



FCC / ISED Test Report

For:
Lennox Industries Inc.

Model Name:
Lennox L40

Product Description:
Thermostat to control residential HVAC system

FCC ID: 2A6F9-L4024A
ISED: 28687-L4024A

Applied Rules and Standards:
47 CFR Part 15.247 (DTS)
RSS-247 Issue 3 (DTS) & RSS-Gen Issue 5

REPORT #: EMC_LENNX_014_24001_15_247_WIFI_DTS_Rev1

DATE: 2025-01-22



A2LA Accredited

IC recognized #
3462B

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1 Assessment

The following device was evaluated against the applicable criteria specified in FCC rules Parts 15.247 of Title 47 of the Code of Federal Regulations and the relevant ISED Canada standard RSS-247.

No deviations were ascertained.

Company Name	Product Description	Model No.
Lennox Industries Inc.	Thermostat to control residential HVAC system	Lennox L40

Responsible for the Report:

2025-01-22	Compliance	Art Thammanavarat (Senior EMC Engineer)	
Date	Section	Name	Signature

The test results of this test report relate exclusively to the test item specified in Section 3.
CETECOM Inc. USA does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of CETECOM Inc. USA.

2 Administrative Data

2.1 Identification of the Testing Laboratory Issuing the EMC Test Report

Company Name:	CETECOM Inc.
Department:	Compliance
Street Address:	411 Dixon Landing Road
City/Zip Code	Milpitas, CA 95035
Country	USA
Telephone:	+1 (408) 586 6200
Fax:	+1 (408) 586 6299
EMC Lab Manager:	Alvin, Ilarina
Responsible Project Leader:	Shane Hao

2.2 Identification of the Client

Client Firm/Name:	Lennox Industries Inc.
Street Address:	PO Box 799900
City/Zip Code	Dallas TX 75379
Country	USA

2.3 Identification of the Manufacturer

Manufacturer's Name:	Same as Client
Manufacturers Address:	
City/Zip Code	
Country	

3 Equipment Under Test (EUT)

3.1 EUT Specifications

Product Description:	Thermostat to control residential HVAC system
Model Name:	Lennox L40 Yosemite
HW Version:	A
SW Version:	04.33.0167
FCC-ID:	2A6F9-L4024A
ISED:	28687-L4024A
Frequency Range / number of channels:	Nominal band: 2400 MHz – 2483.5 MHz; Center to center: 2412 MHz (ch 1) – 2462 MHz (ch 11), 11 channels
Radio Information:	Wi-Fi Modules Model Name: Murata - Type 1YN - Wi-Fi and Bluetooth Combo Model Number: LBEE5KL1YN-814 FCC: VPYLB1DX ISED: 772C-LB1DX Wireless Technologies • Wi-Fi 2.4GHz:802.11b,g,n
Antenna Information as declared:	Name: Pulse Electronics Description: FPC 2.4G Antenna Part Number: W3921B0100 Location: Internal Antenna Peak Gain: • 2400-2500GHz: 1.0 dBi
Max. Conducted Output Power:	Conducted Average Power 16.2 dBm
Power Supply/ Rated Operating Voltage Range:	120Vac to 24Vac
Operating Temperature Range	Low: -20 °C - °C High 70 °C
Other Radios included in the device:	Bluetooth LE
Sample Revision	☐ Production Unit; ☒ Pre-Production
Note: The information of the EUT specifications in the table above is provided by the client.	

3.2 EUT Sample details

EUT #	Serial Number	HW Version	SW Version	Notes/Comments
1	EQ1-001	A	04.33.0167	Radiated and AC Conducted Emissions

3.3 Accessory Equipment (AE) details

AE #	Type	Model	Manufacturer	Serial Number	Comments
1	Laptop	P135G	Dell	12243628947	Support laptop provided by Cetecom to exercise device.

3.4 Test Sample Configuration

EUT Set-up #	Combination of AE used for test set up	Comments
1	EUT#1	The radio of the EUT was configured to a fixed channel transmission with dynamic 100% duty cycle using Windows command prompt to configure the EUT. The measurement instrument was connected to the 50 ohm RF port of the EUT

3.5 Justification for Worst Case Mode of Operation

During the testing process, the EUT was tested with transmitter sets on low, mid and high channels, and highest possible duty cycle. For radiated measurements, all data in this report show the worst case between horizontal and vertical antenna polarizations and for all orientations of the EUT.

The channels and modulation schemes of the EUT were set with highest Duty Cycle possible using diagnostic software (not available to the end user).

4 Subject of Investigation

The objective of the measurements done by CETECOM Inc. was to assess the performance of the EUT according to the relevant requirements specified in FCC rules Part 15.247 of Title 47 of the Code of Federal Regulations and Radio Standard Specification RSS-247 of ISED Canada.

This test report is to support a request for new equipment authorization under the FCC ID: 2A6F9-L4024A, ISED : 28687- L4024A

Testing procedures are based on 558074 D01 15.247 Meas Guidance v05r02 – “GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES” - April 2, 2019, by the Federal Communications Commission, Office of Engineering and Technology, Laboratory Division.

5 Measurement Results Summary

Test Specification	Test Case	Temperature and Voltage Conditions	Mode	Pass	NA	NP	Result
§15.247(a)(1) RSS-247 5.2(a)	Emission Bandwidth	Nominal	802.11b,g,n	■	□	□	Complies
§15.247(e) RSS-247 5.2(b)	Power Spectral Density	Nominal	802.11b,g,n	■	□	□	Complies
§15.247(b)(1) RSS-247 5.4(d)	Maximum Conducted Output Power and EIRP	Nominal	802.11b,g,n	■	□	□	Complies
§15.247(d) RSS-247 5.5	Band edge compliance Unrestricted Band Edges	Nominal	802.11b,g,n	■	□	□	Complies
§15.247; 15.209; 15.205 RSS-Gen 8.9; 8.10	Band edge compliance Restricted Band Edges	Nominal	802.11b,g,n	■	□	□	Complies
§15.247(d); §15.209 RSS-Gen 6.13	TX Spurious Emissions- Radiated	Nominal	802.11b	■	□	□	Complies
§15.207(a) RSS Gen 8.8	AC Conducted Emissions	Nominal	802.11b	■	□	□	Complies

Note: NA= Not Applicable; NP= Not Performed.

6 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus, with 95% confidence interval (in dB delta to result), based on a coverage factor $k=2$.

Radiated measurement

Measurement System		EMC Lab 1	EMC Lab 2
Conducted emissions (mains port)	150 kHz – 30 MHz	2.47 dB	N/A
Radiated emissions	9 kHz – 30 MHz	2.68 dB	2.53 dB
	30 – 100 MHz	4.39 dB	3.85 dB
	100 MHz – 1 GHz	5.65 dB	5.24 dB
	1 – 6 GHz	5.0 dB	4.88 dB
	6 – 18 GHz	4.76 dB	4.58 dB
	18 – 40 GHz	4.65 dB	4.61 dB

RF conducted measurement ± 0.5 dB

According to TR 102 273 a multiplicative propagation of error is assumed for RF measurement systems. For this reason the RMS method is applied to dB values and not to linear values as appropriate for additive propagation of error. Also used: <http://physics.nist.gov/cuu/Uncertainty/typeb.html>. The above calculated uncertainties apply to direct application of the Substitution method. The Substitution method is always used when the EUT comes closer than 3dB to the limit.

6.1 Environmental Conditions During Testing:

The following environmental conditions were maintained during the course of testing:

- Ambient Temperature: 20-25°C
- Relative humidity: 40-60%

6.2 Dates of Testing:

2024-09-16 – 2024-09-25

6.3 Decision Rule:

Cetecom advanced follows ILAC G8:2019 chapter 4.2.1 (Simple Acceptance Rule).

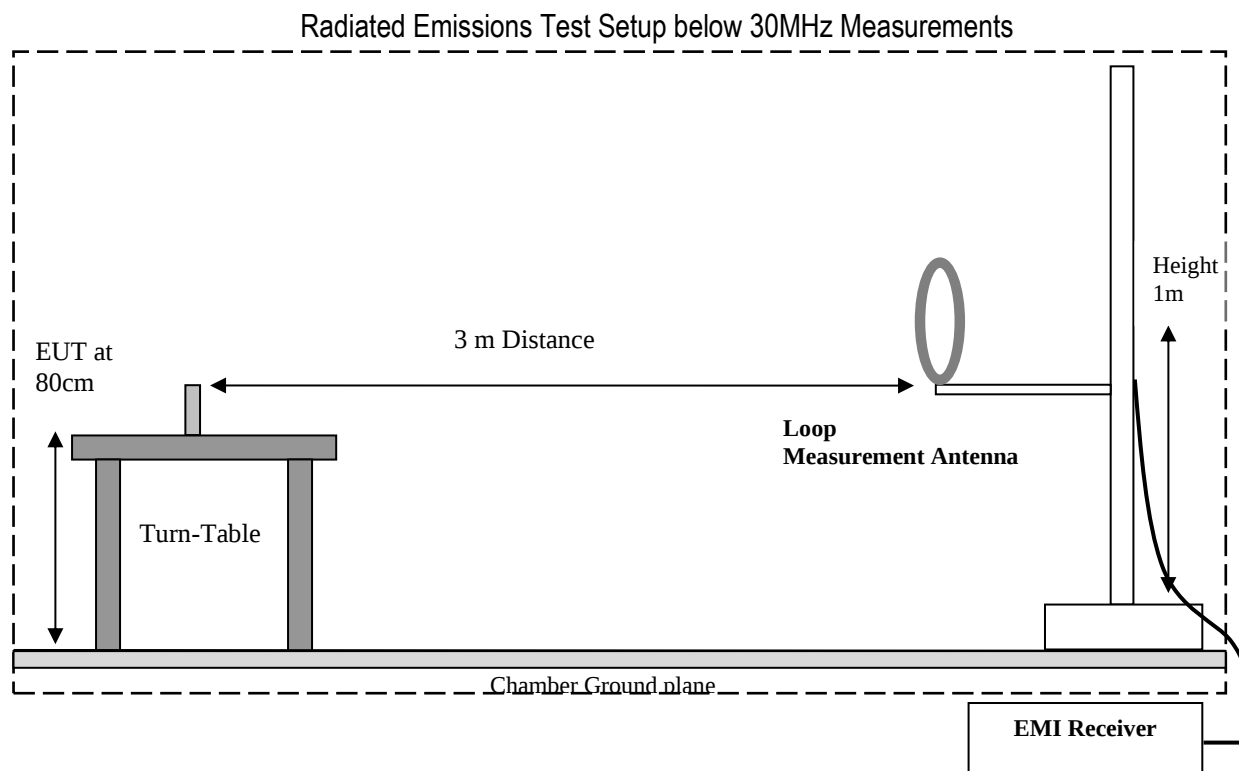
Only the measured values related to their corresponding limits will be used to decide whether the equipment under test meets the requirements of the test standards listed in chapter 3. The measurement uncertainty is mentioned in this test report, See chapter 9, but is not taken into account – neither to the limits nor to the measurement results. Measurement results with a smaller margin to the corresponding limits than the measurement uncertainty have a potential risk of more than 5% that the decision might be wrong.

7 Measurement Procedures

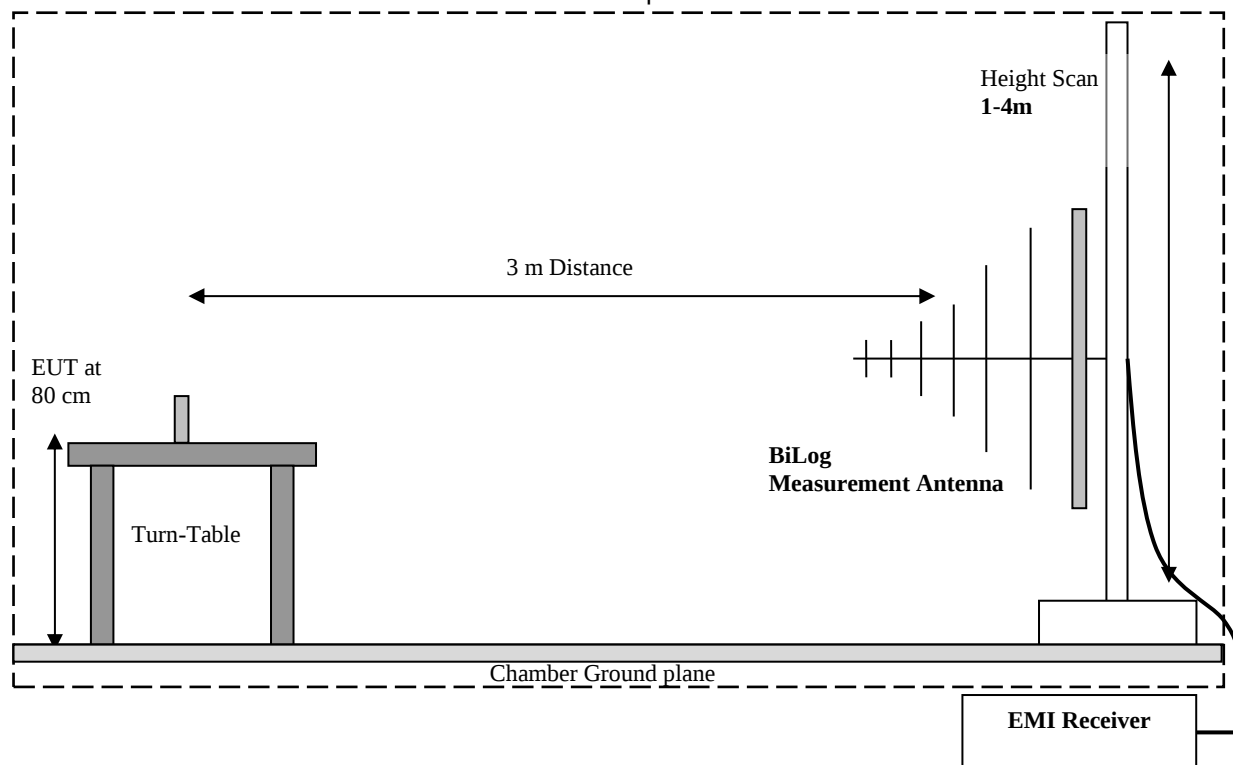
7.1 Radiated Measurement

The radiated measurement is performed according to ANSI C63.10 (2013)

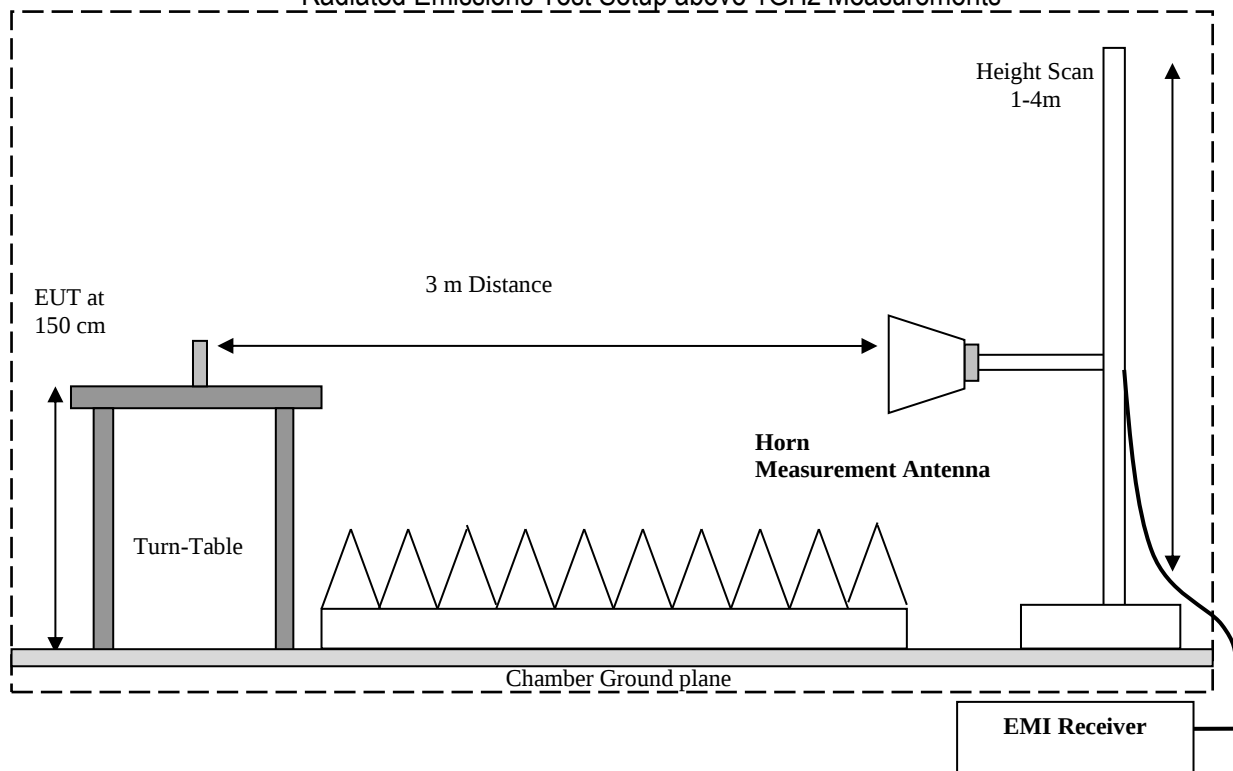
- The exploratory measurement is accomplished by running a matrix of 16 sweeps over the required frequency range with R&S Test-SW EMC32 for 4 positions of the turntable, two orthogonal positions of the EUT and both antenna polarizations. This procedure exceeds the requirement of the above standards to cover the 3 orthogonal axis of the EUT. A max peak detector is utilized during the exploratory measurement. The Test-SW creates an overall maximum trace for all 12 sweeps and saves the settings for each point of this trace. The maximum trace is part of the test report.
- The 10 highest emissions are selected with an automatic algorithm of EMC32 searching for peaks in the noise floor and ensuring that broadband signals are not selected multiple times.
- The maxima are then put through the final measurement and again maximized in a 90deg range of the turntable, fine search in frequency domain and height scan between 1m and 4m.
- The above procedure is repeated for all possible ways of power supply to EUT and for all supported modulations.
- In case there are no emissions above noise floor level only the maximum trace is reported as described above.
- The results are split up into up to 4 frequency ranges due to antenna bandwidth restrictions. A magnetic loop is used from 9 kHz to 30 MHz, a Biconilog antenna is used from 30 MHz to 1 GHz, and two different horn antennas are used to cover frequencies up to 40 GHz.



Radiated Emissions Test Setup 30MHz-1GHz Measurements



Radiated Emissions Test Setup above 1GHz Measurements



7.1.1 Sample Calculations for Field Strength Measurements

Field Strength is calculated from the Spectrum Analyzer/ Receiver readings, taking into account the following parameters:

1. Measured reading in dB μ V
2. Cable Loss between the receiving antenna and SA in dB and
3. Antenna Factor in dB/m

All radiated measurement plots in this report are taken from a test SW that calculates the Field Strength based on the following equation:

$$FS \text{ (dB}\mu\text{V/m)} = \text{Measured Value on SA (dB}\mu\text{V)} + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$$

Example:

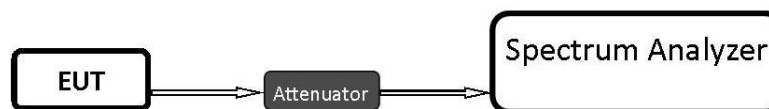
Frequency (MHz)	Measured SA (dB μ V)	Cable Loss (dB)	Antenna Factor Correction (dB)	Field Strength Result (dB μ V/m)
1000	80.5	3.5	14	98.0

7.2 Power Line Conducted Measurement Procedure

AC Power Line conducted emissions measurements performed according to: ANSI C63.4 (2014)

7.3 RF Conducted Measurement Procedure

Testing procedures are based on 558074 D01 15.247 Meas Guidance v05r02 – “GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES” - April 2, 2019, by the Federal Communications Commission, Office of Engineering and Technology, Laboratory Division.



- Connect the equipment as shown in the above diagram.
- Adjust the settings of the SA (Rohde-Schwarz Spectrum Analyzer) to connect the EUT at the required mode of test.
- Measurements are to be performed with the EUT set to the low, middle and high channels and for worst case modulation schemes.

