

Partial FCC Test Report

Report No.: RF160526C29A-3

FCC ID: PPD-QCNFA324

Test Model: QCNFA324

Received Date: Oct. 20, 2017

Test Date: Nov. 08, 2017 ~ Nov. 20, 2017

Issued Date: Nov. 27, 2017

Applicant: Qualcomm Atheros, Inc.

Address: 1700 Technology Drive, San Jose, CA95110

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

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FCC Registration / 788550 / TW0003

Designation Number: 427177 / TW0011



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Release Control Record

Issue No.	Description	Date Issued
RF160526C29A-3	Original Release	Nov. 27, 2017

1 Certificate of Conformity

Product: 2x2 802.11A/B/G/N/AC WiFi + Bluetooth Module

Brand: Qualcomm Atheros

Test Model: QCNFA324

Sample Status: Identical Prototype

Applicant: Qualcomm Atheros, Inc.

Test Date: Nov. 08, 2017 ~ Nov. 20, 2017

Standards: 47 CFR FCC Part 15, Subpart E (Section 15.407)
ANSI C63.10:2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : Evonne Liu, **Date:** Nov. 27, 2017
Evonne Liu / Specialist

Approved by : Dylan Chiou, **Date:** Nov. 27, 2017
Dylan Chiou / Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -20.65 dB at 1.57000 MHz.
15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.00 dB at 5459.12 MHz
15.407(a)(1/2/3)	Max Average Transmit Power	N/A	Refer to Note
15.407(a)(1/2/3)	Peak Power Spectral Density	N/A	Refer to Note
15.407(e)	6 dB Bandwidth	N/A	Refer to Note
15.407(g)	Frequency Stability	N/A	Refer to Note
15.203	Antenna Requirement	N/A	Refer to Note

Note: Only test item of Conducted Emission and Radiated Emissions were performed for this report. For other test data, please refer to BV Report No.: RF140808E04 and RF140808E04-1 for WLAN/BT module (Brand: Qualcomm Atheros, Model: QCNFA324). The power has been verified and confirmed to be same as the original power, therefore the power test result is not performed in this test report.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) ($\pm$)
Conducted Emissions at mains ports	150 kHz ~ 30 MHz	2.44 dB
Radiated Emissions up to 1 GHz	30 MHz ~ 200 MHz	2.0153 dB
	200 MHz ~ 1000 MHz	2.0224 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	1.0121 dB
	18 GHz ~ 40 GHz	1.1508 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	2x2 802.11A/B/G/N/AC WiFi + Bluetooth Module
Brand	Qualcomm Atheros
Test Model	QCNFA324
Status of EUT	Identical Prototype
Power Supply Rating	3.3 Vdc (Host equipment)
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK
Modulation Technology	OFDM
Transfer Rate	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0 Mbps 802.11n: up to MCS7 802.11ac: up to V9
Operating Frequency	5180 ~ 5240 MHz, 5260 ~ 5320 MHz, 5500 ~ 5700 MHz, 5745 ~ 5825 MHz
Number of Channel	5180 ~ 5240 MHz: 4 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40) 1 for 802.11ac (VHT80) 5260 ~ 5320 MHz: 4 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40) 1 for 802.11ac (VHT80) 5500 ~ 5700 MHz: 11 for 802.11a, 802.11n (HT20) 5 for 802.11n (HT40) 2 for 802.11ac (VHT80) 5745 ~ 5825 MHz: 5 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40) 1 for 802.11ac (VHT80)
Antenna Type	Refer to Note as below
Antenna Connector	N/A
Accessory Device	N/A
Data Cable Supplied	N/A

Note:

- The EUT is authorized for use in specific End-product. Please refer to below table for more details.

Item	Brand	Model
Industrial Computer	Dell	N02PC

- The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers.

Modulation Mode	Tx Function
802.11a	2TX
802.11n (HT20)	2TX
802.11n (HT40)	2TX
802.11ac (VHT20)	2TX
802.11ac (VHT40)	2TX
802.11ac (VHT80)	2TX

* The modulation and bandwidth are similar for 802.11n mode for HT20 / HT40 and 802.11ac mode for HT20 / HT40, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

3. The antenna information is listed as below.

Antenna Type	Brand Name	Parts Number	Antenna Gain (dBi)		
			2.4GHz	5.15~5.725GHz	5.725~5.85GHz
Dipole	Laird	WLAN Main Antenna: PDV24515-DE1 WLAN Aux Antenna: PDV24515-DE1	Main: 2.9 Aux: 2.9	Main: 4.0 Aux: 4.0	Main: 3.9 Aux: 3.9
Monopole	Taoglas Antenna Solution Ltd.	WLAN Main Antenna: MA761.B.BICG.014 WLAN Aux Antenna: MA761.B.BICG.014	Main: 2.82 Aux: 2.79	Main: 4.11 Aux: 4.51	Main: 4.11 Aux: 4.51

* The EUT antenna is a specific antenna: Professional installation antenna. It complies with the standard requirement.

4. The End-product contains following accessory devices.

Product	Brand	Model	Description
Adapter	DELL	DA180PM111	I/P: 100-240 Vac, 50-60 Hz, 2.34 A O/P: 19.5 Vdc, 9.23 A

5. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 Description of Test Modes

For 5180 ~ 5240 MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
40	5200	48	5240

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
42	5210

For 5260 ~ 5320 MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	60	5300
56	5280	64	5320

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
54	5270	62	5310

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
58	5290

For 5500 ~ 5700 MHz

11 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	124	5620
104	5520	128	5640
108	5540	132	5660
112	5560	136	5680
116	5580	140	5700
120	5600		

5 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
102	5510	126	5630
110	5550	134	5670
118	5590		

2 channels are provided for 802.11ac (VHT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
106	5530	122	5610

For 5745 ~ 5825 MHz:

5 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	161	5805
153	5765	165	5825
157	5785		

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	159	5795

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
155	5775

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE $\geq$ 1G	RE<1G	PLC	APCM	
A	√	√	√	-	Dipole Antenna
B	√	√	√	-	Monopole Antenna

Where **RE $\geq$ 1G**: Radiated Emission above 1 GHz

RE<1G: Radiated Emission below 1 GHz

PLC: Power Line Conducted Emission

APCM: Antenna Port Conducted Measurement

NOTE:

- The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on X-plane for Mode A and Z-plan for Mode B.
- "-" means no effect.

Radiated Emission Test (Above 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A, B	5180-5240	802.11a	36 to 48	36, 44, 48	OFDM	BPSK	6.0
		802.11ac (VHT20)	36 to 48	36, 44, 48	OFDM	BPSK	MCS0
		802.11ac (VHT40)	38 to 46	38, 46	OFDM	BPSK	MCS0
		802.11ac (VHT80)	42	42	OFDM	BPSK	MCS0
	5260-5320	802.11a	52 to 64	52, 60, 64	OFDM	BPSK	6.0
		802.11ac (VHT20)	52 to 64	52, 60, 64	OFDM	BPSK	MCS0
		802.11ac (VHT40)	54 to 62	54, 62	OFDM	BPSK	MCS0
		802.11ac (VHT80)	58	58	OFDM	BPSK	MCS0
	5500-5700	802.11a	100 to 140	100, 116, 140	OFDM	BPSK	6.0
		802.11ac (VHT20)	100 to 140	100, 116, 140	OFDM	BPSK	MCS0
		802.11ac (VHT40)	102 to 134	102, 110, 134	OFDM	BPSK	MCS0
		802.11ac (VHT80)	106 to 122	106, 122	OFDM	BPSK	MCS0
	5745-5825	802.11a	149 to 165	149, 157, 165	OFDM	BPSK	6.0
		802.11ac (VHT20)	149 to 165	149, 157, 165	OFDM	BPSK	MCS0
		802.11ac (VHT40)	151 to 159	151, 159	OFDM	BPSK	MCS0
		802.11ac (VHT80)	155	155	OFDM	BPSK	MCS0

Radiated Emission Test (Below 1 GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A	5500-5700	802.11ac (VHT80)	106 to 122	106	OFDM	BPSK	MCS0
B	5500-5700	802.11a	100 to 140	140	OFDM	BPSK	6.0

Power Line Conducted Emission Test:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A, B	5500-5700	802.11ac (VHT80)	106 to 122	106	OFDM	BPSK	MCS0

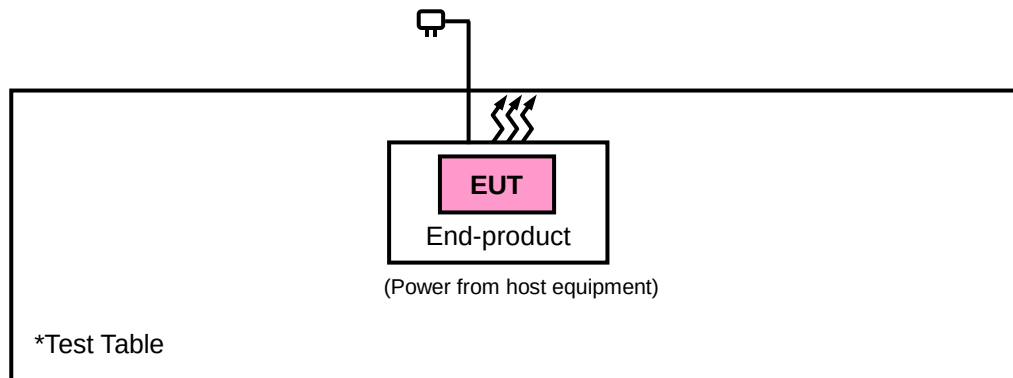
Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested by
RE $\geq$ 1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Karl Lee
RE<1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Karl Lee
PLC	25 deg. C, 65 % RH	120 Vac, 60 Hz	Getaz Yang

3.3 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units.

3.3.1 Configuration of System under Test



3.4 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart E (15.407)

789033 D02 General UNII Test Procedures New Rules v01r04

644545 D01 Guidance for IEEE 802 11ac v01r02

662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.

Note: The EUT has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC).
The test report has been issued separately.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20 dB below the highest level of the desired power:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
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:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

4.1.2 Limits of Unwanted Emission Out of the Restricted Bands

Applicable To		Limit	
789033 D02 General UNII Test Procedures New Rules v01r04		Field Strength at 3 m	
		PK: 74 (dBμV/m)	AV: 54 (dBμV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
5150~5250 MHz	15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBμV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	15.407(b)(4)(i)	PK:-27 (dBm/MHz) ^{*1} PK:10 (dBm/MHz) ^{*2} PK:15.6 (dBm/MHz) ^{*3} PK:27 (dBm/MHz) ^{*4}	PK: 68.2 (dBμV/m) ^{*1} PK:105.2 (dBμV/m) ^{*2} PK: 110.8 (dBμV/m) ^{*3} PK:122.2 (dBμV/m) ^{*4}
	15.407(b)(4)(ii)	Emission limits in section 15.247(d)	

^{*1} beyond 75 MHz or more above of the band edge.

^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Note:

The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3} \mu\text{V/m, where } P \text{ is the eirp (Watts).}$$

4.1.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver Agilent Technologies	N9038A	MY52260177	Jul. 05, 2017	Jul. 04, 2018
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 13, 2016	Dec. 12, 2017
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Dec. 16, 2016	Dec. 15, 2017
HORN Antenna ETS-Lindgren	3117	00143293	Dec. 29, 2016	Dec. 28, 2017
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Dec. 14, 2016	Dec. 13, 2017
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 17, 2017	Apr. 16, 2018
Bluetooth Tester	CBT	100980	Jun. 28, 2017	Jun. 27, 2019
Loop Antenna	HLA 6121	45745	May 19, 2017	May 18, 2018
Preamplifier Agilent	310N	187226	Jun. 23, 2017	Jun. 22, 2018
Preamplifier Agilent	83017A	MY39501357	Jun. 23, 2017	Jun. 22, 2018
Power Meter Anritsu	ML2495A	1012010	Aug. 15, 2017	Aug. 14, 2018
Power Sensor Anritsu	MA2411B	1315050	Aug. 15, 2017	Aug. 14, 2018
RF signal cable ETS-LINDGREN	5D-FB	Cable-CH1-01(R FC-SMS-100-SM S-120+RFC-SMS -100-SMS-400)	Jun. 23, 2017	Jun. 22, 2018
RF signal cable ETS-LINDGREN	8D-FB	Cable-CH1-02(R FC-SMS-100-SM S-24)	Jun. 23, 2017	Jun. 22, 2018
Software BV ADT	E3 8.130425b	NA	NA	NA
Antenna Tower MF	NA	NA	NA	NA
Turn Table MF	NA	NA	NA	NA
Antenna Tower & Turn Table Controller MF	MF-7802	NA	NA	NA

- Note: 1. The calibration interval of the above test instruments is 12 / 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HsinTien Chamber 1.
3. The horn antenna and preamplifier (model: 83017A) are used only for the measurement of emission frequency above 1 GHz if tested.
4. The IC Site Registration No. is IC7450I-1.

4.1.4 Test Procedures

- a. The EUT was placed on the top of a rotating table 0.8 meters (for below 1 GHz) / 1.5 meters (for above 1 GHz) 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 detected 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:

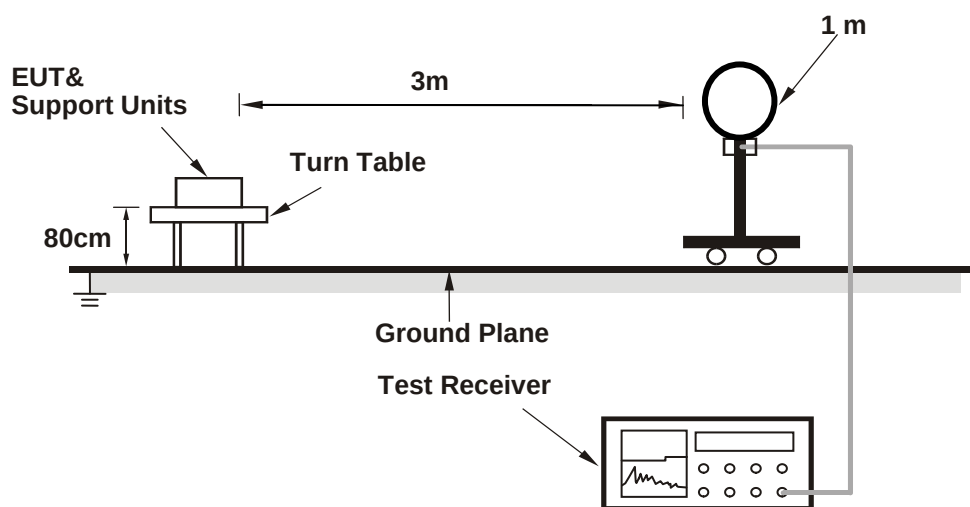
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz & 360 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1/T for Average (Duty cycle < 98 %) detection at frequency above 1 GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz (Duty cycle ≥ 98 %) for Average detection (AV) at frequency above 1 GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

4.1.5 Deviation from Test Standard

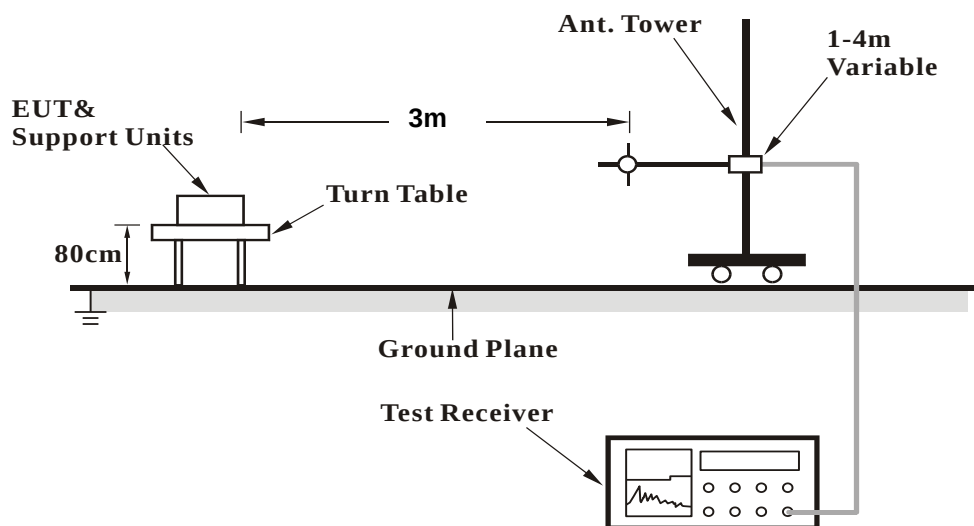
No deviation.

4.1.6 Test Set Up

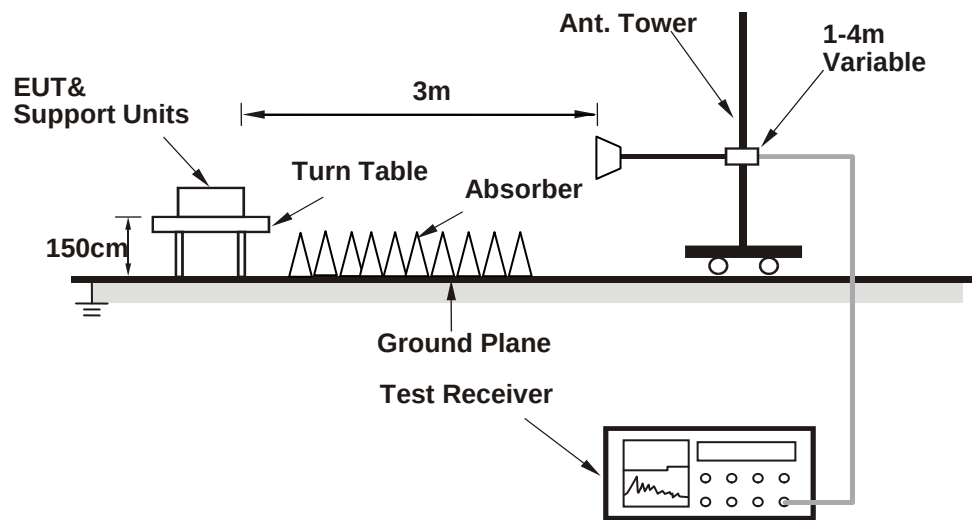
<Radiated emission below 30 MHz>



<Frequency Range below 1 GHz>



<Frequency Range above 1 GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.7 EUT Operating Conditions

- Placed the EUT on a testing table.
- Use the software to control the EUT under transmission condition continuously at specific channel frequency.

4.1.8 Test Results

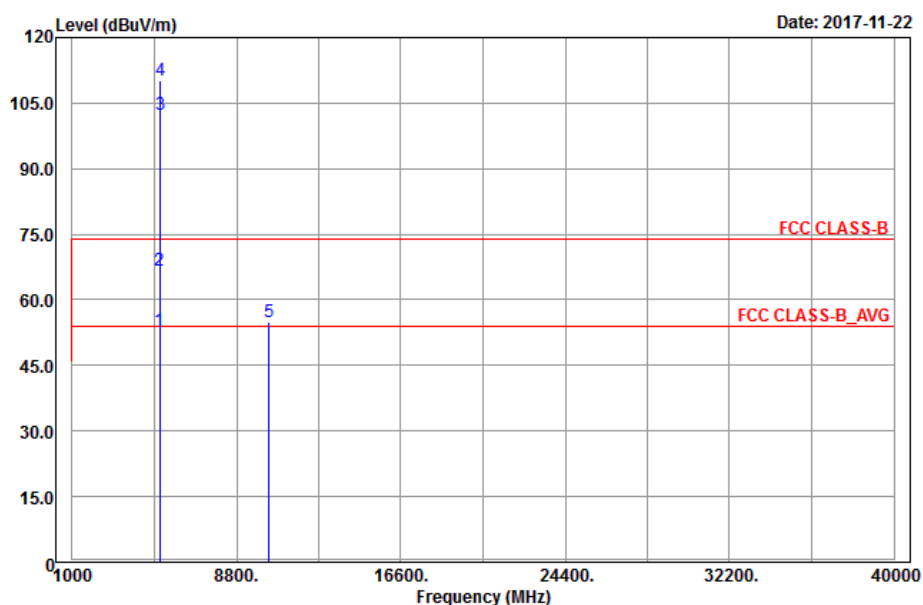
Above 1 GHz Data :

Mode A

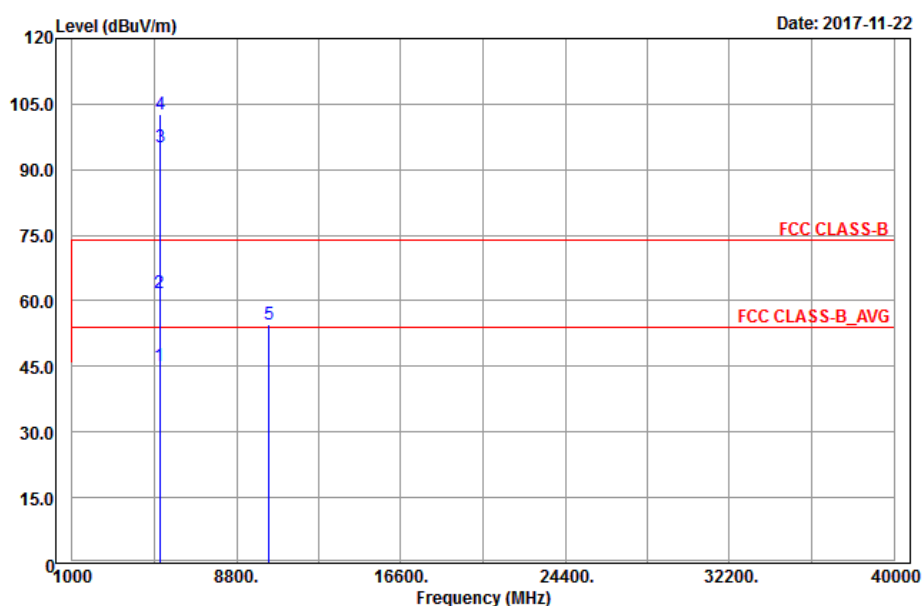
802.11a

EUT Test Condition		Measurement Detail	
Channel	Channel 36	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



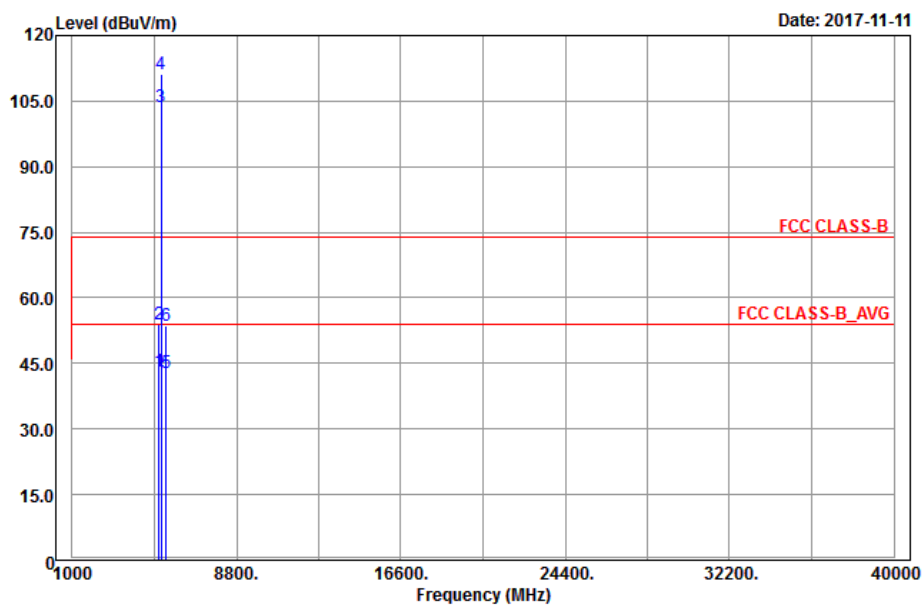
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	52.83	44.58	54	-1.17	34.12	8.13	34	168	285	Average
5150	66.79	58.54	74	-7.21	34.12	8.13	34	168	285	Peak
5180	102.31	94			34.15	8.16	34	206	294	Average
5180	110.26	101.95			34.15	8.16	34	206	294	Peak
*10360	54.86	40.56	68.2	-13.34	37.12	12.3	35.12	143	174	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.68	45.02	36.77	54	-8.98	34.12	8.13	34	107	243	Average
5149.68	61.74	53.49	74	-12.26	34.12	8.13	34	107	243	Peak
5180	95.01	86.7			34.15	8.16	34	111	215	Average
5180	102.64	94.33			34.15	8.16	34	111	215	Peak
*10360	54.73	40.43	68.2	-13.47	37.12	12.3	35.12	155	263	Peak

Remarks:

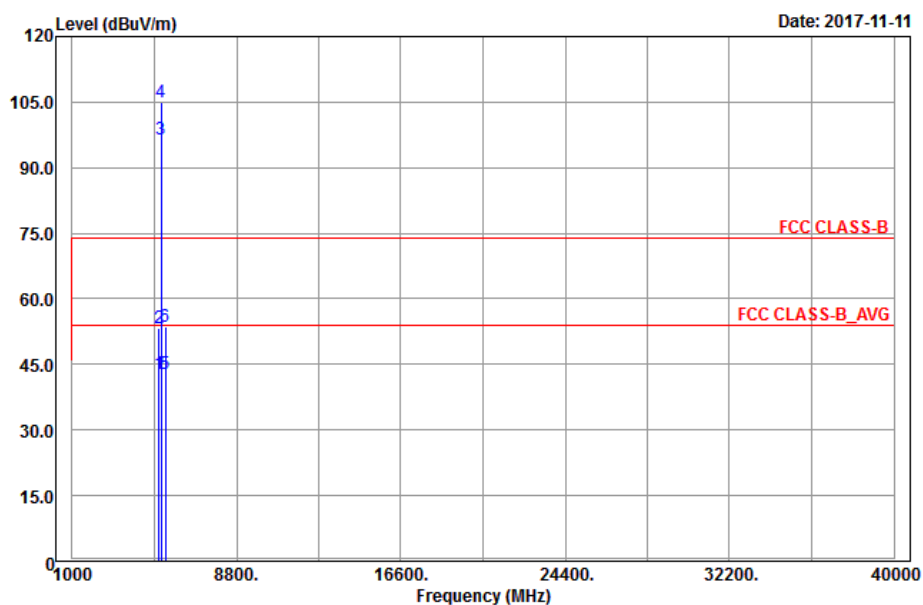
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5180 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 44	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



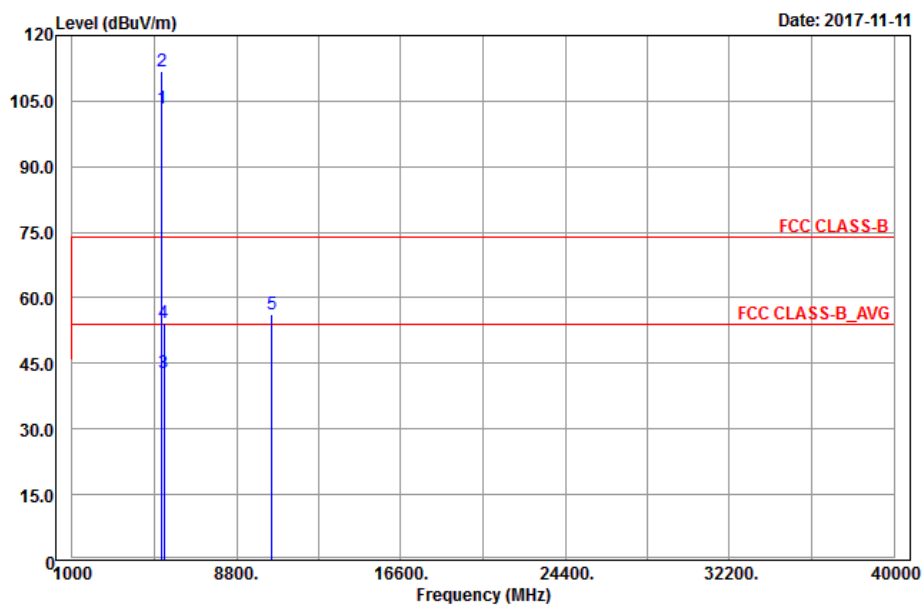
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5124.35	43.01	34.79	54	-10.99	34.11	8.1	33.99	228	280	Average
5124.35	54	45.78	74	-20	34.11	8.1	33.99	228	280	Peak
5220	103.52	95.13			34.17	8.22	34	228	280	Average
5220	111.16	102.77			34.17	8.22	34	228	280	Peak
5444.6	42.8	34.01	54	-11.2	34.35	8.48	34.04	228	280	Average
5444.6	53.6	44.81	74	-20.4	34.35	8.48	34.04	228	280	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5120.3	42.81	34.61	54	-11.19	34.09	8.1	33.99	100	239	Average
5120.3	53.38	45.18	74	-20.62	34.09	8.1	33.99	100	239	Peak
5220	96.39	88			34.17	8.22	34	100	239	Average
5220	104.83	96.44			34.17	8.22	34	100	239	Peak
5434.15	42.73	33.94	54	-11.27	34.35	8.48	34.04	100	239	Average
5434.15	53.64	44.85	74	-20.36	34.35	8.48	34.04	100	239	Peak

Remarks:

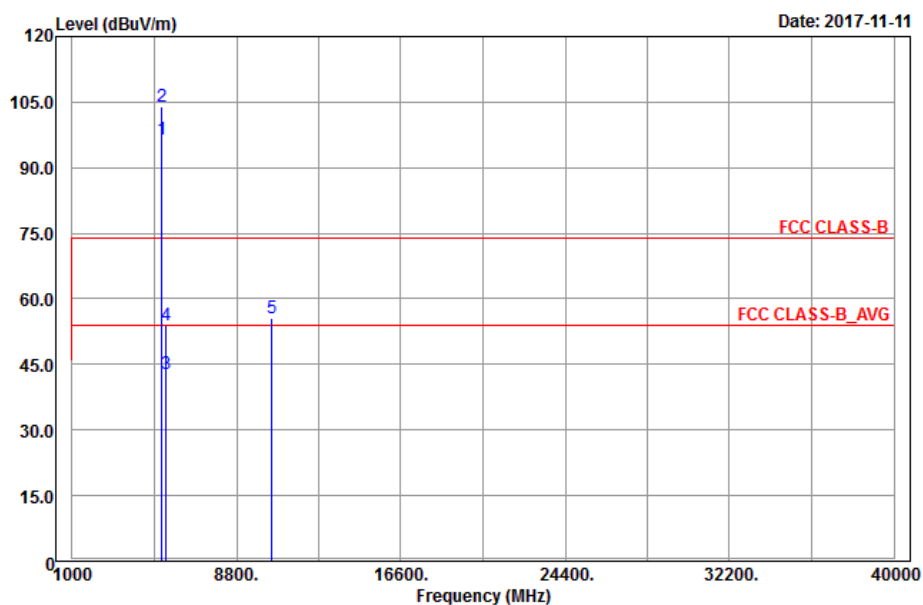
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5220 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 48	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



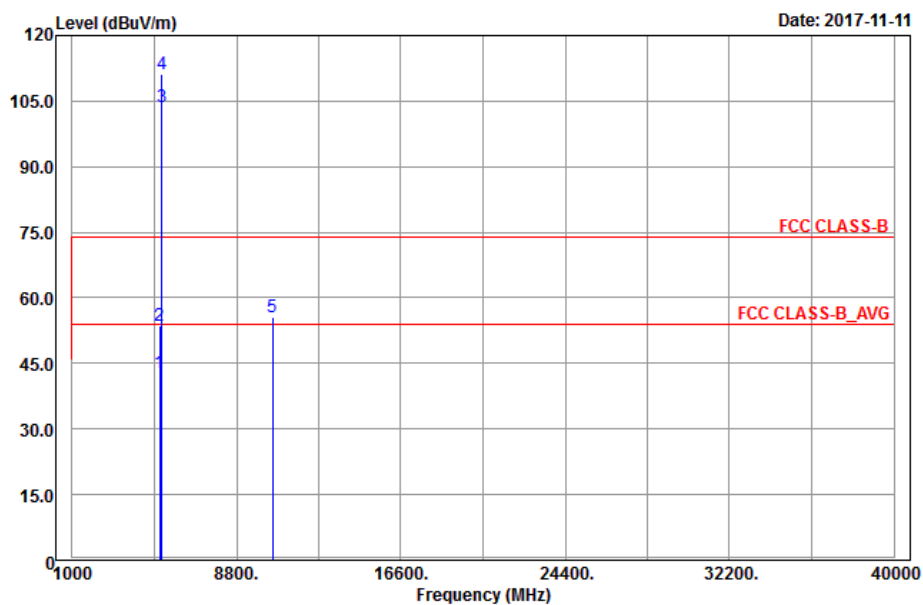
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5240	103.34	94.9			34.19	8.26	34.01	228	280	Average
5240	111.74	103.3			34.19	8.26	34.01	228	280	Peak
5373.98	42.88	34.22	54	-11.12	34.29	8.41	34.04	228	280	Average
5373.98	54.17	45.51	74	-19.83	34.29	8.41	34.04	228	280	Peak
*10480	56.26	41.75	68.2	-11.94	37.19	12.53	35.21	119	316	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5240	96.46	88.02			34.19	8.26	34.01	100	239	Average
5240	104.1	95.66			34.19	8.26	34.01	100	239	Peak
5449.99	42.88	34.06	54	-11.12	34.36	8.51	34.05	100	239	Average
5449.99	54	45.18	74	-20	34.36	8.51	34.05	100	239	Peak
*10480	55.51	41	68.2	-12.69	37.19	12.53	35.21	136	333	Peak

Remarks:

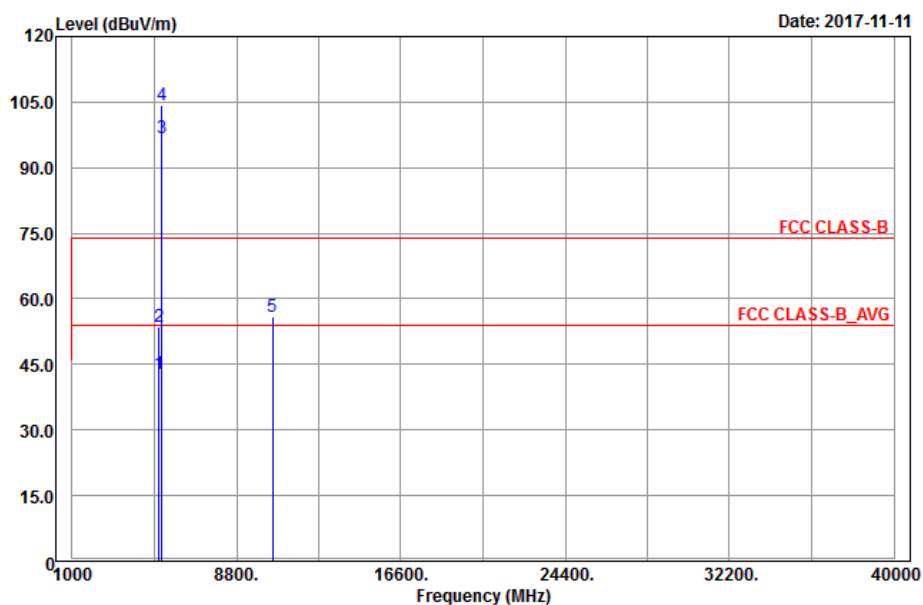
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5240 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 52	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



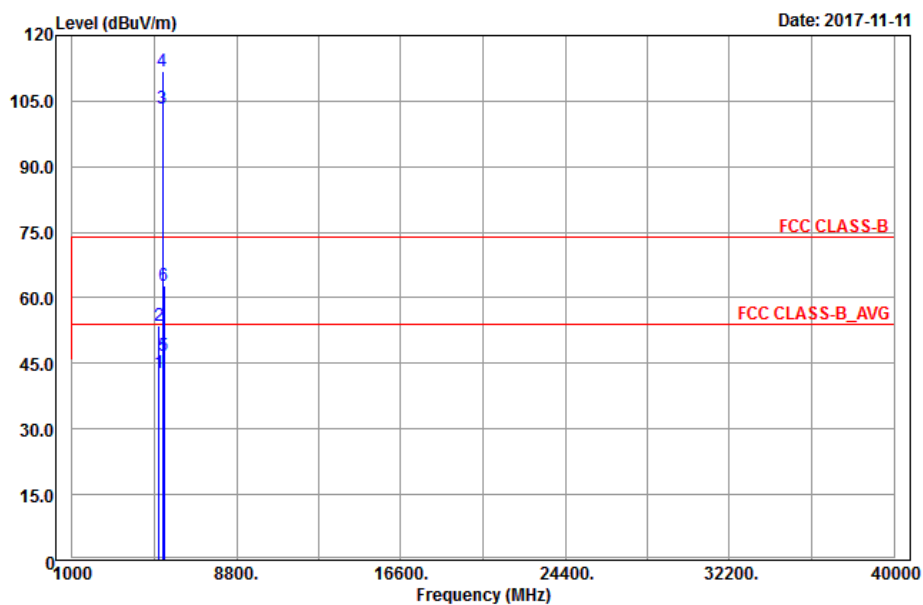
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5147.75	42.75	34.5	54	-11.25	34.12	8.13	34	228	281	Average
5147.75	53.62	45.37	74	-20.38	34.12	8.13	34	228	281	Peak
5260	103.55	95.09			34.21	8.26	34.01	228	281	Average
5260	111.19	102.73			34.21	8.26	34.01	228	281	Peak
*10520	55.64	41.05	68.2	-12.56	37.21	12.61	35.23	141	159	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5130.05	42.67	34.45	54	-11.33	34.11	8.1	33.99	100	240	Average
5130.05	53.74	45.52	74	-20.26	34.11	8.1	33.99	100	240	Peak
5260	96.63	88.17			34.21	8.26	34.01	100	240	Average
5260	104.35	95.89			34.21	8.26	34.01	100	240	Peak
*10520	55.88	41.29	68.2	-12.32	37.21	12.61	35.23	135	22	Peak

Remarks:

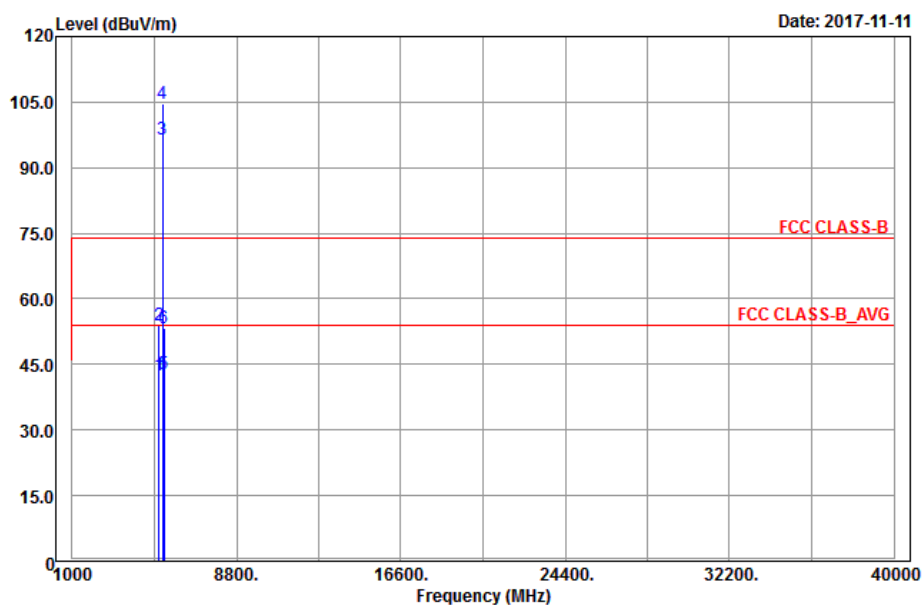
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5260 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 60	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



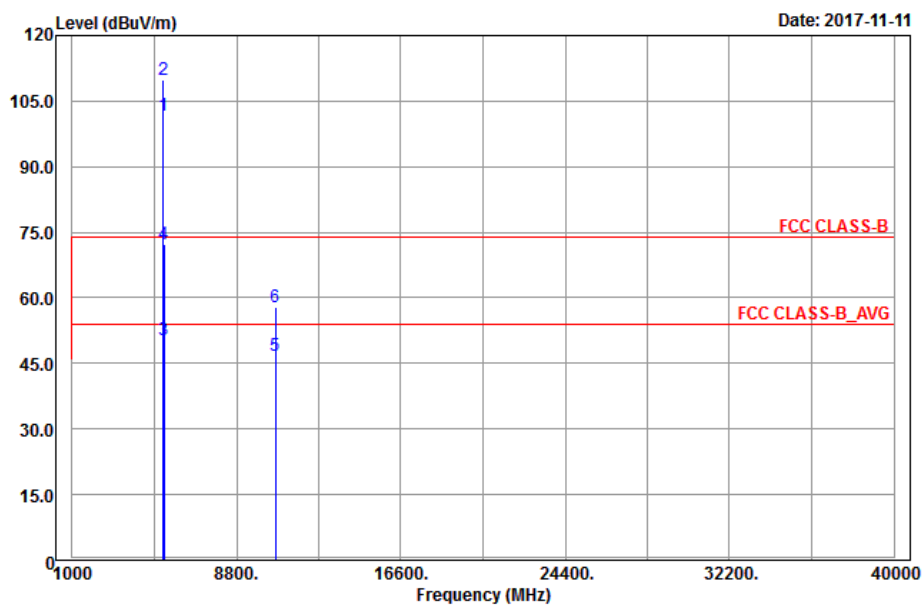
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5110.55	42.91	34.71	54	-11.09	34.09	8.1	33.99	228	281	Average
5110.55	53.62	45.42	74	-20.38	34.09	8.1	33.99	228	281	Peak
5300	103.38	94.84			34.24	8.32	34.02	228	281	Average
5300	111.71	103.17			34.24	8.32	34.02	228	281	Peak
5350.55	46.74	38.11	54	-7.26	34.28	8.38	34.03	228	281	Average
5350.55	62.66	54.03	74	-11.34	34.28	8.38	34.03	228	281	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5135	42.56	34.31	54	-11.44	34.11	8.13	33.99	100	240	Average
5135	53.88	45.63	74	-20.12	34.11	8.13	33.99	100	240	Peak
5300	96.47	87.93			34.24	8.32	34.02	100	240	Average
5300	104.51	95.97			34.24	8.32	34.02	100	240	Peak
5351.43	42.89	34.26	54	-11.11	34.28	8.38	34.03	100	240	Average
5351.43	53.4	44.77	74	-20.6	34.28	8.38	34.03	100	240	Peak

Remarks:

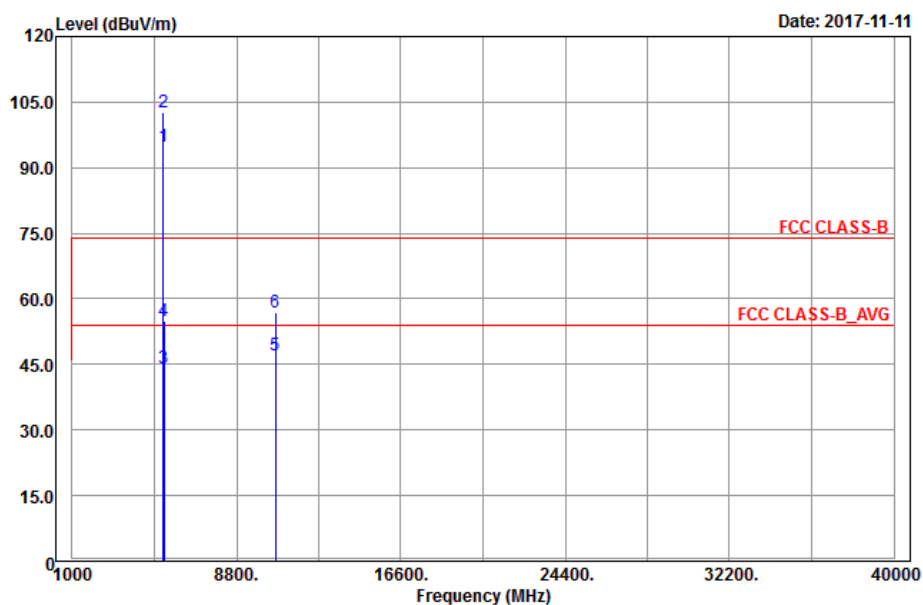
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5300 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 64	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



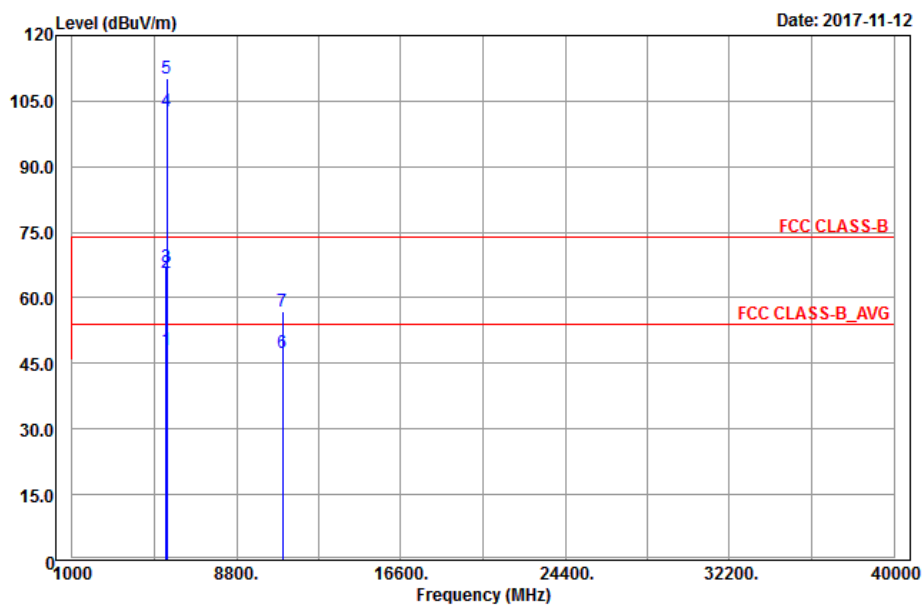
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5320	101.54	92.96			34.25	8.35	34.02	228	281	Average
5320	109.71	101.13			34.25	8.35	34.02	228	281	Peak
5350	50.21	41.58	54	-3.79	34.28	8.38	34.03	228	286	Average
5350	72.28	63.65	74	-1.72	34.28	8.38	34.03	228	286	Peak
10640	46.83	32.1	54	-7.17	37.31	12.71	35.29	113	310	Average
10640	57.98	43.25	74	-16.02	37.31	12.71	35.29	113	310	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5320	94.71	86.13			34.25	8.35	34.02	100	240	Average
5320	102.54	93.96			34.25	8.35	34.02	100	240	Peak
5350.11	44.06	35.43	54	-9.94	34.28	8.38	34.03	100	240	Average
5350.11	54.91	46.28	74	-19.09	34.28	8.38	34.03	100	240	Peak
10640	46.97	32.24	54	-7.03	37.31	12.71	35.29	134	310	Average
10640	56.82	42.09	74	-17.18	37.31	12.71	35.29	134	310	Peak

Remarks:

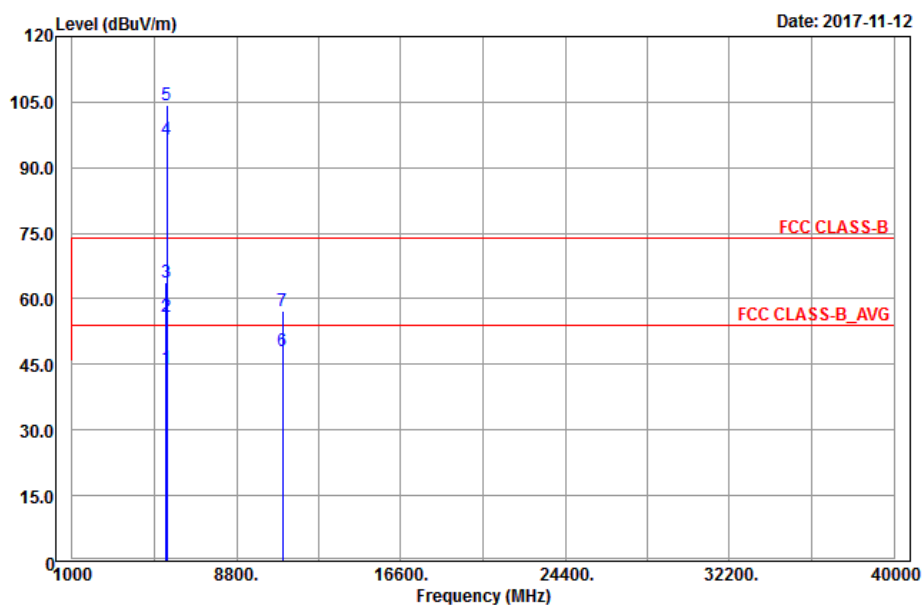
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5320 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 100	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



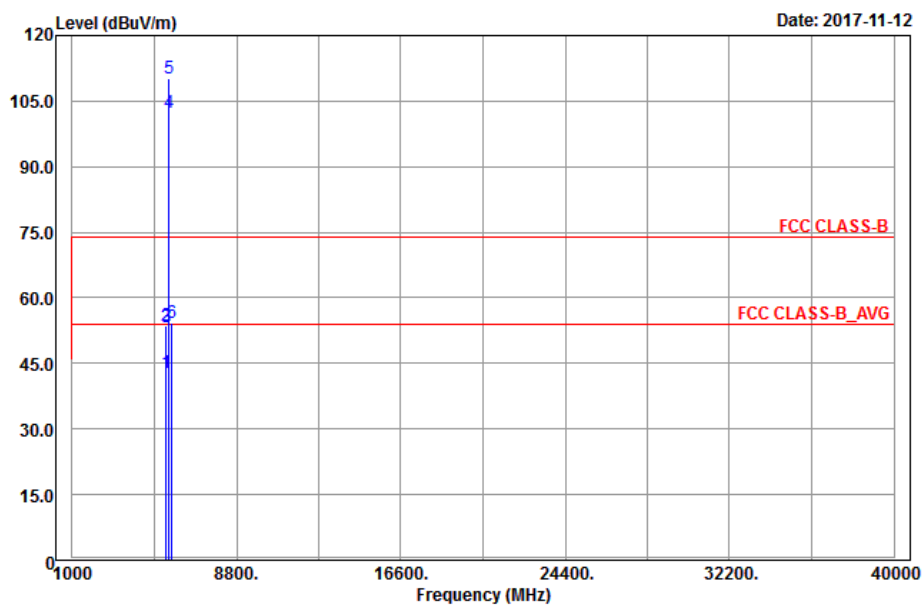
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5458.96	48.08	39.26	54	-5.92	34.36	8.51	34.05	230	284	Average
5458.96	65.58	56.76	74	-8.42	34.36	8.51	34.05	230	284	Peak
*5470.96	67.12	58.26	68.2	-1.08	34.37	8.54	34.05	230	284	Peak
5500	102.54	93.62			34.4	8.57	34.05	229	285	Average
5500	110.04	101.12			34.4	8.57	34.05	229	285	Peak
11000	47.25	32.17	54	-6.75	37.6	12.96	35.48	106	39	Average
11000	56.9	41.82	74	-17.1	37.6	12.96	35.48	106	39	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	44	35.18	54	-10	34.36	8.51	34.05	247	113	Average
5460	56.06	47.24	74	-17.94	34.36	8.51	34.05	247	113	Peak
*5470.48	63.68	54.85	68.2	-4.52	34.37	8.51	34.05	247	113	Peak
5500	96.37	87.45			34.4	8.57	34.05	247	113	Average
5500	104.16	95.24			34.4	8.57	34.05	247	113	Peak
11000	48.18	33.1	54	-5.82	37.6	12.96	35.48	100	100	Average
11000	57.19	42.11	74	-16.81	37.6	12.96	35.48	100	100	Peak

Remarks:

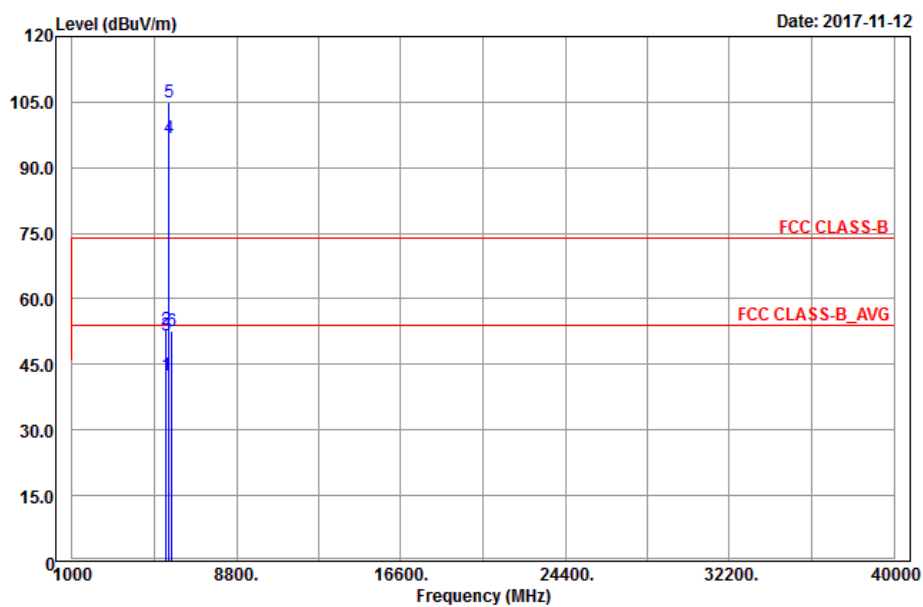
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5500 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 116	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



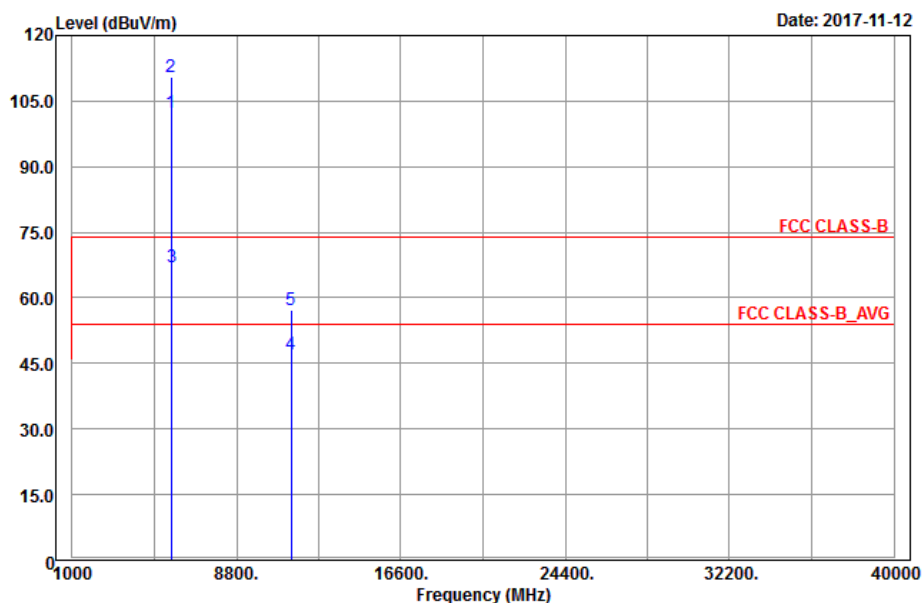
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5459.28	42.75	33.93	54	-11.25	34.36	8.51	34.05	228	285	Average
5459.28	53.62	44.8	74	-20.38	34.36	8.51	34.05	228	285	Peak
*5468.72	53.4	44.57	68.2	-14.8	34.37	8.51	34.05	228	285	Peak
5580	102.25	93.26			34.47	8.6	34.08	228	285	Average
5580	110.18	101.19			34.47	8.6	34.08	228	285	Peak
*5725.4	54.37	45.21	68.2	-13.83	34.62	8.65	34.11	228	285	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5453.84	42.67	33.85	54	-11.33	34.36	8.51	34.05	247	113	Average
5453.84	53.04	44.22	74	-20.96	34.36	8.51	34.05	247	113	Peak
*5468.88	51.72	42.89	68.2	-16.48	34.37	8.51	34.05	247	113	Peak
5580	96.65	87.66			34.47	8.6	34.08	247	113	Average
5580	104.83	95.84			34.47	8.6	34.08	247	113	Peak
*5725.8	52.55	43.39	68.2	-15.65	34.62	8.65	34.11	247	113	Peak

Remarks:

