

FCC PART 15C TEST REPORT FOR CERTIFICATION

On Behalf of

Global Aiptek Corporation

Mobile Projector

Model No.: i400; B130i; L220R; LK-W11F;
KWX1801; AW10; PPX740; MP400

FCC ID: 2AHTC-I4000

Prepared for : Global Aiptek Corporation
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Date of Report : Dec.24, 2018

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TEST REPORT CERTIFICATION

Applicant : Global Aiptek Corporation
Manufacturer : Global Aiptek Corporation
Product : Mobile Projector
FCC ID : 2AHTC-I4000
(A) Model No. : i400; B130i; L220R; LK-W11F; KWX1801; AW10;
PPX740; MP400
(B) Power Supply : DC 19V
(C) Test Voltage : DC 19V From Adapter Input AC 120V/60Hz

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

Test procedure used:
ANSI C63.10: 2013
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 above tested sample only. This report 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 : Oct.17~25, 2018 Report of date: Dec.24, 2018

Prepared by : Monica Liu / Assistant

Reviewed by : Sunny Lu / Deputy Manager

Approved & Authorized Signer :



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

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Product : Mobile Projector

Model No. : i400; B130i; L220R; LK-W11F; KWX1801; AW10; PPX740; MP400

Brand	Model Type	Model	Shell Material
Aiptek	Main Model	i400	Plastic Shell
ACER	Series Model	B130i	Plastic Shell
ACER	Series Model	L220R	Plastic Shell
ACER	Series Model	LK-W11F	Plastic Shell
ACER	Series Model	KWX1801	Plastic Shell
AOPEN	Series Model	KWX1801	Plastic Shell
	Series Model	AW10	Plastic Shell
PHILIPS	Series Model	PPX740	Aluminum Shell
HP	Series Model	MP400	Aluminum Shell

Difference:

1. The shell material is different, divided into plastic shell and aluminum shell, the aluminum shell part is currently only used by PHILIPS and HP.
2. Market sales are different.
3. The internal PCB board and functions are the same.
4. The above models are only different in model and appearance, and the software is designed consistently.

FCC ID : 2AHTC-I4000

Test Model : i400

Radio : IEEE802.11 b/g/n

Operation : IEEE 802.11b: 2412MHz—2462MHz
IEEE 802.11g: 2412MHz—2462MHz
Frequency : IEEE802.11nHT20: 2412MHz—2462MHz
IEEE802.11nHT40: 2422MHz—2452MHz

Modulation : IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK)
Technology : IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK)
IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM,QPSK,BPSK)

Antenna : Antenna,
Assembly Gain : WIFI 2.4GHz: ANT0: 2.94dBi, ANT1: 2.64dBi

Applicant : Global Aiptek Corporation
5F, No. 550, Xianzheng 2nd Rd., Zhubei City, Hsinchu County 30268, Taiwan (R.O.C)

Manufacturer : Global Aiptek Corporation
5F, No. 550, Xianzheng 2nd Rd., Zhubei City, Hsinchu County 30268, Taiwan
(R.O.C)

Factory : Guangxi Jiaway Technology Corporation Limited
Building 5, China-Asean Enterprise headquarters, base (Phase 2), No. 3 of
Headquarters road.

Power Adapter : Manufacturer: Chicony, M/N: A12-065N2A
AC Input: 100-240V, ~1.7A, 50-60Hz
DC Output: 19V, 3.42A
DC Cable: Unshielded, Undetachable, 1.6m

Lithium Battery : Manufacturer: MICA POWER CO., LTD.
M/N: M L P 1 0 5 9 6 3 - 3 S 1 1 . 1 V 5 0 0 0 m A h

Power Cable : Unshielded, Detachable, 1.0m

Remote Control : Brand: N/A, M/N: N/A

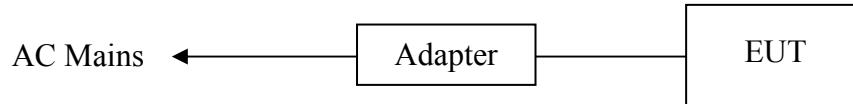
Date of Receipt : Sep.15, 2018

Sample Type : Prototype production

2.2. Tested Supporting System Details

[None]

2.3. Block diagram of connection between the EUT and simulators



(EUT: Mobile Projector)

2.4. Test Information

A special test software 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. Choose 2*2 MIMO for the radiated emission and band edge measurement, other test items test with two antenna transmit simultaneously.			

2.5. 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 Industry Canada
Registration Number: IC 5183A-1
Valid Date: May.07, 2020

: Certificated by DAkkS, Germany
Registration No: D-PL-12151-01-00
Valid Date: Dec.07, 2021

: Accredited by NVLAP, USA
NVLAP Code: 200372-0
Valid Date: Mar.31, 2019

: Certificated by FCC USA.
Designation No.: CN5022
Valid Date: Mar.31, 2019

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

Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	3.6dB (150kHz to 30MHz)
Uncertainty for Radiation Emission test in 3m chamber	4.0dB(30~200MHz, Polarization: H)
	4.0dB(30~200MHz, Polarization: V)
	4.4dB(200M~1GHz, Polarization: H)
	4.4dB(200M~1GHz, Polarization: V)
Uncertainty for Radiation Emission test in 3m chamber	5.0dB (1~6GHz, Distance: 3m)
	5.4dB (6~18GHz, Distance: 3m)
	5.4dB (Above 18GHz, Distance: 3m)
Uncertainty for Radiated Spurious Emission test in RF chamber	3.6dB
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	0.1 %
Uncertainty for test site temperature and humidity	0.6℃
	3%

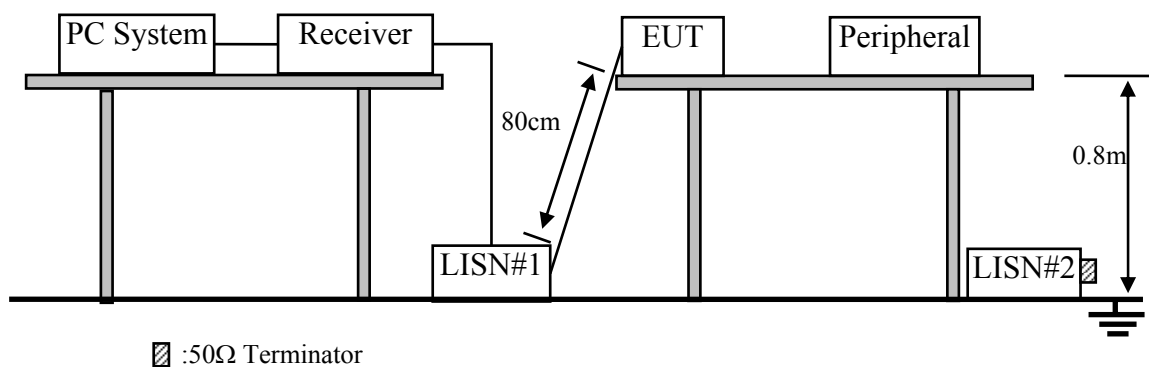
3. POWER LINE CONDUCTED EMISSION TEST

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	1 Year
2.	Test Receiver	Rohde & Schwarz	ESCI	100842	Apr.23,18	1 Year
3.	L.I.S.N.#1	Rohde & Schwarz	ENV216	102160	Jan.12,18	1 Year
4.	L.I.S.N.#2	Kyoritsu	K NW-403D	8-1750-2	Apr.23,18	1 Year
5.	Terminator	Hubersuhner	50Ω	No.1	Apr.23,18	1 Year
6.	Terminator	Hubersuhner	50Ω	No.2	Apr.23,18	1 Year
7.	RF Cable	Fujikura	RG55/U	No.2	Apr.23,18	1Year
8.	Coaxial Switch	Anritsu	MP59B	6201397223	Apr.23,18	1 Year
9.	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.

3.4. 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. Mobile Projector (EUT)

Model No. : i400

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 and simulator as shown as Section 3.2.

3.5.2. Turn on the power of all equipments.

3.5.3. PC run test software to control EUT work in Tx (WiFi 2.4GHz) mode.

3.6. Test Procedure

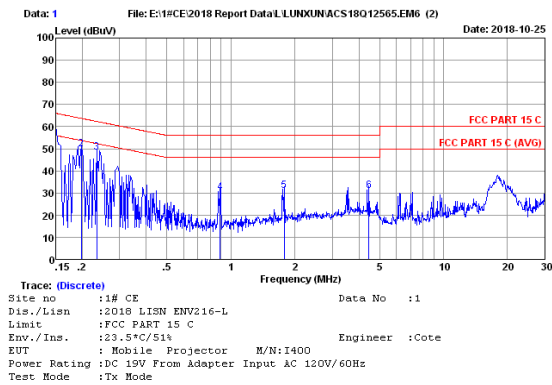
The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power Via PC connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). 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: 2013 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.

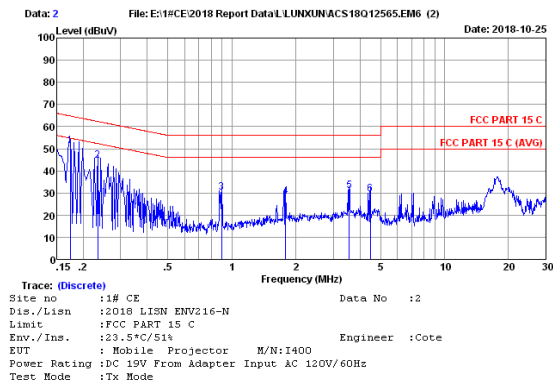
3.7. Power Line Conducted Emission Test Results

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



No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.150	9.56	0.15	44.40	54.11	66.00	11.89	QP
2	0.198	9.50	0.19	40.05	49.74	63.71	13.97	QP
3	0.234	9.35	0.19	38.72	48.26	62.30	14.04	QP
4	0.890	9.50	0.13	20.66	30.29	56.00	25.71	QP
5	1.781	9.49	0.13	21.23	30.85	56.00	25.15	QP
6	4.454	9.48	0.15	21.49	31.12	56.00	24.88	QP

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.



No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.174	9.48	0.19	41.75	51.42	64.77	13.35	QP
2	0.234	9.46	0.19	34.82	44.47	62.30	17.83	QP
3	0.894	9.35	0.13	20.89	30.37	56.00	25.63	QP
4	1.790	9.36	0.13	19.06	28.55	56.00	27.45	QP
5	3.565	9.41	0.14	21.61	31.16	56.00	24.84	QP
6	4.478	9.42	0.15	19.87	29.44	56.00	26.56	QP

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 Equipment

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	AUDIX	N/A	N/A	Jun.19,18	1 Year
2.	Signal Analyzer	Rohde & Schwarz	FSV30	104051	Apr.23,18	1 Year
3.	EMI Test Receiver	Rohde & Schwarz	ESR7	101547	Apr.23,18	1 Year
4.	Amplifier	HP	8447D	2648A04738	Apr.23,18	1 Year
5.	Tri-log-Broadband Antenna	Schwarzbeck	VULB 9168	710	Aug.22,18	1 Year
6.	Loop Antenna	Chase	HLA6120	1062	Oct.17,17	2 Year
7.	RF Cable	SPUMA	CFD400NL-LW	No.3	Sep.02,18	1 Year
8.	Coaxial Switch	Anritsu	MP59B	6201397222	Apr.23,18	1 Year
9.	Test Software	AUDIX	e3	6.2009-5-21a(n)	N/A	N/A

Note: N/A means Not applicable.

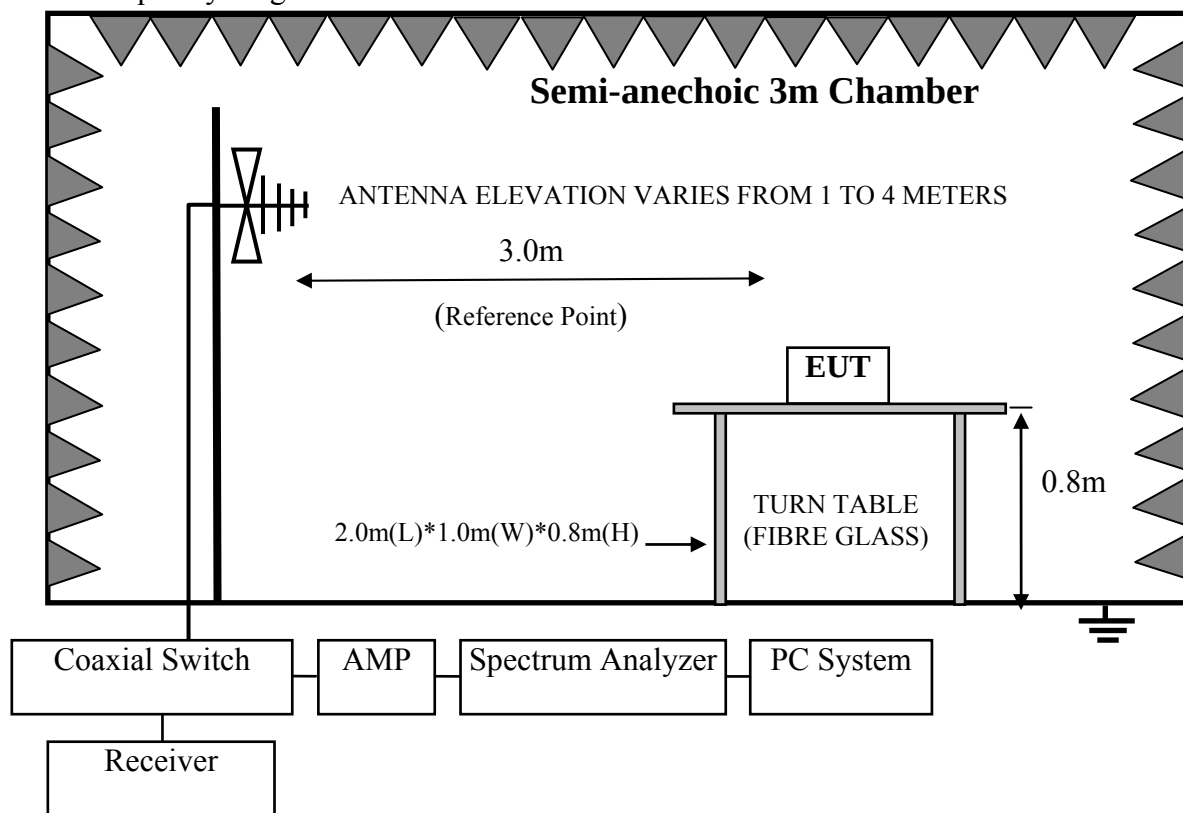
4.1.2. For frequency range 1GHz~40GHz (In 3m Anechoic Chamber)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	RF Chamber	AUDIX	N/A	N/A	May.17,18	1 Year
2.	EMC Analyzer	Agilent	N9030A	MY51380221	Sep.08,18	1 Year
3.	Horn Antenna	ETS	3115	9510-4580	Dec.01,17	1 Year
4.	Amplifier	Agilent	8449B	3008A00863	Apr.23,18	1 Year
5.	Amplifier	EMCI	EMC184040SE	980507	Jul.07,18	1 Year
6.	RF Cable	EMCI	EMC102-KM-KM-3500	170702	Oct.14,18	1 Year
7.	RF Cable	N/A	N/A	No.7	Oct.14,18	1 Year
8.	Horn Antenna	ETS	3116	00060089	Dec.03,17	1 Year
9.	Test Software	AUDIX	e3	6.2009-5-21a(n)	N/A	N/A

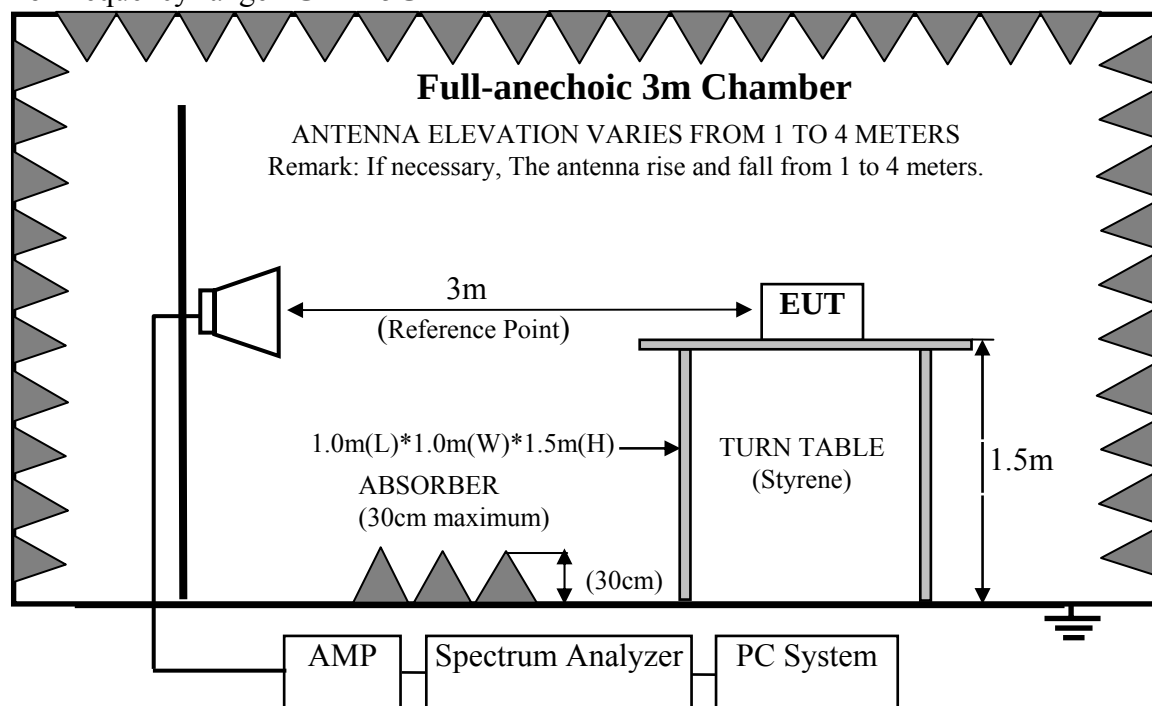
Note: N/A means Not applicable.

4.2. Block Diagram of Test Setup

For frequency range 30MHz-1000MHz



For frequency range 1GHz-25GHz



4.3. Radiated Emission Limit

4.3.1. 15.247&209 limits

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V})/\text{m}$
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 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 54.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average)	

Remark : (1) Emission level $\text{dB}\mu\text{V} = 20 \log$ Emission level $\mu\text{V/m}$

(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. Mobile Projector (EUT)

Model No. : i400

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

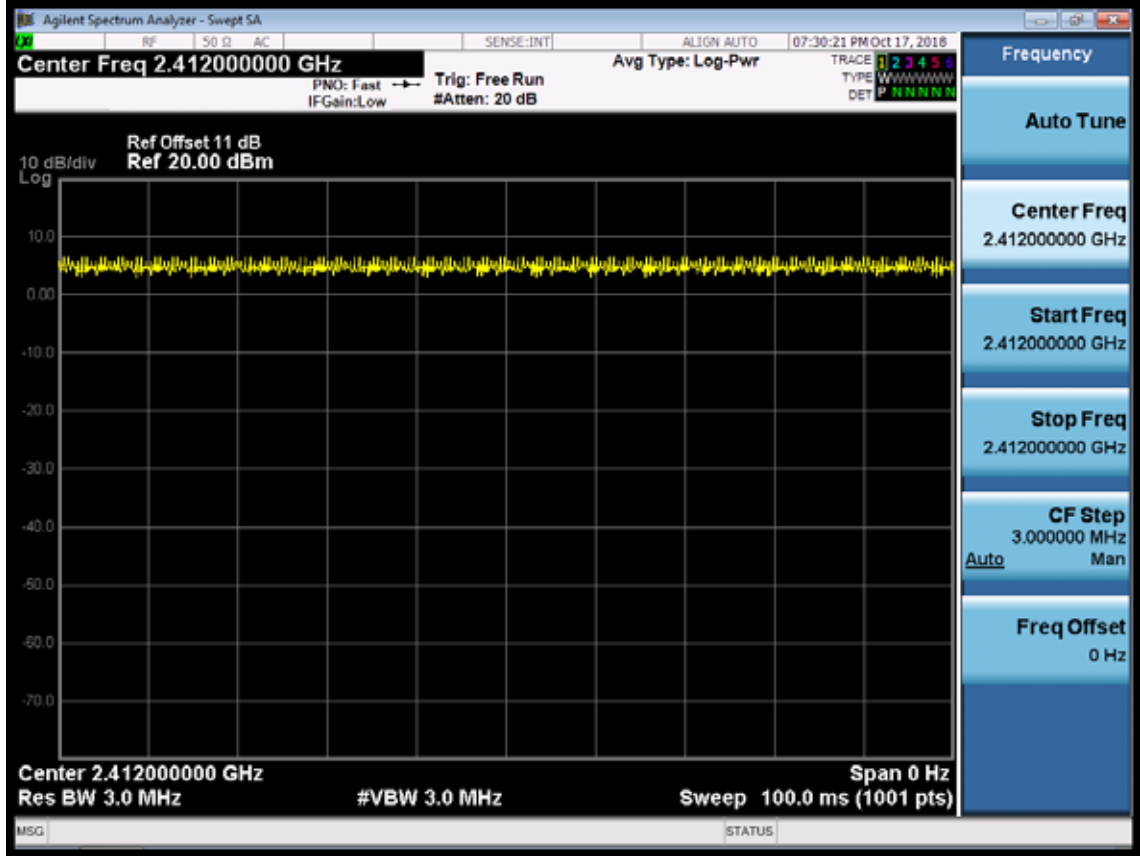
PASS.

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.

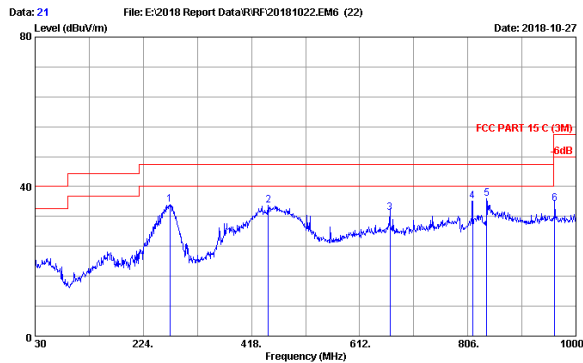
Note 2: The emissions (9kHz~30MHz) not reported for there is no emission be found.

Duty cycle



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

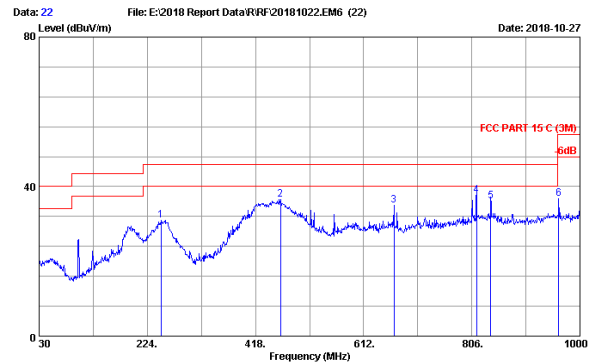
Frequency: 30MHz~1GHz



Site no. : 3m Chamber Data no. : 21
 Dis. / Ant. : 3m 2018 VULB 9168-710 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15 C (3M)
 Env. / Ins. : 22.5°C/55% Engineer : Cote
 EUT : Mobile Projector M/N:I400
 Power rating : DC 19V From Adapter Input AC 120V/60Hz
 Test Mode : WIFI2.4G TX Mode

No.	Freq. (MHz)	Ant. Factor (dB/a)	Cable Loss (dB)	Reading Level (dBuV)	Emission Level (dBuV/a)	Limits (dBuV/a)	Margin (dB)	Remark
1	271.53	18.89	1.38	42.74	35.12	46.00	10.88	QP
2	448.07	22.97	1.85	38.92	35.10	46.00	10.90	QP
3	666.32	26.63	2.35	32.83	33.08	46.00	12.92	QP
4	814.73	28.49	2.64	33.58	36.15	46.00	9.85	QP
5	839.95	28.64	2.68	33.91	36.75	46.00	9.25	QP
6	962.17	29.68	2.94	30.84	35.35	54.00	18.65	QP

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.

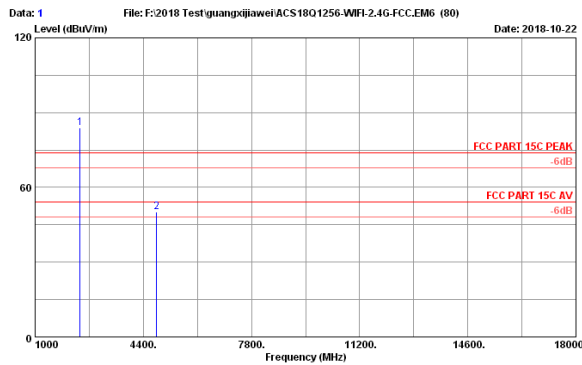


Site no. : 3m Chamber Data no. : 22
 Dis. / Ant. : 3m 2018 VULB 9168-710 Ant. pol. : VERTICAL
 Limit : FCC PART 15 C (3M)
 Env. / Ins. : 22.5°C/55% Engineer : Cote
 EUT : Mobile Projector M/N:I400
 Power rating : DC 19V From Adapter Input AC 120V/60Hz
 Test Mode : WIFI2.4G TX Mode

No.	Freq. (MHz)	Ant. Factor (dB/a)	Cable Loss (dB)	Reading Level (dBuV)	Emission Level (dBuV/a)	Limits (dBuV/a)	Margin (dB)	Remark
1	248.25	18.14	1.31	39.38	30.96	46.00	15.04	QP
2	462.62	23.23	1.88	40.07	36.47	46.00	9.53	QP
3	666.32	26.63	2.35	34.63	34.88	46.00	11.12	QP
4	814.73	28.49	2.64	35.09	37.66	46.00	8.34	QP
5	839.95	28.64	2.68	33.28	36.12	46.00	9.88	QP
6	962.17	29.68	2.94	32.34	36.85	54.00	17.15	QP

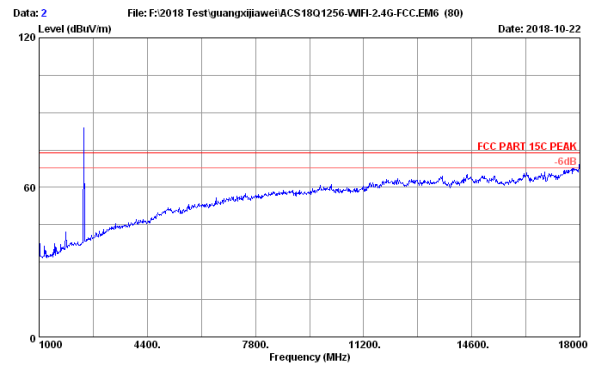
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Ant factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.

Frequency: 1GHz~18GHz



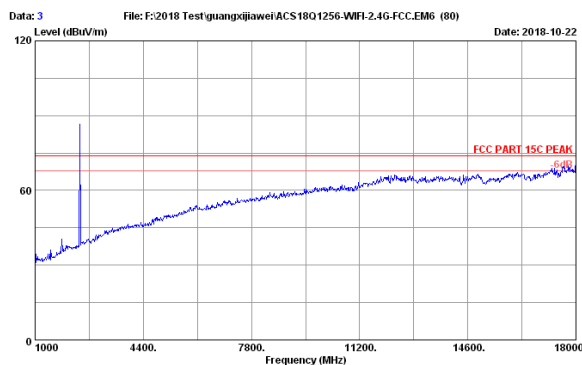
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.87	10.31	81.45	35.70	83.93	74.00	-9.93	Peak
2	4824.00	32.66	14.56	37.69	34.74	50.17	74.00	23.83	Peak

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.



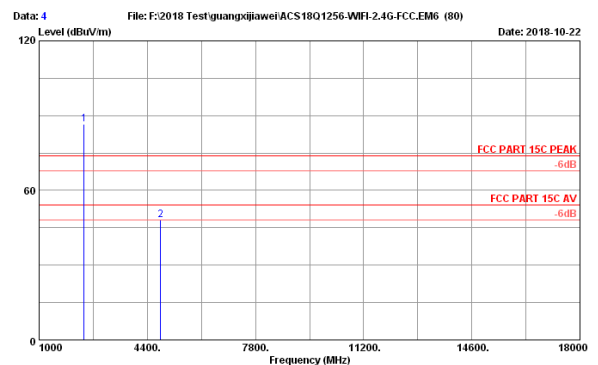
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.87	10.31	81.45	35.70	83.93	74.00	-9.93	Peak
2	4824.00	32.66	14.56	37.69	34.74	50.17	74.00	23.83	Peak

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.



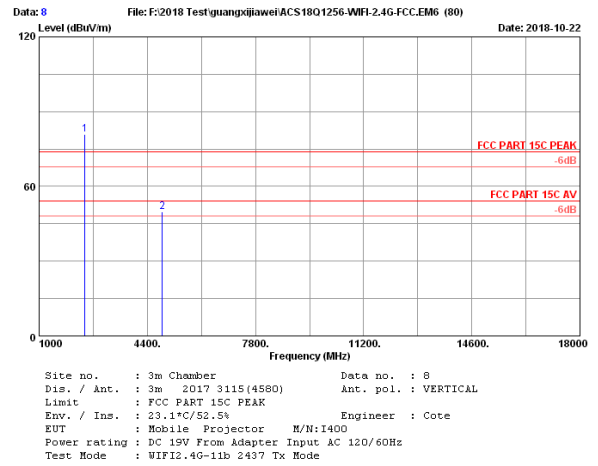
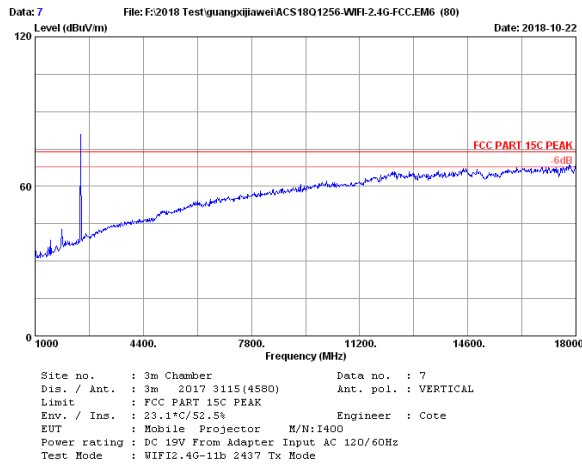
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.87	10.31	84.23	35.70	86.71	74.00	-12.71	Peak
2	4824.00	32.66	14.56	35.62	34.74	48.10	74.00	25.90	Peak

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.



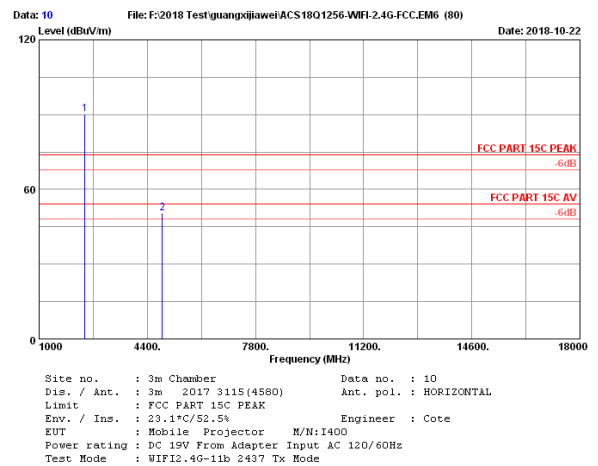
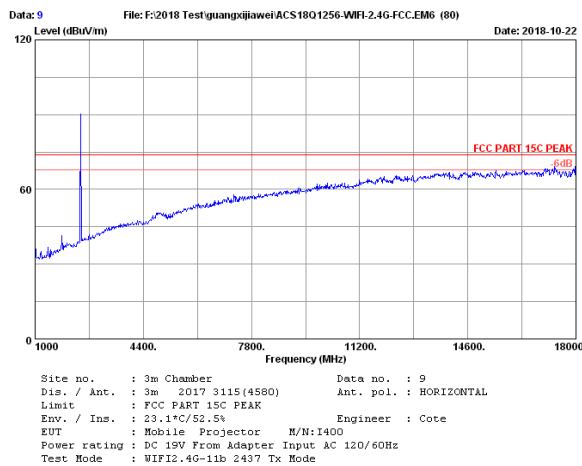
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.87	10.31	84.23	35.70	86.71	74.00	-12.71	Peak
2	4824.00	32.66	14.56	35.62	34.74	48.10	74.00	25.90	Peak

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.



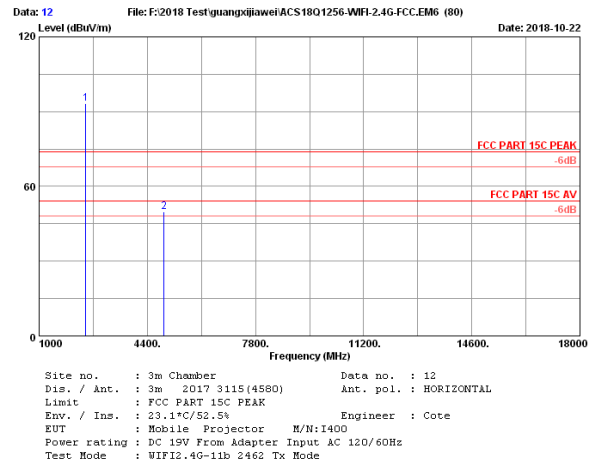
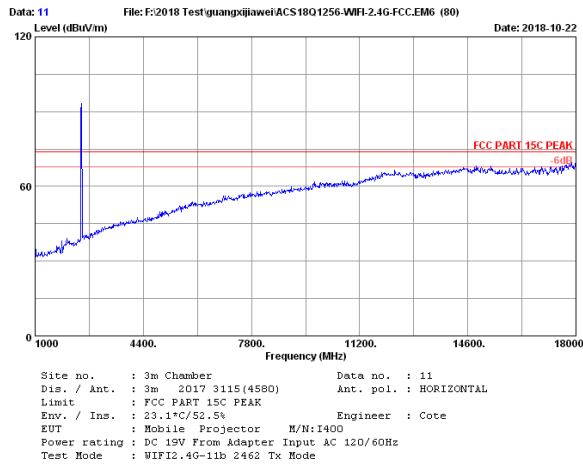
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	28.04	10.38	78.29	35.67	81.04	74.00	-7.04	Peak
2	4874.00	32.76	14.63	36.96	34.70	49.65	74.00	-24.35	Peak

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.



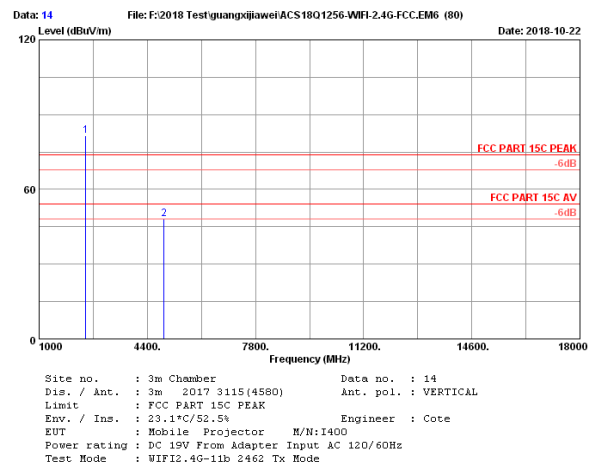
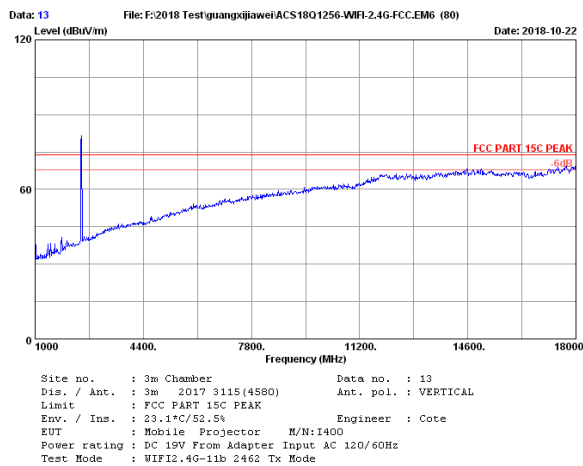
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	28.04	10.38	87.52	35.67	90.27	74.00	-16.27	Peak
2	4874.00	32.76	14.63	37.81	34.70	50.50	74.00	-23.50	Peak

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.



