FCC TEST REPORT

Test report
On Behalf of
GSM GLOBE. COM INC
For
Tablet PC
Model No.: TEAM 7, Pro, PLUS+, Super

FCC ID: 2AEJAGOLTEAM7

Prepared for :	**GSM GLOBE. COM INC** **134 N.E 1 Street, Miami, FL 33132, USA**
Prepared By :	**Laboratory of Shenzhen United Testing Technology Co., Ltd** **Room 316-319, Block B, Honghualing Industrial Park of the Fifth Zone, Taoyuan Street, Nanshan District, Shenzhen, Guangdong, China**
Date of Test:	**Apr. 05, 2017 ~ Apr. 12, 2017**
Date of Report:	**Apr. 12, 2017**
Report Number:	**UNI170405078-E**

TEST RESULT CERTIFICATION

Applicant's name	:	GSM GLOBE. COM INC
Address	:	134 N.E 1 Street, Miami, FL 33132, USA
Manufacture's Name	:	Shenzhen Forward Technology Co., LTD.
Address	:	5F B-blog, Hengmingzhu Industrial Park, QianjinEr Rd., Xixiang Sub-district, Bao'An Dist., Shenzhen City, China.

Product description

Trade Mark:		GOL
Product name	:	Tablet PC
Model and/or type reference	:	TEAM 7, Pro, PLUS+, Super
Standards	:	FCC Rules and Regulations Part 15 Subpart C Section 15.247 ANSI C63.10: 2013

Date of Test	:	
Date (s) of performance of tests	:	Apr. 05, 2017 ~ Apr. 12, 2017
Date of Issue	:	Apr. 12, 2017
Test Result	:	**Pass**

Testing Engineer : Eric Xie

(Eric Xie)

Technical Manager : Dora Qin

(Dora Qin)

Authorized Signatory : Kait

(Kait Chen)

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1.1 TEST PROCEDURES AND RESULTS

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OCCUPIED BANDWIDTH MEASUREMENT	COMPLIANT
POWER SPECTRAL DENSITY	COMPLIANT
PEAK OUTPUT POWEReak	COMPLIANT
Out of Band Emissions	COMPLIANT
ANTENNA REQUIREMENT	COMPLIANT

1.2 TEST FACILITY

Test Firm	:	Dongguan Dongdian Testing Service Co., Ltd Certificated by FCC, Registration No.: 270092
Address		No.17 Zongbu road 2, Songshan Lake Sci&Tech Park, DongGuan City, Guangdong province,523808 China

1.3 MEASUREMENT UNCERTAINTY

Measurement Uncertainty		
Conducted Emission Expanded Uncertainty	=	2.23dB, k=2
Radiated emission expanded uncertainty(9kHz-30MHz)	=	3.08dB, k=2
Radiated emission expanded uncertainty(30MHz-1000MHz)	=	4.42dB, k=2
Radiated emission expanded uncertainty(Above 1GHz)	=	4.06dB, k=2

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Tablet PC
Model Name	TEAM 7
Serial No	Pro, PLUS+, Super
Model Difference	All model's the function, software and electric circuit are the same, only with a product color and model named different. Test sample model: TEAM 7 .
FCC ID	2AEJAGOLTEAM7
Antenna Type	Integral Antenna
Antenna Gain	1dBi
Operation frequency	802.11b/g/n 20:2412~2462 MHz 802.11n 40: 2422~2452MHz
Number of Channels	802.11b/g/n20: 11CH 802.11n 40: 7CH
Modulation Type	CCK/OFDM/DBPSK/DAPSK
Power Source	N/A
Power Rating	DC3.7V or DC5V from AC adapter with AC 120V/60Hz

Equipment	Tablet PC
Model Name	TEAM 7
Serial No	Pro, PLUS+, Super
Model Difference	All model's the function, software and electric circuit are the same, only with a product color and model named different. Test sample model: TEAM 7 .
FCC ID	2AEJAGOLTEAM7
Antenna Type	Integral Antenna
Antenna Gain	1dBi
Operation frequency	2402-2480MHz
Number of Channels	40CH
Modulation Type	GFSK
Power Source	N/A
Power Rating	DC3.7V or DC5V from AC adapter with AC 120V/60Hz

Equipment	Tablet PC
Model Name	TEAM 7
Serial No	Pro, PLUS+, Super
Model Difference	All model's the function, software and electric circuit are the same, only with a product color and model named different. Test sample model: TEAM 7 .
FCC ID	2AEJAGOLTEAM7
Antenna Type	Integral Antenna
Antenna Gain	1dBi
Operation frequency	2402-2480MHz
Number of Channels	79CH
Modulation Type	GFSK, π/4DQPSK, 8DPSK
Power Source	N/A
Power Rating	DC3.7V or DC5V from AC adapter with AC 120V/60Hz

Note: This report only WIFI test report, BT(40CH) and BT(79CH) transmitters see the other test reports.

2.1.1 Carrier Frequency of Channels

Channel List for 802.11b/g/n(20MHz)							
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

Channel List for 802.11n(40MHz)							
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
03	2422	06	2437	09	2452		
04	2427	07	2442				
05	2432	08	2447				

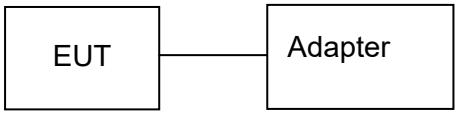
Operation of EUT during testing

Operating Mode
The mode is used: **Transmitting mode for 802.11b/g/n(20MHz)**
Low Channel: 2412MHz
Middle Channel: 2437MHz
High Channel: 2462MHz

Transmitting mode for 802.11n(40MHz)
Low Channel: 2422MHz
Middle Channel: 2437MHz
High Channel: 2452MHz

2.2 DESCRIPTION OF TEST SETUP

Operation of EUT during conducted testing:



Operation of EUT during Radiation testing:

2.3 MEASUREMENT INSTRUMENTS LIST

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Receiver	Rohde & Schwarz	ESCI	100627	Feb. 19, 2017	1 Year
2.	LISN	SchwarzBeck	NSLK 8126	8126377	Feb. 19, 2017	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Feb. 19, 2017	1 Year
4.	EMI Test Software ES-K1	Rohde & Schwarz	N/A	N/A	N/A	N/A
5.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Feb. 19, 2017	1 Year
6.	Trilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	Feb. 19, 2017	1 Year
7.	Pre-amplifier	Compliance Direction	PAP-0203	22008	Feb. 19, 2017	1 Year
8.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A
9.	EMI Receiver	Rohde & Schwarz	ESCI	100627	Feb. 19, 2017	1 Year
10.	LISN	SchwarzBeck	NSLK 8126	8126377	Feb. 19, 2017	1 Year
11.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Feb. 19, 2017	1 Year
12.	EMI Test Software ES-K1	Rohde & Schwarz	N/A	N/A	N/A	N/A
13.	EMI Receiver	Rohde & Schwarz	ESCI	100627	Feb. 19, 2017	1 Year
14.	EMI Receiver	Rohde & Schwarz	ESCI	100627	Feb. 19, 2017	1 Year
15.	LISN	SchwarzBeck	NSLK 8126	8126377	Feb. 19, 2017	1 Year
16.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Feb. 19, 2017	1 Year
17.	EMI Test Software ES-K1	Rohde & Schwarz	N/A	N/A	N/A	N/A
18.	Power Meter	R&S	NRVD	SEL0069	Feb. 19, 2017	1 Year
19.	Power Sensor	R&S	URV5-Z2	SEL0071	Feb. 19, 2017	1 Year
20.	Power Sensor	R&S	URV5-Z2	SEL0072	Feb. 19, 2017	1 Year
21.	Software EMC32	R&S	EMC32-S	SEL0082	N/A	N/A
22.	Log-periodic Antenna	Amplifier Reasearch	APT1.580	SEL0073	N/A	N/A
23.	Antenna Tripod	Amplifier Reasearch	TP1000A	SEL0074	N/A	N/A
24.	High Gain Horn Antenna(0.8-5GHz)	Amplifier Reasearch	AT4002A	SEL0075	N/A	N/A
25.	Spectrum analyzer	Agilent	N9020A	MY499110 048	Feb. 19, 2017	1 Year
26.	Spectrum analyzer	Agilent	E4407B	MY461843 26	Feb. 19, 2017	1 Year

3. CONDUCTED EMISSIONS TEST

3.1 Conducted Power Line Emission Limit

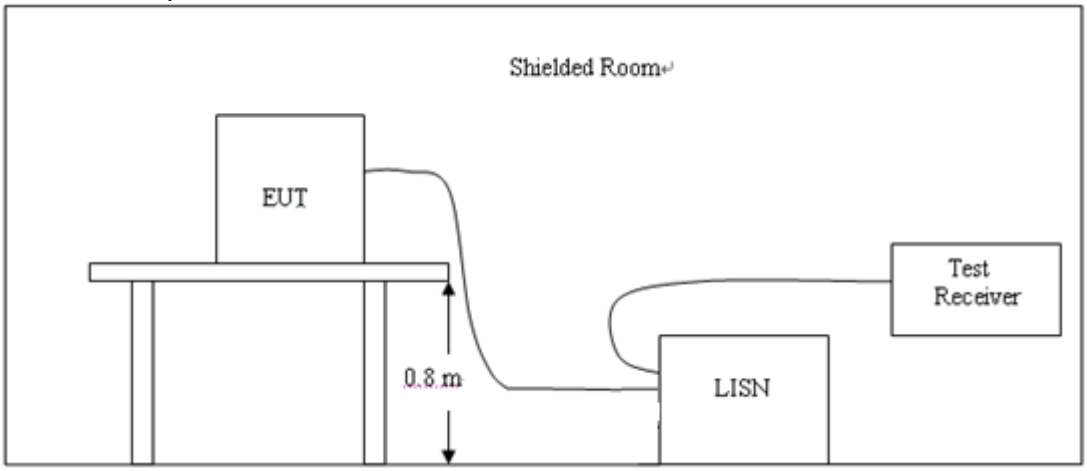
For unintentional device, according to § 15.107(a) Line Conducted Emission Limits is as following

Frequency (MHz)	Maximum RF Line Voltage (dBμV)			
	CLASS A		CLASS B	
	Q.P.	Ave.	Q.P.	Ave.
0.15 - 0.50	79	66	66-56*	56-46*
0.50 - 5.00	73	60	56	46
5.00 - 30.0	73	60	60	50

* Decreasing linearly with the logarithm of the frequency

For intentional device, according to §15.207(a) Line Conducted Emission Limit is same as above table.

3.2 Test Setup



3.3 Test Procedure

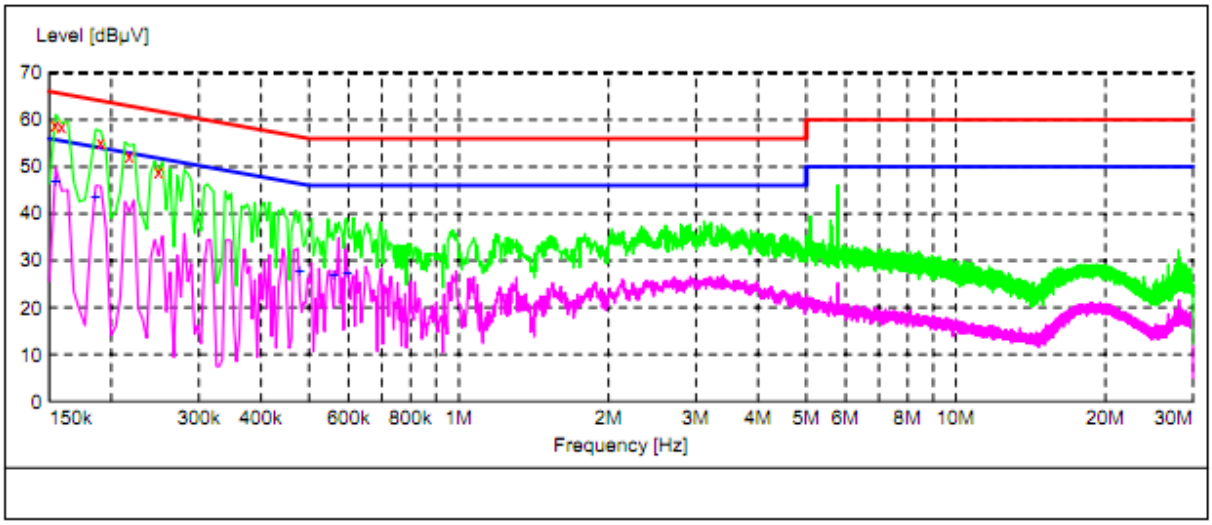
1, The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10.
2, Support equipment, if needed, was placed as per ANSI C63.10.
3, All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4, If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
5, All support equipments received AC power from a second LISN, if any.
6, The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7, Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.

3.4 Test Result

PASS

All the test modes completed for test.

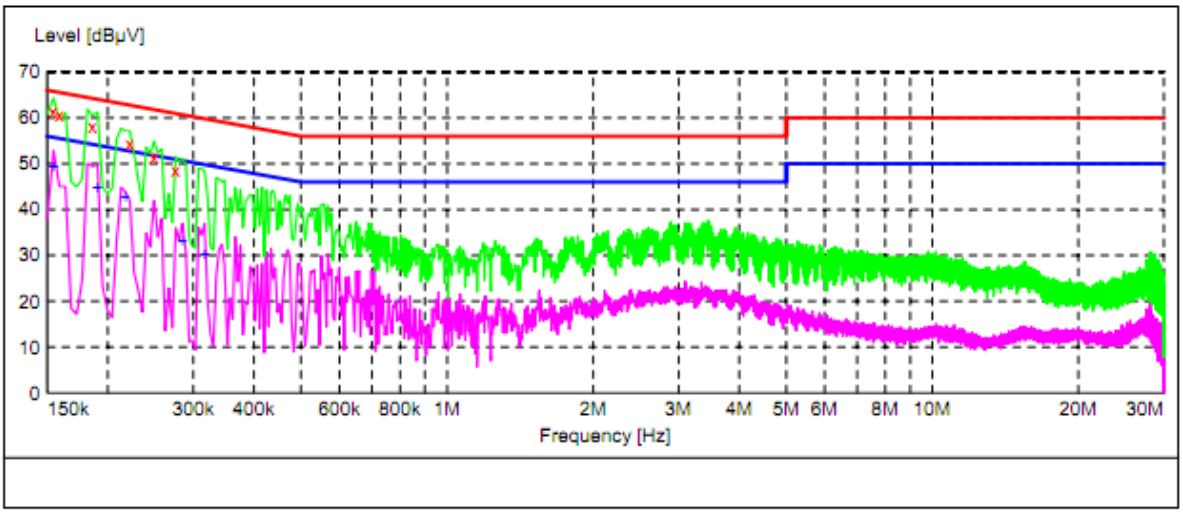
Line



Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.154501	58.70	10.2	66	7.1	QP	L1	GND
0.159001	58.40	10.2	66	7.1	QP	L1	GND
0.190501	55.30	10.2	64	8.7	QP	L1	GND
0.217501	52.30	10.2	63	10.6	QP	L1	GND
0.249001	49.10	10.2	62	12.7	QP	L1	GND

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.154501	46.70	10.2	56	9.1	AV	L1	GND
0.186001	43.70	10.2	54	10.5	AV	L1	GND
0.478501	27.80	10.2	46	18.6	AV	L1	GND
0.559501	27.00	10.2	46	19.0	AV	L1	GND
0.595501	27.30	10.2	46	18.7	AV	L1	GND

Neutral



Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.154501	61.20	10.2	66	4.6	QP	N	GND
0.159001	60.60	10.2	66	4.9	QP	N	GND
0.186001	58.20	10.2	64	6.0	QP	N	GND
0.222001	54.20	10.2	63	8.5	QP	N	GND
0.249001	51.40	10.2	62	10.4	QP	N	GND
0.276001	48.40	10.2	61	12.5	QP	N	GND

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.154501	49.40	10.2	56	6.4	AV	N	GND
0.190501	44.90	10.2	54	9.1	AV	N	GND
0.217501	42.80	10.2	53	10.1	AV	N	GND
0.285001	33.20	10.2	51	17.5	AV	N	GND
0.316501	30.10	10.2	50	19.7	AV	N	GND

4 RADIATED EMISSION TEST

4.1 Radiation Limit

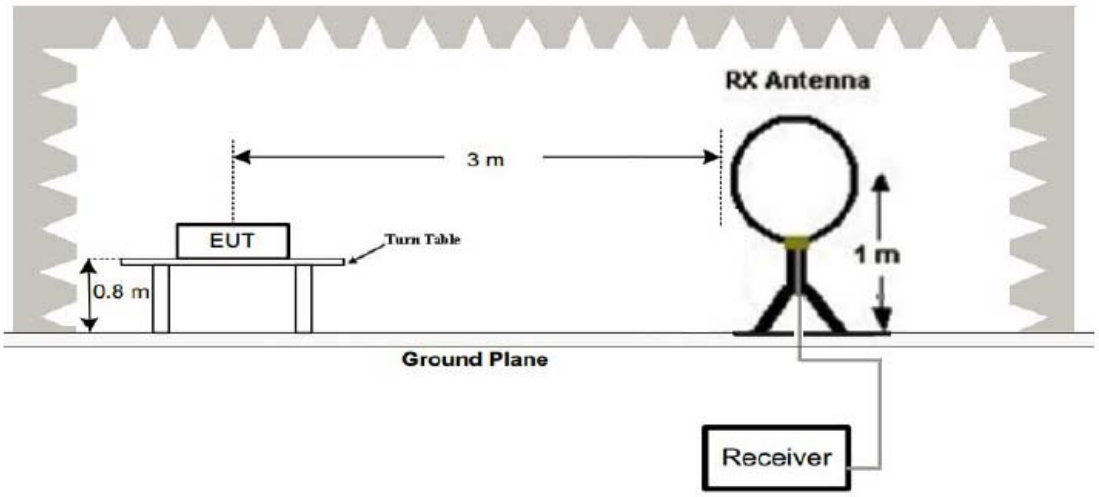
For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values：

Frequency (MHz)	Distance (Meters)	Radiated (dBμV/m)	Radiated (μV/m)
30-88	3	40	100
88-216	3	43.5	150
216-960	3	46	200
Above 960	3	54	500

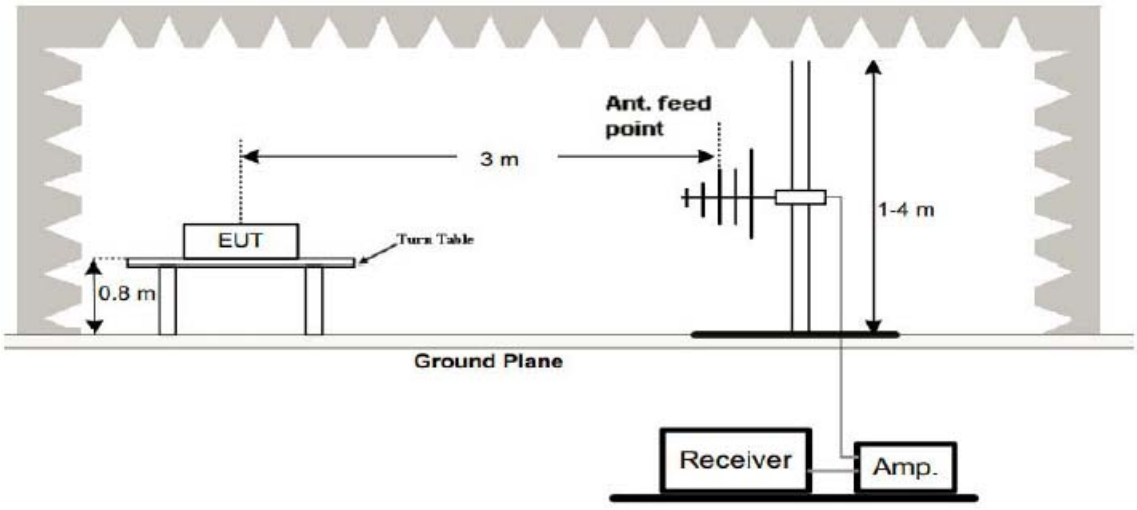
For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