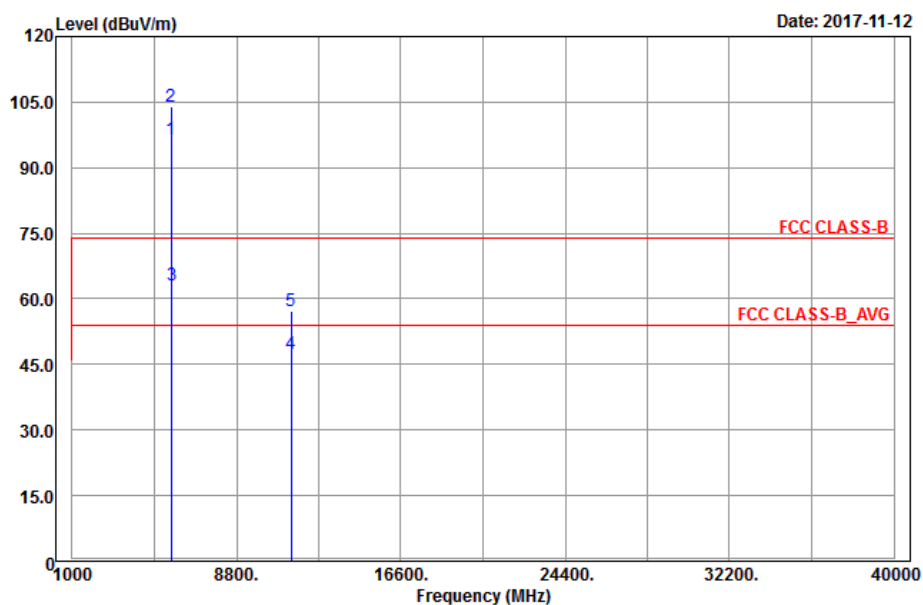
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5580 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 140	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



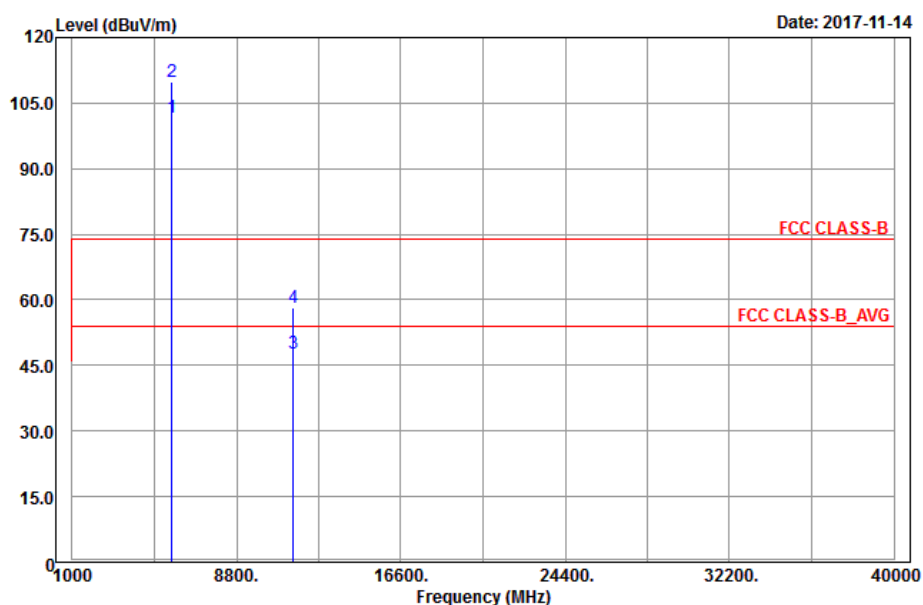
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5700	102.47	93.34			34.59	8.64	34.1	228	285	Average
5700	110.43	101.3			34.59	8.64	34.1	228	285	Peak
*5724.28	67.13	57.97	68.2	-1.07	34.62	8.65	34.11	230	285	Peak
11400	47.24	32.14	54	-6.76	37.84	12.67	35.41	187	55	Average
11400	57.26	42.16	74	-16.74	37.84	12.67	35.41	187	55	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5700	96.62	87.49			34.59	8.64	34.1	247	113	Average
5700	104.06	94.93			34.59	8.64	34.1	247	113	Peak
*5724.76	63.24	54.08	68.2	-4.96	34.62	8.65	34.11	247	113	Peak
11400	47.36	32.26	54	-6.64	37.84	12.67	35.41	187	119	Average
11400	57.36	42.26	74	-16.64	37.84	12.67	35.41	187	119	Peak

Remarks:

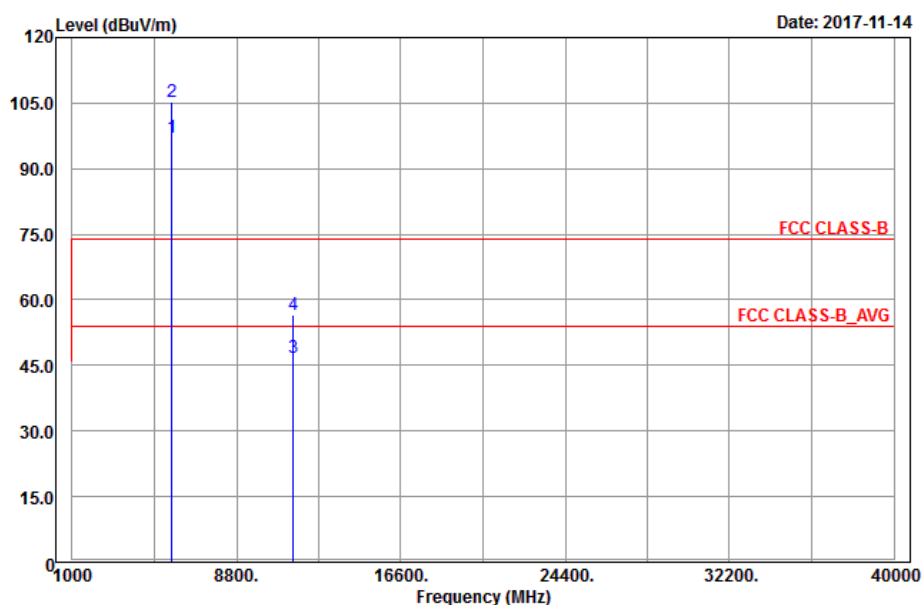
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5700 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 149	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

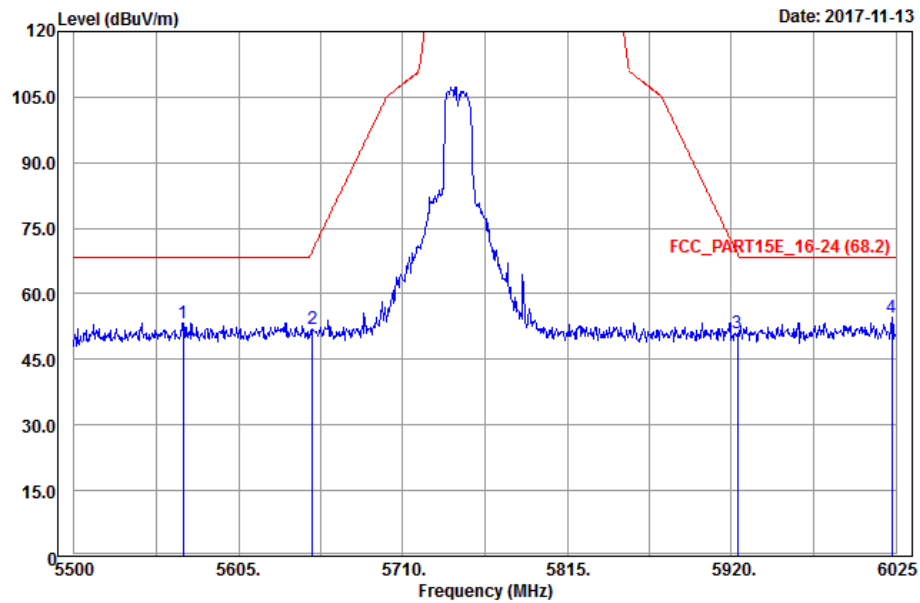
<Spurious Emission> Horizontal



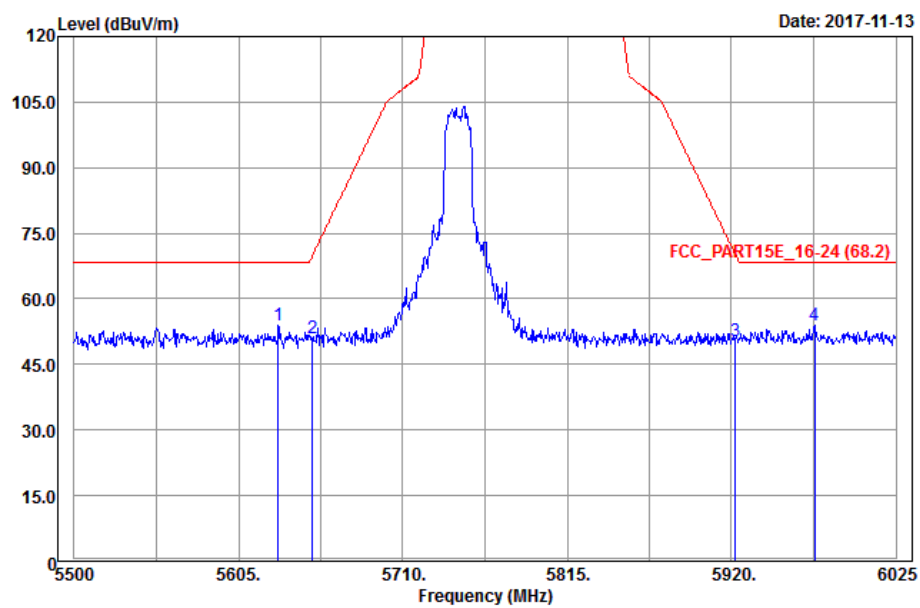
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5745	101.68	92.49			34.64	8.66	34.11	192	117	Average
5745	109.76	100.57			34.64	8.66	34.11	192	117	Peak
11490	47.87	32.75	54	-6.13	37.89	12.62	35.39	173	81	Average
11490	58.06	42.94	74	-15.94	37.89	12.62	35.39	173	81	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5745	97.13	87.94			34.64	8.66	34.11	286	121	Average
5745	105.3	96.11			34.64	8.66	34.11	286	121	Peak
11490	46.62	31.5	54	-7.38	37.89	12.62	35.39	153	128	Average
11490	56.67	41.55	74	-17.33	37.89	12.62	35.39	153	128	Peak

<Out of Band Emission (OOBE)>

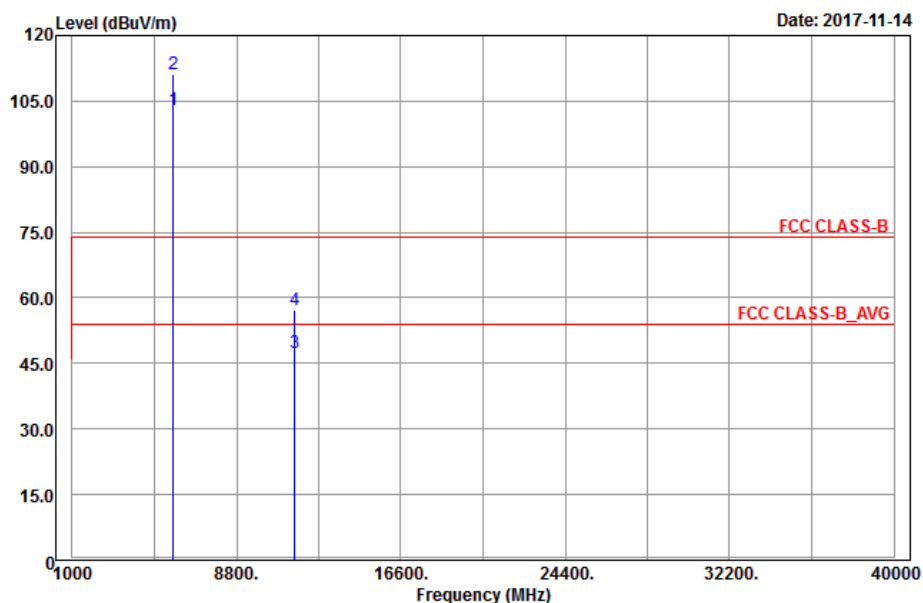
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5569.825	53.42	44.43	68.2	-14.78	34.47	8.59	34.07	192	117	Peak
5652.25	51.94	42.85	69.86	-17.92	34.56	8.62	34.09	192	117	Peak
5923.675	50.87	41.47	69.18	-18.31	34.83	8.73	34.16	192	117	Peak
*6022.375	54.71	45.2	68.2	-13.49	34.92	8.77	34.18	192	117	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5630.2	53.95	44.9	68.2	-14.25	34.52	8.62	34.09	286	121	Peak
5652.25	51.03	41.94	69.86	-18.83	34.56	8.62	34.09	286	121	Peak
5922.625	50.42	41.02	69.96	-19.54	34.83	8.73	34.16	286	121	Peak
*5973.025	54.1	44.64	68.2	-14.1	34.88	8.75	34.17	286	121	Peak

Remarks:

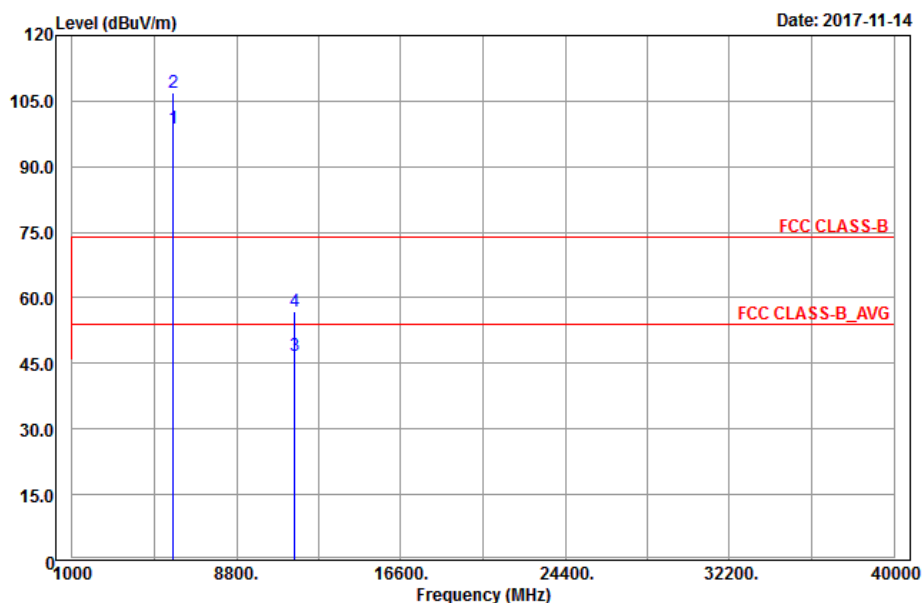
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5745 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 157	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

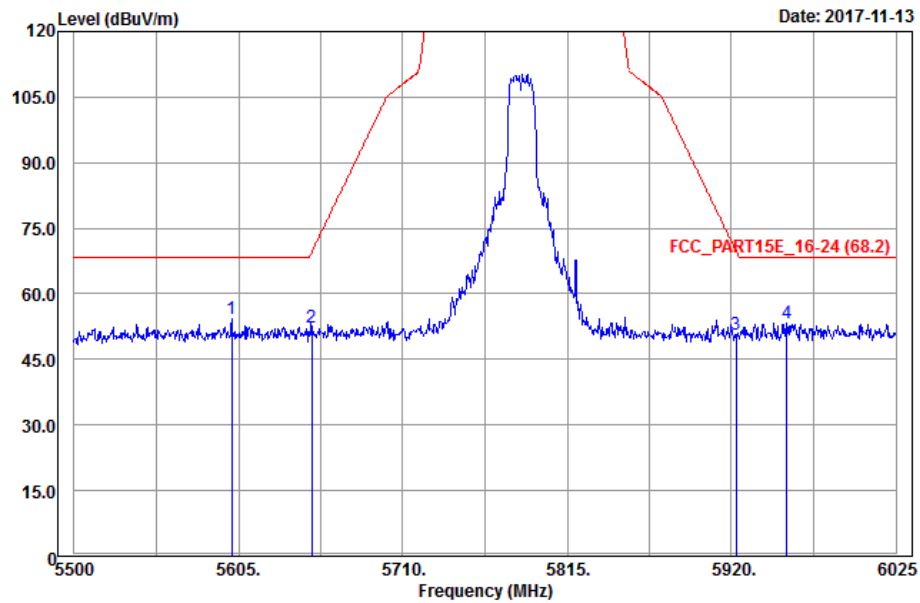
<Spurious Emission> Horizontal



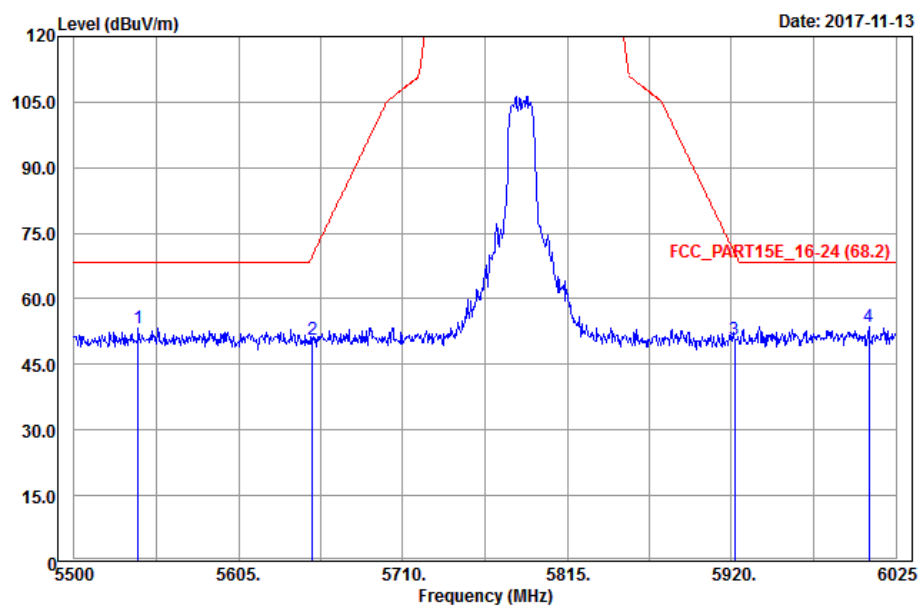
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5785	103.05	93.82			34.68	8.68	34.13	192	117	Average
5785	111.3	102.07			34.68	8.68	34.13	192	117	Peak
11570	47.42	32.11	54	-6.58	38	12.68	35.37	162	340	Average
11570	57.28	41.97	74	-16.72	38	12.68	35.37	162	340	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5785	98.69	89.46			34.68	8.68	34.13	286	121	Average
5785	107.05	97.82			34.68	8.68	34.13	286	121	Peak
11570	46.72	31.41	54	-7.28	38	12.68	35.37	143	215	Average
11570	56.86	41.55	74	-17.14	38	12.68	35.37	143	215	Peak

<Out of Band Emission (OOBE)>

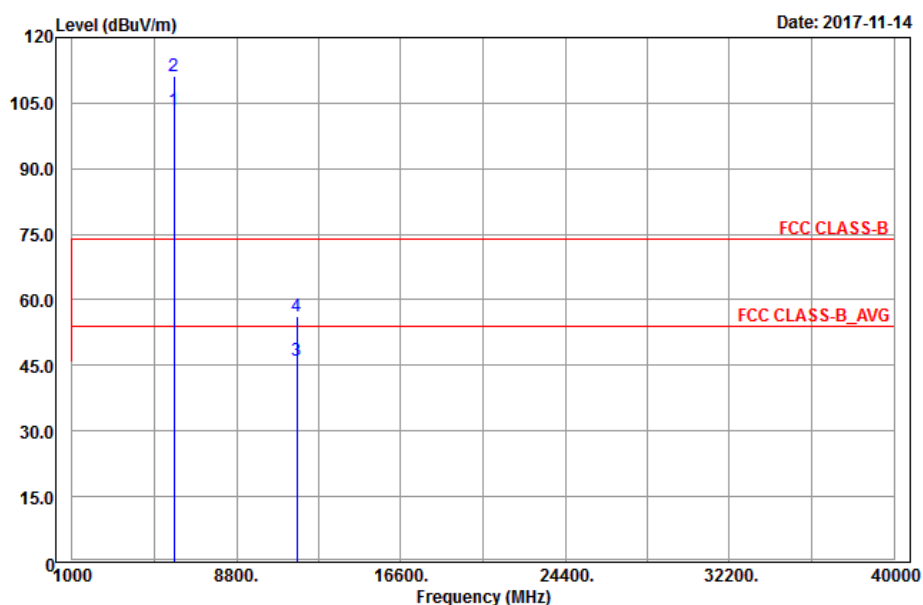
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5600.8	54.23	45.2	68.2	-13.97	34.5	8.61	34.08	192	117	Peak
5651.725	52.46	43.37	69.48	-17.02	34.56	8.62	34.09	192	117	Peak
5923.15	50.78	41.38	69.57	-18.79	34.83	8.73	34.16	192	117	Peak
*5955.175	53.26	43.83	68.2	-14.94	34.85	8.74	34.16	192	117	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5540.95	53.34	44.4	68.2	-14.86	34.43	8.58	34.07	286	121	Peak
5652.25	50.72	41.63	69.86	-19.14	34.56	8.62	34.09	286	121	Peak
5922.1	50.65	41.25	70.35	-19.7	34.83	8.73	34.16	286	121	Peak
*6007.675	53.56	44.05	68.2	-14.64	34.92	8.76	34.17	286	121	Peak

Remarks:

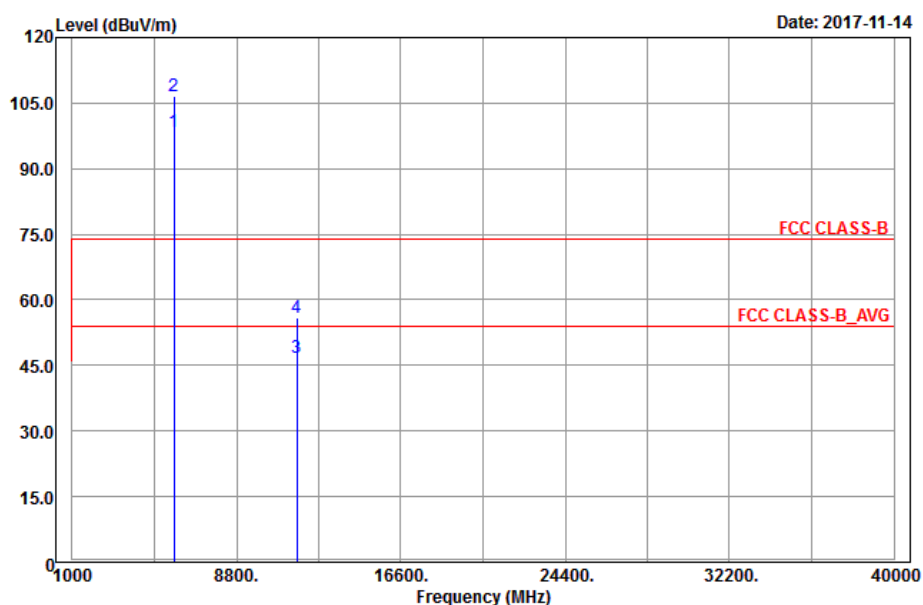
- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5785 MHz: Fundamental Frequency
- *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 165	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

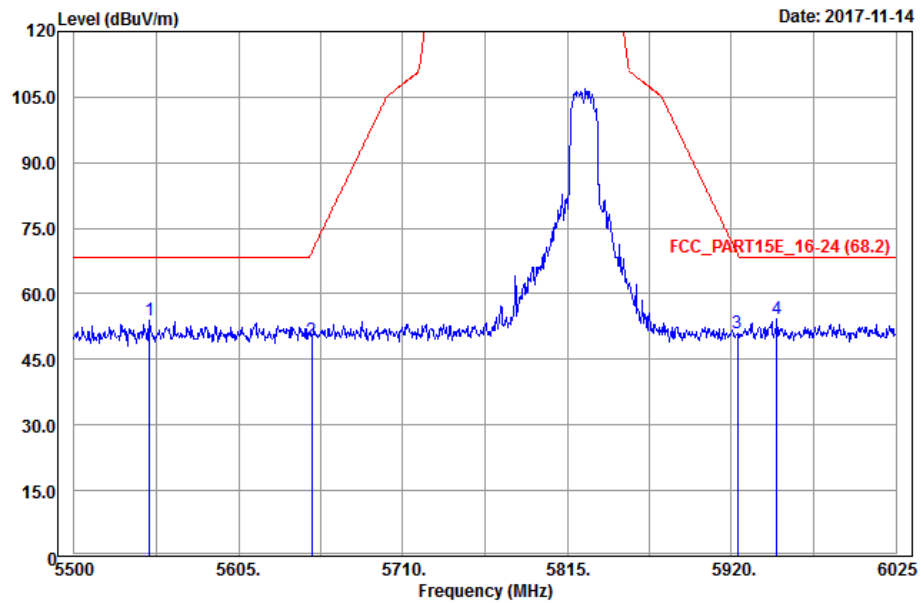
<Spurious Emission> Horizontal



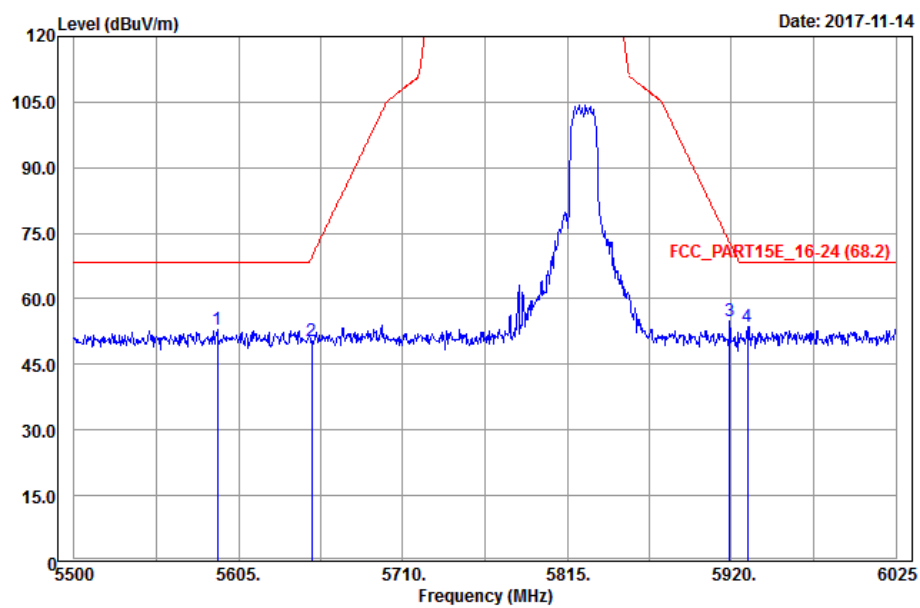
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5825	103.27	93.98			34.73	8.69	34.13	192	117	Average
5825	111.03	101.74			34.73	8.69	34.13	192	117	Peak
11650	46.03	30.5	54	-7.97	38.09	12.8	35.36	131	327	Average
11650	56.2	40.67	74	-17.8	38.09	12.8	35.36	131	327	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5825	98.28	88.99			34.73	8.69	34.13	286	121	Average
5825	106.67	97.38			34.73	8.69	34.13	286	121	Peak
11650	46.62	31.09	54	-7.38	38.09	12.8	35.36	187	154	Average
11650	55.89	40.36	74	-18.11	38.09	12.8	35.36	187	154	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5548.3	53.91	44.95	68.2	-14.29	34.45	8.58	34.07	192	117	Peak
5651.725	49.38	40.29	69.48	-20.1	34.56	8.62	34.09	192	117	Peak
5923.675	50.94	41.54	69.18	-18.24	34.83	8.73	34.16	192	117	Peak
*5948.875	54.4	44.97	68.2	-13.8	34.85	8.74	34.16	192	117	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5591.35	52.83	43.82	68.2	-15.37	34.49	8.6	34.08	286	121	Peak
5651.725	50.38	41.29	69.48	-19.1	34.56	8.62	34.09	286	121	Peak
5918.95	55.04	45.66	72.68	-17.64	34.81	8.73	34.16	286	121	Peak
*5930.5	53.59	44.19	68.2	-14.61	34.83	8.73	34.16	286	121	Peak

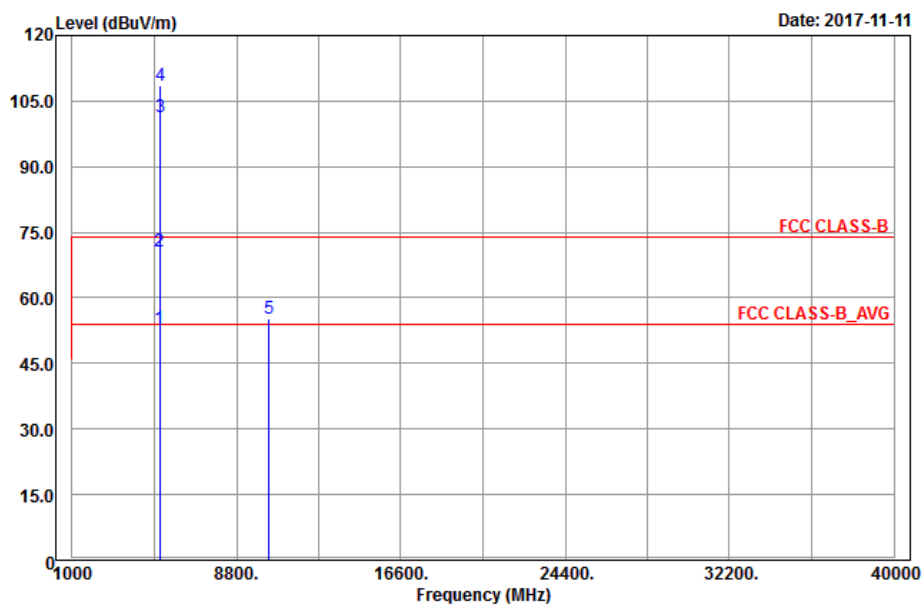
Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5825 MHz: Fundamental Frequency
3. *: Out of Restricted Band

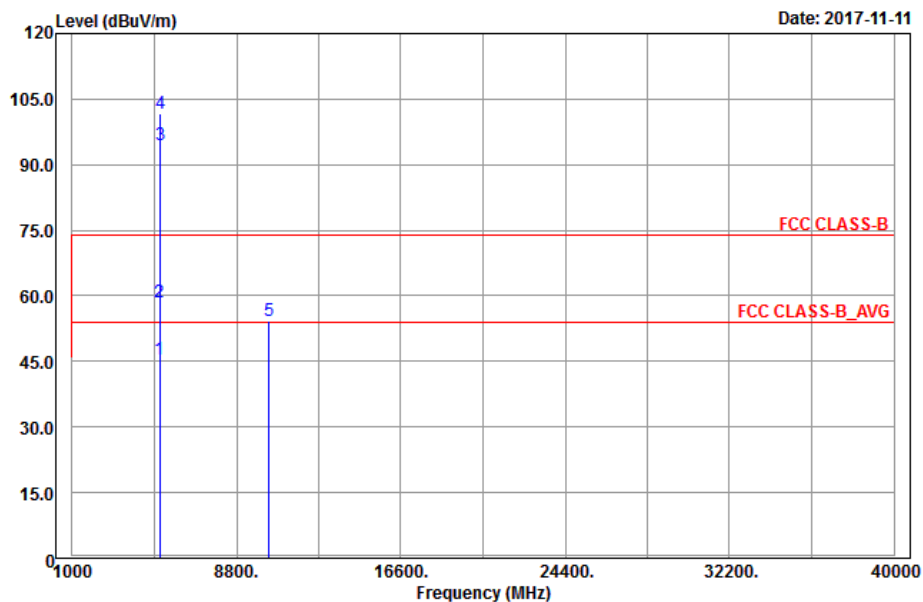
802.11ac (VHT20)

EUT Test Condition		Measurement Detail	
Channel	Channel 36	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



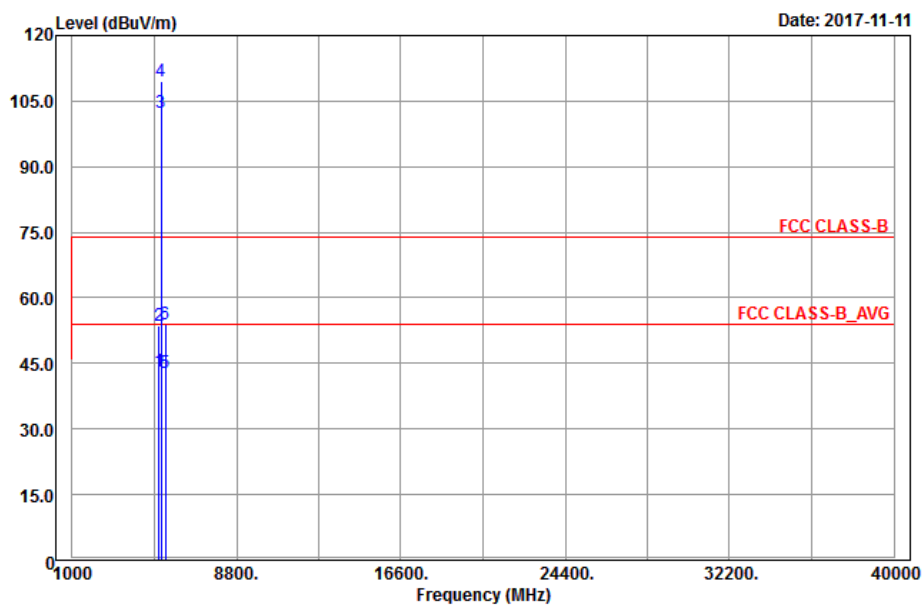
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5148.2	52.95	44.7	54	-1.05	34.12	8.13	34	224	286	Average
5148.2	70.53	62.28	74	-3.47	34.12	8.13	34	224	286	Peak
5180	101.47	93.16			34.15	8.16	34	228	280	Average
5180	108.44	100.13			34.15	8.16	34	228	280	Peak
*10360	55.21	40.91	68.2	-12.99	37.12	12.3	35.12	159	360	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.7	45.36	37.11	54	-8.64	34.12	8.13	34	100	239	Average
5149.7	58.63	50.38	74	-15.37	34.12	8.13	34	100	239	Peak
5180	94.47	86.16			34.15	8.16	34	100	239	Average
5180	101.62	93.31			34.15	8.16	34	100	239	Peak
*10360	54.2	39.9	68.2	-14	37.12	12.3	35.12	119	33	Peak

Remarks:

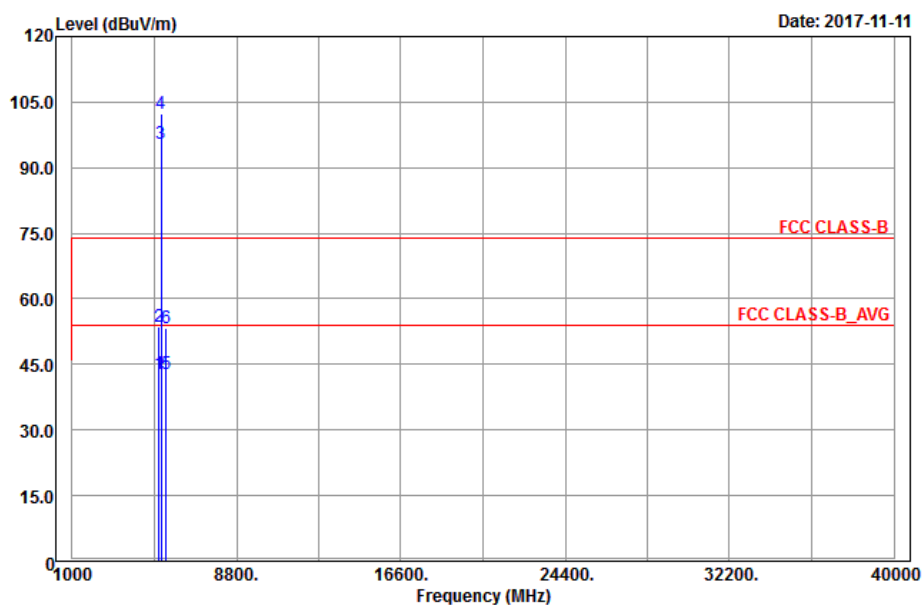
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5180 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 44	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



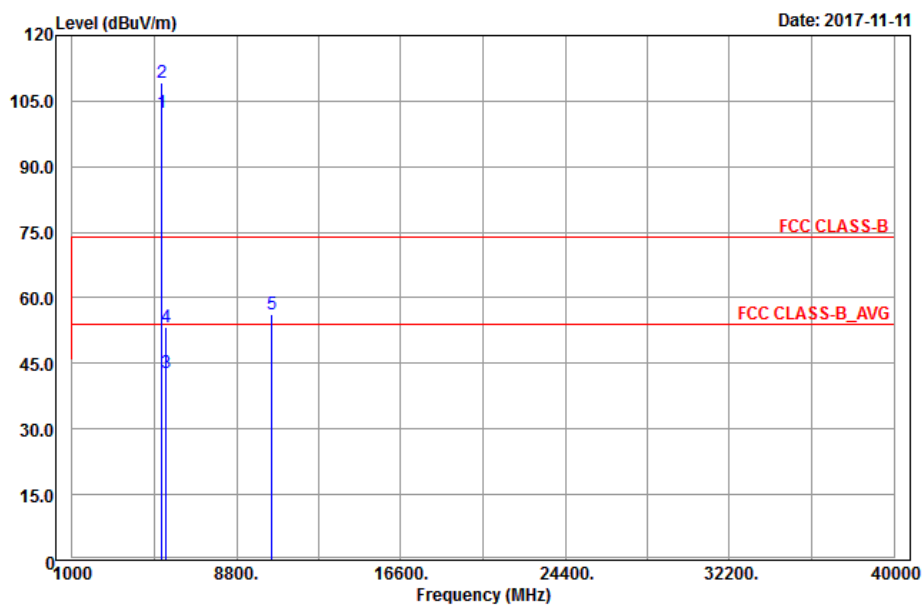
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5121.95	43.12	34.92	54	-10.88	34.09	8.1	33.99	228	280	Average
5121.95	53.73	45.53	74	-20.27	34.09	8.1	33.99	228	280	Peak
5220	102.29	93.9			34.17	8.22	34	228	280	Average
5220	109.48	101.09			34.17	8.22	34	228	280	Peak
5437.01	42.88	34.09	54	-11.12	34.35	8.48	34.04	228	280	Average
5437.01	54.1	45.31	74	-19.9	34.35	8.48	34.04	228	280	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5126.15	42.89	34.67	54	-11.11	34.11	8.1	33.99	100	239	Average
5126.15	53.55	45.33	74	-20.45	34.11	8.1	33.99	100	239	Peak
5220	95.43	87.04			34.17	8.22	34	100	239	Average
5220	102.25	93.86			34.17	8.22	34	100	239	Peak
5444.38	42.81	34.02	54	-11.19	34.35	8.48	34.04	100	239	Average
5444.38	53.41	44.62	74	-20.59	34.35	8.48	34.04	100	239	Peak

Remarks:

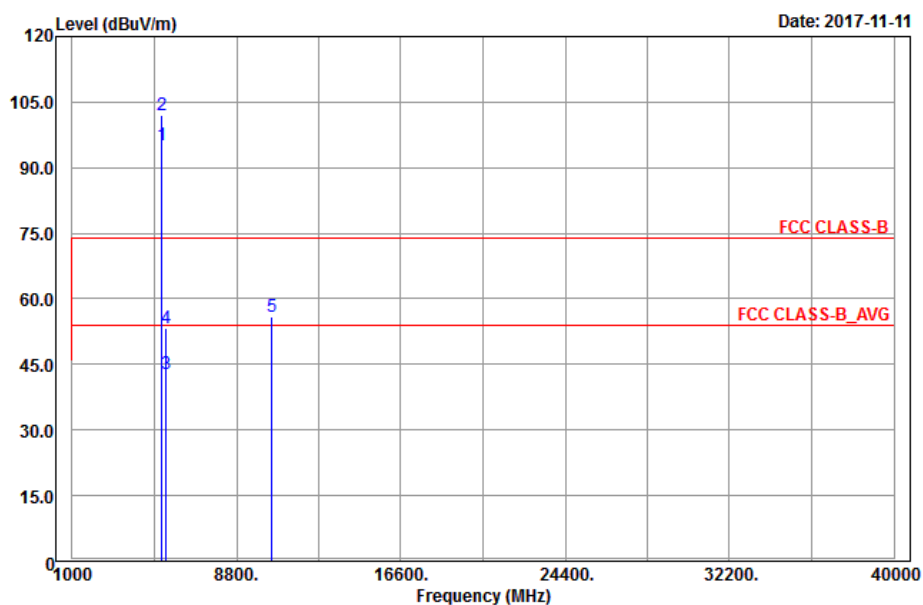
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5220 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 48	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



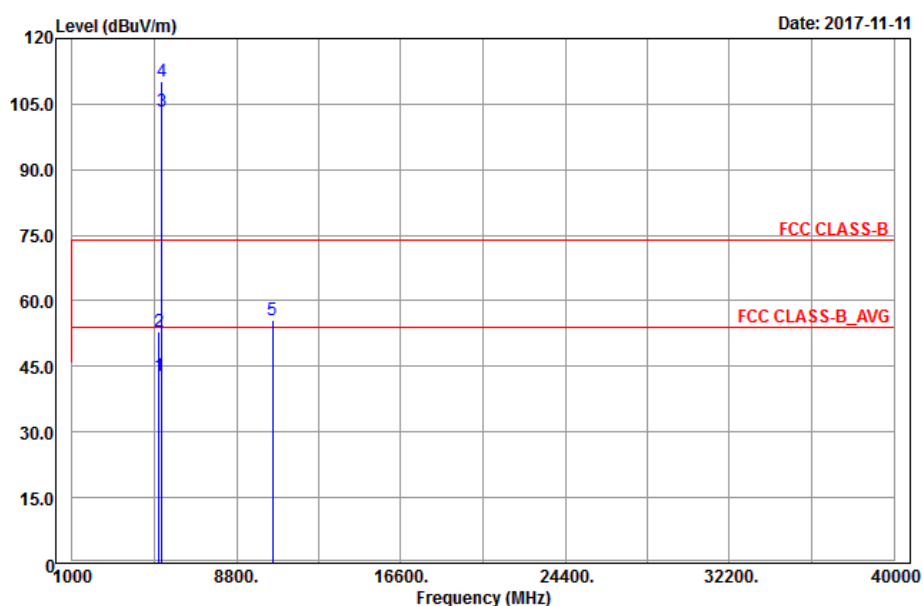
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5240	102.25	93.81			34.19	8.26	34.01	228	280	Average
5240	109.05	100.61			34.19	8.26	34.01	228	280	Peak
5451.2	42.88	34.06	54	-11.12	34.36	8.51	34.05	228	280	Average
5451.2	53.25	44.43	74	-20.75	34.36	8.51	34.05	228	280	Peak
*10480	56.4	41.89	68.2	-11.8	37.19	12.53	35.21	159	25	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5240	95.14	86.7			34.19	8.26	34.01	100	239	Average
5240	102.01	93.57			34.19	8.26	34.01	100	239	Peak
5452.63	42.8	33.98	54	-11.2	34.36	8.51	34.05	100	239	Average
5452.63	53.19	44.37	74	-20.81	34.36	8.51	34.05	100	239	Peak
*10480	55.86	41.35	68.2	-12.34	37.19	12.53	35.21	112	119	Peak

Remarks:

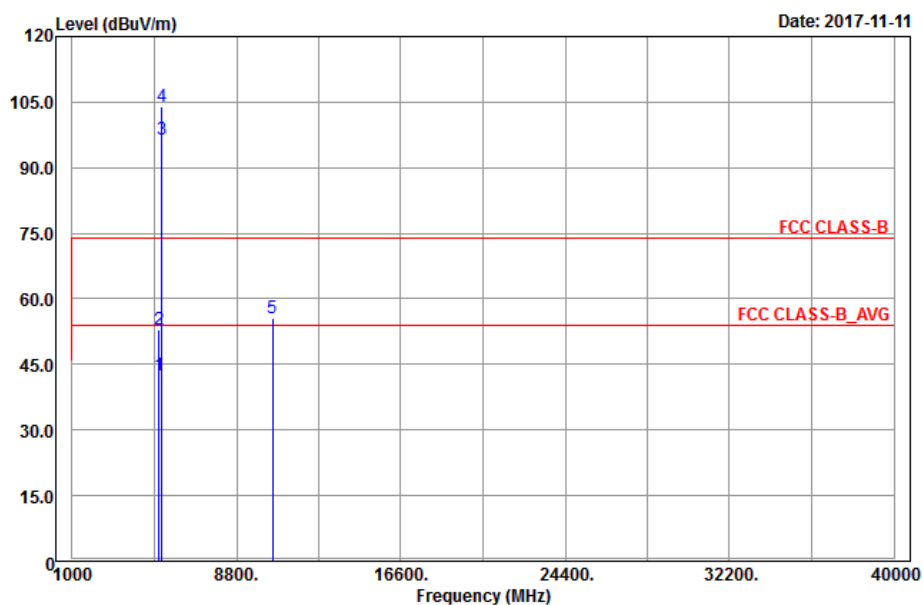
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5240 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 52	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



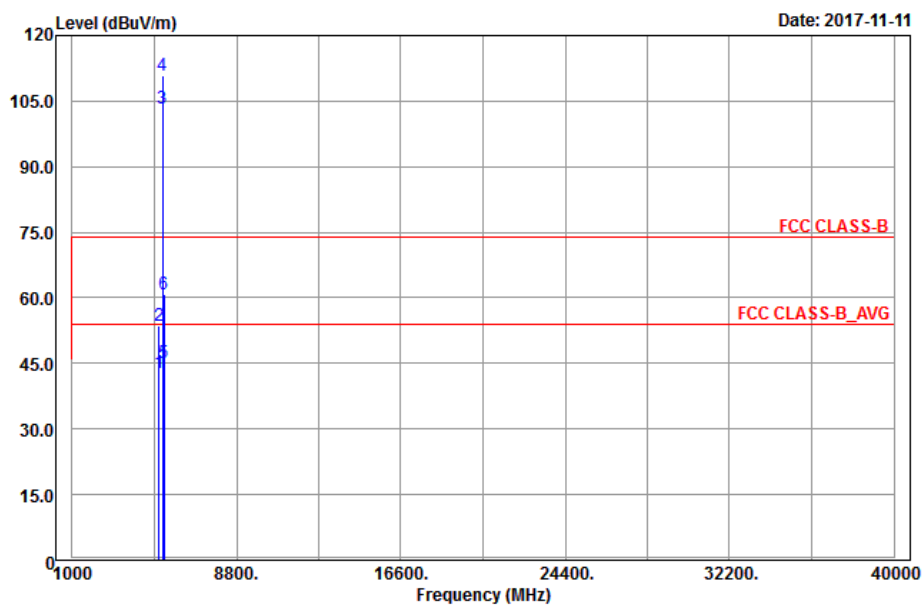
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5132.6	42.9	34.68	54	-11.1	34.11	8.1	33.99	228	281	Average
5132.6	53.06	44.84	74	-20.94	34.11	8.1	33.99	228	281	Peak
5260	103.42	94.96			34.21	8.26	34.01	228	281	Average
5260	110.21	101.75			34.21	8.26	34.01	228	281	Peak
*10520	55.7	41.11	68.2	-12.5	37.21	12.61	35.23	159	213	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5123.45	42.66	34.44	54	-11.34	34.11	8.1	33.99	100	240	Average
5123.45	53.04	44.82	74	-20.96	34.11	8.1	33.99	100	240	Peak
5260	96.44	87.98			34.21	8.26	34.01	100	240	Average
5260	103.88	95.42			34.21	8.26	34.01	100	240	Peak
*10520	55.74	41.15	68.2	-12.46	37.21	12.61	35.23	147	159	Peak

Remarks:

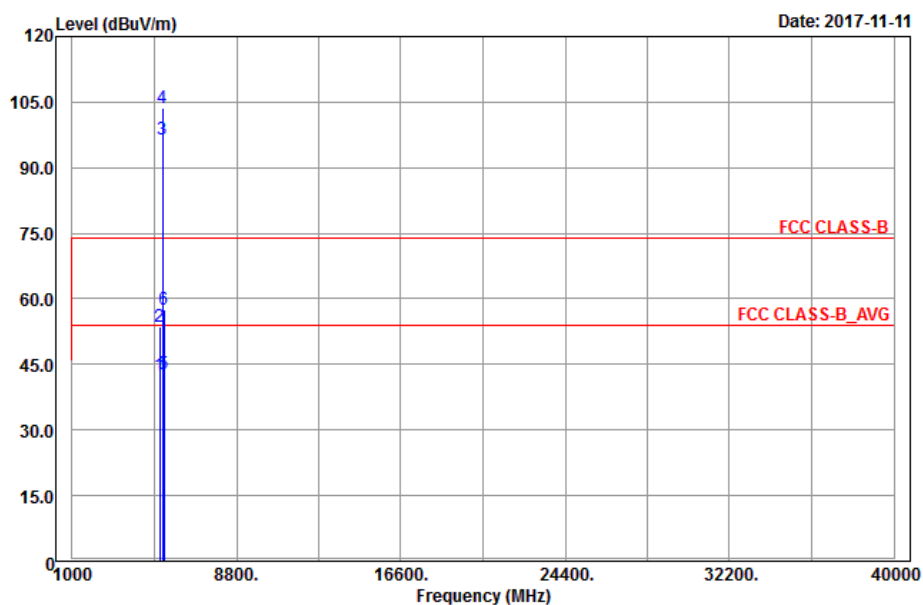
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5260 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 60	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



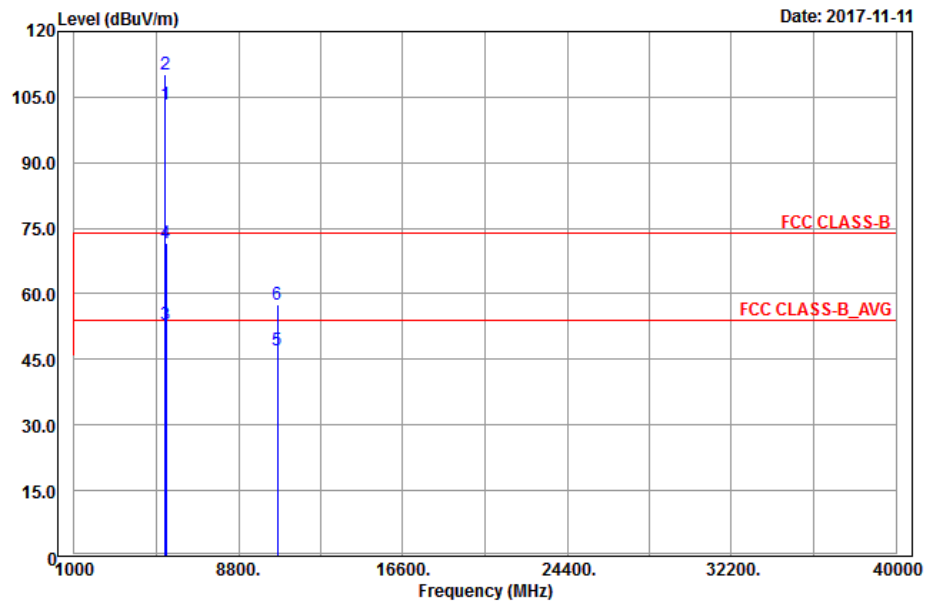
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5120.15	42.75	34.55	54	-11.25	34.09	8.1	33.99	228	281	Average
5120.15	53.63	45.43	74	-20.37	34.09	8.1	33.99	228	281	Peak
5300	103.24	94.7			34.24	8.32	34.02	228	281	Average
5300	110.97	102.43			34.24	8.32	34.02	228	281	Peak
5350	45.23	36.6	54	-8.77	34.28	8.38	34.03	228	281	Average
5350	60.68	52.05	74	-13.32	34.28	8.38	34.03	228	281	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.1	42.61	34.36	54	-11.39	34.12	8.13	34	100	240	Average
5149.1	53.62	45.37	74	-20.38	34.12	8.13	34	100	240	Peak
5300	96.41	87.87			34.24	8.32	34.02	100	240	Average
5300	103.56	95.02			34.24	8.32	34.02	100	240	Peak
5351.32	42.93	34.3	54	-11.07	34.28	8.38	34.03	100	240	Average
5351.32	57.57	48.94	74	-16.43	34.28	8.38	34.03	100	240	Peak

Remarks:

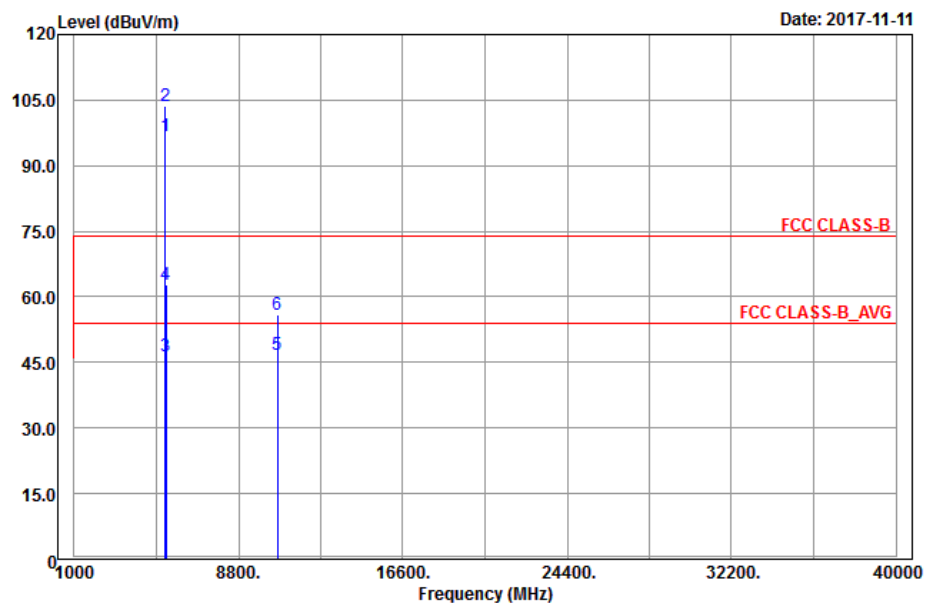
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5300 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 64	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



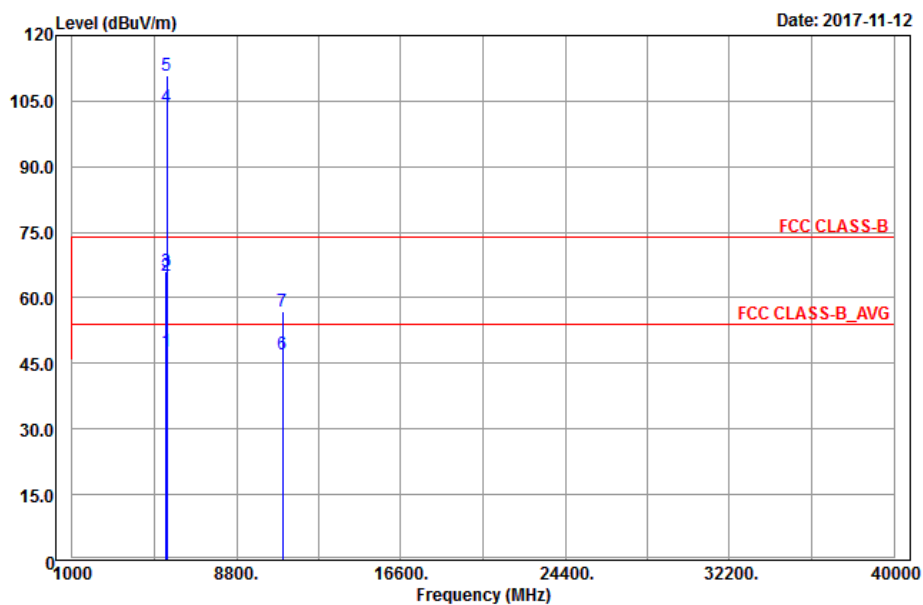
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5320	103.27	94.69			34.25	8.35	34.02	228	281	Average
5320	110.26	101.68			34.25	8.35	34.02	228	281	Peak
5350.11	52.93	44.3	54	-1.07	34.28	8.38	34.03	245	281	Average
5350.11	71.58	62.95	74	-2.42	34.28	8.38	34.03	245	281	Peak
10640	46.95	32.22	54	-7.05	37.31	12.71	35.29	124	310	Average
10640	57.51	42.78	74	-16.49	37.31	12.71	35.29	124	310	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5320	96.64	88.06			34.25	8.35	34.02	100	240	Average
5320	103.6	95.02			34.25	8.35	34.02	100	240	Peak
5350	46.3	37.67	54	-7.7	34.28	8.38	34.03	100	240	Average
5350	62.91	54.28	74	-11.09	34.28	8.38	34.03	100	240	Peak
10640	46.71	31.98	54	-7.29	37.31	12.71	35.29	159	347	Average
10640	56	41.27	74	-18	37.31	12.71	35.29	159	347	Peak

Remarks:

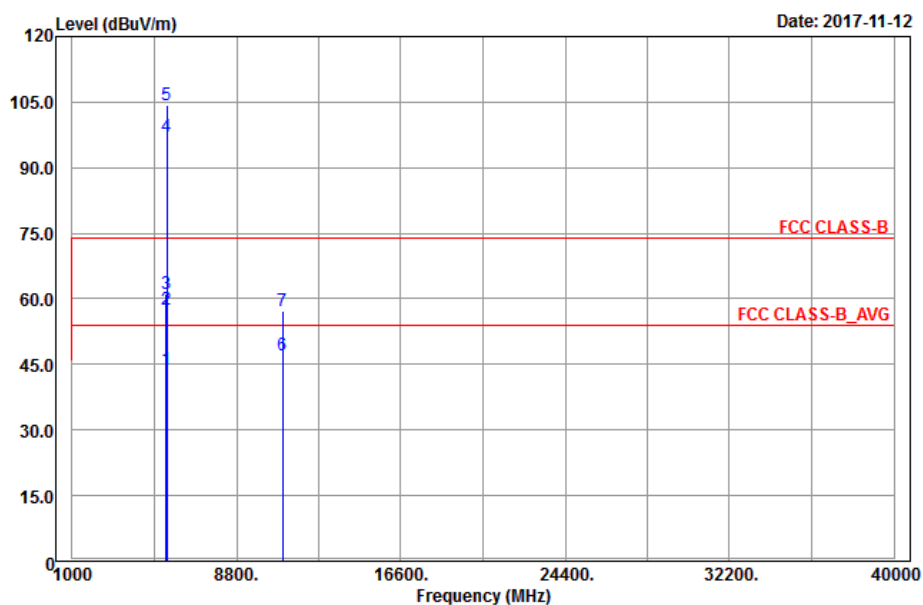
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5320 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 100	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



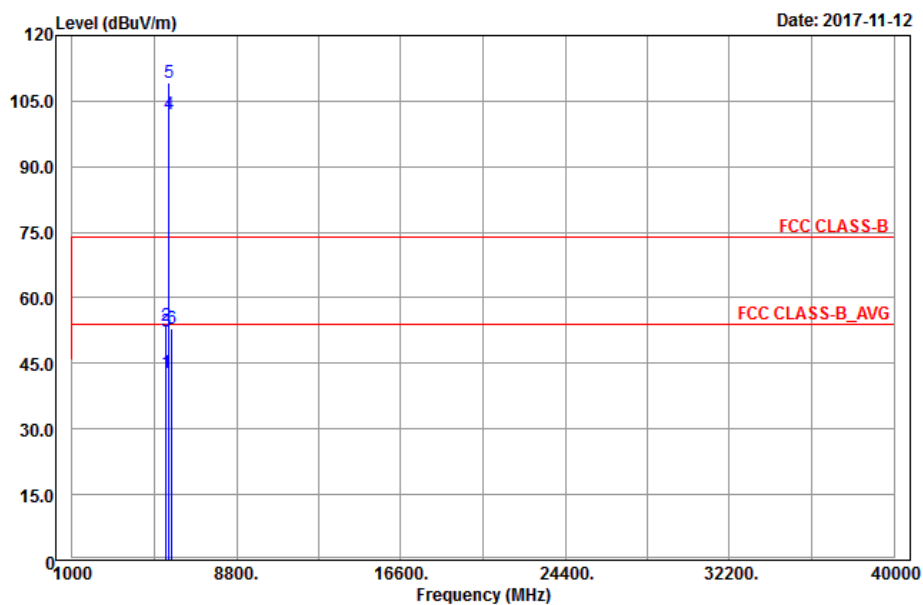
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5459.92	47.72	38.9	54	-6.28	34.36	8.51	34.05	228	285	Average
5459.92	64.95	56.13	74	-9.05	34.36	8.51	34.05	228	285	Peak
*5468.72	65.92	57.09	68.2	-2.28	34.37	8.51	34.05	228	285	Peak
5500	103.49	94.57			34.4	8.57	34.05	228	285	Average
5500	110.77	101.85			34.4	8.57	34.05	228	285	Peak
11000	47.04	31.96	54	-6.96	37.6	12.96	35.48	185	77	Average
11000	56.84	41.76	74	-17.16	37.6	12.96	35.48	185	77	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460	43.85	35.03	54	-10.15	34.36	8.51	34.05	247	113	Average
5460	57.51	48.69	74	-16.49	34.36	8.51	34.05	247	113	Peak
*5469.84	61.3	52.47	68.2	-6.9	34.37	8.51	34.05	247	113	Peak
5500	97.19	88.27			34.4	8.57	34.05	247	113	Average
5500	104.44	95.52			34.4	8.57	34.05	247	113	Peak
11000	47.23	32.15	54	-6.77	37.6	12.96	35.48	119	278	Average
11000	57.09	42.01	74	-16.91	37.6	12.96	35.48	119	278	Peak

Remarks:

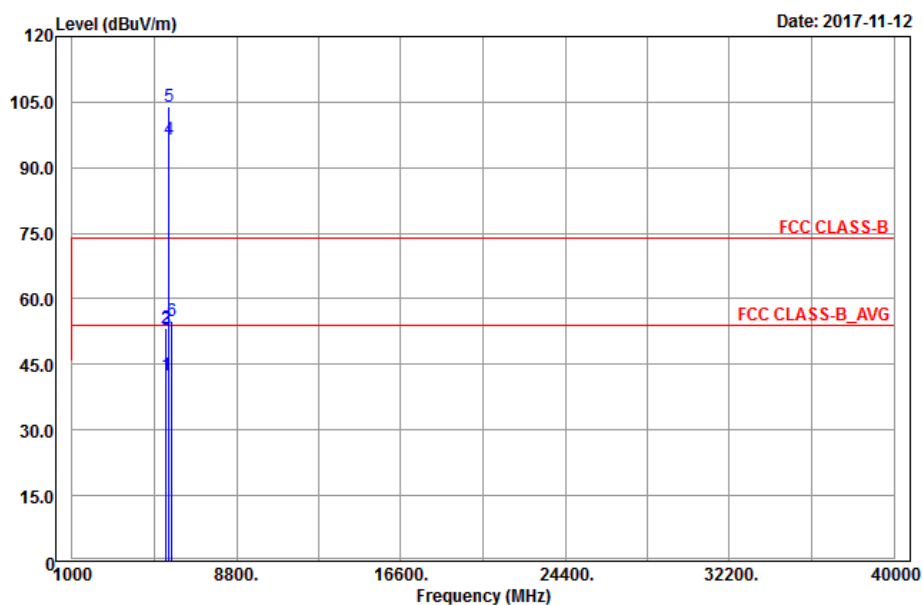
- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5500 MHz: Fundamental Frequency
- *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 116	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



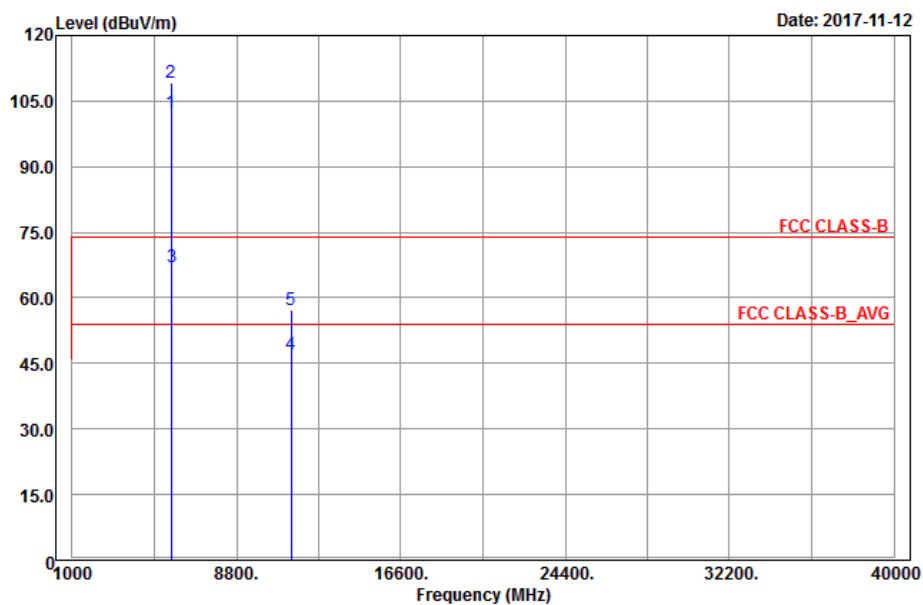
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5448.56	42.91	34.08	54	-11.09	34.36	8.51	34.04	228	285	Average
5448.56	53.6	44.77	74	-20.4	34.36	8.51	34.04	228	285	Peak
*5469.68	52.22	43.39	68.2	-15.98	34.37	8.51	34.05	228	285	Peak
5580	102.17	93.18			34.47	8.6	34.08	228	285	Average
5580	109.34	100.35			34.47	8.6	34.08	228	285	Peak
*5723.96	52.95	43.79	68.2	-15.25	34.62	8.65	34.11	228	285	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5450.8	42.46	33.64	54	-11.54	34.36	8.51	34.05	247	113	Average
5450.8	53.24	44.42	74	-20.76	34.36	8.51	34.05	247	113	Peak
*5470.96	52.88	44.02	68.2	-15.32	34.37	8.54	34.05	247	113	Peak
5580	96.5	87.51			34.47	8.6	34.08	247	113	Average
5580	103.85	94.86			34.47	8.6	34.08	247	113	Peak
*5725.48	55.06	45.9	68.2	-13.14	34.62	8.65	34.11	247	113	Peak

Remarks:

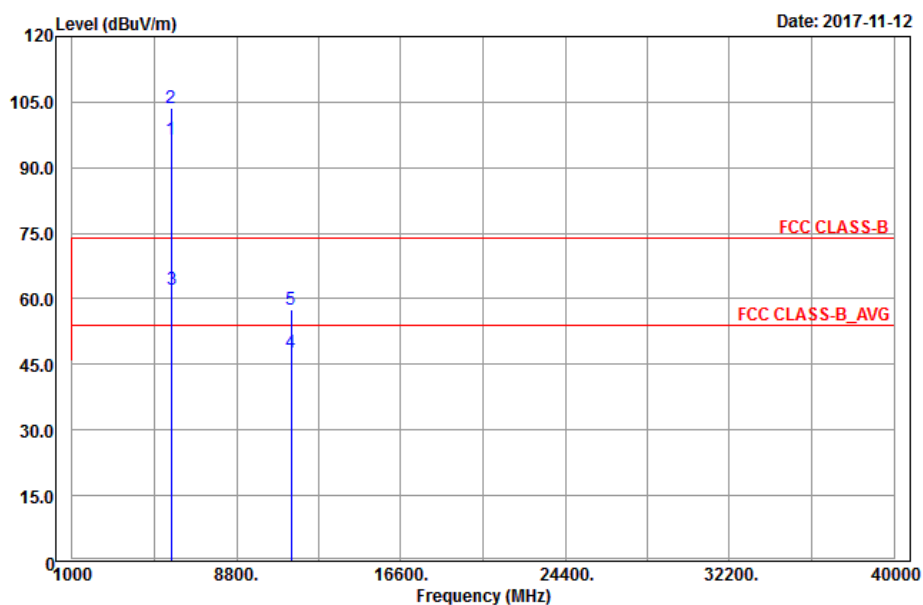
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5580 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 140	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



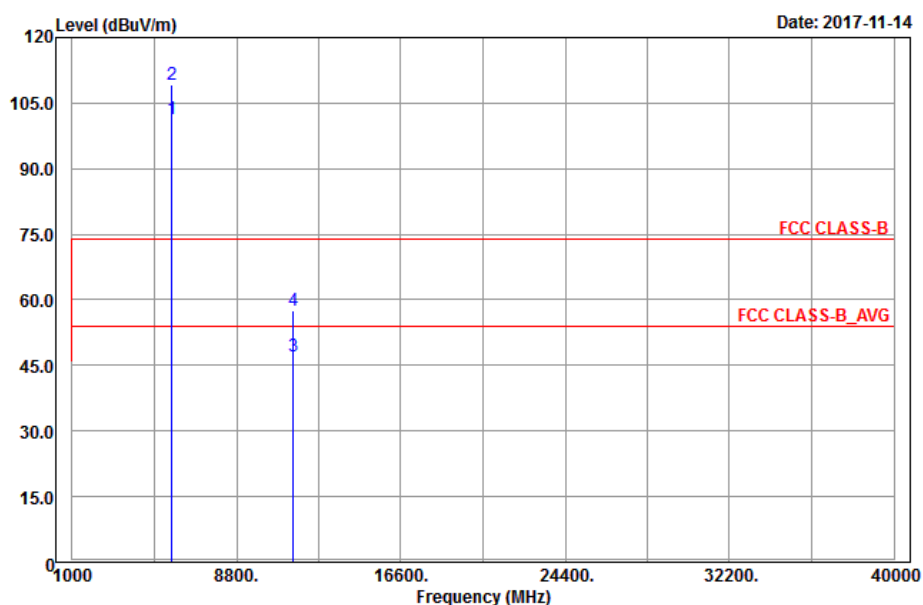
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5700	102.25	93.12			34.59	8.64	34.1	228	285	Average
5700	109.35	100.22			34.59	8.64	34.1	228	285	Peak
*5724.52	67.09	57.93	68.2	-1.11	34.62	8.65	34.11	228	285	Peak
11400	47.1	32	54	-6.9	37.84	12.67	35.41	114	235	Average
11400	57.2	42.1	74	-16.8	37.84	12.67	35.41	114	235	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5700	96.35	87.22			34.59	8.64	34.1	247	113	Average
5700	103.55	94.42			34.59	8.64	34.1	247	113	Peak
*5723.96	62.1	52.94	68.2	-6.1	34.62	8.65	34.11	247	113	Peak
11400	47.61	32.51	54	-6.39	37.84	12.67	35.41	187	77	Average
11400	57.58	42.48	74	-16.42	37.84	12.67	35.41	187	77	Peak

Remarks:

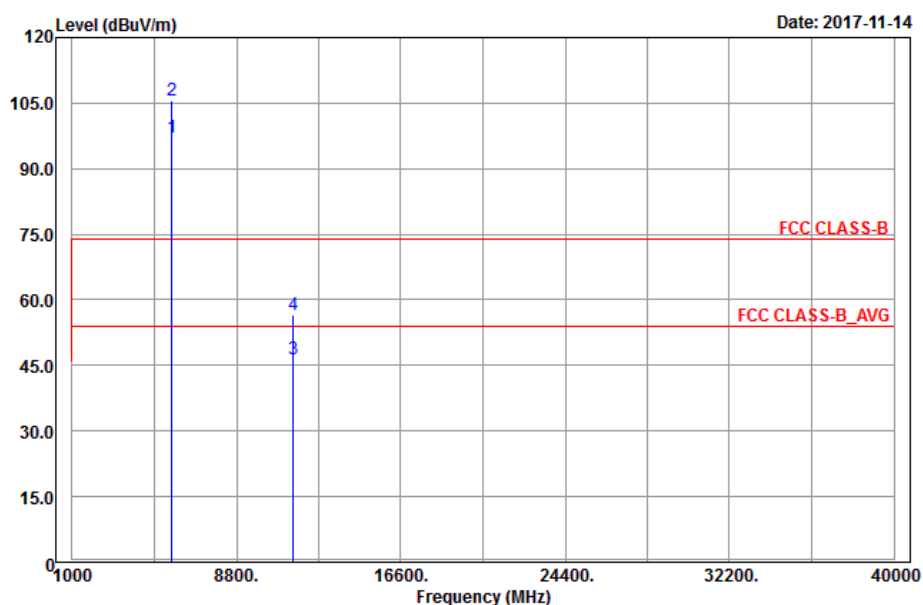
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5700 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 149	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

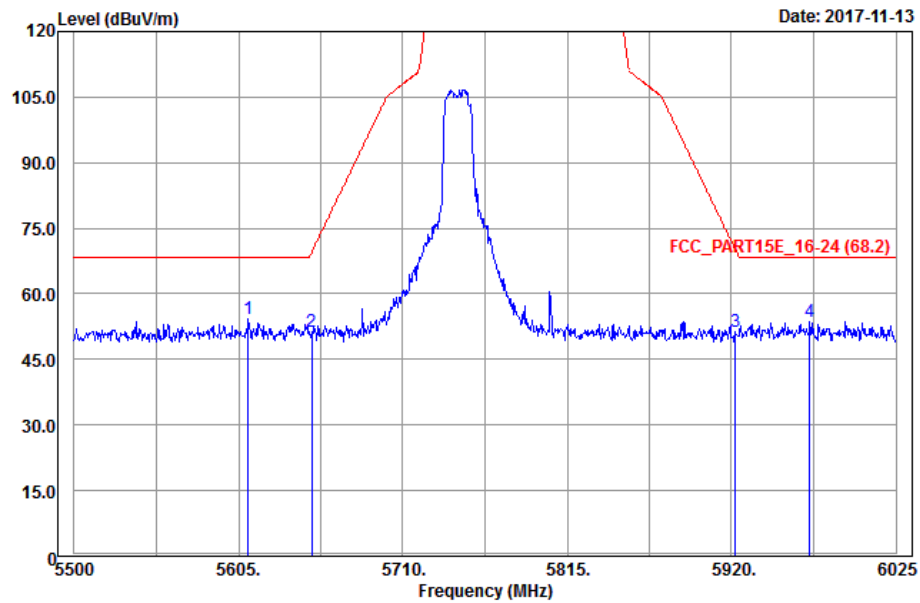
<Spurious Emission> Horizontal



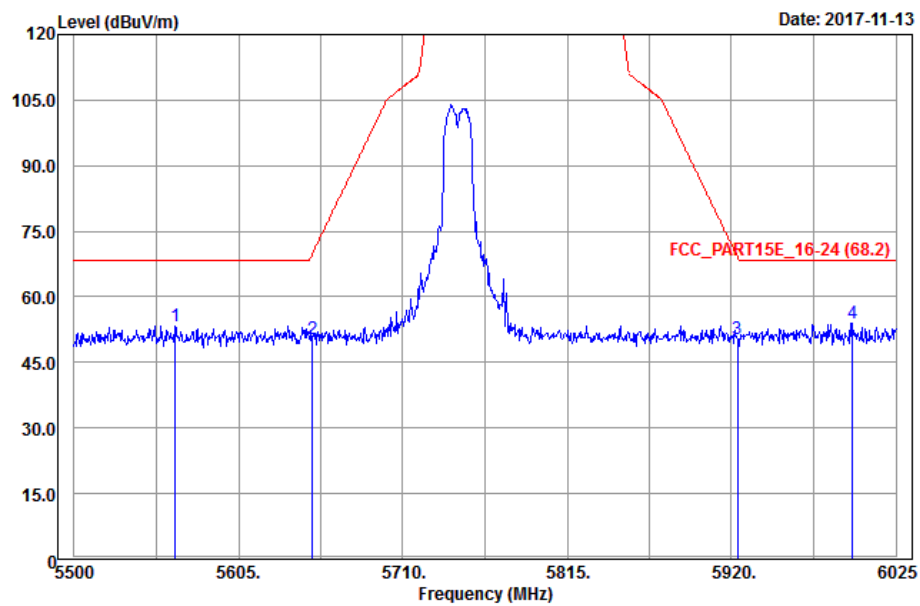
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5745	101.48	92.29			34.64	8.66	34.11	192	117	Average
5745	109.33	100.14			34.64	8.66	34.11	192	117	Peak
11490	47.15	32.03	54	-6.85	37.89	12.62	35.39	196	275	Average
11490	57.55	42.43	74	-16.45	37.89	12.62	35.39	196	275	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5745	96.99	87.8			34.64	8.66	34.11	286	121	Average
5745	105.48	96.29			34.64	8.66	34.11	286	121	Peak
11490	46.41	31.29	54	-7.59	37.89	12.62	35.39	134	157	Average
11490	56.67	41.55	74	-17.33	37.89	12.62	35.39	134	157	Peak

<Out of Band Emission (OOBE)>

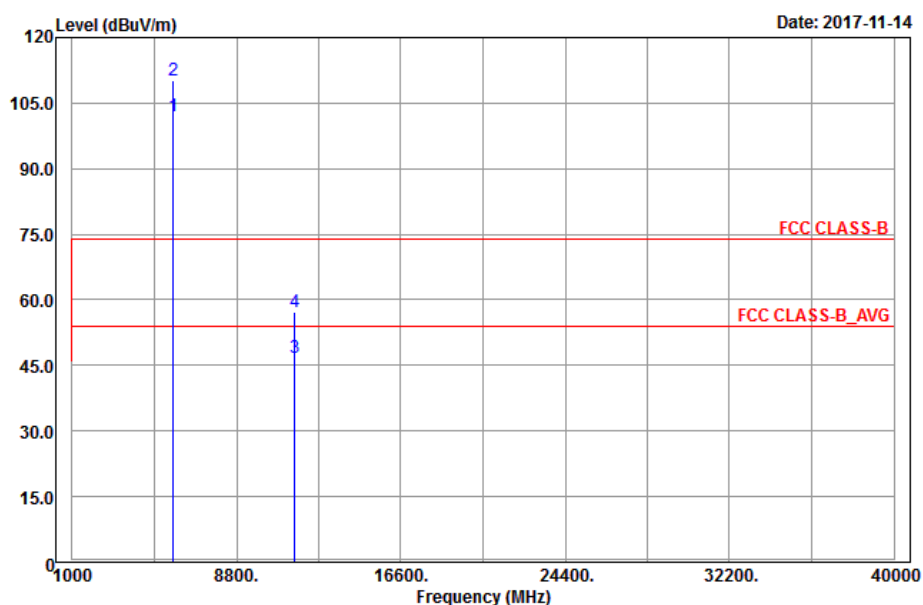
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5611.3	54.13	45.1	68.2	-14.07	34.5	8.61	34.08	192	117	Peak
5651.725	51.19	42.1	69.48	-18.29	34.56	8.62	34.09	192	117	Peak
5922.625	51.19	41.79	69.96	-18.77	34.83	8.73	34.16	192	117	Peak
*5969.875	53.66	44.21	68.2	-14.54	34.87	8.75	34.17	192	117	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5564.575	53.38	44.39	68.2	-14.82	34.47	8.59	34.07	286	121	Peak
5652.25	50.5	41.41	69.86	-19.36	34.56	8.62	34.09	286	121	Peak
5923.675	50.34	40.94	69.18	-18.84	34.83	8.73	34.16	286	121	Peak
*5997.175	53.88	44.39	68.2	-14.32	34.9	8.76	34.17	286	121	Peak

Remarks:

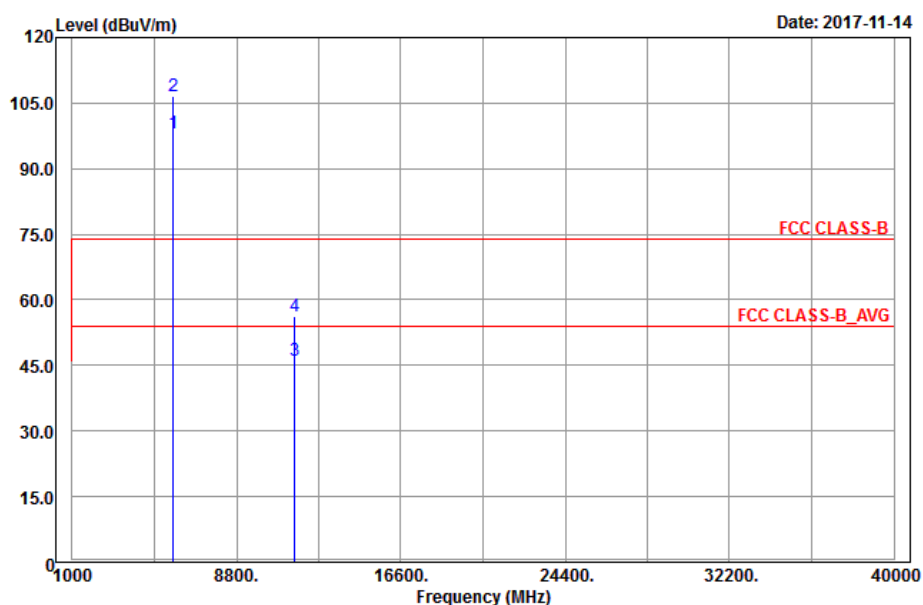
- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5745 MHz: Fundamental Frequency
- *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 157	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

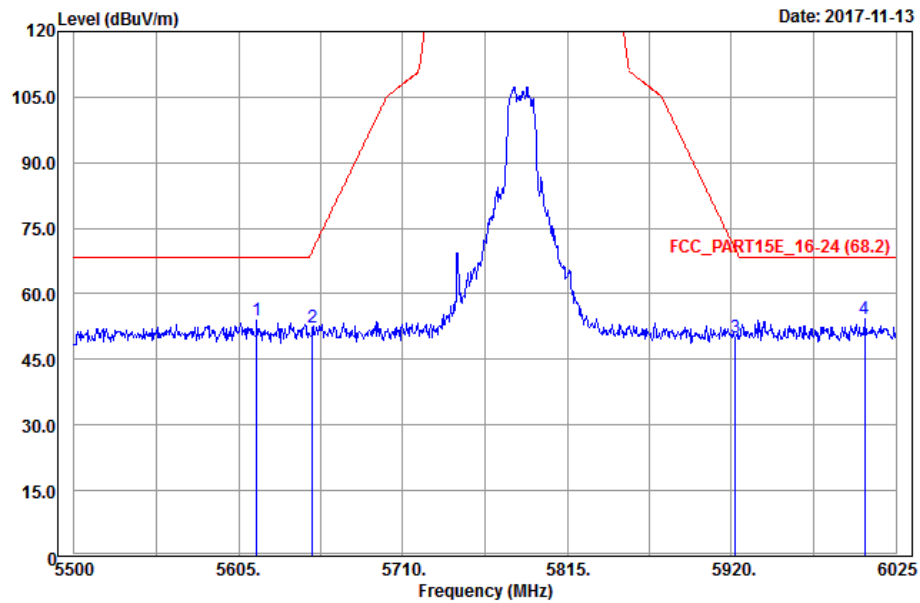
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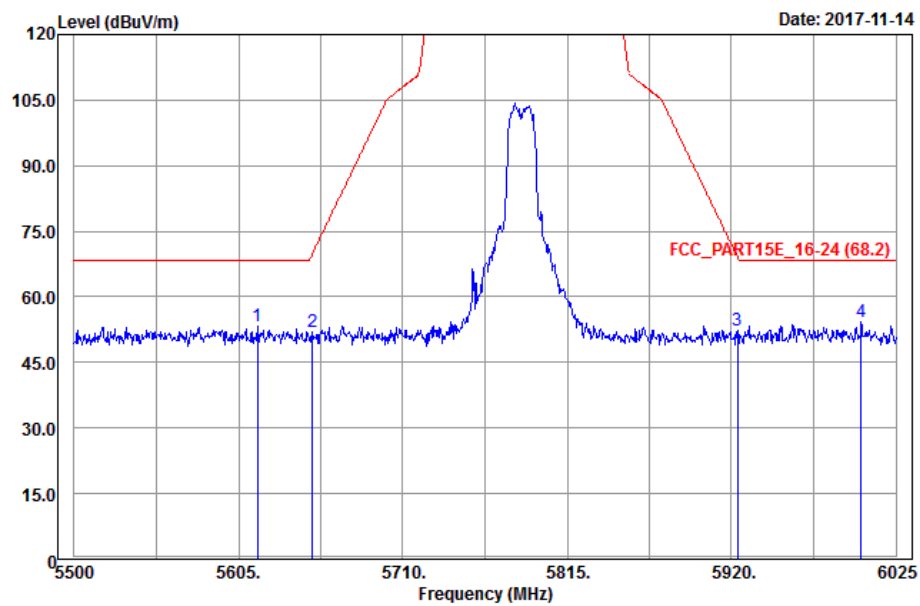
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5785	102.05	92.82			34.68	8.68	34.13	192	117	Average
5785	110.28	101.05			34.68	8.68	34.13	192	117	Peak
11570	46.74	31.43	54	-7.26	38	12.68	35.37	132	218	Average
11570	57.16	41.85	74	-16.84	38	12.68	35.37	132	218	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5785	98.16	88.93			34.68	8.68	34.13	286	121	Average
5785	106.52	97.29			34.68	8.68	34.13	286	121	Peak
11570	46.24	30.93	54	-7.76	38	12.68	35.37	157	134	Average
11570	56.08	40.77	74	-17.92	38	12.68	35.37	157	134	Peak

<Out of Band Emission (OOBE)>

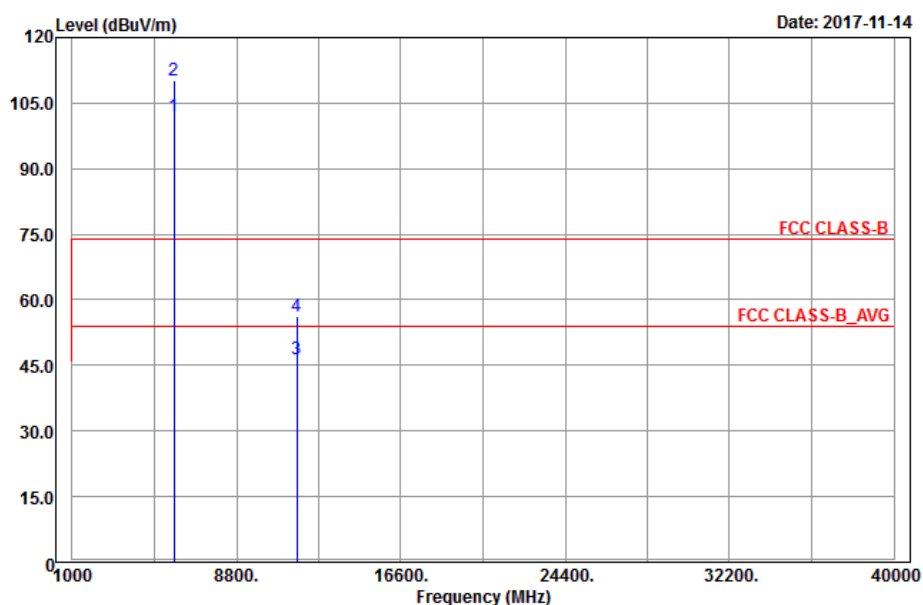
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5616.55	53.88	44.83	68.2	-14.32	34.52	8.61	34.08	192	117	Peak
5652.25	52.43	43.34	69.86	-17.43	34.56	8.62	34.09	192	117	Peak
5922.625	50.12	40.72	69.96	-19.84	34.83	8.73	34.16	192	117	Peak
*6005.05	54.22	44.73	68.2	-13.98	34.9	8.76	34.17	192	117	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5617.075	53.42	44.37	68.2	-14.78	34.52	8.61	34.08	286	121	Peak
5652.25	52.08	42.99	69.86	-17.78	34.56	8.62	34.09	286	121	Peak
5923.675	52.26	42.86	69.18	-16.92	34.83	8.73	34.16	286	121	Peak
*6002.95	54.32	44.83	68.2	-13.88	34.9	8.76	34.17	286	121	Peak

Remarks:

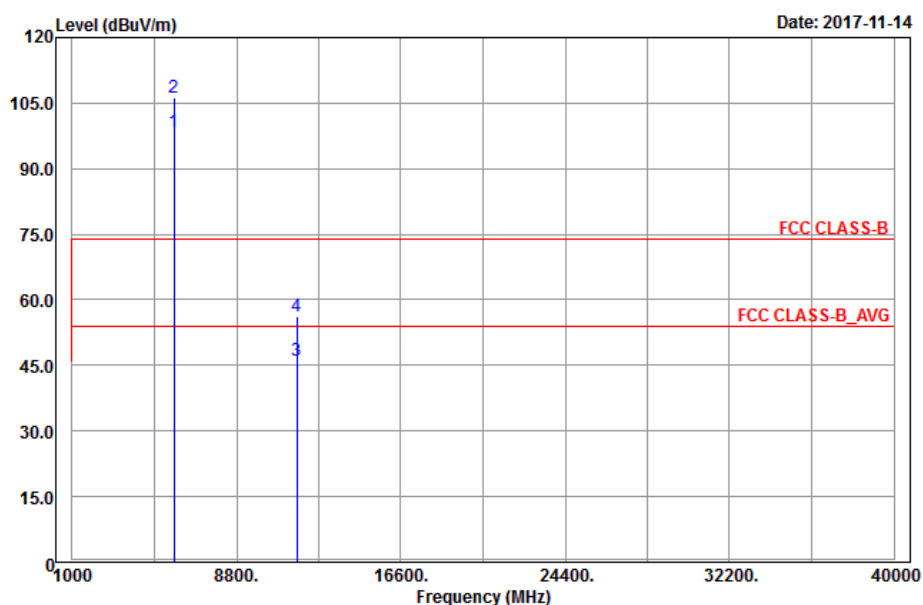
- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5785 MHz: Fundamental Frequency
- *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 165	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

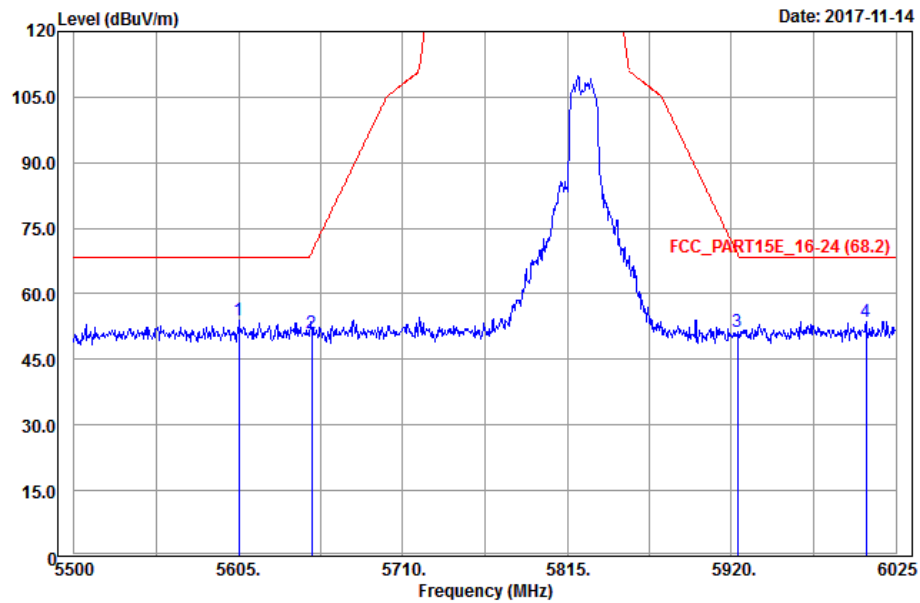
<Spurious Emission> Horizontal



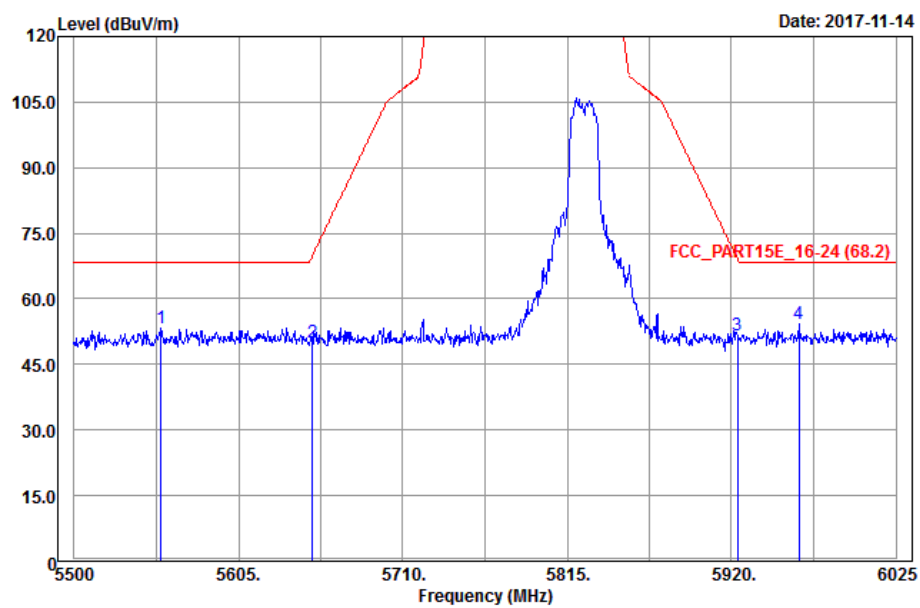
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5825	101.9	92.61			34.73	8.69	34.13	192	117	Average
5825	110.25	100.96			34.73	8.69	34.13	192	117	Peak
11650	46.45	30.92	54	-7.55	38.09	12.8	35.36	173	281	Average
11650	56.37	40.84	74	-17.63	38.09	12.8	35.36	173	281	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5825	98.45	89.16			34.73	8.69	34.13	286	121	Average
5825	106.31	97.02			34.73	8.69	34.13	286	121	Peak
11650	46.22	30.69	54	-7.78	38.09	12.8	35.36	105	187	Average
11650	56.31	40.78	74	-17.69	38.09	12.8	35.36	105	187	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5605	54.1	45.07	68.2	-14.1	34.5	8.61	34.08	192	117	Peak
5651.725	50.99	41.9	69.48	-18.49	34.56	8.62	34.09	192	117	Peak
5923.675	51.45	42.05	69.18	-17.73	34.83	8.73	34.16	192	117	Peak
*6006.1	53.61	44.12	68.2	-14.59	34.9	8.76	34.17	192	117	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5555.65	53.17	44.2	68.2	-15.03	34.45	8.59	34.07	286	121	Peak
5652.25	50.04	40.95	69.86	-19.82	34.56	8.62	34.09	286	121	Peak
5923.675	51.6	42.2	69.18	-17.58	34.83	8.73	34.16	286	121	Peak
*5963.05	54.34	44.9	68.2	-13.86	34.87	8.74	34.17	286	121	Peak

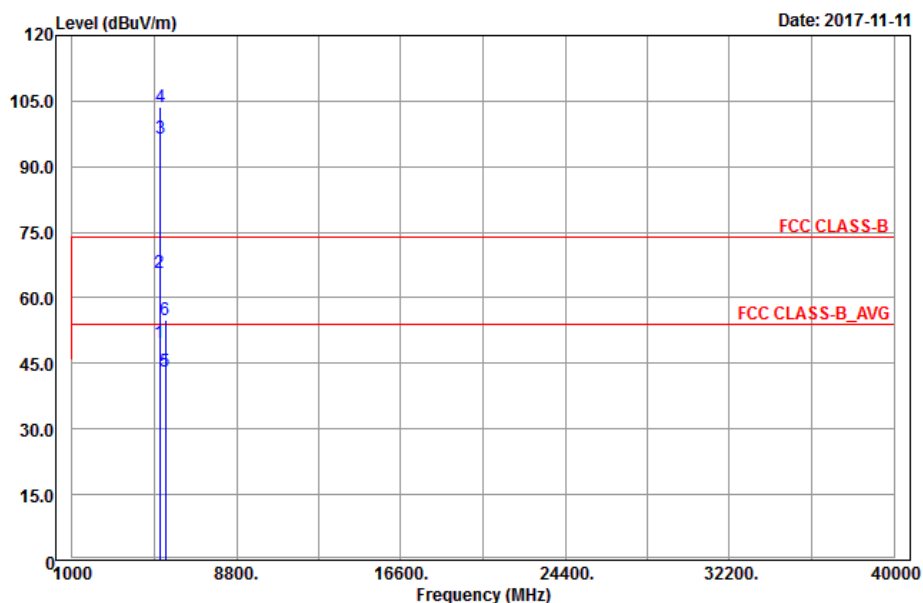
Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5825 MHz: Fundamental Frequency
- *: Out of Restricted Band

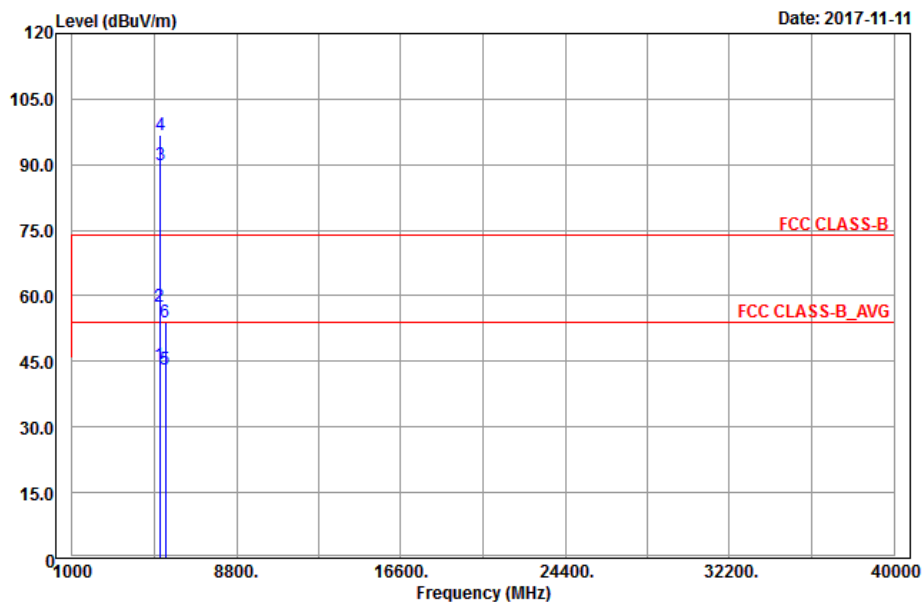
802.11ac (VHT40)

EUT Test Condition		Measurement Detail	
Channel	Channel 38	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



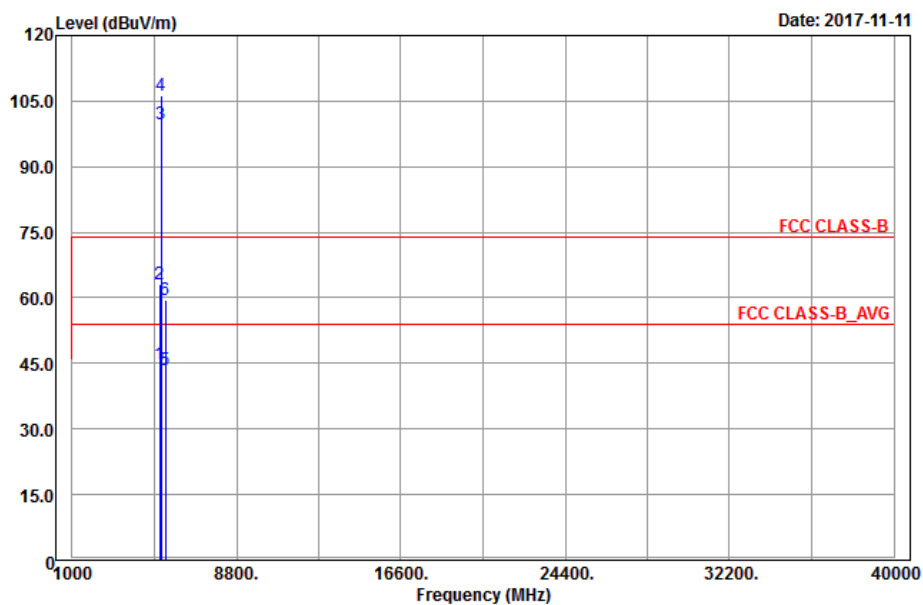
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.4	49.74	41.49	54	-4.26	34.12	8.13	34	228	286	Average
5149.4	65.68	57.43	74	-8.32	34.12	8.13	34	228	286	Peak
5190	96.49	88.15			34.15	8.19	34	228	280	Average
5190	103.52	95.18			34.15	8.19	34	228	280	Peak
5436.9	43.21	34.42	54	-10.79	34.35	8.48	34.04	228	286	Average
5436.9	54.87	46.08	74	-19.13	34.35	8.48	34.04	228	286	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.4	44.03	35.78	54	-9.97	34.12	8.13	34	100	239	Average
5149.4	57.55	49.3	74	-16.45	34.12	8.13	34	100	239	Peak
5190	89.8	81.46			34.15	8.19	34	100	239	Average
5190	96.93	88.59			34.15	8.19	34	100	239	Peak
5438	43.23	34.44	54	-10.77	34.35	8.48	34.04	100	239	Average
5438	53.93	45.14	74	-20.07	34.35	8.48	34.04	100	239	Peak

Remarks:

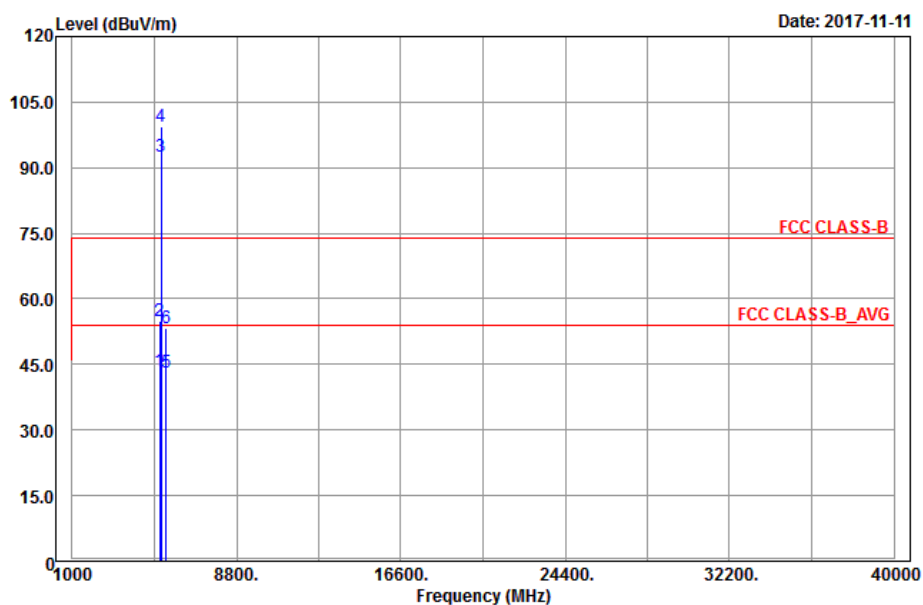
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5190 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 46	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



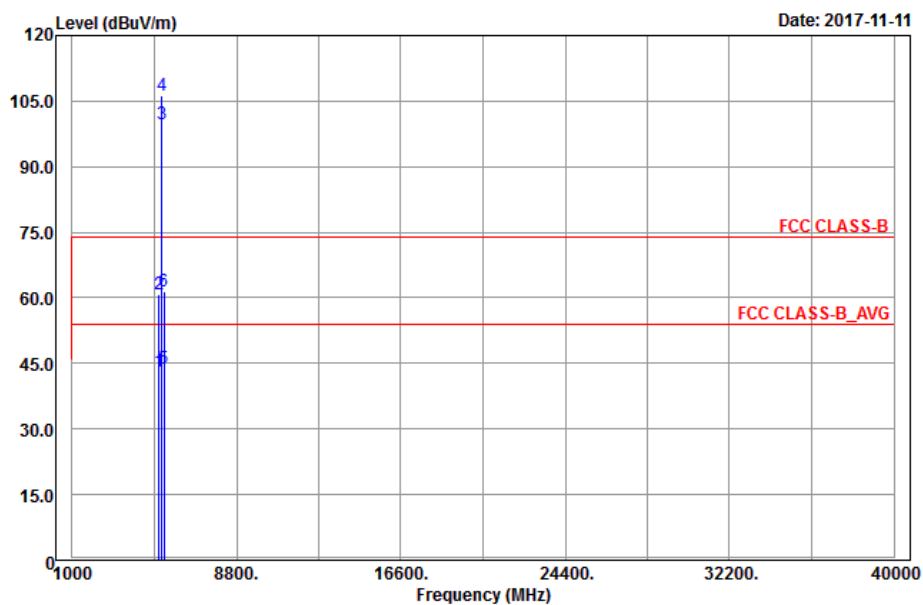
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5150	44.94	36.69	54	-9.06	34.12	8.13	34	228	280	Average
5150	63.16	54.91	74	-10.84	34.12	8.13	34	228	280	Peak
5230	99.63	91.23			34.19	8.22	34.01	228	280	Average
5230	106.36	97.96			34.19	8.22	34.01	228	280	Peak
5415.56	43.44	34.71	54	-10.56	34.33	8.44	34.04	228	280	Average
5415.56	59.38	50.65	74	-14.62	34.33	8.44	34.04	228	280	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5146.85	43.59	35.34	54	-10.41	34.12	8.13	34	100	239	Average
5146.85	54.79	46.54	74	-19.21	34.12	8.13	34	100	239	Peak
5230	92.53	84.13			34.19	8.22	34.01	100	239	Average
5230	99.52	91.12			34.19	8.22	34.01	100	239	Peak
5458.9	43.24	34.42	54	-10.76	34.36	8.51	34.05	100	239	Average
5458.9	53.35	44.53	74	-20.65	34.36	8.51	34.05	100	239	Peak

Remarks:

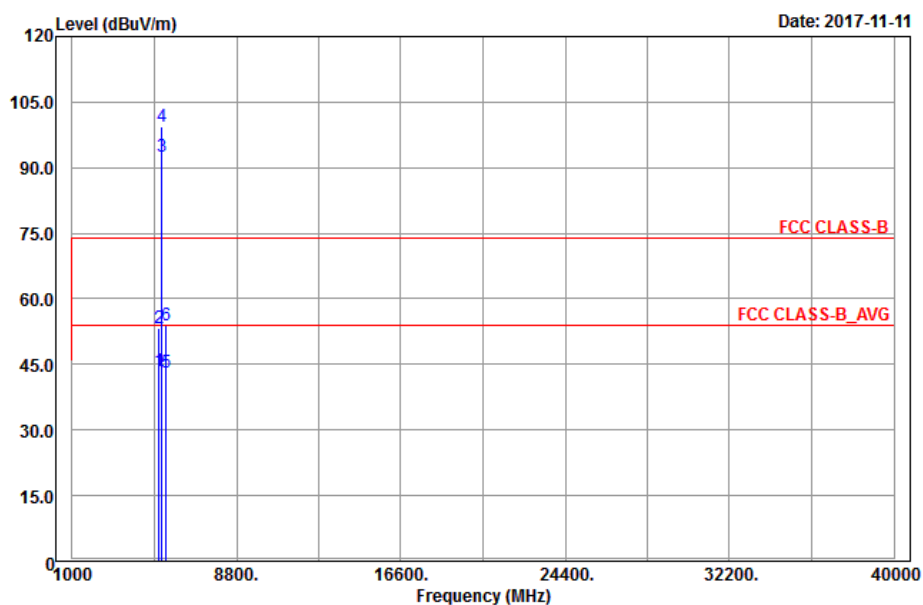
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5230 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 54	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



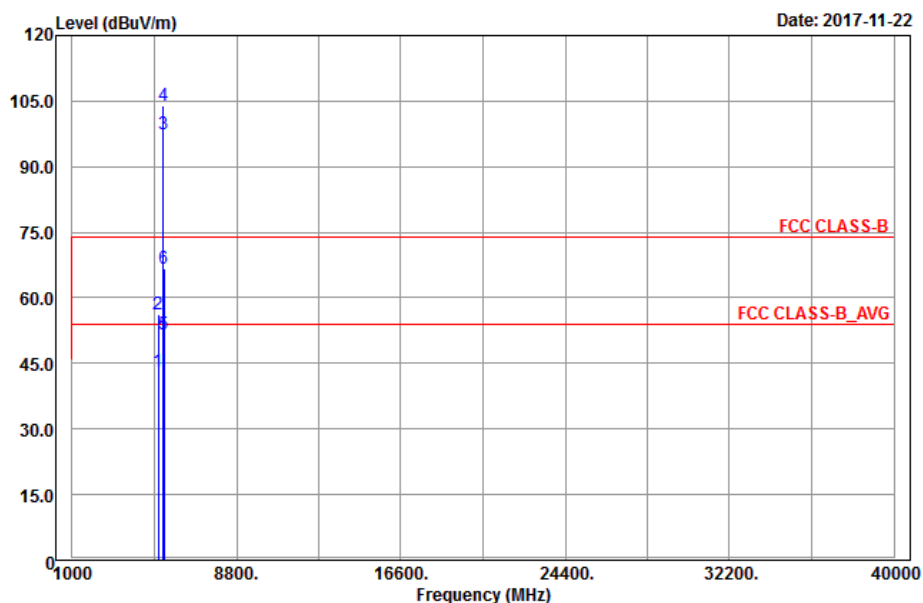
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5110.7	43.32	35.12	54	-10.68	34.09	8.1	33.99	228	281	Average
5110.7	60.86	52.66	74	-13.14	34.09	8.1	33.99	228	281	Peak
5270	99.62	91.13			34.21	8.29	34.01	228	281	Average
5270	106.14	97.65			34.21	8.29	34.01	228	281	Peak
5351.76	43.96	35.33	54	-10.04	34.28	8.38	34.03	228	281	Average
5351.76	61.61	52.98	74	-12.39	34.28	8.38	34.03	228	281	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5125.25	43.35	35.13	54	-10.65	34.11	8.1	33.99	100	240	Average
5125.25	53.33	45.11	74	-20.67	34.11	8.1	33.99	100	240	Peak
5270	92.43	83.94			34.21	8.29	34.01	100	240	Average
5270	99.35	90.86			34.21	8.29	34.01	100	240	Peak
5458.02	43.19	34.37	54	-10.81	34.36	8.51	34.05	100	240	Average
5458.02	53.85	45.03	74	-20.15	34.36	8.51	34.05	100	240	Peak

Remarks:

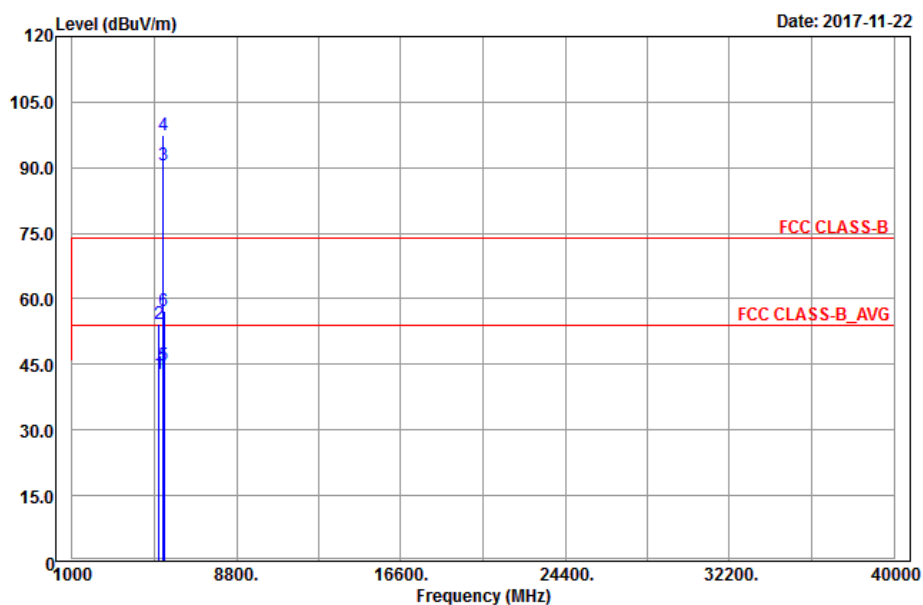
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5270 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 62	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



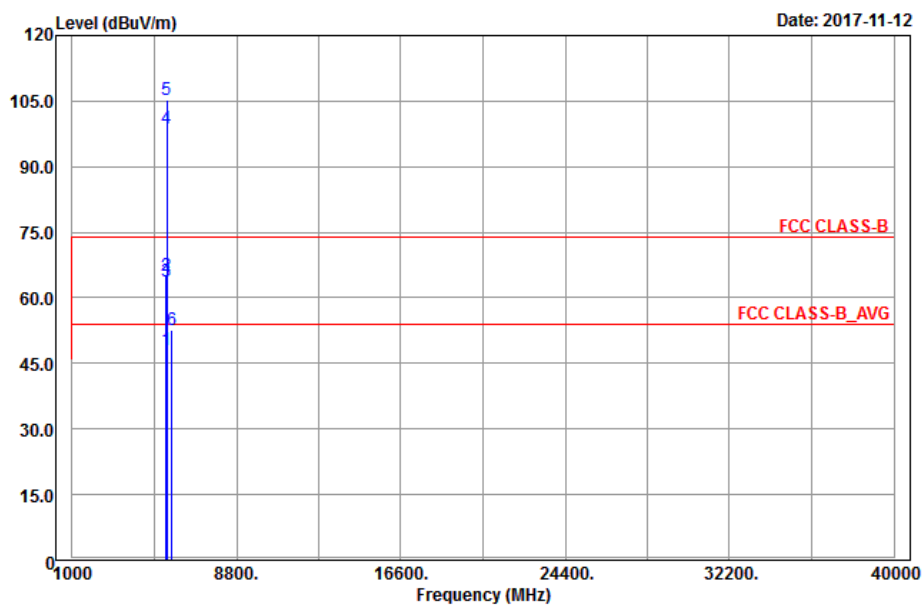
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5076.45	43.28	35.16	54	-10.72	34.07	8.03	33.98	205	174	Average
5076.45	56.32	48.2	74	-17.68	34.07	8.03	33.98	205	174	Peak
5310	97.45	88.9			34.25	8.32	34.02	275	254	Average
5310	104.12	95.57			34.25	8.32	34.02	275	254	Peak
5350.15	51.72	43.09	54	-2.28	34.28	8.38	34.03	205	174	Average
5350.15	66.59	57.96	74	-7.41	34.28	8.38	34.03	205	174	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5128.25	42.95	34.73	54	-11.05	34.11	8.1	33.99	127	237	Average
5128.25	54.36	46.14	74	-19.64	34.11	8.1	33.99	127	237	Peak
5310	90.54	81.99			34.25	8.32	34.02	102	227	Average
5310	97.48	88.93			34.25	8.32	34.02	102	227	Peak
5350.25	44.74	36.11	54	-9.26	34.28	8.38	34.03	127	237	Average
5350.25	57.29	48.66	74	-16.71	34.28	8.38	34.03	127	237	Peak

