TEST REPORT

CERTIFICATE OF CONFORMITY

Standard:	**47 CFR FCC Part 15, Subpart E (Section 15.407)**
Report No.:	RFBAOZ-WTW-P22061106-2
FCC ID:	2ABLK-GS2128G
Product:	GigaSpire BLAST u4g, GigaSpire BLAST u4xg
Brand:	Calix
Model No.:	u4g GS2128G, u4xg GS2128XG
Received Date:	2022/8/10
Test Date:	2022/8/10 ~ 2022/12/27
Issued Date:	2023/4/6
Applicant:	Calix Inc.
Address:	1035 N. McDowell Blvd. Petaluma, CA94954 U.S.A.
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
Test Location:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
FCC Registration / Designation Number:	723255 / TW2022

Approved by: _____ , **Date:** 2023/4/6

May Chen / Manager

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Prepared by : Vivian Huang / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBAOZ-WTW-P22061106-2	Original release.	2023/4/6

1 Certificate

Product:	GigaSpire BLAST u4g, GigaSpire BLAST u4xg
Brand:	Calix
Test Model:	u4g GS2128G, u4xg GS2128XG
Sample Status:	Engineering sample
Applicant:	Calix Inc.
Test Date:	2022/8/10 ~ 2022/12/27
Standard:	47 CFR FCC Part 15, Subpart E (Section 15.407)
Measurement procedure:	ANSI C63.10-2013 KDB 789033 D02 General UNII Test Procedure New Rules v02r01 KDB 662911 D01 Multiple Transmitter Output v02r01

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 RF characteristics under the conditions specified in this report.

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
Clause	Test Item	Result	Remark
15.407(a)(2)	26 dB Bandwidth	-	For U-NII-2A U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.
15.407(a)(1/2)	RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(1/2)	Power Spectral Density	Pass	Meet the requirement of limit.
---	Occupied Bandwidth	-	Reference only.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.407(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -9.33 dB at 0.15000 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -4.4 dB at 52.66 MHz
15.407(b) (1/2/3/10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.1 dB at 5350.89, 5352.62, 5466.41, 5467.98 MHz
15.203	Antenna Requirement	Pass	Antenna connector is ipex(MHF) not a standard connector.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

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	Specification	Expanded Uncertainty (k=2) (±)
AC Power Conducted Emissions	150 kHz ~ 30 MHz	1.9 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.1 dB
	30 MHz ~ 1 GHz	5.4 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	5.0 dB
	18 GHz ~ 40 GHz	5.3 dB

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	GigaSpire BLAST u4g, GigaSpire BLAST u4xg
Brand	Calix
Test Model	u4g GS2128G, u4xg GS2128XG
Status of EUT	Engineering sample
Power Supply Rating	Refer to Note
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode 1024QAM for OFDMA in 11ax mode
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: up to 54 Mbps 802.11n: up to 300 Mbps 802.11ac: up to 866.7 Mbps 802.11ax: up to 1201.0 Mbps
Operating Frequency	5260 ~ 5320 MHz 5500 ~ 5720 MHz
Number of Channel	802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 16 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 8 802.11ac (VHT80), 802.11ax (HE80): 4
Output Power	**CDD Mode** 5260 ~ 5320 MHz : 243.015 mW (23.86 dBm) 5500 ~ 5720 MHz : 239.339 mW (23.79 dBm) **Beamforming Mode** 5260 ~ 5320 MHz : 174.026 mW (22.41 dBm) 5500 ~ 5720 MHz : 173.43 mW (22.39 dBm)

Note:

1. This is a supplementary report of Report No.: RFBAOZ-WTW-P22061106-1. design changed is as the following:
   - Add DFS band <5250~5350 MHz & 5470~5725 MHz> by software.
   - Add one newly model

Original		
Product Description	Model	Difference
GigaSpire BLAST u4g	u4g GS2128G	-
Newly		
Product Description	Model	Difference
GigaSpire BLAST u4xg	u4xg GS2128XG	Only different in layout and related components of BOSA & laser driver.
From the above models, model: **u4g GS2128G, u4xg GS2128XG** was selected as representative model for the test and its data was recorded in this report.		

2. According to above conditions, for DFS band all of test items need to be performed and all data was verified to meet the requirements.