4.2 Test Setup

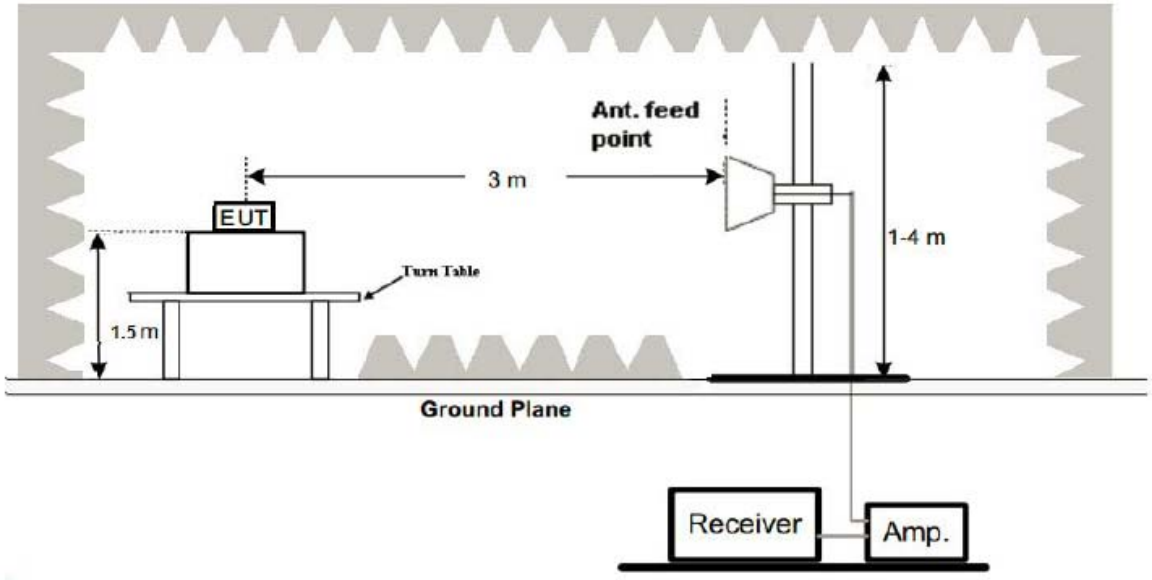
（1）Radiated Emission Test-Up Frequency Below 30MHz



（2）Radiated Emission Test-Up Frequency 30MHz~1GHz



（3）Radiated Emission Test-Up Frequency Above 1GHz



4.3 Test Procedure

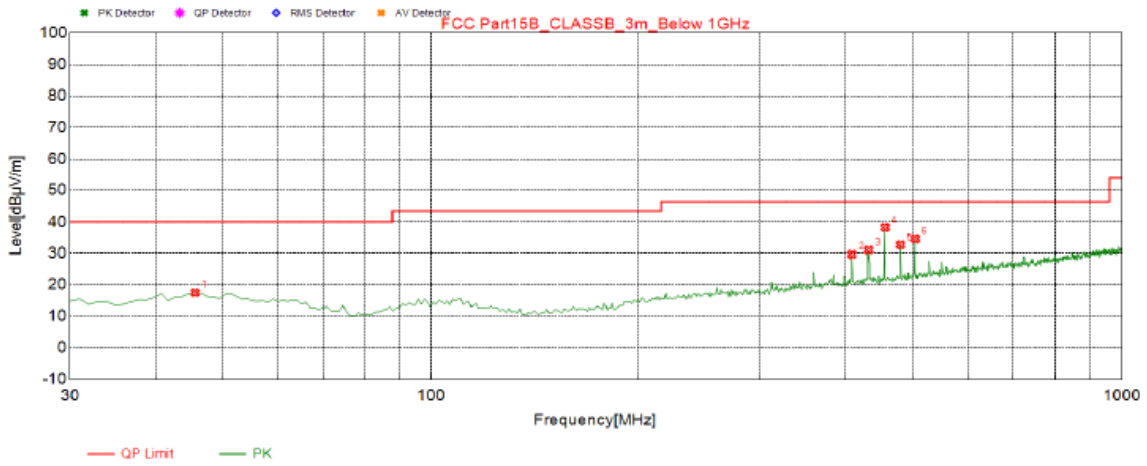
1. Below 1GHz measurement the EUT is placed on turntable which is 0.8m above ground plane. And above 1GHz measurement EUT was placed on low permittivity and low tangent turn table which is 1.5m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. The test frequency range from 9KHz to 25GHz per FCC PART 15.33(a).

Note:
For battery operated equipment, the equipment tests shall be performed using a new battery.

4.4 Test Result

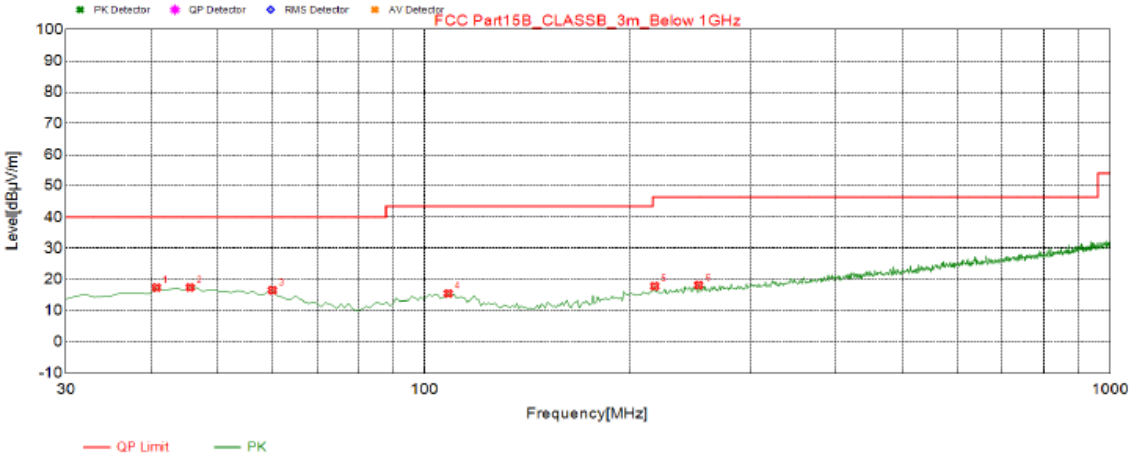
PASS
All the test modes completed for test. The worst case of Radiated Emission; the test data of this mode was reported.

Below 1GHz Test Results:
Antenna polarity: H



Suspected List								
NO.	Freq. [MHz]	Result Level [dBµV]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle[°]	Polarity
1	45.520	17.44	-13.94	40.00	22.56	100	47	Horizontal
2	408.30	29.67	-9.88	46.50	16.83	100	11	Horizontal
3	431.58	31.08	-9.41	46.50	15.42	100	7	Horizontal
4	455.83	38.26	-8.94	46.50	8.24	100	9	Horizontal
5	480.08	32.67	-8.46	46.50	13.83	100	9	Horizontal
6	504.33	34.55	-7.95	46.50	11.95	100	19	Horizontal

Antenna polarity: V



Suspected List								
NO.	Freq. [MHz]	Result Level [dBµV]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle[°]	Polarity
1	40.670	17.32	-14.55	40.00	22.68	100	88	Vertical
2	45.520	17.37	-13.94	40.00	22.63	100	247	Vertical
3	60.070	16.47	-15.67	40.00	23.53	100	352	Vertical
4	108.57	15.42	-16.01	43.50	28.08	100	238	Vertical
5	217.21	17.78	-14.90	46.50	28.72	100	240	Vertical
6	252.13	18.16	-13.83	46.50	28.34	100	105	Vertical

Remark：
(1) Measuring frequencies from 9 KHz to the 1 GHz, Radiated emission test from 9KHz to 30MHz was verified, and no any emission was found except system noise floor.
(2) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
(3) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.

Above 1 GHz Test Results:

LOW CH1 (802.11b Mode)/2412

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824	60.86	-3.64	57.22	74	-16.78	peak
4824	45.12	-3.64	41.48	54	-12.52	AVG
7236	55.37	-0.95	54.42	74	-19.58	peak
7236	42.05	-0.95	41.1	54	-12.9	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824	60.81	-3.64	57.17	74	-16.83	peak
4824	45.63	-3.64	41.99	54	-12.01	AVG
7236	55.94	-0.95	54.99	74	-19.01	peak
7236	41.17	-0.95	40.22	54	-13.78	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

MID CH6 (802.11b Mode)/2437

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874	62.02	-3.51	58.51	74	-15.49	peak
4874	46.95	-3.51	43.44	54	-10.56	AVG
7311	56.24	-0.82	55.42	74	-18.58	peak
7311	43.19	-0.82	42.37	54	-11.63	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874	60.99	-3.51	57.48	74	-16.52	peak
4874	45.83	-3.51	42.32	54	-11.68	AVG
7311	56.12	-0.82	55.3	74	-18.7	peak
7311	41.76	-0.82	40.94	54	-13.06	AVG
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---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

HIGH CH11 (802.11b Mode)/2462

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924	61.22	-3.43	57.79	74	-16.21	peak
4924	46.13	-3.43	42.7	54	-11.3	AVG
7386	56.54	-0.75	55.79	74	-18.21	peak
7386	41.86	-0.75	41.11	54	-12.89	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924	60.89	-3.43	57.46	74	-16.54	peak
4924	45.71	-3.43	42.28	54	-11.72	AVG
7386	55.45	-0.75	54.7	74	-19.3	peak
7386	41.38	-0.75	40.63	54	-13.37	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Remark：
(1) Measuring frequencies from 1 GHz to the 25 GHz。
(2) “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency.
(3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
(4) Data of measurement within this frequency range shown “--- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
(5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.
(6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.

LOW CH1 (802.11g Mode)/2412

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824	62.14	-3.64	58.5	74	-15.5	peak
4824	45.77	-3.64	42.13	54	-11.87	AVG
7236	56.92	-0.95	55.97	74	-18.03	peak
7236	42.34	-0.95	41.39	54	-12.61	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824	61.67	-3.64	58.03	74	-15.97	peak
4824	45.25	-3.64	41.61	54	-12.39	AVG
7236	56.33	-0.95	55.38	74	-18.62	peak
7236	42.01	-0.95	41.06	54	-12.94	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

MID CH6 (802.11g Mode)/2437

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874	61.11	-3.51	57.6	74	-16.4	peak
4874	44.57	-3.51	41.06	54	-12.94	AVG
7311	55.24	-0.82	54.42	74	-19.58	peak
7311	42.16	-0.82	41.34	54	-12.66	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874	60.82	-3.51	57.31	74	-16.69	peak
4874	44.95	-3.51	41.44	54	-12.56	AVG
7311	56.37	-0.82	55.55	74	-18.45	peak
7311	41.41	-0.82	40.59	54	-13.41	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

HIGH CH11 (802.11g Mode)/2462

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924	61.23	-3.43	57.8	74	-16.2	peak
4924	45.89	-3.43	42.46	54	-11.54	AVG
7386	56.76	-0.75	56.01	74	-17.99	peak
7386	42.34	-0.75	41.59	54	-12.41	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924	61.05	-3.43	57.62	74	-16.38	peak
4924	46.13	-3.43	42.7	54	-11.3	AVG
7386	56.84	-0.75	56.09	74	-17.91	peak
7386	42.46	-0.75	41.71	54	-12.29	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Remark：
(1) Measuring frequencies from 1 GHz to the 25 GHz。
(2) “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency.
(3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
(4) Data of measurement within this frequency range shown “--- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
(5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.
(6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.

LOW CH1 (802.11n/H20 Mode)/2412

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824	61.45	-3.64	57.81	74	-16.19	peak
4824	46.83	-3.64	43.19	54	-10.81	AVG
7236	56.96	-0.95	56.01	74	-17.99	peak
7236	41.62	-0.95	40.67	54	-13.33	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824	60.74	-3.64	57.1	74	-16.9	peak
4824	46.85	-3.64	43.21	54	-10.79	AVG
7236	56.27	-0.95	55.32	74	-18.68	peak
7236	41.93	-0.95	40.98	54	-13.02	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

MID CH6 (802.11n/H20 Mode)/2437

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874	61.06	-3.51	57.55	74	-16.45	peak
4874	45.51	-3.51	42	54	-12	AVG
7311	55.85	-0.82	55.03	74	-18.97	peak
7311	41.36	-0.82	40.54	54	-13.46	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874	61.08	-3.51	57.57	74	-16.43	peak
4874	46.12	-3.51	42.61	54	-11.39	AVG
7311	56.33	-0.82	55.51	74	-18.49	peak
7311	41.43	-0.82	40.61	54	-13.39	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

HIGH CH11 (802.11n/H20 Mode)/2462

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924	60.66	-3.43	57.23	74	-16.77	peak
4924	44.72	-3.43	41.29	54	-12.71	AVG
7386	56.13	-0.75	55.38	74	-18.62	peak
7386	41.05	-0.75	40.3	54	-13.7	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924	60.16	-3.43	56.73	74	-17.27	peak
4924	45.37	-3.43	41.94	54	-12.06	AVG
7386	56.28	-0.75	55.53	74	-18.47	peak
7386	40.92	-0.75	40.17	54	-13.83	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Remark：
(1) Measuring frequencies from 1 GHz to the 25 GHz。
(2) “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency.
(3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
(4) Data of measurement within this frequency range shown “--- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
(5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.
(6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.

LOW CH3 (802.11n/H40 Mode)/2422
Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924	62.14	-3.63	58.51	74	-15.49	peak
4924	46.22	-3.63	42.59	54	-11.41	AVG
7386	55.36	-0.94	54.42	74	-19.58	peak
7386	41.75	-0.94	40.81	54	-13.19	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924	61.08	-3.63	57.45	74	-16.55	peak
4924	45.92	-3.63	42.29	54	-11.71	AVG
7386	54.37	-0.94	53.43	74	-20.57	peak
7386	41.51	-0.94	40.57	54	-13.43	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

MID CH6 (802.11n/H40 Mode)/2437
Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874	60.89	-3.51	57.38	74	-16.62	peak
4874	46.47	-3.51	42.96	54	-11.04	AVG
7311	55.83	-0.82	55.01	74	-18.99	peak
7311	42.05	-0.82	41.23	54	-12.77	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874	59.64	-3.51	56.13	74	-17.87	peak
4874	45.18	-3.51	41.67	54	-12.33	AVG
7311	56.99	-0.82	56.17	74	-17.83	peak
7311	39.41	-0.82	38.59	54	-15.41	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

HIGH CH9 (802.11n/H40 Mode)/2452
Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4904	60.28	-3.43	56.85	74	-17.15	peak
4904	46.73	-3.43	43.3	54	-10.7	AVG
7356	55.15	-0.75	54.4	74	-19.6	peak
7356	40.44	-0.75	39.69	54	-14.31	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4904	60.02	-3.43	56.59	74	-17.41	peak
4904	46.81	-3.43	43.38	54	-10.62	AVG
7356	55.66	-0.75	54.91	74	-19.09	peak
7356	38.17	-0.75	37.42	54	-16.58	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Remark：
(1) Measuring frequencies from 1 GHz to the 25 GHz。
(2) “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency.
(3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
(4) Data of measurement within this frequency range shown “--- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
(5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.
(6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.

5 BAND EDGE

5.1 Limits

Please refer section15.247

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.

5.2 Test Procedure

The band edge compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW to 100KHz and VBM to 300KHz to measure the peak field strength and set RBW to 1MHz and VBW to 10Hz to measure the average radiated field strength.The conducted RF band edge was measured by using a spectrum analyzer. Set span wide enough to capture the highest in-band emission and the emission at the band edge. Set RBW to 100 KHz and VBW to 300 KHz, to measure the conducted peak band edge.

5.3 Test Result

PASS

Detailed information please see the following page.

Radiated Band Edge Test:
Operation Mode: 802.11b Mode TX CH Low (2412MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2390	54.02	-5.81	48.21	74	-25.79	peak
2390	/	-5.81	/	54	/	AVG
2399	62.18	-5.84	56.34	74	-17.66	peak
2399	47.64	-5.84	41.8	54	-12.2	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2390	53.45	-5.81	47.64	74	-26.36	peak
2390	/	-5.81	/	54	/	AVG
2399	61.27	-5.84	55.43	74	-18.57	peak
2399	45.56	-5.84	39.72	54	-14.28	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Operation Mode: TX CH High (2462MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	55.83	-5.65	50.18	74	-23.82	peak
2483.5	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	53.75	-5.65	48.1	74	-25.9	peak
2483.5	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

Operation Mode: 802.11g Mode TX CH Low (2412MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2390	54.69	-5.81	48.88	74	-25.12	peak
2390	/	-5.81	/	54	/	AVG
2399	60.72	-5.84	54.88	74	-19.12	peak
2399	45.44	-5.84	39.6	54	-14.4	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2390	53.08	-5.81	47.27	74	-26.73	peak
2390	/	-5.81	/	54	/	AVG
2399	62.65	-5.84	56.81	74	-17.19	peak
2399	46.43	-5.84	40.59	54	-13.41	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Operation Mode: TX CH High (2462MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	54.33	-5.65	48.68	74	-25.32	peak
2483.5	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	53.16	-5.65	47.51	74	-26.49	peak
2483.5	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

Operation Mode: 802.11n/H20 Mode TX CH Low (2412MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2390	54.49	-5.81	48.68	74	-25.32	peak
2390	/	-5.81	/	54	/	AVG
2399	60.98	-5.84	55.14	74	-18.86	peak
2399	45.26	-5.84	39.42	54	-14.58	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2390	52.32	-5.81	46.51	74	-27.49	peak
2390	/	-5.81	/	54	/	AVG
2399	61.17	-5.84	55.33	74	-18.67	peak
2399	46.34	-5.84	40.5	54	-13.5	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Operation Mode: TX CH High (2462MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	54.64	-5.65	48.99	74	-25.01	peak
2483.5	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	53.19	-5.65	47.54	74	-26.46	peak
2483.5	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

Operation Mode: 802.11n/H40 Mode TX CH Low (2422MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2390	54.13	-5.81	48.32	74	-25.68	peak
2390	/	-5.81	/	54	/	AVG
2399	60.72	-5.84	54.88	74	-19.12	peak
2399	44.51	-5.84	38.67	54	-15.33	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2390	53.21	-5.81	47.4	74	-26.6	peak
2390	/	-5.81	/	54	/	AVG
2399	60.13	-5.84	54.29	74	-19.71	peak
2399	44.95	-5.84	39.11	54	-14.89	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Operation Mode: TX CH High (2452MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	53.67	-5.65	48.02	74	-25.98	peak
2483.5	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	54.86	-5.65	49.21	74	-24.79	peak
2483.5	/	-5.65	/	54	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

6 OCCUPIED BANDWIDTH MEASUREMENT

6.1 Test Limit

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	>= 500KHz (6dB bandwidth)	2400-2483.5	PASS

6.2 Test Procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set EUT as normal operation.
3. Based on FCC Part15 C Section 15.247: RBW= 100KHz. VBW= 300 KHz.
4. The useful radiated emission from the EUT was detected by the spectrum analyser with peak detector.

