FCC Part 15C Test Report

FCC ID: 2AKVD-F4PLUS

Product Name:	**DETU F4 Plus Professional 360 degree Camera**
Trademark:	DETU camera
Model Name :	**F4 Plus**
Prepared For : Address :	**Zhejiang Detu Internet Co., Ltd** Floor 26, South Lugu Information Industry Park, No.368, Chengbei Street, Liandu District, Lishui City, Zhejiang Province, China
Prepared By : Address :	**Shenzhen BCTC Testing Co., Ltd.** BCTC Building & 1-2F, East of B Building, Pengzhou Industrial, Fuyuan 1st Road, Qiaotou Community, Fuyong Street, Bao'an District, Shenzhen, China
Test Date:	Oct. 23, 2017 – Nov. 06, 2017
Date of Report :	Nov. 06, 2017
Report No.:	**BCTC-FY171006844E**

TEST RESULT CERTIFICATION

Applicant's name	:	**Zhejiang Detu Internet Co., Ltd**
Address	:	Floor 26, South Lugu Information Industry Park, No.368, Chengbei Street, Liandu District, Lishui City, Zhejiang Province, China
Manufacture's Name	:	**Zhejiang Detu Internet Co., Ltd**
Address	:	Floor 26, South Lugu Information Industry Park, No.368, Chengbei Street, Liandu District, Lishui City, Zhejiang Province, China
Product description		
Product name	:	DETU F4 Plus Professional 360 degree Camera
Model and/or type reference	:	F4 Plus
Standards	:	FCC Part15.247 KDB 558074 D01 DTS Meas Guidance v04 KDB 662911 D01 Multiple Transmitter Output v02r01 ANSI C63.10:2013

This device described above has been tested by BCTC, 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.

This report shall not be reproduced except in full, without the written approval of BCTC, this document may be altered or revised by BCTC, personal only, and shall be noted in the revision of the document.

Prepared by(Engineer):	Eric Yang	
Reviewer(Supervisor):	Jade Yang	
Approved(Manager):	Carson Zhang	

Table of Contents

Table of Contents

Page

Table of Contents

Page

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.247) , Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.247 (a)(2)	6dB Bandwidth	PASS	
15.247 (b)	Peak Output Power	PASS	
15.247 (c)	Radiated Spurious Emission	PASS	
15.247 (d)	Power Spectral Density	PASS	
15.205	Restricted Band of Operation	PASS	
15.247 (d)	Band Edge (Out of Band Emissions)	PASS	
15.203	Antenna Requirement	PASS	

NOTE:

(1)” N/A” denotes test is not applicable in this Test Report

1.1 TEST FACILITY

Shenzhen BCTC Testing Co., Ltd.

Add.: BCTC Building & 1-2F, East of B Building, Pengzhou Industrial, Fuyuan 1st Road, Qiaotou Community, Fuyong Street, Bao'an District, Shenzhen, China

FCC Accredited Test Site Number: 712850

IC Registered No.: 12655A

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y ± U**，where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**，providing a level of confidence of approximately **95** %。

No.	Item	Uncertainty
1	Conducted Emission Test	±1.38dB
2	RF power,conducted	±0.16dB
3	Spurious emissions,conducted	±0.21dB
4	All emissions,radiated(<1G)	±4.68dB
5	All emissions,radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	DETU F4 Plus Professional 360 degree Camera
Trade Name	DETU camera
Model Name	F4 Plus
Serial Model	N/A
Model Difference	N/A
Product Description	Operation Frequency: 802.11b/g/n20MHz:2412~2462 MHz 802.11n40MHz:2422~2452 MHz Modulation Type: WIFI: OFDM/DSSS Bit Rate of Transmitter 802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6Mbps 802.11n Up to 150Mbps Number Of Channel 802.11b/g/n20MHz:11 CH 802.11n40MHz: 7 CH Antenna Designation: Please see Note 3. Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.
Channel List	Please refer to the Note 2.
Adapter	Input:AC-240V, 1.5A, 50/60Hz Output:DC 12V, 5A
Power	DC 7.4V From battery
hardware version	--
Software version	--
Serial number	--
Connecting I/O Port(s)	Please refer to the User's Manual

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.

Channel List for 802.11b/g/n(20)							
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(40)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
03	2422	05	2432	07	2442	09	2452
04	2427	06	2437	08	2447		

3.

Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	N/A	N/A	FPCB Antenna	N/A	3.5	
2	N/A	N/A	FPCB Antenna	N/A	3.5	
Note1: Directional Gain=3.5dBi+10log(2)=6.51dBi Note2: The EUT 802.11n (20) and 802.11n(40) is support MIMO mode.						

2.2 DESCRIPTION OF TEST MODES

Pretest Mode	Description
Mode 1	802.11b CH1/ CH6/ CH11
Mode 2	802.11g CH1/ CH6/ CH11
Mode 3	802.11n20 CH1/ CH6/ CH11
Mode 4	802.11n40 CH3/ CH6/ CH9
Mode 5	Link Mode

Conducted Emission	
Final Test Mode	Description
Mode 5	Link Mode

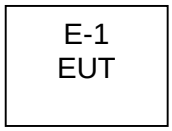
For Radiated Emission	
Final Test Mode	Description
Mode 1	802.11b CH1/ CH6/ CH11
Mode 2	802.11g CH1/ CH6/ CH11
Mode 3	802.11n20 CH1/ CH6/ CH11
Mode 4	802.11n40 CH3/ CH6/ CH9

Note:

(1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission / Conducted Emission Test



2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	DETU F4 Plus Professional 360 degree Camera	DETU camera	F4 Plus	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note

Note:

(1) The support equipment was authorized by Declaration of Confirmation.
(2) For detachable type I/O cable should be specified the length in cm in『Length』column.

2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Spectrum Analyzer (9kHz-26.5GHz)	Agilent	E4407B	MY45108040	2017.08.27	2018.08.26
2	Test Receiver (9kHz-7GHz)	R&S	ESPI	101318	2017.08.27	2018.08.26
3	Bilog Antenna (30MHz-1GHz)	R&S	VULB 9168	VULB91 68-438	2017.08.27	2018.08.26
4	Horn Antenna (1GHz-18GHz)	SCHWARZBECK	BBHA9120D	1201	2017.09.03	2018.09.03
5	Horn Antenna (14GHz-40GHz)	SCHWARZBECK	BBHA 9170	9170-181	2017.09.03	2018.09.03
6	Amplifier (9KHz-6GHz)	SCHWARZBECK	BBV9744	9744-0037	2017.08.27	2018.08.26
7	Amplifier (1GHz-18GHz)	SCHWARZBECK	BBV9718	9718-309	2017.08.27	2018.08.26
8	Amplifier (18GHz-40GHz)	SCHWARZBECK	BBV 9721	9721-205	2017.08.27	2018.08.26
9	Loop Antenna (9KHz-30MHz)	SCHWARZBECK	FMZB1519B	00014	2017.09.03	2018.09.03
10	RF cables1 (9kHz-1GHz)	R&S	R203	R20X	2017.08.27	2018.08.26
11	RF cables2 (1GHz-40GHz)	R&S	R204	R21X	2017.08.27	2018.08.26
12	Antenna connector	Florida RF Labs	N/A	RF 01#	2017.08.27	2018.08.26
13	Power Metter	ANRITSU	ML2487A	6K00001568	2017.08.27	2018.08.26
14	Power Sensor (AV)	ANRITSU	ML2491A	030989	2017.08.27	2018.08.26
15	Signal Analyzer 9kHz-26.5GHz	Agilent	N9010A	MY48030494	2017.08.27	2018.08.26
16	Test Receiver 20kHz-40GHz	R&S	ESU 40	100376	2017.08.27	2018.08.26
17	D.C. Power Supply	LongWei	PS-305D	010964729	2017.08.27	2018.08.26

Conduction Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Test Receiver	R&S	ESCI	1166.5950K03-101165-ha	2017.08.27	2018.08.26
2	LISN	SCHWARZBECK	NSLK8127	8127739	2017.08.27	2018.08.26
3	LISN	R&S	NSLK8126	8126487	2017.08.27	2018.08.26
4	RF cables	R&S	R204	R20X	2017.08.27	2018.08.26
5	Attenuator	R&S	ESH3-Z2	143206	2017.08.27	2018.08.26

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Limit (dBuV)		Standard
	Quasi-peak	Average	
0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	56.00	46.00	FCC
5.0 -30.0	60.00	50.00	FCC

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

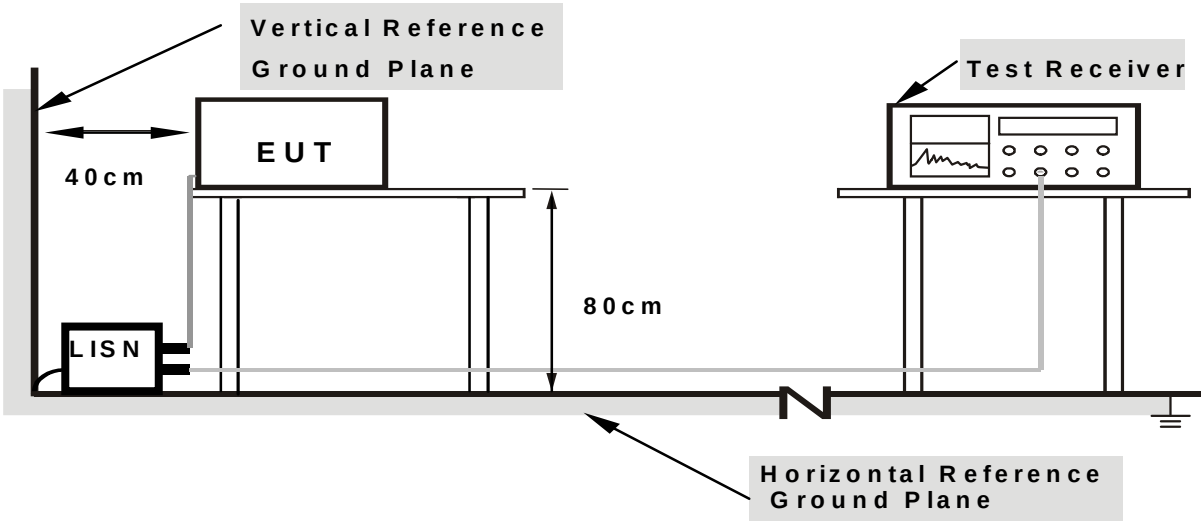
d. LISN at least 80 cm from nearest part of EUT chassis.

e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 DEVIATION FROM TEST STANDARD

No deviation

3.1.4 TEST SETUP



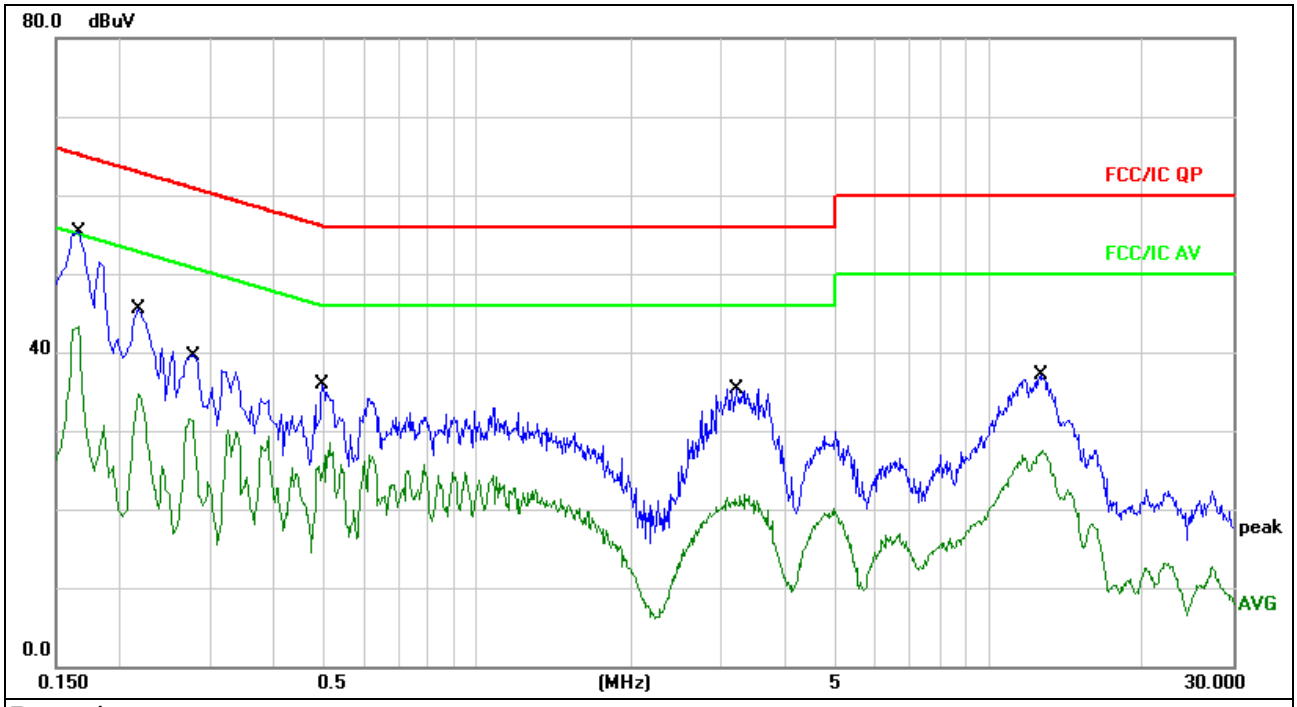
Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.1.6 TEST RESULTS

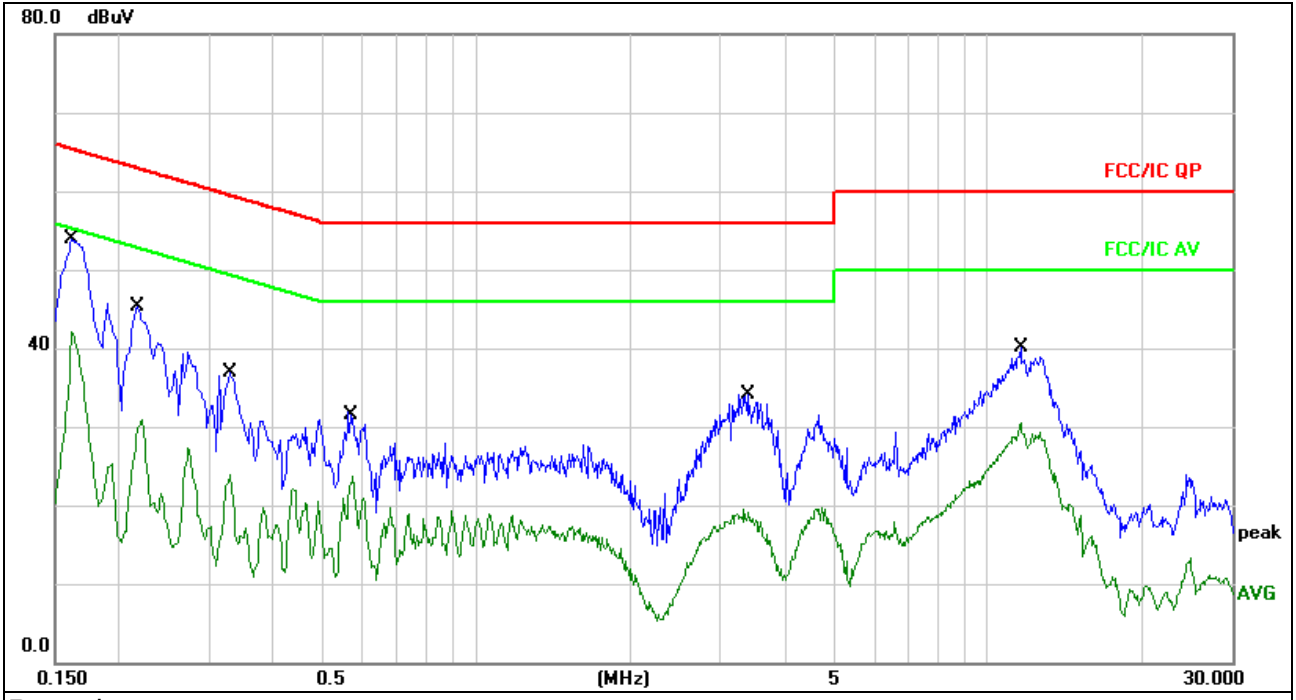
Temperature：	26℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase：	L
Test Voltage ：	AC 120V/60Hz	Test Mode：	Mode 5



Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1660	45.16	10.06	55.22	65.15	-9.93	QP	
2		0.1660	33.24	10.06	43.30	55.15	-11.85	AVG	
3		0.2180	35.37	10.07	45.44	62.89	-17.45	QP	
4		0.2180	24.64	10.07	34.71	52.89	-18.18	AVG	
5		0.2740	29.58	10.09	39.67	60.99	-21.32	QP	
6		0.2740	21.39	10.09	31.48	50.99	-19.51	AVG	
7		0.4980	25.83	10.11	35.94	56.03	-20.09	QP	
8		0.4980	18.32	10.11	28.43	46.03	-17.60	AVG	
9		3.2180	25.07	10.18	35.25	56.00	-20.75	QP	
10		3.2180	11.75	10.18	21.93	46.00	-24.07	AVG	
11		12.6059	27.03	10.14	37.17	60.00	-22.83	QP	
12		12.6059	17.42	10.14	27.56	50.00	-22.44	AVG	

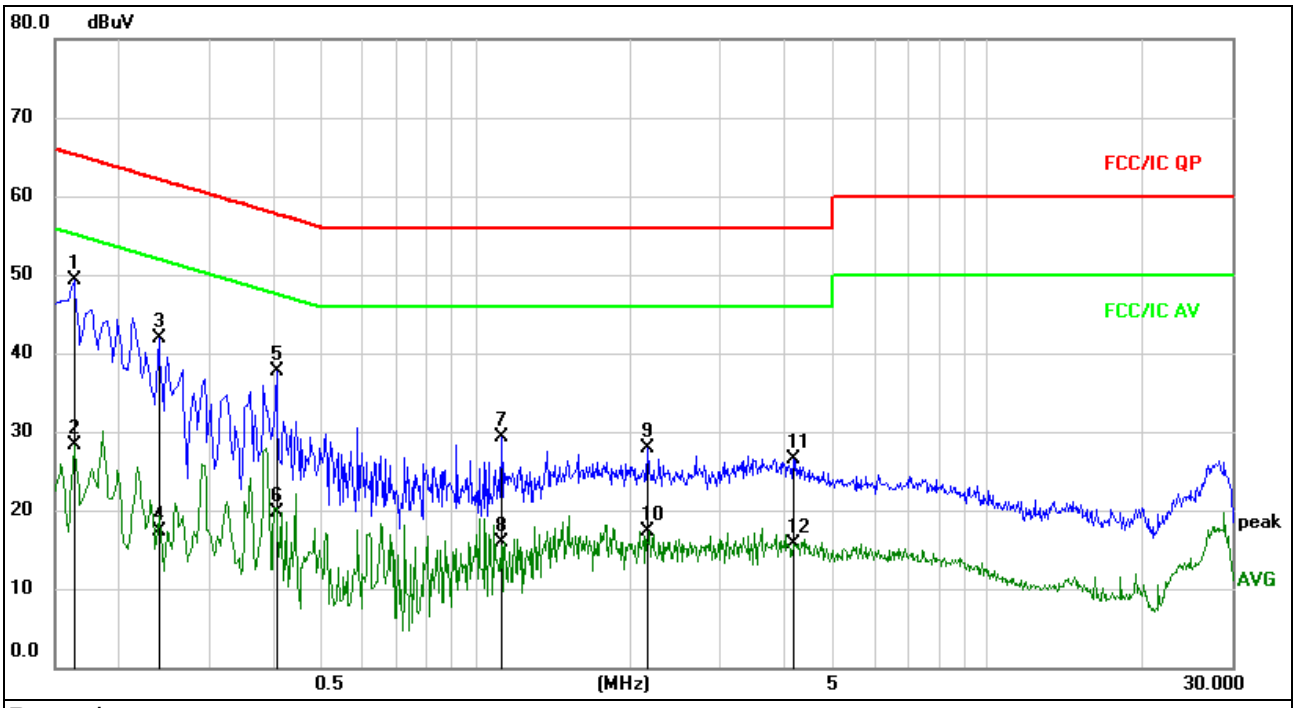
Temperature：	26℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase：	N
Test Voltage ：	AC 120V/60Hz	Test Mode：	Mode 5



Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1620	43.77	10.05	53.82	65.36	-11.54	QP	
2		0.1620	32.14	10.05	42.19	55.36	-13.17	AVG	
3		0.2180	35.21	10.07	45.28	62.89	-17.61	QP	
4		0.2180	20.79	10.07	30.86	52.89	-22.03	AVG	
5		0.3300	26.83	10.10	36.93	59.45	-22.52	QP	
6		0.3300	13.77	10.10	23.87	49.45	-25.58	AVG	
7		0.5740	21.78	10.12	31.90	56.00	-24.10	QP	
8		0.5740	13.53	10.12	23.65	46.00	-22.35	AVG	
9		3.3820	24.01	10.18	34.19	56.00	-21.81	QP	
10		3.3820	9.29	10.18	19.47	46.00	-26.53	AVG	
11		11.5900	29.92	10.13	40.05	60.00	-19.95	QP	
12		11.5900	20.33	10.13	30.46	50.00	-19.54	AVG	

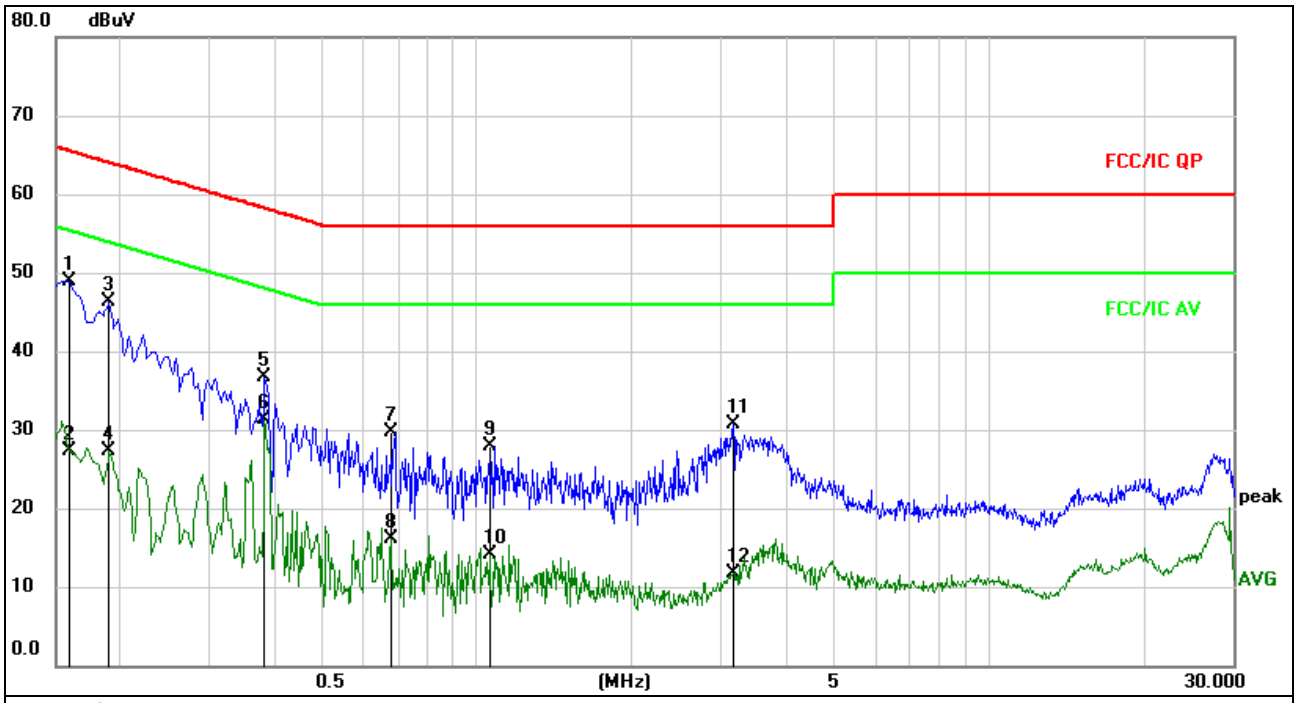
Temperature：	26℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase：	L
Test Voltage ：	AC 240V/50Hz	Test Mode：	Mode 5



Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1635	39.71	9.66	49.37	65.28	-15.91	QP	
2		0.1635	18.74	9.66	28.40	55.28	-26.88	AVG	
3		0.2400	32.24	9.65	41.89	62.10	-20.21	QP	
4		0.2400	7.61	9.65	17.26	52.10	-34.84	AVG	
5		0.4065	28.13	9.67	37.80	57.72	-19.92	QP	
6		0.4065	10.10	9.67	19.77	47.72	-27.95	AVG	
7		1.1220	19.69	9.69	29.38	56.00	-26.62	QP	
8		1.1220	6.19	9.69	15.88	46.00	-30.12	AVG	
9		2.1570	18.11	9.72	27.83	56.00	-28.17	QP	
10		2.1570	7.62	9.72	17.34	46.00	-28.66	AVG	
11		4.1730	16.72	9.73	26.45	56.00	-29.55	QP	
12		4.1730	5.98	9.73	15.71	46.00	-30.29	AVG	

Temperature：	26℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase：	N
Test Voltage ：	AC 240V/50Hz	Test Mode：	Mode 5



Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1590	39.28	9.67	48.95	65.52	-16.57	QP	
2		0.1590	17.64	9.67	27.31	55.52	-28.21	AVG	
3		0.1905	36.65	9.65	46.30	64.01	-17.71	QP	
4		0.1905	17.72	9.65	27.37	54.01	-26.64	AVG	
5		0.3840	27.06	9.67	36.73	58.19	-21.46	QP	
6		0.3840	21.58	9.67	31.25	48.19	-16.94	AVG	
7		0.6765	20.01	9.68	29.69	56.00	-26.31	QP	
8		0.6765	6.45	9.68	16.13	46.00	-29.87	AVG	
9		1.0545	18.19	9.69	27.88	56.00	-28.12	QP	
10		1.0545	4.46	9.69	14.15	46.00	-31.85	AVG	
11		3.1695	21.05	9.72	30.77	56.00	-25.23	QP	
12		3.1695	2.02	9.72	11.74	46.00	-34.26	AVG	

3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Limit (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

(1) The limit for radiated test was performed according to FCC PART 15C.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	25GHz
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / *10Hz* for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.2.2 TEST PROCEDURE

Below 1GHz test procedure as below:

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Above 1GHz test procedure as below:

g. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 metre to 1.5 metre(Above 18GHz the distance is 1 meter and table is 1.5 metre).
h. Test the EUT in the lowest channel ,the middle channel ,the Highest channel

Note:

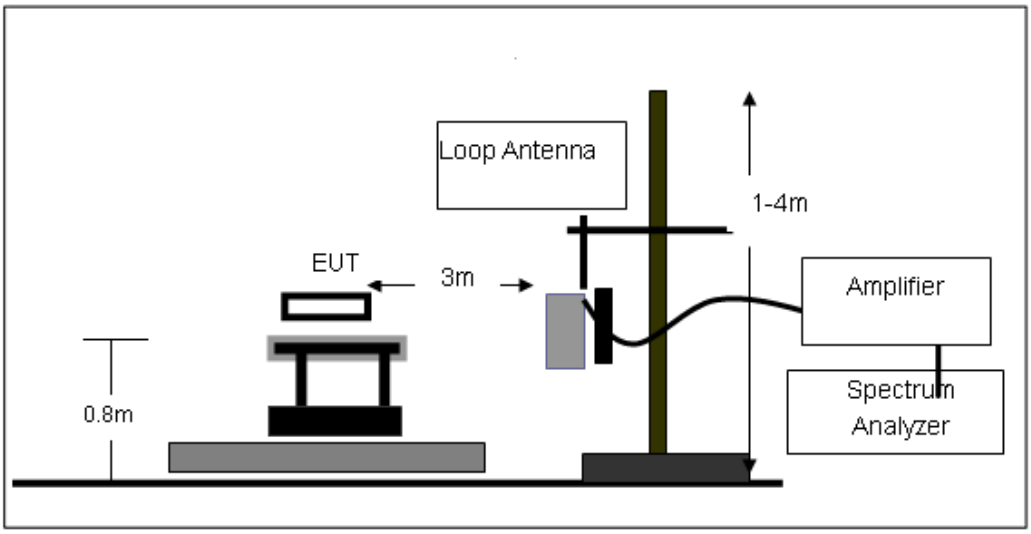
Both horizontal and vertical antenna polarities were tested
and performed pretest to three orthogonal axis. The worst case emissions were reported

3.2.3 DEVIATION FROM TEST STANDARD

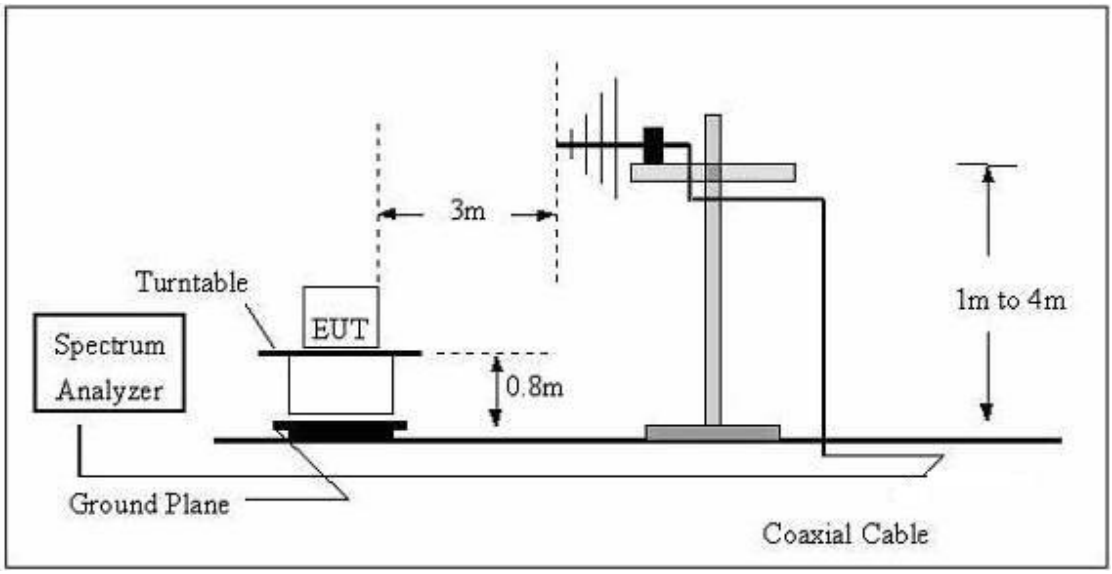
No deviation

3.2.4 TEST SETUP

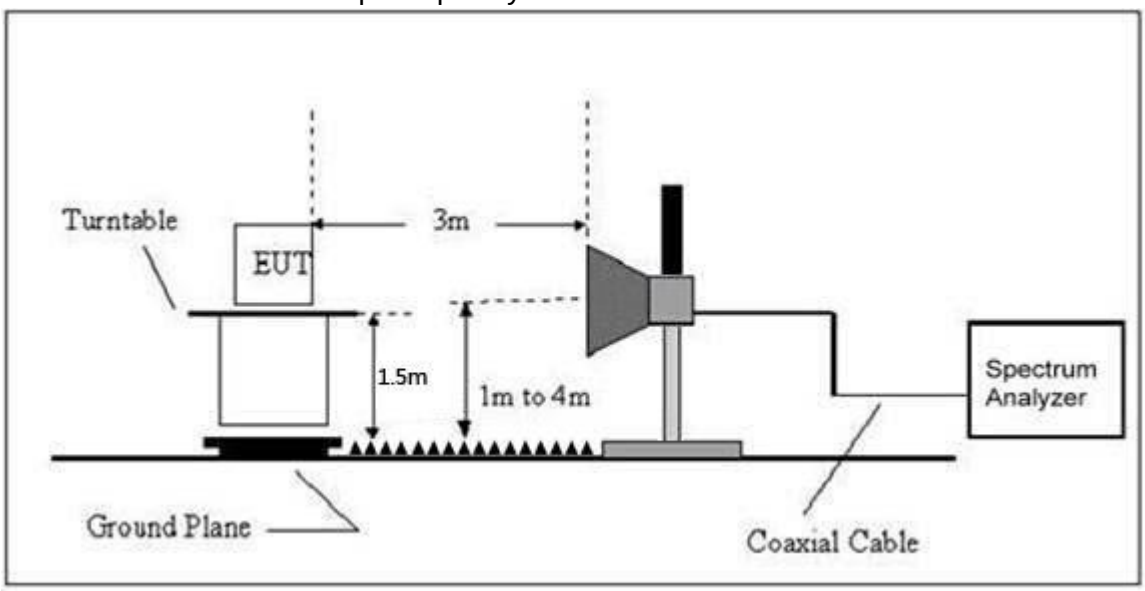
（A）Radiated Emission Test-Up Frequency Below 30MHz



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



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



3.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

3.2.6 TEST RESULTS (BETWEEN 9KHZ – 30 MHZ)

Temperature：	20℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 7.4V
Test Mode ：	Mode 5	Polarization :	--

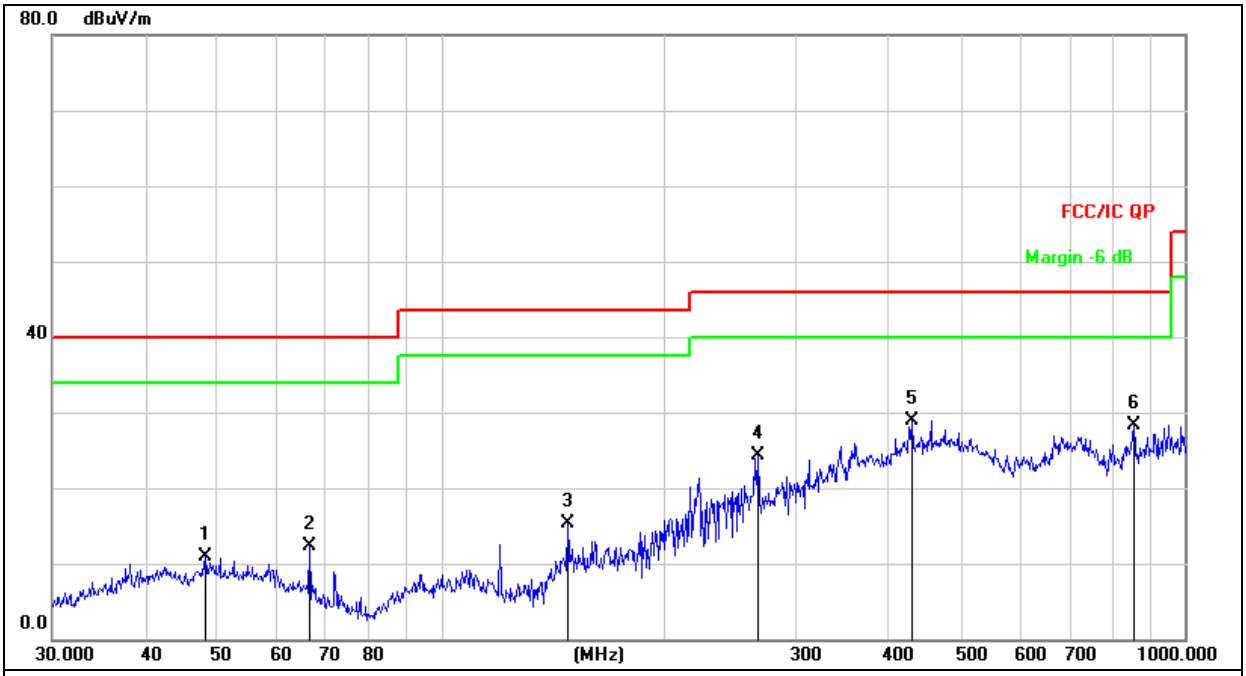
Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

NOTE:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
Distance extrapolation factor =40 log (specific distance/test distance)(dB);
Limit line = specific limits(dBuv) + distance extrapolation factor.

3.2.7 TEST RESULTS (BETWEEN 30MHZ – 1GHZ)

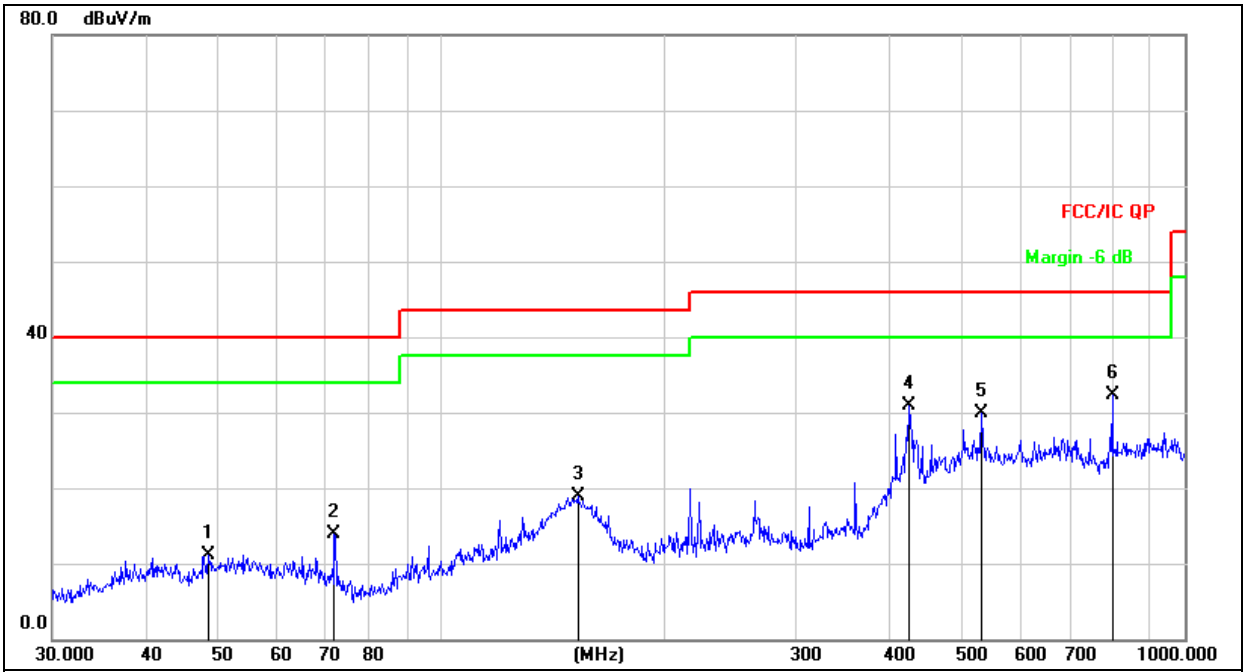
Temperature：	26℃	Relative Humidity：	54%
Pressure：	1010 hPa	Polarization：	Horizontal
Test Voltage ：	DC 7.4V		
Test Mode ：	Mode 5		



Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		48.1626	25.61	-14.71	10.90	40.00	-29.10	QP
2		66.4989	29.64	-17.35	12.29	40.00	-27.71	QP
3		147.9214	35.05	-19.75	15.30	43.50	-28.20	QP
4		266.6089	37.55	-13.18	24.37	46.00	-21.63	QP
5	*	429.5228	37.61	-8.67	28.94	46.00	-17.06	QP
6		854.0247	28.55	-0.20	28.35	46.00	-17.65	QP

Temperature：	26℃	Relative Humidity：	54%
Pressure：	1010 hPa	Polarization：	Vertical
Test Voltage ：	DC 7.4V		
Test Mode ：	Mode 5		



Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		48.6719	25.76	-14.67	11.09	40.00	-28.91	QP
2		71.8320	33.59	-19.62	13.97	40.00	-26.03	QP
3		152.6641	38.44	-19.49	18.95	43.50	-24.55	QP
4		426.5210	39.55	-8.73	30.82	46.00	-15.18	QP
5		531.9635	36.43	-6.44	29.99	46.00	-16.01	QP
6	*	798.9797	33.47	-1.17	32.30	46.00	-13.70	QP

3.2.8 TEST RESULTS (1GHZ~25GHZ)

802.11b

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
		Low Channel:2412							
V	4824.00	68.28	39.55	7.85	25.66	62.24	74.00	-11.76	PK
V	4824.00	49.54	39.55	7.85	25.66	43.50	54.00	-10.50	AV
V	7236.00	64.67	38.33	7.52	24.55	58.41	74.00	-15.59	PK
V	7236.00	47.26	38.33	7.52	24.55	41.00	54.00	-13.00	AV
V	15450.00	50.15	35.23	6.75	26.59	48.26	74.00	-25.74	PK
H	4824.00	67.11	39.55	7.85	25.66	61.07	74.00	-12.93	PK
H	4824.00	49.00	39.55	7.85	25.66	42.96	54.00	-11.04	AV
H	7236.00	68.55	38.33	7.52	23.55	61.29	74.00	-12.71	PK
H	7236.00	51.41	38.33	7.52	23.22	43.82	54.00	-10.18	AV
H	15450.00	47.36	35.45	6.75	27.88	46.54	74.00	-27.46	PK

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
		Middle Channel:2437							
V	4874.00	68.12	38.89	7.57	25.45	62.25	74.00	-11.75	PK
V	4874.00	49.90	38.89	7.57	25.45	44.03	54.00	-9.97	AV
V	7311.00	67.05	38.78	7.35	24.78	60.40	74.00	-13.60	PK
V	7311.00	48.00	38.78	7.35	24.78	41.35	54.00	-12.65	AV
V	15450.00	52.09	35.89	6.42	26.47	49.09	74.00	-24.91	PK
H	4874.00	65.86	38.89	7.57	25.45	59.99	74.00	-14.01	PK
H	4874.00	48.88	38.89	7.57	25.45	43.01	54.00	-10.99	AV
H	7311.00	69.94	38.78	7.35	24.78	63.29	74.00	-10.71	PK
H	7311.00	50.70	38.78	7.35	24.78	44.05	54.00	-9.95	AV
H	15450.00	49.17	36.68	6.42	26.65	45.56	74.00	-28.44	PK

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
		High Channel:2462							
V	4924.00	69.38	38.75	7.46	25.45	63.54	74.00	-10.46	PK
V	4924.00	50.90	38.75	7.46	25.45	45.06	54.00	-8.94	AV
V	7386.00	69.89	38.65	7.22	24.78	63.24	74.00	-10.76	PK
V	7386.00	52.27	38.65	7.22	24.78	45.62	54.00	-8.38	AV
V	15450.00	55.50	35.58	6.35	26.47	52.74	74.00	-21.26	PK
H	4924.00	68.52	38.75	7.46	25.45	62.68	74.00	-11.32	PK
H	4924.00	55.71	38.75	7.46	25.45	49.87	54.00	-4.13	AV
H	7386.00	70.70	38.65	7.22	24.78	64.05	74.00	-9.95	PK
H	7386.00	50.63	38.65	7.22	24.78	43.98	54.00	-10.02	AV
H	15450.00	51.05	36.42	6.32	26.65	47.60	74.00	-26.40	PK

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11g

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
		Low Channel:2412							
V	4824.00	69.82	39.55	7.85	25.66	63.78	74.00	-10.22	PK
V	4824.00	51.14	39.55	7.85	25.66	45.10	54.00	-8.90	AV
V	7236.00	68.12	38.33	7.52	24.55	61.86	74.00	-12.14	PK
V	7236.00	49.26	38.33	7.52	24.55	43.00	54.00	-11.00	AV
V	15450.00	51.29	35.23	6.75	26.59	49.40	74.00	-24.60	PK
H	4824.00	65.95	39.55	7.85	25.66	59.91	74.00	-14.09	PK
H	4824.00	50.98	39.55	7.85	25.66	44.94	54.00	-9.06	AV
H	7236.00	71.38	38.33	7.52	23.55	64.12	74.00	-9.88	PK
H	7236.00	51.79	38.33	7.52	23.22	44.20	54.00	-9.80	AV
H	15450.00	46.92	35.45	6.75	27.88	46.10	74.00	-27.90	PK

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
		Middle Channel:2437							
V	4874.00	69.20	38.89	7.57	25.45	63.33	74.00	-10.67	PK
V	4874.00	50.06	38.89	7.57	25.45	44.19	54.00	-9.81	AV
V	7311.00	68.54	38.78	7.35	24.78	61.89	74.00	-12.11	PK
V	7311.00	51.22	38.78	7.35	24.78	44.57	54.00	-9.43	AV
V	15450.00	56.68	35.89	6.42	26.47	53.68	74.00	-20.32	PK
H	4874.00	66.72	38.89	7.57	25.45	60.85	74.00	-13.15	PK
H	4874.00	52.13	38.89	7.57	25.45	46.26	54.00	-7.74	AV
H	7311.00	71.36	38.78	7.35	24.78	64.71	74.00	-9.29	PK
H	7311.00	50.24	38.78	7.35	24.78	43.59	54.00	-10.41	AV
H	15450.00	50.65	36.68	6.42	26.65	47.04	74.00	-26.96	PK

