FCC 47 CFR PART 15 SUBPART C

TEST REPORT

For

802.11bgn WLAN module

Model: AP-WM1022WU

Trade Name: APPRO

Issued to

APPRO Technology Inc.
13F, No. 66, Zhongzheng Rd., Xinzhuang Dist., New Taipei City, Taiwan.

Issued by

Compliance Certification Services Inc.
No.81-1, Lane 210, Bade 2nd Rd., Lujhu Township,
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Testing Laboratory
1309

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Revision History

Rev.		Issue Date		Revisions	Effect Page	Revised By
00		August 7, 2014		Initial Issue	All	Iren Wang

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1 TEST RESULT CERTIFICATION

Applicant:	**APPRO Technology Inc.** 13F, No. 66, Zhongzheng Rd., Xinzhuang Dist., New Taipei City, Taiwan.
Manufacturer:	**APPRO Technology Inc.** 13F, No. 66, Zhongzheng Rd., Xinzhuang Dist., New Taipei City, Taiwan.
Equipment Under Test:	802.11bgn WLAN module
Trade Name:	APPRO
Model:	AP-WM1022WU
Date of Test:	July 8 ~ 22, 2014

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

We hereby certify that:

Compliance Certification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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

Approved by:

Stan Lin
Section Manager

Reviewed by:

Angel Hu
Section Manager

2 EUT DESCRIPTION

Product	802.11bgn WLAN module		
Trade Name	APPRO		
Model Number	AP-WM1022WU		
Model Discrepancy	N/A		
EUT Power Rating	5VDC, 1.2A		
Received Date	July 8, 2014		
Power Adapter	AMIGO	**Model**	AMS1-0501200FU
Power Adapter Power Rating	I/P: 100-240VAC, 50/60HZ, 0.2A O/P: 5VDC, 1.2A		
RF Module Manufacturer	APPRO	**Model**	AP-WM1022WU
Frequency Range	IEEE 802.11b/g/ IEEE 802.11n HT20: 2412~2462MHz IEEE 802.11n HT40: 2422~2452MHz		
Transmit Power	IEEE 802.11b mode: 21.72 dBm (0.1486W) IEEE 802.11g mode: 20.76 dBm (0.1191W) IEEE 802.11n HT20 mode: 20.79 dBm (0.1199W) IEEE 802.11n HT40 mode: 20.05 dBm (0.1012W)		
Modulation Technique & Transmit Data Rate	IEEE 802.11b mode: DSSS (11, 5.5, 2, 1 Mbps) IEEE 802.11g mode: OFDM (54, 48, 36, 24, 18, 12, 11 , 9, 6 Mbps) IEEE 802.11n HT20 mode: OFDM (65, 58.5, 52, 39, 26, 19.5, 13, 6.5 Mbps) IEEE 802.11n HT40 mode: OFDM (135, 121.5, 108, 81, 54, 40.5, 27, 13.5 Mbps)		
Number of Channels	IEEE 802.11b/g mode: 11 Channels IEEE 802.11n HT20 mode: 11 Channels IEEE 802.11n HT40 mode: 7 Channels		
Antenna Specification	PIFA Antenna / Gain: 2.7 dBi		
Note	The product 802.11bgn WLAN module will be installed in the following device: **Product Name** / **Brand Name** / **Model Number** 720P WIFI CUBE IP CAM / APPRO / LC-6760 720P WIFI CUBE IP CAM / APPRO / LC-7762 The model number LC-6760 and LC-7762 are identical except the appearance. (Please refer external photograph)		

Remark:

1. *The sample selected for test was production product and was provided by manufacturer.*
2. *This submittal(s) (test report) is intended for FCC ID: **SKX-RF1** 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: 2009 and FCC CFR 47 Part 15.207, 15.209, 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 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.

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 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	([2])
13.36 - 13.41	322 - 335.4		

[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 DESCRIPTION OF TEST MODES

The EUT (model: AP-WM1022WU) had been tested under operating condition.

Software used to control the EUT for staying in continuous transmitting and receiving mode was programmed.

The worst case data rate is determined as the data rate with highest output power.

After verification, all tests carried out are with the worst-case test modes as shown below except radiated spurious emission below 1GHz and power line conducted emissions, which worst case was in LAN mode and Wifi mode and receiving radiated spurious emission above 1GHz, which worst case was in CH Mid mode only.

The field strength of spurious emission was measured in the following position: EUT stand-up position (Y axis), lie-down position (X, Z axis). The worst emission was found in lie-down position (X axis) and the worst case was recorded.

IEEE 802.11b mode:

Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 1Mbps data rate was chosen for full testing.

IEEE 802.11g mode:

Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 6Mbps data rate was chosen for full testing.

IEEE 802.11n HT20 mode:

Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 6.5Mbps data rate were chosen for full testing.

IEEE 802.11n HT40 mode:

Channel Low (2422MHz), Channel Mid (2437MHz) and Channel High (2452MHz) with 13.5Mbps 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.

4.2 MEASUREMENT EQUIPMENT USED

Equipment Used for Emissions Measurement

Conducted Emissions Test Site				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Spectrum Analyzer	Agilent	E4446A	MY48250064	01/01/2015
Spectrum Analyzer	Agilent	N9010A	MY52220817	03/20/2015
Spectrum Analyzer	R&S	FSL	100837	11/11/2014
Power meter	Anritsu	ML2495A	1033009	09/29/2014
Power Sensor	Anritsu	MA2411B	0917221	09/29/2014

3M Semi Anechoic Chamber				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Spectrum Analyzer	Agilent	E4446A	MY48250064	01/01/2015
Spectrum Analyzer	R&S	FSL	100837	11/11/2014
Pre-Amplifier	HP	8447D	2944A06530	05/02/2015
Pre-Amplifier	EMEC	EM01M26G	060570	07/28/2015
Pre-Amplifier	MITEQ	AMF-6F-260400-40-8P	985646	08/08/2014
Pre-Amplifier	Agilent	8449B	3008A01738	08/01/2015
EMI Test Receiver	SCHAFFNER	SCR 3501	430	03/30/2015
Loop Antenna	EMCO	6502	8905-2356	08/20/2014
Bilog Antenna	TESEQ	CBL 6112D	35378	09/11/2014
Horn Antenna	EMCO	3115	00022250	07/25/2015
Horn Antenna	EMCO	3116	00026370	12/29/2014
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R
Test S/W	EZ-EMC			

NOTE: *1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.*
2. N.C.R = No Calibration Request.

Powerline Conducted Emissions Test Site #4				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
EMI Test Receiver	R&S	ESCI	100782	06/12/2015
LISN	R&S	ENV216	100066	02/06/2015
LISN	R&S	ENV 4200	830326/016	05/22/2015
ISN	FCC	FCC-TLISN-T2-02	20587	07/28/2015
ISN	TESEQ	ISN-T8	30843	08/16/2014
Current Probe	FCC	F-35	506	07/13/2015
ISN	TESEQ	ISN ST08	27907	09/30/2014
Test S/W	EZ-EMC			

NOTE: *1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.*
2. N.C.R = No Calibration Request.

4.3 MEASUREMENT UNCERTAINTY

Parameter	Uncertainty
Powerline Conducted Emission	±2.0543
3M Semi Anechoic Chamber / 30MHz ~ 200MHz	±3.5921
3M Semi Anechoic Chamber / 200MHz ~ 1GHz	±3.5657
3M Semi Anechoic Chamber / 1 ~ 8GHz	±2.5873
3M Semi Anechoic Chamber / 8 ~ 18GHz	±2.6646
3M Semi Anechoic Chamber / 18 ~ 26GHz	±2.9617
3M Semi Anechoic Chamber / 26 ~ 40GHz	±3.4250

Remark*: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.*

5 FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

☐ No. 163-1, Jhongsheng Rd., Sindien District, Taipei City 23151, Taiwan
Tel: 886-2-2217-0894 / Fax: 886-2-2217-1029

☐ No 11, Wugong 6th Rd, Wugu District, New Taipei City 24891, Taiwan (R.O.C)
Tel: 886-2-2299-9720 / Fax: 886-2-2298-4045

☒ No.81-1, Lane 210, Bade 2nd Rd., Lujhu Township, Taoyuan County 33841, Taiwan
Tel: 886-3-324-0332 / Fax: 886-3-324-5235

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

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

5.2 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: 0824-01 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, IC 2324G-1 for 3M Semi Anechoic Chamber A, IC 2324G-2 for 3M Semi Anechoic Chamber B.

5.3 TABLE OF ACCREDITATIONS AND LISTINGS

Country	Agency	Scope of Accreditation	Logo
USA	A2LA	CFR 47, FCC Part15/18, CISPR 22, EN 55022, ICES-003, AS/NZS CISPR 22, VCCI V-3, EN 55011, CISPR 11, IEC/EN 61000-4-2/3/4/5/6/8/11, EN 61000-6-1/2/3/4, EN 55024, CISPR 24, AS/NZS CISPR 24, AS/NZS 61000.6.2, EN 55014-1/-2, ETSI EN 300 386 v1.3.2/v1.3.3, IEC/EN 61000-3-2, AS/NZS 61000.3.2, IEC/EN 61000-3-3, AS/NZS 61000.3.3	ACCREDITED TESTING CERT #0824.01
USA	FCC MRA	3 meter Open Area Test Sites to perform FCC Part 15/18 measurements	TW1026
Japan	VCCI	3/10 meter Open Area Test Sites and conducted test sites to perform radiated/conducted measurements	VCCI R-2882/2541/2798/725/1868 C-402/747/912 T-1930/1646
Taiwan	TAF	EN 55014-1, CISPR 14, CNS 13781-1, EN 55013, CISPR 13, CNS 13439, EN 55011, CISPR 11, CNS 13803, PLMN09, IS2045-0, LP0002 FCC Part 27/90, Part 15B/C/D/E, RSS-192/193/210/310 ETSI EN 300 328/ 300 220-1/ 300 220-2/ 301 893/ 301 489-01/ 301 489-03/ 301 489-07 / 301 489-17/ 300 440-1/ 300 440-2 AS/NZS 4268, AS/NZS 4771 CISPR 22, EN 55022, CNS 13438, AS/NZS CISPR 22, VCCI, IEC/EN 61000-4-2/3/4/5/6/8/11, CNS 14676-2/3/4/5/6/8, CNS 14934-2/3, CNS 13783-1, CNS 13439, CNS 13803	ilac-MRA TAF Testing Laboratory 0363
Taiwan	BSMI	CNS 13438, CNS 13783-1, CNS 13439, CNS 14115	SL2-IS-E-0014 / IN-E-0014 /A1-E-0014 /R1-E-0014 /R2-E-0014 /L1-E-0014
Canada	Industry Canada	RSS-Gen Issue 3	Canada IC 2324C-5

** 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 II for the actual connections between EUT and support equipment.

6.2 SUPPORT EQUIPMENT

No.	Device Type	Model	Series No.	FCC ID	Brand	Data Cable	Power Cord
1	Notebook PC (Remote)	ThinkPad T430u	PB-VZLGG 12/09	FCC DoC	LENOVO	LAN Cable: Unshielded, 10m	AC I/P: Unshielded, 1.8m DC O/P: Unshielded, 1.8m with a core

Remark: *Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.*

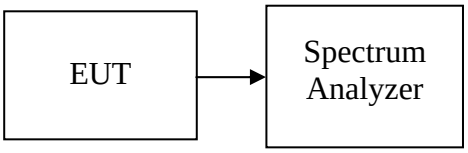
7 FCC PART 15 REQUIREMENTS

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

1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW = 100kHz, VBW = 300kHz, Sweep = auto, Span = 30MHz (IEEE 802.11b, IEEE 802.11g, IEEE 802.11n HT20) or Span = 50MHz (IEEE 802.11n HT40).
4. Mark the peak frequency and –6dB (upper and lower) frequency.
5. Repeat until all the rest channels are investigated.

TEST RESULTS

No non-compliance noted

Test Data

Test mode: IEEE 802.11b mode

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	2412	10.15	>500	PASS
Mid	2437	10.15		PASS
High	2462	10.15		PASS

Test mode: IEEE 802.11g mode

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	2412	16.65	>500	PASS
Mid	2437	16.65		PASS
High	2462	16.65		PASS

Test mode: IEEE 802.11n HT20 mode

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	2412	17.85	>500	PASS
Mid	2437	17.85		PASS
High	2462	17.85		PASS

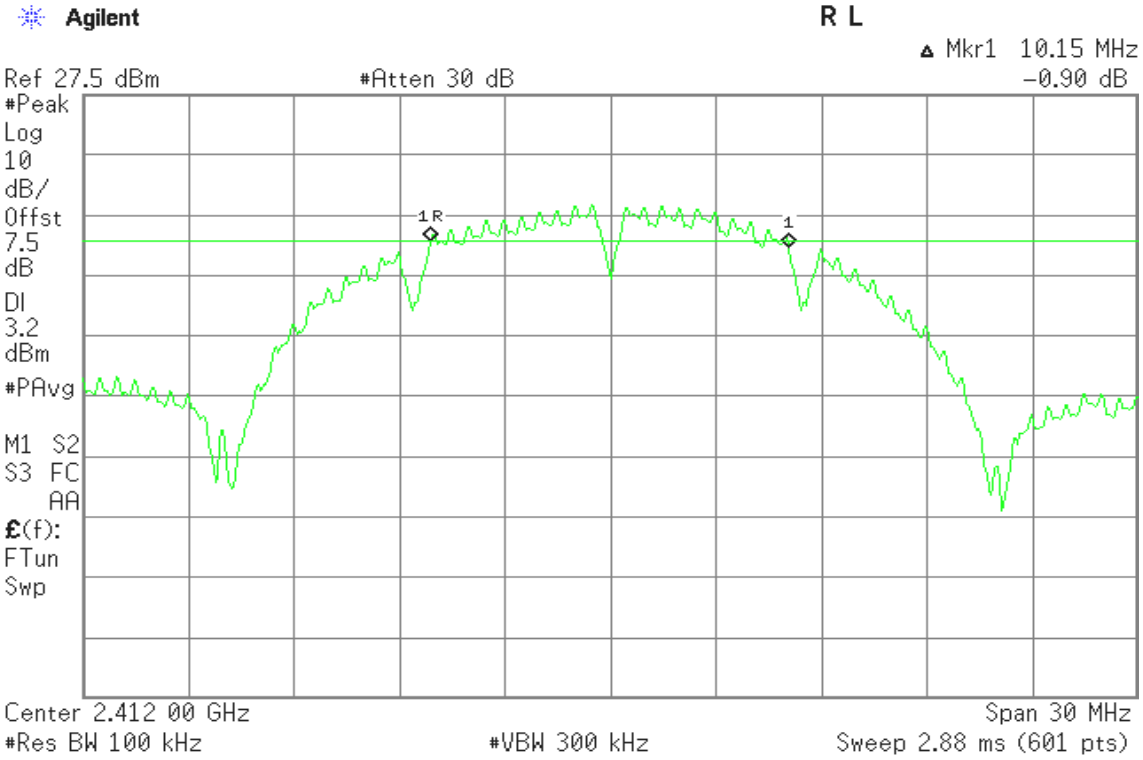
Test mode: IEEE 802.11n HT40 mode

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Result
Low	2422	36.50	>500	PASS
Mid	2437	36.50		PASS
High	2452	36.50		PASS

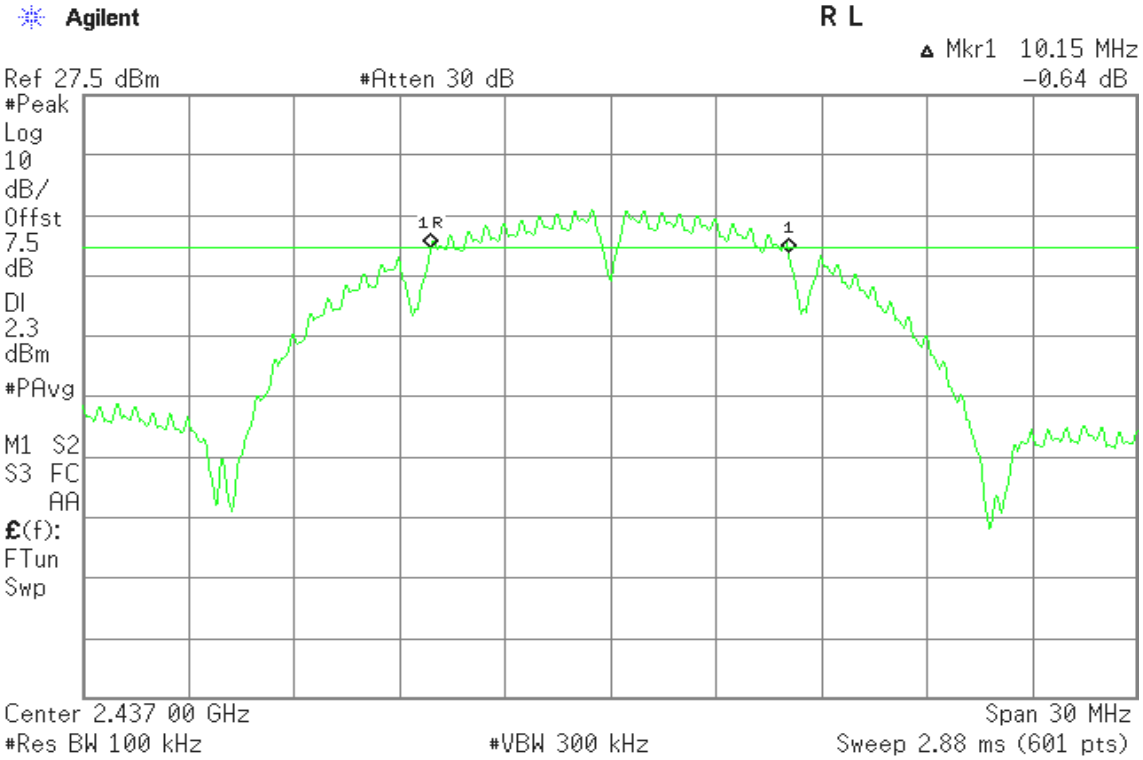
Test Plot

IEEE 802.11b mode

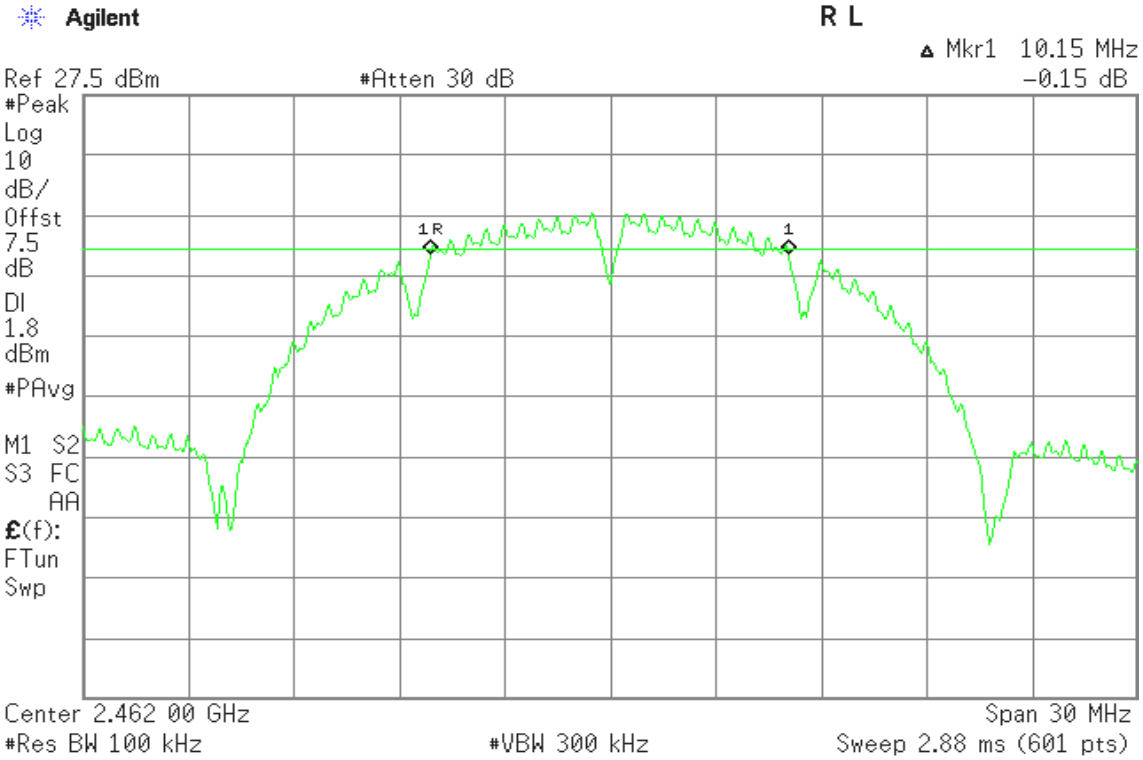
6dB Bandwidth (CH Low)



6dB Bandwidth (CH Mid)

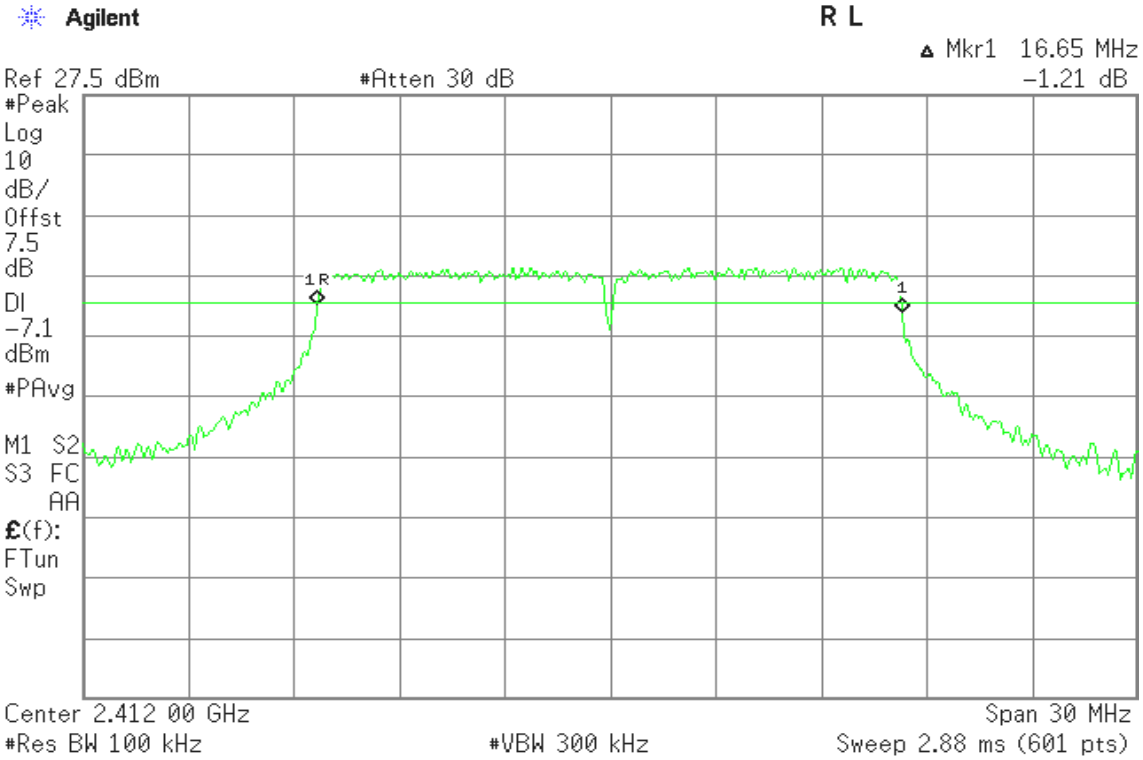


6dB Bandwidth (CH High)

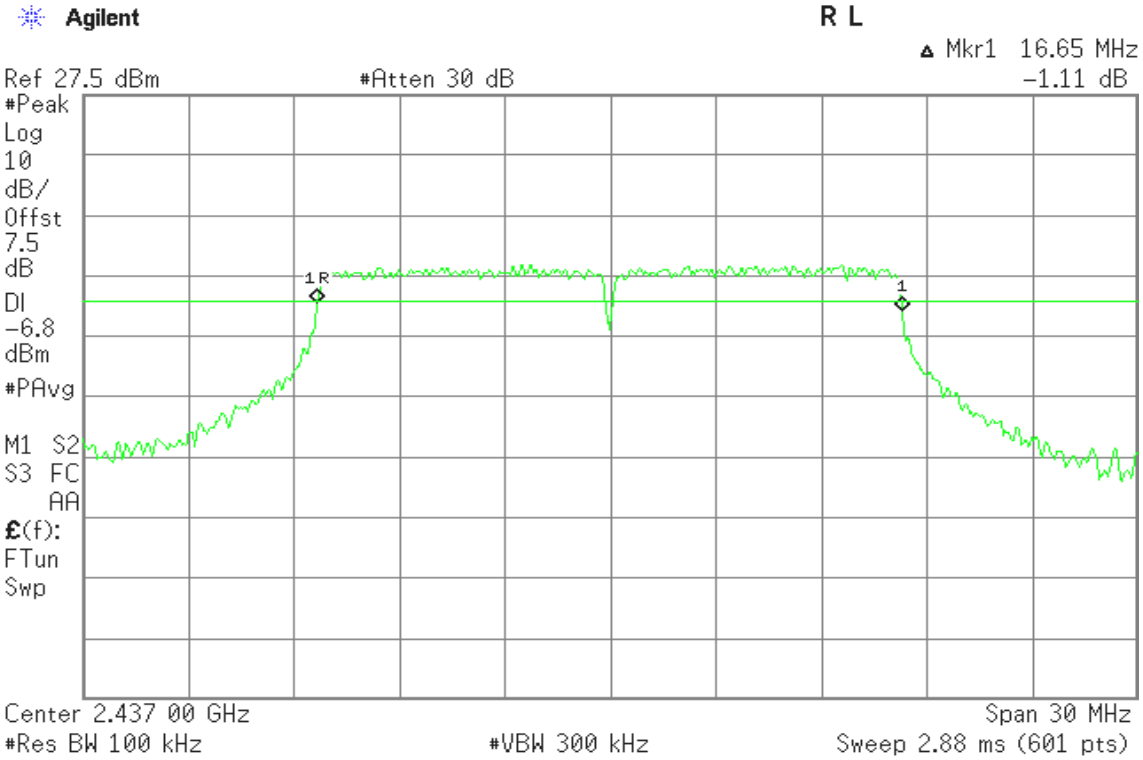


IEEE 802.11g mode

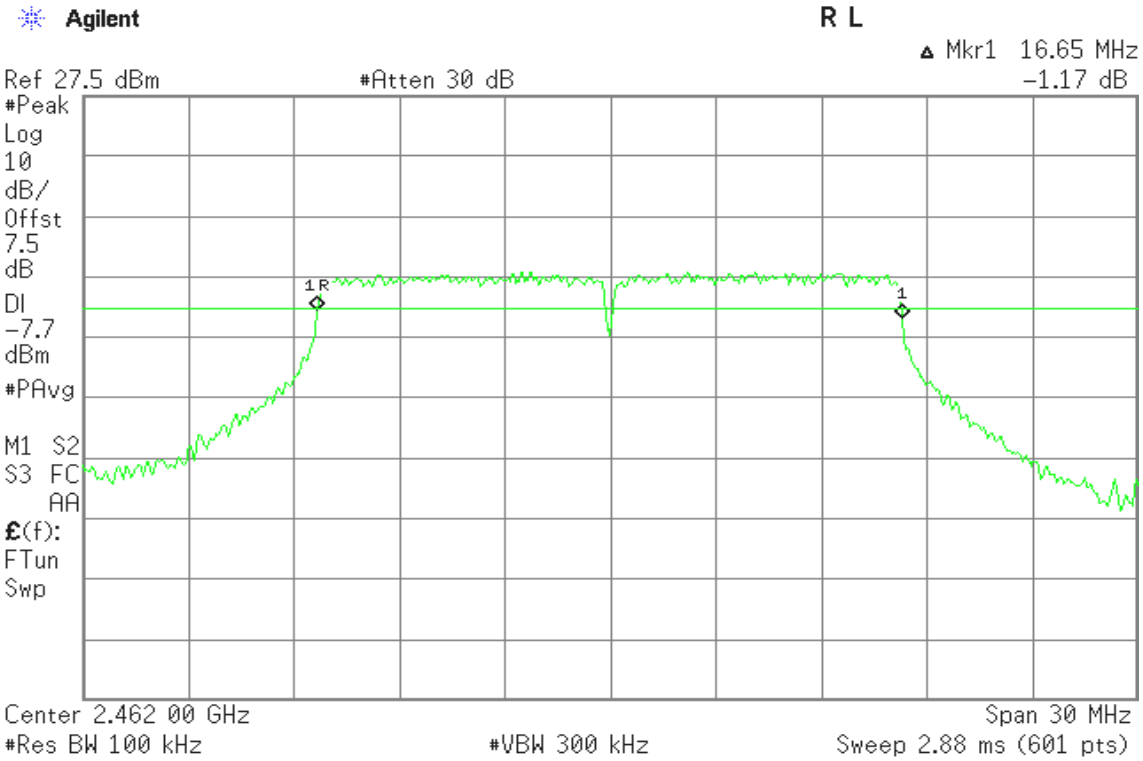
6dB Bandwidth (CH Low)



6dB Bandwidth (CH Mid)

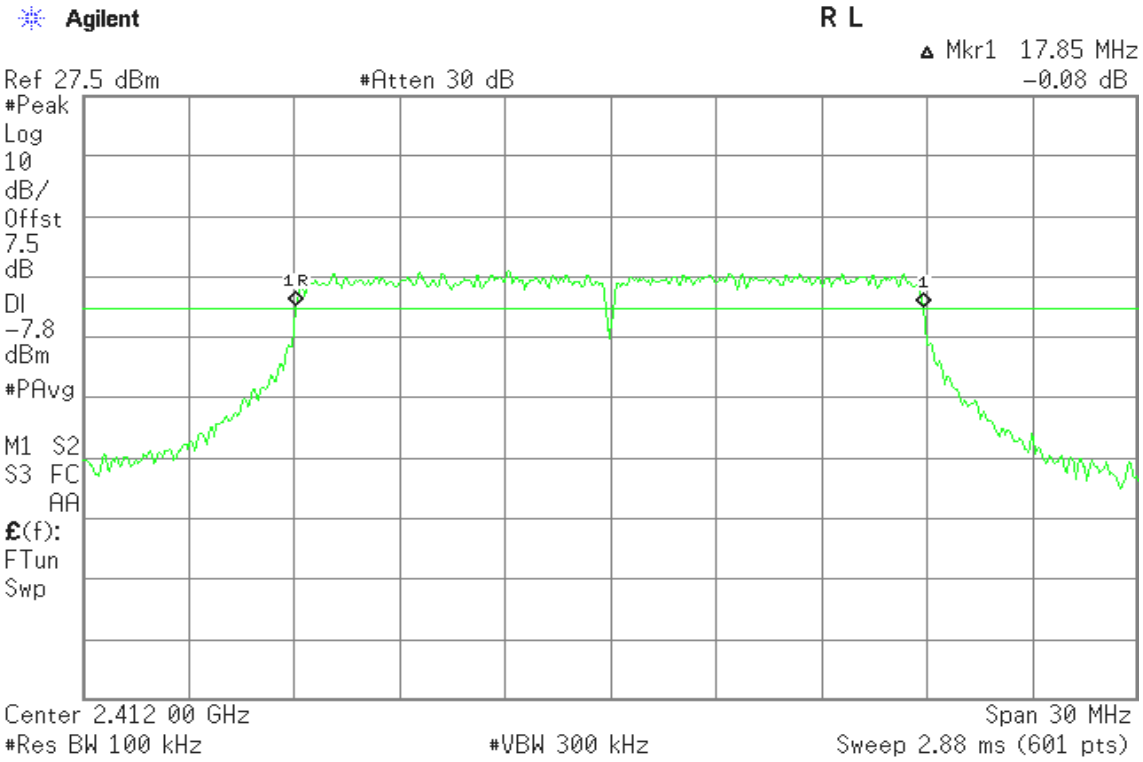


6dB 6dB Bandwidth (CH High)

