FCC 47 CFR PART 15 SUBPART C

TEST REPORT

For

Body Camera

Model: DrivePro Body 20

Trade Name: Transcend

Issued to

Transcend Information Inc.
No.70, Xing Zhong Rd., NeiHu Dist., Taipei, Taiwan

Issued by

Compliance Certification Services Inc.
No.11, Wugong 6th Rd., Wugu Dist.,
New Taipei City 24891, Taiwan. (R.O.C.)
http://www.ccsrf.com
service@ccsrf.com
Issued Date: April 22, 2016

Testing Laboratory
1309

Revision History

Rev.		Issue Date		Revisions	Effect Page	Revised By
00		April 22, 2016		Initial Issue	ALL	Doris Chu

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1. TEST RESULT CERTIFICATION

Applicant: Transcend Information Inc.
No.70, Xing Zhong Rd., NeiHu Dist., Taipei, Taiwan

Equipment Under Test: Body Camera

Model Number: DrivePro Body 20

Trade Name: Transcend

Date of Test: April 18 ~ 22, 2016

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 C63.10: 2013 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:

Miller Lee
Manager
Compliance Certification Services Inc.

Reviewed by:

Angel Cheng
Section Manager
Compliance Certification Services Inc.

2. EUT DESCRIPTION

<table>
<tr><td>Product</td><td>Body Camera</td></tr>
<tr><td>Model Number</td><td>DrivePro Body 20</td></tr>
<tr><td>Trade Name</td><td>Transcend</td></tr>
<tr><td>Model Discrepancy</td><td>N/A</td></tr>
<tr><td>Received Date</td><td>March 29, 2016</td></tr>
<tr><td>Power Adapter</td><td>1. VDC from Power Adapter
Model: WB-10G05R
I/P: 100V-240VAC~, 50-60Hz, 0.4A Max.
O/P: 5VDC, 2A
2. Powered from Battery
Model: TS01
Rating: 3.7V, 1530mAh, 5.66Wh</td></tr>
<tr><td>Frequency Range</td><td>IEEE 802.11b/g/ IEEE 802.11n HT 20 MHz Mode: 2412 ~ 2462 MHz
IEEE 802.11n HT 40 MHz Mode: 2422~ 2452 MHz</td></tr>
<tr><td>Transmit Power</td><td>
<table>
<tr><th>Mode</th><th>Frequency Range</th><th>Output Power (dBm)</th><th>Output Power (W)</th></tr>
<tr><td>IEEE 802.11b</td><td>2412 - 2462</td><td>14.88</td><td>0.0308</td></tr>
<tr><td>IEEE 802.11g</td><td>2412 - 2462</td><td>24.96</td><td>0.3133</td></tr>
<tr><td>IEEE 802.11n HT 20 MHz</td><td>2412 - 2462</td><td>24.22</td><td>0.2642</td></tr>
<tr><td>IEEE 802.11n HT 40 MHz</td><td>2422 - 2452</td><td>24.05</td><td>0.2541</td></tr>
</table>
</td></tr>
<tr><td>Number of Channels</td><td>IEEE 802.11b/g mode: 11 Channels
IEEE 802.11n HT 20 MHz mode: 11 Channels
IEEE 802.11n HT 40 MHz mode: 7 Channels</td></tr>
<tr><td>Antenna Specification</td><td>PSA / RFECA3216060A1T
Multilayer Ceramic Antenna / 3.32 dBi</td></tr>
</table>

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: **A4Z-DPB20** filing to comply with FCC Part 15C, Section 15.207, 15.209.*

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10: 2013 and FCC CFR 47 Part 15.207, 15.209, 15.247, KDB 558074 D01 DTS Meas Guidance v03r04.

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

According to the requirements in ANSI C63.10: 2013 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 1.5 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 ANSI C63.10: 2013.

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: DrivePro Body 20) had been tested under operating condition.

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

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 below 30MHz, which worst case was in normal link mode and receiving radiated spurious emission above 1GHz, which worst case was in CH Mid mode only.

IEEE 802.11b mode:

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

IEEE 802.11g mode:

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

IEEE 802.11n HT 20 MHz mode:
Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 6.5Mbps data rate were chosen for full testing.

IEEE 802.11n HT 40 MHz mode:
Channel Low (2422MHz), Channel Mid (2437MHz) and Channel High (2452MHz) with 13.5Mbps data rate were chosen for full testing.

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

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

Remark: *Each piece of equipment is scheduled for calibration once a year and Loop Antenna is scheduled for calibration once three years.*

Conducted Emissions Test Site					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
DC Power Supplies	GW Instek	SPS-3610	GPE880163	01/19/2016	01/18/2017
Power Meter	Anritsu	ML2495A	1012009	07/08/2015	07/07/2016
Power Sensor	Anritsu	MA2411B	917072	07/08/2015	07/07/2016
Signal Analyzer	R&S	FSV 40	101073	07/20/2015	07/19/2016
Spectrum Analyzer	Agilent	E4446A	US42510268	02/15/2016	02/14/2017
Thermostatic/Hrgrosatic Chamber	TAICHY	MHG-150LF	930619	10/08/2015	10/07/2016
Vector Signal Generator	R&S	SMU 200A	102239	03/10/2016	03/09/2017
AC Power Source	EXTECH	6205	1140845	N.C.R	N.C.R

Wugu 966 Chamber A					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
Bilog Antenna	Sunol Sciences	JB3	A030105	08/06/2015	08/05/2016
EMI Test Receiver	R&S	ESCI	100064	06/04/2015	06/03/2016
Horn Antenna	EMCO	3117	55165	02/24/2016	02/23/2017
Horn Antenna	EMCO	3116	26370	01/15/2016	01/14/2017
K Type Cable	Huber+Suhner	SUCOFLEX 102	29406/2	01/12/2016	01/11/2017
K Type Cable	Huber+Suhner	SUCOFLEX 102	22470/2	01/12/2016	01/11/2017
Pre-Amplifier	MITEQ	AMF-6F-260400-40-8P	985646	01/14/2016	01/13/2017
Pre-Amplifier	EMCI	EMC 012635	980151	06/05/2015	06/04/2016
Pre-Amplifier	EMCI	EM330	N/A	06/05/2015	06/04/2016
Spectrum Analyzer	Agilent	E4446A	US42510252	12/08/2015	12/07/2016
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Software	EZ-EMC (CCS-3A1RE)				

Conducted Emission Room # B					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
EMI Test Receiver	R&S	ESCI	101073	09/09/2015	09/08/2016
LISN	SCHWARZBECK	NSLK 8127	8127-541	11/23/2015	11/22/2016
LISN	R&S	ENV216	101054	05/07/2015	05/06/2016
Capacitive Voltage Probe	FCC	F-CVP-1	100185	03/09/2016	03/08/2017
Test S/W	CCS-3A1-CE				

4.3 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
Powerline Conducted Emission	+/- 1.2575
3M Semi Anechoic Chamber / 30M~200M	+/- 4.0138
3M Semi Anechoic Chamber / 200M~1000M	+/- 3.9483
3M Semi Anechoic Chamber / 1G~8G	+/- 2.5975
3M Semi Anechoic Chamber / 8G~18G	+/- 2.6112
3M Semi Anechoic Chamber / 18G~26G	+/- 2.7389
3M Semi Anechoic Chamber / 26G~40G	+/- 2.9683

***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.199, Chunghsen Road, Hsintien City, Taipei Hsien, Taiwan, R.O.C.
Tel: 886-2-2217-0894 / Fax: 886-2-2217-1029

☒ No.11, Wugong 6th Rd., Wugu Dist., 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, R.O.C.
Tel: 886-3-324-0332 / Fax: 886-3-324-5235

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10: 2013 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, ridged waveguide, horn and/or Loop. 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: 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, 2324G-2 for 3M Semi Anechoic Chamber B.

5.4 TABLE OF ACCREDITATIONS AND LISTINGS

Country	Agency	Scope of Accreditation	Logo
USA	FCC	3M Semi Anechoic Chamber (FCC MRA: TW1039) to perform FCC Part 15 measurements	FCC MRA: TW1039
Taiwan	TAF	LP0002, RTTE01, FCC Method-47 CFR Part 15 Subpart C, D, E, RSS-210, RSS-310 IDA TS SRD, AS/NZS 4268, AS/NZS 4771, TS 12.1 & 12,2, ETSI EN 300 440-1, ETSI EN 300 440-2, ETSI EN 300 328, ETSI EN 300 220-1, ETSI EN 300 220-2, ETSI EN 301 893, ETSI EN 301 489-1/3/7/17 FCC OET Bulletin 65 + Supplement C, EN 50360, EN 50361, EN 50371, RSS 102, EN 50383, EN 50385, EN 50392, IEC 62209, CNS 14958-1, CNS 14959 FCC Method –47 CFR Part 15 Subpart B IEC / EN 61000-3-2, IEC / EN 61000-3-3, IEC / EN 61000-4-2/3/4/5/6/8/11	Testing Laboratory 1309
Canada	Industry Canada	3M Semi Anechoic Chamber (IC 2324G-1 / IC 2324G-2) to perform	IC 2324G-1 IC 2324G-2

** 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	Equipment	Brand	Model	Series No.	FCC ID	Data Cable	Power Cord
	N/A						

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.*

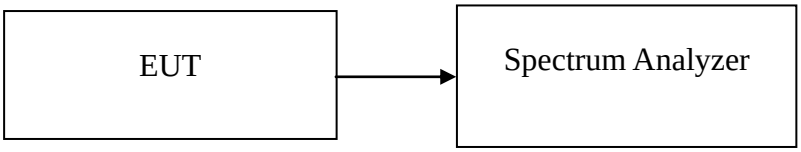
7. FCC PART 15.247 REQUIREMENTS

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

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 = 100 kHz, VBW= 300kHz, Span = 50 MHz, Sweep = auto.
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

IEEE 802.11b mode

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (kHz)	Result
Low	2412	10.0720	>500	PASS
Mid	2437	10.0290		PASS
High	2462	10.0290		PASS

IEEE 802.11g mode

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (kHz)	Result
Low	2412	16.5410	>500	PASS
Mid	2437	16.5410		PASS
High	2462	16.5410		PASS

IEEE 802.11n HT 20 MHz mode

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (kHz)	Result
Low	2412	17.8000	>500	PASS
Mid	2437	17.8000		PASS
High	2462	17.8000		PASS

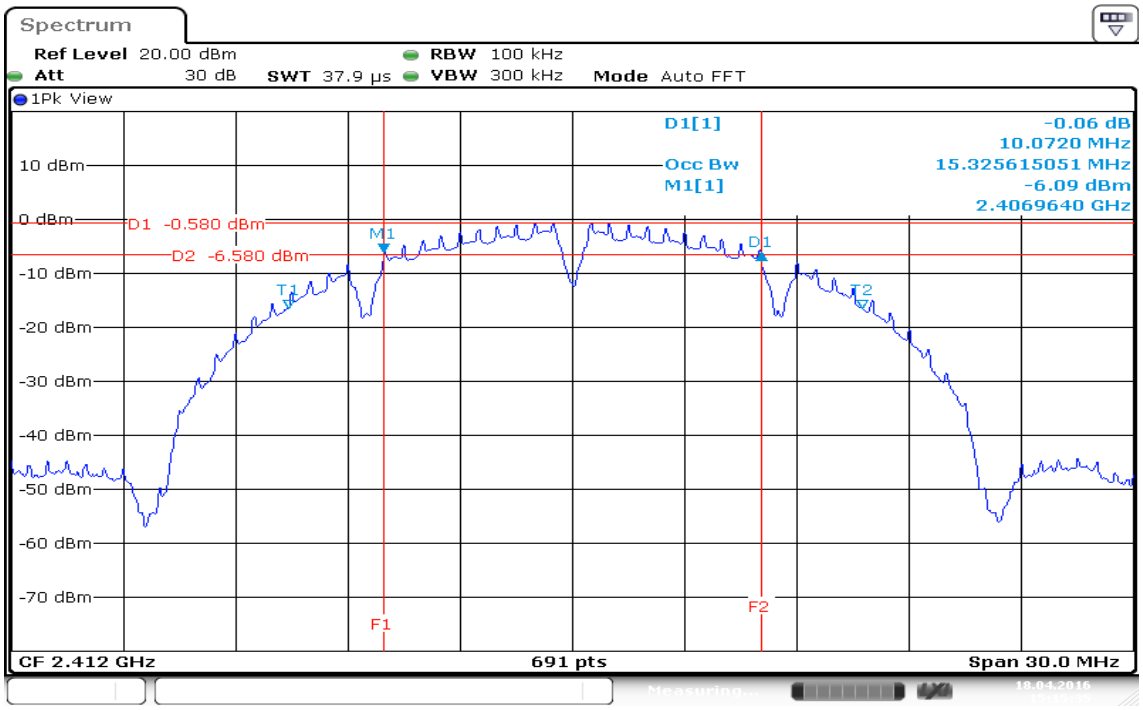
IEEE 802.11n HT 40 MHz mode

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (kHz)	Result
Low	2422	36.4700	>500	PASS
Mid	2437	36.4700		PASS
High	2452	36.5800		PASS

Test Plot

IEEE 802.11b mode

6dB Bandwidth (CH Low)



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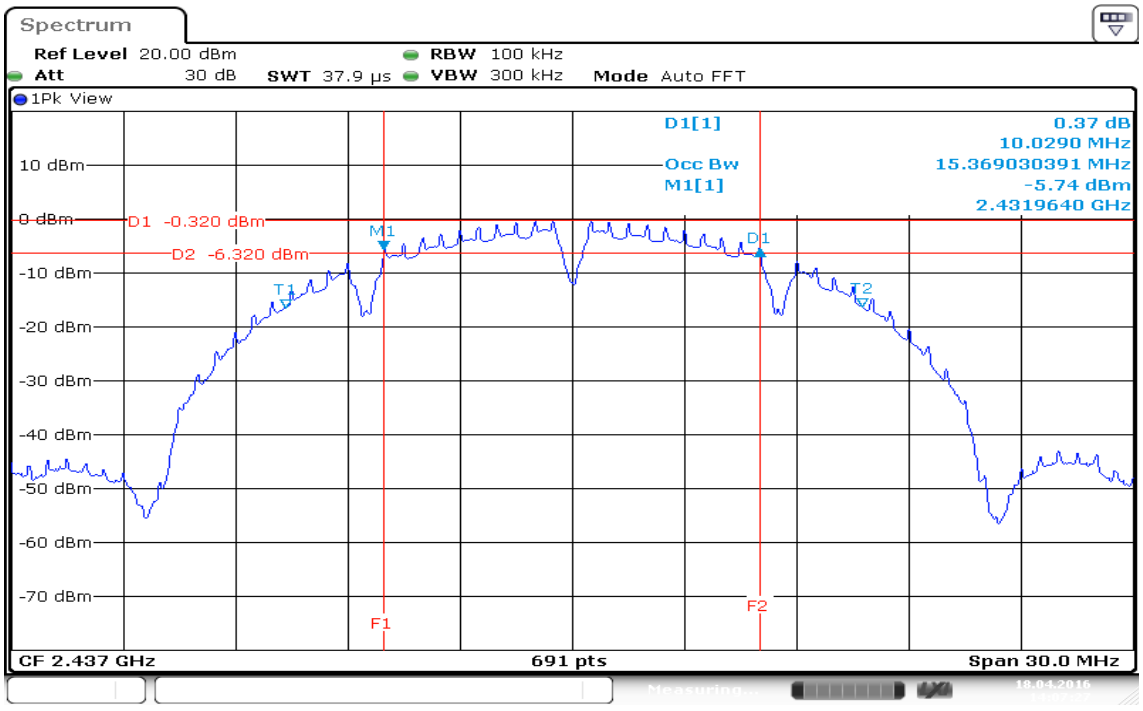
6dB Bandwidth (CH Mid)



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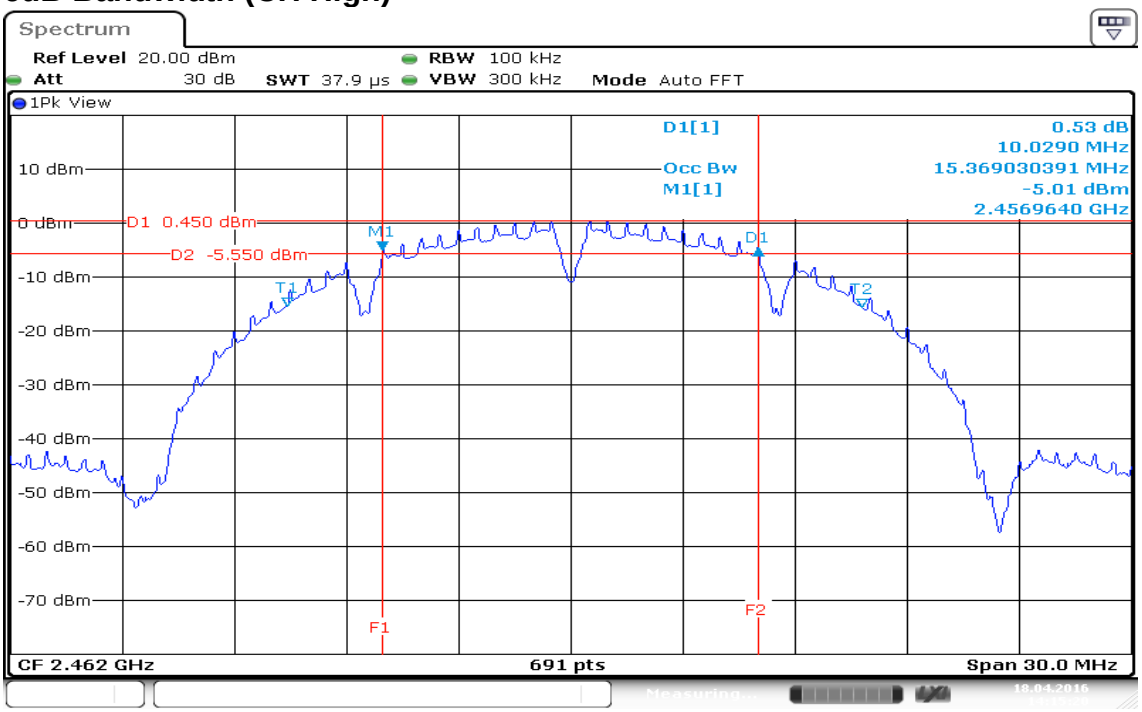
6dB Bandwidth (CH High)



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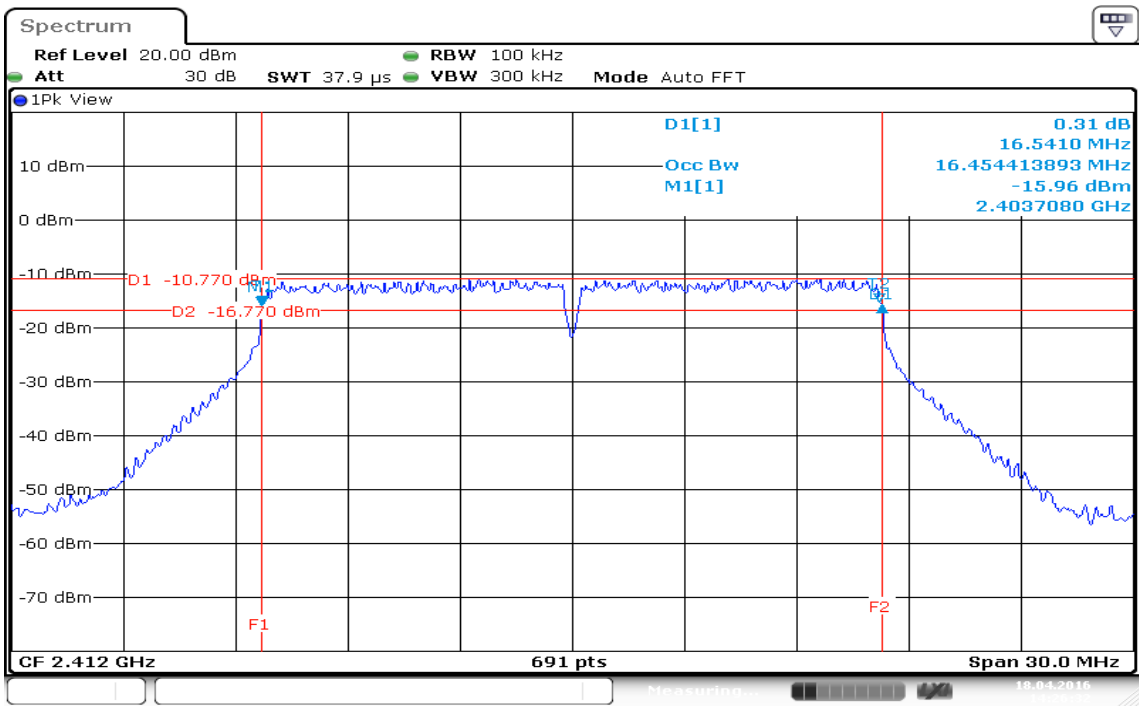
IEEE 802.11g mode

6dB Bandwidth (CH Low)



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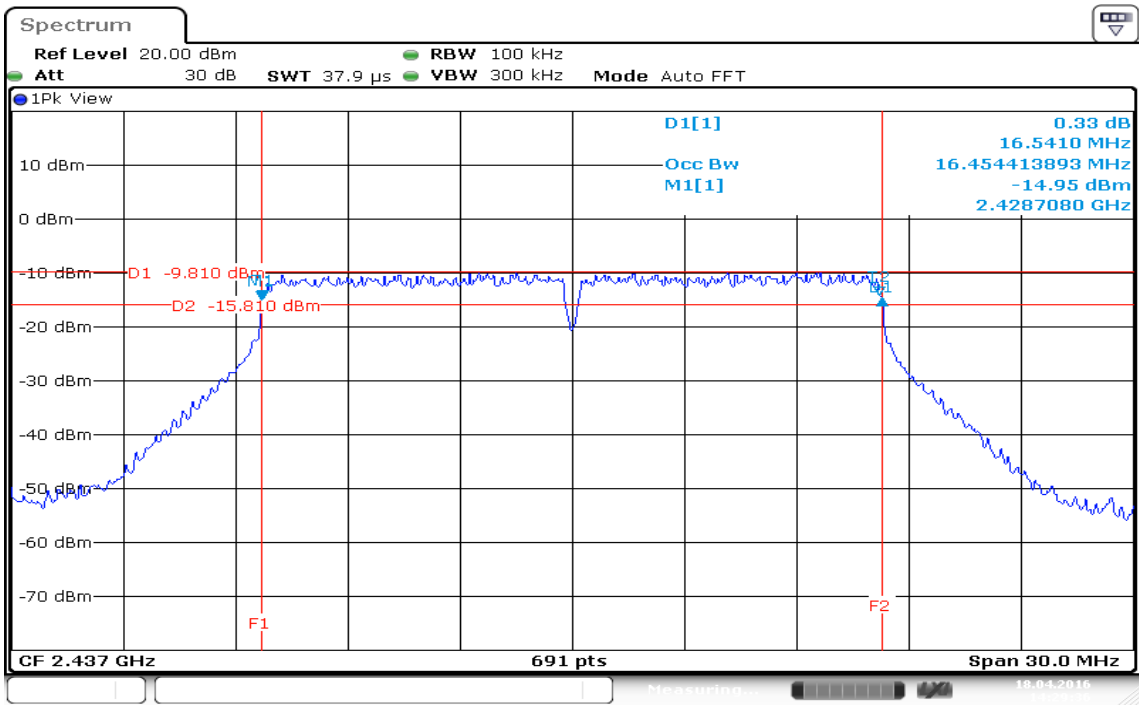
6dB Bandwidth (CH Mid)



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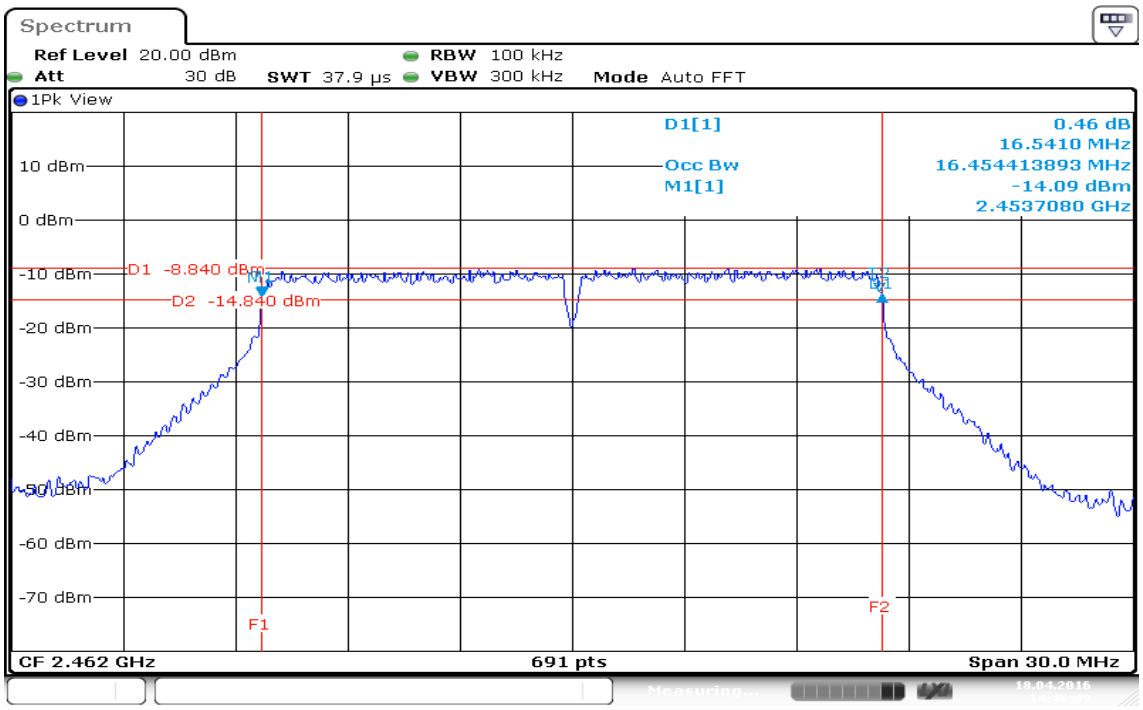
6dB Bandwidth (CH High)



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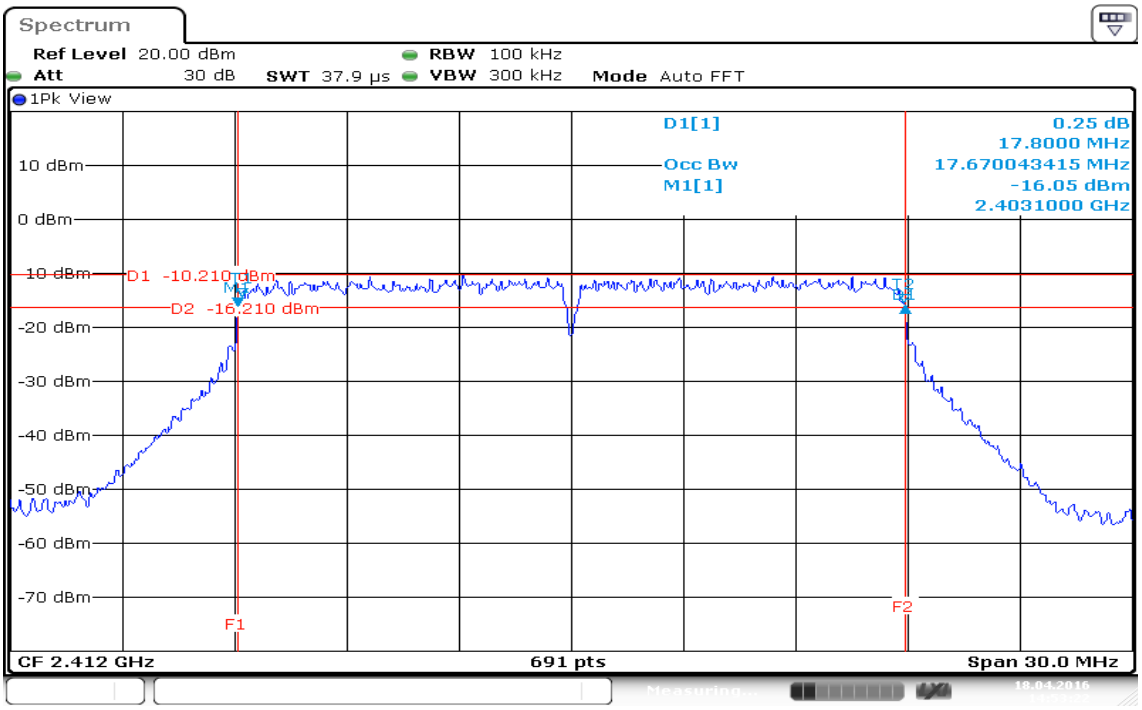
IEEE 802.11n HT 20 MHz mode

6dB Bandwidth (CH Low)



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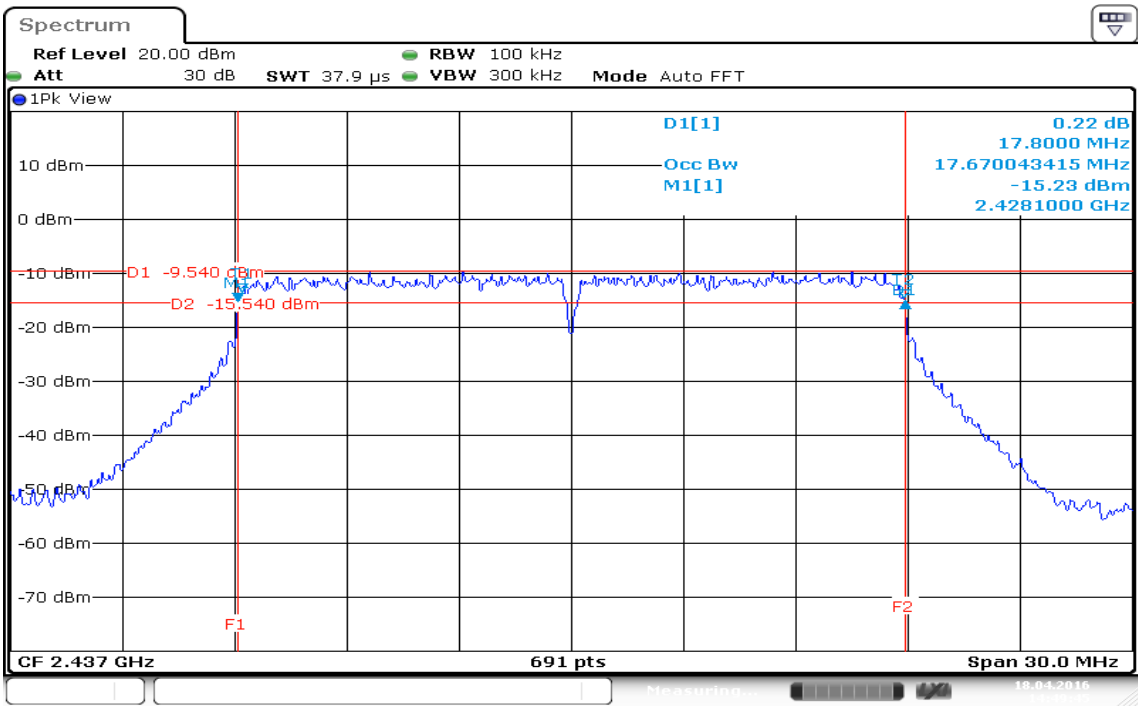
6dB Bandwidth (CH Mid)



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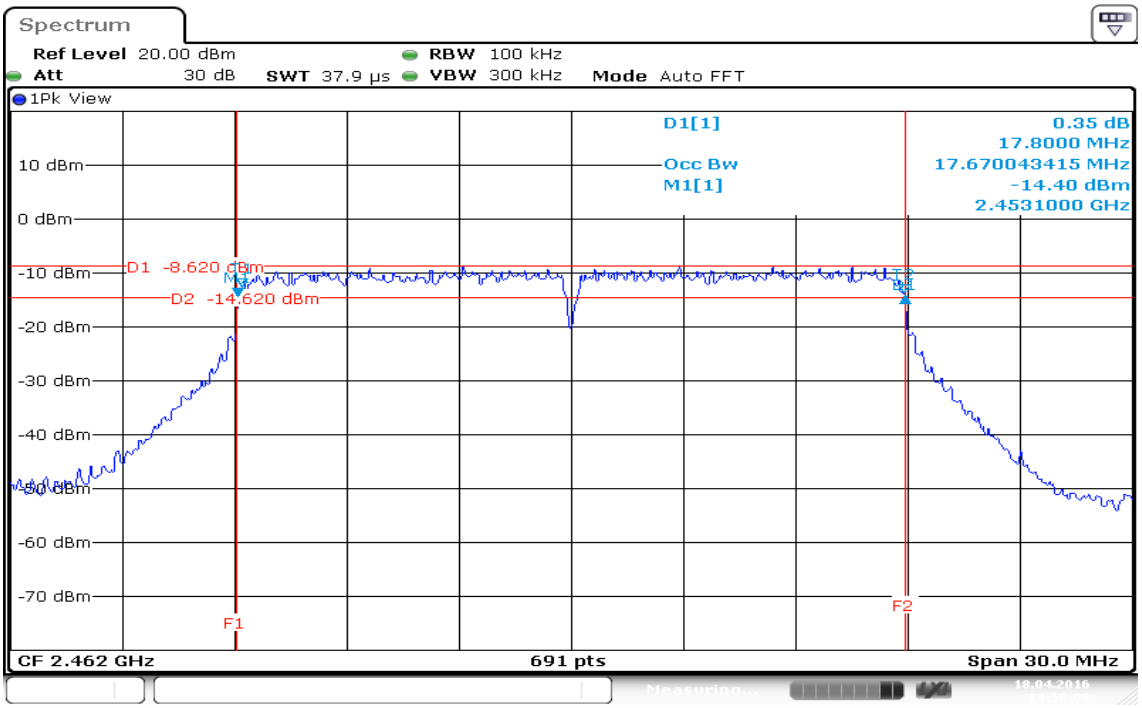
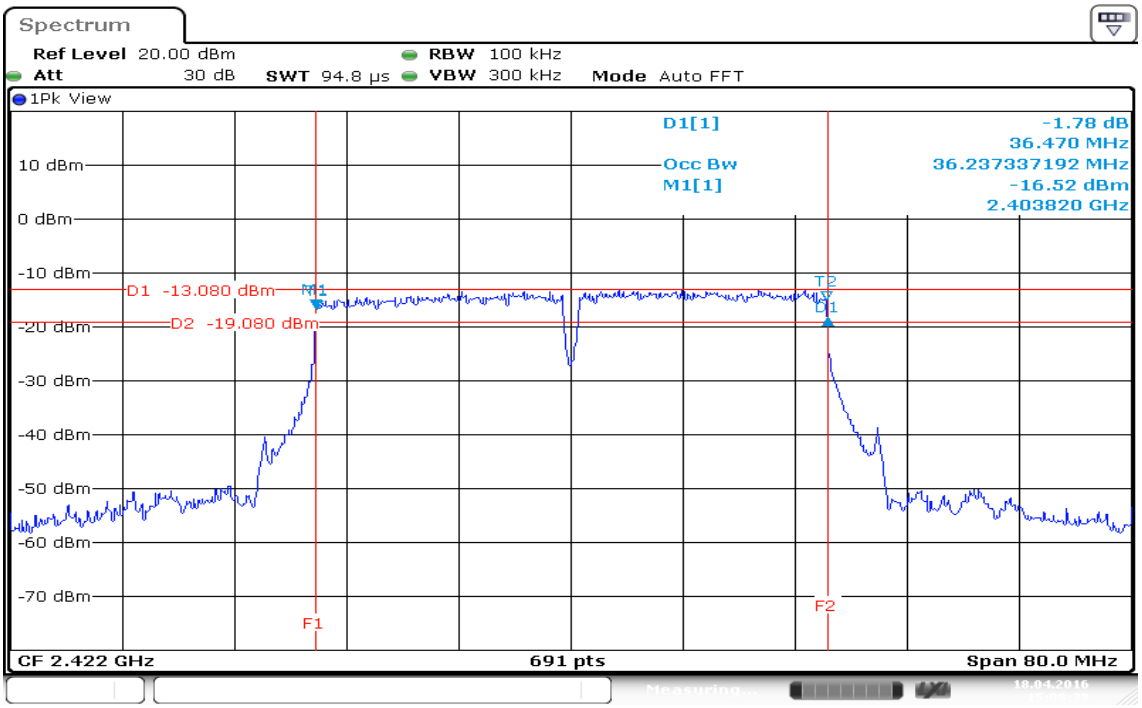
6dB Bandwidth (CH High)



