FCC TEST REPORT
FCC ID: 2AKI2CVS-8383

Product	:	Car Digital Video Recorder
Model Name	:	CVS-8383,CVS-8397,CVS-8393,CVS-8505,CVS-8510,CVS-8511,CVS-8512,CVS-8513,CVS-8514,CVS-8509
Brand	:	12VOLT CAR
Report No.	:	PTC-DQ-02161111004E-FC01

Prepared for

12Volt Car INC

16040 Kaplan Ave, City of Industry,

CA 91744

Prepared by

DongGuan Precise Testing Service Co.,Ltd.

Building D, Baoding Technology Park, Guangming Road 2,

Dongcheng District, Dongguan, Guangdong, China, 523129

TEST RESULT CERTIFICATION

Applicant's name	:	12Volt Car INC
Address	:	16040 Kaplan Ave, City of Industry, CA 91744
Manufacture's name	:	Guangzhou Che Zhi Lian Electronics Co.,Ltd
Address	:	The third floor，No E-2 building，Longshan Industrial Zone，Longdong，Tianhe District，Guangzhou.China
Product name	:	Car Digital Video Recorder
Model name	:	CVS-8383,CVS-8397,CVS-8393,CVS-8505,CVS-8510,CVS-8511,CVS-8512,CVS-8513,CVS-8514,CVS-8509
Standards	:	FCC CFR47 Part 15 Section 15.247
Test procedure	:	ANSI C63.10:2013
Test Date	:	Nov.18, 2016 ~ Nov.22, 2016
Date of Issue	:	Nov.23, 2016
Test Result	:	Pass

This device described above has been tested by PTC, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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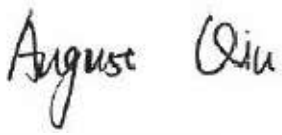
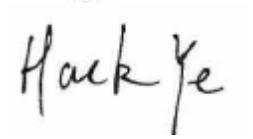
Testing Engineer

August Qiu



TechnicalManager

Hack Ye



AuthorizedSignatory

Chris Du

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1 Test Summary

Test Items	Test Requirement	Result
Conduct Emission	15.207	N/A
Radiated Spurious Emissions	15.205(a) 15.209 15.247(d)	PASS
Conducted Spurious Emission	15.247(d)	PASS
Band edge	15.247(d) 15.205(a)	PASS
6dB Bandwidth	15.247(a)(2)	PASS
Maximum Peak Output Power	15.247(b)(1)	PASS
Power Spectral Density	15.247(e)	PASS
Antenna Requirement	15.203	PASS
Remark: N/A: Not Applicable		

2 General Information

2.1 General Description of E.U.T.

Product Name	:	Car Digital Video Recorder
Model Name	:	CVS-8383,CVS-8397,CVS-8393,CVS-8505,CVS-8510,CVS-8511,CVS-8512,CVS-8513,CVS-8514,CVS-8509
Model Description	:	Only different in models name
Operating frequency	:	2412-2462MHz, 11channels
Antenna installation:	:	internal antenna
Antenna Gain:	:	WiFi: 0dBi
Type of Modulation		IEEE 802.11b CCK/QPSK/BPSK IEEE 802.11g BPSK/QPSK/16QAM/64QAM IEEE 802.11n-HT20 BPSK/QPSK/16QAM/64QAM
Power supply	:	DC 12V

2.2 Channel List

WIFI							
Channel No.	**Frequency (MHz)**	**Channel No.**	**Frequency (MHz)**	**Channel No.**	**Frequency (MHz)**	**Channel No.**	**Frequency (MHz)**
1	2412	4	2427	7	2442	10	2457
2	2417	5	2432	8	2447	11	2462
3	2422	6	2437	9	2452	/	/

2.3 Test Mode

All test mode(s) and condition(s) mentioned were considered and evaluated respectivelyby performing full tests,the worst data were recorded and reported.

Modulation	**Test mode**	**Low channel**	**Middle channel**	**High channel**
802.11b/g/n-HT20	Transmitting	2412MHz	2437MHz	2462MHz
Tests Carried Out Under FCC part 15.207				
Test Item		Test Mode		
Conduction Emission 0.15MHz to 30MHz		WIFI Communication		

2.4 Test size

DongGuan Precise Testing Service Co.,Ltd.

Add.: Building D,Baoding Technology Park,Guangming Road2, Dongcheng District, Dongguan, Guangdong, China, 523129

FCC Registration No.: 371540; IC Registration No.: 12191A

3 Equipment During Test

3.1 Equipments List

RF Conducted Test							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	EMC Analyzer (9k~26.5GHz)	Agilent	E4407B	MY45109572	Aug.04, 2016	Aug.03, 2017	1 year
2	EXA Signal Analyzer	Agilent	N9010A	MY50520207 526B25MPB W7X	Aug.04, 2016	Aug.03, 2017	1 year
3	EMI Test Receiver	R&S	ESCI	101155	July 15, 2016	July 14, 2017	1 year
4	Humidity Chamber	GF	GTH-225-40-1P	IAA061225	July 15, 2016	July 14, 2017	1 year
5	Temporary Antenna Connector	Murrata	MXHS83QE3000	201938	July 15, 2016	July 14, 2017	1 year
6	USB RF power sensor	DARE	RPR3006W	15I00041SNO01	July 15, 2016	July 14, 2017	1 year
7	Attenuator	Huber&Suhner	6810.18.B	757941	July 15, 2016	July 14, 2017	1 year
Radiated Emissions							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	EMI Test Receiver	Rohde&Schwarz	ESCI	101417	July 15, 2016	July 14, 2017	1 year
2	Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3355	July 15, 2016	July 14, 2017	1 year
3	Amplifier	EM	EM-30180	060538	July 15, 2016	July 14, 2017	1 year
4	Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1246	July 15, 2016	July 14, 2017	1 year
5	Horn Antenna	Schwarzbeck	BBHA 9170	9170-0741	July 15, 2016	July 14, 2017	1 year
6	Loop Antenna	SCHWARZBECK	FMZB1516	9130D-1243	July 15, 2016	July 14, 2017	1 year

7	3m Anechoic Chamber	CHENGYU	966	PTC-002	June 6, 2016	June 5, 2017	1 year
8	Coaxial Cable(below 1GHz)	LARGE	CALB1	-	July 15, 2016	July 14, 2017	1 year
9	Coaxial Cable(above 1GHz)	LARGE	CALB2	-	July 15, 2016	July 14, 2017	1 year
Conducted Emissions							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	EMI Test Receiver	R&S	ESCI	101155	July 15, 2016	July 14, 2017	1 year
2	LISN	SCHWARZBECK	NSLK 8128	8128-289	July 15, 2016	July 14, 2017	1 year
3	Cable	LARGE	RF300	-	July 15, 2016	July 14, 2017	1 year

3.2 Description of Support Units

Equipment	Manufacturer	Model No.	Series No.
Note Book	Sony	PCG-51111T	X16-96081
AC Adapter	Sony	NSW24063	SNPA-1900-11SY
AC power line(1.0m)	Cold come	JYD-20	C-2201

3.3 Measurement Uncertainty

Parameter	**Uncertainty**
RF output power, conducted	±1.0dB
Power Spectral Density, conducted	±2.2dB
Radio Frequency	± 1 x 10^{-6}
Bandwidth	± 1.5 x 10^{-6}
Time	±2%
Duty Cycle	±2%
Temperature	±1°C
Humidity	±5%
DC and low frequency voltages	±3%
Conducted Emissions(150kHz~30MHz)	±3.64dB
Radiated Emission(30MHz~1GHz)	±5.03dB
Radiated Emission(1GHz~25GHz)	±4.74dB

4 Conducted Emission

Test Requirement:	:	FCC CFR 47 Part 15 Section 15.207
Test Method:	:	ANSI C63.4:2014
Test Result:	:	PASS
FrequencyRange:	:	150kHz to 30MHz
Class/Severity:	:	Class B
Limit:	:	66-56 dBμV between 0.15MHz & 0.5MHz
	:	56 dBμV between 0.5MHz & 5MHz
	:	60 dBμV between 5MHz & 30MHz
Detector:	:	Peak for pre-scan(9kHz Resolution Bandwidth)

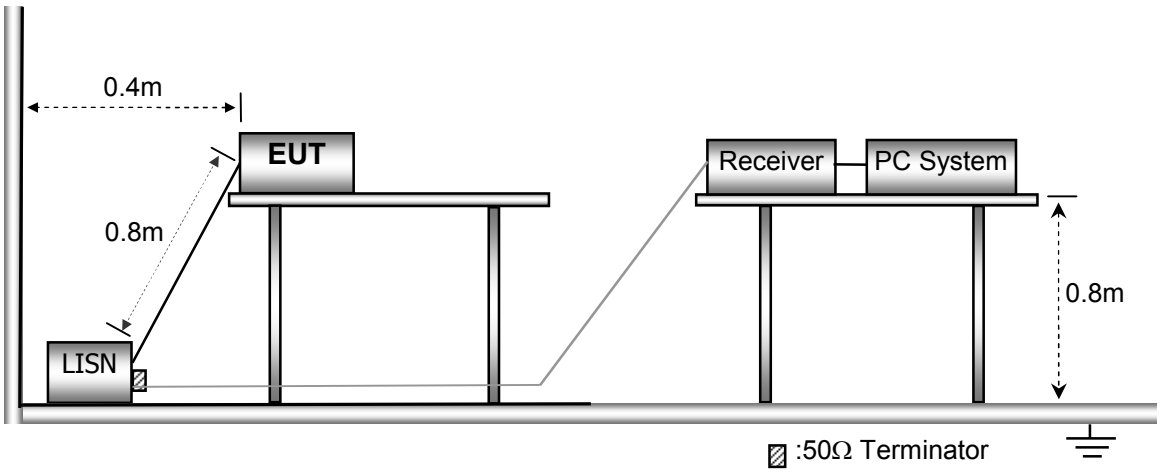
4.1 E.U.T. Operation

Operating Environment:

Temperature:	:	25.5 °C
Humidity:	:	51 % RH
Atmospheric Pressure:	:	101.2kPa
EUT Operation:	:	Refer to section 3.3

4.2 EUT Setup

The conducted emission tests were performed using the setup accordance with the ANSI C63.10:2013.



4.3 Measurement Description

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

4.4 Conducted Emission Test Result

Remark: Battery power, do not apply

5 Radiated Spurious Emissions

Test Requirement: : FCC CFR47 Part 15 Section 15.209 & 15.247

Test Method: : ANSI C63.10:2013

Test Result: : PASS

Measurement Distance: : 3m

Limit: : See the follow table

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	2400/F(kHz)	300	10000 * 2400/F(kHz)	$20\log^{(2400/F(kHz))}$ + 80
0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	$20\log^{(24000/F(kHz))}$ + 40
1.705 ~ 30	30	30	100 * 30	$20\log^{(30)}$ + 40
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

5.1 EUT Operation

Operating Environment :

Temperature: : 23.5 °C

Humidity: : 51.1 % RH

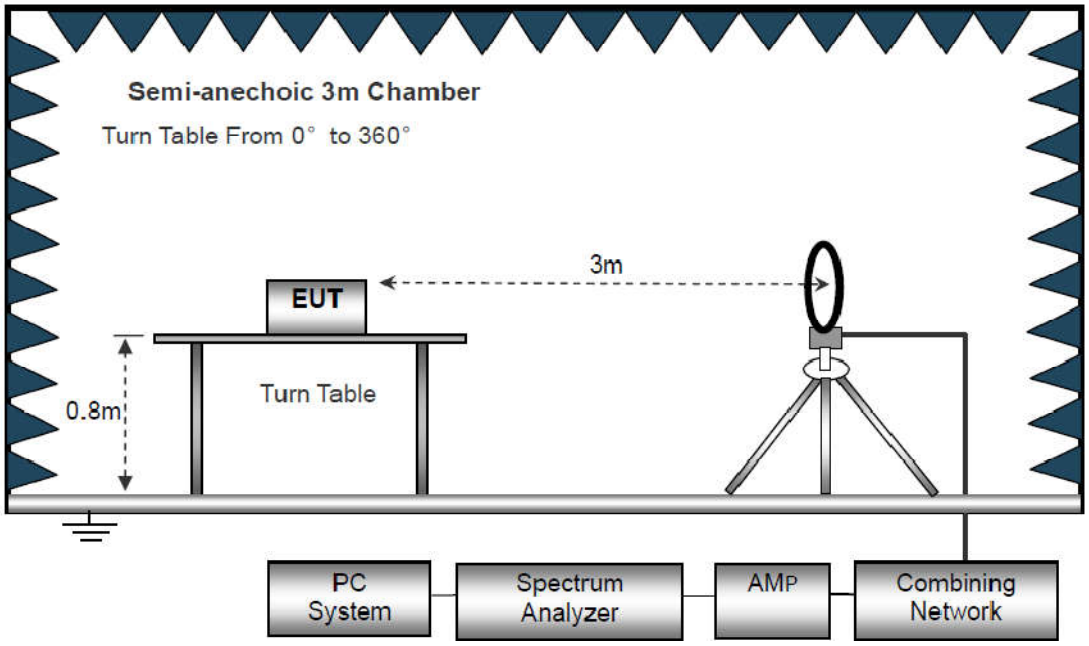
Atmospheric Pressure: : 101.2kPa

EUT Operation : : Refer to section 3.3

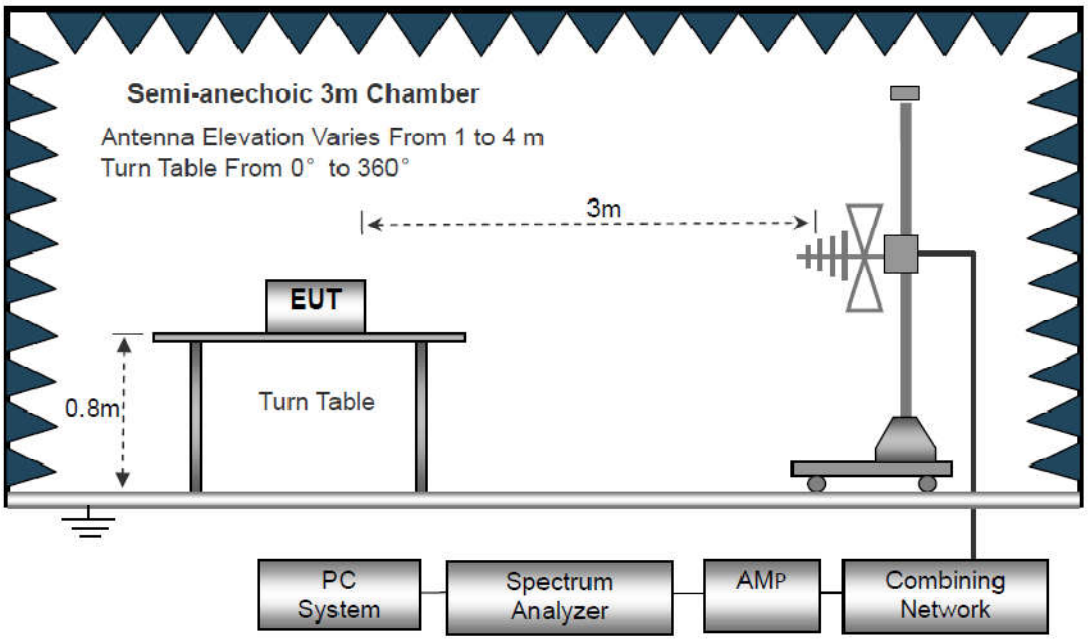
5.2 Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber testsite

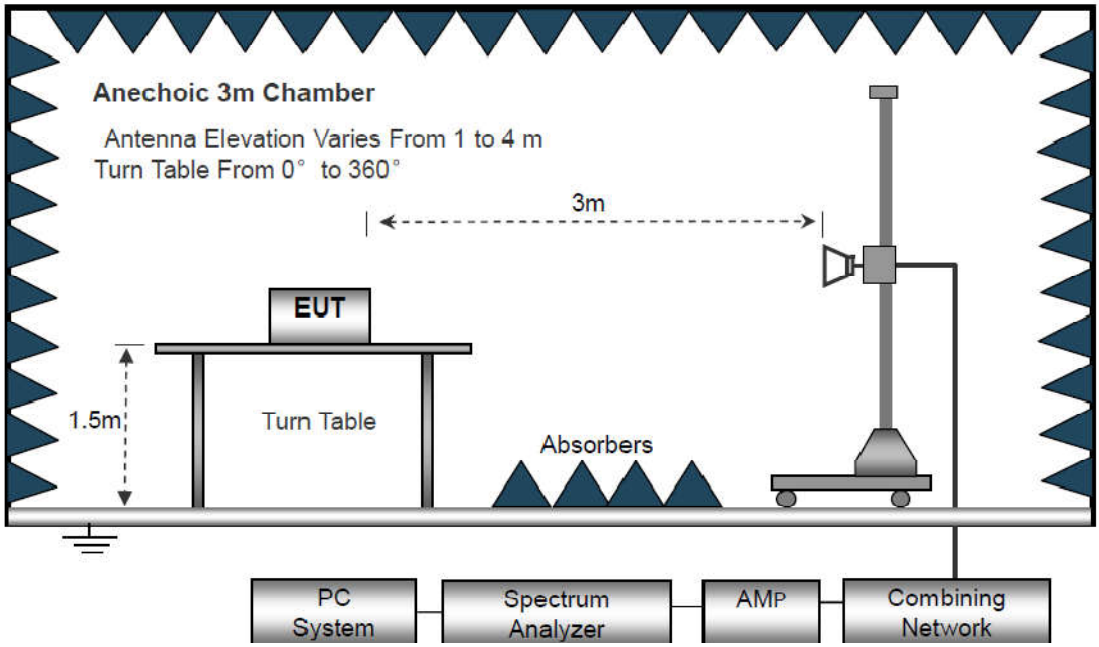
The test setup for emission measurement below 30MHz



The test setup for emission measurement from 30 MHz to 1 GHz.