3. The EUT uses following accessories.

AC Adapter 1		
Brand	Model	Specification
AMIGO	AMS157-1202500FU	AC Input : 100-240V~50/60Hz 1A DC Output : 12V, 2.5A DC Output Cable : 1.5m, unshielded Plug : US
AC Adapter 2		
Brand	Model	Specification
MOSO	MSS-V2500WR120-030E1-US	AC Input : 100-240V~50/60Hz 1A max DC Output : 12V, 2.5A DC Output Cable : 1.5m, unshielded Plug : US

4. There are WLAN (2.4 GHz) and WLAN (5 GHz) technology used for the EUT.

5. Simultaneously transmission condition.

Condition	Technology	
1	WLAN 2.4GHz	WLAN 5GHz
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.		

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

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna NO.	Model	Brand	Antenna Net Gain(dBi)	Frequency range (MHz)	Antenna Type	Connector Type	*Cable Length(cm)
1	290-20509	HONGBO	3.6	2400-2500	Dipole	ipex(MHF)	10
2	290-20510	HONGBO	4.8	2400-2500	Dipole	ipex(MHF)	31.5
3	RFPCA341221IM5B901	PSA	4.45	5150-5925	Monopole	ipex(MHF)	21.5
4	RFPCA341218IM5B901	PSA	4.46	5150-5925	Monopole	ipex(MHF)	18

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

2. The EUT incorporates a MIMO function:

5 GHz Band		
Modulation Mode	**TX & RX Configuration**	
802.11a	2TX	2RX
802.11n (HT20)	2TX	2RX
802.11n (HT40)	2TX	2RX
802.11ac (VHT20)	2TX	2RX
802.11ac (VHT40)	2TX	2RX
802.11ac (VHT80)	2TX	2RX
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
802.11ax (HE80)	2TX	2RX

Note:
1. All of modulation mode support beamforming function except 802.11a modulation mode.
2. The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
3. The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), 802.11ac mode for 20 MHz (40 MHz, 80 MHz) and 802.11ax mode for 20 MHz (40 MHz, 80 MHz), therefore the manufacturer will control the power for 802.11n/ac mode is the same as the 802.11ax or more lower than it and investigated worst case to representative mode in test report.

3.3 Channel List

FOR 5260 ~ 5320MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

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

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80), 802.11ax (HE80):

Channel	Frequency
58	5290 MHz

FOR 5500 ~ 5720MHz

12 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

Channel	Frequency	Channel	Frequency
100	5500 MHz	124	5620 MHz
104	5520 MHz	128	5640 MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz	144	5720 MHz

6 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz	142	5710 MHz

3 channels are provided for 802.11ac (VHT80), 802.11ax (HE80):

Channel	Frequency	Channel	Frequency
106	5530 MHz	138	5690 MHz
122	5610 MHz		

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. The AC Adapter has the following models: AMS157-1202500FU/ MSS-V2500WR120-030E1-US. Pre-scan these models of AC Adapters and find the worst case as a representative test condition. 2. EUT can be used in the following ways: Lying/ Wall Mount. Pre-scan these ways and find the worst case as a representative test condition. 3.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).
Worst Case:	1. AC Adapter Worst Condition: AMS157-1202500FU 2. Lying/ Wall Mount Worst Condition: Lying

Note: Partial RU (resource unit) and channel puncturing/bandwidth reduction mechanisms are not supported.