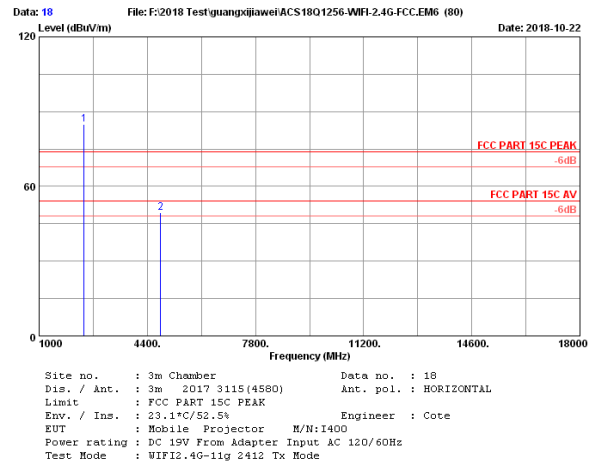
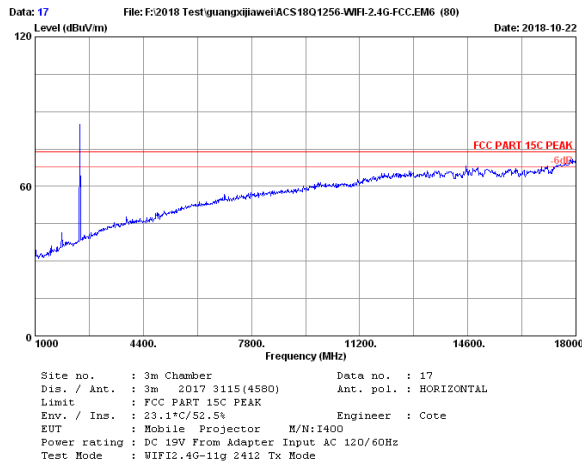
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	28.13	10.42	90.23	35.65	95.13	74.00	-19.13	Peak
2	4924.00	32.86	14.71	36.98	34.66	49.89	74.00	24.11	Peak

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.



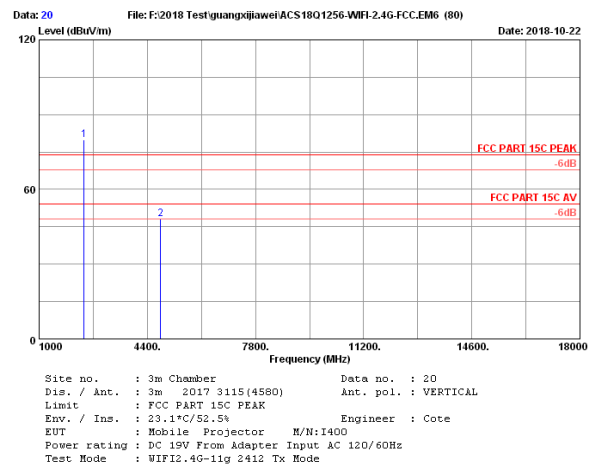
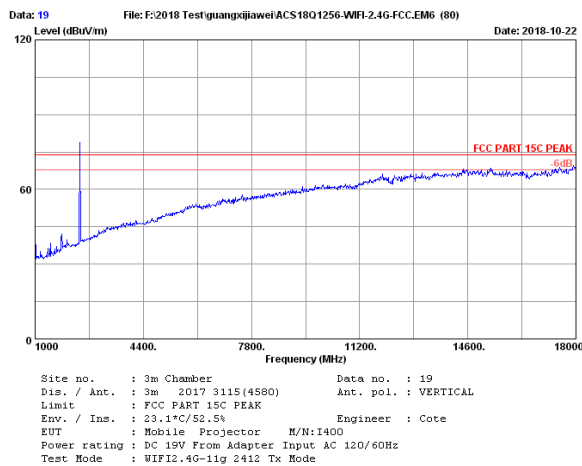
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	28.13	10.42	78.59	35.65	81.49	74.00	-7.49	Peak
2	4924.00	32.86	14.71	35.10	34.66	49.01	74.00	25.99	Peak

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.



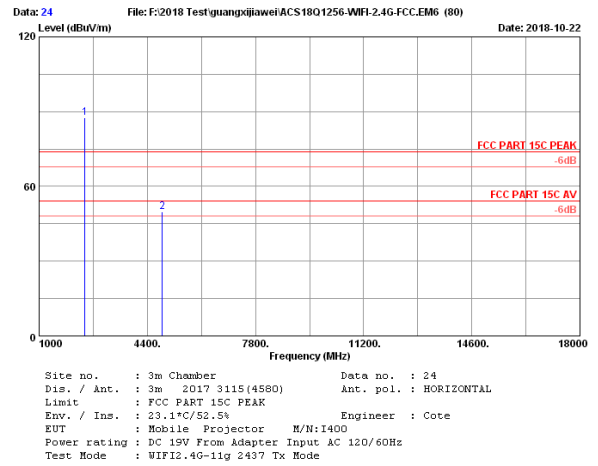
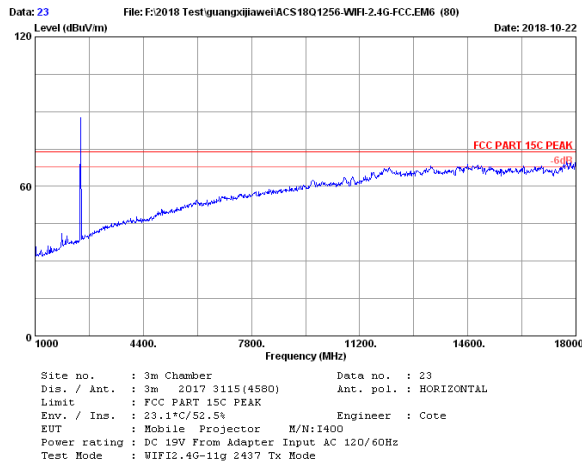
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.87	10.31	82.55	35.70	85.03	74.00	-11.03	Peak
2	4824.00	32.66	14.56	37.01	34.74	49.49	74.00	24.51	Peak

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.



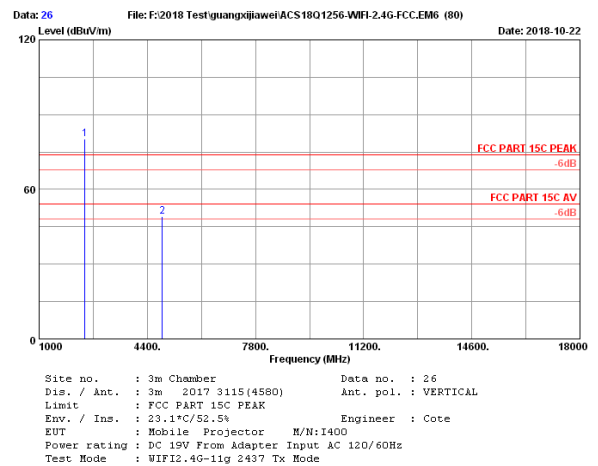
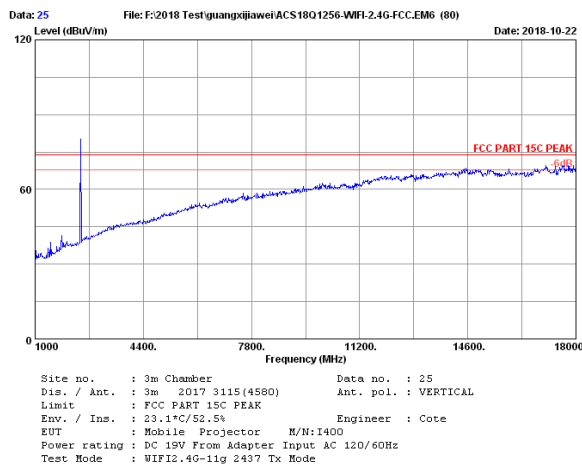
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.87	10.31	77.36	35.70	79.84	74.00	-5.84	Peak
2	4824.00	32.66	14.56	35.79	34.74	48.27	74.00	25.73	Peak

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.



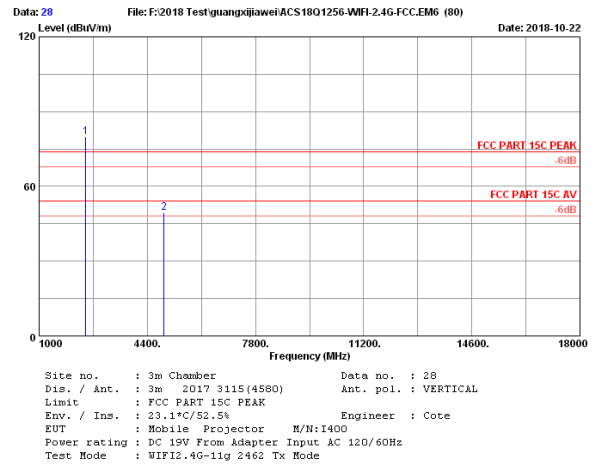
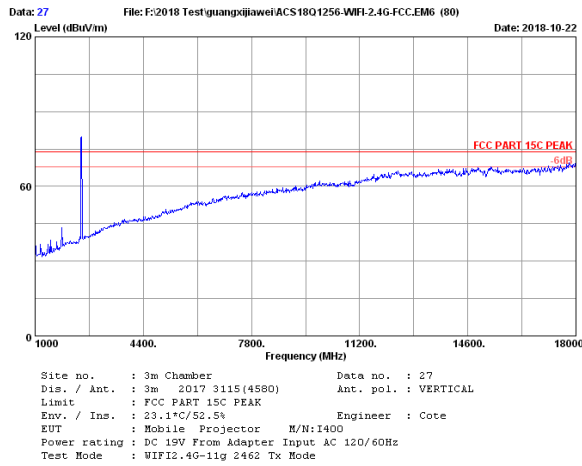
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	28.04	10.38	84.71	35.67	87.46	74.00	-13.46	Peak
2	4874.00	32.76	14.63	37.21	34.70	49.90	74.00	24.10	Peak

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.



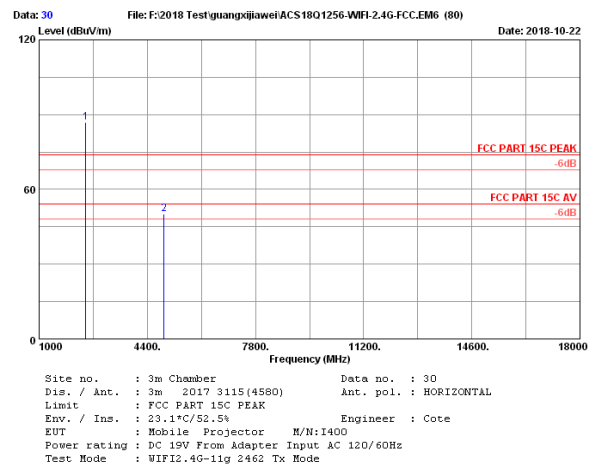
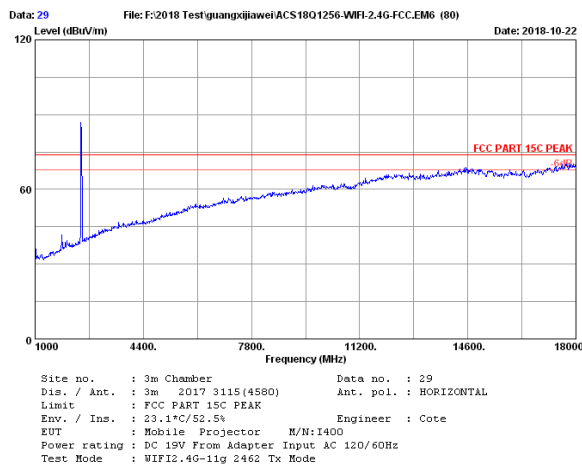
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	28.04	10.38	77.59	35.67	80.34	74.00	-6.34	Peak
2	4874.00	32.76	14.63	36.30	34.70	49.99	74.00	25.01	Peak

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.



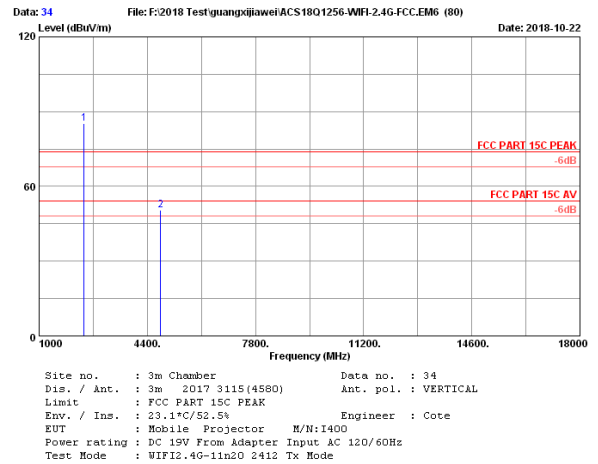
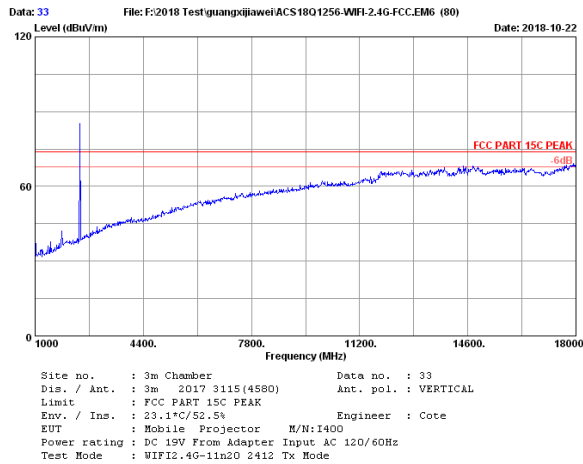
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	28.13	10.42	76.99	35.65	79.89	74.00	-5.89	Peak
2	4924.00	32.86	14.71	36.72	34.66	49.63	74.00	-24.37	Peak

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.



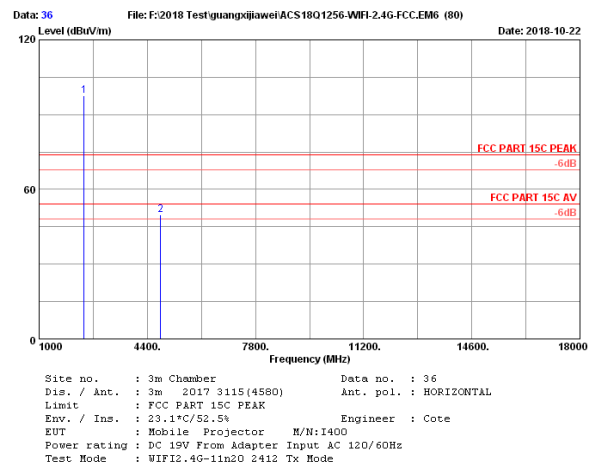
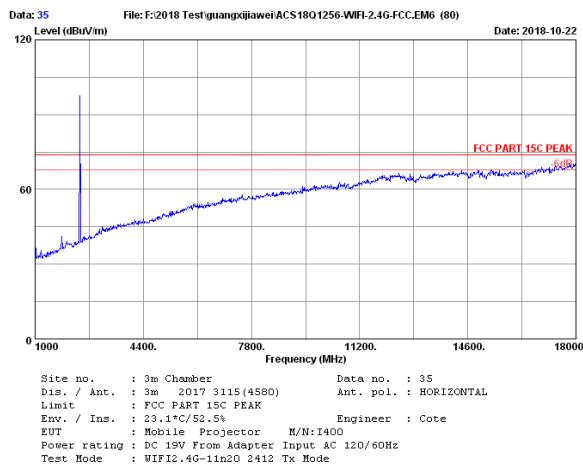
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	28.13	10.42	83.93	35.65	86.83	74.00	-12.83	Peak
2	4924.00	32.86	14.71	37.34	34.66	50.25	74.00	-23.75	Peak

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.



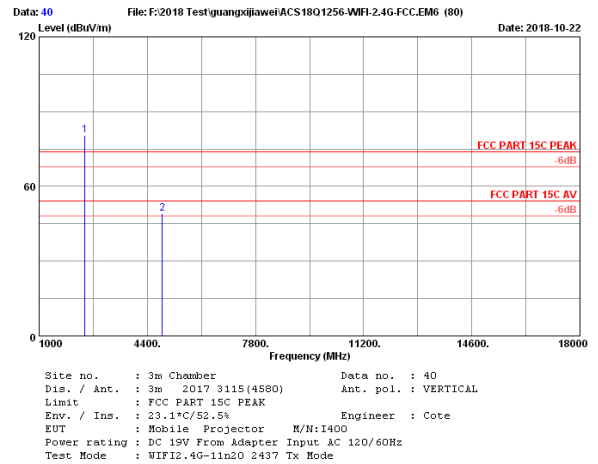
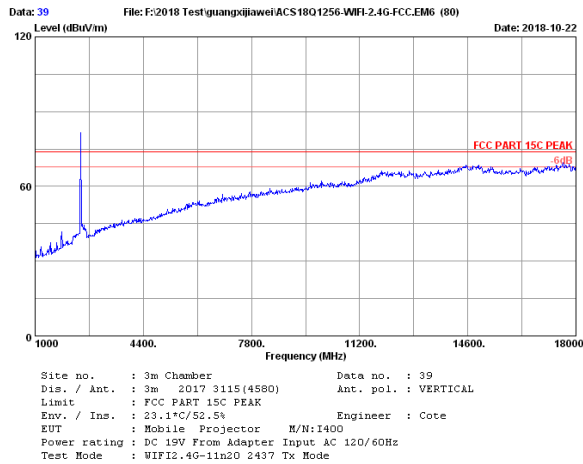
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.87	10.31	82.73	35.70	85.21	74.00	-11.21	Peak
2	4824.00	32.66	14.56	37.98	34.74	50.46	74.00	23.54	Peak

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.



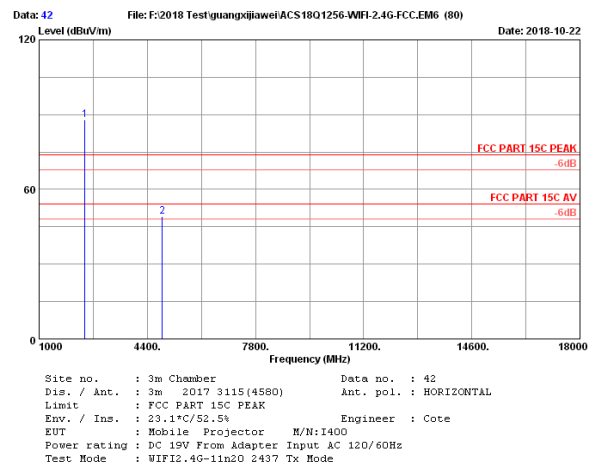
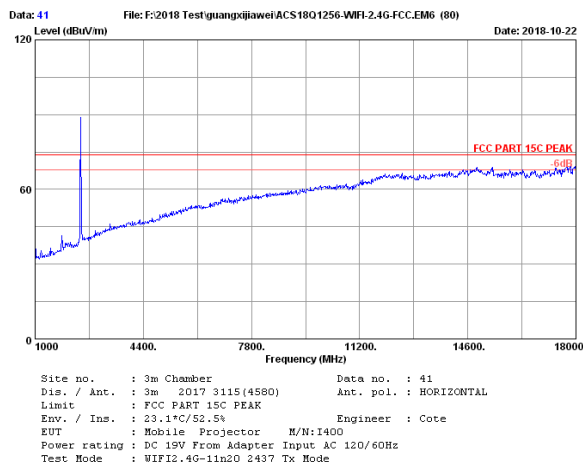
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2412.00	27.87	10.31	95.08	35.70	97.56	74.00	-23.56	Peak
2	4824.00	32.66	14.56	37.18	34.74	49.66	74.00	24.34	Peak

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.



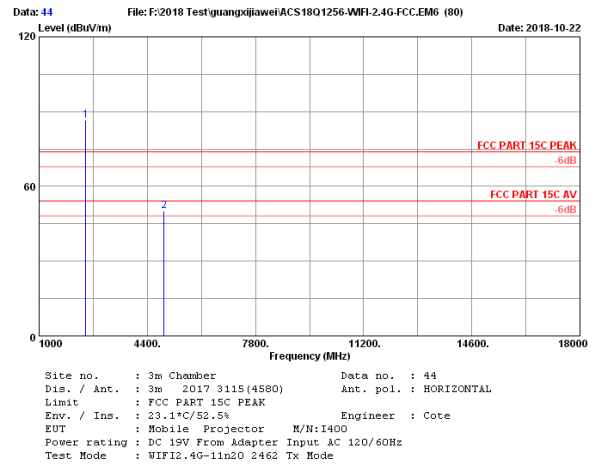
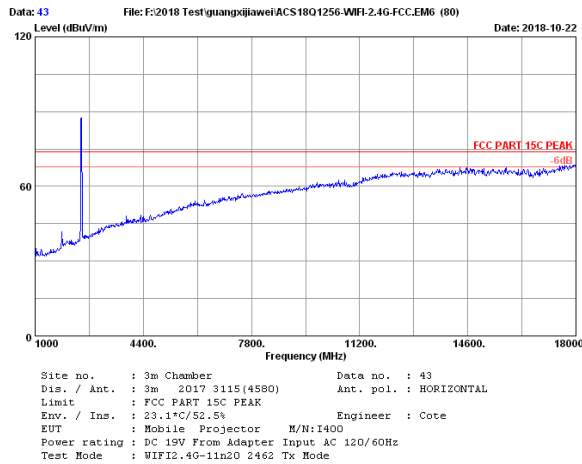
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1	2437.00	28.04	10.38	77.75	35.67	80.50	74.00	-6.50	Peak
2	4874.00	32.76	14.63	36.53	34.70	49.22	74.00	-24.78	Peak

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.



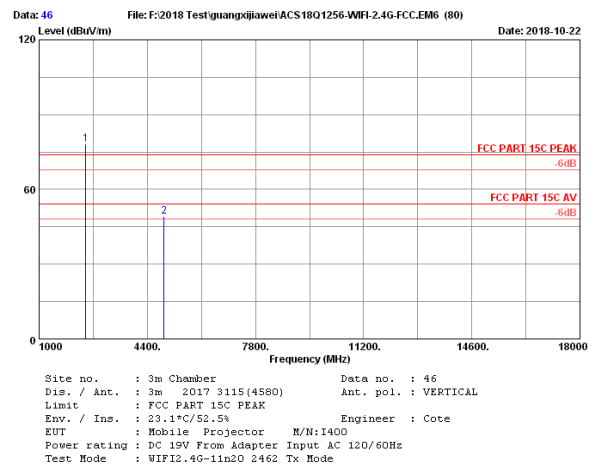
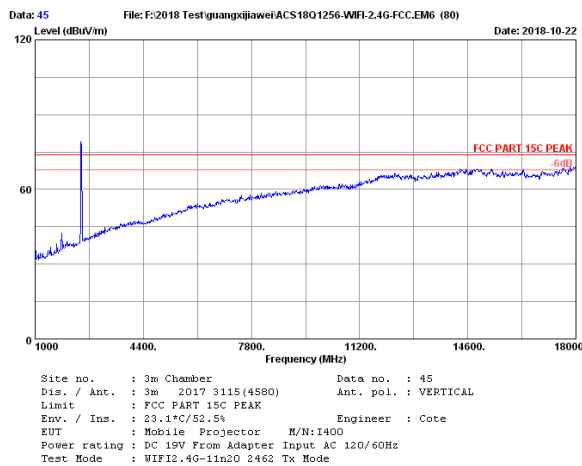
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	28.04	10.38	85.10	35.67	87.85	74.00	-13.85	Peak
2	4874.00	32.76	14.63	36.37	34.70	49.06	74.00	-24.94	Peak

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.



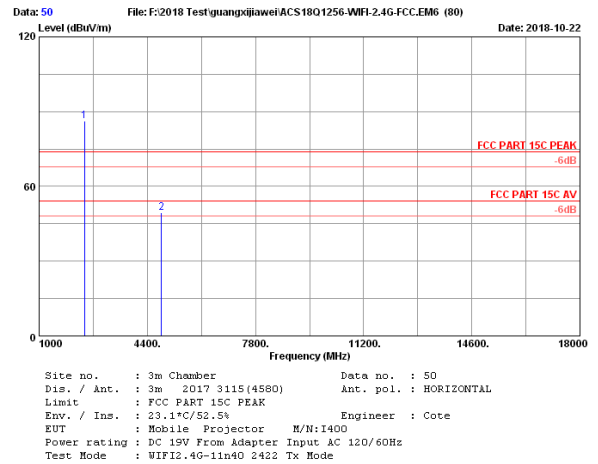
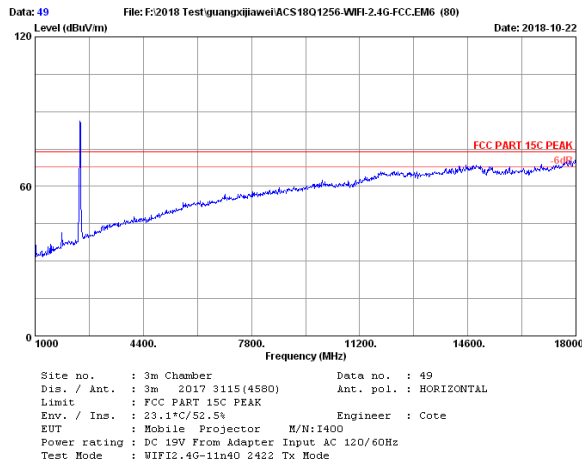
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	28.13	10.42	85.57	35.65	86.47	74.00	-12.47	Peak
2	4924.00	32.86	14.71	37.13	34.66	50.04	74.00	23.96	Peak

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.



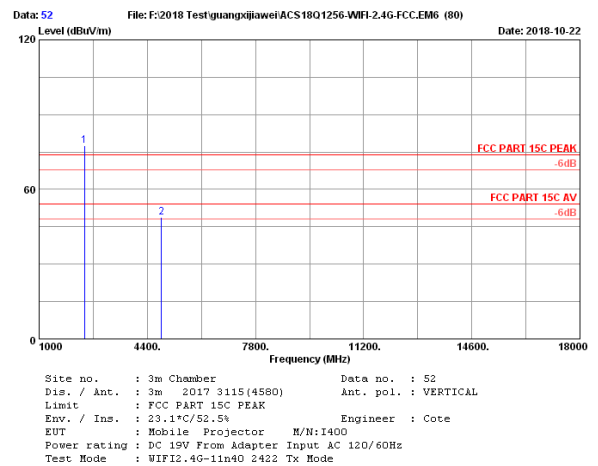
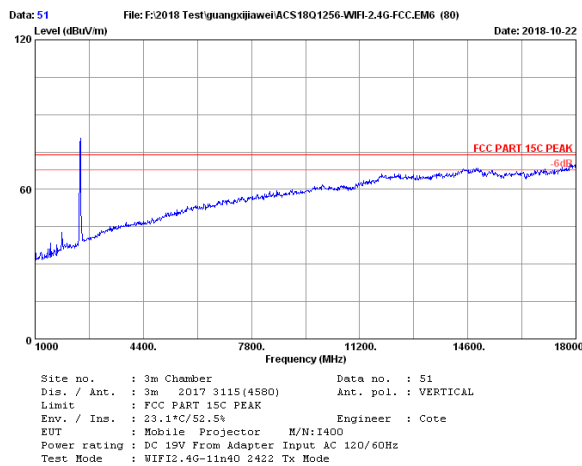
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.00	28.13	10.42	75.44	35.65	78.34	74.00	-4.34	Peak
2	4924.00	32.86	14.71	36.21	34.66	49.12	74.00	24.88	Peak

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.



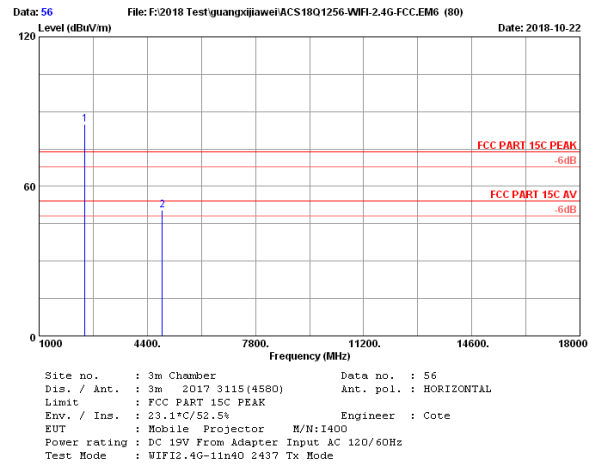
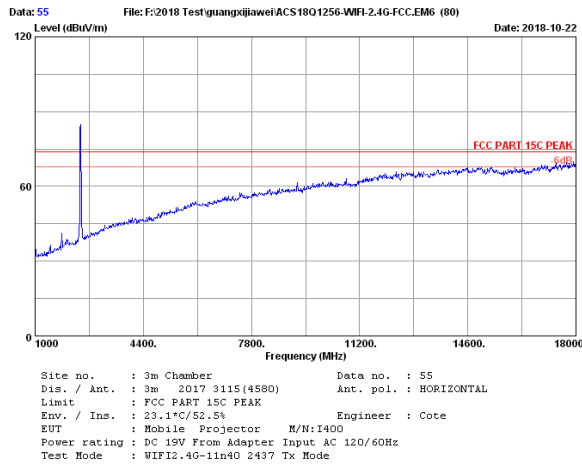
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2422.00	27.96	10.35	83.54	35.67	86.18	74.00	-12.18	Peak
2	4844.00	32.69	14.59	36.80	34.72	49.36	74.00	24.64	Peak

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.



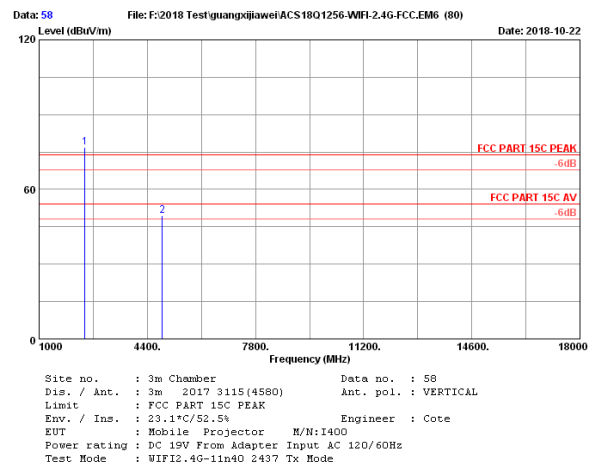
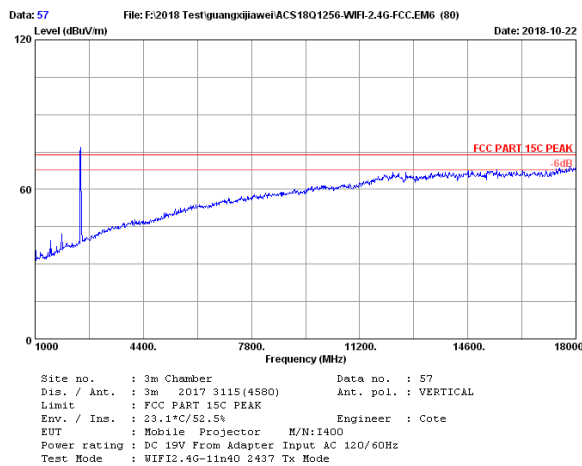
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2422.00	27.96	10.35	75.06	35.67	77.70	74.00	-3.70	Peak
2	4844.00	32.69	14.59	36.24	34.72	46.80	74.00	25.20	Peak

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.



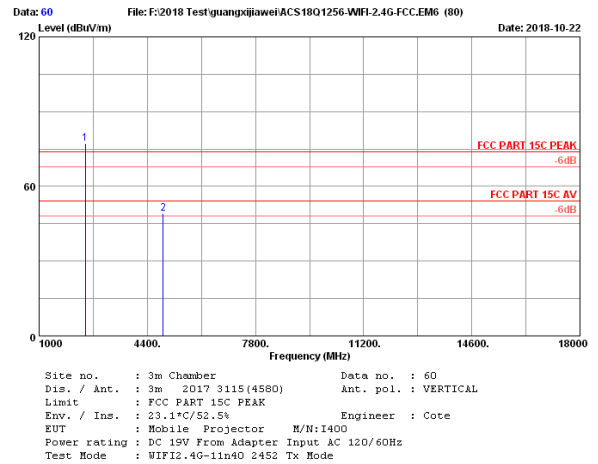
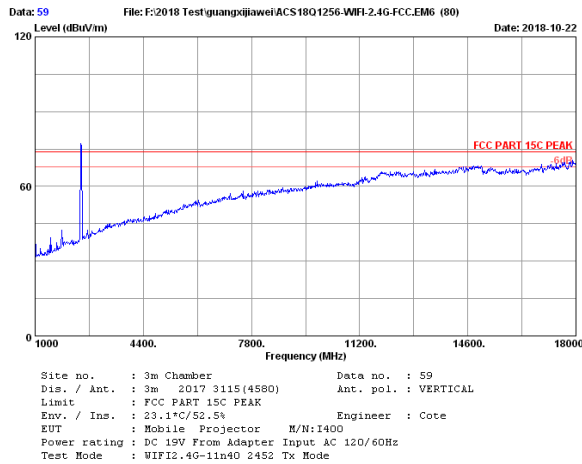
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	28.04	10.38	82.23	35.67	84.98	74.00	-10.98	Peak
2	4874.00	32.76	14.63	37.67	34.70	50.36	74.00	23.64	Peak

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.



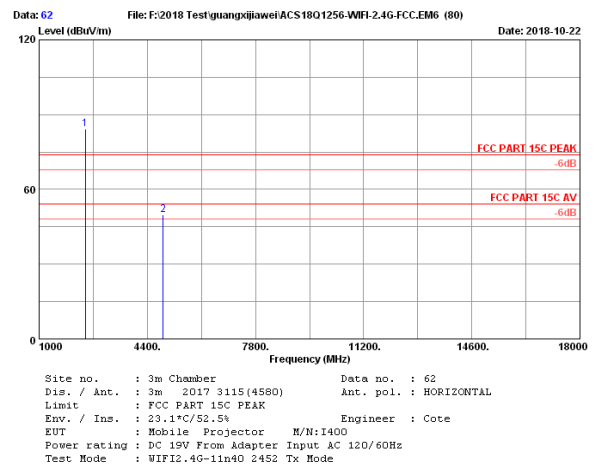
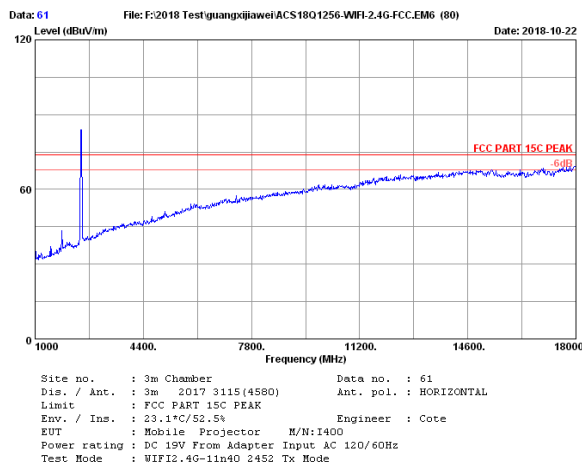
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2437.00	28.04	10.38	74.19	35.67	76.94	74.00	-2.94	Peak
2	4874.00	32.76	14.63	36.94	34.70	49.63	74.00	24.37	Peak

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	2452.00	28.04	10.38	74.47	35.65	77.24	74.00	-3.24	Peak
2	4904.00	32.83	14.68	36.29	34.68	49.12	74.00	-24.88	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	2452.00	28.04	10.38	81.40	35.65	84.17	74.00	-10.17	Peak
2	4904.00	32.83	14.68	36.99	34.68	49.82	74.00	-24.18	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 Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Sep.08,18	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	Oct.14,18	1 Year
3.	RF Cable	EMCI	EMC102-KM-KM 3500	170702	Oct.14,18	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.

