



EUROFINS ELECTRICAL TESTING SERVICE (SHENZHEN) CO., LTD.

RADIO TEST - REPORT

FCC/IC Compliance Test Report

Test Report Number: EFGX20110116-IE-01-E02

General disclaimer:

The above sample(s) and sample information was/were submitted and identified on behalf of the applicant. Eurofins assures objectivity and impartiality of the test, and fulfills the obligation of confidentiality for applicant's commercial information and technical documents.

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1 General Information

1.1 Notes

The results of this test report relate exclusively to the item tested as specified in chapter "Description of test item" and are not transferable to any other test items.

Eurofins Electrical Testing Service (Shenzhen) Co., Ltd. is not responsible for any generalisations and conclusions drawn from this report. Any modification of the test item can lead to invalidity of test results and this test report may therefore be not applicable to the modified test item.

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Operator:

2021-01-11

Bruce Zheng / Project Engineer



Date

Eurofins-Lab.

Name / Title

Signature

Technical responsibility for area of testing:

2021-01-11

Tom Tian / EMC Supervisor

Date

Eurofins

Name / Title

Signature

1.2 Testing laboratory

Eurofins Electrical Testing Service (Shenzhen) Co., Ltd.

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The Laboratory has passed the Accreditation by the American Association for Laboratory Accreditation (A2LA). The Accreditation number is 5376.01

The Laboratory has been listed by industry Canada to perform electromagnetic emission measurements, The CAB identifier is CN0088

1.3 Details of approval holder

Name : HAMPTON PRODUCTS INTERNATIONAL CORP.
Address : 50 Icon, Foothil Ranch, California, United States, 92610
Telephone : (949)707-4175
Fax : N/A

1.4 Application details

Date of receipt of application : November 12, 2020
Date of receipt of test item : January 4, 2021
Date of test : January 4, 2021 – January 8, 2021
(see remark of summary of test results)
Date of issue : January 11, 2021

1.5 Manufacturer details

Name : Foshan Electrical and Lighting Co., Ltd.
Address : 64 North Fenjiang Road, Foshan, Guangdong, China
Telephone : +86-757-82809692
Fax : N/A

1.6 Test item

Product type : LED LAMP
Model name : 2ANTY-B0008
Brand : Hampton
Serial number : N/A
Ratings : AC 120V/60Hz
Test voltage : AC 120V/60Hz
FCC ID : 2ANTYB0008
IC : 26025-B0008
PMN : LED LAMP
HVIN : 2ANTY-B0008
Additional information : N/A

RadioTechnical data

Frequency range : 2412MHz – 2462MHz
Radio Tech. : IEEE 802.11 b/g/n(HT20)
Frequency channel : 11 Channels
Modulation : IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK)

IEEE for 802.11g : OFDM(64QAM, 16QAM, QPSK, BPSK)
IEEE for 802.11n(HT20) : OFDM (64QAM, 16QAM,
QPSK,BPSK)

Antenna type : Internal antenna
Antenna gain : 1.5dBi

Radio module

Type : WiFi
Model : TYLC5
Manufacturer : N/A

1.7 Test standards

Test Standards	
FCC Part 15 Subpart C 10-1-2018 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators
RSS-247 Issue 2 February 2017	RSS-247 — Digital Transmission Systems (DTSS), Frequency Hop- ping Systems (FHSs) and Licence-Exempt Local Area Network (LE- LAN) Devices
RSS-GEN Issue 5 March 2019	RSS-Gen — General Requirements for Compliance of Radio Appa- ratus

Test Method

1: ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

2: ANSI C63.10-2013, American National Standard for Testing Unlicensed Wireless Devices.

3: KDB558074 D01 15.247 Meas Guidance v05r02

2 Technical test

2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed.



or

The deviations as specified were ascertained in the course of the tests performed.



Remark:

The test results is from the original test report EFGX20010010-IE-02-E01, after review, the test results is still valid except Power spectral density and Conducted output power for DTS.

2.2 Test environment

Temperature : 20 ... 25°C
 Relative humidity content : 30 ... 60%
 Air pressure : 100 ... 101kPa

2.3 Measurement uncertainty

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO.

System Measurement Uncertainty	
Test Items	Extended Uncertainty
Uncertainty for Conducted Emission 9kHz-30MHz	1.96dB
Uncertainty for Conducted RF test	RF Power Conducted: 1.16dB Frequency test involved: 1.05×10 ⁻⁷ or 1%
Uncertainty for Radiated Spurious Emission 25MHz-3000MHz	Horizontal: 4.46dB; Vertical: 4.54dB;
Uncertainty for Radiated Spurious Emission 3000MHz-18000MHz	Horizontal: 4.42dB; Vertical: 4.41dB;
Uncertainty for Radiated Spurious Emission 18000MHz-40000MHz	Horizontal: 4.63dB; Vertical: 4.62dB;

2.4 Test mode

Operation Frequency each of channel(802.11b/g/n HT 20)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

The EUT was set at continuously transmitting and receiving mode (CH1, CH6, CH11) during the test.

2.5 Test equipment utilized

EQUIPMENT ID	EQUIPMENT NAME	MODEL NO.	CAL. DUE DATE
23-2-13-05	EMI Test Receiver	ESR3	2021-04-24
23-2-13-06	LISN	NNLK 8127 RC	2021-04-23
23-2-10-16	Attenuator	VTSD 9561-F	2021-04-24
23-2-13-12	Signal Analyzer	N9010B-544	2021-04-24
23-2-13-13	BT/WLAN Tester	CMW270	2021-04-23
23-2-13-14	Signal Generator	N5183B-520	2021-04-23
23-2-13-15	Vector Signal Generator	N5182B-506	2021-04-23
23-2-10-43	Switch and Control Unit	ERIT-E-JS0806-2	2021-06-17
23-2-10-44	DC power supply	E3642A	2021-06-03
23-2-10-45	Temperature test chamber	SG-80-CC-2	2021-04-23
23-2-13-01	EMI Test Receiver	ESR7	2021-04-24
23-2-13-02	Signal Analyzer	N9020B-544	2021-04-24
23-2-12-01	Active Loop Antenna	FMZB 1519B	2021-05-13
23-2-12-02	TRILOG Broadband Antenna	VULB9168	2021-04-27
23-2-12-03	Horn Antenna	3117	2021-05-11
23-2-12-04	Horn Antenna	BBHA 9170	2021-05-11
23-2-10-01	Preamplifier	BBV9745	2021-04-23
23-2-10-02	Preamplifier	TAP01018048	2021-04-24
23-2-10-03	Preamplifier	TAP18040048	2021-04-24
23-2-10-14	Switch and Control Unit	ERIT-E-JS0806-SF1	N/A

2.6 Auxiliary Equipment Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.	S/N
Laptop	LENOVO	TP00096A	PF-1QH0LV
/	/	/	/

2.7 Test software information:

Test Software Version	EspRFtestTool		
Modulation	Setting TX Power	TX Pattern	Packet Type
DBPSK	Pos0dBm	Data_rate B-1Mbit	Duty cycle_modulated_tx 99
BPSK	Pos0dBm	Data_rate G-6Mbit	Duty cycle_modulated_tx 99
BPSK	Pos0dBm	Data_rate MCS0-6.5Mbit	Duty cycle_modulated_tx 99

2.8 Customized Configurations

802.11b

EUT Conf.	Signal Description	Operating Frequency	Duty Cycle
TM1_Ch1	DBPSK	Ch No. 1 / 2412 MHz	88.82%
TM1_Ch6	DBPSK	Ch No. 6 / 2437 MHz	88.87%

TM1_Ch11	DBPSK	Ch No. 11 / 2462 MHz	88.82%
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802.11g

EUT Conf.	Signal Description	Operating Frequency	Duty Cycle
TM1_Ch1	BPSK	Ch No. 1 / 2412 MHz	86.65%
TM1_Ch6	BPSK	Ch No. 6 / 2437 MHz	86.78%
TM1_Ch11	BPSK	Ch No. 11 / 2462 MHz	86.78%

802.11n(HT20)

EUT Conf.	Signal Description	Operating Frequency	Duty Cycle
TM1_Ch1	BPSK	Ch No. 1 / 2412 MHz	86.00%
TM1_Ch6	BPSK	Ch No. 6 / 2437 MHz	85.83%
TM1_Ch11	BPSK	Ch No. 11 / 2462 MHz	86.14%

2.9 Test Environments

Enviroment Parameter	Temperature	Voltage	Relative Humidity
101.7Kpa	26.8	AC 120V	67.5%

2.10 Test results

☒ 1st test

☐ test after modification

☐ production test

Technical Requirements					
FCC Part 15 Subpart C/RSS-247 Issue 2/RSS-Gen Issue 5					
Test Condition			Test Result	Verdict	Test Site
§15.207	RSS-GEN 8.8	Conducted emission AC power port	See page 12	Pass	Site 2
§15.247(b)(1)	RSS-247 Clause 5.4(b)	Conducted output power for FHSS	--	N/A	--
§15.247(b)(3)	RSS-247 Clause 5.4(d)	Conducted output power for DTS	Appendix D	Pass	Site 1
§15.247(e)	RSS-247 Clause 5.2(b)	Power spectral density	Appendix E	Pass	Site 1
§15.247(a)(2)	RSS-247 Clause 5.2(a)	6dB bandwidth	Appendix B	Pass	Site 1
§15.247(a)(1)	RSS-247 Clause 5.1(a)	20dB Occupied band-width	--	N/A	--
--	RSS-GEN 6.7	99% Occupied Band-width	Appendix C	Pass	Site 1
§15.247(a)(1)	RSS-247 Clause 5.1(b)	Carrier frequency separation	--	N/A	--
§15.247(a)(1)(ii i)	RSS-247 Clause 5.1(d)	Number of hopping frequencies	--	N/A	--
§15.247(a)(1)(ii i)	RSS-247 Clause 5.1(d)	Dwell Time	--	N/A	--
§15.247(d) §15.205	RSS-247 Clause 5.5 RSS-GEN 8.10	Spurious RF conducted emissions	Appendix H Appendix G	Pass	Site 1
§15.247(d)	RSS-247 Clause 5.5	Band edge	Appendix F	Pass	Site 1
§15.247(d) & §15.209 & §15.205	RSS-247 Clause 5.5 & RSS-GEN 6.13 RSS-GEN 8.9 RSS-GEN 8.10	Spurious radiated emissions for transmitter	See page 24	Pass	Site 1
§15.203	RSS-GEN 6.8	Antenna requirement	See note 1	Pass	--
	RSS-GEN 8.11	Frequency stability	Appendix I	Pass	Site 1

Remark 1: N/A – Not Applicable.

Note 1: The EUT uses a internal antenna, the gain: 1.50dBi. According to §15.203/ RSS-GEN 6.8, it is considered sufficiently to comply with the provisions of this section.

3 Technical Requirement

3.1 Conducted Emission

Test Method:

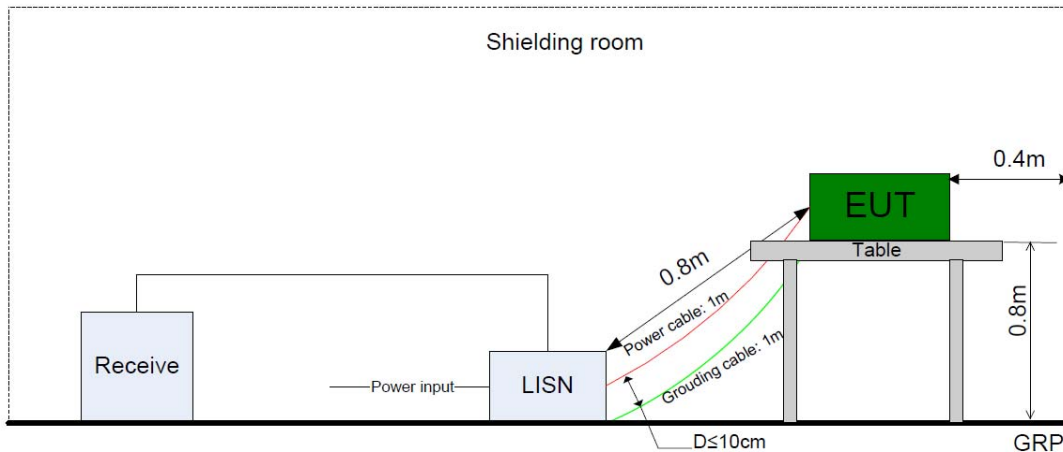
The test method was referred to the subclause 5.2 of ANSI C63.4-2014.

1. The EUT was placed on a table, which is 0.8m above ground plane
2. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
3. Maximum procedure was performed to ensure EUT compliance
4. A EMI test receiver is used to test the emissions from both sides of AC line

Test Setup:

The mains cable of the EUT (per AC/DC Adapter) must be connected to LISN. The LISN shall be placed 0.8 m from the boundary of EUT and bonded to a ground reference plane for LISN mounted on top of the ground reference plane. This distance is between the closest points of the LISN and the EUT. All other units of the EUT and associated equipment shall be at least 0.8m from the LISN.

Ground connections, where required for safety purposes, shall be connected to the reference ground point of the LISN and, where not otherwise provided or specified by the manufacturer, shall be of same length as the mains cable and run parallel to the mains connection at a separation distance of not more than 0.1 m.



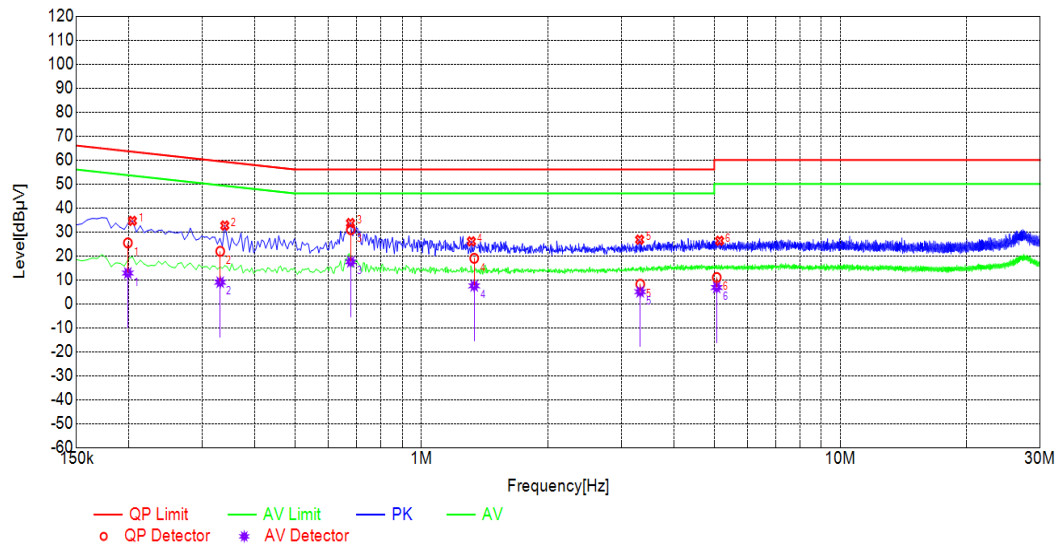
Limit:

Frequency MHz	QP Limit dB μ V	AV Limit dB μ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

Decreasing linear.