6.3 Measurement Equipment Used

Same as Radiated Emission Measurement

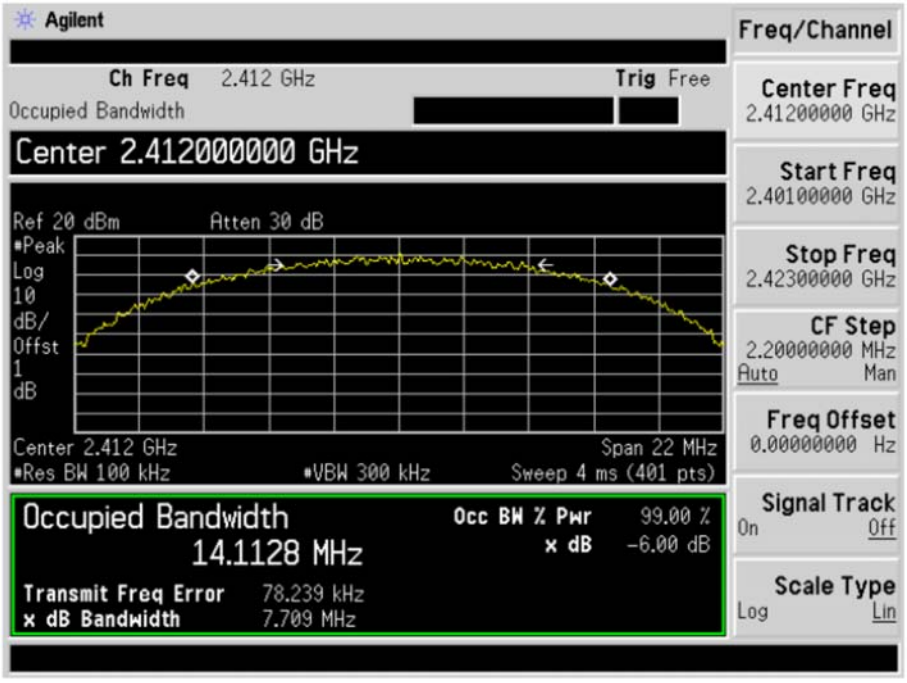
6.4 Test Result

PASS

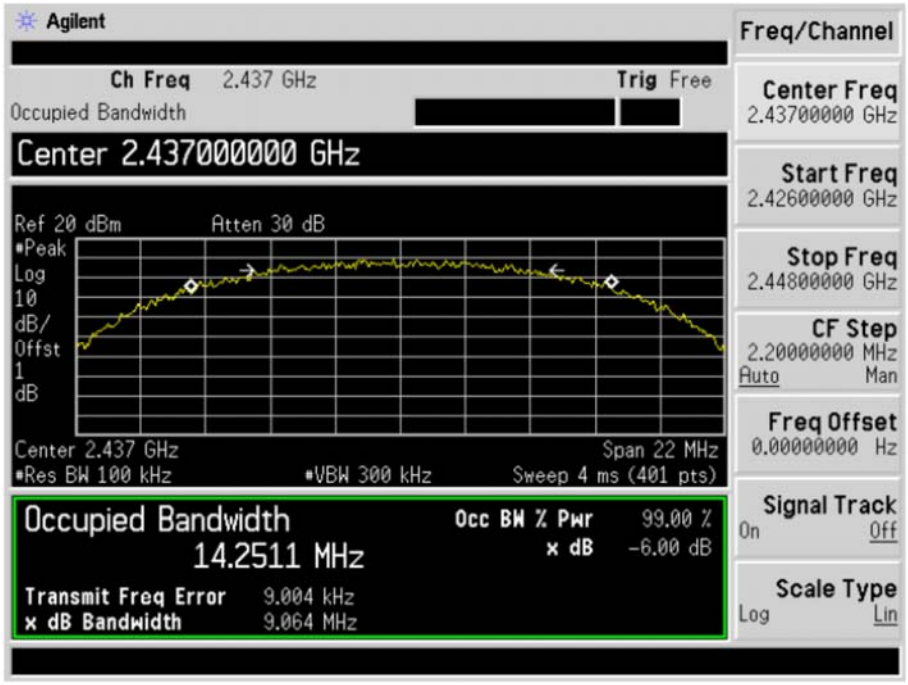
All the test modes completed for test.

TX 802.11b Mode			
Frequency	**6dB Bandwidth (MHz)**	**Channel Separation (MHz)**	**Result**
2412 MHz	7.709	>=500KHz	**PASS**
2437 MHz	9.064	>=500KHz	**PASS**
2462 MHz	8.656	>=500KHz	**PASS**

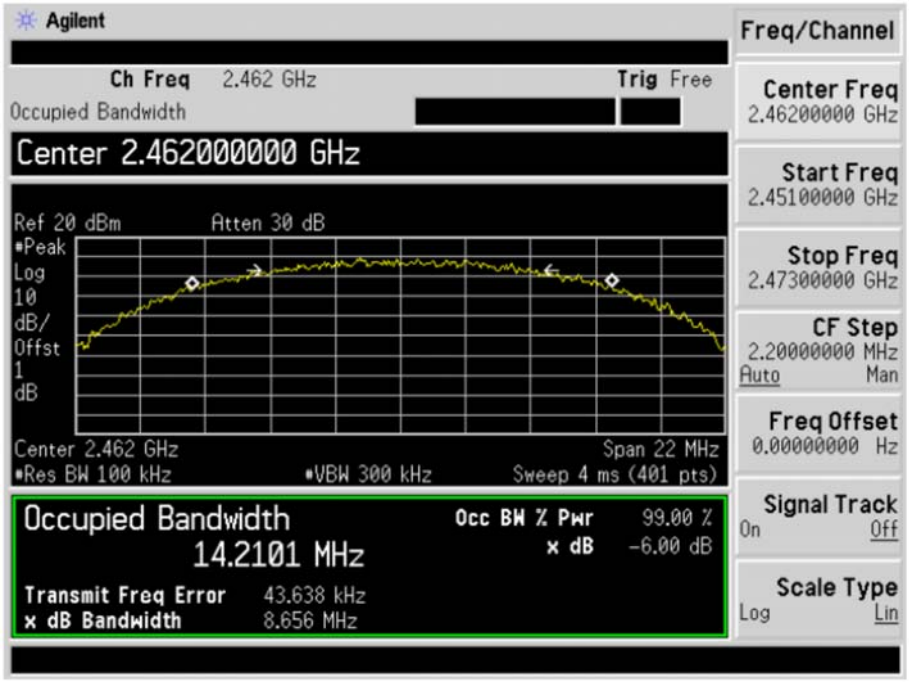
CH: 2412MHz



CH: 2437MHz

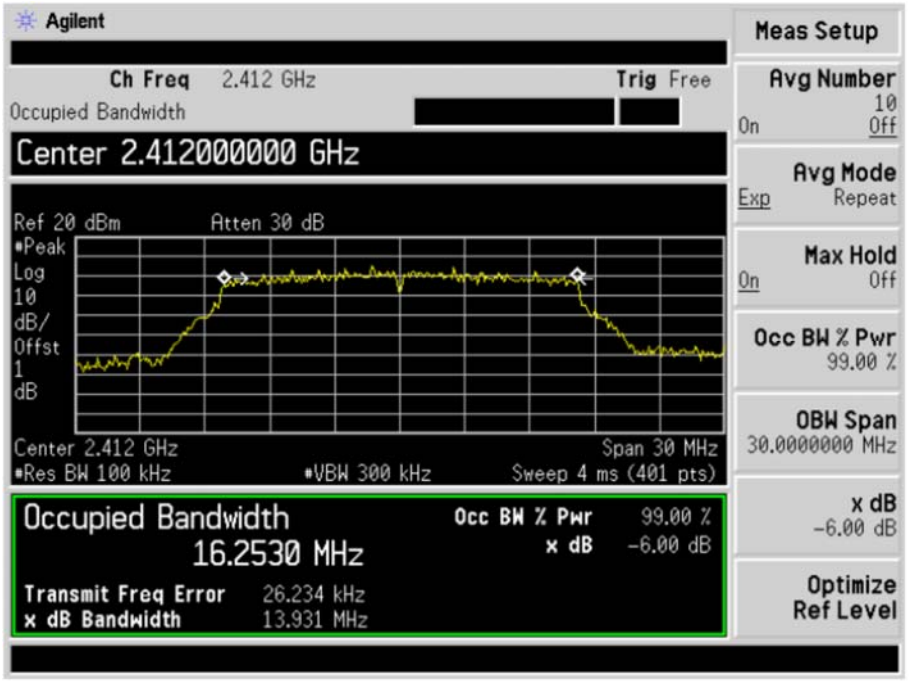


CH: 2462MHz

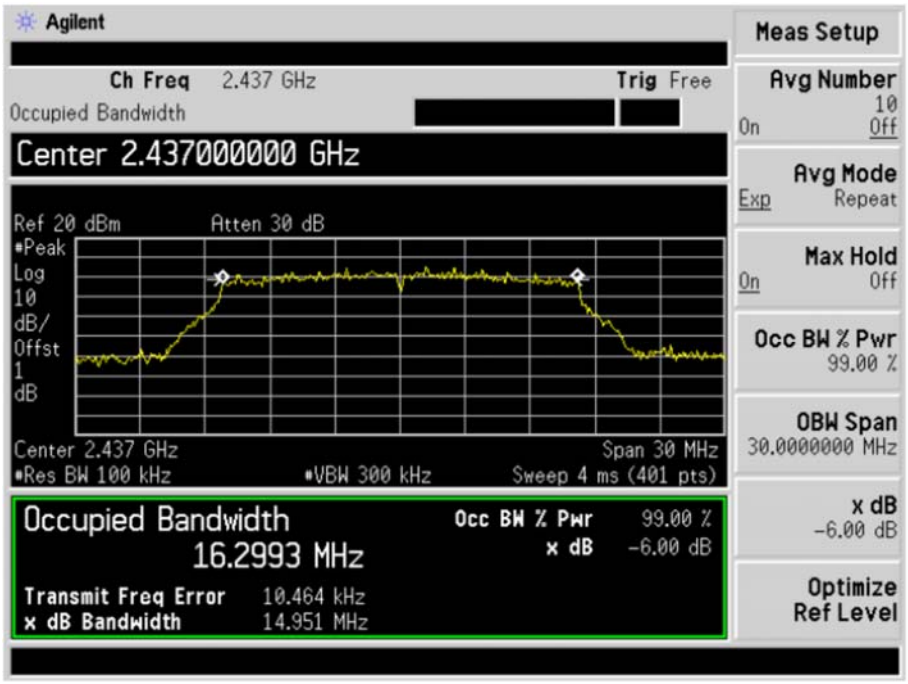


TX 802.11g Mode			
Frequency	**6dB Bandwidth (MHz)**	**Channel Separation (MHz)**	**Result**
2412 MHz	13.931	>=500KHz	**PASS**
2437 MHz	14.951	>=500KHz	**PASS**
2462 MHz	15.203	>=500KHz	**PASS**

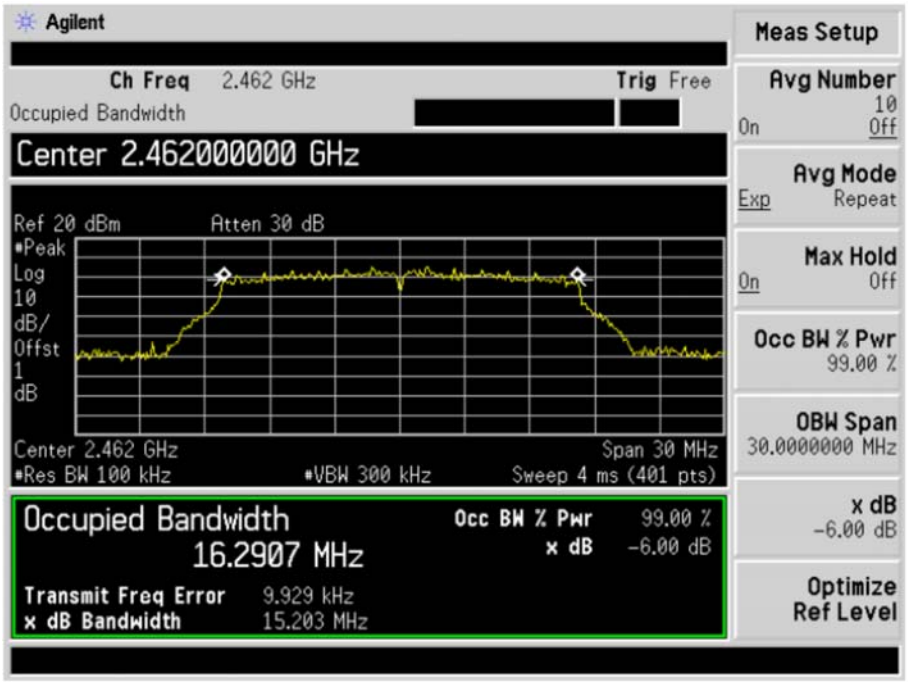
CH: 2412MHz



CH: 2437MHz

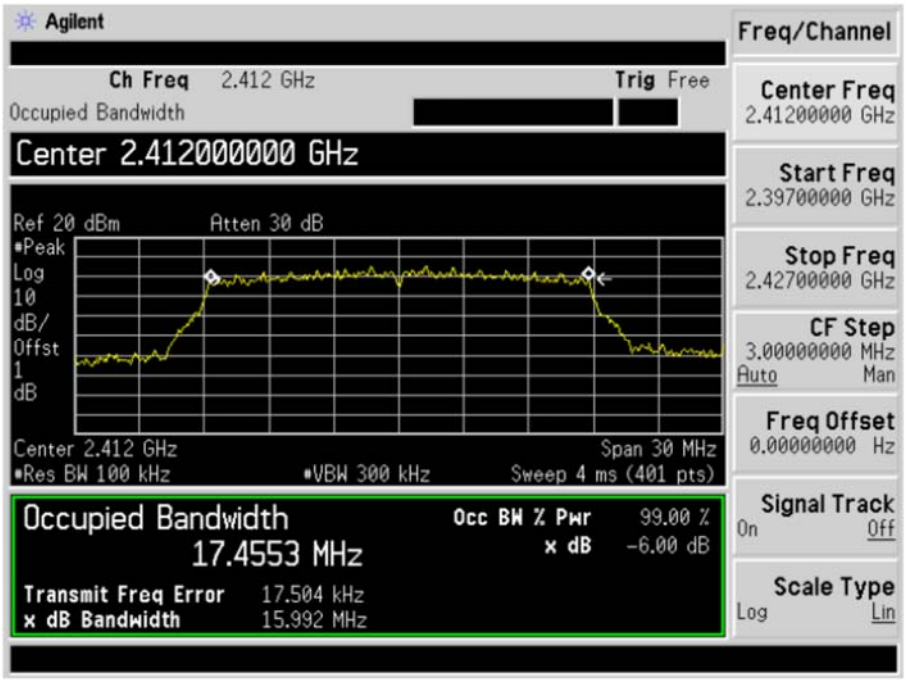


CH: 2462MHz

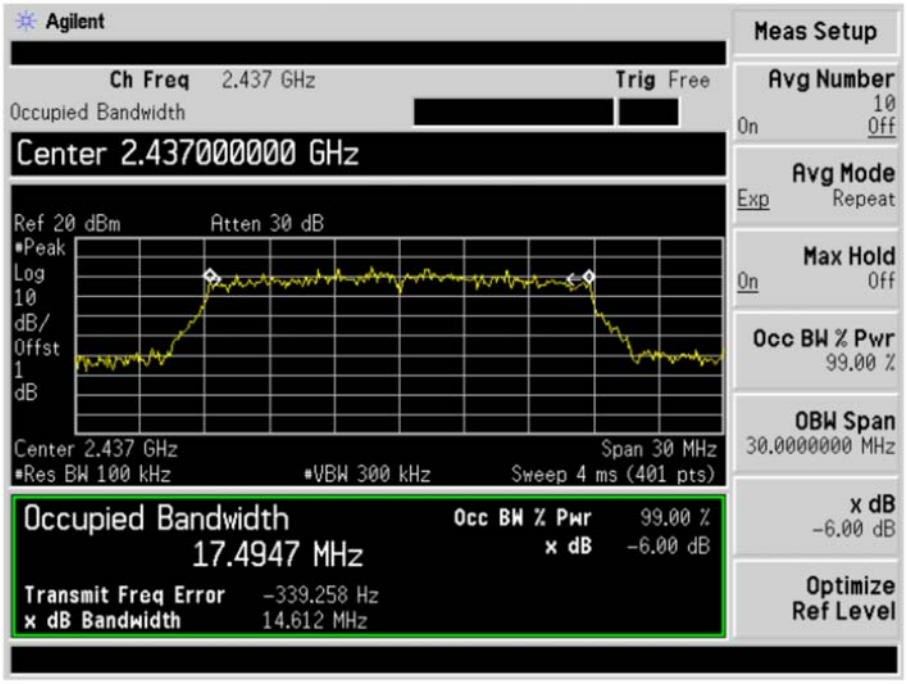


TX 802.11n/HT20 Mode			
Frequency	**6dB Bandwidth (MHz)**	**Channel Separation (MHz)**	**Result**
2412 MHz	15.992	>=500KHz	**PASS**
2437 MHz	14,612	>=500KHz	**PASS**
2462 MHz	15.213	>=500KHz	**PASS**