8 Test Result Data

8.1 Maximum Conducted (Average) Output Power

8.1.1 Measurement according to FCC 558074 D01 15.247 Meas Guidance v05r02

Spectrum Analyzer settings:

- RBW = 1% to 5% of the OBW, not to exceed 1 MHz
- VBW $\geq 3 \times$ RBW
- Span = at least 1.5 times the OBW
- Sweep = Auto couple
- Detector function = RMS
- Trace = Average (at least 100 traces in power averaging (rms) mode)
- Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function with band limits set equal to the OBW band edges
- Add $[10 \log (1 / D)]$, where D is the duty cycle, to the measured power to compute the average power during the actual transmission times

8.1.2 Limits:

Maximum Output Power:

- FCC §15.247 (b)(1): 1 W
- IC RSS-247: 1 W

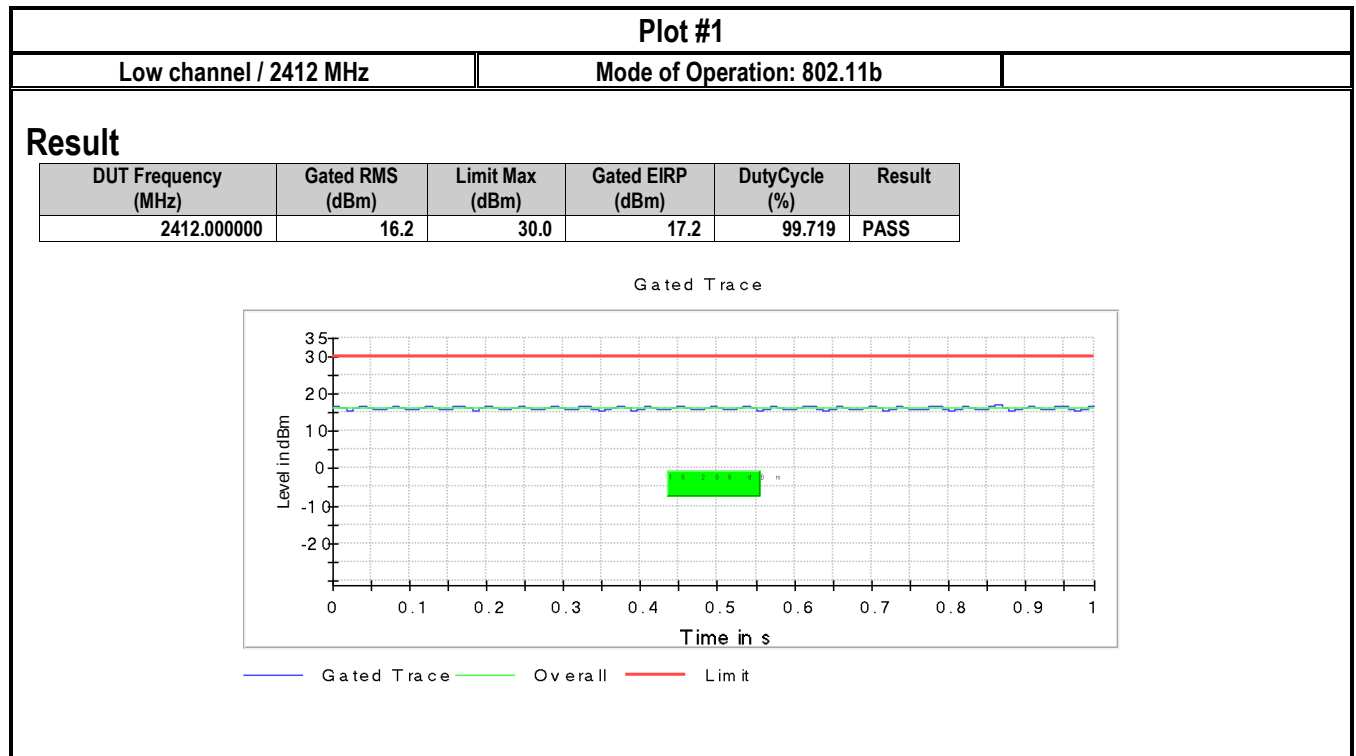
8.1.3 Test conditions and setup:

Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input	Antenna Gain
22.8° C	1	802.11b,g,n	24Vac	1 dBi

8.1.4 Measurement result:

Plot #	Frequency (MHz)	EUT Operating Mode	Maximum Average Conducted Output Power (dBm)	EIRP (dBm)	Limit (dBm)	Result
1	2412	802.11b	16.20	17.20	30 (Avg) / 36 (EIRP)	Pass
2	2437	802.11b	15.80	16.80	30 (Avg) / 36 (EIRP)	Pass
3	2462	802.11b	15.80	16.80	30 (Avg) / 36 (EIRP)	Pass
4	2412	802.11g	13.30	14.30	30 (Avg) / 36 (EIRP)	Pass
5	2437	802.11g	12.90	13.90	30 (Avg) / 36 (EIRP)	Pass
6	2462	802.11g	12.90	13.90	30 (Avg) / 36 (EIRP)	Pass
7	2412	802.11n (HT20)	12.30	13.30	30 (Avg) / 36 (EIRP)	Pass
8	2437	802.11n (HT20)	12.00	13.00	30 (Avg) / 36 (EIRP)	Pass
9	2462	802.11n (HT20)	11.80	12.80	30 (Avg) / 36 (EIRP)	Pass

8.1.5 Measurement Plots:



Plot #2

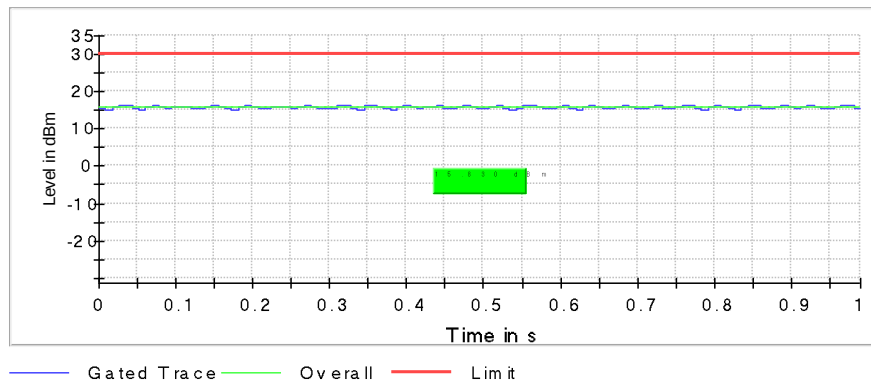
Mid channel / 2437 MHz

Mode of Operation: 802.11b

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2437.000000	15.8	30.0	16.8	99.719	PASS

Gated Trace



Plot #3

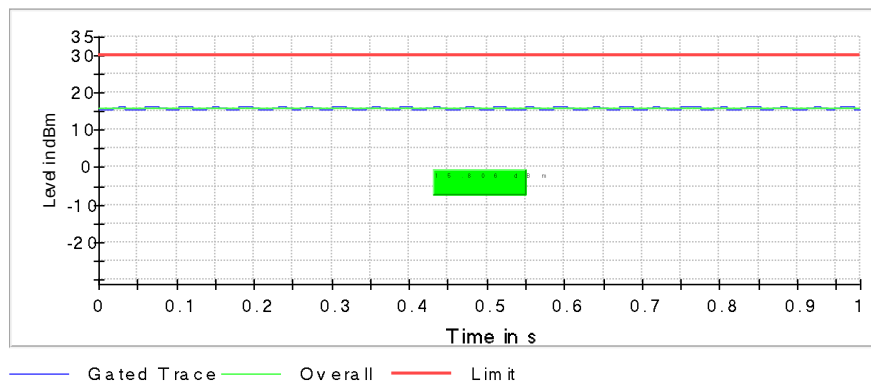
High channel / 2462 MHz

Mode of Operation: 802.11b

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2462.000000	15.8	30.0	16.8	99.719	PASS

Gated Trace



Plot #4

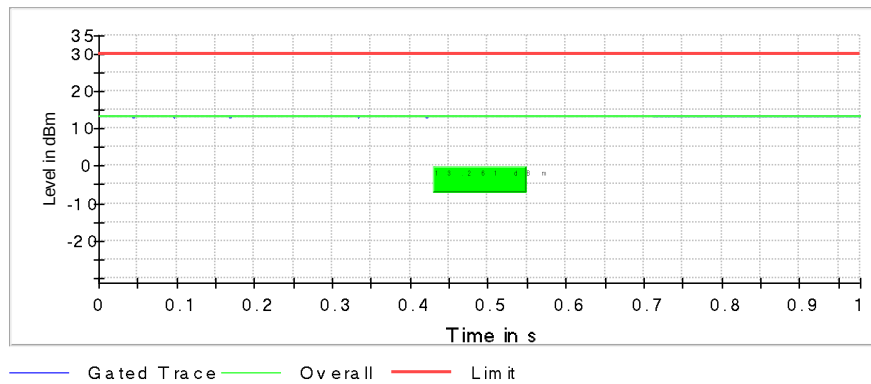
Low channel / 2412 MHz

Mode of Operation: 802.11g

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2412.000000	13.3	30.0	14.3	98.117	PASS

Gated Trace



— Gated Trace — Overall — Limit

Plot #5

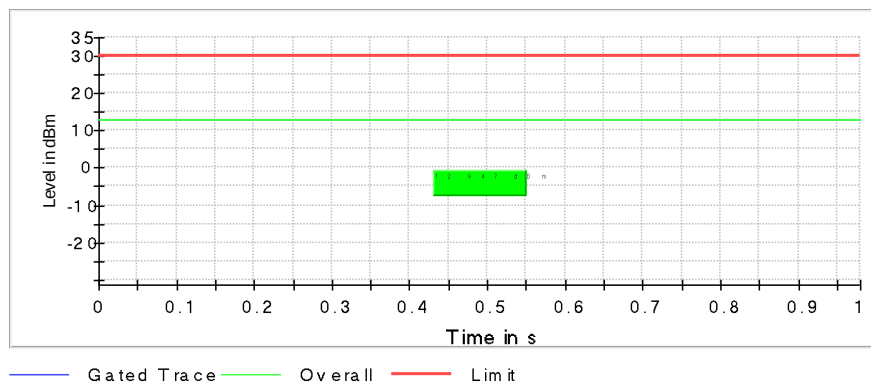
Mid channel / 2437 MHz

Mode of Operation: 802.11g

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2437.000000	12.9	30.0	13.9	98.119	PASS

Gated Trace



— Gated Trace — Overall — Limit

Plot #6

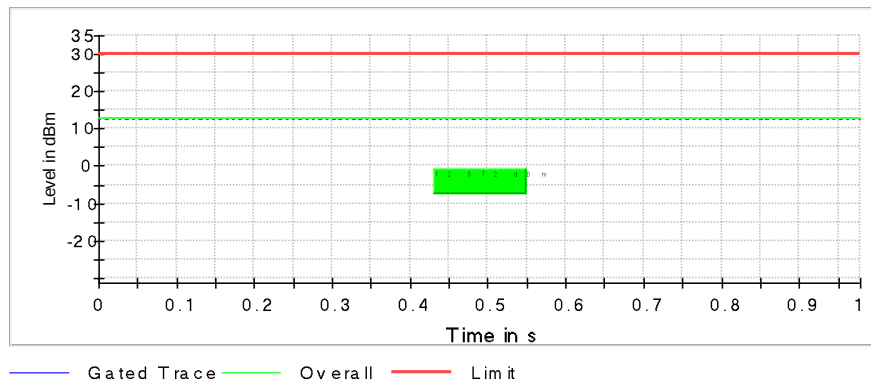
High channel / 2462 MHz

Mode of Operation: 802.11g

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2462.000000	12.9	30.0	13.9	98.121	PASS

Gated Trace



Plot #7

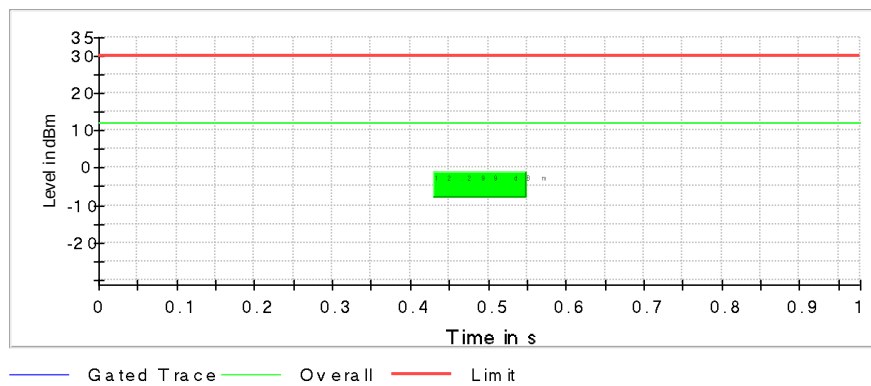
Low channel / 2412 MHz

Mode of Operation: 802.11n (HT20)

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2412.000000	12.3	30.0	13.3	97.964	PASS

Gated Trace



Plot #8

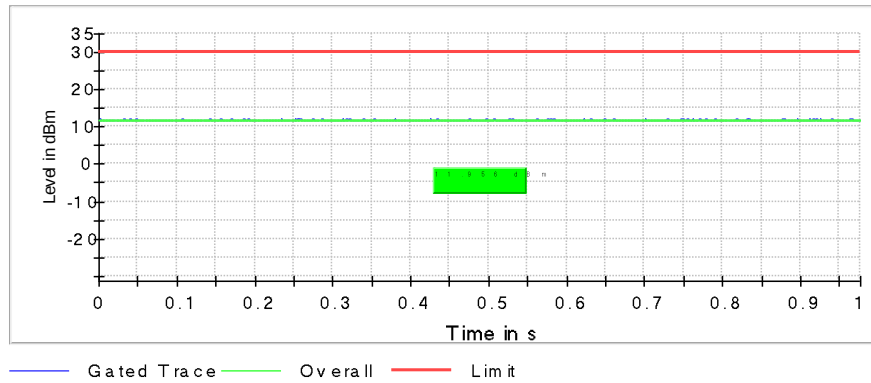
Mid channel / 2437 MHz

Mode of Operation: 802.11n (HT20)

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2437.000000	12.0	30.0	13.0	97.965	PASS

Gated Trace



Plot #9

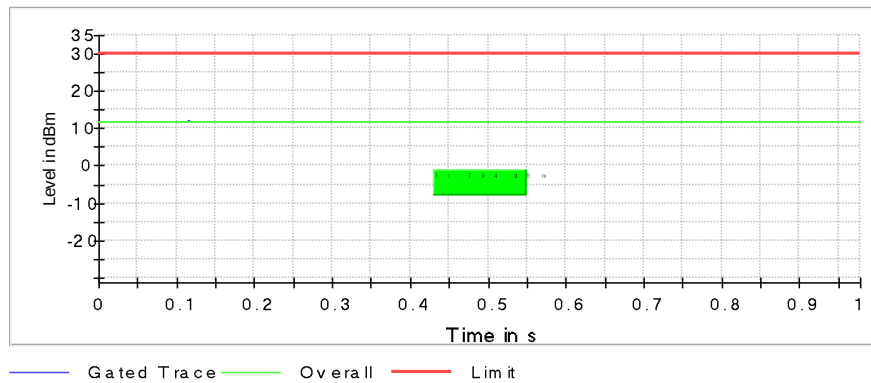
High channel / 2462 MHz

Mode of Operation: 802.11n (HT20)

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2462.000000	11.8	30.0	12.8	97.965	PASS

Gated Trace



8.2 Power Spectral Density

8.2.1 Measurement according to FCC 558074 D01 15.247 Meas Guidance v05r02

Spectrum Analyzer settings for AVGPSSD-1 PSD method:

- Set analyzer center frequency to DTS channel center frequency
- Set the span to $> 1.5 \times$ DTS bandwidth
- Set RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$
- Set the VBW $\geq (3 \times \text{RBW})$
- Detector = RMS
- Sweep time = Auto couple
- Trace mode = Employ trace averaging (RMS)
- Allow trace to fully stabilize
- Use the peak marker function to determine the maximum amplitude level within the RBW
- If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat

8.2.2 Limits:

FCC §15.247(e) & RSS-247 5.2(b):

- For digitally modulated systems, the peak 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.

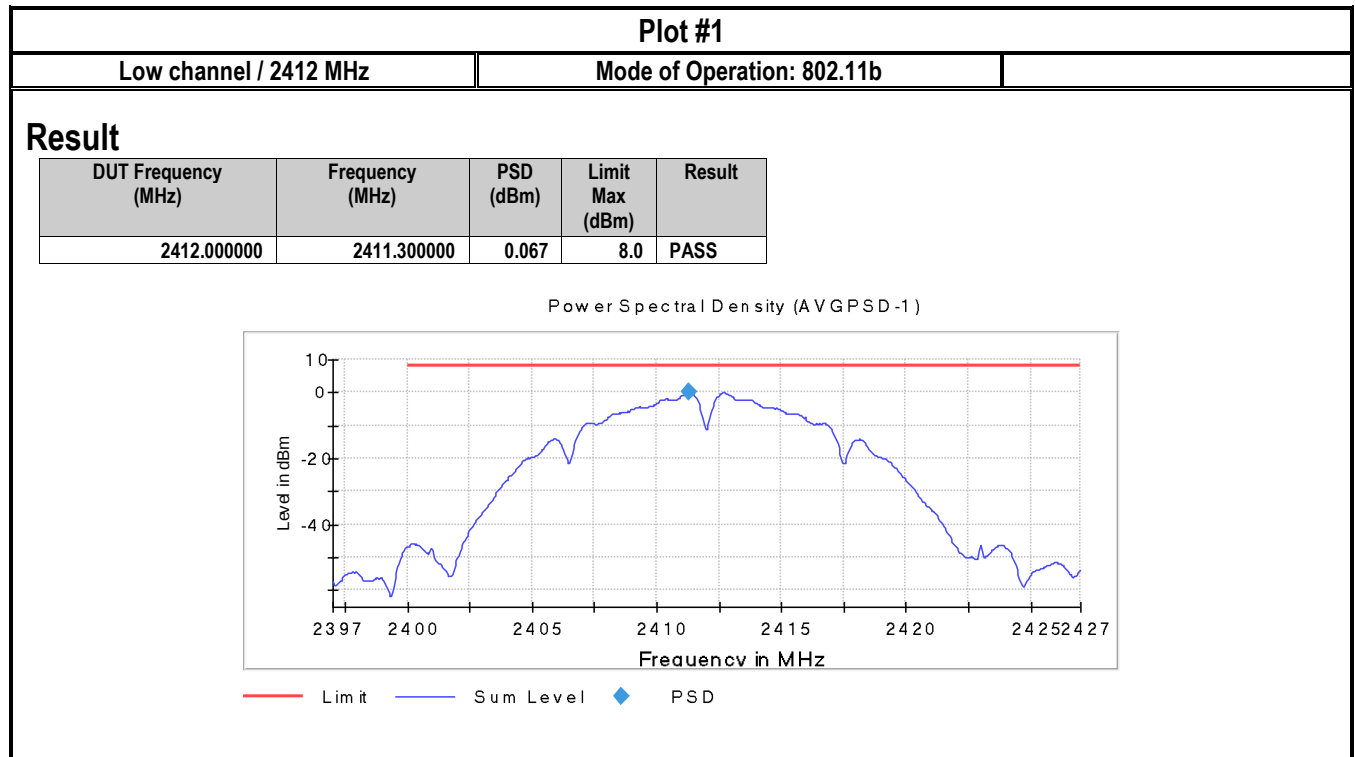
8.2.3 Test conditions and setup:

Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input	Antenna Gain
22.8° C	1	802.11b,g,n	24Vac	1 dBi

8.2.4 Measurement result:

Plot #	Frequency (MHz)	EUT Operating Mode	PSD (dBm / 3 kHz)	Limit (dBm / 3 kHz)	Result
1	2412	802.11b	0.07	8	Pass
2	2437	802.11b	-0.23	8	Pass
3	2462	802.11b	-0.08	8	Pass
4	2412	802.11g	-6.27	8	Pass
5	2437	802.11g	-6.67	8	Pass
6	2462	802.11g	-6.81	8	Pass
7	2412	802.11n HT20	-7.37	8	Pass
8	2437	802.11n HT20	-7.69	8	Pass
9	2462	802.11n HT20	-7.77	8	Pass

8.2.5 Measurement Plots:



Plot #2

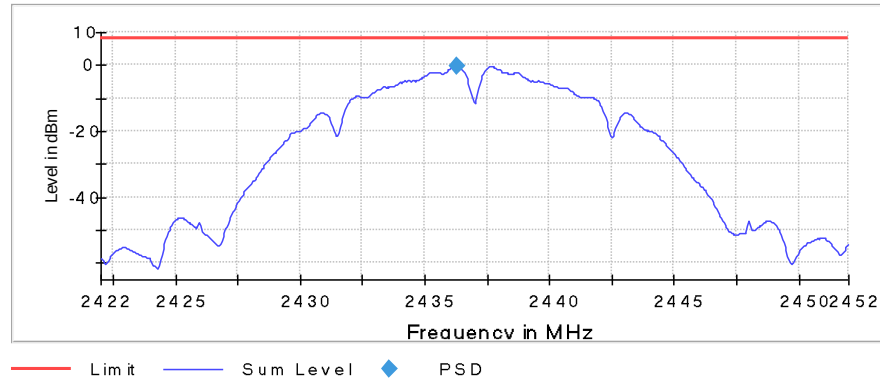
Mid channel / 2437 MHz

Mode of Operation: 802.11b

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2437.000000	2436.300000	-0.233	8.0	PASS

Power Spectral Density (AVG PSD-1)



Plot #3

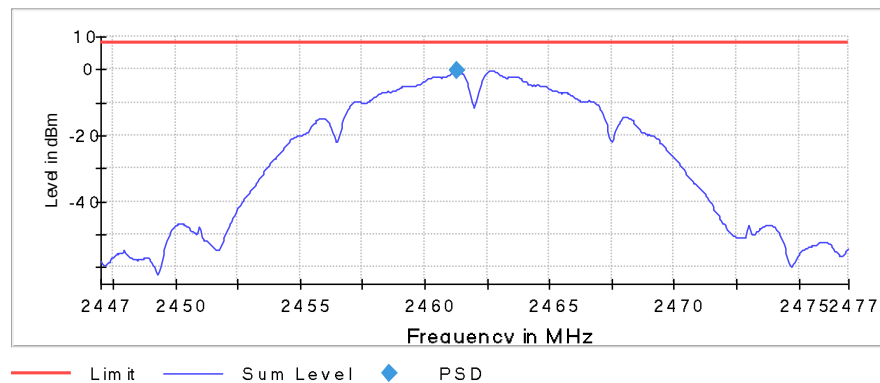
High channel / 2462 MHz

Mode of Operation: 802.11b

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2462.000000	2461.300000	-0.080	8.0	PASS

Power Spectral Density (AVG PSD-1)



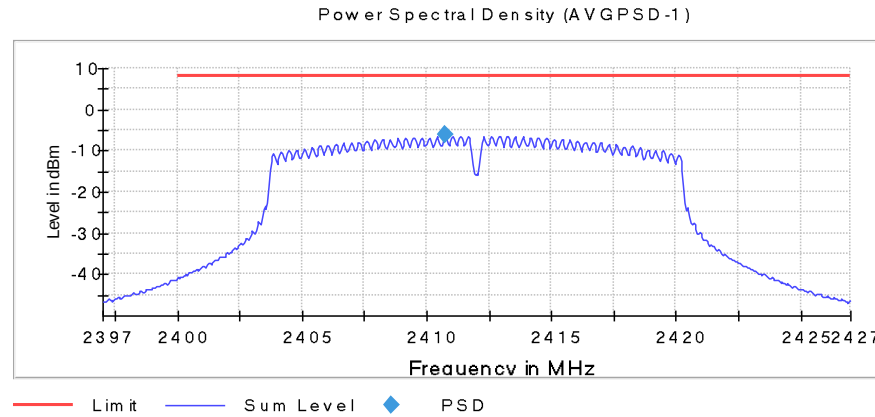
Plot #4

Low channel / 2412 MHz

Mode of Operation: 802.11g

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2412.000000	2410.750000	-6.273	8.0	PASS