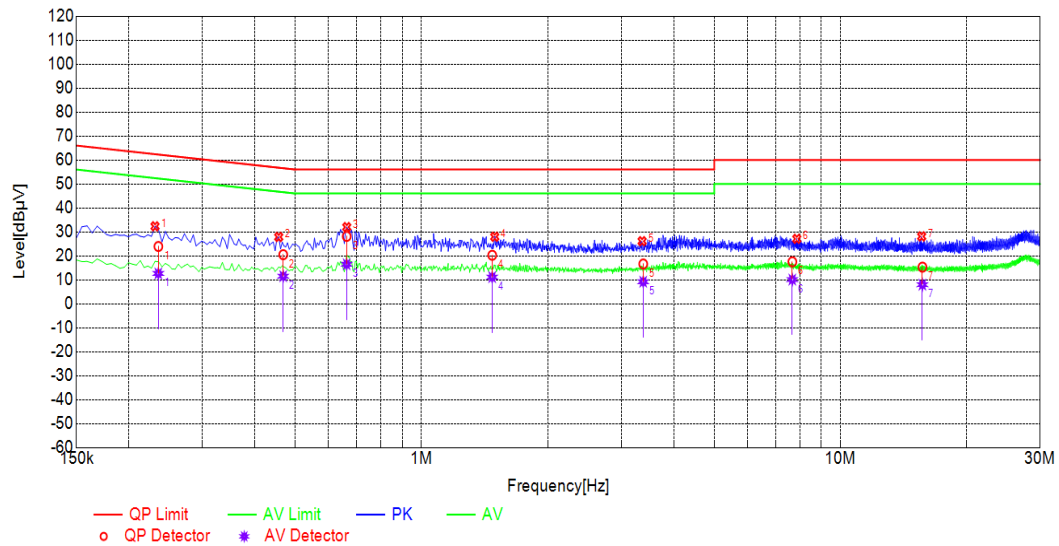
Test Result:

Live line test data



Final Data List									
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Verdict
1	0.1989	10.22	25.40	63.66	38.26	12.81	53.66	40.85	PASS
2	0.3305	10.23	21.91	59.44	37.53	9.00	49.44	40.44	PASS
3	0.6776	10.23	30.92	56.00	25.08	17.50	46.00	28.50	PASS
4	1.3356	10.23	18.97	56.00	37.03	7.48	46.00	38.52	PASS
5	3.3278	10.27	8.13	56.00	47.87	5.02	46.00	40.98	PASS
6	5.0683	10.30	10.95	60.00	49.05	6.80	50.00	43.20	PASS

Neutral line test data



Final Data List									
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Verdict
1	0.2352	10.21	23.92	62.26	38.34	12.64	52.26	39.62	PASS
2	0.4674	10.21	20.49	56.56	36.07	11.51	46.56	35.05	PASS
3	0.6625	10.23	28.13	56.00	27.87	16.48	46.00	29.52	PASS
4	1.4745	10.23	20.24	56.00	35.76	11.13	46.00	34.87	PASS
5	3.3832	10.27	16.60	56.00	39.40	9.20	46.00	36.80	PASS
6	7.6800	10.35	17.53	60.00	42.47	10.08	50.00	39.92	PASS
7	15.7046	10.55	15.30	60.00	44.70	7.96	50.00	42.04	PASS

3.2 Frequency Stability

Test Method:

The test method was referred to the subclause 6.8.2 of ANSI C63.10-2013.

Unless otherwise specified, these tests shall be made at ambient room temperature (+15 °C to +25 °C). An antenna shall be connected to the antenna output terminals of the EUT if possible. If the EUT is equipped with or uses an adjustable-length antenna, then it shall be fully extended.

- a) Supply the EUT with nominal voltage or install a new or fully charged battery in the EUT. Turn ON the EUT and couple its output to a frequency counter or other frequency-measuring instrument.

NOTE—An instrument that has an adequate level of accuracy as specified by the procuring or regulatory agency is the recommended measuring instrument.

- b) Tune the EUT to one of the number of frequencies required in 5.6. Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument but is strong enough to allow measurement of the operating or fundamental frequency of the EUT).
- c) Measure the frequency at each of the frequencies specified in 5.6.
- d) Repeat the above procedure at 85% and 115% of the nominal supply voltage as described in 5.13.

Limit:

RSS-Gen 8.11

The fundamental emissions of the radio apparatus should be kept within at least the central 80% of its permitted operating frequency band in order to minimize the possibility of out-of-band operation.

Test Result: Pass

3.3 Conducted Peak output power

Test Method

The test method was referred to the subclause 11.9.1.3 of ANSI C63.10-2013.

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast-responding diode detector.

Limits:

According to §15.247 (b) (3), conducted output power limit as below:

Frequency Range MHz	Limit W	Limit dBm
2400-2483.5	≤1	≤30

According to RSS-247 5.4 (d), e.i.r.p limit as below:

Frequency Range MHz	Limit W	Limit dBm
2400-2483.5	≤4	≤36

Test Result: Pass

3.4 6dB bandwidth

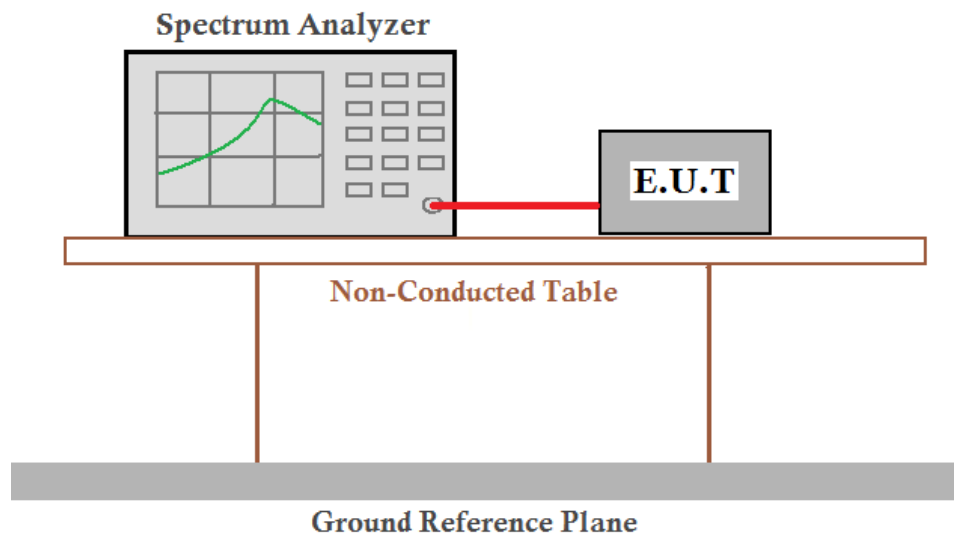
Test Method:

The test method was referred to the subclause 11.8 of ANSI C63.10-2013.

1. Connect EUT test port to spectrum analyzer.
2. Set the EUT to transmit maximum output power at 2.4GHz.
3. Then set the EUT to transmit at high, middle and low frequency and measure the conducted output power separately.
4. RBW=100K, VBW $\geq$ 3RBW, Sweep = auto, Detector function = peak, Trace = max hold
5. Use the automatic bandwidth measurement capability of an instrument, may be employed using the X dB bandwidth mode with X set to 6 dB, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be $\geq$ 6 dB.
6. Allow the trace to stabilize, record the X dB Bandwidth value.
7. All modulations and data rates were measured, only the worst case was recorded in the report

Test Setup:

The WIFI component's antenna ports(s) of the EUT are connected to the measurement instrument per an appropriate attenuator if applicable. The EUT is controlled by PC/software to emit the specified signals for the purpose of measurements.



Limit:

According to §15.247(a)(2)/RSS-247 5.2 (a), 6dB bandwidth limit as below:

Limit [kHz]

≥ 500

Test Result: Pass

3.5 99% bandwidth

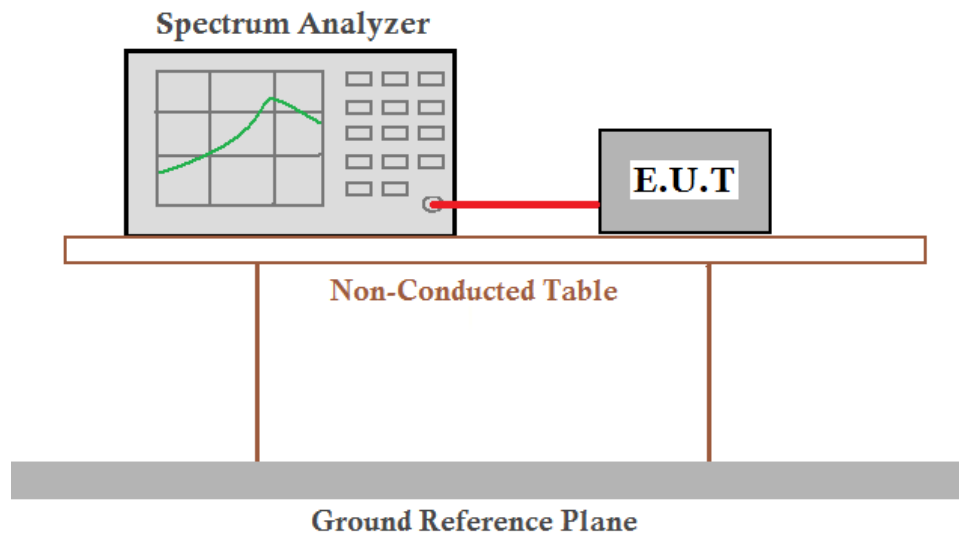
Test Method:

The test method was referred to the subclause 6.9.3 of ANSI C63.10-2013.

1. Connect EUT test port to spectrum analyzer.
2. Set the EUT to transmit maximum output power at 2.4GHz.
3. Then set the EUT to transmit at high, middle and low frequency separately.
4. Set Span = approximately 1.5 to 5 times the 99% bandwidth.
5. Set RBW $\geq$ 1% to 5% of the 99% bandwidth, VBW $\geq$ RBW.
6. Set Sweep = auto.
7. Set Detector function = peak.
8. Allow the trace to stabilize.
9. Repeat above procedures until all frequencies measured were complete.
10. All modulations and data rates were measured, only the worst case was recorded in the report

Test Setup:

The WIFI component's antenna ports(s) of the EUT are connected to the measurement instrument per an appropriate attenuator if applicable. The EUT is controlled by PC/software to emit the specified signals for the purpose of measurements.



Limit:

According to RSS-GEN 6.7, no limit for 99% bandwidth:

Limit [kHz]

Test Result: Pass

3.6 Power spectral density

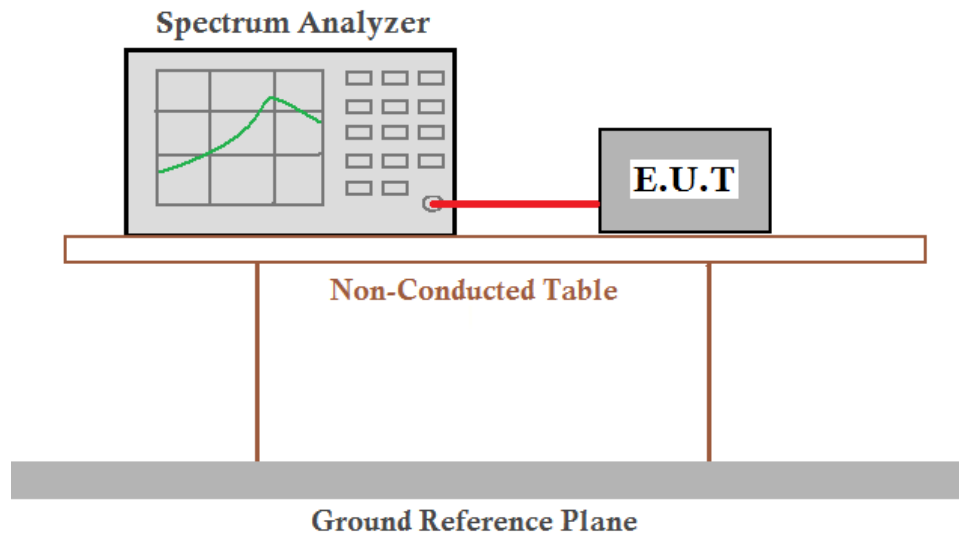
Test Method:

The test method was referred to the subclause 11.10 of ANSI C63.10-2013.

1. Connect EUT test port to spectrum analyzer.
2. Set the EUT to transmit maximum output power at 2.4GHz.
3. Then set the EUT to transmit at high, middle and low frequency separately.
4. Set analyzer center frequency to DTS channel center frequency.
5. Set the span to 1.5DTS bandwidth, set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$, set the VBW $\geq 3\text{RBW}$.
6. Detector = peak.
7. Sweep time = auto couple.
8. Trace mode = max hold.
9. Allow trace to fully stabilize.
10. Use the peak marker function to determine the maximum amplitude level within the RBW.
11. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.
12. All modulations and data rates were measured, only the worst case was recorded in the report

Test Setup:

The WIFI component's antenna ports(s) of the EUT are connected to the measurement instrument per an appropriate attenuator if applicable. The EUT is controlled by PC/software to emit the specified signals for the purpose of measurements.



Limit:

According to §15.247(e)/RSS-247 5.2 (b), Power spectral density limit as below:

Limit [dBm]

≤ 8

Test Result: Pass

3.7 Spurious RF conducted emissions

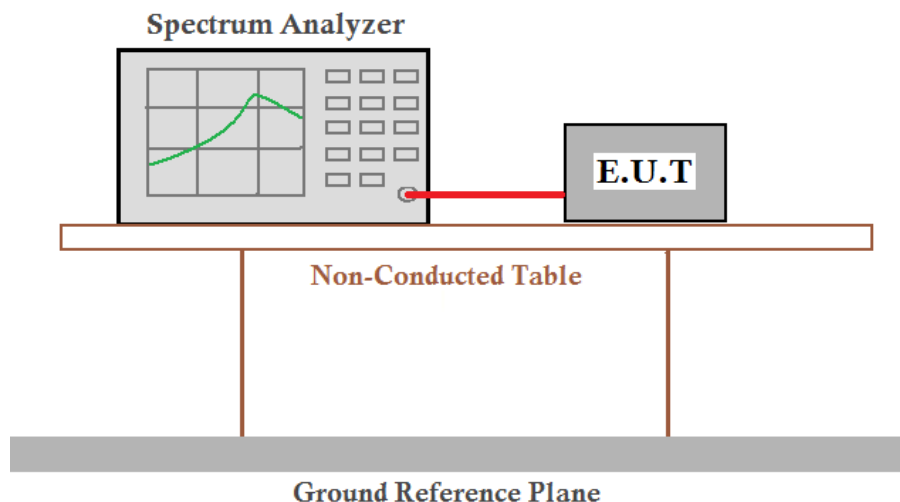
Test Method:

The test method was referred to the subclause 11.11/11.12 of ANSI C63.10-2013.

1. Connect EUT test port to spectrum analyzer.
2. Set the EUT to transmit maximum output power at 2.4GHz.
3. Then set the EUT to transmit at high, middle and low frequency separately.
4. Set Span = wide enough to capture the peak level of the emission operating on the channel closest to the band edge, as well as any modulation products which fall outside of the authorized band of operation.
5. Set RBW = 100 kHz, VBW $\geq$ RBW.
6. Set Sweep = auto.
7. Set Detector function = peak.
8. Allow the trace to stabilize.
9. Repeat above procedures until all frequencies measured were complete.
10. All modulations and data rates were measured, only the worst case was recorded in the report

Test Setup:

The WIFI component's antenna ports(s) of the EUT are connected to the measurement instrument per an appropriate attenuator if applicable. The EUT is controlled by PC/software to emit the specified signals for the purpose of measurements.



Limit:

According to §15.247(d) & §15.209 & §15.205, RSS-247 Clause 5.5 & RSS-GEN 6.13, RSS-GEN 8.9, RSS-GEN 8.10, Spurious RF conducted emissions limit as below:

Frequency Range MHz	L edimit (dBc)
30-25000	-20

Test Result: Pass

3.8 Band edge

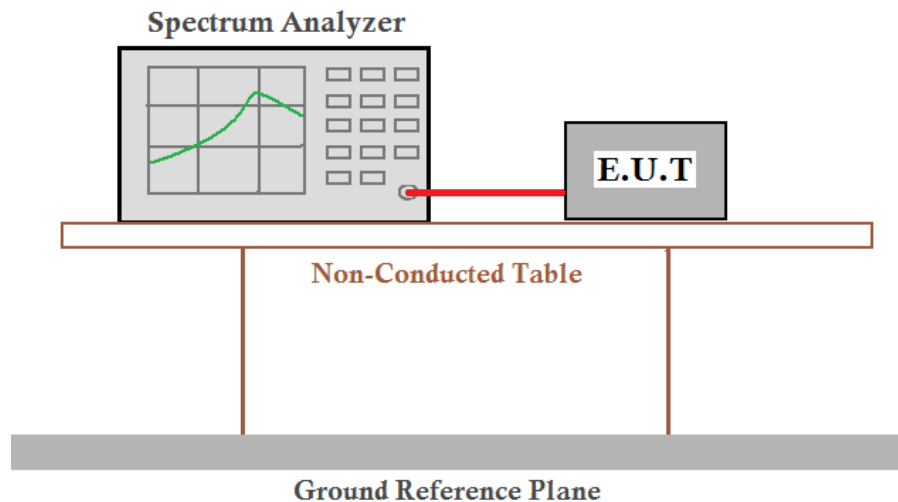
Test Method:

The test method was referred to the subclause 11.13.3.4 of ANSI C63.10-2013.