Remarks:

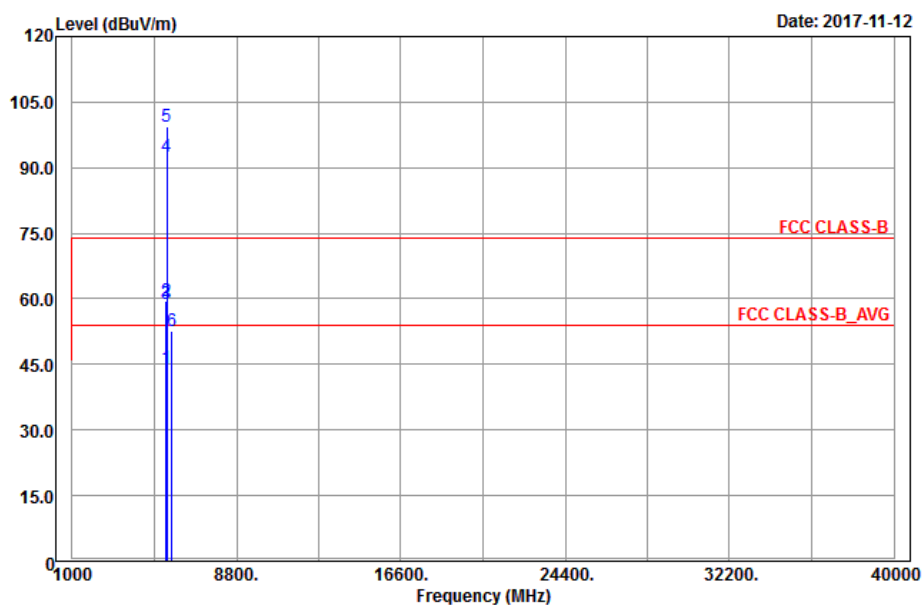
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5310 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 102	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



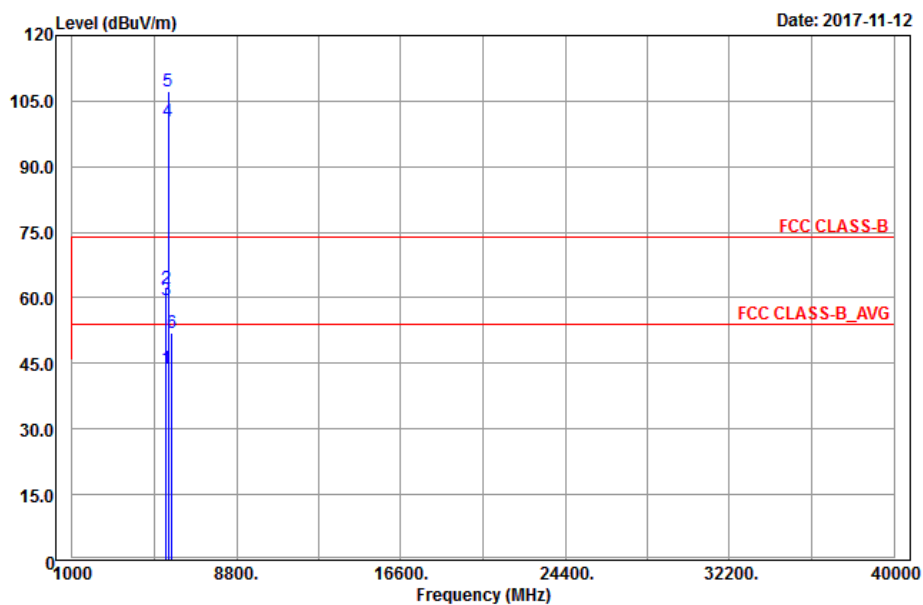
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5459.92	48.19	39.37	54	-5.81	34.36	8.51	34.05	229	285	Average
5459.92	65.21	56.39	74	-8.79	34.36	8.51	34.05	229	285	Peak
*5468.72	63.7	54.87	68.2	-4.5	34.37	8.51	34.05	229	285	Peak
5510	98.59	89.68			34.4	8.57	34.06	228	285	Average
5510	105.37	96.46			34.4	8.57	34.06	228	285	Peak
*5725.88	52.77	43.61	68.2	-15.43	34.62	8.65	34.11	228	285	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5459.28	44.05	35.23	54	-9.95	34.36	8.51	34.05	247	113	Average
5459.28	59.52	50.7	74	-14.48	34.36	8.51	34.05	247	113	Peak
*5470.96	58.82	49.96	68.2	-9.38	34.37	8.54	34.05	247	113	Peak
5510	92.58	83.67			34.4	8.57	34.06	247	113	Average
5510	99.24	90.33			34.4	8.57	34.06	247	113	Peak
*5724.36	52.79	43.63	68.2	-15.41	34.62	8.65	34.11	247	113	Peak

Remarks:

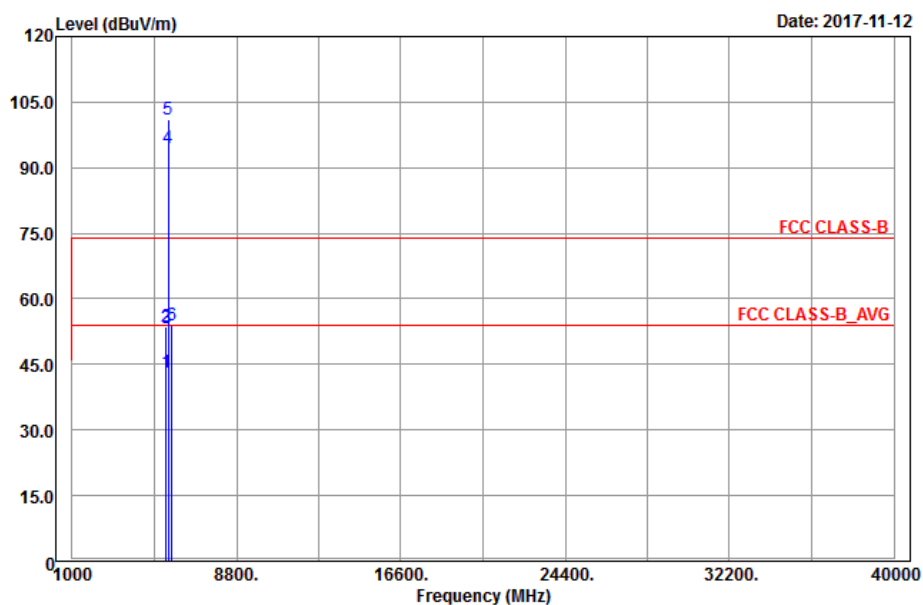
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5510 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 110	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



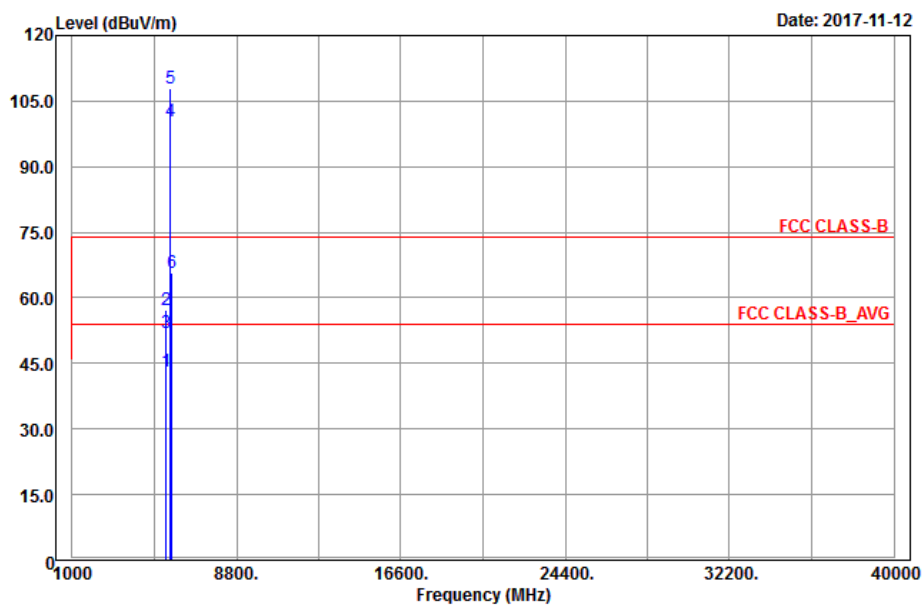
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5454.16	43.92	35.1	54	-10.08	34.36	8.51	34.05	228	285	Average
5454.16	62.02	53.2	74	-11.98	34.36	8.51	34.05	228	285	Peak
*5469.52	59.67	50.84	68.2	-8.53	34.37	8.51	34.05	228	285	Peak
5550	100.27	91.3			34.45	8.59	34.07	228	285	Average
5550	107.24	98.27			34.45	8.59	34.07	228	285	Peak
*5725.56	51.88	42.72	68.2	-16.32	34.62	8.65	34.11	228	285	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5451.76	43.12	34.3	54	-10.88	34.36	8.51	34.05	247	113	Average
5451.76	53.5	44.68	74	-20.5	34.36	8.51	34.05	247	113	Peak
*5470.16	53.17	44.34	68.2	-15.03	34.37	8.51	34.05	247	113	Peak
5550	94.54	85.57			34.45	8.59	34.07	247	113	Average
5550	101.03	92.06			34.45	8.59	34.07	247	113	Peak
*5725.32	53.79	44.63	68.2	-14.41	34.62	8.65	34.11	247	113	Peak

Remarks:

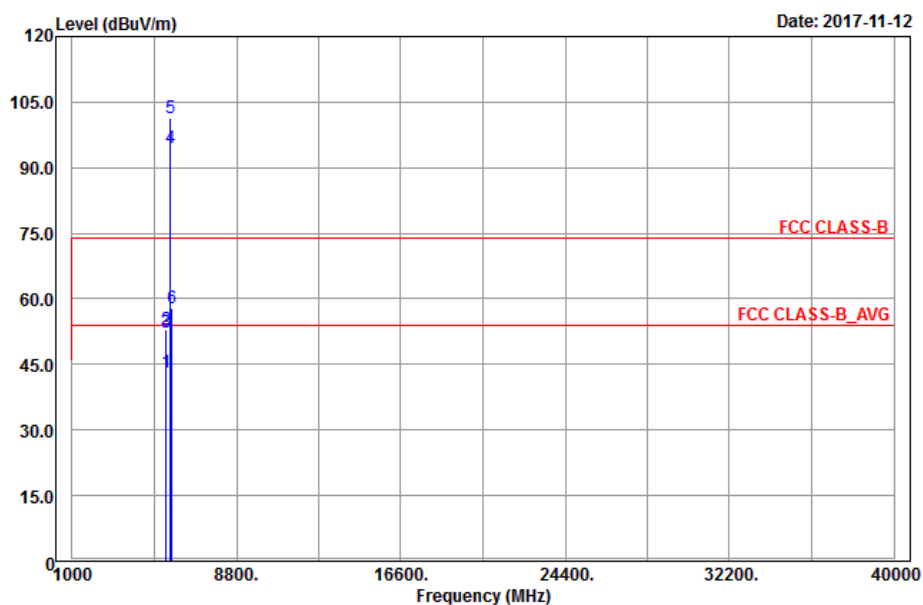
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5550 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 134	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



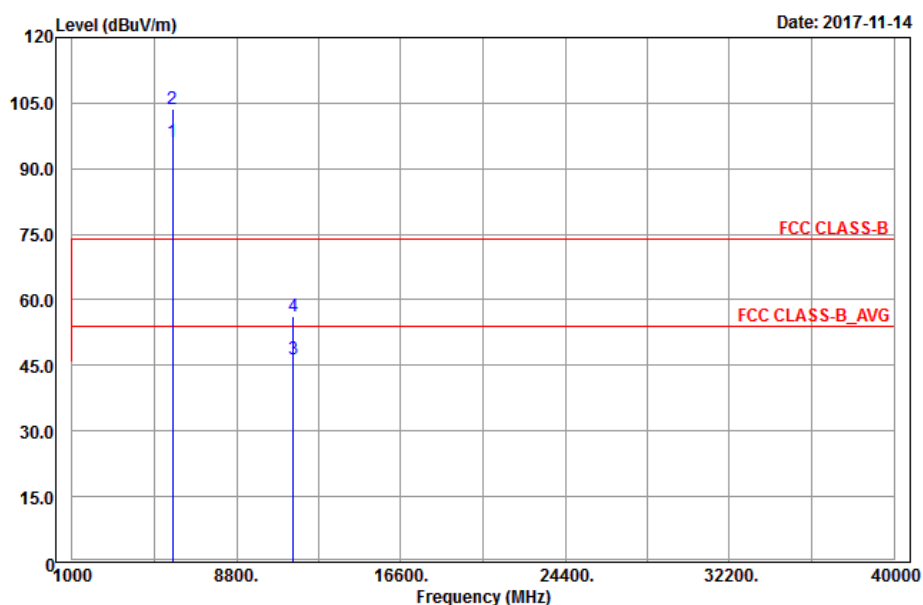
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5444.72	43.14	34.35	54	-10.86	34.35	8.48	34.04	228	285	Average
5444.72	57.08	48.29	74	-16.92	34.35	8.48	34.04	228	285	Peak
*5469.36	52.05	43.22	68.2	-16.15	34.37	8.51	34.05	228	285	Peak
5670	100.27	91.17			34.57	8.63	34.1	228	285	Average
5670	107.78	98.68			34.57	8.63	34.1	228	285	Peak
*5725.56	65.79	56.63	68.2	-2.41	34.62	8.65	34.11	235	285	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5457.36	43.12	34.3	54	-10.88	34.36	8.51	34.05	247	113	Average
5457.36	52.93	44.11	74	-21.07	34.36	8.51	34.05	247	113	Peak
*5469.52	52.32	43.49	68.2	-15.88	34.37	8.51	34.05	247	113	Peak
5670	94.49	85.39			34.57	8.63	34.1	247	113	Average
5670	101.25	92.15			34.57	8.63	34.1	247	113	Peak
*5724.04	57.8	48.64	68.2	-10.4	34.62	8.65	34.11	247	113	Peak

Remarks:

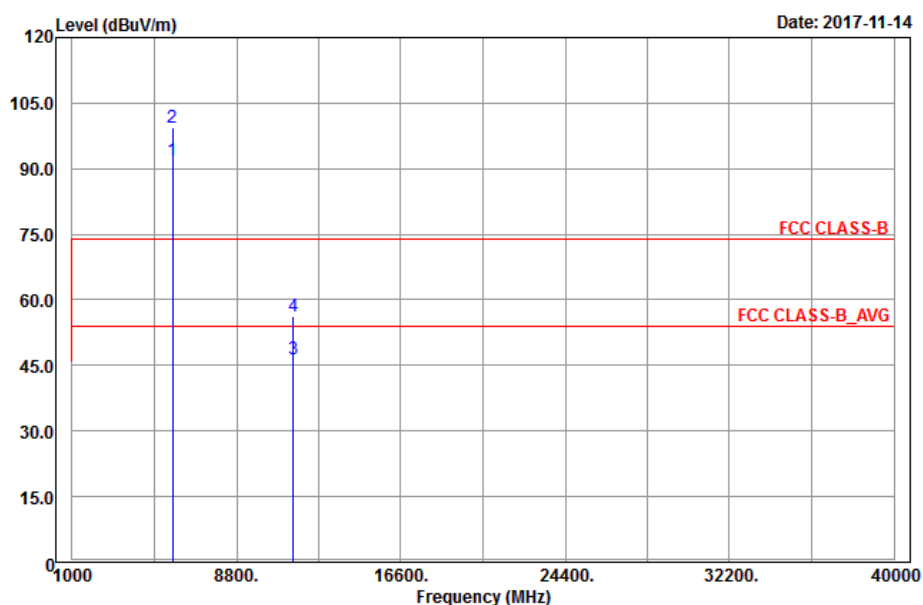
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5670 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 151	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

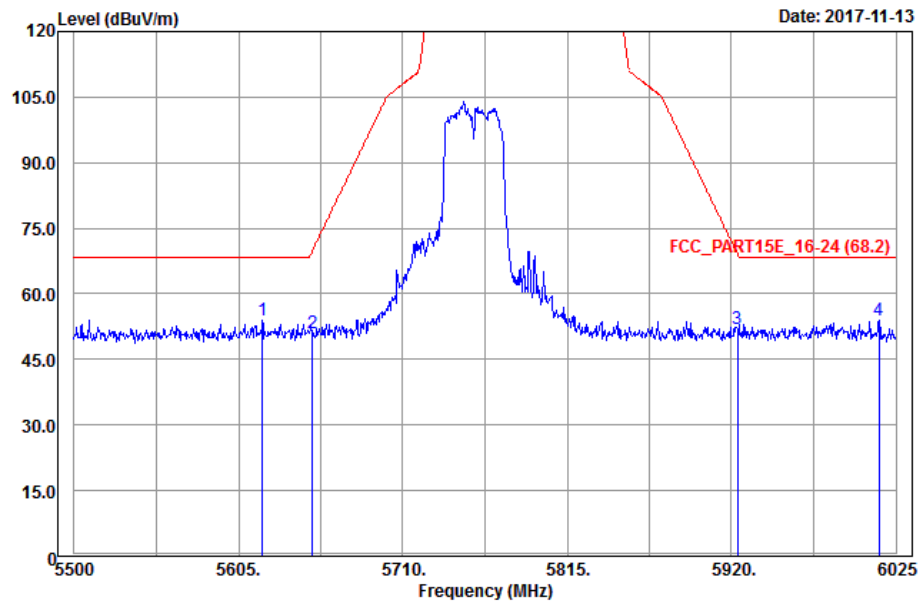
<Spurious Emission> Horizontal



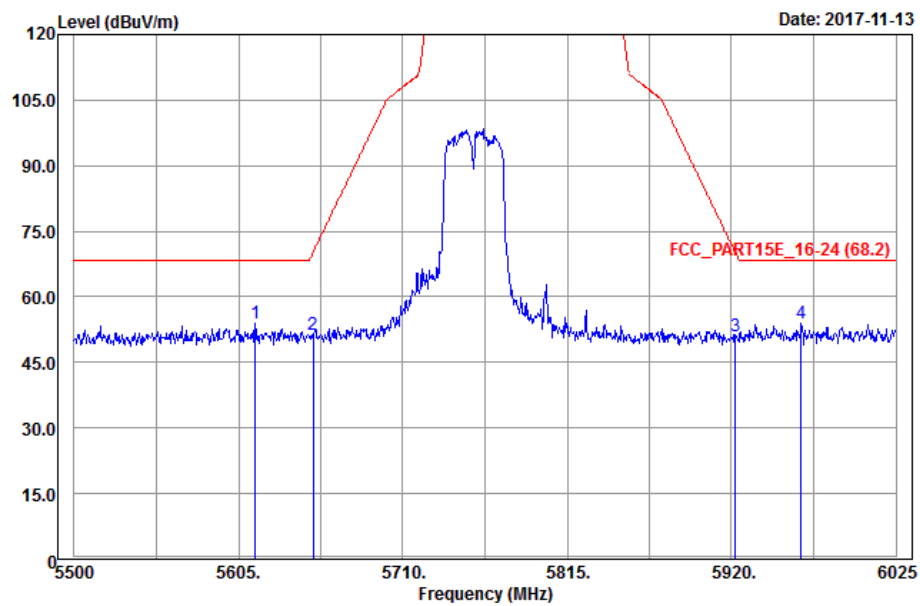
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5755	96.17	86.96			34.66	8.66	34.11	192	117	Average
5755	103.61	94.4			34.66	8.66	34.11	192	117	Peak
11510	46.47	31.36	54	-7.53	37.9	12.6	35.39	190	253	Average
11510	56.23	41.12	74	-17.77	37.9	12.6	35.39	190	253	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5755	91.84	82.63			34.66	8.66	34.11	286	121	Average
5755	99.45	90.24			34.66	8.66	34.11	286	121	Peak
11510	46.53	31.42	54	-7.47	37.9	12.6	35.39	128	104	Average
11510	56.33	41.22	74	-17.67	37.9	12.6	35.39	128	104	Peak

<Out of Band Emission (OOBE)>

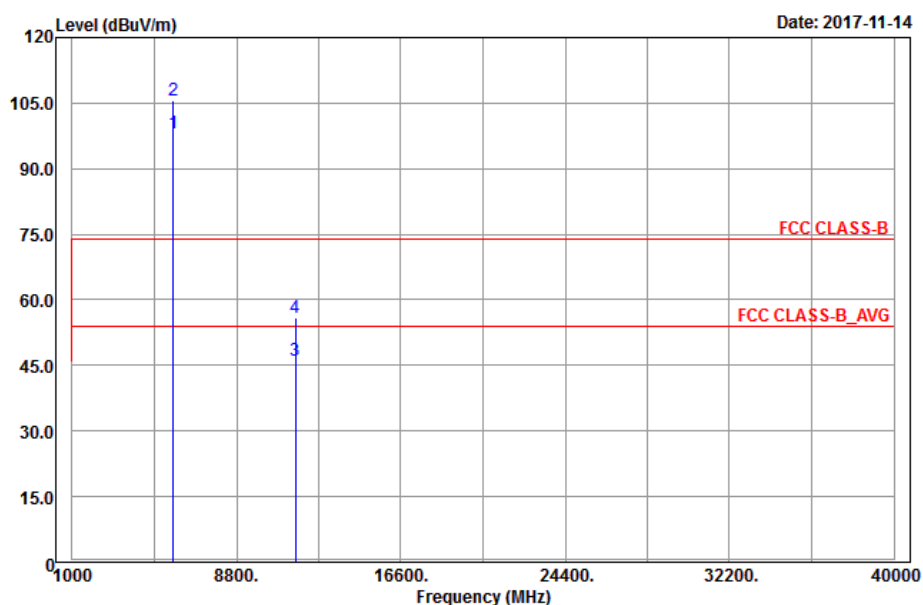
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5620.225	54.04	44.99	68.2	-14.16	34.52	8.61	34.08	192	117	Peak
5652.25	51.12	42.03	69.86	-18.74	34.56	8.62	34.09	192	117	Peak
5923.675	51.96	42.56	69.18	-17.22	34.83	8.73	34.16	192	117	Peak
*6014.5	53.98	44.48	68.2	-14.22	34.92	8.76	34.18	192	117	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5615.5	54	44.95	68.2	-14.2	34.52	8.61	34.08	286	121	Peak
5652.775	51.48	42.38	70.25	-18.77	34.56	8.63	34.09	286	121	Peak
5922.625	51.09	41.69	69.96	-18.87	34.83	8.73	34.16	286	121	Peak
*5964.625	53.94	44.49	68.2	-14.26	34.87	8.75	34.17	286	121	Peak

Remarks:

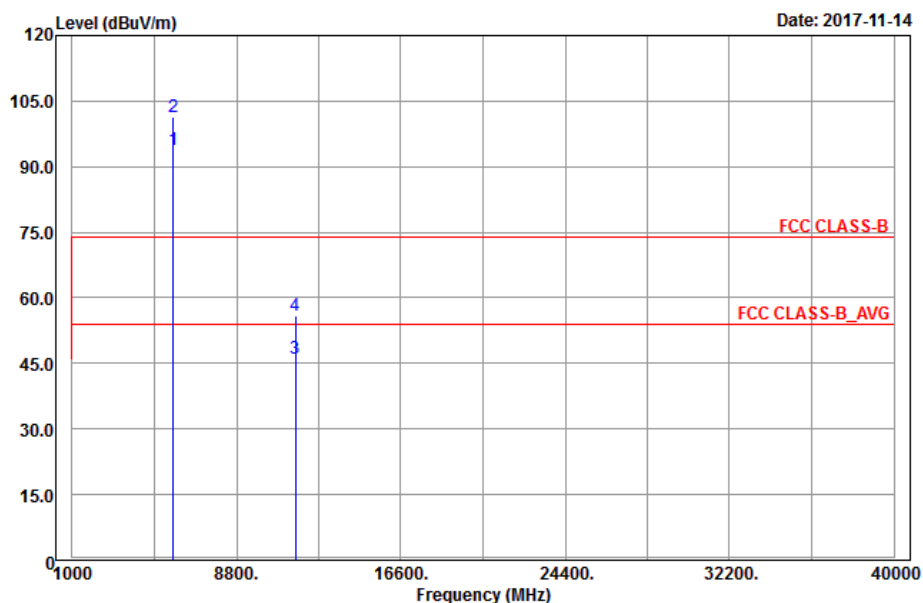
- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5755 MHz: Fundamental Frequency
- *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 159	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

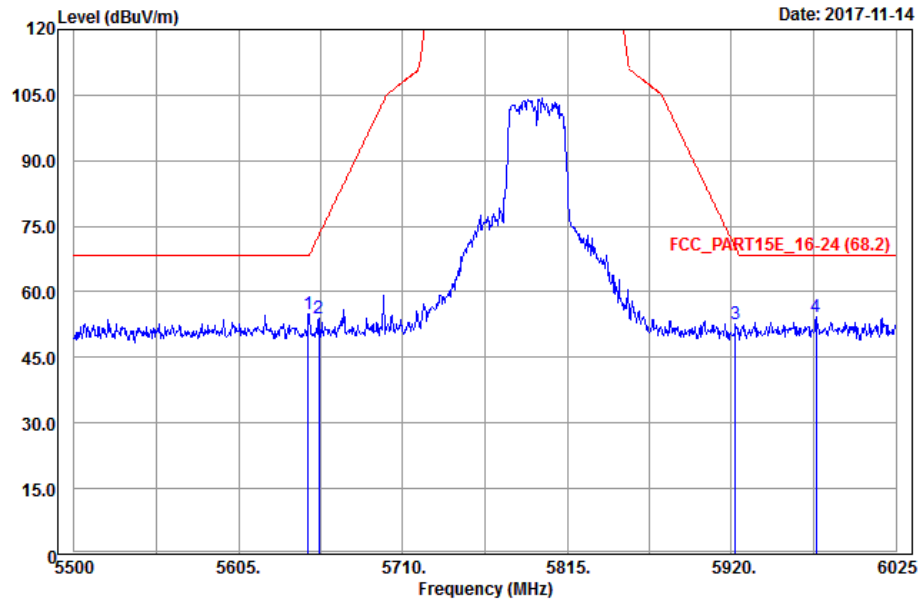
<Spurious Emission> Horizontal



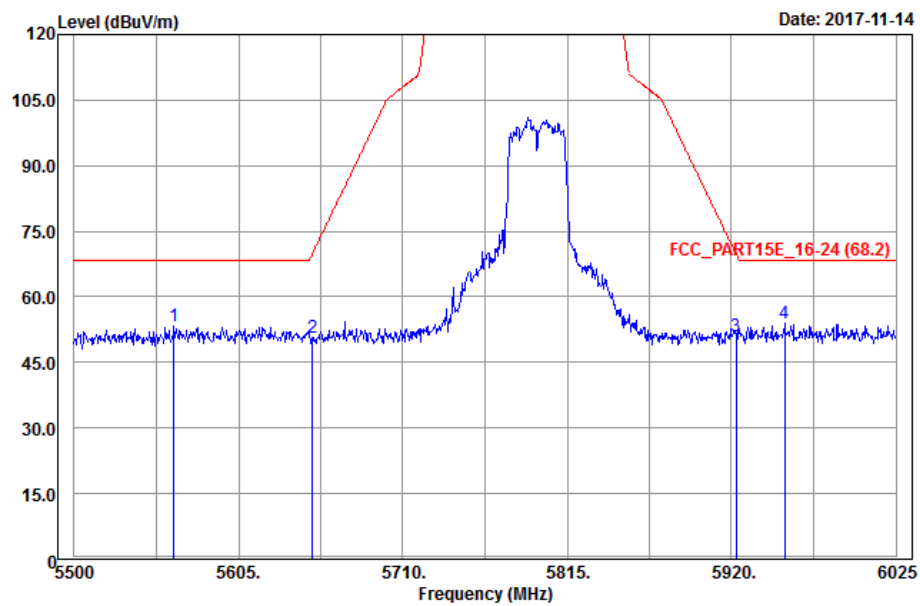
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5795	98.2	88.96			34.69	8.68	34.13	192	117	Average
5795	105.71	96.47			34.69	8.68	34.13	192	117	Peak
11590	46.2	30.83	54	-7.8	38.02	12.72	35.37	195	253	Average
11590	55.95	40.58	74	-18.05	38.02	12.72	35.37	195	253	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5795	93.99	84.75			34.69	8.68	34.13	286	121	Average
5795	101.38	92.14			34.69	8.68	34.13	286	121	Peak
11590	46.12	30.75	54	-7.88	38.02	12.72	35.37	142	166	Average
11590	55.81	40.44	74	-18.19	38.02	12.72	35.37	142	166	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5649.625	54.99	45.9	68.2	-13.21	34.56	8.62	34.09	192	117	Peak
5656.45	53.95	44.86	72.97	-19.02	34.56	8.63	34.1	192	117	Peak
5922.625	52.68	43.28	69.96	-17.28	34.83	8.73	34.16	192	117	Peak
*5974.075	54.37	44.91	68.2	-13.83	34.88	8.75	34.17	192	117	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5563.525	53.36	44.39	68.2	-14.84	34.45	8.59	34.07	286	121	Peak
5652.25	50.66	41.57	69.86	-19.2	34.56	8.62	34.09	286	121	Peak
5923.15	50.92	41.52	69.57	-18.65	34.83	8.73	34.16	286	121	Peak
*5954.125	53.85	44.42	68.2	-14.35	34.85	8.74	34.16	286	121	Peak

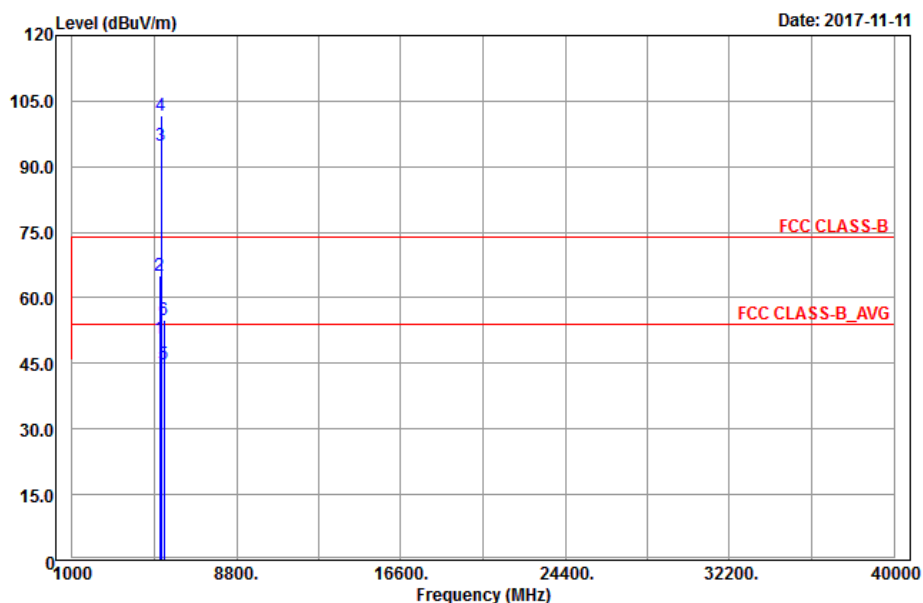
Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5795 MHz: Fundamental Frequency
3. *: Out of Restricted Band

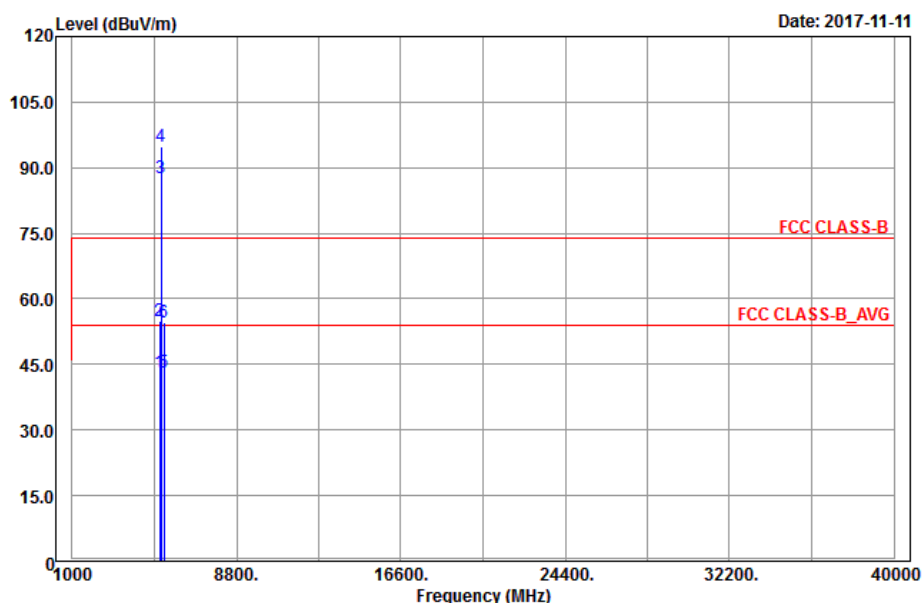
802.11ac (VHT80)

EUT Test Condition		Measurement Detail	
Channel	Channel 42	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



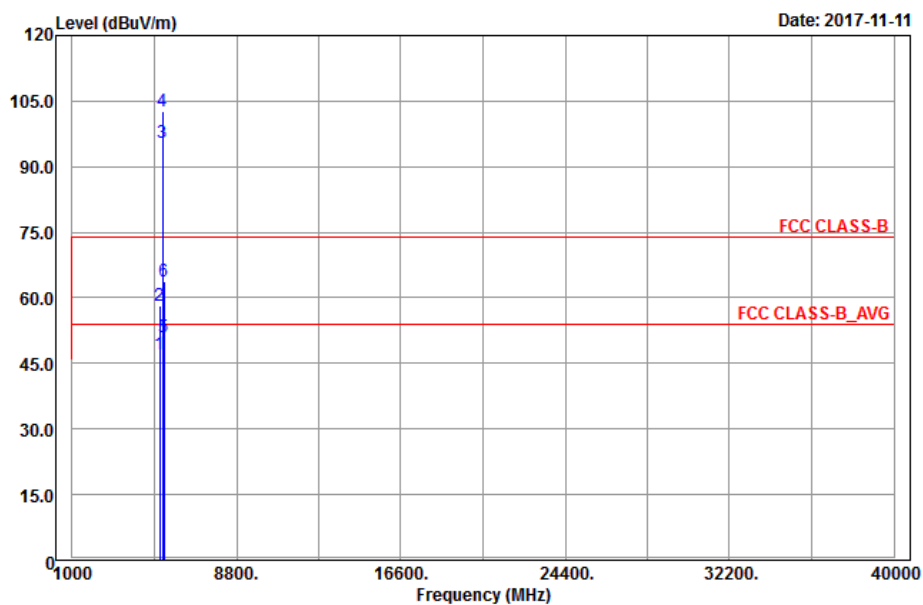
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.25	50.83	42.58	54	-3.17	34.12	8.13	34	225	280	Average
5149.25	65.23	56.98	74	-8.77	34.12	8.13	34	225	280	Peak
5210	94.66	86.3			34.17	8.19	34	228	280	Average
5210	101.68	93.32			34.17	8.19	34	228	280	Peak
5351.76	44.8	36.17	54	-9.2	34.28	8.38	34.03	225	280	Average
5351.76	54.82	46.19	74	-19.18	34.28	8.38	34.03	225	280	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5146.85	43.25	35	54	-10.75	34.12	8.13	34	100	239	Average
5146.85	54.8	46.55	74	-19.2	34.12	8.13	34	100	239	Peak
5210	87.49	79.13			34.17	8.19	34	100	239	Average
5210	94.78	86.42			34.17	8.19	34	100	239	Peak
5351.76	43.19	34.56	54	-10.81	34.28	8.38	34.03	100	239	Average
5351.76	54.54	45.91	74	-19.46	34.28	8.38	34.03	100	239	Peak

Remarks:

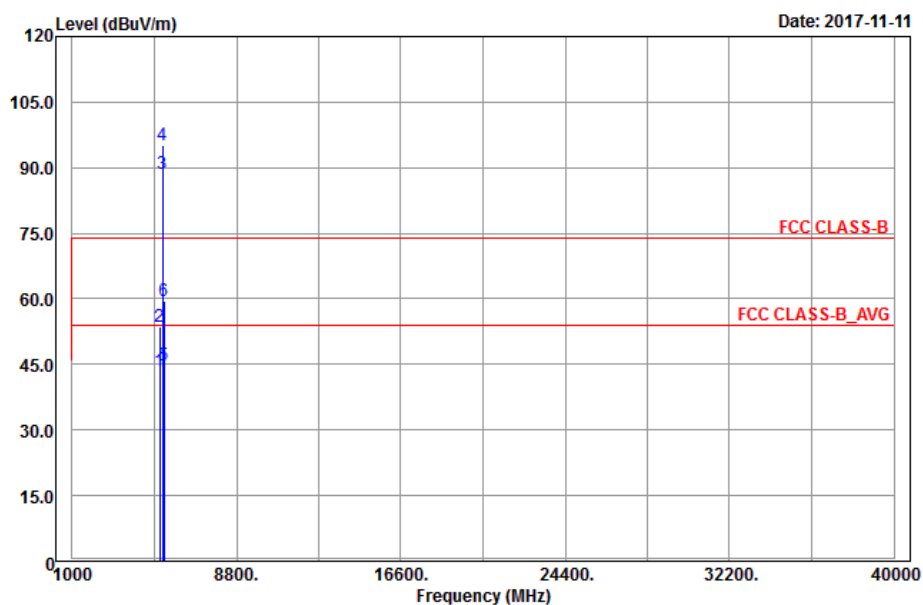
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5210 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 58	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



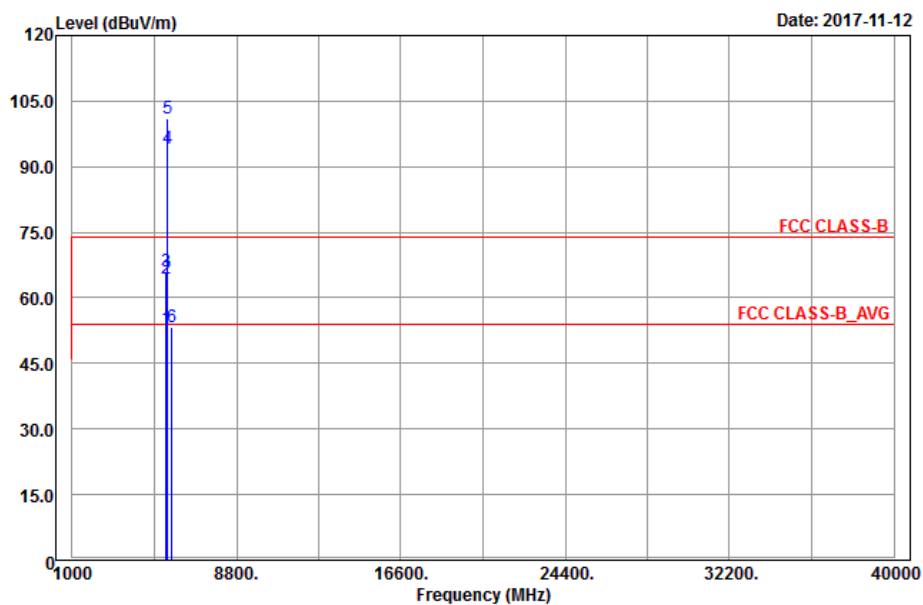
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.55	47.07	38.82	54	-6.93	34.12	8.13	34	228	281	Average
5149.55	58.11	49.86	74	-15.89	34.12	8.13	34	228	281	Peak
5290	95.55	87.02	54	41.55	34.23	8.32	34.02	228	281	Average
5290	102.65	94.12	74	28.65	34.23	8.32	34.02	228	281	Peak
5350.88	51.13	42.5	54	-2.87	34.28	8.38	34.03	233	281	Average
5350.88	63.7	55.07	74	-10.3	34.28	8.38	34.03	233	281	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5148.5	43.54	35.29	54	-10.46	34.12	8.13	34	100	240	Average
5148.5	53.57	45.32	74	-20.43	34.12	8.13	34	100	240	Peak
5290	88.74	80.21	54	34.74	34.23	8.32	34.02	100	240	Average
5290	95.08	86.55	74	21.08	34.23	8.32	34.02	100	240	Peak
5350.22	44.88	36.25	54	-9.12	34.28	8.38	34.03	100	240	Average
5350.22	59.41	50.78	74	-14.59	34.28	8.38	34.03	100	240	Peak

Remarks:

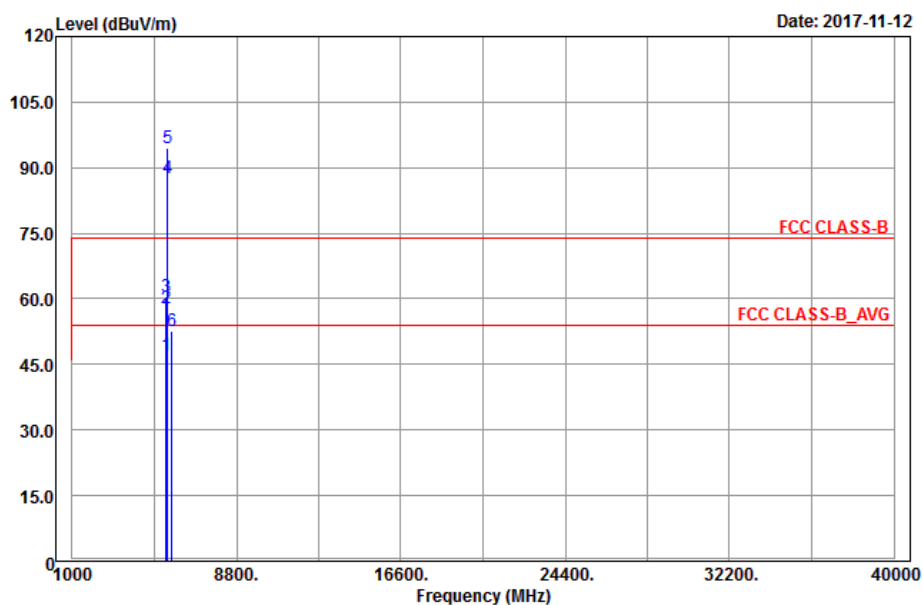
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5290 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 106	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



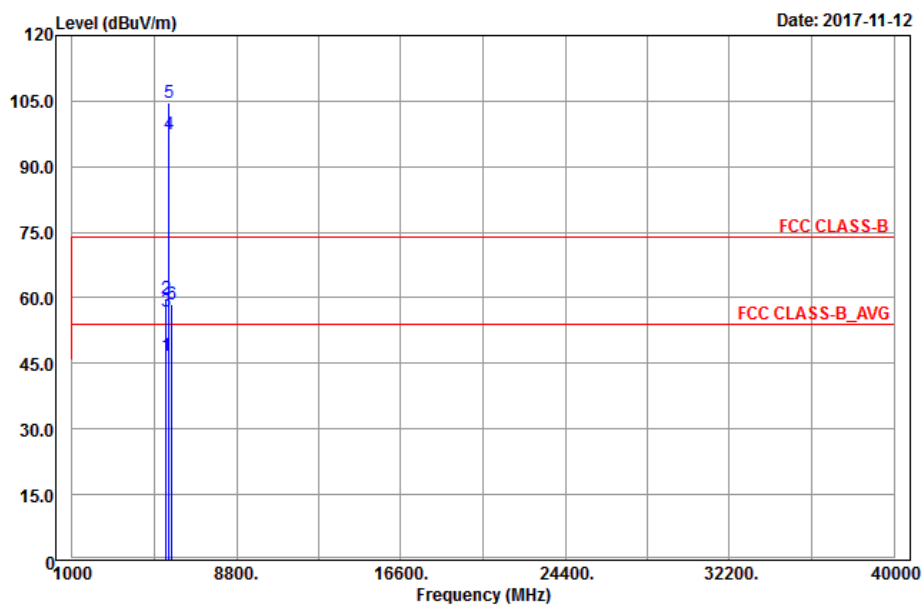
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5459.12	53	44.18	54	-1	34.36	8.51	34.05	228	286	Average
5459.12	64.57	55.75	74	-9.43	34.36	8.51	34.05	228	286	Peak
*5469.36	66.01	57.18	68.2	-2.19	34.37	8.51	34.05	228	286	Peak
5530	94.19	85.26	54	40.19	34.42	8.58	34.07	228	285	Average
5530	101	92.07	74	27	34.42	8.58	34.07	228	285	Peak
*5725.32	53.32	44.16	68.2	-14.88	34.62	8.65	34.11	228	285	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5458	47.14	38.32	54	-6.86	34.36	8.51	34.05	247	113	Average
5458	57.83	49.01	74	-16.17	34.36	8.51	34.05	247	113	Peak
*5470.96	60.45	51.59	68.2	-7.75	34.37	8.54	34.05	247	113	Peak
5530	87.49	78.56	54	33.49	34.42	8.58	34.07	247	113	Average
5530	94.58	85.65	74	20.58	34.42	8.58	34.07	247	113	Peak
*5725.16	52.49	43.33	68.2	-15.71	34.62	8.65	34.11	247	113	Peak

Remarks:

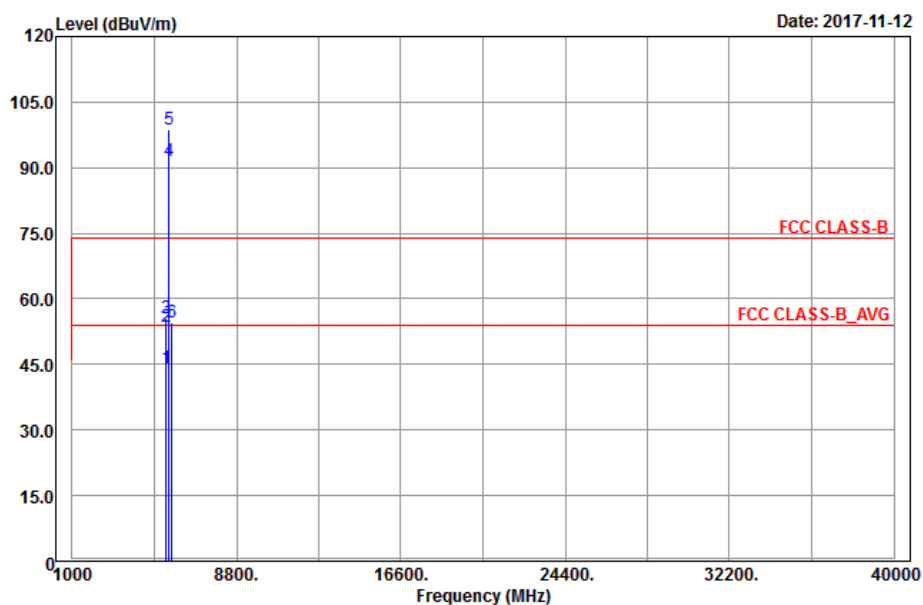
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5530 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 122	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



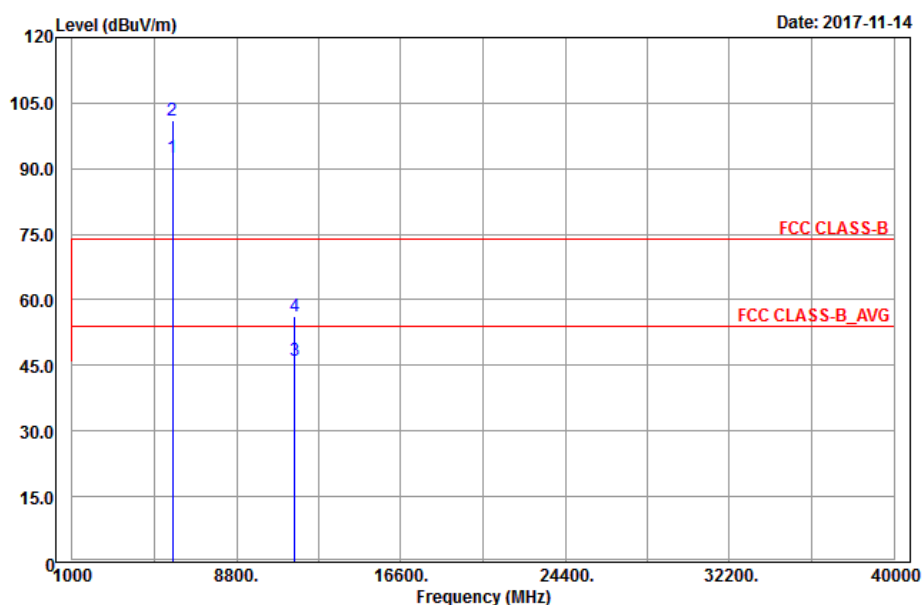
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5459.76	46.89	38.07	54	-7.11	34.36	8.51	34.05	228	285	Average
5459.76	59.78	50.96	74	-14.22	34.36	8.51	34.05	228	285	Peak
5468.88	56.89	48.06	68.2	-11.31	34.37	8.51	34.05	228	285	Peak
5610	97.58	88.55	54	43.58	34.5	8.61	34.08	228	285	Average
5610	104.67	95.64	74	30.67	34.5	8.61	34.08	228	285	Peak
5725.72	58.45	49.29	68.2	-9.75	34.62	8.65	34.11	228	285	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5459.92	44.17	35.35	54	-9.83	34.36	8.51	34.05	247	113	Average
5459.92	53.68	44.86	74	-20.32	34.36	8.51	34.05	247	113	Peak
5468.4	55.54	46.71	68.2	-12.66	34.37	8.51	34.05	247	113	Peak
5610	91.58	82.55	54	37.58	34.5	8.61	34.08	247	113	Average
5610	98.72	89.69	74	24.72	34.5	8.61	34.08	247	113	Peak
5724.36	54.56	45.4	68.2	-13.64	34.62	8.65	34.11	247	113	Peak

Remarks:

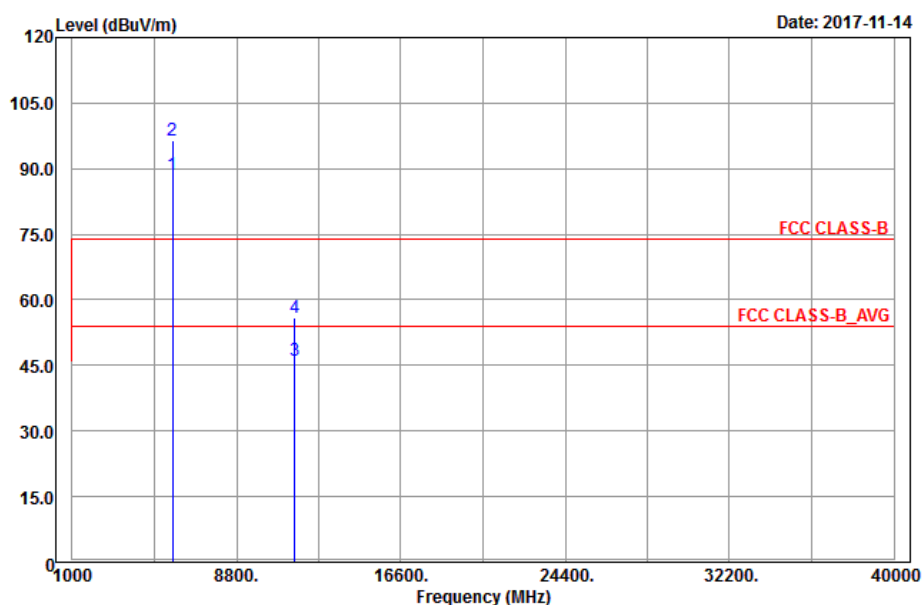
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5610 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 155	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

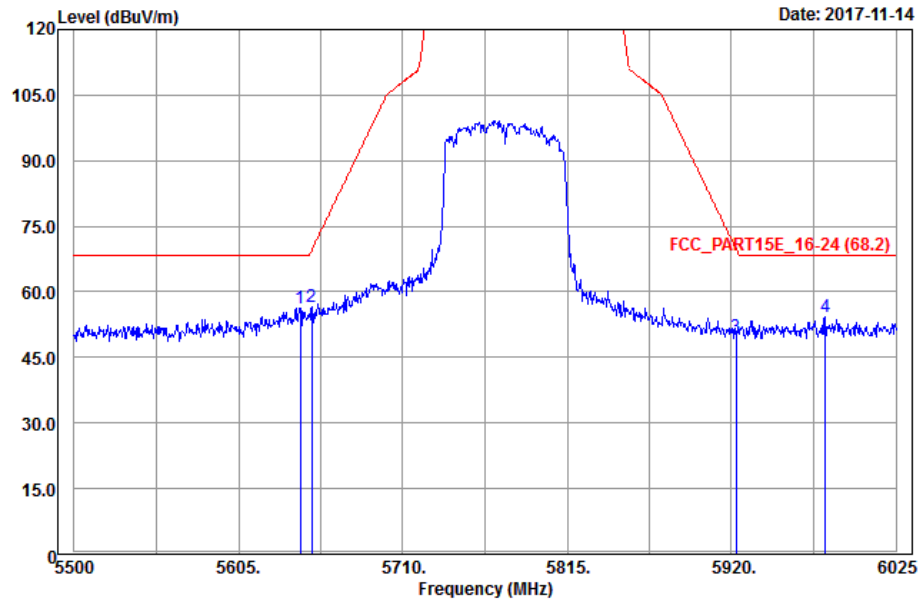
<Spurious Emission> Horizontal



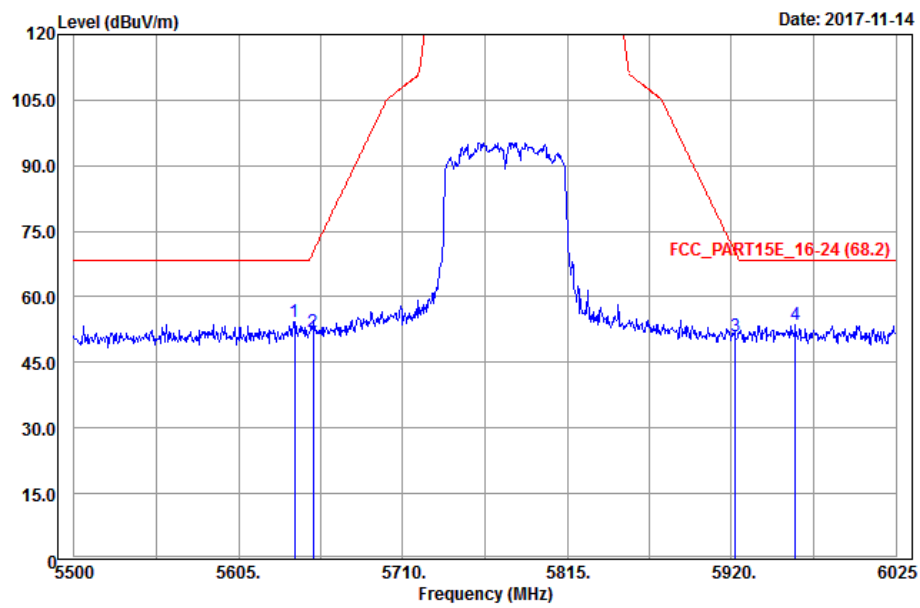
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5775	92.66	83.43			34.68	8.67	34.12	192	117	Average
5775	100.99	91.76			34.68	8.67	34.12	192	117	Peak
11550	46.13	30.86	54	-7.87	37.97	12.68	35.38	195	127	Average
11550	56.08	40.81	74	-17.92	37.97	12.68	35.38	195	127	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5775	88.7	79.47			34.68	8.67	34.12	286	121	Average
5775	96.53	87.3			34.68	8.67	34.12	286	121	Peak
11550	46.01	30.74	54	-7.99	37.97	12.68	35.38	123	186	Average
11550	55.84	40.57	74	-18.16	37.97	12.68	35.38	123	186	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5644.375	56.28	47.21	68.2	-11.92	34.54	8.62	34.09	192	117	Peak
5651.725	56.62	47.53	69.48	-12.86	34.56	8.62	34.09	192	117	Peak
5923.15	49.73	40.33	69.57	-19.84	34.83	8.73	34.16	192	117	Peak
*5979.85	54.12	44.66	68.2	-14.08	34.88	8.75	34.17	192	117	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5640.7	54.27	45.2	68.2	-13.93	34.54	8.62	34.09	286	121	Peak
5652.775	51.89	42.79	70.25	-18.36	34.56	8.63	34.09	286	121	Peak
5922.625	50.87	41.47	69.96	-19.09	34.83	8.73	34.16	286	121	Peak
*5960.95	53.76	44.32	68.2	-14.44	34.87	8.74	34.17	286	121	Peak

Remarks:

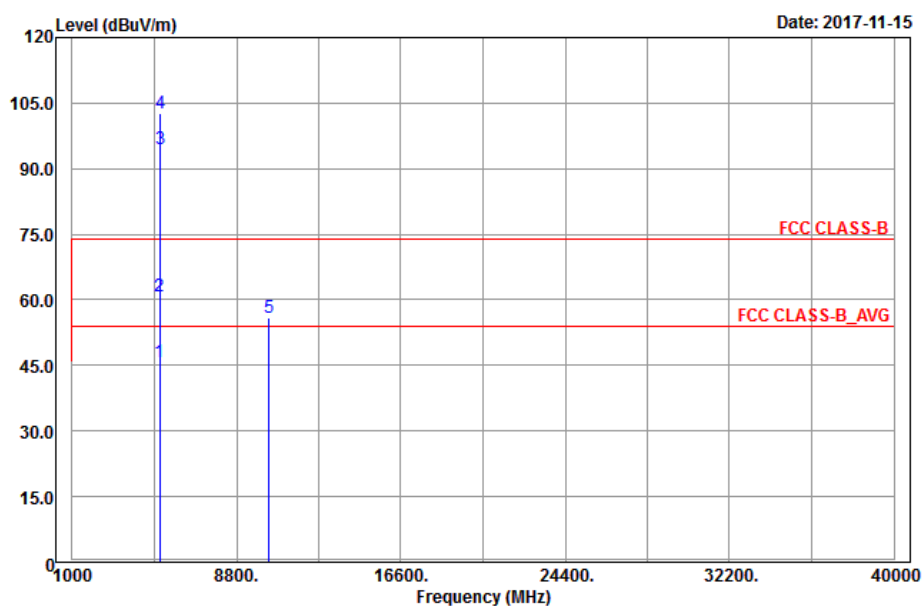
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5775 MHz: Fundamental Frequency
3. *: Out of Restricted Band

Mode B

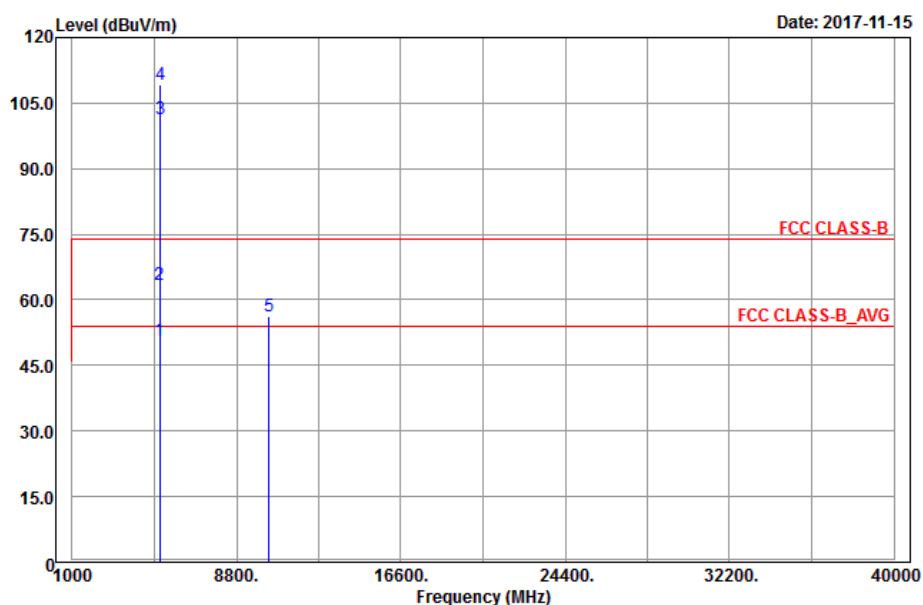
802.11a

EUT Test Condition		Measurement Detail	
Channel	Channel 36	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



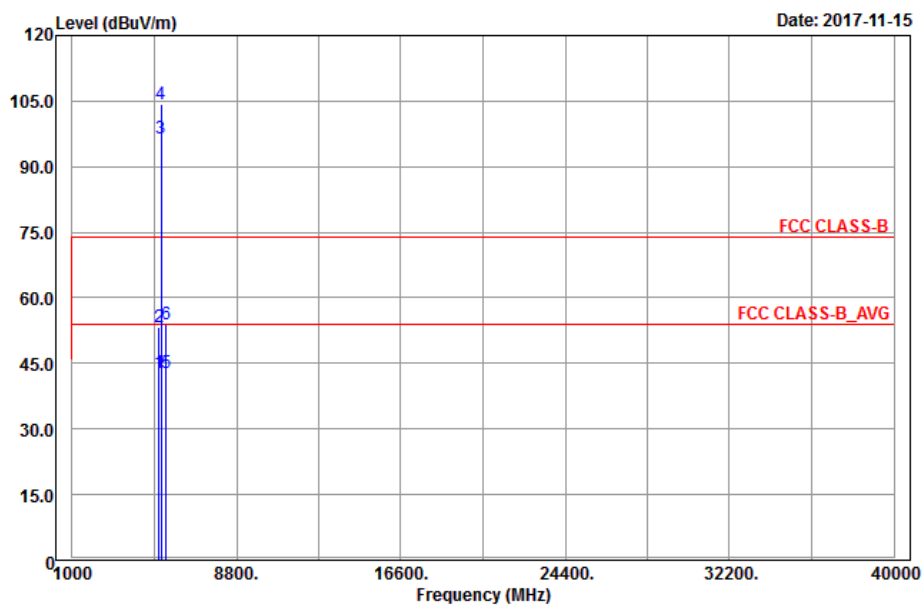
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5148.65	45.9	37.65	54	-8.1	34.12	8.13	34	200	321	Average
5148.65	60.8	52.55	74	-13.2	34.12	8.13	34	200	321	Peak
5180	94.62	86.31			34.15	8.16	34	200	321	Average
5180	102.73	94.42			34.15	8.16	34	200	321	Peak
*10360	55.98	41.68	68.2	-12.22	37.12	12.3	35.12	159	112	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.55	50.84	42.59	54	-3.16	34.12	8.13	34	192	336	Average
5149.55	63.32	55.07	74	-10.68	34.12	8.13	34	192	336	Peak
5180	101.49	93.18			34.15	8.16	34	170	337	Average
5180	109.17	100.86			34.15	8.16	34	170	337	Peak
*10360	56.28	41.98	68.2	-11.92	37.12	12.3	35.12	141	326	Peak

Remarks:

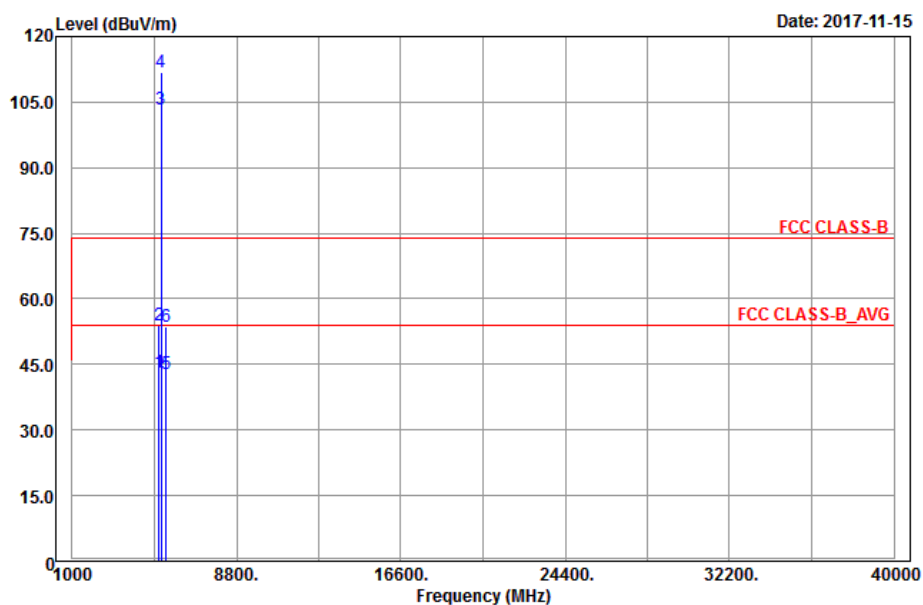
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5180 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 44	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



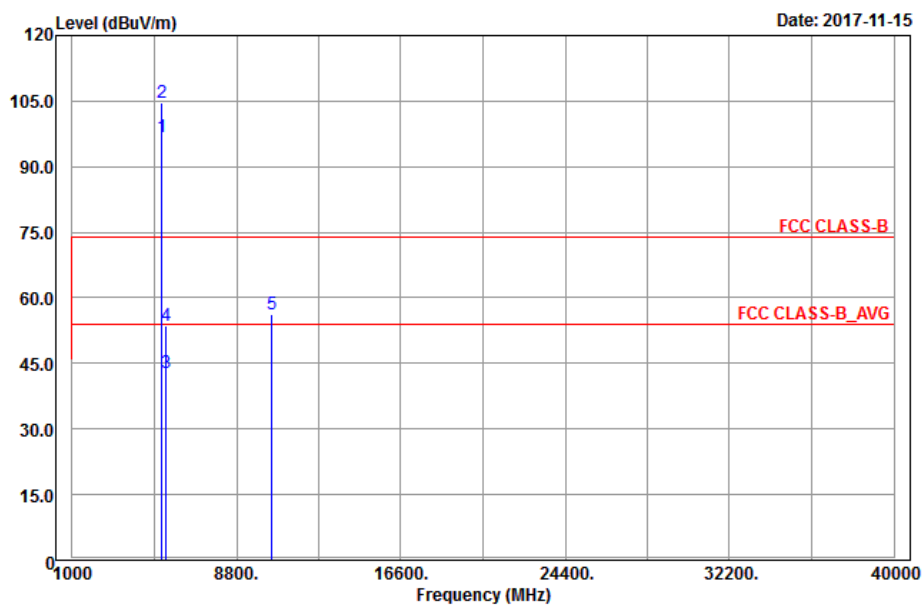
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5130.5	42.69	34.47	54	-11.31	34.11	8.1	33.99	200	321	Average
5130.5	53.18	44.96	74	-20.82	34.11	8.1	33.99	200	321	Peak
5220	96.35	87.96			34.17	8.22	34	200	321	Average
5220	104.29	95.9			34.17	8.22	34	200	321	Peak
5446.25	42.76	33.93	54	-11.24	34.36	8.51	34.04	200	321	Average
5446.25	53.94	45.11	74	-20.06	34.36	8.51	34.04	200	321	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5123.75	43.05	34.83	54	-10.95	34.11	8.1	33.99	170	337	Average
5123.75	54.11	45.89	74	-19.89	34.11	8.1	33.99	170	337	Peak
5220	103.25	94.86			34.17	8.22	34	170	337	Average
5220	111.83	103.44			34.17	8.22	34	170	337	Peak
5443.72	42.82	34.03	54	-11.18	34.35	8.48	34.04	170	337	Average
5443.72	53.61	44.82	74	-20.39	34.35	8.48	34.04	170	337	Peak

Remarks:

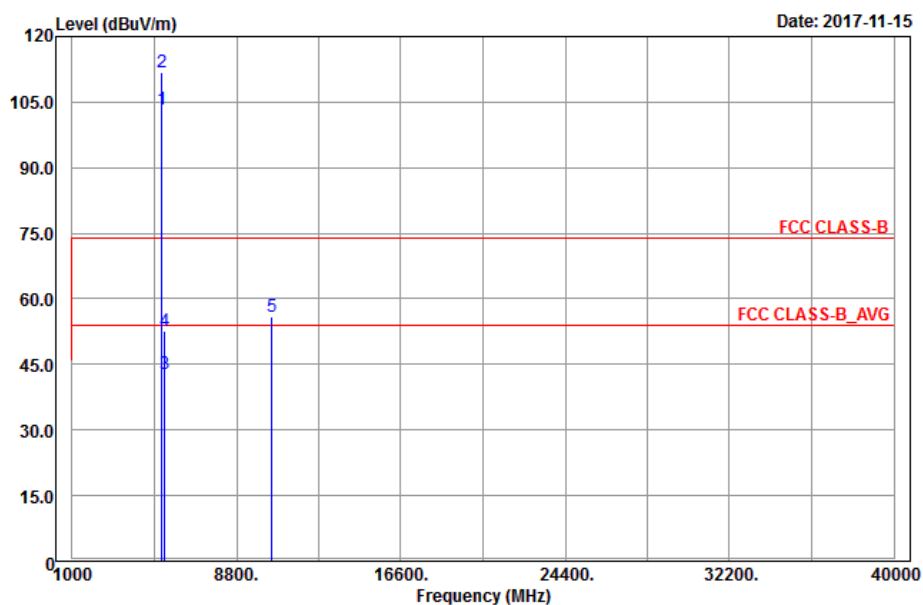
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5220 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 48	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



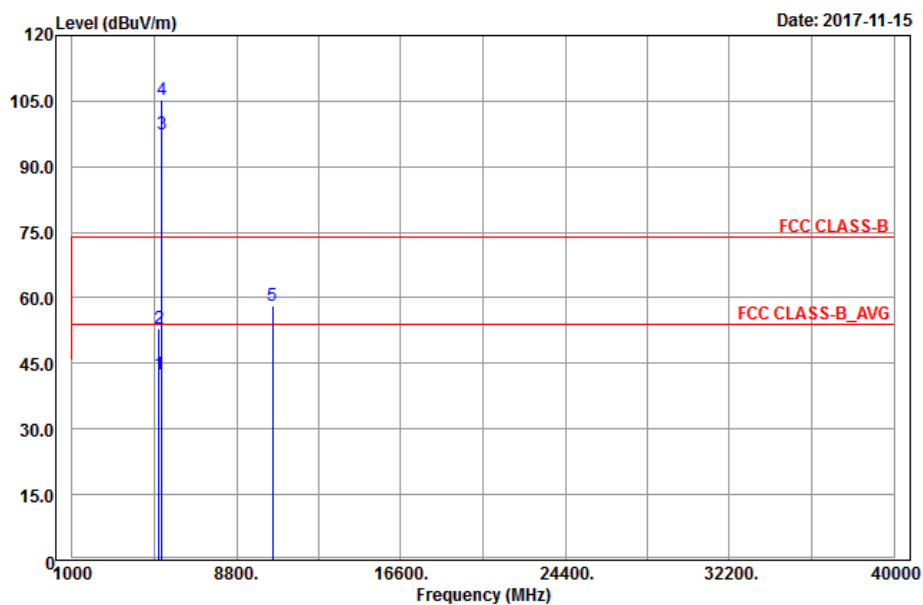
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5240	96.65	88.21			34.19	8.26	34.01	200	321	Average
5240	104.57	96.13			34.19	8.26	34.01	200	321	Peak
5443.94	42.7	33.91	54	-11.3	34.35	8.48	34.04	200	321	Average
5443.94	53.79	45	74	-20.21	34.35	8.48	34.04	200	321	Peak
*10480	56.09	41.58	68.2	-12.11	37.19	12.53	35.21	105	78	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5240	103.24	94.8			34.19	8.26	34.01	170	337	Average
5240	111.76	103.32			34.19	8.26	34.01	170	337	Peak
5381.13	42.73	34.05	54	-11.27	34.31	8.41	34.04	170	337	Average
5381.13	52.78	44.1	74	-21.22	34.31	8.41	34.04	170	337	Peak
*10480	55.88	41.37	68.2	-12.32	37.19	12.53	35.21	158	119	Peak

Remarks:

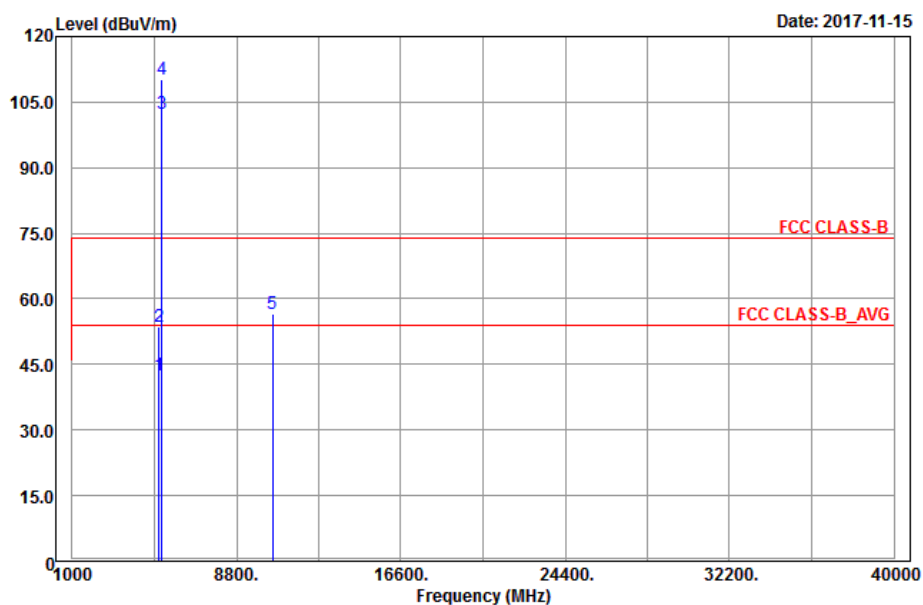
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5240 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 52	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



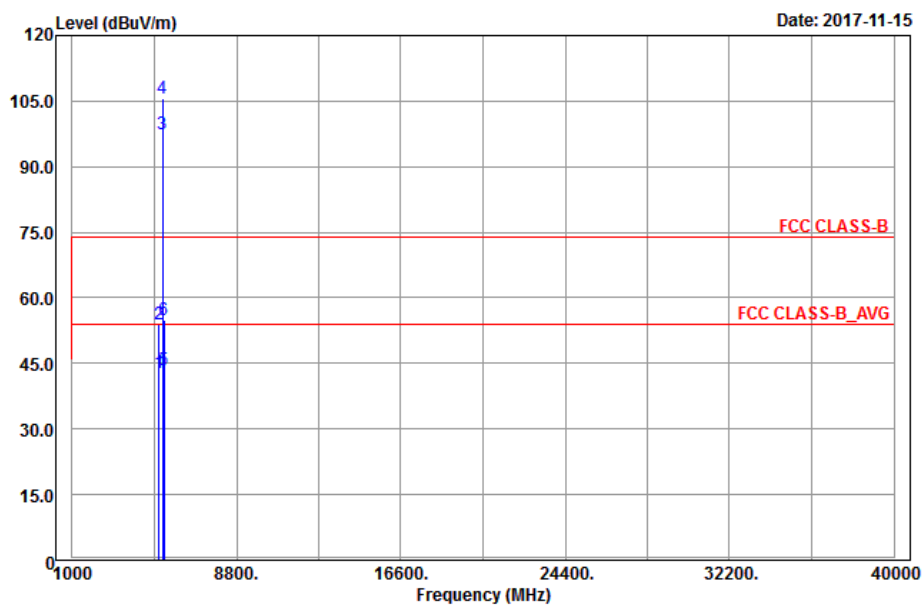
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5121.05	42.63	34.43	54	-11.37	34.09	8.1	33.99	198	335	Average
5121.05	53.05	44.85	74	-20.95	34.09	8.1	33.99	198	335	Peak
5260	97.49	89.03			34.21	8.26	34.01	198	335	Average
5260	105.35	96.89			34.21	8.26	34.01	198	335	Peak
*10520	58.17	43.58	68.2	-10.03	37.21	12.61	35.23	188	231	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5136.65	42.67	34.42	54	-11.33	34.11	8.13	33.99	115	39	Average
5136.65	53.51	45.26	74	-20.49	34.11	8.13	33.99	115	39	Peak
5260	102.25	93.79			34.21	8.26	34.01	115	39	Average
5260	110.23	101.77			34.21	8.26	34.01	115	39	Peak
*10520	56.55	41.96	68.2	-11.65	37.21	12.61	35.23	172	164	Peak

Remarks:

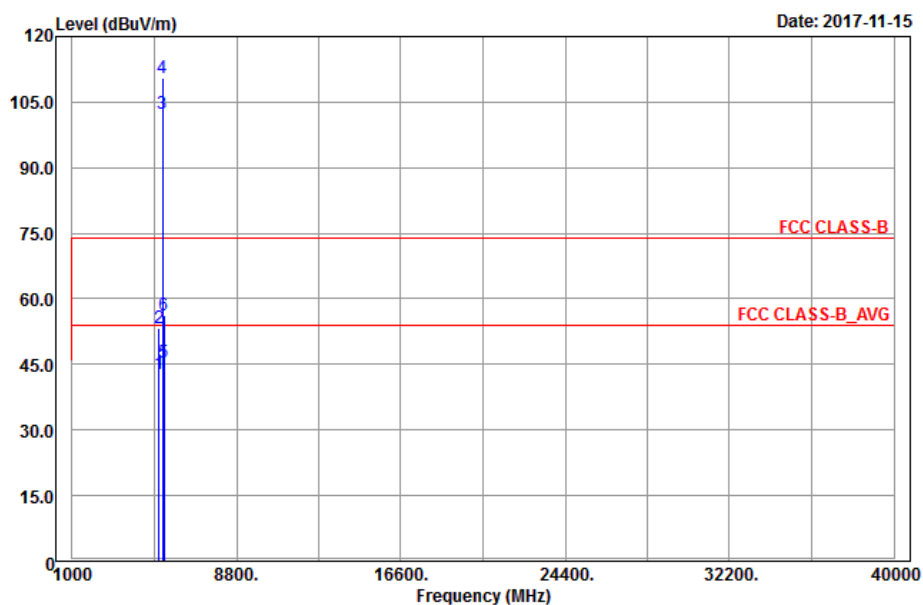
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5260 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 60	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



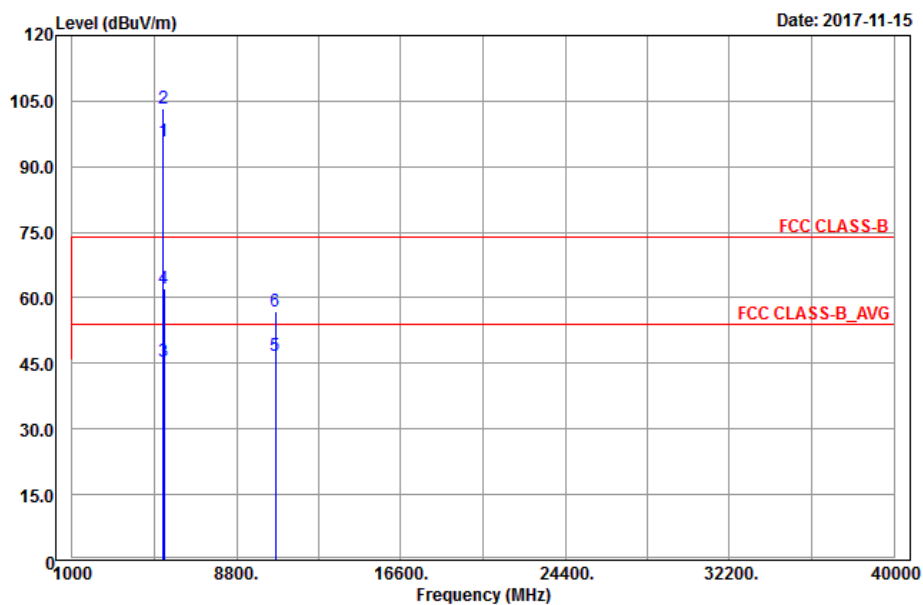
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5135.45	42.74	34.49	54	-11.26	34.11	8.13	33.99	198	335	Average
5135.45	53.88	45.63	74	-20.12	34.11	8.13	33.99	198	335	Peak
5300	97.43	88.89			34.24	8.32	34.02	198	335	Average
5300	105.76	97.22			34.24	8.32	34.02	198	335	Peak
5350.66	43.54	34.91	54	-10.46	34.28	8.38	34.03	198	335	Average
5350.66	55.09	46.46	74	-18.91	34.28	8.38	34.03	198	335	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5137.1	42.8	34.55	54	-11.2	34.11	8.13	33.99	115	39	Average
5137.1	53.29	45.04	74	-20.71	34.11	8.13	33.99	115	39	Peak
5300	102.28	93.74			34.24	8.32	34.02	115	39	Average
5300	110.48	101.94			34.24	8.32	34.02	115	39	Peak
5350	45.29	36.66	54	-8.71	34.28	8.38	34.03	115	39	Average
5350	56.17	47.54	74	-17.83	34.28	8.38	34.03	115	39	Peak

Remarks:

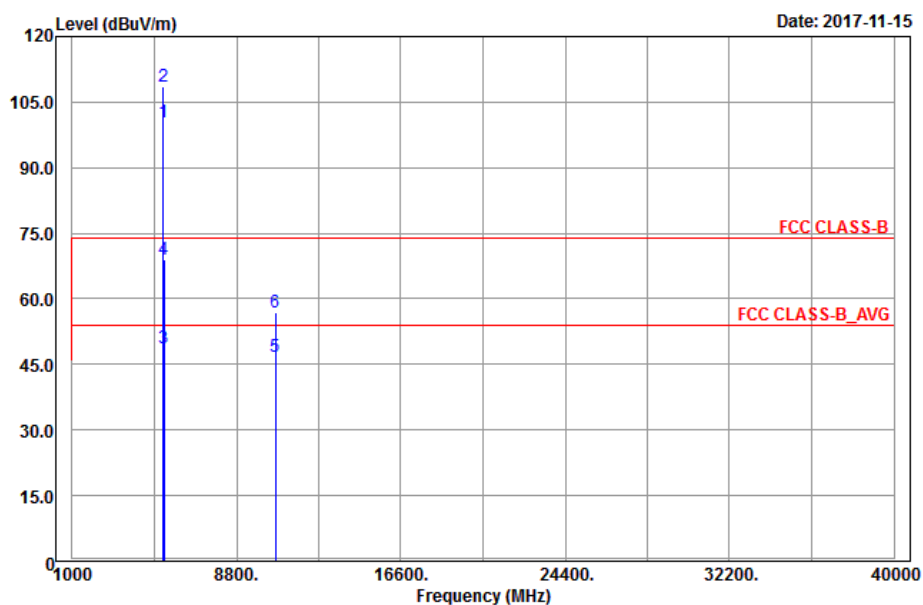
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5300 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 64	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



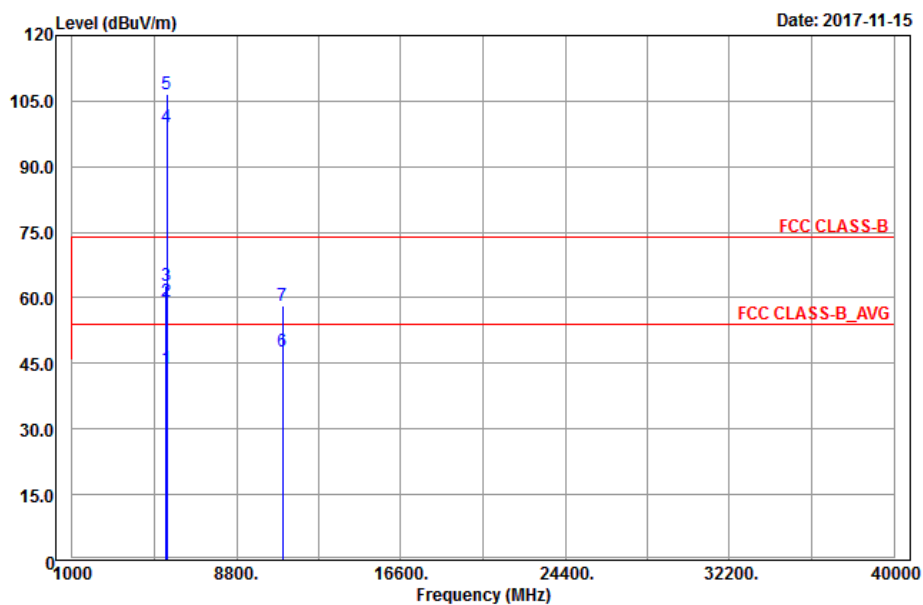
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5320	95.88	87.3			34.25	8.35	34.02	198	335	Average
5320	103.24	94.66			34.25	8.35	34.02	198	335	Peak
5350.44	45.35	36.72	54	-8.65	34.28	8.38	34.03	198	335	Average
5350.44	61.97	53.34	74	-12.03	34.28	8.38	34.03	198	335	Peak
10640	46.75	32.02	54	-7.25	37.31	12.71	35.29	186	322	Average
10640	57.04	42.31	74	-16.96	37.31	12.71	35.29	186	322	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5320	100.36	91.78			34.25	8.35	34.02	115	39	Average
5320	108.43	99.85			34.25	8.35	34.02	115	39	Peak
5350.99	48.62	39.99	54	-5.38	34.28	8.38	34.03	116	40	Average
5350.99	69.01	60.38	74	-4.99	34.28	8.38	34.03	116	40	Peak
10640	46.83	32.1	54	-7.17	37.31	12.71	35.29	123	108	Average
10640	56.78	42.05	74	-17.22	37.31	12.71	35.29	123	108	Peak

Remarks:

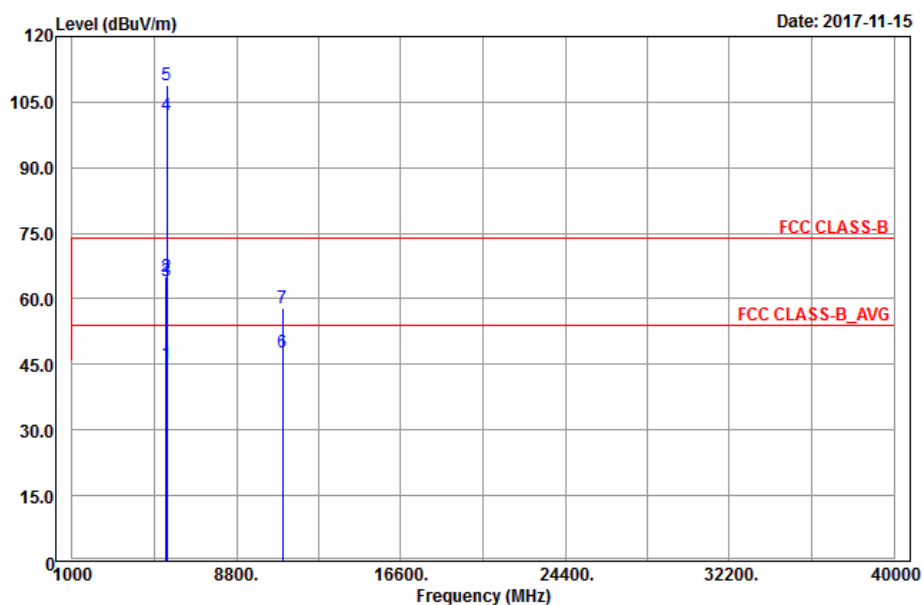
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5320 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 100	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



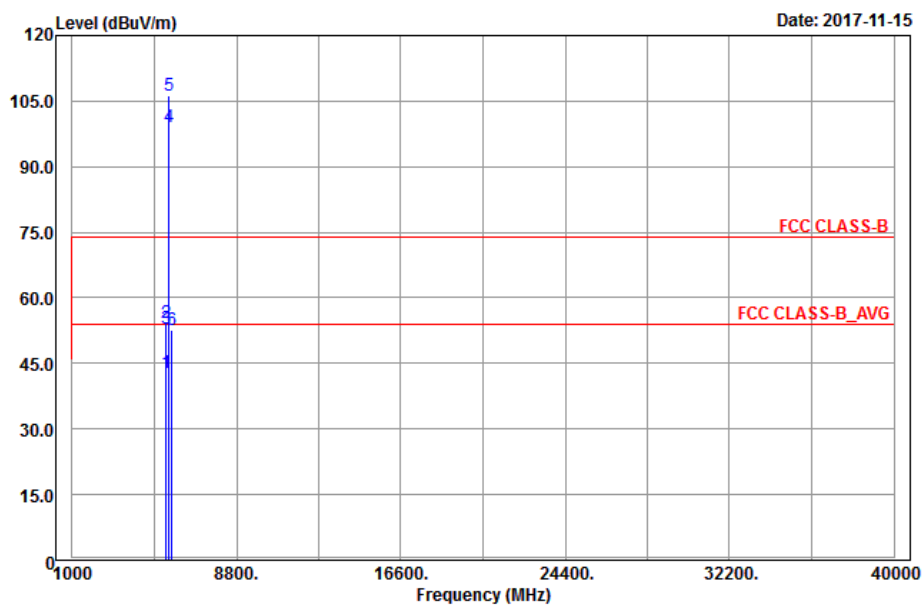
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5459.92	43.88	35.06	54	-10.12	34.36	8.51	34.05	248	107	Average
5459.92	59.08	50.26	74	-14.92	34.36	8.51	34.05	248	107	Peak
*5469.68	62.76	53.93	68.2	-5.44	34.37	8.51	34.05	248	107	Peak
5500	99.15	90.23			34.4	8.57	34.05	260	128	Average
5500	106.52	97.6			34.4	8.57	34.05	260	128	Peak
11000	47.75	32.67	54	-6.25	37.6	12.96	35.48	126	304	Average
11000	58.12	43.04	74	-15.88	37.6	12.96	35.48	126	304	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5459.92	45.16	36.34	54	-8.84	34.36	8.51	34.05	137	329	Average
5459.92	65.13	56.31	74	-8.87	34.36	8.51	34.05	137	329	Peak
*5468.08	63.93	55.1	68.2	-4.27	34.37	8.51	34.05	137	329	Peak
5500	102	93.08			34.4	8.57	34.05	139	341	Average
5500	109.03	100.11			34.4	8.57	34.05	139	341	Peak
11000	47.65	32.57	54	-6.35	37.6	12.96	35.48	136	185	Average
11000	57.91	42.83	74	-16.09	37.6	12.96	35.48	136	185	Peak

Remarks:

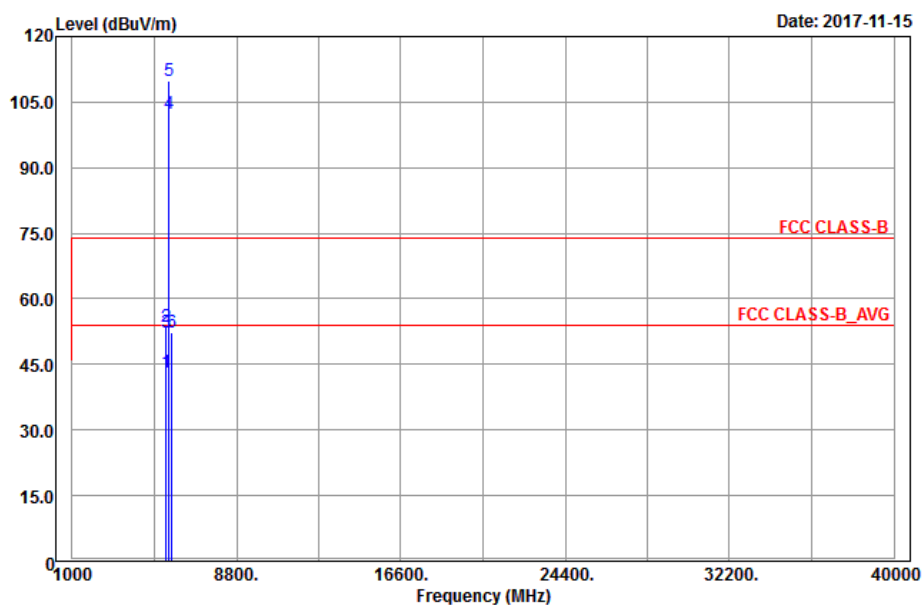
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5500 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 116	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



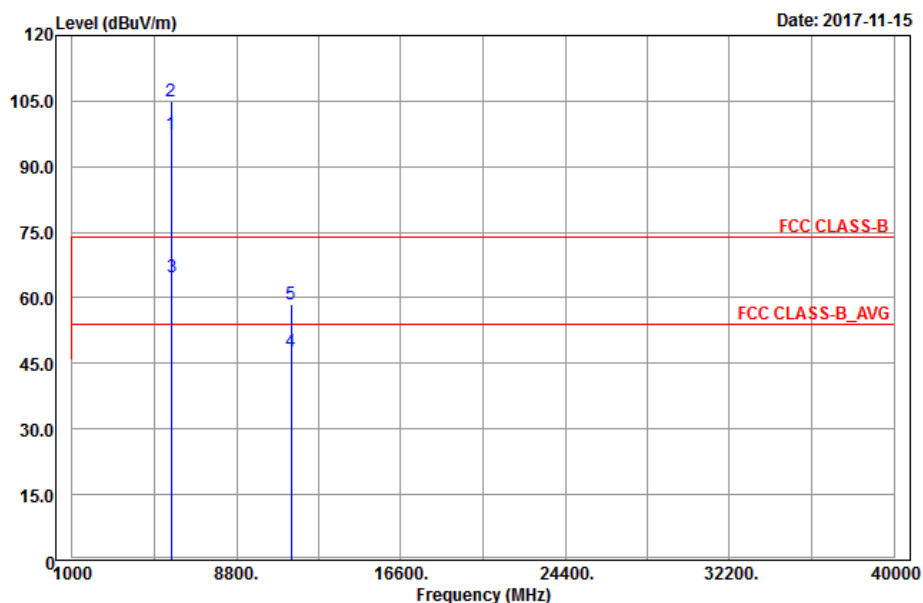
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5454.64	42.75	33.93	54	-11.25	34.36	8.51	34.05	281	116	Average
5454.64	54.28	45.46	74	-19.72	34.36	8.51	34.05	281	116	Peak
*5468.72	52.9	44.07	68.2	-15.3	34.37	8.51	34.05	281	116	Peak
5580	98.93	89.94			34.47	8.6	34.08	281	116	Average
5580	106.2	97.21			34.47	8.6	34.08	281	116	Peak
*5725.72	52.62	43.46	68.2	-15.58	34.62	8.65	34.11	281	116	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5450.64	43.03	34.21	54	-10.97	34.36	8.51	34.05	136	342	Average
5450.64	53.49	44.67	74	-20.51	34.36	8.51	34.05	136	342	Peak
*5470.16	52.26	43.43	68.2	-15.94	34.37	8.51	34.05	136	342	Peak
5580	102.36	93.37			34.47	8.6	34.08	136	342	Average
5580	109.7	100.71			34.47	8.6	34.08	136	342	Peak
*5726.04	52.38	43.22	68.2	-15.82	34.62	8.65	34.11	136	342	Peak

Remarks:

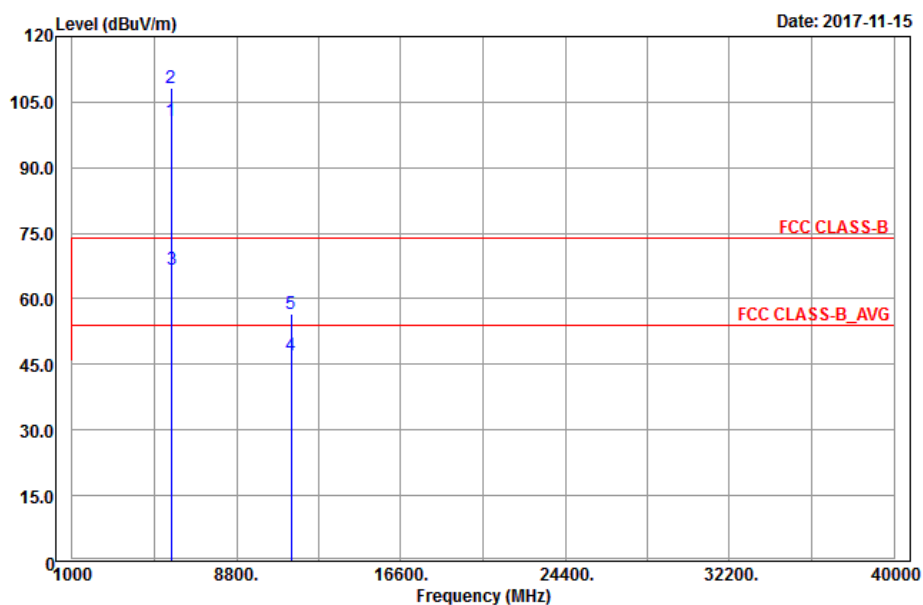
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5580 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 140	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



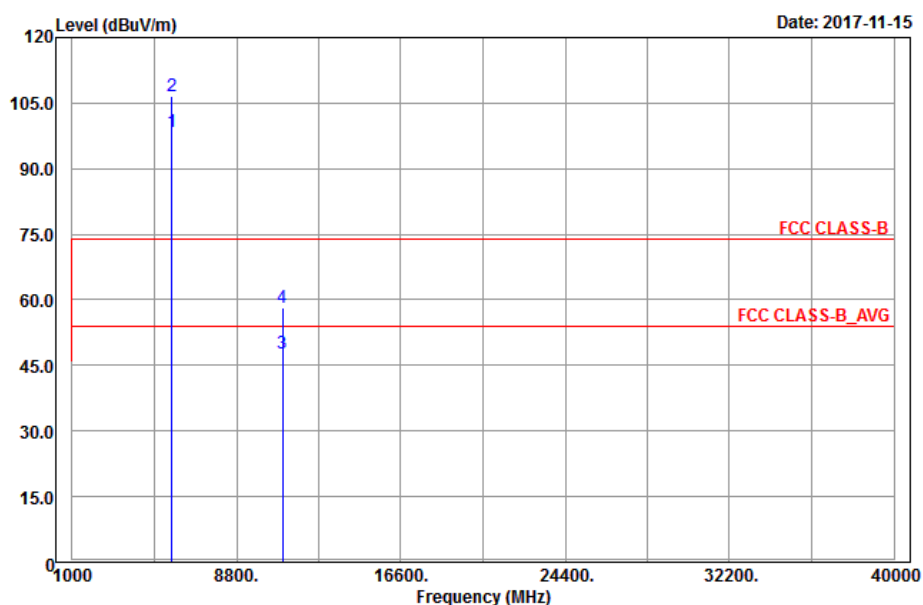
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5700	97.59	88.46			34.59	8.64	34.1	278	116	Average
5700	105.05	95.92			34.59	8.64	34.1	278	116	Peak
*5725.16	64.88	55.72	68.2	-3.32	34.62	8.65	34.11	269	125	Peak
11400	47.85	32.75	54	-6.15	37.84	12.67	35.41	157	63	Average
11400	58.66	43.56	74	-15.34	37.84	12.67	35.41	157	63	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5700	100.79	91.66			34.59	8.64	34.1	132	342	Average
5700	108.11	98.98			34.59	8.64	34.1	132	342	Peak
*5724.84	66.54	57.38	68.2	-1.66	34.62	8.65	34.11	123	317	Peak
11400	47.11	32.01	54	-6.89	37.84	12.67	35.41	158	127	Average
11400	56.63	41.53	74	-17.37	37.84	12.67	35.41	158	127	Peak

Remarks:

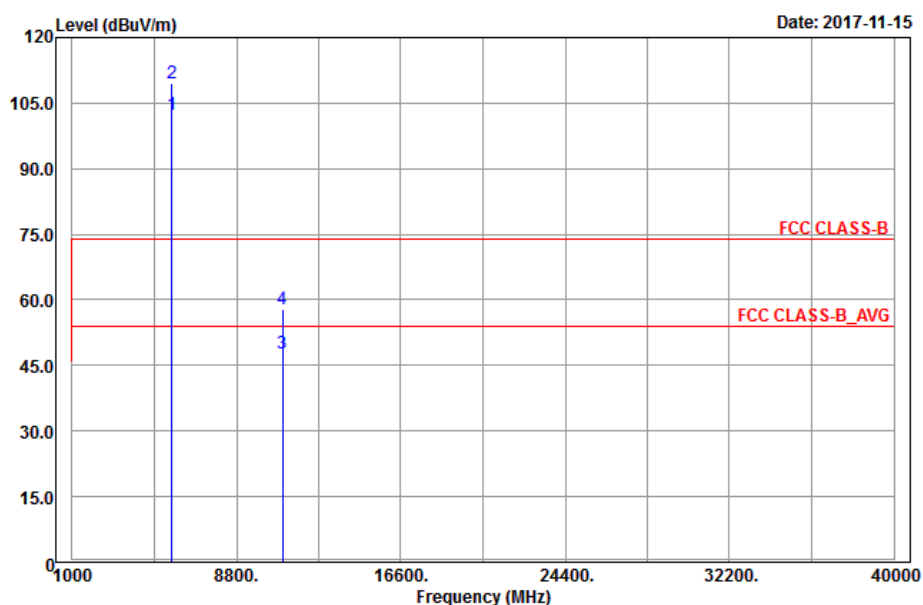
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5700 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 149	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

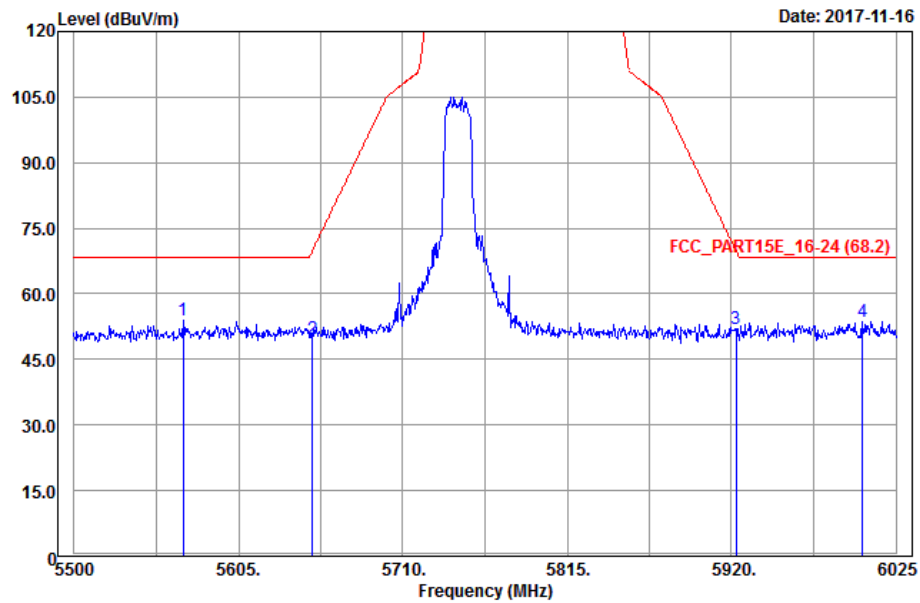
<Spurious Emission> Horizontal



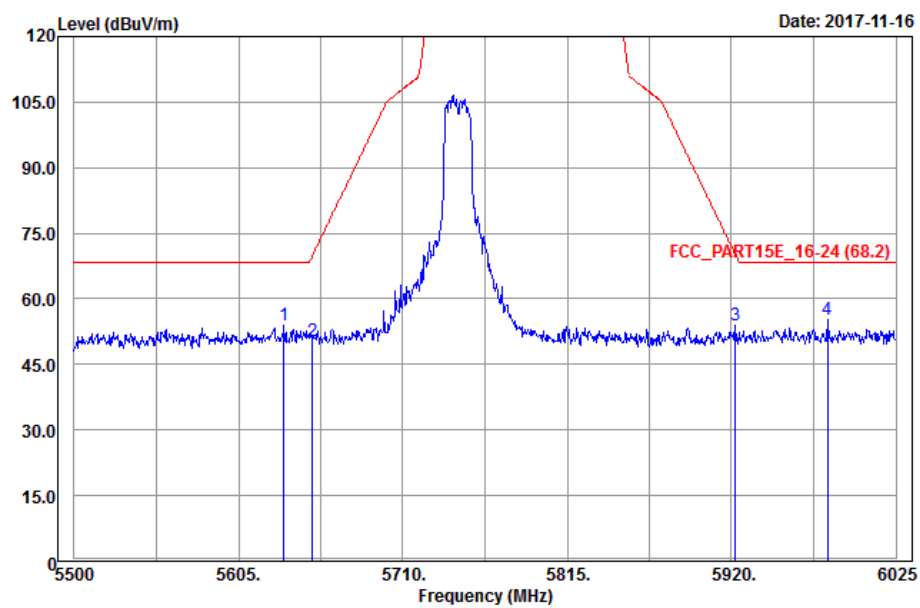
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5745	98.4	89.21			34.64	8.66	34.11	273	115	Average
5745	106.62	97.43			34.64	8.66	34.11	273	115	Peak
11000	47.75	32.67	54	-6.25	37.6	12.96	35.48	126	304	Average
11000	58.12	43.04	74	-15.88	37.6	12.96	35.48	126	304	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5745	102.28	93.09			34.64	8.66	34.11	120	343	Average
5745	109.63	100.44			34.64	8.66	34.11	120	343	Peak
11000	47.65	32.57	54	-6.35	37.6	12.96	35.48	136	185	Average
11000	57.91	42.83	74	-16.09	37.6	12.96	35.48	136	185	Peak

<Out of Band Emission (OOBE)>

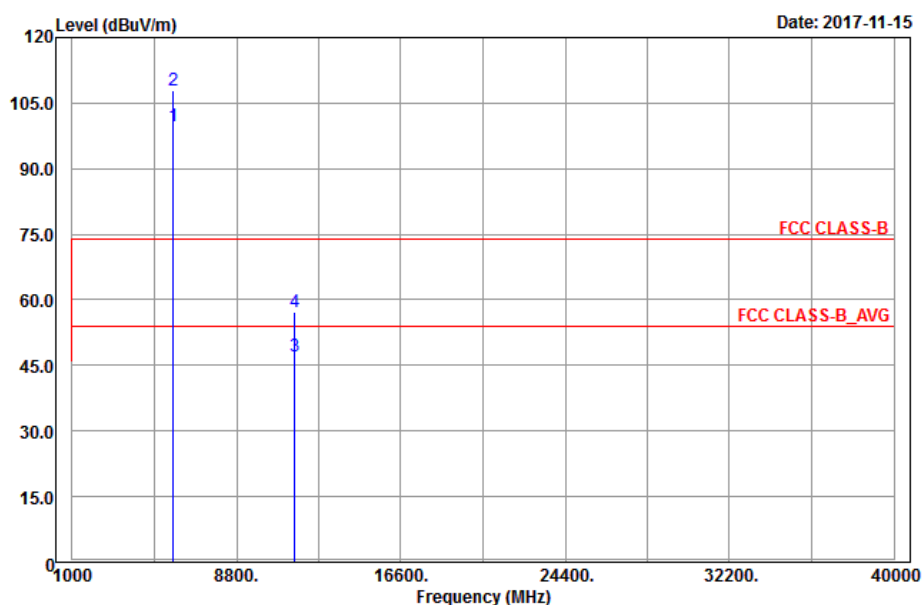
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5569.825	53.98	44.99	68.2	-14.22	34.47	8.59	34.07	273	115	Peak
5652.25	49.82	40.73	69.86	-20.04	34.56	8.62	34.09	273	115	Peak
5923.15	52.08	42.68	69.57	-17.49	34.83	8.73	34.16	273	115	Peak
*6004	53.58	44.09	68.2	-14.62	34.9	8.76	34.17	273	115	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5633.875	53.81	44.74	68.2	-14.39	34.54	8.62	34.09	120	343	Peak
5652.25	50.23	41.14	69.86	-19.63	34.56	8.62	34.09	120	343	Peak
5922.625	53.86	44.46	69.96	-16.1	34.83	8.73	34.16	120	343	Peak
*5981.425	55.36	45.9	68.2	-12.84	34.88	8.75	34.17	120	343	Peak

Remarks:

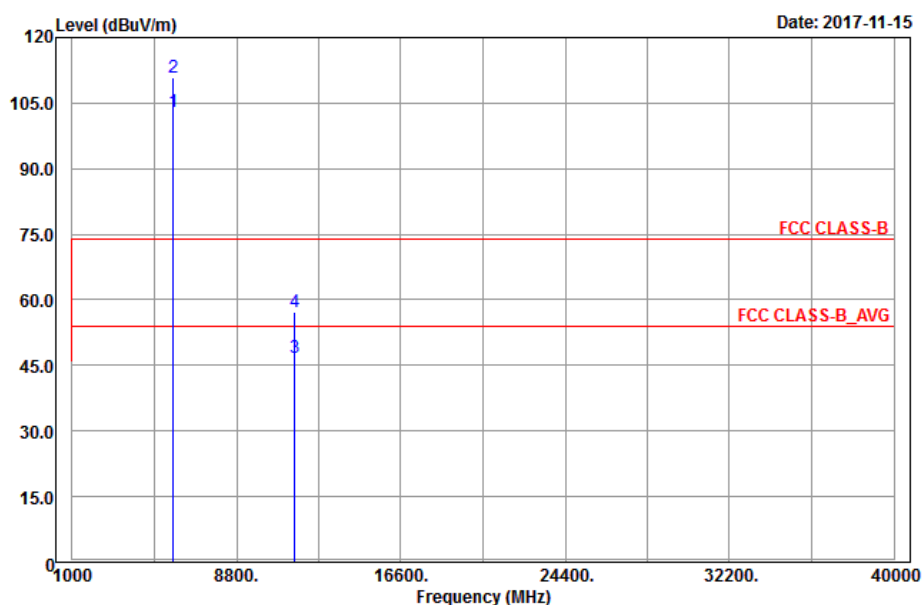
- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5745 MHz: Fundamental Frequency
- *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 157	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

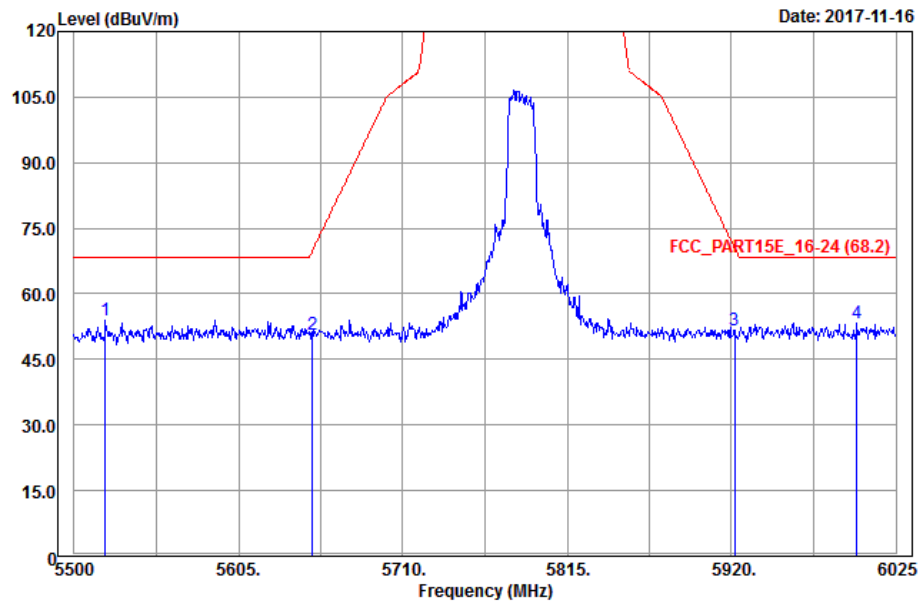
<Spurious Emission> Horizontal



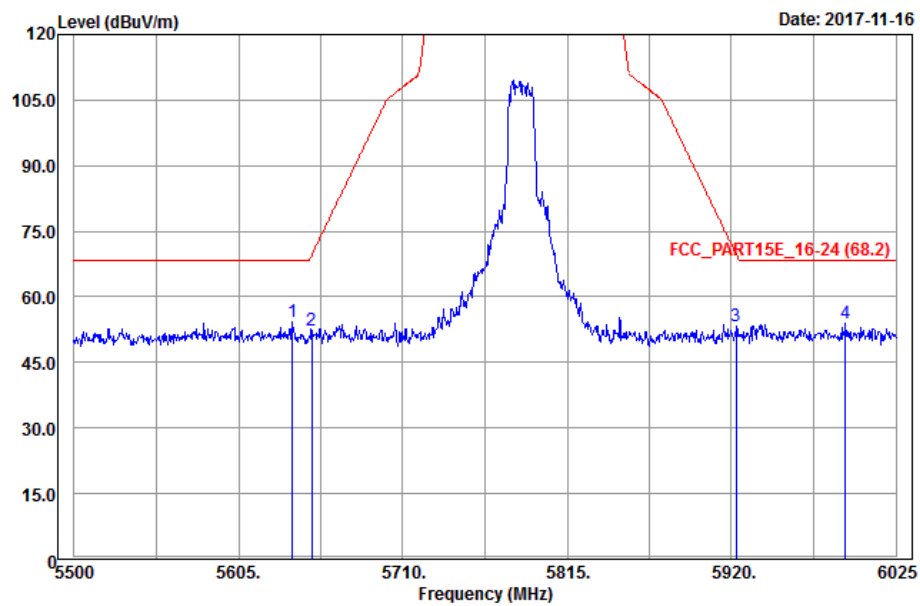
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5785	99.82	90.59			34.68	8.68	34.13	278	116	Average
5785	107.83	98.6			34.68	8.68	34.13	278	116	Peak
11570	47.03	31.72	54	-6.97	38	12.68	35.37	148	274	Average
11570	57.18	41.87	74	-16.82	38	12.68	35.37	148	274	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5785	102.98	93.75			34.68	8.68	34.13	120	343	Average
5785	110.96	101.73			34.68	8.68	34.13	120	343	Peak
11570	46.89	31.58	54	-7.11	38	12.68	35.37	169	132	Average
11570	57.16	41.85	74	-16.84	38	12.68	35.37	169	132	Peak

