the maximum power for the test.

2.6. Test Facility

Site Description

Name of Firm : Audix Technology (Shenzhen) Co., Ltd.
 : No. 6, Kefeng Road, Science & Technology Park,
 Nanshan District , Shenzhen, Guangdong, China

EMC Lab. : Certificated by ISED, Canada
 : Company Number: 5183A
 : CAB identifier: CN0034
 : Valid Date: Mar.31, 2022

: Certificated by FCC, USA
 : Designation No.: CN5022
 : Valid Date: Mar.31, 2022

: Accredited by NVLAP, USA
 : NVLAP Code: 200372-0
 : Valid Date: Mar.31, 2022

2.7.Measurement Uncertainty (95% confidence levels, k=2)

Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	2.6dB(150KHz to 30MHz)
Uncertainty for Radiation Emission test in 3m chamber	3.2dB(30~200MHz, Polarization: H)
	3.6dB(30~200MHz, Polarization: V)
	3.4dB(200M~1GHz, Polarization: H)
	3.4dB(200M~1GHz, Polarization: V)
Uncertainty for Radiation Emission test in 3m chamber(1GHz-25GHz)	5.0dB(1~6GHz, Distance: 3m)
	5.2dB(6~25GHz, Distance: 3m)
Uncertainty for Radiated Spurious Emission test in RF chamber	3.7dB(30MHz~1000MHz)
	3.3dB(1~26.5GHz)
Uncertainty for Conduction Spurious emission test	2.0dB
Uncertainty for Output power test	0.8dB
Uncertainty for Bandwidth test	83kHz
Uncertainty for DC power test	1%
Uncertainty for test site temperature and humidity	0.6°C
	3%

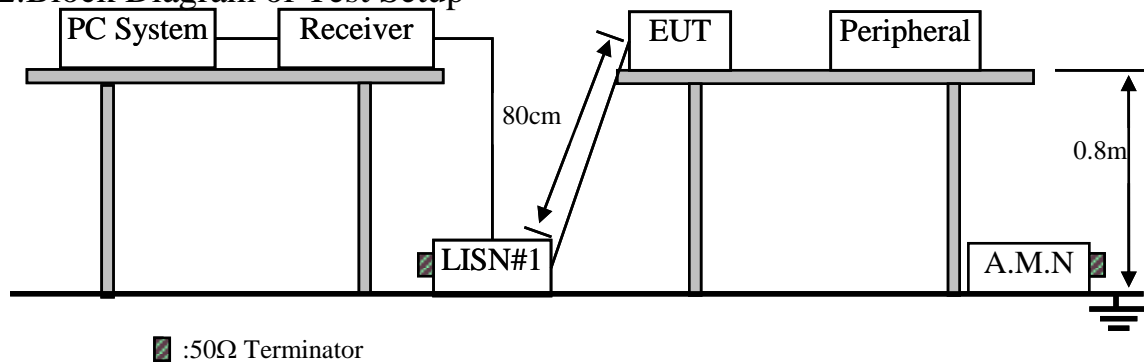
3. POWER LINE CONDUCTED EMISSION TEST

3.1. Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	1# Shielding Room	AUDIX	N/A	N/A	May.17,18	5 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESCI	100842	Apr.07,21	1 Year
3.	L.I.S.N.#1	Rohde & Schwarz	ENV216	102160	Oct.09,21	1 Year
4.	A.M.N	Kyoritsu	KNW-403D	8-1750-2	Apr.07,21	1 Year
5.	Terminator	Hubersuhner	50Ω	No.1	Apr.06,21	1 Year
6.	Terminator	Hubersuhner	50Ω	No.2	Apr.06,21	1 Year
7.	RF Cable	EMCI	EMCCFD300-BM-NM-2000	190422	Apr.08,21	1 Year
8.	Test Software	AUDIX	e3	6.100913a	N/A	N/A

Note: N/A means Not applicable.

3.2. Block Diagram of Test Setup



3.3. Power Line Conducted Emission Test Limits

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

3. Emission Level (dBμV) = Factor (L.I.S.N.) (dB) + Cable Loss (dB) + Reading (Receiver) (dBμV)

3.4. Configuration of EUT on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

3.4.1. WiFi module (EUT)

Model No. : U9W43

Serial No. : N/A

3.4.2. Support Equipment: As Tested Supporting System Details, in Section 2.2.

3.5. Operating Condition of EUT

- 3.5.1. Setup the EUT as shown as Section 3.2.
- 3.5.2. Turn on the power of EUT.
- 3.5.3. PC run test software to control EUT work in Tx mode.

3.6. Test Procedure

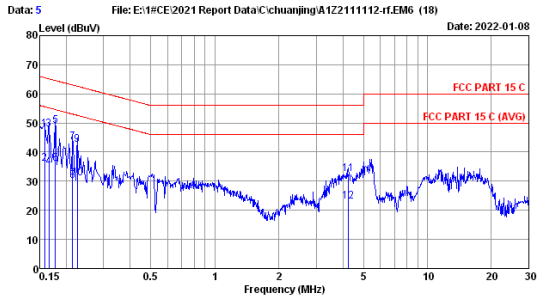
The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power Via AC unit connected to the power mains through a line impedance stabilization network (L.I.S.N. #1). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2020 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESCI) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

3.7. Power Line Conducted Emission Test Results

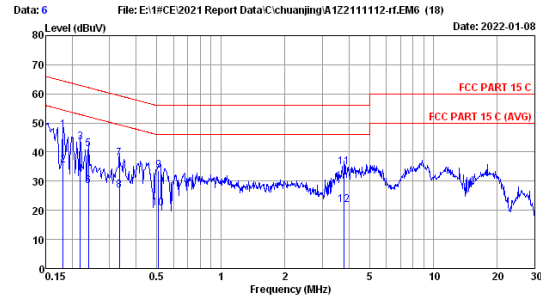
PASS. (All emissions not reported below are too low against the prescribed limits.)



Site no :1# Conduction Data No :5
 Dis./Lisn :2021 ENV216-L LISN phase:
 Limit :FCC PART 15 C
 Env./Ins. :24.3°C/45% Engineer :Evan
 EUT :09W43
 Power Rating :AC 120V/60Hz
 Test Mode :WiFi 2.4GTx Mode MIMO

No	Freq (MHz)	LISN Factor (dB)	Cable loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.158	9.50	0.01	38.34	47.85	65.56	17.71	QP
2	0.158	9.50	0.01	26.40	35.91	55.56	19.65	Average
3	0.166	9.50	0.01	38.31	47.82	65.16	17.34	QP
4	0.166	9.50	0.01	25.30	34.81	55.16	20.35	Average
5	0.178	9.50	0.01	39.50	49.01	64.59	15.58	QP
6	0.178	9.50	0.01	26.50	36.01	54.59	18.58	Average
7	0.214	9.50	0.01	33.76	43.27	63.05	19.78	QP
8	0.214	9.50	0.01	20.70	30.21	53.05	22.84	Average
9	0.226	9.50	0.01	33.08	42.59	62.61	20.02	QP
10	0.226	9.50	0.01	21.50	31.01	52.61	21.60	Average
11	4.247	9.60	0.04	22.78	32.42	56.00	23.58	QP
12	4.247	9.60	0.04	13.50	23.14	46.00	22.86	Average

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.
 2.If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.



Site no :1# Conduction Data No :6
 Dis./Lisn :2021 ENV216-N LISN phase:
 Limit :FCC PART 15 C
 Env./Ins. :24.3°C/45% Engineer :Evan
 EUT :09W43
 Power Rating :AC 120V/60Hz
 Test Mode :WiFi 2.4GTx Mode MIMO

No	Freq (MHz)	LISN Factor (dB)	Cable loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.182	10.00	0.01	37.65	47.66	64.42	16.76	QP
2	0.182	10.00	0.01	25.40	35.41	54.42	19.01	Average
3	0.219	10.01	0.01	33.39	43.41	62.88	19.47	QP
4	0.219	10.01	0.01	22.30	32.32	52.88	20.56	Average
5	0.238	10.02	0.01	30.94	40.97	62.17	21.20	QP
6	0.238	10.02	0.01	18.40	28.43	52.17	23.74	Average
7	0.334	10.05	0.01	27.61	37.67	59.35	21.68	QP
8	0.334	10.05	0.01	16.80	26.86	49.35	22.49	Average
9	0.510	10.10	0.01	23.65	33.76	56.00	22.24	QP
10	0.510	10.10	0.01	10.50	20.61	46.00	25.39	Average
11	3.799	10.20	0.04	24.60	34.84	56.00	21.16	QP
12	3.799	10.20	0.04	11.60	21.84	46.00	24.16	Average

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.
 2.If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

4. RADIATED EMISSION TEST

4.1. Test Equipments

4.1.1. For frequency range 30MHz~1000MHz (In 3m Anechoic Chamber)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber(NSA)	AUDIX	N/A	N/A	May.02,21	1 Year
2.	3#Chamber(SE)	AUDIX	N/A	N/A	May.17,18	5 Year
3.	Signal Analyzer	Rohde & Schwarz	FSV30	104050	Apr.07,21	1 Year
4.	EMI Test Receiver	Rohde & Schwarz	ESR3	102891	Oct.20,21	1 Year
5.	Amplifier	HP	8447D	2944A11159	Apr.07,21	1 Year
6.	Tri-log-Broadband Antenna	SCHWARZBECK	VULB 9168	710	Dec.13,21	1 Year
7.	NSA Cable	HUBER+SUHNER	CFD400NL-LW	No.3	Oct.09,21	1 Year
8.	Coaxial Switch	Anritsu	MP59B	6201397223	Apr.07,21	1 Year
9.	Test Software	AUDIX	e3	6.100913a	N/A	N/A

Note: N/A means Not applicable.

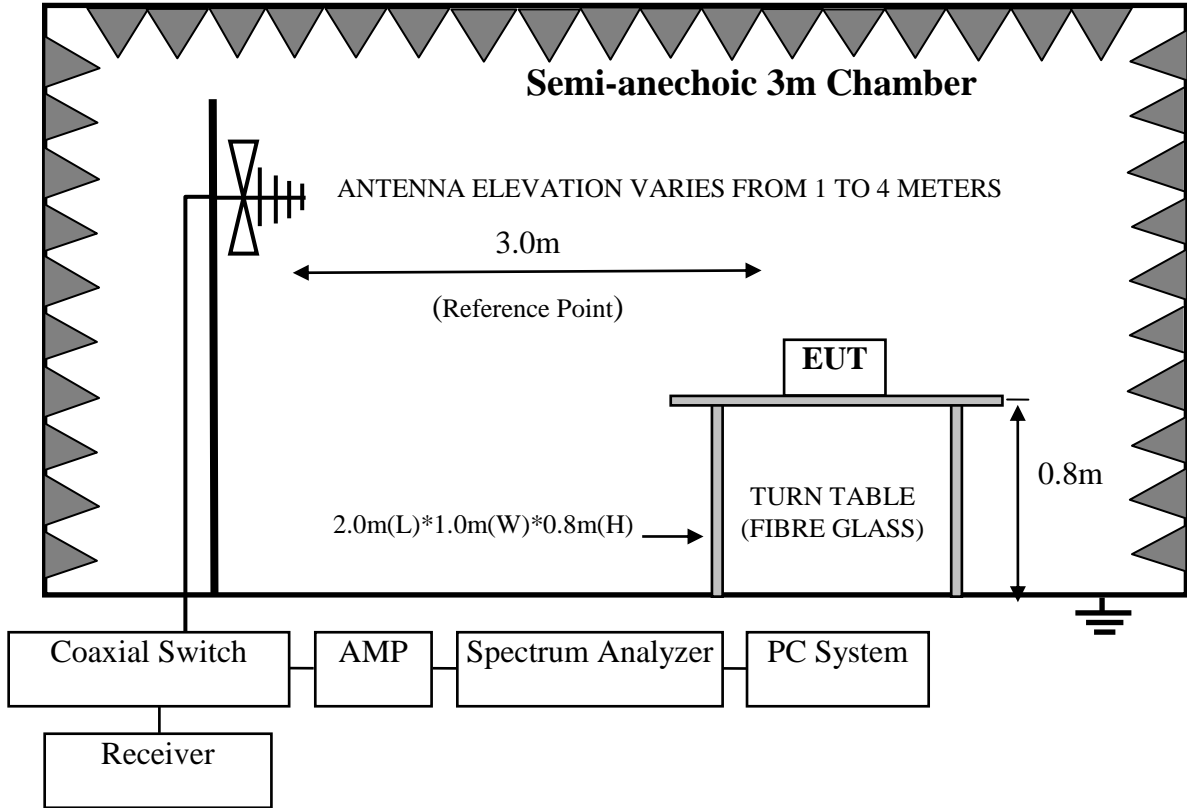
4.1.2. For frequency range 1GHz~25GHz (In 3m Anechoic Chamber)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber(Svswr)	AUDIX	N/A	N/A	Apr.14,21	1 Year
2.	3#Chamber(SE)	AUDIX	N/A	N/A	May.17,18	5 Year
3.	Signal Analyzer	Rohde & Schwarz	FSV30	104050	Apr.07,21	1 Year
4.	Horn Antenna	ETC	MCTD 1209	DRH15F03006	Jul.26,21	1 Year
5.	Amplifier	Agilent	83017A	MY53270084	Oct.09,21	1 Year
6.	RF Cable	EMCI	EMC104-SM-S M-15000	190407	Jul.14,21	1 Year
7.	Test Software	AUDIX	e3	6.100913a	N/A	N/A

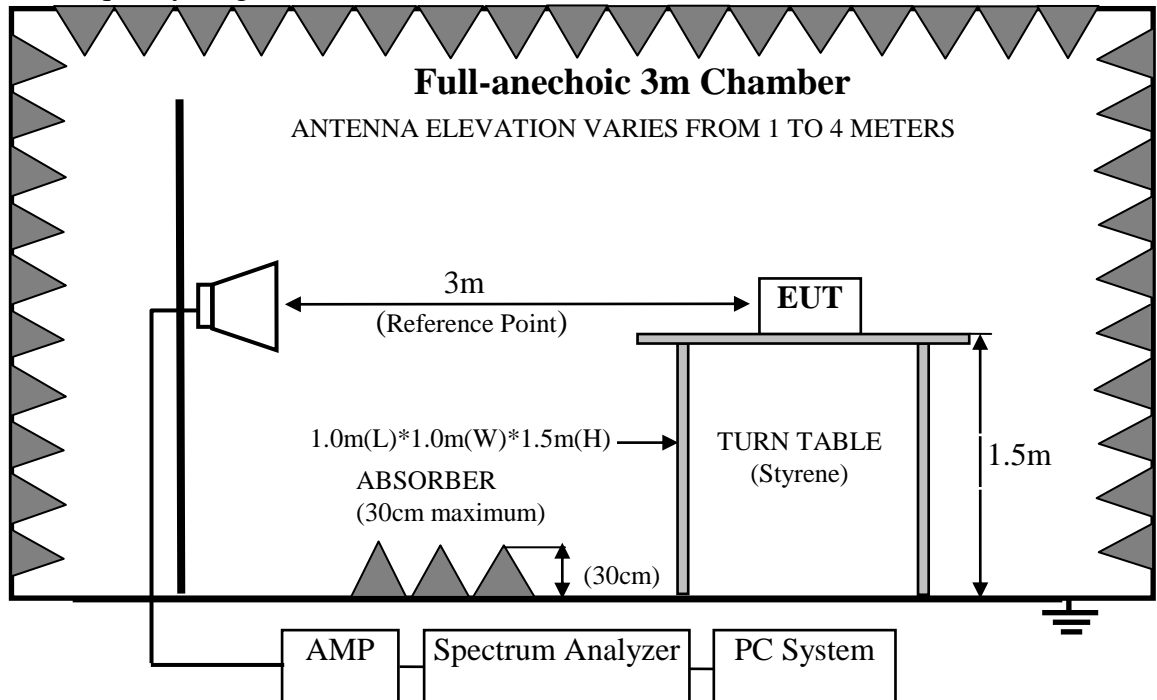
Note: N/A means Not applicable.