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
		High Channel:2462							
V	4924.00	69.40	38.75	7.46	25.45	63.56	74.00	-10.44	PK
V	4924.00	51.07	38.75	7.46	25.45	45.23	54.00	-8.77	AV
V	7386.00	70.09	38.65	7.22	24.78	63.44	74.00	-10.56	PK
V	7386.00	51.11	38.65	7.22	24.78	44.46	54.00	-9.54	AV
V	15450.00	55.43	35.58	6.35	26.47	52.67	74.00	-21.33	PK
H	4924.00	68.17	38.75	7.46	25.45	62.33	74.00	-11.67	PK
H	4924.00	51.36	38.75	7.46	25.45	45.52	54.00	-8.48	AV
H	7386.00	69.25	38.65	7.22	24.78	62.60	74.00	-11.40	PK
H	7386.00	49.74	38.65	7.22	24.78	43.09	54.00	-10.91	AV
H	15450.00	50.83	36.42	6.32	26.65	47.38	74.00	-26.62	PK

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
   Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11n(20MHz)

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
		Low Channel:2412							
V	4824.00	69.11	39.55	7.85	25.66	63.07	74.00	-10.93	PK
V	4824.00	49.10	39.55	7.85	25.66	43.06	54.00	-10.94	AV
V	7236.00	67.15	38.33	7.52	24.55	60.89	74.00	-13.11	PK
V	7236.00	49.38	38.33	7.52	24.55	43.12	54.00	-10.88	AV
V	15450.00	52.64	35.23	6.75	26.59	50.75	74.00	-23.25	PK
H	4824.00	68.18	39.55	7.85	25.66	62.14	74.00	-11.86	PK
H	4824.00	50.15	39.55	7.85	25.66	44.11	54.00	-9.89	AV
H	7236.00	69.96	38.33	7.52	23.55	62.70	74.00	-11.30	PK
H	7236.00	53.30	38.33	7.52	23.22	45.71	54.00	-8.29	AV
H	15450.00	48.15	35.45	6.75	27.88	47.33	74.00	-26.67	PK

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
		Middle Channel:2437							
V	4874.00	68.17	38.89	7.57	25.45	62.30	74.00	-11.7	PK
V	4874.00	50.58	38.89	7.57	25.45	44.71	54.00	-9.29	AV
V	7311.00	68.14	38.78	7.35	24.78	61.49	74.00	-12.51	PK
V	7311.00	48.41	38.78	7.35	24.78	41.76	54.00	-12.24	AV
V	15450.00	51.64	35.89	6.42	26.47	48.64	74.00	-25.36	PK
H	4874.00	67.42	38.89	7.57	25.45	61.55	74.00	-12.45	PK
H	4874.00	50.51	38.89	7.57	25.45	44.64	54.00	-9.36	AV
H	7311.00	68.20	38.78	7.35	24.78	61.55	74.00	-12.45	PK
H	7311.00	49.33	38.78	7.35	24.78	42.68	54.00	-11.32	AV
H	15450.00	47.49	36.68	6.42	26.65	43.88	74.00	-30.12	PK

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
		High Channel:2462							
V	4924.00	69.43	38.75	7.46	25.45	63.59	74.00	-10.41	PK
V	4924.00	51.01	38.75	7.46	25.45	45.17	54.00	-8.83	AV
V	7386.00	68.63	38.65	7.22	24.78	61.98	74.00	-12.02	PK
V	7386.00	49.74	38.65	7.22	24.78	43.09	54.00	-10.91	AV
V	15450.00	52.28	35.58	6.35	26.47	49.52	74.00	-24.48	PK
H	4924.00	67.10	38.75	7.46	25.45	61.26	74.00	-12.74	PK
H	4924.00	49.81	38.75	7.46	25.45	43.97	54.00	-10.03	AV
H	7386.00	68.19	38.65	7.22	24.78	61.54	74.00	-12.46	PK
H	7386.00	48.25	38.65	7.22	24.78	41.60	54.00	-12.40	AV
H	15450.00	48.92	36.42	6.32	26.65	45.47	74.00	-28.53	PK

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit

2. If peak below the average limit, the average emission was no test.

3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

802.11n(40MHz)

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
		Low Channel:2422							
V	4844.000	69.89	39.55	7.77	25.66	63.77	74.00	-10.23	PK
V	4844.000	49.52	39.55	7.77	25.66	43.40	54.00	-10.60	AV
V	7266.000	68.75	38.33	7.30	24.55	62.27	74.00	-11.73	PK
V	7266.000	49.32	38.33	7.30	24.55	42.84	54.00	-11.16	AV
V	15450.00	51.06	35.23	6.60	26.59	49.02	74.00	-24.98	PK
H	4844.000	70.23	39.55	7.77	25.66	64.11	74.00	-9.89	PK
H	4844.000	50.17	39.55	7.77	25.66	44.05	54.00	-9.95	AV
H	7266.000	70.14	38.33	7.30	23.55	62.66	74.00	-11.34	PK
H	7266.000	52.60	38.33	7.30	23.22	44.79	54.00	-9.21	AV
H	15450.00	49.24	35.45	6.60	27.88	48.27	74.00	-25.73	PK

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
		Middle Channel:2437							
V	4874.00	67.81	38.89	7.57	25.45	61.94	74.00	-12.06	PK
V	4874.00	50.35	38.89	7.57	25.45	44.48	54.00	-9.52	AV
V	7311.00	68.09	38.78	7.35	24.78	61.44	74.00	-12.56	PK
V	7311.00	48.10	38.78	7.35	24.78	41.45	54.00	-12.55	AV
V	15450.00	51.16	35.89	6.42	26.47	48.16	74.00	-25.84	PK
H	4874.00	66.33	38.89	7.57	25.45	60.46	74.00	-13.54	PK
H	4874.00	48.74	38.89	7.57	25.45	42.87	54.00	-11.13	AV
H	7311.00	69.89	38.78	7.35	24.78	63.24	74.00	-10.76	PK
H	7311.00	48.80	38.78	7.35	24.78	42.15	54.00	-11.85	AV
H	15450.00	50.12	36.68	6.42	26.65	46.51	74.00	-27.49	PK

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
		High Channel:2452							
V	4904.00	69.45	38.75	7.38	25.45	63.53	74.00	-10.47	PK
V	4904.00	50.29	38.75	7.38	25.45	44.37	54.00	-9.63	AV
V	7356.00	68.59	38.65	7.15	24.78	61.87	74.00	-12.13	PK
V	7356.00	48.94	38.65	7.15	24.78	42.22	54.00	-11.78	AV
V	15450.00	51.50	35.58	6.25	26.47	48.64	74.00	-25.36	PK
H	4904.00	66.83	38.75	7.38	25.45	60.91	74.00	-13.09	PK
H	4904.00	51.61	38.75	7.38	25.45	45.69	54.00	-8.31	AV
H	7356.00	70.53	38.65	7.15	24.78	63.81	74.00	-10.19	PK
H	7356.00	48.72	38.65	7.15	24.78	42.00	54.00	-12.00	AV
H	15450.00	48.70	36.42	6.25	26.65	45.18	74.00	-28.82	PK

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit

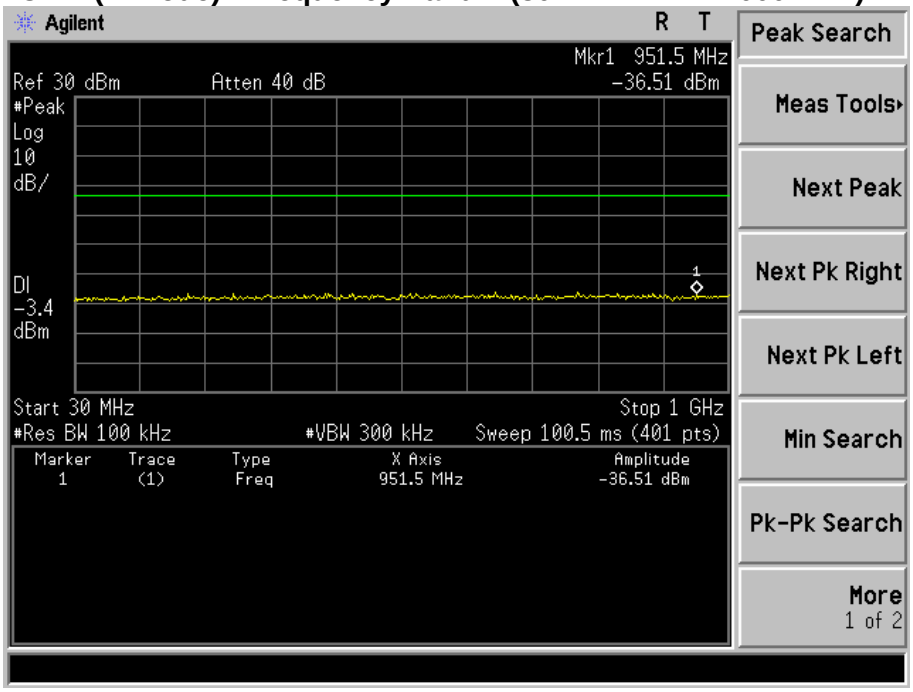
2. If peak below the average limit, the average emission was no test.

3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

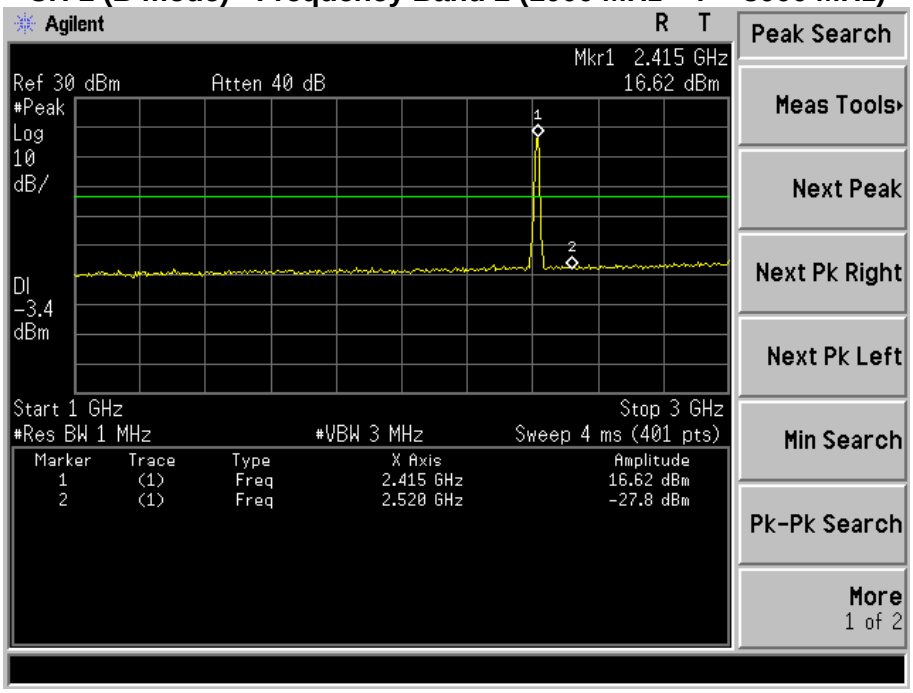
3.3 CONDUCTED EMISSION MEASUREMENT

Operation Mode:	802.11B mode(CH1, CH6, CH11)-Atenna 1

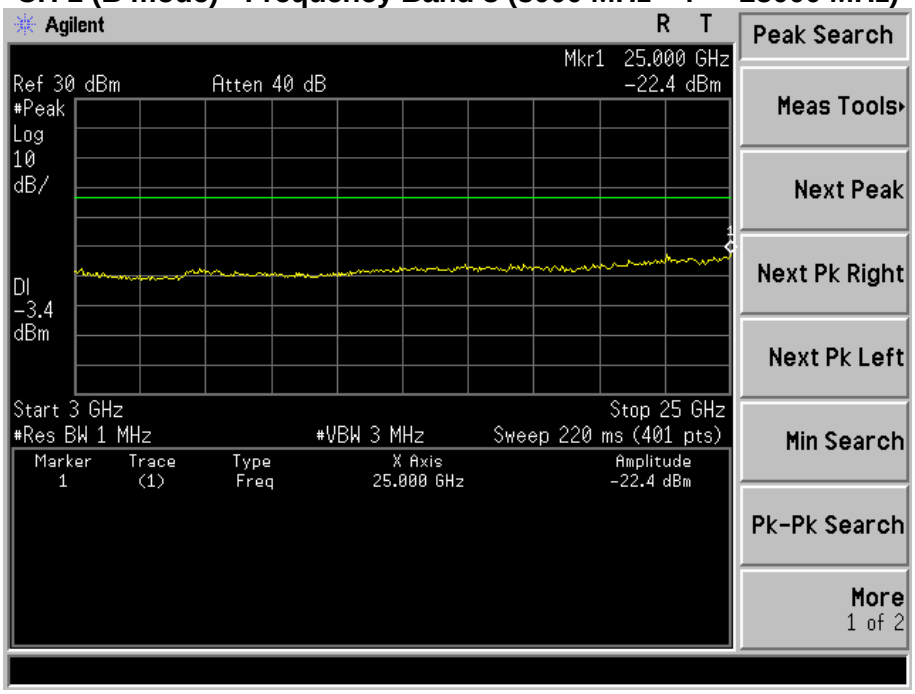
CH 1 (B mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



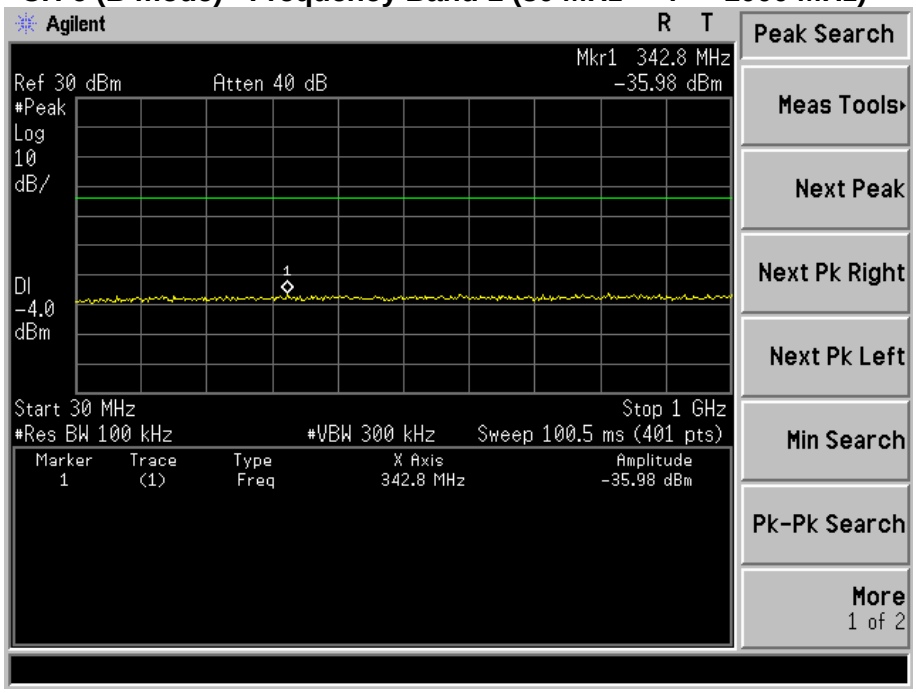
CH 1 (B mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



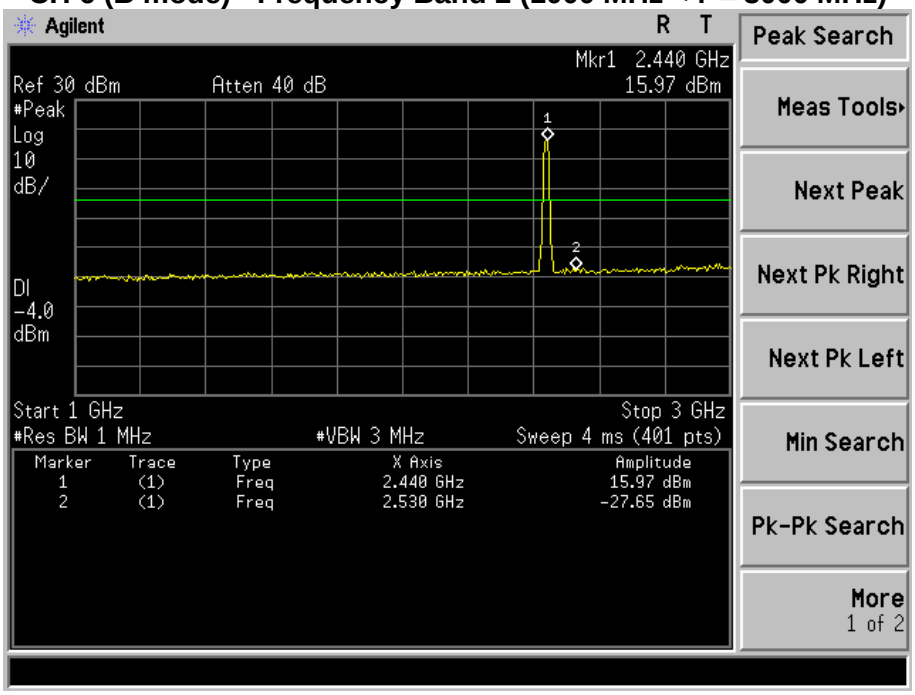
CH 1 (B mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



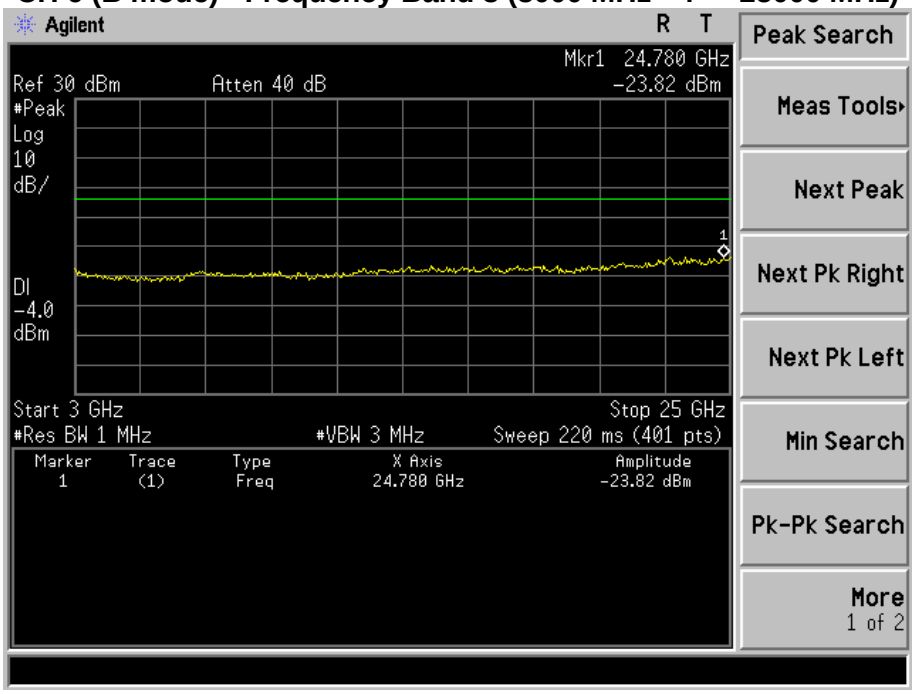
CH 6 (B mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



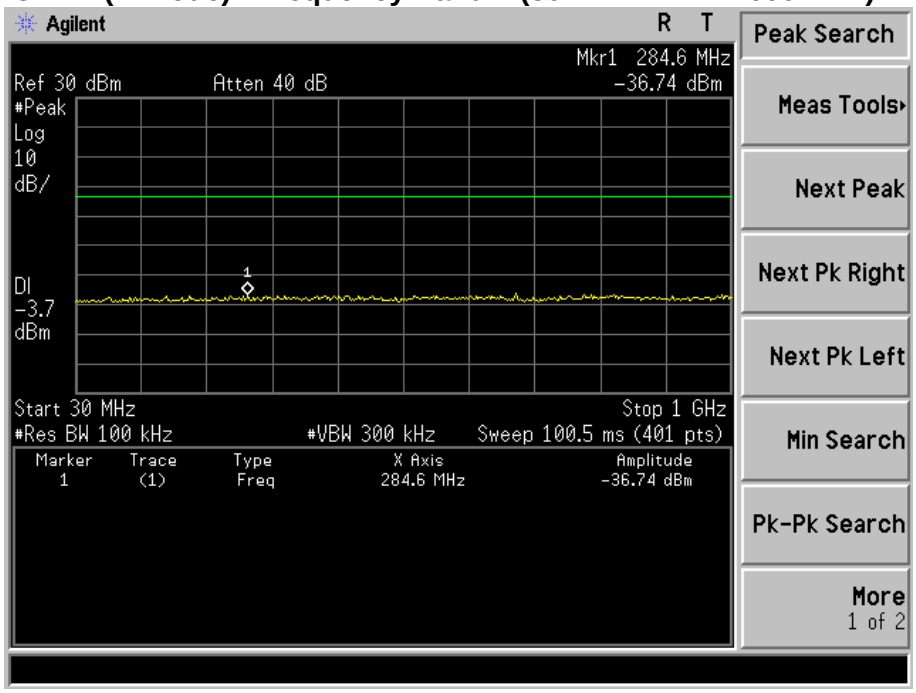
CH 6 (B mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



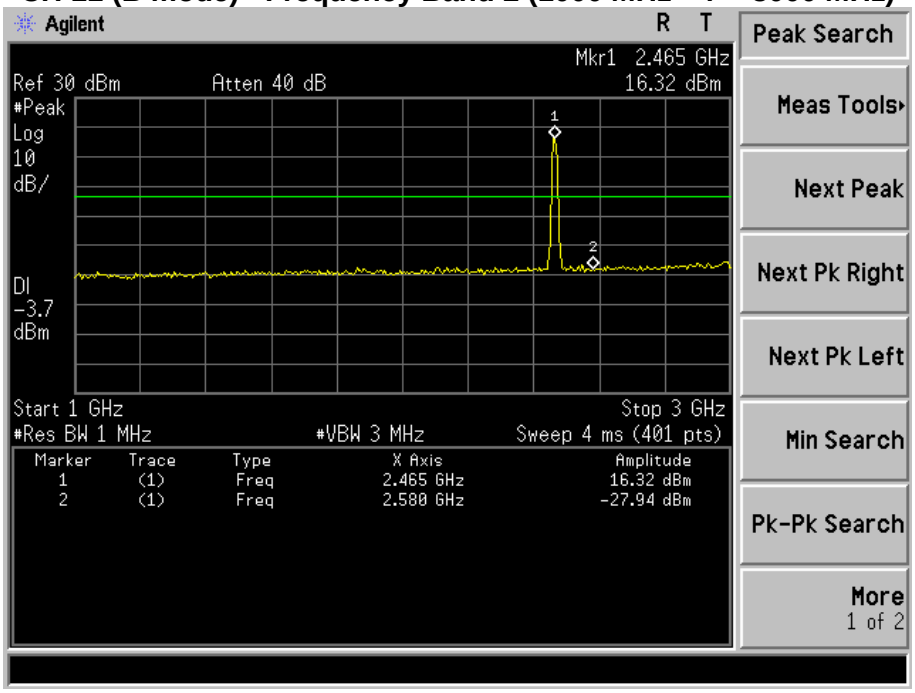
CH 6 (B mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



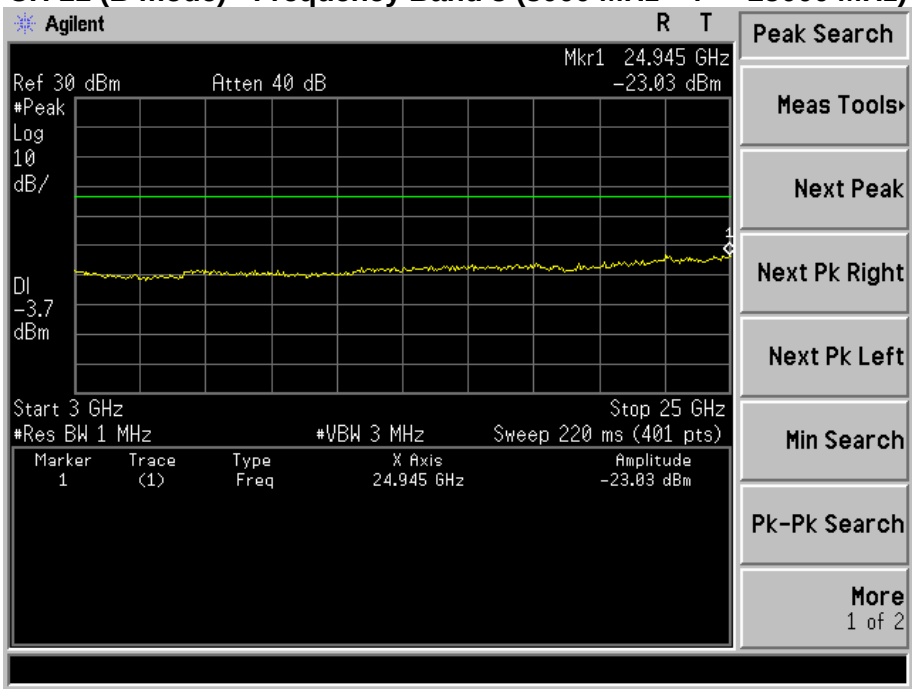
CH 11 (B mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



CH 11 (B mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)

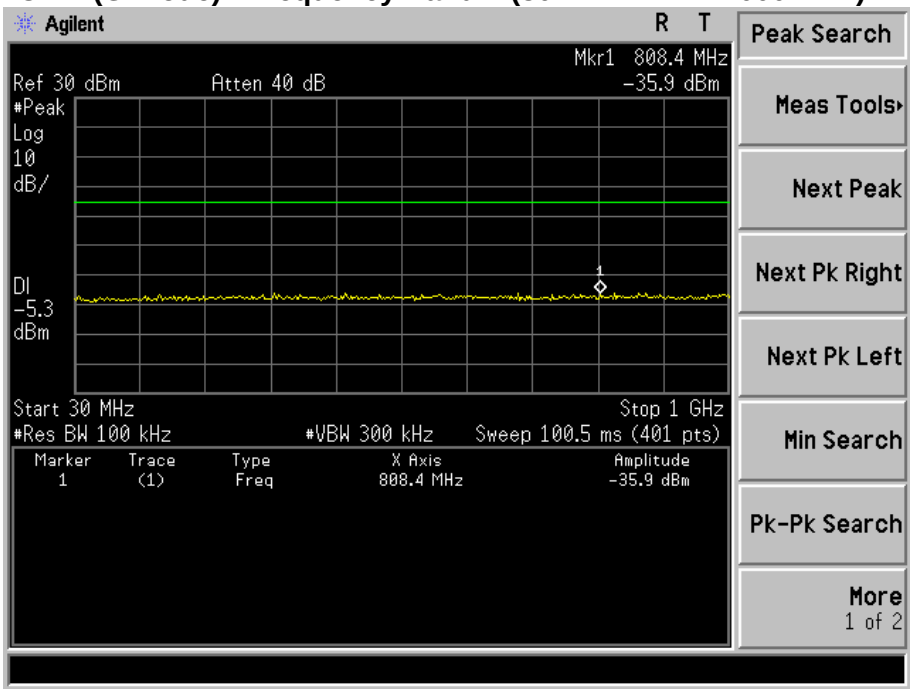


CH 11 (B mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)

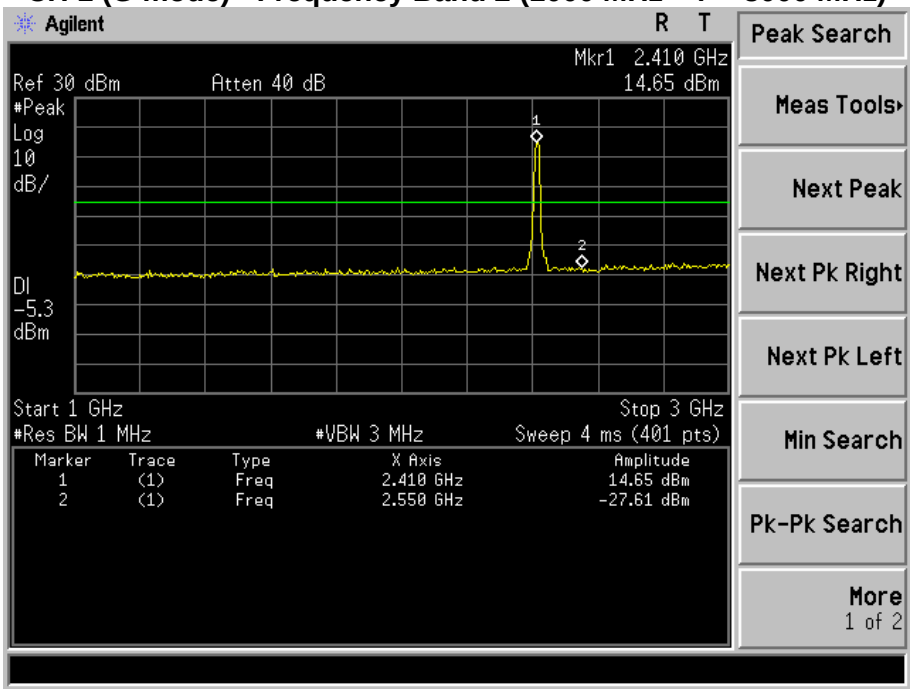


Operation Mode:	802.11 G mode(CH1, CH6, CH11)-Atenna 1

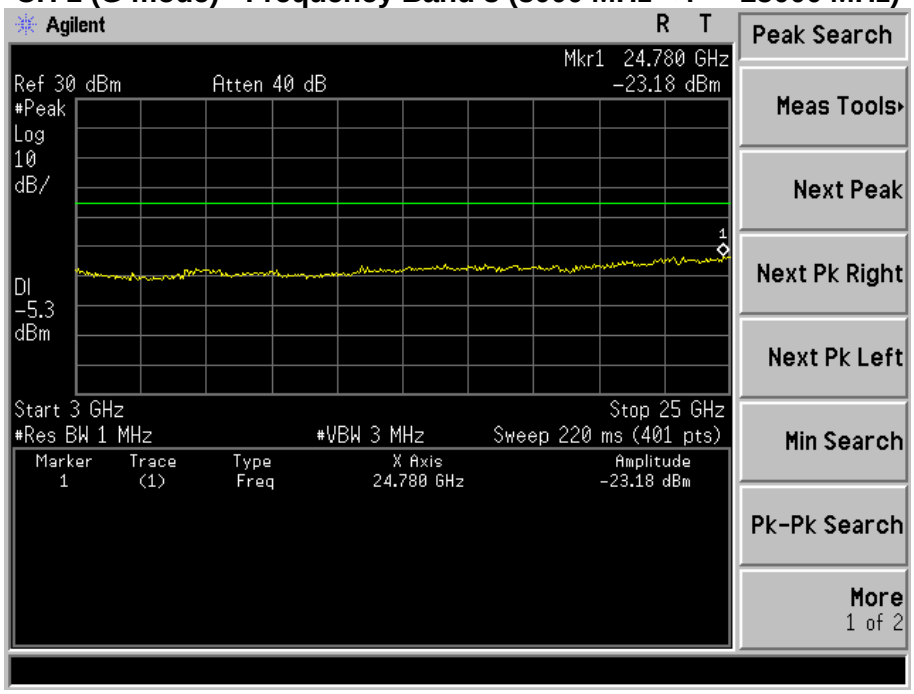
CH 1 (G mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



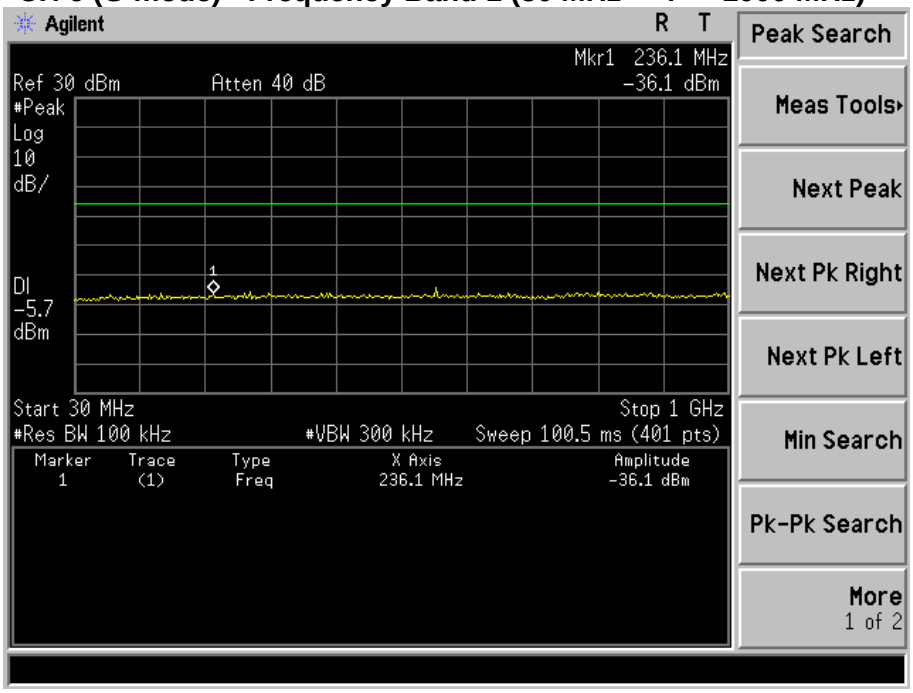
CH 1 (G mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



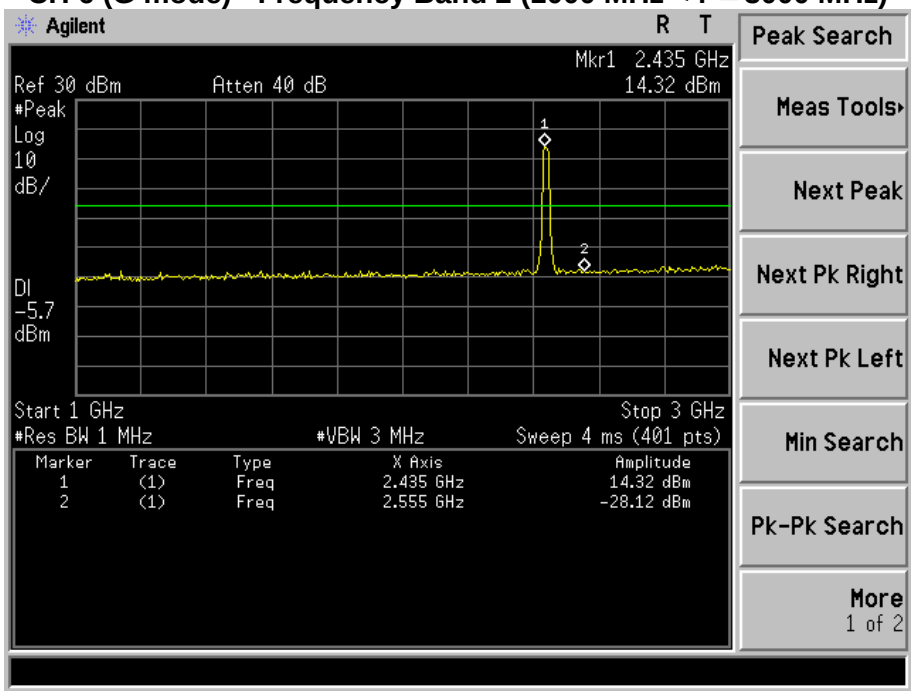
CH 1 (G mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



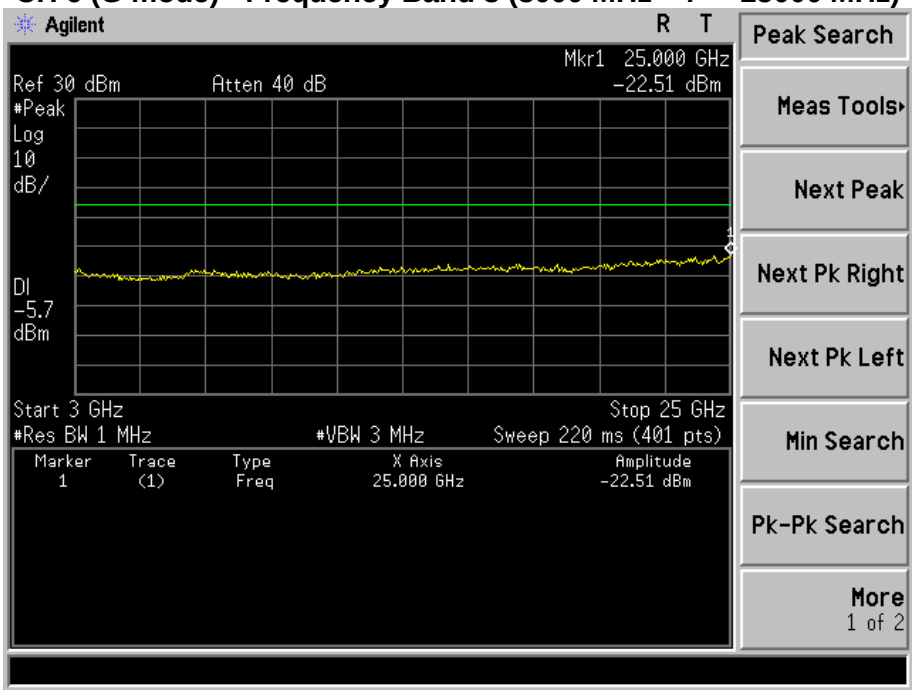
CH 6 (G mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



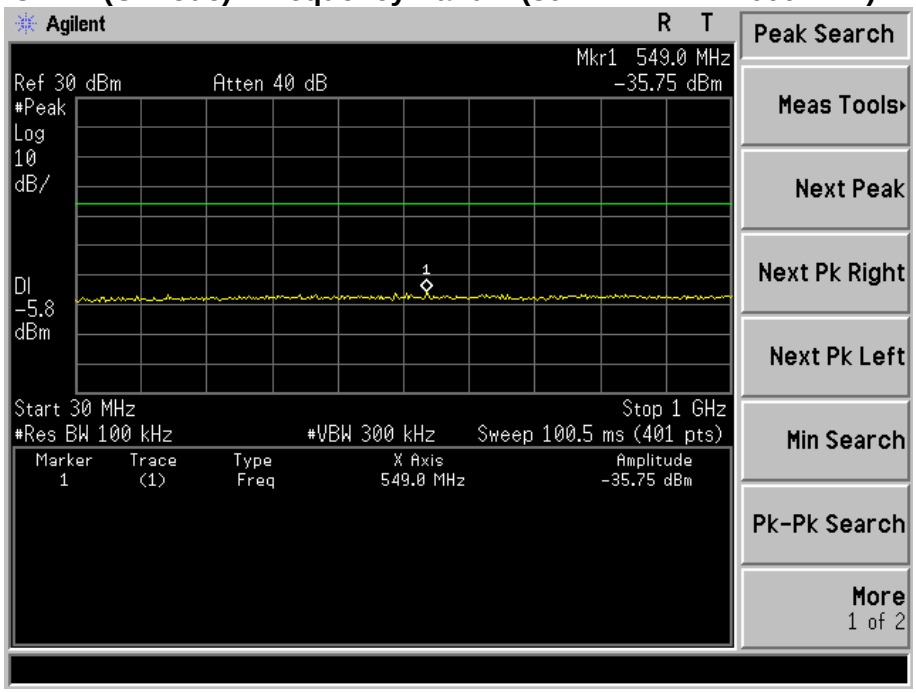
CH 6 (G mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



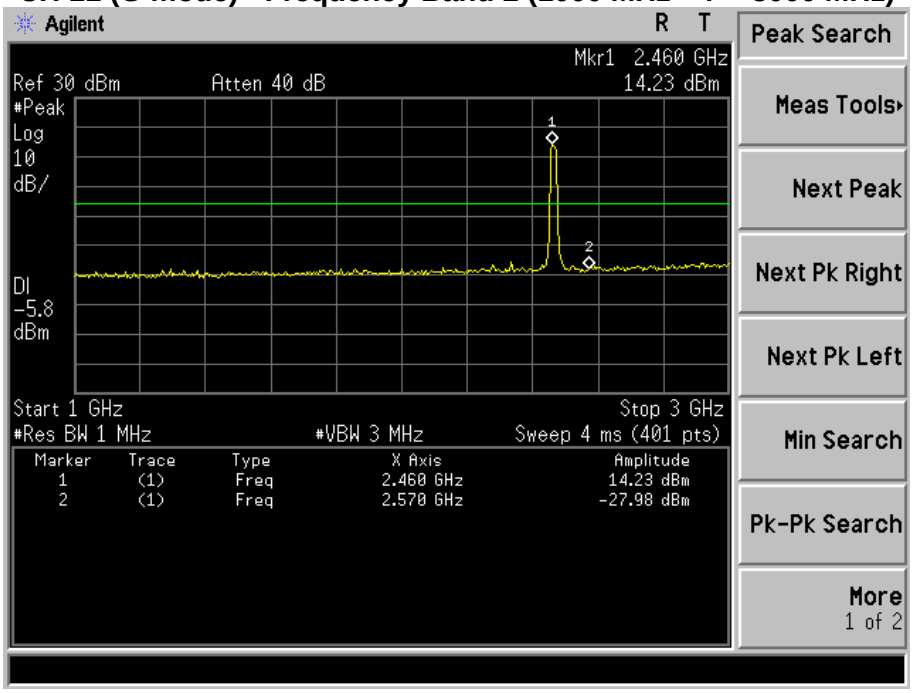
CH 6 (G mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



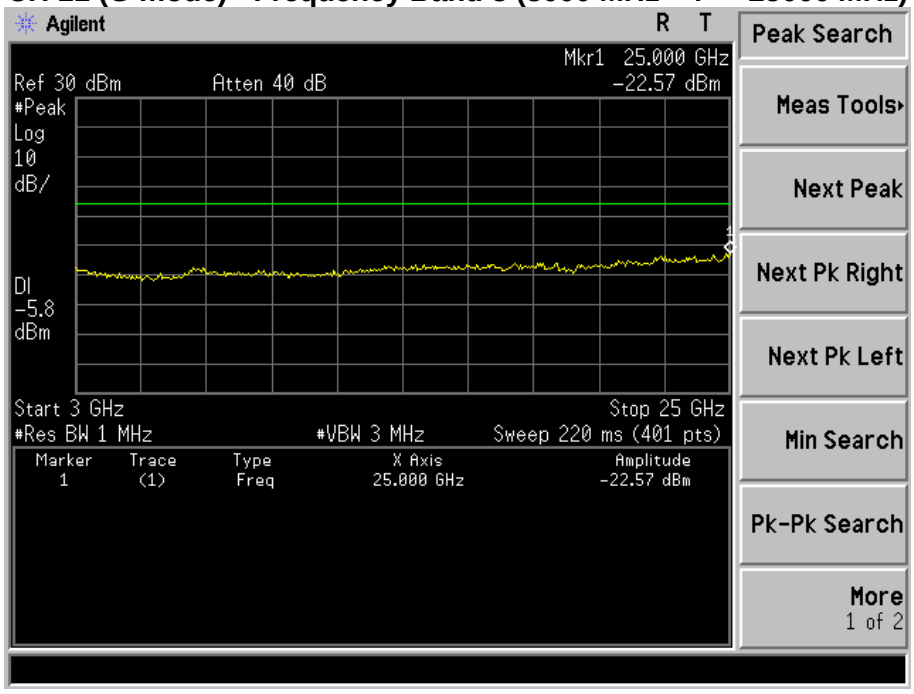
CH 11 (G mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



CH 11 (G mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)

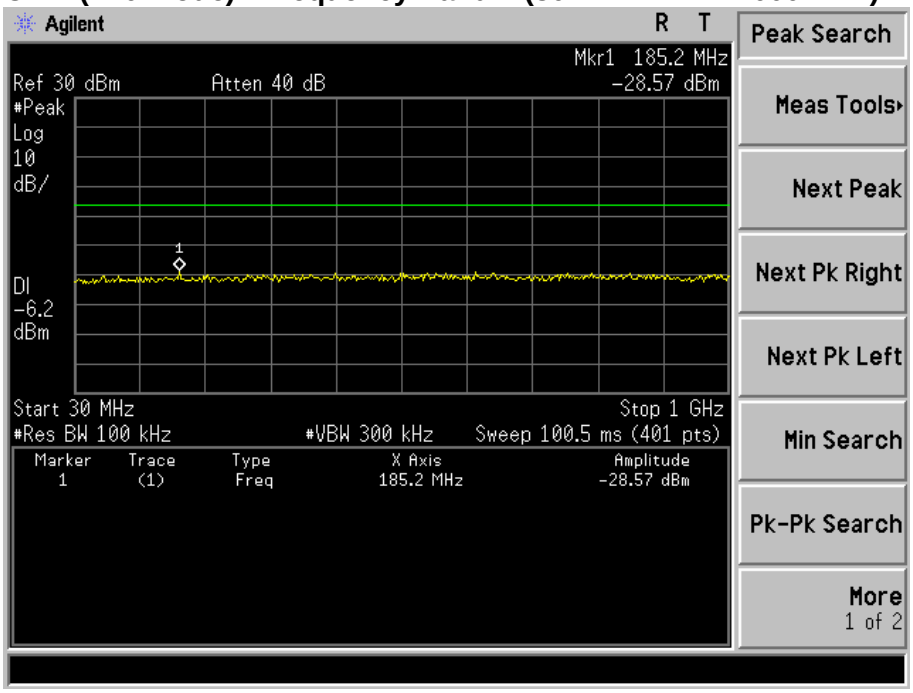


CH 11 (G mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)