Date: 18.APR.2016 14:56:09

IEEE 802.11n HT 40 MHz mode

6dB Bandwidth (CH Low)



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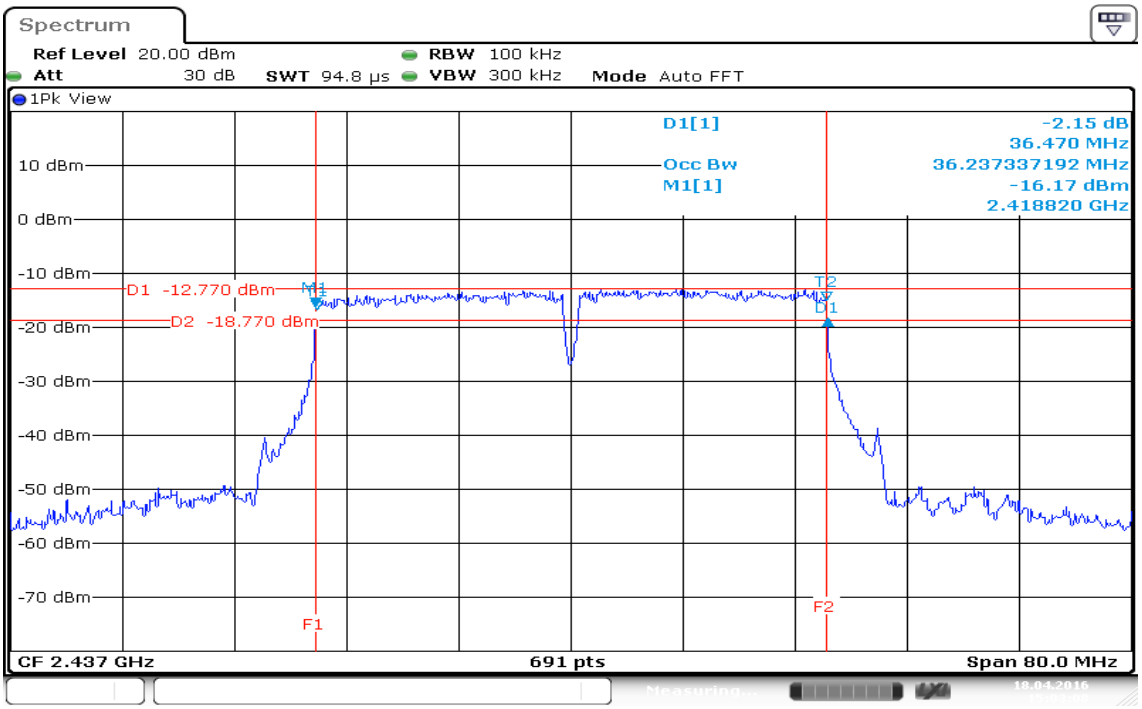
6dB Bandwidth (CH Mid)



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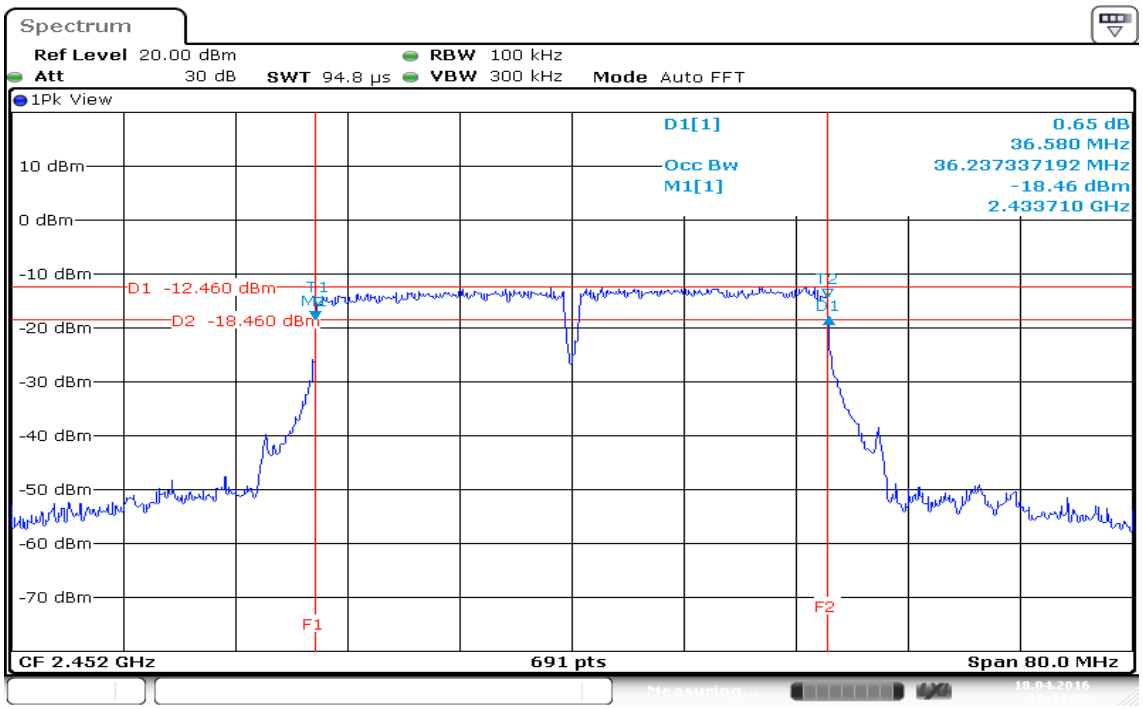
6dB Bandwidth (CH High)



Date: 18.APR.2016 15:11:04

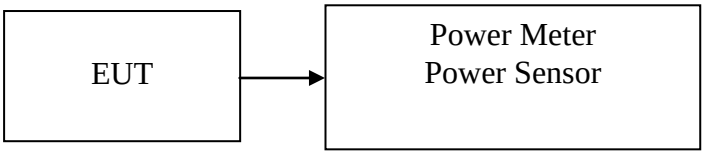
7.2 PEAK POWER

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

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

IEEE 802.11b mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (dBm)	Result
Low	2412	14.62	0.0290	30	PASS
Mid	2437	***14.88**	0.0308		PASS
High	2462	13.96	0.0249		PASS

IEEE 802.11g mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (dBm)	Result
Low	2412	24.65	0.2917	30	PASS
Mid	2437	24.91	0.3097		PASS
High	2462	***24.96**	0.3133		PASS

IEEE 802.11n HT 20 MHz mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (dBm)	Result
Low	2412	23.78	0.2388	30	PASS
Mid	2437	***24.22**	0.2642		PASS
High	2462	23.99	0.2506		PASS

IEEE 802.11n HT 40 MHz mode

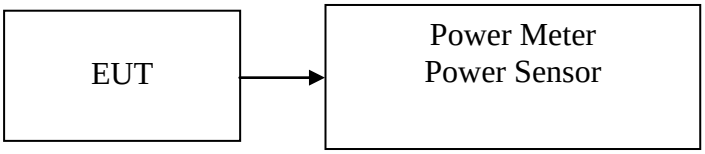
Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (dBm)	Result
Low	2422	***24.05**	0.2541	30	PASS
Mid	2437	23.93	0.2472		PASS
High	2452	23.78	0.2388		PASS

7.3 AVERAGE POWER

LIMIT

None; for reporting purposes only.

Test Configuration



TEST PROCEDURE

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	12.12	0.0163
Mid	2437	12.22	0.0167
High	2462	11.58	0.0144

Test mode: IEEE 802.11g mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)
Low	2412	15.10	0.0324
Mid	2437	15.05	0.0320
High	2462	14.98	0.0315

Test mode: IEEE 802.11n HT 20 MHz mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)
Low	2412	13.59	0.0229
Mid	2437	13.88	0.0244
High	2462	13.78	0.0239

Test mode: IEEE 802.11n HT 40 MHz mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)
Low	2422	14.08	0.0256
Mid	2437	13.72	0.0236
High	2452	13.32	0.0215

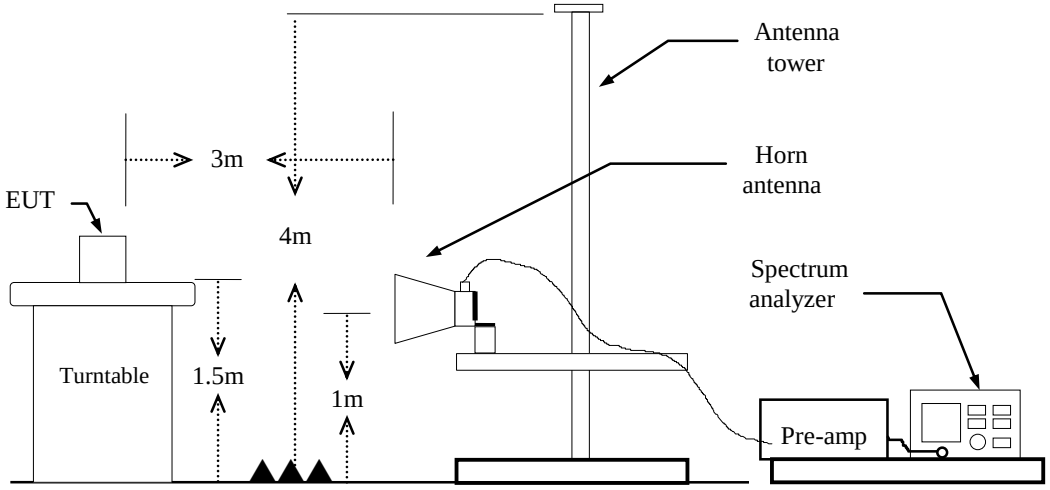
7.4 BAND EDGES MEASUREMENT

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



TEST PROCEDURE

For Radiated

1. The EUT is placed on a turntable, which is 1.5m 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,
   if duty cycle≧98%, VBW=10Hz.
   if duty cycle<98% VBW=1/T.
   IEEE 802.11b mode: ≧98%, VBW=10Hz
   IEEE 802.11g mode: ≧98%, VBW=10Hz
   IEEE 802.11n HT 20 MHz mode: ≧98%, VBW=10Hz
   IEEE 802.11n HT 40 MHz mode: ≧98%, VBW=10Hz

5. Repeat the procedures until all the PEAK and AVERAGE versus POLARIZATION are measured.
6. Result = Spectrum Reading + cable loss(spectrum to Amp) - Amp Gain + Cable loss(Amp to receive Ant)+ Receive Ant

For Un-restricted Band Emissions

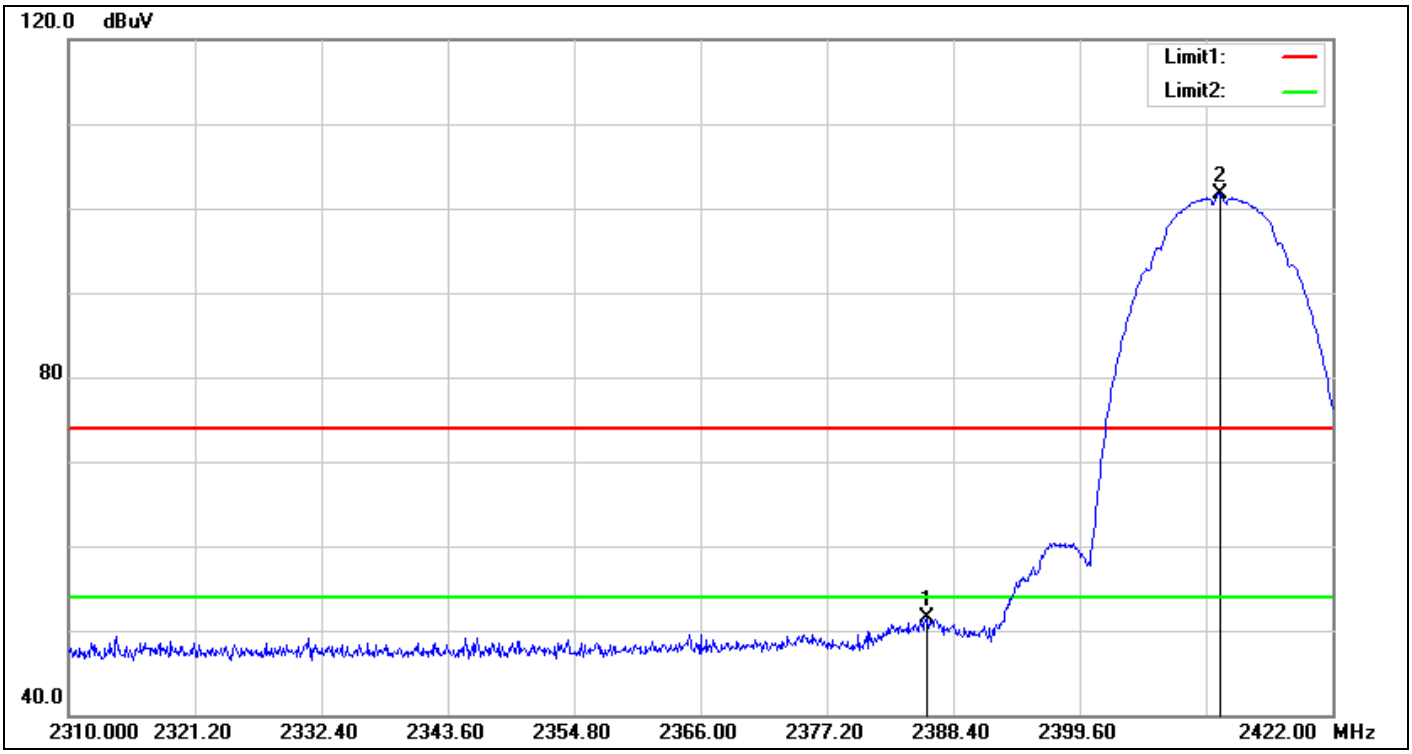
The peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.

TEST RESULTS

Refer to attach spectrum analyzer data chart.

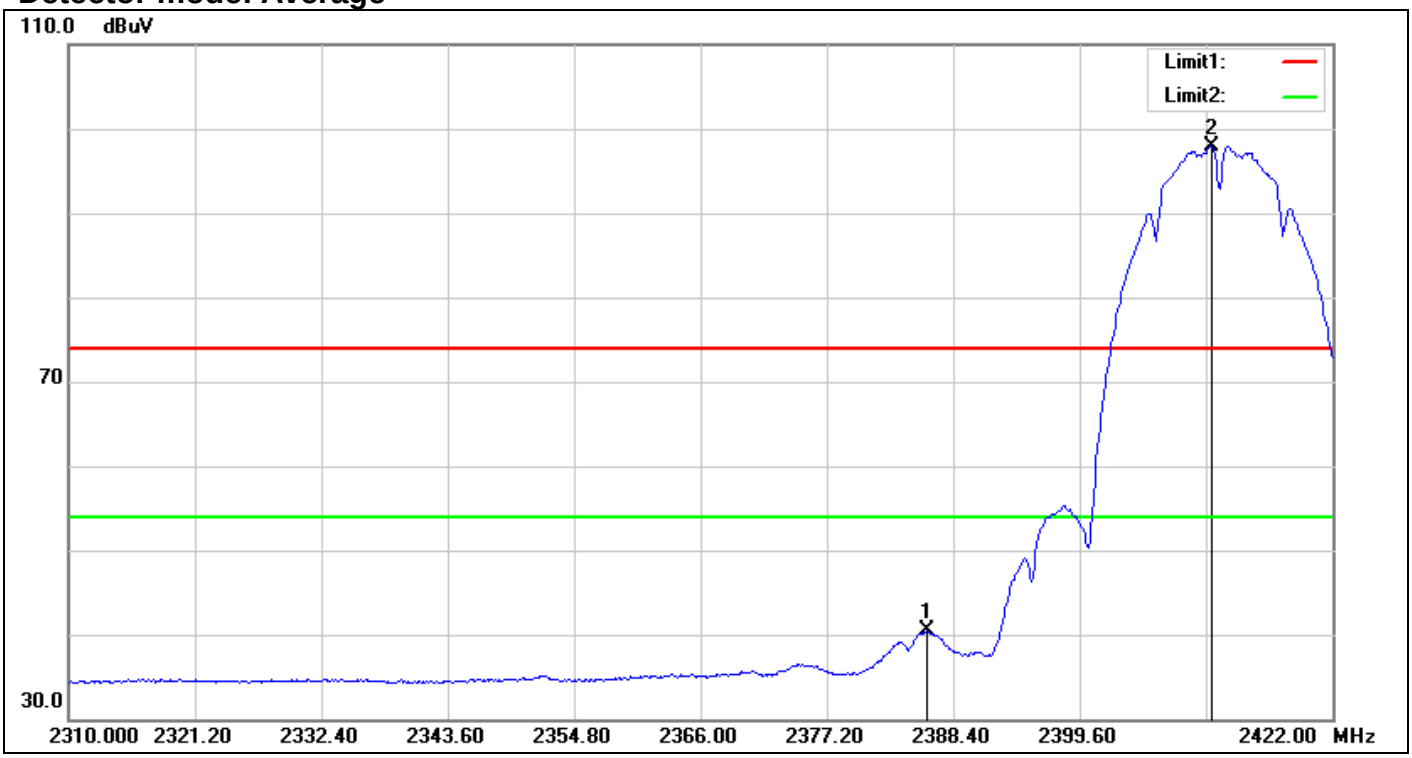
Band Edges (IEEE 802.11b mode / CH Low)

Detector mode: Peak



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2386.048	54.03	-2.53	51.50	74.00	-22.50	peak
2	2412.032	104.22	-2.42	101.80	74.00	27.80	peak

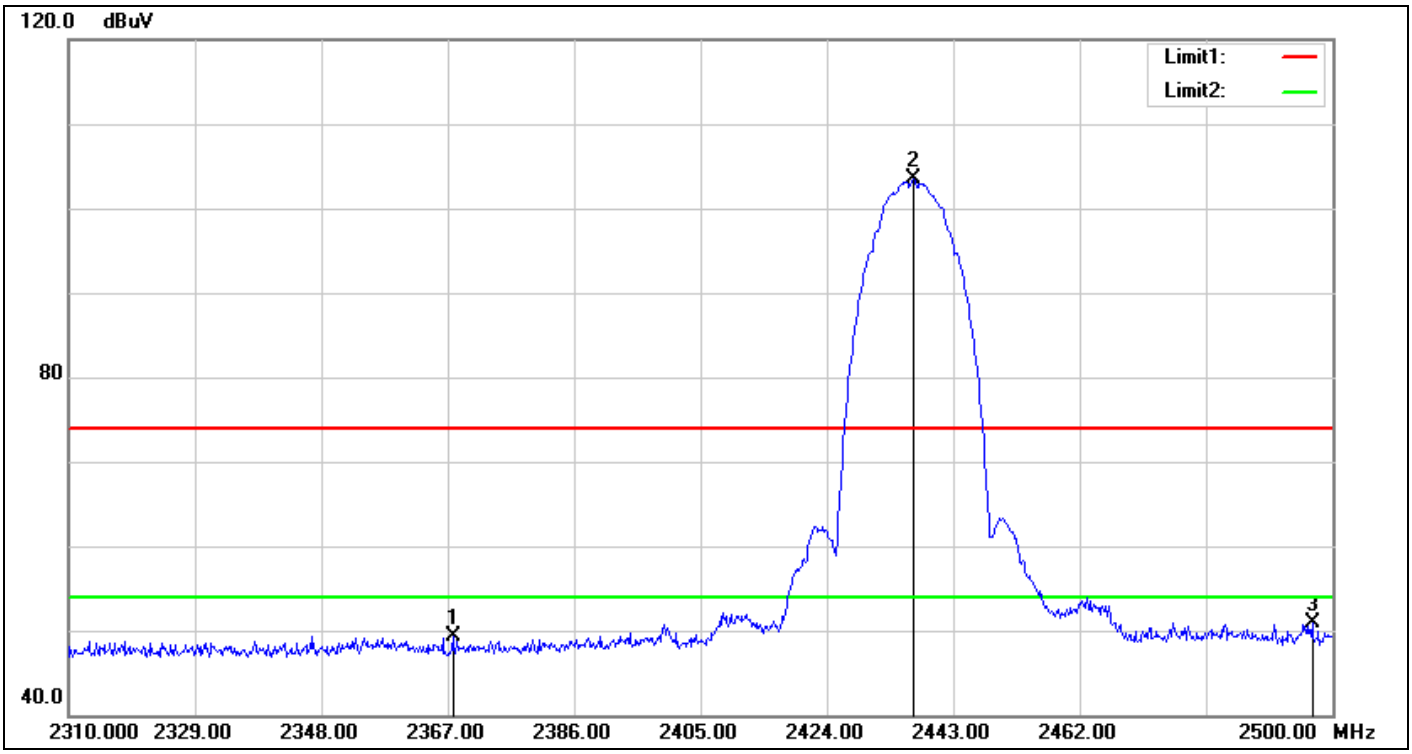
Detector mode: Average



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2386.048	42.96	-2.53	40.43	54.00	-13.57	AVG
2	2411.248	100.38	-2.42	97.96	54.00	43.96	AVG

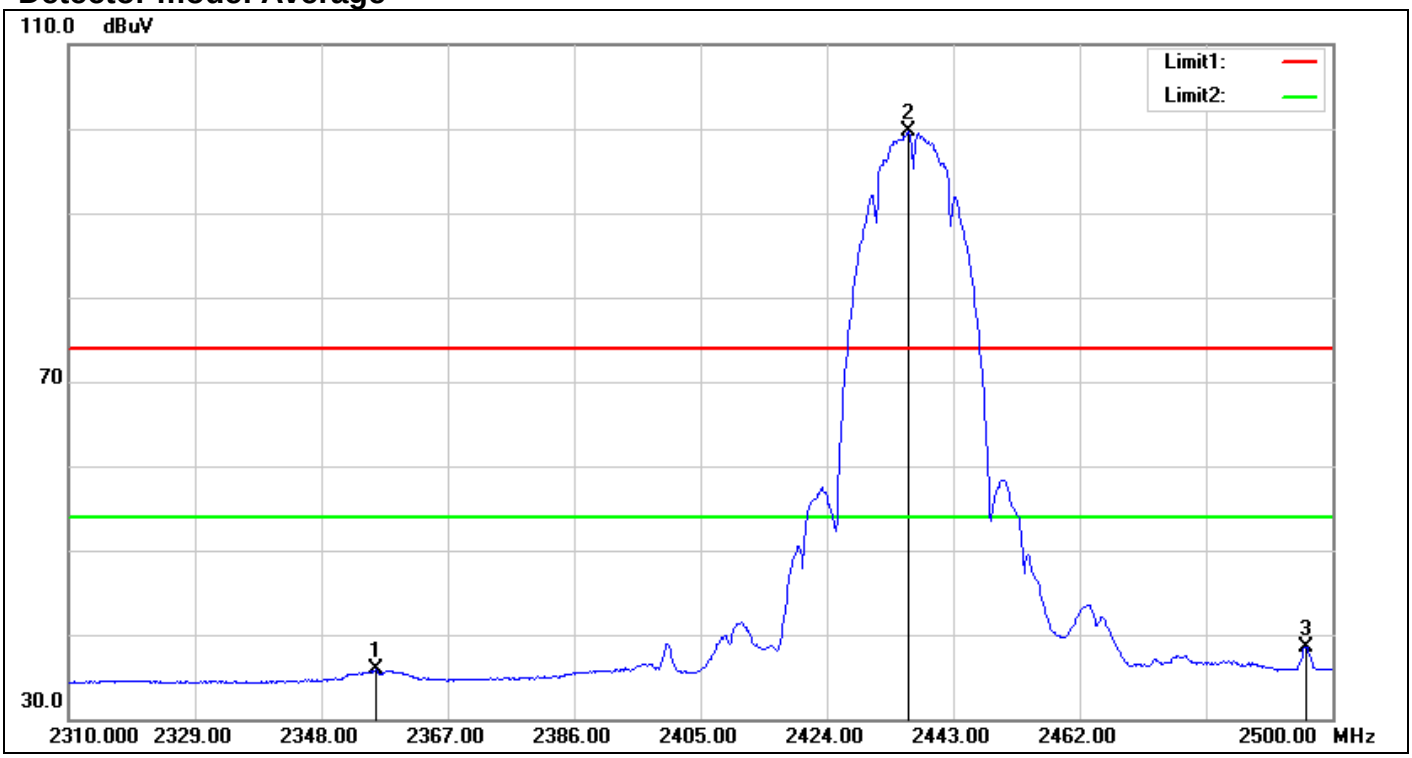
Band Edges (IEEE 802.11b mode / CH Mid)

Detector mode: Peak



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	2367.760	52.08	-2.69	49.39	74.00	-24.61	150	301	peak
2	2436.920	105.81	-2.23	103.58	74.00	29.58	150	156	peak
3	2496.960	52.84	-1.88	50.96	74.00	-23.04	150	156	peak

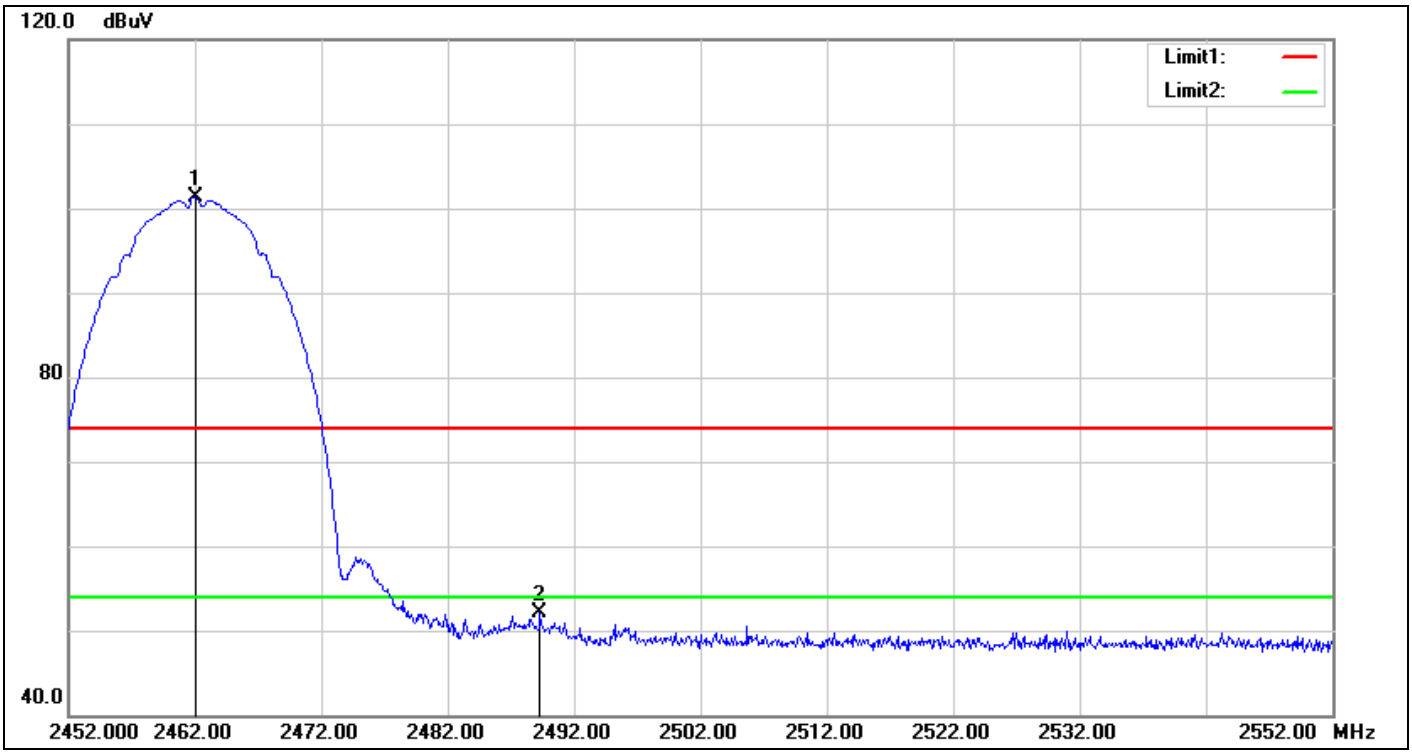
Detector mode: Average



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2356.170	38.62	-2.81	35.81	54.00	-18.19	AVG
2	2436.160	101.89	-2.24	99.65	54.00	45.65	AVG
3	2496.010	40.35	-1.89	38.46	54.00	-15.54	AVG

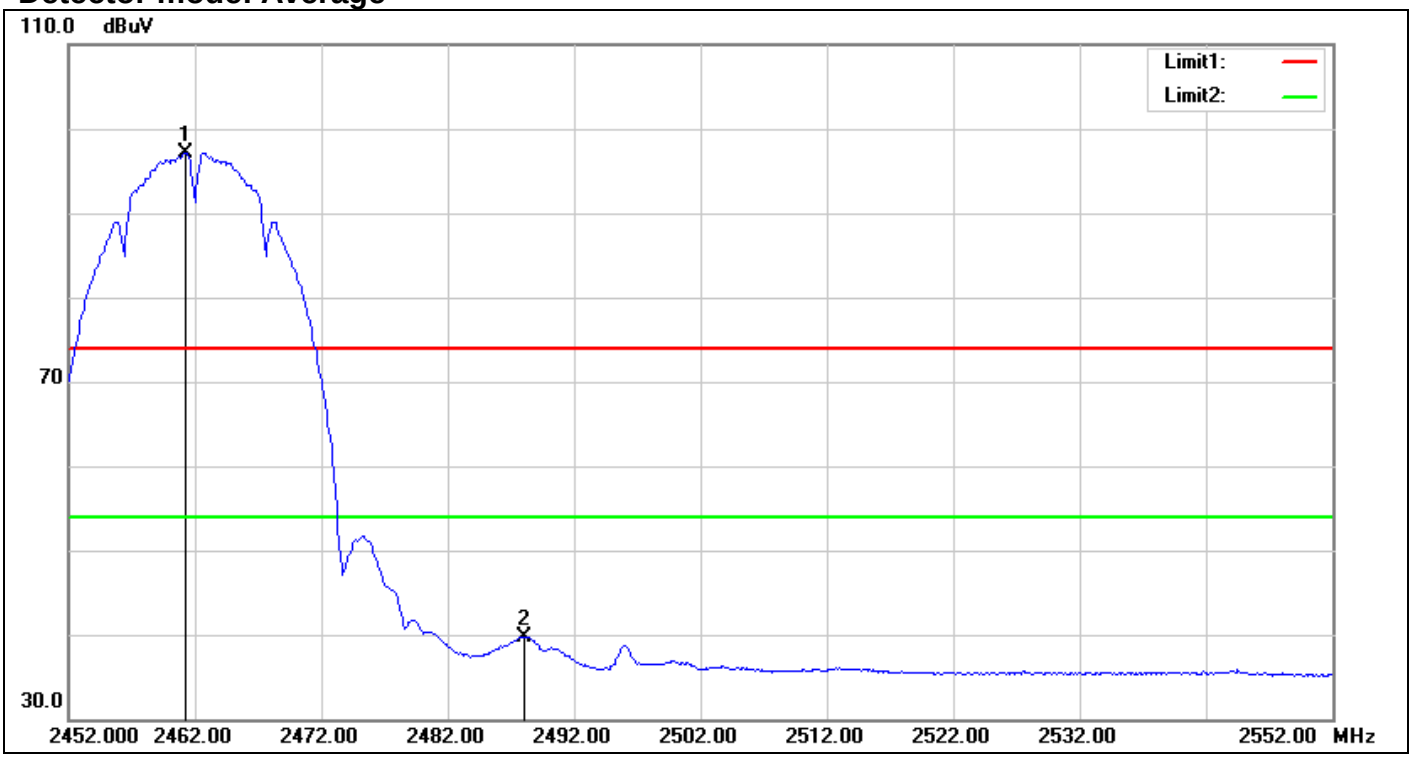
Band Edges (IEEE 802.11b mode / CH High)

Detector mode: Peak



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2462.000	103.49	-2.10	101.39	74.00	27.39	peak
2	2489.300	54.10	-1.94	52.16	74.00	-21.84	peak

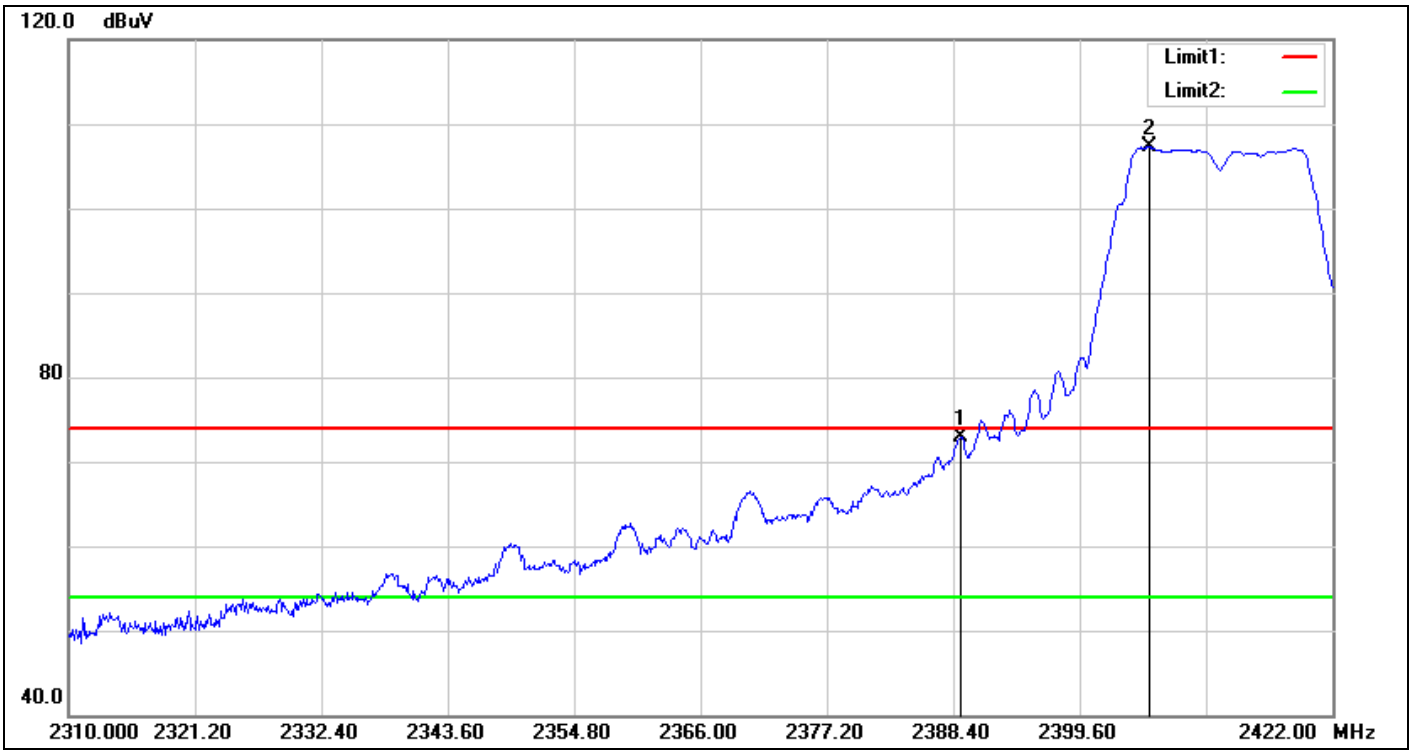
Detector mode: Average



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2461.300	99.24	-2.10	97.14	74.00	23.14	AVG
2	2488.000	41.72	-1.95	39.77	74.00	-34.23	AVG