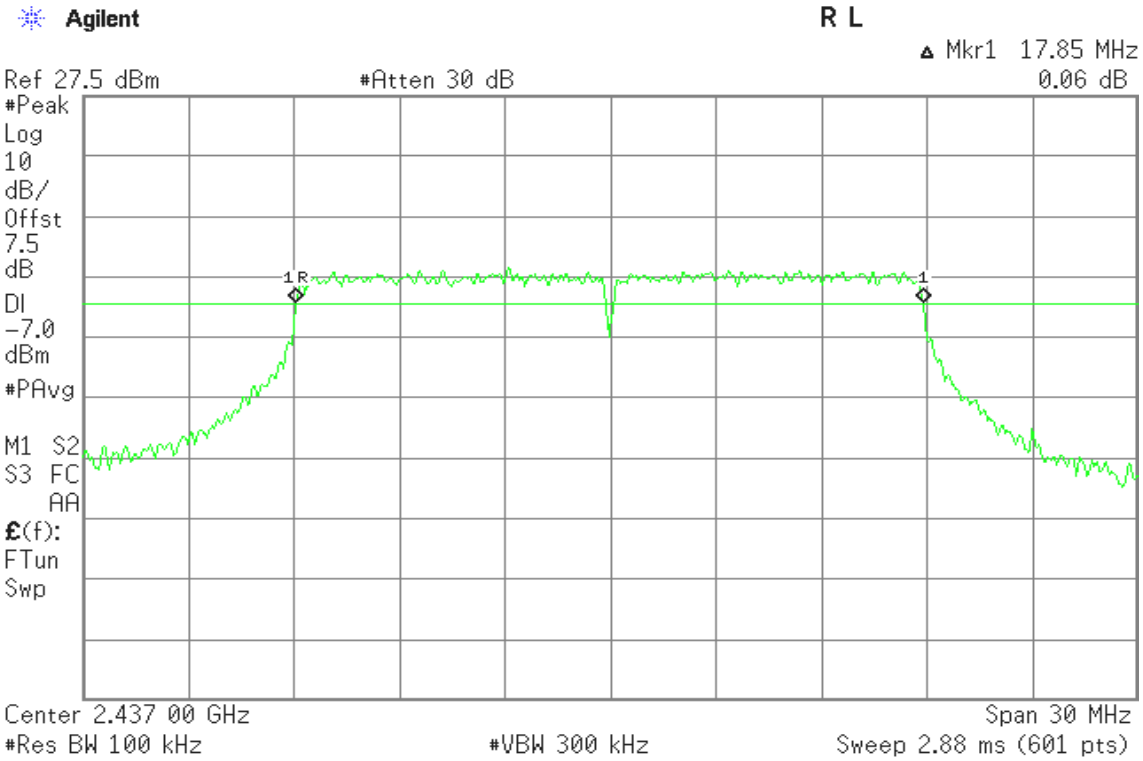


IEEE 802.11n HT20 mode

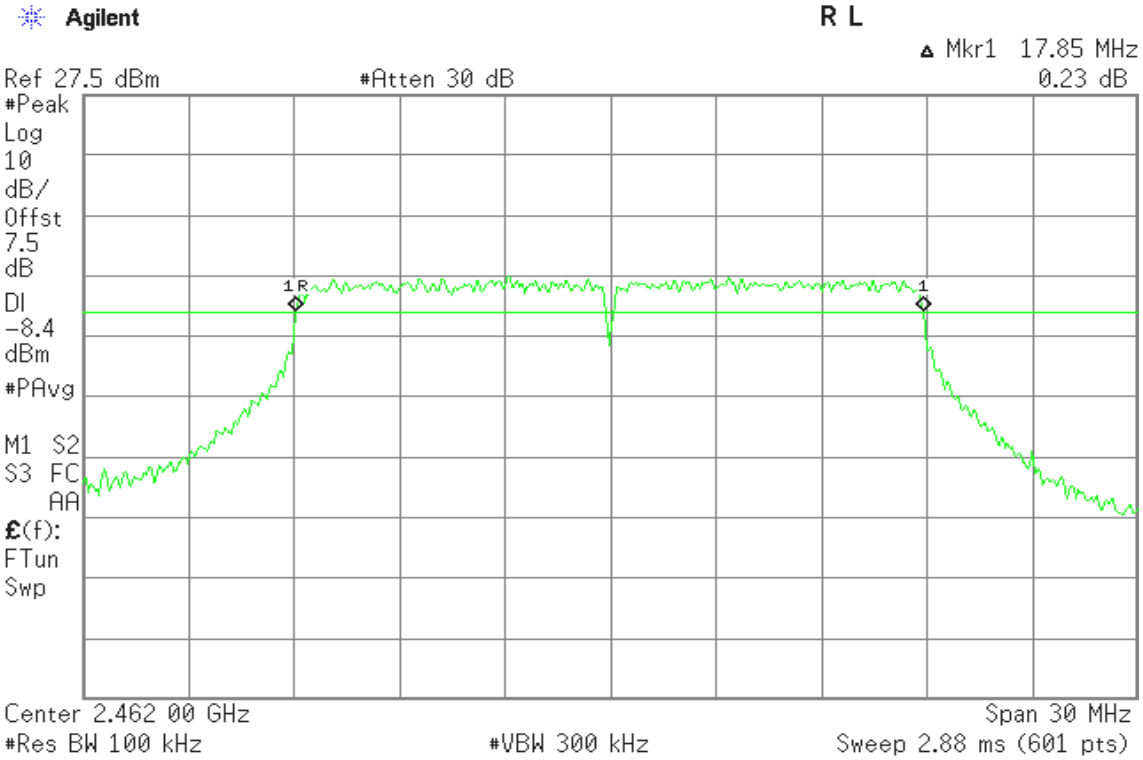
6dB Bandwidth (CH Low)



6dB Bandwidth (CH Mid)

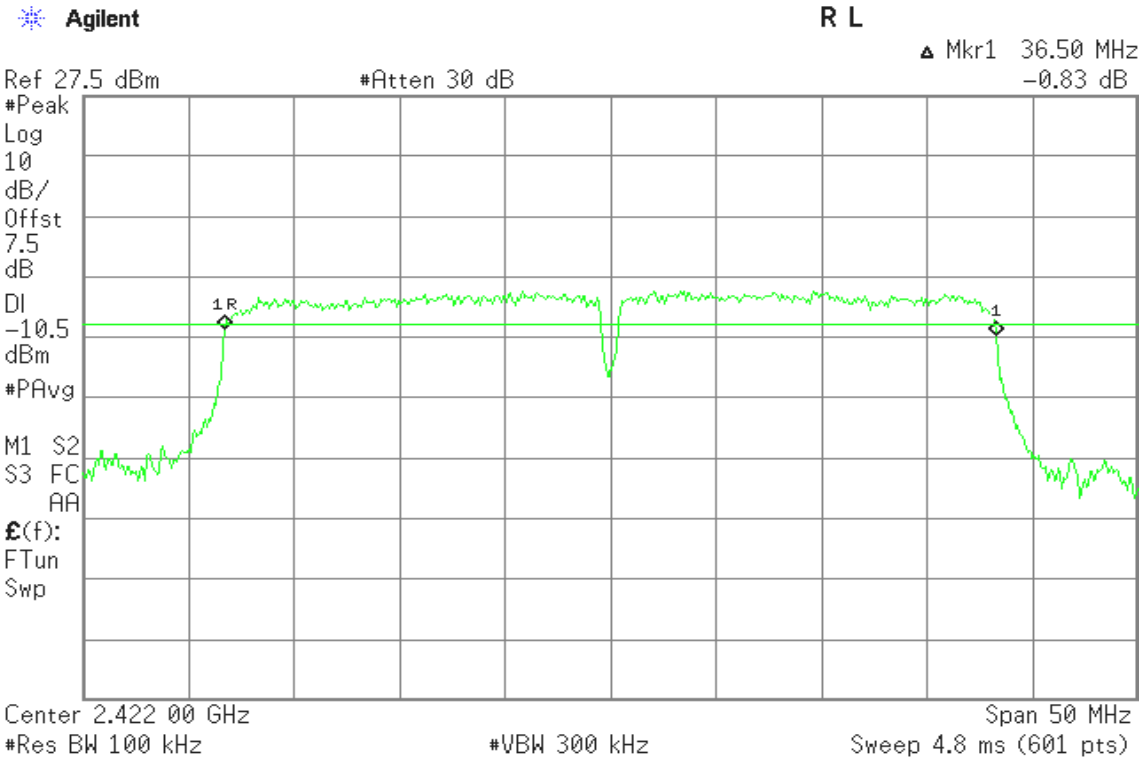


6dB Bandwidth (CH High)

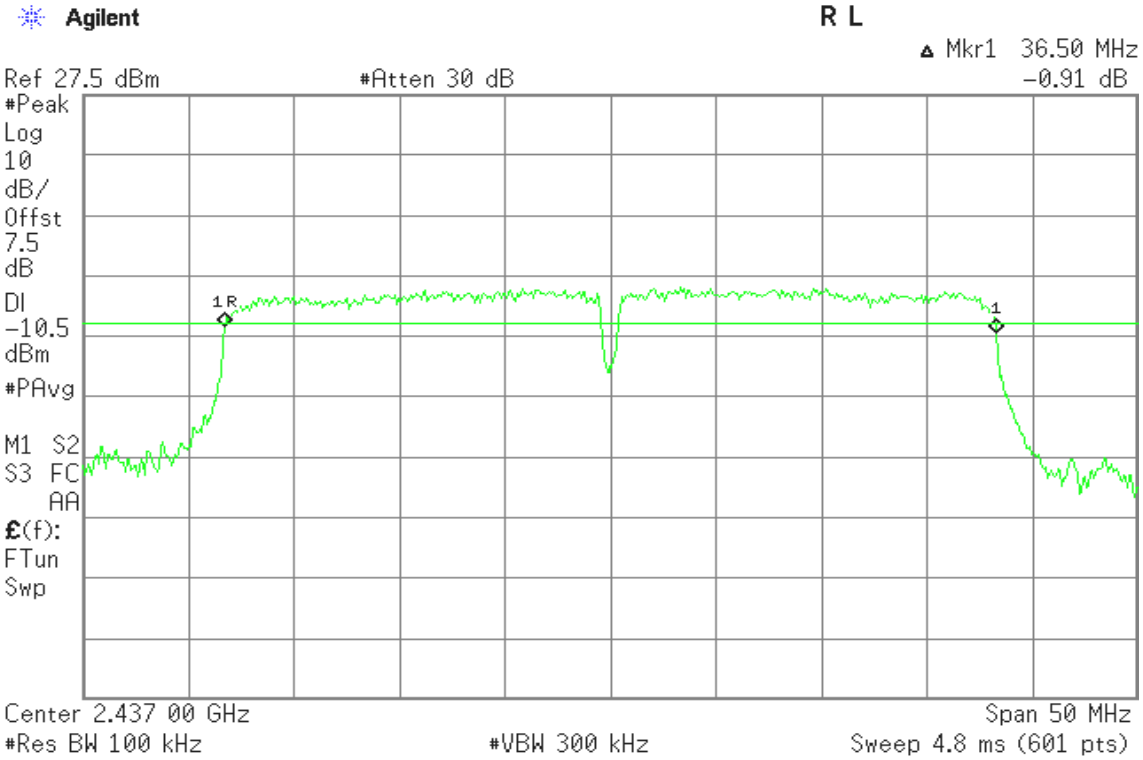


IEEE 802.11n HT40 mode

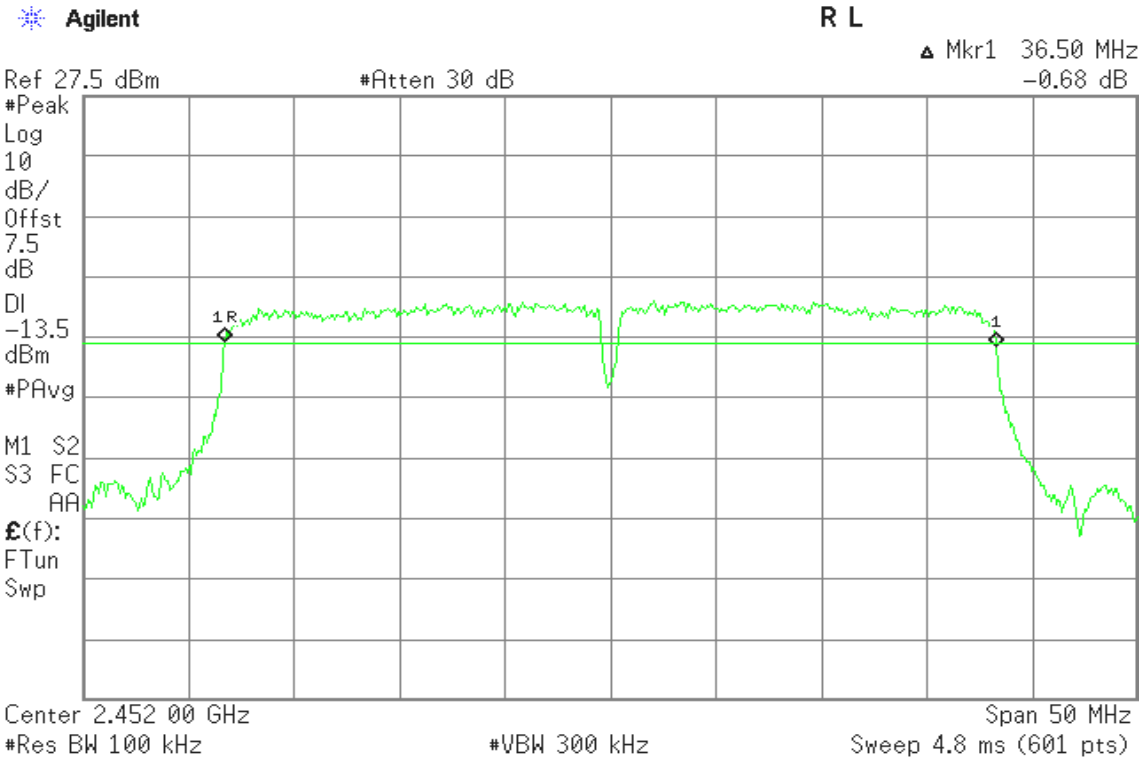
6dB Bandwidth (CH Low)



6dB Bandwidth (CH Mid)



6dB Bandwidth (CH High)



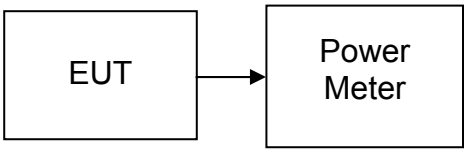
7.2 PEAK POWER

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

Per KDB 558074 v03r02

The transmitter output is connected to the Power Meter. The Power Meter is set to the peak power detection.

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)	Test Result
Low	2412	21.72	0.1486	1	PASS
Mid	2437	20.98	0.1253		PASS
High	2462	20.21	0.1050		PASS

Test mode: IEEE 802.11g mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Test Result
Low	2412	20.23	0.1054	1	PASS
Mid	2437	20.76	0.1191		PASS
High	2462	19.65	0.0923		PASS

Test mode: IEEE 802.11n HT20 mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Test Result
Low	2412	20.4	0.1096	1	PASS
Mid	2437	20.79	0.1199		PASS
High	2462	19.35	0.0861		PASS

Test mode: IEEE 802.11n HT40 mode

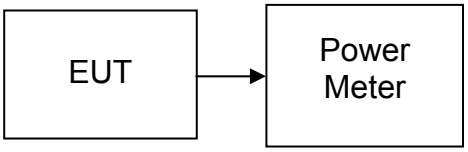
Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Test Result
Low	2422	19.82	0.0959	1	PASS
Mid	2437	20.05	0.1012		PASS
High	2452	17.97	0.0627		PASS

7.3 AVERAGE POWER

LIMIT

None; for reporting purposes only.

Test Configuration



TEST PROCEDURE

Per KDB 558074 v03r02

The transmitter output is connected to the Power Meter. The Power Meter is set to the peak power detection.

TEST RESULTS

No non-compliance noted

Test Data

Test mode: IEEE 802.11b mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)
Low	2412	18.84	0.0766
Mid	2437	18.12	0.0649
High	2462	17.22	0.0527

Test mode: IEEE 802.11g mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)
Low	2412	13.1	0.0204
Mid	2437	13.51	0.0224
High	2462	12.65	0.0184

Test mode: IEEE 802.11n HT20 mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)
Low	2412	13.1	0.0204
Mid	2437	13.34	0.0216
High	2462	12.11	0.0163

Test mode: IEEE 802.11n HT40 mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)
Low	2422	12.68	0.0185
Mid	2437	12.8	0.0191
High	2452	10.83	0.0121

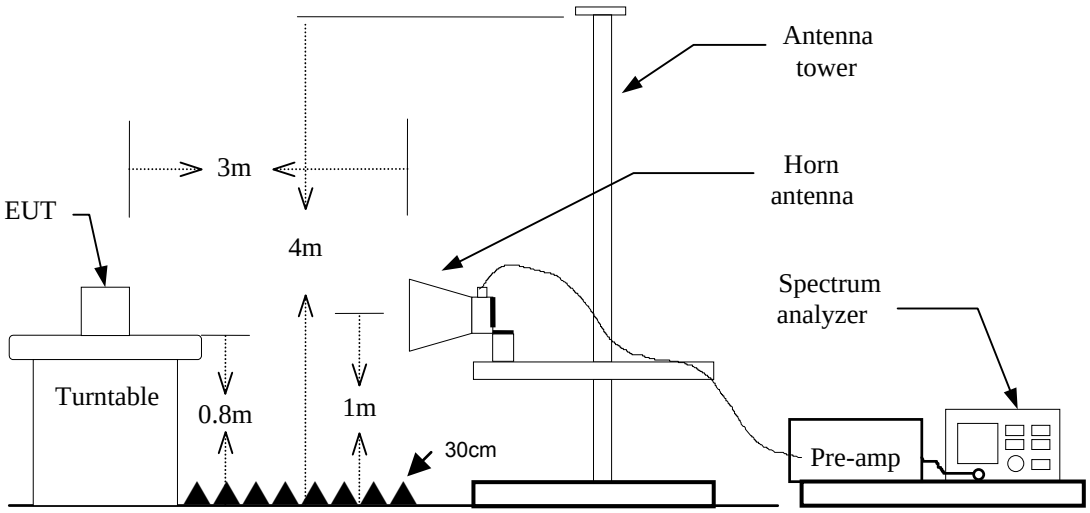
7.4 BAND EDGES MEASUREMENT

LIMIT

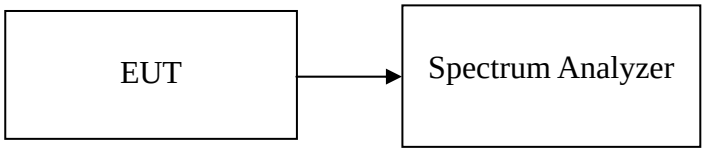
According to §15.247(d), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains 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)).

Test Configuration

For Radiated



For Conducted



TEST PROCEDURE

For Radiated

1. The EUT is placed on a turntable, which is 0.8m above the 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 emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
   (a) PEAK: RBW=1MHz / VBW=3MHz / Sweep=AUTO
   (b) AVERAGE: RBW=1MHz / VBW=300Hz(1) / Sweep=AUTO
   (c) Duty Cycle: RBW=1MHz / VBW=1MHz
   (1): Because Duty Cycle> 98%, the use of more rigorous testing methods VBW = 300Hz.
5. Repeat the procedures until all the PEAK and AVERAGE versus POLARIZATION are measured.

For Conducted

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.

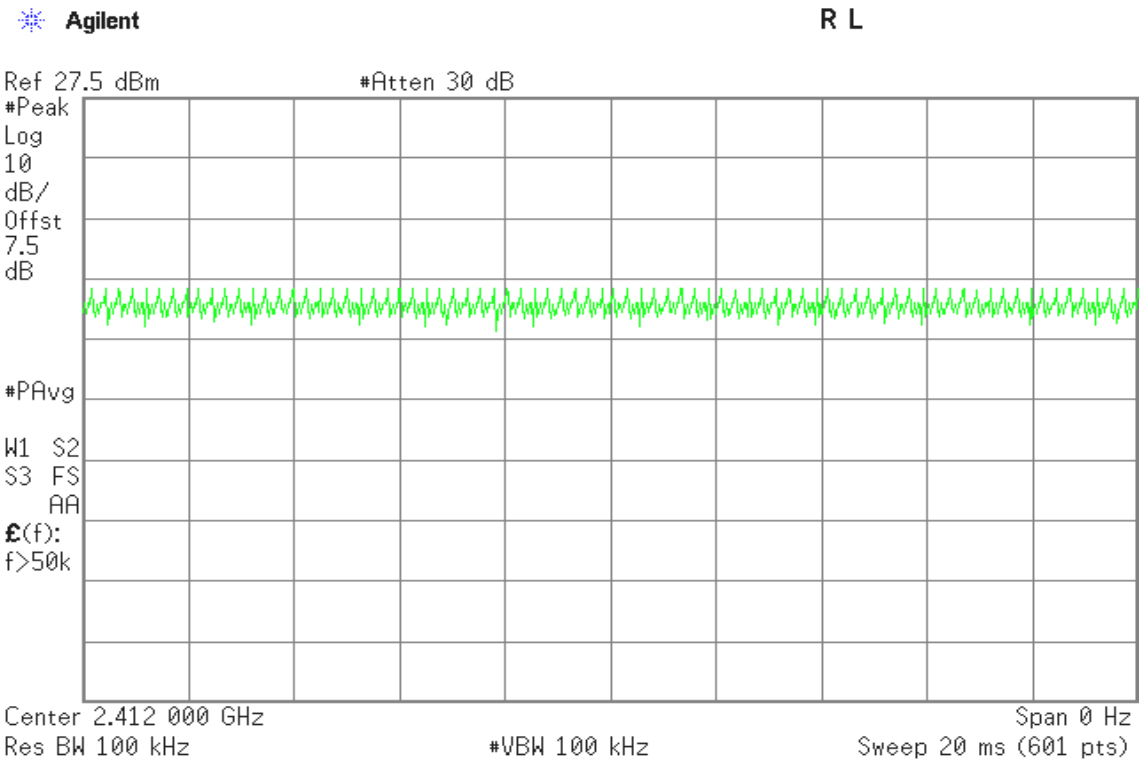
The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 100 kHz.

TEST RESULTS

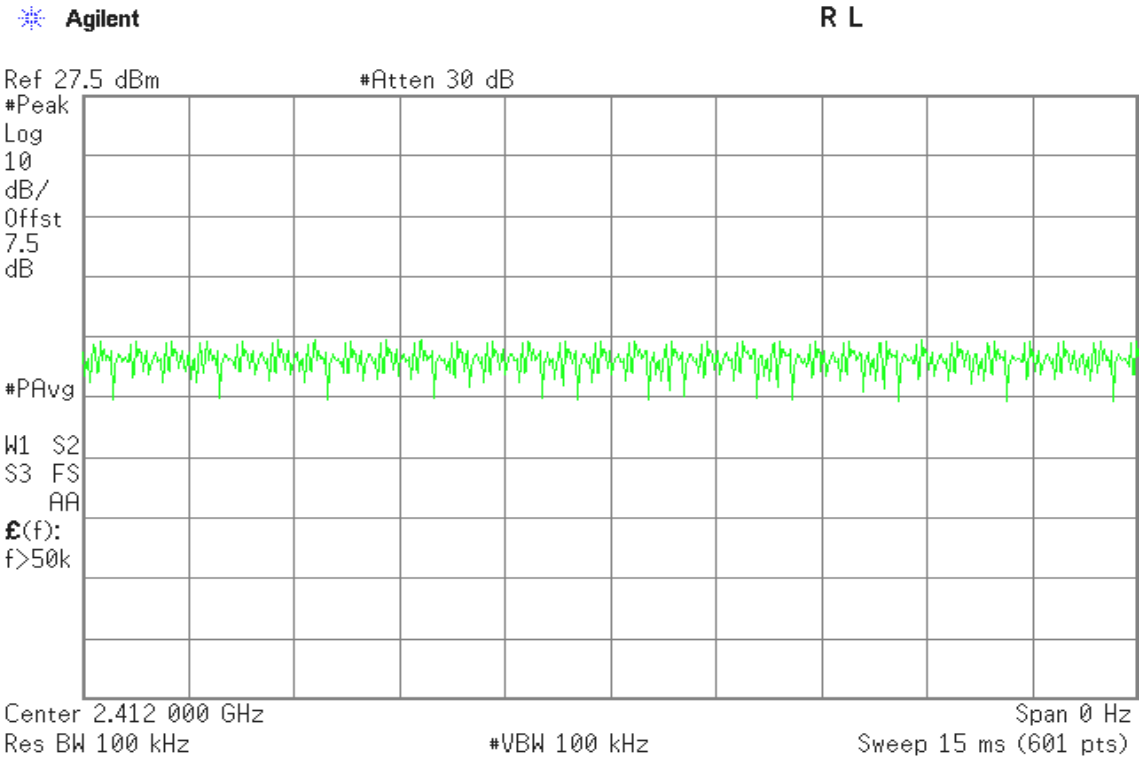
Refer to attach spectrum analyzer data chart.

DUTY CYCLE

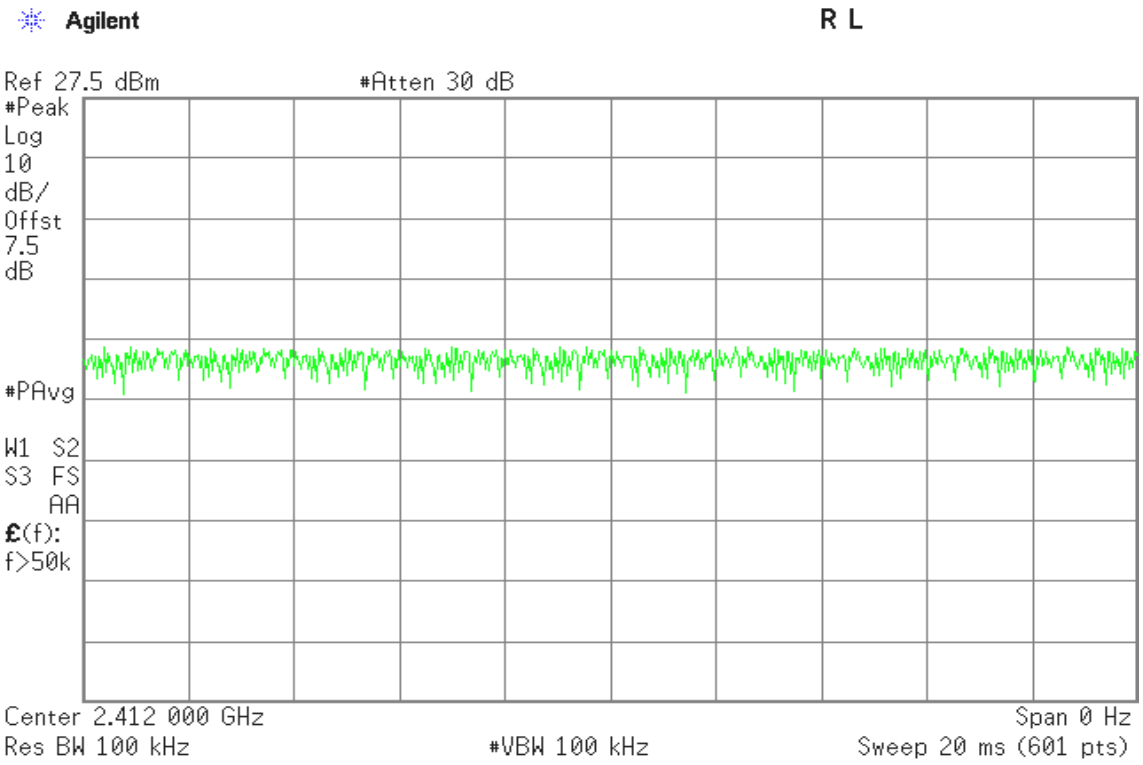
IEEE 802.11b mode



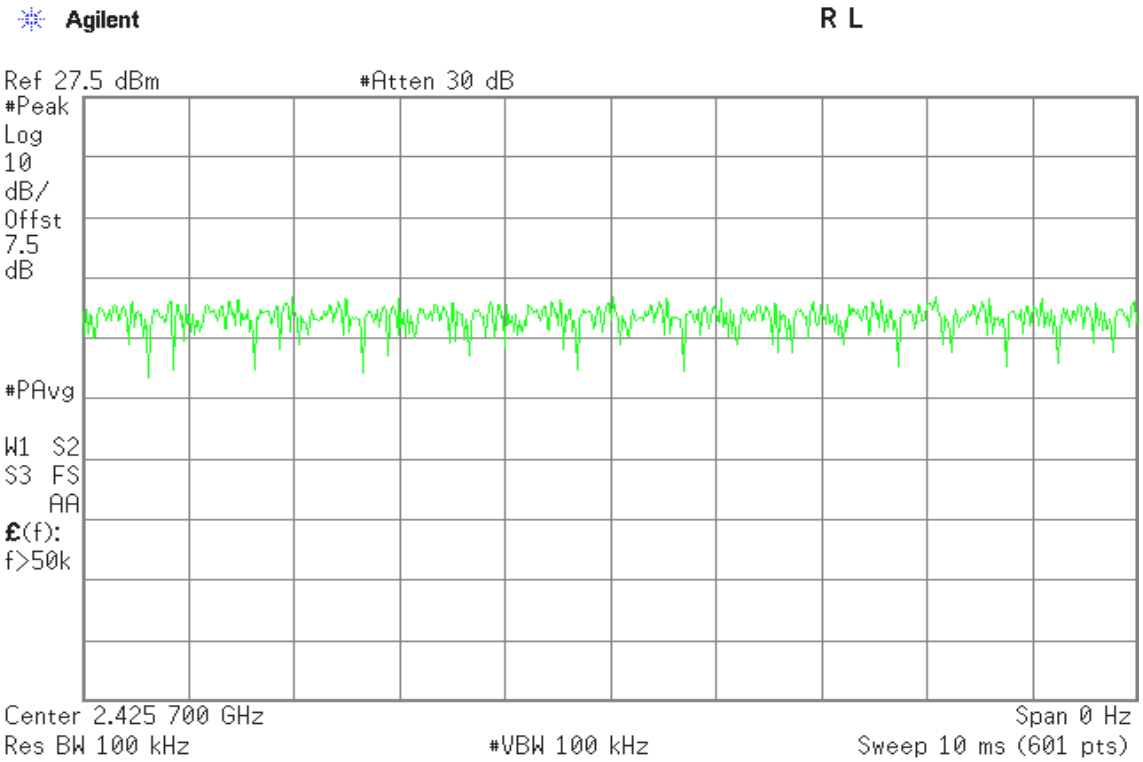
IEEE 802.11g mode



IEEE 802.11n HT20 mode



IEEE 802.11n HT40 mode

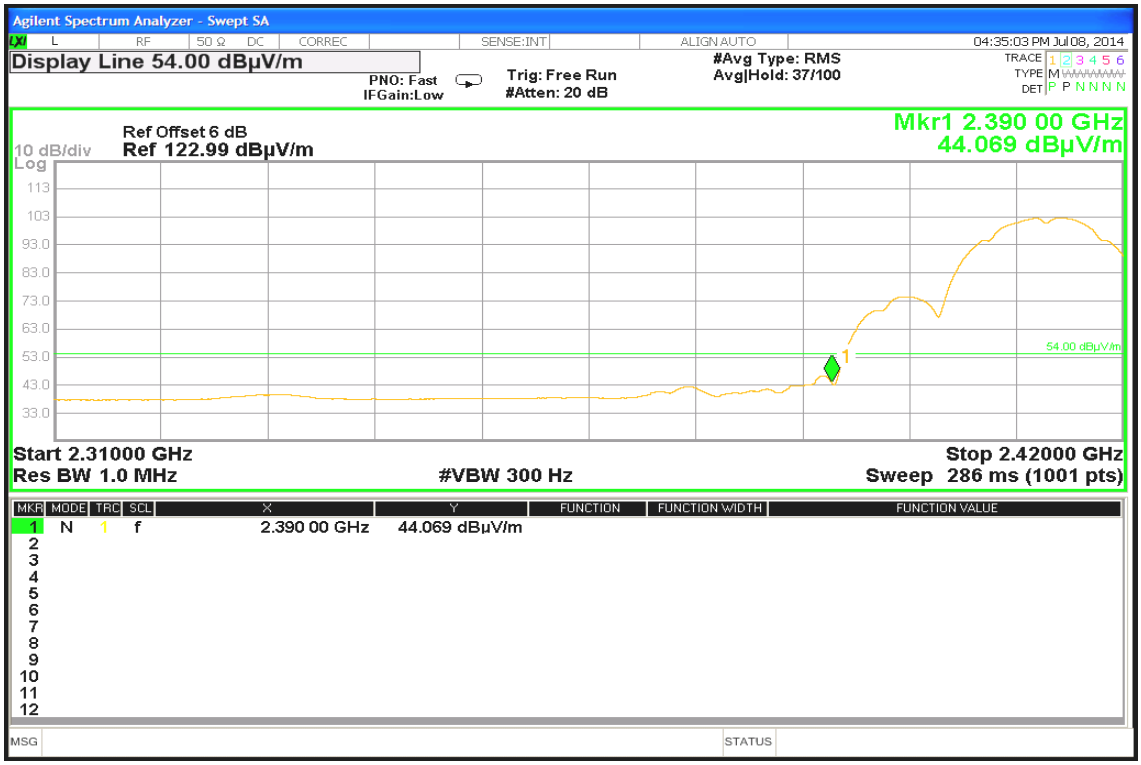


TEST DATA

Band Edges (IEEE 802.11b mode / CH Low)