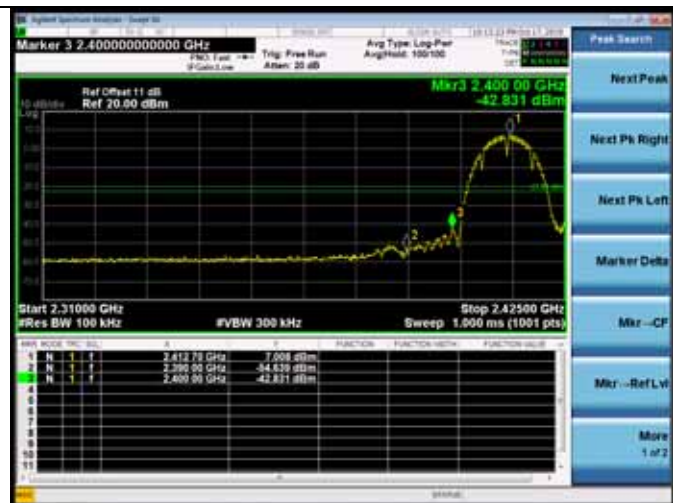
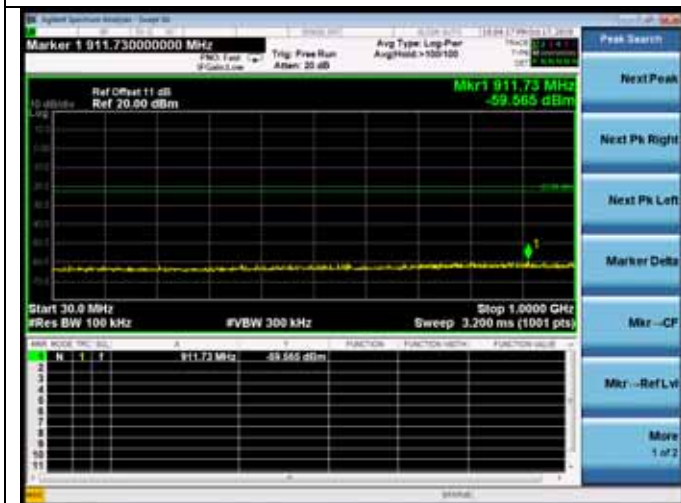
5.4. Test result

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

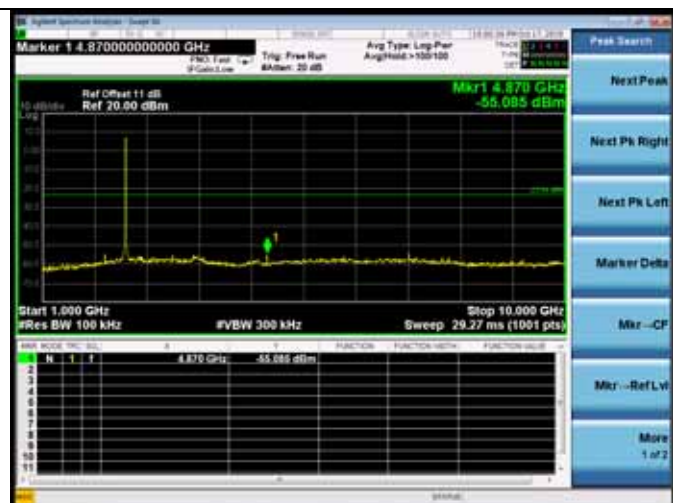
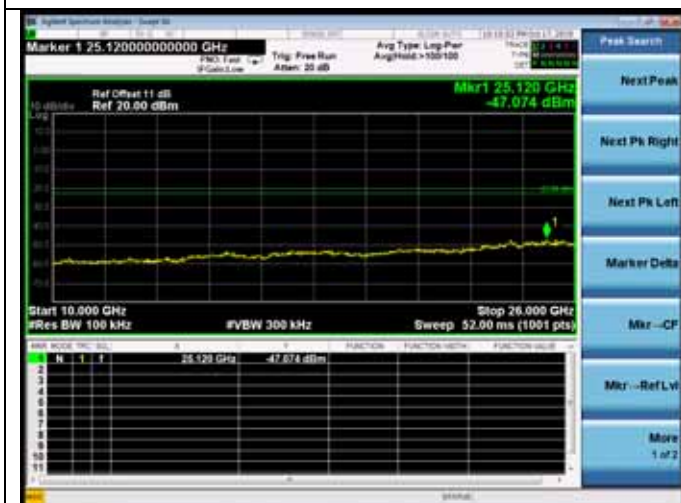
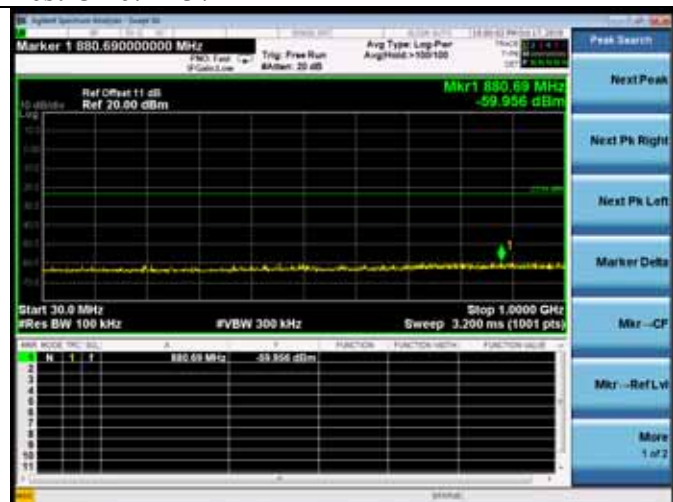
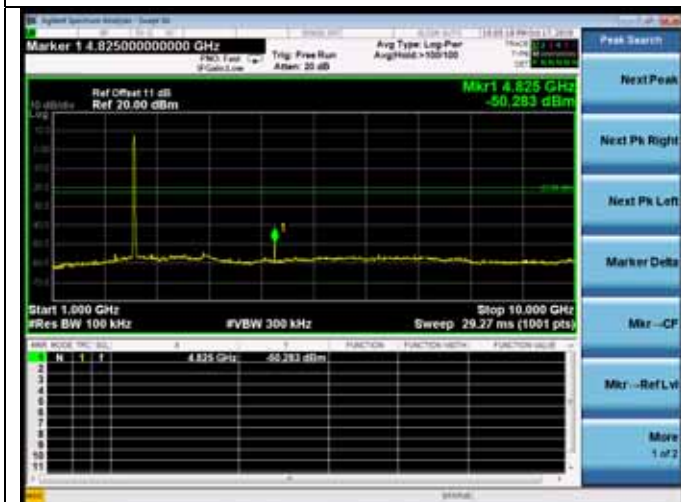
ANT0:

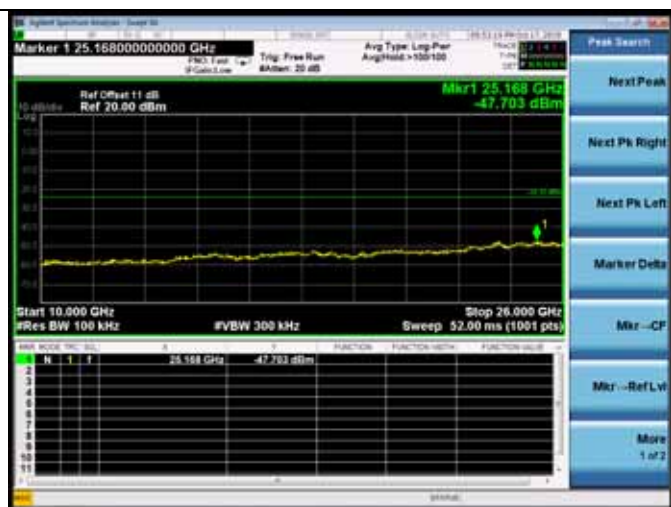
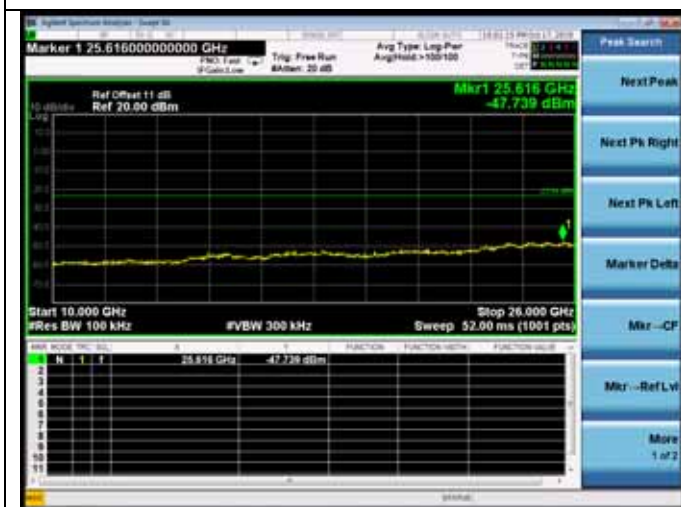
Test Mode: IEEE 802.11b

Test CH1: 2412MHz

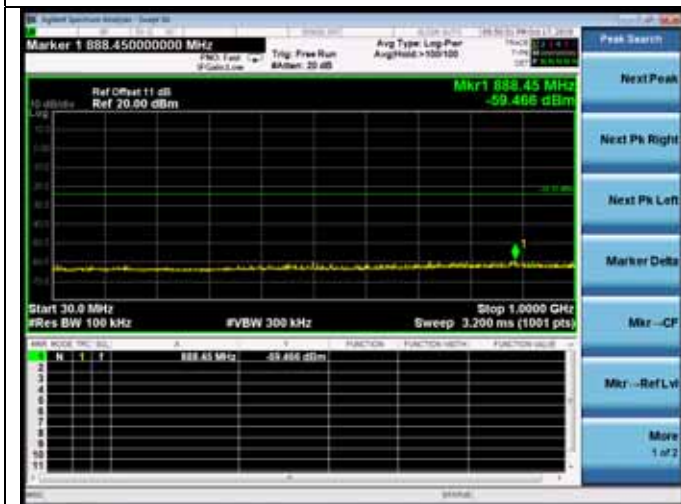


Test CH6: 2437MHz

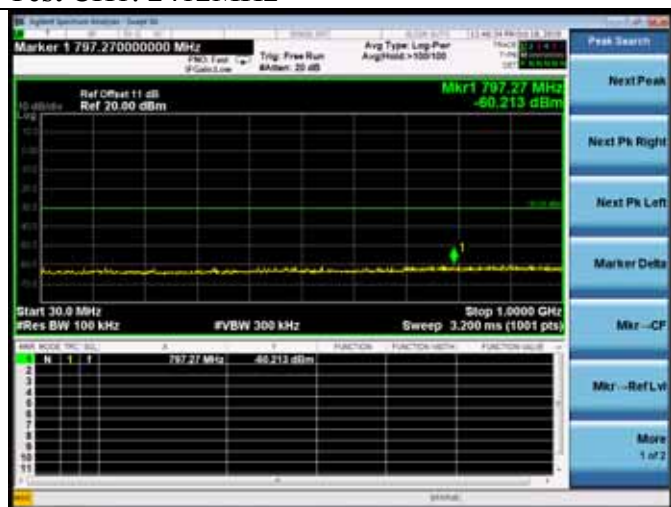
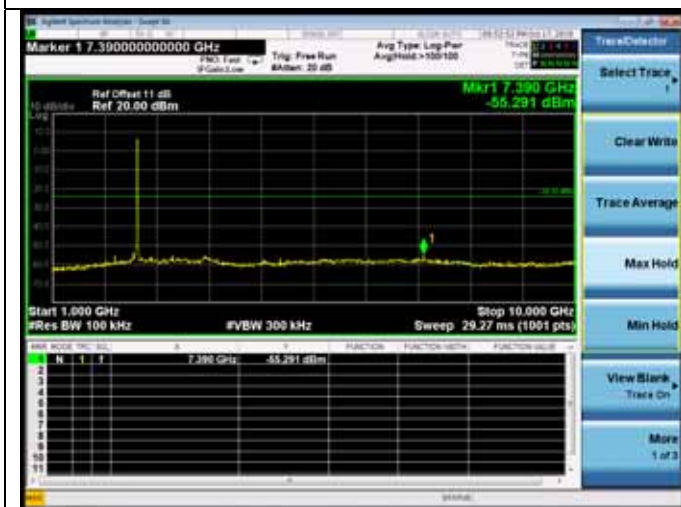




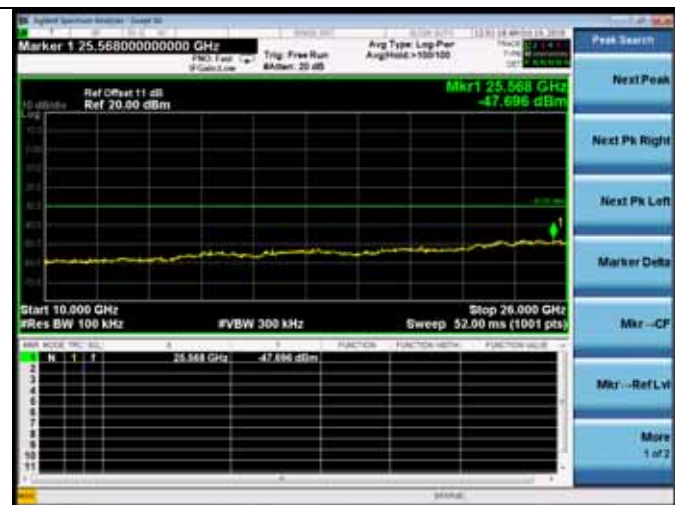
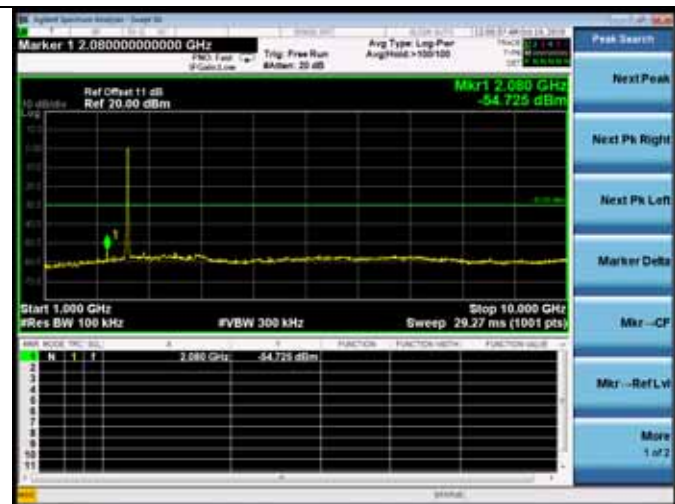
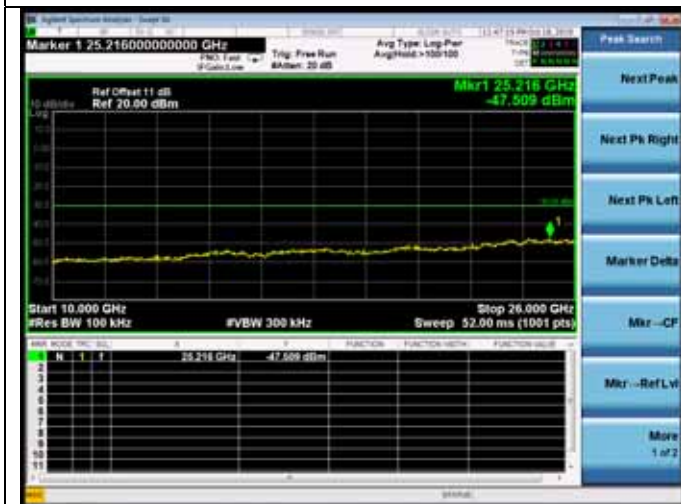
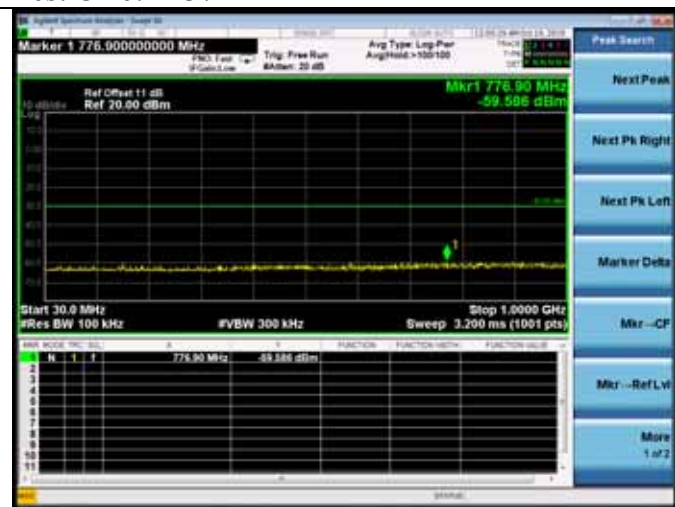
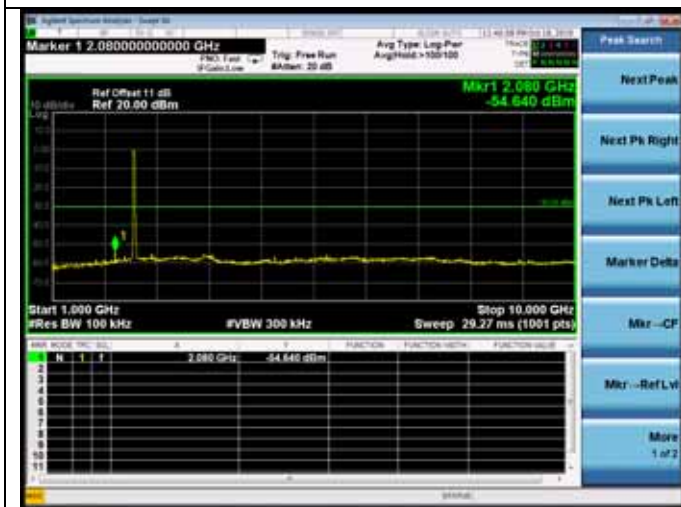
Test CH11: 2462MHz



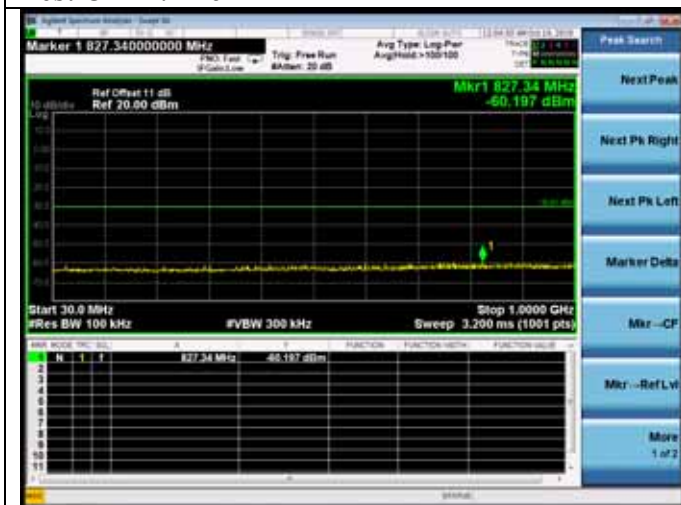
Test Mode: IEEE 802.11g
Test CH1: 2412MHz



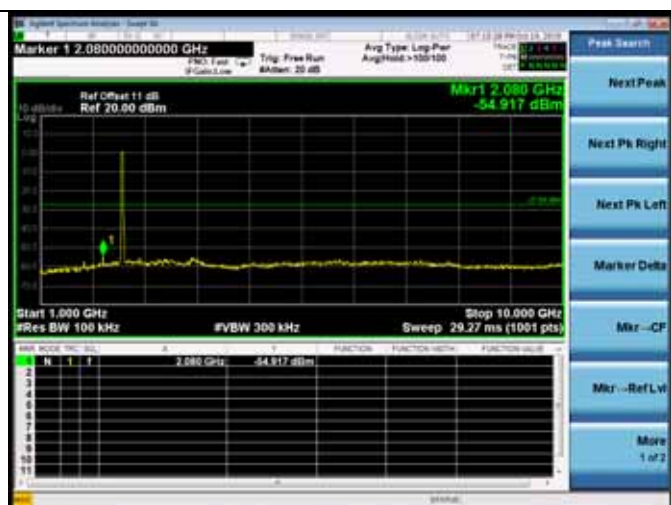
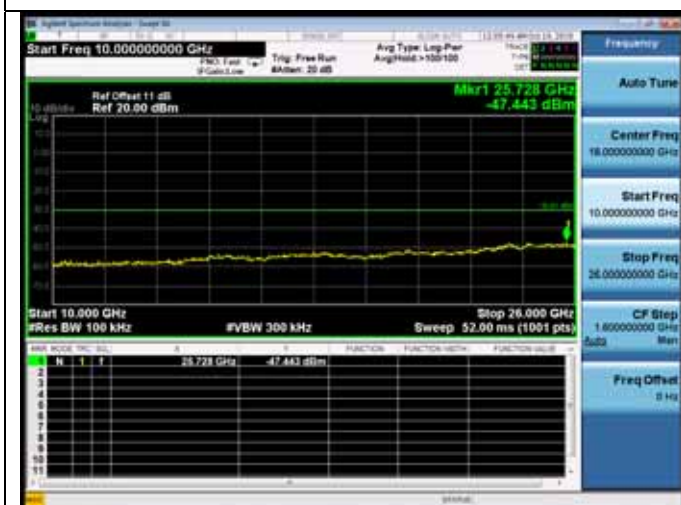
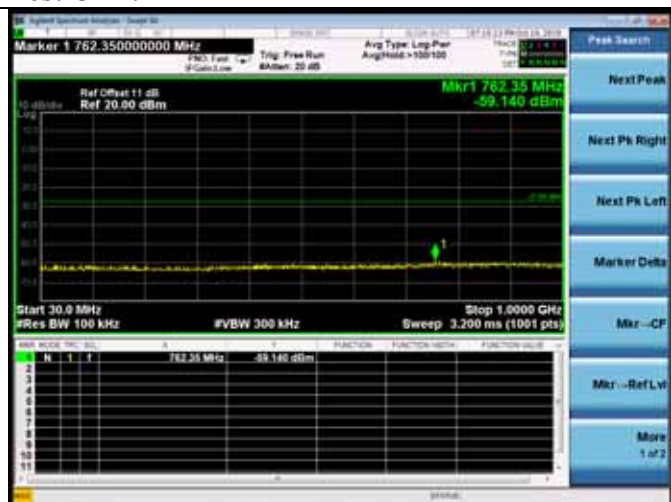
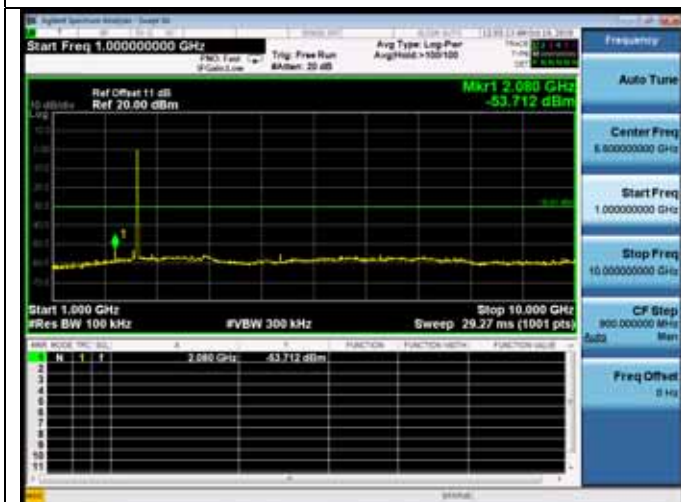
Test CH6: 2437MHz

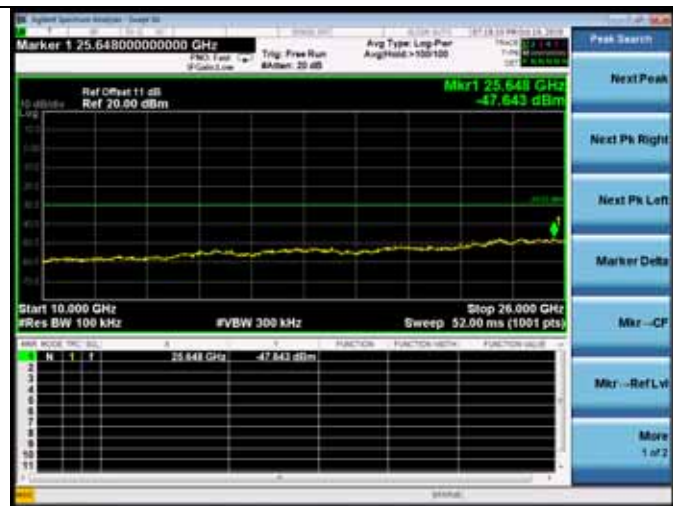
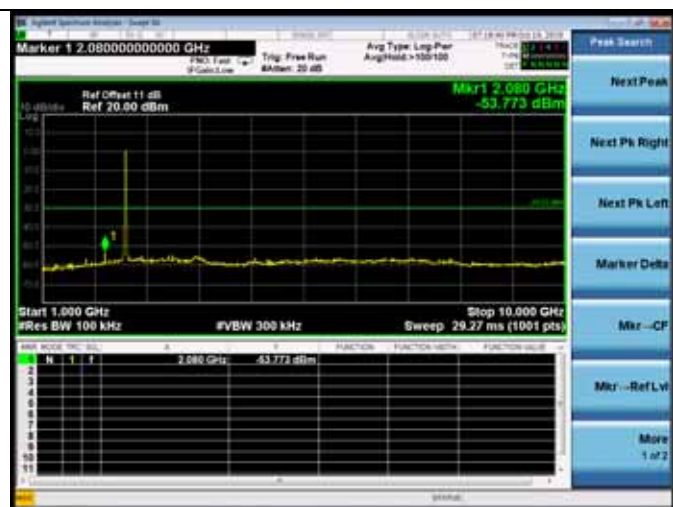
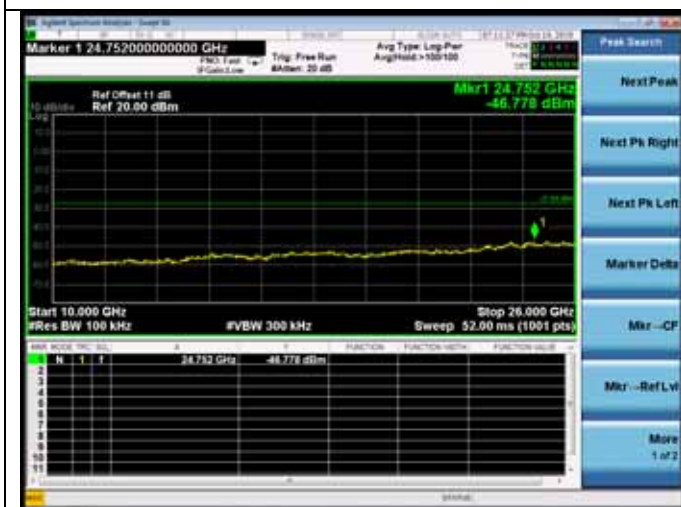


Test CH11: 2462MHz

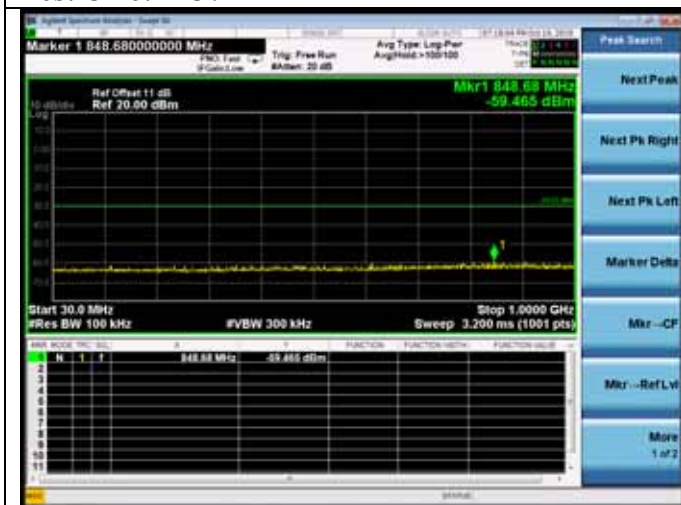


Test Mode: IEEE 802.11n HT20 Test CH1: 2412MHz

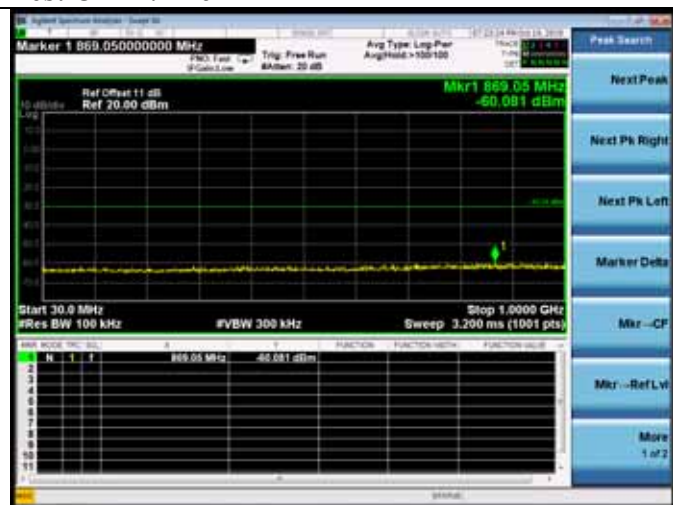




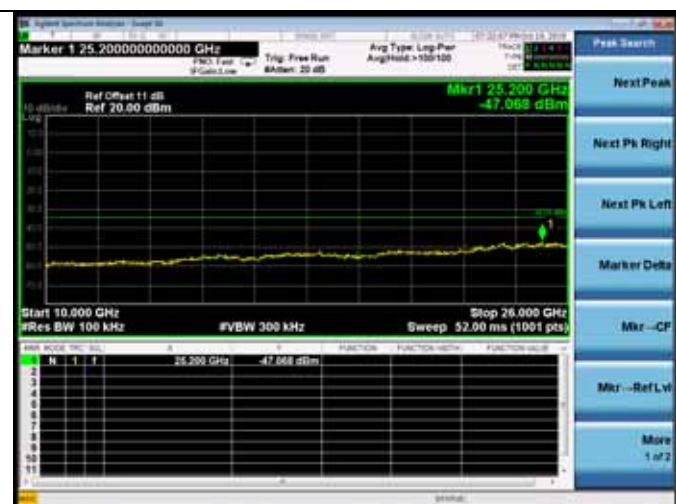
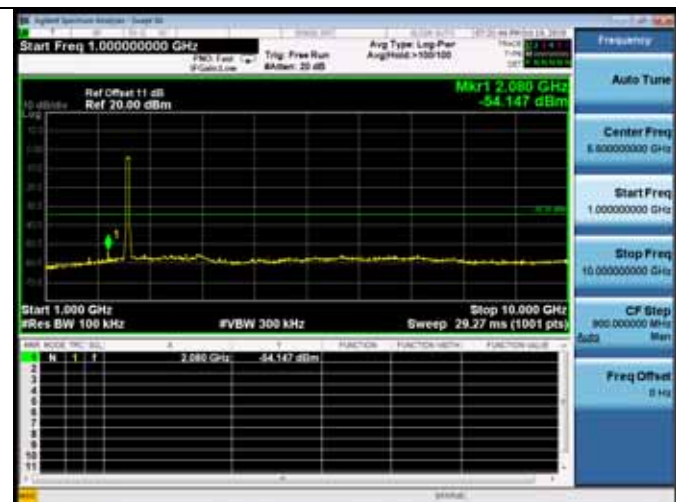
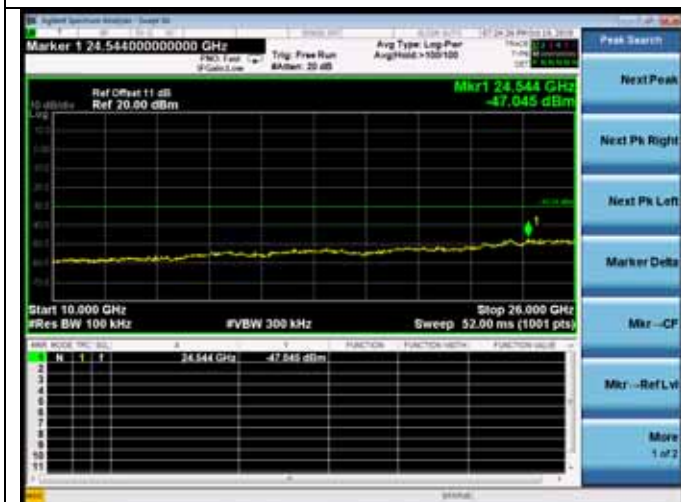
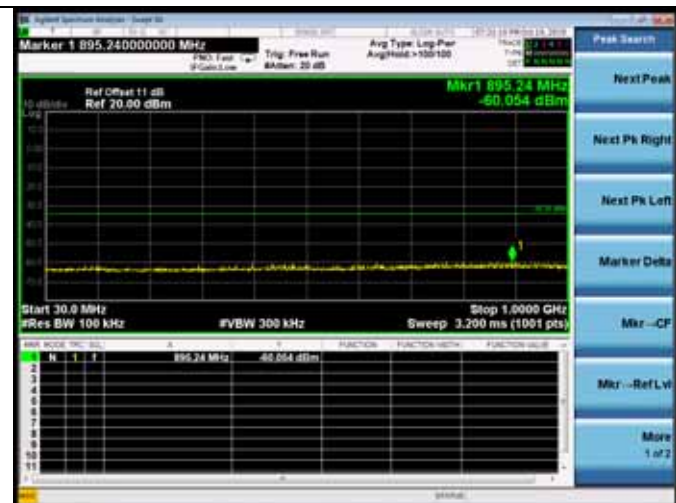
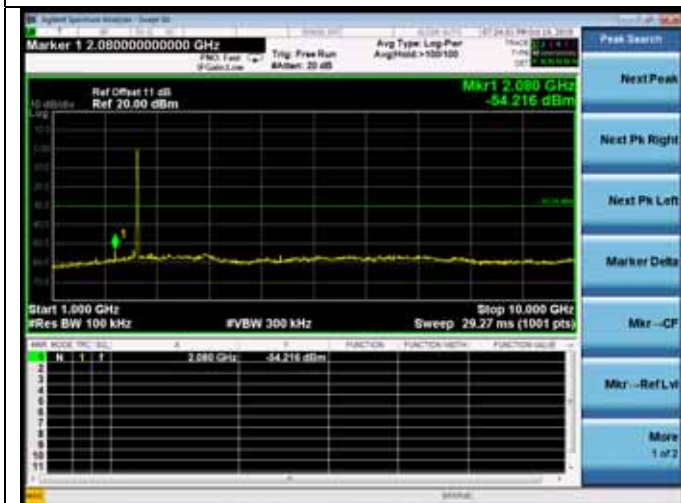
Test CH6: 2437MHz