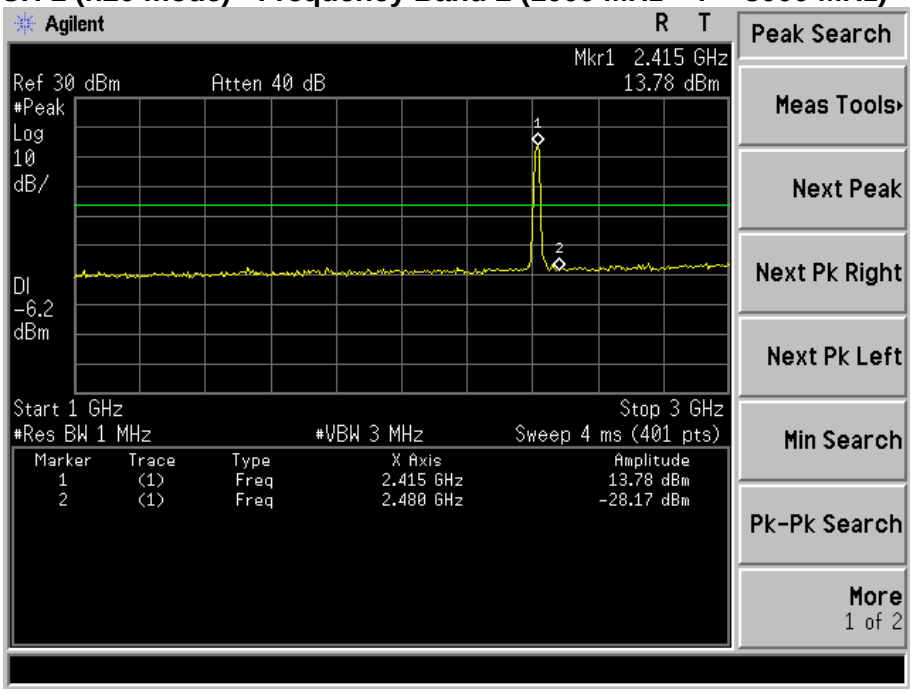


Operation Mode:	802.11 n20 mode(CH1, CH6, CH11)-Atenna 1

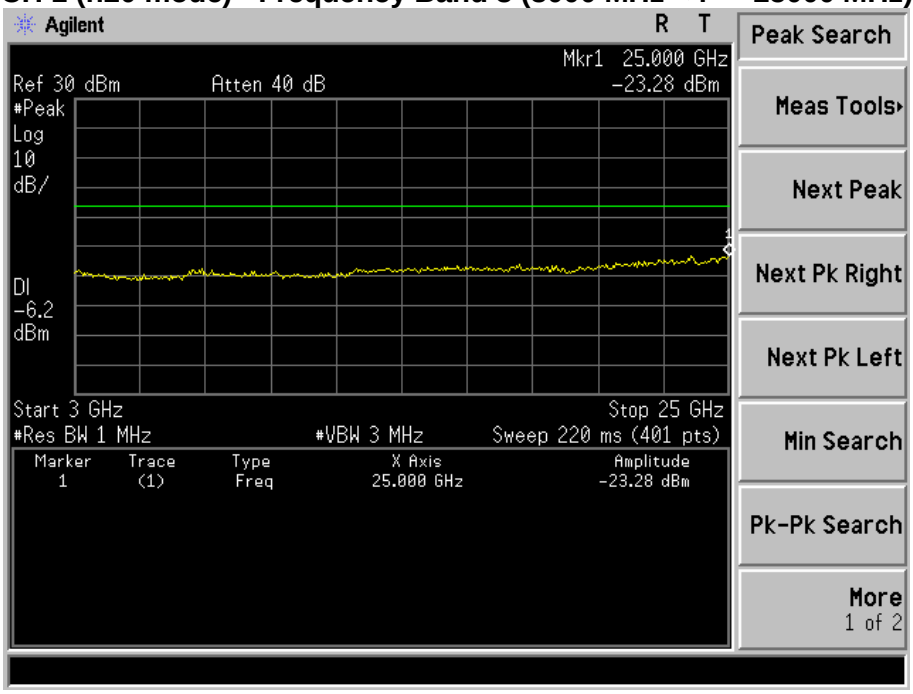
CH 1 (n20 mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



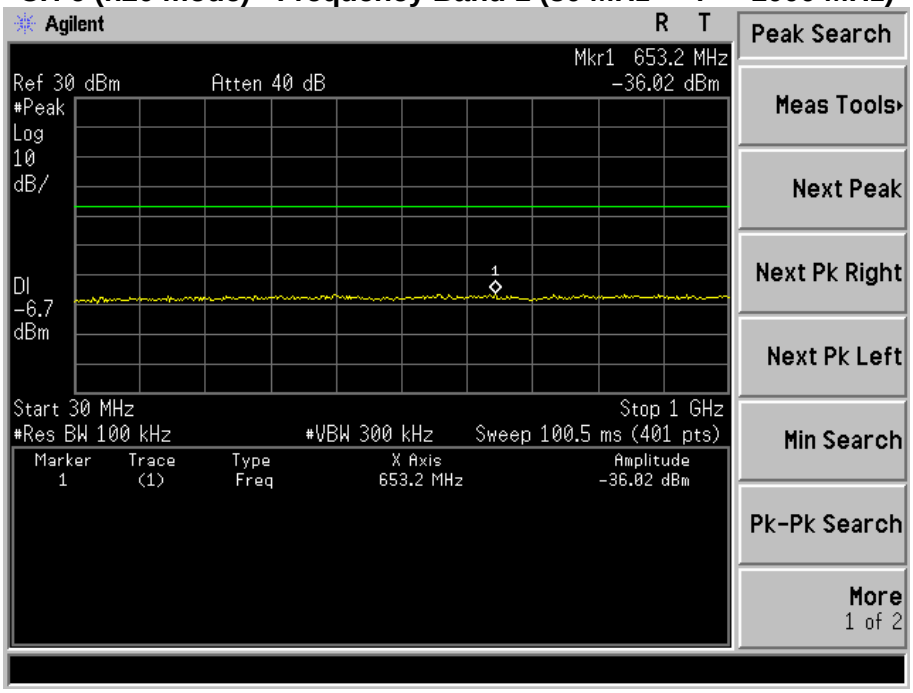
CH 1 (n20 mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



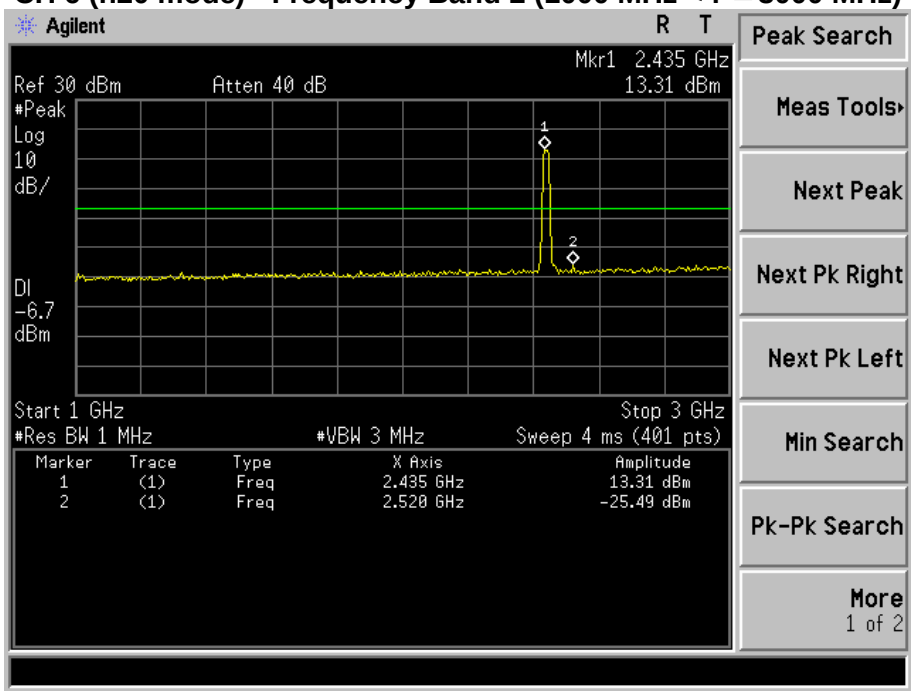
CH 1 (n20 mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



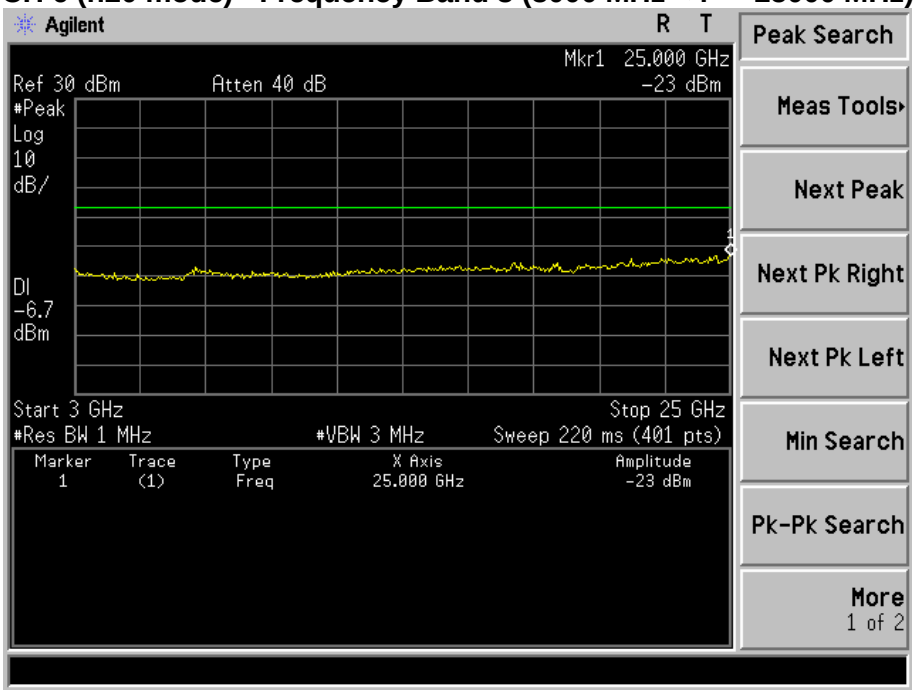
CH 6 (n20 mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



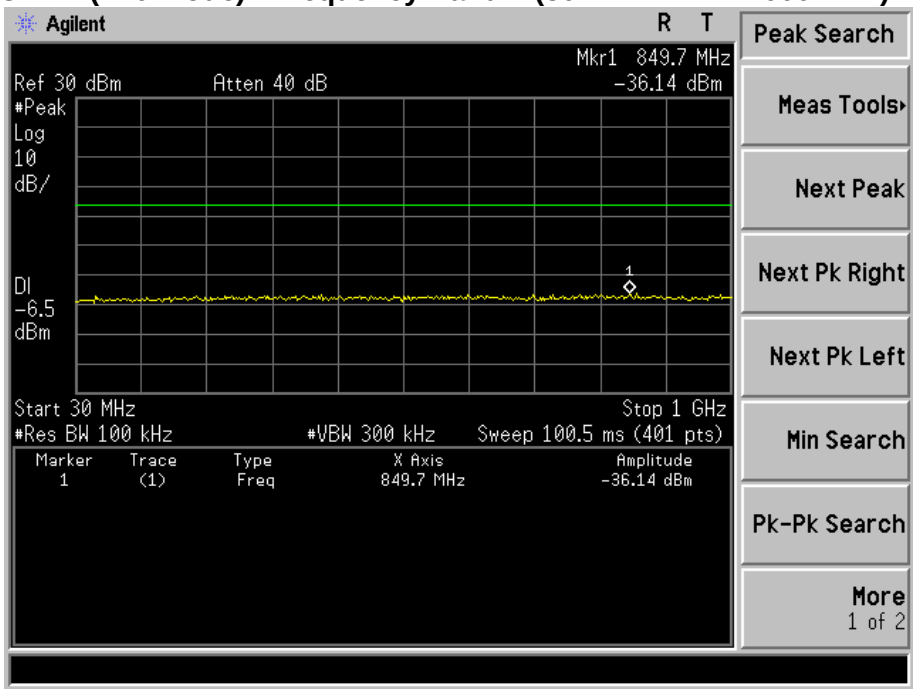
CH 6 (n20 mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



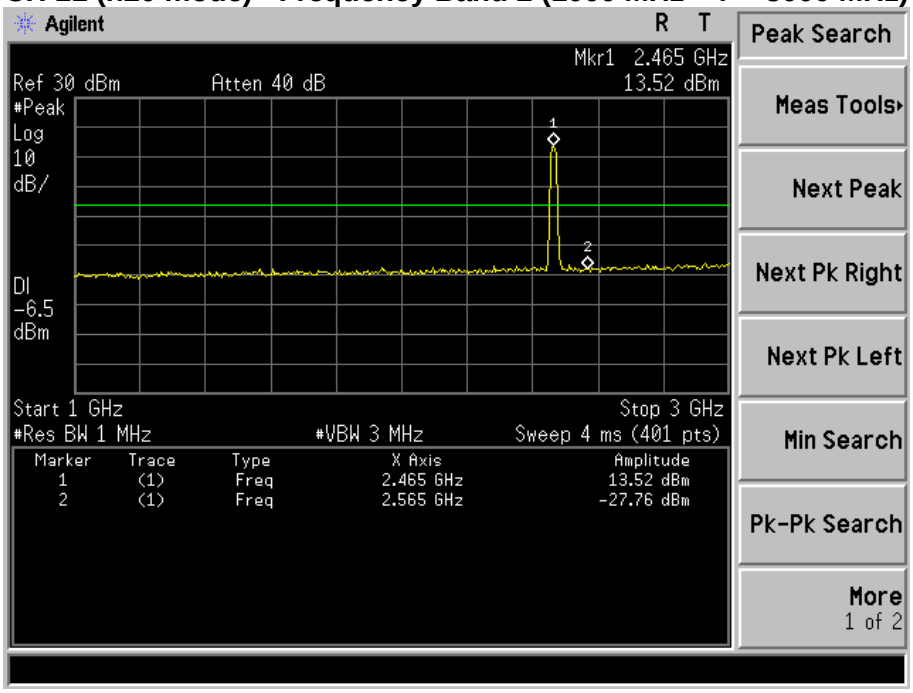
CH 6 (n20 mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



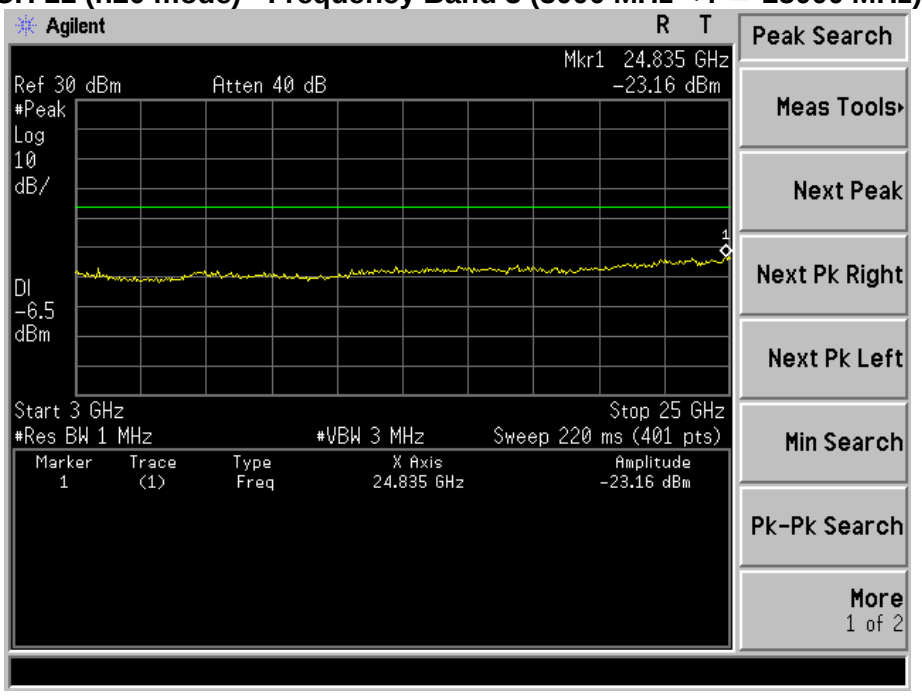
CH 11 (n20 mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



CH 11 (n20 mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)

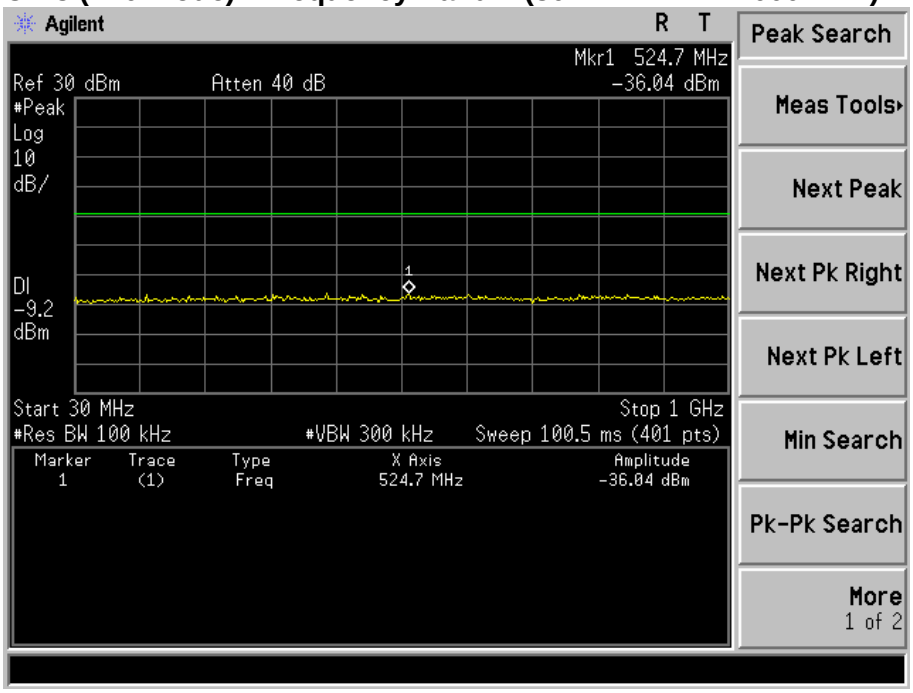


CH 11 (n20 mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)

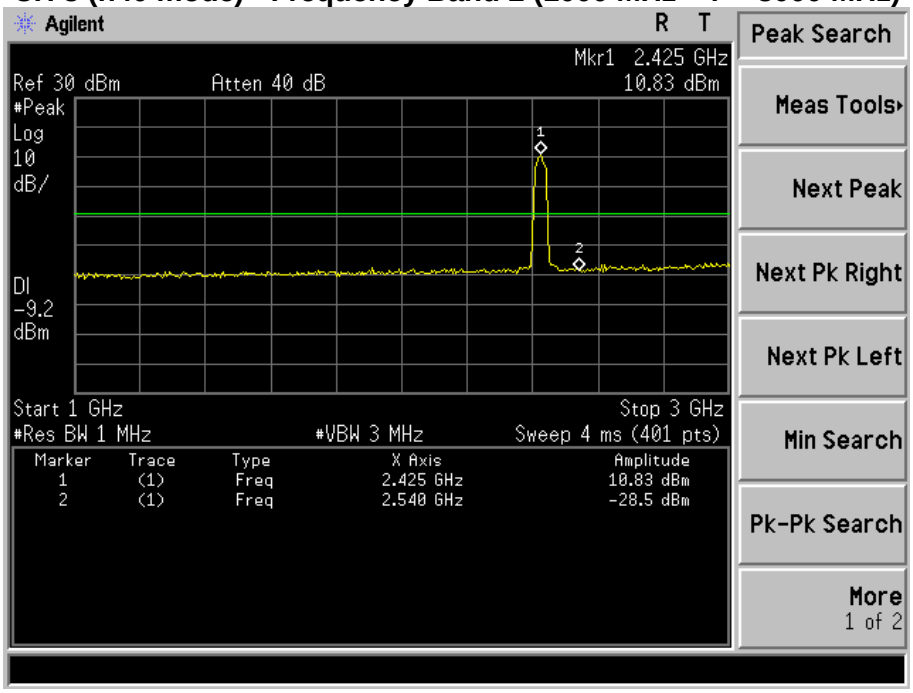


Operation Mode:	802.11 n40 mode(CH3, CH6, CH9)-Atenna 1

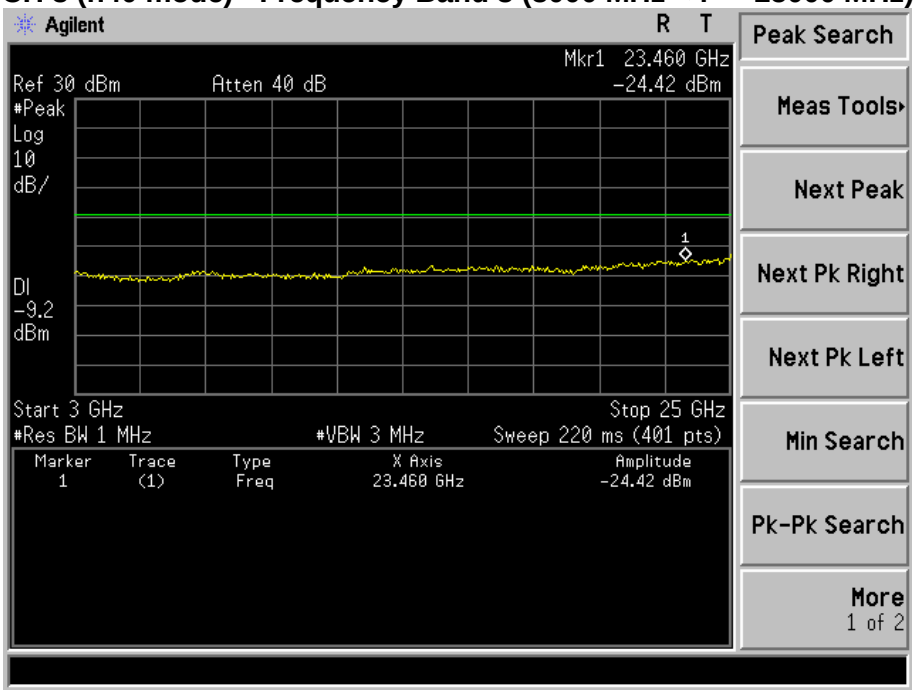
CH 3 (n40 mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



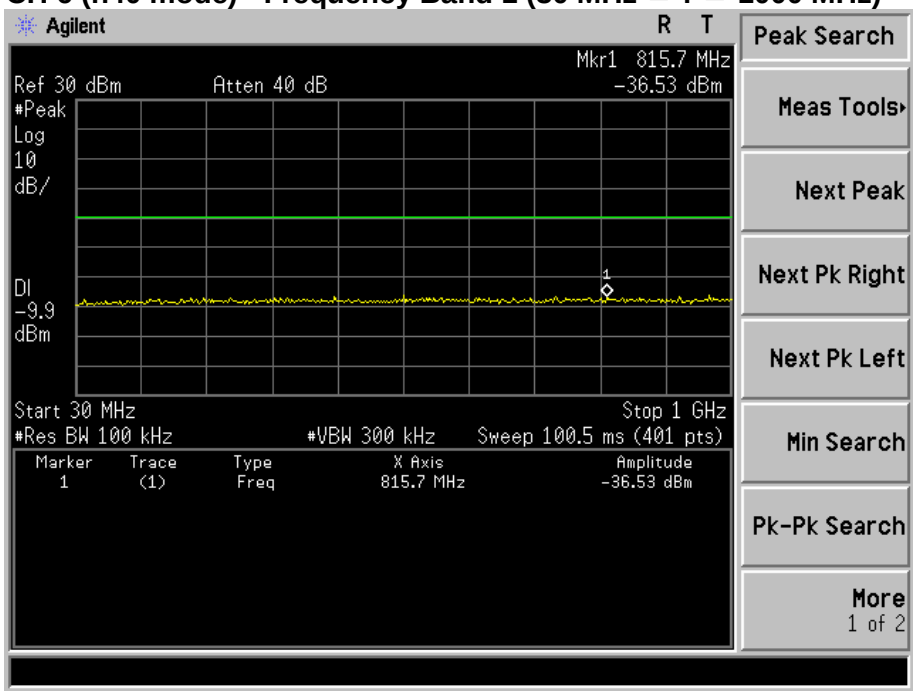
CH 3 (n40 mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



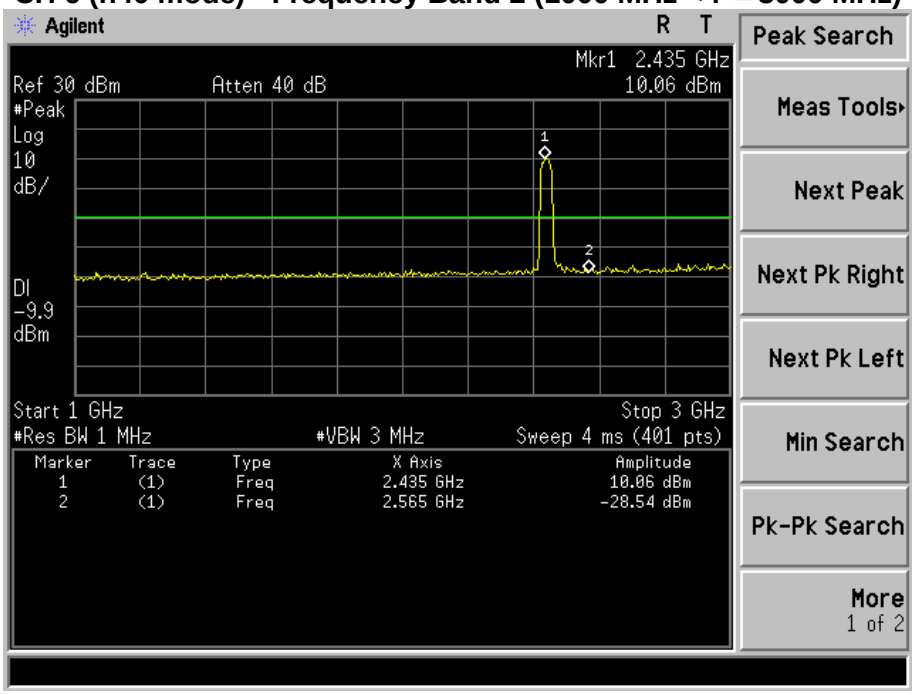
CH 3 (n40 mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



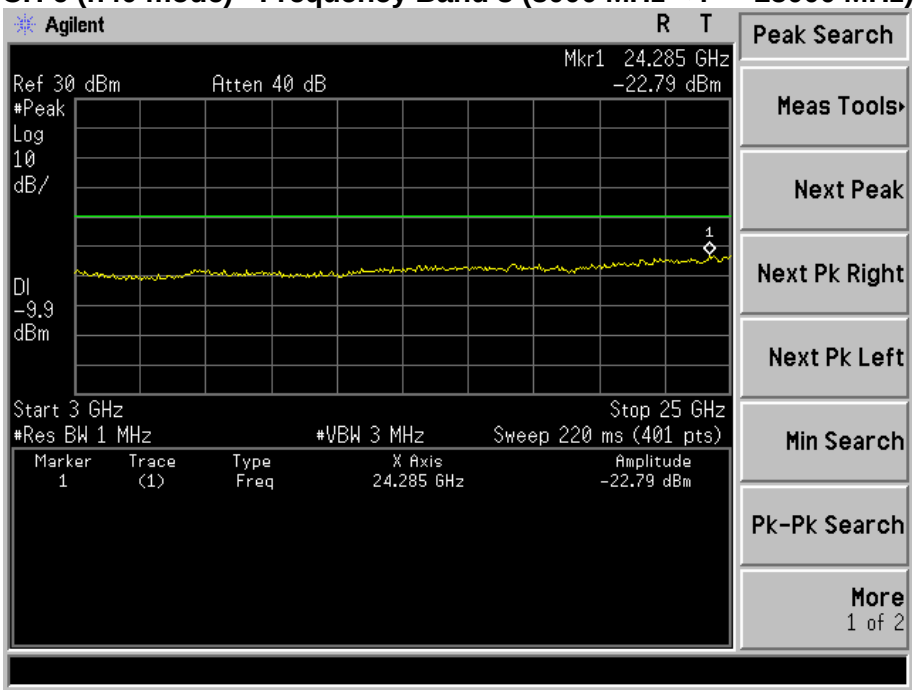
CH 6 (n40 mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



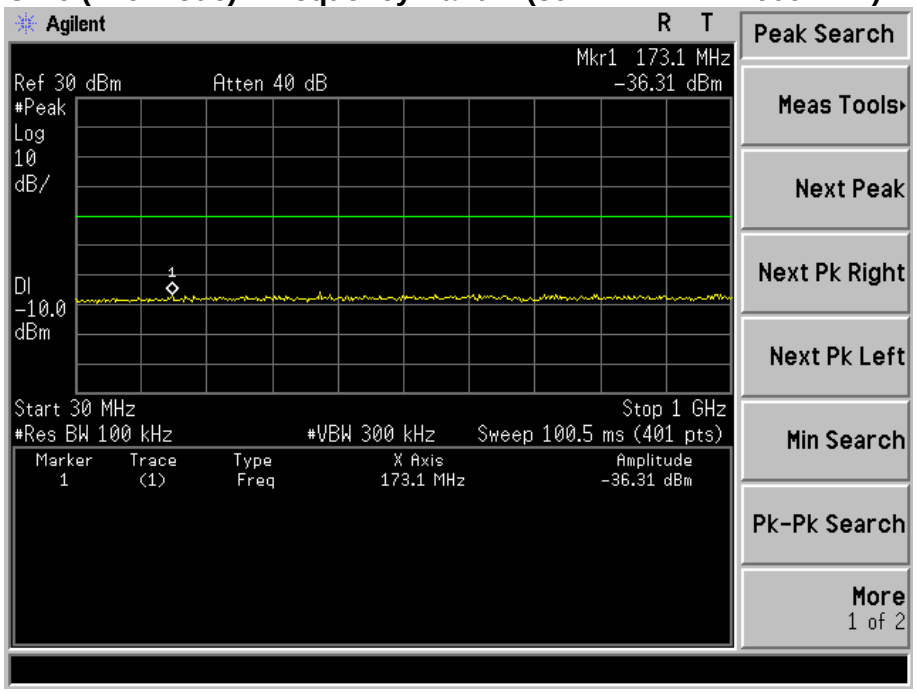
CH 6 (n40 mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



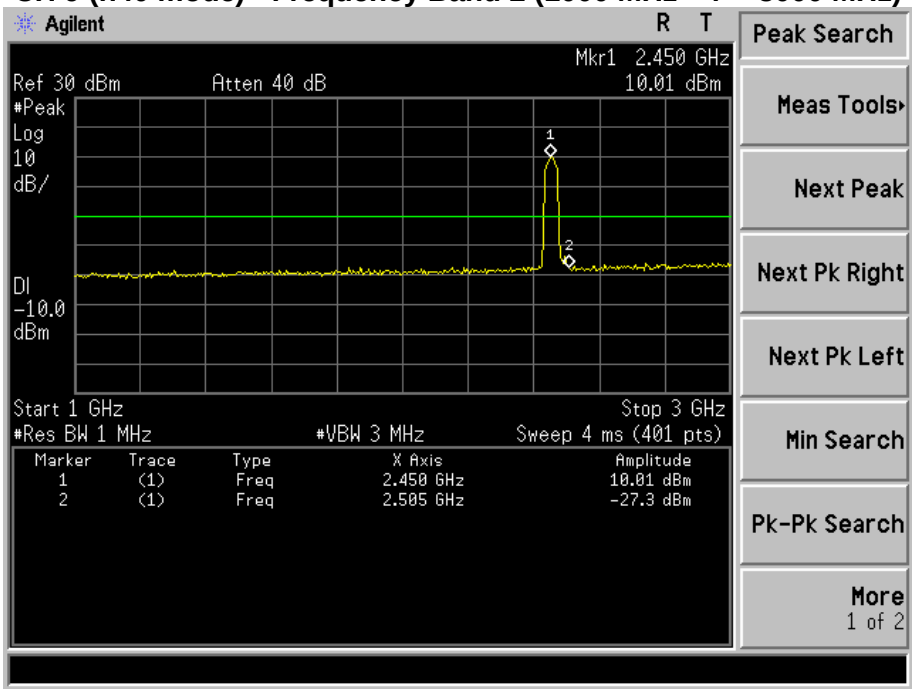
CH 6 (n40 mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



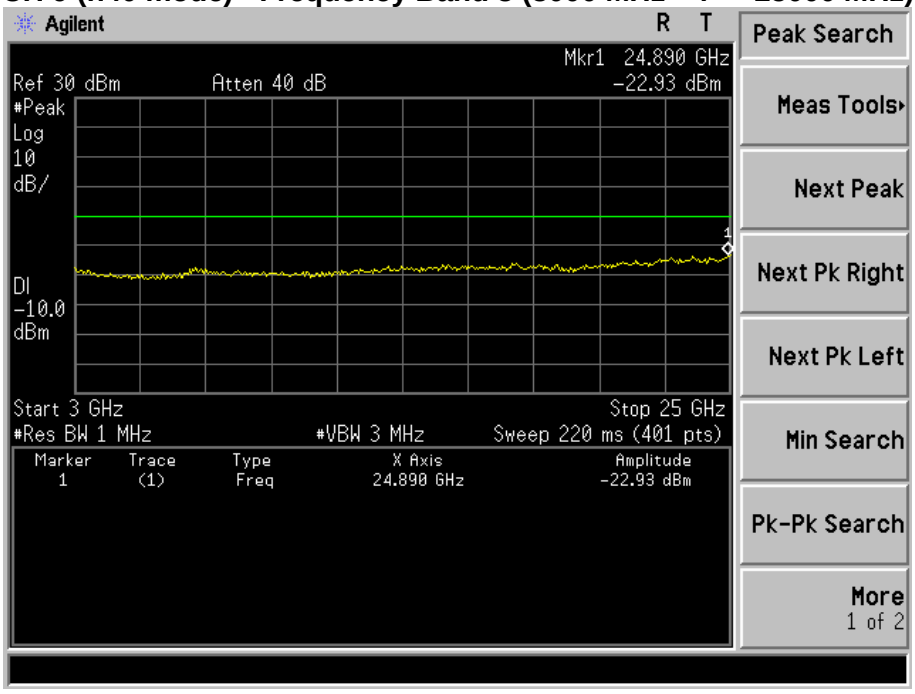
CH 9 (n40 mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



CH 9 (n40 mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)

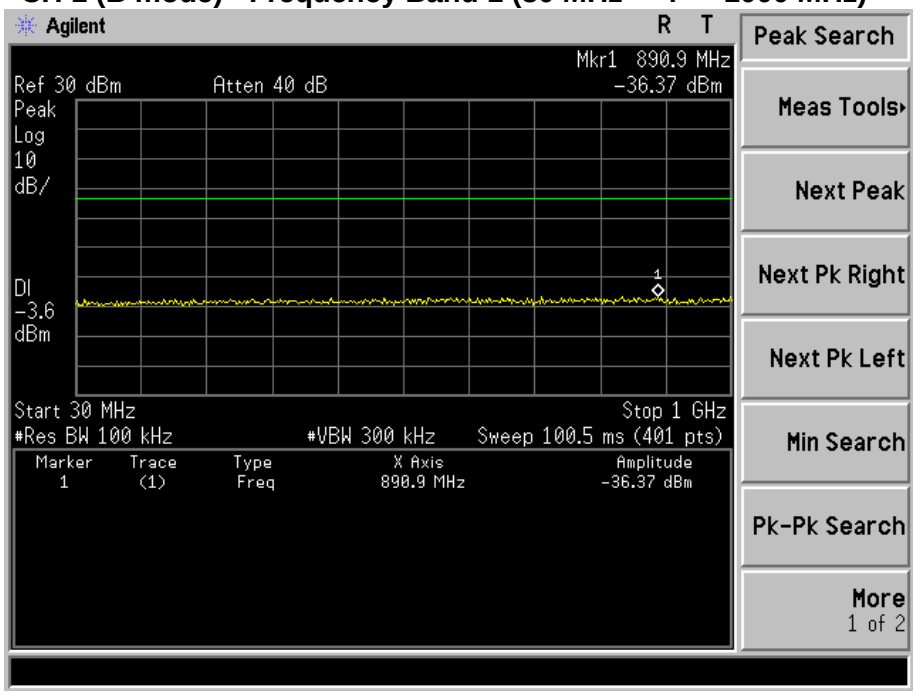


CH 9 (n40 mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)

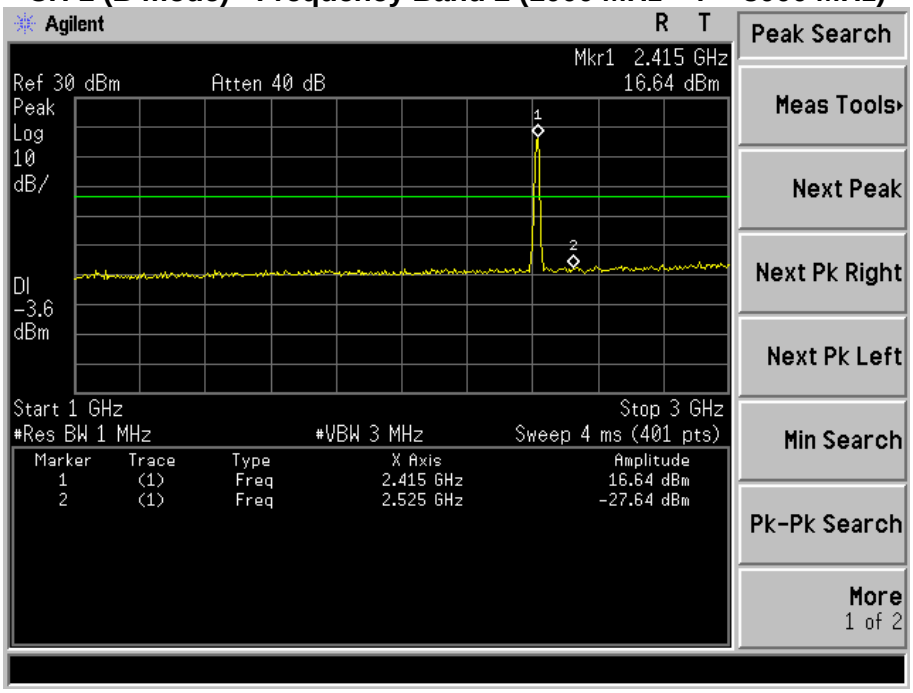


Operation Mode:	802.11B mode(CH1, CH6, CH11)-Atenna 2

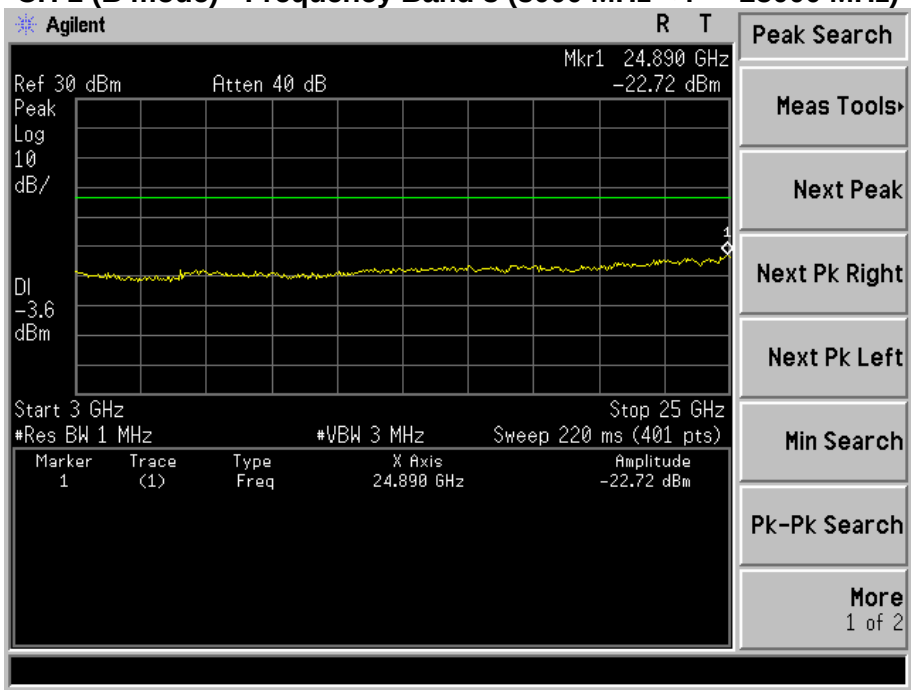
CH 1 (B mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



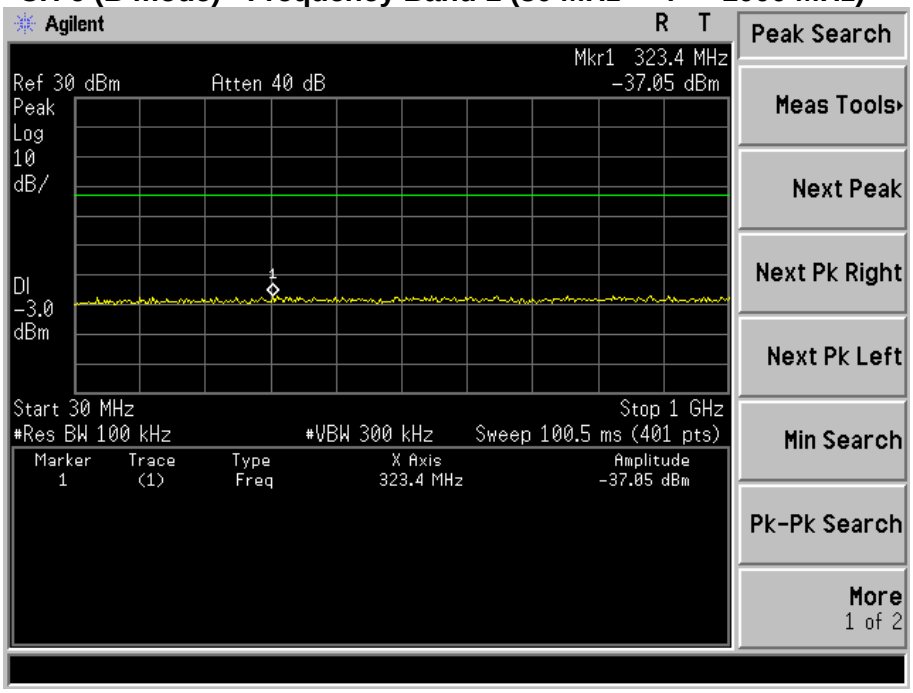
CH 1 (B mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



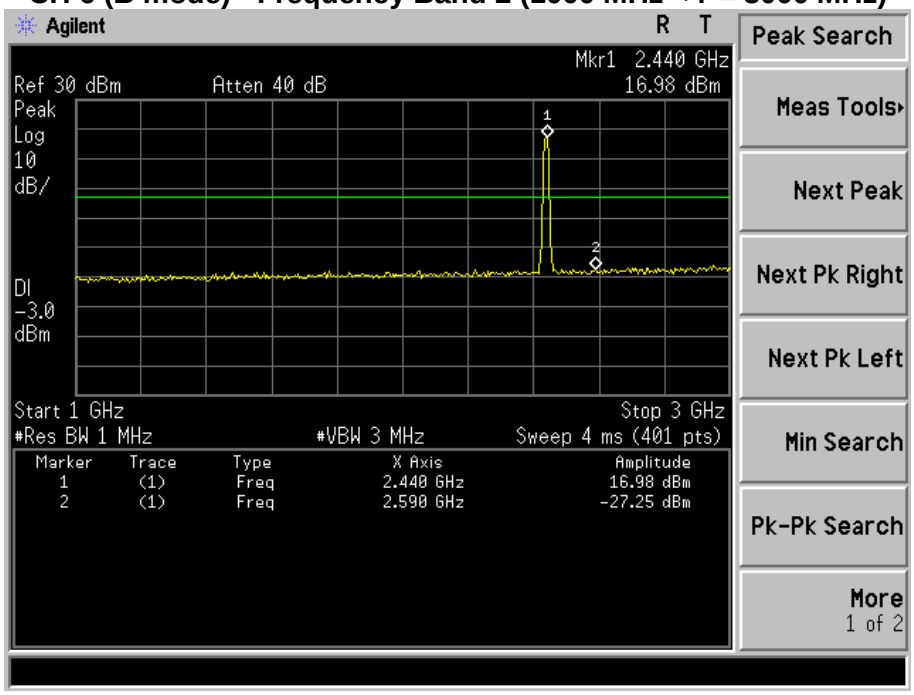
CH 1 (B mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