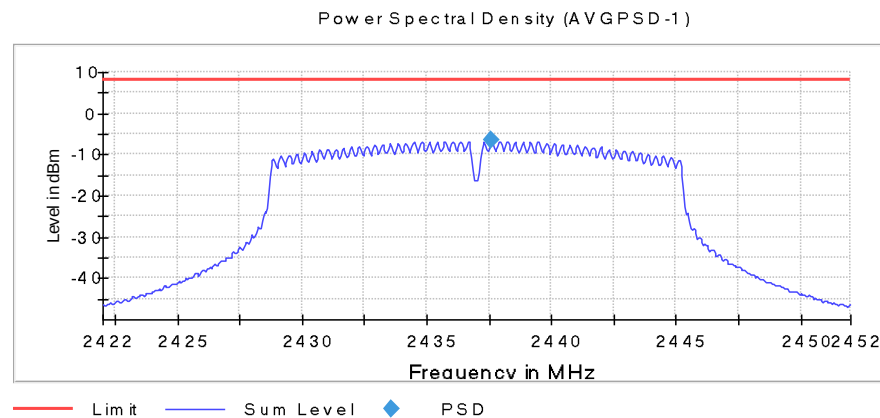
Plot #5

Mid channel / 2437 MHz

Mode of Operation: 802.11g

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2437.000000	2437.600000	-6.672	8.0	PASS



Plot #6

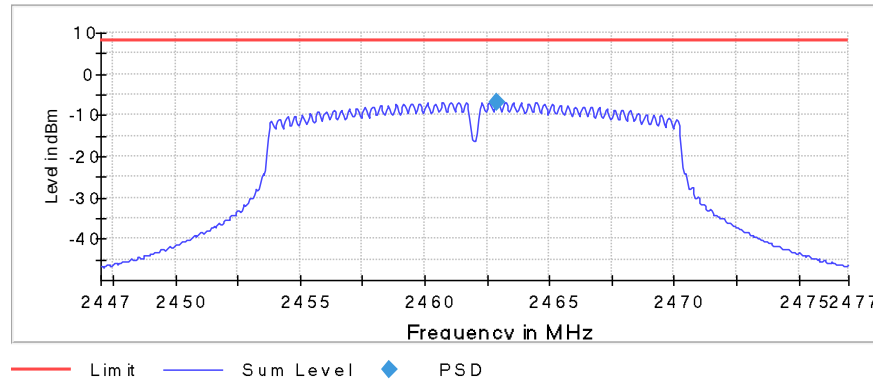
High channel / 2462 MHz

Mode of Operation: 802.11g

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2462.000000	2462.900000	-6.812	8.0	PASS

Power Spectral Density (AVG PSD-1)



Plot #7

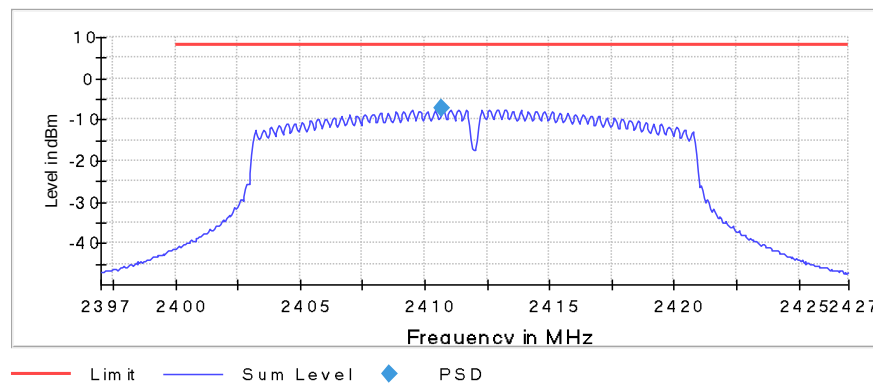
Low channel / 2412 MHz

Mode of Operation: 802.11n (HT20)

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2412.000000	2410.700000	-7.374	8.0	PASS

Power Spectral Density (AVG PSD-1)



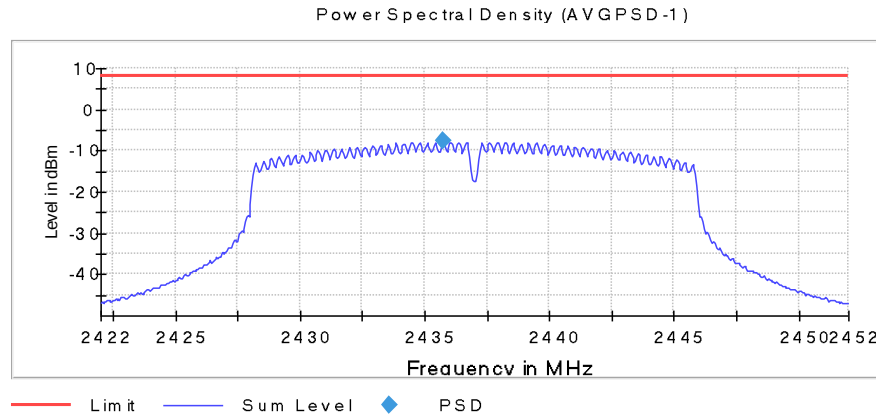
Plot #8

Mid channel / 2437 MHz

Mode of Operation: 802.11n (HT20)

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2437.000000	2435.750000	-7.692	8.0	PASS



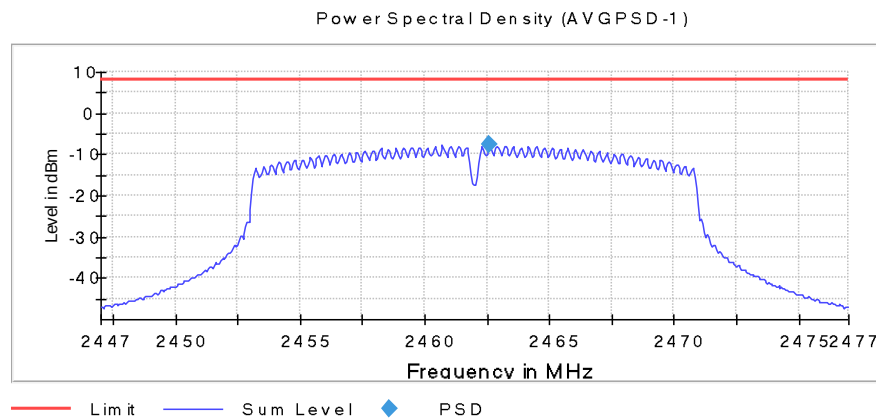
Plot #9

High channel / 2462 MHz

Mode of Operation: 802.11n (HT20)

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2462.000000	2462.600000	-7.766	8.0	PASS



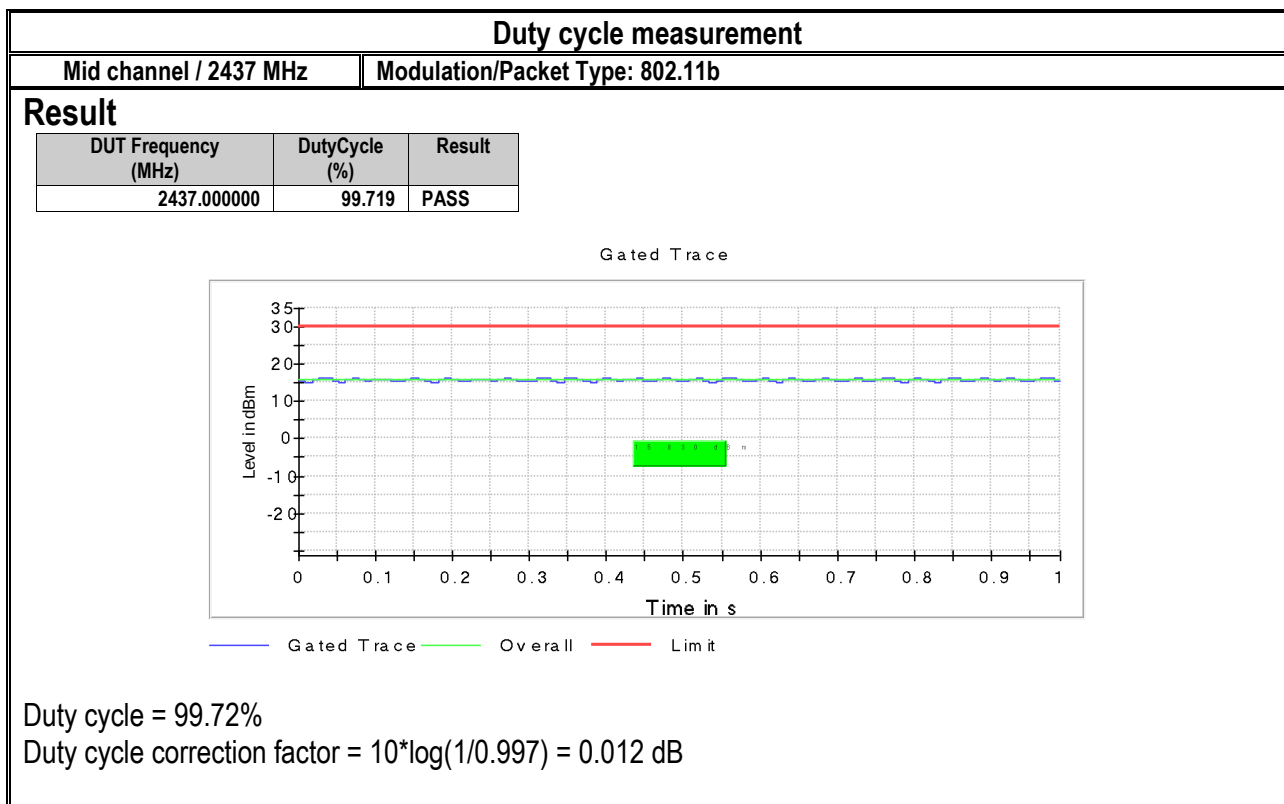
8.3 Duty cycle

8.3.1 Measurement according to FCC 558074 D01 15.247 Meas Guidance v05r02

Spectrum Analyzer settings:

- Set the center frequency and of the instrument to the center frequency of the transmission
- Zero span
- Set RBW $\geq$ OBW if possible; otherwise, set RBW to the largest available value
- Detector = Peak or average

8.3.2 Measurement result



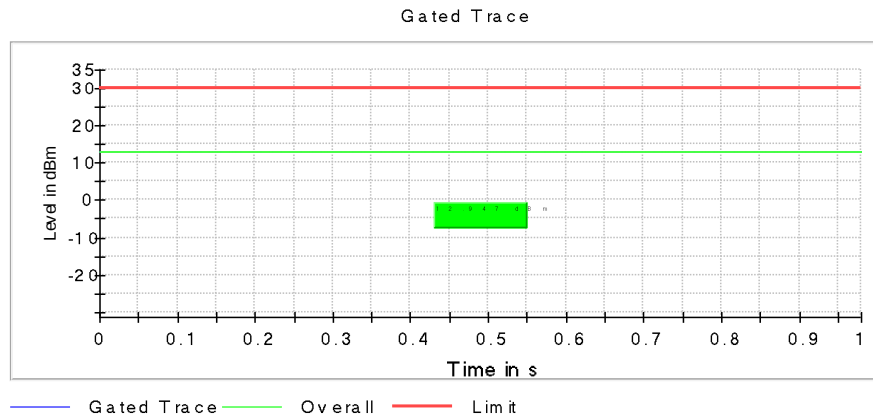
Duty cycle measurement

Mid channel / 2437 MHz

Modulation/Packet Type: 802.11g

Result

DUT Frequency (MHz)	DutyCycle (%)	Result
2437.000000	98.119	PASS



Duty cycle = 98.12%

Duty cycle correction factor = $10 \cdot \log(1/0.981) = 0.083$ dB

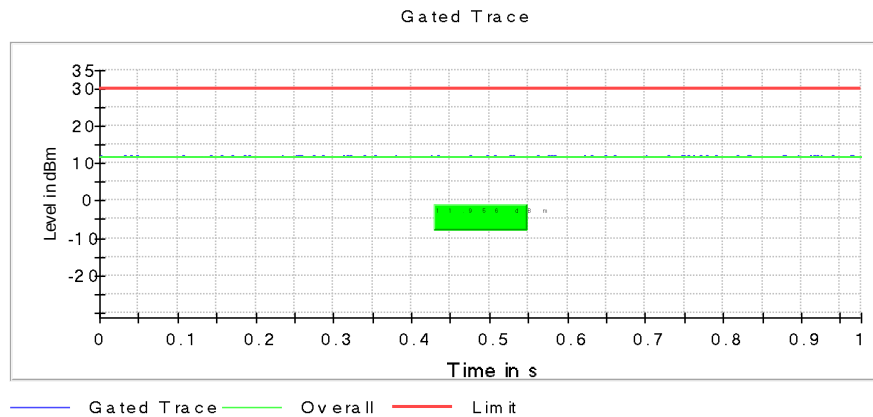
Duty cycle measurement

Mid channel / 2437 MHz

Modulation/Packet Type: 802.11n HT20

Result

DUT Frequency (MHz)	DutyCycle (%)	Result
2437.000000	97.965	PASS



Duty cycle = 97.97%

Duty cycle correction factor = $10 \cdot \log(1/0.98) = 0.089$ dB

8.4 Band Edge Compliance

8.4.1 Measurement according to FCC 558074 D01 15.247 Meas Guidance v05r02

Spectrum Analyzer settings for band edge:

- Set the center frequency and span to encompass frequency range to be measured
- RBW = 100 kHz
- VBW $\geq 3 \times$ RBW
- Sweep Time: Auto couple
- Detector = Peak
- Trace = Max hold
- Allow trace to fully stabilize
- Use the peak marker function to determine the maximum amplitude level
- Set the marker on the emission at the band edge, or on the highest modulation product outside of the band, if this level is greater than that at the band edge

8.4.2 Limits non restricted band:

FCC§15.247 (d)

- In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

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- In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30dB instead of 20dB.

Spectrum Analyzer settings for restricted band:

- Peak measurements are made using a peak detector and RBW=1 MHz

8.4.3 Limits restricted band §15.247/15.209/15.205 and RSS-Gen 8.9/8.10

- *PEAK LIMIT= 74 dB μ V/m @3m =-21.23 dBm
- *AVG. LIMIT= 54 dB μ V/m @3m =-41.23 dBm
- Start frequency & stop frequency according to frequency range specified in the restricted band table in FCC section 15.205 & RSS-Gen 8.10
- Measurements with a peak detector were used to show compliance to average limits, thus showing compliance to both peak and average limits.

(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
10.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

8.4.4 Test conditions and setup:

Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input	Antenna Gain
22.8° C	1	802.11b,g,n	24Vac	1 dBi

8.4.5 Measurement result:

Plot #	EUT operating mode	Band Edge	Band Edge Delta (dBm)	In Band Peak (dBm)	Limit (dBm)	Result
1	802.11b	Lower, Non-restricted	-36.1	10.0	-20.0	Pass
2	802.11g	Lower, Non-restricted	-29.3	4.1	-25.9	Pass
3	802.11n HT20	Lower, Non-restricted	-30.3	3.0	-27.0	Pass

Plot #	EUT operating mode	Band Edge	Measured Peak Value (dB μ V/m)	Measured Average Value (dB μ V/m)	Limit (dB μ V/m)	Result
4	802.11b	Upper Restricted Peak and Average	57.55	43.05	See section 8.4.3	Pass
5	802.11g	Upper Restricted Peak and Average	62.54	42.34	See section 8.4.3	Pass
6	802.11n HT20	Upper Restricted Peak and Average	58.37	41.58	See section 8.4.3	Pass

8.4.6 Measurement Plots:

Plot #1

Low channel / 2412 MHz

Mode of Operation: 802.11b

Result

DUT Frequency (MHz)	Result
2412.000000	PASS

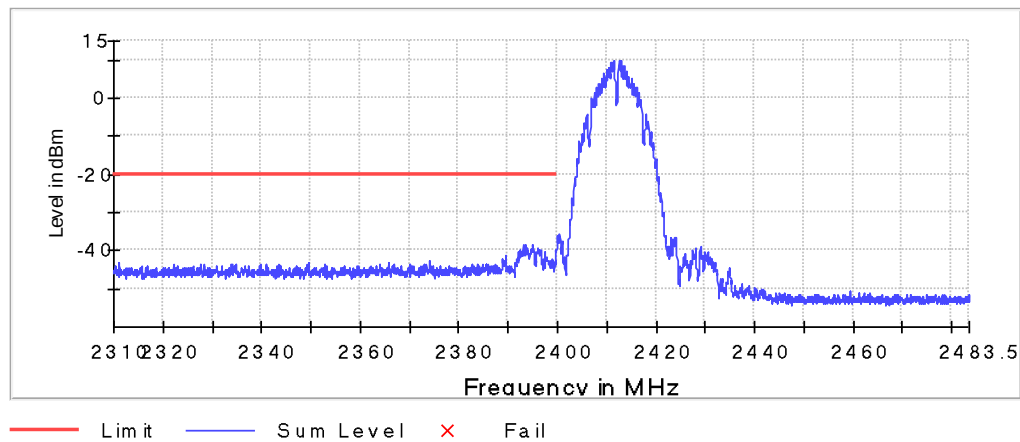
Inband Peak

Frequency (MHz)	Level (dBm)
2411.493529	10.0

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.950000	-36.1	16.1	-20.0	PASS
2393.000000	-38.3	18.3	-20.0	PASS
2395.050000	-38.4	18.4	-20.0	PASS
2393.550000	-38.5	18.5	-20.0	PASS
2393.050000	-38.6	18.6	-20.0	PASS
2393.500000	-38.7	18.7	-20.0	PASS
2399.900000	-39.0	19.0	-20.0	PASS
2395.100000	-39.0	19.0	-20.0	PASS
2395.000000	-39.1	19.1	-20.0	PASS
2394.900000	-39.2	19.2	-20.0	PASS
2399.850000	-39.3	19.3	-20.0	PASS
2396.050000	-39.3	19.3	-20.0	PASS
2396.100000	-39.4	19.4	-20.0	PASS
2393.100000	-39.4	19.4	-20.0	PASS
2394.800000	-39.4	19.4	-20.0	PASS

Band Edge



Plot #2

Low channel / 2412 MHz

Mode of Operation: 802.11g

Result

DUT Frequency (MHz)	Result
2412.000000	PASS

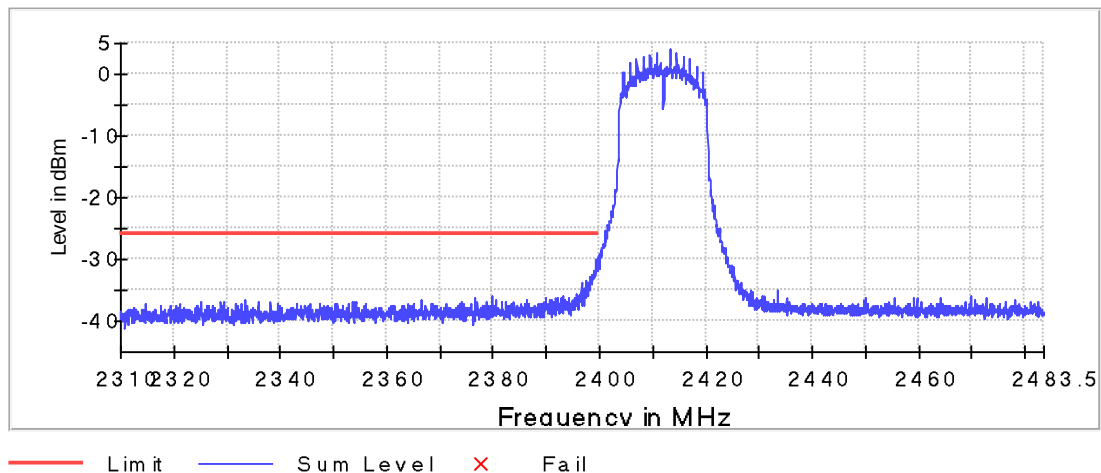
Inband Peak

Frequency (MHz)	Level (dBm)
2413.261765	4.1

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.850000	-29.3	3.4	-25.9	PASS
2399.800000	-29.7	3.8	-25.9	PASS
2399.200000	-29.9	4.0	-25.9	PASS
2399.900000	-30.0	4.1	-25.9	PASS
2399.700000	-30.2	4.3	-25.9	PASS
2399.250000	-30.5	4.6	-25.9	PASS
2399.150000	-30.5	4.6	-25.9	PASS
2399.750000	-30.7	4.8	-25.9	PASS
2399.650000	-30.8	4.9	-25.9	PASS
2399.450000	-30.9	5.0	-25.9	PASS
2399.500000	-31.0	5.1	-25.9	PASS
2399.600000	-31.0	5.1	-25.9	PASS
2399.400000	-31.1	5.2	-25.9	PASS
2399.950000	-31.7	5.8	-25.9	PASS
2399.550000	-31.7	5.8	-25.9	PASS

Band Edge



Plot #3

Low channel / 2412 MHz

Mode of Operation: 802.11n (HT20)