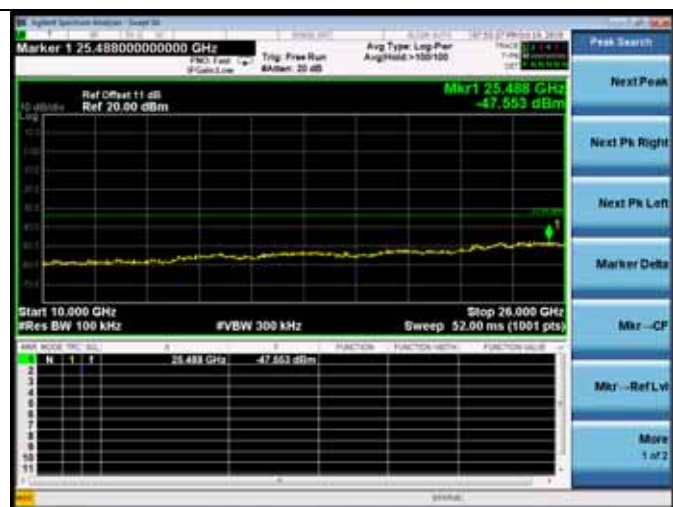


Test CH11: 2462MHz



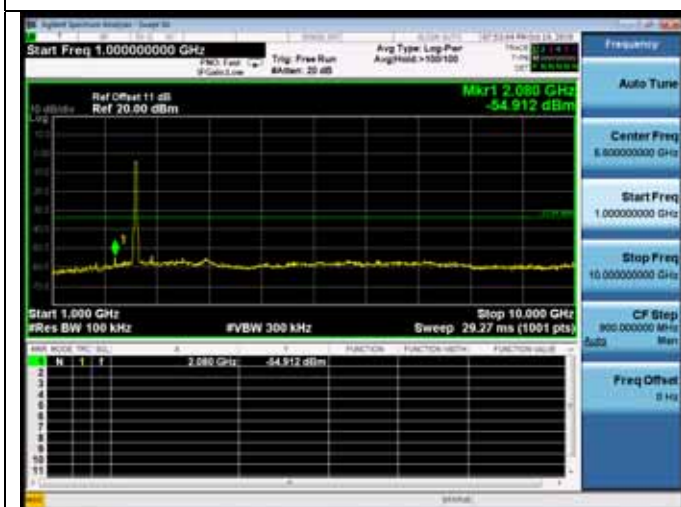
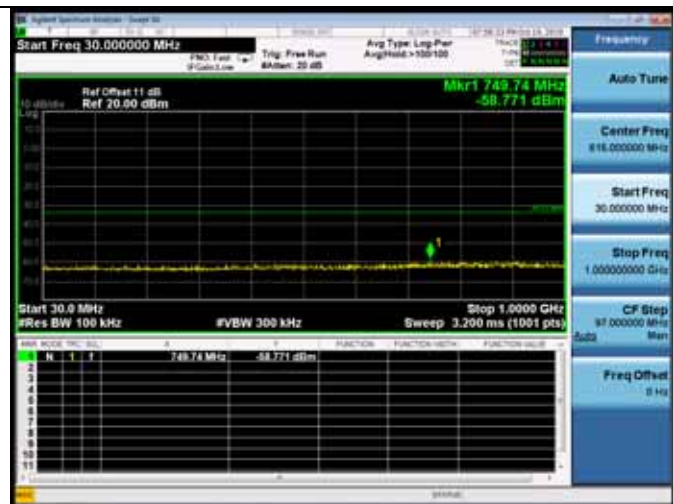
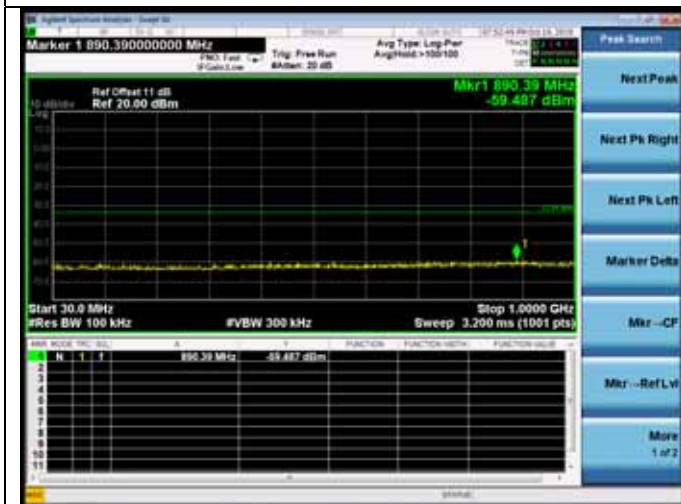
Test Mode: IEEE 802.11n HT40
Test CH3: 2422MHz

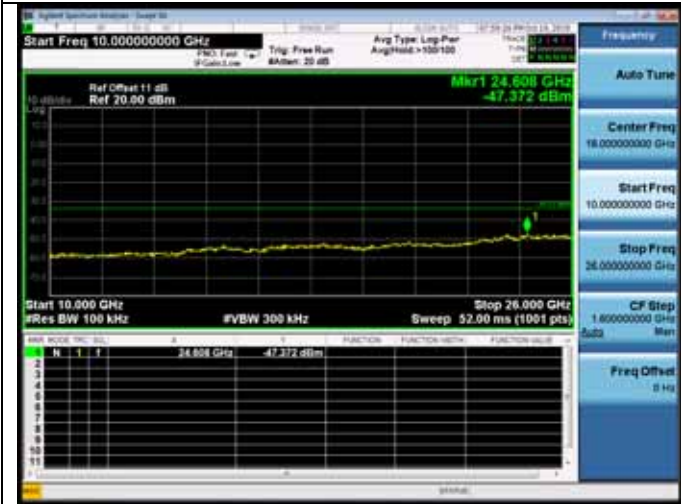




Test CH6: 2442MHz

Test CH9: 2452MHz

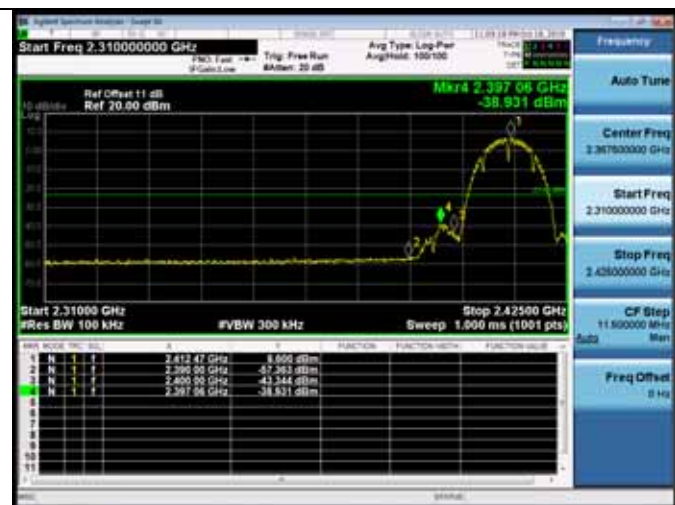
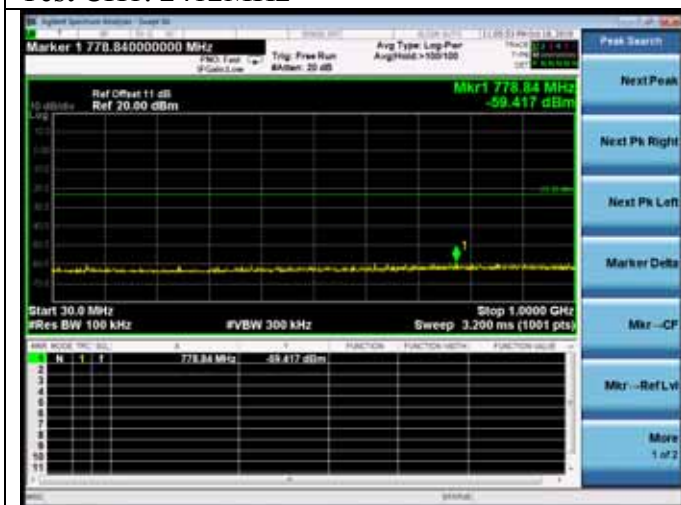




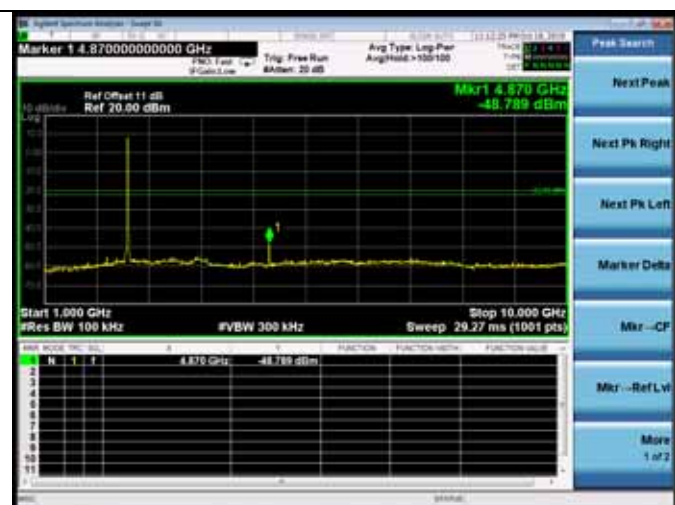
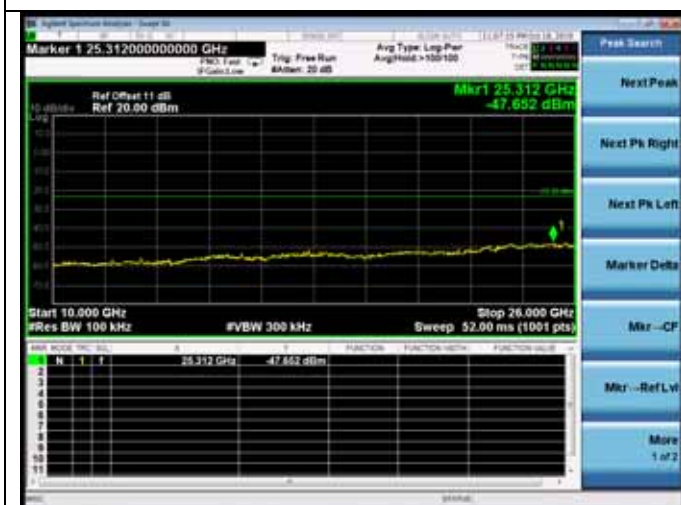
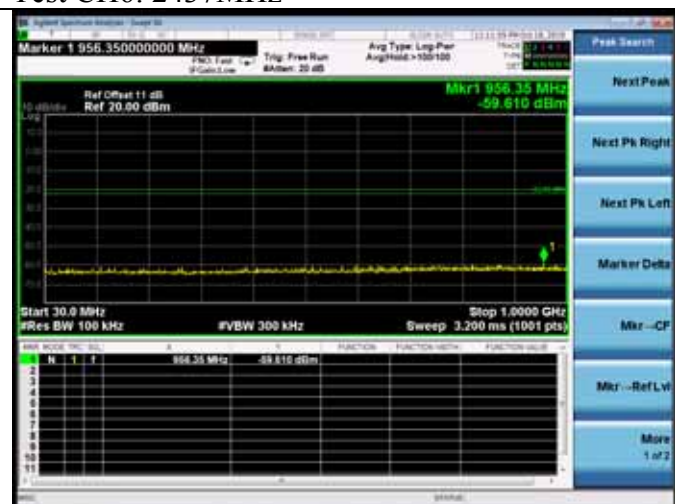
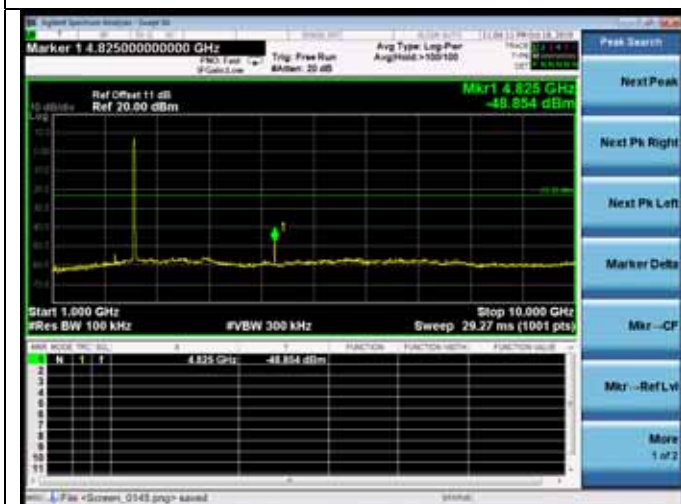
ANT1:

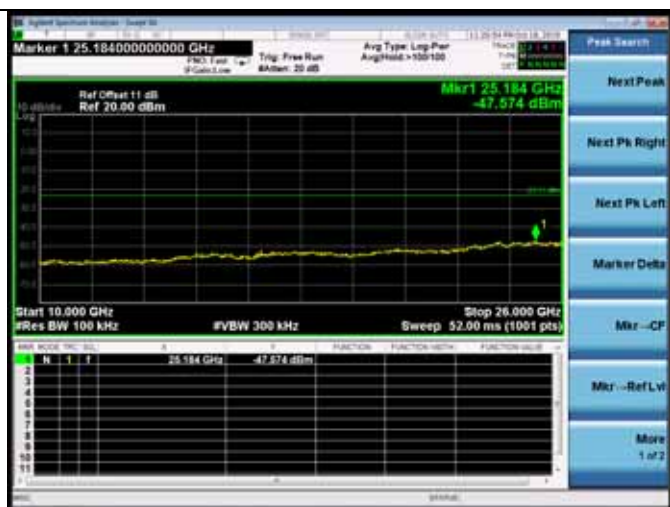
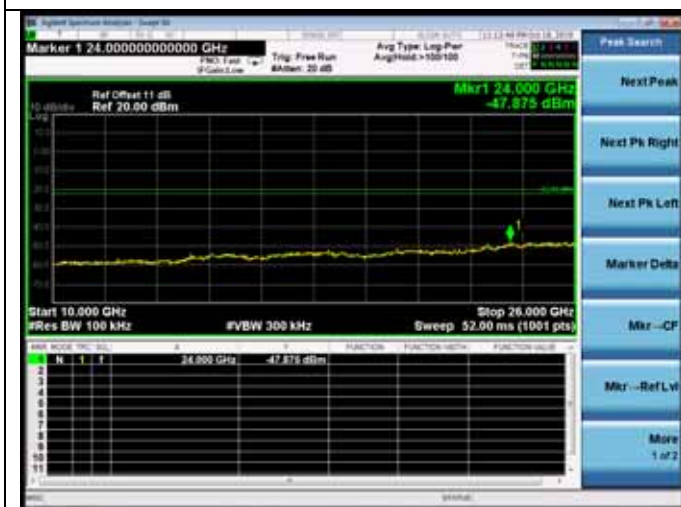
Test Mode: IEEE 802.11b

Test CH1: 2412MHz

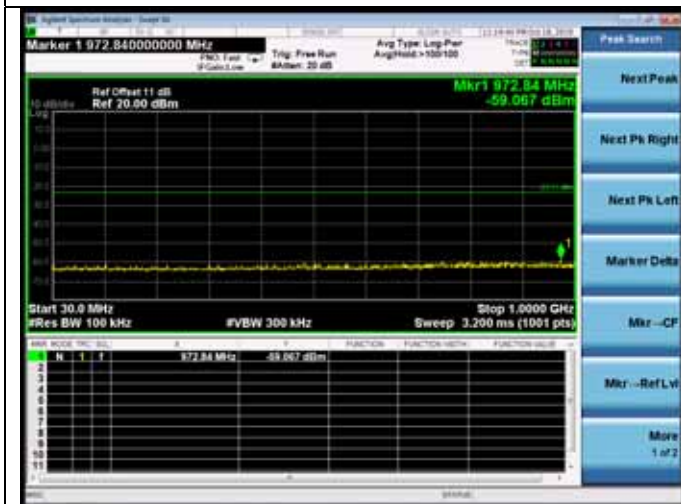
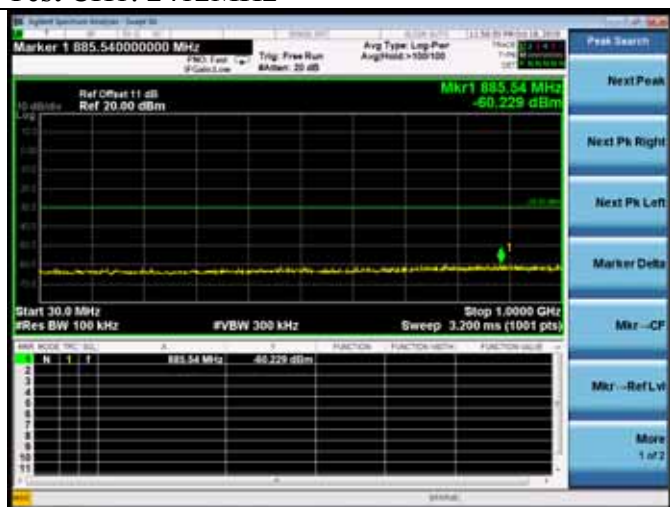
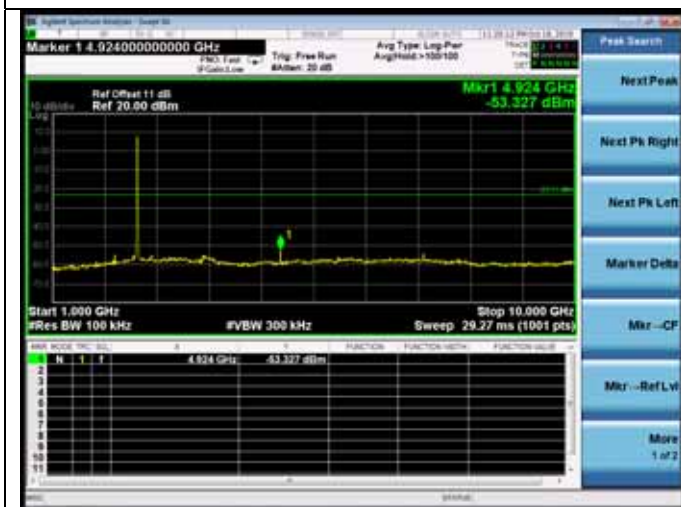


Test CH6: 2437MHz

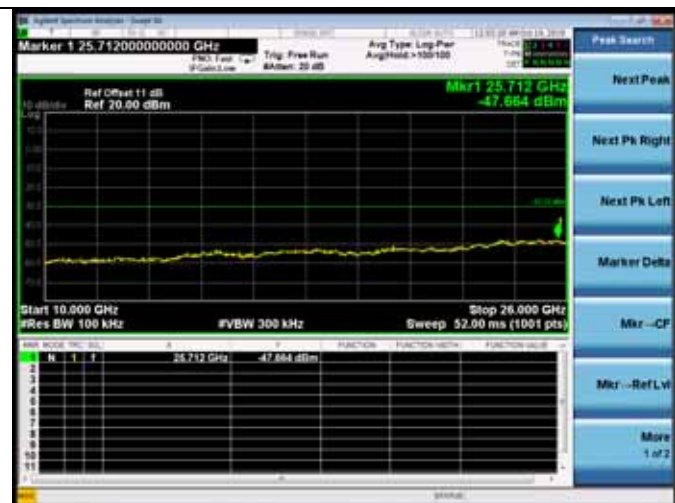
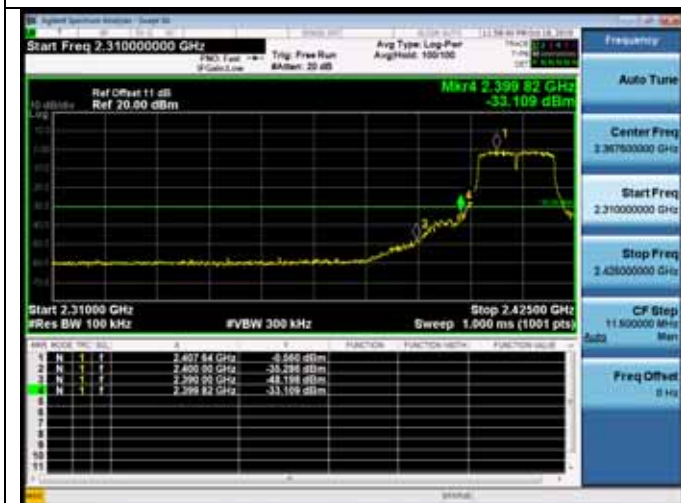
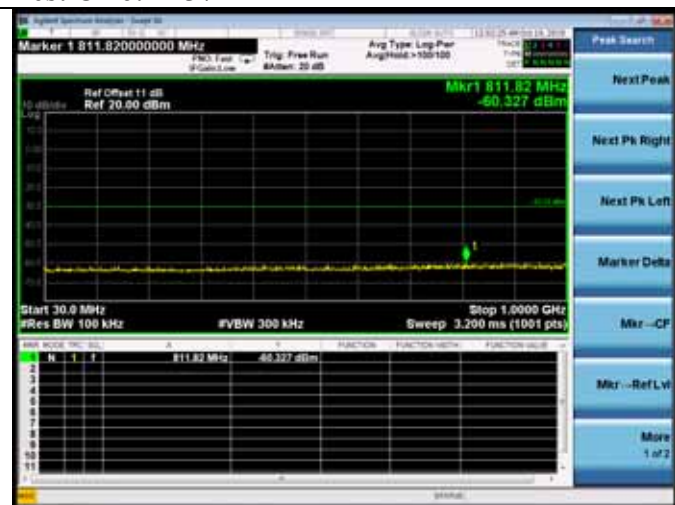
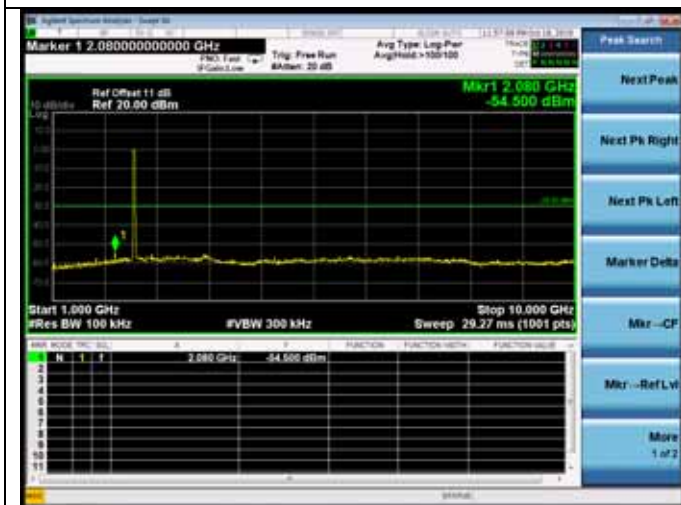




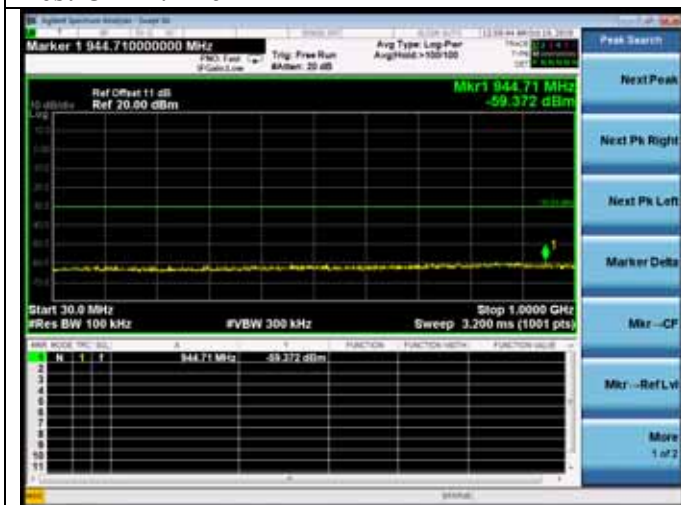
Test CH11: 2462MHz


Test Mode: IEEE 802.11g
Test CH1: 2412MHz


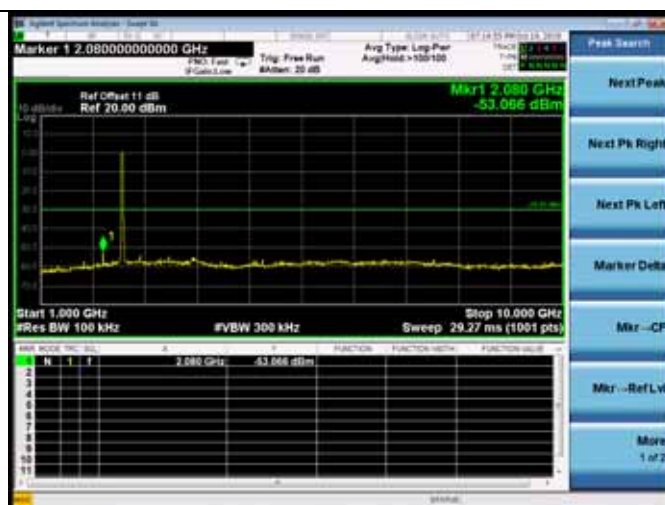
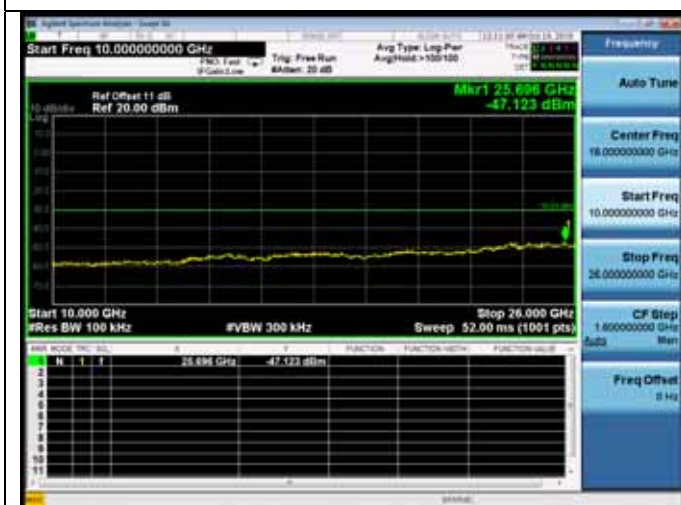
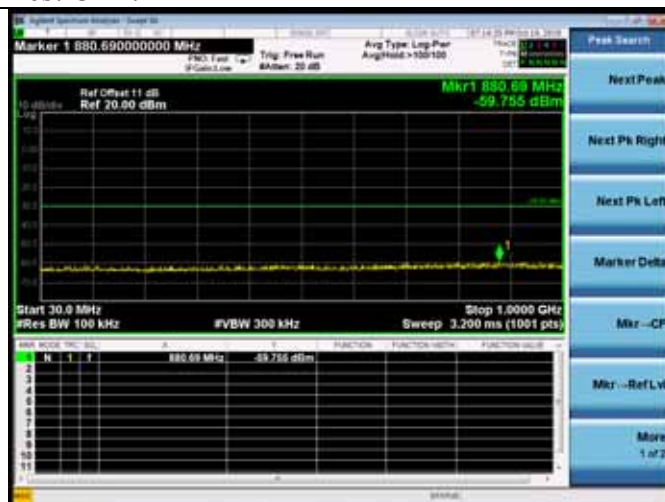
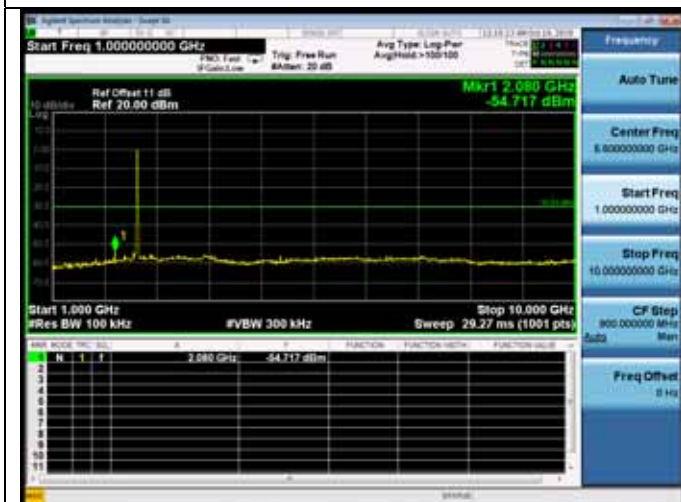
Test CH6: 2437MHz

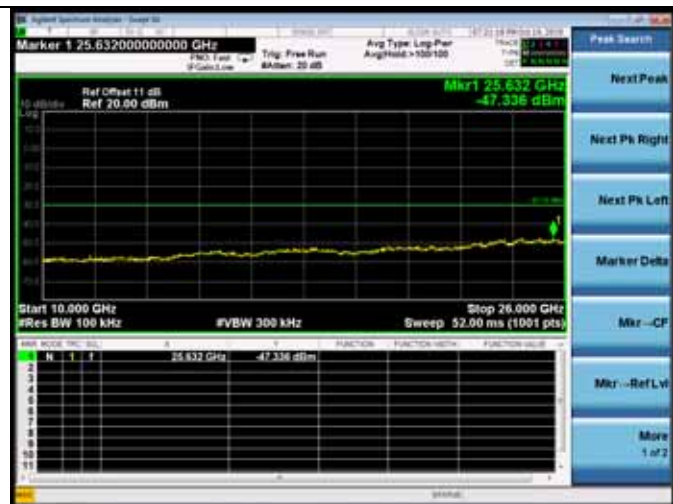
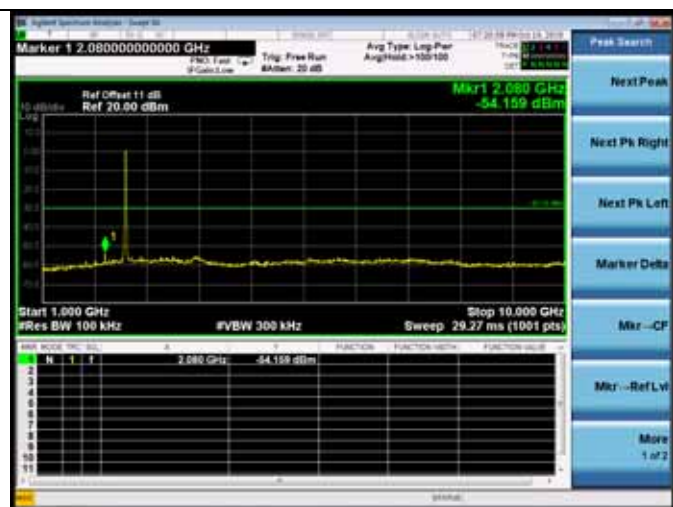
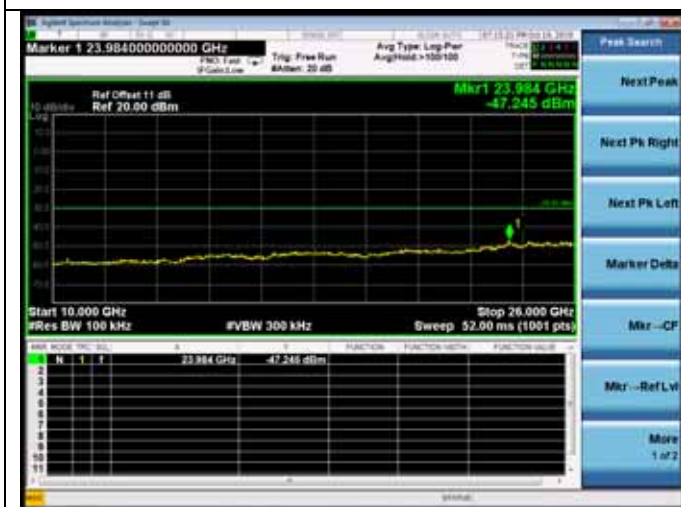


Test CH11: 2462MHz



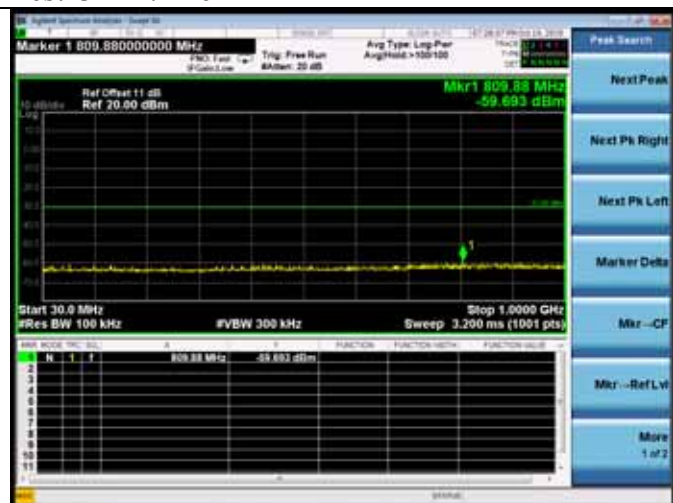
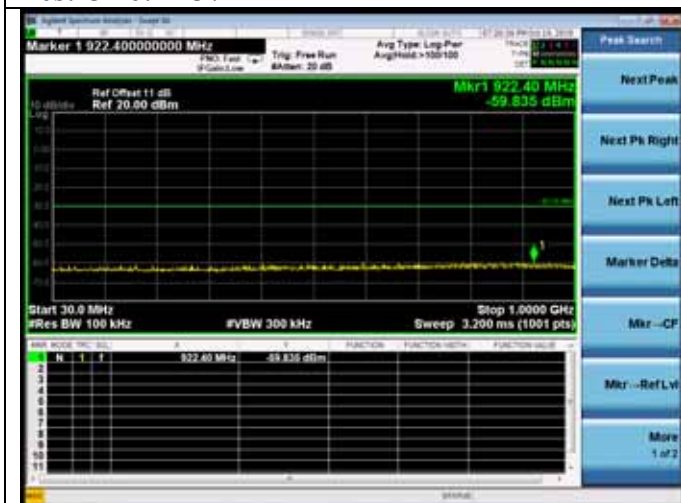
Test Mode: IEEE 802.11n HT20 Test CH1: 2412MHz