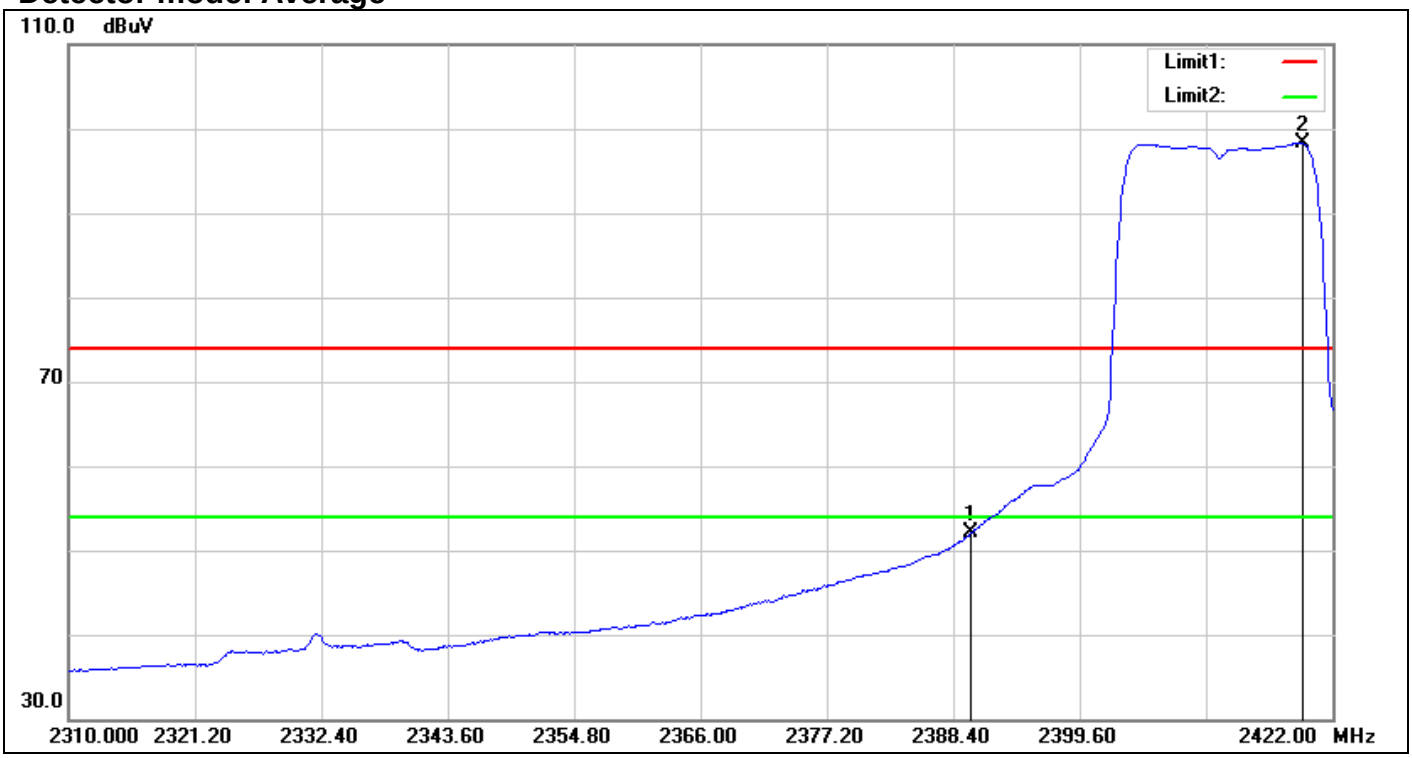
Band Edges (IEEE 802.11g mode / CH Low)

Detector mode: Peak



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2389.072	75.41	-2.50	72.91	74.00	-1.09	peak
2	2405.760	109.64	-2.42	107.22	74.00	33.22	peak

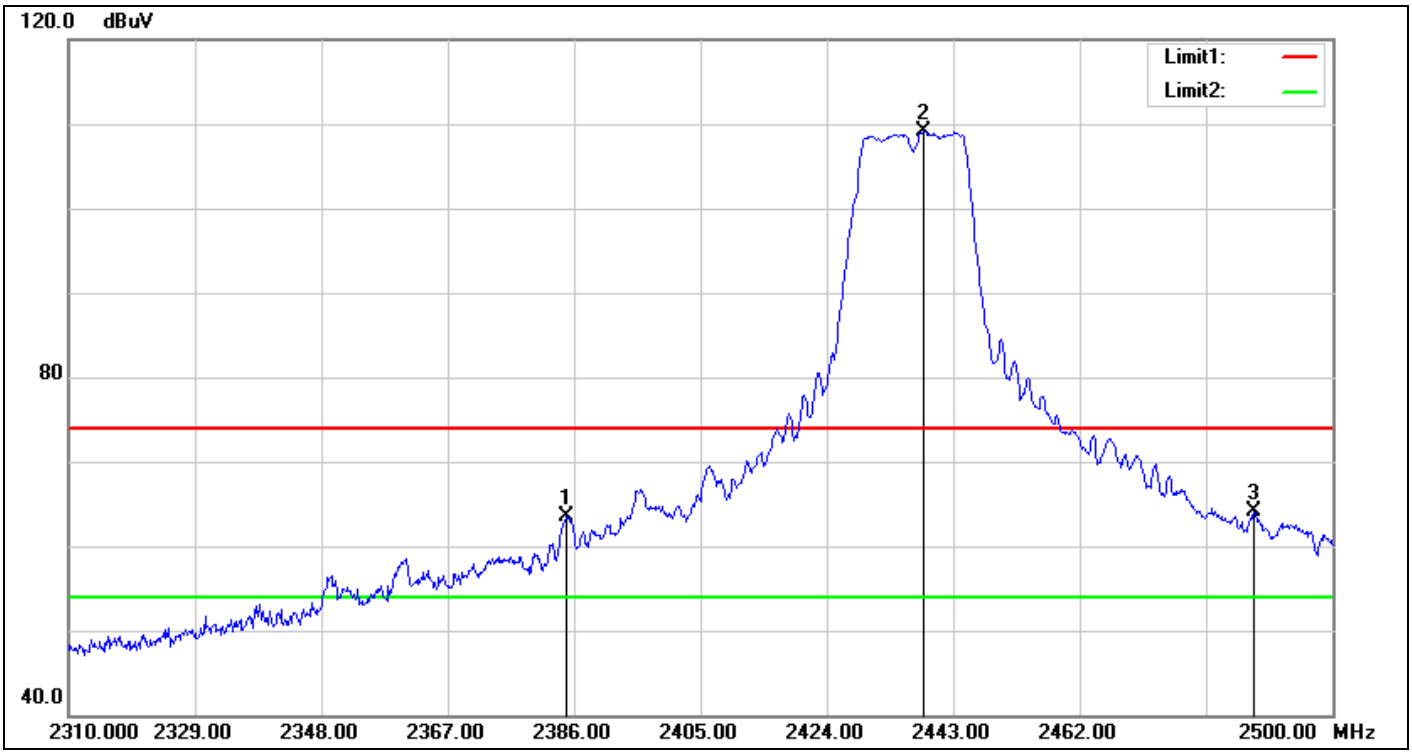
Detector mode: Average



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2390.000	54.65	-2.49	52.16	54.00	-1.84	AVG
2	2419.312	100.63	-2.36	98.27	54.00	44.27	AVG

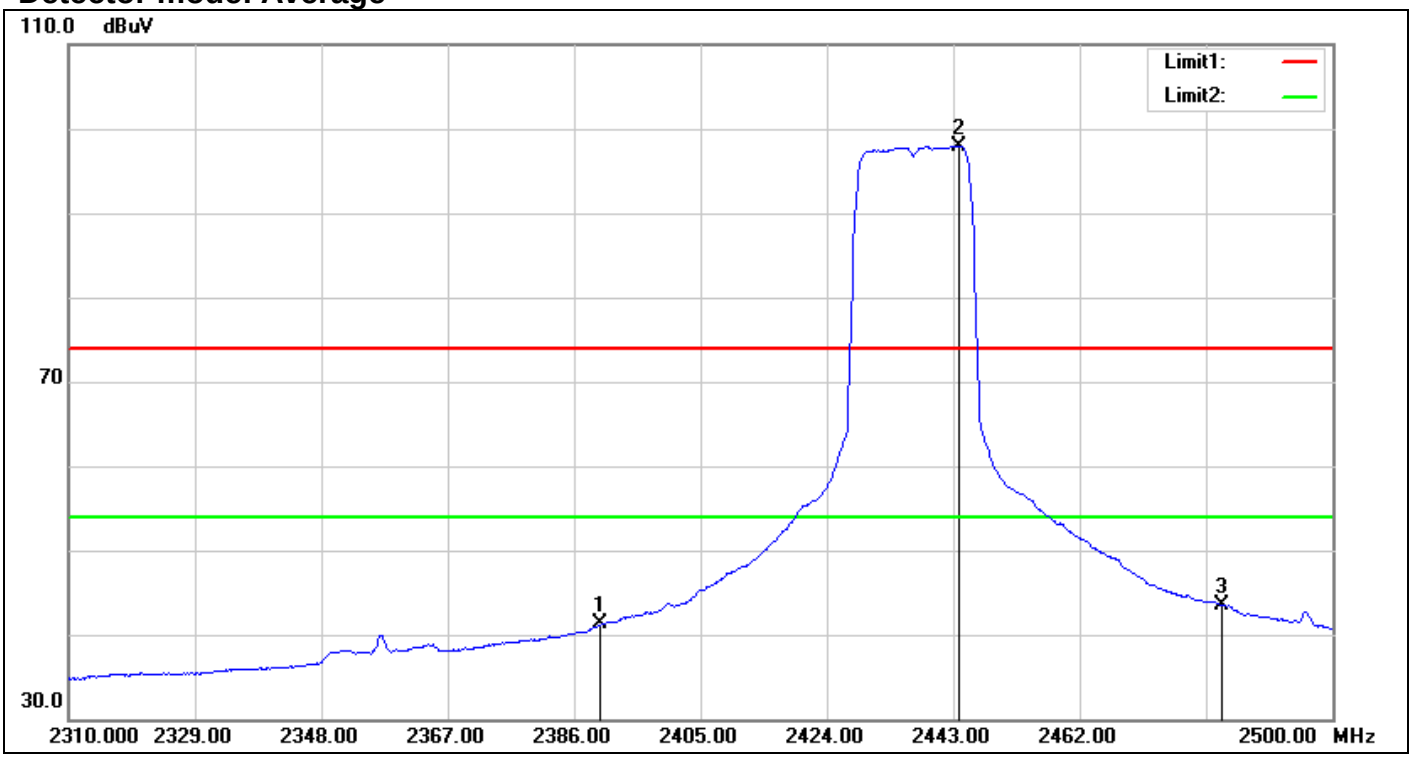
Band Edges (IEEE 802.11g mode / CH Mid)

Detector mode: Peak



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2384.860	66.07	-2.54	63.53	74.00	-10.47	peak
2	2438.630	111.25	-2.22	109.03	74.00	35.03	peak
3	2488.220	65.98	-1.95	64.03	74.00	-9.97	peak

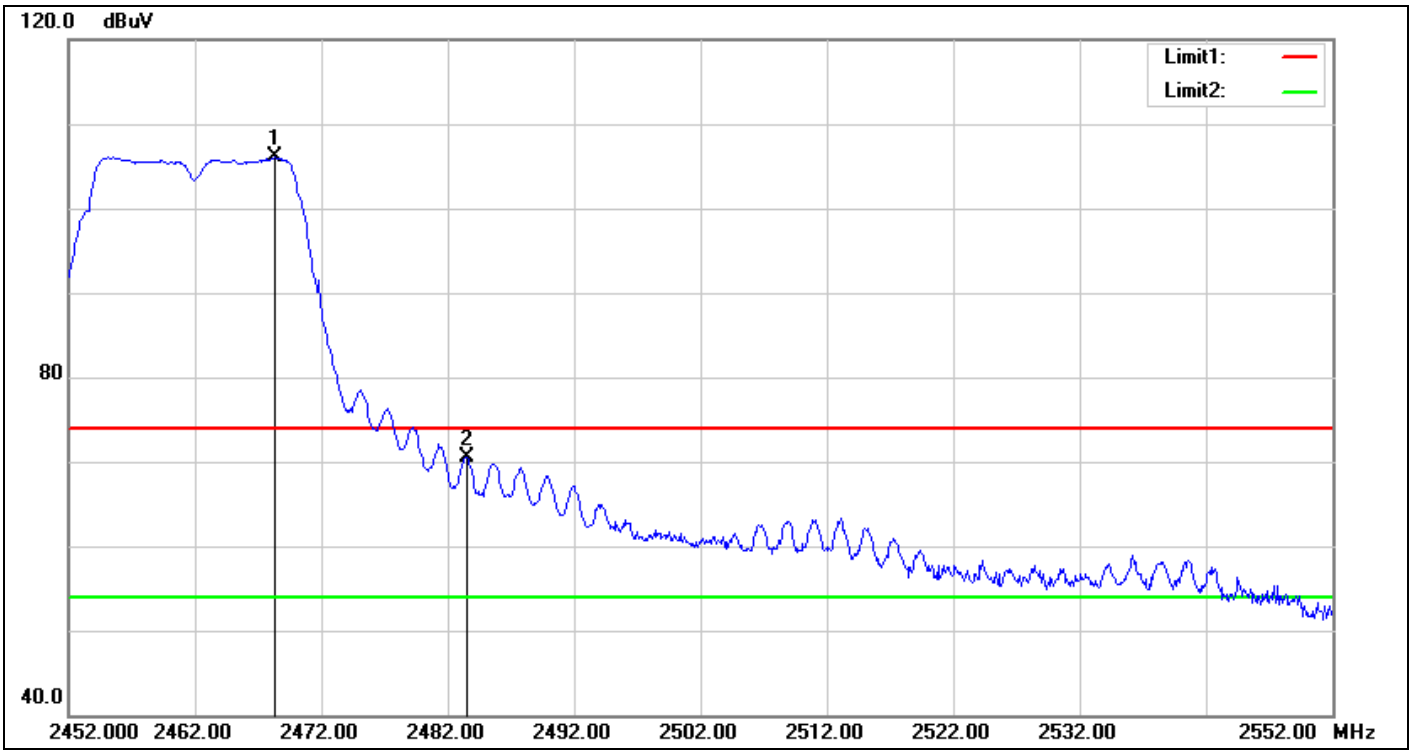
Detector mode: Average



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2390.000	43.77	-2.49	41.28	54.00	-12.72	AVG
2	2443.760	100.13	-2.19	97.94	54.00	43.94	AVG
3	2483.500	45.40	-1.99	43.41	54.00	-10.59	AVG

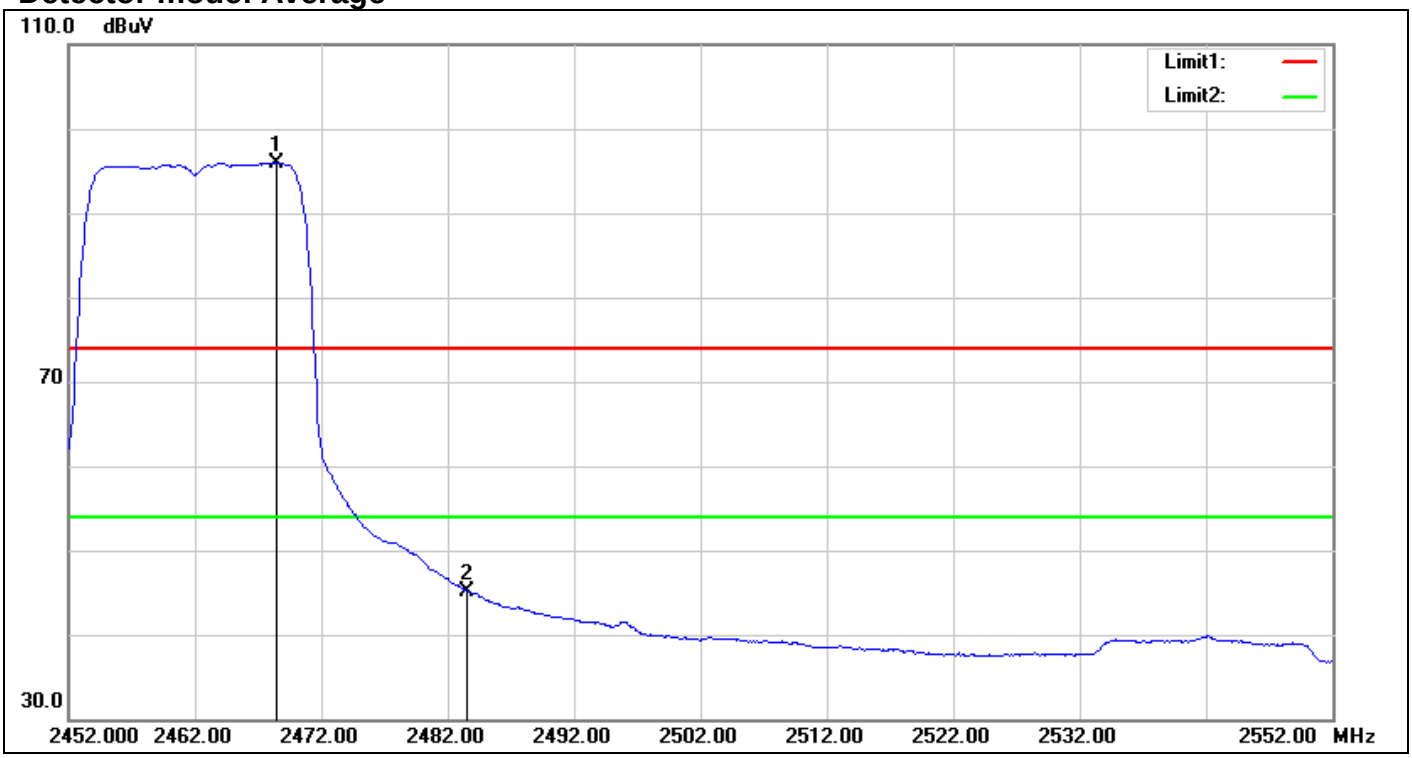
Band Edges (IEEE 802.11g mode / CH High)

Detector mode: Peak



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2468.300	108.08	-2.07	106.01	74.00	32.01	peak
2	2483.500	72.45	-1.99	70.46	74.00	-3.54	peak

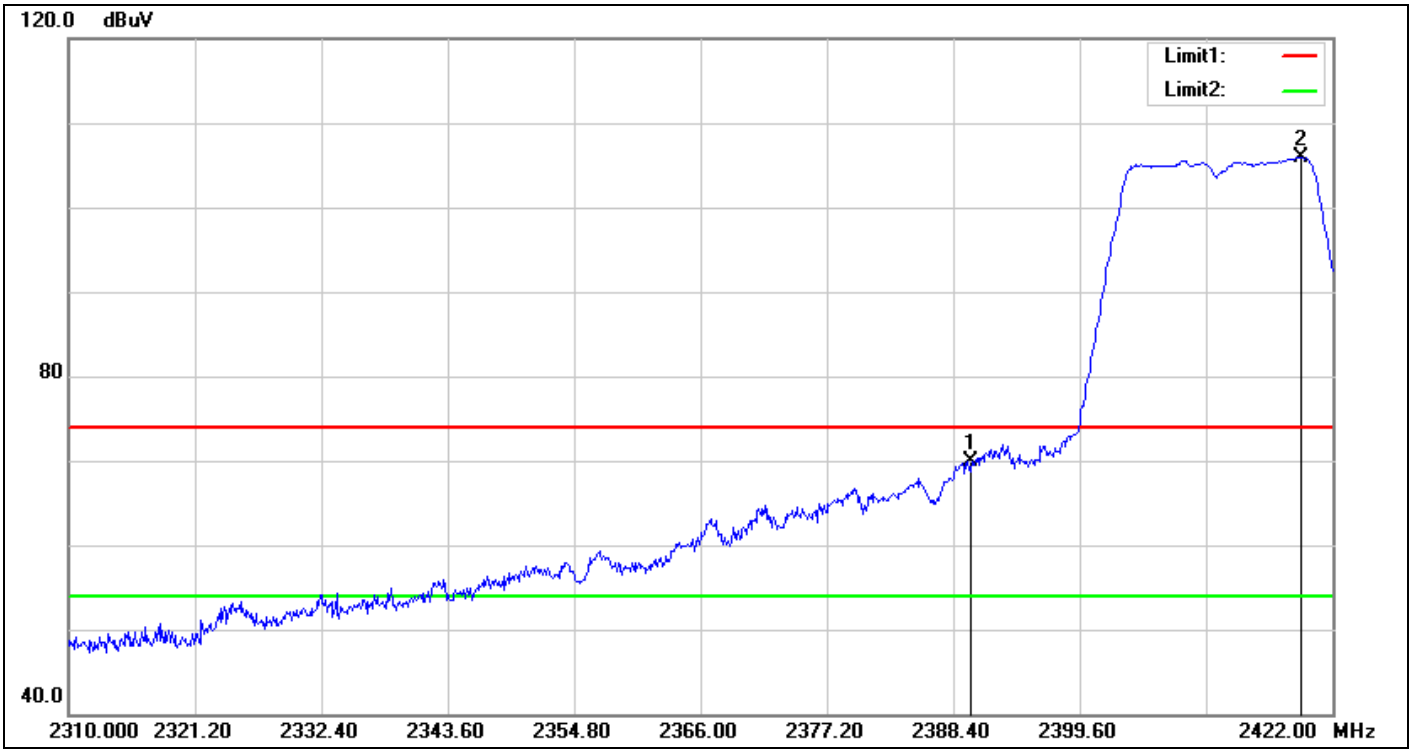
Detector mode: Average



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2468.400	97.97	-2.07	95.90	54.00	41.90	AVG
2	2483.500	47.18	-1.99	45.19	54.00	-8.81	AVG

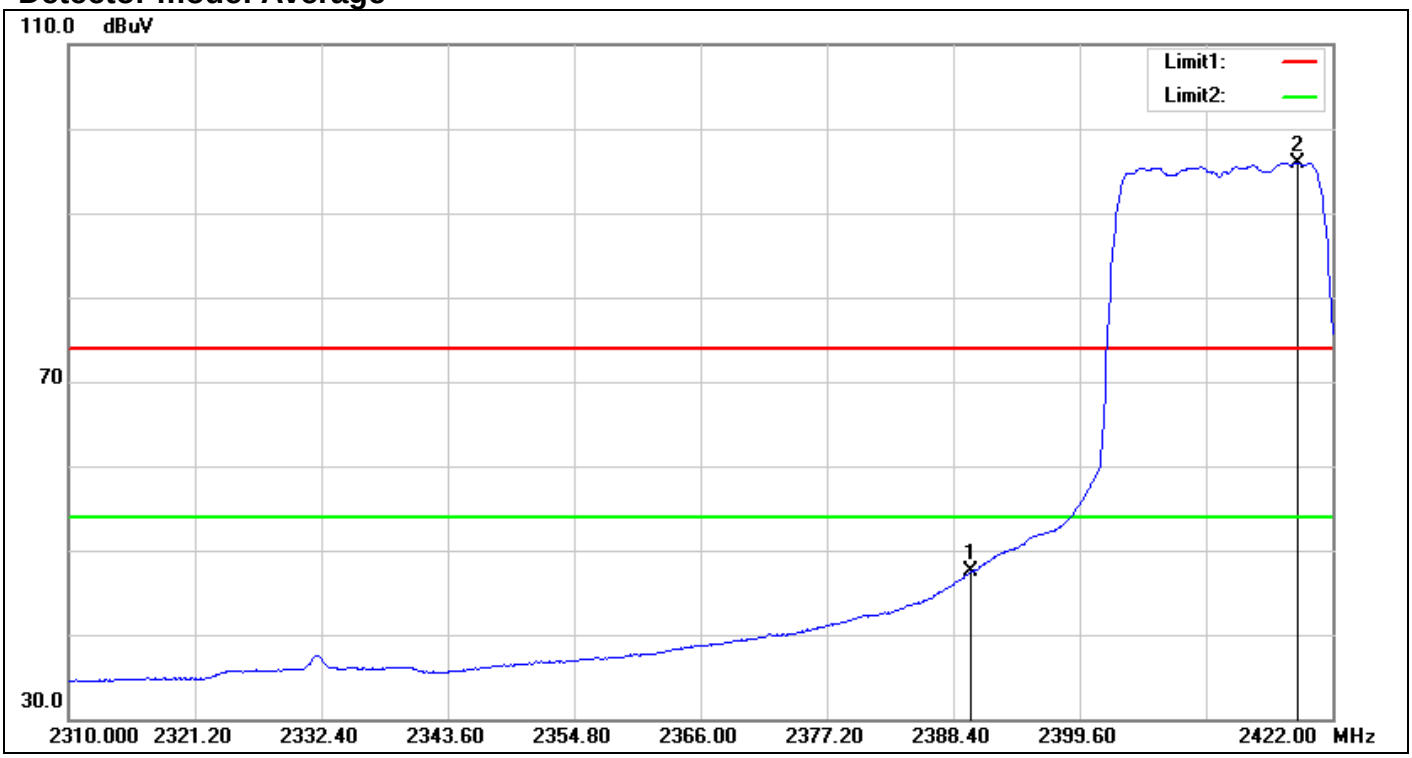
Band Edges (IEEE 802.11n HT 20 MHz mode / CH Low)

Detector mode: Peak



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2390.000	72.44	-2.49	69.95	74.00	-4.05	peak
2	2419.200	108.34	-2.36	105.98	74.00	31.98	peak

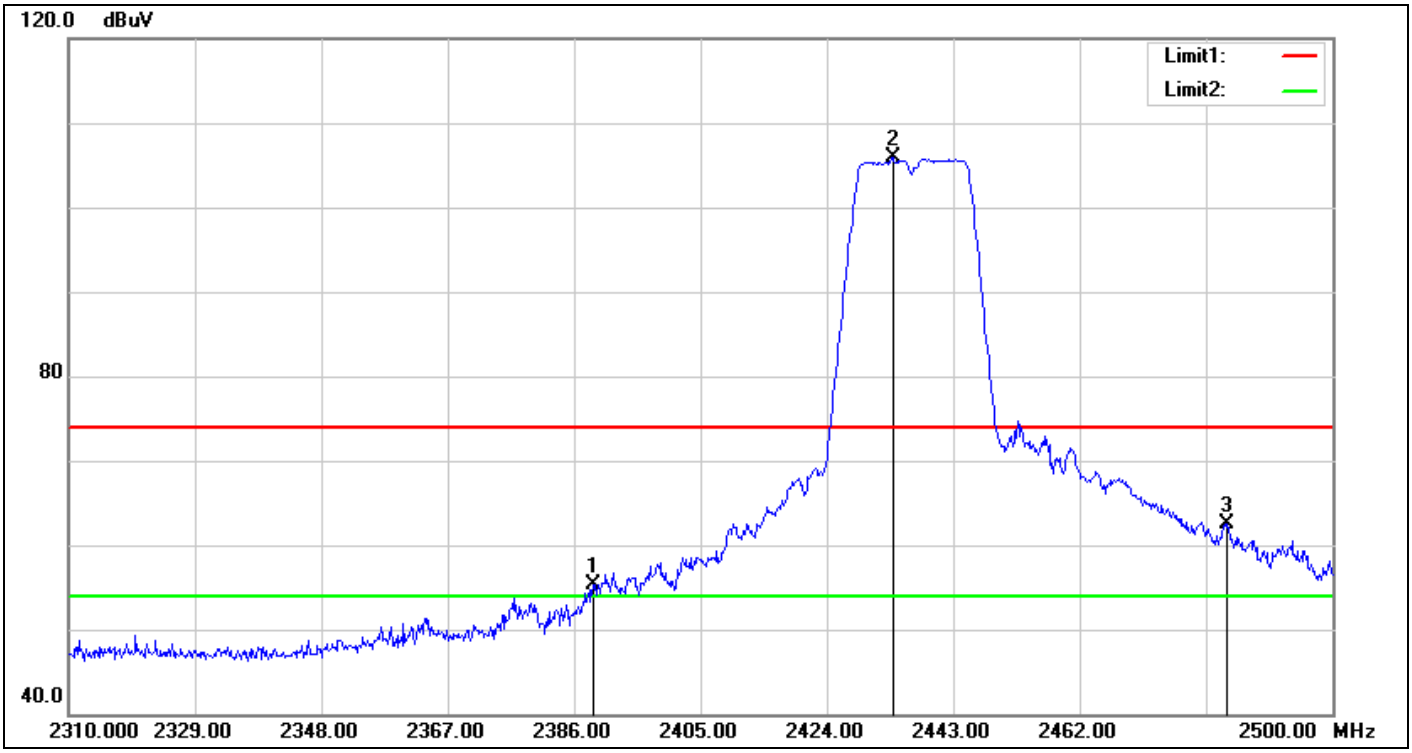
Detector mode: Average



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2390.000	49.97	-2.49	47.48	54.00	-6.52	AVG
2	2418.976	98.29	-2.36	95.93	54.00	41.93	AVG

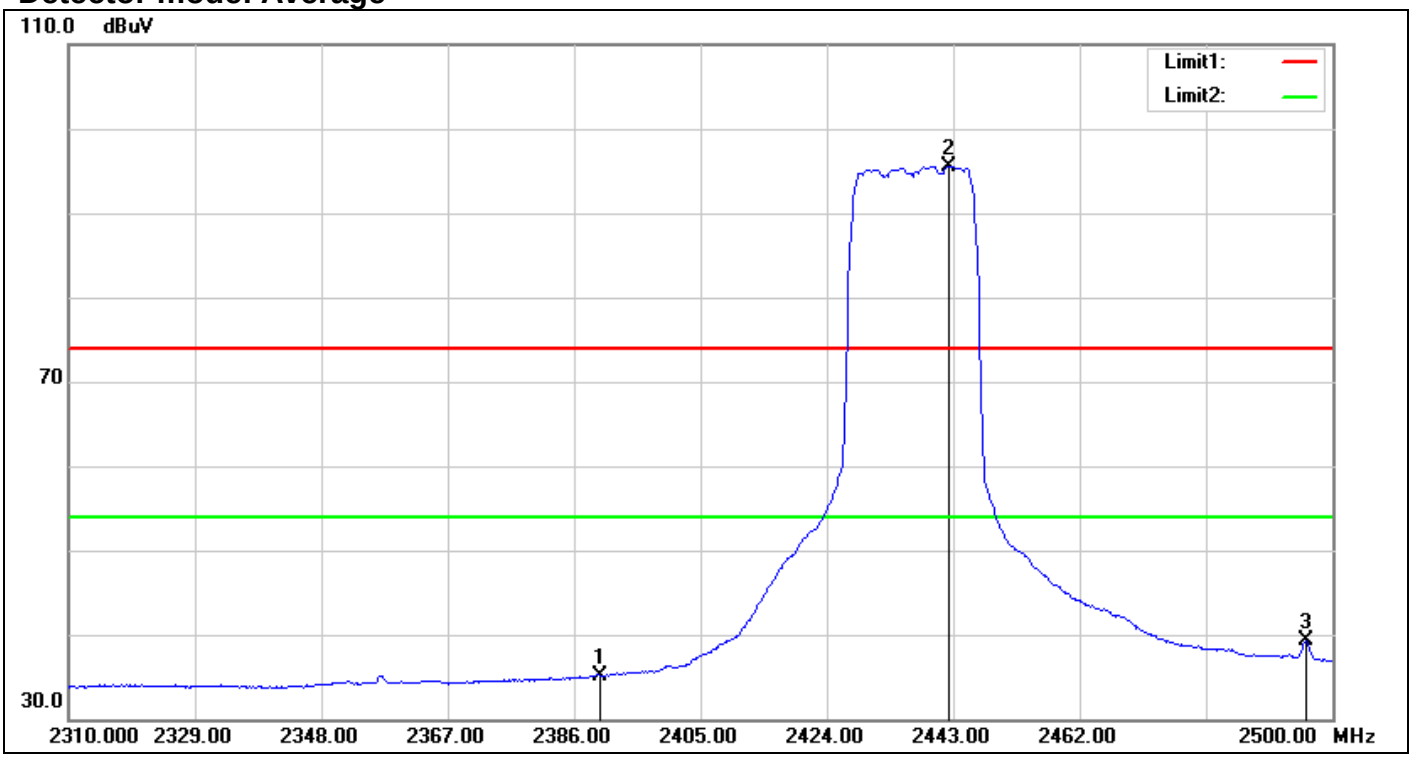
Band Edges (IEEE 802.11n HT 20 MHz mode / CH Mid)

Detector mode: Peak



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2388.850	57.83	-2.50	55.33	74.00	-18.67	peak
2	2433.880	108.14	-2.26	105.88	74.00	31.88	peak
3	2484.230	64.44	-1.99	62.45	74.00	-11.55	peak

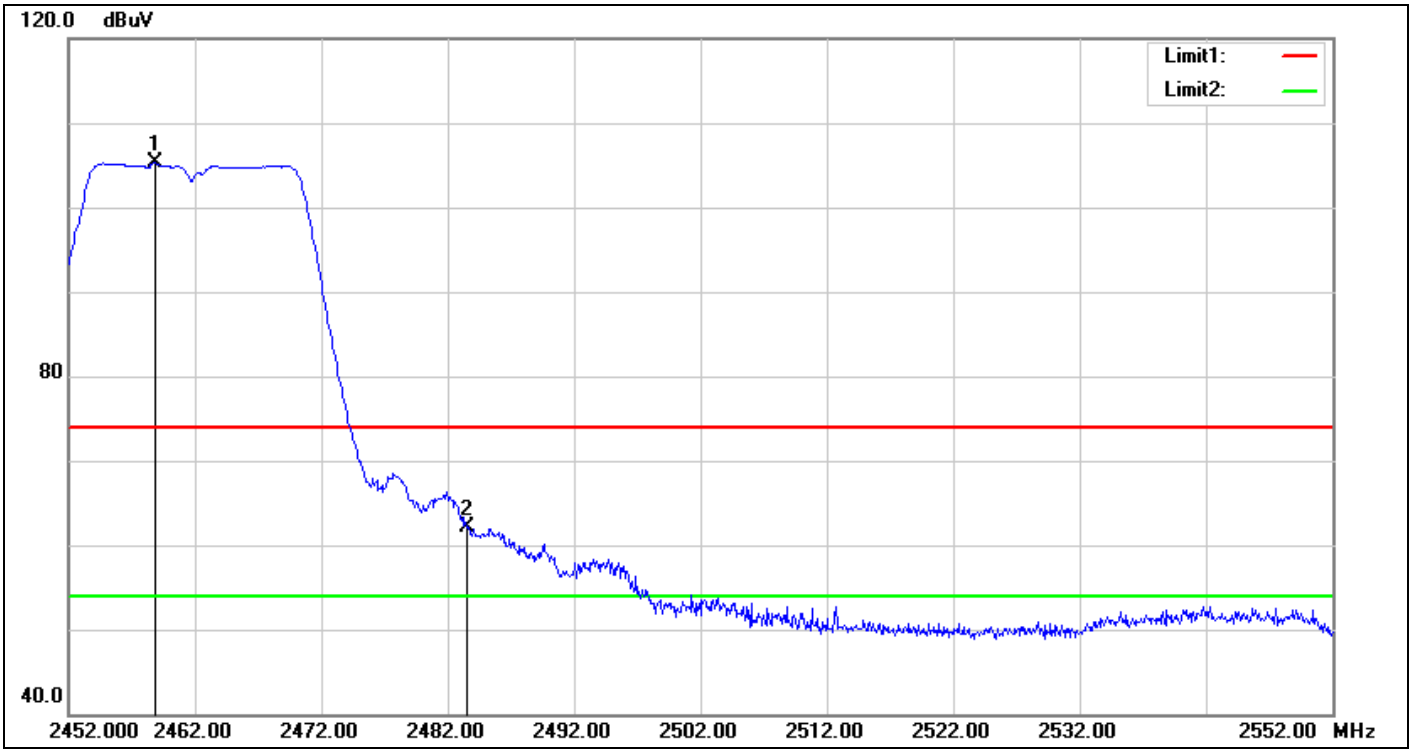
Detector mode: Average



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2390.000	37.64	-2.49	35.15	54.00	-18.85	AVG
2	2442.240	97.79	-2.20	95.59	54.00	41.59	AVG
3	2496.010	41.13	-1.89	39.24	54.00	-14.76	AVG