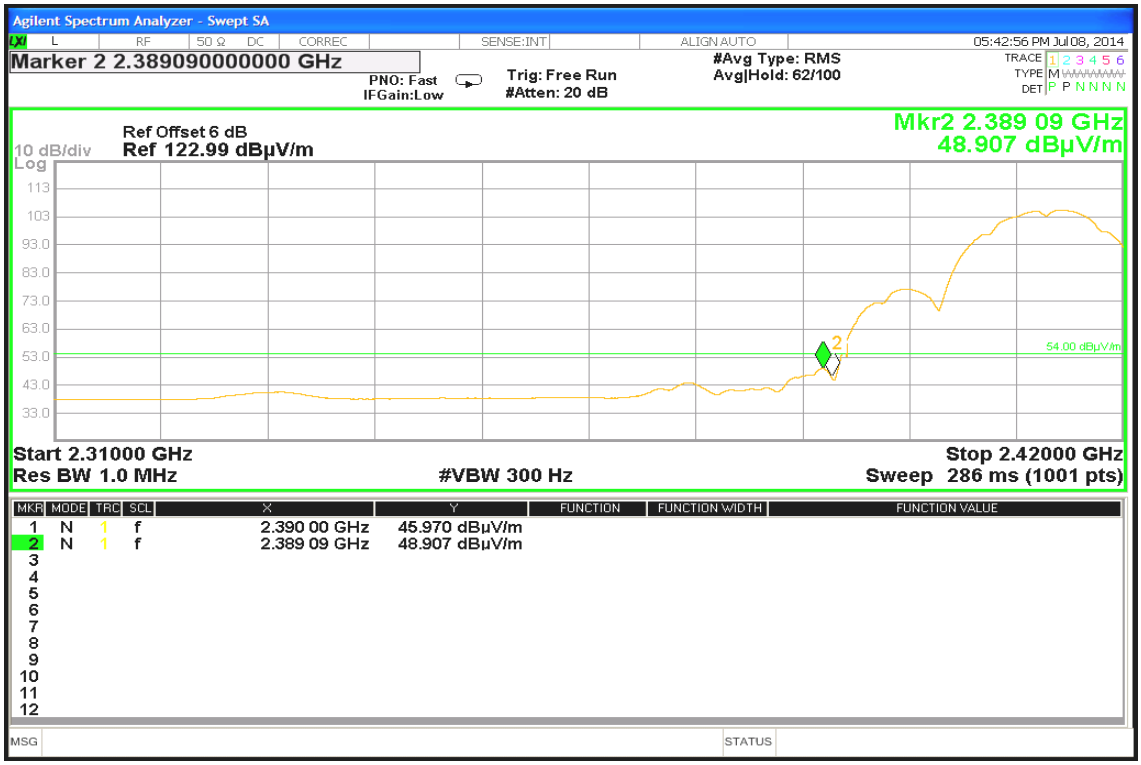
Detector mode: Peak **Polarity: Vertical**

Detector mode: Average **Polarity: Vertical**



Detector mode: Peak Polarity: Horizontal

Detector mode: Average Polarity: Horizontal



Band Edges (IEEE 802.11b mode / CH High)

Detector mode: Peak **Polarity: Vertical**

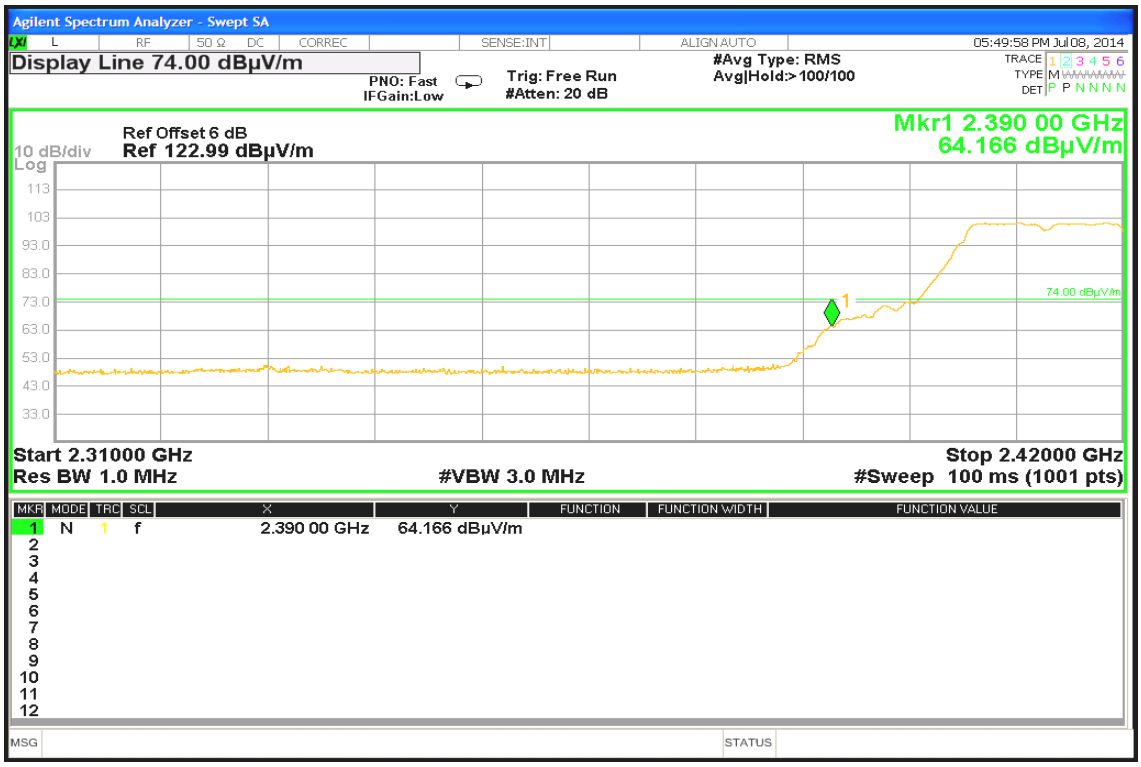
Detector mode: Average **Polarity: Vertical**

Detector mode: Peak Polarity: Horizontal

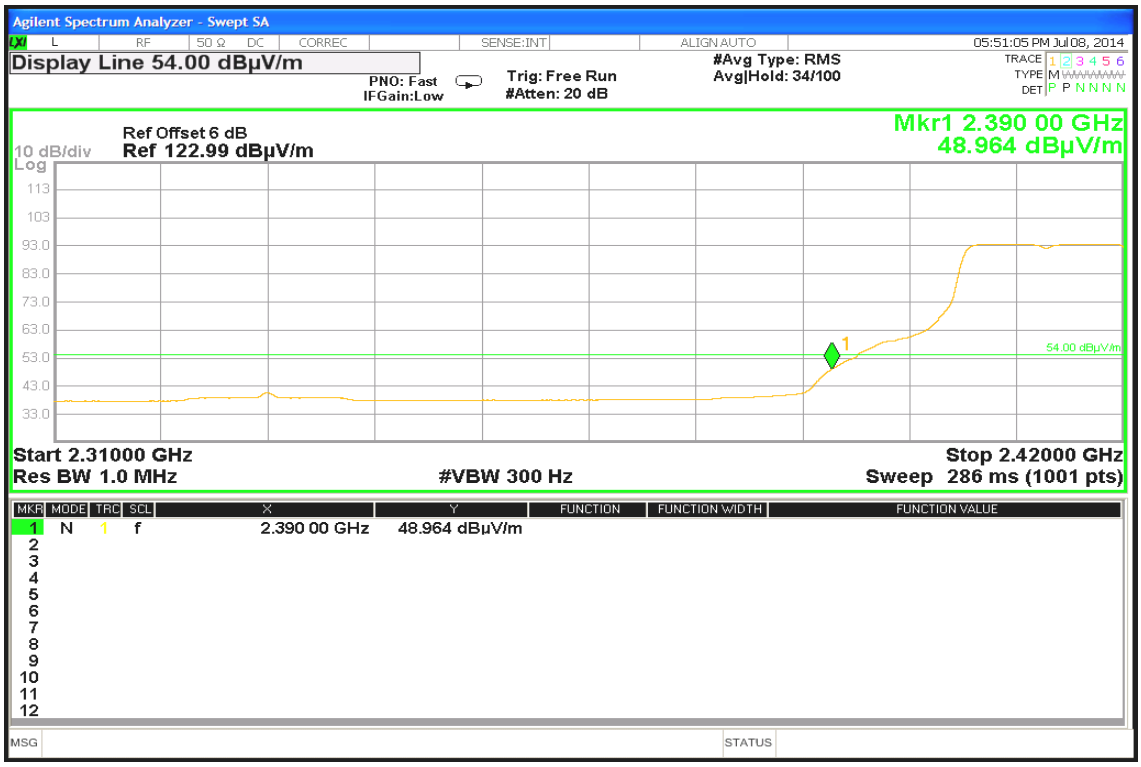
Detector mode: Average Polarity: Horizontal

Band Edges (IEEE 802.11g mode / CH Low)

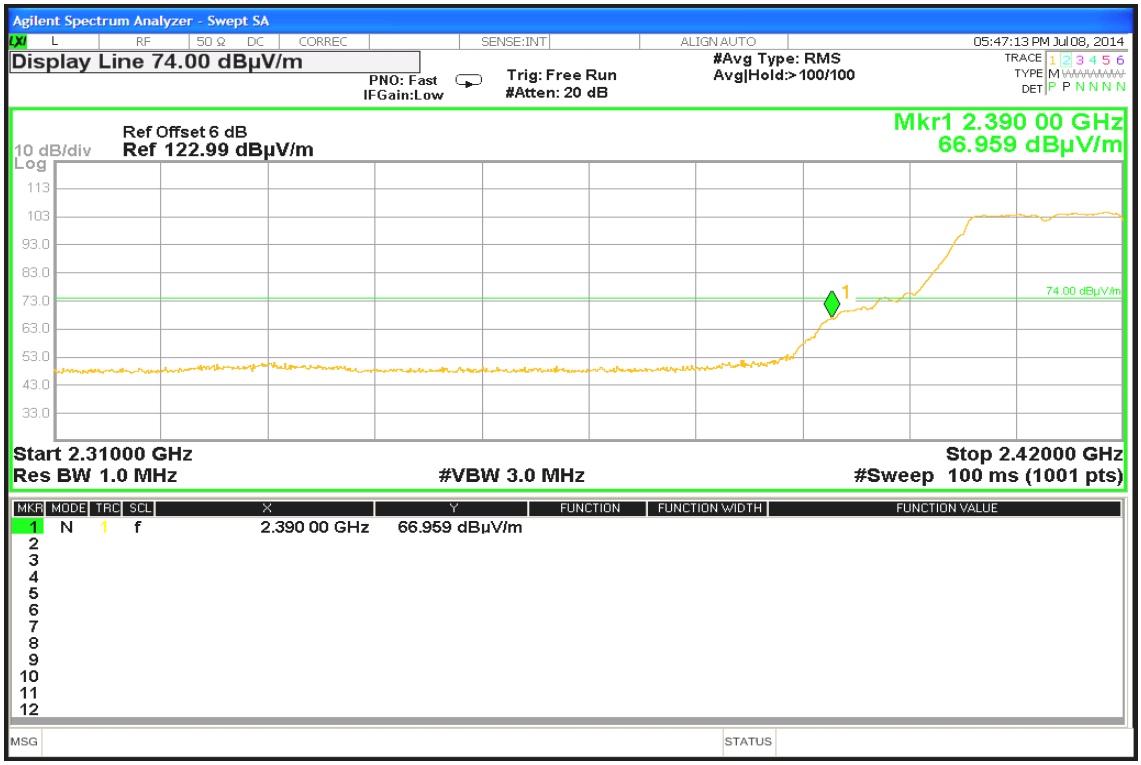
Detector mode: Peak **Polarity: Vertical**



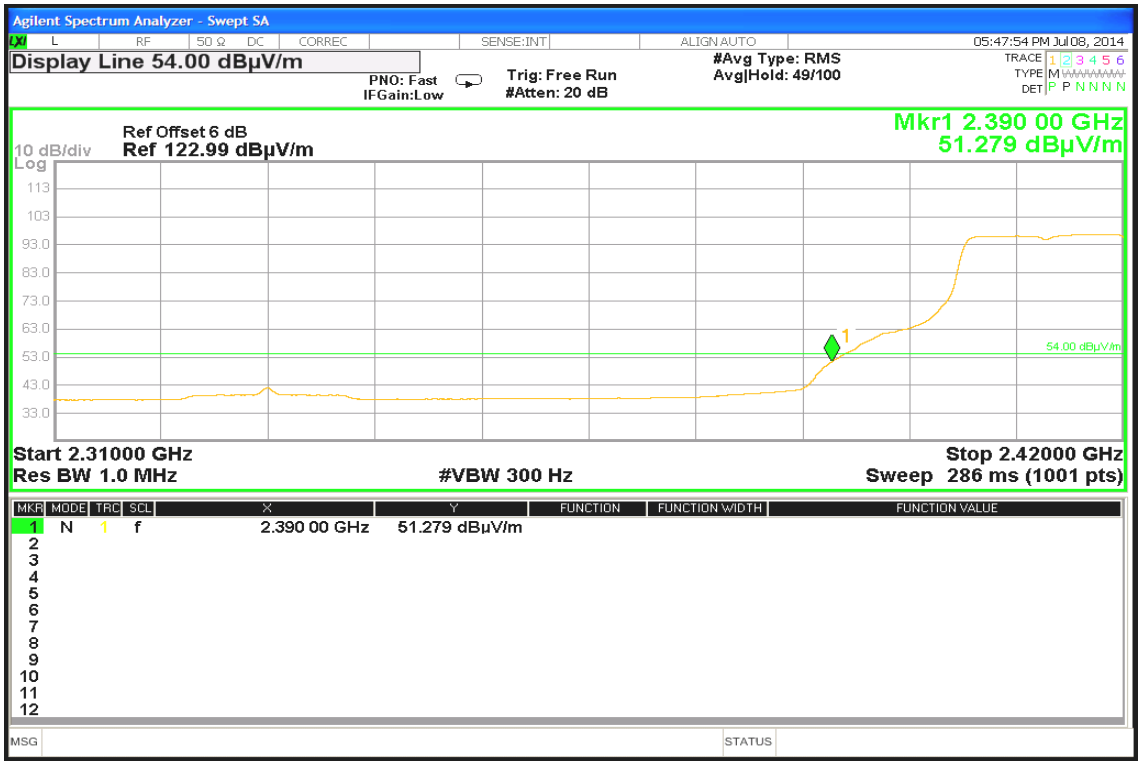
Detector mode: Average **Polarity: Vertical**



Detector mode: Peak Polarity: Horizontal



Detector mode: Average Polarity: Horizontal



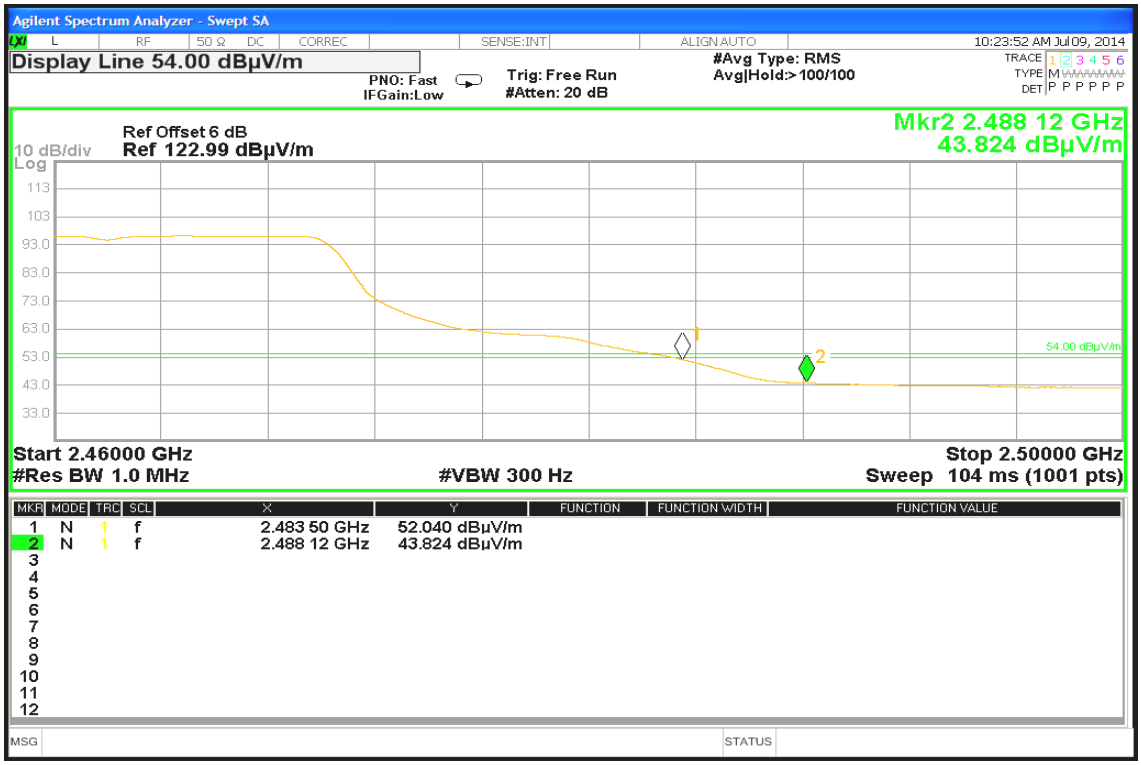
Band Edges (IEEE 802.11g mode / CH High)

Detector mode: Peak **Polarity: Vertical**

Detector mode: Average **Polarity: Vertical**

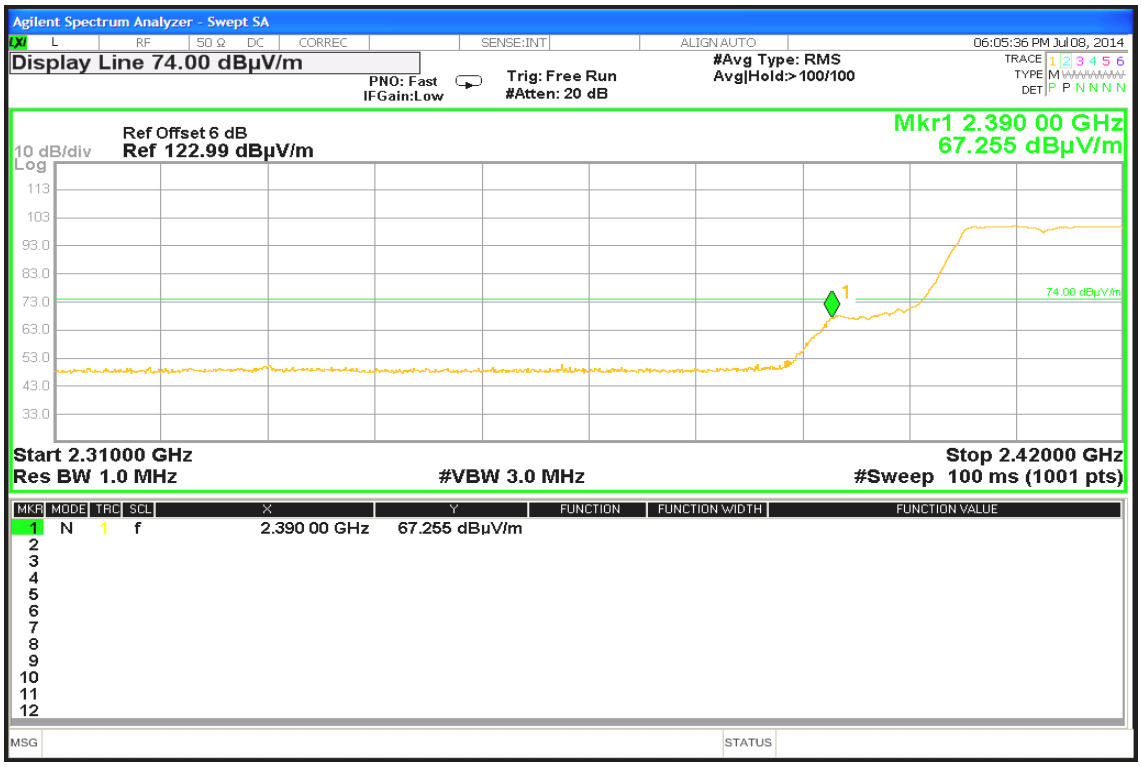
Detector mode: Peak Polarity: Horizontal

Detector mode: Average Polarity: Horizontal

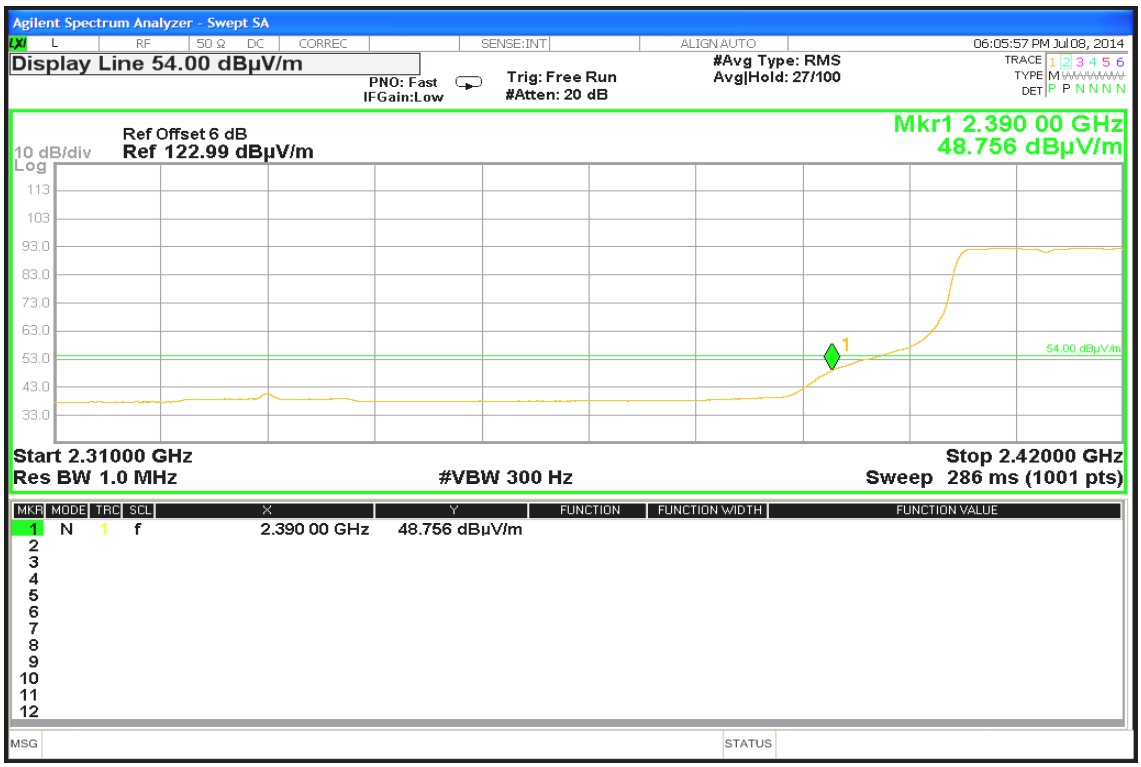


Band Edges (IEEE 802.11n HT20 mode / CH Low)

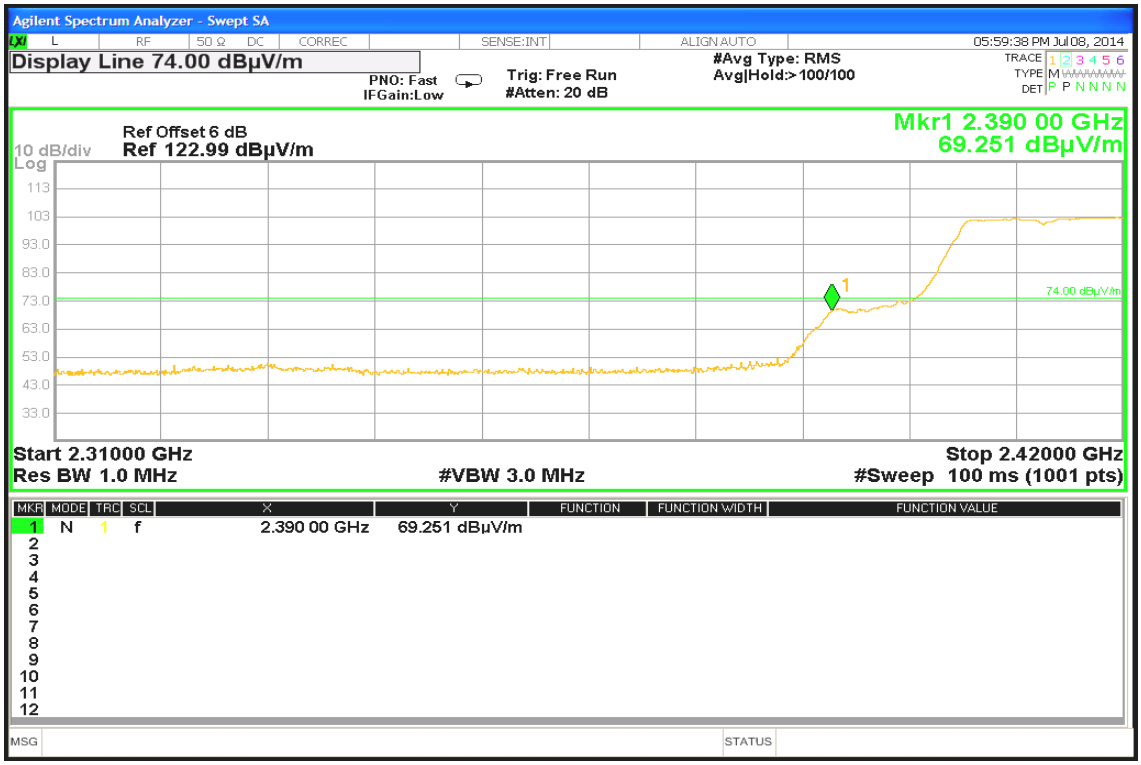
Detector mode: Peak **Polarity: Vertical**



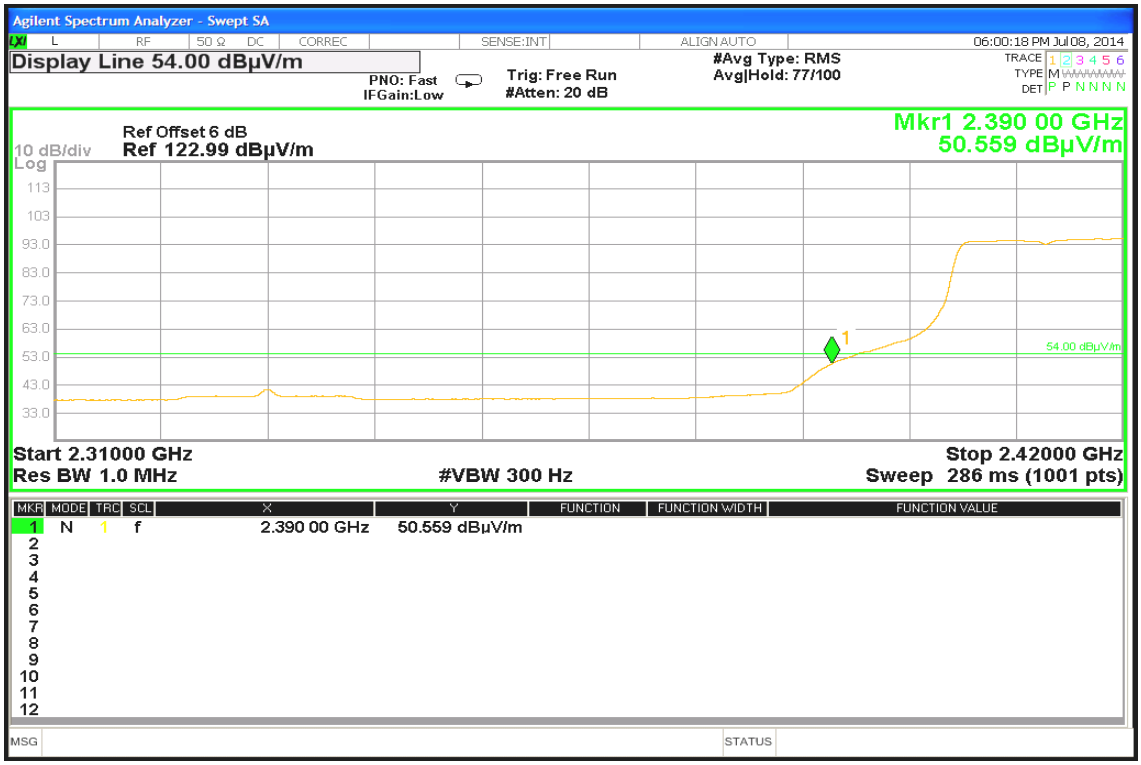
Detector mode: Average **Polarity: Vertical**



