



FCC 47 CFR PART 15 SUBPART C

TEST REPORT

For

Product Name: Desktop Computer

Brand Name: ECS,ELITEGROUP

Model No.: BR95II1

Series Model: BR95IIX (X=0~9,A~Z OR BLANK)

Test Report Number:

KS120105A01-RPB

Issued for

Elitegroup Computer Systems Co.,Ltd.

No.239,Sec.2,Ti Ding Blvd., Taipei, Taiwan

Issued by

Compliance Certification Services Inc.

Kun shan Laboratory

No.10 Weiye Rd., Innovation park, Eco&Tec,
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TESTING CERT #2541.01

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1. TEST RESULT CERTIFICATION

Product Name:	Desktop Computer
Trade Name:	ECS,ELITEGROUP
Model Name.:	BR95II1
Series Model:	BR95IIX (X=0~9,A~Z OR BLANK)
Applicant Discrepancy:	Initial
Device Category:	MOBILE DEVICES
Date of Test:	January 9, 2012
Applicant:	Elitegroup Computer Systems Co.,Ltd. No.239,Sec.2,Ti Ding Blvd., Taipei, Taiwan
Manufacturer:	Elitegroup Computer Systems (SIP) Co.,Ltd. Comprehensive Free Zone A Zone,No.200,Central SuHong Rd. SuZhou Industrial Park, JiangSu, P.R. China
Application Type:	Certification

APPLICABLE STANDARDS

STANDARD	TEST RESULT
FCC 47 CFR Part 15 Subpart C	No non-compliance noted

We hereby certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4: 2003 and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.247.

The test results of this report relate only to the tested sample EUT identified in this report.

Approved by:

Tested by:

Hadiif Hoo
RF Manager
Compliance Certification Service Inc.

Sean Yu
Test Engineer
Compliance Certification Service Inc.



2. EUT DESCRIPTION

Product Name:	Desktop Computer
Brand Name:	ECS,ELITEGROUP
Model Name:	BR95II1
Series Model:	BR95IIX (X=0~9,A~Z OR BLANK)
Model Discrepancy:	their differential sales regions, X to represent the only difference of them is the appearance.
Frequency Range:	WIFI b/g Mode:2412 ~ 2462 MHz a Mode:5745 ~ 5805 MHz gn(-20MHz): 2412 ~ 2462 MHz gn(-40MHz): 2422 ~ 2452 MHz an(-20MHz):5745 ~ 5805 MHz an(-40MHz):5755~ 5795 MHz Bluetooth:2402 ~ 2480 MHz
Transmit Power:	IEEE 802.11b mode: 16.22dBm (41.88mW) IEEE 802.11g mode: 14.54dBm (28.44mW) draft 802.11gn Standard-20 MHz Channel mode: 18.07 dBm (64.12mW) draft 802.11gn Wide-40 MHz Channel mode: 16.85 dBm (48.42mW) IEEE 802.11a mode: 14.82dBm (30.34 mW) draft 802.11an Standard-20 MHz Channel mode:17.28 dBm(53.46mW) draft 802.11an Wide-40 MHz Channel mode: 16.54 dBm (45.08mW) (the EUT transmitting and receiving with two antennas simultaneously working at n mode)
Modulation Technique:	IEEE 802.11b mode: DSSS (1, 2, 5.5 and 11 Mbps) IEEE 802.11g mode: DSSS /OFDM (6, 9, 12, 18, 24, 36, 48 and 54 Mbps) IEEE 802.11a mode: OFDM (6, 9, 12, 18, 24, 36, 48 and 54 Mbps) draft 802.11n Standard-20 MHz Channel mode: OFDM (MCS 0~15) draft 802.11n Wide-40 MHz Channel mode: OFDM (MCS 0~15)
Number of Channels:	IEEE 802.11b/g mode: 11 Channels IEEE 802.11a mode: 4 Channels draft 802.11n Standard-20 MHz Channel mode: 11 Channels draft 802.11n Wide-40 MHz Channel mode: 7 Channels
Antenna Specification:	PIFA antennas for 2.4GHz Gain 2.34 dBi and 2.89 dBi /Total gain 5.63 dBi and PIFA antennas for 5 GHz Gain 1.63 dBi and -0.78dBi /Total gain 3.6 dBi

Remark:

1. The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.
2. This submittal(s) (test report) is intended for **FCC ID: WL6-BR95IIX6230** filing to comply with Section 15.207, 15.209 and 15.247 of the FCC Part 15, Subpart C Rules.



3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4 2003 and FCC CFR 47 15.207, 15.209 and 15.247.

3.1.EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

3.2.EUT EXERCISE

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.247 under the FCC Rules Part 15 Subpart C.

3.3.GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4 2003 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4 2003.



3.4.FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

- (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)
13.36 - 13.41			

¹ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

² Above 38.6

- (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.



3.5.DESCRPTION OF TEST MODES

The EUT transmitting and receiving with one (chain 0) antenna working at a/b/g mode, so one antenna working configuration was used for a/b/g mode testing in this report.

The EUT transmitting and receiving with two antennas simultaneously working at n mode, so 2x2 configuration was used for all testing in this report.

The worst-case data rates are determined to be as follows for each mode based on investigation by measuring the average power, peak power and PPSP across all data rates, bandwidths, and modulations.

The worst-case data rates:

IEEE802.11b mode:

Channel Low (2412MHz)

Channel Mid (2437MHz)

Channel High (2462MHz) with 1Mbps data rate were chosen for full testing.

IEEE802.11g mode:

Channel Low (2412MHz)

Channel Mid (2437MHz)

Channel High (2462MHz) with 6Mbps data rate were chosen for full testing.

IEEE802.11a:

Channel low(5745MHz),

Channel middle(5785MHz)

Channel high(5805MHz)

with preliminary test 54/48/36/24/18/12/9/6 Mbps, After the preliminary scan , the following test mode 6Mbps data rate (the worst case) are chosen for the final testing.

Draft 802.11gn Standard-20 MHz Channel mode:

Channel Low (2412MHz)

Channel Mid (2437MHz)

Channel High (2462MHz) with MCS8 data rate were chosen for full testing.

Draft 802.11gn Wide-40 MHz Channel mode:

Channel Low (2422MHz)

Channel Mid (2437MHz)

Channel High (2452MHz) with MCS8 data rate were chosen for full testing.

Draft 802.11an Wide-20 MHz Channel mode:

Channel low(5745MHz),

Channel middle(5785MHz)

Channel high(5805MHz) with MCS8 data rate were chosen for full testing.

Draft 802.11an Wide-40 MHz Channel mode:

Channel Low (5755MHz),

Channel High (5795MHz) with MCS8 data rate were chosen for full testing.



4. INSTRUMENT CALIBRATION

4.1.MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

Equipment Used for Emissions Measurement

Conducted Emissions Test Site				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY44020154	2012-5-13
DETECTOR NEGATIVE	Agilent	8473B	MY42240176	2012-5-13
OSCILLOSCOPE	Agilent	DSO6104A	MY44002585	2012-3-25
Peak and Avg Power Sensor	Agilent	E9327A	US40441788	2012-3-25
EPM-P Series Power Meter	Agilent	E4416A	GB41292714	2012-5-13
Power SPLITTER	Mini-Circuits	ZN2PD-9G	SF078500430	2012-5-13
DC POWER SUPPLY	GW instek	GPS-3303C	E903131	2012-5-13
Temp. / Humidity Chamber	Kingson	THS-M1	242	2012-3-13
Test Software	EZ-EMC			

977 Chamber				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY44020154	2012-5-13
EMI Test Receiver	R&S	ESPI3	101026	2012-3-16
Pre-Amplifier	MINI	ZFL-1000VH2	d041703	2012-5-13
Pre-Amplifier	Miteq	NSP4000-NF	870629	2012-5-13
Bilog Antenna	Sunol	JB1	A110204-2	2012-5-13
Horn-antenna	SCHWARZBECK	BBHA9120D	D:266	2012-6-8
Turn Table	CT	CT123	4165	N.C.R
Antenna Tower	CT	CTERG23	3256	N.C.R
Controller	CT	CT100	95637	N.C.R
Test Software	EZ-EMC			



Conducted Emission				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
EMI TEST RECEIVER	R&S	ESCI3	100781	2012-3-16
V (V-LISN)	Schwarzbeck	NNLK 8129	8129-143	2012-3-16
LISN (EUT)	FCC	FCC-LISN-50/250-50-2-02	SN:05012	2012-3-16
TRANSIENT LIMITER	SCHAFFNER	CFL9206	1710	2012-4-9
Test Software	EZ-EMC			

Remark: The measurement uncertainty is less than +/- 2.81dB, which is evaluated as per the NAMAS NIS 81 and CISPR/A/291/CDV.

Expanded Uncertainty (95% CONFIDENCE INTERVAL): K=2



5. FACILITIES AND ACCREDITATIONS

5.1.FACILITIES

All measurement facilities used to collect the measurement data are located at CCS China Kunshan Lab at 10#Weiye Rd, Innovation Park Eco. & Tec. Development Zone

Kunshan city JiangSu, (215300), CHINA.

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 2003 and CISPR Publication 22.

5.2.EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.



All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

5.3.LABORATORY ACCREDITATIONS AND LISTING

The test facilities used to perform radiated and conducted emissions tests are accredited by American Association for Laboratory Accreditation Program for the specific scope accreditation under Lab Code: 200581-0 to perform Electromagnetic Interference tests according to FCC Part 15 and CISPR 22 requirements. In addition, the test facilities are listed with Industry Canada, Certification and Engineering Bureau, IC5743 for 10m chamber 10m, IC5743 for 10m chamber 3m.



5.4.TABLE OF ACCREDITATIONS AND LISTINGS

Country	Agency	Scope of Accreditation	Logo
USA	A2LA	47 CFR FCC Part 15/18 (using ANSI C63.4 :2003); VCCI V3; CNS 13438; CNS 13439; CNS 13803; CISPR 11; EN 55011; CISPR 13; EN 55013; CISPR 22:2005; CISPR 22:1997 +A1 :2000+A2 :2002; EN 55022:2006; EN55022 :1998 +A1 :2001+A2 :2003; EN 61000-6-3 (excluding discontinuous interference); EN 61000-6-4; AS/NZS CISPR 22; CAN/CSA-CEI/IEC CISPR 22; EN 61000-3-2; EN 61000-3-3; EN550024; EN 61000-4-2; EN 61000-4-3; EN61000-4-4; EN 61000-4-5; EN 61000-4-6; IEC 61000-4-8; EN 61000-4-11; IEC61000-3-2; IEC61000-3-3; IEC 61000-4-2; IEC 61000-4-3; IEC 61000-4-4; IEC 61000-4-5; IEC 61000-4-6; IEC 61000-4-8; IEC 61000-4-11; EN 300 220-3; EN 300 328; EN 300 330-2; EN 300 440-1; EN 300-440-2; EN 300 893; EN 301 489-01; EN 301 489-3; EN 301 489-07; EN 301 489-17; 47 CFR FCC Part 15, 22, 24	 TESTING CERT #2541.01
USA	FCC	3/10 meter Sites to perform FCC Part 15/18 measurements	 93105, 90471
Japan	VCCI	3/10 meter Sites and conducted test sites to perform radiated/conducted measurements	VCCI R-1600 C-1707 G-216

* No part of this report may be used to claim or imply product endorsement by A2LA or any agency of the US Government.



6. SETUP OF EQUIPMENT UNDER TEST

6.1.SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

6.2.SUPPORT EQUIPMENT

No.	Device Type	Brand	Model	Series No.	FCC ID
1.					

Remark:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.



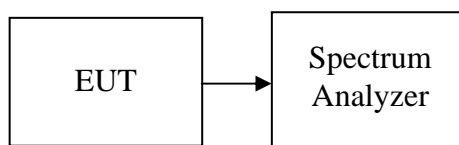
7. FCC PART 15.247 REQUIREMENTS

7.1.6DB BANDWIDTH

LIMIT

According to §15.247(a)(2), systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz bands. The minimum 6dB bandwidth shall be at least 500 kHz.

Test Configuration



TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the selected span. The VBW is set to 3 times the RBW. The sweep time is occupied.

TEST RESULTS

No non-compliance noted

Test Data

IEEE 802.11b mode

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	2412	10.199	>500	PASS
Mid	2437	10.129		PASS
High	2462	10.165		PASS

IEEE 802.11g mode

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	2412	14.008	>500	PASS
Mid	2437	15.105		PASS
High	2462	15.225		PASS

TRANSMIT CHAIN 0

Draft 802.11gn Standard-20 MHz Channel mode

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	2412	15.170	>500	PASS
Mid	2437	15.188		PASS
High	2462	15.236		PASS

Draft 802.11gn Wide-40 MHz Channel mode

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	2422	35.176	>500	PASS
Mid	2437	35.153		PASS
High	2452	35.199		PASS



TRANSMIT CHAIN 1

draft 802.11gn Standard-20 MHz Channel mode

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	2412	15.239	>500	PASS
Mid	2437	15.154		PASS
High	2462	15.175		PASS

Draft 802.11gn Wide-40 MHz Channel mode

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	2422	35.162	>500	PASS
Mid	2437	35.185		PASS
High	2452	35.216		PASS

IEEE 802.11a mode

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	5745	16.413	>500	PASS
Mid	5785	16.419		PASS
High	5805	16.438		PASS

TRANSMIT CHAIN 0

draft 802.11an Standard-20 MHz Channel mode

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	5745	16.419	>500	PASS
Mid	5785	16.423		PASS
High	5805	16.413		PASS

**Draft 802.11an Wide-40 MHz Channel mode**

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	5755	35.149	>500	PASS
High	5795	35.256		PASS

TRANSMIT CHAIN 1**Draft 802.11an Standard-20 MHz Channel mode**

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	5745	16.432	>500	PASS
Mid	5785	16.425		PASS
High	5805	16.438		PASS

Draft 802.11an Wide-40 MHz Channel mode

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	5755	35.121	>500	PASS
High	5795	35.275		PASS

TRANSMIT CHAIN 0+ CHAIN 1**Draft 802.11gn Standard-20 MHz Channel mode**

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	2412	15.177	>500	PASS
Mid	2437	15.124		PASS
High	2462	15.148		PASS

Draft 802.11gn Wide-40 MHz Channel mode

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	2422	35.179	>500	PASS
Mid	2437	35.170		PASS
High	2452	35.149		PASS

TRANSMIT CHAIN 0+ CHAIN 1**draft 802.11an Standard-20 MHz Channel mode**

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	5745	16.288	>500	PASS
Mid	5785	15.843		PASS
High	5805	16.350		PASS

Draft 802.11an Wide-40 MHz Channel mode

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	5755	35.204	>500	PASS
High	5795	35.222		PASS



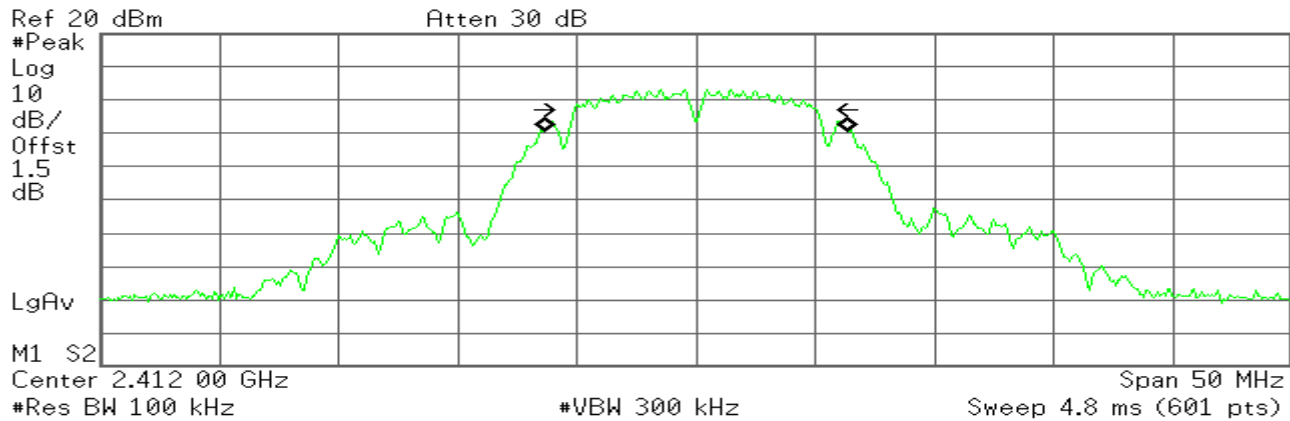
Test Plot

IEEE 802.11b MODE

6dB Bandwidth (CH Low)

Agilent

R T



Occupied Bandwidth
12.7095 MHz

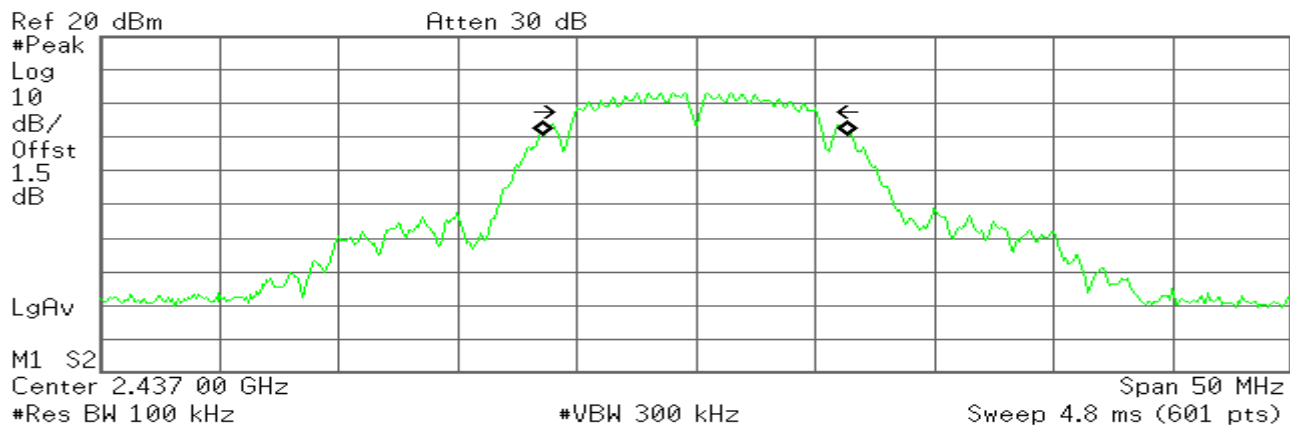
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -14.111 kHz
x dB Bandwidth 10.199 MHz

6dB Bandwidth (CH Mid)

Agilent

R T



Occupied Bandwidth
12.7568 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

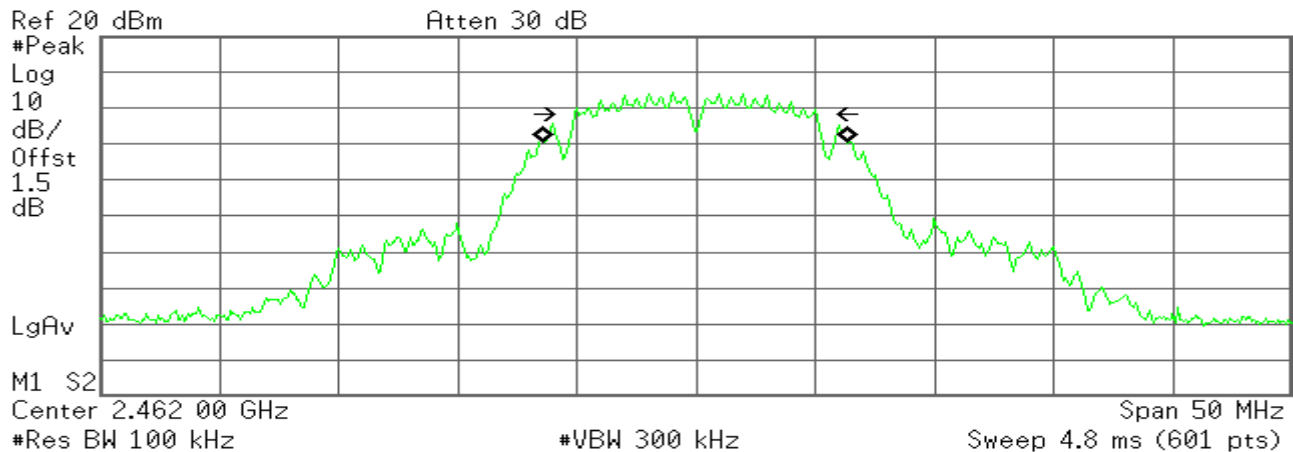
Transmit Freq Error -30.571 kHz
x dB Bandwidth 10.129 MHz



6dB Bandwidth (CH High)

* Agilent

R T



Occupied Bandwidth
12.7211 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

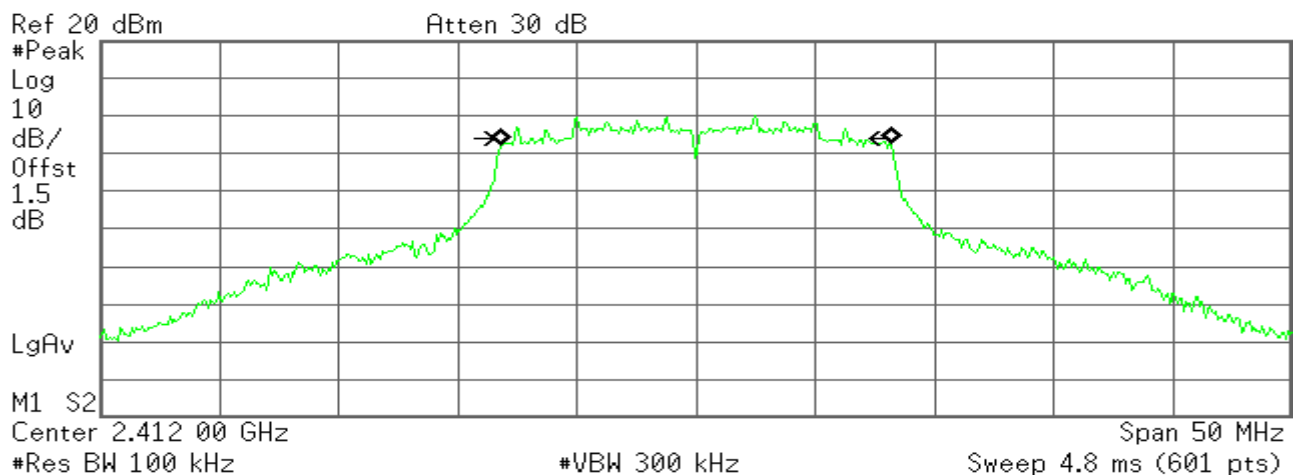
Transmit Freq Error -32.339 kHz
x dB Bandwidth 10.165 MHz

IEEE 802.11g MODE

6dB Bandwidth (CH Low)

* Agilent

R T



Occupied Bandwidth
16.2986 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

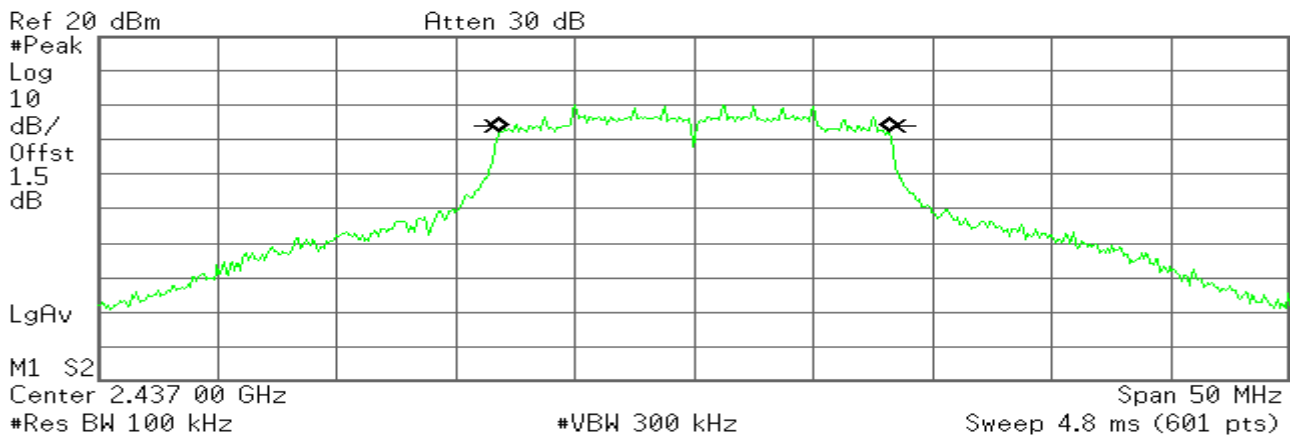
Transmit Freq Error -9.471 kHz
x dB Bandwidth 14.008 MHz



6dB Bandwidth (CH Mid)

* Agilent

R T



Occupied Bandwidth
16.2915 MHz

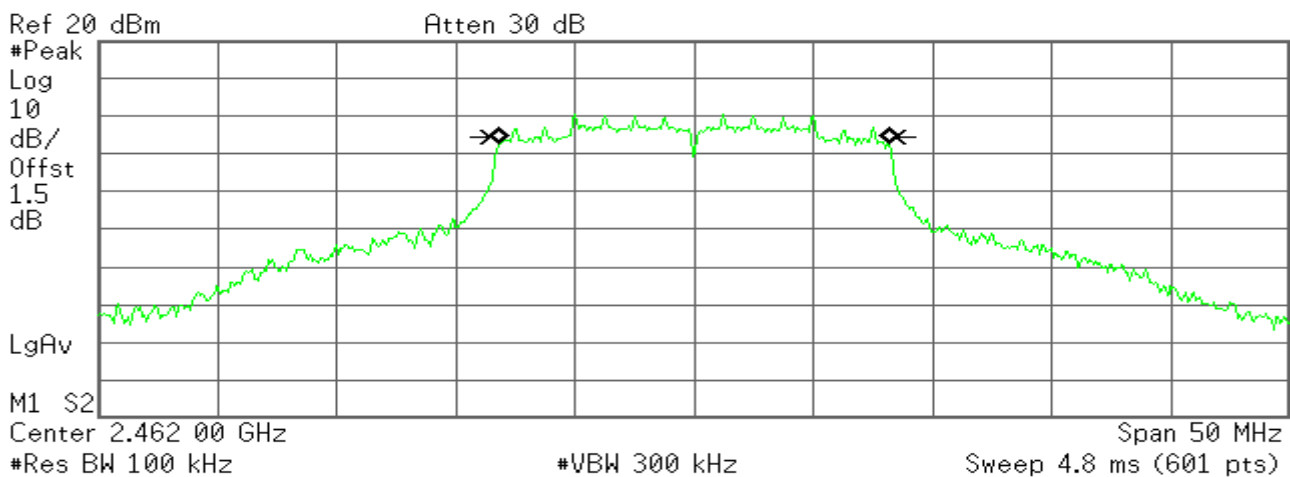
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -13.405 kHz
x dB Bandwidth 15.105 MHz

6dB Bandwidth (CH High)

* Agilent

R T



Occupied Bandwidth
16.2963 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -17.755 kHz
x dB Bandwidth 15.225 MHz

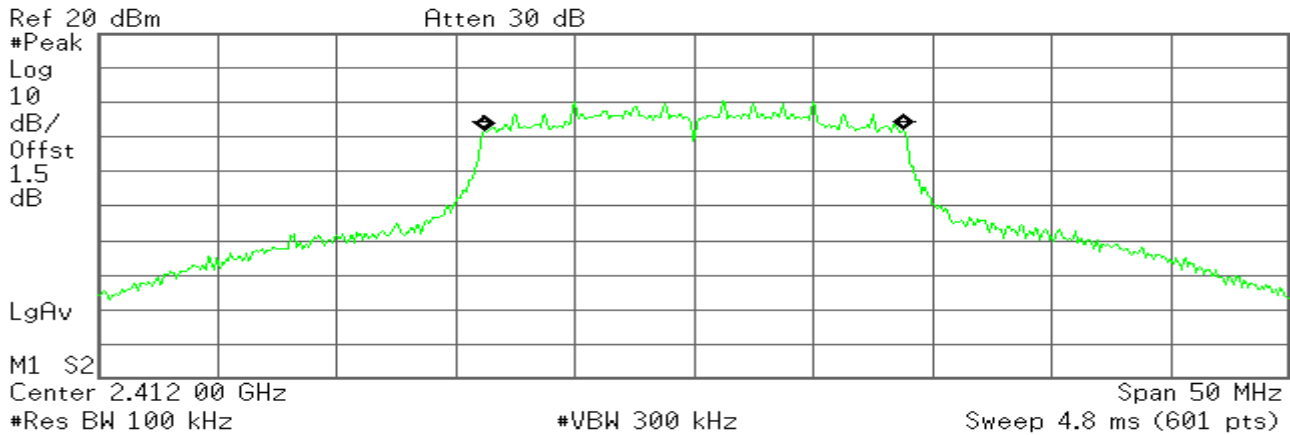


draft 802.11gn Standard-20 MHz Channel mode / Chain 0

6dB Bandwidth (CH Low)

* Agilent

R T



Occupied Bandwidth
17.4920 MHz

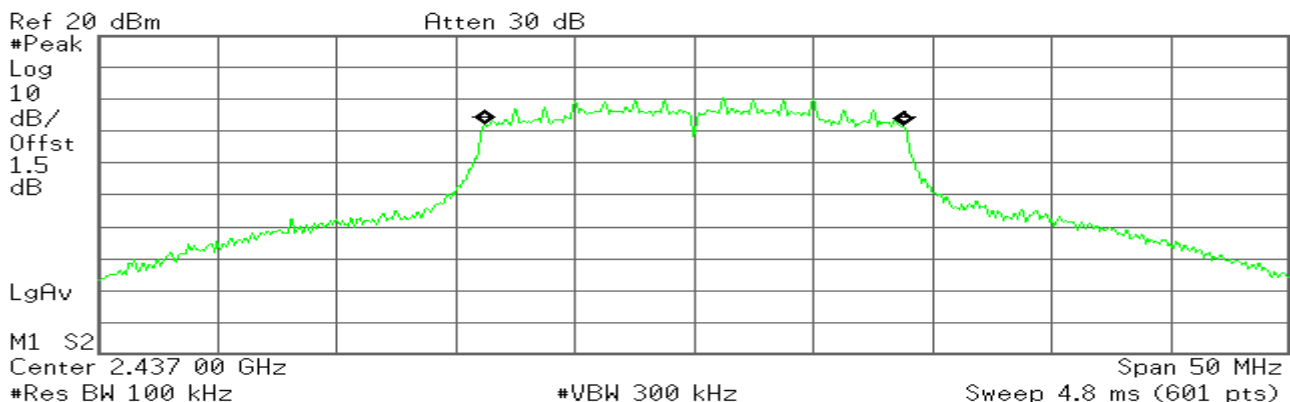
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -1.325 kHz
x dB Bandwidth 15.170 MHz

6dB Bandwidth (CH Mid)

* Agilent

R T



Occupied Bandwidth
17.4877 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

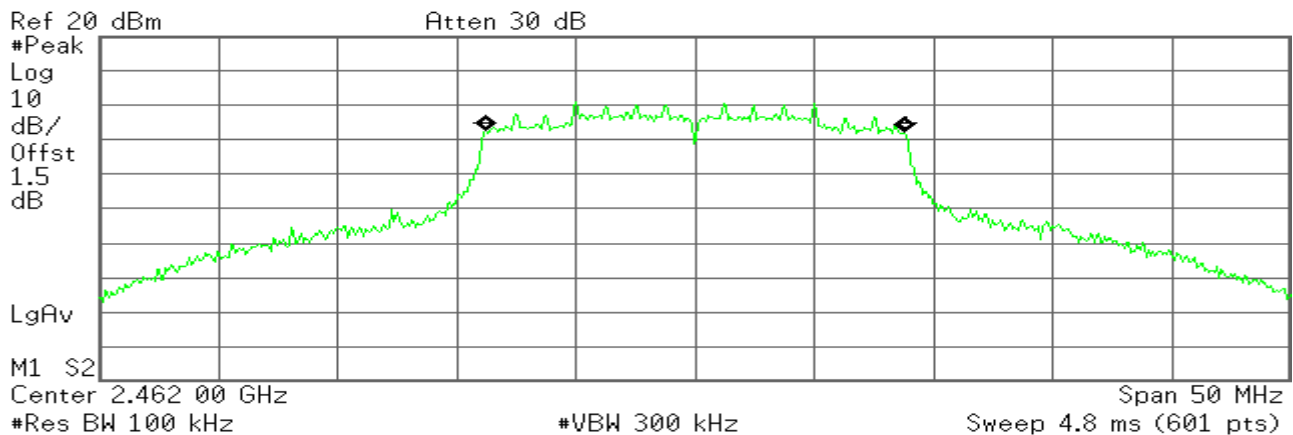
Transmit Freq Error -6.787 kHz
x dB Bandwidth 15.188 MHz



6dB Bandwidth (CH High)

* Agilent

R T



Occupied Bandwidth
17.5004 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

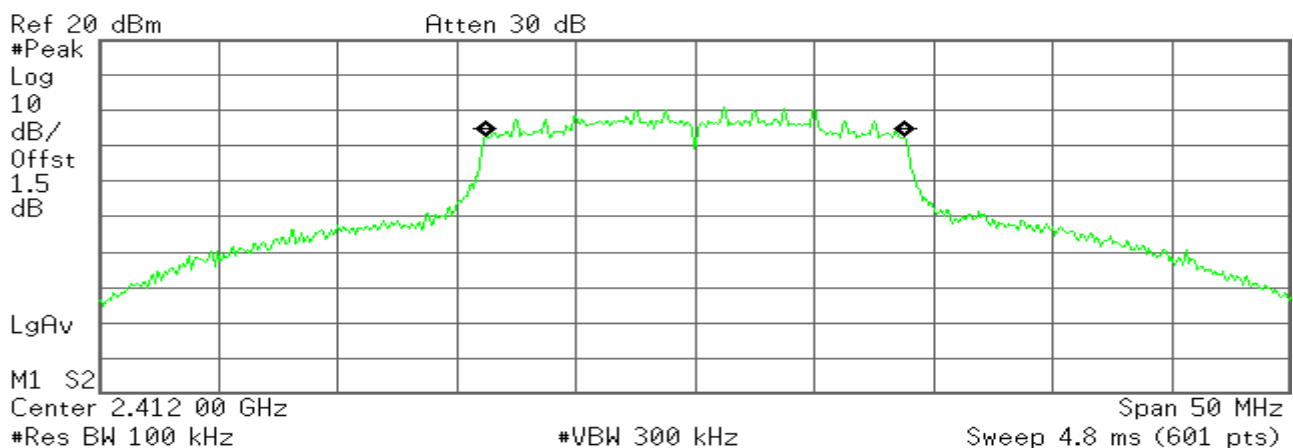
Transmit Freq Error -10.041 kHz
x dB Bandwidth 15.236 MHz

draft 802.11gn Standard-20 MHz Channel mode / Chain 1

6dB Bandwidth (CH Low)

* Agilent

R T



Occupied Bandwidth
17.5239 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

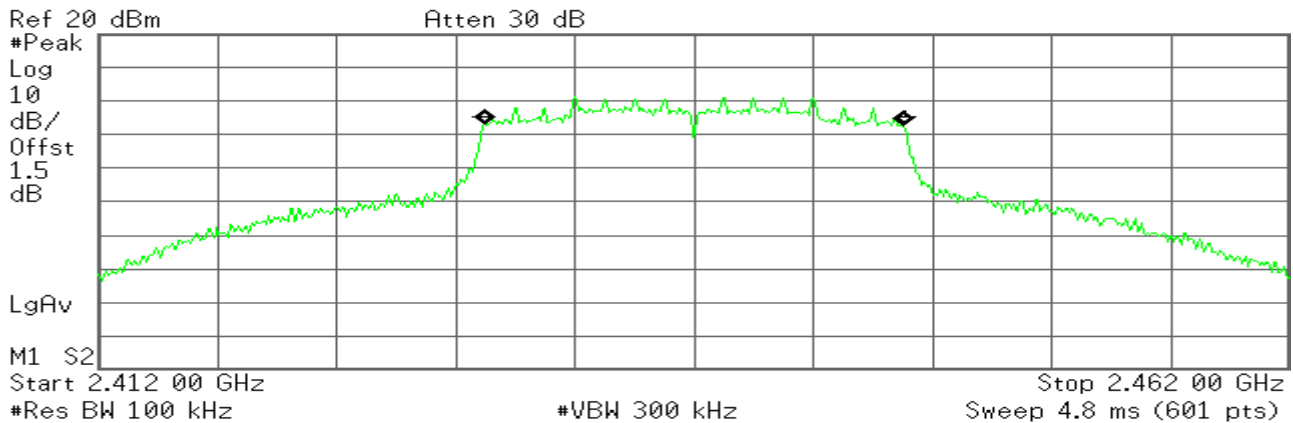
Transmit Freq Error -4.877 kHz
x dB Bandwidth 15.239 MHz



6dB Bandwidth (CH Mid)

* Agilent

R T



Occupied Bandwidth
17.5326 MHz

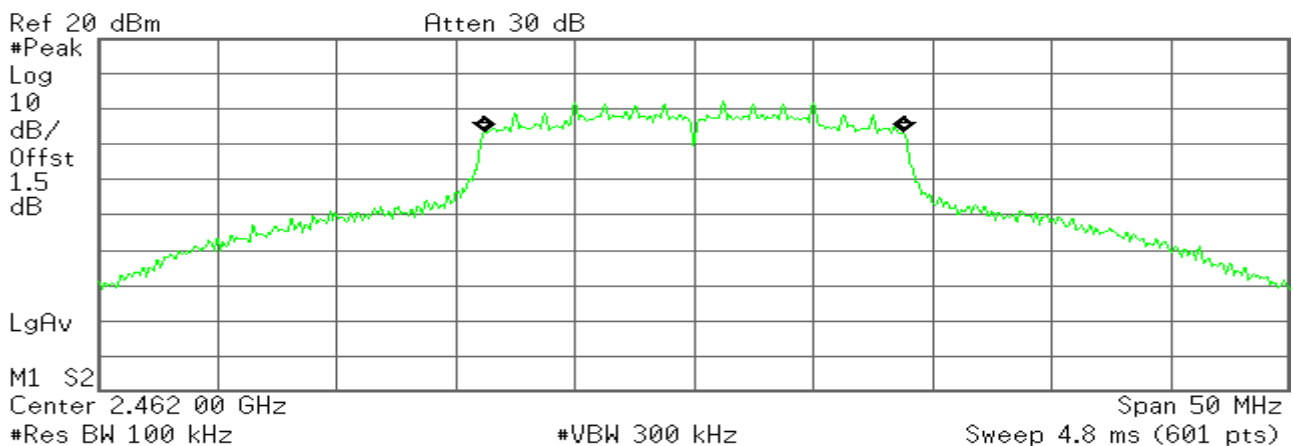
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -17.090 kHz
x dB Bandwidth 15.154 MHz

6dB Bandwidth (CH High)

* Agilent

R T



Occupied Bandwidth
17.5398 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -16.468 kHz
x dB Bandwidth 15.175 MHz

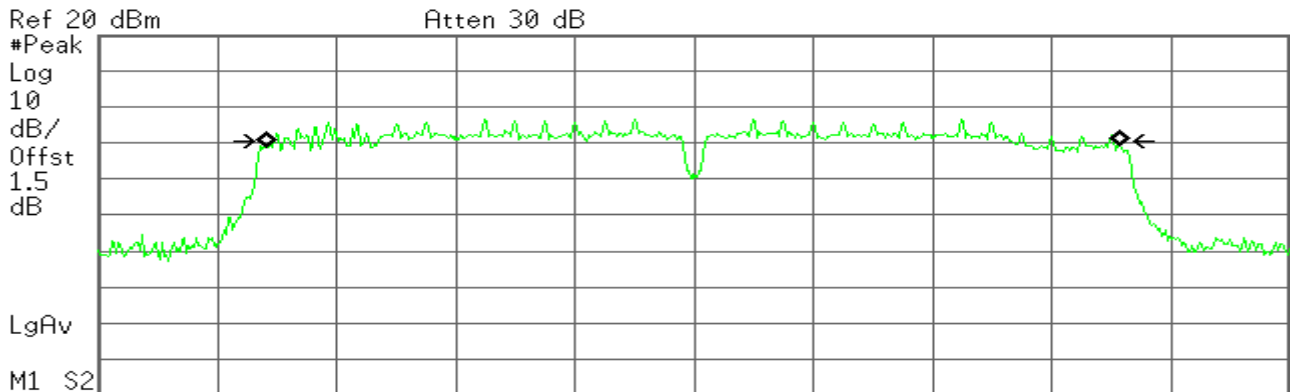


draft 802.11gn Wide-40 MHz Channel mode / Chain 0

6dB Bandwidth (CH Low)

Agilent

R T



Center 2.422 00 GHz

Span 50 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 4.8 ms (601 pts)

Occupied Bandwidth
35.7282 MHz

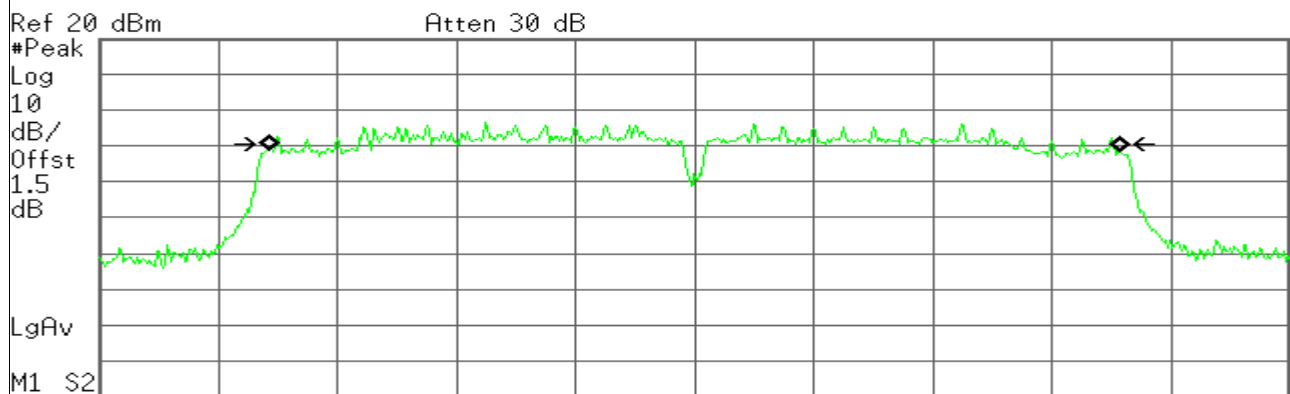
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -36.842 kHz
x dB Bandwidth 35.176 MHz

6dB Bandwidth (CH Mid)

Agilent

R T



Center 2.437 00 GHz

Span 50 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 4.8 ms (601 pts)

Occupied Bandwidth
35.6970 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

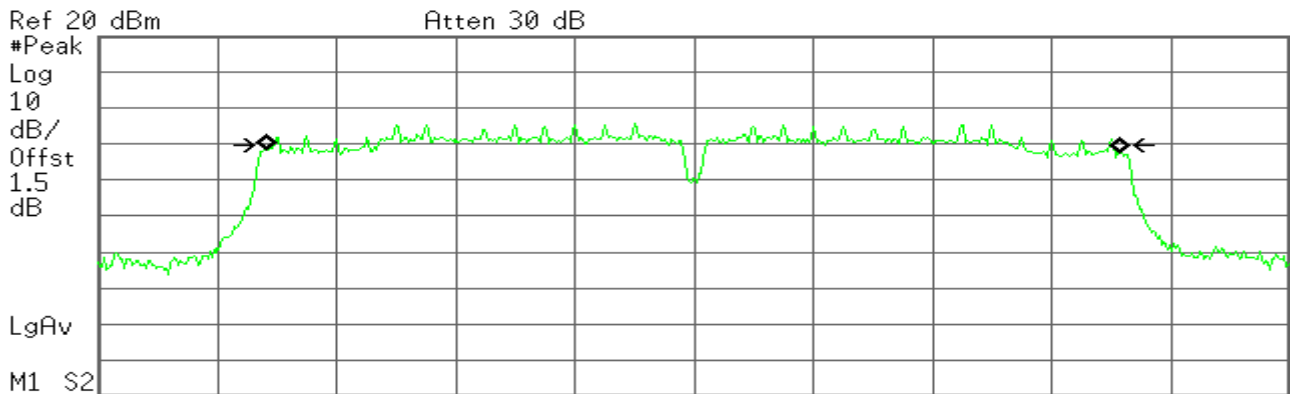
Transmit Freq Error -23.877 kHz
x dB Bandwidth 35.153 MHz



6dB Bandwidth (CH High)

* Agilent

R T



Center 2.452 00 GHz

Span 50 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 4.8 ms (601 pts)

Occupied Bandwidth
35.7490 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

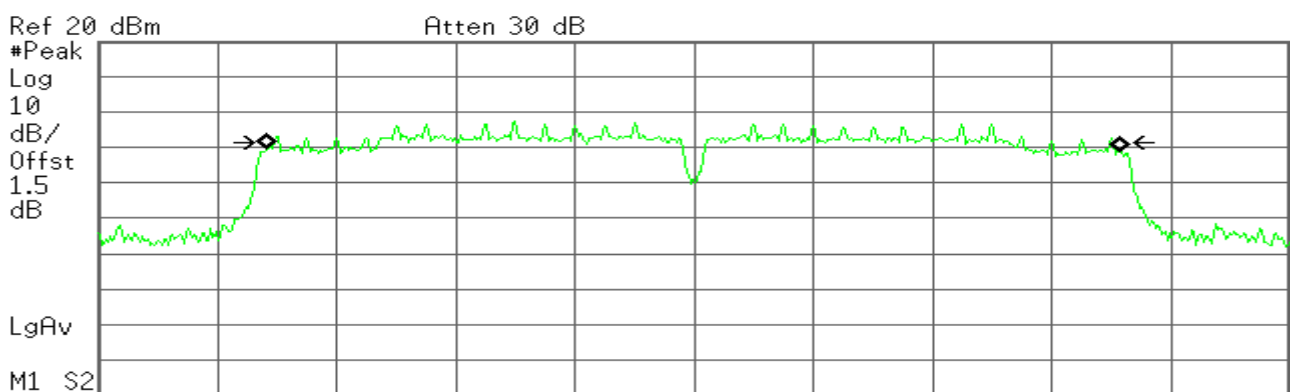
Transmit Freq Error -40.298 kHz
x dB Bandwidth 35.199 MHz

draft 802.11gn Wide-40 MHz Channel mode / Chain 1

6dB Bandwidth (CH Low)

* Agilent

R T



Center 2.422 00 GHz

Span 50 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 4.8 ms (601 pts)

Occupied Bandwidth
35.7381 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

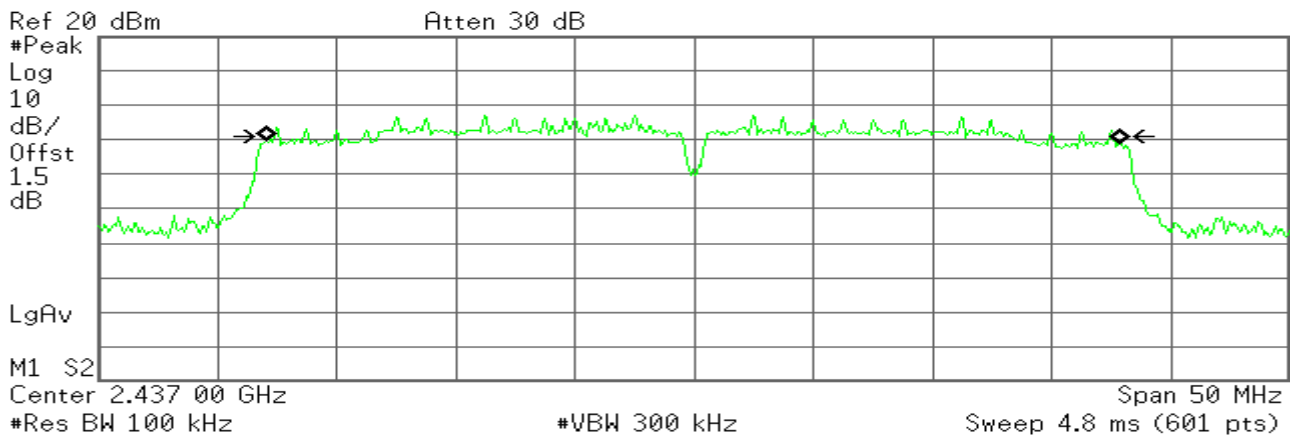
Transmit Freq Error -28.575 kHz
x dB Bandwidth 35.162 MHz