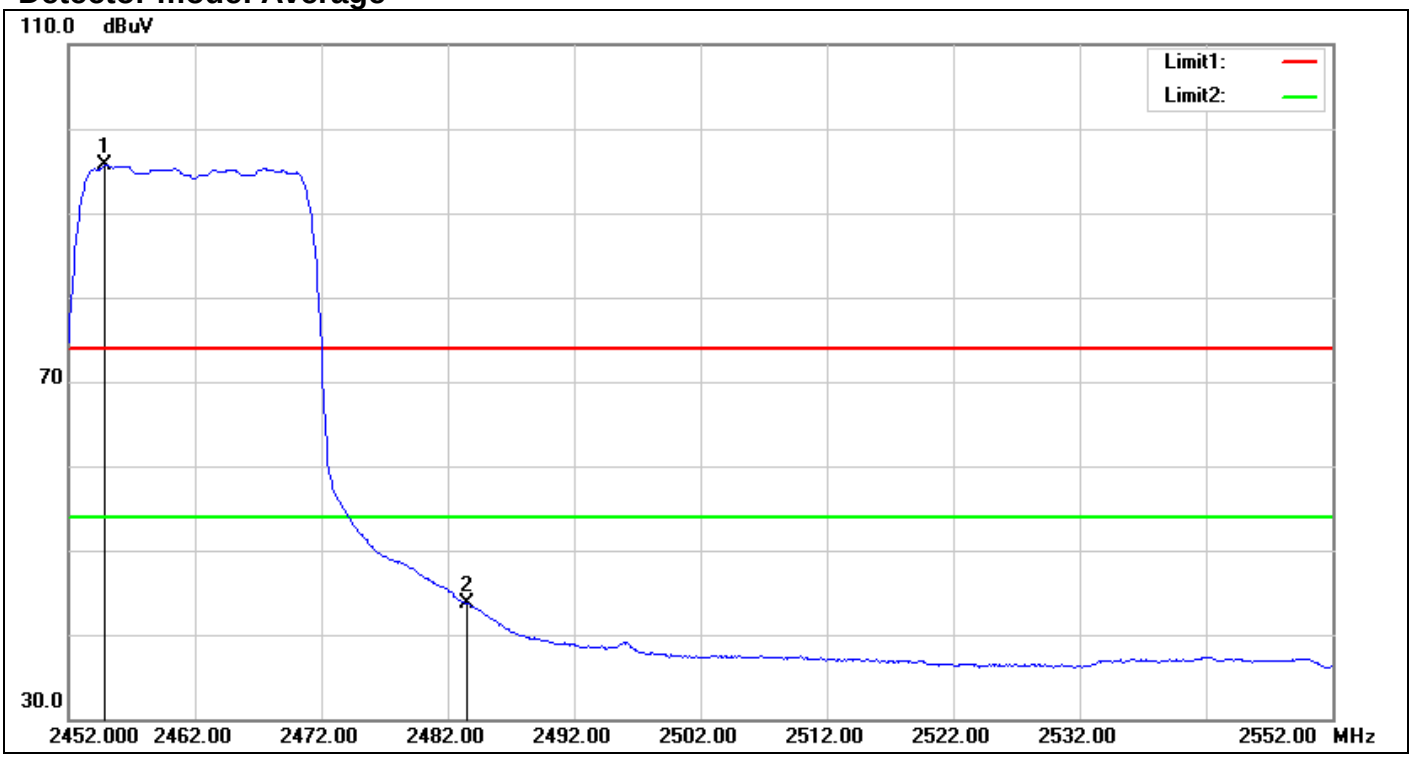
Band Edges (IEEE 802.11n HT 20 MHz mode / CH High)

Detector mode: Peak



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2458.800	107.49	-2.11	105.38	74.00	31.38	peak
2	2483.500	64.12	-1.99	62.13	74.00	-11.87	peak

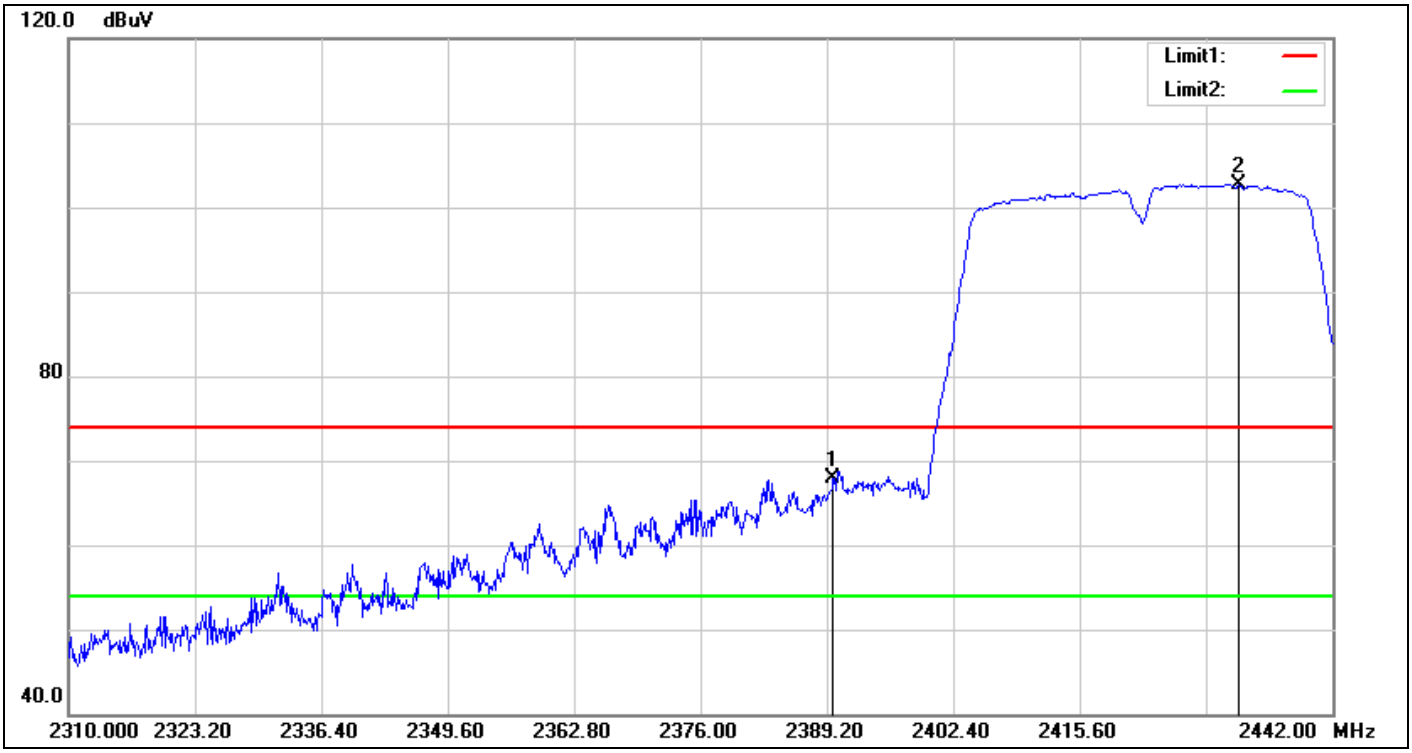
Detector mode: Average



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2454.900	97.79	-2.12	95.67	54.00	41.67	AVG
2	2483.500	45.67	-1.99	43.68	54.00	-10.32	AVG

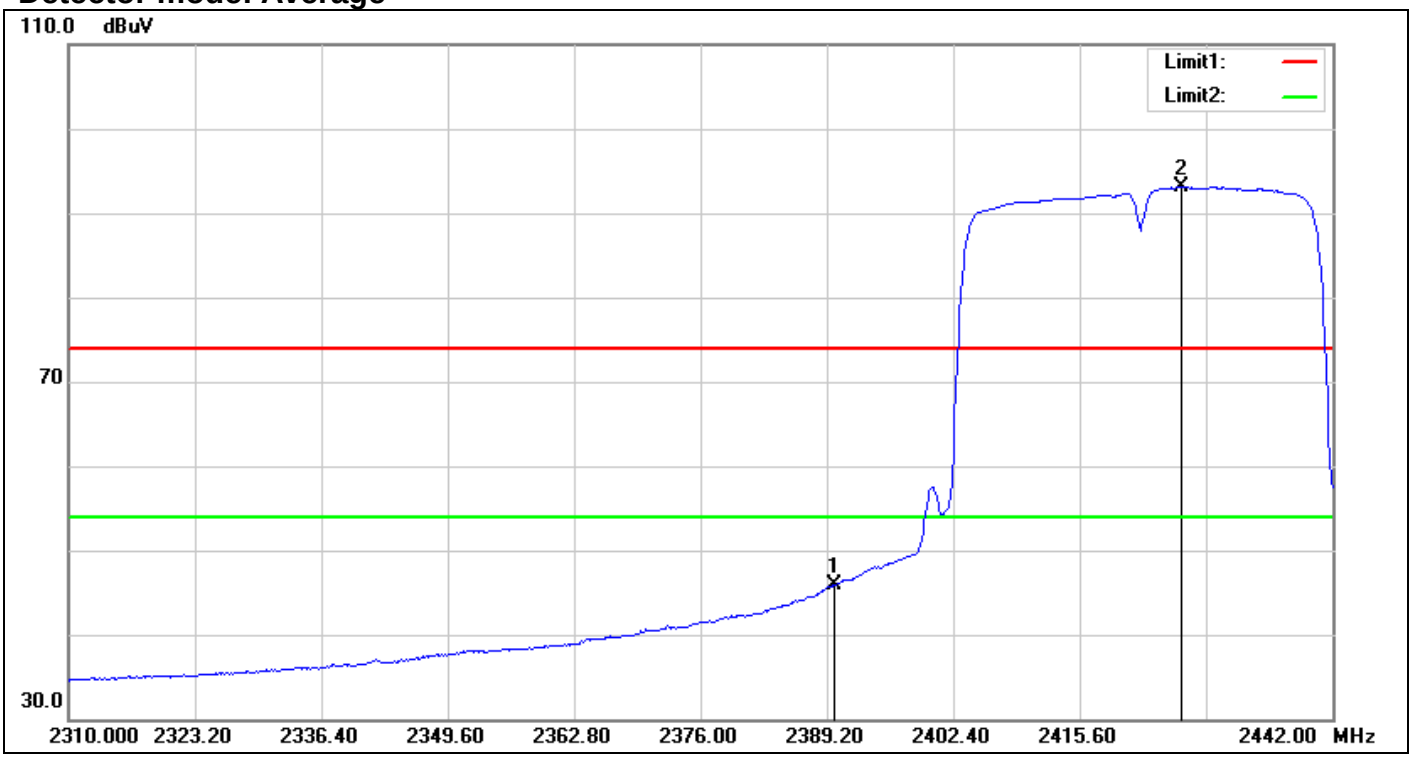
Band Edges (IEEE 802.11n HT 40 MHz mode / CH Low)

Detector mode: Peak



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2389.860	70.30	-2.49	67.81	74.00	-6.19	peak
2	2432.232	104.98	-2.27	102.71	74.00	28.71	peak

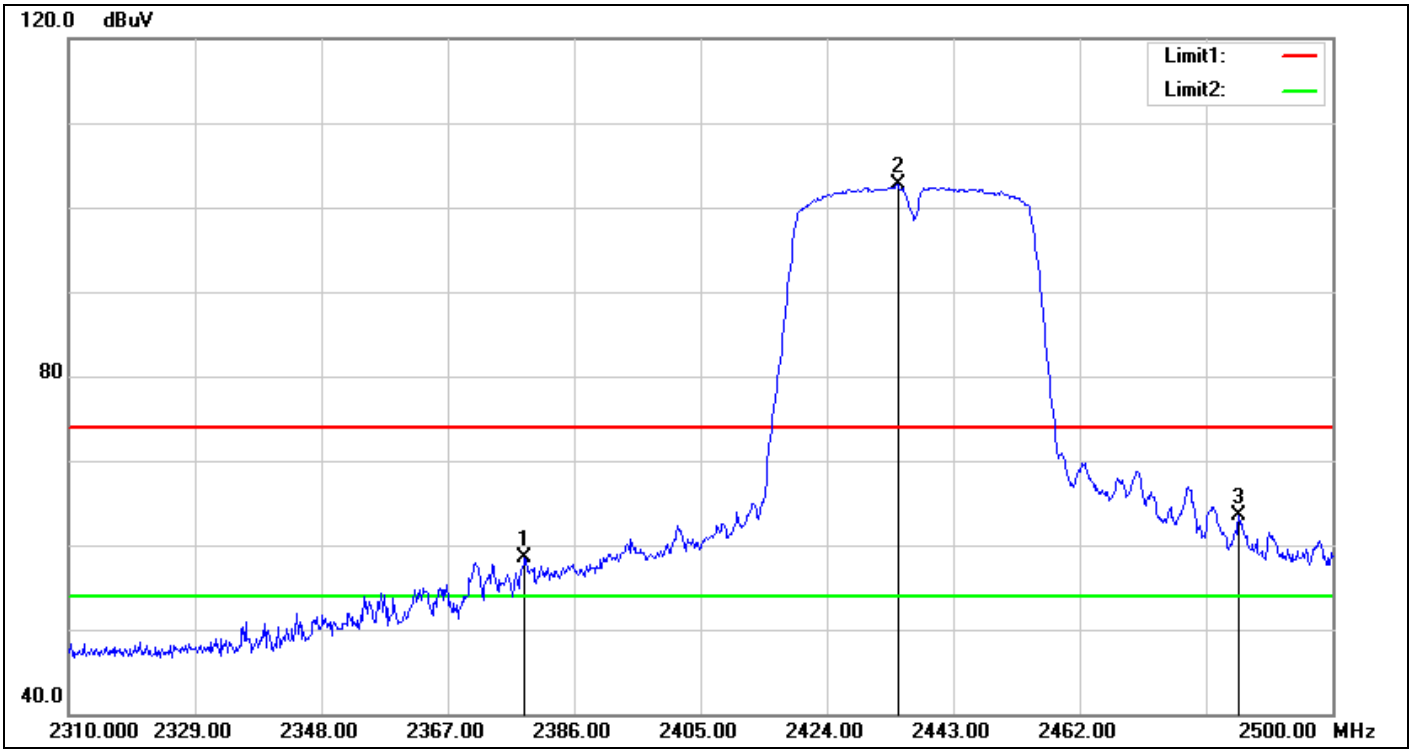
Detector mode: Average



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2390.000	48.35	-2.49	45.86	54.00	-8.14	AVG
2	2426.292	95.39	-2.31	93.08	54.00	39.08	AVG

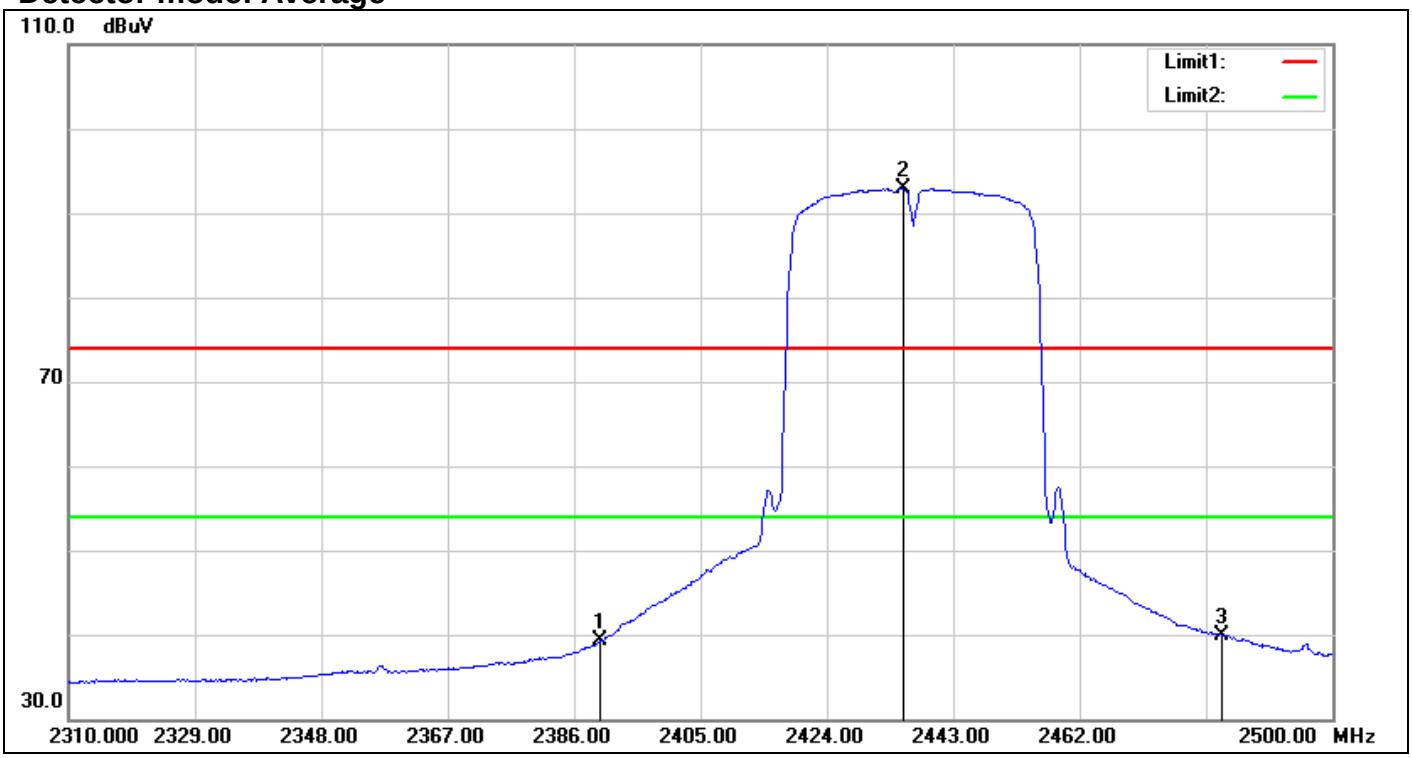
Band Edges (IEEE 802.11n HT 40 MHz mode / CH Mid)

Detector mode: Peak



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2378.590	61.04	-2.59	58.45	74.00	-15.55	peak
2	2434.640	104.96	-2.25	102.71	74.00	28.71	peak
3	2485.940	65.39	-1.97	63.42	74.00	-10.58	peak

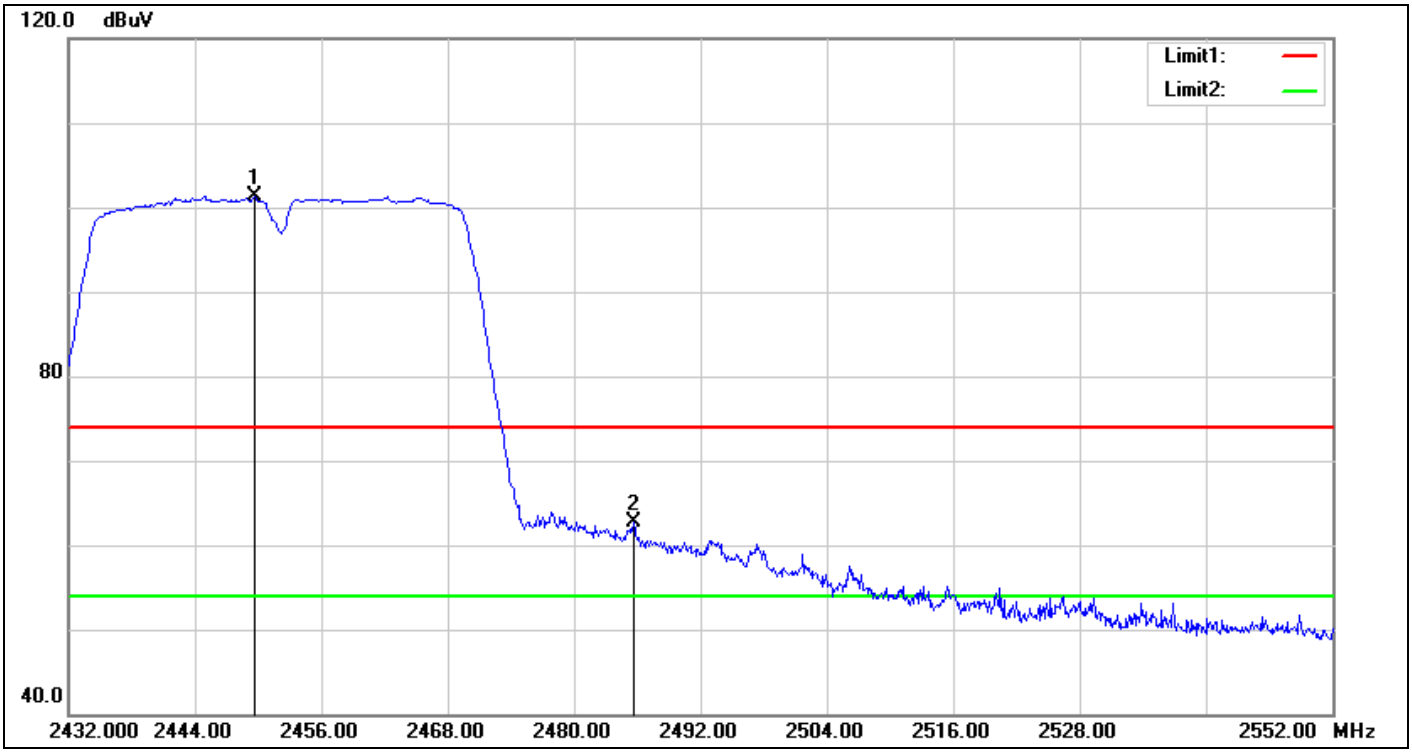
Detector mode: Average



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2390.000	41.79	-2.49	39.30	54.00	-14.70	AVG
2	2435.400	95.17	-2.25	92.92	54.00	38.92	AVG
3	2483.500	41.86	-1.99	39.87	54.00	-14.13	AVG

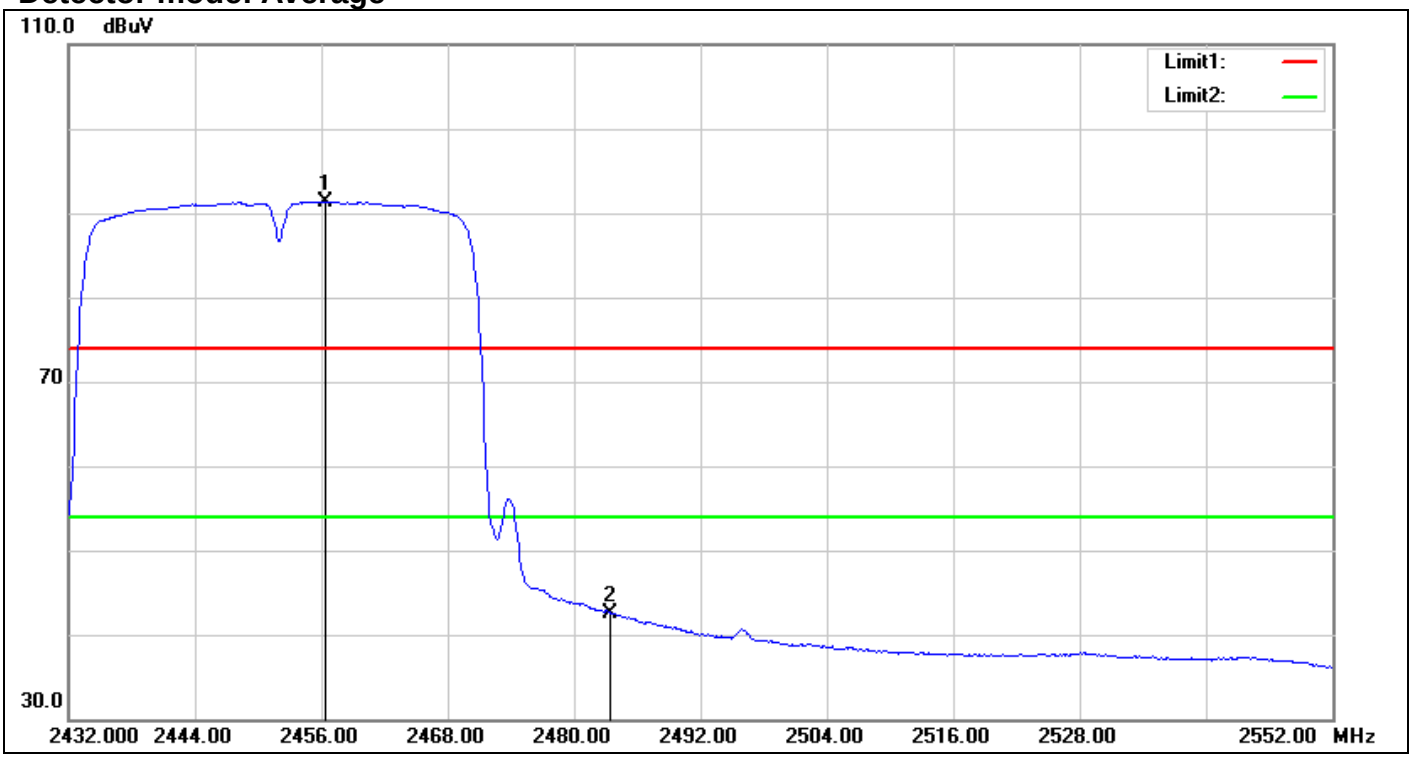
Band Edges (IEEE 802.11n HT 40 MHz mode / CH High)

Detector mode: Peak



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2449.640	103.45	-2.14	101.31	74.00	27.31	peak
2	2485.640	64.65	-1.97	62.68	74.00	-11.32	peak

Detector mode: Average



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2456.360	93.51	-2.12	91.39	54.00	37.39	AVG
2	2483.500	44.57	-1.99	42.58	54.00	-11.42	AVG

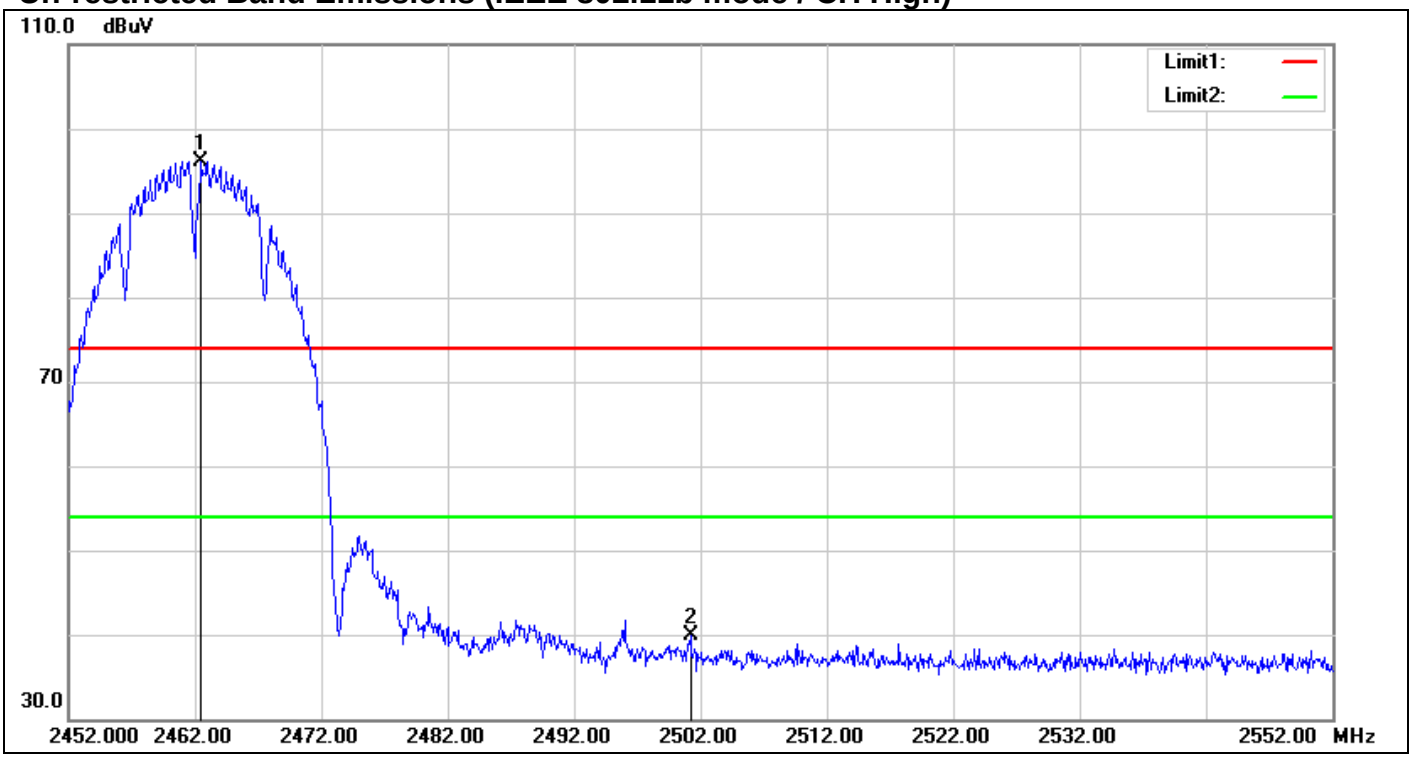
Test Plot

Un-restricted Band Emissions (IEEE 802.11b mode / CH Low)

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2398.480	57.03	-2.42	54.61	74.00	-19.39	peak
2	2412.480	99.61	-2.41	97.20	74.00	23.20	peak

Note: Spurious emission levels that exceed the level of 20 dB below the applicable limit.

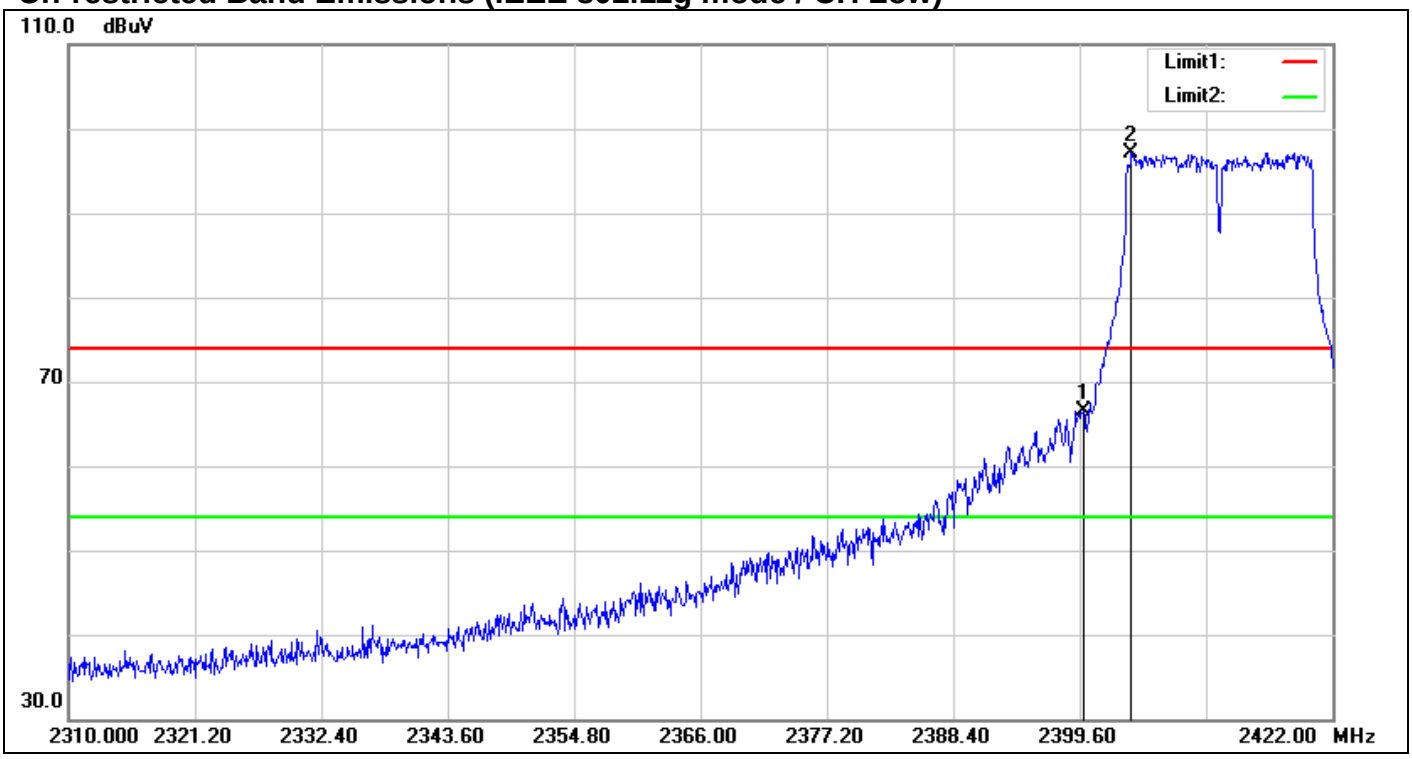
Un-restricted Band Emissions (IEEE 802.11b mode / CH High)



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2462.500	98.19	-2.09	96.10	74.00	22.10	peak
2	2501.200	41.74	-1.86	39.88	74.00	-34.12	peak

Note: Spurious emission levels that exceed the level of 20 dB below the applicable limit.

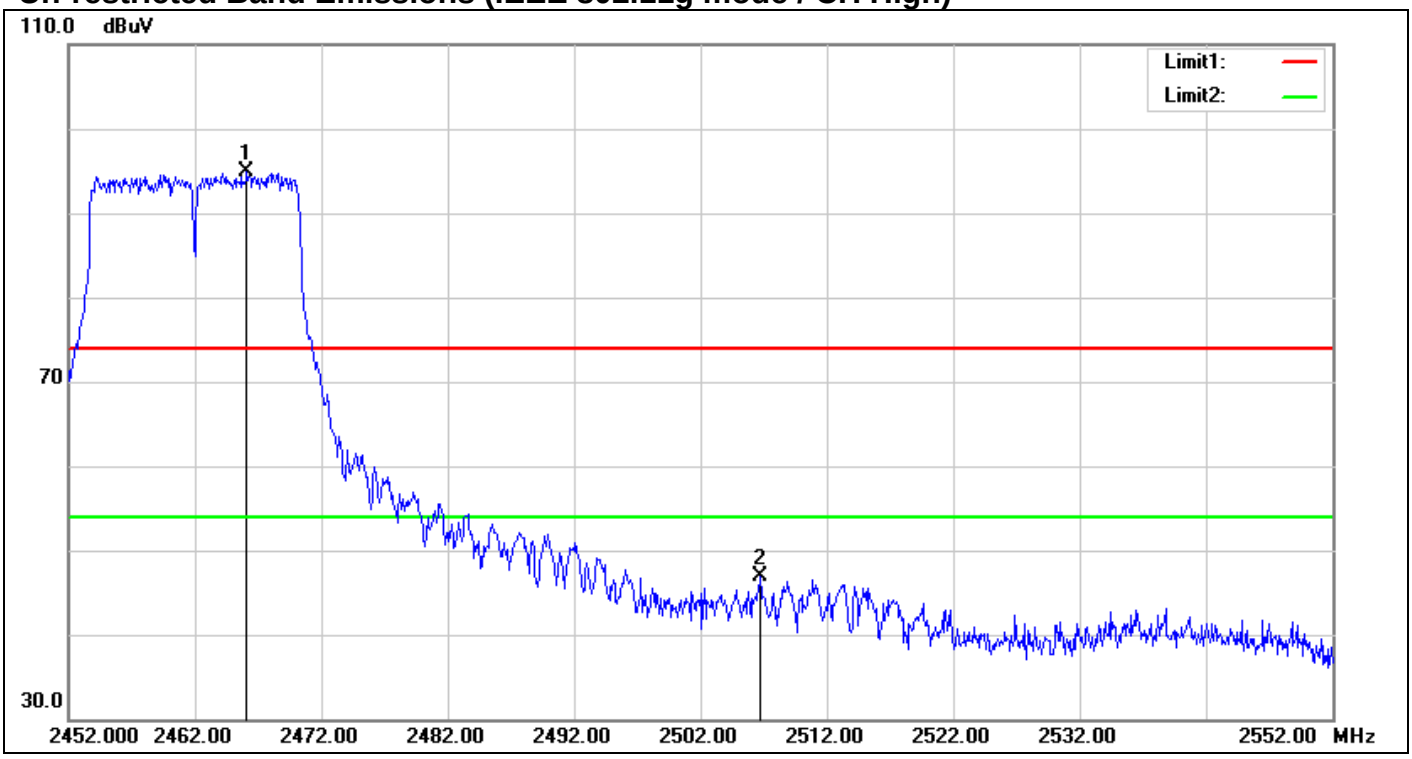
Un-restricted Band Emissions (IEEE 802.11g mode / CH Low)



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2399.936	68.85	-2.41	66.44	74.00	-7.56	peak
2	2404.192	99.55	-2.42	97.13	74.00	23.13	peak

Note: Spurious emission levels that exceed the level of 20 dB below the applicable limit.