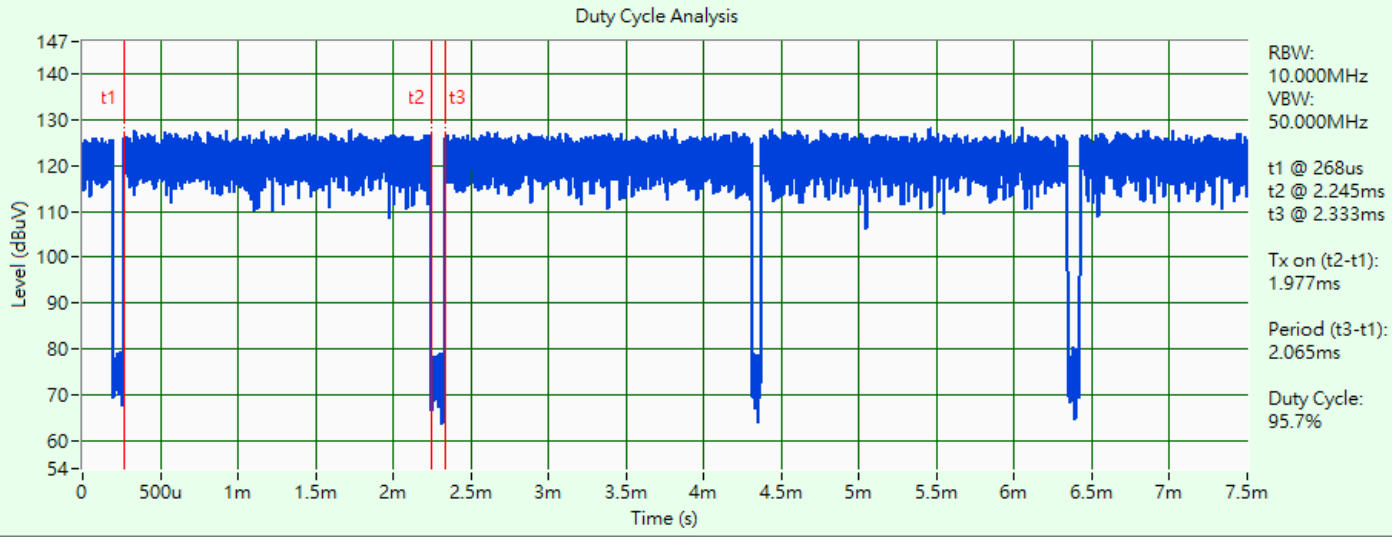
Following channel(s) was (were) selected for the final test as listed below:

Test Item	EUT Configure Mode	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
26 dB Bandwidth	A	802.11a	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
		802.11ax (HE20)	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
		802.11ax (HE40)	CDD	54, 62, 102, 110, 134, 142	BPSK	MCS0
		802.11ax (HE80)	CDD	58, 106, 122, 138	BPSK	MCS0
RF Output Power	A	802.11a	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
		802.11ac (VHT20)	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
		802.11ac (VHT40)	CDD	54, 62, 102, 110, 134, 142	BPSK	MCS0
		802.11ac (VHT80)	CDD	58, 106, 122, 138	BPSK	MCS0
		802.11ax (HE20)	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
		802.11ax (HE40)	CDD	54, 62, 102, 110, 134, 142	BPSK	MCS0
		802.11ax (HE80)	CDD	58, 106, 122, 138	BPSK	MCS0
Power Spectral Density / Occupied Bandwidth	A	802.11a	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
		802.11ax (HE20)	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
		802.11ax (HE40)	CDD	54, 62, 102, 110, 134, 142	BPSK	MCS0
		802.11ax (HE80)	CDD	58, 106, 122, 138	BPSK	MCS0