The test setup for emission measurement above 1 GHz



5.3 Spectrum Analyzer Setup

Below 30MHz

IF Bandwidth		10kHz
Resolution Bandwidth		10kHz
Video Bandwidth		10kHz

30MHz ~ 1GHz

Detector	:	PK
Resolution Bandwidth	:	100kHz
Video Bandwidth	:	300kHz
Detector	:	QP
Resolution Bandwidth	:	120kHz
Video Bandwidth	:	300kHz

Above 1GHz

Detector	:	PK
Resolution Bandwidth	:	1MHz
Video Bandwidth	:	3MHz
Detector	:	RMS
Resolution Bandwidth	:	1MHz
Video Bandwidth	:	3MHz

5.4 Test Procedure

1. The EUT is placed on a turntable, which is 0.8m above ground plane for below 1GHz and 1.5m forabove 1GHz.

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 moved from 1m to 4m to find out the maximum emissions. The spectrum was investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up tothe tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

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 radiation measurements are tested under 3-axes(X,Y,Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the X position. So the data shown was the X position only.

8.The test above 1GHz must be use the fully anechoic room, and the test below 1GHz use the halfanechoic room

5.5 Summary ofTest Results

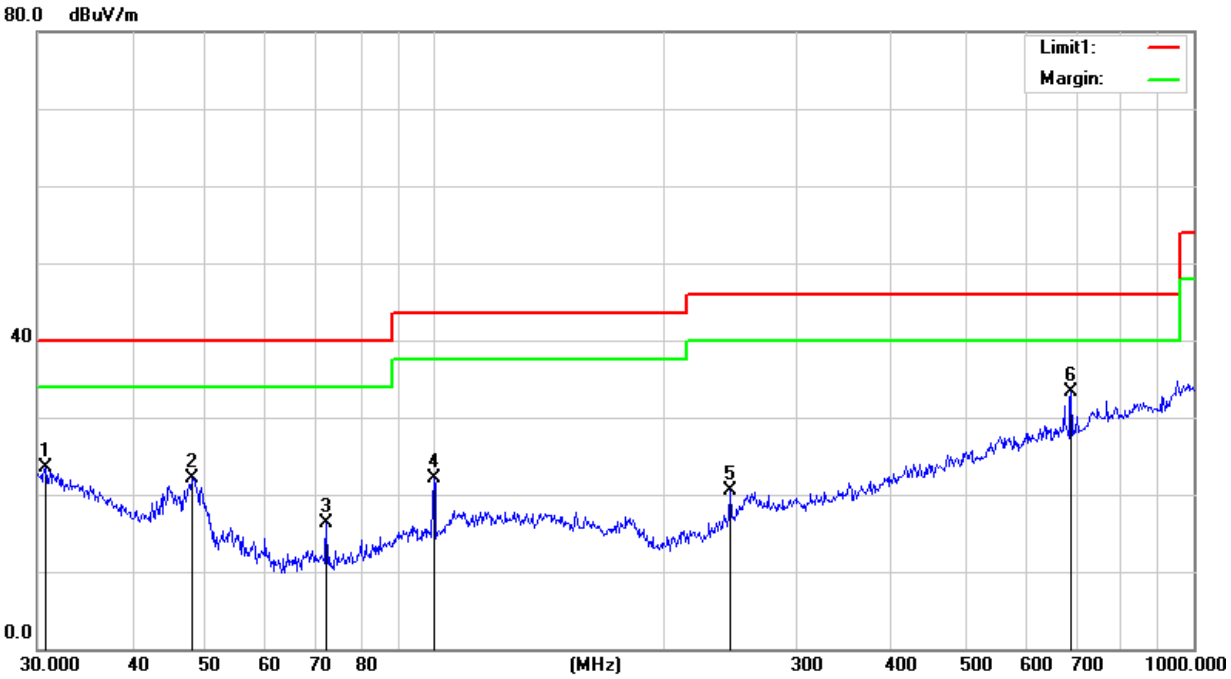
Test Frequency: Below 30MHz

The measurements were more than 20 dB below the limit and not reported.

Test Frequency: 30MHz ~ 1GHz

All applicable test modes have been tested and only the worst case (802.11b TX in middle channel) is recorded.

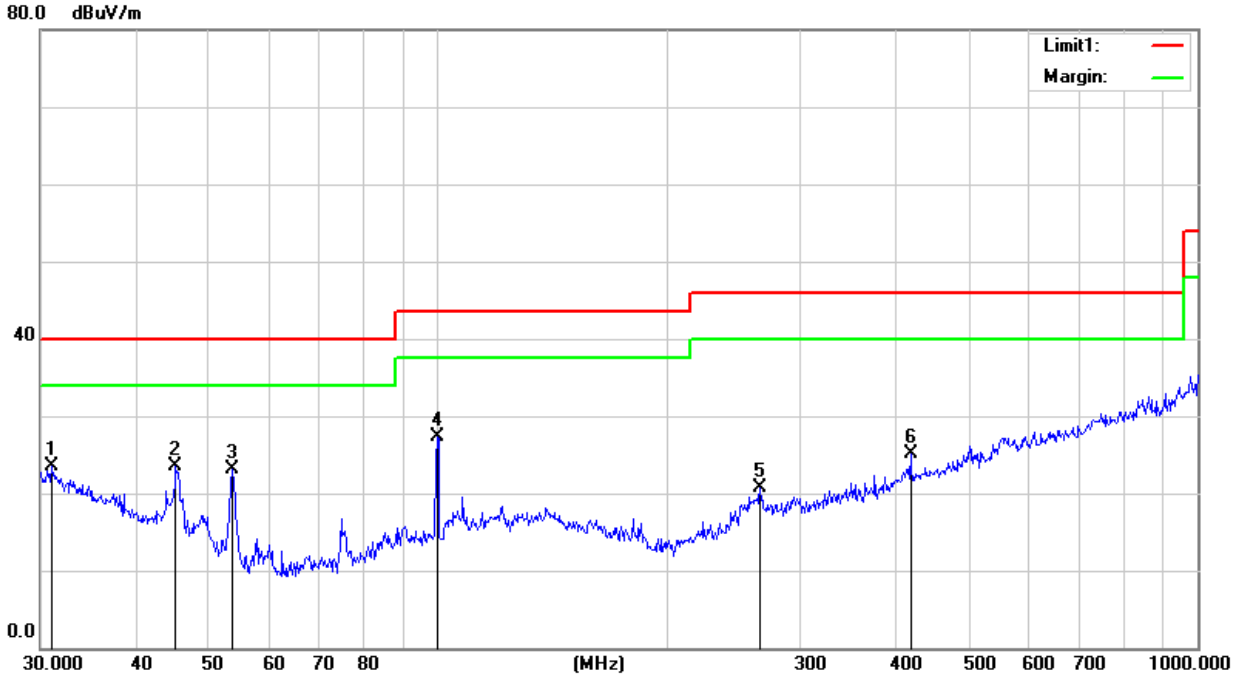
Antenna Polarization: Horizontal



Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
30.7455	5.13	18.32	23.45	40.00	-16.55	QP
47.9940	12.85	9.16	22.01	40.00	-17.99	QP
72.0843	9.71	6.65	16.36	40.00	-23.64	QP
99.8777	11.41	10.70	22.11	43.50	-21.39	QP
245.0900	7.66	12.84	20.50	46.00	-25.50	QP
689.5644	9.98	23.36	33.34	46.00	-12.66	QP

Remark:Emission Level=Receiver Reading+Cable Loss+ANT Factor-AMP Factor

Antenna Polarization: Vertical



Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
31.0706	5.28	18.15	23.43	40.00	-16.57	QP
45.2166	12.95	10.64	23.59	40.00	-16.41	QP
53.6932	16.39	6.69	23.08	40.00	-16.92	QP
99.8777	16.54	10.70	27.24	43.50	-16.26	QP
265.6757	5.73	14.90	20.63	46.00	-25.37	QP
419.1081	6.34	18.77	25.11	46.00	-20.89	QP

Remark:Emission Level=Receiver Reading+Cable Loss+ANT Factor-AMP Factor

Test Frequency: 1GHz ~ 18GHz

Above 1000 MHz										
Frequency (MHz)	Meter Reading (dBμV)	Amplifier （dB）	Loss （dB）	Antenna Factor （dB/m）	Orrected Factor （dB）	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
Low Channel 11b(2412 MHz)										
3264.70	48.06	44.70	6.70	28.20	-9.80	38.26	74.00	-35.74	PK	Vertical
3264.70	38.65	44.70	6.70	28.20	-9.80	28.85	54.00	-25.15	AV	Vertical
3264.57	48.00	44.70	6.70	28.20	-9.80	38.20	74.00	-35.80	PK	Horizontal
3264.57	37.93	44.70	6.70	28.20	-9.80	28.13	54.00	-25.87	AV	Horizontal
4824.29	58.61	44.20	9.04	31.60	-3.56	55.05	74.00	-18.95	PK	Vertical
4824.29	38.61	44.20	9.04	31.60	-3.56	35.05	54.00	-18.95	AV	Vertical
4824.39	59.36	44.20	9.04	31.60	-3.56	55.80	74.00	-18.20	PK	Horizontal
4824.39	38.11	44.20	9.04	31.60	-3.56	34.55	54.00	-19.45	AV	Horizontal
5359.76	45.05	44.20	9.86	32.00	-2.34	42.71	74.00	-31.29	PK	Vertical
5359.76	38.06	44.20	9.86	32.00	-2.34	35.72	54.00	-18.28	AV	Vertical
5359.61	46.34	44.20	9.86	32.00	-2.34	44.00	74.00	-30.00	PK	Horizontal
5359.61	38.26	44.20	9.86	32.00	-2.34	35.92	54.00	-18.08	AV	Horizontal
7235.93	51.97	43.50	11.40	35.50	3.40	55.37	74.00	-18.63	PK	Vertical
7235.93	32.89	43.50	11.40	35.50	3.40	36.29	54.00	-17.71	AV	Vertical
7235.71	50.85	43.50	11.40	35.50	3.40	54.25	74.00	-19.75	PK	Horizontal
7235.71	32.52	43.50	11.40	35.50	3.40	35.92	54.00	-18.08	AV	Horizontal
11035.93	40.97	43.60	14.30	39.50	10.20	51.17	74.00	-22.83	PK	Vertical
11035.93	29.93	43.60	14.30	39.50	10.20	40.13	54.00	-13.87	AV	Vertical
11036.03	40.56	43.60	14.30	39.50	10.20	50.76	74.00	-23.24	PK	Horizontal
11036.03	30.50	43.60	14.30	39.50	10.20	40.70	54.00	-13.30	AV	Horizontal
13299.15	39.85	42.60	15.90	38.90	12.20	52.05	74.00	-21.95	PK	Vertical
13299.15	28.54	42.60	15.90	38.90	12.20	40.74	54.00	-13.26	AV	Vertical
13299.46	39.88	42.60	15.90	38.90	12.20	52.08	74.00	-21.92	PK	Horizontal
13299.46	29.72	42.60	15.90	38.90	12.20	41.92	54.00	-12.08	AV	Horizontal
15999.83	40.17	42.70	18.00	37.10	12.40	52.57	74.00	-21.43	PK	Vertical
15999.83	28.64	42.70	18.00	37.10	12.40	41.04	54.00	-12.96	AV	Vertical
15999.66	40.02	42.70	18.00	37.10	12.40	52.42	74.00	-21.58	PK	Horizontal
15999.66	29.78	42.70	18.00	37.10	12.40	42.18	54.00	-11.82	AV	Horizontal
17997.71	30.41	42.70	19.40	46.50	23.20	53.61	74.00	-20.39	PK	Vertical
17997.71	19.34	42.70	19.40	46.50	23.20	42.54	54.00	-11.46	AV	Vertical
17997.79	30.74	42.70	19.40	46.50	23.20	53.94	74.00	-20.06	PK	Horizontal
17997.79	18.84	42.70	19.40	46.50	23.20	42.04	54.00	-11.96	AV	Horizontal

Above 1000 MHz										
Frequency (MHz)	Meter Reading (dBμV)	Amplifier （dB）	Loss （dB）	Antenna Factor （dB/m）	Orrected Factor （dB）	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
Low Channel 11b(2437 MHz)										
3264.75	49.07	44.70	6.70	28.20	-9.80	39.27	74.00	-34.73	PK	Vertical
3264.75	38.98	44.70	6.70	28.20	-9.80	29.18	54.00	-24.82	AV	Vertical
3264.83	48.62	44.70	6.70	28.20	-9.80	38.82	74.00	-35.18	PK	Horizontal
3264.83	39.17	44.70	6.70	28.20	-9.80	29.37	54.00	-24.63	AV	Horizontal
4874.31	58.89	44.20	9.04	31.60	-3.56	55.33	74.00	-18.67	PK	Vertical
4874.31	39.53	44.20	9.04	31.60	-3.56	35.97	54.00	-18.03	AV	Vertical
4874.51	59.10	44.20	9.04	31.60	-3.56	55.54	74.00	-18.46	PK	Horizontal
4874.51	39.22	44.20	9.04	31.60	-3.56	35.66	54.00	-18.34	AV	Horizontal
5359.72	45.91	44.20	9.86	32.00	-2.34	43.57	74.00	-30.43	PK	Vertical
5359.72	37.07	44.20	9.86	32.00	-2.34	34.73	54.00	-19.27	AV	Vertical
5359.72	46.21	44.20	9.86	32.00	-2.34	43.87	74.00	-30.13	PK	Horizontal
5359.72	37.21	44.20	9.86	32.00	-2.34	34.87	54.00	-19.13	AV	Horizontal
7310.78	51.75	43.50	11.40	35.50	3.40	55.15	74.00	-18.85	PK	Vertical
7310.78	33.49	43.50	11.40	35.50	3.40	36.89	54.00	-17.11	AV	Vertical
7310.77	50.54	43.50	11.40	35.50	3.40	53.94	74.00	-20.06	PK	Horizontal
7310.77	33.91	43.50	11.40	35.50	3.40	37.31	54.00	-16.69	AV	Horizontal
9747.98	40.54	43.60	14.30	39.50	10.20	50.74	74.00	-23.26	PK	Vertical
9747.98	29.74	43.60	14.30	39.50	10.20	39.94	54.00	-14.06	AV	Vertical
9748.23	40.37	43.60	14.30	39.50	10.20	50.57	74.00	-23.43	PK	Horizontal
9748.23	29.87	43.60	14.30	39.50	10.20	40.07	54.00	-13.93	AV	Horizontal
13299.33	39.63	42.60	15.90	38.90	12.20	51.83	74.00	-22.17	PK	Vertical
13299.33	28.54	42.60	15.90	38.90	12.20	40.74	54.00	-13.26	AV	Vertical
13299.39	40.24	42.60	15.90	38.90	12.20	52.44	74.00	-21.56	PK	Horizontal
13299.39	29.14	42.60	15.90	38.90	12.20	41.34	54.00	-12.66	AV	Horizontal
15999.83	40.04	42.70	18.00	37.10	12.40	52.44	74.00	-21.56	PK	Vertical
15999.83	28.64	42.70	18.00	37.10	12.40	41.04	54.00	-12.96	AV	Vertical
15999.56	40.18	42.70	18.00	37.10	12.40	52.58	74.00	-21.42	PK	Horizontal
15999.56	29.54	42.70	18.00	37.10	12.40	41.94	54.00	-12.06	AV	Horizontal
17997.66	31.20	42.70	19.40	46.50	23.20	54.40	74.00	-19.60	PK	Vertical
17997.66	19.23	42.70	19.40	46.50	23.20	42.43	54.00	-11.57	AV	Vertical
17997.54	31.13	42.70	19.40	46.50	23.20	54.33	74.00	-19.67	PK	Horizontal
17997.54	18.57	42.70	19.40	46.50	23.20	41.77	54.00	-12.23	AV	Horizontal

Above 1000 MHz										
Frequency (MHz)	Meter Reading (dBμV)	Amplifier （dB）	Loss （dB）	Antenna Factor （dB/m）	Orrected Factor （dB）	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
Low Channel 11b(2462 MHz)										
3265.07	49.83	44.70	6.70	28.20	-9.80	40.03	74.00	-33.97	PK	Vertical
3265.07	39.77	44.70	6.70	28.20	-9.80	29.97	54.00	-24.03	AV	Vertical
3265.04	49.74	44.70	6.70	28.20	-9.80	39.94	74.00	-34.06	PK	Horizontal
3265.04	39.82	44.70	6.70	28.20	-9.80	30.02	54.00	-23.98	AV	Horizontal
4924.82	60.07	44.20	9.04	31.60	-3.56	56.51	74.00	-17.49	PK	Vertical
4924.82	40.14	44.20	9.04	31.60	-3.56	36.58	54.00	-17.42	AV	Vertical
4924.78	60.11	44.20	9.04	31.60	-3.56	56.55	74.00	-17.45	PK	Horizontal
4924.78	40.03	44.20	9.04	31.60	-3.56	36.47	54.00	-17.53	AV	Horizontal
5360.04	46.97	44.20	9.86	32.00	-2.34	44.63	74.00	-29.37	PK	Vertical
5360.04	39.01	44.20	9.86	32.00	-2.34	36.67	54.00	-17.33	AV	Vertical
5360.03	47.06	44.20	9.86	32.00	-2.34	44.72	74.00	-29.28	PK	Horizontal
5360.03	38.98	44.20	9.86	32.00	-2.34	36.64	54.00	-17.36	AV	Horizontal
7386.16	52.47	43.50	11.40	35.50	3.40	55.87	74.00	-18.13	PK	Vertical
7386.16	35.45	43.50	11.40	35.50	3.40	38.85	54.00	-15.15	AV	Vertical
7386.20	52.51	43.50	11.40	35.50	3.40	55.91	74.00	-18.09	PK	Horizontal
7386.20	35.46	43.50	11.40	35.50	3.40	38.86	54.00	-15.14	AV	Horizontal
11036.21	41.74	43.60	14.30	39.50	10.20	51.94	74.00	-22.06	PK	Vertical
11036.21	31.72	43.60	14.30	39.50	10.20	41.92	54.00	-12.08	AV	Vertical
11036.19	41.77	43.60	14.30	39.50	10.20	51.97	74.00	-22.03	PK	Horizontal
11036.19	31.79	43.60	14.30	39.50	10.20	41.99	54.00	-12.01	AV	Horizontal
16000.09	41.62	42.70	18.00	37.10	12.40	54.02	74.00	-19.98	PK	Vertical
16000.09	29.62	42.70	18.00	37.10	12.40	42.02	54.00	-11.98	AV	Vertical
16000.05	41.60	42.70	18.00	37.10	12.40	54.00	74.00	-20.00	PK	Horizontal
16000.05	30.90	42.70	18.00	37.10	12.40	43.30	54.00	-10.70	AV	Horizontal
17998.22	31.73	42.70	19.40	46.50	23.20	54.93	74.00	-19.07	PK	Vertical
17998.22	20.76	42.70	19.40	46.50	23.20	43.96	54.00	-10.04	AV	Vertical
17998.09	31.79	42.70	19.40	46.50	23.20	54.99	74.00	-19.01	PK	Horizontal
17998.09	20.79	42.70	19.40	46.50	23.20	43.99	54.00	-10.01	AV	Horizontal

