



REPORT No. : XM19020007W03

TEST REPORT

APPLICANT : Hot Pepper, Inc.

PRODUCT NAME : 4G Smart Phone

MODEL NAME : HPP-GS1

BRAND NAME : Hot Pepper

FCC ID : 2APD4-A81C

STANDARD(S) : 47 CFR Part 15 Subpart C

TEST DATE : 2019-03-22 to 2019-04-19

ISSUE DATE : 2019-05-23

Prepared by:

A handwritten signature in black ink, appearing to read "Lion Xiao".

Lion Xiao (Project Manager)

Approved by:

A handwritten signature in black ink, appearing to read "Anne Liu".

Anne Liu(Supervisor)

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DIRECTORY

1. Technical Information	3
1.1. Applicant and Manufacturer Information	3
1.2. Equipment Under Test (EUT) Description	3
1.3. Test Standards and Results	5
1.4. Environmental Conditions	5
2. 47 CFR Part 15C Requirements	6
2.1. Antenna requirement	6
2.2. Output Power	7
2.3. Bandwidth	9
2.4. Conducted Spurious Emissions and Band Edge	18
2.5. Power spectral density (PSD)	29
2.6. Restricted Frequency Bands	38
2.7. Conducted Emission	56
2.8. Radiated Emission	60
Annex A Test Uncertainty	137
Annex B Testing Laboratory Information	138

Change History		
Version	Date	Reason for change
1.0	2019-05-23	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Hot Pepper, Inc.
Applicant Address:	5151 California Ave., Suite 100, Irvine 92617, USA
Manufacturer:	Hot Pepper, Inc.
Manufacturer Address:	5151 California Ave., Suite 100, Irvine 92617, USA

1.2. Equipment Under Test (EUT) Description

Product Name:	4G Smart Phone	
Serial No:	(N/A, marked #1 by test site)	
Hardware Version:	A81C_MAINBOARD_P1	
Software Version:	HPP- GS1-V1.0.4-190121	
Modulation Type:	DSSS, OFDM	
Operating Frequency Range:	802.11b/g/n-20MHz: 2.412GHz - 2.462GHz 802.11n-40MHz: 2.422GHz - 2.452GHz	
Channel Number:	802.11b/g/n-20MHz: 11 802.11n-40MHz: 7	
Antenna Type:	PIFA Antenna	
Antenna Gain:	0.2 dBi	
Ancillary Equipment:	AC Adapter	
	Manufacturer:	Shenzhen Tianyin Electronics Co.,Ltd.
	Model No.:	TPA-23A050200UU01
	Rated Input:	100-240V~ 50/60Hz, 0.3A
	Rated Output:	5V=2.0A
	Battery	
	Manufacturer:	SHENZHEN HUATIAN TONG TECHNOLOGY CO., LTD
	Model Name:	H2019GS1
	Manufacturer:	Shenzhen Nine Liyuan Electronic Technology Co., Ltd
	Model Name:	H2019GS1A



Note 1: The EUT is operating at 2.4GHz ISM; it supports 802.11b, 802.11g, 802.11n and they are all tested in this report.

For 802.11b/g/n-20MHz (2.4GHz band), the frequencies allocated is $F \text{ (MHz)} = 2412 + 5 \cdot (n-1)$ ($1 \leq n \leq 11$). The lowest, middle, highest channel numbers of the EUT used and tested in this report are separately 1 (2412MHz), 6 (2437MHz) and 11 (2462MHz).

For 802.11n-40MHz, the frequencies allocated is $F \text{ (MHz)} = 2412 + 5 \cdot (n-1)$ ($3 \leq n \leq 9$). The lowest, middle, highest channel numbers of the EUT used and tested in this report are separately 3 (2422MHz), 6 (2437MHz) and 9 (2452MHz).

Note 2: The EUT connected to the serial port of the computer with a serial communication cable, we use the dedicated software to control the EUT continuous transmission.

Note 3: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.



1.3. Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 15 Subpart C for the EUT FCC ID Certification:

No	Identity	Document Title
1	47 CFR Part 15	Radio Frequency Devices

Test detailed items/section required by FCC rules and results are as below:

No.	Section	Description	Test Date	Test Engineer	Result
1	15.203	Antenna Requirement	N/A	N/A	PASS
2	15.247(b)	Output Power	Mar 08, 2019 Mar 09, 2019	Lion Xiao	<u>PASS</u>
3	15.247(a)	Bandwidth	Mar 08, 2019 Mar 09, 2019	Lion Xiao	<u>PASS</u>
4	15.247(d)	Conducted Spurious Emission and Band Edge	Mar 08, 2019 Mar 09, 2019	Lion Xiao	<u>PASS</u>
5	15.247(e)	Power spectral density (PSD)	Mar 08, 2019 Mar 09, 2019	Lion Xiao	<u>PASS</u>
6	15.247(d)	Restricted Frequency Bands	Apr 22, 2019	Jinxin Huang	<u>PASS</u>
7	15.207	Conducted Emission	Apr 08, 2019	Jinxin Huang	<u>PASS</u>
8	15.209, 15.247(d)	Radiated Emission	Apr 10, 2019 Apr 18, 2019	Jiefeng Zhang	<u>PASS</u>
Note: The tests of Conducted Emission and Radiated Emission were performed according to the method of measurements prescribed in ANSI C63.10 2013 and KDB558074 D01 v05r02.					

1.4. Environmental Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	15 - 35
Relative Humidity (%):	30 -60
Atmospheric Pressure (kPa):	86-106



2. 47 CFR Part 15C Requirements

2.1. Antenna requirement

2.1.1. Applicable Standard

According to FCC 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

2.1.2. Result: Compliant

The EUT has a N type antenna connector. The antenna is N type Omni-Directional FRP antenna and max gain is 0.2dBi. Please refer to the EUT external photos.

2.2. Output Power

2.2.1. Requirement

According to FCC section 15.247(b)(3), For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: The maximum peak conducted output power of the intentional radiator shall not exceed 1 Watt.

2.2.2. Test Description

The measured output power was calculated by the reading of the USB Wideband Power Sensor and calibration.

A. Test Setup:



The EUT (Equipment under the test) which is coupled to the USB Wideband Power Sensor; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

B. Equipments List:

Please refer ANNEX B(4).

2.2.3. Test Result

Duty Cycle Factor

Mode	Channel	Frequency (MHz)	T _{on} (ms)	T _(on+off) (ms)	Duty Cycle (%)	Duty Cycle Factor
802.11b	6	2437	100	100	100	0
802.11g	6	2437	100	100	100	0
802.11n-20MHz	6	2437	100	100	100	0
802.11n-40MHz	6	2437	100	100	100	0

**Output Average Power**

Mode	Channel	Frequency (MHz)	Output Average Power		Limit		Verdict
			dBm	W	dBm	W	
802.11 b	1	2412	16.51	0.045	30	1	PASS
	6	2437	17.07	0.051			PASS
	11	2462	17.24	0.053			PASS
802.11 g	1	2412	14.57	0.029			PASS
	6	2437	15.31	0.034			PASS
	11	2462	14.85	0.031			PASS
802.11 HT20	1	2412	13.08	0.020			PASS
	6	2437	13.50	0.022			PASS
	11	2462	12.75	0.019			PASS
802.11 HT40	3	2422	12.19	0.017			PASS
	6	2437	12.61	0.018			PASS
	9	2452	12.47	0.018			PASS

Output Peak Power

Mode	Channel	Frequency (MHz)	Output Average Power		Limit		Verdict
			dBm	W	dBm	W	
802.11 b	1	2412	18.73	0.075	30	1	PASS
	6	2437	19.29	0.085			PASS
	11	2462	19.59	0.091			PASS
802.11 g	1	2412	20.77	0.119			PASS
	6	2437	21.75	0.150			PASS
	11	2462	21.10	0.129			PASS
802.11 HT20	1	2412	19.97	0.099			PASS
	6	2437	20.54	0.113			PASS
	11	2462	19.69	0.093			PASS
802.11 HT40	3	2422	19.34	0.086			PASS
	6	2437	19.92	0.098			PASS
	9	2452	19.66	0.092			PASS

Note: The duty cycle factor has been compensated into the test result

2.3. Bandwidth

2.3.1. Requirement

According to FCC section 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 6 dB bandwidth shall be at least 500 kHz.

2.3.2. Test Description

A. Test Set:



The EUT is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50Ω; the path loss as the factor is calibrated to correct the reading.

Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW.

KDB558074 D01 V05R02 Section 8.1 Option 1 was used in order to prove compliance.

B. Equipments List:

Please refer ANNEX B(4).



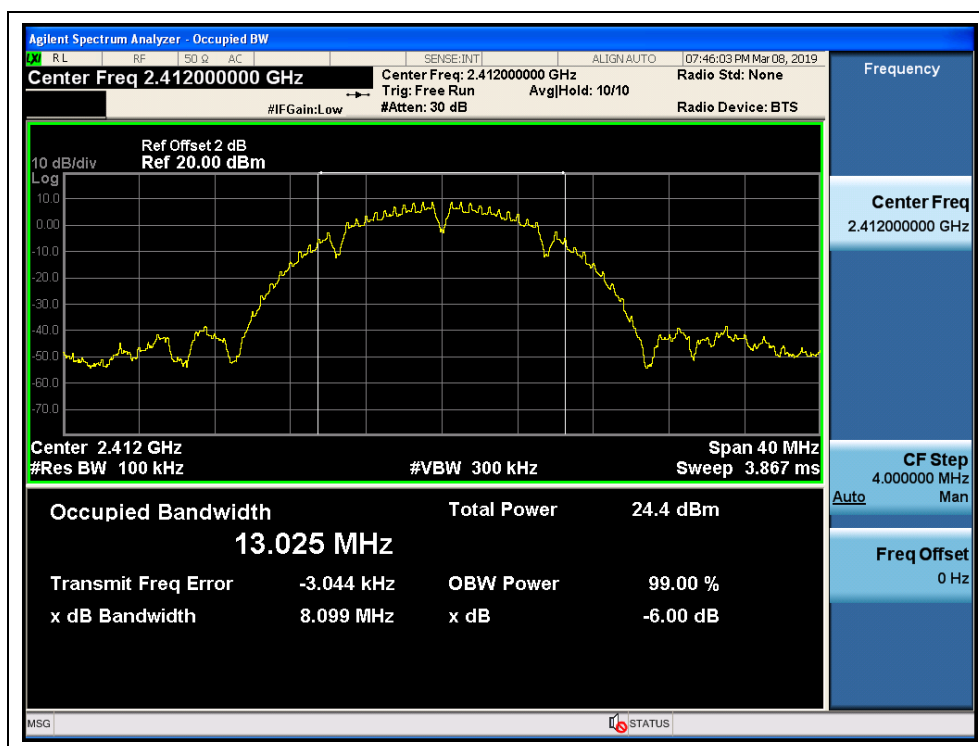
2.3.3. Test Result

802.11b Test mode

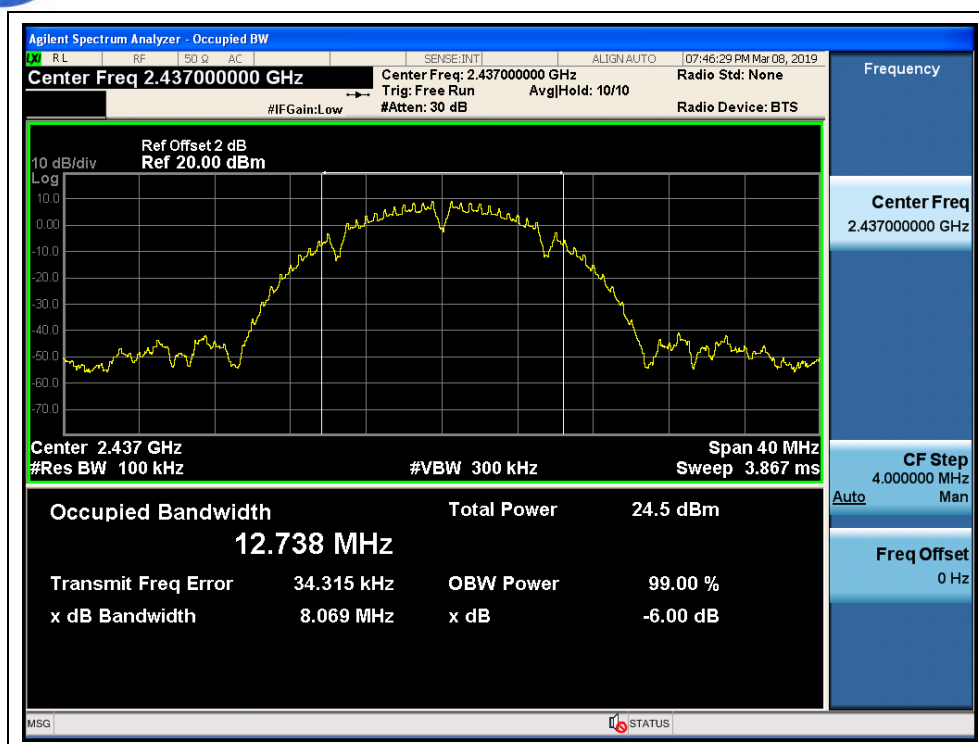
A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits(kHz)	Result
1	2412	8.099	≥500	PASS
6	2437	8.069	≥500	PASS
11	2462	8.055	≥500	PASS

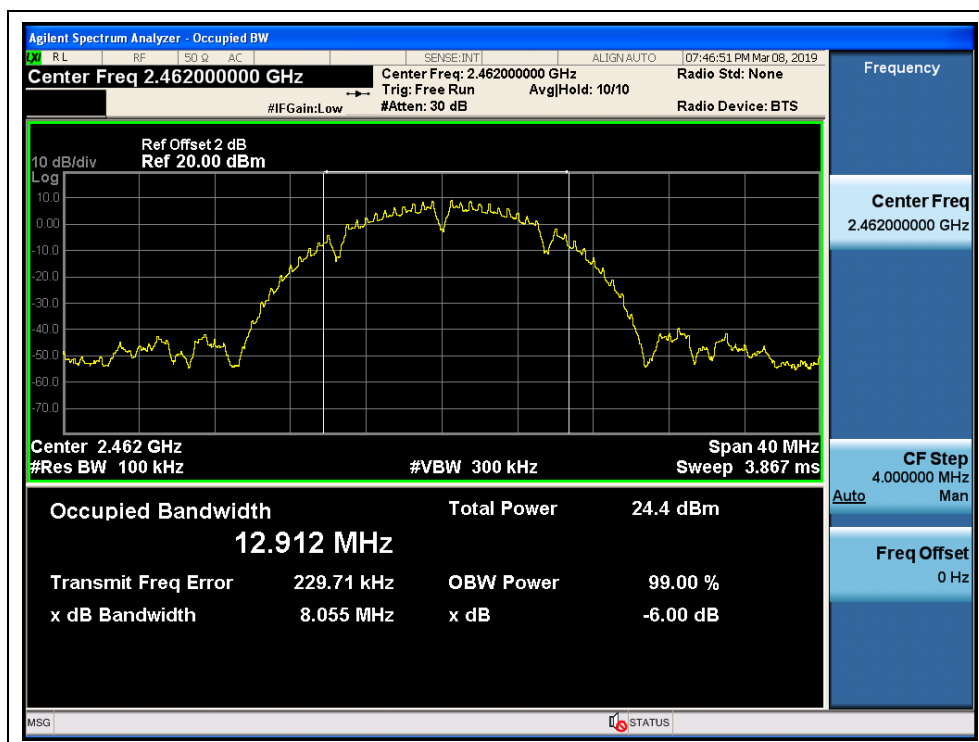
B. Test Plots



(Channel 1, 2412MHz, 802.11b)



(Channel 6, 2437 MHz, 802.11b)



(Channel 11, 2462MHz, 802.11b)

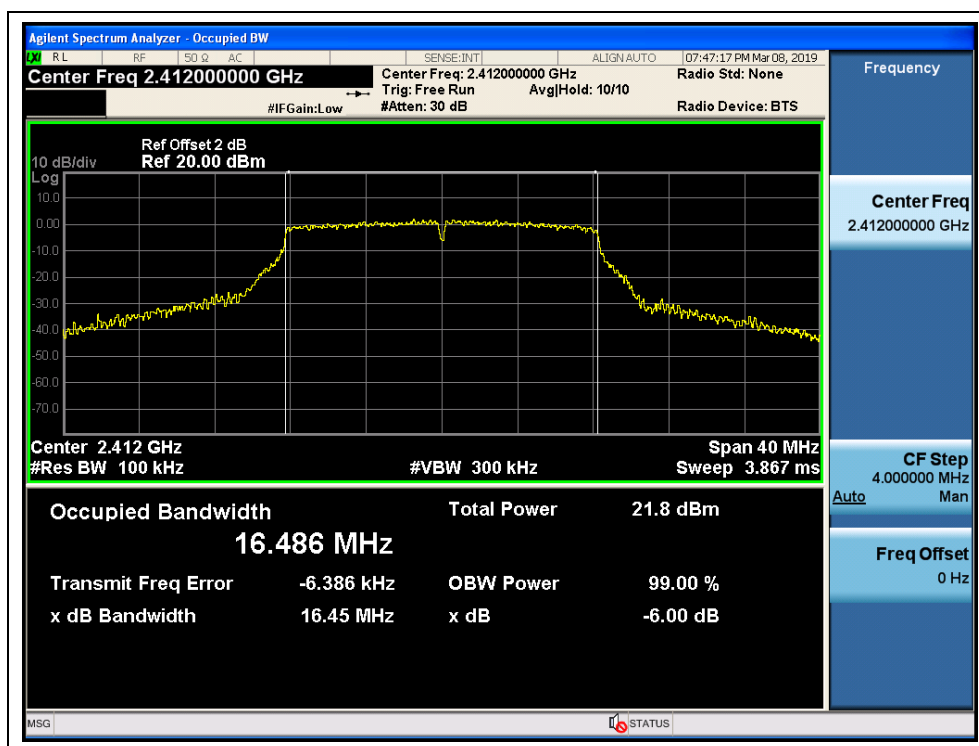


802.11g Test mode

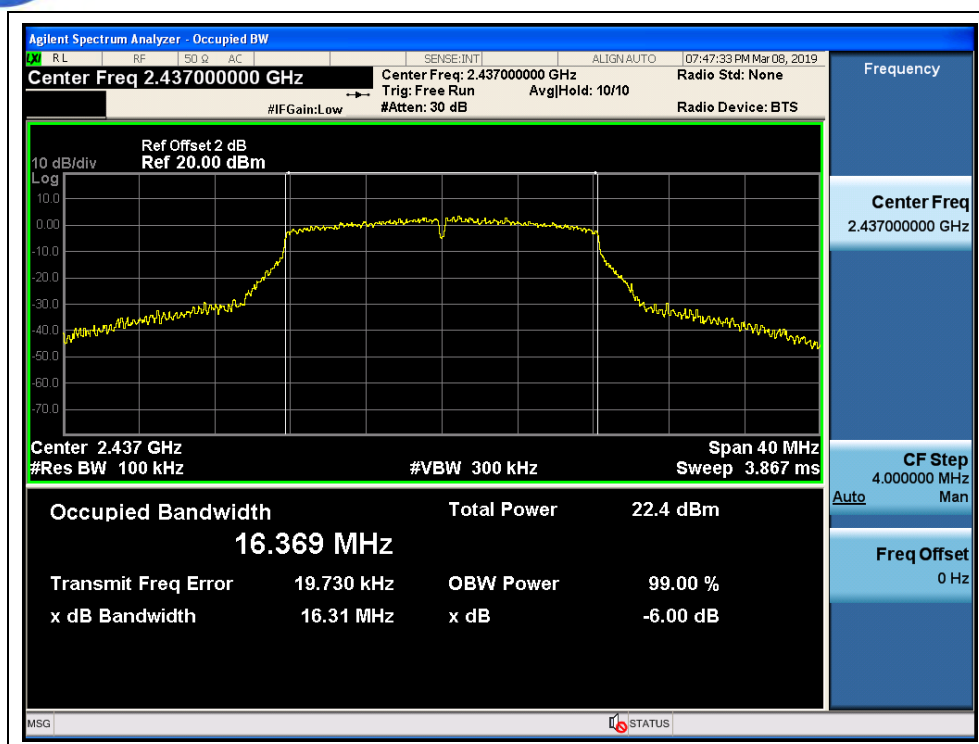
A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)	Result
1	2412	16.450	≥500	PASS
6	2437	16.369	≥500	PASS
11	2462	16.480	≥500	PASS

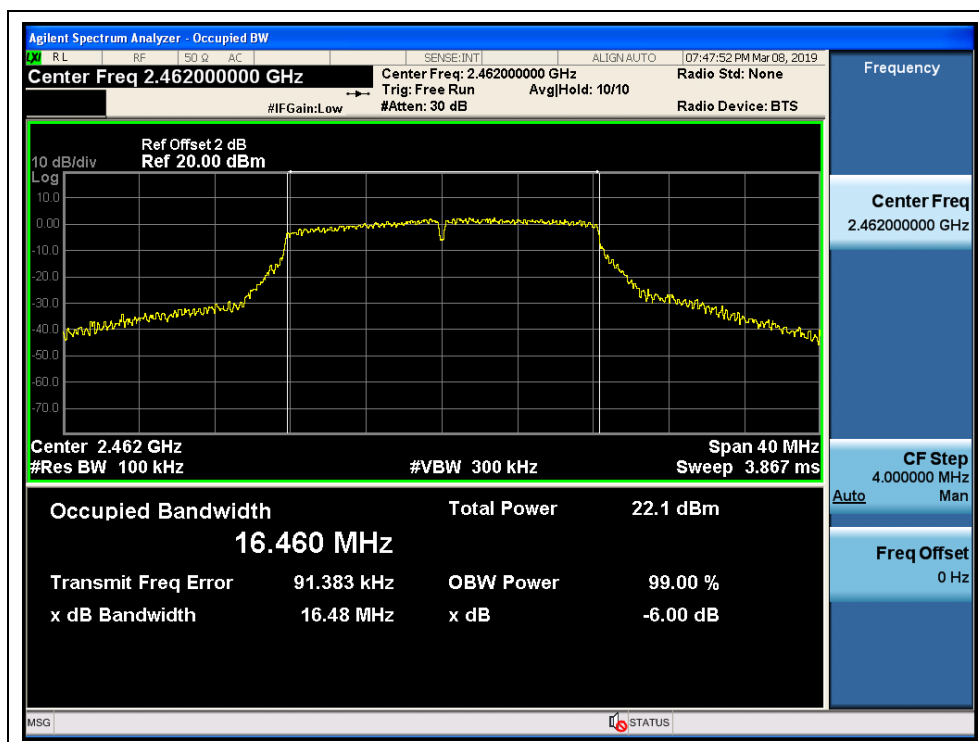
B. Test Plots:



(Channel 1, 2412MHz, 802.11g)



(Channel 6, 2437MHz, 802.11g)



(Channel 11, 2462MHz, 802.11g)

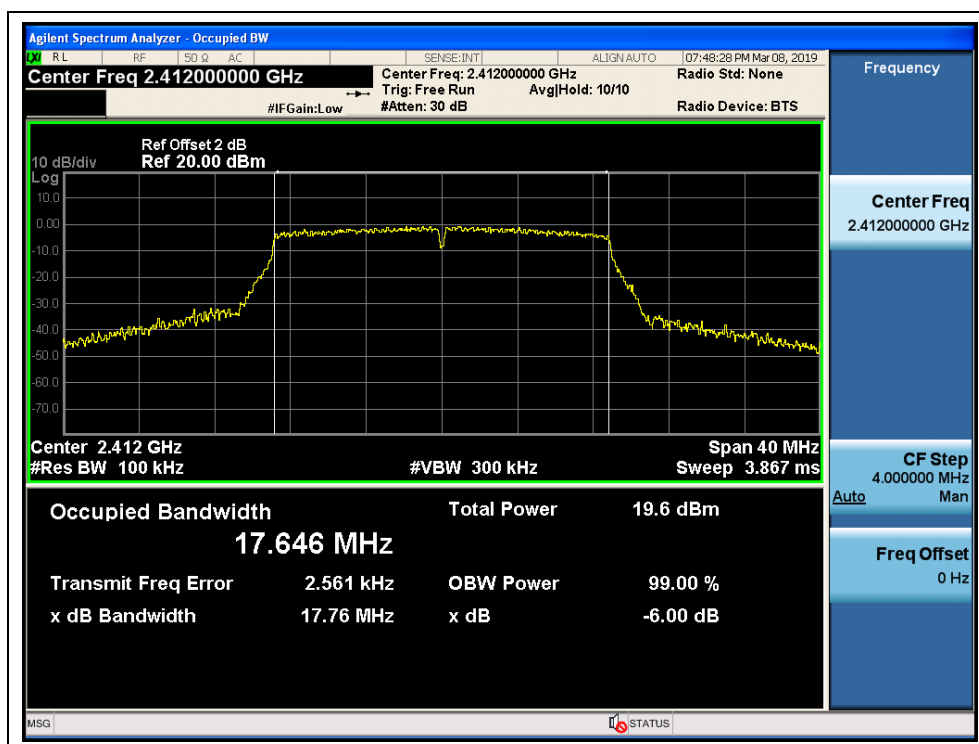


802.11n-20 Test mode

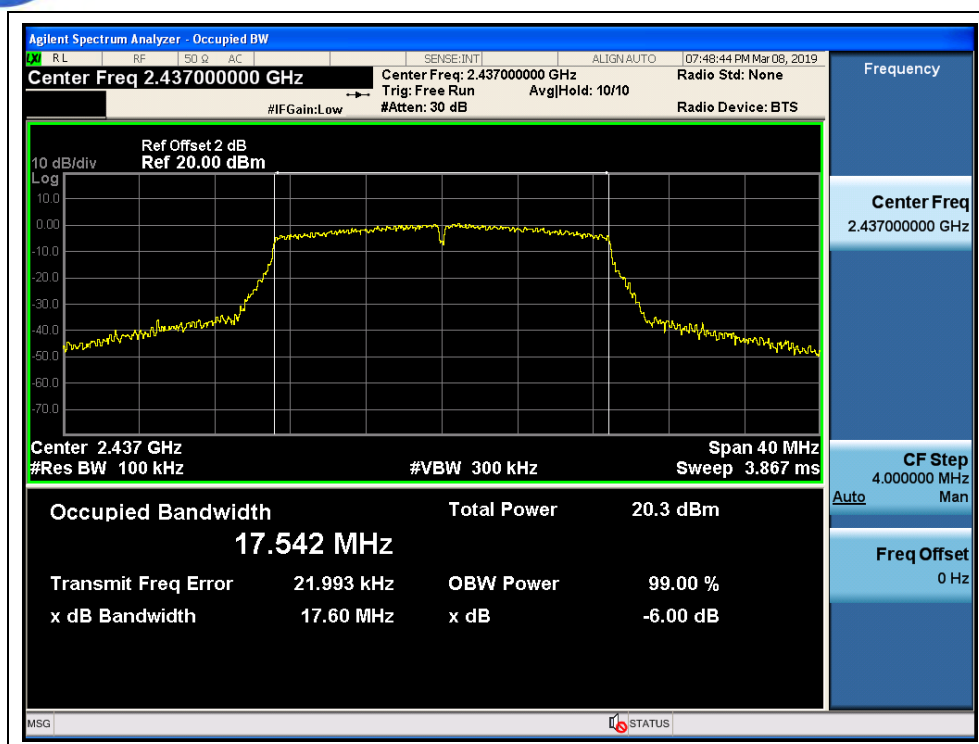
A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)	Result
1	2412	17.76	≥500	PASS
6	2437	17.60	≥500	PASS
11	2462	17.49	≥500	PASS

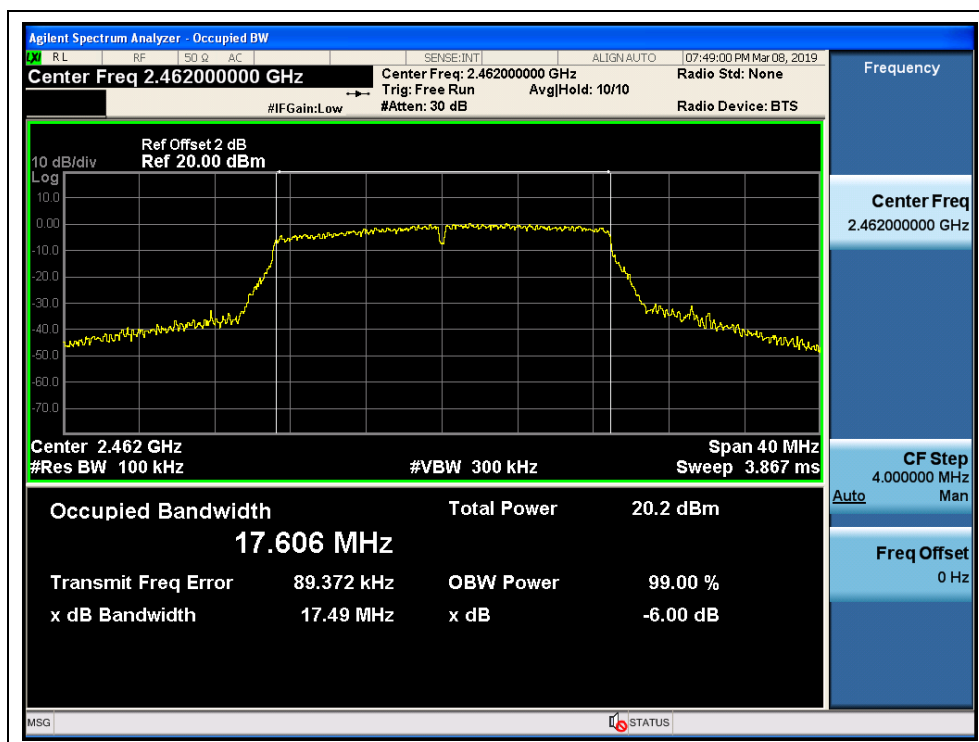
B. Test Plots:



(Channel 1, 2412MHz, 802.11n-20)



(Channel 6, 2437MHz, 802.11n-20)



(Channel 11, 2462MHz, 802.11n-20)

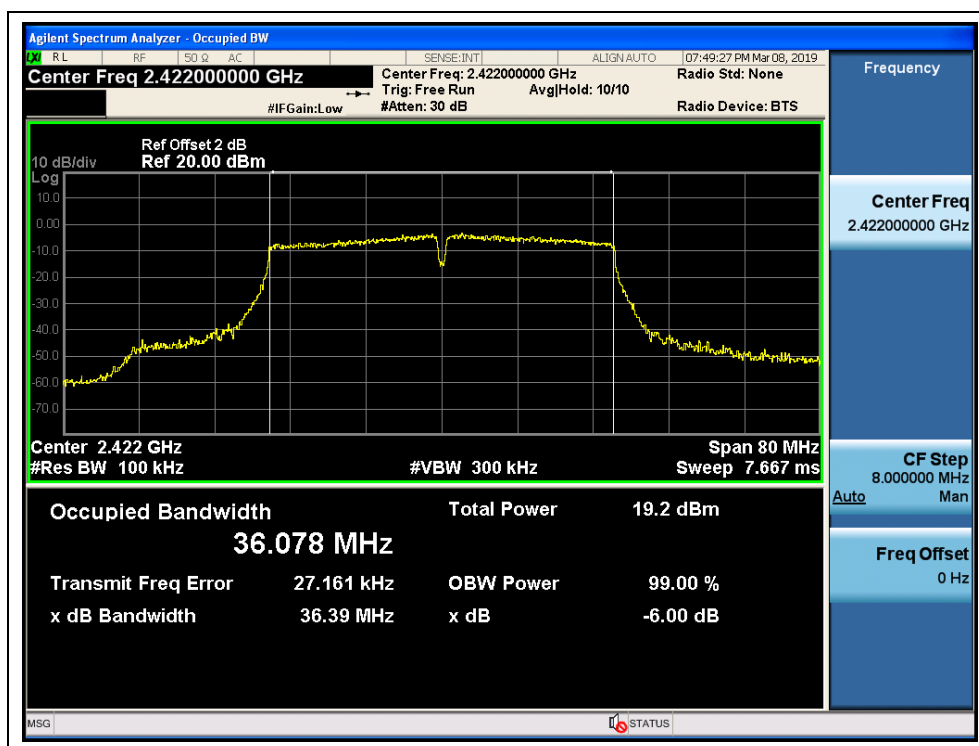


802.11n-40 Test mode

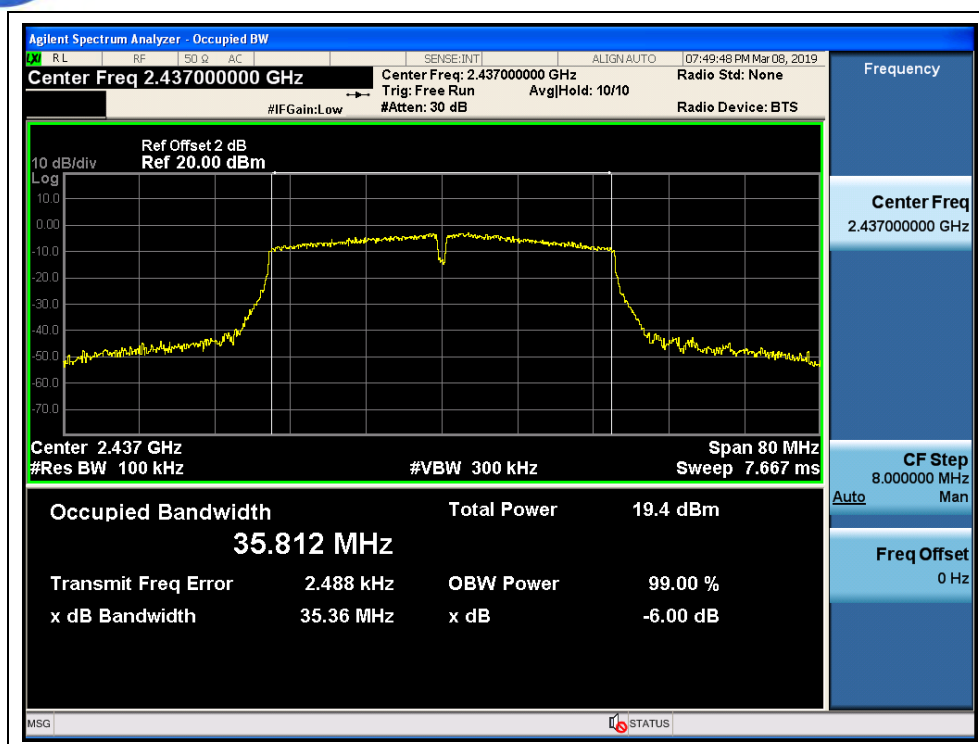
A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits (kHz)	Result
3	2422	36.39	≥500	PASS
6	2437	35.36	≥500	PASS
9	2452	36.53	≥500	PASS

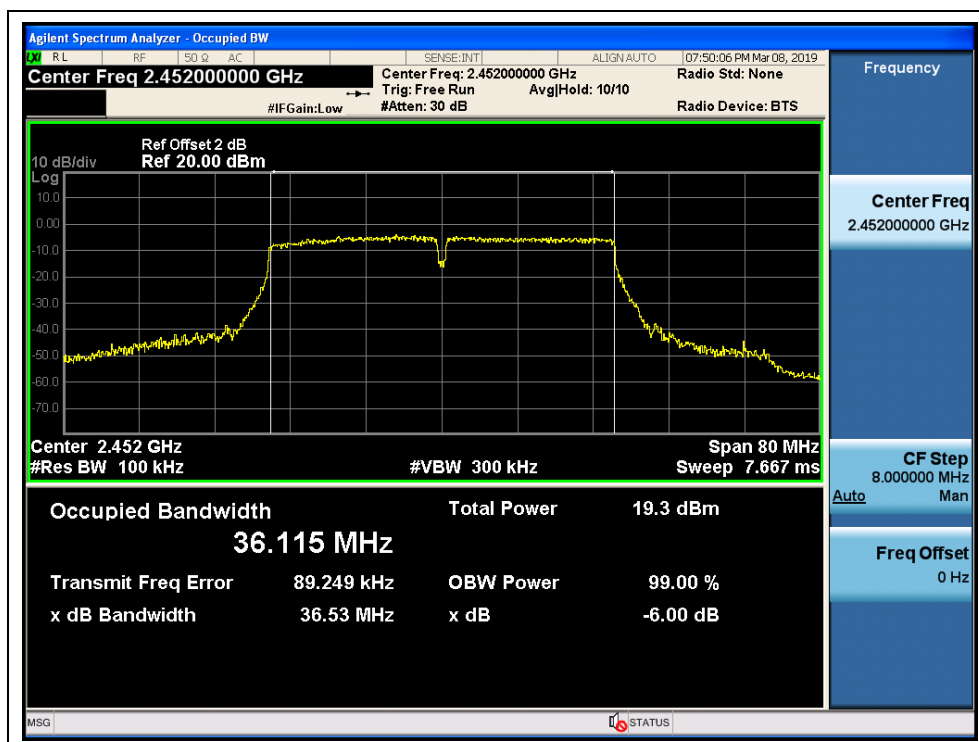
B. Test Plots:



(Channel 3, 2422Mz, 802.11n-40)



(Channel 6, 2437MHz, 802.11n-40)



(Channel 9, 2452MHz, 802.11n-40)

2.4. Conducted Spurious Emissions and Band Edge

2.4.1. Requirement

According to FCC section 15.247(c), in any 100kHz 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 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

2.4.2. Test Description

A. Test Set:



The EUT is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW.

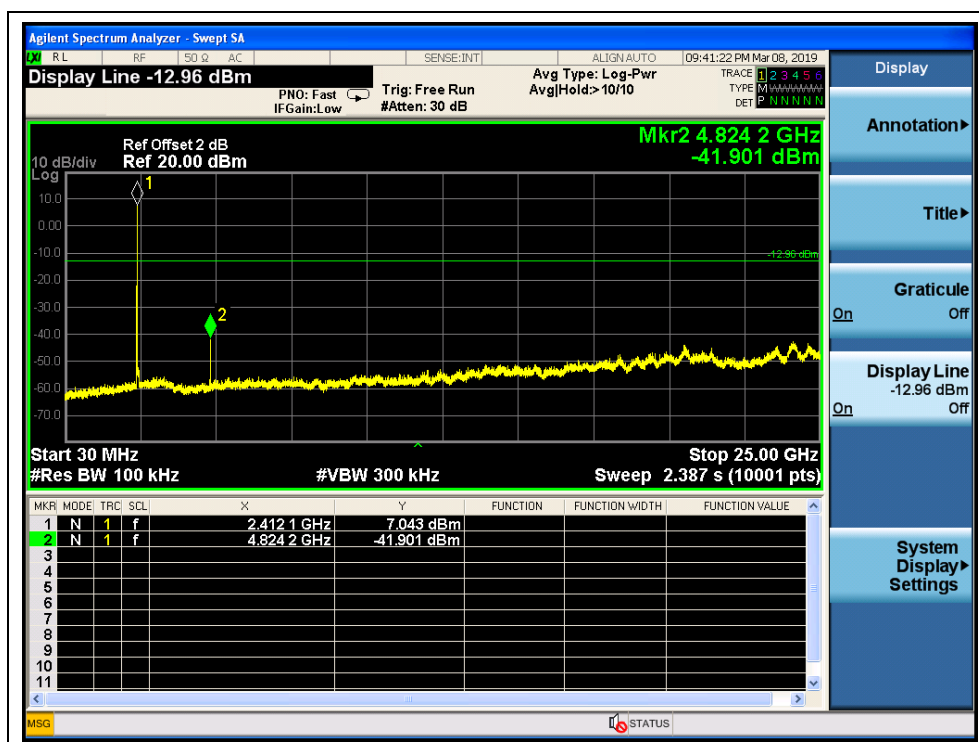
KDB558074 D01 V05R02 Section 11.0 was used in order to prove compliance.

B. Equipments List:

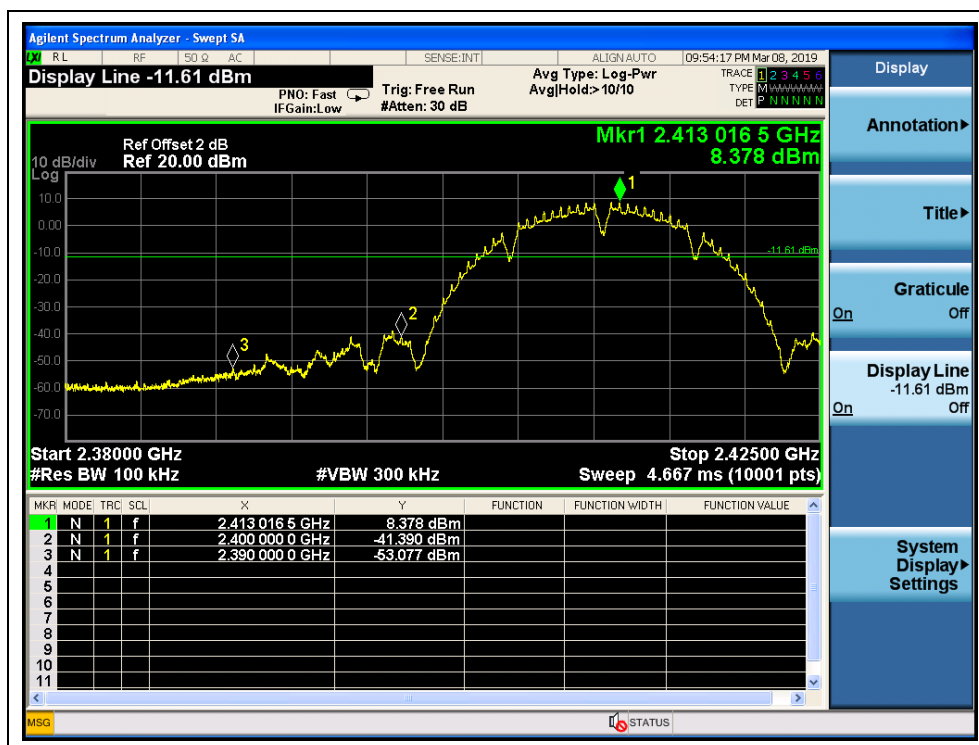
Please refer ANNEX B(4).



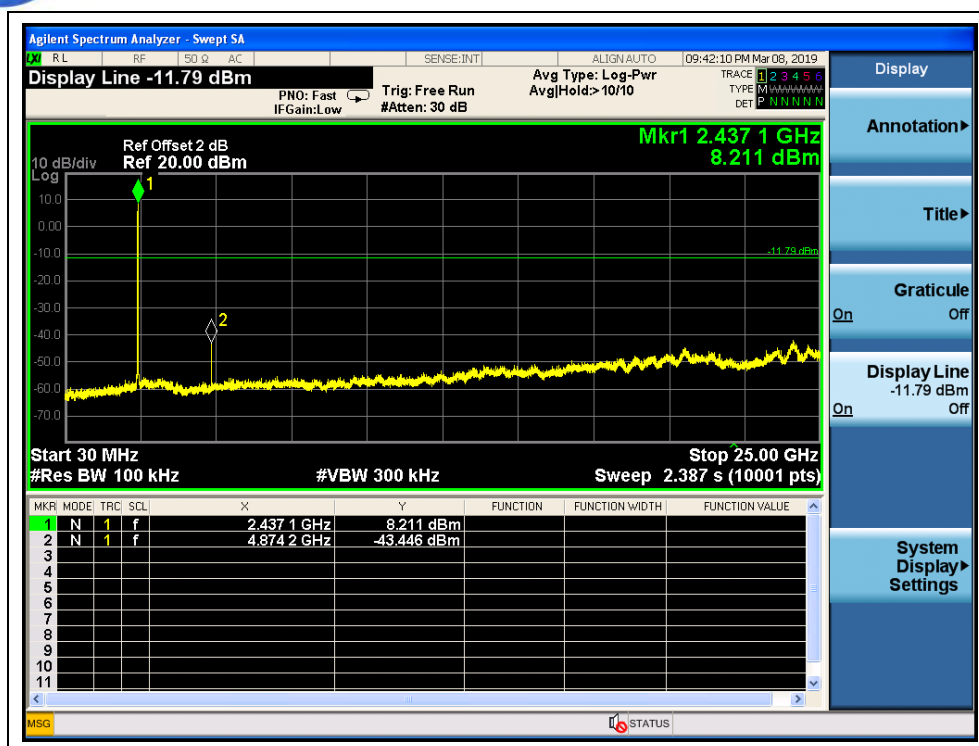
2.4.3. Test Result



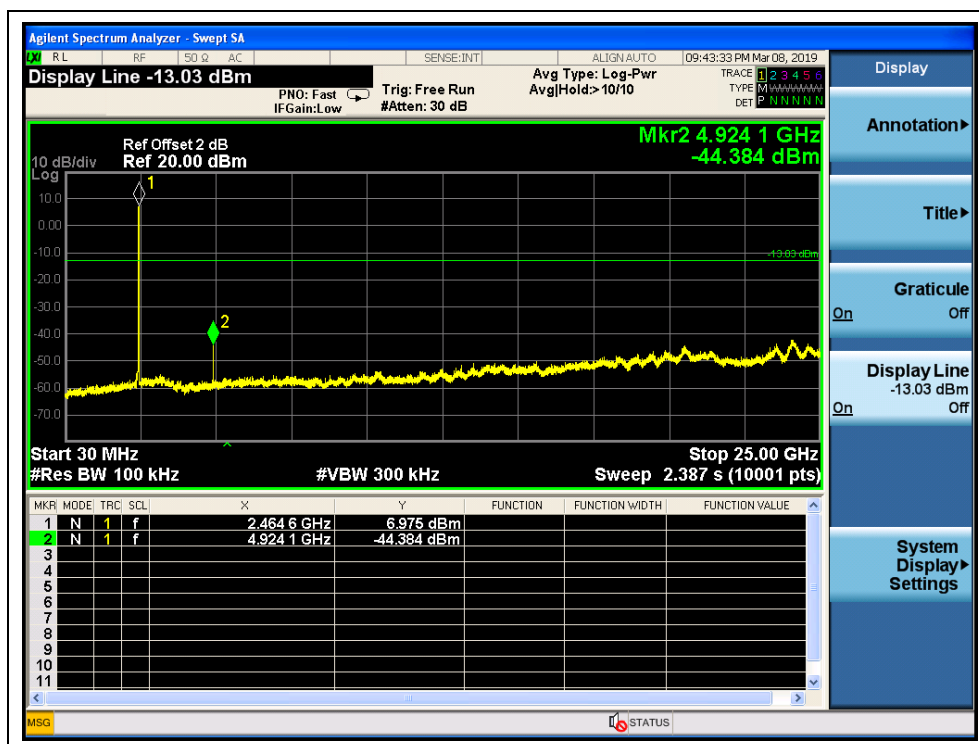
(802.11 b, Channel = 1, 30MHz to 25GHz)



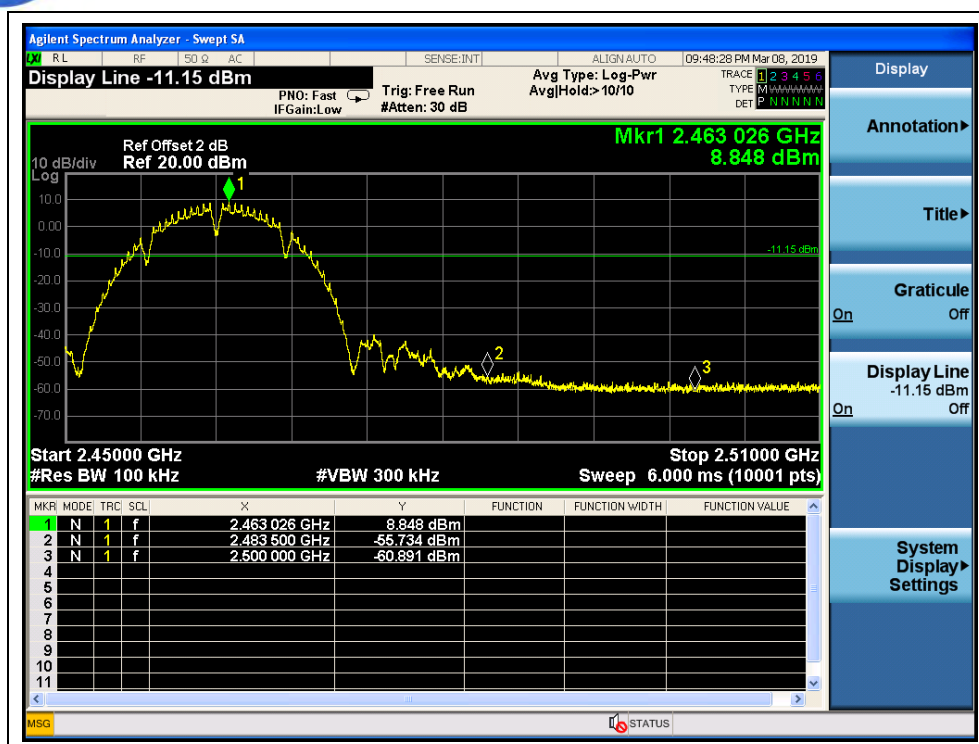
(802.11 b, Band Edge @ Channel = 1)



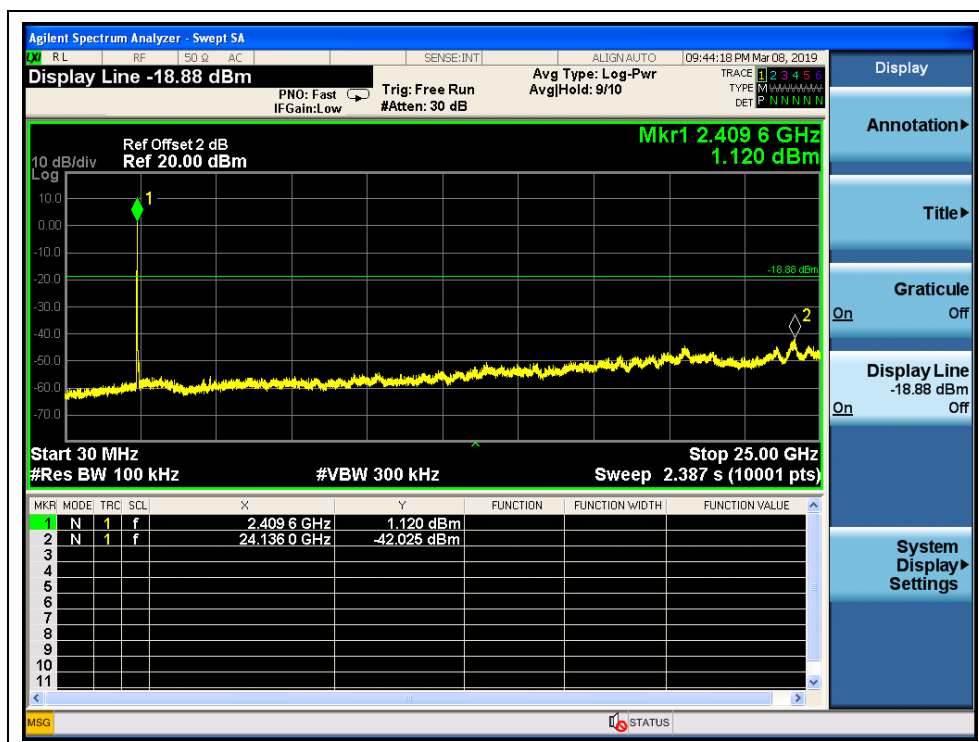
(802.11 b, Channel = 6, 30MHz to 25GHz)



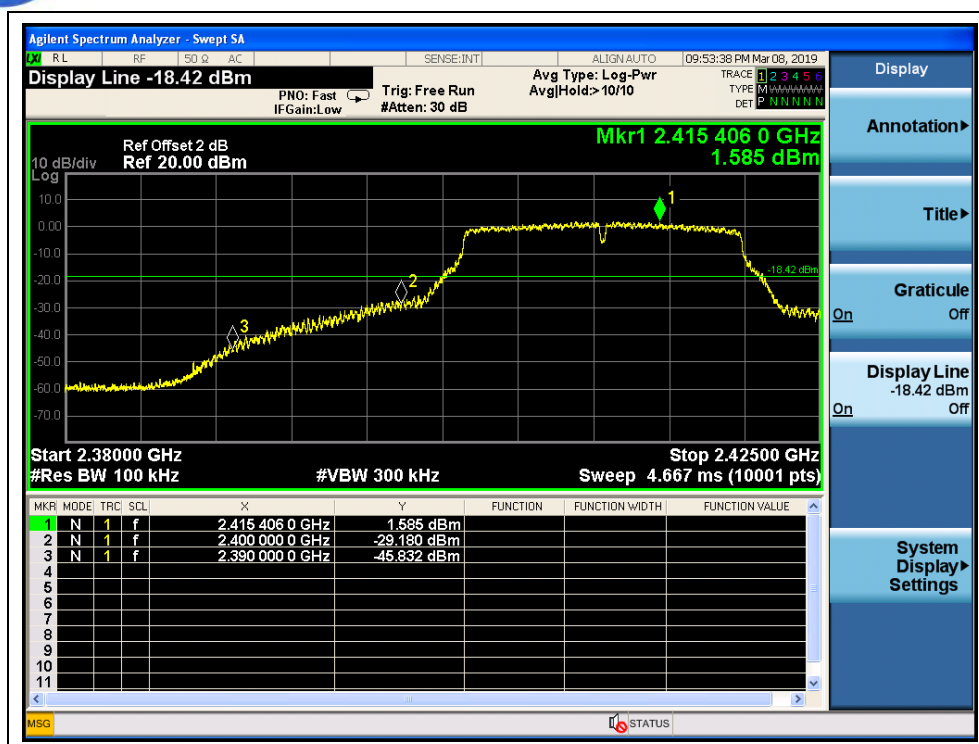
(802.11 b, Channel = 11, 30MHz to 25GHz)



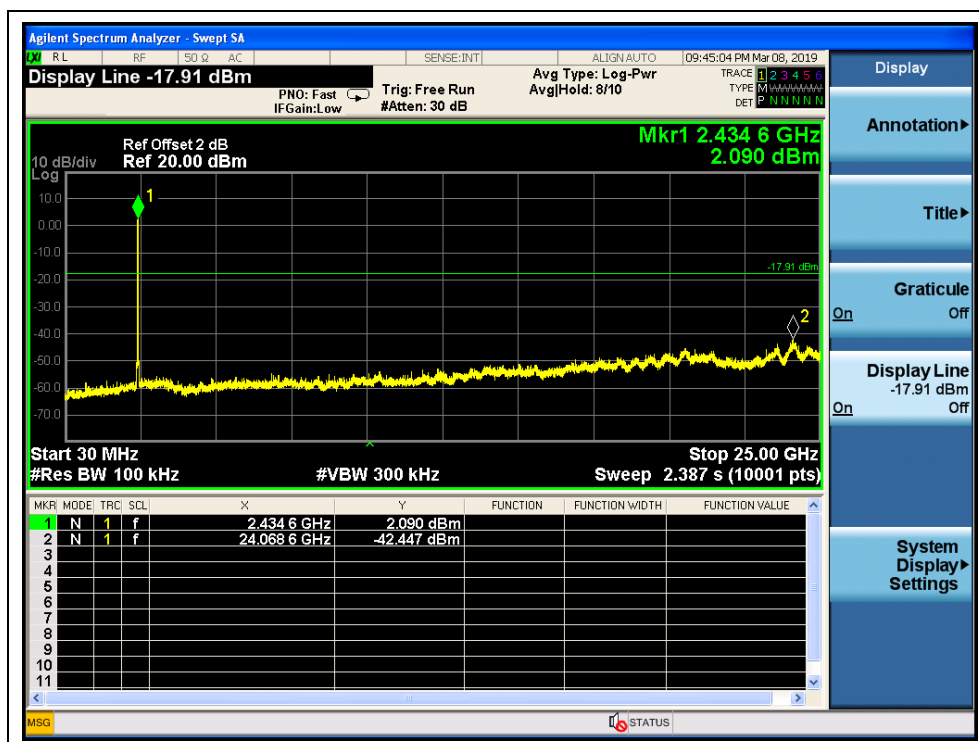
(802.11 b, Band Edge @ Channel = 11)