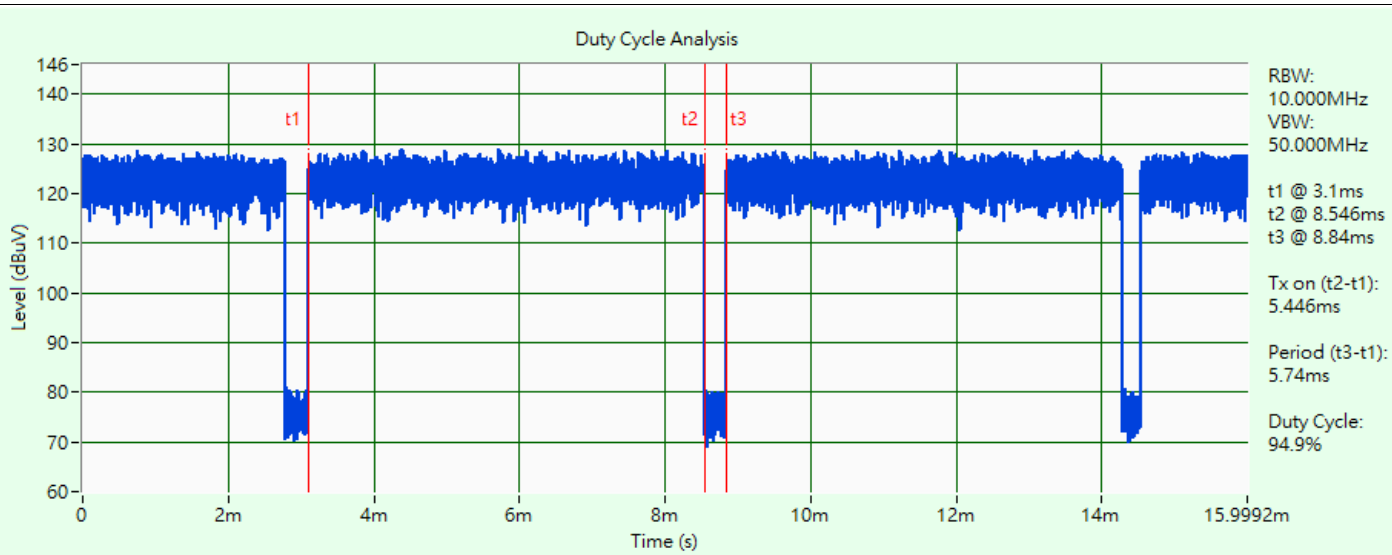
Test Item	EUT Configure Mode	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
Frequency Stability	A	802.11a	-	52	un-modulation	-
AC Power Conducted Emissions	A	802.11ax (HE80)	CDD	58	BPSK	MCS0
	B	802.11ax (HE80)	CDD	58	BPSK	MCS0
Unwanted Emissions below 1 GHz	A	802.11ax (HE80)	CDD	58	BPSK	MCS0
	B	802.11ax (HE80)	CDD	58	BPSK	MCS0
Unwanted Emissions above 1 GHz	A	802.11a	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
		802.11ax (HE20)	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
		802.11ax (HE40)	CDD	54, 62, 102, 110, 134, 142	BPSK	MCS0
		802.11ax (HE80)	CDD	58, 106, 122, 138	BPSK	MCS0
EUT Configure Mode:	A	u4g GS2128G				
	B	u4xg GS2128XG				

3.5 Duty Cycle of Test Signal

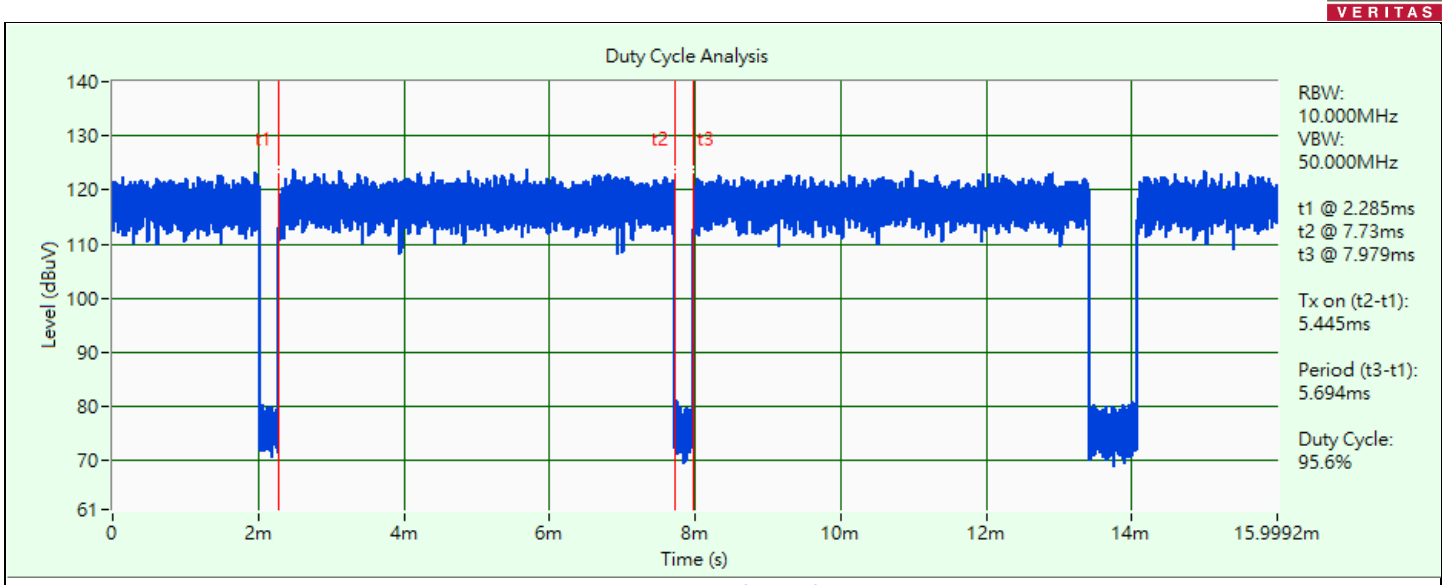
802.11a: Duty cycle = 1.977 ms / 2.065 ms x 100% = 95.7%, duty factor = 10 * log (1/Duty cycle) = 0.19 dB
802.11ax (HE20): Duty cycle = 5.446 ms / 5.74 ms x 100% = 94.9%, duty factor = 10 * log (1/Duty cycle) = 0.23 dB
802.11ax (HE40): Duty cycle = 5.445 ms / 5.694 ms x 100% = 95.6%, duty factor = 10 * log (1/Duty cycle) = 0.19 dB
802.11ax (HE80): Duty cycle = 5.445 ms / 5.703 ms x 100% = 95.5%, duty factor = 10 * log (1/Duty cycle) = 0.20 dB