<Out of Band Emission (OOBE)>

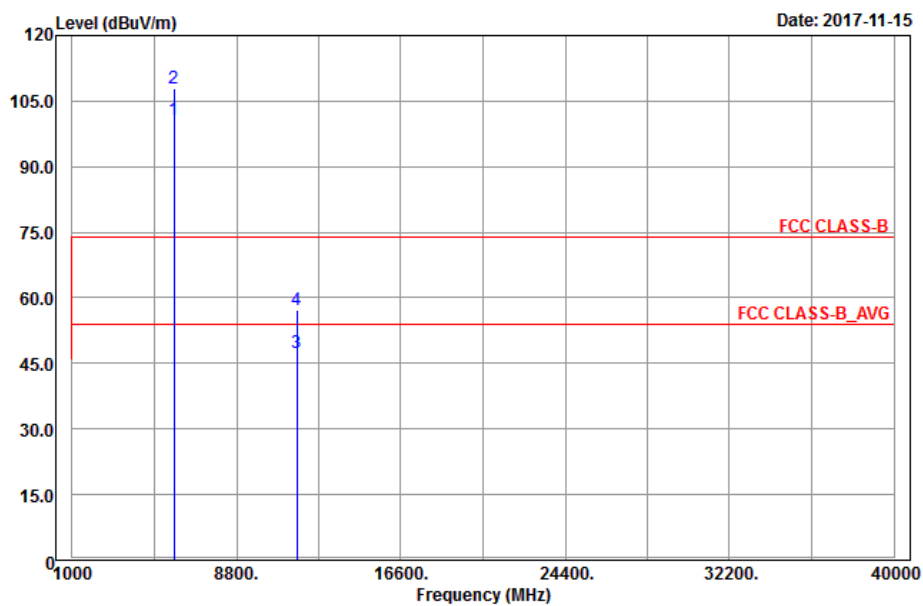
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5519.95	54	45.07	68.2	-14.2	34.42	8.57	34.06	278	116	Peak
5652.25	50.77	41.68	69.86	-19.09	34.56	8.62	34.09	278	116	Peak
5922.1	51.73	42.33	70.35	-18.62	34.83	8.73	34.16	278	116	Peak
*6000.325	53.39	43.9	68.2	-14.81	34.9	8.76	34.17	278	116	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5639.65	54.12	45.05	68.2	-14.08	34.54	8.62	34.09	120	343	Peak
5651.725	52.18	43.09	69.48	-17.3	34.56	8.62	34.09	120	343	Peak
5923.15	53.26	43.86	69.57	-16.31	34.83	8.73	34.16	120	343	Peak
*5992.975	53.79	44.3	68.2	-14.41	34.9	8.76	34.17	120	343	Peak

Remarks:

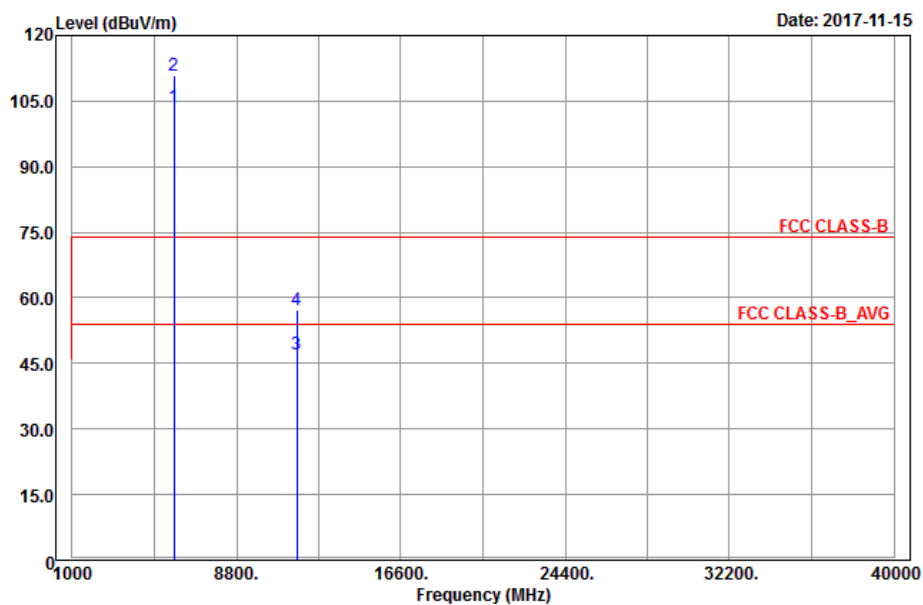
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5785 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 165	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

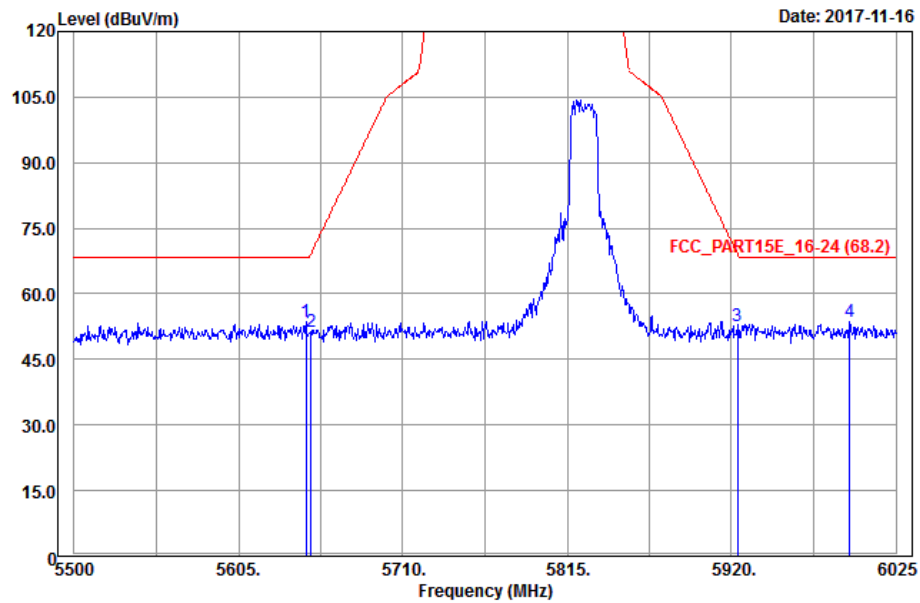
<Spurious Emission> Horizontal



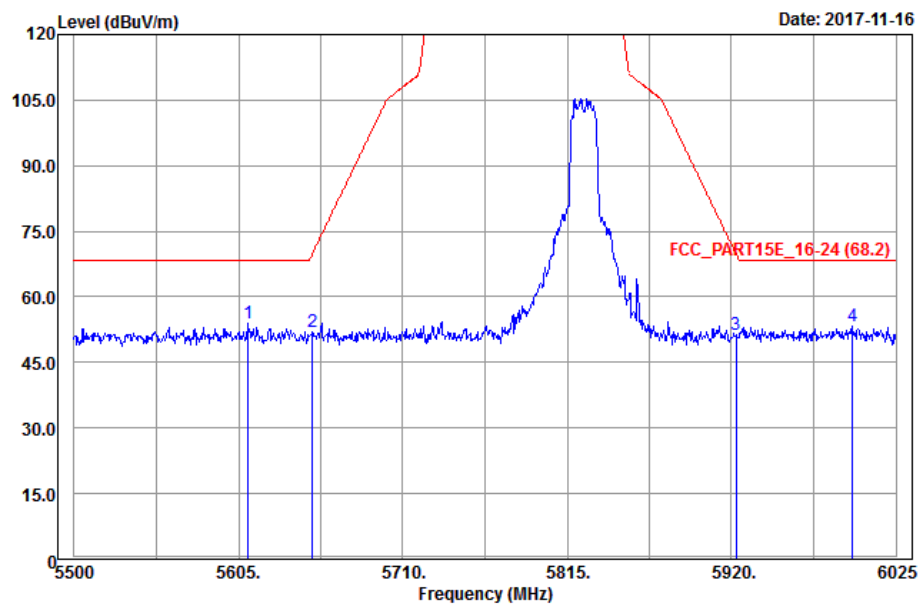
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5825	100.56	91.27			34.73	8.69	34.13	273	116	Average
5825	107.74	98.45			34.73	8.69	34.13	273	116	Peak
11650	47.52	31.99	54	-6.48	38.09	12.8	35.36	185	216	Average
11650	57.3	41.77	74	-16.7	38.09	12.8	35.36	185	216	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5825	103.53	94.24			34.73	8.69	34.13	120	343	Average
5825	110.93	101.64			34.73	8.69	34.13	120	343	Peak
11650	47.16	31.63	54	-6.84	38.09	12.8	35.36	196	142	Average
11650	57.13	41.6	74	-16.87	38.09	12.8	35.36	196	142	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5648.05	53.62	44.55	68.2	-14.58	34.54	8.62	34.09	273	116	Peak
5651.2	51.44	42.35	69.09	-17.65	34.56	8.62	34.09	273	116	Peak
5923.675	52.7	43.3	69.18	-16.48	34.83	8.73	34.16	273	116	Peak
*5995.6	53.56	44.07	68.2	-14.64	34.9	8.76	34.17	273	116	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5611.3	53.86	44.83	68.2	-14.34	34.5	8.61	34.08	120	343	Peak
5652.25	51.85	42.76	69.86	-18.01	34.56	8.62	34.09	120	343	Peak
5923.15	51.45	42.05	69.57	-18.12	34.83	8.73	34.16	120	343	Peak
*5997.175	53.46	43.97	68.2	-14.74	34.9	8.76	34.17	120	343	Peak

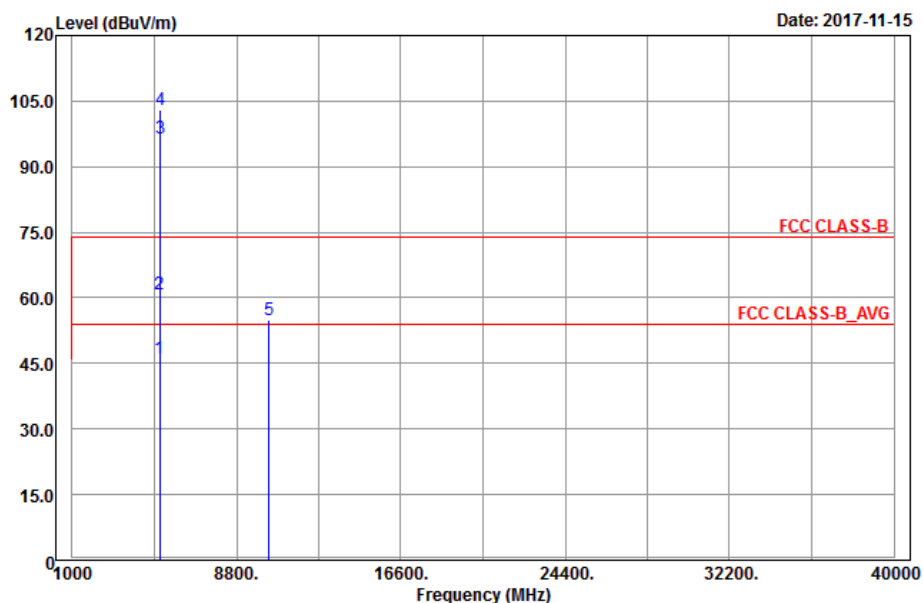
Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5825 MHz: Fundamental Frequency
- *: Out of Restricted Band

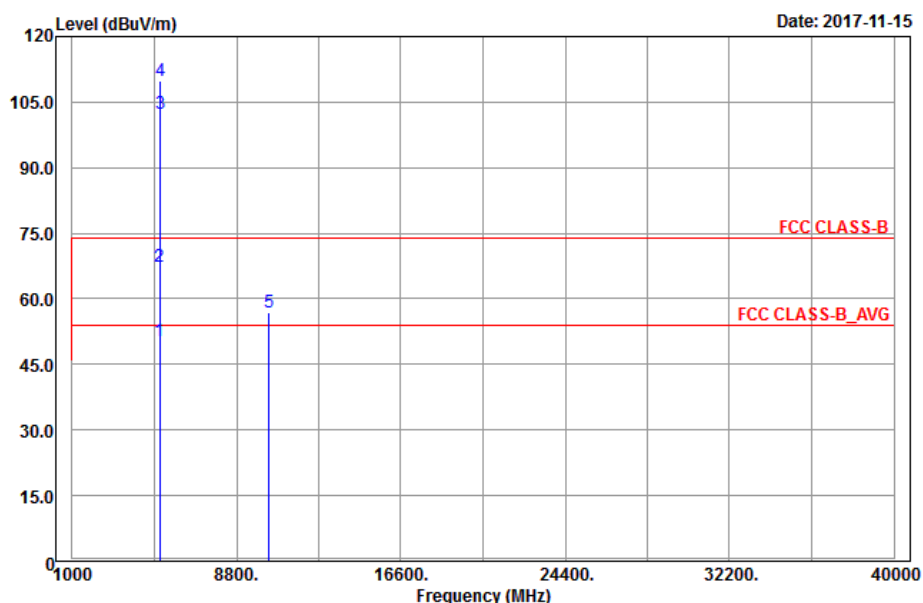
802.11ac (VHT20)

EUT Test Condition		Measurement Detail	
Channel	Channel 36	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



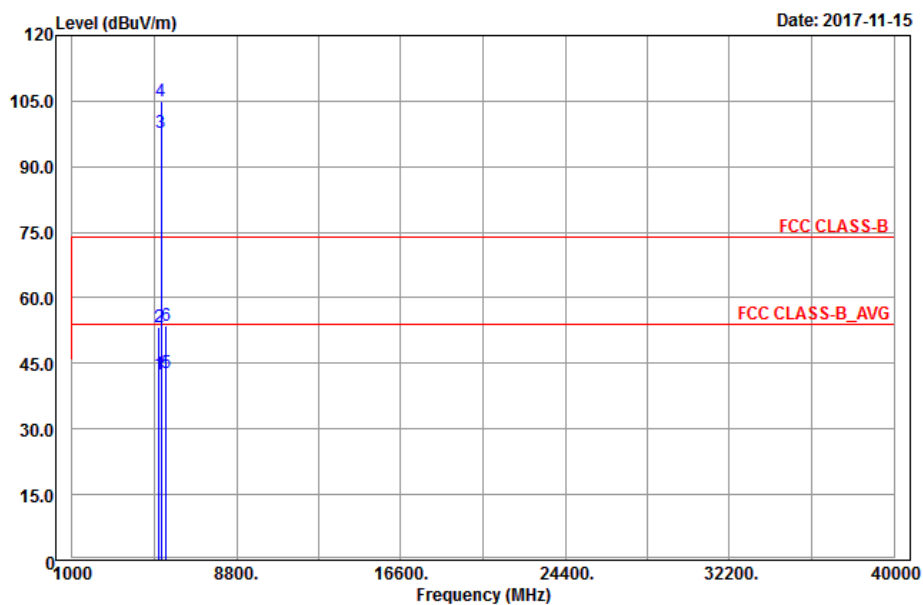
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.55	45.99	37.74	54	-8.01	34.12	8.13	34	200	321	Average
5149.55	60.9	52.65	74	-13.1	34.12	8.13	34	200	321	Peak
5180	96.62	88.31			34.15	8.16	34	200	321	Average
5180	103.12	94.81			34.15	8.16	34	200	321	Peak
*10360	55.08	40.78	68.2	-13.12	37.12	12.3	35.12	119	9	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.1	50.36	42.11	54	-3.64	34.12	8.13	34	185	337	Average
5149.1	67.31	59.06	74	-6.69	34.12	8.13	34	185	337	Peak
5180	102.34	94.03			34.15	8.16	34	170	337	Average
5180	109.89	101.58			34.15	8.16	34	170	337	Peak
*10360	57.04	42.74	68.2	-11.16	37.12	12.3	35.12	112	252	Peak

Remarks:

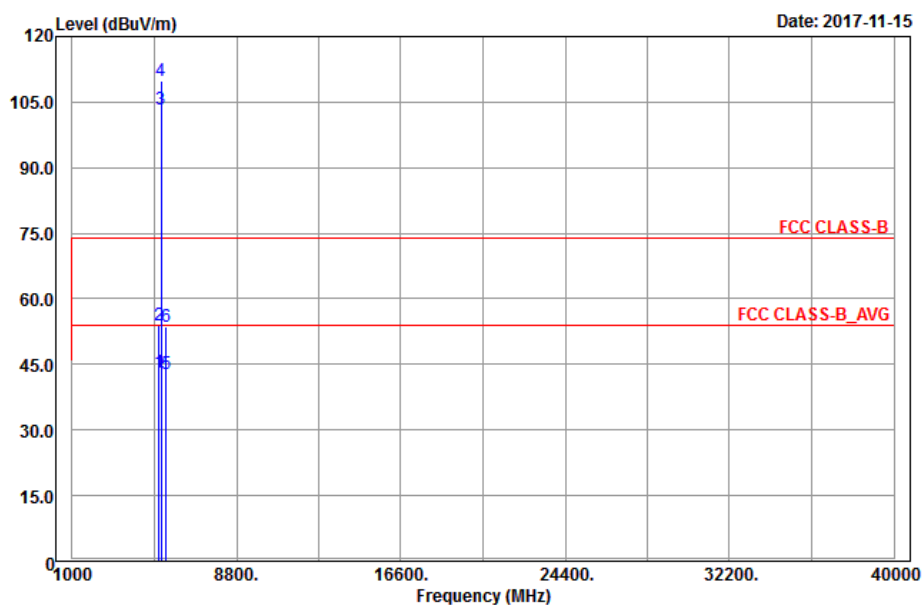
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5180 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 44	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



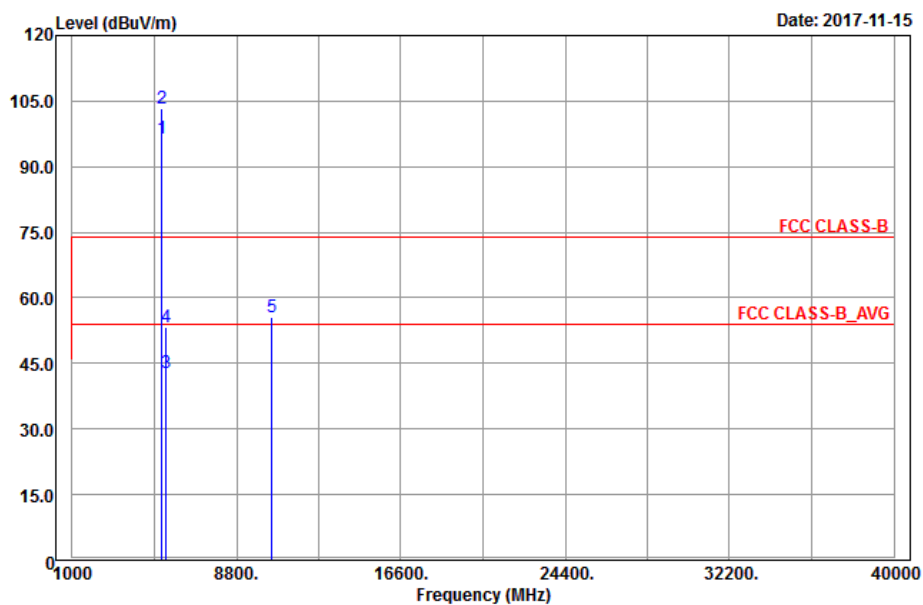
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5110.4	42.63	34.43	54	-11.37	34.09	8.1	33.99	200	321	Average
5110.4	53.43	45.23	74	-20.57	34.09	8.1	33.99	200	321	Peak
5220	97.8	89.41			34.17	8.22	34	200	321	Average
5220	104.89	96.5			34.17	8.22	34	200	321	Peak
5443.83	42.69	33.9	54	-11.31	34.35	8.48	34.04	200	321	Average
5443.83	53.53	44.74	74	-20.47	34.35	8.48	34.04	200	321	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5126.15	43.09	34.87	54	-10.91	34.11	8.1	33.99	170	337	Average
5126.15	53.93	45.71	74	-20.07	34.11	8.1	33.99	170	337	Peak
5220	103.29	94.9			34.17	8.22	34	170	337	Average
5220	110.02	101.63			34.17	8.22	34	170	337	Peak
5448.23	42.68	33.85	54	-11.32	34.36	8.51	34.04	170	337	Average
5448.23	53.7	44.87	74	-20.3	34.36	8.51	34.04	170	337	Peak

Remarks:

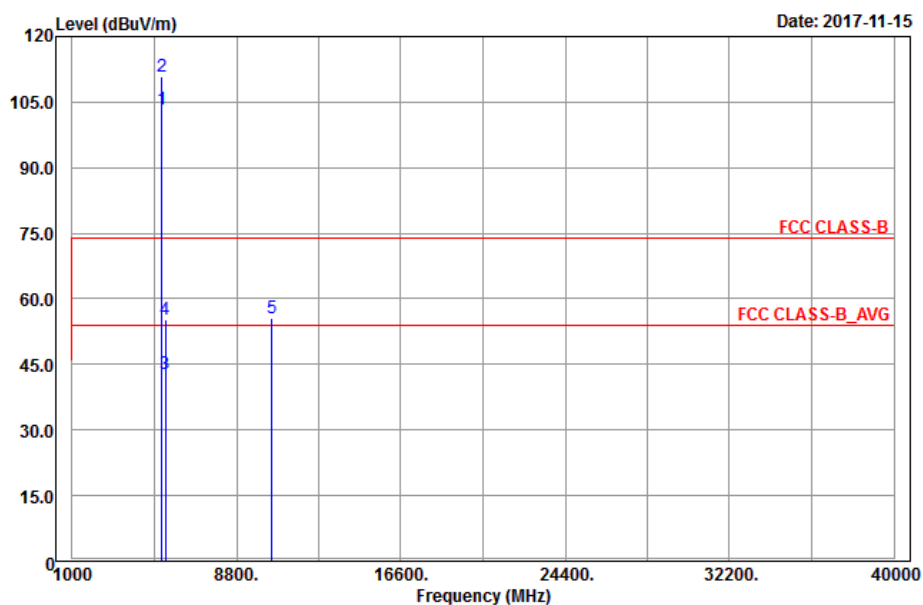
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5220 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 48	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



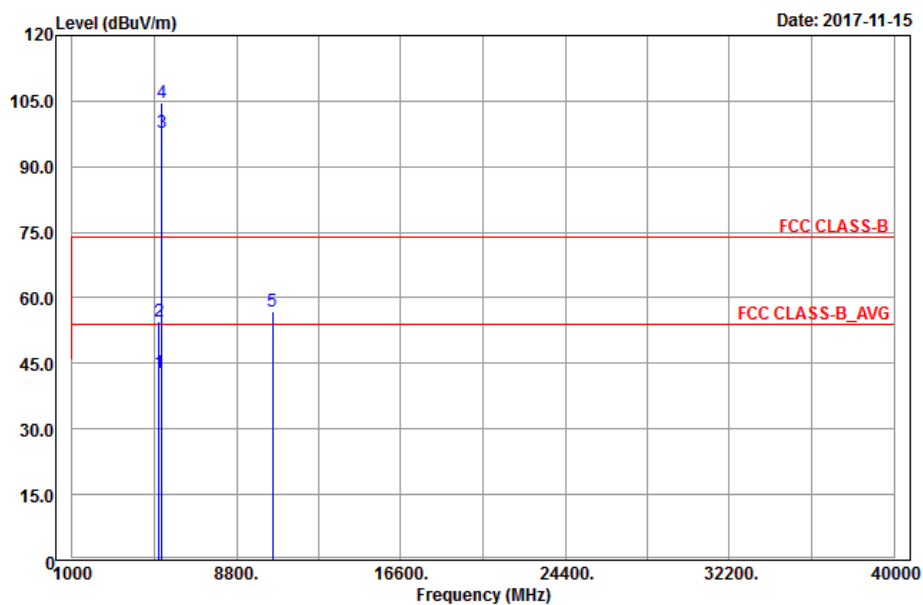
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5240	96.49	88.05			34.19	8.26	34.01	200	321	Average
5240	103.35	94.91			34.19	8.26	34.01	200	321	Peak
5455.6	42.85	34.03	54	-11.15	34.36	8.51	34.05	200	321	Average
5455.6	53.35	44.53	74	-20.65	34.36	8.51	34.05	200	321	Peak
*10480	55.45	40.94	68.2	-12.75	37.19	12.53	35.21	105	119	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5240	103.24	94.8			34.19	8.26	34.01	170	337	Average
5240	110.89	102.45			34.19	8.26	34.01	170	337	Peak
5430.52	42.8	34.01	54	-11.2	34.35	8.48	34.04	170	337	Average
5430.52	55.19	46.4	74	-18.81	34.35	8.48	34.04	170	337	Peak
*10480	55.66	41.15	68.2	-12.54	37.19	12.53	35.21	159	346	Peak

Remarks:

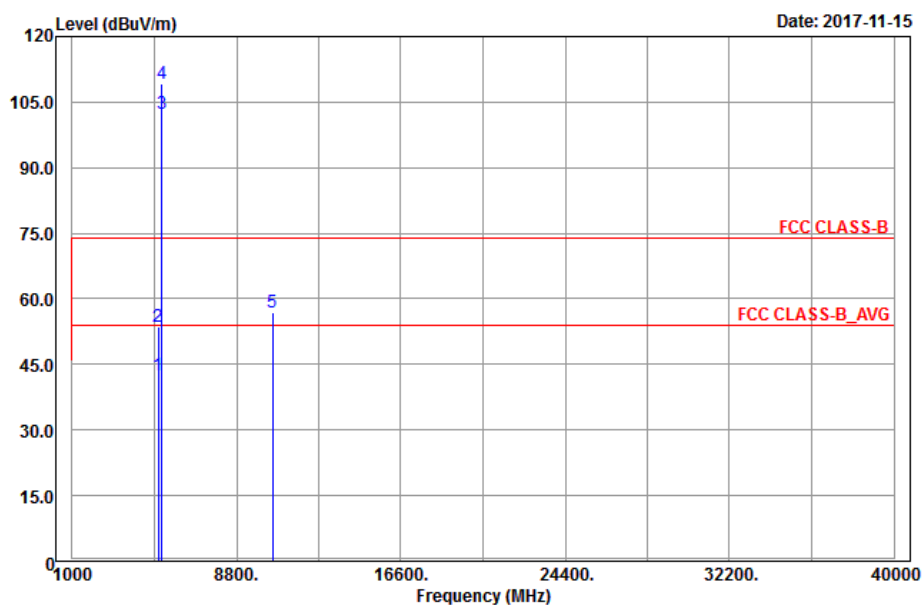
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5240 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 52	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



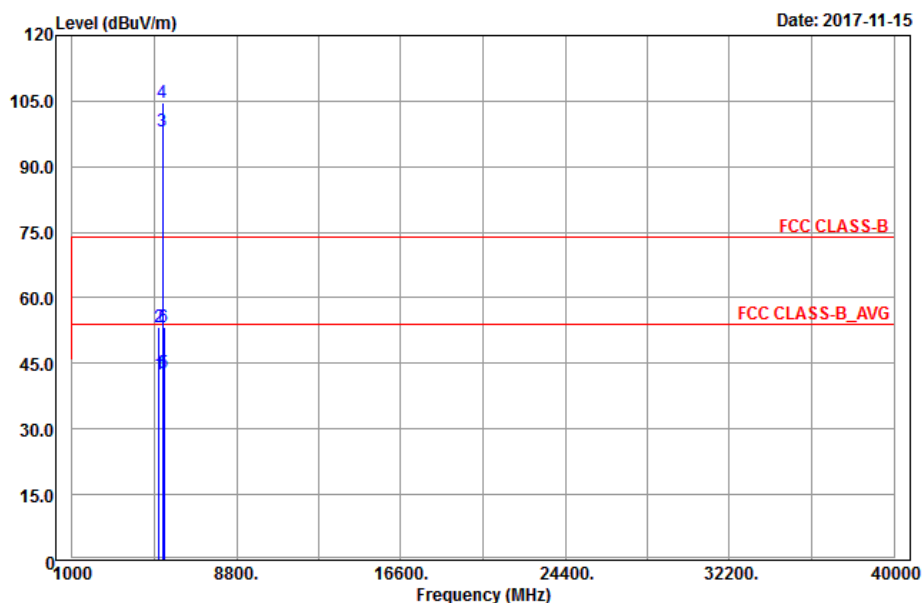
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5129.45	42.8	34.58	54	-11.2	34.11	8.1	33.99	198	335	Average
5129.45	54.56	46.34	74	-19.44	34.11	8.1	33.99	198	335	Peak
5260	97.65	89.19			34.21	8.26	34.01	198	335	Average
5260	104.78	96.32			34.21	8.26	34.01	198	335	Peak
*10520	57.06	42.47	68.2	-11.14	37.21	12.61	35.23	157	215	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5101.85	42.66	34.5	54	-11.34	34.08	8.07	33.99	115	39	Average
5101.85	53.76	45.6	74	-20.24	34.08	8.07	33.99	115	39	Peak
5260	102.37	93.91			34.21	8.26	34.01	115	39	Average
5260	109.31	100.85			34.21	8.26	34.01	115	39	Peak
*10520	56.89	42.3	68.2	-11.31	37.21	12.61	35.23	133	125	Peak

Remarks:

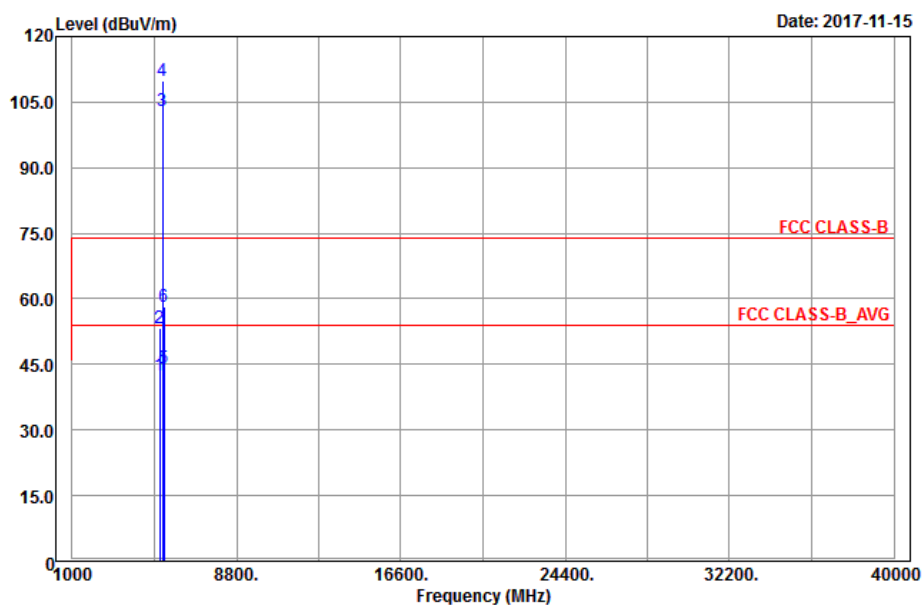
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5260 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 60	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



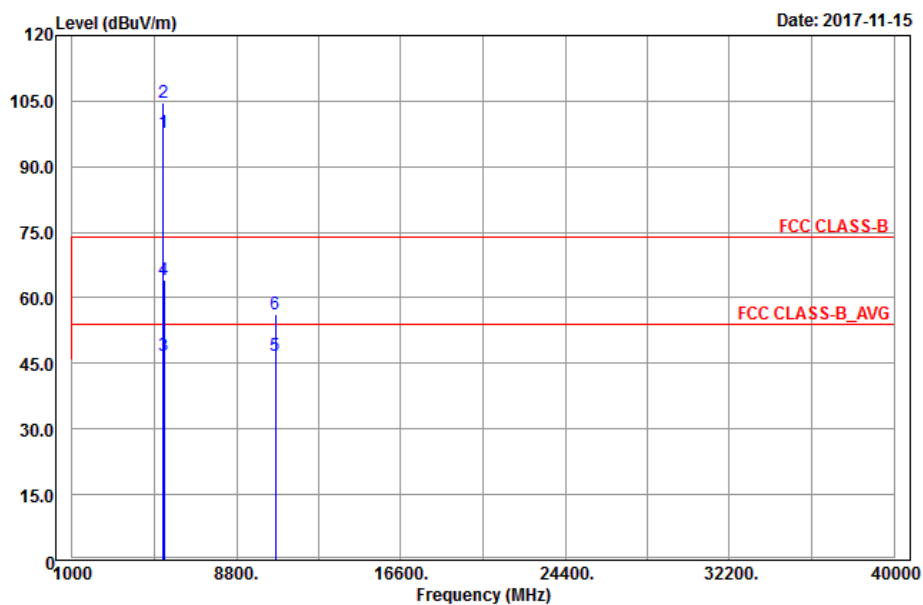
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5127.65	42.65	34.43	54	-11.35	34.11	8.1	33.99	198	335	Average
5127.65	53.36	45.14	74	-20.64	34.11	8.1	33.99	198	335	Peak
5300	97.96	89.42			34.24	8.32	34.02	198	335	Average
5300	104.72	96.18			34.24	8.32	34.02	198	335	Peak
5351.87	42.98	34.35	54	-11.02	34.28	8.38	34.03	198	335	Average
5351.87	53.33	44.7	74	-20.67	34.28	8.38	34.03	198	335	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5137.7	42.66	34.41	54	-11.34	34.11	8.13	33.99	115	39	Average
5137.7	53.27	45.02	74	-20.73	34.11	8.13	33.99	115	39	Peak
5300	102.88	94.34			34.24	8.32	34.02	115	39	Average
5300	109.85	101.31			34.24	8.32	34.02	115	39	Peak
5350.11	44.07	35.44	54	-9.93	34.28	8.38	34.03	115	39	Average
5350.11	58.21	49.58	74	-15.79	34.28	8.38	34.03	115	39	Peak

Remarks:

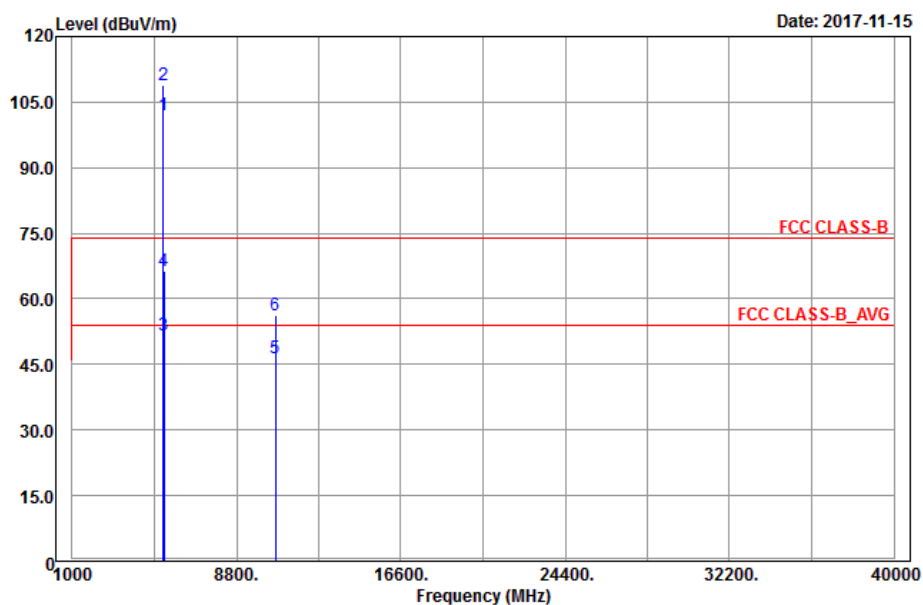
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5300 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 64	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



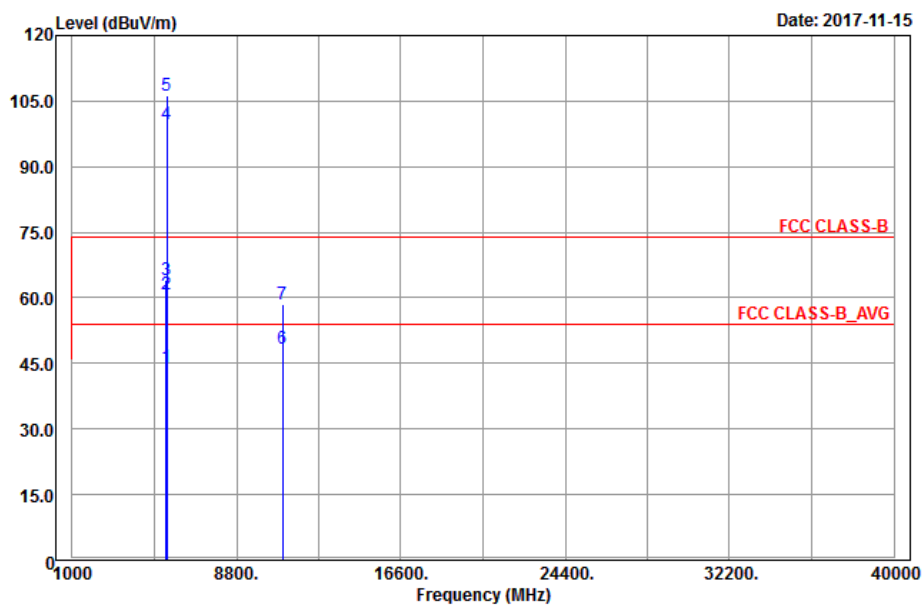
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5320	97.65	89.07			34.25	8.35	34.02	198	335	Average
5320	104.79	96.21			34.25	8.35	34.02	198	335	Peak
5350.11	46.9	38.27	54	-7.1	34.28	8.38	34.03	198	335	Average
5350.11	64	55.37	74	-10	34.28	8.38	34.03	198	335	Peak
10640	46.9	32.17	54	-7.1	37.31	12.71	35.29	196	127	Average
10640	56.19	41.46	74	-17.81	37.31	12.71	35.29	196	127	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5320	102.17	93.59			34.25	8.35	34.02	115	39	Average
5320	109.03	100.45			34.25	8.35	34.02	115	39	Peak
5350	51.78	43.15	54	-2.22	34.28	8.38	34.03	114	38	Average
5350	66.52	57.89	74	-7.48	34.28	8.38	34.03	114	38	Peak
10640	46.38	31.65	54	-7.62	37.31	12.71	35.29	152	113	Average
10640	56.28	41.55	74	-17.72	37.31	12.71	35.29	152	113	Peak

Remarks:

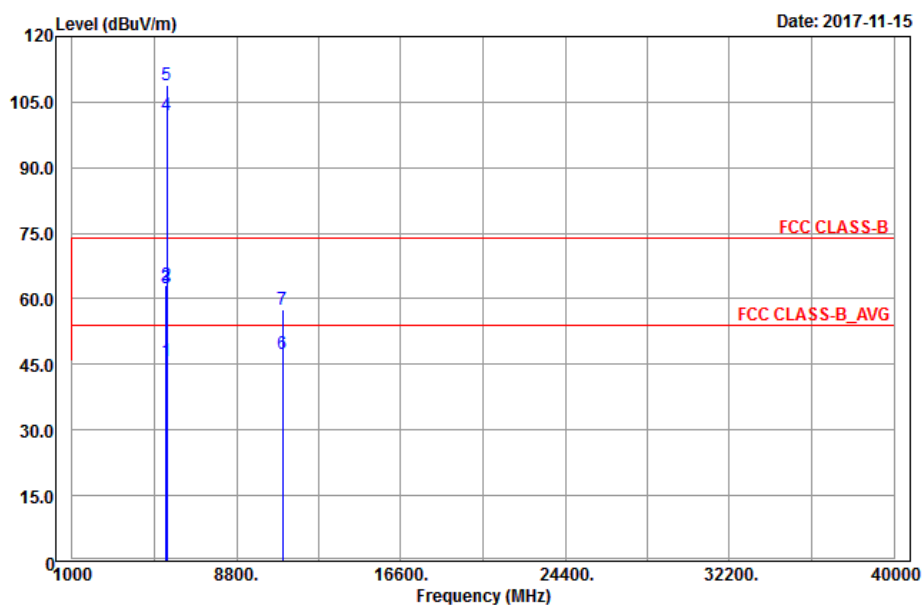
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5320 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 100	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



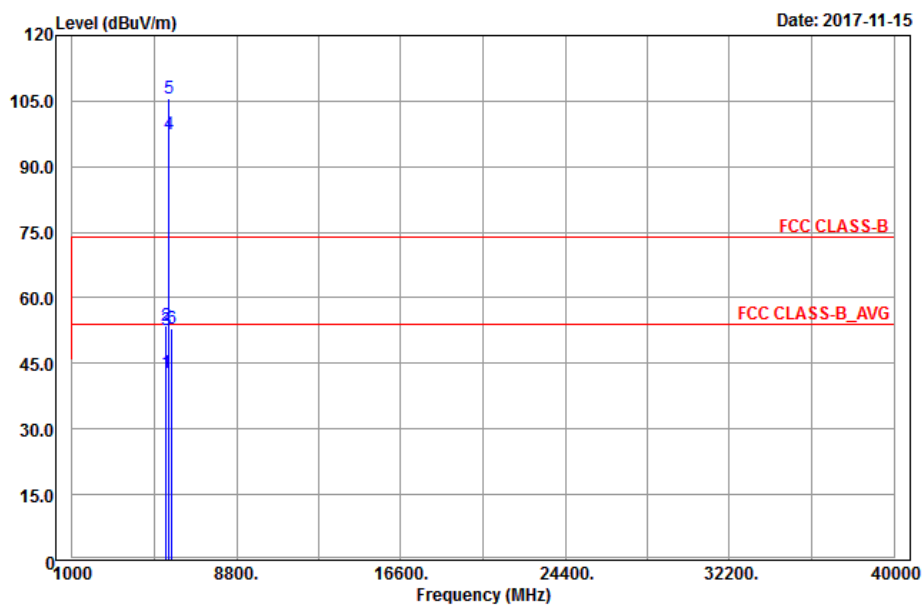
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5459.92	44.09	35.27	54	-9.91	34.36	8.51	34.05	274	128	Average
5459.92	60.83	52.01	74	-13.17	34.36	8.51	34.05	274	128	Peak
*5470	63.97	55.14	68.2	-4.23	34.37	8.51	34.05	274	128	Peak
5500	99.69	90.77			34.4	8.57	34.05	260	128	Average
5500	106.38	97.46			34.4	8.57	34.05	260	128	Peak
11000	48.51	33.43	54	-5.49	37.6	12.96	35.48	145	117	Average
11000	58.58	43.5	74	-15.42	37.6	12.96	35.48	145	117	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5459.92	45.71	36.89	54	-8.29	34.36	8.51	34.05	127	337	Average
5459.92	63.21	54.39	74	-10.79	34.36	8.51	34.05	128	337	Peak
*5469.2	62.46	53.63	68.2	-5.74	34.37	8.51	34.05	128	337	Peak
5500	102.11	93.19			34.4	8.57	34.05	139	342	Average
5500	108.96	100.04			34.4	8.57	34.05	139	342	Peak
11000	47.52	32.44	54	-6.48	37.6	12.96	35.48	137	204	Average
11000	57.68	42.6	74	-16.32	37.6	12.96	35.48	137	204	Peak

Remarks:

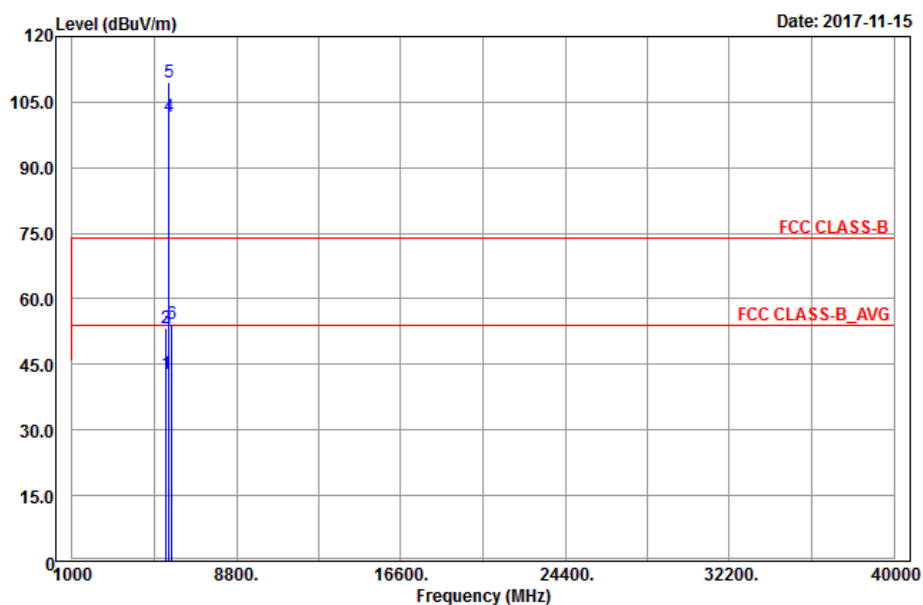
- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5500 MHz: Fundamental Frequency
- *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 116	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



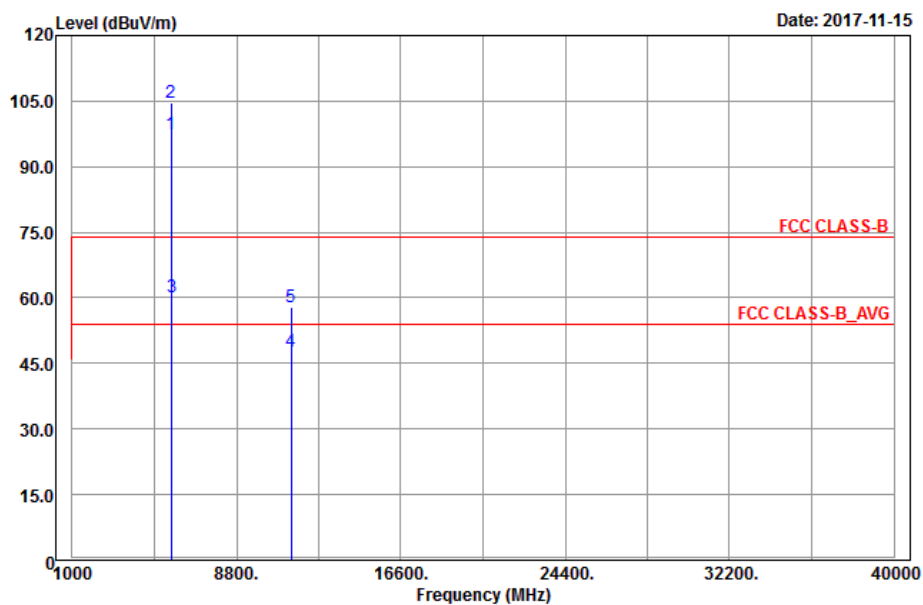
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5457.68	42.78	33.96	54	-11.22	34.36	8.51	34.05	281	116	Average
5457.68	53.64	44.82	74	-20.36	34.36	8.51	34.05	281	116	Peak
*5469.68	52.65	43.82	68.2	-15.55	34.37	8.51	34.05	281	116	Peak
5580	97.45	88.46			34.47	8.6	34.08	281	116	Average
5580	105.6	96.61			34.47	8.6	34.08	281	116	Peak
*5724.84	53.04	43.88	68.2	-15.16	34.62	8.65	34.11	281	116	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5447.76	42.96	34.13	54	-11.04	34.36	8.51	34.04	136	342	Average
5447.76	53.25	44.42	74	-20.75	34.36	8.51	34.04	136	342	Peak
*5470.96	53.21	44.35	68.2	-14.99	34.37	8.54	34.05	136	342	Peak
5580	101.8	92.81			34.47	8.6	34.08	136	342	Average
5580	109.53	100.54			34.47	8.6	34.08	136	342	Peak
*5724.12	54.2	45.04	68.2	-14	34.62	8.65	34.11	136	342	Peak

Remarks:

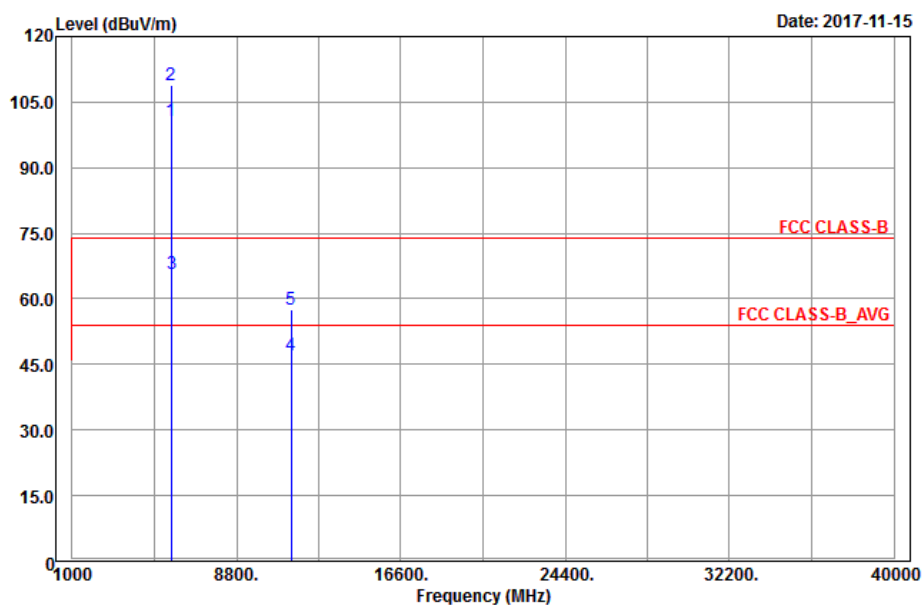
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5580 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 140	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



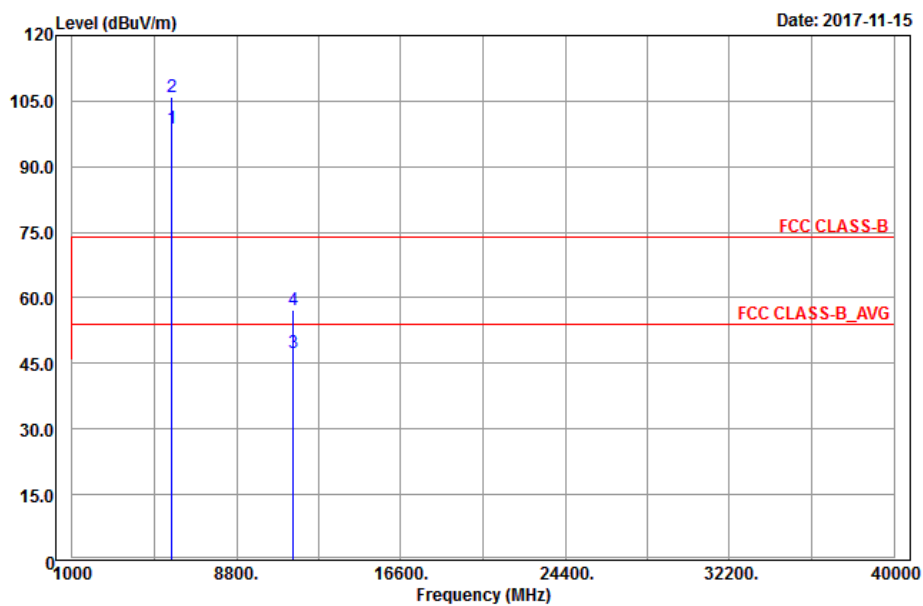
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5700	97.28	88.15			34.59	8.64	34.1	278	116	Average
5700	104.64	95.51			34.59	8.64	34.1	278	116	Peak
5724.12	60.07	50.91	68.2	-8.13	34.62	8.65	34.11	245	114	Peak
11400	47.74	32.64	54	-6.26	37.84	12.67	35.41	196	315	Average
11400	57.89	42.79	74	-16.11	37.84	12.67	35.41	196	315	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5700	100.67	91.54			34.59	8.64	34.1	132	342	Average
5700	108.74	99.61			34.59	8.64	34.1	132	342	Peak
5726.04	65.88	56.72	68.2	-2.32	34.62	8.65	34.11	127	326	Peak
11400	47.08	31.98	54	-6.92	37.84	12.67	35.41	185	143	Average
11400	57.43	42.33	74	-16.57	37.84	12.67	35.41	185	143	Peak

Remarks:

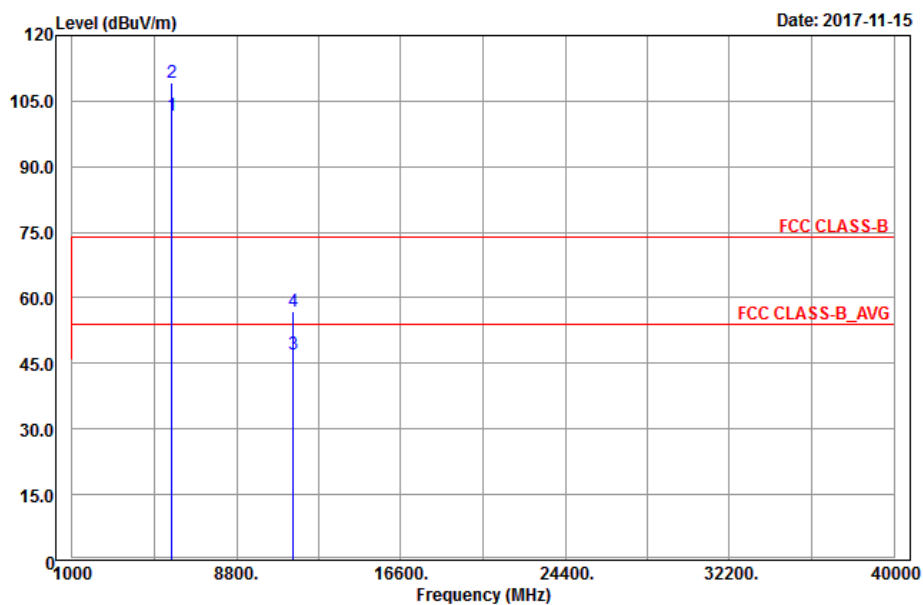
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5700 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 149	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

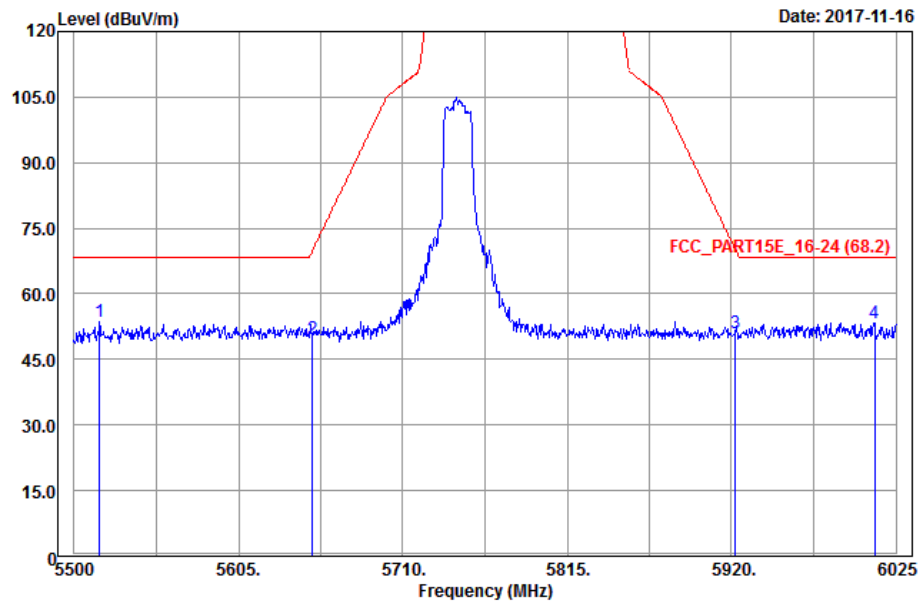
<Spurious Emission> Horizontal



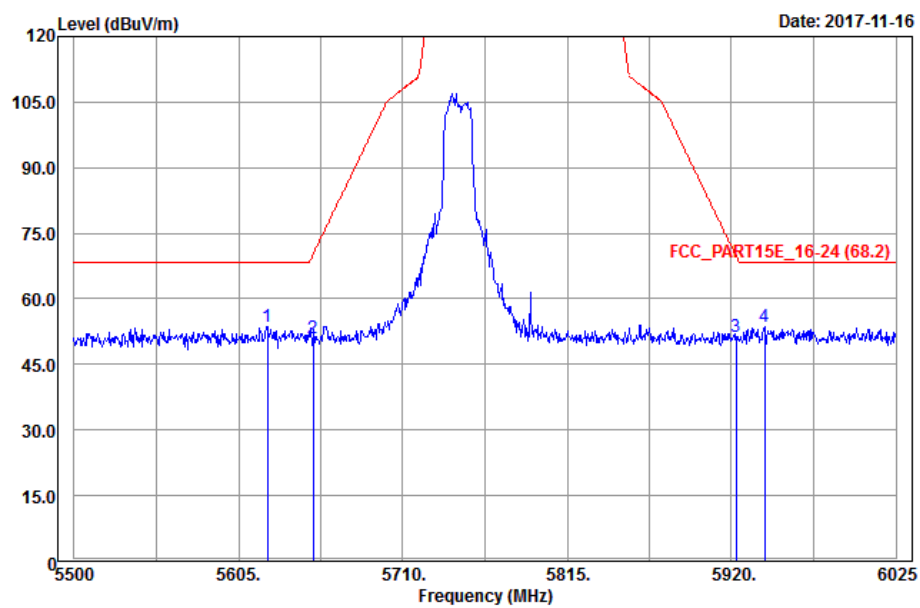
Vertical



<Out of Band Emission (OOBE)> Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5745	98.61	89.42			34.64	8.66	34.11	273	115	Average
5745	105.96	96.77			34.64	8.66	34.11	273	115	Peak
11490	47.53	32.41	54	-6.47	37.89	12.62	35.39	174	253	Average
11490	57.28	42.16	74	-16.72	37.89	12.62	35.39	174	253	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5745	101.68	92.49			34.64	8.66	34.11	120	343	Average
5745	109.3	100.11			34.64	8.66	34.11	120	343	Peak
11490	47.04	31.92	54	-6.96	37.89	12.62	35.39	162	105	Average
11490	56.84	41.72	74	-17.16	37.89	12.62	35.39	162	105	Peak