Result

DUT Frequency (MHz)	Result
2412.000000	PASS

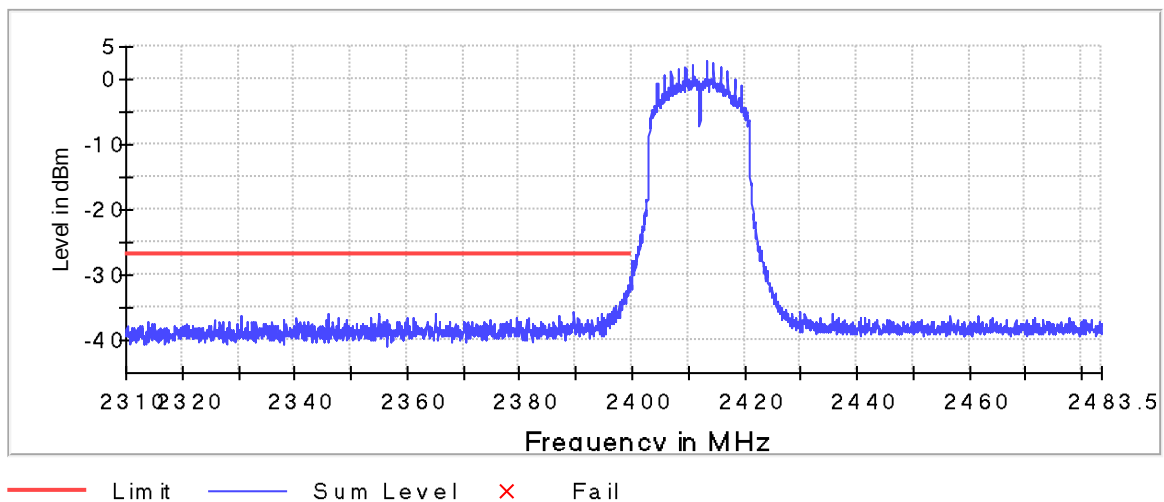
Inband Peak

Frequency (MHz)	Level (dBm)
2413.261765	3.0

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.750000	-30.3	3.3	-27.0	PASS
2399.800000	-30.5	3.5	-27.0	PASS
2399.950000	-31.2	4.2	-27.0	PASS
2399.650000	-31.5	4.5	-27.0	PASS
2399.250000	-31.5	4.5	-27.0	PASS
2399.850000	-31.5	4.5	-27.0	PASS
2399.700000	-31.6	4.6	-27.0	PASS
2399.450000	-31.7	4.7	-27.0	PASS
2399.600000	-32.0	5.0	-27.0	PASS
2399.400000	-32.1	5.1	-27.0	PASS
2399.900000	-32.1	5.1	-27.0	PASS
2399.350000	-32.2	5.2	-27.0	PASS
2399.500000	-32.3	5.3	-27.0	PASS
2399.000000	-32.4	5.4	-27.0	PASS
2398.900000	-32.5	5.5	-27.0	PASS

Band Edge



Plot #4

High channel / 2462 MHz

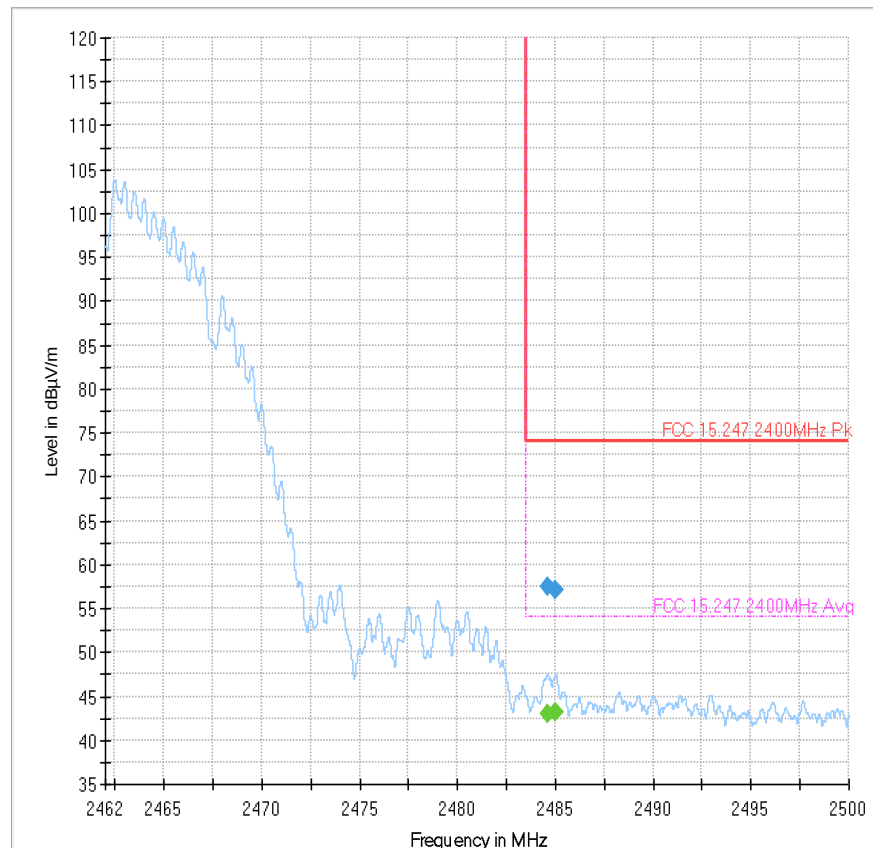
Mode of Operation: 802.11b

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)
2484.605	57.554	---	74.00	16.45	500.0	1000.000	294.0	V	213.0	34.0	5.6
2484.605	---	43.053	54.00	10.95	500.0	1000.000	294.0	V	213.0	34.0	5.6
2485.020	57.038	---	74.00	16.96	500.0	1000.000	100.0	V	210.0	34.0	5.6
2485.020	---	43.215	54.00	10.79	500.0	1000.000	100.0	V	210.0	34.0	5.6

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamp (dB)	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
2484.605	0.0	28.3	23.6	
2484.605	0.0	28.3	9.1	
2485.020	0.0	28.3	23.1	
2485.020	0.0	28.3	9.2	



— AVG_MAXH
— FCC 15.247 2400MHz Avg
— PK+ _MAXH
◆ Final_Result PK+
— FCC 15.247 2400MHz Pk
◆ Final_Result CAV

Plot #5

High channel / 2462 MHz

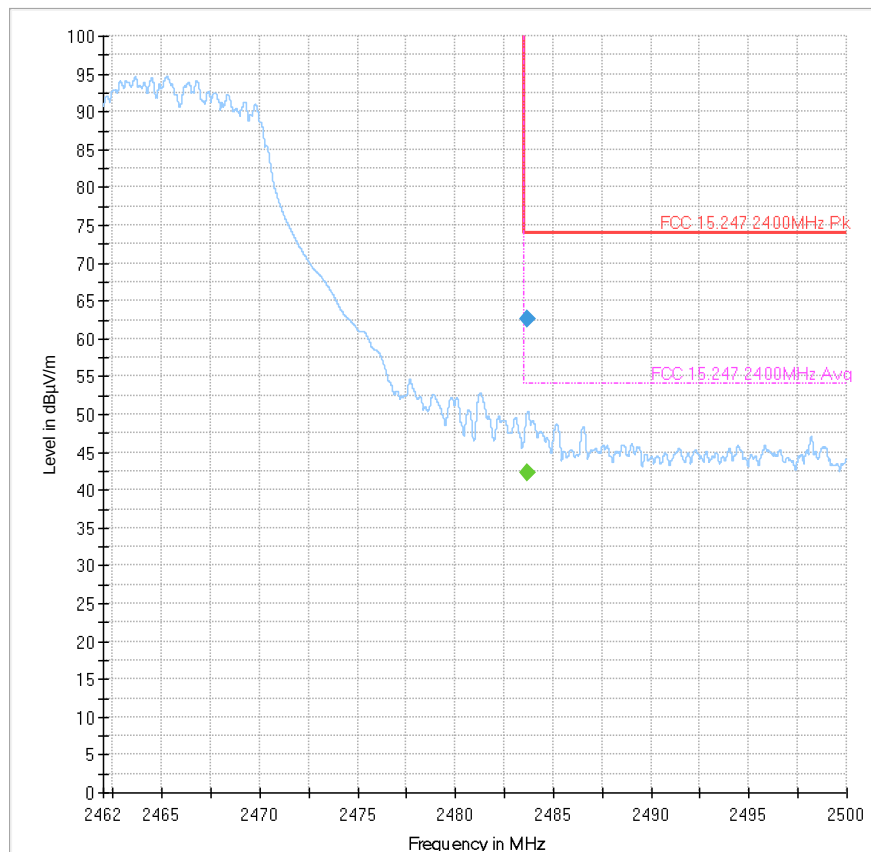
Mode of Operation: 802.11g

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)
2483.679	---	42.339	54.00	11.66	500.0	1000.000	199.0	H	124.0	34.0	5.6
2483.679	62.544	---	74.00	11.46	500.0	1000.000	199.0	H	124.0	34.0	5.6

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamp (dB)	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
2483.679	0.0	28.4	8.4	
2483.679	0.0	28.4	28.6	



— AVG_MAXH
— FCC 15.247 2400MHz Avg
 — PK+_MAXH
◆ Final_Result PK+
 — FCC 15.247 2400MHz Pk
◆ Final_Result CAV

Plot #6

High channel / 2462 MHz

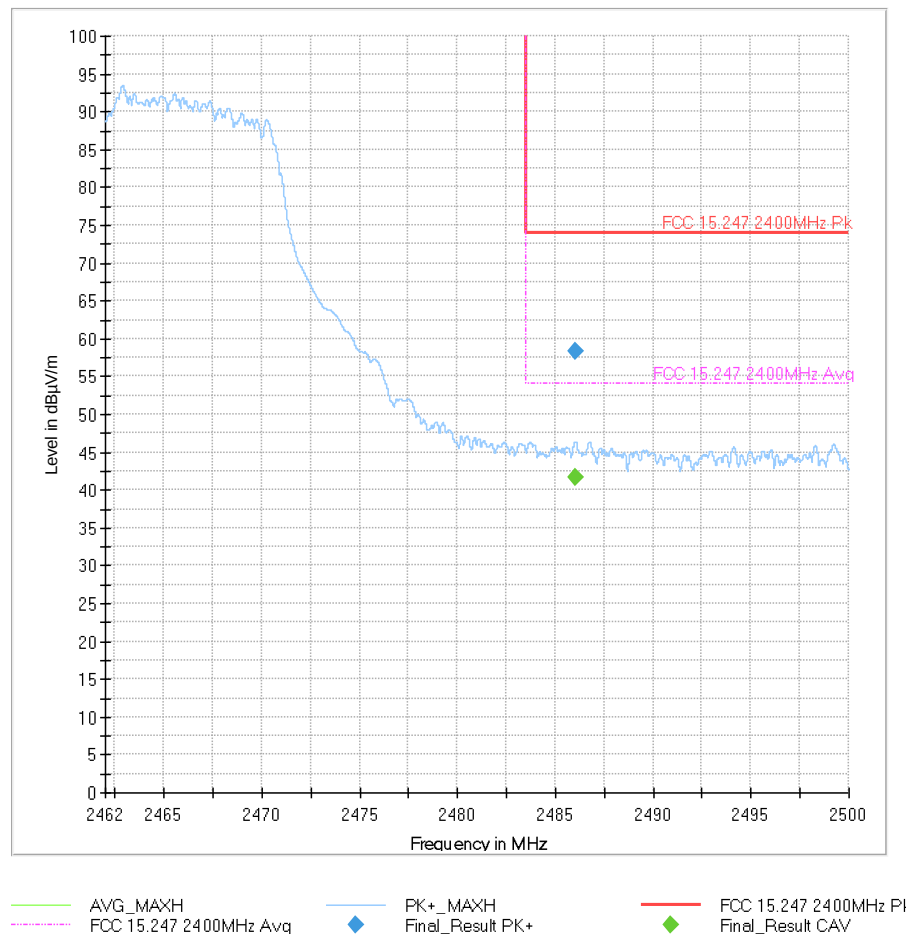
Mode of Operation: 802.11n (HT20)

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)
2486.019	---	41.582	54.00	12.42	500.0	1000.000	250.0	H	210.0	34.0	5.7
2486.019	58.374	---	74.00	15.63	500.0	1000.000	250.0	H	210.0	34.0	5.7

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamp (dB)	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
2486.019	0.0	28.4	7.6	
2486.019	0.0	28.4	24.4	



8.5 Emission Bandwidth 6dB and 99% Occupied Bandwidth

8.5.1 Measurement according to FCC 558074 D01 15.247 Meas Guidance v05r02

Spectrum Analyzer settings:

6dB (DTS) Bandwidth:

- Set RBW = 100 kHz
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW
- Detector = Peak
- Trace mode = Max hold
- Sweep = Auto couple
- Allow the trace to stabilize
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

99% Occupied Bandwidth:

- Set frequency = nominal EUT channel center frequency
- Set Span = 1.5 x to 5.0 x OBW
- Set RBW = 1% to 5% of OBW
- Set the video bandwidth (VBW) $\approx 3 \times$ RBW
- Detector = Peak
- Trace mode = Max hold
- Sweep = Auto couple
- Allow the trace to stabilize
- Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth
- If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.

8.5.2 Limits:

FCC §15.247(a)(2) and RSS-247 5.2(a)

- Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

8.5.3 Test conditions and setup:

Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input	Antenna Gain
22.8° C	1	802.11b,g,n	24Vac	1 dBi

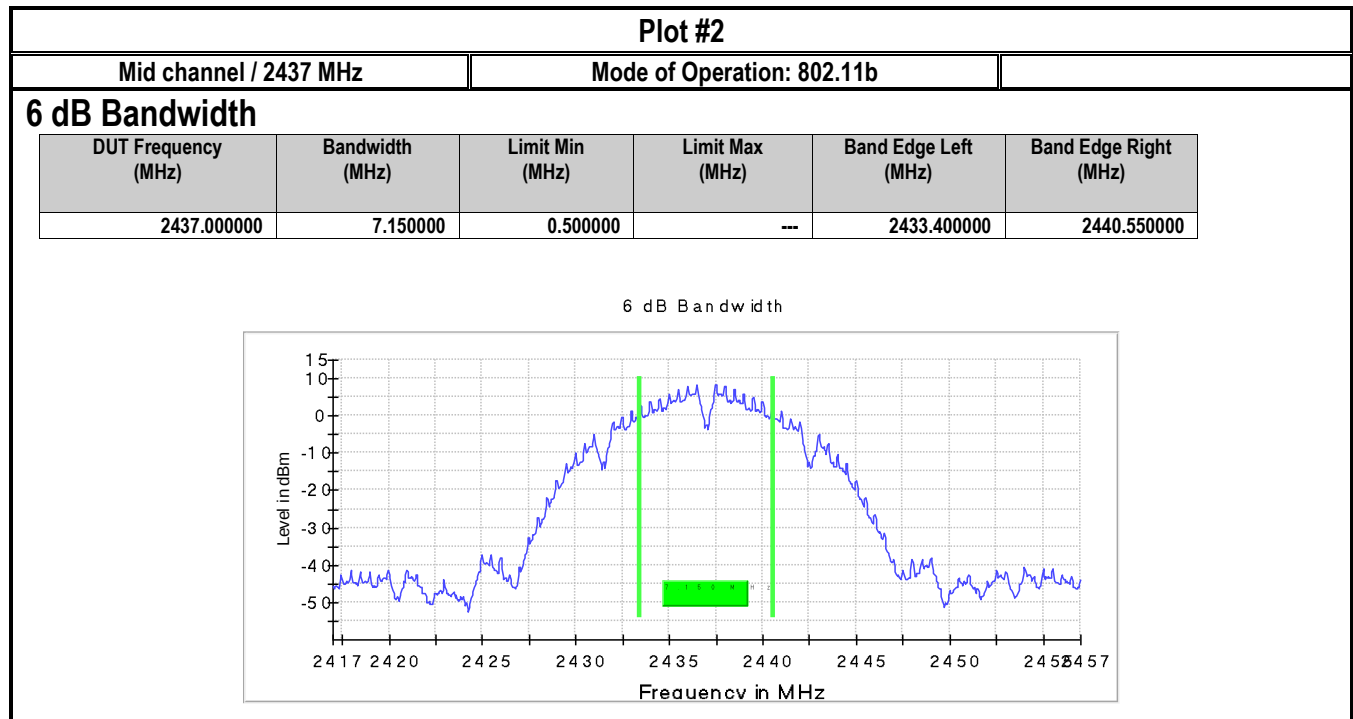
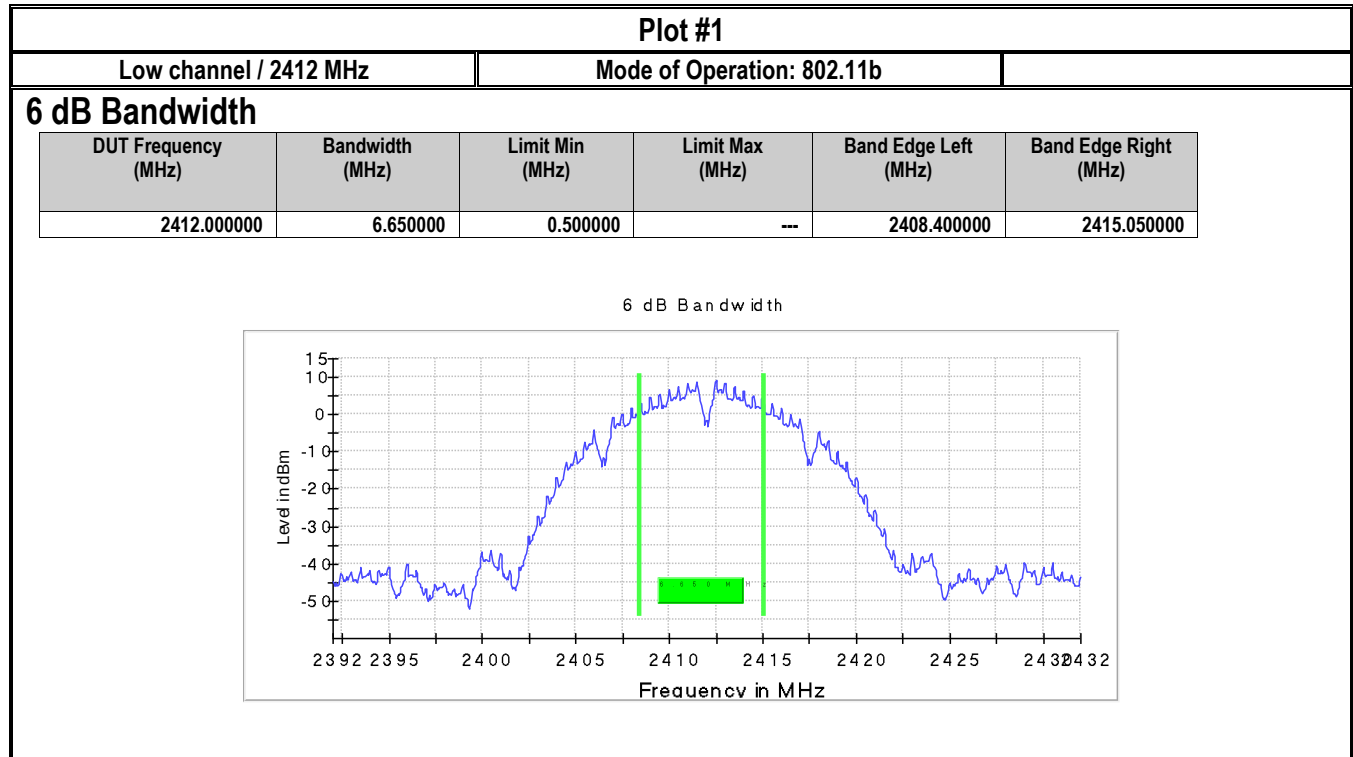
8.5.4 Measurement result:

Plot #	Frequency (MHz)	EUT Operating Mode	6dB Emission Bandwidth (MHz)	Limit (MHz)	Result
1	2412	802.11b	6.650	> 0.5	Pass
2	2437	802.11b	7.150	> 0.5	Pass
3	2462	802.11b	7.150	> 0.5	Pass
4	2412	802.11g	15.250	> 0.5	Pass
5	2437	802.11g	15.250	> 0.5	Pass
6	2462	802.11g	15.250	> 0.5	Pass
7	2412	802.11n HT20	15.200	> 0.5	Pass
8	2437	802.11n HT20	15.250	> 0.5	Pass
9	2462	802.11n HT20	15.200	> 0.5	Pass

Plot #	Frequency (MHz)	EUT Operating Mode	99% Occupied Bandwidth (MHz)	Limit (MHz)	Result
10	2412	802.11b	14.400	> 0.5	Pass
11	2437	802.11b	14.300	> 0.5	Pass
12	2462	802.11b	14.200	> 0.5	Pass
13	2412	802.11g	16.400	> 0.5	Pass
14	2437	802.11g	16.400	> 0.5	Pass
15	2462	802.11g	16.400	> 0.5	Pass
16	2412	802.11n HT20	17.600	> 0.5	Pass
17	2437	802.11n HT20	17.600	> 0.5	Pass
18	2462	802.11n HT20	17.600	> 0.5	Pass

8.5.5 Measurement Plots:

6 dB Emission Bandwidth



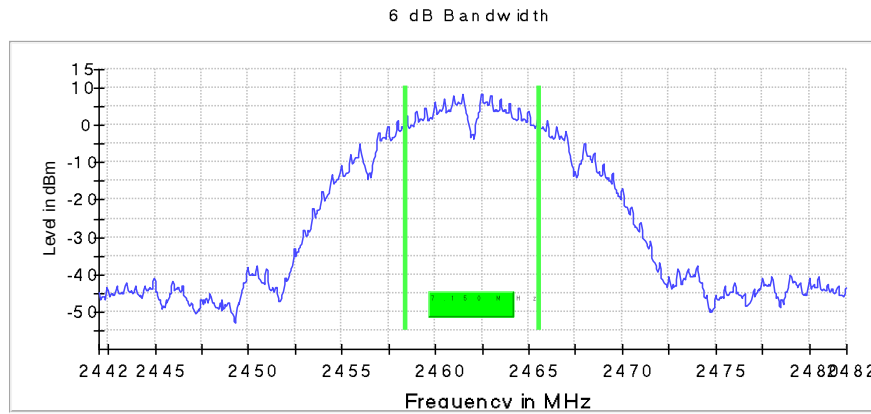
Plot #3

High channel / 2462 MHz

Mode of Operation: 802.11b

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2462.000000	7.150000	0.500000	---	2458.400000	2465.550000



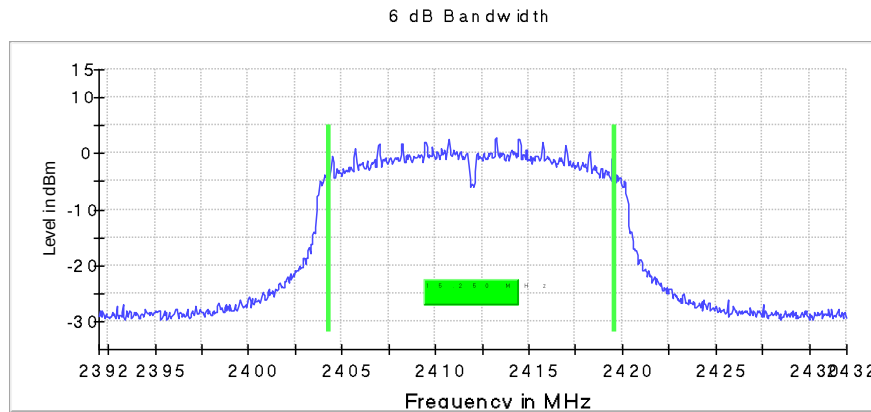
Plot #4

Low channel / 2412 MHz

Mode of Operation: 802.11g

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2412.000000	15.250000	0.500000	---	2404.350000	2419.600000