4.2. Block Diagram of Test Setup

For frequency range 30MHz-1000MHz



For frequency range 1GHz-25GHz



4.3.Radiated Emission Limits

4.3.1. 15.247&209 limits

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

- Remark : (1) Emission Level (dBμV/m) = Reading (Receiver) (dBμV) + Antenna Factor (dB/m) + Cable Loss (dB)
 Emission Level (dBμV/m) = Reading (Spectrum) (dBμV) + Antenna Factor (dB/m) – Amp Factor (dB) + Cable Loss (dB)(above 1000MHz)
- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

4.3.2. 15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

4.4.EUT Configuration on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

4.4.1. WiFi module (EUT)

Model No. : U9W43
 Serial No. : N/A

4.4.2. Support Equipment: As Tested Supporting System Details, in Section 2.2.

4.5. Operating Condition of EUT

- 4.5.1. Setup the EUT and simulator as shown as Section 4.2.
- 4.5.2. Turn on the power of all equipments.
- 4.5.3. Let EUT work in Tx(WiFi 2.4GHz) mode

4.6. Test Procedure

Frequency below 30MHz:

The EUT setup on the turn table which has 0.8 m height to the ground. The turn table rotated 360 degrees and antenna fixed to 1 m to find the maximum emission level. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10-2013 regulation.

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground for frequency 30MHz~1000MHz, 1.5 meter high above ground for frequency above 1GHz and put the absorbing with 2.4m(L)*2.4m(W)*0.3m(H) on the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna for frequency 30MHz~1000MHz, and the Horn antenna is used as receiving antenna for frequency above 1GHz. Both horizontal and vertical polarization of the antenna are set on test.

This test was performed with EUT in X, Y, Z position, and the worse case was found when EUT in X position as test photo indicated.

The bandwidth of the EMI test receiver (R&S ESR7) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

The frequency range from 30MHz to 10th harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25GHz, So the radiated emissions from 18GHz to 25GHz were not record.

4.7. Radiated Emission Test Results

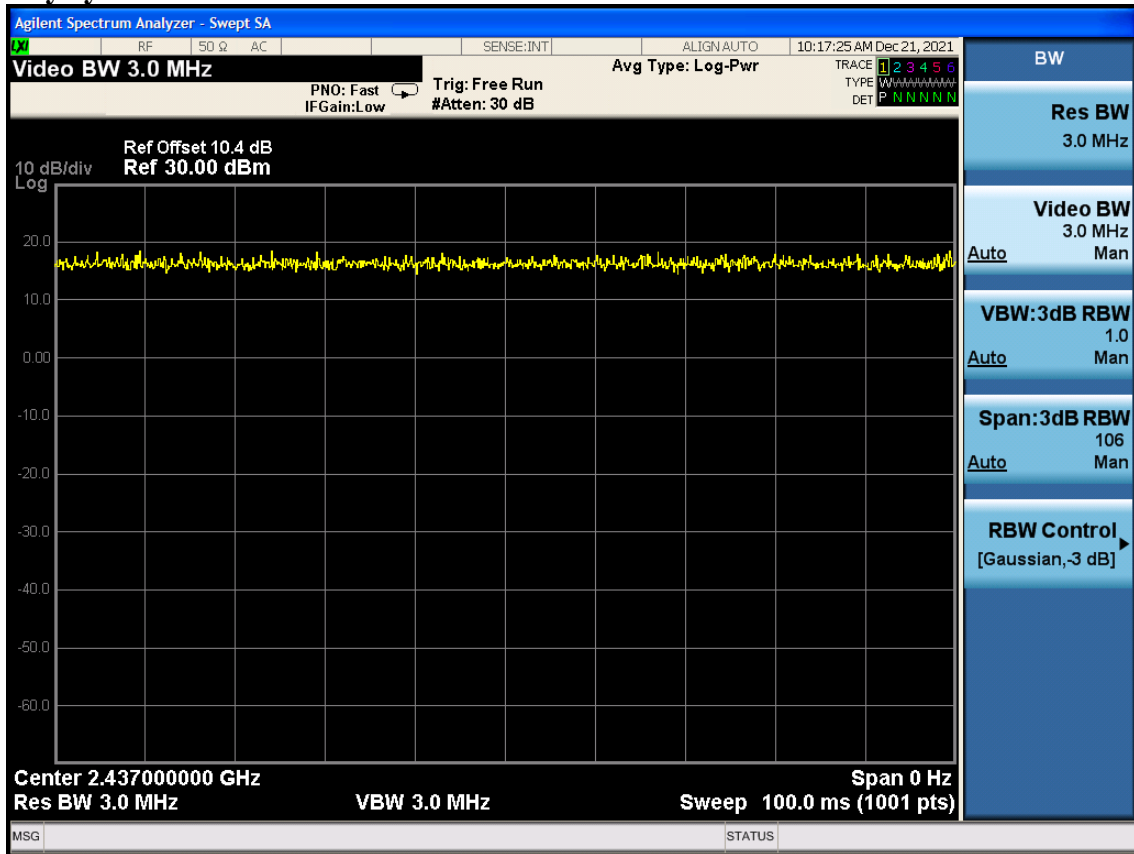
PASS.

All the emissions from 30MHz to 25 GHz were comply with 15.209 limits.

Note 1: For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

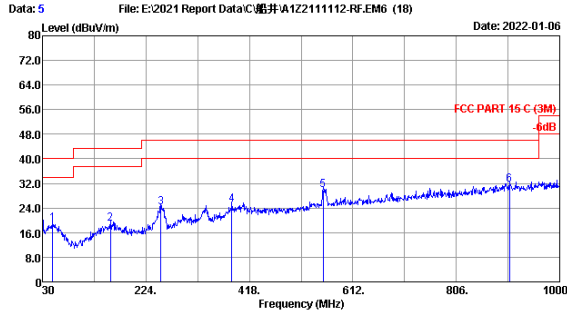
Note 2: The emissions (9kHz~30MHz) not reported for there is no emission be found.

Duty cycle



Note: The duty cycle of the test signal is 100%.

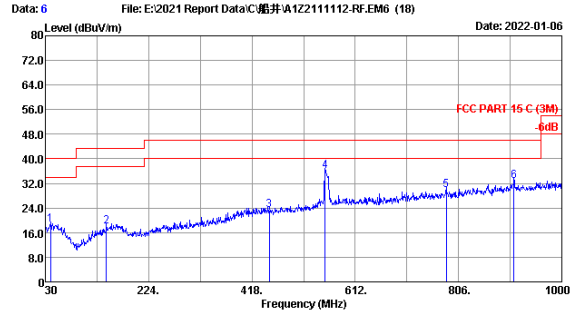
Frequency: 30MHz~1GHz



Site no. : 3m Chamber Data no. : 5
 Dis. / Ant. : 3m 2021 VULB9168-710 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15 C (3M)
 Env. / Ins. : 22.1°C/47% Engineer : Abel
 EUT :
 Power rating :
 Test Mode : WIFI 2.4G MIMO

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	49.400	20.30	0.75	-2.14	18.91	40.00	21.09	QP
2	157.070	19.63	1.25	-1.88	19.00	43.50	24.50	QP
3	252.130	18.36	1.58	4.36	24.30	46.00	21.70	QP
4	385.020	21.72	1.98	1.42	25.12	46.00	20.88	QP
5	556.710	25.05	2.48	2.36	29.89	46.00	16.11	QP
6	905.910	29.26	3.34	-0.95	31.65	46.00	14.35	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

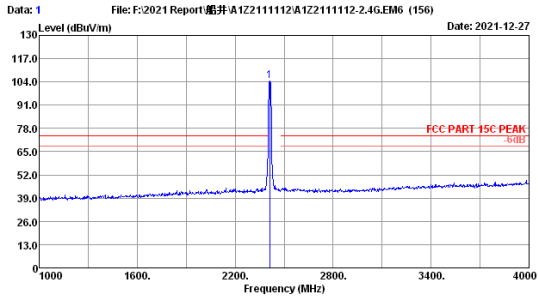


Site no. : 3m Chamber Data no. : 6
 Dis. / Ant. : 3m 2021 VULB9168-710 Ant. pol. : VERTICAL
 Limit : FCC PART 15 C (3M)
 Env. / Ins. : 22.1°C/47% Engineer : Abel
 EUT :
 Power rating :
 Test Mode : WIFI 2.4G MIMO

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	39.700	20.30	0.70	-2.54	18.46	40.00	21.54	QP
2	144.460	19.21	1.19	-2.54	17.86	43.50	25.64	QP
3	450.980	23.51	2.18	-2.51	23.18	46.00	22.82	QP
4	555.740	25.03	2.48	8.50	36.01	46.00	9.99	QP
5	782.720	27.93	3.10	-1.33	29.70	46.00	16.30	QP
6	909.790	29.30	3.35	0.00	32.65	46.00	13.35	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Frequency: 1GHz~18GHz

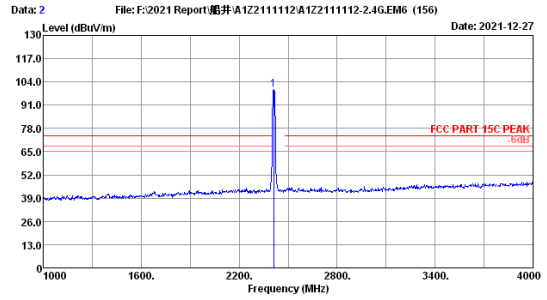


File: F:\2021 Report\船井A1Z2111112\A1Z2111112-2.4G.EM6 (156) Date: 2021-12-27

Site no. : 3m Chamber Data no. : 1
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11b 2412MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.93	3.66	108.27	35.24	104.62	78.0		Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.

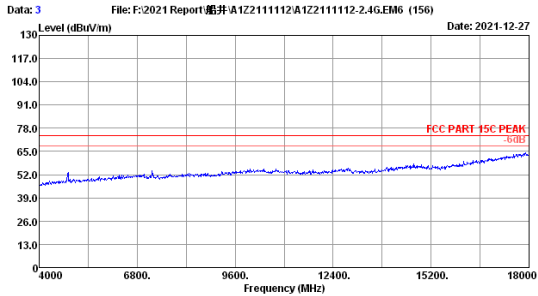


File: F:\2021 Report\船井A1Z2111112\A1Z2111112-2.4G.EM6 (156) Date: 2021-12-27

Site no. : 3m Chamber Data no. : 2
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11b 2412MHz Tx

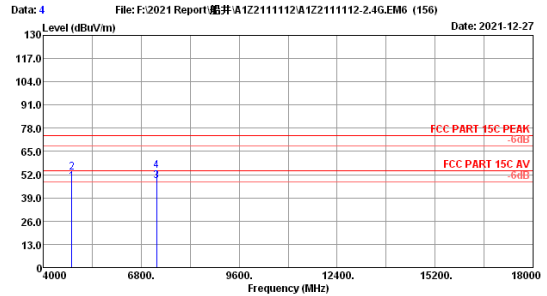
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.93	3.66	103.67	35.24	100.02	78.0		Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



File: F:\2021 Report\船井A1Z2111112\A1Z2111112-2.4G.EM6 (156) Date: 2021-12-27

Site no. : 3m Chamber Data no. : 3
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11b 2412MHz Tx

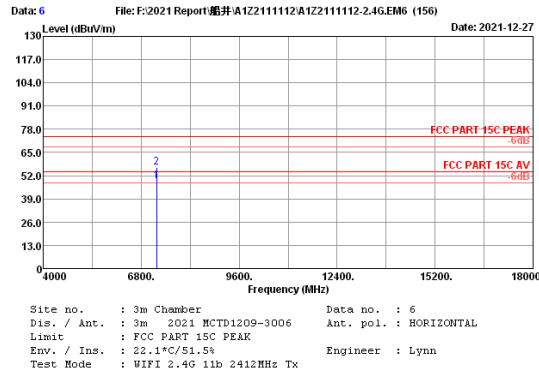
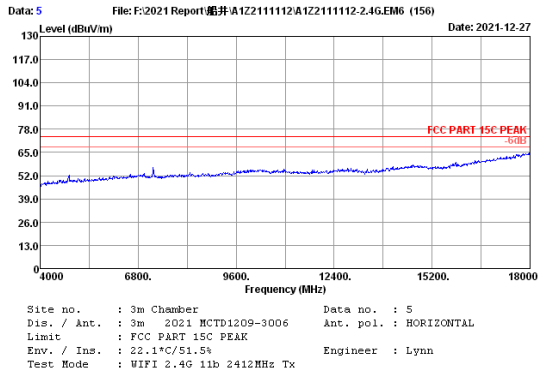


File: F:\2021 Report\船井A1Z2111112\A1Z2111112-2.4G.EM6 (156) Date: 2021-12-27

Site no. : 3m Chamber Data no. : 4
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11b 2412MHz Tx

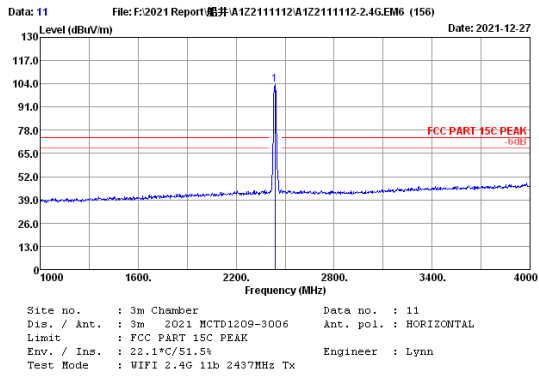
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.00	32.70	4.99	44.62	34.46	47.85	54.00	6.15	Average
2	4824.00	32.70	4.99	49.92	34.46	53.15	74.00	20.85	Peak
3	7236.00	36.09	5.28	41.61	34.72	48.26	54.00	5.74	Average
4	7236.00	36.09	5.28	47.60	34.72	54.25	74.00	19.75	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