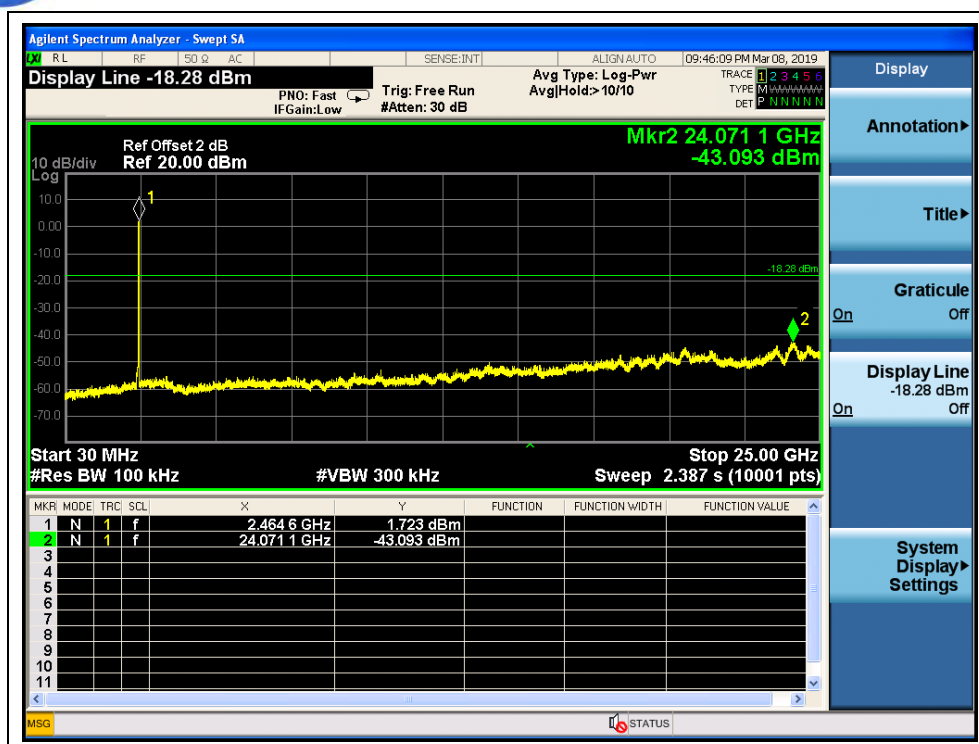
(802.11 g, Channel = 1, 30MHz to 25GHz)



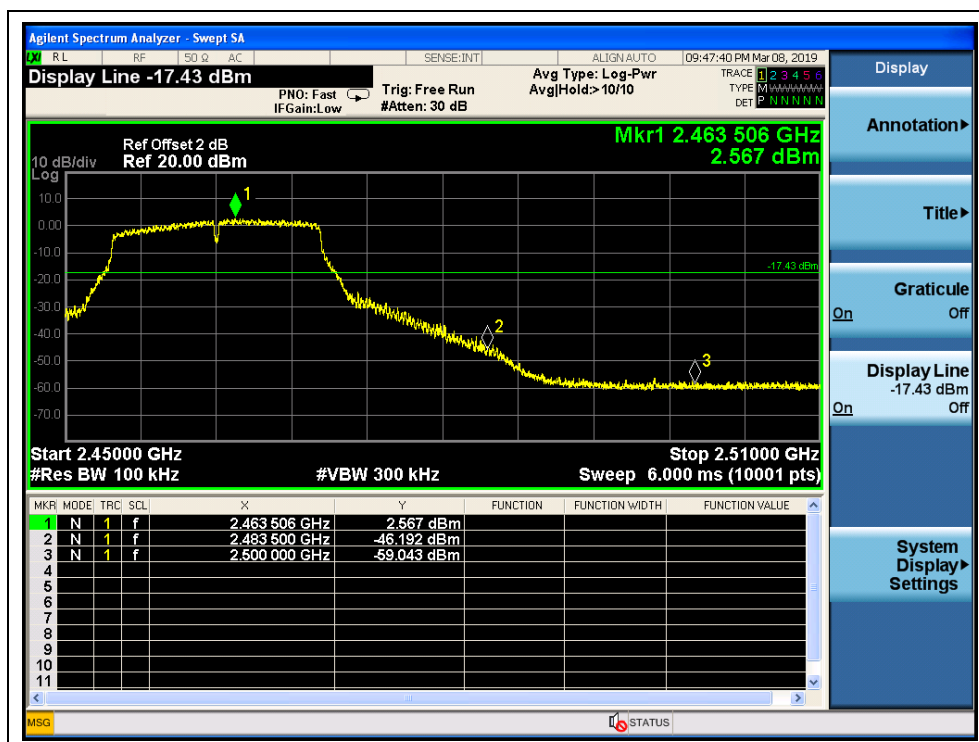
(802.11 g, Band Edge @ Channel = 1)



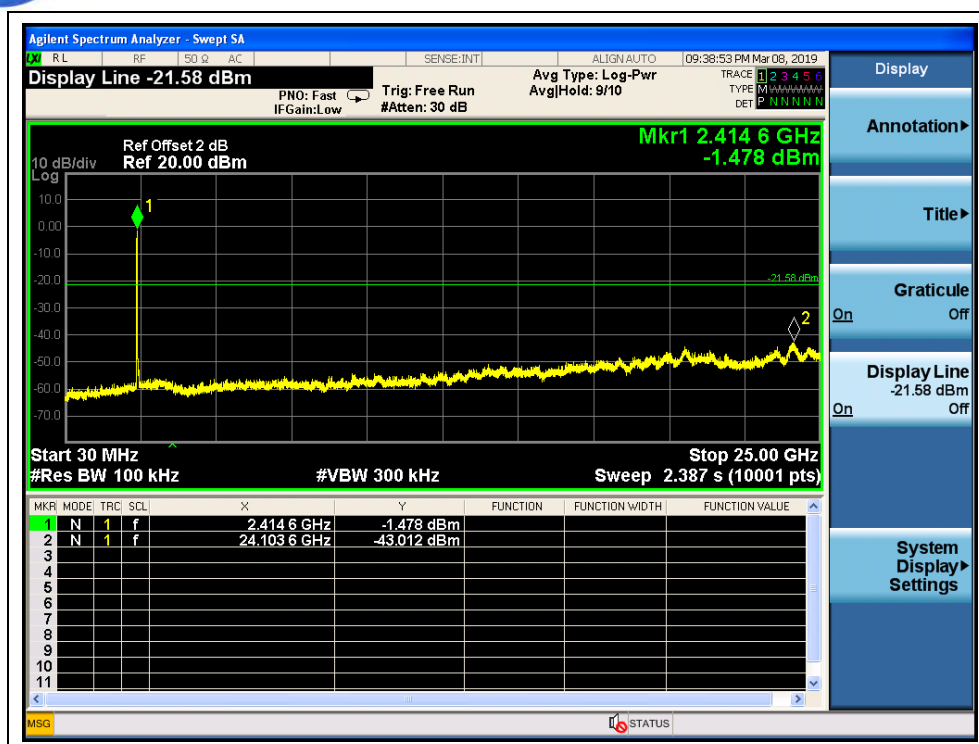
(802.11 g, Channel = 6, 30MHz to 25GHz)



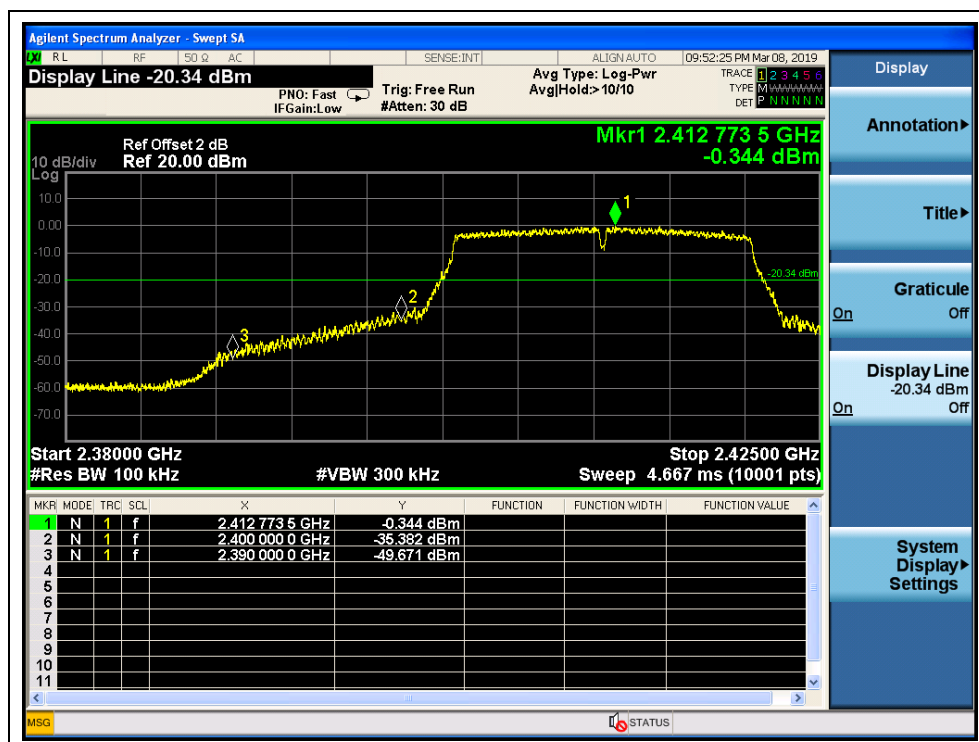
(802.11 g, Channel = 11, 30MHz to 25GHz)



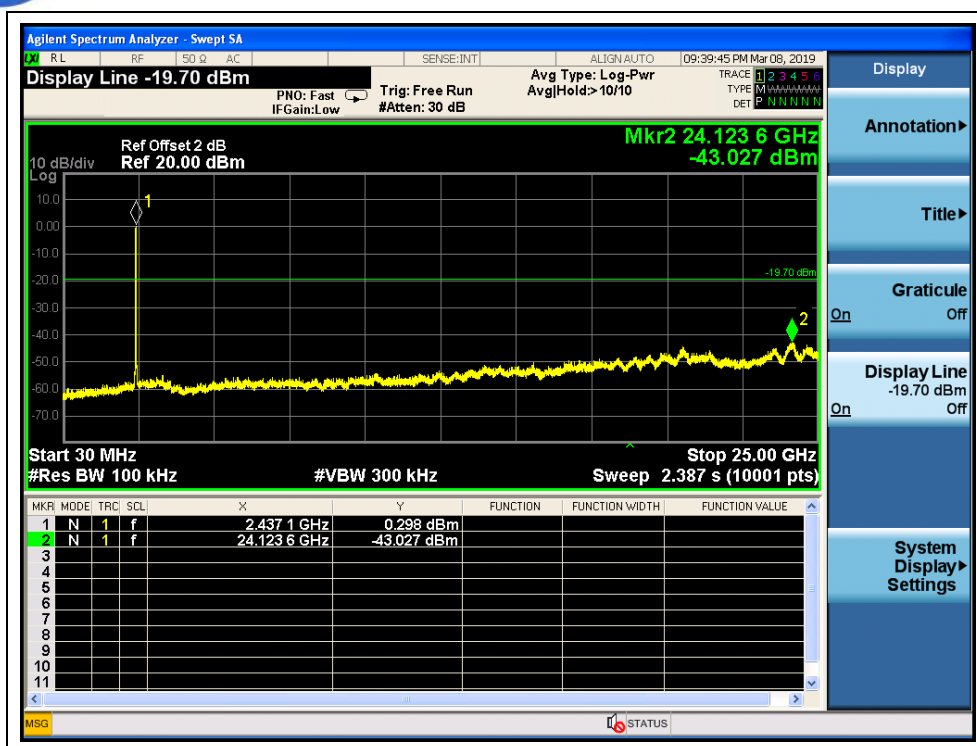
(802.11 g, Band Edge @ Channel = 11)



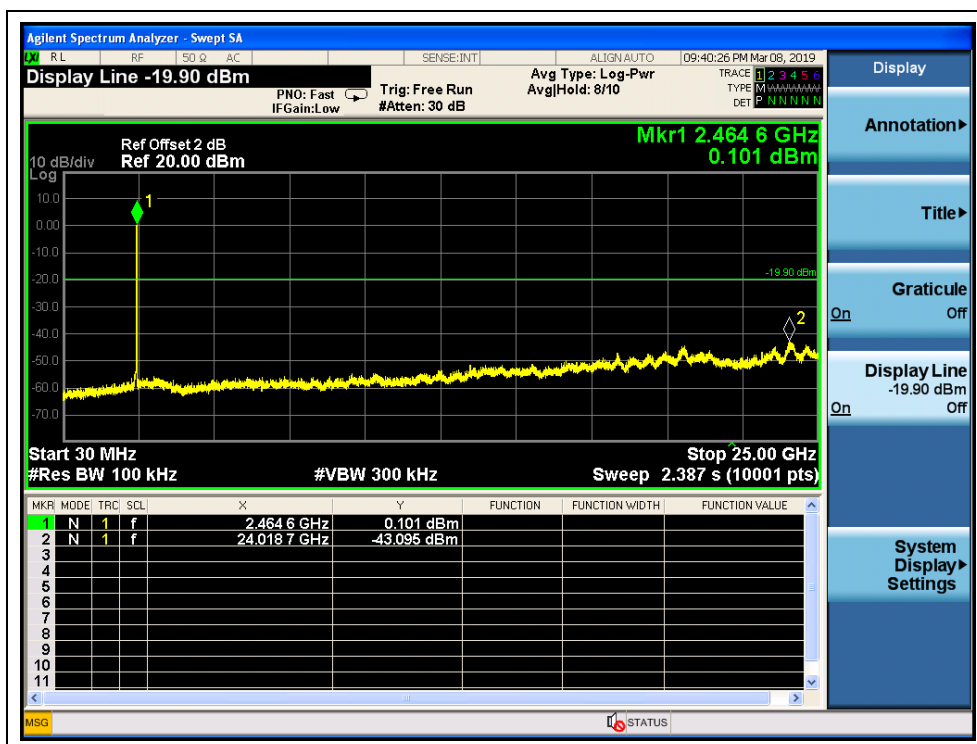
(802.11 HT20, Channel = 1, 30MHz to 25GHz)



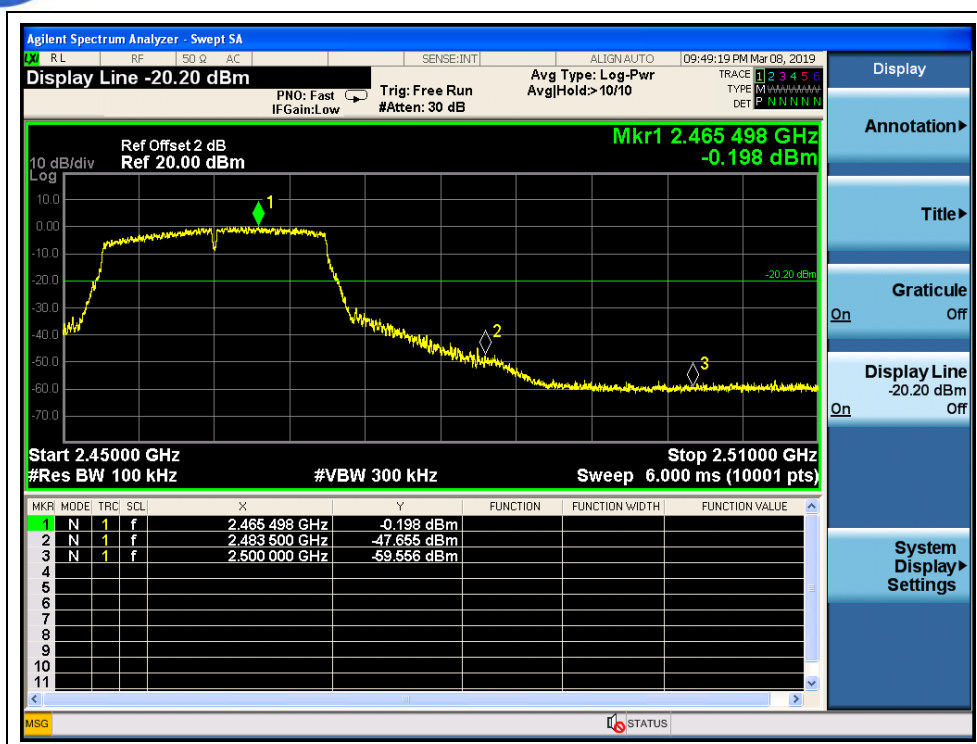
(802.11 HT20, Band Edge @ Channel = 1)



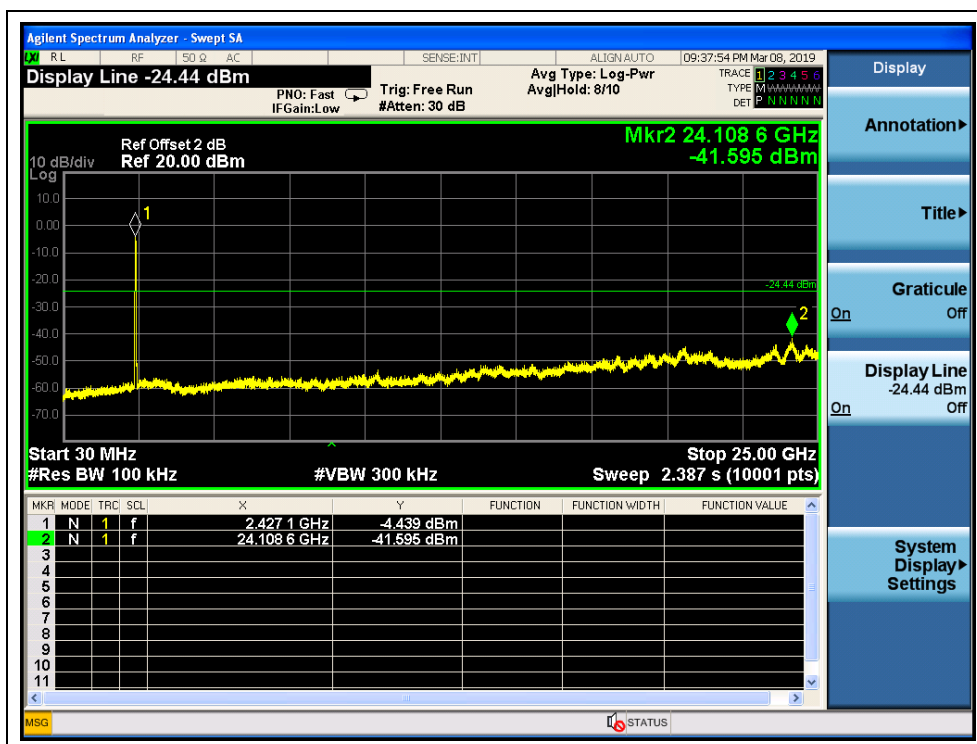
(802.11 HT20, Channel = 6, 30MHz to 25GHz)



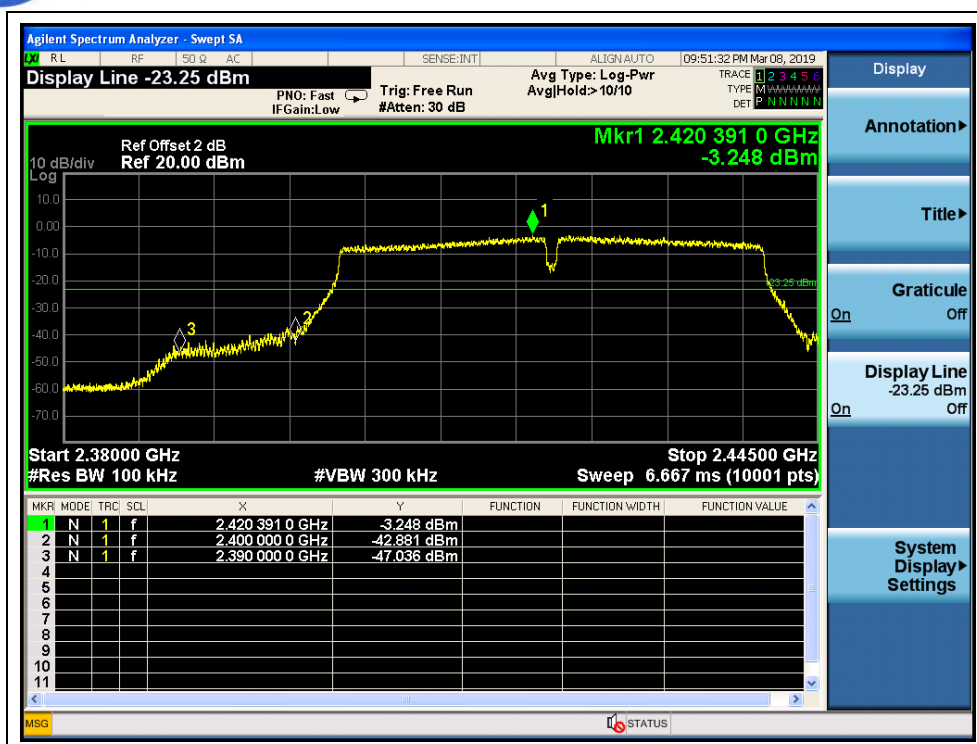
(802.11 HT20, Channel = 11, 30MHz to 25GHz)



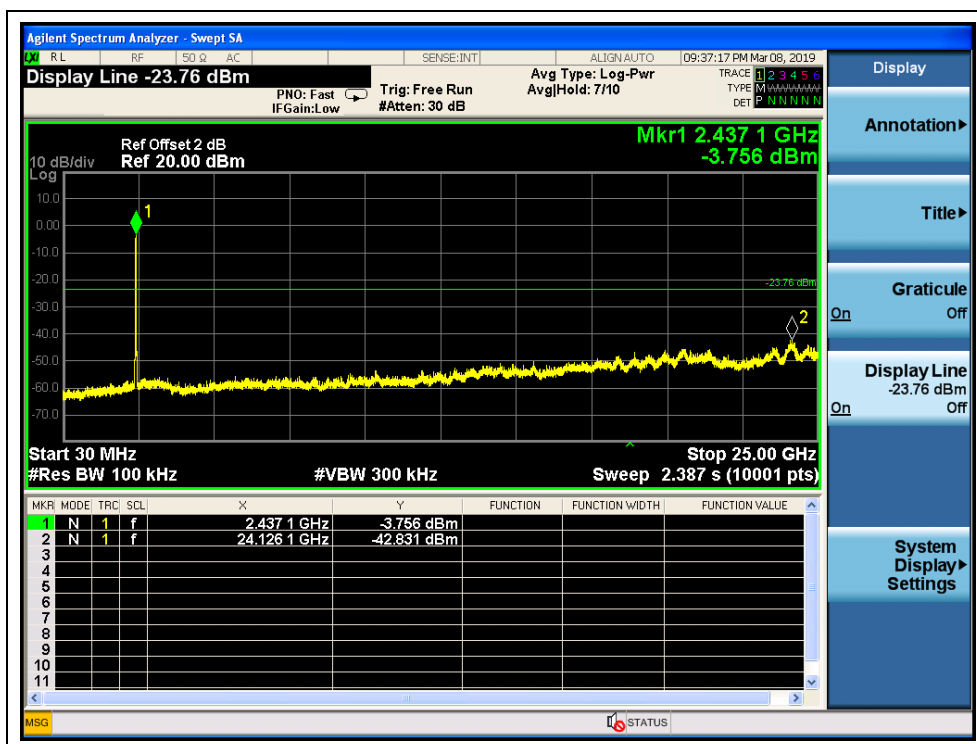
(802.11 HT20, Band Edge @ Channel = 11)



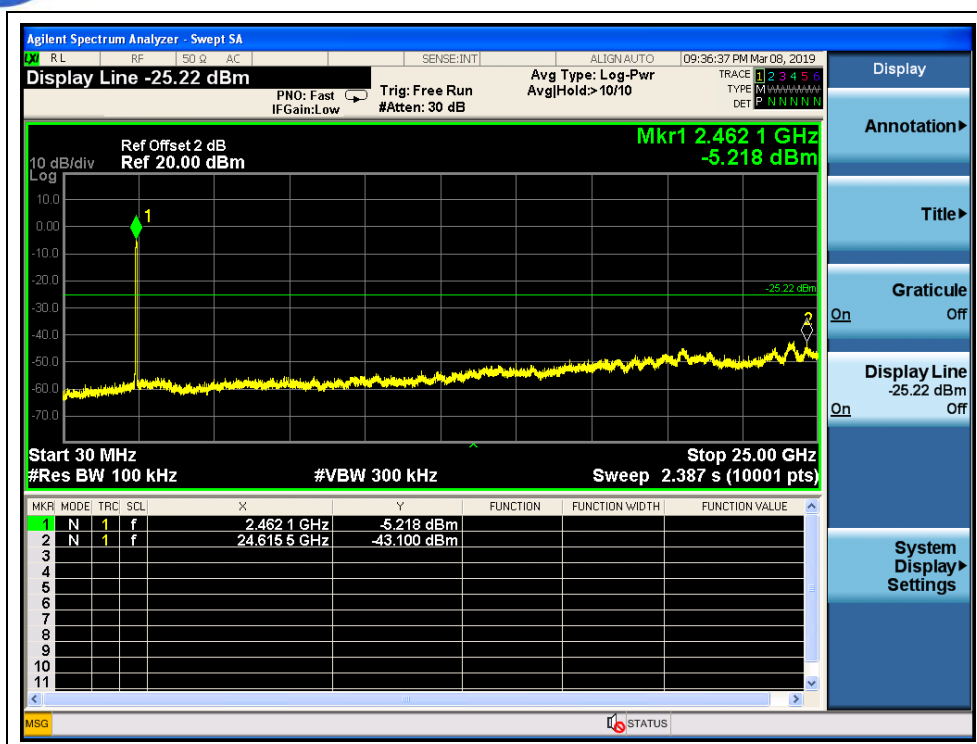
(802.11 HT40, Channel = 3, 30MHz to 25GHz)



(802.11 HT40, Band Edge @ Channel = 3)



(802.11 HT40, Channel = 6, 30MHz to 25GHz)



(802.11 HT40, Channel = 9, 30MHz to 25GHz)



(802.11 HT40, Band Edge @ Channel = 9)

2.5. Power spectral density (PSD)

2.5.1. Requirement

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

2.5.2. Test Description

A. Test Set:



The EUT is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

KDB558074 D01 V05R02 Section 10.2 was used in order to prove compliance.

B. Equipments List:

Please refer ANNEX B(4).



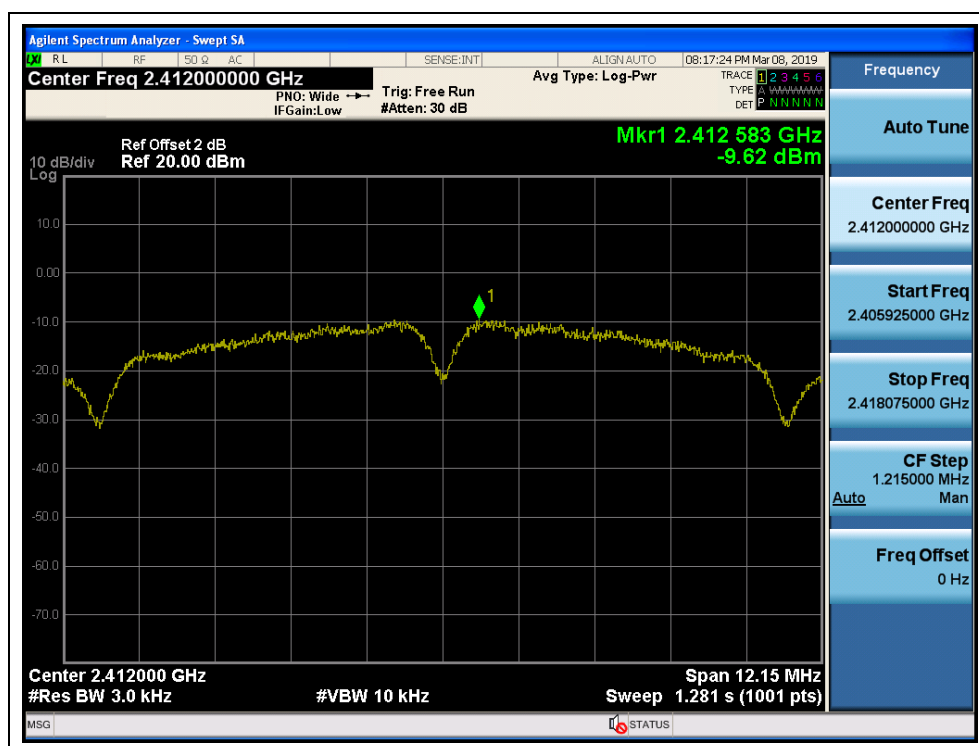
2.5.3. Test Result

802.11b Test mode

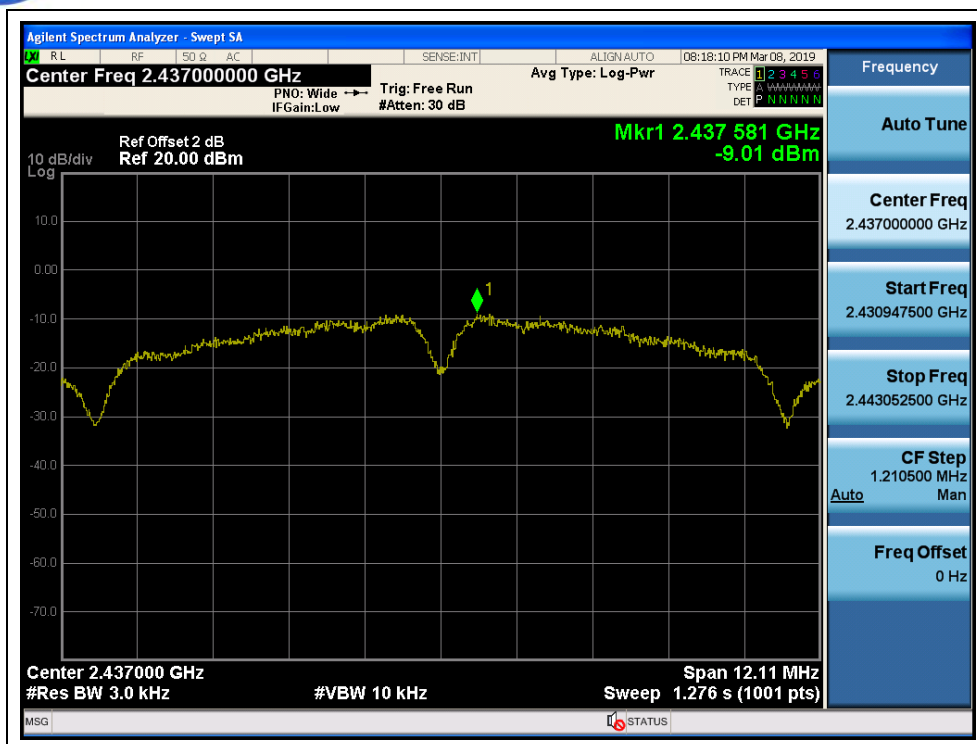
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
1	2412	-9.62	8	PASS
6	2437	-9.01	8	PASS
11	2462	-8.92	8	PASS

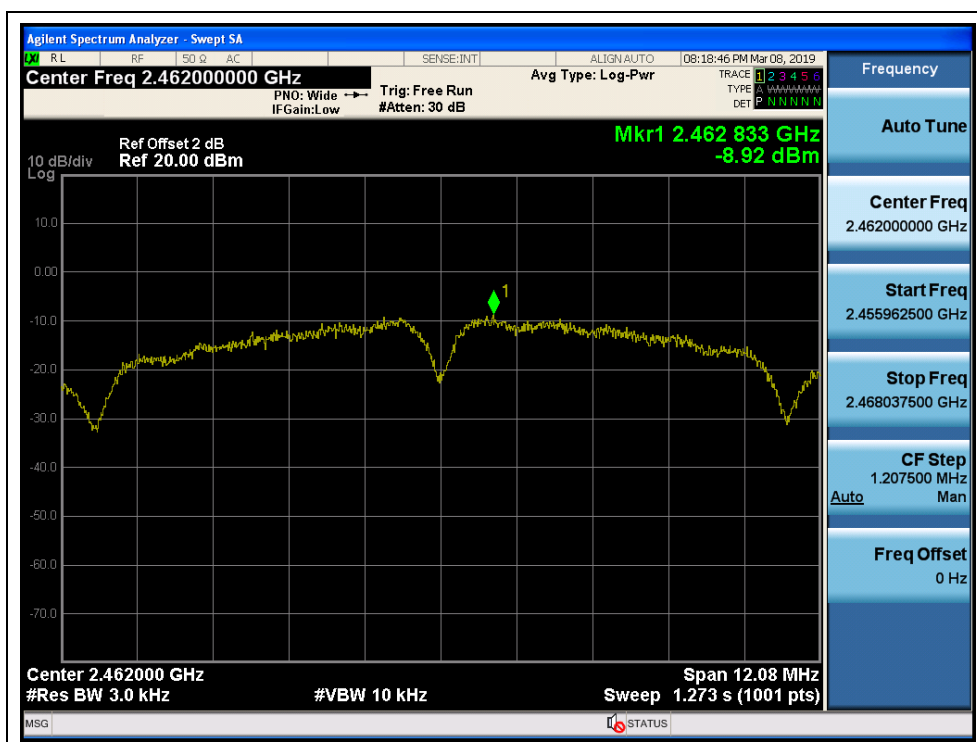
B. Test Plots:



(Channel = 1, 802.11b)



(Channel = 6, 802.11b)



(Channel = 11, 802.11b)

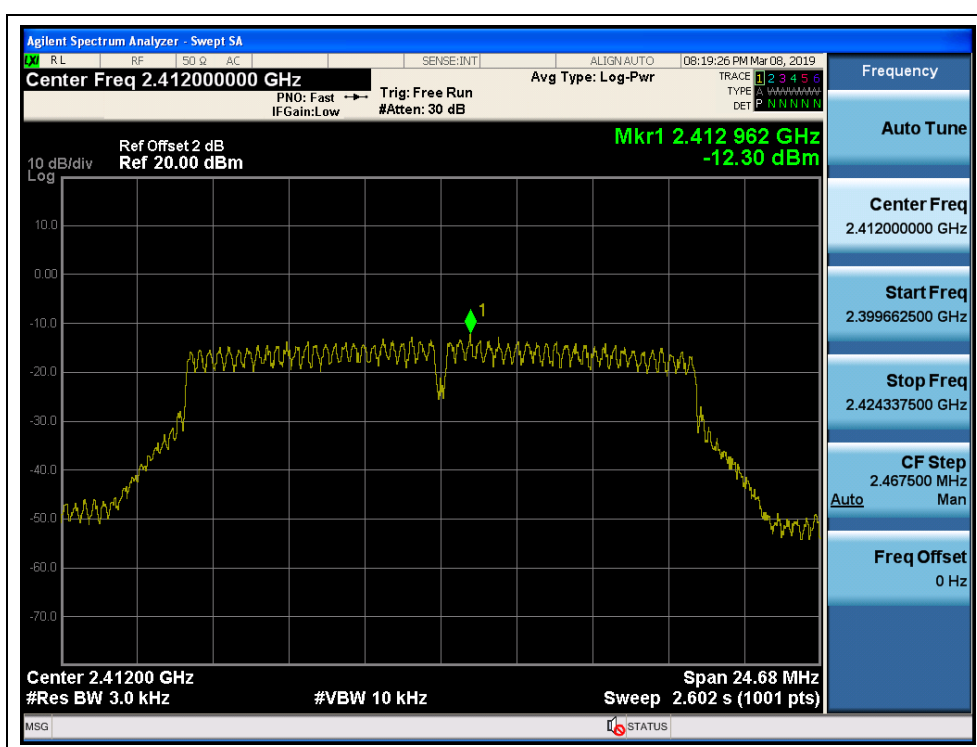


802.11g Test mode

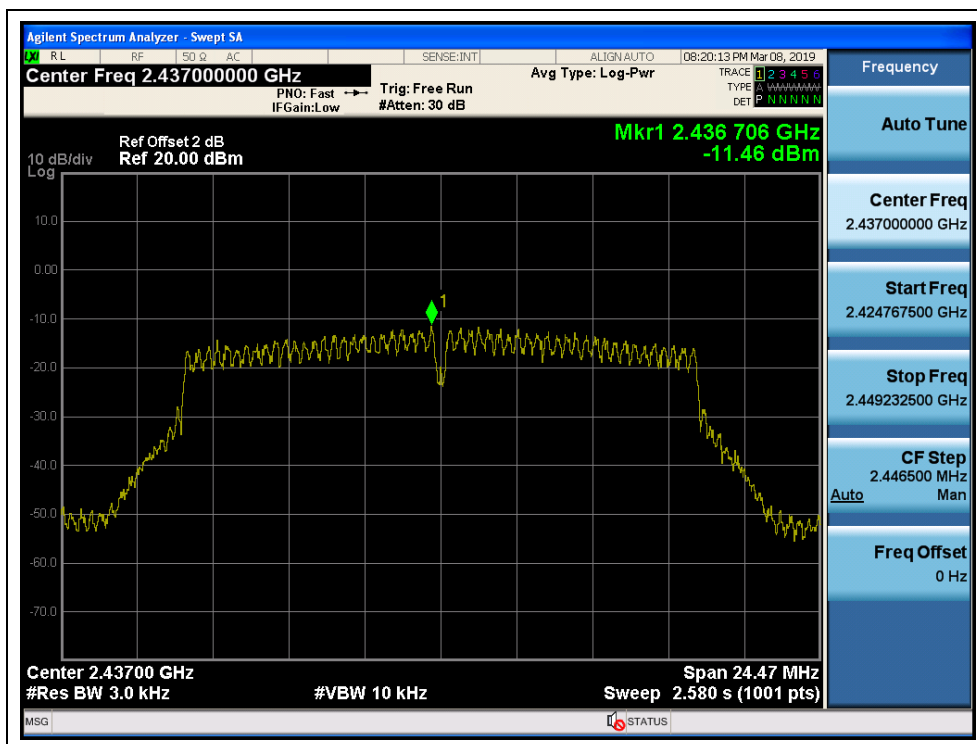
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
1	2412	-12.30	8	PASS
6	2437	-11.46	8	PASS
11	2462	-12.07	8	PASS

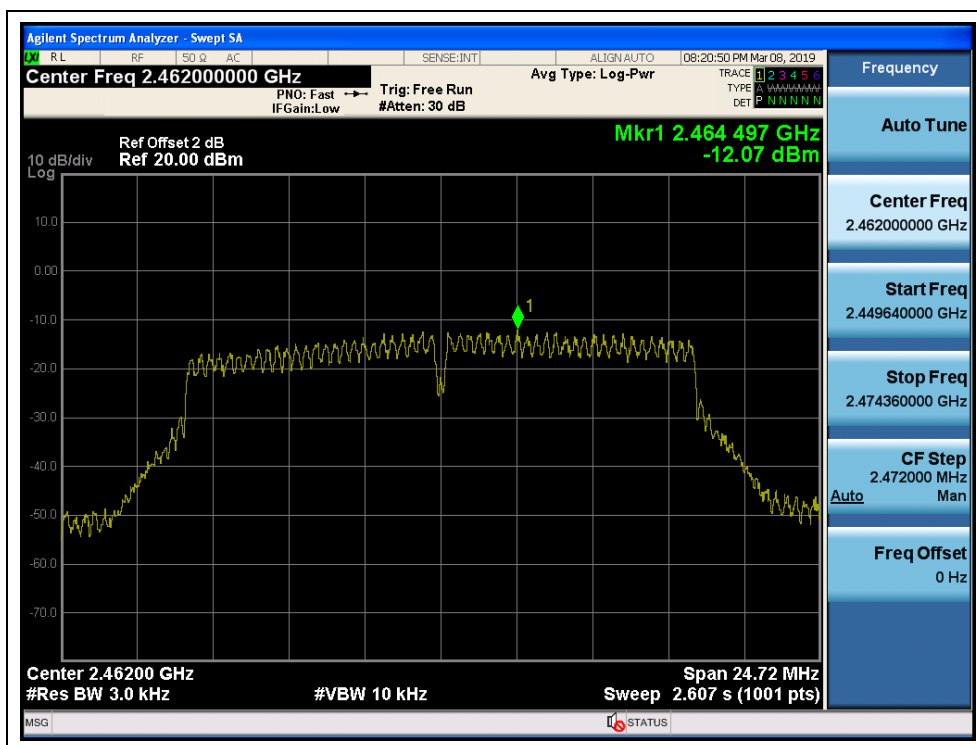
B. Test Plots:



(Channel = 1, 802.11g)



(Channel = 6, 802.11g)



(Channel = 11, 802.11g)

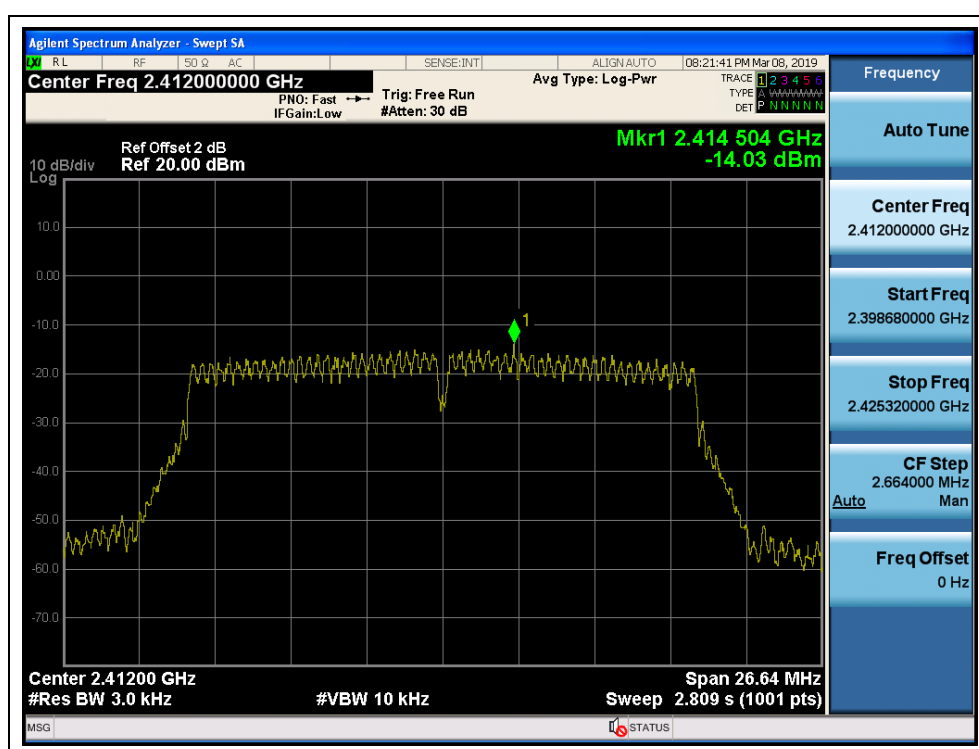


802.11n-20MHz Test mode

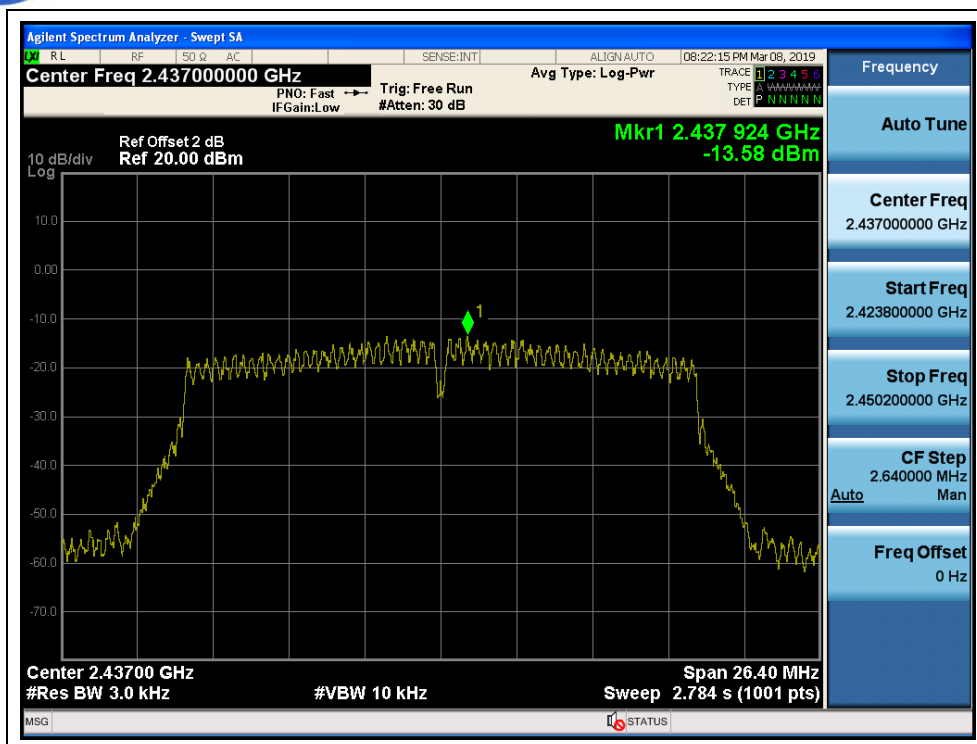
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
1	2412	-14.03	8	PASS
6	2437	-13.58	8	PASS
11	2462	-14.33	8	PASS

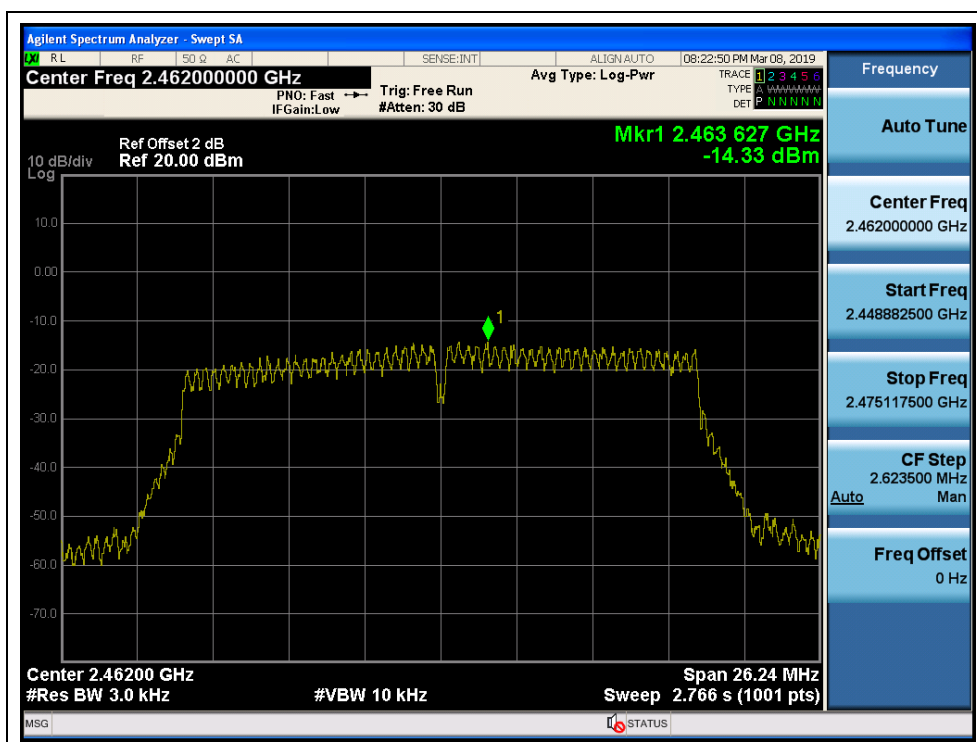
B. Test Plots:



(Channel = 1, 802.11n-20MHz)



(Channel = 6, 802.11n-20MHz)



(Channel = 11, 802.11n-20MHz)

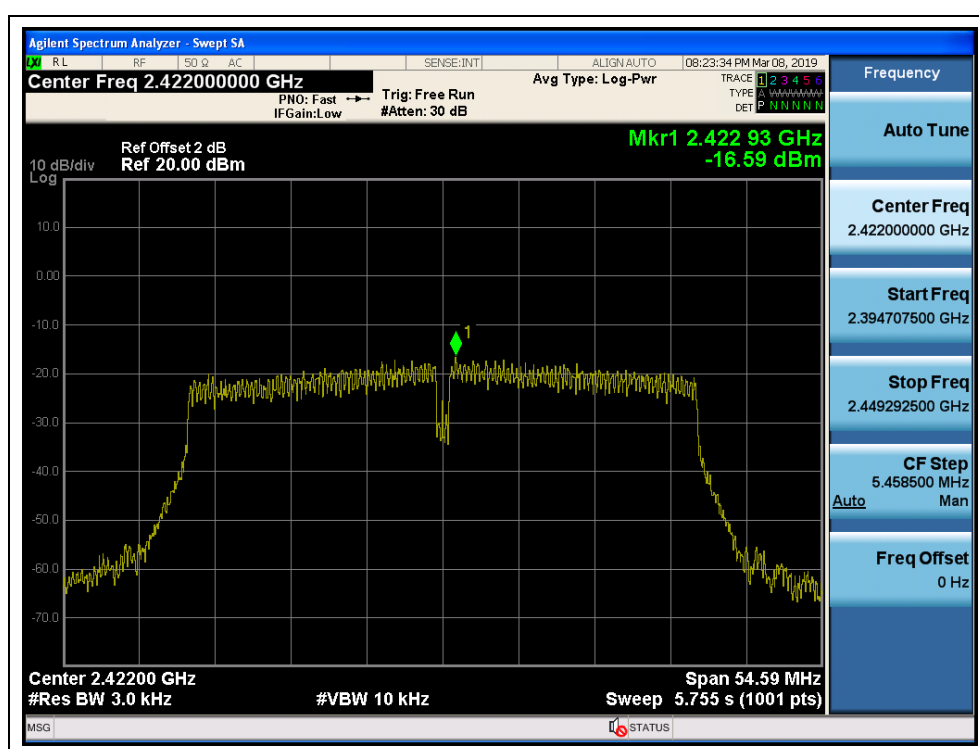


802.11n-40MHz Test mode

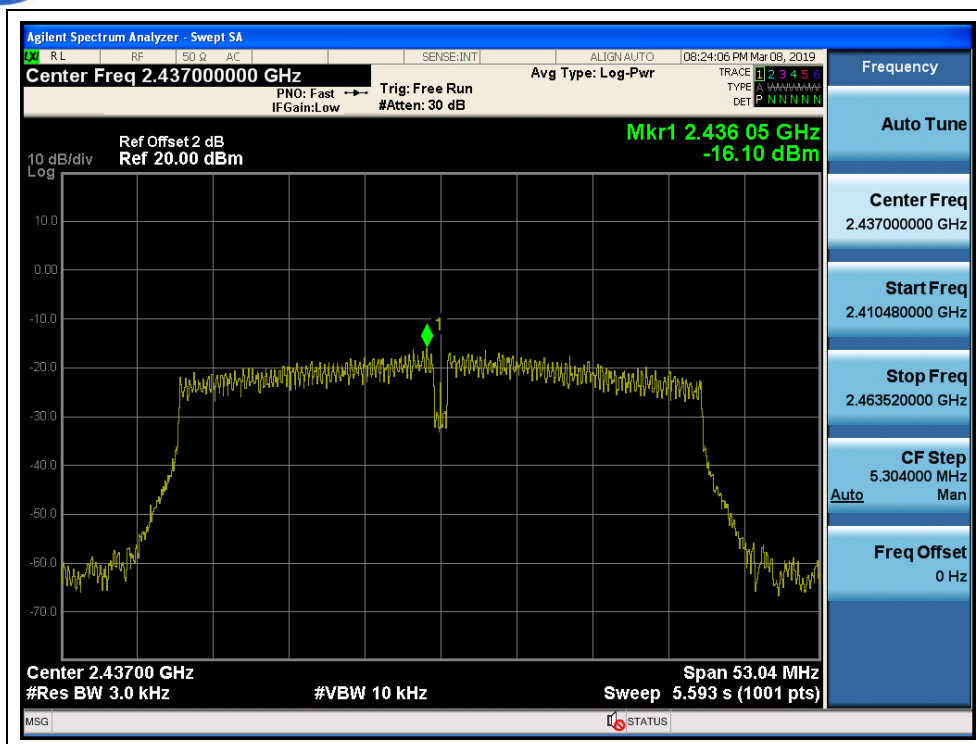
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
3	2422	-16.59	8	PASS
6	2437	-16.10	8	PASS
9	2452	-16.29	8	PASS

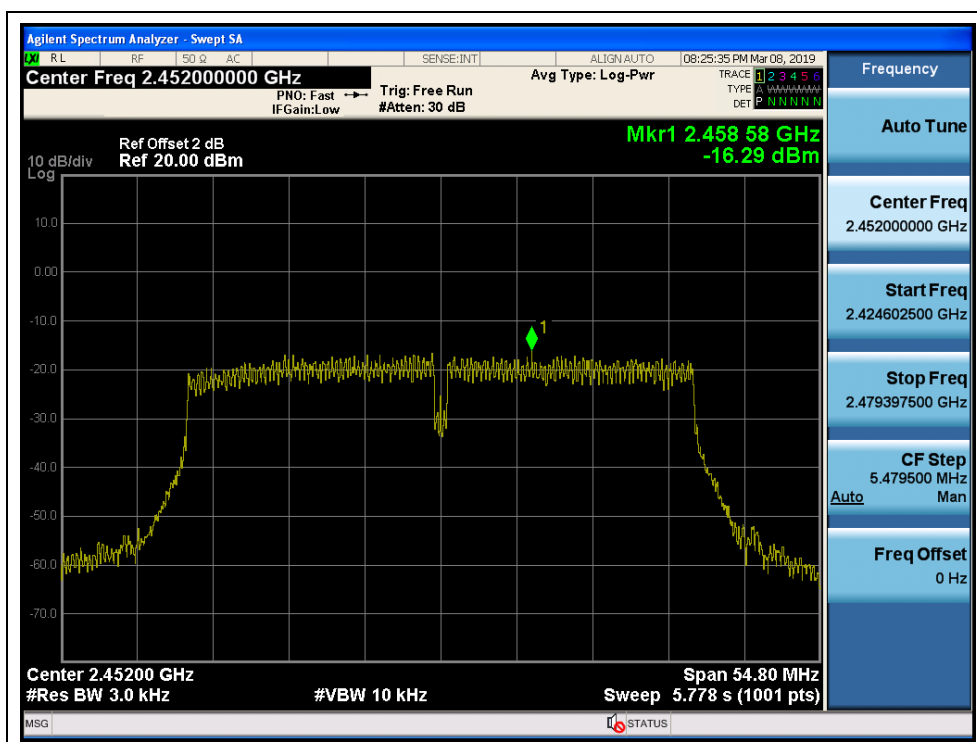
B. Test Plots:



(Channel = 3, 802.11n-40MHz)



(Channel = 6, 802.11n-40MHz)



(Channel = 9, 802.11n-40MHz)

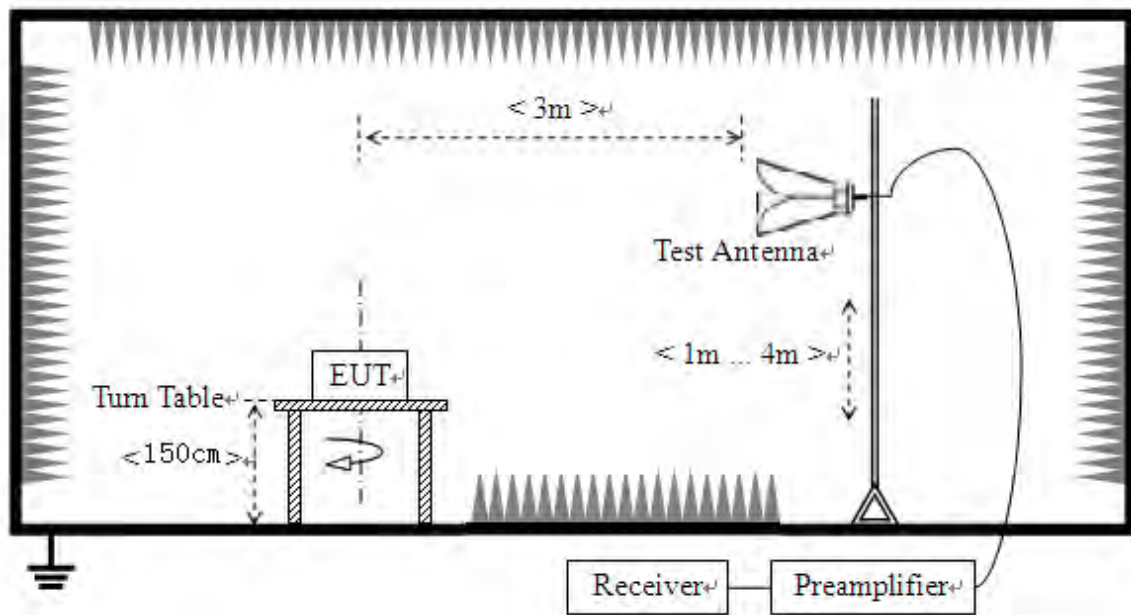
2.6. Restricted Frequency Bands

2.6.1. Requirement

According to FCC section 15.247(d), in any 100kHz 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 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power. 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).