Detector mode: Peak Polarity: Horizontal



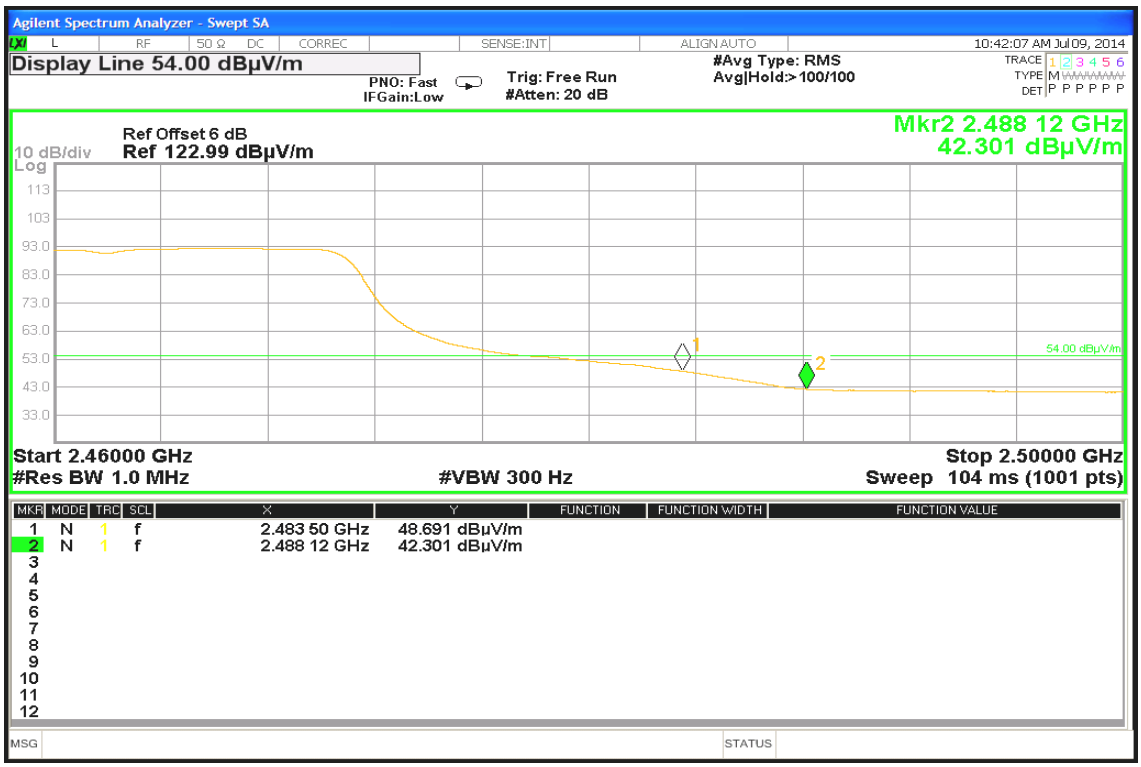
Detector mode: Average Polarity: Horizontal



Band Edges (IEEE 802.11n HT20 mode / CH High)

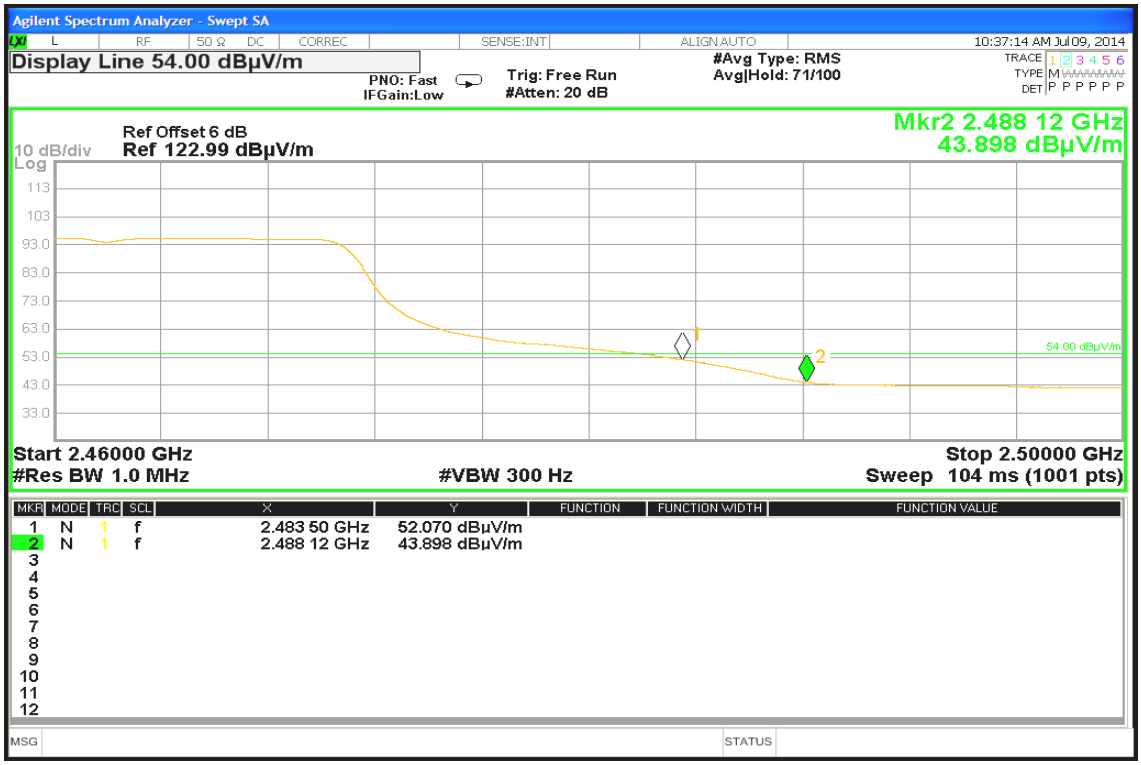
Detector mode: Peak **Polarity: Vertical**

Detector mode: Average **Polarity: Vertical**



Detector mode: Peak Polarity: Horizontal

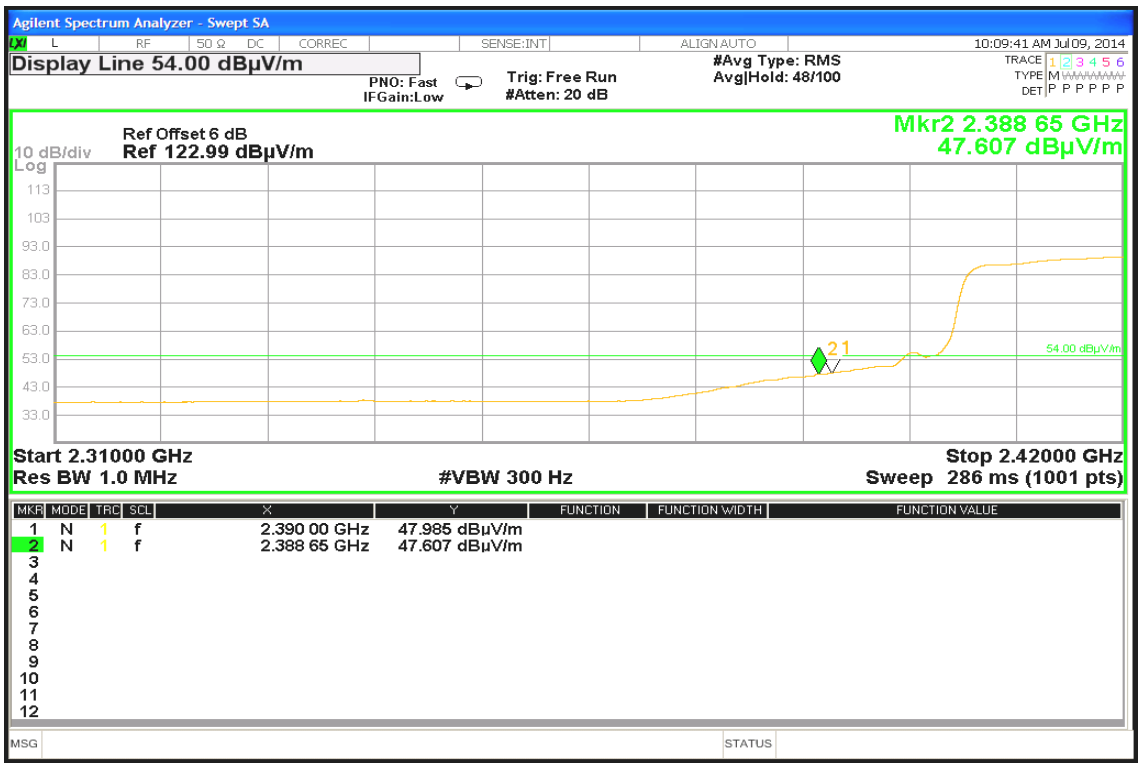
Detector mode: Average Polarity: Horizontal



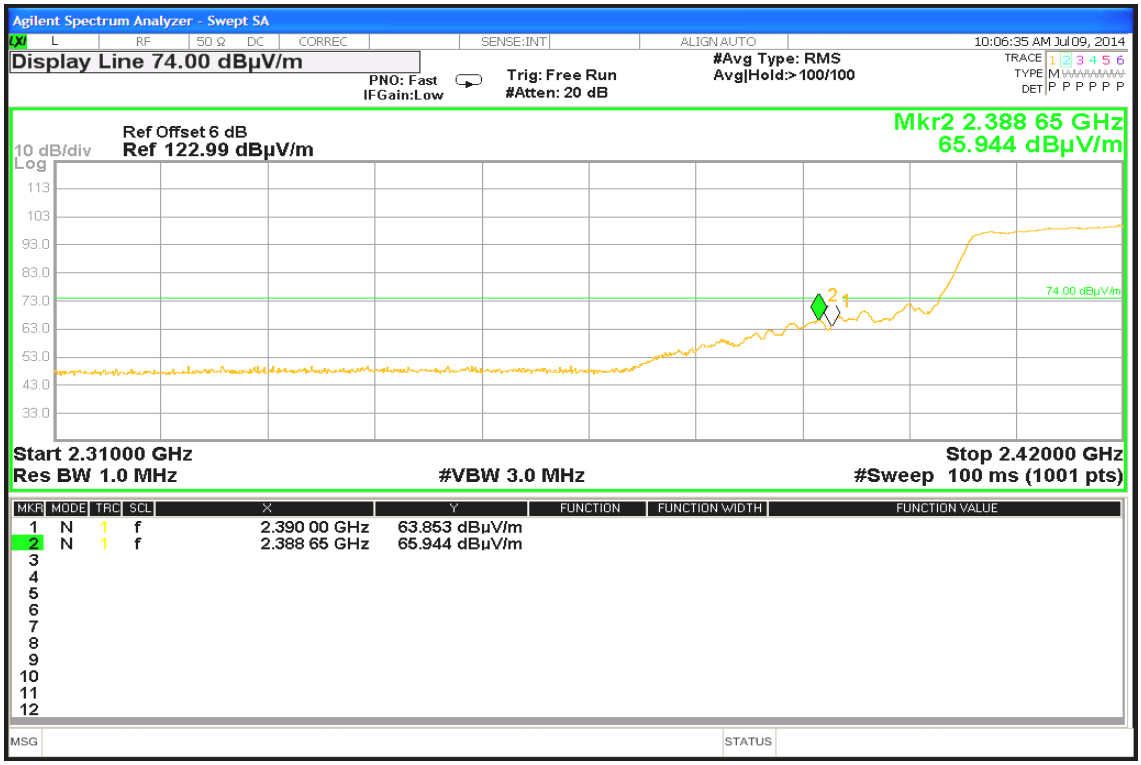
Band Edges (IEEE 802.11n HT40 mode / CH Low)

Detector mode: Peak **Polarity: Vertical**

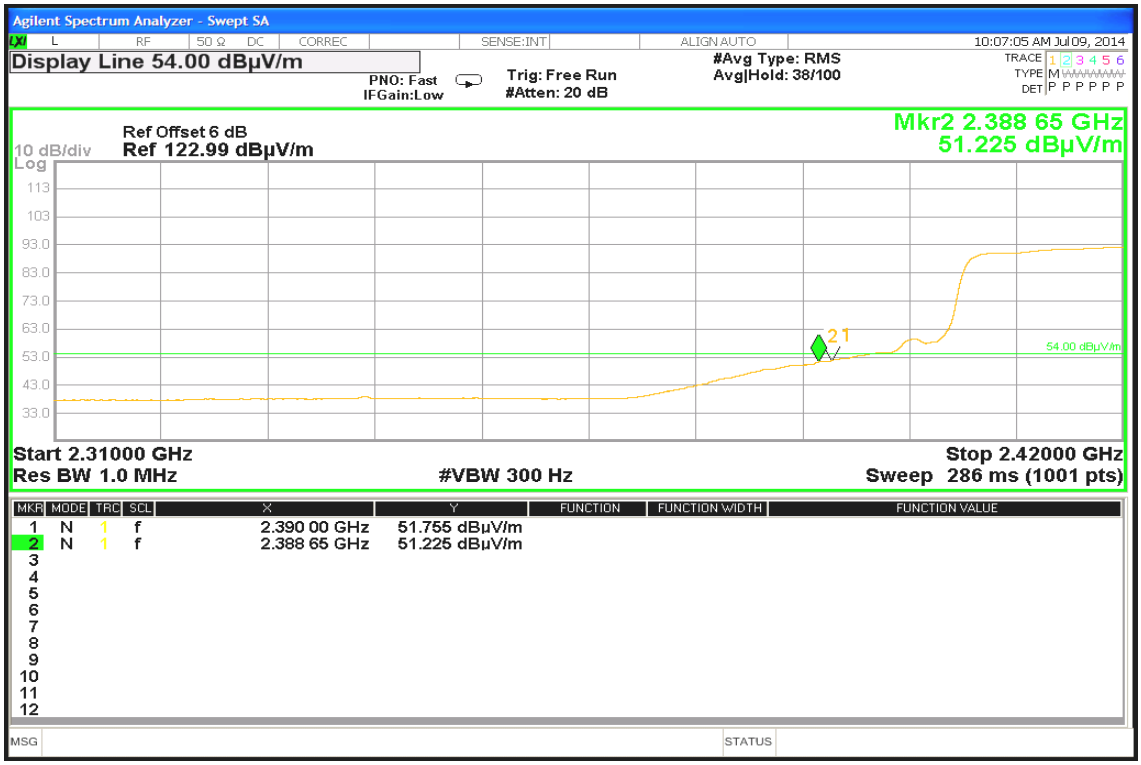
Detector mode: Average **Polarity: Vertical**



Detector mode: Peak Polarity: Horizontal



Detector mode: Average Polarity: Horizontal



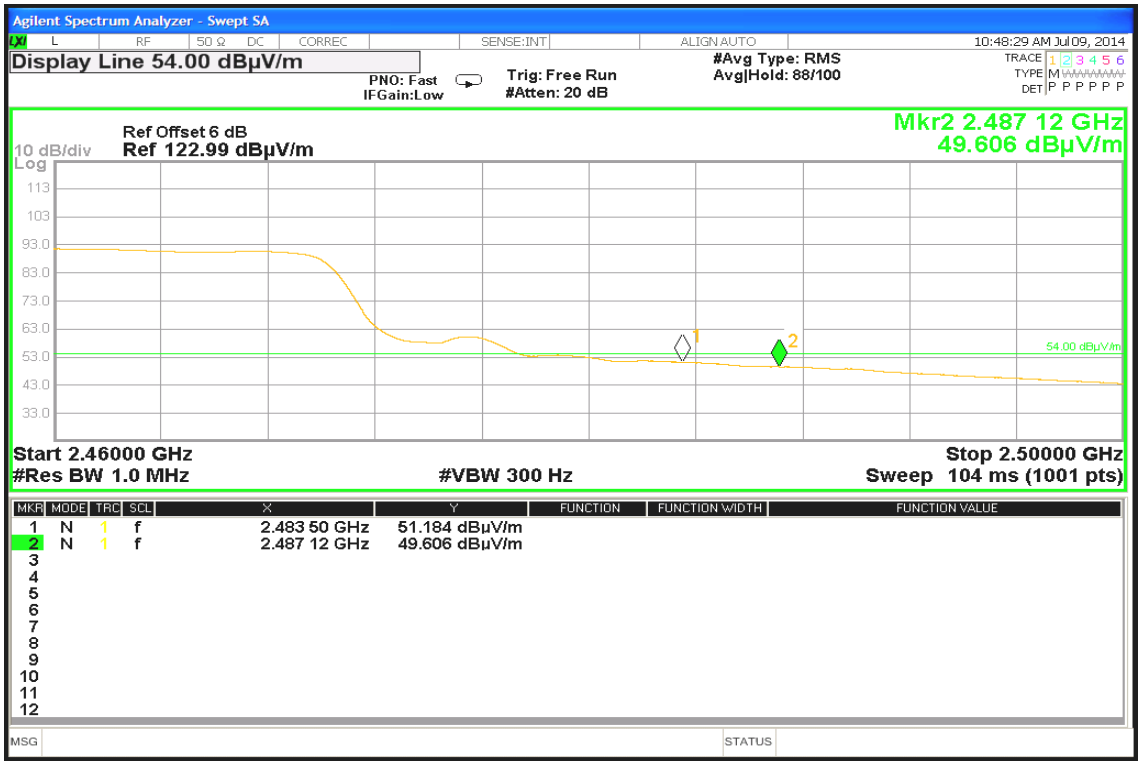
Band Edges (IEEE 802.11n HT40 mode / CH High)

Detector mode: Peak **Polarity: Vertical**

Detector mode: Average **Polarity: Vertical**

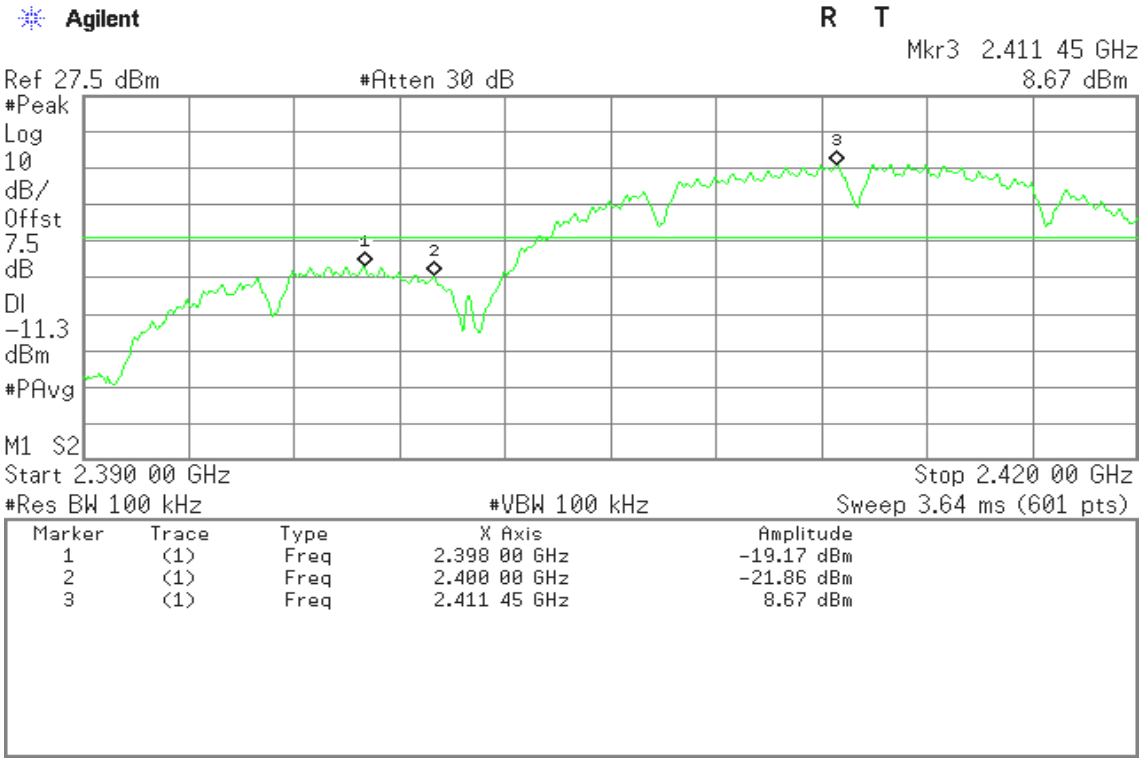
Detector mode: Peak Polarity: Horizontal

Detector mode: Average Polarity: Horizontal

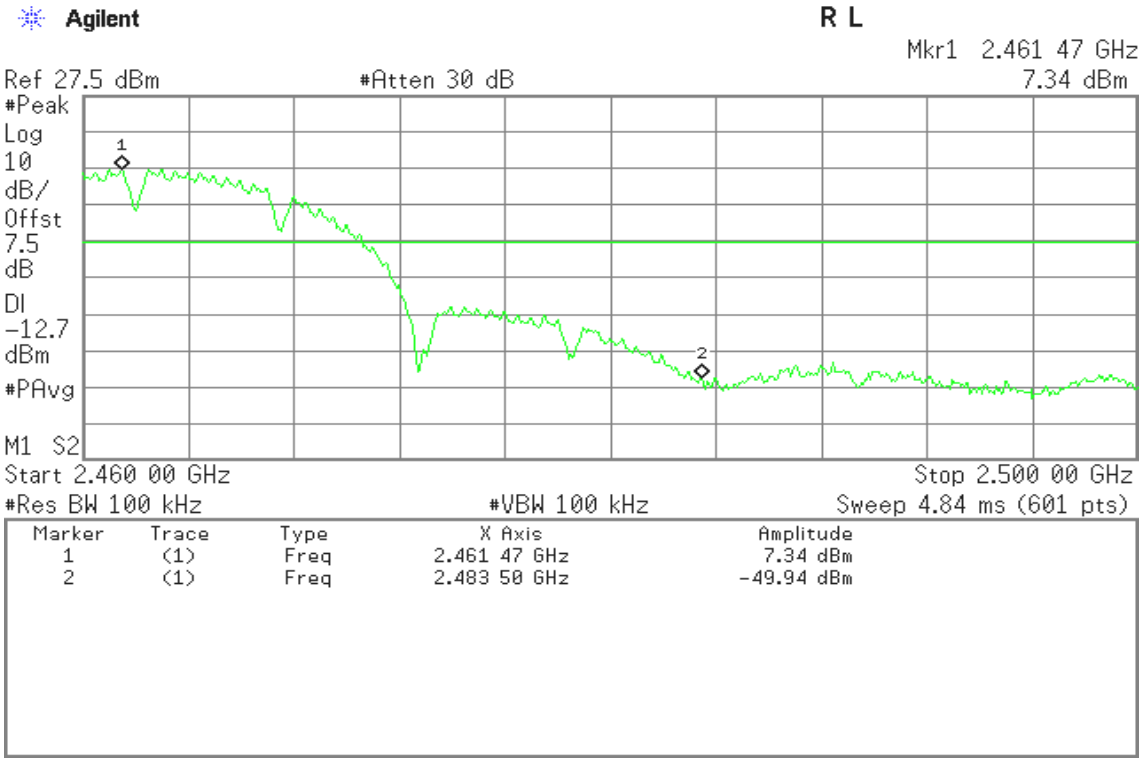


Test Plot

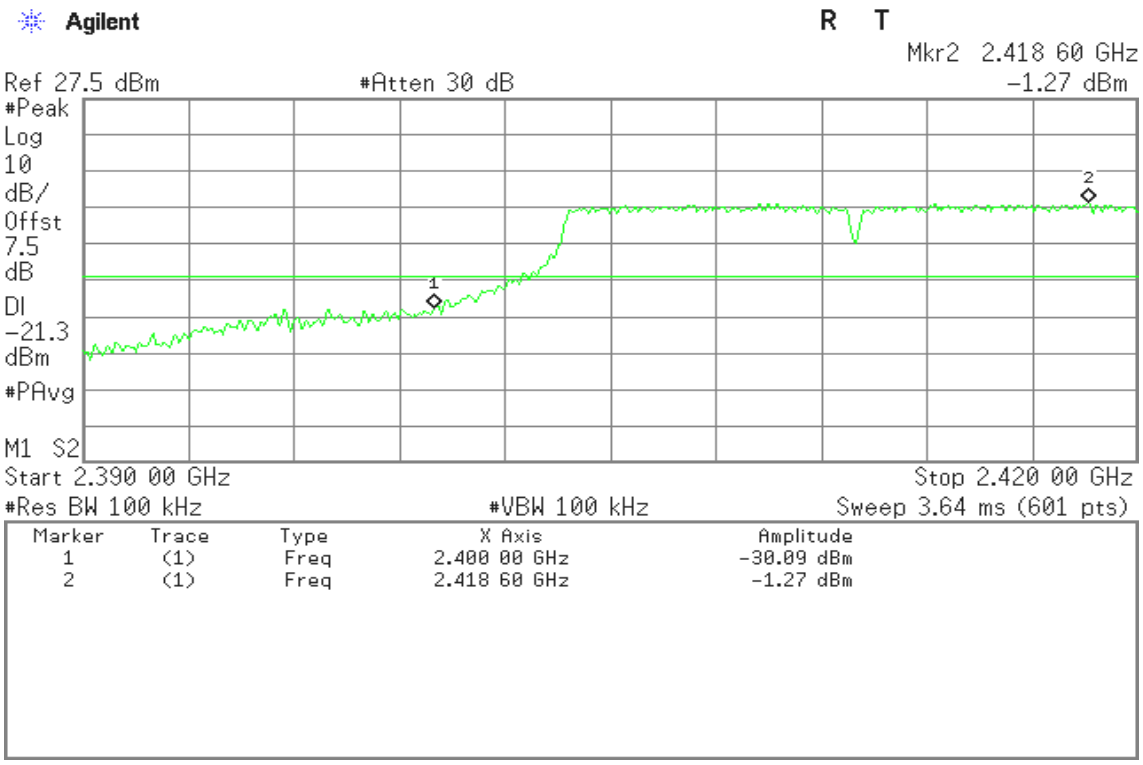
Conducted Band Edges (IEEE 802.11b mode / CH Low)



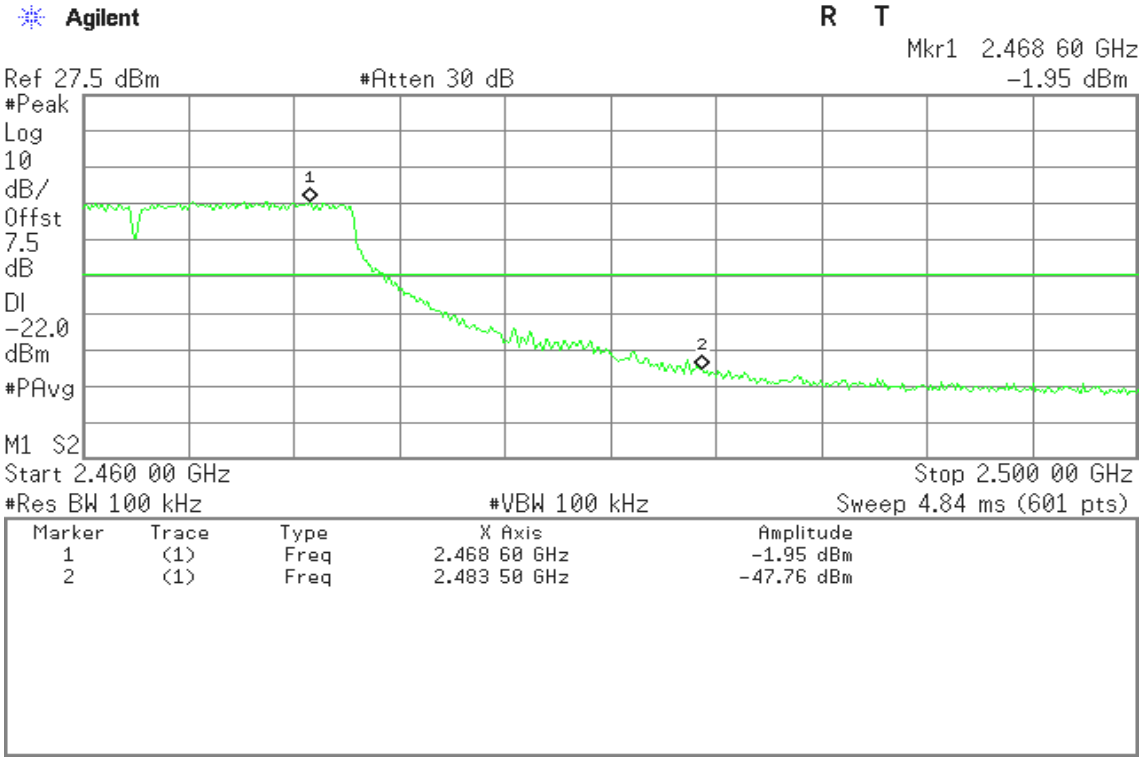
Conducted Band Edges (IEEE 802.11b mode / CH High)



