FCC RADIO TEST REPORT
FCC ID:2AB3YL800

Product： smart phone

Trade Name： N/A

Model Name： L800

Serial Model： L800S

Prepared for

JIN HUITENG COMMUNICATION EQUIPMENT CO.,LTD.

3rd Floor, block A, Xufa science and technology park, Second Industrial park, Fenghuang, Fuyong, Shenzhen

Prepared by

Shenzhen STONE Testing Technology Co.,Ltd.

F/6, Bldg.12, Zhongxing Industrial City, Chuangye Rd., Nanshan District Shenzhen P.R. China

TEST RESULT CERTIFICATION

Applicant's name	JIN HUITENG COMMUNICATION EQUIPMENT CO.,LTD.
Address	3rd Floor, block A, Xufa science and technology park, Second Industrial park, Fenghuang, Fuyong, Shenzhen
Manufacture's Name...	JIN HUITENG COMMUNICATION EQUIPMENT CO.,LTD.
Address	3rd Floor, block A, Xufa science and technology park, Second Industrial park, Fenghuang, Fuyong, Shenzhen

Product description

Product name	smart phone
Model and/or type reference	L800
Serial Model	L800S
Standards	FCC Part15.247
Test procedure	ANSI C63.4-2003

This device described above has been tested by STT, 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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Date of Test.....

Date (s) of performance of tests	10 Mar. 2014 ~19 Mar. 2014
Date of Issue.....	19 Mar. 2014
Test Result.....	**Pass**

Testing Engineer	:	Eric Wang (Eric Wang)
Technical Manager	:	Jerry You (Jerry You)
Authorized Signatory	:	Jack yu (Jack yu)

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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	Band Edge Emission	PASS	
15.203	Antenna Requirement	PASS	

NOTE:

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

1.1 TEST FACILITY

Shenzhen STONE Testing Technology Co.,Ltd.
Add.: F/6, Bldg.12, Zhongxing Industrial City, Chuangye Rd., Nanshan District Shenzhen P.R. China
FCC Registration No.: 323508; IC Registration No.: 11043A

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

<table>
<tr><td>Equipment</td><td>smart phone</td></tr>
<tr><td>Model Name</td><td>L800</td></tr>
<tr><td>Serial Model</td><td>L800S</td></tr>
<tr><td>Model Difference</td><td>All the models are the same circuit and RF module, except model name.</td></tr>
<tr><td>Product Description</td><td>The EUT is a smart phone
<table>
<tr><td>Operation Frequency:</td><td>802.11b/g/n(20MHz): 2412~2462MHz
802.11n(40MHz):2422~2452MHz</td></tr>
<tr><td>Modulation Type:</td><td>CCK/OFDM/DBPSK/DAPSK</td></tr>
<tr><td>Bit Rate of Transmitter</td><td>802.11b:11/5.5/2/1 Mbps
802.11g:54/48/36/24/18/12/9/6Mbps
802.11n(20MHz/40MHz):150/144.44/130/117/115.56/104/86.67/78/52/6.5Mbps</td></tr>
<tr><td>Number Of Channel</td><td>802.11b/g/n20MHz:11CH
802.11n40MHz:9CH</td></tr>
<tr><td>Antenna Designation:</td><td>Please see Note 3.</td></tr>
<tr><td>Output Power(Conducted):</td><td>802.11b: 11.87 dBm (Max.)
802.11g: 10.74dBm (Max.)
802.11n(20M): 10.74 dBm (Max.)
802.11n(40M): 10.65 dBm (Max.)</td></tr>
<tr><td>Antenna Gain (dBi)</td><td>0dbi</td></tr>
</table>
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.</td></tr>
<tr><td>Channel List</td><td>Please refer to the Note 2.</td></tr>
<tr><td>Ratings</td><td>DC 5.0V, 1A</td></tr>
<tr><td>Adapter</td><td>Model:JLY-510
Input: 100-240V~50/60Hz, 150mA
Output: 5V⎓, 1.0A</td></tr>
<tr><td>Battery</td><td>DC 3.7V, 2000mAh</td></tr>
</table>

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 MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

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

3.

Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
A	N/A	N/A	PIFA	N/A	0	Wifi Antenna

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	802.11b CH1/ CH6/ CH11
Mode 2	802.11g CH1/ CH6/ CH11
Mode 3	802.11n/20MHz CH1/ CH6/ CH11
Mode 4	802.11n/40MHz CH3/ CH6/ CH9
Mode 5	Link Mode

For 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	802.11n/20MHz CH1/ CH6/ CH11
Mode 4	802.11n/40MHz CH3/ CH6/ CH9

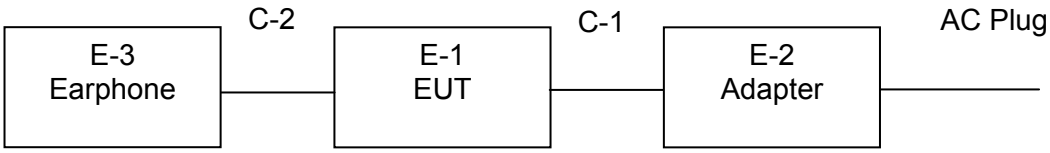
Note:

(1) The measurements are performed at the highest, middle, lowest available channels.

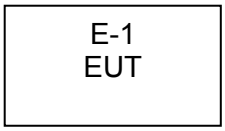
(2) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Conducted Emission Test



Radiated Spurious 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	Brand	Model/Type No.	Series No.	Note
E-1	smart phone	N/A	L800	N/A	EUT
E-2	Adapter	N/A	JYK-510	N/A	
E-3	Earphone	N/A	2688	N/A	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	1.2m	
C-2	NO	NO	0.8m	

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	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4407B	MY45108040	2013.07.06	2014.07.05	1 year
2	Test Receiver	R&S	ESPI	101318	2013.06.07	2014.06.06	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2013.07.06	2014.07.05	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2013.06.07	2014.06.06	1 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2013.06.07	2014.06.06	1 year
6	Horn Antenna	EM	EM-AH-10180	2011071402	2013.07.06	2014.07.05	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2013.07.06	2014.07.05	1 year
8	Amplifier	EM	EM-30180	060538	2013.12.22	2014.12.21	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2013.06.08	2014.06.07	1 year
10	Power Meter	R&S	NRVS	100696	2013.07.06	2014.07.05	1 year
11	Power Sensor	R&S	URV5-Z4	0395.1619.05	2013.07.06	2014.07.05	1 year
12	Power Meter	Anristu	ML2495A	1145054	2013.08.16	2014.08.16	1 year
13	Power Sensor	Anristu	MA2411B	1126096	2013.08.16	2014.08.16	1 year

Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2013.06.06	2014.06.05	1 year
2	LISN	R&S	ENV216	101313	2013.08.24	2014.08.23	1 year
3	LISN	EMCO	3816/2	00042990	2013.08.24	2014.08.23	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2013.06.07	2014.06.06	1 year
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	2013.06.07	2014.06.06	1 year
6	Absorbing clamp	R&S	MOS-21	100423	2013.06.08	2014.06.07	1 year

1	Attenuation	MCE	24-10-34	BN9258	2013.06.08	2014.06.07	1 year

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

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

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)		Standard
	Quasi-peak	Average	Quasi-peak	Average	
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	73.00	60.00	56.00	46.00	CISPR
5.0 -30.0	73.00	60.00	60.00	50.00	CISPR

0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	73.00	60.00	56.00	46.00	FCC
5.0 -30.0	73.00	60.00	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

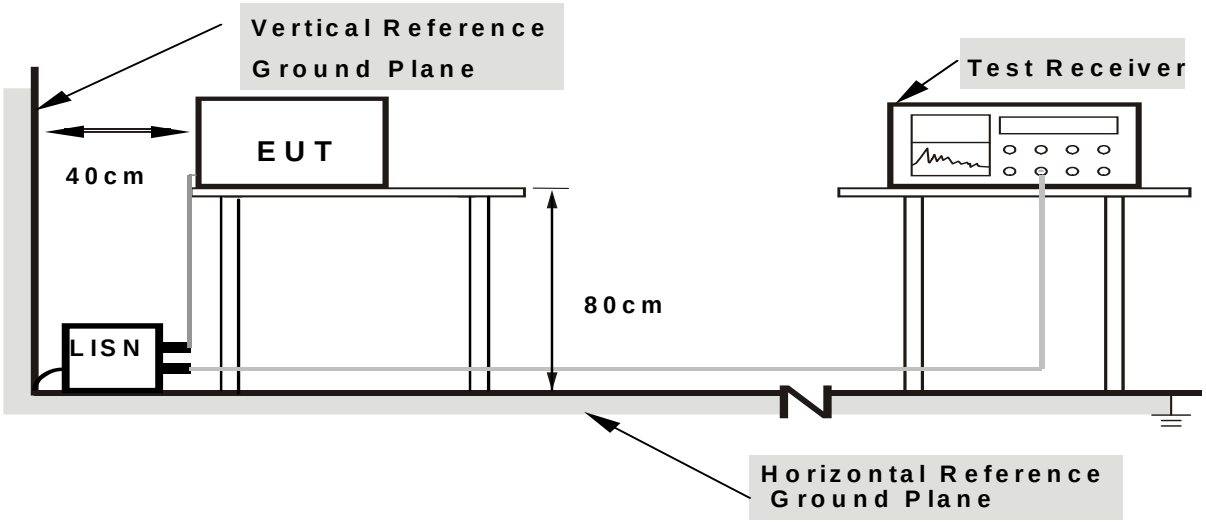
3.1.2 TEST PROCEDURE

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

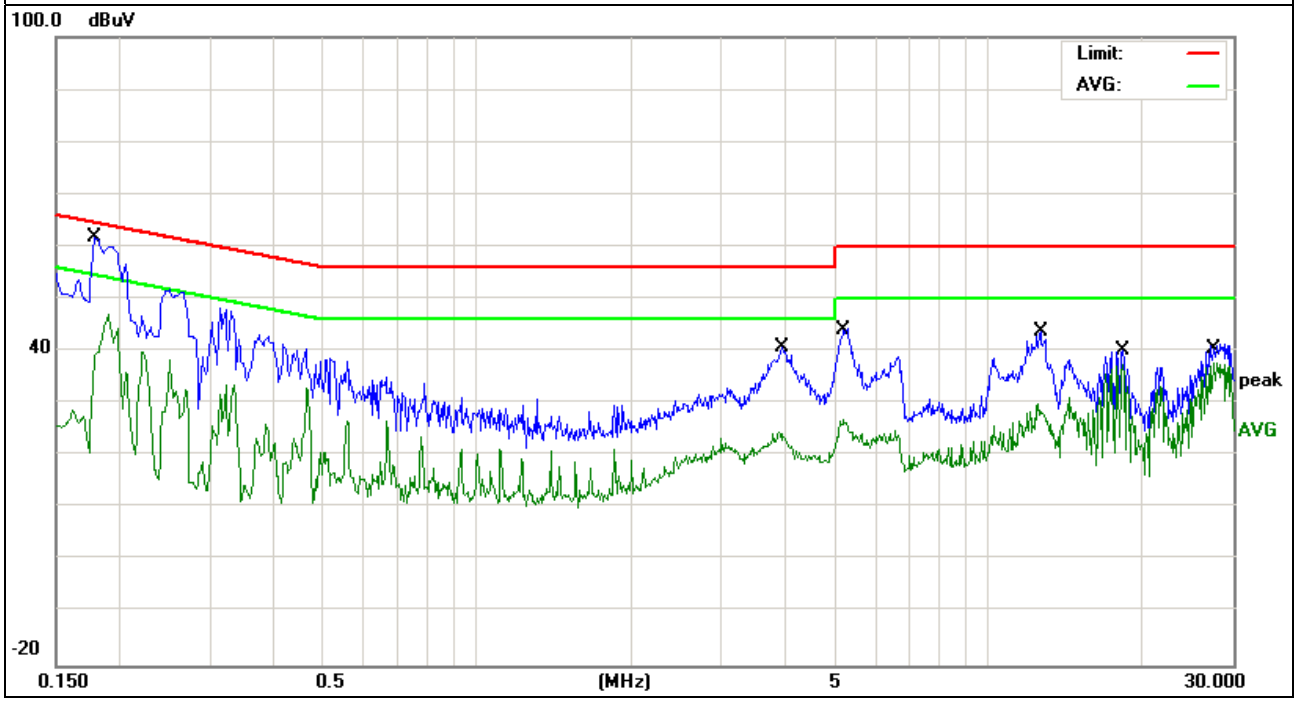
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.1.6 TEST RESULTS

EUT：	smart phone	Model Name. ：	L800
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Phase：	L
Test Voltage ：	DC 5V form Adapter AC 120V/60Hz	Test Mode：	Mode 5

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.178	48.45	9.55	58	64.57	-6.57	QP
0.178	35.11	9.55	44.66	54.57	-9.91	AVG
3.894	31.28	9.59	40.87	56	-15.13	QP
3.894	14.99	9.59	24.58	46	-21.42	AVG
5.214	34.74	9.61	44.35	60	-15.65	QP
5.214	17.23	9.61	26.84	50	-23.16	AVG
12.4539	33.83	9.78	43.61	60	-16.39	QP
12.4539	20.28	9.78	30.06	50	-19.94	AVG
18.2337	30.13	10.13	40.26	60	-19.74	QP
18.2337	27.2	10.13	37.33	50	-12.67	AVG
27.4579	31.32	10.13	41.45	60	-18.55	QP
27.4579	27.5	10.13	37.63	50	-12.37	AVG

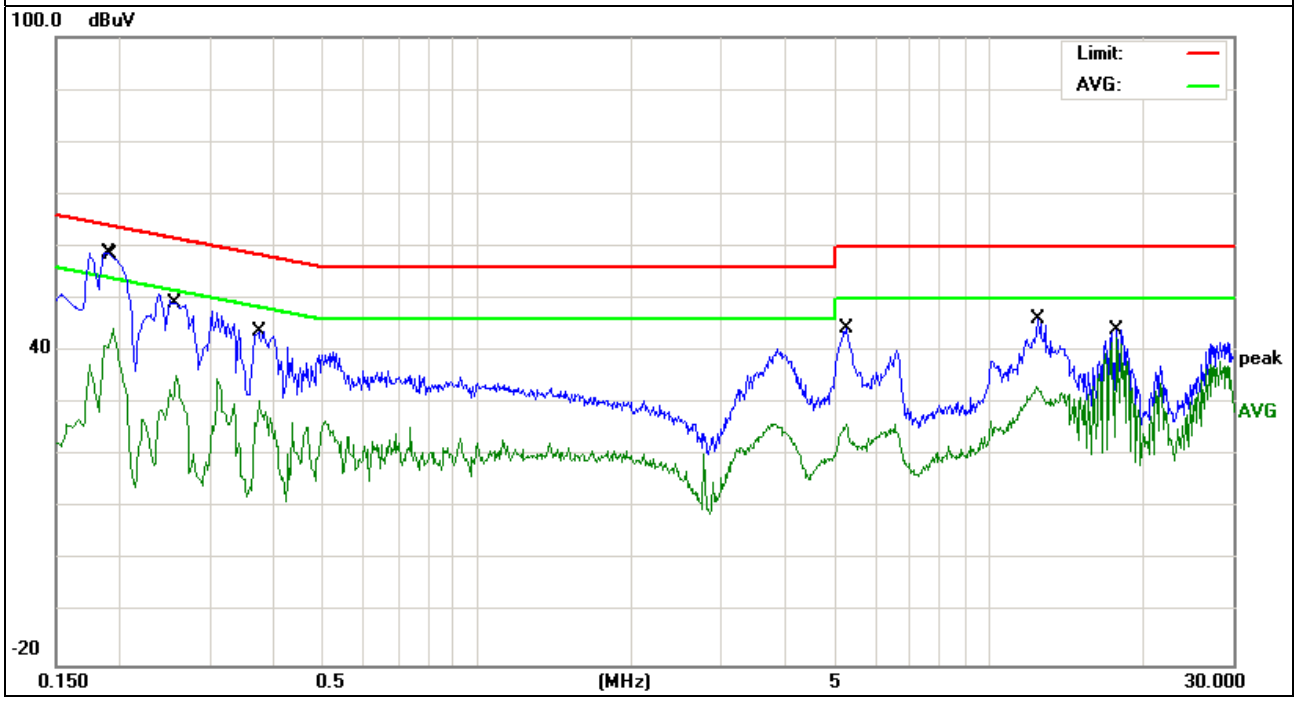
Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.



EUT：	smart phone	Model Name. ：	L800
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Phase：	N
Test Voltage ：	DC 5V form Adapter AC 120V/60Hz	Test Mode：	Mode 5

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.19	49.32	9.53	58.85	64.03	-5.18	QP
0.194	34.76	9.52	44.28	53.86	-9.58	AVG
0.258	41.58	9.51	51.09	61.49	-10.4	QP
0.258	25.78	9.51	35.29	51.49	-16.2	AVG
0.3738	34.37	9.52	43.89	58.41	-14.52	QP
0.3738	21.09	9.52	30.61	48.41	-17.8	AVG
5.258	34.62	9.61	44.23	60	-15.77	QP
5.258	16.3	9.61	25.91	50	-24.09	AVG
12.3377	36.33	9.78	46.11	60	-13.89	QP
12.3377	23.37	9.78	33.15	50	-16.85	AVG
17.7819	34.13	10.02	44.15	60	-15.85	QP
17.7819	32.56	10.02	42.58	50	-7.42	AVG

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



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)	Class A (dBuV/m) (at 3M)		Class B (dBuV/m) (at 3M)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80	60	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	10th carrier harmonic
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

a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

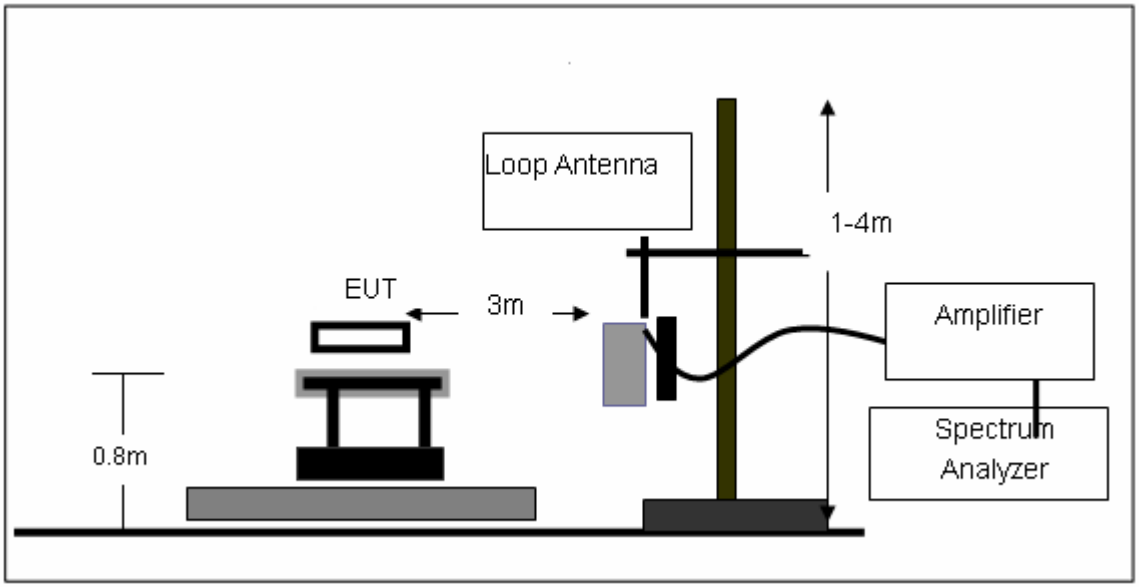
Both horizontal and vertical antenna polarities were tested
and performed pretest to three orthogonal axis. The worst case emissions were reported

3.2.3 DEVIATION FROM TEST STANDARD

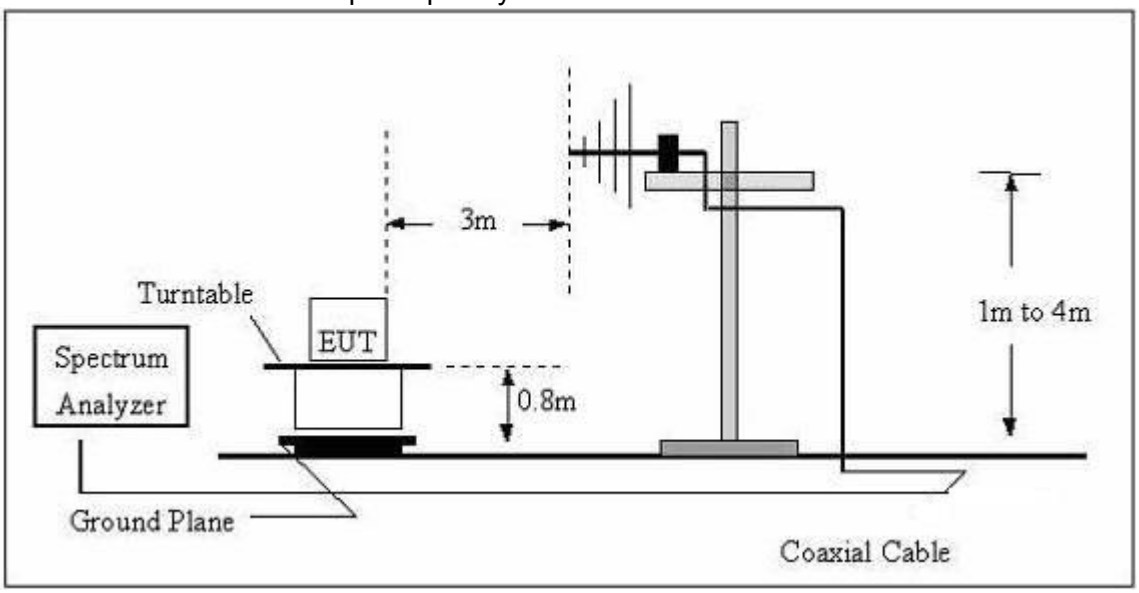
No deviation

3.2.4 TEST SETUP

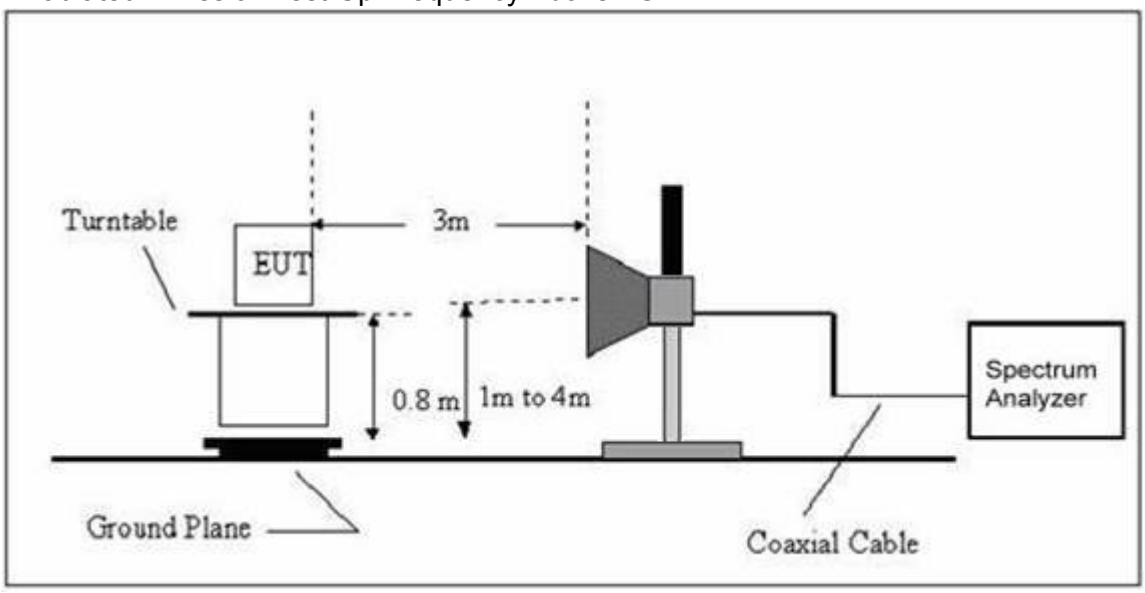
（A）Radiated Emission Test-Up Frequency Below 30MHz