1. Connect EUT test port to spectrum analyzer.
2. Set the EUT to transmit maximum output power at 2.4GHz.
3. Then set the EUT to transmit at high, middle and low frequency separately.
4. Set Span = wide enough to capture the peak level of the emission operating on the channel closest to the band edge, as well as any modulation products which fall outside of the authorized band of operation.
5. Set RBW $\geq$ 1% of the span, VBW $\geq$ RBW.
6. Set Sweep = auto.
7. Set Detector function = peak.
8. Allow the trace to stabilize.
9. Repeat above procedures until all frequencies measured were complete.
10. All modulations and data rates were measured, only the worst case was recorded in the report.

Test Setup:

The WIFI component's antenna ports(s) of the EUT are connected to the measurement instrument per an appropriate attenuator. The EUT is controlled by PC/software to emit the specified signals for the purpose of measurements.



Limit:

According to RSS-247 5.5, In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits.

Test Result: Pass

3.9 Spurious radiated emissions for transmitter

Test Method:

The test method was referred to the subclause 11.11/11.12 of ANSI C63.10-2013.

- 1: The EUT was placed on a turn table which is 1.5m above ground plane for above 1GHz and 0.8m above ground for below 1GHz at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- 2: The EUT was set 3 meters away from the interference – receiving antenna, which was mounted on the top of a variable – height antenna tower.
- 3: 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.
- 4: 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.
- 5: Use the following spectrum analyzer settings According to C63.10:

For Above 1GHz

Span = wide enough to capture the peak level of the in-band emission and all spurious
RBW = 1MHz, VBW ≥ RBW for peak measurement and VBW = 10Hz for average measurement, Sweep = auto, Detector function = peak, Trace = max hold.

For Below 1GHz

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious
RBW = 100 KHz, VBW ≥ RBW for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

For Below 30MHz

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious
RBW = 200 Hz, VBW ≥ RBW from 9KHz to 0.15MHz, RBW 9KHz VBW ≥ RBW from 0.15MHz to 30MHz for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

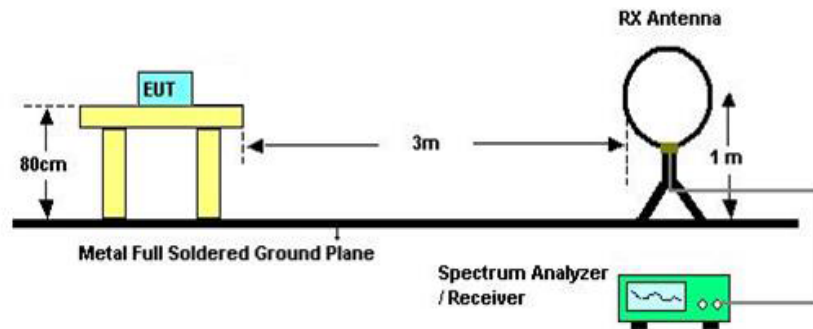
Note:

- 1: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 KHz for Quasi-peak detection (QP) at frequency below 1GHz.
- 2: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for peak detection (PK) at frequency above 1GHz.
- 3: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average ((duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor ($20\log(1/\text{duty cycle})$).
- 4: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
- 5: When duty cycle < 98%, The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\text{VBW} \geq 1/T$, the T is transmission duration (T).

Test Setup:

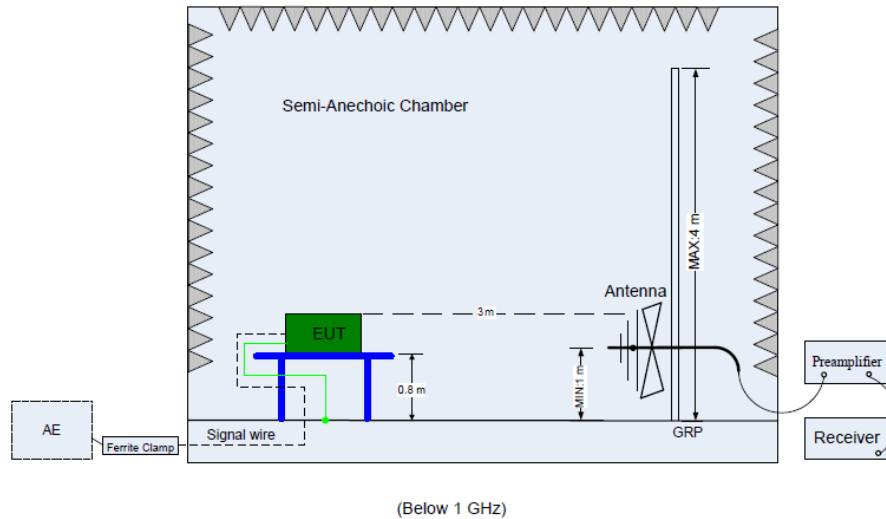
Test Setup 1: Radiated Emission test below 30MHz

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.4. The test distance is 3m. The setup is according to ANSI C63.4.



Test Setup 2: Radiated Emission test below 1GHz

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.4. The test distance is 3m. The setup is according to ANSI C63.4.



§15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

RSS-GEN 8.10

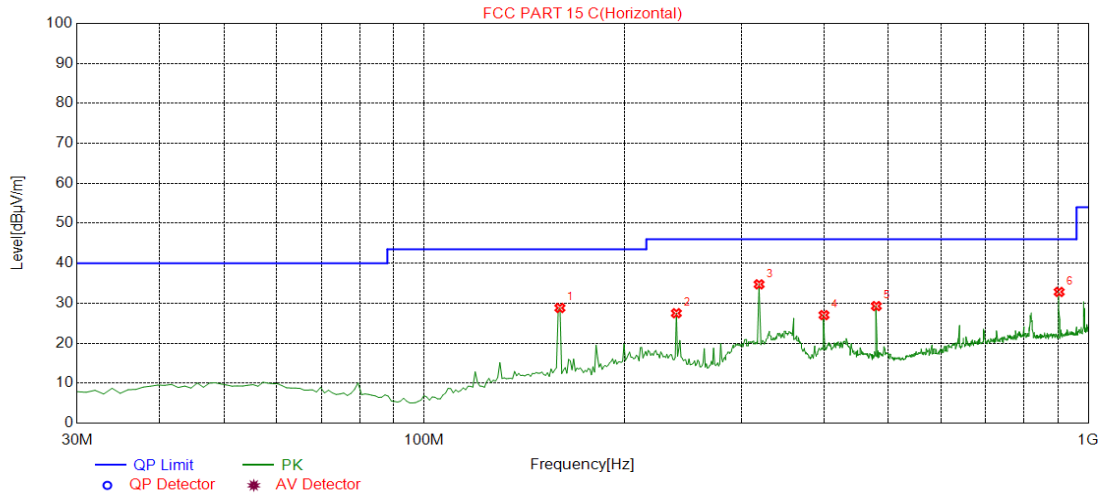
MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	1660 - 1710	9.0 - 9.2
0.495 - 0.505	16.69475 - 16.69525	1718.8 - 1722.2	9.3 - 9.5
2.1735 - 2.1905	25.5 - 25.67	2200 - 2300	10.6 - 12.7
3.020 - 3.026	37.5 - 38.25	2310 - 2390	13.25 - 13.4
4.125 - 4.128	73 - 74.6	2483.5 - 2500	14.47 - 14.5
4.17725 - 4.17775	74.8 - 75.2	2655 - 2900	15.35 - 16.2
.20725 - 4.20775	108 - 138	3260 - 3267	17.7 - 21.4
5.677 - 5.683	149.9 - 150.05	3332 - 3339	22.01 - 23.12
6.215 - 6.218	156.52475 - 156.52525	3345.8 - 3358	23.6 - 24.0
6.26775 - 6.26825	156.7 - 156.9	3500 - 4400	31.2 - 31.8
6.31175 - 6.31225	162.0125 - 167.17	4500 - 5150	36.43 - 36.5
8.291 - 8.294	167.72 - 173.2	5350 - 5460	Above 38.6
8.362 - 8.366	240 - 285	7250 - 7750	
8.37625 - 8.38675	322 - 335.4	8025 - 8500	
8.41425 - 8.41475	399.9 - 410		
12.29 - 12.293	608 - 614		
12.51975 - 12.52025	960 - 1427		
12.57675 - 12.57725	1435 - 1626.5		
13.36 - 13.41	1645.5 - 1646.5		

Test Result: Pass

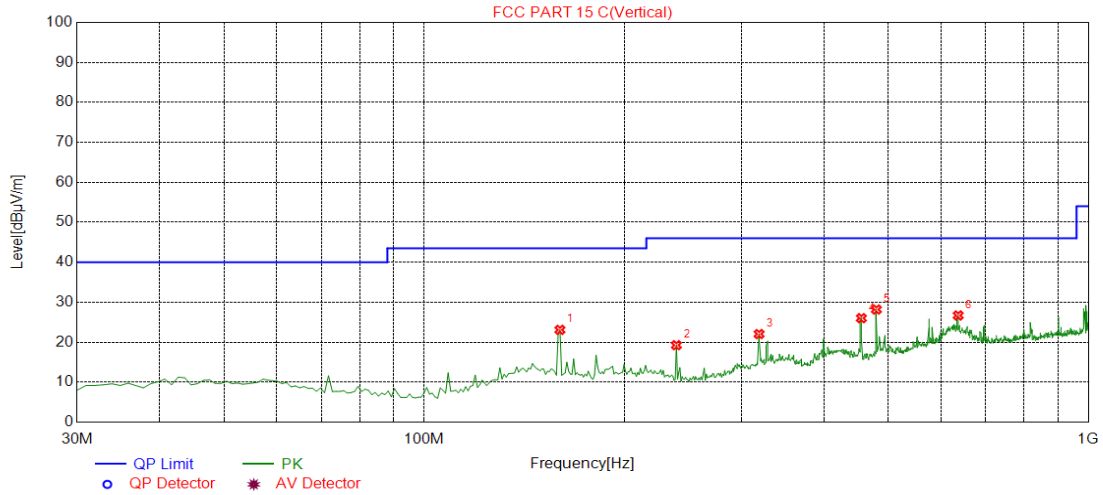
Spurious radiated emissions (Radiated)

According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

WIFI 11b 2412MHz Test Result



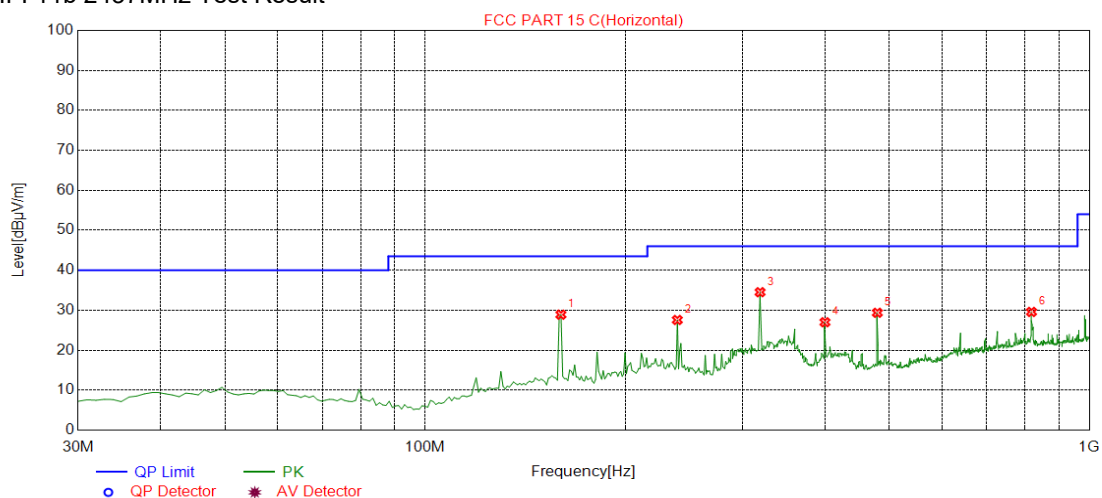
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	28.82	-15.22	43.50	14.68	100	144	Horizontal
2	239.729	27.51	-17.43	46.00	18.49	100	139	Horizontal
3	319.349	34.73	-15.12	46.00	11.27	100	26	Horizontal
4	399.939	27.03	-13.93	46.00	18.97	100	26	Horizontal
5	479.559	29.29	-12.12	46.00	16.71	100	45	Horizontal
6	903.873	32.83	-5.82	46.00	13.17	100	190	Horizontal



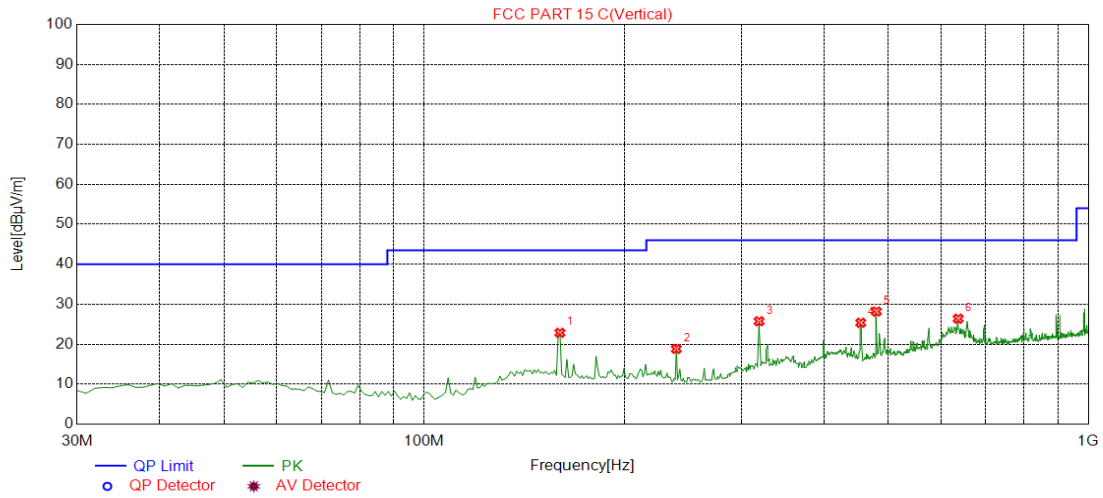
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	23.10	-15.22	43.50	20.40	100	120	Vertical
2	239.729	19.26	-17.43	46.00	26.74	100	125	Vertical
3	319.349	22.05	-15.12	46.00	23.95	100	156	Vertical
4	455.285	26.02	-12.58	46.00	19.98	100	38	Vertical
5	479.559	28.18	-12.12	46.00	17.82	100	308	Vertical
6	636.856	26.70	-9.13	46.00	19.30	100	16	Vertical

Frequency Band	Frequency	Emission Level	Polarization	Limit	Detector	Margin	Corr.	Result
	MHz	dBuV/m		dBμV/m		dB	(dB)	
1000-25000MHz	7824.91	51.28	H	74.00	PK	22.72	-11.17	Pass
	7637.31	50.97	V	74.00	PK	23.03	-11.03	Pass
	--	--	H	74.00	PK	--	--	Pass
	--	--	H	54.00	AV	--	--	Pass
	--	--	V	74.00	PK	--	--	Pass
	--	--	V	54.00	AV	--	--	Pass