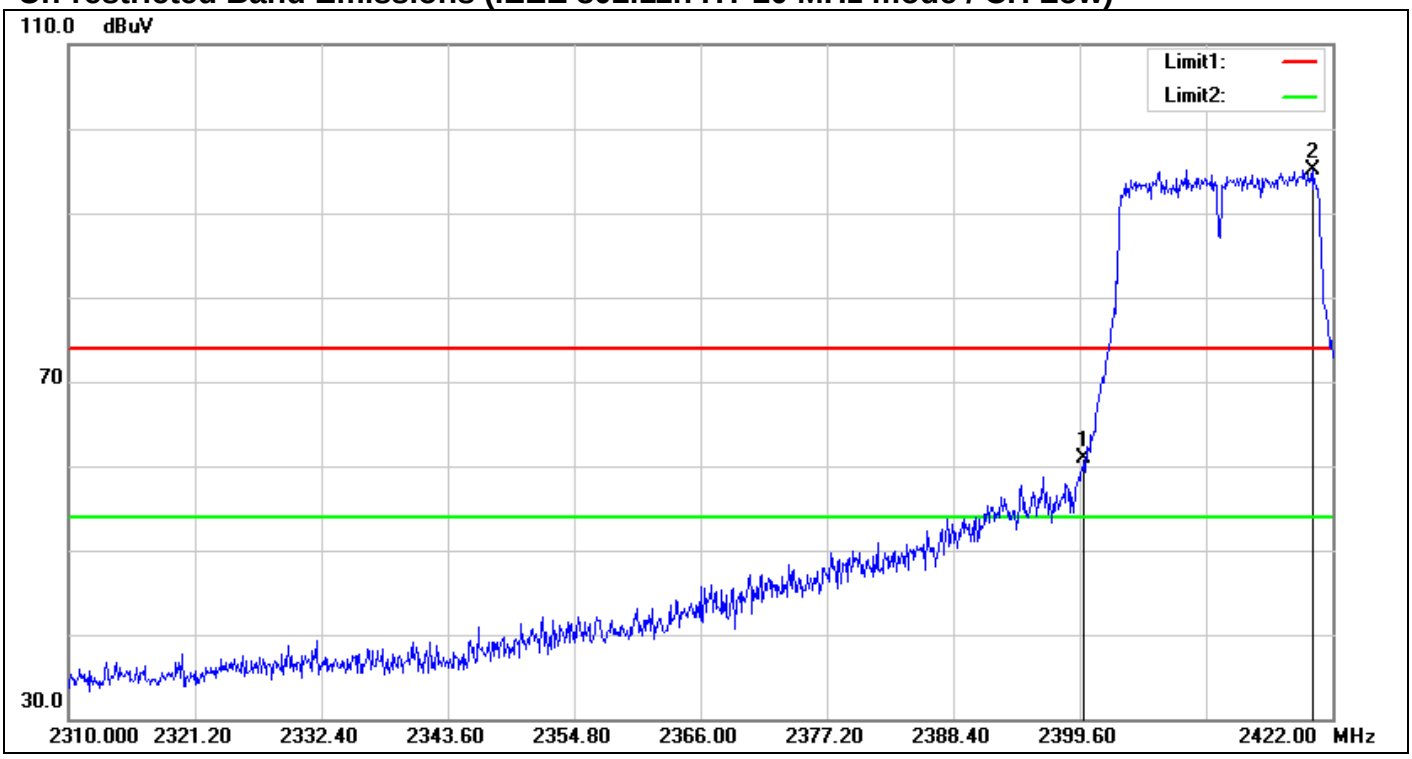
Un-restricted Band Emissions (IEEE 802.11g mode / CH High)



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2466.100	96.92	-2.08	94.84	74.00	20.84	peak
2	2506.700	48.75	-1.84	46.91	74.00	-27.09	peak

Note: Spurious emission levels that exceed the level of 20 dB below the applicable limit.

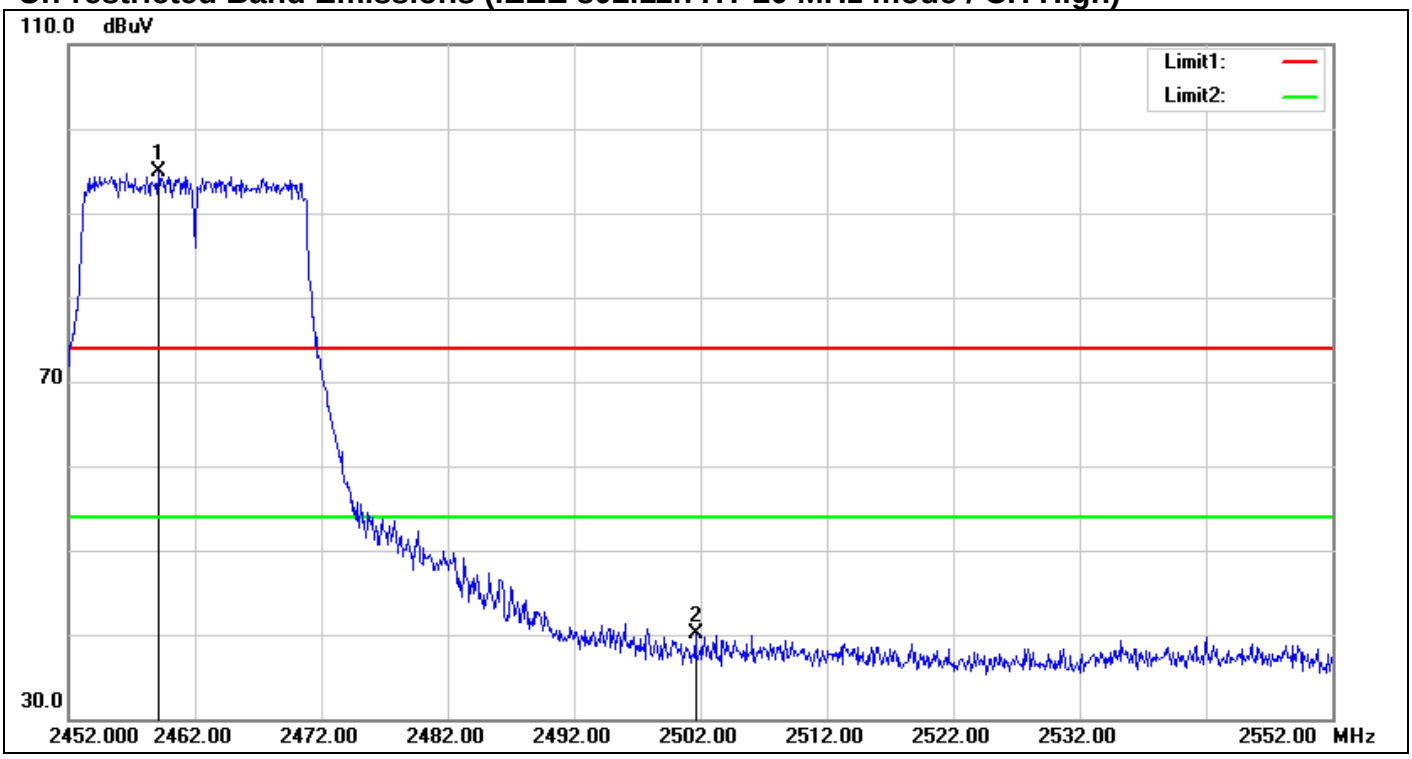
Un-restricted Band Emissions (IEEE 802.11n HT 20 MHz mode / CH Low)



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	ARemark
1	2400.000	63.30	-2.41	60.89	74.00	-13.11	peak
2	2420.320	97.47	-2.36	95.11	74.00	21.11	peak

Note: Spurious emission levels that exceed the level of 20 dB below the applicable limit.

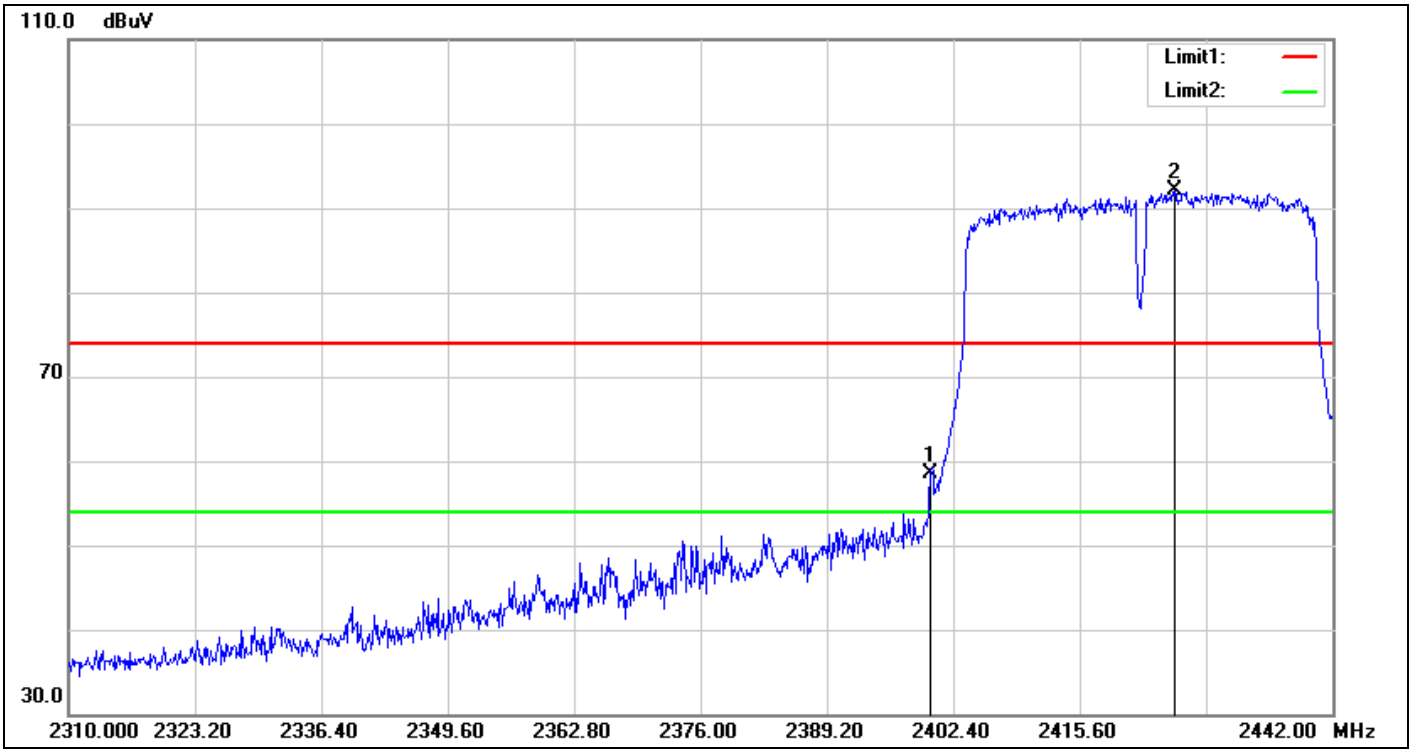
Un-restricted Band Emissions (IEEE 802.11n HT 20 MHz mode / CH High)



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2459.100	97.05	-2.11	94.94	74.00	20.94	peak
2	2501.600	41.98	-1.86	40.12	74.00	-33.88	peak

Note: Spurious emission levels that exceed the level of 20 dB below the applicable limit.

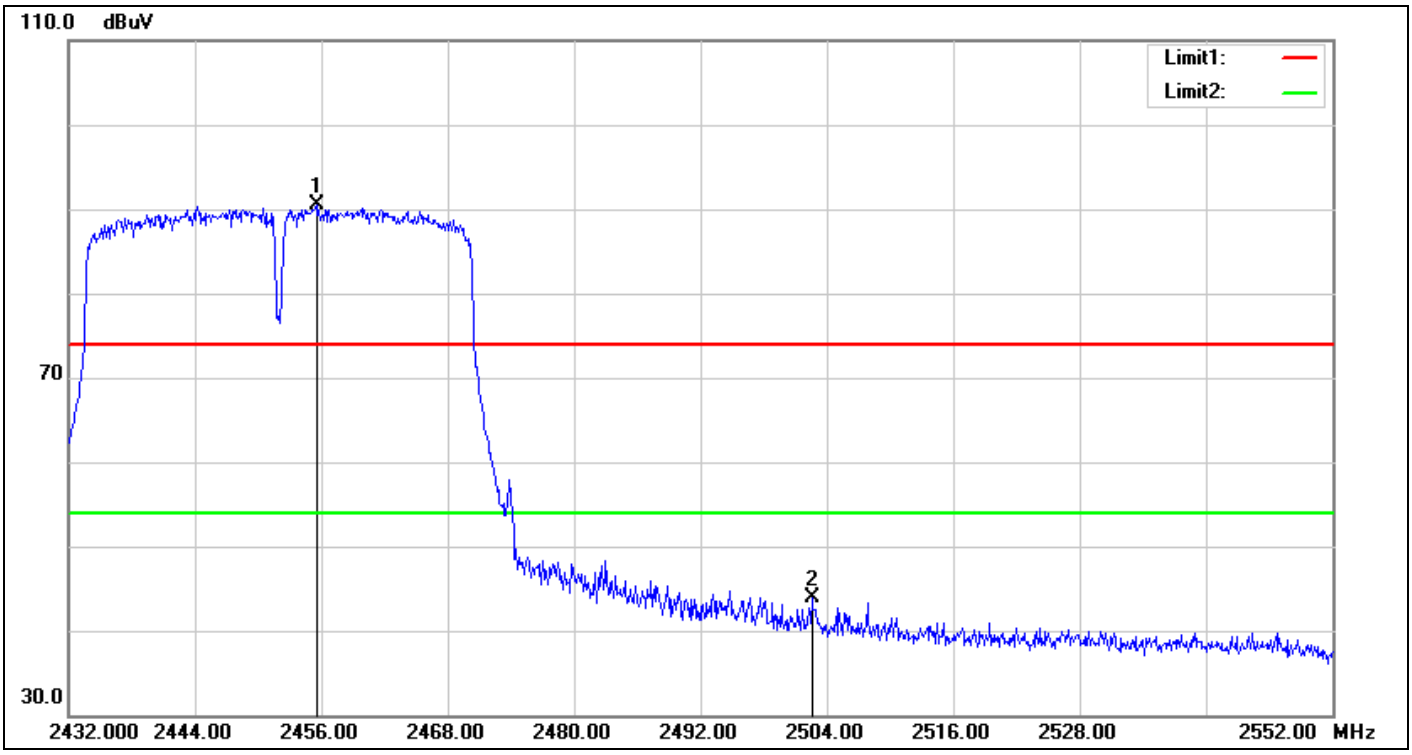
Un-restricted Band Emissions (IEEE 802.11n HT 40 MHz mode / CH Low)



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2400.000	60.97	-2.41	58.56	74.00	-15.44	peak
2	2425.500	94.40	-2.32	92.08	74.00	18.08	peak

Note: Spurious emission levels that exceed the level of 20 dB below the applicable limit.

Un-restricted Band Emissions (IEEE 802.11n HT 40 MHz mode / CH High)



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	2455.520	92.69	-2.12	90.57	74.00	16.57	peak
2	2502.560	45.70	-1.85	43.85	74.00	-30.15	peak

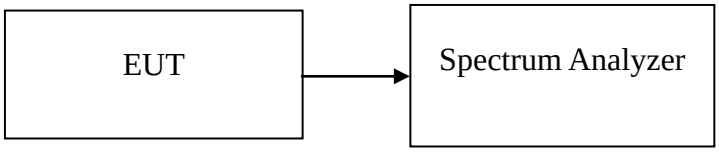
Note: Spurious emission levels that exceed the level of 20 dB below the applicable limit.

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

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 = 30 kHz, Span = 300 kHz, Sweep time = 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

IEEE 802.11b mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-18.92	8.00	PASS
Mid	2437	-19.22		PASS
High	2462	-19.85		PASS

IEEE 802.11g mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-14.46	8.00	PASS
Mid	2437	-14.98		PASS
High	2462	-14.85		PASS

IEEE 802.11n HT 20 MHz mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-15.31	8.00	PASS
Mid	2437	-15.02		PASS
High	2462	-15.19		PASS

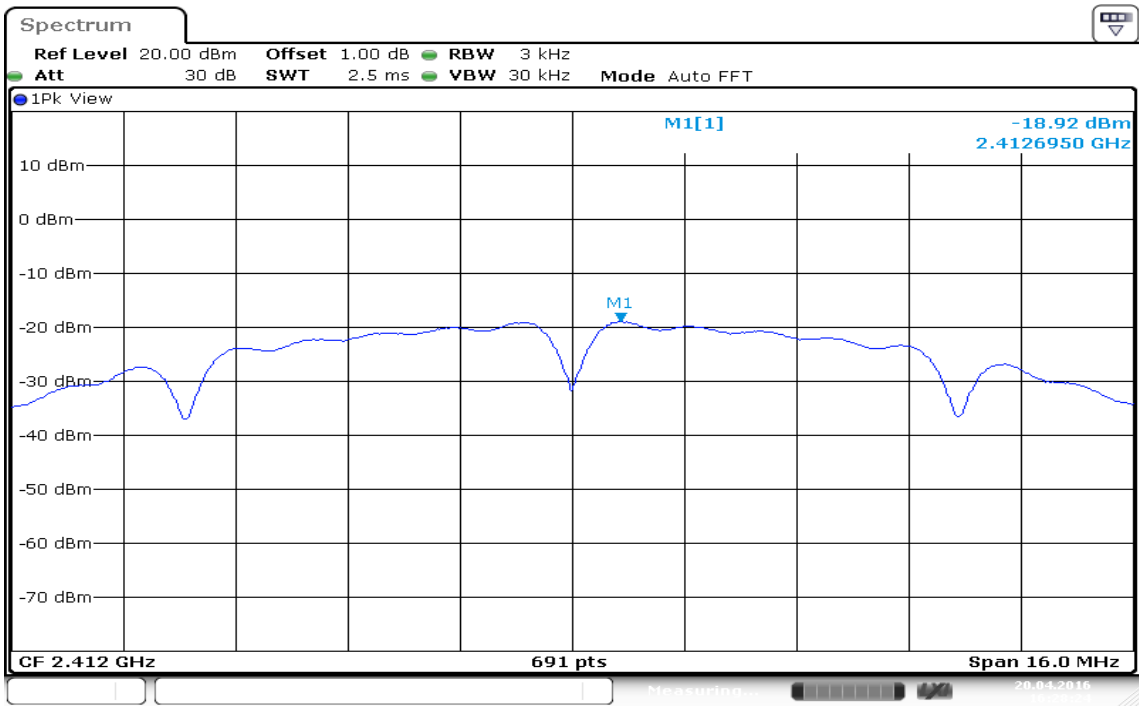
IEEE 802.11n HT 40 MHz mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2422	-15.06	8.00	PASS
Mid	2437	-15.27		PASS
High	2452	-15.85		PASS

Test Plot

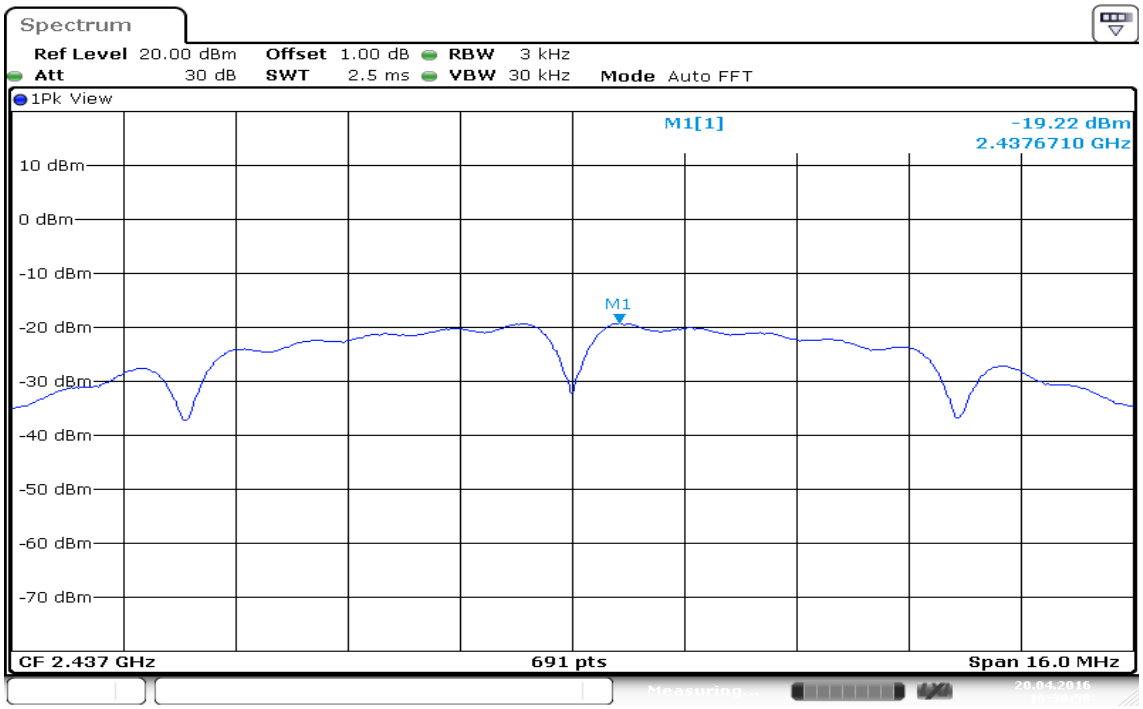
IEEE 802.11b mode

PPSD (CH Low)



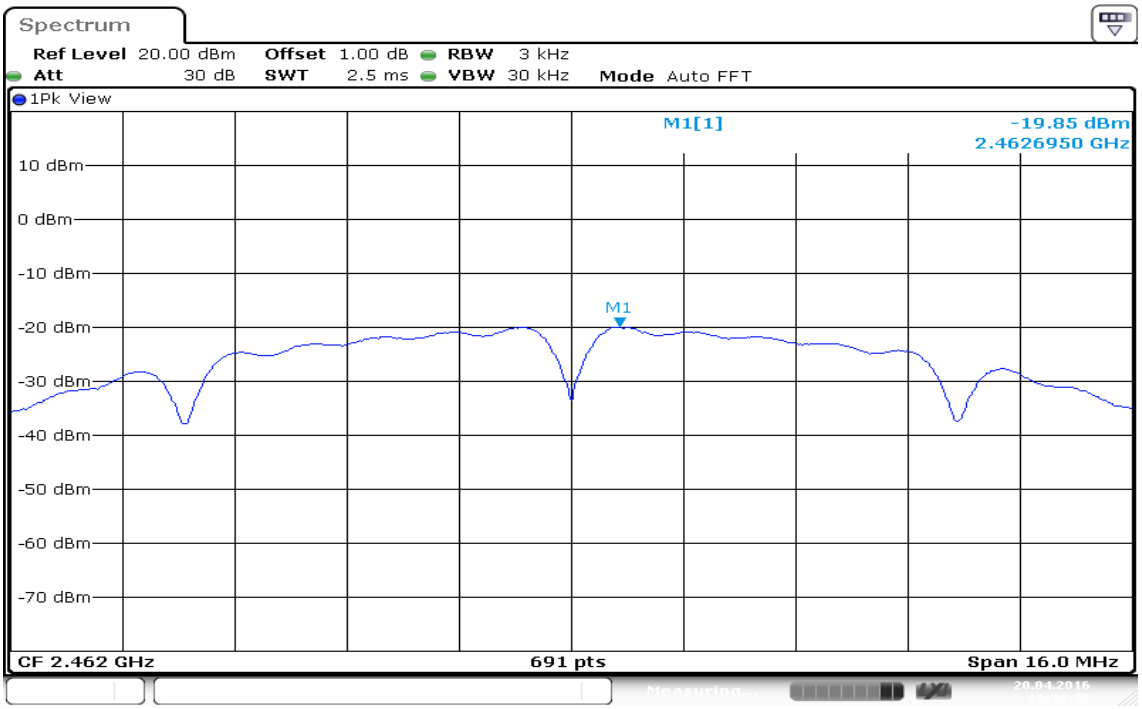
Date: 20.APR.2016 16:28:24

PPSD (CH Mid)



Date: 20.APR.2016 16:30:58

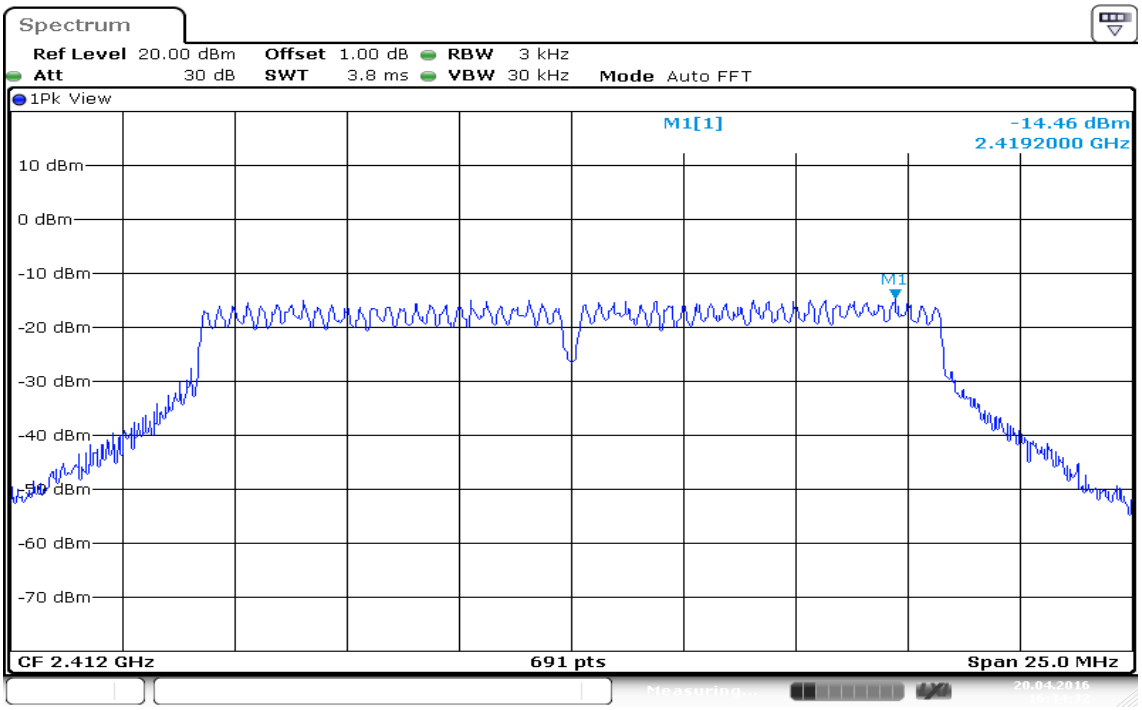
PPSD (CH High)



Date: 20.APR.2016 16:32:32

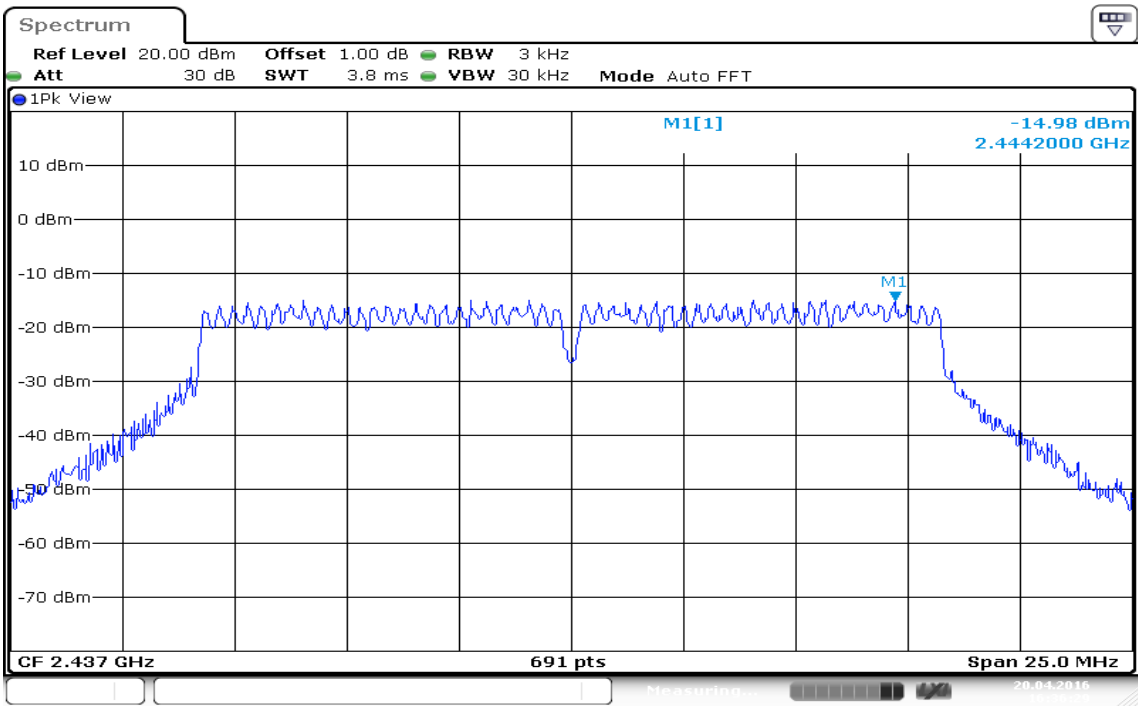
IEEE 802.11g mode

PPSD (CH Low)



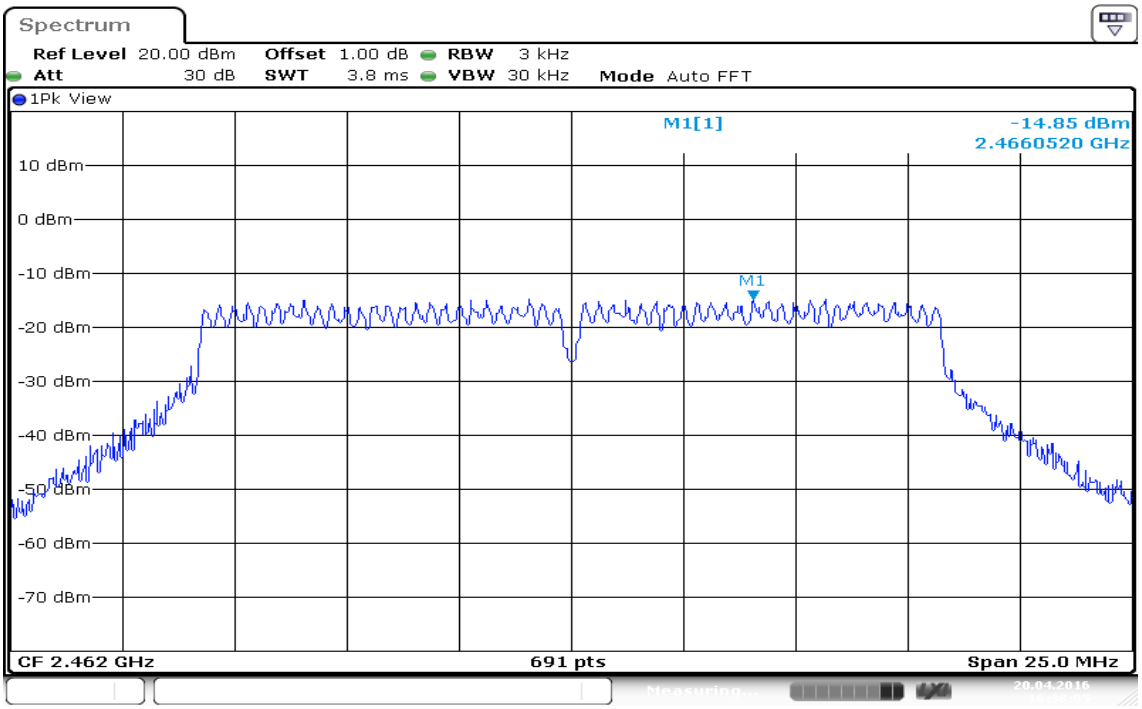
Date: 20.APR.2016 16:34:32

PPSD (CH Mid)



Date: 20.APR.2016 16:36:29

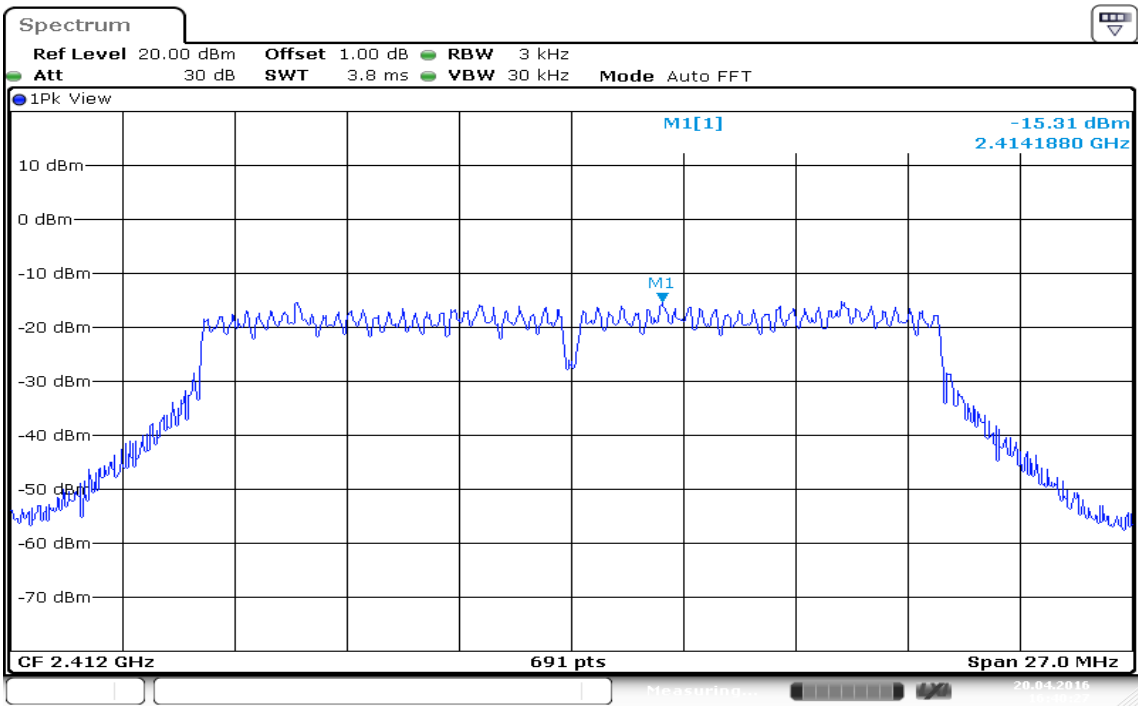
PPSD (CH High)



Date: 20.APR.2016 16:38:05

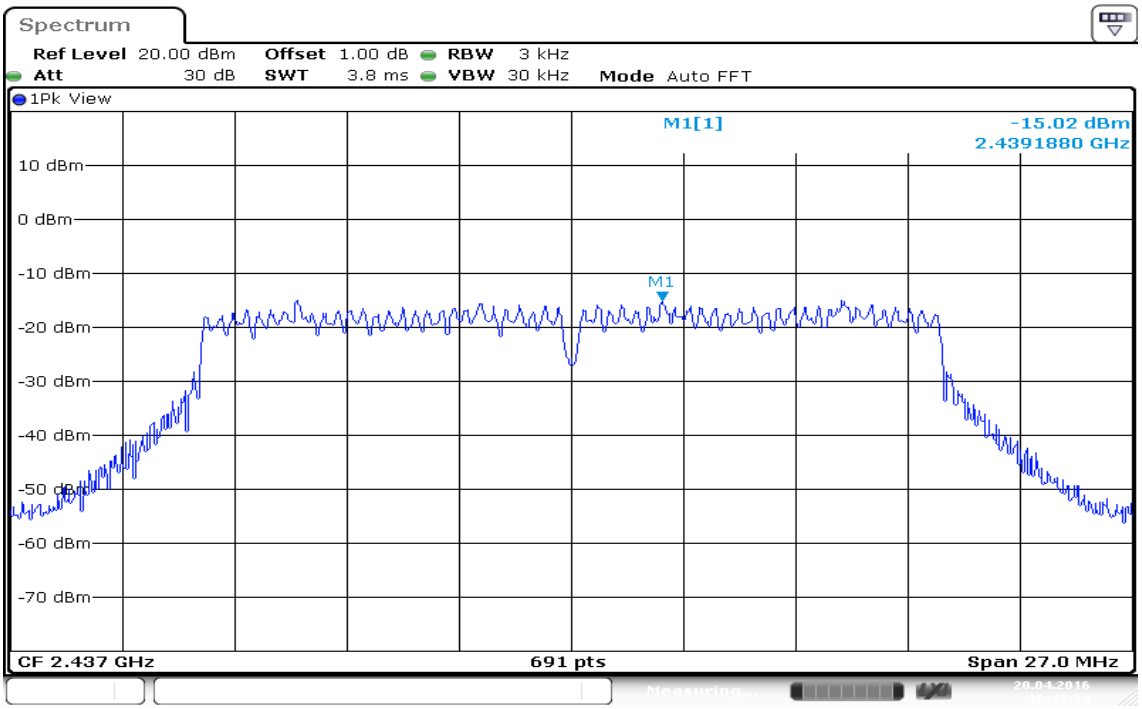
IEEE 802.11n HT 20 MHz mode

PPSD (CH Low)