Above 1000 MHz										
Frequency (MHz)	Meter Reading (dBμV)	Amplifier （dB）	Loss （dB）	Antenna Factor （dB/m）	Orrected Factor （dB）	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
Low Channel 11g(2412 MHz)										
3265.10	49.90	44.70	6.70	28.20	-9.80	40.10	74.00	-33.90	PK	Vertical
3265.10	39.87	44.70	6.70	28.20	-9.80	30.07	54.00	-23.93	AV	Vertical
3265.06	49.86	44.70	6.70	28.20	-9.80	40.06	74.00	-33.94	PK	Horizontal
3265.06	39.90	44.70	6.70	28.20	-9.80	30.10	54.00	-23.90	AV	Horizontal
4824.78	60.19	44.20	9.04	31.60	-3.56	56.63	74.00	-17.37	PK	Vertical
4824.78	40.18	44.20	9.04	31.60	-3.56	36.62	54.00	-17.38	AV	Vertical
4824.81	60.21	44.20	9.04	31.60	-3.56	56.65	74.00	-17.35	PK	Horizontal
4824.81	40.16	44.20	9.04	31.60	-3.56	36.60	54.00	-17.40	AV	Horizontal
5360.09	47.04	44.20	9.86	32.00	-2.34	44.70	74.00	-29.30	PK	Vertical
5360.09	39.03	44.20	9.86	32.00	-2.34	36.69	54.00	-17.31	AV	Vertical
5360.07	47.13	44.20	9.86	32.00	-2.34	44.79	74.00	-29.21	PK	Horizontal
5360.07	39.11	44.20	9.86	32.00	-2.34	36.77	54.00	-17.23	AV	Horizontal
7236.18	52.60	43.50	11.40	35.50	3.40	56.00	74.00	-18.00	PK	Vertical
7236.18	34.55	43.50	11.40	35.50	3.40	37.95	54.00	-16.05	AV	Vertical
7236.16	52.56	43.50	11.40	35.50	3.40	55.96	74.00	-18.04	PK	Horizontal
7236.16	34.56	43.50	11.40	35.50	3.40	37.96	54.00	-16.04	AV	Horizontal
11036.22	41.82	43.60	14.30	39.50	10.20	52.02	74.00	-21.98	PK	Vertical
11036.22	31.78	43.60	14.30	39.50	10.20	41.98	54.00	-12.02	AV	Vertical
11036.47	41.79	43.60	14.30	39.50	10.20	51.99	74.00	-22.01	PK	Horizontal
11036.47	31.78	43.60	14.30	39.50	10.20	41.98	54.00	-12.02	AV	Horizontal
13299.62	41.68	42.60	15.90	38.90	12.20	53.88	74.00	-20.12	PK	Vertical
13299.62	28.63	42.60	15.90	38.90	12.20	40.83	54.00	-13.17	AV	Vertical
13299.74	41.69	42.60	15.90	38.90	12.20	53.89	74.00	-20.11	PK	Horizontal
13299.74	30.63	42.60	15.90	38.90	12.20	42.83	54.00	-11.17	AV	Horizontal
16000.15	41.71	42.70	18.00	37.10	12.40	54.11	74.00	-19.89	PK	Vertical
16000.15	28.71	42.70	18.00	37.10	12.40	41.11	54.00	-12.89	AV	Vertical
16000.04	41.69	42.70	18.00	37.10	12.40	54.09	74.00	-19.91	PK	Horizontal
16000.04	30.97	42.70	18.00	37.10	12.40	43.37	54.00	-10.63	AV	Horizontal
17998.14	31.85	42.70	19.40	46.50	23.20	55.05	74.00	-18.95	PK	Vertical
17998.14	20.82	42.70	19.40	46.50	23.20	44.02	54.00	-9.98	AV	Vertical
17998.01	31.86	42.70	19.40	46.50	23.20	55.06	74.00	-18.94	PK	Horizontal
17998.01	19.84	42.70	19.40	46.50	23.20	43.04	54.00	-10.96	AV	Horizontal

Above 1000 MHz										
Frequency (MHz)	Meter Reading (dBμV)	Amplifier （dB）	Loss （dB）	Antenna Factor （dB/m）	Orrected Factor （dB）	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
Low Channel 11g(2437 MHz)										
3265.00	49.81	44.70	6.70	28.20	-9.80	40.01	74.00	-33.99	PK	Vertical
3265.00	39.79	44.70	6.70	28.20	-9.80	29.99	54.00	-24.01	AV	Vertical
3264.95	49.79	44.70	6.70	28.20	-9.80	39.99	74.00	-34.01	PK	Horizontal
3264.95	39.80	44.70	6.70	28.20	-9.80	30.00	54.00	-24.00	AV	Horizontal
4874.76	60.08	44.20	9.04	31.60	-3.56	56.52	74.00	-17.48	PK	Vertical
4874.76	40.09	44.20	9.04	31.60	-3.56	36.53	54.00	-17.47	AV	Vertical
4874.70	60.11	44.20	9.04	31.60	-3.56	56.55	74.00	-17.45	PK	Horizontal
4874.70	40.06	44.20	9.04	31.60	-3.56	36.50	54.00	-17.50	AV	Horizontal
5359.97	46.97	44.20	9.86	32.00	-2.34	44.63	74.00	-29.37	PK	Vertical
5359.97	38.98	44.20	9.86	32.00	-2.34	36.64	54.00	-17.36	AV	Vertical
5360.00	47.04	44.20	9.86	32.00	-2.34	44.70	74.00	-29.30	PK	Horizontal
5360.00	38.99	44.20	9.86	32.00	-2.34	36.65	54.00	-17.35	AV	Horizontal
7336.05	52.48	43.50	11.40	35.50	3.40	55.88	74.00	-18.12	PK	Vertical
7336.05	34.49	43.50	11.40	35.50	3.40	37.89	54.00	-16.11	AV	Vertical
7336.04	52.52	43.50	11.40	35.50	3.40	55.92	74.00	-18.08	PK	Horizontal
7336.04	34.45	43.50	11.40	35.50	3.40	37.85	54.00	-16.15	AV	Horizontal
11036.11	41.78	43.60	14.30	39.50	10.20	51.98	74.00	-22.02	PK	Vertical
11036.11	31.72	43.60	14.30	39.50	10.20	41.92	54.00	-12.08	AV	Vertical
11036.11	41.76	43.60	14.30	39.50	10.20	51.96	74.00	-22.04	PK	Horizontal
11036.11	31.73	43.60	14.30	39.50	10.20	41.93	54.00	-12.07	AV	Horizontal
13299.71	41.58	42.60	15.90	38.90	12.20	53.78	74.00	-20.22	PK	Vertical
13299.71	31.58	42.60	15.90	38.90	12.20	43.78	54.00	-10.22	AV	Vertical
13299.62	41.62	42.60	15.90	38.90	12.20	53.82	74.00	-20.18	PK	Horizontal
13299.62	30.53	42.60	15.90	38.90	12.20	42.73	54.00	-11.27	AV	Horizontal
15999.98	41.65	42.70	18.00	37.10	12.40	54.05	74.00	-19.95	PK	Vertical
15999.98	28.59	42.70	18.00	37.10	12.40	40.99	54.00	-13.01	AV	Vertical
15999.99	41.61	42.70	18.00	37.10	12.40	54.01	74.00	-19.99	PK	Horizontal
15999.99	30.90	42.70	18.00	37.10	12.40	43.30	54.00	-10.70	AV	Horizontal
17998.13	31.74	42.70	19.40	46.50	23.20	54.94	74.00	-19.06	PK	Vertical
17998.13	21.81	42.70	19.40	46.50	23.20	45.01	54.00	-8.99	AV	Vertical
17998.00	31.78	42.70	19.40	46.50	23.20	54.98	74.00	-19.02	PK	Horizontal
17998.00	21.75	42.70	19.40	46.50	23.20	44.95	54.00	-9.05	AV	Horizontal

Above 1000 MHz										
Frequency (MHz)	Meter Reading (dBμV)	Amplifier （dB）	Loss （dB）	Antenna Factor （dB/m）	Orrected Factor （dB）	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
Low Channel 11g(2462 MHz)										
3264.86	48.62	44.70	6.70	28.20	-9.80	38.82	74.00	-35.18	PK	Vertical
3264.86	39.81	44.70	6.70	28.20	-9.80	30.01	54.00	-23.99	AV	Vertical
3264.71	48.46	44.70	6.70	28.20	-9.80	38.66	74.00	-35.34	PK	Horizontal
3264.71	38.72	44.70	6.70	28.20	-9.80	28.92	54.00	-25.08	AV	Horizontal
4924.48	58.80	44.20	9.04	31.60	-3.56	55.24	74.00	-18.76	PK	Vertical
4924.48	38.91	44.20	9.04	31.60	-3.56	35.35	54.00	-18.65	AV	Vertical
4924.52	58.93	44.20	9.04	31.60	-3.56	55.37	74.00	-18.63	PK	Horizontal
4924.52	38.47	44.20	9.04	31.60	-3.56	34.91	54.00	-19.09	AV	Horizontal
5359.86	46.04	44.20	9.86	32.00	-2.34	43.70	74.00	-30.30	PK	Vertical
5359.86	37.82	44.20	9.86	32.00	-2.34	35.48	54.00	-18.52	AV	Vertical
5359.82	46.29	44.20	9.86	32.00	-2.34	43.95	74.00	-30.05	PK	Horizontal
5359.82	37.99	44.20	9.86	32.00	-2.34	35.65	54.00	-18.35	AV	Horizontal
7385.94	50.85	43.50	11.40	35.50	3.40	54.25	74.00	-19.75	PK	Vertical
7385.94	32.92	43.50	11.40	35.50	3.40	36.32	54.00	-17.68	AV	Vertical
7385.78	51.80	43.50	11.40	35.50	3.40	55.20	74.00	-18.80	PK	Horizontal
7385.78	32.77	43.50	11.40	35.50	3.40	36.17	54.00	-17.83	AV	Horizontal
9847.74	41.15	43.60	14.30	39.50	10.20	51.35	74.00	-22.65	PK	Vertical
9847.74	30.14	43.60	14.30	39.50	10.20	40.34	54.00	-13.66	AV	Vertical
9847.99	40.91	43.60	14.30	39.50	10.20	51.11	74.00	-22.89	PK	Horizontal
9847.99	30.43	43.60	14.30	39.50	10.20	40.63	54.00	-13.37	AV	Horizontal
13299.14	40.47	42.70	18.00	37.10	12.40	52.87	74.00	-21.13	PK	Vertical
13299.14	28.54	42.70	18.00	37.10	12.40	40.94	54.00	-13.06	AV	Vertical
13299.51	40.03	42.70	18.00	37.10	12.40	52.43	74.00	-21.57	PK	Horizontal
13299.51	28.95	42.70	18.00	37.10	12.40	41.35	54.00	-12.65	AV	Horizontal
17997.93	30.35	42.70	19.40	46.50	23.20	53.55	74.00	-20.45	PK	Vertical
17997.93	20.08	42.70	19.40	46.50	23.20	43.28	54.00	-10.72	AV	Vertical
17997.59	30.89	42.70	19.40	46.50	23.20	54.09	74.00	-19.91	PK	Horizontal
17997.59	18.27	42.70	19.40	46.50	23.20	41.47	54.00	-12.53	AV	Horizontal

Above 1000 MHz										
Frequency (MHz)	Meter Reading (dBμV)	Amplifier （dB）	Loss （dB）	Antenna Factor （dB/m）	Orrected Factor （dB）	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
Low Channel 11n20(2412 MHz)										
3265.10	49.82	44.70	6.70	28.20	-9.80	40.02	74.00	-33.98	PK	Vertical
3265.10	39.82	44.70	6.70	28.20	-9.80	30.02	54.00	-23.98	AV	Vertical
3265.06	49.77	44.70	6.70	28.20	-9.80	39.97	74.00	-34.03	PK	Horizontal
3265.06	39.83	44.70	6.70	28.20	-9.80	30.03	54.00	-23.97	AV	Horizontal
4824.78	60.10	44.20	9.04	31.60	-3.56	56.54	74.00	-17.46	PK	Vertical
4824.78	40.11	44.20	9.04	31.60	-3.56	36.55	54.00	-17.45	AV	Vertical
4824.81	60.13	44.20	9.04	31.60	-3.56	56.57	74.00	-17.43	PK	Horizontal
4824.81	40.10	44.20	9.04	31.60	-3.56	36.54	54.00	-17.46	AV	Horizontal
5360.09	46.95	44.20	9.86	32.00	-2.34	44.61	74.00	-29.39	PK	Vertical
5360.09	38.93	44.20	9.86	32.00	-2.34	36.59	54.00	-17.41	AV	Vertical
5360.07	47.07	44.20	9.86	32.00	-2.34	44.73	74.00	-29.27	PK	Horizontal
5360.07	39.03	44.20	9.86	32.00	-2.34	36.69	54.00	-17.31	AV	Horizontal
7236.18	52.52	43.50	11.40	35.50	3.40	55.92	74.00	-18.08	PK	Vertical
7236.18	34.48	43.50	11.40	35.50	3.40	37.88	54.00	-16.12	AV	Vertical
7236.16	52.48	43.50	11.40	35.50	3.40	55.88	74.00	-18.12	PK	Horizontal
7236.16	34.51	43.50	11.40	35.50	3.40	37.91	54.00	-16.09	AV	Horizontal
11036.22	41.76	43.60	14.30	39.50	10.20	51.96	74.00	-22.04	PK	Vertical
11036.22	31.73	43.60	14.30	39.50	10.20	41.93	54.00	-12.07	AV	Vertical
11036.47	41.72	43.60	14.30	39.50	10.20	51.92	74.00	-22.08	PK	Horizontal
11036.47	31.69	43.60	14.30	39.50	10.20	41.89	54.00	-12.11	AV	Horizontal
13299.62	41.60	42.60	15.90	38.90	12.20	53.80	74.00	-20.20	PK	Vertical
13299.62	28.54	42.60	15.90	38.90	12.20	40.74	54.00	-13.26	AV	Vertical
13299.74	41.63	42.60	15.90	38.90	12.20	53.83	74.00	-20.17	PK	Horizontal
13299.74	30.57	42.60	15.90	38.90	12.20	42.77	54.00	-11.23	AV	Horizontal
16000.15	41.62	42.70	18.00	37.10	12.40	54.02	74.00	-19.98	PK	Vertical
16000.15	28.64	42.70	18.00	37.10	12.40	41.04	54.00	-12.96	AV	Vertical
16000.04	41.59	42.70	18.00	37.10	12.40	53.99	74.00	-20.01	PK	Horizontal
16000.04	30.89	42.70	18.00	37.10	12.40	43.29	54.00	-10.71	AV	Horizontal
17998.14	31.78	42.70	19.40	46.50	23.20	54.98	74.00	-19.02	PK	Vertical
17998.14	20.73	42.70	19.40	46.50	23.20	43.93	54.00	-10.07	AV	Vertical
17998.01	31.77	42.70	19.40	46.50	23.20	54.97	74.00	-19.03	PK	Horizontal
17998.01	19.77	42.70	19.40	46.50	23.20	42.97	54.00	-11.03	AV	Horizontal