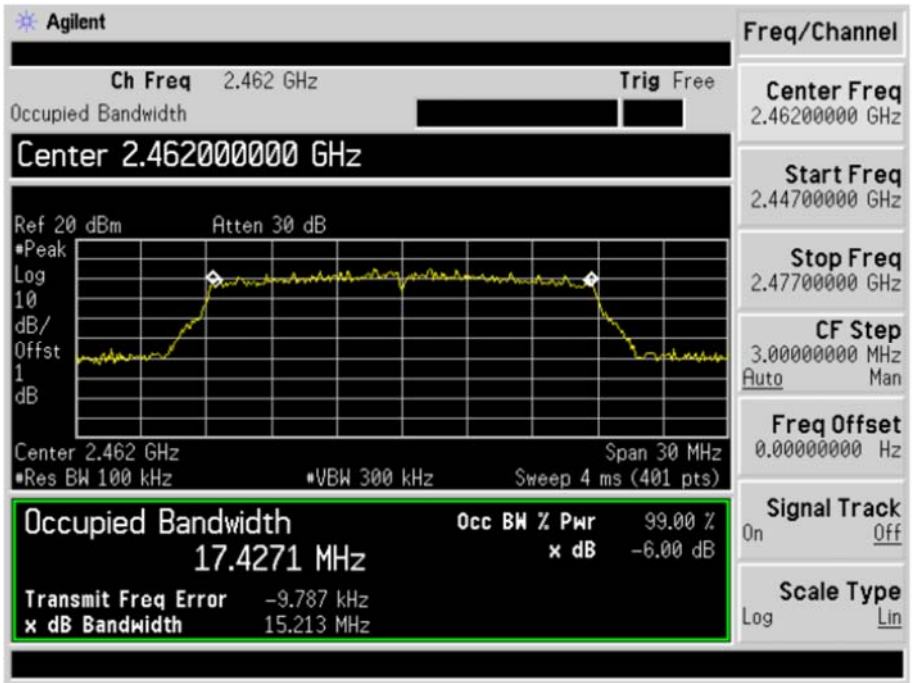
CH: 2412MHz



CH: 2437MHz

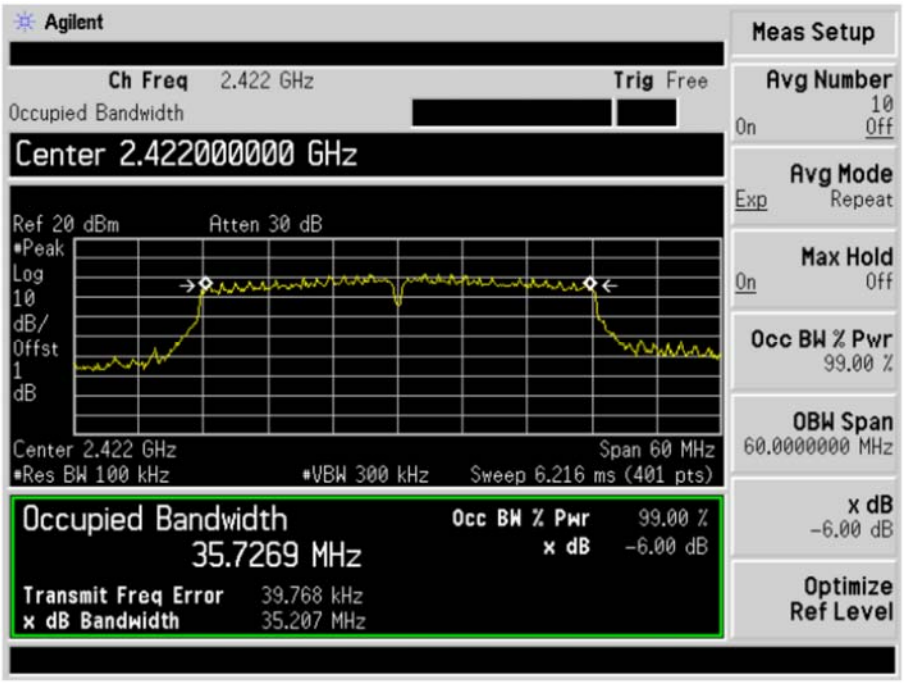


CH: 2462MHz

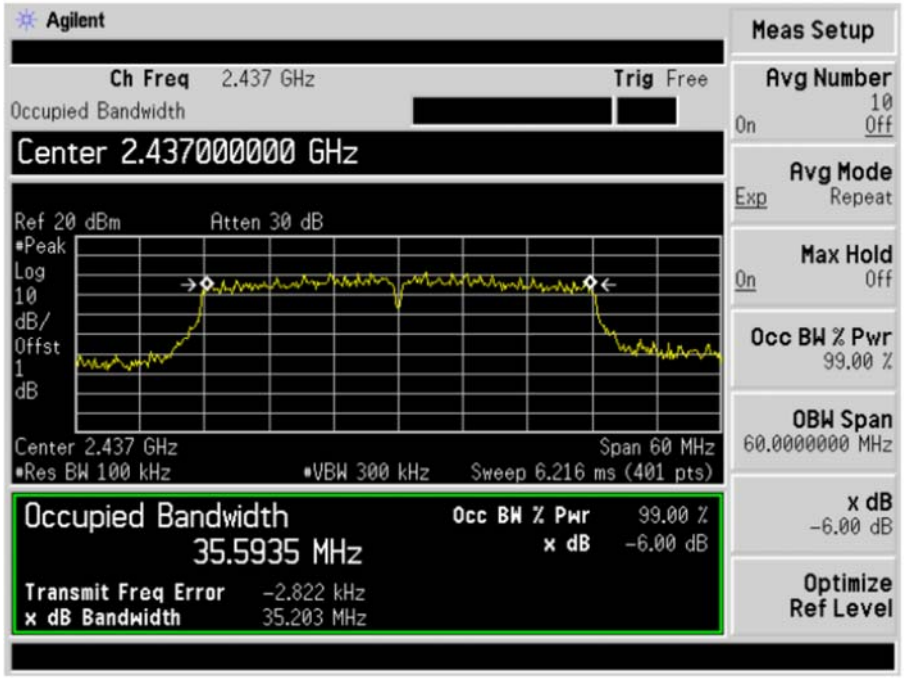


TX 802.11n/HT40 Mode			
Frequency	**6dB Bandwidth (MHz)**	**Channel Separation (MHz)**	**Result**
2422 MHz	35.207	>=500KHz	**PASS**
2437 MHz	35.203	>=500KHz	**PASS**
2452 MHz	33.863	>=500KHz	**PASS**

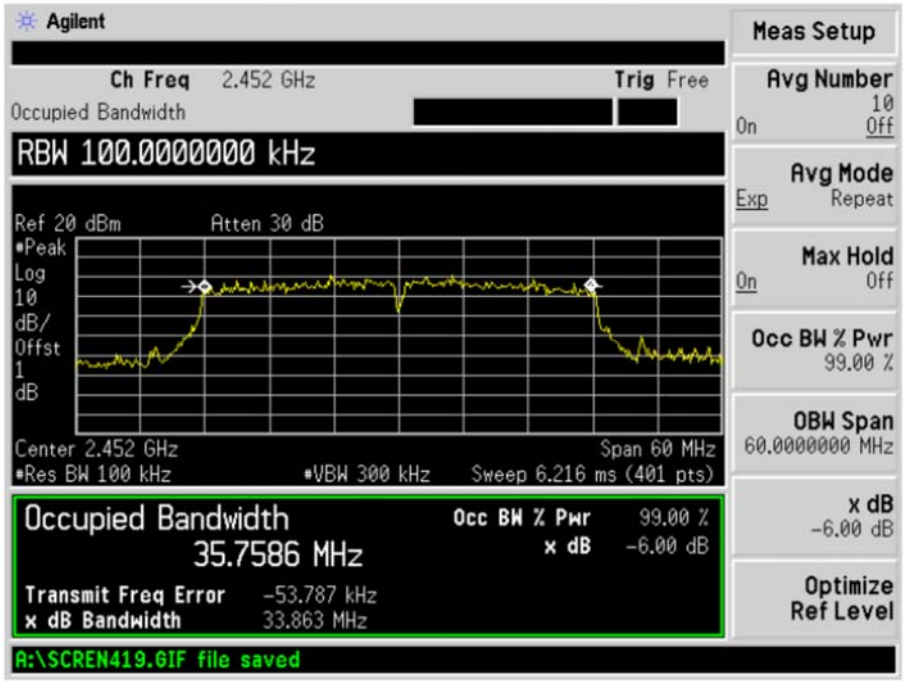
CH: 2422MHz



CH: 2437MHz



CH: 2452MHz



7 POWER SPECTRAL DENSITY TEST

7.1 Test Limit

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS

7.2 Test Procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set EUT as normal operation.
3. Based on FCC Part15 C Section 15.247: RBW= 3KHz. VBW= 10 KHz, Span=3MHz.
4. The useful radiated emission from the EUT was detected by the spectrum analyser with peak detector.

7.3 Measurement Equipment Used

Same as Radiated Emission Measurement

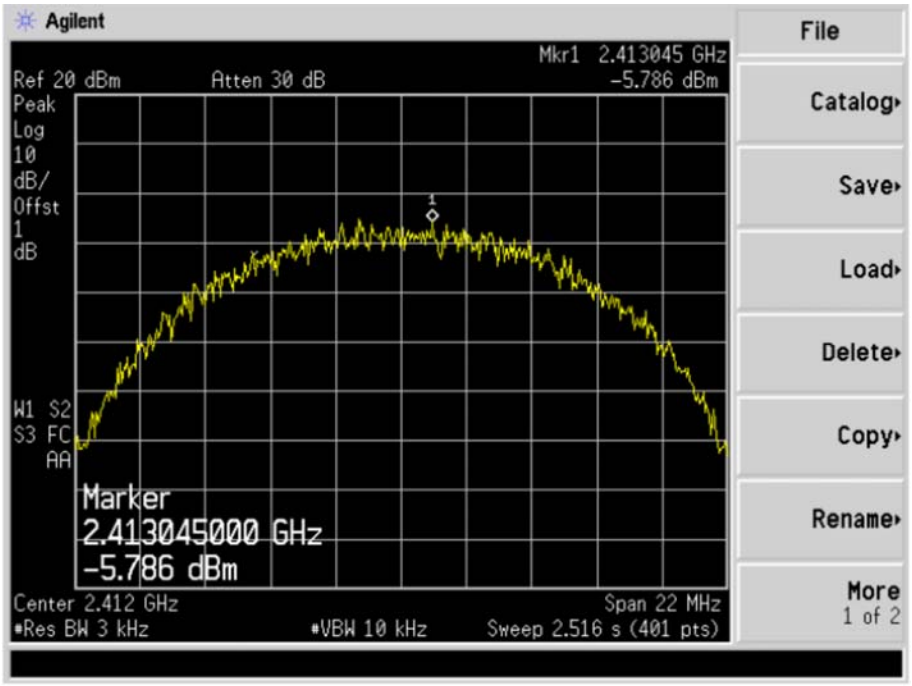
7.4 Test Result

PASS

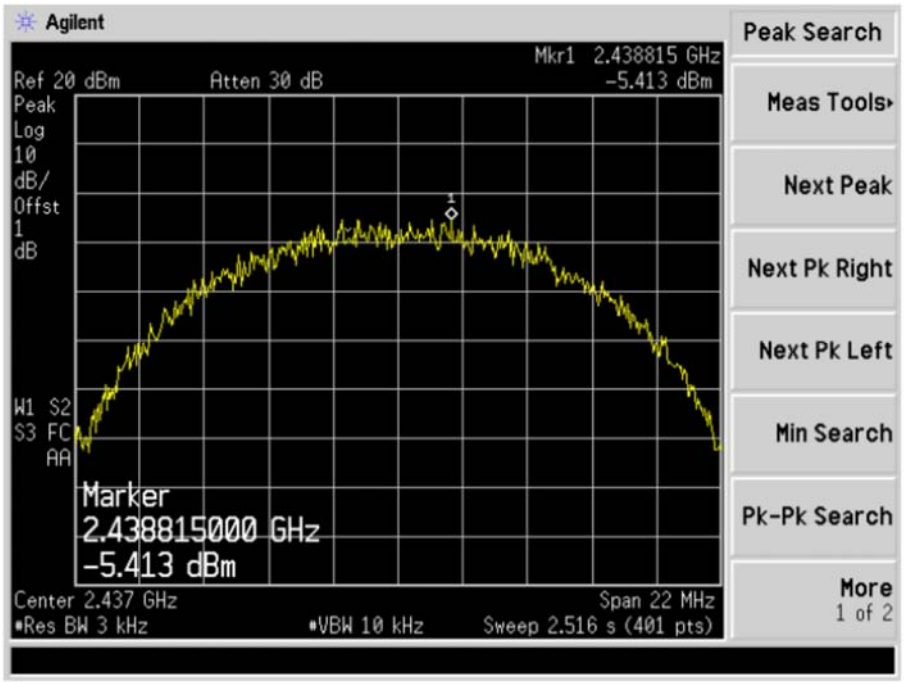
All the test modes completed for test.

TX 802.11b Mode			
Frequency	**Power Density (dBm)**	**Limit (dBm)**	**Result**
2412 MHz	-5.786	8	**PASS**
2437 MHz	-5.413	8	**PASS**
2462 MHz	-4.482	8	**PASS**

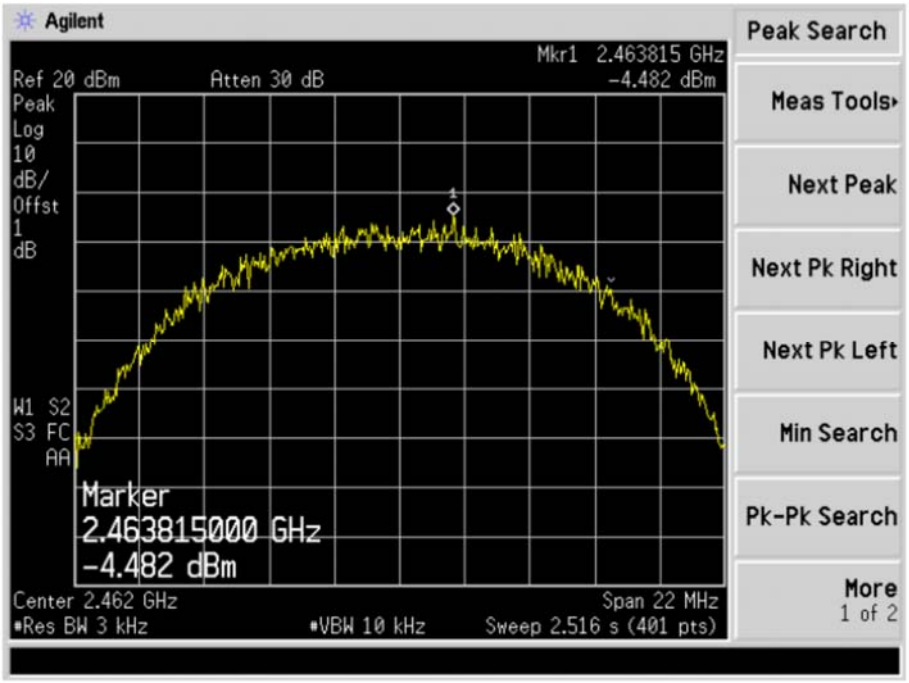
CH: 2412MHz



CH: 2437MHz

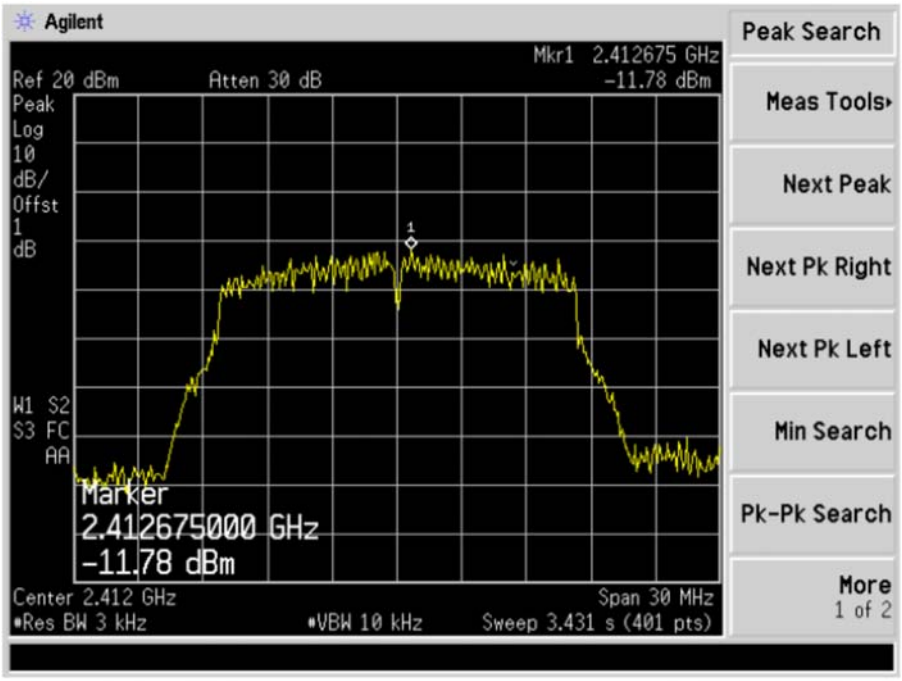


CH: 2462MHz

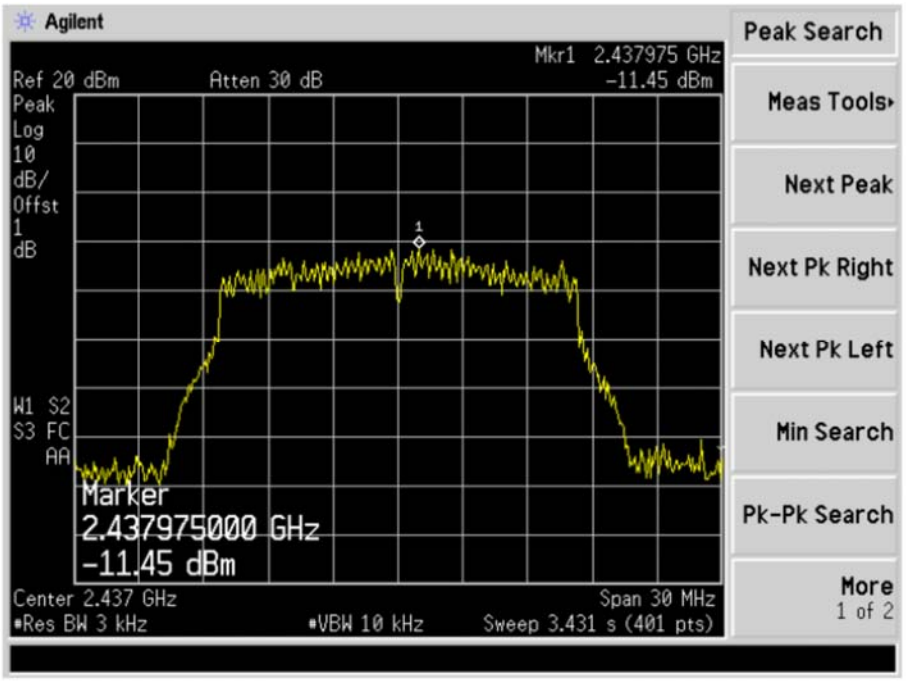


TX 802.11g Mode			
Frequency	**Power Density (dBm)**	**Limit (dBm)**	**Result**
2412 MHz	-11.78	8	**PASS**
2437 MHz	-11.45	8	**PASS**
2462 MHz	-11.47	8	**PASS**