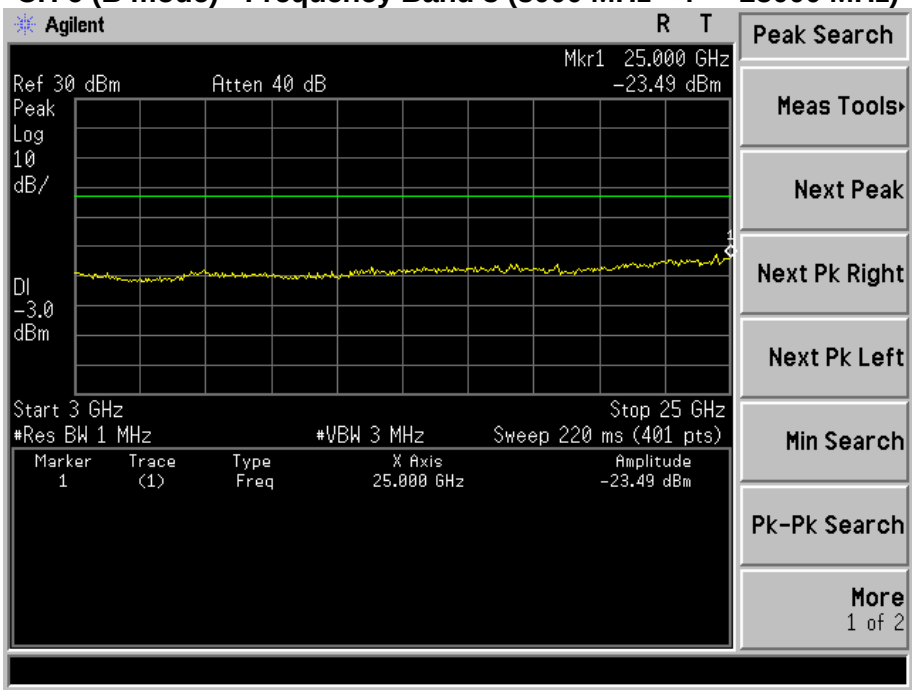
CH 6 (B mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



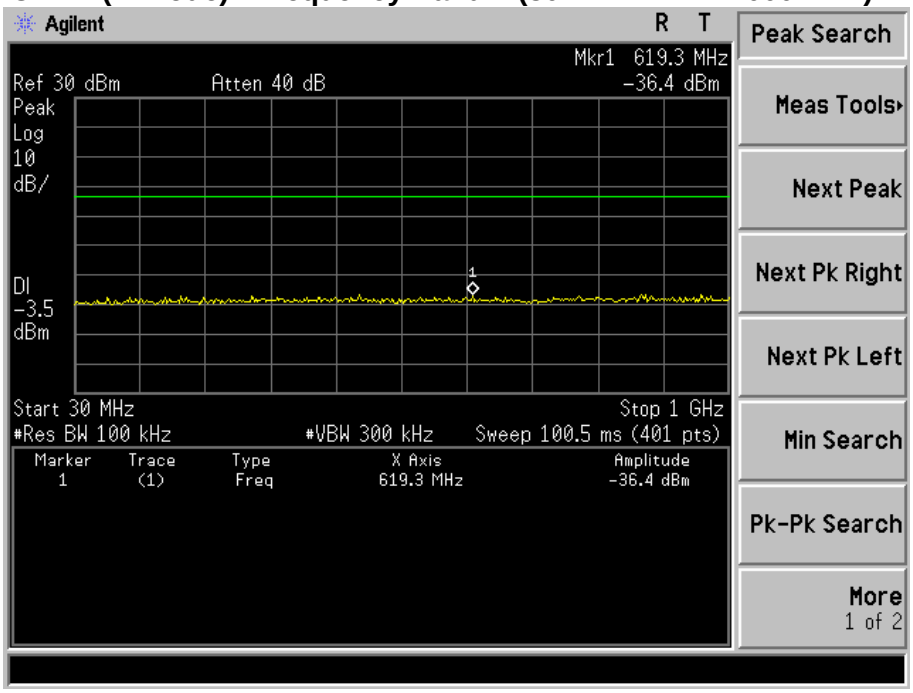
CH 6 (B mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



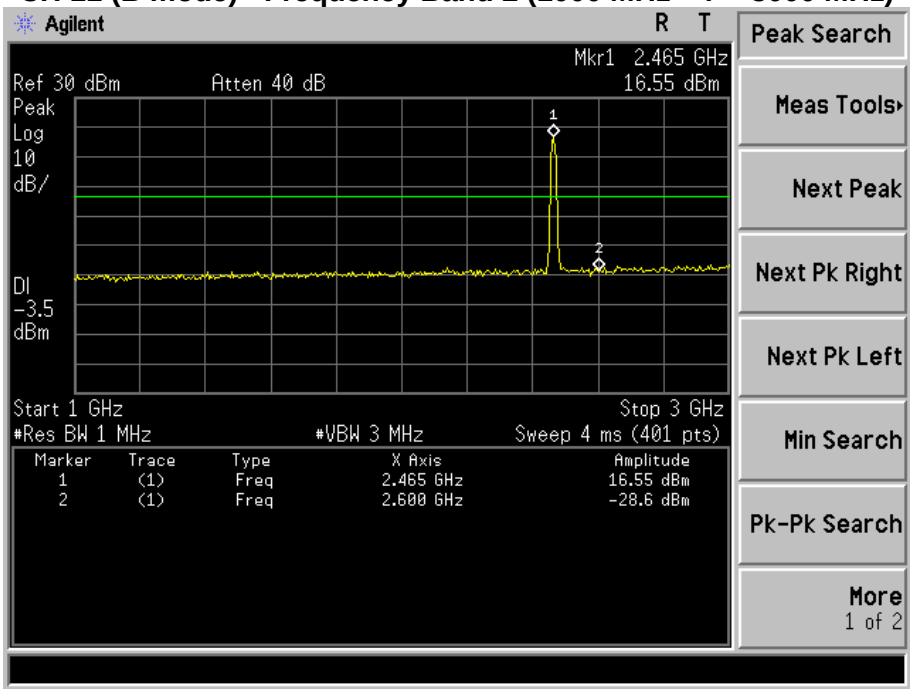
CH 6 (B mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



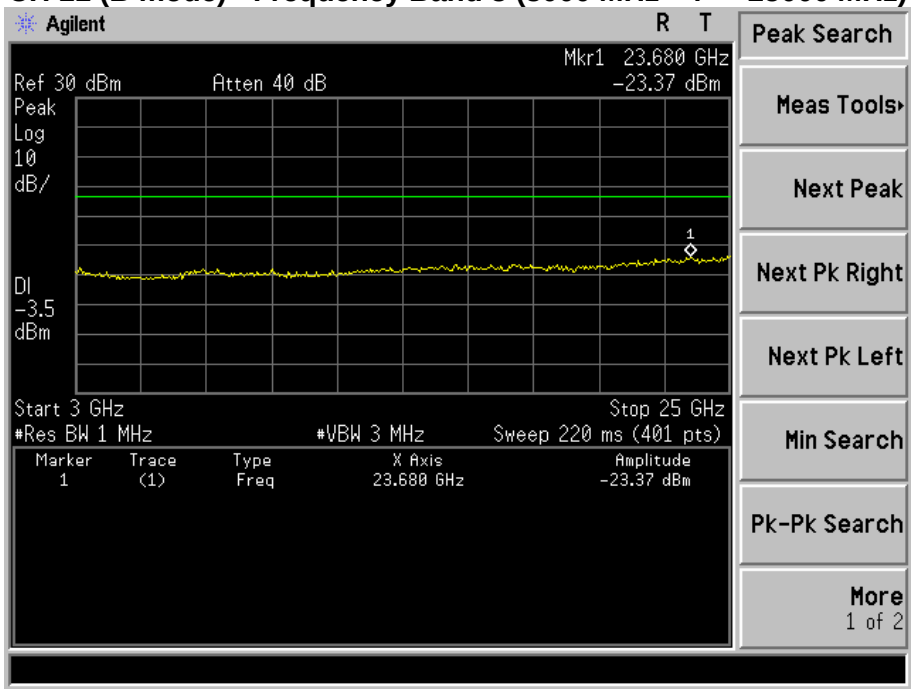
CH 11 (B mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



CH 11 (B mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)

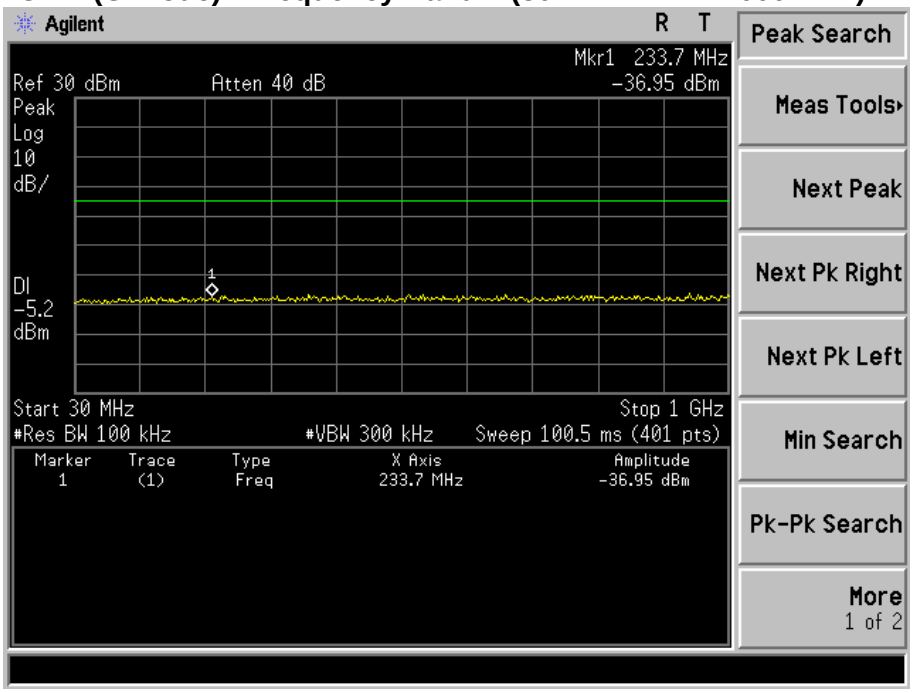


CH 11 (B mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)

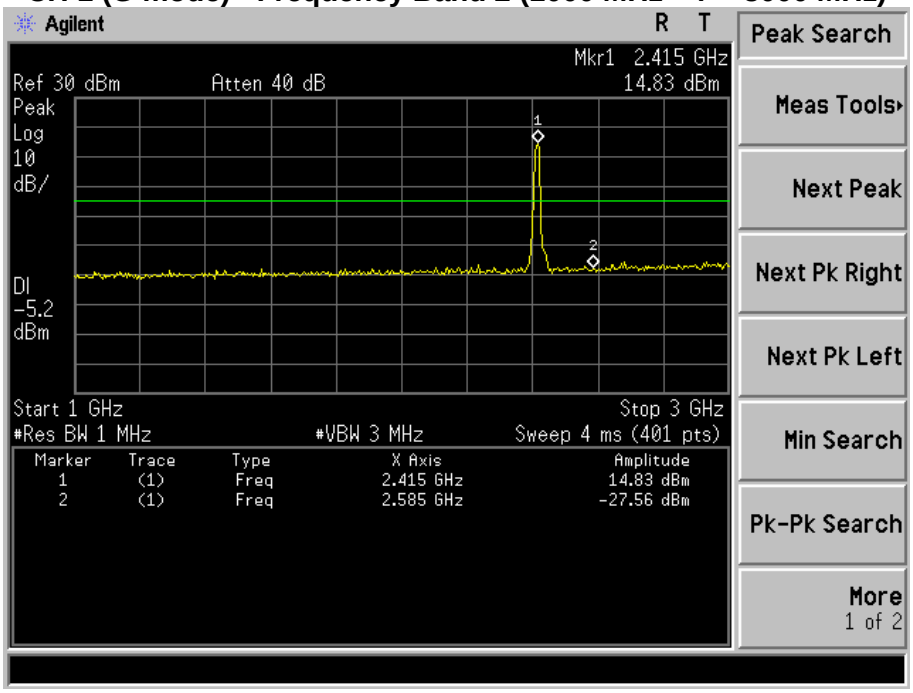


Operation Mode:	802.11 G mode(CH1, CH6, CH11)-Atenna 2

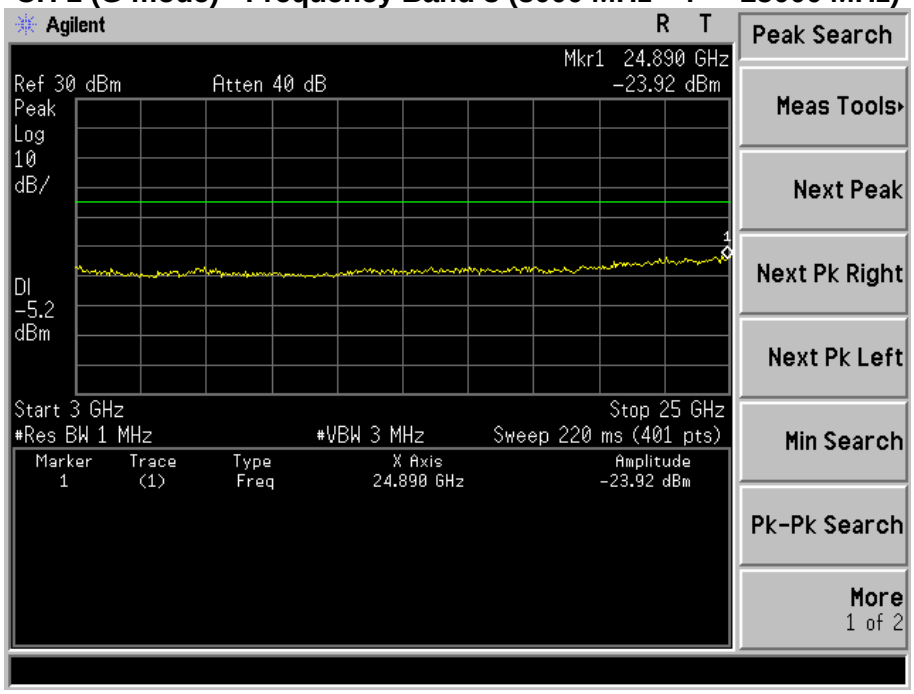
CH 1 (G mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



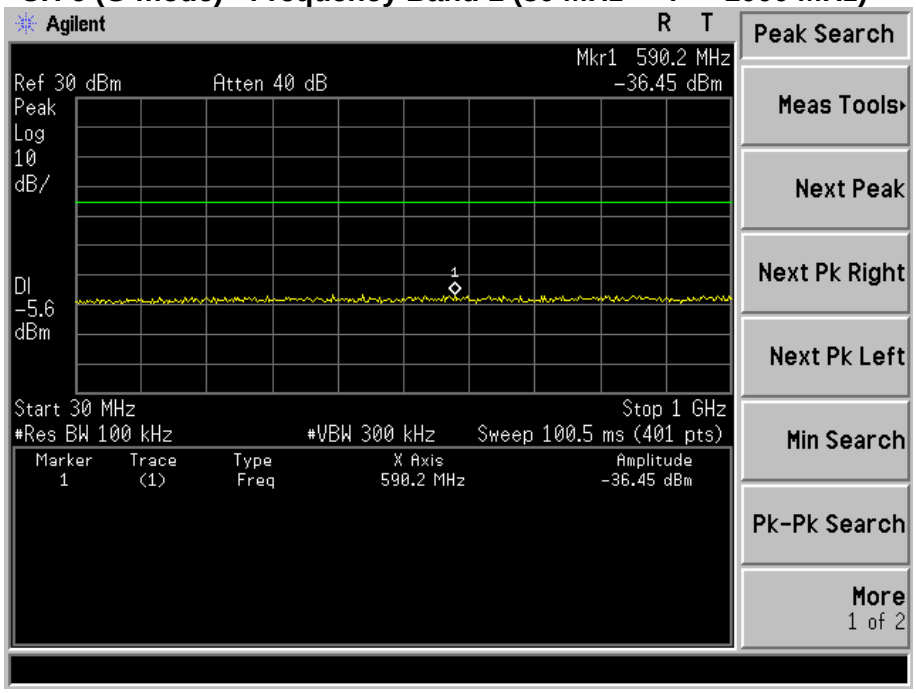
CH 1 (G mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



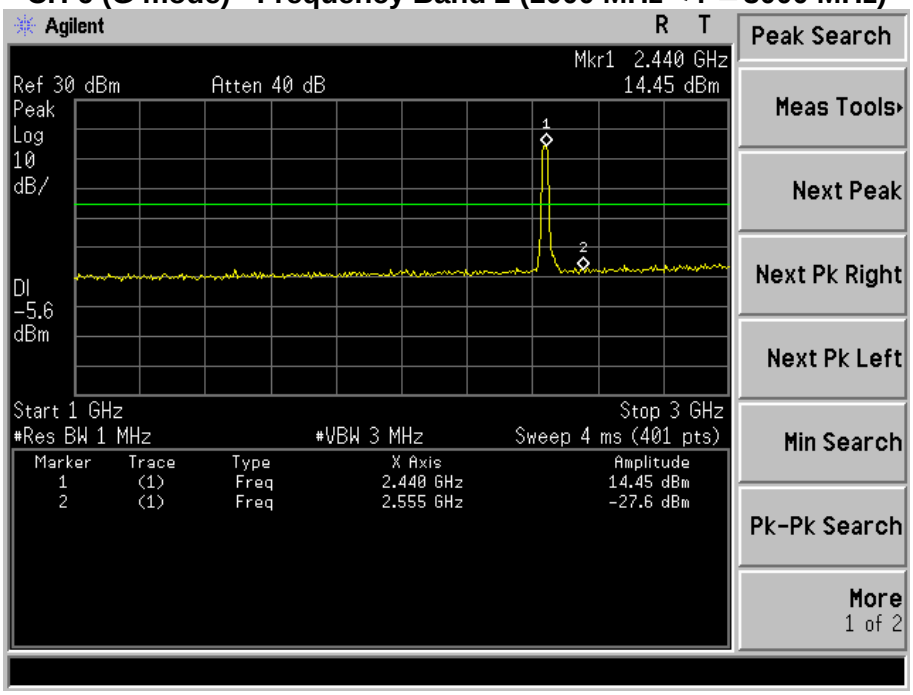
CH 1 (G mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



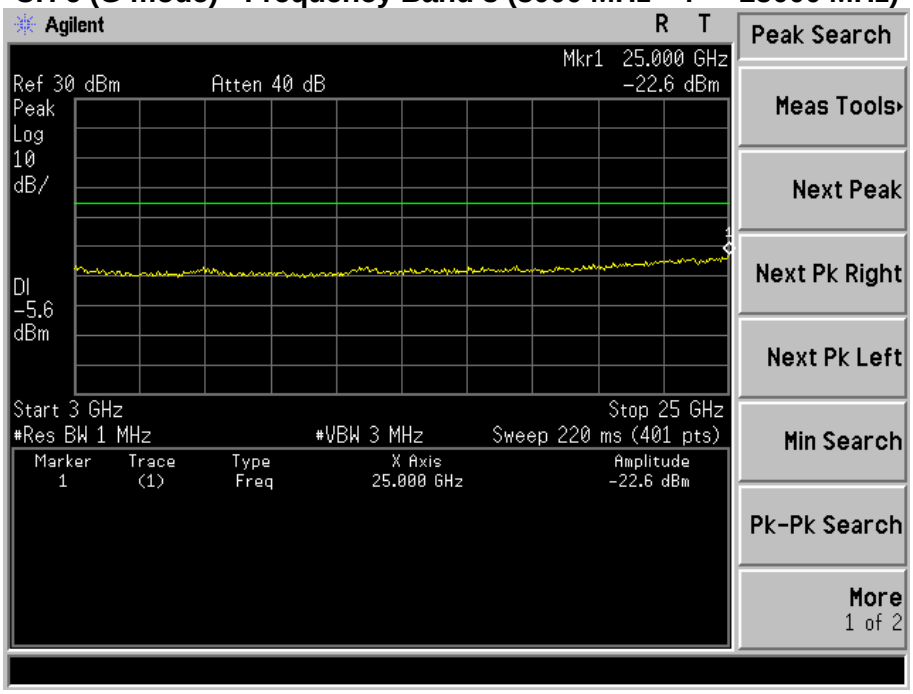
CH 6 (G mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



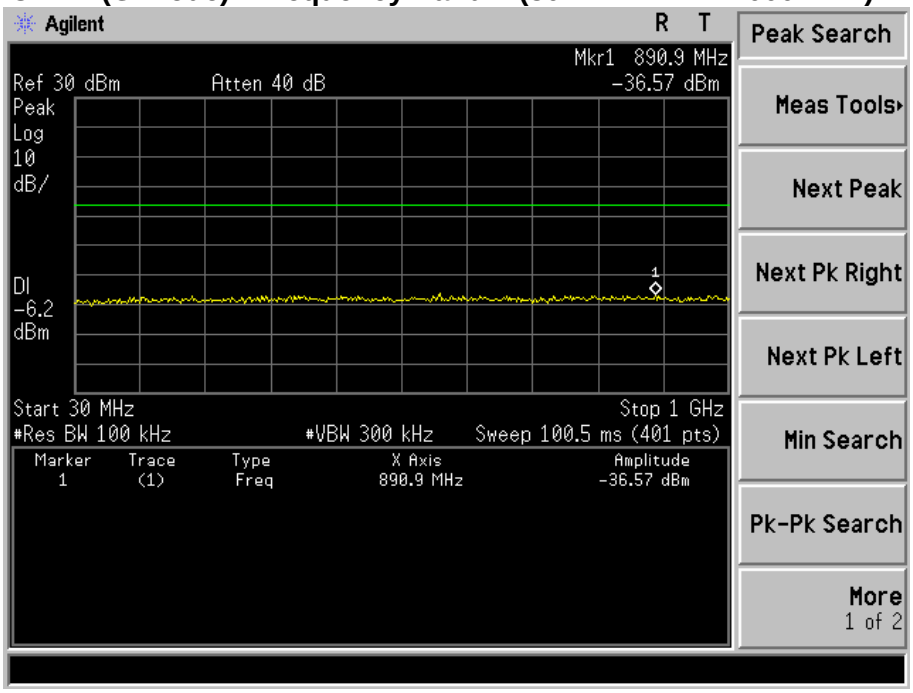
CH 6 (G mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



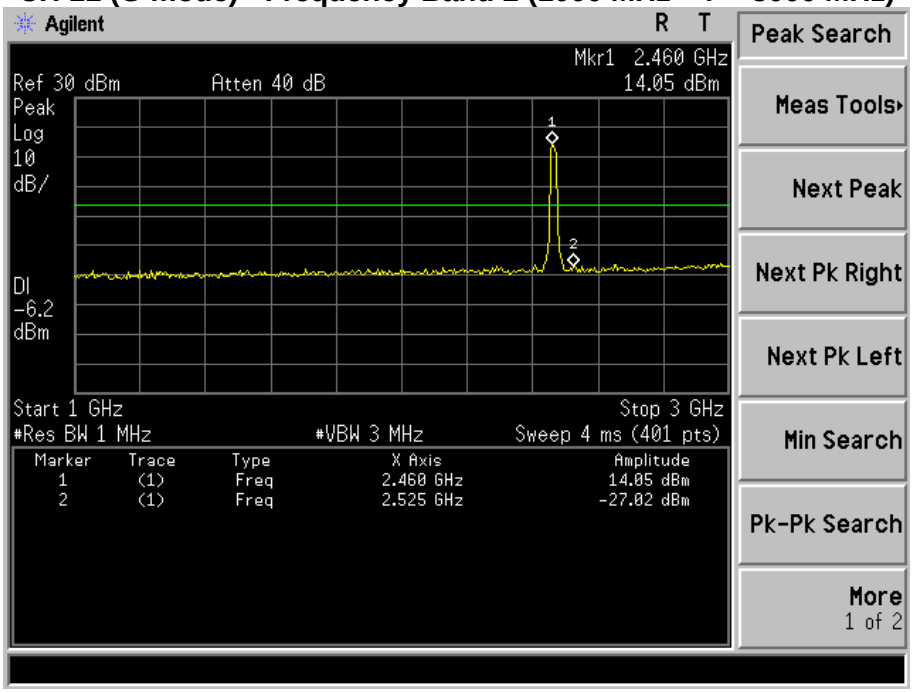
CH 6 (G mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



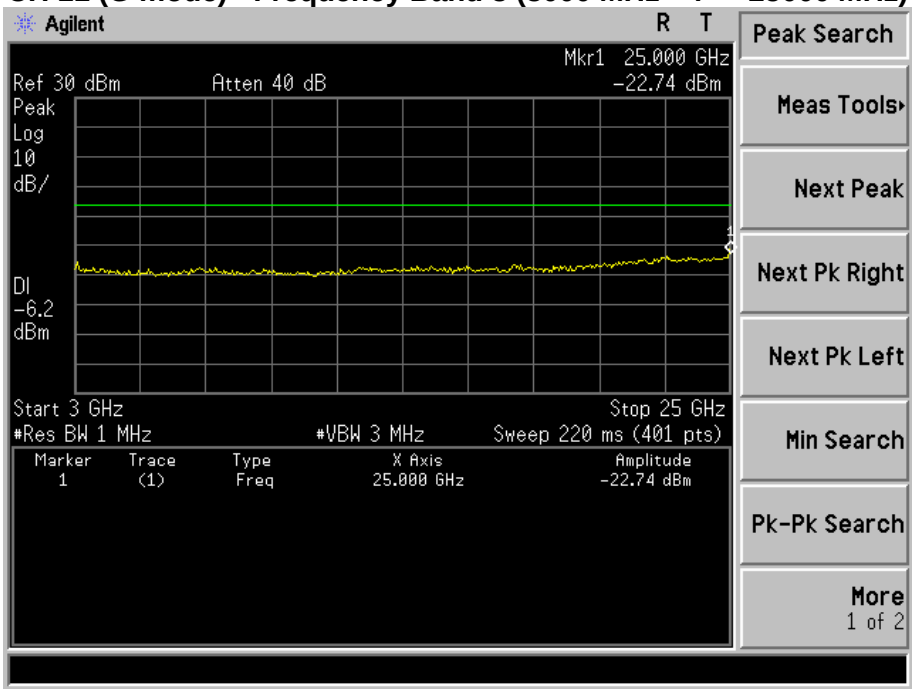
CH 11 (G mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



CH 11 (G mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)

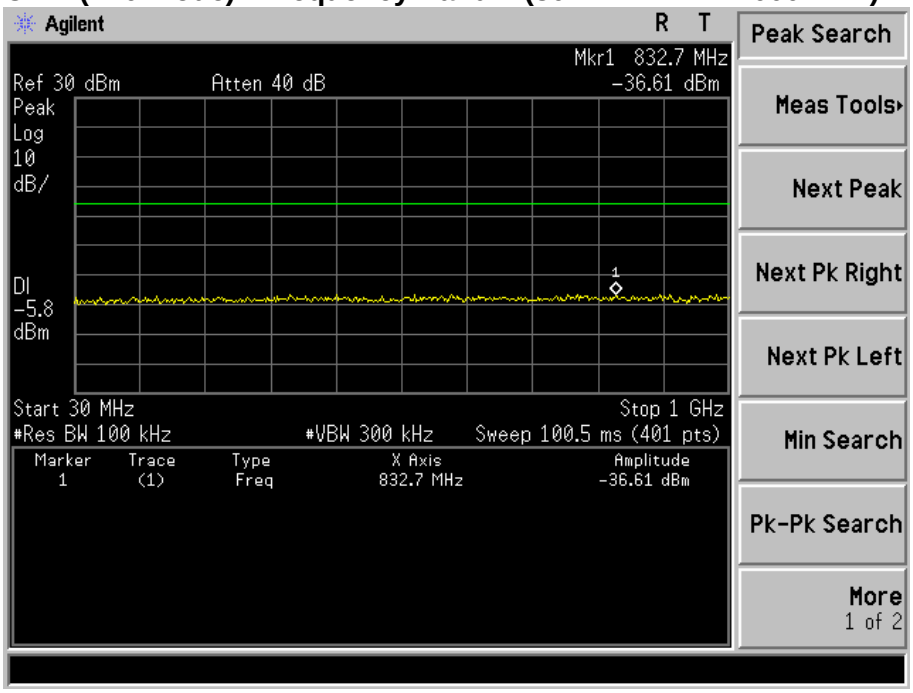


CH 11 (G mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)

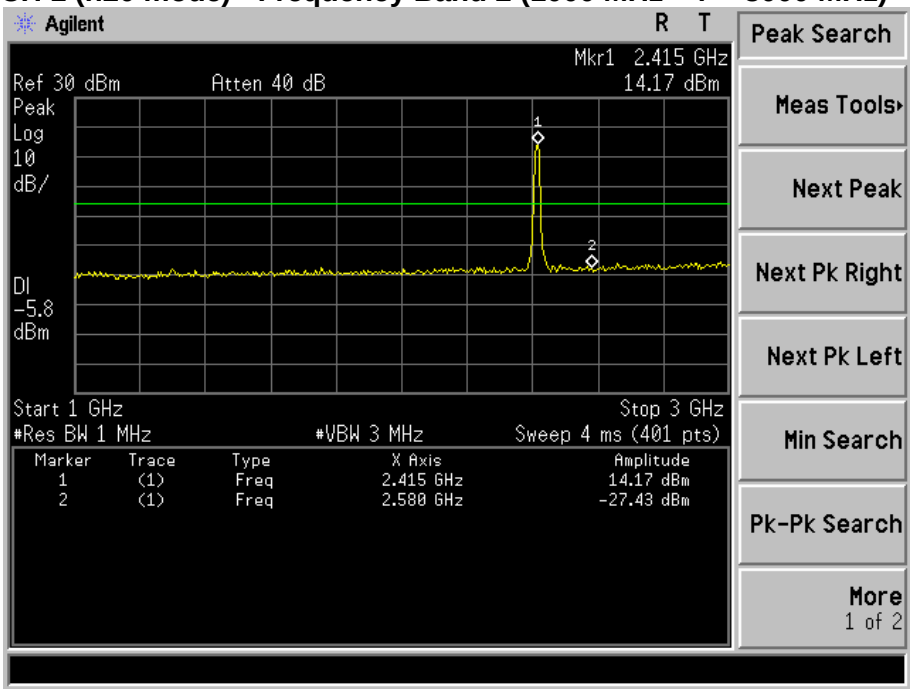


Operation Mode:	802.11 n20 mode(CH1, CH6, CH11)-Atenna 2

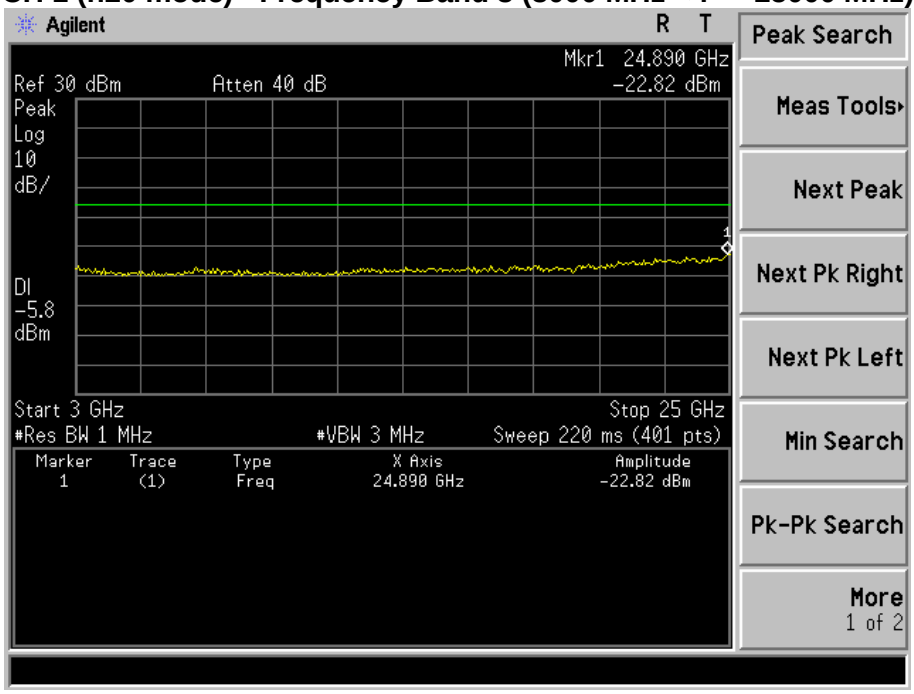
CH 1 (n20 mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



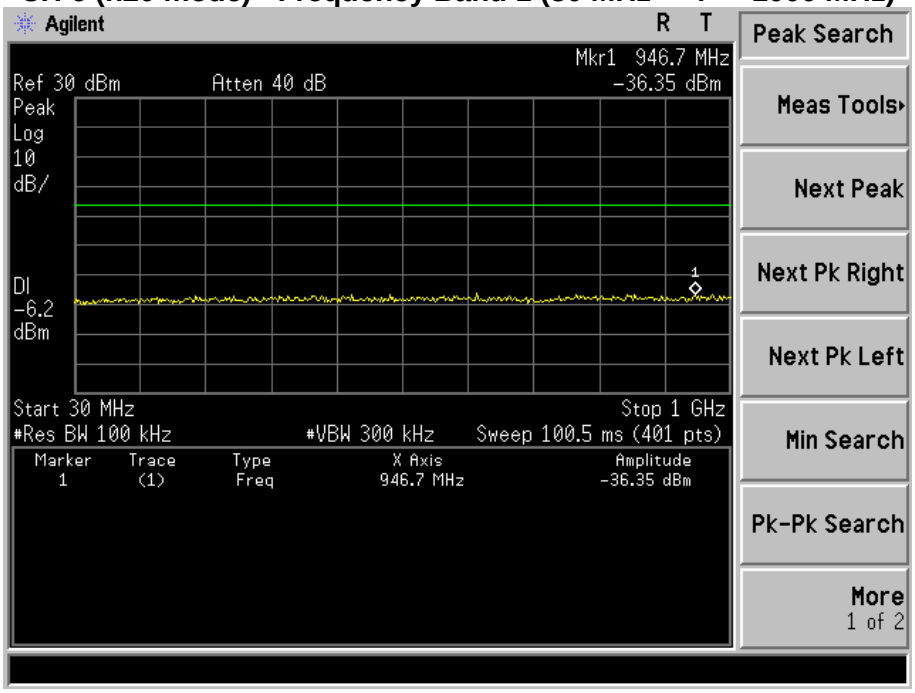
CH 1 (n20 mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



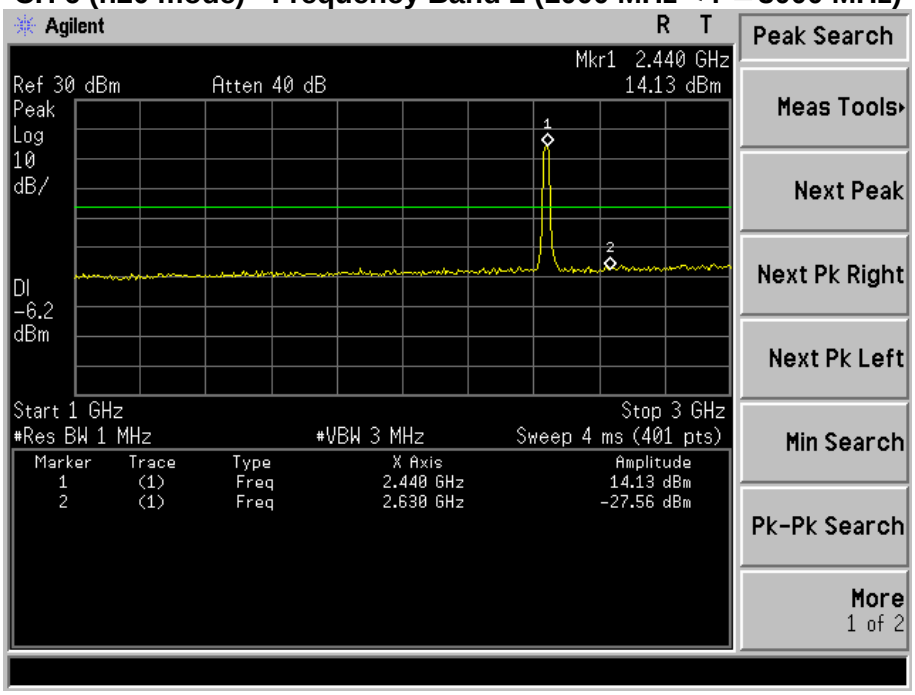
CH 1 (n20 mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



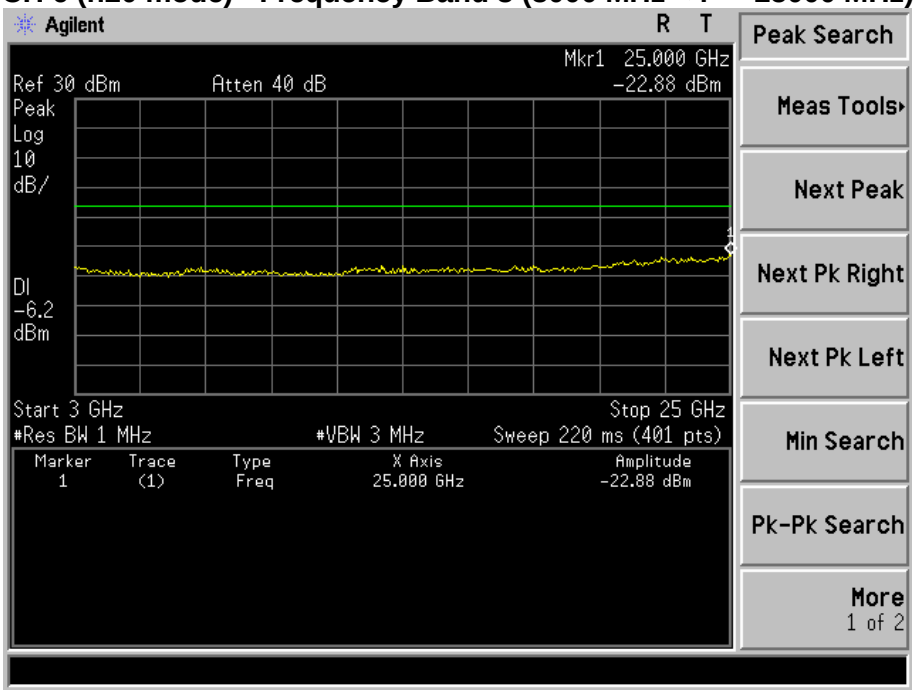
CH 6 (n20 mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



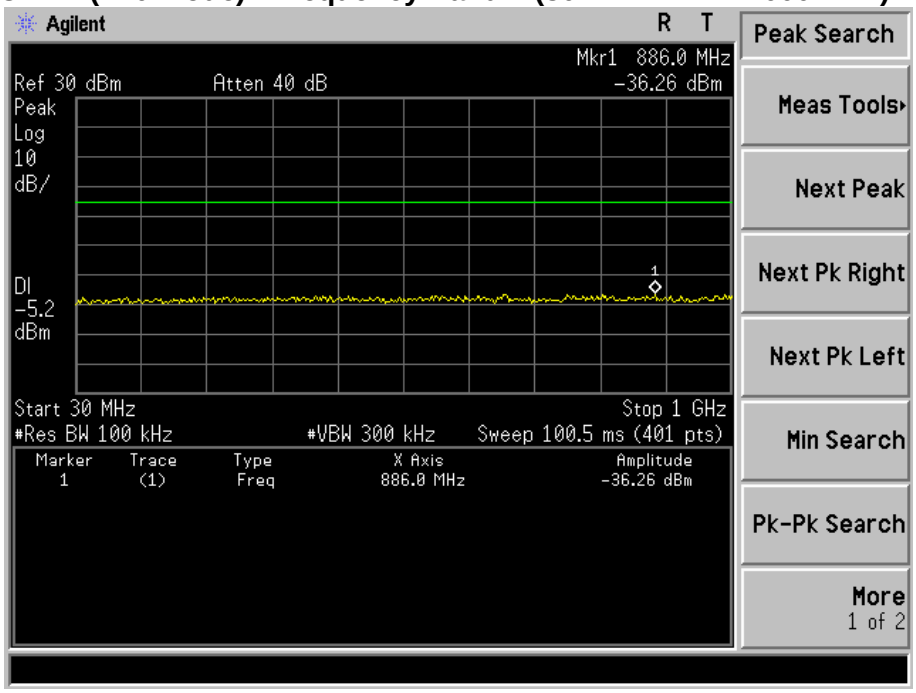
CH 6 (n20 mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



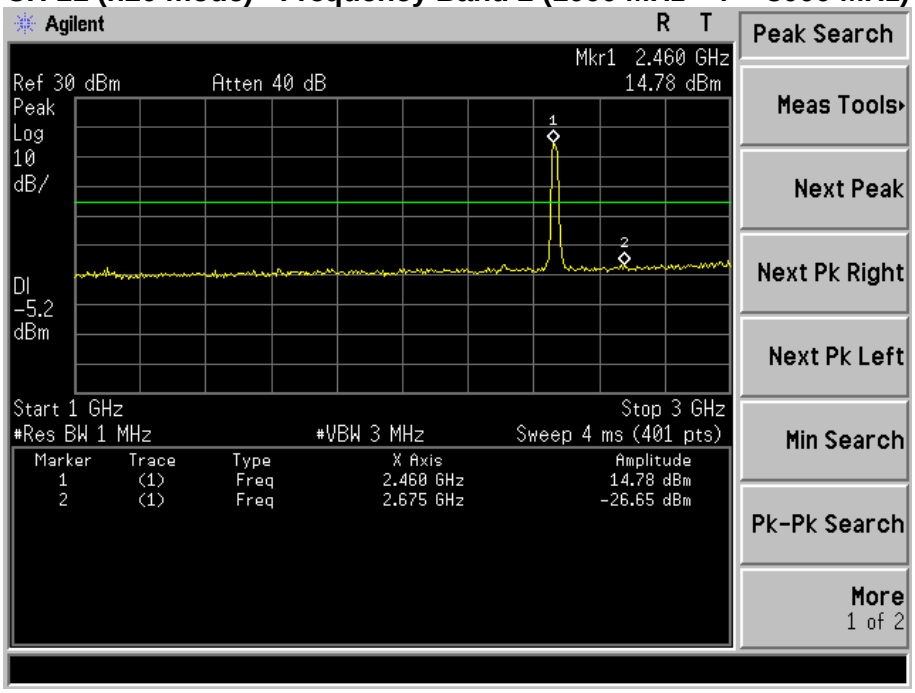
CH 6 (n20 mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



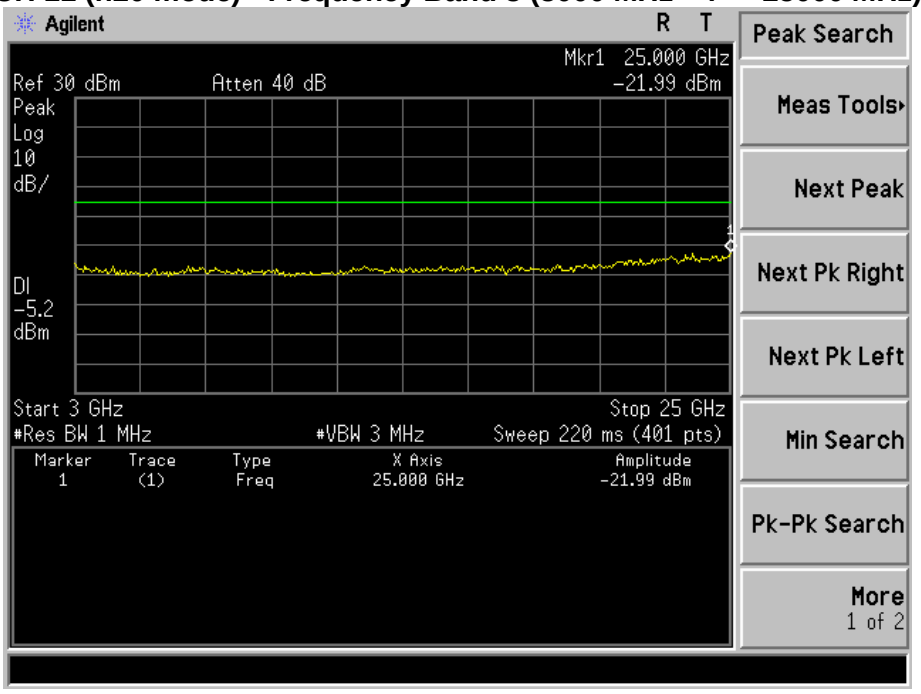
CH 11 (n20 mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



CH 11 (n20 mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)