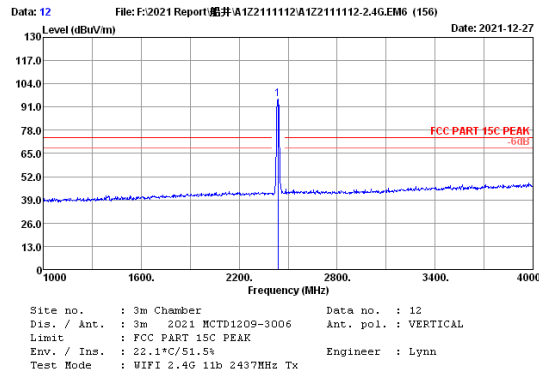
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading factor (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7236.00	36.09	5.28	42.47	34.72	49.12	54.00	4.88	Average
2	7236.00	36.09	5.28	49.91	34.72	56.56	74.00	17.44	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



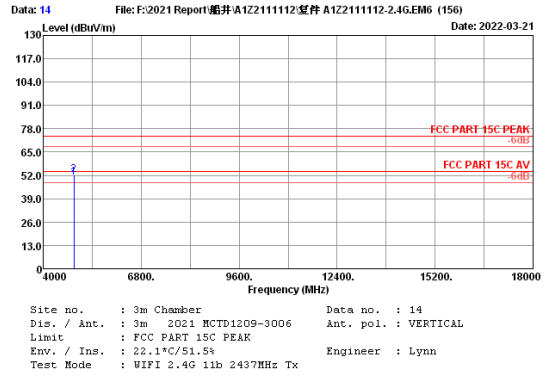
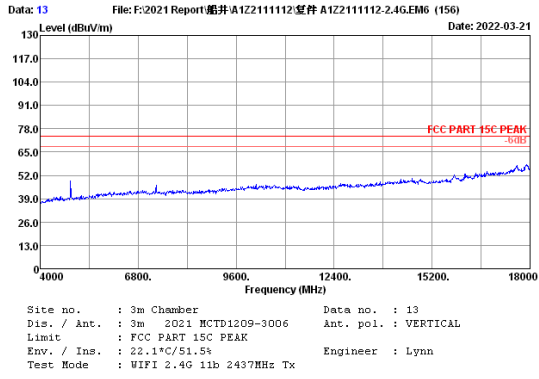
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading factor (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	28.00	3.68	107.23	35.24	103.67			Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



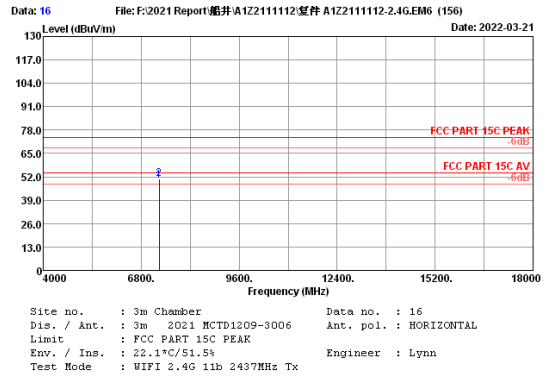
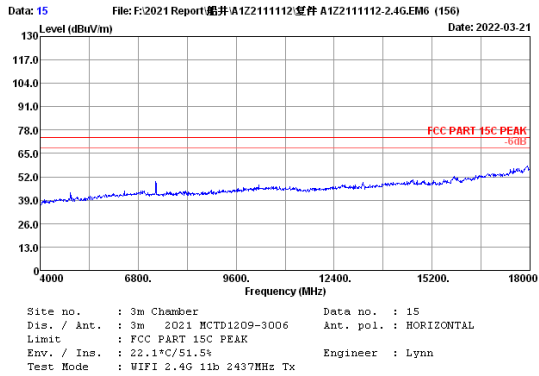
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading factor (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	28.00	3.68	99.04	35.24	95.48			Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



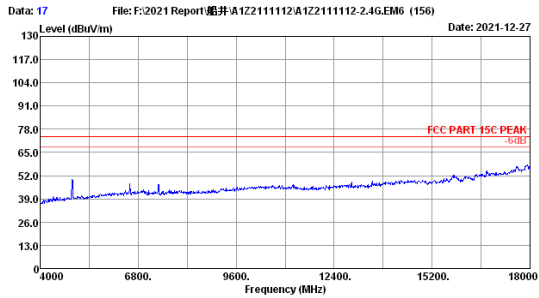
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading factor (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.00	32.73	5.01	47.42	34.47	50.69	54.00	3.31	Average
2	4874.00	32.73	5.01	49.18	34.47	52.45	74.00	21.55	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.

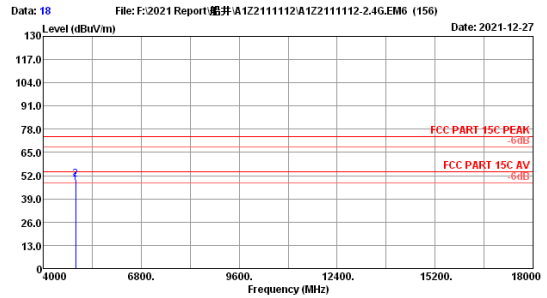


No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading factor (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7311.00	36.15	5.27	43.36	34.75	50.03	54.00	3.97	Average
2	7311.00	36.15	5.27	44.14	34.75	50.01	74.00	23.19	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



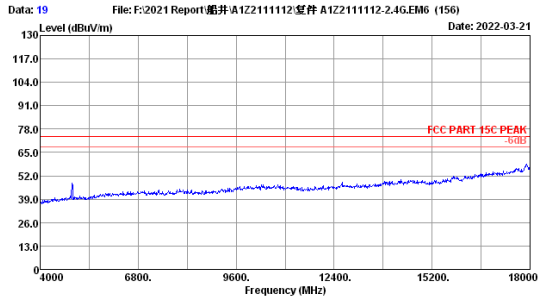
Site no. : 3m Chamber Data no. : 17
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11b 2462MHz Tx



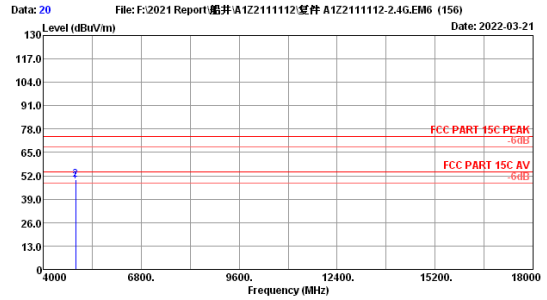
Site no. : 3m Chamber Data no. : 18
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11b 2462MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.00	32.76	5.03	44.71	34.48	48.02	54.00	5.98	Average
2	4924.00	32.76	5.03	46.40	34.48	49.71	74.00	24.29	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Ant factor.
 2. The emission levels that are 20dB below the official limit are not reported.



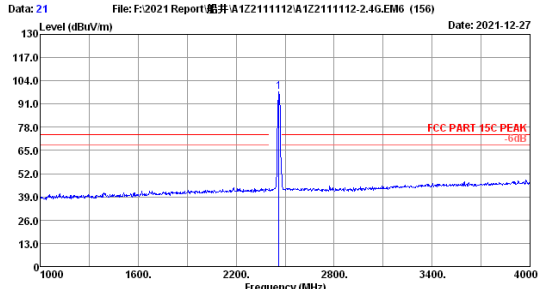
Site no. : 3m Chamber Data no. : 19
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11b 2462MHz Tx



Site no. : 3m Chamber Data no. : 20
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11b 2462MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.00	32.76	5.03	45.78	34.48	49.09	54.00	4.91	Average
2	4924.00	32.76	5.03	46.80	34.48	50.11	74.00	23.89	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Ant factor.
 2. The emission levels that are 20dB below the official limit are not reported.

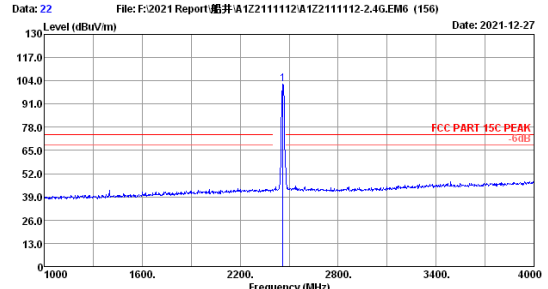


File: F:\2021 Report\船井A1Z2111112\A1Z2111112-2.4G.EM6 (156) Date: 2021-12-27

Site no. : 3m Chamber Data no. : 21
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11b 2462MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Reading (dBuV)	Emission factor (dB)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	28.03	3.70	101.21	35.25	97.69	-----	-----	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.

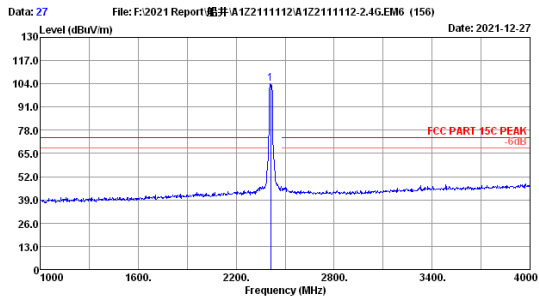


File: F:\2021 Report\船井A1Z2111112\A1Z2111112-2.4G.EM6 (156) Date: 2021-12-27

Site no. : 3m Chamber Data no. : 22
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11b 2462MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Reading (dBuV)	Emission factor (dB)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	28.03	3.70	105.53	35.25	102.01	-----	-----	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.

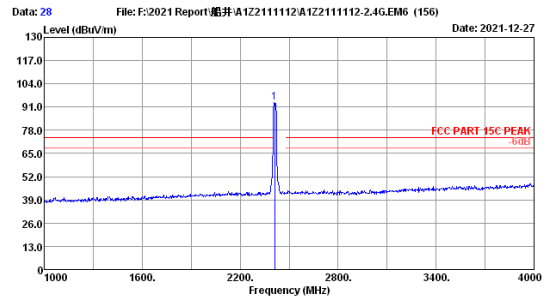


File: F:\2021 Report\船井A1Z2111112\A1Z2111112-2.4G.EM6 (156) Date: 2021-12-27

Site no. : 3m Chamber Data no. : 27
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11g 2412MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Reading (dBuV)	Emission factor (dB)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.93	3.66	107.58	35.24	103.93	-----	-----	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.

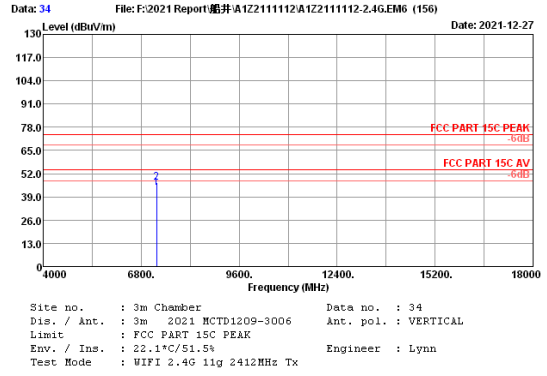
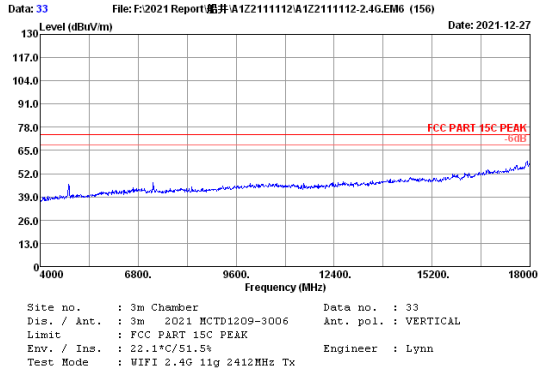


File: F:\2021 Report\船井A1Z2111112\A1Z2111112-2.4G.EM6 (156) Date: 2021-12-27

Site no. : 3m Chamber Data no. : 28
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11g 2412MHz Tx

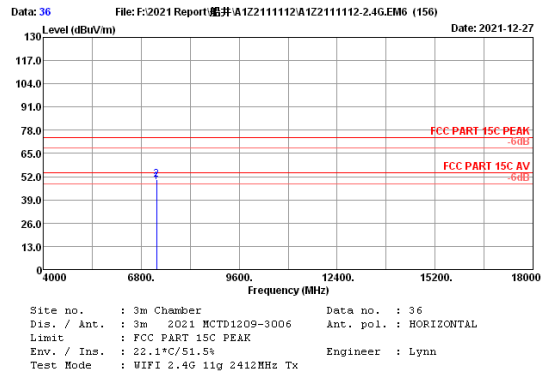
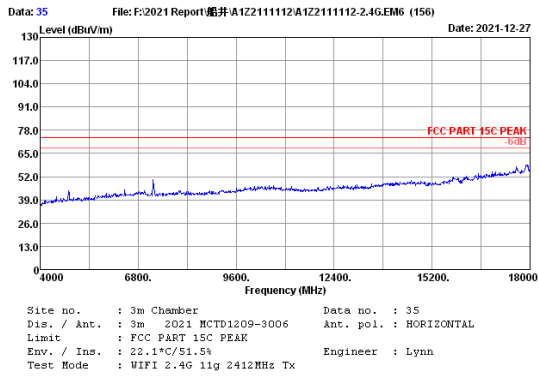
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Reading (dBuV)	Emission factor (dB)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.93	3.66	97.19	35.24	93.54	-----	-----	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



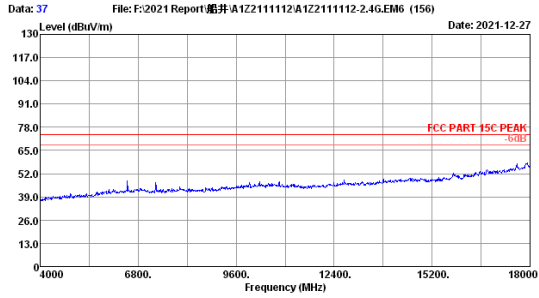
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7236.00	36.09	5.28	37.52	34.72	44.17	54.00	9.83	Average
2	7236.00	36.09	5.28	40.13	34.72	46.78	74.00	27.22	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.