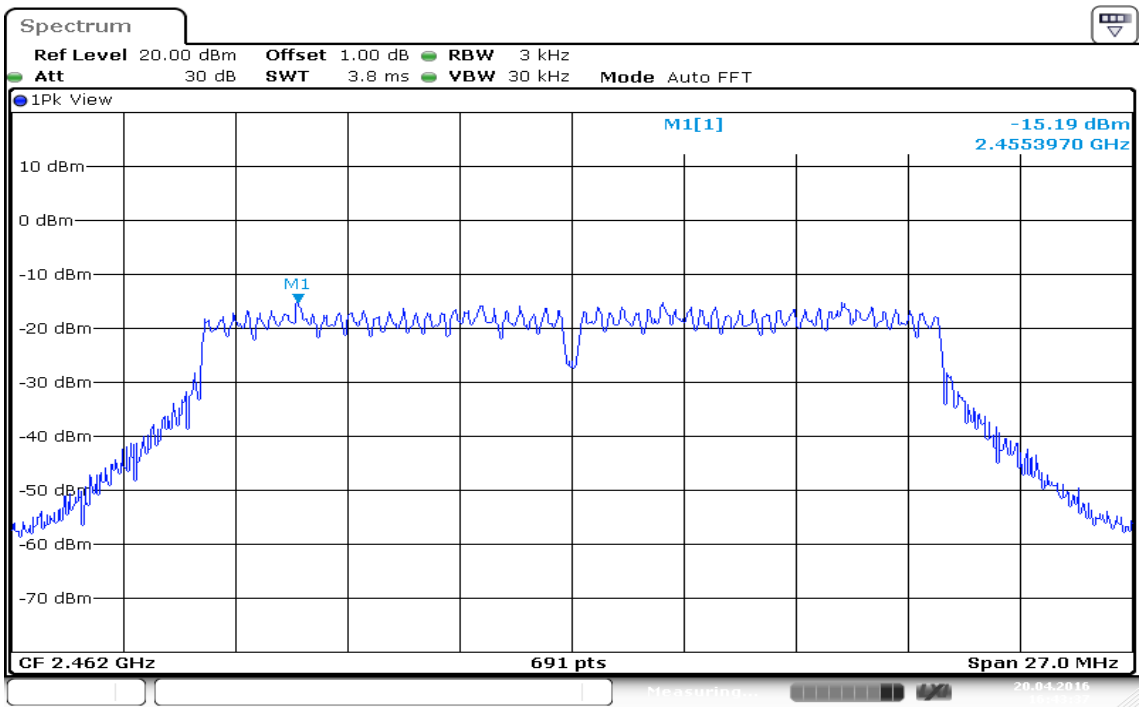
Date: 20.APR.2016 16:40:27

PPSD (CH Mid)



Date: 20.APR.2016 16:41:54

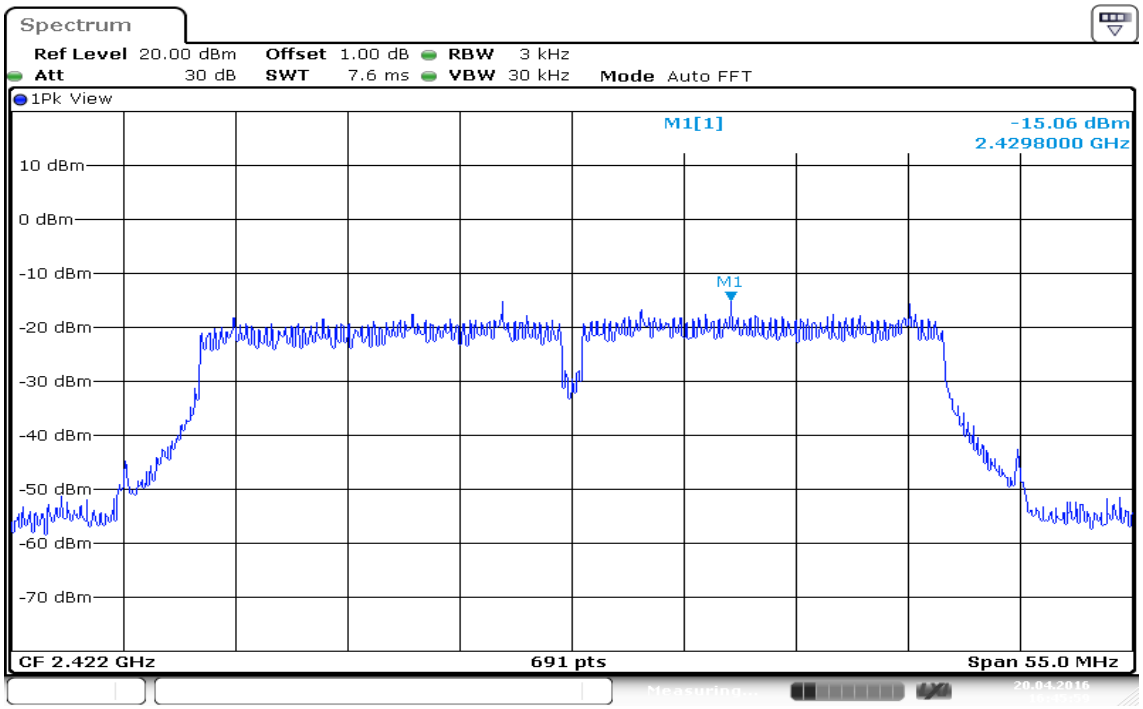
PPSD (CH High)



Date: 20.APR.2016 16:43:37

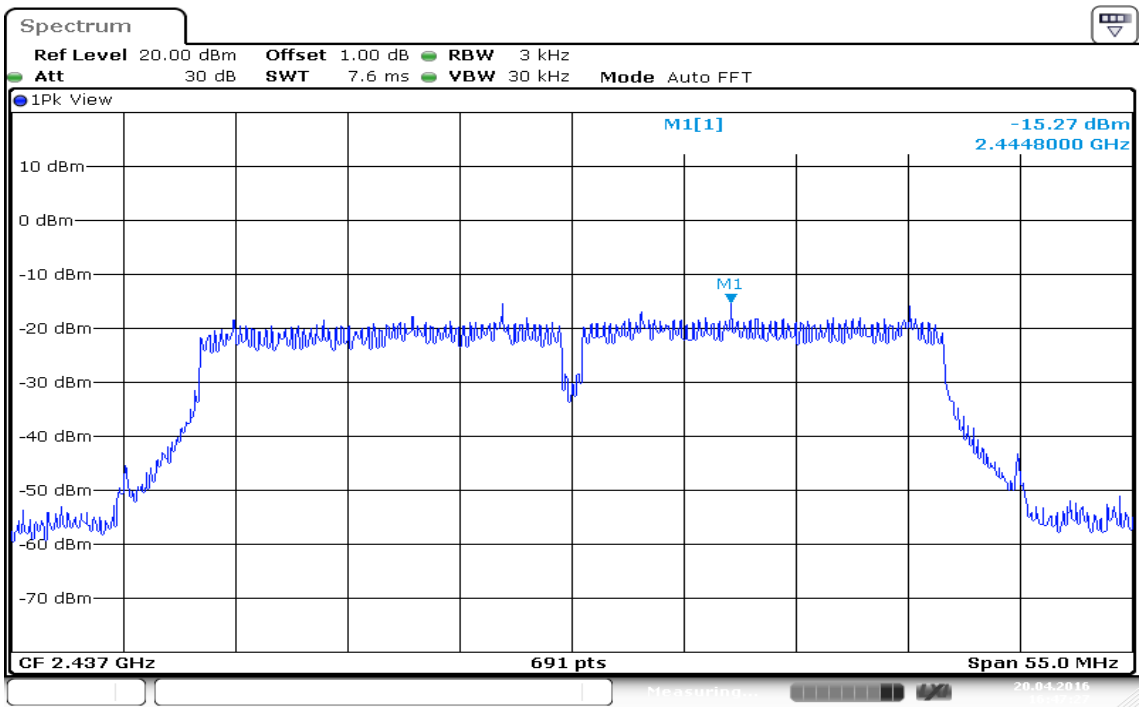
IEEE 802.11n HT 40 MHz mode

PPSD (CH Low)



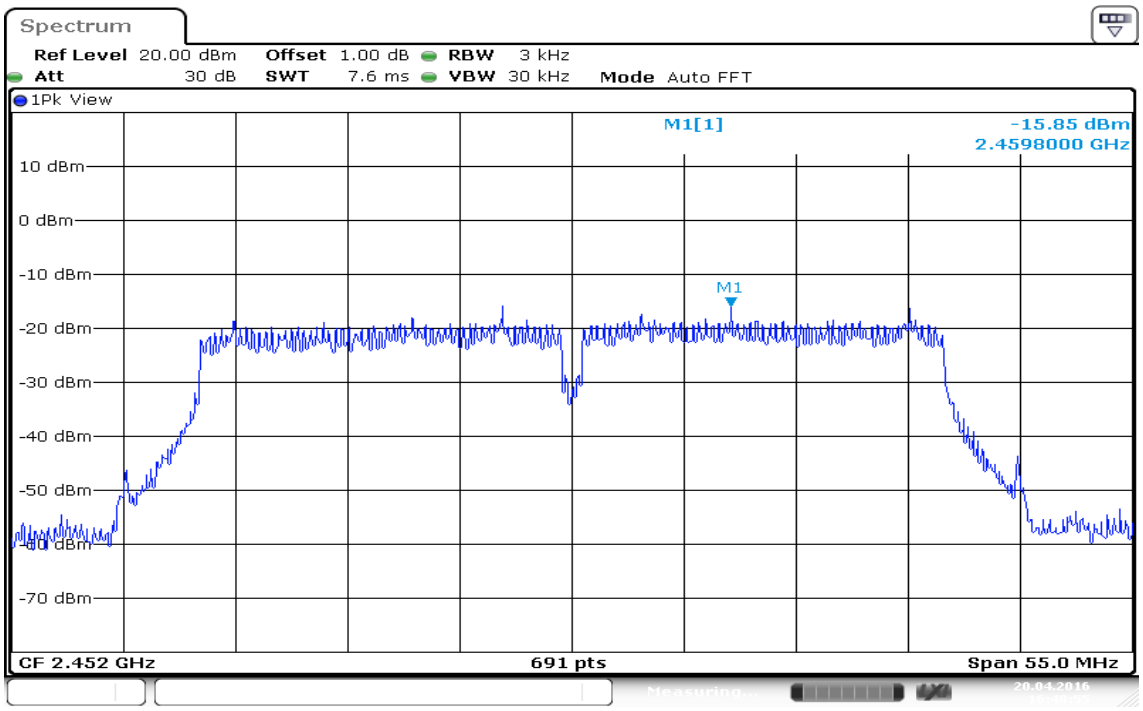
Date: 20.APR.2016 16:45:59

PPSD (CH Mid)



Date: 20.APR.2016 16:47:27

PPSD (CH High)



Date: 20.APR.2016 16:48:55

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 (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

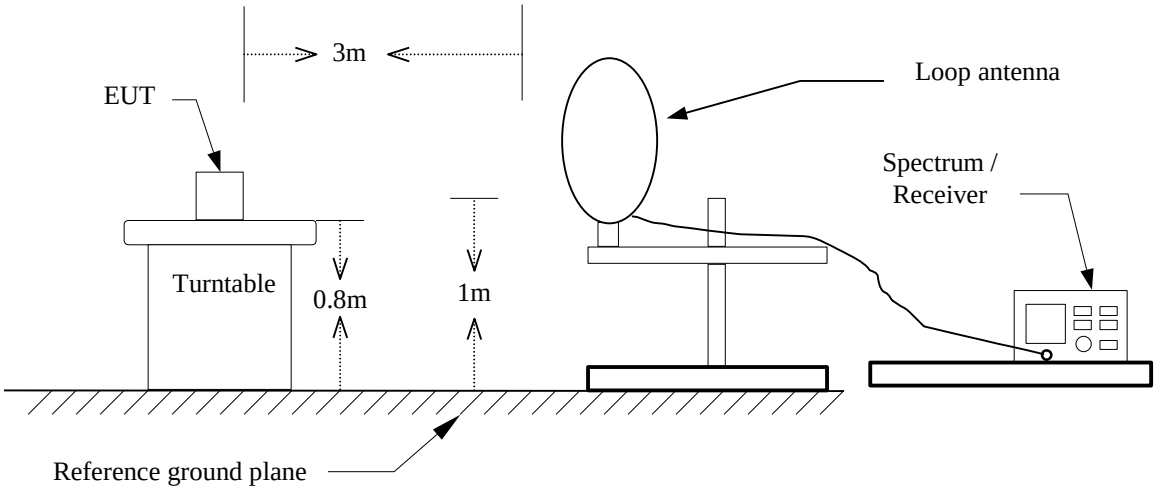
Remark: *Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of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

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

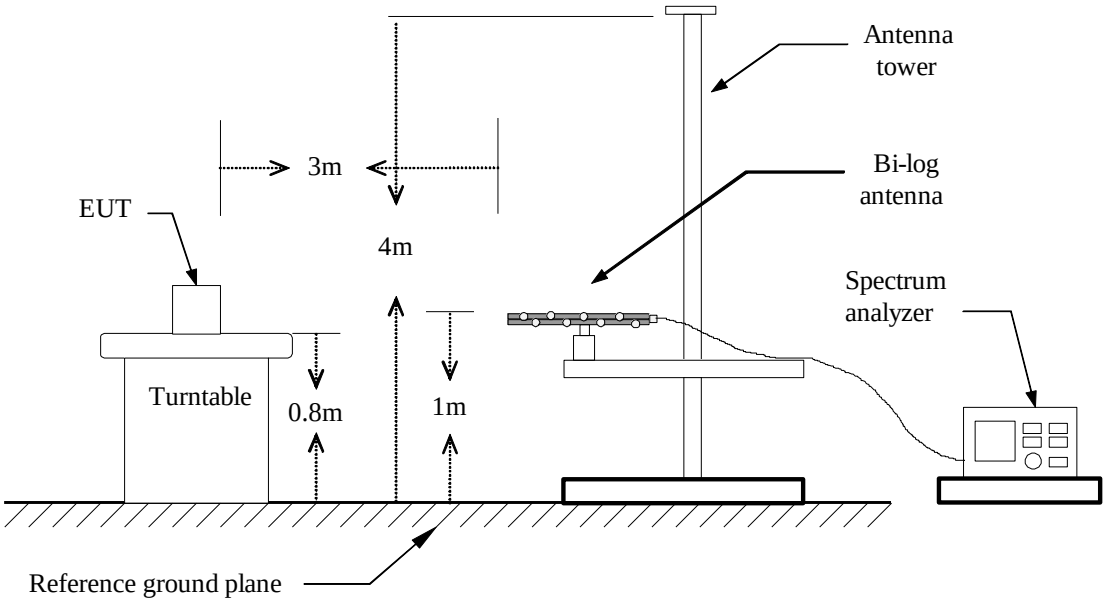
Frequency (MHz)	Field Strength (μV/m at 3-meter)	Field Strength (dBμV/m at 3-meter)
0.009 - 0.490	2400/F(kHz) +80	20LOG((2400/F(kHz))+80)
0.490 - 1.705	24000/F(kHz) +40	20LOG((24000/F(kHz))+40)
1.705 – 30.0	30	69.54
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Test Configuration

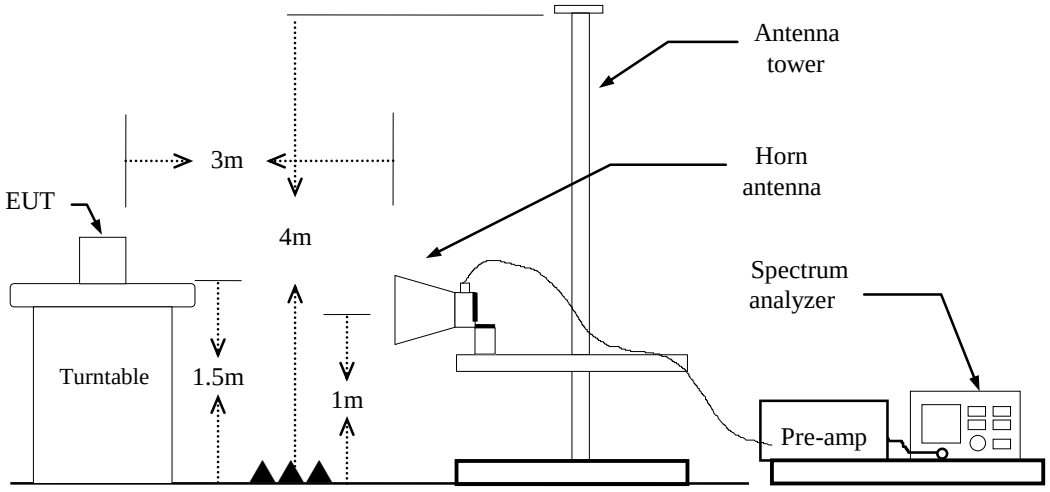
9kHz ~ 30MHz



30MHz ~ 1GHz



Above 1 GHz


Antenna
tower
Horn
antenna
Spectrum
analyzer
3m
EUT
4m
Turntable
1.5m
1m
Pre-amp

TEST PROCEDURE

1. The EUT is placed on a turntable, Above 1 GHz is 1.5m high and below 1 GHz is 0.8m high 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=1MHz / VBW=3MHz / Sweep=AUTO
   (b) AVERAGE: RBW=1MHz,
   if duty cycle≧98%, VBW=10Hz.
   if duty cycle<98% VBW=1/T.
   IEEE 802.11b mode: ≧98%, VBW=10Hz
   IEEE 802.11g mode: ≧98%, VBW=10Hz
   IEEE 802.11n HT 20 MHz mode: ≧98%, VBW=10Hz
   IEEE 802.11n HT 40 MHz mode: ≧98%, VBW=10Hz

7. Repeat above procedures until the measurements for all frequencies are complete.
8. Result = Spectrum Reading + cable loss(spectrum to Amp) - Amp Gain + Cable loss(Amp to receive Ant)+ Receive Ant

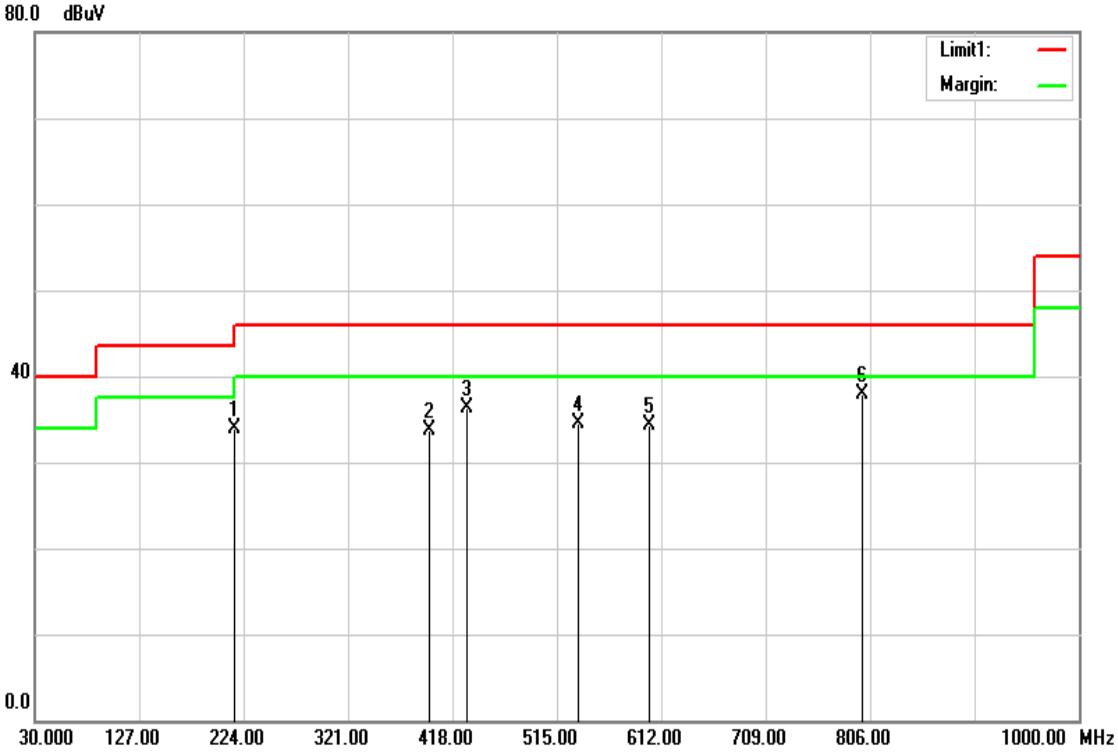
Note: We checked every harmonics frequencies from Fundamental frequencies with reduced VBW, and we mark a point to prove pass or not if we find any emission. For this case, there are no emissions hidden in the noise floor.

Below 1GHz

Operation Mode: Normal Link **Test Date:** April 18, 2016

Temperature: 27°C **Tested by:** Jason Lu

Humidity: 53% RH **Polarity:** Ver.



Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant. Pol. (H/V)
215.2700	50.60	-16.63	33.97	43.50	-9.53	peak	V
396.6600	45.53	-11.78	33.75	46.00	-12.25	peak	V
431.5800	47.10	-10.75	36.35	46.00	-9.65	peak	V
534.4000	43.16	-8.72	34.44	46.00	-11.56	peak	V
600.3600	42.13	-7.75	34.38	46.00	-11.62	peak	V
799.2100	42.49	-4.51	37.98	46.00	-8.02	peak	V

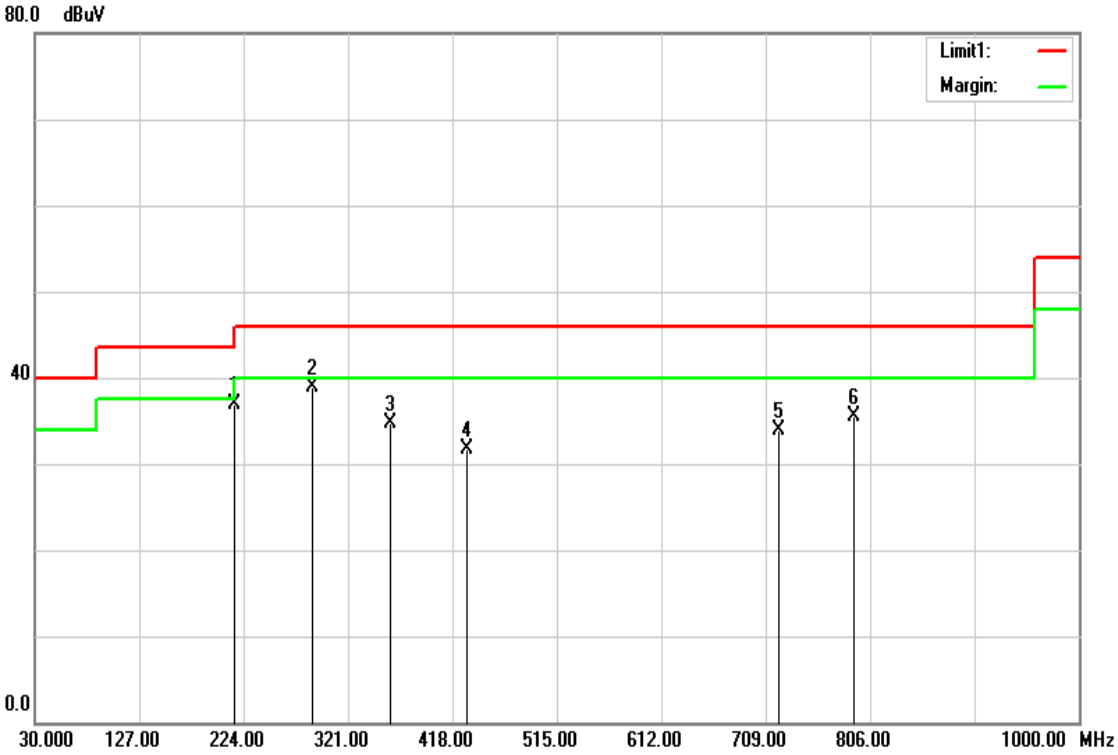
Remark:

1. *Measuring frequencies from 30 MHz to the 1GHz.*
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) = Result (dBuV/m) – Limit (dBuV/m).*

Operation Mode: Normal Link **Test Date:** April 18, 2016

Temperature: 27°C **Tested by:** Jason Lu

Humidity: 53% RH **Polarity:** Hor.



Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant. Pol. (H/V)
215.2700	53.52	-16.63	36.89	43.50	-6.61	peak	H
288.0200	53.34	-14.46	38.88	46.00	-7.12	peak	H
360.7700	47.41	-12.63	34.78	46.00	-11.22	peak	H
431.5800	42.38	-10.75	31.63	46.00	-14.37	peak	H
721.6100	39.51	-5.57	33.94	46.00	-12.06	peak	H
790.4800	40.08	-4.58	35.50	46.00	-10.50	peak	H

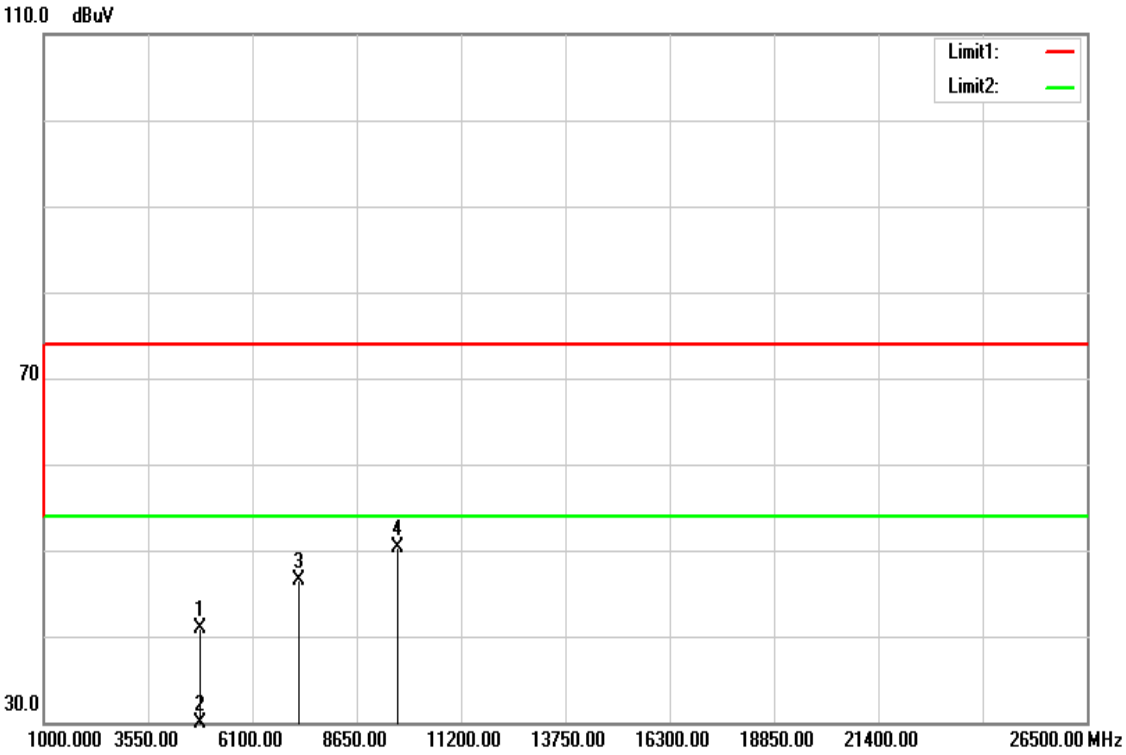
Remark:

1. *Measuring frequencies from 30 MHz to the 1GHz.*
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) = Result (dBuV/m) – Limit (dBuV/m).*

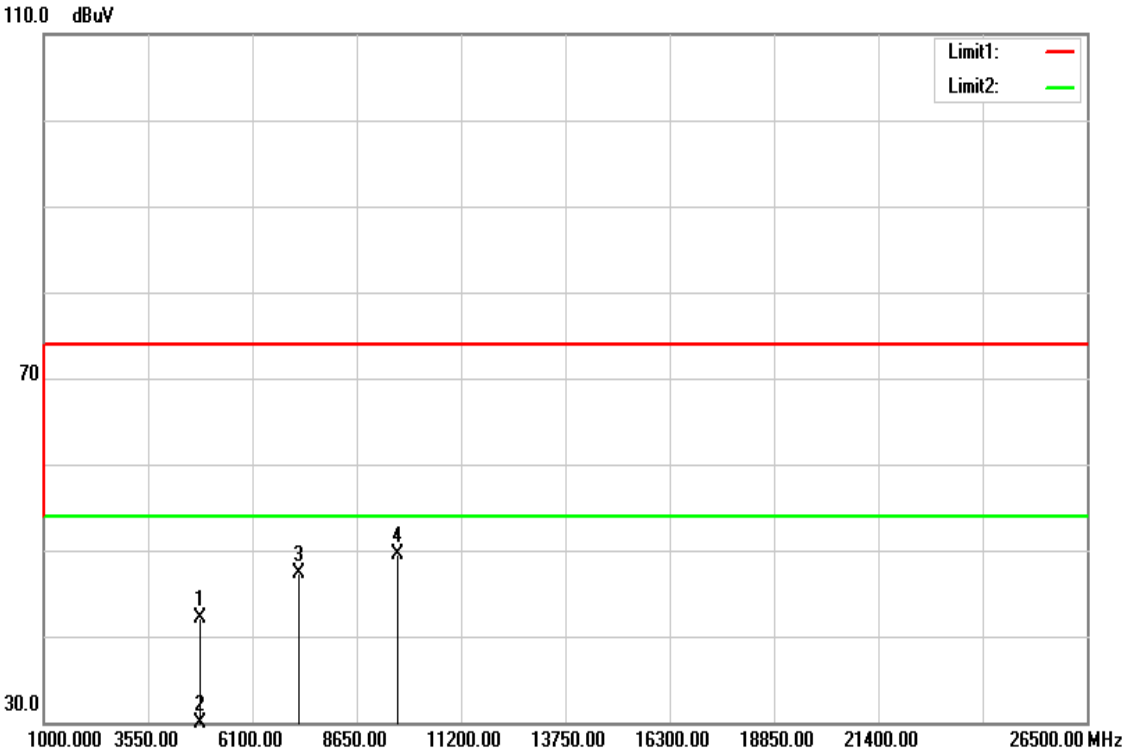
Above 1 GHz

TX / IEEE 802.11b / CH Low

Polarity: Vertical



Polarity: Horizontal



Above 1 GHz

Operation Mode: TX / IEEE 802.11b / CH Low **Test Date:** April 18, 2016

Temperature: 27°C **Tested by:** Jason Lu

Humidity: 53% RH **Polarity:** Ver. / Hor.

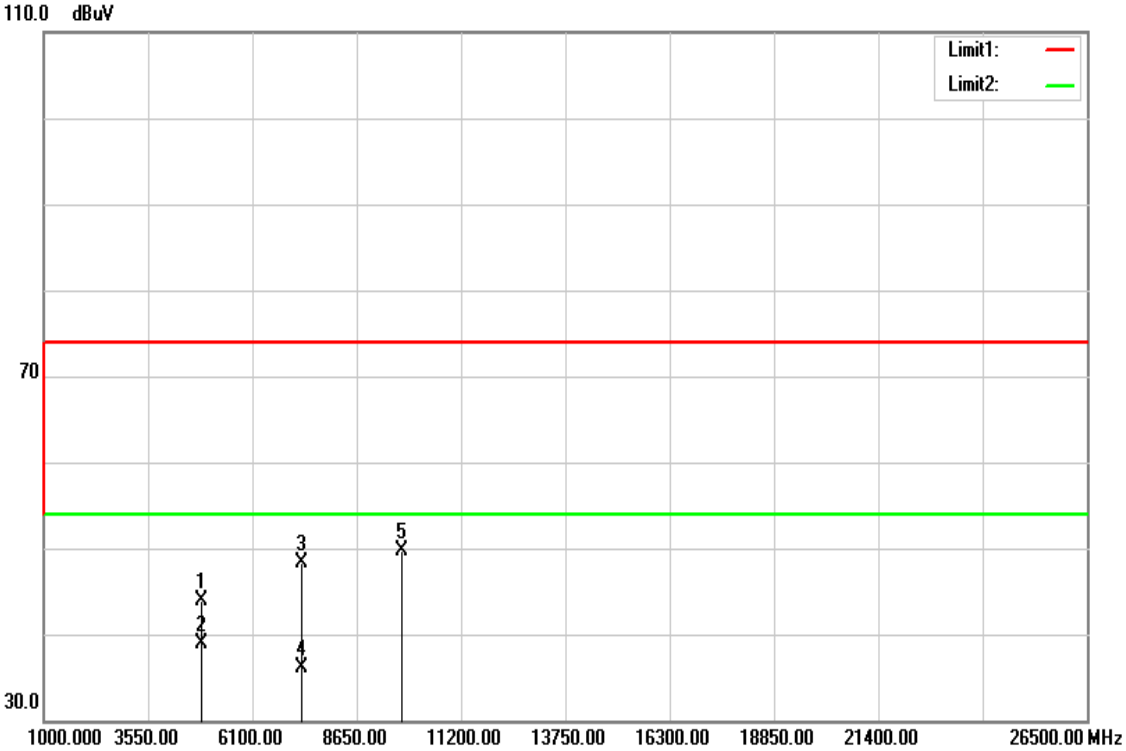
Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant. Pol. (H/V)
4824.000	35.85	5.10	40.95	74.00	-33.05	peak	V
4824.000	24.77	5.10	29.87	54.00	-24.13	AVG	V
7236.000	33.80	12.71	46.51	74.00	-27.49	peak	V
9648.000	32.69	17.60	50.29	74.00	-23.71	peak	V
N/A							
4824.000	36.92	5.10	42.02	74.00	-31.98	peak	H
4824.000	24.20	5.10	29.30	54.00	-24.70	AVG	H
7236.000	34.67	12.71	47.38	74.00	-26.62	peak	H
9648.000	31.84	17.60	49.44	74.00	-24.56	peak	H
N/A							

Remark:

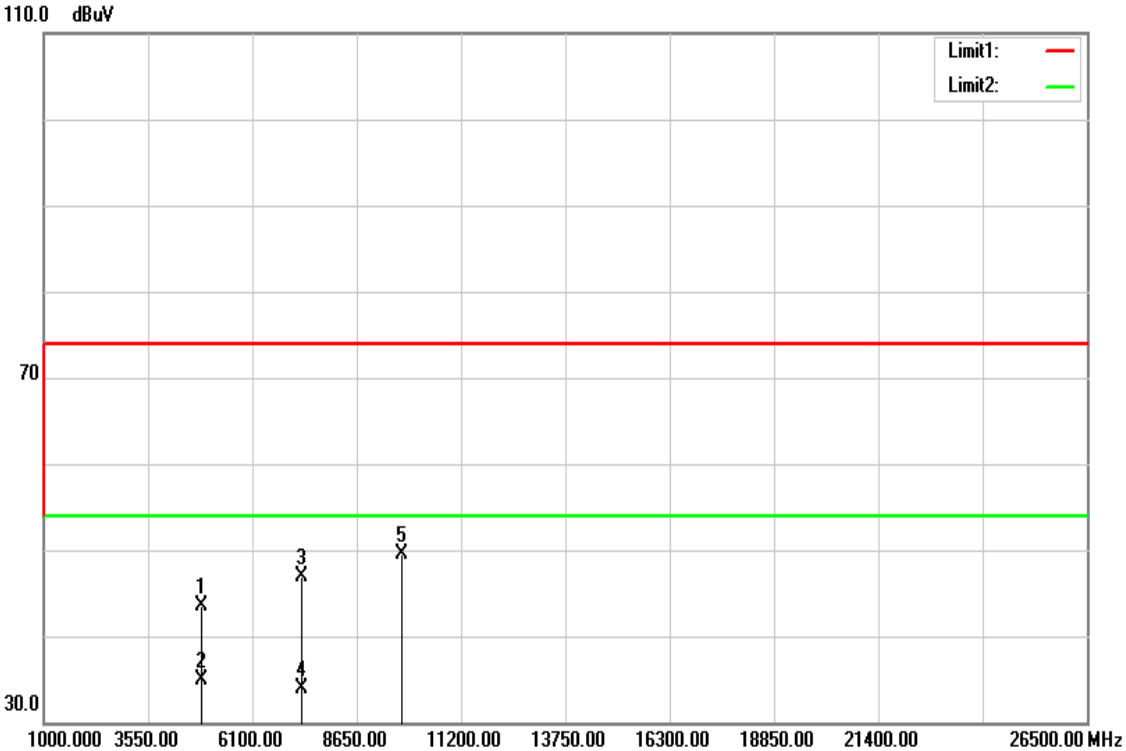
1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average 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).*

TX / IEEE 802.11b / CH Mid

Polarity: Vertical



Polarity: Horizontal



Operation Mode: TX / IEEE 802.11b / CH Mid **Test Date:** April 18, 2016

Temperature: 27°C **Tested by:** Jason Lu

Humidity: 53% RH **Polarity:** Ver. / Hor.