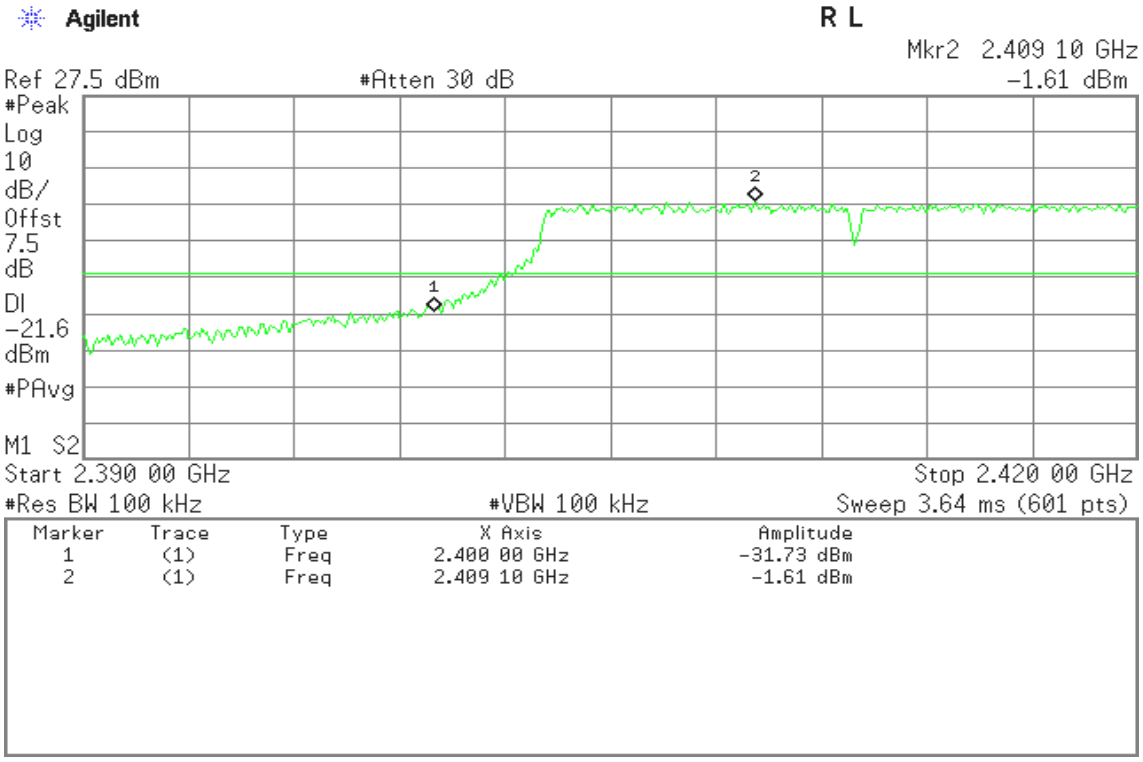
Conducted Band Edges (IEEE 802.11g mode / CH Low)



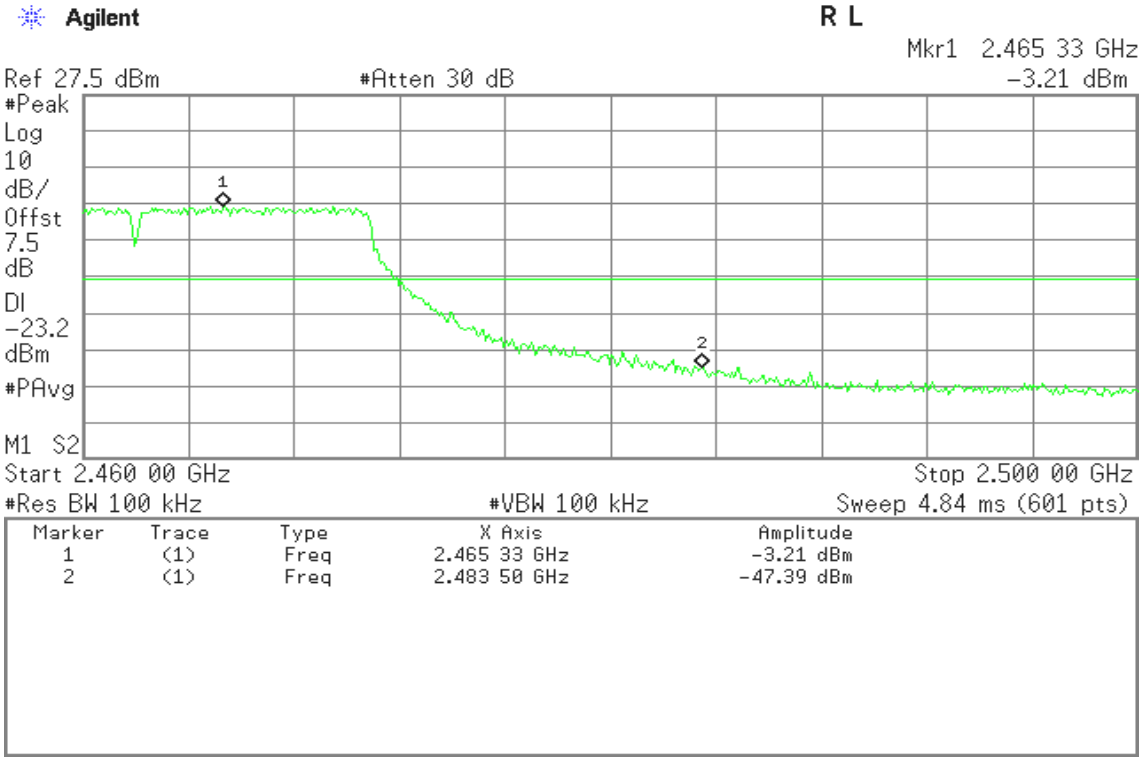
Conducted Band Edges (IEEE 802.11g mode / CH High)



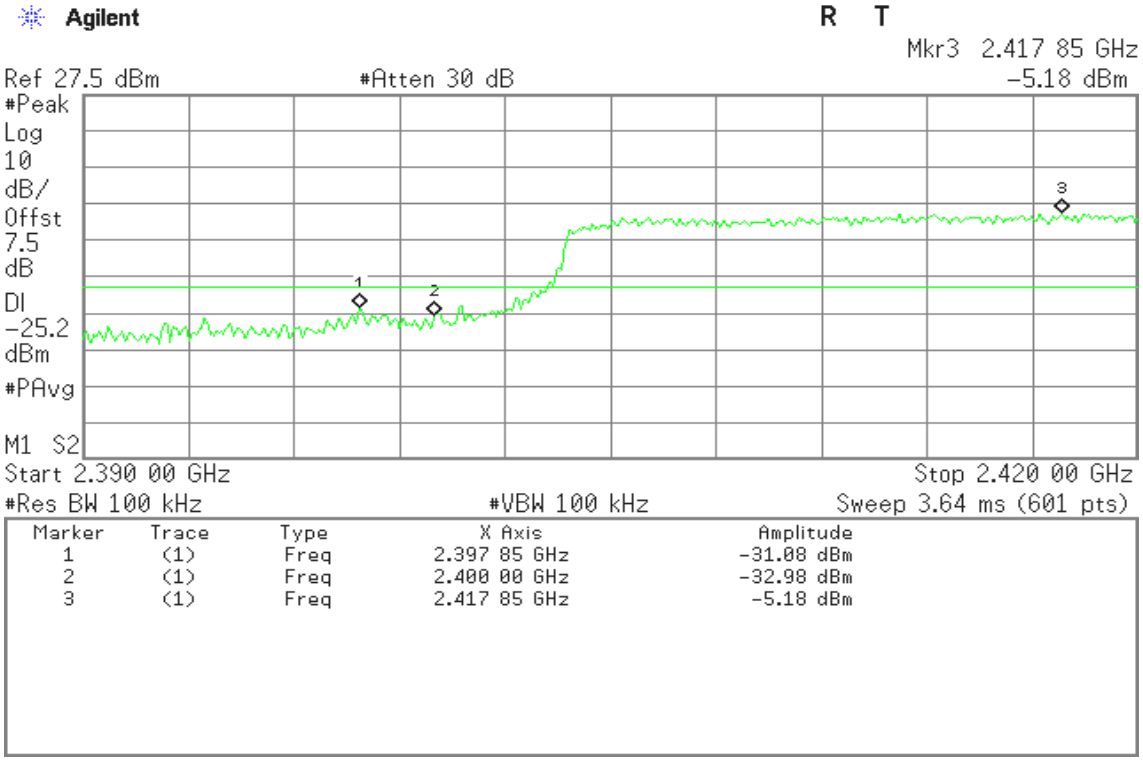
Conducted Band Edges (IEEE 802.11n HT20 mode / CH Low)



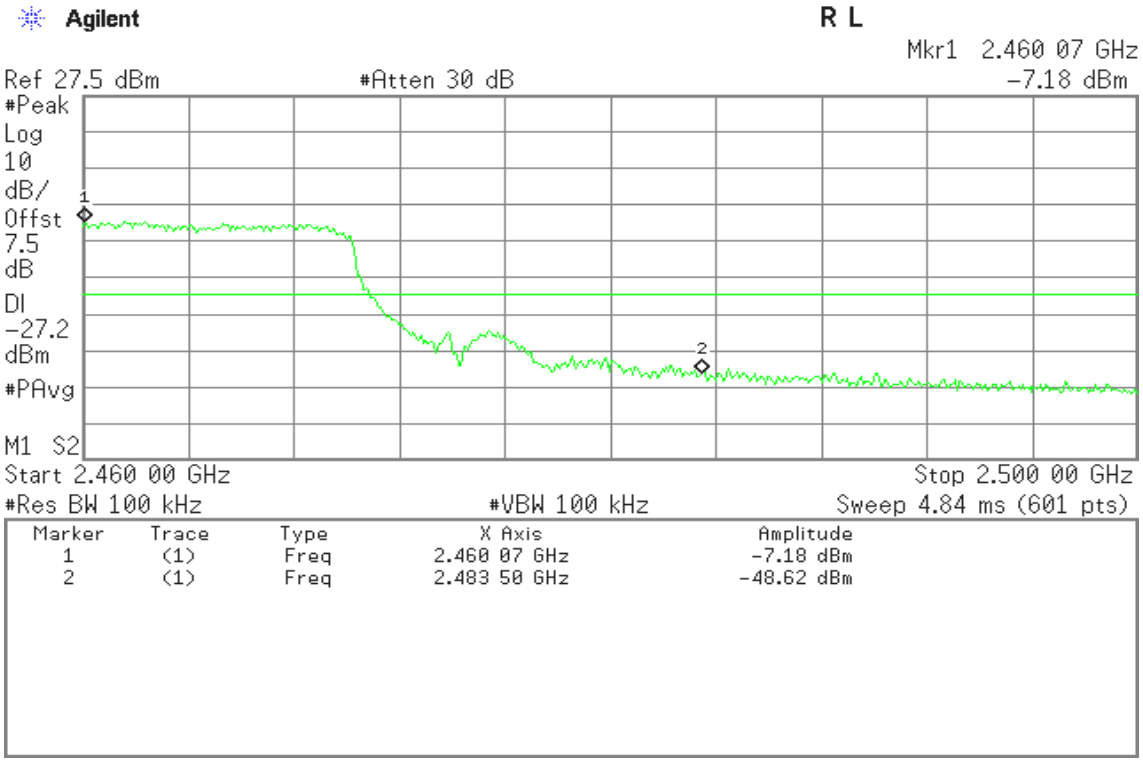
Conducted Band Edges (IEEE 802.11n HT20 mode / CH High)



Conducted Band Edges (IEEE 802.11n HT40 mode / CH Low)



Conducted Band Edges (IEEE 802.11n HT40 mode / CH High)

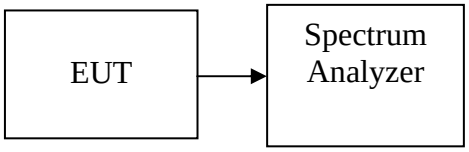


7.5 PEAK POWER SPECTRAL DENSITY

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

Per KDB 558074 v03r02

This procedure must be used if maximum peak conducted output power was used to demonstrate compliance to the fundamental output power limit, and is optional if the maximum (average) conducted output power was used to demonstrate compliance.

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.
3. Set the RBW ≥ 3 kHz.
4. Set the VBW ≥ 3 x RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.

Use the peak marker function to determine the maximum amplitude level.
If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat

TEST RESULTS

No non-compliance noted

Test Data

Test mode: IEEE 802.11b mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-11.12	8.00	PASS
Mid	2437	-11.76		PASS
High	2462	-12.59		PASS

Test mode: IEEE 802.11g mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-15.16	8.00	PASS
Mid	2437	-14.94		PASS
High	2462	-16.00		PASS

Test mode: IEEE 802.11n HT20 mode

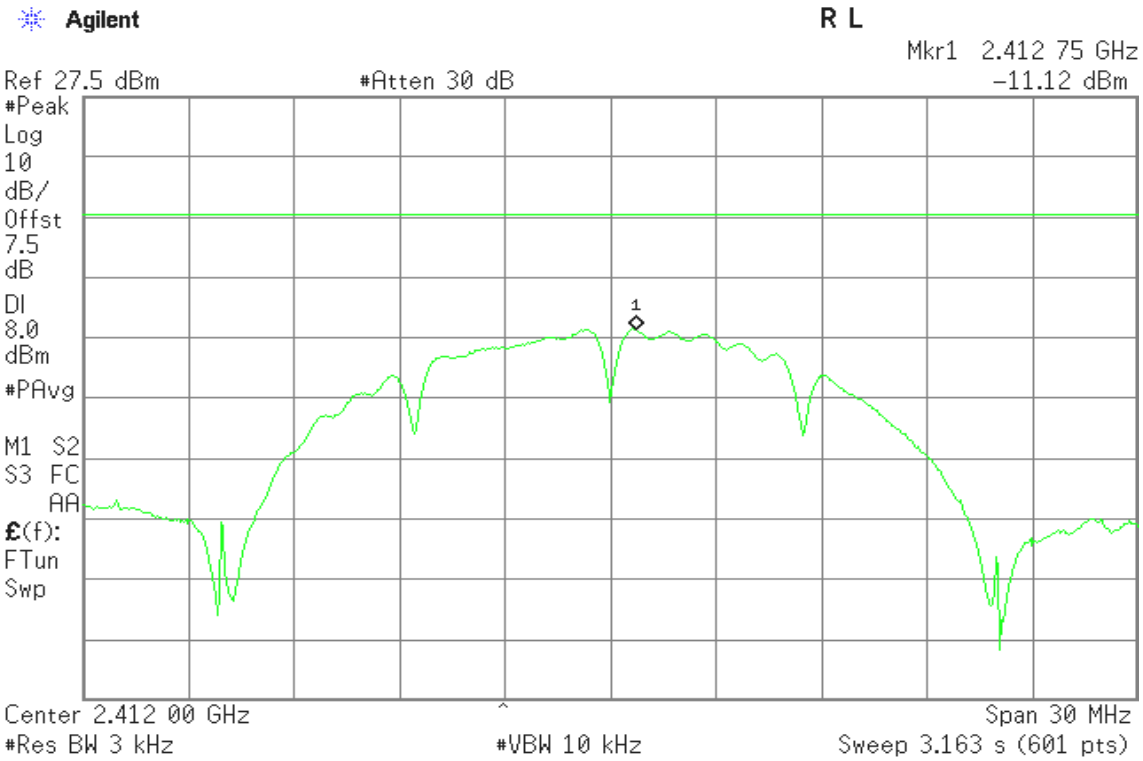
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-15.65	8.00	PASS
Mid	2437	-14.93		PASS
High	2462	-16.48		PASS

Test mode: IEEE 802.11n HT40 mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2422	-15.77	8.00	PASS
Mid	2437	-17.60		PASS
High	2452	-18.05		PASS

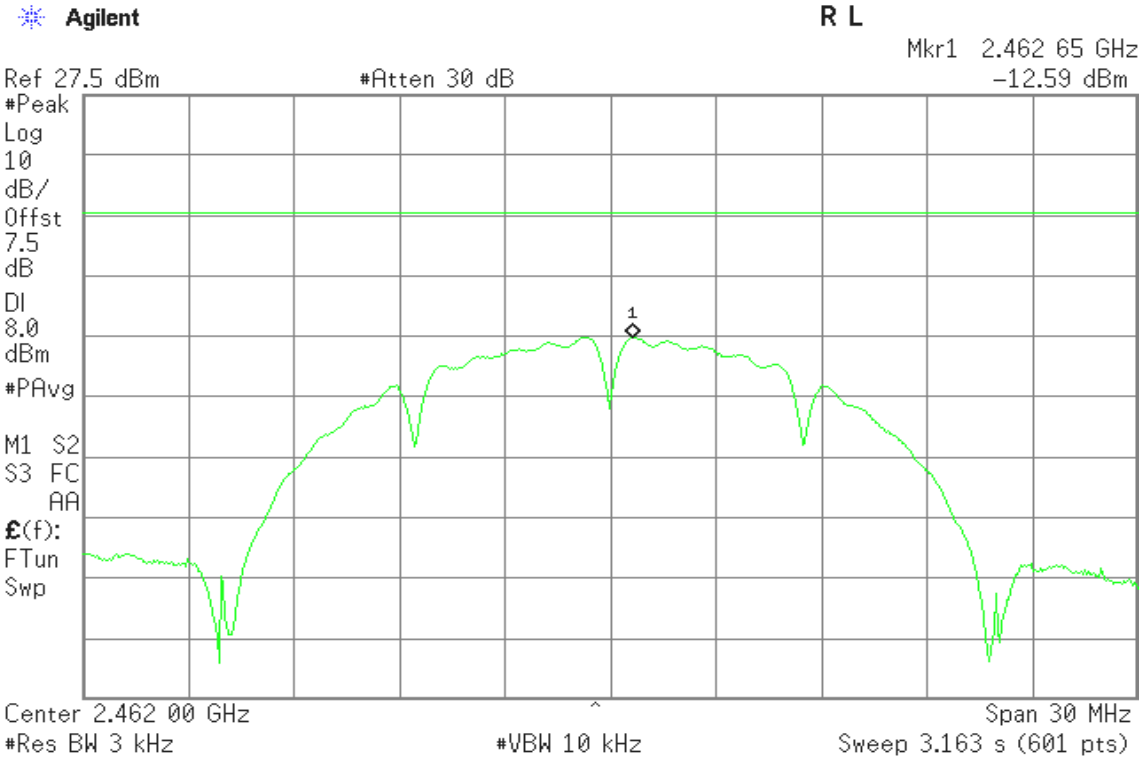
Test Plot

IEEE 802.11b mode
PPSD (CH Low)



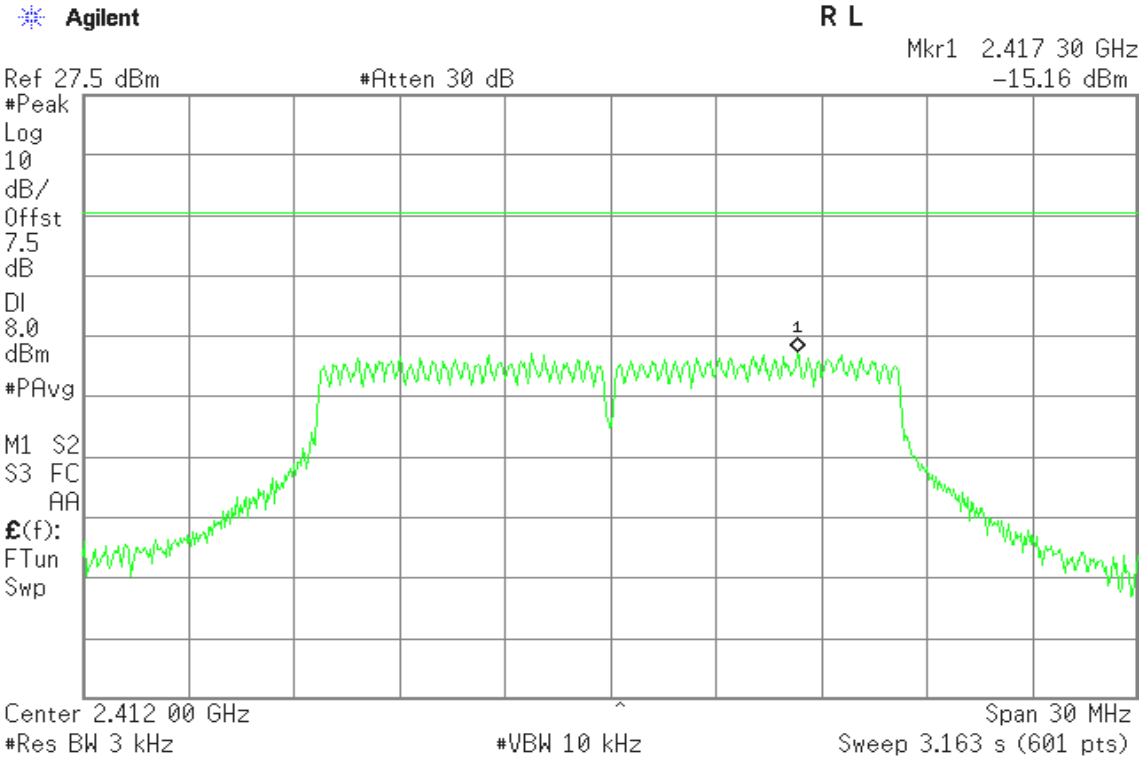
PPSD (CH Mid)

PPSD (CH High)

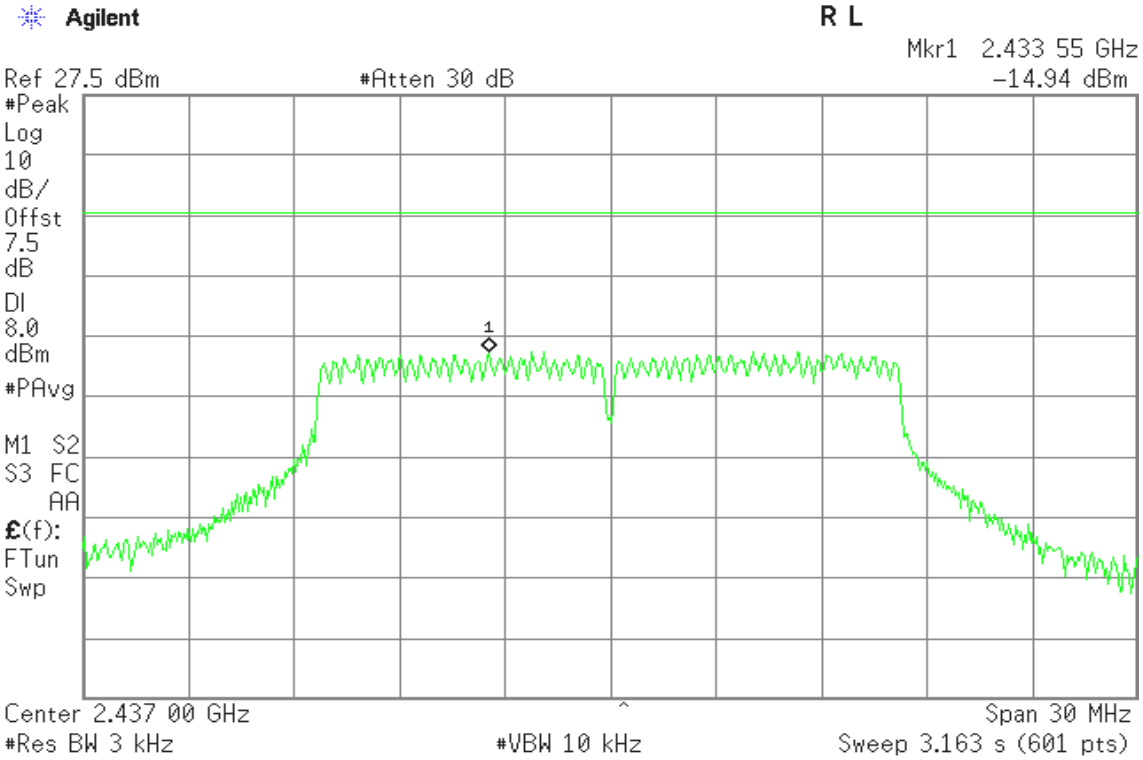


IEEE 802.11g mode

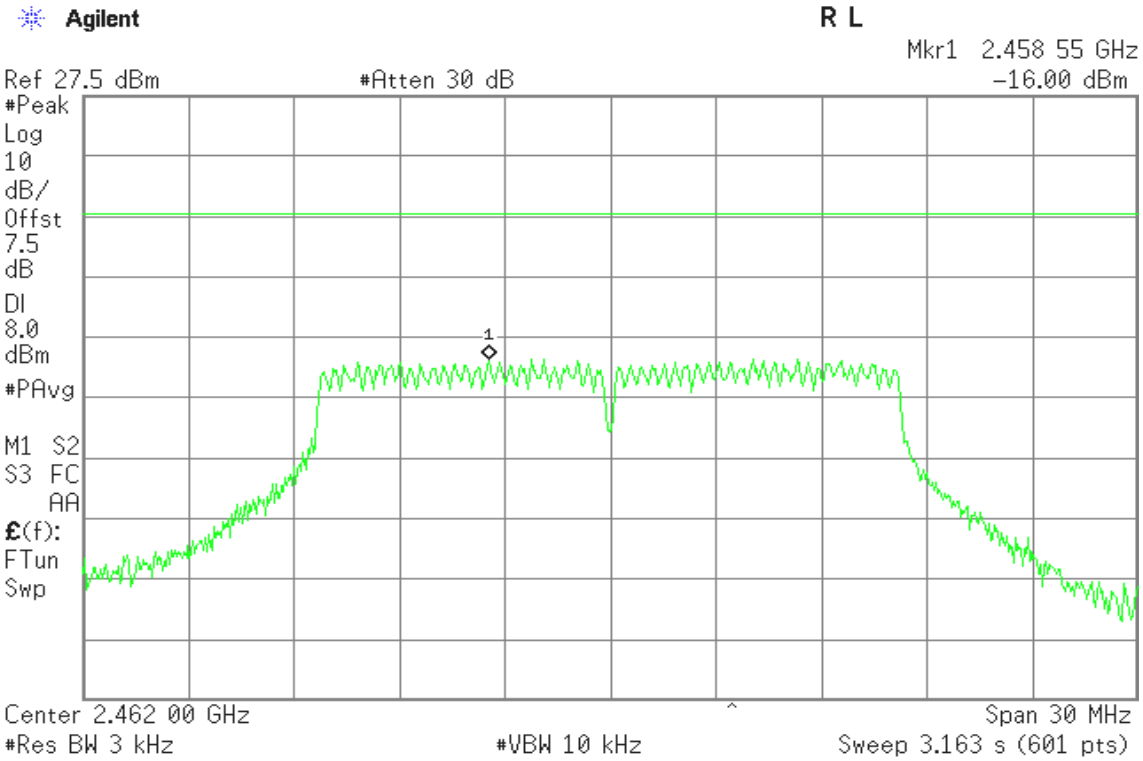
PPSD (CH Low)



PPSD (CH Mid)

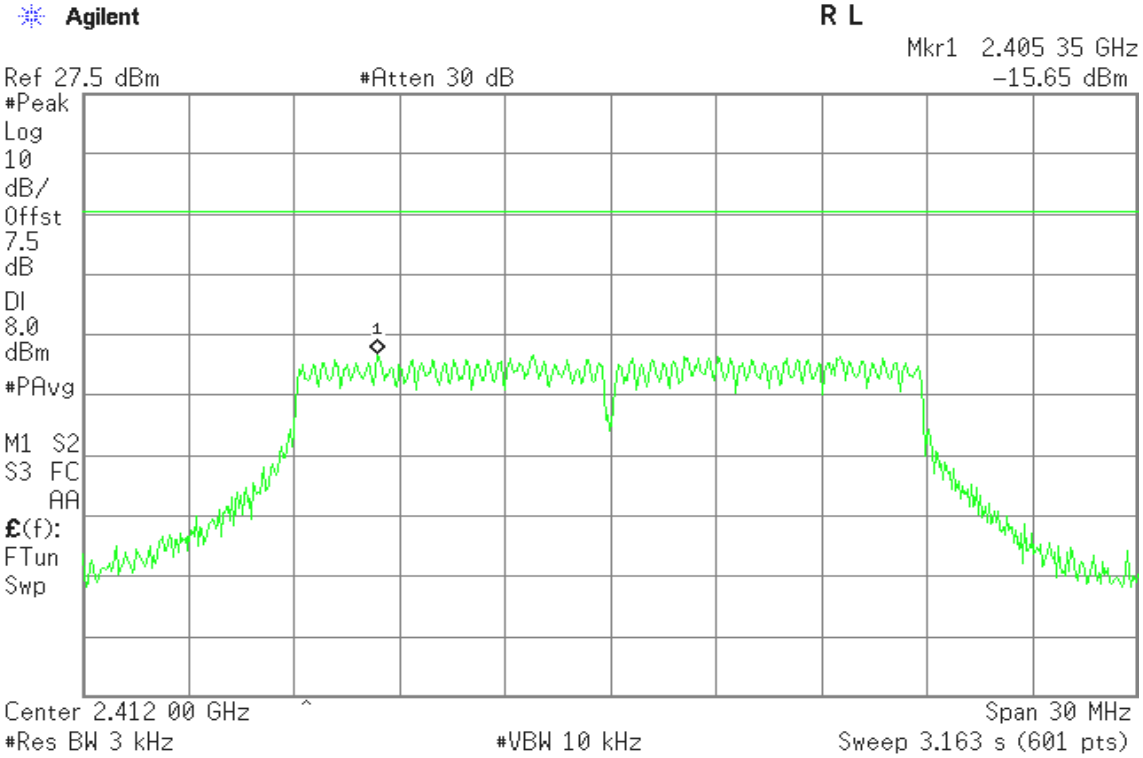


PPSD (CH High)

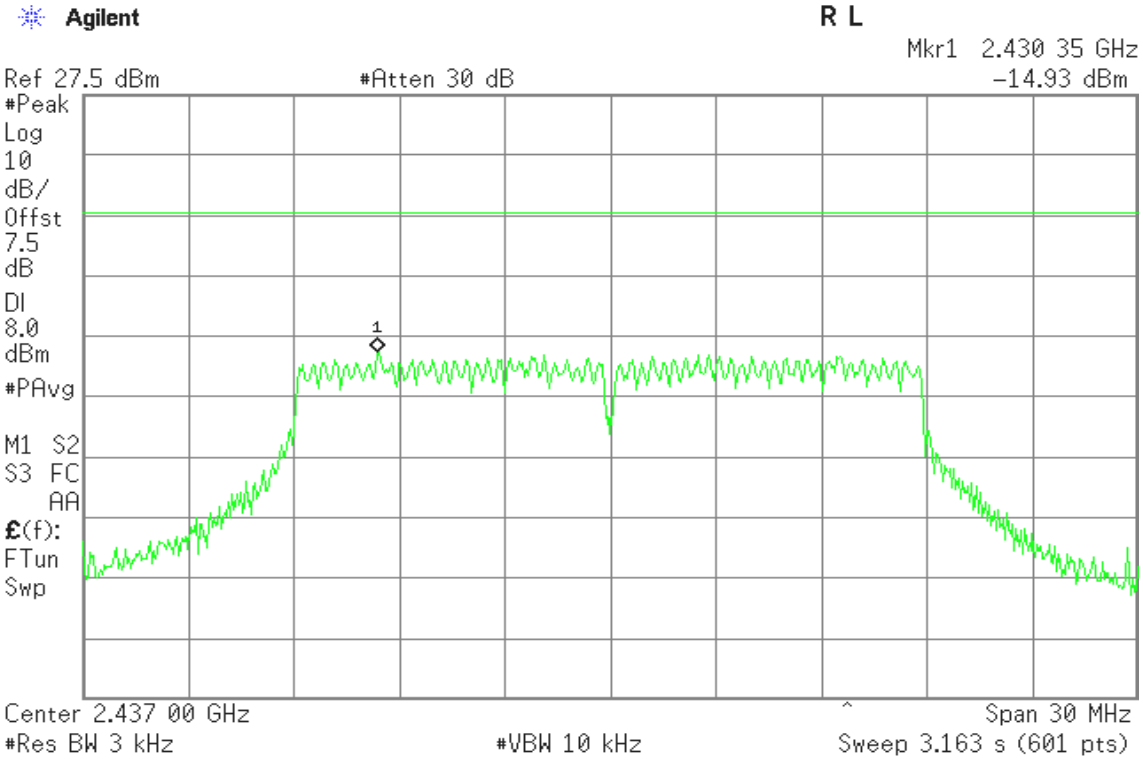


IEEE 802.11n HT20 mode

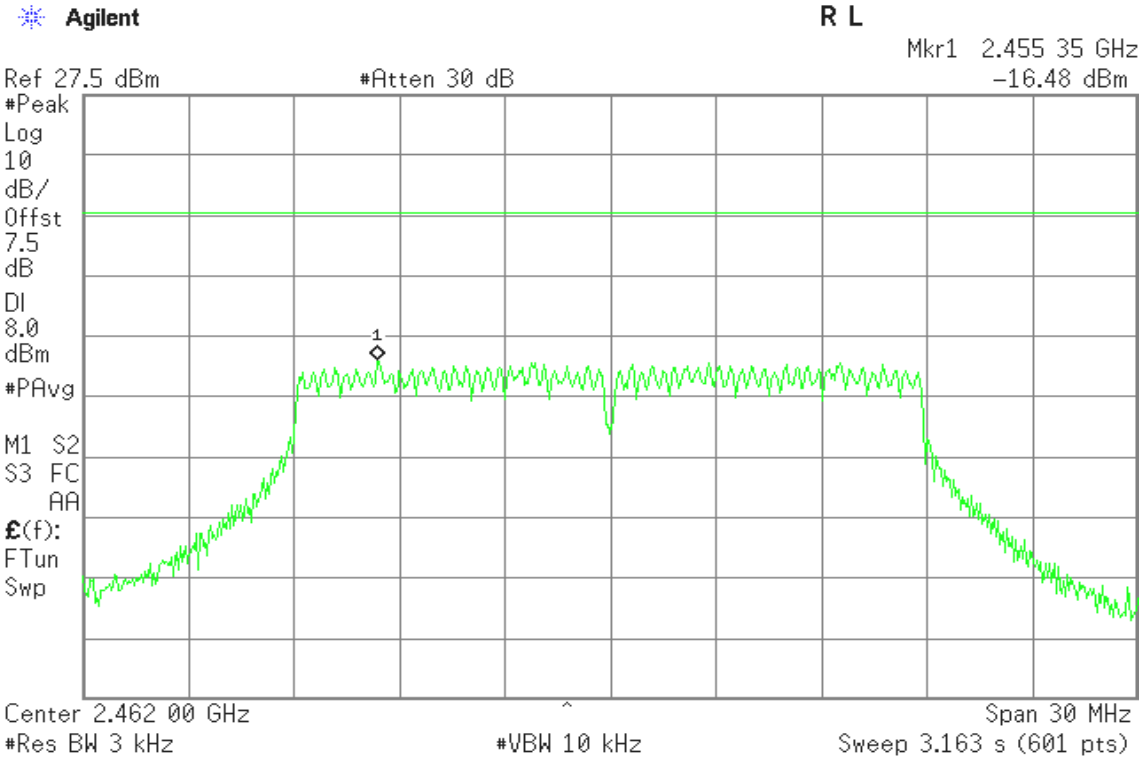
PPSD (CH Low)