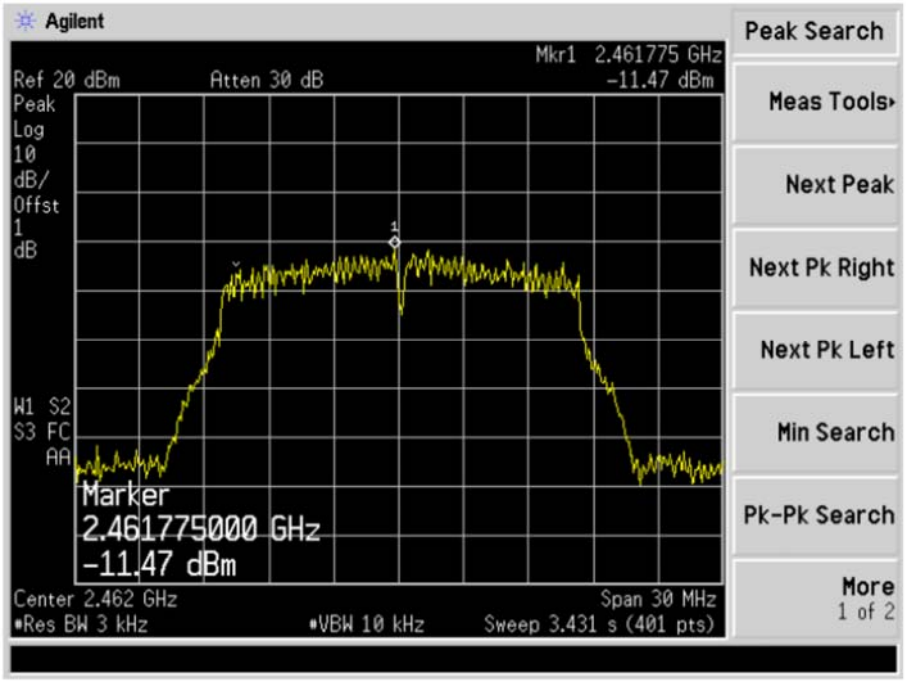
CH: 2412MHz



CH: 2437MHz

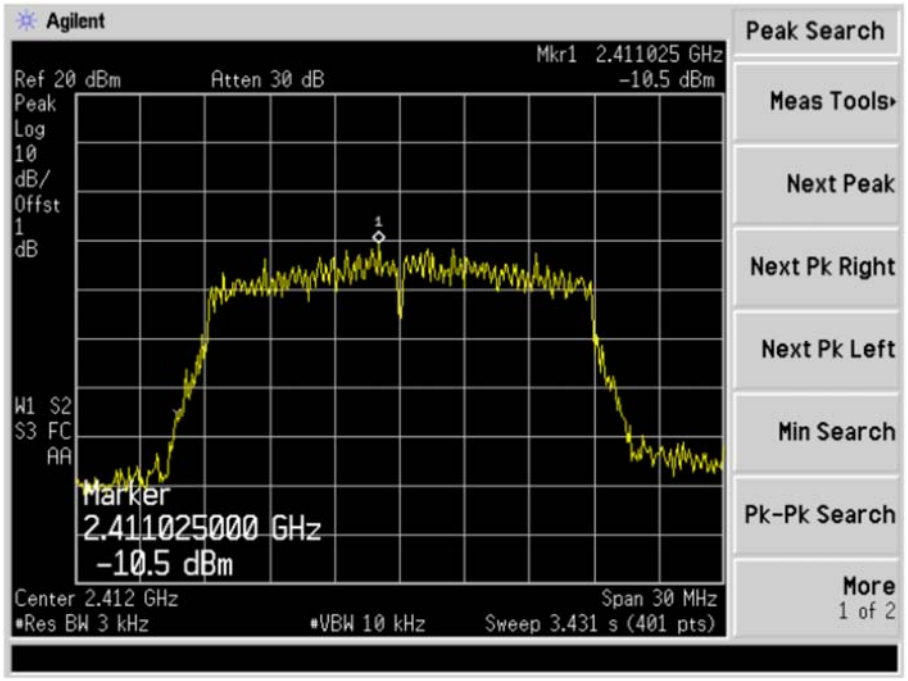


CH: 2462MHz

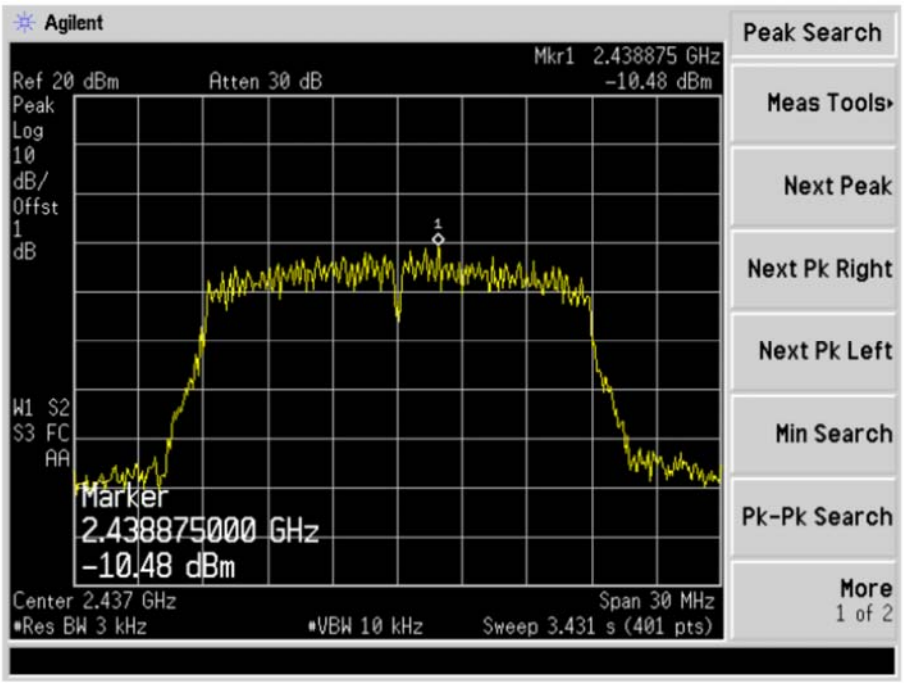


TX 802.11n/HT20 Mode			
Frequency	**Power Density (dBm)**	**Limit (dBm)**	**Result**
2412 MHz	-10.50	8	**PASS**
2437 MHz	-10.48	8	**PASS**
2462 MHz	-10.98	8	**PASS**

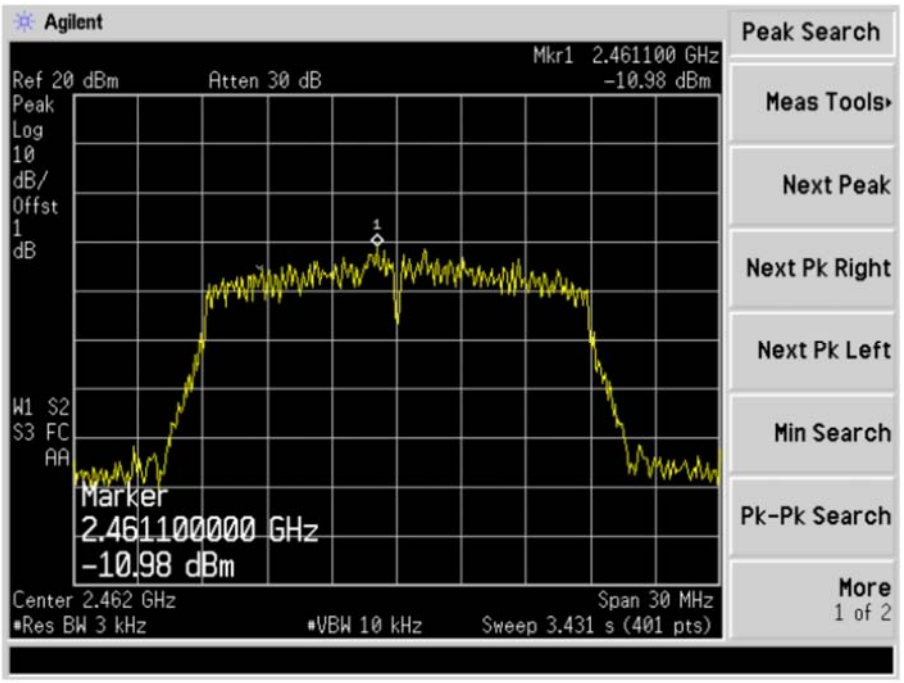
CH: 2412MHz



CH: 2437MHz

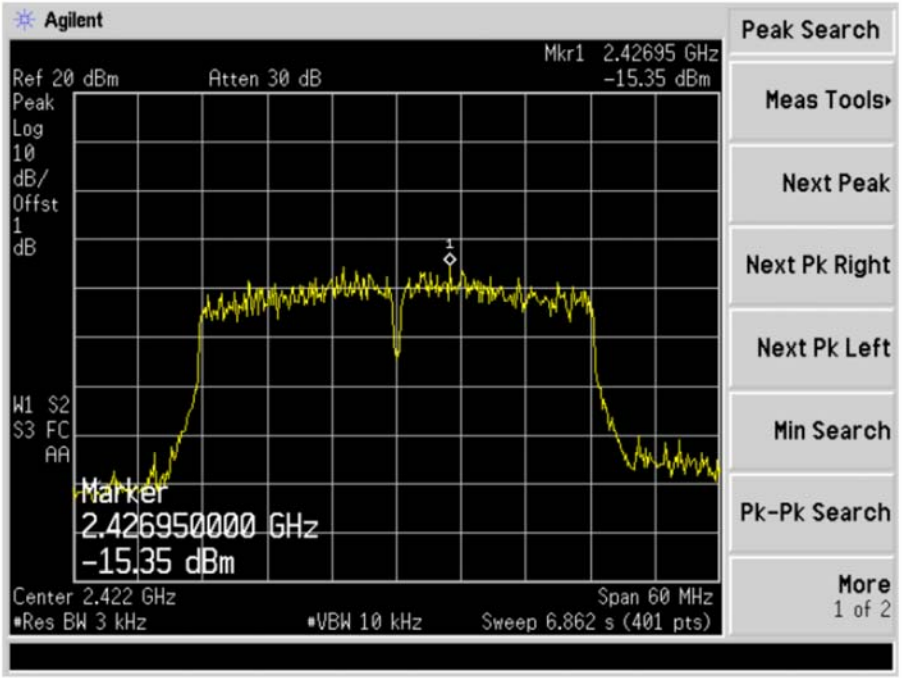


CH: 2462MHz

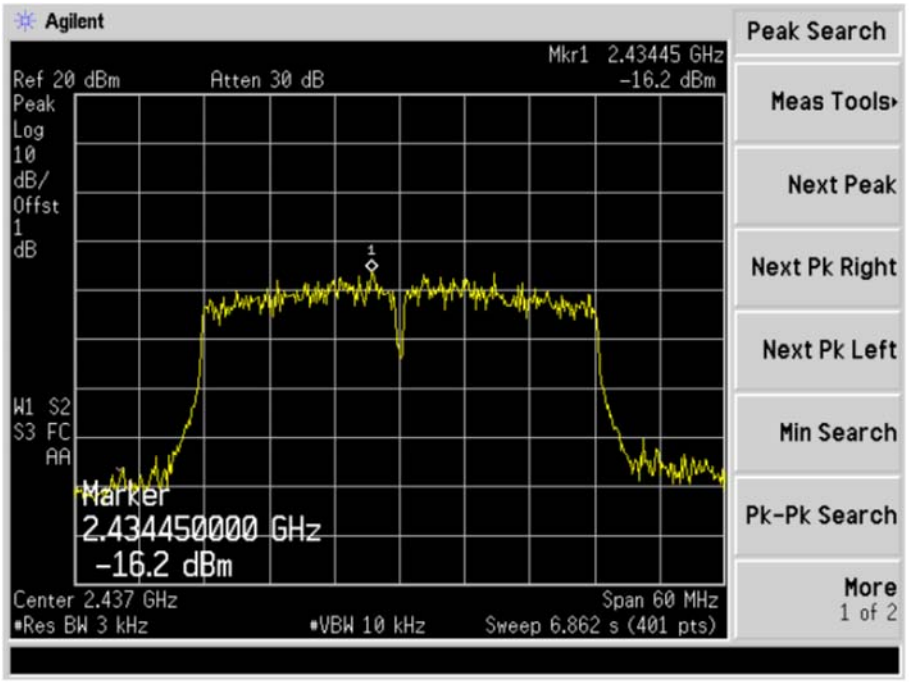


TX 802.11n/HT40 Mode			
Frequency	**Power Density (dBm)**	**Limit (dBm)**	**Result**
2422 MHz	-15.35	8	**PASS**
2437 MHz	-16.20	8	**PASS**
2452 MHz	-16.05	8	**PASS**

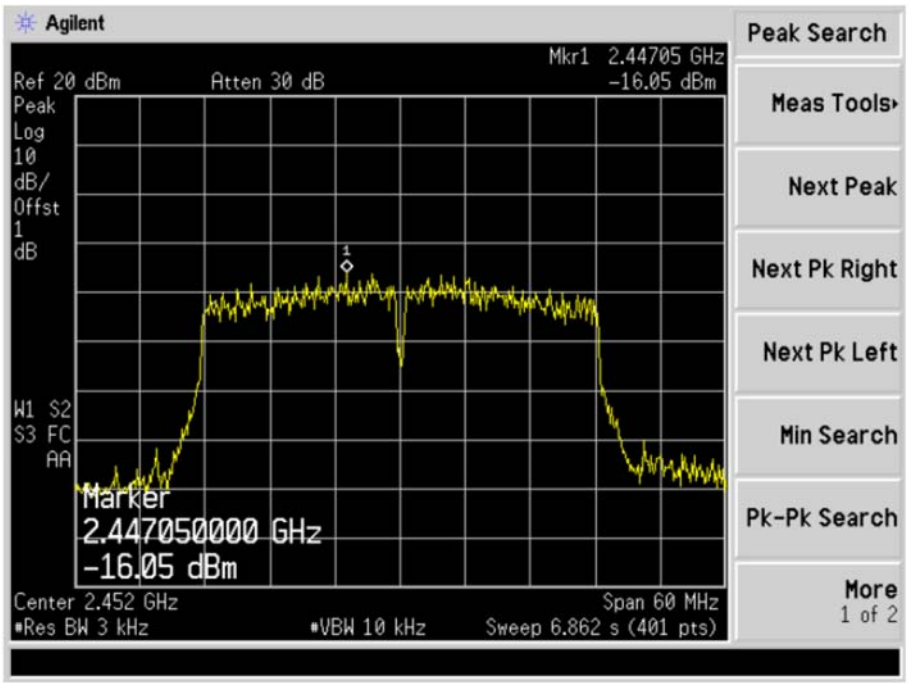
CH: 2422MHz



CH: 2437MHz



CH: 2452MHz



8 PEAK OUTPUT POWER TEST

8.1 Test Limit

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS

8.2 Test Procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. The EUT was directly connected to the Power meter.

8.3 Measurement Equipment Used

Same as Radiated Emission Measurement

8.4 Test Result

PASS

All the test modes completed for test.

TX 802.11b Mode			
Test Channe	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)	LIMIT dBm
CH01	2412	17.27	30
CH06	2437	17.13	30
CH11	2462	17.05	30
TX 802.11g Mode			
CH01	2412	16.84	30
CH06	2437	16.61	30
CH11	2462	16.36	30
TX 802.11n20 Mode			
CH01	2412	14.75	30
CH06	2437	14.32	30
CH11	2462	14.19	30
TX 802.11n40 Mode			
CH03	2422	12.31	30
CH06	2437	12.08	30
CH09	2452	11.43	30

9 Out of Band Emissions

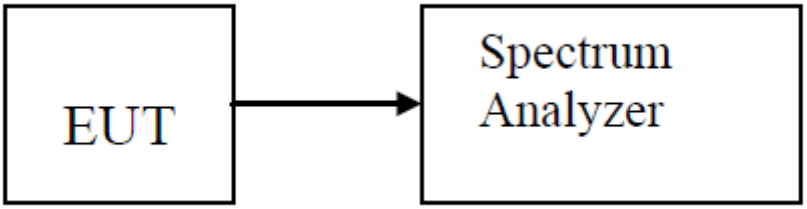
9.1 Test Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

9.2 Test Procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set EUT as TX operation and connect directly to the spectrum analyzer.
3. Set spectrum analyzer RBW= 100KHz. VBW= 300 KHz
4. Set detected by the spectrum analyser with peak detector.

9.3 Test Setup



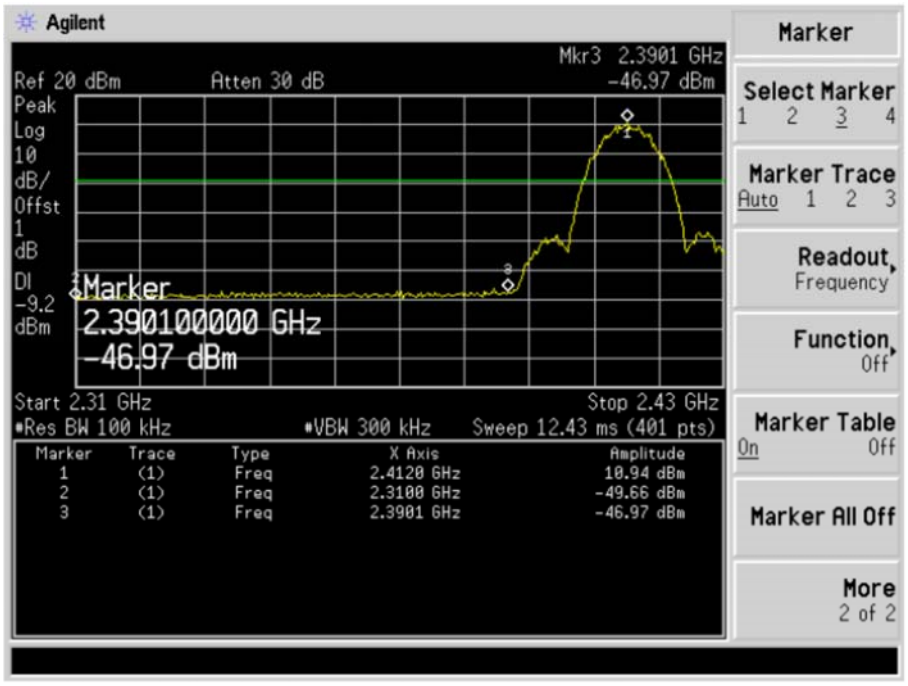
7.4 Test Result

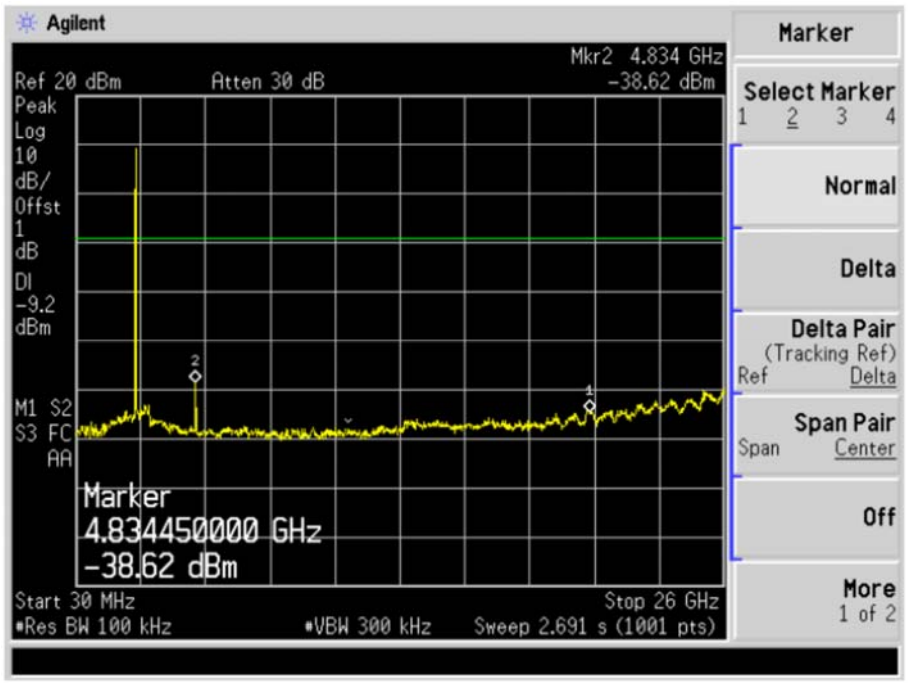
PASS

All the test modes completed for test.