6dB Bandwidth (CH Mid)

* Agilent

R T



Occupied Bandwidth
35.7428 MHz

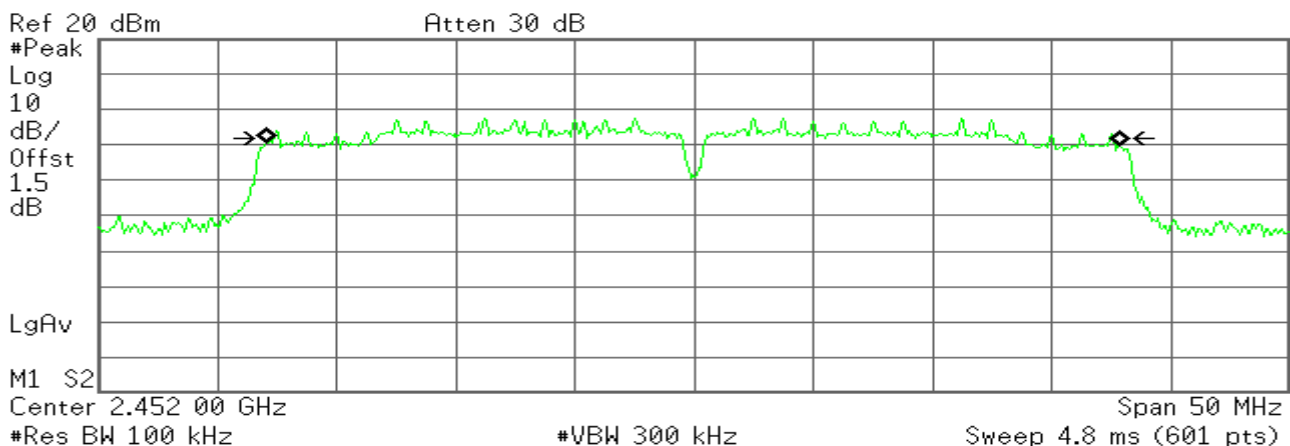
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -36.512 kHz
x dB Bandwidth 35.185 MHz

6dB Bandwidth (CH High)

* Agilent

R T



Occupied Bandwidth
35.7478 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -33.559 kHz
x dB Bandwidth 35.216 MHz



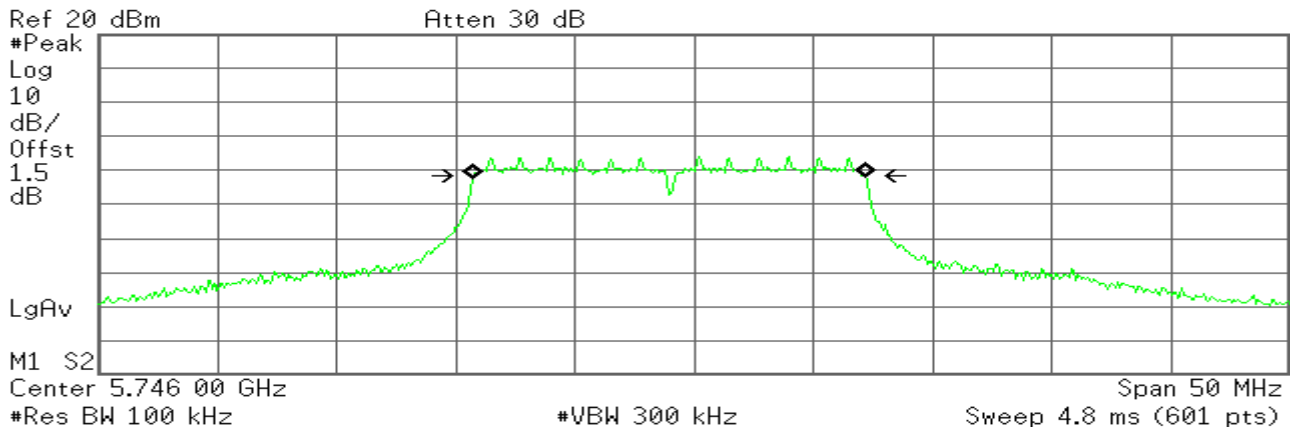
5725MHz-5825MHz

IEEE 802.11a mode

6dB Bandwidth (CH Low)

Agilent

R T



Occupied Bandwidth
16.4464 MHz

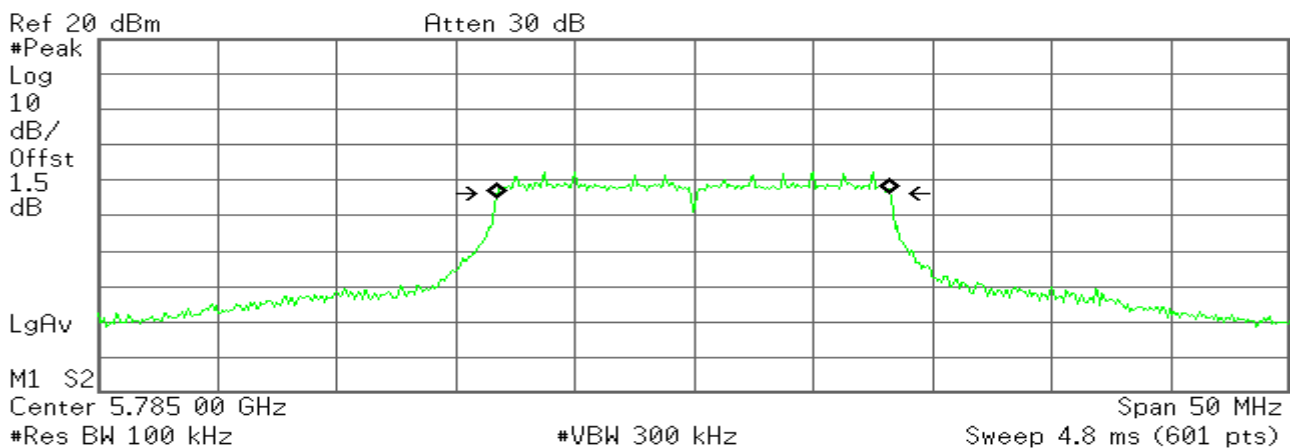
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -1.022 MHz
x dB Bandwidth 16.413 MHz

6dB Bandwidth (CH Mid)

Agilent

R T



Occupied Bandwidth
16.4588 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

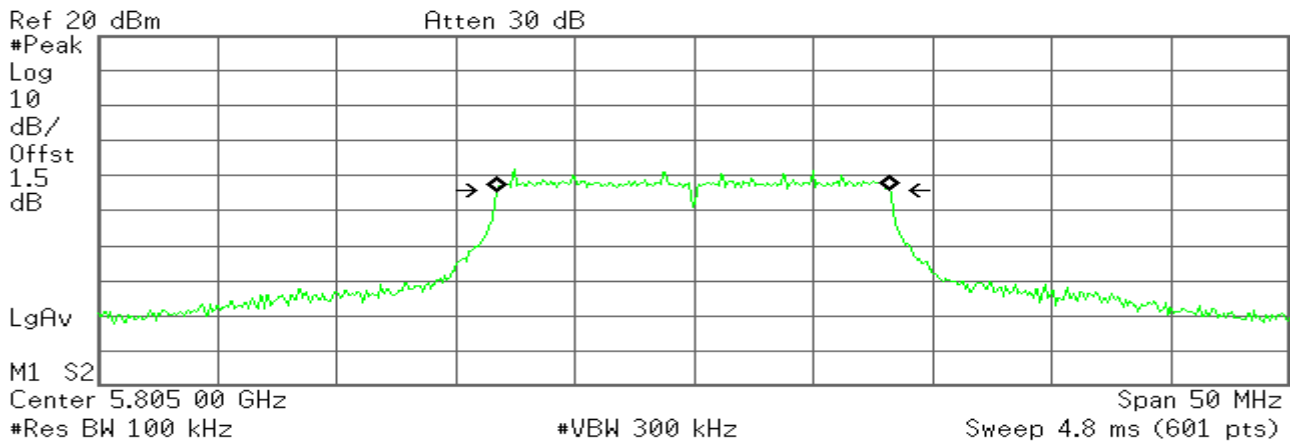
Transmit Freq Error -29.575 kHz
x dB Bandwidth 16.419 MHz



6dB Bandwidth (CH High)

* Agilent

R T



Occupied Bandwidth
16.4530 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

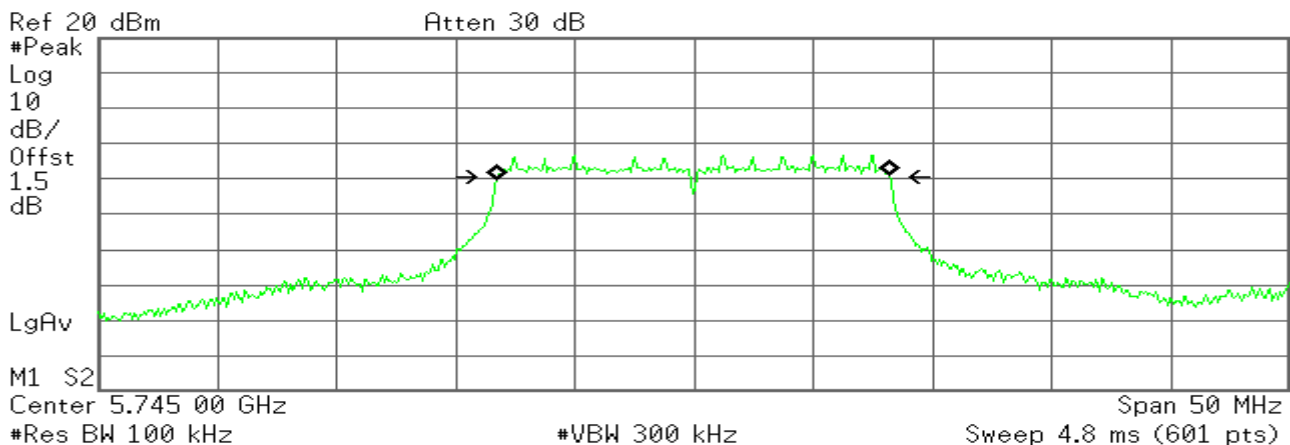
Transmit Freq Error -27.490 kHz
x dB Bandwidth 16.438 MHz

draft 802.11an Standard-20 MHz Channel mode / Chain 0

6dB Bandwidth (CH Low)

* Agilent

R T



Occupied Bandwidth
16.4378 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

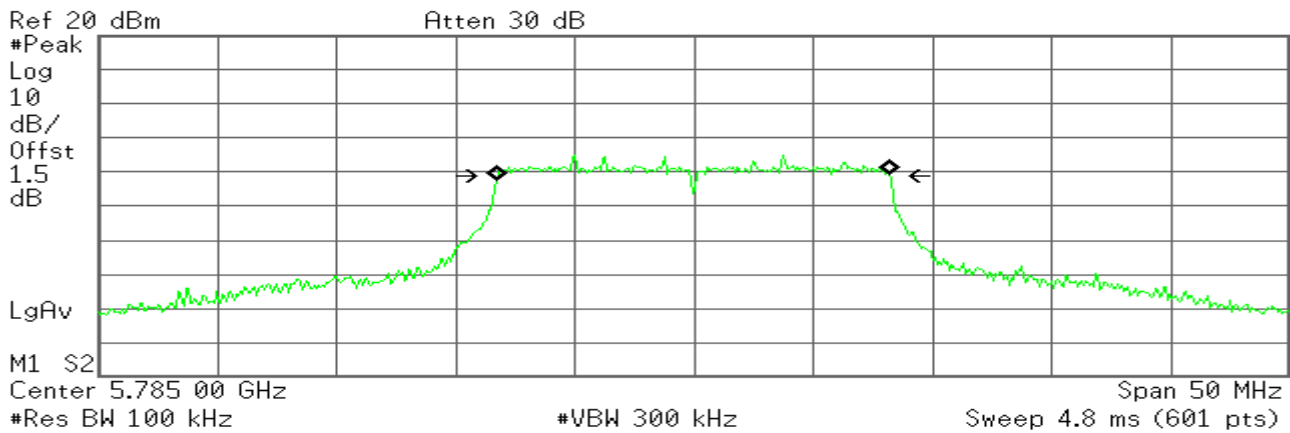
Transmit Freq Error -31.752 kHz
x dB Bandwidth 16.419 MHz



6dB Bandwidth (CH Mid)

Agilent

R T



Occupied Bandwidth
16.4447 MHz

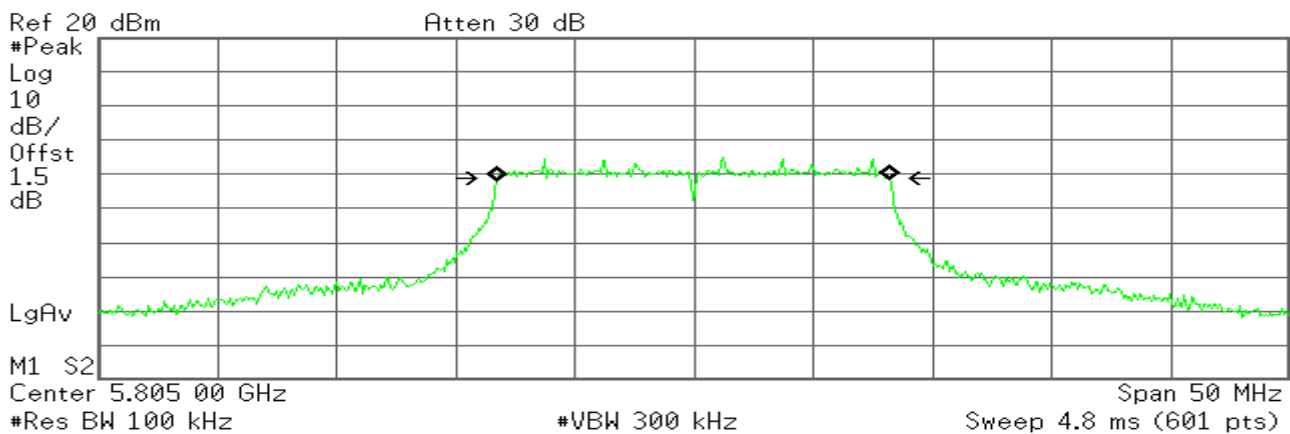
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -30.701 kHz
x dB Bandwidth 16.423 MHz

6dB Bandwidth (CH High)

Agilent

R T



Occupied Bandwidth
16.4494 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -30.334 kHz
x dB Bandwidth 16.413 MHz

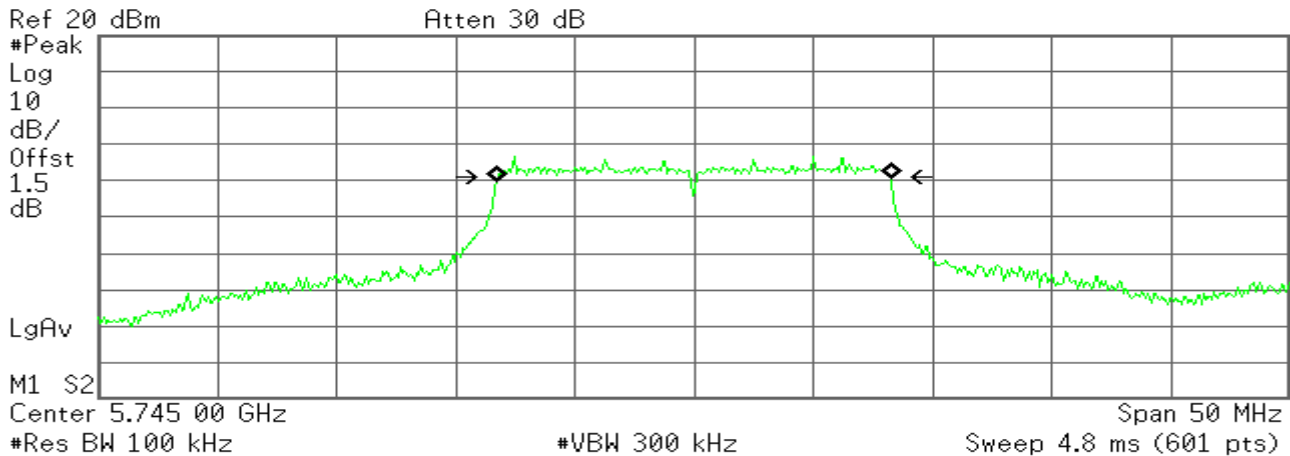


draft 802.11an Standard-20 MHz Channel mode / Chain 1

6dB Bandwidth (CH Low)

* Agilent

R T



Occupied Bandwidth
16.4742 MHz

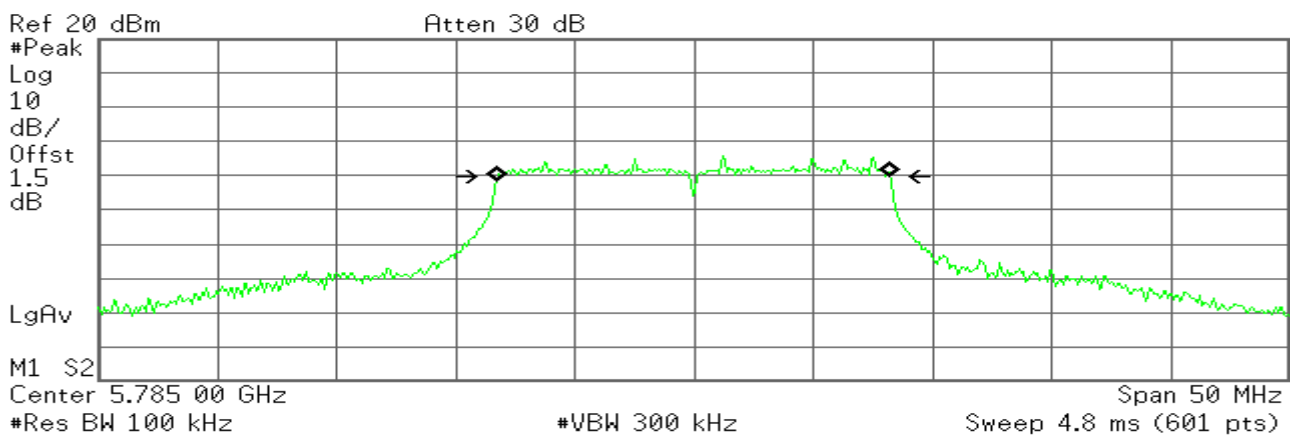
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -20.891 kHz
x dB Bandwidth 16.432 MHz

6dB Bandwidth (CH Mid)

* Agilent

R T



Occupied Bandwidth
16.4686 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

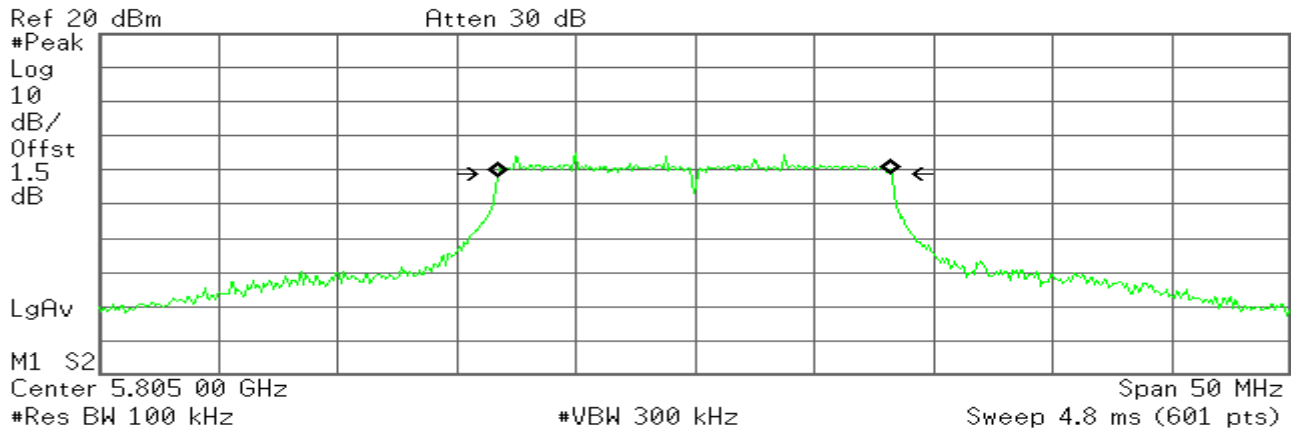
Transmit Freq Error -32.016 kHz
x dB Bandwidth 16.425 MHz



6dB Bandwidth (CH High)

Agilent

R T



Occupied Bandwidth
16.4536 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

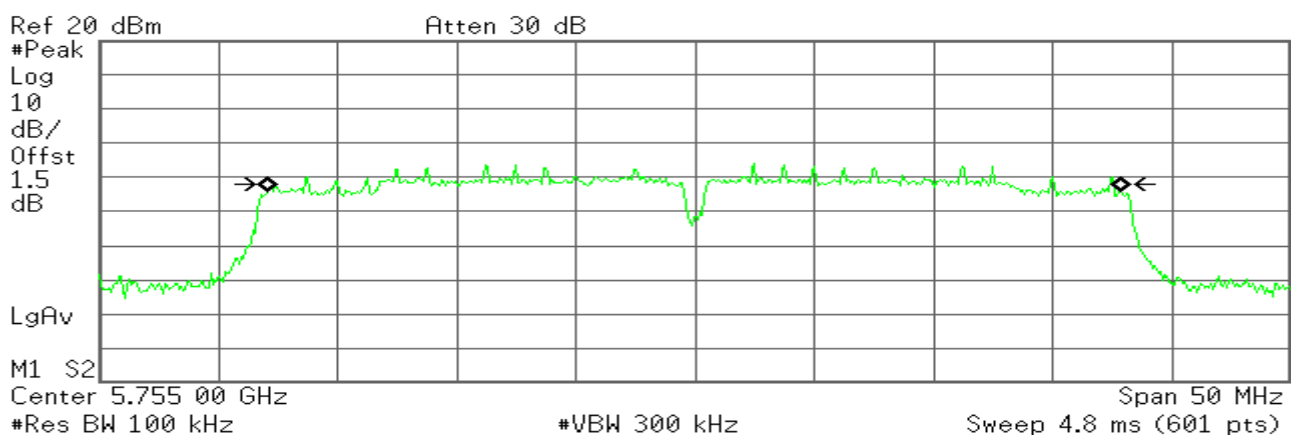
Transmit Freq Error -20.688 kHz
x dB Bandwidth 16.438 MHz

draft 802.11an Standard-40 MHz Channel mode / Chain 0

6dB Bandwidth (CH Low)

Agilent

R T



Occupied Bandwidth
35.7304 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

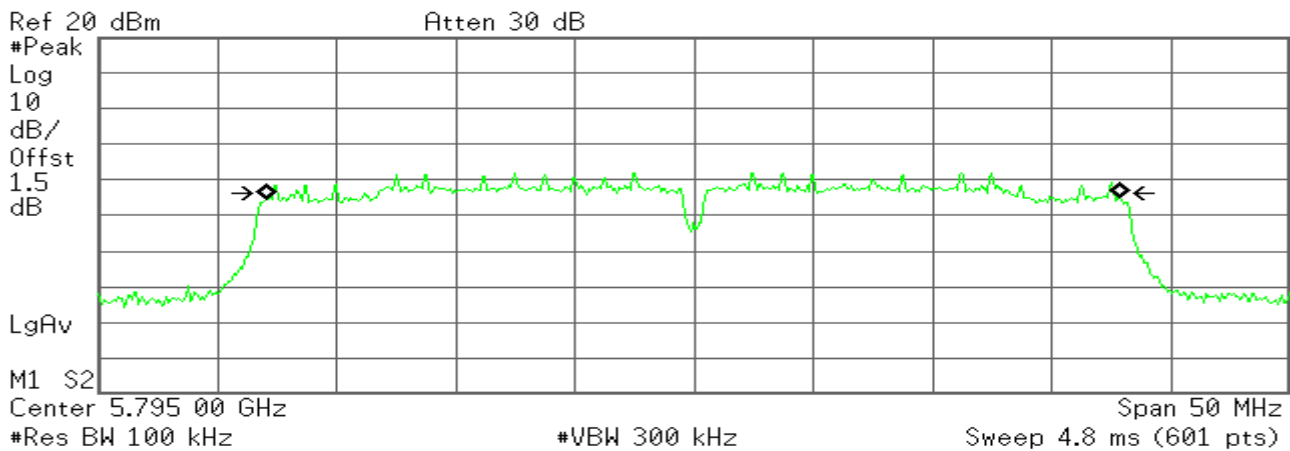
Transmit Freq Error -24.141 kHz
x dB Bandwidth 35.149 MHz



6dB Bandwidth (CH High)

Agilent

R T



Occupied Bandwidth
35.7614 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

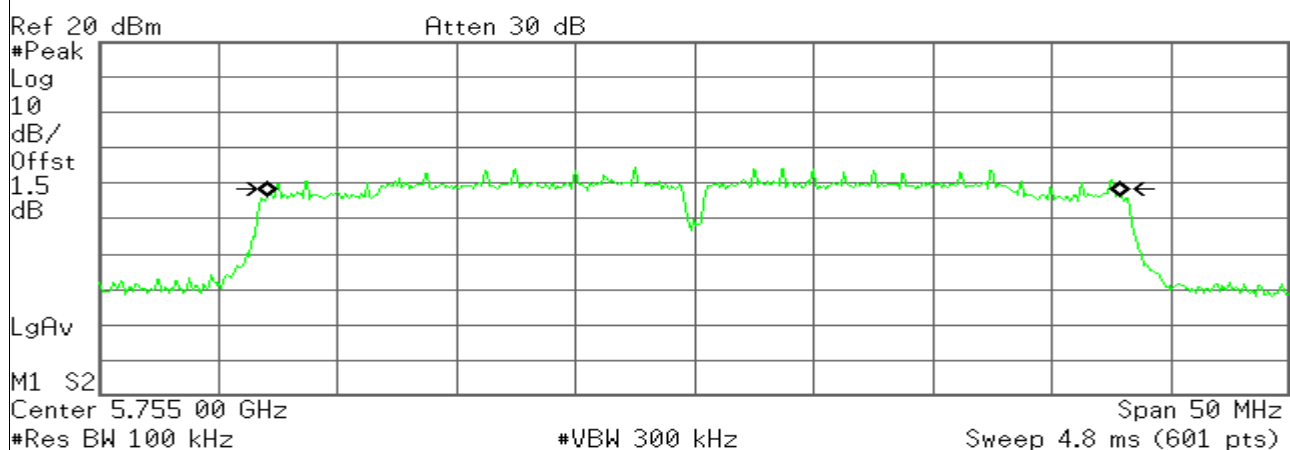
Transmit Freq Error -16.192 kHz
x dB Bandwidth 35.256 MHz

draft 802.11an Standard-40 MHz Channel mode / Chain 1

6dB Bandwidth (CH Low)

Agilent

R T



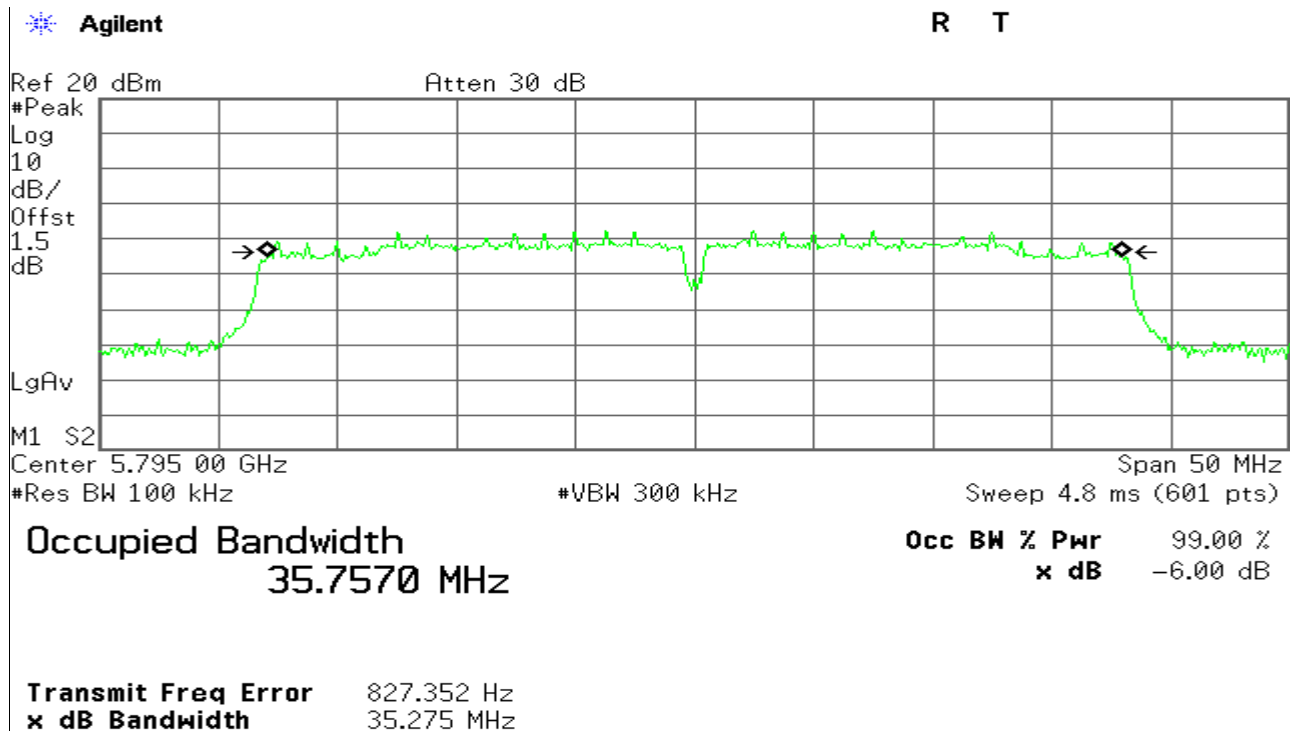
Occupied Bandwidth
35.7484 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -7.120 kHz
x dB Bandwidth 35.121 MHz

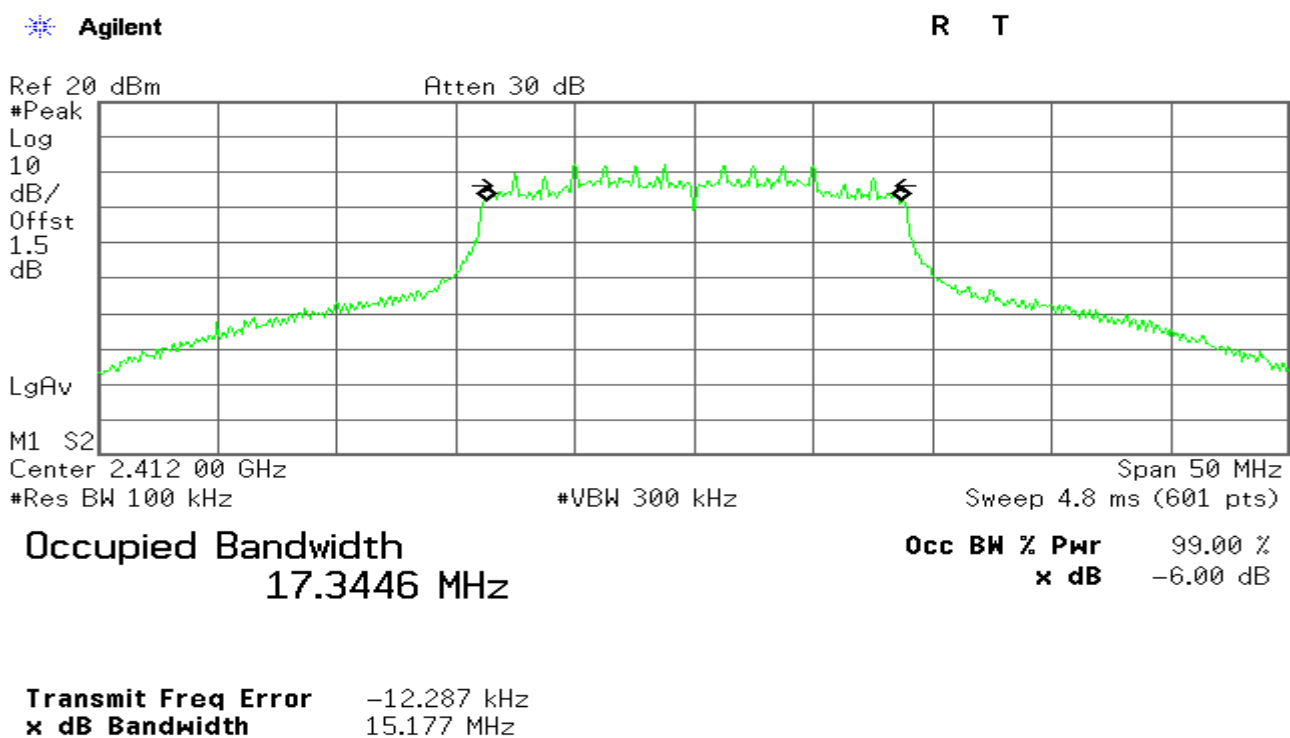


6dB Bandwidth (CH High)



draft 802.11gn Standard-20 MHz Channel mode / Chain 0+ Chain 1

6dB Bandwidth (CH Low)

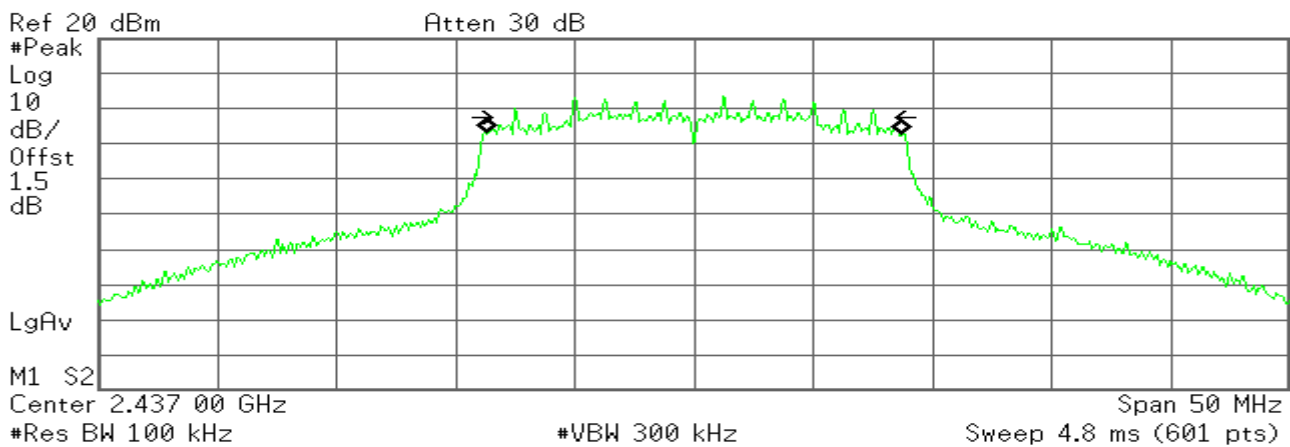




6dB Bandwidth (CH Mid)

Agilent

R T



Occupied Bandwidth
17.3987 MHz

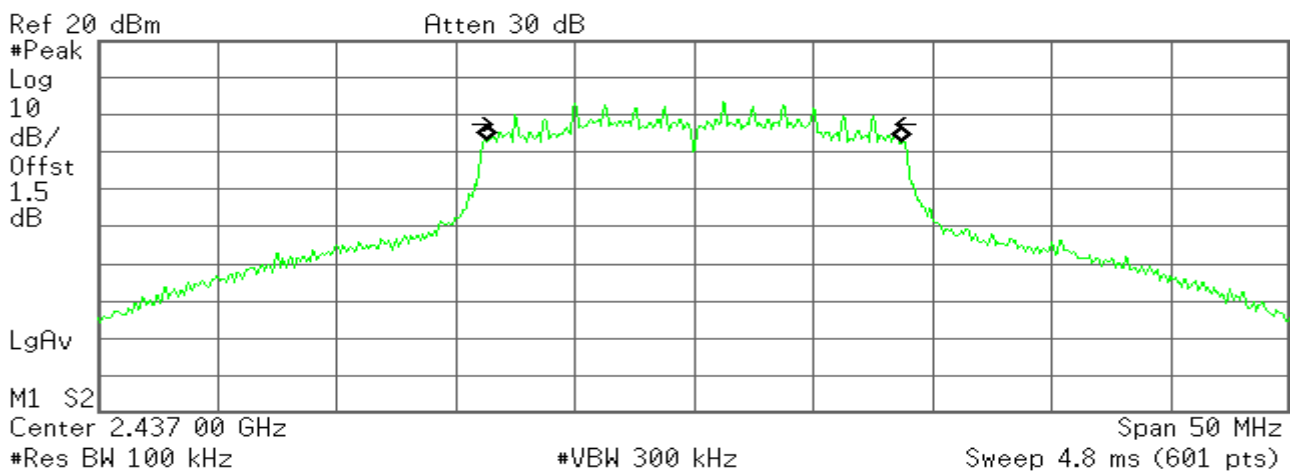
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -8.827 kHz
x dB Bandwidth 15.124 MHz

6dB Bandwidth (CH High)

Agilent

R T



Occupied Bandwidth
17.3987 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -8.827 kHz
x dB Bandwidth 15.124 MHz

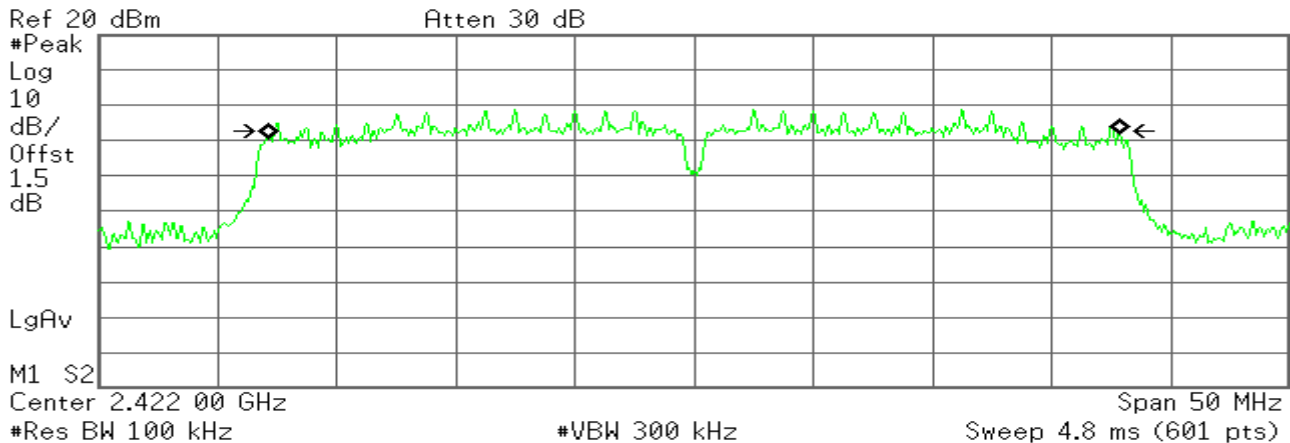


draft 802.11gn Wide-40 MHz Channel mode / Chain 0+ Chain 1

6dB Bandwidth (CH Low)

Agilent

R T



Occupied Bandwidth
35.6699 MHz

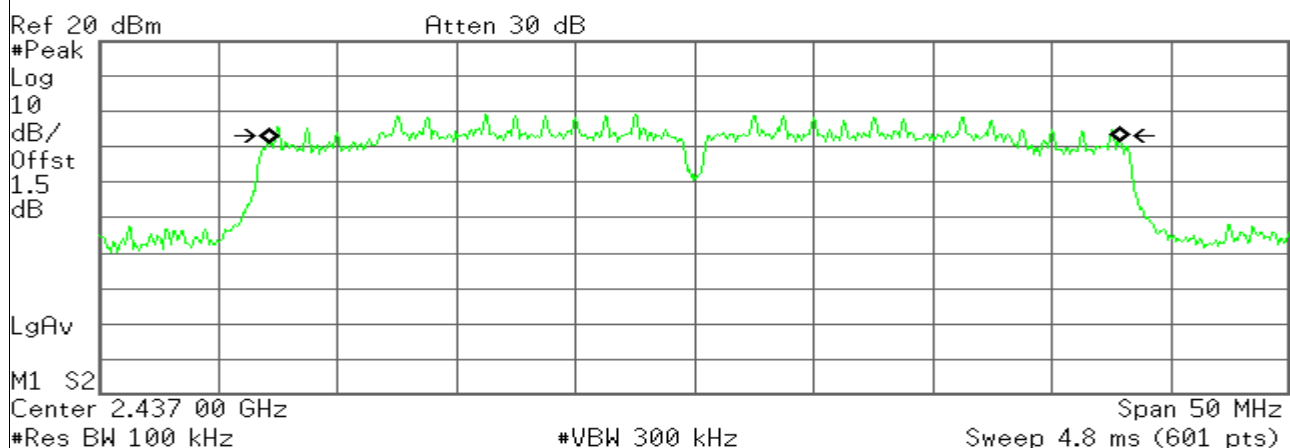
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 1.769 kHz
x dB Bandwidth 35.179 MHz

6dB Bandwidth (CH Mid)

Agilent

R T



Occupied Bandwidth
35.6861 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

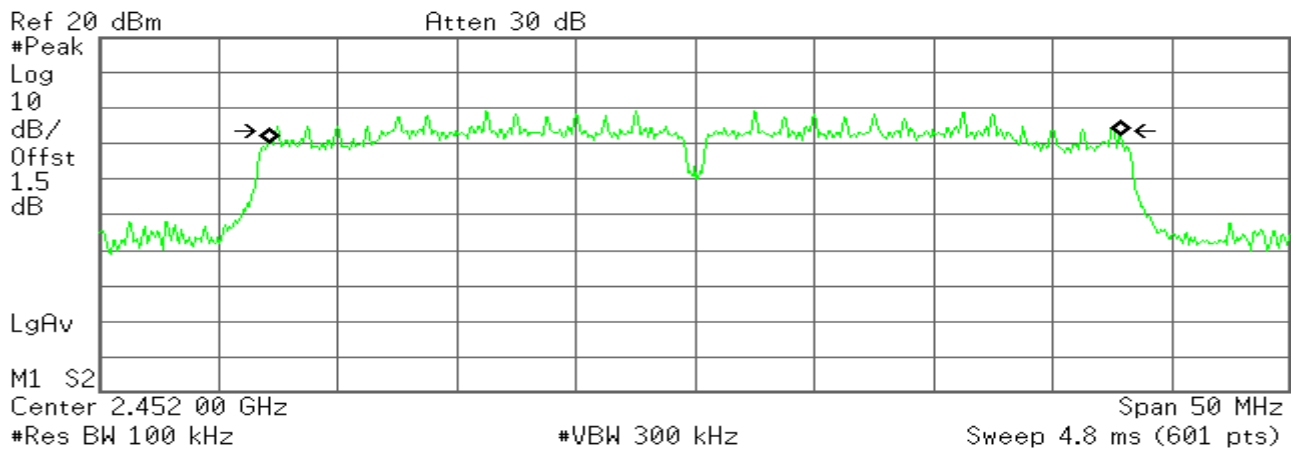
Transmit Freq Error 2.040 kHz
x dB Bandwidth 35.170 MHz



6dB Bandwidth (CH High)

Agilent

R T



Occupied Bandwidth
35.6549 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -1.540 kHz
x dB Bandwidth 35.149 MHz

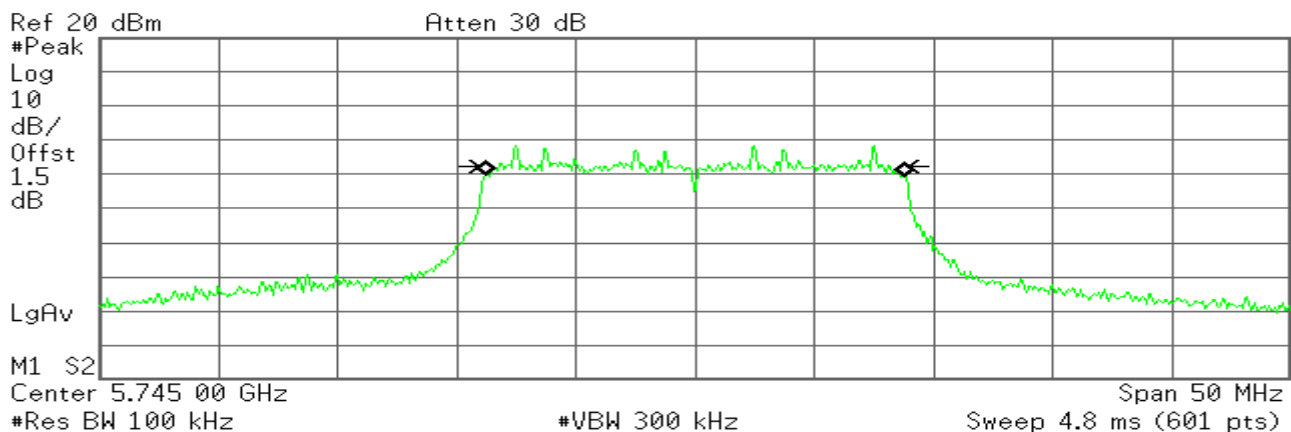
5725MHz-5825MHz

draft 802.11an Standard-20 MHz Channel mode / Chain 0+ Chain 1

6dB Bandwidth (CH Low)

Agilent

R T



Occupied Bandwidth
17.5169 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

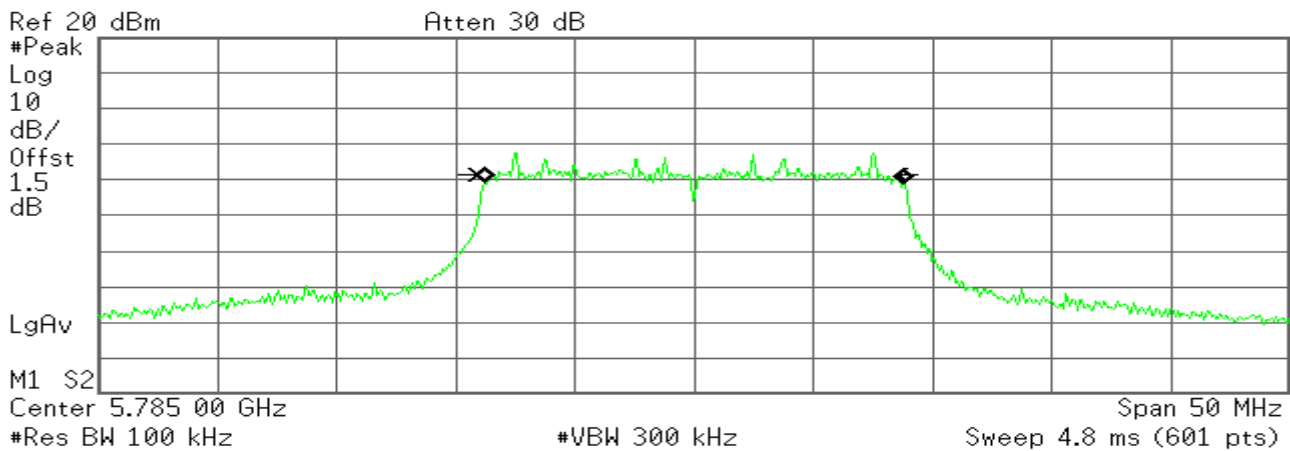
Transmit Freq Error -11.069 kHz
x dB Bandwidth 16.288 MHz



6dB Bandwidth (CH Mid)

Agilent

R T



Occupied Bandwidth
17.5372 MHz

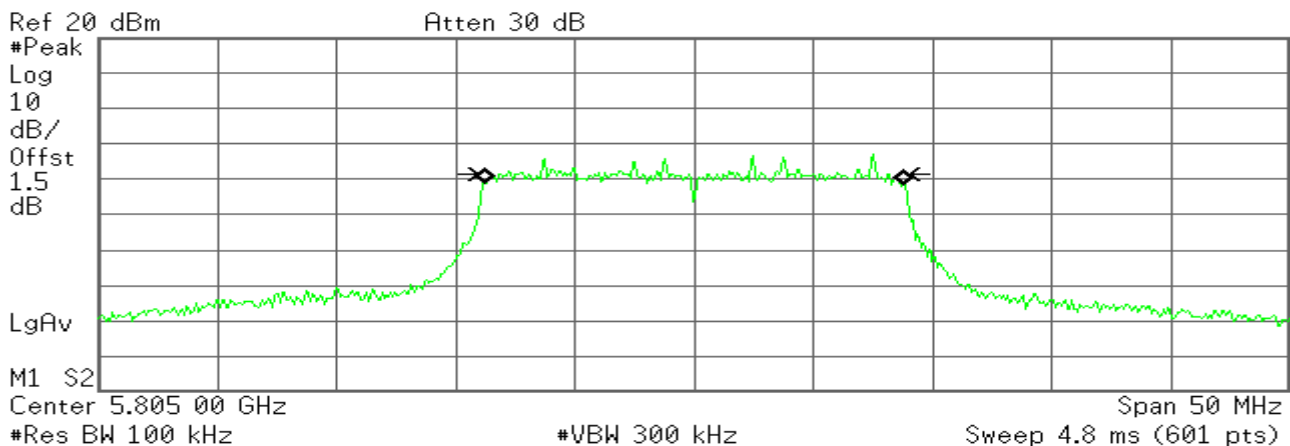
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -1.745 kHz
x dB Bandwidth 15.843 MHz

6dB Bandwidth (CH High)

Agilent

R T



Occupied Bandwidth
17.5595 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error -6.559 kHz
x dB Bandwidth 16.350 MHz

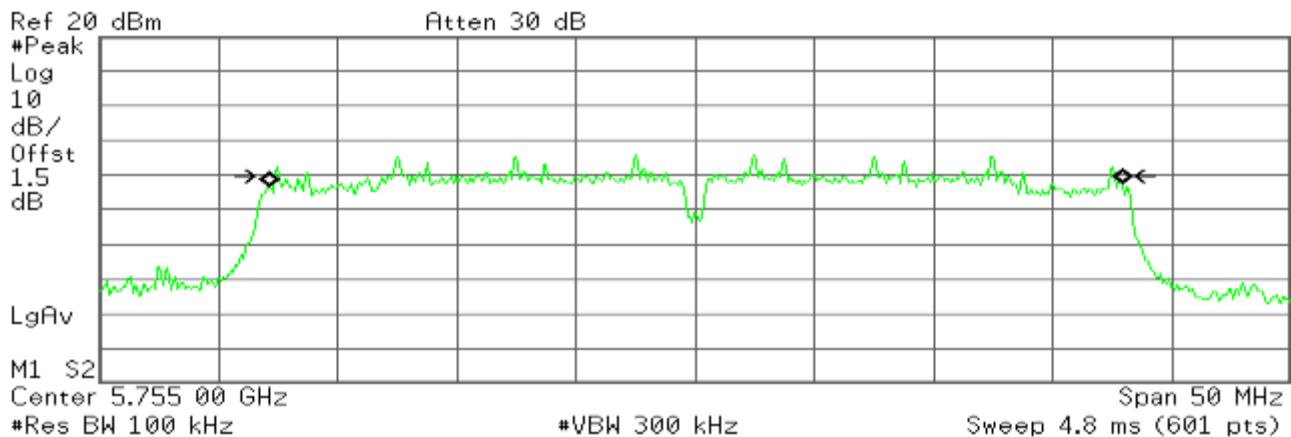


draft 802.11an Standard-40 MHz Channel mode / Chain0 + Chain1

6dB Bandwidth (CH Low)

* Agilent

R T



Occupied Bandwidth
35.7244 MHz

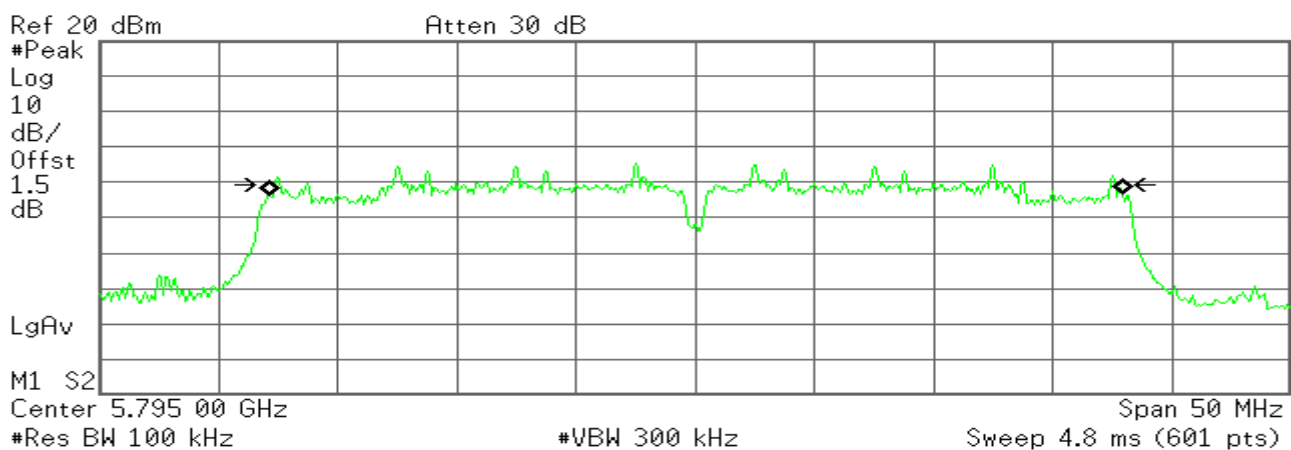
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 15.993 kHz
x dB Bandwidth 35.204 MHz

6dB Bandwidth (CH High)

* Agilent

R T



Occupied Bandwidth
35.7414 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 43.612 kHz
x dB Bandwidth 35.224 MHz



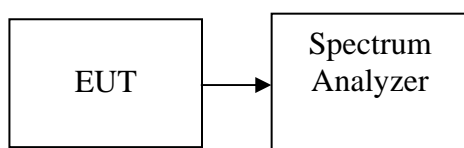
7.2. PEAK POWER

LIMIT

The maximum peak output power of the intentional radiator shall not exceed the following:

1. According to §15.247(b)(3), for systems using digital modulation in the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz: 1 Watt.
2. According to §15.247(b)(4), the conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Configuration



TEST PROCEDURE

- 1 Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2 Set RBW = 1 MHz.
- 3 Set VBW \geq 3 MHz.
- 4 Use sample detector mode if bin width (i.e., span/number of points in spectrum display) $<$ 0.5 RBW. Otherwise use peak detector mode.
- 5 Use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at full control power for entire sweep of every sweep. If the device transmits continuously, with no off intervals or reduced power intervals, the trigger may be set to δ hichfree run δ hich.
- 6 Trace average 100 traces in power averaging mode.
- 7 Compute power by integrating the spectrum across the 26 dB EBW of the signal. The integration can be performed using the spectrum analyzer's band power measurement function with band limits set equal to the EBW band edges or by summing power levels in each 1 MHz band in linear power terms. The 1 MHz band power levels to be summed can be obtained by averaging, in linear power terms, power levels in each frequency bin across the 1 MHz.