2.6.2. Test Description

A. Test Setup



The EUT is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading.

For the Test Antenna:

Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength.

KDB558074 D01 V05R02 Section 12.1 was used in order to prove compliance.



For Radiated emission above 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasipeak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

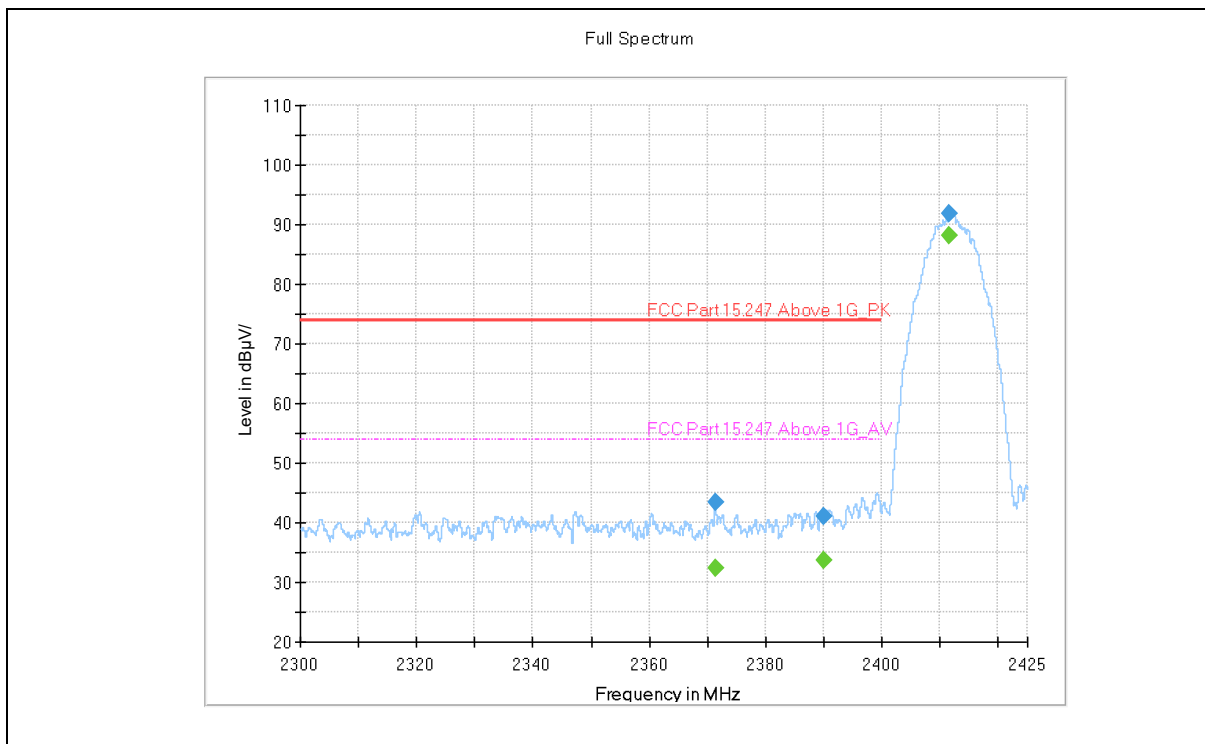
B. Equipments List:

Please refer ANNEX B(4).



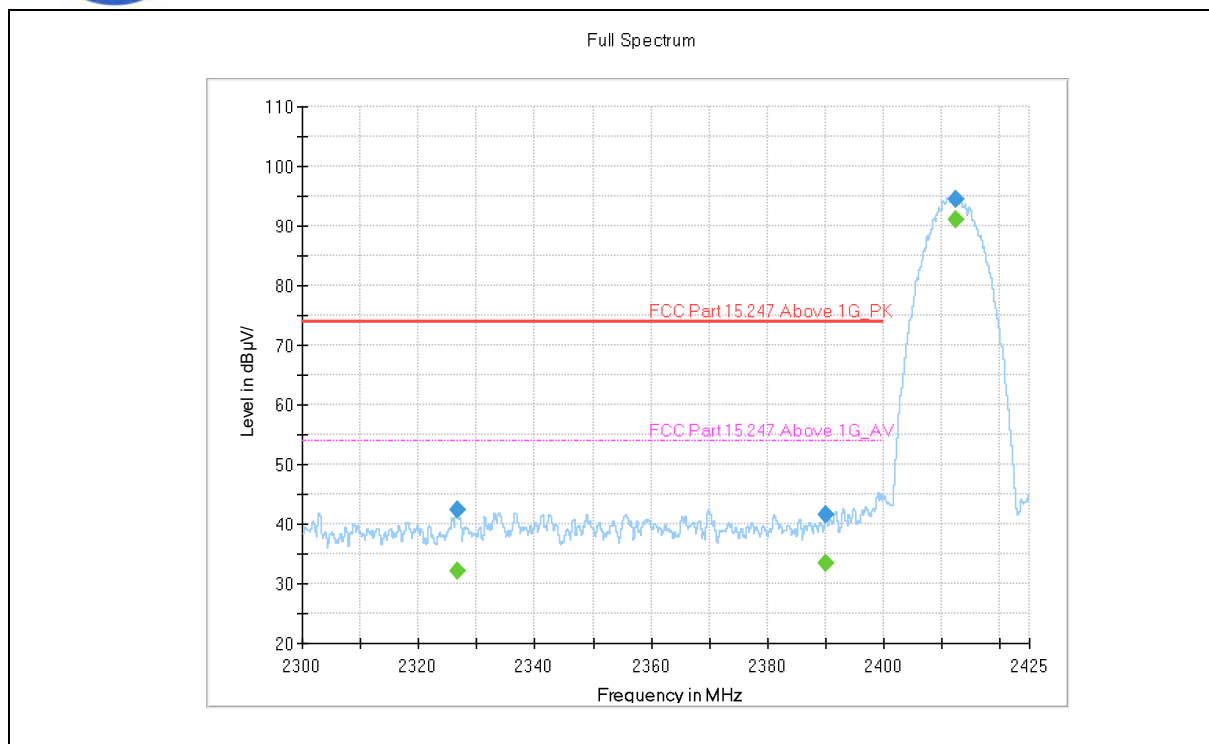
2.6.3. Test Result

802.11b Test mode



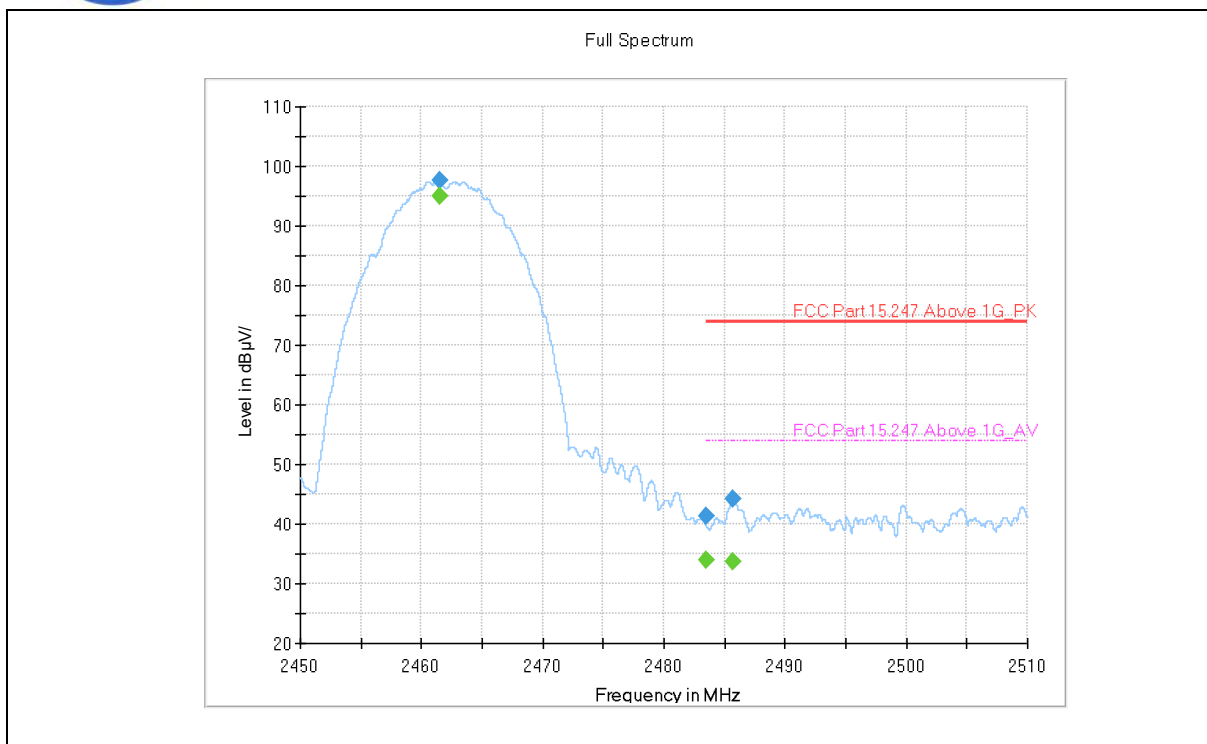
(802.11b _2412MHz, Antenna Horizontal)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
2371.312500	---	32.25	54.00	24.32	H	7.3
2371.312500	43.30	---	74.00	14.65	H	7.3
2390.006945	41.04	---	74.00	24.34	H	8.0
2390.006945	---	33.62	54.00	13.58	H	8.0
2411.631945	91.83	---	---	---	H	8.7
2411.631945	---	88.29	---	---	H	8.7



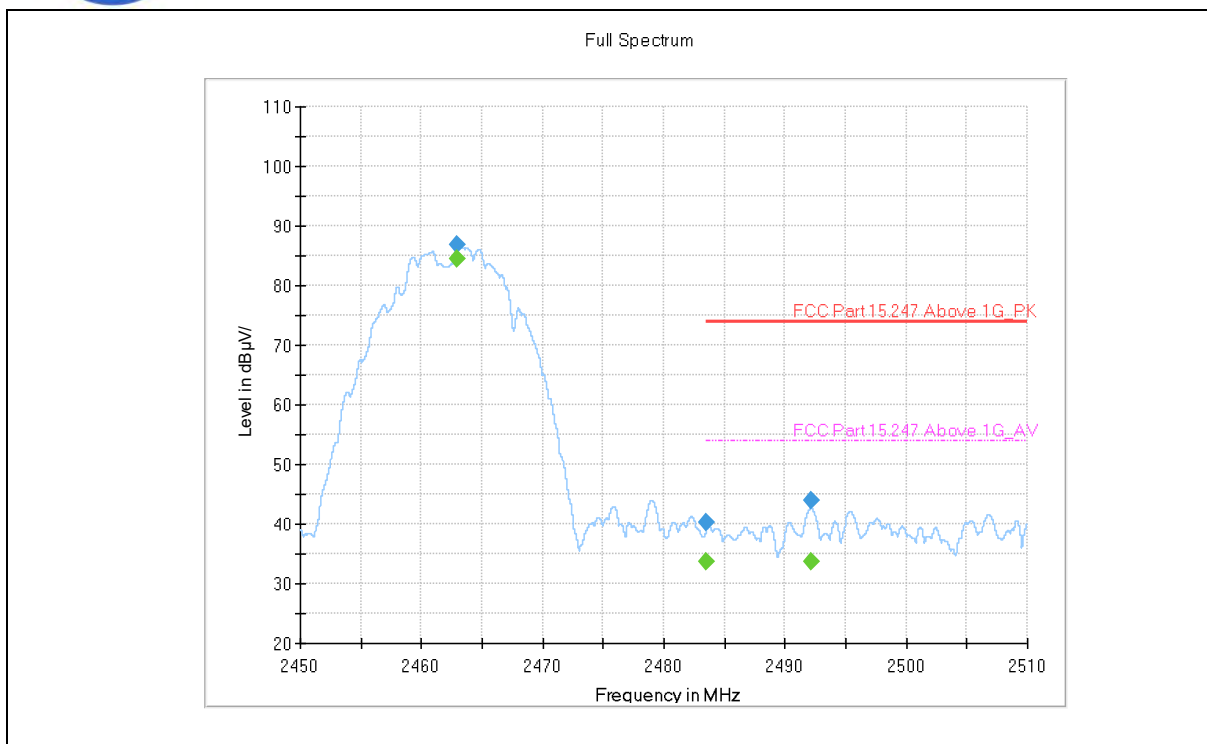
(802.11b _2412MHz, Antenna Vertical)

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2326.680556	---	32.17	54.00	32.24	V	7.3
2326.680556	42.34	---	74.00	22.24	V	7.3
2390.006945	41.64	---	74.00	35.94	V	8.0
2390.006945	---	33.45	54.00	23.08	V	8.0
2412.465278	94.42	---	---	---	V	8.7
2412.465278	---	90.97	---	---	V	8.7



(802.11b _2462MHz, Antenna Horizontal)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
2461.453333	---	94.92	---	---	H	7.9
2461.453333	97.75	---	---	---	H	7.9
2483.503333	41.23	---	74.00	32.77	H	8.3
2483.503333	---	33.95	54.00	20.05	H	8.3
2485.740000	44.15	---	74.00	29.85	H	8.3
2485.740000	---	33.57	54.00	20.43	H	8.3

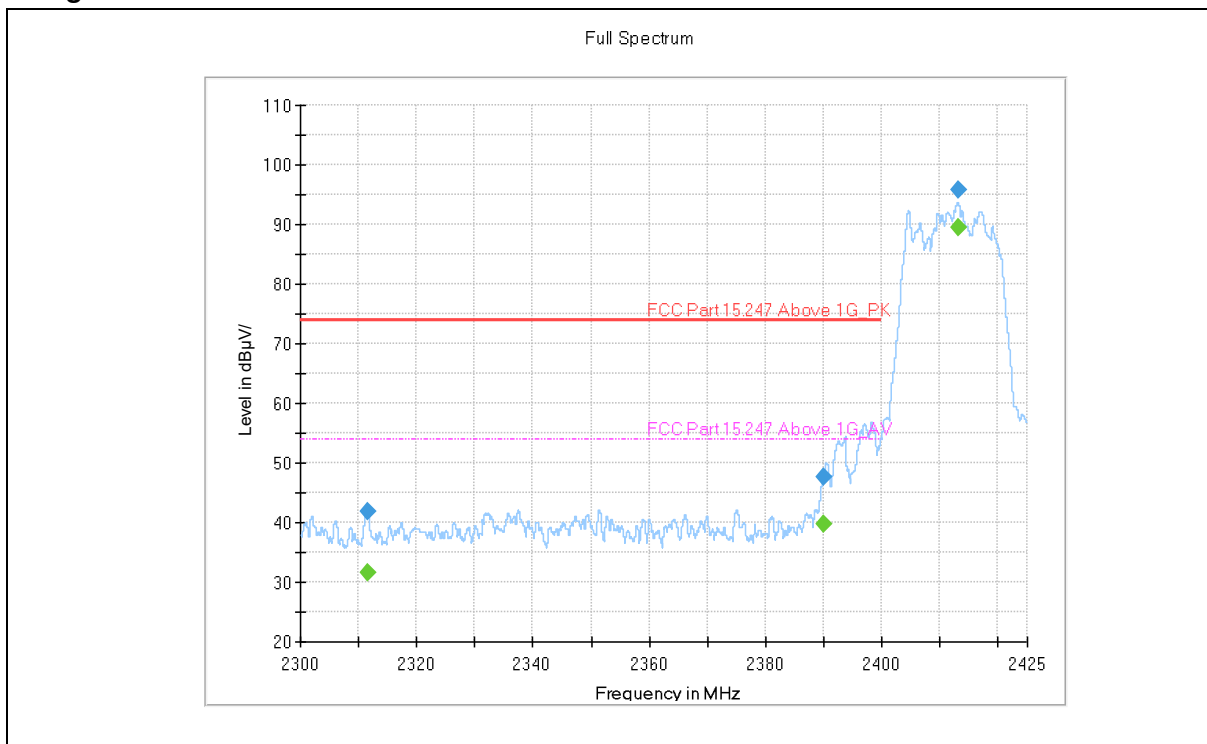


(802.11b _2462MHz, Antenna Vertical)

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2459.196667	---	91.97	---	---	V	7.9
2459.196667	94.83	---	---	---	V	7.9
2483.506667	---	29.72	54.00	24.28	V	8.3
2483.506667	38.59	---	74.00	35.41	V	8.3
2500.476667	---	29.60	54.00	24.40	V	8.4
2500.476667	40.43	---	74.00	33.57	V	8.4

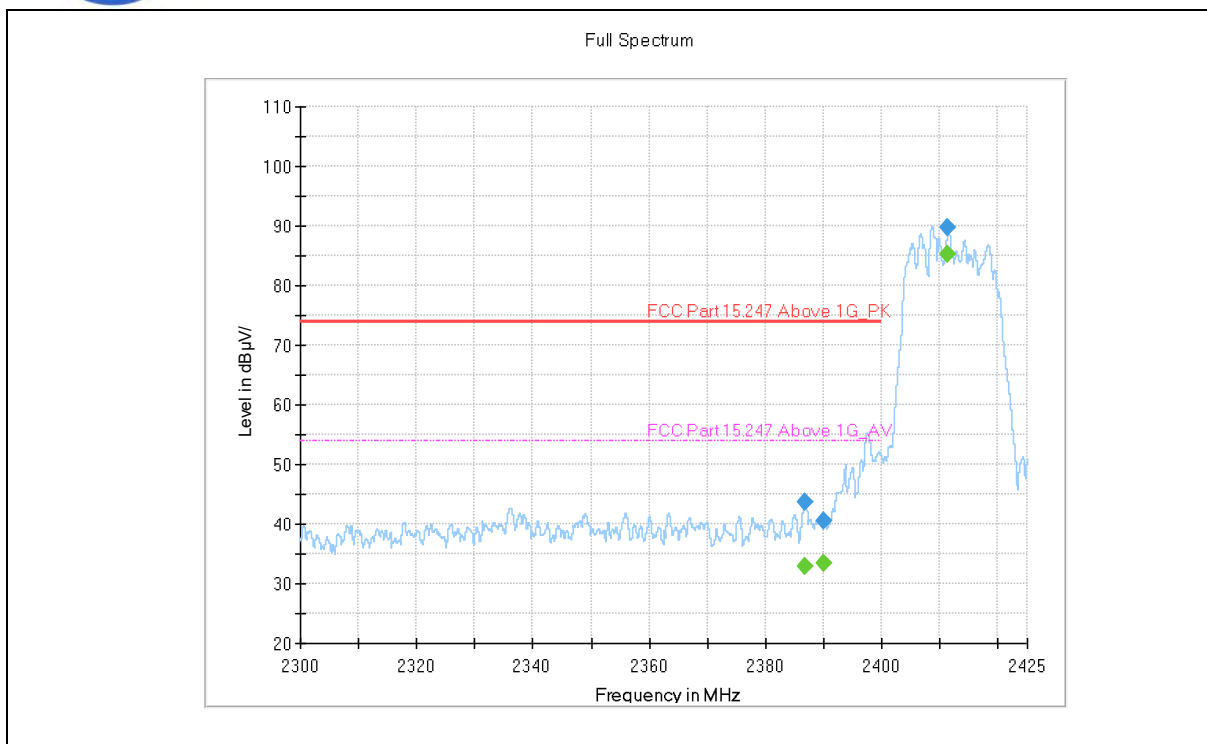


802.11g Test mode



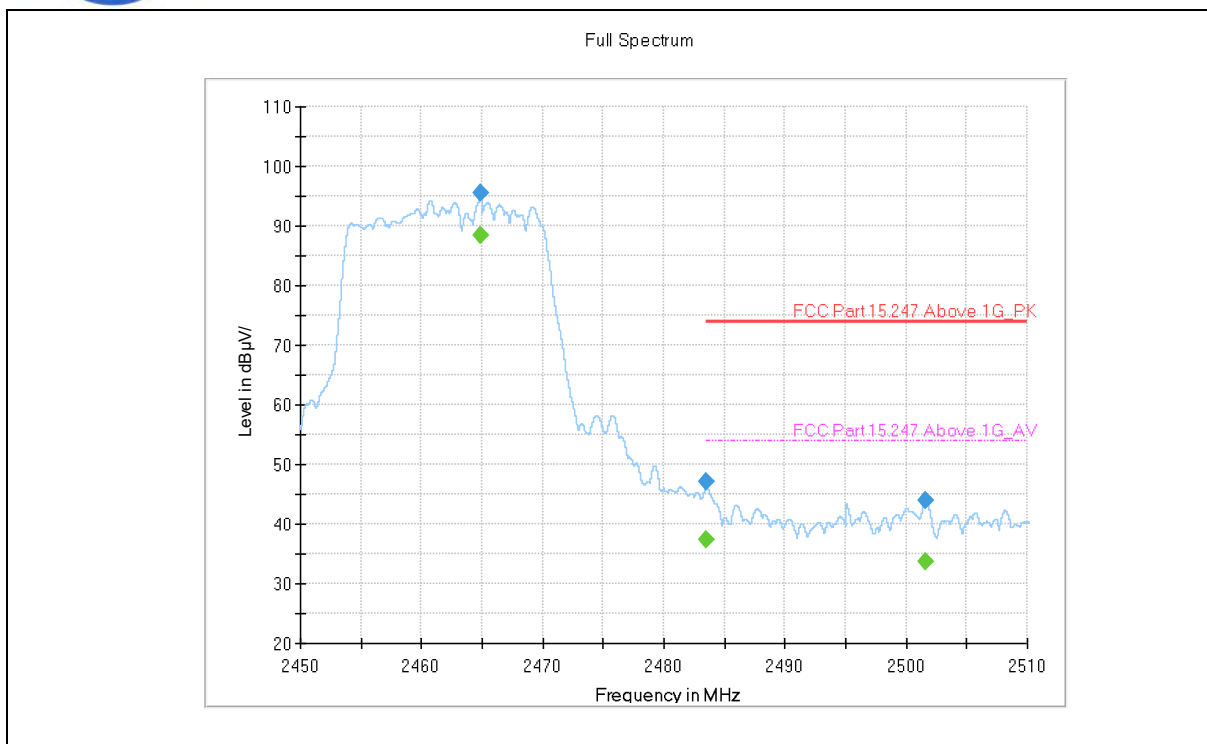
(802.11g _2412MHz, Antenna Horizontal)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
2311.493056	---	31.58	54.00	22.42	H	6.8
2311.493056	41.75	---	74.00	32.25	H	6.8
2390.000000	---	39.75	54.00	14.25	H	8.0
2390.000000	47.69	---	74.00	26.31	H	8.0
2413.243056	---	89.57	---	---	H	8.6
2413.243056	95.78	---	---	---	H	8.6

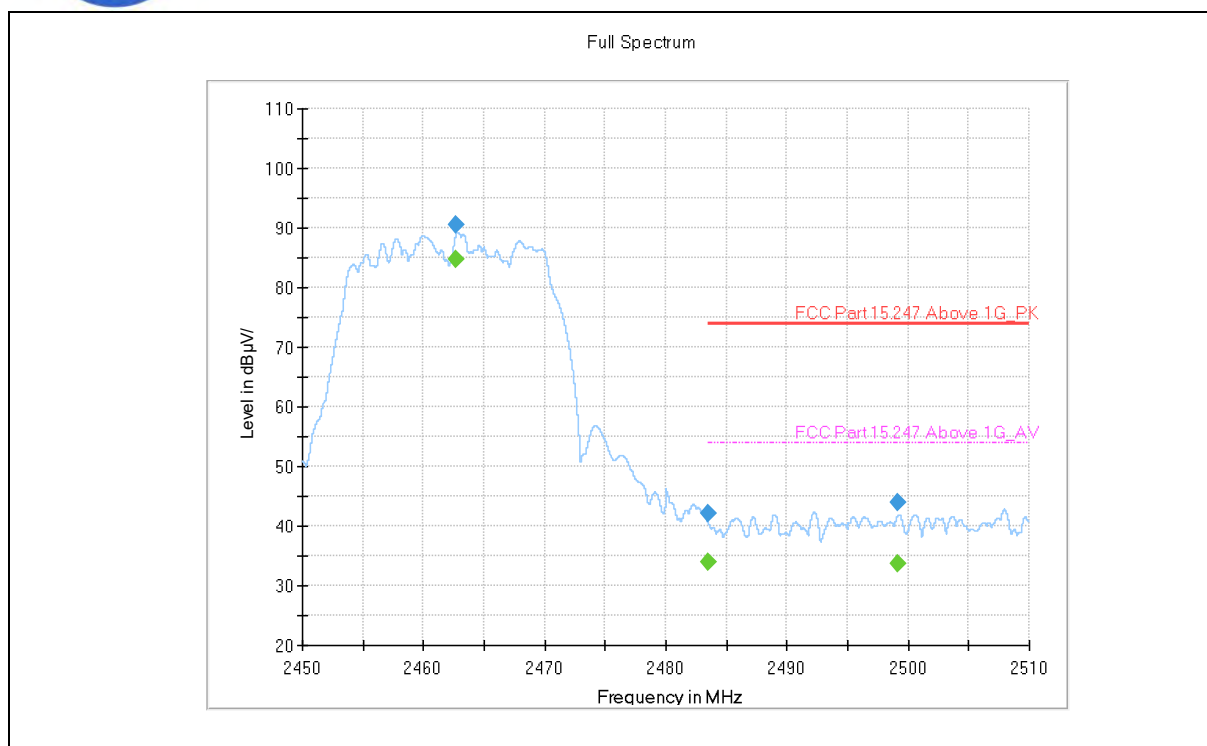


(802.11g _2412MHz, Antenna Vertical)

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2386.763889	43.57	---	74.00	30.43	V	7.8
2386.763889	---	32.94	54.00	21.06	V	7.8
2390.000000	---	33.47	54.00	20.53	V	8.0
2390.000000	40.44	---	74.00	33.56	V	8.0
2411.361111	89.78	---	---	---	V	8.7
2411.361111	---	85.20	---	---	V	8.7



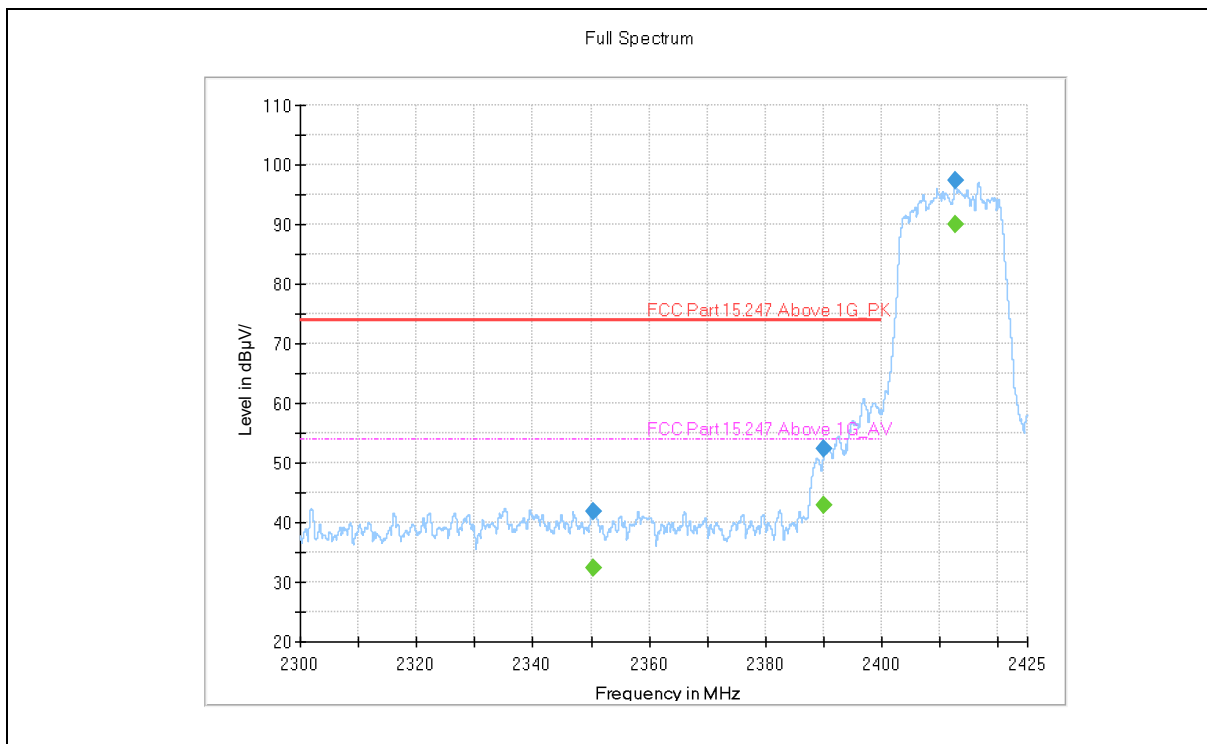
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
2464.823333	---	88.35	---	---	H	7.9
2464.823333	95.49	---	---	---	H	7.9
2483.550000	---	37.34	54.00	16.66	H	8.3
2483.550000	47.02	---	74.00	26.98	H	8.3
2501.630000	---	33.65	54.00	20.35	H	8.3
2501.630000	43.97	---	74.00	30.03	H	8.3



Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
2462.680000	90.41	---	---	---	V	7.9
2462.680000	---	84.83	---	---	V	7.9
2483.503333	42.18	---	74.00	31.82	V	8.3
2483.503333	---	33.83	54.00	20.17	V	8.3
2499.113333	---	33.65	54.00	20.35	V	8.4
2499.113333	43.96	---	74.00	30.04	V	8.4

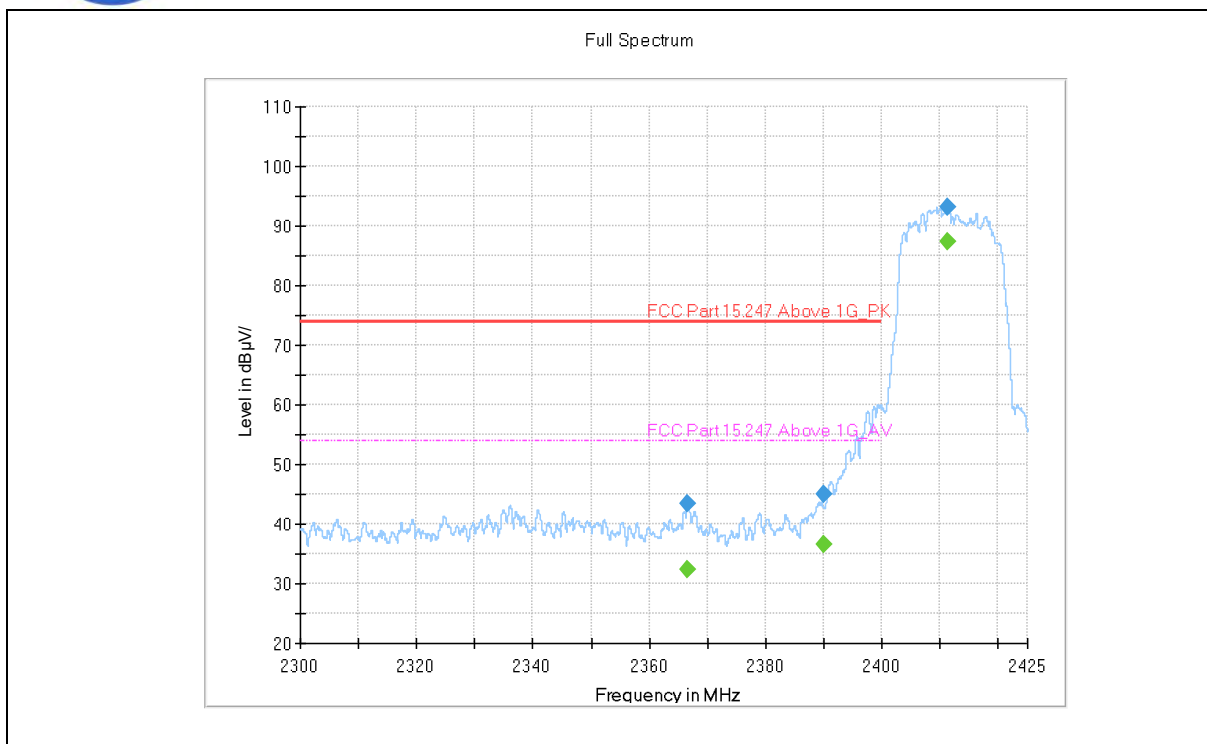


802.11n-20MHz Test mode



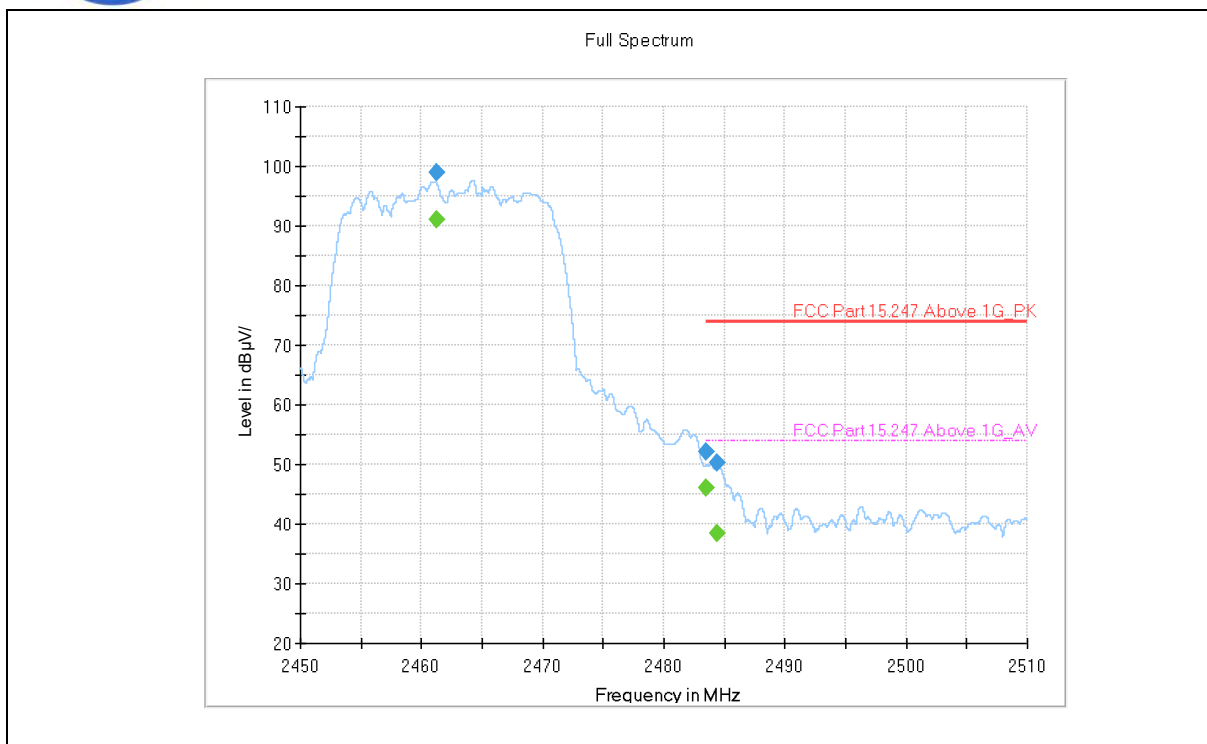
(802.11n_20M_2412MHz, Antenna Horizontal)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
2350.479167	---	32.32	54.00	21.68	H	7.7
2350.479167	41.91	---	74.00	32.09	H	7.7
2390.069445	---	43.02	54.00	10.98	H	8.0
2390.069445	52.31	---	74.00	21.69	H	8.0
2412.597222	---	89.91	---	---	H	8.6
2412.597222	97.39	---	---	---	H	8.6



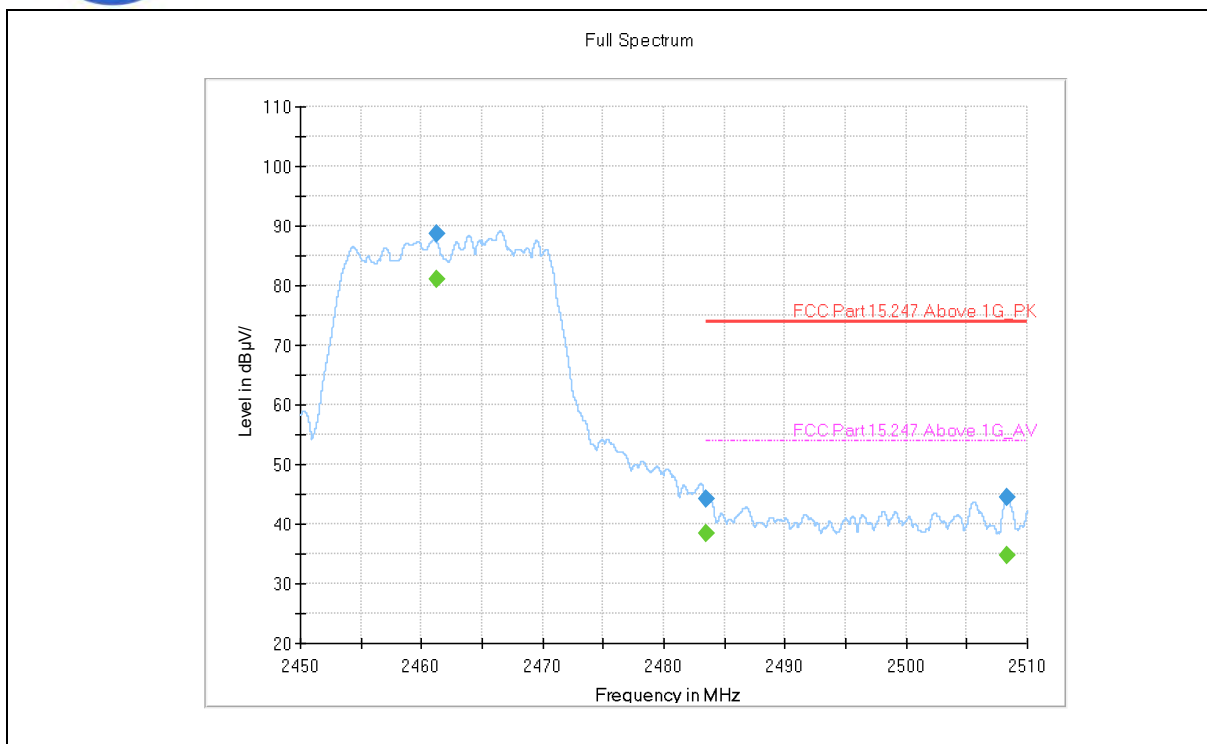
(802.11n_20M_2412MHz, Antenna Vertical)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
2366.465278	43.36	---	74.00	30.64	V	7.4
2366.465278	---	32.34	54.00	21.66	V	7.4
2390.041667	45.12	---	74.00	18.88	V	8.0
2390.041667	---	36.55	54.00	17.45	V	8.0
2411.361111	---	87.38	---	---	V	8.7
2411.361111	93.14	---	---	---	V	8.7



(802.11n_20M_2462MHz, Antenna Horizontal)

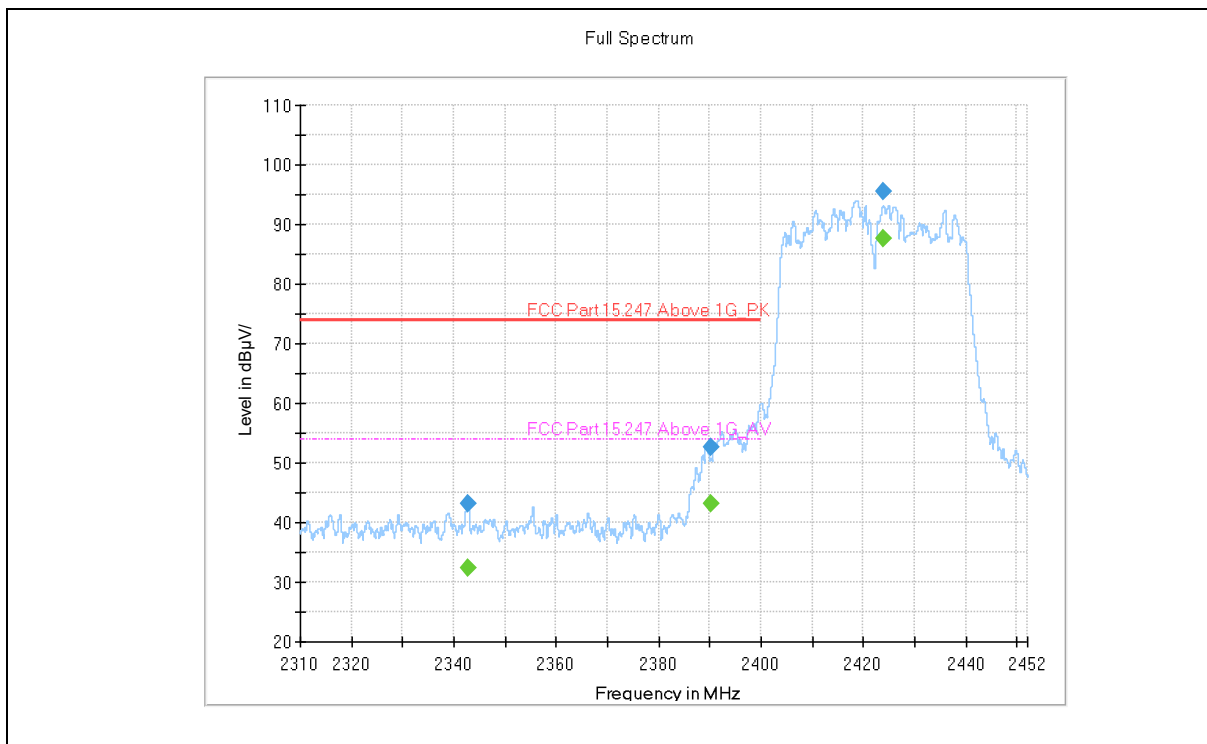
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
2461.300000	---	91.09	---	---	H	7.9
2461.300000	98.84	---	---	---	H	7.9
2483.506667	52.09	---	74.00	21.91	H	8.3
2483.506667	---	45.99	54.00	8.01	H	8.3
2484.393333	50.20	---	74.00	23.80	H	8.3
2484.393333	---	38.39	54.00	15.61	H	8.3



(802.11n_20M_2462MHz, Antenna Vertical)

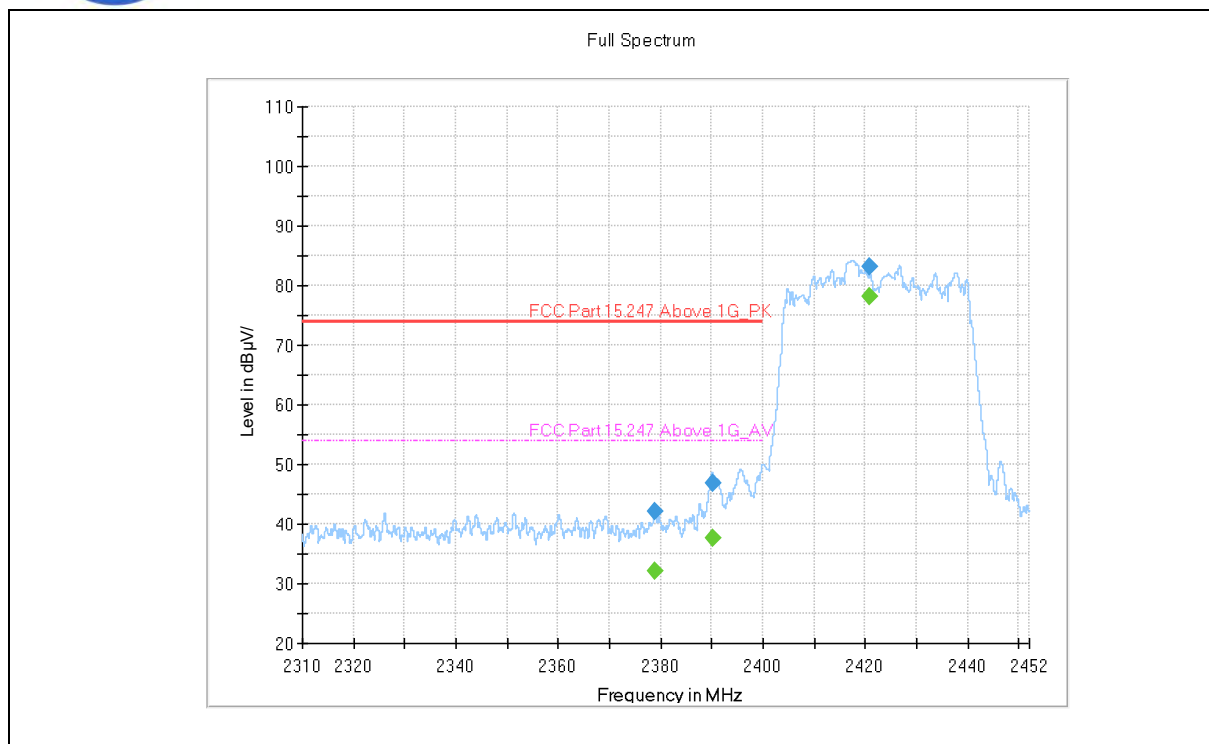
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2461.236667	---	81.17	---	---	V	7.9
2461.236667	88.71	---	---	---	V	7.9
2483.500000	44.27	---	74.00	29.73	V	8.3
2483.500000	---	38.39	54.00	15.61	V	8.3
2508.330000	44.59	---	74.00	29.41	V	8.3
2508.330000	---	34.68	54.00	19.32	V	8.3

802.11n-40MHz Test mode



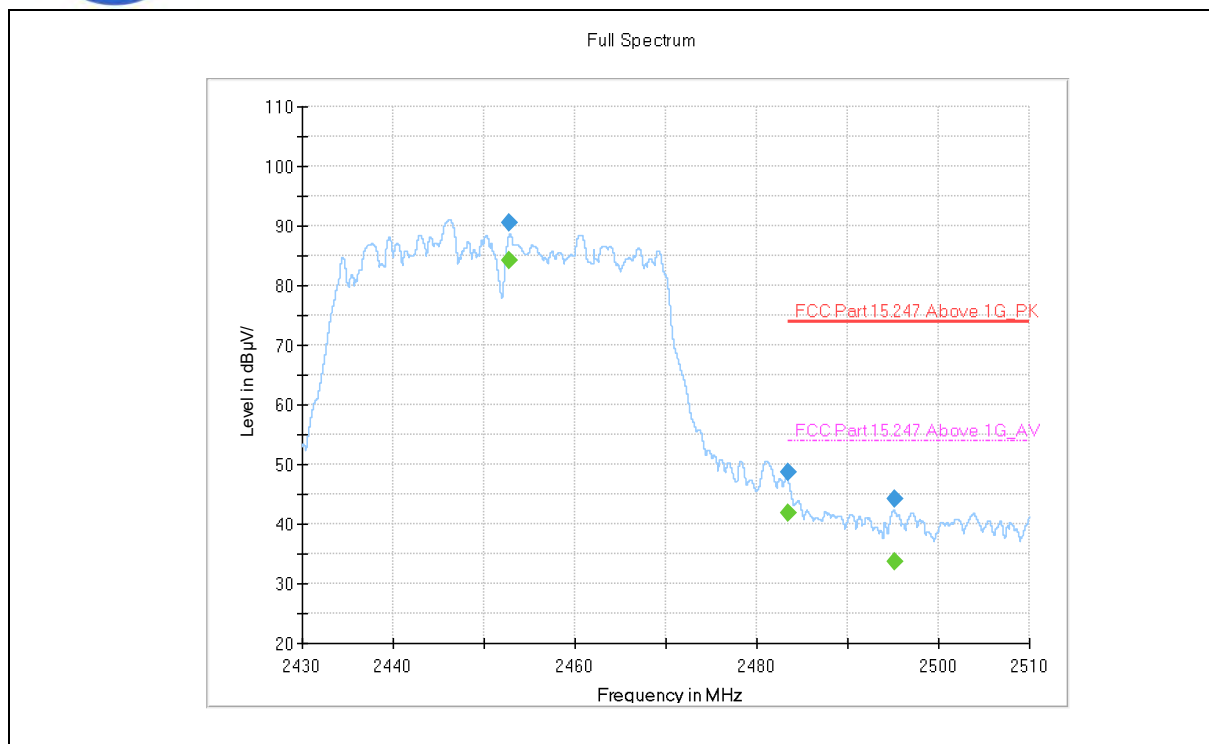
(802.11n_40M_2422MHz, Antenna Horizontal)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
2342.628445	---	32.25	54.00	21.75	H	7.6
2342.628445	43.25	---	74.00	30.75	H	7.6
2390.056445	52.59	---	74.00	21.41	H	8.0
2390.056445	---	43.12	54.00	10.88	H	8.0
2423.891889	95.44	---	---	---	H	8.6
2423.891889	---	87.58	---	---	H	8.6



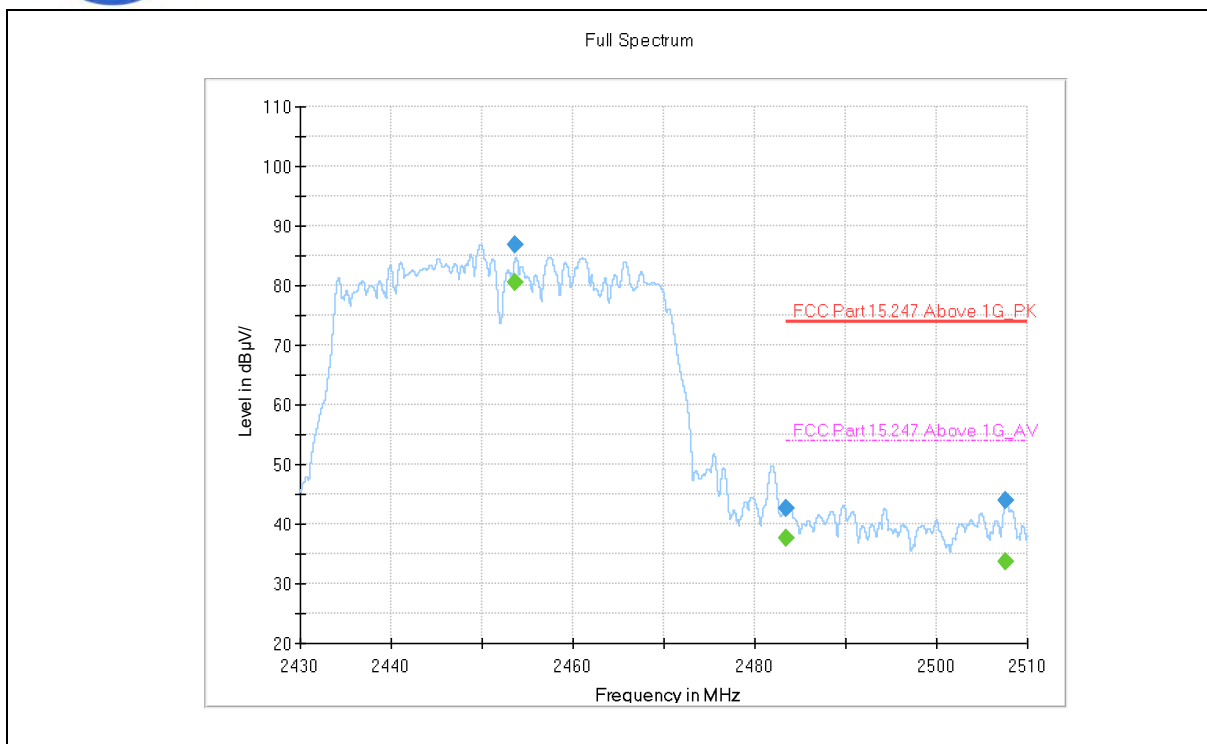
(802.11n_40M_2422MHz, Antenna Vertical)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
2378.948889	42.14	---	74.00	31.86	V	7.3
2378.948889	---	32.23	54.00	21.77	V	7.3
2390.040667	---	37.50	54.00	16.50	V	8.0
2390.040667	46.96	---	74.00	27.04	V	8.0
2420.720556	83.05	---	---	---	V	8.7
2420.720556	---	78.13	---	---	V	8.7



(802.11n_40M_2452MHz, Antenna Horizontal)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
2452.715556	90.45	---	---	---	H	7.8
2452.715556	---	84.09	---	---	H	7.8
2483.502222	48.75	---	74.00	25.25	H	8.3
2483.502222	---	41.77	54.00	12.23	H	8.3
2495.164445	---	33.75	54.00	20.25	H	8.4
2495.164445	44.19	---	74.00	29.81	H	8.4



(802.11n_40M_2452MHz, Antenna Vertical)

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2453.702222	86.72	---	---	---	V	7.8
2453.702222	---	80.41	---	---	V	7.8
2483.502222	---	37.59	54.00	16.41	V	8.3
2483.502222	42.68	---	74.00	31.32	V	8.3
2507.657778	43.99	---	74.00	30.01	V	8.3
2507.657778	---	33.61	54.00	20.39	V	8.3

2.7. Conducted Emission

2.7.1. Requirement

According to FCC section 15.207, 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 within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

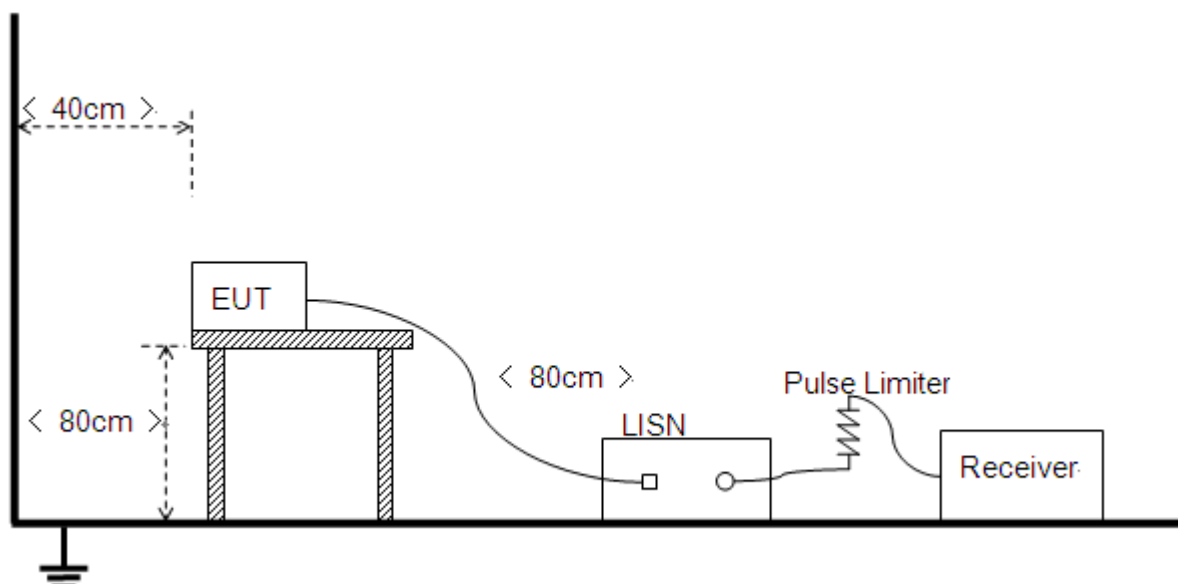
Frequency range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

NOTE:

- The lower limit shall apply at the band edges.
- The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

2.7.2. Test Description

A. Test Setup:



The Table-top EUT was placed upon a non-metallic table 0.8m above the horizontal metal reference ground plane. EUT was connected to LISN and LISN was connected to reference Ground Plane. EUT was 80cm from LISN. The set-up and test methods were according to ANSI C63.10 2013.



B. Equipments List:

Please refer ANNEX B(4).