WIFI 11b 2437MHz Test Result



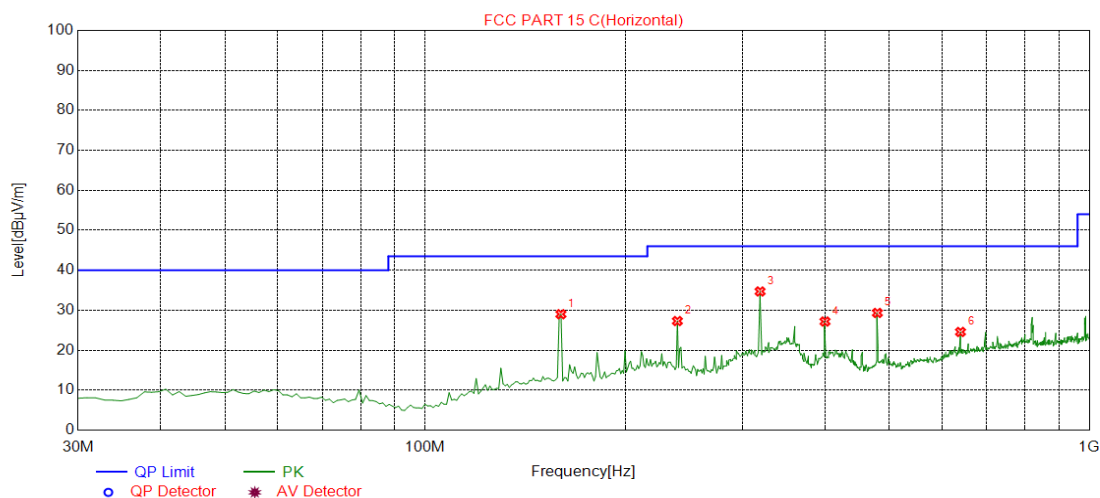
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	28.89	-15.22	43.50	14.61	100	157	Horizontal
2	239.729	27.57	-17.43	46.00	18.43	100	148	Horizontal
3	319.349	34.51	-15.12	46.00	11.49	100	24	Horizontal
4	399.939	27.00	-13.93	46.00	19.00	100	24	Horizontal
5	479.559	29.37	-12.12	46.00	16.63	100	155	Horizontal
6	818.428	29.58	-6.52	46.00	16.42	100	110	Horizontal



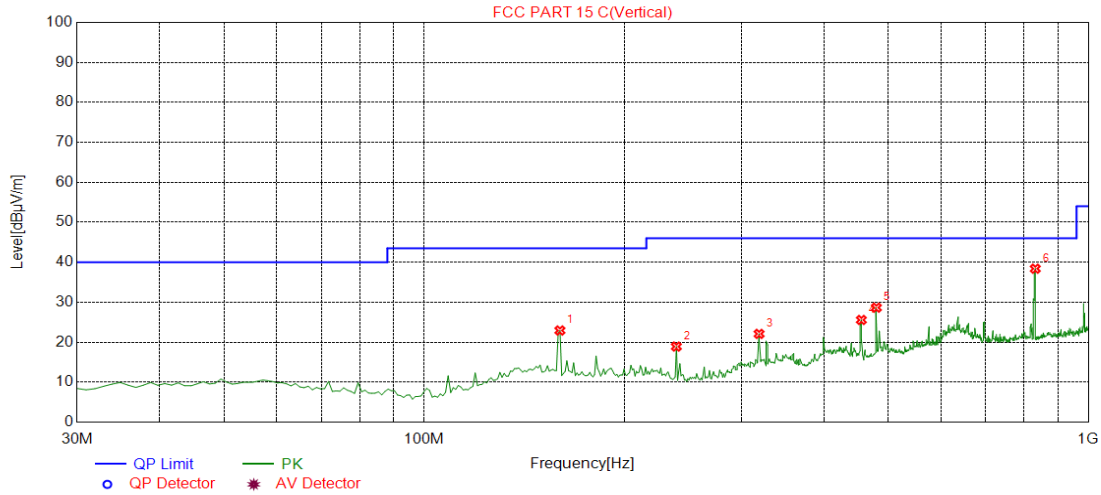
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	22.85	-15.22	43.50	20.65	100	344	Vertical
2	239.729	18.82	-17.43	46.00	27.18	100	123	Vertical
3	319.349	25.74	-15.12	46.00	20.26	100	344	Vertical
4	454.314	25.37	-12.59	46.00	20.63	100	18	Vertical
5	479.559	28.18	-12.12	46.00	17.82	100	308	Vertical
6	636.856	26.39	-9.13	46.00	19.61	100	341	Vertical

Frequency Band	Frequency	Emission Level	Polarization	Limit	Detector	Margin	Corr.	Result
	MHz	dBuV/m		dBμV/m		dB	(dB)	
1000-25000MHz	4875.93	49.87	H	74.00	PK	24.13	-14.81	Pass
	7794.89	50.62	V	74.00	PK	23.38	-11.07	Pass
	--	--	H	74.00	PK	--	--	Pass
	--	--	V	74.00	PK	--	--	Pass

WIFI 11b 2462MHz Test Result



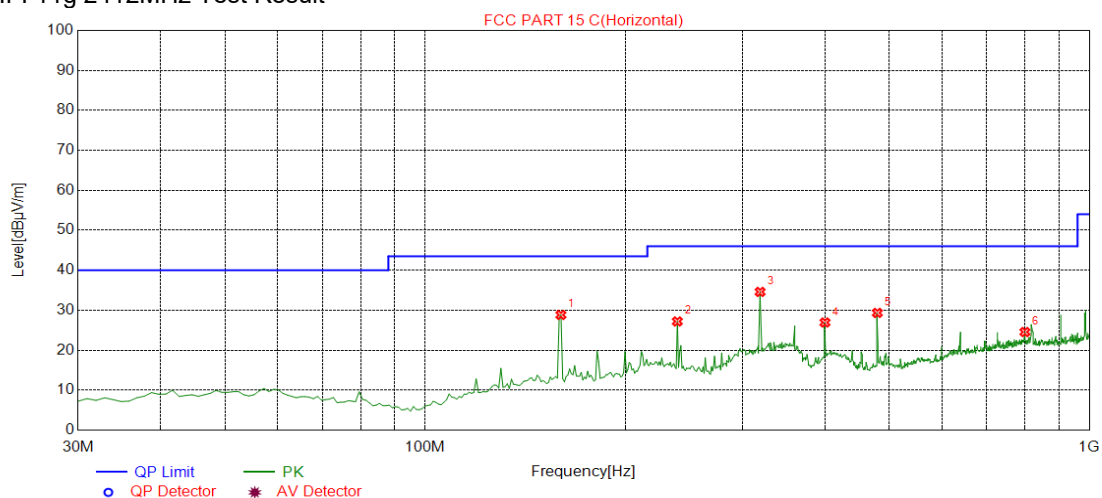
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	29.01	-15.22	43.50	14.49	100	140	Horizontal
2	239.729	27.30	-17.43	46.00	18.70	100	140	Horizontal
3	319.349	34.70	-15.12	46.00	11.30	100	15	Horizontal
4	399.939	27.18	-13.93	46.00	18.82	100	27	Horizontal
5	479.559	29.33	-12.12	46.00	16.67	100	159	Horizontal
6	639.769	24.57	-9.04	46.00	21.43	100	151	Horizontal



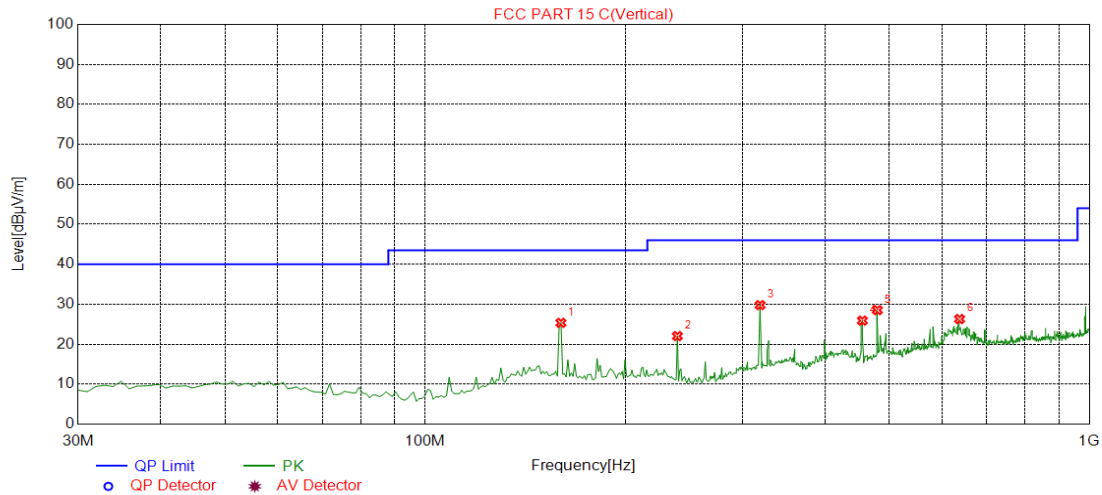
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	22.93	-15.22	43.50	20.57	100	114	Vertical
2	239.729	18.91	-17.43	46.00	27.09	100	121	Vertical
3	319.349	22.09	-15.12	46.00	23.91	100	165	Vertical
4	455.285	25.57	-12.58	46.00	20.43	100	33	Vertical
5	479.559	28.64	-12.12	46.00	17.36	100	304	Vertical
6	832.022	38.39	-6.46	46.00	7.61	100	333	Vertical

Frequency Band	Frequency	Emission Level	Polarization	Limit	Detector	Margin	Corr.	Result
	MHz	dBμV/m		dBμV/m		dB	(dB)	
1000-25000MHz	4920.96	54.69	H	74.00	PK	19.31	-14.83	Pass
	4920.96	41.31	H	54.00	AV	12.69	-14.83	Pass
	4920.96	55.31	V	74.00	PK	18.69	-14.83	Pass
	4920.96	40.37	V	54.00	AV	13.63	-14.83	Pass
	--	--	H	74.00	PK	--	--	Pass
	--	--	H	54.00	AV	--	--	Pass
	--	--	V	74.00	PK	--	--	Pass
	--	--	V	54.00	AV	--	--	Pass

WIFI 11g 2412MHz Test Result



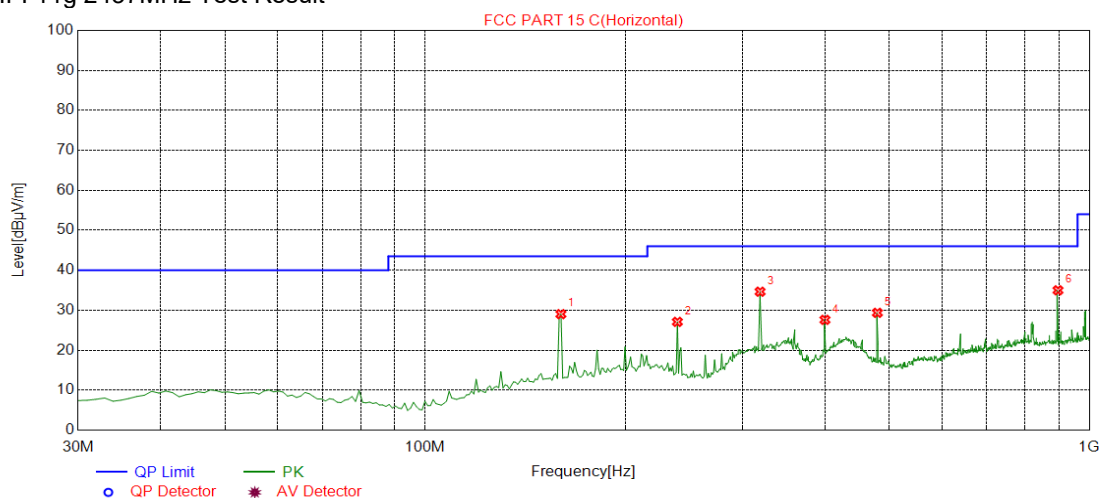
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	28.83	-15.22	43.50	14.67	100	148	Horizontal
2	239.729	27.20	-17.43	46.00	18.80	100	134	Horizontal
3	319.349	34.59	-15.12	46.00	11.41	100	26	Horizontal
4	399.939	26.94	-13.93	46.00	19.06	100	23	Horizontal
5	479.559	29.34	-12.12	46.00	16.66	100	45	Horizontal
6	799.980	24.55	-6.65	46.00	21.45	100	119	Horizontal



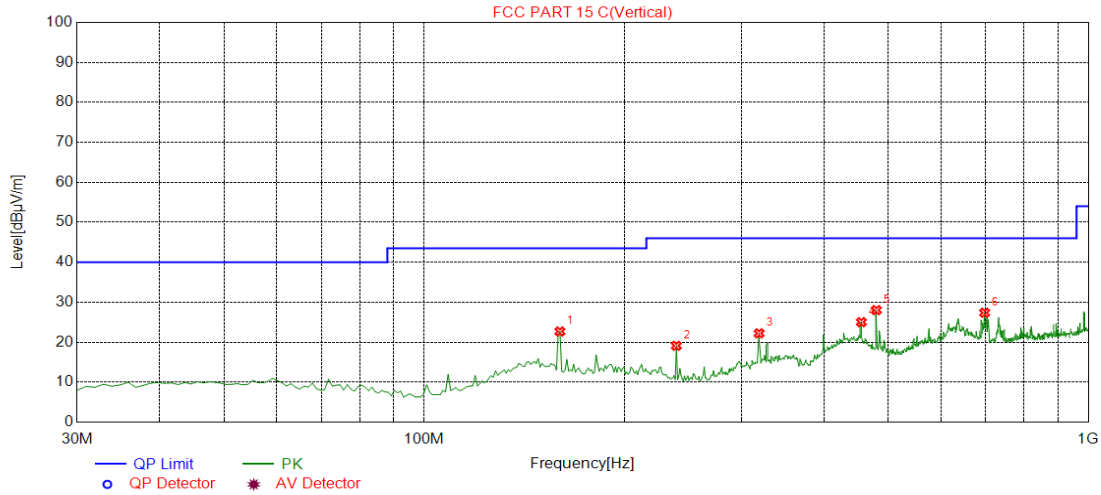
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	25.34	-15.22	43.50	18.16	100	344	Vertical
2	239.729	22.03	-17.43	46.00	23.97	100	344	Vertical
3	319.349	29.79	-15.12	46.00	16.21	100	344	Vertical
4	455.285	25.90	-12.58	46.00	20.10	100	19	Vertical
5	479.559	28.53	-12.12	46.00	17.47	100	317	Vertical
6	637.827	26.29	-9.10	46.00	19.71	100	11	Vertical

Frequency Band	Frequency	Emission Level	Polarization	Limit	Detector	Margin	Corr.	Result
	MHz	dBuV/m		dBμV/m		dB	(dB)	
1000-25000MHz	8657.82	51.09	H	74.00	PK	22.91	-11.00	Pass
	7359.67	50.29	V	74.00	PK	23.71	-11.51	Pass
	--	--	H	74.00	PK	--	--	Pass
	--	--	H	54.00	AV	--	--	Pass
	--	--	V	74.00	PK	--	--	Pass
	--	--	V	54.00	AV	--	--	Pass

WIFI 11g 2437MHz Test Result



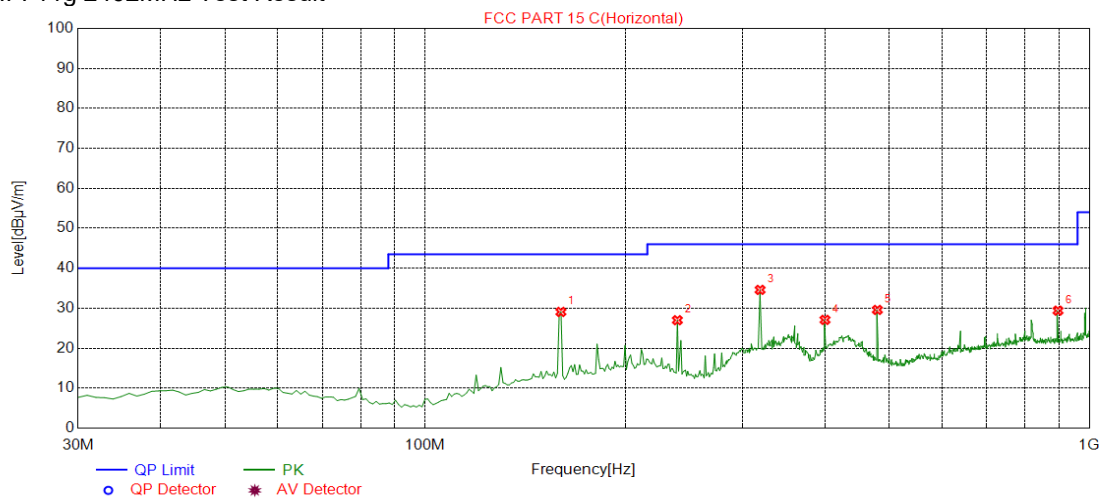
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	29.03	-15.22	43.50	14.47	100	153	Horizontal
2	239.729	27.09	-17.43	46.00	18.91	100	127	Horizontal
3	319.349	34.64	-15.12	46.00	11.36	100	21	Horizontal
4	399.939	27.60	-13.93	46.00	18.40	100	21	Horizontal
5	479.559	29.36	-12.12	46.00	16.64	100	158	Horizontal
6	897.077	34.99	-5.84	46.00	11.01	100	118	Horizontal