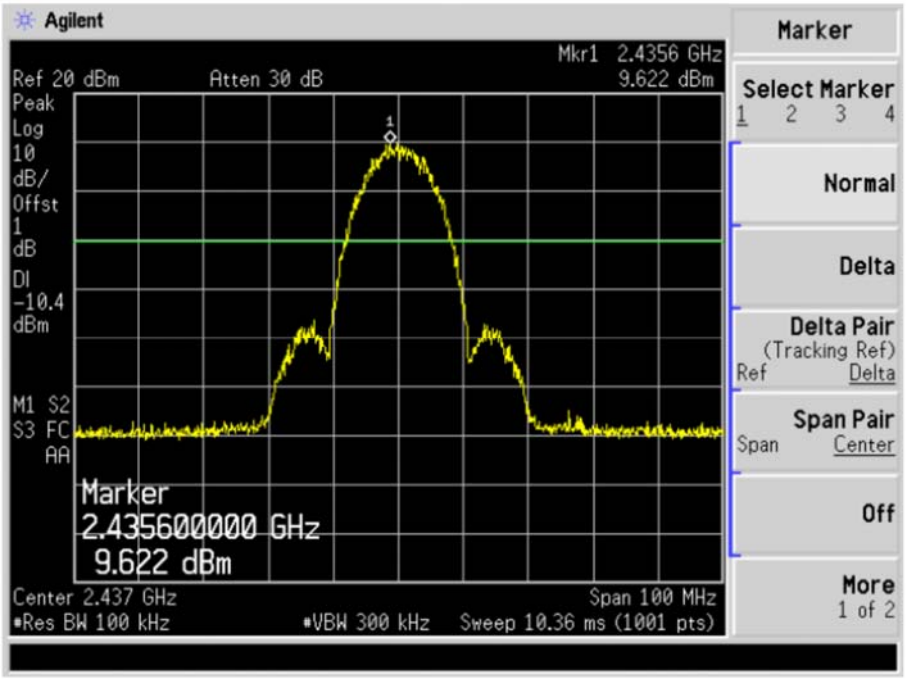
TX 802.11b Mode

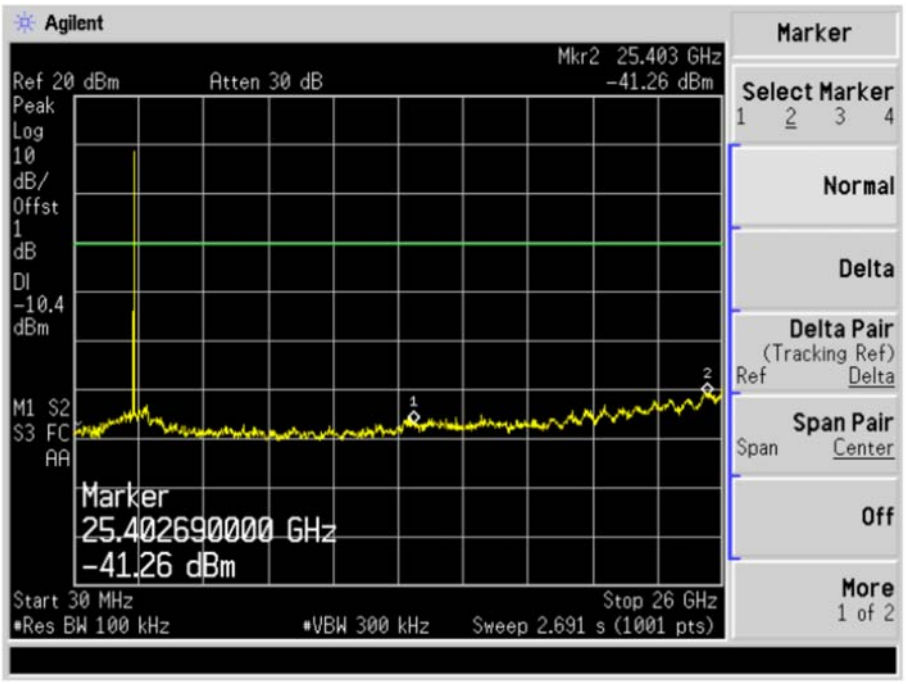
Lowest



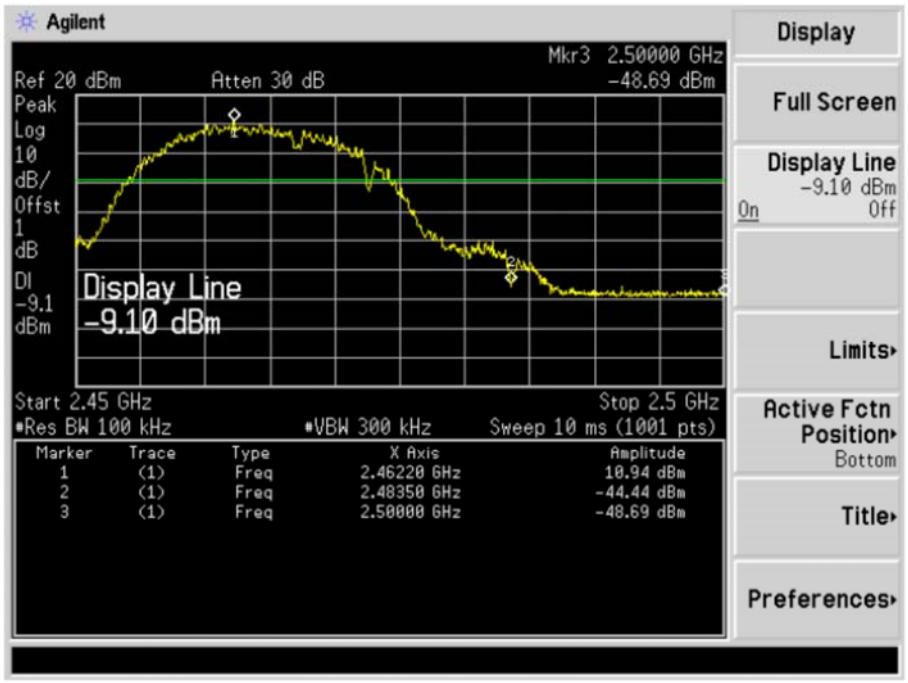


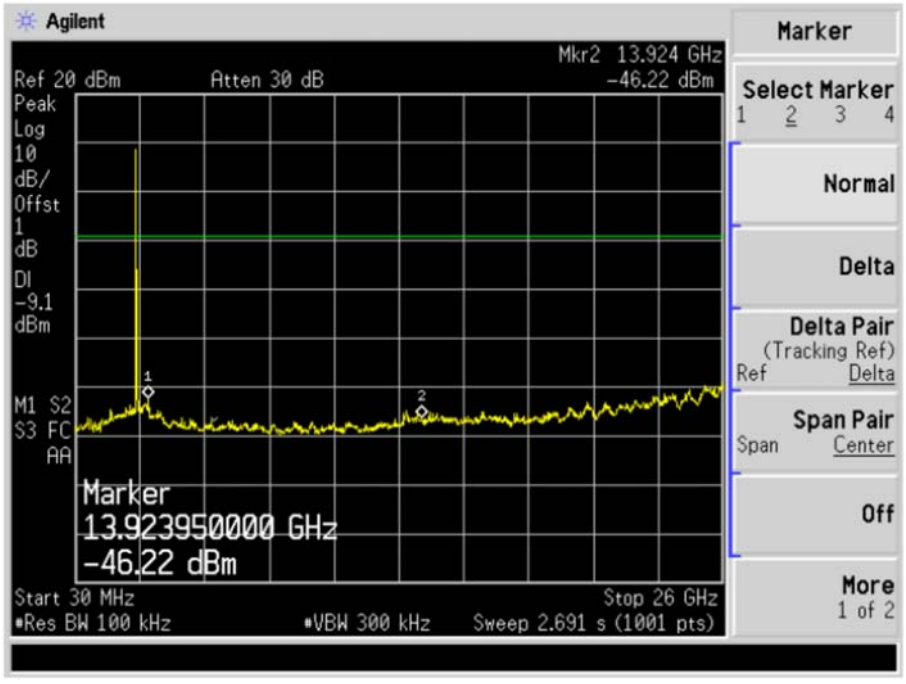
Middle


Agilent
Marker
Mkr1 2.4356 GHz
9.622 dBm
Ref 20 dBm
Atten 30 dB
Peak
Log
10
dB/
Offst
1
dB
Dl
-10.4
dBm
M1 S2
S3 FC
AA
Marker
2.435600000 GHz
9.622 dBm
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100 MHz
Sweep 10.36 ms (1001 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Delta
Span Pair
Span Center
Off
More
1 of 2


Agilent
Marker
Mkr2 25.403 GHz
-41.26 dBm
Ref 20 dBm
Atten 30 dB
Peak
Log
10
dB/
Offst
1
dB
Dl
-10.4
dBm
M1 S2
S3 FC
AA
Marker
25.402690000 GHz
-41.26 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26 GHz
Sweep 2.691 s (1001 pts)
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Delta
Span Pair
Span Center
Off
More
1 of 2

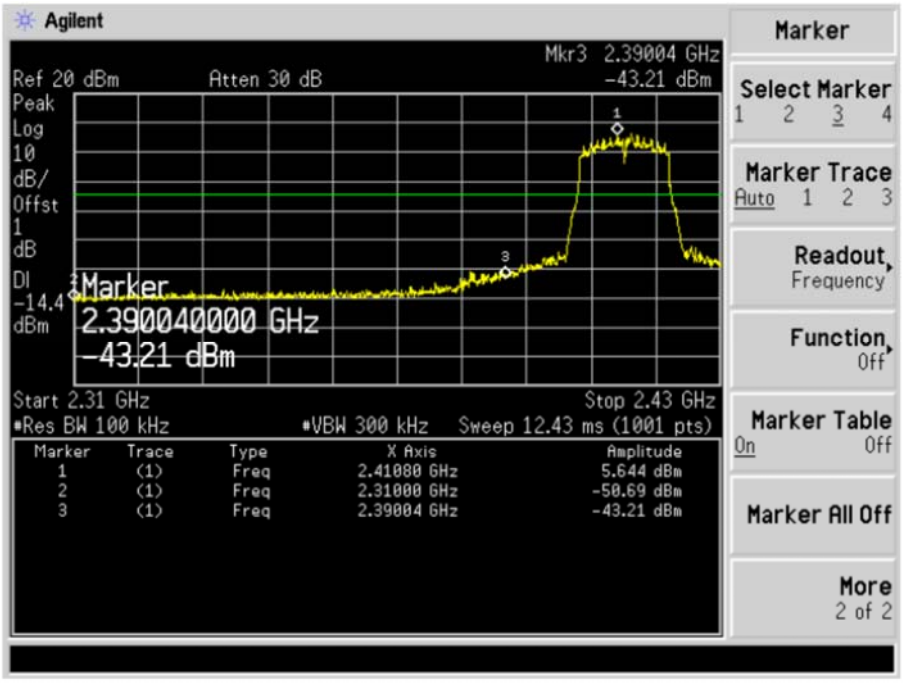
Highest

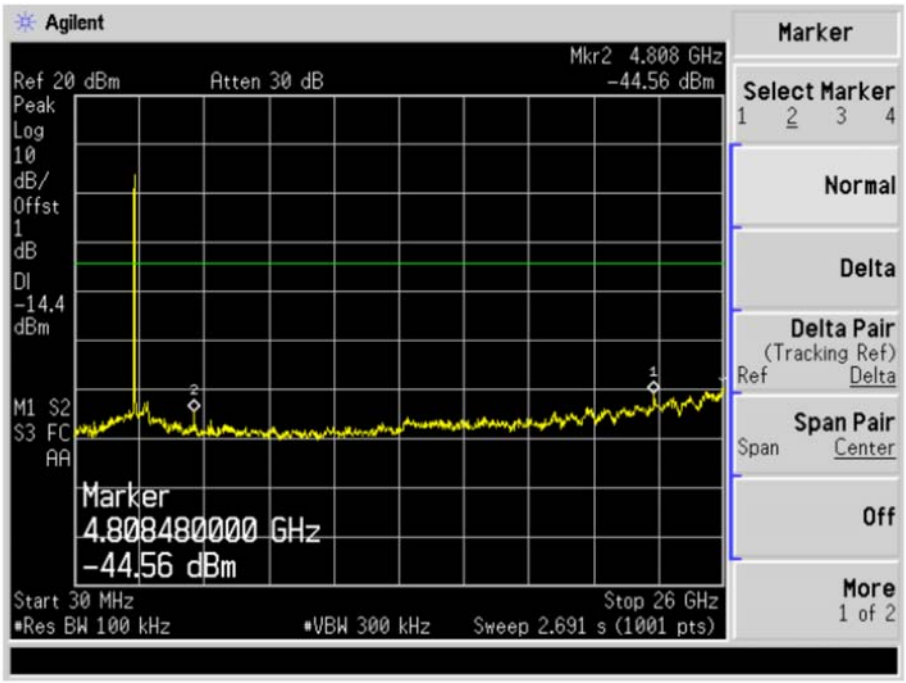

Agilent
Mkr3 2.50000 GHz
-48.69 dBm
Ref 20 dBm
Atten 30 dB
Peak
Log
10
dB/
Offst
1
dB
Dl
-9.1
dBm
Display Line
-9.10 dBm
Start 2.45 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.5 GHz
Sweep 10 ms (1001 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.46220 GHz 10.94 dBm
2 (1) Freq 2.48350 GHz -44.44 dBm
3 (1) Freq 2.50000 GHz -48.69 dBm
Display
Full Screen
Display Line
-9.10 dBm
On Off
Limits
Active Fctn
Position
Bottom
Title
Preferences


Agilent
Mkr2 13.924 GHz
-46.22 dBm
Ref 20 dBm
Atten 30 dB
Peak
Log
10
dB/
Offst
1
dB
Dl
-9.1
dBm
M1 S2
S3 FC
AA
Marker
13.923950000 GHz
-46.22 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26 GHz
Sweep 2.691 s (1001 pts)
Marker
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Delta
Span Pair
Span Center
Off
More
1 of 2

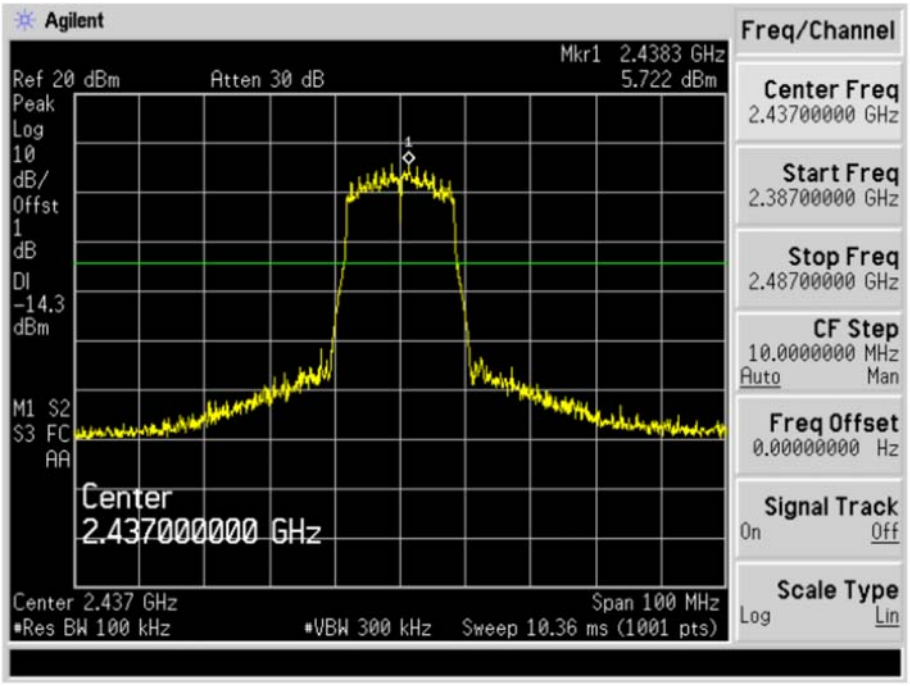
TX 802.11g Mode

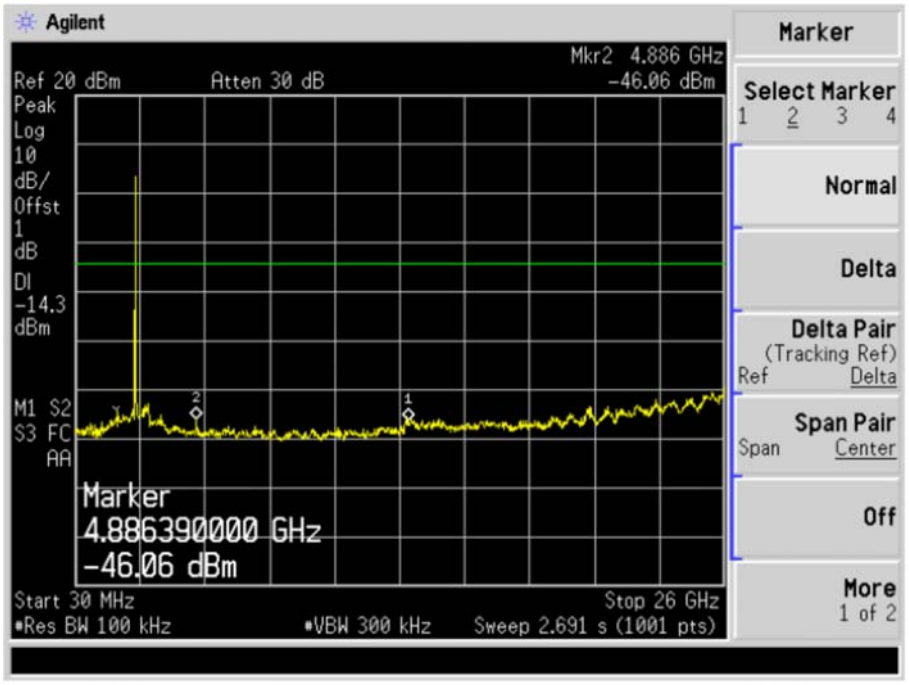
Lowest



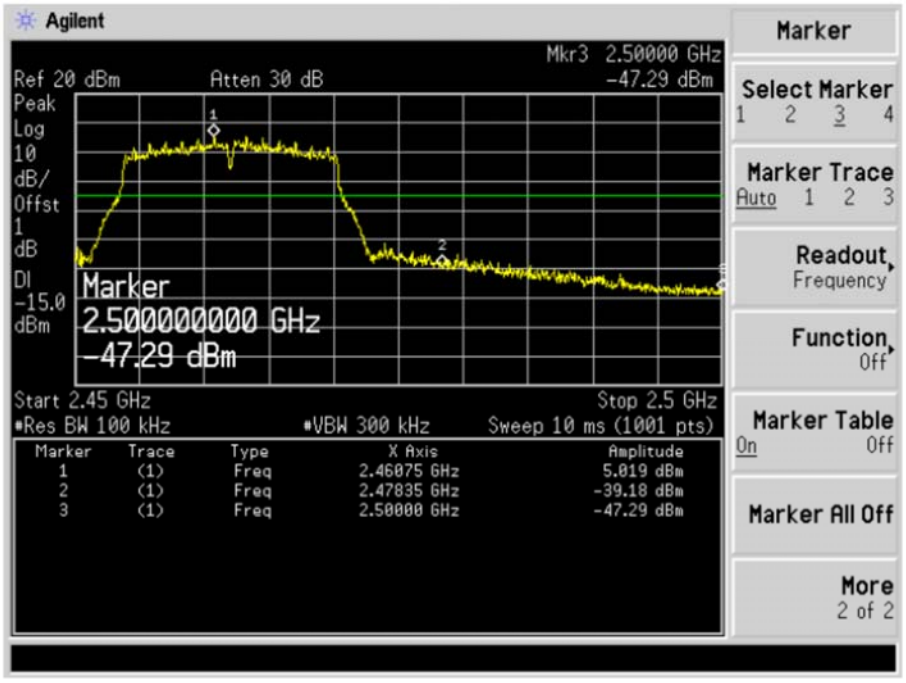


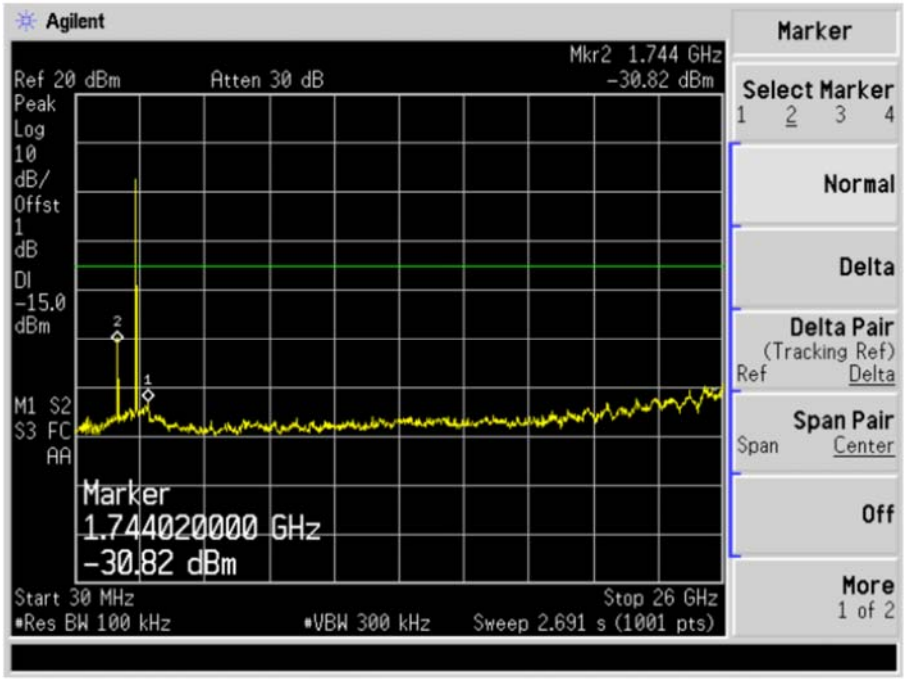
Middle


Agilent
Freq/Channel
Mkr1 2.4383 GHz
5.722 dBm
Ref 20 dBm
Atten 30 dB
Peak
Log
10
dB/
Offst
1
dB
Dl
-14.3
dBm
M1 S2
S3 FC
AA
Center
2.437000000 GHz
Center Freq
2.43700000 GHz
Start Freq
2.38700000 GHz
Stop Freq
2.48700000 GHz
CF Step
10.0000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Scale Type
Log Lin
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100 MHz
Sweep 10.36 ms (1001 pts)