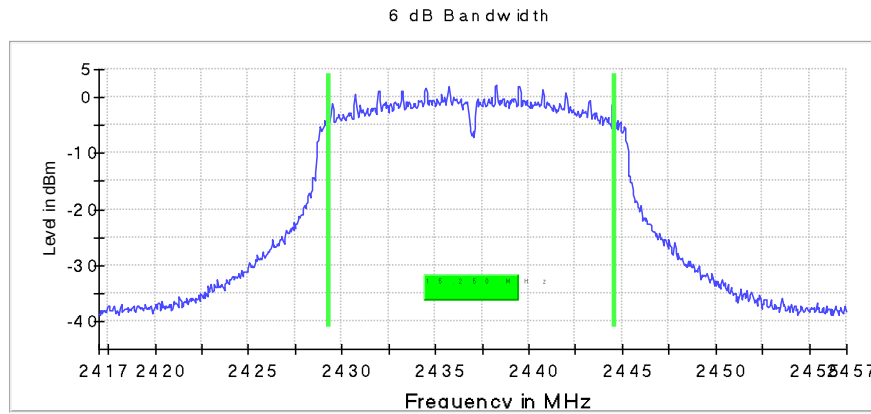
Plot #5

Mid channel / 2437 MHz

Mode of Operation: 802.11g

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	15.250000	0.500000	---	2429.350000	2444.600000



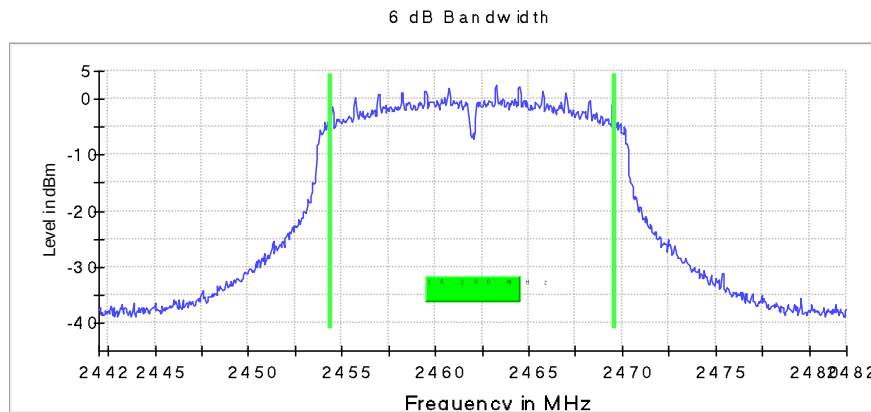
Plot #6

High channel / 2462 MHz

Mode of Operation: 802.11g

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2462.000000	15.200000	0.500000	---	2454.400000	2469.600000



Plot #7

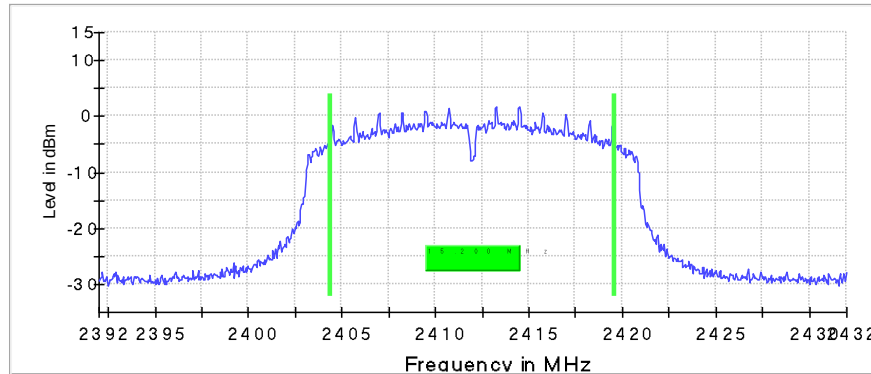
Low channel / 2412 MHz

Mode of Operation: 802.11n (HT20)

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2412.000000	15.200000	0.500000	---	2404.400000	2419.600000

6 dB Bandwidth



Plot #8

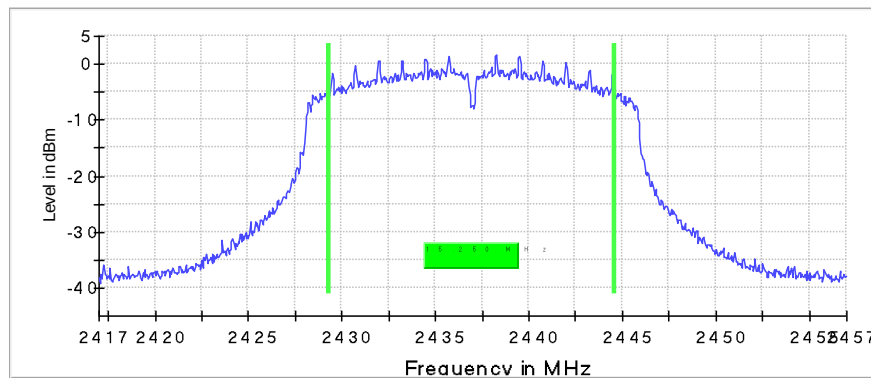
Mid channel / 2437 MHz

Mode of Operation: 802.11n (HT20)

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	15.250000	0.500000	---	2429.350000	2444.600000

6 dB Bandwidth



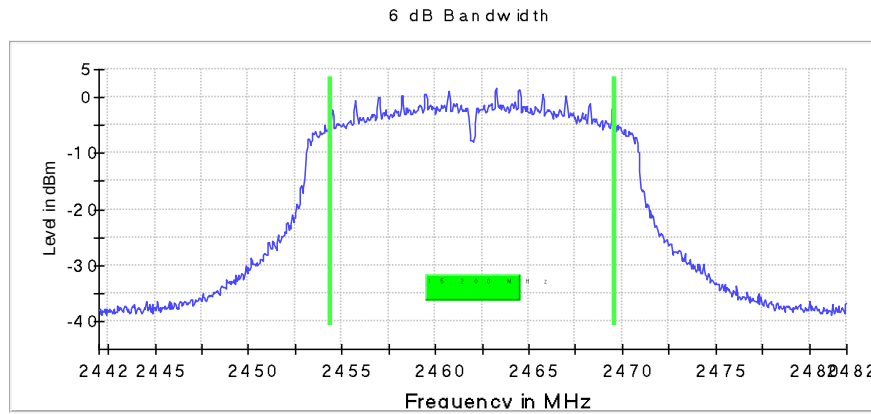
Plot #9

High channel / 2462 MHz

Mode of Operation: 802.11n (HT20)

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2462.000000	15.200000	0.500000	---	2454.400000	2469.600000



99% Occupied Bandwidth

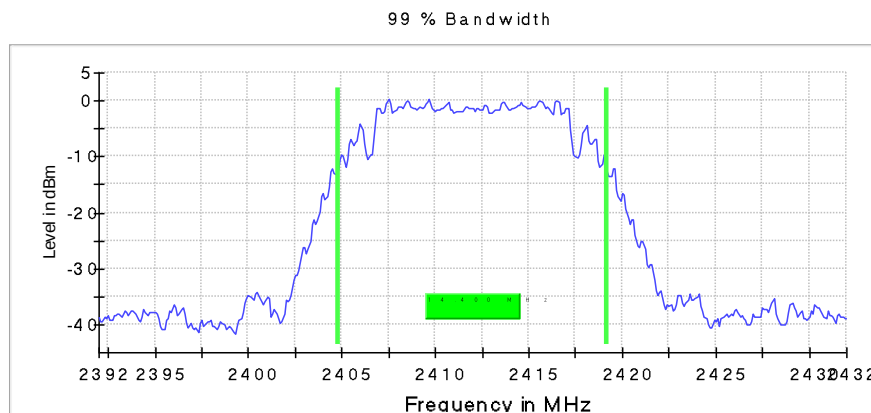
Plot #10

Low channel / 2412 MHz

Mode of Operation: 802.11b

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2412.000000	14.400000	---	---	2404.800000	2419.200000



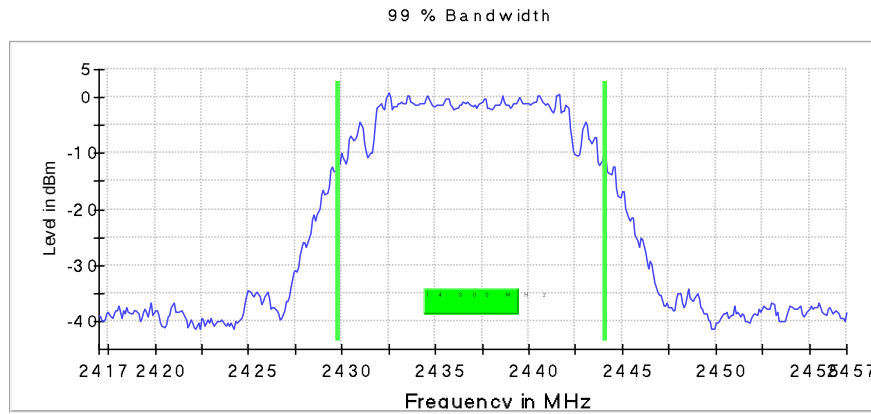
Plot #11

Mid channel / 2437 MHz

Mode of Operation: 802.11b

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	14.300000	---	---	2429.800000	2444.100000



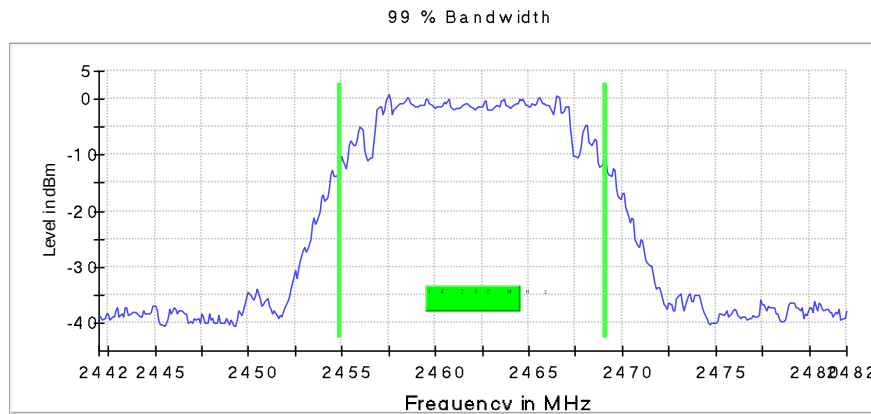
Plot #12

High channel / 2462 MHz

Mode of Operation: 802.11b

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2462.000000	14.200000	---	---	2454.900000	2469.100000



Plot #13

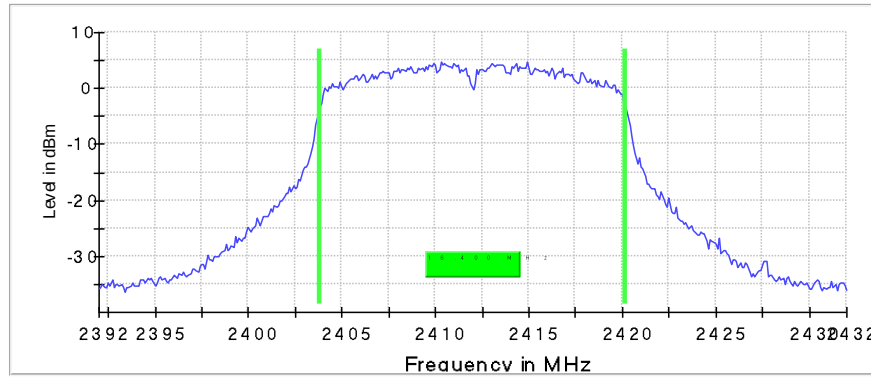
Low channel / 2412 MHz

Mode of Operation: 802.11g

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2412.000000	16.400000	---	---	2403.800000	2420.200000

99 % Bandwidth



Plot #14

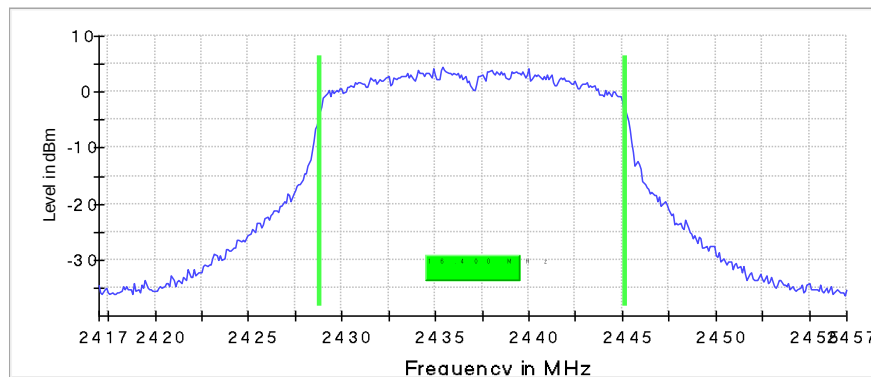
Mid channel / 2437 MHz

Mode of Operation: 802.11g

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	16.400000	---	---	2428.800000	2445.200000

99 % Bandwidth



Plot #15

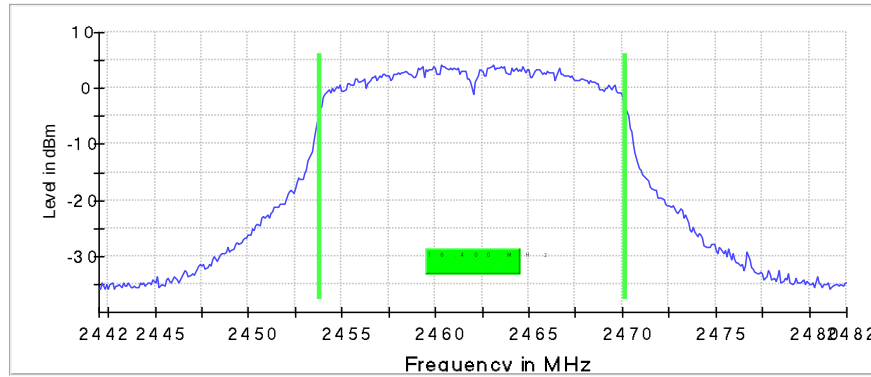
High channel / 2462 MHz

Mode of Operation: 802.11g

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2462.000000	16.400000	---	---	2453.800000	2470.200000

99 % Bandwidth



Plot #16

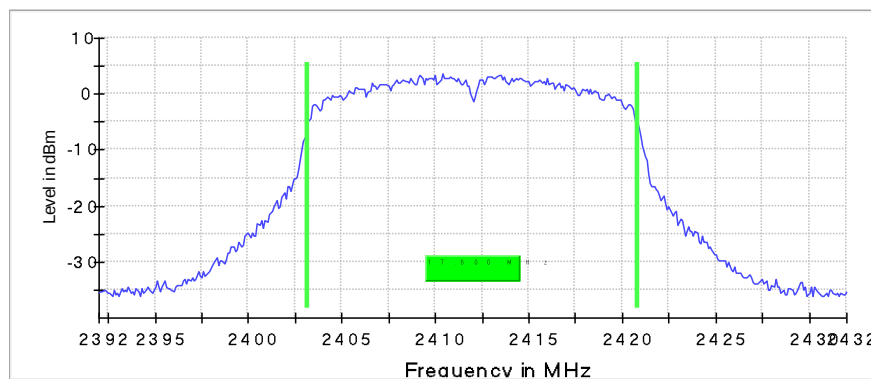
Low channel / 2412 MHz

Mode of Operation: 802.11n (HT20)

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2412.000000	17.600000	---	---	2403.200000	2420.800000

99 % Bandwidth



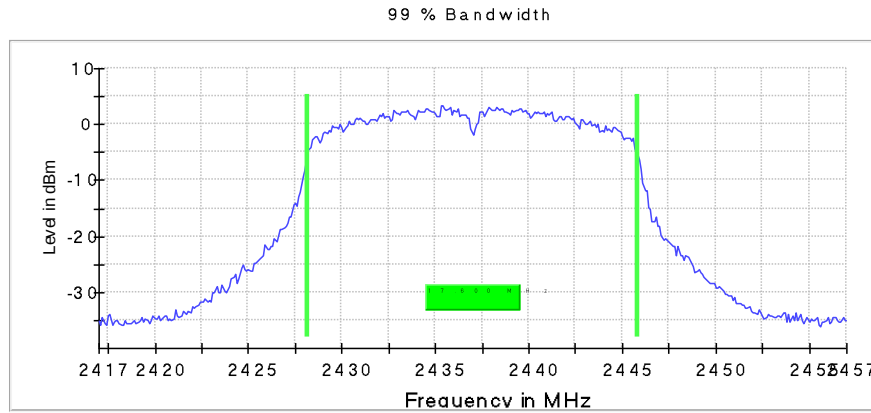
Plot #17

Mid channel / 2437 MHz

Mode of Operation: 802.11n (HT20)

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	17.600000	---	---	2428.200000	2445.800000



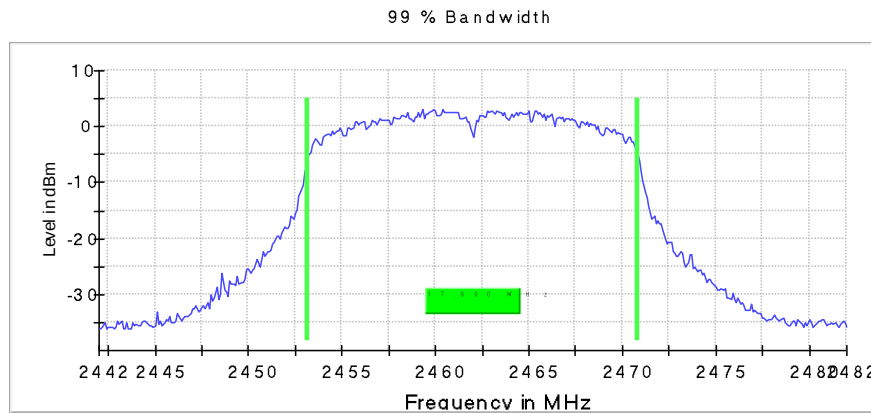
Plot #18

High channel / 2462 MHz

Mode of Operation: 802.11n (HT20)

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2462.000000	17.600000	---	---	2453.200000	2470.800000



8.6 Radiated Transmitter Spurious Emissions and Restricted Bands

8.6.1 Measurement according to ANSI C63.10 (2013)

Spectrum Analyzer Settings:

- Frequency = 9 KHz – 30 MHz
- RBW = 9 KHz
- Detector: Peak

- Frequency = 30 MHz – 1 GHz
- Detector = Peak / Quasi-Peak
- RBW= 120 KHz (<1GHz)

- Frequency > 1 GHz
- Detector = Peak / Average
- RBW = 1 MHz

- Radiated spurious emissions shall be measured for the transmit frequencies, transmit power, and data rate for the lowest, middle and highest channel in each frequency band of operation and for the highest gain antenna for each antenna type, and using the appropriate parameters and test requirements.
- The highest (or worst-case) data rate shall be recorded for each measurement.
- For testing frequencies below 30 MHz at distance other than the specified in the standard, the limit conversion is calculated by using the FCC materials for the ANSI 63 committee issued on January, 27 1991.