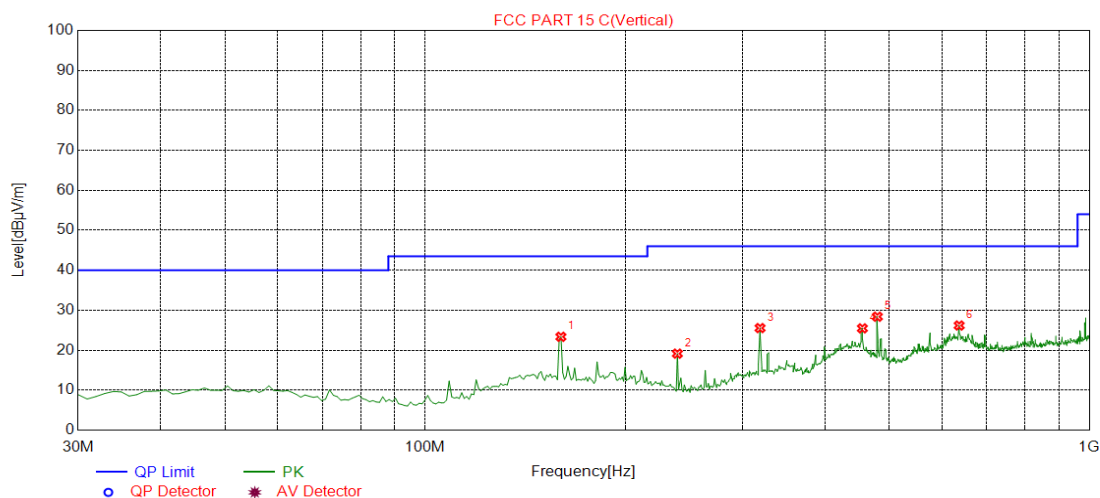
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	22.68	-15.22	43.50	20.82	100	95	Vertical
2	239.729	19.11	-17.43	46.00	26.89	100	133	Vertical
3	319.349	22.22	-15.12	46.00	23.78	100	149	Vertical
4	455.285	25.03	-12.58	46.00	20.97	100	48	Vertical
5	479.559	28.03	-12.12	46.00	17.97	100	309	Vertical
6	698.028	27.37	-8.11	46.00	18.63	100	210	Vertical

Frequency Band	Frequency	Emission Level	Polarization	Limit	Detector	Margin	Corr.	Result
	MHz	dBuV/m		dBμV/m		dB	(dB)	
1000-25000MHz	7014.50	50.58	H	74.00	PK	23.42	-11.87	Pass
	10308.6	52.49	V	74.00	PK	21.51	-7.51	Pass
	--	--	H	54.00	AV	--	--	Pass
	--	--	V	74.00	PK	--	--	Pass
	--	--	V	54.00	AV	--	--	Pass

WIFI 11g 2462MHz Test Result



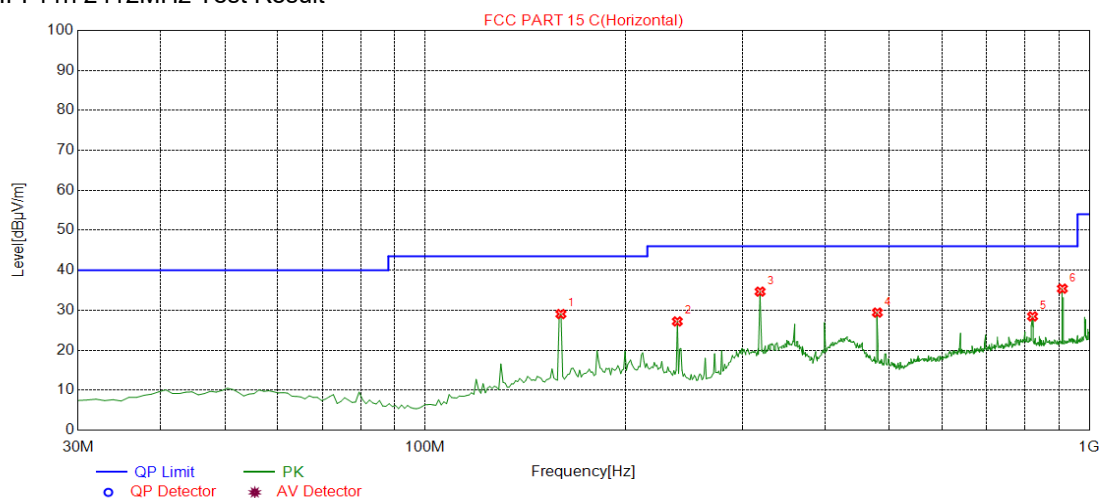
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	29.08	-15.22	43.50	14.42	100	152	Horizontal
2	239.729	27.01	-17.43	46.00	18.99	100	123	Horizontal
3	319.349	34.60	-15.12	46.00	11.40	100	23	Horizontal
4	399.939	27.09	-13.93	46.00	18.91	100	19	Horizontal
5	479.559	29.59	-12.12	46.00	16.41	100	47	Horizontal
6	897.077	29.40	-5.84	46.00	16.60	100	147	Horizontal



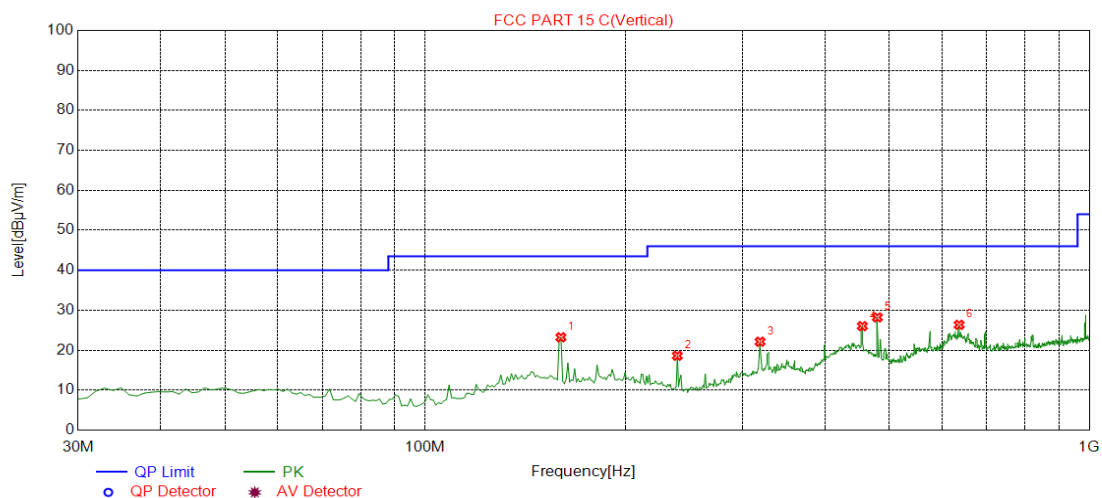
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	23.36	-15.22	43.50	20.14	100	344	Vertical
2	239.729	19.14	-17.43	46.00	26.86	100	127	Vertical
3	319.349	25.54	-15.12	46.00	20.46	100	344	Vertical
4	455.285	25.47	-12.58	46.00	20.53	100	56	Vertical
5	479.559	28.38	-12.12	46.00	17.62	100	300	Vertical
6	636.856	26.18	-9.13	46.00	19.82	100	344	Vertical

Frequency Band	Frequency	Emission Level	Polarization	Limit	Detector	Margin	Corr.	Result
	MHz	dBuV/m		dBμV/m		dB	(dB)	
1000-25000MHz	4928.46	51.08	H	74.00	PK	22.92	-14.77	Pass
	4920.96	51.83	V	74.00	PK	22.17	-14.83	Pass
	--	--	H	74.00	PK	--	--	Pass
	--	--	H	54.00	AV	--	--	Pass
	--	--	V	74.00	PK	--	--	Pass
	--	--	V	54.00	AV	--	--	Pass

WIFI 11n 2412MHz Test Result



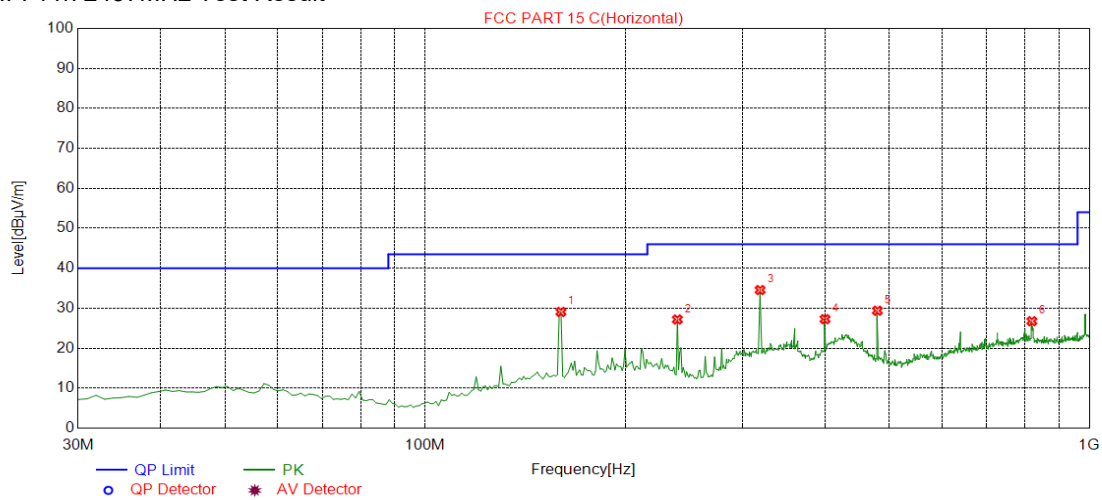
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	29.05	-15.22	43.50	14.45	100	140	Horizontal
2	239.729	27.20	-17.43	46.00	18.80	100	128	Horizontal
3	319.349	34.66	-15.12	46.00	11.34	100	18	Horizontal
4	479.559	29.42	-12.12	46.00	16.58	100	159	Horizontal
5	821.341	28.46	-6.49	46.00	17.54	100	101	Horizontal
6	910.670	35.40	-5.76	46.00	10.60	100	183	Horizontal



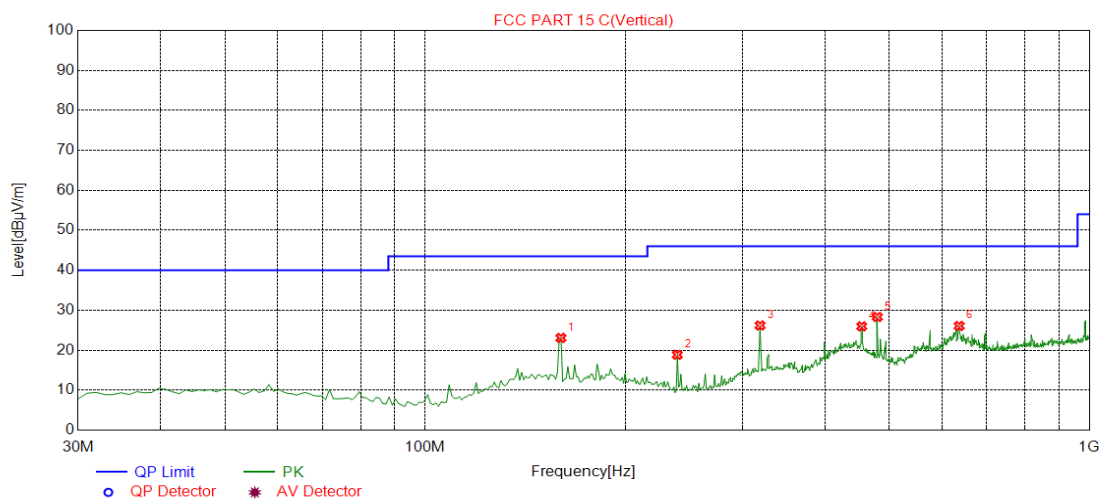
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	23.23	-15.22	43.50	20.27	100	95	Vertical
2	239.729	18.62	-17.43	46.00	27.38	100	120	Vertical
3	319.349	22.13	-15.12	46.00	23.87	100	160	Vertical
4	455.285	26.03	-12.58	46.00	19.97	100	16	Vertical
5	479.559	28.21	-12.12	46.00	17.79	100	320	Vertical
6	636.856	26.35	-9.13	46.00	19.65	100	16	Vertical

Frequency Band	Frequency	Emission Level	Polarization	Limit	Detector	Margin	Corr.	Result
	MHz	dBuV/m		dBμV/m		dB	(dB)	
1000-25000MHz	7944.97	51.22	H	74.00	PK	22.78	-10.83	Pass
	10886.4	53.61	V	74.00	PK	20.39	-6.95	Pass
	--	--	H	74.00	PK	--	--	Pass
	--	--	H	54.00	AV	--	--	Pass
	--	--	V	74.00	PK	--	--	Pass
	--	--	V	54.00	AV	--	--	Pass

WIFI 11n 2437MHz Test Result



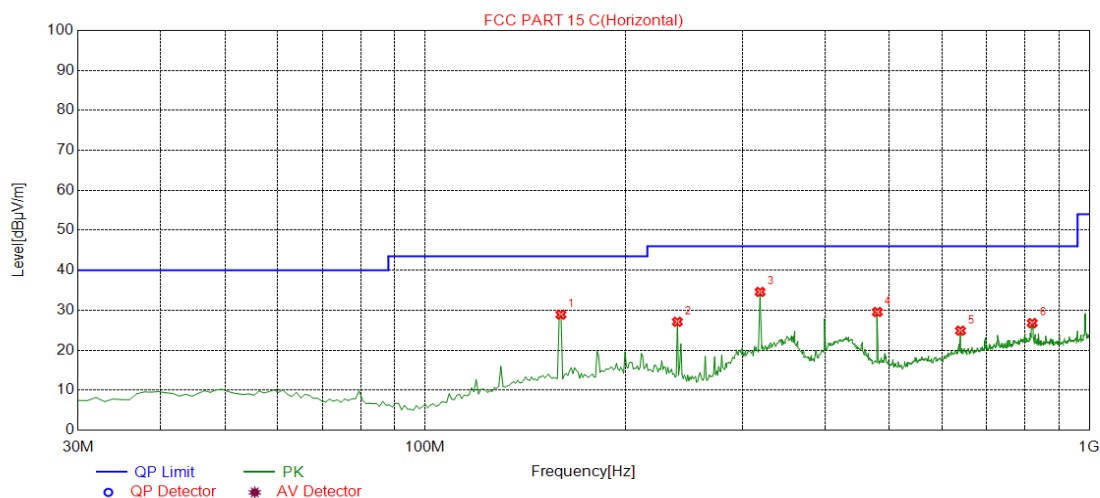
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	29.08	-15.22	43.50	14.42	100	150	Horizontal
2	239.729	27.19	-17.43	46.00	18.81	100	131	Horizontal
3	319.349	34.55	-15.12	46.00	11.45	100	23	Horizontal
4	399.939	27.27	-13.93	46.00	18.73	100	23	Horizontal
5	479.559	29.39	-12.12	46.00	16.61	100	43	Horizontal
6	819.399	26.76	-6.50	46.00	19.24	100	105	Horizontal