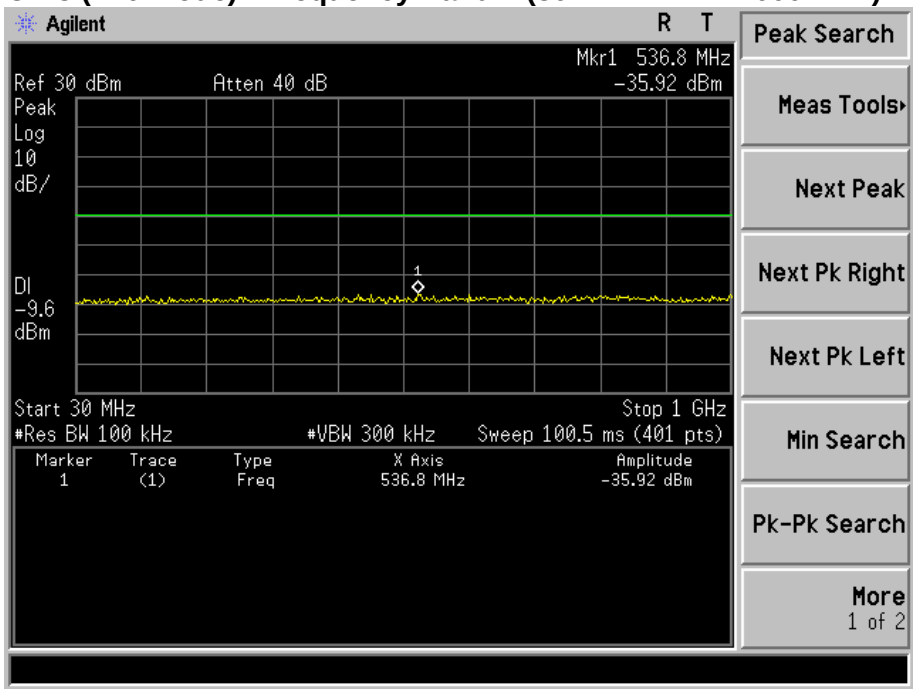


CH 11 (n20 mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)

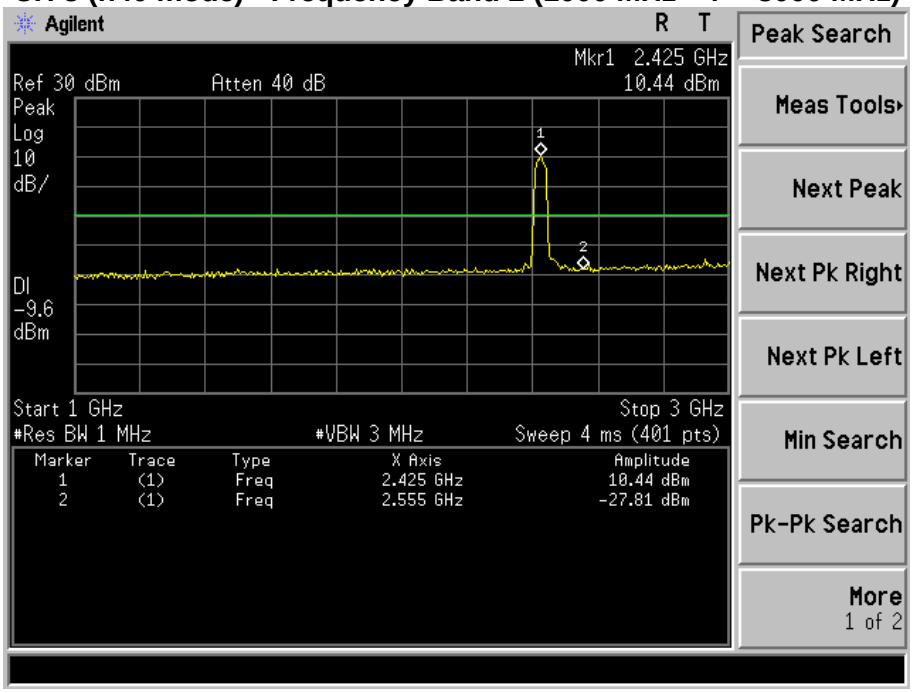


Operation Mode:	802.11 n40 mode(CH3, CH6, CH9)-Atenna 2

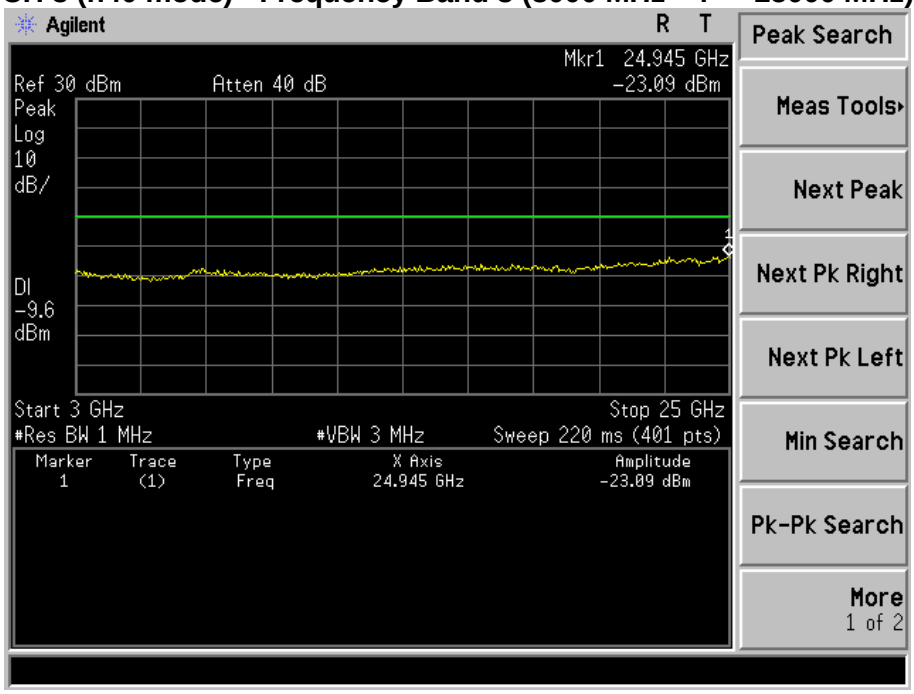
CH 3 (n40 mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



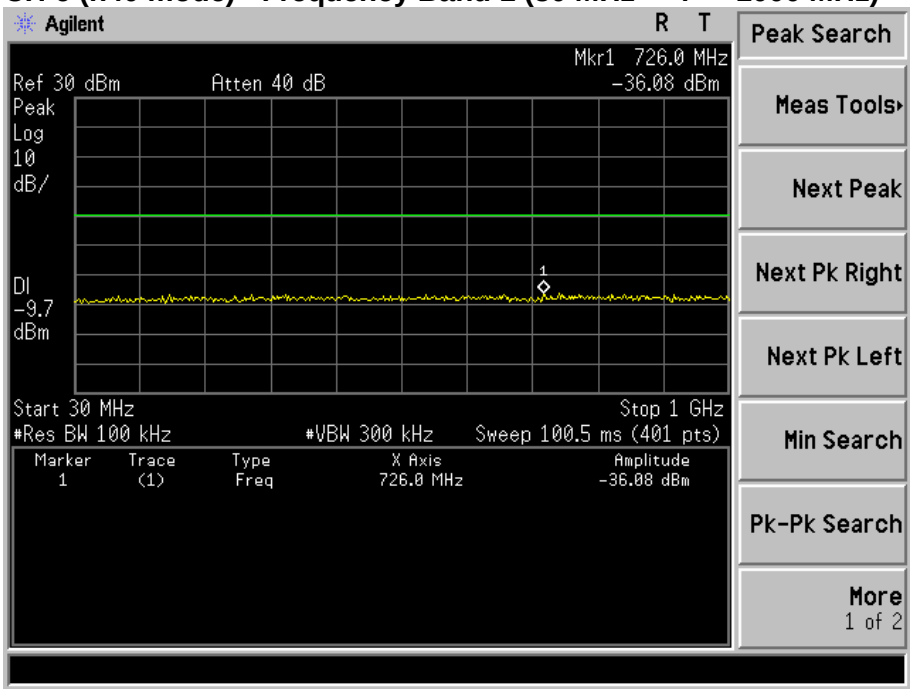
CH 3 (n40 mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



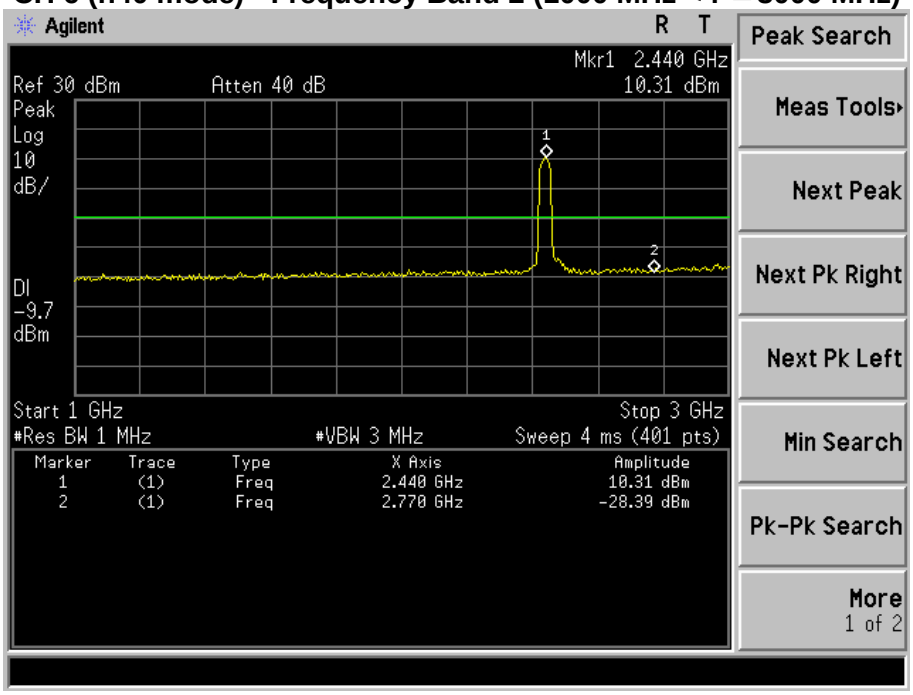
CH 3 (n40 mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



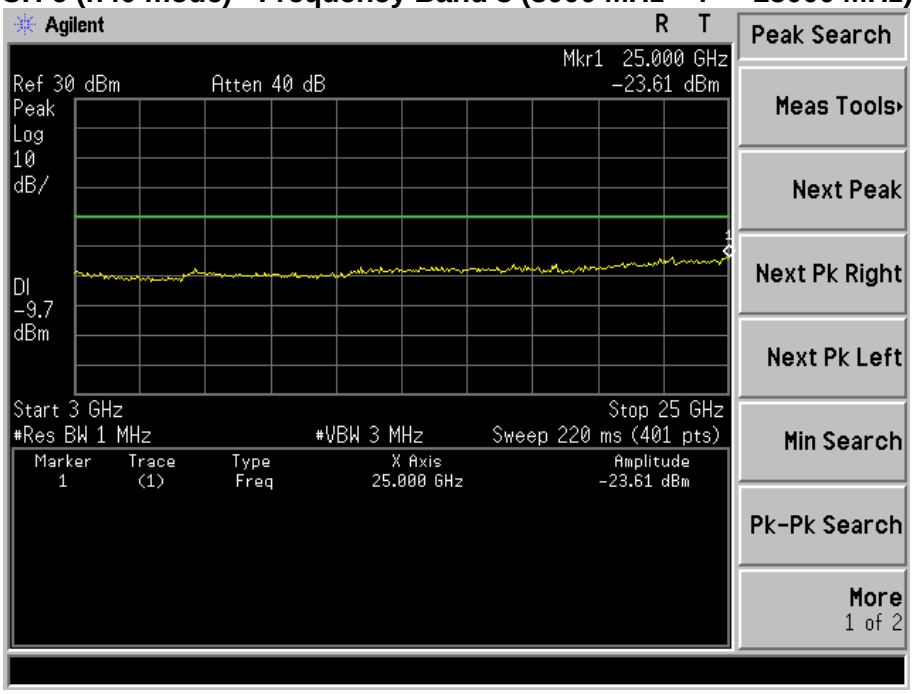
CH 6 (n40 mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



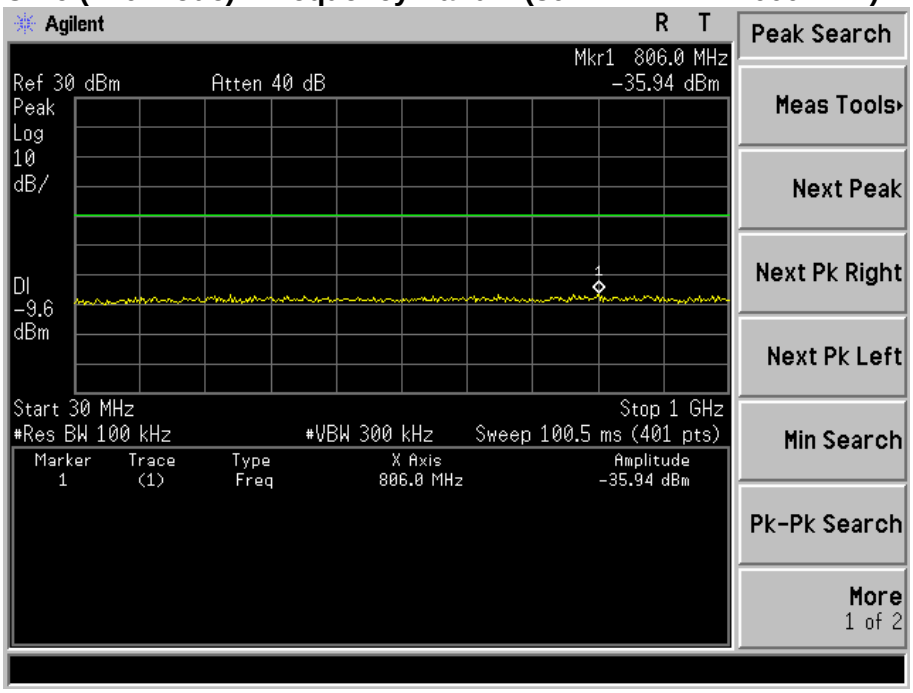
CH 6 (n40 mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



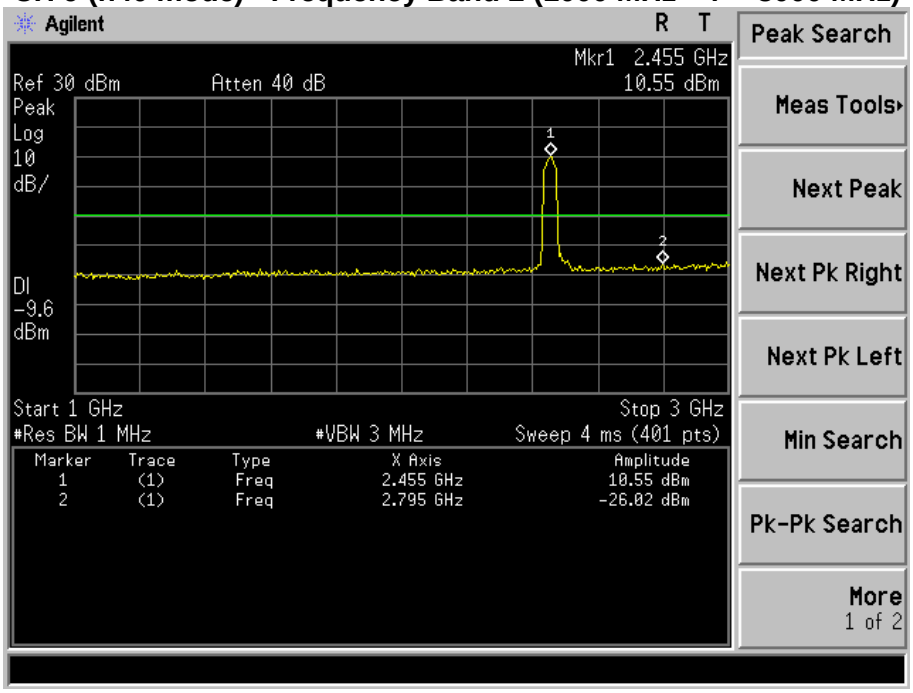
CH 6 (n40 mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



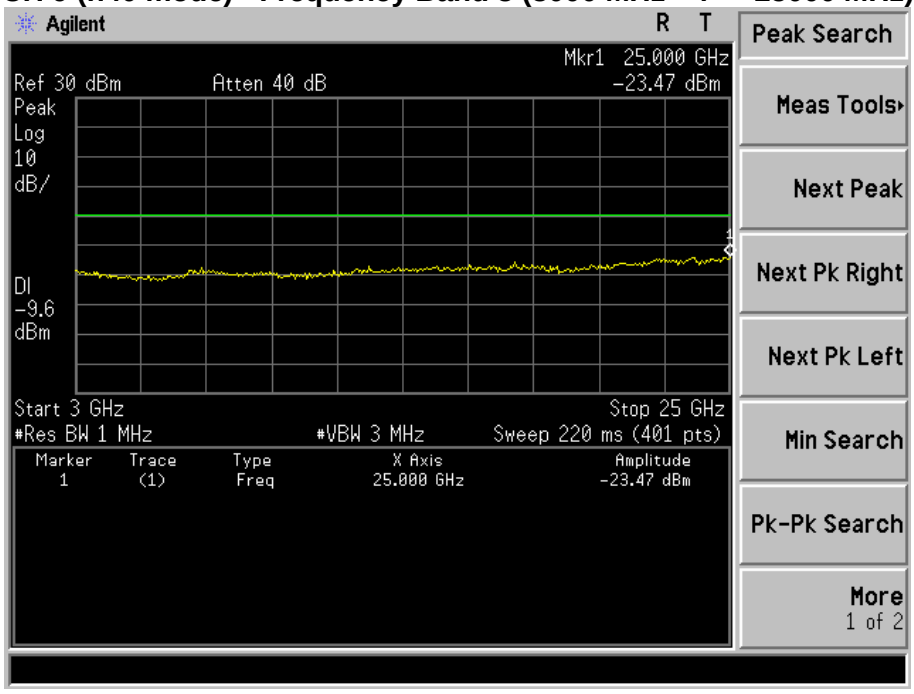
CH 9 (n40 mode) - Frequency Band 1 (30 MHz ≦ f ≦ 1000 MHz)



CH 9 (n40 mode) - Frequency Band 2 (1000 MHz < f ≦3000 MHz)



CH 9 (n40 mode) - Frequency Band 3 (3000 MHz < f ≦ 25000 MHz)



3.4 RADIATED BAND EMISSION MEASUREMENT

3.4.1 TEST REQUIREMENT:

FCC Part15 C Section 15.209 and 15.205

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Limit (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

(1) The limit for radiated test was performed according to FCC PART 15C.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	2300MHz
Stop Frequency	2520
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

3.4.2 TEST PROCEDURE

Above 1GHz test procedure as below:

a. 1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

g. Test the EUT in the lowest channel,the Highest channel

Note:

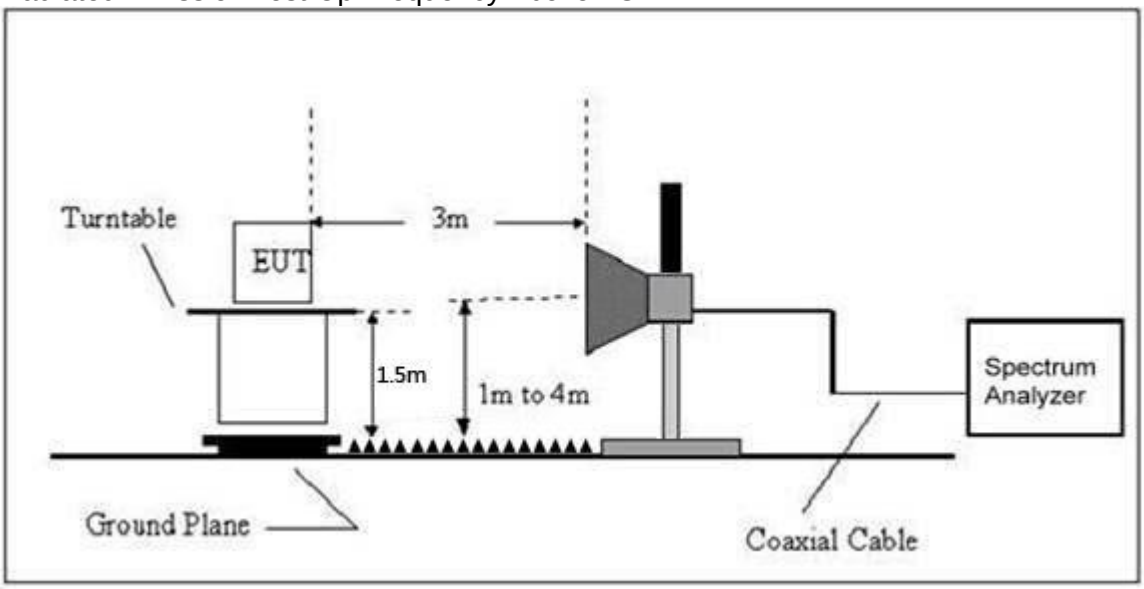
Both horizontal and vertical antenna polarities were tested
and performed pretest to three orthogonal axis. The worst case emissions were reported

3.4.3 DEVIATION FROM TEST STANDARD

No deviation

3.4.4 TEST SETUP

Radiated Emission Test-Up Frequency Above 1GHz



3.4.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

3.4.6 TEST RESULT

	Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-amplifier (dB)	Cable Loss (dB)	Antenna Factor (dB/m)	Emission evel (dBuV/m)	Limits (dBuV/m)		Result
							PK	PK	AV	
802.11b	Low Channel 2412MHz									
	H	2390.00	58.08	38.06	7.42	20.15	47.59	74.00	54.00	PASS
	H	2400.00	59.19	38.06	7.42	20.15	48.70	74.00	54.00	PASS
	V	2390.00	56.70	38.06	7.42	20.15	46.21	74.00	54.00	PASS
	V	2400.00	58.88	38.06	7.42	20.15	48.39	74.00	54.00	PASS
	High Channel 2462MHz									
	H	2483.50	57.87	38.17	7.42	20.51	47.63	74.00	54.00	PASS
	H	2483.50	57.78	38.17	7.42	20.51	47.54	74.00	54.00	PASS
	V	2485.50	57.64	38.20	7.45	20.54	47.43	74.00	54.00	PASS
	V	2485.50	57.61	38.20	7.45	20.54	47.40	74.00	54.00	PASS
802.11g	Low Channel 2412MHz									
	H	2390.00	59.86	38.06	7.42	20.15	49.37	74.00	54.00	PASS
	H	2400.00	58.29	38.06	7.42	20.15	47.80	74.00	54.00	PASS
	V	2390.00	60.38	38.06	7.42	20.15	49.89	74.00	54.00	PASS
	V	2400.00	59.64	38.06	7.42	20.15	49.15	74.00	54.00	PASS
	High Channel 2462MHz									
	H	2483.50	58.65	38.17	7.42	20.51	48.41	74.00	54.00	PASS
	H	2483.50	58.58	38.17	7.42	20.51	48.34	74.00	54.00	PASS
	V	2485.50	58.25	38.20	7.45	20.54	48.04	74.00	54.00	PASS
	V	2485.50	58.27	38.20	7.45	20.54	48.06	74.00	54.00	PASS
802.11N20	Low Channel 2412MHz									
	H	2390.00	58.66	38.06	7.42	20.15	48.17	74.00	54.00	PASS
	H	2400.00	59.15	38.06	7.42	20.15	48.66	74.00	54.00	PASS
	V	2390.00	59.26	38.06	7.42	20.15	48.77	74.00	54.00	PASS
	V	2400.00	60.42	38.06	7.42	20.15	49.93	74.00	54.00	PASS
	High Channel 2462MHz									
	H	2483.50	59.19	38.17	7.42	20.51	48.95	74.00	54.00	PASS
	H	2483.50	59.88	38.17	7.42	20.51	49.64	74.00	54.00	PASS
	V	2485.50	59.79	38.20	7.45	20.54	49.58	74.00	54.00	PASS
	V	2485.50	60.95	38.20	7.45	20.54	50.74	74.00	54.00	PASS
802.11N40	Low Channel 2422MHz									
	H	2390.00	59.05	38.06	7.42	20.15	48.56	74.00	54.00	PASS
	H	2400.00	59.74	38.06	7.42	20.15	49.25	74.00	54.00	PASS
	V	2390.00	59.65	38.06	7.42	20.15	49.16	74.00	54.00	PASS
	V	2400.00	60.81	38.06	7.42	20.15	50.32	74.00	54.00	PASS
	High Channel 2452MHz									
	H	2483.50	60.94	38.17	7.42	20.51	50.70	74.00	54.00	PASS
	H	2483.50	58.10	38.17	7.42	20.51	47.86	74.00	54.00	PASS
	V	2485.50	58.47	38.20	7.45	20.54	48.26	74.00	54.00	PASS
	V	2485.50	59.03	38.20	7.45	20.54	48.82	74.00	54.00	PASS

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit
2. If the PK measured levels comply with average limit, then the average level were deemed to comply with average limit.

4. POWER SPECTRAL DENSITY TEST

4.1 APPLIED PROCEDURES / 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

4.1.1 TEST PROCEDURE

For Average Power (Duty cycle ≥ 98%)

a. Set instrument center frequency to DTS channel center frequency.
b. Set span to at least 1.5 times the OBW.
c. Set RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
d. Set VBW ≥3 x RBW.
e. Detector = power averaging (RMS) or sample detector (when RMS not available).
f. Ensure that the number of measurement points in the sweep ≥ 2 x span/RBW.
g. Sweep time = auto couple.
h. Employ trace averaging (RMS) mode over a minimum of 100 traces.
i. Use the peak marker function to determine the maximum amplitude level.

For Average Power (Duty cycle < 98%)

a. Measure the duty cycle (x).
b. Set instrument center frequency to DTS channel center frequency.
c. Set span to at least 1.5 times the OBW.
d. Set RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
e. Set VBW ≥3 x RBW.
f. Detector = power averaging (RMS) or sample detector (when RMS not available).
g. Ensure that the number of measurement points in the sweep ≥ 2 x span/RBW.
h. Sweep time = auto couple.
i. Do not use sweep triggering. Allow sweep to “free run”.
j. Employ trace averaging (RMS) mode over a minimum of 100 traces.
k. Use the peak marker function to determine the maximum amplitude level.
l. Add 10 log (1/x), where x is the duty cycle measured in step (a, to the measured PSD to compute the average PSD during the actual transmission time.

4.1.2 DEVIATION FROM STANDARD

No deviation.

4.1.3 TEST SETUP

4.1.4 EUT OPERATION CONDITIONS

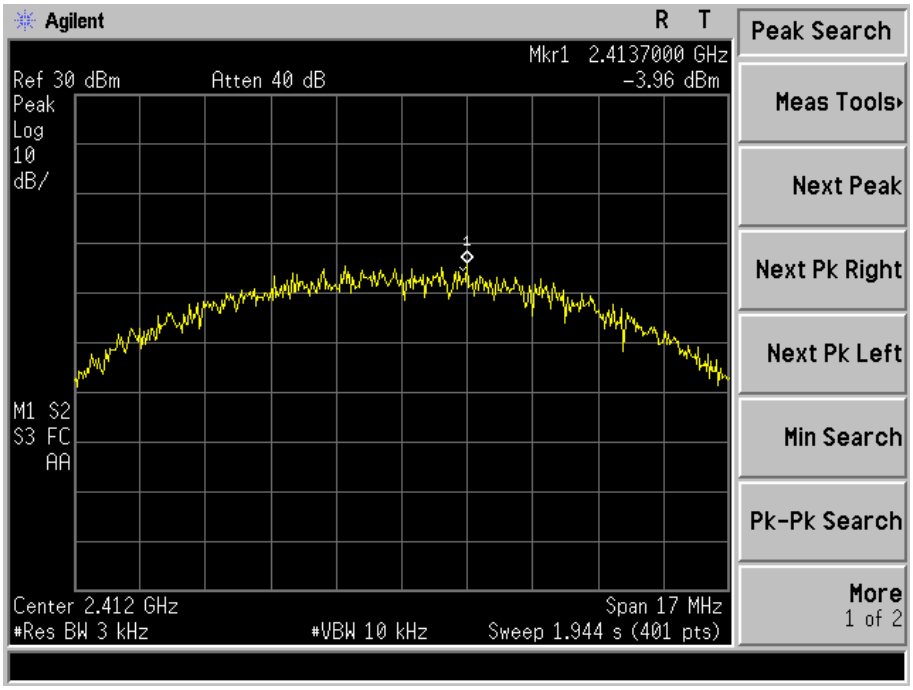
The EUT tested system was configured as the statements of 2.1 Unless otherwise a special operating condition is specified in the follows during the testing.

4.1.5 TEST RESULTS

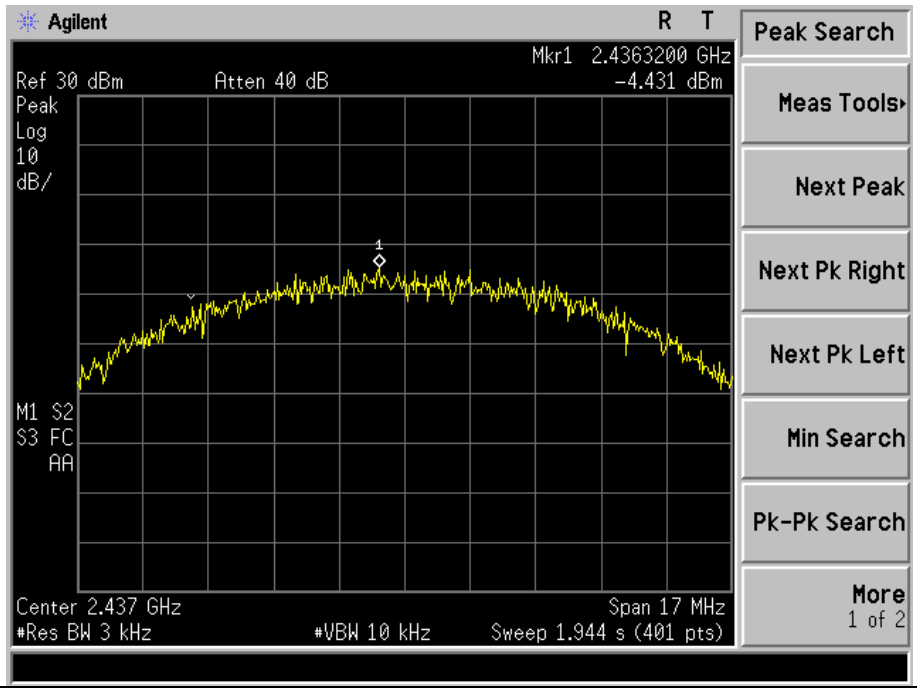
Temperature：	25℃	Relative Humidity：	60%
Pressure：	1015 hPa	Test Voltage ：	DC 7.4V
Test Mode ：	TX b Mode		

Frequency	Read Level (dBm)		Total Power Spectral Density(dBm)	Limit (dBm)	Result
2412 MHz	Ant.1	-3.96	-1.04	7.49	PASS
	Ant.2	-4.151			
2437 MHz	Ant.1	-4.431	-0.64	7.49	PASS
	Ant.2	-2.991			
2462 MHz	Ant.1	-2.543	-0.64	7.49	PASS
	Ant.2	-5.149			
Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.					

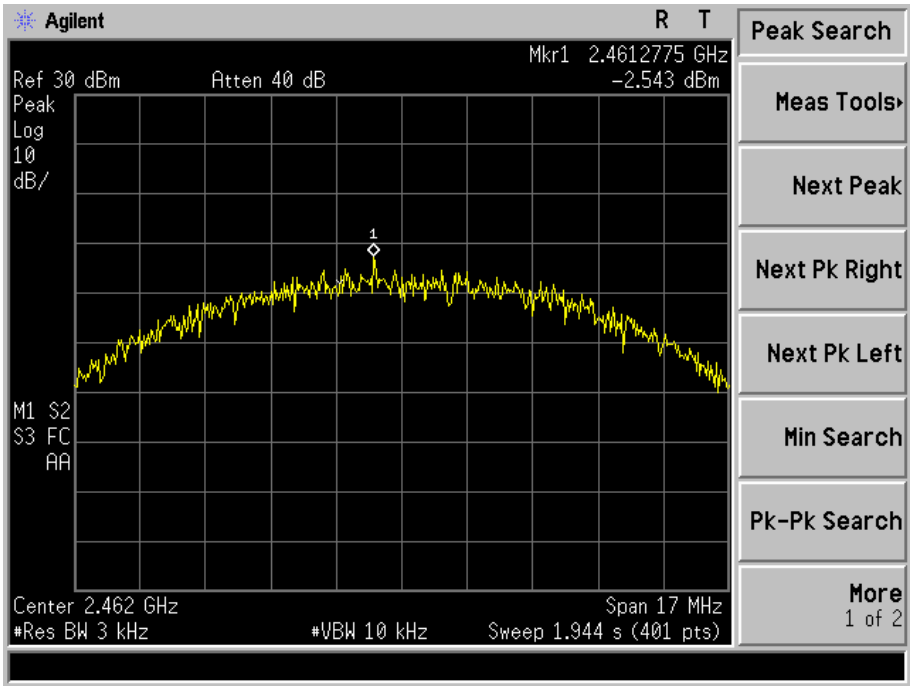
Antenna1 TX CH01



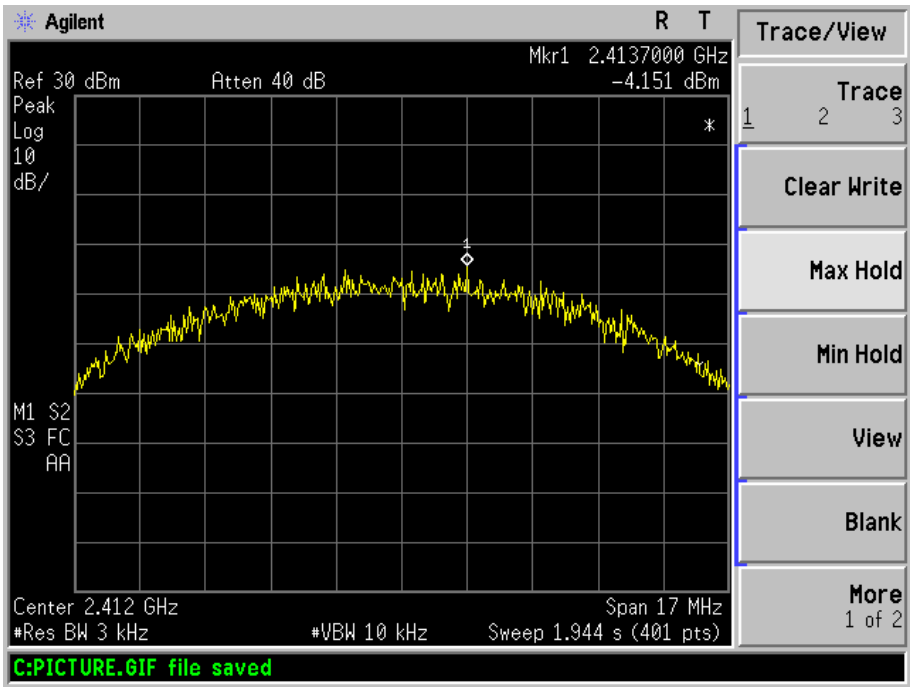
Antenna1 TX CH06



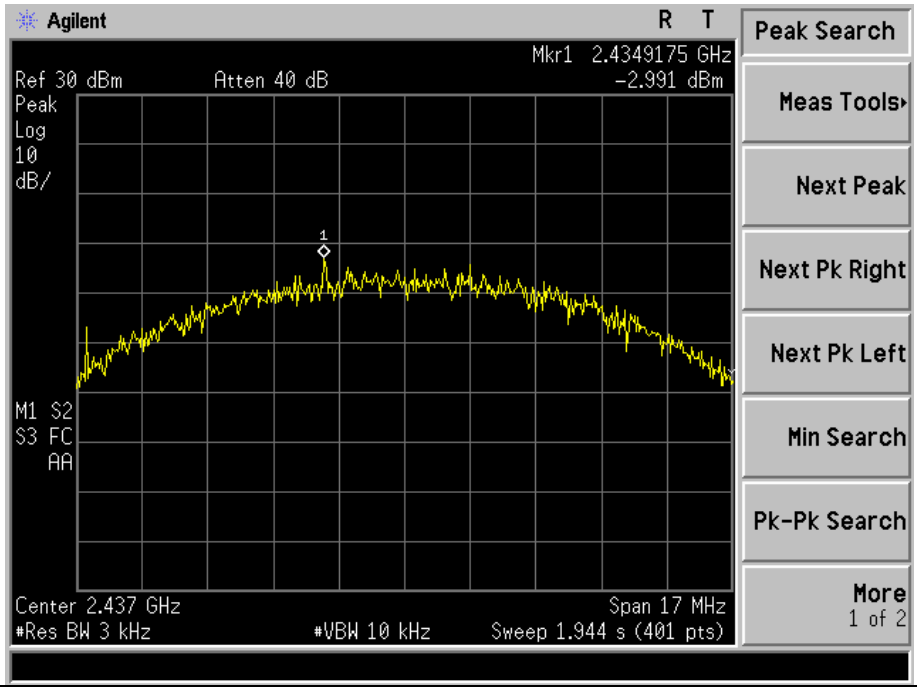
Antenna1 TX CH11



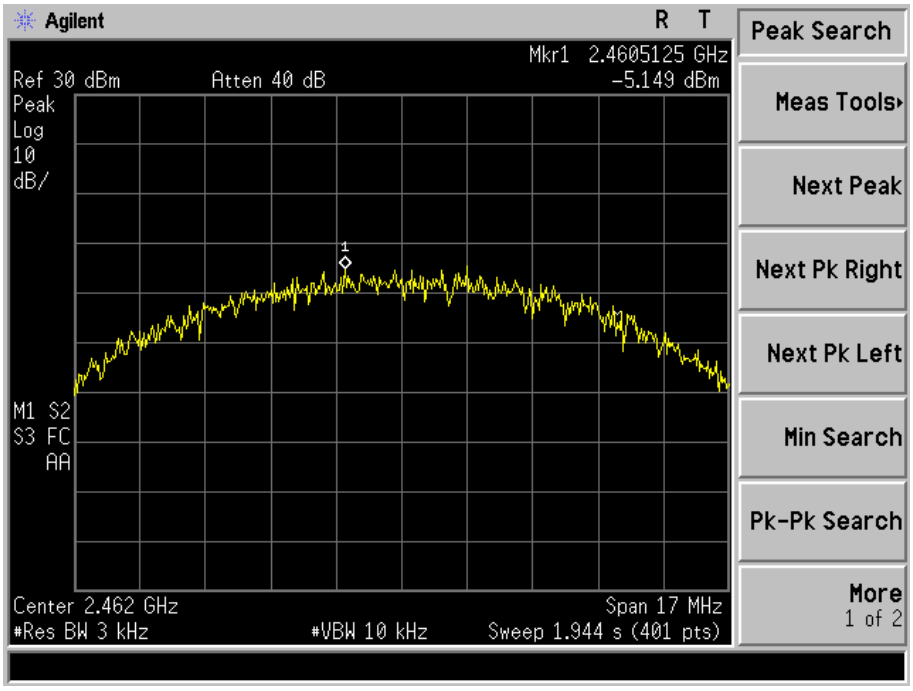
Antenna2 TX CH01



Antenna2 TX CH06



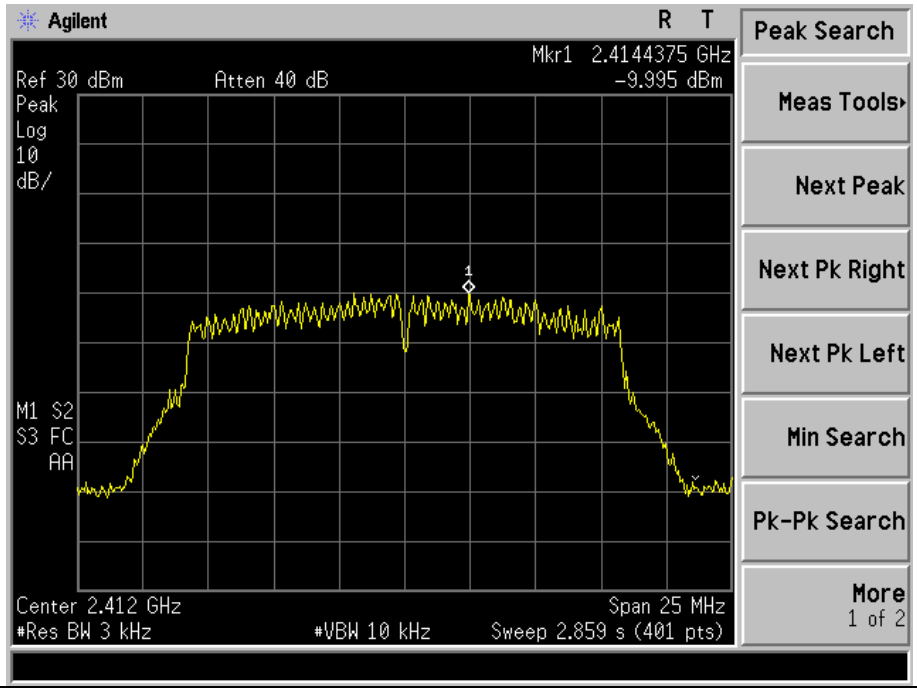
Antenna2 TX CH11



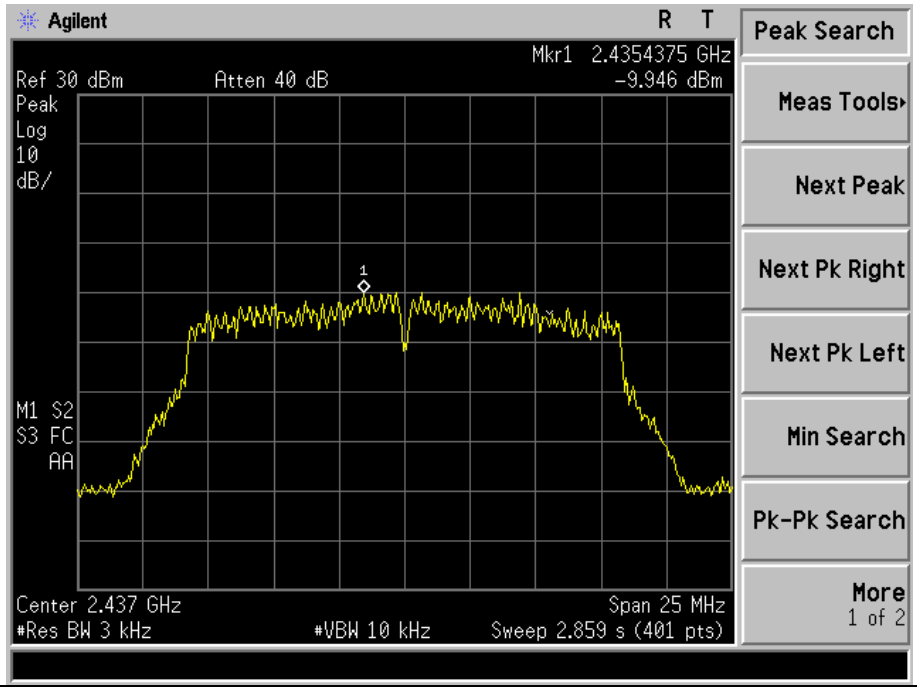
Temperature：	25℃	Relative Humidity：	60%
Pressure：	1015 hPa	Test Voltage ：	DC 7.4V
Test Mode ：	TX g Mode		

Frequency	Read Level (dBm)		Total Power Spectral Density(dBm)	Limit (dBm)	Result
2412 MHz	Ant.1	-9.995	-7.23	7.49	PASS
	Ant.2	-10.49			
2437 MHz	Ant.1	-9.946	-6.89	7.49	PASS
	Ant.2	-9.848			
2462 MHz	Ant.1	-10.58	-7.52	7.49	PASS
	Ant.2	-10.48			
Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.					