TEST RESULTS

No non-compliance noted



Test Data

Test mode: IEEE 802.11b mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	16.22	0.0418	1.00	PASS
Mid	2437	16.14	0.0411		PASS
High	2462	15.95	0.0394		PASS

Test mode: IEEE 802.11g mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	13.86	0.0243	1.00	PASS
Mid	2437	13.92	0.0246		PASS
High	2462	14.54	0.0284		PASS

Test mode: draft 802.11gn Standard-20 MHz Channel mode

Channel	Frequency (MHz)	Chain 0 Output Power (dBm)	Chain 1 Output Power (dBm)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	13.74	14.52	17.16	0.0520	1.00	PASS
Mid	2437	13.63	14.91	17.33	0.0541		PASS
High	2462	14.54	15.53	18.07	0.0641		PASS

Test mode: draft 802.11gn Wide-40 MHz Channel mode

Channel	Frequency (MHz)	Chain 0 Output Power (dBm)	Chain 1 Output Power (dBm)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2422	12.90	13.69	16.32	0.0428	1.00	PASS
Mid	2437	13.06	13.77	16.43	0.0439		PASS
High	2452	13.07	14.50	16.85	0.0484		PASS

Test mode: IEEE 802.11a mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	5745	14.82	0.0303	1.00	PASS
Mid	5785	14.38	0.0274		PASS
High	5805	14.18	0.0262		PASS

**Test mode: draft 802.11an Standard-20 MHz Channel mode**

Channel	Frequency (MHz)	Chain 0 Output Power (dBm)	Chain 1 Output Power (dBm)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	5745	14.18	14.04	17.28	0.0515	1.00	PASS
Mid	5785	12.68	13.93	16.45	0.0433		PASS
High	5805	12.10	13.84	16.37	0.0404		PASS

Test mode: draft 802.11an Wide-40 MHz Channel mode

Channel	Frequency (MHz)	Chain 0 Output Power (dBm)	Chain 1 Output Power (dBm)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	5755	13.57	13.48	16.54	0.0451	1.00	PASS
Mid	5795	12.08	13.40	15.80	0.0380		PASS



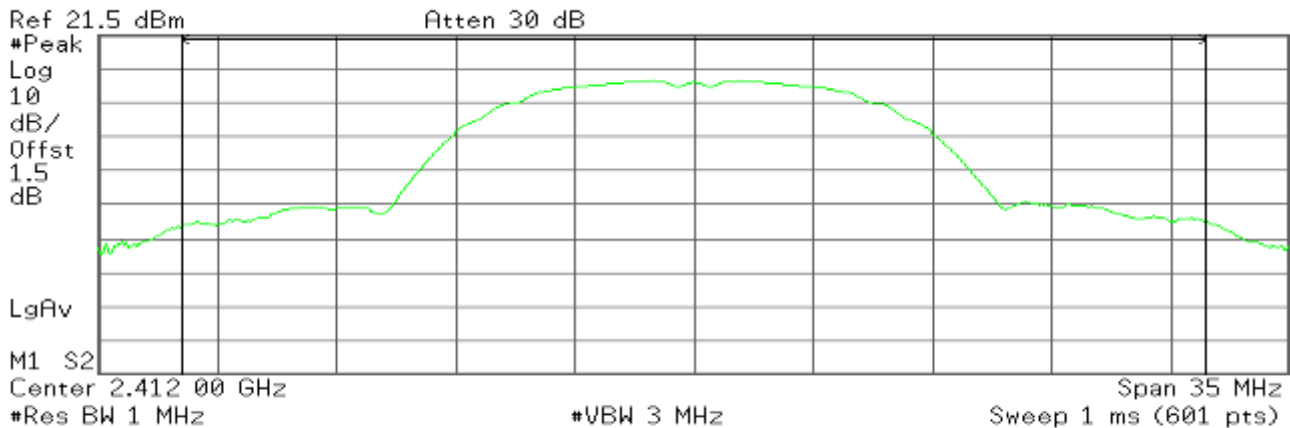
Test Plot

IEEE 802.11b mode

Peak Power (CH Low)

* Agilent

R T



Channel Power

16.22 dBm /30.0000 MHz

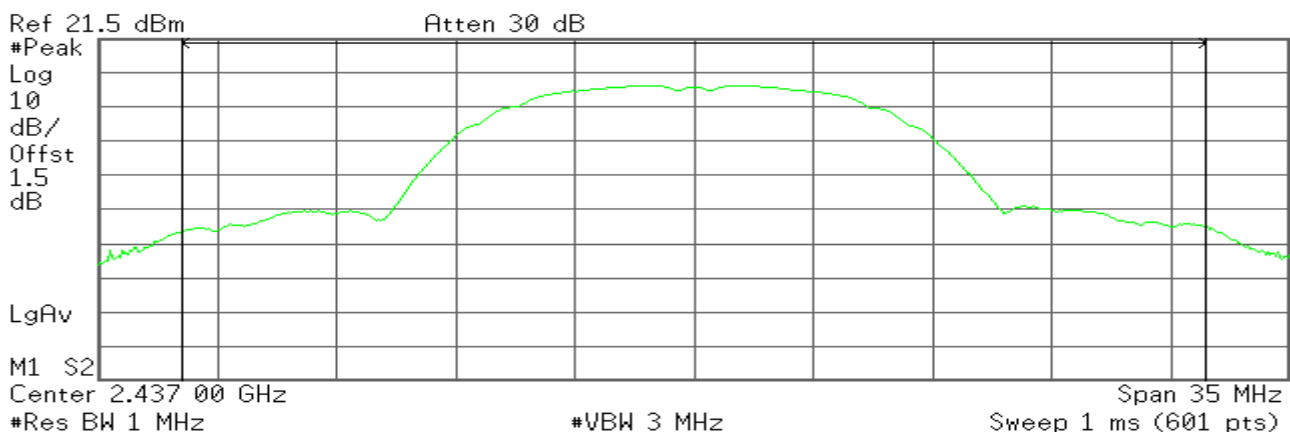
Power Spectral Density

-58.55 dBm/Hz

Peak Power (CH Mid)

* Agilent

R T



Channel Power

16.14 dBm /30.0000 MHz

Power Spectral Density

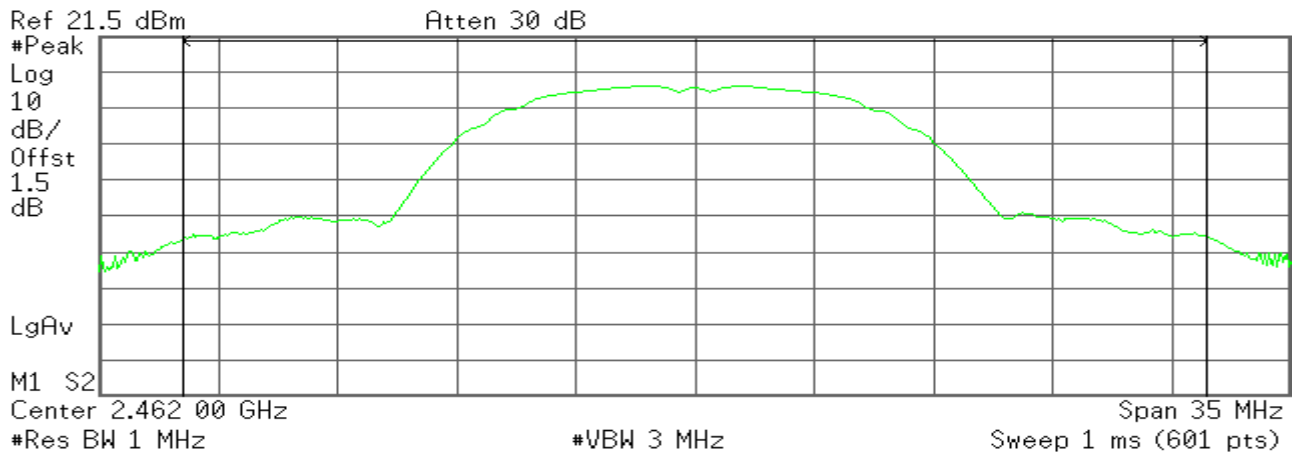
-58.63 dBm/Hz



Peak Power (CH High)

* Agilent

R T

**Channel Power**

15.95 dBm /30.0000 MHz

Power Spectral Density

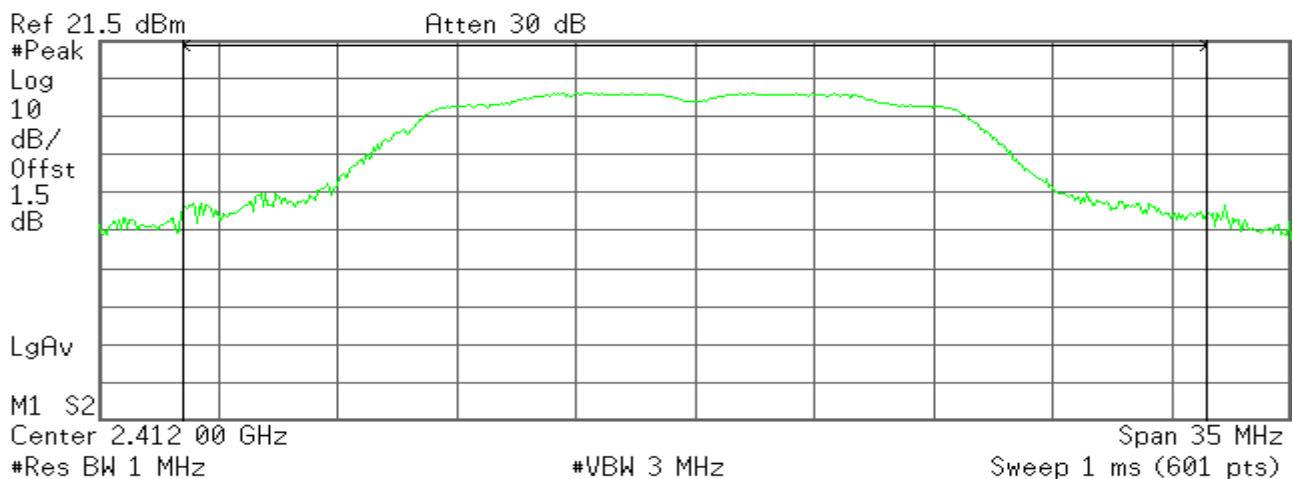
-58.82 dBm/Hz

IEEE 802.11g mode

Peak Power (CH Low)

* Agilent

R T

**Channel Power**

13.86 dBm /30.0000 MHz

Power Spectral Density

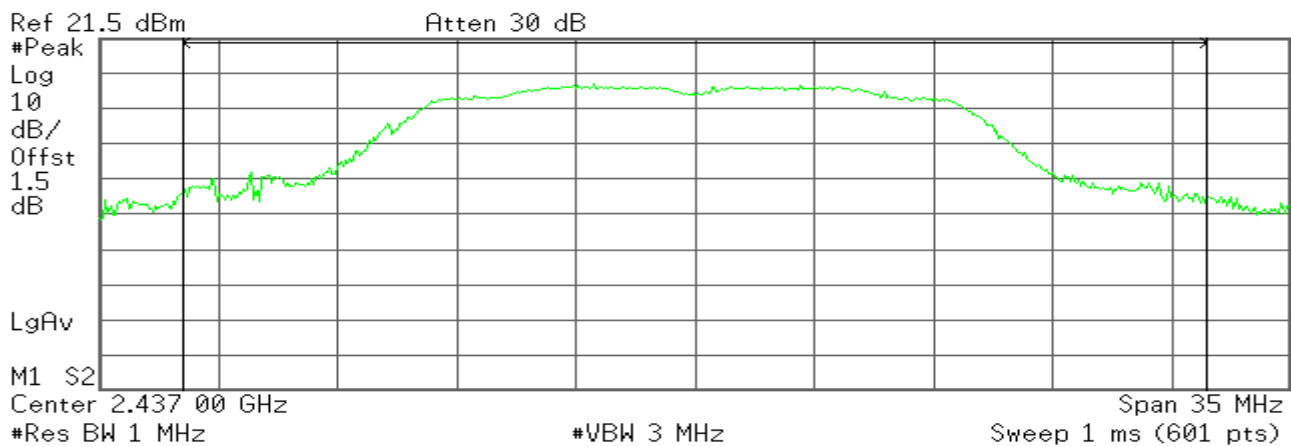
-60.91 dBm/Hz



Peak Power (CH Mid)

Agilent

R T

**Channel Power**

13.92 dBm /30.0000 MHz

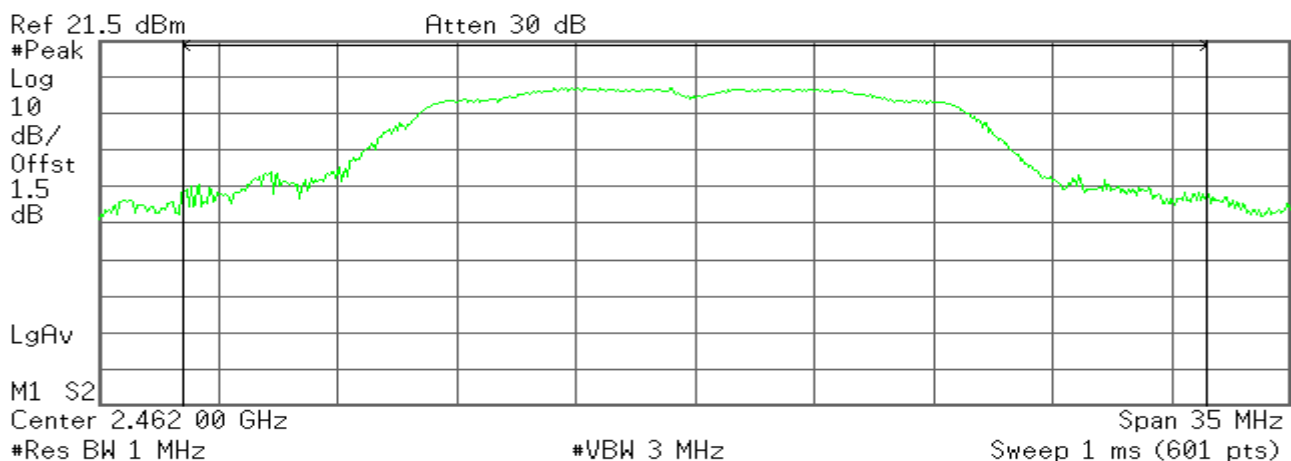
Power Spectral Density

-60.86 dBm/Hz

Peak Power (CH High)

Agilent

R T

**Channel Power**

14.54 dBm /30.0000 MHz

Power Spectral Density

-60.23 dBm/Hz

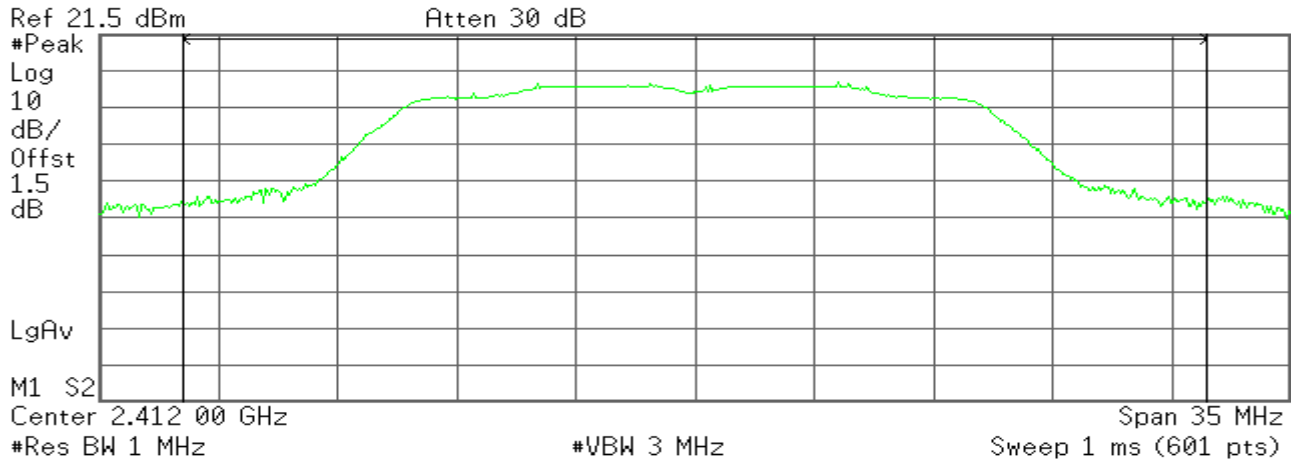


draft 802.11gn Standard-20 MHz Channel mode / Chain 0

Peak Power (CH Low)

* Agilent

R T



Channel Power

13.74 dBm /30.0000 MHz

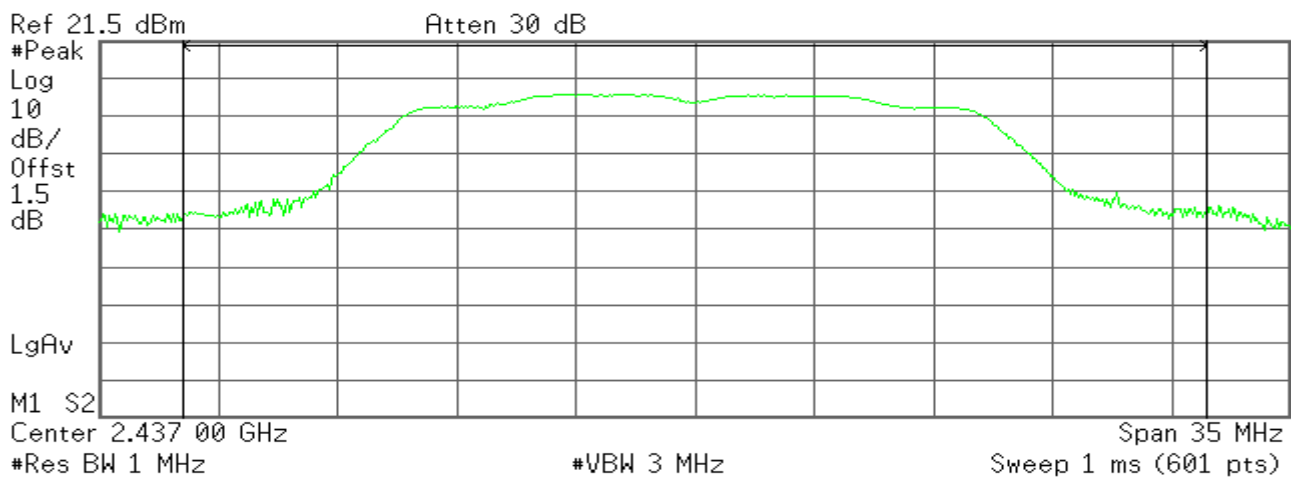
Power Spectral Density

-61.03 dBm/Hz

Peak Power (CH Mid)

* Agilent

R T



Channel Power

13.63 dBm /30.0000 MHz

Power Spectral Density

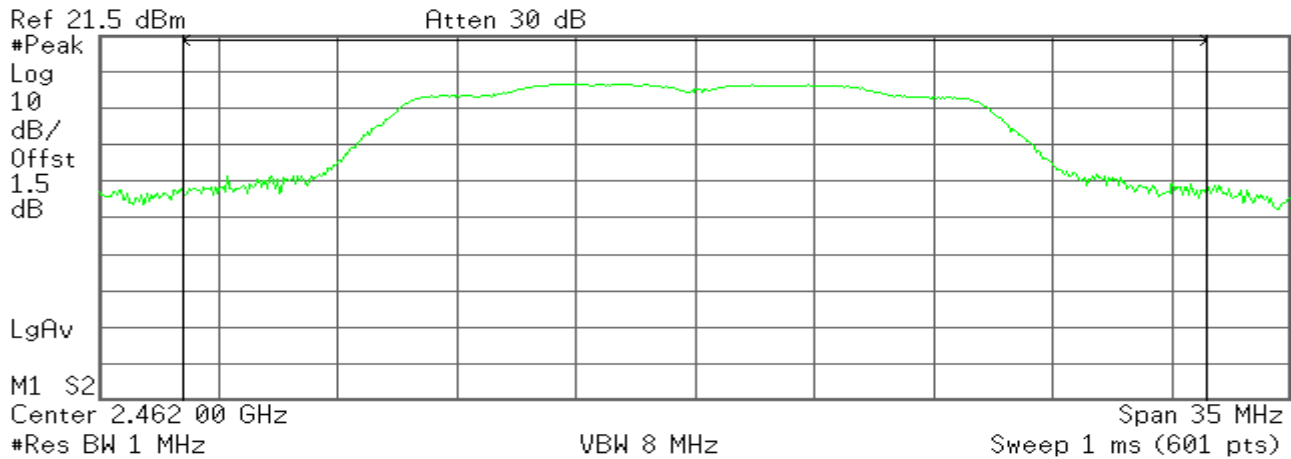
-61.14 dBm/Hz



Peak Power (CH High)

Agilent

R T



Channel Power

14.54 dBm /30.0000 MHz

Power Spectral Density

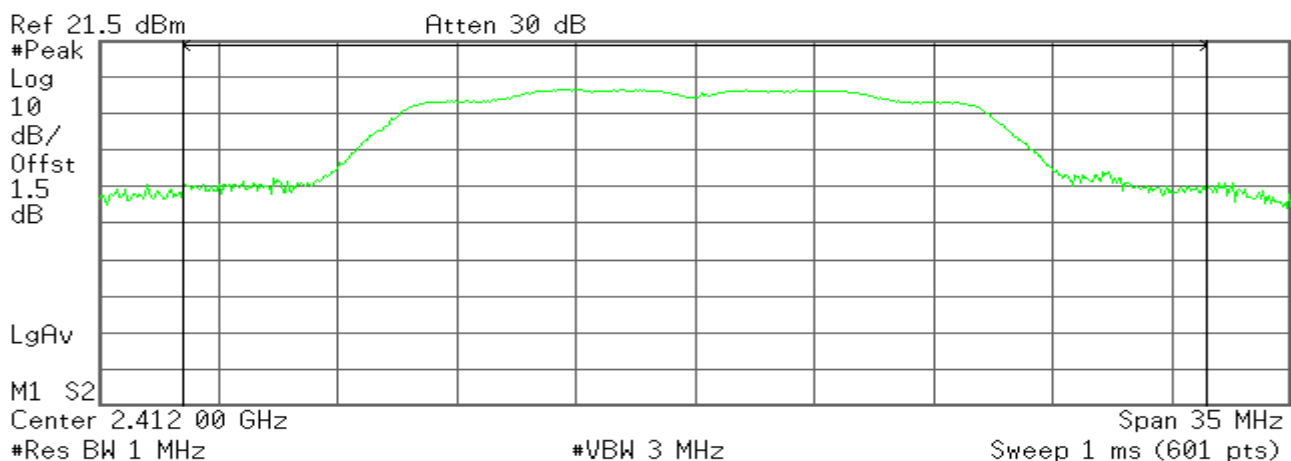
-60.23 dBm/Hz

draft 802.11gn Standard-20 MHz Channel mode / Chain 1

Peak Power (CH Low)

Agilent

R T



Channel Power

14.52 dBm /30.0000 MHz

Power Spectral Density

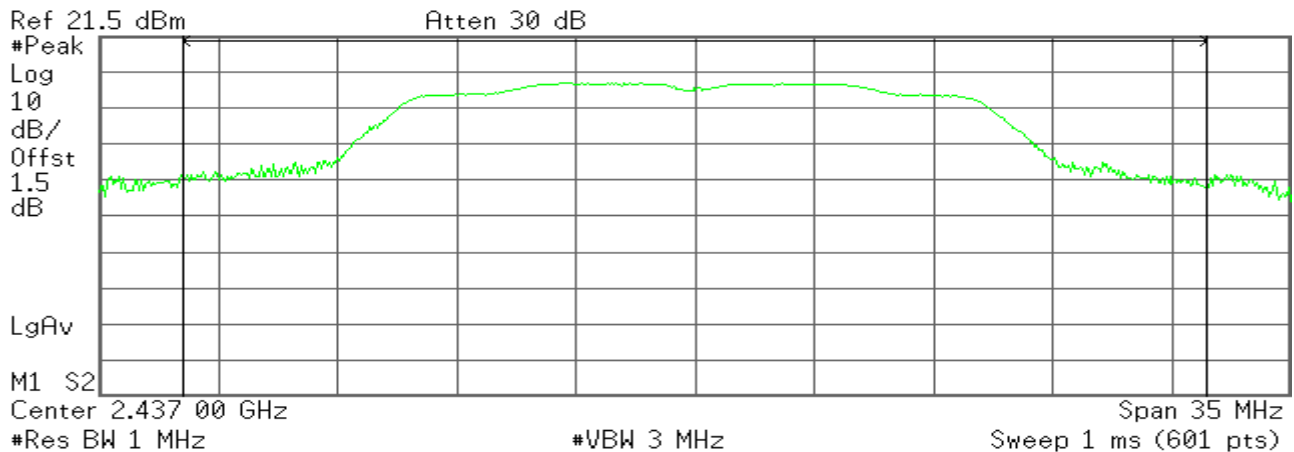
-60.25 dBm/Hz



Peak Power (CH Mid)

* Agilent

R T

**Channel Power**

14.91 dBm /30.0000 MHz

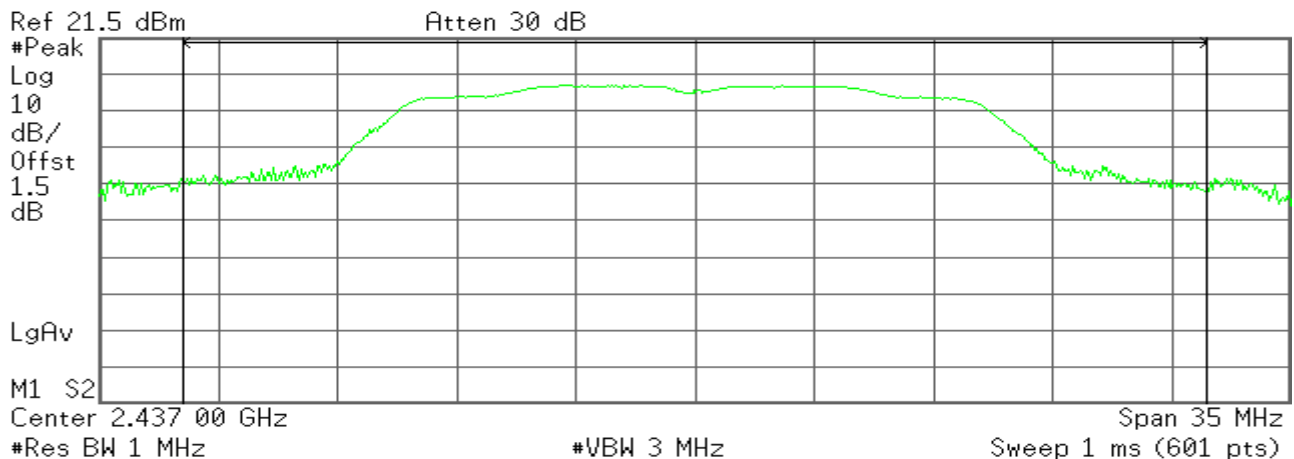
Power Spectral Density

-59.87 dBm/Hz

Peak Power (CH High)

* Agilent

R T

**Channel Power**

14.91 dBm /30.0000 MHz

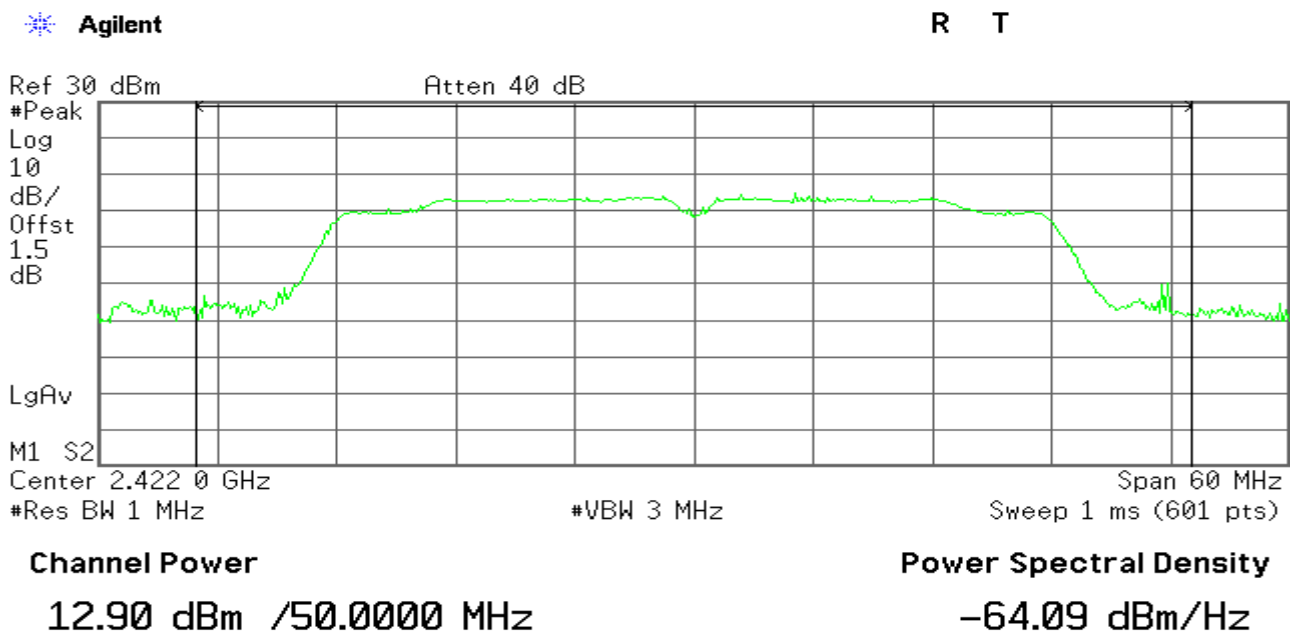
Power Spectral Density

-59.87 dBm/Hz

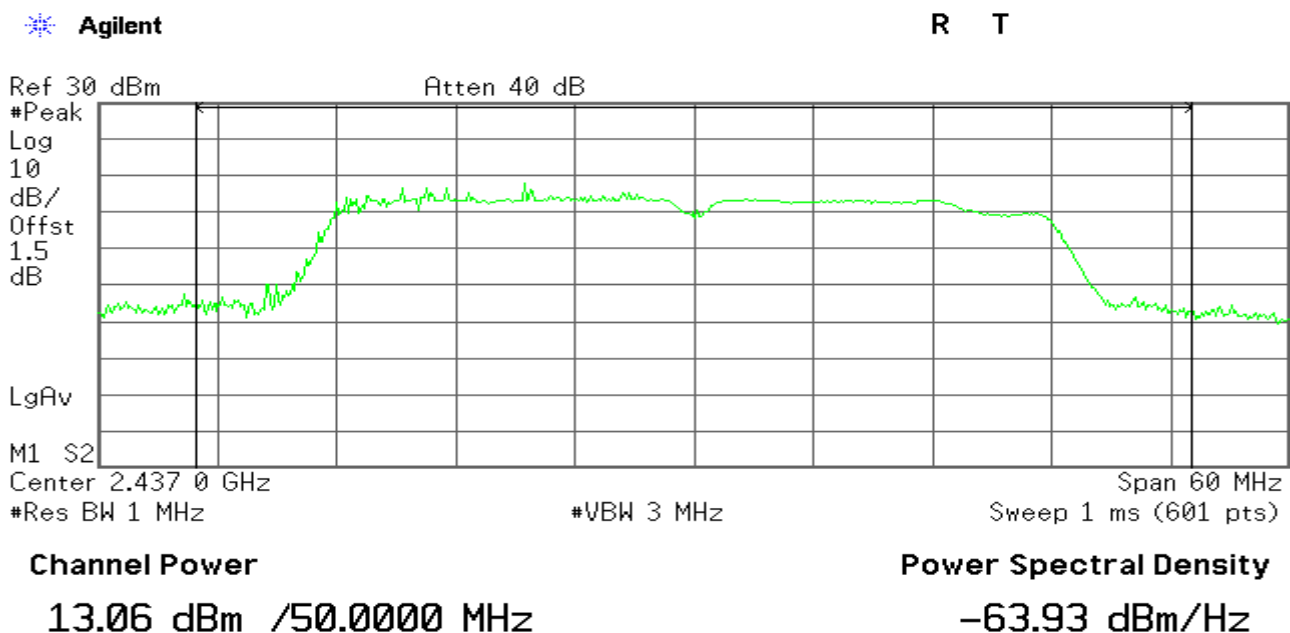


draft 802.11gn Wide-40 MHz Channel mode / Chain 0

Peak Power (CH Low)



Peak Power (CH Mid)



Peak Power (CH High)



Compliance Certification Services Inc.

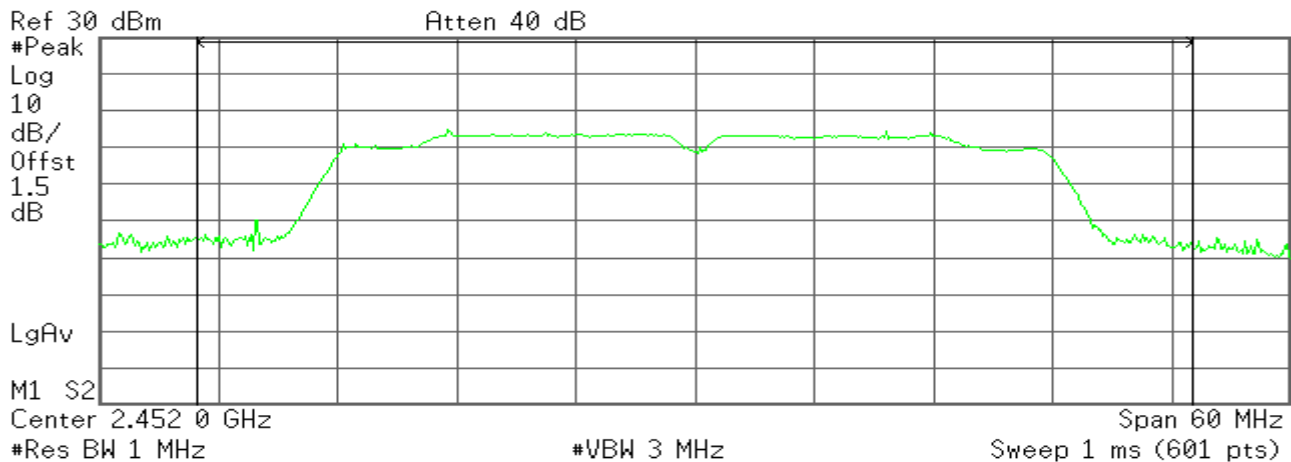
Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

Agilent

R T



Channel Power

13.07 dBm /50.0000 MHz

Power Spectral Density

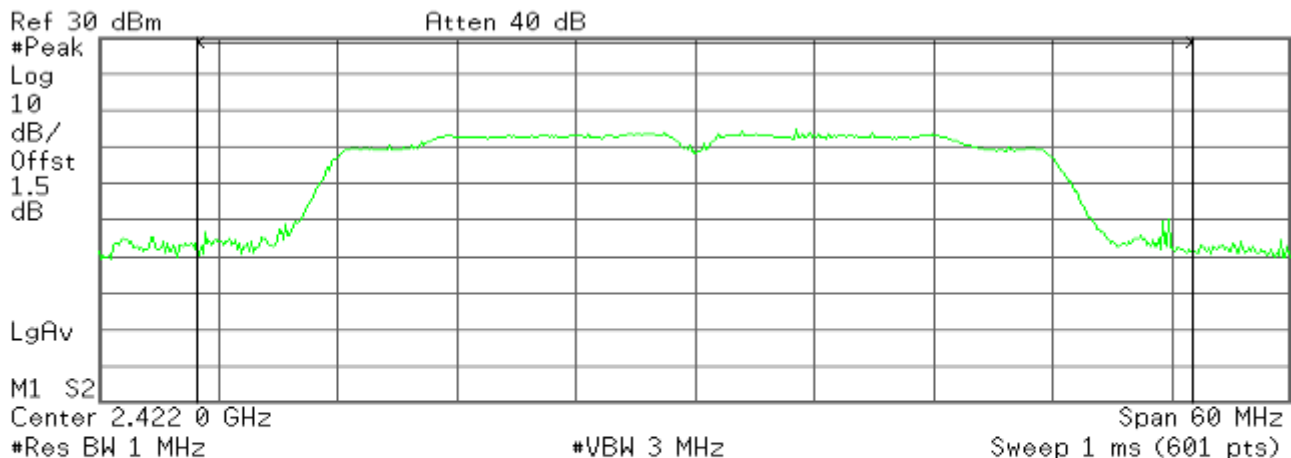
-63.92 dBm/Hz

draft 802.11gn Wide-40 MHz Channel mode / Chain 1

Peak Power (CH Low)

Agilent

R T



Channel Power

12.90 dBm /50.0000 MHz

Power Spectral Density

-64.09 dBm/Hz

Peak Power (CH Mid)



Compliance Certification Services Inc.

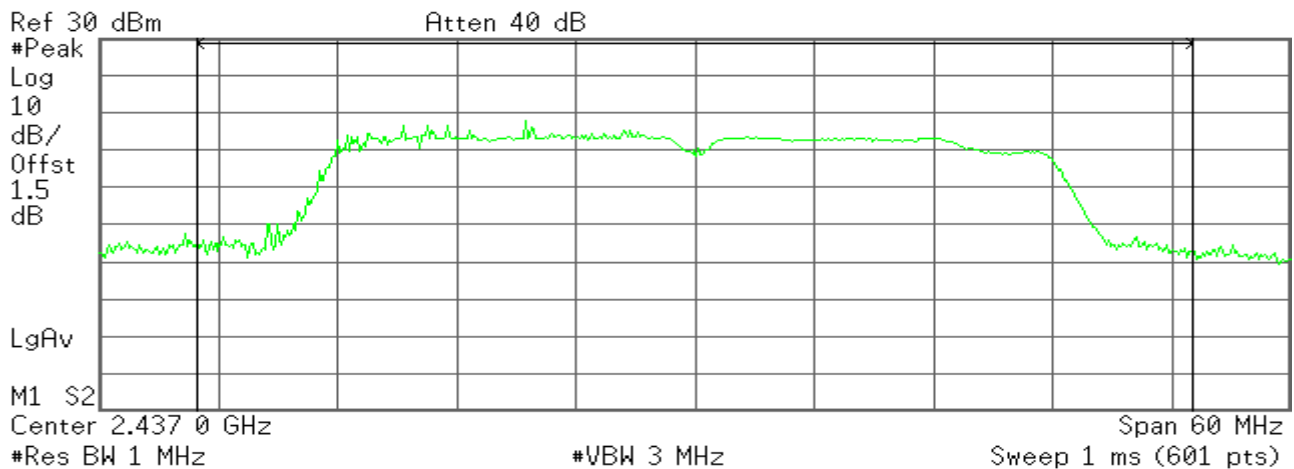
Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

Agilent

R T



Channel Power

13.06 dBm /50.0000 MHz

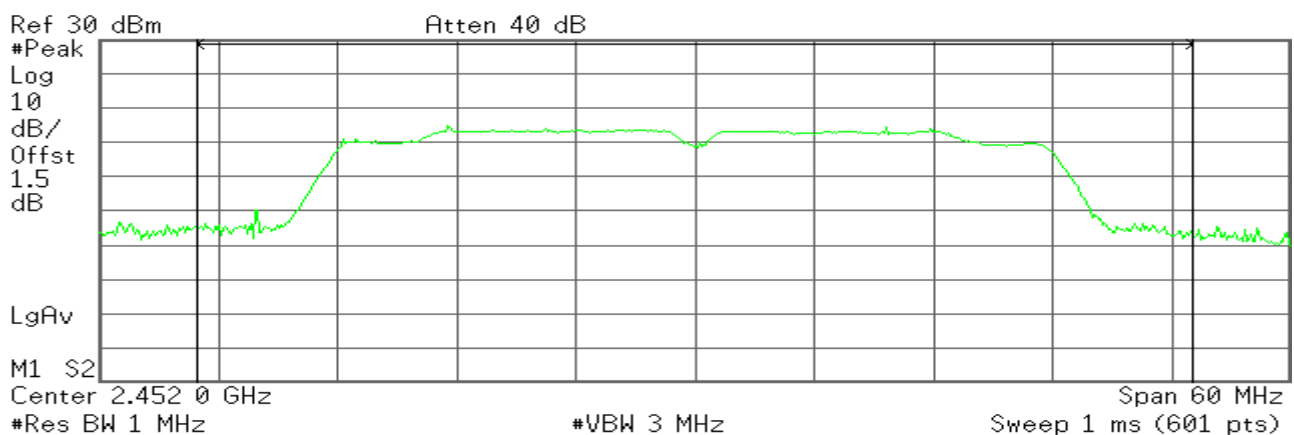
Power Spectral Density

-63.93 dBm/Hz

Peak Power (CH High)

Agilent

R T



Channel Power

13.07 dBm /50.0000 MHz

Power Spectral Density

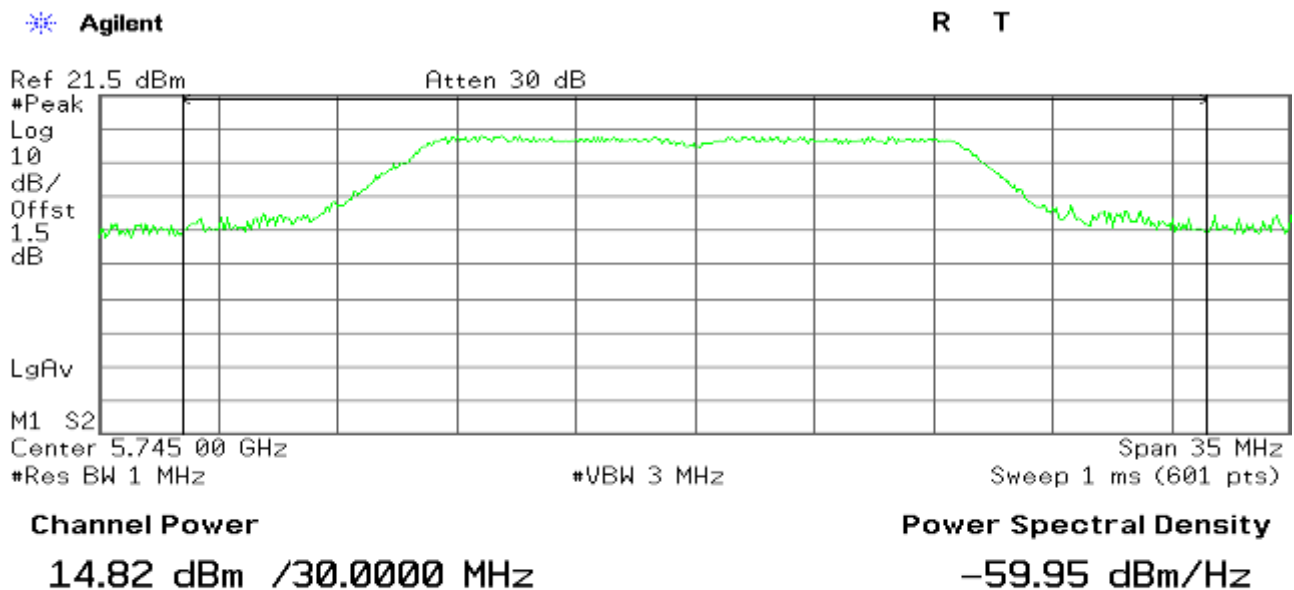
-63.92 dBm/Hz

5725-5825

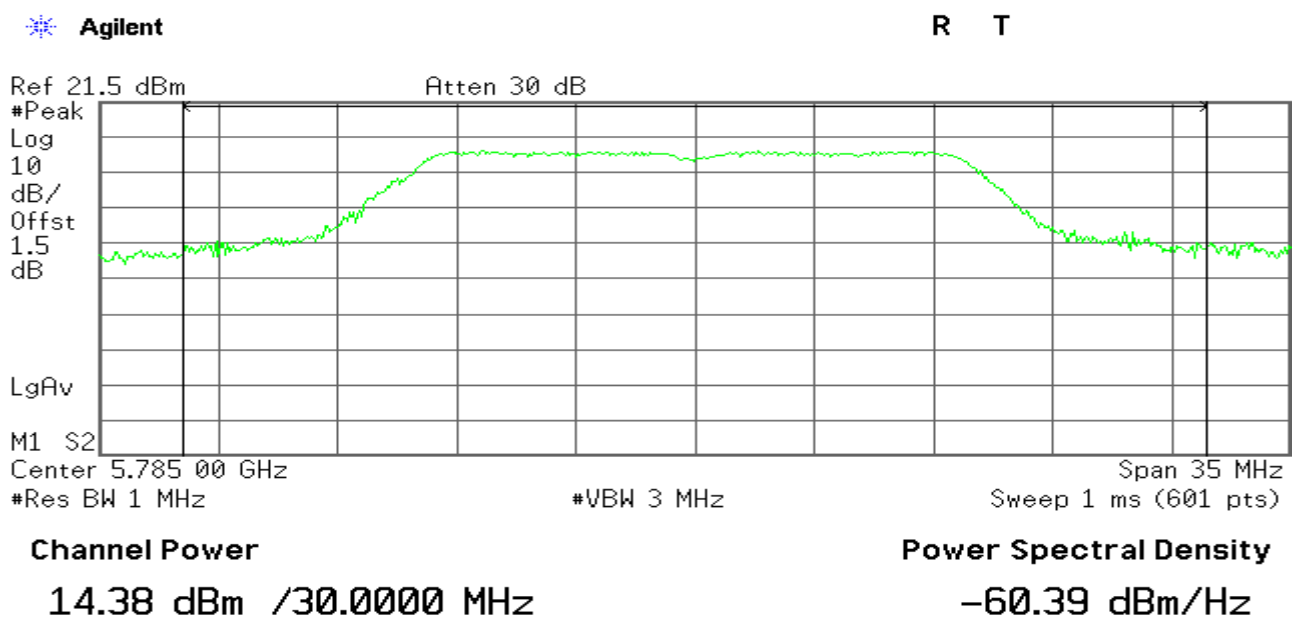


IEEE 802.11a mode

Peak Power (CH Low)



Peak Power (CH Mid)



Peak Power (CH High)



Compliance Certification Services Inc.