8.6.2 Limits:

FCC §15.247

- In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

FCC §15.209 & RSS-Gen 8.9

- 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 of emission (MHz)	Field strength (μV/m)	Measurement Distance (m)	Field strength @ 3m (dBμV/m)
0.009–0.490	2400/F(kHz) / -----	300	-
0.490–1.705	24000/F(kHz) / -----	30	-
1.705–30.0	30 / (29.5)	30	-
30–88	100	3	40 dBμV/m
88–216	150	3	43.5 dBμV/m
216–960	200	3	46 dBμV/m
Above 960	500	3	54 dBμV/m

FCC §15.205 & RSS-Gen 8.10

- 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
10.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

- Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

*PEAK LIMIT= 74 dBμV/m

*AVG. LIMIT= 54 dBμV/m

8.6.3 Test conditions and setup:

Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input	Antenna Gain
22.8° C	1	802.11b,g,n	24Vac	1 dBi

8.6.4 Measurement result:

Plot #	Channel #	Scan Frequency	Limit	Result
1-5	Low	9 kHz – 26 GHz	See section 8.6.2	Pass
6-10	Mid	9 kHz – 26 GHz	See section 8.6.2	Pass
11-15	High	9 kHz – 26 GHz	See section 8.6.2	Pass

8.6.5 Measurement Plots:

Plot # 1 Radiated Emissions: 9 KHz – 30 MHz

Tx Frequency: 2412 MHz

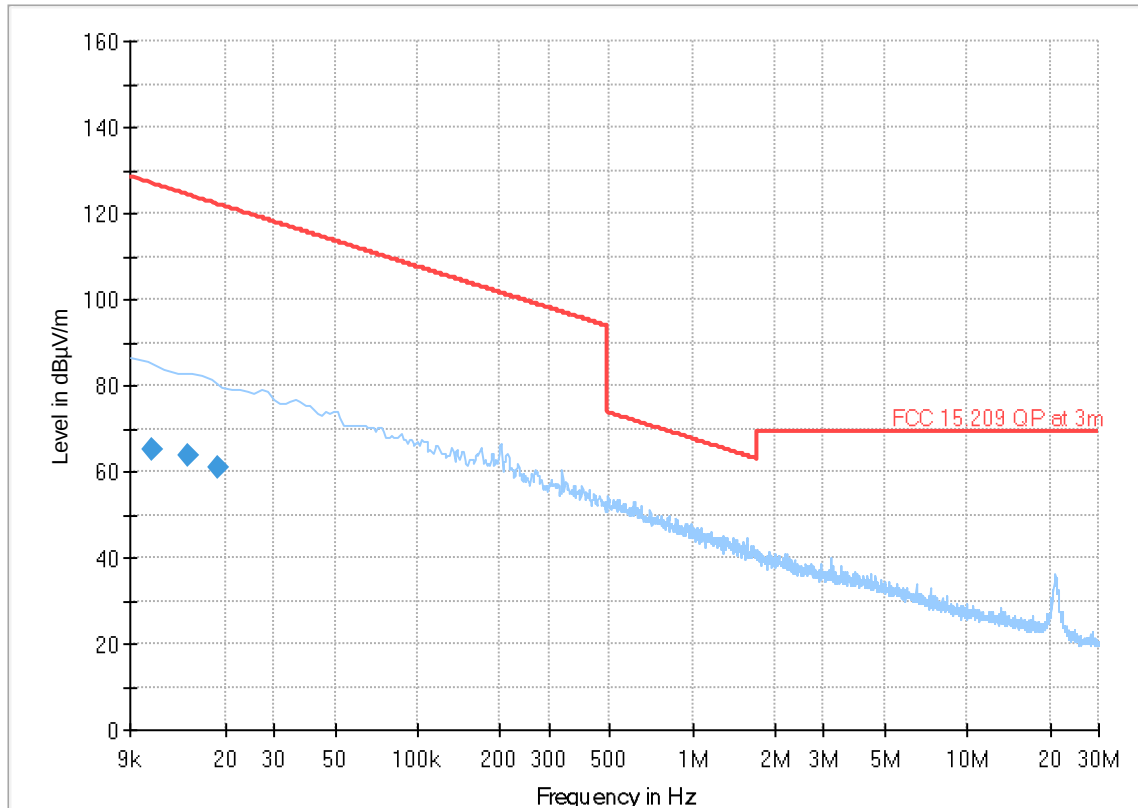
Modulation: 802.11b

Final Result

Frequency (MHz)	QuasiPeak (dBμV/m)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth (h)	Height (t)	Pol	Azimuth (h)	Corr. (dB/m)	Sig Path (dB)
0.011	65.252	---	126.87	61.61	500.0	0.200	100.0	V	-14.0	28.2	0.2
0.015	63.621	---	124.26	60.64	500.0	0.200	100.0	V	4.0	26.2	0.2
0.019	60.754	---	122.13	61.38	500.0	0.200	100.0	H	317.0	24.0	0.2

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamplifier	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
0.011	0.0	28.0	37.0	
0.015	0.0	26.0	37.4	
0.019	0.0	23.8	36.8	



◆ AVG_MAXH Final_Result QPK
◆ PK+_MAXH Final_Result PK+
— FCC 15.209 QP at 3m

Plot # 2 Radiated Emissions: 30 – 1000MHz

Tx Frequency: 2412 MHz

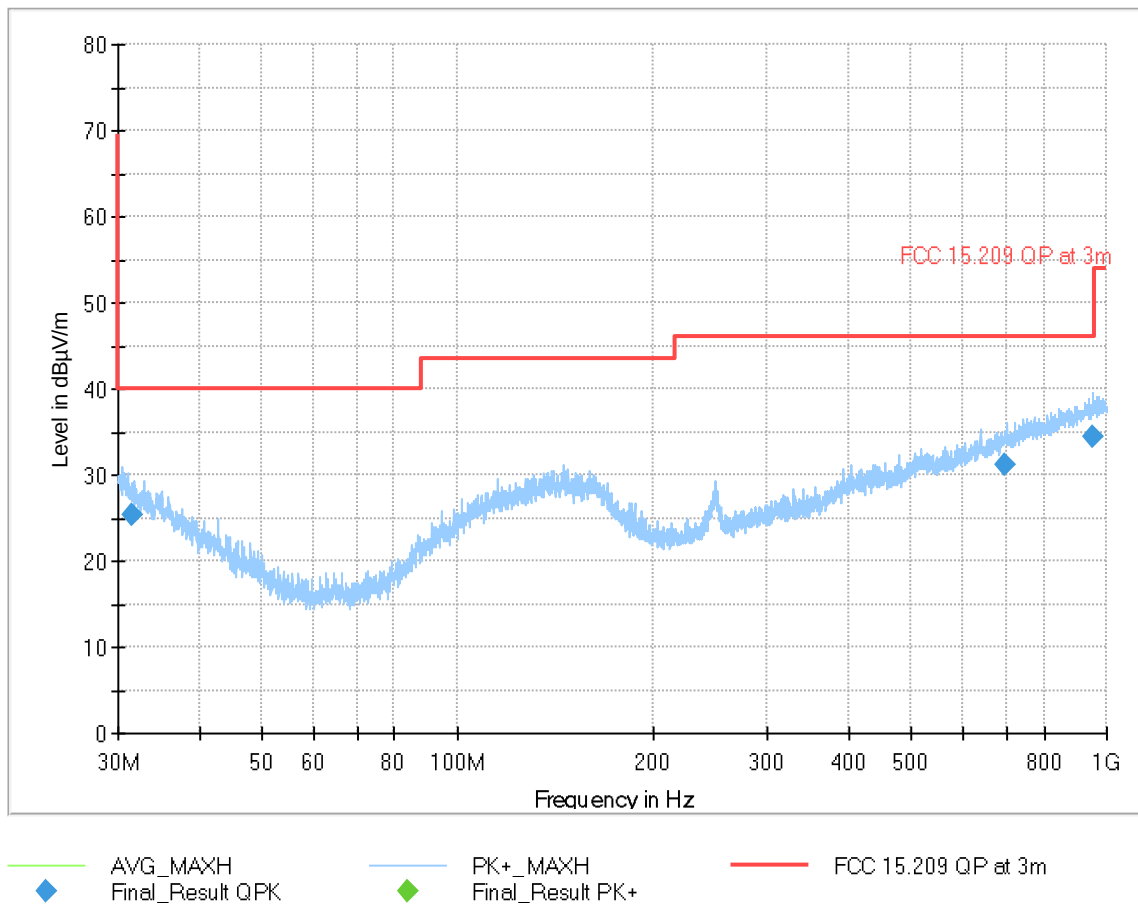
Modulation: 802.11b

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth (Hz)	Height (dB)	Pol	Azimuth (°)	Corr. (dB/m)	Sig Path (dB)
31.568	25.350	---	40.00	14.65	500.0	120.000	363.0	H	272.0	24.9	0.7
698.958	31.122	---	46.02	14.90	500.0	120.000	107.0	V	29.0	29.4	2.9
951.857	34.514	---	46.02	11.51	500.0	120.000	198.0	H	5.0	32.7	3.2

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamplifier	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
31.568	0.0	24.2	0.5	
698.958	0.0	26.5	1.7	
951.857	0.0	29.4	1.8	



Plot # 3 Radiated Emissions: 1 – 3 GHz

Tx Frequency: 2412 MHz

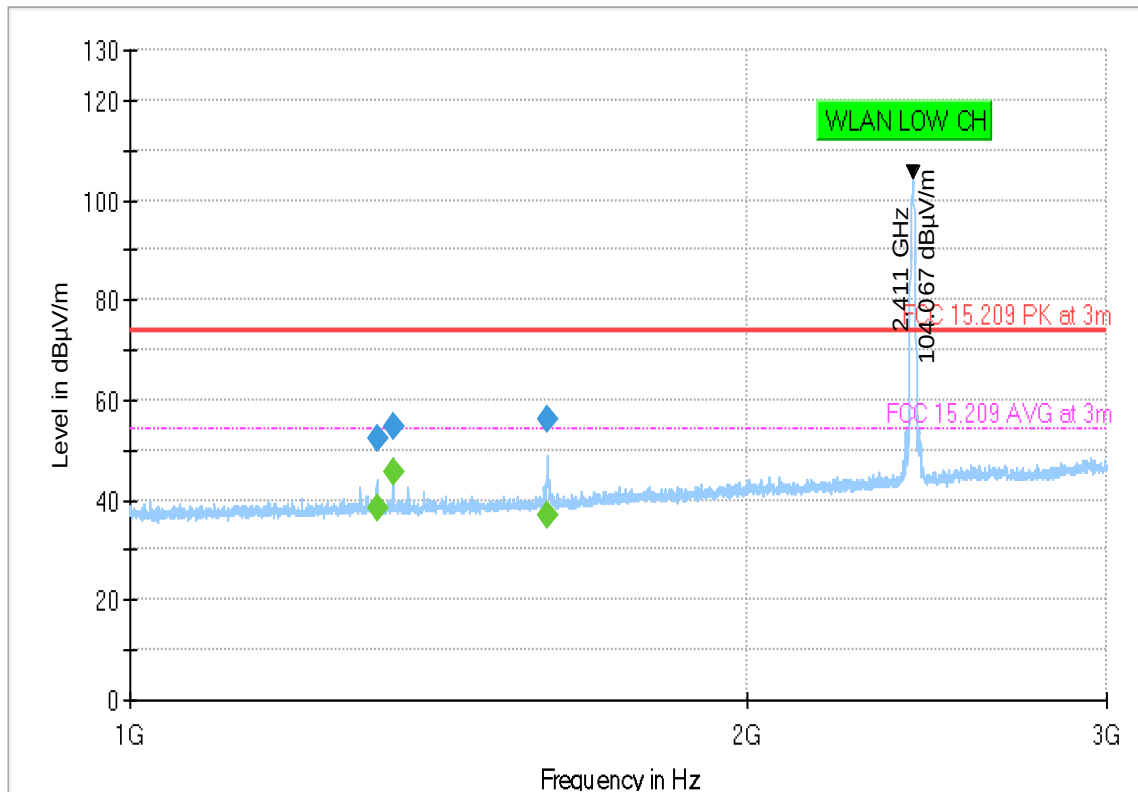
Modulation: 802.11b

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth	Height	Pol	Azimuth	Corr. (dB/m)	Sig Path (dB)
1320.012	---	38.486	53.98	15.49	500.0	1000.000	175.0	H	328.0	29.8	4.6
1320.012	52.499	---	73.98	21.48	500.0	1000.000	175.0	H	328.0	29.8	4.6
1344.013	54.595	---	73.98	19.38	500.0	1000.000	192.0	H	189.0	29.8	4.6
1344.013	---	45.424	53.98	8.56	500.0	1000.000	192.0	H	189.0	29.8	4.6
1599.009	56.279	---	73.98	17.70	500.0	1000.000	146.0	V	352.0	30.3	4.8
1599.009	---	36.954	53.98	17.02	500.0	1000.000	146.0	V	352.0	30.3	4.8

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamplifier	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
1320.012	0.0	25.2	8.7	
1320.012	0.0	25.2	22.7	
1344.013	0.0	25.2	24.8	
1344.013	0.0	25.2	15.6	
1599.009	0.0	25.5	25.9	
1599.009	0.0	25.5	6.6	



— AVG_MAXH — PK+_MAXH — FCC 15.209 PK at 3m
— FCC 15.209 AVG at 3m ◆ Final_Result PK+ ◆ Final_Result CAV

Plot # 4 Radiated Emissions: 3 - 18 GHz

Tx Frequency: 2412 MHz

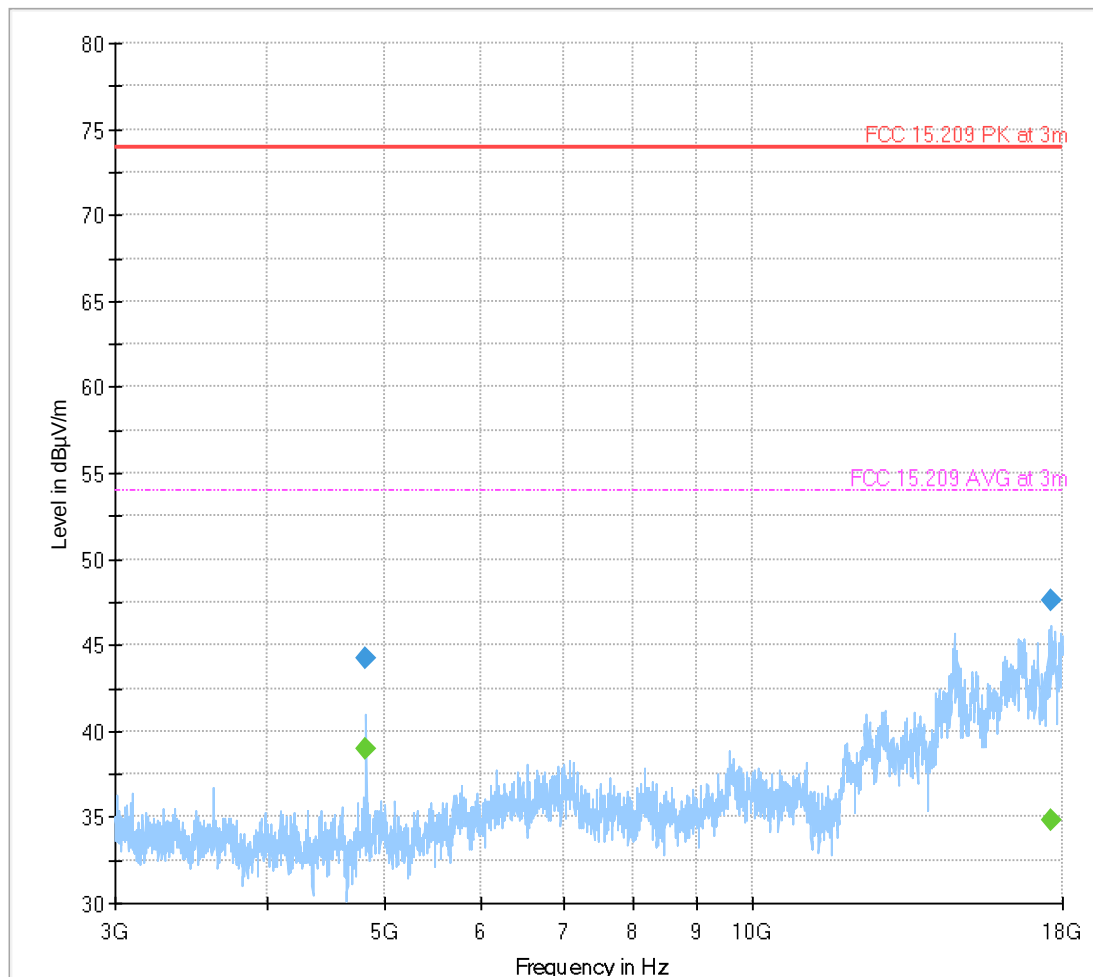
Modulation: 802.11b

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth (h)	Height	Pol	Azimuth (h)	Corr. (dB/m)	Sig Path (dB)
4823.750	44.192	---	73.98	29.79	500.0	1000.000	247.0	V	193.0	-3.8	7.8
4823.750	---	38.927	53.98	15.05	500.0	1000.000	247.0	V	193.0	-3.8	7.8
17611.250	47.552	---	73.98	26.43	500.0	1000.000	333.0	H	72.0	14.7	16.1
17611.250	---	34.865	53.98	19.11	500.0	1000.000	333.0	H	72.0	14.7	16.1

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Pream p	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
4823.750	-45.7	34.1	48.0	
4823.750	-45.7	34.1	42.7	
17611.250	-42.8	41.4	32.9	
17611.250	-42.8	41.4	20.2	

AVG_MAXH
FCC 15.209 AVG at 3mPK+_MAXH
Final_Result PK+FCC 15.209 PK at 3m
Final_Result CAV

Plot # 5 Radiated Emissions: 18 - 26GHz

Tx Frequency: 2412 MHz

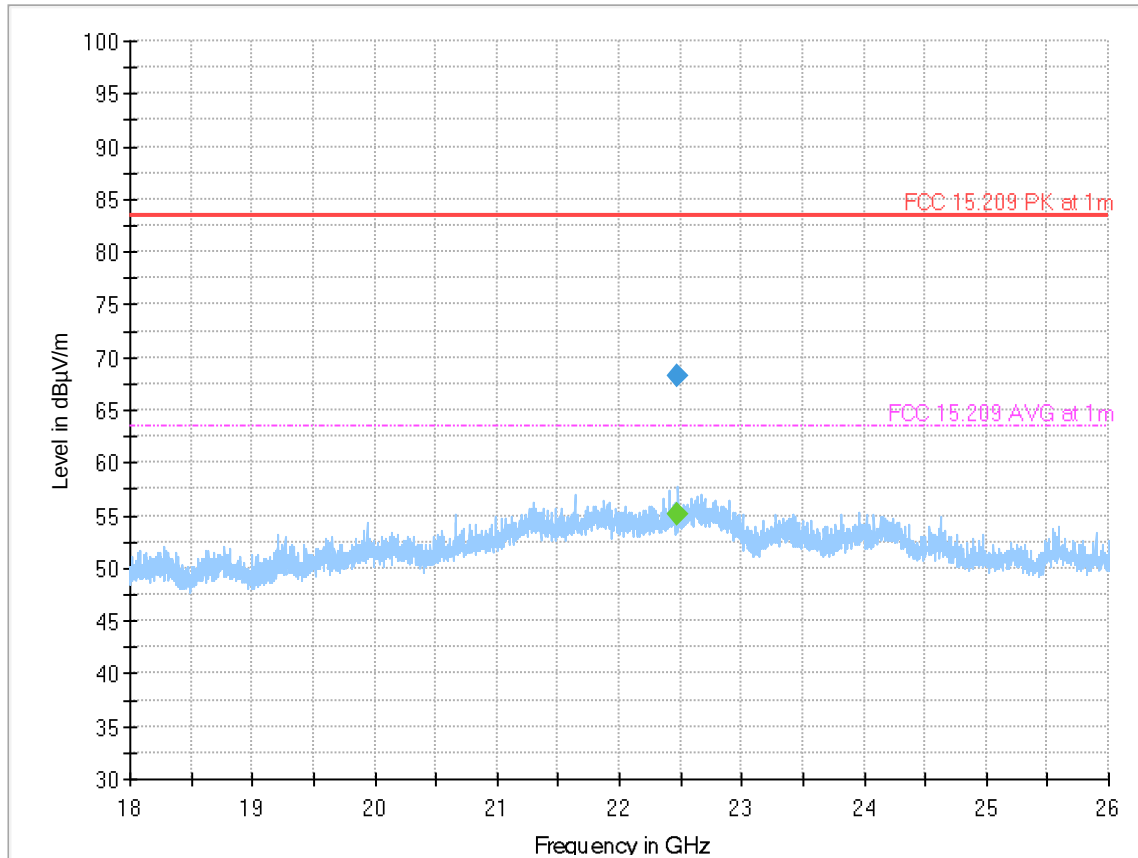
Modulation: 802.11b

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth	Height	Pol	Azimuth	Corr. (dB/m)	Sig Path (dB)
22481.500	---	55.086	63.50	8.41	500.0	1000.000	108.0	V	89.0	19.9	9.8
22481.500	68.211	---	83.50	15.29	500.0	1000.000	108.0	V	89.0	19.9	9.8

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamplifier	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
22481.500	0.0	10.0	35.2	
22481.500	0.0	10.0	48.3	



— AVG_MAXH
----- FCC 15.209 AVG at 1m
— PK+_MAXH
◆ Final_Result PK+
— FCC 15.209 PK at 1m
◆ Final_Result CAV

Plot # 6 Radiated Emissions: 9 KHz – 30 MHz

Tx Frequency: 2437 MHz

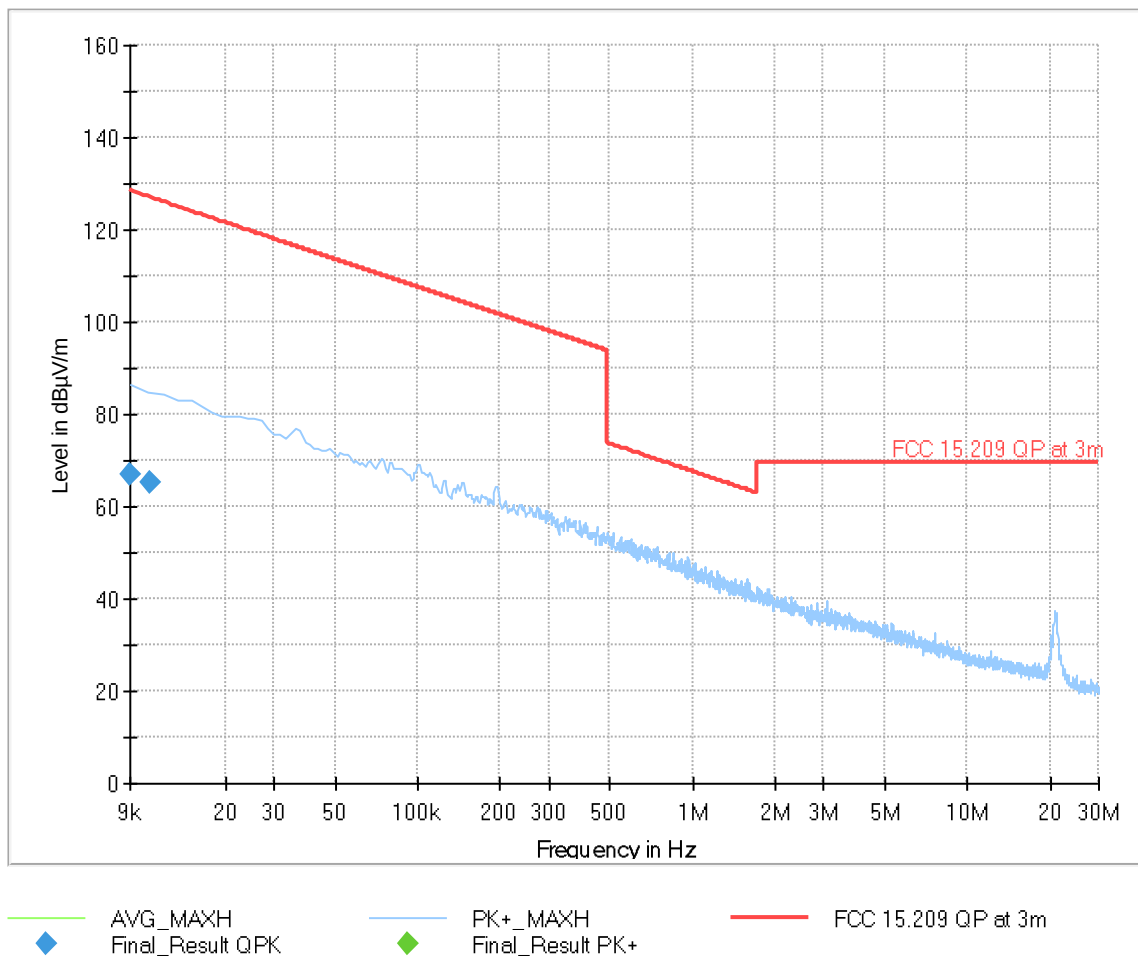
Modulation: 802.11b

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth (Hz)	Height (m)	Pol	Azimuth (°)	Corr. (dB/m)	Sig Path (dB)
0.009	67.095	---	128.50	61.40	500.0	0.200	100.0	V	88.0	29.7	0.2
0.011	65.347	---	127.12	61.77	500.0	0.200	100.0	V	271.0	28.4	0.2