2.7.3. Test Result

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

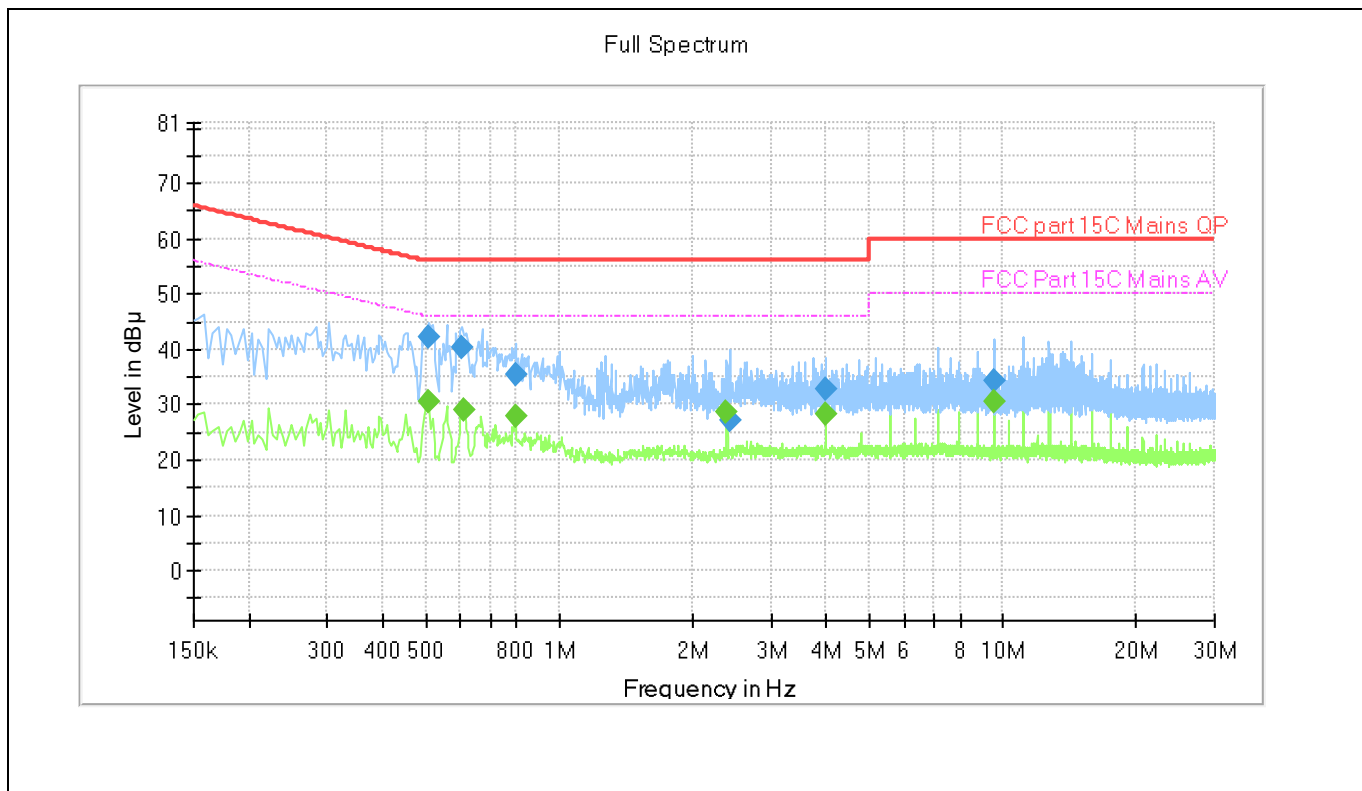
Note: Both of the test voltage AC 120V/60Hz and AC 230V/50Hz were considered and tested respectively, only the results of the worst case AC 120V/60Hz were recorded in this report.

A. Test setup:

The EUT configuration of the emission tests is EUT +Wlan Link.

Note: The test voltage is AC 120V/60Hz.

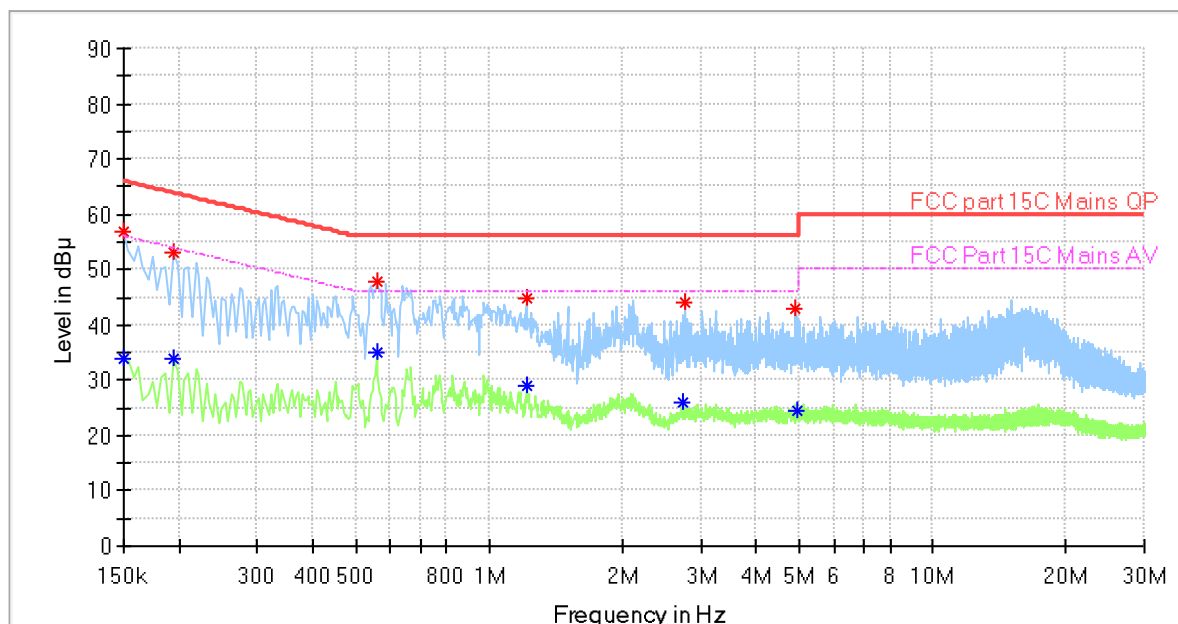
B. Test Plots:



(Plot A: L Phase)

Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.506000	---	30.50	46.00	15.50	L1	10.2
0.510000	42.22	---	56.00	13.78	L1	10.2
0.602000	40.31	---	56.00	15.69	L1	10.2
0.610000	---	28.85	46.00	17.15	L1	10.2
0.798000	35.56	---	56.00	20.44	L1	10.2
0.798000	---	27.73	46.00	18.27	L1	10.2
2.386000	---	28.77	46.00	17.23	L1	10.3
2.434000	27.11	---	56.00	28.89	L1	10.3
3.974000	32.71	---	56.00	23.29	L1	10.4
3.978000	---	28.16	46.00	17.84	L1	10.4
9.538000	34.41	---	60.00	25.59	L1	10.7
9.542000	---	30.71	50.00	19.29	L1	10.7

Full Spectrum



(Plot A: N Phase)

Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.150000	---	33.97	56.00	22.03	N	10.2
0.150000	56.72	---	66.00	9.28	N	10.2
0.194000	---	33.87	53.86	19.99	N	10.2
0.194000	53.25	---	63.86	10.62	N	10.2
0.558000	---	34.87	46.00	11.13	N	10.2
0.558000	47.66	---	56.00	8.34	N	10.2
1.214000	---	29.04	46.00	16.96	N	10.3
1.214000	44.89	---	56.00	11.11	N	10.3
2.746000	---	25.99	46.00	20.01	N	10.4
2.754000	43.97	---	56.00	12.03	N	10.4
4.914000	43.08	---	56.00	12.93	N	10.4
4.942000	---	24.51	46.00	21.49	N	10.4



2.8. Radiated Emission

2.8.1. Requirement

According to FCC section 15.247(d), radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

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

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
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

Note:

For Above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.

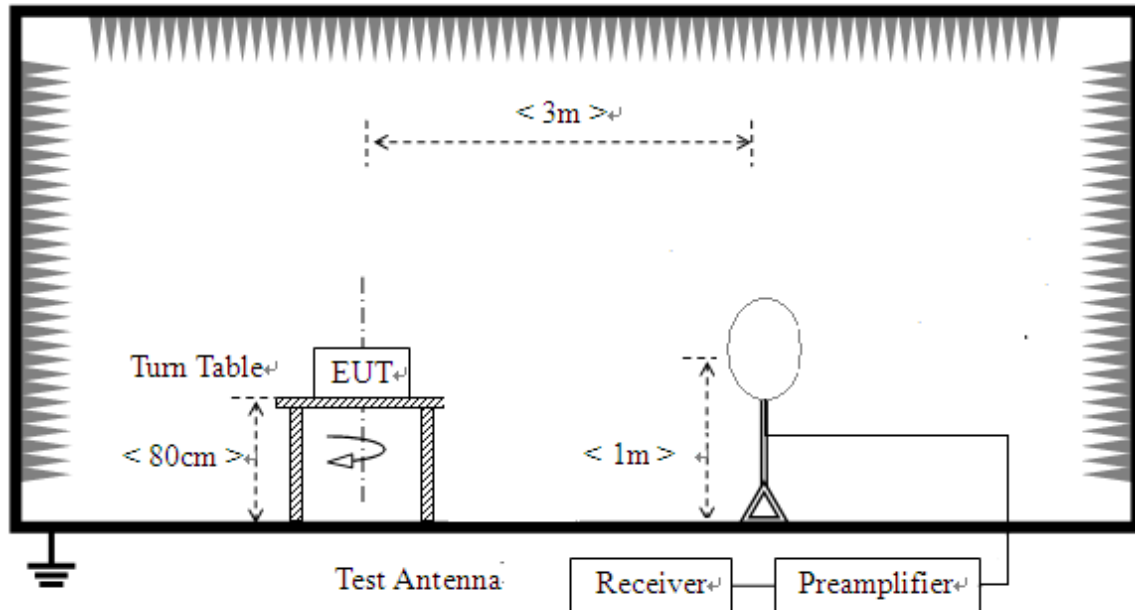
For above 1000MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK)

In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table)

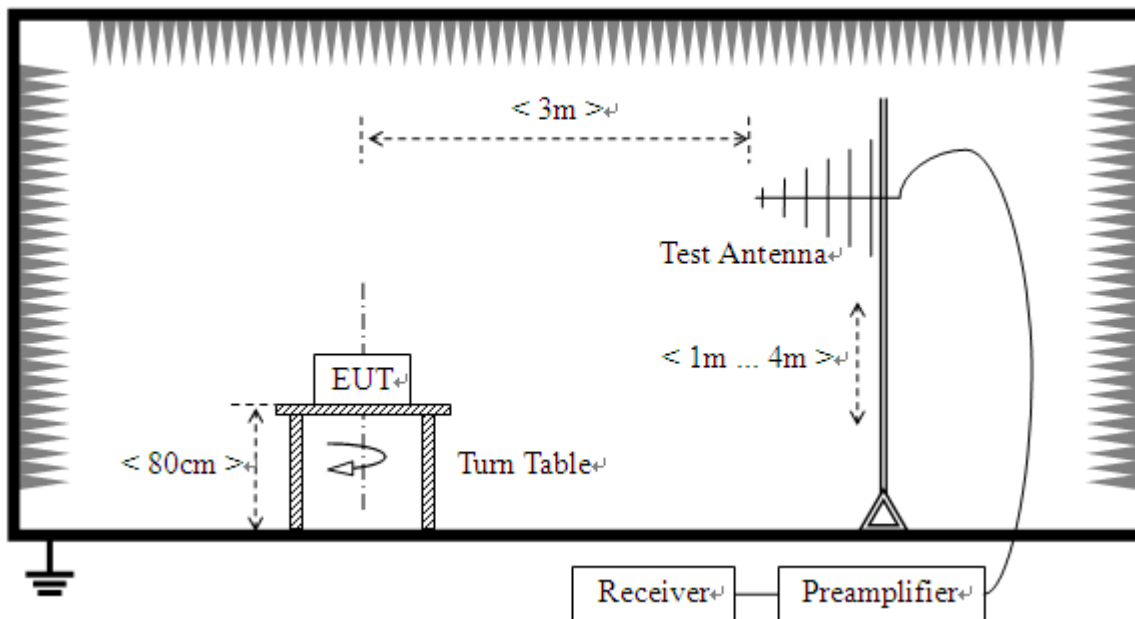
2.8.2. Test Description

A. Test Setup:

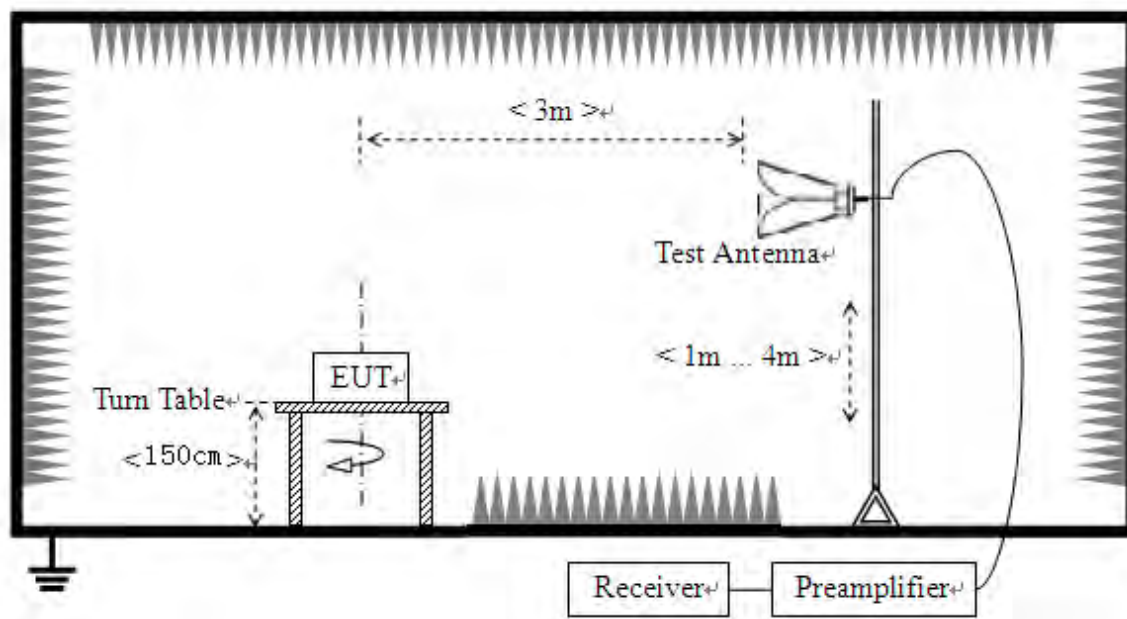
- 1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to 1GHz



3) For radiated emissions above 1GHz



The RF absorbing material used on the reference ground plane and on the turntable have a maximum height (thickness) of 30 cm (12 in) and have a minimum-rated attenuation of 20 dB at all frequencies from 1 GHz to 18 GHz. Test site have a minimum area of the ground plane covered with RF absorbing material as specified in Figure 6 of ANSI C63.4: 2014.

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4dB according to the standards: ANSI C63.10 (2013). For radiated emissions below or equal to 1GHz, The EUT was set-up on insulator 80cm above the Ground Plane, For radiated emissions above 1GHz, The EUT was set-up on insulator 150cm above the Ground Plane. The set-up and test methods were according to ANSI C63.10

For the radiated emission test above 1GHz:

Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane. The EUT is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading



For the Test Antenna:

(a) In the frequency range of 9kHz to 30MHz, magnetic field is measured with Loop Test Antenna. The Test Antenna is positioned with its plane vertical at 1m distance from the EUT. The center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates about its vertical axis for maximum response at each azimuth about the EUT.

(b) In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz) are used. Place the test antenna at 3m away from area of the EUT, while keeping the test antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The test antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final test antenna elevation shall be that which maximizes the emissions. The test antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane. The emission levels at both horizontal and vertical polarizations should be tested.

For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are



set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasipeak detection (QP) at frequency below 1GHz.

2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.

3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.

4. All modes of operation were investigated and the worst-case emissions are reported.

A. Equipments List:

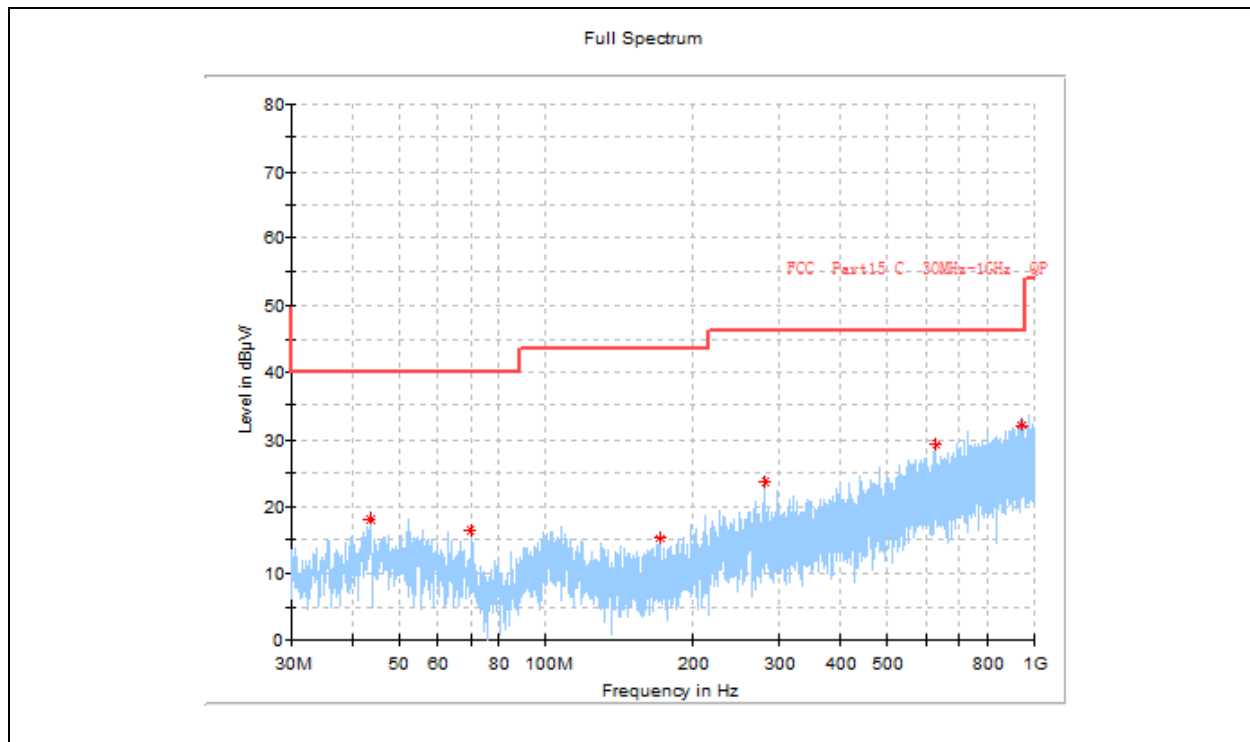
Please refer ANNEX B(4).

2.8.3. Test Result

Note1: For the frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

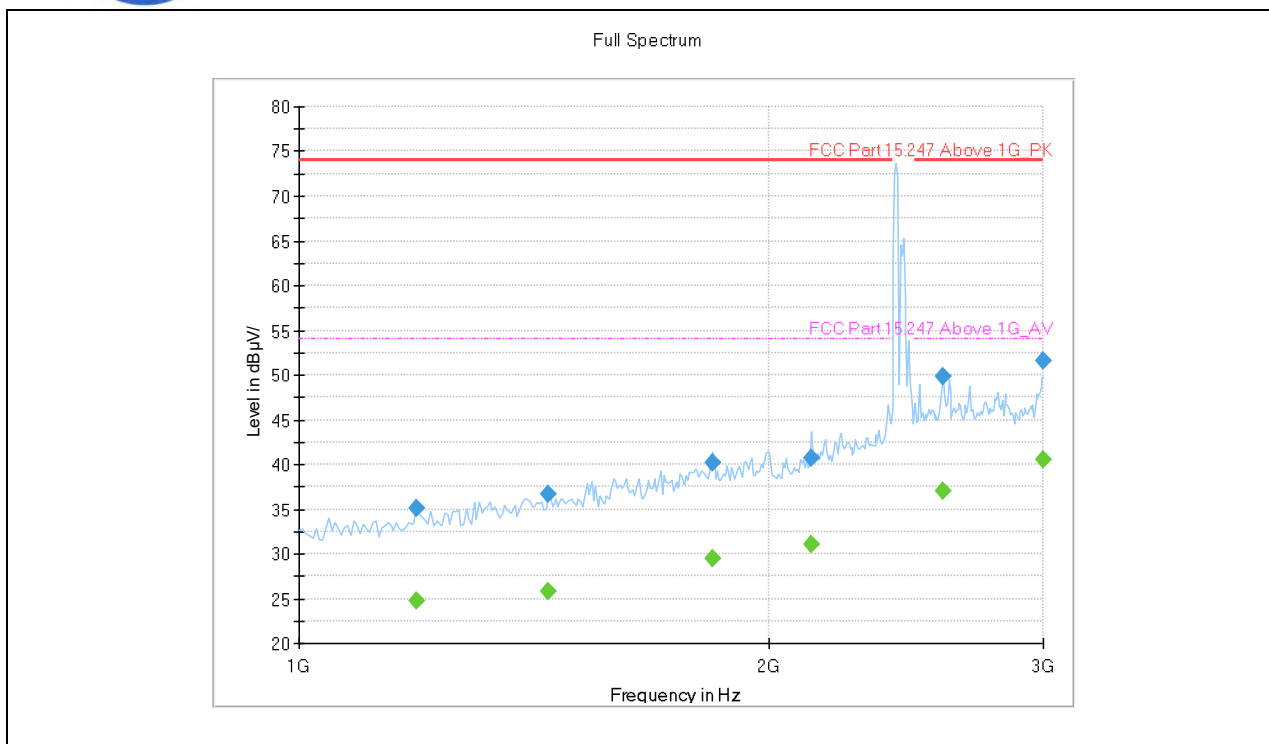
Note2: For the frequency, which started from 18GHz to 40GHz, was pre-scanned and the result which was 10dB lower than the limit was not recorded.

802.11b Test mode



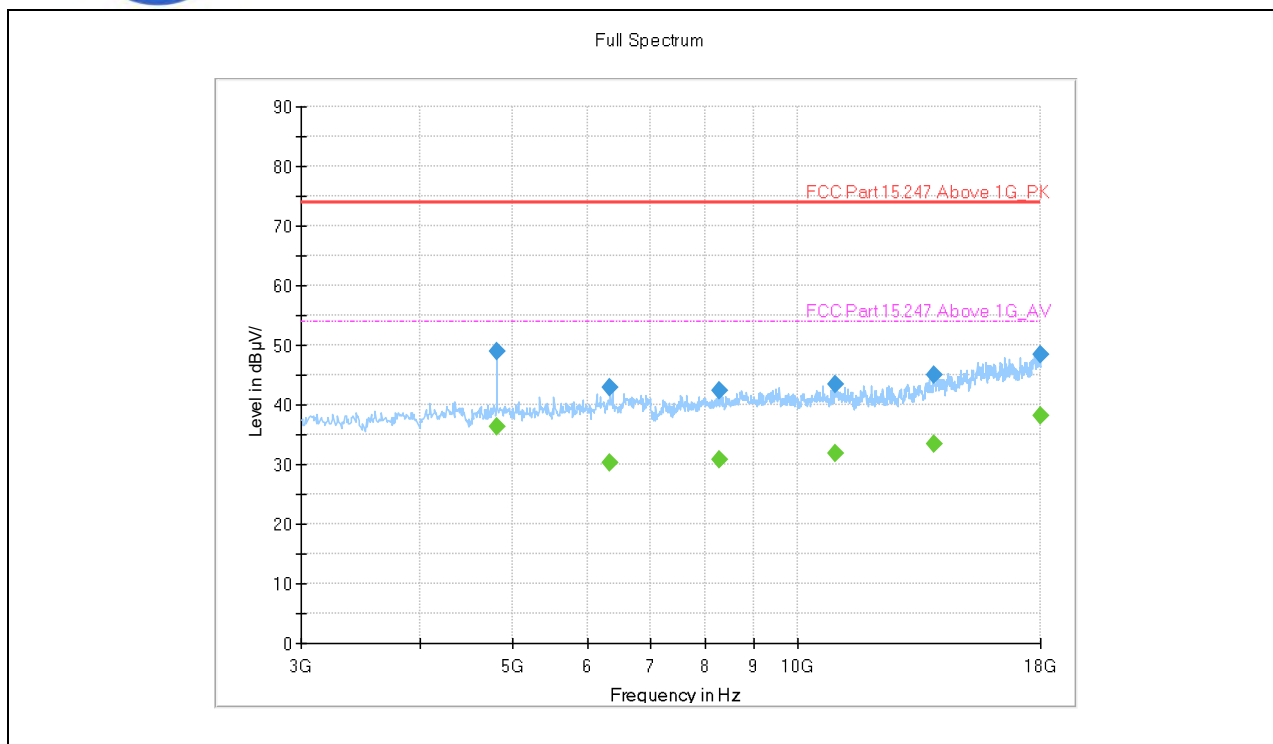
(802.11b _2412MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
43.660833	18.03	---	40.00	21.97	H	15.3
70.214583	16.48	---	40.00	23.52	H	12.0
171.498750	15.11	---	43.50	28.39	H	12.1
280.583333	23.68	---	46.00	22.32	H	16.7
629.904583	29.22	---	46.00	16.78	H	23.9
944.831250	31.94	---	46.00	14.06	H	28.3



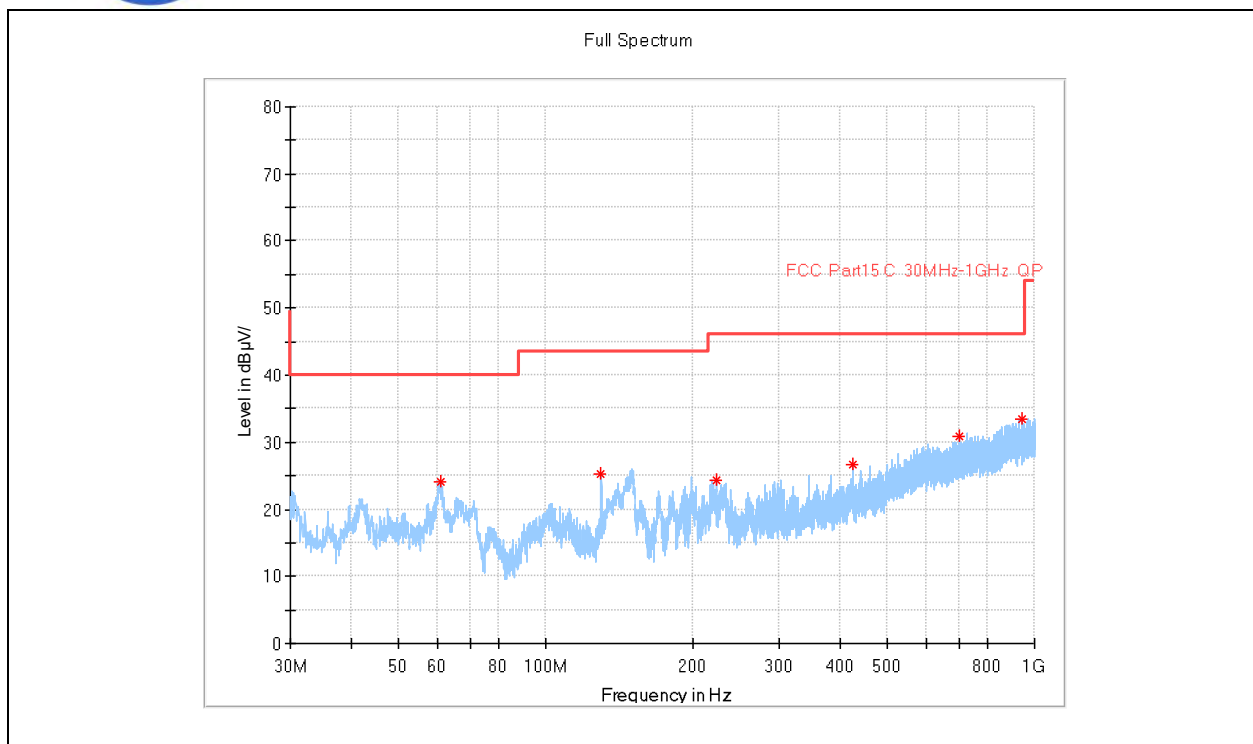
(802.11b _2412MHz, Antenna Horizontal, 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1190.000000	---	24.70	54.00	29.30	H	-0.8
1190.000000	35.13	---	74.00	38.87	H	-0.8
1445.000000	36.75	---	74.00	37.25	H	1.1
1445.000000	---	25.82	54.00	28.18	H	1.1
1840.000000	40.16	---	74.00	33.84	H	5.9
1840.000000	---	29.52	54.00	24.48	H	5.9
2130.000000	40.78	---	74.00	33.22	H	8.2
2130.000000	---	31.11	54.00	22.89	H	8.2
2590.000000	---	37.05	54.00	16.95	H	14.5
2590.000000	49.81	---	74.00	24.19	H	14.5
3000.000000	51.52	---	74.00	22.48	H	18.4
3000.000000	---	40.56	54.00	13.44	H	18.4



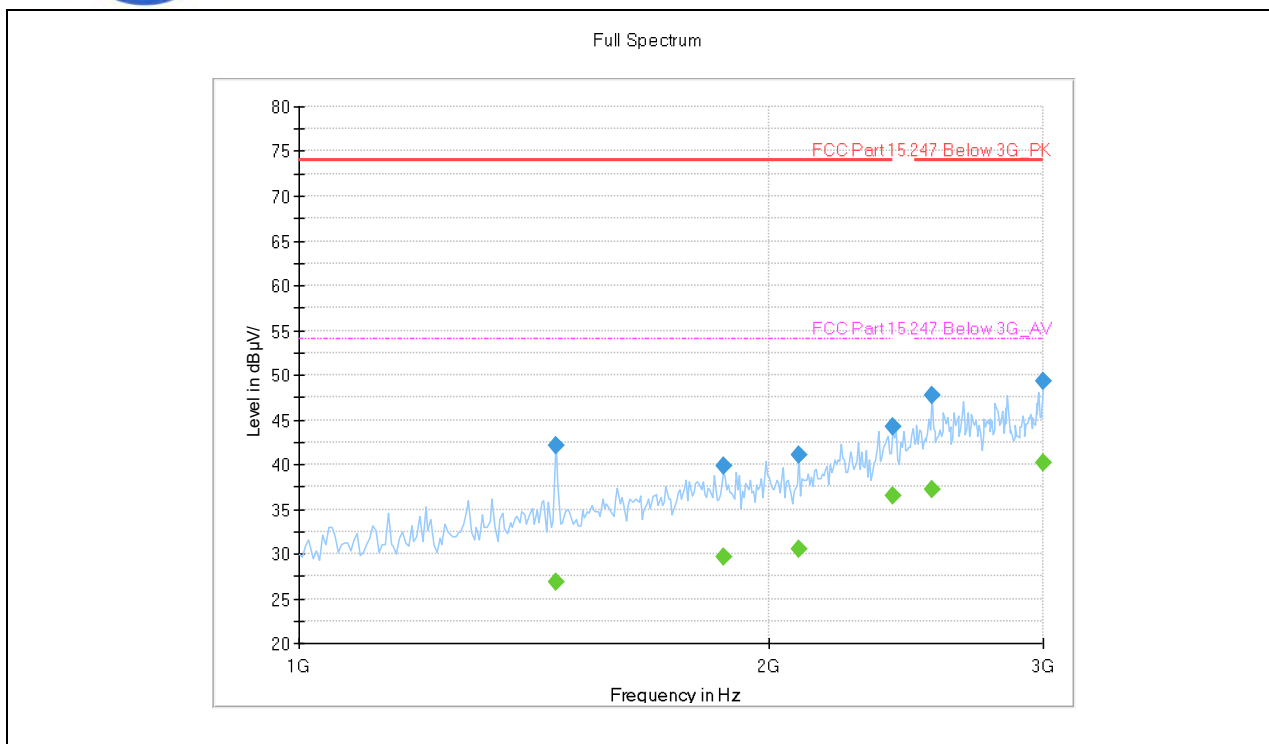
(802.11b _2412MHz, Antenna Horizontal, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4822.500000	49.05	---	74.00	24.95	H	-3.2
4822.500000	---	36.30	54.00	17.70	H	-3.2
6345.000000	---	30.33	54.00	23.67	H	-1.0
6345.000000	42.81	---	74.00	31.19	H	-1.0
8265.000000	---	30.74	54.00	23.26	H	1.3
8265.000000	42.40	---	74.00	31.60	H	1.3
10942.50000	---	31.79	54.00	22.21	H	3.3
10942.50000	43.34	---	74.00	30.66	H	3.3
13897.50000	45.01	---	74.00	28.99	H	7.6
13897.50000	---	33.49	54.00	20.51	H	7.6
17992.50000	---	38.26	54.00	15.74	H	15.0
17992.50000	48.41	---	74.00	25.59	H	15.0



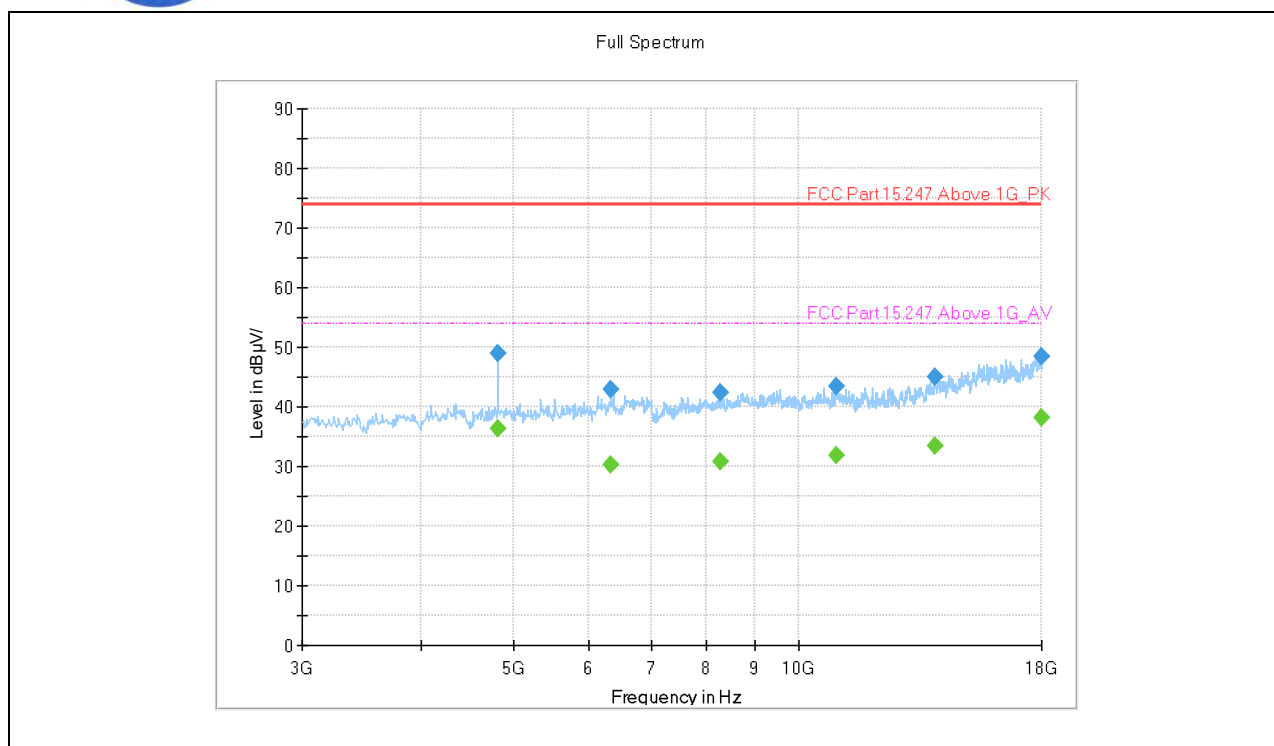
(802.11b _2412MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
60.999583	24.19	---	40.00	15.81	V	14.2
129.869583	25.17	---	43.50	18.33	V	12.3
222.989583	24.42	---	46.00	21.58	V	14.3
424.143333	26.56	---	46.00	19.44	V	19.8
701.037917	30.96	---	46.00	15.04	V	24.9
941.719167	33.37	---	46.00	12.63	V	28.4



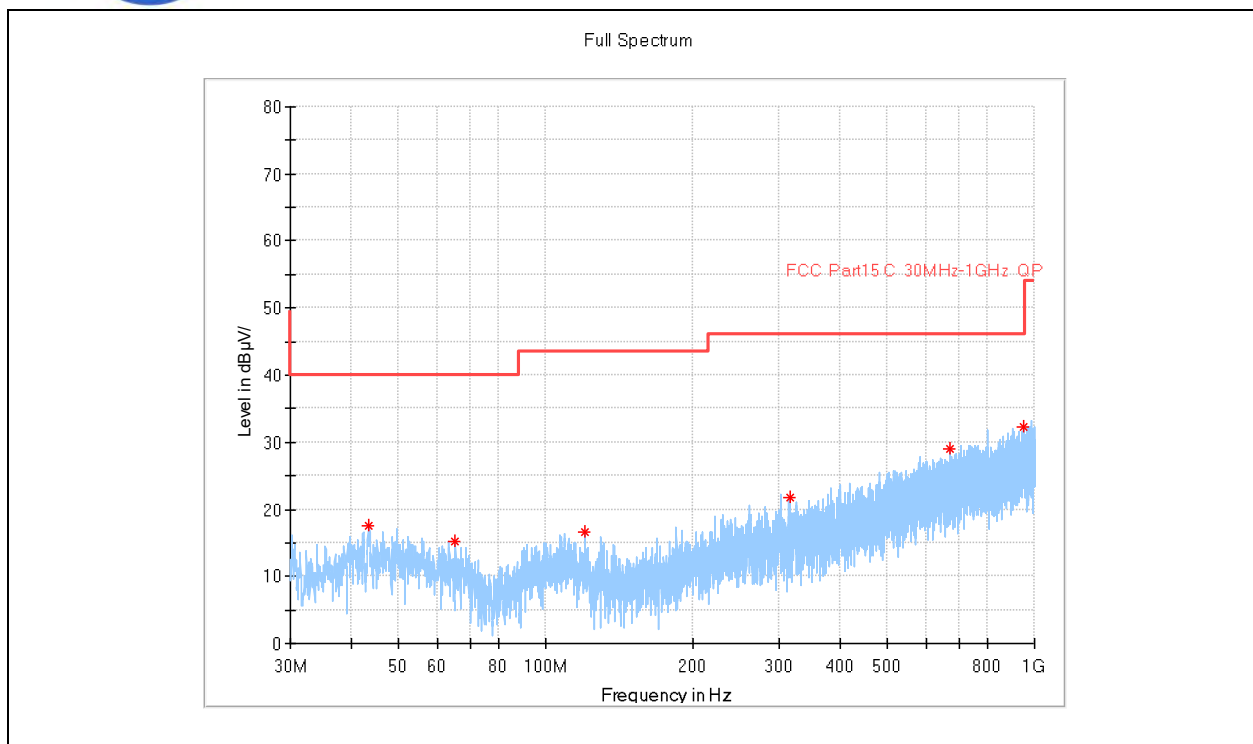
(802.11b _2412MHz, Antenna Vertical , 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
1460.000000	---	26.77	54.00	27.23	V	1.6
1460.000000	42.18	---	74.00	31.82	V	1.6
1870.000000	---	29.69	54.00	24.31	V	5.9
1870.000000	39.83	---	74.00	34.17	V	5.9
2090.000000	---	30.58	54.00	23.42	V	7.5
2090.000000	40.98	---	74.00	33.02	V	7.5
2400.000000	44.16	---	74.00	29.84	V	13.5
2400.000000	---	36.50	54.00	17.50	V	13.5
2545.000000	47.70	---	74.00	26.30	V	14.6
2545.000000	---	37.18	54.00	16.82	V	14.6
3000.000000	---	40.15	54.00	13.85	V	18.4
3000.000000	49.29	---	74.00	24.71	V	18.4



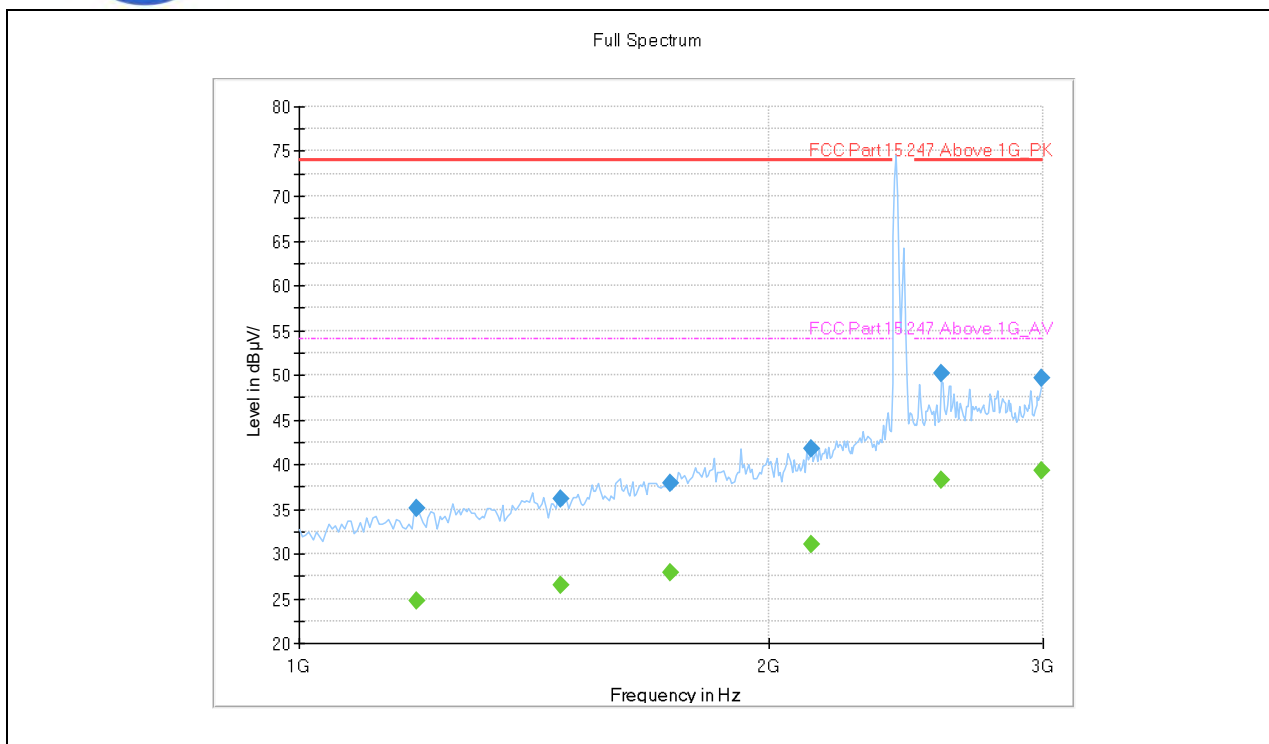
(802.11b _2412MHz, Antenna Vertical, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4822.500000	49.05	---	74.00	24.95	V	-3.2
4822.500000	---	36.30	54.00	17.70	V	-3.2
6345.000000	---	30.33	54.00	23.67	V	-1.0
6345.000000	42.81	---	74.00	31.19	V	-1.0
8265.000000	---	30.74	54.00	23.26	V	1.3
8265.000000	42.40	---	74.00	31.60	V	1.3
10942.50000	---	31.79	54.00	22.21	V	3.3
10942.50000	43.34	---	74.00	30.66	V	3.3
13897.50000	45.01	---	74.00	28.99	V	7.6
13897.50000	---	33.49	54.00	20.51	V	7.6
17992.50000	---	38.26	54.00	15.74	V	15.0
17992.50000	48.41	---	74.00	25.59	V	15.0



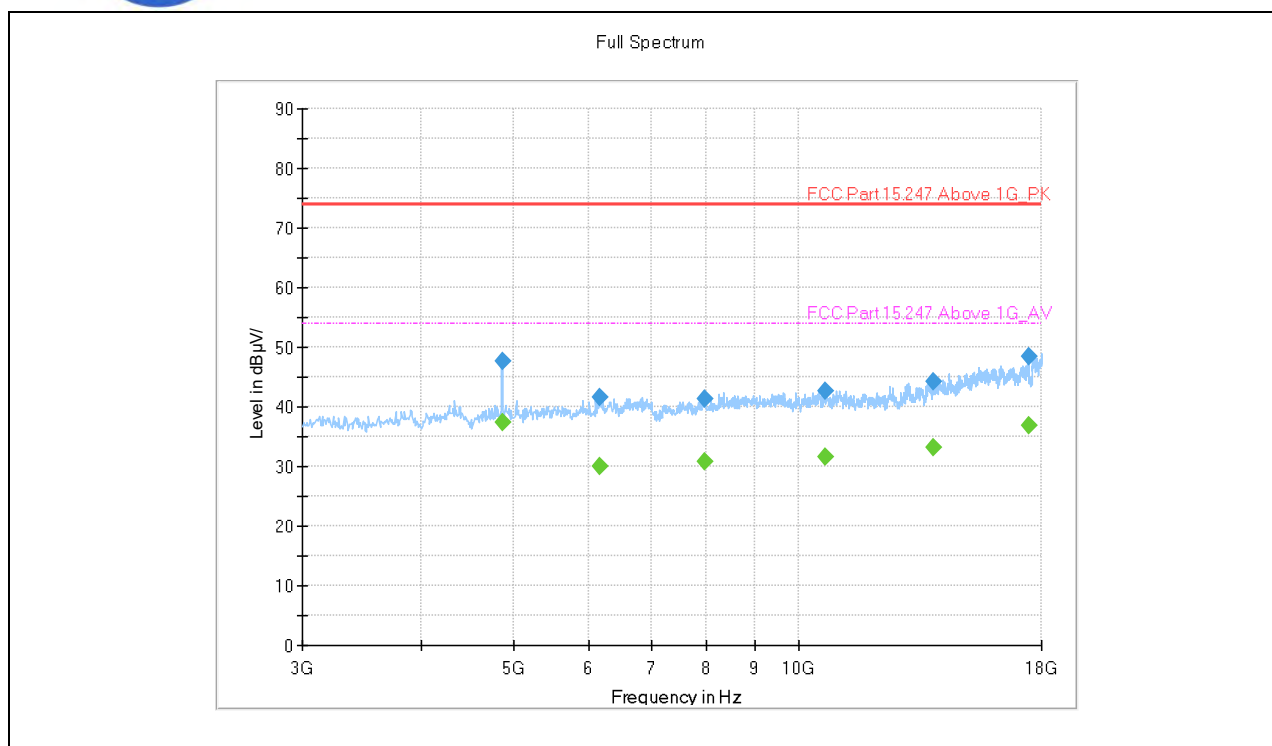
(802.11b _2437MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
43.539583	17.48	---	40.00	22.52	H	15.4
65.324167	15.25	---	40.00	24.75	H	10.6
120.290833	16.67	---	43.50	26.83	H	13.9
316.028750	21.82	---	46.00	24.18	H	17.3
669.997917	29.10	---	46.00	16.90	H	19.3
951.338333	32.22	---	46.00	13.78	H	28.1



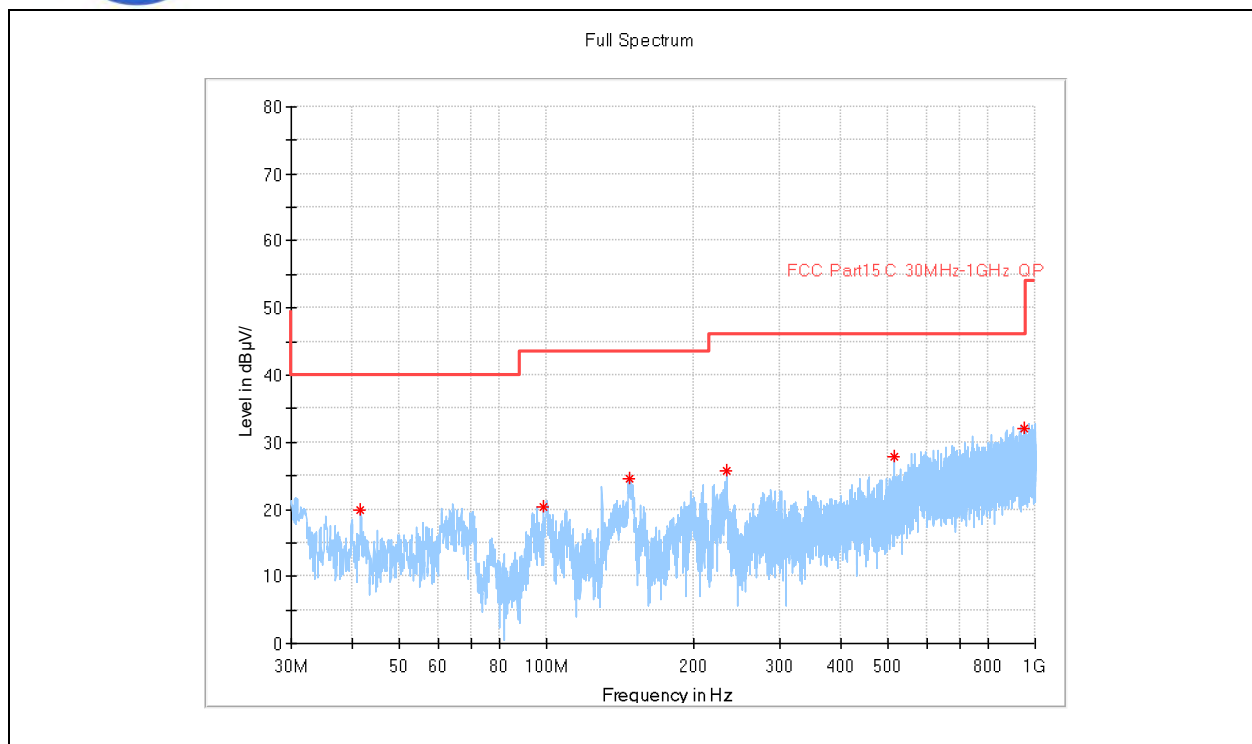
(802.11b _2437MHz, Antenna Horizontal, 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
1190.000000	35.05	---	74.00	38.95	H	-0.8
1190.000000	---	24.76	54.00	29.24	H	-0.8
1470.000000	36.08	---	74.00	37.92	H	1.7
1470.000000	---	26.42	54.00	27.58	H	1.7
1730.000000	37.94	---	74.00	36.06	H	4.1
1730.000000	---	27.98	54.00	26.02	H	4.1
2130.000000	---	31.10	54.00	22.90	H	8.2
2130.000000	41.81	---	74.00	32.19	H	8.2
2580.000000	50.24	---	74.00	23.76	H	13.9
2580.000000	---	38.24	54.00	15.76	H	13.9
2995.000000	---	39.35	54.00	14.65	H	17.9
2995.000000	49.72	---	74.00	24.28	H	17.9



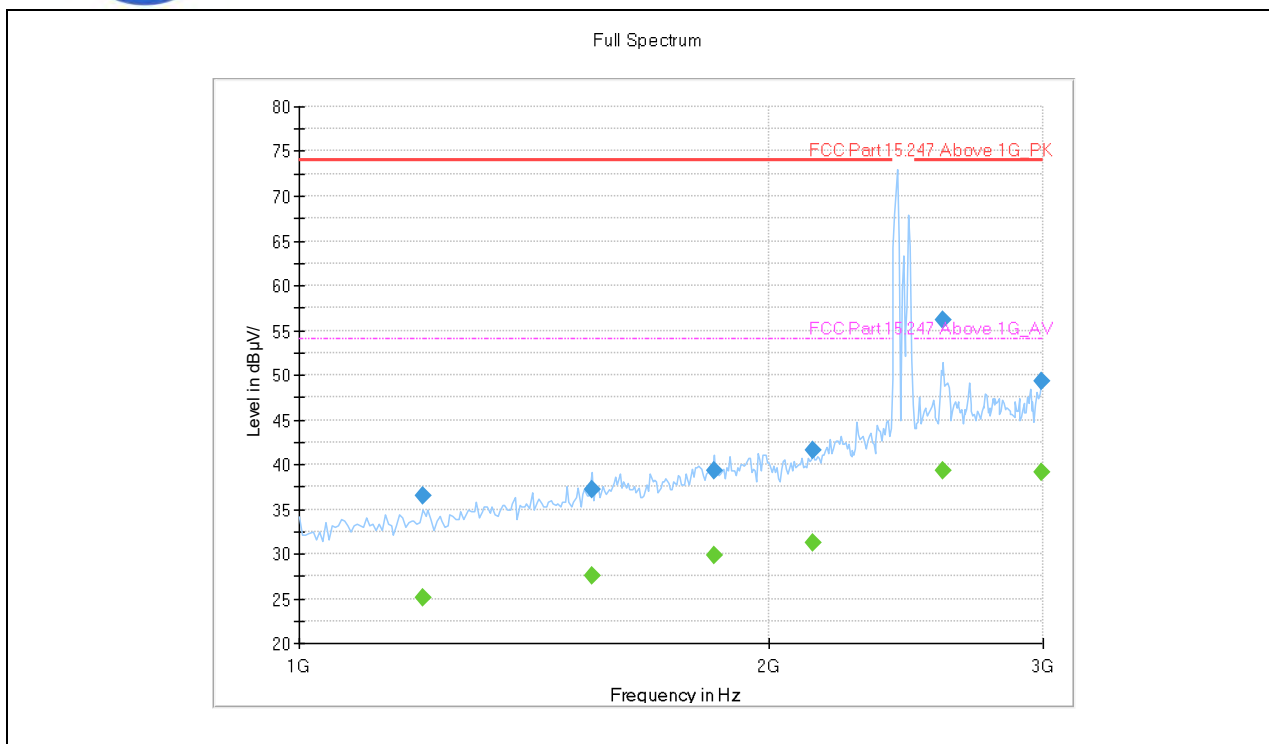
(802.11b _2437MHz, Antenna Horizontal, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4875.000000	47.65	---	74.00	26.35	H	-2.9
4875.000000	---	37.37	54.00	16.63	H	-2.9
6172.500000	---	30.05	54.00	23.95	H	-1.6
6172.500000	41.60	---	74.00	32.40	H	-1.6
7957.500000	---	30.74	54.00	23.26	H	1.4
7957.500000	41.24	---	74.00	32.76	H	1.4
10665.00000	42.69	---	74.00	29.31	H	2.6
10665.00000	---	31.52	54.00	22.48	H	2.6
13852.50000	---	33.05	54.00	20.95	H	7.2
13852.50000	44.20	---	74.00	29.80	H	7.2
17437.50000	---	36.92	54.00	17.08	H	13.3
17437.50000	48.39	---	74.00	25.61	H	13.3



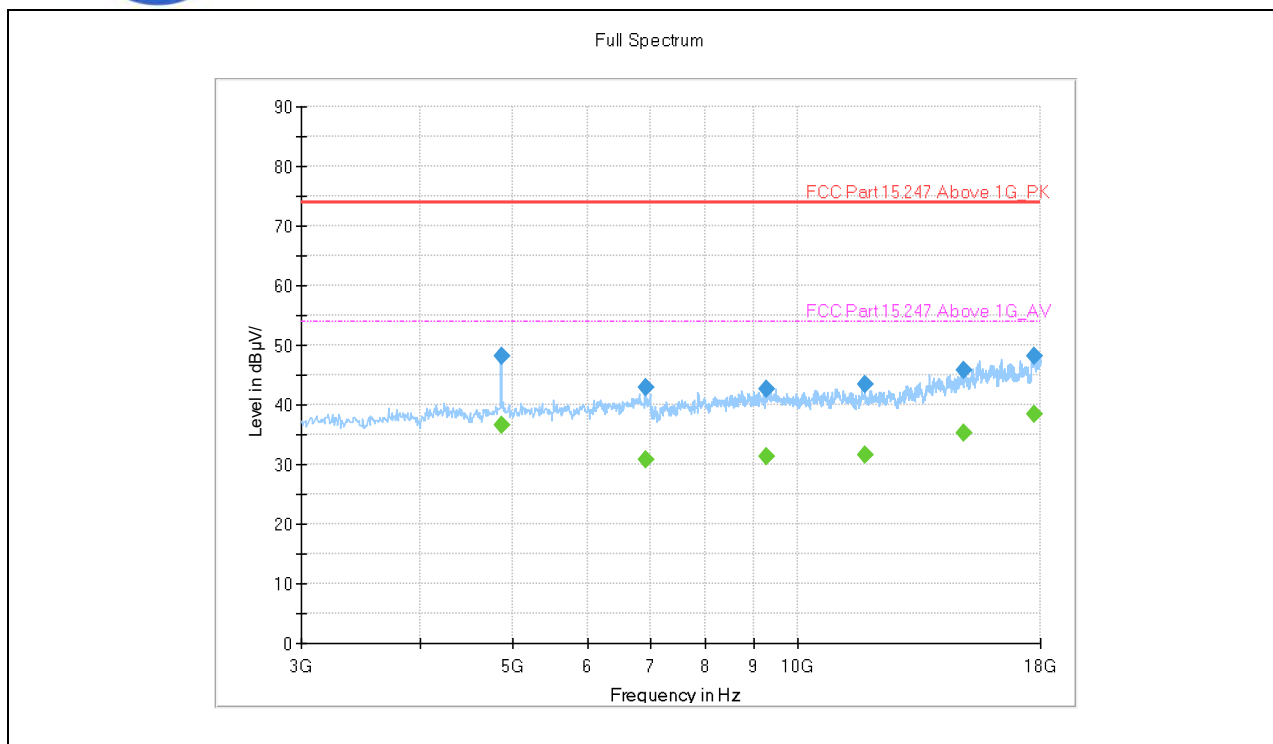
(802.11b _2437MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)		QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
41.640000	19.93		---	40.00	20.07	V	15.0
98.385000	20.24		---	43.50	23.26	V	13.9
147.289167	24.51		---	43.50	18.99	V	10.9
233.093750	25.83		---	46.00	20.17	V	14.5
514.636250	27.93		---	46.00	18.07	V	22.0
950.570417	32.07		---	46.00	13.93	V	28.3