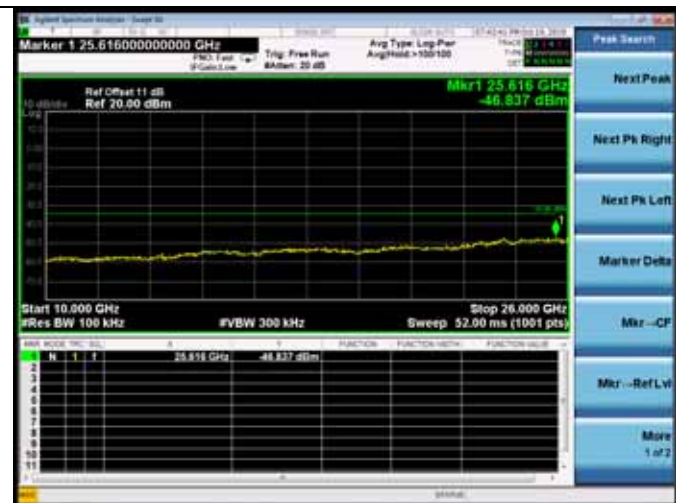
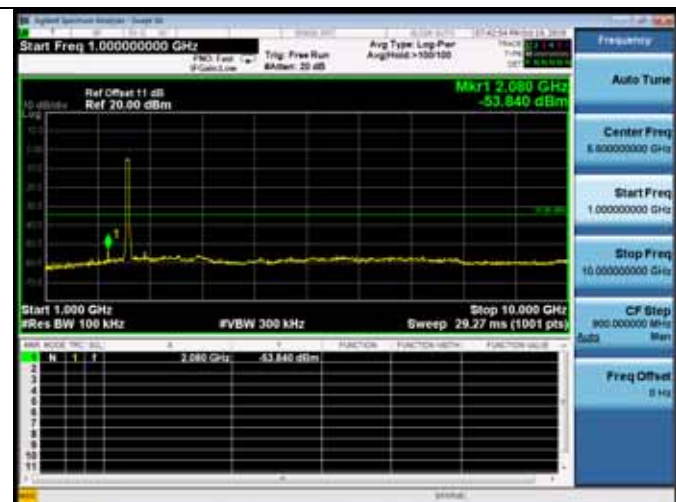
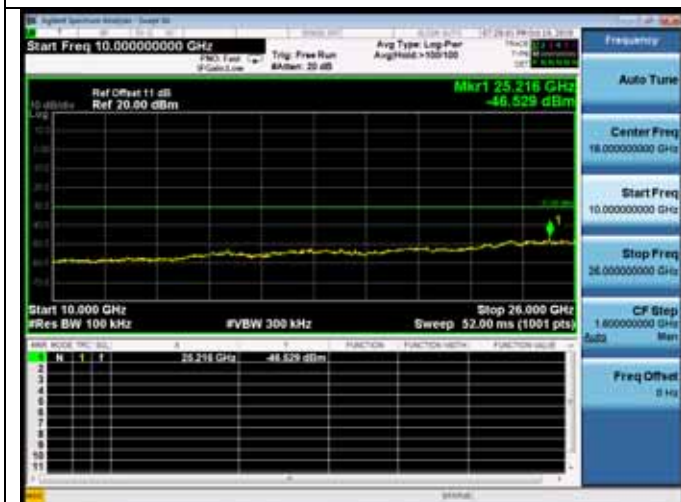
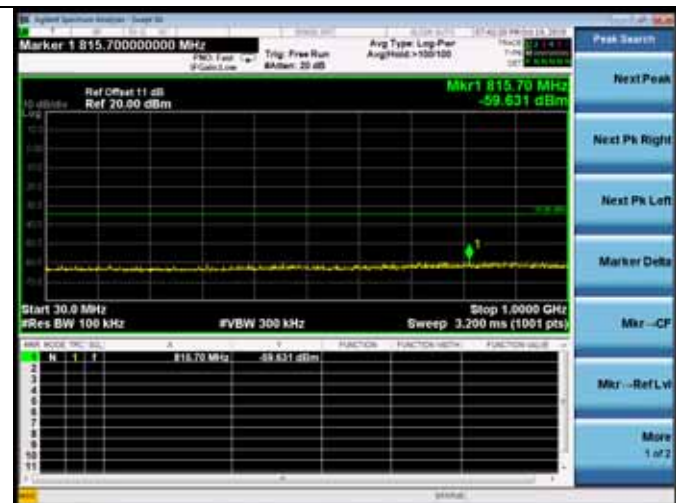
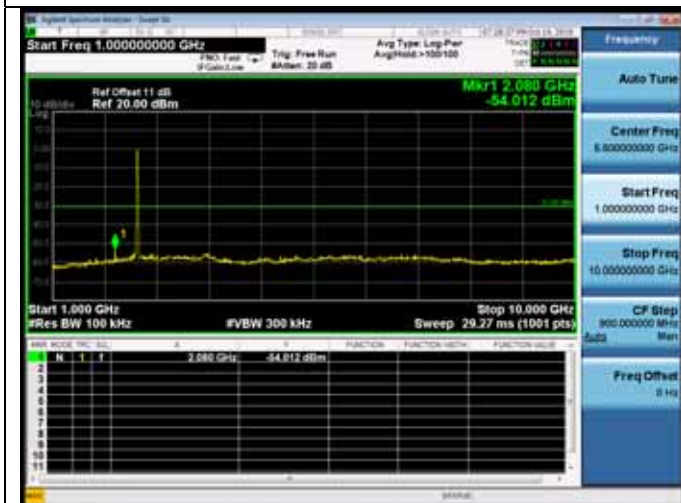


Test CH6: 2437MHz

Test CH11: 2462MHz



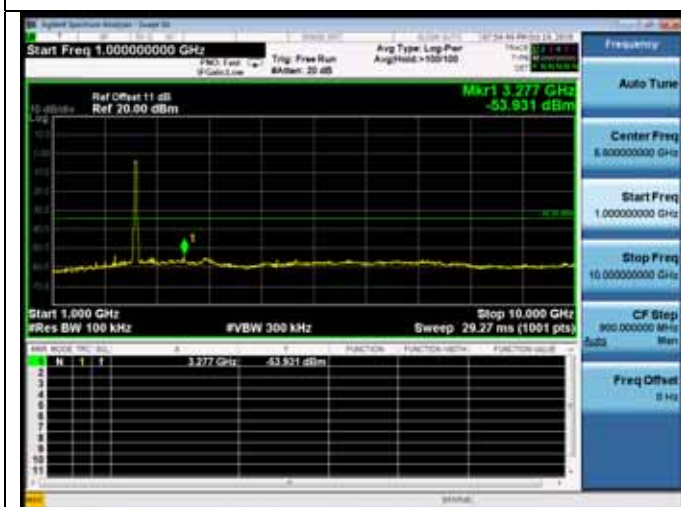
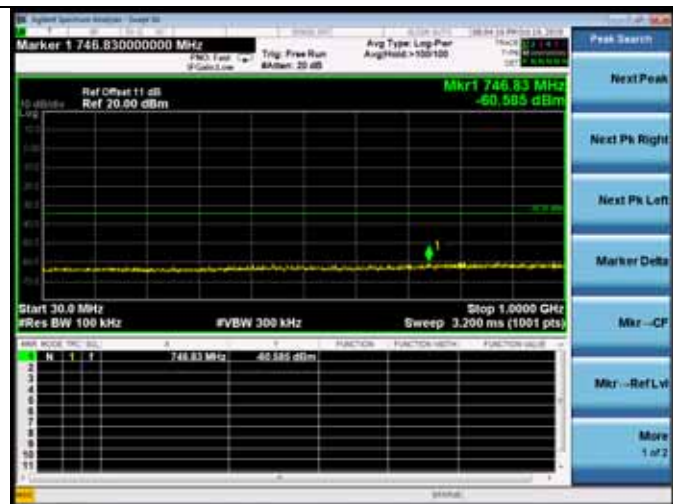
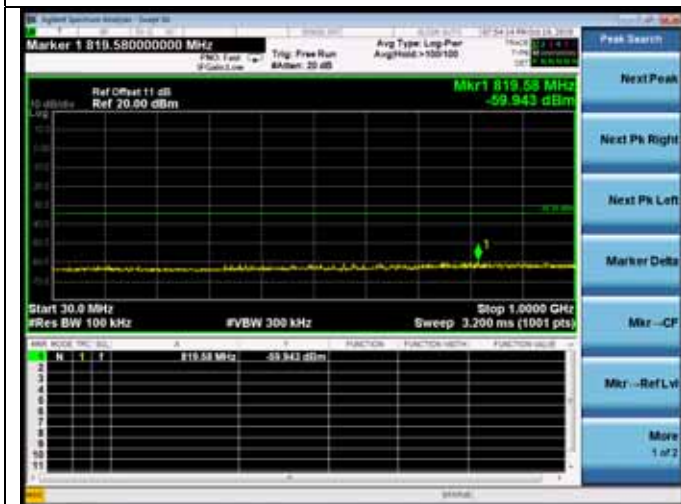
Test Mode: IEEE 802.11n HT40
Test CH3: 2422MHz

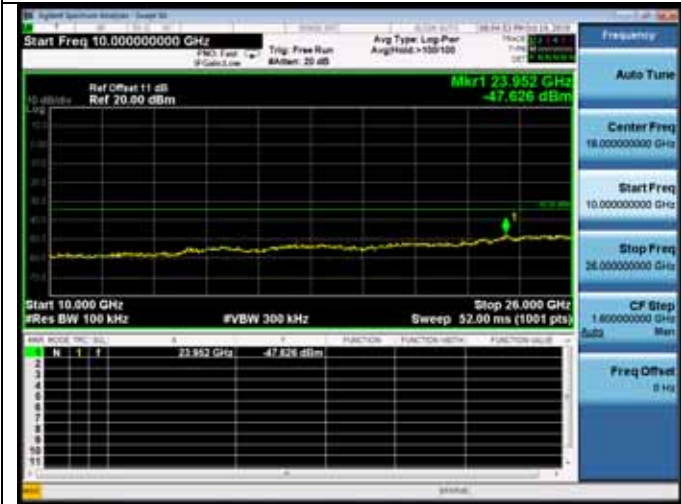




Test CH6: 2442MHz

Test CH9: 2452MHz





6. BAND EDGE COMPLIANCE TEST

6.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Sep.08,18	1 Year
2.	Amplifier	HP	8449B	3008A02495	Apr.23.18	1 Year
3.	Horn Antenna	ETS	3115	9510-4580	Dec.01,17	1 Year
4.	RF Cable	N/A	RF Cable	No.7	Oct.15,18	1 Year

6.2. Limit

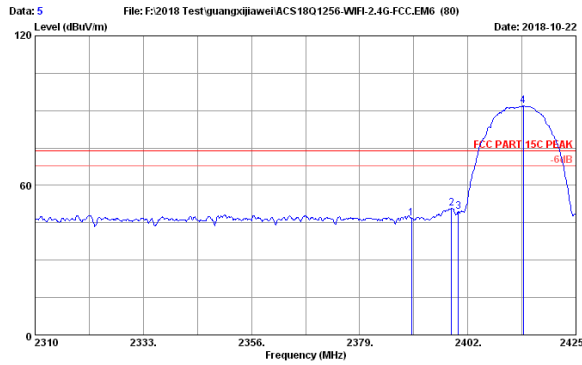
All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

6.3. Test Procedure

1. The EUT is placed on a turntable, which is 1.5m above the ground plane and worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - (a) PEAK: RBW=1MHz; VBW=3MHz; Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz; VBW=10Hz; Sweep=AUTO

6.4. Test Results

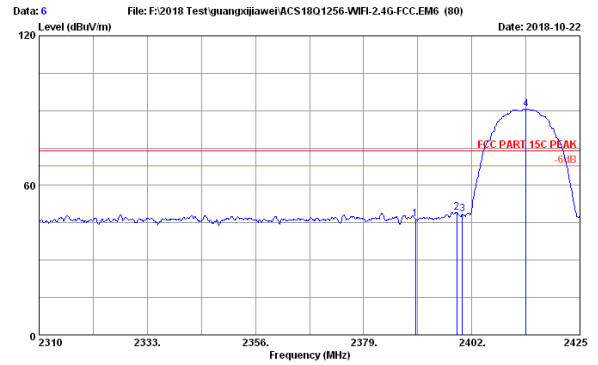
Pass (The testing data was attached in the next pages.)



Site no. : 3m Chamber Data no. : 5
 Dis. / Ant. : 3m 2017 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/52.5V Engineer : Cote
 EUT : Mobile Projector M/N:I400
 Power rating : DC 19V From Adapter Input AC 120/60Hz
 Test Mode : WIFI2.4G-11b 2412 Tx Mode

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	2390.00	27.79	10.28	44.48	35.70	46.85	74.00	27.15	Peak
2	2398.55	27.79	10.28	48.35	35.70	50.72	74.00	23.28	Peak
3	2400.00	27.79	10.28	47.17	35.70	49.54	74.00	24.46	Peak
4	2413.85	27.87	10.31	89.39	35.70	91.87	74.00	-17.87	Peak

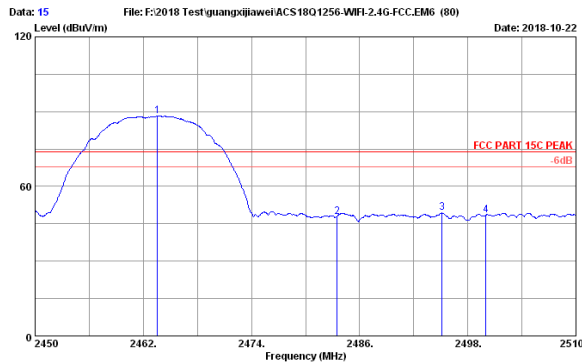
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 6
 Dis. / Ant. : 3m 2017 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/52.5V Engineer : Cote
 EUT : Mobile Projector M/N:I400
 Power rating : DC 19V From Adapter Input AC 120/60Hz
 Test Mode : WIFI2.4G-11b 2412 Tx Mode

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	2390.00	27.79	10.28	44.22	35.70	46.59	74.00	27.41	Peak
2	2398.78	27.79	10.28	46.81	35.70	49.18	74.00	24.82	Peak
3	2400.00	27.79	10.28	46.19	35.70	48.56	74.00	25.44	Peak
4	2413.50	27.87	10.31	88.21	35.70	90.69	74.00	-16.69	Peak

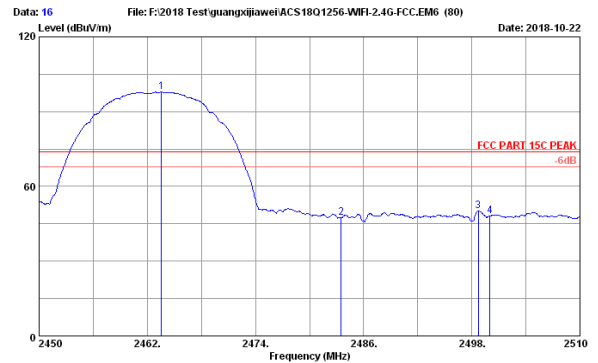
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 15
 Dis. / Ant. : 3m 2017 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/52.5V Engineer : Cote
 EUT : Mobile Projector M/N:I400
 Power rating : DC 19V From Adapter Input AC 120/60Hz
 Test Mode : WIFI2.4G-11b 2462 Tx Mode

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	2463.56	28.13	10.42	85.33	35.65	88.23	74.00	-14.23	Peak
2	2483.50	28.21	10.45	44.87	35.62	47.91	74.00	26.09	Peak
3	2495.12	28.30	10.48	46.12	35.60	49.30	74.00	24.70	Peak
4	2500.00	28.30	10.48	45.25	35.60	48.43	74.00	25.57	Peak

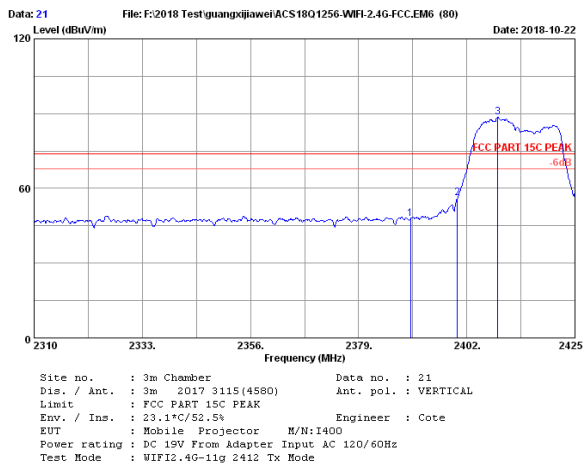
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 16
 Dis. / Ant. : 3m 2017 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23.1°C/52.5V Engineer : Cote
 EUT : Mobile Projector M/N:I400
 Power rating : DC 19V From Adapter Input AC 120/60Hz
 Test Mode : WIFI2.4G-11b 2462 Tx Mode

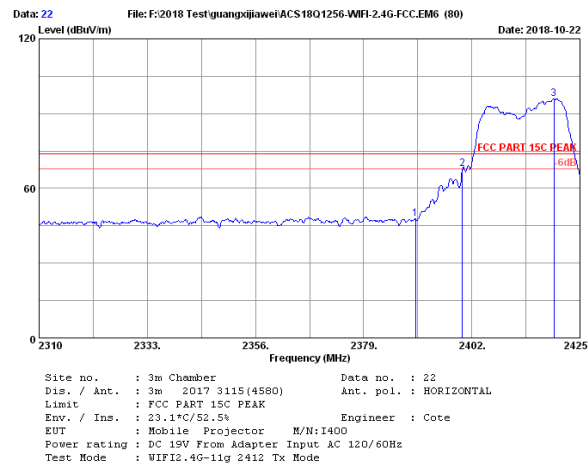
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2463.56	28.13	10.42	95.06	35.65	97.96	74.00	-23.96	Peak
2	2483.50	28.21	10.45	44.54	35.62	47.58	74.00	26.42	Peak
3	2498.72	28.30	10.48	46.87	35.60	50.05	74.00	23.95	Peak
4	2500.00	28.30	10.48	44.97	35.60	48.15	74.00	25.85	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.



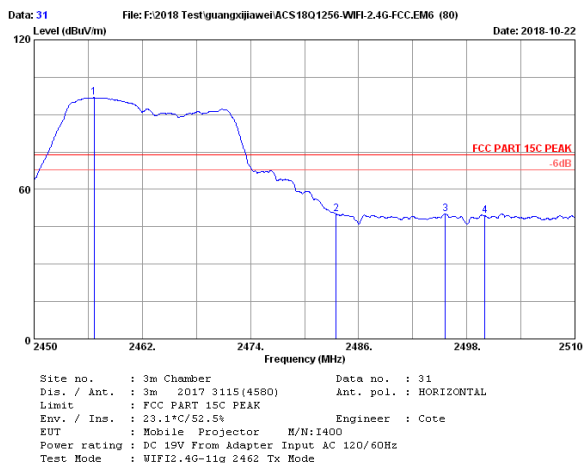
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.79	10.28	45.49	35.70	47.86	74.00	26.14	Peak
2	2400.00	27.79	10.28	53.82	35.70	56.19	74.00	17.81	Peak
3	2408.56	27.87	10.31	86.01	35.70	88.49	74.00	-14.49	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.



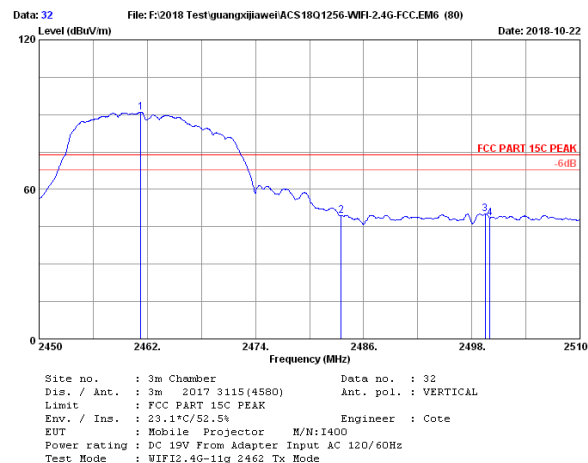
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.79	10.28	45.28	35.70	47.65	74.00	26.35	Peak
2	2400.00	27.79	10.28	65.61	35.70	67.98	74.00	6.02	Peak
3	2419.48	27.87	10.31	93.46	35.67	95.97	74.00	-21.97	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.



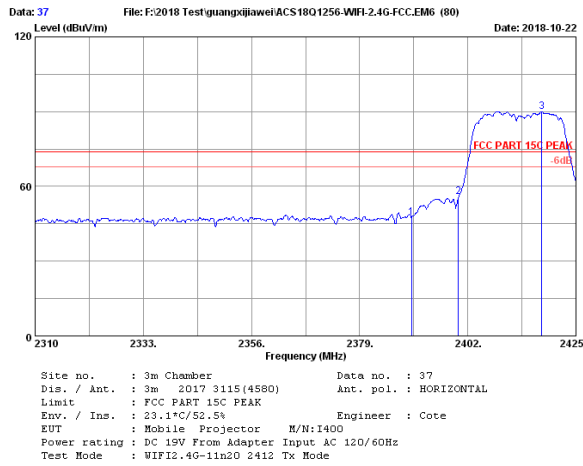
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2456.66	28.13	10.42	93.87	35.65	96.77	74.00	-22.77	Peak
2	2483.50	28.21	10.45	47.15	35.62	50.19	74.00	23.81	Peak
3	2495.60	28.30	10.48	46.93	35.60	50.11	74.00	23.89	Peak
4	2500.00	28.30	10.48	46.24	35.60	49.42	74.00	24.58	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.



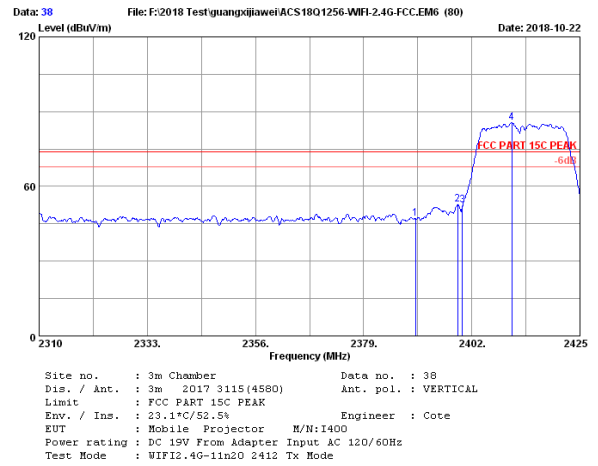
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2461.28	28.13	10.42	88.10	35.65	91.00	74.00	-17.00	Peak
2	2483.50	28.21	10.45	46.42	35.62	49.46	74.00	24.54	Peak
3	2499.50	28.30	10.48	47.11	35.60	50.29	74.00	23.71	Peak
4	2500.00	28.30	10.48	45.25	35.60	48.43	74.00	25.57	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.



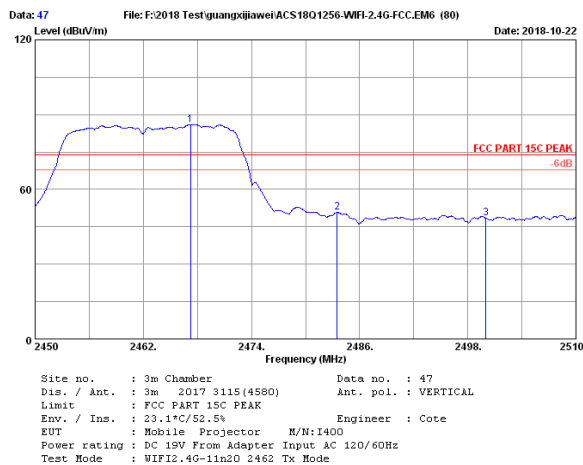
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.79	10.28	45.23	35.70	47.60	74.00	26.40	Peak
2	2400.00	27.79	10.28	53.44	35.70	55.81	74.00	18.19	Peak
3	2417.76	27.87	10.31	87.47	35.67	89.98	74.00	-15.98	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.



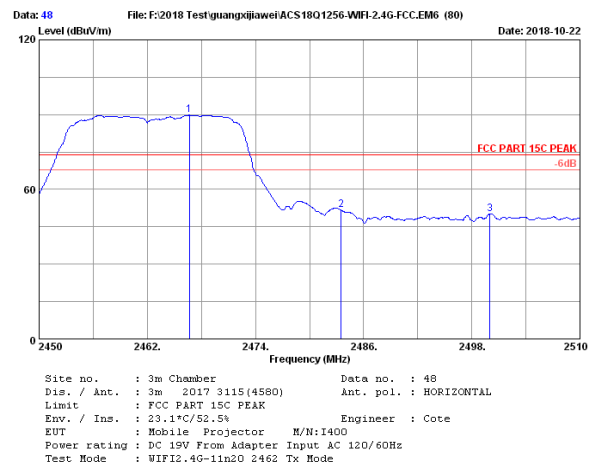
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.79	10.28	44.64	35.70	47.01	74.00	26.99	Peak
2	2399.01	27.79	10.28	50.31	35.70	52.68	74.00	21.32	Peak
3	2400.00	27.79	10.28	50.07	35.70	52.44	74.00	21.56	Peak
4	2410.51	27.87	10.31	83.02	35.70	85.50	74.00	-11.50	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.



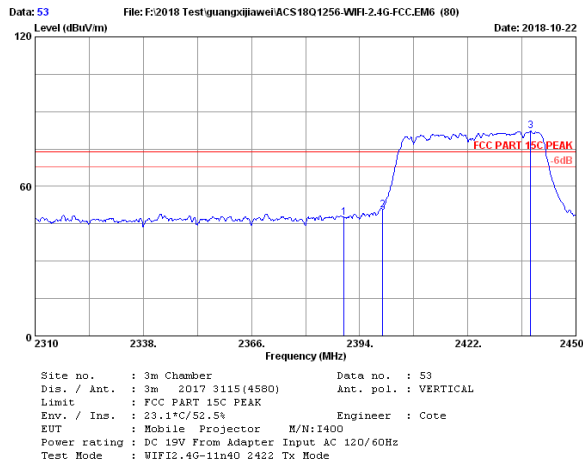
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2467.22	28.13	10.42	83.04	35.62	85.97	74.00	-11.97	Peak
2	2483.50	28.21	10.45	47.74	35.62	50.78	74.00	23.22	Peak
3	2500.00	28.30	10.48	45.32	35.60	48.50	74.00	25.50	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.



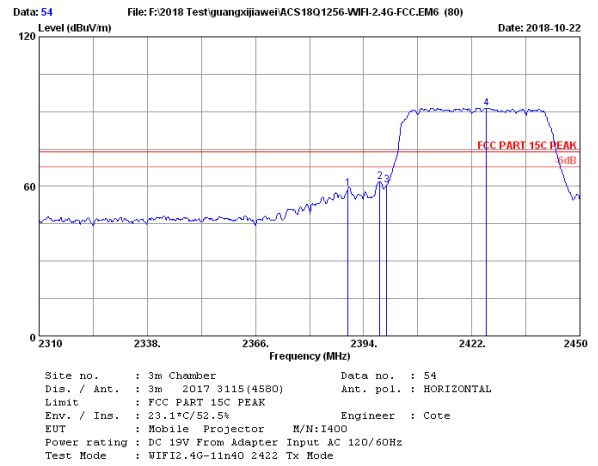
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2466.68	28.13	10.42	86.82	35.62	89.75	74.00	-15.75	Peak
2	2483.50	28.21	10.45	48.68	35.62	51.72	74.00	22.28	Peak
3	2500.00	28.30	10.48	46.91	35.60	50.09	74.00	23.91	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.



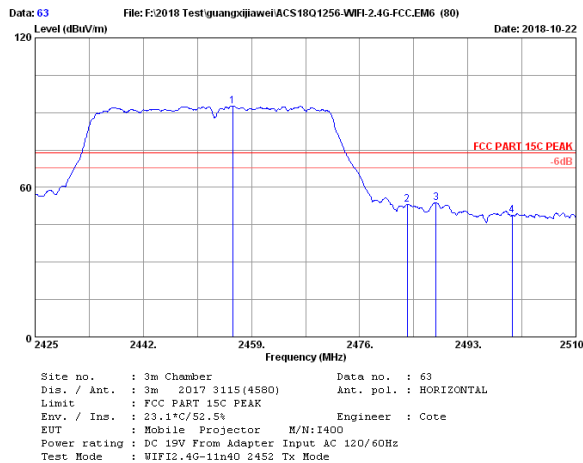
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1	2390.00	27.79	10.28	45.25	35.70	47.62	74.00	26.38	Peak
2	2400.00	27.79	10.28	48.20	35.70	50.57	74.00	23.43	Peak
3	2438.24	28.04	10.38	79.35	35.67	82.10	74.00	-8.10	Peak

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.



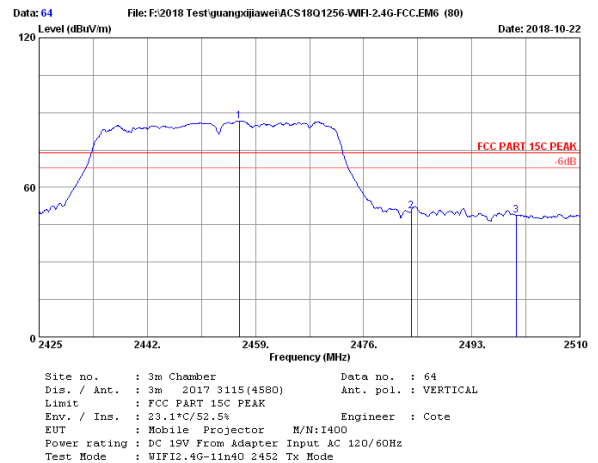
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.79	10.28	56.89	35.70	59.26	74.00	14.74	Peak
2	2398.20	27.79	10.28	59.47	35.70	61.84	74.00	12.16	Peak
3	2400.00	27.79	10.28	58.02	35.70	60.39	74.00	13.61	Peak
4	2425.78	27.96	10.35	88.74	35.67	91.38	74.00	-17.38	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.



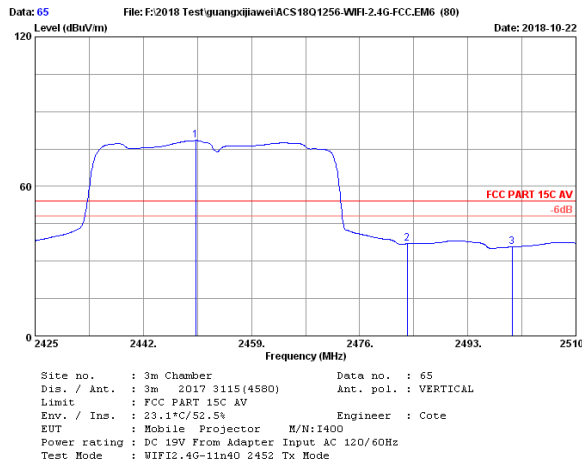
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2456.03	28.13	10.42	89.84	35.65	92.74	74.00	-18.74	Peak
2	2483.50	28.21	10.45	50.13	35.62	53.17	74.00	20.83	Peak
3	2487.99	28.30	10.48	50.73	35.62	53.89	74.00	20.11	Peak
4	2500.00	28.30	10.48	45.73	35.60	48.91	74.00	25.09	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.



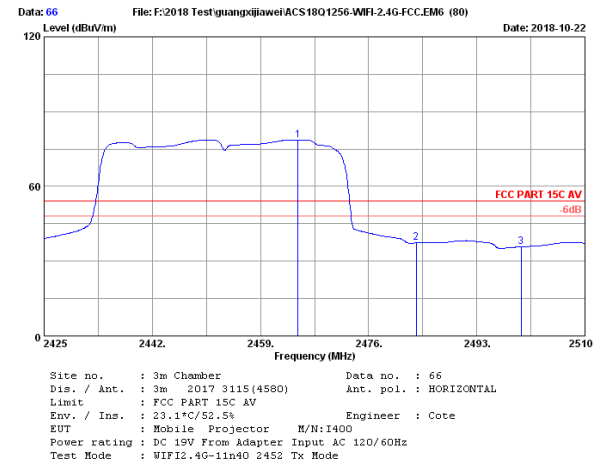
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2456.45	28.13	10.42	83.71	35.65	86.61	74.00	-12.61	Peak
2	2483.50	28.21	10.45	47.42	35.62	50.46	74.00	23.54	Peak
3	2500.00	28.30	10.48	45.54	35.60	48.72	74.00	25.28	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.



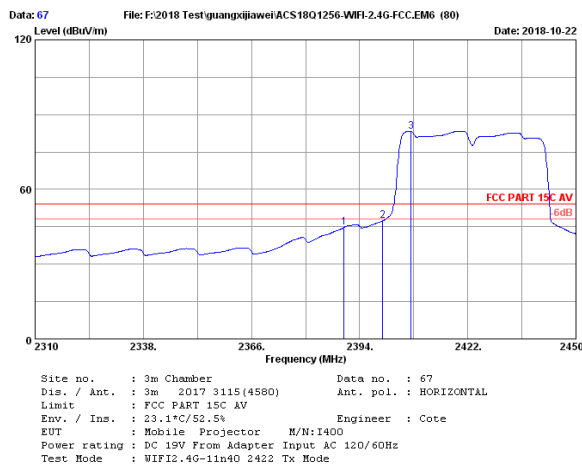
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2450.25	28.04	10.38	75.65	35.65	78.42	54.00	-24.42	Average
2	2483.50	28.21	10.45	33.92	35.62	36.96	54.00	17.04	Average
3	2500.00	28.30	10.48	32.56	35.60	35.74	54.00	18.26	Average

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.



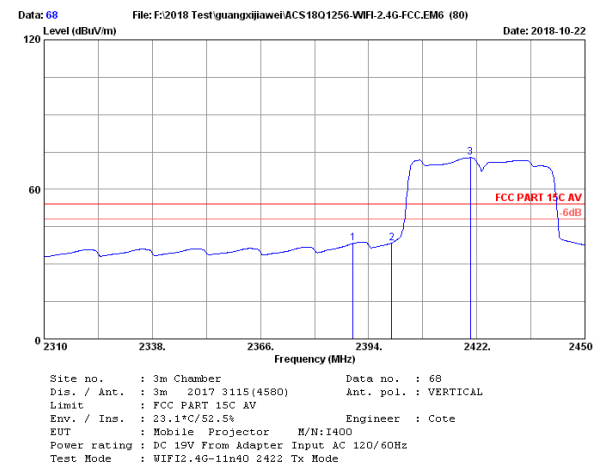
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1	2464.87	28.13	10.42	75.82	35.65	78.72	54.00	-24.72	Average
2	2483.50	28.21	10.45	34.30	35.62	37.34	54.00	16.66	Average
3	2500.00	28.30	10.48	32.56	35.60	35.74	54.00	18.26	Average

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.



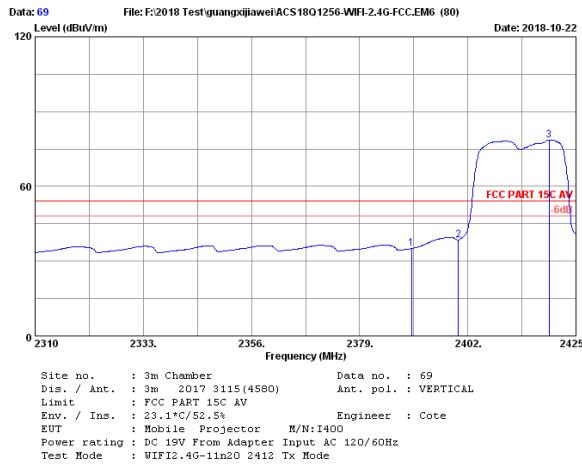
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.79	10.28	42.36	35.70	44.73	54.00	9.27	Average
2	2400.00	27.79	10.28	44.95	35.70	47.32	54.00	6.68	Average
3	2407.30	27.87	10.31	80.88	35.70	83.36	54.00	-29.36	Average

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.



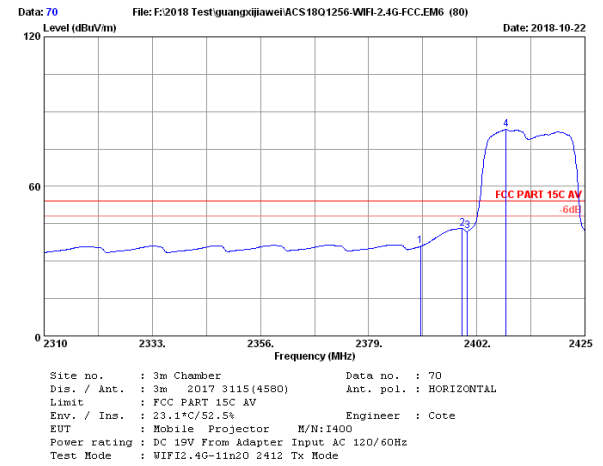
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1	2390.00	27.79	10.28	36.03	35.70	38.40	54.00	15.60	Average
2	2400.00	27.79	10.28	36.15	35.70	38.52	54.00	15.48	Average
3	2420.32	27.96	10.35	70.09	35.67	72.73	54.00	-18.73	Average

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.



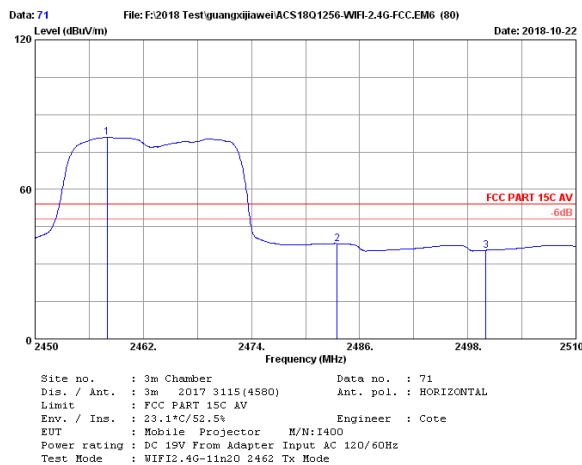
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.79	10.28	32.70	35.70	35.07	54.00	18.93	Average
2	2400.00	27.79	10.28	36.13	35.70	38.50	54.00	15.50	Average
3	2419.25	27.87	10.31	76.12	35.67	78.63	54.00	-24.63	Average

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.