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamplifier	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
0.009	0.0	29.5	37.4	
0.011	0.0	28.2	36.9	



Plot # 7 Radiated Emissions: 30 – 1000MHz

Tx Frequency: 2437 MHz

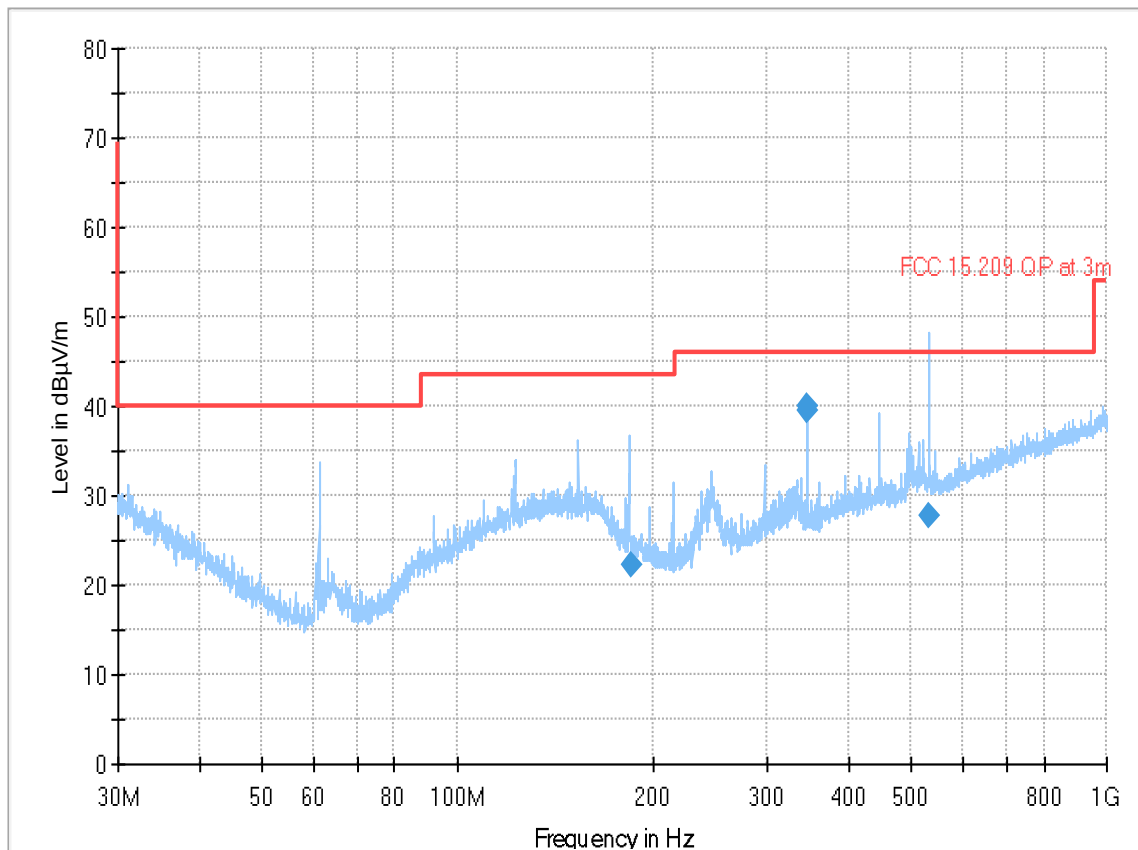
Modulation: 802.11b

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth (Hz)	Height (dB)	Pol	Azimuth (°)	Corr. (dB/m)	Sig Path (dB)
184.653	22.172	---	43.50	21.33	500.0	120.000	125.0	V	322.0	22.0	1.5
346.503	39.555	---	46.02	6.47	500.0	120.000	100.0	H	238.0	22.9	2.0
346.505	39.944	---	46.02	6.08	500.0	120.000	100.0	H	230.0	22.9	2.0
530.640	27.806	---	46.02	18.21	500.0	120.000	100.0	V	239.0	26.6	2.5

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamplifier	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
184.653	0.0	20.5	0.2	
346.503	0.0	20.9	16.7	
346.505	0.0	20.9	17.1	
530.640	0.0	24.1	1.2	



—◆— AVG_MAXH Final_Result QPK
 ◆ PK+_MAXH Final_Result PK+
 — FCC 15.209 QP at 3m

Plot # 8 Radiated Emissions: 1 – 3 GHz

Tx Frequency: 2437 MHz

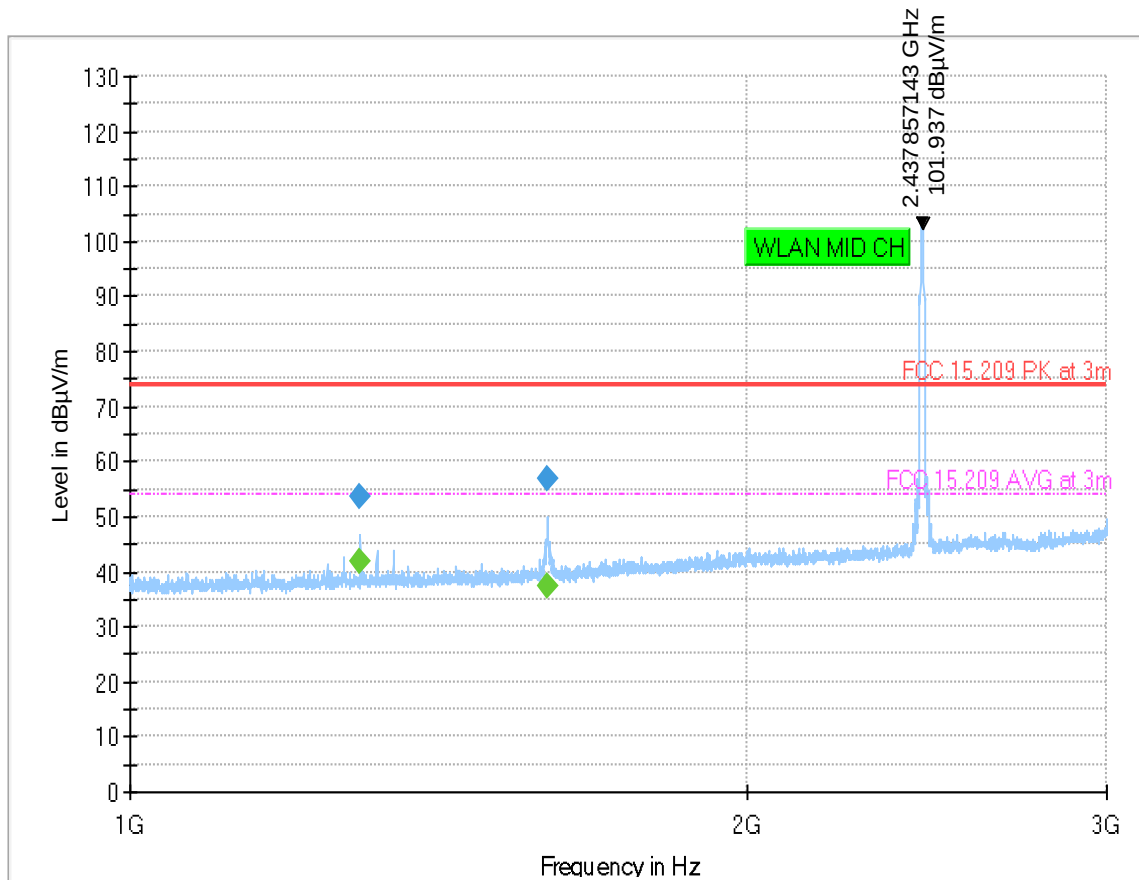
Modulation: 802.11b

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth (h)	Height	Pol	Azimuth	Corr. (dB/m)	Sig Path (dB)
1296.056	---	41.930	53.98	12.05	500.0	1000.000	280.0	V	307.0	29.7	4.5
1296.056	53.743	---	73.98	20.24	500.0	1000.000	280.0	V	307.0	29.7	4.5
1599.065	---	37.542	53.98	16.44	500.0	1000.000	125.0	V	355.0	30.3	4.8
1599.065	56.697	---	73.98	17.28	500.0	1000.000	125.0	V	355.0	30.3	4.8

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamplifier	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
1296.056	0.0	25.1	12.3	
1296.056	0.0	25.1	24.1	
1599.065	0.0	25.5	7.2	
1599.065	0.0	25.5	26.4	



— AVG_MAXH — PK+_MAXH — FCC 15.209 PK at 3m
--- FCC 15.209 AVG at 3m ◆ Final_Result PK+ ◆ Final_Result CAV

Plot # 9 Radiated Emissions: 3 - 18 GHz

Tx Frequency: 2437 MHz

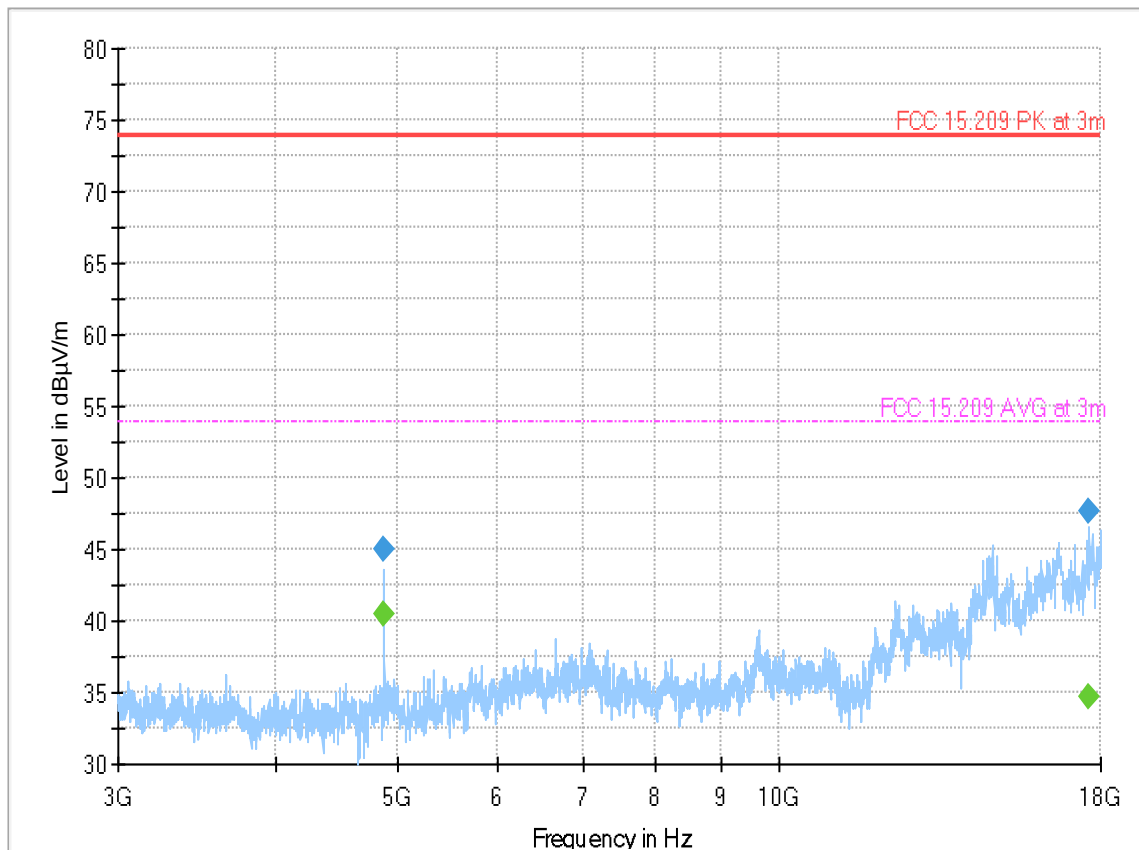
Modulation: 802.11b

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth (Hz)	Height	Pol	Azimuth (°)	Corr. (dB/m)	Sig Path (dB)
4873.750	---	40.434	53.98	13.55	500.0	1000.000	100.0	V	300.0	-4.3	7.5
4873.750	45.034	---	73.98	28.95	500.0	1000.000	100.0	V	300.0	-4.3	7.5
17639.250	---	34.751	53.98	19.23	500.0	1000.000	100.0	H	227.0	14.7	16.1
17639.250	47.635	---	73.98	26.34	500.0	1000.000	100.0	H	227.0	14.7	16.1

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamplifier	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
4873.750	-45.9	34.1	44.7	
4873.750	-45.9	34.1	49.3	
17639.250	-42.8	41.4	20.0	
17639.250	-42.8	41.4	32.9	



— AVG_MAXH
- - - FCC 15.209 AVG at 3m
— PK+_MAXH
◆ Final_Result PK+
— FCC 15.209 PK at 3m
◆ Final_Result CAV

Plot # 10 Radiated Emissions: 18 - 26GHz

Tx Frequency: 2437 MHz

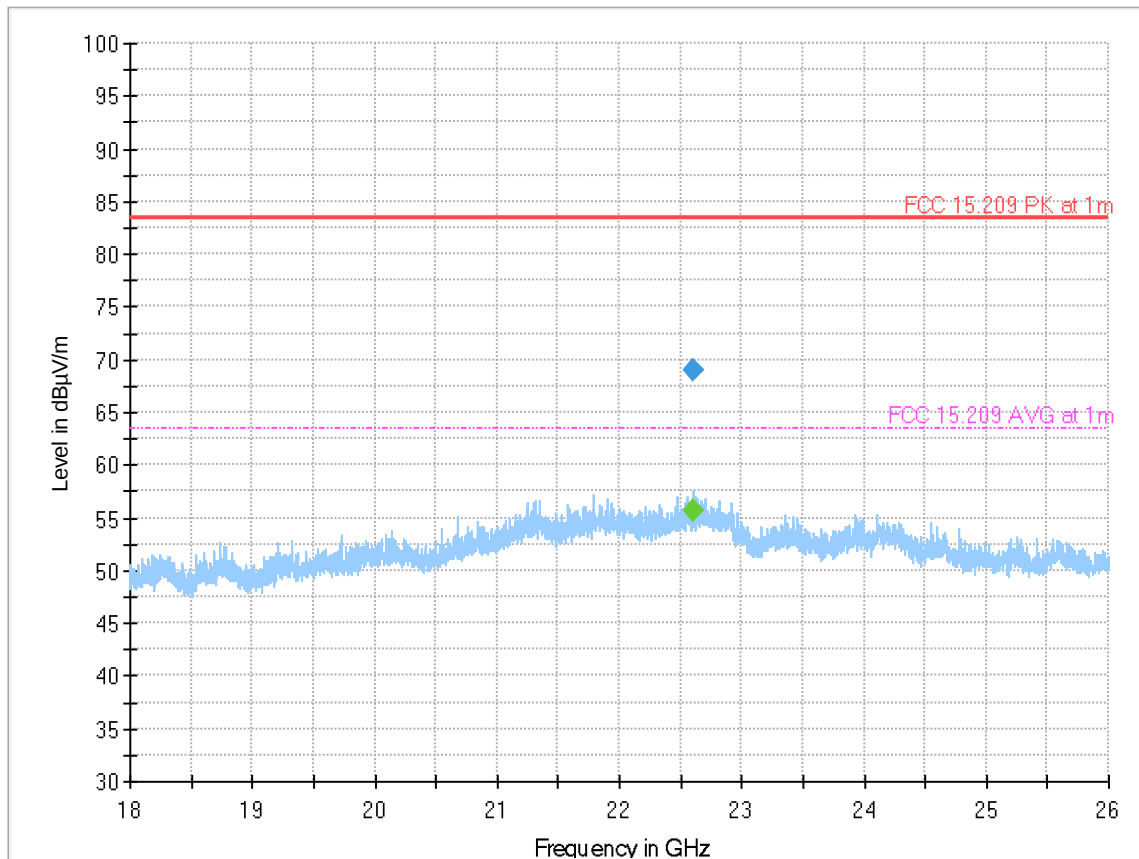
Modulation: 802.11b

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth	Height	Pol	Azimuth	Corr. (dB/m)	Sig Path (dB)
22598.250	---	55.671	63.50	7.83	500.0	1000.000	100.0	H	192.0	20.3	9.8
22598.250	68.974	---	83.50	14.53	500.0	1000.000	100.0	H	192.0	20.3	9.8

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamplifier	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
22598.250	0.0	10.5	35.4	
22598.250	0.0	10.5	48.7	



— AVG_MAXH
- - - FCC 15.209 AVG at 1m
 — PK+_MAXH
◆ Final_Result PK+
 — FCC 15.209 PK at 1m
◆ Final_Result CAV

Plot # 11 Radiated Emissions: 9 KHz – 30 MHz

Tx Frequency: 2462 MHz

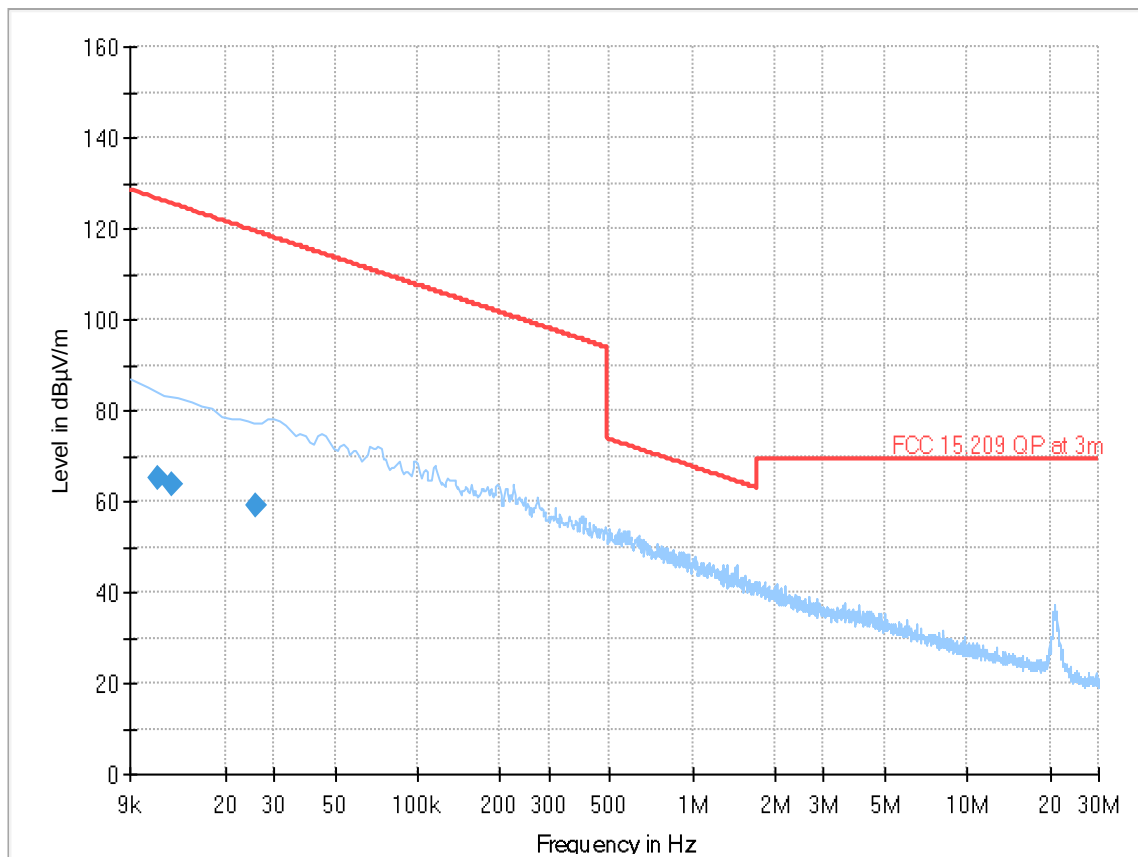
Modulation: 802.11b

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth (Hz)	Height (dBμV/m)	Pol	Azimuth (°)	Corr. (dB/m)	Sig Path (dB)
0.011	64.992	---	126.52	61.53	500.0	0.200	100.0	H	-41.0	28.0	0.2
0.013	63.948	---	125.48	61.53	500.0	0.200	100.0	H	177.0	27.2	0.2
0.026	59.152	---	119.37	60.22	500.0	0.200	100.0	H	309.0	22.5	0.2

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamplifier	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
0.011	0.0	27.8	37.0	
0.013	0.0	27.0	36.7	
0.026	0.0	22.3	36.6	



—◆— AVG_MAXH Final_Result QPK
 —◆— PK+_MAXH Final_Result PK+
 — FCC 15.209 QP at 3m