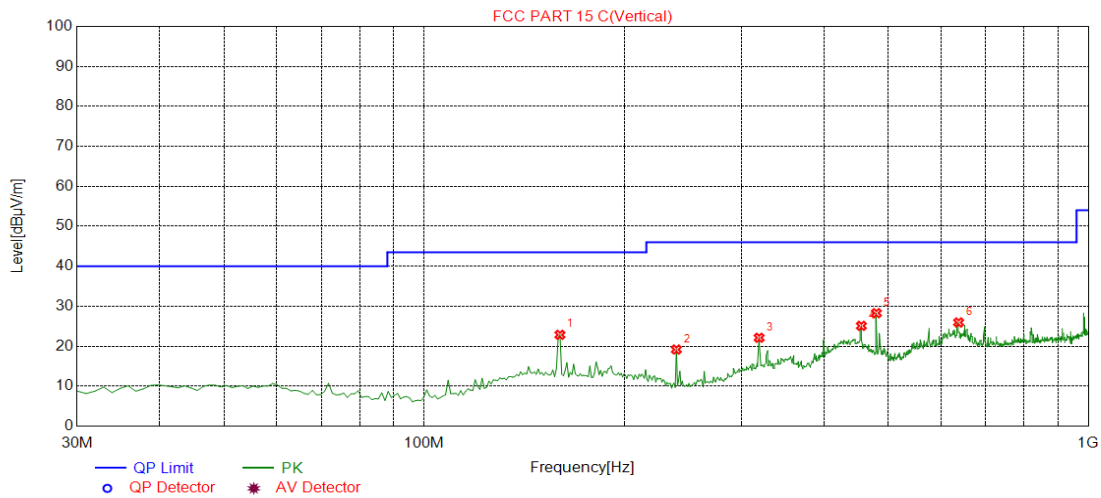
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	23.07	-15.22	43.50	20.43	100	344	Vertical
2	239.729	18.85	-17.43	46.00	27.15	100	137	Vertical
3	319.349	26.19	-15.12	46.00	19.81	100	344	Vertical
4	454.314	25.97	-12.59	46.00	20.03	100	11	Vertical
5	479.559	28.32	-12.12	46.00	17.68	100	315	Vertical
6	636.856	26.07	-9.13	46.00	19.93	100	6	Vertical

Frequency Band	Frequency	Emission Level	Polarization	Limit	Detector	Margin	Corr.	Result
	MHz	dBuV/m		dBμV/m		dB	(dB)	
1000-25000MHz	10391.1	52.92	H	74.00	PK	21.08	-7.8	Pass
	10878.9	53.68	V	74.00	PK	20.32	-6.94	Pass
	--	--	H	74.00	PK	--	--	Pass
	--	--	V	74.00	PK	--	--	Pass

WIFI 11n 2462MHz Test Result



NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	28.90	-15.22	43.50	14.60	100	148	Horizontal
2	239.729	27.11	-17.43	46.00	18.89	100	148	Horizontal
3	319.349	34.58	-15.12	46.00	11.42	100	21	Horizontal
4	479.559	29.56	-12.12	46.00	16.44	100	44	Horizontal
5	639.769	24.88	-9.04	46.00	21.12	100	146	Horizontal
6	820.370	26.79	-6.49	46.00	19.21	100	117	Horizontal



NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	22.85	-15.22	43.50	20.65	100	111	Vertical
2	239.729	19.17	-17.43	46.00	26.83	100	128	Vertical
3	319.349	22.12	-15.12	46.00	23.88	100	164	Vertical
4	455.285	25.10	-12.58	46.00	20.90	100	19	Vertical
5	479.559	28.28	-12.12	46.00	17.72	100	314	Vertical
6	637.827	25.94	-9.10	46.00	20.06	100	16	Vertical

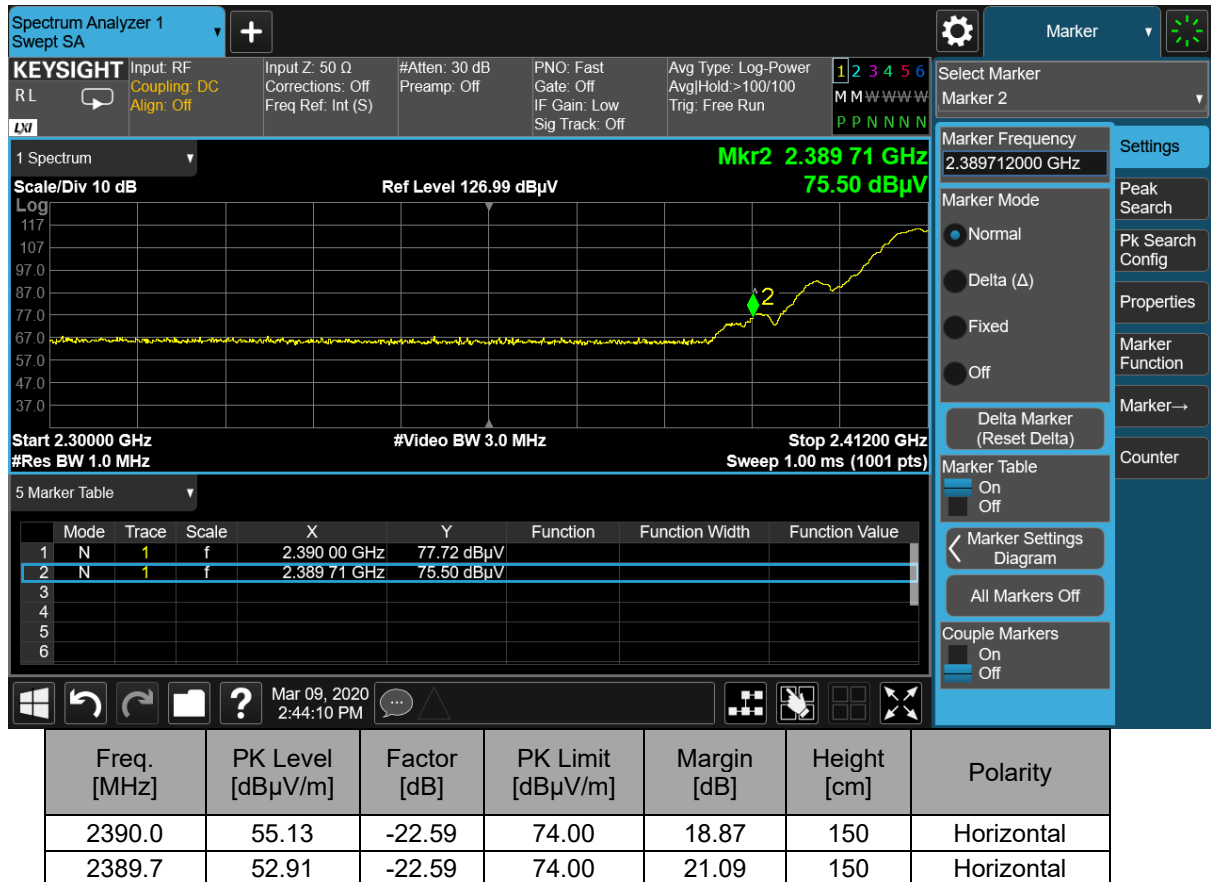
Frequency Band	Frequency	Emission Level	Polarization	Limit	Detector	Margin	Corr.	Result
	MHz	dBuV/m		dBμV/m		dB	(dB)	
1000-25000MHz	9145.57	51.10	H	74.00	PK	22.90	-10.17	Pass
	10451.2	52.77	V	74.00	PK	21.23	-7.56	Pass
	--	--	H	74.00	PK	--	--	Pass
	--	--	V	74.00	PK	--	--	Pass

Remark:

- (1) “*” means the emission(s) appear within the restrict bands shall follow the requirement of section 15.205.
- (2) Data of measurement within this frequency range shown “--” in the table above means the reading of emissions are the noise floor or attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) Above 1GHz: Corrector factor = Antenna Factor + Cable Loss - Amplifier Gain.
- (4) Below 1GHz: Corrector factor = Antenna Factor + Cable Loss - Amplifier Gain.
- (5) Note: The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

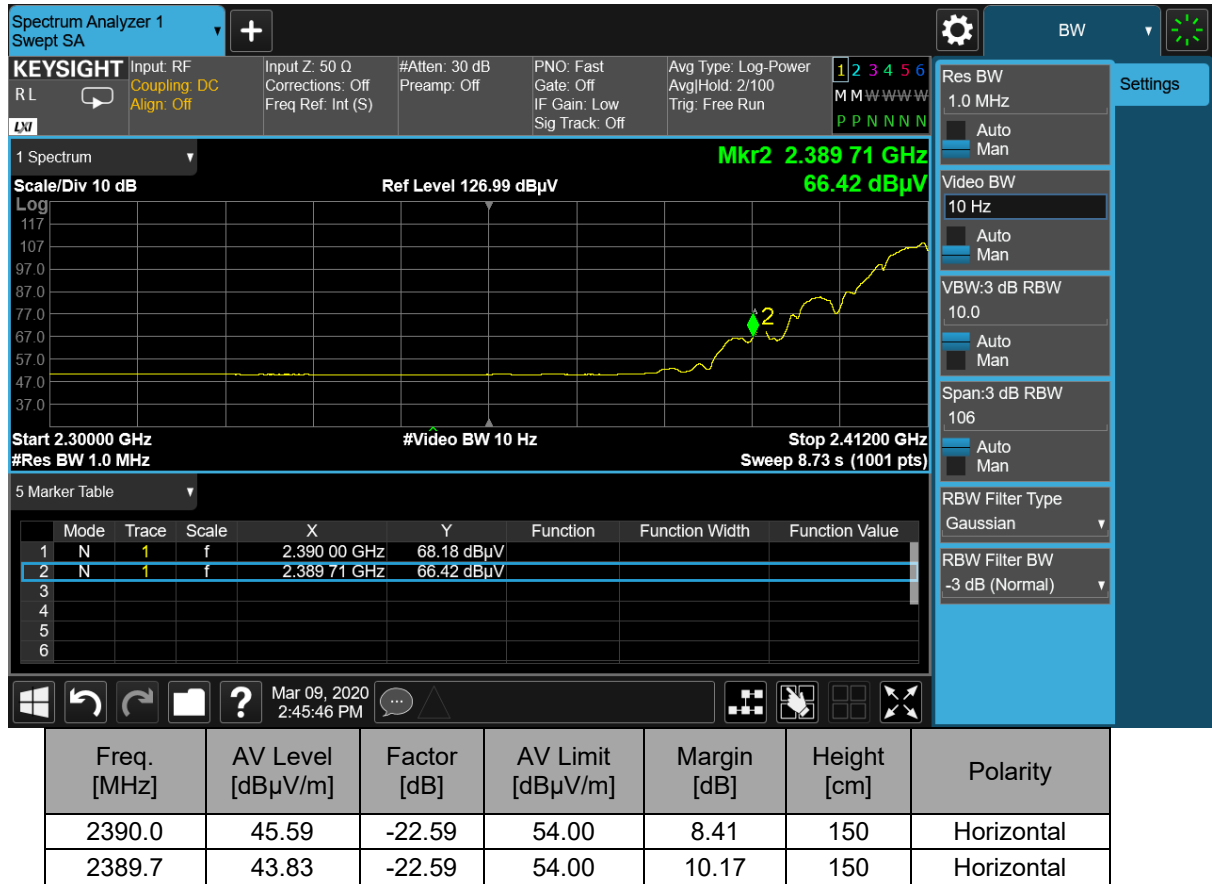
Band Edge (Radiated)