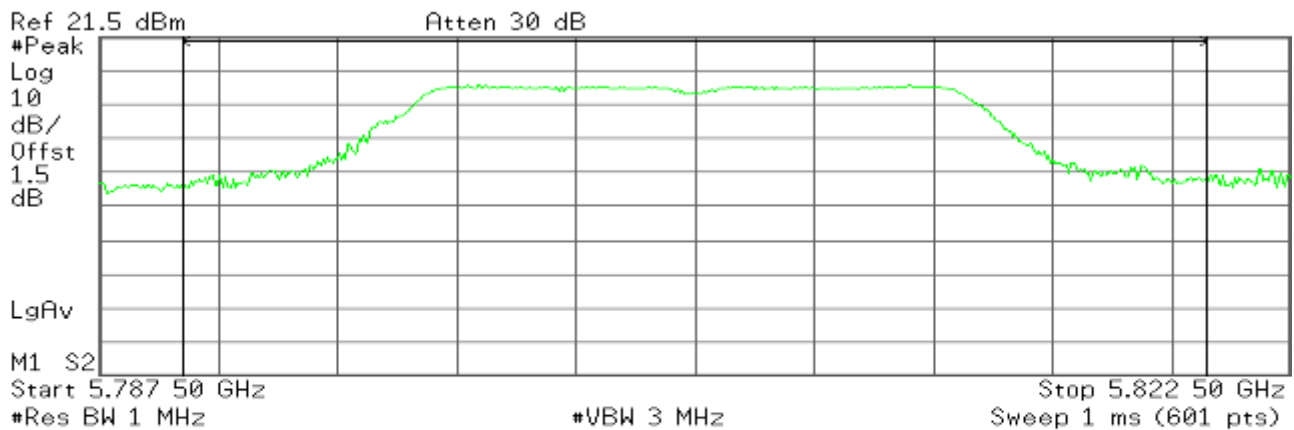
Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

Agilent

R T



Channel Power

14.18 dBm /30.0000 MHz

Power Spectral Density

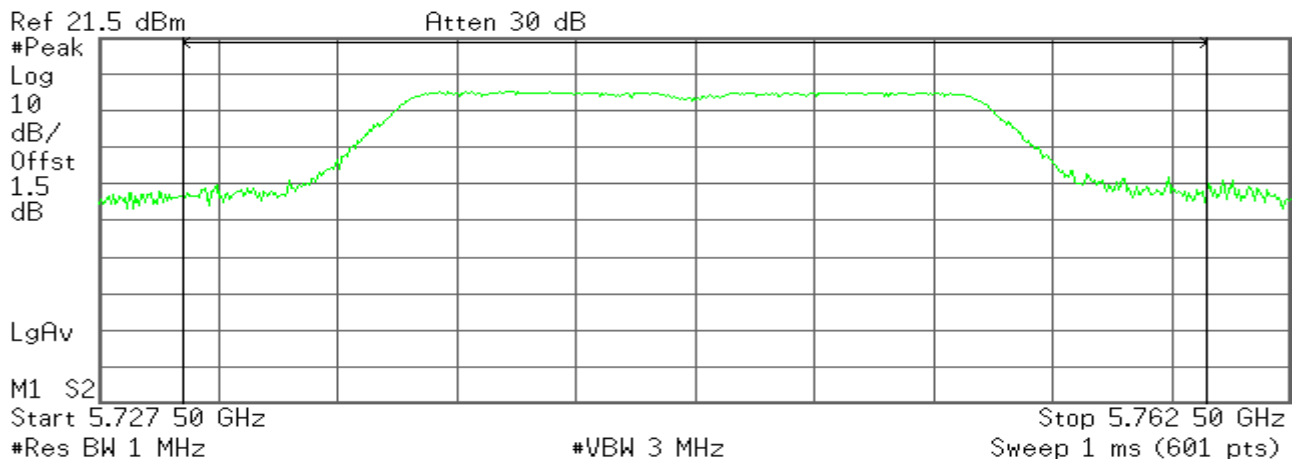
-60.59 dBm/Hz

draft 802.11an Standard-20 MHz Channel mode / Chain 0

Peak Power (CH Low)

Agilent

R T



Channel Power

14.18 dBm /30.0000 MHz

Power Spectral Density

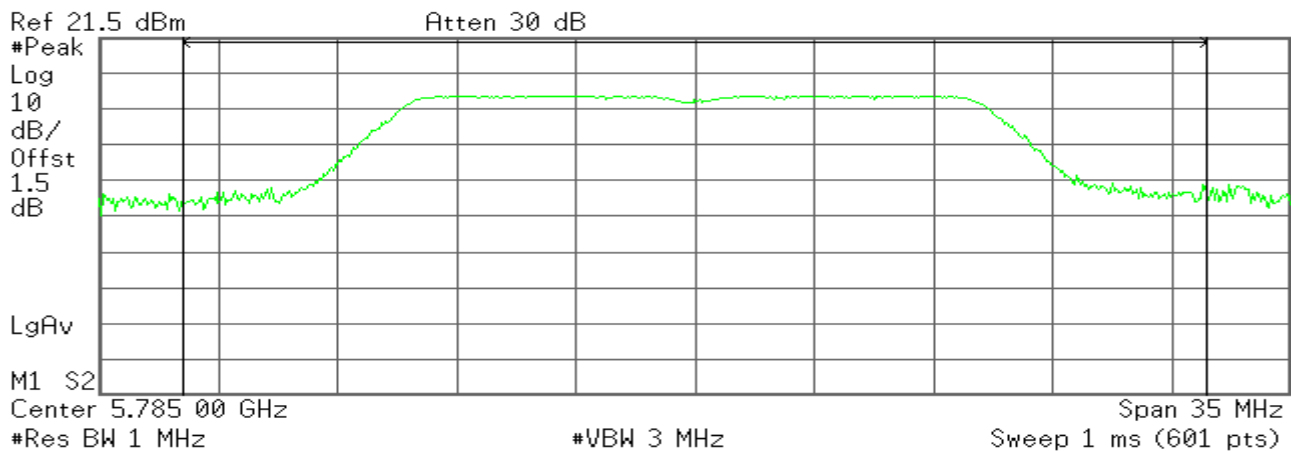
-60.60 dBm/Hz



Peak Power (CH Mid)

Agilent

R T

**Channel Power**

12.68 dBm /30.0000 MHz

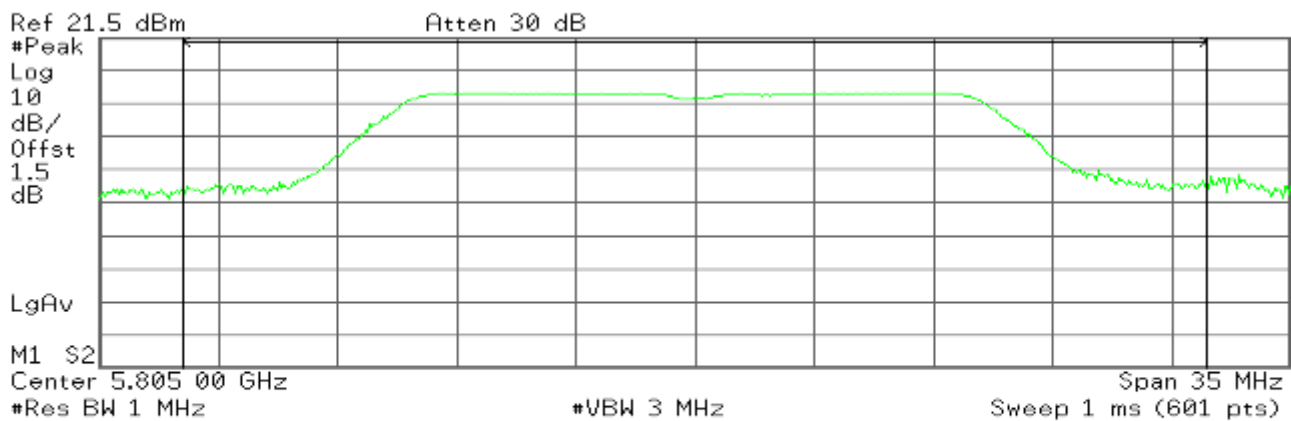
Power Spectral Density

-62.09 dBm/Hz

Peak Power (CH High)

Agilent

R T

**Channel Power**

12.10 dBm /30.0000 MHz

Power Spectral Density

-62.67 dBm/Hz

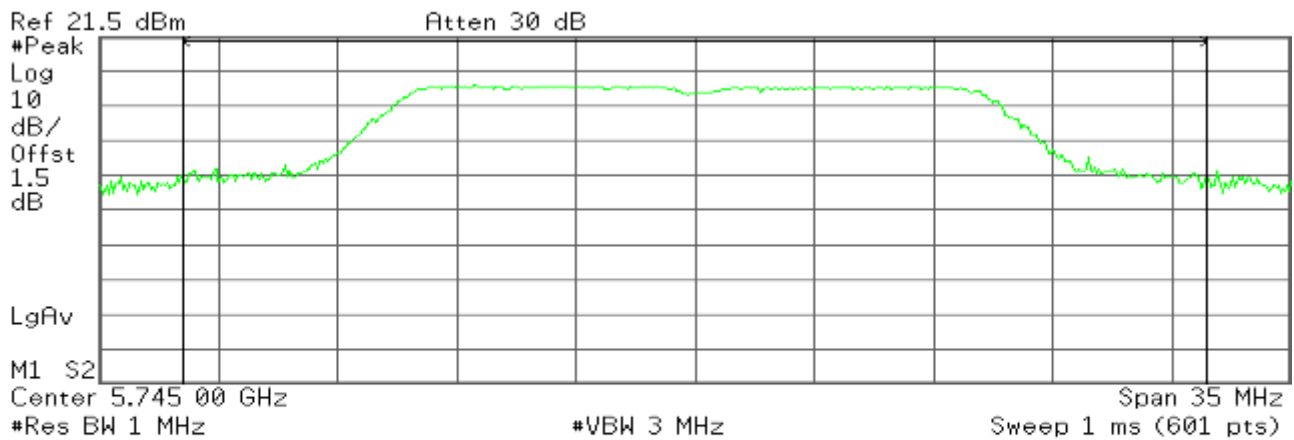
draft 802.11an Standard-20 MHz Channel mode / Chain 1



Peak Power (CH Low)

* Agilent

R T



Channel Power

14.04 dBm /30.0000 MHz

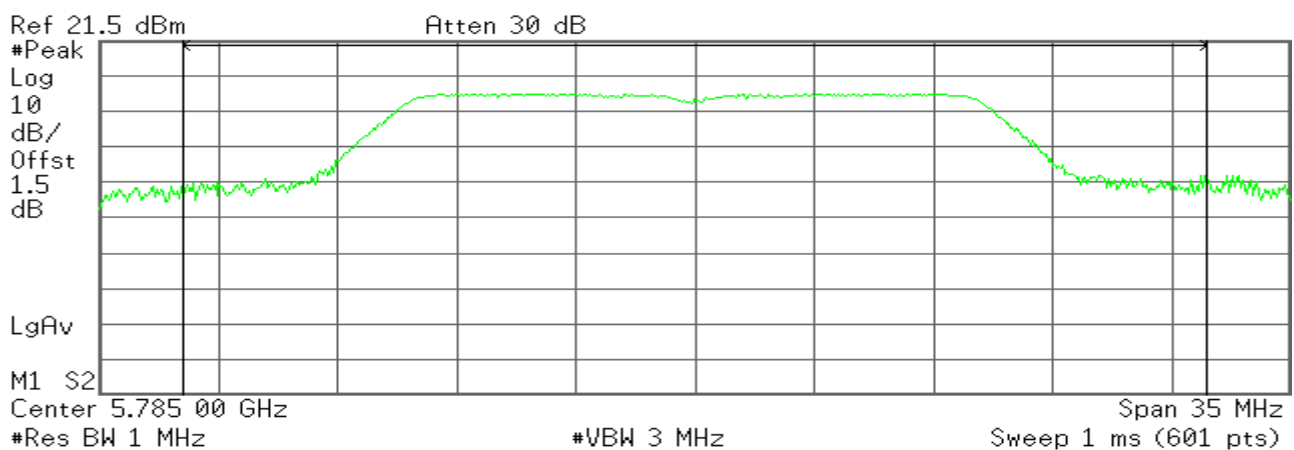
Power Spectral Density

-60.73 dBm/Hz

Peak Power (CH Mid)

* Agilent

R T



Channel Power

13.93 dBm /30.0000 MHz

Power Spectral Density

-60.84 dBm/Hz

Peak Power (CH High)



Compliance Certification Services Inc.

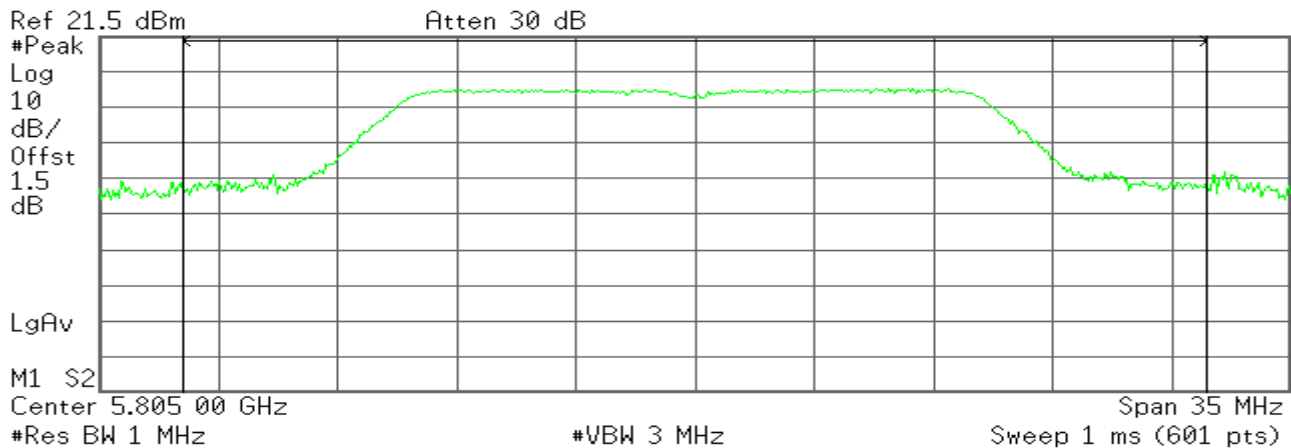
Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

Agilent

R T



Channel Power

13.84 dBm /30.0000 MHz

Power Spectral Density

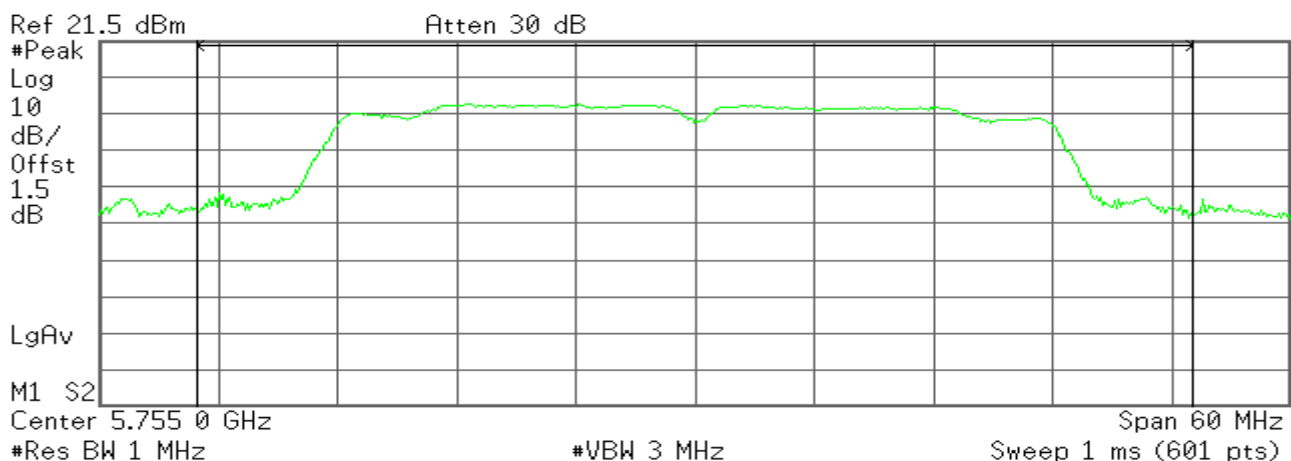
-60.93 dBm/Hz

draft 802.11an Standard-40 MHz Channel mode / Chain 0

Peak Power (CH Low)

Agilent

R T



Channel Power

13.57 dBm /50.0000 MHz

Power Spectral Density

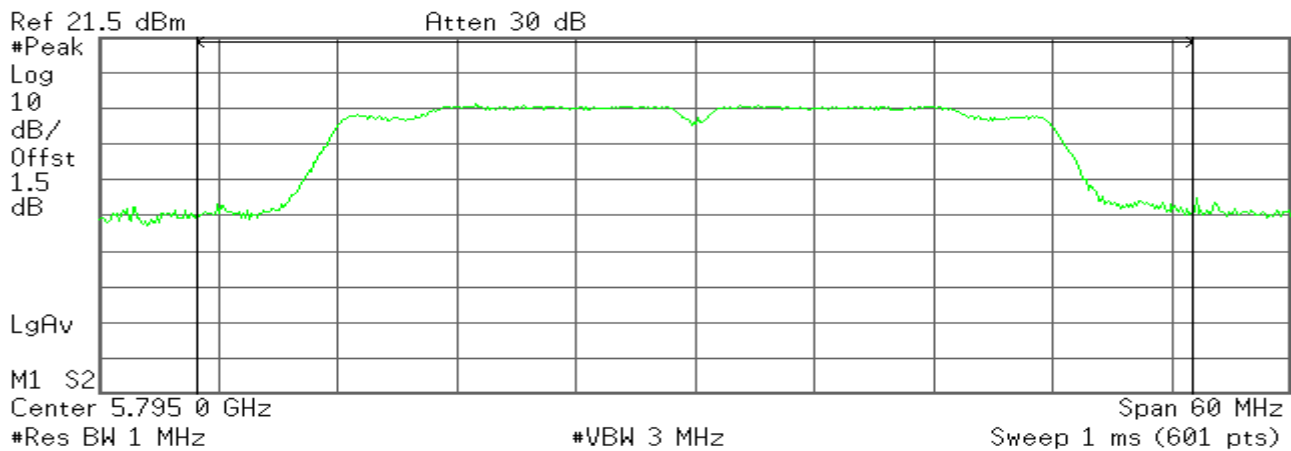
-63.42 dBm/Hz



Peak Power (CH High)

Agilent

R T



Channel Power

12.08 dBm /50.0000 MHz

Power Spectral Density

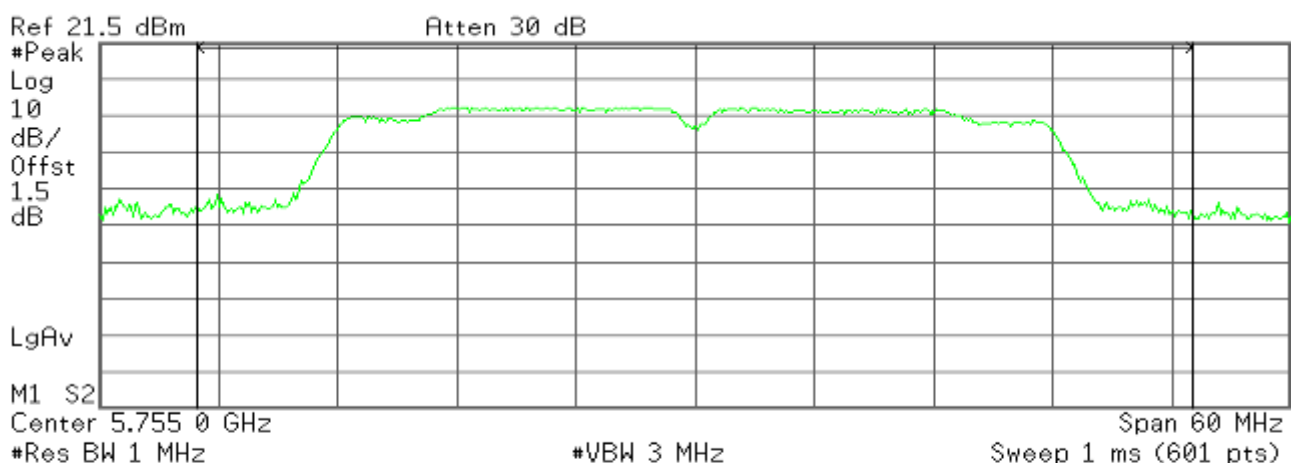
-64.91 dBm/Hz

draft 802.11an Standard-40 MHz Channel mode / Chain 1

Peak Power (CH Low)

Agilent

R T



Channel Power

13.48 dBm /50.0000 MHz

Power Spectral Density

-63.51 dBm/Hz

Peak Power (CH High)



Compliance Certification Services Inc.

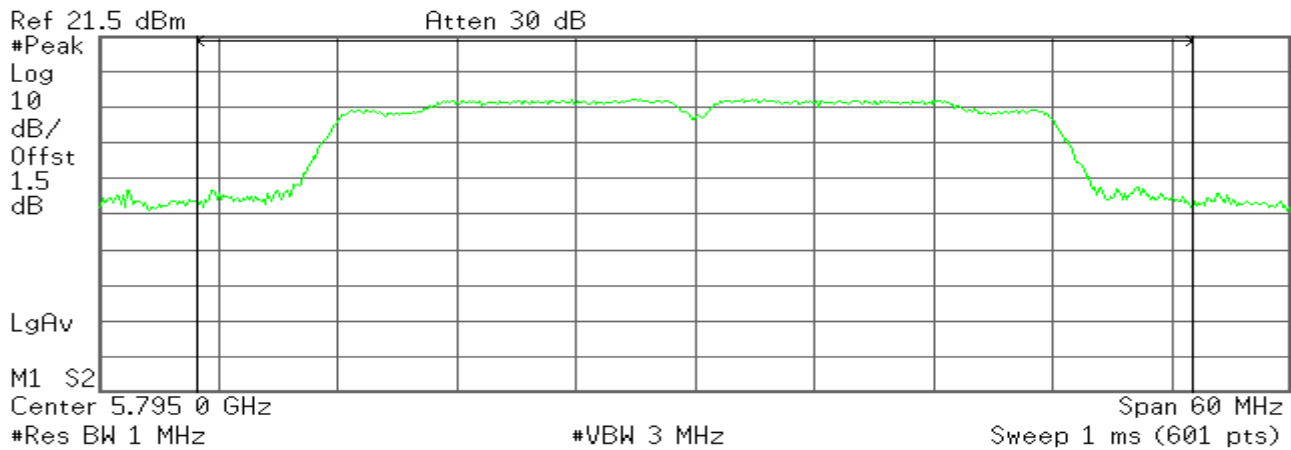
Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

Agilent

R T



Channel Power

13.40 dBm /50.0000 MHz

Power Spectral Density

-63.59 dBm/Hz

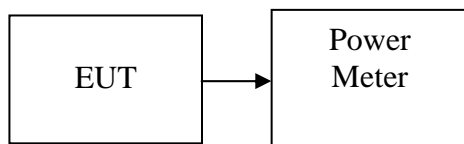


7.3.AVERAGE POWER

LIMIT

None; for reporting purposes only.

Test Configuration



TEST PROCEDURE

The transmitter output is connected to the Power meter.

TEST RESULTS

No non-compliance noted

Test Data

Test mode: IEEE 802.11b mode

Channel	Frequency (MHz)	Output Power (dBm)
Low	2412	14.20
Mid	2437	14.15
High	2462	14.25

Test mode: IEEE 802.11g mode

Channel	Frequency (MHz)	Output Power (dBm)
Low	2412	13.01
Mid	2437	13.11
High	2462	12.98

Test mode: draft 802.11gn Standard-20 MHz Channel mode

Channel	Frequency (MHz)	Chain 0 Output Power (dBm)	Chain 1 Output Power (dBm)	Output Power (dBm)
Low	2412	13.86	13.12	16.52
Mid	2437	13.74	13.24	16.51
High	2462	13.55	13.21	16.39

**Test mode: draft 802.11gn Wide-40 MHz Channel mode**

Channel	Frequency (MHz)	Chain 0 Output Power (dBm)	Chain 1 Output Power (dBm)	Output Power (dBm)
Low	2422	12.98	12.99	16.00
Mid	2437	12.89	12.97	15.94
High	2452	12.96	12.86	15.92

Test mode: IEEE 802.11a mode

Channel	Frequency (MHz)	Output Power (dBm)
Low	5745	13.82
Mid	5785	13.38
High	5805	13.18

Test mode: draft 802.11an Standard-20 MHz Channel mode

Channel	Frequency (MHz)	Chain 0 Output Power (dBm)	Chain 1 Output Power (dBm)	Output Power (dBm)
Low	5745	13.18	13.01	16.11
Mid	5785	11.68	12.22	14.97
High	5805	11.13	12.98	15.16

Test mode: draft 802.11an Wide-40 MHz Channel mode

Channel	Frequency (MHz)	Chain 0 Output Power (dBm)	Chain 1 Output Power (dBm)	Output Power (dBm)
Low	5755	12.50	12.62	15.57
Mid	5795	11.56	12.34	14.98

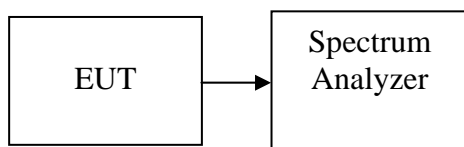


7.4. PEAK POWER SPECTRAL DENSITY

LIMIT

1. According to §15.247(e), for digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.
2. According to §15.247(f), the digital modulation operation of the hybrid system, with the frequency hopping turned off, shall comply with the power density requirements of paragraph (d) of this section.

Test Configuration



TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set the spectrum analyzer as RBW = 3 kHz, VBW = 10 kHz, Span = 300 kHz, Sweep = 100 s
3. Record the max reading.
4. Repeat the above procedure until the measurements for all frequencies are completed.

TEST RESULTS

No non-compliance noted



Test Data

Test mode: IEEE 802.11b mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-10.53	8.00	PASS
Mid	2437	-10.78	8.00	PASS
High	2462	-11.68	8.00	PASS

Test mode: IEEE 802.11g mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-22.52	8.00	PASS
Mid	2437	-21.36	8.00	PASS
High	2462	-22.11	8.00	PASS

Test mode: draft 802.11gn Standard-20 MHz Channel mode

Channel	Frequency (MHz)	PPSD Chain 0 (dBm)	PPSD Chain 1 (dBm)	PPSD Total (dBm)	Limit (dBm)	Result
Low	2412	-23.29	-22.22	-19.71	8.00	PASS
Mid	2437	-23.74	-22.07	-19.81	8.00	PASS
High	2462	-21.85	-22.85	-19.31	8.00	PASS

Remark: Total PPSS (dBm) = $10 \cdot \log(10^{\text{Chain 0 PPSS} / 10} + 10^{\text{Chain 1 PPSS} / 10})$

Test mode: draft 802.11gn Wide-40 MHz Channel mode

Channel	Frequency (MHz)	PPSD Chain 0 (dBm)	PPSD Chain 1 (dBm)	PPSD Total (dBm)	Limit (dBm)	Result
Low	2422	-24.90	-31.75	-24.08	8.00	PASS
Mid	2437	-24.96	-32.32	-24.23	8.00	PASS
High	2452	-25.33	-32.31	-24.54	8.00	PASS

Remark: Total PPSS (dBm) = $10 \cdot \log(10^{\text{Chain 0 PPSS} / 10} + 10^{\text{Chain 1 PPSS} / 10})$

Test mode: IEEE 802.11a mode

Channel	Frequency (MHz)	PPSD Total (dBm)	Limit (dBm)	Result
Low	5745	-15.57	8.00	PASS
Mid	5785	-20.00	8.00	PASS
High	5805	-20.36	8.00	PASS

**Test mode: draft 802.11an Standard-20 MHz Channel mode**

Channel	Frequency (MHz)	PPSD Chain 0 (dBm)	PPSD Chain 1 (dBm)	PPSD Total (dBm)	Limit (dBm)	Result
Low	5745	-16.06	-23.68	-15.37	8.00	PASS
Mid	5785	-20.47	-24.59	-19.05	8.00	PASS
High	5805	-20.43	-24.42	-18.97	8.00	PASS

Remark: Total PSD (dBm) = $10 \cdot \log(10^{\text{Chain 0 PSD} / 10} + 10^{\text{Chain 1 PSD} / 10})$

Test mode: draft 802.11an Wide-40 MHz Channel mode

Channel	Frequency (MHz)	PPSD Chain 0 (dBm)	PPSD Chain 1 (dBm)	PPSD Total (dBm)	Limit (dBm)	Result
Low	5755	-27.00	-27.08	-24.03	8.00	PASS
Mid	5795	-27.44	-27.88	-24.64	8.00	PASS

Remark: Total PSD (dBm) = $10 \cdot \log(10^{\text{Chain 0 PSD} / 10} + 10^{\text{Chain 1 PSD} / 10})$



Test Plot

IEEE 802.11b mode

PPSD (CH Low)

Agilent

R T

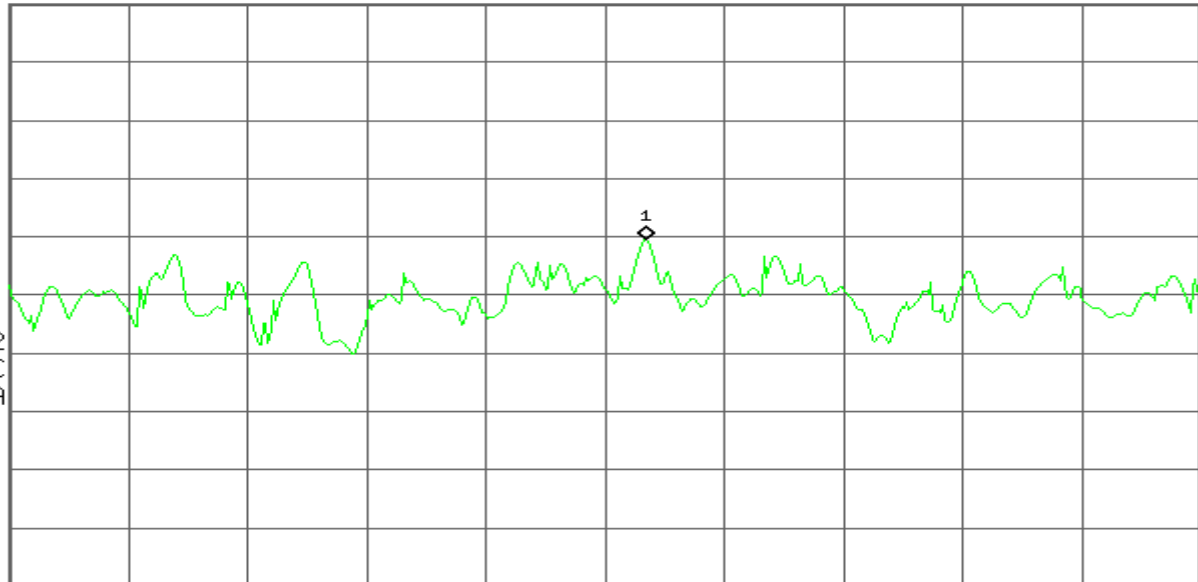
Mkr1 2.412 010 5 GHz
-10.53 dBm

Ref 30 dBm

Atten 40 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Center 2.412 000 0 GHz

*Res BW 3 kHz

*VBW 10 kHz

Span 300 kHz

*Sweep 100 s (601 pts)

PPSD (CH Mid)

Agilent

R T

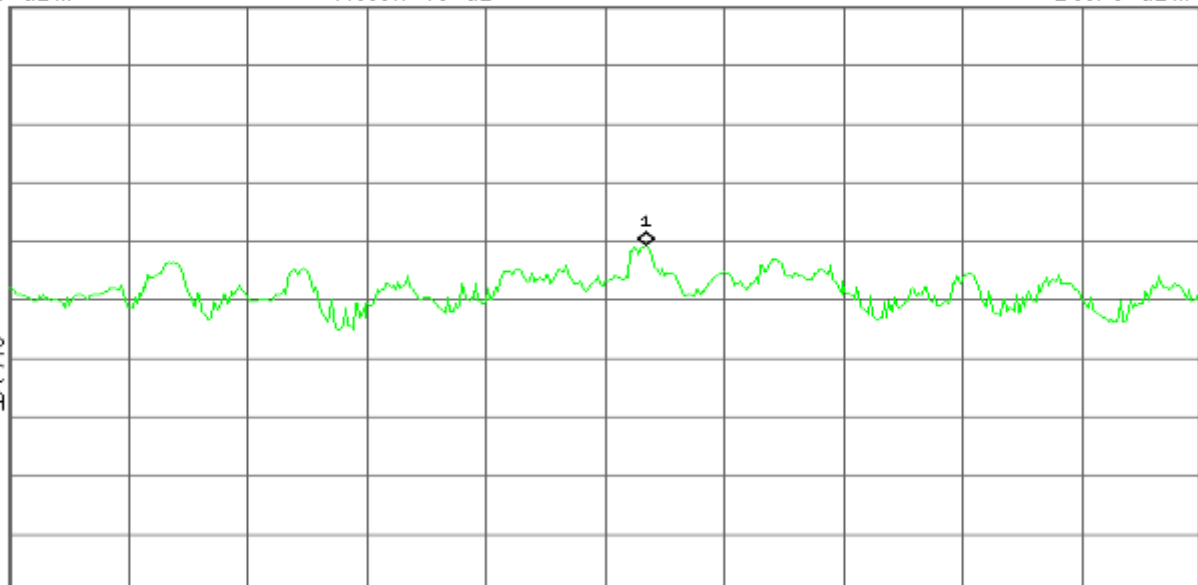
Mkr1 2.437 010 5 GHz
-10.78 dBm

Ref 30 dBm

Atten 40 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Center 2.437 000 0 GHz

*Res BW 3 kHz

*VBW 10 kHz

Span 300 kHz

*Sweep 100 s (601 pts)



PPSD (CH High)

* Agilent

R T

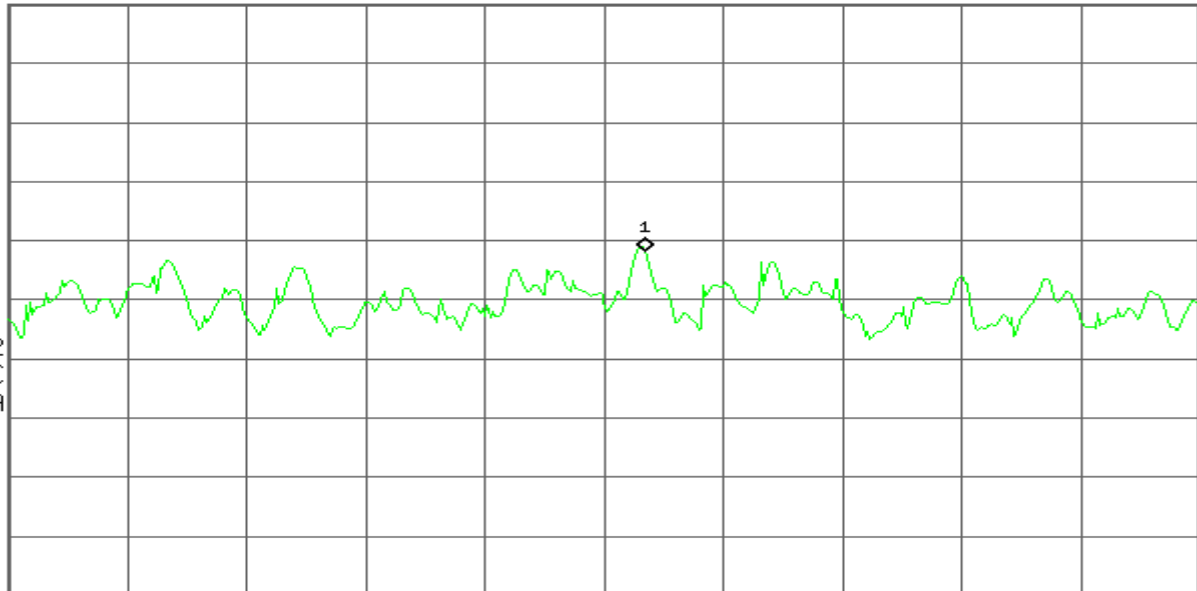
Mkr1 2.462 010 5 GHz
-11.68 dBm

Ref 30 dBm

Atten 40 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Center 2.462 000 0 GHz

*VBW 10 kHz

Span 300 kHz

*Res BW 3 kHz

*Sweep 100 s (601 pts)

IEEE 802.11g mode

PPSD (CH Low)

* Agilent

R T

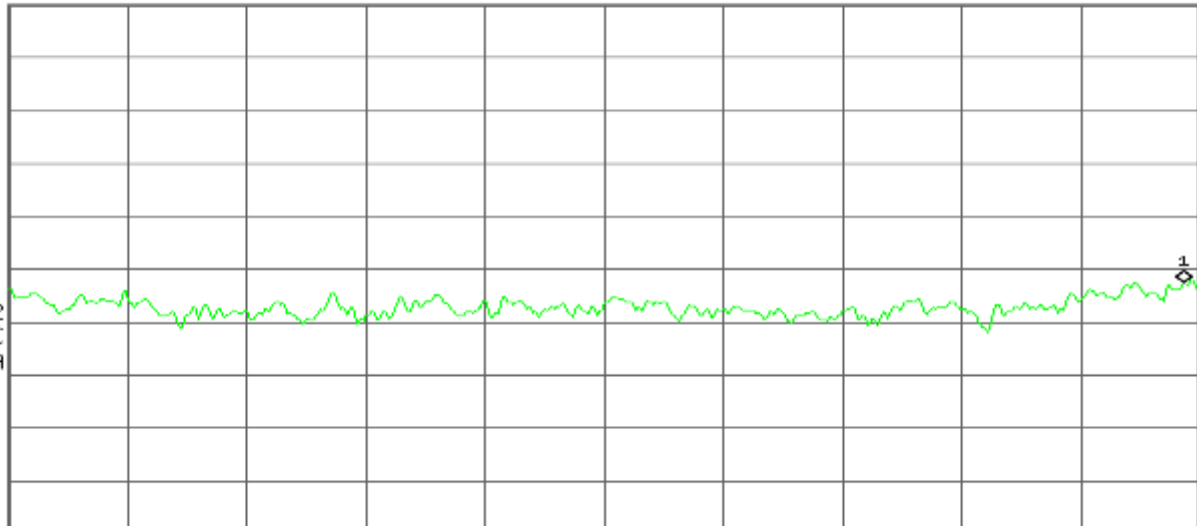
Mkr1 2.412 146 0 GHz
-22.52 dBm

Ref 30 dBm

Atten 40 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Center 2.412 000 0 GHz

*VBW 10 kHz

Span 300 kHz

*Res BW 3 kHz

*Sweep 100 s (601 pts)



PPSD (CH Mid)

* Agilent

R T

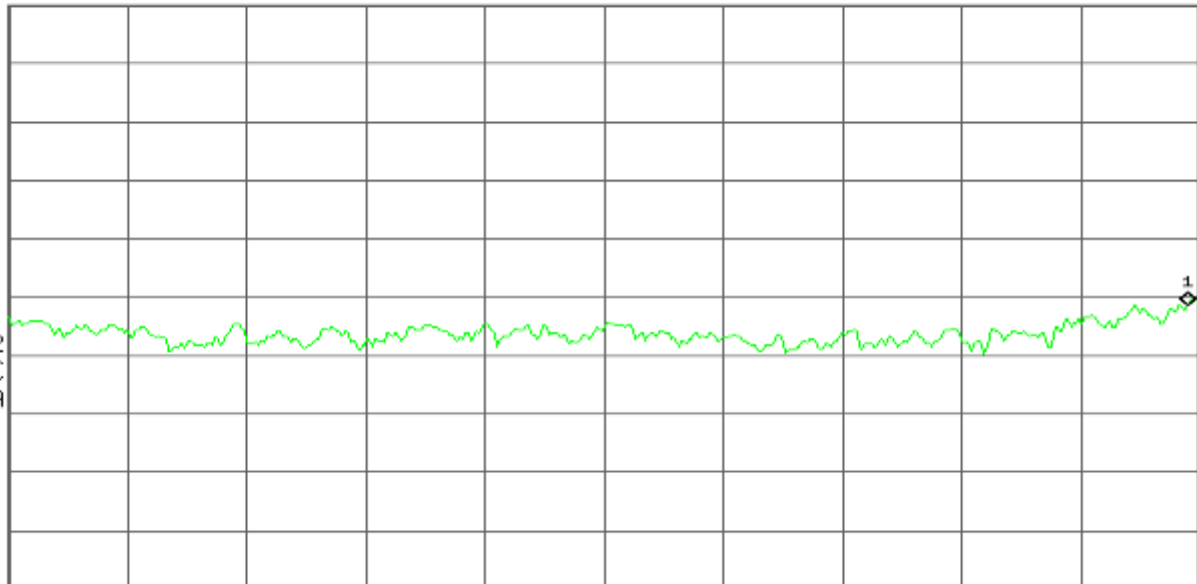
Mkr1 2.437 147 0 GHz
-21.36 dBm

Ref 30 dBm

Atten 40 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AA
£(f):
f>50k
Swp

Center 2.437 000 0 GHz

*Res BW 3 kHz

*VBW 10 kHz

Span 300 kHz

*Sweep 100 s (601 pts)

PPSD (CH High)

* Agilent

R T

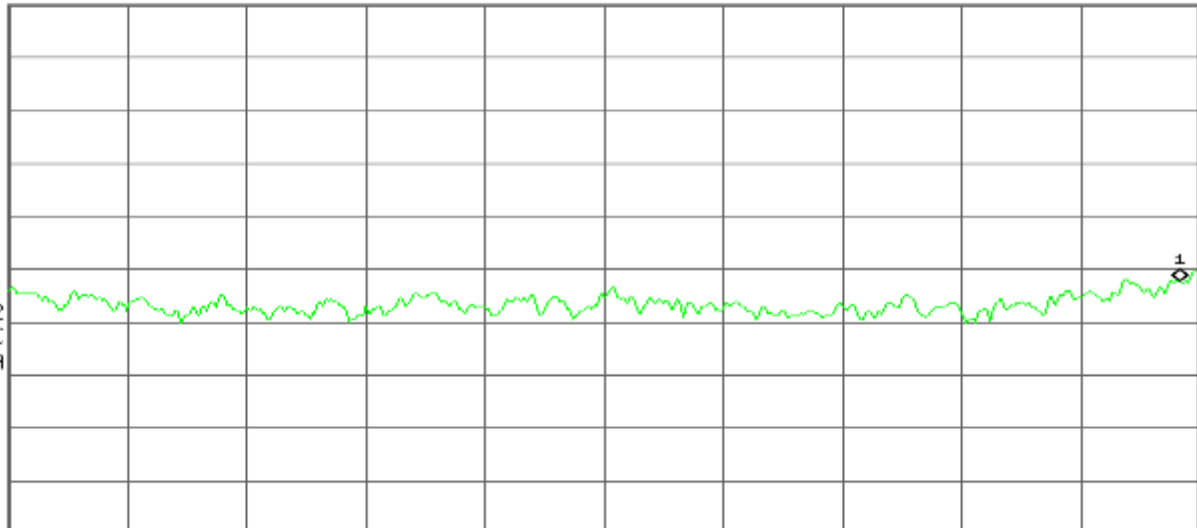
Mkr1 2.462 146 2 GHz
-22.11 dBm

Ref 30 dBm

Atten 40 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AA
£(f):
f>50k
Swp

Center 2.462 000 0 GHz

*Res BW 3 kHz

*VBW 10 kHz

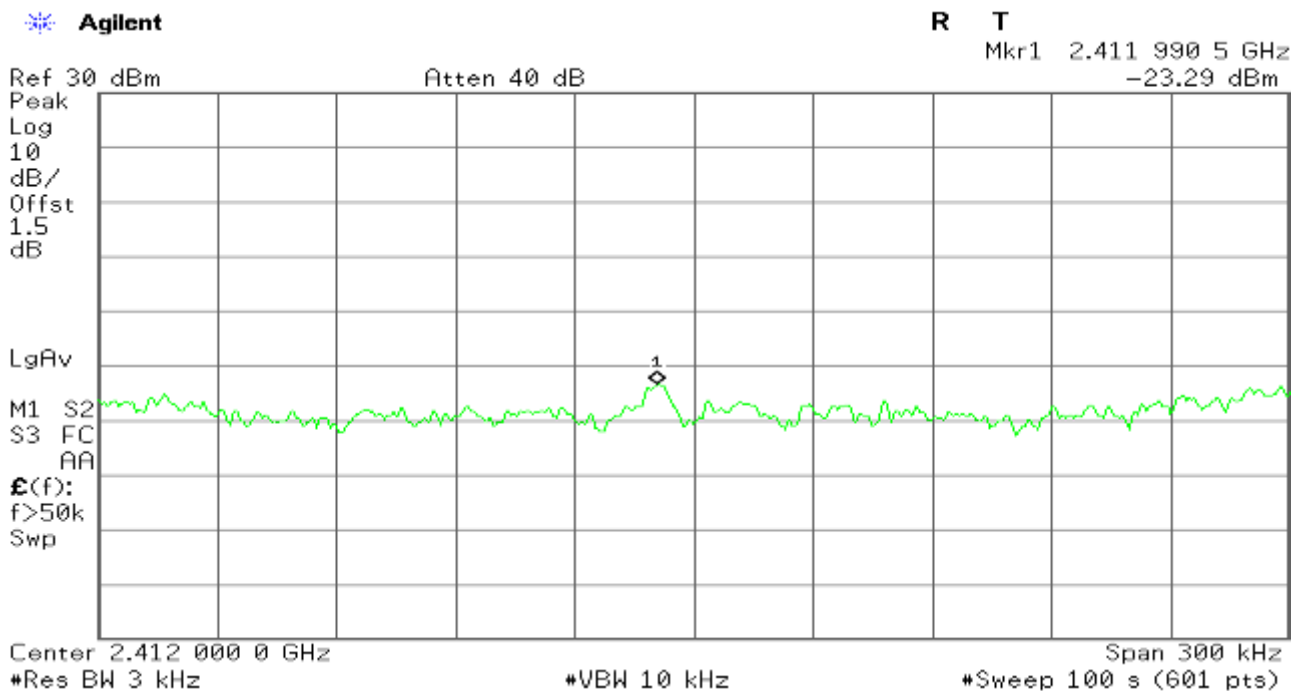
Span 300 kHz

*Sweep 100 s (601 pts)