（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)

EUT：	smart phone	Model Name. ：	L800
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX	Polarization :	--

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

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)

EUT：	smart phone	Model Name ：	L800
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX		

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type	Comment
Below 1G							
48.3318	25	9.01	34.01	40	-5.99	QP	Vertical
112.5241	26.81	11.79	38.6	43.5	-4.9	QP	Vertical
219.8446	31.45	10.35	41.8	46	-4.2	QP	Vertical
381.2485	23.78	17.22	41	46	-5	QP	Vertical
588.9048	18.02	22.38	40.4	46	-5.6	QP	Vertical
661.1503	19.17	23.67	42.84	46	-3.16	QP	Vertical
43.2017	25.39	11.59	36.98	40	-3.02	QP	Horizontal
82.3588	26.43	8.17	34.6	40	-5.4	QP	Horizontal
144.8418	22.8	12.03	34.83	43.5	-8.67	QP	Horizontal
294.1136	22.09	14.62	36.71	46	-9.29	QP	Horizontal
381.2485	23.82	17.22	41.04	46	-4.96	QP	Horizontal
588.9048	19.07	22.38	41.45	46	-4.55	QP	Horizontal

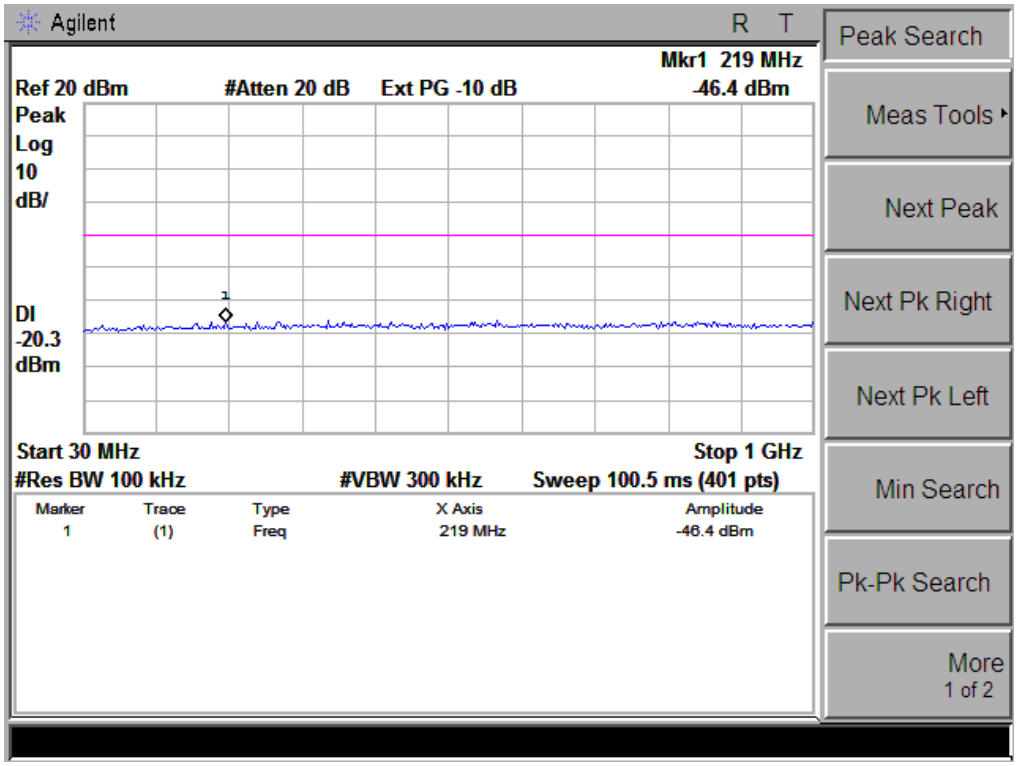
3.2.8 TEST RESULTS (ABOVE 1000 MHZ)

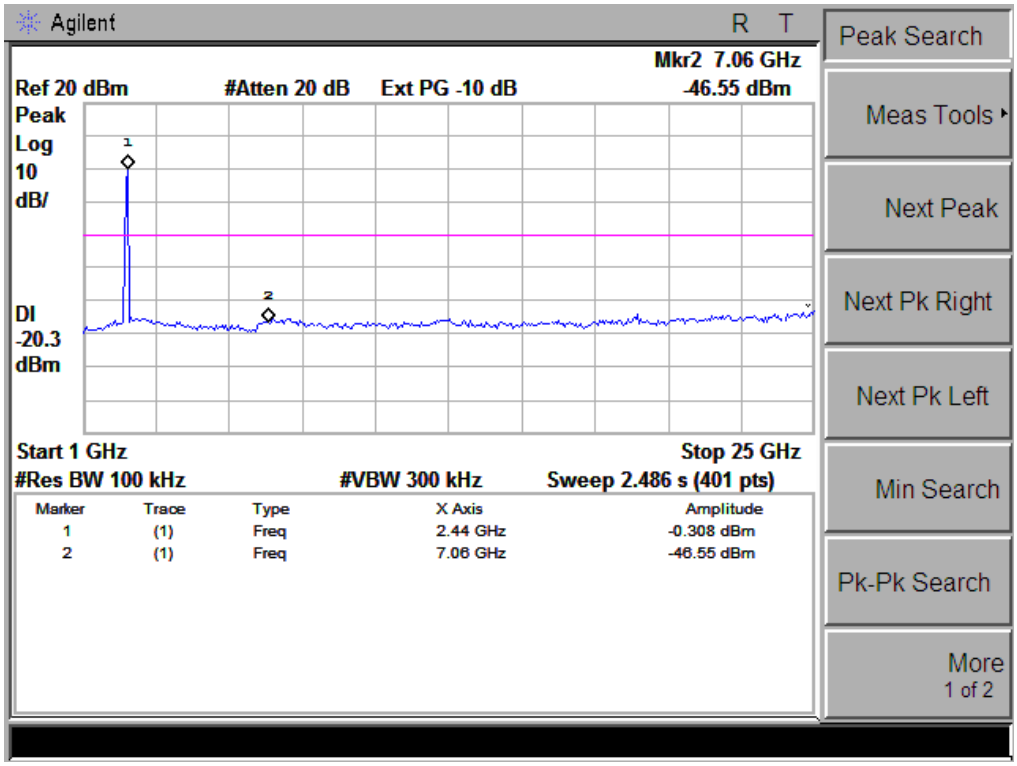
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detect or Type	Comment
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		
Low Channel (2412 MHz)-Above 1G							
4824	45.24	10.44	55.68	74	-18.32	Pk	Vertical
4824	33.25	10.44	43.69	54	-10.31	Av	Vertical
7236	43.25	12.39	55.64	74	-18.36	Pk	Vertical
7236	30.25	12.39	42.64	54	-11.36	Av	Vertical
4824	47.68	10.44	58.12	74	-15.88	Pk	Horizontal
4824	30.26	10.44	40.7	54	-13.3	Av	Horizontal
7236	42.35	12.39	54.74	74	-19.26	Pk	Horizontal
7236	30	12.39	42.39	54	-11.61	Av	Horizontal
Mid Channel (2437 MHz)-Above 1G							
4874	50.12	10.4	60.52	74	-13.48	Pk	Vertical
4874	33.54	10.4	43.94	54	-10.06	Av	Vertical
7311	43.25	12.75	56	74	-18	Pk	Vertical
7311	27.68	12.75	40.43	54	-13.57	Av	Vertical
4874	49.88	10.4	60.28	74	-13.72	Pk	Horizontal
4874	32.25	10.4	42.65	54	-11.35	Av	Horizontal
7311	43.78	12.75	56.53	74	-17.47	Pk	Horizontal
7311	30.78	12.75	43.53	54	-10.47	Av	Horizontal
High Channel (2462 MHz)- Above 1G							
4924	50.24	10.39	60.63	74	-13.37	Pk	Vertical
4924	32.57	10.39	42.96	54	-11.04	Av	Vertical
7386	44.68	12.68	57.36	74	-16.64	Pk	Vertical
7386	30.87	12.68	43.55	54	-10.45	Av	Vertical
4924	50.35	10.39	60.74	74	-13.26	Pk	Horizontal
4924	31.05	10.39	41.44	54	-12.56	Av	Horizontal
7386	45.26	12.68	57.94	74	-16.06	Pk	Horizontal
7386	30.74	12.68	43.42	54	-10.58	Av	Horizontal

Note:”802.11b” mode is the worst mode.

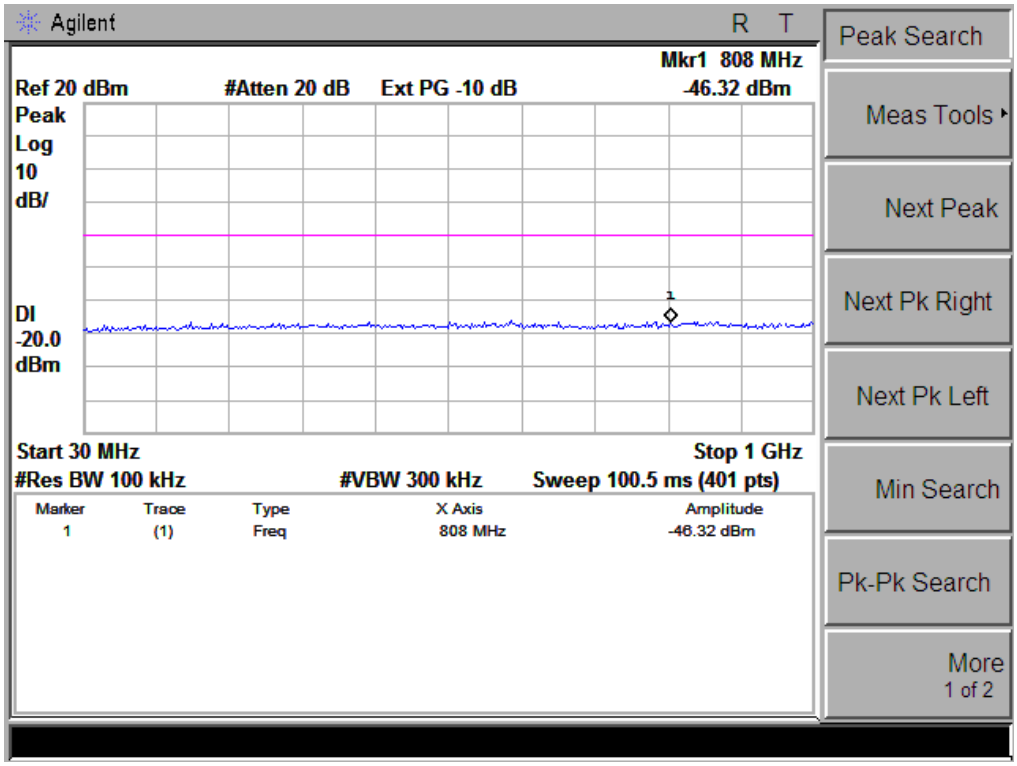
Conducted Spurious Emissions at Antenna Port:

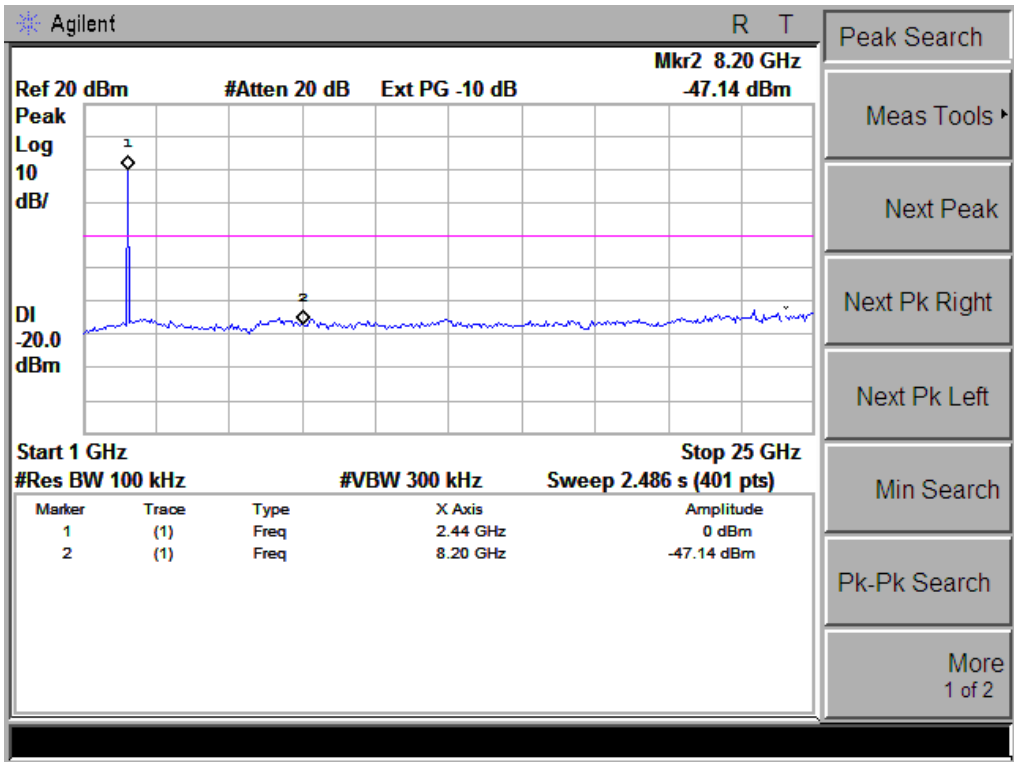
802.11b Low Channel



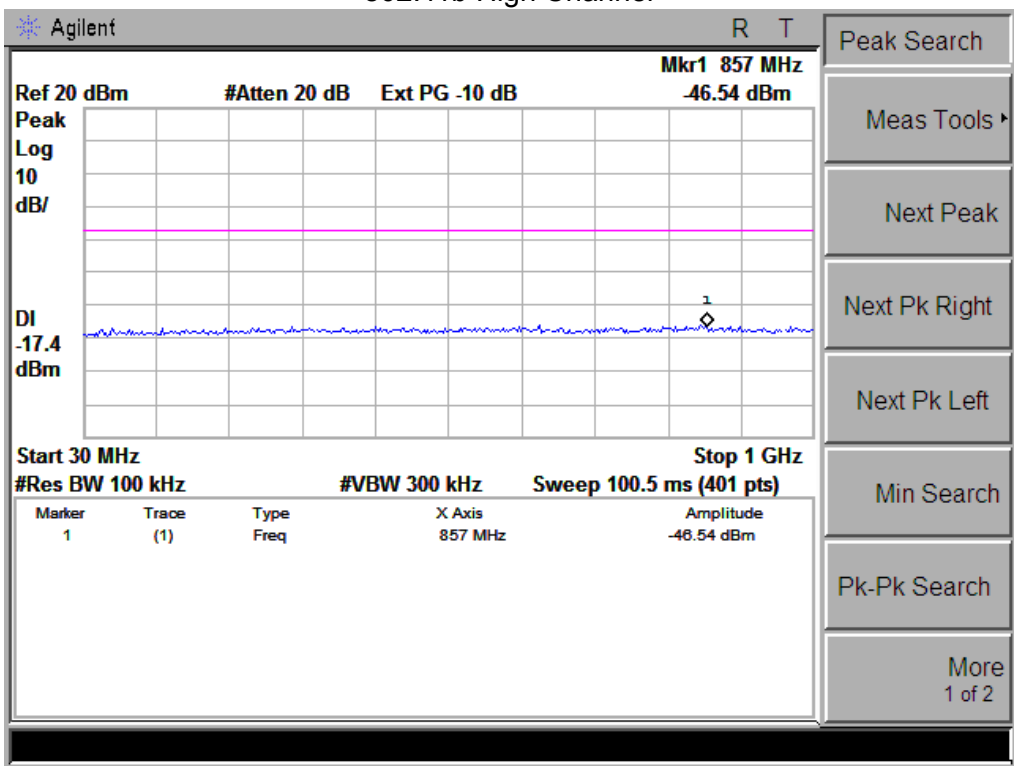


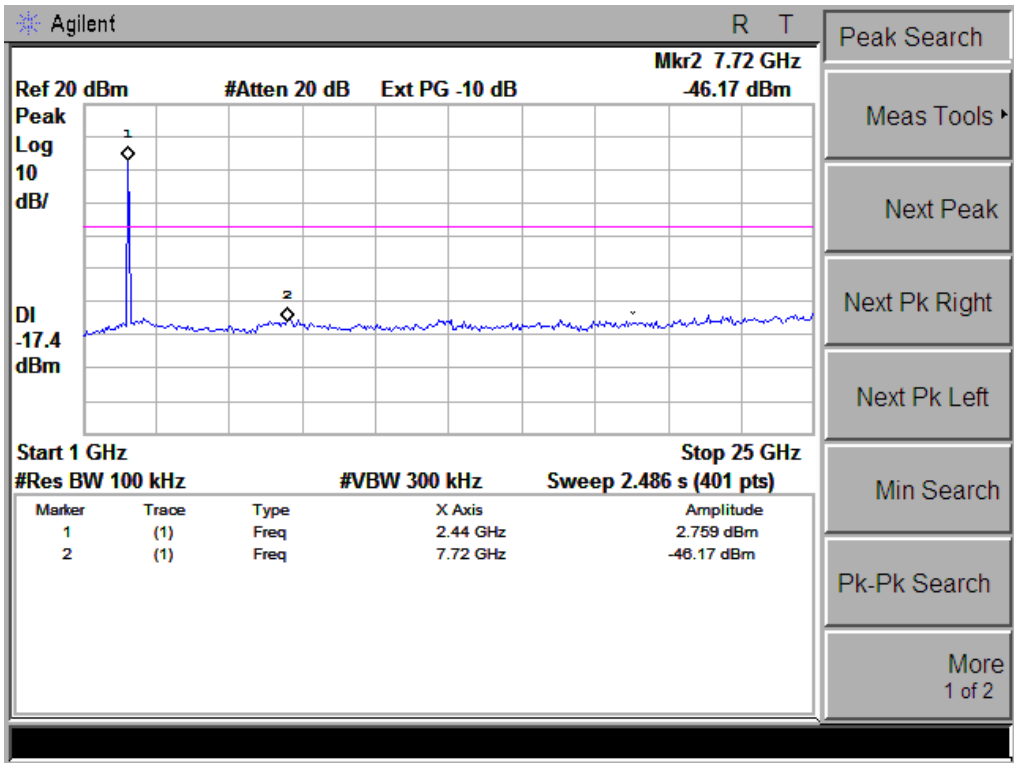
802.11b Middle Channel



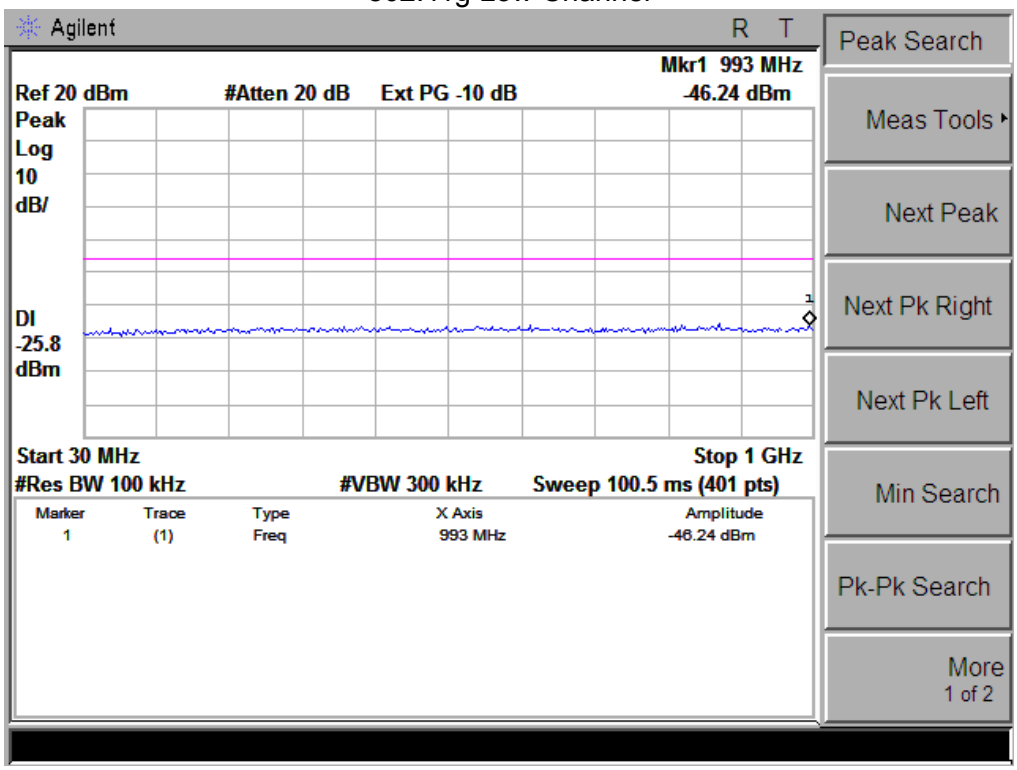


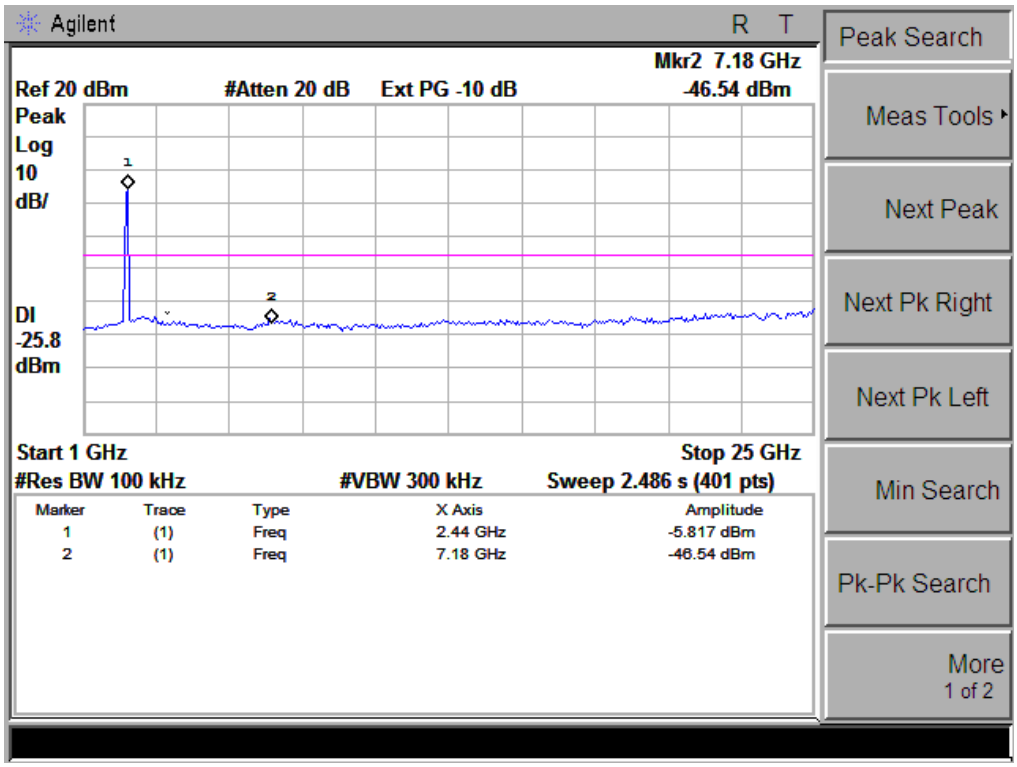
802.11b High Channel



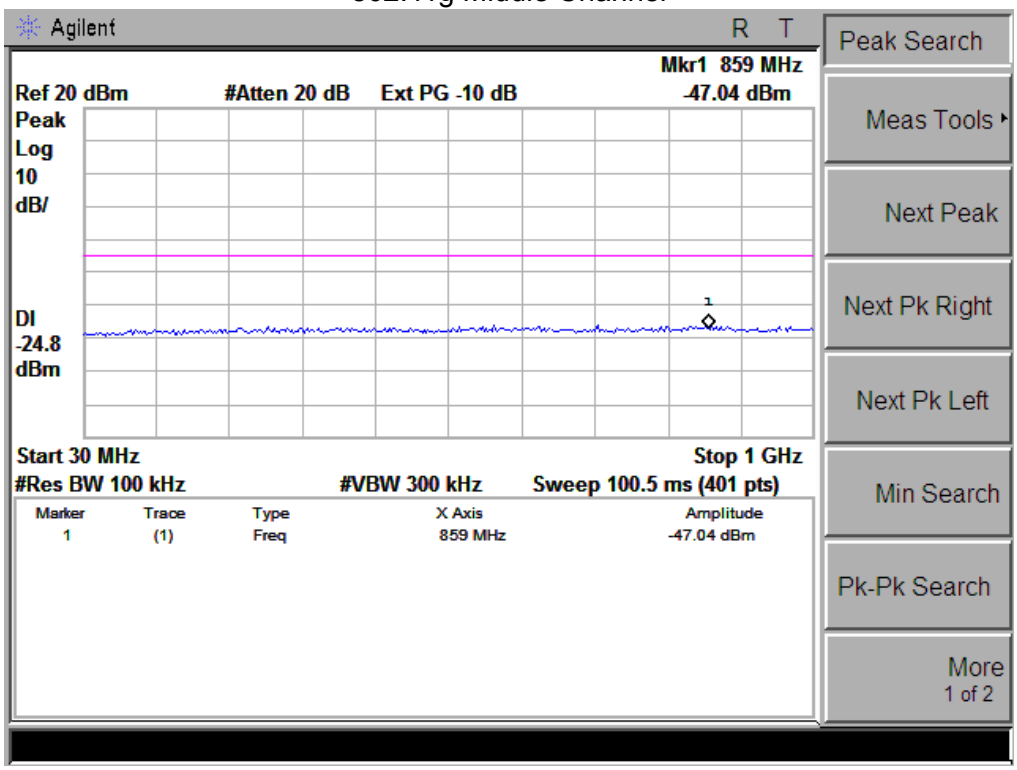


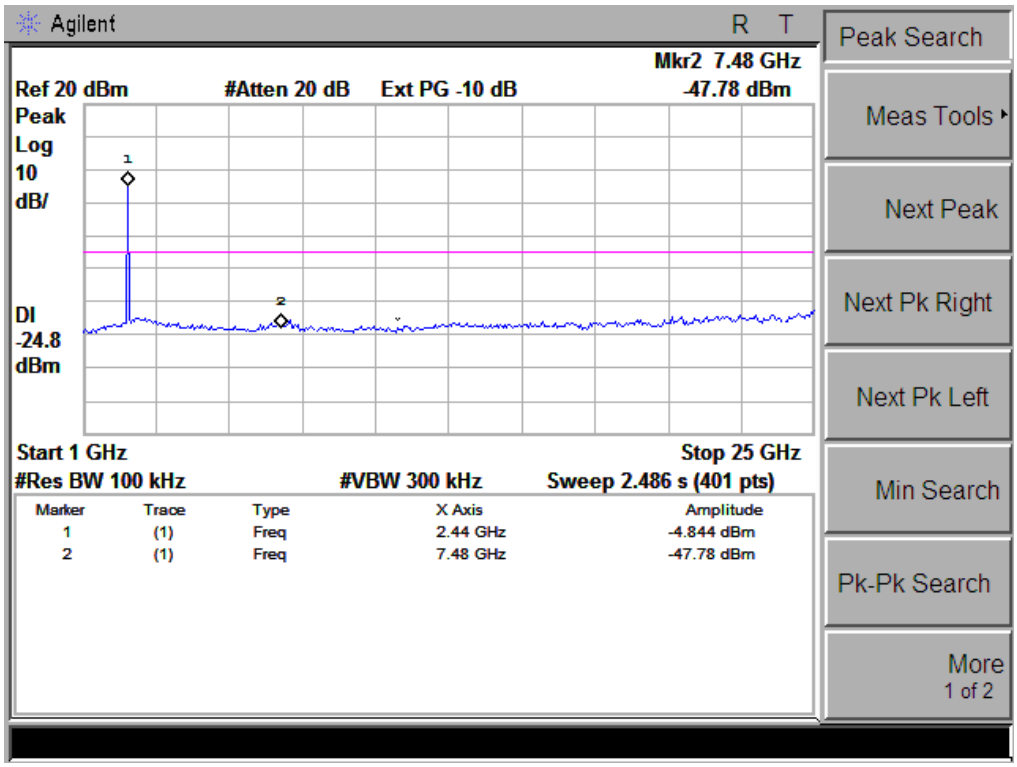
802.11g Low Channel



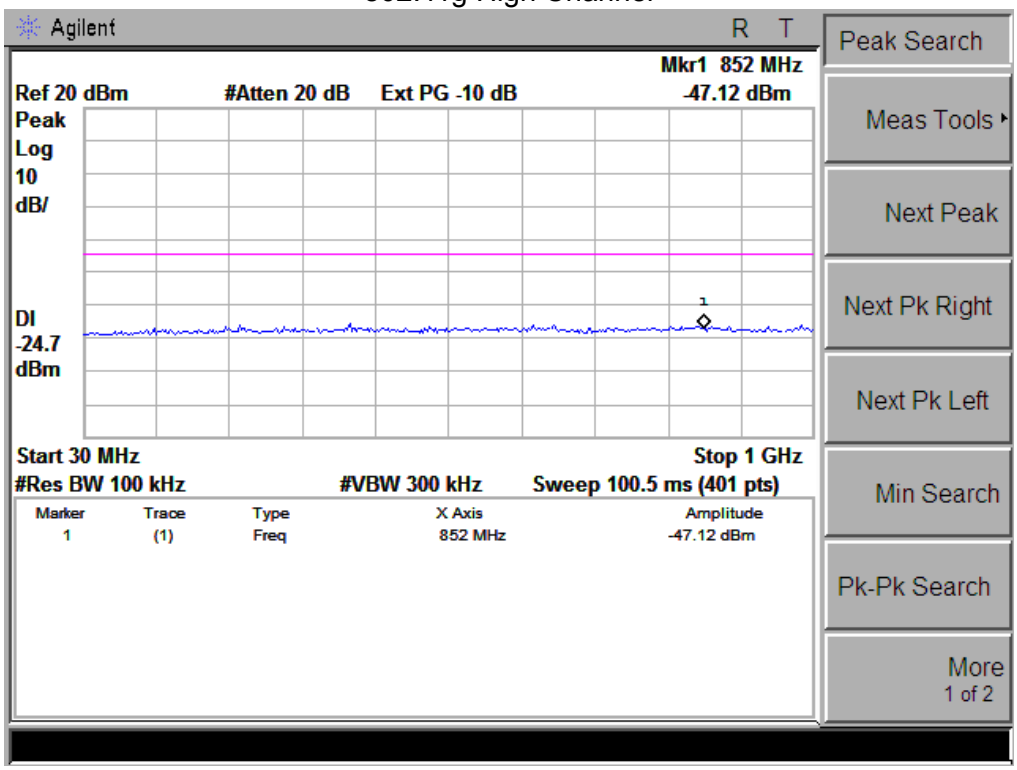


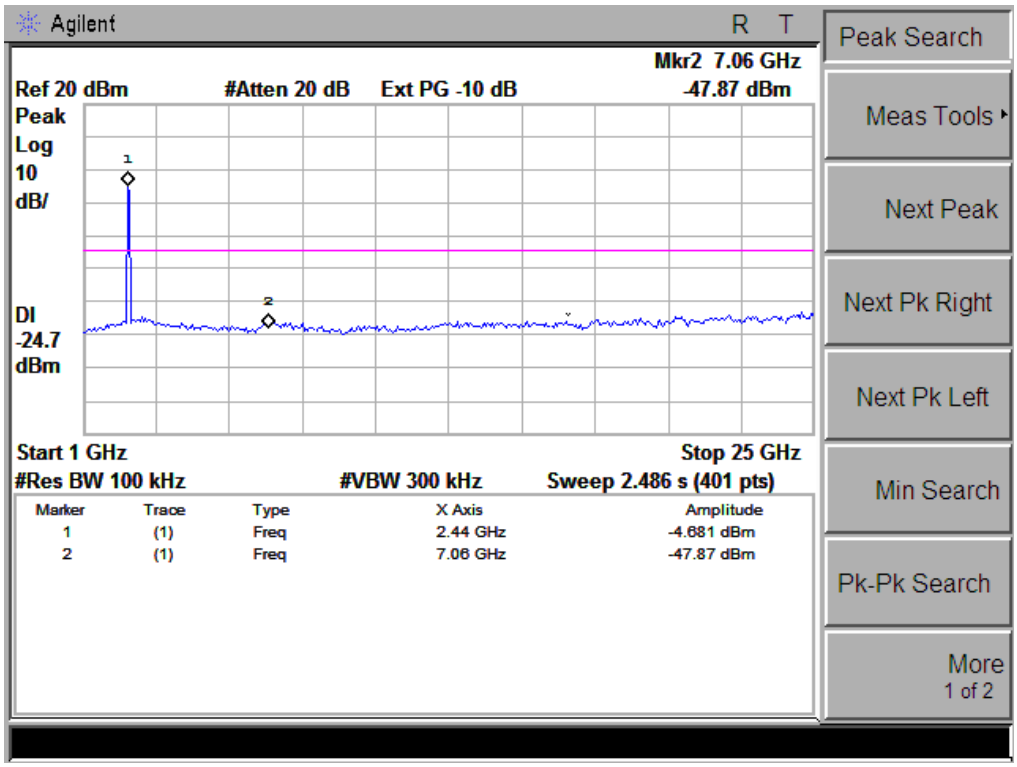
802.11g Middle Channel



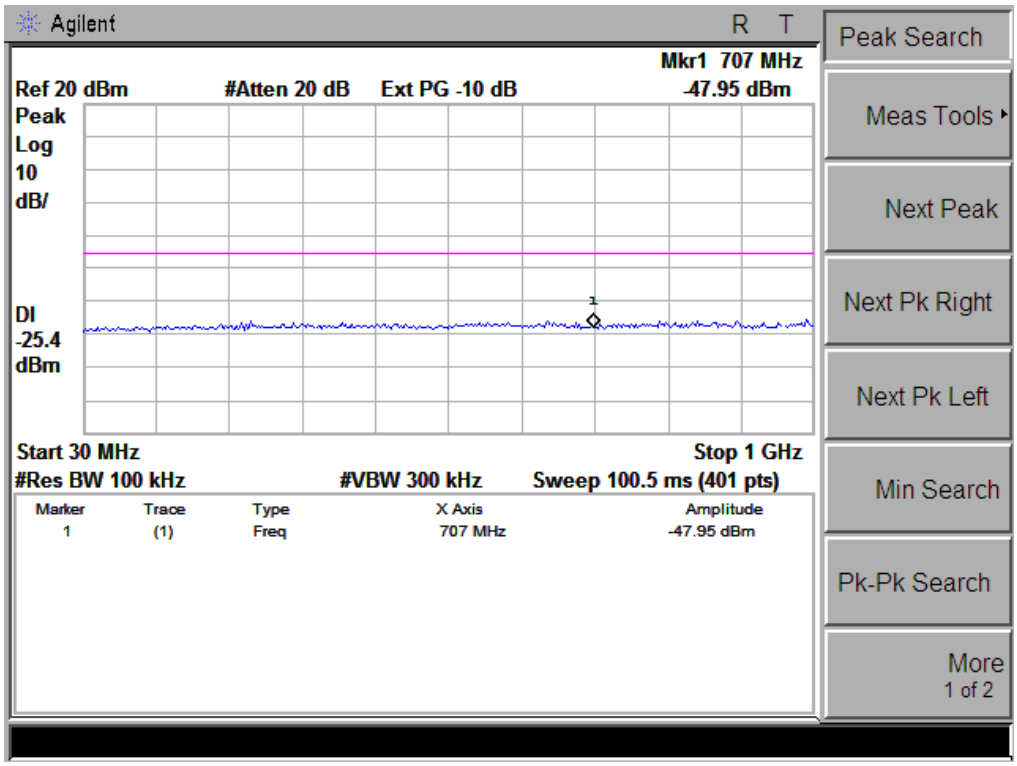


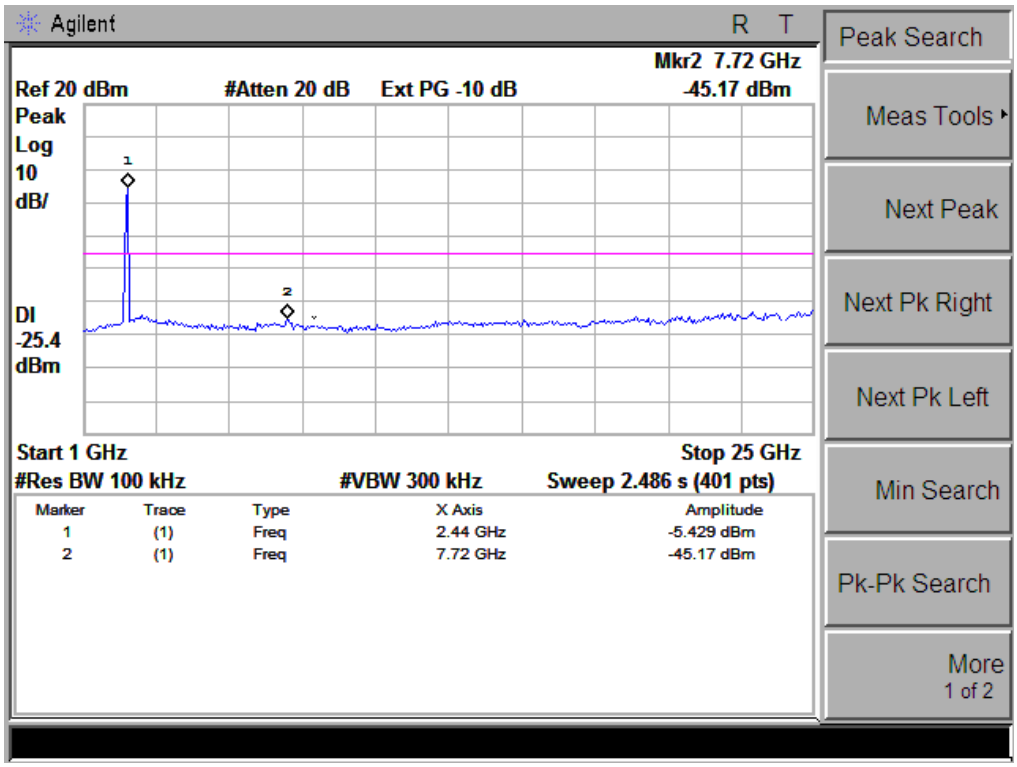
802.11g High Channel



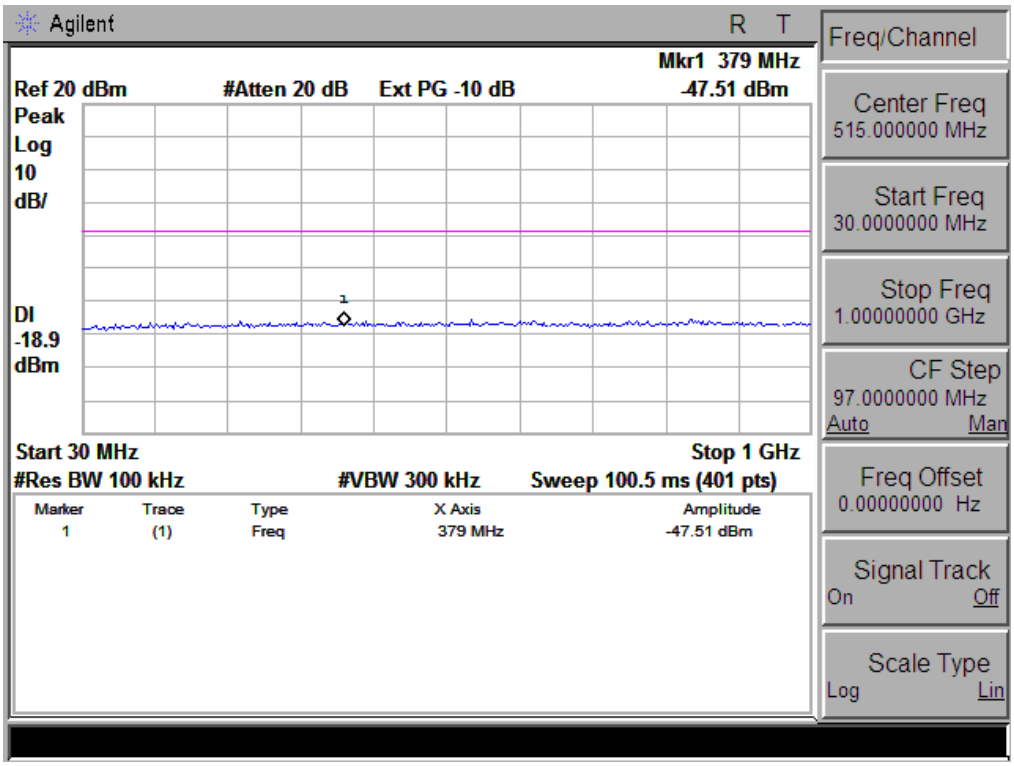


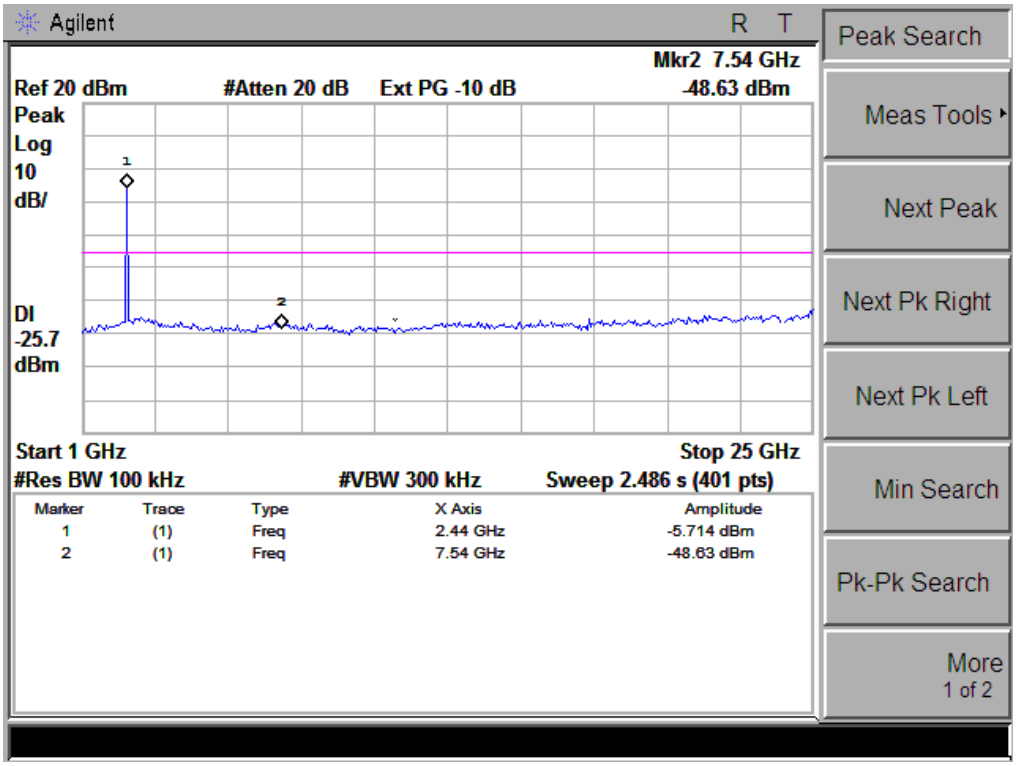
802.11n-HT20 Low Channel



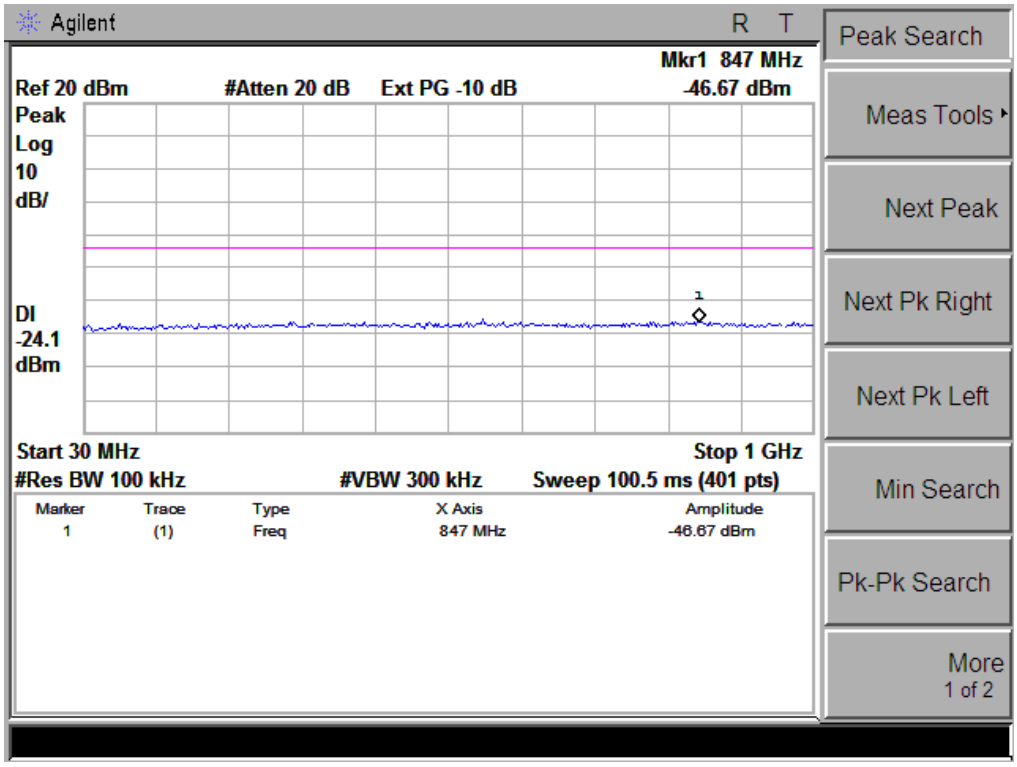