<Out of Band Emission (OOBE)>

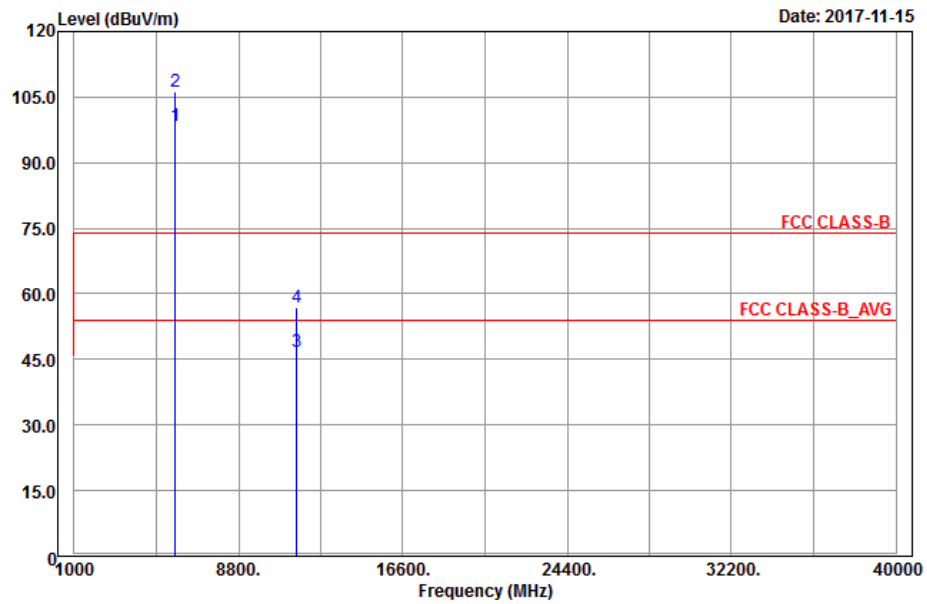
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5516.275	53.5	44.57	68.2	-14.7	34.42	8.57	34.06	273	115	Peak
5652.25	49.77	40.68	69.86	-20.09	34.56	8.62	34.09	273	115	Peak
5922.625	50.9	41.5	69.96	-19.06	34.83	8.73	34.16	273	115	Peak
*6011.35	53.4	43.9	68.2	-14.8	34.92	8.76	34.18	273	115	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5623.375	53.69	44.64	68.2	-14.51	34.52	8.61	34.08	120	343	Peak
5652.775	51.12	42.02	70.25	-19.13	34.56	8.63	34.09	120	343	Peak
5923.15	51.32	41.92	69.57	-18.25	34.83	8.73	34.16	120	343	Peak
*5941	53.54	44.11	68.2	-14.66	34.85	8.74	34.16	120	343	Peak

Remarks:

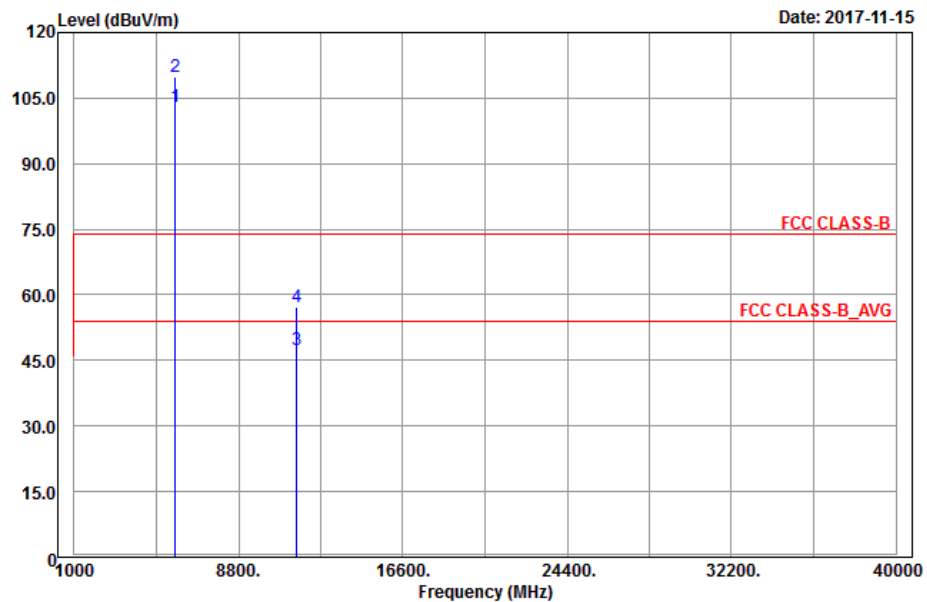
- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5745 MHz: Fundamental Frequency
- *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 157	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

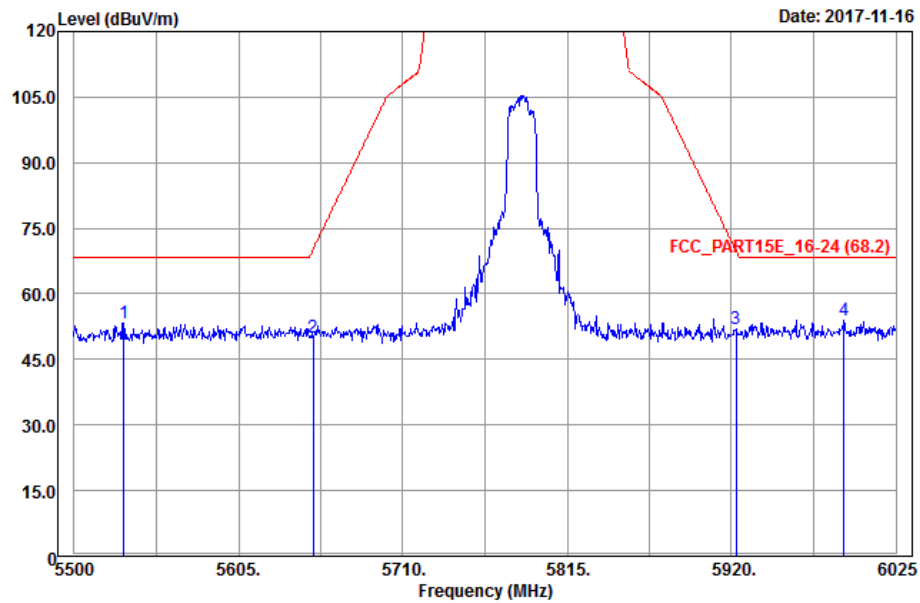
<Spurious Emission> Horizontal



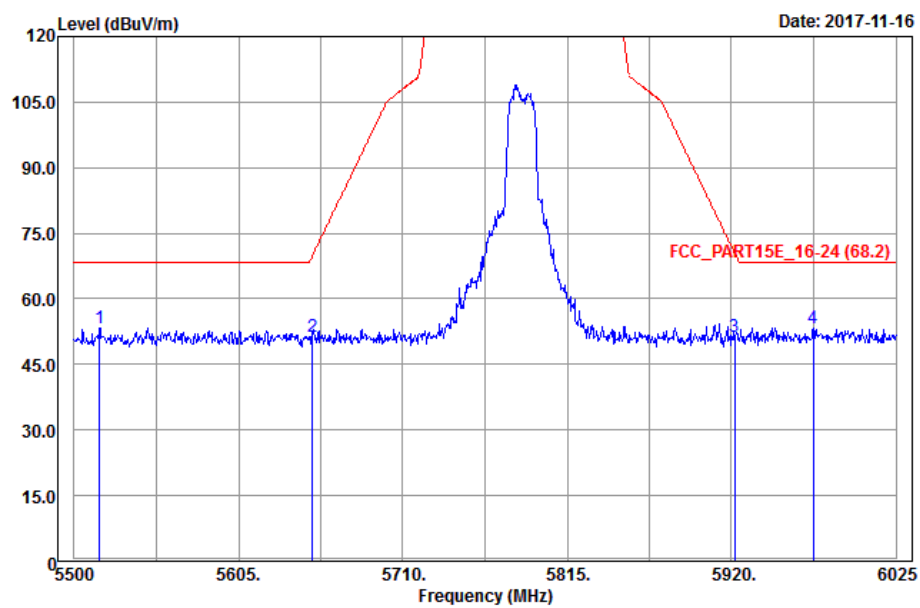
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5785	98.44	89.21			34.68	8.68	34.13	273	116	Average
5785	106.33	97.1			34.68	8.68	34.13	273	116	Peak
11570	46.73	31.42	54	-7.27	38	12.68	35.37	165	325	Average
11570	56.92	41.61	74	-17.08	38	12.68	35.37	165	325	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5785	102.98	93.75			34.68	8.68	34.13	120	343	Average
5785	109.89	100.66			34.68	8.68	34.13	120	343	Peak
11570	47.29	31.98	54	-6.71	38	12.68	35.37	149	125	Average
11570	57.26	41.95	74	-16.74	38	12.68	35.37	149	125	Peak

<Out of Band Emission (OOBE)>

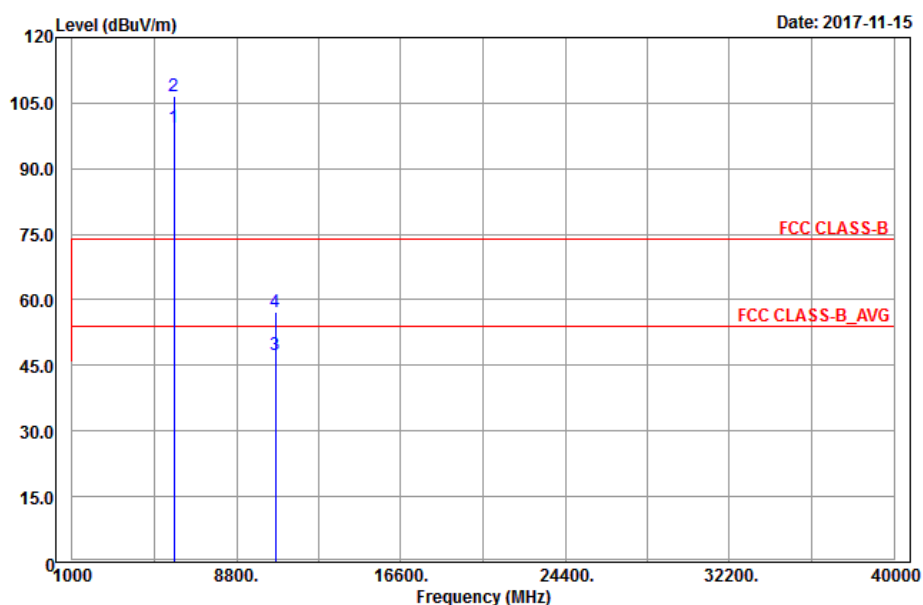
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5531.5	53.42	44.48	68.2	-14.78	34.43	8.58	34.07	273	116	Peak
5652.775	49.93	40.83	70.25	-20.32	34.56	8.63	34.09	273	116	Peak
5923.15	51.99	42.59	69.57	-17.58	34.83	8.73	34.16	273	116	Peak
*5991.925	54	44.51	68.2	-14.2	34.9	8.76	34.17	273	116	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5516.275	53.26	44.33	68.2	-14.94	34.42	8.57	34.06	120	343	Peak
5652.25	51.24	42.15	69.86	-18.62	34.56	8.62	34.09	120	343	Peak
5922.1	51.23	41.83	70.35	-19.12	34.83	8.73	34.16	120	343	Peak
*5972.5	53.33	43.88	68.2	-14.87	34.87	8.75	34.17	120	343	Peak

Remarks:

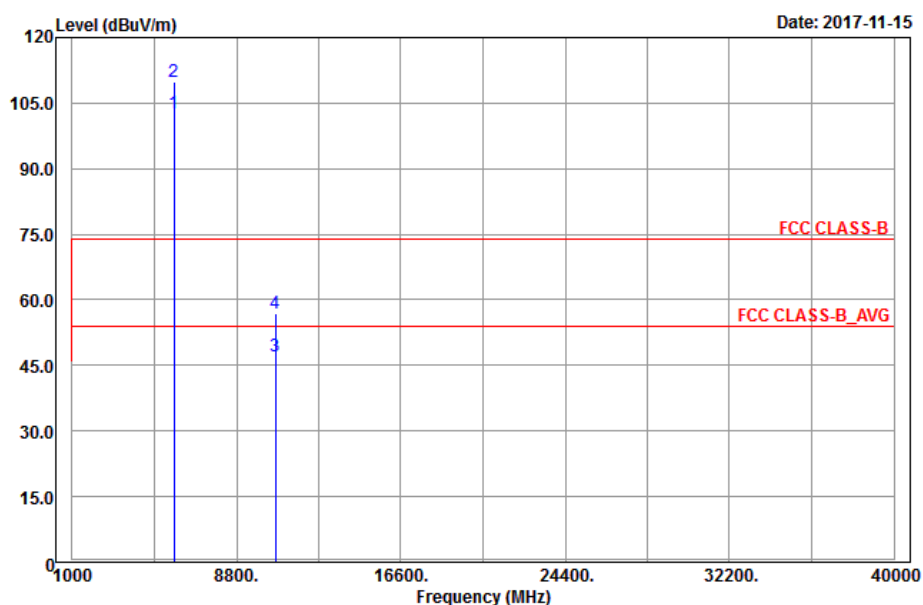
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5785 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 165	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

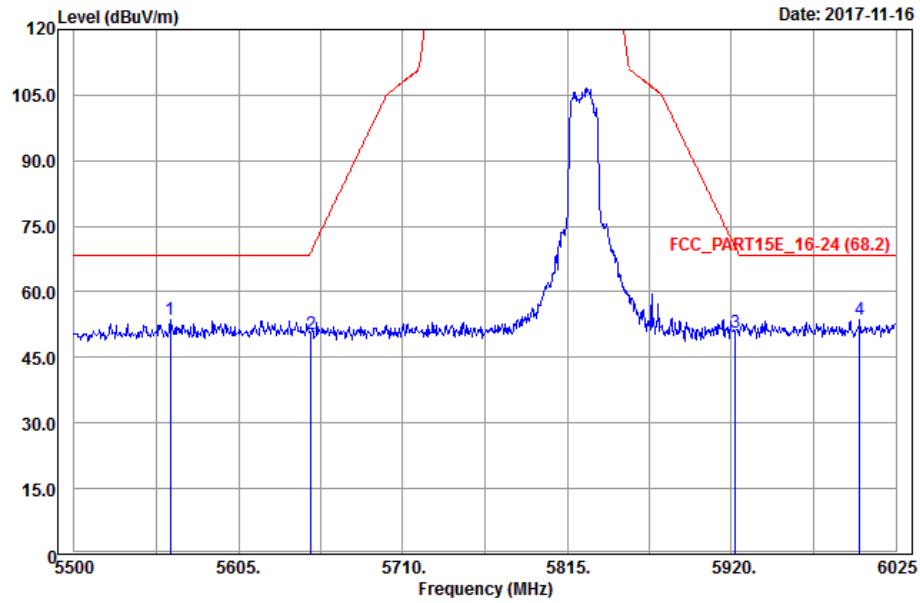
<Spurious Emission> Horizontal



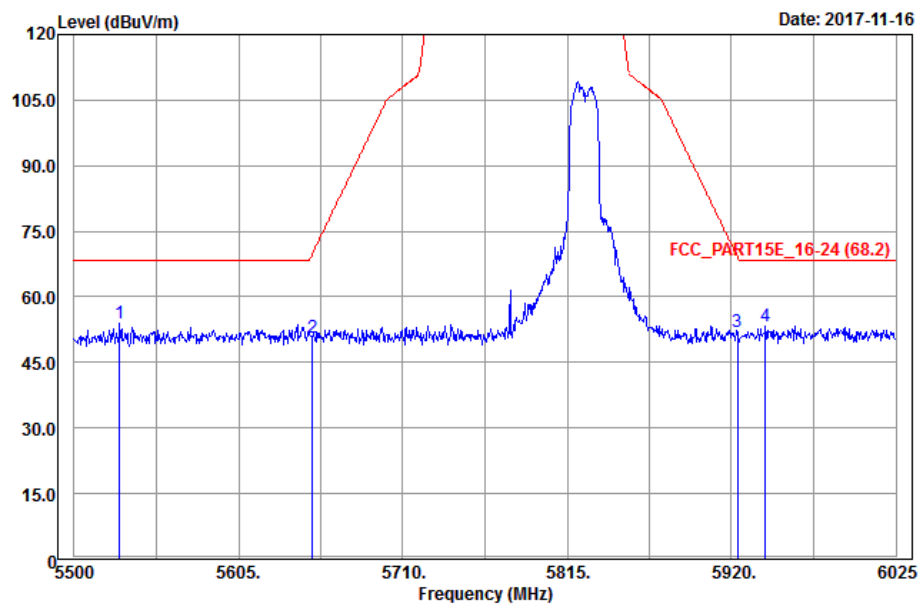
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5825	99.4	90.11			34.73	8.69	34.13	273	116	Average
5825	106.57	97.28			34.73	8.69	34.13	273	116	Peak
10650	47.41	32.67	54	-6.59	37.32	12.71	35.29	128	213	Average
10650	57.12	42.38	74	-16.88	37.32	12.71	35.29	128	213	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5825	102.56	93.27			34.73	8.69	34.13	120	343	Average
5825	109.88	100.59			34.73	8.69	34.13	120	343	Peak
10650	47.02	32.28	54	-6.98	37.32	12.71	35.29	127	78	Average
10650	56.86	42.12	74	-17.14	37.32	12.71	35.29	127	78	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5561.425	53.61	44.64	68.2	-14.59	34.45	8.59	34.07	273	116	Peak
5651.2	50.29	41.2	69.09	-18.8	34.56	8.62	34.09	273	116	Peak
5922.625	50.63	41.23	69.96	-19.33	34.83	8.73	34.16	273	116	Peak
*6001.9	53.51	44.02	68.2	-14.69	34.9	8.76	34.17	273	116	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5528.875	53.81	44.88	68.2	-14.39	34.42	8.58	34.07	120	343	Peak
5652.25	50.65	41.56	69.86	-19.21	34.56	8.62	34.09	120	343	Peak
5923.675	52.09	42.69	69.18	-17.09	34.83	8.73	34.16	120	343	Peak
*5941.525	53.24	43.81	68.2	-14.96	34.85	8.74	34.16	120	343	Peak

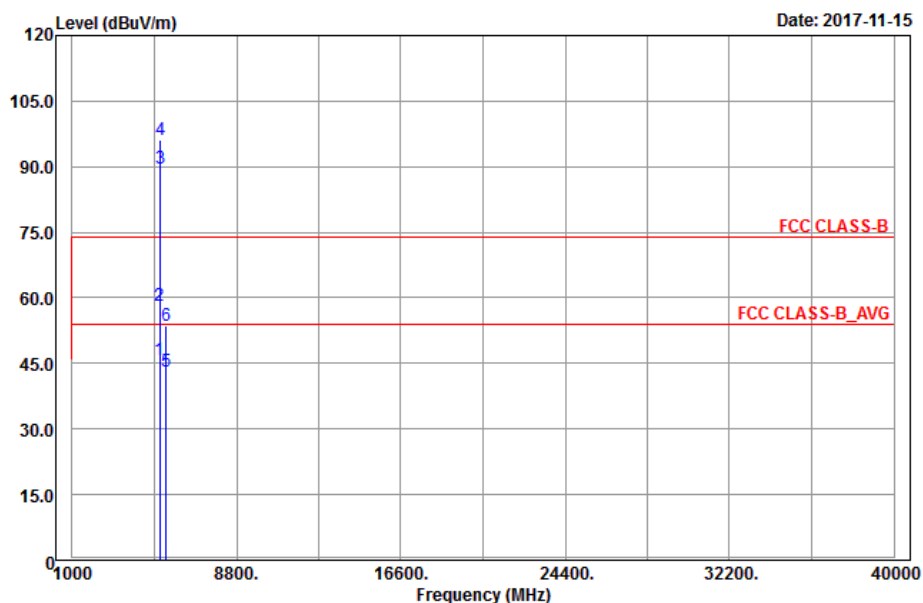
Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5825 MHz: Fundamental Frequency
- *: Out of Restricted Band

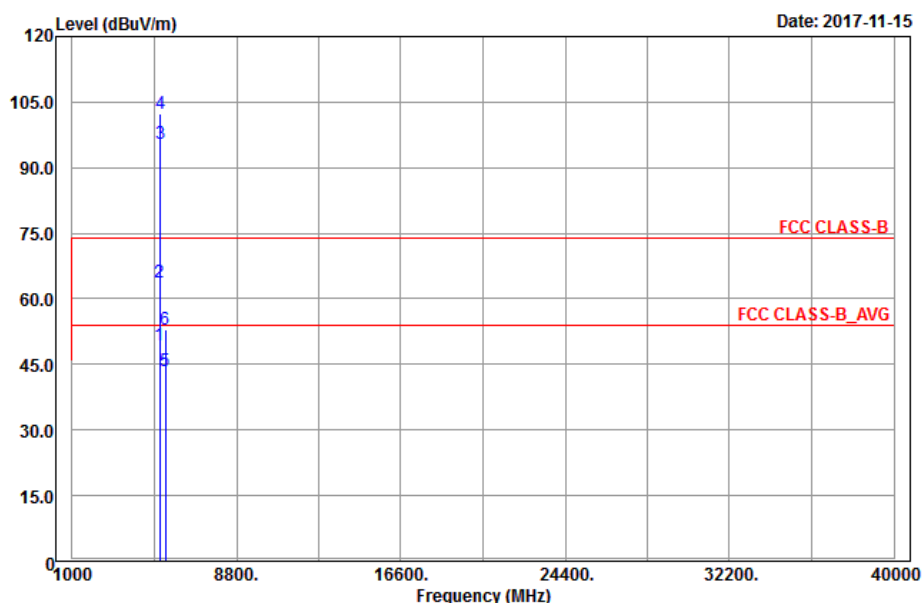
802.11ac (VHT40)

EUT Test Condition		Measurement Detail	
Channel	Channel 38	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



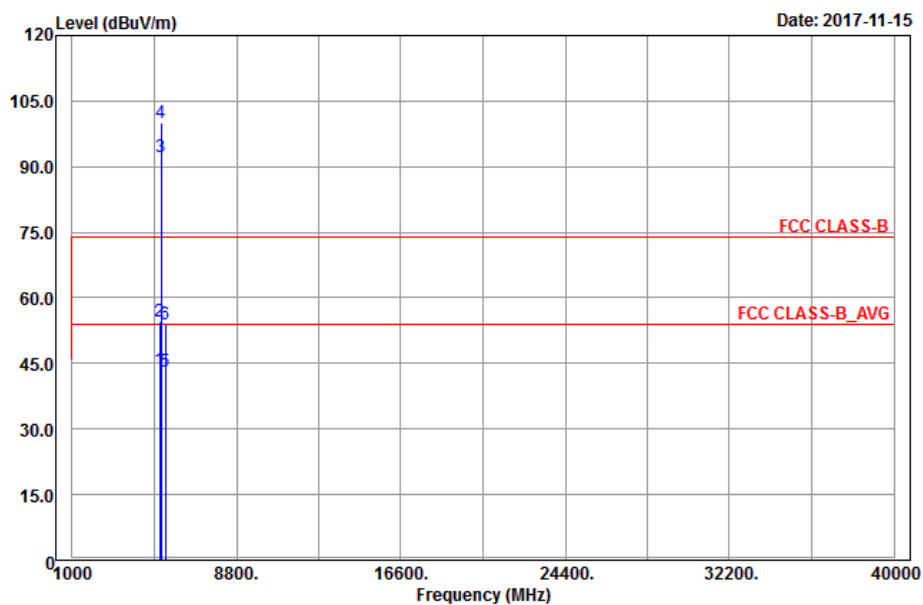
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5148.95	45.82	37.57	54	-8.18	34.12	8.13	34	200	321	Average
5148.95	58.24	49.99	74	-15.76	34.12	8.13	34	200	321	Peak
5190	89.59	81.25			34.15	8.19	34	200	321	Average
5190	96.09	87.75			34.15	8.19	34	200	321	Peak
5452.85	43.24	34.42	54	-10.76	34.36	8.51	34.05	200	321	Average
5452.85	53.71	44.89	74	-20.29	34.36	8.51	34.05	200	321	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.25	49.52	41.27	54	-4.48	34.12	8.13	34	197	337	Average
5149.25	63.92	55.67	74	-10.08	34.12	8.13	34	197	337	Peak
5190	95.49	87.15			34.15	8.19	34	170	337	Average
5190	102.3	93.96			34.15	8.19	34	170	337	Peak
5437.01	43.34	34.55	54	-10.66	34.35	8.48	34.04	170	337	Average
5437.01	53.1	44.31	74	-20.9	34.35	8.48	34.04	170	337	Peak

Remarks:

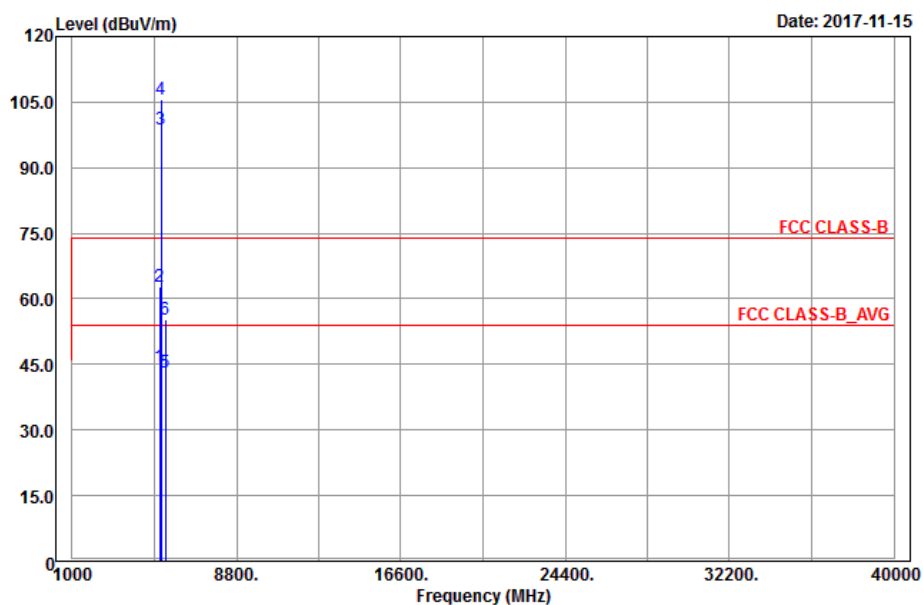
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5190 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 46	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



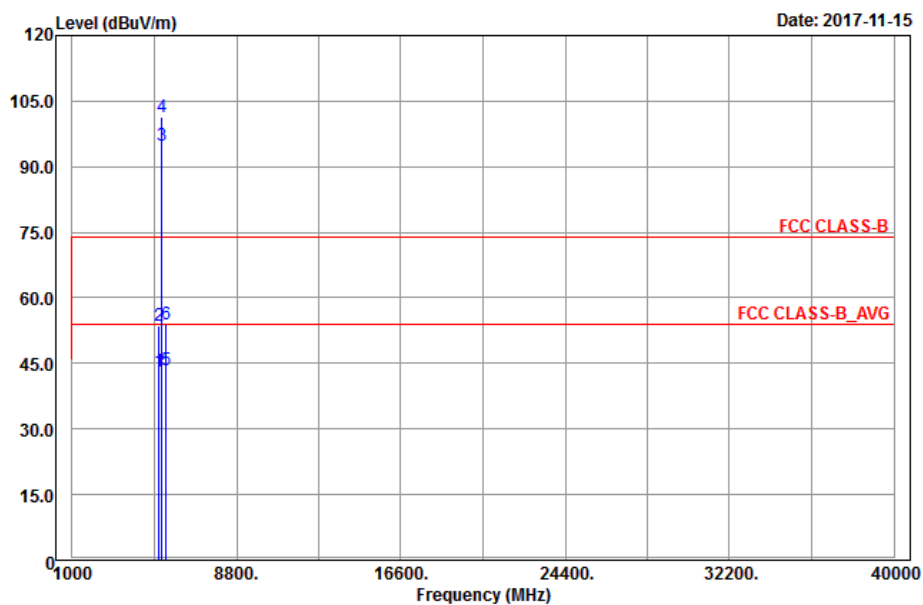
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5141.3	43.48	35.22	54	-10.52	34.12	8.13	33.99	200	321	Average
5141.3	54.5	46.24	74	-19.5	34.12	8.13	33.99	200	321	Peak
5230	92.19	83.79			34.19	8.22	34.01	200	321	Average
5230	99.89	91.49			34.19	8.22	34.01	200	321	Peak
5422.27	43.22	34.45	54	-10.78	34.33	8.48	34.04	200	321	Average
5422.27	54.05	45.28	74	-19.95	34.33	8.48	34.04	200	321	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.7	44.46	36.21	54	-9.54	34.12	8.13	34	185	337	Average
5149.7	62.85	54.6	74	-11.15	34.12	8.13	34	185	337	Peak
5230	98.65	90.25			34.19	8.22	34.01	185	337	Average
5230	105.46	97.06			34.19	8.22	34.01	185	337	Peak
5433.27	43.31	34.52	54	-10.69	34.35	8.48	34.04	185	337	Average
5433.27	55.38	46.59	74	-18.62	34.35	8.48	34.04	185	337	Peak

Remarks:

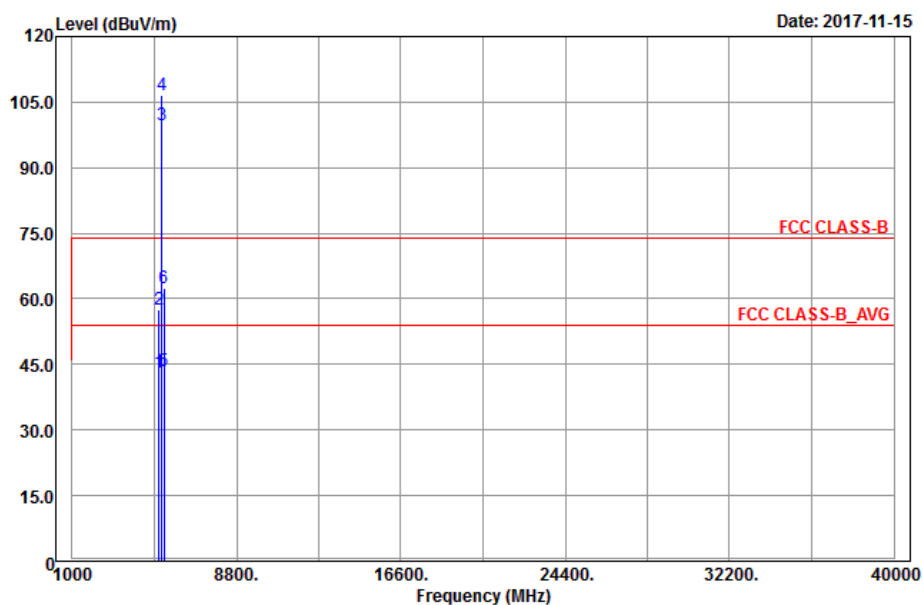
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5230 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 54	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



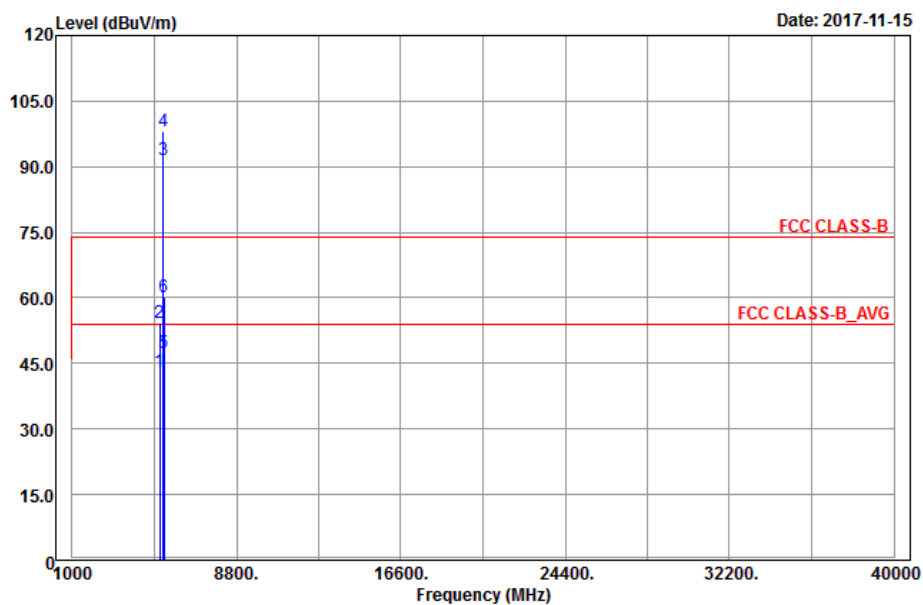
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5124.05	43.16	34.94	54	-10.84	34.11	8.1	33.99	198	335	Average
5124.05	53.58	45.36	74	-20.42	34.11	8.1	33.99	198	335	Peak
5270	94.74	86.25			34.21	8.29	34.01	198	335	Average
5270	101.4	92.91			34.21	8.29	34.01	198	335	Peak
5444.71	43.38	34.59	54	-10.62	34.35	8.48	34.04	198	335	Average
5444.71	53.84	45.05	74	-20.16	34.35	8.48	34.04	198	335	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5115.8	43.27	35.07	54	-10.73	34.09	8.1	33.99	115	39	Average
5115.8	57.54	49.34	74	-16.46	34.09	8.1	33.99	115	39	Peak
5270	99.76	91.27			34.21	8.29	34.01	115	39	Average
5270	106.44	97.95			34.21	8.29	34.01	115	39	Peak
5351.21	43.46	34.83	54	-10.54	34.28	8.38	34.03	115	39	Average
5351.21	62.32	53.69	74	-11.68	34.28	8.38	34.03	115	39	Peak

Remarks:

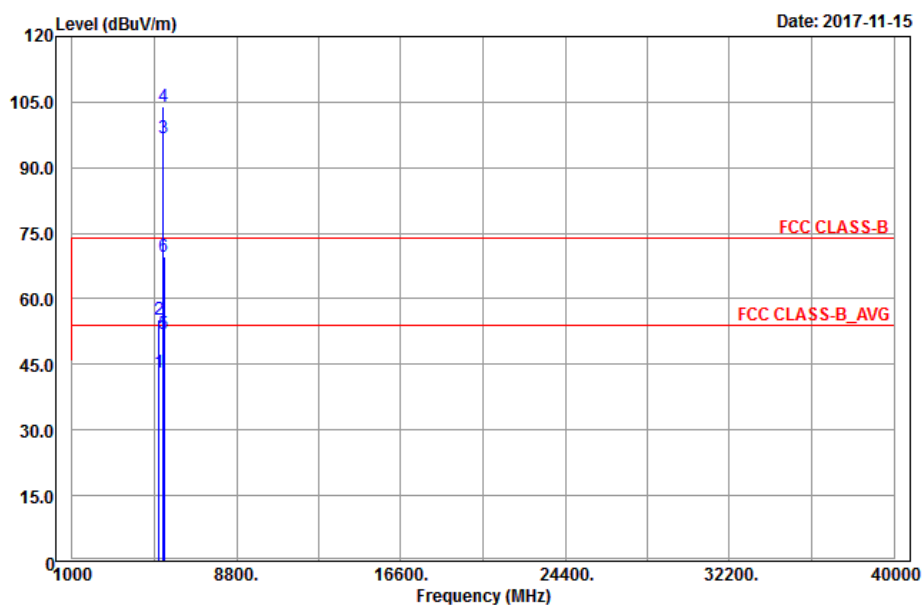
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5270 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 62	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



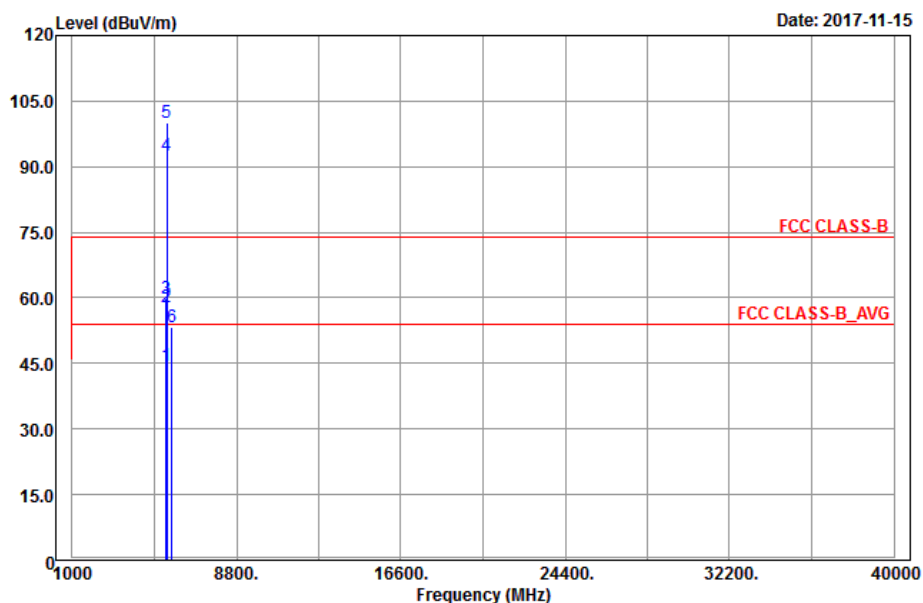
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5147	43.14	34.89	54	-10.86	34.12	8.13	34	198	335	Average
5147	54.16	45.91	74	-19.84	34.12	8.13	34	198	335	Peak
5310	91.49	82.94			34.25	8.32	34.02	198	335	Average
5310	98.02	89.47			34.25	8.32	34.02	198	335	Peak
5350.22	47.44	38.81	54	-6.56	34.28	8.38	34.03	198	335	Average
5350.22	60.25	51.62	74	-13.75	34.28	8.38	34.03	198	335	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5135.6	43.25	35	54	-10.75	34.11	8.13	33.99	115	39	Average
5135.6	55.22	46.97	74	-18.78	34.11	8.13	33.99	115	39	Peak
5310	96.64	88.09			34.25	8.32	34.02	115	39	Average
5310	103.84	95.29			34.25	8.32	34.02	115	39	Peak
5350	52.14	43.51	54	-1.86	34.28	8.38	34.03	116	40	Average
5350	69.53	60.9	74	-4.47	34.28	8.38	34.03	116	40	Peak

Remarks:

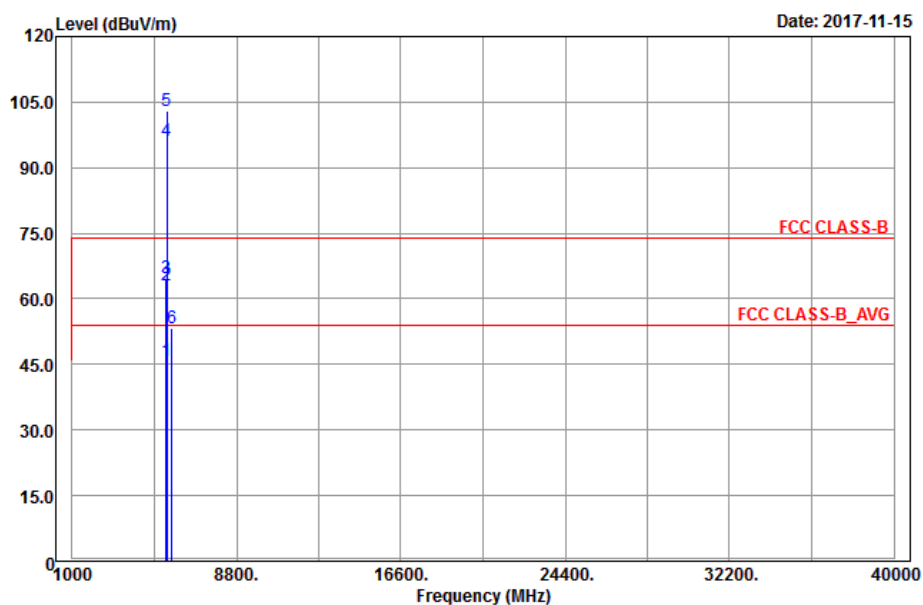
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5310 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 102	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



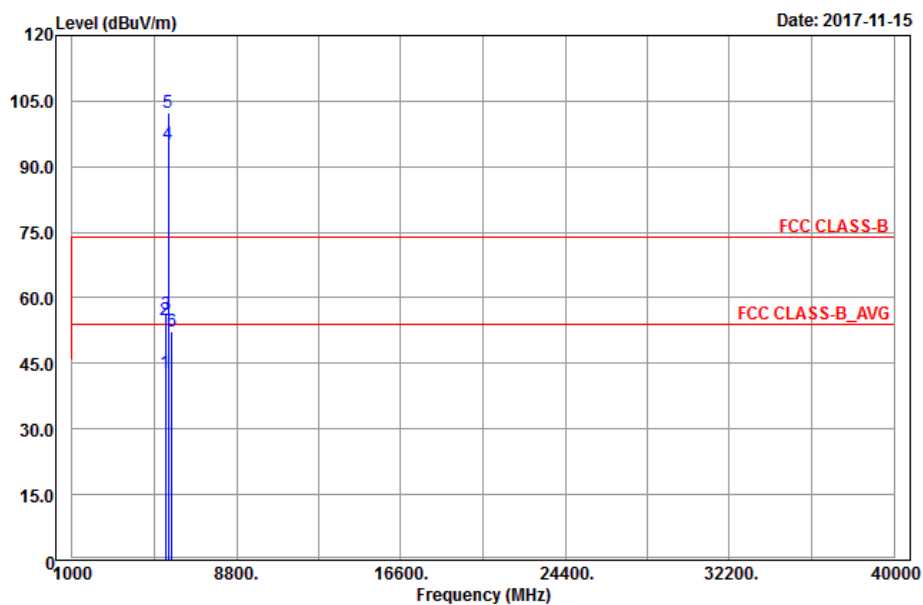
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460.08	44.55	35.73	54	-9.45	34.36	8.51	34.05	267	121	Average
5460.08	57.86	49.04	74	-16.14	34.36	8.51	34.05	267	121	Peak
*5468.72	59.97	51.14	68.2	-8.23	34.37	8.51	34.05	267	121	Peak
5510	92.56	83.65			34.4	8.57	34.06	260	128	Average
5510	99.95	91.04			34.4	8.57	34.06	260	128	Peak
*5724.04	53.4	44.24	68.2	-14.8	34.62	8.65	34.11	260	128	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5460.08	45.88	37.06	54	-8.12	34.36	8.51	34.05	155	237	Average
5460.08	63.11	54.29	74	-10.89	34.36	8.51	34.05	155	237	Peak
*5470.64	64.63	55.8	68.2	-3.57	34.37	8.51	34.05	155	237	Peak
5510	96.26	87.35			34.4	8.57	34.06	139	342	Average
5510	103.13	94.22			34.4	8.57	34.06	139	342	Peak
*5724.52	53.3	44.14	68.2	-14.9	34.62	8.65	34.11	139	342	Peak

Remarks:

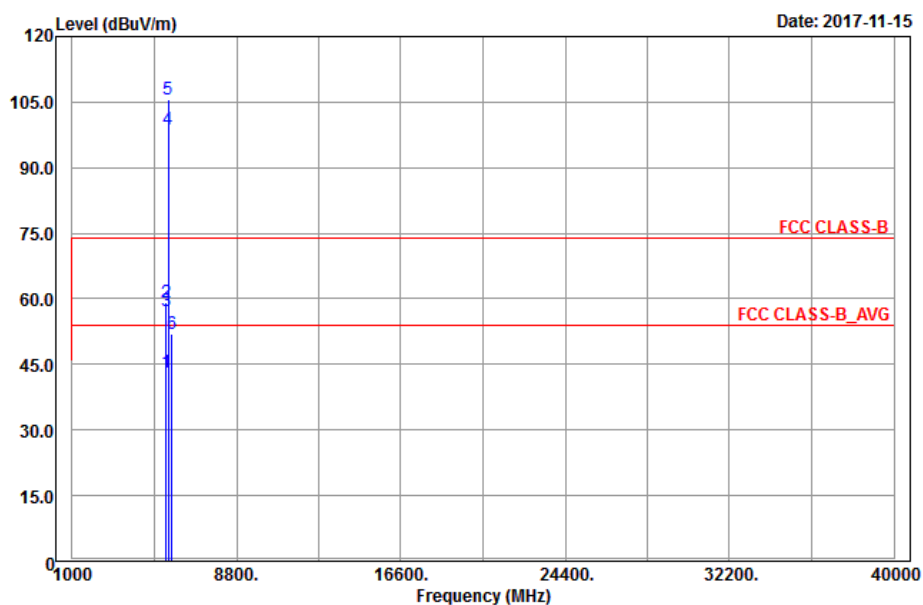
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5510 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 110	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



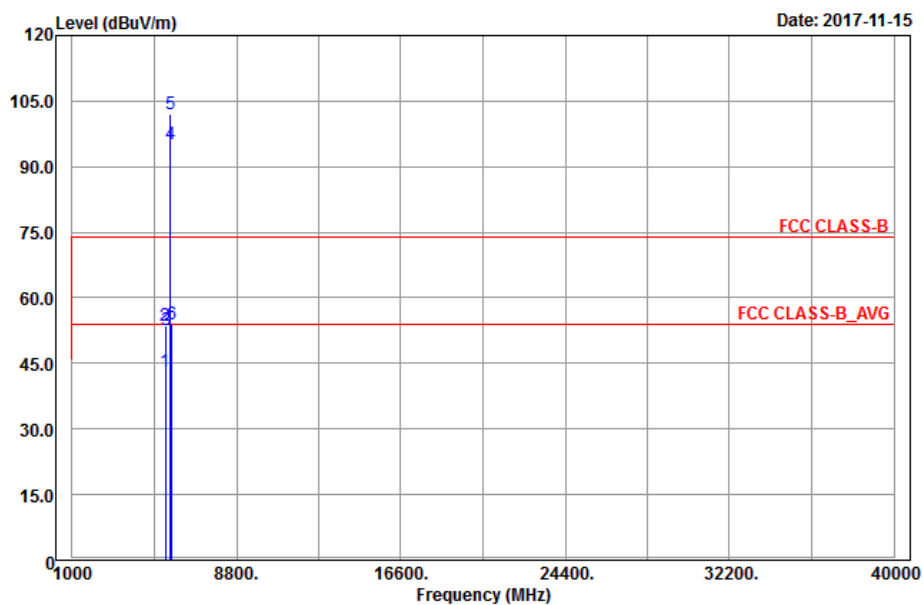
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5441.36	42.84	34.05	54	-11.16	34.35	8.48	34.04	281	116	Average
5441.36	54.78	45.99	74	-19.22	34.35	8.48	34.04	281	116	Peak
*5468.24	56.26	47.43	68.2	-11.94	34.37	8.51	34.05	281	116	Peak
5550	95.24	86.27			34.45	8.59	34.07	281	116	Average
5550	102.49	93.52			34.45	8.59	34.07	281	116	Peak
*5725.16	52.17	43.01	68.2	-16.03	34.62	8.65	34.11	281	116	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5459.92	43.27	34.45	54	-10.73	34.36	8.51	34.05	136	342	Average
5459.92	59.3	50.48	74	-14.7	34.36	8.51	34.05	136	342	Peak
*5470	57.14	48.31	68.2	-11.06	34.37	8.51	34.05	136	342	Peak
5550	98.76	89.79			34.45	8.59	34.07	136	342	Average
5550	105.65	96.68			34.45	8.59	34.07	136	342	Peak
*5724.76	52.04	42.88	68.2	-16.16	34.62	8.65	34.11	136	342	Peak

Remarks:

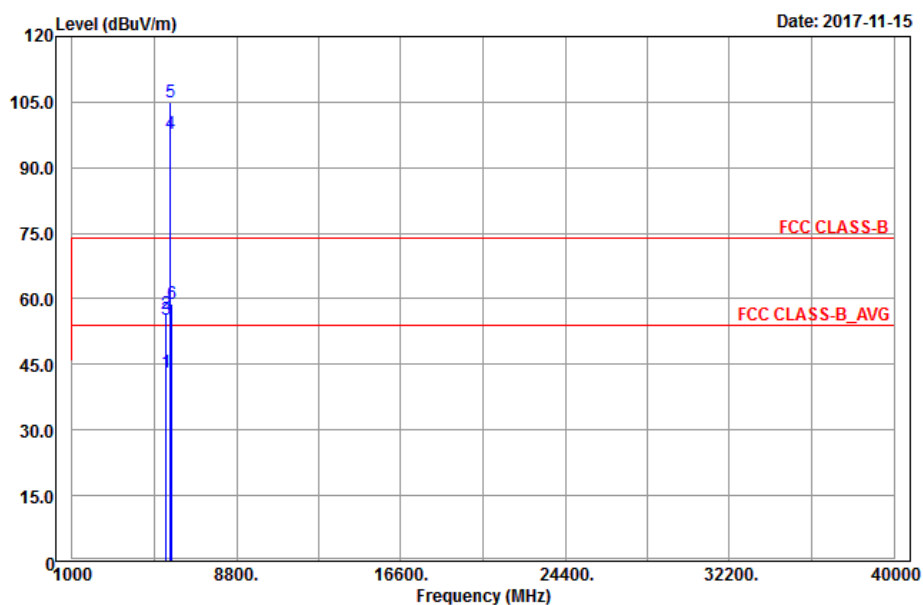
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5550 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 134	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



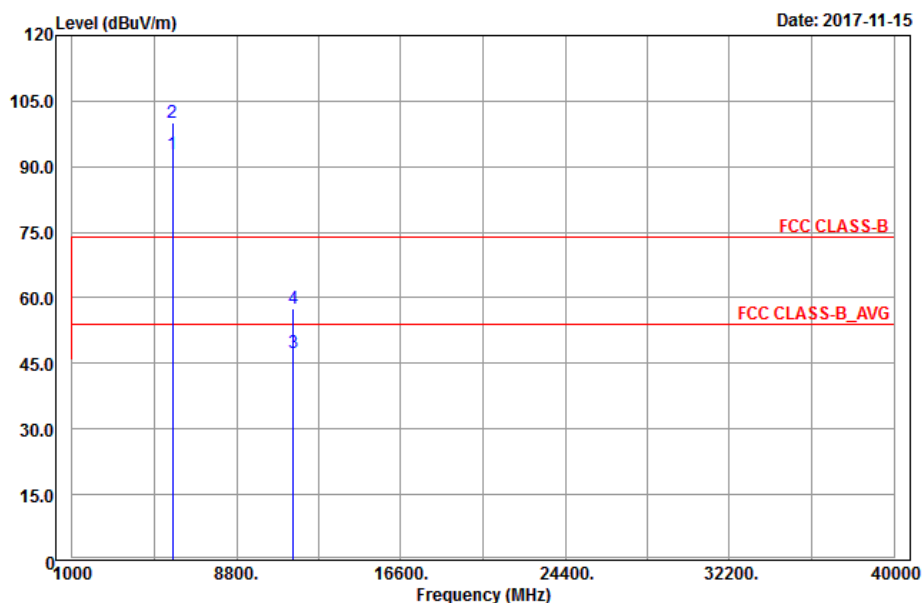
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5422.96	43.27	34.5	54	-10.73	34.33	8.48	34.04	278	116	Average
5422.96	53.54	44.77	74	-20.46	34.33	8.48	34.04	278	116	Peak
*5469.68	52.77	43.94	68.2	-15.43	34.37	8.51	34.05	278	116	Peak
5670	95.07	85.97			34.57	8.63	34.1	278	116	Average
5670	101.86	92.76			34.57	8.63	34.1	278	116	Peak
*5724.44	53.95	44.79	68.2	-14.25	34.62	8.65	34.11	236	185	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5453.2	43.28	34.46	54	-10.72	34.36	8.51	34.05	132	342	Average
5453.2	56.6	47.78	74	-17.4	34.36	8.51	34.05	132	342	Peak
*5470.32	55.33	46.5	68.2	-12.87	34.37	8.51	34.05	132	342	Peak
5670	97.92	88.82			34.57	8.63	34.1	132	342	Average
5670	105.1	96			34.57	8.63	34.1	132	342	Peak
*5724.2	58.77	49.61	68.2	-9.43	34.62	8.65	34.11	106	348	Peak

Remarks:

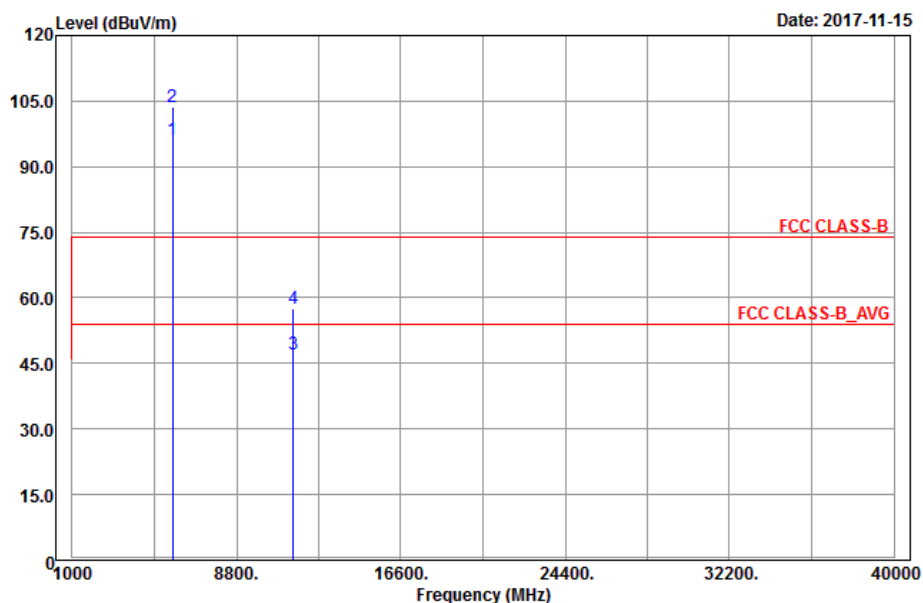
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5670 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 151	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

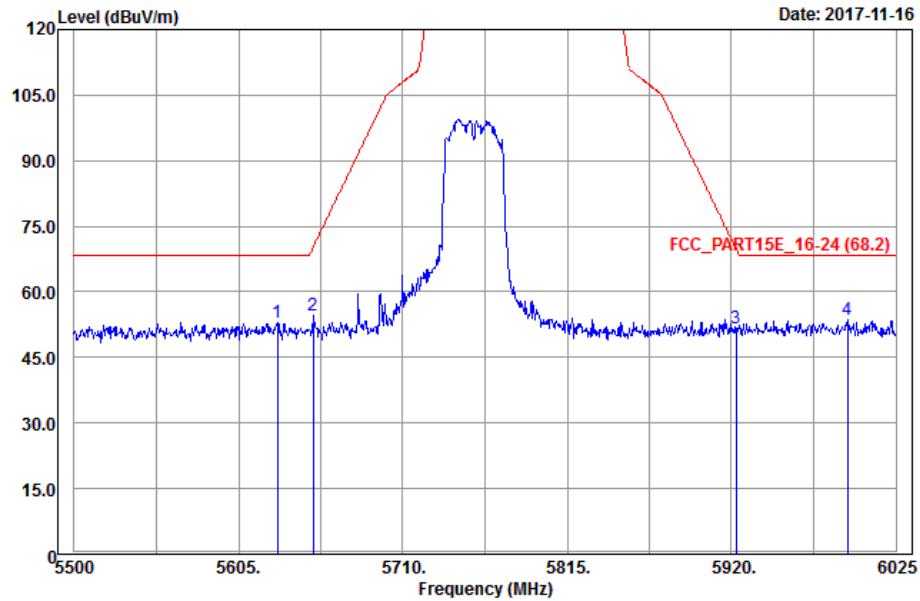
<Spurious Emission> Horizontal



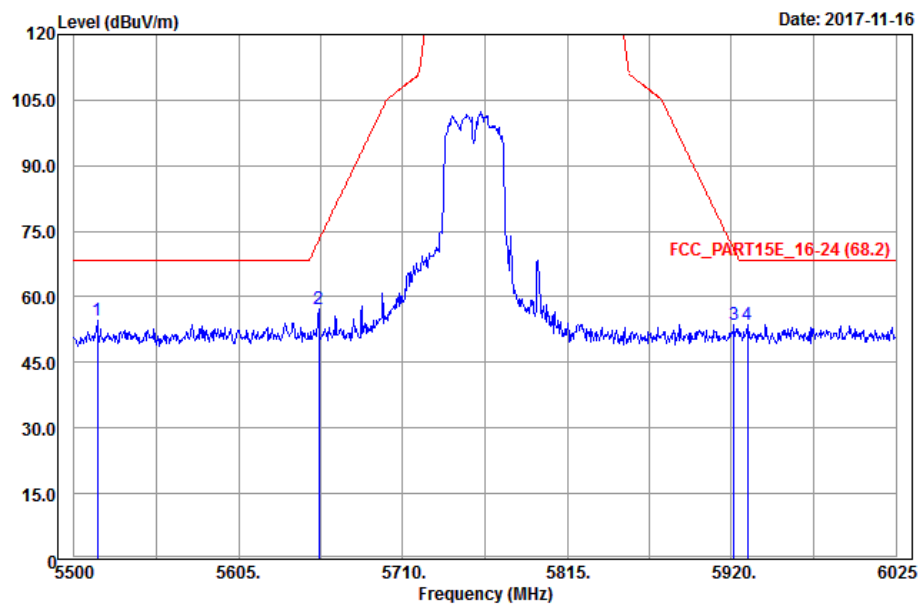
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5755	92.87	83.66			34.66	8.66	34.11	278	116	Average
5755	100.11	90.9			34.66	8.66	34.11	278	116	Peak
11510	47.43	32.32	54	-6.57	37.9	12.6	35.39	165	312	Average
11510	57.66	42.55	74	-16.34	37.9	12.6	35.39	165	312	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5755	96.22	87.01			34.66	8.66	34.11	120	343	Average
5755	103.56	94.35			34.66	8.66	34.11	120	343	Peak
11510	47.23	32.12	54	-6.77	37.9	12.6	35.39	148	172	Average
11510	57.58	42.47	74	-16.42	37.9	12.6	35.39	148	172	Peak