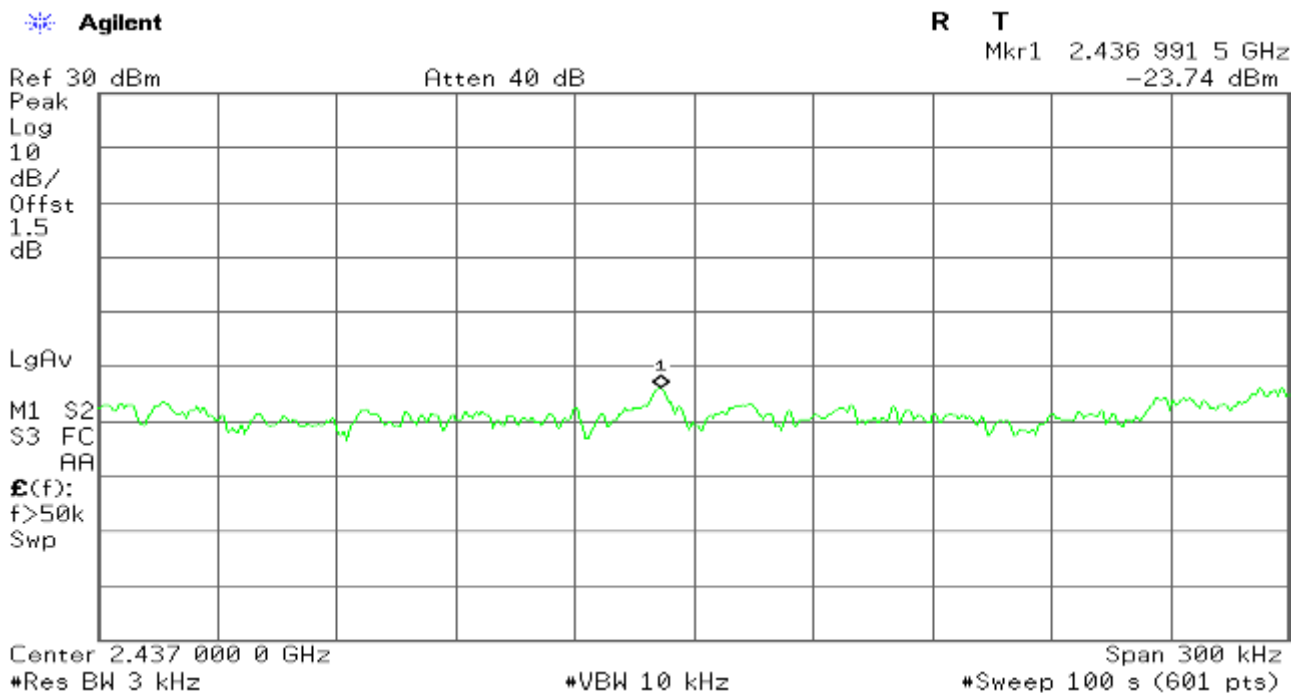


draft 802.11gn Standard-20 MHz Channel mode / Chain 0

PPSD (CH Low)



PPSD (CH Mid)





PPSD (CH High)

Agilent

R T

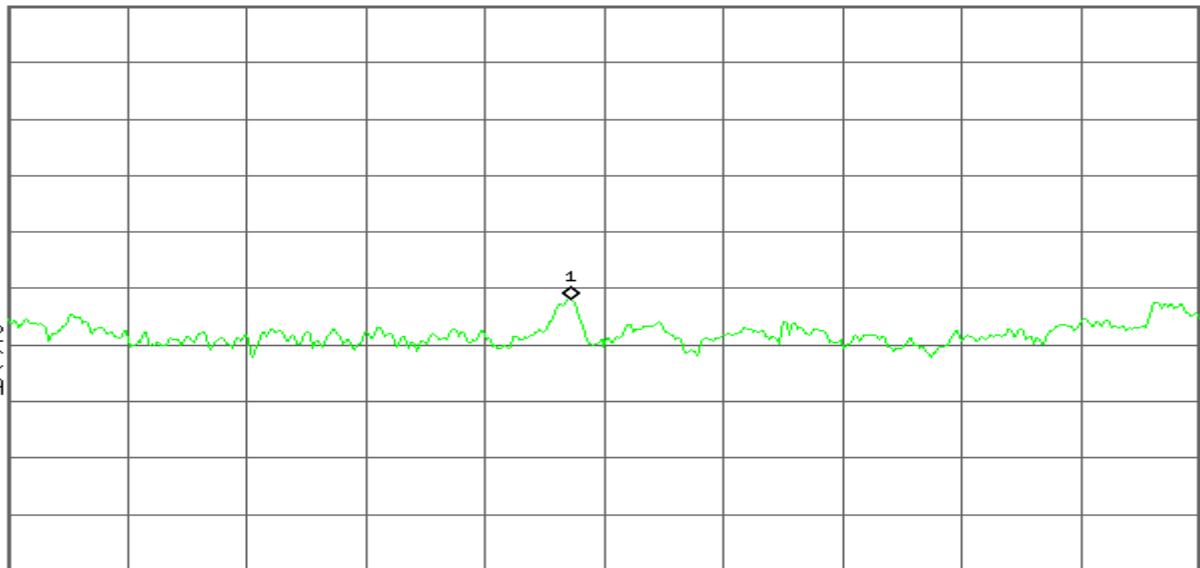
Mkr1 2.461 991 5 GHz
-21.85 dBm

Ref 30 dBm

Atten 40 dB

Peak
Log
10
dB/
Offset
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Center 2.462 000 0 GHz

*Res BW 3 kHz

*VBW 10 kHz

Span 300 kHz

*Sweep 100 s (601 pts)

draft 802.11gn Standard-20 MHz Channel mode / Chain 1

PPSD (CH Low)

Agilent

R T

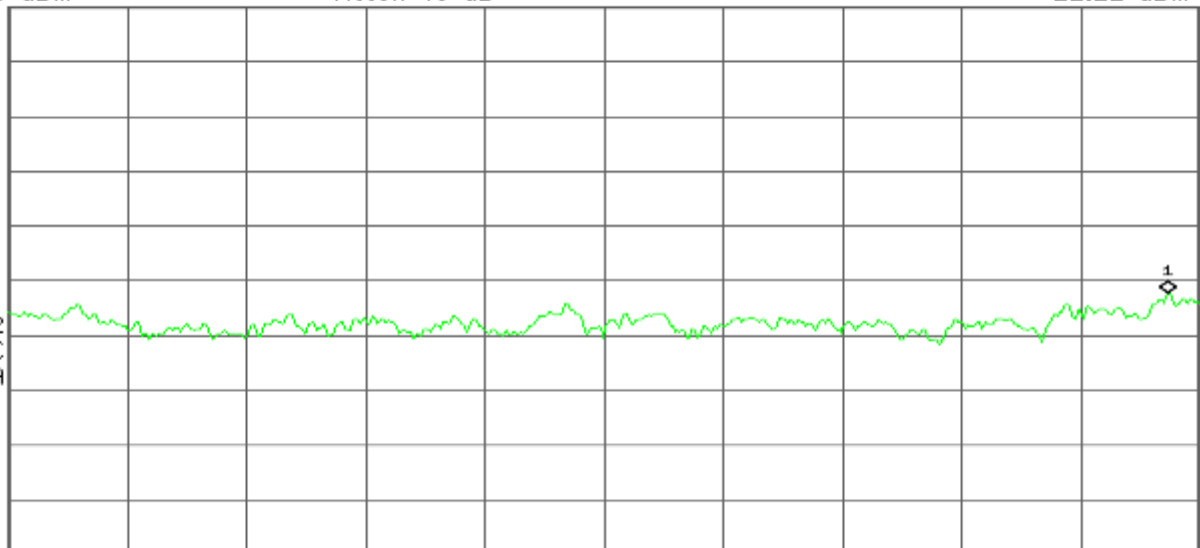
Mkr1 2.412 142 0 GHz
-22.22 dBm

Ref 30 dBm

Atten 40 dB

Peak
Log
10
dB/
Offset
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Center 2.412 000 0 GHz

*Res BW 3 kHz

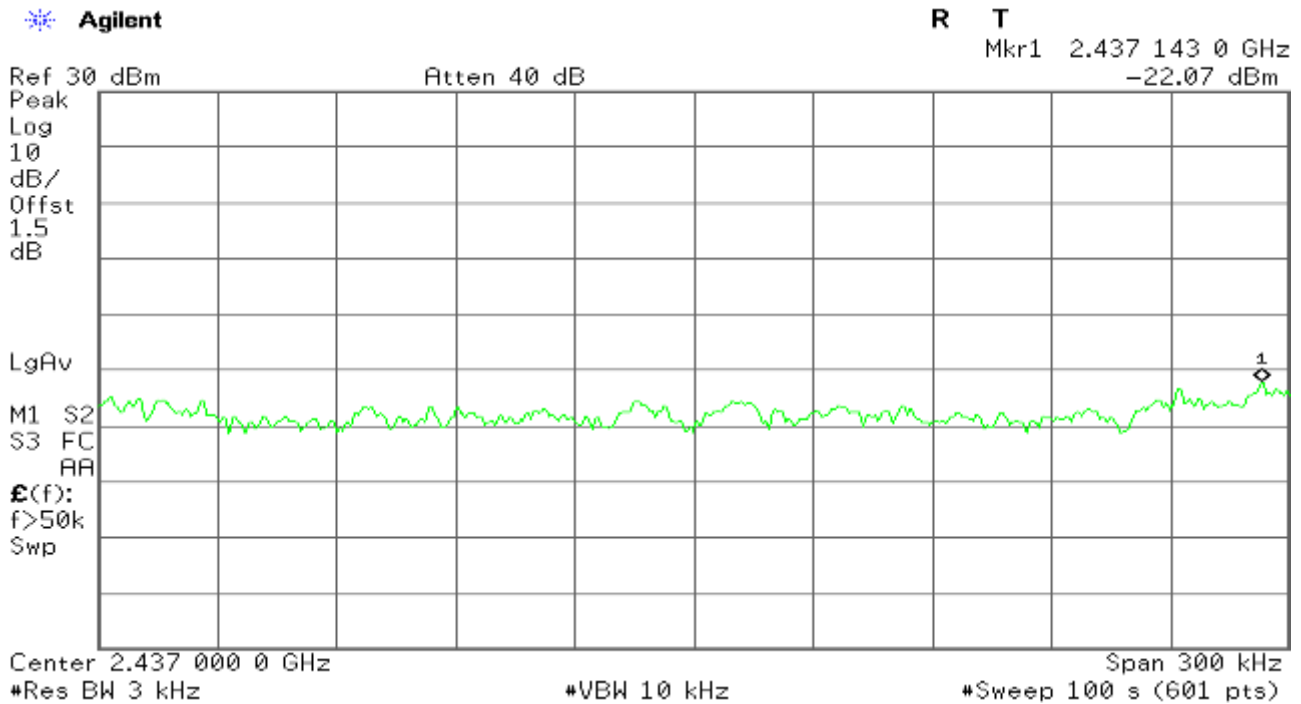
*VBW 10 kHz

Span 300 kHz

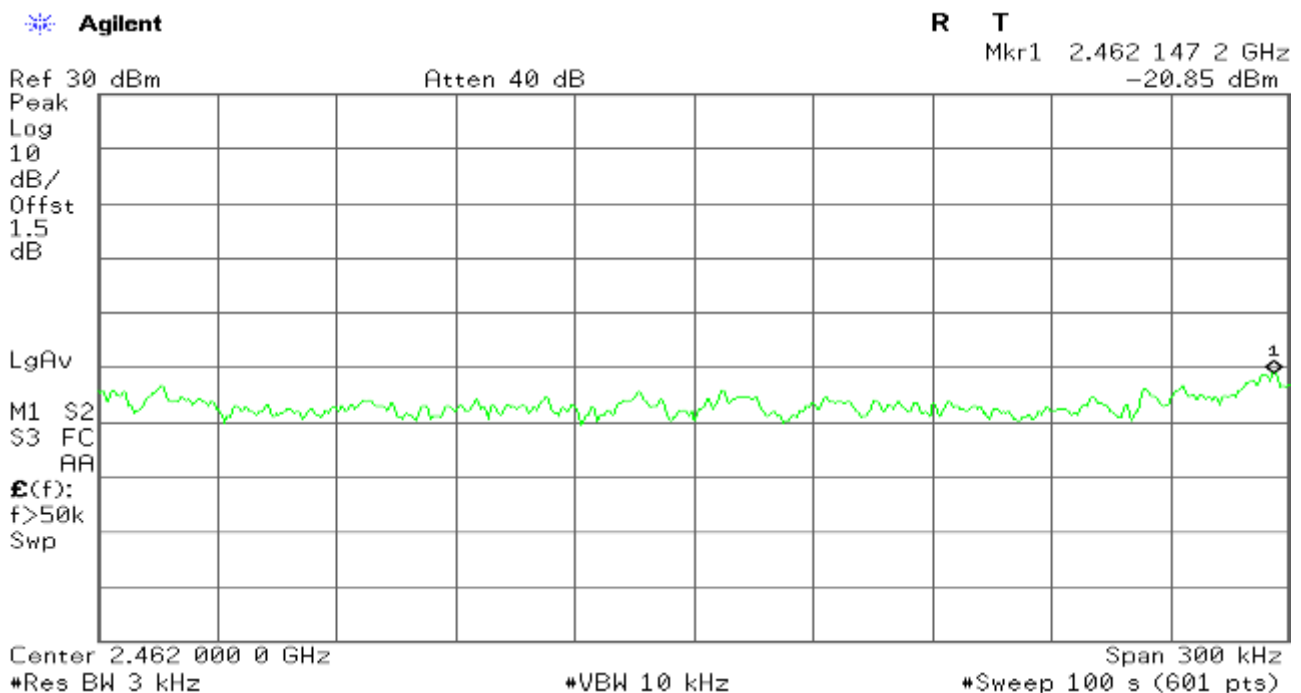
*Sweep 100 s (601 pts)



PPSD (CH Mid)



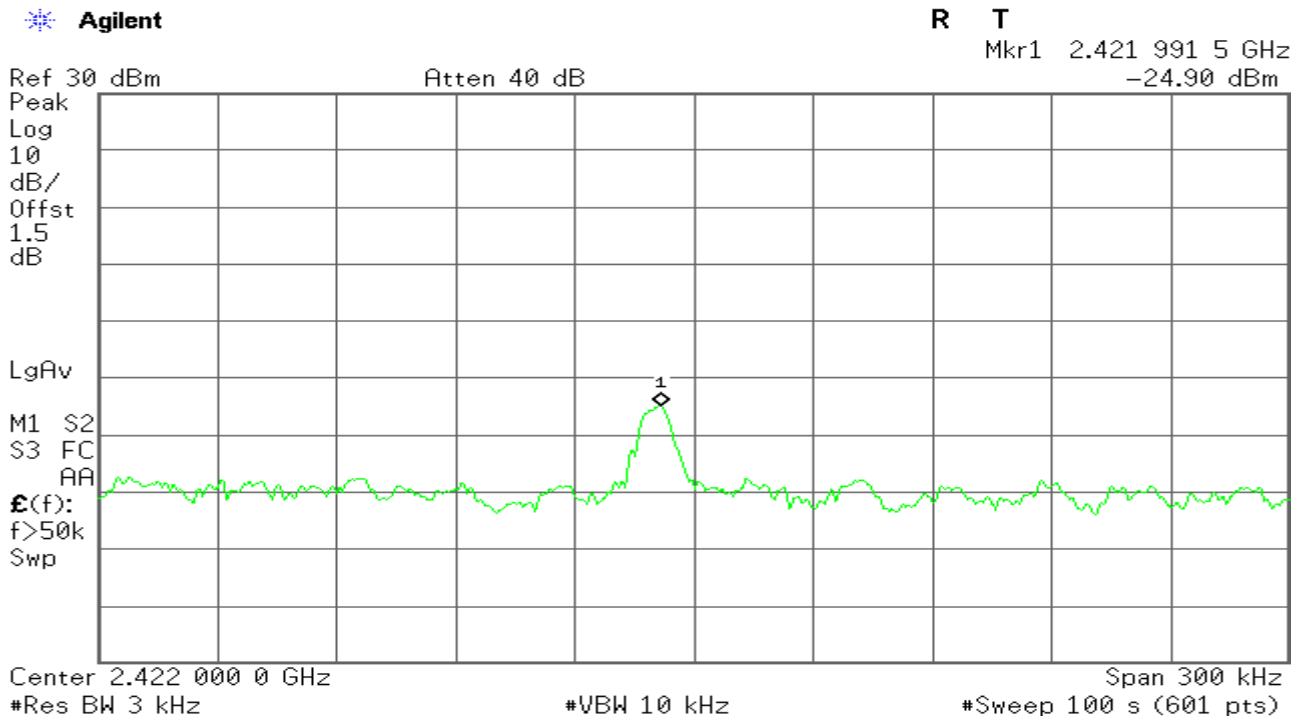
PPSD (CH High)



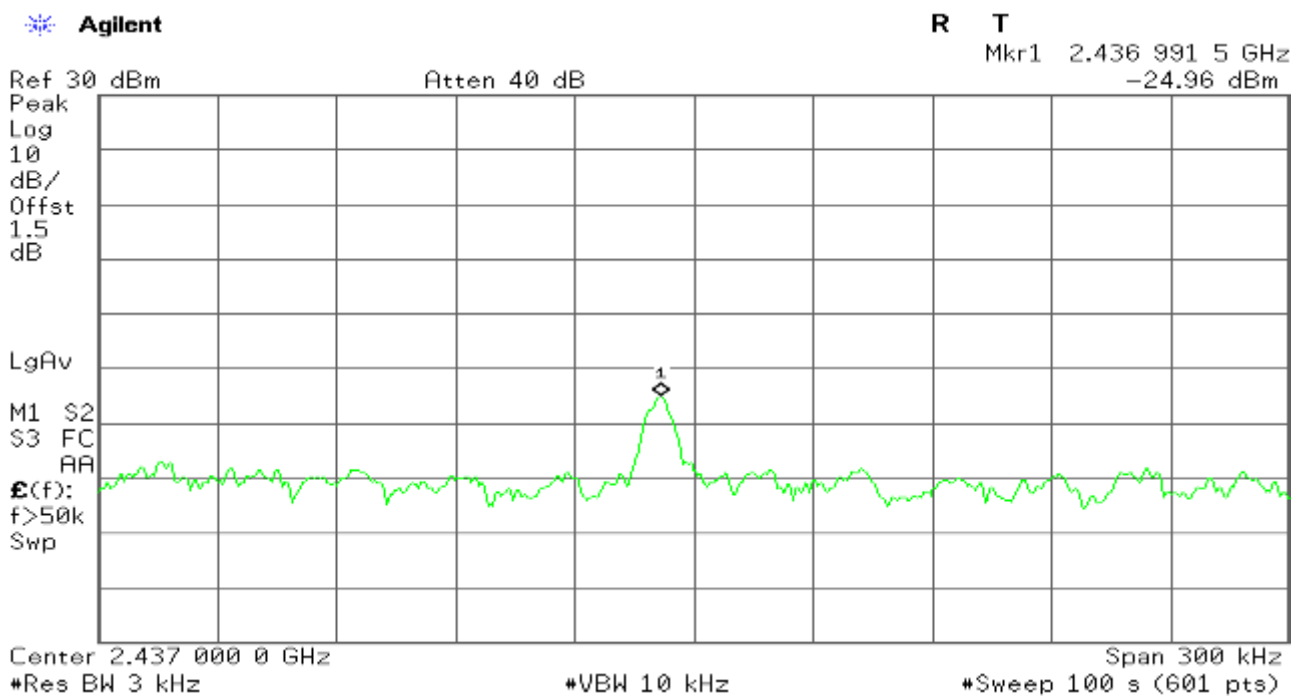


draft 802.11gn Wide-40 MHz Channel mode / Chain 0

PPSD (CH Low)



PPSD (CH Mid)





PPSD (CH High)

Agilent

R T

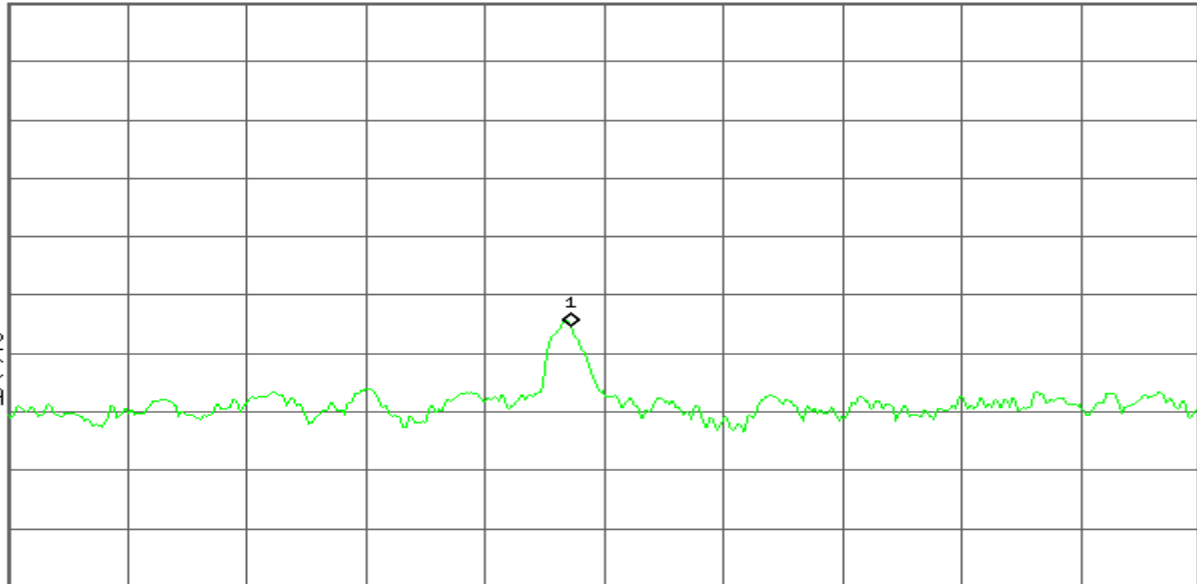
Mkr1 2.451 991 5 GHz
-25.33 dBm

Ref 30 dBm

Atten 40 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Start 2.451 850 0 GHz

#Res BW 3 kHz

#VBW 10 kHz

Stop 2.452 150 0 GHz

#Sweep 100 s (601 pts)

draft 802.11gn Wide-40 MHz Channel mode / Chain 1

PPSD (CH Low)

Agilent

R T

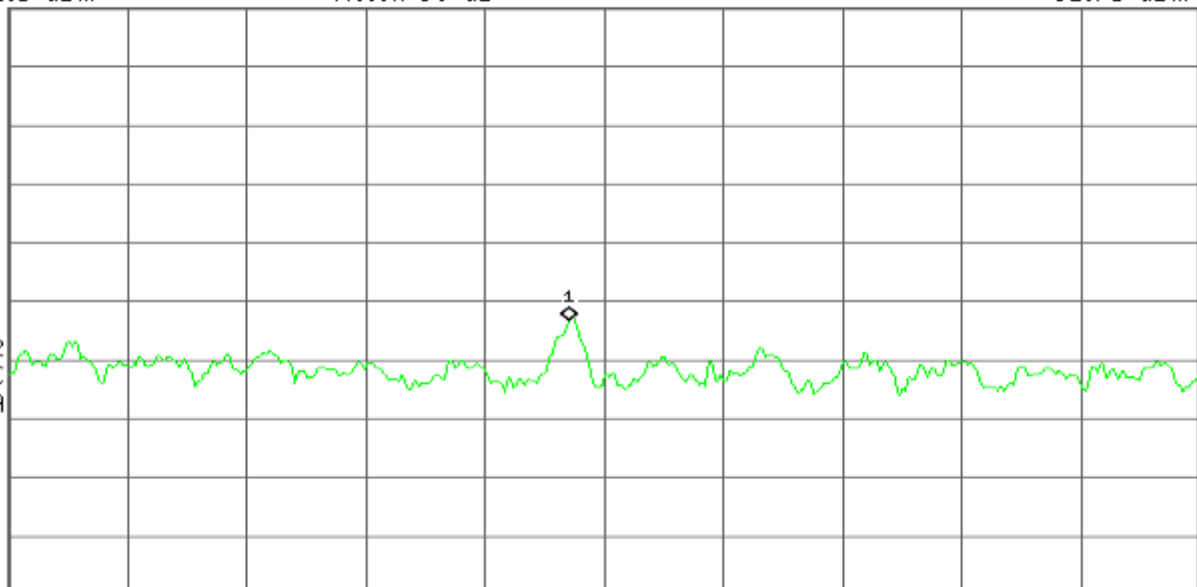
Mkr1 2.421 991 0 GHz
-31.75 dBm

Ref 21.5 dBm

Atten 30 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Center 2.422 000 0 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 300 kHz

#Sweep 100 s (601 pts)



PPSD (CH Mid)

Agilent

R T

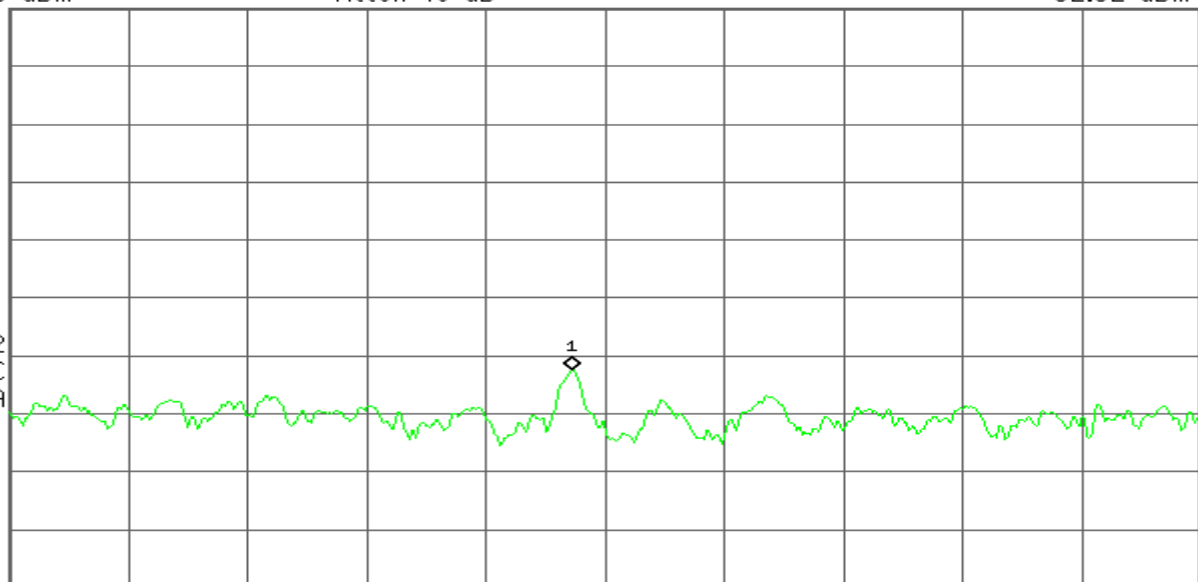
Mkr1 2.436 991 5 GHz
-32.32 dBm

Ref 30 dBm

Atten 40 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Center 2.437 000 0 GHz

#VBW 10 kHz

Span 300 kHz
#Sweep 100 s (601 pts)

PPSD (CH High)

Agilent

R T

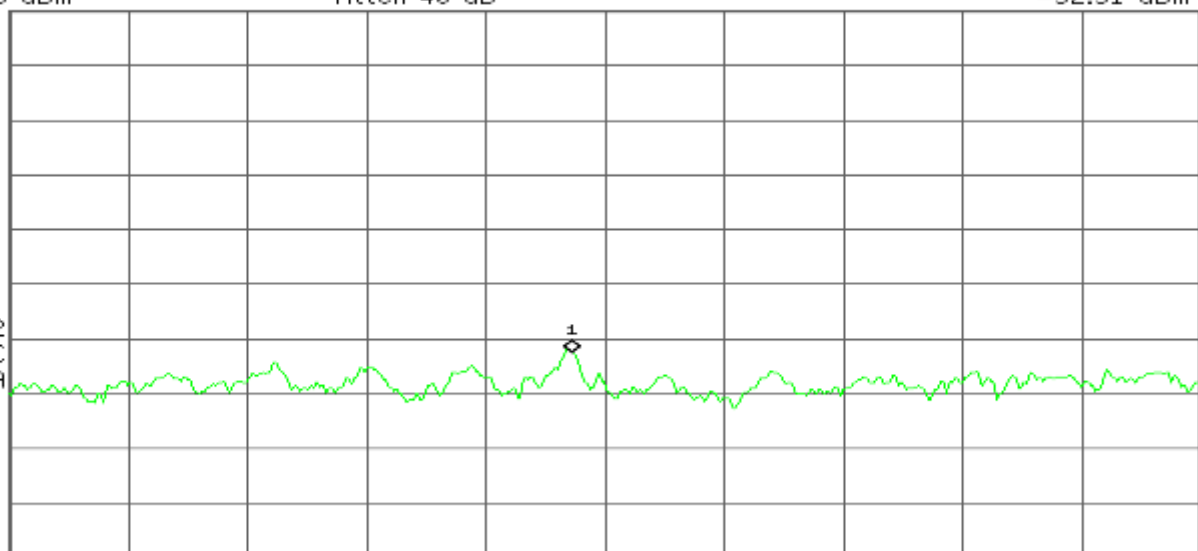
Mkr1 2.451 991 5 GHz
-32.31 dBm

Ref 30 dBm

Atten 40 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Start 2.451 850 0 GHz

#VBW 10 kHz

Stop 2.452 150 0 GHz
#Sweep 100 s (601 pts)

**5725-5825****IEEE 802.11a mode****PPSD (CH Low)**

* Agilent

R T

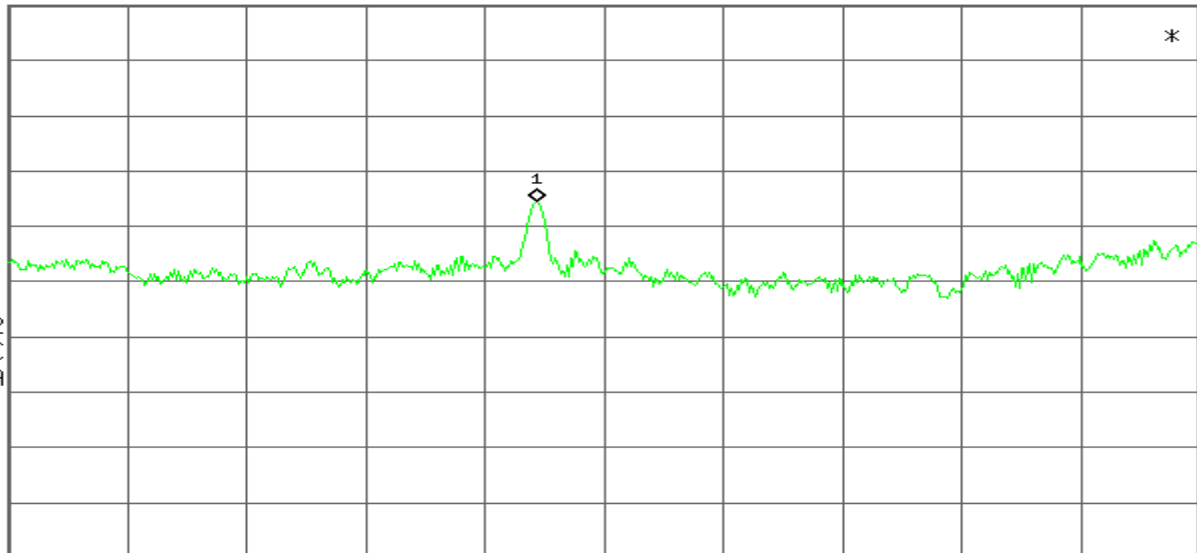
Mkr1 5.744 982 9 GHz
-15.57 dBm

Ref 20 dBm

Atten 30 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Center 5.745 000 0 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 300 kHz

#Sweep 100 s (601 pts)

PPSD (CH Mid)

* Agilent

R T

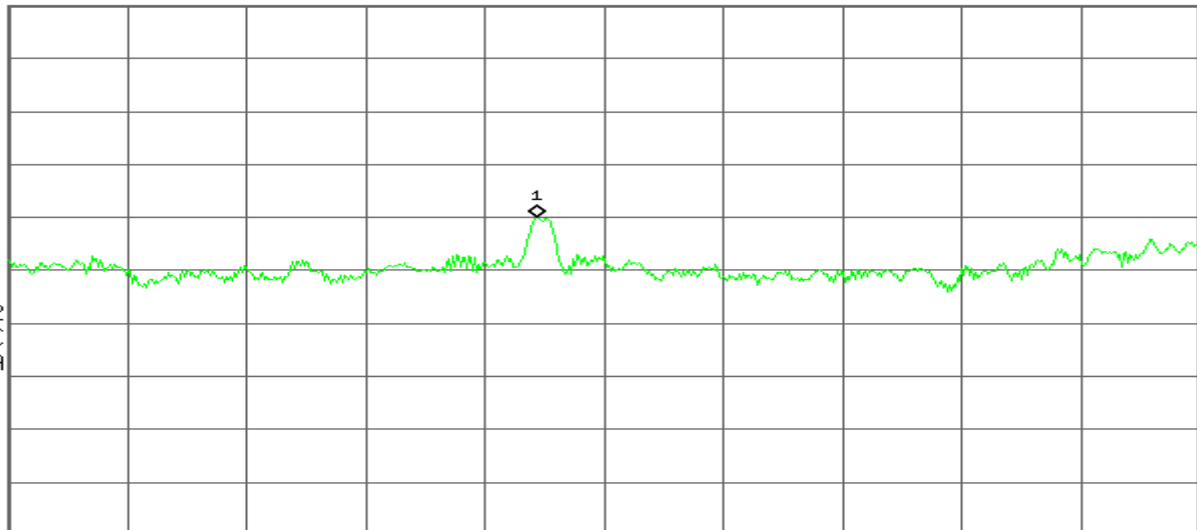
Mkr1 5.784 982 9 GHz
-20.00 dBm

Ref 20 dBm

Atten 30 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Center 5.785 000 0 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 300 kHz

#Sweep 100 s (601 pts)



PPSD (CH High)

Agilent

R T

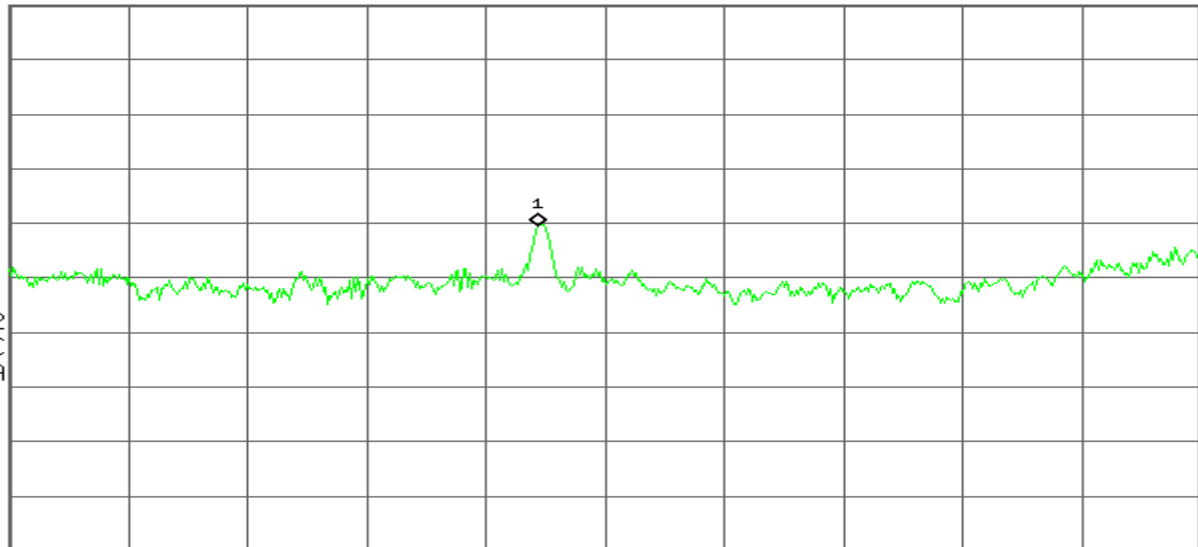
Mkr1 5.804 982 9 GHz
-20.36 dBm

Ref 20 dBm

Atten 30 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Center 5.805 000 0 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 300 kHz

#Sweep 100 s (601 pts)

draft 802.11an Standard-20 MHz Channel mode / Chain 0

PPSD (CH Low)

Agilent

R T

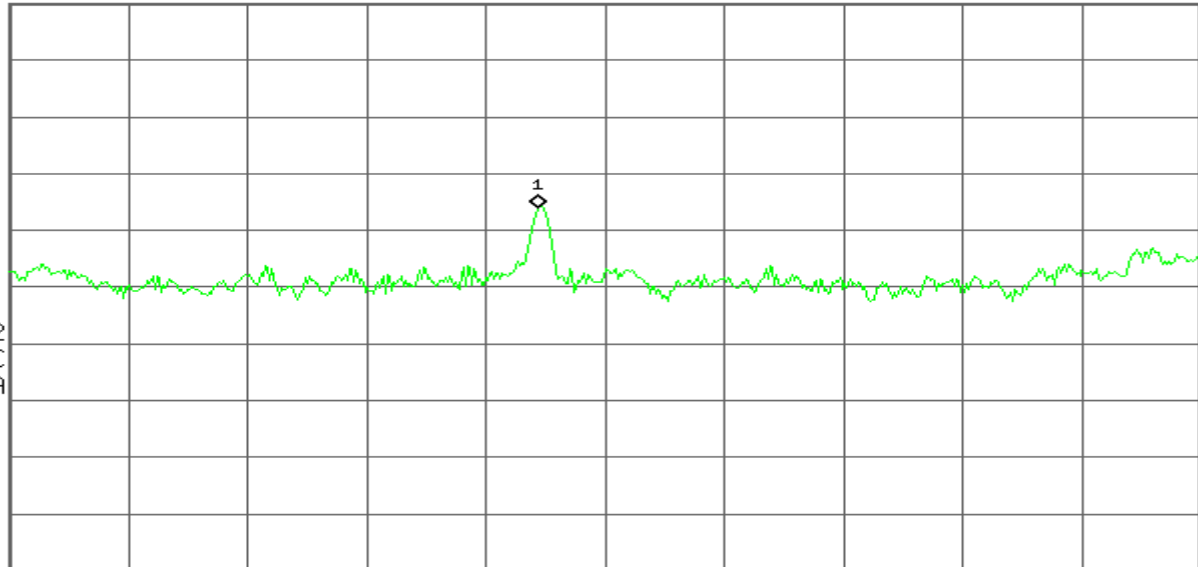
Mkr1 5.744 982 9 GHz
-16.06 dBm

Ref 20 dBm

Atten 30 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Center 5.745 000 0 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 300 kHz

#Sweep 100 s (601 pts)



PPSD (CH Mid)

Agilent

R T

Mkr1 5.784 982 9 GHz
-20.47 dBm

Ref 20 dBm

Atten 30 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AA
E(f):
f>50k
Swp

Center 5.785 000 0 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 300 kHz

#Sweep 100 s (601 pts)

PPSD (CH High)

Agilent

R T

Mkr1 5.804 982 9 GHz
-20.43 dBm

Ref 20 dBm

Atten 30 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AA
E(f):
f>50k
Swp

Center 5.805 000 0 GHz

#Res BW 3 kHz

#VBW 10 kHz

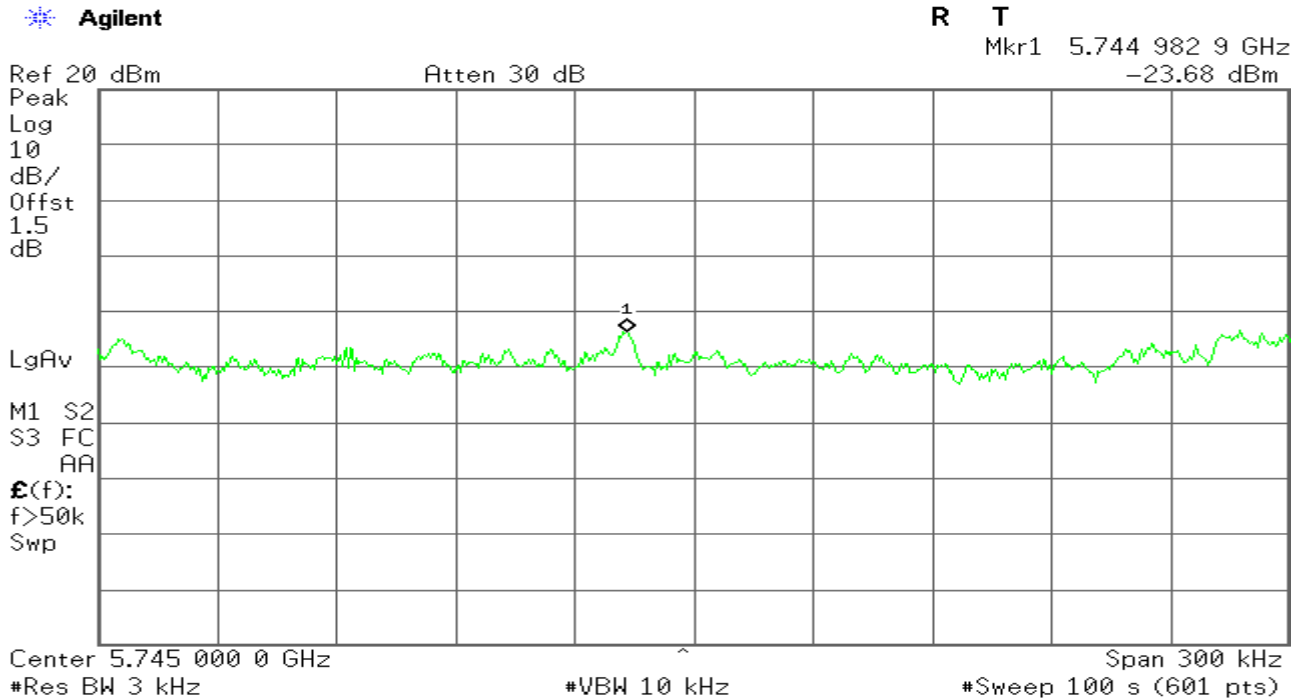
Span 300 kHz

#Sweep 100 s (601 pts)

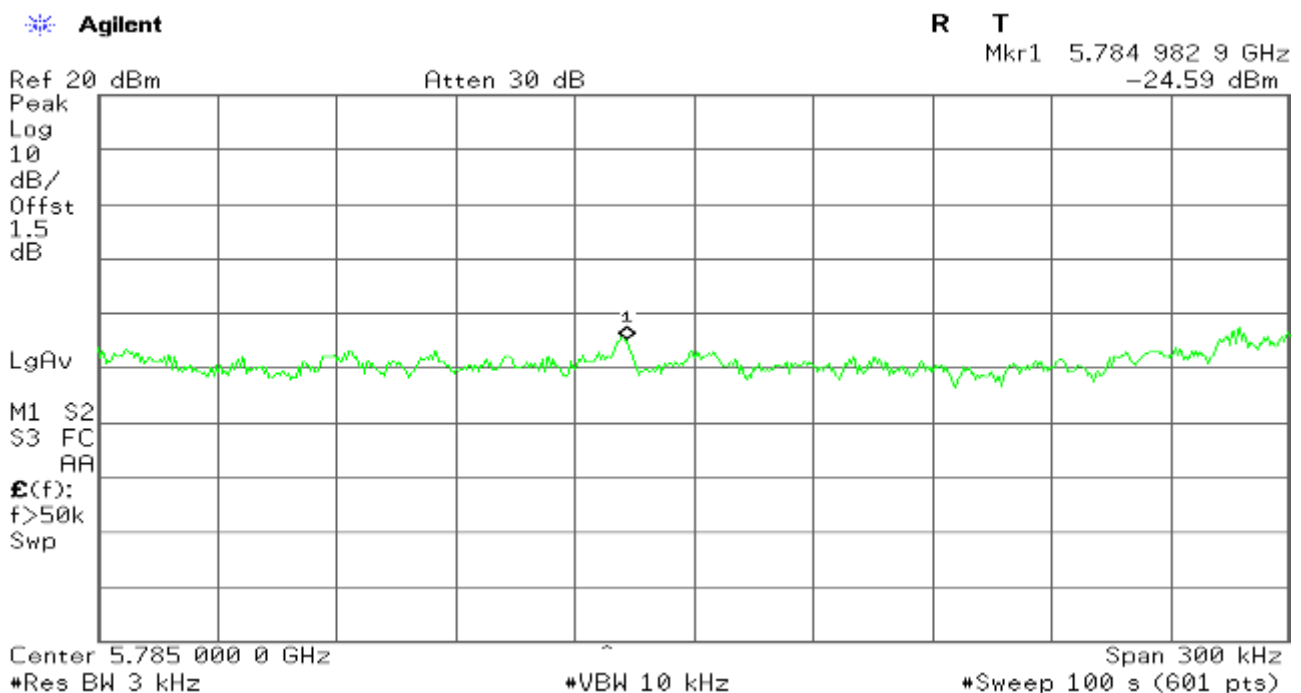


draft 802.11an Standard-20 MHz Channel mode / Chain 1

PPSD (CH Low)



PPSD (CH Mid)





PPSD (CH High)

Agilent

R T

Mkr1 5.804 982 9 GHz
-24.42 dBm

Ref 20 dBm

Atten 30 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Center 5.805 000 0 GHz

*Res BW 3 kHz

*VBW 10 kHz

Span 300 kHz

*Sweep 100 s (601 pts)

draft 802.11an Standard-40 MHz Channel mode / Chain 0

PPSD (CH Low)

Agilent

R T

Mkr1 5.754 982 9 GHz
-27.00 dBm

Ref 20 dBm

Atten 30 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Start 5.754 850 0 GHz

*Res BW 3 kHz

*VBW 10 kHz

Stop 5.755 150 0 GHz

*Sweep 100 s (601 pts)



PPSD (CH High)