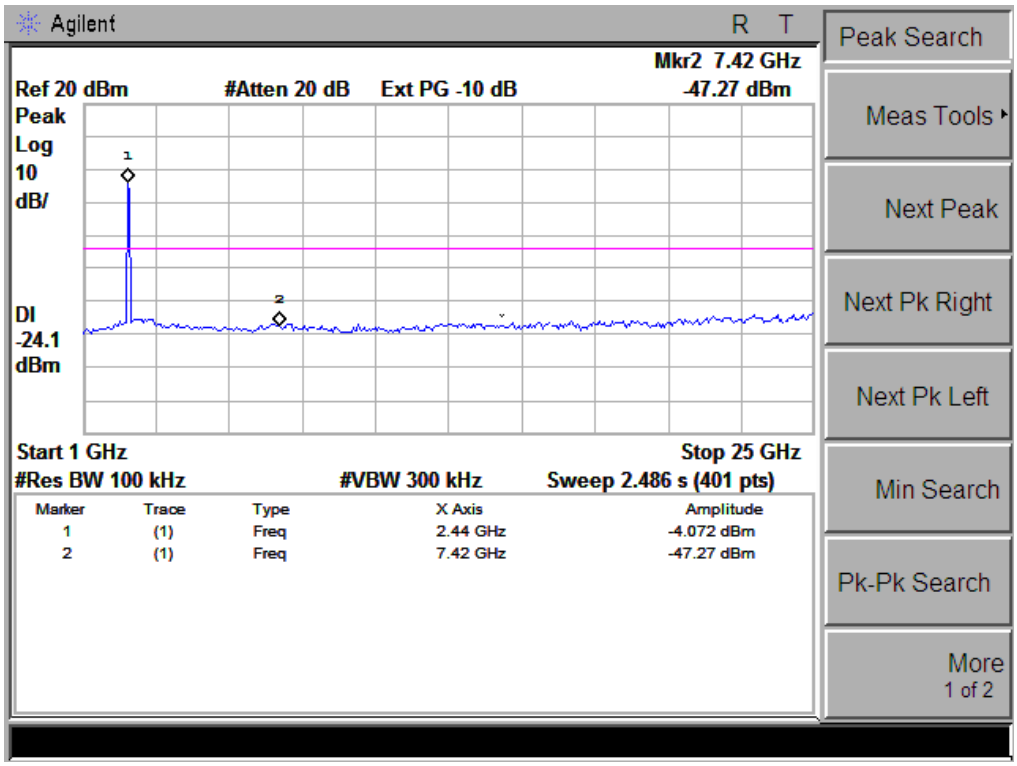
802.11n-HT20 Middle Channel



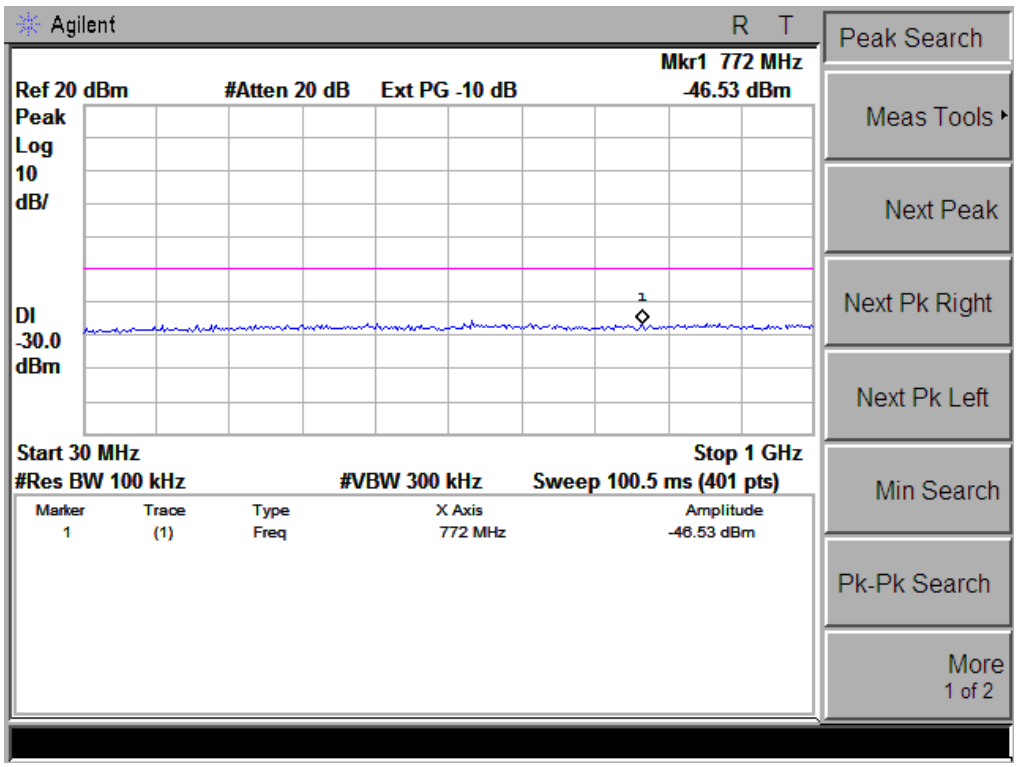


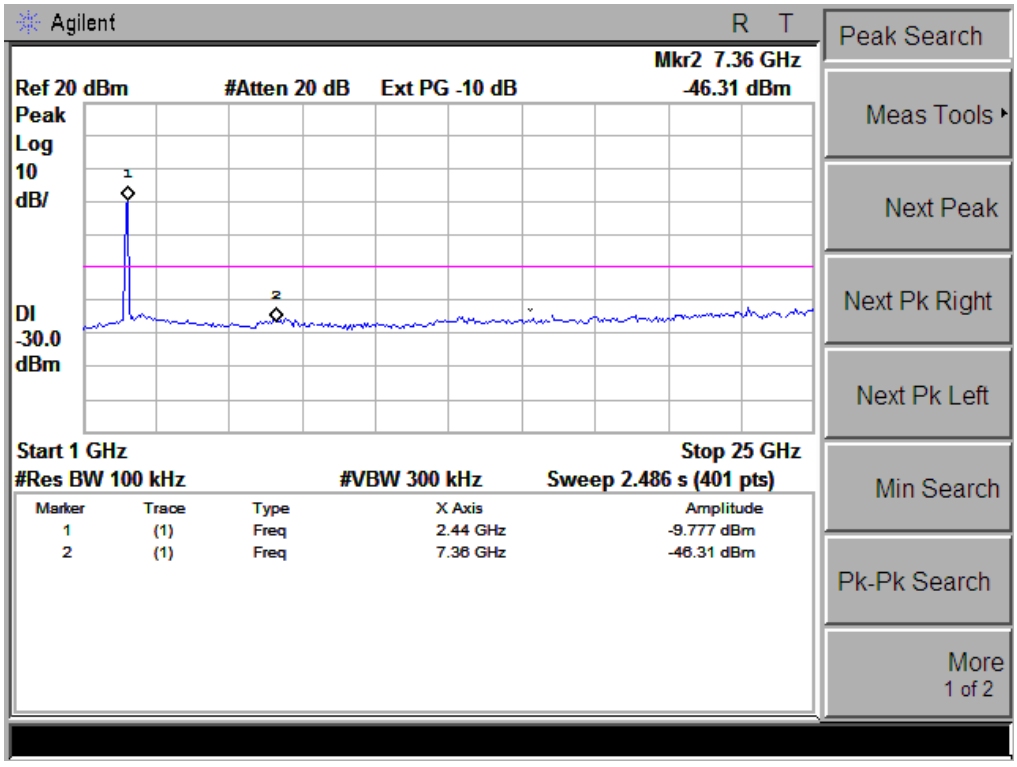
802.11n-HT20 High Channel



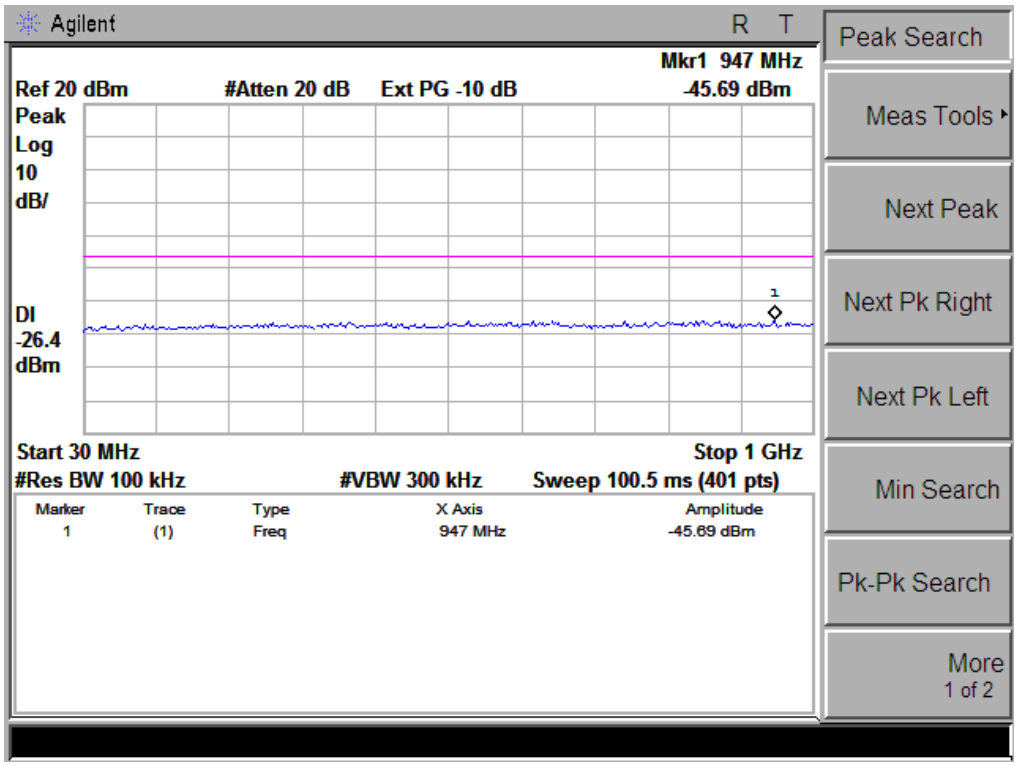


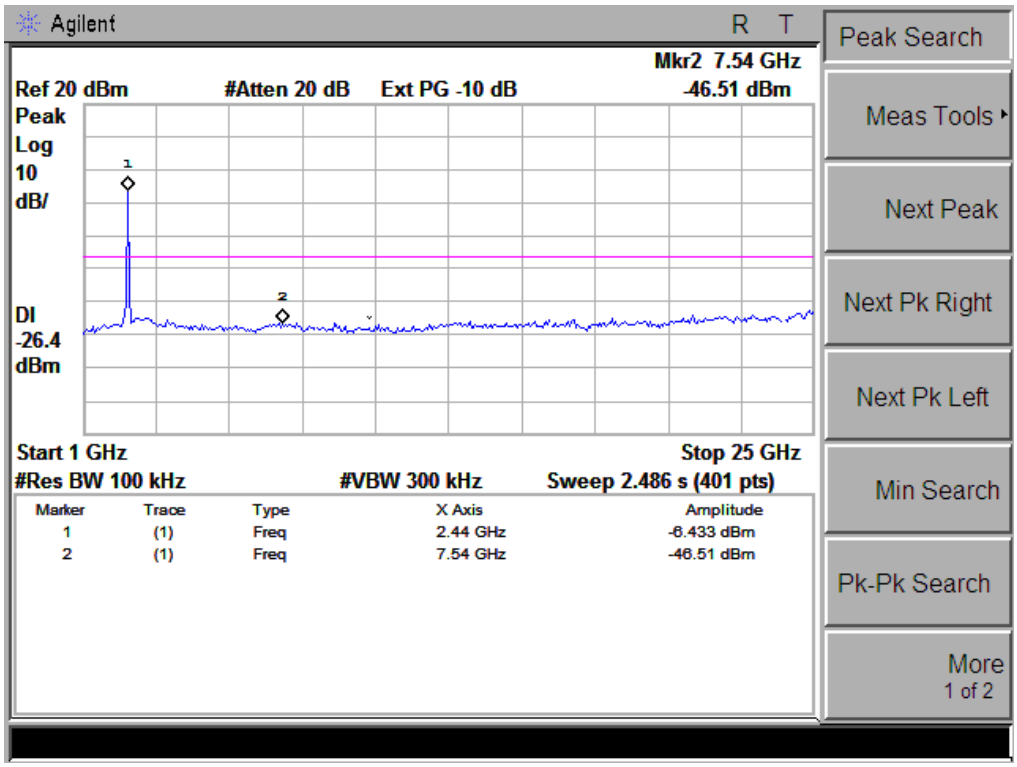
802.11n-HT40 Low Channel



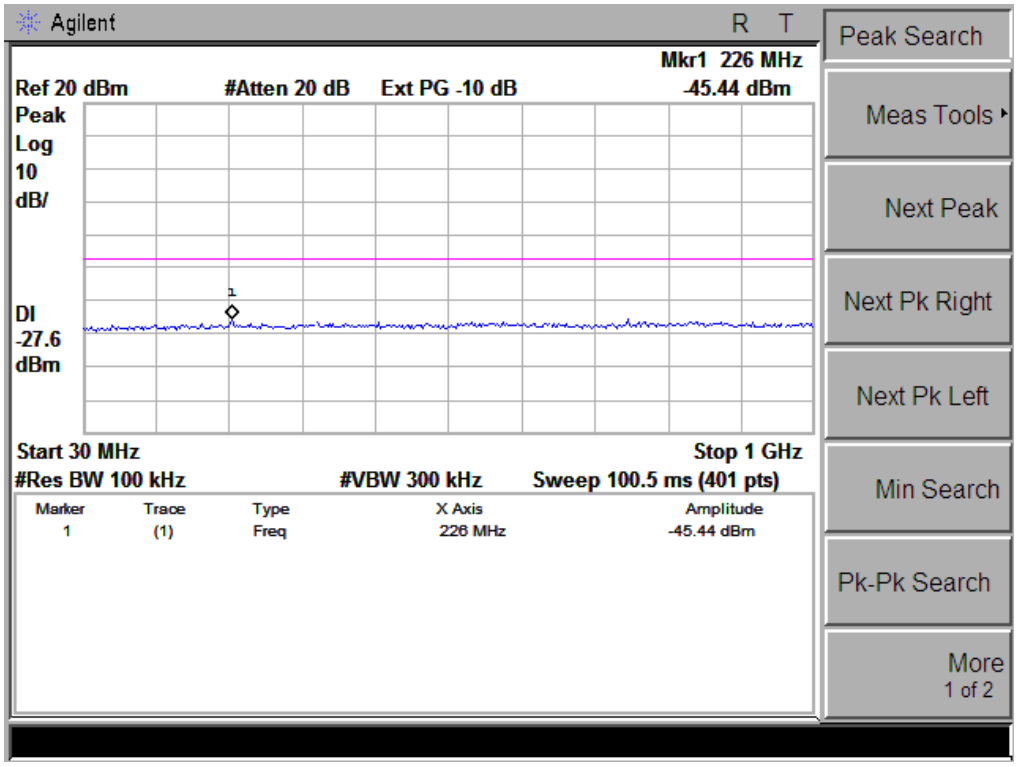


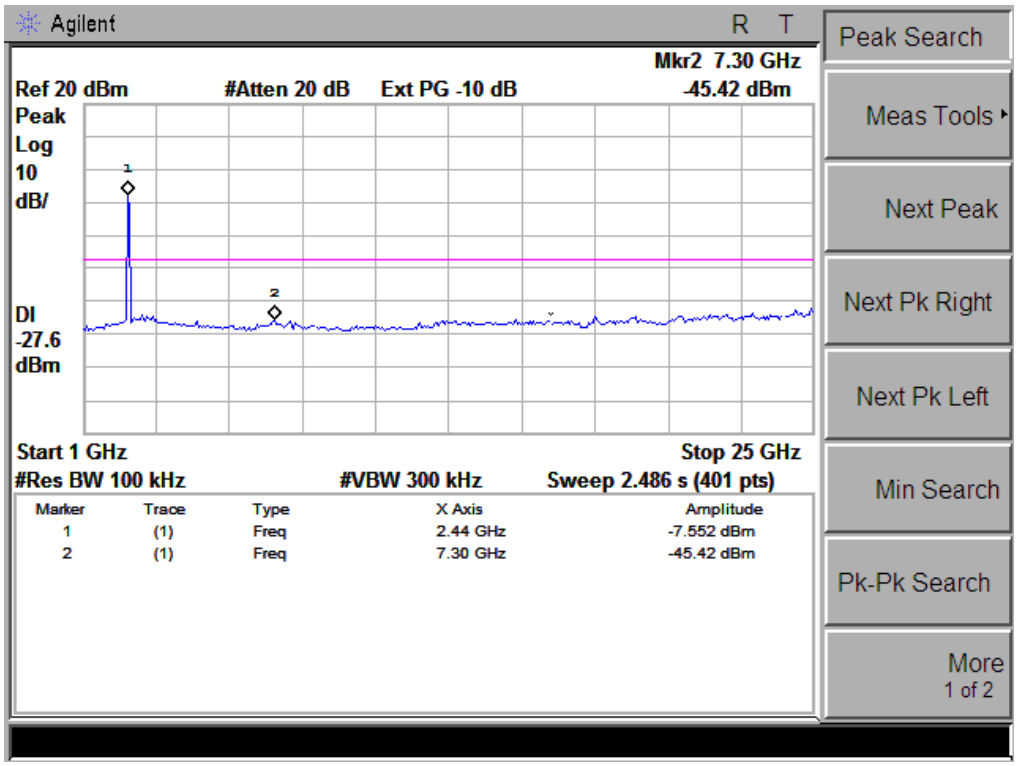
802.11n-HT40 Middle Channel





802.11n-HT40 High Channel





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

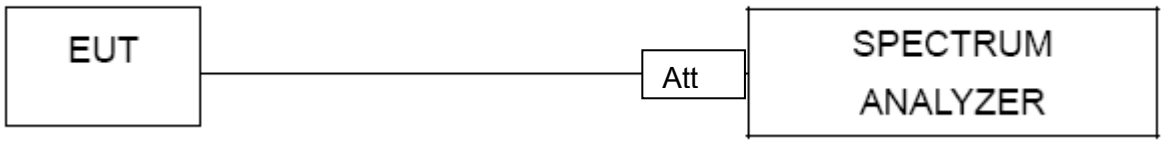
4.1.1 TEST PROCEDURE

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.
3. Set the RBW ≥ 3 kHz.
4. Set the VBW ≥ 3 x RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

4.1.2 DEVIATION FROM STANDARD

No deviation.