PPSD (CH Mid)

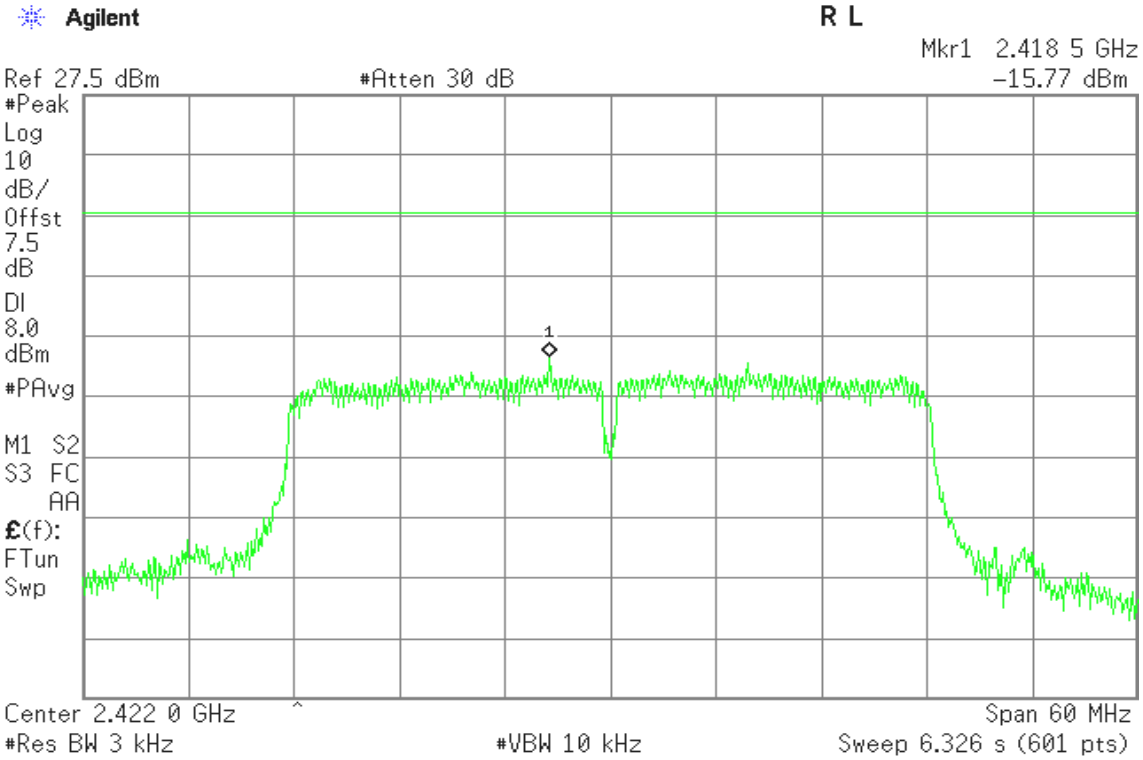


PPSD (CH High)

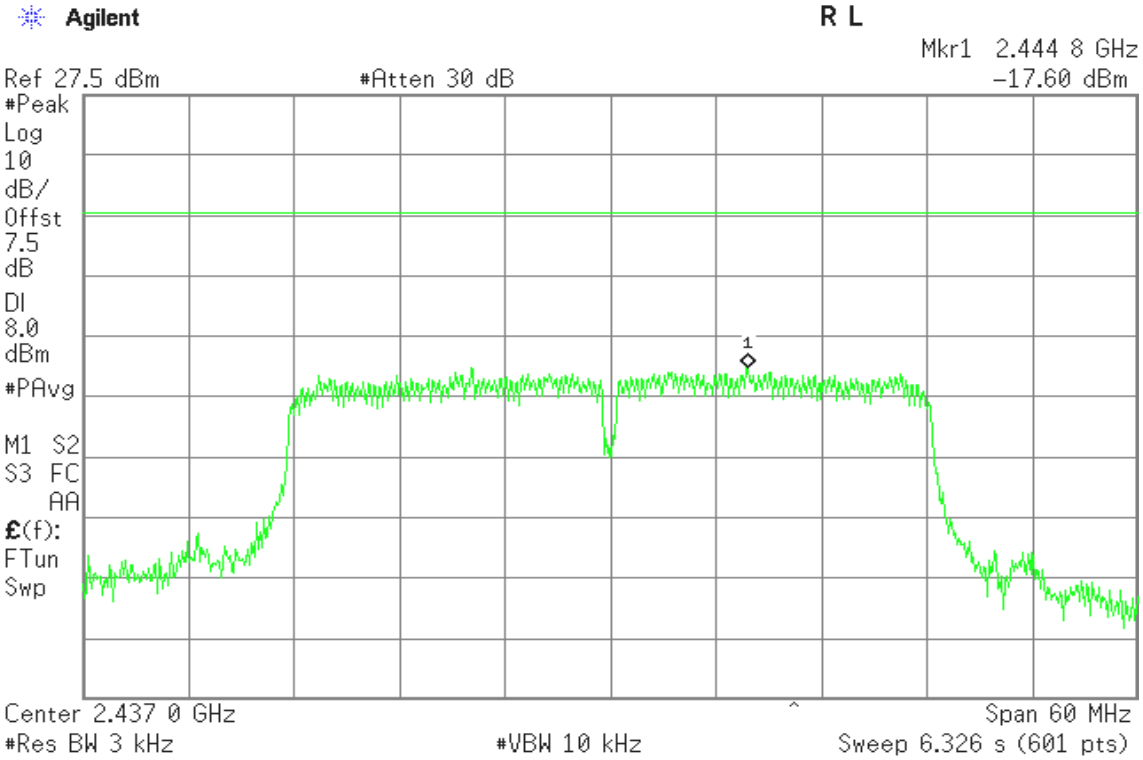


IEEE 802.11n HT40 mode

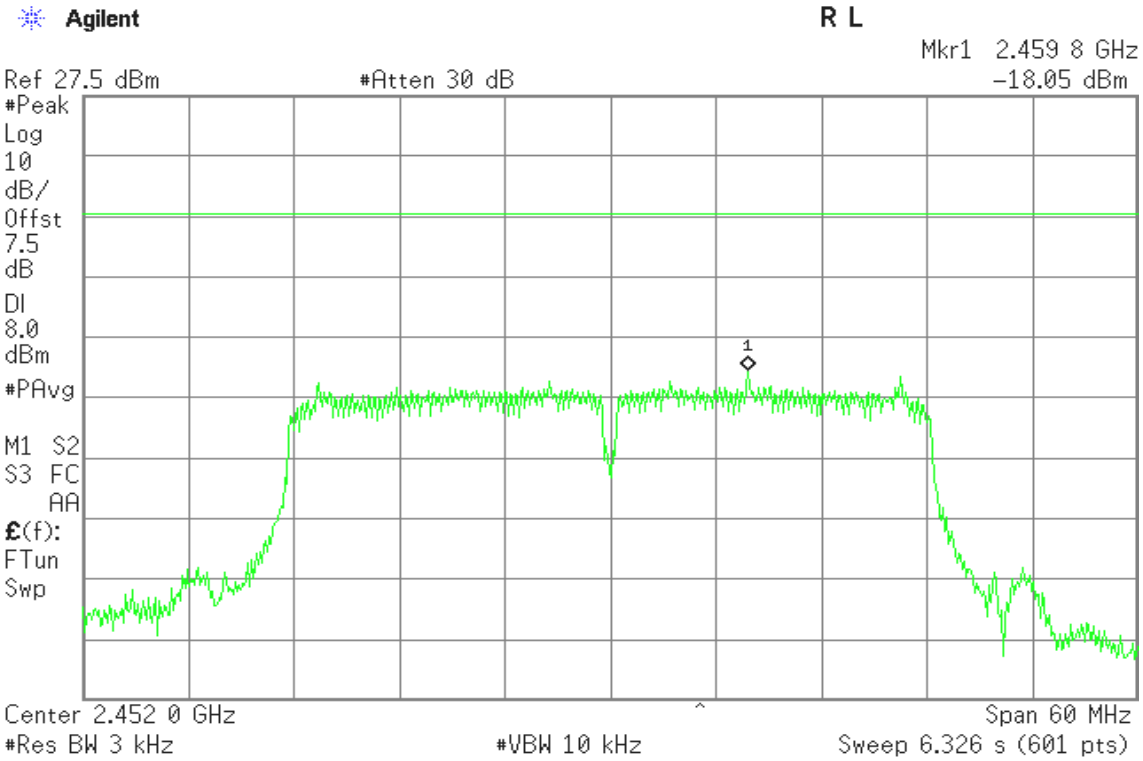
PPSD (CH Low)



PPSD (CH Mid)



PPSD (CH High)



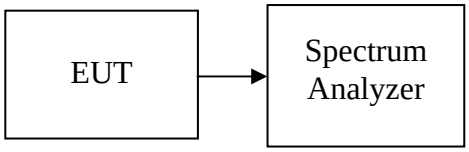
7.6 SPURIOUS EMISSIONS

7.6.1 Conducted Measurement

LIMIT

According to §15.247(d), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in 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)).

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 100 kHz.

Measurements are made over the 30MHz to 26GHz range for IEEE 802.11b/g, 30MHz to 40GHz range for IEEE 802.11a with the transmitter set to the lowest, middle, and highest channels.