Agilent

R T

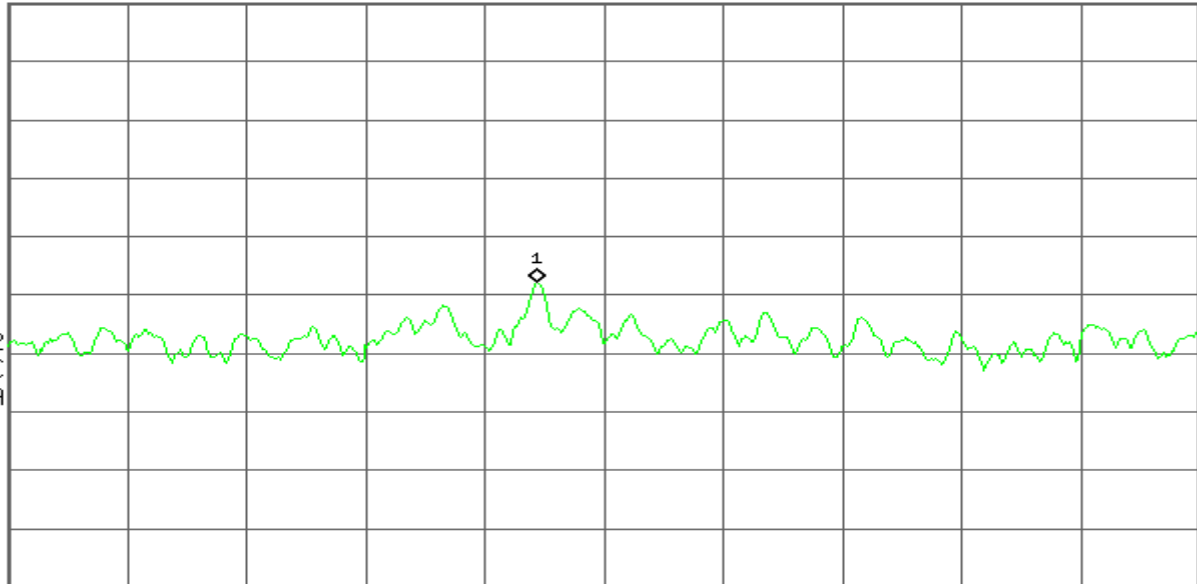
Mkr1 5.794 982 9 GHz
-27.44 dBm

Ref 20 dBm

Atten 30 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Center 5.795 000 0 GHz

Span 300 kHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)

draft 802.11an Standard-40 MHz Channel mode / Chain 1

PPSD (CH Low)

Agilent

R T

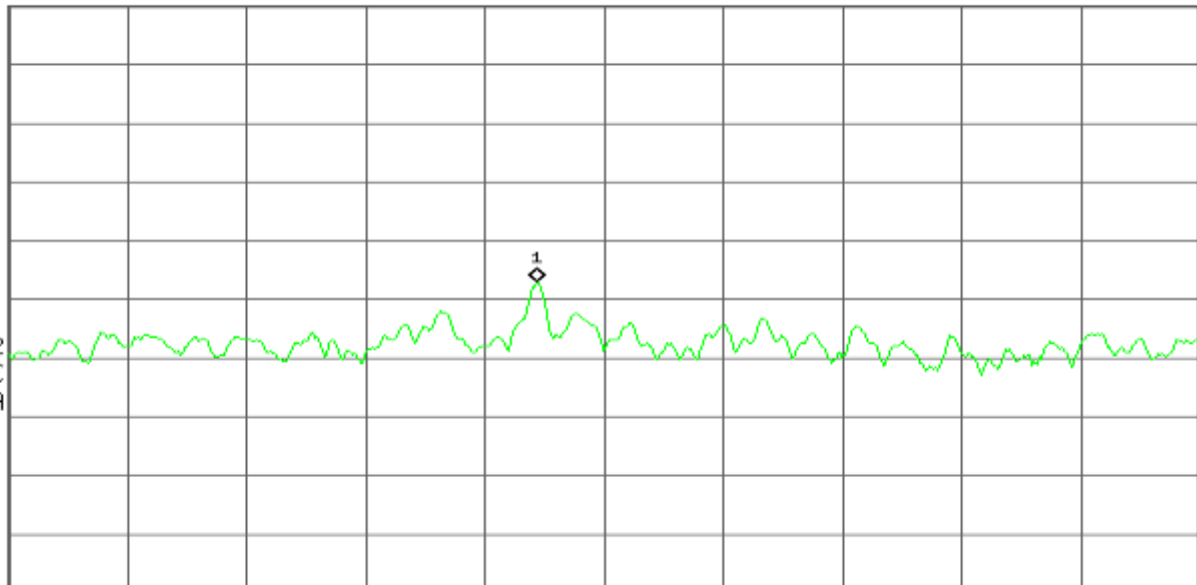
Mkr1 5.754 982 9 GHz
-27.08 dBm

Ref 20 dBm

Atten 30 dB

Peak
Log
10
dB/
Offst
1.5
dB

LgAv

M1 S2
S3 FC
AAE(f):
f>50k
Swp

Start 5.754 850 0 GHz

Stop 5.755 150 0 GHz

#Res BW 3 kHz

#VBW 10 kHz

#Sweep 100 s (601 pts)



PPSD (CH High)

* Agilent

R T

Mkr1 5.794 982 9 GHz

-27.88 dBm

Ref 20 dBm

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

LgAv

M1 S2

S3 FC

AA

E(f):

f>50k

Swp

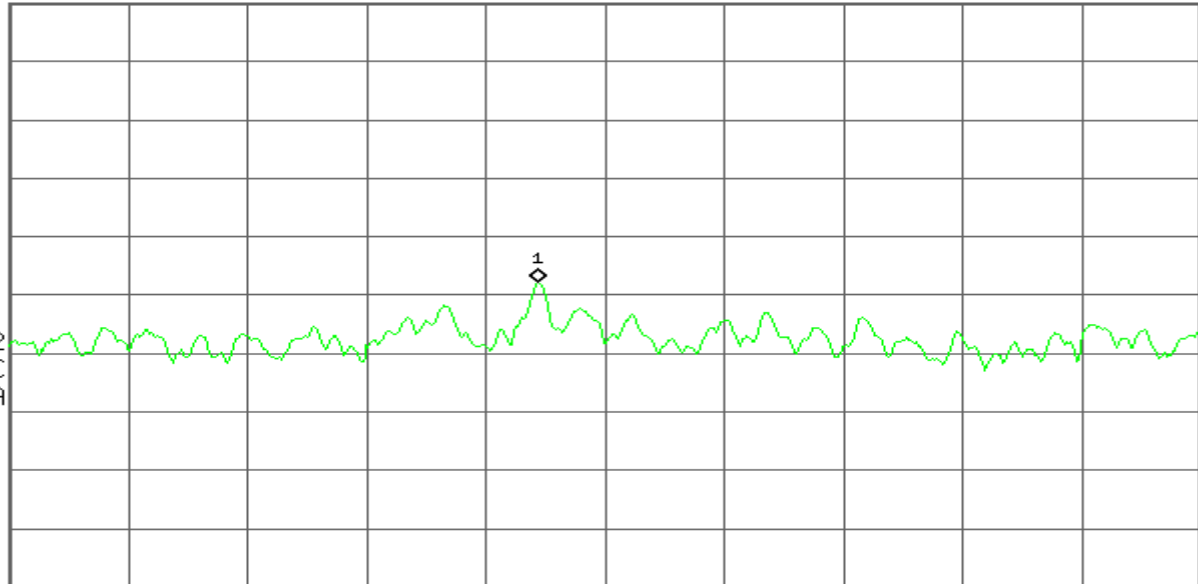
Center 5.795 000 0 GHz

#Res BW 3 kHz

#VBW 10 kHz

Span 300 kHz

#Sweep 100 s (601 pts)





7.5.SPURIOUS EMISSIONS

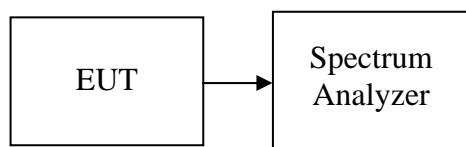
1.1.1. CONDUCTED MEASUREMENT

LIMIT

According to §15.247(d), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 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. 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 Section 15.205(c)).

Conducted power was measured based on the use of RMS averaging over a time interval, therefore the required attenuation is 30 dB.

Test Configuration



TEST PROCEDURE

Conducted RF measurements of the transmitter output were made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

Measurements are made over the 30MHz to 40GHz range with the transmitter set to the lowest, middle, and highest channels.

TEST RESULTS

No non-compliance noted



Test Plot

IEEE 802.11b mode

CH Low

Agilent

R T

Mkr1 2.41 GHz
109.04 dBμV

Ref 127 dBμV

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

89.0

dBμV

LgAv

M1 S2

Start 30 MHz

#Res BW 100 kHz

#VBW 300 kHz

Stop 40.00 GHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.41 GHz	109.04 dBμV
2	(1)	Freq	36.74 GHz	67.55 dBμV

CH Mid

Agilent

R T

Mkr1 2.43 GHz
108.15 dBμV

Ref 127 dBμV

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

88.1

dBμV

LgAv

M1 S2

Start 30 MHz

#Res BW 100 kHz

#VBW 300 kHz

Stop 40.00 GHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.43 GHz	108.15 dBμV
2	(1)	Freq	36.74 GHz	68.07 dBμV



Compliance Certification Services Inc.

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FCC ID: WL6-BR95IIX6230

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CH High

Agilent

R T

Mkr1 2.46 GHz
110.35 dBμV

Ref 127 dBμV

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

90.3

dBμV

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

*Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.46 GHz	110.35 dBμV
2	(1)	Freq	36.74 GHz	68.06 dBμV

IEEE 802.11g mode

CH Low

Agilent

R T

Mkr1 2.41 GHz
103.03 dBμV

Ref 127 dBμV

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

83.0

dBμV

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

*Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.41 GHz	103.03 dBμV
2	(1)	Freq	36.74 GHz	67.05 dBμV



Compliance Certification Services Inc.

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CH Mid

Agilent

R T

Mkr1 2.43 GHz
103.32 dBμV

Ref 127 dBμV

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

83.3

dBμV

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.43 GHz	103.32 dBμV
2	(1)	Freq	36.74 GHz	67.68 dBμV

CH High

Agilent

R T

Mkr1 2.46 GHz
104.78 dBμV

Ref 127 dBμV

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

84.8

dBμV

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

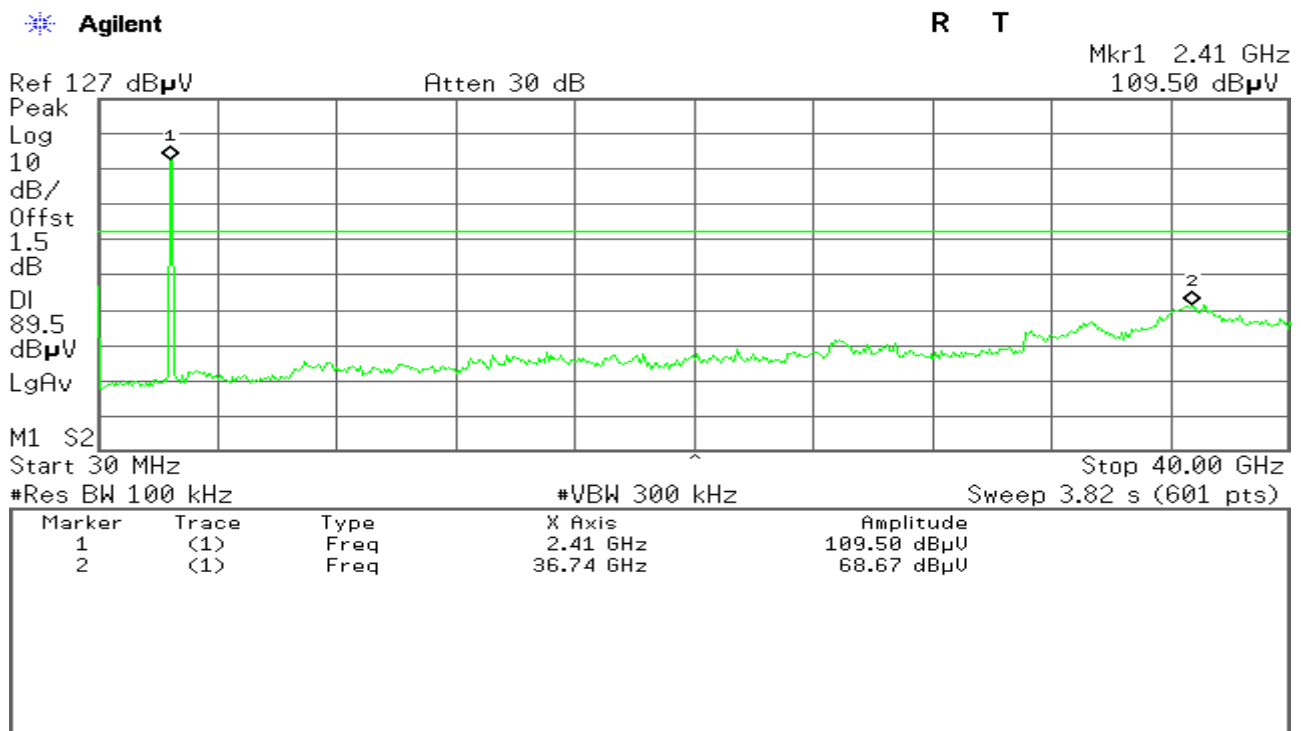
Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.46 GHz	104.78 dBμV
2	(1)	Freq	36.74 GHz	68.35 dBμV

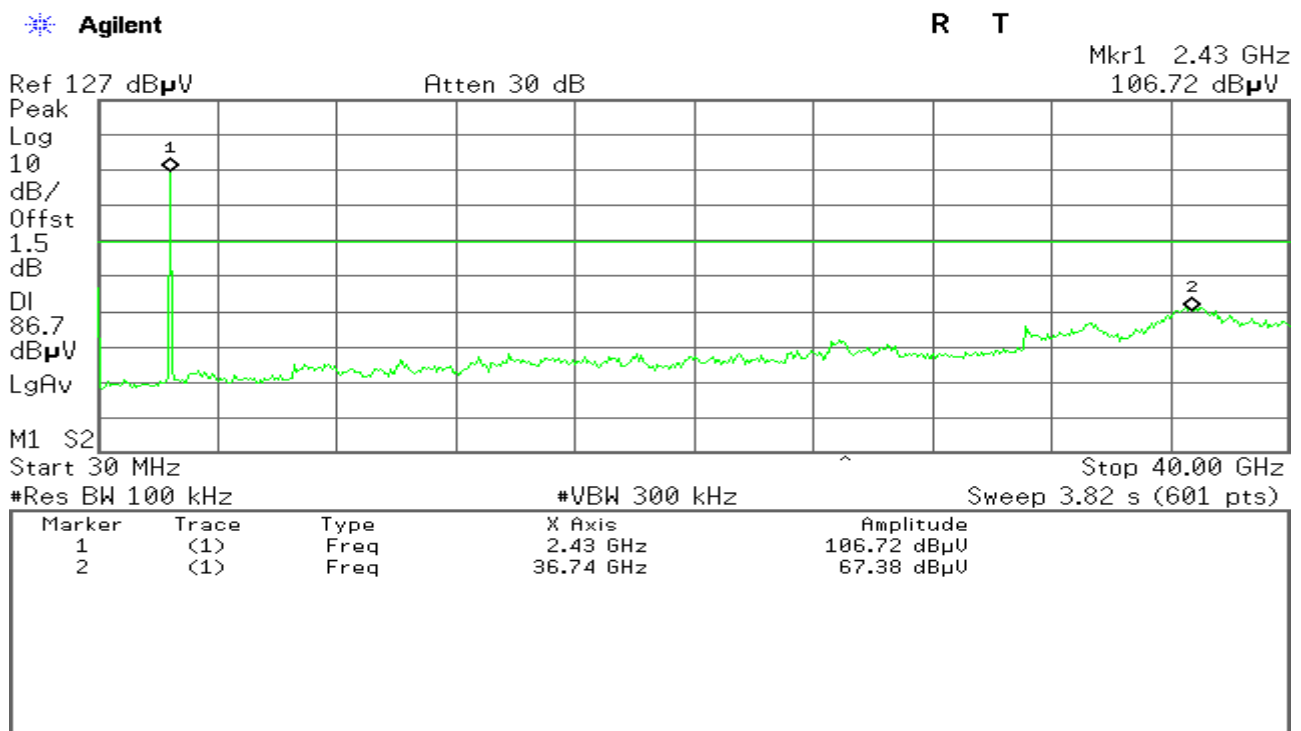


draft 802.11gn Standard-20 MHz Channel mode / Chain 0

CH Low



CH Mid





CH High

Agilent

R T

Mkr1 2.46 GHz
104.47 dB μ VRef 127 dB μ V

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

84.5

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.46 GHz	104.47 dB μ V
2	(1)	Freq	36.74 GHz	67.01 dB μ V

draft 802.11gn Standard-20 MHz Channel mode / Chain 1

CH Low

Agilent

R T

Mkr1 2.41 GHz
104.86 dB μ VRef 127 dB μ V

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

84.9

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.41 GHz	104.86 dB μ V
2	(1)	Freq	36.74 GHz	68.40 dB μ V



Compliance Certification Services Inc.

Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

CH Mid

Agilent

R T

Mkr1 2.43 GHz
107.98 dB μ V

Ref 127 dB μ V

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

88.0

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.43 GHz	107.98 dB μ V
2	(1)	Freq	36.74 GHz	68.29 dB μ V

CH High

Agilent

R T

Mkr1 2.46 GHz
104.88 dB μ V

Ref 127 dB μ V

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

84.9

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.46 GHz	104.88 dB μ V
2	(1)	Freq	36.74 GHz	68.29 dB μ V

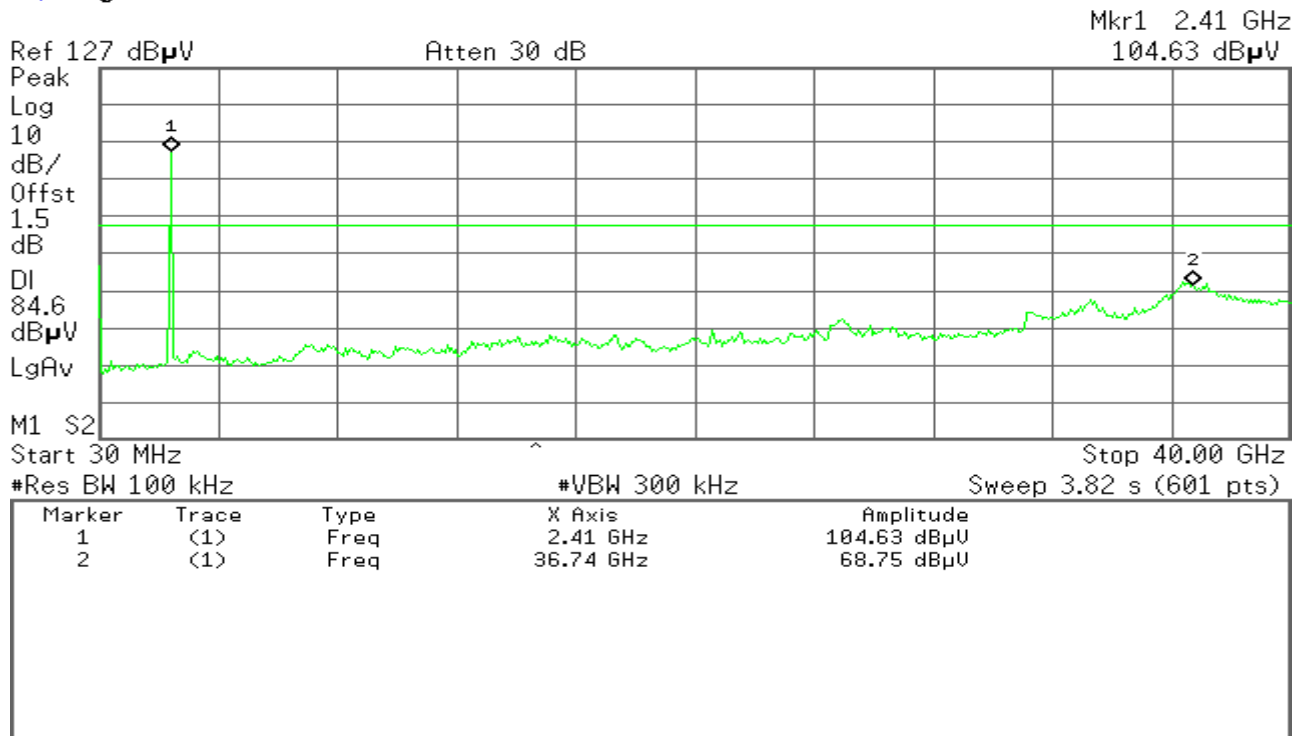


draft 802.11gn Standard-20 MHz Channel mode / Chain 0+ Chain 1

CH Low

* Agilent

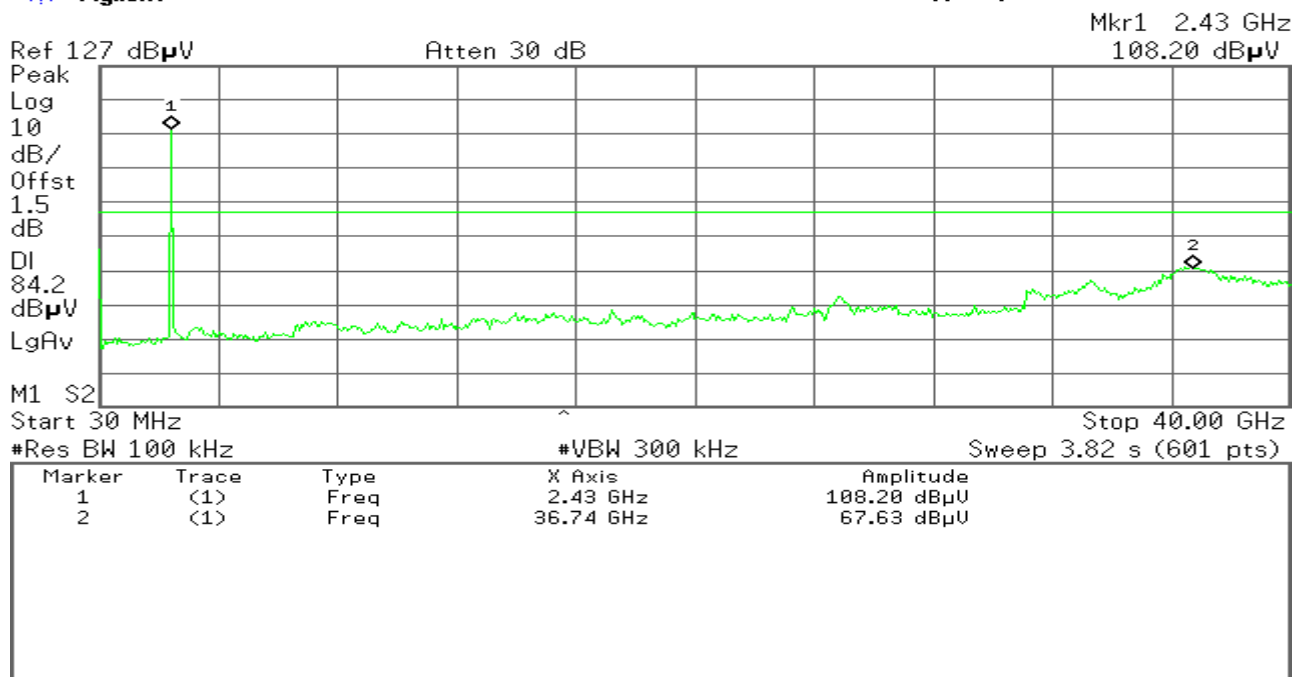
R T



CH Mid

* Agilent

R T





CH High

Agilent

R T

Ref 127 dB μ V

Atten 30 dB

Mkr1 2.46 GHz

110.62 dB μ V

Peak

Log

10

dB/

Offst

1.5

dB

DI

90.6

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.46 GHz	110.62 dB μ V
2	(1)	Freq	36.74 GHz	68.47 dB μ V

draft 802.11gn Wide-40 MHz Channel mode / Chain 0

CH Low

Agilent

R T

Ref 127 dB μ V

Atten 30 dB

Mkr1 2.42 GHz

101.68 dB μ V

Peak

Log

10

dB/

Offst

1.5

dB

DI

81.7

dB μ V

LgAv

M1 S2

Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.42 GHz	101.68 dB μ V
2	(1)	Freq	36.74 GHz	67.50 dB μ V



Compliance Certification Services Inc.

Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

CH Mid

Agilent

R T

Mkr1 2.43 GHz
101.32 dB μ V

Ref 127 dB μ V

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

81.3

dB μ V

LgAv

M1 S2

Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.43 GHz	101.32 dB μ V
2	(1)	Freq	36.74 GHz	68.01 dB μ V

CH High

Agilent

R T

Mkr1 2.43 GHz
102.73 dB μ V

Ref 127 dB μ V

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

82.7

dB μ V

LgAv

M1 S2

Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.43 GHz	102.73 dB μ V
2	(1)	Freq	36.74 GHz	68.66 dB μ V

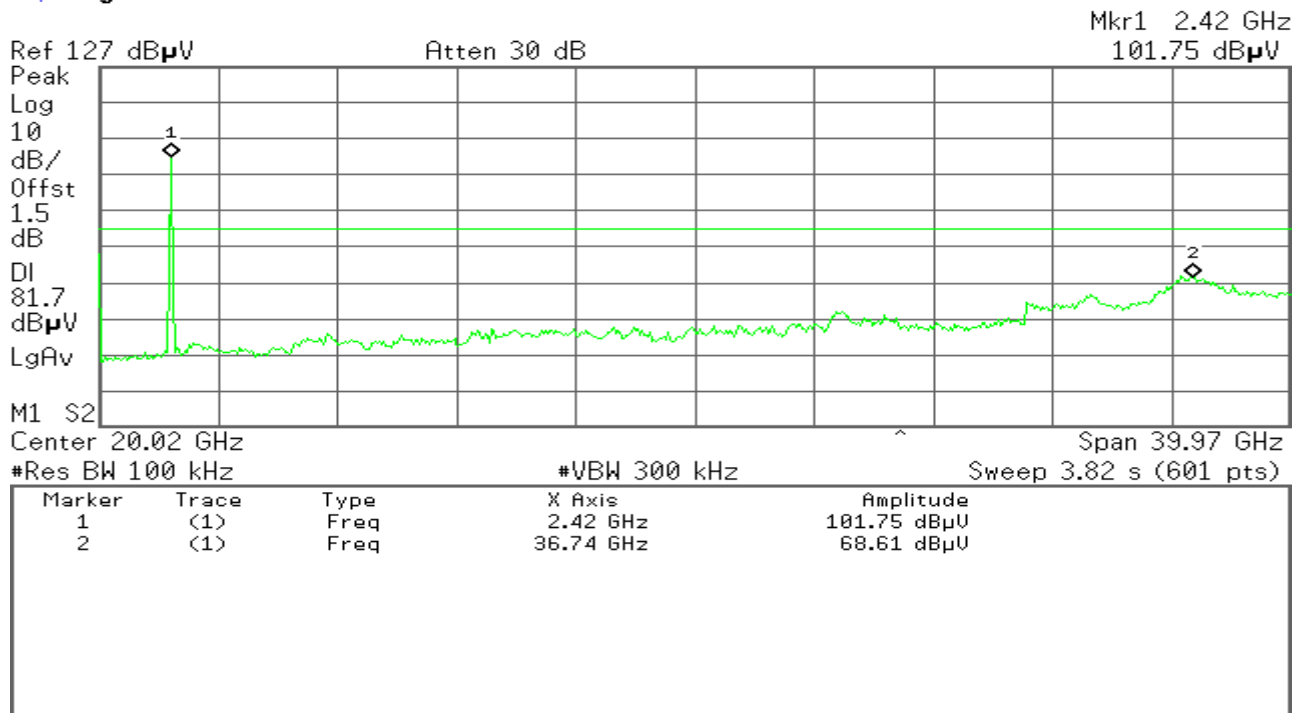


draft 802.11gn Wide-40 MHz Channel mode / Chain 1

CH Low

Agilent

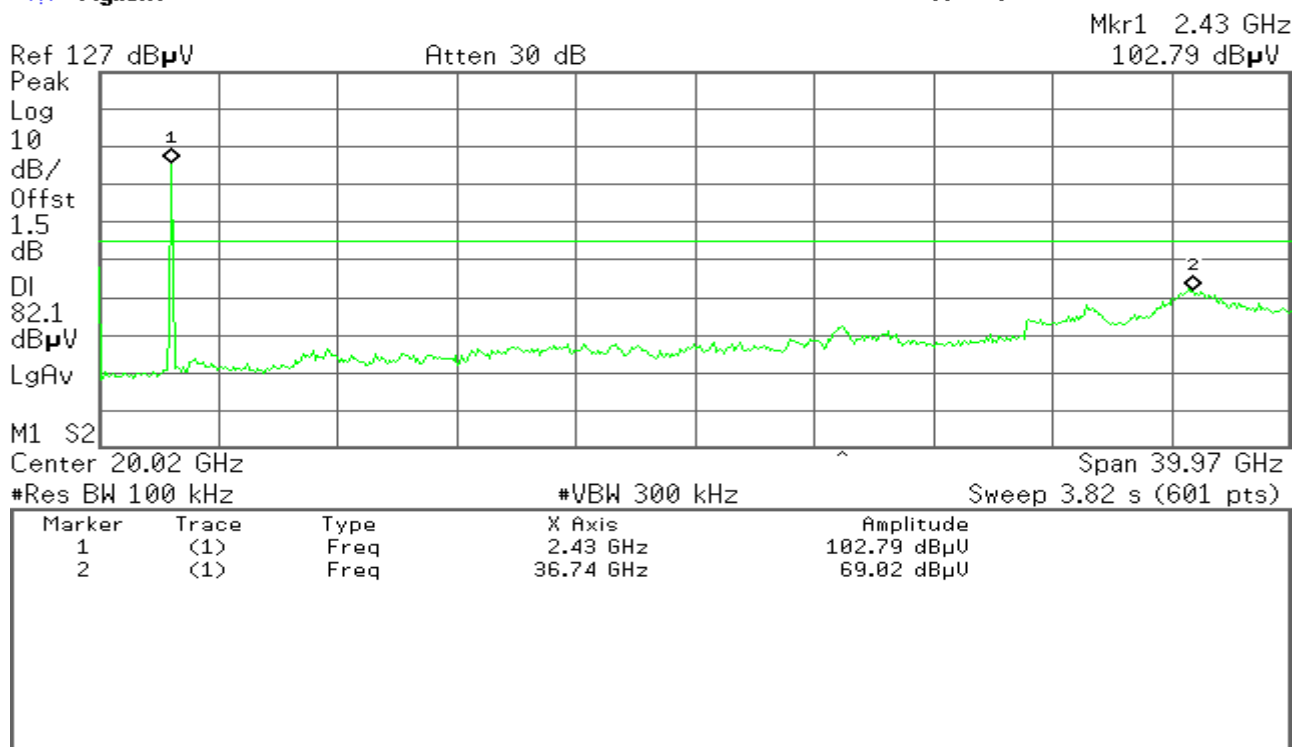
R T



CH Mid

Agilent

R T





Compliance Certification Services Inc.

Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

CH High

Agilent

R T

Mkr1 2.45 GHz
104.40 dB μ V

Ref 127 dB μ V

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

84.4

dB μ V

LgAv

M1 S2

Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.45 GHz	104.40 dB μ V
2	(1)	Freq	36.74 GHz	67.98 dB μ V

draft 802.11gn Wide-40 MHz Channel mode / Chain 0+ Chain 1

CH Low

Agilent

R T

Mkr1 2.42 GHz
104.46 dB μ V

Ref 127 dB μ V

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

84.5

dB μ V

LgAv

M1 S2

Center 20.02 GHz

Span 39.97 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.42 GHz	104.46 dB μ V
2	(1)	Freq	36.74 GHz	68.09 dB μ V



Compliance Certification Services Inc.

Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

CH Mid

Agilent

R T

Mkr1 2.43 GHz

105.20 dBμV

Ref 127 dBμV

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

85.2

dBμV

LgAv

M1 S2

Center 20.02 GHz

Span 39.97 GHz

*Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.43 GHz	105.20 dBμV
2	(1)	Freq	36.74 GHz	67.31 dBμV

CH High

Agilent

R T

Mkr1 2.43 GHz

105.20 dBμV

Ref 127 dBμV

Atten 30 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

85.2

dBμV

LgAv

M1 S2

Center 20.02 GHz

Span 39.97 GHz

*Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.43 GHz	105.20 dBμV
2	(1)	Freq	36.74 GHz	67.31 dBμV

**5725-5825****IEEE 802.11a mode****CH Low**

* Agilent

R T

Mkr1 5.75 GHz
107.81 dB μ VRef 117 dB μ V

Atten 20 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

87.8

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.75 GHz	107.81 dB μ V

CH Mid

* Agilent

R T

Mkr1 5.76 GHz
96.07 dB μ VRef 117 dB μ V

Atten 20 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

76.1

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

*Res BW 100 kHz

*VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.76 GHz	96.07 dB μ V



CH High

* Agilent

R T

Mkr1 5.81 GHz
95.51 dB μ VRef 117 dB μ V

Atten 20 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

75.5

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.81 GHz	95.51 dB μ V

draft 802.11an Standard-20 MHz Channel mode / Chain 0

CH Low

* Agilent

R T

Mkr1 5.76 GHz
95.05 dB μ VRef 117 dB μ V

Atten 20 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

75.0

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.76 GHz	95.05 dB μ V



Compliance Certification Services Inc.

Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

CH Mid

Agilent

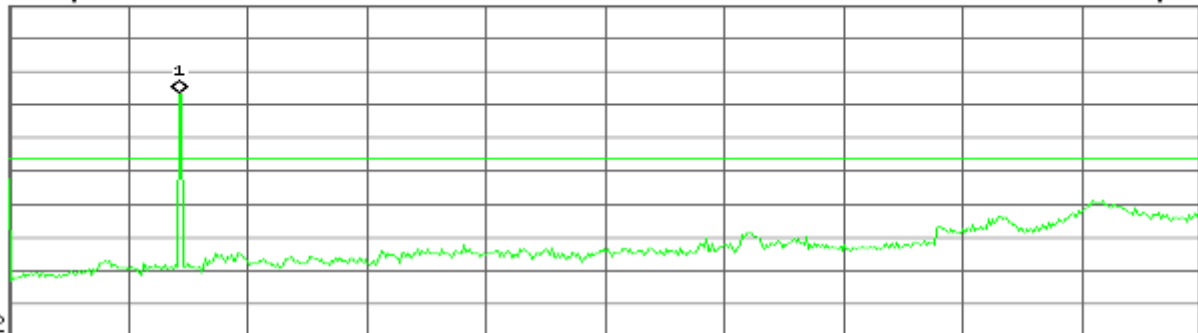
R T

Mkr1 5.76 GHz
90.76 dB μ V

Ref 117 dB μ V

Atten 20 dB

Peak
Log
10
dB/
Offst
1.5
dB
DI
70.7
dB μ V
LgAv



M1 S2

Start 30 MHz

Stop 40.00 GHz

*Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.76 GHz	90.76 dB μ V

CH High

Agilent

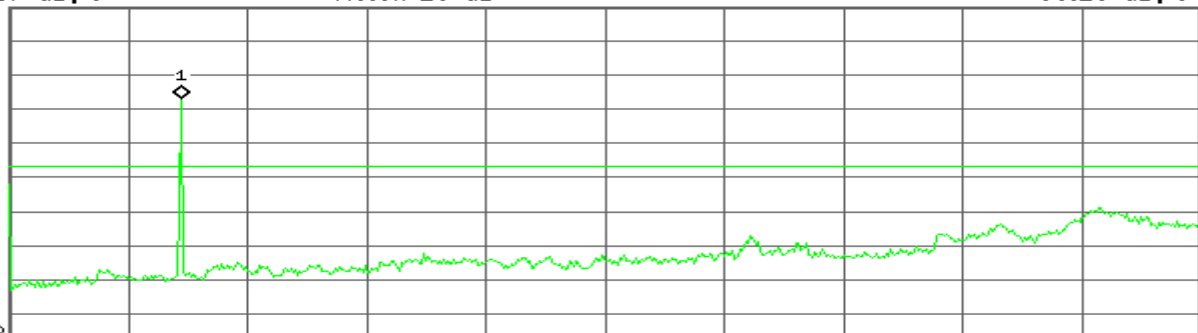
R T

Mkr1 5.83 GHz
90.26 dB μ V

Ref 117 dB μ V

Atten 20 dB

Peak
Log
10
dB/
Offst
1.5
dB
DI
70.2
dB μ V
LgAv



M1 S2

Start 30 MHz

Stop 40.00 GHz

*Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.83 GHz	90.26 dB μ V



draft 802.11an Standard-20 MHz Channel mode / Chain 1

CH Low

Agilent

R T

Mkr1 5.75 GHz
95.49 dB μ VRef 117 dB μ V

Atten 20 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

75.5

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.75 GHz	95.49 dB μ V

CH Mid

Agilent

R T

Mkr1 5.75 GHz
92.50 dB μ VRef 117 dB μ V

Atten 20 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

72.3

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.75 GHz	92.50 dB μ V



Compliance Certification Services Inc.

Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

CH High

Agilent

R T

Mkr1 5.81 GHz
92.08 dB μ V

Ref 117 dB μ V

Atten 20 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

72.1

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)



draft 802.11an Standard-20 MHz Channel mode / Chain 0+ Chain 1

CH Low

Agilent

R T

Mkr1 5.76 GHz
92.70 dB μ V

Ref 117 dB μ V

Atten 20 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

72.7

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)





Compliance Certification Services Inc.

Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

CH Mid

Agilent

R T

Mkr1 5.76 GHz
90.85 dB μ V

Ref 117 dB μ V

Atten 20 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

72.7

dB μ V

LgAv

M1 S2

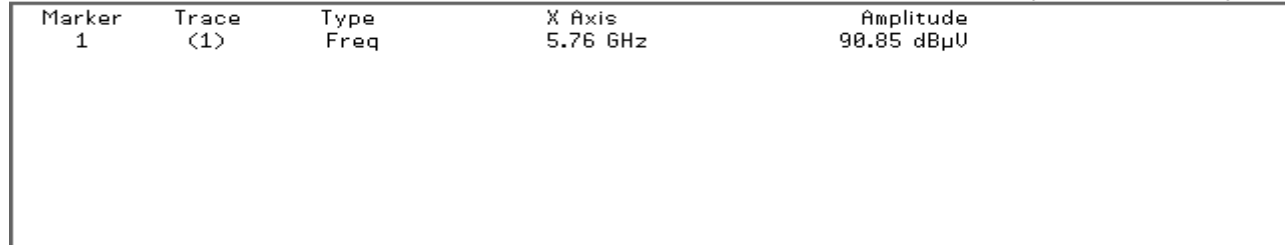
Start 30 MHz

Stop 40.00 GHz

*Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)



CH High

Agilent

R T

Mkr1 5.81 GHz
91.37 dB μ V

Ref 117 dB μ V

Atten 20 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

71.3

dB μ V

LgAv

M1 S2

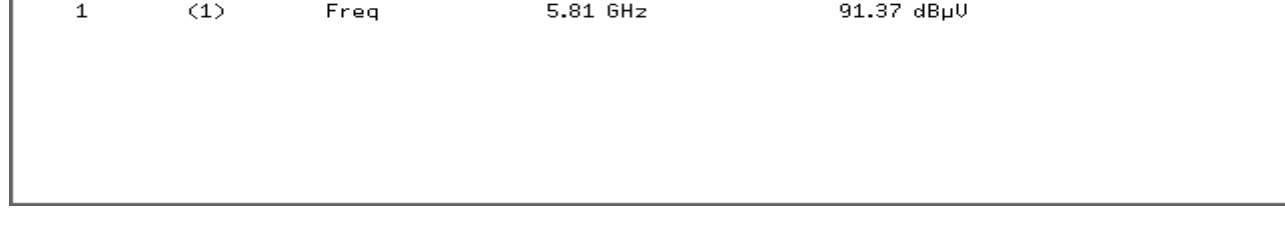
Start 30 MHz

Stop 40.00 GHz

*Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)





draft 802.11an Standard-40 MHz Channel mode / Chain 0

CH Low

Agilent

R T

Mkr1 5.75 GHz
91.51 dB μ VRef 117 dB μ V

Atten 20 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

71.5

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.75 GHz	91.51 dB μ V

CH High

Agilent

R T

Mkr1 5.83 GHz
90.01 dB μ VRef 117 dB μ V

Atten 20 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

70.0

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.83 GHz	90.01 dB μ V



draft 802.11an Standard-40 MHz Channel mode / Chain 1

CH Low

Agilent

R T

Mkr1 5.76 GHz
91.72 dB μ VRef 117 dB μ V

Atten 20 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

71.7

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.76 GHz	91.72 dB μ V

CH High

Agilent

R T

Mkr1 5.83 GHz
91.63 dB μ VRef 117 dB μ V

Atten 20 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

69.9

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.83 GHz	91.63 dB μ V



draft 802.11an Standard-40 MHz Channel mode / Chain 0+ Chain 1

CH Low

Agilent

R T

Mkr1 5.76 GHz
95.38 dB μ VRef 117 dB μ V

Atten 20 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

75.4

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker
1Trace
(1)Type
FreqX Axis
5.76 GHzAmplitude
95.38 dB μ V

CH High

Agilent

R T

Mkr1 5.83 GHz
92.47 dB μ VRef 117 dB μ V

Atten 20 dB

Peak

Log

10

dB/

Offst

1.5

dB

DI

69.5

dB μ V

LgAv

M1 S2

Start 30 MHz

Stop 40.00 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 3.82 s (601 pts)

Marker
1Trace
(1)Type
FreqX Axis
5.83 GHzAmplitude
92.47 dB μ V



7.6.RADIATED EMISSIONS

LIMIT

1. According to §15.209(a), except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
30-88	100*	3
88-216	150*	3
216-960	200*	3
Above 960	500	3

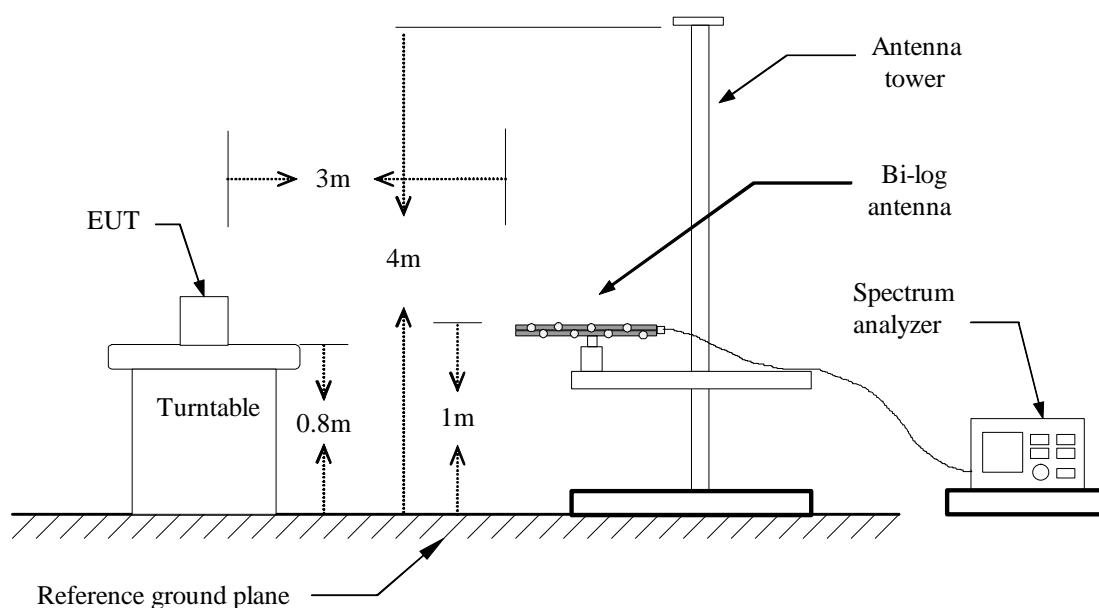
Remark: Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

2. In the emission table above, the tighter limit applies at the band edges.

Frequency (MHz)	Field Strength ($\mu\text{V/m}$ at 3-meter)	Field Strength (dB $\mu\text{V/m}$ at 3-meter)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

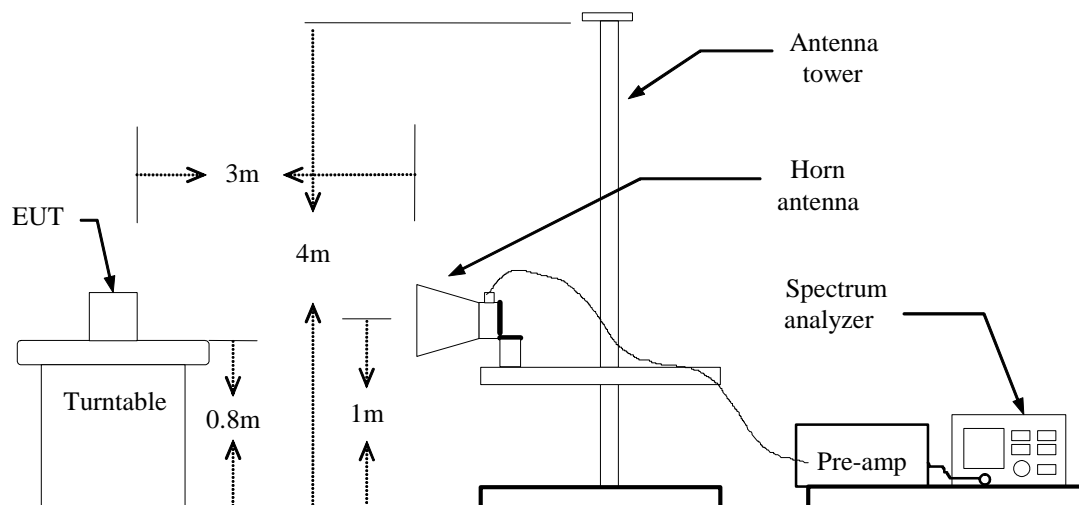
Test Configuration

Below 1 GHz





Above 1 GHz



TEST PROCEDURE

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Set the spectrum analyzer in the following setting as:

Below 1GHz:

RBW=100kHz / VBW=300kHz / Sweep=AUTO

Above 1GHz:

(a) PEAK: RBW=VBW=1MHz / Sweep=AUTO

(b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO

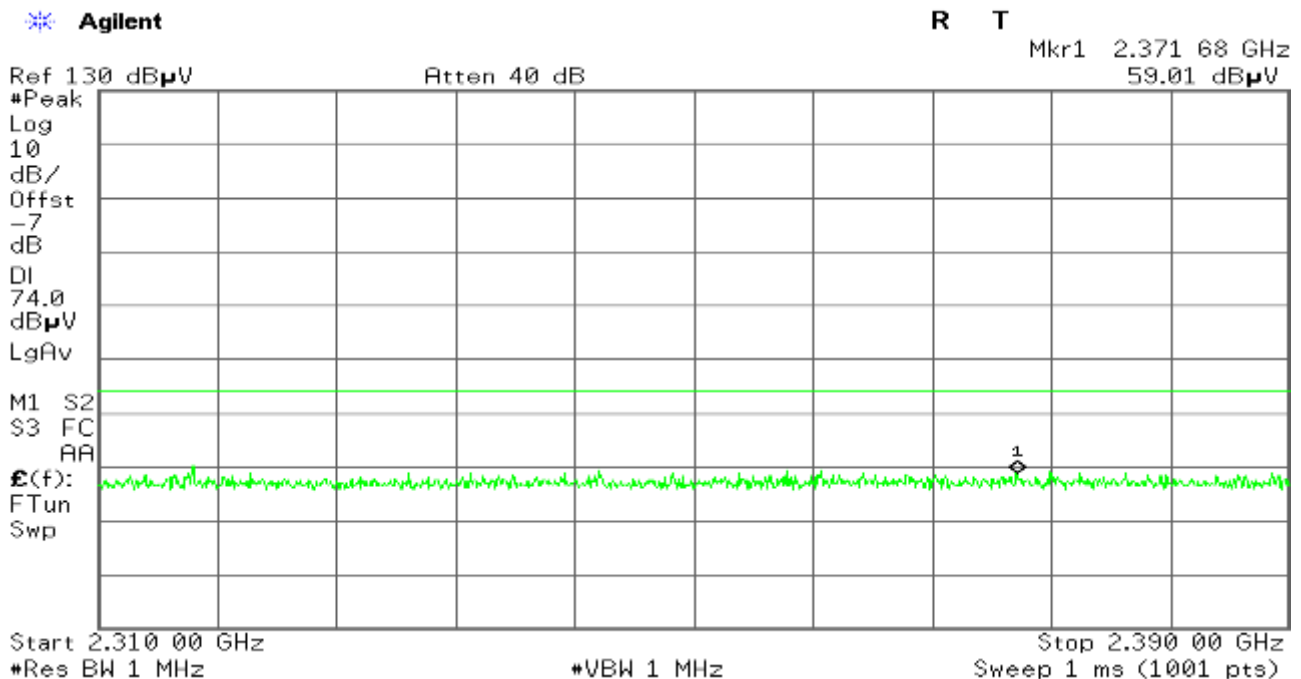
7. Repeat above procedures until the measurements for all frequencies are complete.