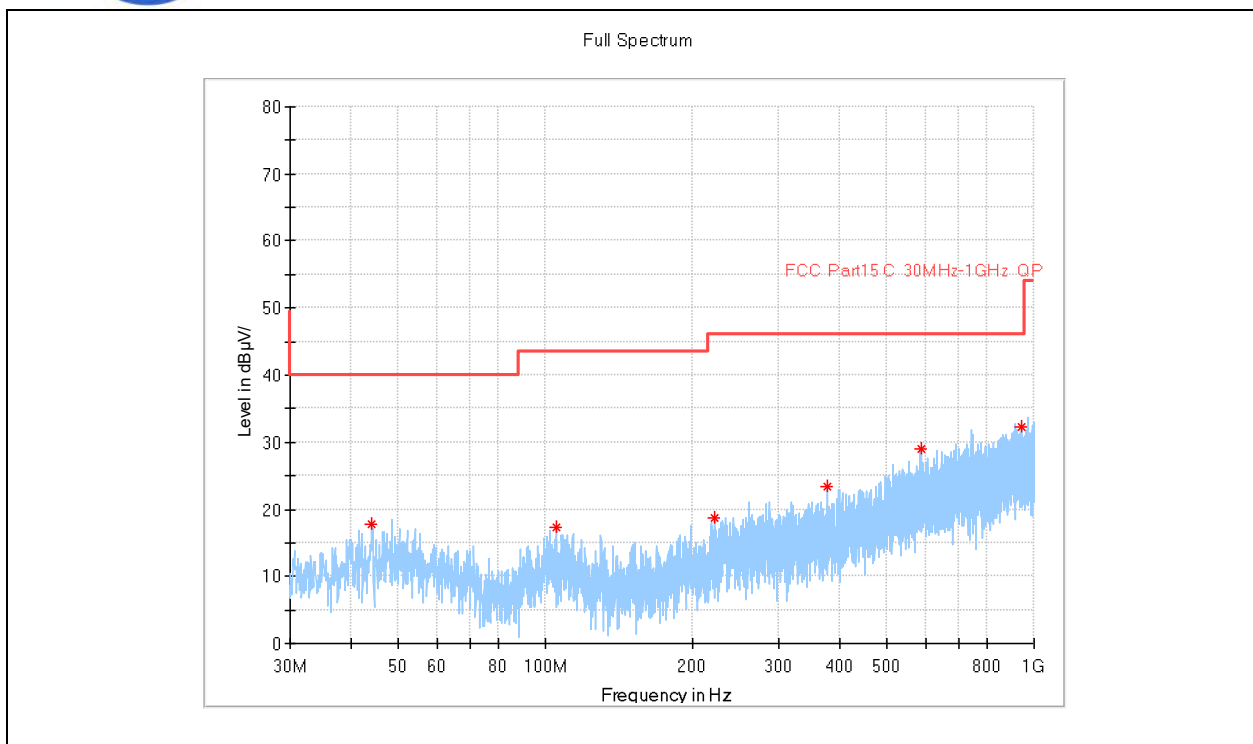
(802.11b _2437MHz, Antenna Vertical , 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1200.000000	36.55	---	74.00	37.45	V	-0.4
1200.000000	---	25.01	54.00	28.99	V	-0.4
1540.000000	37.25	---	74.00	36.75	V	2.8
1540.000000	---	27.49	54.00	26.51	V	2.8
1845.000000	39.31	---	74.00	34.69	V	5.8
1845.000000	---	29.76	54.00	24.24	V	5.8
2135.000000	---	31.23	54.00	22.77	V	8.2
2135.000000	41.50	---	74.00	32.50	V	8.2
2590.000000	---	39.26	54.00	14.74	V	14.5
2590.000000	56.10	---	74.00	17.90	V	14.5
2990.000000	49.31	---	74.00	24.69	V	17.4
2990.000000	---	39.04	54.00	14.96	V	17.4



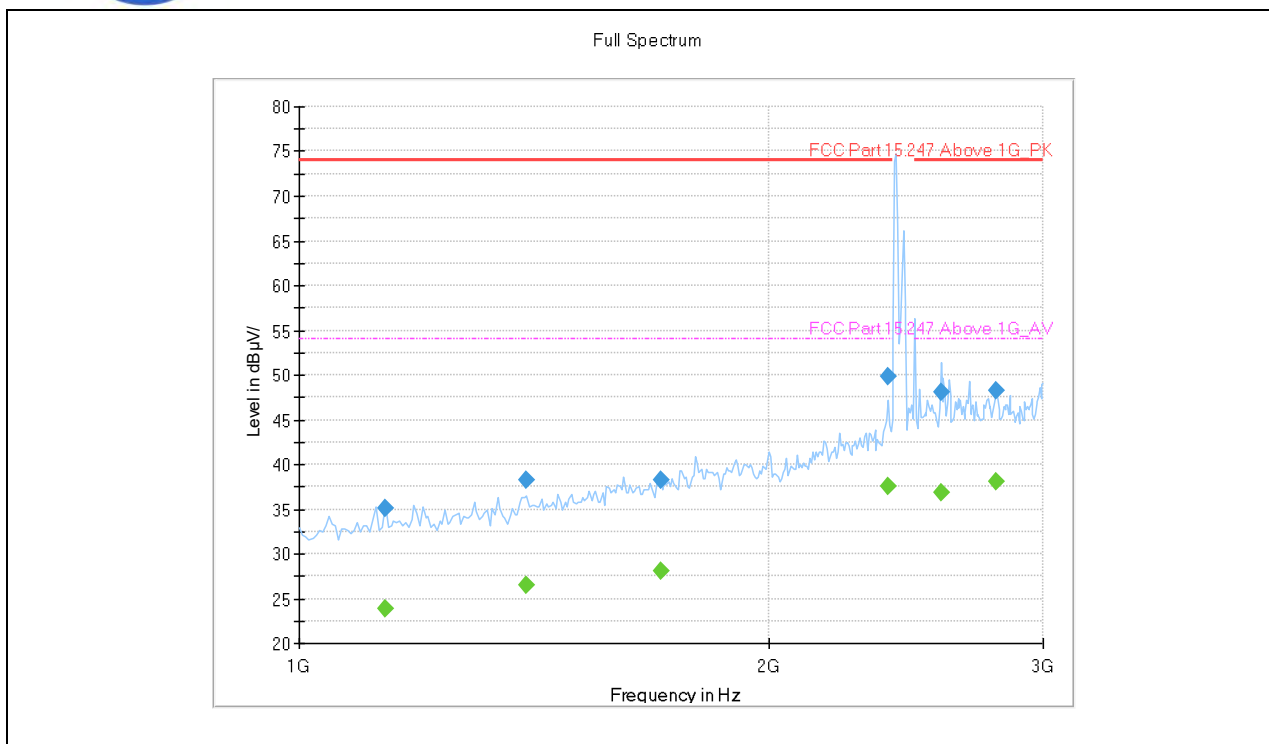
(802.11b _2437MHz, Antenna Vertical, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4875.000000	---	36.59	54.00	17.41	V	-2.9
4875.000000	48.27	---	74.00	25.73	V	-2.9
6915.000000	42.94	---	74.00	31.06	V	-0.8
6915.000000	---	30.67	54.00	23.33	V	-0.8
9262.500000	---	31.33	54.00	22.67	V	2.5
9262.500000	42.62	---	74.00	29.38	V	2.5
11752.500000	---	31.66	54.00	22.34	V	3.9
11752.500000	43.42	---	74.00	30.58	V	3.9
14970.000000	---	35.22	54.00	18.78	V	10.0
14970.000000	45.67	---	74.00	28.33	V	10.0
17730.000000	48.08	---	74.00	25.92	V	14.9
17730.000000	---	38.41	54.00	15.59	V	14.9



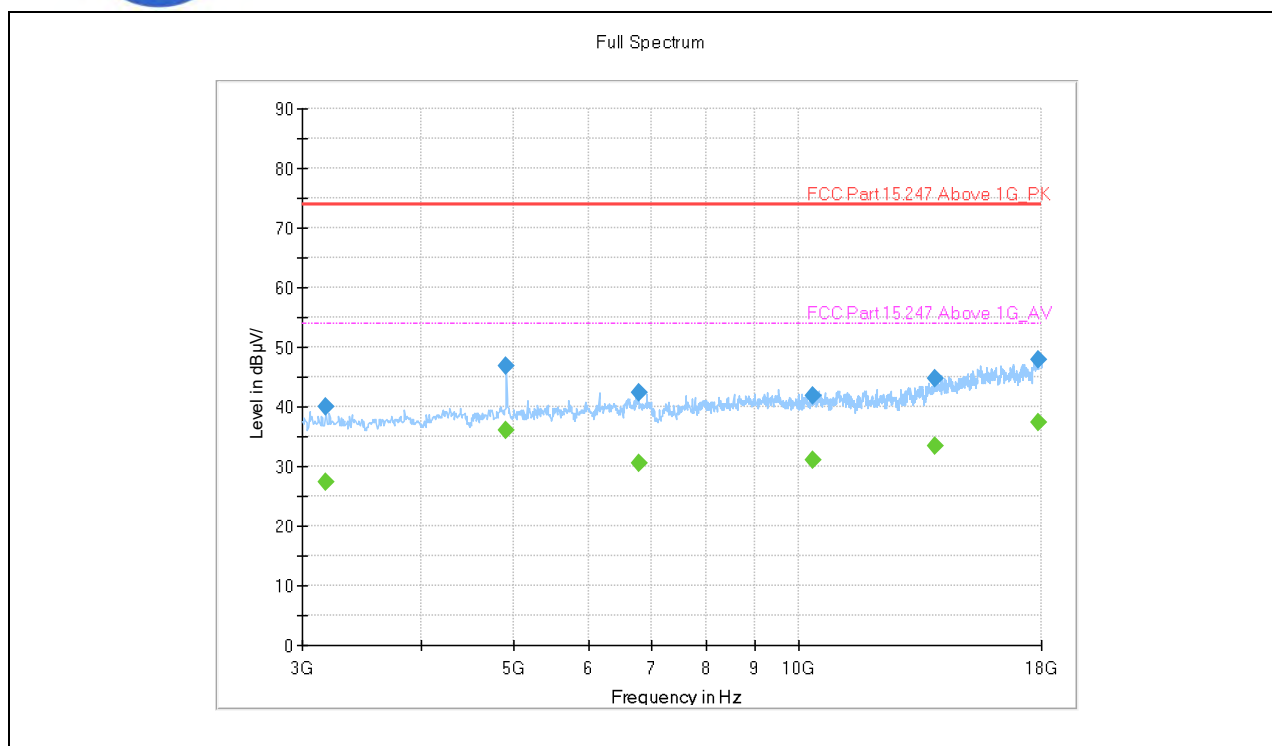
(802.11b _2462MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
44.024583	17.86	---	40.00	22.14	H	15.3
104.892083	17.37	---	43.50	26.13	H	14.1
221.898333	18.76	---	46.00	27.24	H	14.5
376.330417	23.28	---	46.00	22.72	H	18.6
585.688750	29.07	---	46.00	16.93	H	23.1
944.022917	32.31	---	46.00	13.69	H	28.4



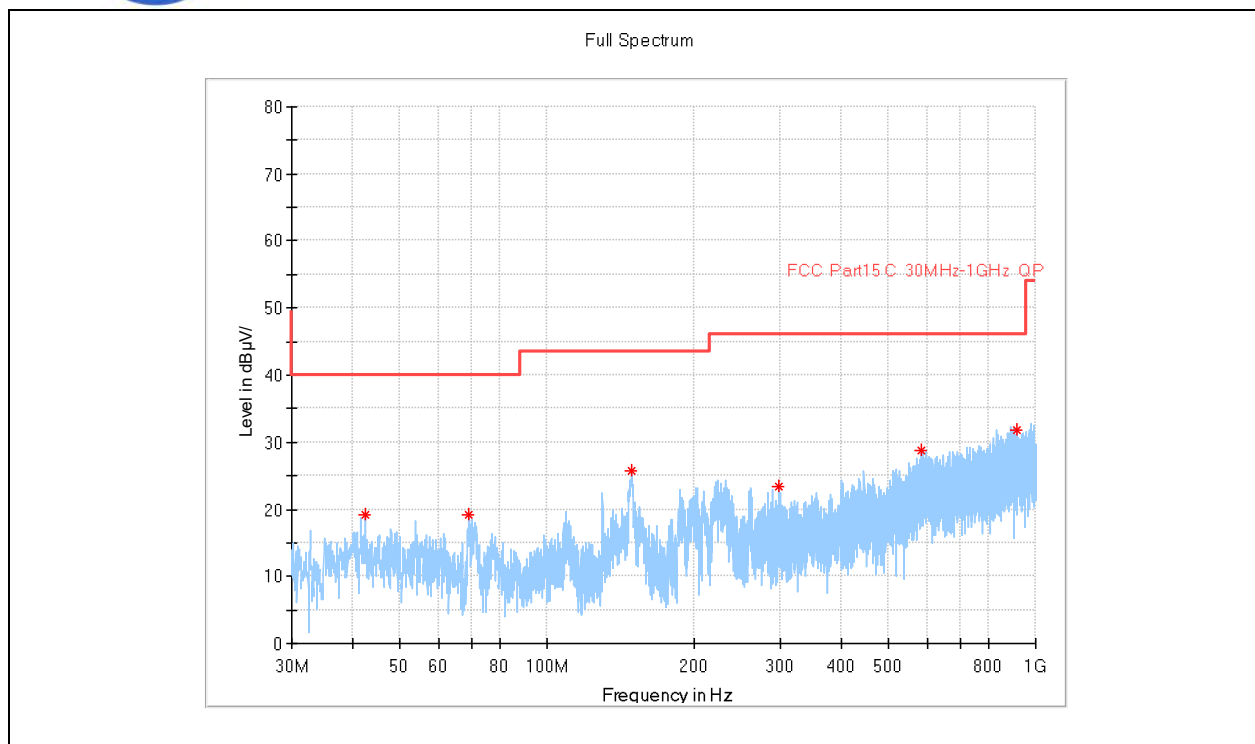
(802.11b _2462MHz, Antenna Horizontal, 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
1135.000000	35.17	---	74.00	38.83	H	-1.9
1135.000000	---	23.81	54.00	30.19	H	-1.9
1400.000000	38.32	---	74.00	35.68	H	1.7
1400.000000	---	26.52	54.00	27.48	H	1.7
1705.000000	---	27.99	54.00	26.01	H	4.0
1705.000000	38.16	---	74.00	35.84	H	4.0
2385.000000	---	37.53	54.00	16.47	H	12.3
2385.000000	49.87	---	74.00	24.13	H	12.3
2580.000000	---	36.77	54.00	17.23	H	13.9
2580.000000	48.03	---	74.00	25.97	H	13.9
2800.000000	---	38.05	54.00	15.95	H	16.5
2800.000000	48.30	---	74.00	25.70	H	16.5



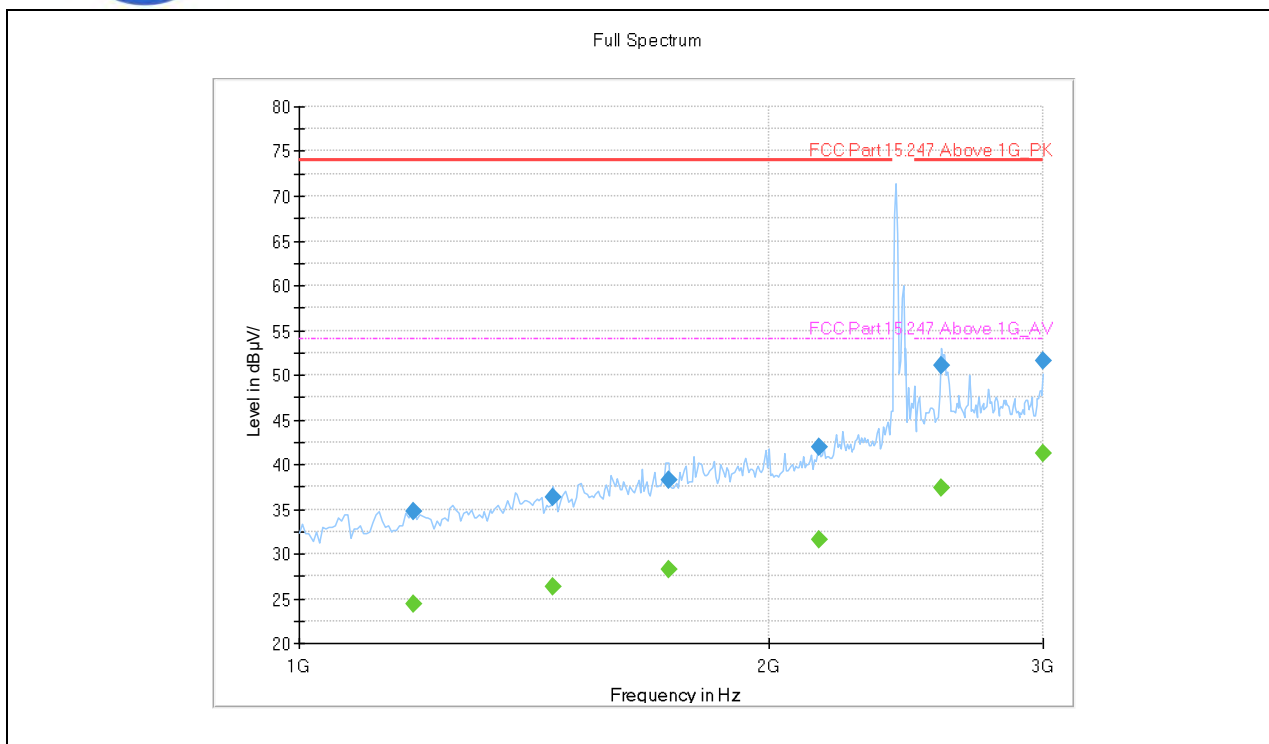
(802.11b _2462MHz, Antenna Horizontal, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
3180.000000	39.99	---	74.00	34.01	H	-6.2
3180.000000	---	27.33	54.00	26.67	H	-6.2
4920.000000	---	36.09	54.00	17.91	H	-2.8
4920.000000	46.94	---	74.00	27.06	H	-2.8
6780.000000	---	30.56	54.00	23.44	H	-1.2
6780.000000	42.36	---	74.00	29.64	H	-1.2
10342.500000	41.87	---	74.00	28.13	H	2.1
10342.500000	---	31.16	54.00	22.84	H	2.1
13920.000000	44.69	---	74.00	29.31	H	7.7
13920.000000	---	33.54	54.00	20.46	H	7.7
17842.500000	47.96	---	74.00	26.04	H	14.7
17842.500000	---	37.47	54.00	16.53	H	14.7



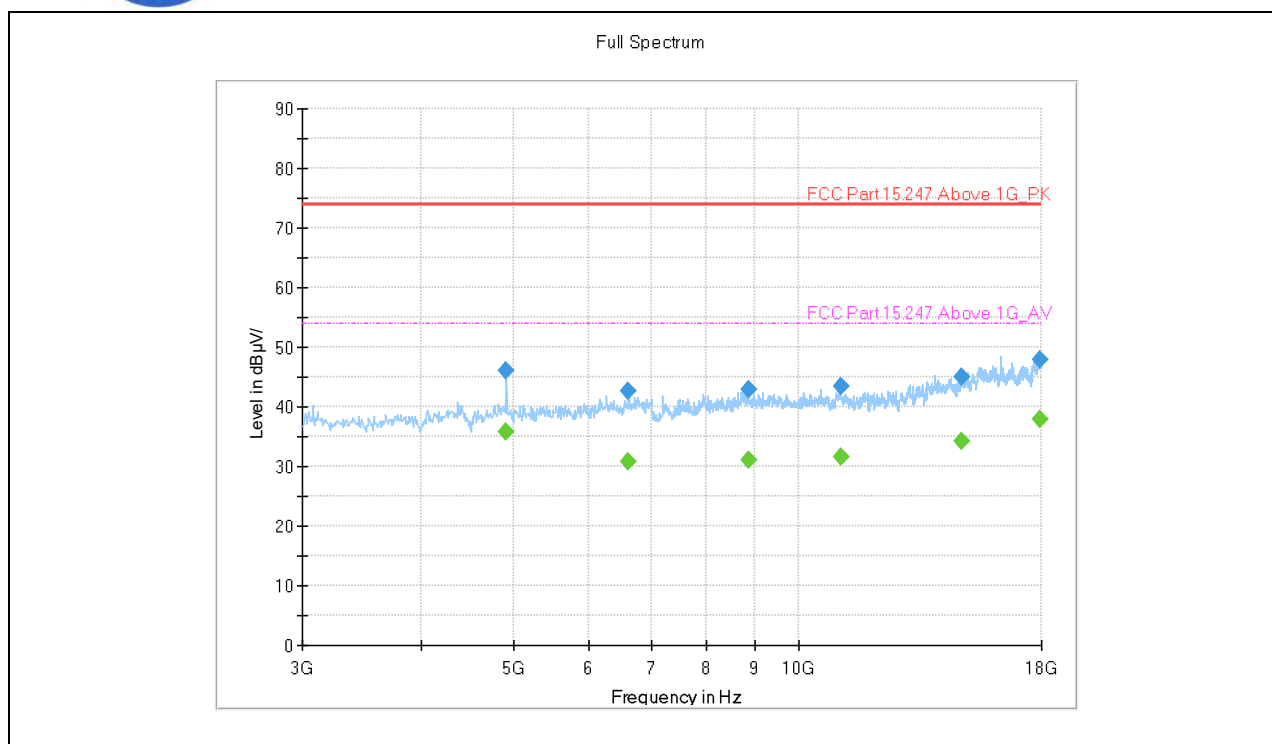
(802.11b _2462MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
42.407917	19.20	---	40.00	20.80	V	15.2
69.163750	19.11	---	40.00	20.89	V	12.2
148.582500	25.76	---	43.50	17.74	V	11.2
297.275417	23.28	---	46.00	22.72	V	16.6
582.495833	28.87	---	46.00	17.13	V	23.1
916.418333	31.79	---	46.00	14.21	V	28.0



(802.11b _2462MHz, Antenna Vertical , 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1185.000000	34.75	---	74.00	39.25	V	-1.2
1185.000000	---	24.39	54.00	29.61	V	-1.2
1455.000000	---	26.38	54.00	27.62	V	1.4
1455.000000	36.27	---	74.00	37.73	V	1.4
1725.000000	---	28.27	54.00	25.73	V	4.1
1725.000000	38.24	---	74.00	35.76	V	4.1
2155.000000	---	31.62	54.00	22.38	V	8.3
2155.000000	41.85	---	74.00	32.15	V	8.3
2580.000000	---	37.44	54.00	16.56	V	13.9
2580.000000	51.11	---	74.00	22.89	V	13.9
3000.000000	51.60	---	74.00	22.40	V	18.4
3000.000000	---	41.26	54.00	12.74	V	18.4

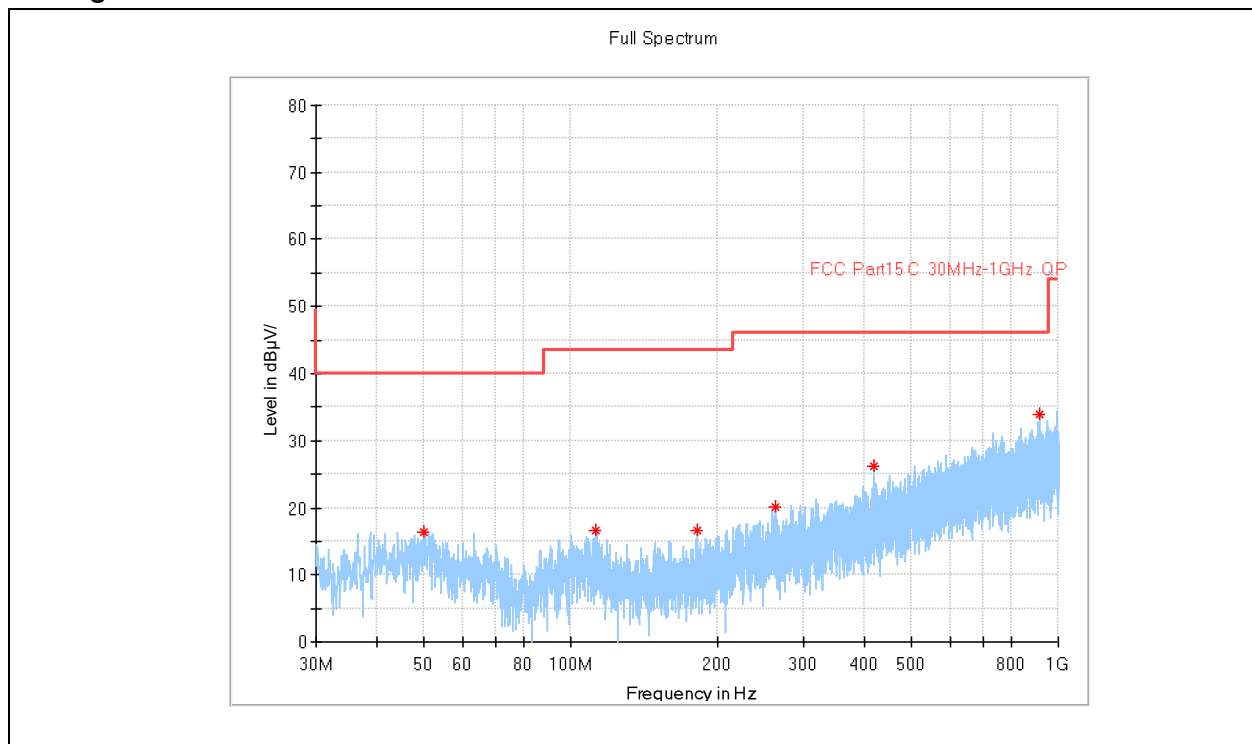


(802.11b _2462MHz, Antenna Vertical, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4920.000000	45.97	---	74.00	28.03	V	-2.8
4920.000000	---	35.72	54.00	18.28	V	-2.8
6607.500000	---	30.91	54.00	23.09	V	-0.9
6607.500000	42.66	---	74.00	31.34	V	-0.9
8850.000000	---	31.07	54.00	22.93	V	1.3
8850.000000	42.79	---	74.00	31.21	V	1.3
11070.000000	---	31.60	54.00	22.40	V	3.3
11070.000000	43.32	---	74.00	30.68	V	3.3
14835.000000	---	34.26	54.00	19.74	V	9.0
14835.000000	44.90	---	74.00	29.10	V	9.0
17955.000000	47.92	---	74.00	26.08	V	14.6
17955.000000	---	37.95	54.00	16.05	V	14.6

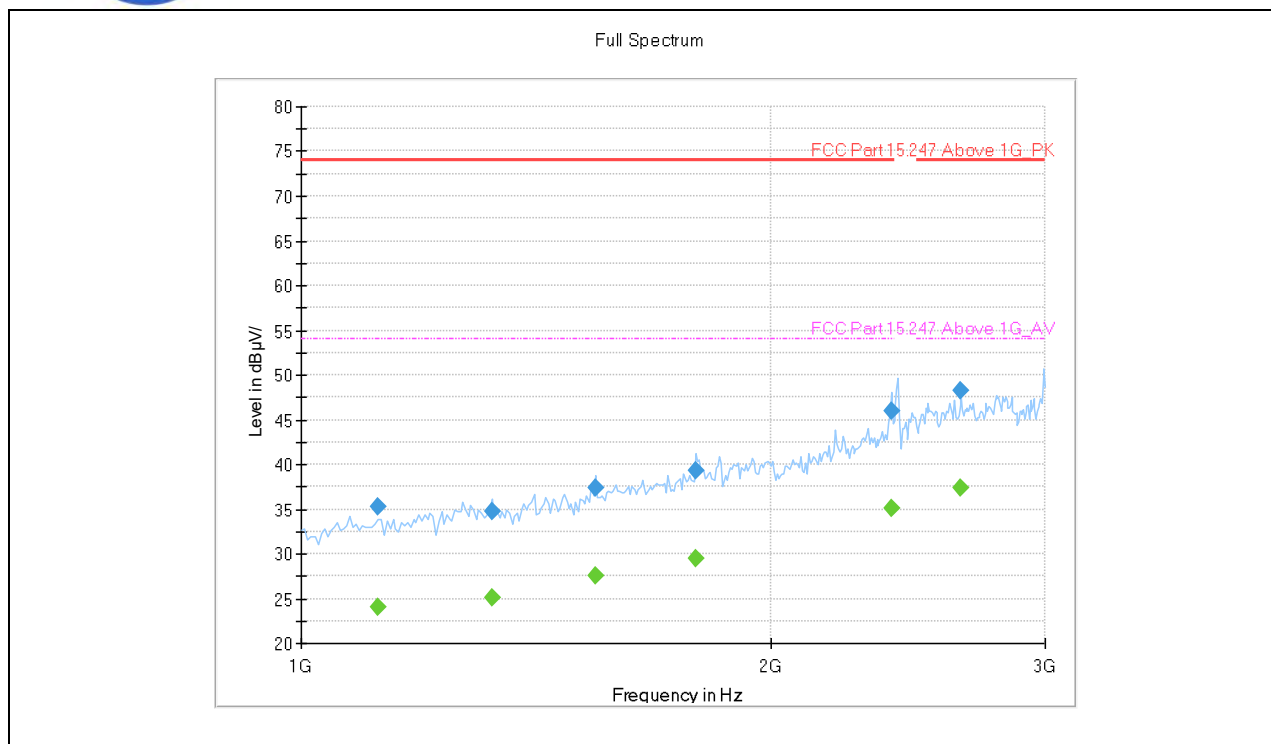


802.11g Test mode



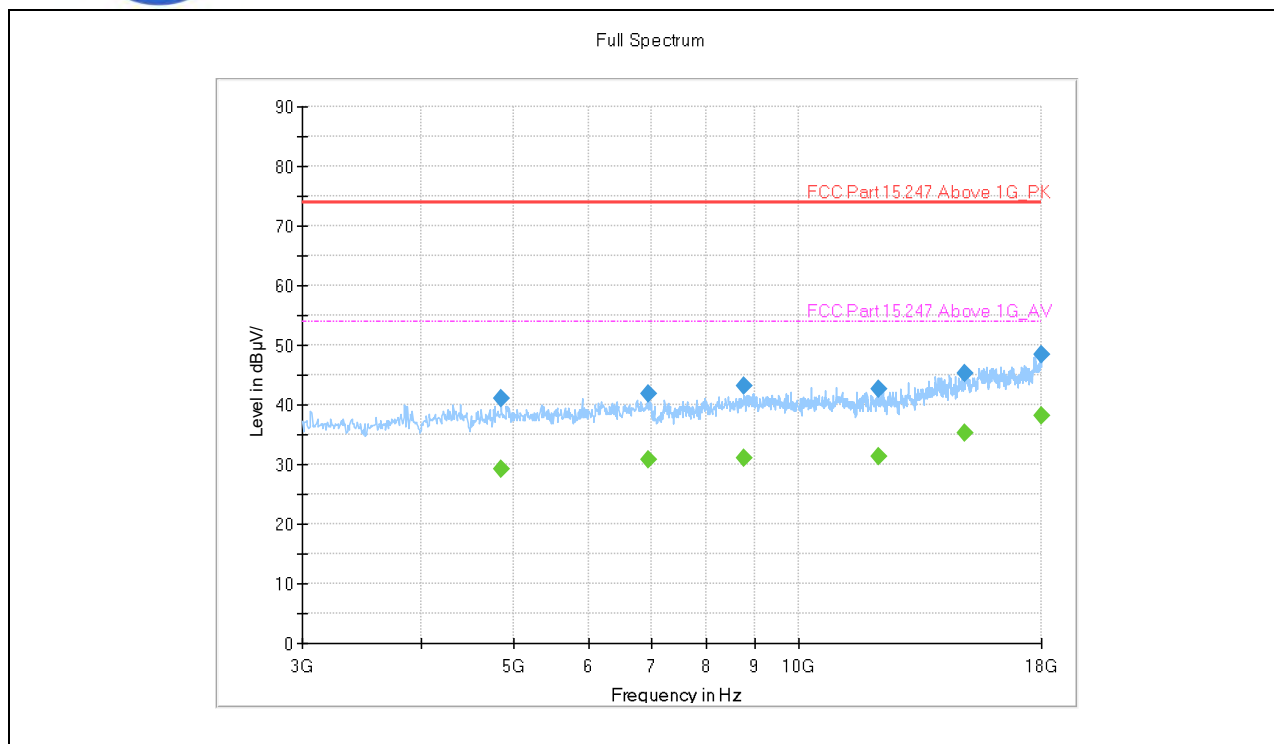
(802.11g _2412MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
49.925417	16.44	---	40.00	23.56	H	16.2
112.854167	16.59	---	43.50	26.91	H	13.9
181.602917	16.58	---	43.50	26.92	H	12.6
262.800000	20.11	---	46.00	25.89	H	15.5
418.323333	26.16	---	46.00	19.84	H	20.0
918.479583	34.02	---	46.00	11.98	H	28.0



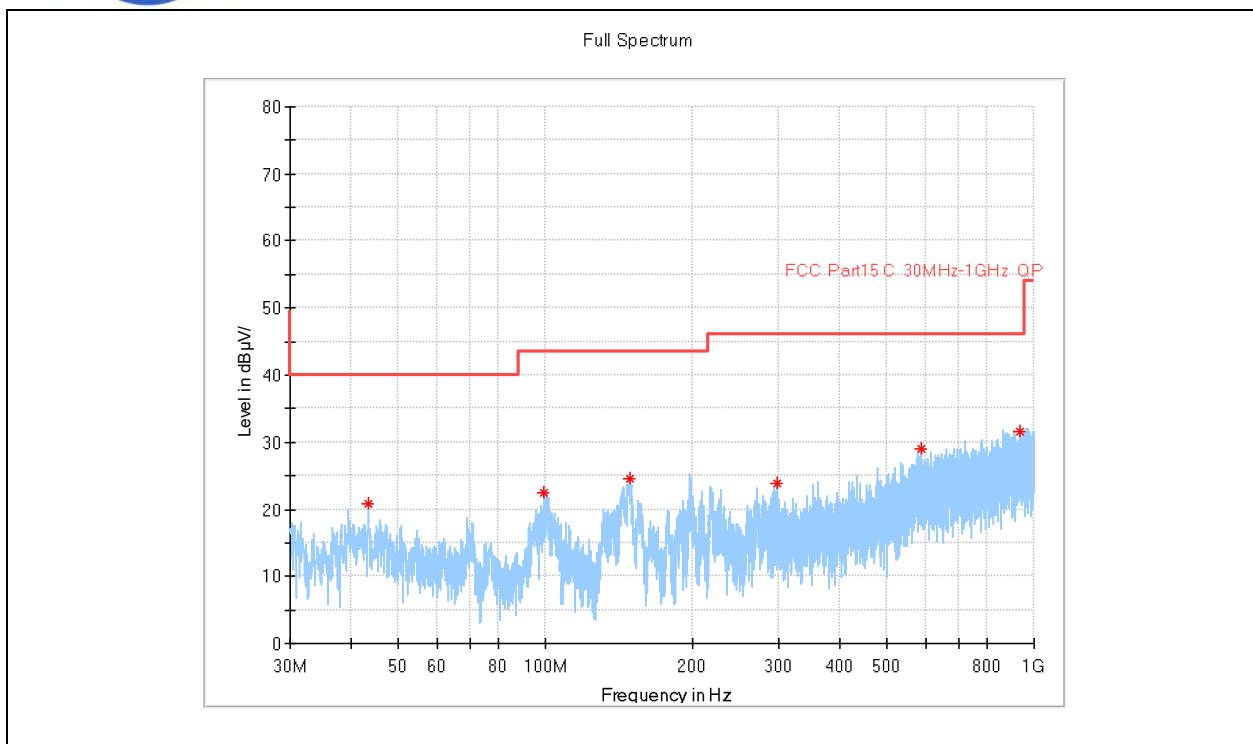
(802.11g _2412MHz, Antenna Horizontal, 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
1120.000000	35.33	---	74.00	38.67	H	-2.0
1120.000000	---	24.04	54.00	29.96	H	-2.0
1325.000000	34.79	---	74.00	39.21	H	0.2
1325.000000	---	25.17	54.00	28.83	H	0.2
1545.000000	37.30	---	74.00	36.70	H	2.8
1545.000000	---	27.49	54.00	26.51	H	2.8
1790.000000	---	29.40	54.00	24.60	H	5.9
1790.000000	39.34	---	74.00	34.66	H	5.9
2390.000000	---	35.03	54.00	18.97	H	12.7
2390.000000	45.96	---	74.00	28.04	H	12.7
2650.000000	48.22	---	74.00	25.78	H	15.6
2650.000000	---	37.30	54.00	16.70	H	15.6



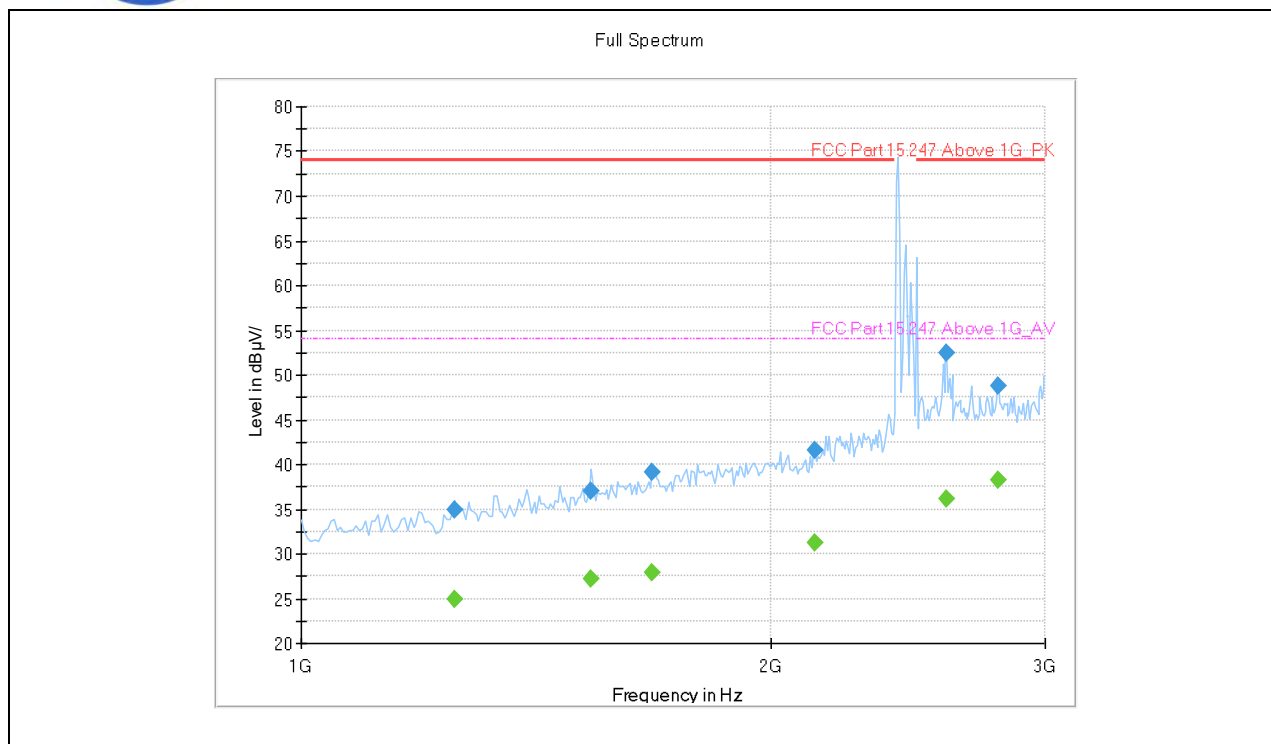
(802.11g _2412MHz, Antenna Horizontal, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4860.000000	41.09	---	74.00	32.91	H	-3.0
4860.000000	---	29.16	54.00	24.84	H	-3.0
6930.000000	41.91	---	74.00	32.09	H	-0.7
6930.000000	---	30.69	54.00	23.31	H	-0.7
8745.000000	---	31.01	54.00	22.99	H	1.4
8745.000000	43.28	---	74.00	30.72	H	1.4
12135.000000	---	31.33	54.00	22.67	H	3.9
12135.000000	42.57	---	74.00	31.43	H	3.9
14962.500000	45.31	---	74.00	28.69	H	9.8
14962.500000	---	35.18	54.00	18.82	H	9.8
17985.000000	48.36	---	74.00	25.64	H	15.0
17985.000000	---	38.19	54.00	15.81	H	15.0



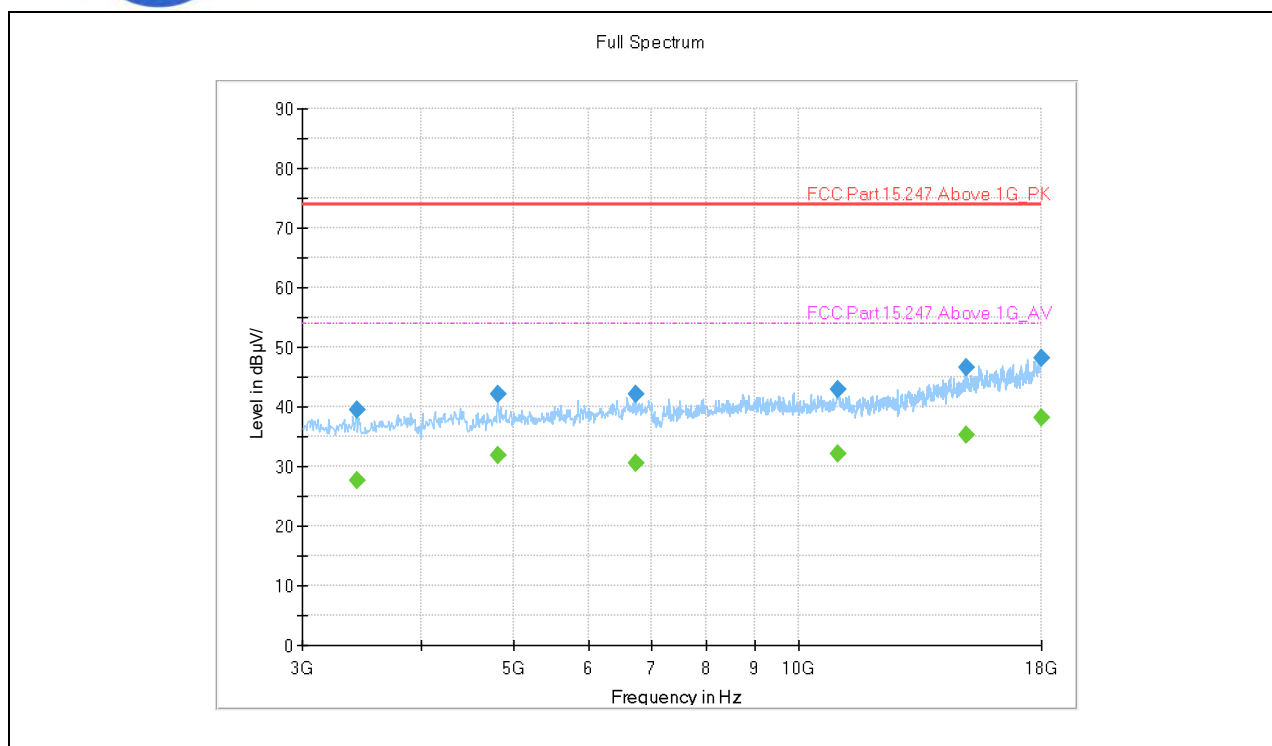
(802.11g _2412MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
43.337500	20.71	---	40.00	19.29	V	15.3
99.193333	22.50	---	43.50	21.00	V	14.5
149.269583	24.55	---	43.50	18.95	V	11.5
298.770833	23.90	---	46.00	22.10	V	17.1
587.871250	28.93	---	46.00	17.07	V	23.2
932.342500	31.60	---	46.00	14.40	V	28.1



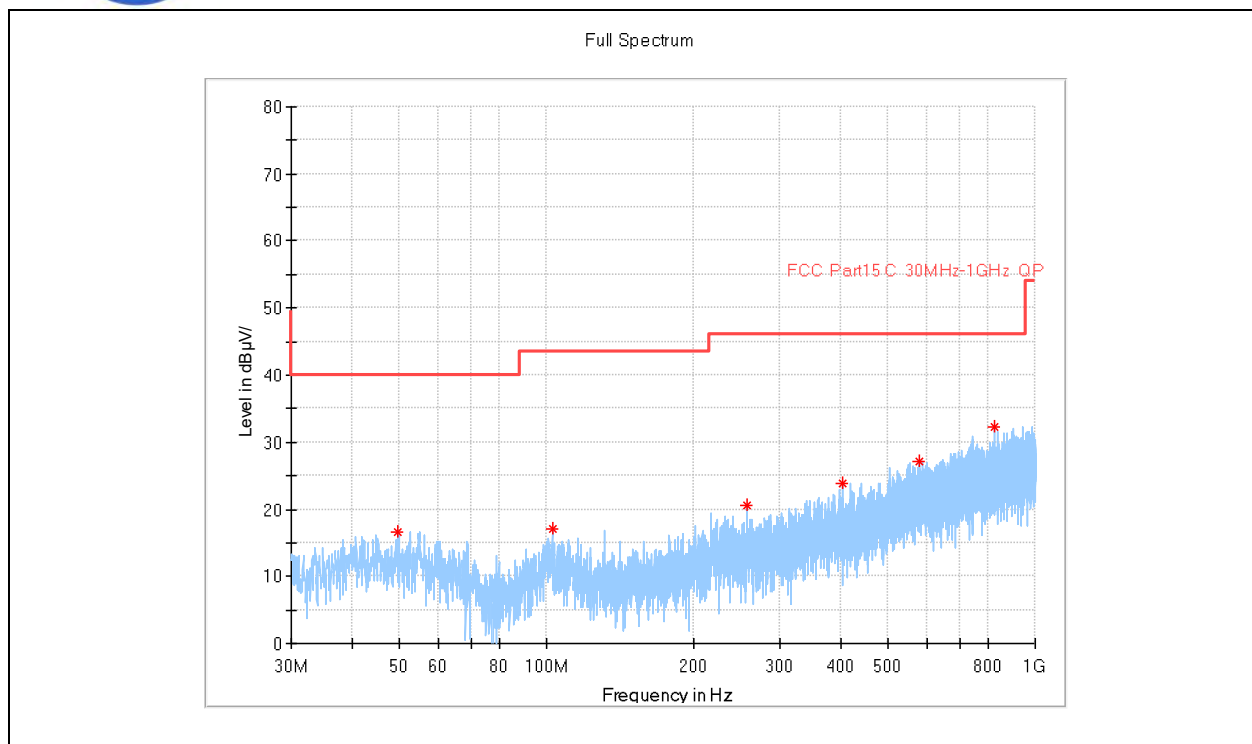
(802.11g _2412MHz, Antenna Vertical , 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
1255.000000	34.94	---	74.00	39.06	V	-0.2
1255.000000	---	24.96	54.00	29.04	V	-0.2
1535.000000	---	27.27	54.00	26.73	V	2.7
1535.000000	37.05	---	74.00	36.95	V	2.7
1680.000000	---	27.97	54.00	26.03	V	3.5
1680.000000	39.15	---	74.00	34.85	V	3.5
2135.000000	---	31.19	54.00	22.81	V	8.2
2135.000000	41.52	---	74.00	32.48	V	8.2
2595.000000	---	36.17	54.00	17.83	V	14.9
2595.000000	52.47	---	74.00	21.53	V	14.9
2800.000000	48.84	---	74.00	25.16	V	16.5
2800.000000	---	38.20	54.00	15.80	V	16.5

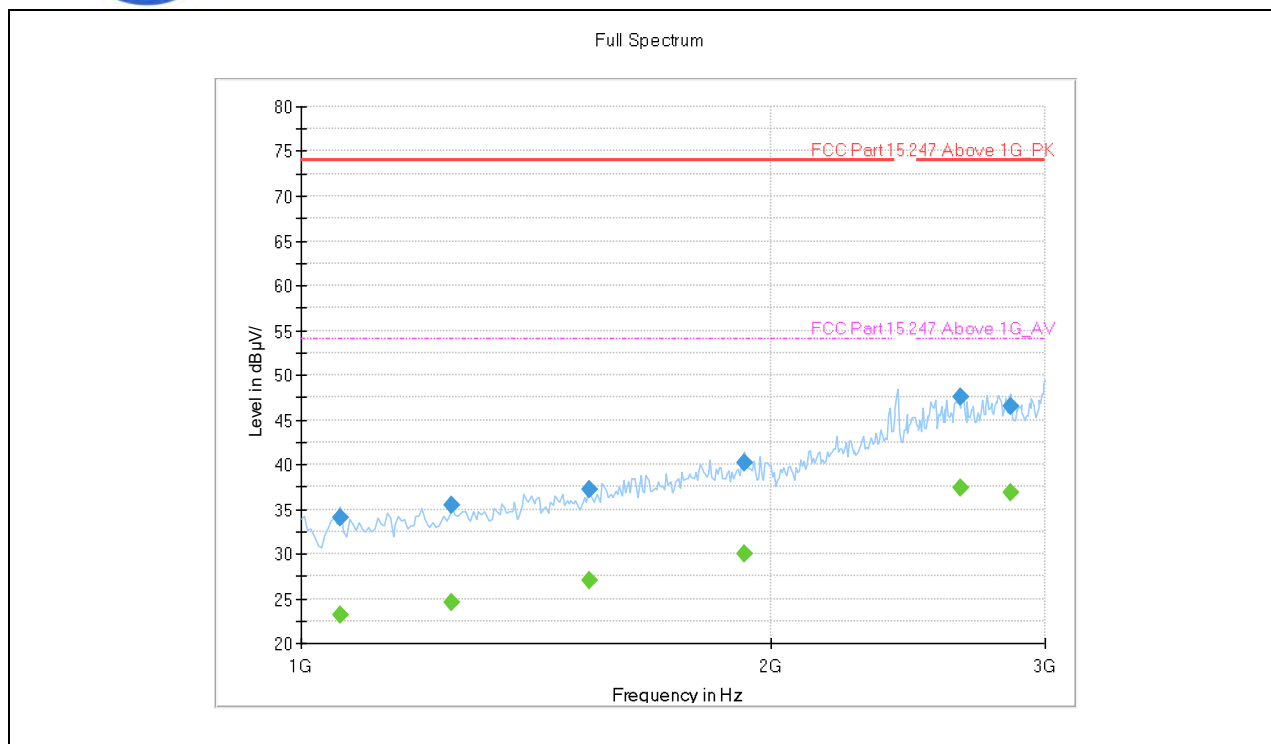


(802.11g _2412MHz, Antenna Vertical, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
3420.000000	39.48	---	74.00	34.52	V	-5.9
3420.000000	---	27.51	54.00	26.49	V	-5.9
4815.000000	---	31.72	54.00	22.28	V	-3.3
4815.000000	42.07	---	74.00	31.93	V	-3.3
6727.500000	42.01	---	74.00	31.99	V	-1.1
6727.500000	---	30.48	54.00	23.52	V	-1.1
11002.500000	---	32.09	54.00	21.91	V	3.4
11002.500000	42.87	---	74.00	31.13	V	3.4
14985.000000	46.67	---	74.00	27.33	V	10.3
14985.000000	---	35.38	54.00	18.62	V	10.3
17992.500000	48.05	---	74.00	25.95	V	15.0
17992.500000	---	38.28	54.00	15.72	V	15.0

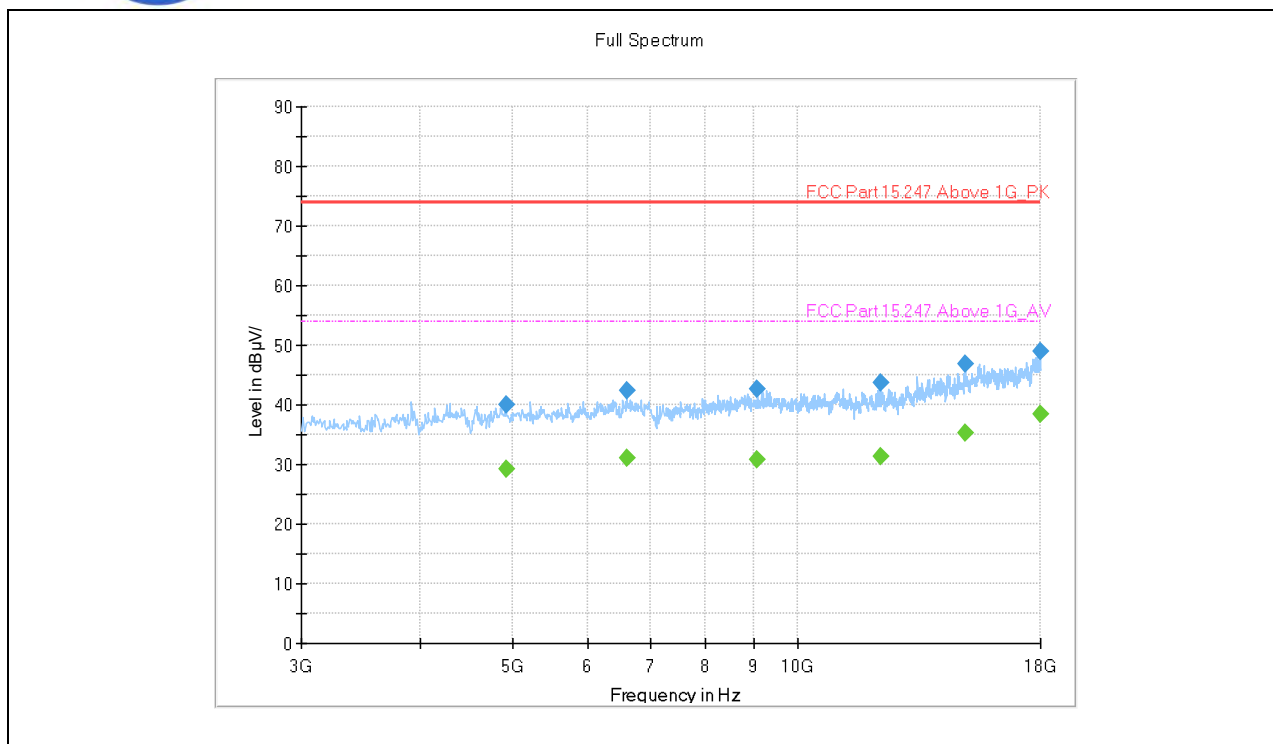


Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
49.642500	16.72	---	40.00	23.28	H	16.0
102.628750	16.98	---	43.50	26.52	H	14.6
256.818333	20.49	---	46.00	25.51	H	15.4
403.409583	23.75	---	46.00	22.25	H	19.4
580.232500	27.22	---	46.00	18.78	H	23.1
824.793750	32.38	---	46.00	13.62	H	26.4