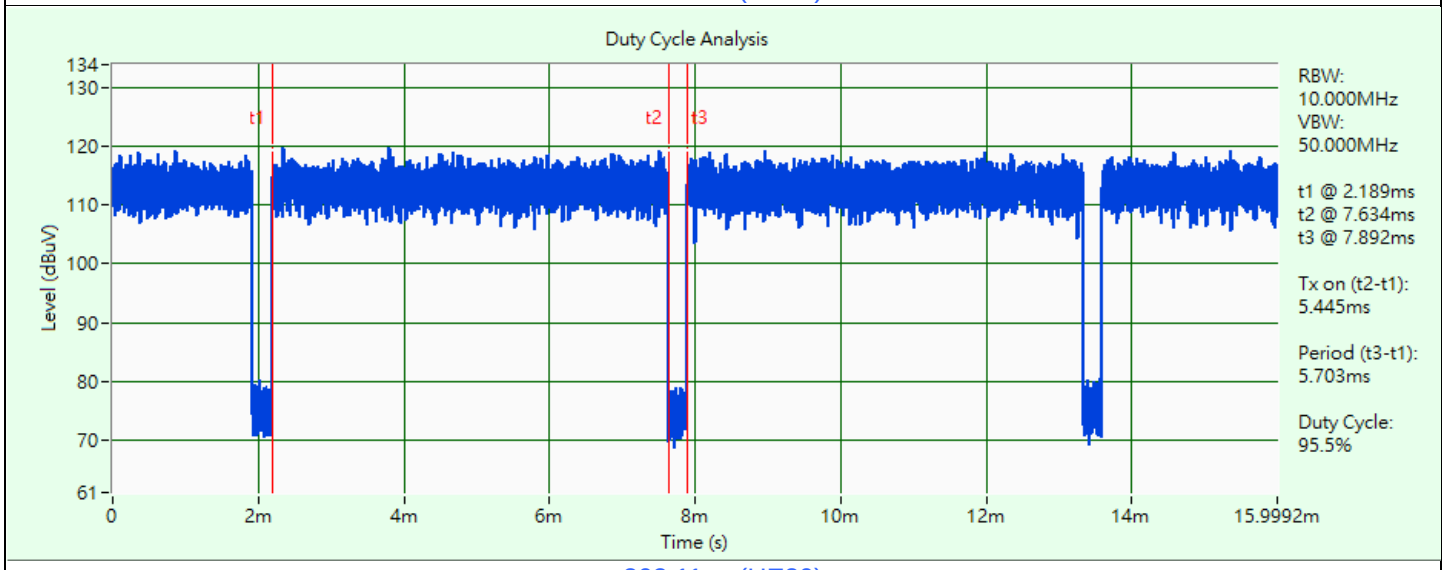
802.11a



802.11ax (HE20)



802.11ax (HE40)