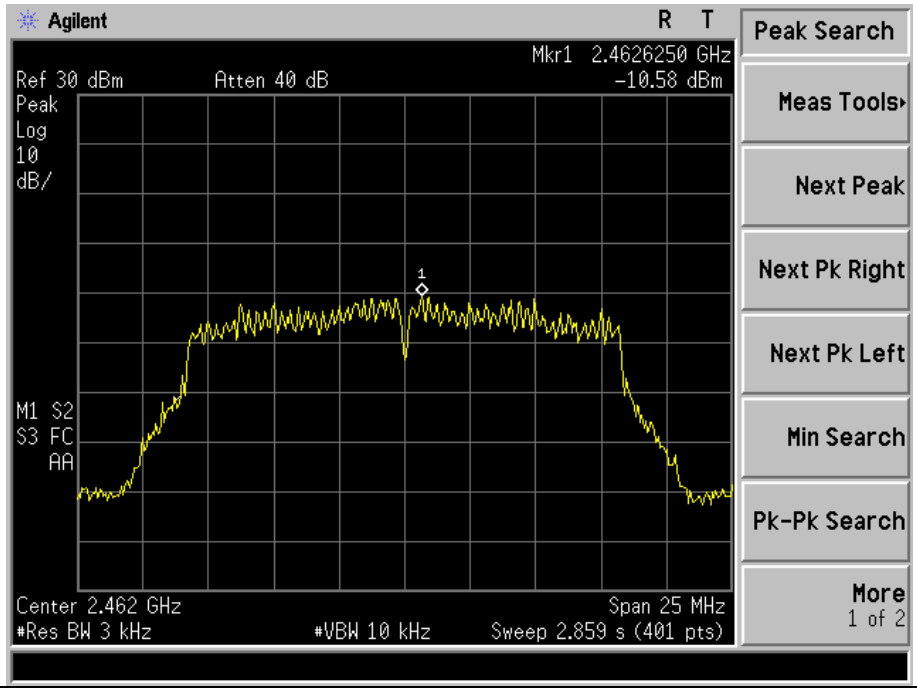
Antenna1 TX CH01



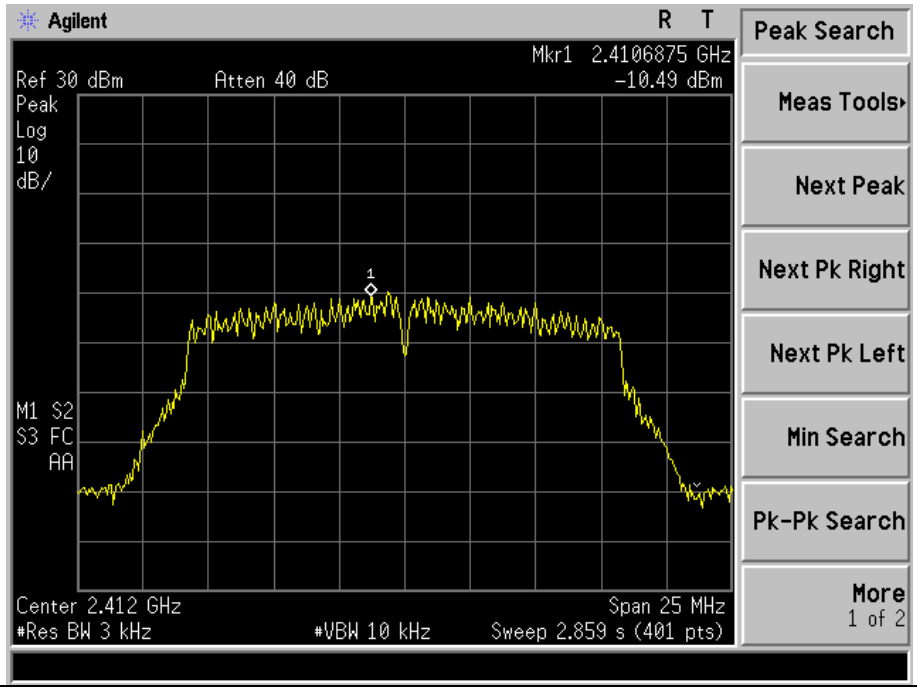
Antenna1 TX CH06



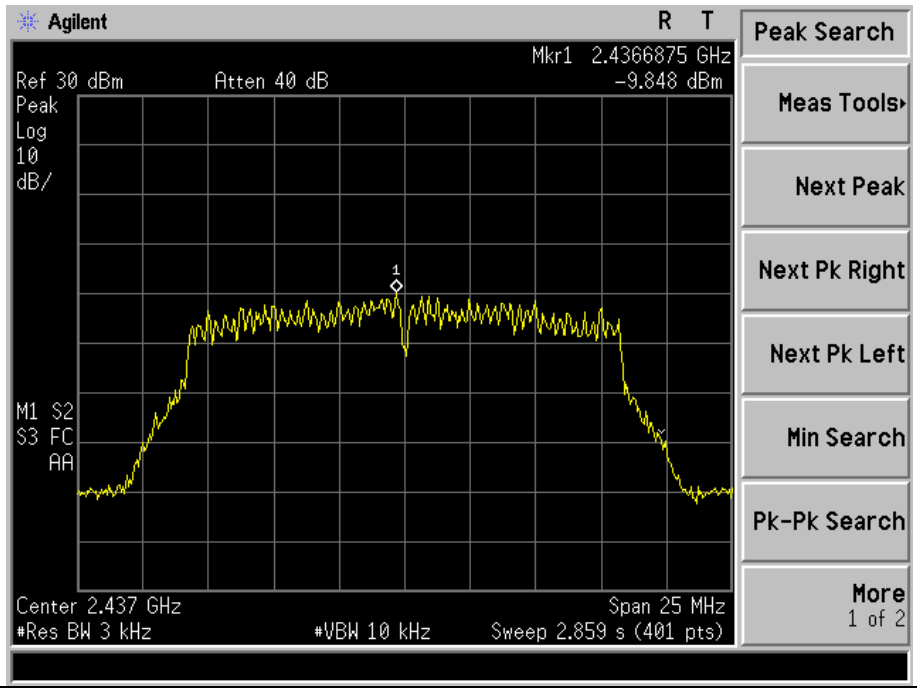
Antenna1 TX CH11



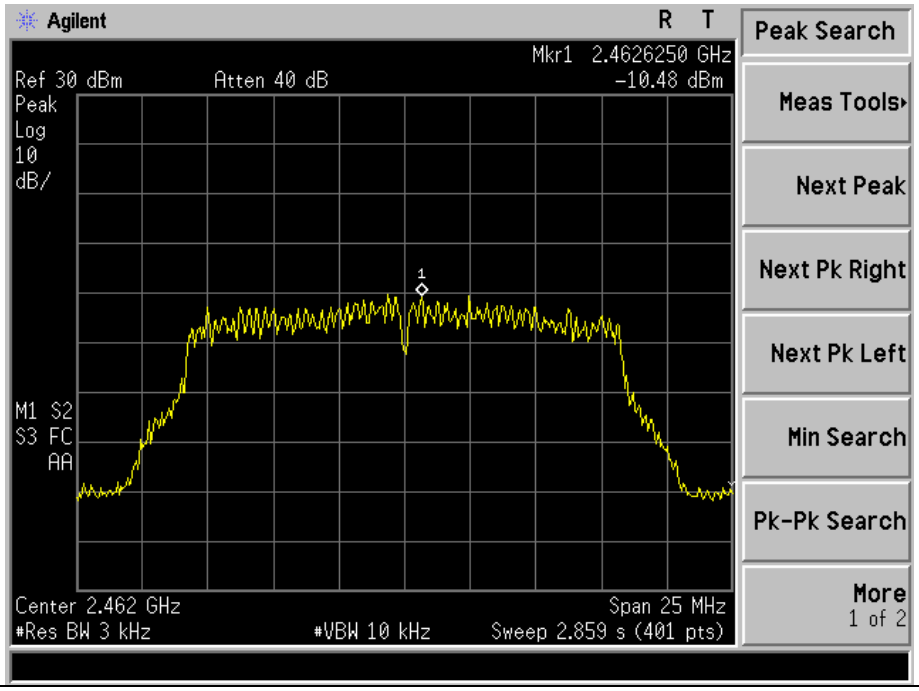
Antenna2 TX CH01



Antenna2 TX CH06



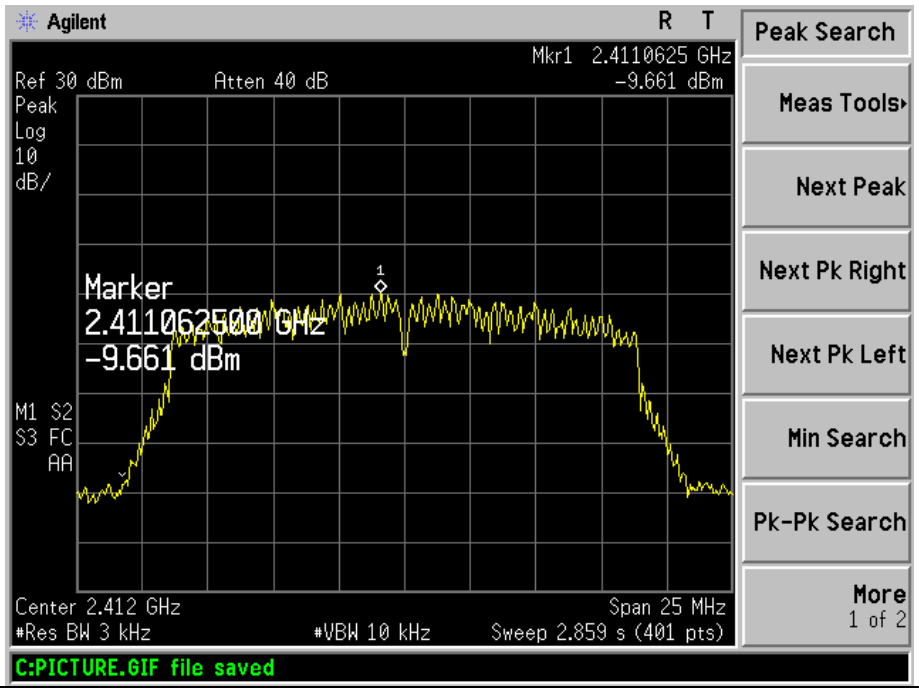
Antenna2 TX CH11



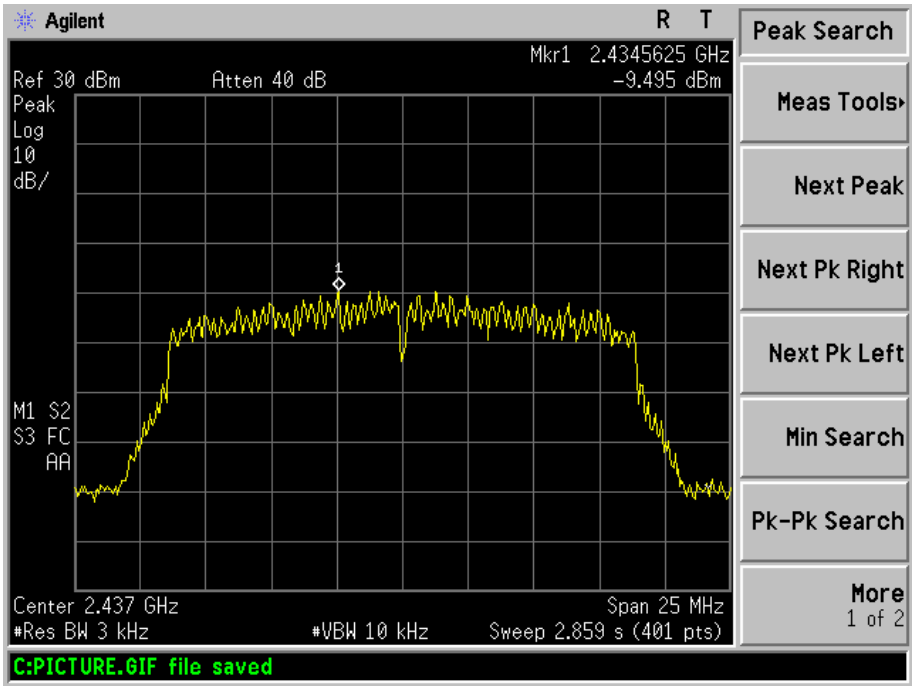
Temperature：	25℃	Relative Humidity：	60%
Pressure：	1015 hPa	Test Voltage ：	DC 7.4V
Test Mode ：	TX n Mode(20M)		

Frequency	Read Level (dBm)		Total Power Spectral Density(dBm)	Limit (dBm)	Result
2412 MHz	Ant.1	-9.661	-6.80	7.49	PASS
	Ant.2	-9.967			
2437 MHz	Ant.1	-9.495	-6.56	7.49	PASS
	Ant.2	-9.644			
2462 MHz	Ant.1	-10.38	-7.08	7.49	PASS
	Ant.2	-9.825			
Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.					

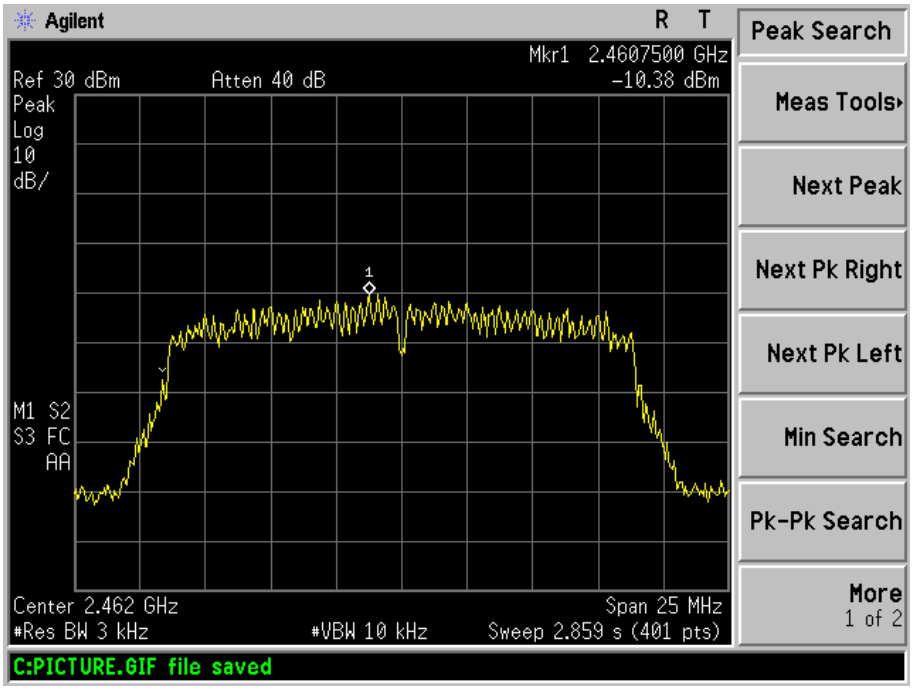
Antenna1 TX CH01



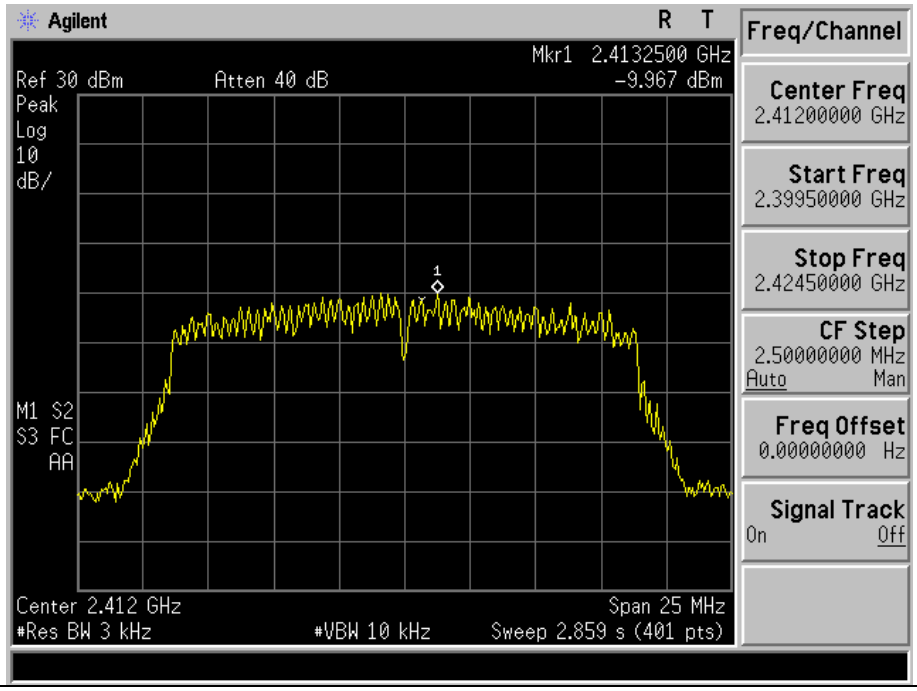
Antenna1 TX CH06



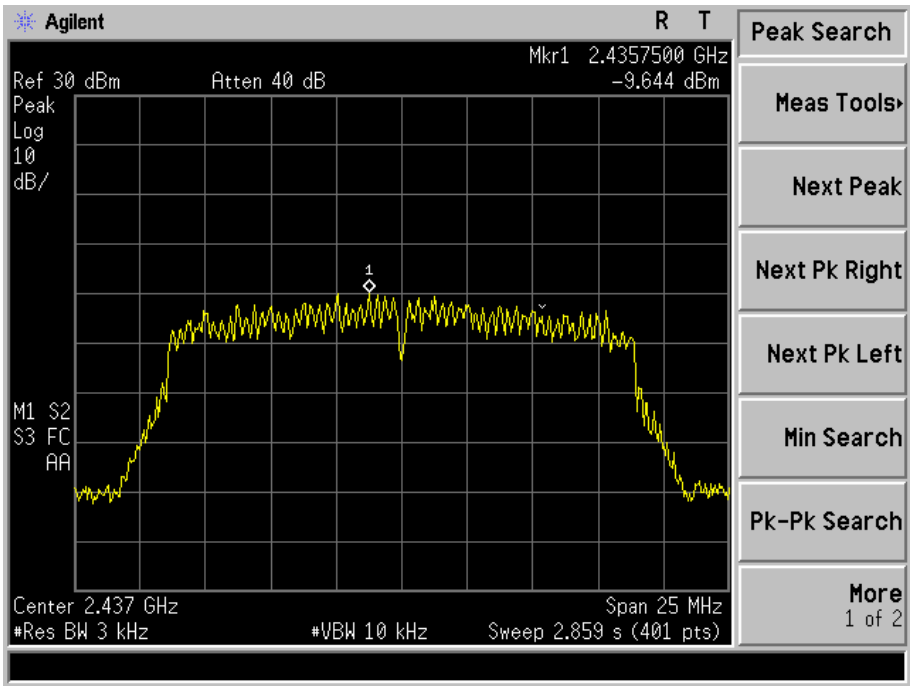
Antenna1 TX CH11



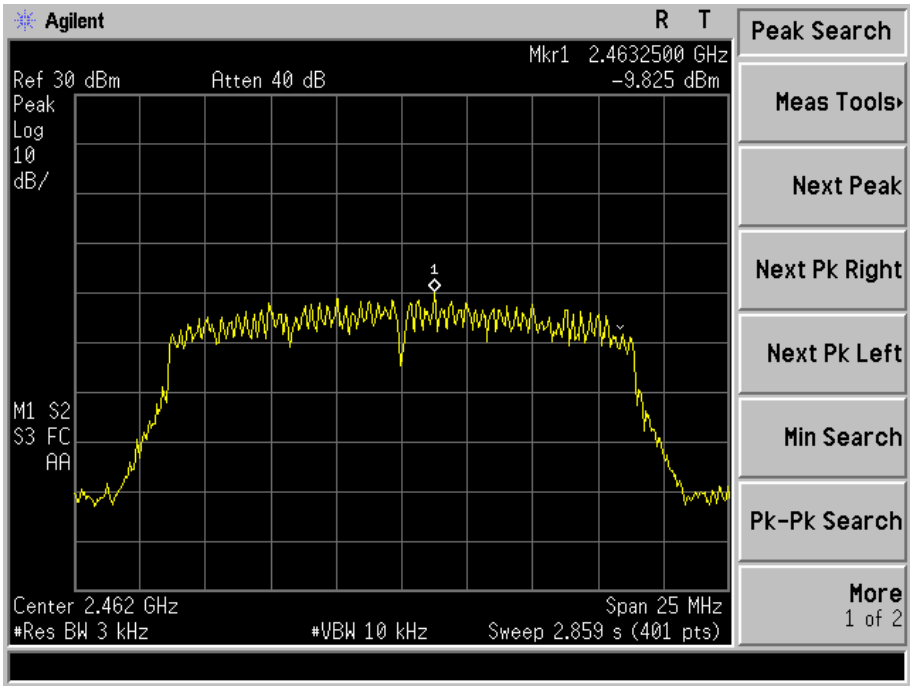
Antenna2 TX CH01



Antenna2 TX CH06



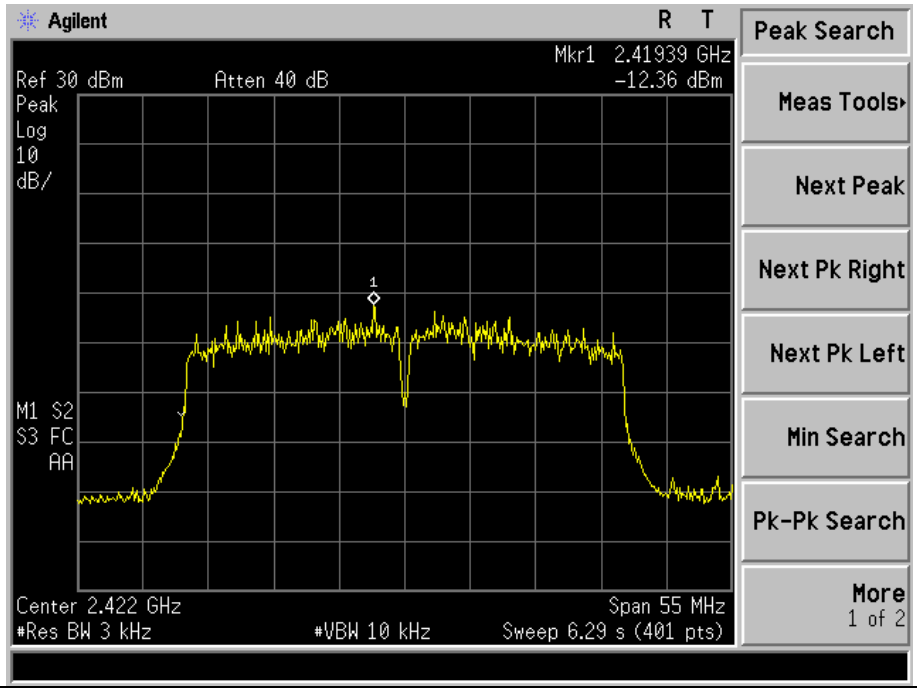
Antenna2 TX CH11



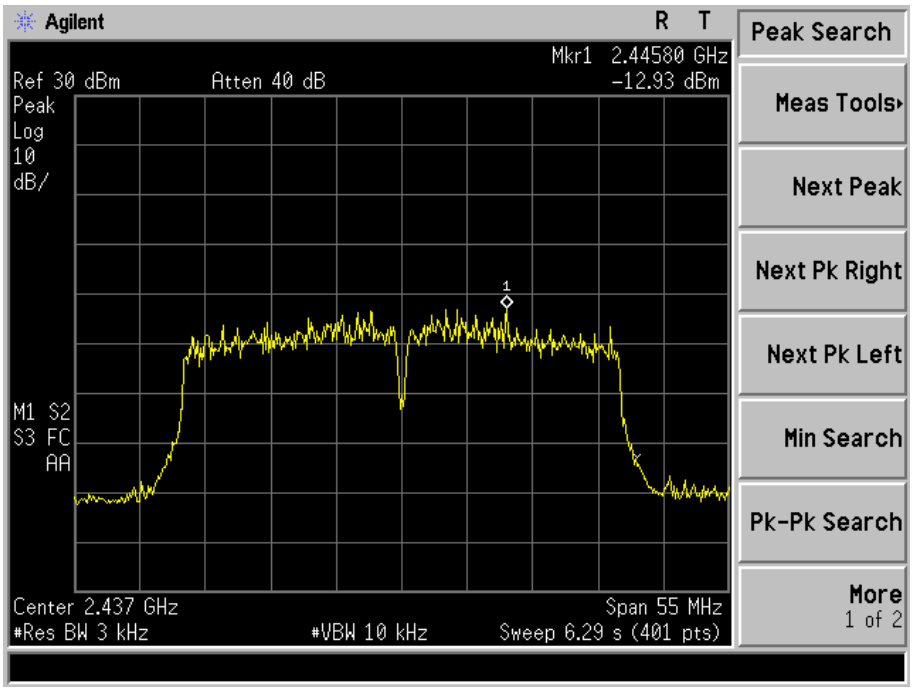
Temperature：	25℃	Relative Humidity：	60%
Pressure：	1015 hPa	Test Voltage ：	DC 7.4V
Test Mode ：	TX n Mode(40M)		

Frequency	Read Level (dBm)		Total Power Spectral Density(dBm)	Limit (dBm)	Result
2422 MHz	Ant.1	-12.36	-10.21	7.49	PASS
	Ant.2	-14.29			
2437 MHz	Ant.1	-12.93	-9.69	7.49	PASS
	Ant.2	-12.48			
2452 MHz	Ant.1	-13.26	-10.90	7.49	PASS
	Ant.2	-14.67			
Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.					

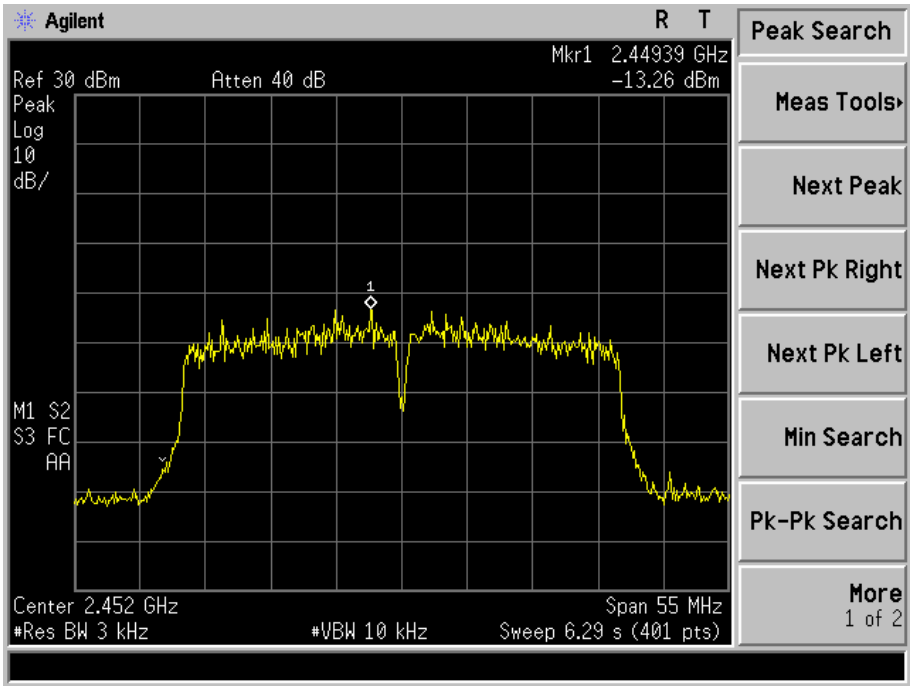
Antenna1 TX CH03



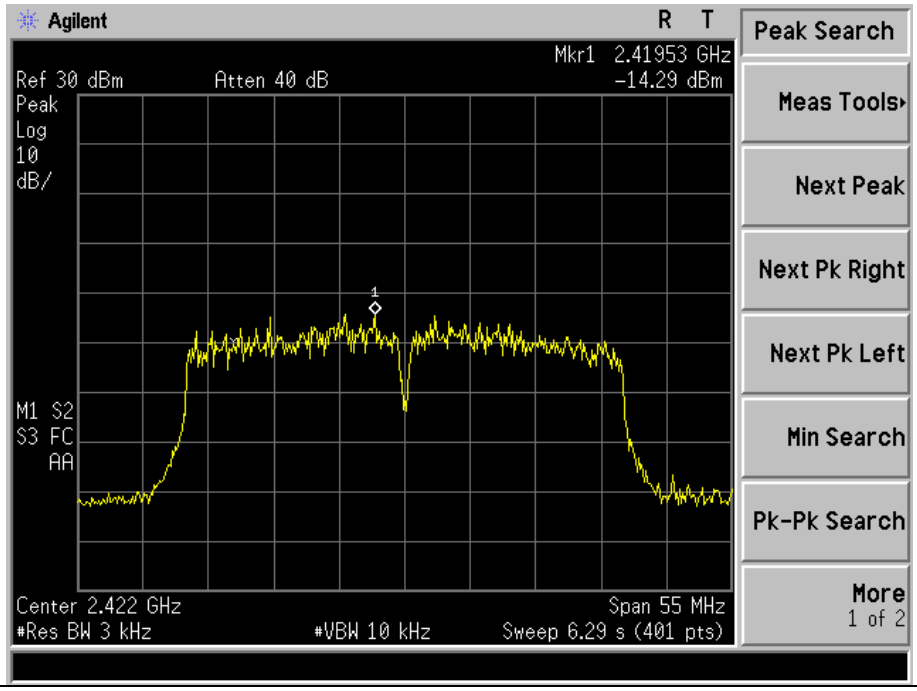
Antenna1 TX CH06



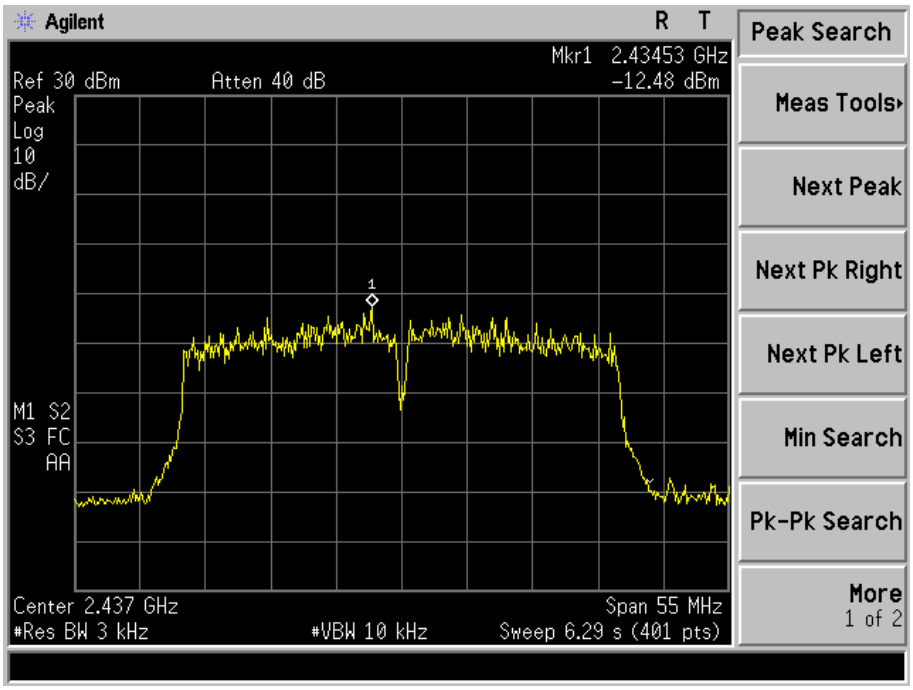
Antenna1 TX CH09



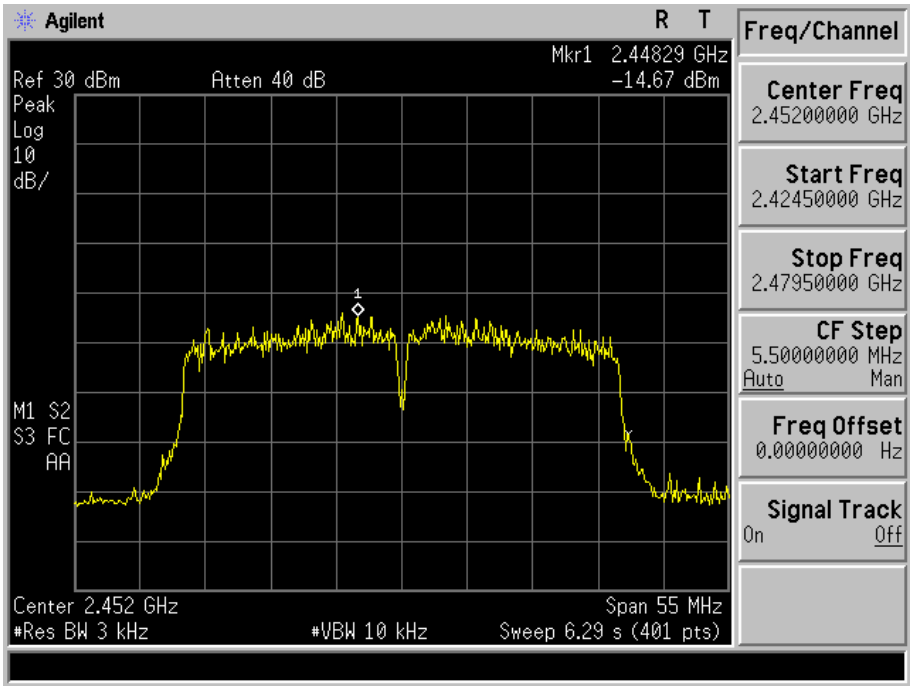
Antenna2 TX CH03



Antenna2 TX CH06



Antenna2 TX CH09



5. BANDWIDTH TEST

5.1 APPLIED PROCEDURES / 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

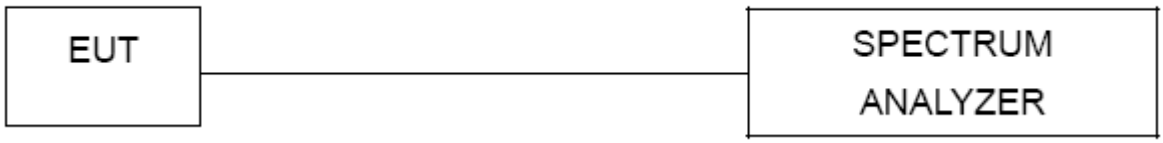
5.1.1 TEST PROCEDURE

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP



5.1.4 EUT OPERATION CONDITIONS

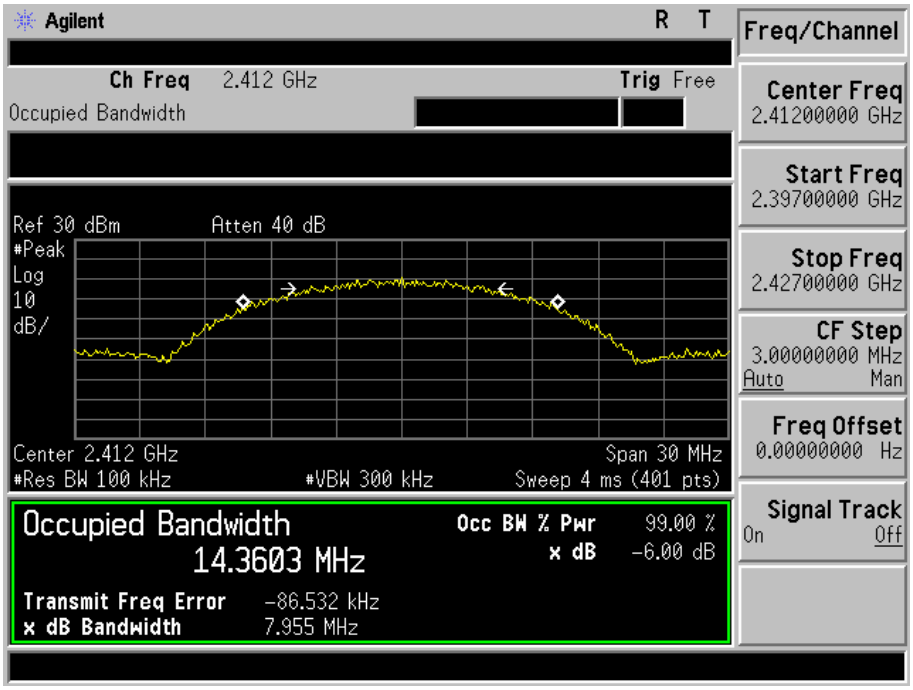
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.5 TEST RESULTS

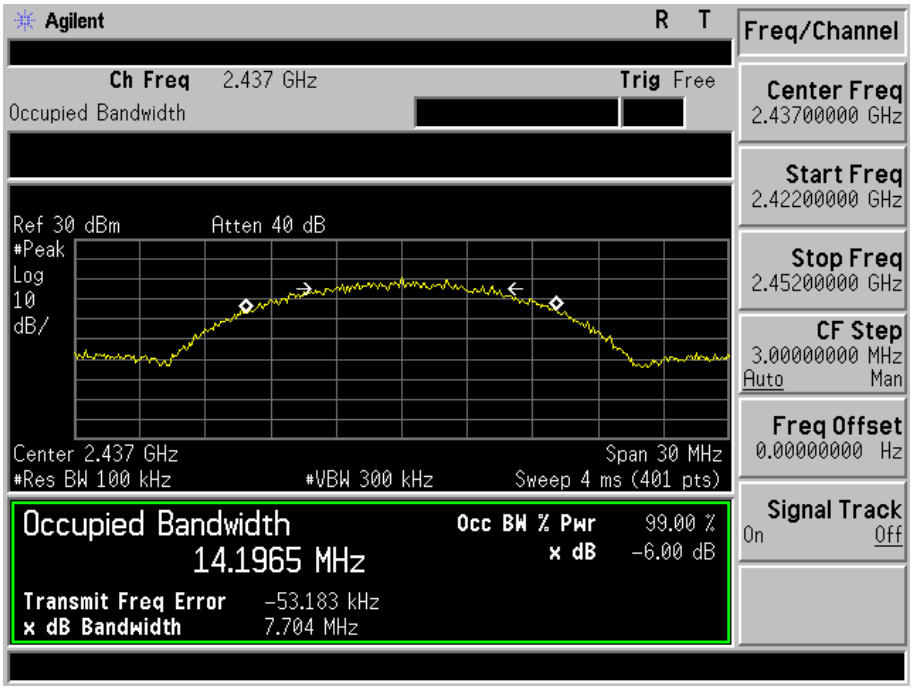
Temperature：	25℃	Relative Humidity：	60%
Pressure：	1012 hPa	Test Voltage ：	DC 7.4V
Test Mode ：	TX b Mode		

Channel	Frequency (MHz)	Antenna port	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2412	Ant1	7.955	500	Pass
		Ant2	8.939		
Middle	2437	Ant1	7.704	500	Pass
		Ant2	9.051		
High	2462	Ant1	9.035	500	Pass
		Ant2	9.087		

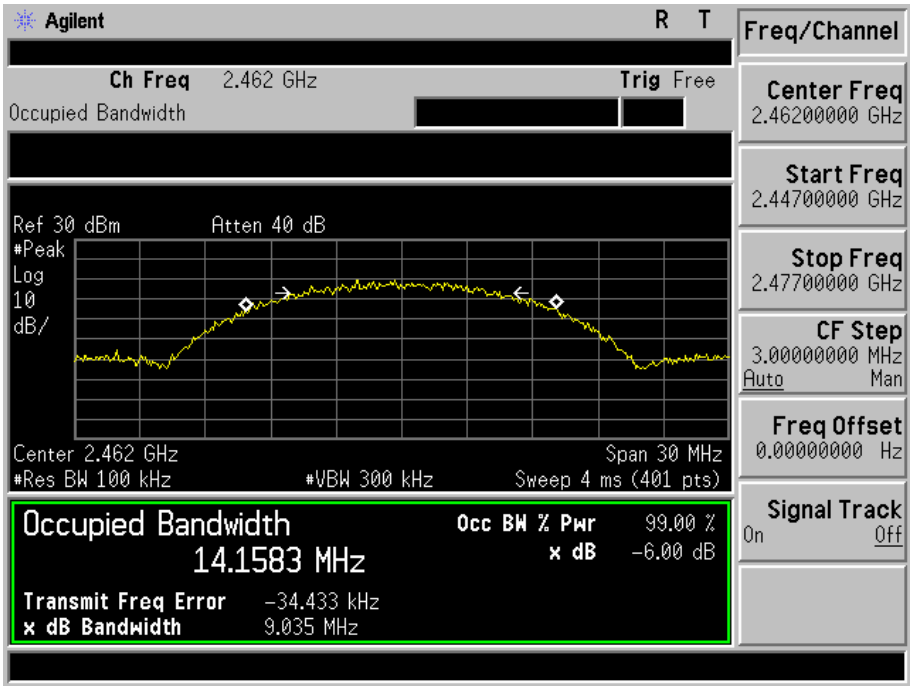
Antenna1 TX CH 01



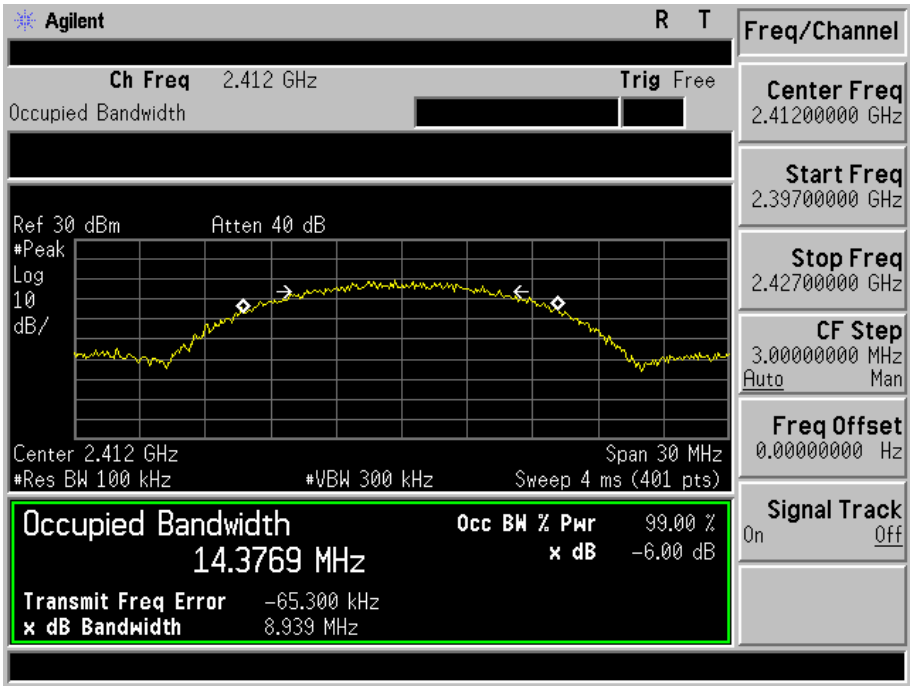
Antenna1 TX CH 06



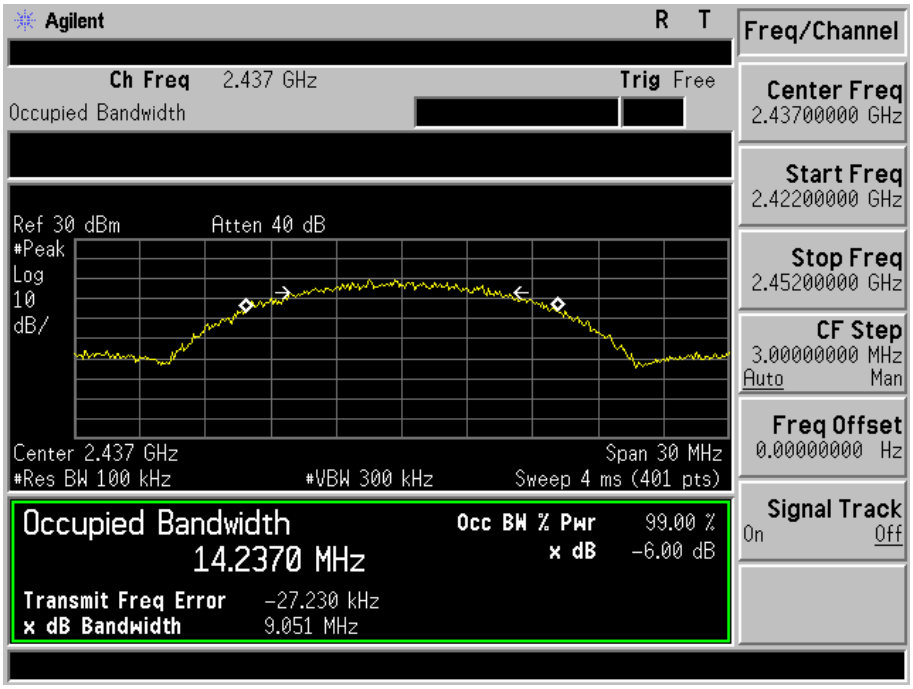
Antenna1 TX CH 11



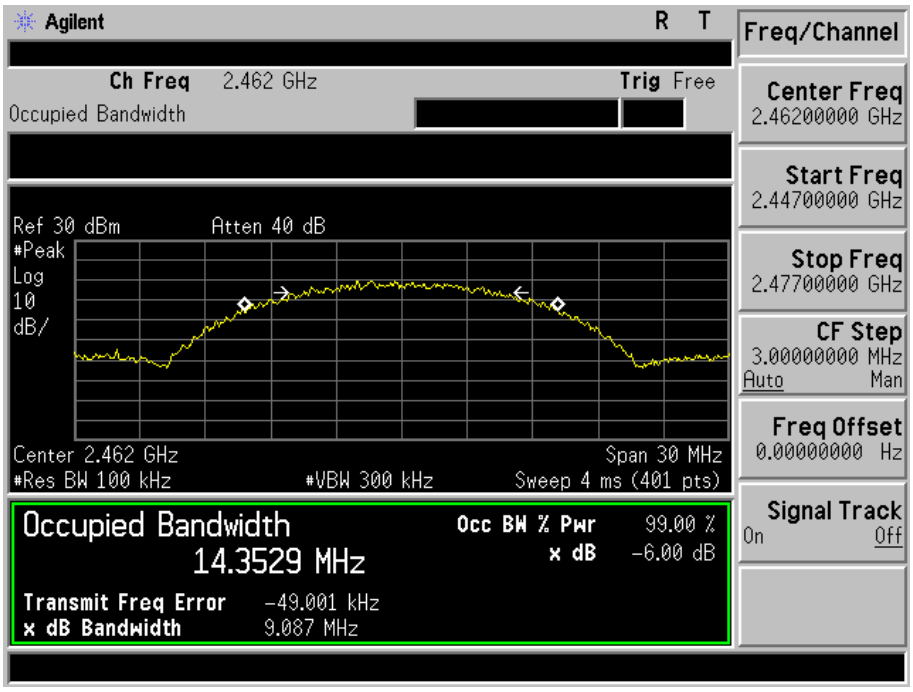
Antenna2 TX CH 01



Antenna2 TX CH 06



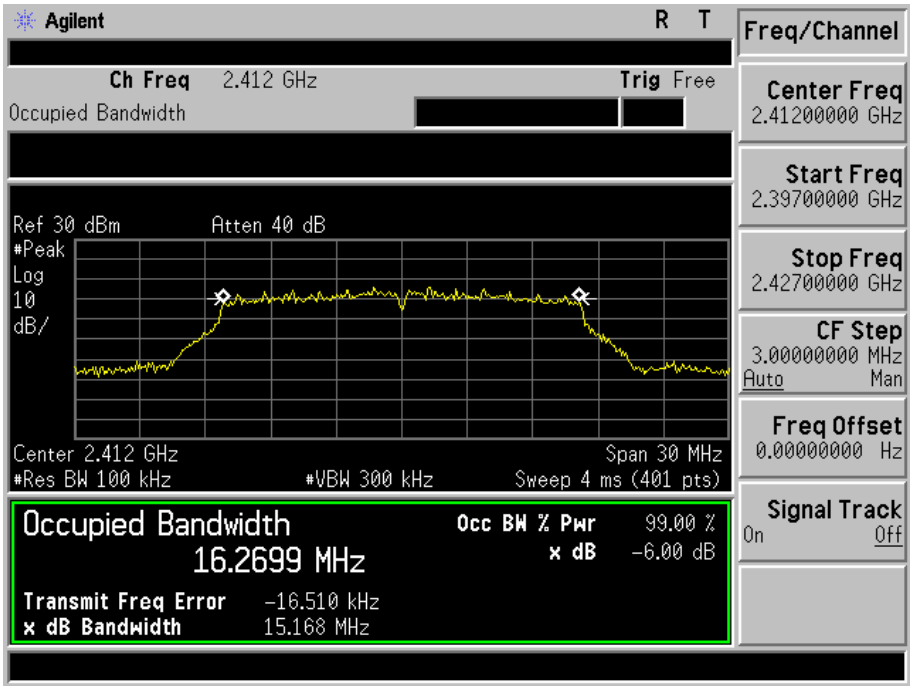
Antenna2 TX CH 11



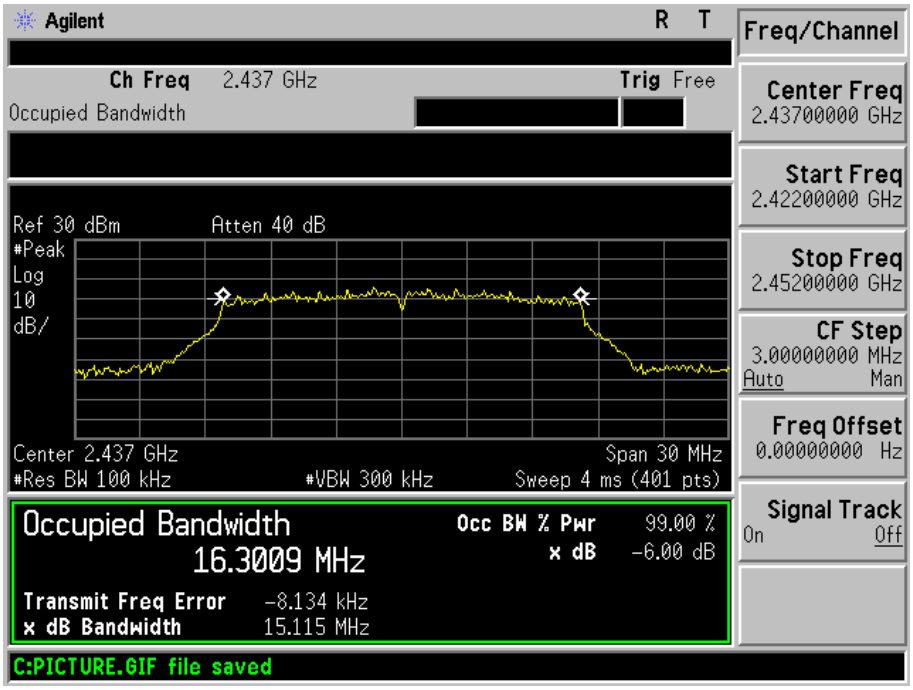
Temperature：	25℃	Relative Humidity：	60%
Pressure：	1012 hPa	Test Voltage ：	DC 7.4V
Test Mode ：	TX g Mode		