Above 1000 MHz										
Frequency (MHz)	Meter Reading (dBμV)	Amplifier （dB）	Loss （dB）	Antenna Factor （dB/m）	Orrected Factor （dB）	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
Low Channel 11n20(2437 MHz)										
3265.00	49.74	44.70	6.70	28.20	-9.80	39.94	74.00	-34.06	PK	Vertical
3265.00	39.70	44.70	6.70	28.20	-9.80	29.90	54.00	-24.10	AV	Vertical
3264.95	49.73	44.70	6.70	28.20	-9.80	39.93	74.00	-34.07	PK	Horizontal
3264.95	39.73	44.70	6.70	28.20	-9.80	29.93	54.00	-24.07	AV	Horizontal
4874.76	60.00	44.20	9.04	31.60	-3.56	56.44	74.00	-17.56	PK	Vertical
4874.76	40.03	44.20	9.04	31.60	-3.56	36.47	54.00	-17.53	AV	Vertical
4874.70	60.05	44.20	9.04	31.60	-3.56	56.49	74.00	-17.51	PK	Horizontal
4874.70	39.96	44.20	9.04	31.60	-3.56	36.40	54.00	-17.60	AV	Horizontal
5359.97	46.89	44.20	9.86	32.00	-2.34	44.55	74.00	-29.45	PK	Vertical
5359.97	38.90	44.20	9.86	32.00	-2.34	36.56	54.00	-17.44	AV	Vertical
5360.00	46.98	44.20	9.86	32.00	-2.34	44.64	74.00	-29.36	PK	Horizontal
5360.00	38.91	44.20	9.86	32.00	-2.34	36.57	54.00	-17.43	AV	Horizontal
7336.05	52.40	43.50	11.40	35.50	3.40	55.80	74.00	-18.20	PK	Vertical
7336.05	34.40	43.50	11.40	35.50	3.40	37.80	54.00	-16.20	AV	Vertical
7336.04	52.43	43.50	11.40	35.50	3.40	55.83	74.00	-18.17	PK	Horizontal
7336.04	34.37	43.50	11.40	35.50	3.40	37.77	54.00	-16.23	AV	Horizontal
11036.11	41.70	43.60	14.30	39.50	10.20	51.90	74.00	-22.10	PK	Vertical
11036.11	31.62	43.60	14.30	39.50	10.20	41.82	54.00	-12.18	AV	Vertical
11036.11	41.71	43.60	14.30	39.50	10.20	51.91	74.00	-22.09	PK	Horizontal
11036.11	31.66	43.60	14.30	39.50	10.20	41.86	54.00	-12.14	AV	Horizontal
13299.71	41.52	42.60	15.90	38.90	12.20	53.72	74.00	-20.28	PK	Vertical
13299.71	31.48	42.60	15.90	38.90	12.20	43.68	54.00	-10.32	AV	Vertical
13299.62	41.54	42.60	15.90	38.90	12.20	53.74	74.00	-20.26	PK	Horizontal
13299.62	30.47	42.60	15.90	38.90	12.20	42.67	54.00	-11.33	AV	Horizontal
15999.98	41.58	42.70	18.00	37.10	12.40	53.98	74.00	-20.02	PK	Vertical
15999.98	28.53	42.70	18.00	37.10	12.40	40.93	54.00	-13.07	AV	Vertical
15999.99	41.54	42.70	18.00	37.10	12.40	53.94	74.00	-20.06	PK	Horizontal
15999.99	30.85	42.70	18.00	37.10	12.40	43.25	54.00	-10.75	AV	Horizontal
17998.13	31.67	42.70	19.40	46.50	23.20	54.87	74.00	-19.13	PK	Vertical
17998.13	21.73	42.70	19.40	46.50	23.20	44.93	54.00	-9.07	AV	Vertical
17998.00	31.72	42.70	19.40	46.50	23.20	54.92	74.00	-19.08	PK	Horizontal
17998.00	21.65	42.70	19.40	46.50	23.20	44.85	54.00	-9.15	AV	Horizontal

Above 1000 MHz										
Frequency (MHz)	Meter Reading (dBμV)	Amplifier （dB）	Loss （dB）	Antenna Factor （dB/m）	Orrected Factor （dB）	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
Low Channel 11n20(2462 MHz)										
3265.07	49.64	44.70	6.70	28.20	-9.80	39.84	74.00	-34.16	PK	Vertical
3265.07	39.59	44.70	6.70	28.20	-9.80	29.79	54.00	-24.21	AV	Vertical
3265.04	49.61	44.70	6.70	28.20	-9.80	39.81	74.00	-34.19	PK	Horizontal
3265.04	39.68	44.70	6.70	28.20	-9.80	29.88	54.00	-24.12	AV	Horizontal
4924.82	59.91	44.20	9.04	31.60	-3.56	56.35	74.00	-17.65	PK	Vertical
4924.82	39.98	44.20	9.04	31.60	-3.56	36.42	54.00	-17.58	AV	Vertical
4924.78	59.95	44.20	9.04	31.60	-3.56	56.39	74.00	-17.61	PK	Horizontal
4924.78	39.91	44.20	9.04	31.60	-3.56	36.35	54.00	-17.65	AV	Horizontal
5360.04	46.82	44.20	9.86	32.00	-2.34	44.48	74.00	-29.52	PK	Vertical
5360.04	38.88	44.20	9.86	32.00	-2.34	36.54	54.00	-17.46	AV	Vertical
5360.03	46.93	44.20	9.86	32.00	-2.34	44.59	74.00	-29.41	PK	Horizontal
5360.03	38.84	44.20	9.86	32.00	-2.34	36.50	54.00	-17.50	AV	Horizontal
7386.16	52.31	43.50	11.40	35.50	3.40	55.71	74.00	-18.29	PK	Vertical
7386.16	35.31	43.50	11.40	35.50	3.40	38.71	54.00	-15.29	AV	Vertical
7386.20	52.37	43.50	11.40	35.50	3.40	55.77	74.00	-18.23	PK	Horizontal
7386.20	35.32	43.50	11.40	35.50	3.40	38.72	54.00	-15.28	AV	Horizontal
11036.21	41.59	43.60	14.30	39.50	10.20	51.79	74.00	-22.21	PK	Vertical
11036.21	31.56	43.60	14.30	39.50	10.20	41.76	54.00	-12.24	AV	Vertical
11036.19	41.65	43.60	14.30	39.50	10.20	51.85	74.00	-22.15	PK	Horizontal
11036.19	31.63	43.60	14.30	39.50	10.20	41.83	54.00	-12.17	AV	Horizontal
16000.09	41.45	42.70	18.00	37.10	12.40	53.85	74.00	-20.15	PK	Vertical
16000.09	29.45	42.70	18.00	37.10	12.40	41.85	54.00	-12.15	AV	Vertical
16000.05	41.43	42.70	18.00	37.10	12.40	53.83	74.00	-20.17	PK	Horizontal
16000.05	30.72	42.70	18.00	37.10	12.40	43.12	54.00	-10.88	AV	Horizontal
17998.22	31.56	42.70	19.40	46.50	23.20	54.76	74.00	-19.24	PK	Vertical
17998.22	20.65	42.70	19.40	46.50	23.20	43.85	54.00	-10.15	AV	Vertical
17998.09	31.64	42.70	19.40	46.50	23.20	54.84	74.00	-19.16	PK	Horizontal
17998.09	20.66	42.70	19.40	46.50	23.20	43.86	54.00	-10.14	AV	Horizontal

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

2. Scan with 802.11b, 802.11g, 802.11n (HT-20)the worst case is 802.11b.
   Emission Level = Meter Reading + Factor
   Margin = Limit - Emission Level

3.The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise.

Radiated band edge:

Frequency (MHz)	Meter Reading (dBμV)	Amplifier （dB）	Loss （dB）	Antenna Factor （dB/m）	Orrected Factor （dB）	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
802.11b										
2400.00	67.87	43.80	4.91	25.90	-12.99	54.88	74	-19.12	PK	Vertical
2400.00	53.97	43.80	4.91	25.90	-12.99	40.98	54	-13.02	AV	Vertical
2400.00	69.63	43.80	4.91	25.90	-12.99	56.64	74	-17.36	PK	Horizontal
2400.00	52.64	43.80	4.91	25.90	-12.99	39.65	54	-14.35	AV	Horizontal
2483.50	70.19	43.80	5.12	25.90	-12.78	57.41	74	-16.59	PK	Vertical
2483.50	52.89	43.80	5.12	25.90	-12.78	40.11	54	-13.89	AV	Vertical
2483.50	69.46	43.80	5.12	25.90	-12.78	56.68	74	-17.32	PK	Horizontal
2483.50	53.29	43.80	5.12	25.90	-12.78	40.51	54	-13.49	AV	Horizontal
802.11g										
2400.00	67.26	43.80	4.91	25.90	-12.99	54.27	74	-19.73	PK	Vertical
2400.00	52.62	43.80	4.91	25.90	-12.99	39.63	54	-14.37	AV	Vertical
2400.00	66.35	43.80	4.91	25.90	-12.99	53.36	74	-20.64	PK	Horizontal
2400.00	53.43	43.80	4.91	25.90	-12.99	40.44	54	-13.56	AV	Horizontal
2483.50	65.14	43.80	5.12	25.90	-12.78	52.36	74	-21.64	PK	Vertical
2483.50	53.19	43.80	5.12	25.90	-12.78	40.41	54	-13.59	AV	Vertical
2483.50	66.53	43.80	5.12	25.90	-12.78	53.75	74	-20.25	PK	Horizontal
2483.50	52.32	43.80	5.12	25.90	-12.78	39.54	54	-14.46	AV	Horizontal
802.11n20										
2400.00	66.48	43.80	4.91	25.90	-12.99	53.49	74	-20.51	PK	Vertical
2400.00	52.31	43.80	4.91	25.90	-12.99	39.32	54	-14.68	AV	Vertical
2400.00	66.02	43.80	4.91	25.90	-12.99	53.03	74	-20.97	PK	Horizontal
2400.00	54.31	43.80	4.91	25.90	-12.99	41.32	54	-12.68	AV	Horizontal
2483.50	65.13	43.80	5.12	25.90	-12.78	52.35	74	-21.65	PK	Vertical
2483.50	52.94	43.80	5.12	25.90	-12.78	40.16	54	-13.84	AV	Vertical
2483.50	66.07	43.80	5.12	25.90	-12.78	53.29	74	-20.71	PK	Horizontal
2483.50	53.19	43.80	5.12	25.90	-12.78	40.41	54	-13.59	AV	Horizontal

The measurements were more than 20 dB below the limit and not reported

Remark

1.The testing has been conformed to 10*2480 =24800MHz.

2.All other emissions more than 20dB below the limit.

6 Conducted Spurious Emission

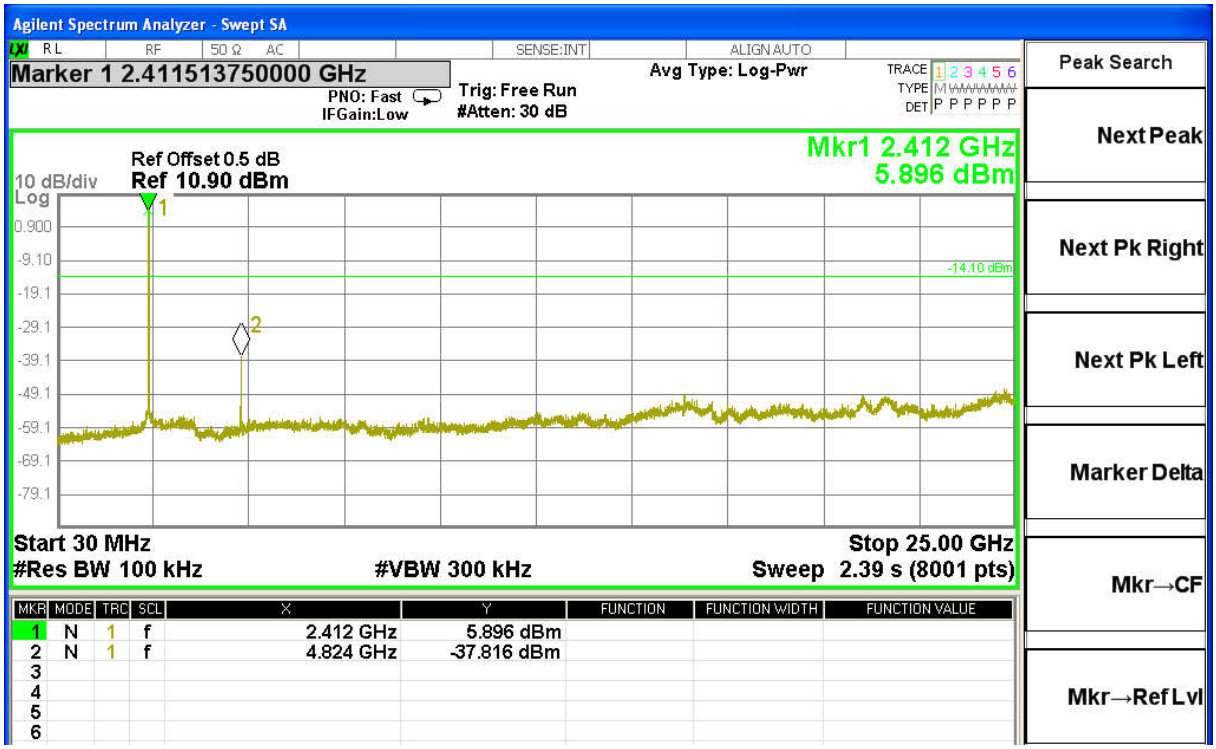
TestRequirement	:	FCC CFR47 Part 15 Section 15.247
Test Method	:	ANSI C63.10:2013
Test Limit	:	Regulation 15.247 (d),In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by 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. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).
Test Mode	:	Refer to section 3.3

6.1 Test Procedure

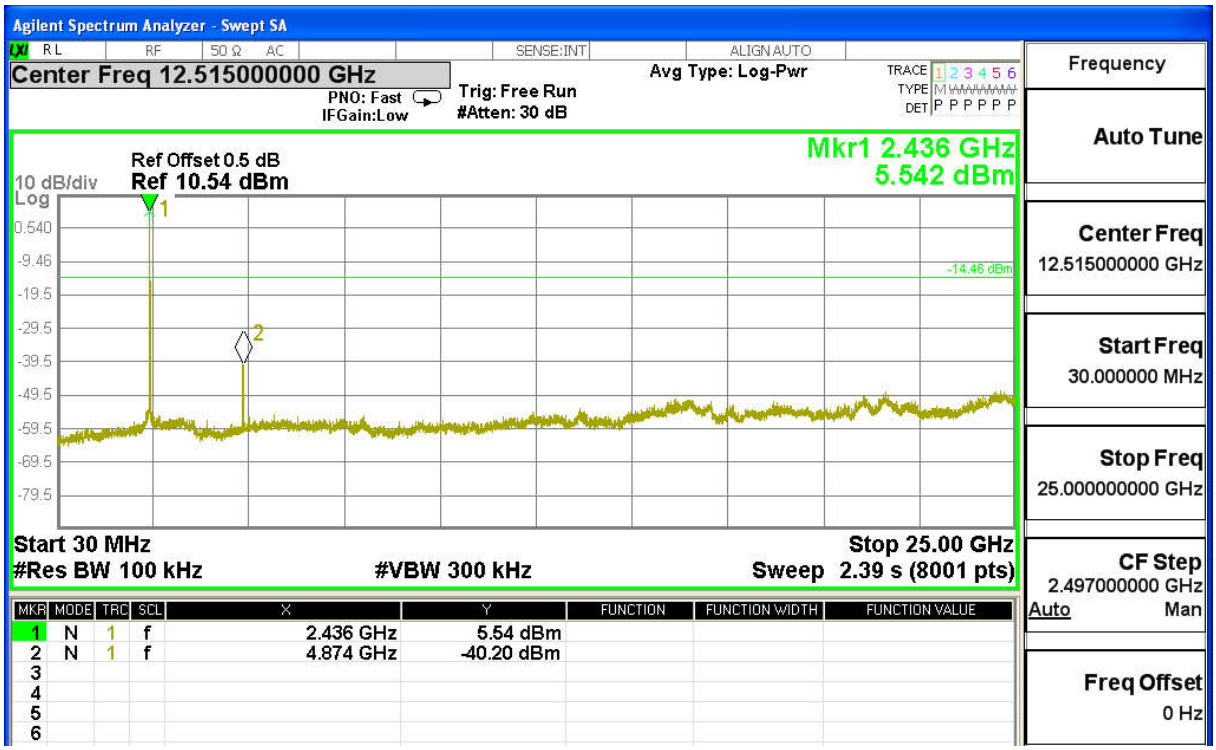
1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to thespectrum;
2. Set the spectrum analyzer: RBW = 100kHz, VBW = 300kHz, Sweep = auto
Detector function = peak, Trace = max hold

6.2 Test Result

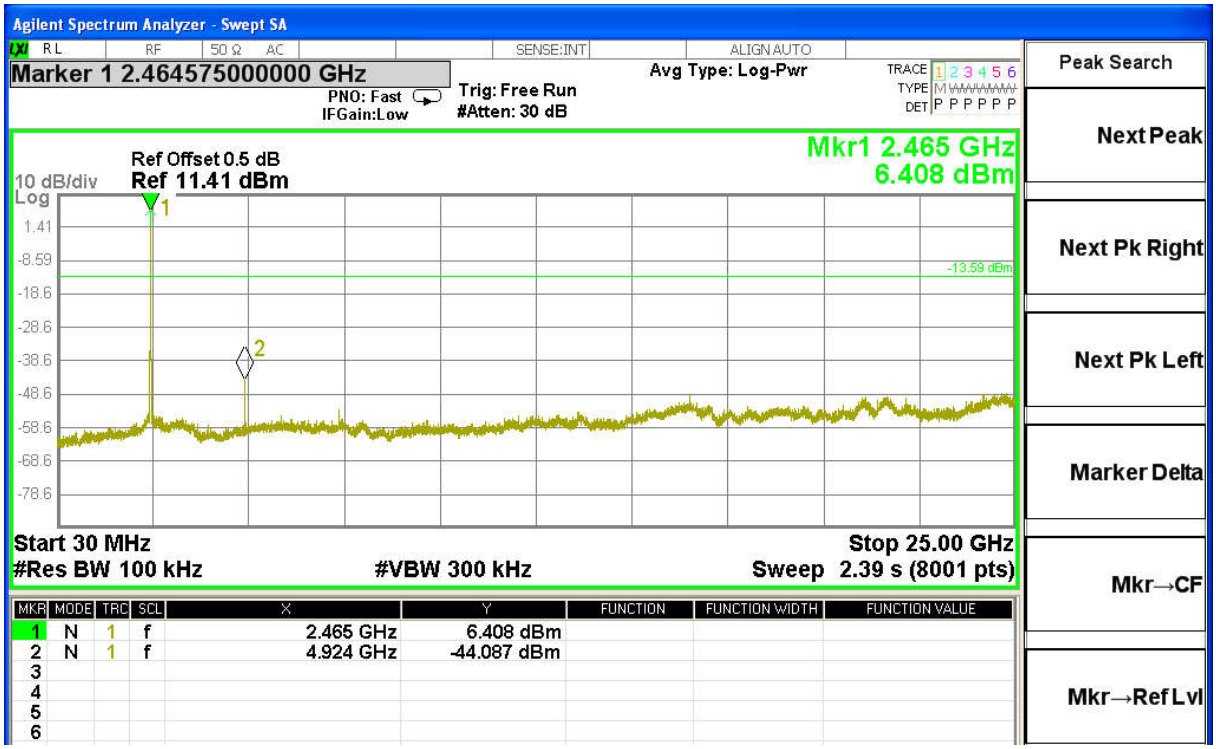
802.11b Low Channel



802.11b Middle Channel



802.11b High Channel



Remark: Scan with 802.11b/g/n HT20/n,The worst case(802.11b mode) was recorded.