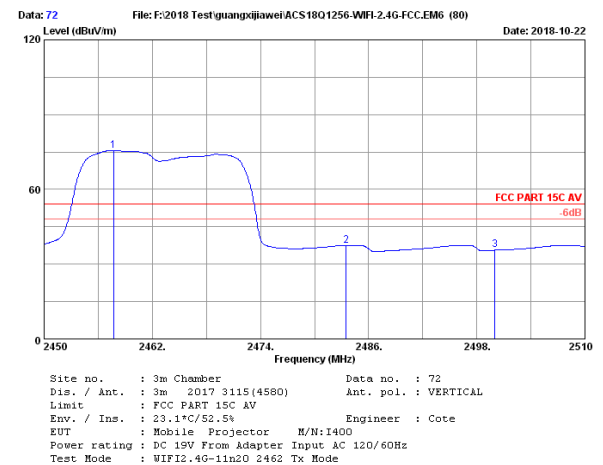
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.79	10.28	33.59	35.70	35.96	54.00	18.04	Average
2	2398.90	27.79	10.28	40.80	35.70	43.17	54.00	10.83	Average
3	2400.00	27.79	10.28	39.62	35.70	41.99	54.00	12.01	Average
4	2408.21	27.87	10.31	80.30	35.70	82.78	54.00	-28.78	Average

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.



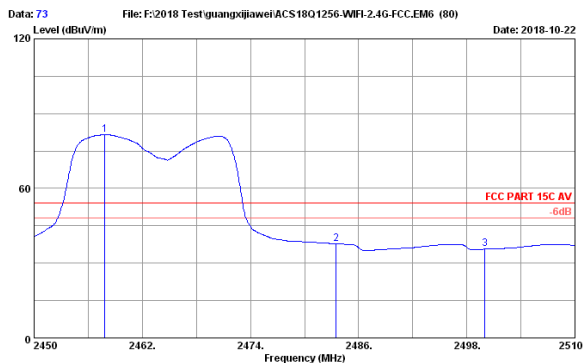
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2457.98	28.13	10.42	78.00	35.65	80.90	54.00	-26.90	Average
2	2483.50	28.21	10.45	35.23	35.62	38.27	54.00	15.73	Average
3	2500.00	28.30	10.48	32.41	35.60	35.59	54.00	18.41	Average

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	2457.68	28.13	10.42	72.75	35.65	75.65	54.00	-21.65	Average
2	2483.50	28.21	10.45	34.46	35.62	37.50	54.00	16.50	Average
3	2500.00	28.30	10.48	32.42	35.60	35.60	54.00	18.40	Average

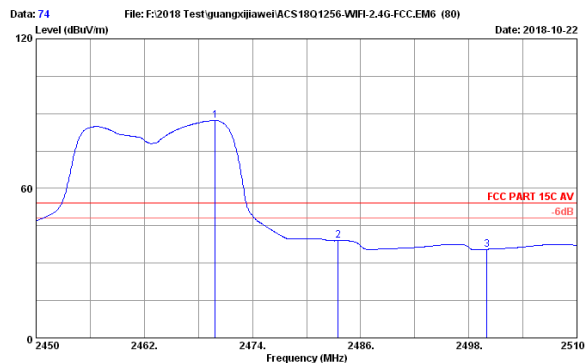
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp factor.
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 73
 Dis. / Ant. : 3m 2017 3115(4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/52.5% Engineer : Cote
 EUT : Mobile Projector M/N:I400
 Power rating : DC 19V From Adapter Input AC 120/60Hz
 Test Mode : WIFI2.4G-11g 2462 Tx Mode

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	2457.86	28.13	10.42	78.63	35.65	81.53	54.00	-27.53	Average
2	2483.50	28.21	10.45	34.77	35.62	37.81	54.00	16.19	Average
3	2500.00	28.30	10.48	32.44	35.60	35.62	54.00	18.38	Average

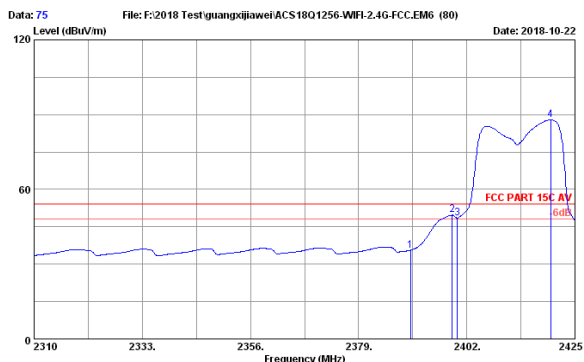
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 74
 Dis. / Ant. : 3m 2017 3115(4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/52.5% Engineer : Cote
 EUT : Mobile Projector M/N:I400
 Power rating : DC 19V From Adapter Input AC 120/60Hz
 Test Mode : WIFI2.4G-11g 2462 Tx Mode

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	2469.86	28.13	10.42	84.31	35.62	87.24	54.00	-33.24	Average
2	2483.50	28.21	10.45	36.00	35.62	39.04	54.00	14.96	Average
3	2500.00	28.30	10.48	32.39	35.60	35.57	54.00	18.43	Average

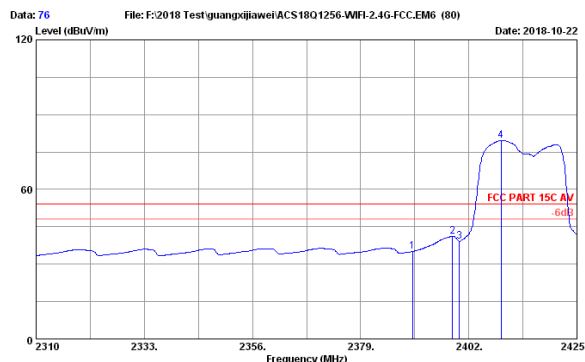
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 75
 Dis. / Ant. : 3m 2017 3115(4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/52.5% Engineer : Cote
 EUT : Mobile Projector M/N:I400
 Power rating : DC 19V From Adapter Input AC 120/60Hz
 Test Mode : WIFI2.4G-11g 2412 Tx Mode

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	2390.00	27.79	10.28	33.23	35.70	35.60	54.00	18.40	Average
2	2398.90	27.79	10.28	47.39	35.70	49.76	54.00	4.24	Average
3	2400.00	27.79	10.28	46.15	35.70	48.52	54.00	5.48	Average
4	2419.83	27.96	10.35	85.29	35.67	87.93	54.00	-33.93	Average

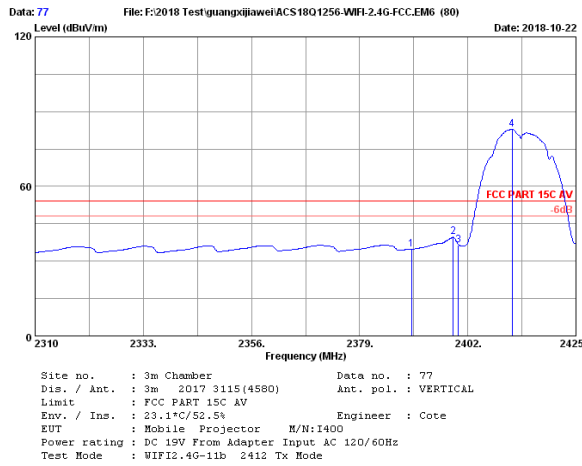
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp factor.
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 76
 Dis. / Ant. : 3m 2017 3115(4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23.1°C/52.5% Engineer : Cote
 EUT : Mobile Projector M/N:I400
 Power rating : DC 19V From Adapter Input AC 120/60Hz
 Test Mode : WIFI2.4G-11g 2412 Tx Mode

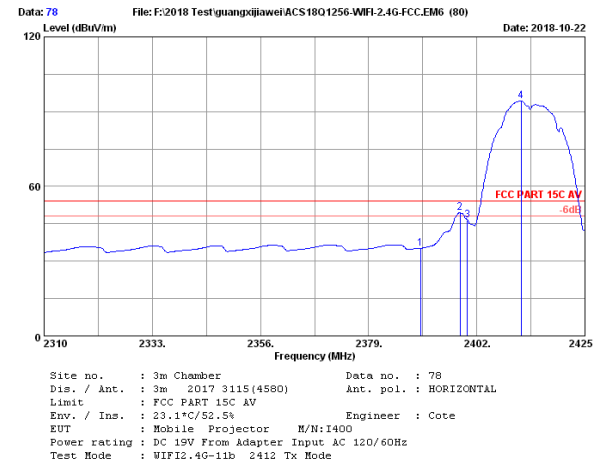
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.79	10.28	32.73	35.70	35.10	54.00	18.90	Average
2	2398.55	27.79	10.28	38.71	35.70	41.08	54.00	12.92	Average
3	2400.00	27.79	10.28	36.80	35.70	39.17	54.00	14.83	Average
4	2408.90	27.87	10.31	77.11	35.70	79.59	54.00	-25.59	Average

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.



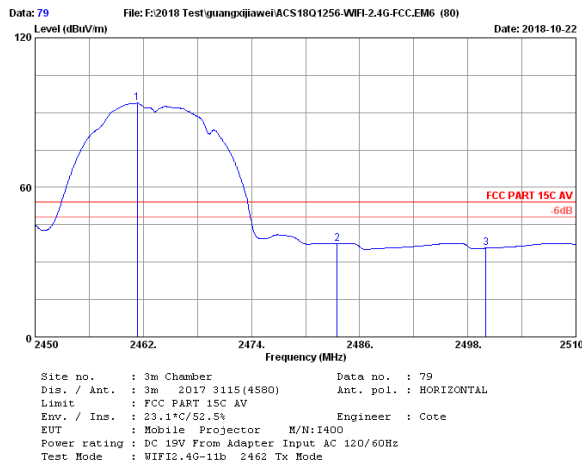
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.79	10.28	32.42	35.70	34.79	54.00	19.21	Average
2	2398.90	27.79	10.28	37.29	35.70	39.66	54.00	14.34	Average
3	2400.00	27.79	10.28	34.15	35.70	36.52	54.00	17.48	Average
4	2411.43	27.87	10.31	80.41	35.70	82.89	54.00	-28.89	Average

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.



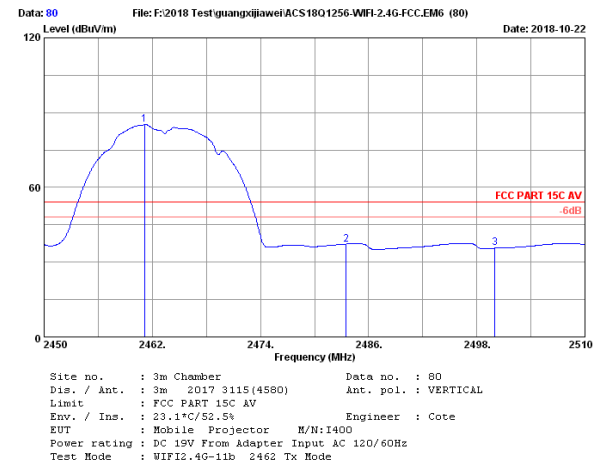
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Amp factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.00	27.79	10.28	32.78	35.70	35.15	54.00	18.85	Average
2	2398.44	27.79	10.28	47.11	35.70	49.48	54.00	4.52	Average
3	2400.00	27.79	10.28	44.07	35.70	46.44	54.00	7.56	Average
4	2411.43	27.87	10.31	91.85	35.70	94.33	54.00	-40.33	Average

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	2461.34	28.13	10.42	90.91	35.65	93.81	54.00	-39.81	Average
2	2483.50	28.21	10.45	34.42	35.62	37.46	54.00	16.54	Average
3	2500.00	28.30	10.48	32.42	35.60	35.60	54.00	18.40	Average

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	2461.16	28.13	10.42	82.26	35.65	85.16	54.00	-31.16	Average
2	2483.50	28.21	10.45	34.23	35.62	37.27	54.00	16.73	Average
3	2500.00	28.30	10.48	32.42	35.60	35.60	54.00	18.40	Average

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.

7. 6dB Bandwidth Test

7.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Sep.08,18	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	Oct.14,18	1 Year
3.	RF Cable	EMCI	EMC102-KM-KM 3500	170702	Oct.14,18	1 Year

7.2. Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz

7.3. Test Procedure

The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

7.4. Test Results

EUT: Mobile Projector		
M/N: i400		
Test date: 2018-10-17	Pressure: 102.1±1.0 kpa	Humidity: 51.1±3.0%
Tested by: Cote	Test site: RF site	Temperature: 22.8±0.6 °C

Test Mode	CH	6dB bandwidth (MHz)		Limit (kHz)
		ANT0	ANT1	
11b	CH1	9.109	10.01	≥ 500
	CH6	9.565	9.573	≥ 500
	CH11	10.01	9.995	≥ 500
11g	CH1	16.56	16.57	≥ 500
	CH6	16.55	16.57	≥ 500
	CH11	16.56	16.56	≥ 500
11n HT20	CH1	17.65	17.66	≥ 500
	CH6	17.66	17.66	≥ 500
	CH11	17.63	17.63	≥ 500
11n HT40	CH3	36.55	36.54	≥ 500
	CH6	36.55	36.54	≥ 500
	CH9	36.57	36.55	≥ 500
Conclusion : PASS				

ANT0:

Test Mode: IEEE 802.11b

Test CH1: 2412MHz



ANT1:

Test Mode: IEEE 802.11b

Test CH1: 2412MHz



Test CH6: 2437MHz



Test CH6: 2437MHz



Test CH11: 2462MHz

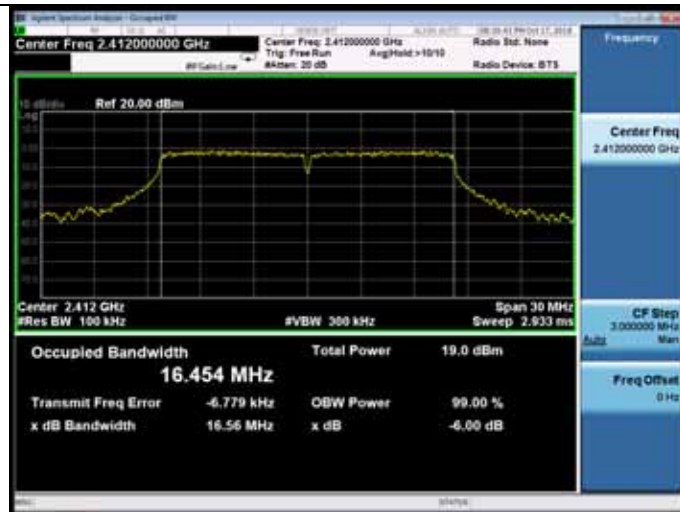


Test CH11: 2462MHz



ANT0:

Test Mode: IEEE 802.11g
Test CH1: 2412MHz

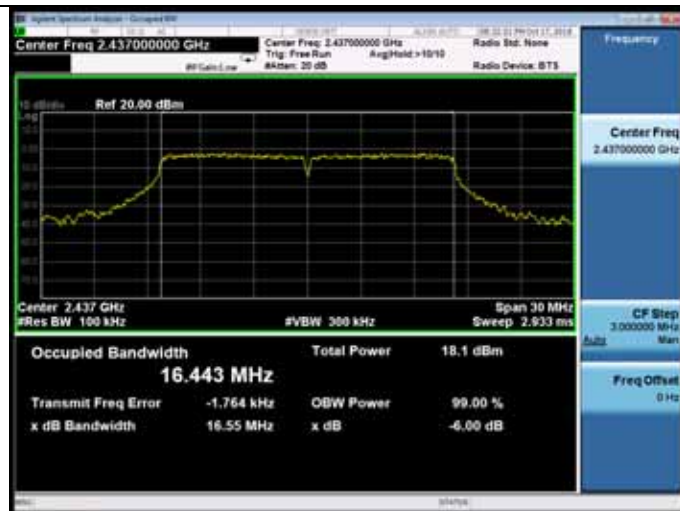


ANT1:

Test Mode: IEEE 802.11g
Test CH1: 2412MHz



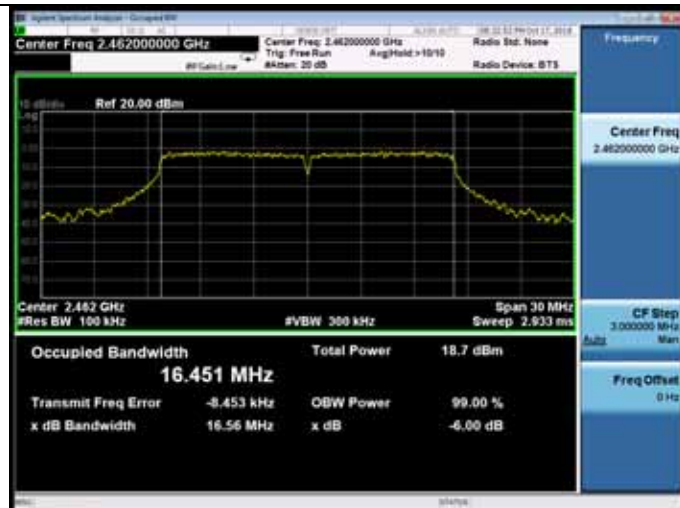
Test CH6: 2437MHz



Test CH6: 2437MHz



Test CH11: 2462MHz



Test CH11: 2462MHz



ANT0:

Test Mode: IEEE 802.11n HT20

Test CH1: 2412MHz



ANT1:

Test Mode: IEEE 802.11n HT20

Test CH1: 2412MHz



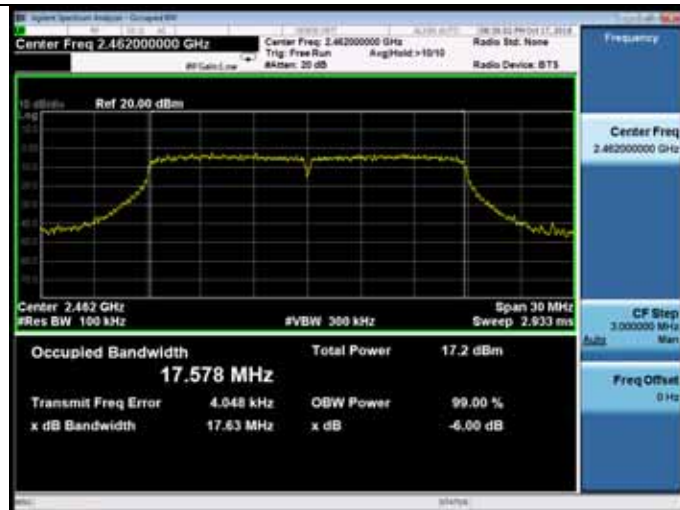
Test CH6: 2437MHz



Test CH6: 2437MHz



Test CH11: 2462MHz



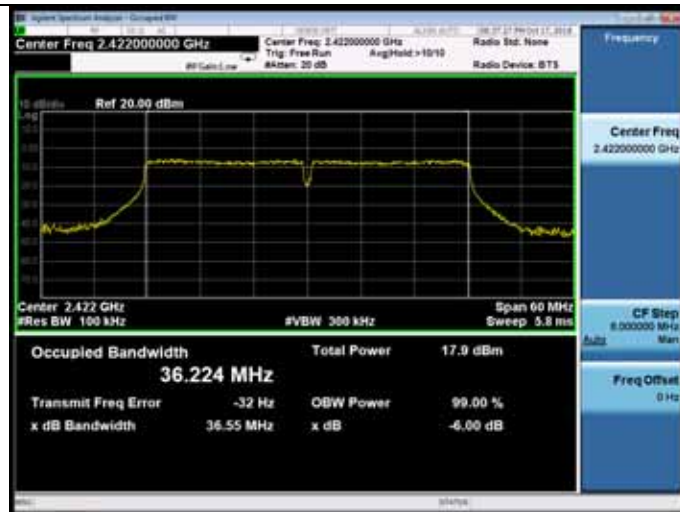
Test CH11: 2462MHz



ANT0:

Test Mode: IEEE 802.11n HT40

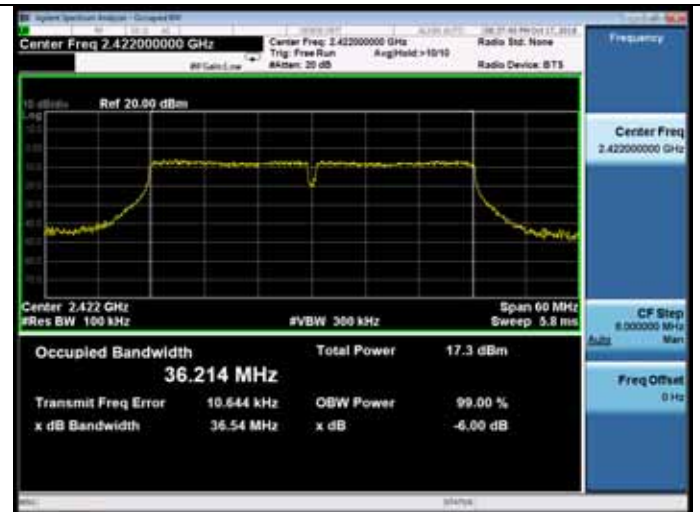
Test CH3: 2422MHz



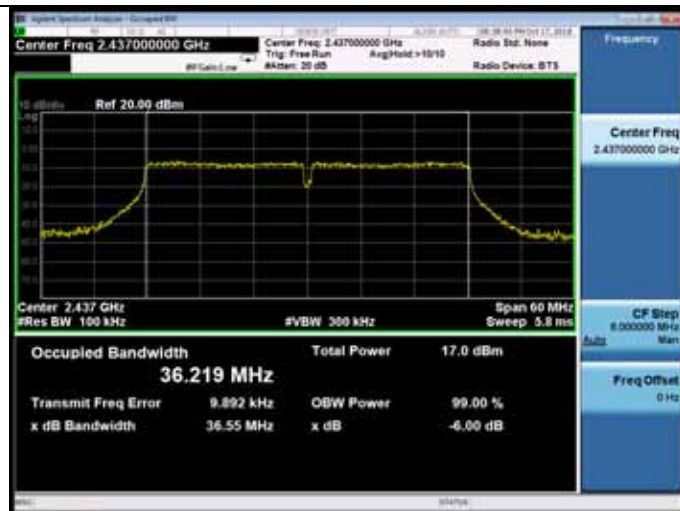
ANT1:

Test Mode: IEEE 802.11n HT40

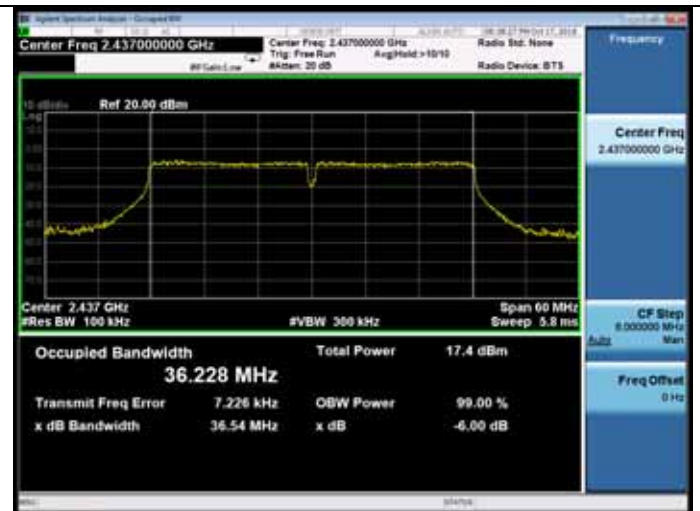
Test CH3: 2422MHz



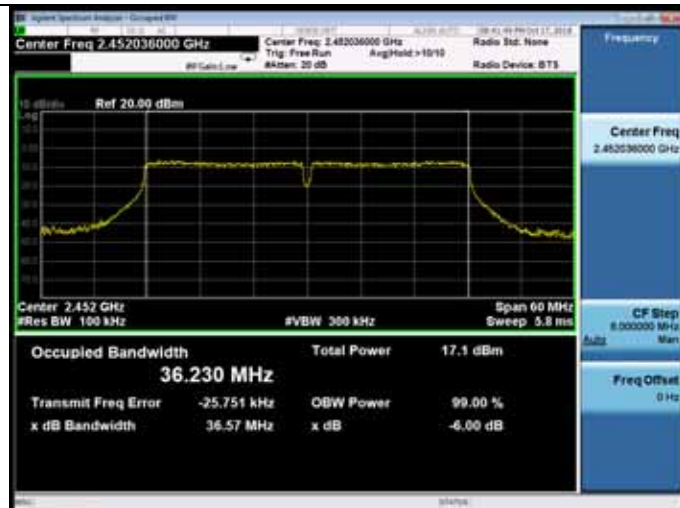
Test CH6: 2437MHz



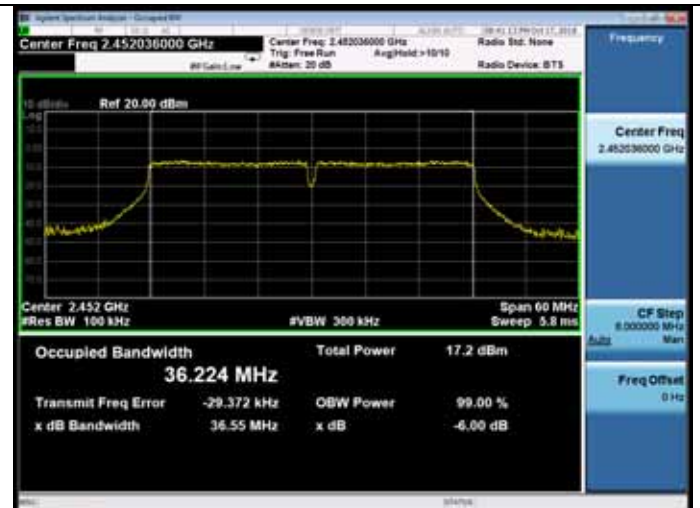
Test CH6: 2437MHz



Test CH9: 2452MHz



Test CH9: 2452MHz



8. OUTPUT POWER TEST

8.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Sep.08,18	1 Year
2.	Power meter	Anritsu	ML2487A	6K00002472	Oct.14,18	1 Year
3.	Power sensor	Anritsu	MA2491A	033005	Oct.13,18	1 Year
4.	Attenuator	Agilent	8491B	MY39262165	Oct.14,18	1 Year
5.	RF Cable	EMCI	EMC102-K M-KM 3500	170702	Oct.14,18	1 Year

8.2. Limit (FCC Part 15C 15.247 b(3))

For systems using digital modulation in the 2400—2483.5MHz, The Peak output Power shall not exceed 1W(30dBm), As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level.

8.3. Test Procedure

- 1, Connected the EUT's antenna port to measure device by 20dB attenuator.
- 2, Use the test method described in ANSI C63.10-2013 clause 11.9.2.2.2 Method AVGSA-1.
 - 1) Set span to at least 1.5 times the OBW.
 - 2) Set RBW = 1% to 5% of the OBW, not to exceed 1 MHz.
 - 3) Set VBW $\geq [3 \times \text{RBW}]$.
 - 4) Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
 - 5) Sweep time = auto.
 - 6) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
 - 7) If transmit duty cycle $< 98\%$, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at the maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no OFF intervals) or at duty cycle $\geq 98\%$, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run."
 - 8) Trace average at least 100 traces in power averaging (rms) mode.
 - 9) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

8.4. Test Results

EUT: Mobile Projector		
M/N: i400		
Test date: 2018-10-17	Pressure: 102.1±1.0 kpa	Humidity: 51.1±3.0%
Tested by: Cote	Test site: RF site	Temperature: 22.8±0.6 °C

Test Mode	CH	Output Power (dBm)			Limit (dBm)
		ANT0	ANT1	Total	
11b	CH1	15.50	15.47	18.50	30
	CH6	15.20	15.32	18.27	30
	CH11	15.39	15.31	18.36	30
11g	CH1	12.37	12.26	15.33	30
	CH6	12.21	12.30	15.27	30
	CH11	12.12	12.07	15.11	30
11n HT20	CH1	11.40	11.36	14.39	30
	CH6	11.26	11.42	14.35	30
	CH11	11.18	11.07	14.14	30
11n HT40	CH3	11.62	11.49	14.57	30
	CH6	11.50	11.44	14.48	30
	CH9	11.38	11.53	14.47	30
Conclusion: PASS					

ANT0:

Test Mode: IEEE 802.11b

Test CH1: 2412MHz



ANT1:

Test Mode: IEEE 802.11b

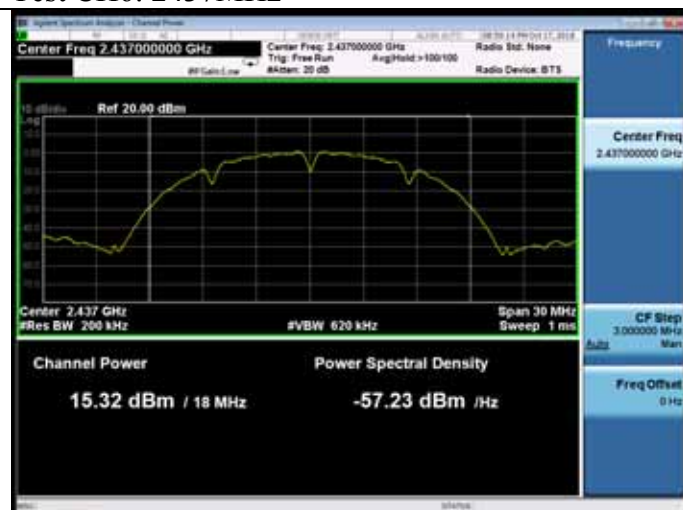
Test CH1: 2412MHz



Test CH6: 2437MHz



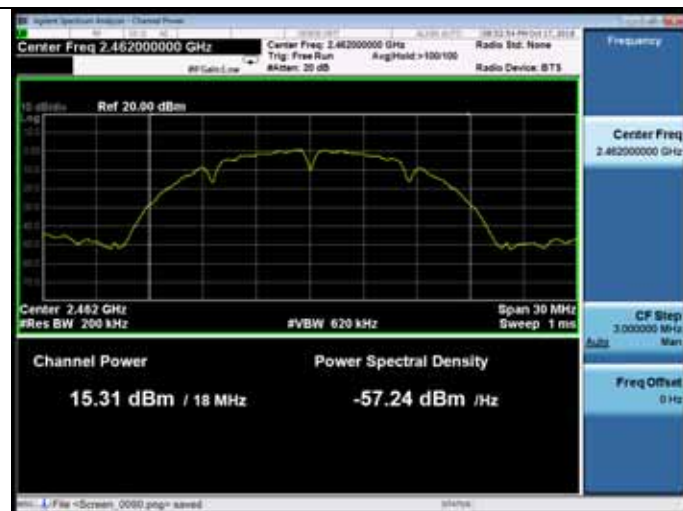
Test CH6: 2437MHz



Test CH11: 2462MHz

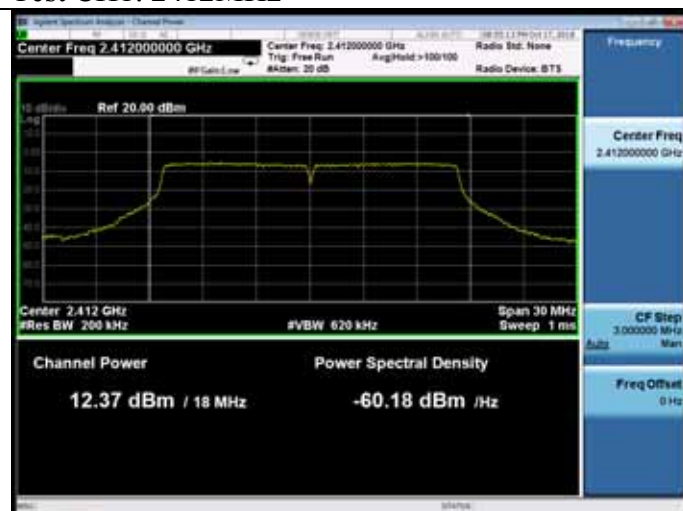


Test CH11: 2462MHz

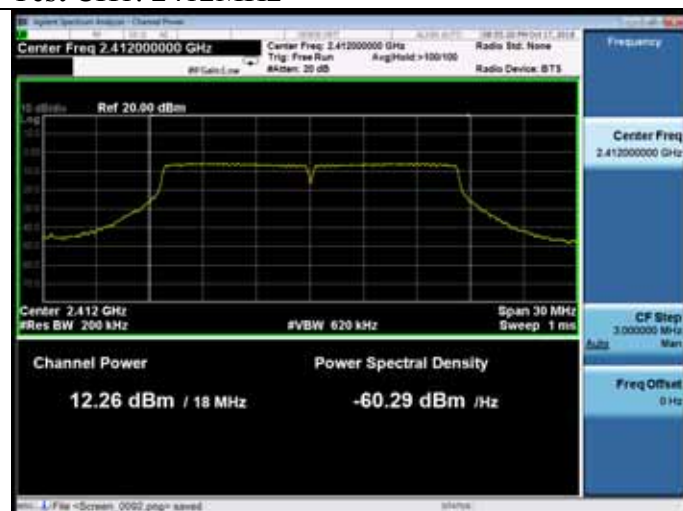
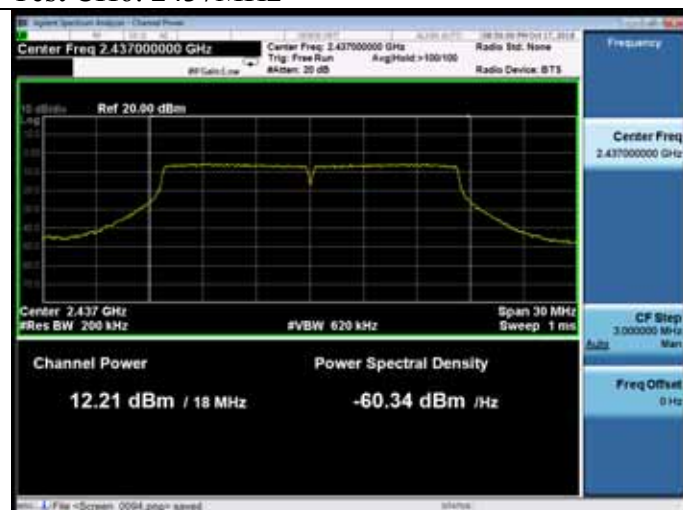


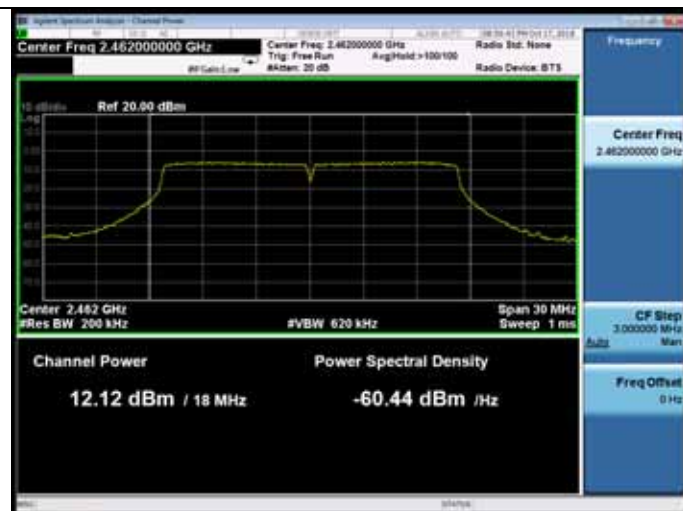
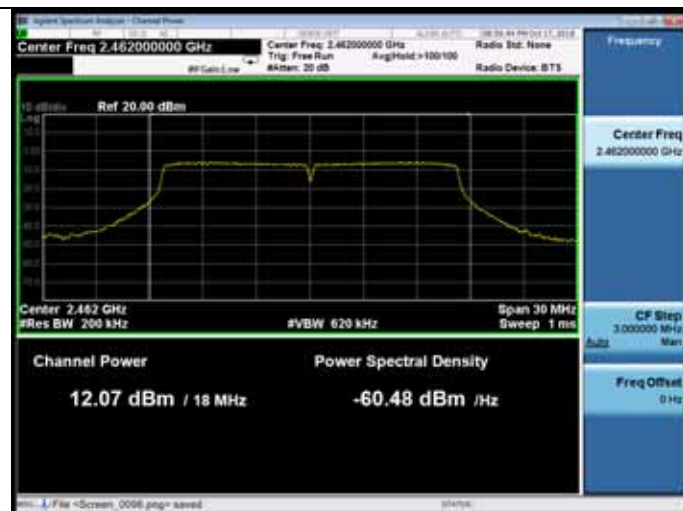
ANT0:

Test Mode: IEEE 802.11g
Test CH1: 2412MHz


ANT1:

Test Mode: IEEE 802.11g
Test CH1: 2412MHz

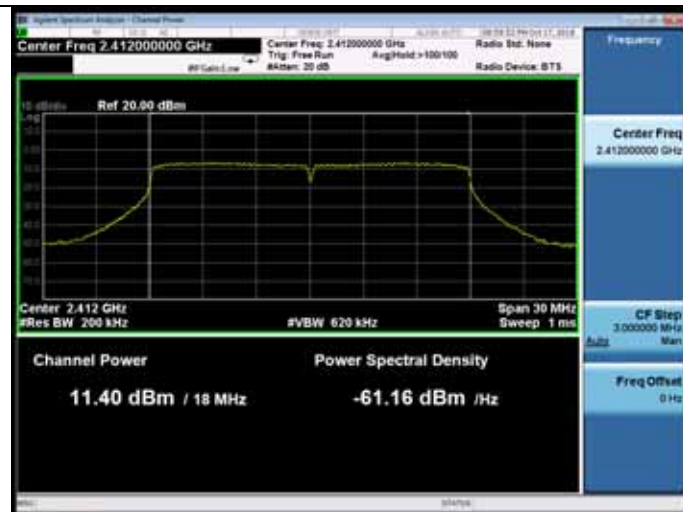

Test CH6: 2437MHz

Test CH6: 2437MHz

Test CH11: 2462MHz

Test CH11: 2462MHz


ANT0:

Test Mode: IEEE 802.11n HT20

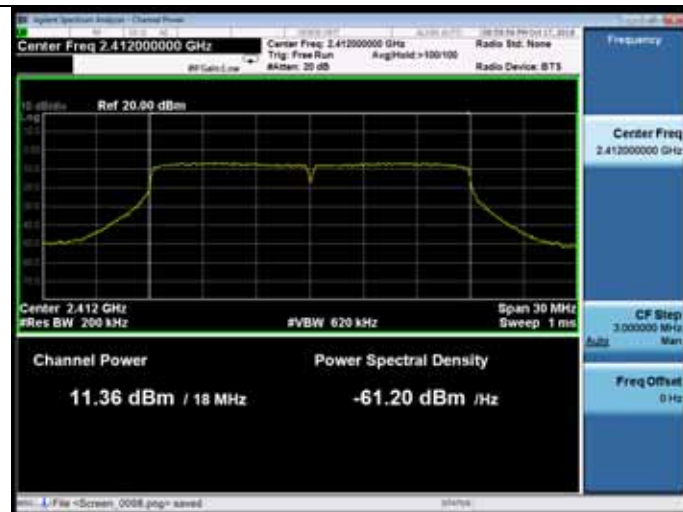
Test CH1: 2412MHz



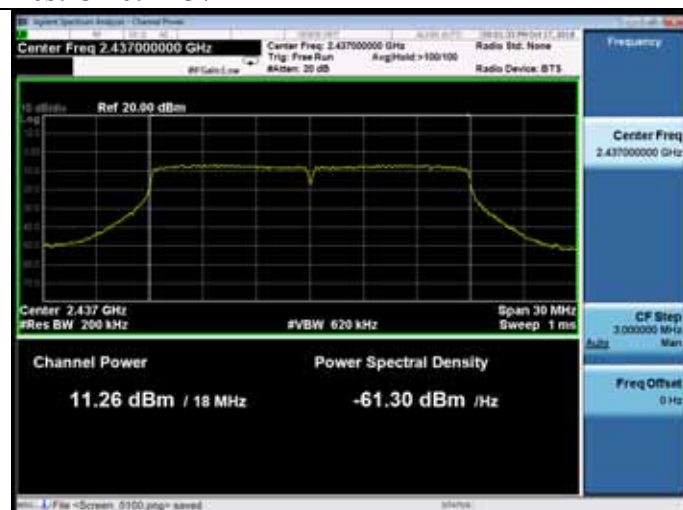
ANT1:

Test Mode: IEEE 802.11n HT20

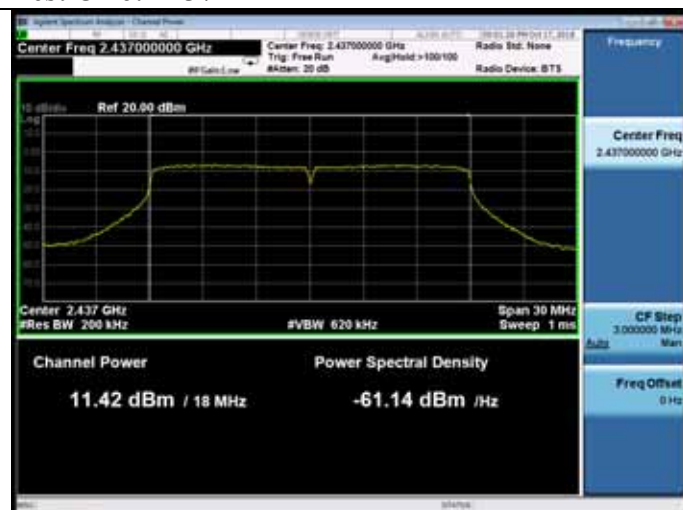
Test CH1: 2412MHz



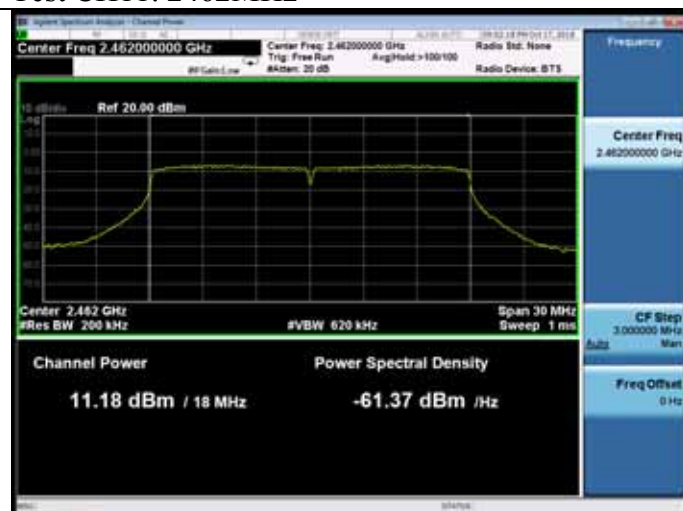
Test CH6: 2437MHz



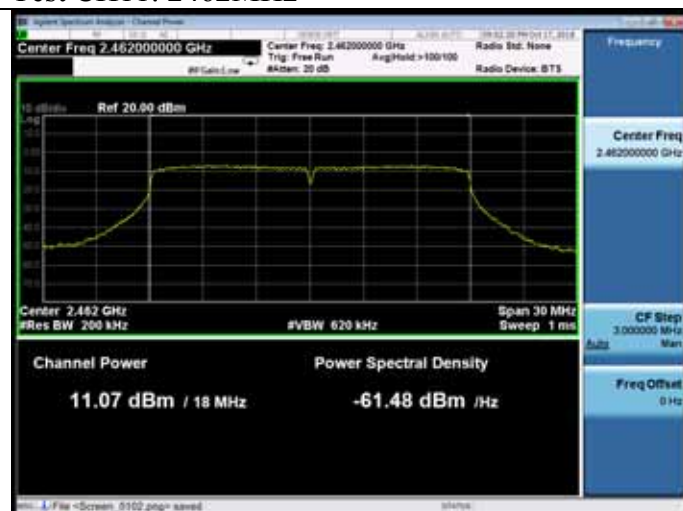
Test CH6: 2437MHz



Test CH11: 2462MHz



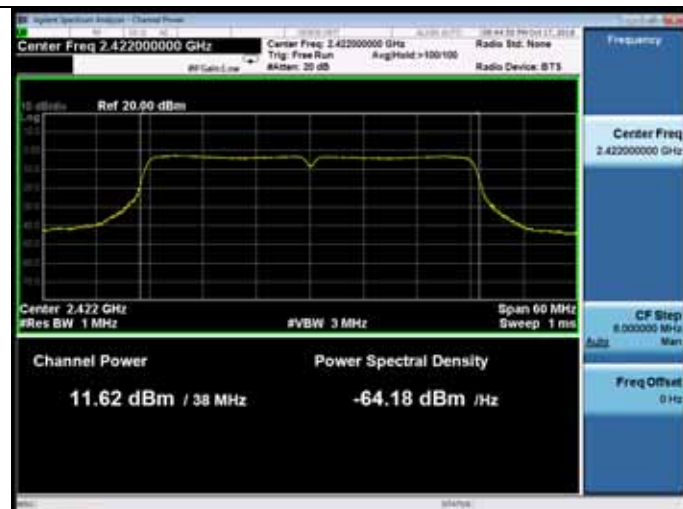
Test CH11: 2462MHz



ANT0:

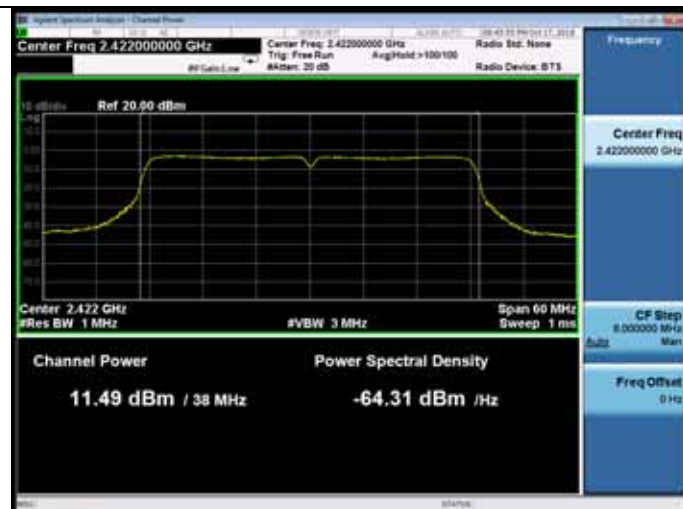
Test Mode: IEEE 802.11n HT40

Test CH3: 2422MHz

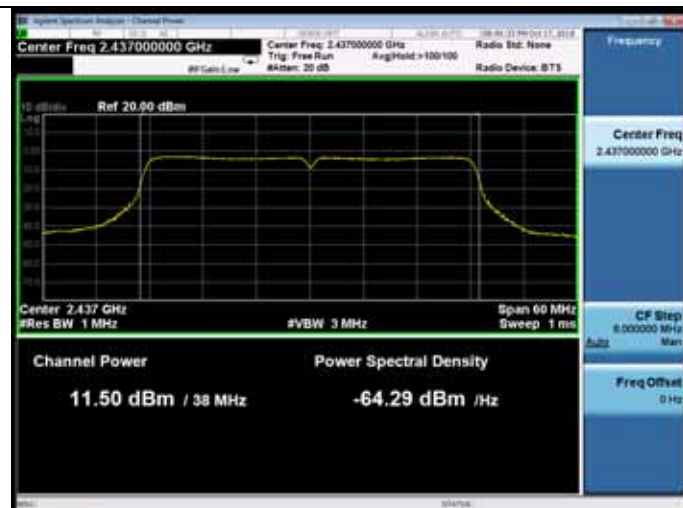

ANT1:

Test Mode: IEEE 802.11n HT40

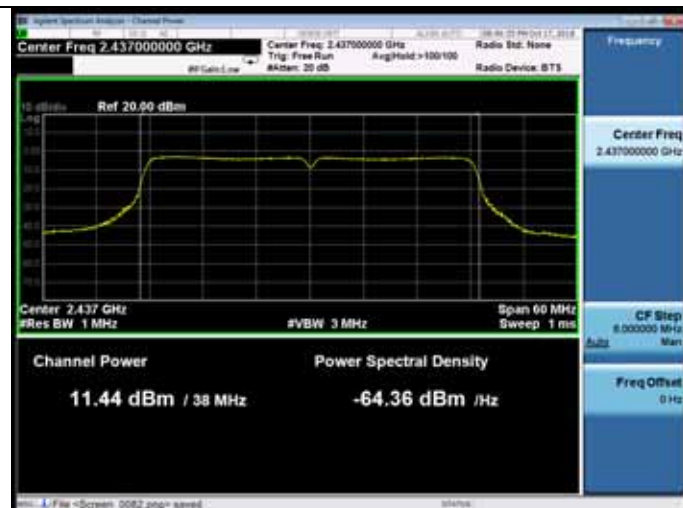
Test CH3: 2422MHz



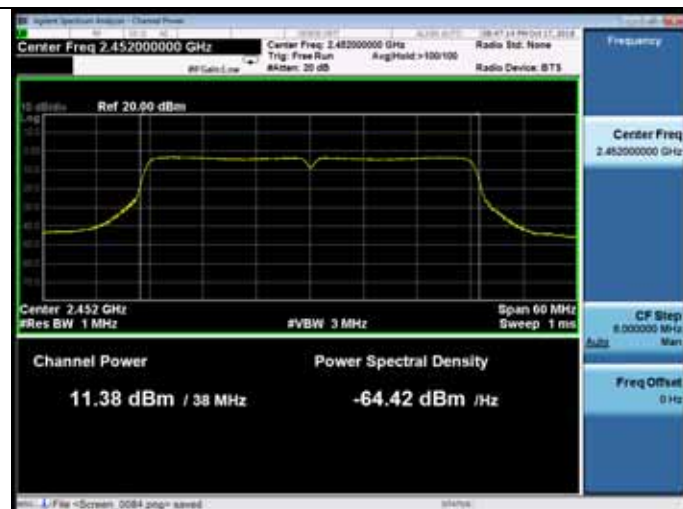
Test CH6: 2437MHz



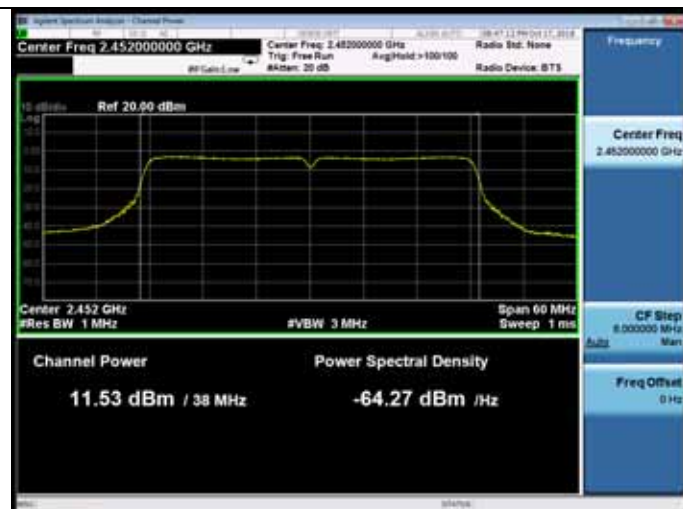
Test CH6: 2437MHz



Test CH9: 2452MHz



Test CH9: 2452MHz



9. POWER SPECTRAL DENSITY TEST

9.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Sep.08,18	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	Oct.14,18	1 Year
3.	RF Cable	Mini-Circuits	CBL-1M-SMSM+	No.4	Oct.14,18	1 Year

9.2. Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

9.3. Test Procedure

- Set analyzer center frequency to DTS channel center frequency.
- Set the span to 1.5 DTS bandwidth.
- Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- Set the VBW $\geq [3 \times \text{RBW}]$.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum amplitude level within the RBW.

9.4. Test Results

EUT: Mobile Projector		
M/N: i400		
Test date: 2018-10-17	Pressure: 102.1±1.0 kpa	Humidity: 51.1±3.0%
Tested by: Cote	Test site: RF site	Temperature: 22.8±0.6 °C

Test Mode	CH	Power Density (dBm/3kHz)			Limit (dBm/3kHz)
		ANT0	ANT1	Total	
11b	CH1	-13.975	-14.324	-11.14	8
	CH6	-14.500	-13.946	-11.20	8
	CH11	-14.137	-13.323	-10.70	8
11g	CH1	-13.282	-13.879	-10.56	8
	CH6	-14.325	-13.509	-10.89	8
	CH11	-13.919	-14.179	-11.04	8
11n HT20	CH1	-13.808	-14.491	-11.13	8
	CH6	-13.534	-13.235	-10.37	8
	CH11	-14.092	-14.456	-11.26	8
11n HT40	CH3	-14.553	-15.016	-11.77	8
	CH6	-14.938	-14.454	-11.68	8
	CH9	-14.496	-15.252	-11.85	8
Conclusion: PASS					

ANT0:

Test Mode: IEEE 802.11b

Test CH1: 2412MHz



ANT1:

Test Mode: IEEE 802.11b

Test CH1: 2412MHz



Test CH6: 2437MHz



Test CH6: 2437MHz



Test CH11: 2462MHz

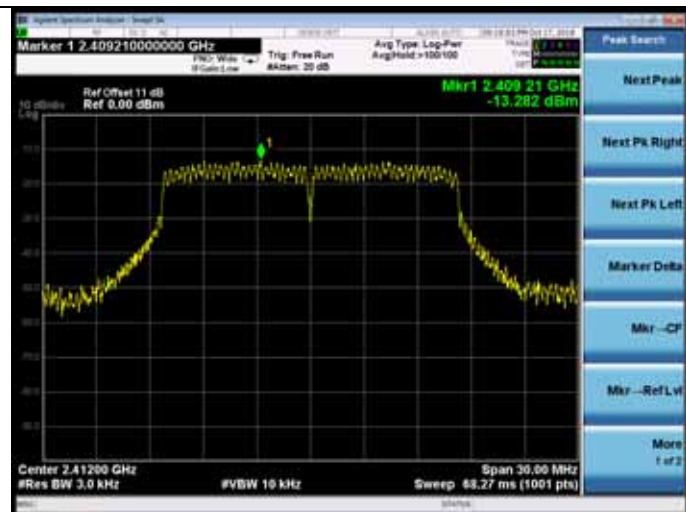


Test CH11: 2462MHz



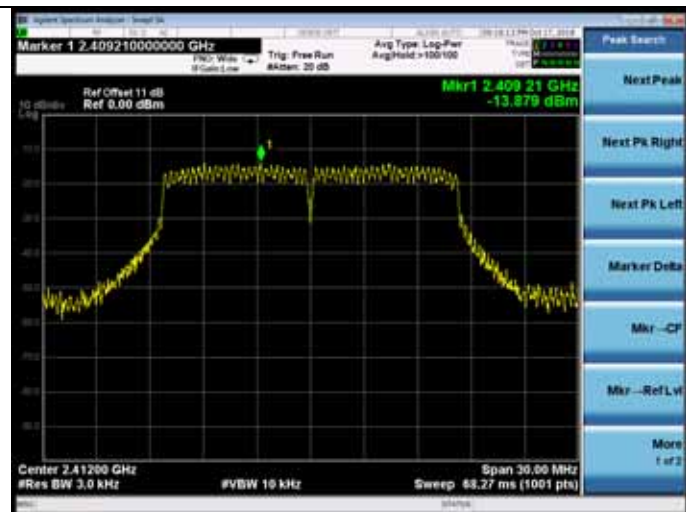
ANT0:

Test Mode: IEEE 802.11g
Test CH1: 2412MHz

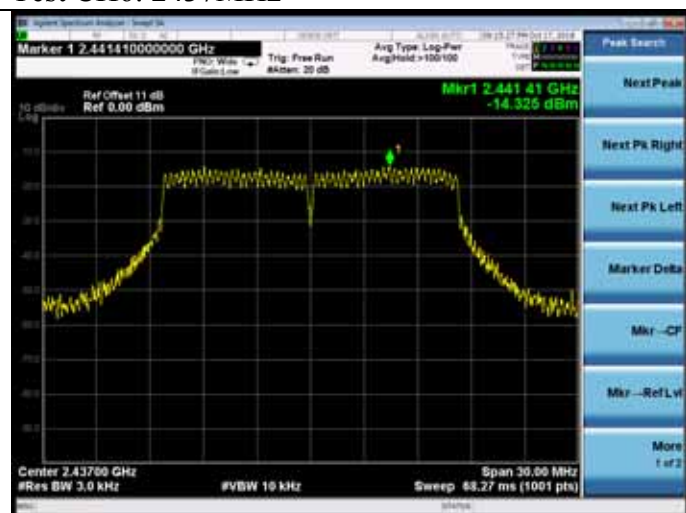


ANT1:

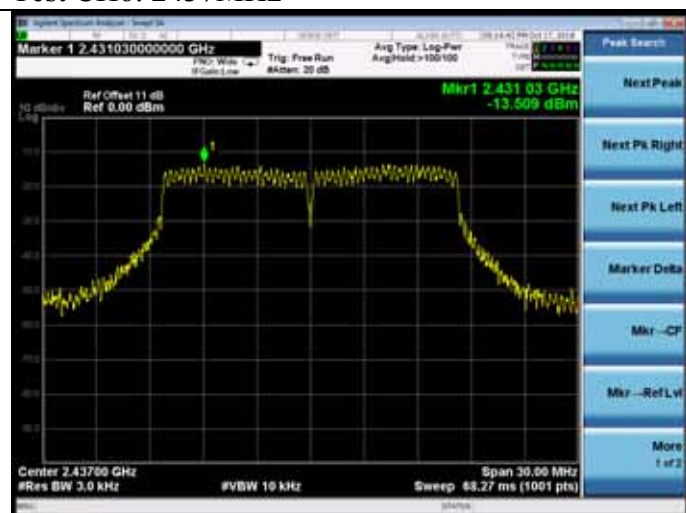
Test Mode: IEEE 802.11g
Test CH1: 2412MHz



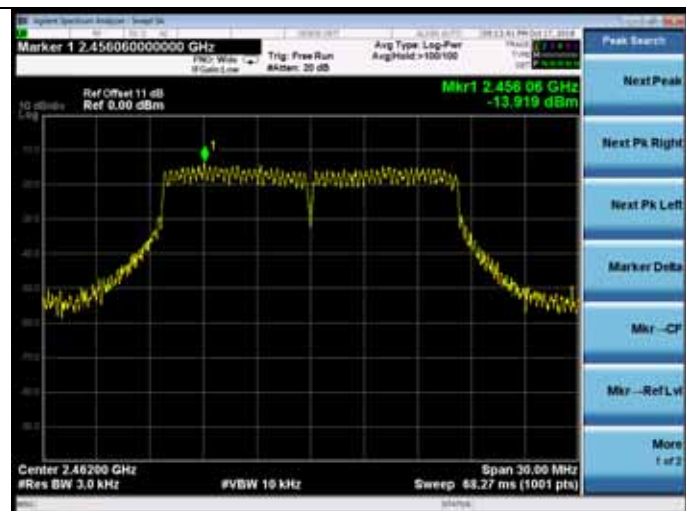
Test CH6: 2437MHz



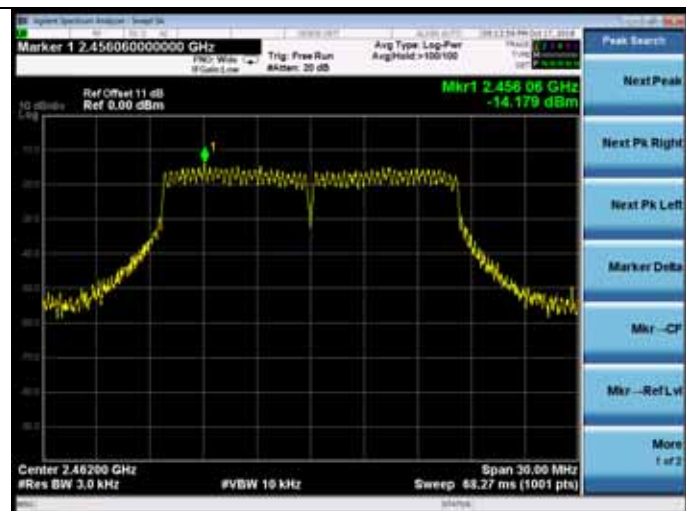
Test CH6: 2437MHz



Test CH11: 2462MHz



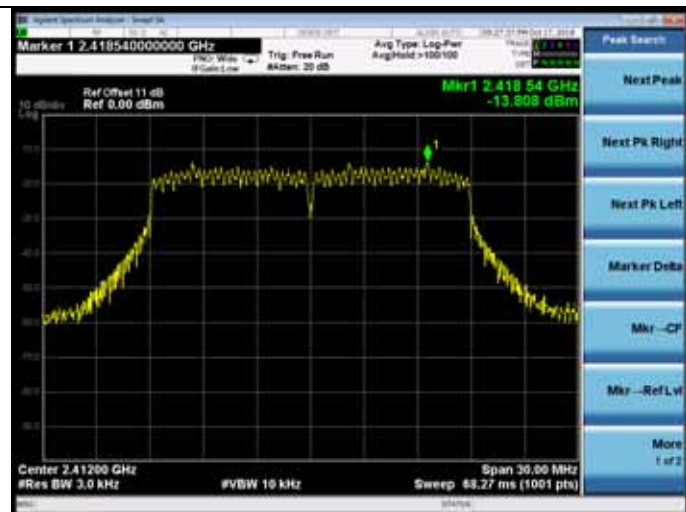
Test CH11: 2462MHz



ANT0:

Test Mode: IEEE 802.11n HT20

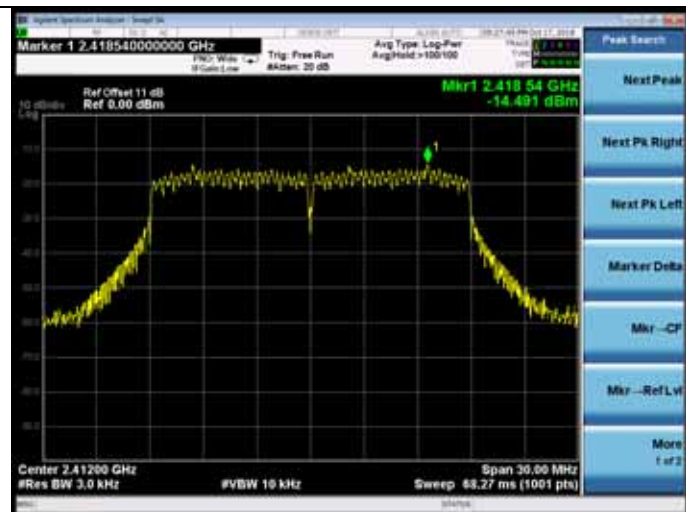
Test CH1: 2412MHz



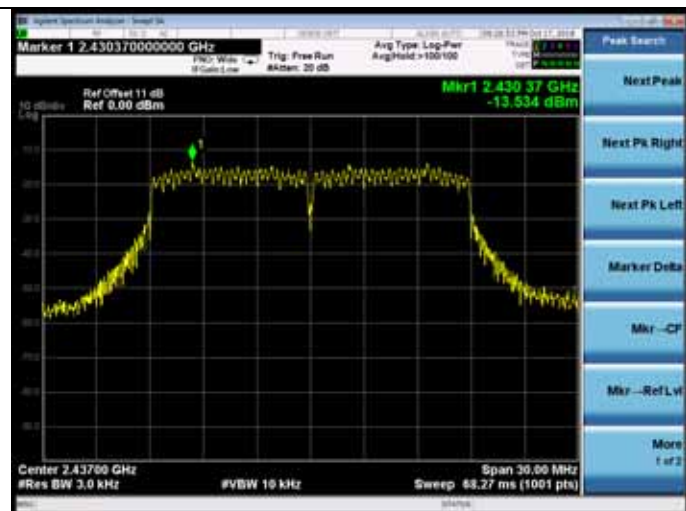
ANT1:

Test Mode: IEEE 802.11n HT20

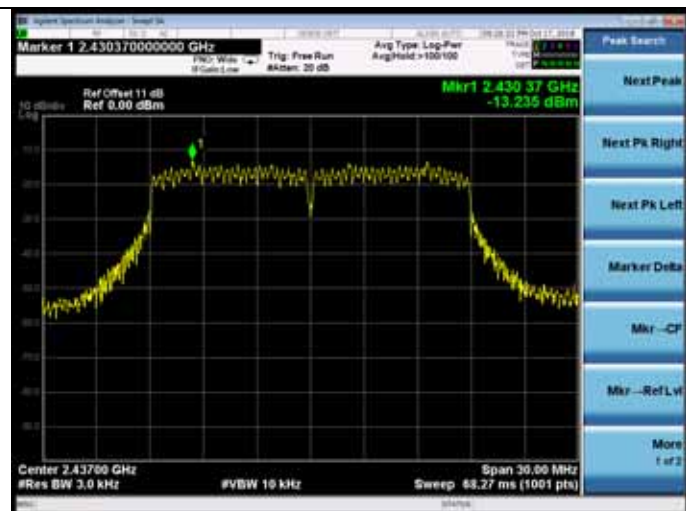
Test CH1: 2412MHz



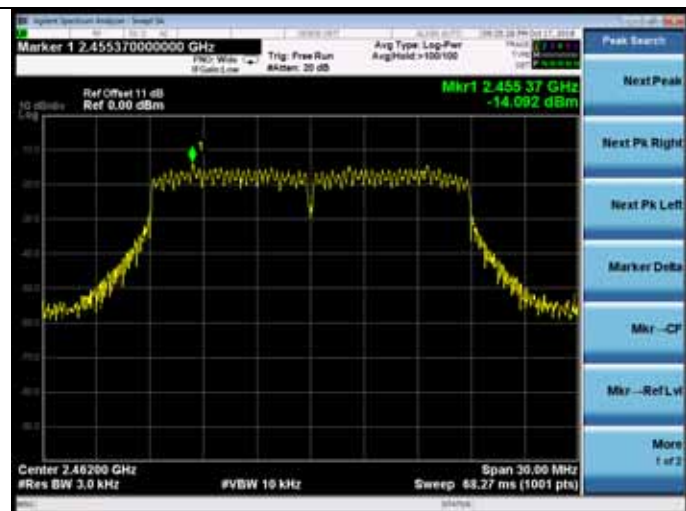
Test CH6: 2437MHz



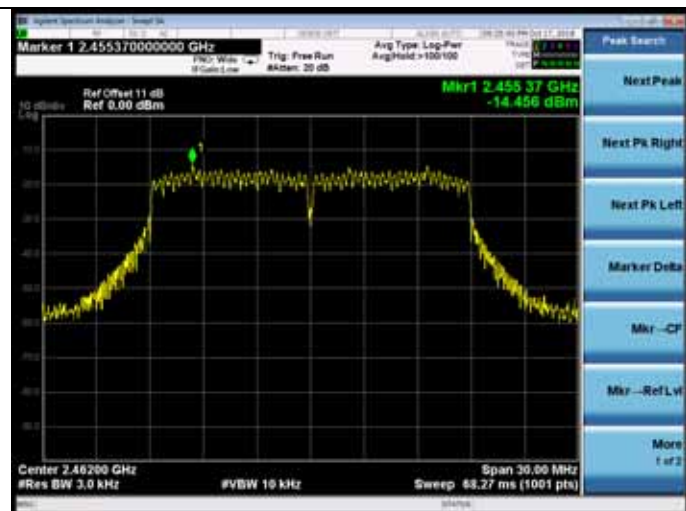
Test CH6: 2437MHz



Test CH11: 2462MHz

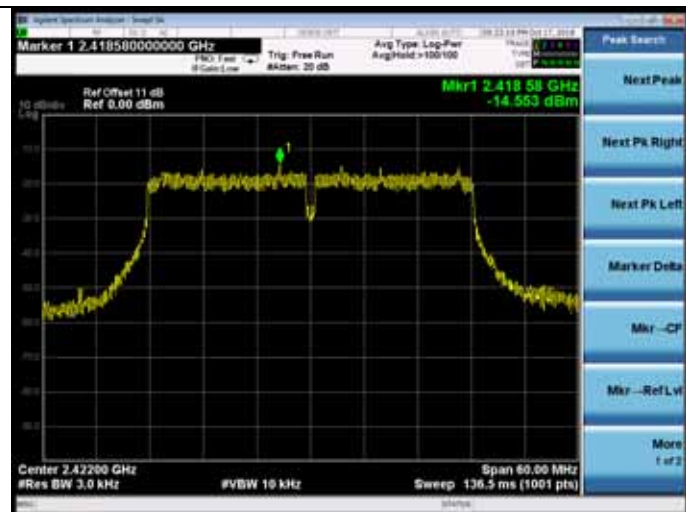


Test CH11: 2462MHz



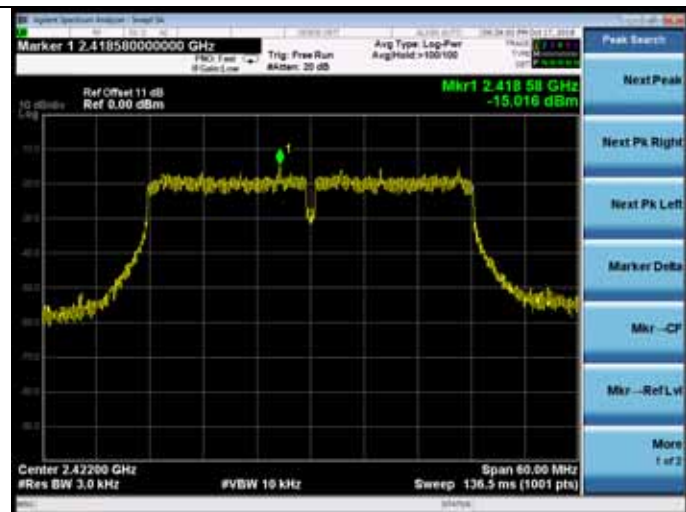
ANT0:

Test Mode: IEEE 802.11n HT40
Test CH3: 2422MHz

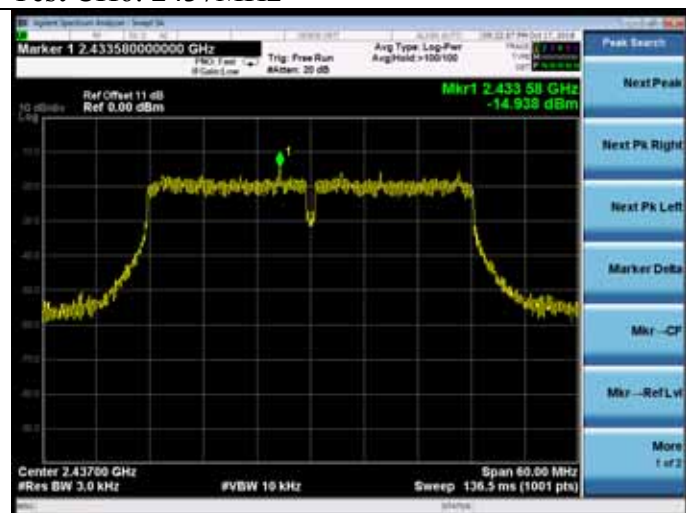


ANT1:

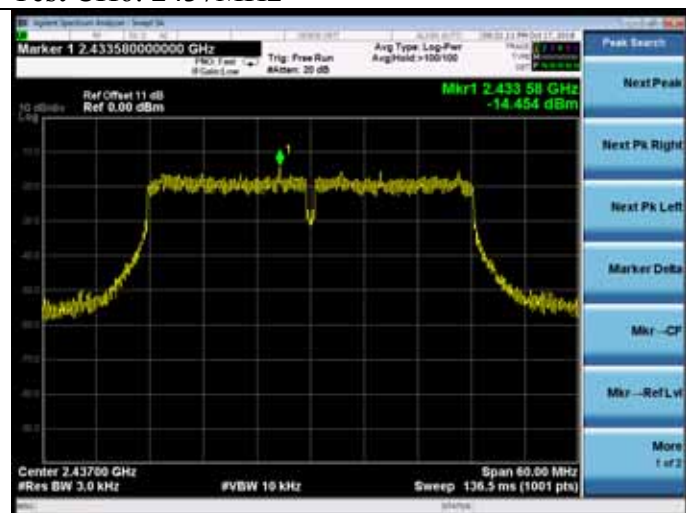
Test Mode: IEEE 802.11n HT40
Test CH3: 2422MHz



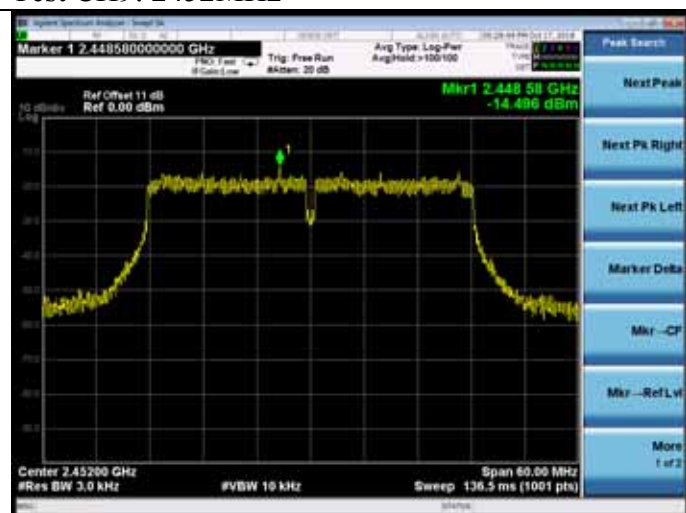
Test CH6: 2437MHz



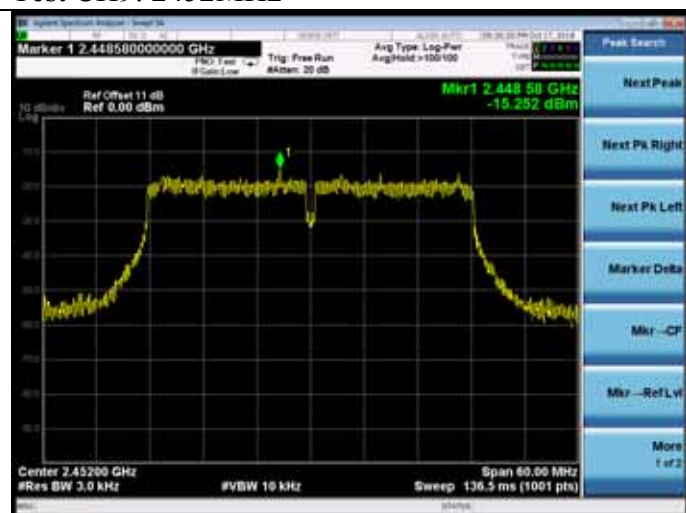
Test CH6: 2437MHz



Test CH9: 2452MHz



Test CH9: 2452MHz



10. ANTENNA REQUIREMENT

10.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

10.2. Antenna Connected Construction

The antennas used for this product are antenna that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 2.94dBi.