4.1.3 TEST SETUP



4.1.4 EUT OPERATION CONDITIONS

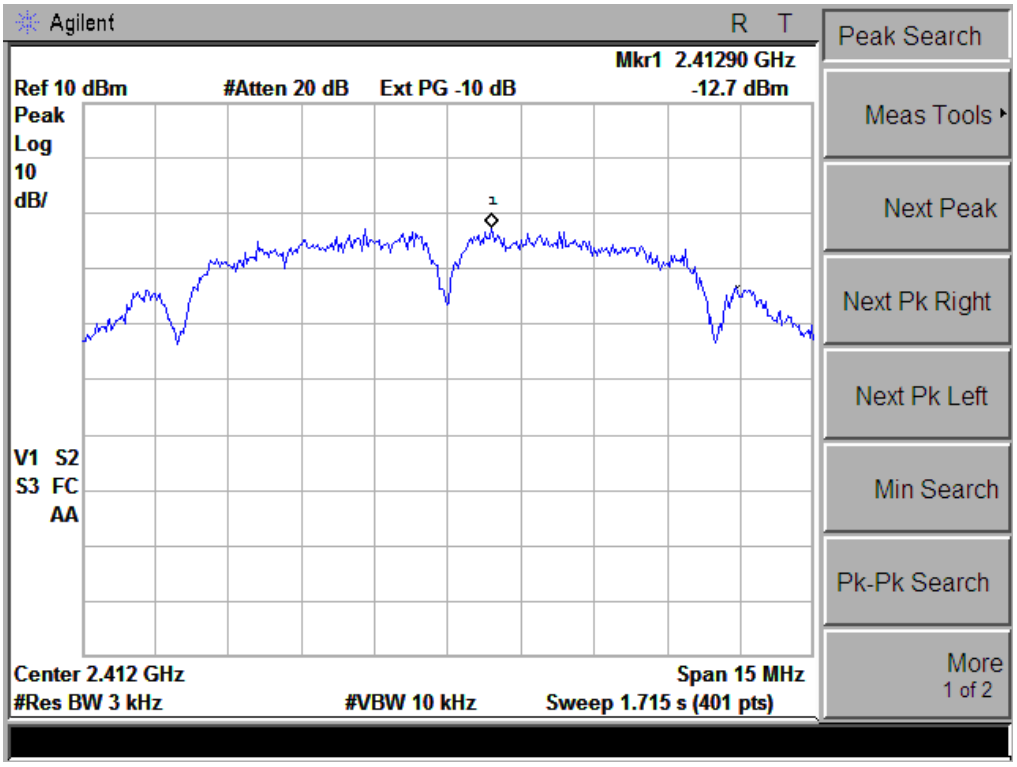
The EUT tested system was configured as the statements of 2.1 Unless otherwise a special operating condition is specified in the follows during the testing.

4.1.5 TEST RESULTS

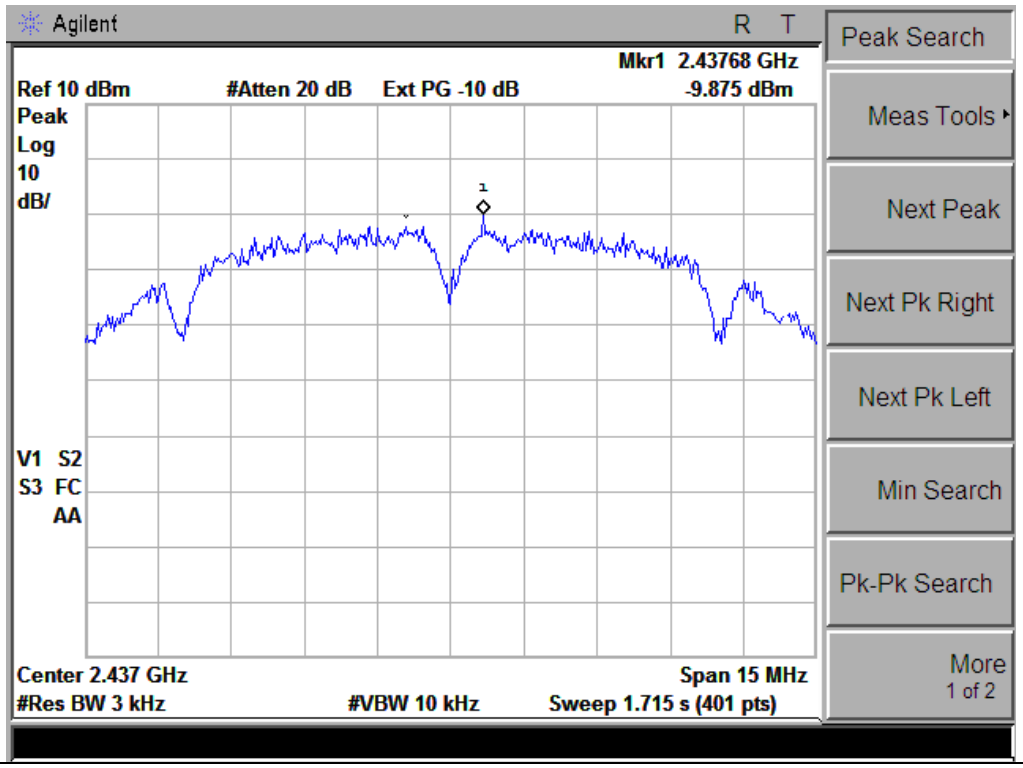
EUT：	smart phone	Model Name ：	L800
Temperature：	25 ℃	Relative Humidity：	56%
Pressure：	1015 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX b Mode /CH01, CH06, CH11		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-12.7	8	PASS
2437 MHz	-9.875	8	PASS
2462 MHz	-10.07	8	PASS

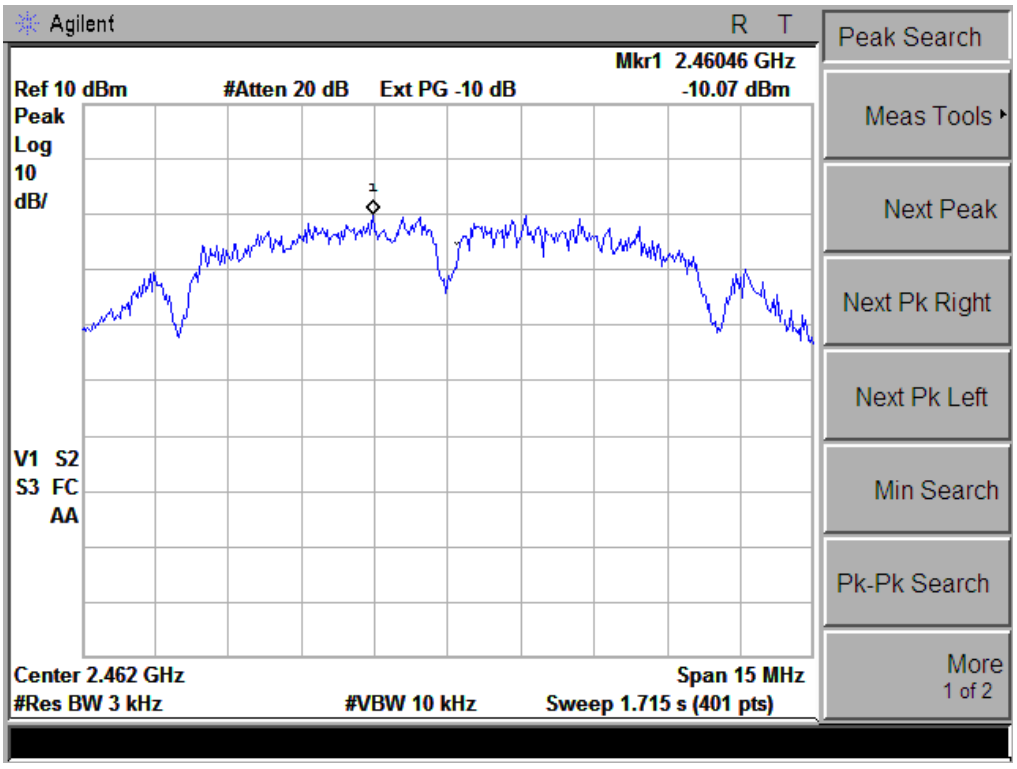
TX CH01



TX CH06



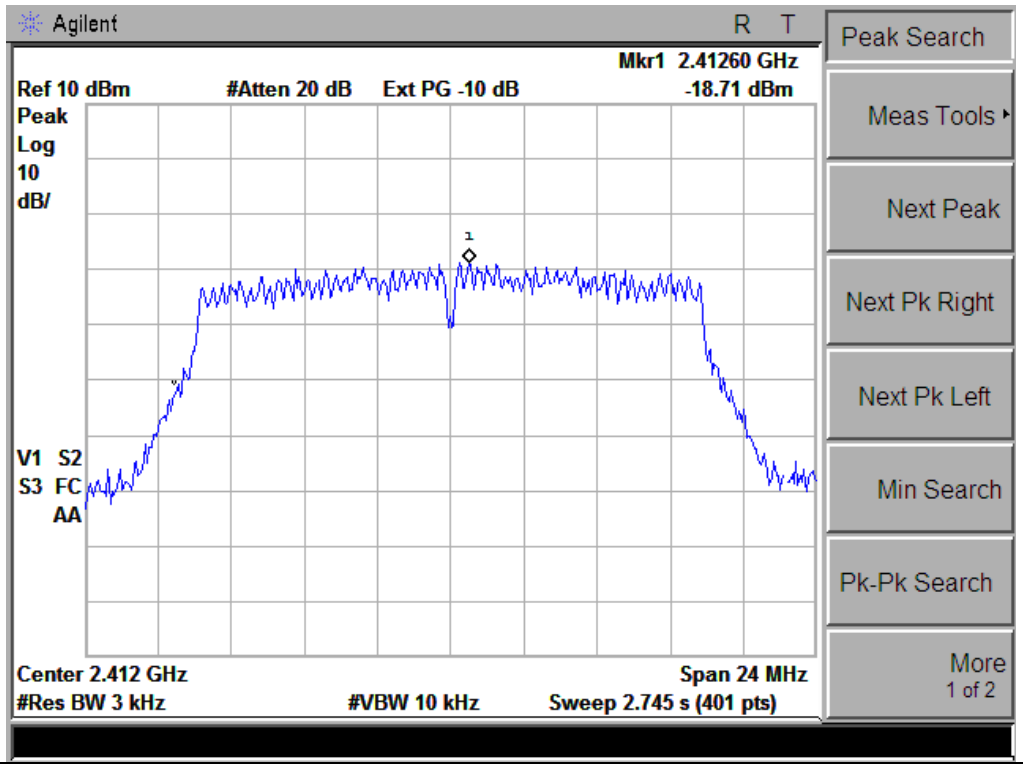
TX CH11



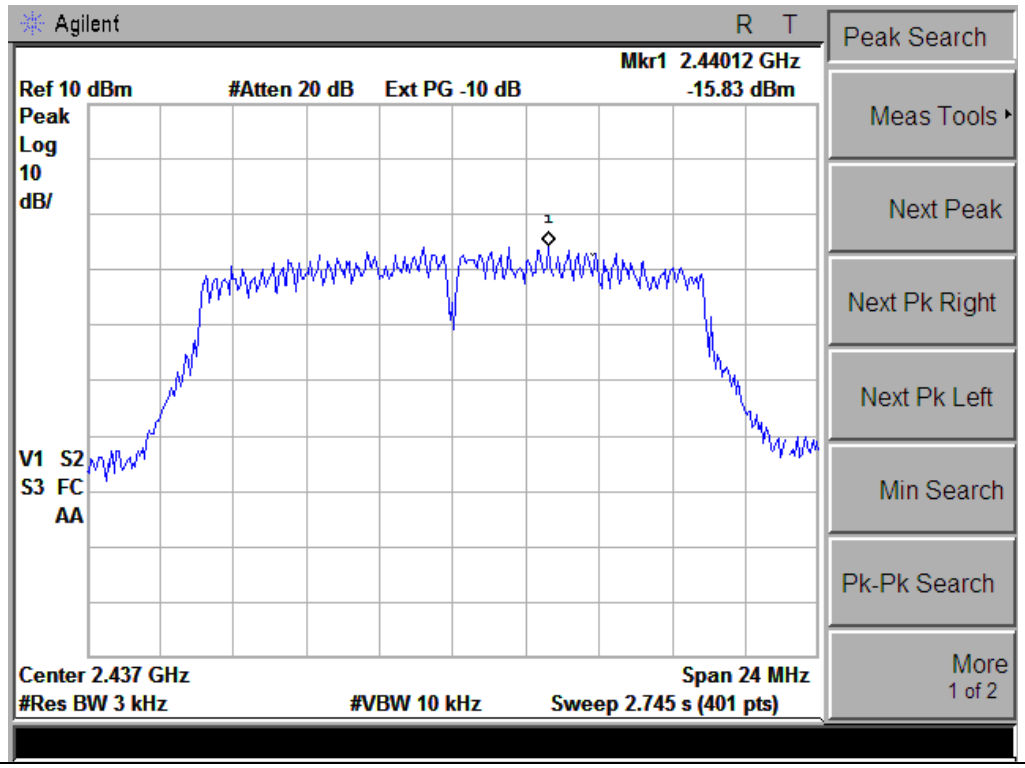
EUT：	smart phone	Model Name ：	L800
Temperature：	25 ℃	Relative Humidity：	56%
Pressure：	1015 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX g Mode /CH01, CH06, CH11		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-18.71	8	PASS
2437 MHz	-15.83	8	PASS
2462 MHz	-14.53	8	PASS

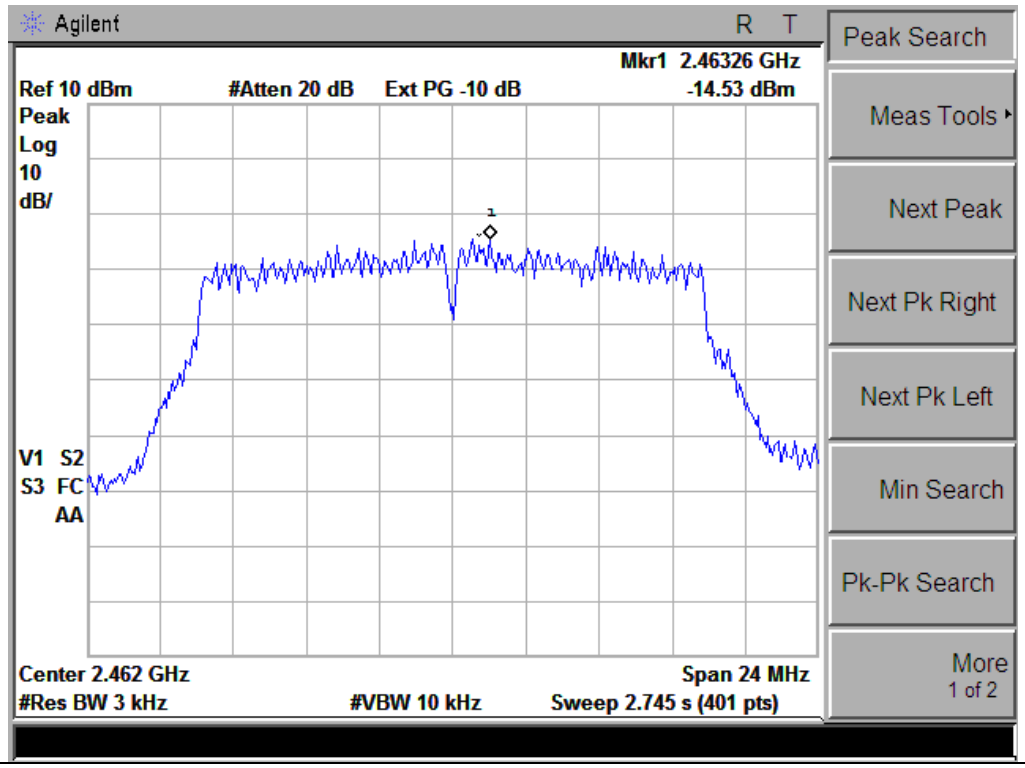
TX CH01



TX CH06



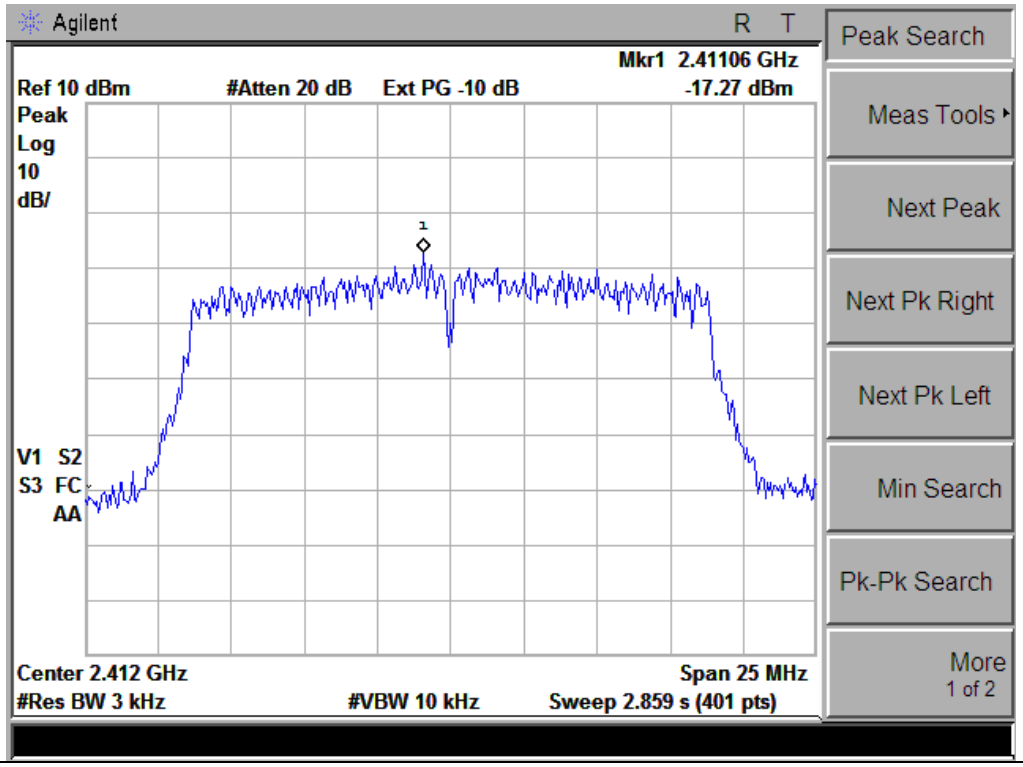
TX CH11



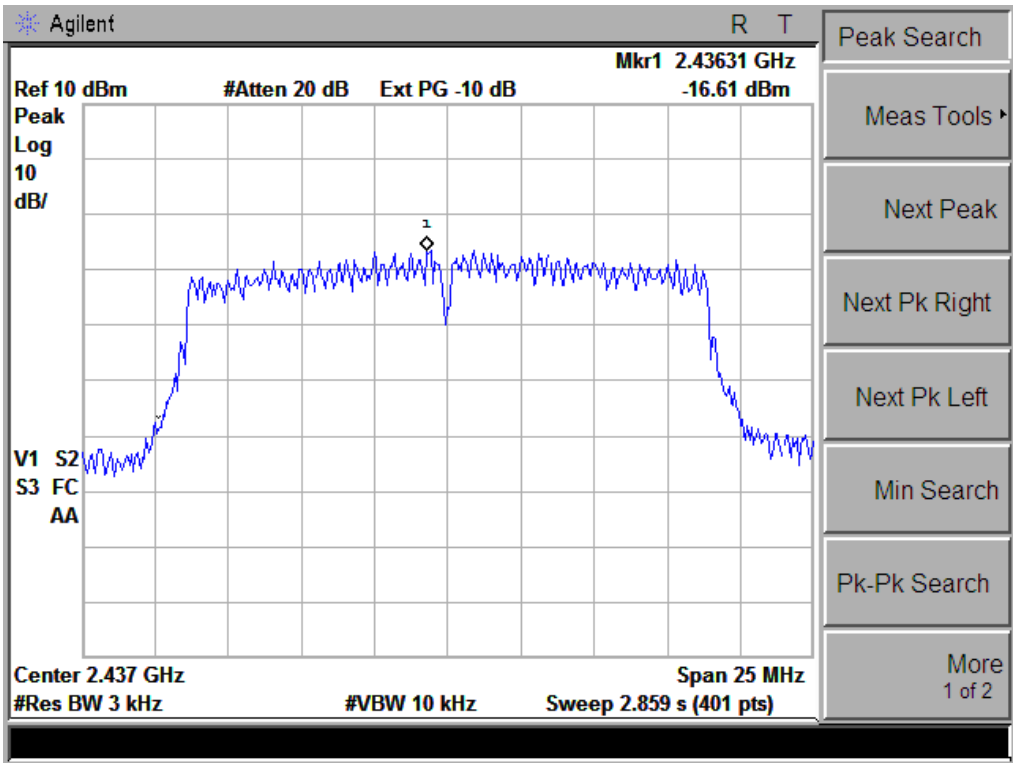
EUT：	smart phone	Model Name ：	L800
Temperature：	25 ℃	Relative Humidity：	56%
Pressure：	1015 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX n Mode(20M) /CH01, CH06, CH11		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-11.89	8	PASS
2437 MHz	-11.16	8	PASS
2462 MHz	-11.62	8	PASS