7 Band Edge Measurement

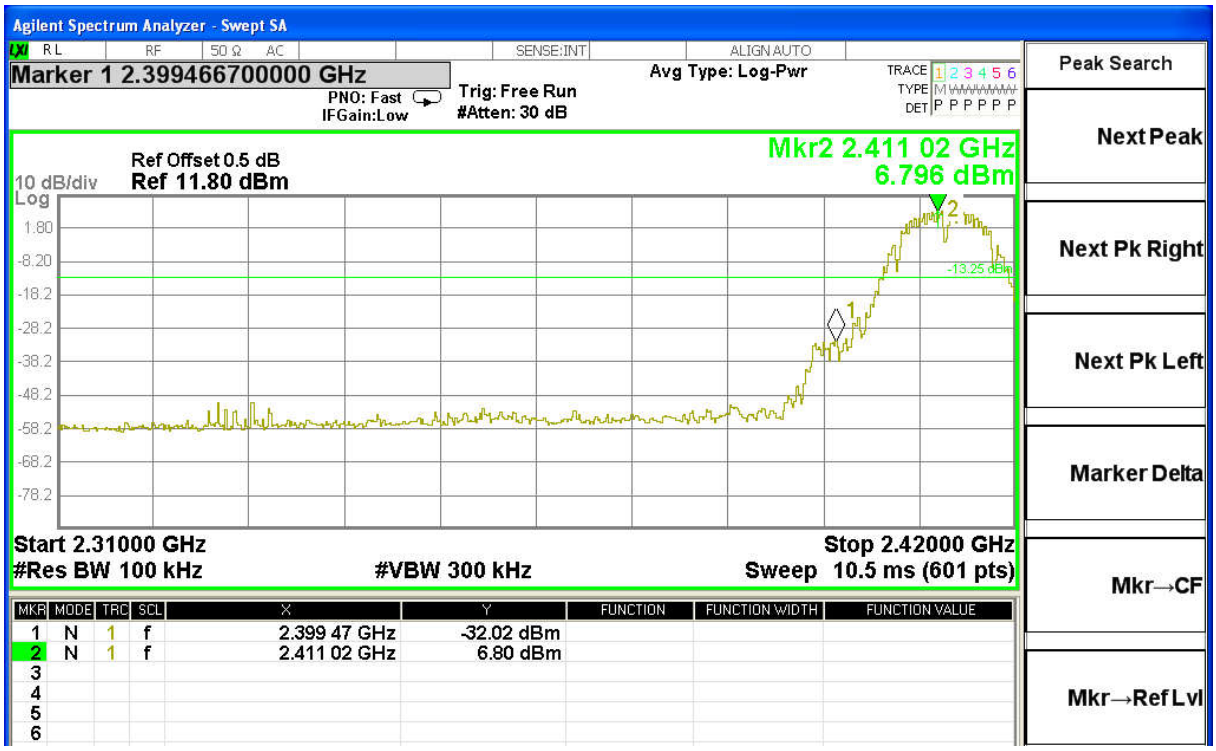
TestRequirement	:	Section 15.247(d) In addition, radiated emissions which fall in the restricted bands. as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).
Test Method	:	ANSI C63.10:2013
Test Limit	:	Regulation 15.247 (d),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. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).
Test Mode	:	Refer to section 3.3

7.1 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to thespectrum;
2. Set the spectrum analyzer: RBW = 100kHz, VBW = 300kHz, Sweep = auto
Detector function = peak, Trace = max hold

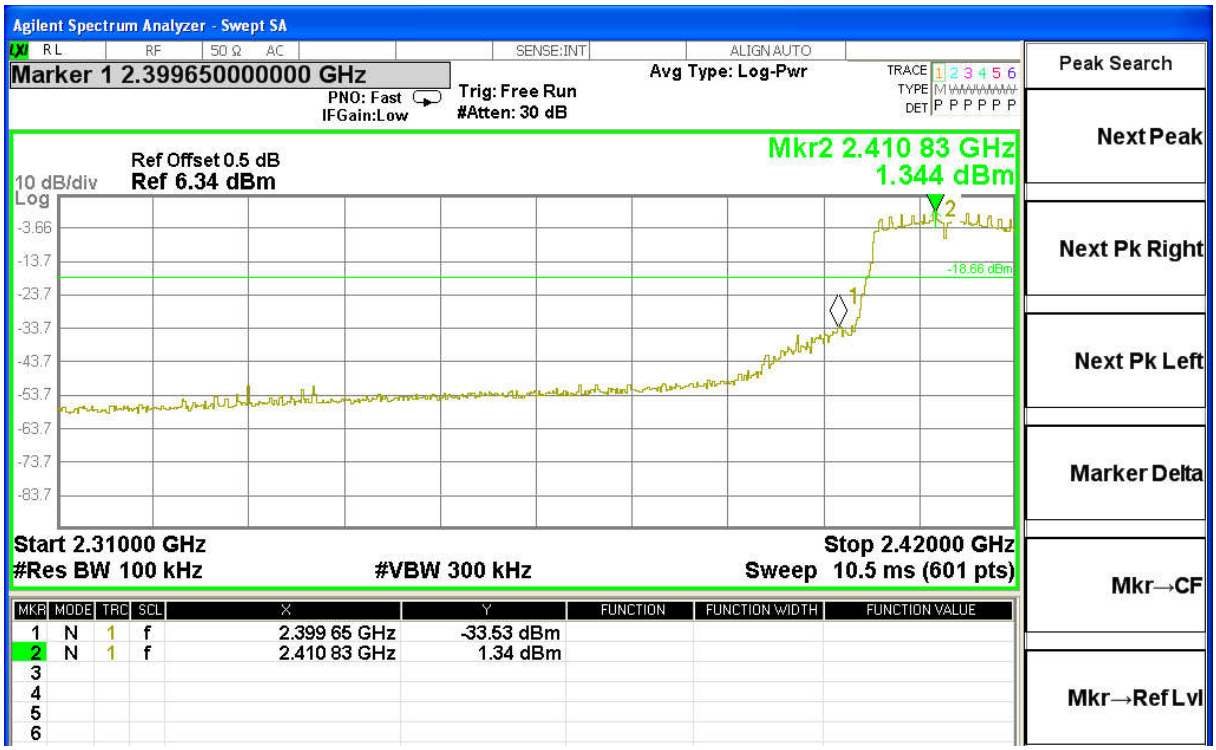
7.2 Test Result

802.11b Band edge-left side

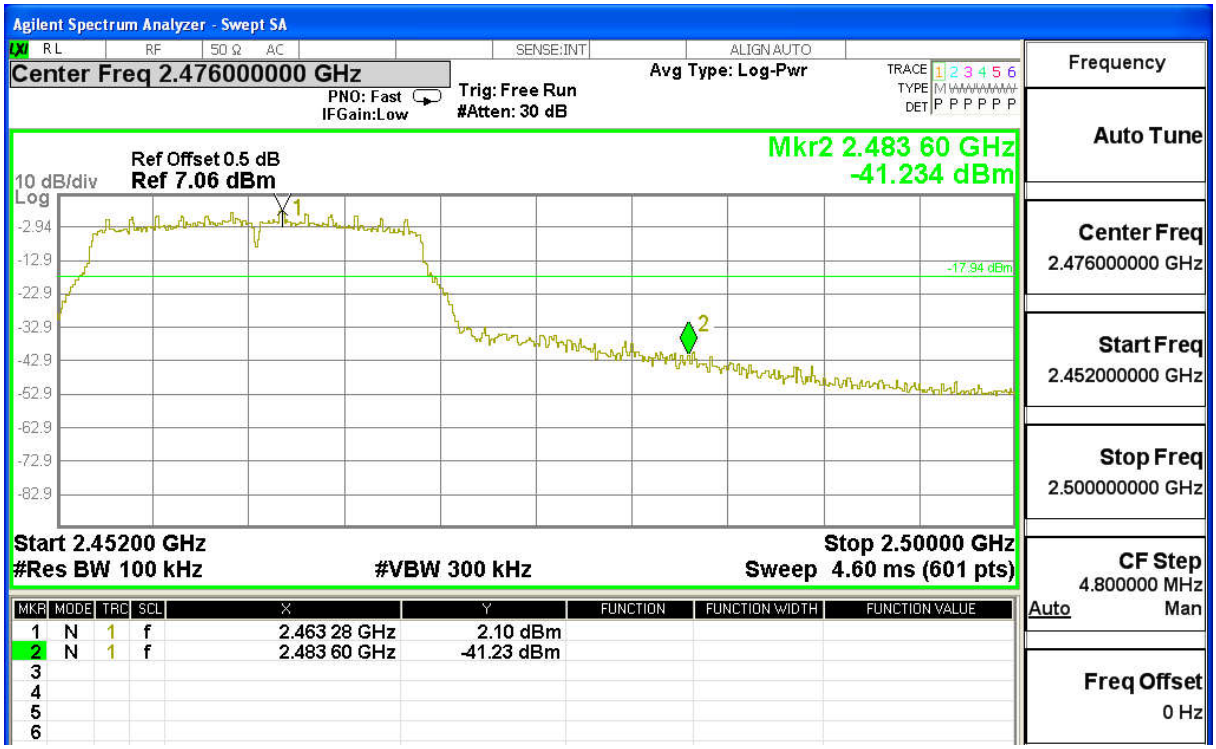


802.11b Band edge-right side

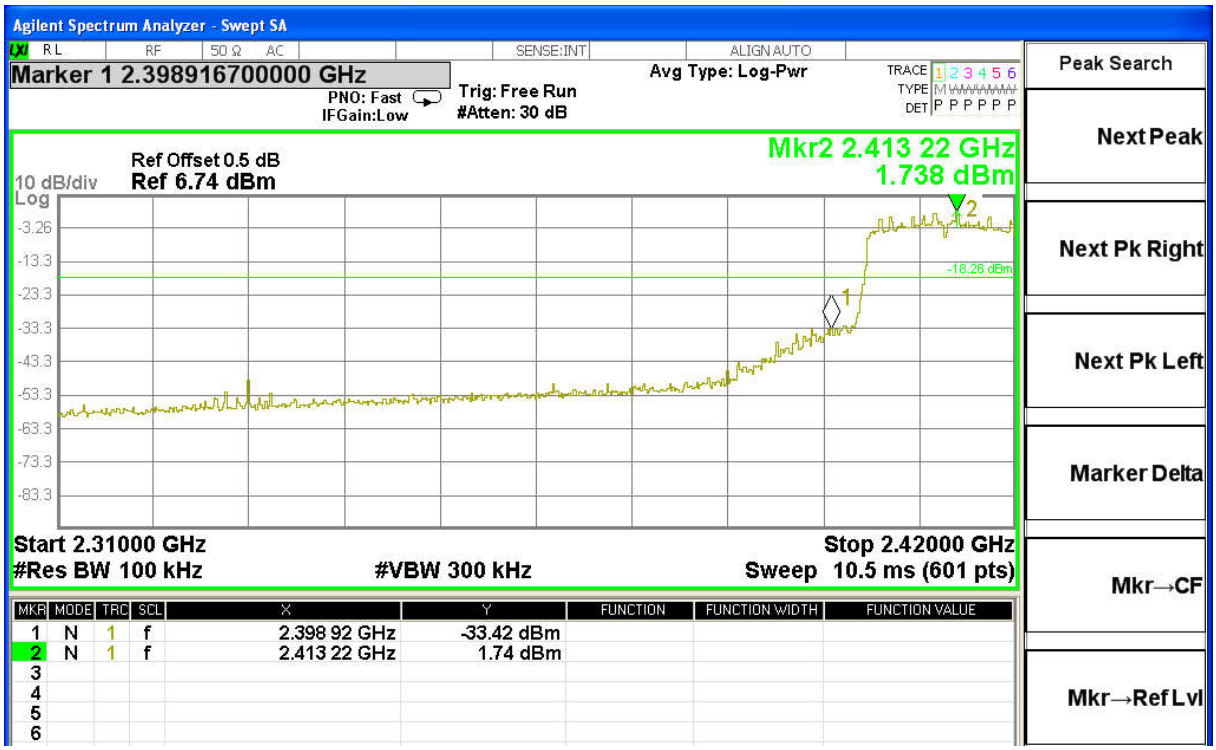
802.11g Band edge-left side



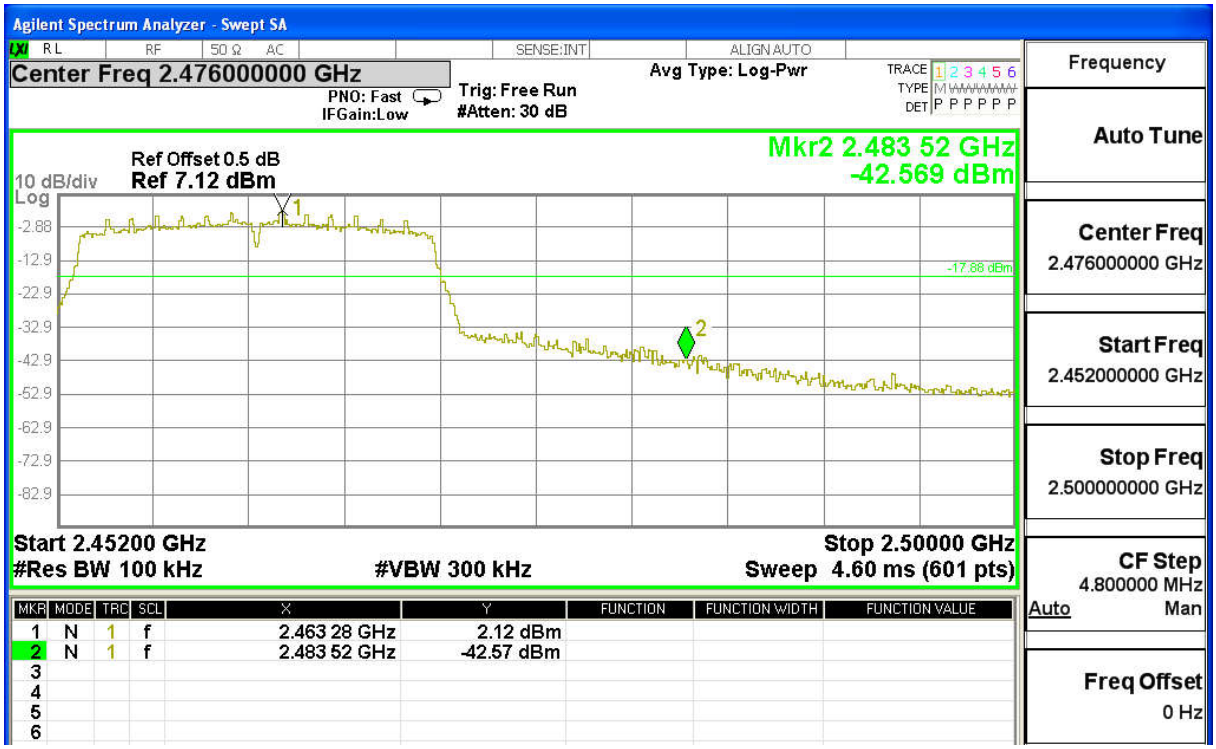
802.11gBand edge-right side



802.11n-HT20 Band edge-left side



802.11n-HT20 Band edge-right side



8 6dB Bandwidth Measurement

TestRequirement	:	FCC CFR47 Part 15 Section 15.247
Test Method	:	ANSI C63.10:2013
Test Limit		Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.
Test Mode	:	Refer to section 3.3

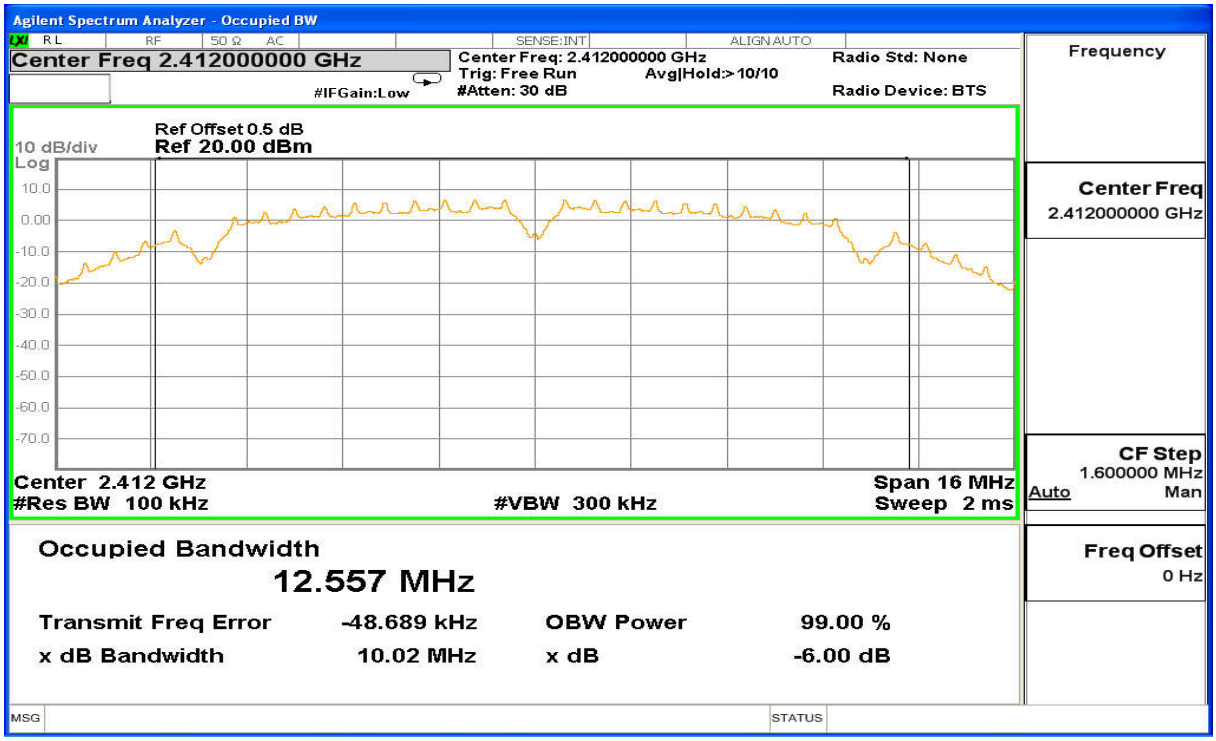
8.1 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to thespectrum;
2. Set the spectrum analyzer: For BLE, RBW = 100 kHz, VBW = 300kHz, For WIFI, RBW = 100kHz, VBW = 300kHz