Plot # 12 Radiated Emissions: 30 – 1000MHz

Tx Frequency: 2462 MHz

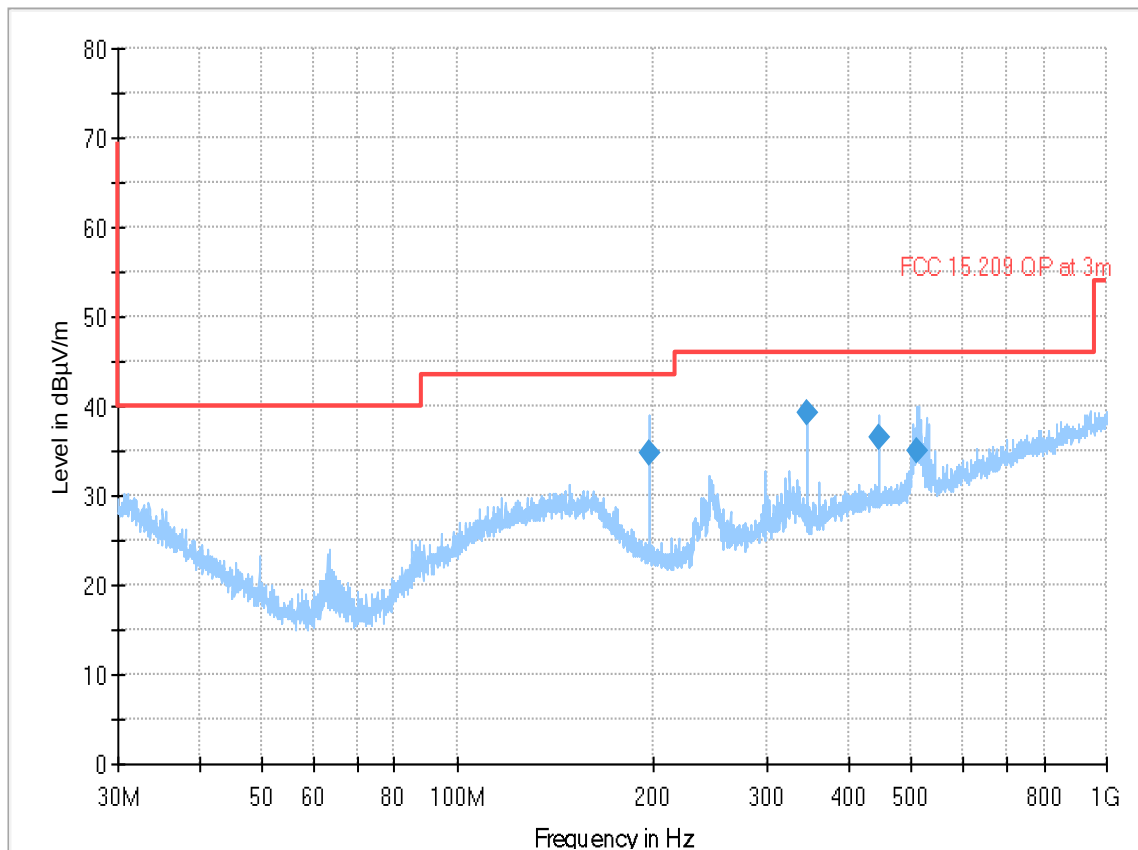
Modulation: 802.11b

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth	Height	Pol	Azimuth	Corr. (dB/m)	Sig Path (dB)
198.002	34.653	---	43.50	8.85	500.0	120.000	150.0	H	114.0	19.5	1.5
346.506	39.253	---	46.02	6.77	500.0	120.000	100.0	H	240.0	22.9	2.0
445.509	36.506	---	46.02	9.51	500.0	120.000	177.0	H	327.0	25.5	2.3
509.798	35.097	---	46.02	10.92	500.0	120.000	100.0	V	227.0	26.6	2.5

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamplifier	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
198.002	0.0	18.0	15.1	
346.506	0.0	20.9	16.4	
445.509	0.0	23.2	11.1	
509.798	0.0	24.1	8.5	



◆ AVG_MAXH
 Final_Result QPK
 ◆ PK+_MAXH
 Final_Result PK+
 — FCC 15.209 QP at 3m

Plot # 13 Radiated Emissions: 1 – 3 GHz

Tx Frequency: 2462 MHz

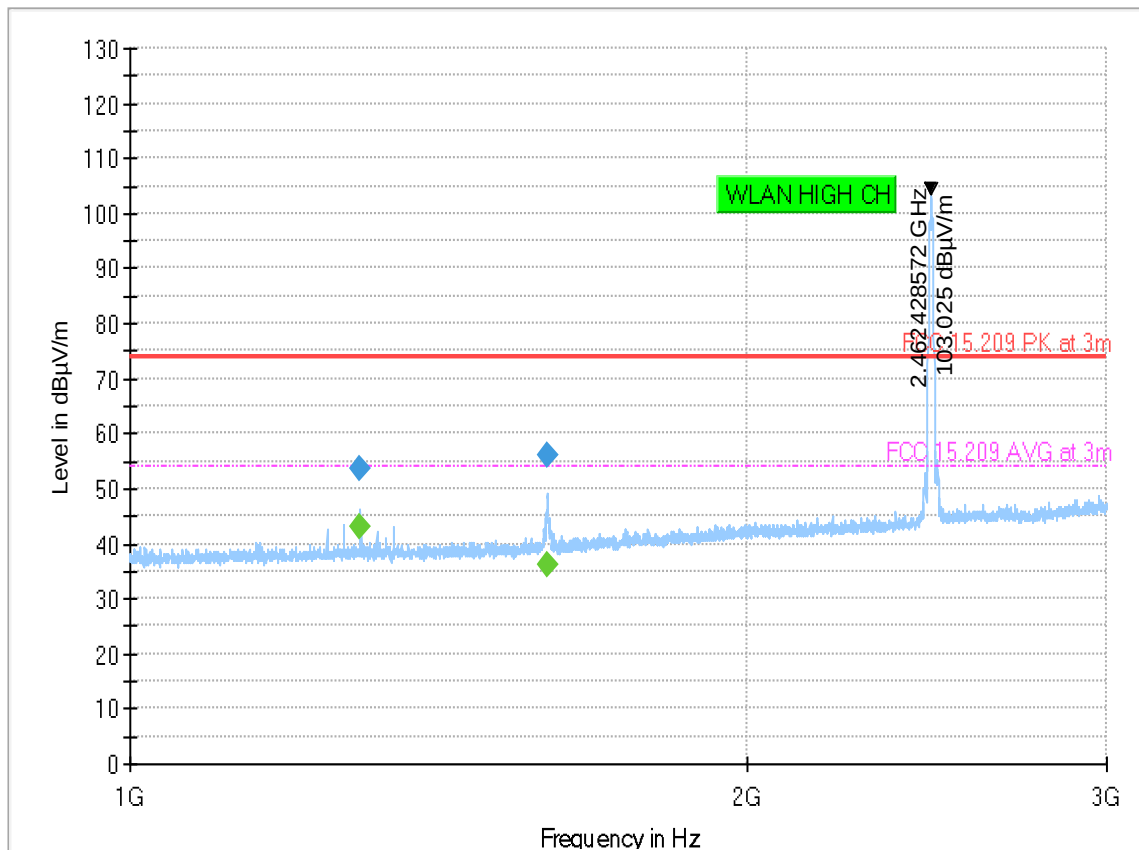
Modulation: 802.11b

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth (Hz)	Height	Pol	Azimuth	Corr. (dB/m)	Sig Path (dB)
1296.020	---	43.235	53.98	10.74	500.0	1000.000	100.0	V	258.0	29.7	4.5
1296.020	53.620	---	73.98	20.36	500.0	1000.000	100.0	V	258.0	29.7	4.5
1597.821	---	35.983	53.98	18.00	500.0	1000.000	159.0	V	-13.0	30.3	4.8
1597.821	56.148	---	73.98	17.83	500.0	1000.000	159.0	V	-13.0	30.3	4.8

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamplifier	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
1296.020	0.0	25.1	13.6	
1296.020	0.0	25.1	24.0	
1597.821	0.0	25.5	5.7	
1597.821	0.0	25.5	25.8	



— AVG_MAXH
 - - - - - FCC 15.209 AVG at 3m
 — PK+_MAXH
 ◆ Final_Result PK+
 ◆ Final_Result CAV

Plot # 14 Radiated Emissions: 3 - 18 GHz

Tx Frequency: 2462 MHz

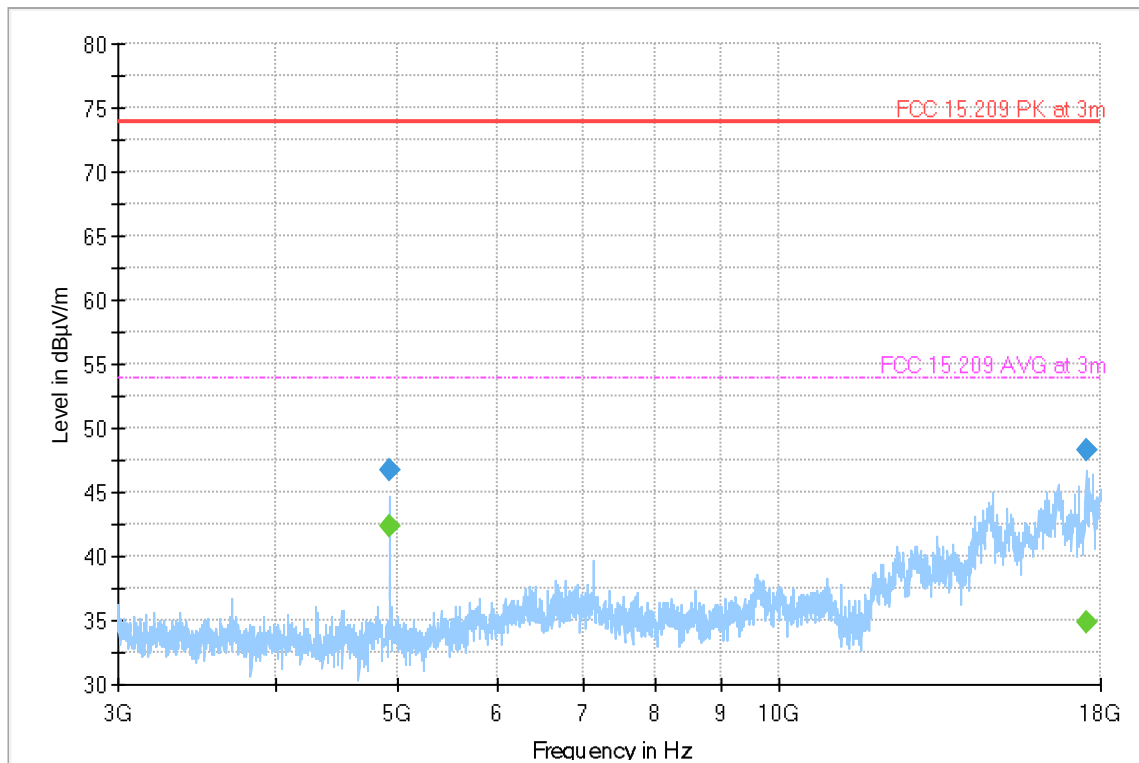
Modulation: 802.11b

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth (Hz)	Height	Pol	Azimuth	Corr. (dB/m)	Sig Path (dB)
4923.750	---	42.331	53.98	11.65	500.0	1000.000	100.0	V	163.0	-4.1	7.6
4923.750	46.663	---	73.98	27.32	500.0	1000.000	100.0	V	163.0	-4.1	7.6
17519.500	---	34.915	53.98	19.06	500.0	1000.000	400.0	V	163.0	14.2	16.0
17519.500	48.242	---	73.98	25.74	500.0	1000.000	400.0	V	163.0	14.2	16.0

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamplifier	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
4923.750	-45.8	34.1	46.4	
4923.750	-45.8	34.1	50.8	
17519.500	-43.1	41.3	20.7	
17519.500	-43.1	41.3	34.1	



— AVG_MAXH — PK+_MAXH — FCC 15.209 PK at 3m
- - - FCC 15.209 AVG at 3m ◆ Final_Result PK+ ◆ Final_Result CAV

Plot # 15 Radiated Emissions: 18 - 26GHz

Tx Frequency: 2462 MHz

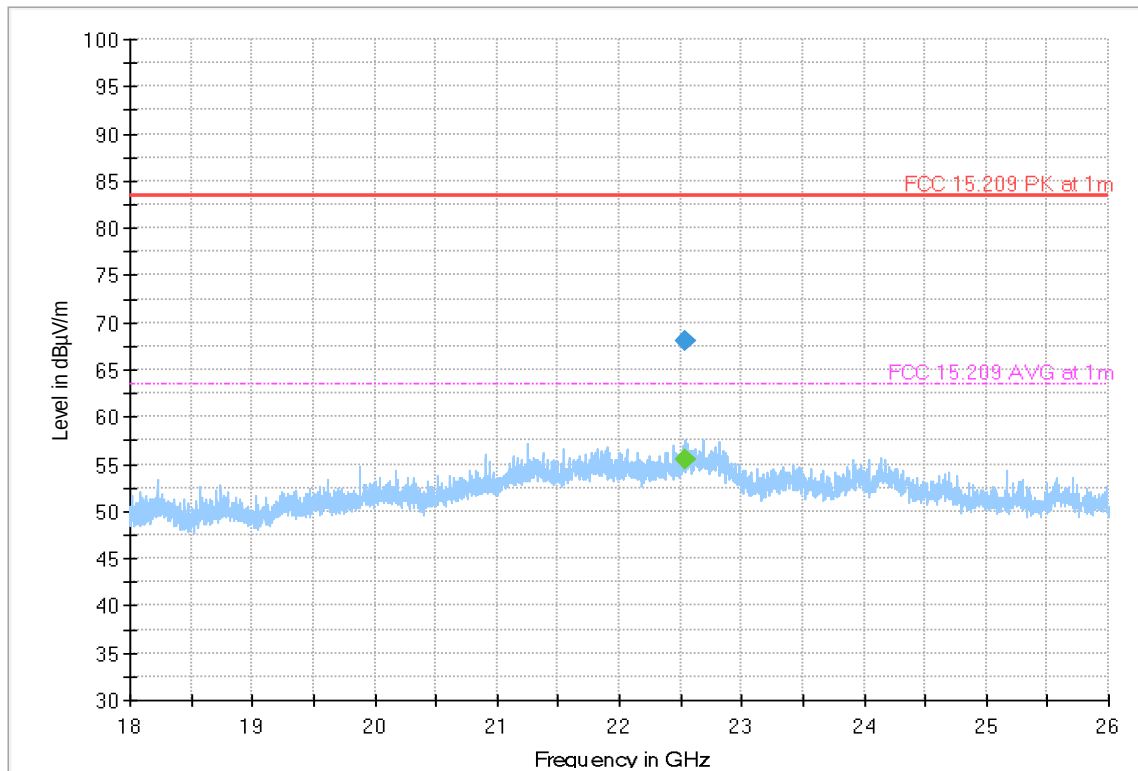
Modulation: 802.11b

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth	Height	Pol	Azimuth	Corr. (dB/m)	Sig Path (dB)
22541.000	---	55.420	63.50	8.08	500.0	1000.000	325.0	H	297.0	20.1	9.8
22541.000	68.116	---	83.50	15.38	500.0	1000.000	325.0	H	297.0	20.1	9.8

(continuation of the "Final_Result" table from column 17 ...)

Frequency (MHz)	Preamplifier	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
22541.000	0.0	10.3	35.3	
22541.000	0.0	10.3	48.0	



— AVG_MAXH ◆ PK+_MAXH Final_Result PK+ — FCC 15.209 PK at 1m
--- FCC 15.209 AVG at 1m ◆ Final_Result CAV

8.7 AC Power Line Conducted Emissions

8.7.1 Measurement according to ANSI C63.4

Analyzer Settings:

- RBW = 9 KHz (CISPR Bandwidth)
- Detector: Peak / Average for Pre-scan
- Quasi-Peak/Average for Final Measurements

8.7.2 Limits: §15.207 & RSS-Gen 8.8

FCC §15.207(a) & RSS-Gen 8.8

- Except as shown in paragraphs (b) and (c) of this section of the CFR, 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 (1), as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between frequency ranges.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15–0.5	66 to 56*	56 to 46*
0.5–5	56	46
5–30	60	50

*Decreases with the logarithm of the frequency.

8.7.3 Test conditions and setup:

Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input	Antenna Gain
22.8° C	1	802.11b,g,n	24Vac	1 dBi

8.7.4 Measurement Result:

Plot #	Port	EUT Set-Up #:	EUT operating mode	Scan Frequency	Limit	Result
1	AC Mains	1	1	150 kHz – 30 MHz	See section 8.7.2	Pass

8.7.5 Measurement Plots:

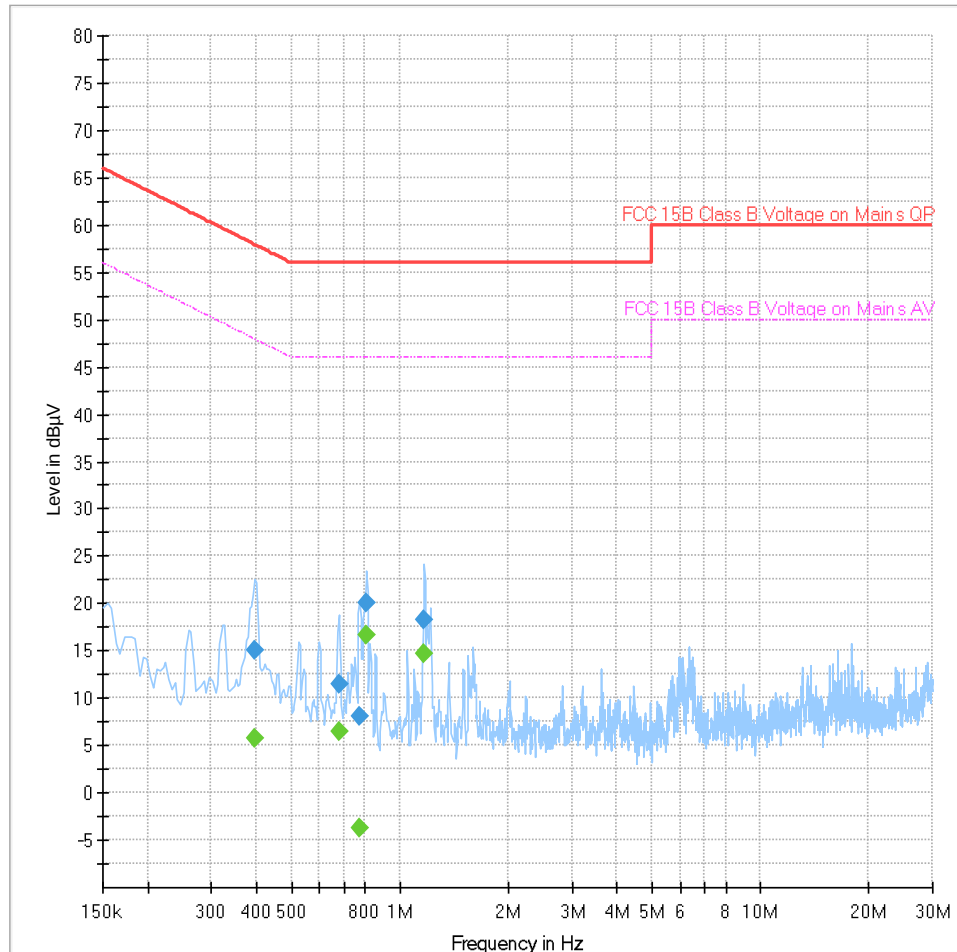
Plot # 16 AC Conducted Emissions: 150 KHz – 30 MHz

Tx Frequency: 2412 MHz

Modulation: 802.11b

Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin	Meas. Time (ms)	Bandwidth (h)	Line	PE	Corr. (dB)
0.396	---	5.79	47.94	42.15	500.0	9.0	L1	GND	9.9
0.396	15.09	---	57.94	42.85	500.0	9.0	L1	GND	9.9
0.677	11.49	---	56.00	44.51	500.0	9.0	N	GND	9.9
0.677	---	6.40	46.00	39.60	500.0	9.0	N	GND	9.9
0.773	8.13	---	56.00	47.87	500.0	9.0	N	GND	9.9
0.773	---	-3.68	46.00	49.68	500.0	9.0	N	GND	9.9
0.808	20.11	---	56.00	35.89	500.0	9.0	L1	GND	9.9
0.808	---	16.71	46.00	29.29	500.0	9.0	L1	GND	9.9
1.168	18.20	---	56.00	37.80	500.0	9.0	L1	GND	9.9
1.168	---	14.78	46.00	31.22	500.0	9.0	L1	GND	9.9



— AVG_MAXH
 — FCC 15B Class B Voltage on Main's QP
 ◆ Final_Result QPK
 — PK+_MAXH
 — FCC 15B Class B Voltage on Main's AV
 ◆ Final_Result CAV

9 Test setup photos

Setup photos are included in supporting file name: "EMC_LENXX_014_24001_15_247_Setup_Photos.pdf"

10 Test Equipment And Ancillaries Used For Testing

EMC1 emission

Equipment Type	Manufacturer	Model	Serial #	Calibration Cycle	Last Calibration Date
TEST RECEIVER	R&S	ESW44	103143	2 Years	09/12/2024
DIGITAL THERMOMETER	CONTROL COMPANY	4410,90080-03	230713059	3 Years	10/18/2023
PULSE LIMITER	R&S	ESH3-Z2	102473	3 Years	11/02/2023
LISN	FCC	FCC-LISN-50-25-2-08	08014	2 Years	10/06/2023
Multimeter	Fluke	115	56090717MV	3 Years	09/26/2023
Software	EMC32	Version 11.40.00	-	-	-

EMC2 emission

Equipment Type	Manufacturer	Model	Serial #	Calibration Cycle	Last Calibration Date
ACTIVE LOOP ANTENNA	ETS LINDGREN	6507	00161344	3 Years	08/13/2024
BILOG ANTENNA	A.H. SYSTEMS	BiLA2G	569	3 Years	10/30/2023
HORN ANTENNA	EMCO	3115	00035111	3 Years	10/26/2023
HORN ANTENNA	ETS LINDGREN	3117-PA	00167061	3 Years	9/25/2023
HORN ANTENNA	ETS LINDGREN	3116C-PA	00166821	3 Years	10/26/2023
ESW.EMI TEST RECEIVER	ROHDE & SCHWARZ	ESW44	101715	3 Years	10/24/2023
DIGITAL THERMOMETER	Control Company	4410,90080-03	230712972	3 Years	10/18/2023
Signal Analyzer	R&S	FSV40	101022	3 Years	09/25/2023
Multimeter	Fluke	115	56090717MV	3 Years	09/26/2023
Software	EMC32	Version 10.50.40	-	-	-

Note: Equipment used meets the measurement uncertainty requirements as required per applicable standards for 95% confidence levels.
Calibration due dates, unless defined specifically, falls on the last day of the month. Items indicated "N/A" for cal status either do not specifically require calibration or is internally characterized before use.

11 History

Date	Report Name	Changes to report	Prepared by
2024-10-11	EMC_LENNX_014_24001_FCC_15_247_WIFI_DTS	Initial Version	Art Thammanavarat
2025-01-22	EMC_LENNX_014_24001_FCC_15_247_WIFI_DTS_Rev1	<u>Report Revised</u> 1. Updated FCC ID and ISED 2. Section 8.4.5 & 8.4.6: Updated table..	Art Thammanavarat

<<< The End >>>