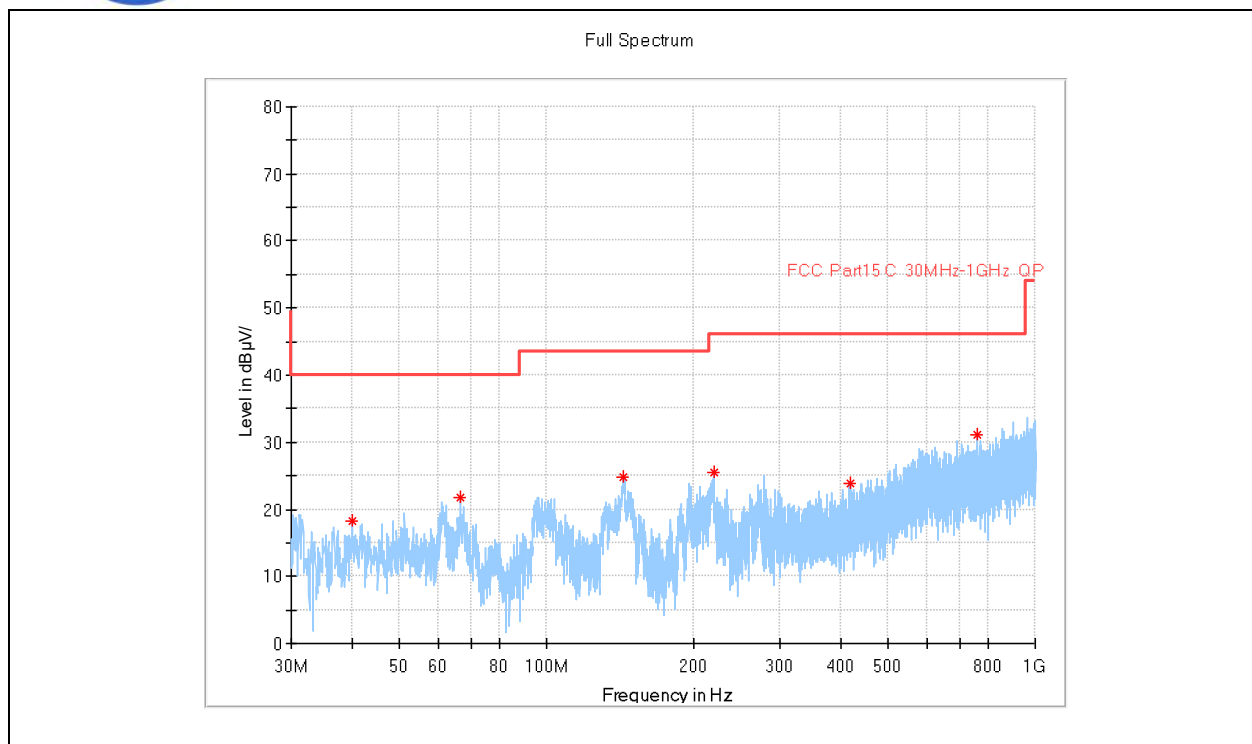
(802.11g _2437MHz, Antenna Horizontal, 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1060.000000	---	23.17	54.00	30.83	H	-2.5
1060.000000	34.12	---	74.00	39.88	H	-2.5
1250.000000	---	24.61	54.00	29.39	H	-0.4
1250.000000	35.43	---	74.00	38.57	H	-0.4
1530.000000	---	27.09	54.00	26.91	H	2.6
1530.000000	37.17	---	74.00	36.83	H	2.6
1925.000000	---	30.04	54.00	23.96	H	6.1
1925.000000	40.12	---	74.00	33.88	H	6.1
2650.000000	47.53	---	74.00	26.47	H	15.6
2650.000000	---	37.30	54.00	16.70	H	15.6
2850.000000	46.57	---	74.00	27.43	H	15.3
2850.000000	---	36.85	54.00	17.15	H	15.3



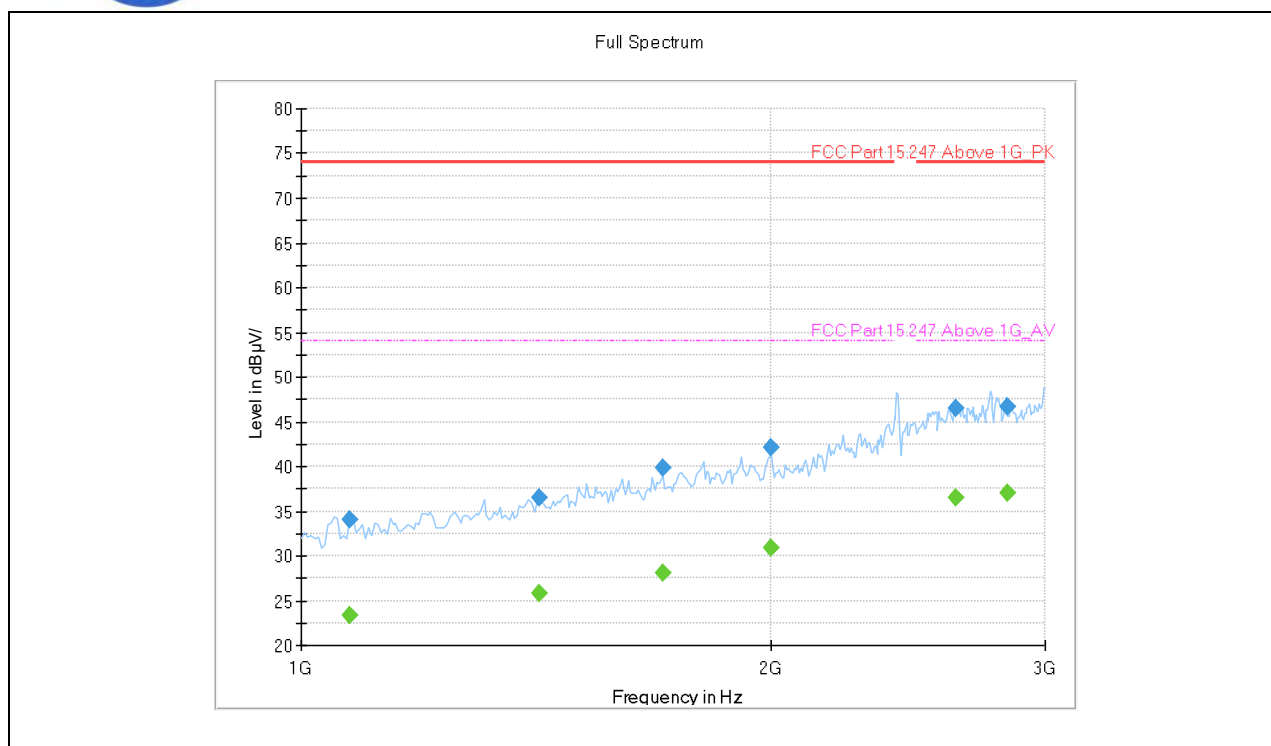
(802.11g _2437MHz, Antenna Horizontal, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4927.500000	40.00	---	74.00	34.00	H	-2.8
4927.500000	---	29.29	54.00	24.71	H	-2.8
6607.500000	---	30.94	54.00	23.06	H	-0.9
6607.500000	42.36	---	74.00	31.64	H	-0.9
9067.500000	---	30.91	54.00	23.09	H	1.3
9067.500000	42.63	---	74.00	31.37	H	1.3
12232.50000	43.79	---	74.00	30.21	H	4.0
12232.50000	---	31.20	54.00	22.80	H	4.0
15007.50000	46.74	---	74.00	27.26	H	10.7
15007.50000	---	35.37	54.00	18.63	H	10.7
18000.00000	48.98	---	74.00	25.02	H	14.9
18000.00000	---	38.51	54.00	15.49	H	14.9



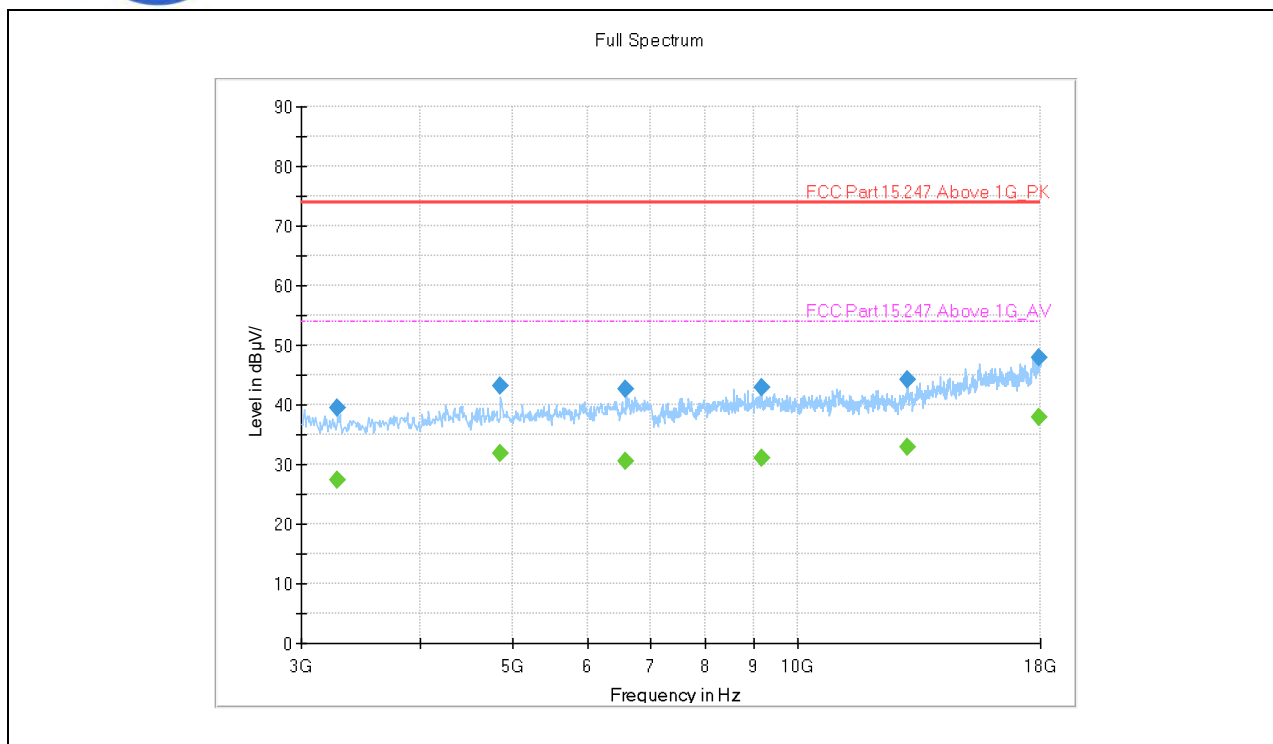
(802.11g _2437MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
40.023333	18.17	---	40.00	21.83	V	15.7
66.657917	21.82	---	40.00	18.18	V	12.9
143.368750	24.90	---	43.50	18.60	V	10.8
219.432917	25.40	---	46.00	20.60	V	14.6
417.757500	23.87	---	46.00	22.13	V	19.9
762.067083	31.13	---	46.00	14.87	V	26.2



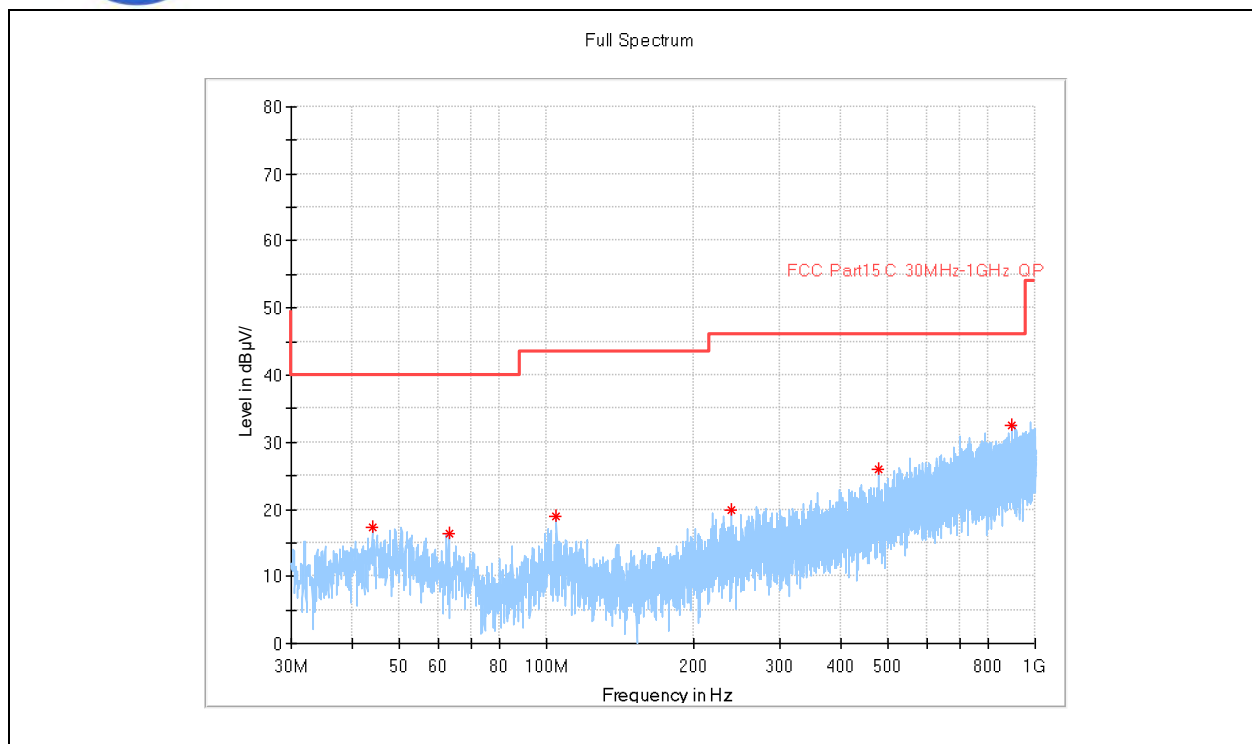
(802.11g _2437MHz, Antenna Vertical , 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
1075.000000	34.00	---	74.00	40.00	V	-2.6
1075.000000	---	23.33	54.00	30.67	V	-2.6
1420.000000	---	25.85	54.00	28.15	V	1.1
1420.000000	36.55	---	74.00	37.45	V	1.1
1705.000000	---	28.07	54.00	25.93	V	4.0
1705.000000	39.88	---	74.00	34.12	V	4.0
2000.000000	---	30.86	54.00	23.14	V	7.5
2000.000000	42.10	---	74.00	31.90	V	7.5
2630.000000	46.47	---	74.00	27.53	V	14.6
2630.000000	---	36.44	54.00	17.56	V	14.6
2840.000000	---	37.00	54.00	17.00	V	15.5
2840.000000	46.69	---	74.00	27.31	V	15.5

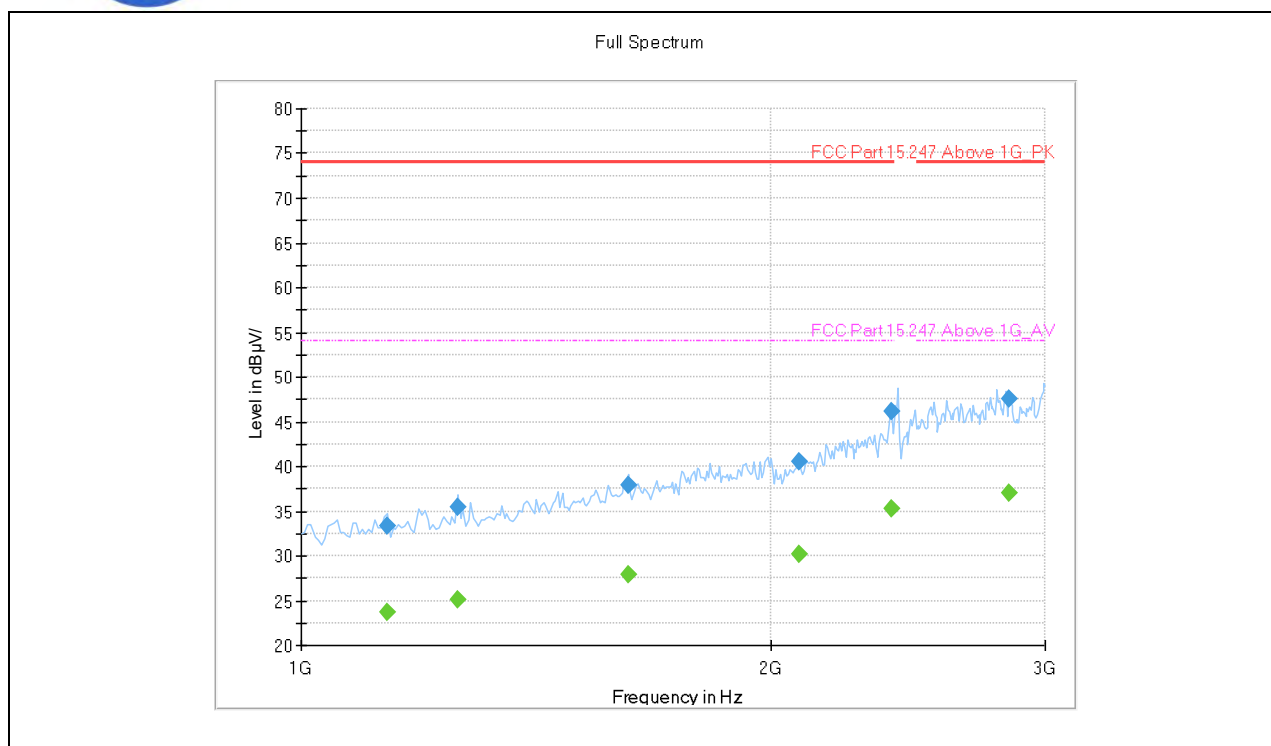


(802.11g _2437MHz, Antenna Vertical, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
3277.500000	39.56	---	74.00	34.44	V	-5.9
3277.500000	---	27.42	54.00	26.58	V	-5.9
4867.500000	---	31.74	54.00	22.26	V	-2.9
4867.500000	43.22	---	74.00	30.78	V	-2.9
6592.500000	---	30.64	54.00	23.36	V	-1.2
6592.500000	42.66	---	74.00	31.34	V	-1.2
9165.000000	---	31.09	54.00	22.91	V	1.5
9165.000000	42.78	---	74.00	31.22	V	1.5
13020.000000	---	32.82	54.00	21.18	V	6.1
13020.000000	44.25	---	74.00	29.75	V	6.1
17925.000000	48.02	---	74.00	24.98	V	14.2
17925.000000	---	37.90	54.00	16.10	V	14.2

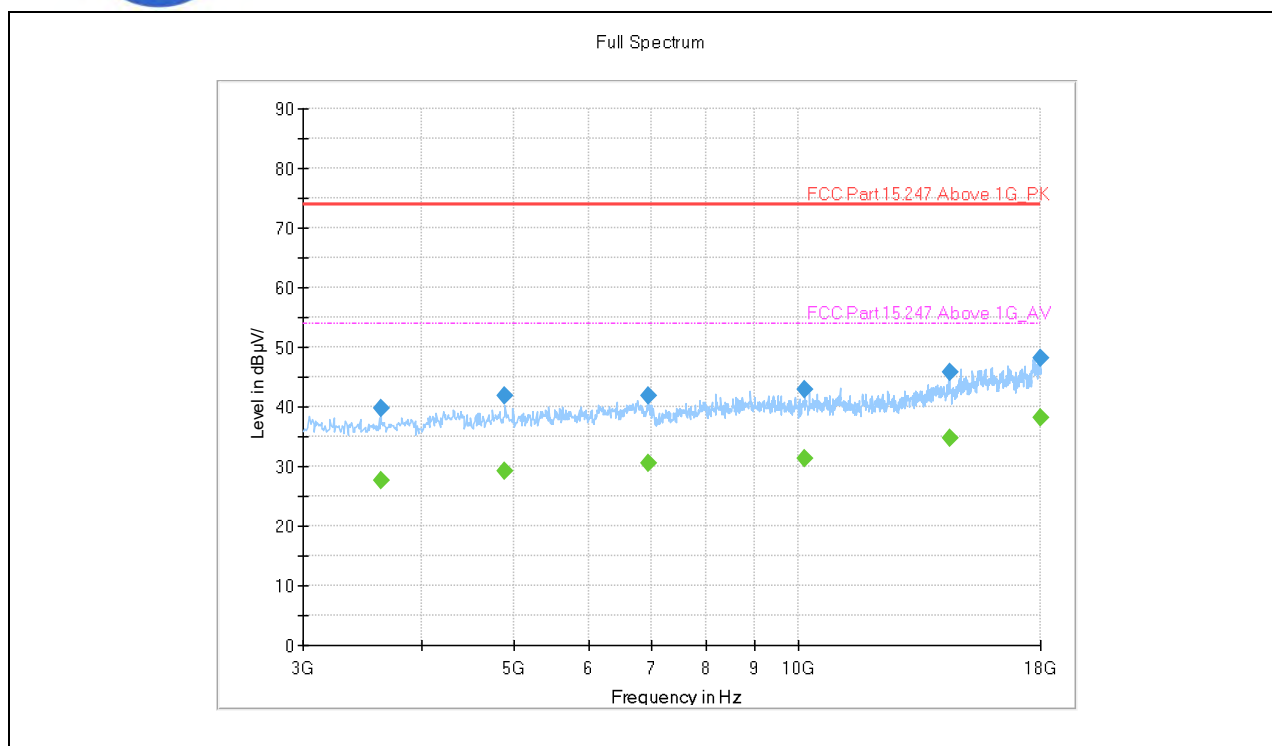


Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
43.943750	17.39	---	40.00	22.61	H	15.3
63.060833	16.28	---	40.00	23.72	H	13.6
104.770833	18.85	---	43.50	24.65	H	14.2
239.479583	19.86	---	46.00	26.14	H	15.2
479.433333	25.87	---	46.00	20.13	H	21.4
892.532083	32.44	---	46.00	13.56	H	27.9



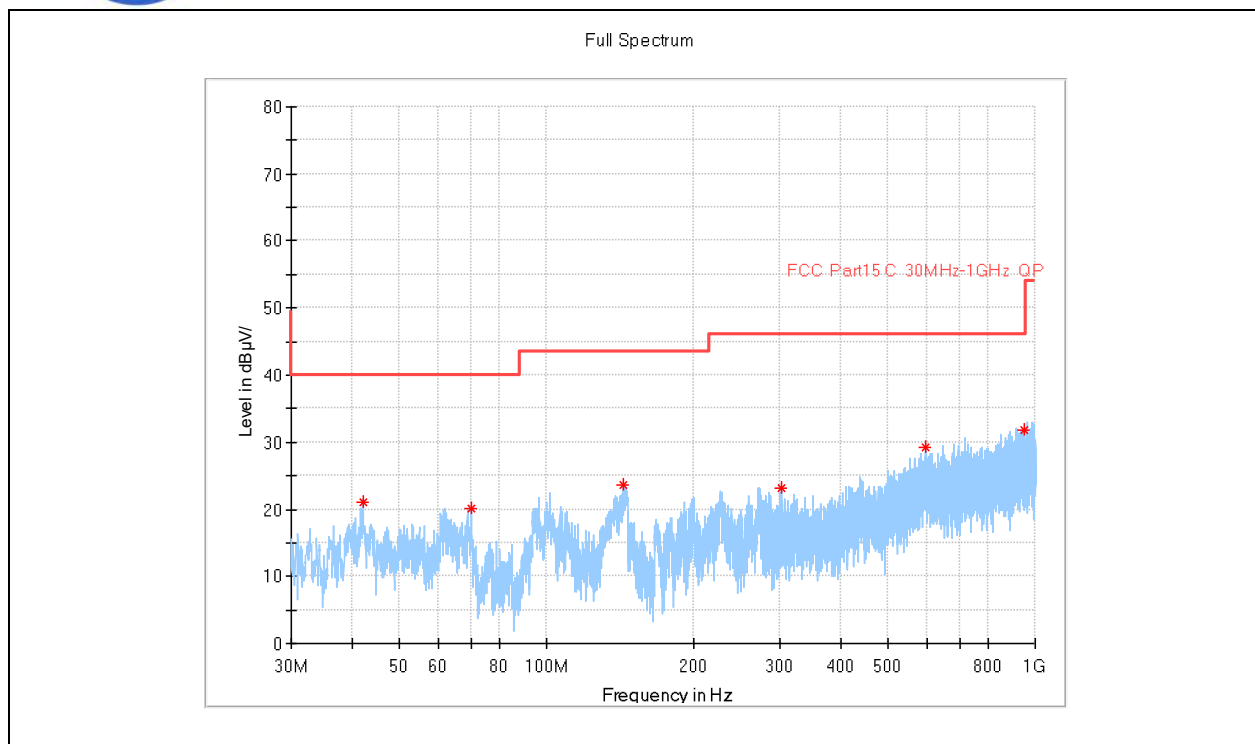
(802.11g _2462MHz, Antenna Horizontal, 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
1135.000000	---	23.67	54.00	30.33	H	-1.9
1135.000000	33.27	---	74.00	40.73	H	-1.9
1260.000000	---	25.09	54.00	28.91	H	-0.1
1260.000000	35.42	---	74.00	38.58	H	-0.1
1620.000000	37.90	---	74.00	36.10	H	3.3
1620.000000	---	27.88	54.00	26.12	H	3.3
2085.000000	---	30.19	54.00	23.81	H	7.4
2085.000000	40.58	---	74.00	33.42	H	7.4
2390.000000	46.09	---	74.00	27.91	H	12.7
2390.000000	---	35.27	54.00	18.73	H	12.7
2845.000000	---	37.05	54.00	16.95	H	15.4
2845.000000	47.54	---	74.00	26.46	H	15.4



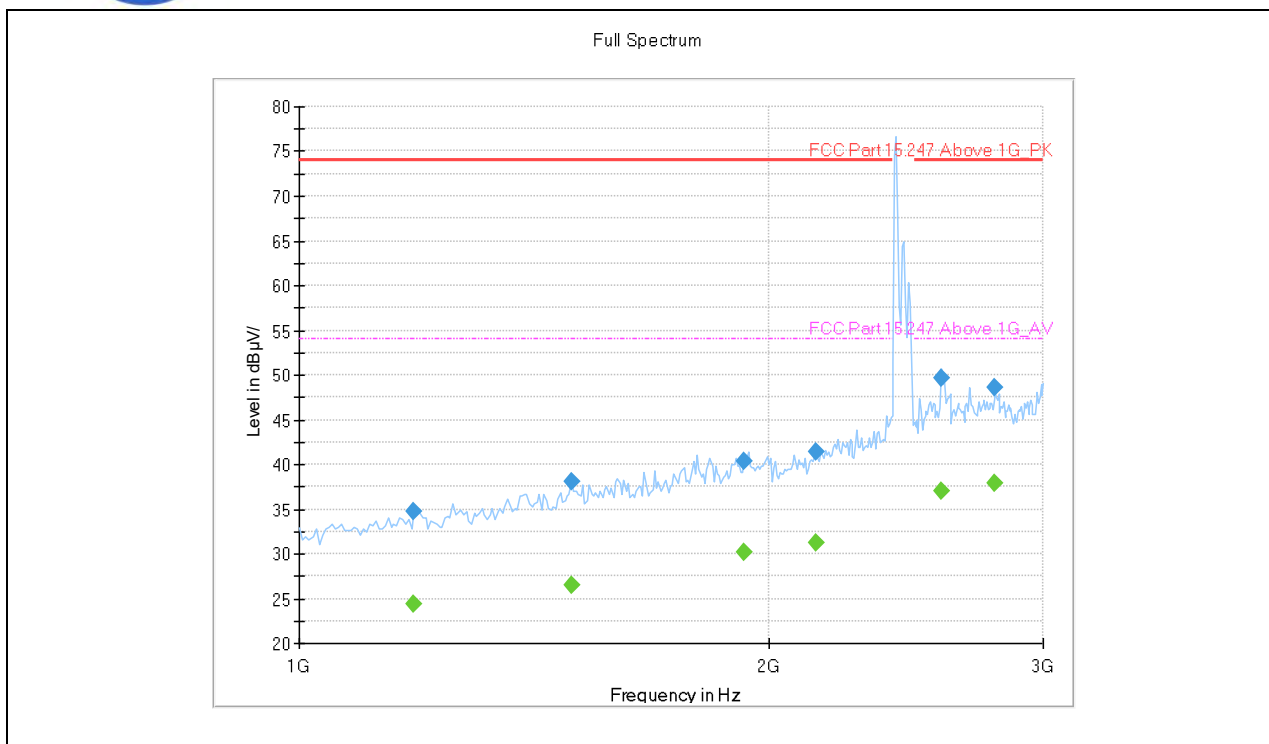
(802.11g _2462MHz, Antenna Horizontal, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
3622.500000	---	27.57	54.00	26.43	H	-5.8
3622.500000	39.81	---	74.00	34.19	H	-5.8
4897.500000	---	29.19	54.00	24.81	H	-2.7
4897.500000	41.83	---	74.00	32.17	H	-2.7
6937.500000	41.86	---	74.00	32.14	H	-0.6
6937.500000	---	30.56	54.00	23.44	H	-0.6
10140.000000	42.96	---	74.00	31.04	H	2.1
10140.000000	---	31.26	54.00	22.74	H	2.1
14422.500000	45.84	---	74.00	28.16	H	9.3
14422.500000	---	34.73	54.00	19.27	H	9.3
17992.500000	48.25	---	74.00	25.75	H	15.0
17992.500000	---	38.26	54.00	15.74	H	15.0



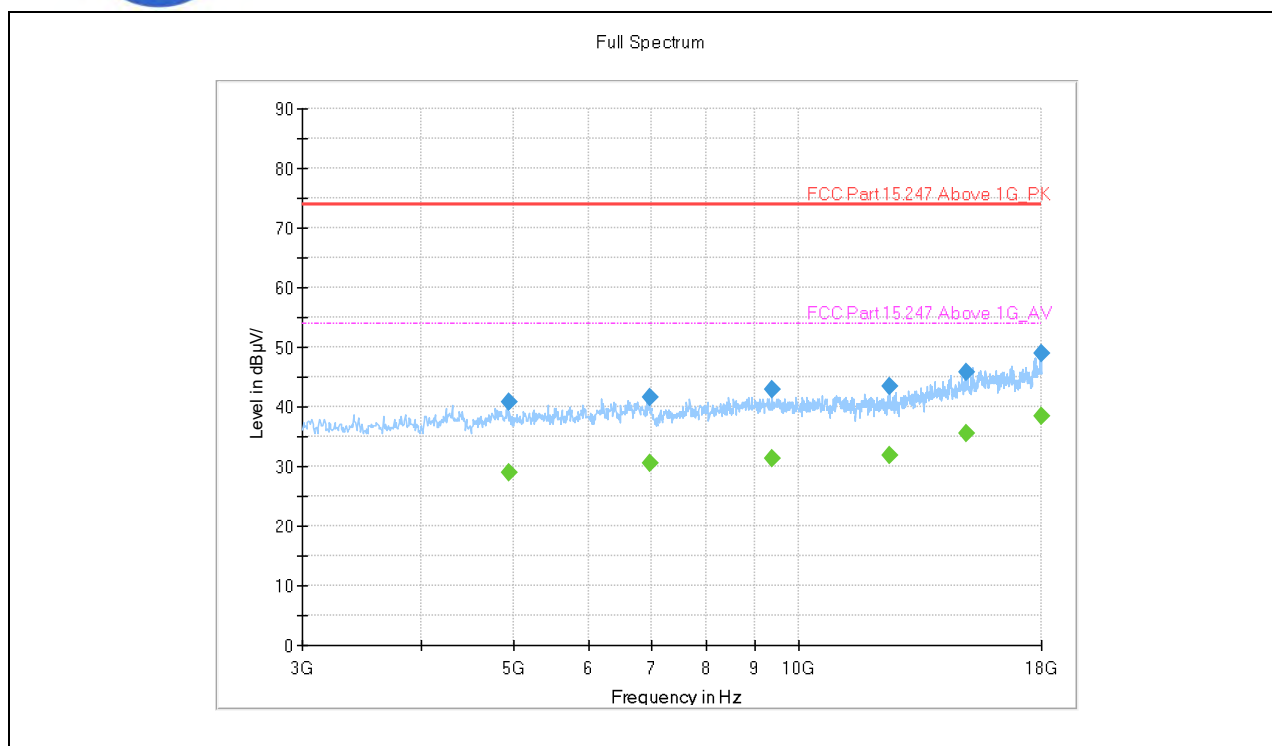
(802.11g _2462MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
42.003750	21.17	---	40.00	18.83	V	15.1
70.174167	20.17	---	40.00	19.83	V	12.0
143.449583	23.53	---	43.50	19.97	V	10.8
301.842500	23.05	---	46.00	22.95	V	17.2
594.701667	29.35	---	46.00	16.65	V	23.6
948.509167	31.75	---	46.00	14.25	V	28.3



(802.11g _2462MHz, Antenna Vertical , 1GHz to 3GHz)

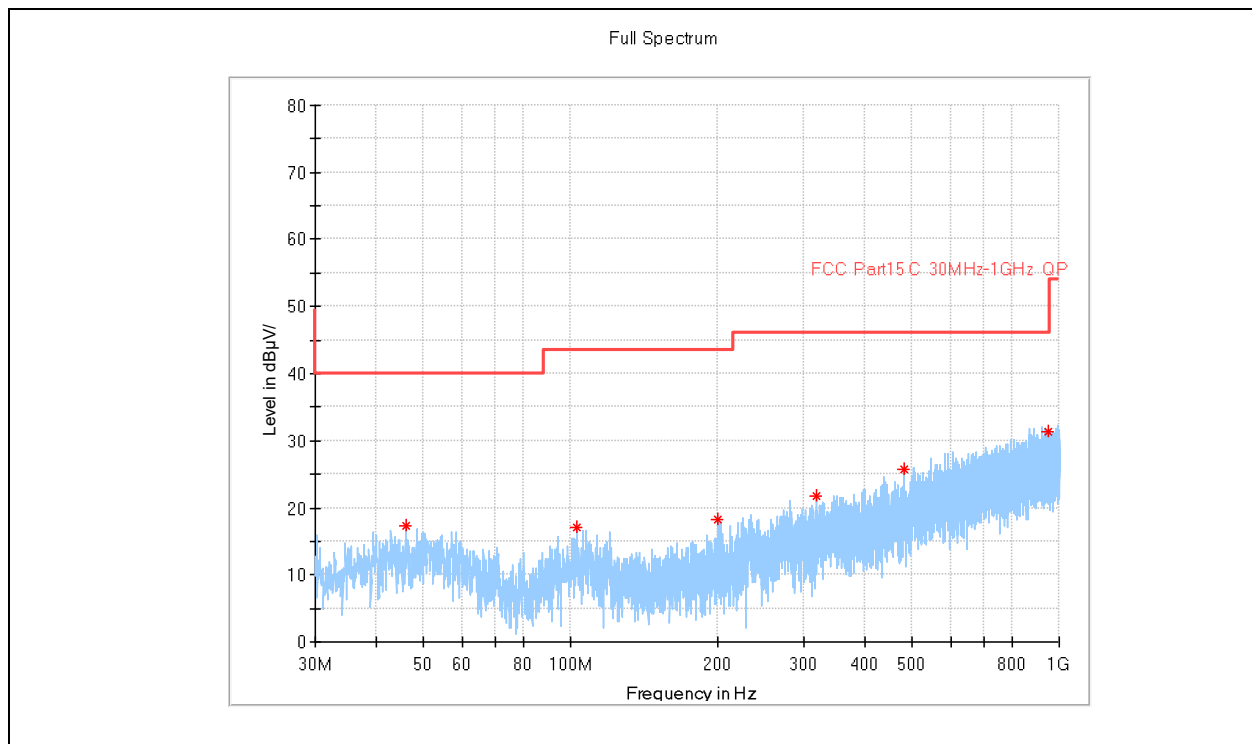
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
1185.000000	34.66	---	74.00	39.34	V	-1.2
1185.000000	---	24.36	54.00	29.64	V	-1.2
1495.000000	38.12	---	74.00	35.88	V	1.9
1495.000000	---	26.47	54.00	27.53	V	1.9
1930.000000	---	30.24	54.00	23.76	V	6.3
1930.000000	40.27	---	74.00	33.73	V	6.3
2145.000000	---	31.30	54.00	22.70	V	8.2
2145.000000	41.37	---	74.00	32.63	V	8.2
2580.000000	---	37.04	54.00	16.96	V	13.9
2580.000000	49.69	---	74.00	24.31	V	13.9
2795.000000	---	37.95	54.00	16.05	V	16.1
2795.000000	48.58	---	74.00	25.42	V	16.1



(802.11g _2462MHz, Antenna Vertical, 3GHz to 18GHz)

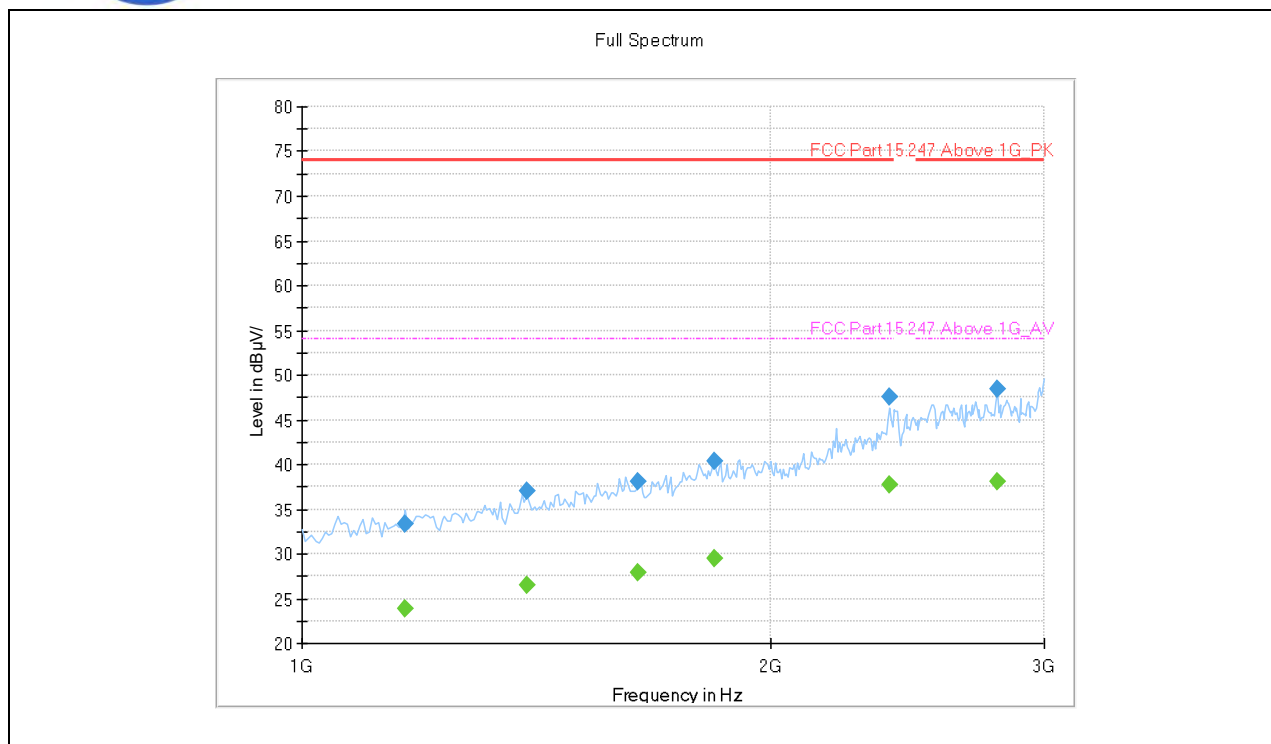
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4957.500000	40.88	---	74.00	33.12	V	-3.0
4957.500000	---	28.96	54.00	25.04	V	-3.0
6960.000000	41.71	---	74.00	32.29	V	-0.6
6960.000000	---	30.46	54.00	23.54	V	-0.6
9367.500000	42.91	---	74.00	31.09	V	1.9
9367.500000	---	31.36	54.00	22.64	V	1.9
12442.50000	---	31.85	54.00	22.15	V	4.6
12442.50000	43.39	---	74.00	30.61	V	4.6
15022.50000	---	35.40	54.00	18.60	V	10.8
15022.50000	45.84	---	74.00	28.16	V	10.8
18000.00000	48.84	---	74.00	25.16	V	14.9
18000.00000	---	38.50	54.00	15.50	V	14.9

802.11n-20MHz Test mode



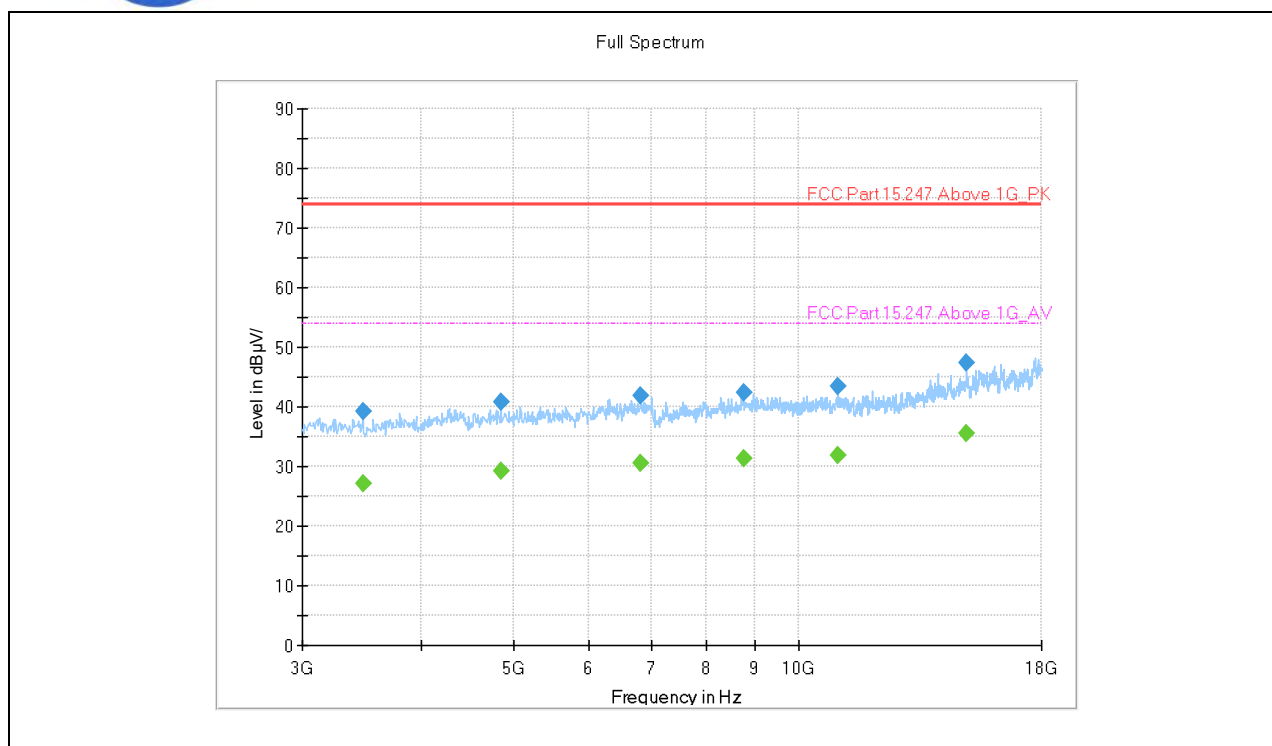
(802.11n_20M_2412MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
45.924167	17.20	---	40.00	22.80	H	15.5
102.952083	17.00	---	43.50	26.50	H	14.5
200.760417	18.25	---	43.50	25.25	H	14.2
318.938750	21.86	---	46.00	24.14	H	17.8
480.847917	25.81	---	46.00	20.19	H	21.4
946.286250	31.35	---	46.00	14.65	H	28.3



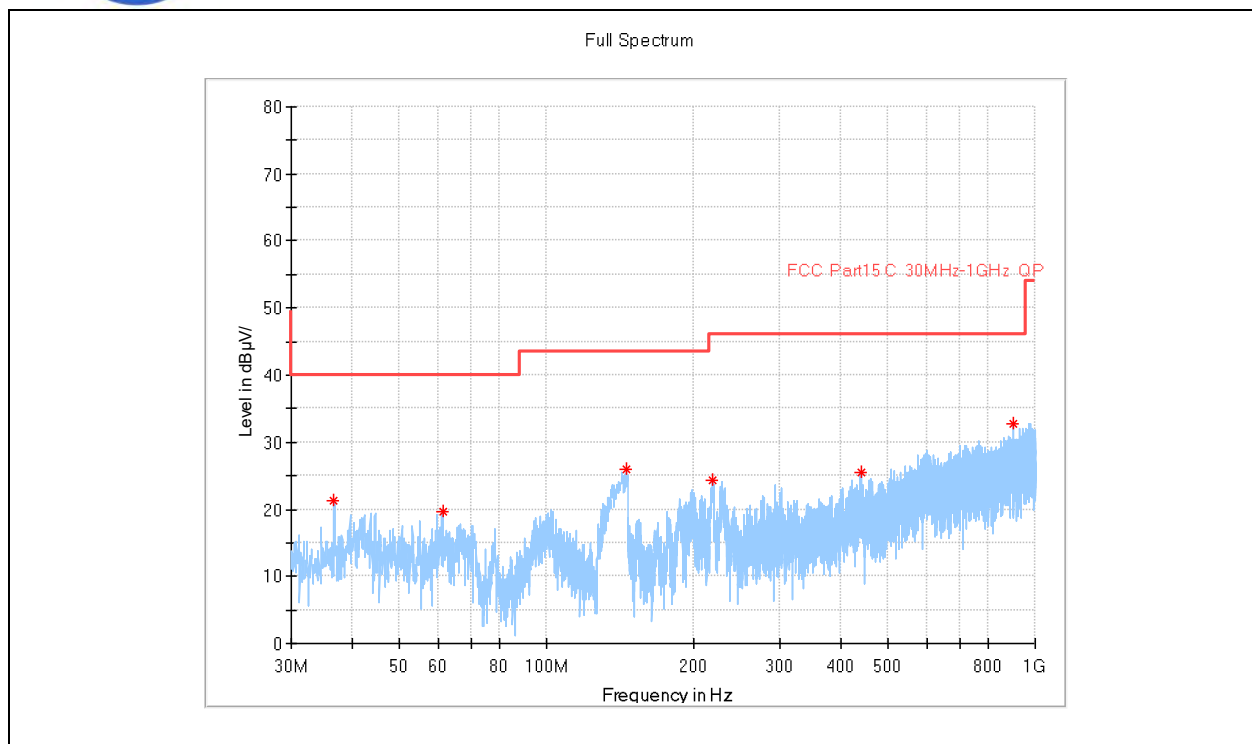
(802.11n_20M_2412MHz, Antenna Horizontal, 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1165.000000	33.36	---	74.00	40.64	H	-1.8
1165.000000	---	23.94	54.00	30.06	H	-1.8
1395.000000	---	26.42	54.00	27.58	H	1.5
1395.000000	37.06	---	74.00	36.94	H	1.5
1645.000000	---	27.82	54.00	26.18	H	3.4
1645.000000	38.09	---	74.00	35.91	H	3.4
1840.000000	---	29.54	54.00	24.46	H	5.9
1840.000000	40.27	---	74.00	33.73	H	5.9
2385.000000	47.62	---	74.00	26.38	H	12.3
2385.000000	---	37.69	54.00	16.31	H	12.3
2800.000000	---	38.05	54.00	15.95	H	16.5
2800.000000	48.35	---	74.00	25.65	H	16.5

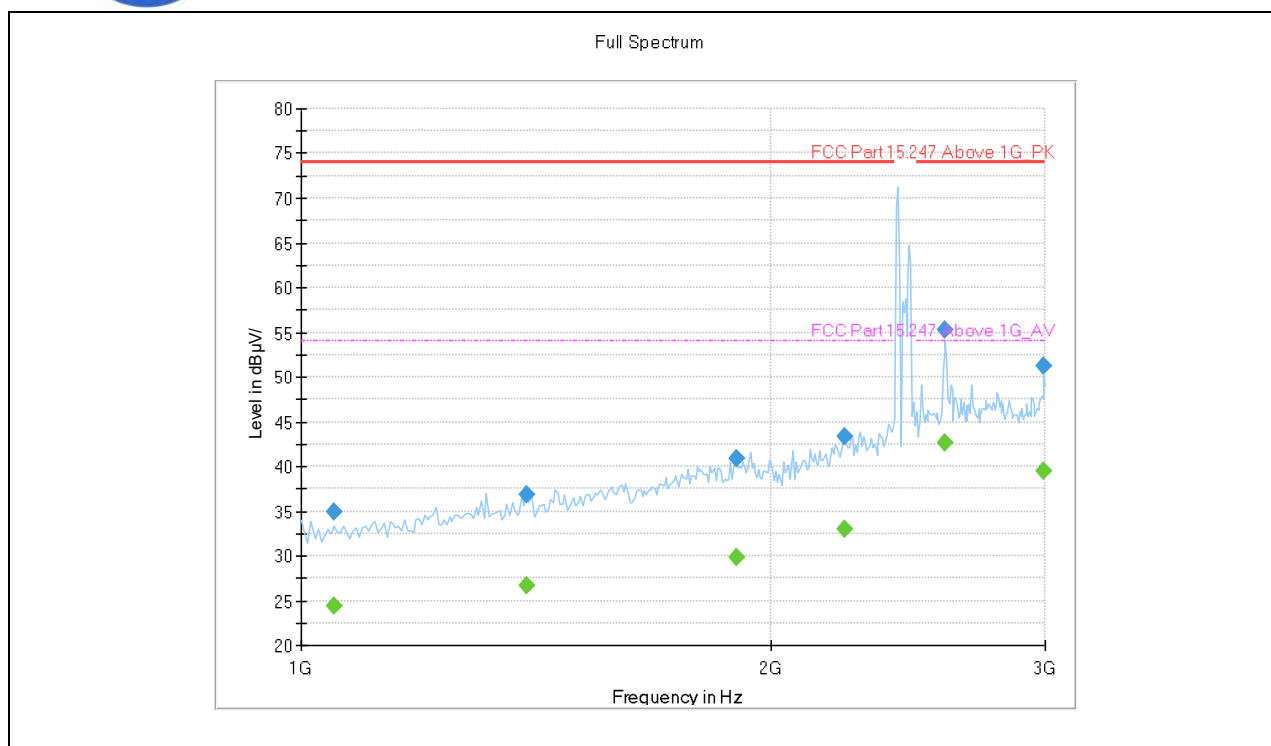


(802.11n_20M_2412MHz, Antenna Horizontal, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
3472.500000	39.33	---	74.00	34.67	H	-6.3
3472.500000	---	27.04	54.00	26.96	H	-6.3
4852.500000	---	29.21	54.00	24.79	H	-3.0
4852.500000	40.78	---	74.00	33.22	H	-3.0
6810.000000	41.96	---	74.00	32.04	H	-1.0
6810.000000	---	30.59	54.00	23.41	H	-1.0
8737.500000	42.33	---	74.00	31.67	H	1.4
8737.500000	---	31.20	54.00	22.80	H	1.4
10980.000000	43.35	---	74.00	30.65	H	3.3
10980.000000	---	31.89	54.00	22.11	H	3.3
15000.000000	---	35.45	54.00	18.55	H	10.6
15000.000000	47.24	---	74.00	26.76	H	10.6

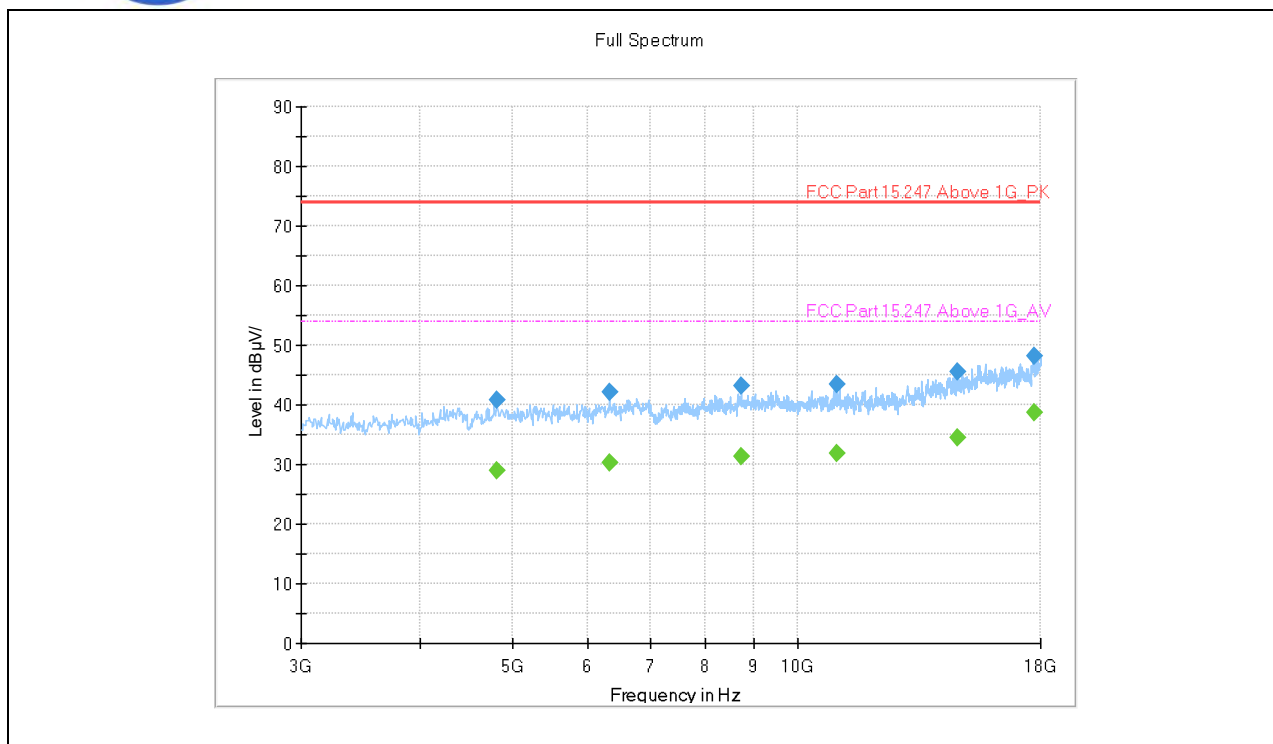


Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
36.749583	21.18	---	40.00	18.82	V	13.5
61.525000	19.55	---	40.00	20.45	V	13.9
145.591667	25.89	---	43.50	17.61	V	10.5
217.977917	24.36	---	46.00	21.64	V	14.2
440.027083	25.51	---	46.00	20.49	V	20.6
904.212500	32.76	---	46.00	13.24	V	28.1



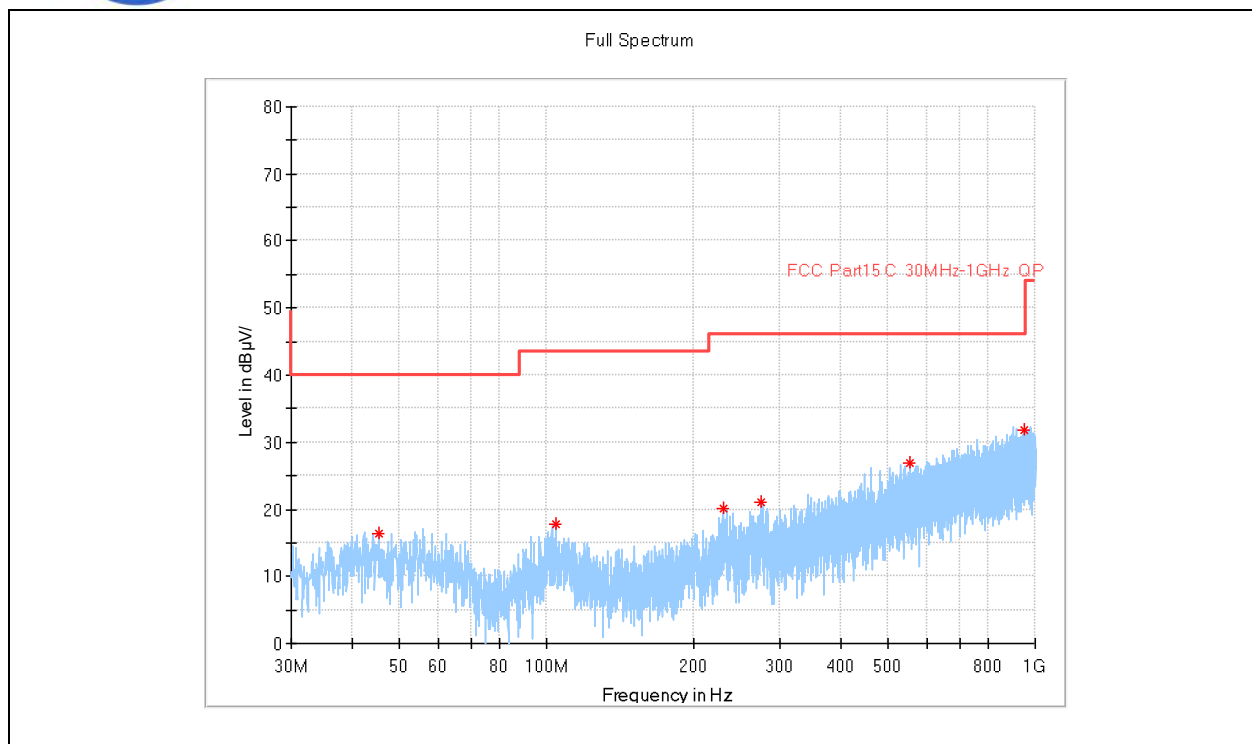
(802.11n_20M_2412MHz, Antenna Vertical , 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1050.000000	34.92	---	74.00	39.09	V	-1.9
1050.000000	---	24.36	54.00	29.64	V	-1.9
1395.000000	---	26.63	54.00	27.37	V	1.5
1395.000000	36.86	---	74.00	37.14	V	1.5
1900.000000	40.90	---	74.00	33.10	V	6.2
1900.000000	---	29.79	54.00	24.21	V	6.2
2230.000000	---	33.01	54.00	20.99	V	9.7
2230.000000	43.36	---	74.00	30.64	V	9.7
2590.000000	---	42.57	54.00	11.43	V	14.5
2590.000000	55.23	---	74.00	18.77	V	14.5
2995.000000	---	39.52	54.00	14.48	V	17.9
2995.000000	51.16	---	74.00	22.84	V	17.9