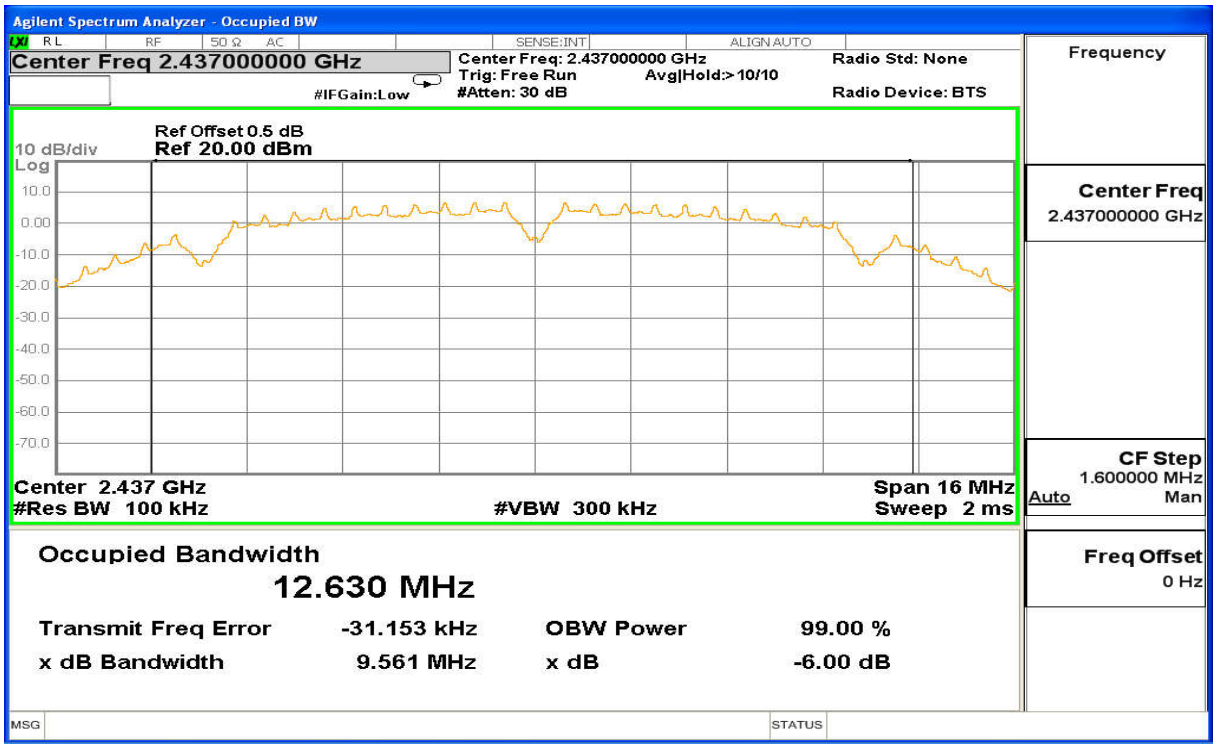
8.2 Test Result

Modulation	Bandwidth(MHz)			Limit
	Low Channel	Middle Channel	High Channel	
802.11b	10.02	9.561	10.04	≥500kHz
802.11g	15.30	15.32	15.14	≥500kHz
802.11n-HT20	16.08	15.62	15.13	≥500kHz