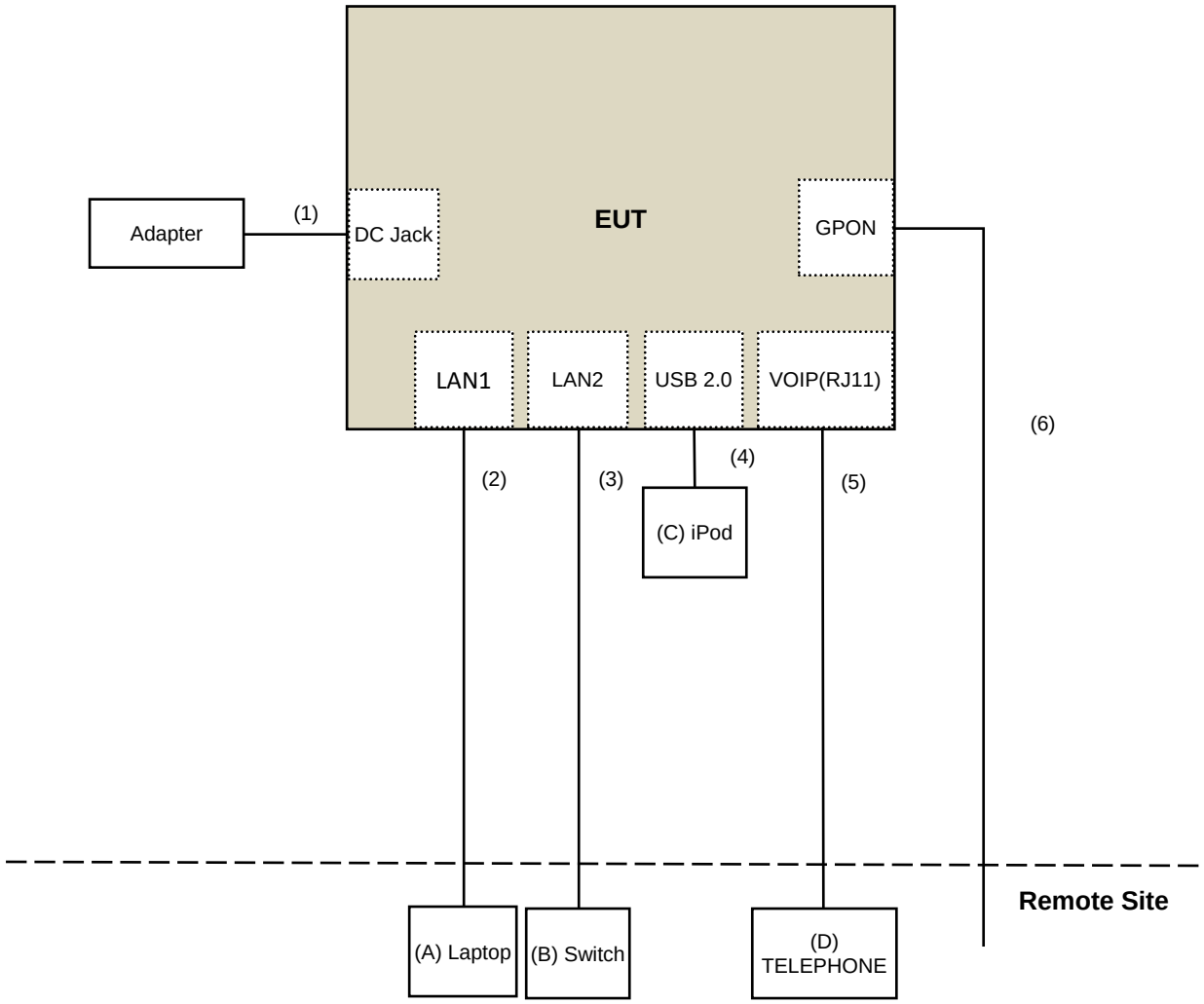


802.11ax (HE80)

3.6 Test Program Used and Operation Descriptions

Controlling software (qdart_conn.win.1.0_installer_00093.1) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Laptop	Lenovo	20U5S01X00 L14	PF-28LKK7	N/A	Supplied by applicant
B	Switch	D-Link	DGS-1005D	DR8WC92000523	N/A	Supplied by applicant
C	iPod	Apple	MD778TA/A	CC4JL03FF4T1	N/A	Supplied by applicant
D	TELEPHONE	ROMEO	TE-812	97280903	N/A	Supplied by applicant