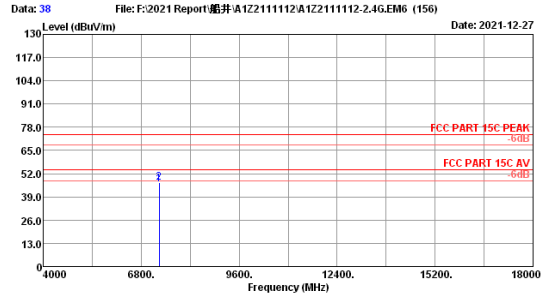


No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7236.00	36.09	5.28	42.14	34.72	48.79	54.00	5.21	Average
2	7236.00	36.09	5.28	43.73	34.72	50.38	74.00	23.62	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



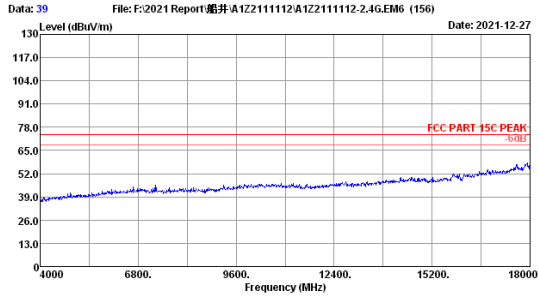
Site no. : 3m Chamber Data no. : 37
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11g 2437MHz Tx



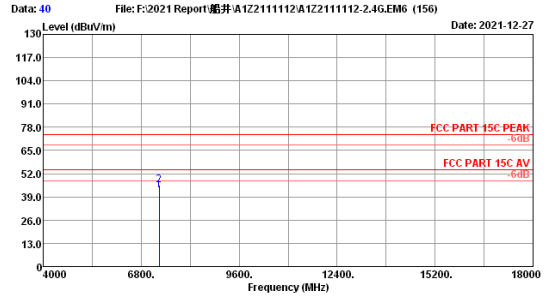
Site no. : 3m Chamber Data no. : 38
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11g 2437MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7311.00	36.15	5.27	39.36	34.75	46.03	54.00	7.97	Average
2	7311.00	36.15	5.27	40.48	34.75	47.15	74.00	26.85	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



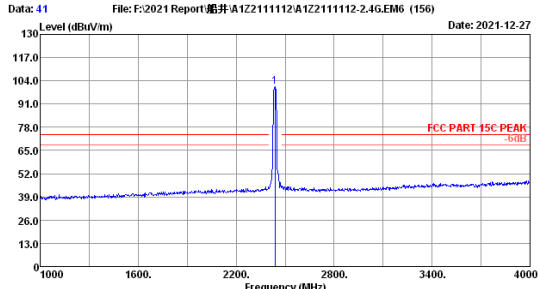
Site no. : 3m Chamber Data no. : 39
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11g 2437MHz Tx



Site no. : 3m Chamber Data no. : 40
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11g 2437MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7311.00	36.15	5.27	36.19	34.75	42.86	54.00	11.14	Average
2	7311.00	36.15	5.27	38.79	34.75	45.46	74.00	28.54	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.

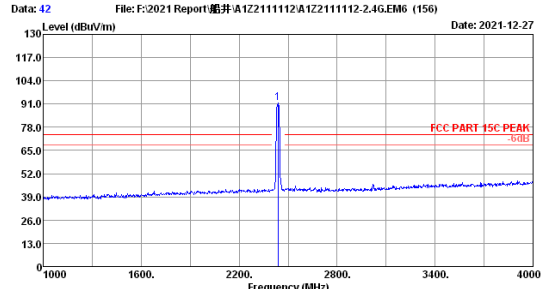


File: F:\2021 Report\船井A1Z211112\A1Z211112-2.4G.EM6 (156) Date: 2021-12-27

Site no. : 3m Chamber Data no. : 41
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11g 2437MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	28.00	3.68	104.21	35.24	100.65	-----	-----	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.

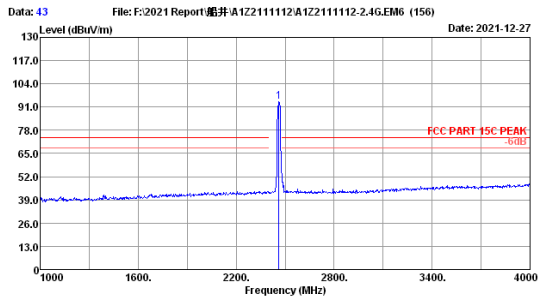


File: F:\2021 Report\船井A1Z211112\A1Z211112-2.4G.EM6 (156) Date: 2021-12-27

Site no. : 3m Chamber Data no. : 42
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11g 2437MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	28.00	3.68	95.39	35.24	91.83	-----	-----	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.

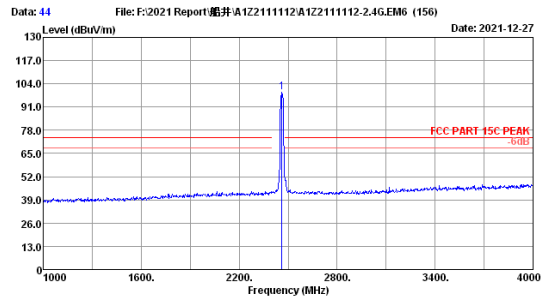


File: F:\2021 Report\船井A1Z211112\A1Z211112-2.4G.EM6 (156) Date: 2021-12-27

Site no. : 3m Chamber Data no. : 43
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11g 2462MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	28.03	3.70	97.43	35.25	93.91	-----	-----	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.

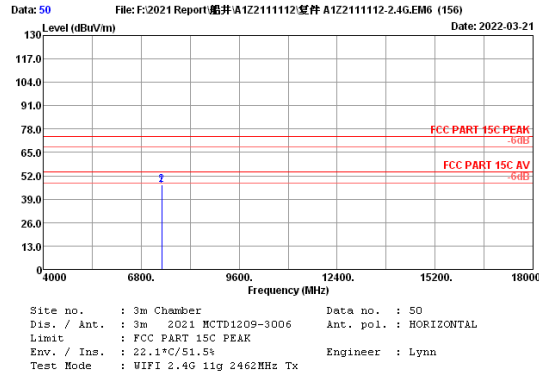
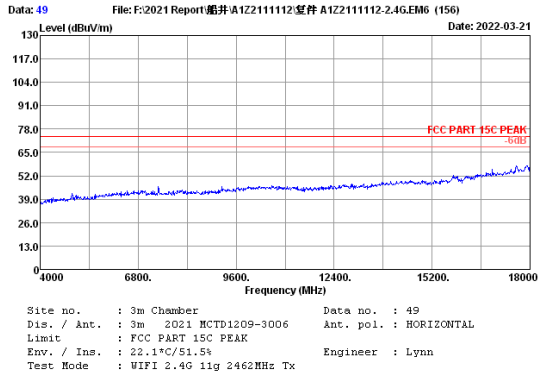


File: F:\2021 Report\船井A1Z211112\A1Z211112-2.4G.EM6 (156) Date: 2021-12-27

Site no. : 3m Chamber Data no. : 44
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11g 2462MHz Tx

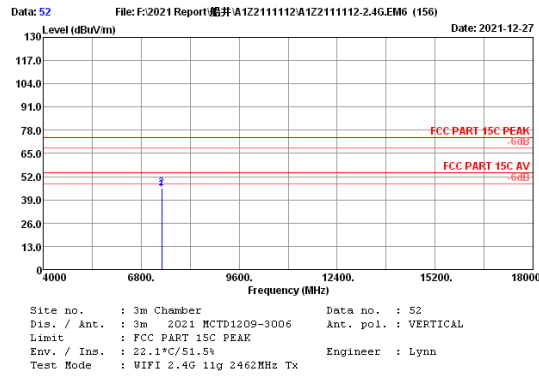
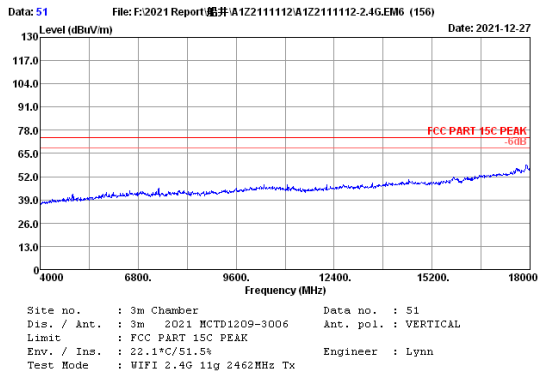
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	28.03	3.70	102.85	35.25	99.33	-----	-----	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



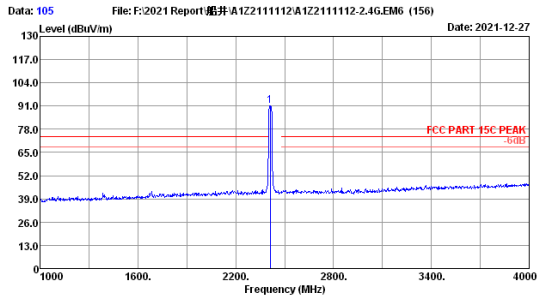
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7386.00	36.22	5.26	39.63	34.79	46.32	54.00	7.68	Average
2	7386.00	36.22	5.26	40.46	34.79	47.15	74.00	26.85	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7386.00	36.22	5.26	38.05	34.79	44.74	54.00	9.26	Average
2	7386.00	36.22	5.26	38.85	34.79	45.54	74.00	28.46	Peak

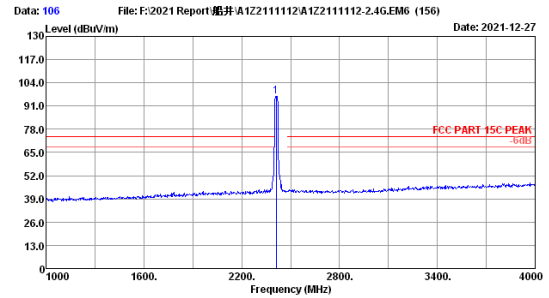
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



File: F:\2021 Report\船井\A12211112\A12211112-2.4G.EM6 (156) Date: 2021-12-27
 Site no. : 3m Chamber Data no. : 105
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11n20 2412MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.93	3.66	95.00	35.24	91.35	78.00	13.35	Peak

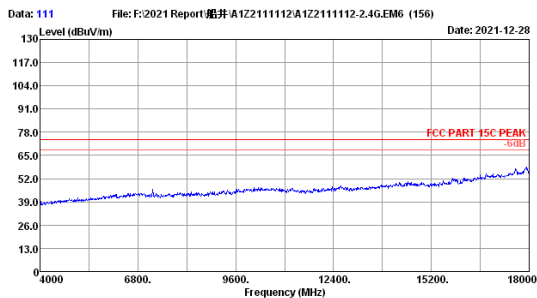
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



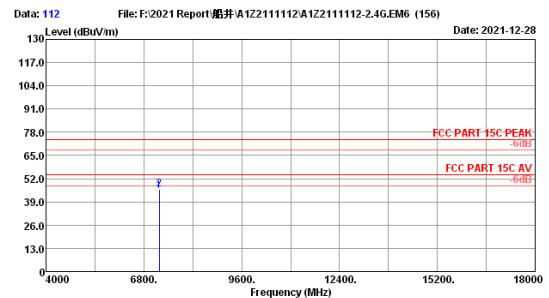
File: F:\2021 Report\船井\A12211112\A12211112-2.4G.EM6 (156) Date: 2021-12-27
 Site no. : 3m Chamber Data no. : 106
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11n20 2412MHz Tx

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.93	3.66	100.26	35.24	96.61	78.00	18.61	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



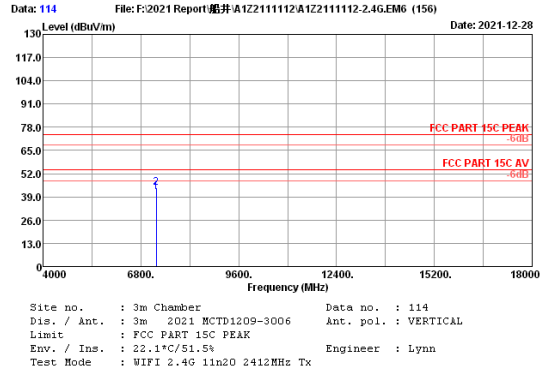
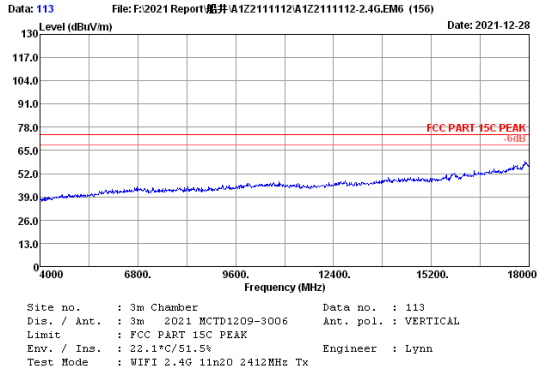
File: F:\2021 Report\船井\A12211112\A12211112-2.4G.EM6 (156) Date: 2021-12-28
 Site no. : 3m Chamber Data no. : 111
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11n20 2412MHz Tx



File: F:\2021 Report\船井\A12211112\A12211112-2.4G.EM6 (156) Date: 2021-12-28
 Site no. : 3m Chamber Data no. : 112
 Dis. / Ant. : 3m 2021 MCTD1209-3006 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 22.1°C/51.5% Engineer : Lynn
 Test Mode : WIFI 2.4G 11n20 2412MHz Tx

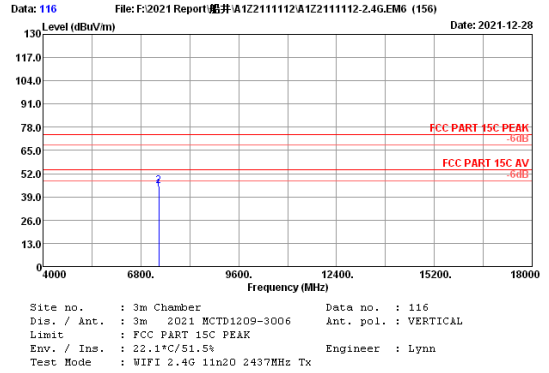
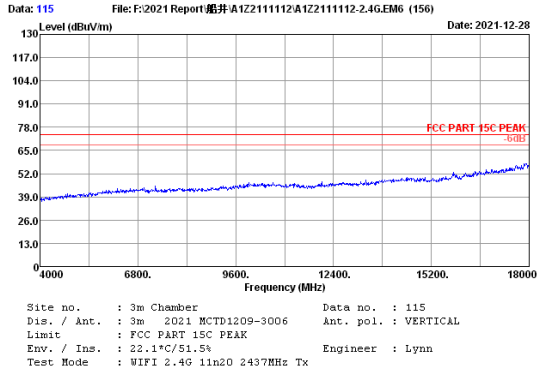
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7236.00	36.09	5.28	38.44	34.72	45.09	54.00	8.91	Average
2	7236.00	36.09	5.28	39.30	34.72	45.95	74.00	28.05	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