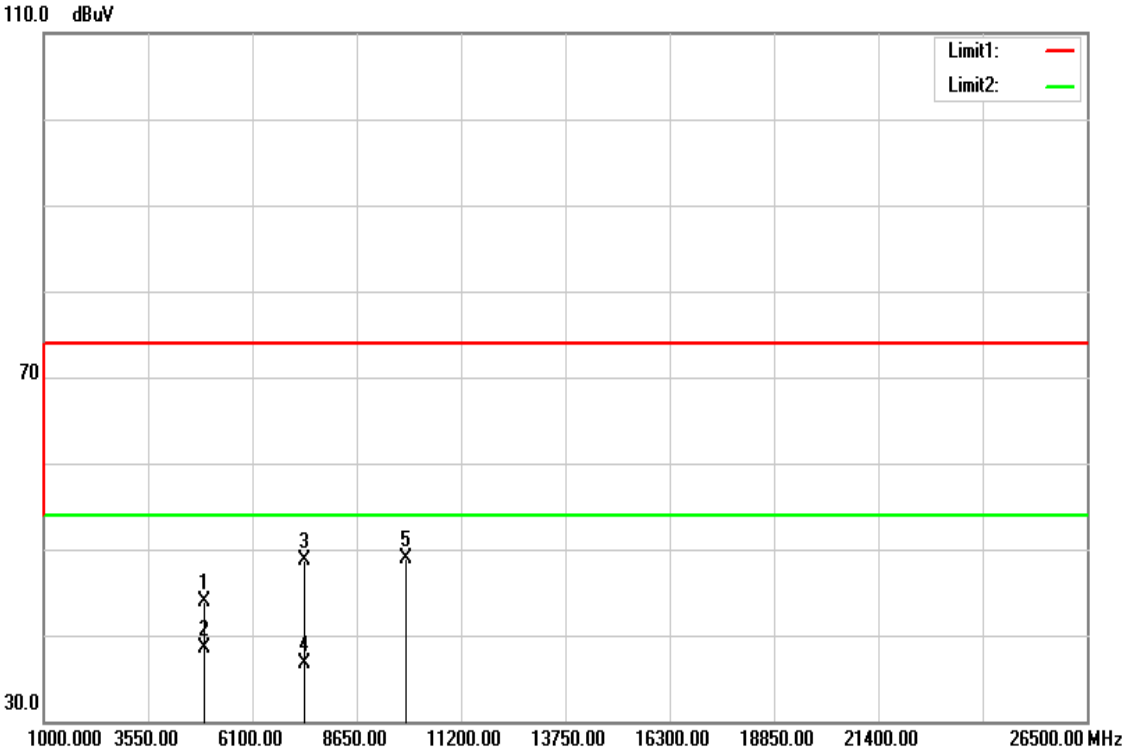
Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant. Pol. (H/V)
4874.000	38.70	5.23	43.93	74.00	-30.07	peak	V
4874.000	33.58	5.23	38.81	54.00	-15.19	AVG	V
7311.000	35.37	12.94	48.31	74.00	-25.69	peak	V
7311.000	23.20	12.94	36.14	54.00	-17.86	AVG	V
9748.000	32.08	17.60	49.68	74.00	-24.32	peak	V
N/A							
4874.000	38.27	5.23	43.50	74.00	-30.50	peak	H
4874.000	29.58	5.23	34.81	54.00	-19.19	AVG	H
7311.000	34.05	12.94	46.99	74.00	-27.01	peak	H
7311.000	20.87	12.94	33.81	54.00	-20.19	AVG	H
9748.000	31.99	17.60	49.59	74.00	-24.41	peak	H
N/A							

Remark:

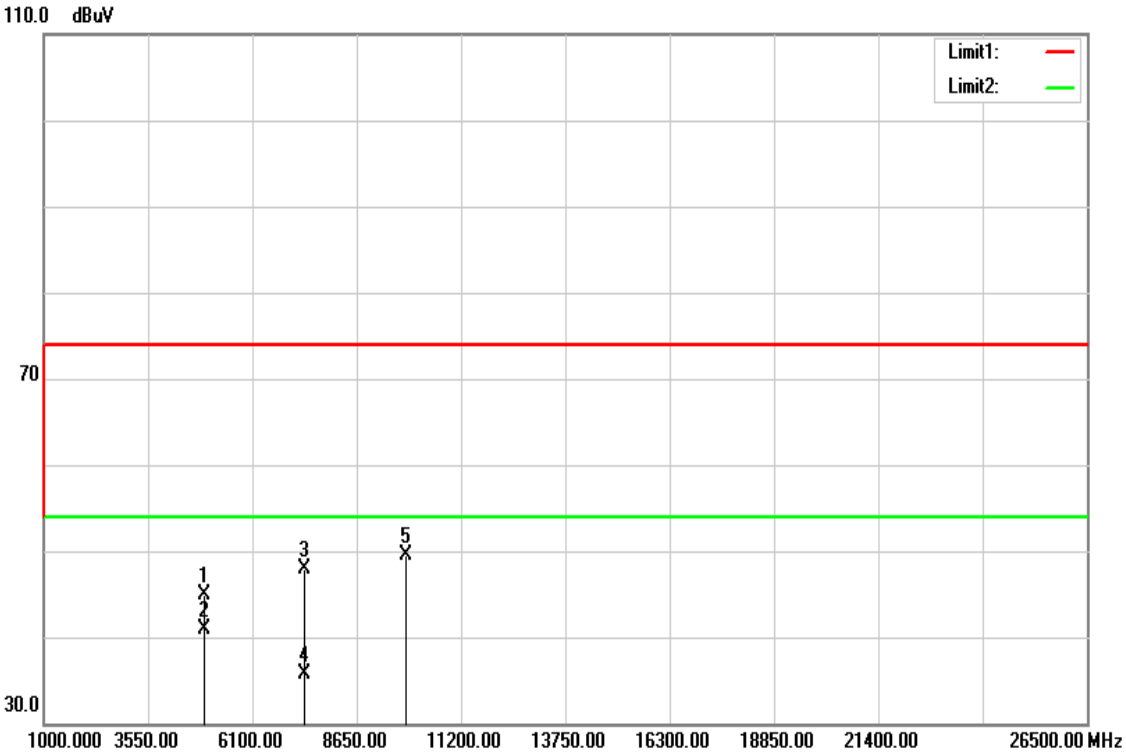
1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average 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).*

TX / IEEE 802.11b / CH High

Polarity: Vertical



Polarity: Horizontal



Operation Mode: TX / IEEE 802.11b / CH High **Test Date:** April 18, 2016

Temperature: 27°C **Tested by:** Jason Lu

Humidity: 53% RH **Polarity:** Ver. / Hor.

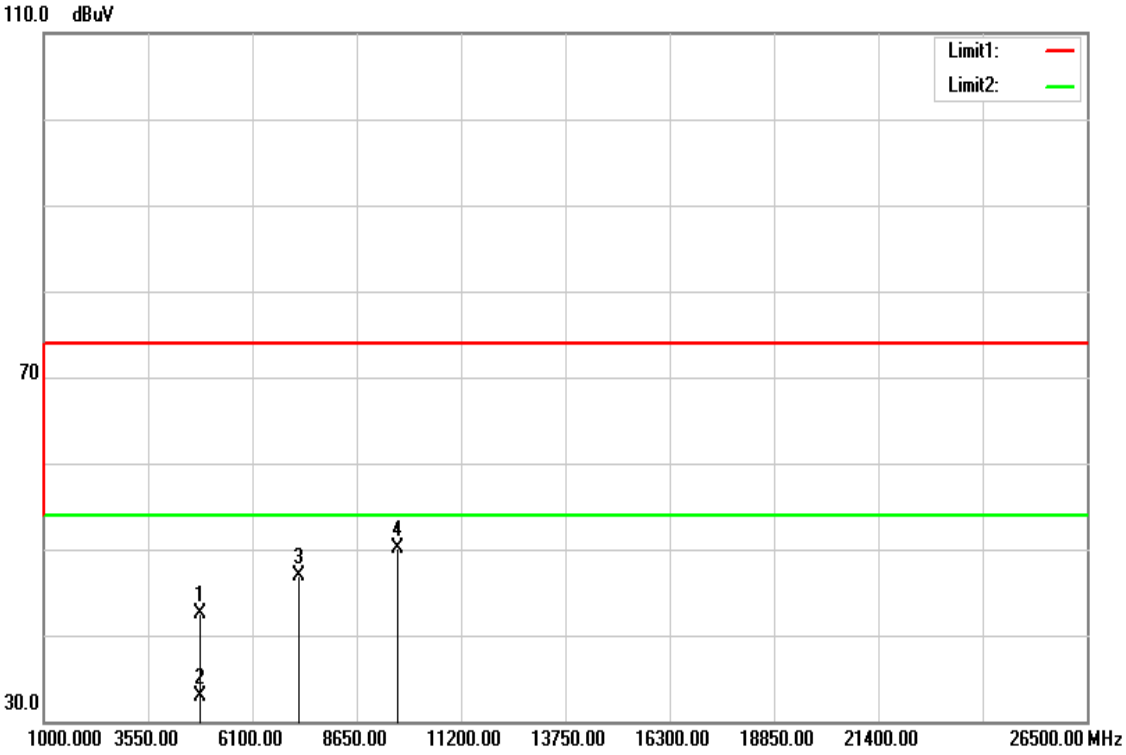
Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant. Pol. (H/V)
4924.000	38.51	5.37	43.88	74.00	-30.12	peak	V
4924.000	33.16	5.37	38.53	54.00	-15.47	AVG	V
7386.000	35.56	13.17	48.73	74.00	-25.27	peak	V
7386.000	23.60	13.17	36.77	54.00	-17.23	AVG	V
9848.000	31.22	17.60	48.82	74.00	-25.18	peak	V
N/A							
4924.000	39.55	5.37	44.92	74.00	-29.08	peak	H
4924.000	35.44	5.37	40.81	54.00	-13.19	AVG	H
7386.000	34.71	13.17	47.88	74.00	-26.12	peak	H
7386.000	22.62	13.17	35.79	54.00	-18.21	AVG	H
9848.000	31.82	17.60	49.42	74.00	-24.58	peak	H
N/A							

Remark:

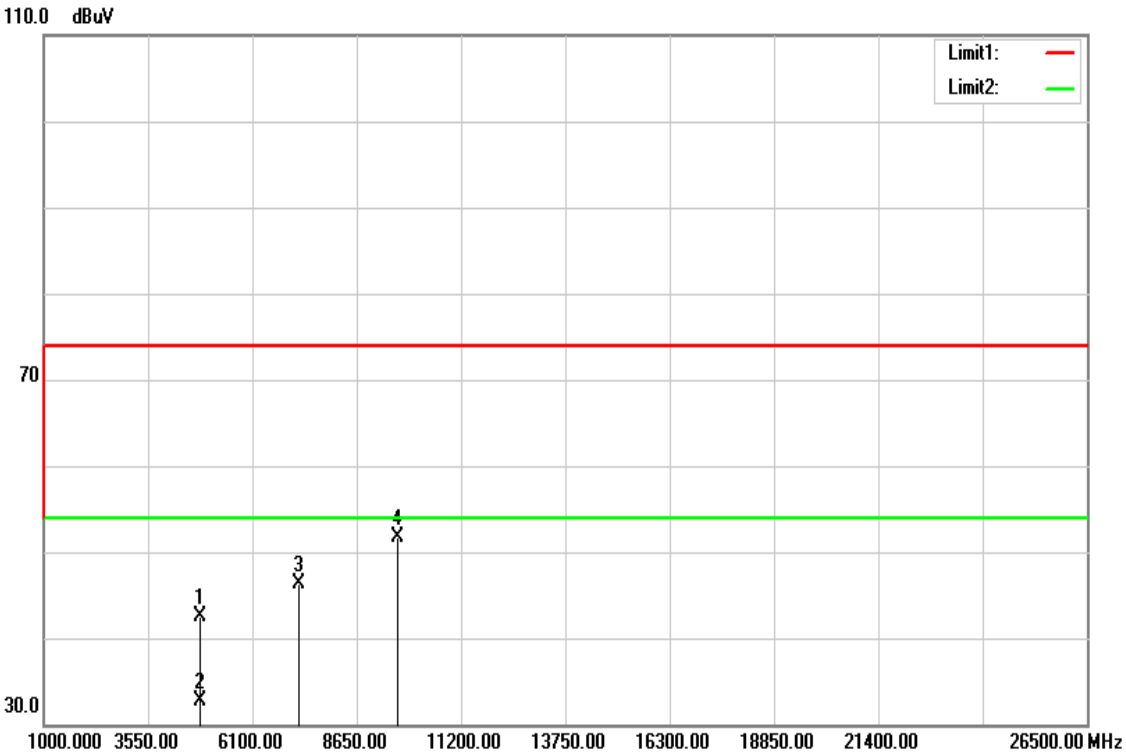
1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average 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).*

TX / IEEE 802.11g / CH Low

Polarity: Vertical



Polarity: Horizontal



Operation Mode: TX / IEEE 802.11g / CH Low **Test Date:** April 18, 2016

Temperature: 27°C **Tested by:** Jason Lu

Humidity: 53% RH **Polarity:** Ver. / Hor.

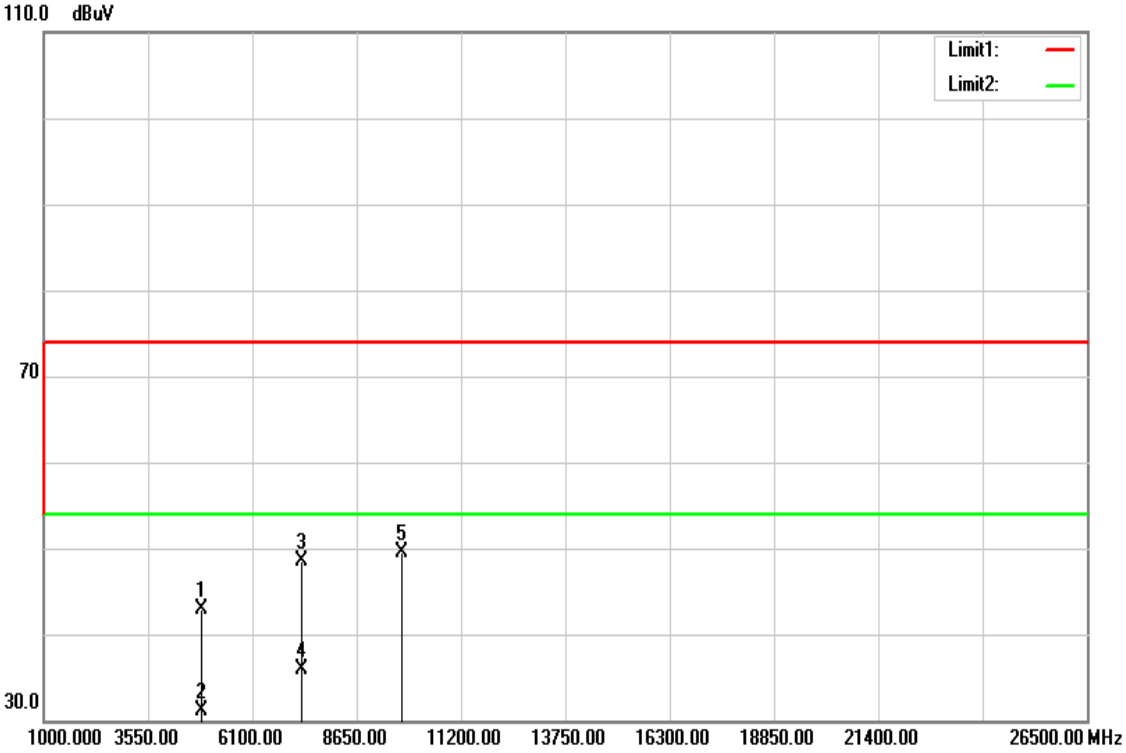
Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant. Pol. (H/V)
4824.000	37.38	5.10	42.48	74.00	-31.52	peak	V
4824.000	27.89	5.10	32.99	54.00	-21.01	AVG	V
7236.000	34.15	12.71	46.86	74.00	-27.14	peak	V
9648.000	32.44	17.60	50.04	74.00	-23.96	peak	V
N/A							
4824.000	37.34	5.10	42.44	74.00	-31.56	peak	H
4824.000	27.58	5.10	32.68	54.00	-21.32	AVG	H
7236.000	33.53	12.71	46.24	74.00	-27.76	peak	H
9648.000	34.20	17.60	51.80	74.00	-22.20	peak	H
N/A							

Remark:

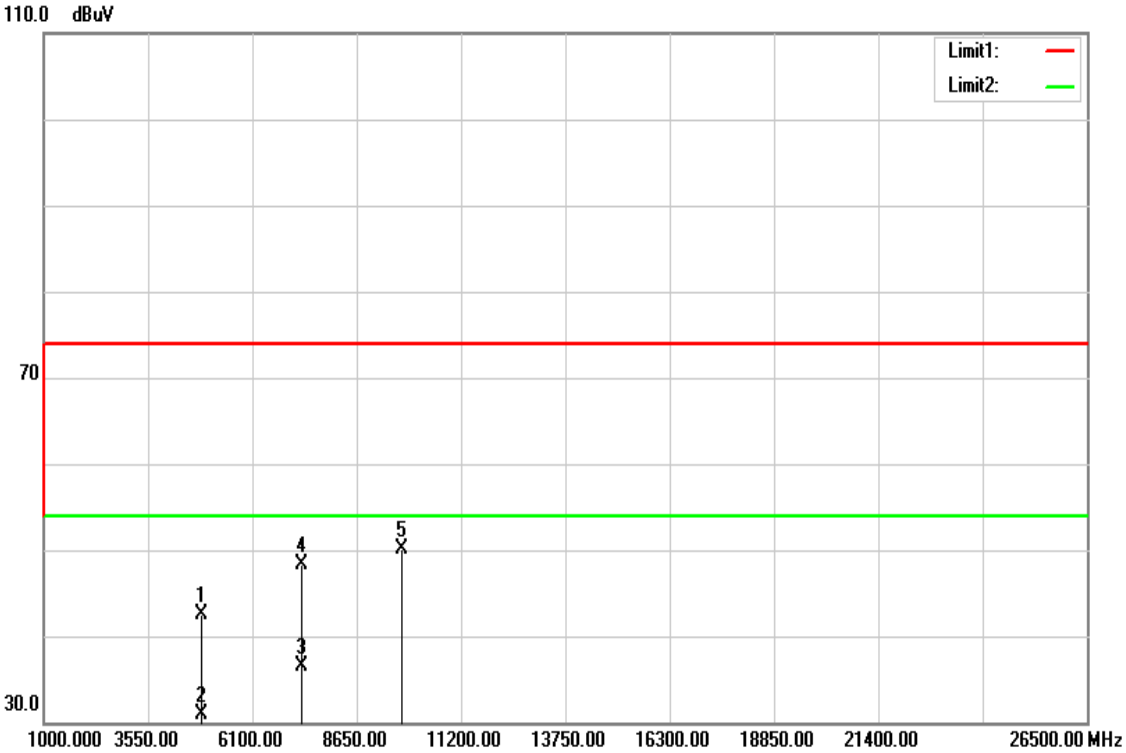
1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average 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).*

TX / IEEE 802.11g / CH Mid

Polarity: Vertical



Polarity: Horizontal



Operation Mode: TX / IEEE 802.11g / CH Mid **Test Date:** April 18, 2016

Temperature: 27°C **Tested by:** Jason Lu

Humidity: 53% RH **Polarity:** Ver. / Hor.

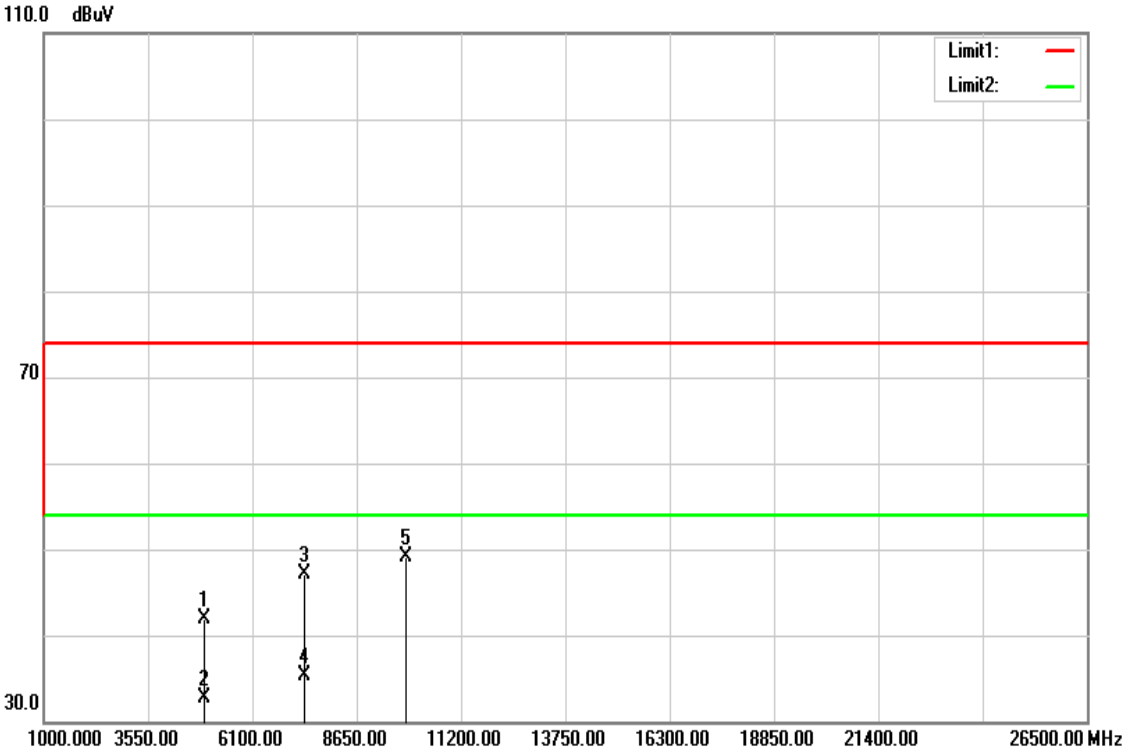
Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant. Pol. (H/V)
4874.000	37.75	5.23	42.98	74.00	-31.02	peak	V
4874.000	25.88	5.23	31.11	54.00	-22.89	AVG	V
7311.000	35.56	12.94	48.50	74.00	-25.50	peak	V
7311.000	23.04	12.94	35.98	54.00	-18.02	AVG	V
9748.000	31.93	17.60	49.53	74.00	-24.47	peak	V
N/A							
4874.000	37.18	5.23	42.41	74.00	-31.59	peak	H
4874.000	25.73	5.23	30.96	54.00	-23.04	AVG	H
7311.000	23.50	12.94	36.44	74.00	-37.56	peak	H
7311.000	35.28	12.94	48.22	54.00	-5.78	AVG	H
9748.000	32.49	17.60	50.09	74.00	-23.91	peak	H
N/A							

Remark:

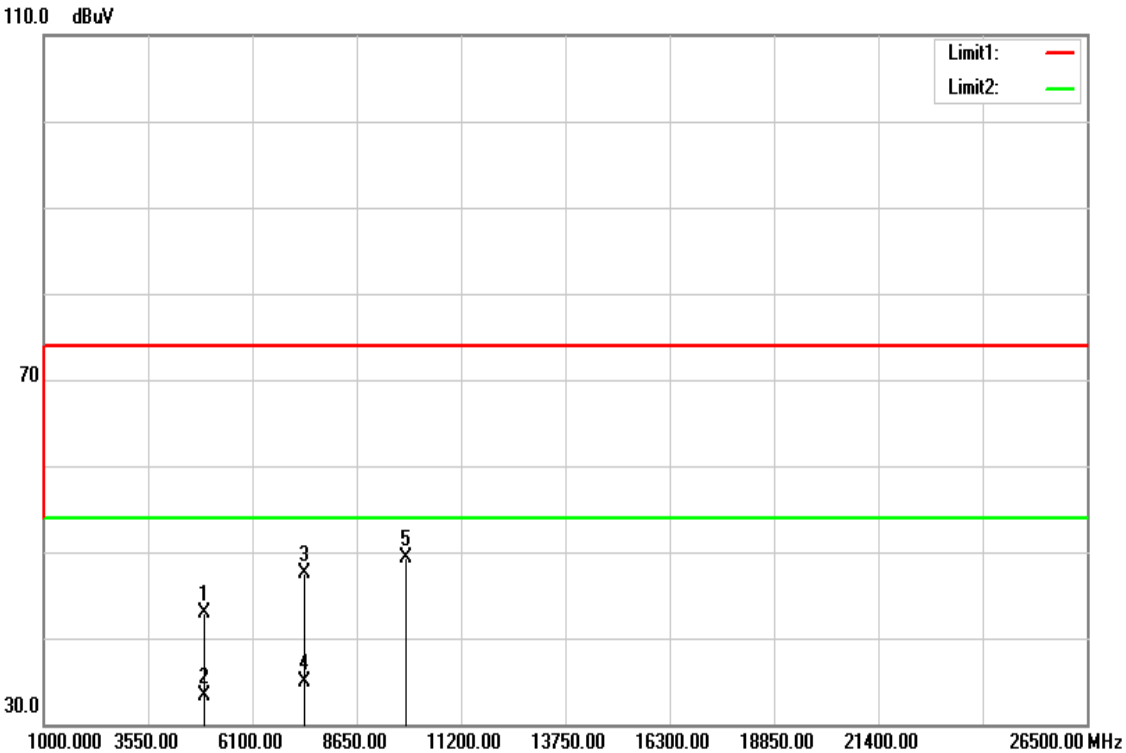
1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average 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).*

TX / IEEE 802.11g / CH High

Polarity: Vertical



Polarity: Horizontal



Operation Mode: TX / IEEE 802.11g / CH High **Test Date:** April 18, 2016

Temperature: 27°C **Tested by:** Jason Lu

Humidity: 53% RH **Polarity:** Ver. / Hor.

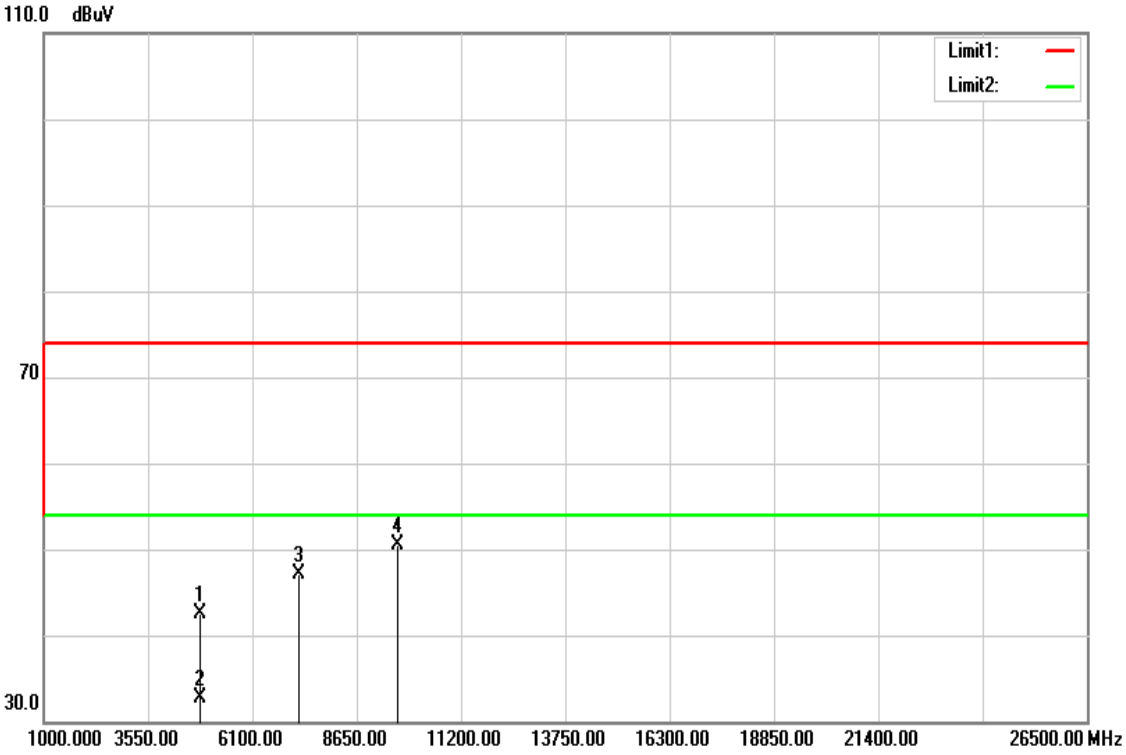
Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant. Pol. (H/V)
4924.000	36.45	5.37	41.82	74.00	-32.18	peak	V
4924.000	27.24	5.37	32.61	54.00	-21.39	AVG	V
7386.000	33.85	13.17	47.02	74.00	-26.98	peak	V
7386.000	22.13	13.17	35.30	54.00	-18.70	AVG	V
9848.000	31.49	17.60	49.09	74.00	-24.91	peak	V
N/A							
4924.000	37.45	5.37	42.82	74.00	-31.18	peak	H
4924.000	27.87	5.37	33.24	54.00	-20.76	AVG	H
7386.000	34.43	13.17	47.60	74.00	-26.40	peak	H
7386.000	21.73	13.17	34.90	54.00	-19.10	AVG	H
9848.000	31.66	17.60	49.26	74.00	-24.74	peak	H
N/A							

Remark:

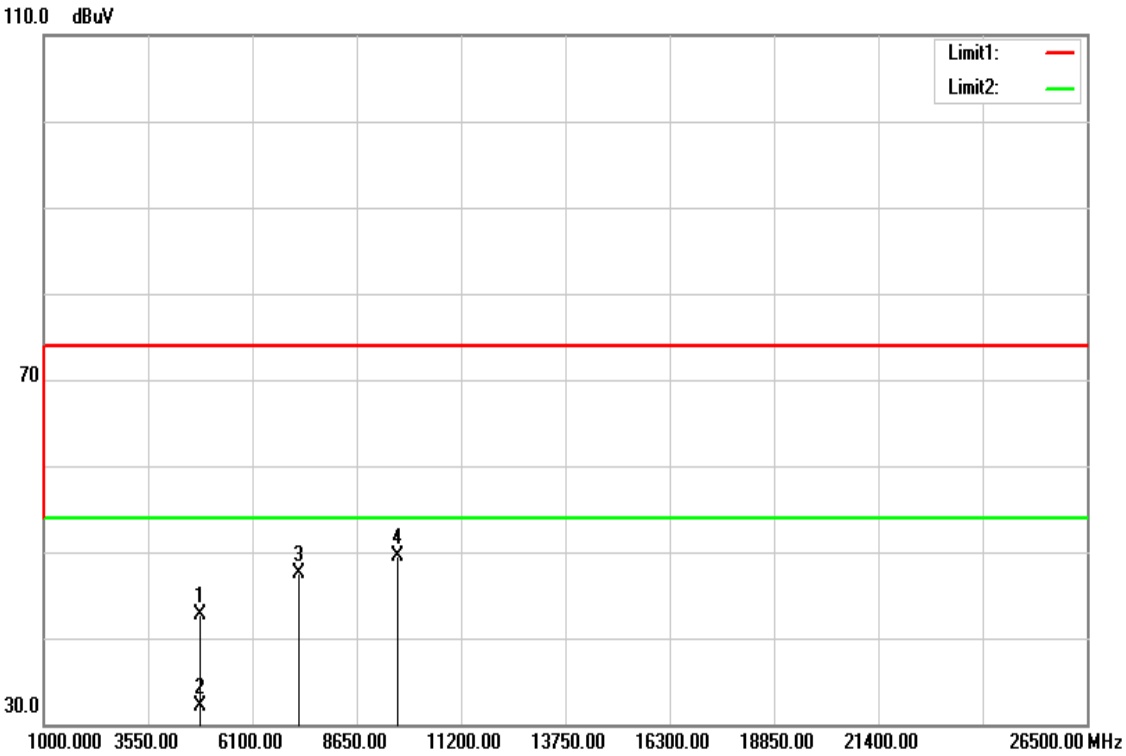
1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average 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).*

TX / IEEE 802.11n HT 20 MHz mode / CH Low

Polarity: Vertical



Polarity: Horizontal



Operation Mode: TX / IEEE 802.11n HT 20 MHz mode / CH Low **Test Date:** April 18, 2016

Temperature: 27°C **Tested by:** Jason Lu

Humidity: 53% RH **Polarity:** Ver. / Hor.