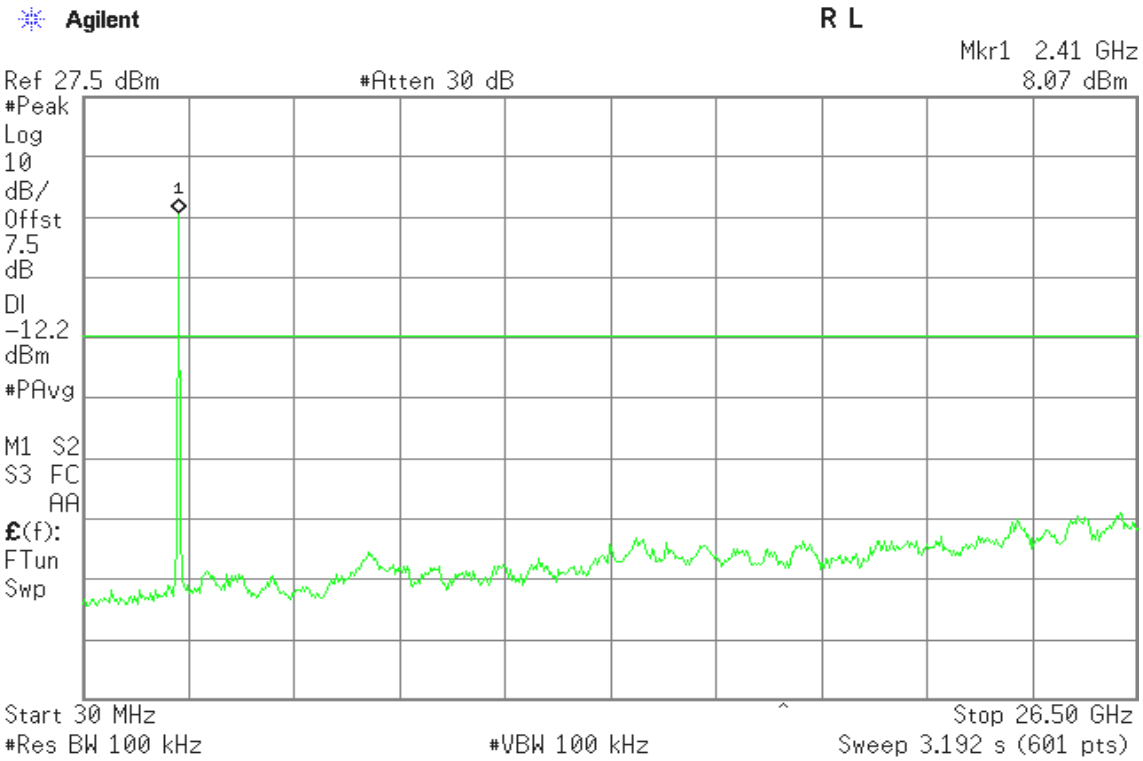
TEST RESULTS

No non-compliance noted

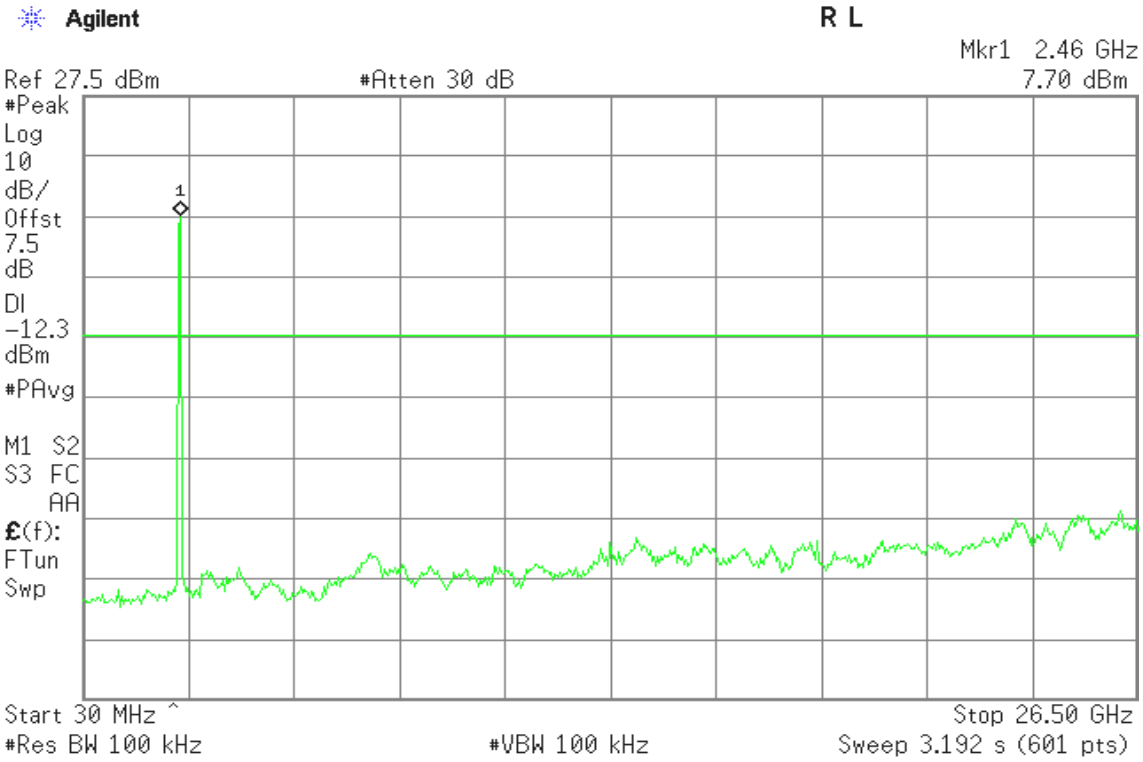
Test Plot

IEEE 802.11b mode

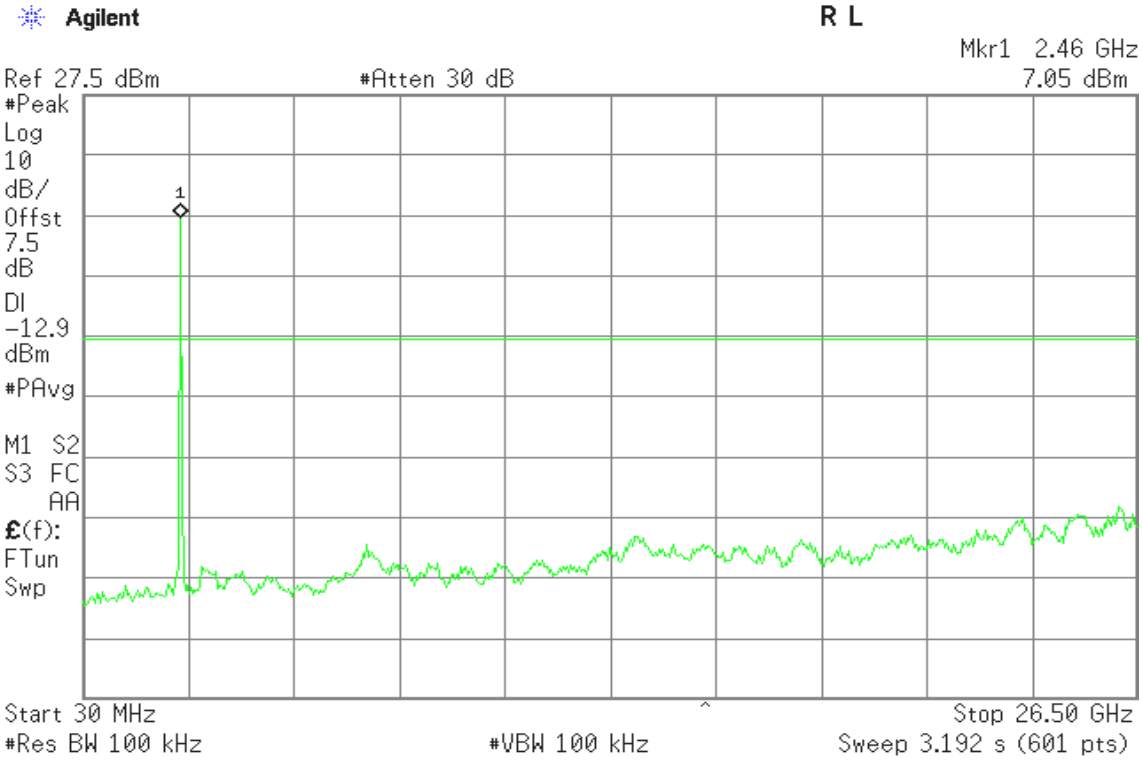
CH Low



CH Mid

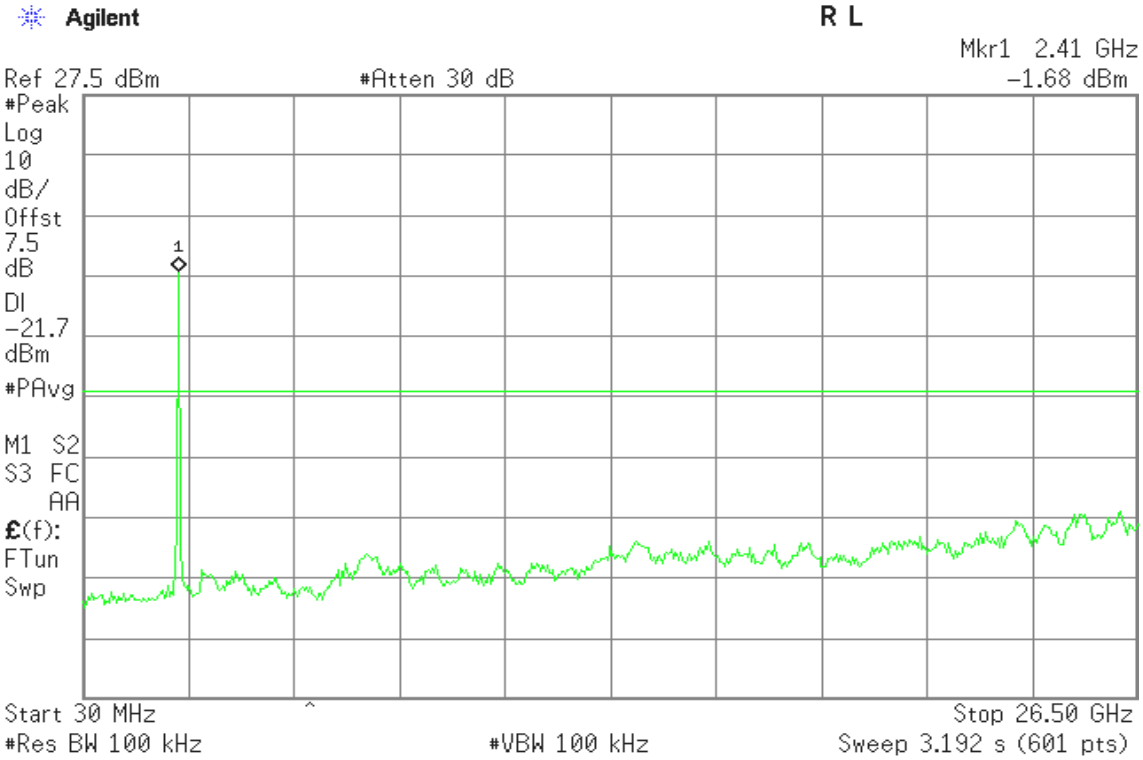


CH High

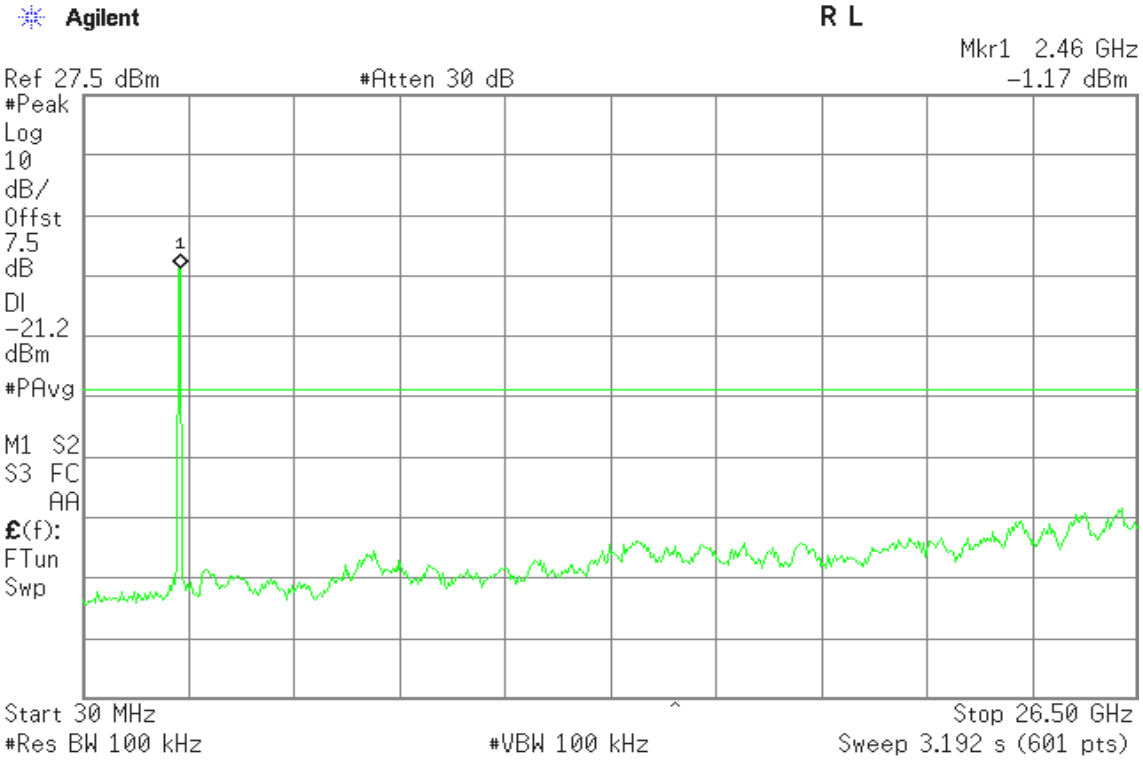


IEEE 802.11g mode

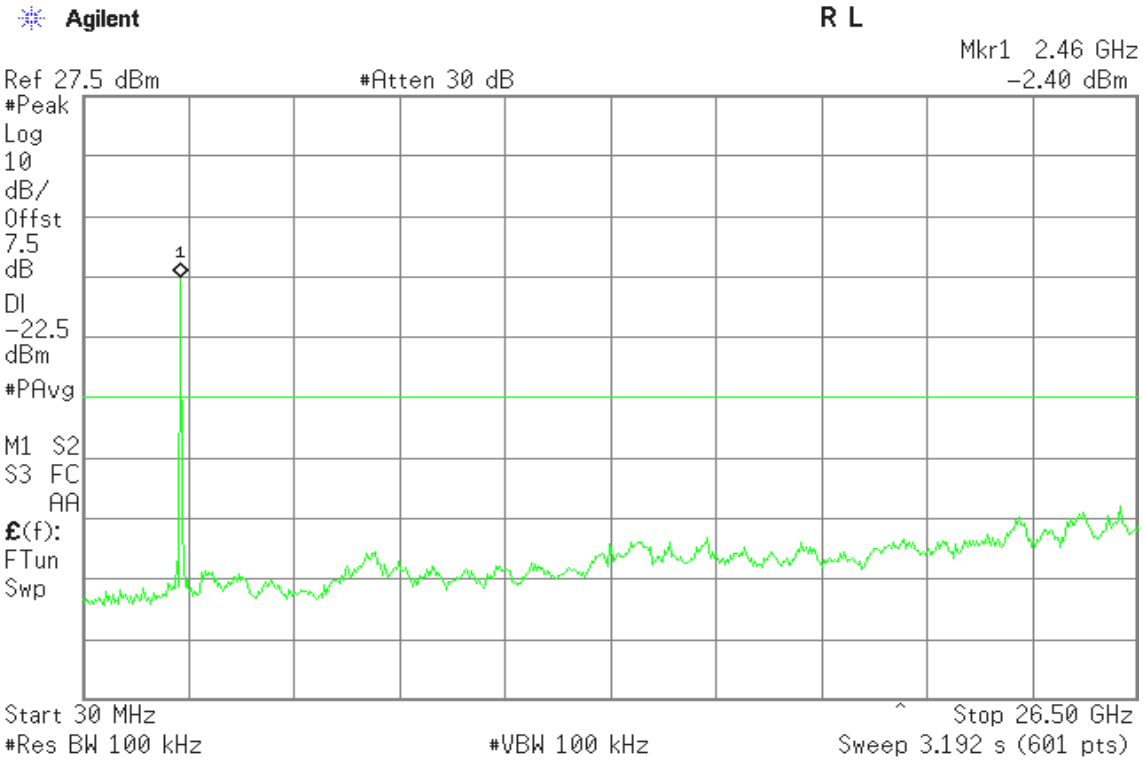
CH Low



CH Mid

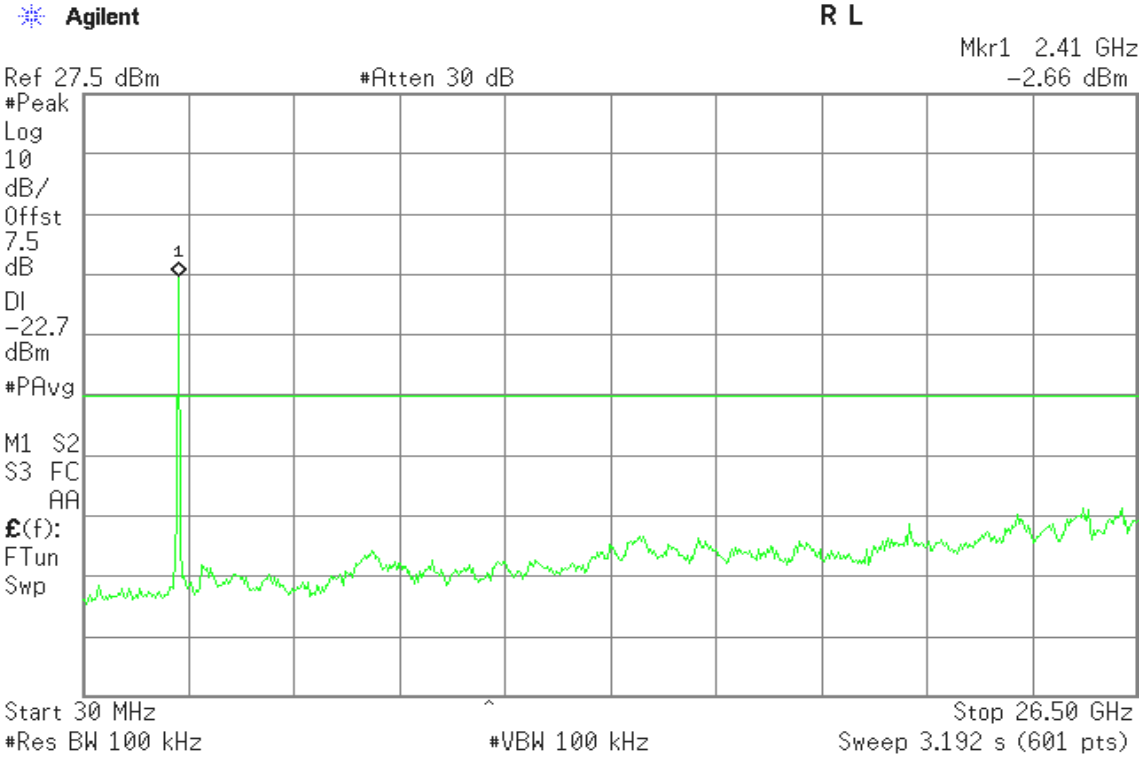


CH High

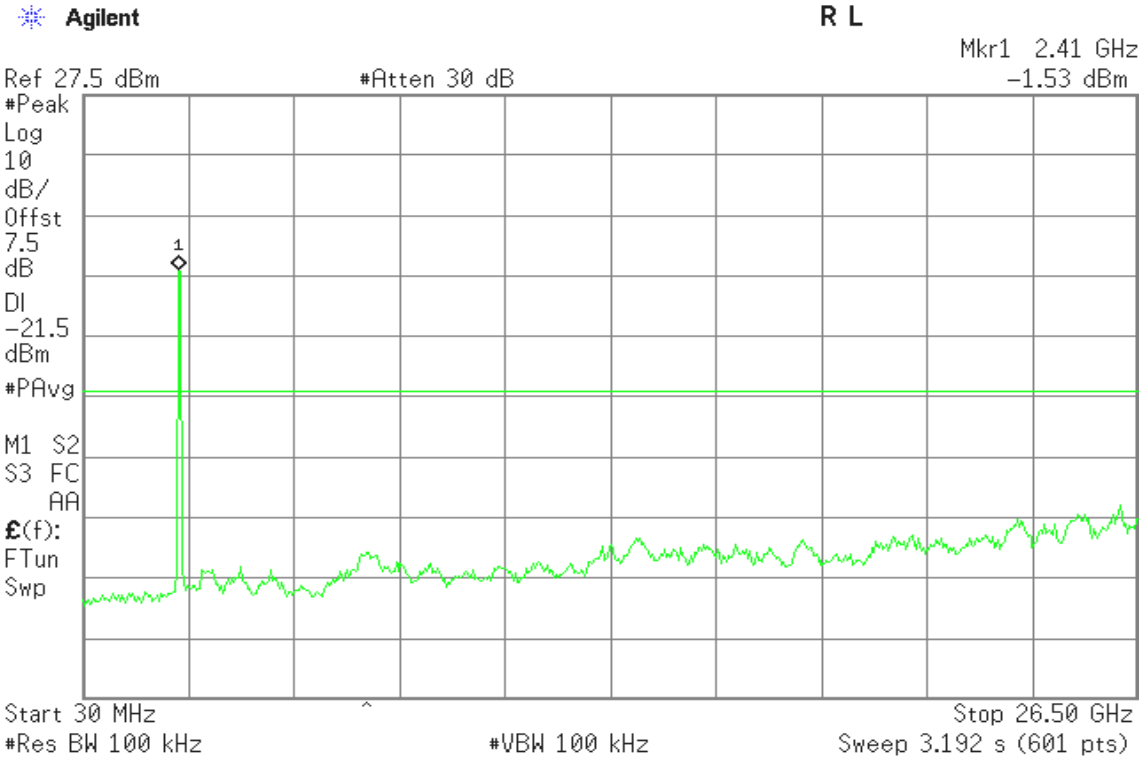


IEEE 802.11n HT20 mode

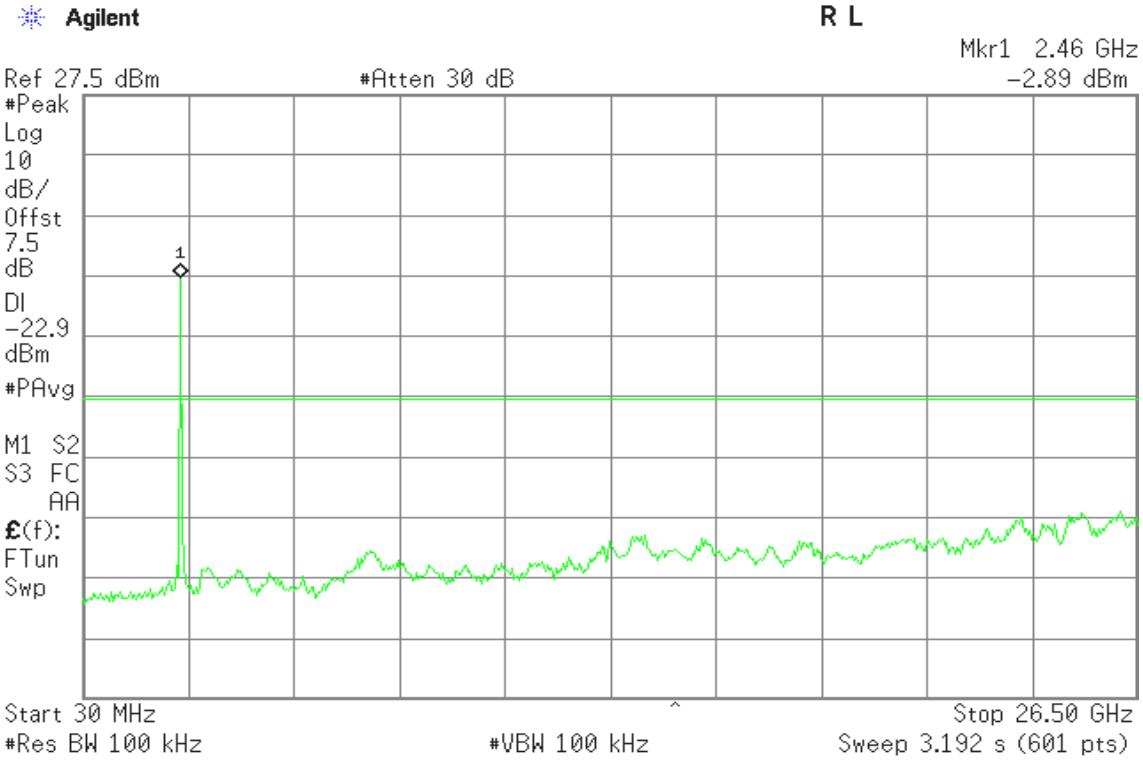
CH Low



CH Mid

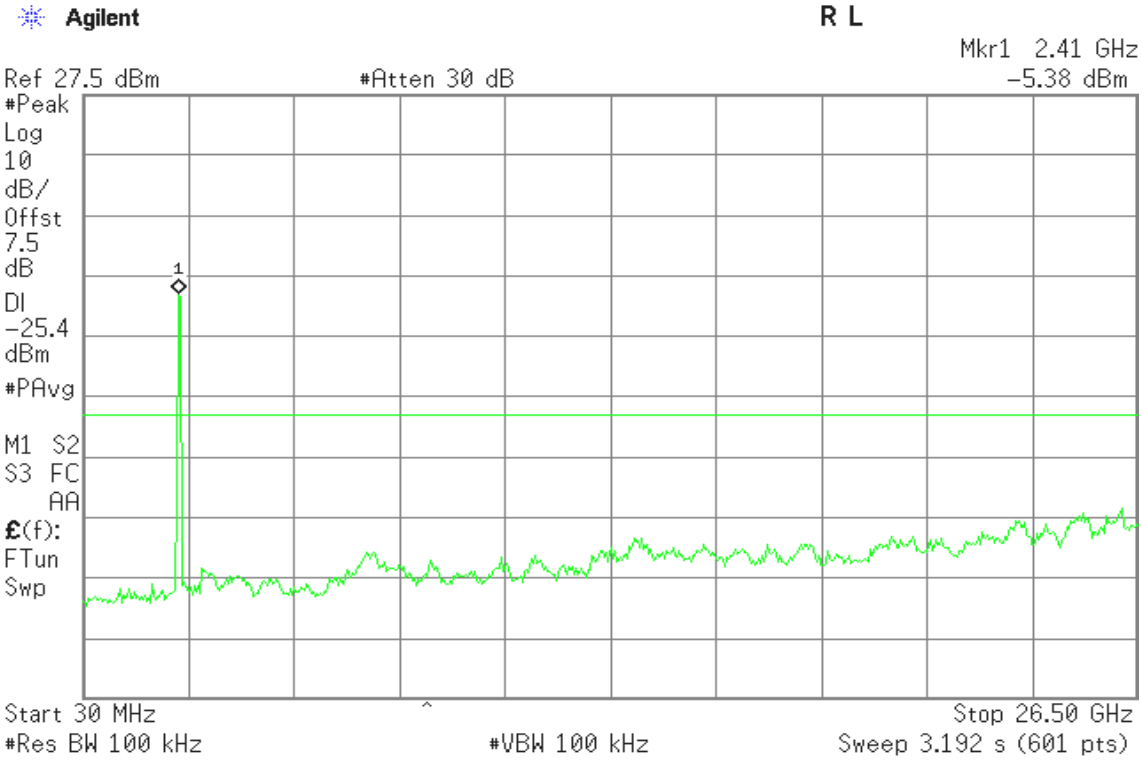


CH High

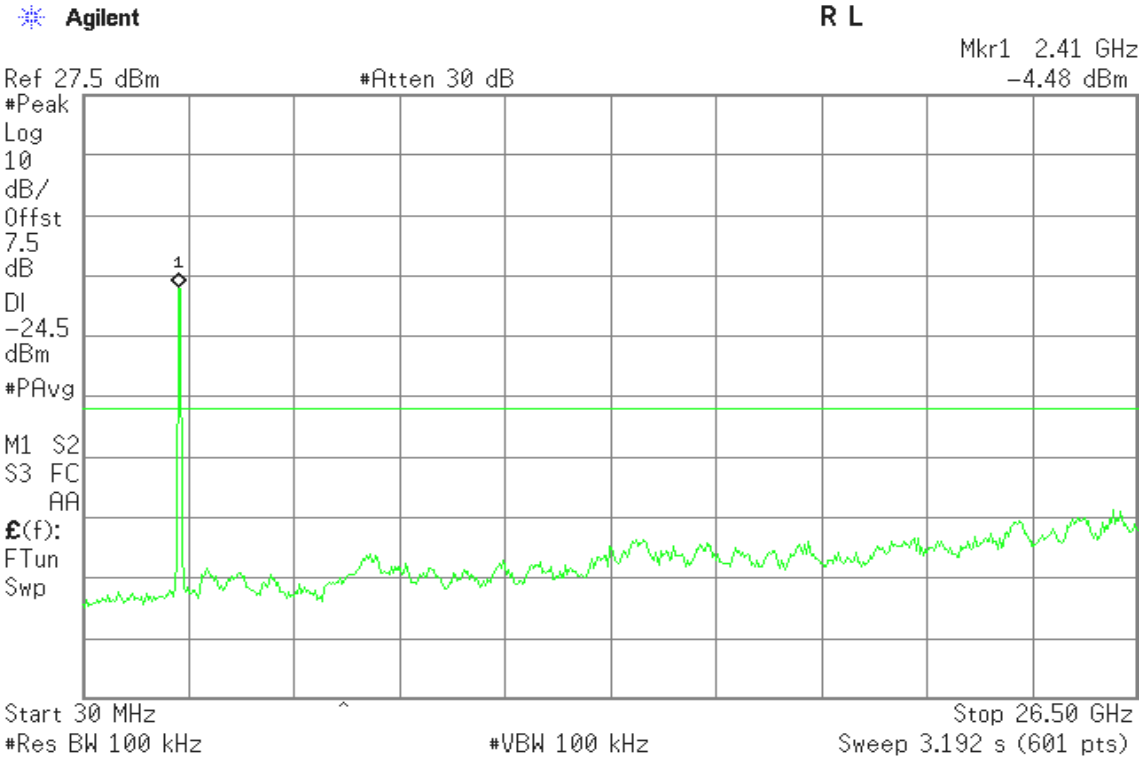


IEEE 802.11n HT40 mode

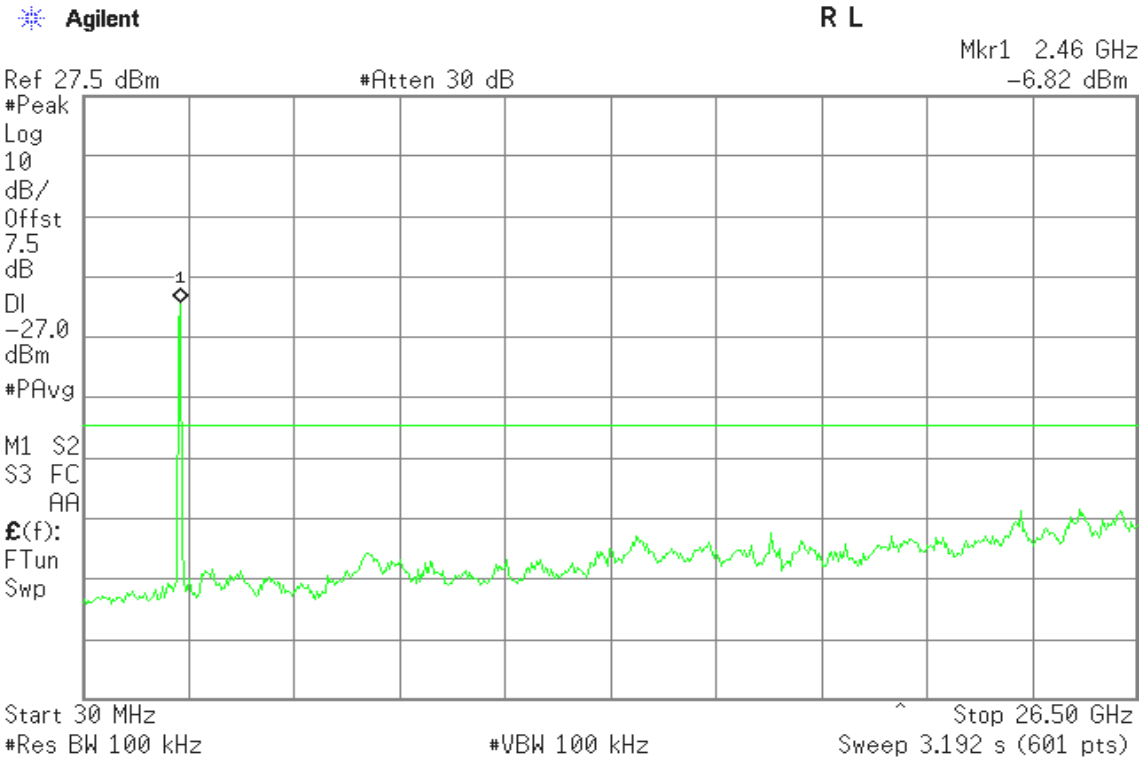
CH Low



CH Mid



CH High



7.6.2 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 (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

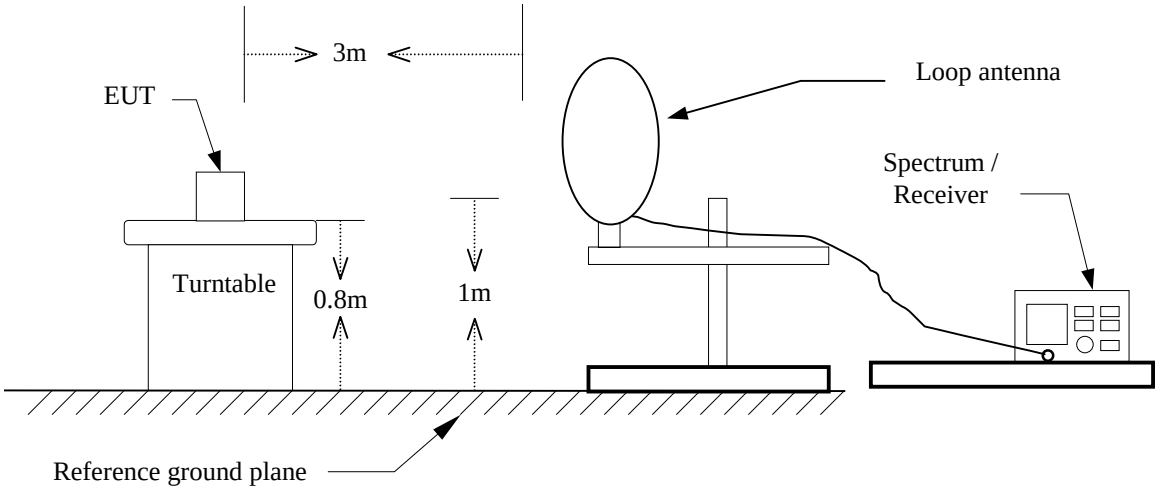
Remark: *Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of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

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

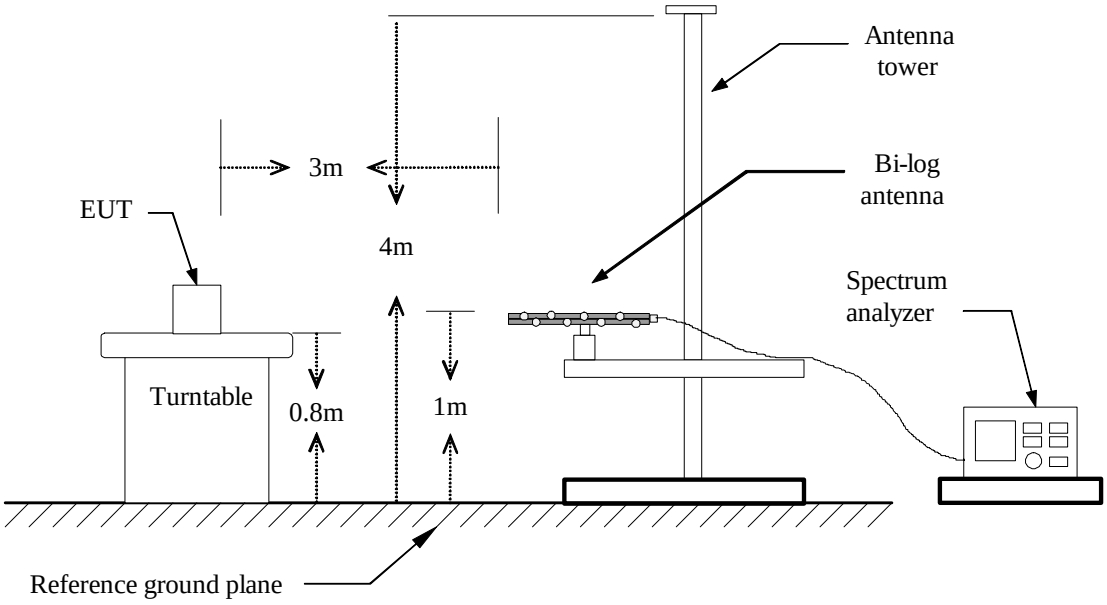
Frequency (MHz)	Field Strength (μV/m at 3-meter)	Field Strength (dBμV/m at 3-meter)
0.009 - 0.490	2400/F(kHz) +80	20LOG((2400/F(kHz))+80)
0.490 - 1.705	24000/F(kHz) +40	20LOG((24000/F(kHz))+40)
1.705 – 30.0	30	69.54
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Test Configuration

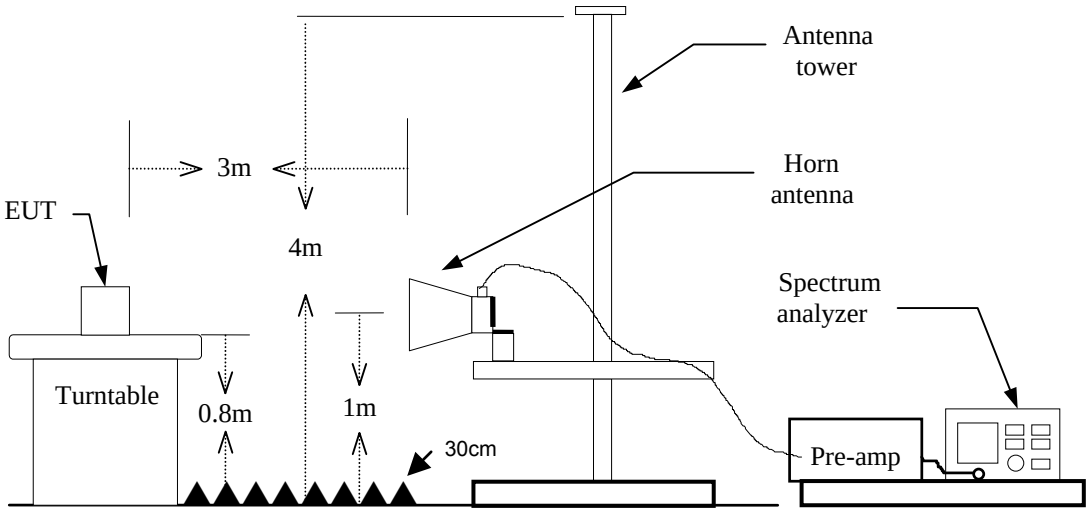
9kHz ~ 30MHz



30MHz ~ 1GHz



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 30MHz

   RBW=10kHz / VBW=30kHz / Sweep=AUTO

   30 ~ 1000MHz:

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

   Above 1GHz:

   a) PEAK: RBW=1MHz / VBW=3MHz / Sweep=AUTO
   b) AVERAGE: RBW=1MHz / VBW=300Hz / Sweep=AUTO

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

DATA SAMPLE

Below 1 GHz

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Pol. (H/V)	Remark
x.xx	43.20	-20.71	22.49	40.00	-17.51	V	QP

Frequency (MHz) = Emission frequency in MHz
Reading (dBuV) = Uncorrected Analyzer / Receiver reading
Correction Factor (dB/m) = Antenna factor – Amplifier gain + Cable loss
Result (dBuV/m) = Reading (dBuV) + Corr. Factor (dB/m)
Limit (dBuV/m) = Limit stated in standard
Margin (dB) = Result (dBuV/m) – Limit (dBuV/m)
Q.P. = Quasi-Peak

Above 1 GHz

Freq. (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Pol H/V	Remark
x.xx	45.25	6.91	52.16	74.00	-21.84	H	peak
x.xx	32.33	6.91	39.24	54.00	-14.76	H	AVG

Frequency (MHz) = Emission frequency in MHz
Reading (dBuV) = Uncorrected Analyzer / Receiver reading
Correction Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain
Result (dBuV/m) = Reading (dBuV) + Corr. Factor (dB/m)
Limit (dBuV/m) = Limit stated in standard
Margin (dB) = Result (dBuV/m) – Limit (dBuV/m)

Below 1 GHz

Operation Mode:	Data Link	**Test Date:**	2014/7/22
Temperature:	26°C	**Tested by:**	Francis Lee
Humidity:	56% RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Pol. (H/V)	Remark
30.9699	38.54	-9.38	29.16	40.00	-10.84	V	QP
47.4600	45.02	-18.19	26.83	40.00	-13.17	V	QP
108.5699	43.90	-15.94	27.96	43.50	-15.54	V	QP
344.2799	40.97	-11.29	29.68	46.00	-16.32	V	QP
480.0799	38.97	-9.55	29.42	46.00	-16.58	V	QP
600.3600	40.09	-7.91	32.18	46.00	-13.82	V	QP
199.7500	37.45	-16.57	20.88	43.50	-22.62	H	QP
250.1900	36.06	-13.46	22.60	46.00	-23.40	H	QP
324.8800	38.60	-11.74	26.86	46.00	-19.14	H	QP
600.3600	33.15	-7.91	25.24	46.00	-20.76	H	QP
768.1700	32.91	-5.93	26.98	46.00	-19.02	H	QP
839.9500	32.70	-4.69	28.01	46.00	-17.99	H	QP

Remark:

1. *No emission found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz).*
2. *Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using peak/quasi-peak detector mode.*
3. *Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit or as required by the applicant.*
4. *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.*
5. *Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).*

Above 1 GHz

Operation Mode: TX / IEEE 802.11b mode / CH Low **Test Date:** 2014/7/8~10

Temperature: 26℃ **Tested by:** Francis Lee

Humidity: 56%RH **Polarity:** Ver. / Hor.

Freq. (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Pol H/V	Remark
1620.000	53.76	-4.96	48.80	74.00	-25.20	V	peak
1990.000	53.97	-1.46	52.51	74.00	-21.49	V	peak
1990.000	39.80	-1.46	38.34	54.00	-15.66	V	AVG
2332.000	56.78	-1.59	55.19	74.00	-18.81	V	peak
2332.000	45.52	-1.59	43.93	54.00	-10.07	V	AVG
2494.000	56.06	-0.97	55.09	74.00	-18.91	V	peak
2494.000	46.25	-0.97	45.28	54.00	-8.72	V	AVG
2712.000	54.38	-1.55	52.83	74.00	-21.17	V	peak
2712.000	40.68	-1.55	39.13	54.00	-14.87	V	AVG
3810.000	41.27	3.47	44.74	74.00	-29.26	V	peak
4825.000	49.40	2.68	52.08	74.00	-21.92	V	peak
4825.000	47.79	2.68	50.47	54.00	-3.53	V	AVG
7420.000	39.25	11.35	50.60	74.00	-23.40	V	peak
1398.000	54.04	-6.95	47.09	74.00	-26.91	H	peak
2162.000	53.98	-3.64	50.34	74.00	-23.66	H	peak
2496.000	57.69	-3.91	53.78	74.00	-20.22	H	peak
2496.000	49.26	-3.91	45.35	54.00	-8.65	H	AVG
4340.000	40.43	7.36	47.79	74.00	-26.21	H	peak
4825.000	46.89	5.88	52.77	74.00	-21.23	H	peak
4825.000	43.71	5.88	49.59	54.00	-4.41	H	AVG
7370.000	39.41	11.46	50.87	74.00	-23.13	H	peak

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.*
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).*

Operation Mode: TX / IEEE 802.11b mode / CH Mid **Test Date:** 2014/7/8~10
Temperature: 26℃ **Tested by:** Francis Lee
Humidity: 56%RH **Polarity:** Ver. / Hor.

Freq. (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Pol H/V	Remark
1542.000	53.66	-5.06	48.60	74.00	-25.40	V	peak
1976.000	53.90	-1.68	52.22	74.00	-21.78	V	peak
1976.000	40.27	-1.68	38.59	54.00	-15.41	V	AVG
2358.000	55.57	-1.62	53.95	74.00	-20.05	V	peak
2358.000	45.41	-1.62	43.79	54.00	-10.21	V	AVG
2518.000	55.25	-1.15	54.10	74.00	-19.90	V	peak
2518.000	45.28	-1.15	44.13	54.00	-9.87	V	AVG
2760.000	54.49	-1.85	52.64	74.00	-21.36	V	peak
2760.000	40.63	-1.85	38.78	54.00	-15.22	V	AVG
3630.000	40.99	2.79	43.78	74.00	-30.22	V	peak
4875.000	48.38	3.81	52.19	74.00	-21.81	V	peak
4875.000	47.60	3.81	51.41	54.00	-2.59	V	AVG
7450.000	38.62	11.42	50.04	74.00	-23.96	V	peak
1394.000	53.94	-7.05	46.89	74.00	-27.11	H	peak
2156.000	53.68	-3.66	50.02	74.00	-23.98	H	peak
2516.000	57.38	-3.74	53.64	74.00	-20.36	H	peak
2516.000	48.55	-3.74	44.81	54.00	-9.19	H	AVG
4300.000	40.67	7.66	48.33	74.00	-25.67	H	peak
4875.000	44.98	6.73	51.71	74.00	-22.29	H	peak
7265.000	39.50	11.35	50.85	74.00	-23.15	H	peak

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.*
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).*

Operation Mode: TX / IEEE 802.11b mode / CH High **Test Date:** 2014/7/8~10
Temperature: 26℃ **Tested by:** Francis Lee
Humidity: 56%RH **Polarity:** Ver. / Hor.

Freq. (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Pol H/V	Remark
1560.000	53.94	-4.98	48.96	74.00	-25.04	V	peak
2000.000	53.35	-1.30	52.05	74.00	-21.95	V	peak
2000.000	36.42	-1.30	35.12	54.00	-18.88	V	AVG
2382.000	55.03	-1.65	53.38	74.00	-20.62	V	peak
2382.000	42.45	-1.65	40.80	54.00	-13.20	V	AVG
2542.000	55.37	-1.45	53.92	74.00	-20.08	V	peak
2542.000	42.45	-1.45	41.00	54.00	-13.00	V	AVG
2904.000	53.48	-0.69	52.79	74.00	-21.21	V	peak
2904.000	35.60	-0.69	34.91	54.00	-19.09	V	AVG
3795.000	41.02	3.63	44.65	74.00	-29.35	V	peak
4925.000	48.83	4.61	53.44	74.00	-20.56	V	peak
4925.000	47.06	4.61	51.67	54.00	-2.33	V	AVG
7475.000	39.44	11.48	50.92	74.00	-23.08	V	peak
1388.000	54.16	-7.21	46.95	74.00	-27.05	H	peak
2192.000	53.94	-3.58	50.36	74.00	-23.64	H	peak
2384.000	56.58	-6.35	50.23	74.00	-23.77	H	peak
2542.000	56.33	-3.62	52.71	74.00	-21.29	H	peak
2542.000	43.79	-3.62	40.17	54.00	-13.83	H	AVG
2850.000	53.88	-2.10	51.78	74.00	-22.22	H	peak
4335.000	39.91	7.40	47.31	74.00	-26.69	H	peak
4925.000	45.44	7.26	52.70	74.00	-21.30	H	peak
4925.000	43.92	7.26	51.18	54.00	-2.82	H	AVG
7350.000	39.13	11.57	50.70	74.00	-23.30	H	peak

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.*
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).*

Operation Mode: TX / IEEE 802.11g mode / CH Low **Test Date:** 2014/7/9~10
Temperature: 26℃ **Tested by:** Francis Lee
Humidity: 56%RH **Polarity:** Ver. / Hor.

Freq. (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Pol H/V	Remark
1514.000	54.35	-5.19	49.16	74.00	-24.84	V	peak
2062.000	55.31	-2.71	52.60	74.00	-21.40	V	peak
2062.000	40.51	-2.71	37.80	54.00	-16.20	V	AVG
2332.000	56.54	-1.59	54.95	74.00	-19.05	V	peak
2332.000	47.45	-1.59	45.86	54.00	-8.14	V	AVG
2492.000	56.54	-0.99	55.55	74.00	-18.45	V	peak
2492.000	45.62	-0.99	44.63	54.00	-9.37	V	AVG
2918.000	54.17	-0.77	53.40	74.00	-20.60	V	peak
2918.000	40.46	-0.77	39.69	54.00	-14.31	V	AVG
3795.000	40.20	3.63	43.83	74.00	-30.17	V	peak
6460.000	39.31	6.83	46.14	74.00	-27.86	V	peak
7860.000	39.89	11.30	51.19	74.00	-22.81	V	peak
1418.000	54.28	-7.28	47.00	74.00	-27.00	H	peak
2178.000	54.16	-3.61	50.55	74.00	-23.45	H	peak
2490.000	57.61	-4.06	53.55	74.00	-20.45	H	peak
2490.000	48.19	-4.06	44.13	54.00	-9.87	H	AVG
2806.000	55.21	-2.43	52.78	74.00	-21.22	H	peak
2806.000	40.68	-2.43	38.25	54.00	-15.75	H	AVG
3910.000	40.65	5.18	45.83	74.00	-28.17	H	peak
4715.000	40.27	7.03	47.30	74.00	-26.70	H	peak
7365.000	39.11	11.49	50.60	74.00	-23.40	H	peak

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.*
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).*

Operation Mode: TX / IEEE 802.11g mode / CH Mid **Test Date:** 2014/7/9~10
Temperature: 26℃ **Tested by:** Francis Lee
Humidity: 56%RH **Polarity:** Ver. / Hor.