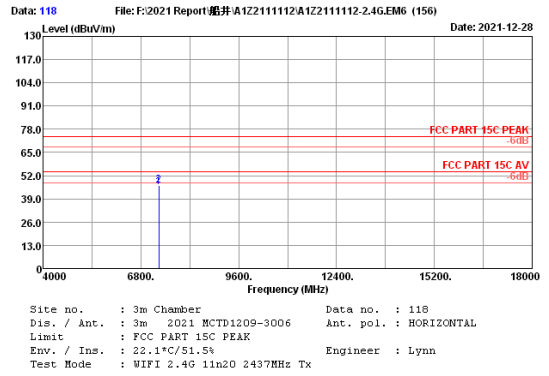
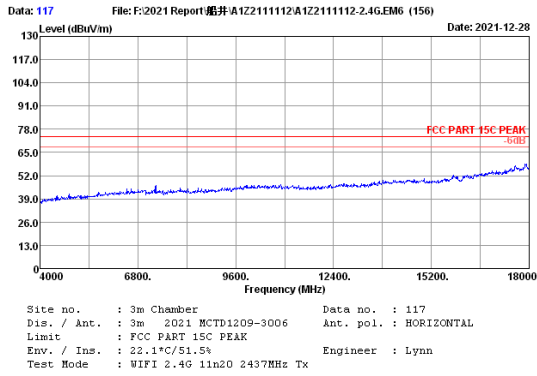
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7236.00	36.09	5.28	35.26	34.72	41.91	54.00	12.09	Average
2	7236.00	36.09	5.28	37.33	34.72	43.98	74.00	30.02	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



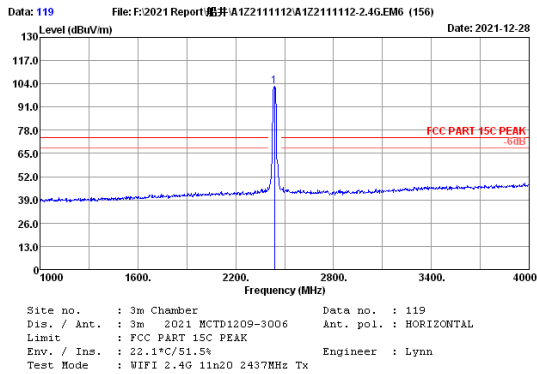
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7311.00	36.15	5.27	36.29	34.75	42.96	54.00	11.04	Average
2	7311.00	36.15	5.27	38.21	34.75	44.88	74.00	29.12	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



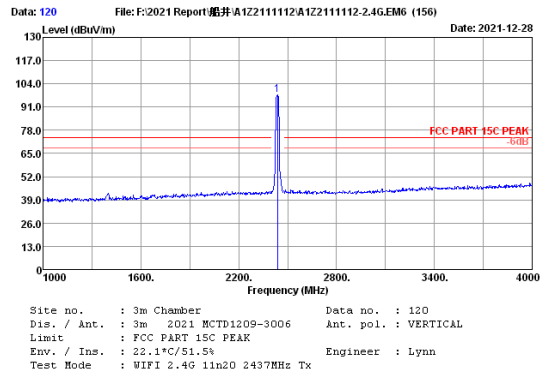
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7311.00	36.15	5.27	39.13	34.75	45.80	54.00	8.20	Average
2	7311.00	36.15	5.27	39.87	34.75	46.54	74.00	27.46	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



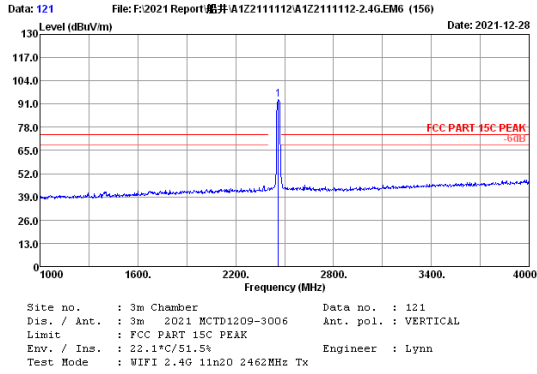
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	28.00	3.68	106.18	35.24	102.62			Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



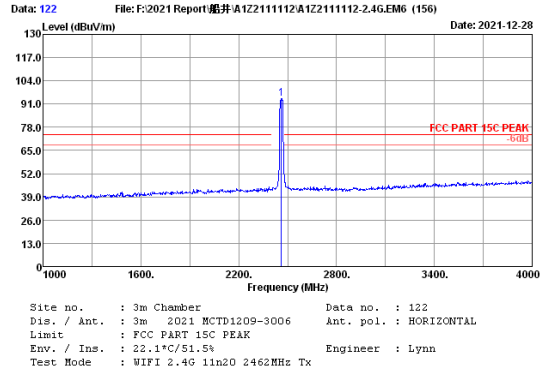
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	28.00	3.68	101.27	35.24	97.71			Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



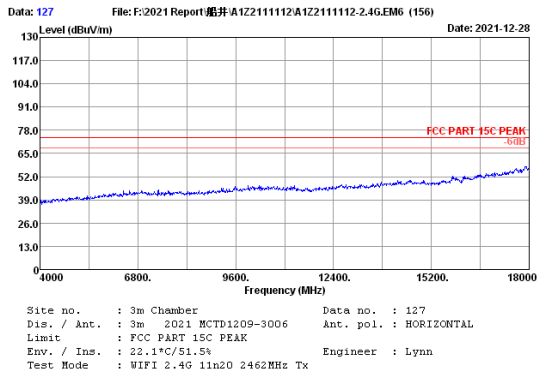
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	28.03	3.70	96.96	35.25	93.44	-----	-----	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



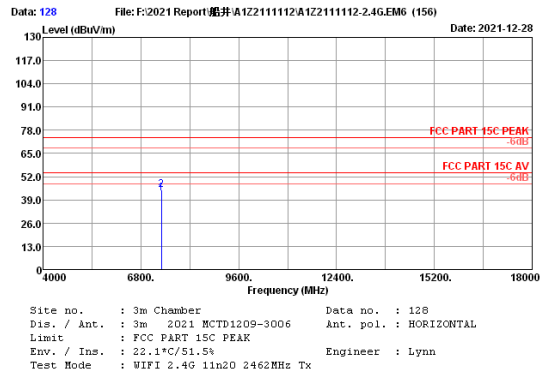
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	28.03	3.70	97.66	35.25	94.14	-----	-----	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



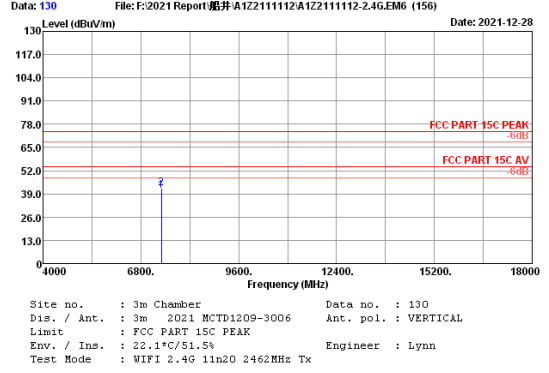
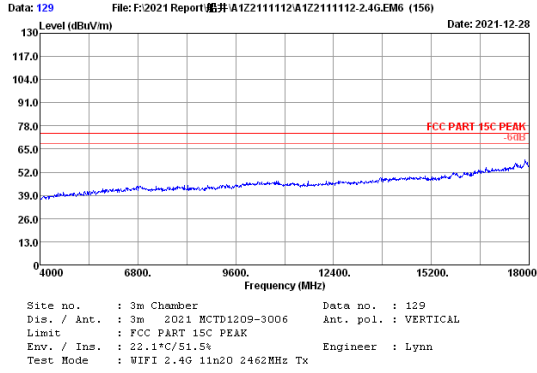
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7386.00	36.22	5.26	35.95	34.79	42.64	54.00	11.36	Average
2	7386.00	36.22	5.26	37.75	34.79	44.44	74.00	29.56	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



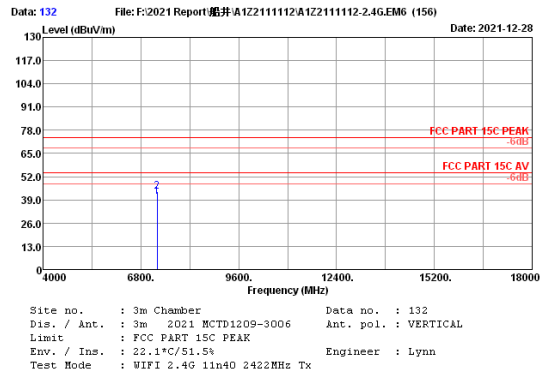
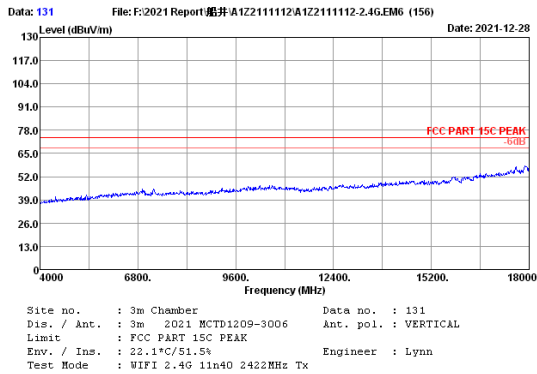
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7386.00	36.22	5.26	35.95	34.79	42.64	54.00	11.36	Average
2	7386.00	36.22	5.26	37.75	34.79	44.44	74.00	29.56	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



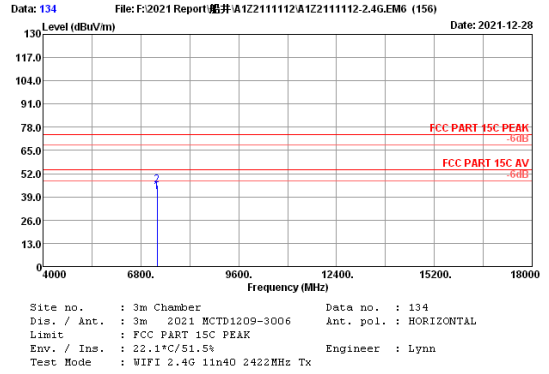
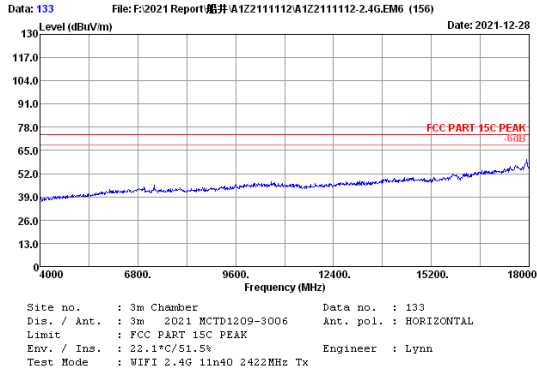
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7386.00	36.22	5.26	34.15	34.79	40.84	54.00	13.16	Average
2	7386.00	36.22	5.26	35.72	34.79	42.41	74.00	31.59	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



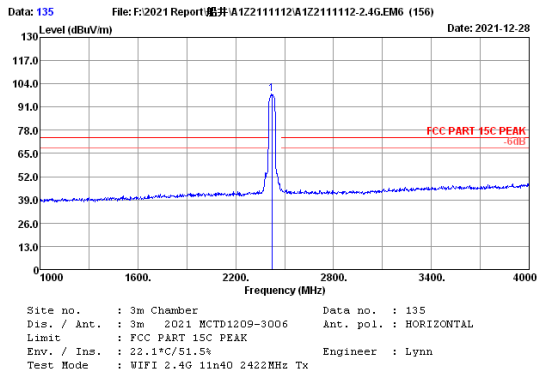
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7266.00	36.12	5.27	34.34	34.74	40.99	54.00	13.01	Average
2	7266.00	36.12	5.27	37.21	34.74	43.86	74.00	30.14	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



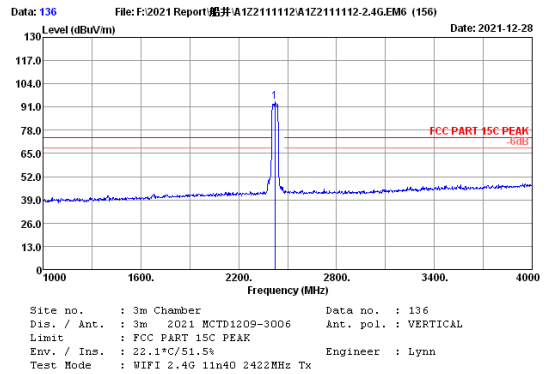
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7266.00	36.12	5.27	35.16	34.74	41.81	54.00	12.19	Average
2	7266.00	36.12	5.27	38.89	34.74	45.54	74.00	28.46	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



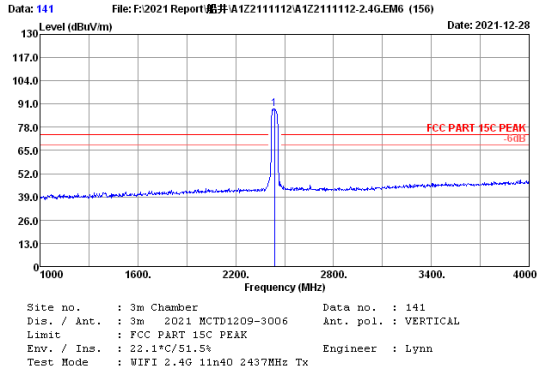
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2422.00	27.96	3.67	101.75	35.24	98.14			Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



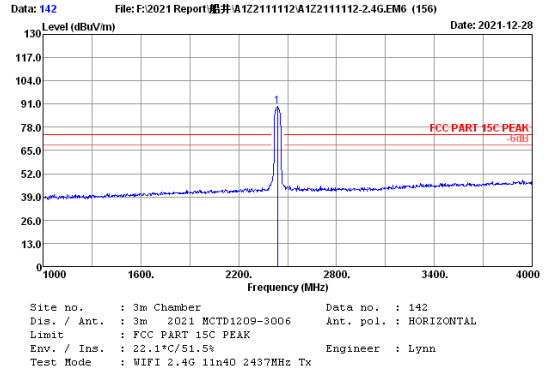
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2422.00	27.96	3.67	97.63	35.24	94.02			Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



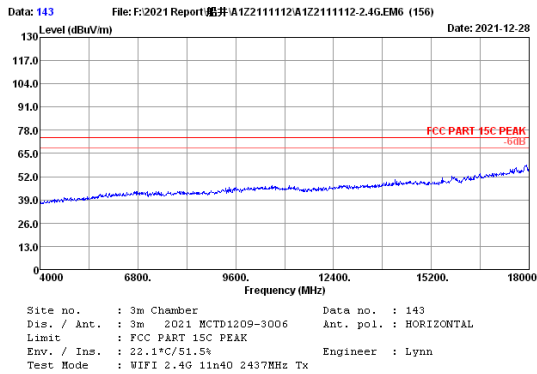
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	28.00	3.68	91.87	35.24	88.31	-----	-----	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



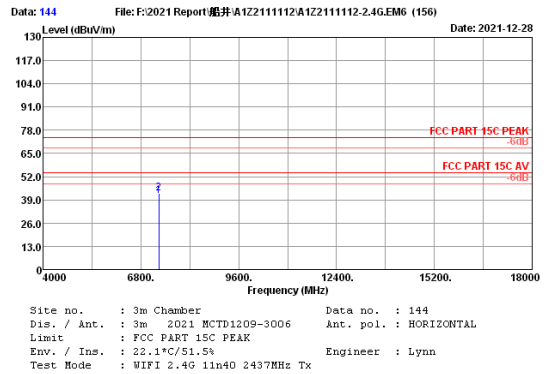
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	28.00	3.68	93.06	35.24	89.50	-----	-----	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