TEST RESULTS

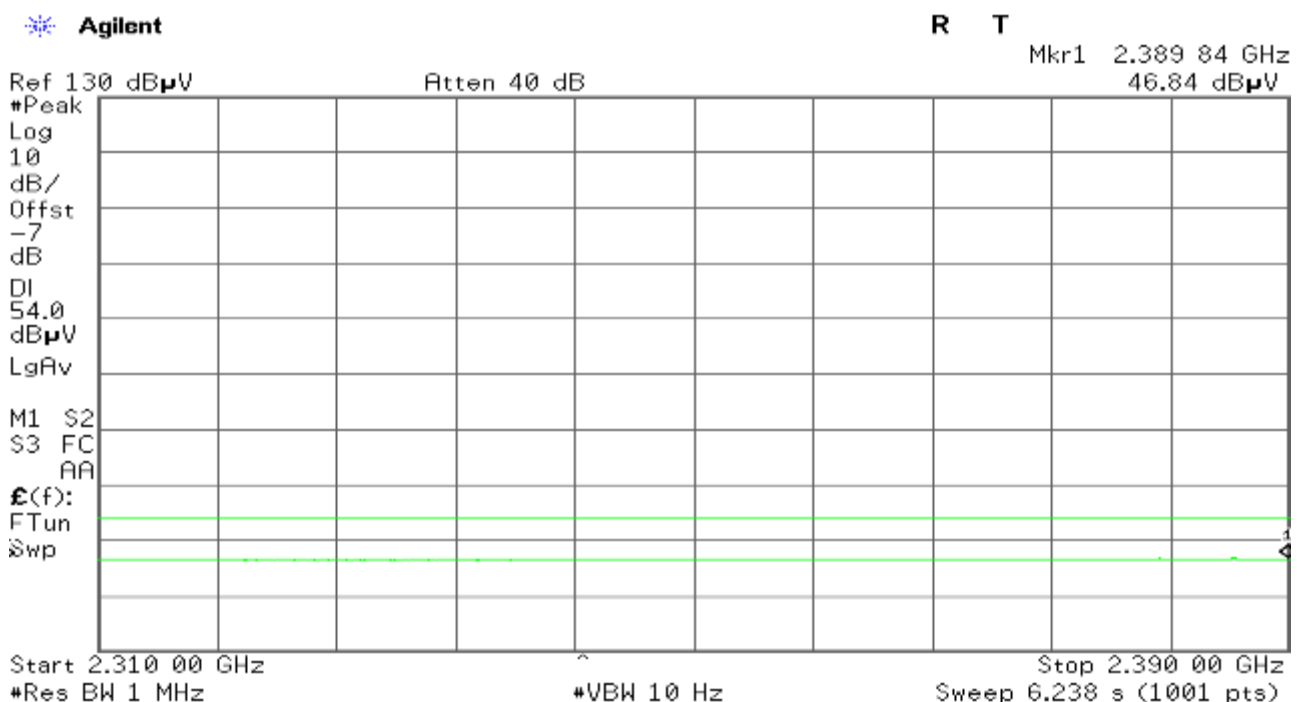


RESTRICTED BANDEDGE (b Mode, Low Channel, Horizontal)

PEAK



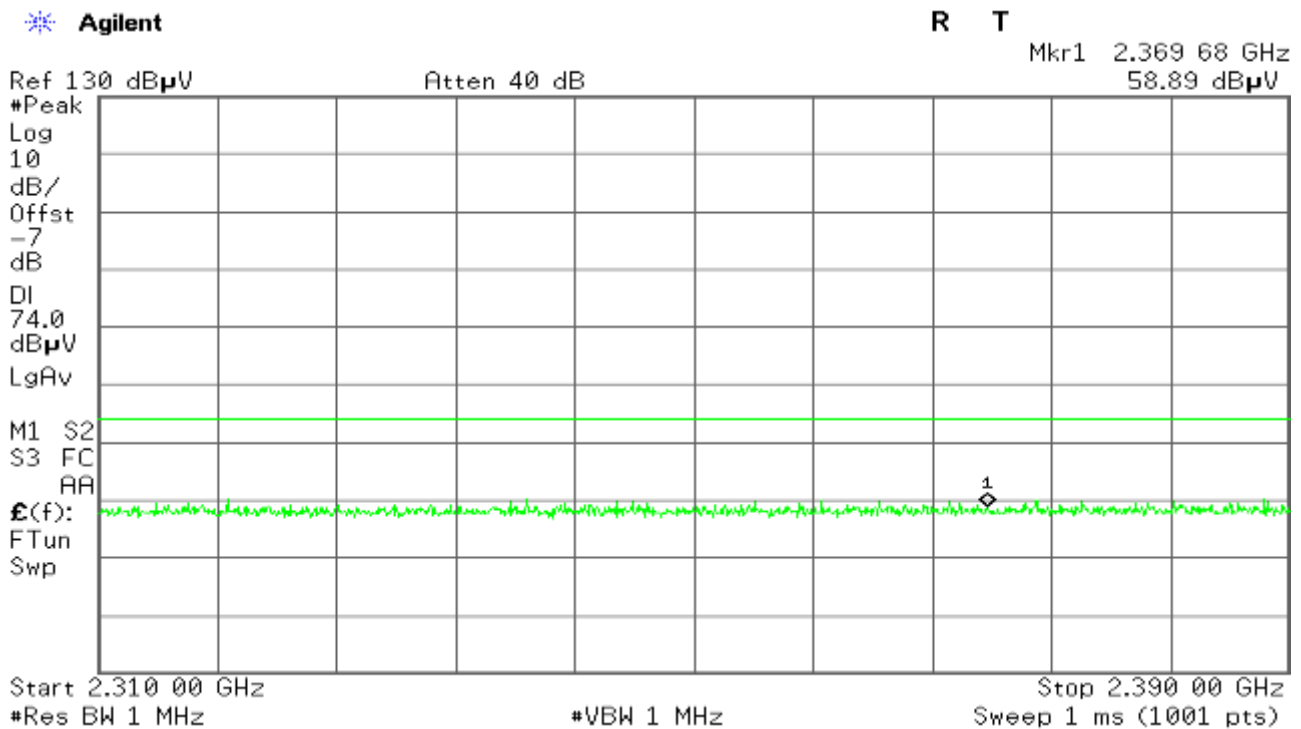
AVG



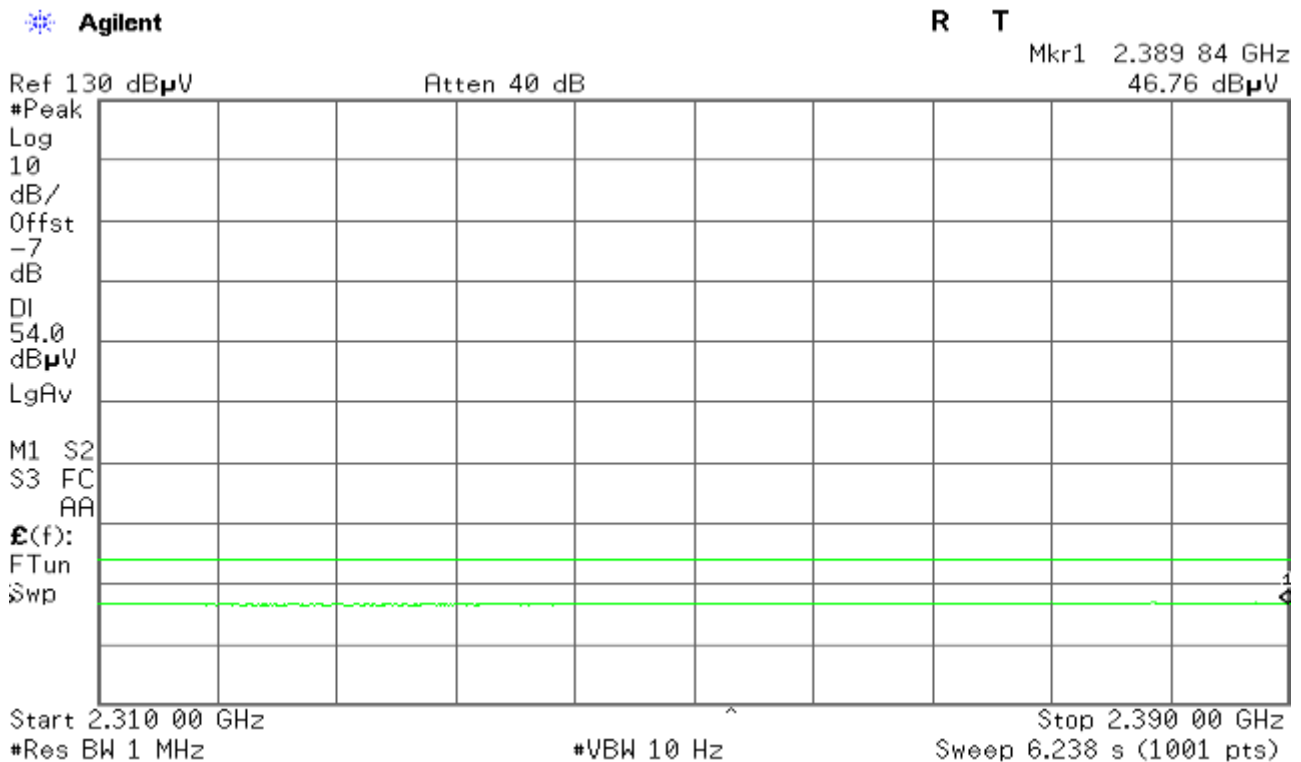


RESTRICTED BANDEDGE (b Mode, Low Channel, Vertical)

PEAK



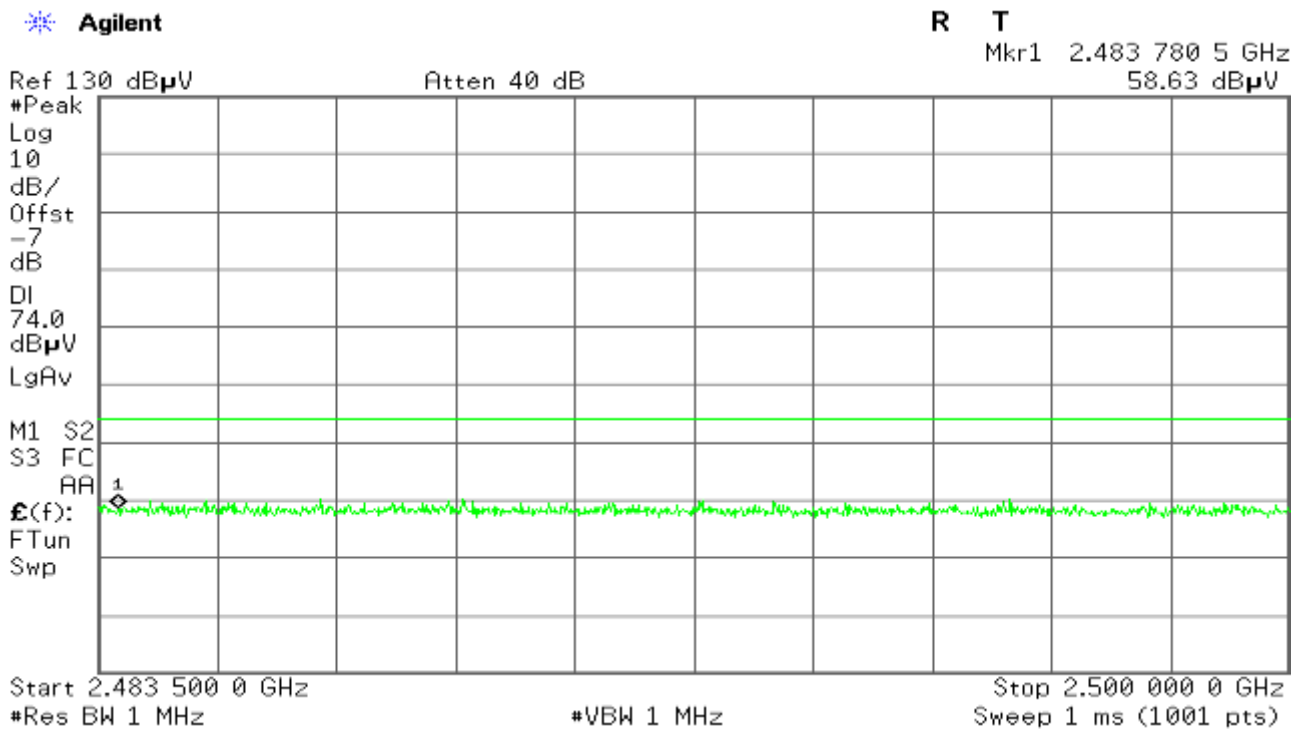
AVG



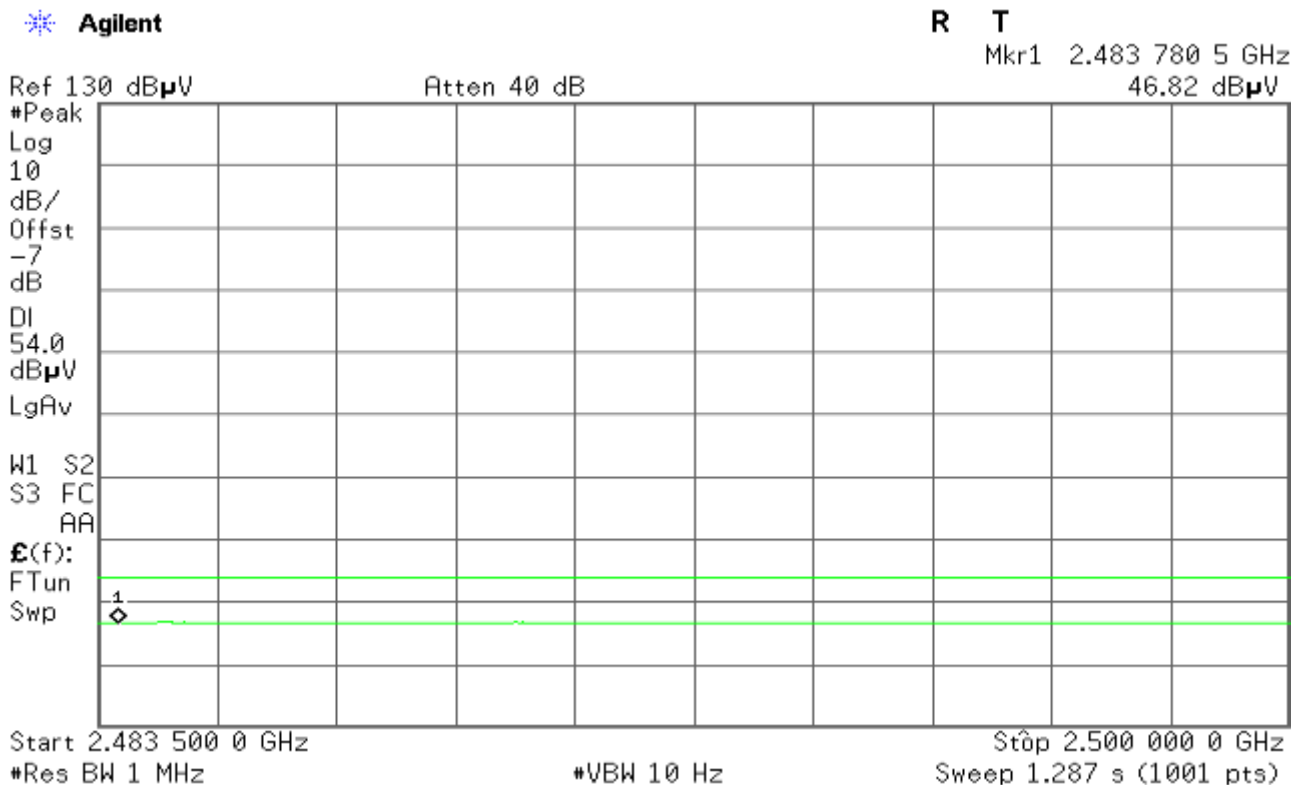


RESTRICTED BANDEDGE (b Mode, High Channel, Horizontal)

PEAK



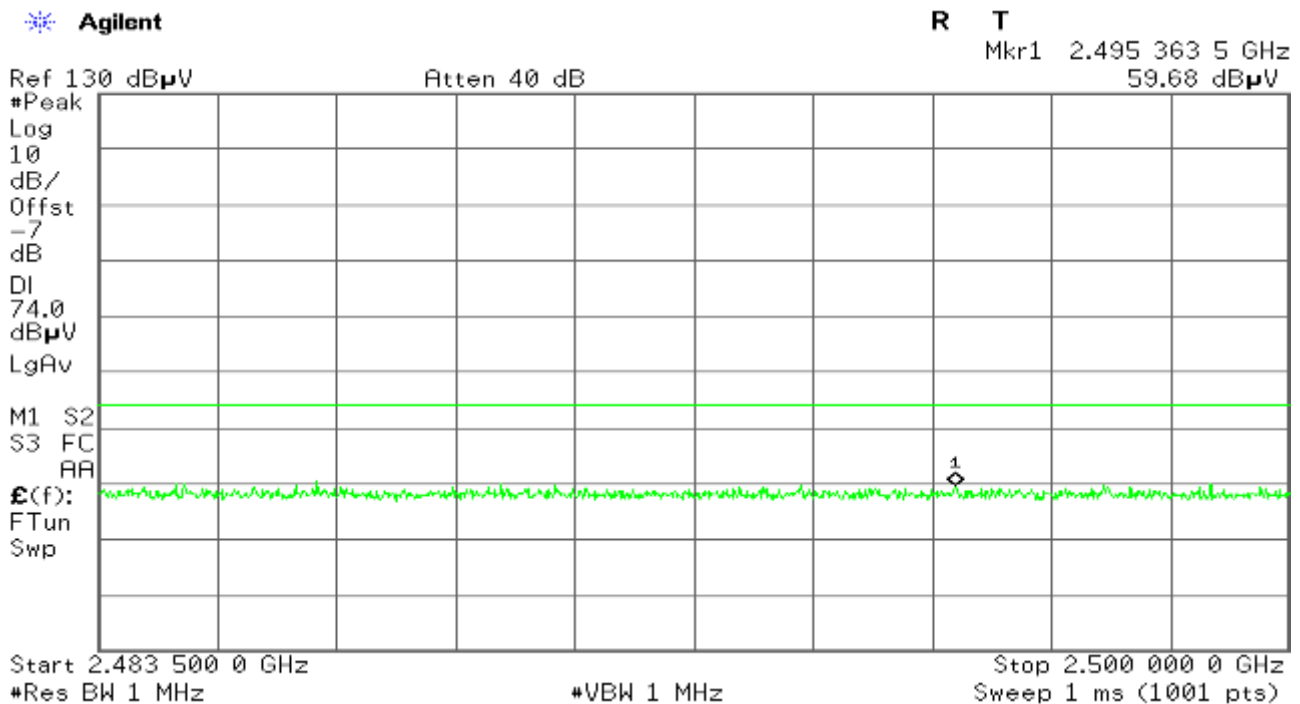
AVG



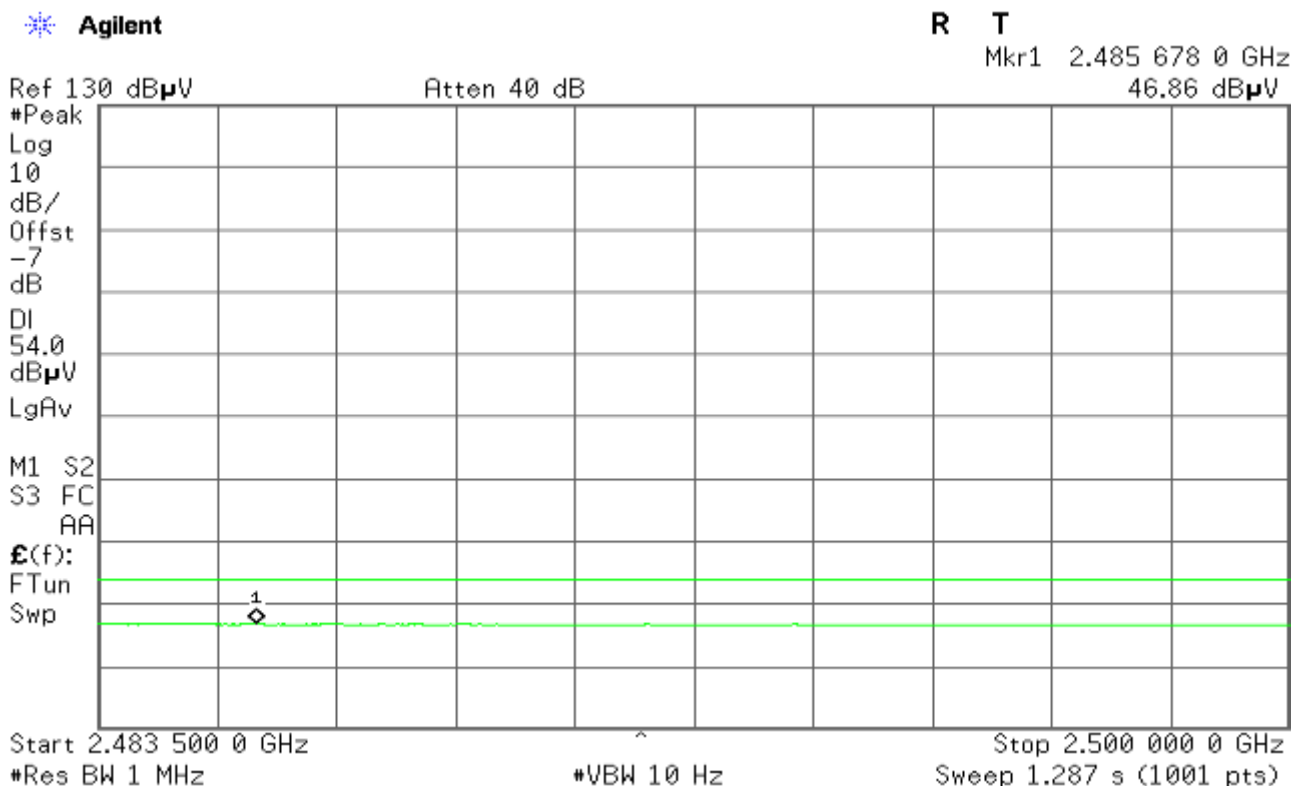


RESTRICTED BANDEDGE (b Mode, High Channel, Vertical)

PEAK



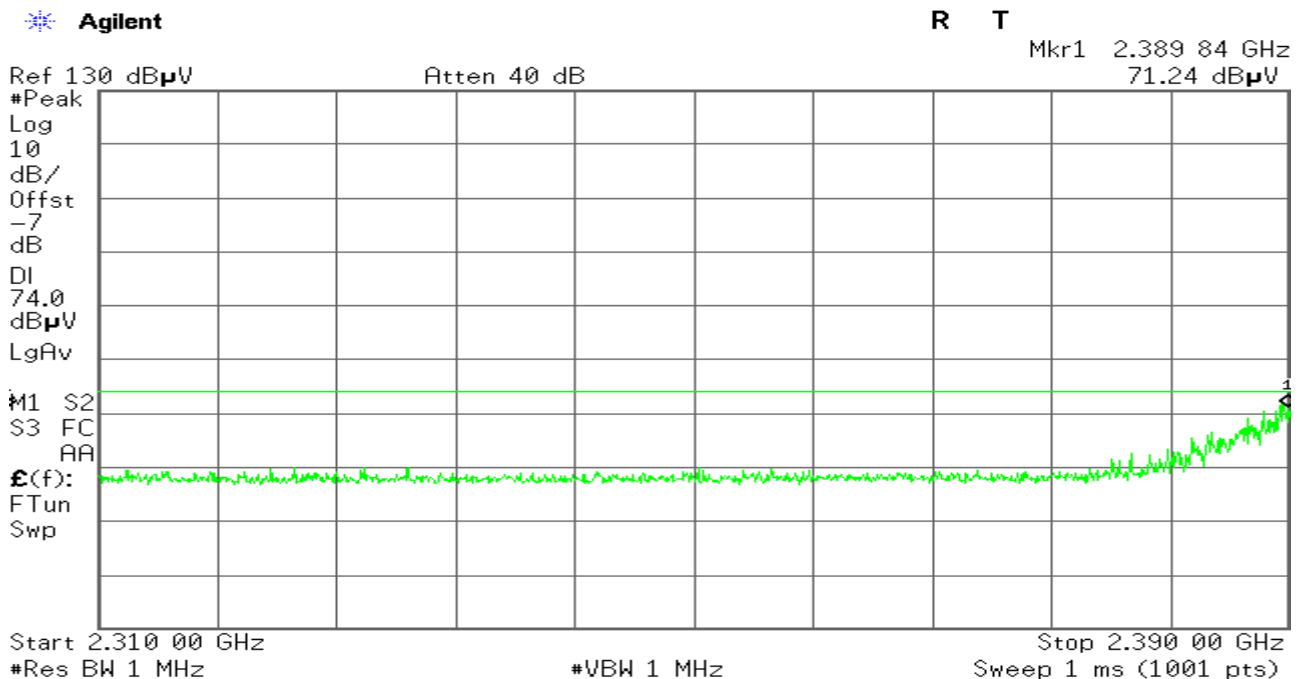
AVG



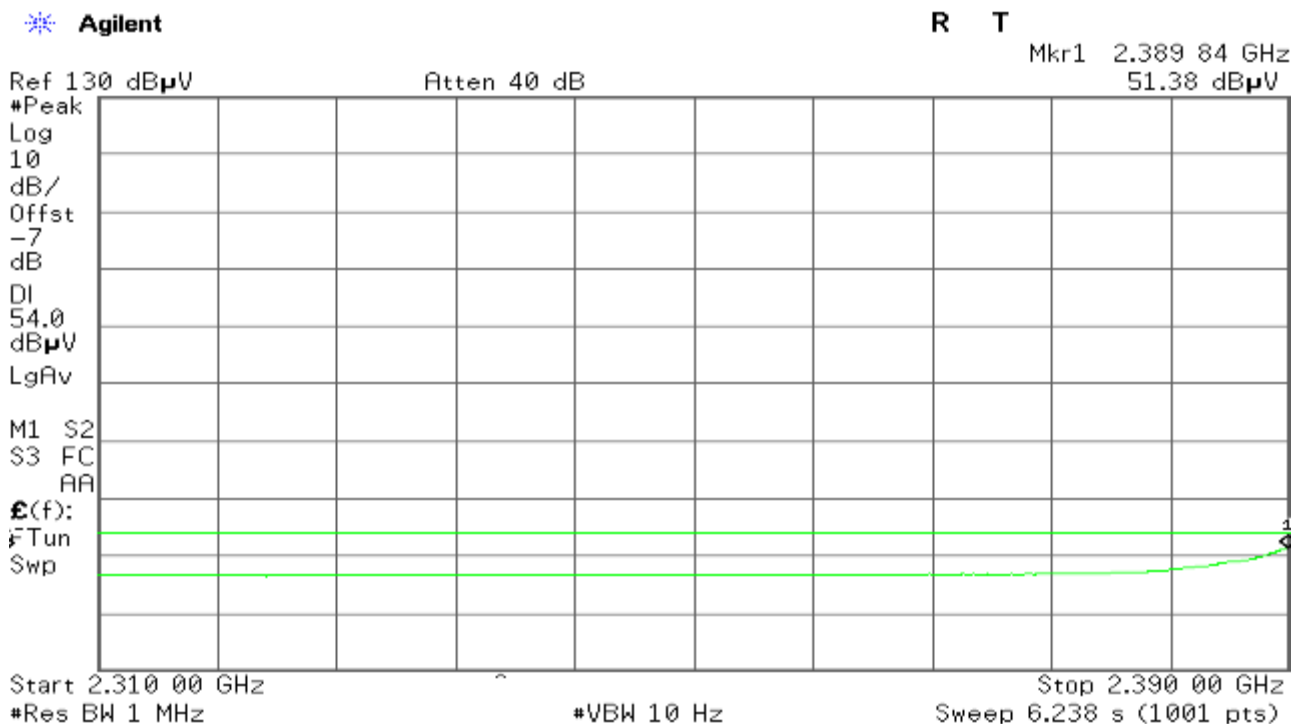


RESTRICTED BANDEDGE (g Mode, Low Channel, Horizontal)

PEAK



AVG





RESTRICTED BANDEDGE (g Mode, Low Channel, Vertical)

PEAK

* Agilent

R T

Mkr1 2.389 84 GHz
67.73 dB μ VRef 130 dB μ V

Atten 40 dB

#Peak

Log

10

dB/

Offst

-7

dB

DI

74.0

dB μ V

LgAv

M1 S2

S3 FC

AA

E(f):

FTun

Swp

Start 2.310 00 GHz

#Res BW 1 MHz

#VBW 1 MHz

Stop 2.390 00 GHz

Sweep 1 ms (1001 pts)

AVG

* Agilent

R T

Mkr1 2.389 84 GHz
50.79 dB μ VRef 130 dB μ V

Atten 40 dB

#Peak

Log

10

dB/

Offst

-7

dB

DI

54.0

dB μ V

LgAv

M1 S2

S3 FC

AA

E(f):

FTun

Swp

Start 2.310 00 GHz

#Res BW 1 MHz

#VBW 10 Hz

Stop 2.390 00 GHz

Sweep 6.238 s (1001 pts)



RESTRICTED BANDEDGE (g Mode, High Channel, Horizontal)

PEAK

Agilent

R T

Mkr1 2.483 582 5 GHz
68.06 dB μ VRef 130 dB μ V

Atten 40 dB

#Peak

Log

10

dB/

Offst

-7

dB

DI

74.0

dB μ V

LgAv

M1 S21

S3 FC

AA

E(f):

FTun

Swp

Start 2.483 500 0 GHz

#Res BW 1 MHz

#VBW 1 MHz

Stop 2.500 000 0 GHz

Sweep 1 ms (1001 pts)

AVG

Agilent

R T

Mkr1 2.483 500 0 GHz
53.65 dB μ VRef 130 dB μ V

Atten 40 dB

#Peak

Log

10

dB/

Offst

-7

dB

DI

54.0

dB μ V

LgAv

M1 S2

S3 FC

AA

E(f):

FTun

Swp

Start 2.483 500 0 GHz ^

#Res BW 1 MHz

#VBW 10 Hz

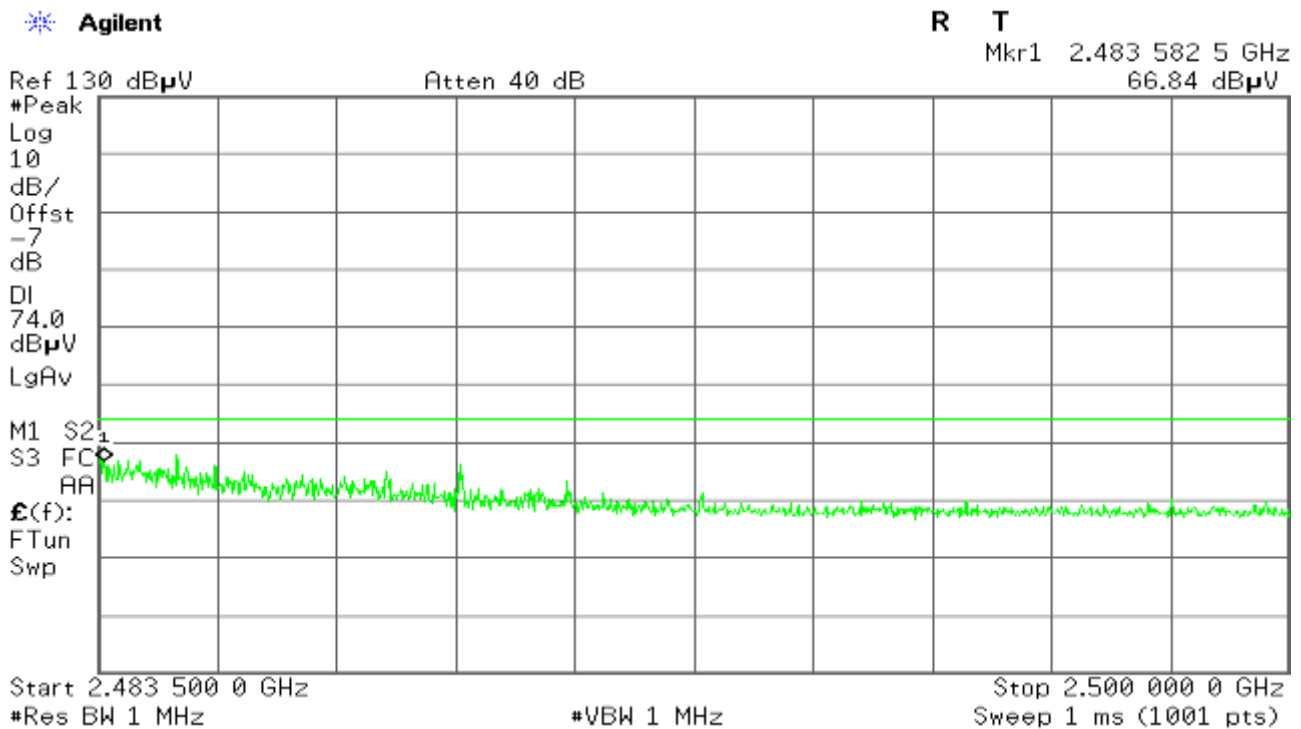
Stop 2.500 000 0 GHz

Sweep 1.287 s (1001 pts)

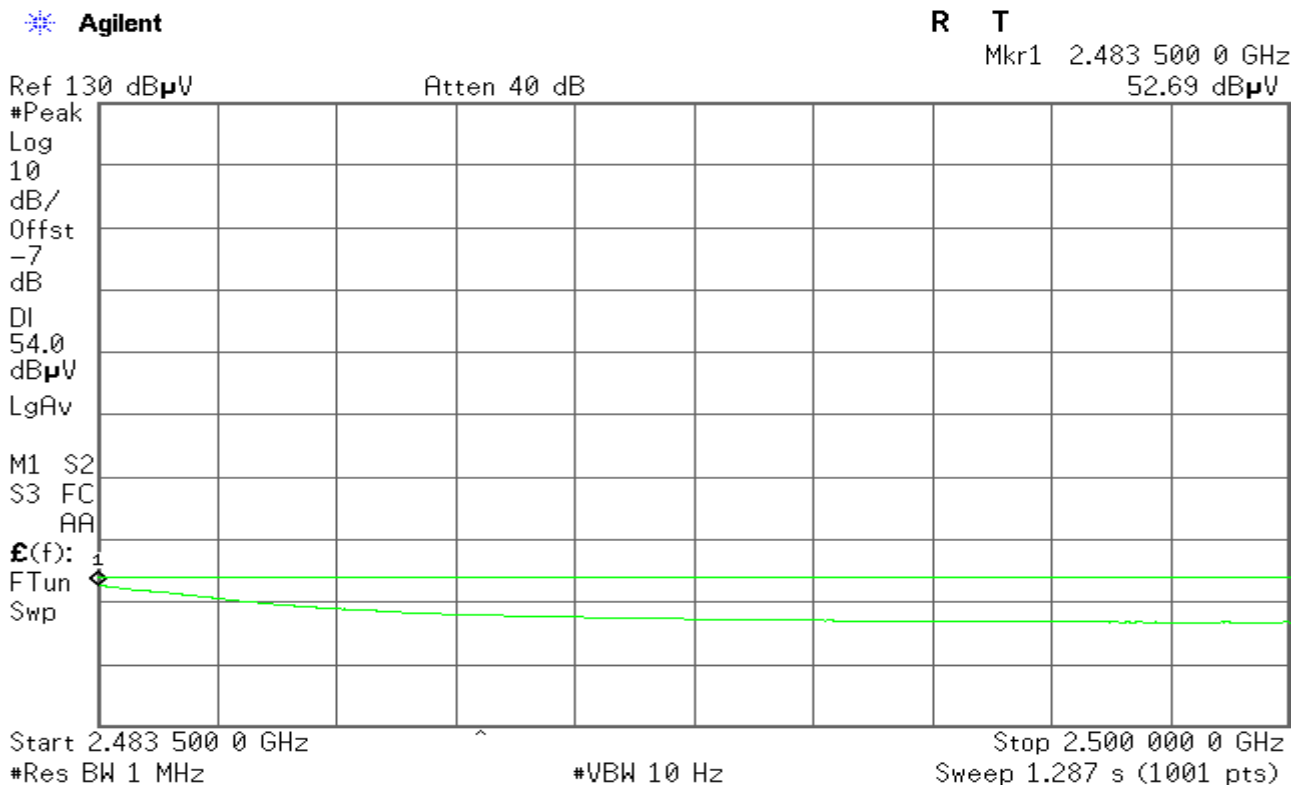


RESTRICTED BANDEDGE (g Mode, High Channel, Vertical)

PEAK



AVG





RESTRICTED BANDEDGE (draft 802.11gn Standard-20 MHz Channel mode, Low Channel, Horizontal)

PEAK

Agilent

R T

Mkr1 2.389 60 GHz
71.21 dB μ VRef 130 dB μ V

Atten 40 dB

#Peak

Log

10

dB/

Offst

-7

dB

DI

74.0

dB μ V

LgAv

M1 S2

S3 FC

AA

E(f):

FTun

Swp

Start 2.310 00 GHz

#Res BW 1 MHz

#VBW 1 MHz

Stop 2.390 00 GHz

Sweep 1 ms (1001 pts)

AVG

Agilent

R T

Mkr1 2.389 60 GHz
53.47 dB μ VRef 130 dB μ V

Atten 40 dB

#Peak

Log

10

dB/

Offst

-7

dB

DI

54.0

dB μ V

LgAv

M1 S2

S3 FC

AA

E(f):

FTun

Swp

Start 2.310 00 GHz

#Res BW 1 MHz

#VBW 10 Hz

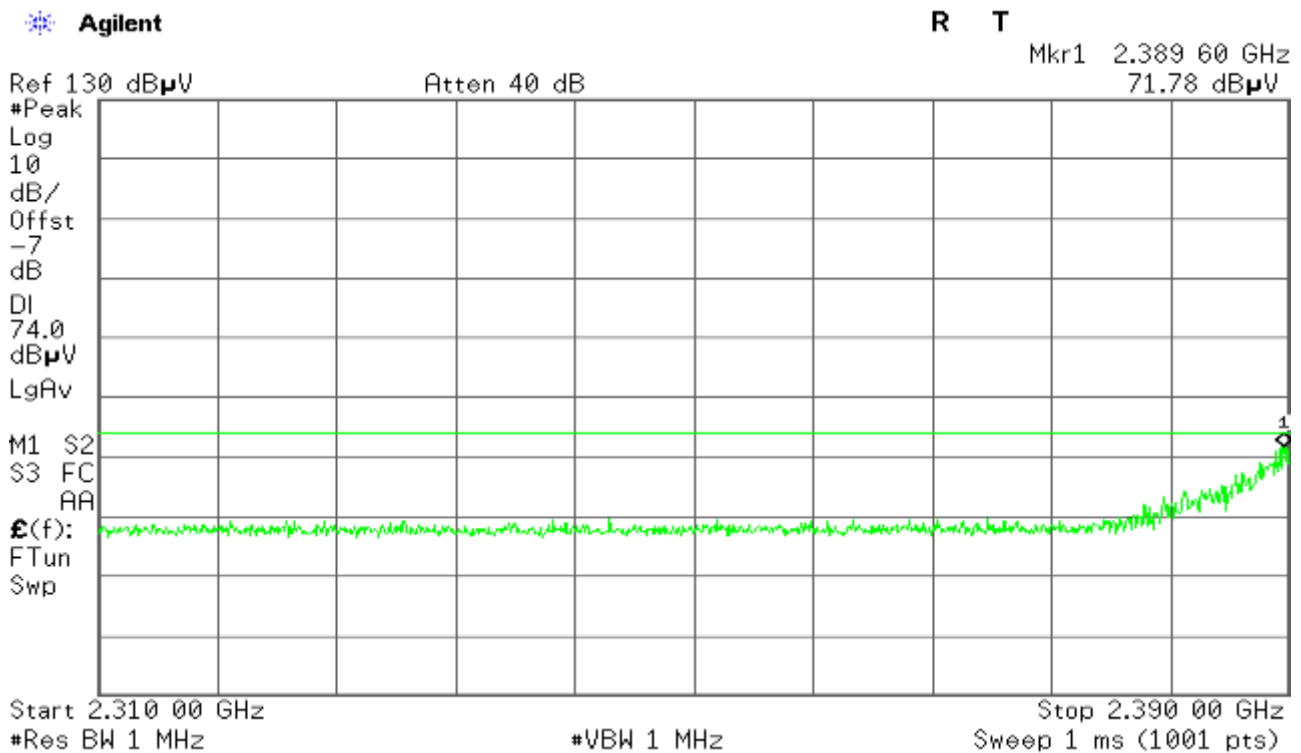
Stop 2.390 00 GHz

Sweep 6.238 s (1001 pts)

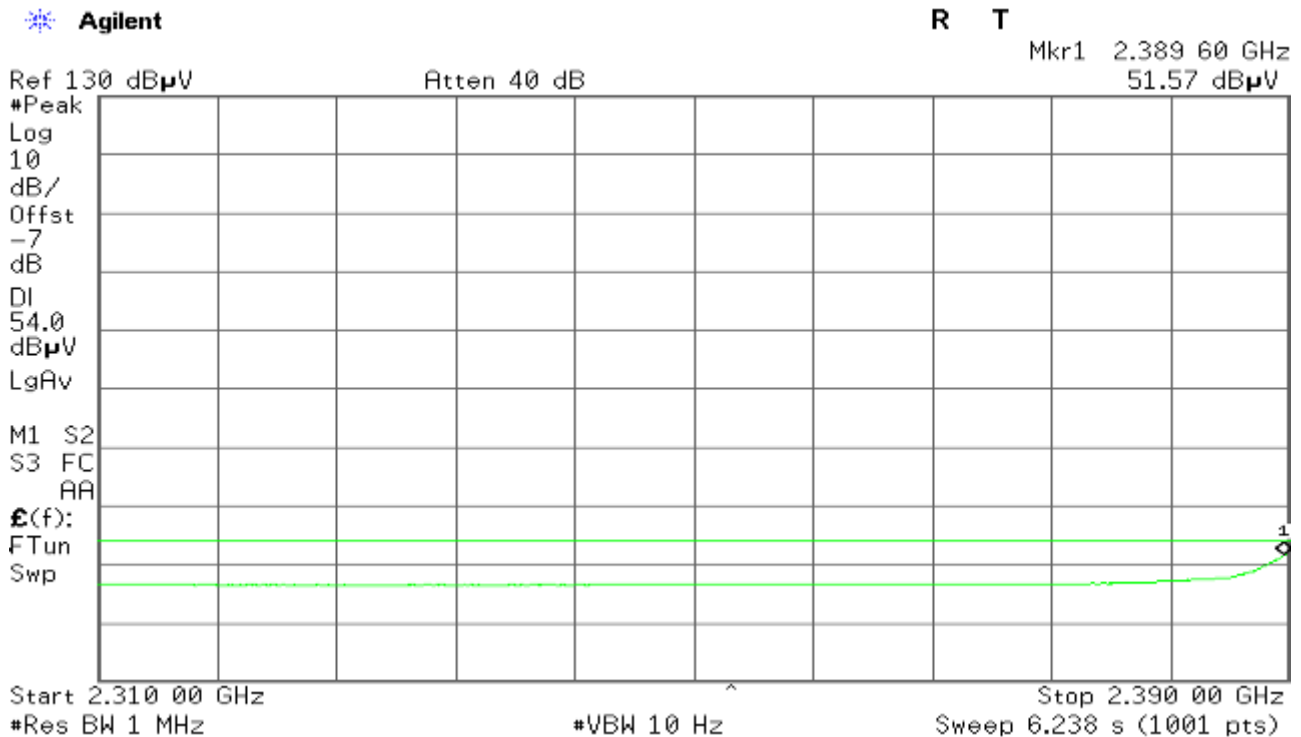


RESTRICTED BANDEDGE (draft 802.11gn Standard-20 MHz Channel mode, Low Channel, Vertical)

PEAK



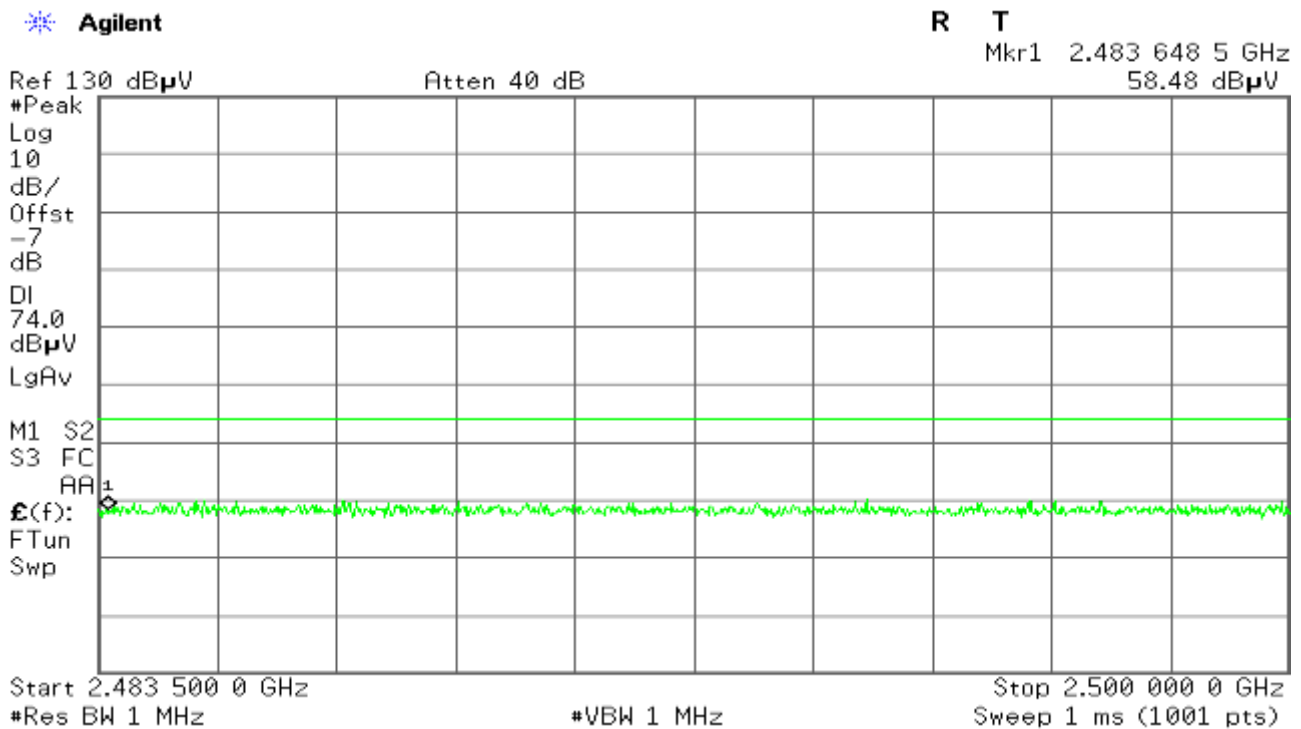
AVG



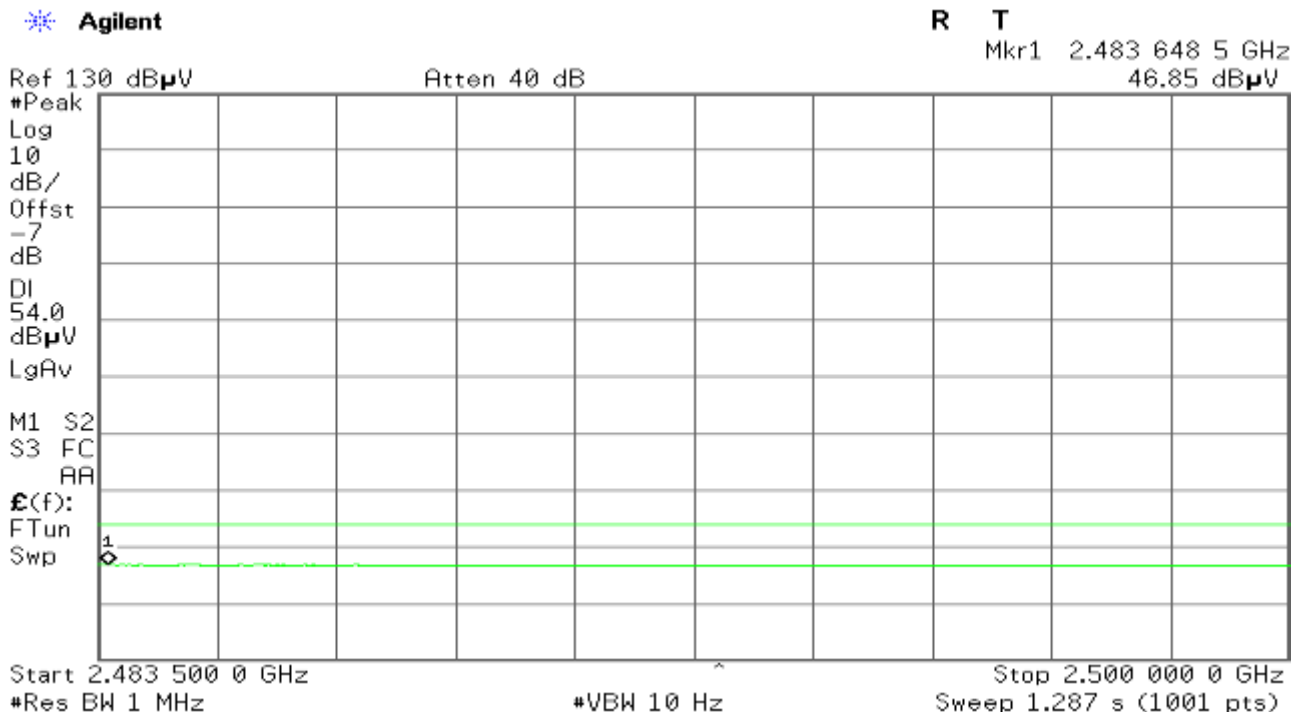


RESTRICTED BANDEDGE (draft 802.11gn Standard-20 MHz Channel mode, High Channel, Horizontal)