11.DEVIATION TO TEST SPECIFICATIONS

[NONE]

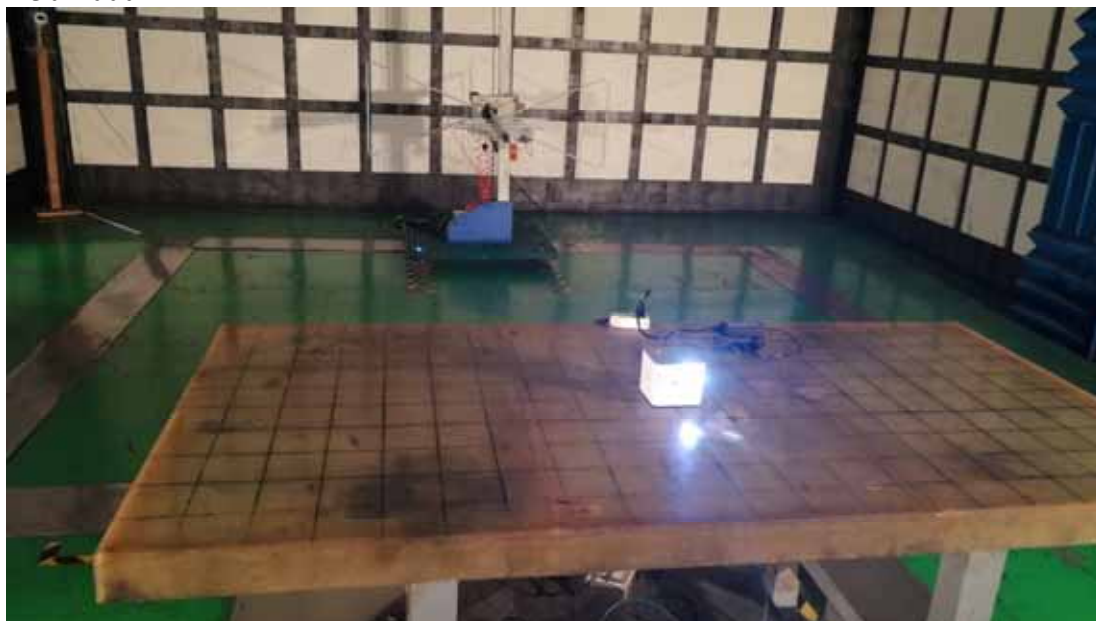
12. PHOTOGRAPH OF TEST

12.1. Photos of Power Line Conducted Emission Test



12.2.Photos of Radiated Emission Test

30-1000MHz



Above 1000MHz



13. PHOTOS OF EUT

M/N: PPX740**Figure 1**

General Appearance of the EUT

**Figure 2**

General Appearance of the EUT



Figure 3
General Appearance of the EUT



Figure 4
General Appearance of the EUT



Figure 5
General Appearance of the EUT



M/N: i400

Figure 6
General Appearance of the EUT



Figure 7
General Appearance of the EUT



Figure 8
General Appearance of the EUT



Figure 9
General Appearance of the EUT



Figure 10
General Appearance of the EUT



Figure 11
General Appearance of the EUT



Figure 12
Inside of the EUT



Figure 13
Inside of the EUT

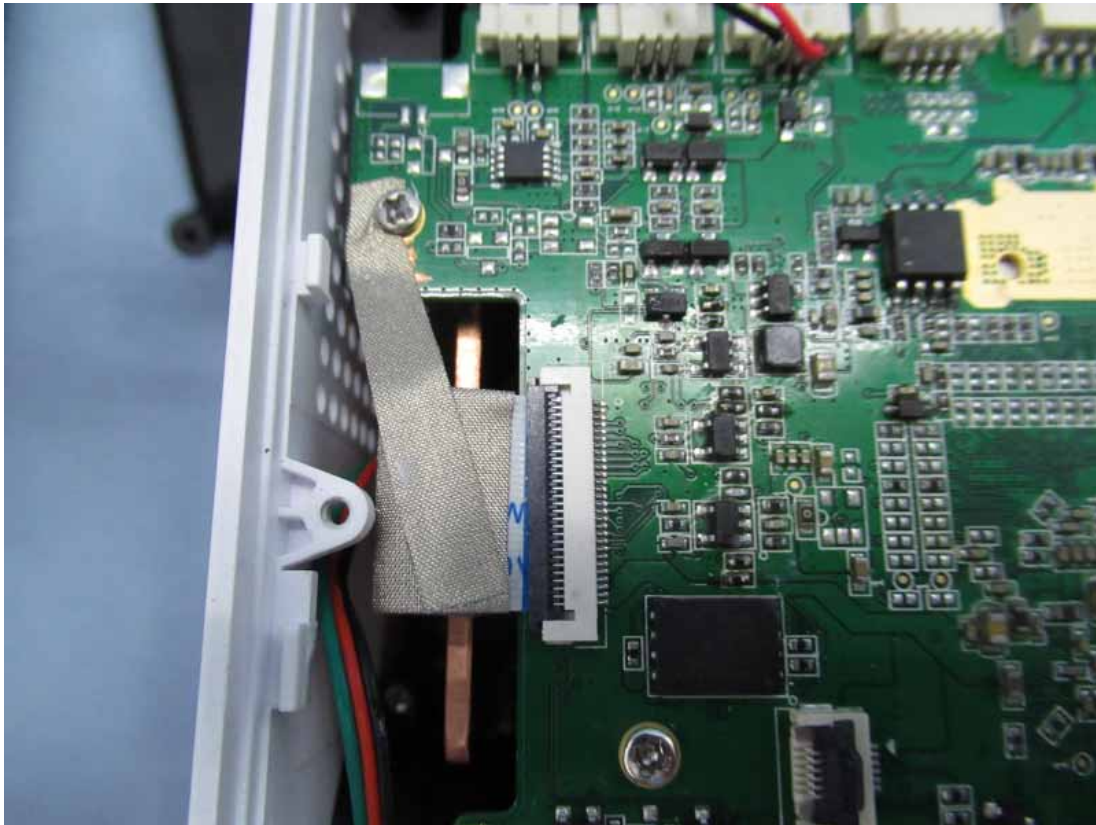


Figure 14
Inside of the EUT



Figure 15
Inside of the EUT

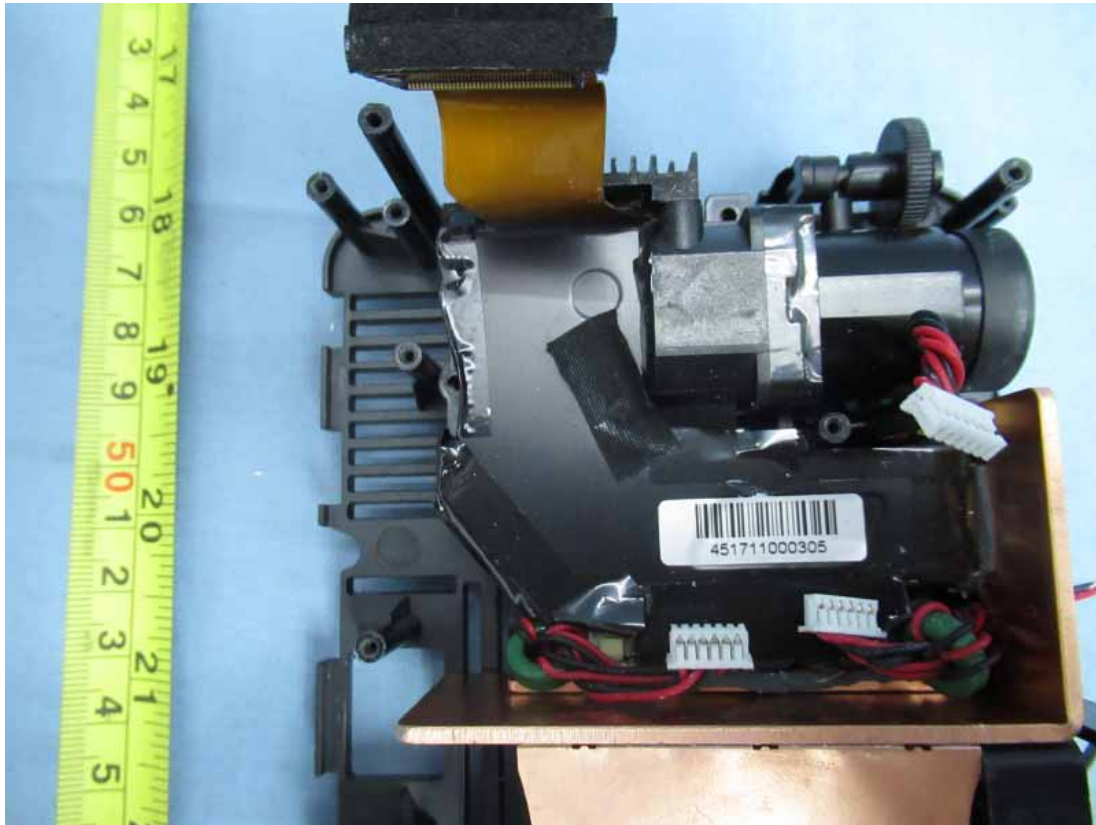


Figure 16
Inside of the EUT



Figure 17
Inside of the EUT

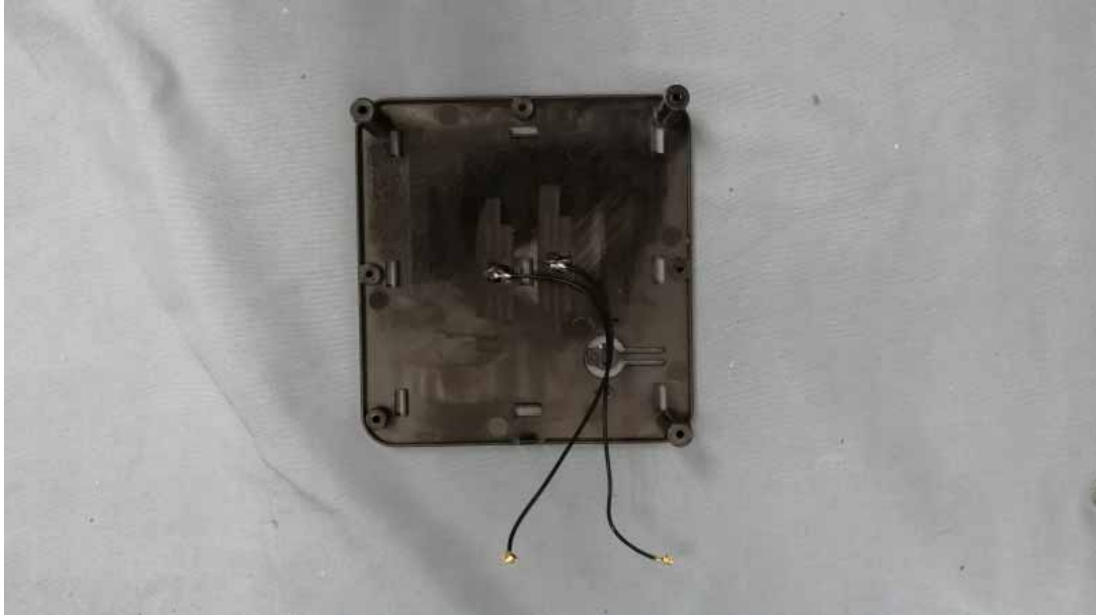


Figure 18
Inside of the EUT



Figure 19
Fan of the EUT

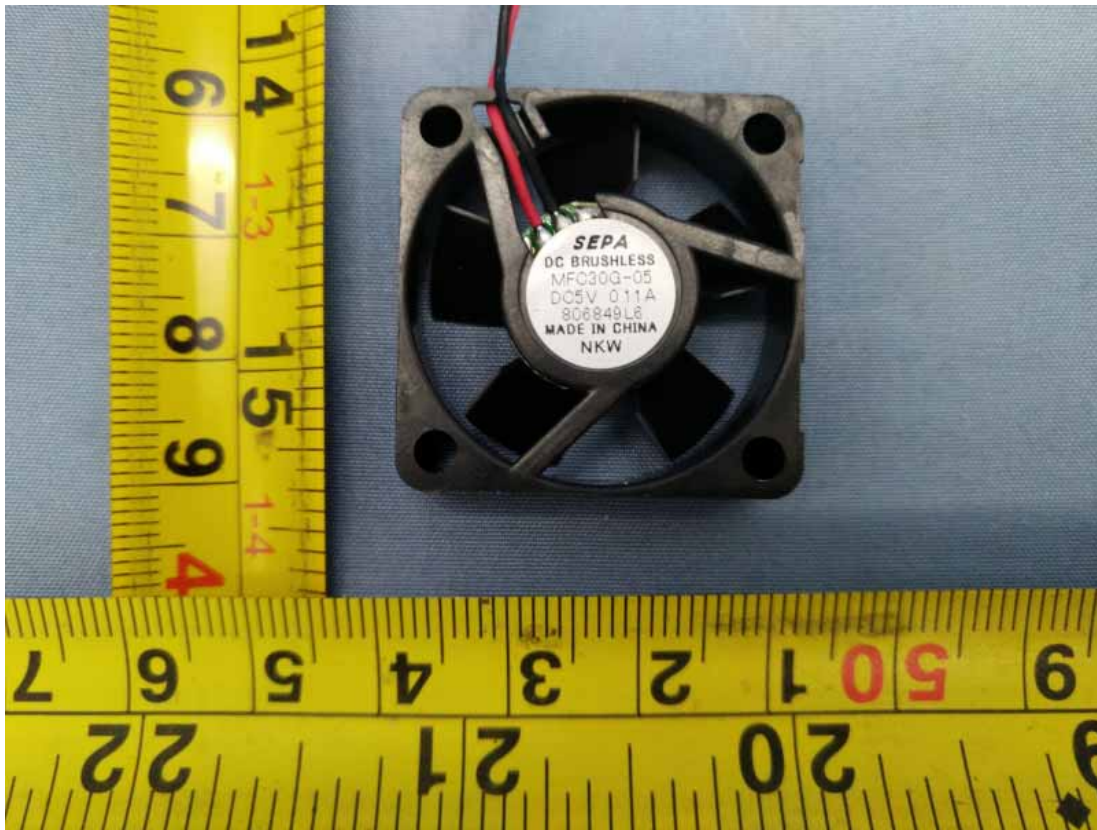


Figure 20
Fan of the EUT



Figure 21
Frontside of the PCB

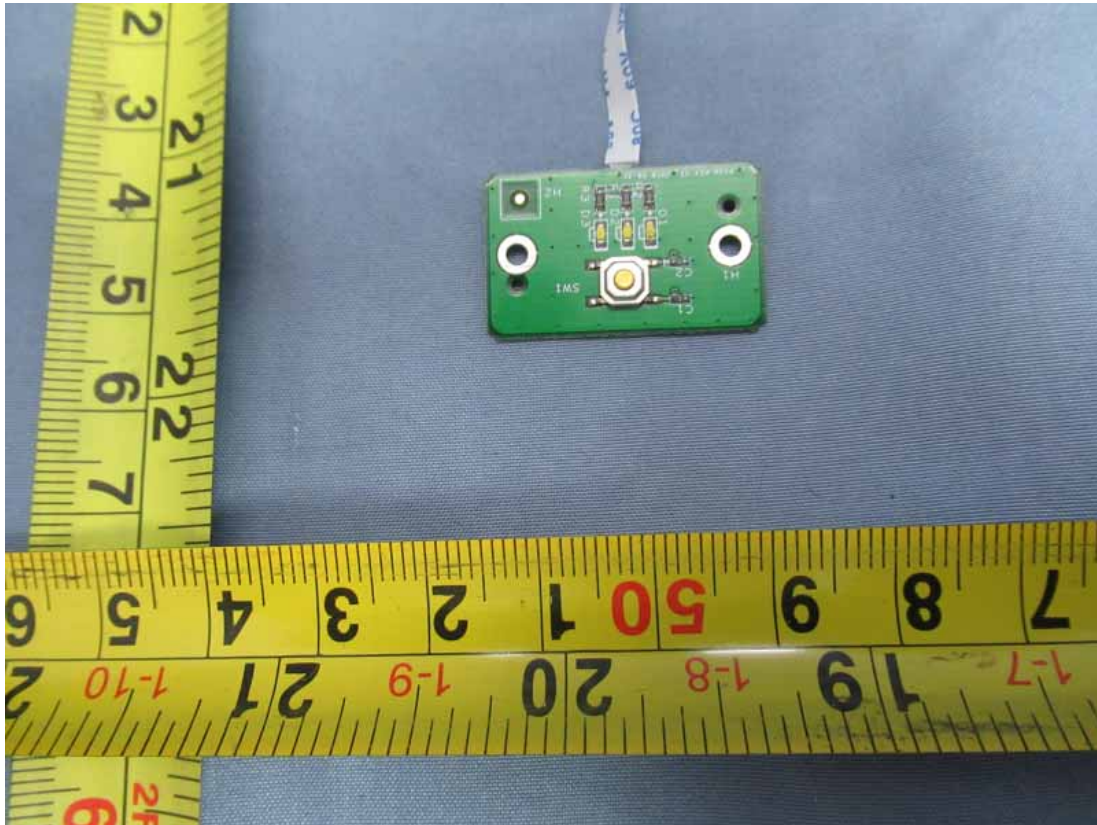


Figure 22
Backside of the PCB



Figure 23
Frontside of the PCB

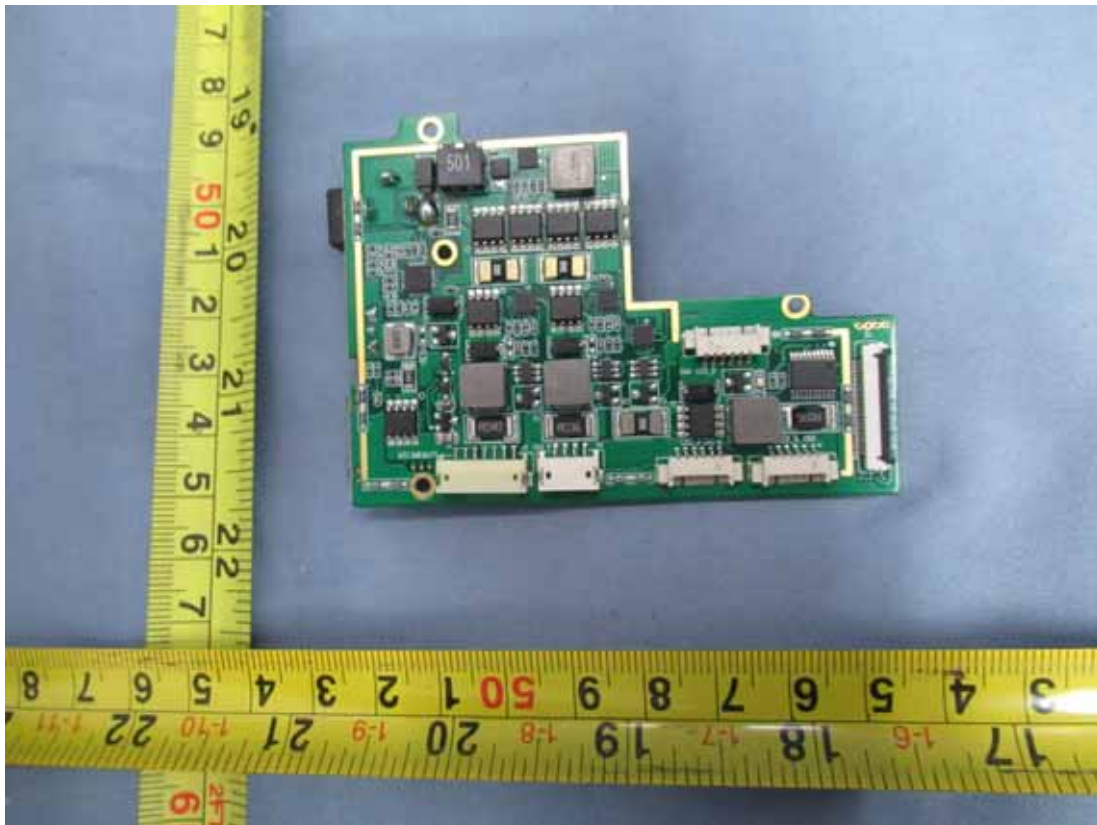


Figure 24
Backside of the PCB

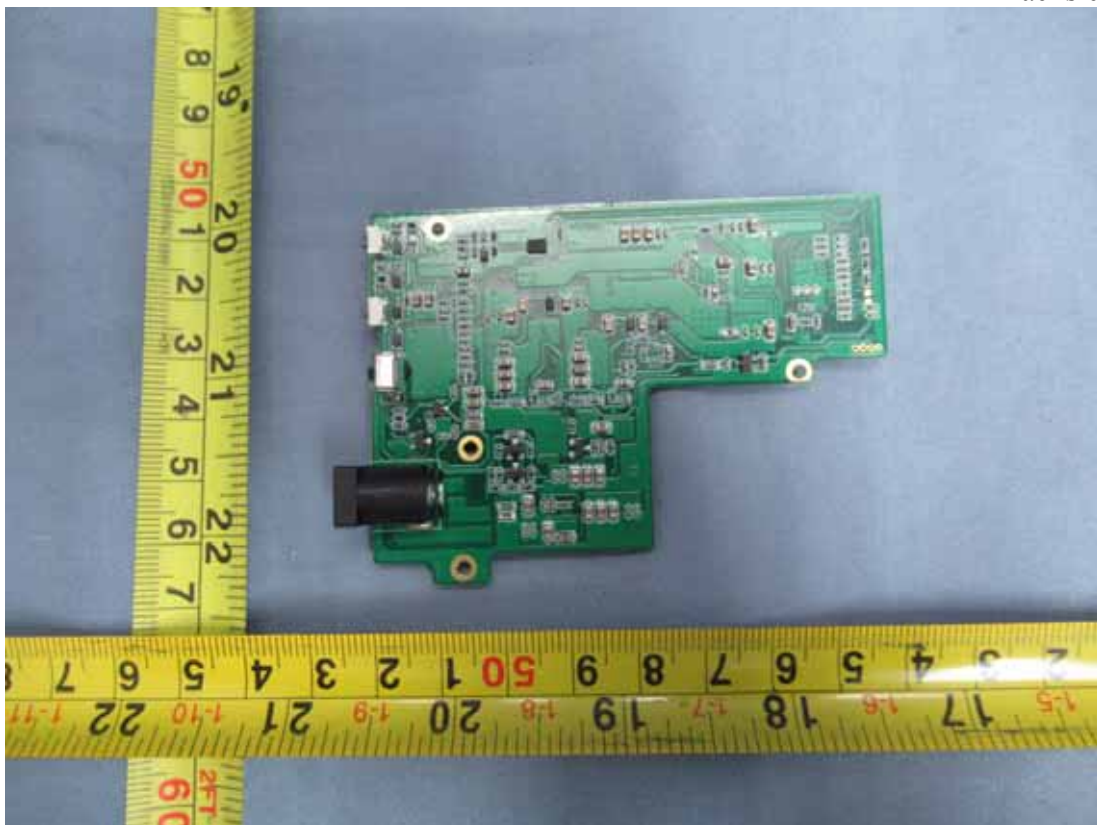


Figure 25
Frontside of the PCB

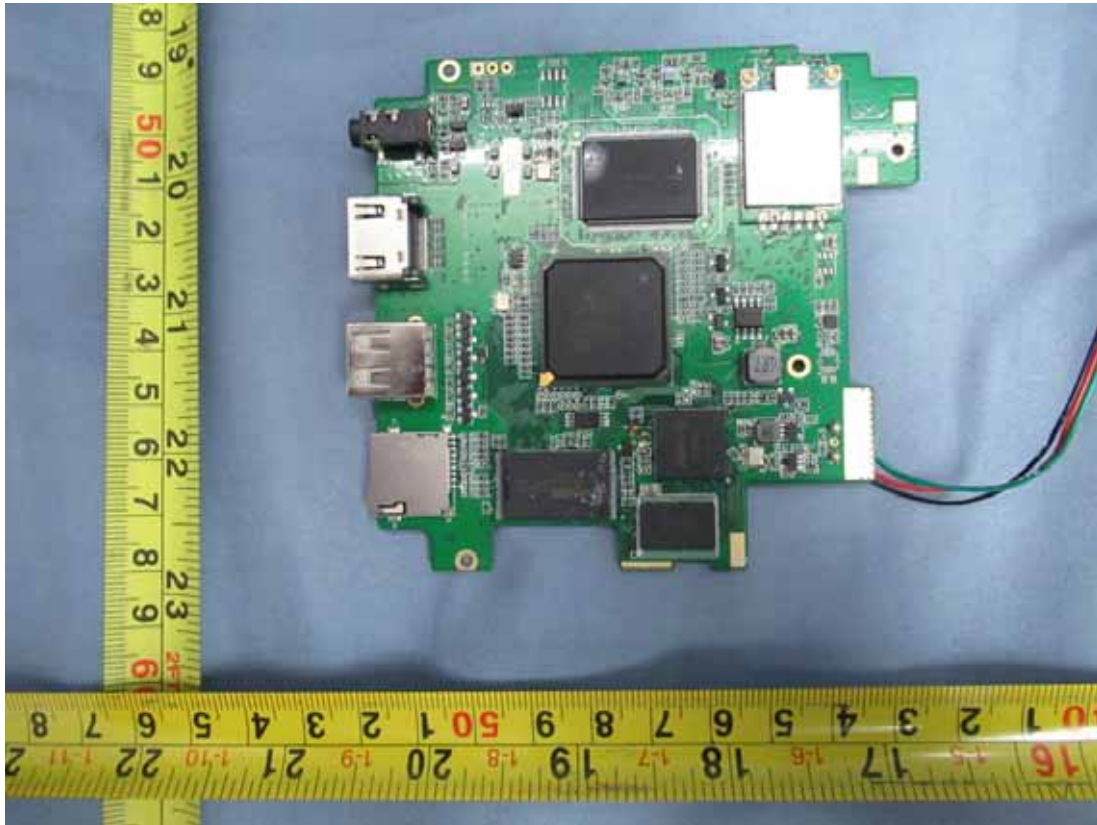


Figure 26
Backside of the PCB

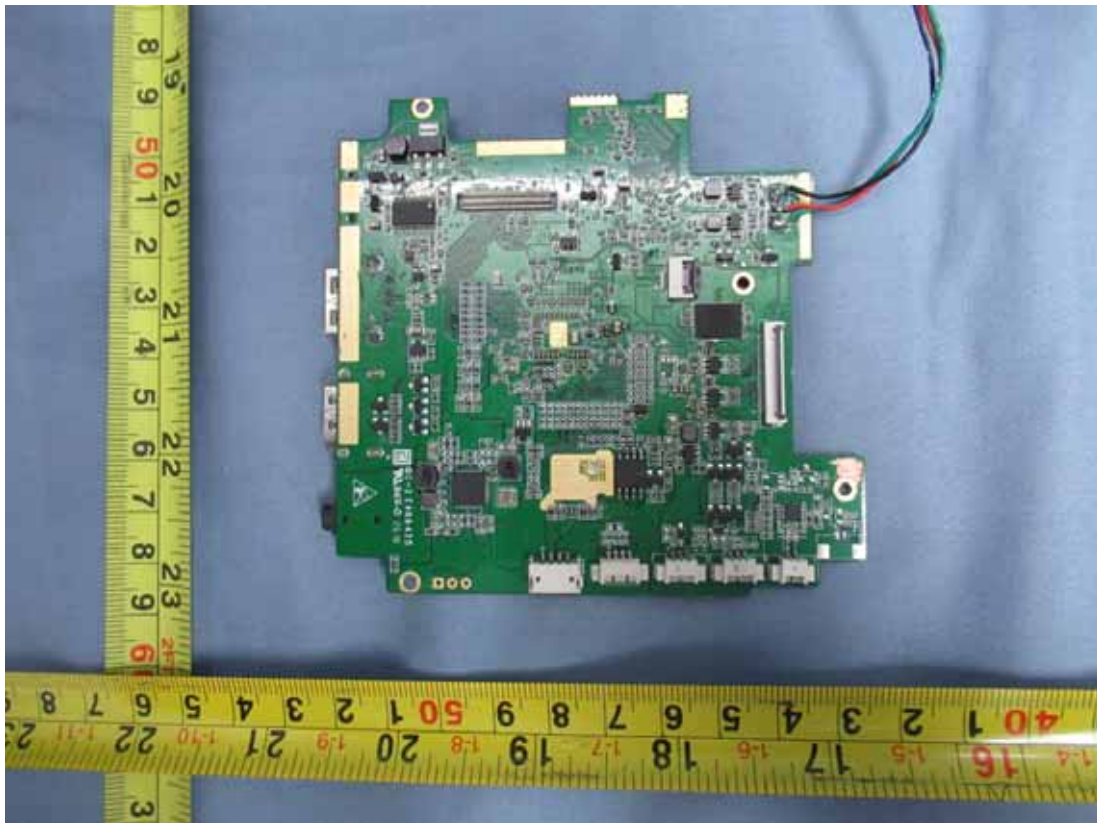


Figure 27
Speaker of the EUT

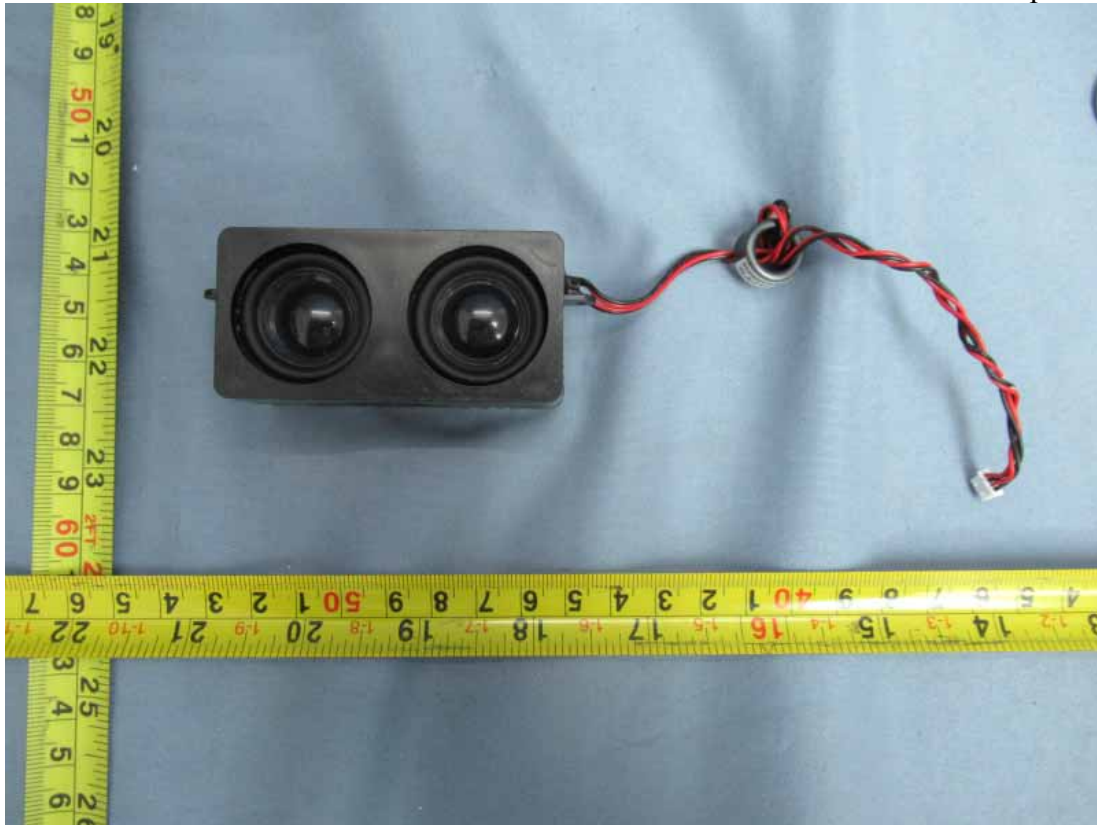


Figure 28
Frontside of the Remote Control



Figure 29
Frontside of the Remote Control



Figure 30
Backside of the Remote Control



Figure 31
Label of the Power Adapter



Figure 32
Power Cable