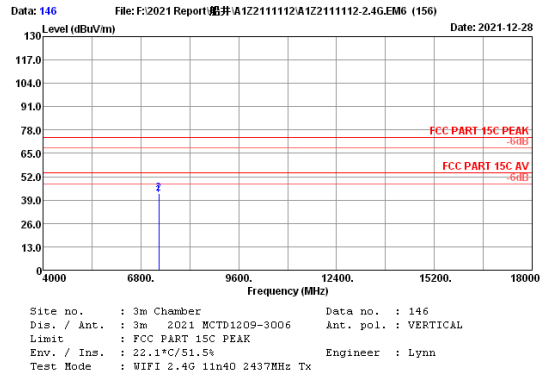
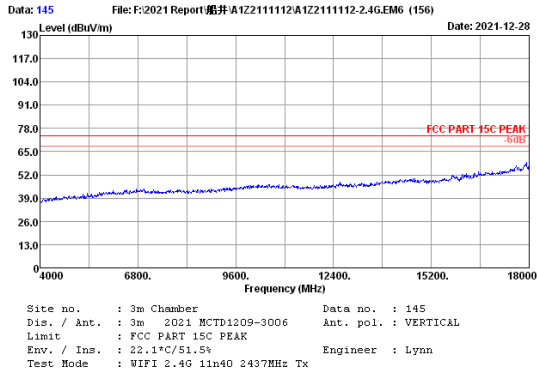
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7311.00	36.15	5.27	34.48	34.75	41.15	54.00	12.85	Average
2	7311.00	36.15	5.27	36.19	34.75	42.86	74.00	31.14	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



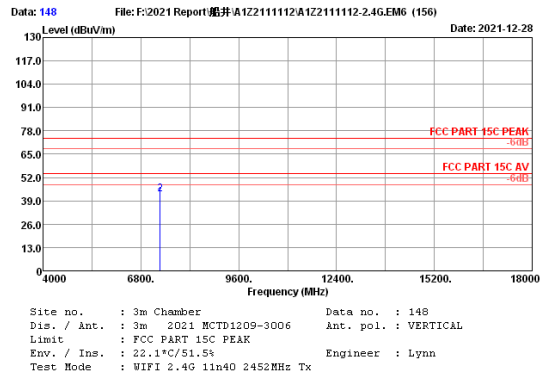
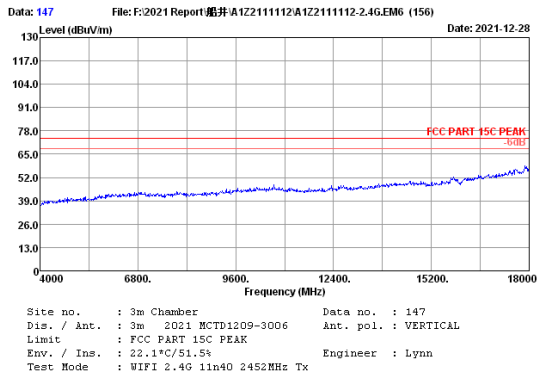
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7311.00	36.15	5.27	34.48	34.75	41.15	54.00	12.85	Average
2	7311.00	36.15	5.27	36.19	34.75	42.86	74.00	31.14	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



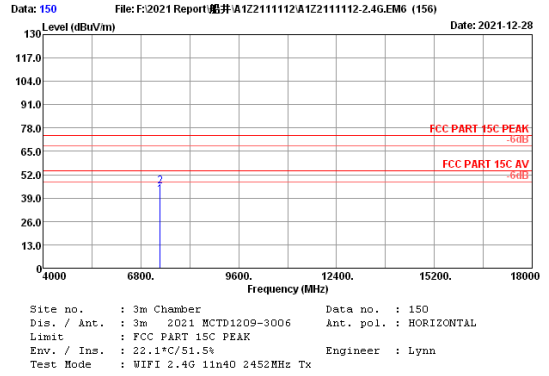
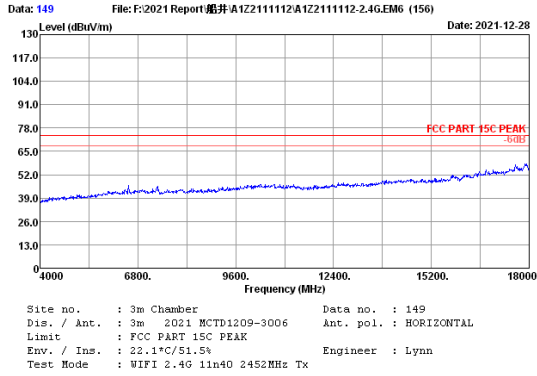
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7311.00	36.15	5.27	34.86	34.75	41.53	54.00	12.47	Average
2	7311.00	36.15	5.27	36.07	34.75	42.74	74.00	31.26	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



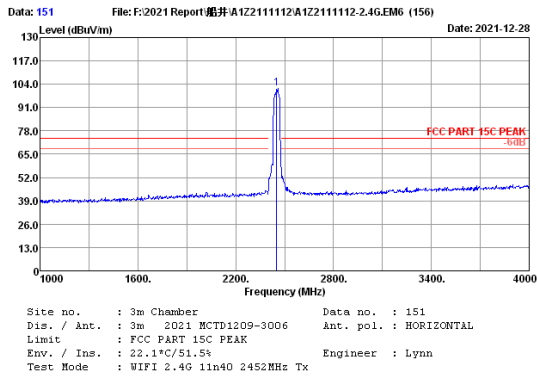
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7356.00	36.19	5.26	34.15	34.77	40.83	54.00	13.17	Average
2	7356.00	36.19	5.26	35.96	34.77	42.64	74.00	31.36	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



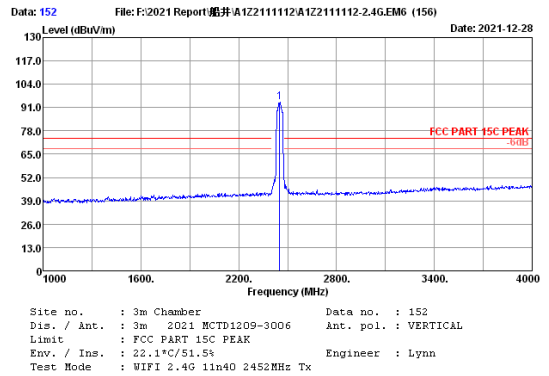
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading factor (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7356.00	36.19	5.26	34.18	34.77	40.86	54.00	13.14	Average
2	7356.00	36.19	5.26	38.82	34.77	45.50	74.00	28.50	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading factor (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2452.00	28.00	3.68	105.04	35.25	101.47	-----	-----	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading factor (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2452.00	28.00	3.68	97.83	35.25	94.26	-----	-----	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.

5. CONDUCTED SPURIOUS EMISSIONS

5.1. Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Apr.07,21	1 Year
2.	RF Cable	HUBER+SUHNER	SUCOFLEX-106	505238/6	Apr.07,21	1 Year

5.2. Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

5.3. Test Procedure

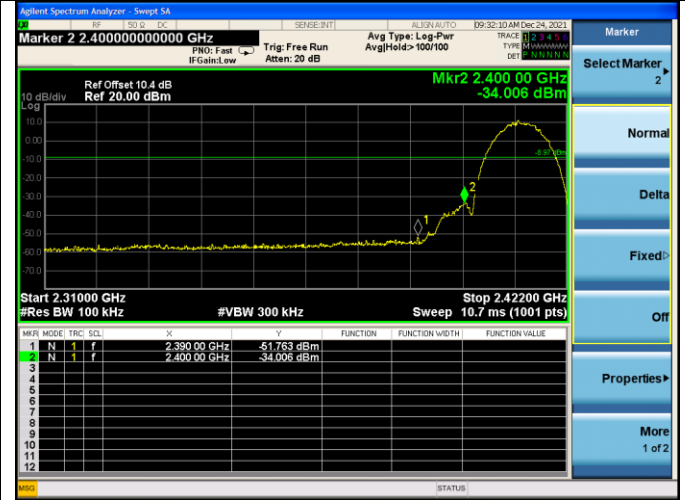
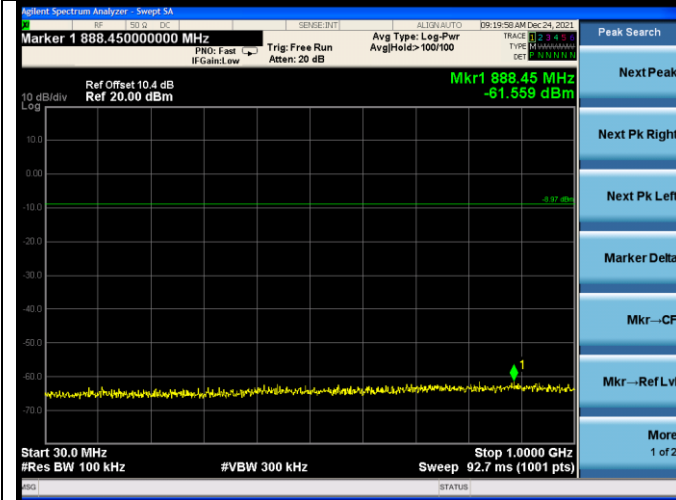
The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions with peak detector.

5.4. Test result

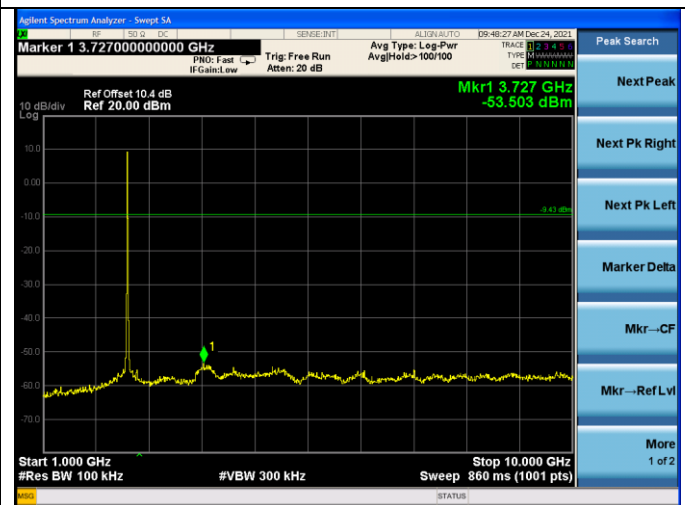
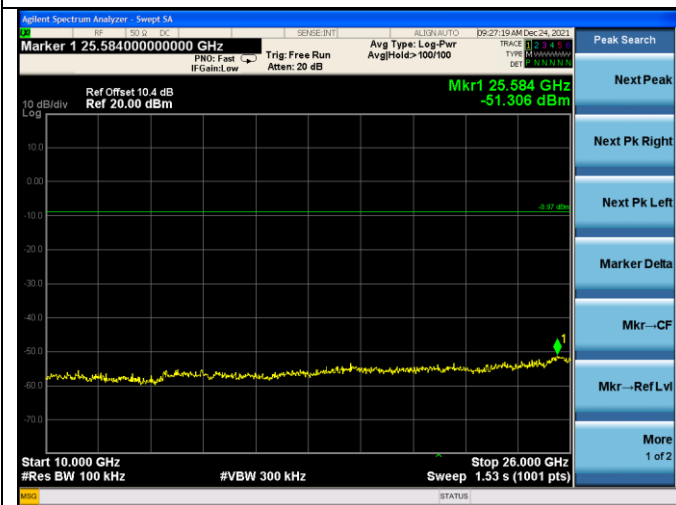
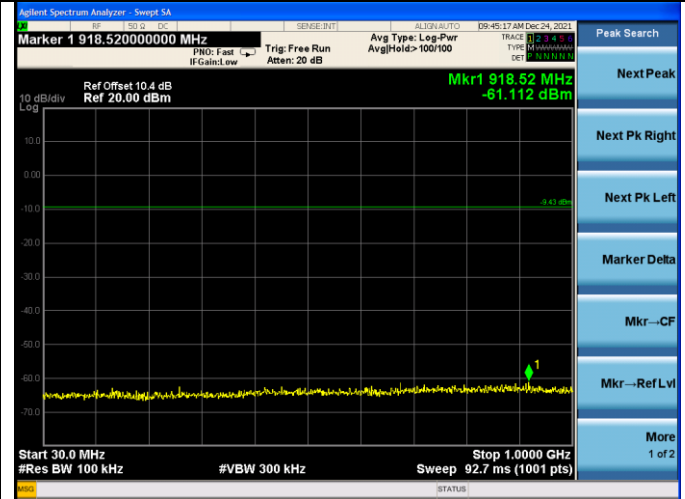
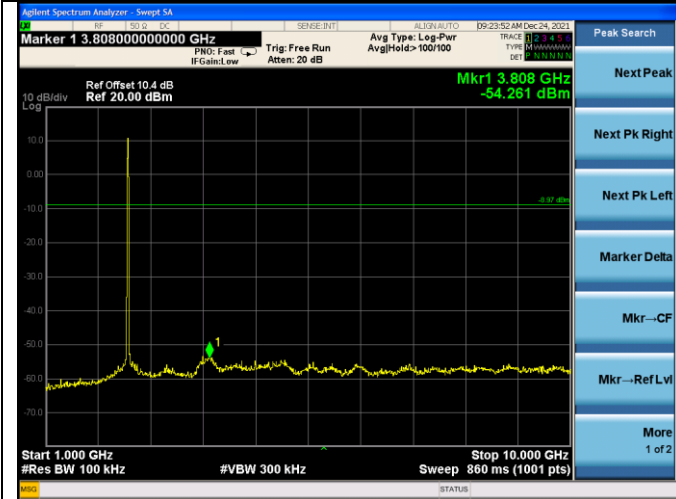
PASS (The testing data was attached in the next pages.)