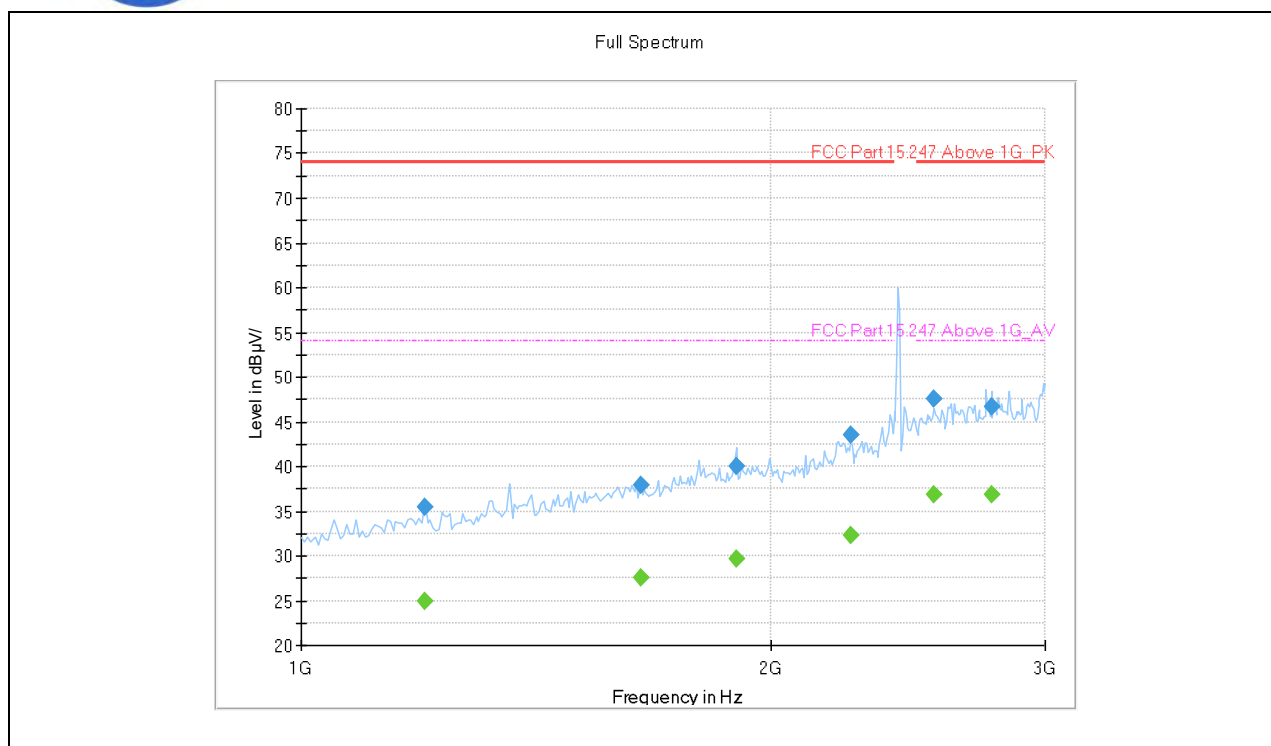
(802.11n_20M_2412MHz, Antenna Vertical, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4822.500000	---	29.00	54.00	21.00	V	-3.2
4822.500000	40.77	---	74.00	33.23	V	-3.2
6330.000000	42.08	---	74.00	29.92	V	-1.2
6330.000000	---	30.21	54.00	23.79	V	-1.2
8715.000000	---	31.28	54.00	22.72	V	1.3
8715.000000	43.10	---	74.00	30.90	V	1.3
10980.00000	---	31.82	54.00	22.18	V	3.3
10980.00000	43.31	---	74.00	30.69	V	3.3
14737.50000	45.65	---	74.00	28.35	V	9.2
14737.50000	---	34.39	54.00	19.61	V	9.2
17722.50000	---	38.62	54.00	15.38	V	14.7
17722.50000	48.04	---	74.00	25.96	V	14.7



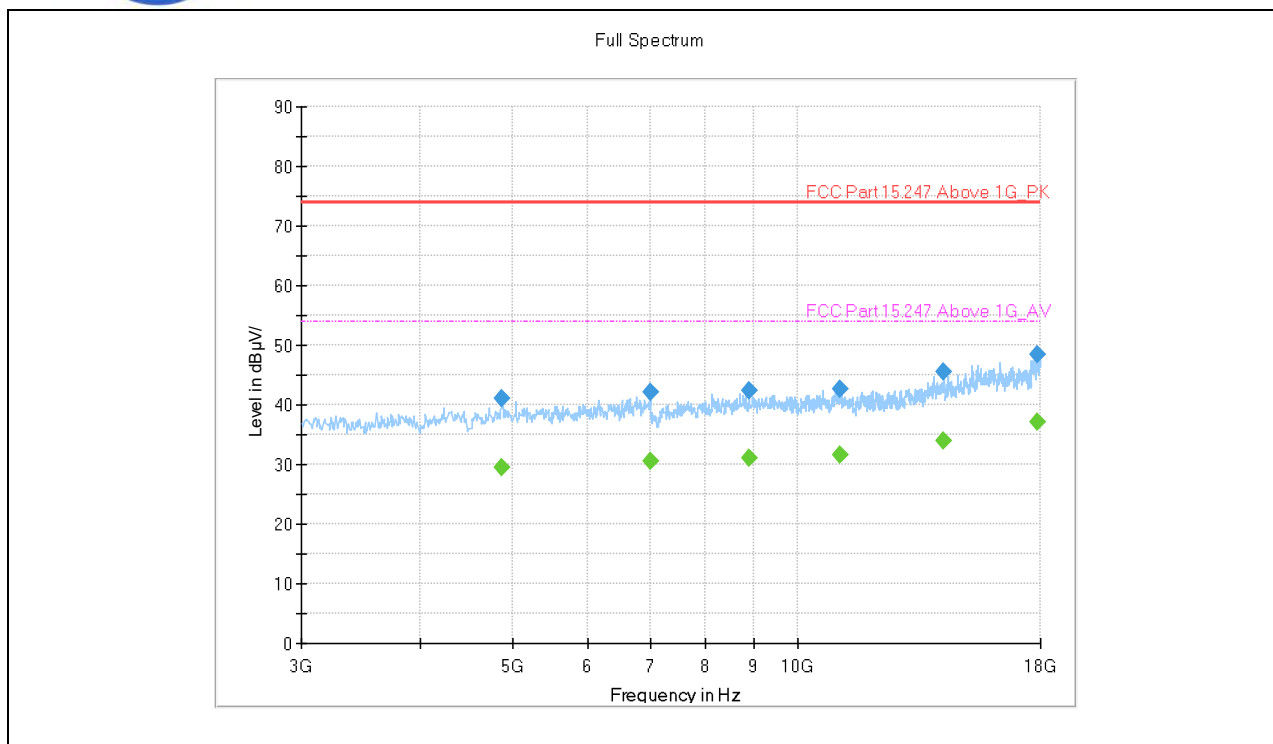
(802.11n_20M_2437MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
45.398750	16.41	---	40.00	23.59	H	15.4
104.164583	17.68	---	43.50	25.82	H	14.3
229.335000	20.16	---	46.00	25.84	H	14.4
274.763333	20.96	---	46.00	25.04	H	15.5
554.285000	26.86	---	46.00	19.14	H	22.7
948.711250	31.75	---	46.00	14.25	H	28.3



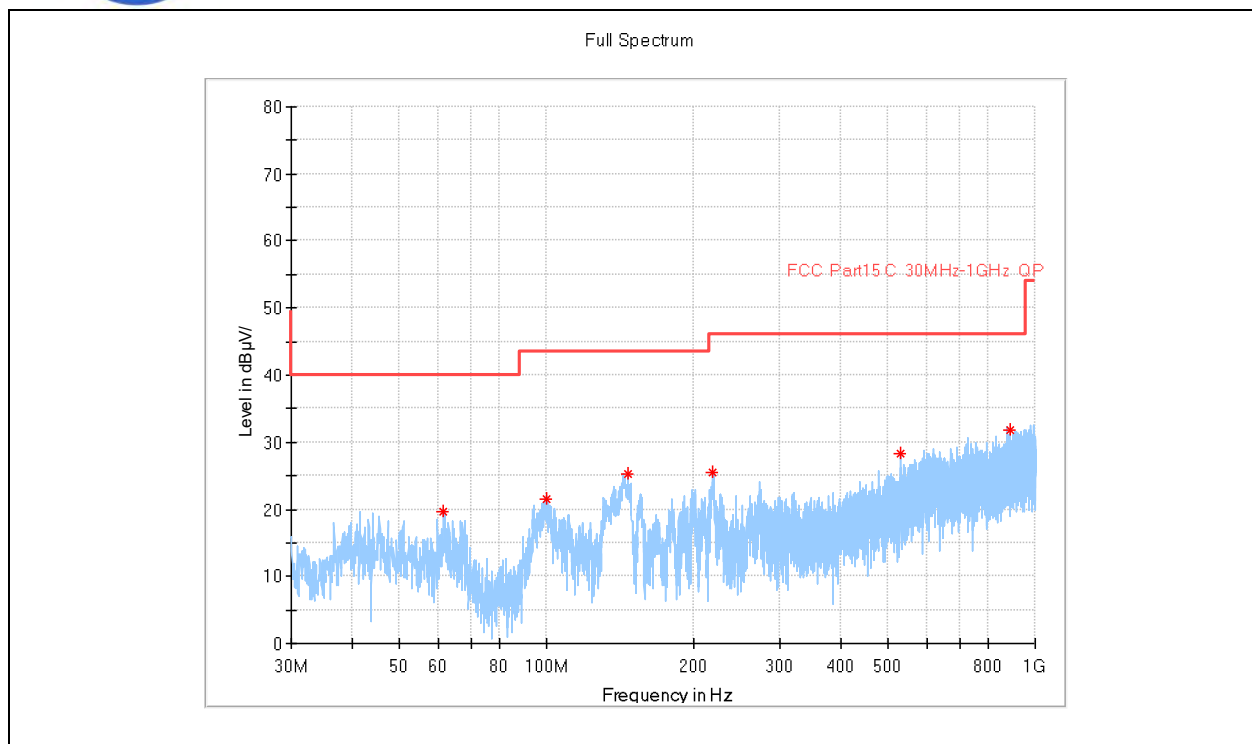
(802.11n_20M_2437MHz, Antenna Horizontal, 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1200.000000	---	24.93	54.00	29.07	H	-0.4
1200.000000	35.49	---	74.00	38.51	H	-0.4
1650.000000	37.84	---	74.00	36.16	H	3.3
1650.000000	---	27.63	54.00	26.37	H	3.3
1900.000000	40.03	---	74.00	33.97	H	6.2
1900.000000	---	29.63	54.00	24.37	H	6.2
2250.000000	43.44	---	74.00	30.56	H	9.8
2250.000000	---	32.36	54.00	21.64	H	9.8
2545.000000	47.52	---	74.00	26.48	H	14.6
2545.000000	---	36.91	54.00	17.09	H	14.6
2770.000000	---	36.85	54.00	17.15	H	15.1
2770.000000	46.72	---	74.00	27.28	H	15.1



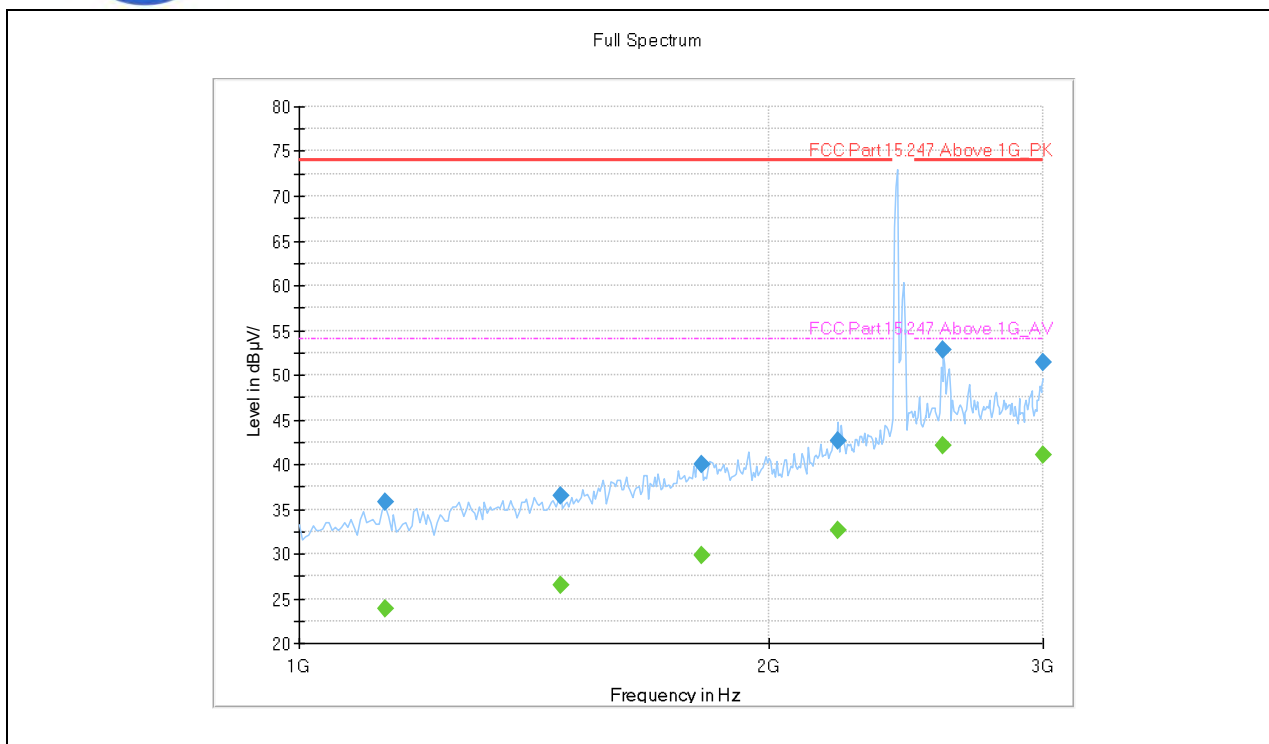
(802.11n_20M_2437MHz, Antenna Horizontal, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4882.500000	---	29.49	54.00	24.51	H	-2.8
4882.500000	40.97	---	74.00	33.03	H	-2.8
6990.000000	42.16	---	74.00	31.84	H	-0.8
6990.000000	---	30.53	54.00	23.47	H	-0.8
8887.500000	---	30.92	54.00	23.08	H	1.4
8887.500000	42.46	---	74.00	31.54	H	1.4
11092.50000	42.58	---	74.00	31.42	H	3.2
11092.50000	---	31.67	54.00	22.33	H	3.2
14250.00000	45.65	---	74.00	28.35	H	8.4
14250.00000	---	33.96	54.00	20.04	H	8.4
17850.00000	48.34	---	74.00	25.66	H	14.7
17850.00000	---	37.21	54.00	16.79	H	14.7



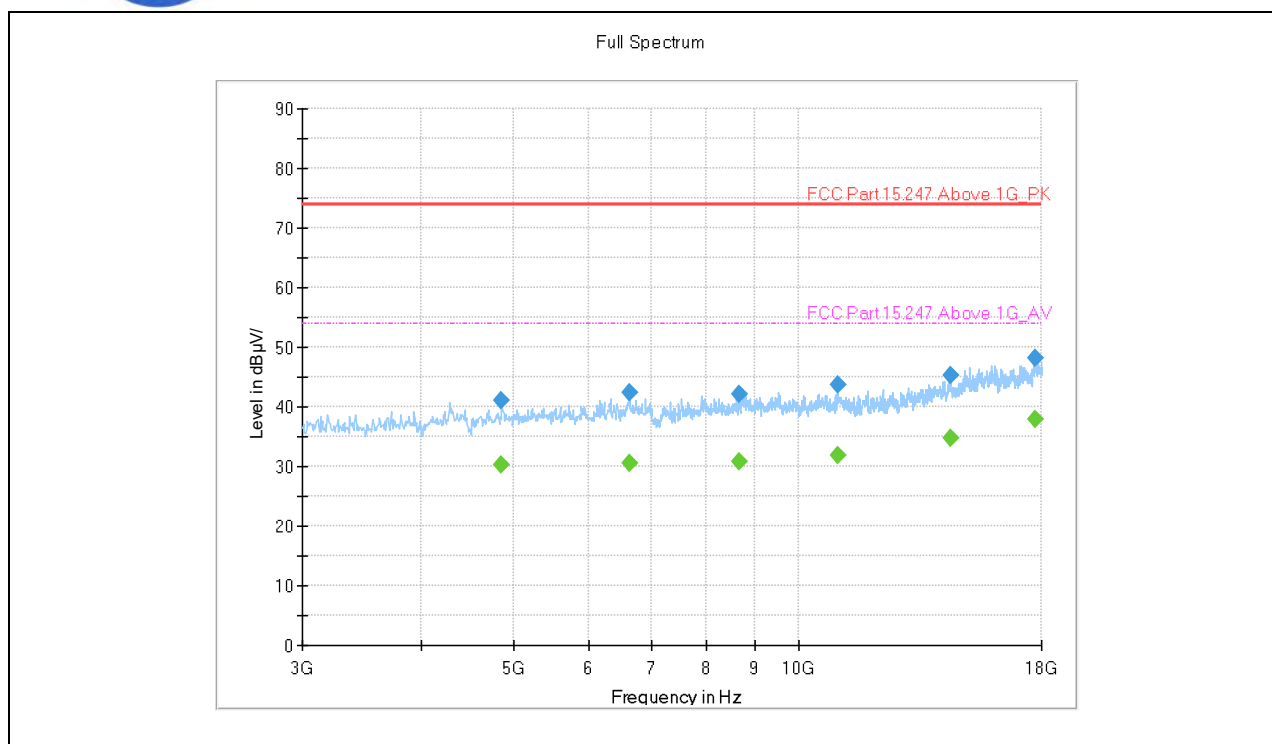
(802.11n_20M_2437MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
61.565417	19.59	---	40.00	20.41	V	13.9
100.001667	21.63	---	43.50	21.87	V	15.2
147.127500	25.31	---	43.50	18.19	V	10.9
219.190417	25.42	---	46.00	20.58	V	14.6
530.883750	28.20	---	46.00	17.80	V	22.2
890.107083	31.87	---	46.00	14.13	V	27.9



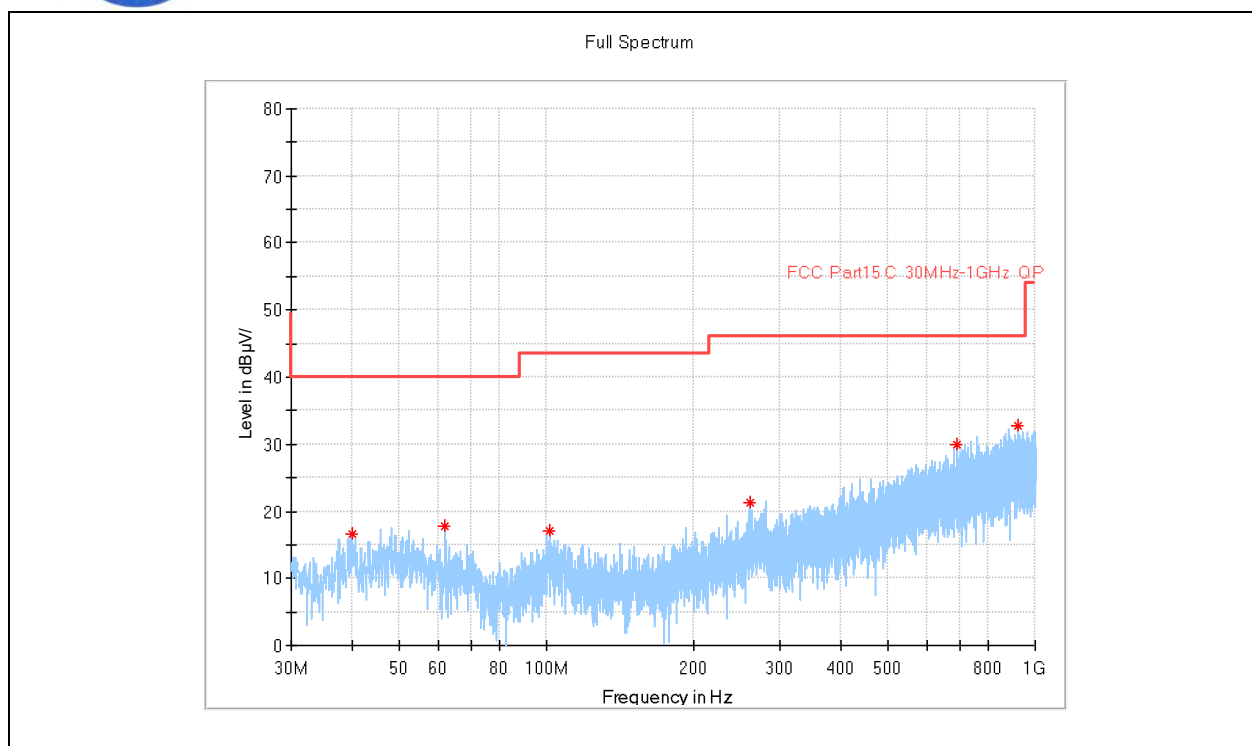
(802.11n_20M_2437MHz, Antenna Vertical , 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
1135.000000	---	23.95	54.00	30.05	V	-1.9
1135.000000	35.75	---	74.00	38.25	V	-1.9
1470.000000	---	26.54	54.00	27.46	V	1.7
1470.000000	36.44	---	74.00	37.56	V	1.7
1810.000000	---	29.78	54.00	24.22	V	6.0
1810.000000	39.92	---	74.00	34.08	V	6.0
2215.000000	---	32.58	54.00	21.42	V	9.5
2215.000000	42.55	---	74.00	31.45	V	9.5
2590.000000	52.74	---	74.00	21.26	V	14.5
2590.000000	---	42.06	54.00	11.94	V	14.5
3000.000000	51.36	---	74.00	22.64	V	18.4
3000.000000	---	41.04	54.00	12.96	V	18.4



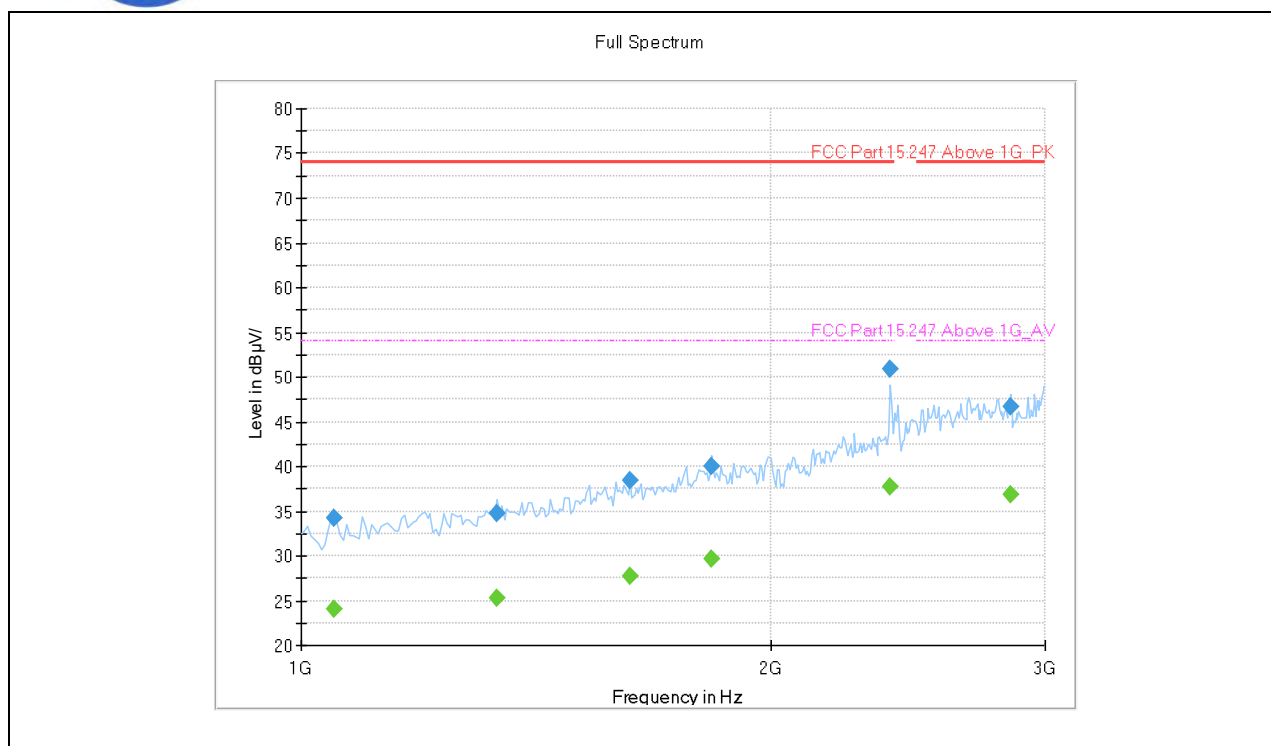
(802.11n_20M_2437MHz, Antenna Vertical, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4867.500000	---	30.13	54.00	23.87	V	-2.9
4867.500000	40.93	---	74.00	33.07	V	-2.9
6645.000000	---	30.66	54.00	23.35	V	-0.3
6645.000000	42.27	---	74.00	31.73	V	-0.3
8647.500000	---	30.66	54.00	23.34	V	1.2
8647.500000	42.22	---	74.00	31.78	V	1.2
10987.50000	---	31.86	54.00	22.14	V	3.3
10987.50000	43.71	---	74.00	30.29	V	3.3
14430.00000	---	34.73	54.00	19.27	V	9.1
14430.00000	45.37	---	74.00	28.63	V	9.1
17700.00000	---	37.93	54.00	16.07	V	14.2
17700.00000	48.05	---	74.00	25.95	V	14.2



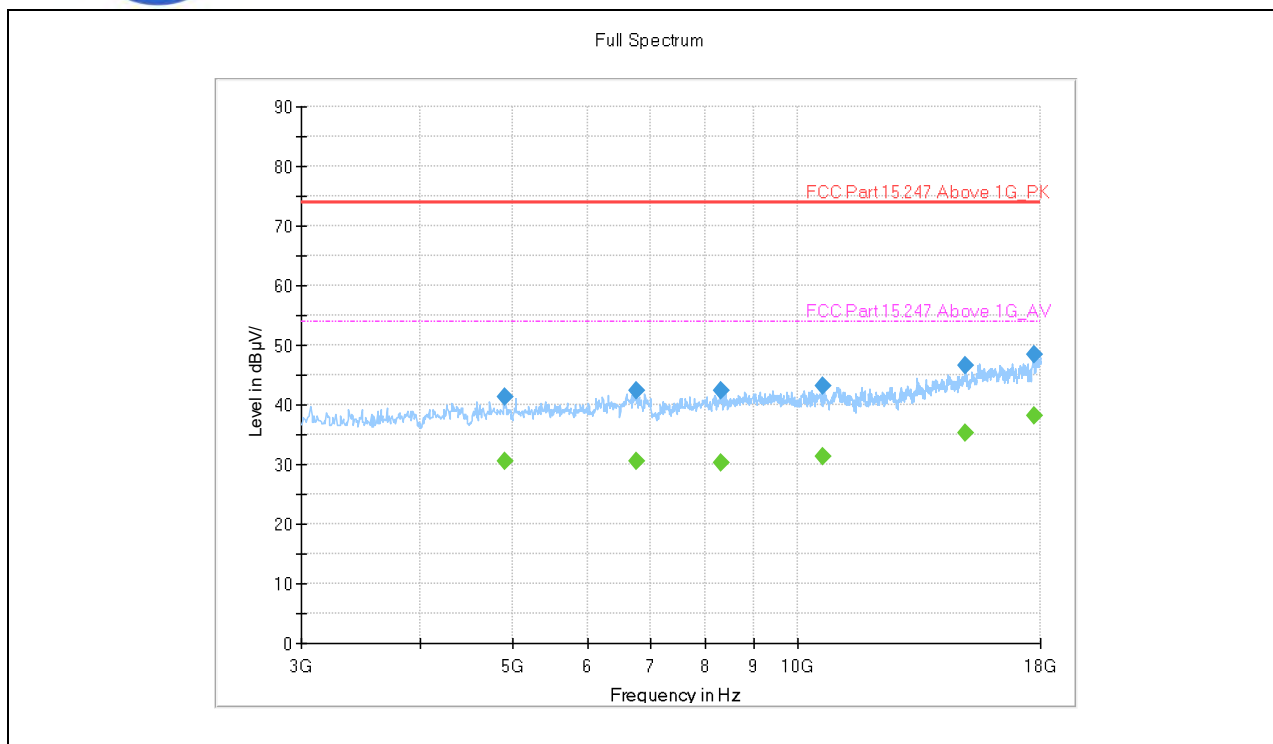
(802.11n_20M_2462MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
39.861667	16.54	---	40.00	23.46	H	15.5
61.767500	17.67	---	40.00	22.33	H	13.8
101.497083	17.10	---	43.50	26.40	H	14.9
259.970833	21.35	---	46.00	24.65	H	16.1
689.842500	30.00	---	46.00	16.00	H	24.8
920.783333	32.68	---	46.00	13.32	H	28.0



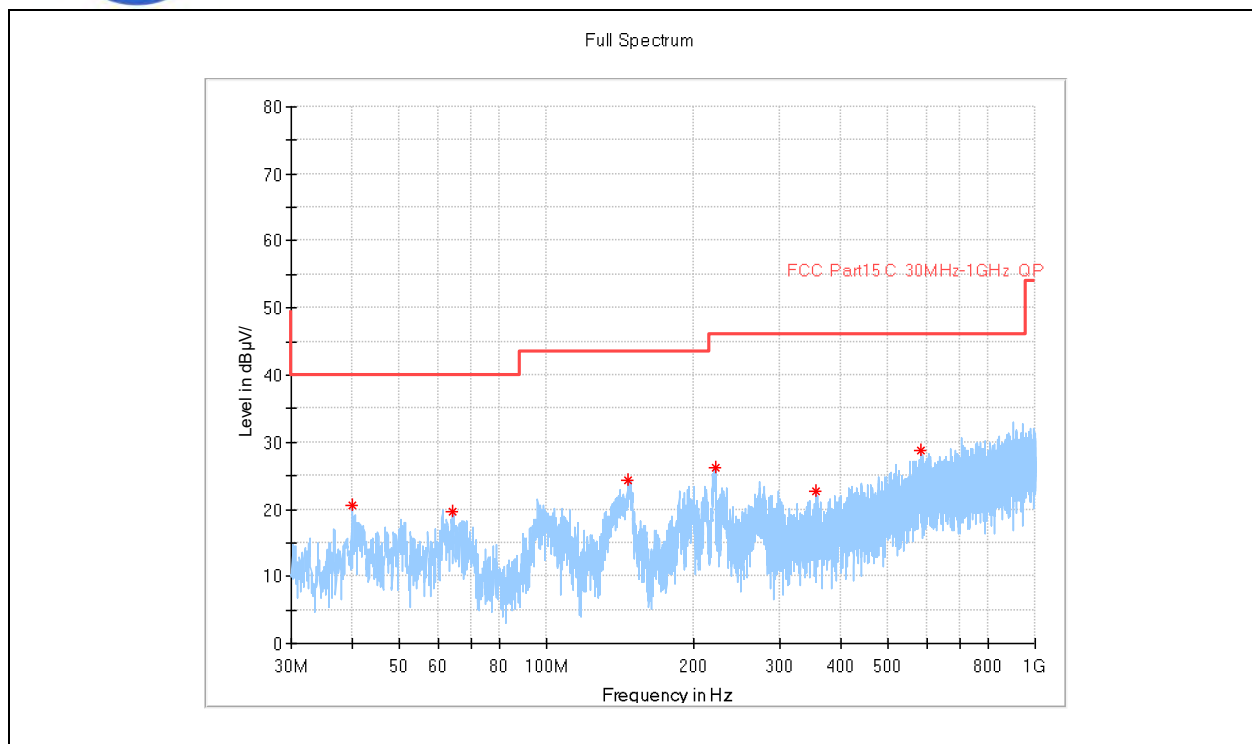
(802.11n_20M_2462MHz, Antenna Horizontal, 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1050.000000	34.28	---	74.00	39.72	H	-1.9
1050.000000	---	24.09	54.00	29.91	H	-1.9
1335.000000	---	25.35	54.00	28.65	H	0.3
1335.000000	34.77	---	74.00	39.23	H	0.3
1625.000000	---	27.75	54.00	26.25	H	3.3
1625.000000	38.45	---	74.00	35.55	H	3.3
1835.000000	---	29.69	54.00	24.31	H	6.0
1835.000000	39.95	---	74.00	34.05	H	6.0
2385.000000	50.95	---	74.00	23.05	H	12.3
2385.000000	---	37.75	54.00	16.25	H	12.3
2850.000000	---	36.81	54.00	17.19	H	15.3
2850.000000	46.70	---	74.00	27.30	H	15.3



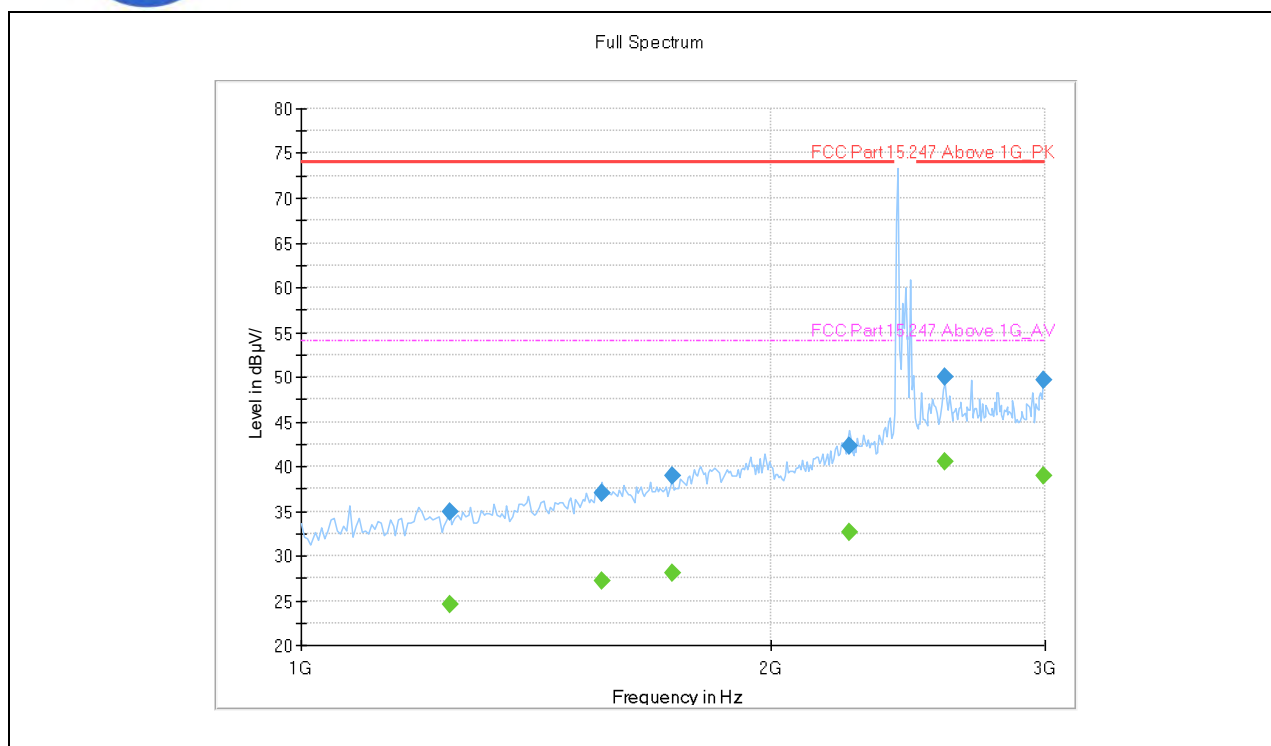
(802.11n_20M_2462MHz, Antenna Horizontal, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4920.000000	41.36	---	74.00	32.64	H	-2.8
4920.000000	---	30.59	54.00	23.41	H	-2.8
6772.500000	---	30.50	54.00	23.50	H	-1.2
6772.500000	42.50	---	74.00	31.50	H	-1.2
8310.000000	42.32	---	74.00	31.68	H	0.8
8310.000000	---	30.33	54.00	23.67	H	0.8
10620.000000	43.14	---	74.00	30.86	H	2.6
10620.000000	---	31.22	54.00	22.78	H	2.6
15030.000000	46.56	---	74.00	27.44	H	10.6
15030.000000	---	35.34	54.00	18.66	H	10.6
17707.500000	---	38.17	54.00	15.83	H	14.4
17707.500000	48.54	---	74.00	25.46	H	14.4



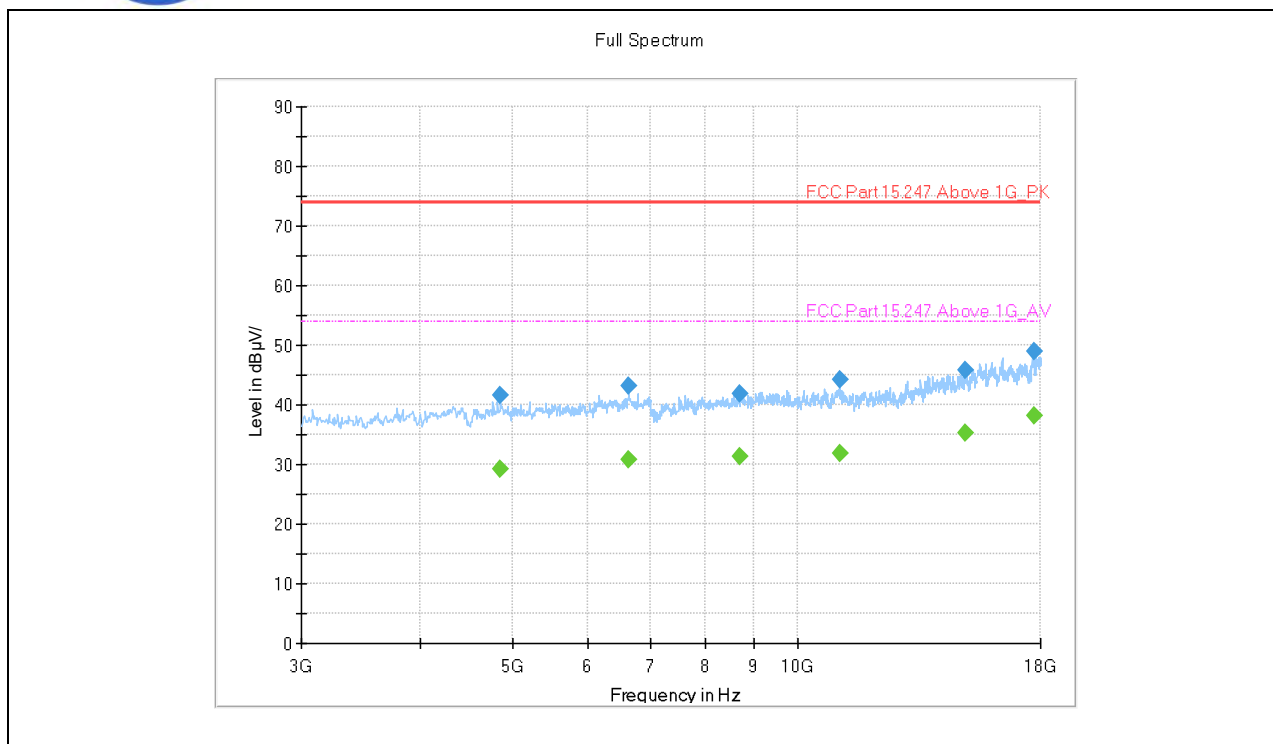
(802.11n_20M_2462MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
39.942500	20.55	---	40.00	19.45	V	15.6
64.152083	19.56	---	40.00	20.44	V	13.6
147.087083	24.32	---	43.50	19.18	V	10.8
221.453750	26.12	---	46.00	19.88	V	14.5
355.879583	22.65	---	46.00	23.35	V	18.2
582.617083	28.69	---	46.00	17.31	V	23.1



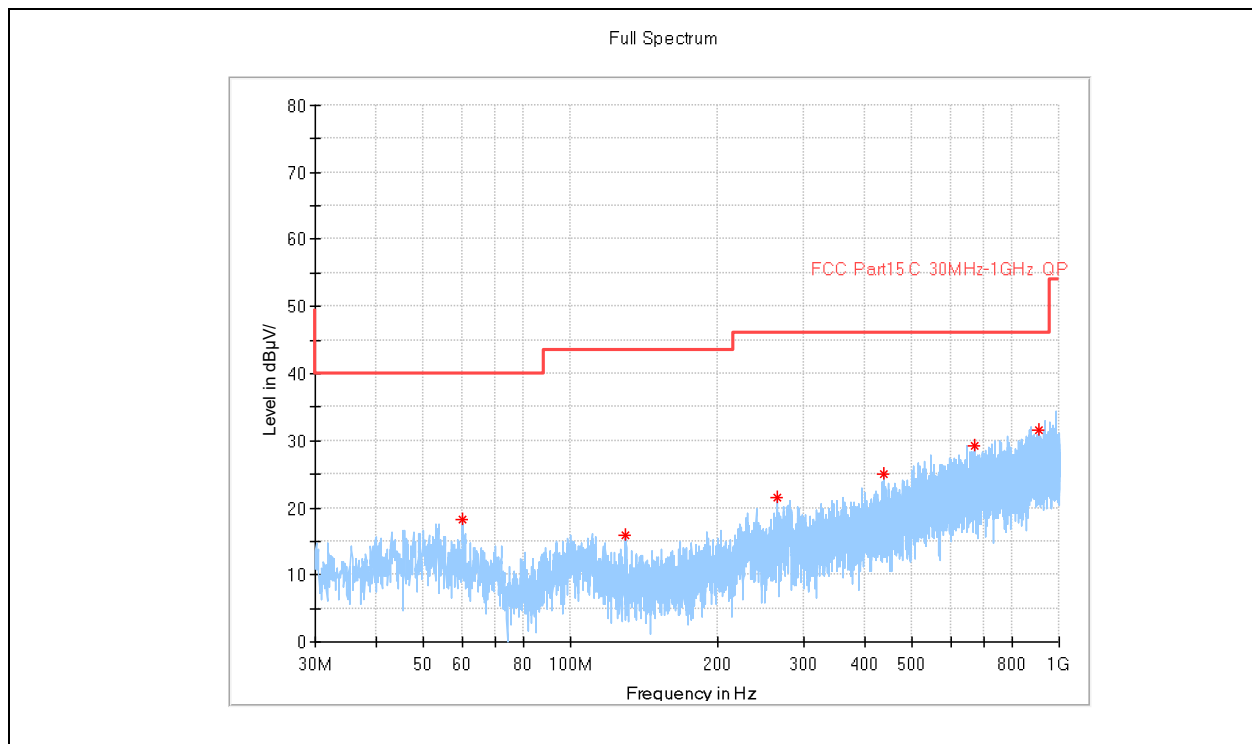
(802.11n_20M_2462MHz, Antenna Vertical , 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1245.000000	---	24.57	54.00	29.43	V	-0.7
1245.000000	34.99	---	74.00	39.01	V	-0.7
1560.000000	36.99	---	74.00	37.01	V	2.9
1560.000000	---	27.13	54.00	26.87	V	2.9
1730.000000	38.88	---	74.00	35.12	V	4.1
1730.000000	---	28.09	54.00	25.91	V	4.1
2245.000000	42.25	---	74.00	31.75	V	9.8
2245.000000	---	32.68	54.00	21.32	V	9.8
2590.000000	---	40.58	54.00	13.42	V	14.5
2590.000000	50.06	---	74.00	23.94	V	14.5
2990.000000	49.65	---	74.00	24.35	V	17.4
2990.000000	---	38.99	54.00	15.01	V	17.4



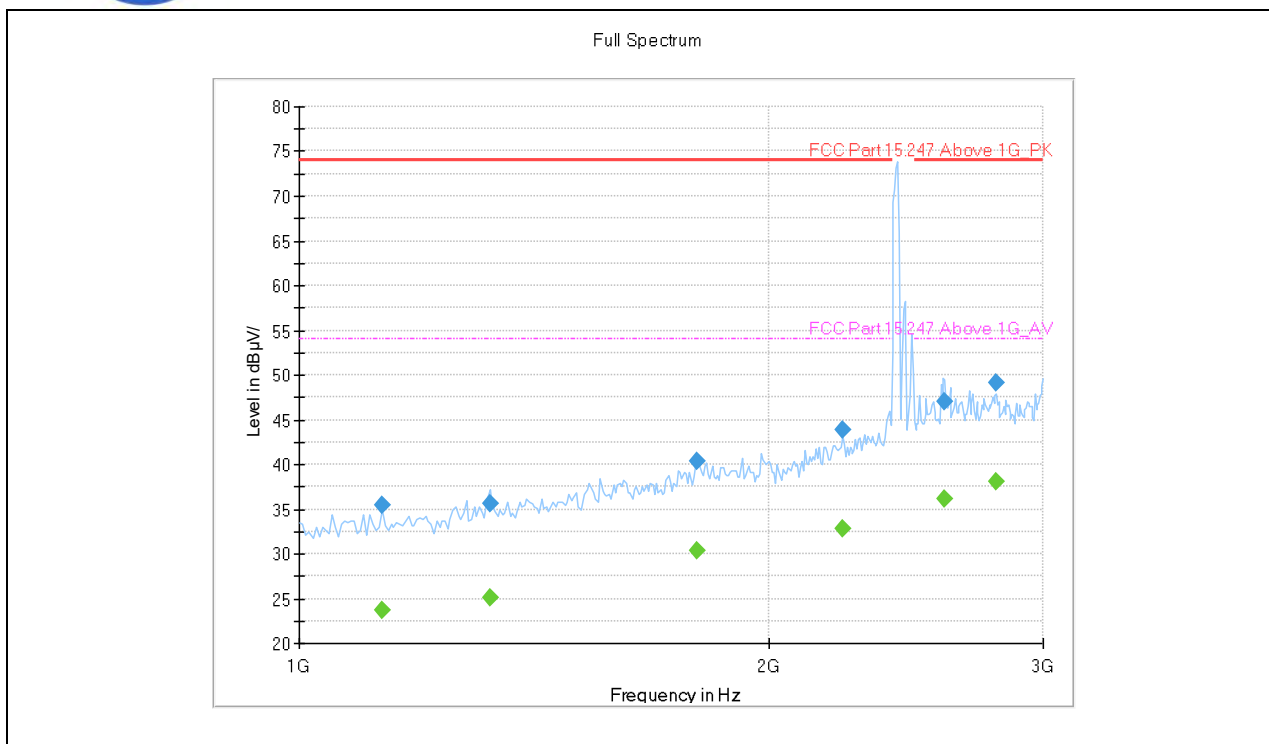
(802.11n_20M_2462MHz, Antenna Vertical, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4860.000000	41.64	---	74.00	32.36	V	-3.0
4860.000000	---	29.19	54.00	24.81	V	-3.0
6630.000000	---	30.70	54.00	23.30	V	-0.6
6630.000000	43.22	---	74.00	30.78	V	-0.6
8692.500000	---	31.20	54.00	22.80	V	1.3
8692.500000	41.94	---	74.00	32.06	V	1.3
11062.500000	44.27	---	74.00	29.73	V	3.4
11062.500000	---	31.74	54.00	22.26	V	3.4
15030.000000	45.73	---	74.00	28.27	V	10.6
15030.000000	---	35.29	54.00	18.71	V	10.6
17707.500000	48.83	---	74.00	25.17	V	14.4
17707.500000	---	38.15	54.00	15.85	V	14.4

**802.11n-40MHz Test mode**

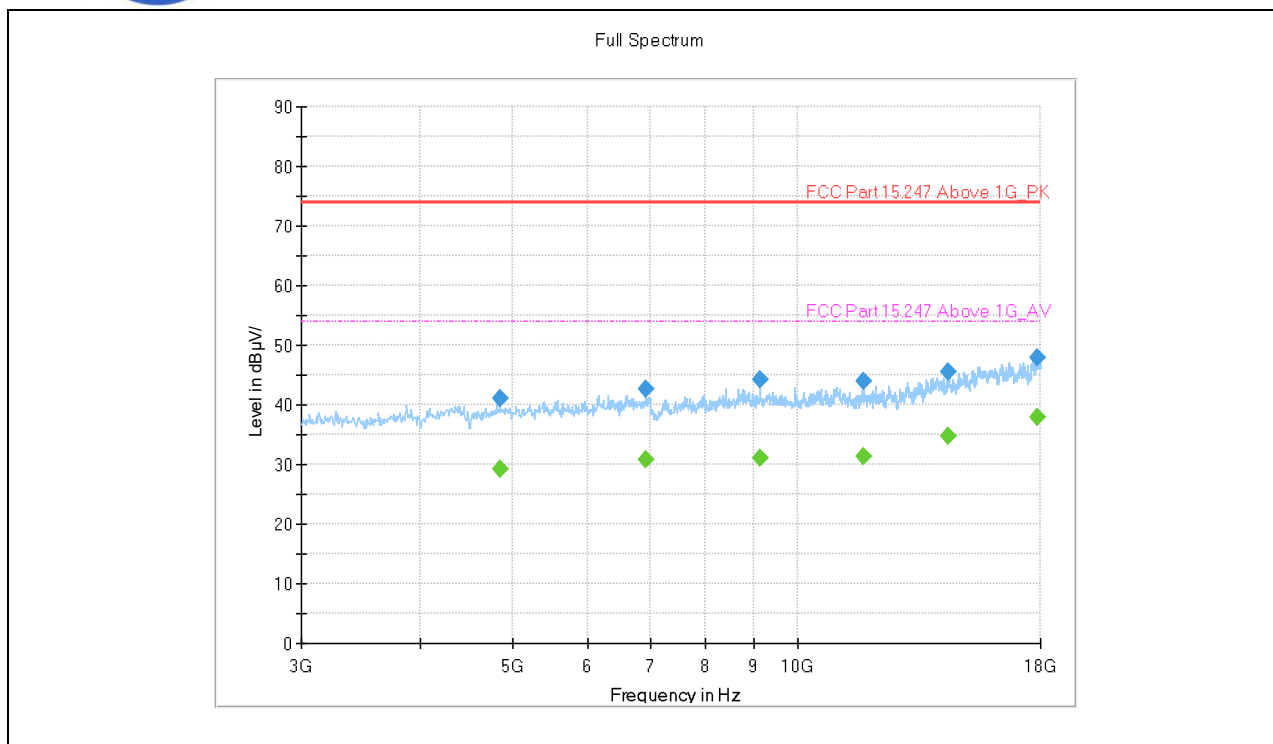
(802.11n_40M _2422MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
60.150833	18.33	---	40.00	21.67	H	14.8
129.546250	15.93	---	43.50	27.57	H	12.2
264.093333	21.61	---	46.00	24.39	H	15.4
438.248750	25.10	---	46.00	20.90	H	20.3
672.261250	29.31	---	46.00	16.69	H	24.6
906.192917	31.60	---	46.00	14.40	H	28.1



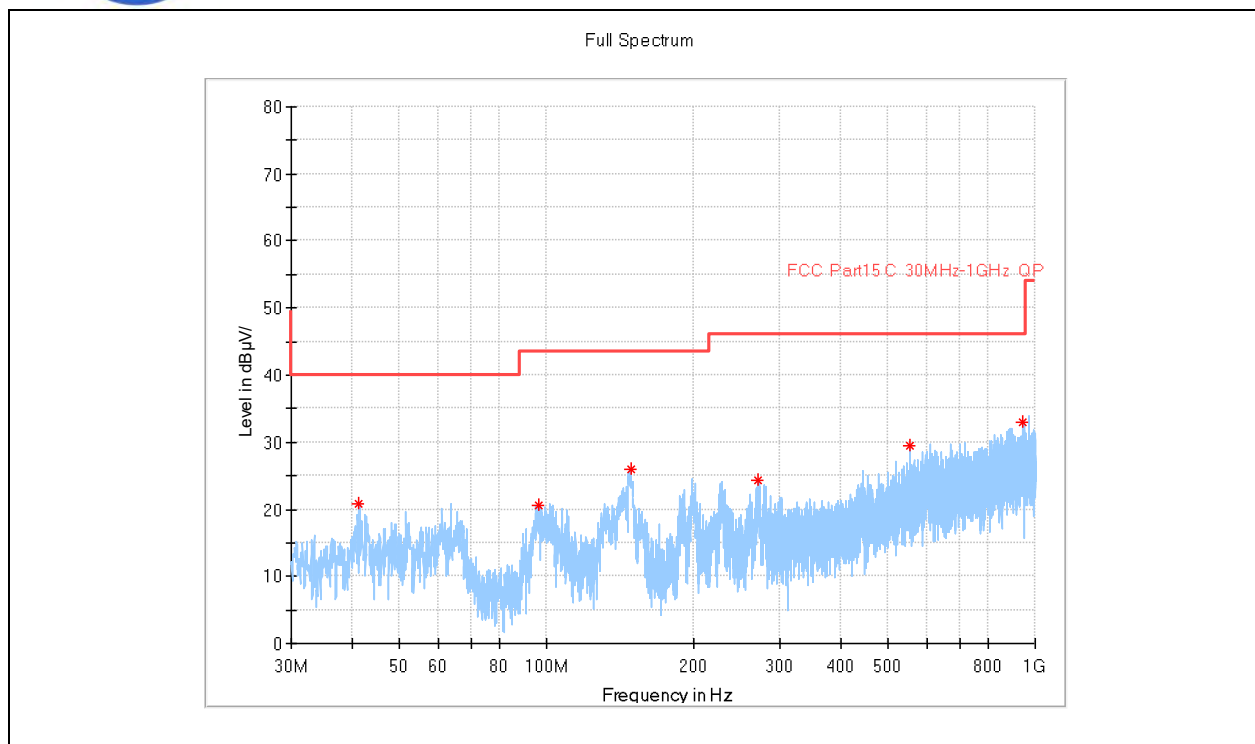
(802.11n_40M_2422MHz, Antenna Horizontal, 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
1130.000000	---	23.61	54.00	30.39	H	-2.0
1130.000000	35.44	---	74.00	38.56	H	-2.0
1325.000000	---	25.16	54.00	28.84	H	0.2
1325.000000	35.68	---	74.00	38.32	H	0.2
1800.000000	---	30.29	54.00	23.71	H	6.7
1800.000000	40.38	---	74.00	33.62	H	6.7
2230.000000	---	32.87	54.00	21.13	H	9.7
2230.000000	43.84	---	74.00	30.16	H	9.7
2595.000000	46.94	---	74.00	27.06	H	14.9
2595.000000	---	36.06	54.00	17.94	H	14.9
2800.000000	49.17	---	74.00	24.83	H	16.5
2800.000000	---	38.05	54.00	15.95	H	16.5