Agilent
Marker
Mkr2 4.886 GHz
-46.06 dBm
Ref 20 dBm
Atten 30 dB
Peak
Log
10
dB/
Offst
1
dB
Dl
-14.3
dBm
M1 S2
S3 FC
AA
Marker
4.886390000 GHz
-46.06 dBm
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Delta
Span Pair
Span Center
Off
More
1 of 2
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26 GHz
Sweep 2.691 s (1001 pts)

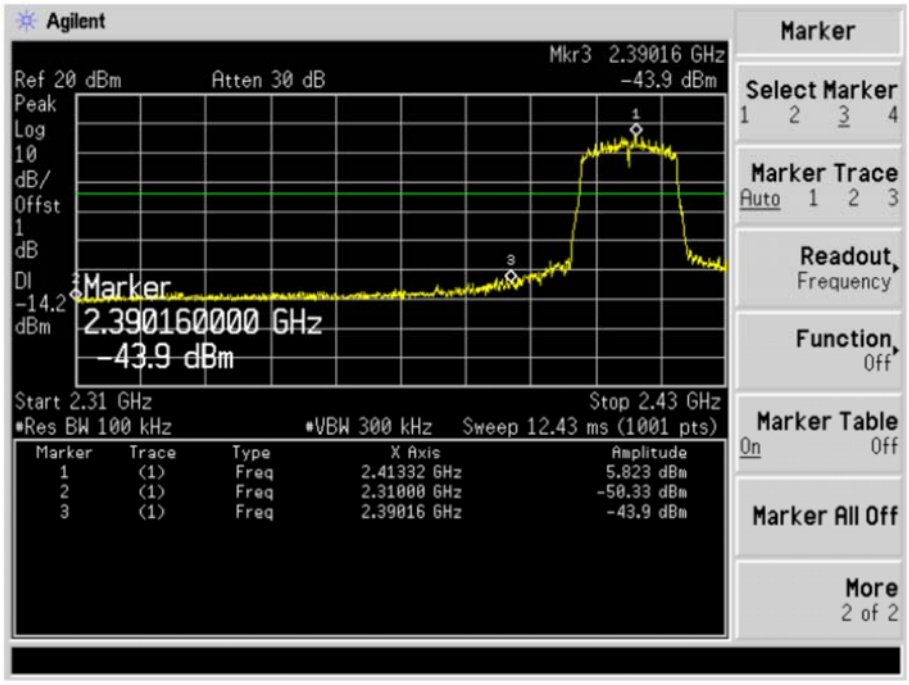
Highest

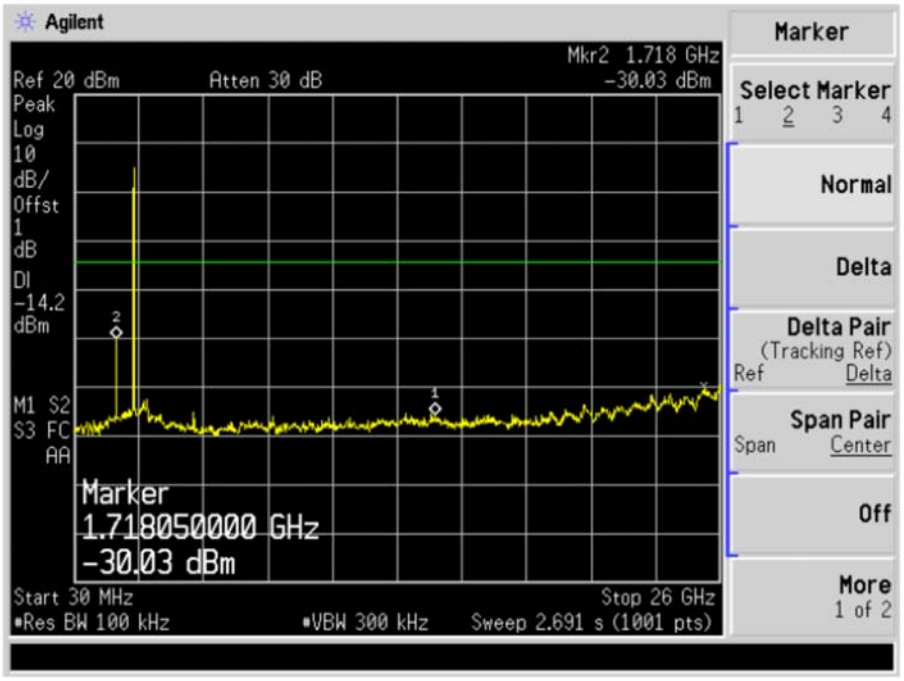

Agilent
Mkr3 2.50000 GHz
-47.29 dBm
Ref 20 dBm
Atten 30 dB
Peak
Log
10
dB/
Offst
1
dB
Dl
-15.0
dBm
Marker
2.500000000 GHz
-47.29 dBm
Start 2.45 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.5 GHz
Sweep 10 ms (1001 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.46075 GHz 5.019 dBm
2 (1) Freq 2.47835 GHz -39.18 dBm
3 (1) Freq 2.50000 GHz -47.29 dBm
Marker
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Function
Off
Marker Table
On Off
Marker All Off
More
2 of 2


Agilent
Mkr2 1.744 GHz
-30.82 dBm
Ref 20 dBm
Atten 30 dB
Peak
Log
10
dB/
Offst
1
dB
Dl
-15.0
dBm
M1 S2
S3 FC
AA
Marker
1.744020000 GHz
-30.82 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26 GHz
Sweep 2.691 s (1001 pts)
Marker
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Delta
Span Pair
Span Center
Off
More
1 of 2

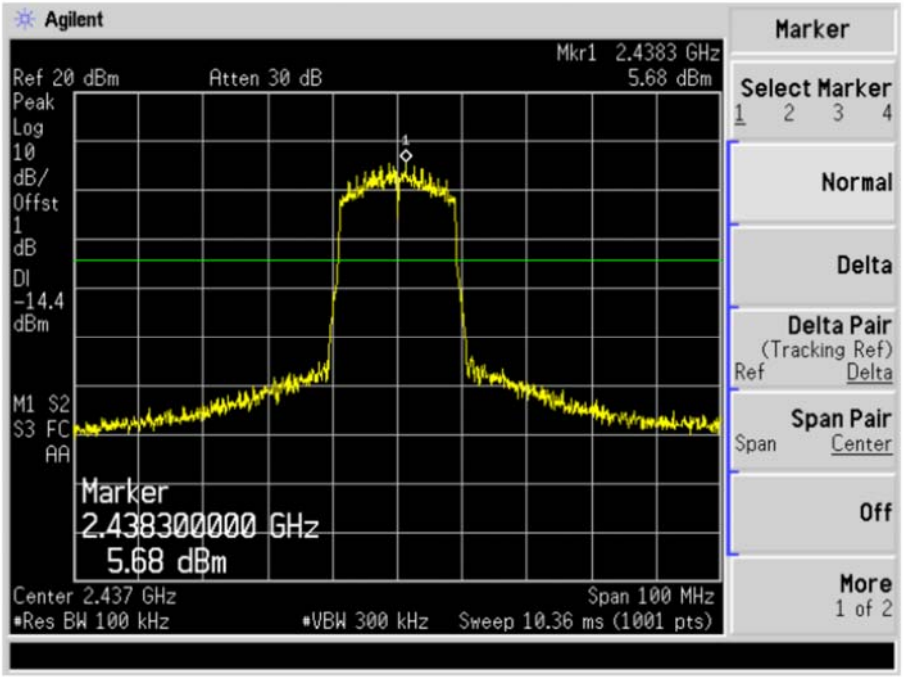
802.11n-HT20

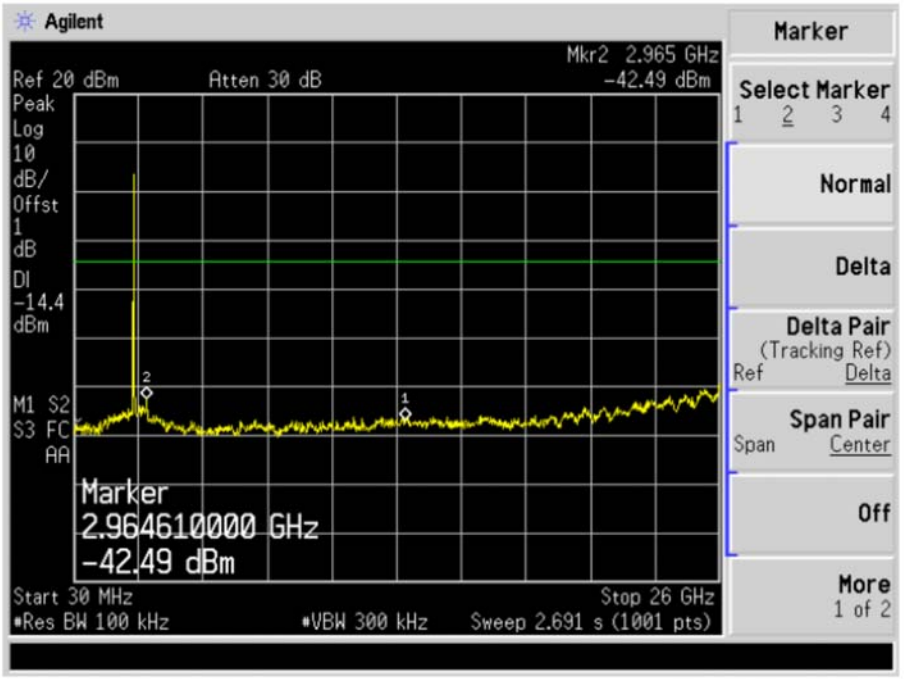
Lowest



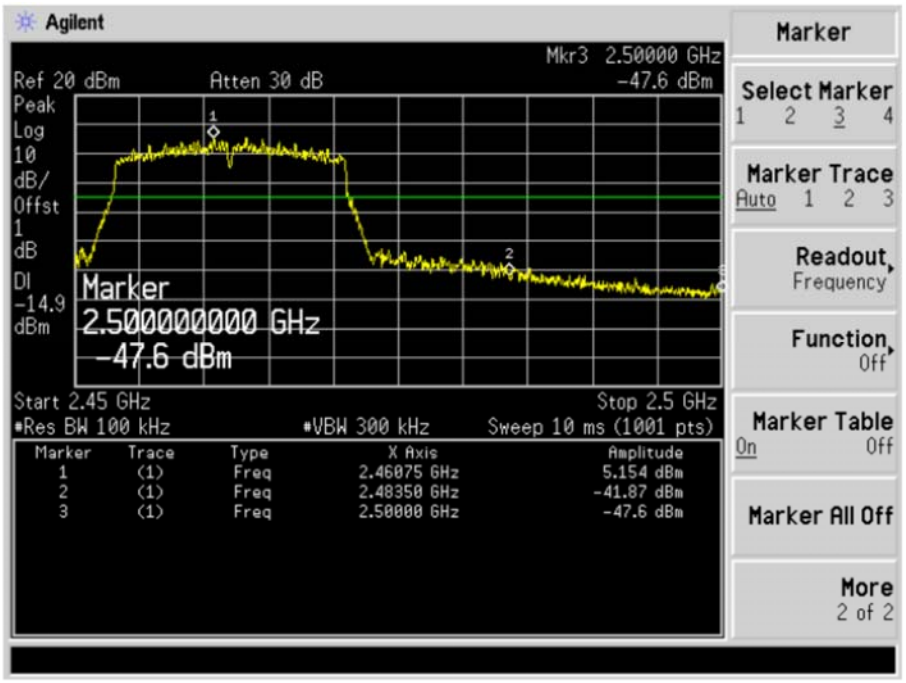


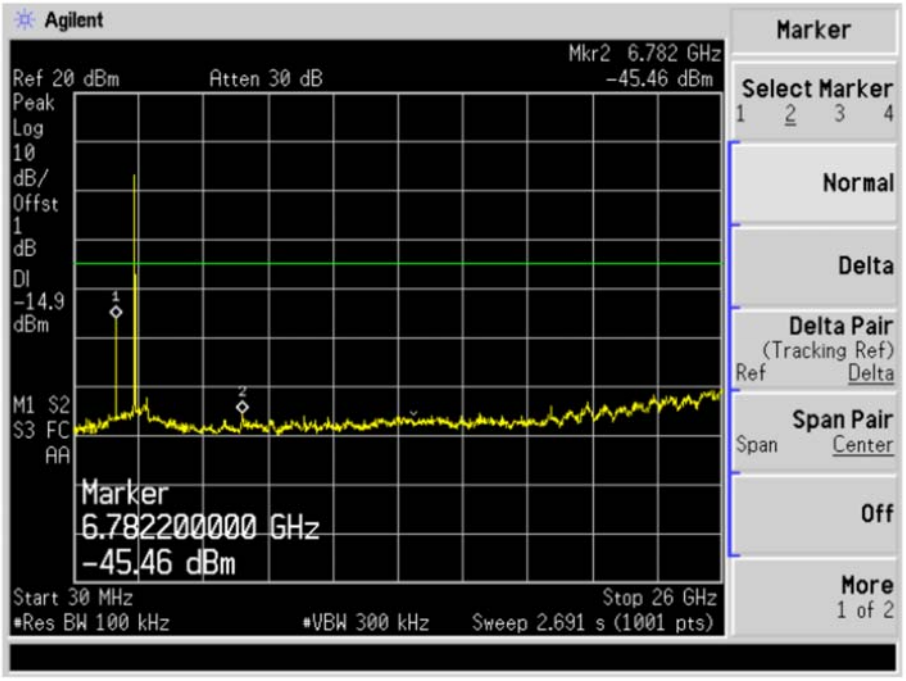
Middle


Agilent
Mkr1 2.4383 GHz
5.68 dBm
Ref 20 dBm
Atten 30 dB
Peak
Log
10
dB/
Offst
1
dB
Dl
-14.4
dBm
M1 S2
S3 FC
AA
Marker
2.438300000 GHz
5.68 dBm
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100 MHz
Sweep 10.36 ms (1001 pts)
Marker
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Delta
Span Pair
Span Center
Off
More
1 of 2


Agilent
Mkr2 2.965 GHz
-42.49 dBm
Ref 20 dBm
Atten 30 dB
Peak
Log
10
dB/
Offst
1
dB
Dl
-14.4
dBm
M1 S2
S3 FC
AA
Marker
2.964610000 GHz
-42.49 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26 GHz
Sweep 2.691 s (1001 pts)
Marker
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Delta
Span Pair
Span Center
Off
More
1 of 2

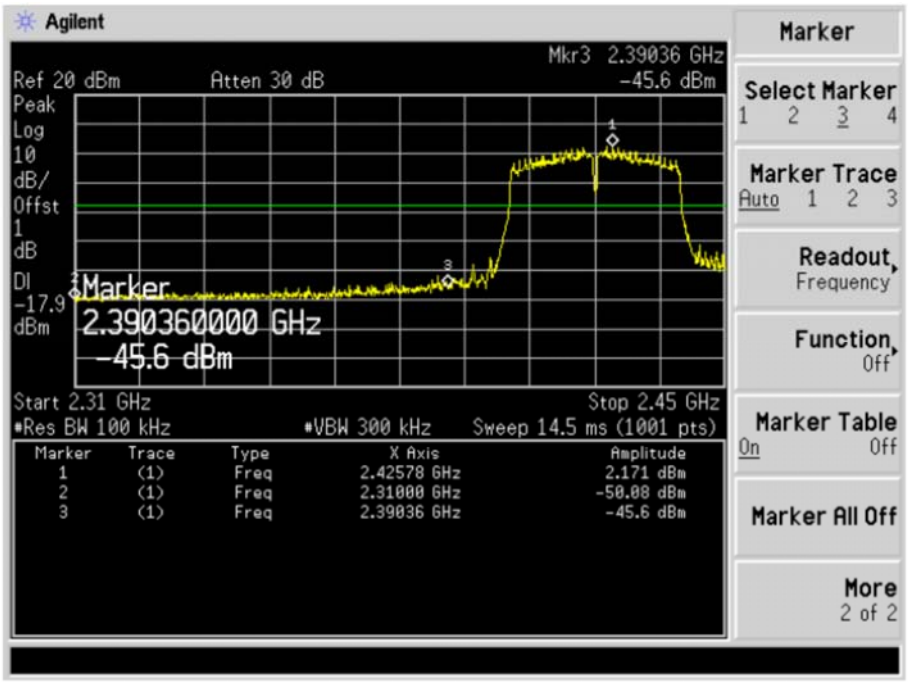
Highest

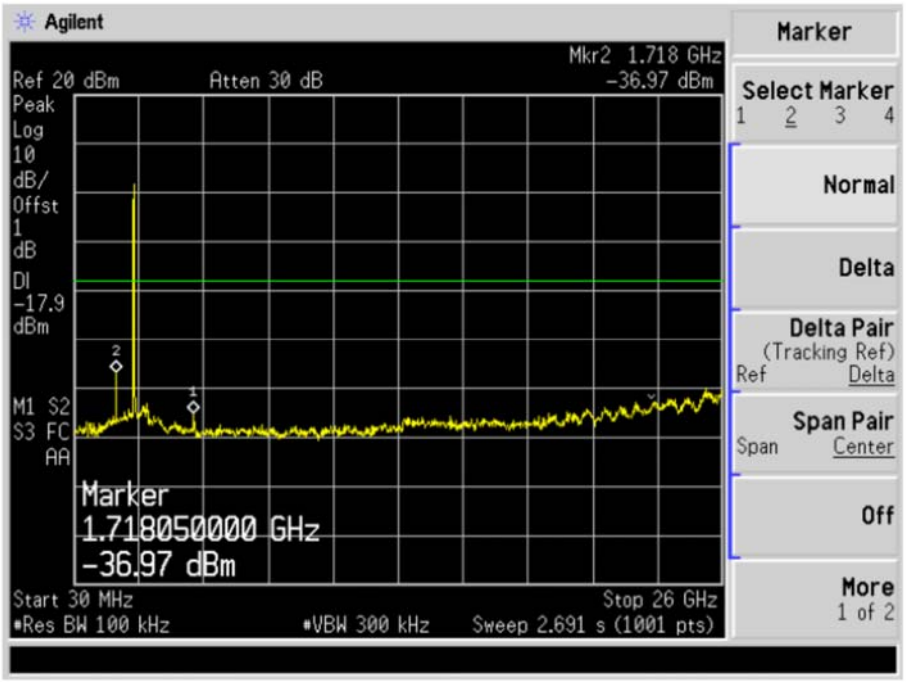

Agilent
Mkr3 2.50000 GHz
-47.6 dBm
Ref 20 dBm
Atten 30 dB
Peak
Log
10
dB/
Offst
1
dB
Dl
-14.9
dBm
Marker
2.500000000 GHz
-47.6 dBm
Start 2.45 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.5 GHz
Sweep 10 ms (1001 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.46075 GHz 5.154 dBm
2 (1) Freq 2.48350 GHz -41.87 dBm
3 (1) Freq 2.50000 GHz -47.6 dBm
Marker
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Function
Off
Marker Table
On Off
Marker All Off
More
2 of 2