PEAK



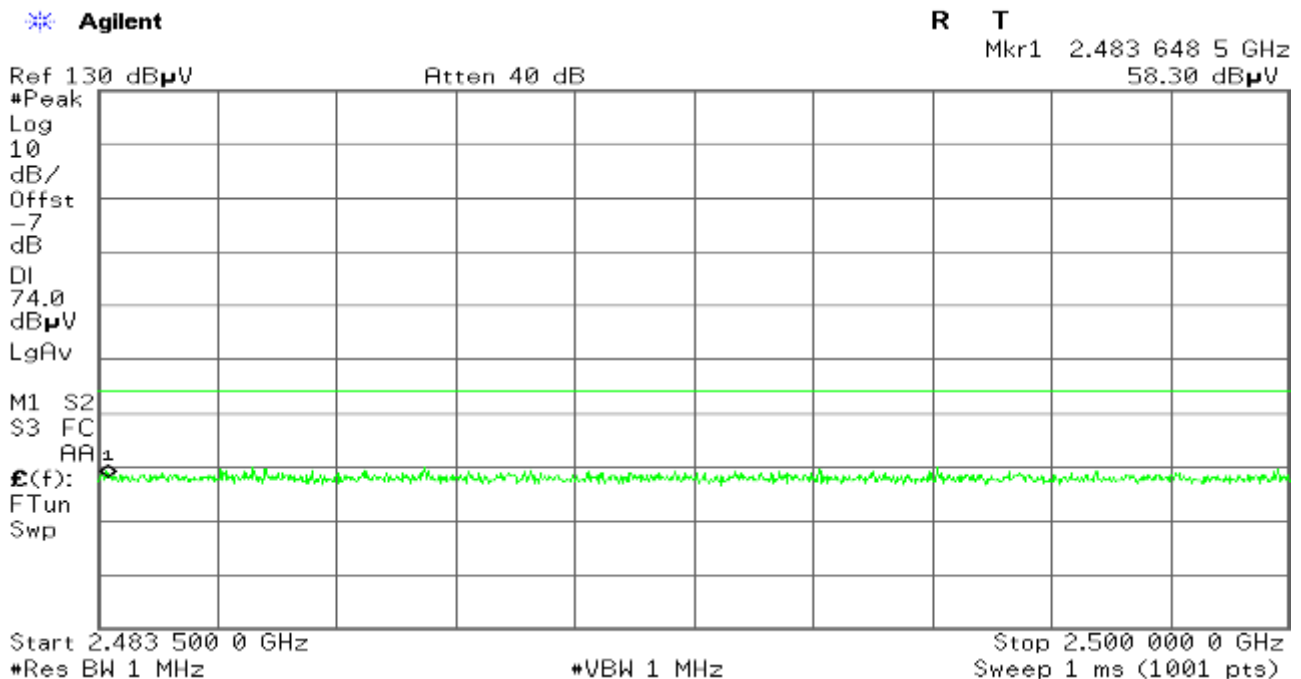
AVG



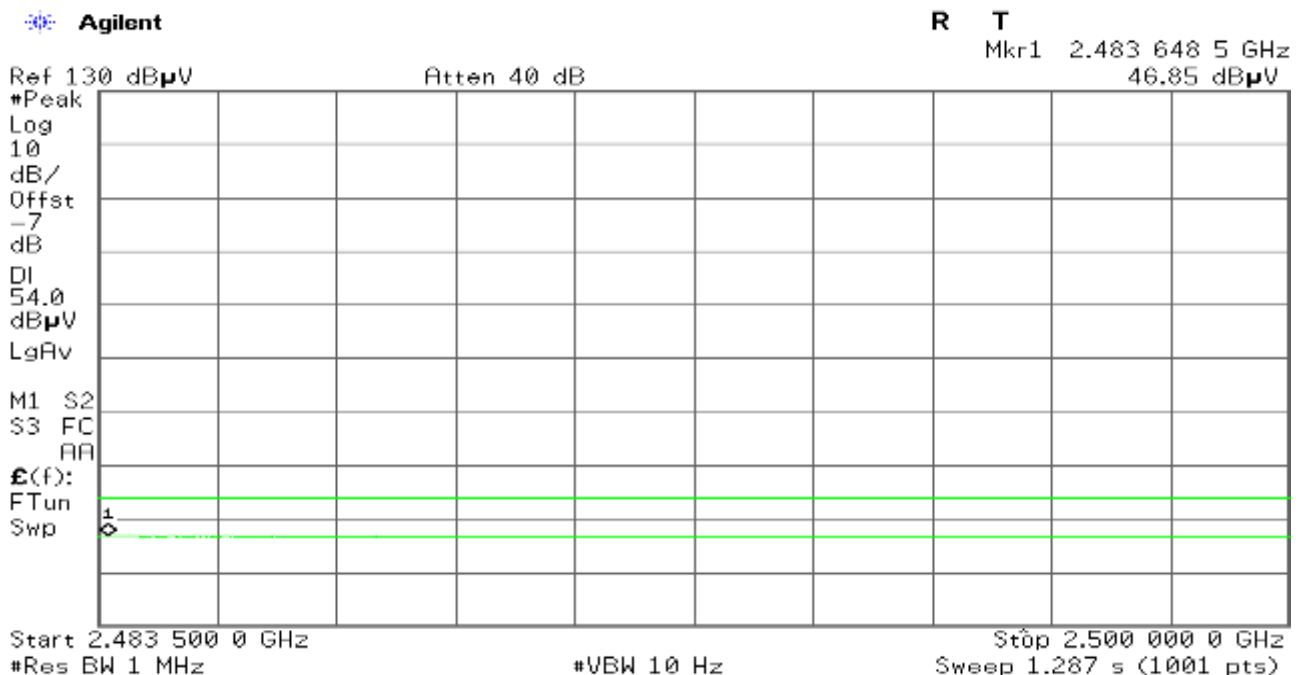


RESTRICTED BANDEDGE (draft 802.11gn Standard-20 MHz Channel mode, High Channel, Vertical)

PEAK



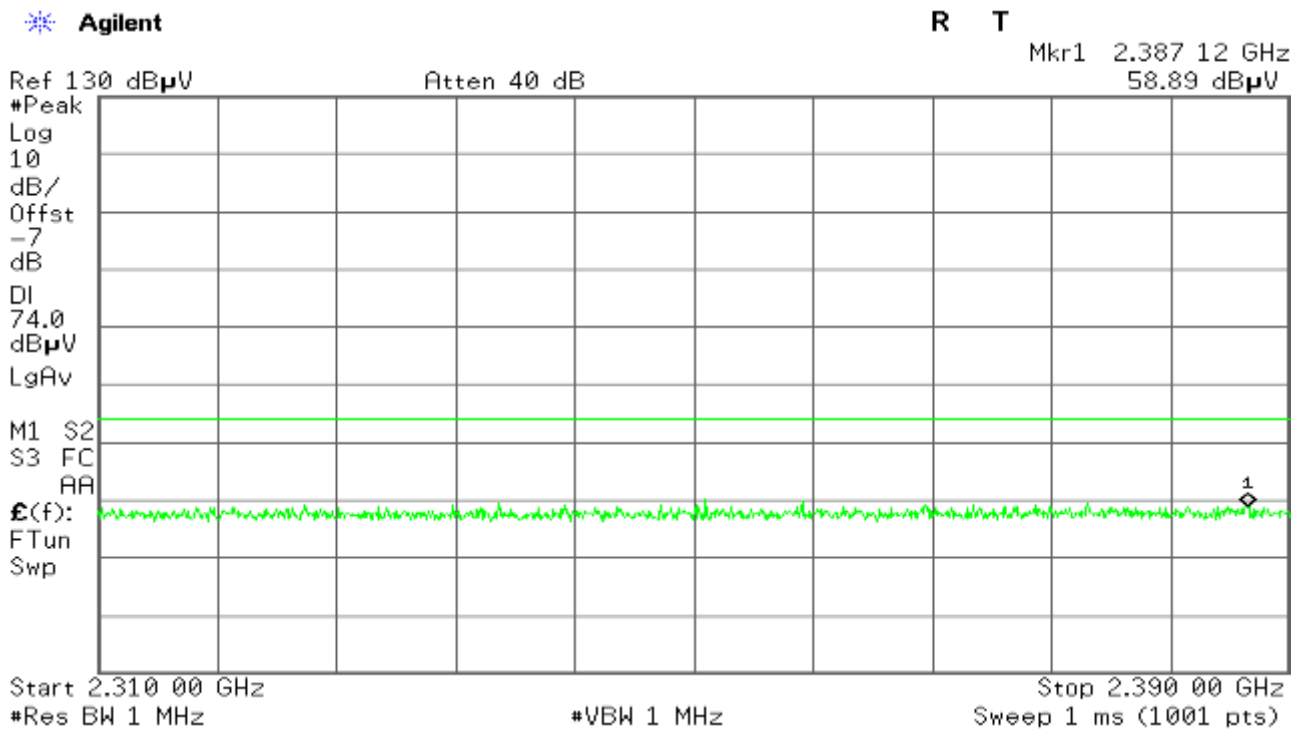
AVG



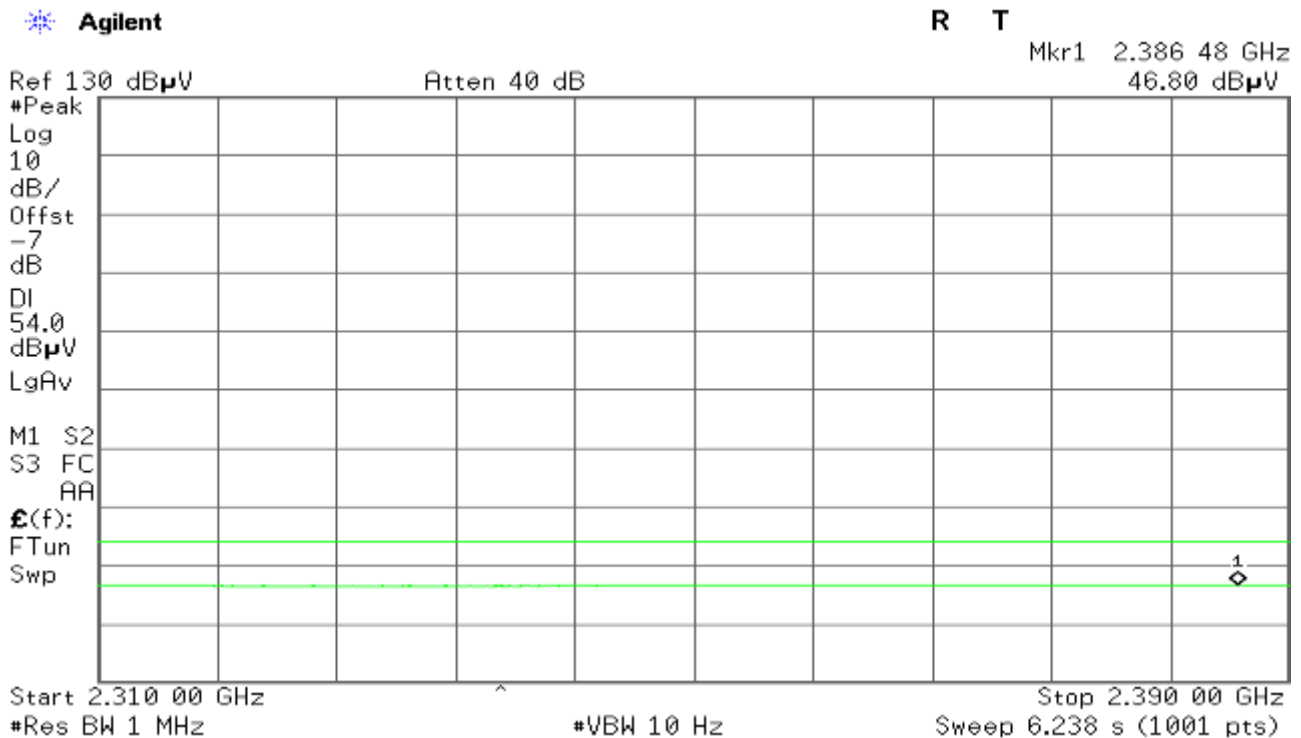


RESTRICTED BANDEDGE (draft 802.11gn Wide -40 MHz Channel mode, Low Channel, Horizontal)

PEAK



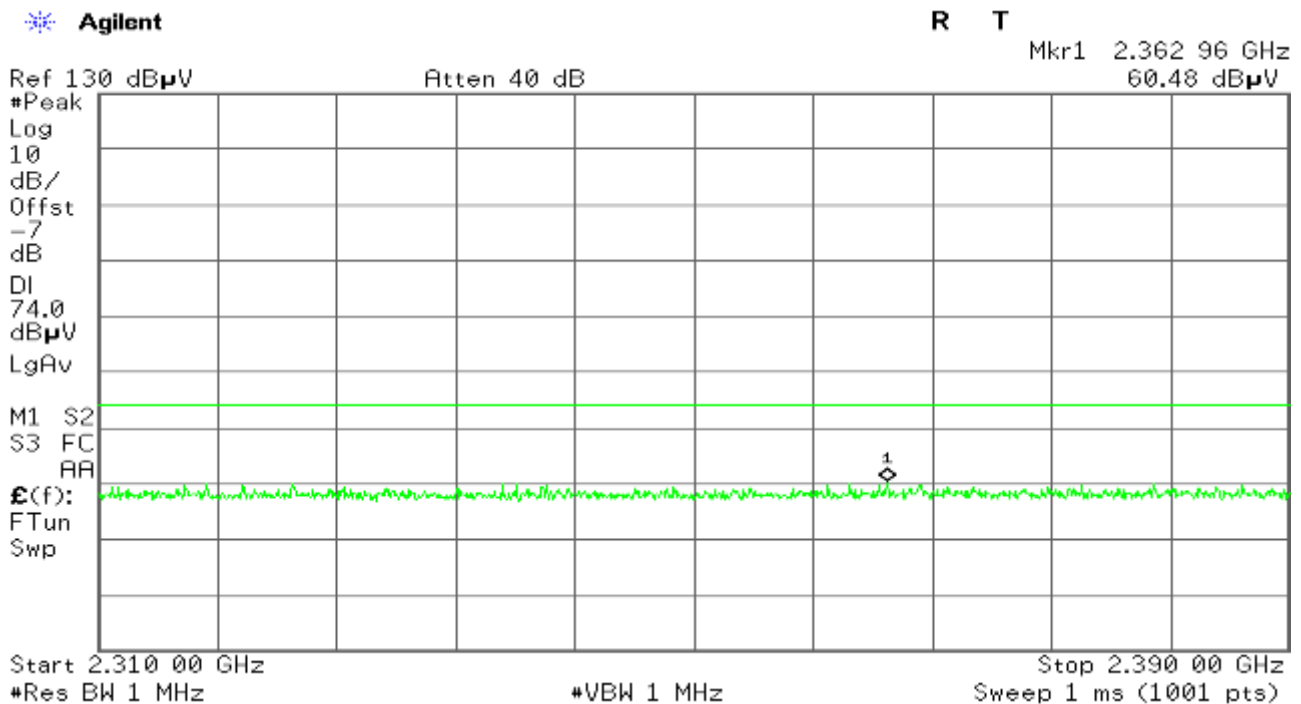
AVG



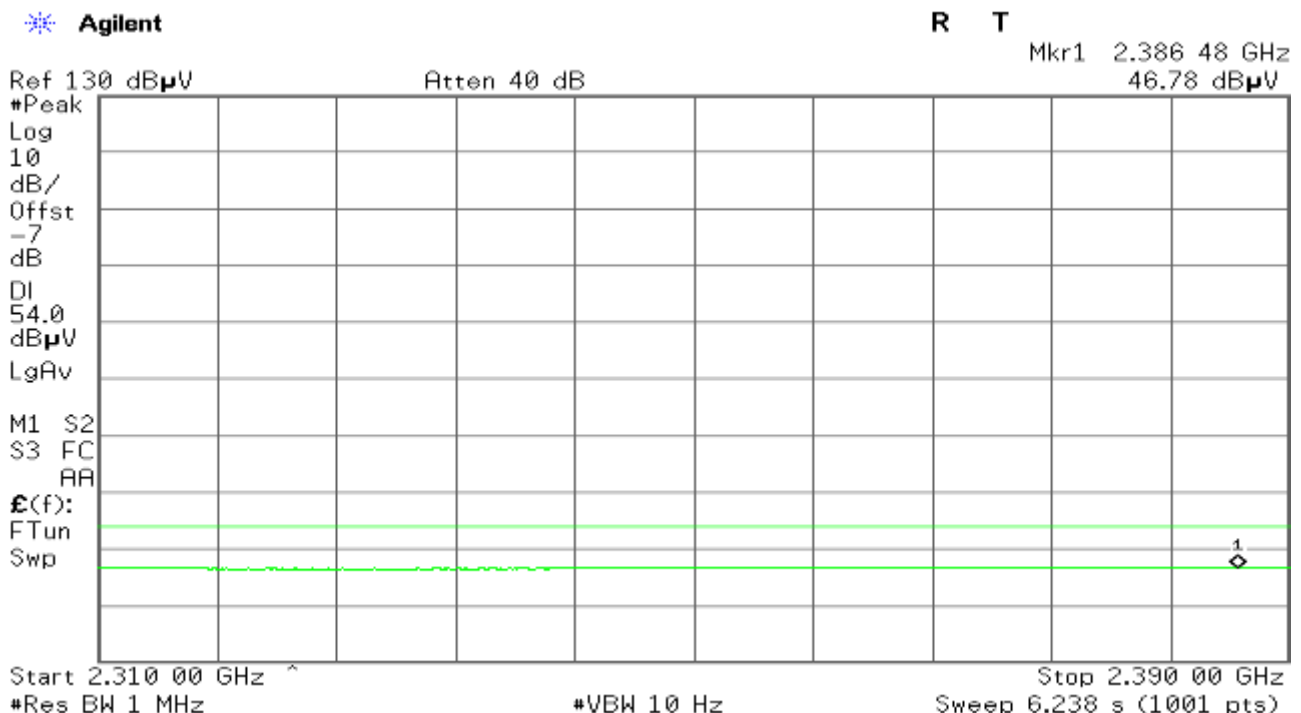


RESTRICTED BANDEDGE (draft 802.11gn Wide -40 MHz Channel mode, Low Channel, Vertical)

PEAK



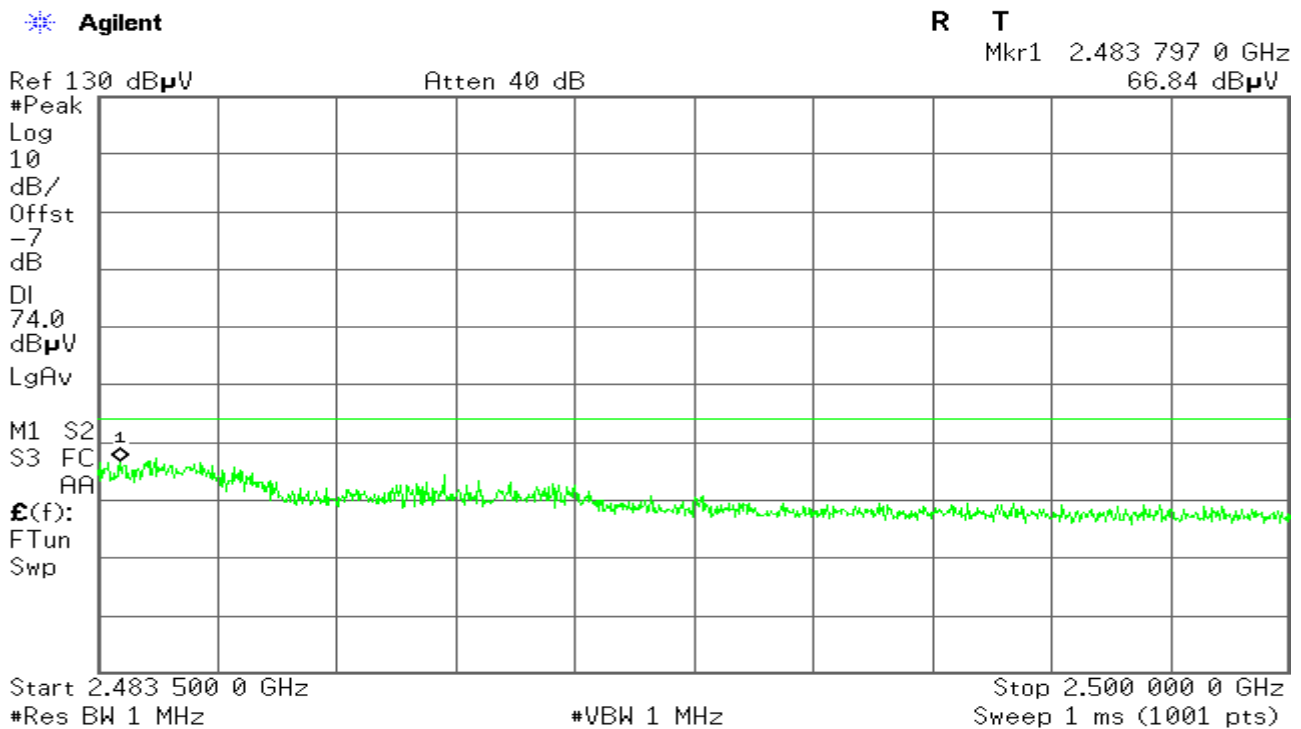
AVG



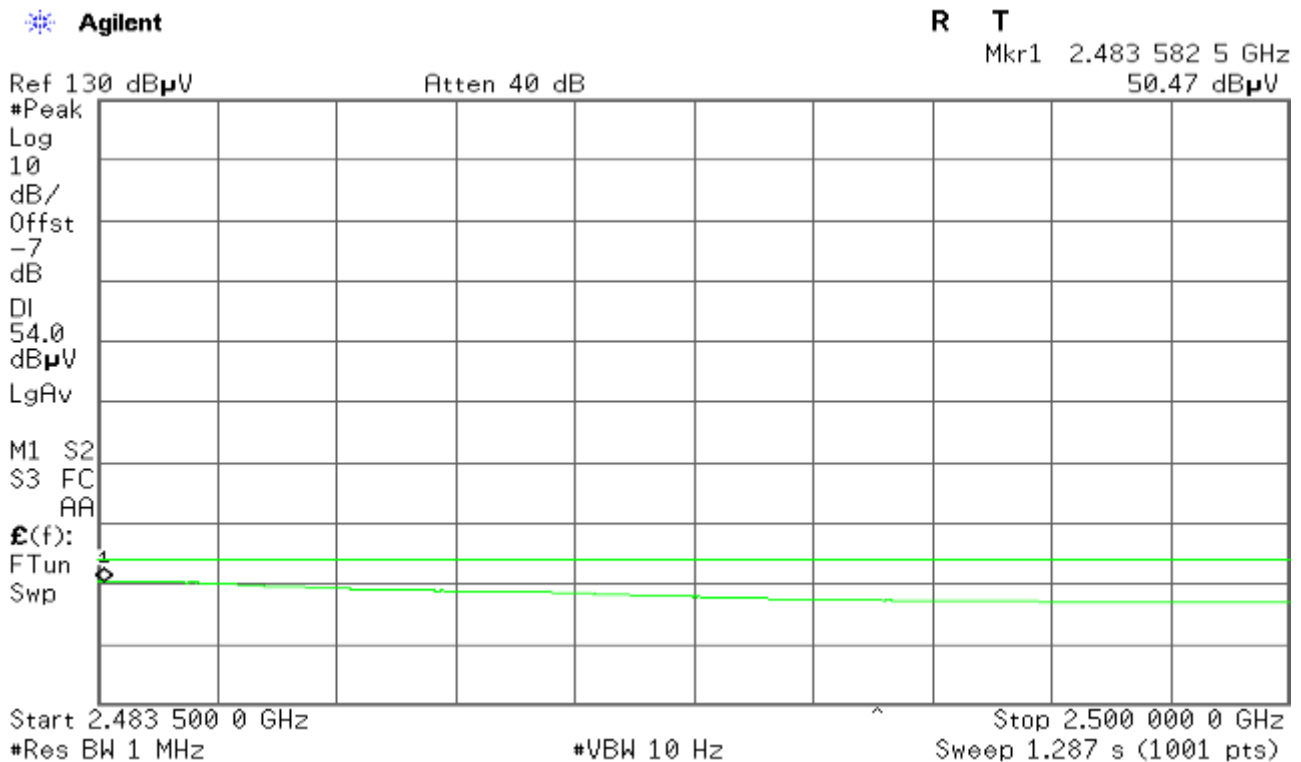


RESTRICTED BANDEDGE (draft 802.11gn Wide -40 MHz Channel mode, High Channel, Horizontal)

PEAK



AVG





RESTRICTED BANDEDGE (draft 802.11gn Wide -40 MHz Channel mode, High Channel, Vertical)

PEAK

Agilent

R T

Mkr1 2.484 374 5 GHz
68.22 dB μ VRef 130 dB μ V

Atten 40 dB

#Peak

Log

10

dB/

Offst

-7

dB

DI

74.0

dB μ V

LgAv

M1 S2

S3 FC

AA

E(f):

FTun

Swp

Start 2.483 500 0 GHz

#Res BW 1 MHz

#VBW 1 MHz

Stop 2.500 000 0 GHz

Sweep 1 ms (1001 pts)

AVG

Agilent

R T

Mkr1 2.483 582 5 GHz
51.56 dB μ VRef 130 dB μ V

Atten 40 dB

#Peak

Log

10

dB/

Offst

-7

dB

DI

54.0

dB μ V

LgAv

M1 S2

S3 FC

AA

E(f):

FTun

Swp

Start 2.483 500 0 GHz

#Res BW 1 MHz

#VBW 10 Hz

Stop 2.500 000 0 GHz

Sweep 1.287 s (1001 pts)



Compliance Certification Services Inc.

Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

Below 1GHz

Operation Mode: Normal Link(with Bluetooth ON)

Test Date: Jan 9,2012

Temperature: 22°C

Tested by: Sean Yu

Humidity: 48% RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
65.32	V	49.17	-12.22	36.95	40.00	-3.05	Peak
71.60	V	42.79	-14.41	28.38	40.00	-11.62	Peak
199.57	V	34.53	-9.49	25.04	43.50	-18.46	Peak
399.46	V	31.90	1.44	33.34	46.00	-12.66	Peak
760.32	V	30.50	2.38	32.88	46.00	-13.12	Peak
765.36	V	35.90	3.27	39.17	46.00	-6.83	Peak
66.25	H	33.96	-5.87	28.09	40.00	-11.91	Peak
70.64	H	42.67	-14.45	28.22	46.00	-11.78	Peak
198.36	H	38.03	-9.01	29.02	46.00	-14.48	Peak
398.25	H	35.63	1.44	37.07	46.00	-8.93	Peak
755.14	H	34.24	2.38	36.62	46.00	-9.38	Peak
796.25	H	39.96	3.24	43.20	46.00	-2.80	QP

Remark:

1. Measuring frequencies from 30 MHz to the 1GHz (No emission found between lowest internal used/generated frequency to 30 MHz).
2. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using peak/quasi-peak detector mode.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
4. Margin (dB) = Result (dBuV/m) – Limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Above 1 GHz

Operation Mode: TX / IEEE 802.11b / CH Low(with Bluetooth ON) **Test Date:** Jan 9,2012

Temperature: 22°C

Tested by: Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
4825.71	V	36.18	---	12.41	48.59	---	74.00	54.00	-5.74	Peak
7236.58	V	38.85	27.71	15.48	54.33	43.19	74.00	54.00	-10.81	Average
4824.54	H	34.36	---	12.41	46.77	---	74.00	54.00	-7.23	Peak
7233.23	H	38.35	27.48	15.47	53.82	42.95	74.00	54.00	-11.05	Average
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / IEEE 802.11b / CH Mid(with Bluetooth ON)

Test Date: Jan 9,2012

Temperature: 22°C

Tested by:Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
4865.44	V	36.43	---	12.68	49.11	---	74.00	54.00	-4.89	Peak
7307.67	V	37.74	26.17	15.72	53.46	41.89	74.00	54.00	-12.11	Average
N/A										
4866.57	H	35.15	---	12.68	47.83	---	74.00	54.00	-6.17	Peak
7321.25	H	36.82	25.57	15.76	52.58	41.33	74.00	54.00	-12.67	Average
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

Operation Mode: TX / IEEE 802.11b / CH High(with Bluetooth ON)**Test Date:** Jan 9,2012**Temperature:** 22°C**Tested by:**Sean Yu**Humidity:** 48 % RH**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
4921.54	V	35.63	---	12.93	48.56	---	74.00	54.00	-5.44	Peak
7378.33	V	39.64	27.89	15.82	55.46	43.71	74.00	54.00	-10.29	Average
N/A										
4923.33	H	34.28	---	12.93	47.21	---	74.00	54.00	-6.79	Peak
7380.67	H	38.94	26.06	15.82	54.76	41.88	74.00	54.00	-12.12	Average
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / IEEE 802.11g / CH Low(with Bluetooth ON)

Test Date: Jan 9,2012

Temperature: 24°C

Tested by:Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
4819.00	V	35.14	---	12.41	47.55	---	74.00	54.00	-6.45	Peak
7233.82	V	36.85	27.28	15.48	52.33	42.76	74.00	54.00	-11.24	Average
N/A										
4823.67	H	34.02	---	12.41	46.43	---	74.00	54.00	-7.57	Peak
7238.45	H	35.30	25.54	15.48	50.78	41.02	74.00	54.00	-12.98	Average
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / IEEE 802.11g / CH Mid(with Bluetooth ON)

Test Date: Jan 9,2012

Temperature: 24°C

Tested by: Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
4876.54	V	33.61	---	12.68	46.29	---	74.00	54.00	-7.71	Peak
7320.75	V	37.35	25.06	15.76	53.11	40.82	74.00	54.00	-13.18	Average
N/A										
4875.65	H	32.99	---	12.68	45.67	---	74.00	54.00	-8.33	Peak
7318.44	H	37.14	24.04	15.74	52.88	39.78	74.00	54.00	-14.22	Average
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / IEEE 802.11g / CH High(with Bluetooth ON)

Test Date: Jan 9,2012

Temperature: 24°C

Tested by: Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
4935.33	V	33.60	---	12.94	46.54	---	74.00	54.00	-7.46	Peak
7391.67	V	37.38	26.35	15.82	53.20	42.17	74.00	54.00	-11.83	Average
N/A										
4925.67	H	34.38	---	12.93	47.31	---	74.00	54.00	-6.69	Peak
7389.33	H	37.16	25.92	15.82	52.98	41.74	74.00	54.00	-12.26	Average
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / IEEE 802.11a / CH low(with Bluetooth ON)

Test Date: Jan 9,2012

Temperature: 24°C

Tested by: Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
11490.66	V	44.01	35.74	3.56	47.57	39.3	74	54	-14.7	AVG
N/A										
11491.67	H	43.25	35.01	3.56	46.81	38.57	74	54	-15.43	AVG
N/A										

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
- Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
- Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

Operation Mode: TX / IEEE 802.11a / CH mid (with Bluetooth ON)**Test Date:** Jan 9,2012**Temperature:** 24°C**Tested by:** Sean Yu**Humidity:** 48 % RH**Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
11570.87	V	43.36	36.58	2.40	45.76	38.98	74.00	54.00	-19.02	AVG
N/A										
11570.65	H	43.05	37.21	2.40	45.4	39.61	74.00	54.00	-14.39	AVG
N/A										

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
- Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
- Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / IEEE 802.11a / CH high(with Bluetooth ON)

Test Date: Jan 9,2012

Temperature: 24°C

Tested by: Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
11611.54	V	42.01	34.02	3.56	45.57	37.58	74	54	-16.42	AVG
N/A										
11615.68	H	41.23	34.14	3.56	44.79	37.7	74	54	-16.30	AVG
N/A										

Remark:

19. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
20. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
21. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
22. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
23. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
24. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / draft 802.11gn Standard-20 MHz Channel
mode (Chain 0 + Chain 1) / CH Low(with
Bluetooth ON)

Test Date: Jan 9,2012

Temperature: 24°C

Tested by: Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
4832.66	V	34.48	---	12.41	46.89	---	74.00	54.00	-7.11	Peak
7230.43	V	37.94	26.68	15.48	53.42	42.16	74.00	54.00	-11.84	Average
N/A										
4824.54	H	33.32	---	12.41	45.73	---	74.00	54.00	-8.27	Peak
7212.56	H	36.30	23.17	15.48	51.78	38.65	74.00	54.00	-15.35	Average
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / draft 802.11gn Standard-20 MHz Channel
mode (Chain 0 + Chain 1) / CH Mid(with
Bluetooth ON)

Test Date: Jan 9,2012

Temperature: 24°C

Tested by: Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
4876.54	V	34.64	---	12.68	47.32	---	74.00	54.00	-6.68	Peak
7321.54	V	36.89	27.42	15.76	52.65	43.18	74.00	54.00	-10.82	Average
N/A										
4875.65	H	35.00	---	11.02	46.02	---	74.00	54.00	-7.98	Peak
7316.32	H	39.74	27.50	15.72	55.46	43.22	74.00	54.00	-10.78	Average
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / draft 802.11gn Standard-20 MHz Channel
mode (Chain 0 + Chain 1) / CH High(with
Bluetooth ON)

Test Date: Jan 9,2012

Temperature: 24°C

Tested by: Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
4930.66	V	37.60	---	12.93	46.52	---	74.00	54.00	-7.48	Peak
7387.67	V	38.30	26.99	15.82	54.12	42.81	74.00	54.00	-11.19	Average
N/A										
4924.67	H	32.74	---	12.93	45.67	---	74.00	54.00	-8.33	Peak
7384.78	H	39.64	28.09	15.82	55.46	43.91	74.00	54.00	-10.09	Average
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / draft 802.11gn Wide-40 MHz Channel mode
(Chain 0 + Chain 1) / CH Low(with Bluetooth ON) **Test Date:** Jan 9,2012

Temperature: 24°C

Tested by: Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
4844.67	V	35.42	---	12.41	47.83	---	74.00	54.00	-6.17	Peak
7382.54	V	39.27	27.80	15.48	54.75	43.28	74.00	54.00	-10.72	Average
N/A										
4850.67	H	34.38	---	12.41	46.79	---	74.00	54.00	-5.29	Peak
7382.67	H	38.55	26.67	15.48	54.03	42.15	74.00	54.00	-11.85	Average
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / draft 802.11gn Wide-40 MHz Channel mode
(Chain 0 + Chain 1) / CH Mid(with Bluetooth ON) **Test Date:** Jan 9,2012

Temperature: 24°C

Tested by: Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
4874.42	V	33.74	---	12.68	46.42	---	74.00	54.00	-7.58	Peak
7313.34	V	36.77	25.38	15.71	52.48	41.09	74.00	54.00	-12.91	Average
N/A										
4874.24	H	32.75	---	12.68	45.43	---	74.00	54.00	-8.57	Peak
7314.56	H	36.26	24.11	15.71	51.97	39.82	74.00	54.00	-14.18	Average
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / draft 802.11gn Wide-40 MHz Channel mode
(Chain 0 + Chain 1) / CH High(with Bluetooth ON) **Test Date:** Jan 9,2012

Temperature: 24°C

Tested by: Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
4915.33	V	37.72	---	12.93	47.07	---	74.00	54.00	-6.93	Peak
7360.67	V	37.89	26.25	15.83	53.72	42.08	74.00	54.00	-11.92	Average
N/A										
4915.67	H	33.58	---	12.93	46.51	---	74.00	54.00	-7.49	Peak
7359.33	H	36.35	24.57	15.82	52.17	40.39	74.00	54.00	-13.61	Average
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / draft 802.11an Standard-20 MHz Channel mode (Chain 0 + Chain 1) / CH Low(with Bluetooth ON)

Test Date: Jan 9,2012

Temperature: 24°C

Tested by: Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
11495.33	V	42.36	35.14	3.56	45.92	38.7	74	54	-15.3	AVG
N/A										
11495.00	H	41.85	34.75	3.56	45.41	38.31	74	54	-15.69	AVG
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / draft 802.11an Standard-20 MHz Channel mode (Chain 0 + Chain 1) / CH Mid(with Bluetooth ON)

Test Date: Jan 9,2012

Temperature: 24°C

Tested by: Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
11572.67	V	40.69	34.96	3.56	44.25	38.52	74	54	-15.48	AVG
N/A										
11571.33	H	40.24	34.12	3.56	43.80	37.68	74	54	-16.32	AVG
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / draft 802.11an Standard-20 MHz Channel
mode (Chain 0 + Chain 1) / CH High(with
Bluetooth ON)

Test Date: Jan 9,2012

Temperature: 24°C

Tested by: Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
11611.00	V	41.02	35.11	3.56	44.58	38.67	74	54	-15.33	AVG
N/A										
11612.67	H	40.79	34.74	3.56	44.35	38.3	74	54	-15.7	AVG
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / draft 802.11an Wide-40 MHz Channel mode
(Chain 0 + Chain 1) / CH Low(with Bluetooth ON) **Test Date:** Jan 9,2012

Temperature: 24°C

Tested by: Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
11515.00	V	42.55	35.41	3.56	46.11	38.97	74	54	-15.03	AVG
N/A										
11515.67	H	42.35	34.96	3.56	45.91	38.52	74	54	-15.48	AVG
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Compliance Certification Services Inc.

Report No: KS120105A01-RPB FCC ID: WL6-BR95IIX6230 Date of Issue :January 10, 2012

Operation Mode: TX / draft 802.11an Wide-40 MHz Channel mode
(Chain 0 + Chain 1) / CH High(with Bluetooth ON) **Test Date:** Jan 9,2012

Temperature: 24°C

Tested by: Sean Yu

Humidity: 48 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Ant. Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
11590.00	V	42.36	35.17	3.56	45.92	38.73	74	54	-15.27	AVG
N/A										
11591.00	H	42.11	34.47	3.56	45.67	38.03	74	54	-15.97	AVG
N/A										

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



7.7.POWERLINE CONDUCTED EMISSIONS

LIMIT

According to §15.207(a), except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency Range (MHz)	Limits (dB μ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

* Decreases with the logarithm of the frequency.

Test Configuration

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

TEST PROCEDURE

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.

TEST RESULTS

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.

Test Data



Compliance Certification Services Inc.

Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

Operation Mode: Normal Link
(with Bluetooth ON)

Temperature: 23°C

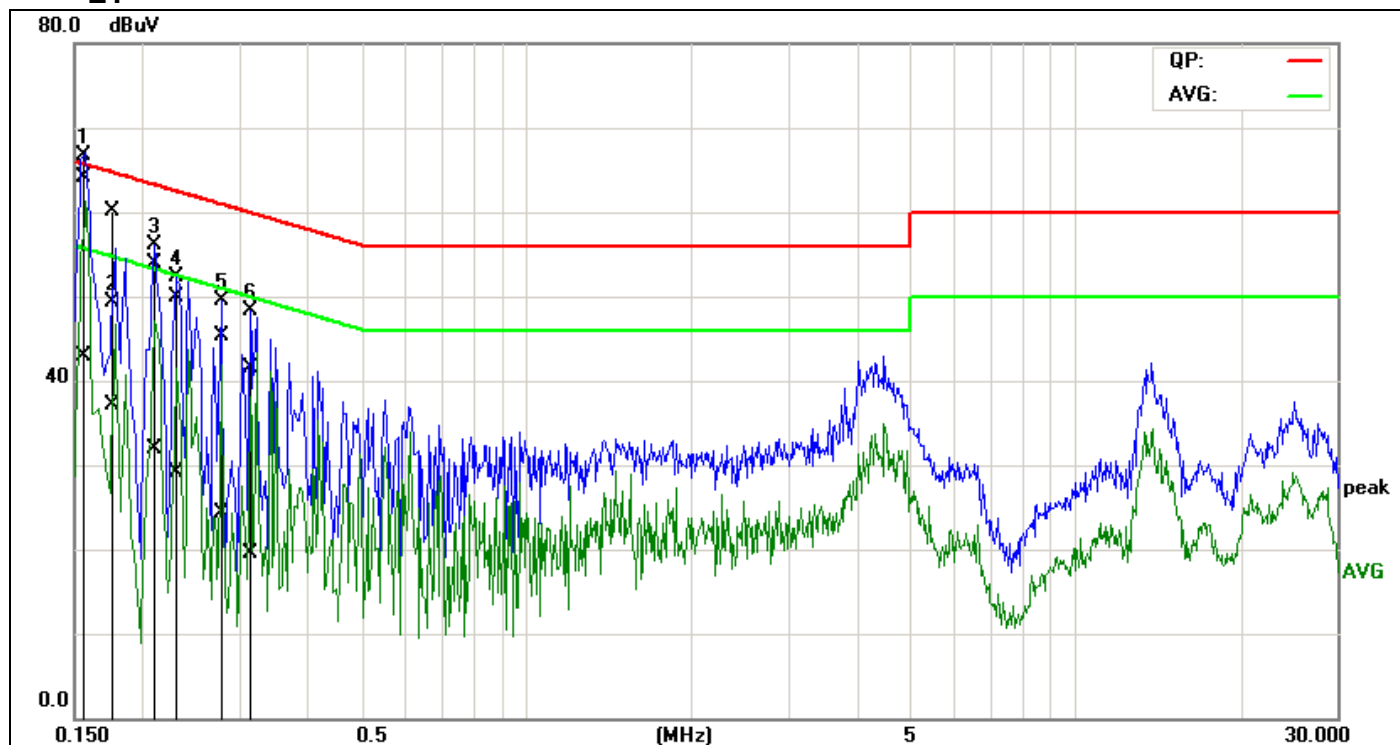
Humidity: 50% RH

Test Date: January 9,2012

Tested by: Sean Yu
Test AC 120V/60Hz

Voltage:

L1



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1*	0.1539	54.06	32.80	10.05	64.11	42.85	65.79	55.79	-1.68	-12.94	Pass
2	0.1731	50.01	27.06	10.07	60.08	37.13	64.81	54.81	-4.73	-17.68	Pass
3	0.2064	43.70	21.72	10.12	53.82	31.84	63.35	53.35	-9.53	-21.51	Pass
4	0.2313	39.66	18.97	10.16	49.82	29.13	62.40	52.40	-12.58	-23.27	Pass
5	0.2781	35.03	14.17	10.23	45.26	24.40	60.87	50.87	-15.61	-26.47	Pass
6	0.3101	31.20	9.30	10.28	41.48	19.58	59.97	49.97	-18.49	-30.39	Pass



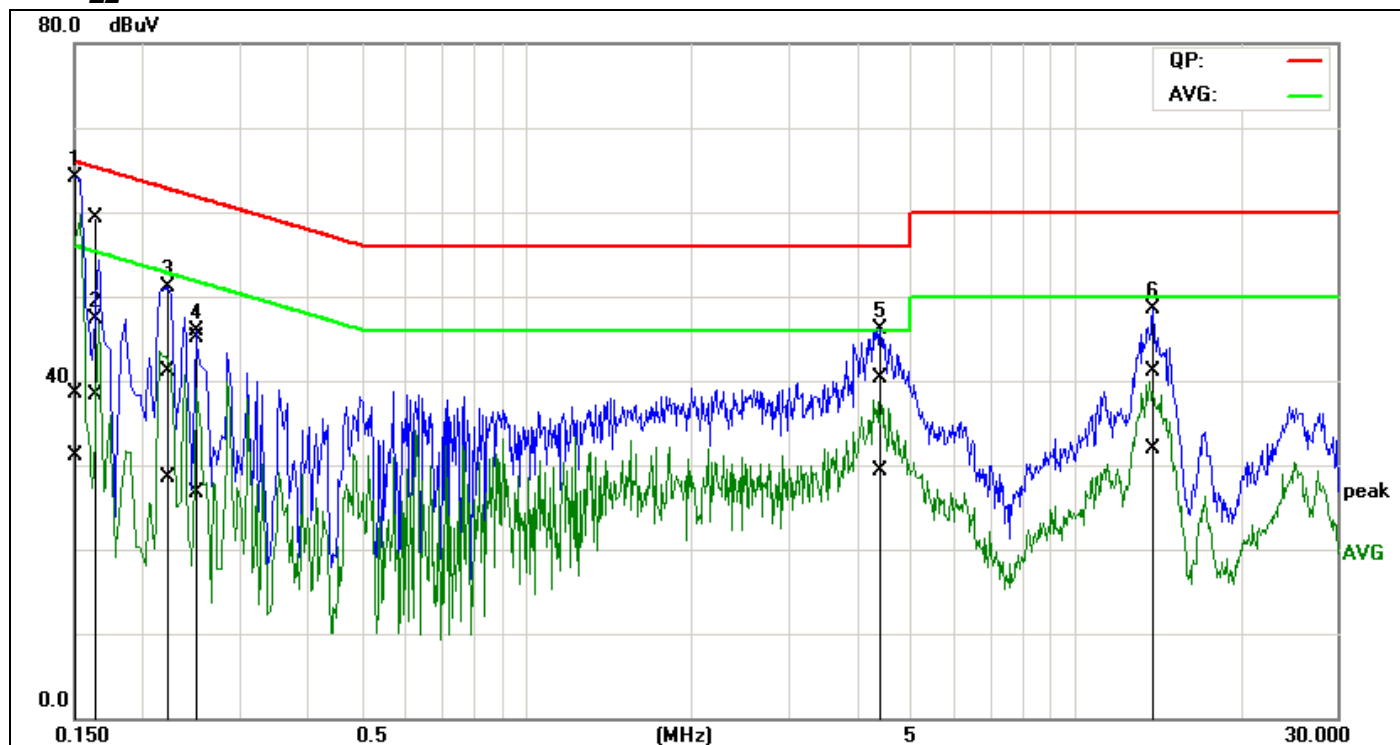
Compliance Certification Services Inc.

Report No: KS120105A01-RPB

FCC ID: WL6-BR95IIX6230

Date of Issue :January 10, 2012

L2



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1	0.1493	28.41	21.02	10.15	38.56	31.17	66.03	56.04	-27.47	-24.87	Pass
2*	0.1617	49.06	28.23	10.16	59.22	38.39	65.37	55.38	-6.15	-16.99	Pass
3	0.2224	31.01	18.29	10.18	41.19	28.47	62.73	52.73	-21.54	-24.26	Pass
4	0.2454	34.84	16.53	10.17	45.01	26.70	61.91	51.91	-16.90	-25.21	Pass
5	4.3606	29.50	18.36	10.88	40.38	29.24	56.00	46.00	-15.62	-16.76	Pass
6	13.8045	29.81	20.59	11.36	41.17	31.95	60.00	50.00	-18.83	-18.05	Pass

Remark:

1. Measuring frequencies from 0.15 MHz to 30MHz.
2. The emissions measured in frequency range from 0.15 MHz to 30MHz were made with an instrument using Quasi-peak detector and average detector.
3. The IF bandwidth of SPA between 0.15MHz and 30MHz was 10 kHz; the IF bandwidth of Test Receiver between 0.15MHz and 30MHz was 9 kHz;
4. L1 = Line One (Live Line) / L2 = Line Two (Neutral Line)