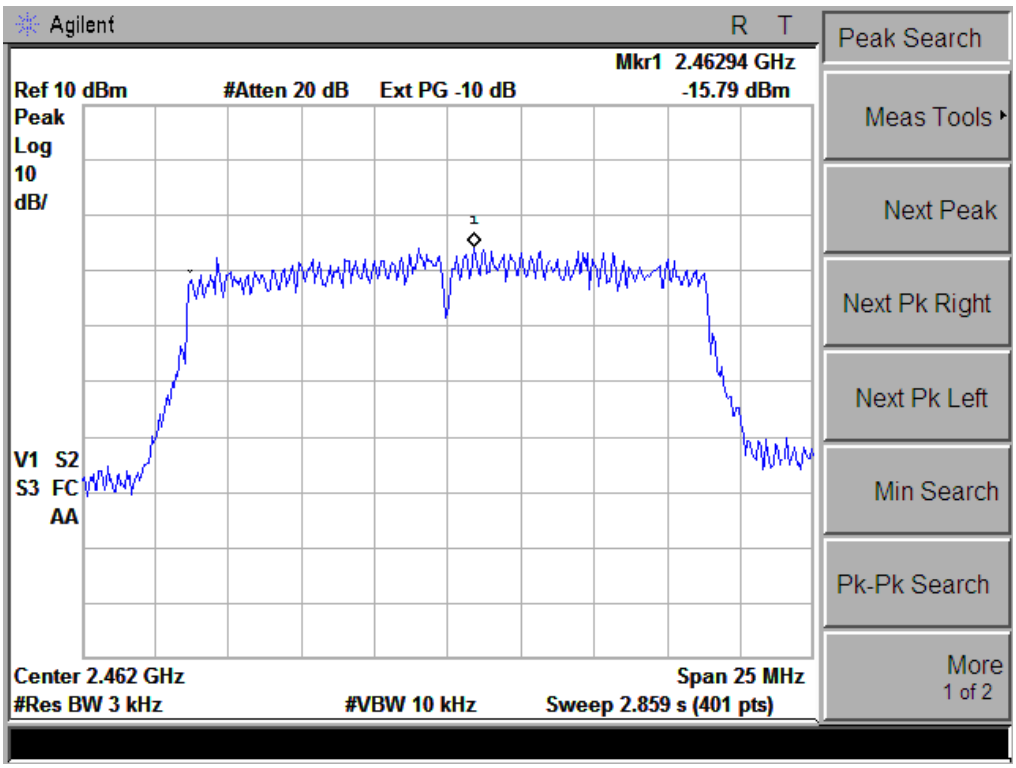
TX CH01



TX CH06



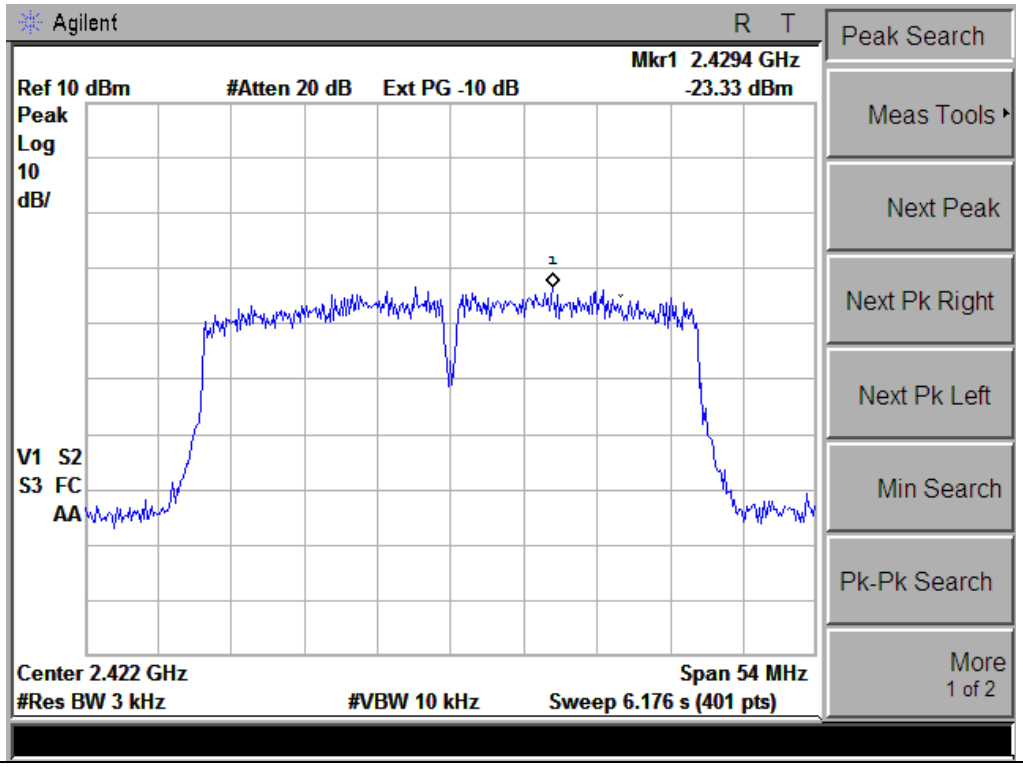
TX CH11



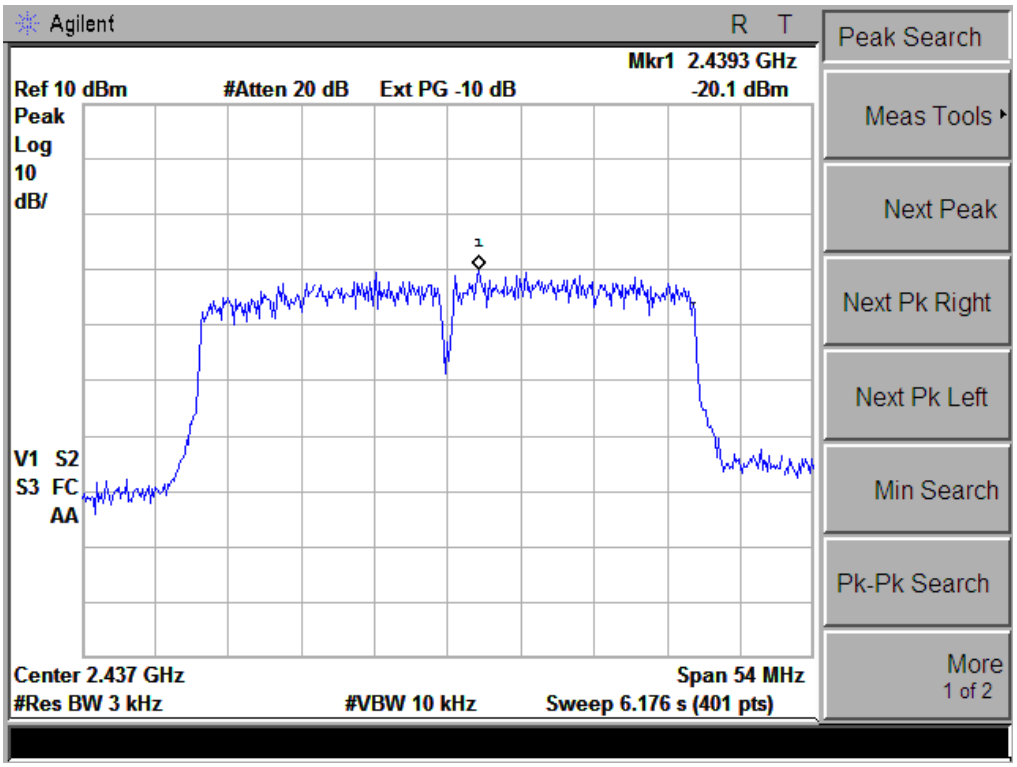
EUT：	smart phone	Model Name ：	L800
Temperature：	25 ℃	Relative Humidity：	56%
Pressure：	1015 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX n Mode(40M) /CH03, CH06, CH09		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2422 MHz	-23.33	8	PASS
2437 MHz	-20.1	8	PASS
2452 MHz	-20.72	8	PASS

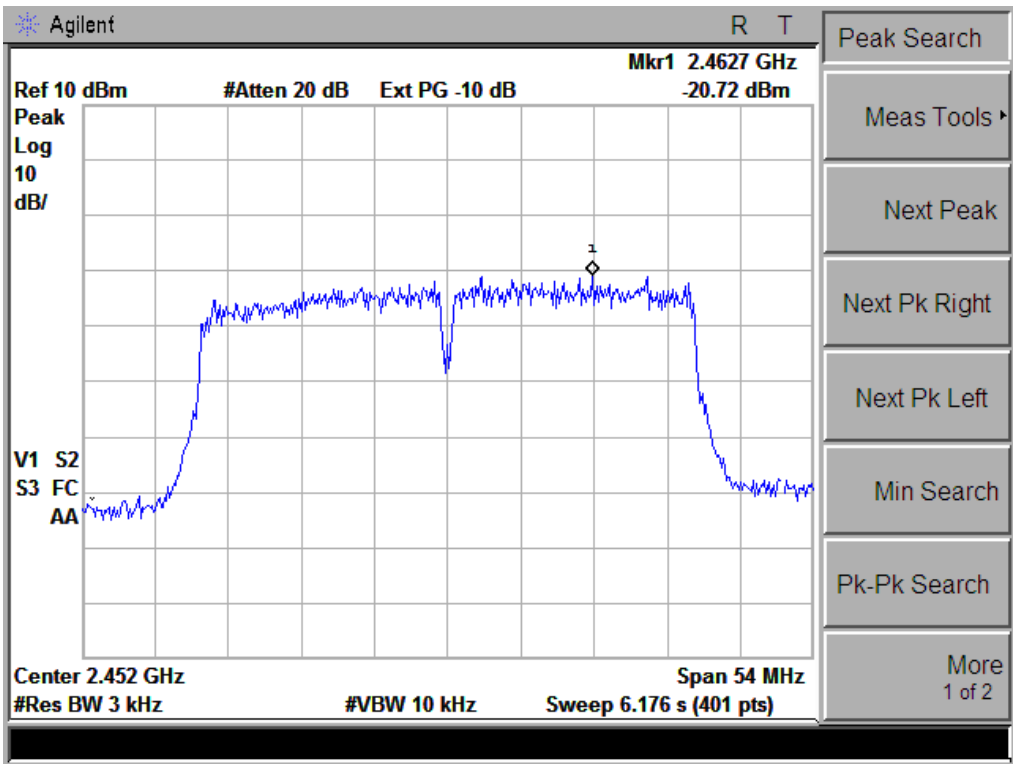
TX CH03



TX CH06



TX CH09



5. BANDWIDTH TEST

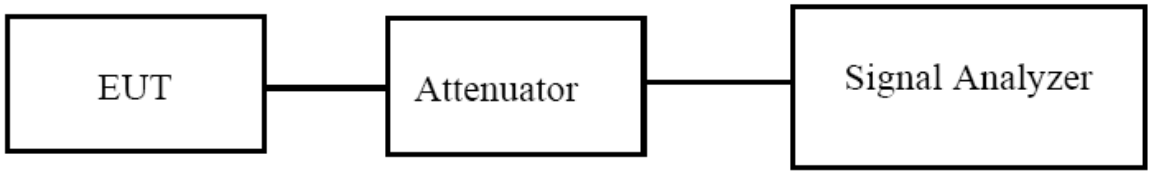
5.1 APPLIED PROCEDURES / LIMIT

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

According to KDB 558074 D01 DTS Meas Guidance v03r01

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 6 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.



5.1.2 EUT OPERATION CONDITIONS

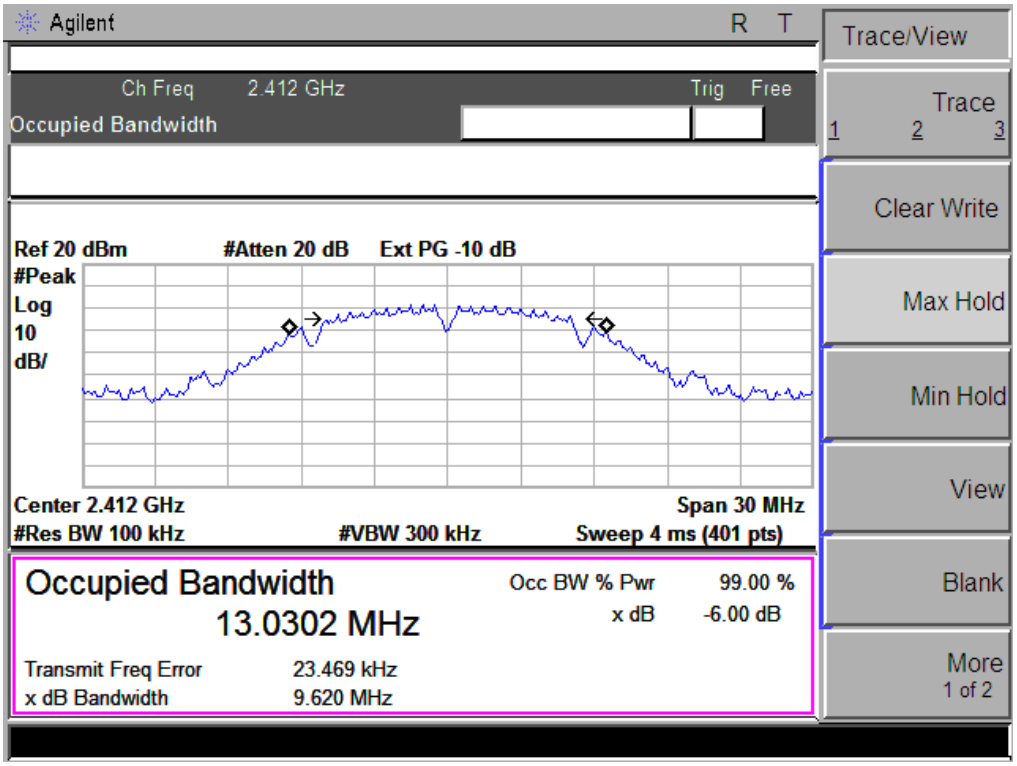
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.3 TEST RESULTS

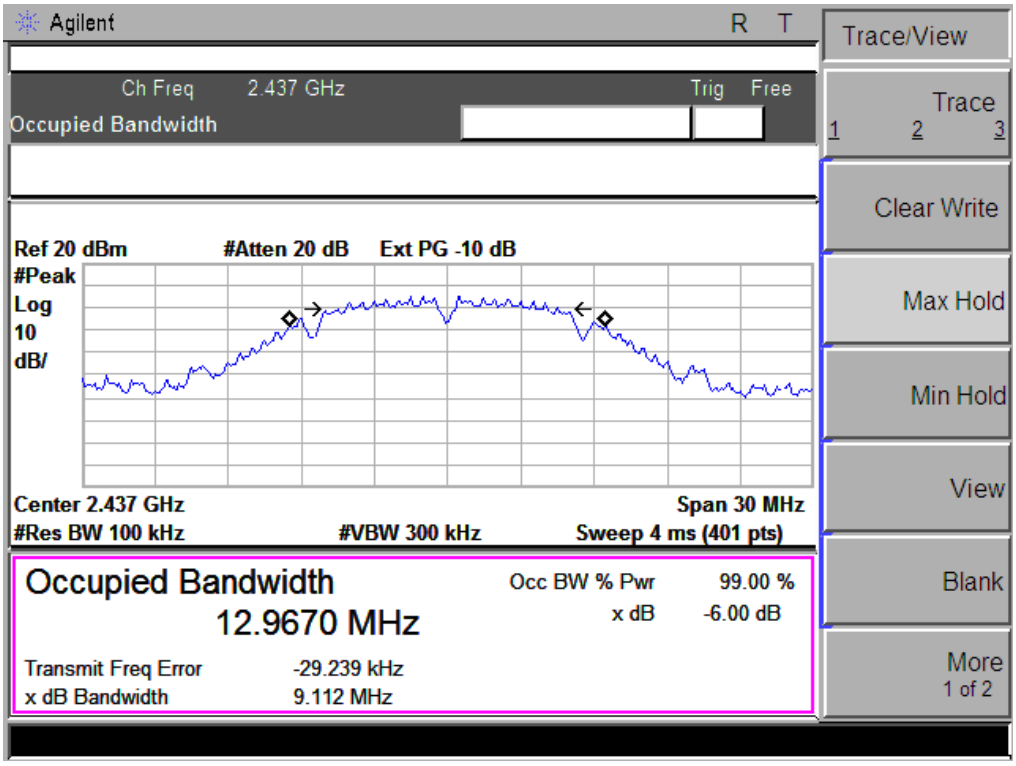
EUT：	smart phone	Model Name ：	L800
Temperature：	25 ℃	Relative Humidity：	56%
Pressure：	1012 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX b Mode /CH01, CH06, CH11		

Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2412	9.207	500	Pass
Middle	2437	9.209	500	Pass
High	2462	9.196	500	Pass

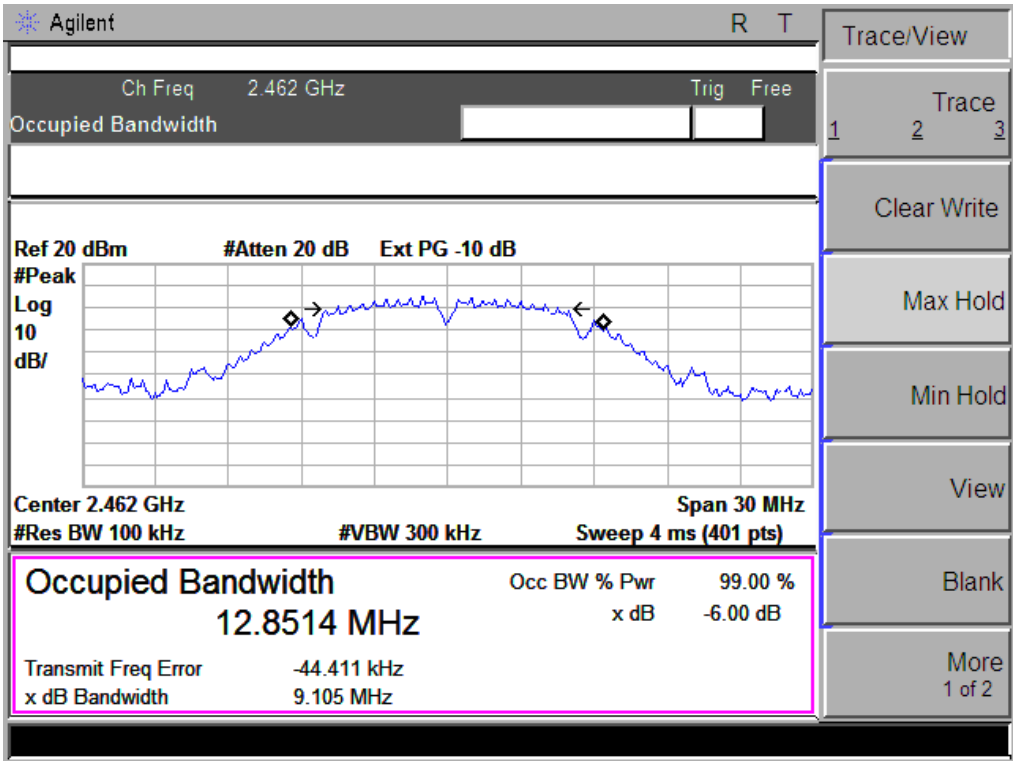
TX CH 01



TX CH 06



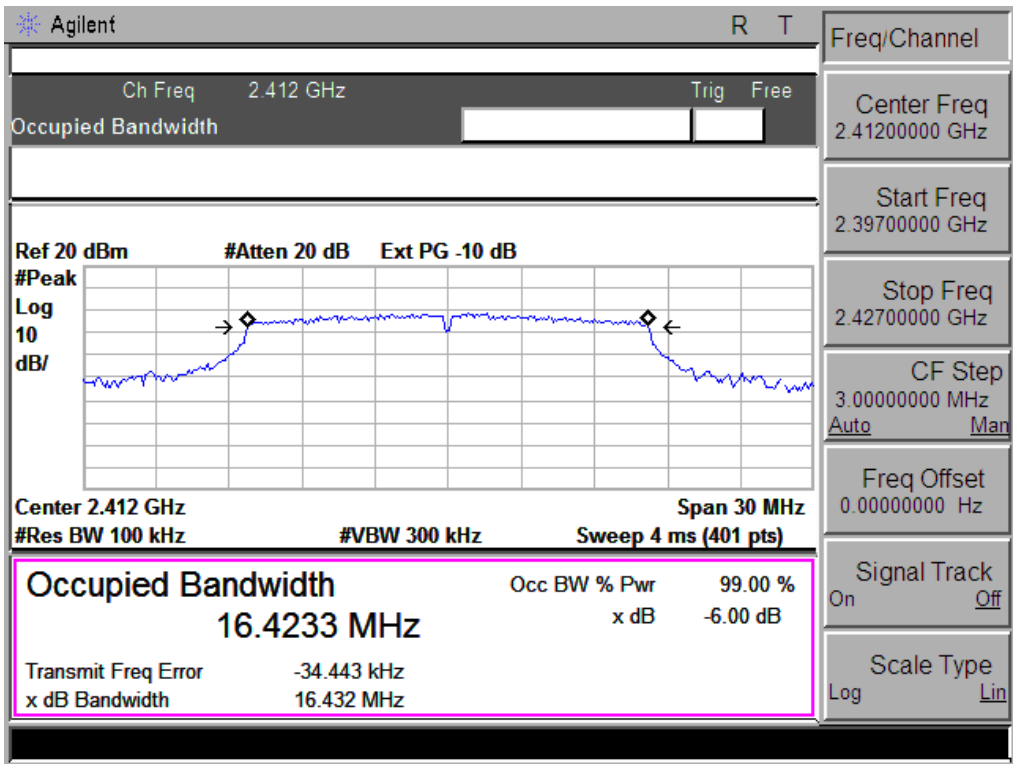
TX CH 11



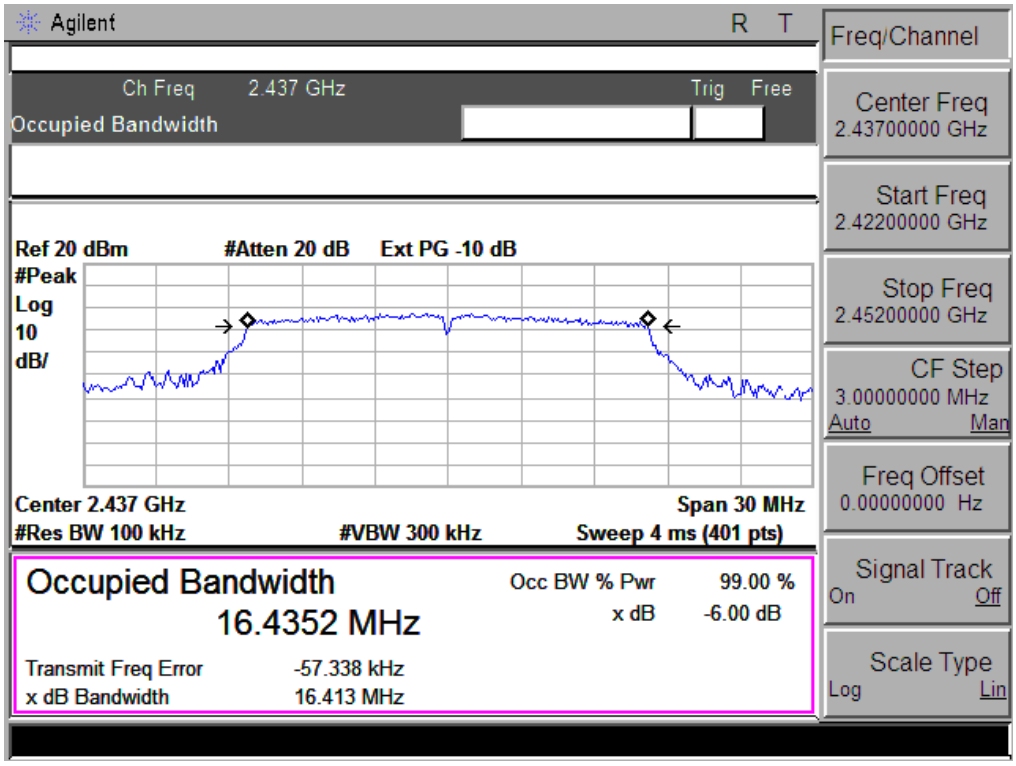
EUT：	smart phone	Model Name ：	L800
Temperature：	25 ℃	Relative Humidity：	60%
Pressure：	1012 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX g Mode /CH01, CH06, CH11		

Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2412	16.432	500	Pass
Middle	2437	16.413	500	Pass
High	2462	16.399	500	Pass

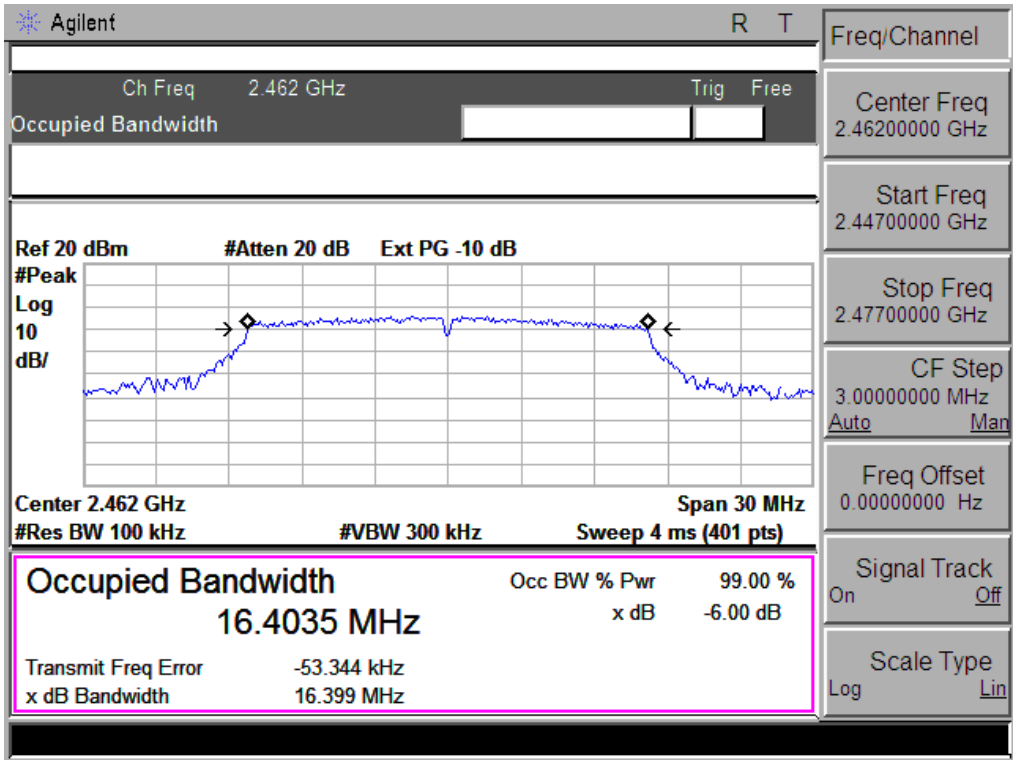
TX CH 01



TX CH 06



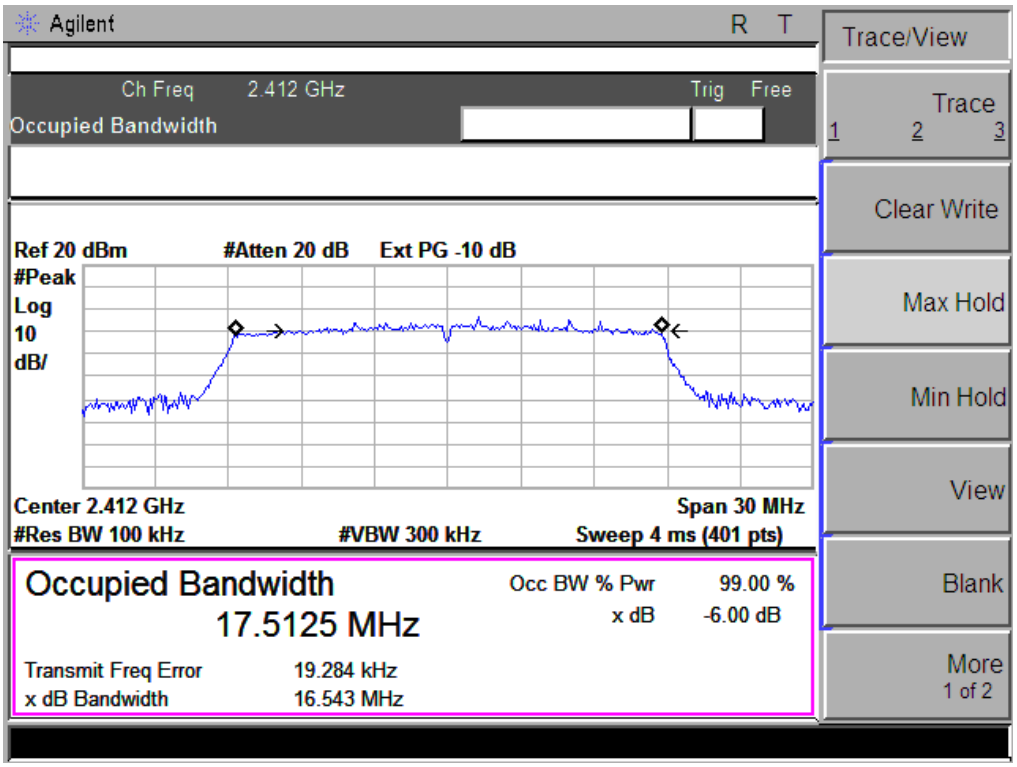
TX CH 11



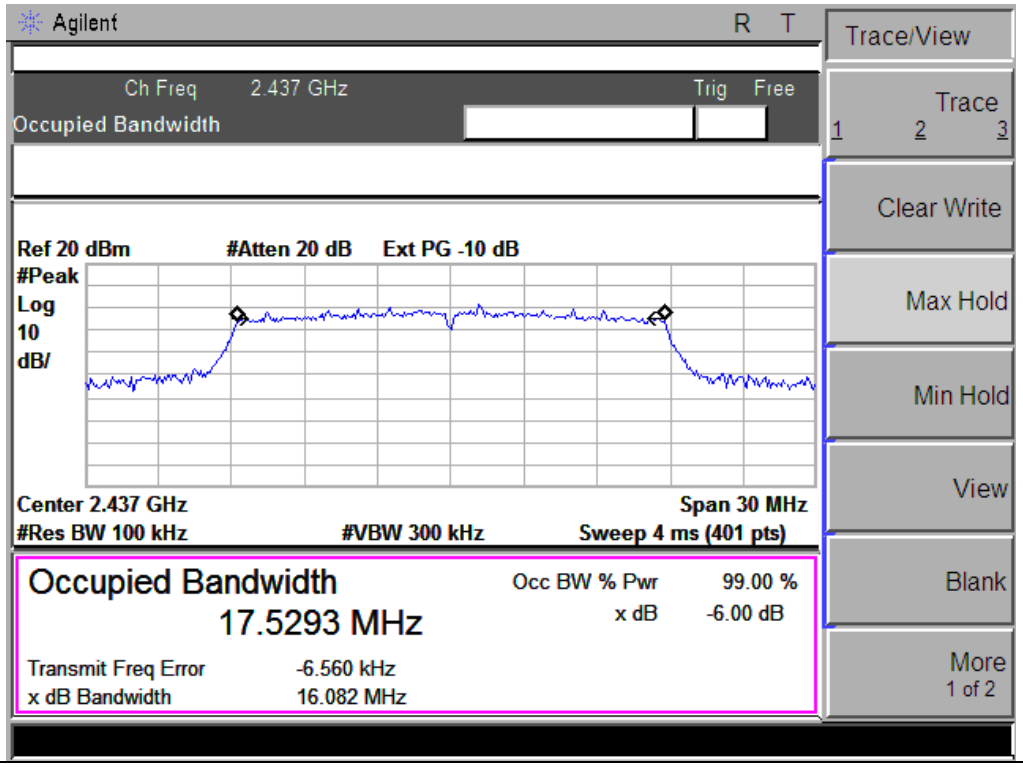
EUT：	smart phone	Model Name ：	L800
Temperature：	25 ℃	Relative Humidity：	56%
Pressure：	1012 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX n Mode(20M) /CH01, CH06, CH11		

Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2412	16.543	500	Pass
Middle	2437	16.082	500	Pass
High	2462	16.316	500	Pass

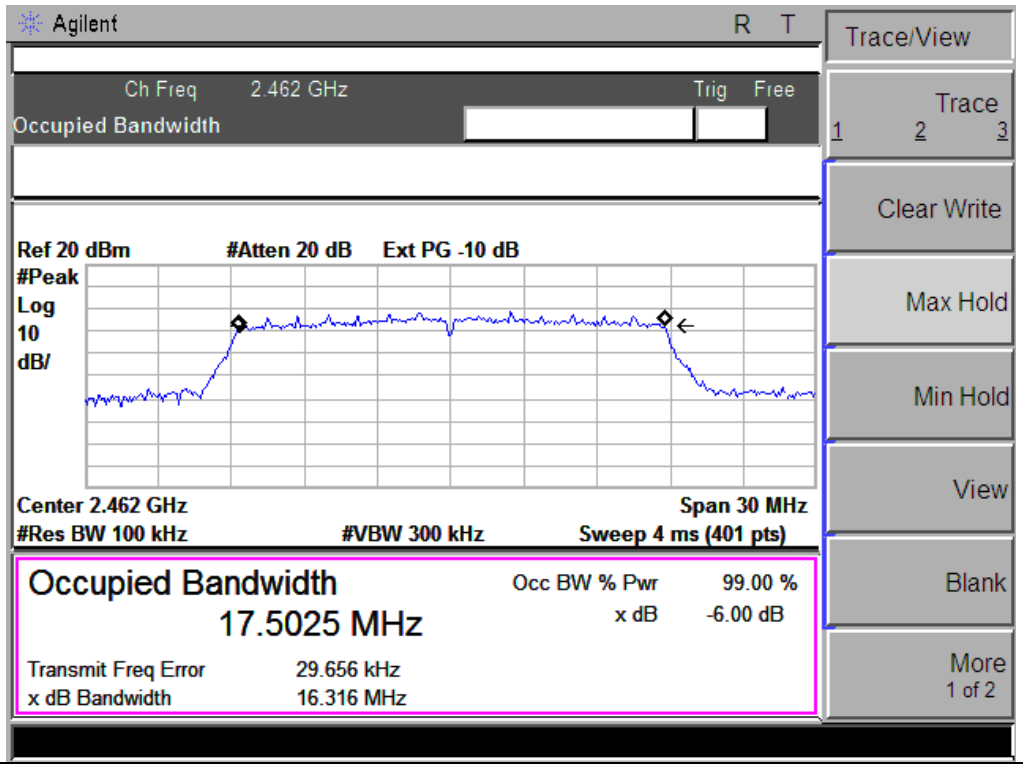
TX CH 01



TX CH 06



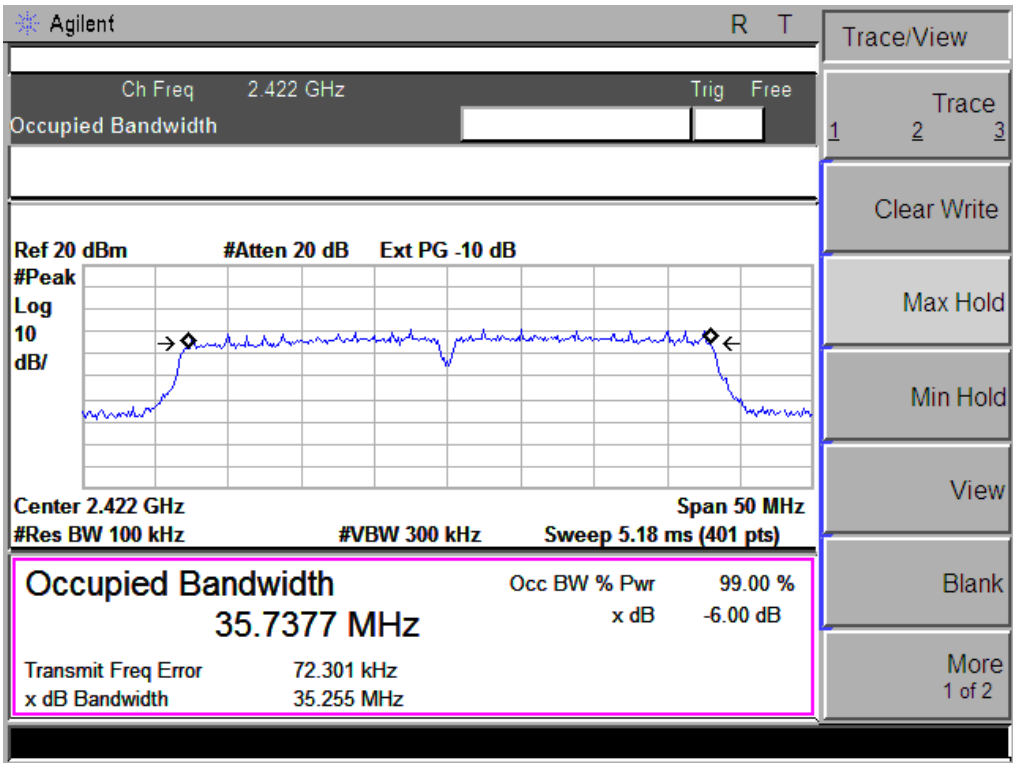
TX CH 11



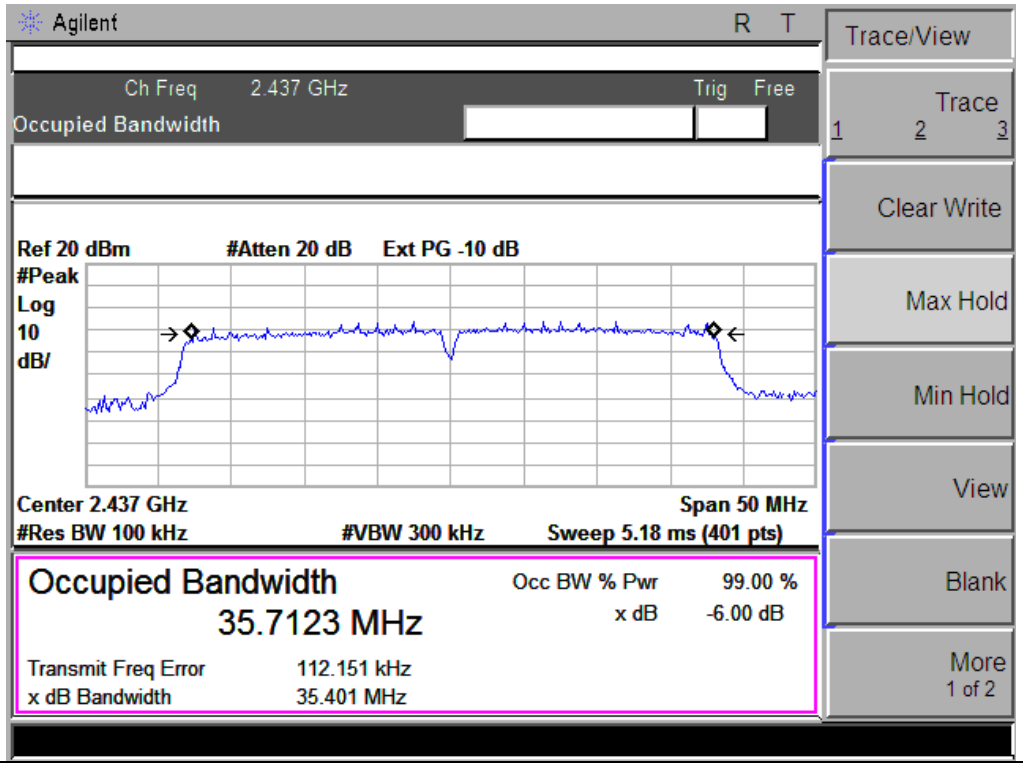
EUT：	smart phone	Model Name ：	L800
Temperature：	25 ℃	Relative Humidity：	56%
Pressure：	1012 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX n Mode(40M) /CH03, CH06, CH09		

Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	2452	35.255	500	Pass
Middle	2437	35.401	500	Pass
High	2452	35.274	500	Pass

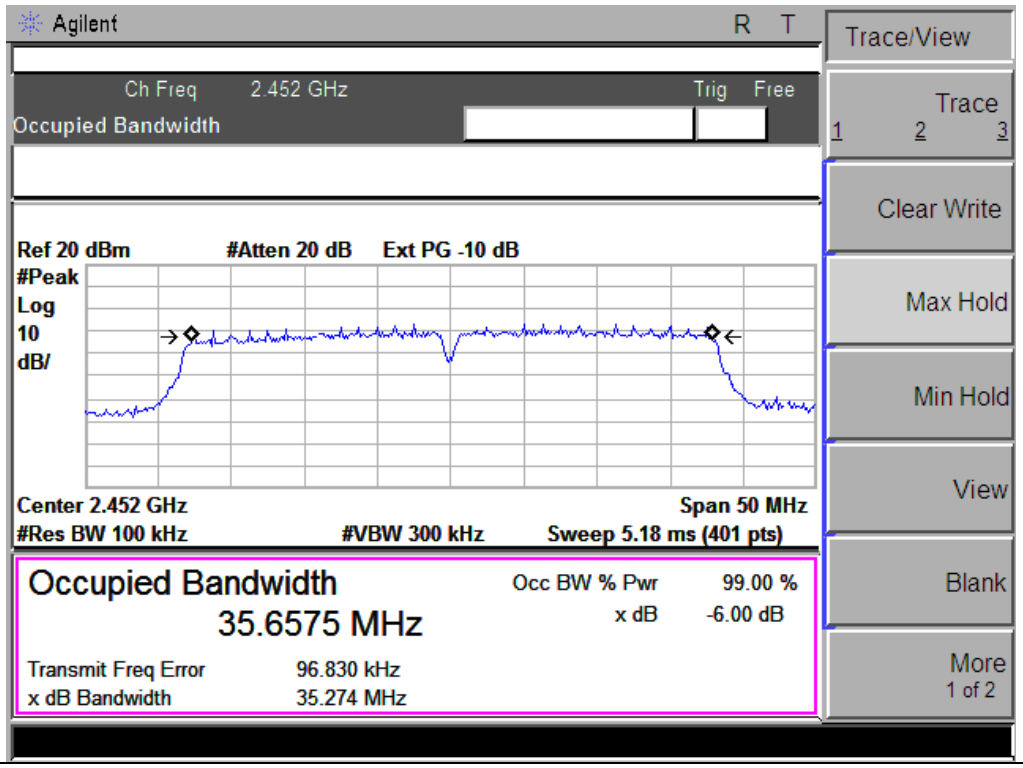
TX CH 03



TX CH 06



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

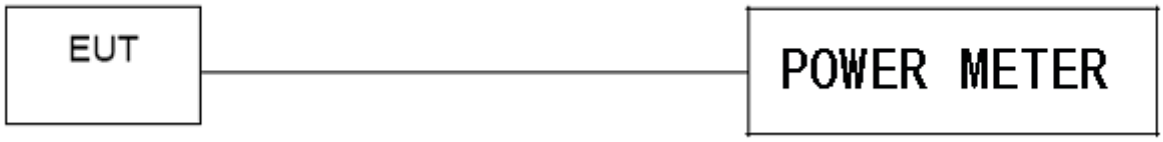
6.1.1 TEST PROCEDURE

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

EUT：	smart phone	Model Name ：	L800
Temperature：	25 ℃	Relative Humidity：	60%
Pressure：	1012 hPa	Test Voltage ：	DC 3.7V
Test Mode ：	TX b/g/n20/n40 Mode		

TX 802.11b Mode				
Test Channe	Frequency	Maximum Conducted Output Power(PK)	Maximum Conducted Output Power(AV)	LIMIT
	(MHz)	(dBm)	(dBm)	(dBm)
CH01	2412	11.87	8.74	30
CH06	2437	11.52	8.67	30
CH11	2462	11.47	8.24	30
TX 802.11g Mode				
CH01	2412	10.74	7.85	30
CH06	2437	10.67	7.65	30
CH11	2462	10.55	7.58	30
TX 802.11n-HT20 Mode				
CH01	2412	10.21	7.74	30
CH06	2437	10.35	7.25	30
CH11	2462	10.74	7.84	30
TX 802.11n-HT40 Mode				
CH03	2422	10.65	5.74	30
CH06	2437	10.35	5.66	30
CH09	2452	10.47	5.69	30

Note： the highest AVG powers for：

802.11b：1Mbps

802.11g：8Mbps

802.11n(20M)：6.5Mbps

802.11 n(40M)：6.5Mbps

Note： the highest PK powers for：

802.11b：5Mbps

802.11g：48Mbps

802.11n(20M)：6.5Mbps

802.11 n(40M)：48Mbps

7. 100 KHZ BANDWIDTH OF FREQUENCY BAND EDGE

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)).

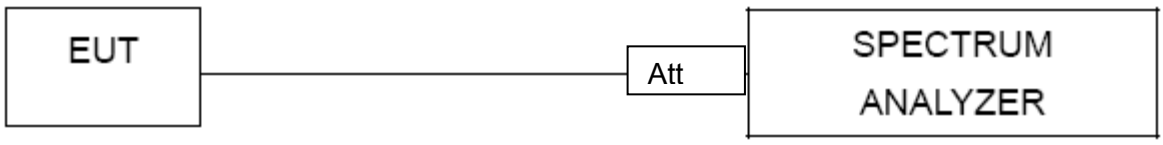
TEST PROCEDURE

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) Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
e) Repeat above procedures until all measured frequencies were complete.

7.1 DEVIATION FROM STANDARD

No deviation.

7.2 TEST SETUP



7.3 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.