Freq. (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Pol H/V	Remark
1648.000	54.49	-5.20	49.29	74.00	-24.71	V	peak
1992.000	54.06	-1.43	52.63	74.00	-21.37	V	peak
1992.000	40.33	-1.43	38.90	54.00	-15.10	V	AVG
2358.000	56.52	-1.62	54.90	74.00	-19.10	V	peak
2358.000	48.00	-1.62	46.38	54.00	-7.62	V	AVG
2876.000	54.41	-1.01	53.40	74.00	-20.60	V	peak
2876.000	40.47	-1.01	39.46	54.00	-14.54	V	AVG
3810.000	40.64	3.47	44.11	74.00	-29.89	V	peak
4875.000	42.61	3.81	46.42	74.00	-27.58	V	peak
7775.000	39.37	11.02	50.39	74.00	-23.61	V	peak
1390.000	53.62	-7.16	46.46	74.00	-27.54	H	peak
2152.000	54.11	-3.67	50.44	74.00	-23.56	H	peak
2848.000	54.33	-2.12	52.21	74.00	-21.79	H	peak
2848.000	40.44	-2.12	38.32	54.00	-15.68	H	AVG
4305.000	39.58	7.62	47.20	74.00	-26.80	H	peak
6035.000	38.69	8.78	47.47	74.00	-26.53	H	peak
7765.000	39.87	9.04	48.91	74.00	-25.09	H	peak

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.*
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).*

Operation Mode: TX / IEEE 802.11g mode / CH High **Test Date:** 2014/7/9~10
Temperature: 26℃ **Tested by:** Francis Lee
Humidity: 56%RH **Polarity:** Ver. / Hor.

Freq. (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Pol H/V	Remark
1500.000	54.21	-5.26	48.95	74.00	-25.05	V	peak
1970.000	54.22	-1.77	52.45	74.00	-21.55	V	peak
1970.000	40.19	-1.77	38.42	54.00	-15.58	V	AVG
2382.000	55.46	-1.65	53.81	74.00	-20.19	V	peak
2382.000	47.69	-1.65	46.04	54.00	-7.96	V	AVG
2542.000	55.37	-1.45	53.92	74.00	-20.08	V	peak
2542.000	44.99	-1.45	43.54	54.00	-10.46	V	AVG
2910.000	53.84	-0.72	53.12	74.00	-20.88	V	peak
2910.000	40.48	-0.72	39.76	54.00	-14.24	V	AVG
4925.000	39.92	4.61	44.53	74.00	-29.47	V	peak
6220.000	39.82	6.45	46.27	74.00	-27.73	V	peak
7435.000	39.46	11.38	50.84	74.00	-23.16	V	peak
1398.000	53.30	-6.95	46.35	74.00	-27.65	H	peak
2108.000	53.41	-3.76	49.65	74.00	-24.35	H	peak
2382.000	56.35	-6.35	50.00	74.00	-24.00	H	peak
2542.000	57.26	-3.62	53.64	74.00	-20.36	H	peak
2542.000	47.59	-3.62	43.97	54.00	-10.03	H	AVG
2784.000	54.35	-2.62	51.73	74.00	-22.27	H	peak
4350.000	40.02	7.29	47.31	74.00	-26.69	H	peak
6095.000	39.62	8.69	48.31	74.00	-25.69	H	peak
7285.000	39.03	11.62	50.65	74.00	-23.35	H	peak

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.*
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).*

Operation Mode: TX / IEEE 802.11n HT20 mode / CH Low **Test Date:** 2014/7/9~10

Temperature: 26℃ **Tested by:** Francis Lee

Humidity: 56%RH **Polarity:** Ver. / Hor.

Freq. (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Pol H/V	Remark
1746.000	55.03	-5.44	49.59	74.00	-24.41	V	peak
2008.000	53.45	-1.48	51.97	74.00	-22.03	V	peak
2332.000	55.67	-1.59	54.08	74.00	-19.92	V	peak
2332.000	46.38	-1.59	44.79	54.00	-9.21	V	AVG
2496.000	55.51	-0.96	54.55	74.00	-19.45	V	peak
2496.000	44.14	-0.96	43.18	54.00	-10.82	V	AVG
2690.000	54.51	-1.54	52.97	74.00	-21.03	V	peak
2690.000	40.84	-1.54	39.30	54.00	-14.70	V	AVG
3790.000	40.74	3.57	44.31	74.00	-29.69	V	peak
4825.000	41.47	2.68	44.15	74.00	-29.85	V	peak
7485.000	38.80	11.50	50.30	74.00	-23.70	V	peak
1422.000	53.86	-7.36	46.50	74.00	-27.50	H	peak
2128.000	54.44	-3.72	50.72	74.00	-23.28	H	peak
2496.000	57.13	-3.91	53.22	74.00	-20.78	H	peak
2496.000	45.56	-3.91	41.65	54.00	-12.35	H	AVG
2956.000	54.82	-1.13	53.69	74.00	-20.31	H	peak
2956.000	40.55	-1.13	39.42	54.00	-14.58	H	AVG
4255.000	40.15	6.90	47.05	74.00	-26.95	H	peak
5985.000	38.45	8.89	47.34	74.00	-26.66	H	peak
7375.000	39.45	11.44	50.89	74.00	-23.11	H	peak

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.*
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).*

Operation Mode: TX / IEEE 802.11n HT20 mode / CH Mid **Test Date:** 2014/7/9~10

Temperature: 26℃ **Tested by:** Francis Lee

Humidity: 56%RH **Polarity:** Ver. / Hor.

Freq. (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Pol H/V	Remark
1610.000	53.78	-4.87	48.91	74.00	-25.09	V	peak
2012.000	54.56	-1.57	52.99	74.00	-21.01	V	peak
2012.000	40.33	-1.57	38.76	54.00	-15.24	V	AVG
2358.000	55.82	-1.62	54.20	74.00	-19.80	V	peak
2358.000	47.92	-1.62	46.30	54.00	-7.70	V	AVG
2518.000	55.95	-1.15	54.80	74.00	-19.20	V	peak
2518.000	43.64	-1.15	42.49	54.00	-11.51	V	AVG
2680.000	54.85	-1.61	53.24	74.00	-20.76	V	peak
2680.000	40.88	-1.61	39.27	54.00	-14.73	V	AVG
3740.000	40.80	2.96	43.76	74.00	-30.24	V	peak
4870.000	39.90	3.70	43.60	74.00	-30.40	V	peak
7520.000	38.54	11.61	50.15	74.00	-23.85	V	peak
1398.000	53.81	-6.95	46.86	74.00	-27.14	H	peak
2176.000	54.53	-3.61	50.92	74.00	-23.08	H	peak
2358.000	56.47	-6.35	50.12	74.00	-23.88	H	peak
2518.000	57.14	-3.73	53.41	74.00	-20.59	H	peak
2518.000	46.51	-3.73	42.78	54.00	-11.22	H	AVG
2972.000	54.46	-0.96	53.50	74.00	-20.50	H	peak
2972.000	40.70	-0.96	39.74	54.00	-14.26	H	AVG
4305.000	39.59	7.62	47.21	74.00	-26.79	H	peak
5565.000	37.78	9.08	46.86	74.00	-27.14	H	peak
7320.000	38.67	11.72	50.39	74.00	-23.61	H	peak

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.*
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).*

Operation Mode:	TX / IEEE 802.11n HT20 mode / CH High	**Test Date:**	2014/7/9~10
Temperature:	26℃	**Tested by:**	Francis Lee
Humidity:	56%RH	**Polarity:**	Ver. / Hor.

Freq. (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Pol H/V	Remark
1454.000	55.09	-5.89	49.20	74.00	-24.80	V	peak
2004.000	53.86	-1.39	52.47	74.00	-21.53	V	peak
2004.000	40.32	-1.39	38.93	54.00	-15.07	V	AVG
2382.000	54.86	-1.65	53.21	74.00	-20.79	V	peak
2382.000	42.86	-1.65	41.21	54.00	-12.79	V	AVG
2546.000	56.09	-1.50	54.59	74.00	-19.41	V	peak
2546.000	42.42	-1.50	40.92	54.00	-13.08	V	AVG
2670.000	54.54	-1.68	52.86	74.00	-21.14	V	peak
2670.000	40.95	-1.68	39.27	54.00	-14.73	V	AVG
3755.000	40.51	3.14	43.65	74.00	-30.35	V	peak
4900.000	39.09	4.37	43.46	74.00	-30.54	V	peak
6565.000	40.58	6.91	47.49	74.00	-26.51	V	peak
1422.000	54.13	-7.36	46.77	74.00	-27.23	H	peak
2190.000	54.63	-3.58	51.05	74.00	-22.95	H	peak
2382.000	56.69	-6.35	50.34	74.00	-23.66	H	peak
2536.000	56.50	-3.65	52.85	74.00	-21.15	H	peak
2536.000	44.35	-3.65	40.70	54.00	-13.30	H	AVG
2988.000	54.21	-0.79	53.42	74.00	-20.58	H	peak
2988.000	40.75	-0.79	39.96	54.00	-14.04	H	AVG
4300.000	39.56	7.66	47.22	74.00	-26.78	H	peak
5940.000	40.05	9.06	49.11	74.00	-24.89	H	peak
7380.000	39.21	11.41	50.62	74.00	-23.38	H	peak

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.*
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).*

Operation Mode: TX / IEEE 802.11n HT40 mode / CH Low **Test Date:** 2014/7/9~10

Temperature: 26℃ **Tested by:** Francis Lee

Humidity: 56%RH **Polarity:** Ver. / Hor.

Freq. (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Pol H/V	Remark
1568.000	54.51	-4.94	49.57	74.00	-24.43	V	peak
1964.000	54.26	-1.87	52.39	74.00	-21.61	V	peak
1964.000	40.22	-1.87	38.35	54.00	-15.65	V	AVG
2198.000	54.51	-1.37	53.14	74.00	-20.86	V	peak
2198.000	40.53	-1.37	39.16	54.00	-14.84	V	AVG
2722.000	54.89	-1.61	53.28	74.00	-20.72	V	peak
2722.000	40.76	-1.61	39.15	54.00	-14.85	V	AVG
3765.000	40.79	3.26	44.05	74.00	-29.95	V	peak
5585.000	37.83	5.96	43.79	74.00	-30.21	V	peak
7555.000	39.55	11.74	51.29	74.00	-22.71	V	peak
1394.000	54.01	-7.05	46.96	74.00	-27.04	H	peak
2134.000	53.72	-3.71	50.01	74.00	-23.99	H	peak
2524.000	55.35	-3.70	51.65	74.00	-22.35	H	peak
4260.000	41.11	6.99	48.10	74.00	-25.90	H	peak
5925.000	38.45	9.12	47.57	74.00	-26.43	H	peak
7350.000	38.92	11.57	50.49	74.00	-23.51	H	peak

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.*
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).*

Operation Mode: TX / IEEE 802.11n HT40 mode / CH Mid **Test Date:** 2014/7/9~10

Temperature: 26℃ **Tested by:** Francis Lee

Humidity: 56%RH **Polarity:** Ver. / Hor.

Freq. (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Pol H/V	Remark
1550.000	53.84	-5.02	48.82	74.00	-25.18	V	peak
2000.000	53.41	-1.30	52.11	74.00	-21.89	V	peak
2000.000	40.35	-1.30	39.05	54.00	-14.95	V	AVG
2212.000	53.84	-1.36	52.48	74.00	-21.52	V	peak
2212.000	40.73	-1.36	39.37	54.00	-14.63	V	AVG
2652.000	55.19	-1.81	53.38	74.00	-20.62	V	peak
2652.000	40.95	-1.81	39.14	54.00	-14.86	V	AVG
2918.000	54.76	-0.77	53.99	74.00	-20.01	V	peak
2918.000	40.47	-0.77	39.70	54.00	-14.30	V	AVG
3805.000	41.10	3.58	44.68	74.00	-29.32	V	peak
4980.000	38.07	5.13	43.20	74.00	-30.80	V	peak
7515.000	38.57	11.60	50.17	74.00	-23.83	V	peak
1466.000	55.14	-8.29	46.85	74.00	-27.15	H	peak
2144.000	53.52	-3.68	49.84	74.00	-24.16	H	peak
2608.000	54.67	-3.36	51.31	74.00	-22.69	H	peak
2852.000	54.36	-2.09	52.27	74.00	-21.73	H	peak
2852.000	40.54	-2.09	38.45	54.00	-15.55	H	AVG
4305.000	39.66	7.62	47.28	74.00	-26.72	H	peak
5635.000	38.49	8.81	47.30	74.00	-26.70	H	peak
7265.000	39.66	11.35	51.01	74.00	-22.99	H	peak

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.*
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).*

Operation Mode: TX / IEEE 802.11n HT40 mode / CH High **Test Date:** 2014/7/9~10

Temperature: 26℃ **Tested by:** Francis Lee

Humidity: 56%RH **Polarity:** Ver. / Hor.

Freq. (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Pol H/V	Remark
1502.000	54.18	-5.25	48.93	74.00	-25.07	V	peak
2026.000	54.99	-1.89	53.10	74.00	-20.90	V	peak
2026.000	40.37	-1.89	38.48	54.00	-15.52	V	AVG
2262.000	53.90	-1.47	52.43	74.00	-21.57	V	peak
2262.000	40.77	-1.47	39.30	54.00	-14.70	V	AVG
2890.000	53.98	-0.80	53.18	74.00	-20.82	V	peak
2890.000	40.66	-0.80	39.86	54.00	-14.14	V	AVG
3760.000	41.03	3.20	44.23	74.00	-29.77	V	peak
5210.000	37.79	5.51	43.30	74.00	-30.70	V	peak
7335.000	39.12	10.77	49.89	74.00	-24.11	V	peak
1400.000	53.62	-6.90	46.72	74.00	-27.28	H	peak
2194.000	54.12	-3.57	50.55	74.00	-23.45	H	peak
2816.000	53.97	-2.36	51.61	74.00	-22.39	H	peak
4340.000	39.97	7.36	47.33	74.00	-26.67	H	peak
6040.000	39.95	8.77	48.72	74.00	-25.28	H	peak
7395.000	39.24	11.34	50.58	74.00	-23.42	H	peak

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.*
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 μH/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 (dBμV)	
	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

Operation Mode:	Data Link	**Test Date:**	2014/7/21
Temperature:	25℃	**Tested by:**	Tony Tsai
Humidity:	57% RH		

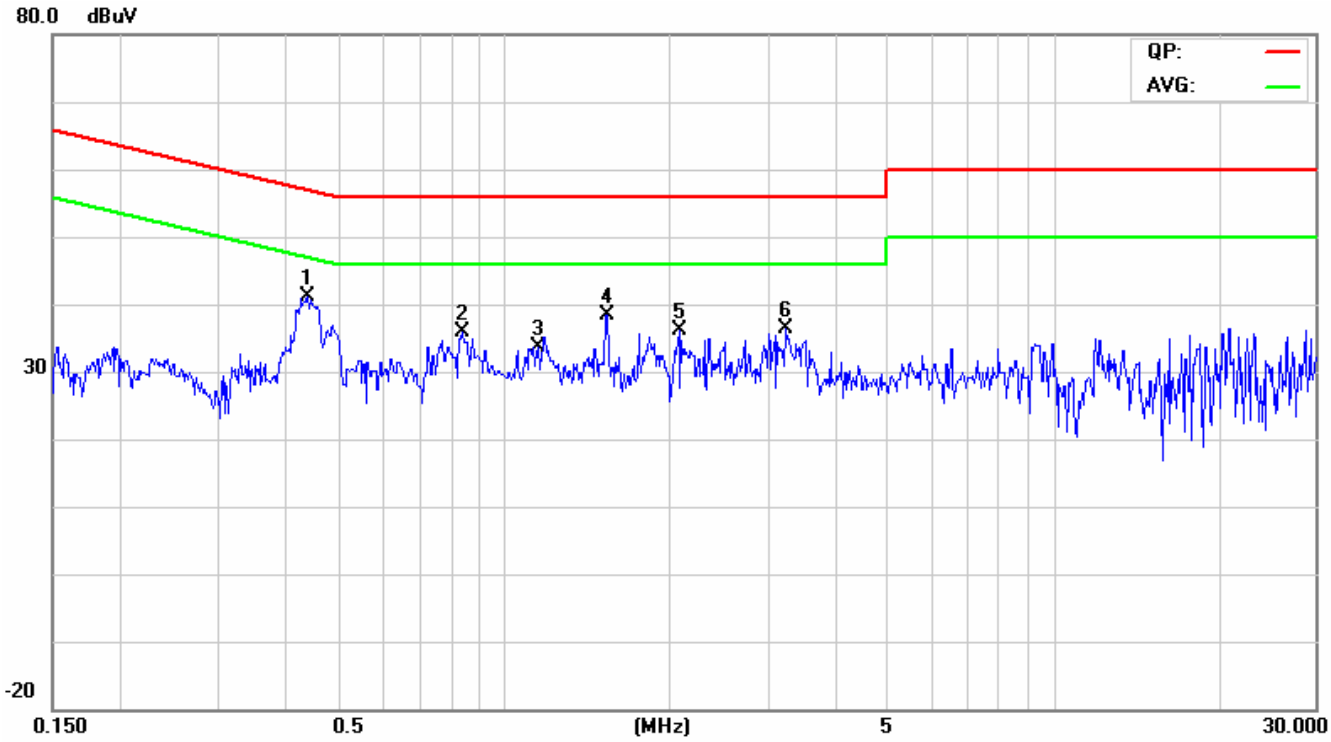
Freq. (MHz)	QP Reading	AV Reading	Corr. factor	QP Result	AV Result	QP Limit	AV Limit	QP Margin	AV Margin	Note
0.4374	26.96	17.55	9.89	36.85	27.44	57.11	47.11	-20.26	-19.67	L1
0.8355	21.28	9.23	9.92	31.20	19.15	56.00	46.00	-24.80	-26.85	L1
1.1466	19.99	9.39	9.94	29.93	19.33	56.00	46.00	-26.07	-26.67	L1
1.5308	22.91	11.90	9.98	32.89	21.88	56.00	46.00	-23.11	-24.12	L1
2.1009	20.01	9.30	10.03	30.04	19.33	56.00	46.00	-25.96	-26.67	L1
3.2285	17.69	8.93	10.12	27.81	19.05	56.00	46.00	-28.19	-26.95	L1
0.4266	28.28	14.68	9.81	38.09	24.49	57.32	47.32	-19.23	-22.83	L2
0.4899	24.34	11.06	9.83	34.17	20.89	56.17	46.17	-22.00	-25.28	L2
0.8710	21.73	7.64	9.86	31.59	17.50	56.00	46.00	-24.41	-28.50	L2
1.1807	21.21	7.18	9.89	31.10	17.07	56.00	46.00	-24.90	-28.93	L2
2.1361	21.42	8.23	9.98	31.40	18.21	56.00	46.00	-24.60	-27.79	L2
3.1715	20.20	7.21	10.09	30.29	17.30	56.00	46.00	-25.71	-28.70	L2

Remark:

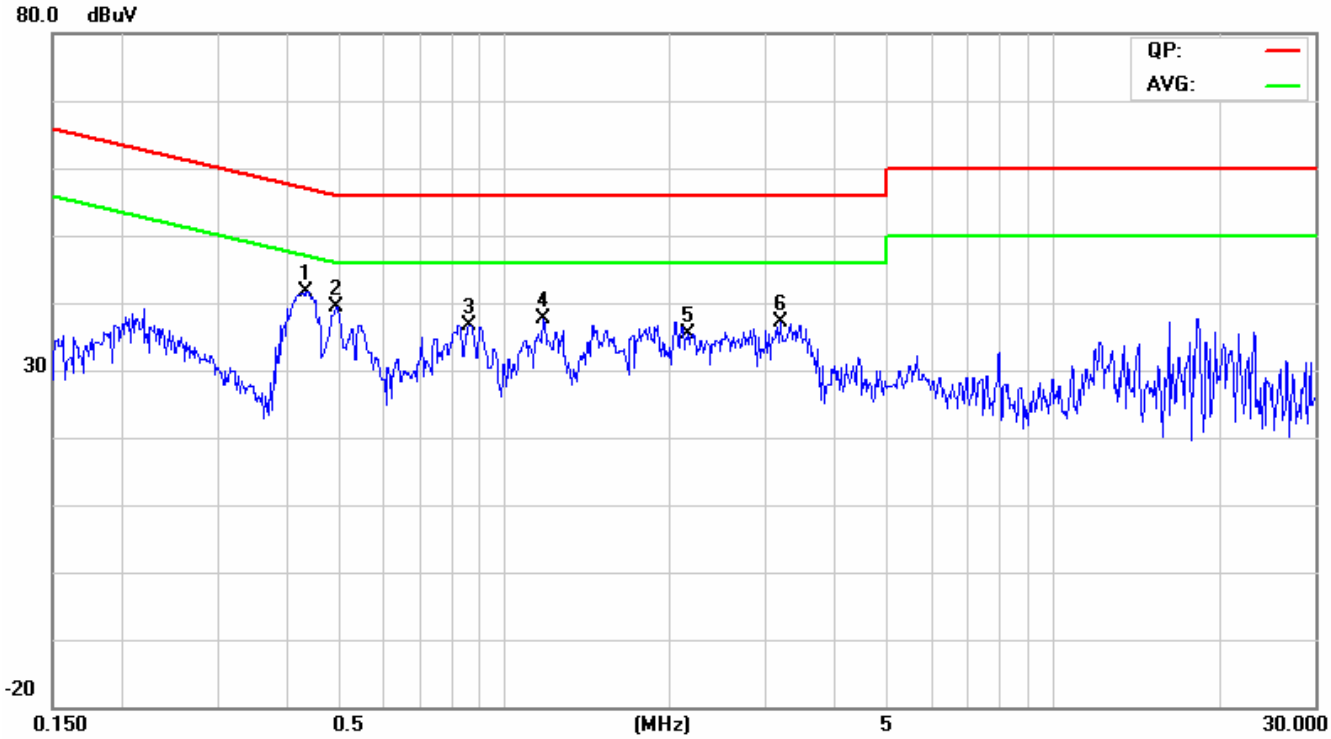
1. *Measuring frequencies from 0.15 MHz to 30MHz.*
2. *The emissions measured in frequency range from 0.15 MHz to 30MHz were made with an instrument using Quasi-peak detector and average detector.*
3. *The IF bandwidth of SPA between 0.15MHz to 30MHz was 10kHz; the IF bandwidth of Test Receiver between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

Test Plots

Conducted emissions (Line 1)

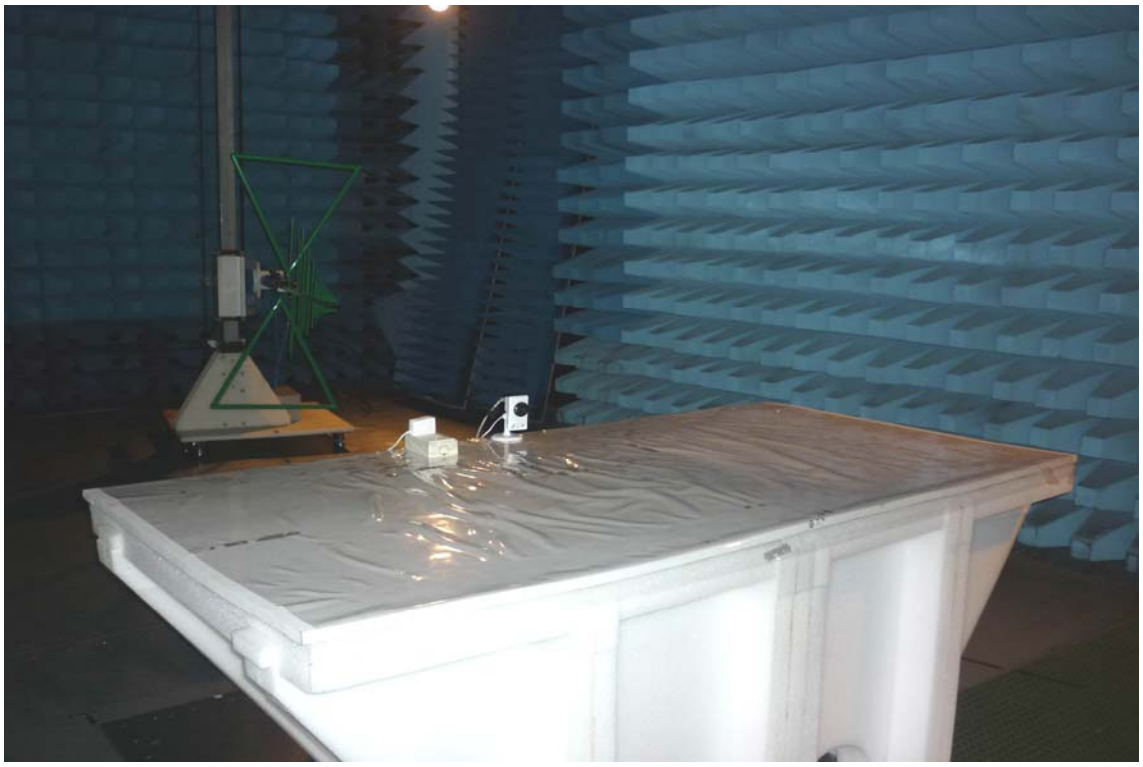


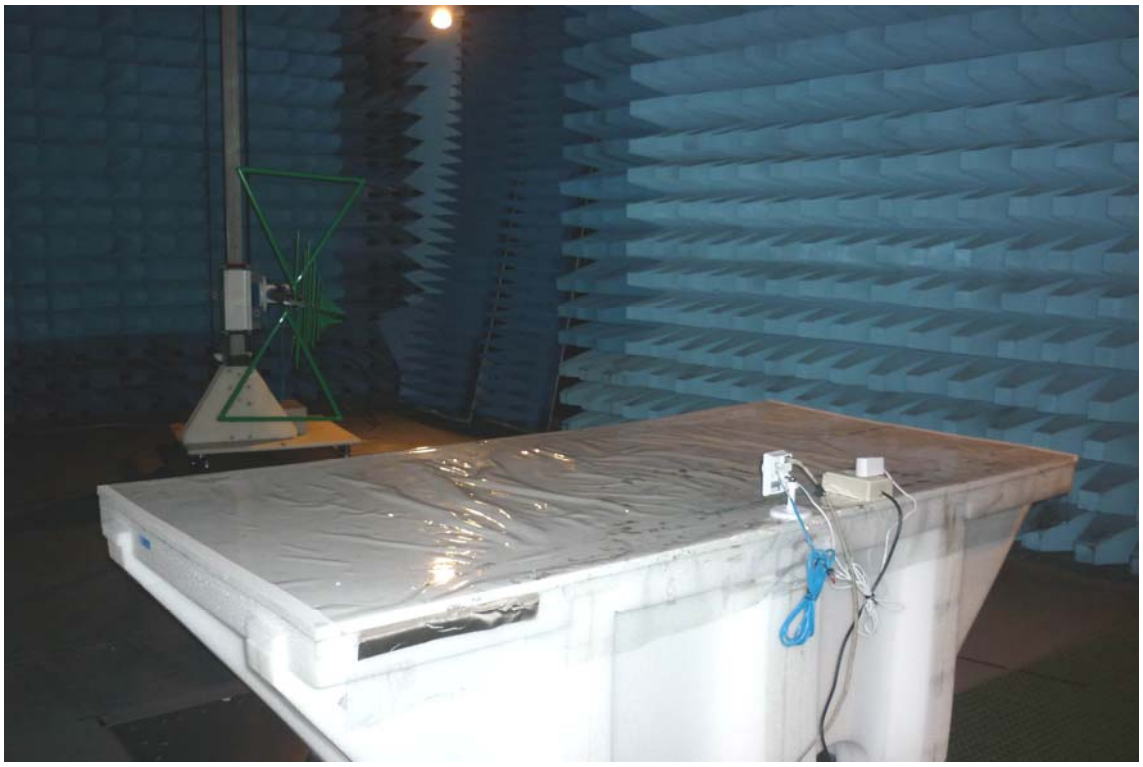
Conducted emissions (Line 2)



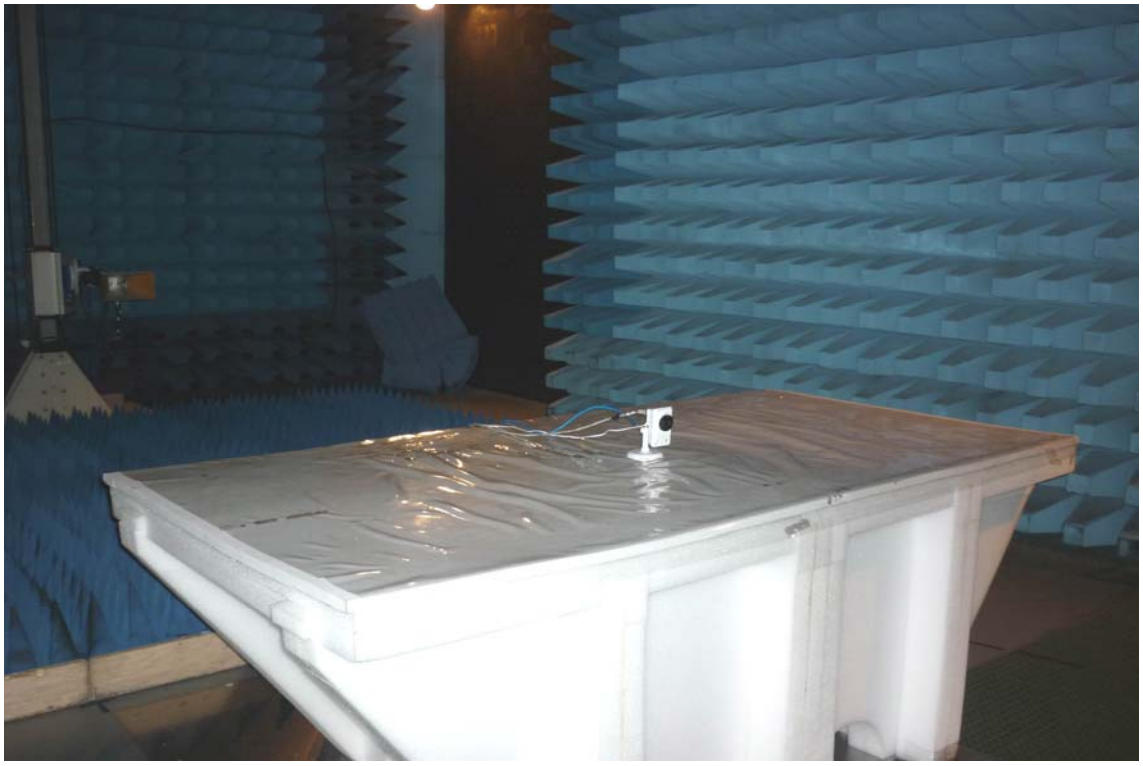
8 APPENDIX I PHOTOGRAPHS OF TEST SETUP

Radiated Emissions Setup Photos Below 1GHz





Above 1GHz



Conducted Emissions Setup Photo

Powerline Conducted Emissions Setup Photos

9 APPENDIX II: PHOTOGRAPHS OF EUT

Refer to T140708J02 Photographs.