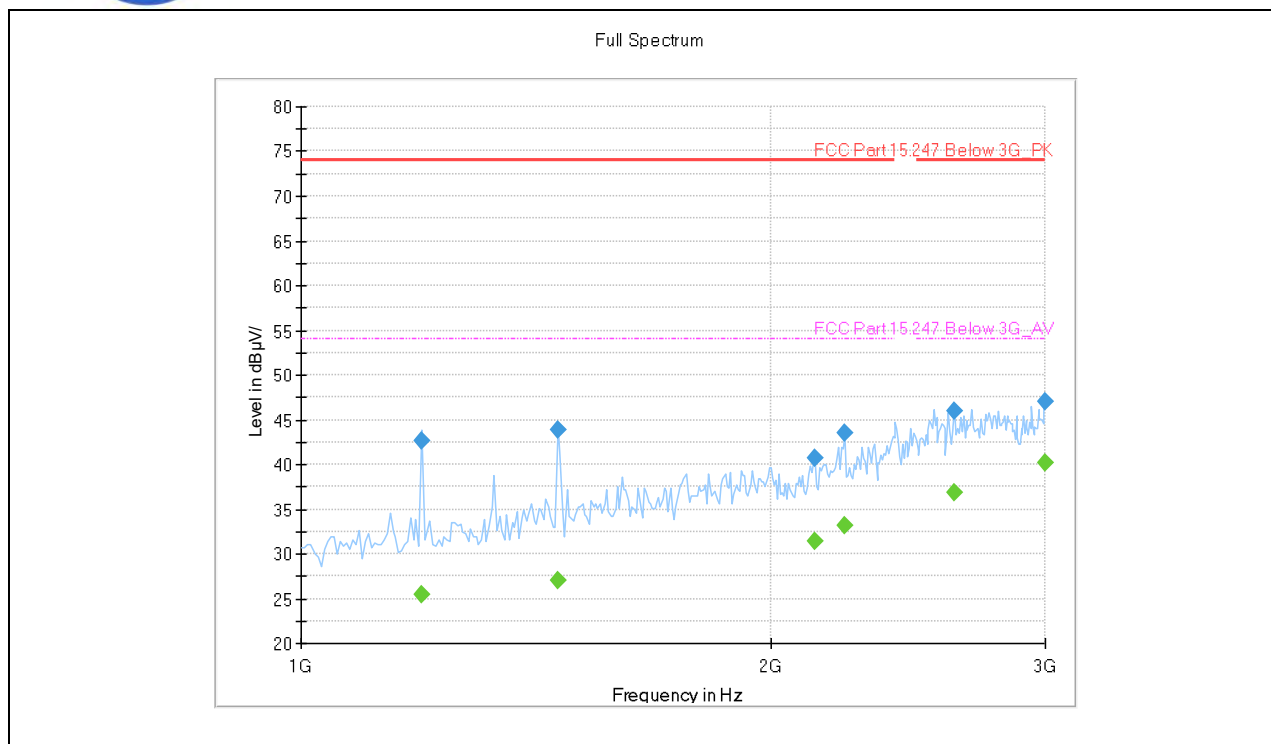
(802.11n_40M_2422MHz, Antenna Horizontal, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4860.000000	40.94	---	74.00	33.06	H	-3.0
4860.000000	---	29.19	54.00	24.81	H	-3.0
6915.000000	42.70	---	74.00	31.30	H	-0.8
6915.000000	---	30.68	54.00	23.32	H	-0.8
9120.000000	44.22	---	74.00	29.78	H	1.5
9120.000000	---	30.92	54.00	23.08	H	1.5
11730.000000	43.83	---	74.00	30.17	H	3.9
11730.000000	---	31.38	54.00	22.62	H	3.9
14400.000000	---	34.62	54.00	19.38	H	9.4
14400.000000	45.51	---	74.00	28.49	H	9.4
17895.000000	---	37.89	54.00	16.11	H	14.6
17895.000000	48.01	---	74.00	25.99	H	14.6



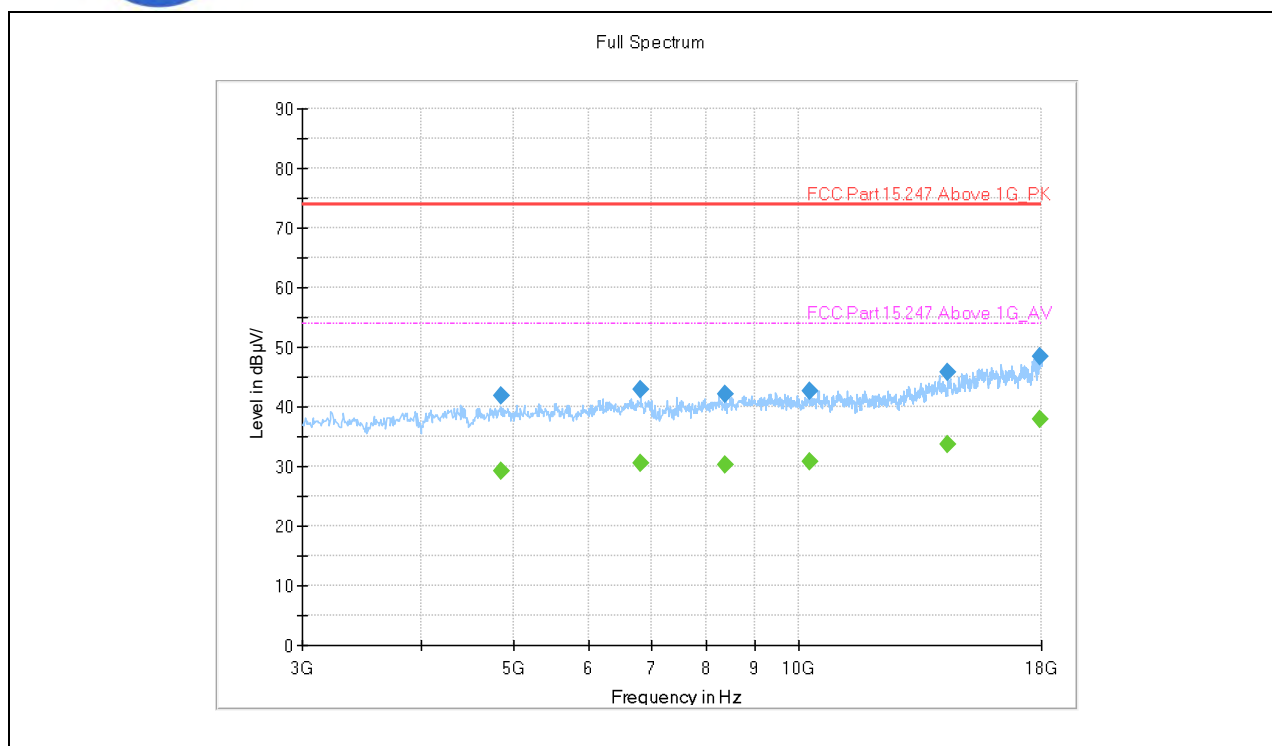
(802.11n_40M_2422MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
41.357083	20.77	---	40.00	19.23	V	14.9
96.485417	20.68	---	43.50	22.82	V	13.3
148.825000	25.87	---	43.50	17.63	V	11.3
270.519583	24.29	---	46.00	21.71	V	15.3
553.557500	29.41	---	46.00	16.59	V	22.7
943.376250	33.07	---	46.00	12.93	V	28.4



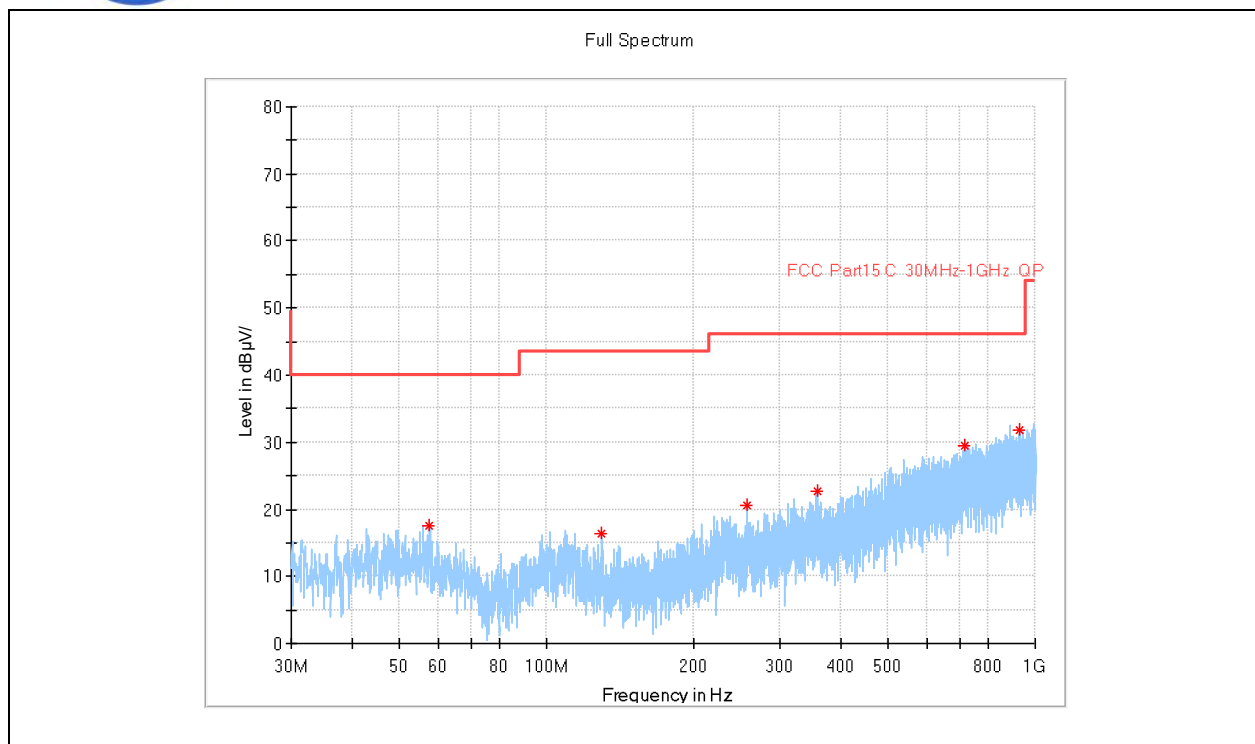
(802.11n_40M_2422MHz, Antenna Vertical , 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
1195.000000	---	25.45	54.00	28.55	V	-0.6
1195.000000	42.70	---	74.00	31.30	V	-0.6
1460.000000	---	27.00	54.00	27.00	V	1.6
1460.000000	43.90	---	74.00	30.10	V	1.6
2135.000000	40.72	---	74.00	33.28	V	8.2
2135.000000	---	31.42	54.00	22.58	V	8.2
2230.000000	43.43	---	74.00	30.57	V	9.7
2230.000000	---	33.22	54.00	20.78	V	9.7
2625.000000	46.01	---	74.00	27.99	V	14.2
2625.000000	---	36.88	54.00	17.12	V	14.2
3000.000000	46.94	---	74.00	27.06	V	18.4
3000.000000	---	40.20	54.00	13.80	V	18.4



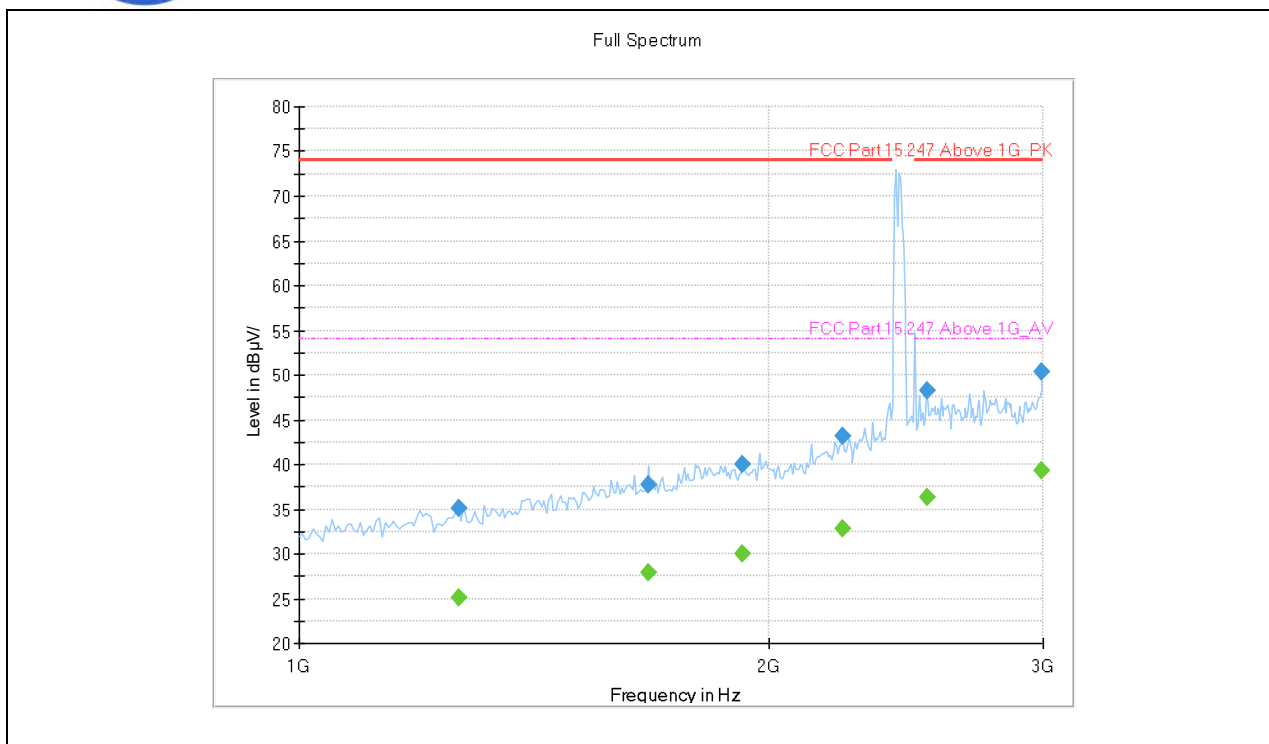
(802.11n_40M_2422MHz, Antenna Vertical, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4852.500000	---	29.22	54.00	24.78	V	-3.0
4852.500000	41.84	---	74.00	32.16	V	-3.0
6810.000000	42.88	---	74.00	31.12	V	-1.0
6810.000000	---	30.60	54.00	23.40	V	-1.0
8370.000000	42.13	---	74.00	31.87	V	0.7
8370.000000	---	30.21	54.00	23.79	V	0.7
10245.000000	42.60	---	74.00	31.40	V	2.2
10245.000000	---	30.81	54.00	23.19	V	2.2
14340.000000	---	33.81	54.00	20.19	V	8.8
14340.000000	45.87	---	74.00	28.13	V	8.8
17955.000000	48.33	---	74.00	25.67	V	14.6
17955.000000	---	37.95	54.00	16.05	V	14.6



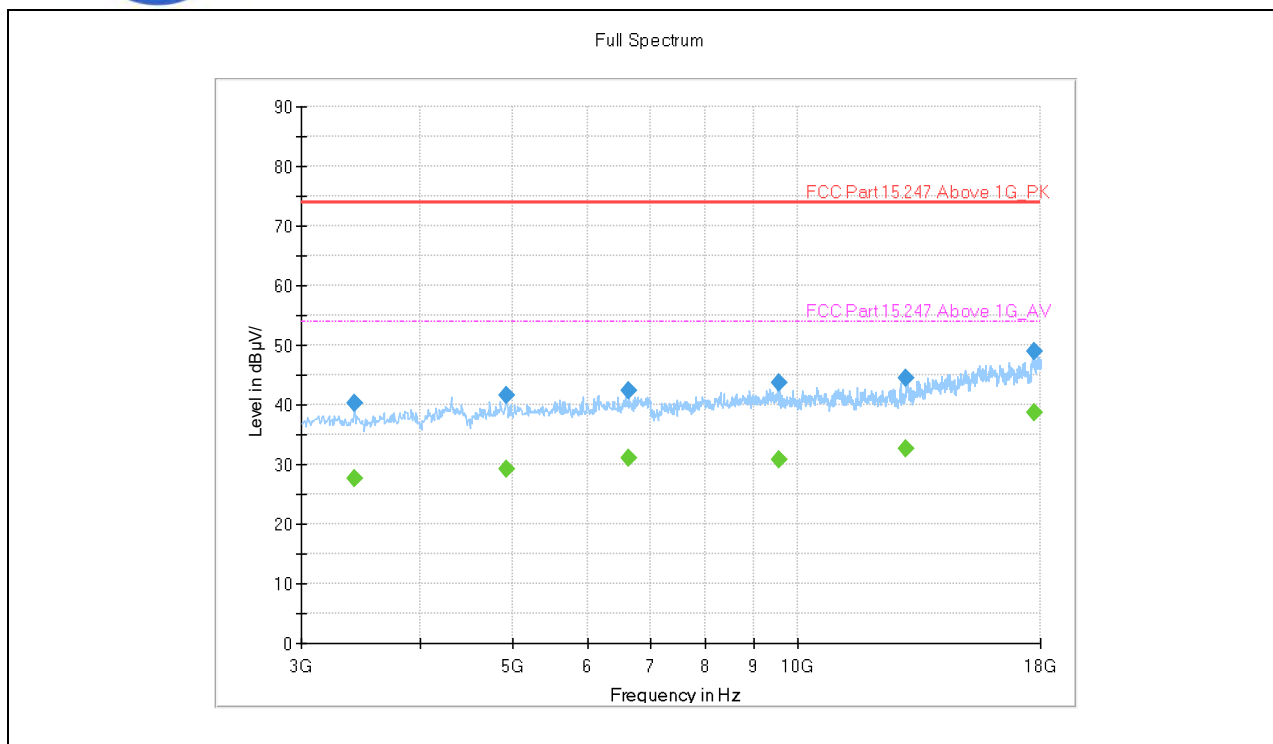
(802.11n_40M_2437MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
57.645000	17.60	---	40.00	22.40	H	14.4
129.829167	16.31	---	43.50	27.19	H	12.3
257.182083	20.67	---	46.00	25.33	H	15.5
359.234167	22.77	---	46.00	23.23	H	18.5
717.164167	29.47	---	46.00	16.53	H	25.0
928.664583	31.70	---	46.00	14.30	H	28.1



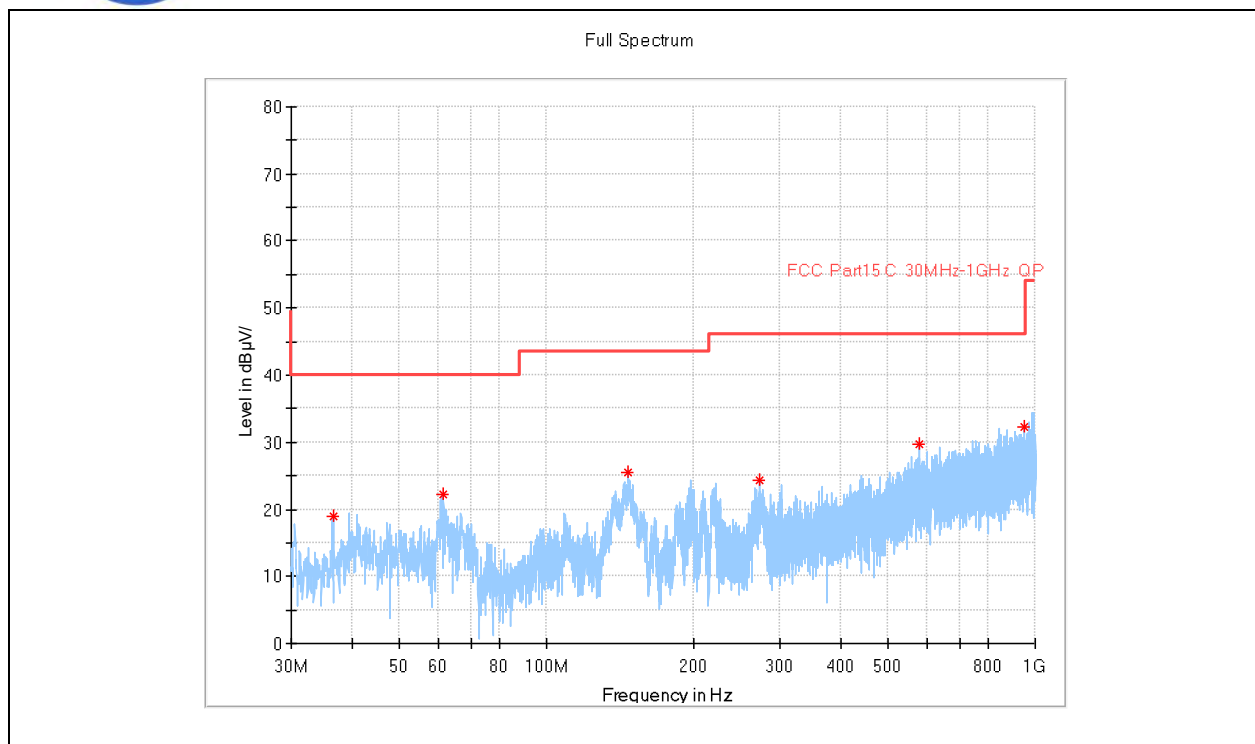
(802.11n_40M_2437MHz, Antenna Horizontal, 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
1265.000000	35.05	---	74.00	38.95	H	-0.1
1265.000000	---	25.13	54.00	28.87	H	-0.1
1675.000000	37.66	---	74.00	36.34	H	3.4
1675.000000	---	27.92	54.00	26.08	H	3.4
1925.000000	39.99	---	74.00	34.01	H	6.1
1925.000000	---	30.03	54.00	23.97	H	6.1
2230.000000	---	32.87	54.00	21.13	H	9.7
2230.000000	43.22	---	74.00	30.78	H	9.7
2530.000000	48.22	---	74.00	25.78	H	13.9
2530.000000	---	36.27	54.00	17.73	H	13.9
2995.000000	---	39.35	54.00	14.65	H	17.9
2995.000000	50.37	---	74.00	23.63	H	17.9



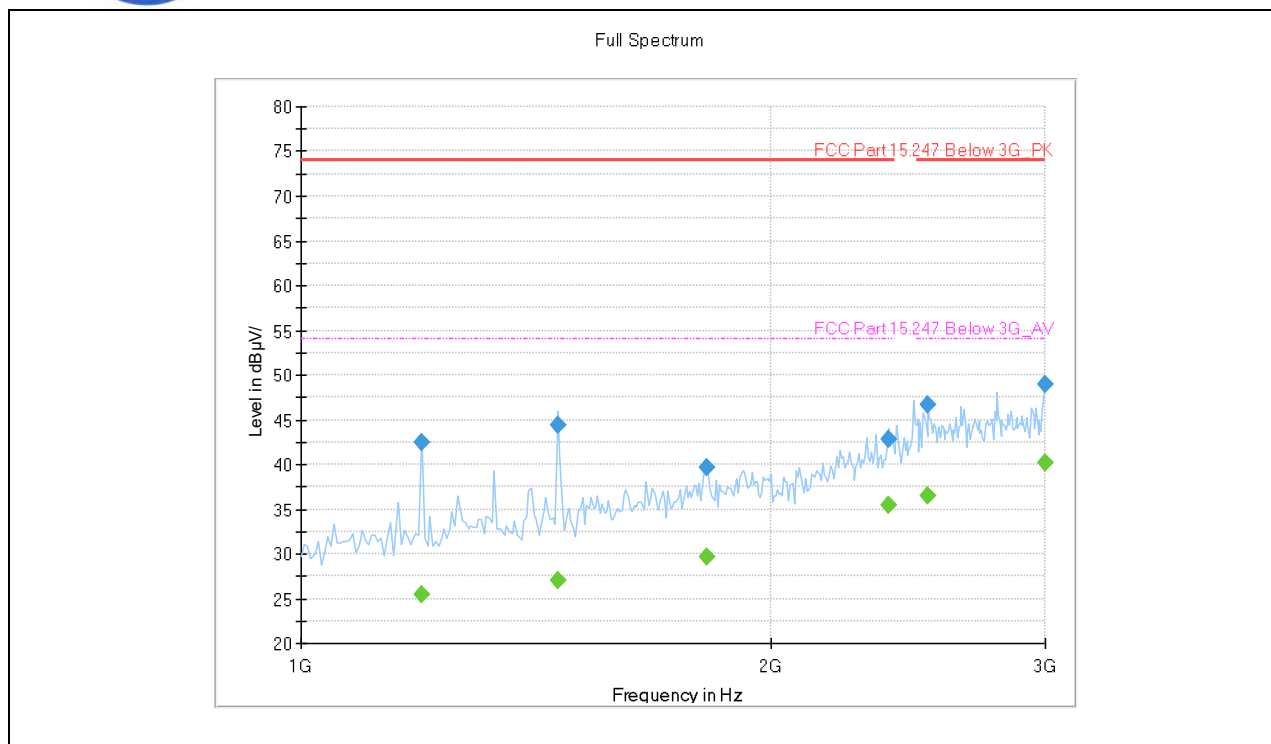
(802.11n_40M_2437MHz, Antenna Horizontal, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
3412.500000	40.22	---	74.00	33.78	H	-5.9
3412.500000	---	27.58	54.00	26.42	H	-5.9
4927.500000	---	29.34	54.00	24.66	H	-2.8
4927.500000	41.64	---	74.00	32.36	H	-2.8
6637.500000	---	30.93	54.00	23.07	H	-0.5
6637.500000	42.47	---	74.00	31.53	H	-0.5
9562.500000	43.56	---	74.00	30.44	H	2.3
9562.500000	---	30.86	54.00	23.14	H	2.3
13005.000000	44.36	---	74.00	29.64	H	5.9
13005.000000	---	32.70	54.00	21.30	H	5.9
17722.500000	48.92	---	74.00	25.08	H	14.7
17722.500000	---	38.57	54.00	15.43	H	14.7



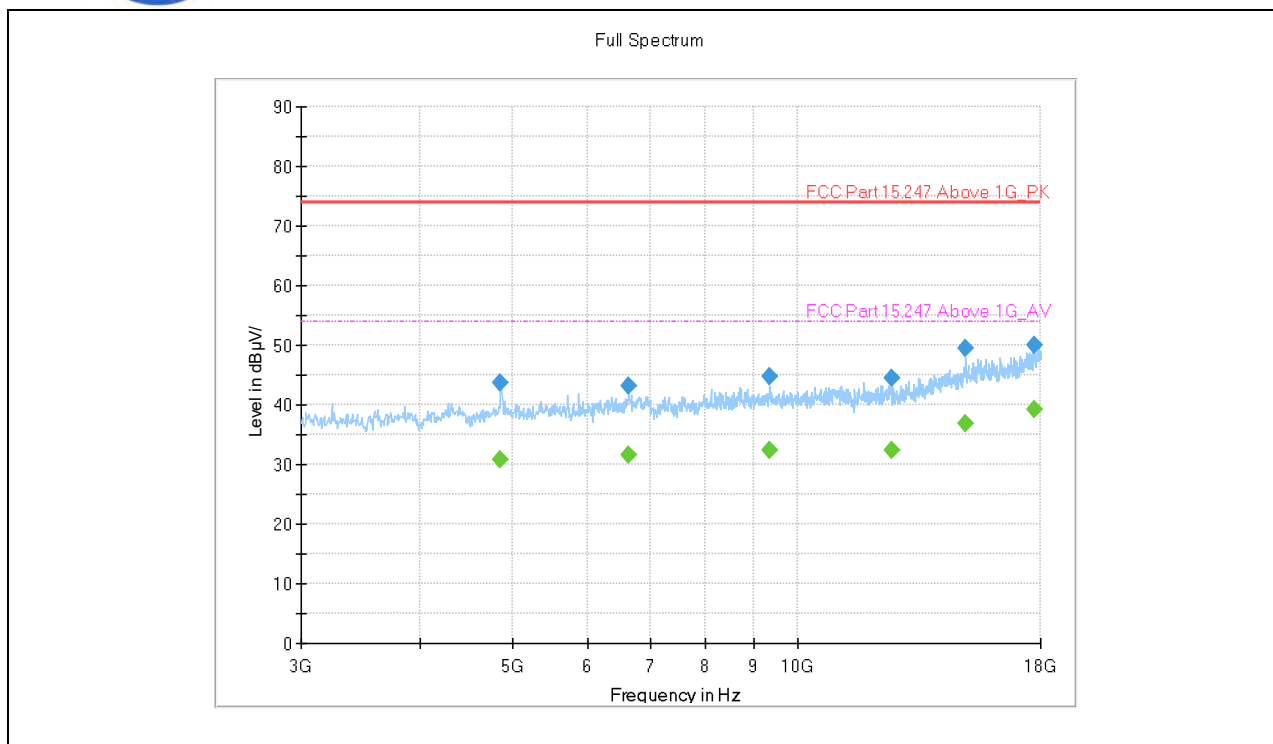
(802.11n_40M_2437MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
36.668750	18.85	---	40.00	21.15	V	13.4
61.525000	22.22	---	40.00	17.78	V	13.9
146.561667	25.43	---	43.50	18.07	V	10.8
273.025417	24.37	---	46.00	21.63	V	15.4
581.081250	29.81	---	46.00	16.19	V	23.1
949.236667	32.37	---	46.00	13.63	V	28.3



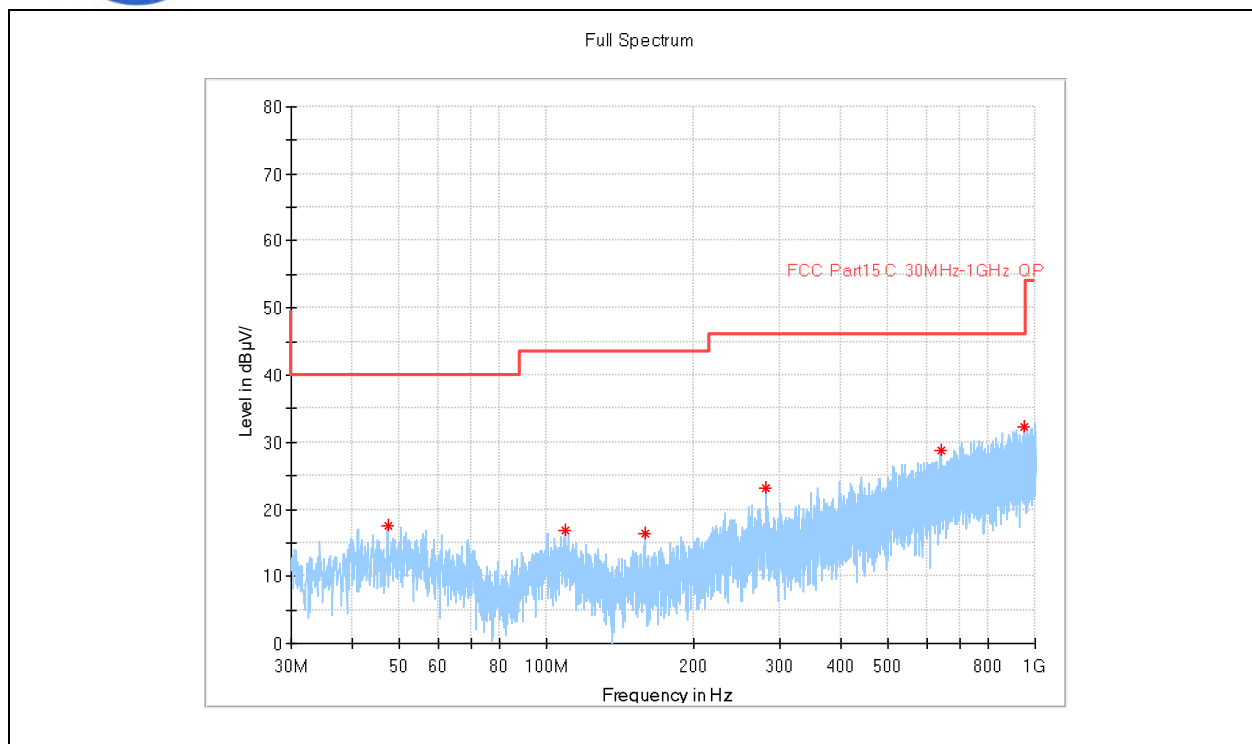
(802.11n_40M_2437MHz, Antenna Vertical , 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1195.000000	42.44	---	74.00	31.56	V	-0.6
1195.000000	---	25.46	54.00	28.54	V	-0.6
1460.000000	44.37	---	74.00	29.63	V	1.6
1460.000000	---	27.06	54.00	26.94	V	1.6
1820.000000	39.59	---	74.00	34.41	V	5.5
1820.000000	---	29.71	54.00	24.29	V	5.5
2380.000000	42.76	---	74.00	31.24	V	12.0
2380.000000	---	35.45	54.00	18.55	V	12.0
2525.000000	---	36.56	54.00	17.44	V	13.6
2525.000000	46.68	---	74.00	27.32	V	13.6
3000.000000	---	40.22	54.00	13.78	V	18.4
3000.000000	48.92	---	74.00	25.08	V	18.4



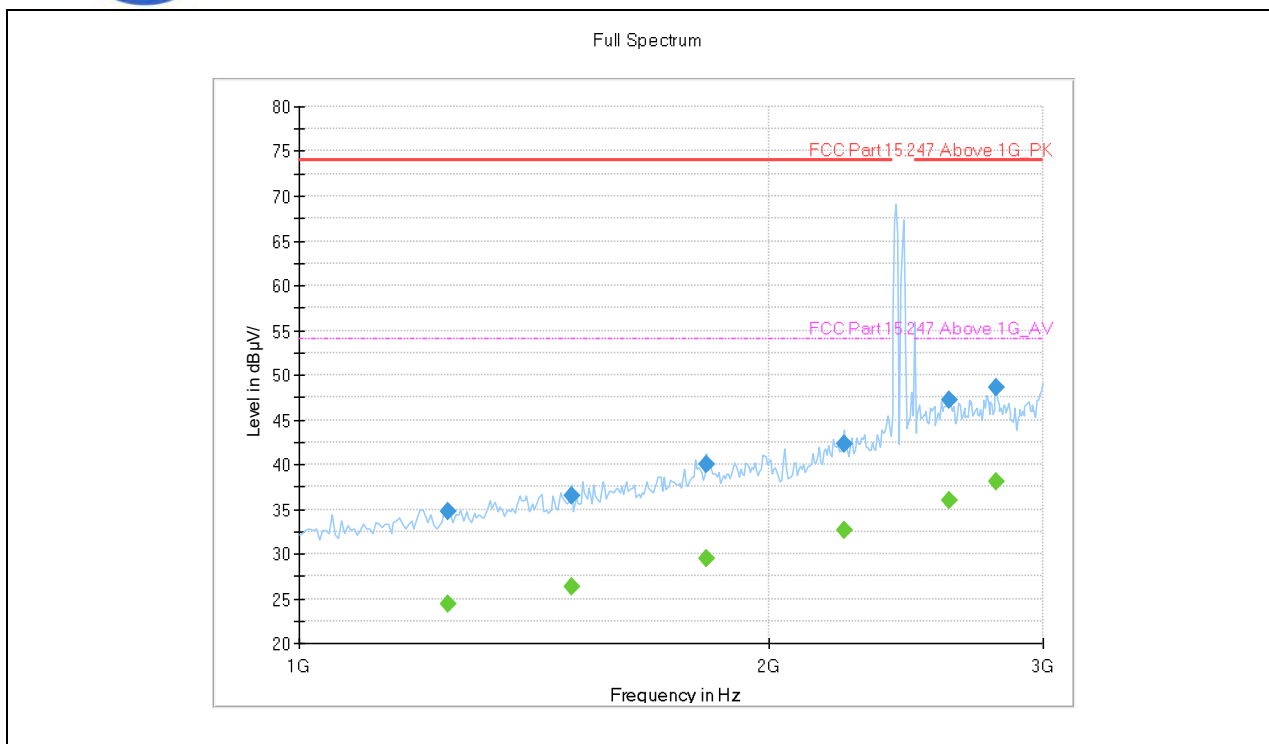
(802.11n_40M_2437MHz, Antenna Vertical, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4867.500000	43.67	---	74.00	30.33	V	-2.9
4867.500000	---	30.86	54.00	23.14	V	-2.9
6637.500000	---	31.68	54.00	22.32	V	-0.5
6637.500000	43.23	---	74.00	30.77	V	-0.5
9330.000000	---	32.24	54.00	21.76	V	1.7
9330.000000	44.87	---	74.00	29.13	V	1.7
12570.00000	---	32.41	54.00	21.59	V	4.5
12570.00000	44.49	---	74.00	29.51	V	4.5
15022.50000	49.48	---	74.00	24.52	V	10.8
14970.00000	48.74	---	74.00	25.26	V	10.0
17962.50000	---	38.95	54.00	15.05	V	14.7
17962.50000	51.40	---	74.00	22.60	V	14.7



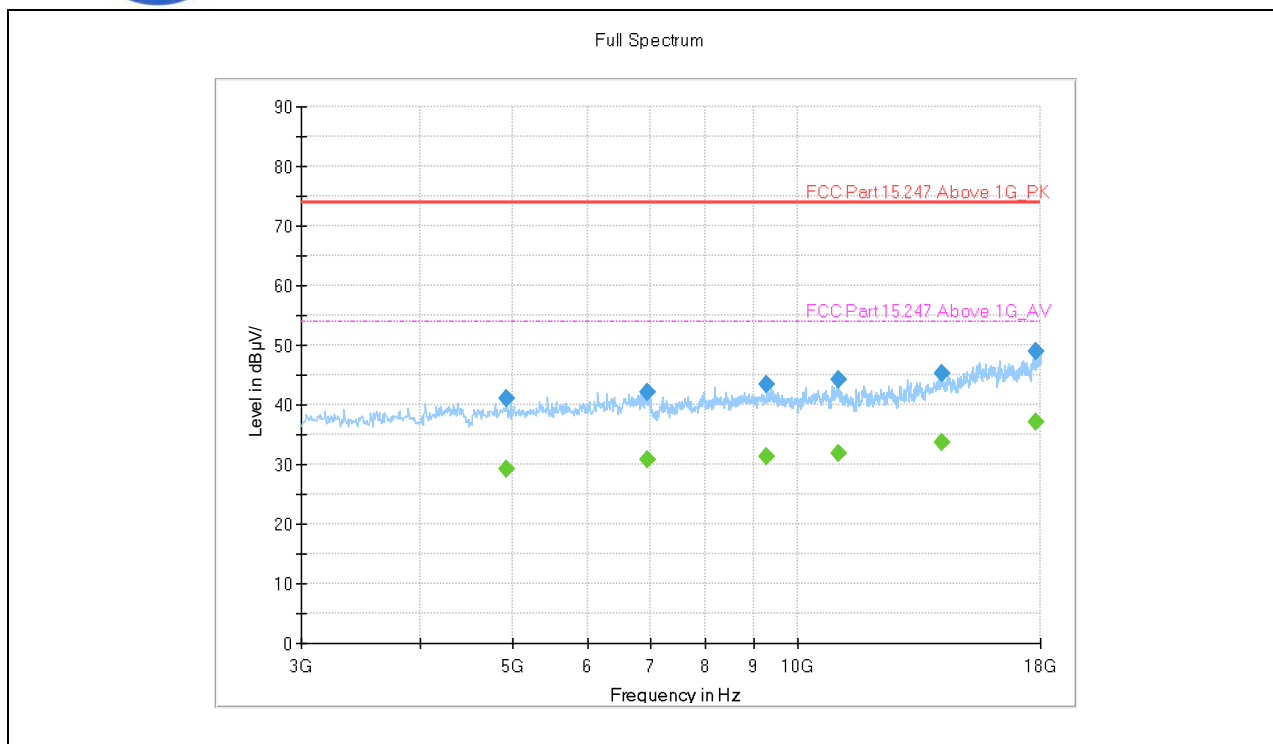
(802.11n_40M_2452MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
47.257917	17.46	---	40.00	22.54	H	15.5
109.459167	16.90	---	43.50	26.60	H	14.9
159.535417	16.29	---	43.50	27.21	H	12.1
280.785417	23.07	---	46.00	22.93	H	16.6
641.706250	28.81	---	46.00	17.19	H	24.2
947.579583	32.21	---	46.00	13.79	H	28.3



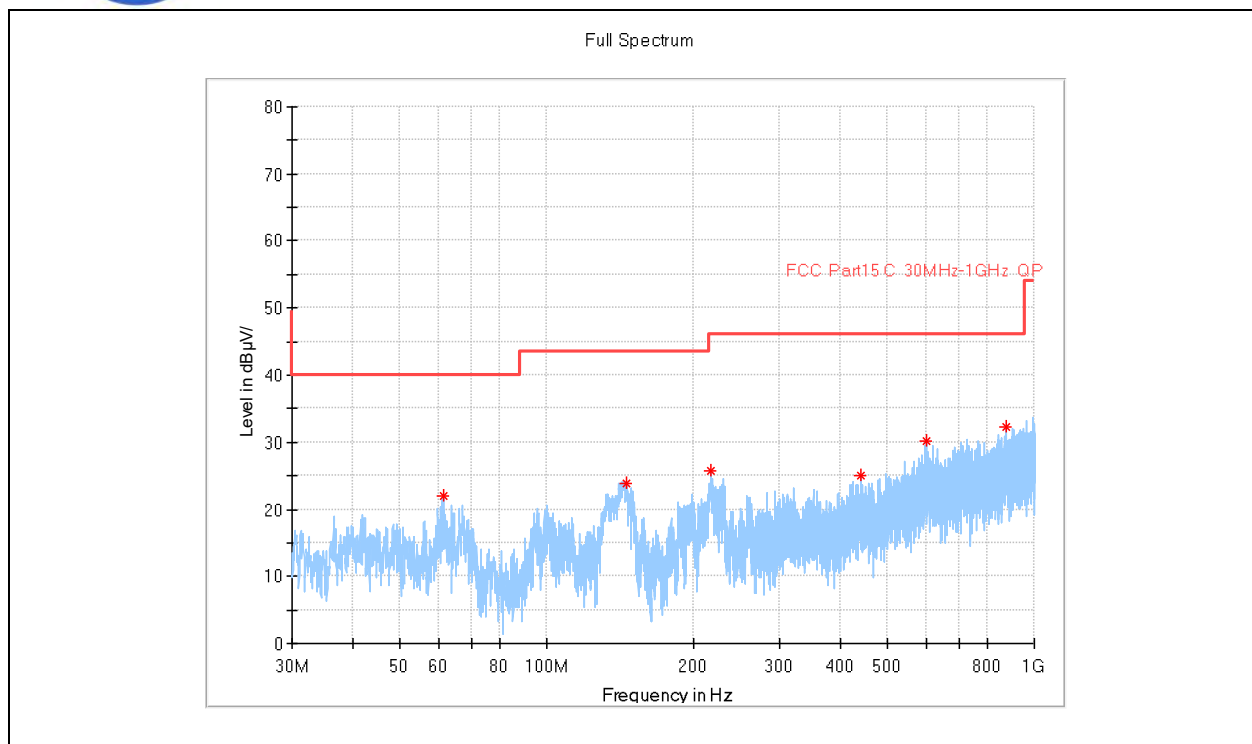
(802.11n_40M_2452MHz, Antenna Horizontal, 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1245.000000	---	24.47	54.00	29.53	H	-0.7
1245.000000	34.67	---	74.00	39.33	H	-0.7
1495.000000	---	26.37	54.00	27.63	H	1.9
1495.000000	36.45	---	74.00	37.55	H	1.9
1825.000000	---	29.54	54.00	24.46	H	5.7
1825.000000	39.95	---	74.00	34.05	H	5.7
2235.000000	---	32.58	54.00	21.42	H	9.7
2235.000000	42.22	---	74.00	31.78	H	9.7
2610.000000	---	36.00	54.00	18.00	H	14.5
2610.000000	47.28	---	74.00	26.72	H	14.5
2800.000000	---	38.05	54.00	15.95	H	16.5
2800.000000	48.55	---	74.00	25.45	H	16.5



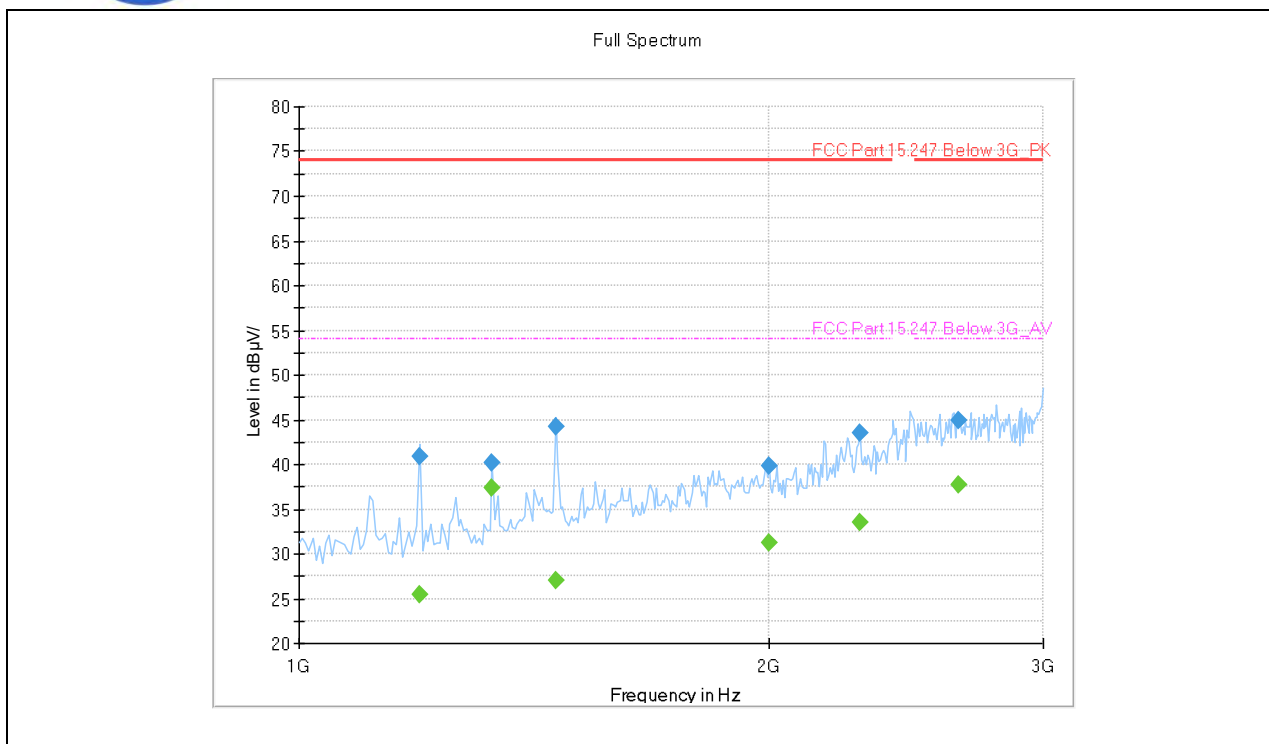
(802.11n_40M_2452MHz, Antenna Horizontal, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
4935.000000	41.12	---	74.00	32.88	H	-2.9
4935.000000	---	29.20	54.00	24.80	H	-2.9
6945.000000	42.03	---	74.00	31.97	H	-0.5
6945.000000	---	30.73	54.00	23.27	H	-0.5
9262.500000	43.51	---	74.00	30.49	H	2.5
9262.500000	---	31.22	54.00	22.78	H	2.5
11040.000000	---	31.77	54.00	22.23	H	3.5
11040.000000	44.20	---	74.00	29.80	H	3.5
14145.000000	45.34	---	74.00	28.66	H	8.0
14145.000000	---	33.64	54.00	20.36	H	8.0
17797.500000	---	37.08	54.00	16.92	H	14.6
17797.500000	48.89	---	74.00	25.12	H	14.6



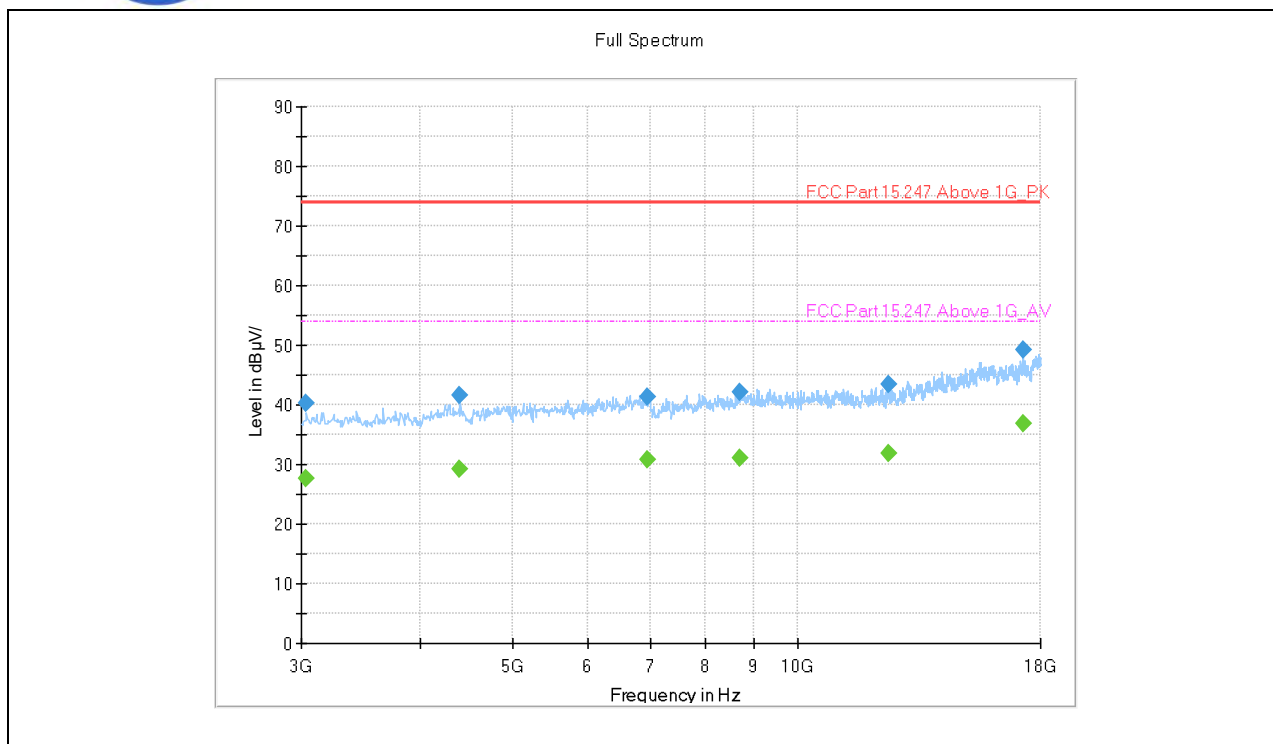
(802.11n_40M_2452MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
61.484583	22.01	---	40.00	17.99	V	13.9
145.753333	23.96	---	43.50	19.54	V	10.5
216.725000	25.63	---	46.00	20.37	V	13.9
441.765000	24.96	---	46.00	21.04	V	20.4
601.410833	30.11	---	46.00	15.89	V	23.4
877.497083	32.25	---	46.00	13.75	V	27.6



(802.11n_40M_2452MHz, Antenna Vertical , 1GHz to 3GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
1195.000000	40.96	---	74.00	33.04	V	-0.6
1195.000000	---	25.49	54.00	28.51	V	-0.6
1330.000000	40.22	---	74.00	33.78	V	0.3
1330.000000	---	37.31	54.00	16.69	V	0.3
1460.000000	---	27.06	54.00	26.94	V	1.6
1460.000000	44.24	---	74.00	29.77	V	1.6
2000.000000	39.79	---	74.00	34.21	V	7.5
2000.000000	---	31.23	54.00	22.77	V	7.5
2290.000000	43.45	---	74.00	30.55	V	10.2
2290.000000	---	33.56	54.00	20.44	V	10.2
2650.000000	---	37.71	54.00	16.29	V	15.6
2650.000000	44.92	---	74.00	29.08	V	15.6



(802.11n_40M_2452MHz, Antenna Vertical, 3GHz to 18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
3037.500000	40.21	---	74.00	33.79	V	-6.1
3037.500000	---	27.54	54.00	26.46	V	-6.1
4410.000000	---	29.13	54.00	24.87	V	-3.7
4410.000000	41.53	---	74.00	32.47	V	-3.7
6930.000000	---	30.75	54.00	23.25	V	-0.7
6930.000000	41.21	---	74.00	32.80	V	-0.7
8685.000000	42.04	---	74.00	31.96	V	1.3
8685.000000	---	31.12	54.00	22.88	V	1.3
12442.50000	---	31.87	54.00	22.13	V	4.6
12442.50000	43.41	---	74.00	30.59	V	4.6
17235.00000	---	36.72	54.00	17.28	V	12.7
17235.00000	49.31	---	74.00	24.69	V	12.7



Annex A Test Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for test performed on the EUT as specified in CISPR 16-1-2:

Test items	Uncertainty
Peak Output Power	$\pm 2.22\text{dB}$
Power spectral density (PSD)	$\pm 2.22\text{dB}$
Bandwidth	$\pm 5\%$
Conducted Spurious Emission	$\pm 2.77\text{ dB}$
Restricted Frequency Bands	$\pm 5\%$
Radiated Emission	$\pm 3.1\text{dB}$
Conducted Emission	$\pm 1.8\text{dB}$

This uncertainty represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$



Annex B Testing Laboratory Information

1. Identification of the Responsible Testing Laboratory

Company Name:	Kehu-Morlab Test Laboratory
Address:	Unit 101, No.1732 Gangzhong Road, Xiamen Area, Pilot Free Trade Zone (Fujian), P.R. China
Responsible Test Lab Manager:	Mr. Di Dehai
Telephone:	+86-592-5612050
Facsimile:	+86-592-5612095

2. Identification of the Responsible Testing Location

Name:	Kehu-Morlab Test Laboratory
Address:	Unit 101, No.1732 Gangzhong Road, Xiamen Area, Pilot Free Trade Zone (Fujian), P.R. China

3. Facilities and Accreditations

All measurement facilities used to collect the measurement data are located at Unit 101, No.1732 Gangzhong Road, Xiamen Area, Pilot Free Trade Zone (Fujian), P.R. China.

The test site is constructed in conformance with the requirements of ANSI C63.10-2013 and CISPR Publication 22; the FCC designation number is CN1249.

4. Test Equipments Utilized

4.1 Conducted Test Equipments

No.	Equipment Name	Serial No.	Model No.	Manufacturer	Cal.Date	Cal.Due Date
1	MXA Signal Analyzer	MY53421845	N9020A	Keysight	2019.01.05	2020.01.04
2	RF cable (30MHz-26.5GHz)	RF01	N/A	Morlab	2019.01.05	2020.01.04
3	Coaxial cable	RF02	N/A	Morlab	2019.01.05	2020.01.04
4	SMA connector	RF03	N/A	Xingbo	2019.01.05	2020.01.04
5	USB Power Sensor	MY56410006	U2021XA	Keysight	2019.01.03	2020.01.02



4.2 Conducted Emission Test Equipments

No.	Equipment Name	Serial No.	Model No.	Manufacturer	Cal.Date	Cal.Due Date
1	EMI Receiver	102174	ESR3	ESR3	2019.01.08	2020.01.07
2	LISN	101338	ENV432	ENV432	2019.01.14	2020.01.13
3	Pulse Limiter (10dB)	317	VTSD 9561 F	VTSD 9561 F	2019.01.14	2020.01.13
4	Coaxial cable(BNC) (30MHz-3GHz)	EMC01	N/A	Morlab	2019.01.14	2020.01.13

4.4 List of Software Used

No.	Model	Version Number	Producer	Test Item
1	EMC32	V10.00.00	Rode&Schwarz	RE
2	EMC32	V10.20.01	Rode&Schwarz	CE

4.5 Radiated Test Equipments

RSE Test System						
No.	Equipment Name	Serial No.	Model No.	Manufacturer	Cal. Date	Cal.Due Date
1	Anechoic Chamber	N/A	9m*6m*6m	ETS-Lindgren	2017.07.21	2020.07.20
2	Signal Analyzer	101294	FSV40	R&S	2019.01.04	2020.01.03
3	Active Ring Antenna	FMZB 1513 #269	FMZB 1513	Schwarzbeck	2019.01.12	2020.01.11
4	Linear Log Periodic Broad Band Antenna	949	VULB 9163	Schwarzbeck	2018.09.25	2019.09.24
5	Ultra-Wideband Horn Antenna	102615	HF907	R&S	2019.01.19	2020.01.18
6	Steatite Antennas	17868	QSH-SL-1 8-26-S-20	Seibersdorf	2019.01.12	2020.01.11
7	RF Switch and Control Platform	N/A	RSC	CDSI	N/A	N/A
8	Coaxial cable (N male) (9kHz -3GHz)	EMC02	N/A	Morlab	2019.01.04	2020.01.03
9	Coaxial cable (N male)	EMC03	N/A	Morlab	2019.01.04	2020.01.03



	(9kHz -3GHz)					
10	Coaxial cable (N male) (1GHz-26.5GHz)	EMC04	N/A	Morlab	2019.01.04	2020.01.03
11	Coaxial cable (N male) (1GHz-26.5GHz)	EMC05	N/A	Morlab	2019.01.04	2020.01.03
12	Pre-amplifier (1GHz-18GHz)	8810011	PAP-1G18	CDSI	2019.01.04	2020.01.03
13	Pre-amplifier (18GHz-40GHz)	17021-17024	PAP-1840	CDSI	2018.07.05	2019.07.04
14	Band stop Filter	EMC19	BJF2400/2 485-60	CDSI	2019.01.04	2020.01.03
15	High Pass Filter	EMC22	HFP-3.0/1 8G-60	CDSI	2019.01.04	2020.01.03

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