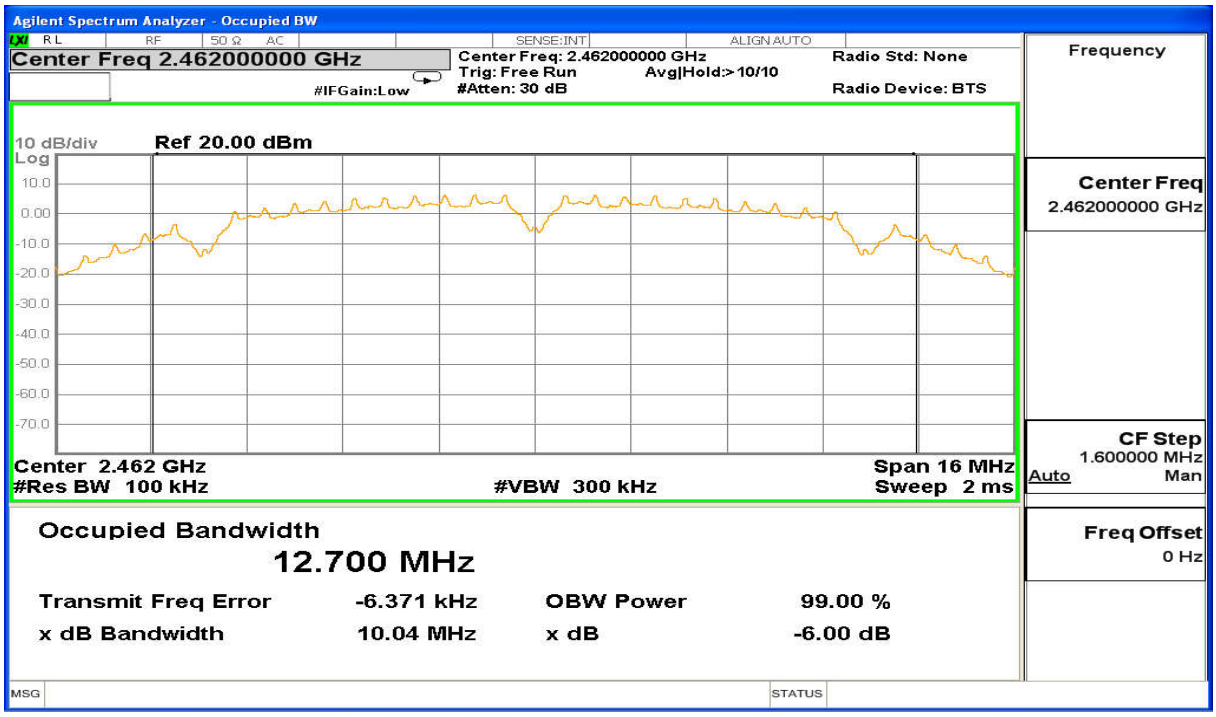
802.11b Low Channel



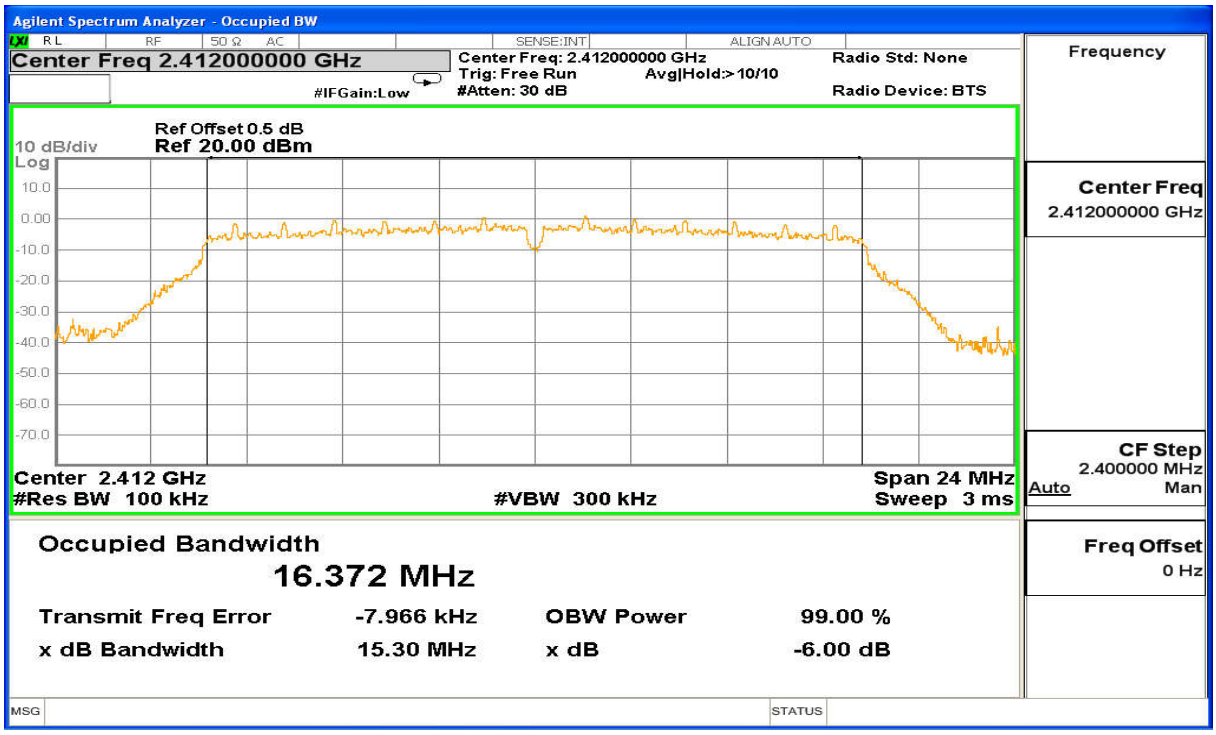
802.11b Middle Channel



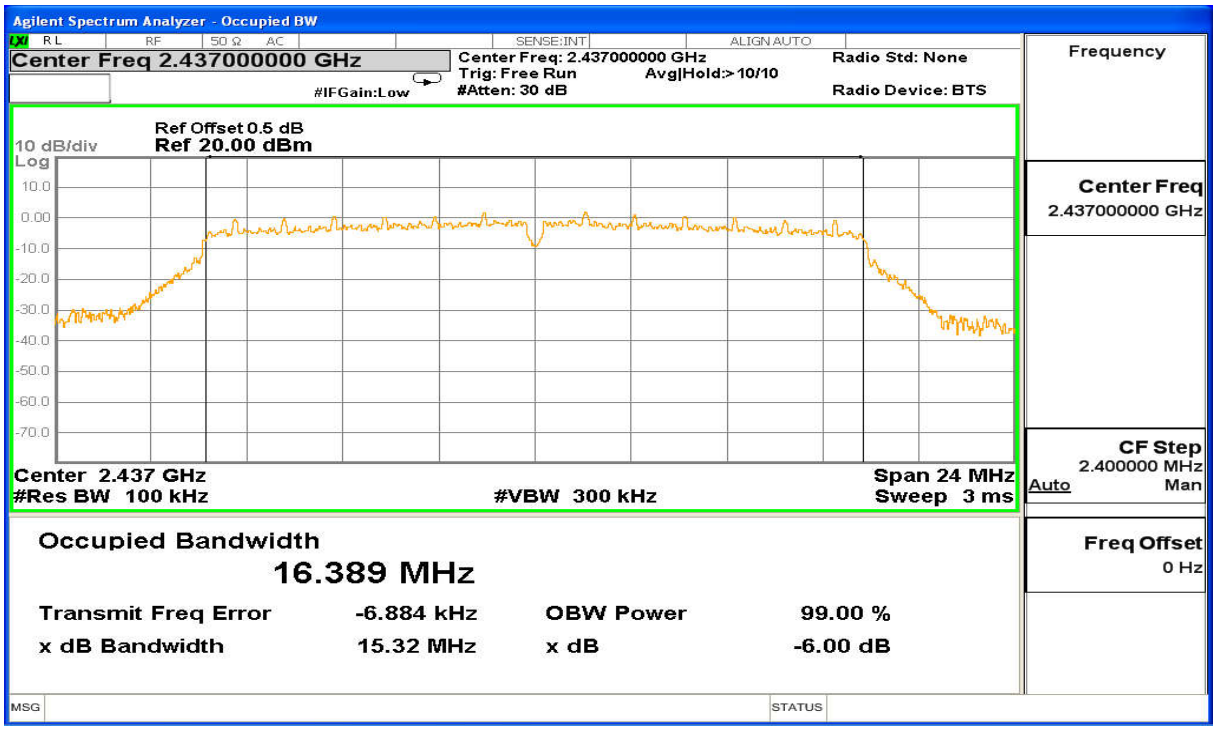
802.11b High Channel



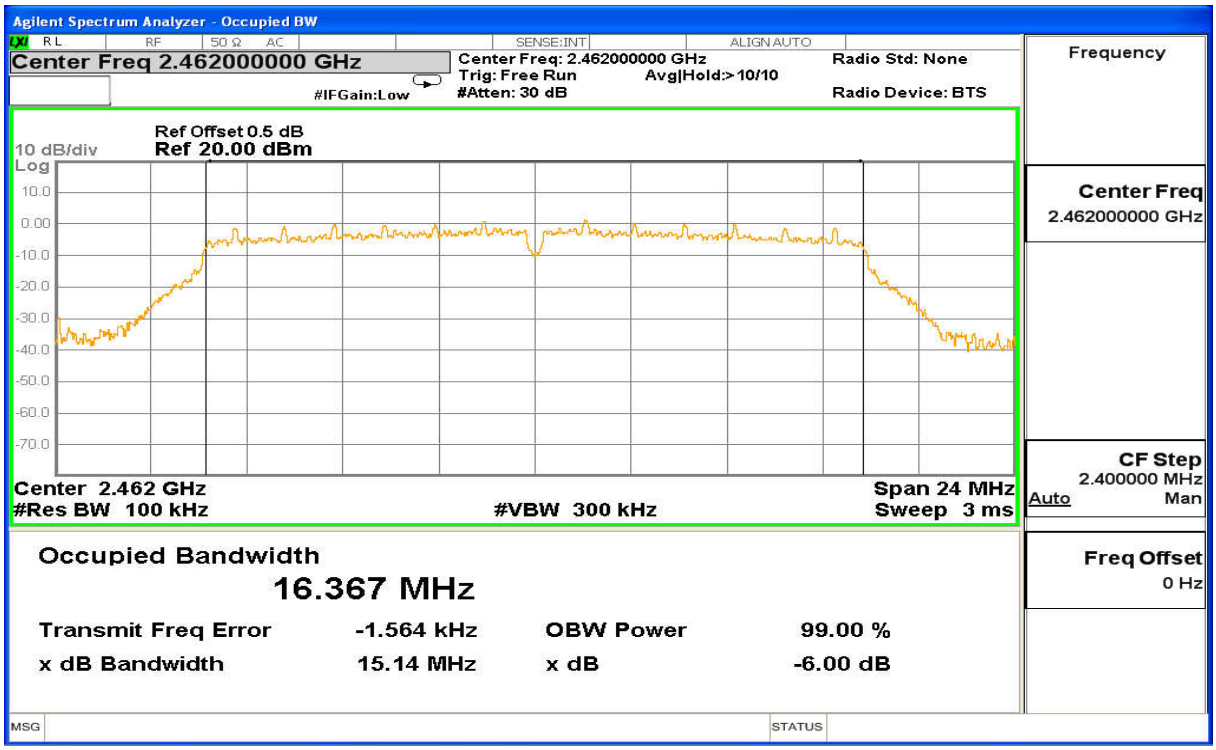
802.11g Low Channel



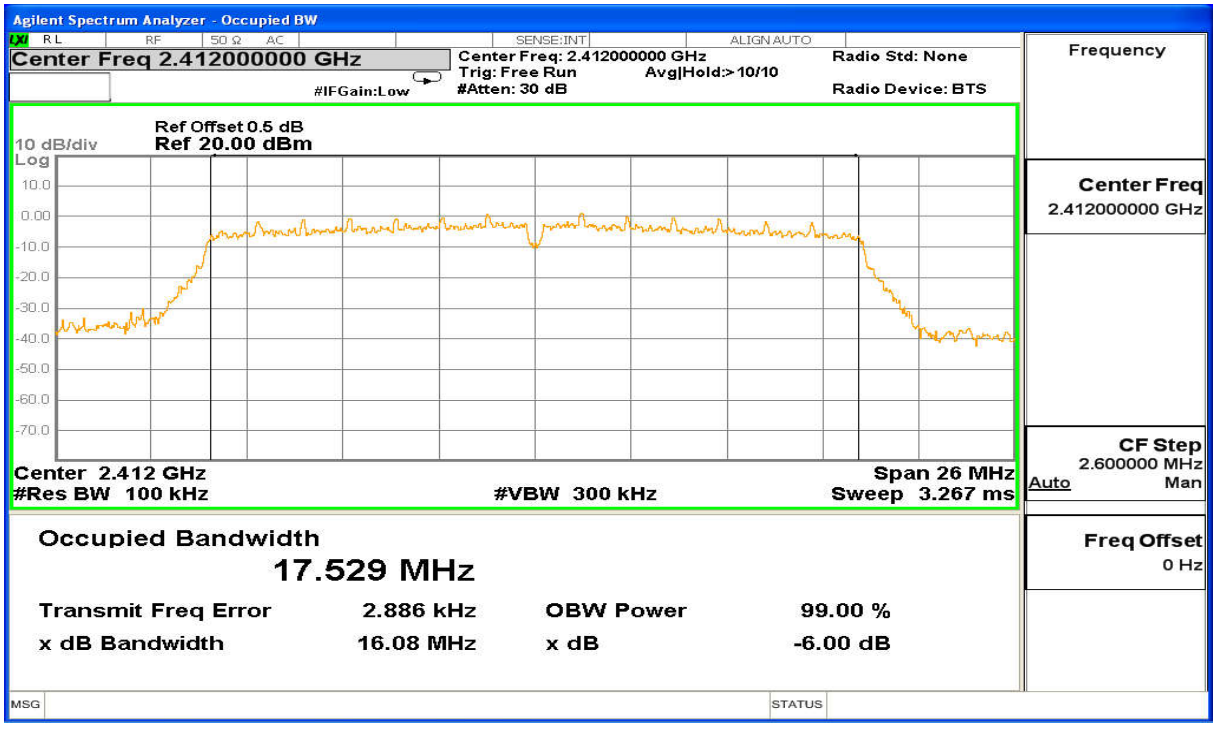
802.11g Middle Channel



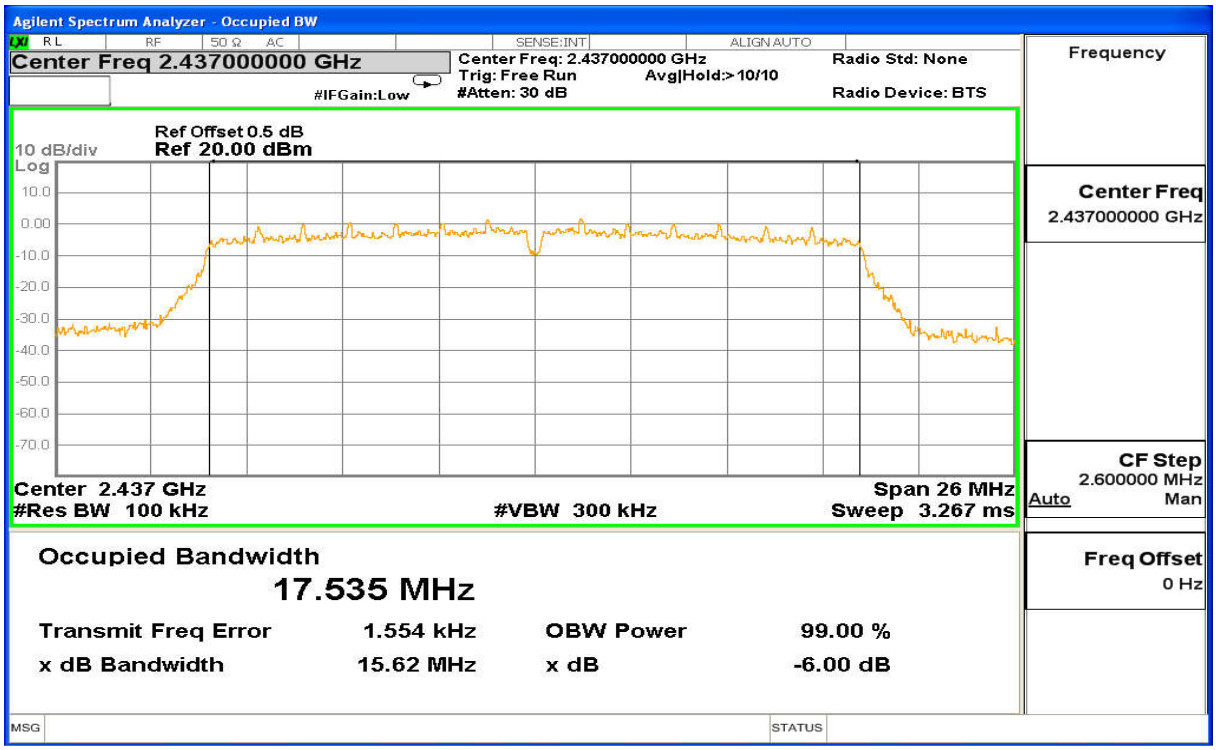
802.11g High Channel



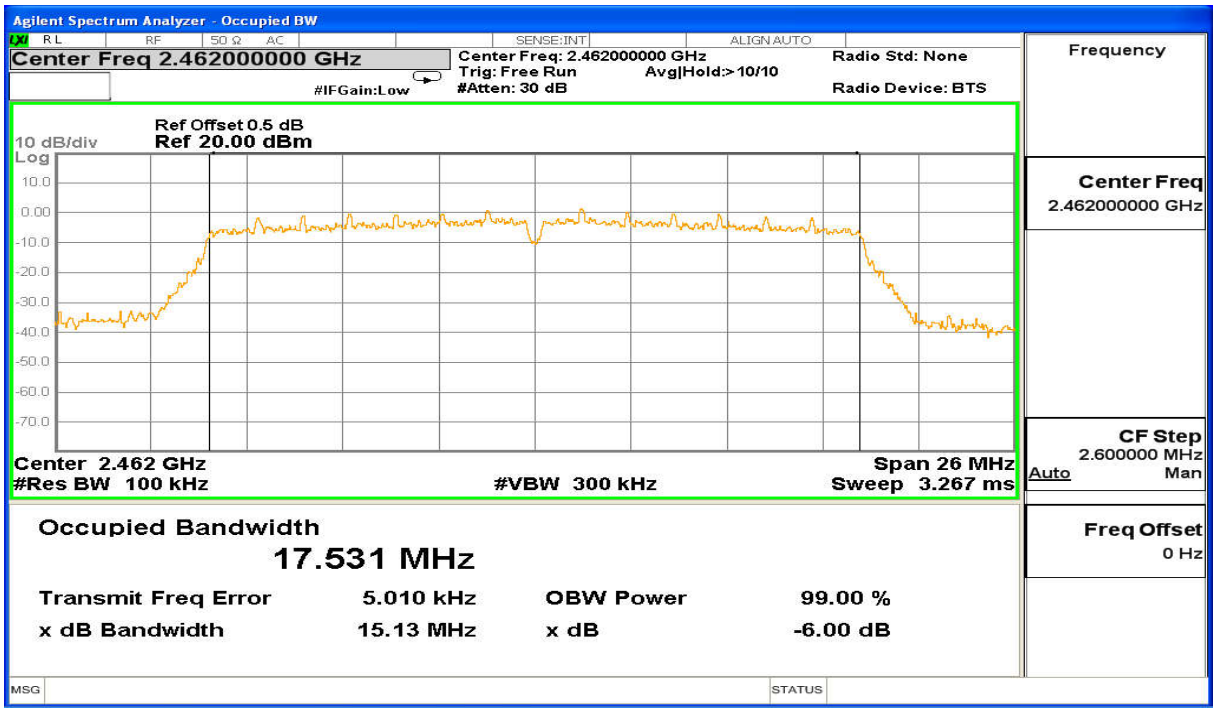
802.11n-HT20 Low Channel



802.11n-HT20Middle Channel



802.11n-HT20High Channel

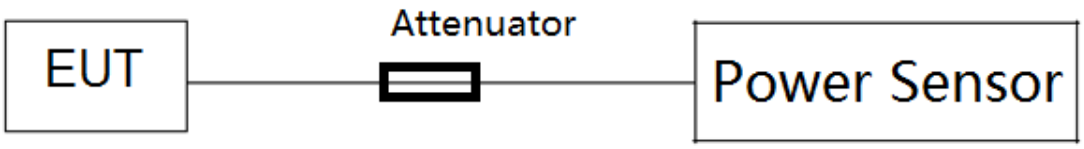


9 Maximum Peak Output Power

Test Requirement	:	FCC CFR47 Part 15 Section 15.247
Test Method	:	ANSI C63.10:2013
Test Limit	:	Regulation 15.247 (b)(3), For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. 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.
Test Mode	:	Refer to section 3.3

9.1 Test Procedure

The EUT was directly connected to the Power Sensor&PC



9.2 Test Result

Modulation	Maximum Peak Output Power (dBm)			Limit
	Low Channel	Middle Channel	High Channel	
802.11b	9.45	9.46	9.42	1W(30dBm)
802.11g	9.23	9.02	9.02	1W(30dBm)
802.11n-HT20	8.14	8.20	8.15	1W(30dBm)

10 Power Spectral density

Test Requirement	:	FCC CFR47 Part 15 Section 15.247
Test Method	:	ANSI C63.10:2013
Test Limit	:	Regulation 15.247(f)The power spectral density conducted from the intentional radiator to the antenna due to the digital modulation operation of the hybrid system, with the frequency hopping operation turned off, shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.
Test Mode	:	Refer to section 3.3

10.1 Test Procedure

KDB 558074 D01 DTS Meas Guidance

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna portto the spectrum.

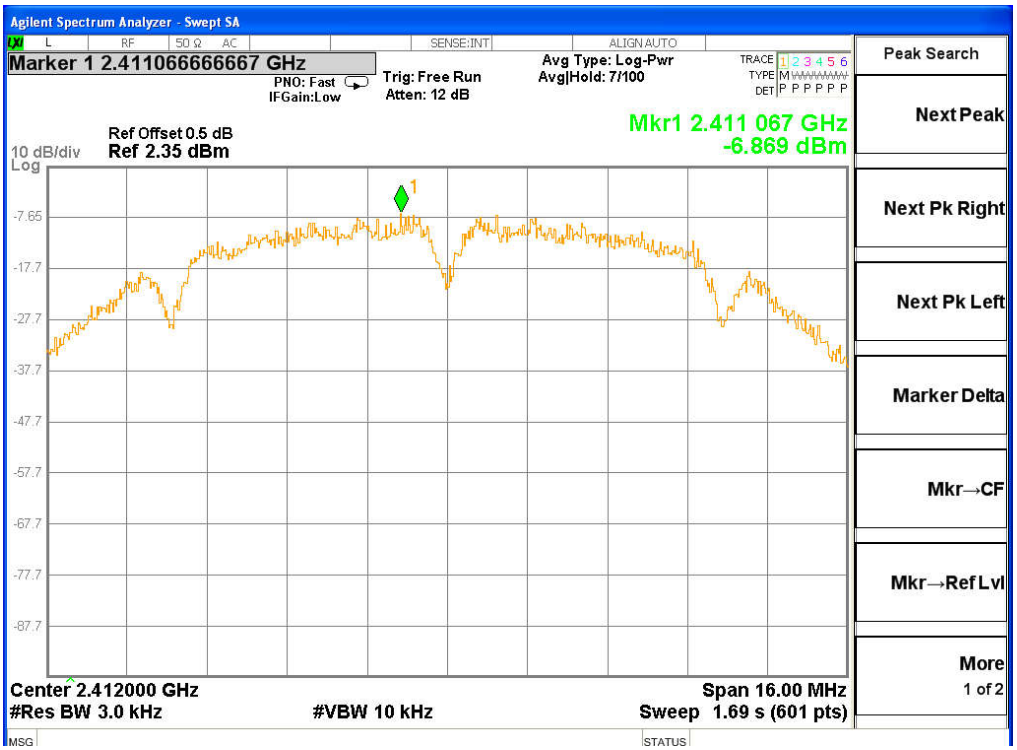
2. Set the spectrum analyzer: RBW = 3kHz. VBW = 10kHz , Span = 1.5 times the DTS channel bandwidth(6 dB bandwidth). Sweep = auto; Detector Function = Peak. Trace = Max hold.

3. Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. The limit is specified in one of the subparagraphs of this Section Submit this plot.

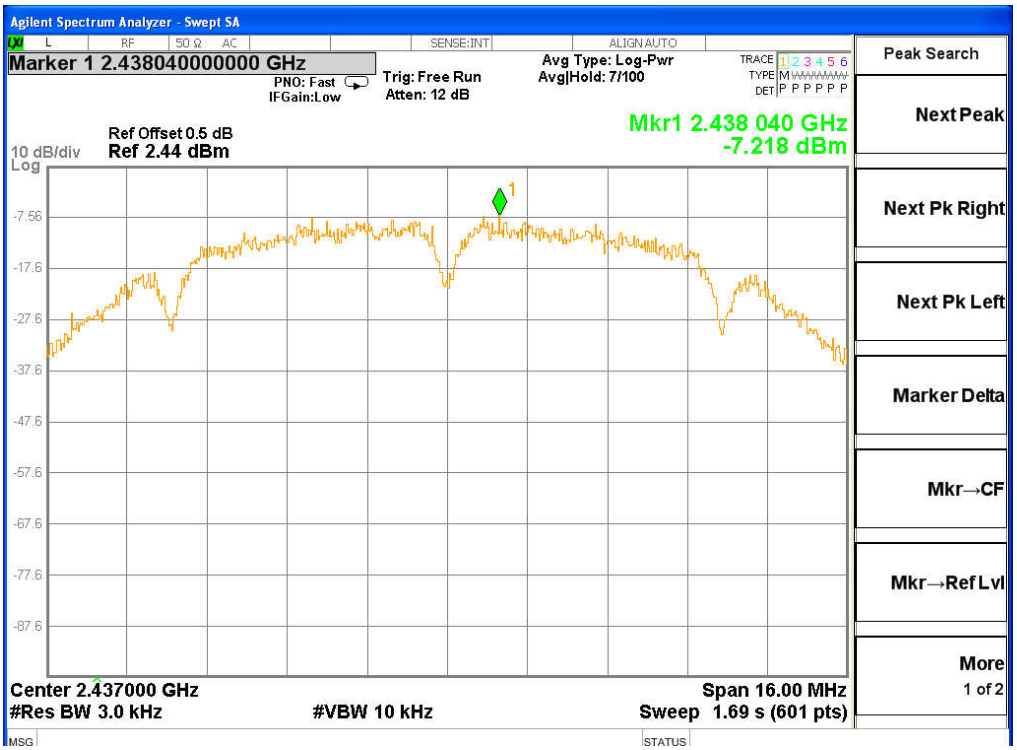
10.2 Test Result

Modulation	Power Spectraldensity (dBm/3kHz)			Limit
	Low Channel	Middle Channel	High Channel	
802.11b	-6.689	-7.218	-8.126	8dBm/3kHz
802.11g	-13.285	-13.586	-15.354	8dBm/3kHz
802.11n-HT20	-12.750	-11.936	-15.341	8dBm/3kHz