Channel	Frequency (MHz)	Antenna port	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2412	Ant1	15.168	500	Pass
		Ant2	15.145		
Middle	2437	Ant1	15.115	500	Pass
		Ant2	15.113		
High	2462	Ant1	15.396	500	Pass
		Ant2	15.672		

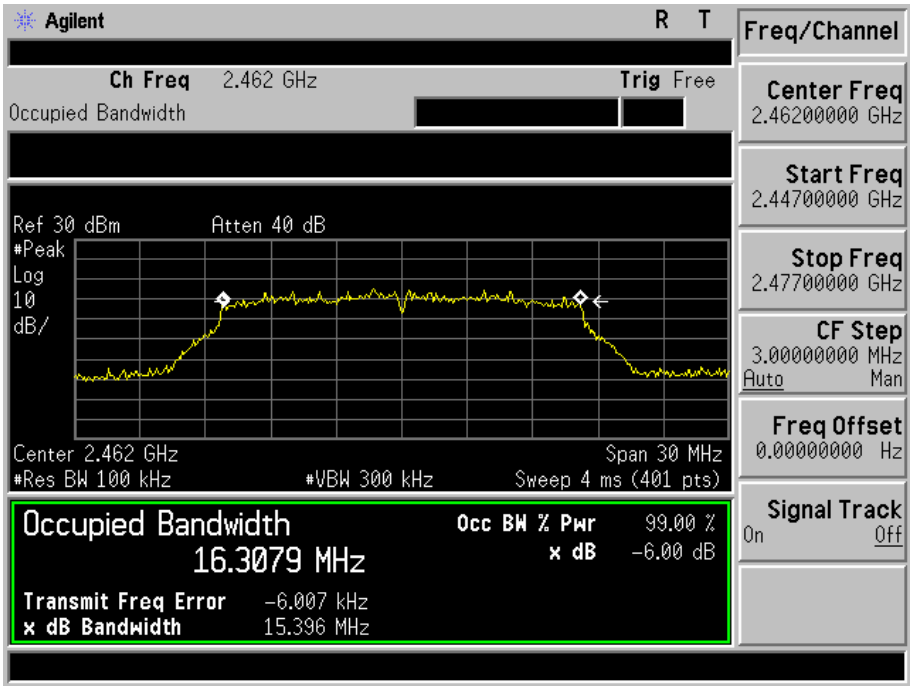
Antenna1 TX CH 01



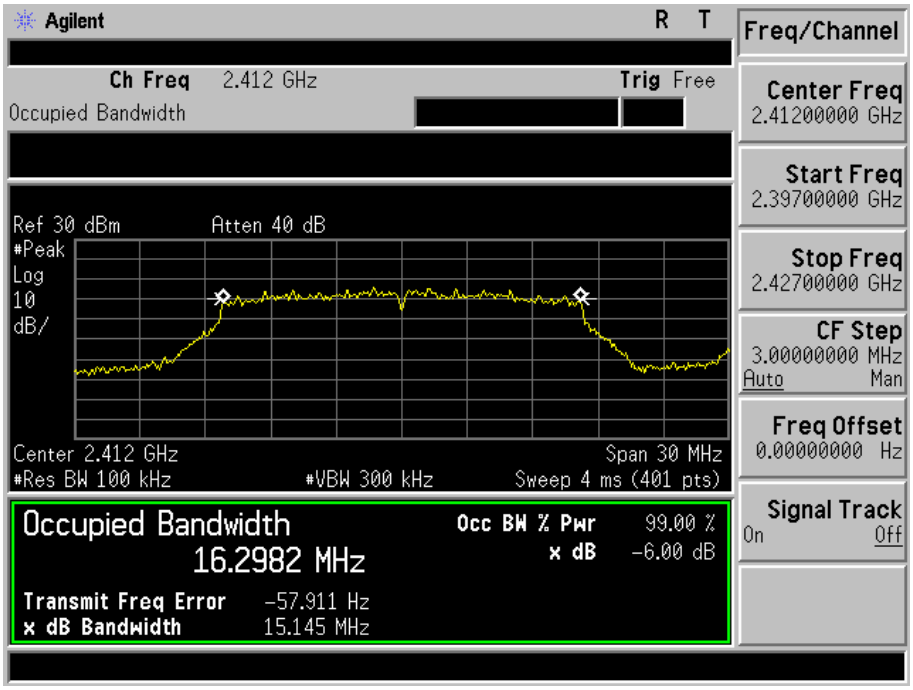
Antenna1 TX CH 06



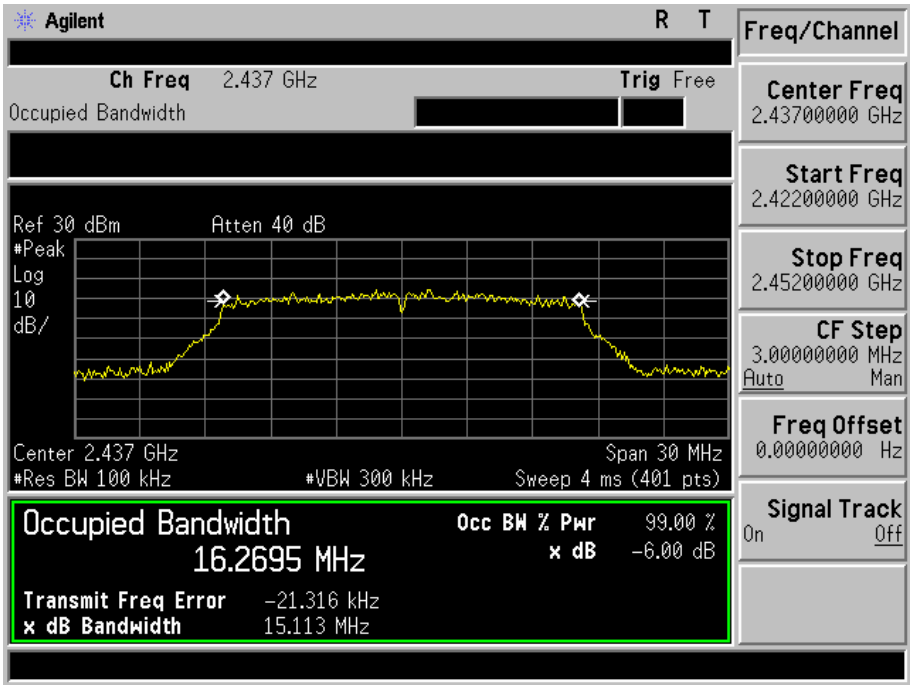
Antenna1 TX CH 11



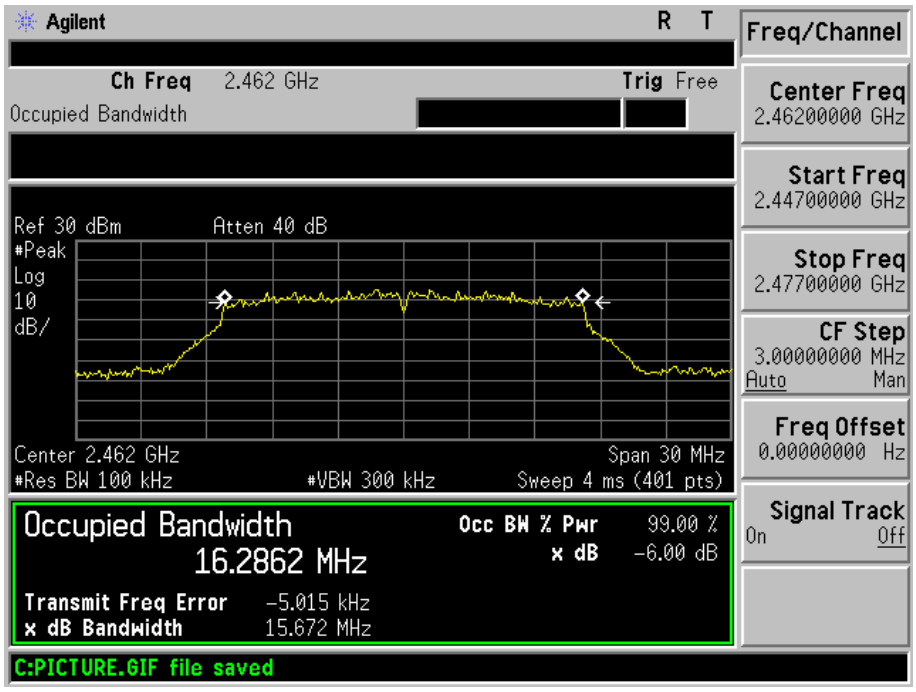
Antenna2 TX CH 01



Antenna2 TX CH 06



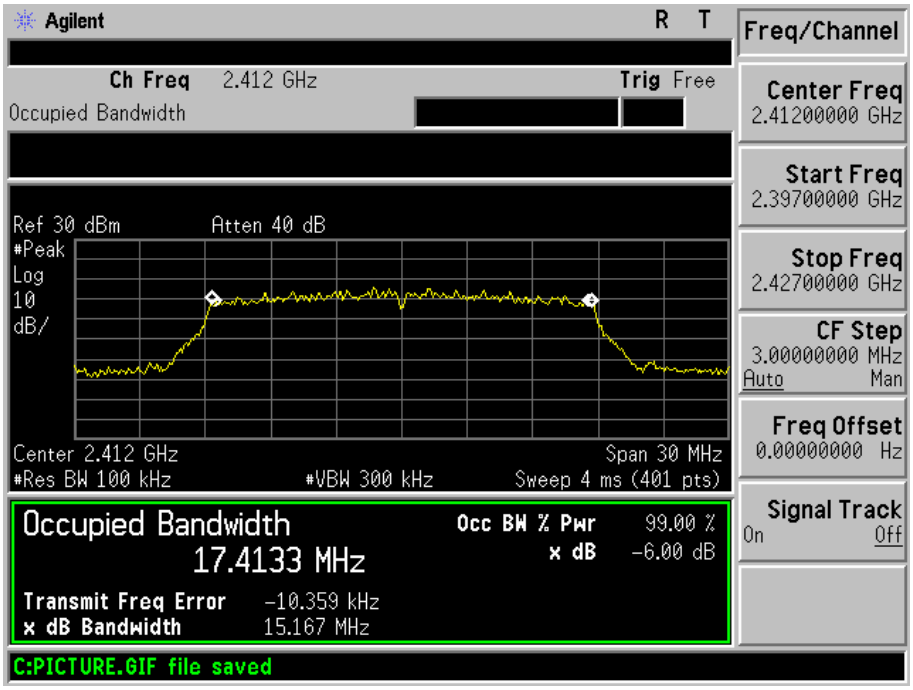
Antenna2 TX CH 11



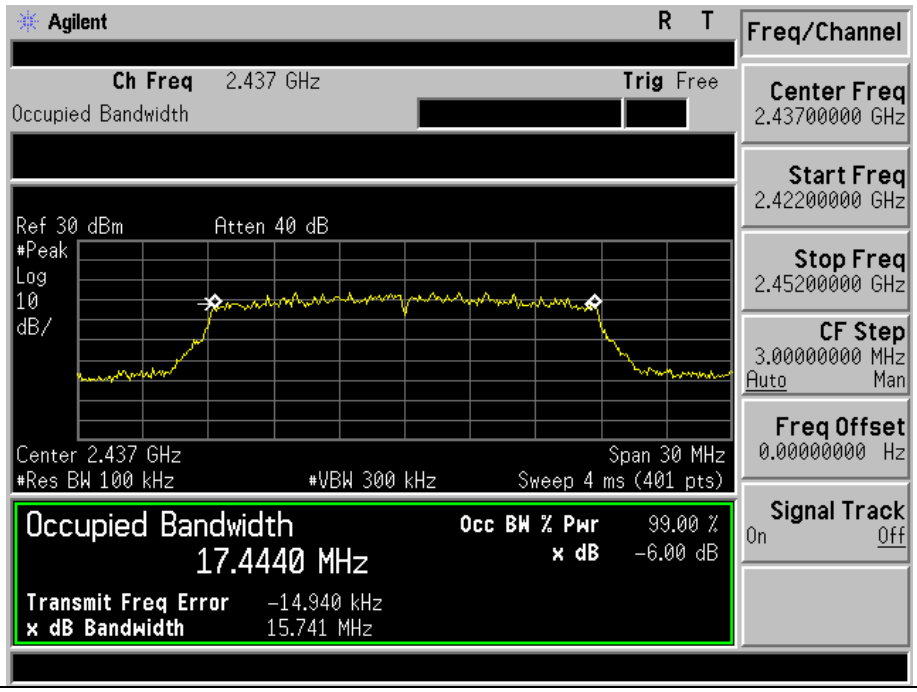
Temperature：	25℃	Relative Humidity：	60%
Pressure：	1012 hPa	Test Voltage ：	DC 7.4V
Test Mode ：	TX n Mode(20M)		

Channel	Frequency (MHz)	Antenna port	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2412	Ant1	15.167	500	Pass
		Ant2	15.215		
Middle	2437	Ant1	15.741	500	Pass
		Ant2	15.145		
High	2462	Ant1	15.164	500	Pass
		Ant2	16.811		

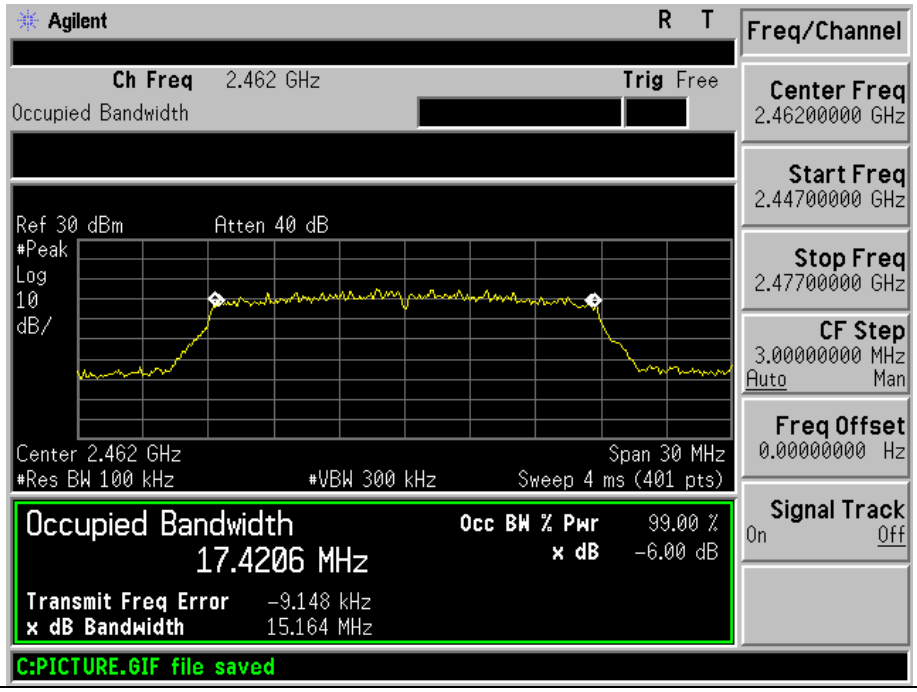
Antenna1 TX CH 01



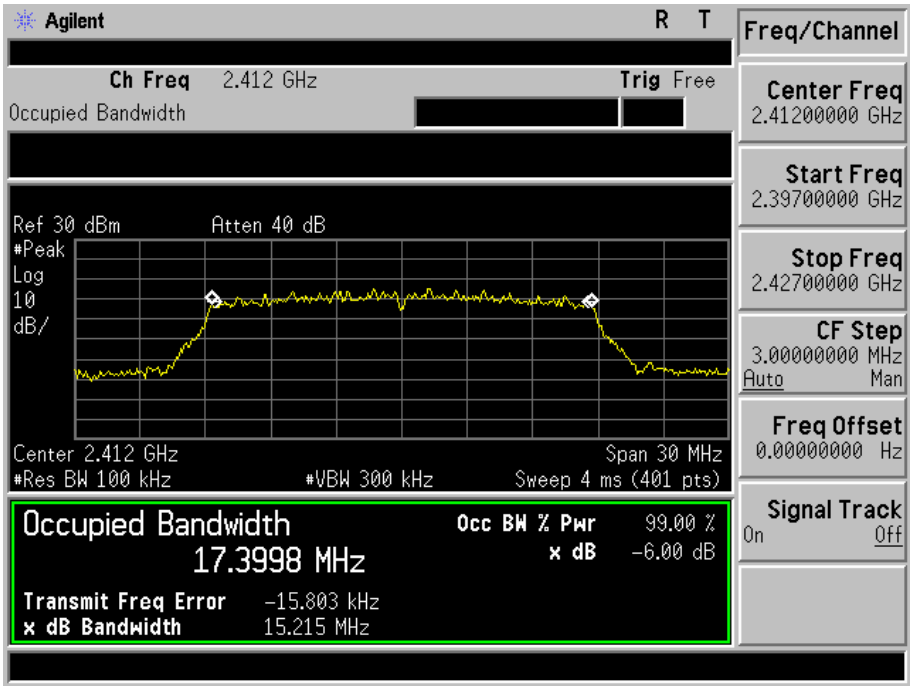
Antenna1 TX CH 06



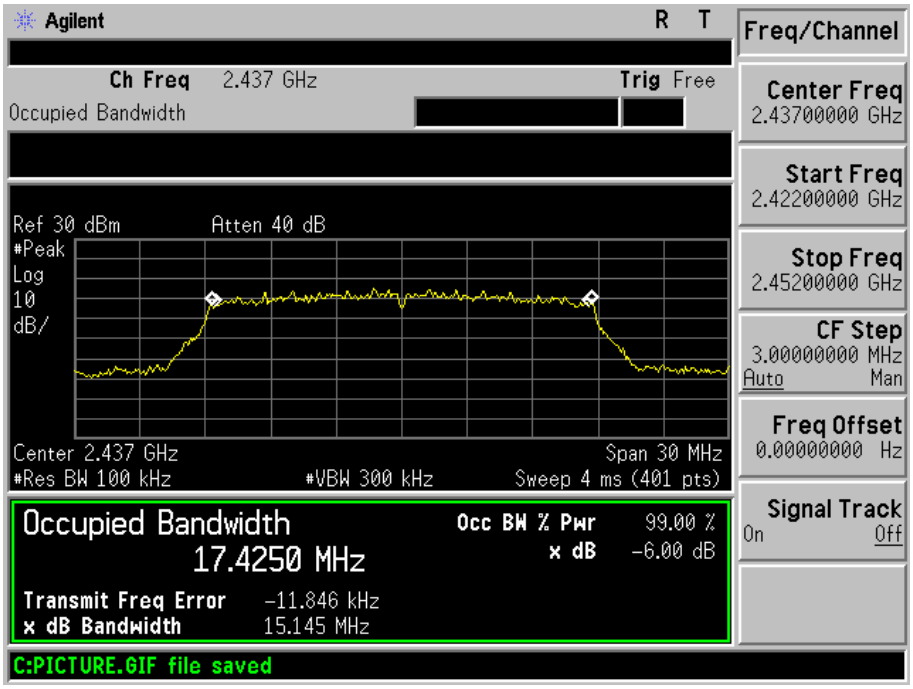
Antenna1 TX CH 11



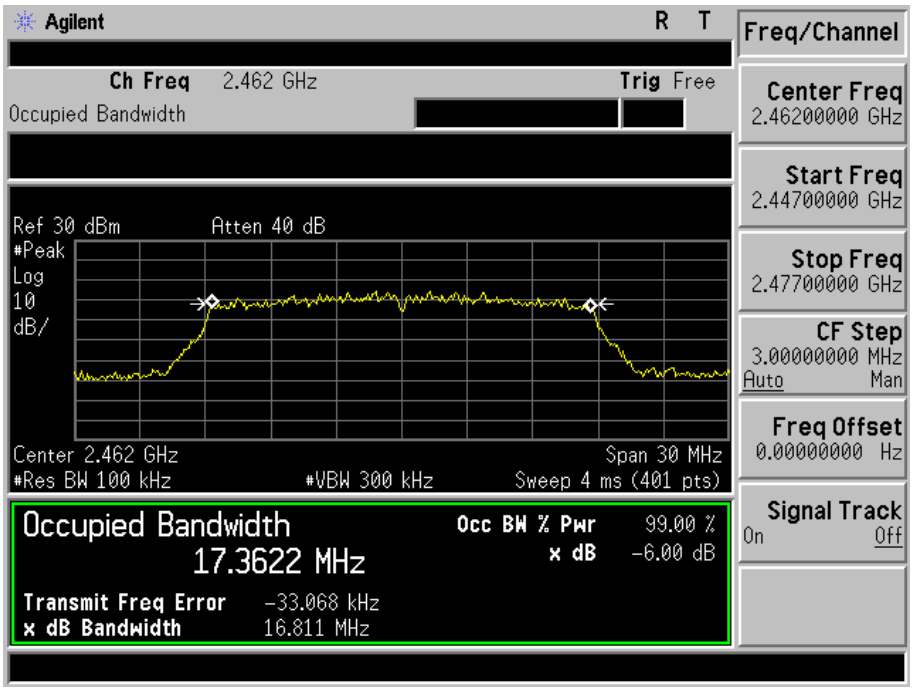
Antenna2 TX CH 01



Antenna2 TX CH 06



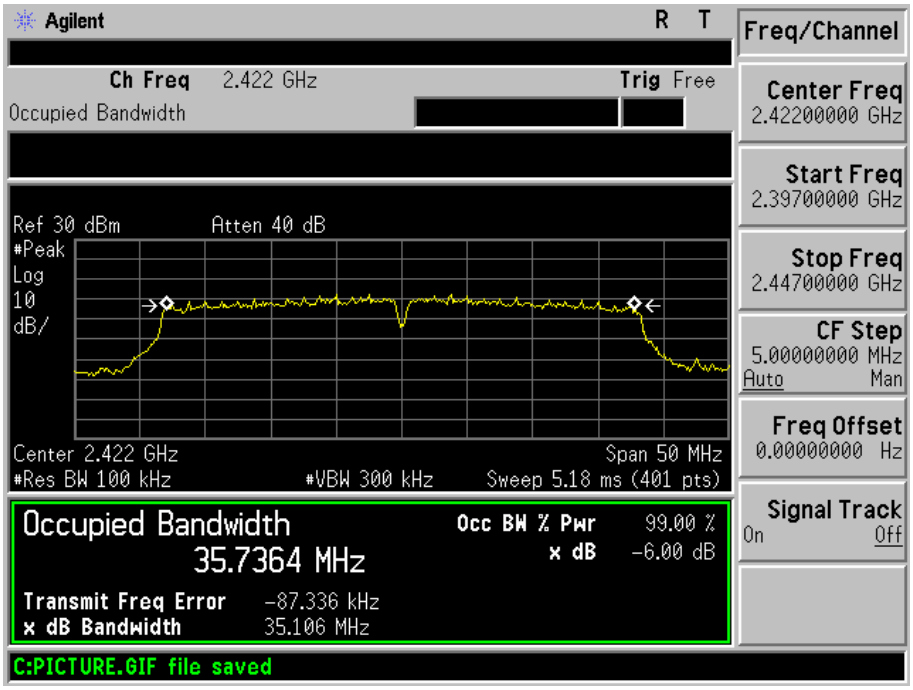
Antenna2 TX CH 11



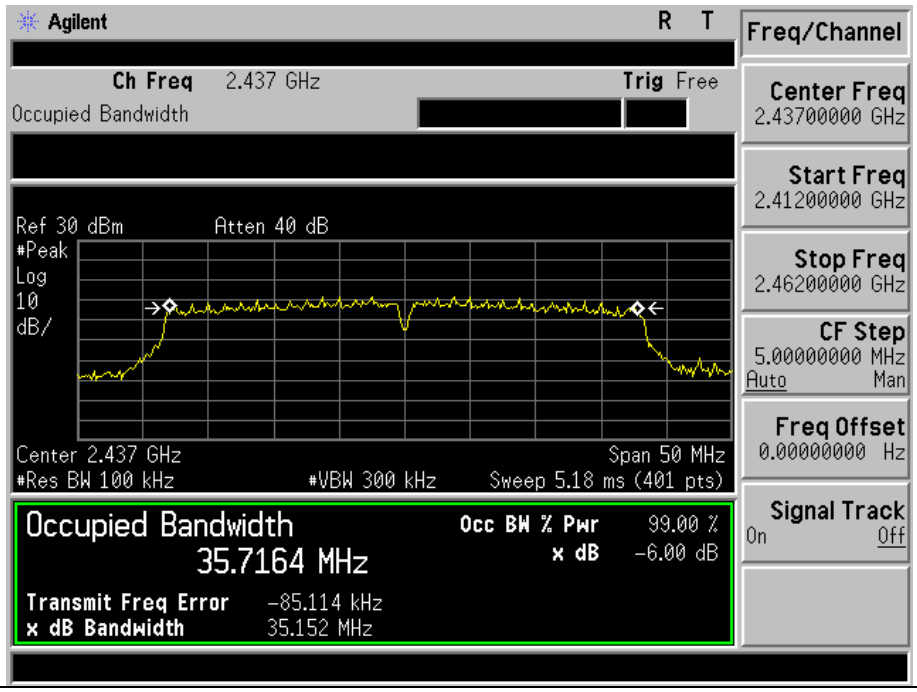
Temperature：	25℃	Relative Humidity：	60%
Pressure：	1012 hPa	Test Voltage ：	DC 7.4V
Test Mode ：	TX n Mode(40M)		

Channel	Frequency (MHz)	Antenna port	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2422	Ant1	35.106	500	Pass
		Ant2	35.108		
Middle	2437	Ant1	35.152	500	Pass
		Ant2	35.113		
High	2452	Ant1	35.099	500	Pass
		Ant2	35.080		

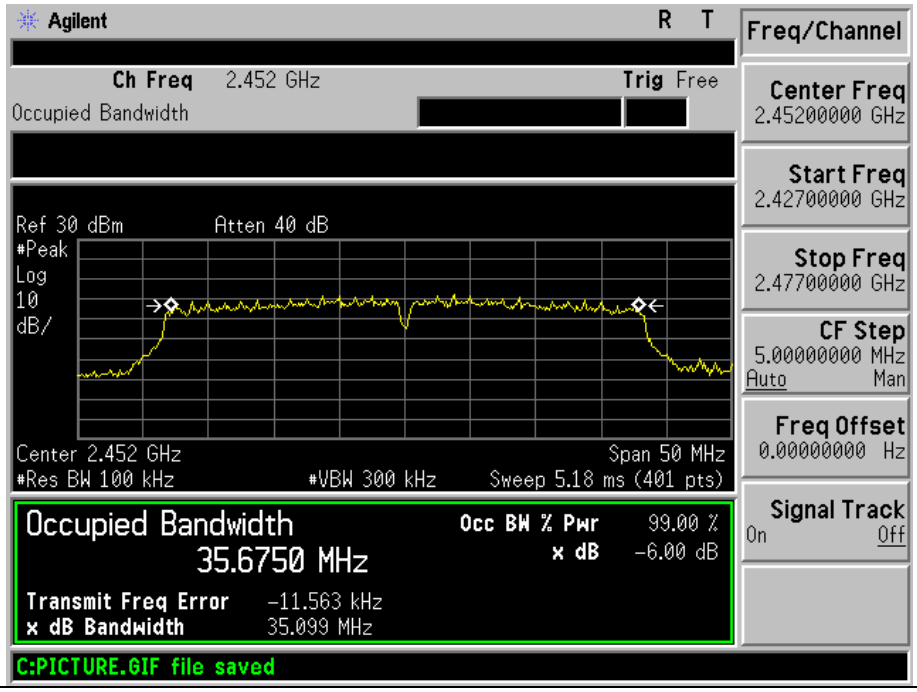
Antenna1 TX CH 03



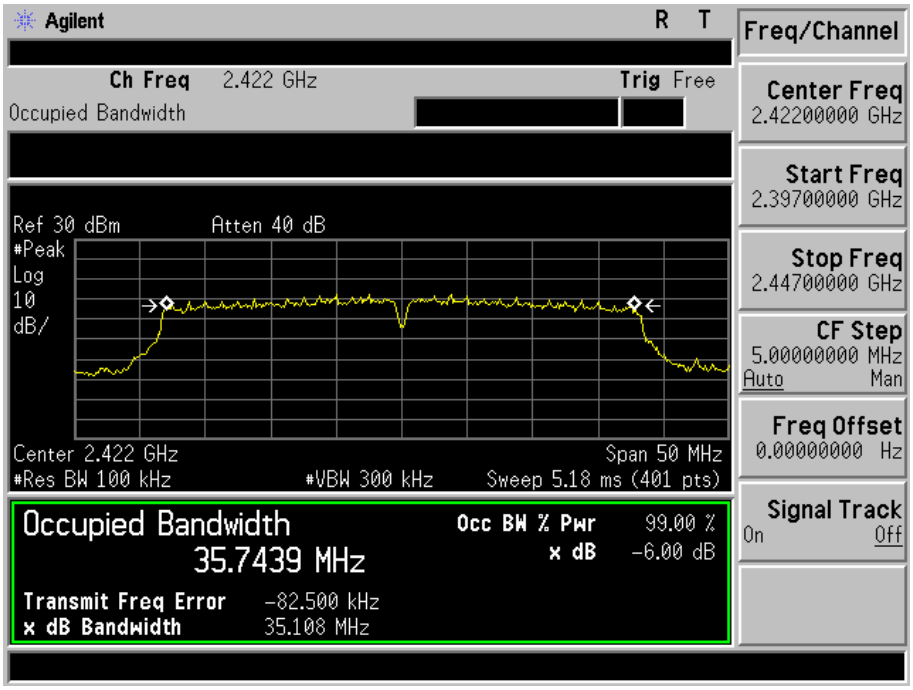
Antenna1 TX CH 06



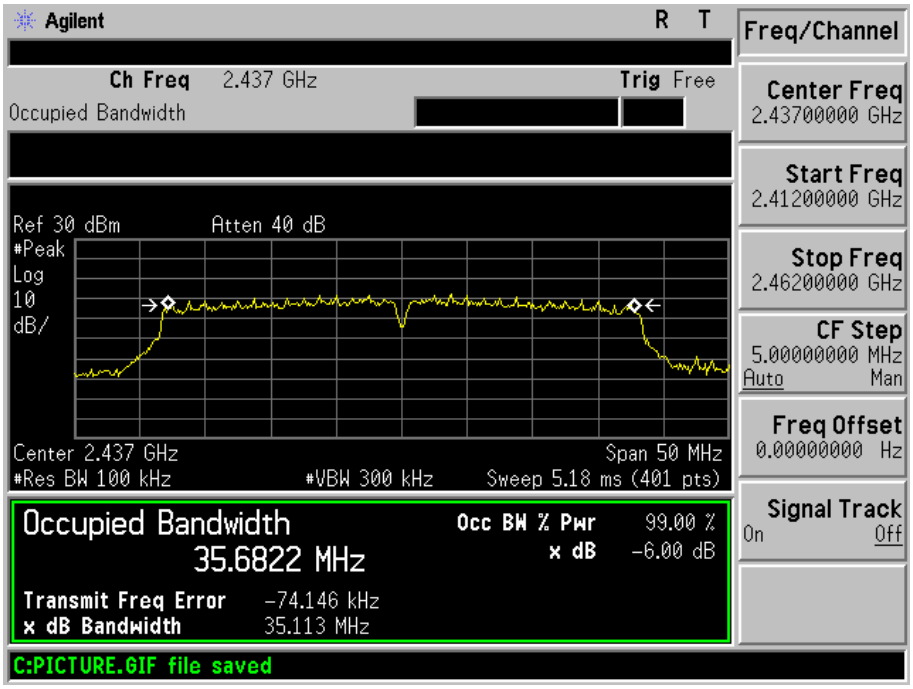
Antenna1 TX CH 09



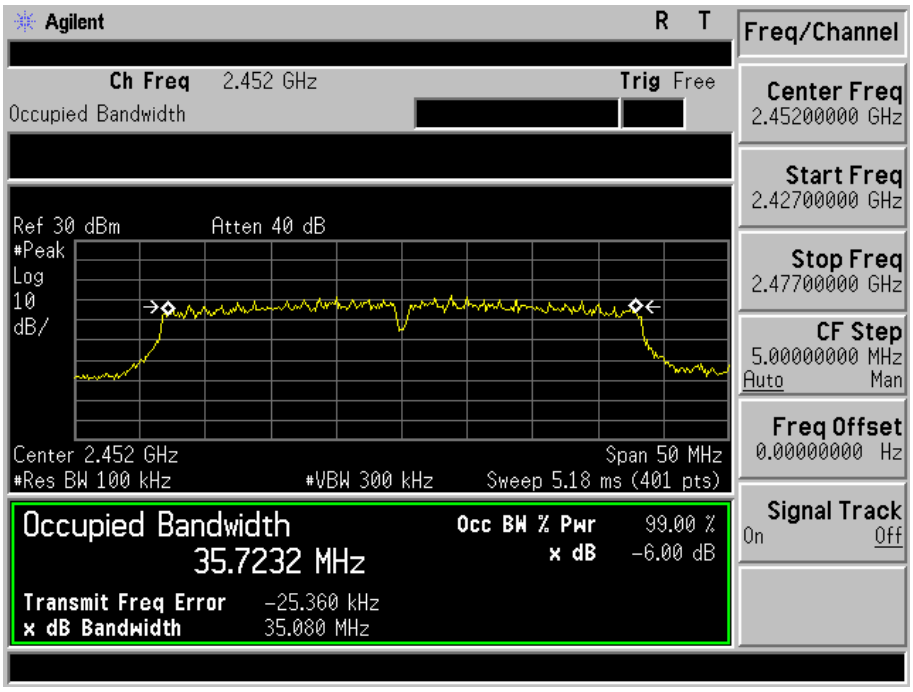
Antenna2 TX CH 03



Antenna2 TX CH 06



Antenna2 TX CH 09



6. PEAK OUTPUT POWER TEST

6.1 APPLIED PROCEDURES / 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
Per KDB 662911 D01 Multiple Transmitter Output Method of conducted output power measurement on IEEE 802.11 devices, Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4; Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any NANT; Array Gain = 5 log(NANT/NSS) dB or 3 dB, whichever is less for 20-MHz channel widths with NANT ≥ 5. For power measurements on all other devices: Array Gain = 10 log(NANT/NSS) dB.				

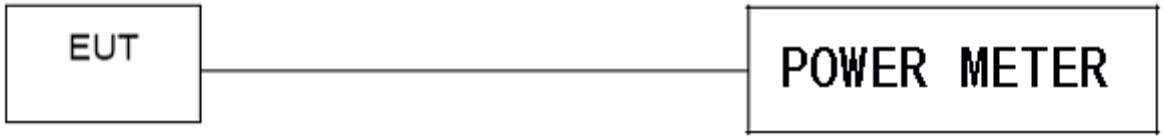
6.1.1 TEST PROCEDURE

a. The EUT was directly connected to the Power meter

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP



6.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.5 TEST RESULTS

Temperature：	25℃	Relative Humidity：	60%
Pressure：	1012 hPa	Test Voltage ：	DC 7.4V

TX 802.11b Mode			
Frequency (MHz)	Antenna port	Maximum Conducted Output Power(PK) (dBm)	LIMIT dBm
2412	Ant 1	21.53	30
	Ant 2	20.68	30
2437	Ant 1	21.49	30
	Ant 2	20.86	30
2462	Ant 1	21.37	30
	Ant 2	20.66	30
TX 802.11g Mode			
2412	Ant 1	18.84	30
	Ant 2	18.36	30
2437	Ant 1	18.72	30
	Ant 2	18.31	30
2462	Ant 1	18.76	30
	Ant 2	18.25	30

Frequency (MHz)	Antenna port	Maximum Conducted Output Power(PK) (dBm)	Maximum Conducted Output Power(PK) (mW)	Total Conducted Output Power(PK) (mW)	Total Conducted Output Power(PK) (dBm)	LIMIT dBm
TX 802.11n-HT20 Mode						
2412	Ant 1	16.63	46.03	93.34	19.70	29.49
	Ant 2	16.75	47.32			
2437	Ant 1	16.83	48.19	94.65	19.76	29.49
	Ant 2	16.67	46.45			
2462	Ant 1	16.52	44.87	89.34	19.51	29.49
	Ant 2	16.48	44.46			
TX 802.11n-HT40 Mode						
2422	Ant 1	14.63	29.04	55.89	17.47	29.49
	Ant 2	14.29	26.85			
2437	Ant 1	14.72	29.65	57.57	17.6	29.49
	Ant 2	14.46	27.93			
2452	Ant 1	14.85	30.55	59.66	17.77	29.49
	Ant 2	14.64	29.11			

7. 100 KHZ BANDWIDTH OF FREQUENCY BAND EDGE

7.1 APPLICABLE STANDARD

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)).

7.2 TEST PROCEDURE

a) Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
b) Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
c) Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation..
e) Repeat above procedures until all measured frequencies were complete.

7.3 DEVIATION FROM STANDARD

No deviation.