WIFI 11b Test Result



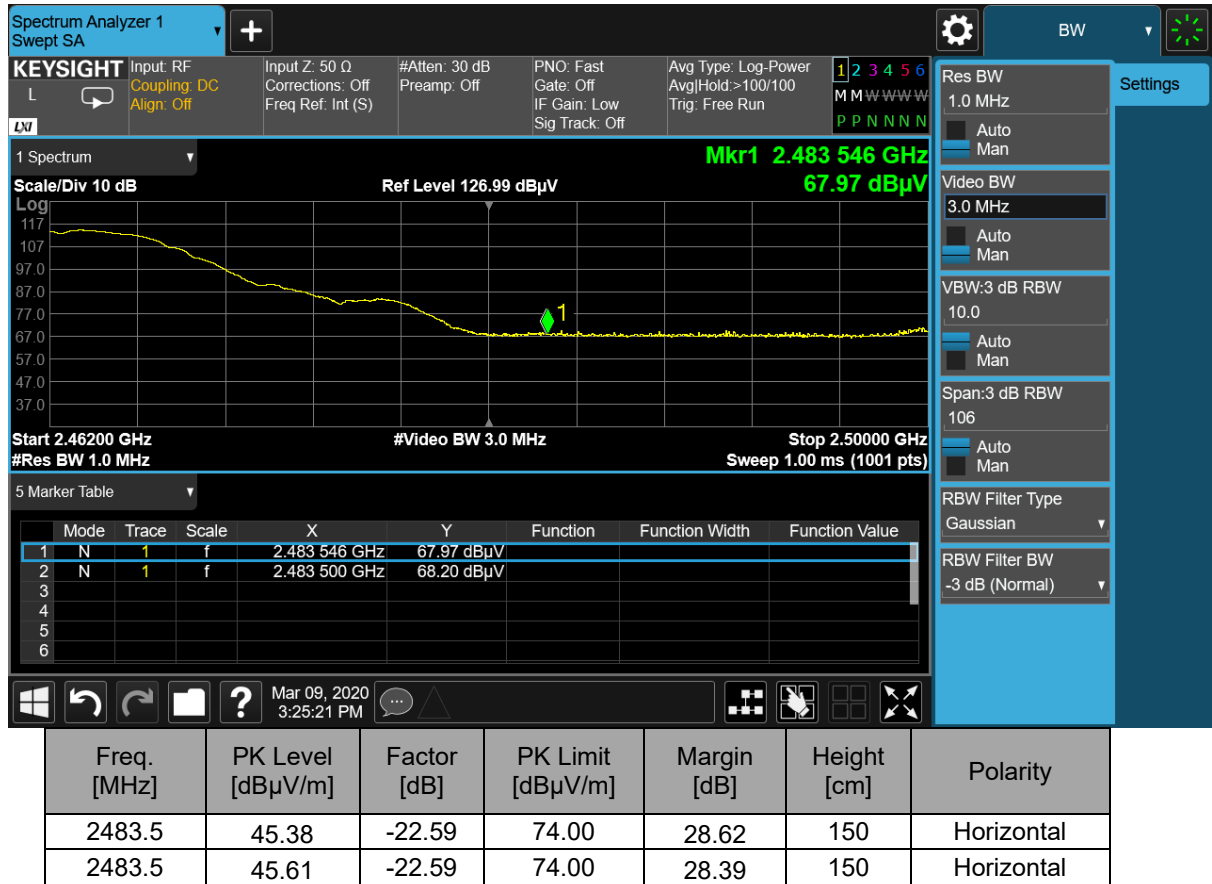
PK level= Read level + Factor

Factor= Antenna Factor + Cable loss – Preamp Factor



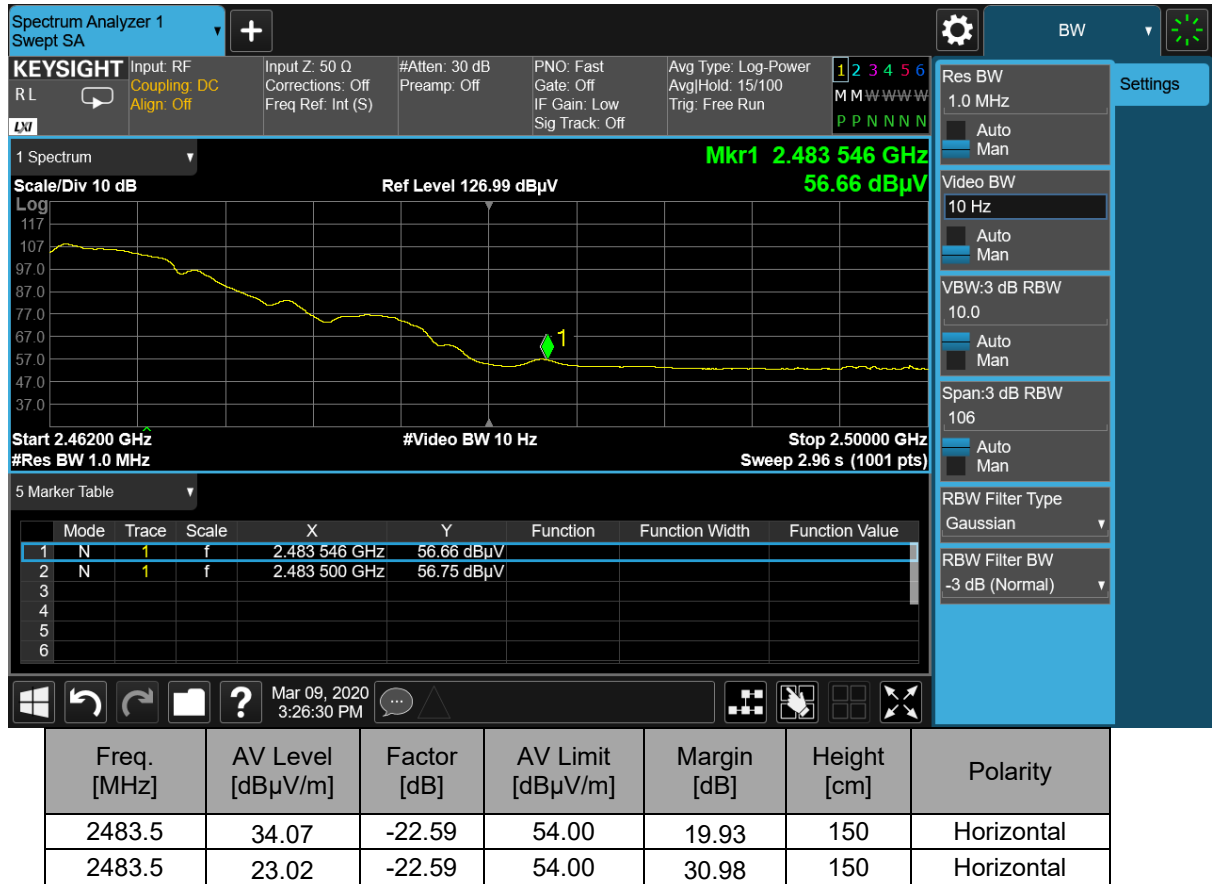
AV level= Read level + Factor

Factor= Antenna Factor + Cable loss – Preamp Factor



PK level= Read level + Factor

Factor= Antenna Factor + Cable loss – Preamp Factor



AV level= Read level + Factor

Factor= Antenna Factor + Cable loss – Preamp Factor

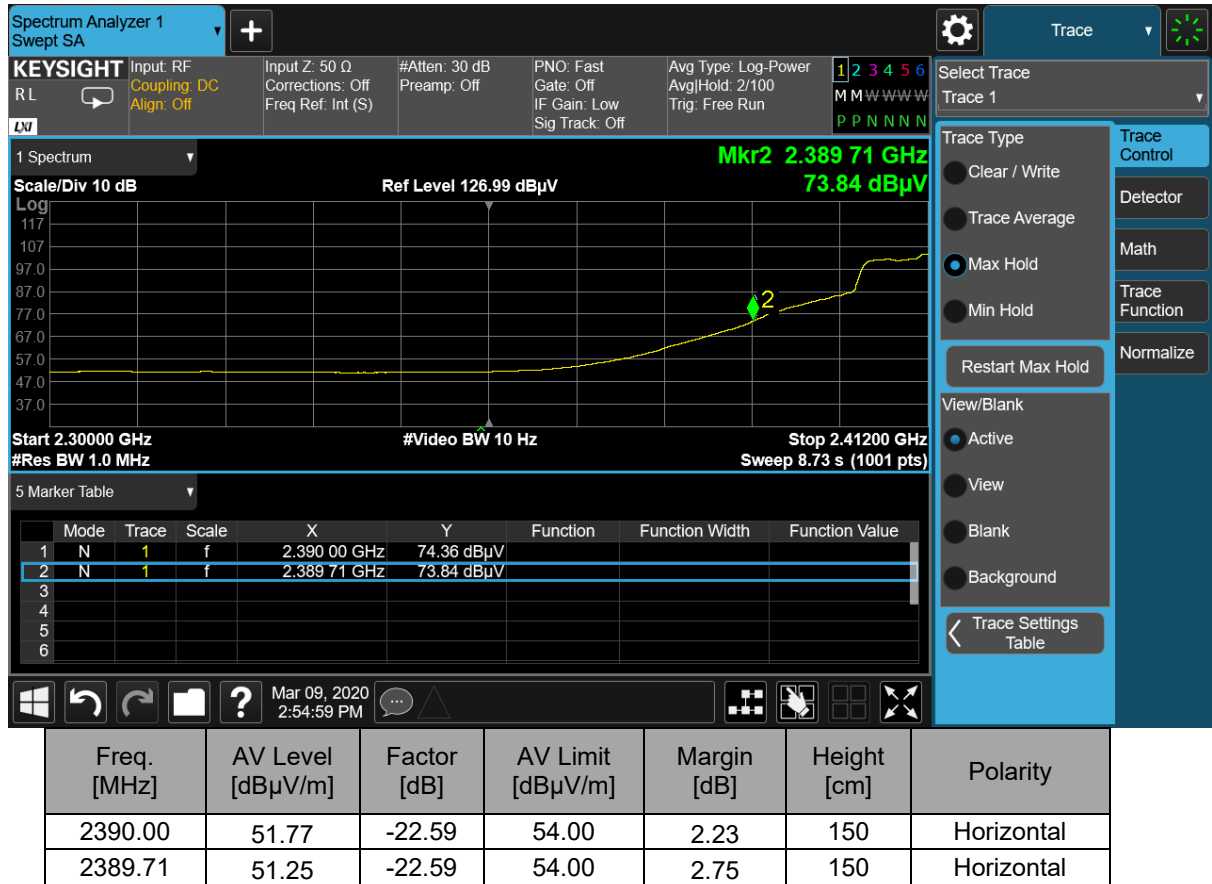
WIFI 802.11g Test Result



Freq. [MHz]	PK Level [dBµV/m]	Factor [dB]	PK Limit [dBµV/m]	Margin [dB]	Height [cm]	Polarity
2390.00	69.41	-22.59	74.00	4.59	150	Horizontal
2389.71	69.22	-22.59	74.00	4.78	150	Horizontal

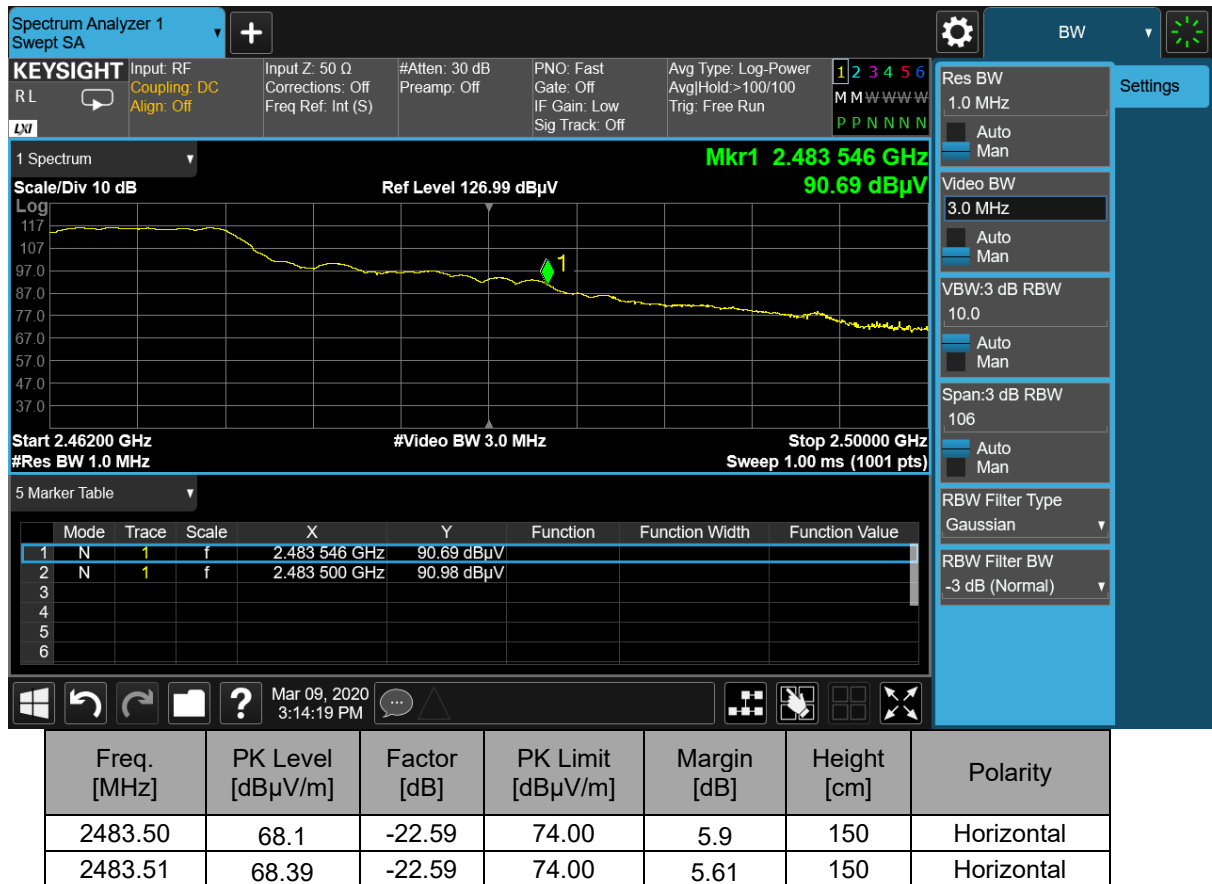
PK level= Read level + Factor

Factor= Antenna Factor + Cable loss – Preamp Factor



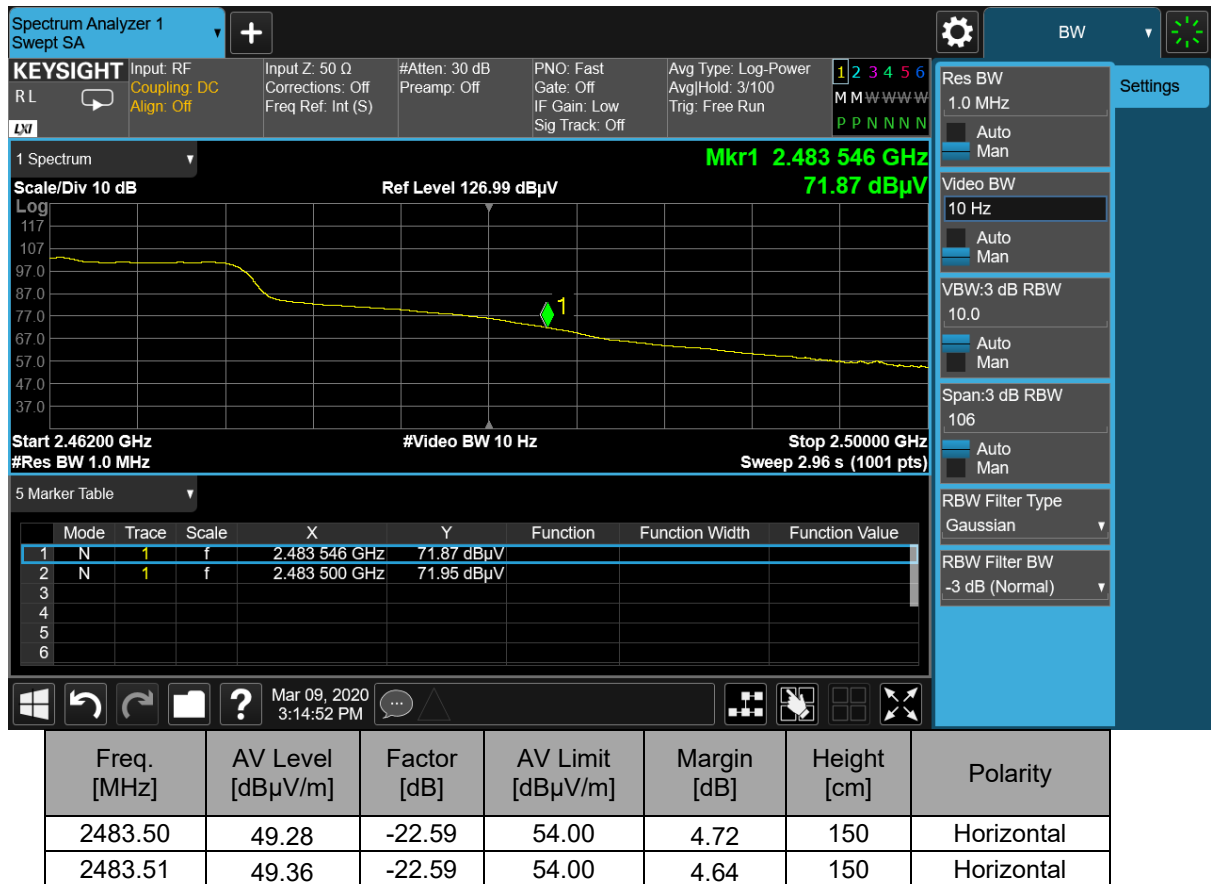
AV level= Read level + Factor

Factor= Antenna Factor + Cable loss – Preamp Factor



PK level= Read level + Factor

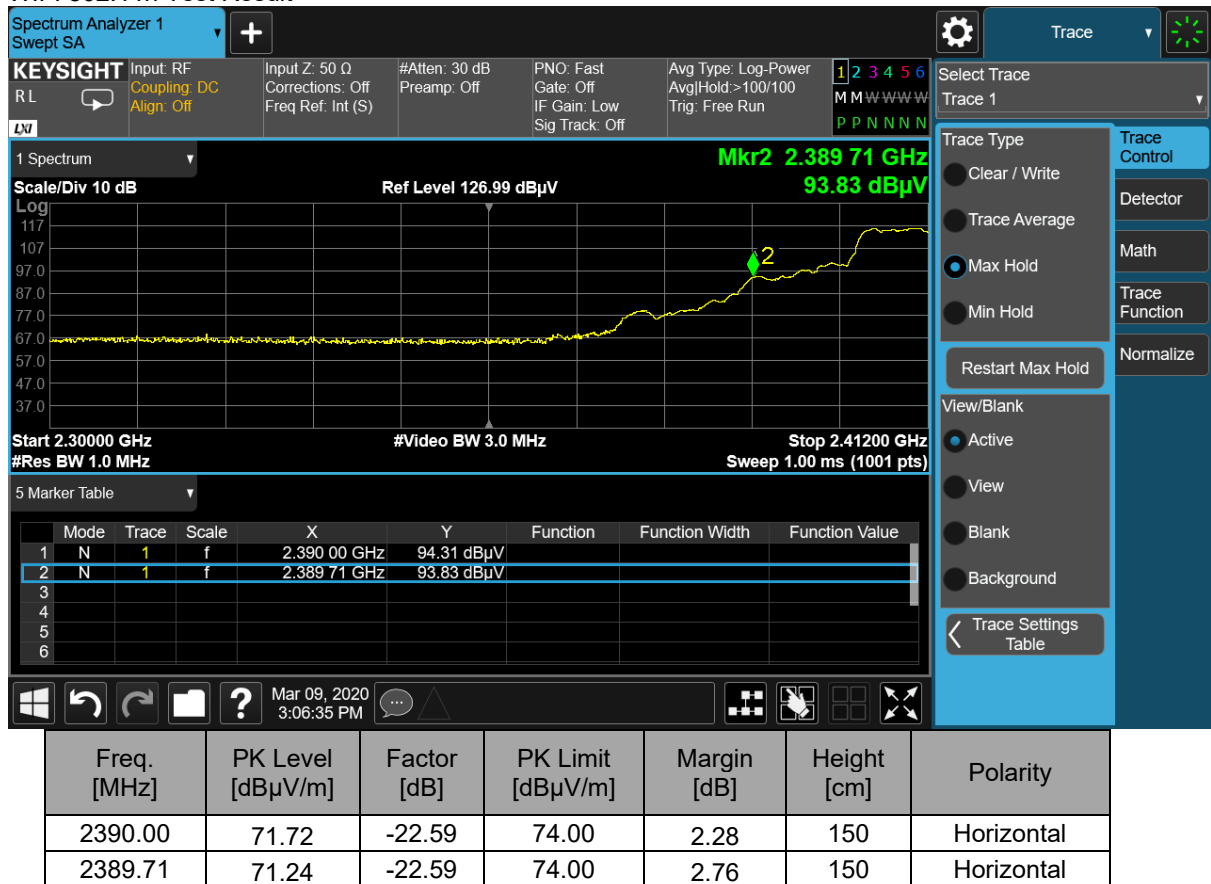
Factor= Antenna Factor + Cable loss – Preamp Factor