ANTA

Test Mode: IEEE 802.11b
Test CH1: 2412MHz

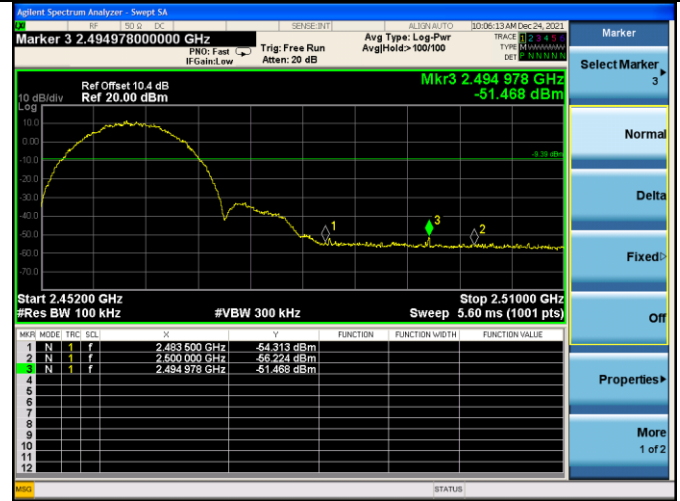
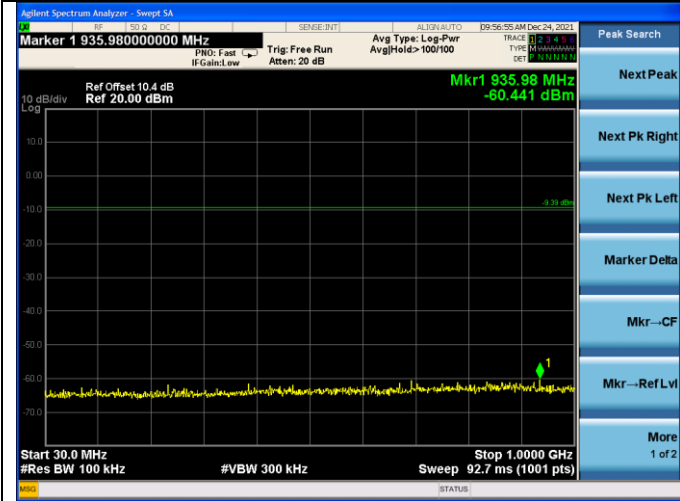


Test CH6: 2437MHz

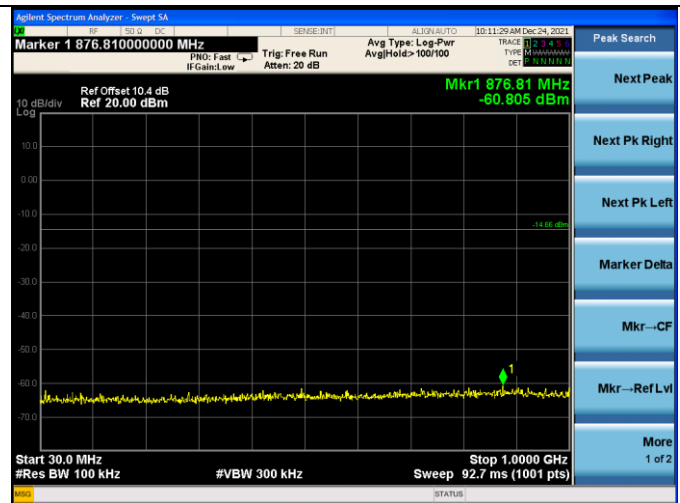
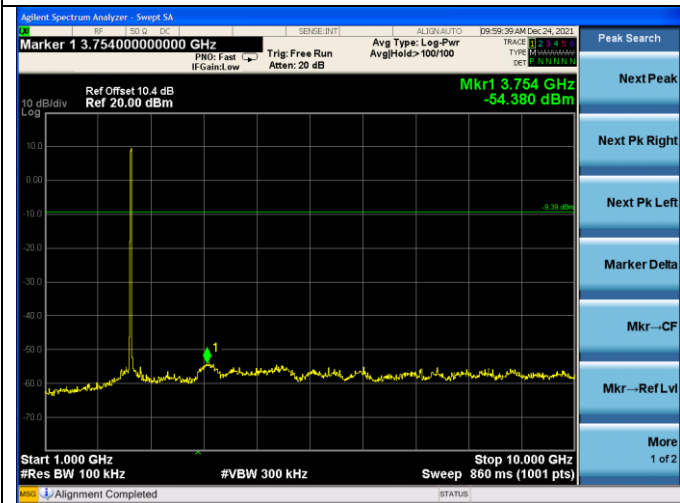




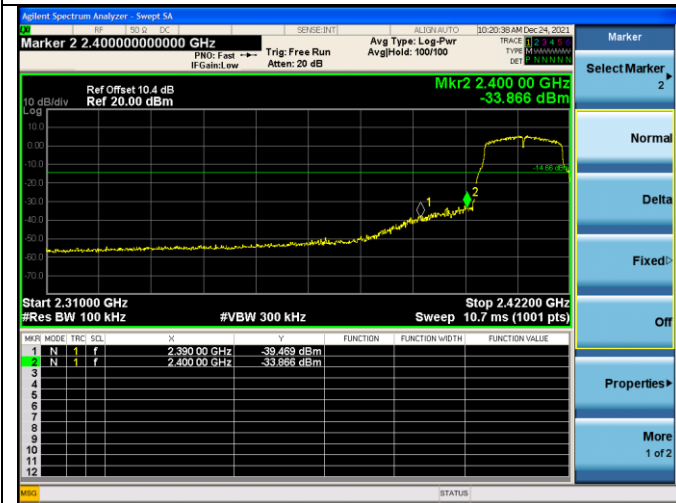
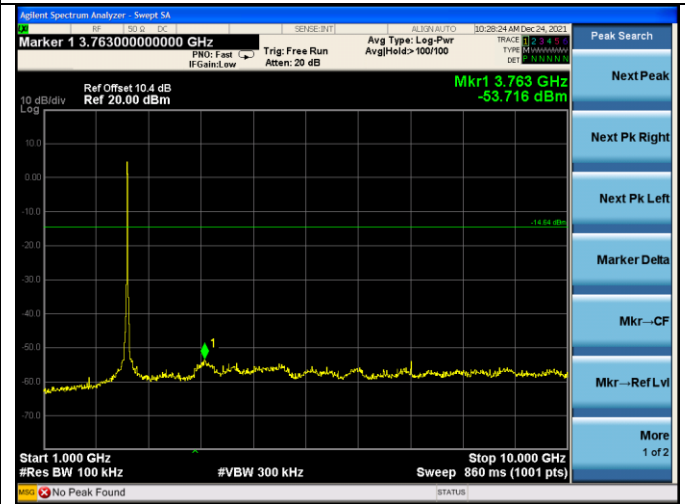
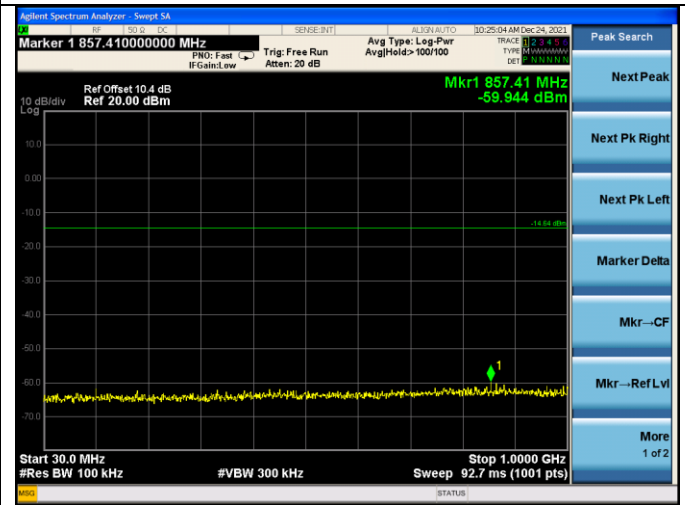
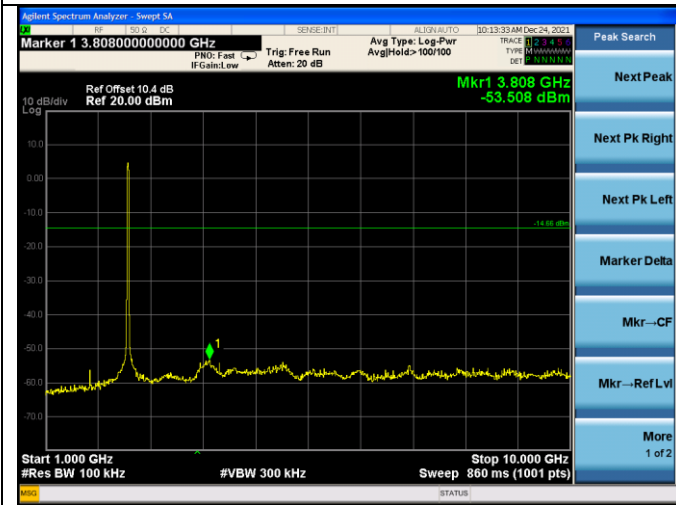
Test CH11: 2462MHz



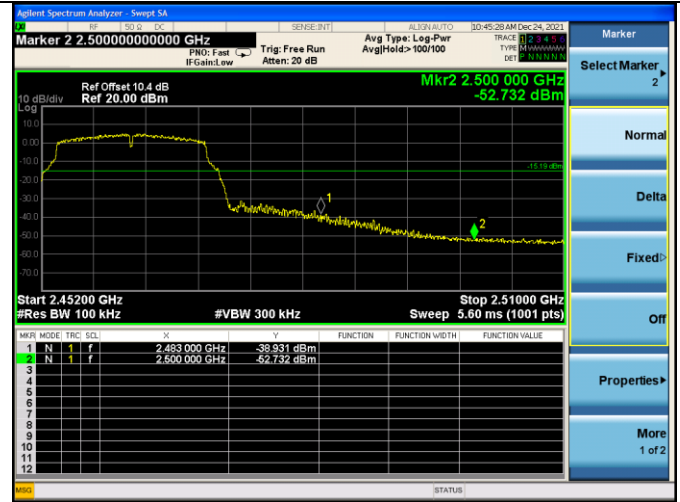
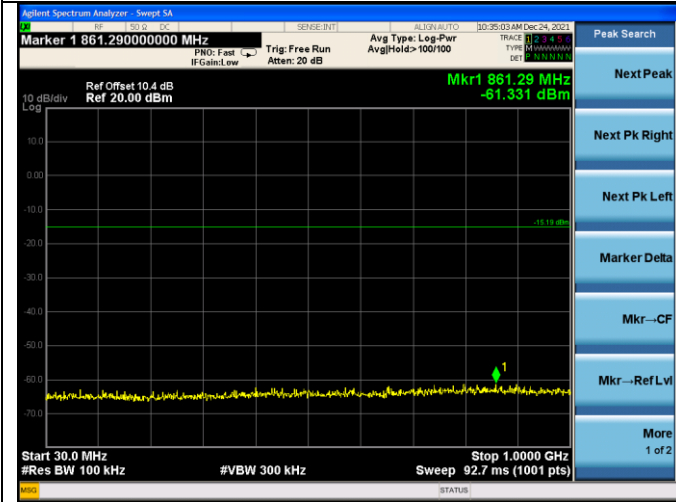
Test Mode: IEEE 802.11g
 Test CH1: 2412MHz



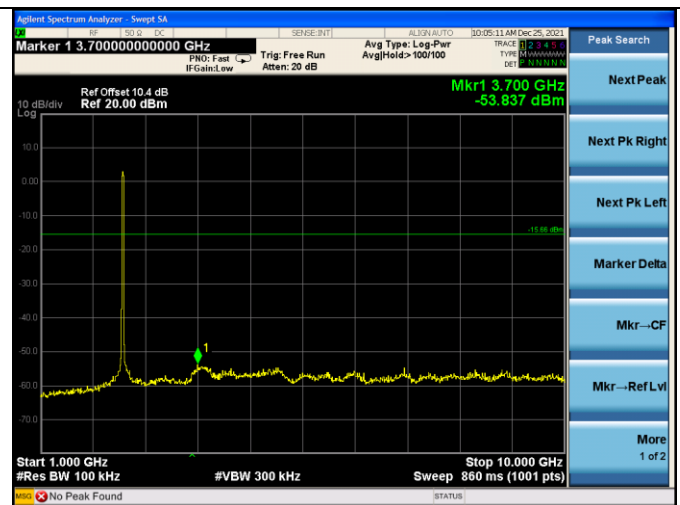
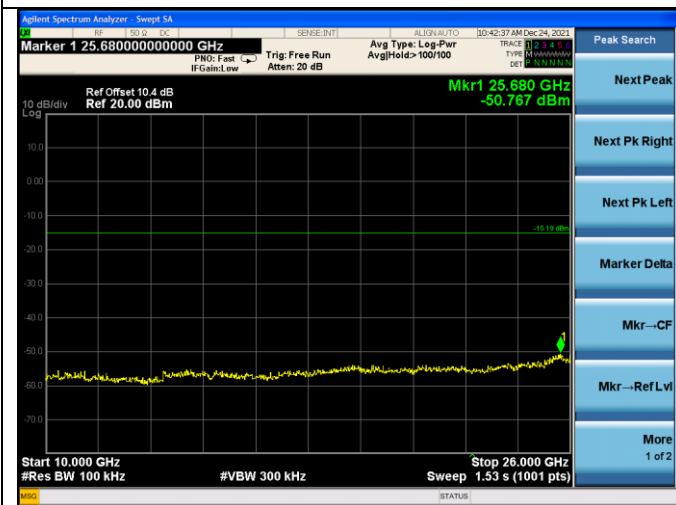
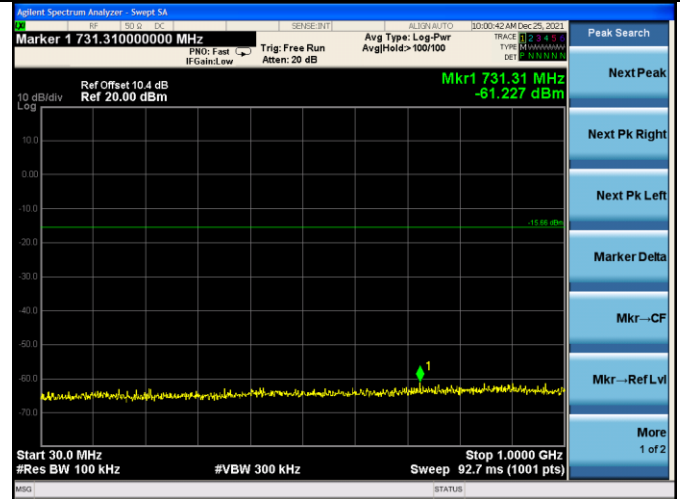
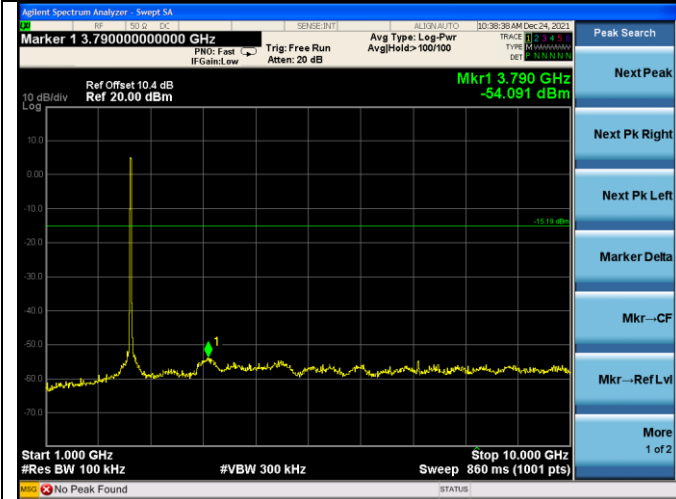
Test CH6: 2437MHz