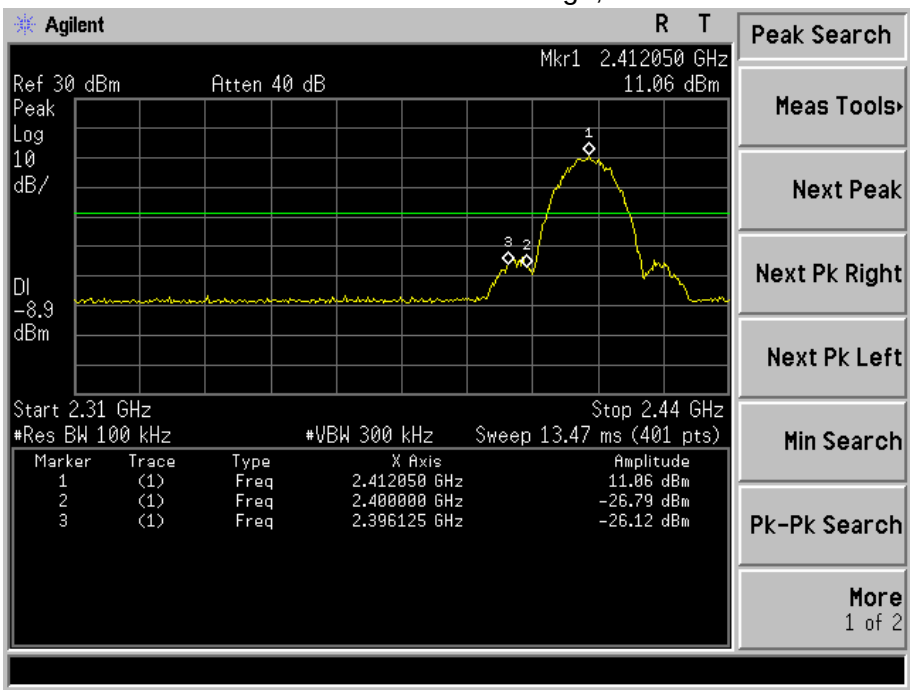
7.4 TEST SETUP

7.5 EUT OPERATION CONDITIONS

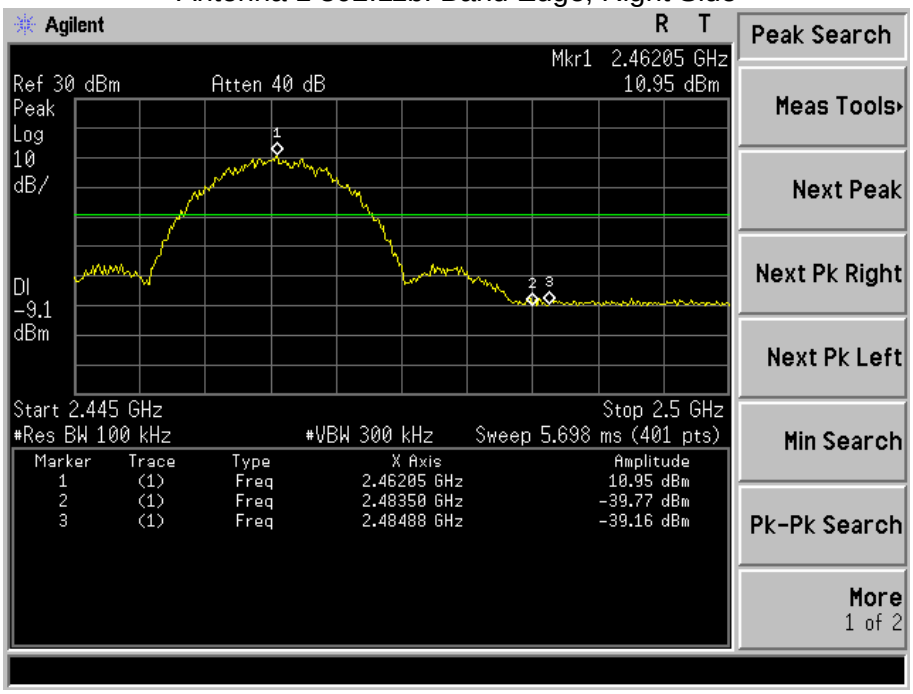
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

7.1 TEST RESULTS

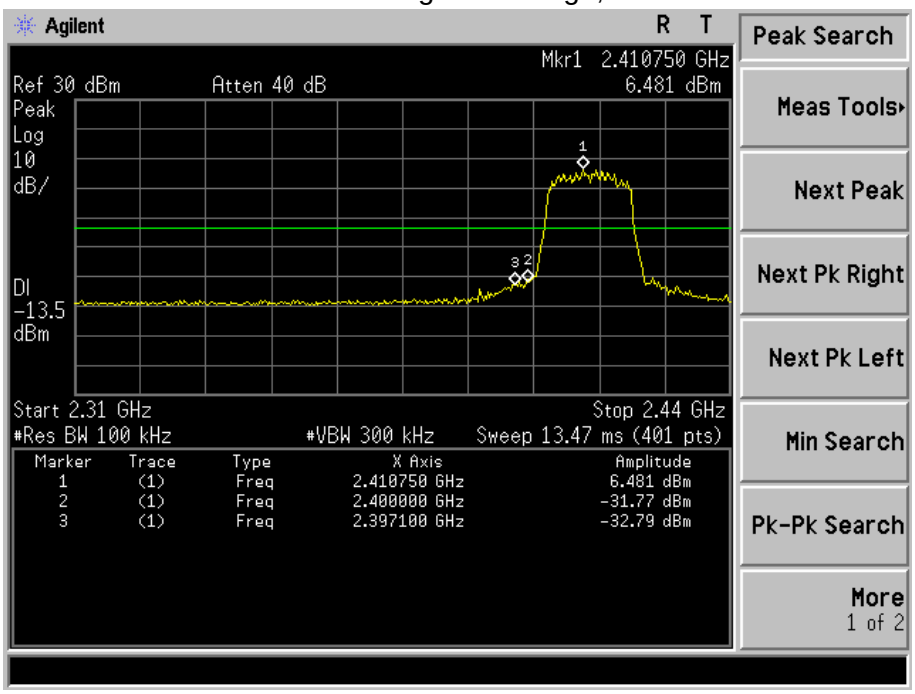
Antenna 1 802.11b: Band Edge, Left Side



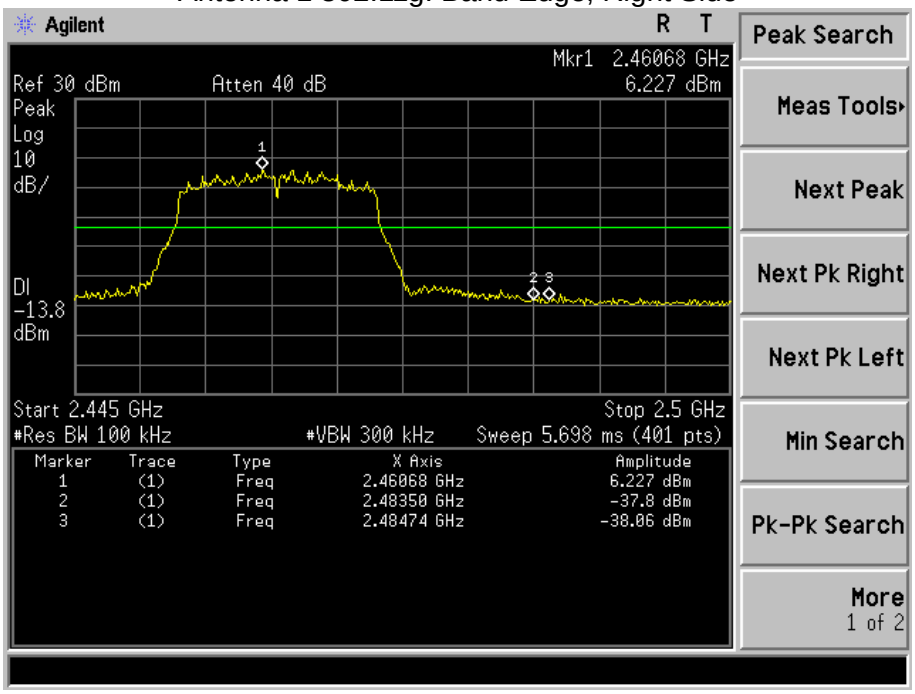
Antenna 1 802.11b: Band Edge, Right Side



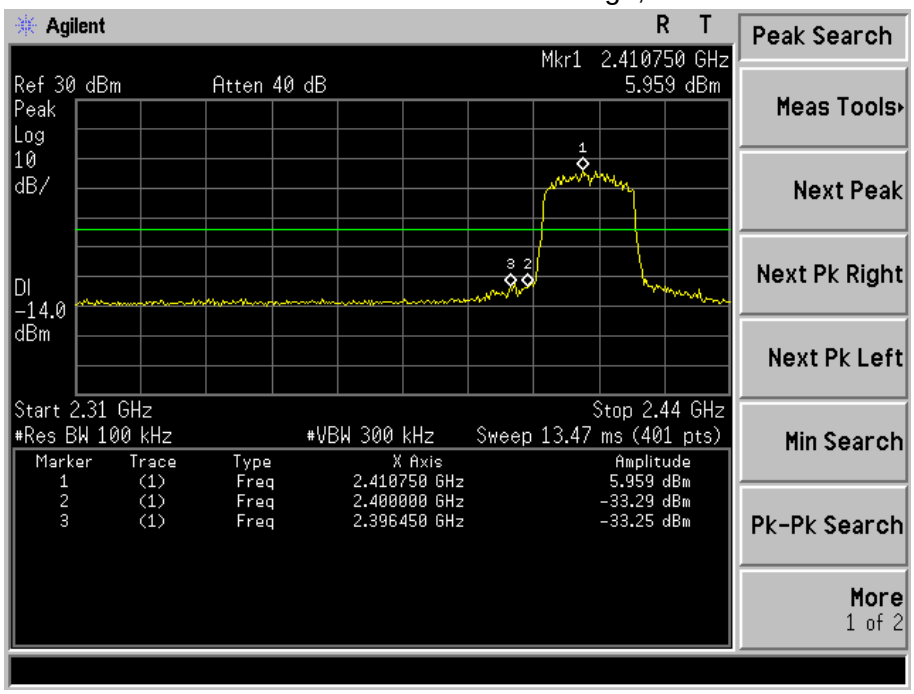
Antenna 1 802.11g: Band Edge, Left Side



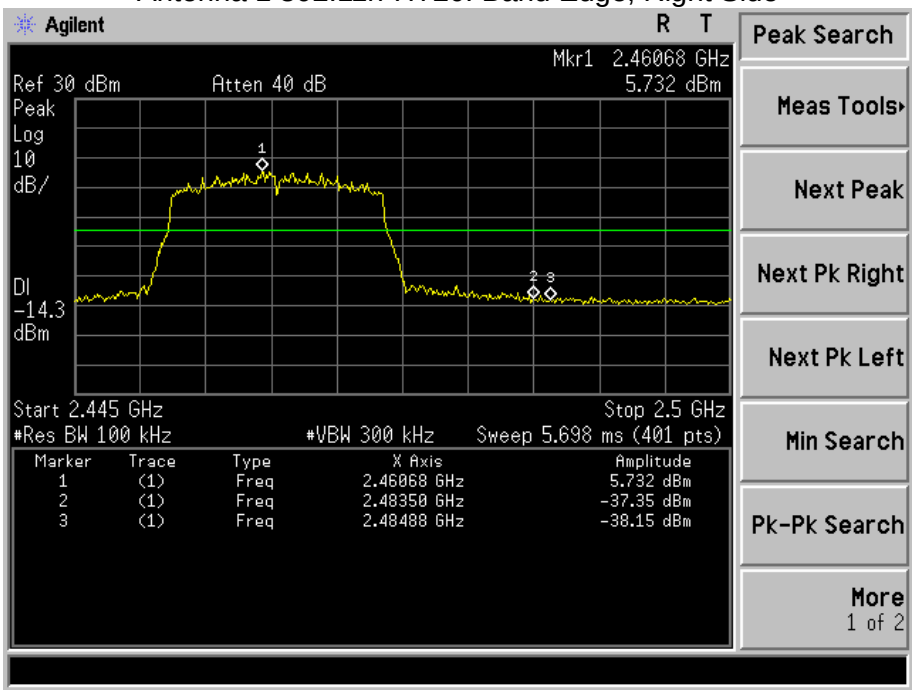
Antenna 1 802.11g: Band Edge, Right Side



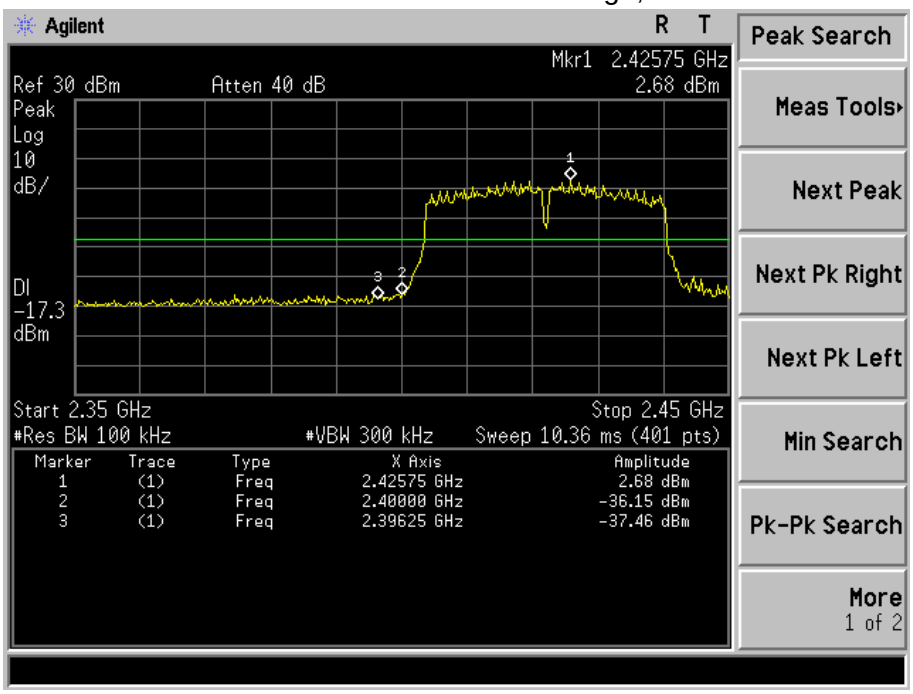
Antenna 1 802.11n-HT20: Band Edge, Left Side



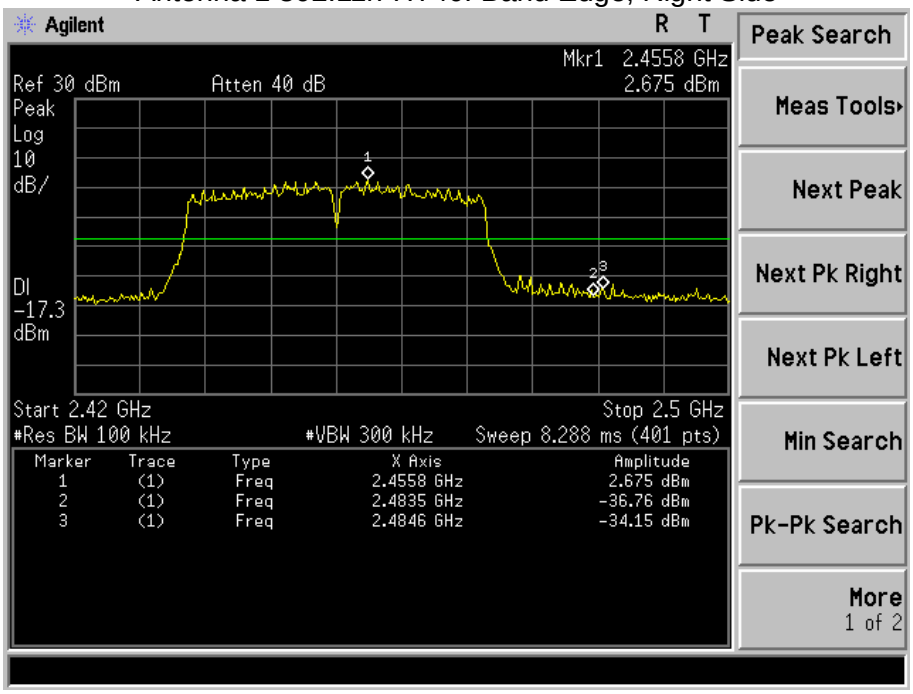
Antenna 1 802.11n-HT20: Band Edge, Right Side



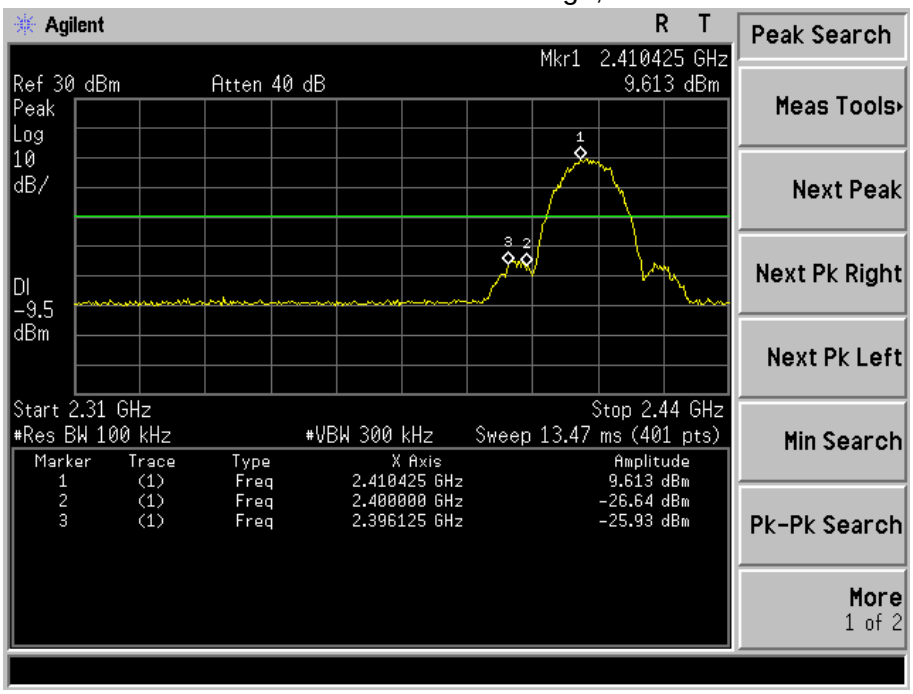
Antenna 1 802.11n-HT40: Band Edge, Left Side



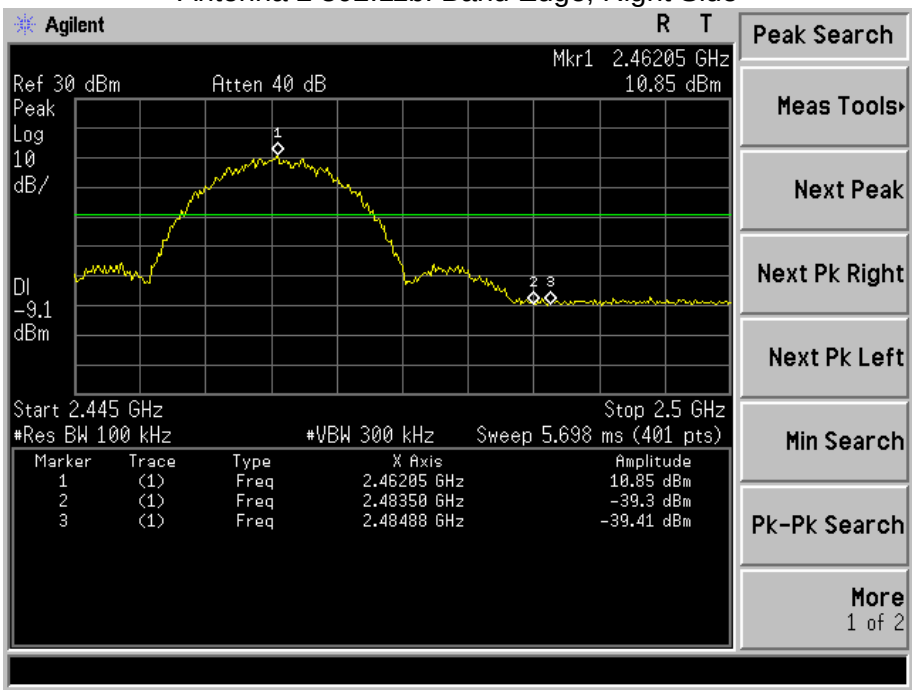
Antenna 1 802.11n-HT40: Band Edge, Right Side



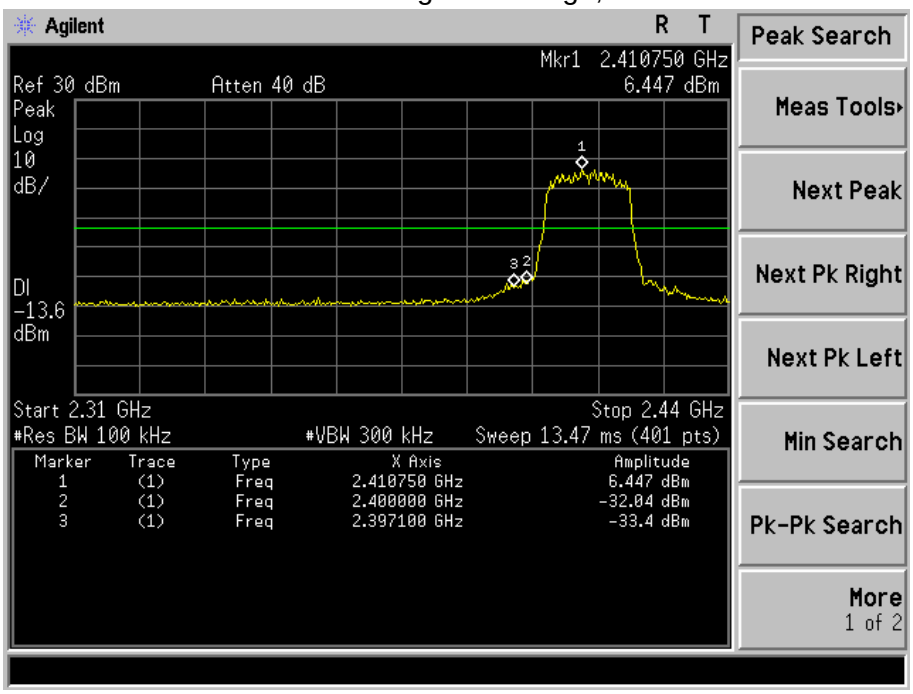
Antenna 2 802.11b: Band Edge, Left Side



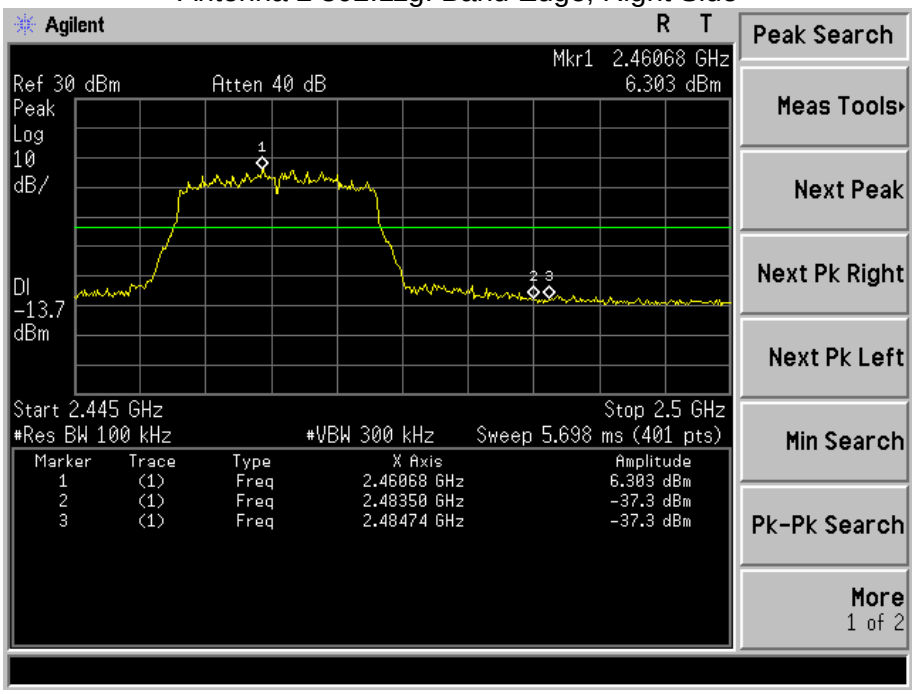
Antenna 2 802.11b: Band Edge, Right Side



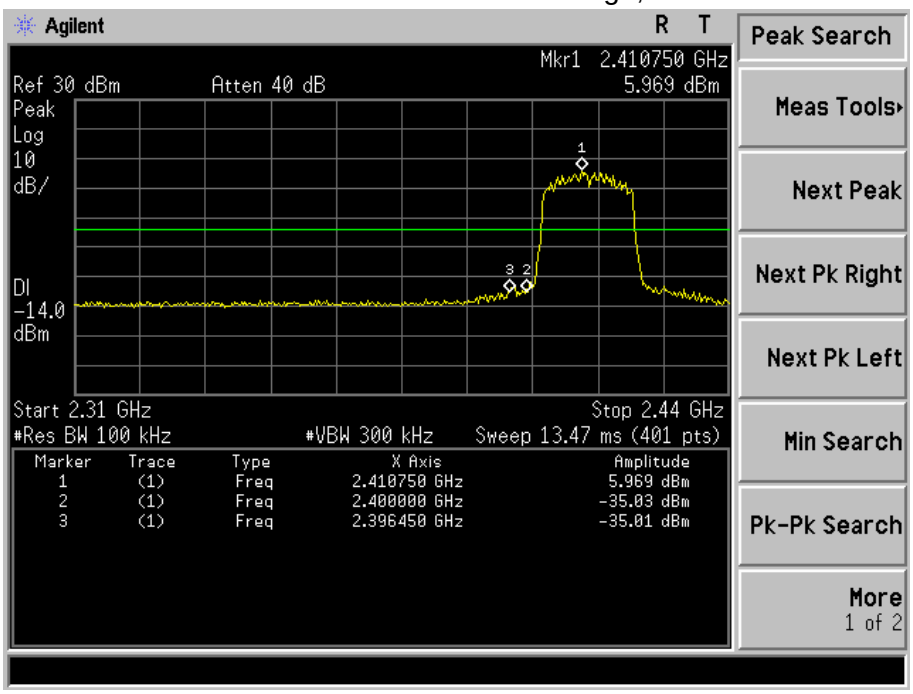
Antenna 2 802.11g: Band Edge, Left Side



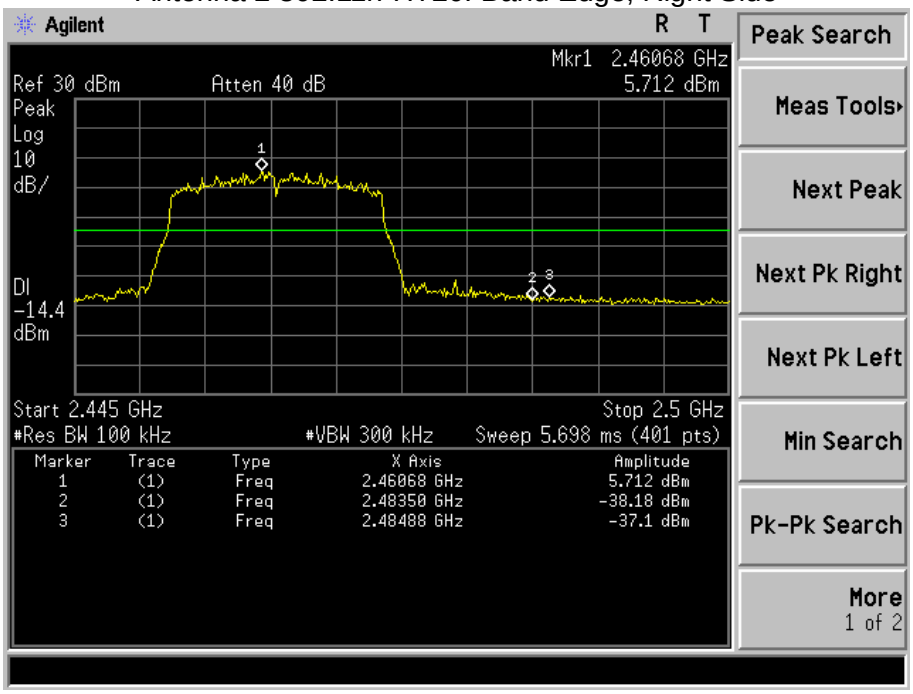
Antenna 2 802.11g: Band Edge, Right Side



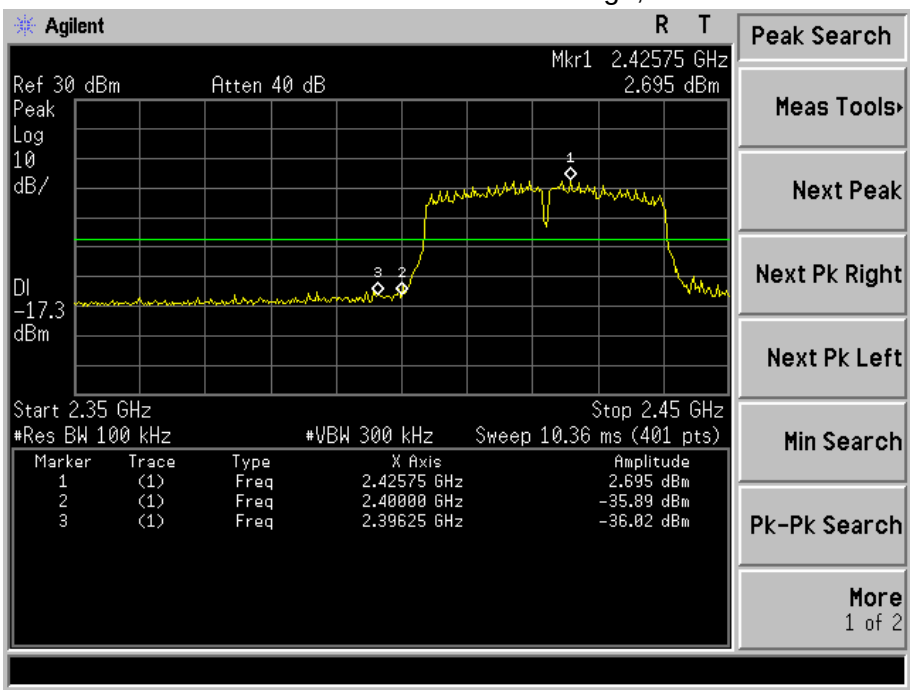
Antenna 2 802.11n-HT20: Band Edge, Left Side



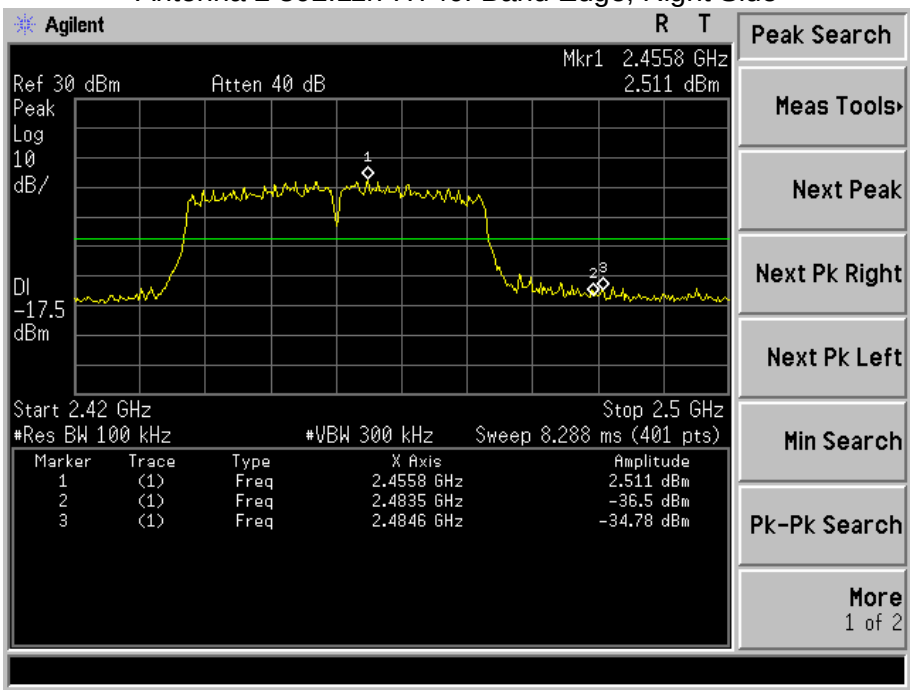
Antenna 2 802.11n-HT20: Band Edge, Right Side



Antenna 2 802.11n-HT40: Band Edge, Left Side



Antenna 2 802.11n-HT40: Band Edge, Right Side



8. DUTY CYCLE OF TEST SIGNAL

8.1 STANDARD REQUIREMENT

Pre-analysis Check: While conducting average power measurement, duty cycle of each mode shall be checked to ensure its duty cycle in order to compensate for the loss due to insufficient ratio of duty cycle.

All duty cycle is pre-scanned, and result as obtained below shows only the most representative ones where duty cycle is conducted as the given transmission with given virtual operation that expresses the percentage.

8.2 FORMULA:

Duty Cycle = Ton / (Ton+Toff)

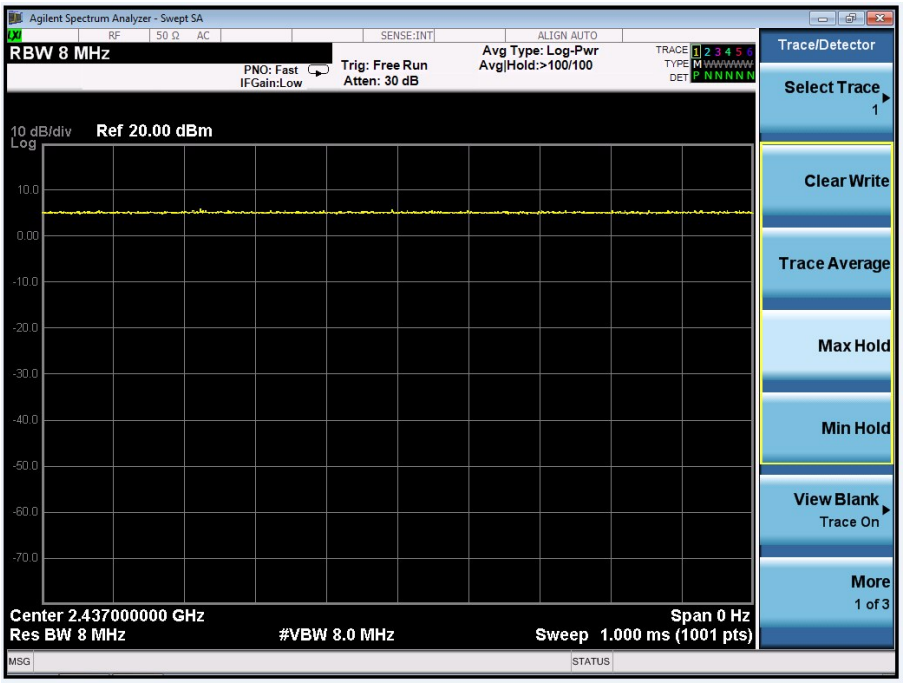
Measurement Procedure:

1. Set span = Zero
2. RBW = 8MHz
3. VBW = 8MHz,
4. Detector = Peak

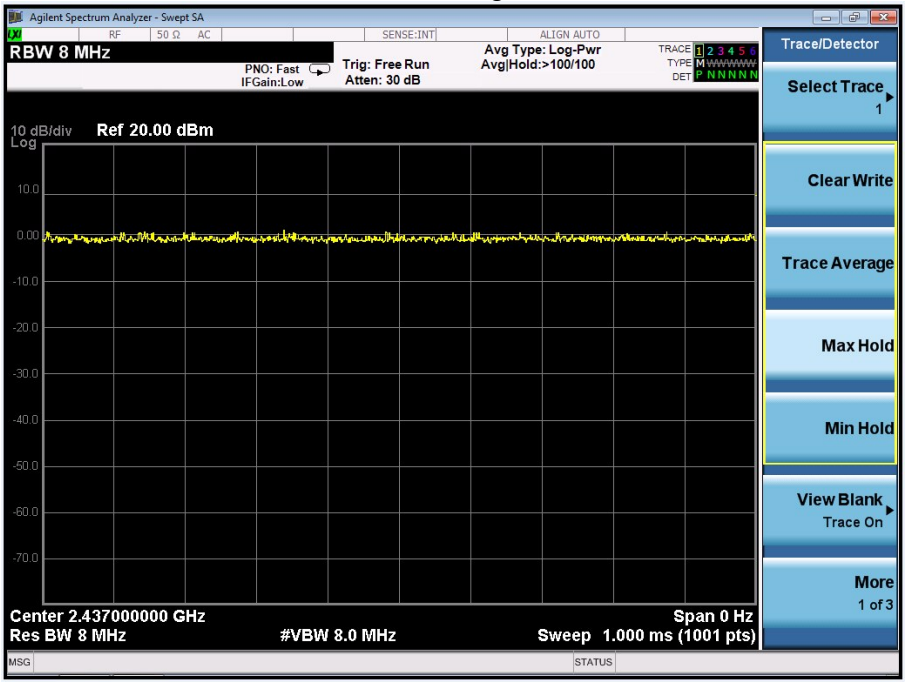
Duty Cycle:

	Duty Cycle	Duty Fator (dB)
802.11b	1	0
802.11g	1	0
802.11n(HT20)	1	0
802.11n(HT40)	1	0

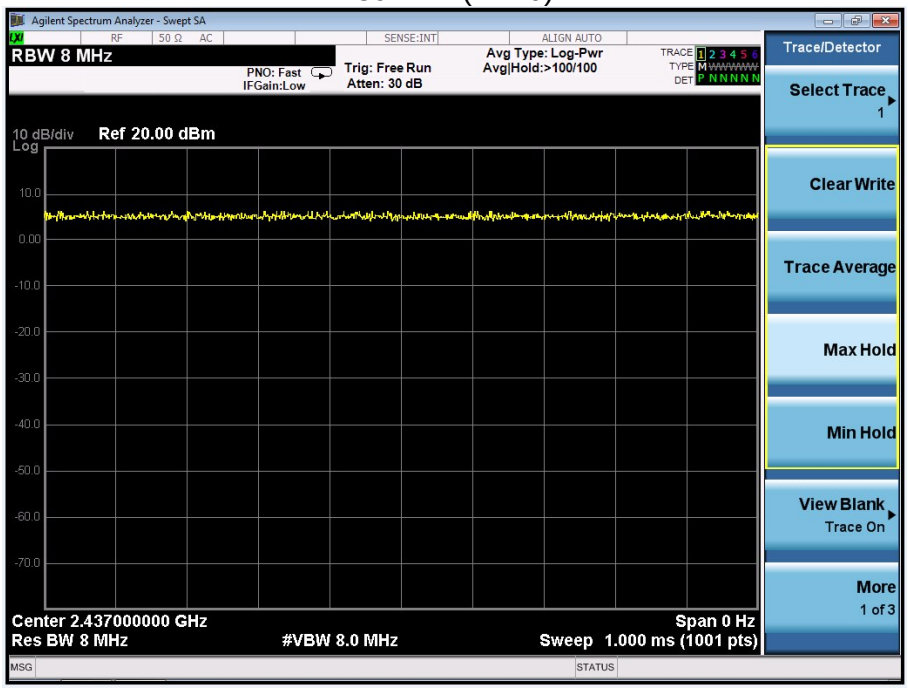
802.11b



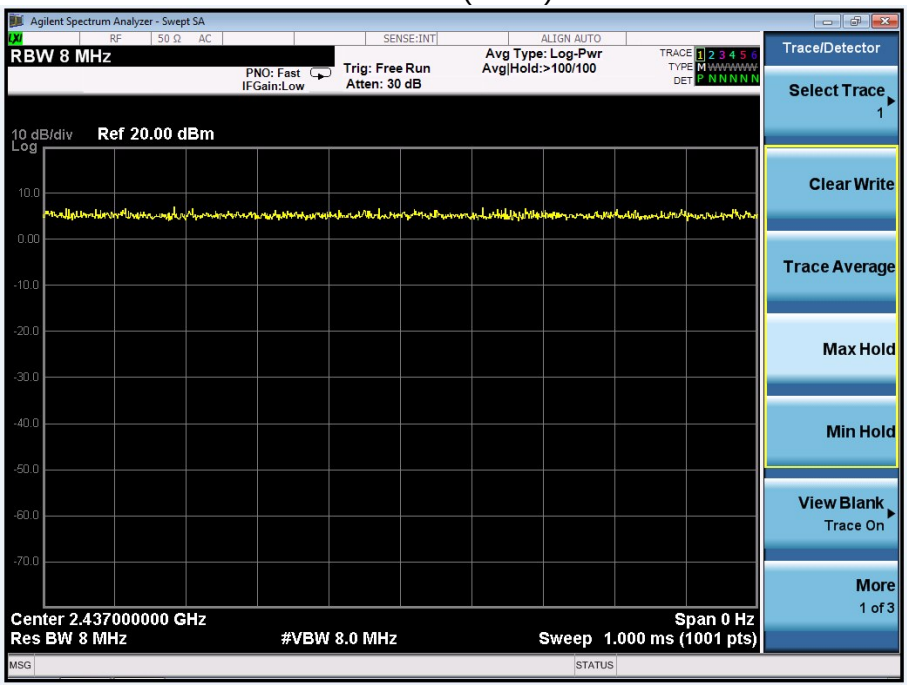
802.11g



802.11n(HT20)



802.11n(HT40)



9. ANTENNA REQUIREMENT

9.1 STANDARD REQUIREMENT

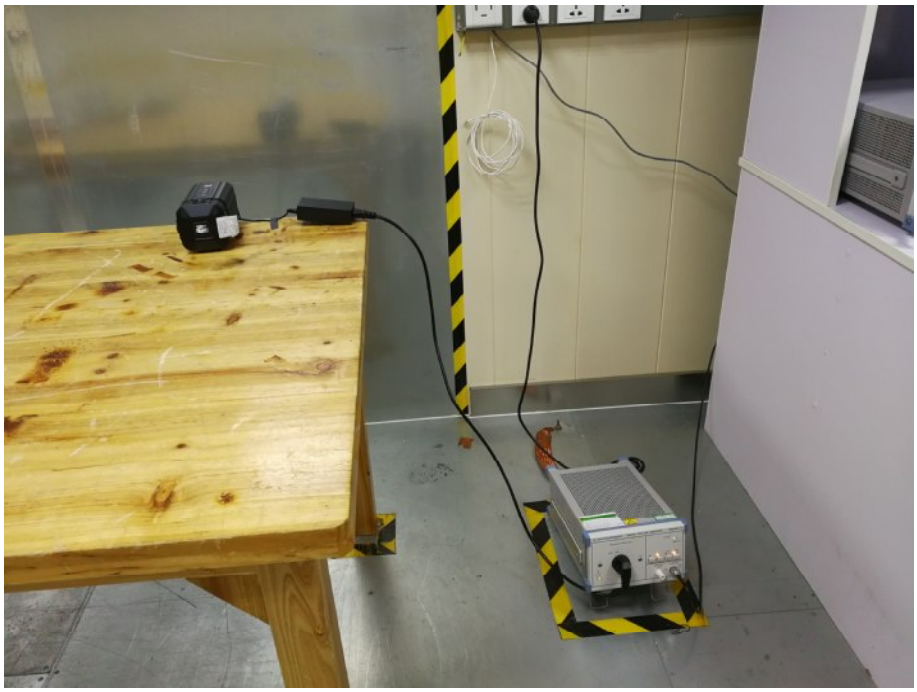
15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

9.2 EUT ANTENNA

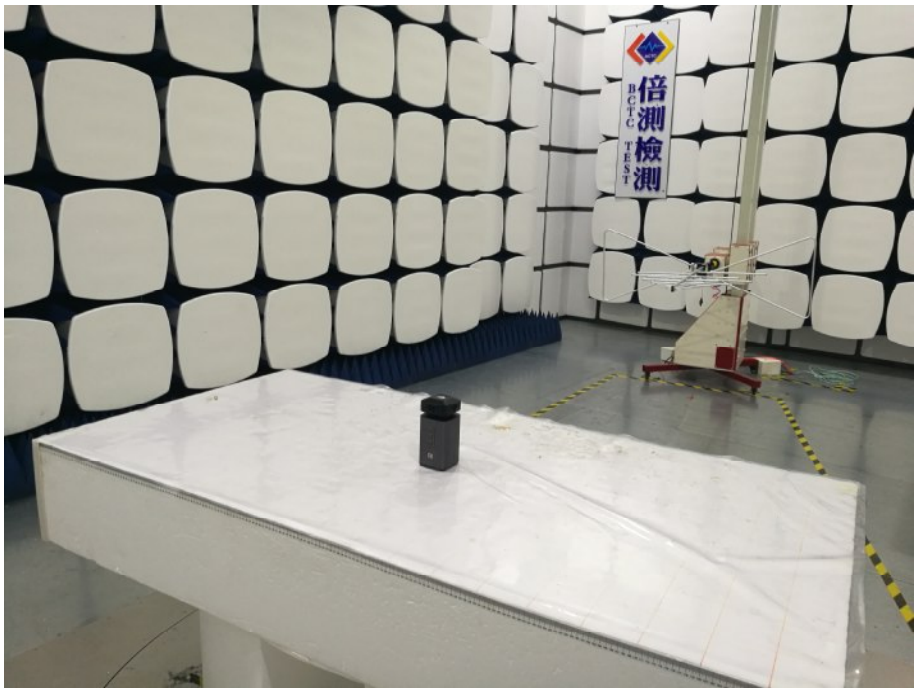
The EUT antenna is (FPCB) antenna. It complies with the standard requirement.

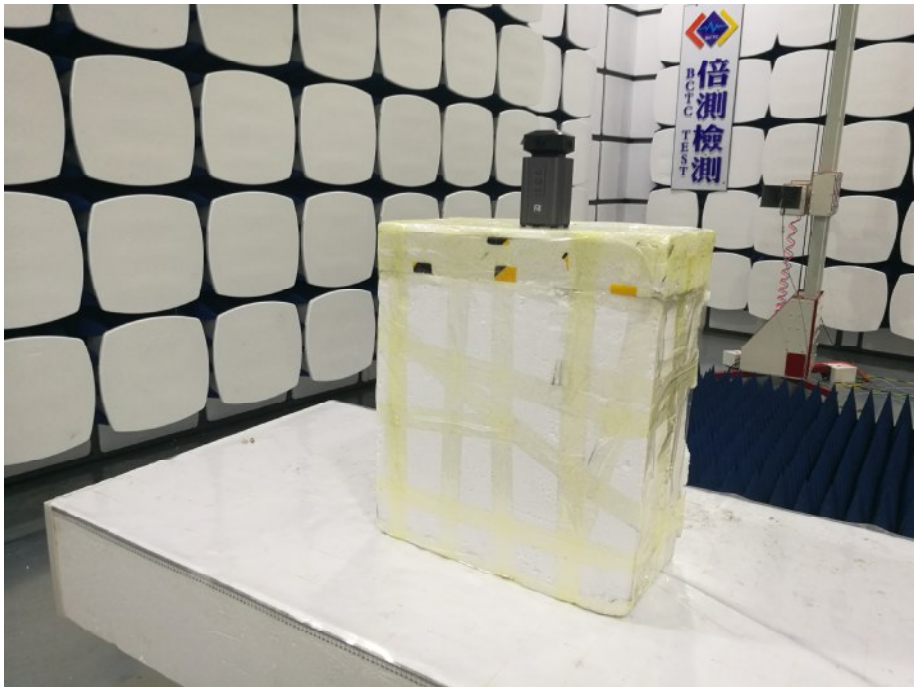
10. EUT TEST PHOTO

Conducted Measurement Photos



Radiated Measurement Photos





11. EUT PHOTO

※※※※※ END OF REPORT ※※※※※