<Out of Band Emission (OOBE)>

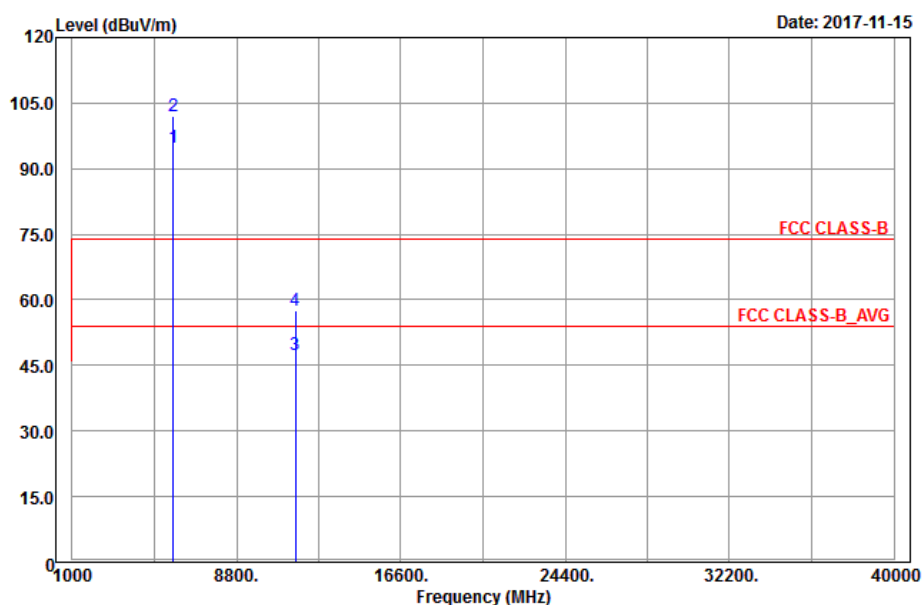
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5629.675	52.89	43.84	68.2	-15.31	34.52	8.62	34.09	278	116	Peak
5652.775	54.57	45.47	70.25	-15.68	34.56	8.63	34.09	278	116	Peak
5923.15	51.59	42.19	69.57	-17.98	34.83	8.73	34.16	278	116	Peak
*5994.025	53.57	44.08	68.2	-14.63	34.9	8.76	34.17	278	116	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5514.7	54.76	45.83	68.2	-13.44	34.42	8.57	34.06	120	343	Peak
5656.45	57.24	48.15	72.97	-15.73	34.56	8.63	34.1	120	343	Peak
5921.575	53.69	44.29	70.73	-17.04	34.83	8.73	34.16	120	343	Peak
*5930.5	53.51	44.11	68.2	-14.69	34.83	8.73	34.16	120	343	Peak

Remarks:

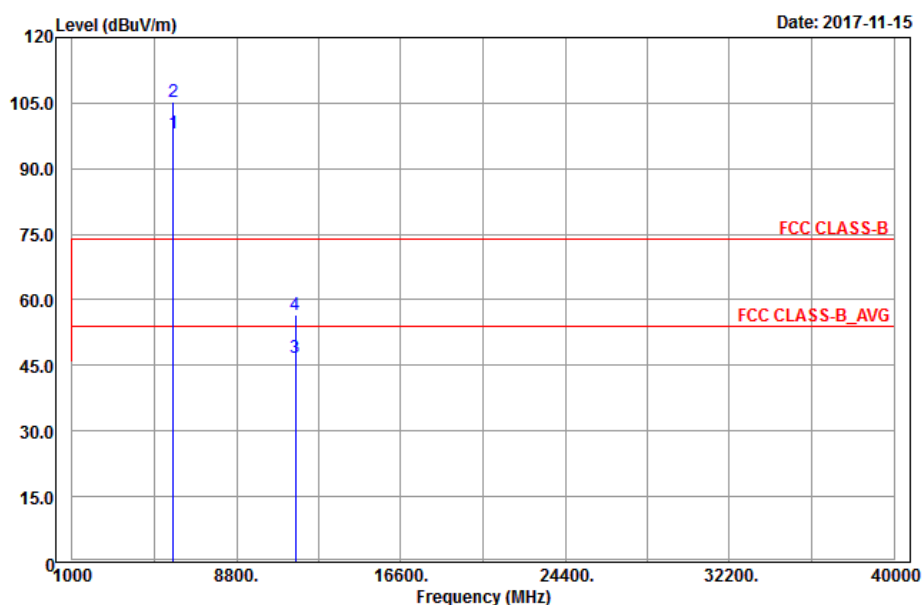
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5755 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 159	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

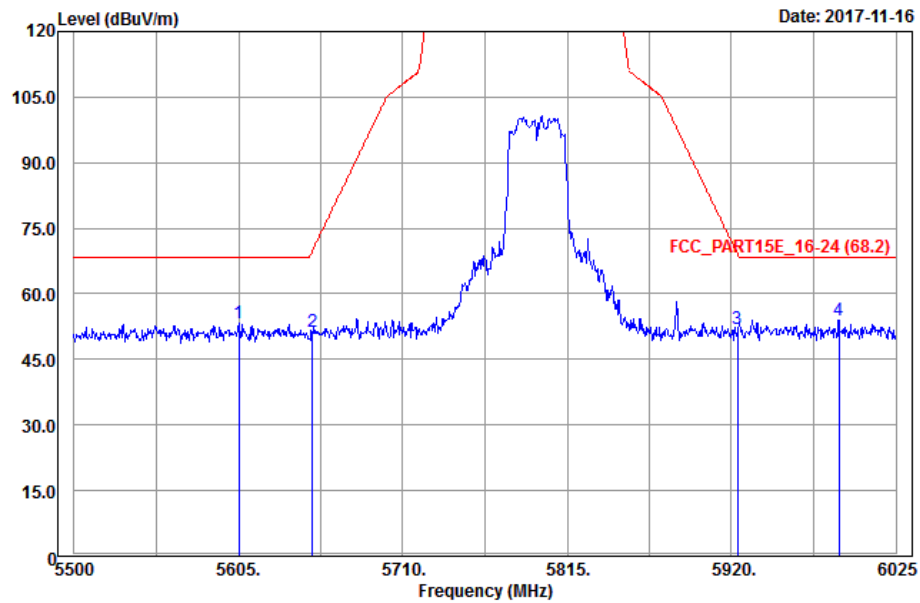
<Spurious Emission> Horizontal



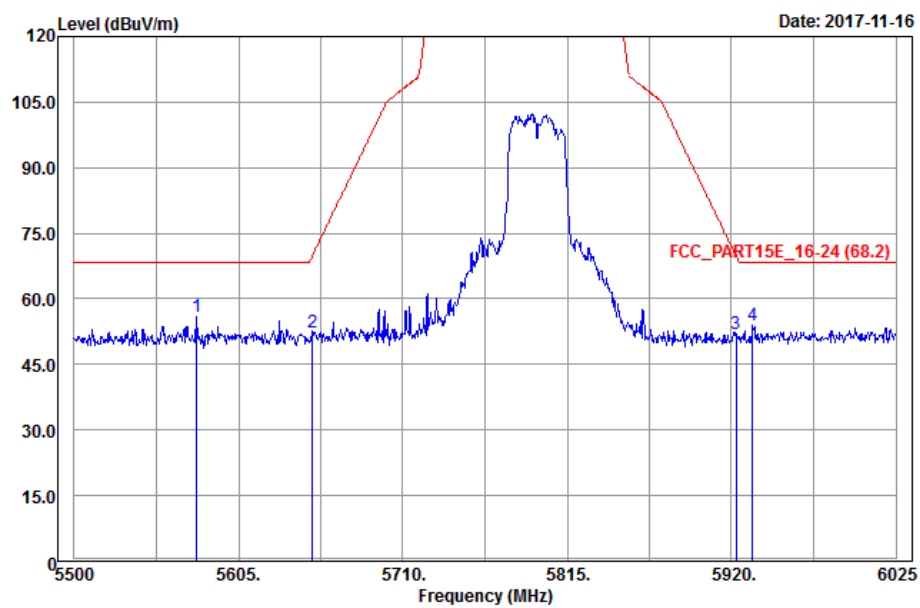
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5795	94.93	85.69			34.69	8.68	34.13	273	116	Average
5795	102.03	92.79			34.69	8.68	34.13	273	116	Peak
11590	47.26	31.89	54	-6.74	38.02	12.72	35.37	128	28	Average
11590	57.69	42.32	74	-16.31	38.02	12.72	35.37	128	28	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5795	98.11	88.87			34.69	8.68	34.13	120	343	Average
5795	105.17	95.93			34.69	8.68	34.13	120	343	Peak
11590	46.63	31.26	54	-7.37	38.02	12.72	35.37	123	157	Average
11590	56.49	41.12	74	-17.51	38.02	12.72	35.37	123	157	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5605	53.33	44.3	68.2	-14.87	34.5	8.61	34.08	273	116	Peak
5652.25	51.3	42.21	69.86	-18.56	34.56	8.62	34.09	273	116	Peak
5923.675	51.84	42.44	69.18	-17.34	34.83	8.73	34.16	273	116	Peak
*5988.775	53.93	44.47	68.2	-14.27	34.88	8.75	34.17	273	116	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5578.225	55.94	46.95	68.2	-12.26	34.47	8.6	34.08	120	343	Peak
5652.25	52.25	43.16	69.86	-17.61	34.56	8.62	34.09	120	343	Peak
5923.15	52.03	42.63	69.57	-17.54	34.83	8.73	34.16	120	343	Peak
*5933.65	53.92	44.52	68.2	-14.28	34.83	8.73	34.16	120	343	Peak

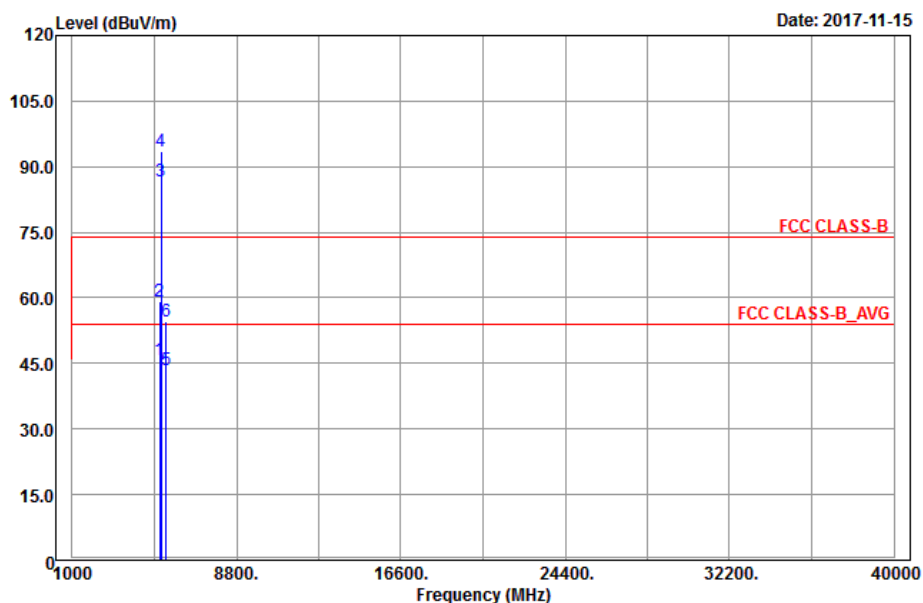
Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5795 MHz: Fundamental Frequency
3. *: Out of Restricted Band

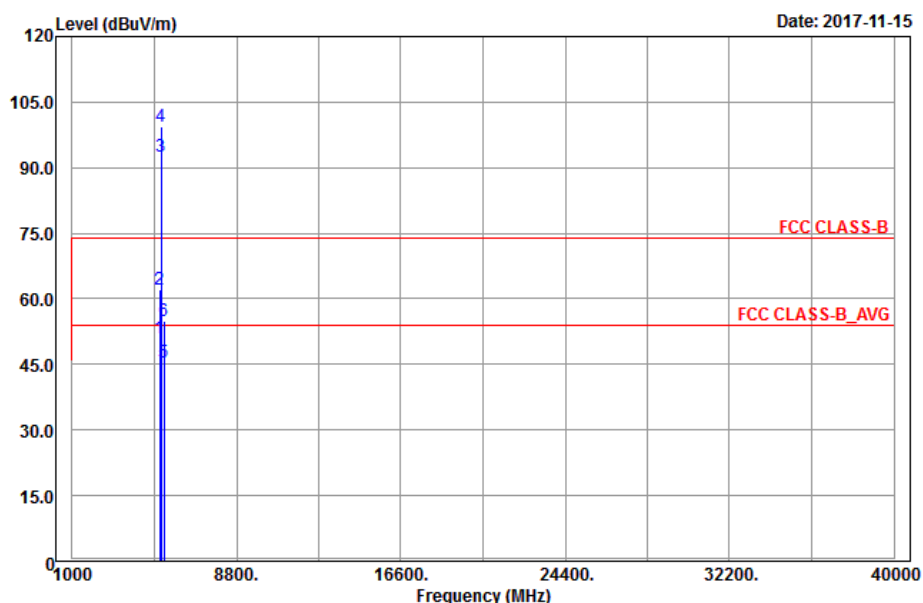
802.11ac (VHT80)

EUT Test Condition		Measurement Detail	
Channel	Channel 42	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



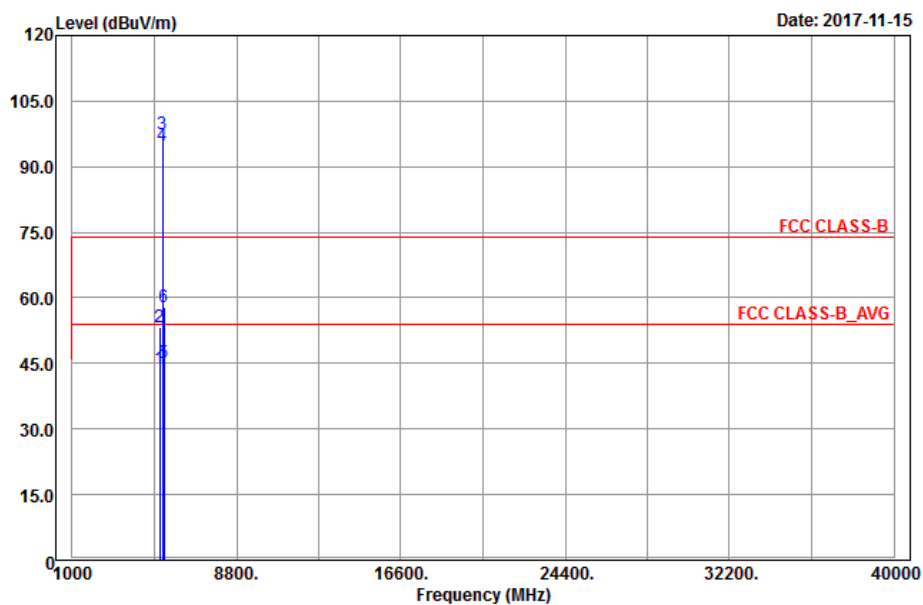
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.25	45.64	37.39	54	-8.36	34.12	8.13	34	200	321	Average
5149.25	59.08	50.83	74	-14.92	34.12	8.13	34	200	321	Peak
5210	86.57	78.21			34.17	8.19	34	200	321	Average
5210	93.4	85.04			34.17	8.19	34	200	321	Peak
5455.05	43.46	34.64	54	-10.54	34.36	8.51	34.05	200	321	Average
5455.05	54.75	45.93	74	-19.25	34.36	8.51	34.05	200	321	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5142.5	50.91	42.65	54	-3.09	34.12	8.13	33.99	170	338	Average
5142.5	62.02	53.76	74	-11.98	34.12	8.13	33.99	170	338	Peak
5210	92.49	84.13			34.17	8.19	34	170	337	Average
5210	99.39	91.03			34.17	8.19	34	170	337	Peak
5350	45.36	36.73	54	-8.64	34.28	8.38	34.03	170	337	Average
5350	54.86	46.23	74	-19.14	34.28	8.38	34.03	170	337	Peak

Remarks:

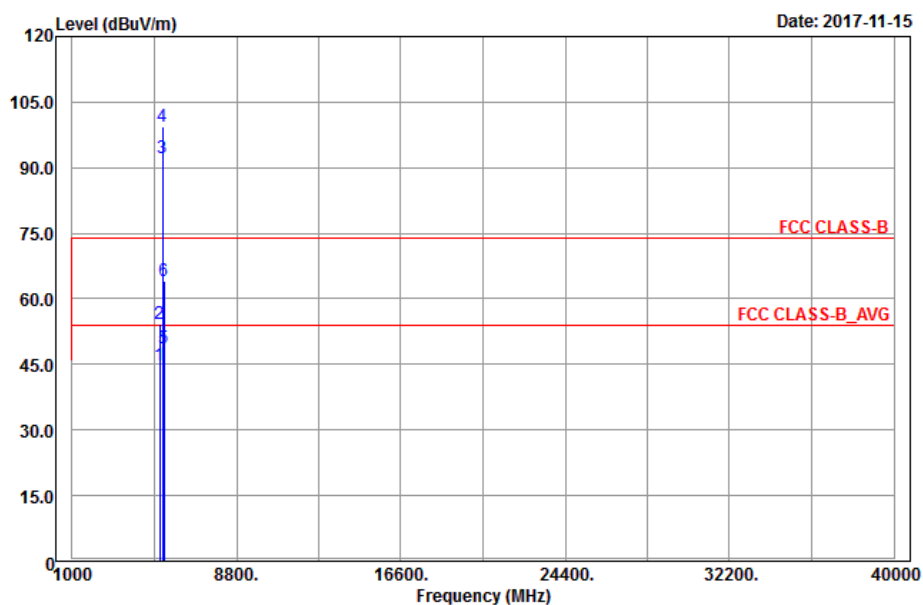
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5210 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 58	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



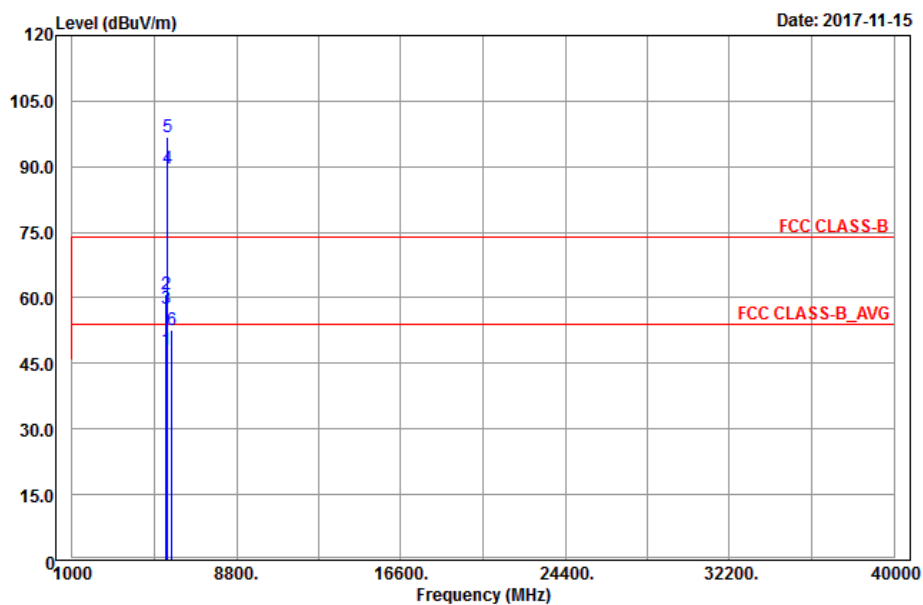
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5148.65	43.76	35.51	54	-10.24	34.12	8.13	34	198	335	Average
5148.65	53.14	44.89	74	-20.86	34.12	8.13	34	198	335	Peak
5290	97.43	88.9			34.23	8.32	34.02	198	335	Average
5290	94.85	86.32			34.23	8.32	34.02	198	335	Peak
5351.1	45.15	36.52	54	-8.85	34.28	8.38	34.03	198	335	Average
5351.1	57.78	49.15	74	-16.22	34.28	8.38	34.03	198	335	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5146.25	44.82	36.57	54	-9.18	34.12	8.13	34	115	39	Average
5146.25	54.12	45.87	74	-19.88	34.12	8.13	34	115	39	Peak
5290	92.17	83.64			34.23	8.32	34.02	115	39	Average
5290	99.33	90.8			34.23	8.32	34.02	115	39	Peak
5350.33	48.71	40.08	54	-5.29	34.28	8.38	34.03	115	40	Average
5350.33	64.12	55.49	74	-9.88	34.28	8.38	34.03	115	40	Peak

Remarks:

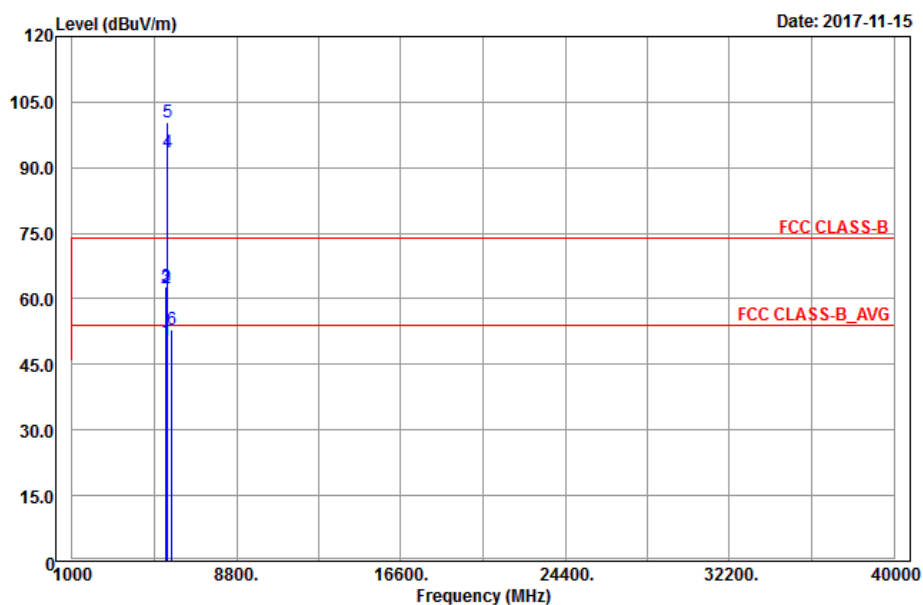
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5290 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 106	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



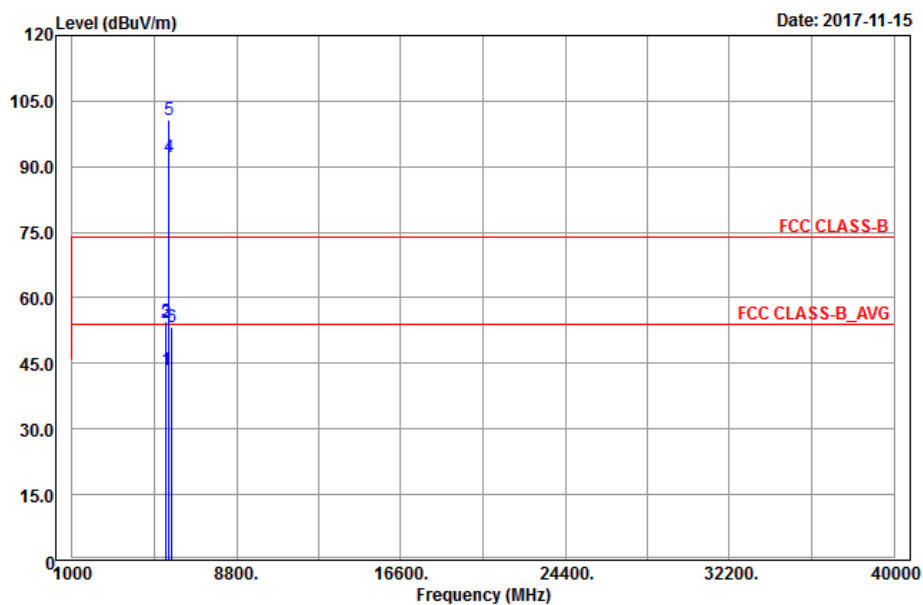
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5458.32	47.99	39.17	54	-6.01	34.36	8.51	34.05	260	175	Average
5458.32	60.75	51.93	74	-13.25	34.36	8.51	34.05	260	175	Peak
*5468.56	57.55	48.72	68.2	-10.65	34.37	8.51	34.05	260	175	Peak
5530	89.68	80.75			34.42	8.58	34.07	260	128	Average
5530	96.83	87.9			34.42	8.58	34.07	260	128	Peak
*5724.92	52.77	43.61	68.2	-15.43	34.62	8.65	34.11	260	128	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5458.48	50.34	41.52	54	-3.66	34.36	8.51	34.05	117	305	Average
5458.48	62.3	53.48	74	-11.7	34.36	8.51	34.05	117	305	Peak
*5470.64	62.88	54.05	68.2	-5.32	34.37	8.51	34.05	117	305	Peak
5530	93.43	84.5			34.42	8.58	34.07	148	342	Average
5530	100.52	91.59			34.42	8.58	34.07	148	342	Peak
*5724.28	53.05	43.89	68.2	-15.15	34.62	8.65	34.11	148	342	Peak

Remarks:

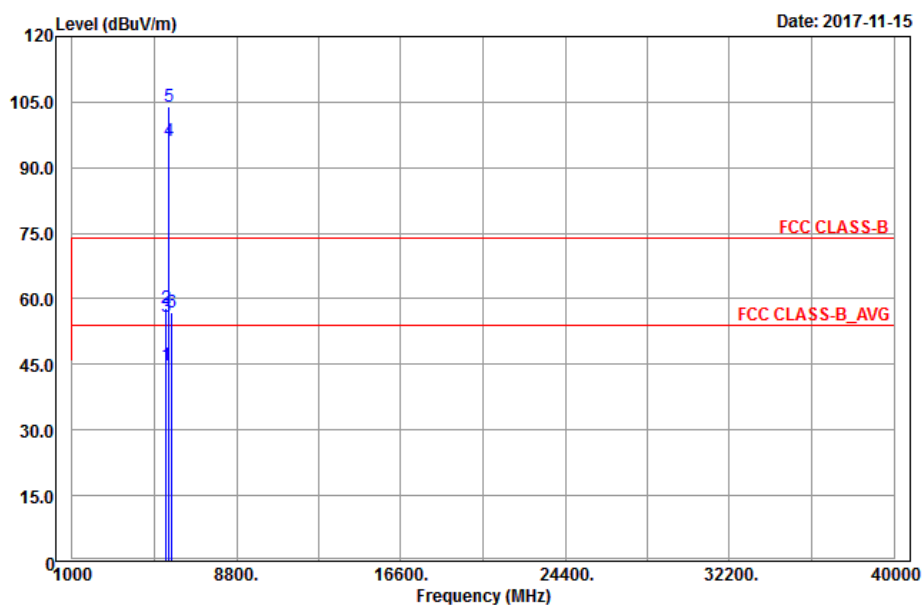
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5530 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 122	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



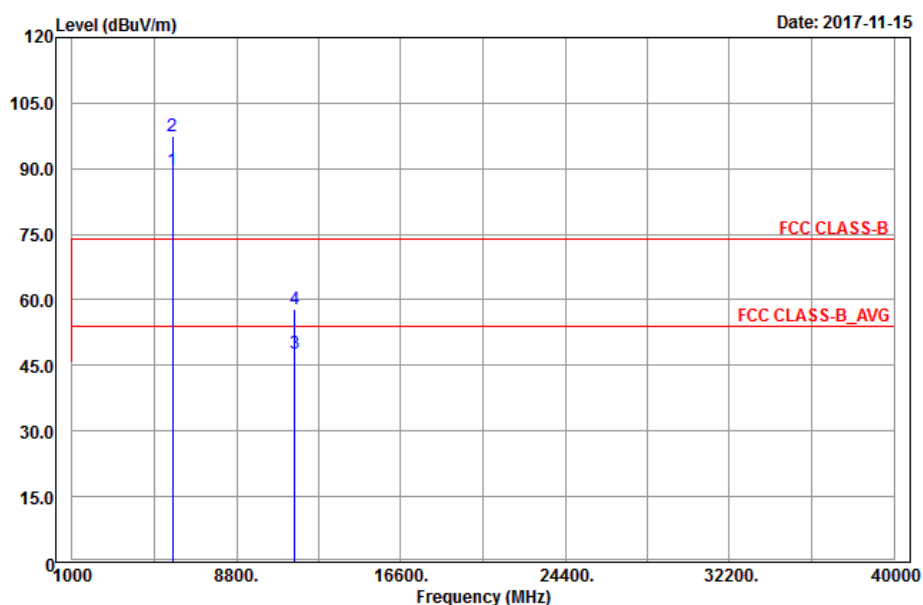
Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5456.88	43.52	34.7	54	-10.48	34.36	8.51	34.05	281	116	Average
5456.88	54.23	45.41	74	-19.77	34.36	8.51	34.05	281	116	Peak
*5469.04	54.47	45.64	68.2	-13.73	34.37	8.51	34.05	281	116	Peak
5610	92.34	83.31			34.5	8.61	34.08	281	116	Average
5610	100.74	91.71			34.5	8.61	34.08	281	116	Peak
*5723.96	53.46	44.3	68.2	-14.74	34.62	8.65	34.11	281	116	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5459.12	44.67	35.85	54	-9.33	34.36	8.51	34.05	132	342	Average
5459.12	57.93	49.11	74	-16.07	34.36	8.51	34.05	132	342	Peak
*5468.56	55.85	47.02	68.2	-12.35	34.37	8.51	34.05	132	342	Peak
5610	96	86.97			34.5	8.61	34.08	136	342	Average
5610	103.83	94.8			34.5	8.61	34.08	136	342	Peak
*5725.56	56.95	47.79	68.2	-11.25	34.62	8.65	34.11	136	342	Peak

Remarks:

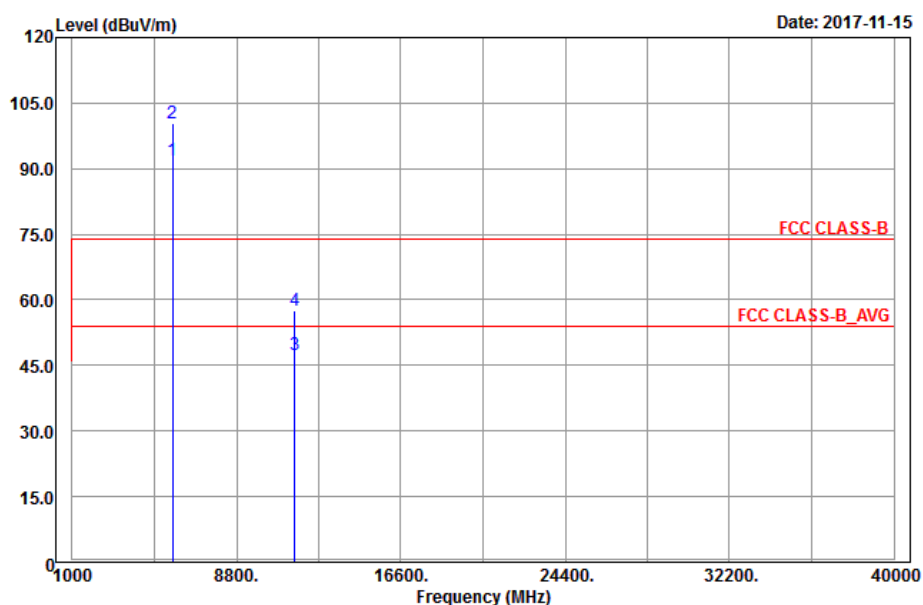
1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5610 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 155	Frequency Range	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

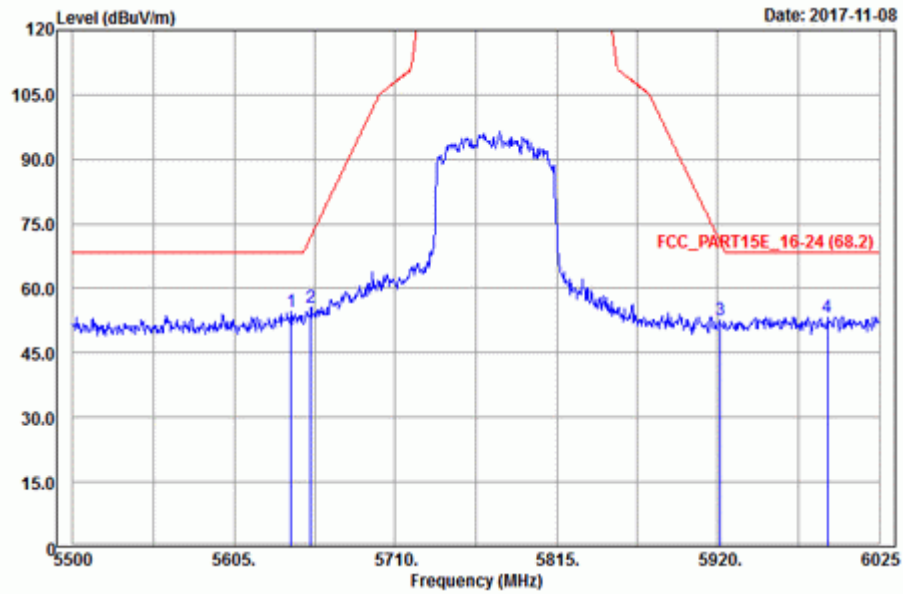
<Spurious Emission> Horizontal



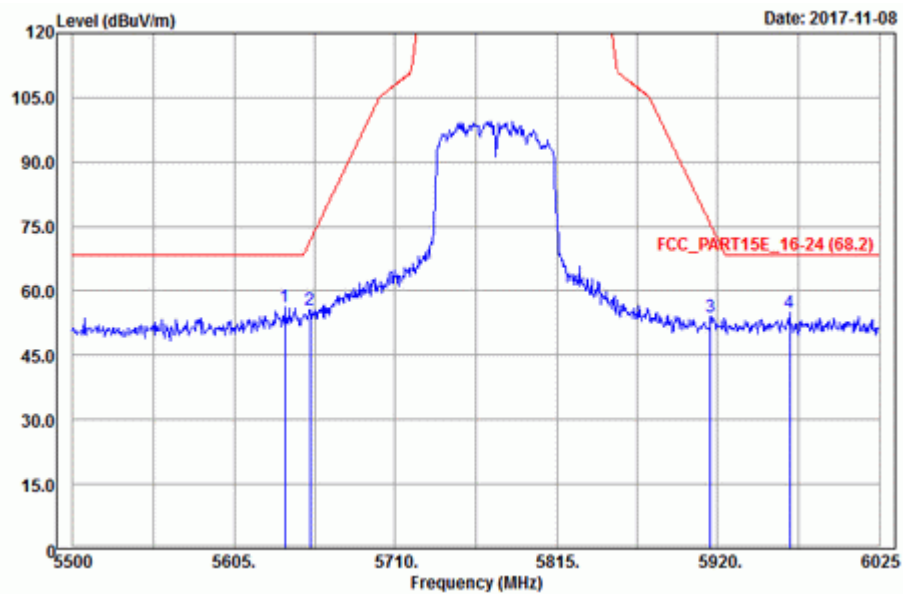
Vertical



<Out of Band Emission (OOBE)>
Horizontal



Vertical



<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5775	89.44	80.21			34.68	8.67	34.12	273	116	Average
5775	97.33	88.1			34.68	8.67	34.12	273	116	Peak
11550	47.65	32.38	54	-6.35	37.97	12.68	35.38	136	333	Average
11550	58.01	42.74	74	-15.99	37.97	12.68	35.38	136	333	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5775	91.99	82.76			34.68	8.67	34.12	120	343	Average
5775	100.36	91.13			34.68	8.67	34.12	120	343	Peak
11550	47.33	32.06	54	-6.67	37.97	12.68	35.38	142	275	Average
11550	57.46	42.19	74	-16.54	37.97	12.68	35.38	142	275	Peak

<Out of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5632.825	55.06	45.99	68.2	-13.14	34.54	8.62	34.09	273	116	Peak
5652.25	54.25	45.16	69.86	-15.61	34.56	8.62	34.09	273	116	Peak
5922.625	51.07	41.67	69.96	-18.89	34.83	8.73	34.16	273	116	Peak
*5926.825	53.49	44.09	68.2	-14.71	34.83	8.73	34.16	273	116	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5636.5	56.75	47.68	68.2	-11.45	34.54	8.62	34.09	120	343	Peak
5652.25	54.88	45.79	69.86	-14.98	34.56	8.62	34.09	120	343	Peak
5922.625	51.2	41.8	69.96	-18.76	34.83	8.73	34.16	120	343	Peak
*5998.225	53.88	44.39	68.2	-14.32	34.9	8.76	34.17	120	343	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
2. 5775 MHz: Fundamental Frequency
3. *: Out of Restricted Band

9 kHz ~ 30 MHz Data:

The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

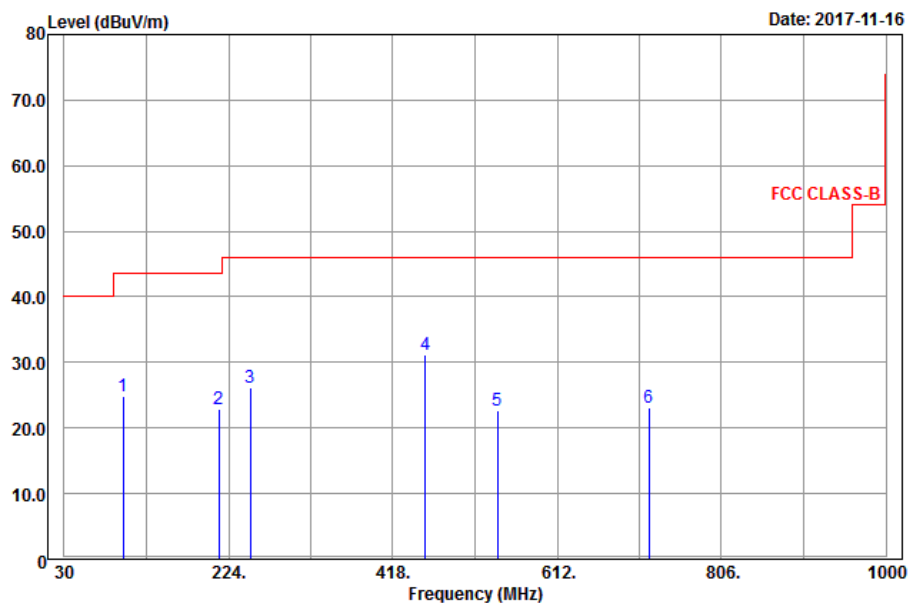
30 MHz ~ 1 GHz Worst-Case Data:

Mode A

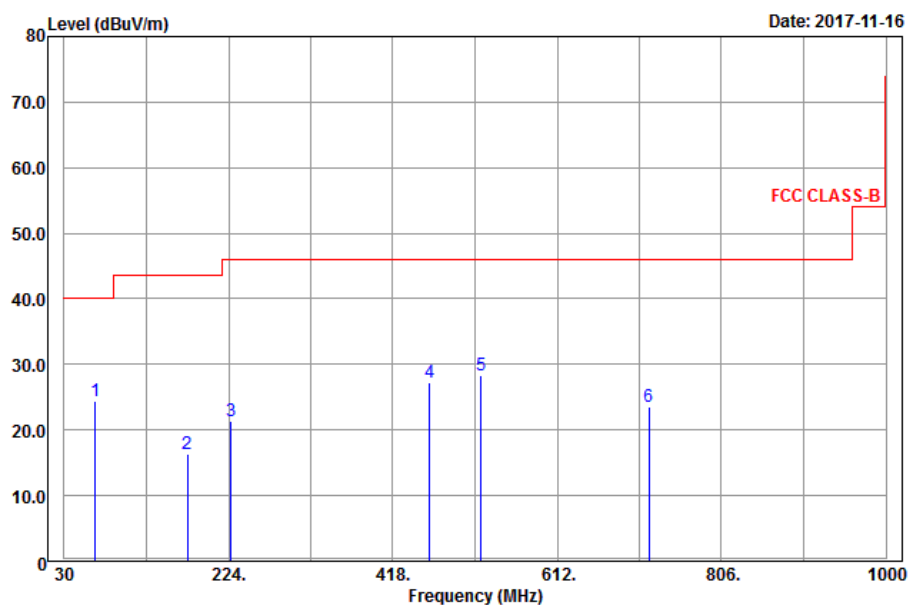
802.11ac (VHT80)

EUT Test Condition		Measurement Detail	
Channel	Channel 106	Frequency Range	30 MHz ~ 1 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Quasi-peak (QP)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
99.93	24.81	43.51	43.5	-18.69	12.28	1.28	32.26	124	165	Peak
212.25	22.79	42.19	43.5	-20.71	11.2	1.65	32.25	190	198	Peak
249.51	26.09	44.04	46	-19.91	12.3	1.85	32.1	146	260	Peak
456.8	31.13	45.11	46	-14.87	15.67	2.49	32.14	112	296	Peak
541.5	22.64	35.16	46	-23.36	16.9	2.76	32.18	134	195	Peak
720	23.03	32.47	46	-22.97	19.51	3.16	32.11	110	112	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
66.99	24.38	44.39	40	-15.62	11.31	0.9	32.22	134	36	Peak
175.8	16.41	37.6	43.5	-27.09	9.44	1.61	32.24	175	9	Peak
226.56	21.4	40.11	46	-24.6	11.63	1.85	32.19	154	244	Peak
461.7	27.31	41.14	46	-18.69	15.74	2.56	32.13	117	124	Peak
521.9	28.27	41.08	46	-17.73	16.63	2.7	32.14	141	280	Peak
720	23.5	32.94	46	-22.5	19.51	3.16	32.11	195	165	Peak

Remarks:

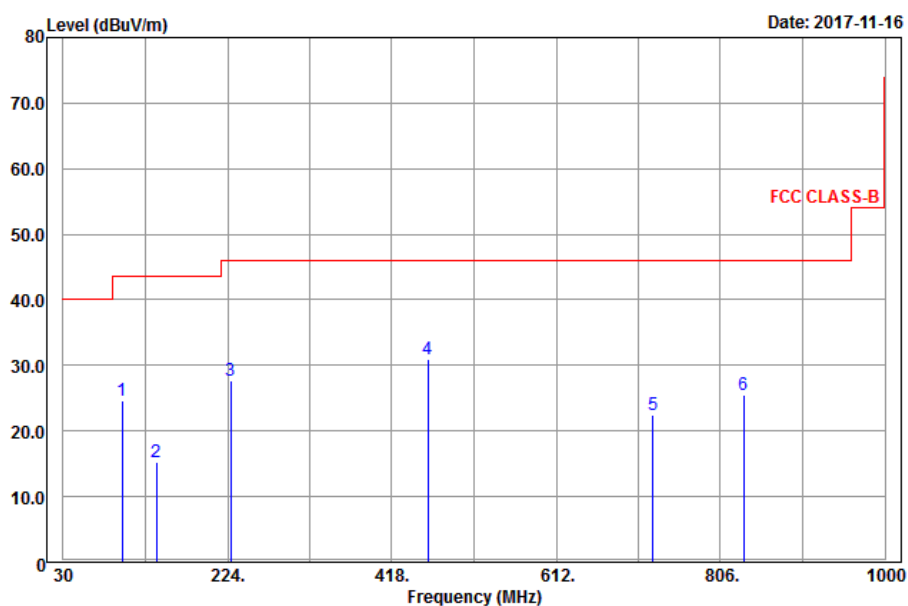
- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value

Mode B

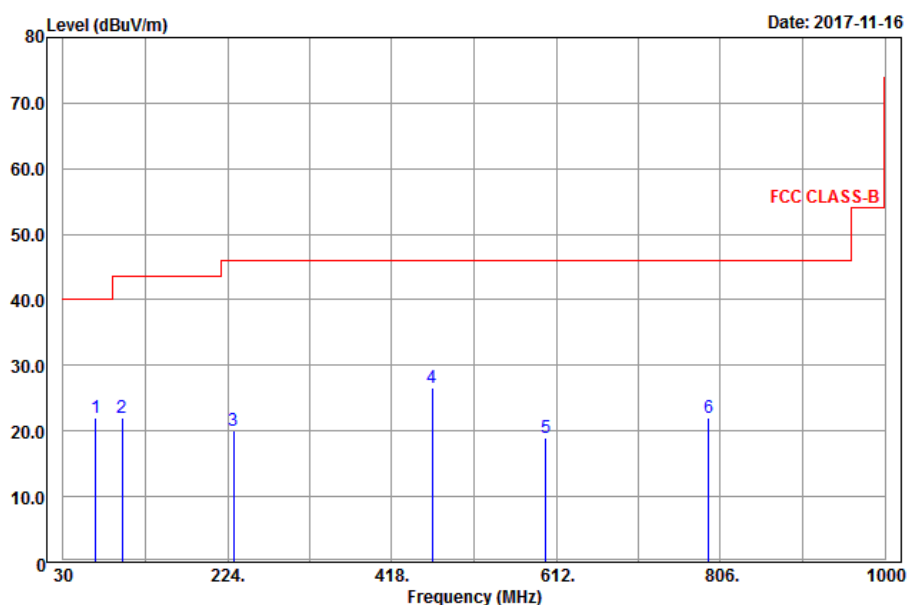
802.11a

EUT Test Condition		Measurement Detail	
Channel	Channel 140	Frequency Range	30 MHz ~ 1 GHz
Input Power	120 Vac, 60 Hz	Detector Function	Peak (PK) Quasi-peak (QP)
Environmental Conditions	25 deg. C, 65 % RH	Tested By	Karl Lee

Horizontal



Vertical



Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
99.93	24.63	43.33	43.5	-18.87	12.28	1.28	32.26	124	245	Peak
140.16	15.17	37.64	43.5	-28.33	8.42	1.38	32.27	182	26	Peak
227.64	27.73	46.39	46	-18.27	11.68	1.85	32.19	116	95	Peak
461	31.03	44.87	46	-14.97	15.73	2.56	32.13	147	77	Peak
726.3	22.51	31.89	46	-23.49	19.58	3.16	32.12	195	163	Peak
833.4	25.48	33.17	46	-20.52	20.81	3.38	31.88	208	54	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
68.07	21.94	42.33	40	-18.06	10.93	0.9	32.22	107	165	Peak
99.93	22.06	40.76	43.5	-21.44	12.28	1.28	32.26	199	293	Peak
230.88	20.15	38.68	46	-25.85	11.79	1.85	32.17	157	76	Peak
465.9	26.6	40.36	46	-19.4	15.81	2.56	32.13	136	3	Peak
599.6	19.02	30.42	46	-26.98	17.92	2.87	32.19	121	190	Peak
792.1	22.11	30.66	46	-23.89	20.25	3.27	32.07	124	202	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value

4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date Of Calibration	Due Date Of Calibration
Test Receiver ROHDE & SCHWARZ	ESCS 30	100288	Aug. 17, 2017	Aug. 16, 2018
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond1-01	Sep. 05, 2017	Sep. 04, 2018
LISN/AMN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Mar. 10, 2017	Mar. 09, 2018
LISN/AMN ROHDE & SCHWARZ (Peripheral)	ENV216	101196	Apr. 20, 2017	Apr. 19, 2018
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HwaYa Shielded Room 1.
 3. The VCCI Site Registration No. is C-2040.

4.2.3 Test Procedures

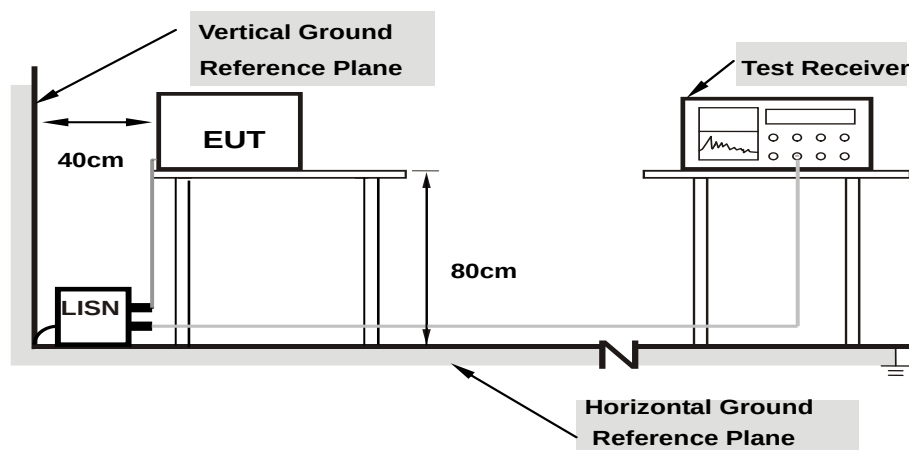
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit -20 dB) was not recorded.

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



- Note:**
- Support units were connected to second LISN.
 - Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT Operating Conditions

- Placed the EUT on a testing table.
- Use the software to control the EUT under transmission condition continuously at specific channel frequency.

4.2.7 Test Results

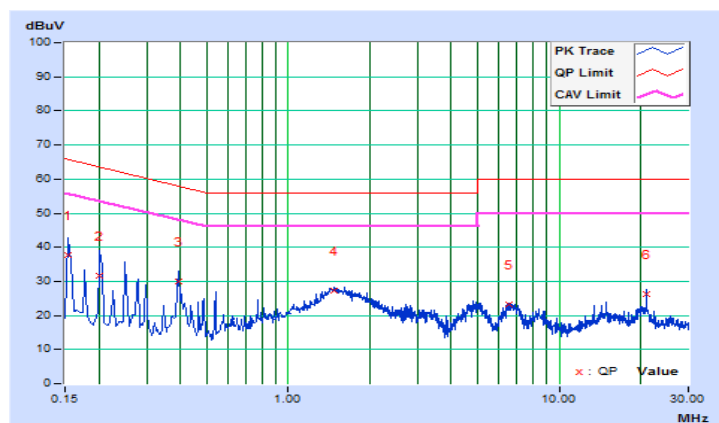
Mode A

Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25°C, 65%RH
Tested by	Getaz Yang	Test Date	2017/11/20

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15400	10.39	27.34	6.75	37.73	17.14	65.78	55.78	-28.05	-38.64
2	0.20201	10.39	21.21	3.65	31.60	14.04	63.53	53.53	-31.93	-39.49
3	0.39400	10.41	19.42	5.03	29.83	15.44	57.98	47.98	-28.15	-32.54
4	1.47800	10.44	16.93	12.67	27.37	23.11	56.00	46.00	-28.63	-22.89
5	6.49400	10.68	12.52	5.91	23.20	16.59	60.00	50.00	-36.80	-33.41
6	21.00200	11.39	15.03	2.83	26.42	14.22	60.00	50.00	-33.58	-35.78

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

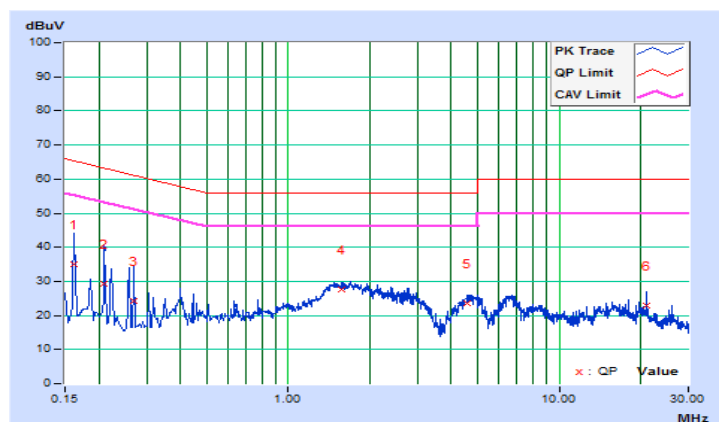


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25°C, 65%RH
Tested by	Getaz Yang	Test Date	2017/11/20

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16200	10.16	24.72	4.67	34.88	14.83	65.36	55.36	-30.48	-40.53
2	0.21000	10.16	19.17	1.70	29.33	11.86	63.21	53.21	-33.88	-41.35
3	0.27000	10.16	13.98	1.42	24.14	11.58	61.12	51.12	-36.98	-39.54
4	1.57000	10.22	17.28	15.13	27.50	25.35	56.00	46.00	-28.50	-20.65
5	4.56200	10.35	13.09	10.12	23.44	20.47	56.00	46.00	-32.56	-25.53
6	21.01694	10.99	11.76	7.00	22.75	17.99	60.00	50.00	-37.25	-32.01

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



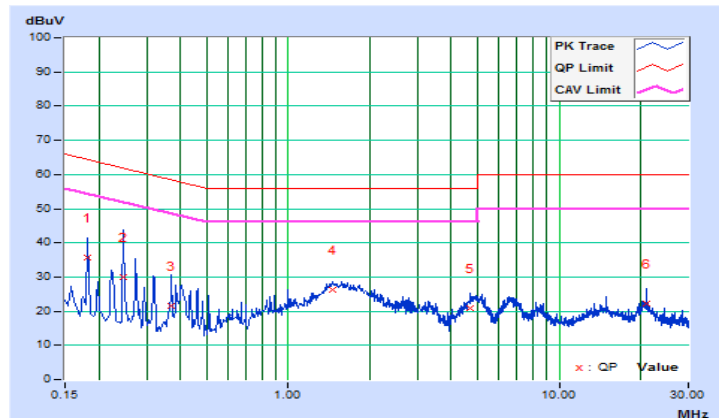
Mode B

Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25°C, 65%RH
Tested by	Getaz Yang	Test Date	2017/11/20

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.18200	10.39	25.31	3.91	35.70	14.30	64.39	54.39	-28.69	-40.09
2	0.24600	10.40	19.61	2.84	30.01	13.24	61.89	51.89	-31.88	-38.65
3	0.37000	10.40	11.24	2.28	21.64	12.68	58.50	48.50	-36.86	-35.82
4	1.45400	10.44	15.75	13.44	26.19	23.88	56.00	46.00	-29.81	-22.12
5	4.71400	10.59	10.21	7.51	20.80	18.10	56.00	46.00	-35.20	-27.90
6	20.99000	11.39	10.91	6.47	22.30	17.86	60.00	50.00	-37.70	-32.14

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

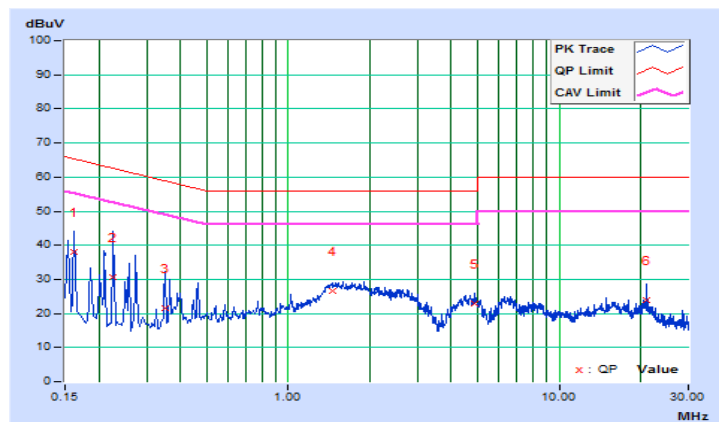


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25°C, 65%RH
Tested by	Getaz Yang	Test Date	2017/11/20

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16200	10.16	27.81	4.96	37.97	15.12	65.36	55.36	-27.39	-40.24
2	0.22600	10.16	20.35	2.02	30.51	12.18	62.60	52.60	-32.09	-40.42
3	0.35000	10.17	11.36	2.45	21.53	12.62	58.96	48.96	-37.43	-36.34
4	1.45000	10.21	16.48	14.54	26.69	24.75	56.00	46.00	-29.31	-21.25
5	4.87800	10.36	12.59	9.13	22.95	19.49	56.00	46.00	-33.05	-26.51
6	20.99000	10.99	12.98	8.60	23.97	19.59	60.00	50.00	-36.03	-30.41

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – Information on the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

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