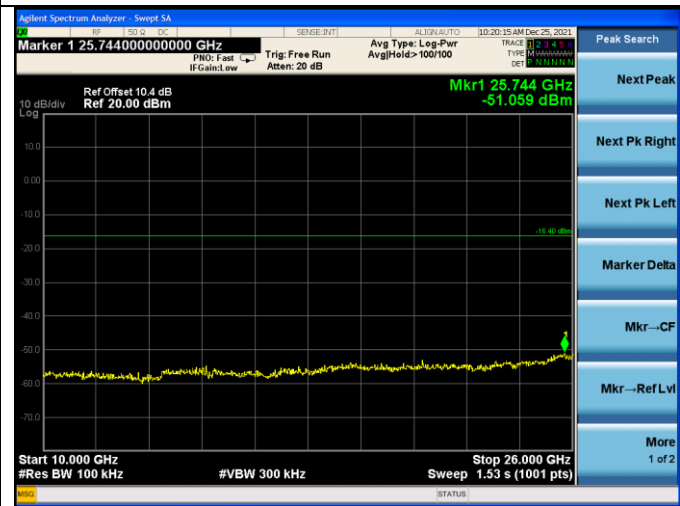
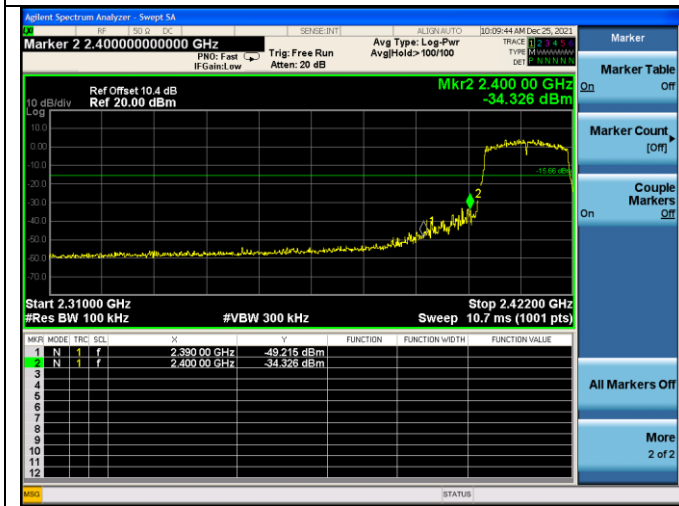
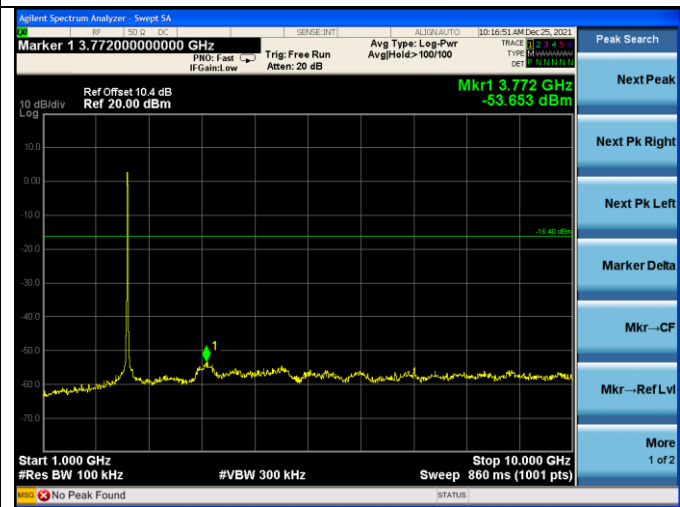
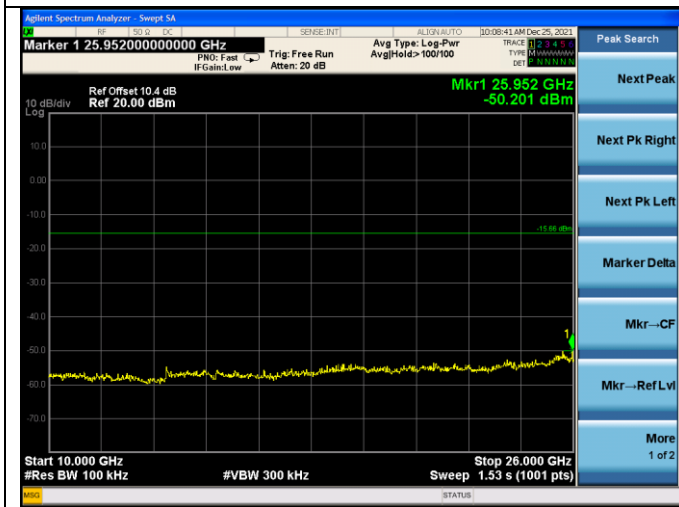


Test CH11: 2462MHz

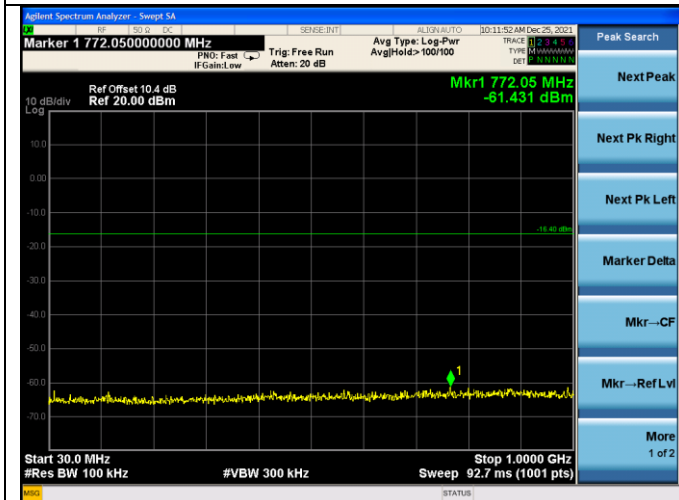


Test Mode: IEEE 802.11n HT20
Test CH1: 2412MHz

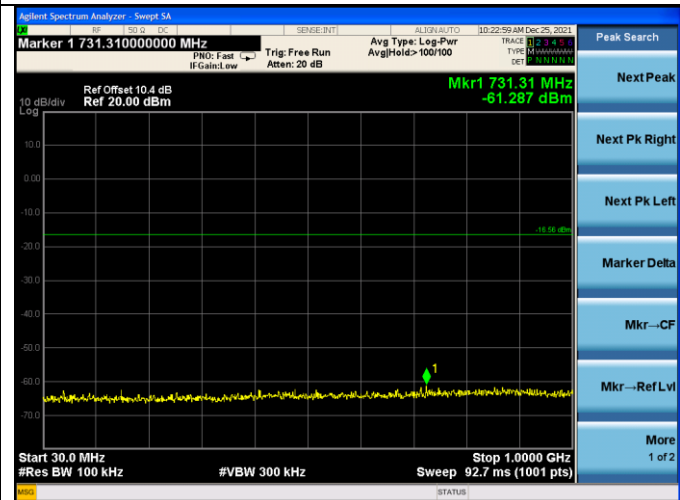




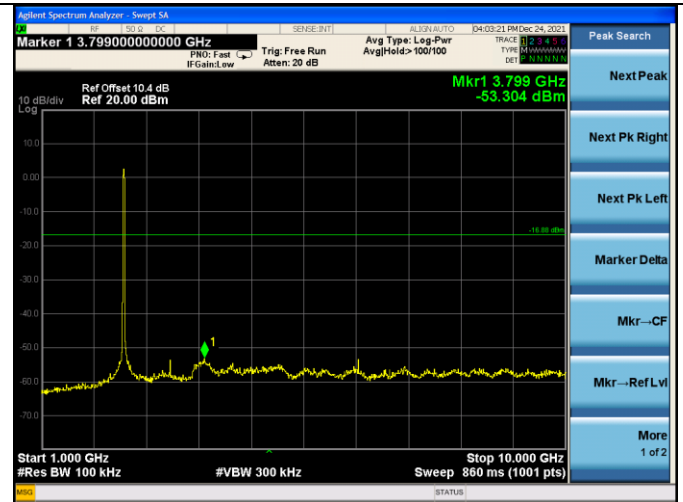
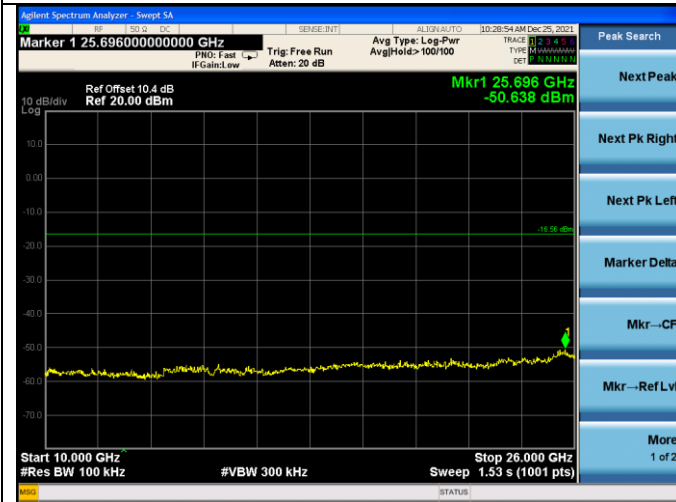
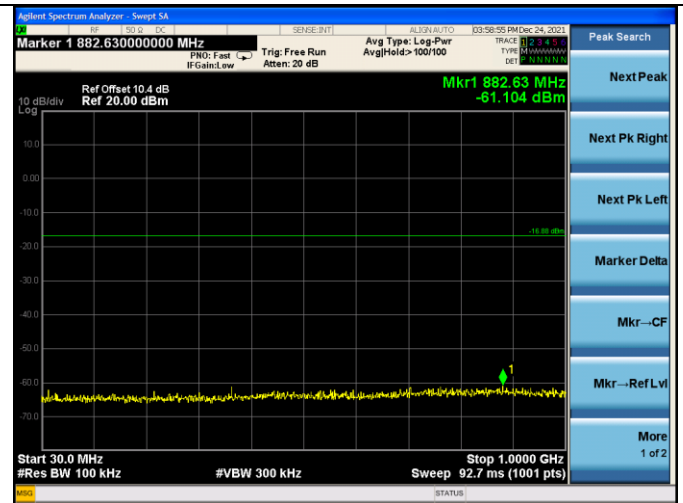
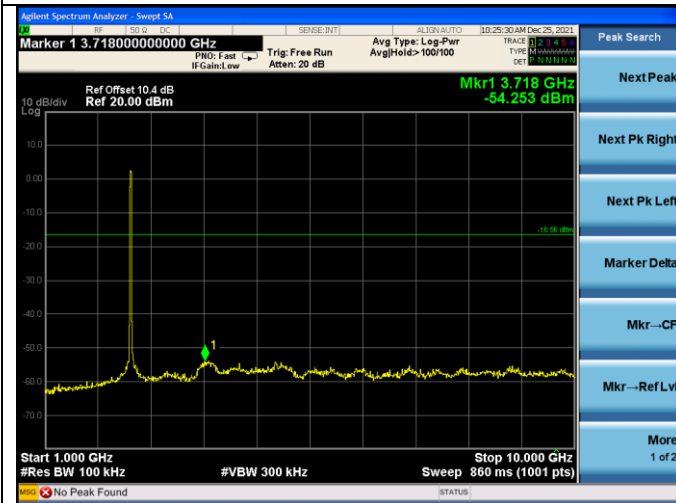
Test CH6: 2437MHz

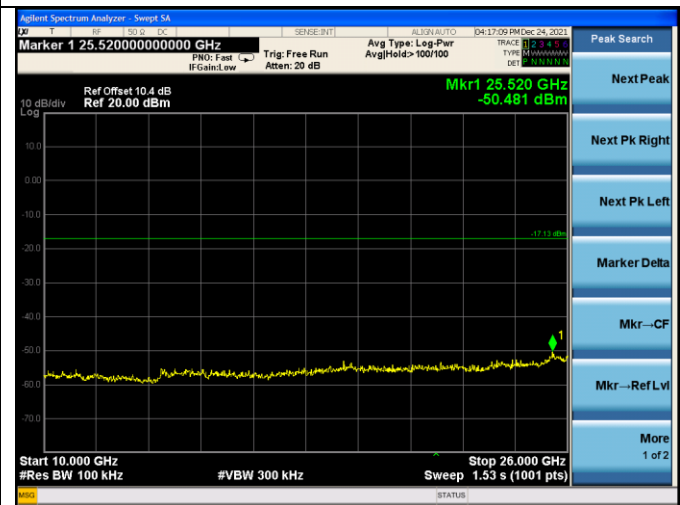
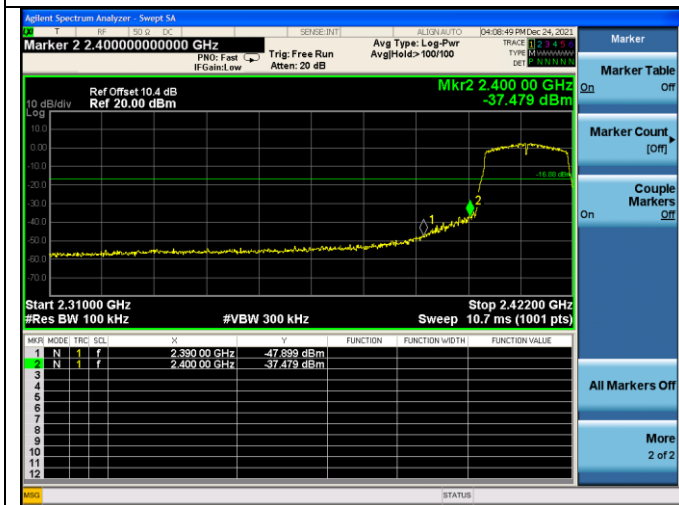


Test CH11: 2462MHz

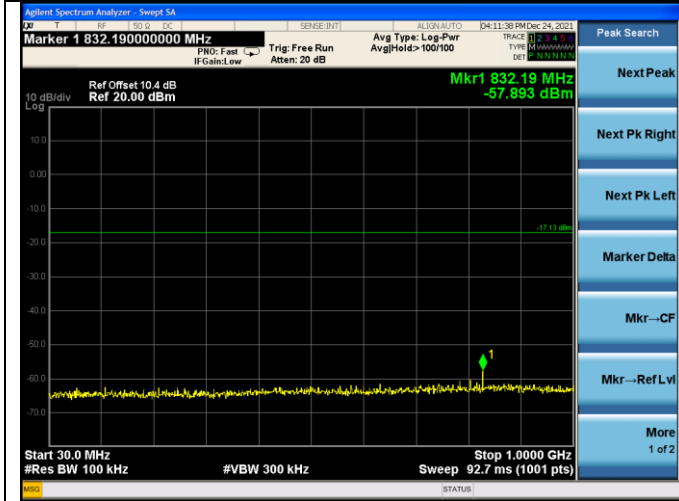


Test Mode: IEEE 802.11n HT40
Test CH1: 2422MHz





Test CH1: 2437MHz



Test CH1: 2452MHz