7.4 TEST RESULTS

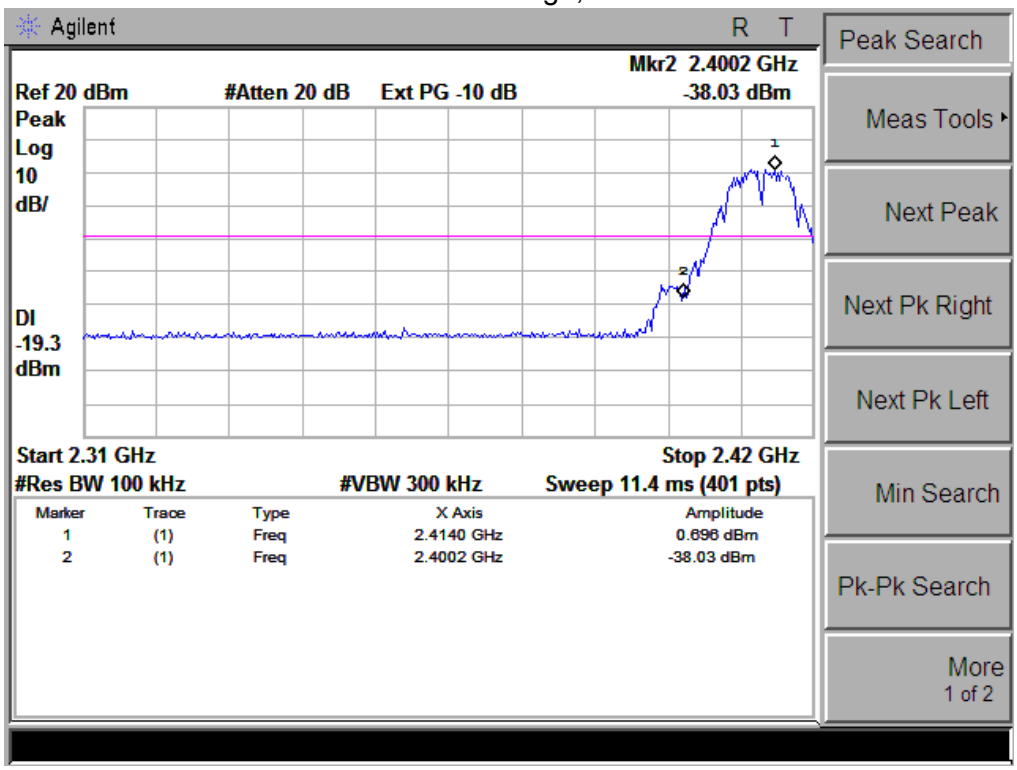
EUT：	smart phone	Model Name ：	L800
Temperature：	25 ℃	Relative Humidity：	56%
Pressure：	1012 hPa	Test Voltage ：	DC 3.7V

Frequency Band	Delta Peak to band emission (dBc)	＞Limit (dBc)	Result
802.11b			
Left-band	38.62	20	Pass
Right-band	48.67	20	Pass
802.11g			
Left-band	30.67	20	Pass
Right-band	41.25	20	Pass
802.11n20			
Left-band	30.22	20	Pass
Right-band	30.25	20	Pass
802.11n40			
Left-band	32.15	20	Pass
Right-band	35.47	20	Pass

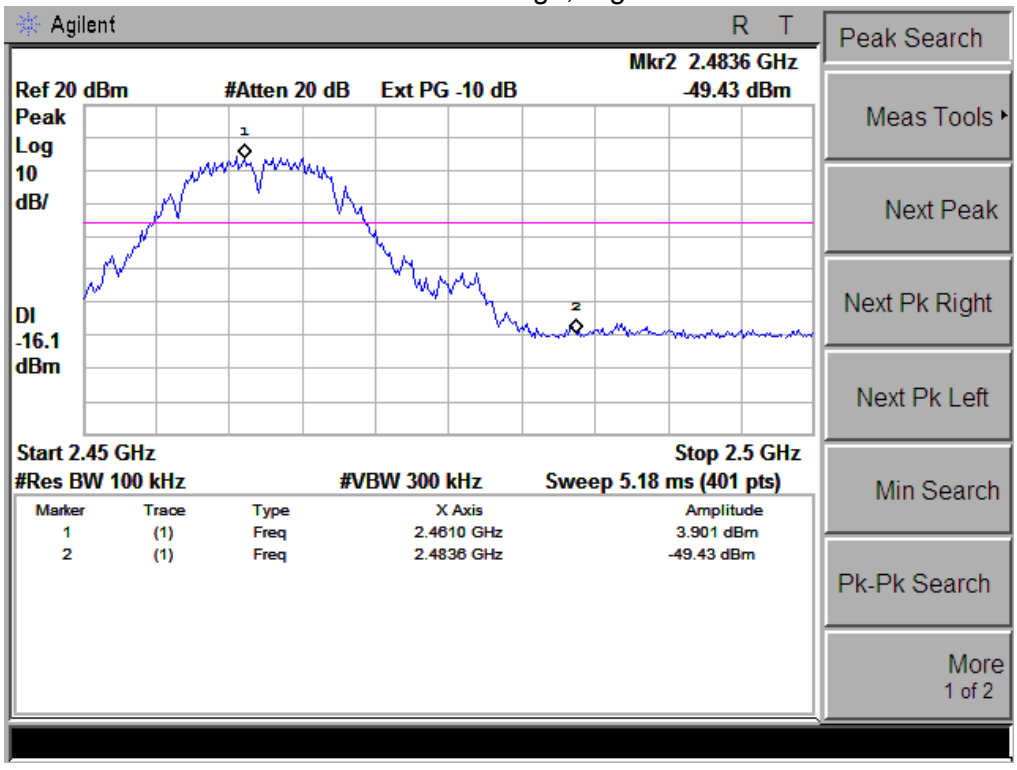
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type	Comment
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		
802.11b							
2390	57.35	-13.06	44.29	54	-9.71	peak	Vertical
2390	56.58	-13.06	43.52	54	-10.48	peak	Horizontal
2483.5	59.514	-12.78	46.734	54	-7.266	peak	Vertical
2483.5	58.57	-12.78	45.79	54	-8.21	peak	Horizontal
802.11g							
2390	58.67	-13.06	45.61	54	-8.39	peak	Vertical
2390	57.62	-13.06	44.56	54	-9.44	peak	Horizontal
2483.5	58.58	-12.78	45.8	54	-8.2	peak	Vertical
2483.5	57.67	-12.78	44.89	54	-9.11	peak	Horizontal
802.11n20							
2390	60.35	-13.06	47.29	54	-6.71	peak	Vertical
2390	59.87	-13.06	46.81	54	-7.19	peak	Horizontal
2483.5	58.69	-12.78	45.91	54	-8.09	peak	Vertical
2483.5	58.57	-12.78	45.79	54	-8.21	peak	Horizontal
802.11n40							
2390	59.12	-13.06	46.06	54	-7.94	peak	Vertical
2390	57.85	-13.06	44.79	54	-9.21	peak	Horizontal
2483.5	58.02	-12.78	45.24	54	-8.76	peak	Vertical
2483.5	59.24	-12.78	46.46	54	-7.54	peak	Horizontal

Note: Test method to see chapter 3.2 . When PK value is lower than the Average value limit, average not record.

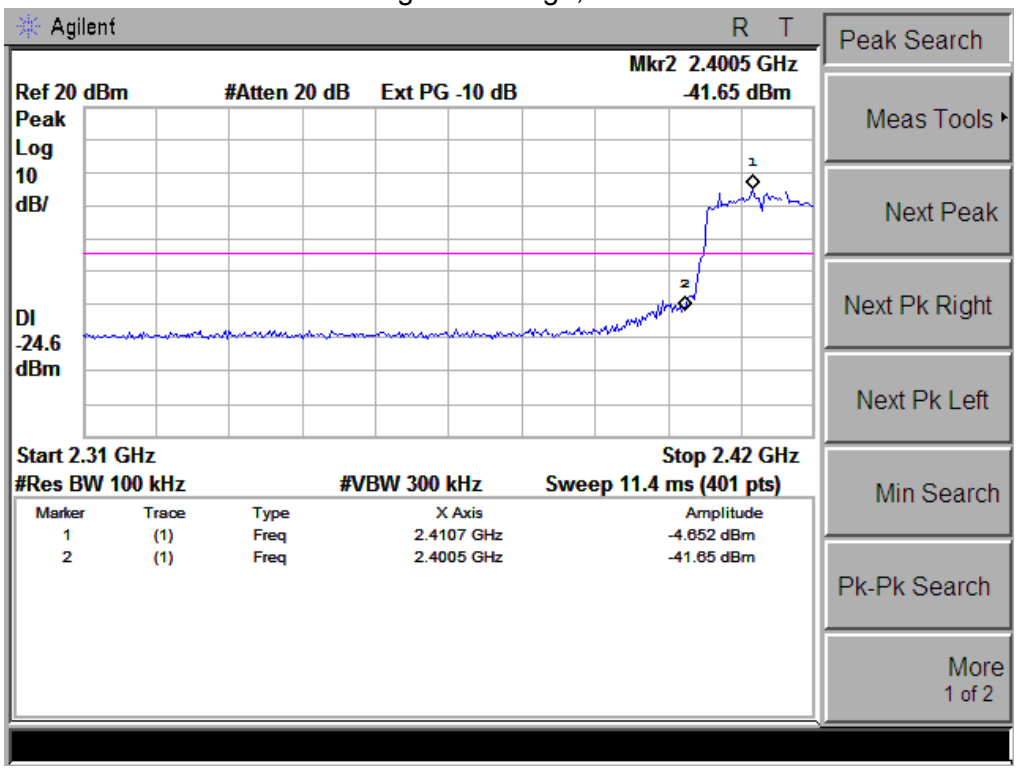
802.11b: Band Edge, Left Side



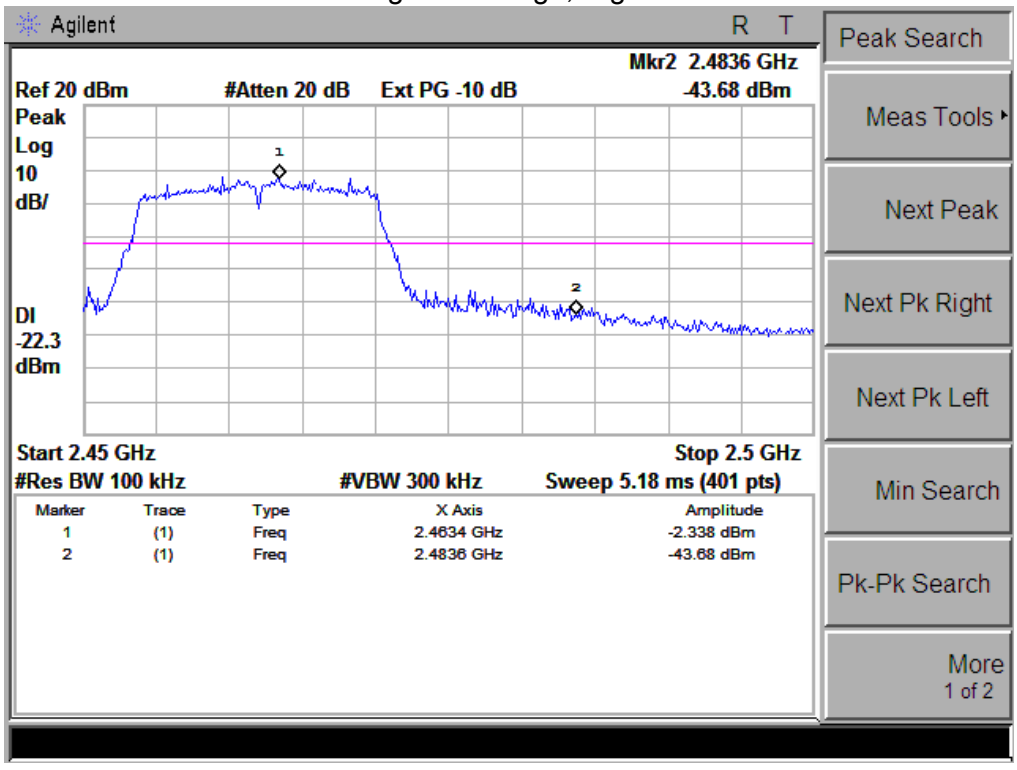
802.11b: Band Edge, Right Side



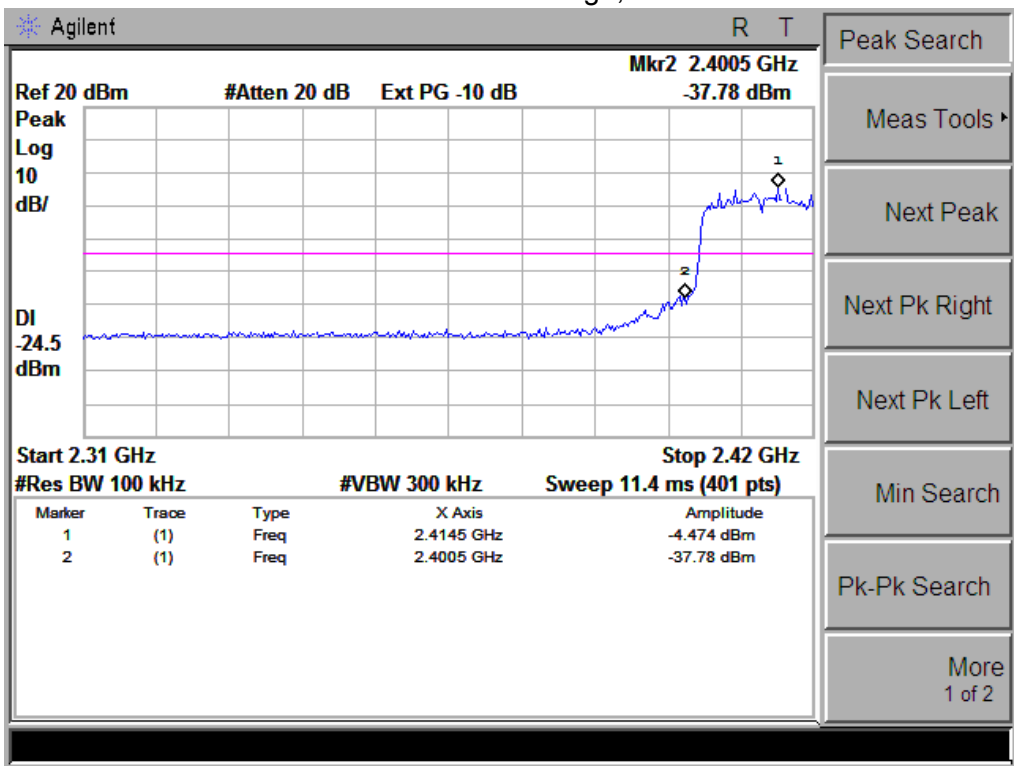
802.11g: Band Edge, Left Side



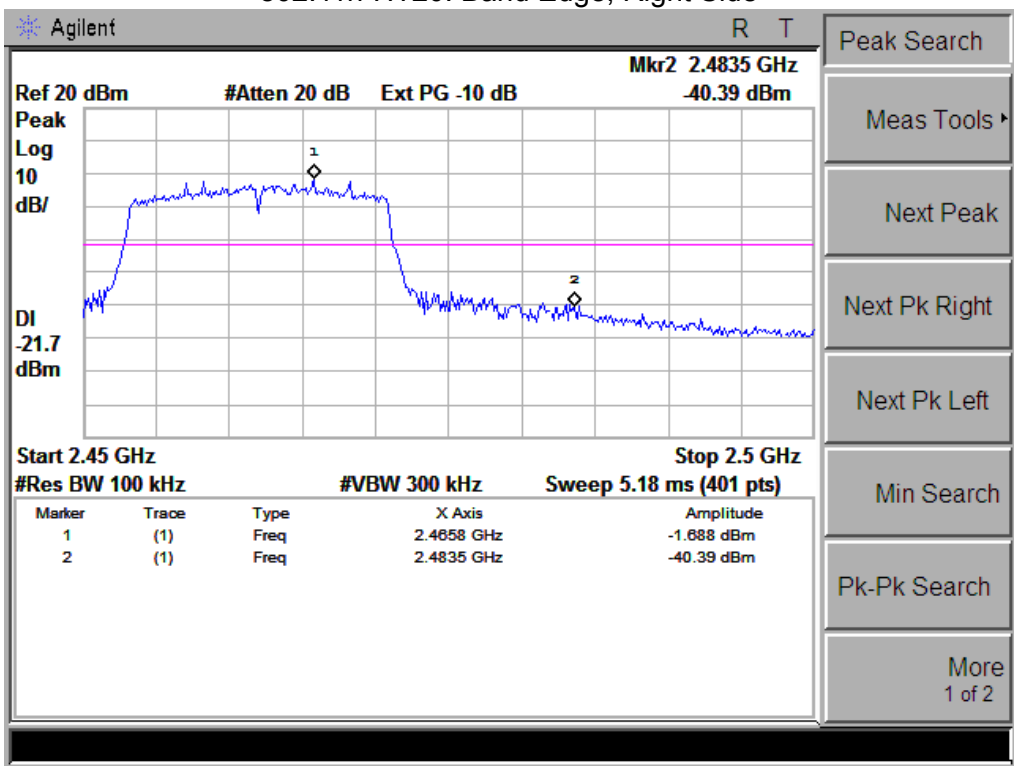
802.11g: Band Edge, Right Side



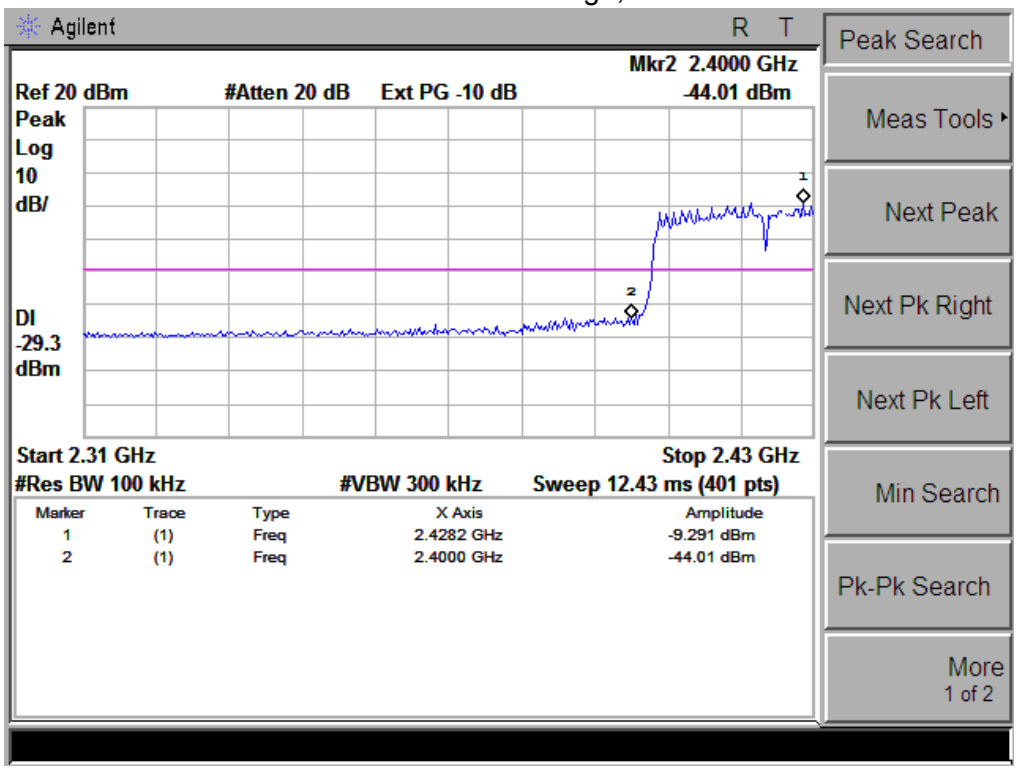
802.11n-HT20: Band Edge, Left Side



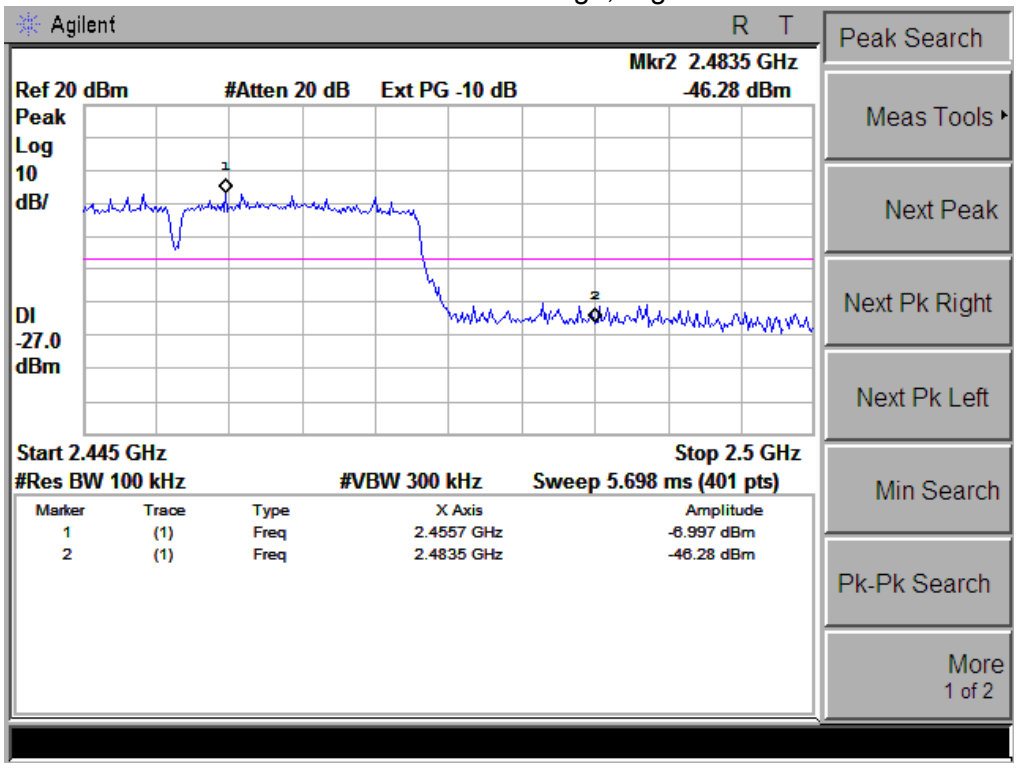
802.11n-HT20: Band Edge, Right Side



802.11n-HT40: Band Edge, Left Side



802.11n-HT40: Band Edge, Right Side



8. ANTENNA REQUIREMENT

8.1 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.

8.2 EUT ANTENNA

The EUT antenna is PIFA Antenna. It comply with the standard requirement.

9. EUT TEST PHOTO

Radiated Measurement Photos

Conducted Measurement Photos