Agilent
Mkr2 6.782 GHz
-45.46 dBm
Ref 20 dBm
Atten 30 dB
Peak
Log
10
dB/
Offst
1
dB
Dl
-14.9
dBm
M1 S2
S3 FC
AA
Marker
6.782200000 GHz
-45.46 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26 GHz
Sweep 2.691 s (1001 pts)
Marker
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Delta
Span Pair
Span Center
Off
More
1 of 2

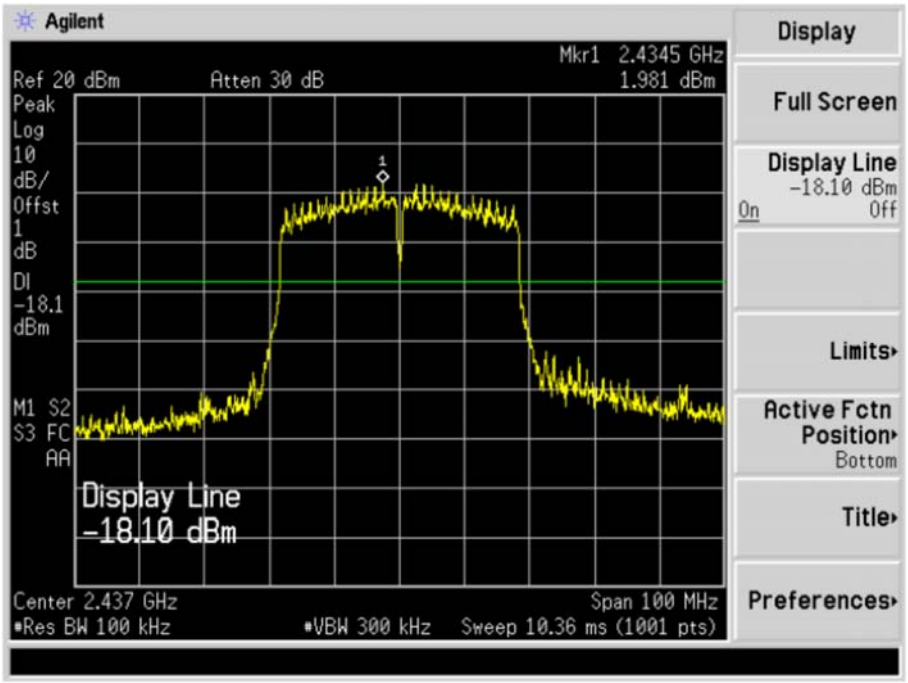
802.11n-HT40

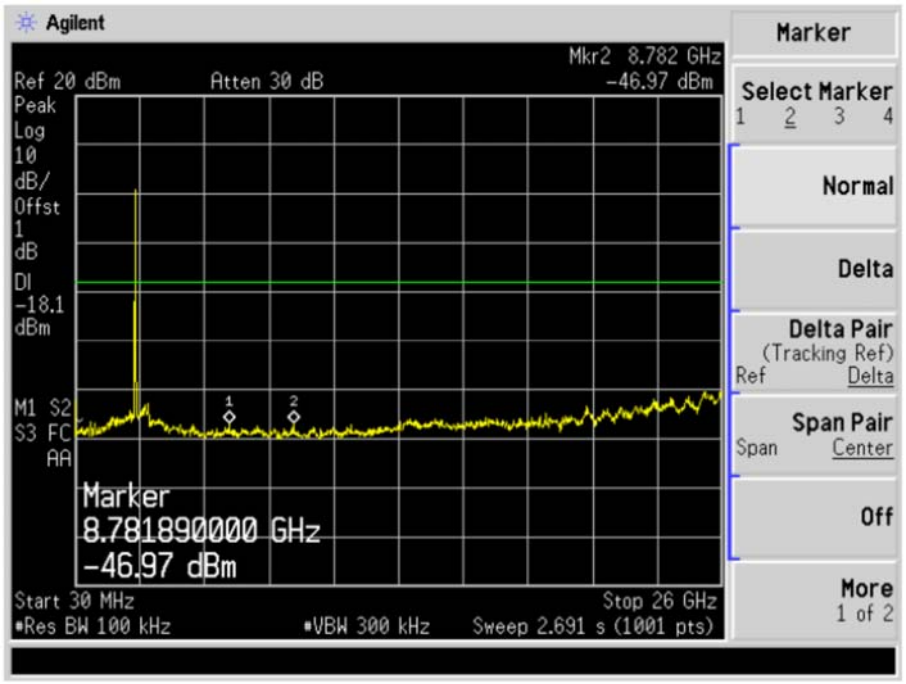
Lowest



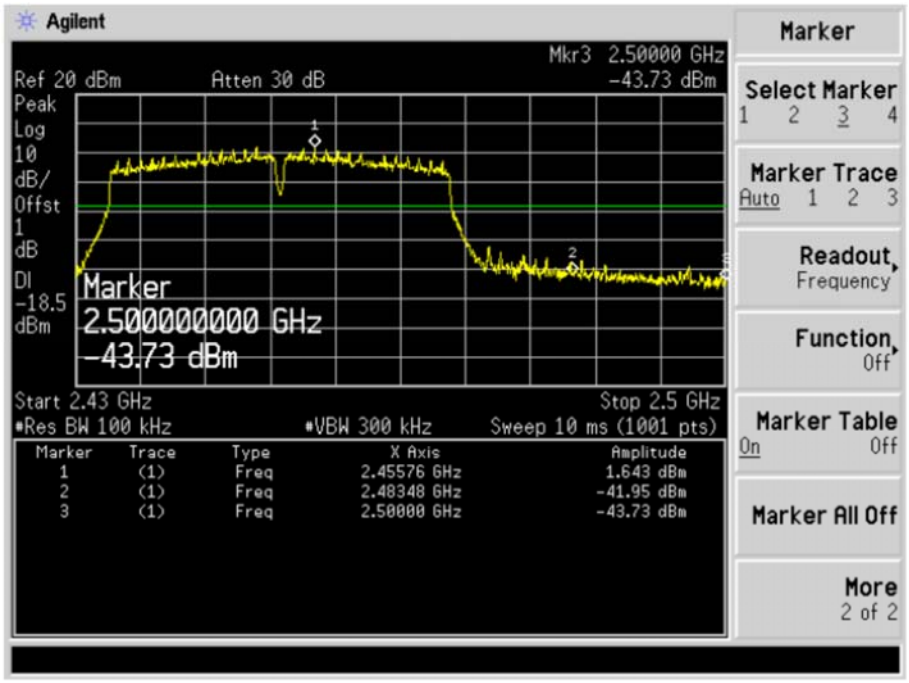


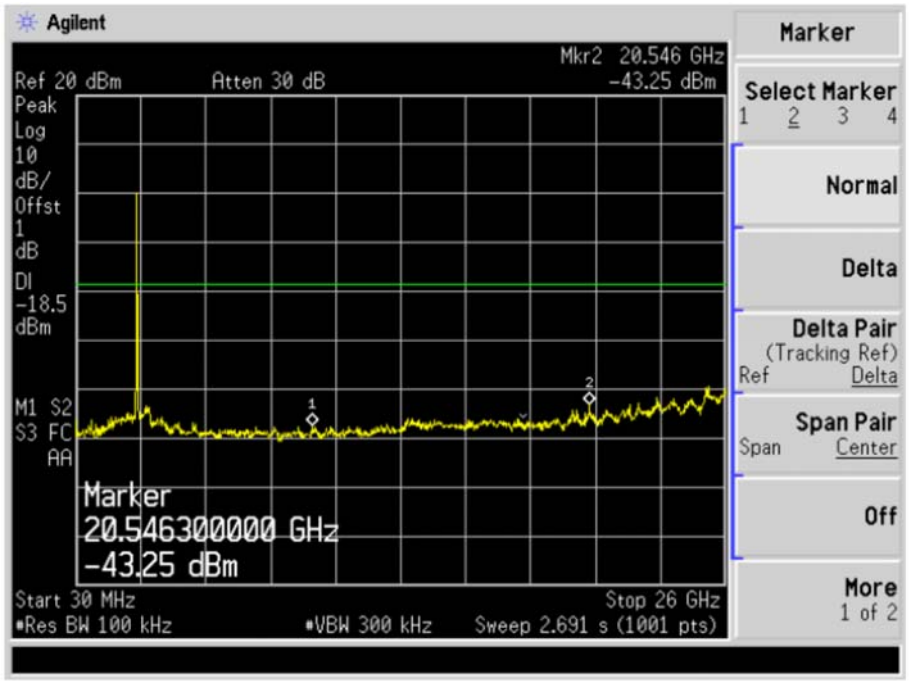
Middle


Agilent
Mkr1 2.4345 GHz
Ref 20 dBm
Atten 30 dB
1.981 dBm
Peak
Log
10
dB/
Offst
1
dB
Dl
-18.1
dBm
M1 S2
S3 FC
AA
Display Line
-18.10 dBm
Center 2.437 GHz
Span 100 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 10.36 ms (1001 pts)
Display
Full Screen
Display Line
-18.10 dBm
On
Off
Limits
Active Fctn
Position
Bottom
Title
Preferences


Agilent
Mkr2 8.782 GHz
Ref 20 dBm
Atten 30 dB
-46.97 dBm
Peak
Log
10
dB/
Offst
1
dB
Dl
-18.1
dBm
M1 S2
S3 FC
AA
Marker
8.781890000 GHz
-46.97 dBm
Start 30 MHz
Stop 26 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.691 s (1001 pts)
Marker
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Delta
Span Pair
Span
Center
Off
More
1 of 2

Highest


Agilent
Mkr3 2.50000 GHz
-43.73 dBm
Ref 20 dBm
Atten 30 dB
Peak
Log
10
dB/
Offst
1
dB
Dl
-18.5
dBm
Marker
2.500000000 GHz
-43.73 dBm
Start 2.43 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.5 GHz
Sweep 10 ms (1001 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.45576 GHz 1.643 dBm
2 (1) Freq 2.48348 GHz -41.95 dBm
3 (1) Freq 2.50000 GHz -43.73 dBm
Marker
Select Marker
1 2 3 4
Marker Trace
Auto 1 2 3
Readout
Frequency
Function
Off
Marker Table
On Off
Marker All Off
More
2 of 2


Agilent
Mkr2 20.546 GHz
-43.25 dBm
Ref 20 dBm
Atten 30 dB
Peak
Log
10
dB/
Offst
1
dB
Dl
-18.5
dBm
M1 S2
S3 FC
AA
Marker
20.546300000 GHz
-43.25 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26 GHz
Sweep 2.691 s (1001 pts)
Marker
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Delta
Span Pair
Span Center
Off
More
1 of 2

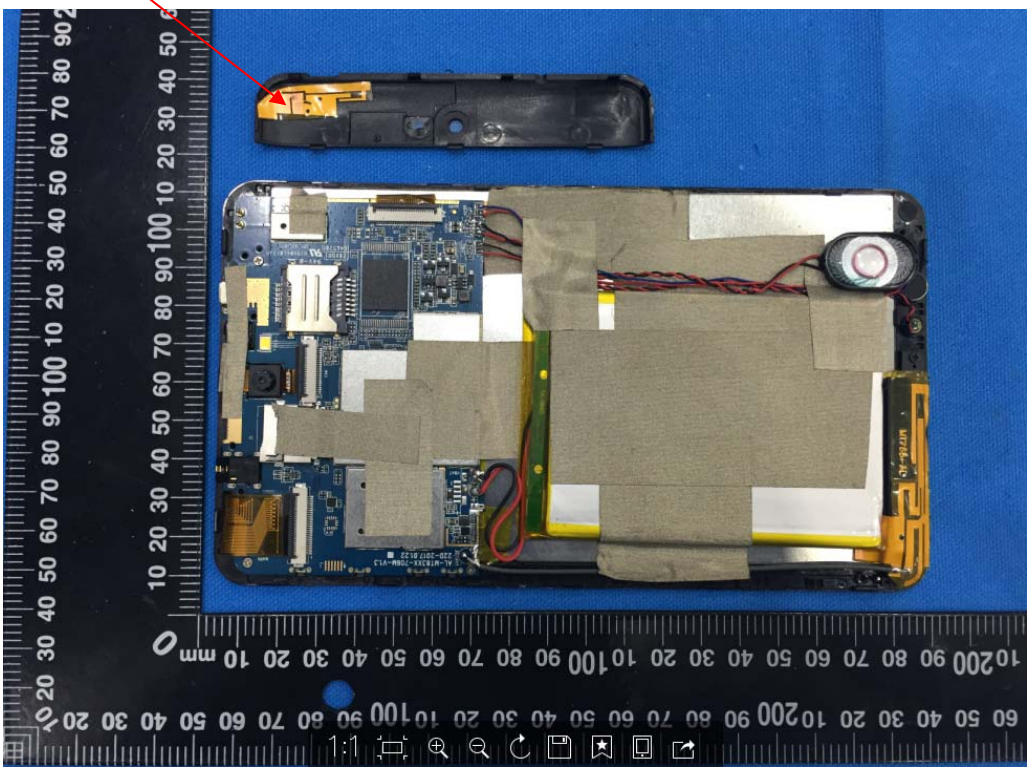
10 ANTENNA REQUIREMENT

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 15.249, 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.

Refer to statement below for compliance.
The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

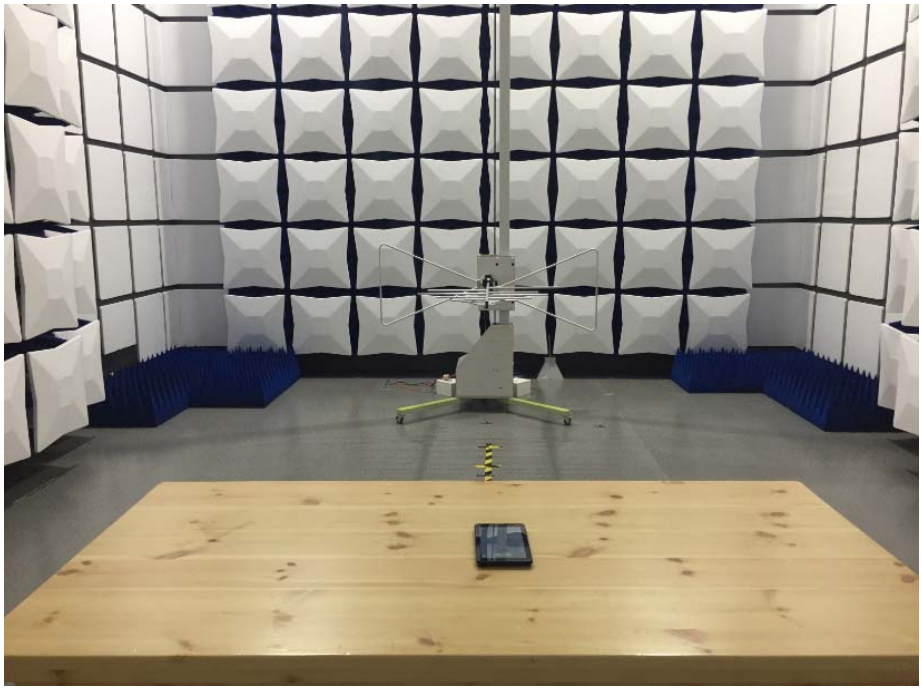
Antenna Connected Construction
The antenna used in this product is a Integral Antenna, The directional gains of antenna used for transmitting is 1dBi.

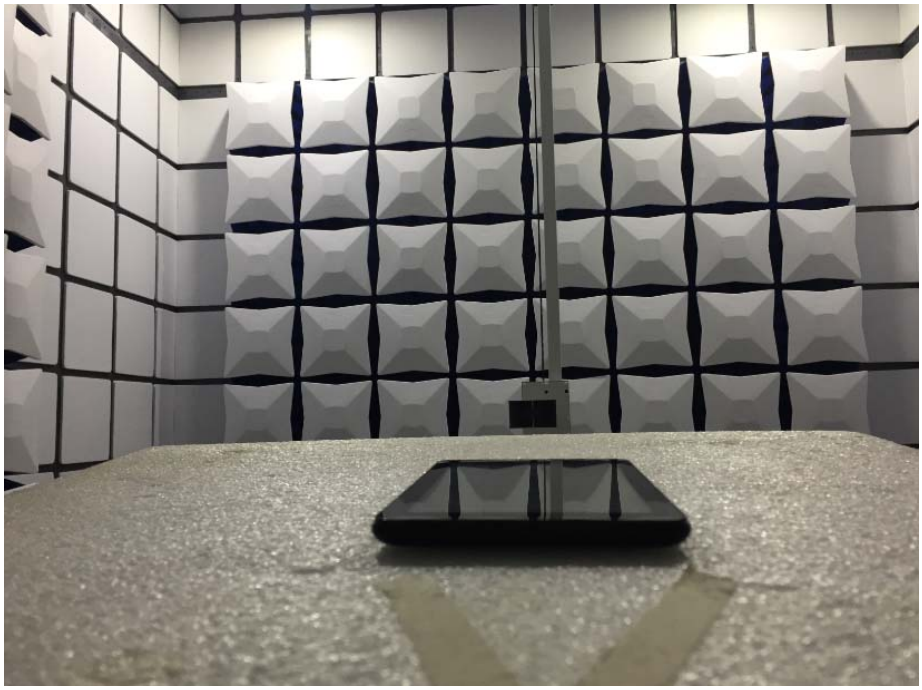
ANTENNA



11 PHOTOGRAPH OF TEST

11.1 Radiated Emission





11.2 Conducted Emission