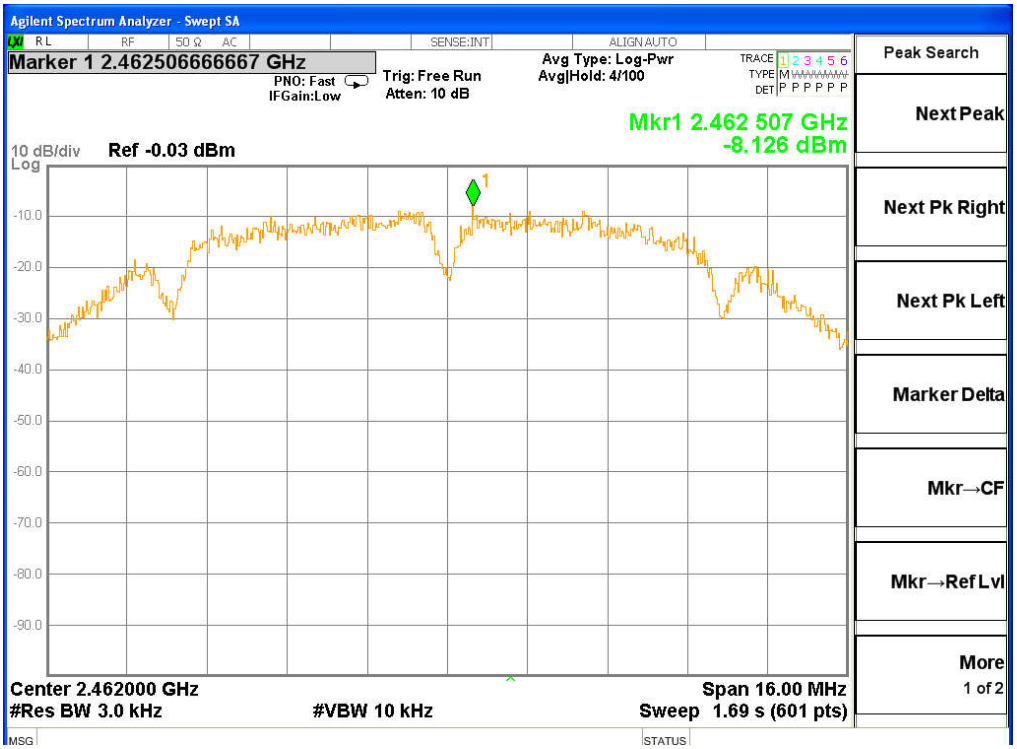
802.11b LowChannel



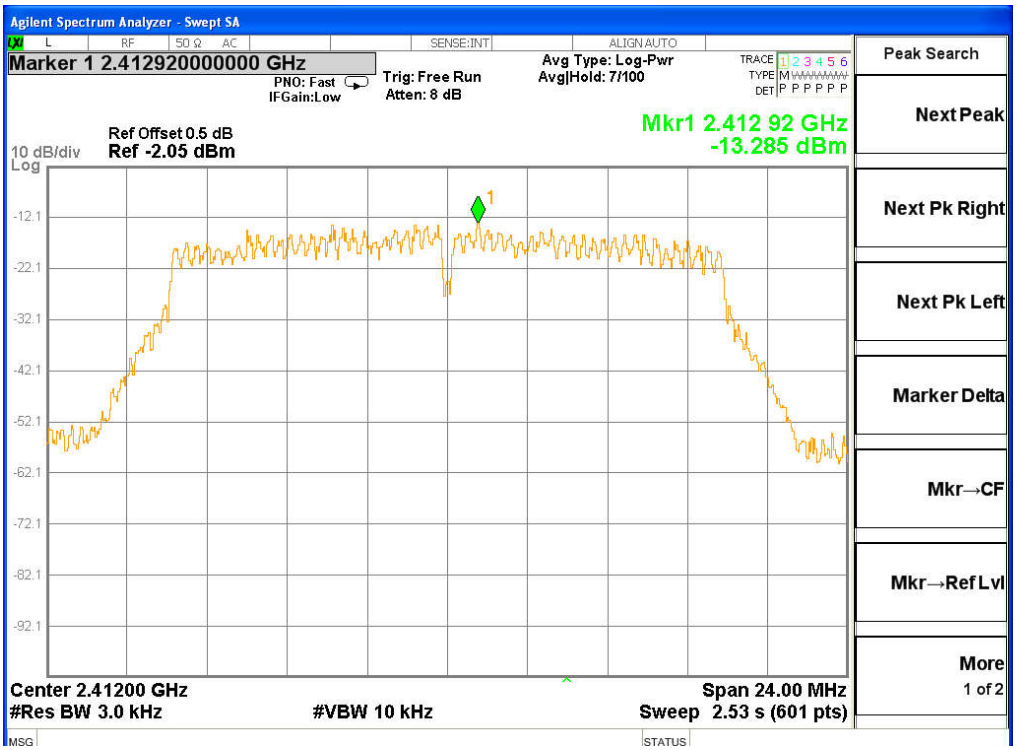
802.11b Middle Channel



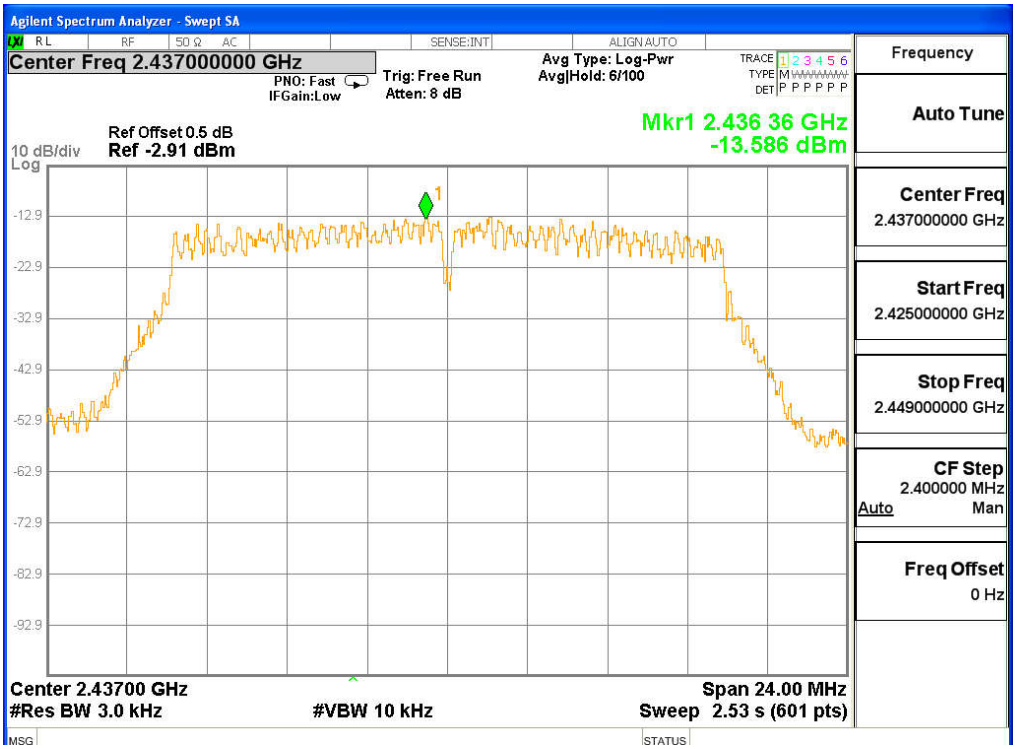
802.11b High Channel



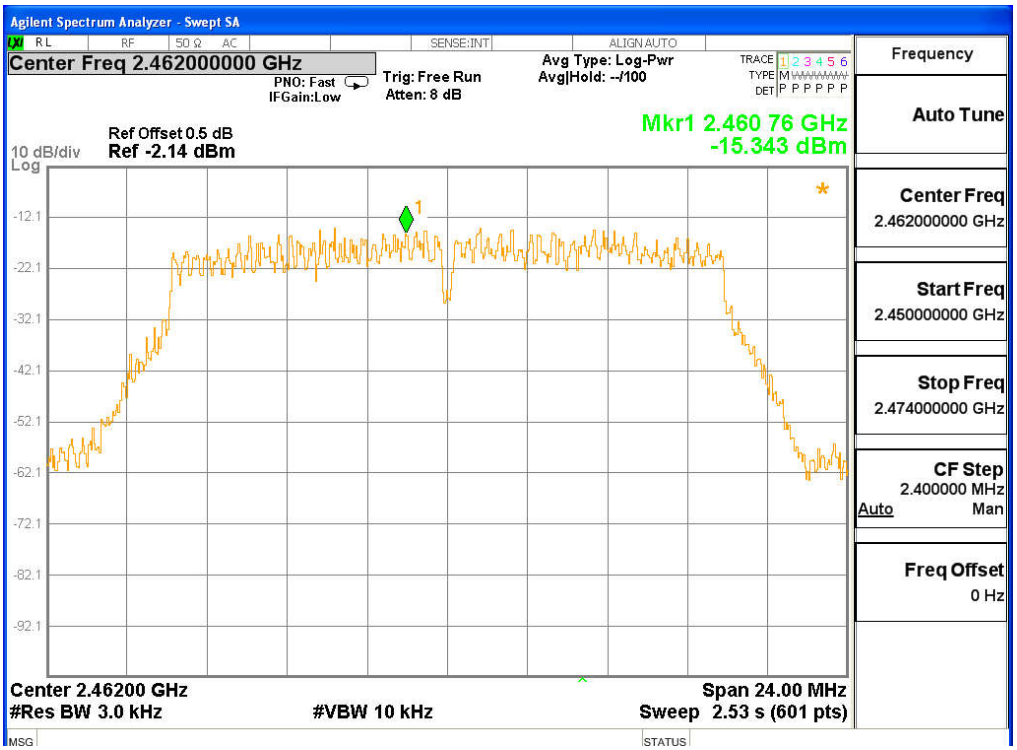
802.11g Low Channel



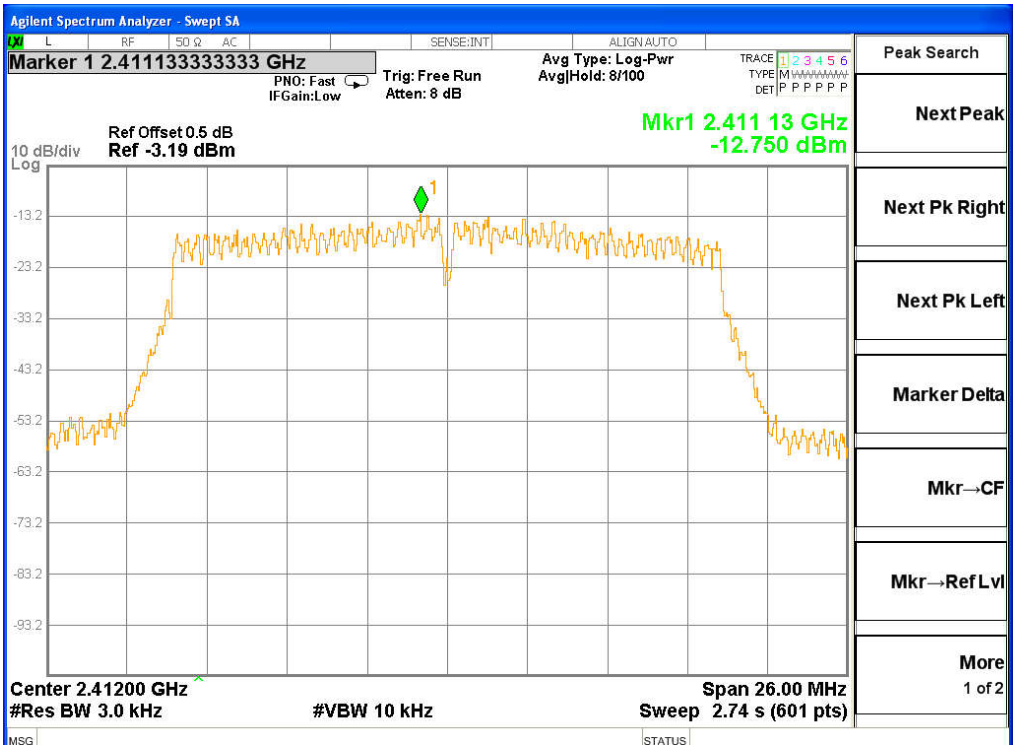
802.11g Middle Channel



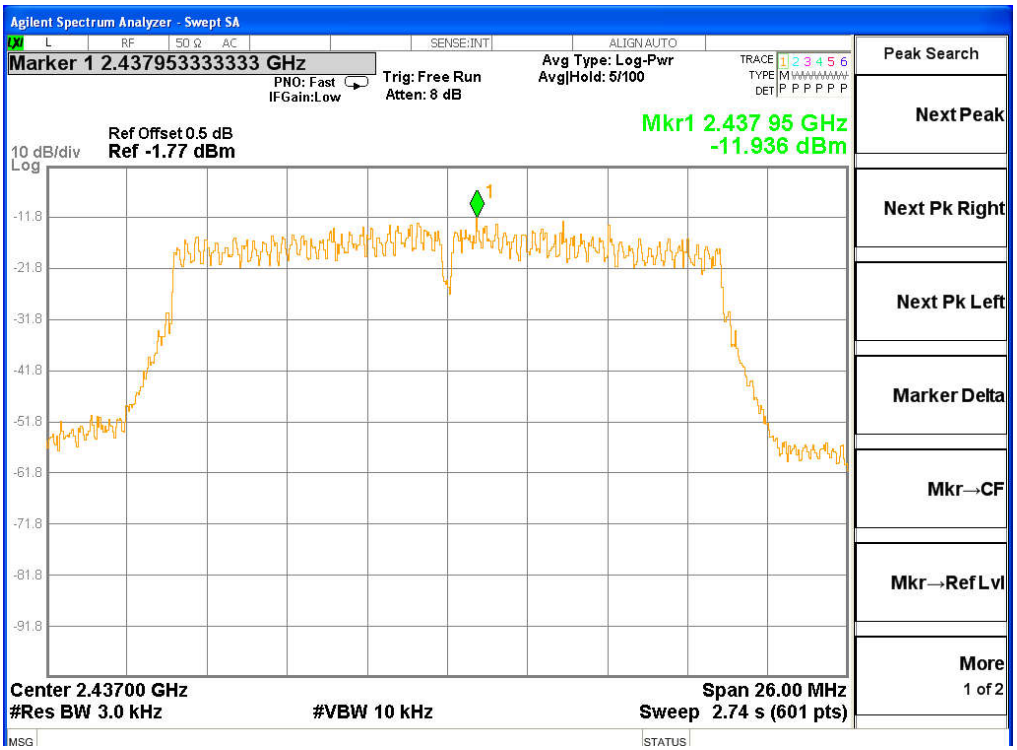
802.11g High Channel



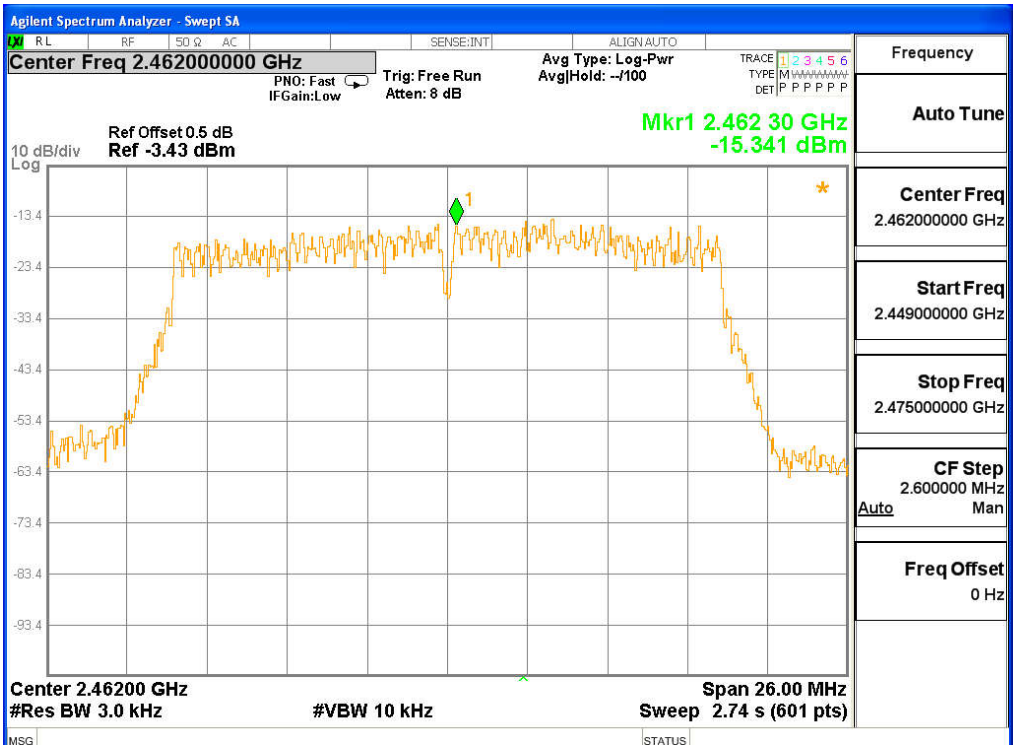
802.11n-HT20 Low Channel



802.11n-HT20Middle Channel



802.11n-HT20High Channel

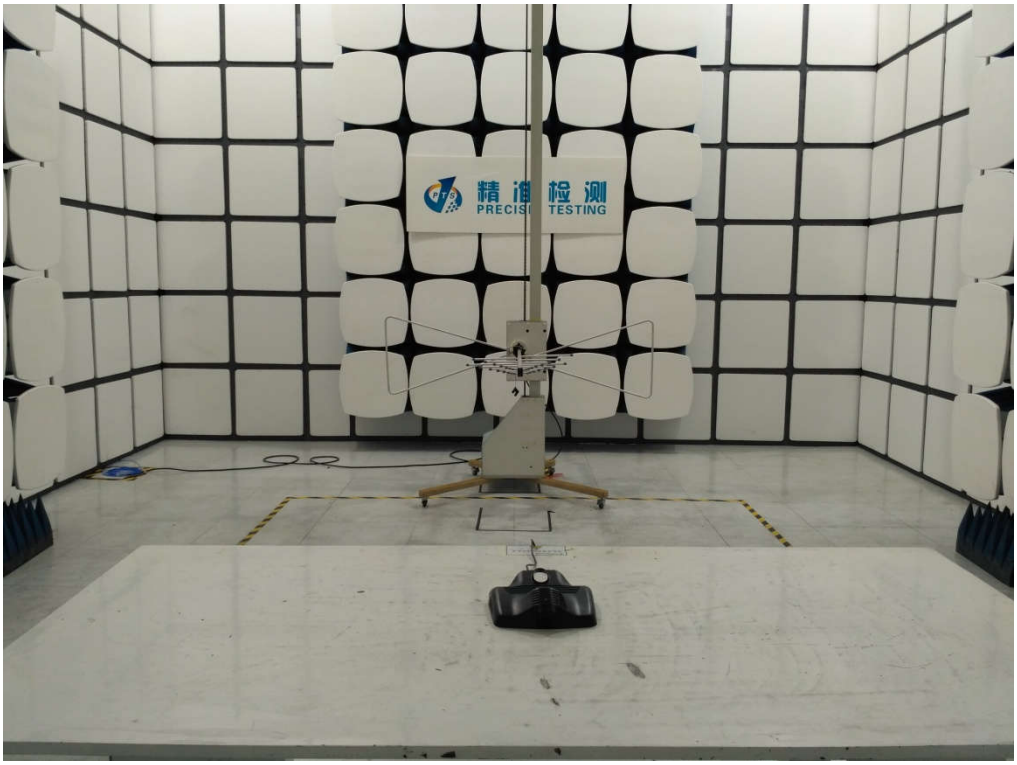


11 Antenna Requirement

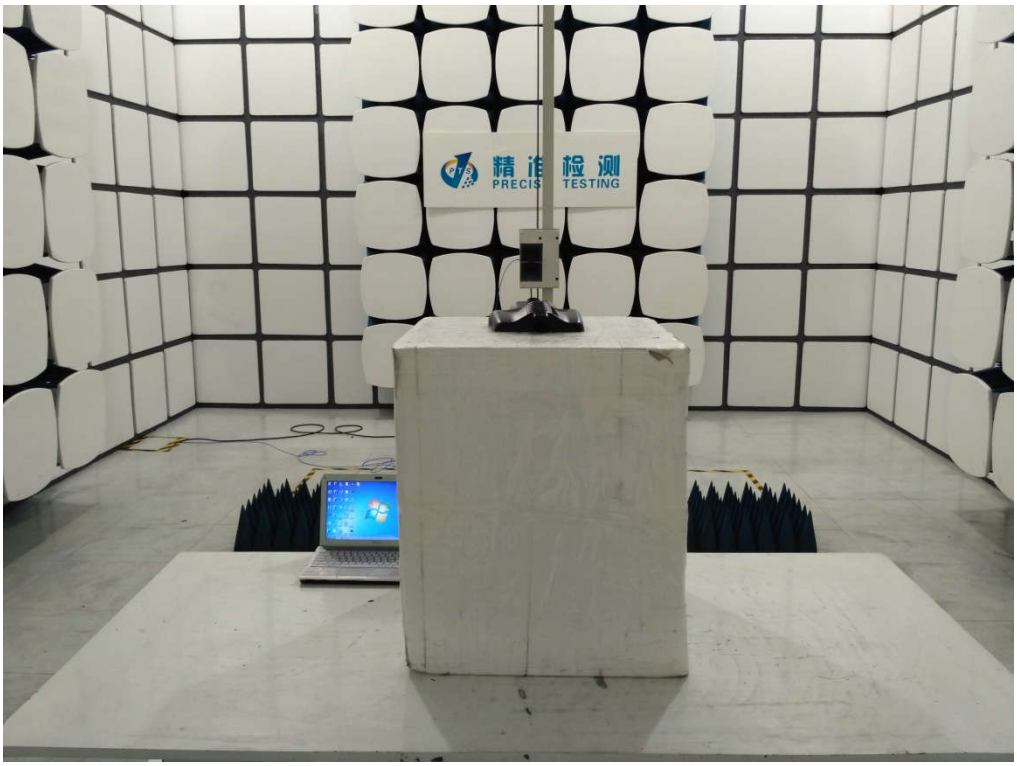
According to the FCC part15.203, a transmitter can only be sold or operated with antennas with which it was approved. This product has an internal antenna, it meet the requirement of this section.

12 Test Setup

Radiated Spurious Emissions
From 30MHz-1000MHz



Above 1GHz



******THE END REPORT******