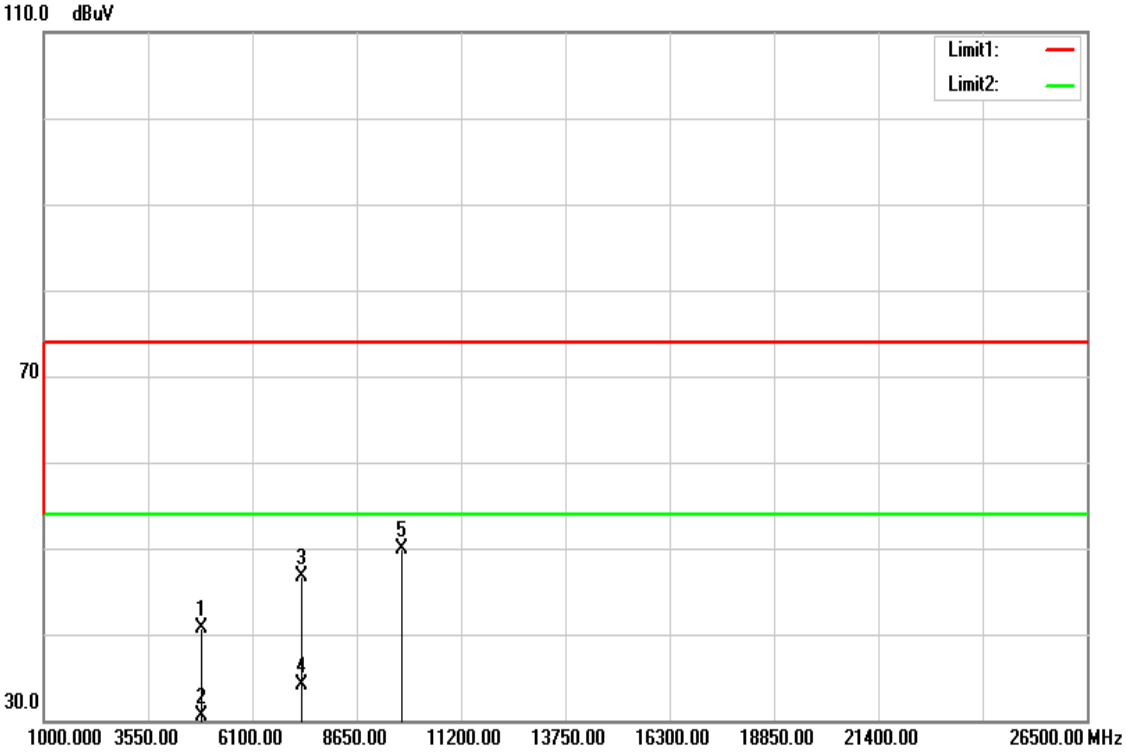
Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant. Pol. (H/V)
4824.000	37.40	5.10	42.50	74.00	-31.50	peak	V
4824.000	27.56	5.10	32.66	54.00	-21.34	AVG	V
7236.000	34.48	12.71	47.19	74.00	-26.81	peak	V
9648.000	32.98	17.60	50.58	74.00	-23.42	peak	V
N/A							
4824.000	37.68	5.10	42.78	74.00	-31.22	peak	H
4824.000	27.08	5.10	32.18	54.00	-21.82	AVG	H
7236.000	34.85	12.71	47.56	74.00	-26.44	peak	H
9648.000	31.88	17.60	49.48	74.00	-24.52	peak	H
N/A							

Remark:

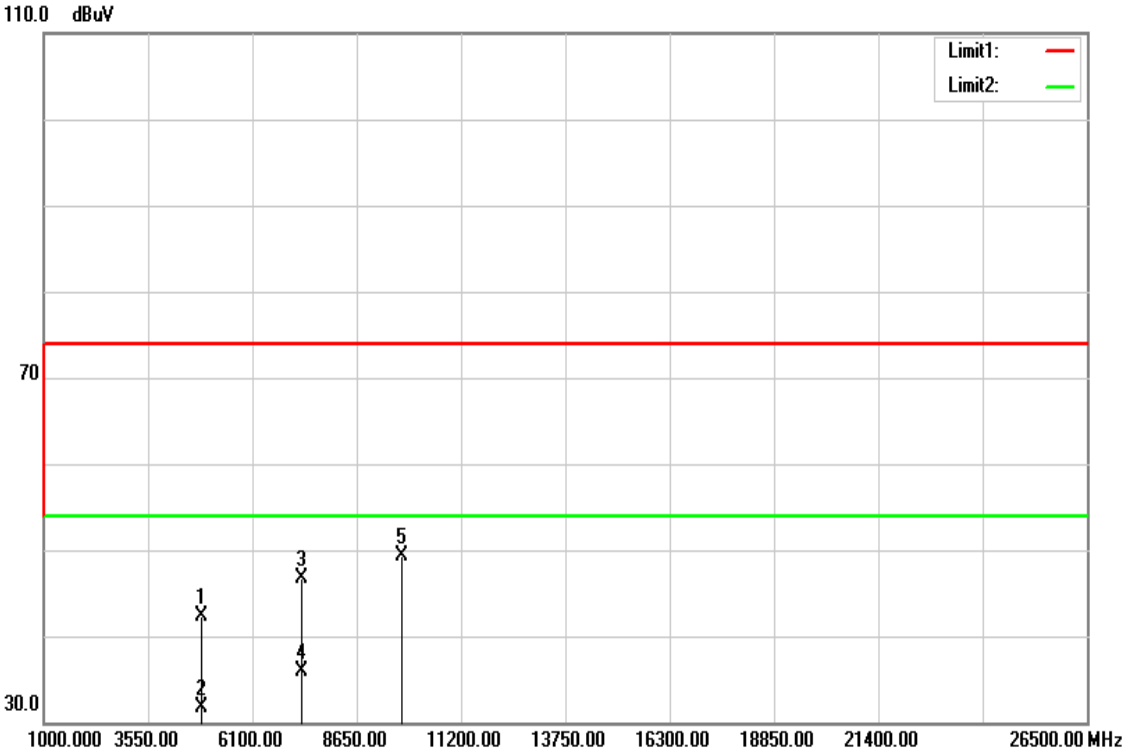
1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average 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).*

TX / IEEE 802.11n HT 20 MHz mode / CH Mid

Polarity: Vertical



Polarity: Horizontal



Operation Mode: TX / IEEE 802.11n HT 20 MHz mode / CH Mid **Test Date:** April 18, 2016

Temperature: 27°C **Tested by:** Jason Lu

Humidity: 53% RH **Polarity:** Ver. / Hor.

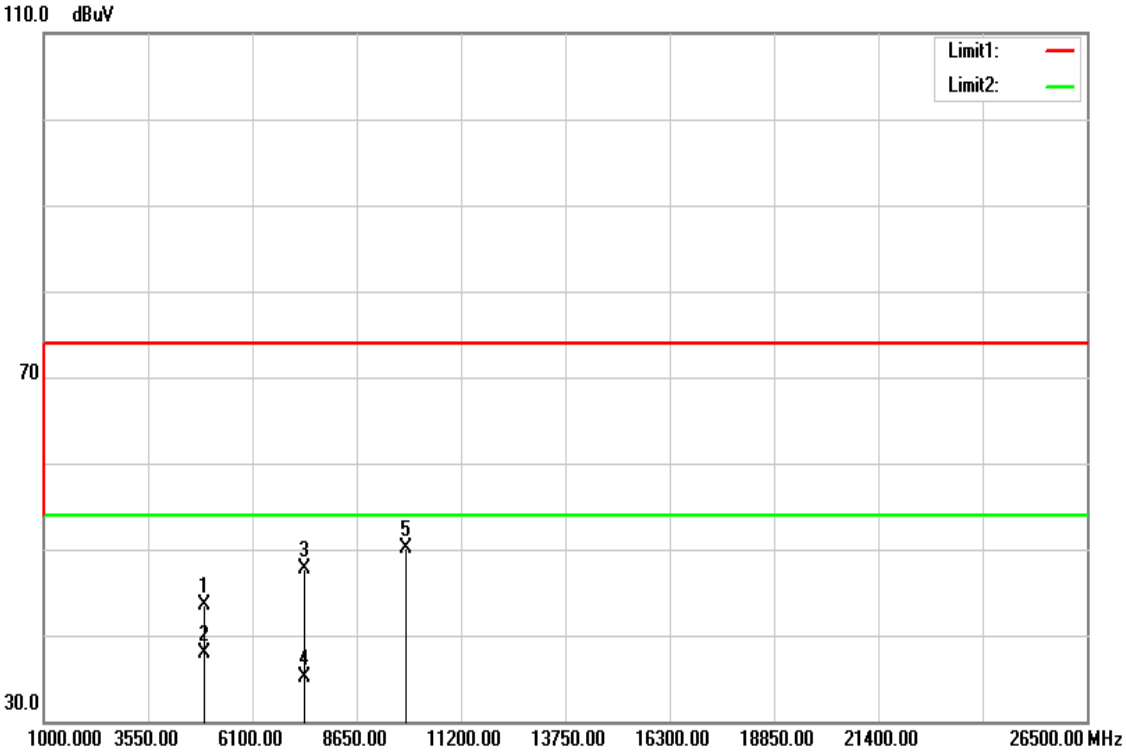
Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant. Pol. (H/V)
4874.000	35.42	5.23	40.65	74.00	-33.35	peak	V
4874.000	25.36	5.23	30.59	54.00	-23.41	AVG	V
7311.000	33.84	12.94	46.78	74.00	-27.22	peak	V
7311.000	21.17	12.94	34.11	54.00	-19.89	AVG	V
9748.000	32.25	17.60	49.85	74.00	-24.15	peak	V
N/A							
4874.000	36.98	5.23	42.21	74.00	-31.79	peak	H
4874.000	26.46	5.23	31.69	54.00	-22.31	AVG	H
7311.000	33.69	12.94	46.63	74.00	-27.37	peak	H
7311.000	22.94	12.94	35.88	54.00	-18.12	AVG	H
9748.000	31.63	17.60	49.23	74.00	-24.77	peak	H
N/A							

Remark:

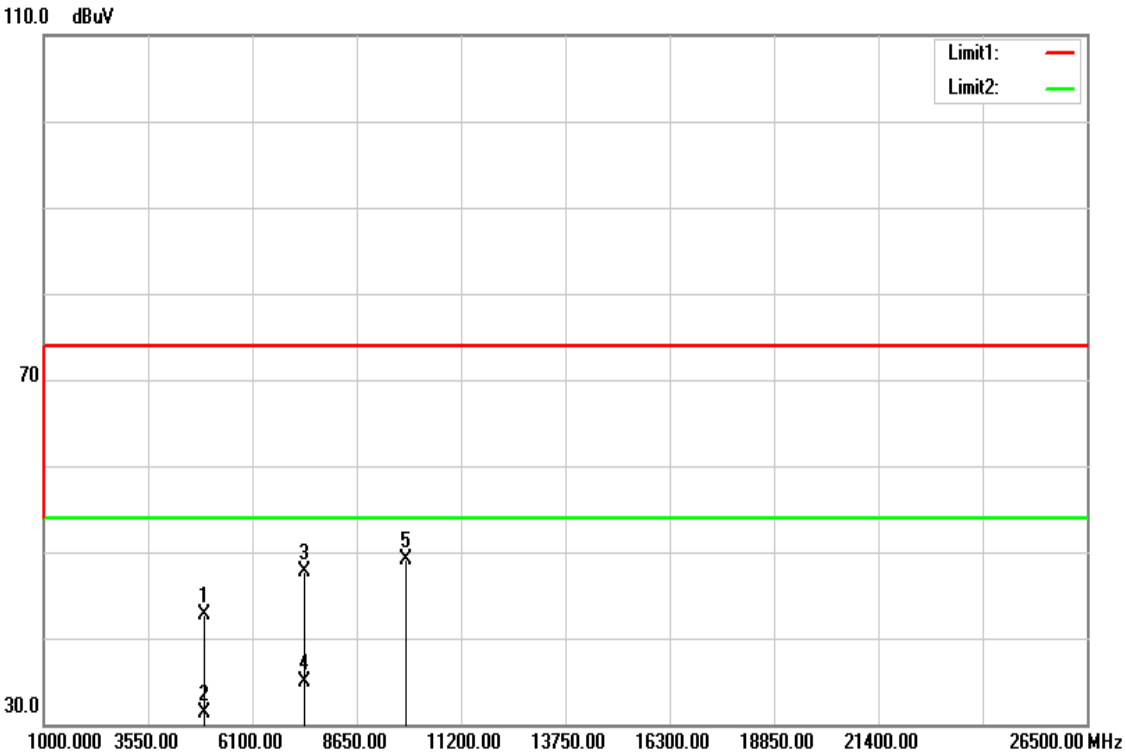
1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average 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).*

TX / IEEE 802.11n HT 20 MHz mode / CH High

Polarity: Vertical



Polarity: Horizontal



Operation Mode:	TX / IEEE 802.11n HT 20 MHz mode / CH High	**Test Date:**	April 18, 2016
Temperature:	27°C	**Tested by:**	Jason Lu
Humidity:	53% RH	**Polarity:**	Ver. / Hor.

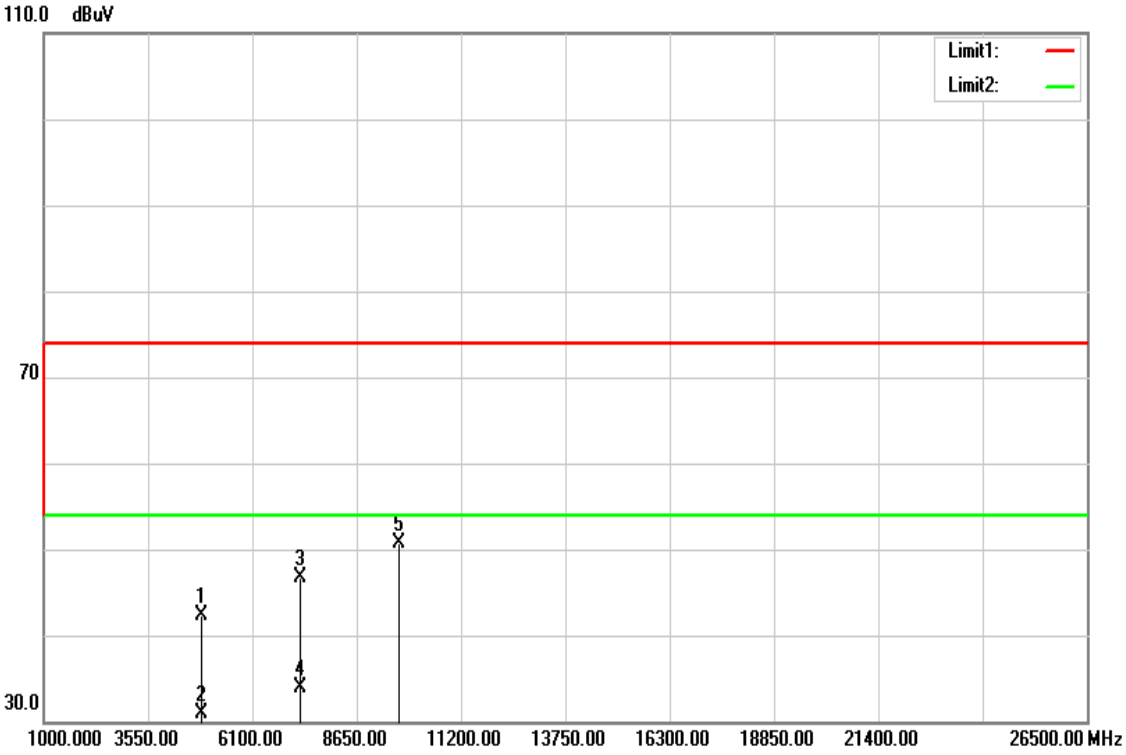
Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant. Pol. (H/V)
4924.000	38.18	5.37	43.55	74.00	-30.45	peak	V
4924.000	32.44	5.37	37.81	54.00	-16.19	AVG	V
7386.000	34.46	13.17	47.63	74.00	-26.37	peak	V
7386.000	21.93	13.17	35.10	54.00	-18.90	AVG	V
9848.000	32.50	17.60	50.10	74.00	-23.90	peak	V
N/A							
4924.000	37.33	5.37	42.70	74.00	-31.30	peak	H
4924.000	25.90	5.37	31.27	54.00	-22.73	AVG	H
7386.000	34.59	13.17	47.76	74.00	-26.24	peak	H
7386.000	21.64	13.17	34.81	54.00	-19.19	AVG	H
9848.000	31.46	17.60	49.06	74.00	-24.94	peak	H
N/A							

Remark:

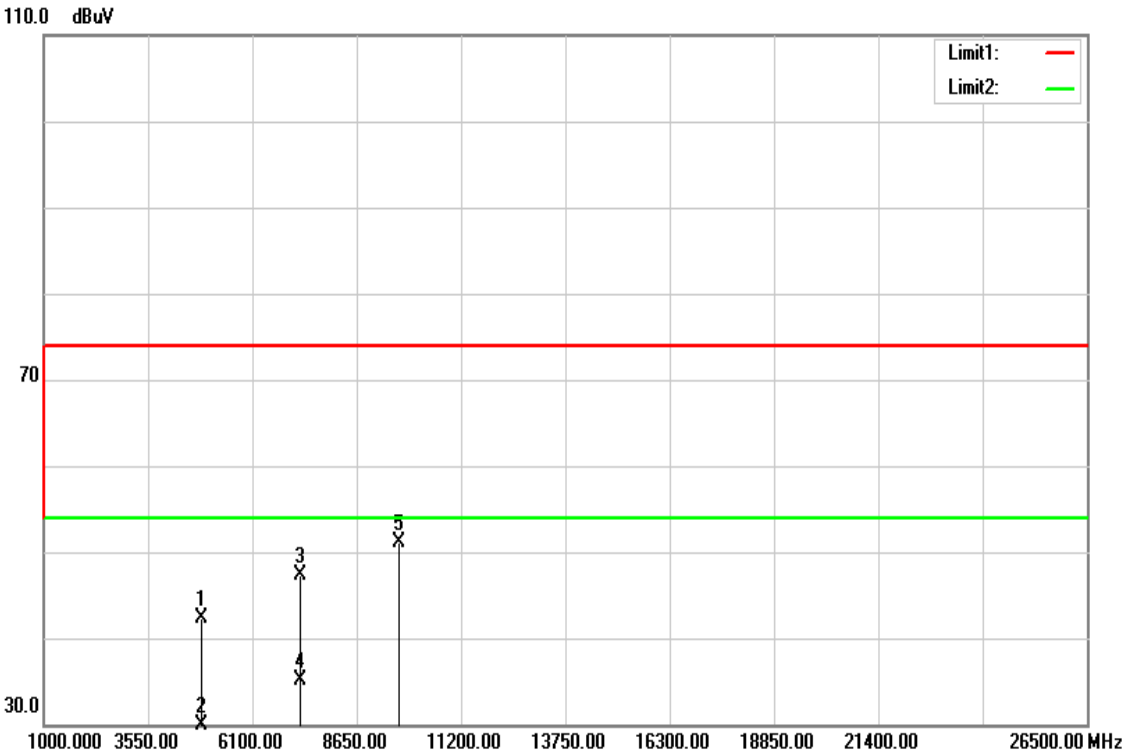
1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average 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).*

TX / IEEE 802.11n HT 40 MHz mode / CH Low

Polarity: Vertical



Polarity: Horizontal



Operation Mode: TX / IEEE 802.11n HT 40 MHz mode / CH Low **Test Date:** April 18, 2016

Temperature: 27°C **Tested by:** Jason Lu

Humidity: 53% RH **Polarity:** Ver. / Hor.

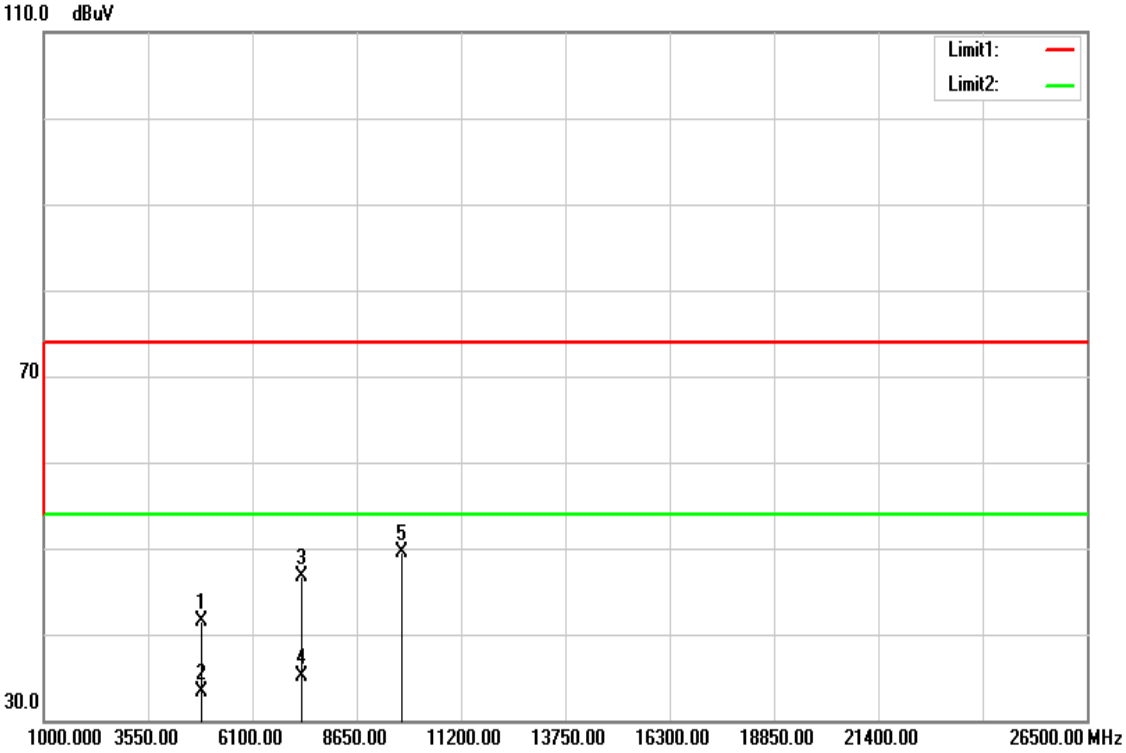
Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant. Pol. (H/V)
4844.000	37.22	5.15	42.37	74.00	-31.63	peak	V
4844.000	25.66	5.15	30.81	54.00	-23.19	AVG	V
7266.000	33.90	12.80	46.70	74.00	-27.30	peak	V
7266.000	21.10	12.80	33.90	54.00	-20.10	AVG	V
9688.000	33.05	17.60	50.65	74.00	-23.35	peak	V
N/A							
4844.000	37.09	5.15	42.24	74.00	-31.76	peak	H
4844.000	24.51	5.15	29.66	54.00	-24.34	AVG	H
7266.000	34.45	12.80	47.25	74.00	-26.75	peak	H
7266.000	22.38	12.80	35.18	54.00	-18.82	AVG	H
9688.000	33.42	17.60	51.02	74.00	-22.98	peak	H
N/A							

Remark:

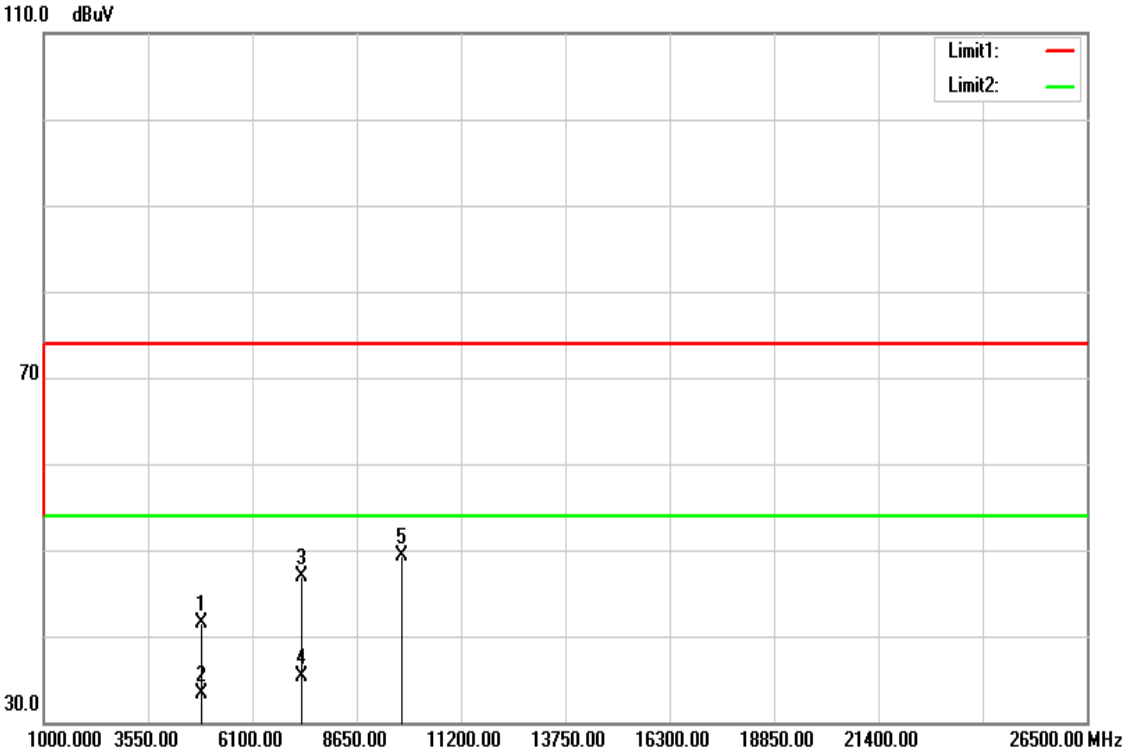
1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average 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).*

TX / IEEE 802.11n HT 40 MHz mode / CH Mid

Polarity: Vertical



Polarity: Horizontal



Operation Mode: TX / IEEE 802.11n HT 40 MHz mode / CH Mid **Test Date:** April 18, 2016

Temperature: 27°C **Tested by:** Jason Lu

Humidity: 53% RH **Polarity:** Ver. / Hor.

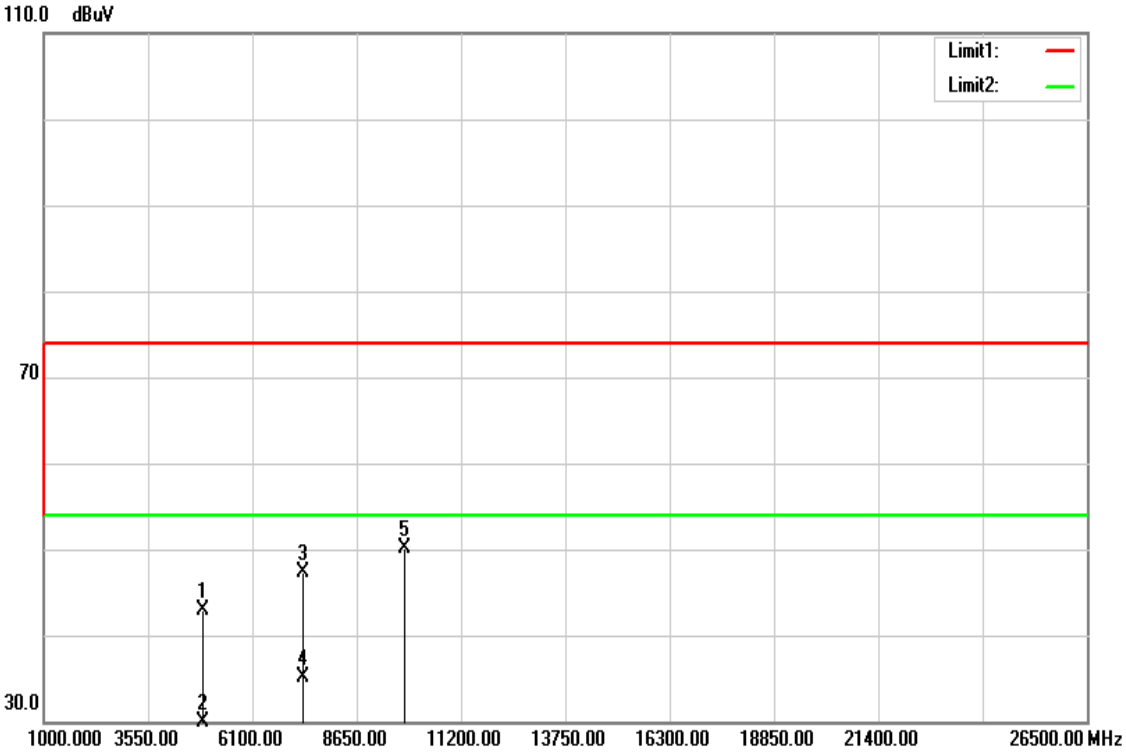
Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant. Pol. (H/V)
4874.000	36.29	5.23	41.52	74.00	-32.48	peak	V
4874.000	27.97	5.23	33.20	54.00	-20.80	AVG	V
7311.000	33.79	12.94	46.73	74.00	-27.27	peak	V
7311.000	22.16	12.94	35.10	54.00	-18.90	AVG	V
9748.000	31.94	17.60	49.54	74.00	-24.46	peak	V
N/A							
4874.000	36.35	5.23	41.58	74.00	-32.42	peak	H
4874.000	28.15	5.23	33.38	54.00	-20.62	AVG	H
7311.000	34.02	12.94	46.96	74.00	-27.04	peak	H
7311.000	22.33	12.94	35.27	54.00	-18.73	AVG	H
9748.000	31.65	17.60	49.25	74.00	-24.75	peak	H
N/A							

Remark:

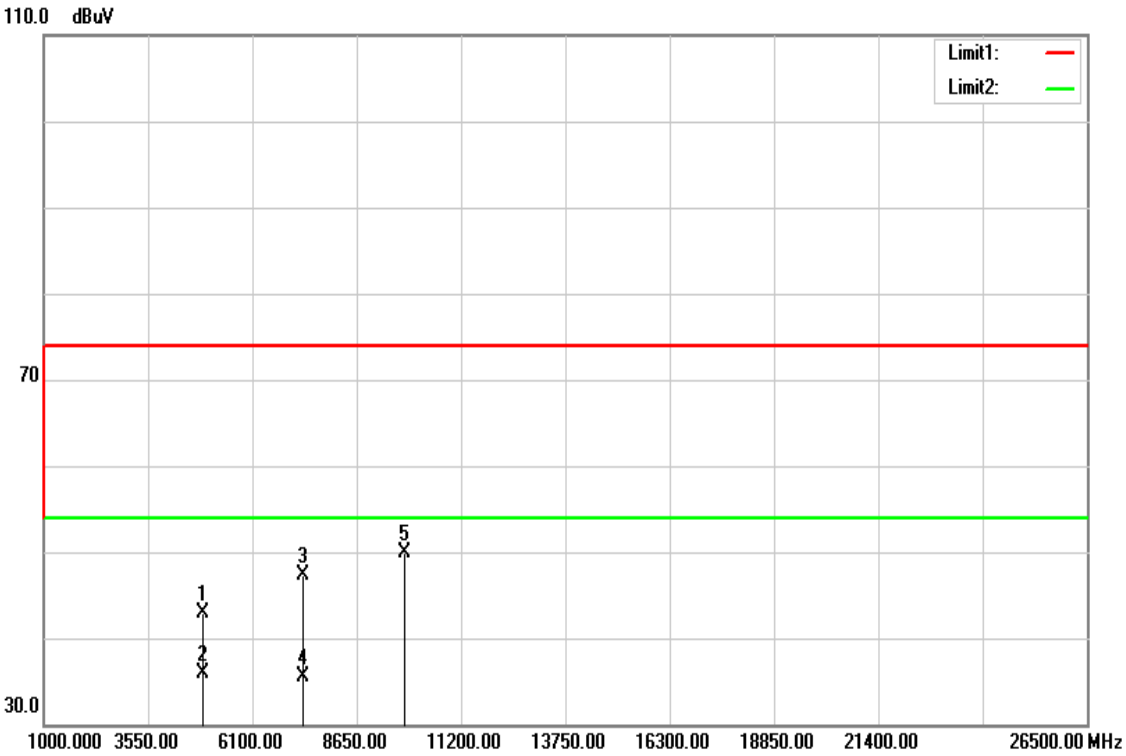
1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.*
3. *Average test would be performed if the peak result were greater than the average 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).*

TX / IEEE 802.11n HT 40 MHz mode / CH High

Polarity: Vertical



Polarity: Horizontal



Operation Mode: TX / IEEE 802.11n HT 40 MHz mode / CH High **Test Date:** April 18, 2016

Temperature: 27°C **Tested by:** Jason Lu

Humidity: 53% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant. Pol. (H/V)
4904.000	37.64	5.31	42.95	74.00	-31.05	peak	V
4904.000	24.59	5.31	29.90	54.00	-24.10	AVG	V
7356.000	34.27	13.08	47.35	74.00	-26.65	peak	V
7356.000	22.10	13.08	35.18	54.00	-18.82	AVG	V
9808.000	32.58	17.60	50.18	74.00	-23.82	peak	V
N/A							
4904.000	37.65	5.31	42.96	74.00	-31.04	peak	H
4904.000	30.60	5.31	35.91	54.00	-18.09	AVG	H
7356.000	34.24	13.08	47.32	74.00	-26.68	peak	H
7356.000	22.38	13.08	35.46	54.00	-18.54	AVG	H
9808.000	32.33	17.60	49.93	74.00	-24.07	peak	H
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 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 II 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:	Normal Link	**Test Date:**	April 19, 2016
Temperature:	24°C	**Tested by:**	Jason Lu
Humidity:	50% RH		

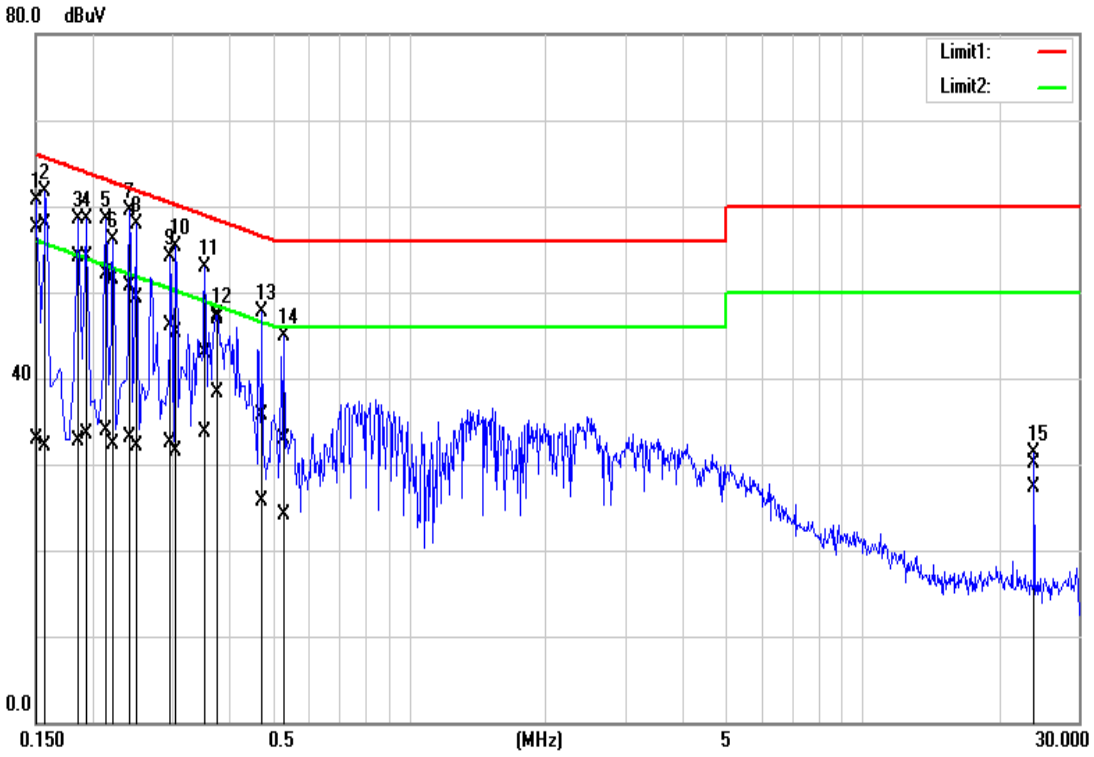
Freq. (MHz)	QP Reading (dBuV)	AV Reading (dBuV)	Corr. factor (dB/m)	QP Result (dBuV/m)	AV Result (dBuV/m)	QP Limit (dBuV)	AV Limit (dBuV)	QP Margin (dB)	AV Margin (dB)	Note
0.1500	47.67	23.08	9.77	57.44	32.85	65.99	56.00	-8.55	-23.15	L1
0.1580	48.18	22.36	9.77	57.95	32.13	65.56	55.57	-7.61	-23.44	L1
0.1860	44.26	22.86	9.76	54.02	32.62	64.21	54.21	-10.19	-21.59	L1
0.1940	44.41	23.71	9.76	54.17	33.47	63.86	53.86	-9.69	-20.39	L1
0.2140	42.29	24.19	9.76	52.05	33.95	63.04	53.05	-10.99	-19.10	L1
0.2220	41.67	22.50	9.76	51.43	32.26	62.74	52.74	-11.31	-20.48	L1
0.2420	40.85	23.39	9.76	50.61	33.15	62.02	52.03	-11.41	-18.88	L1
0.2500	39.58	22.43	9.76	49.34	32.19	61.75	51.76	-12.41	-19.57	L1
0.2980	36.32	22.70	9.76	46.08	32.46	60.30	50.30	-14.22	-17.84	L1
0.3060	35.46	21.75	9.77	45.23	31.52	60.08	50.08	-14.85	-18.56	L1
0.3540	33.09	23.85	9.77	42.86	33.62	58.87	48.87	-16.01	-15.25	L1
0.3780	37.20	28.52	9.77	46.97	38.29	58.32	48.32	-11.35	-10.03	L1
0.4740	25.92	15.80	9.87	35.79	25.67	56.44	46.44	-20.65	-20.77	L1
0.5299	23.03	14.13	9.95	32.98	24.08	56.00	46.00	-23.02	-21.92	L1
23.9980	19.94	17.14	10.10	30.04	27.24	60.00	50.00	-29.96	-22.76	L1
0.1540	48.38	21.77	9.84	58.22	31.61	65.78	55.78	-7.56	-24.17	L2
0.1780	45.02	21.10	9.83	54.85	30.93	64.58	54.58	-9.73	-23.65	L2
0.2100	42.69	23.38	9.83	52.52	33.21	63.21	53.21	-10.69	-20.00	L2
0.2340	40.79	24.17	9.83	50.62	34.00	62.31	52.31	-11.69	-18.31	L2
0.2620	38.09	22.88	9.83	47.92	32.71	61.37	51.37	-13.45	-18.66	L2
0.3180	34.83	25.09	9.83	44.66	34.92	59.76	49.76	-15.10	-14.84	L2
0.3740	36.83	28.23	9.83	46.66	38.06	58.41	48.41	-11.75	-10.35	L2
0.3900	35.55	29.73	9.83	45.38	39.56	58.06	48.06	-12.68	-8.50	L2
0.4900	24.66	15.13	9.95	34.61	25.08	56.17	46.17	-21.56	-21.09	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 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)*

Test Plots

Conducted emissions (Line 1)



Conducted emissions (Line 2)