AV level= Read level + Factor

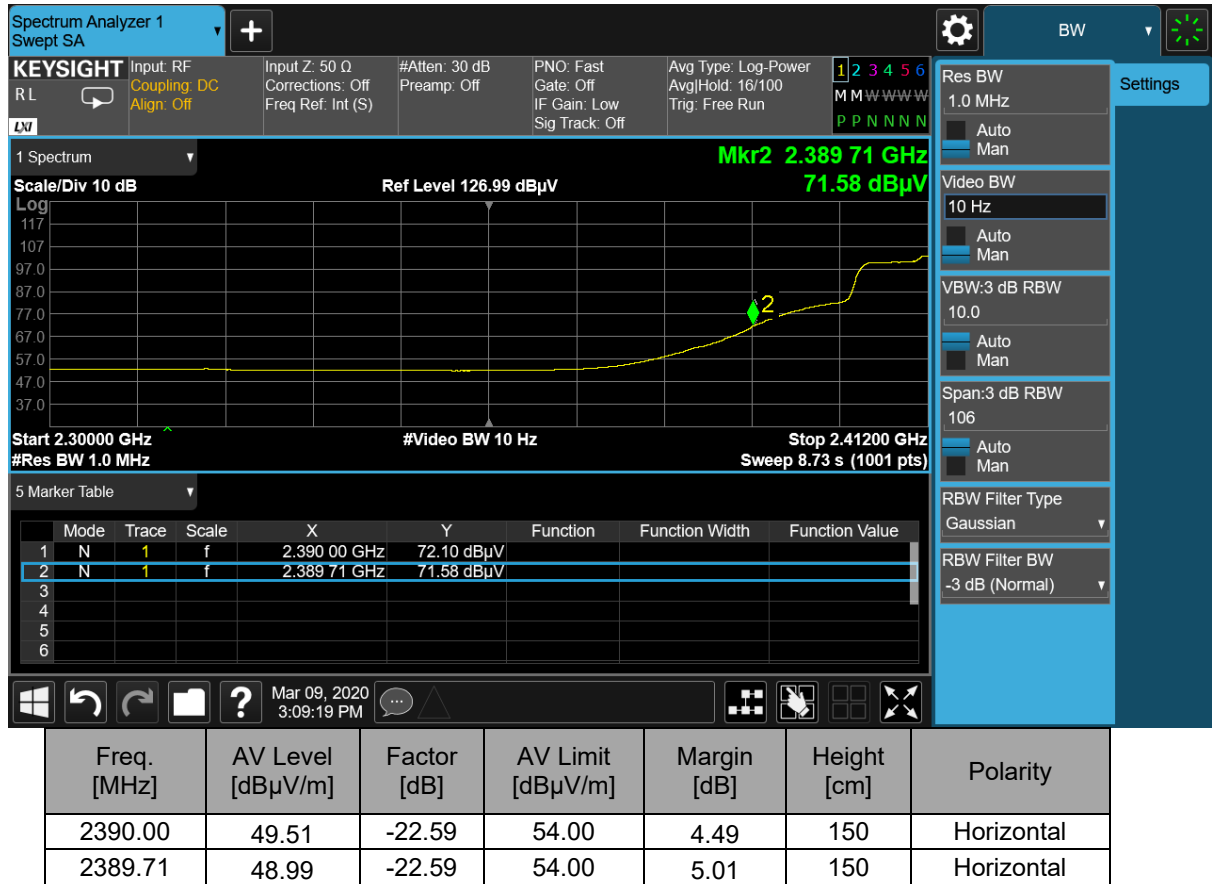
Factor= Antenna Factor + Cable loss – Preamp Factor

WIFI 802.11n Test Result



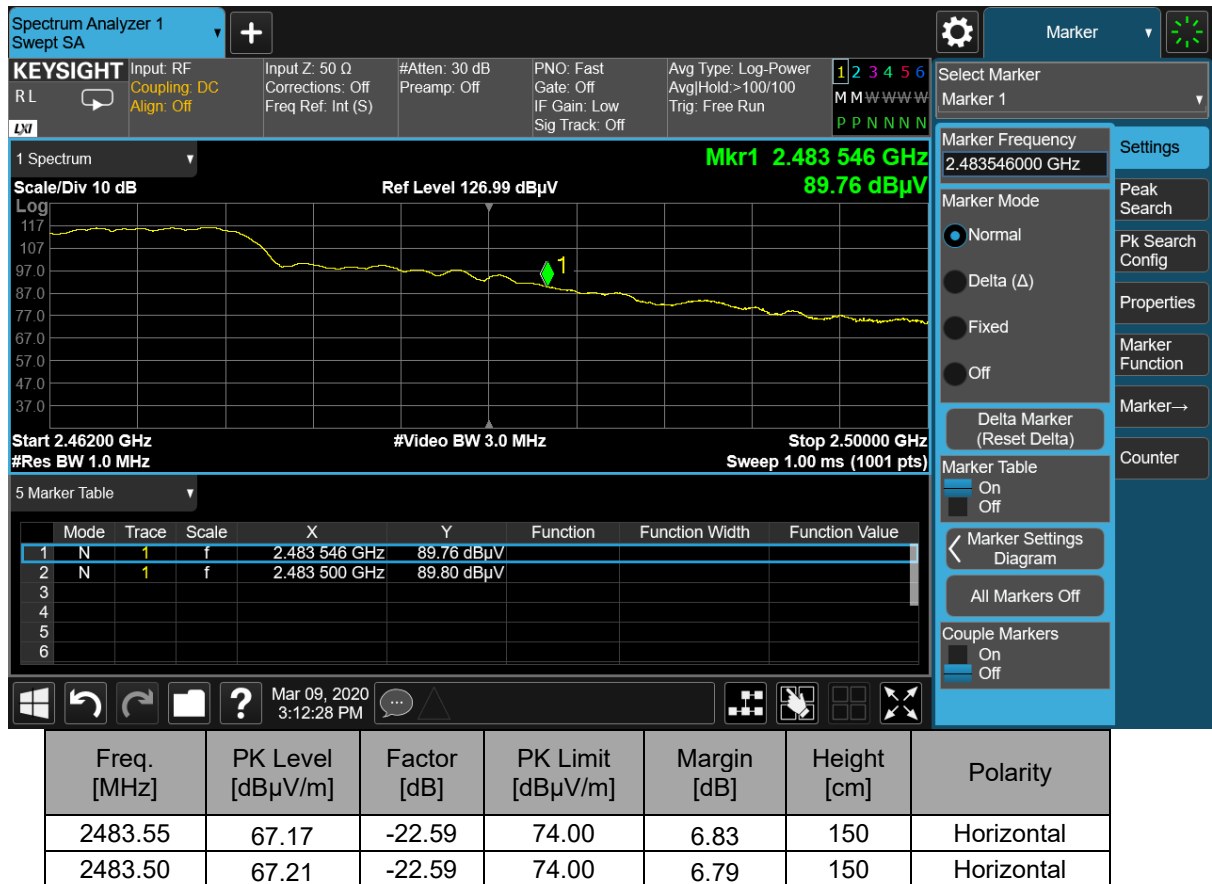
PK level= Read level + Factor

Factor= Antenna Factor + Cable loss – Preamp Factor



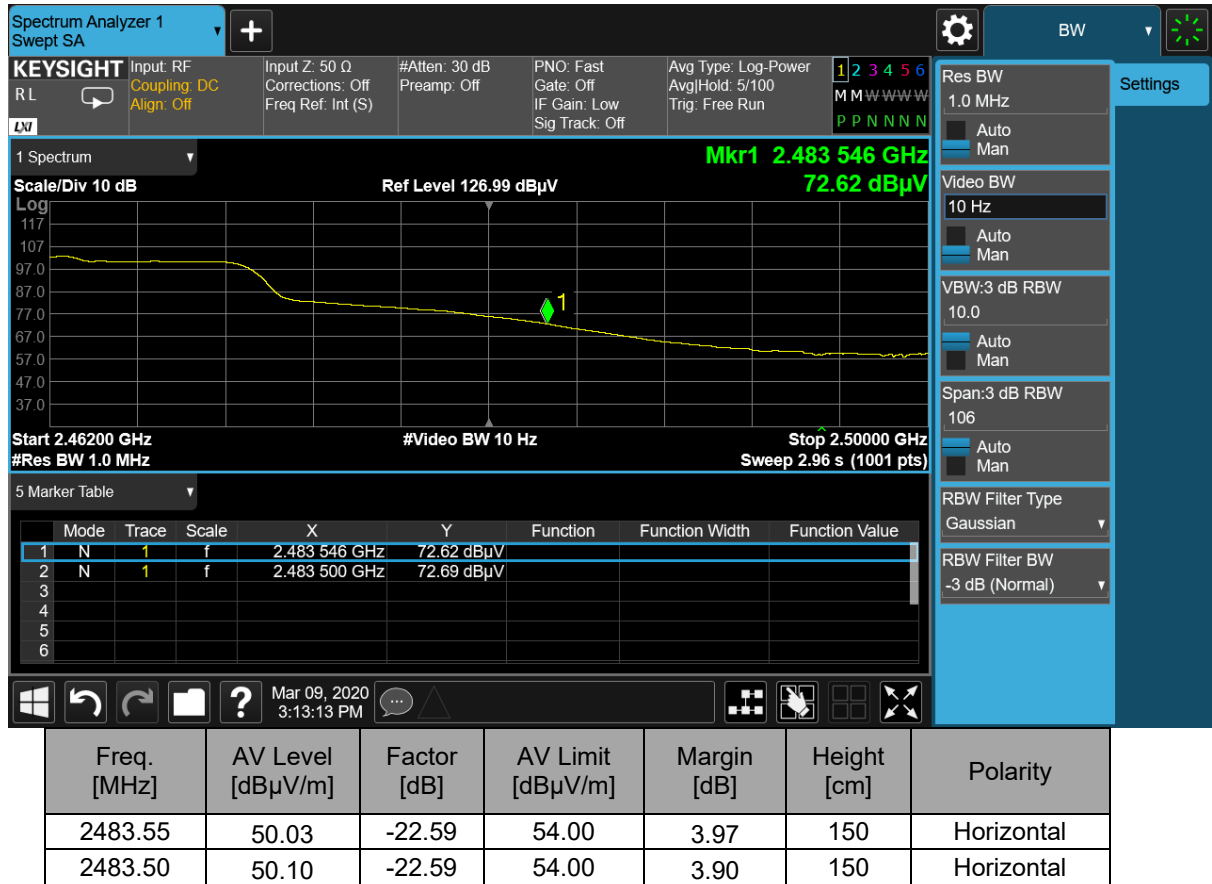
AV level= Read level + Factor

Factor= Antenna Factor + Cable loss – Preamp Factor



PK level= Read level + Factor

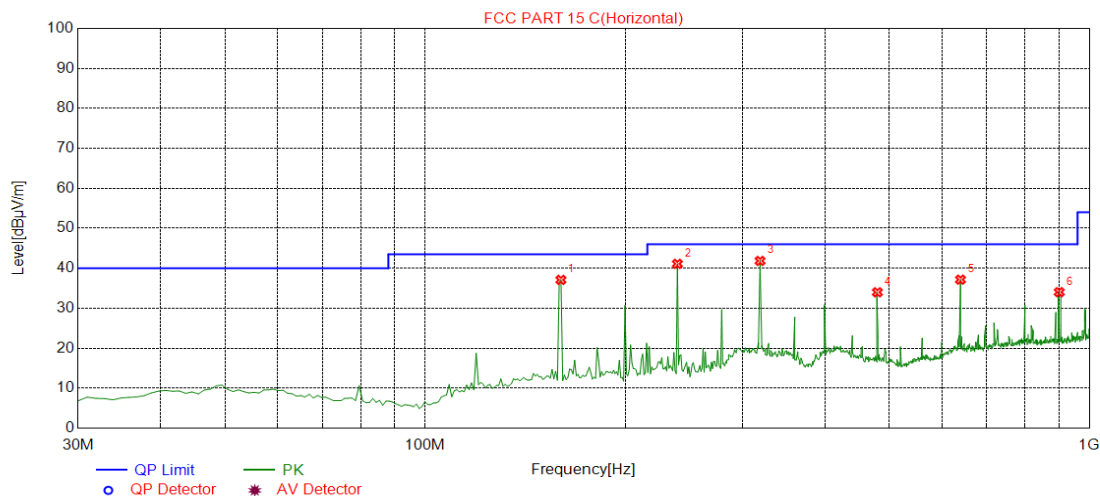
Factor= Antenna Factor + Cable loss – Preamp Factor



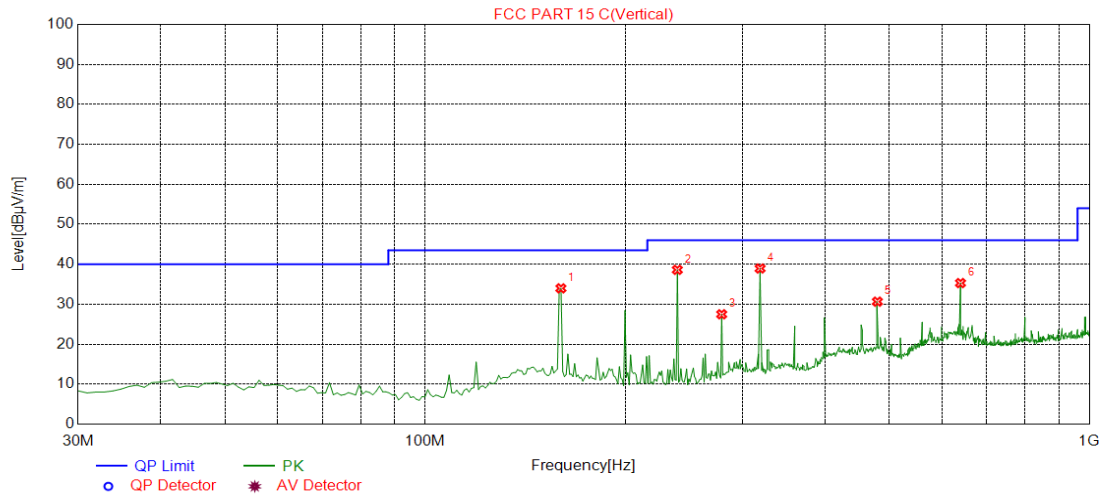
AV level= Read level + Factor

Factor= Antenna Factor + Cable loss – Preamp Factor

Receiver mode test data
WIFI 11b 2412MHz Test Result



NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	37.09	-15.22	43.50	6.41	100	16	Horizontal
2	239.729	41.11	-17.43	46.00	4.89	100	16	Horizontal
3	319.349	41.84	-15.12	46.00	4.16	100	342	Horizontal
4	479.559	33.99	-12.12	46.00	12.01	100	319	Horizontal
5	639.769	37.16	-9.04	46.00	8.84	100	47	Horizontal
6	900.961	34.02	-5.83	46.00	11.98	100	52	Horizontal



NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	160.110	33.98	-15.22	43.50	9.52	100	344	Vertical
2	239.729	38.61	-17.43	46.00	7.39	100	344	Vertical
3	279.539	27.49	-16.23	46.00	18.51	100	344	Vertical
4	319.349	38.94	-15.12	46.00	7.06	100	344	Vertical
5	479.559	30.65	-12.12	46.00	15.35	100	300	Vertical
6	639.769	35.30	-9.04	46.00	10.70	100	257	Vertical

Frequency Band	Frequency	Emission Level	Polarization	Limit	Detector	Margin	Corr.	Result
	MHz	dBμV/m		dBμV/m		dB	(dB)	
1000-25000MHz	2457.45	46.79	H	54.00	AV	7.21	-26.76	Pass
	3705.35	48.59	H	54.00	AV	5.41	-16.29	Pass
	5581.29	49.28	H	54.00	AV	4.72	-13.64	Pass
	2867.86	46.58	V	54.00	AV	7.42	-19.51	Pass
	3945.47	49.52	V	54.00	AV	4.48	-15.94	Pass
	4973.48	48.44	V	54.00	AV	5.56	-14.53	Pass
	--	--	H	54.00	AV	--	--	Pass
	--	--	V	54.00	AV	--	--	Pass

Remark:

- (1) Data of measurement within this frequency range shown "--" in the table above means the reading of emissions are the noise floor or attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (2) Above 1GHz: Corrector factor = Antenna Factor + Cable Loss - Amplifier Gain.
- (3) Below 1GHz: Corrector factor = Antenna Factor + Cable Loss - Amplifier Gain.
- (4) All models were tested, only the worst data was shown.