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Cable	1	1.5	No	0	Supplied by applicant
2	RJ45 Cable	1	10	No	0	Provided by Lab
3	RJ45 Cable	1	10	No	0	Provided by Lab
4	USB Cable	1	0.12	Yes	0	Provided by Lab
5	RJ11 Cable	1	10	No	0	Provided by Lab
6	Fiber Cable	1	10	No	0	Provided by Lab

4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1 26 dB Bandwidth

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2022/4/5	2023/4/4
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	101516	2022/3/7	2023/3/6

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2022/8/23

4.2 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2022/4/5	2023/4/4
Power Meter Anritsu	ML2495A	1529002	2022/6/22	2023/6/21
Pulse Power Sensor Anritsu	MA2411B	1726434	2022/6/22	2023/6/21
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	101516	2022/3/7	2023/3/6

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2022/8/23

4.3 Power Spectral Density

Refer to section 4.1 to get information of the instruments.

4.4 Occupied Bandwidth

Refer to section 4.1 to get information of the instruments.

4.5 Frequency Stability

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
AC Power Source GOOD WILL	6905S	1991551	N/A	N/A
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2022/4/5	2023/4/4
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	101516	2022/3/7	2023/3/6
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	2022/1/14	2023/1/13
True RMS Clamp Meter Fluke	325	31130711WS	2022/6/9	2023/6/8

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2022/8/23

4.6 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance	N/A	EMC-01	2021/10/1 2022/9/27	2022/9/30 2023/9/26
Fixed attenuator STI	STI02-2200-10	005	2022/8/24	2023/8/23
LISN R&S	ESH3-Z5	848773/004	2021/10/29 2022/10/18	2022/10/28 2023/10/17
RF Coaxial Cable JYEBO	5D-FB	COCCAB-001	2022/8/24	2023/8/23
Software BVADT	BVADT_Cond_V7.3.7.4	N/A	N/A	N/A
TEST RECEIVER R&S	ESCS 30	847124/029	2021/10/13 2022/10/14	2022/10/12 2023/10/13

Notes:

1. The test was performed in Conduction 1
2. Tested Date: 2022/8/26 ~ 2022/12/27

4.7 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	N/A	N/A
Fix tool for Boresight antenna tower BV	FBA-01	FBA_SIP01	N/A	N/A
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	2021/9/23 2022/9/14	2022/9/22 2023/9/13
LOOP ANTENNA Electro-Metrics	EM-6879	264	2022/3/18	2023/3/17
Pre_Amplifier Agilent	8447D	2944A10636	2022/3/19	2023/3/18
Pre_Amplifier Mini-Circuits	ZFL-1000VH2	QA0838008	2021/10/19 2022/10/4	2022/10/18 2023/10/3
RF Coaxial Cable COMMATE/PEWC	8D	966-3-2	2022/2/26	2023/2/25
		966-3-3	2022/2/26	2023/2/25
		966-4-1	2022/3/8	2023/3/7
RF Coaxial Cable JYEBO	5D-FB	LOOPCAB-001	2022/1/6	2023/1/5
		LOOPCAB-002	2022/1/6 2022/12/19	2023/1/5 2023/12/18
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Spectrum Analyzer KEYSIGHT	N9030B	MY57142938	2022/4/26	2023/4/25
Test Receiver KEYSIGHT	N9038A	MY59050100	2022/6/20	2023/6/19
Trilog Broadband Antenna Schwarzbeck	VULB 9168	9168-361	2021/10/26 2022/10/21	2022/10/25 2023/10/20

Notes:

1. The test was performed in 966 Chamber No. 3.
2. Tested Date: 2022/8/26 ~ 2022/12/27

4.8 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	N/A	N/A
Fix tool for Boresight antenna tower BV	FBA-01	FBA_SIP01	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9170	9170-739	2021/11/14	2022/11/13
	BBHA9120-D	9120D-406	2021/11/14	2022/11/13
Pre_Amplifier EMCI	EMC12630SE	980384	2022/1/10	2023/1/9
	EMC184045SE	980387	2022/1/10	2023/1/9
RF Cable EMCI	EMC104-SM-SM-6000	210201	2022/5/10	2023/5/9
RF Cable-Frequency range: 1-40GHz EMCI	EMC102-KM-KM-1200	160924	2022/1/10	2023/1/9
RF Coaxial Cable EMCI	EMC-KM-KM-4000	200214	2022/3/8	2023/3/7
	EMC104-SM-SM-1500	180504	2022/4/25	2023/4/24
	EMC104-SM-SM-2000	180601	2022/6/6	2023/6/5
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Spectrum Analyzer KEYSIGHT	N9030B	MY57142938	2022/4/26	2023/4/25
Test Receiver KEYSIGHT	N9038A	MY59050100	2022/6/20	2023/6/19

Notes:

1. The test was performed in 966 Chamber No. 3.
2. Tested Date: 2022/8/10 ~ 2022/8/26

5 Limits of Test Items

5.1 26 dB Bandwidth

The results are for reference only.

5.2 RF Output Power

Operation Band	Limit
U-NII-2A	250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C	250mW (24 dBm) or 11 dBm+10 log B*

*B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 D01 Multiple Transmitter Output Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

5.3 Power Spectral Density

Operation Band	Limit
U-NII-2A	11 dBm/ MHz
U-NII-2C	11 dBm/ MHz

5.4 Occupied Bandwidth

The results are for reference only.

5.5 Frequency Stability

The frequency of the carrier signal shall be maintained within band of operation.

5.6 AC Power Conducted Emissions

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

Notes:

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.

5.7 Unwanted Emissions below 1 GHz

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

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

Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).

5.8 Unwanted Emissions above 1 GHz

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
Above 960	500	3

Notes:

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.

Limits of unwanted emission out of the restricted bands

Applicable To		Limit	
789033 D02 General UNII Test Procedure New Rules v02r01		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

*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.

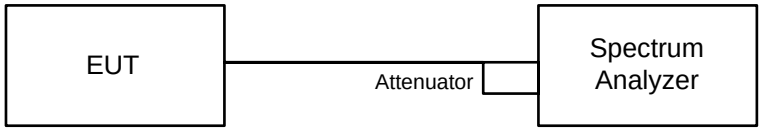
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

6 Test Arrangements

6.1 26 dB Bandwidth

6.1.1 Test Setup

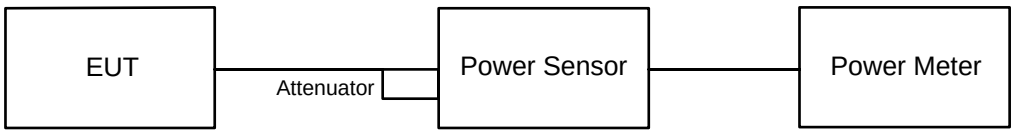


6.1.2 Test Procedure

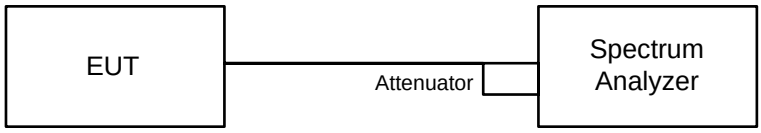
a. Set RBW = approximately 1% of the emission bandwidth.
b. Set the VBW > RBW.
c. Detector = Peak.
d. Trace mode = max hold.
e. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

6.2 RF Output Power

6.2.1 Test Setup



For channel straddling:



6.2.2 Test Procedure

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst and set the detector to average. Duty factor is not added to measured value.

For channel straddling:

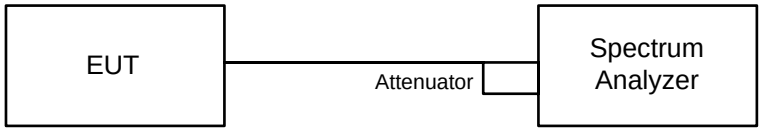
Method SA-2

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
c. Sweep points ≥ [2 × span / RBW]. (This gives bin-to-bin spacing ≤ RBW / 2, so that narrowband signals are not lost between frequency bins.)Sweep time = auto, trigger set to “free run”.
d. Trace average at least 100 traces in power averaging mode.
e. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
f. Record the max value and add 10 log (1/duty cycle).

Note: When measuring straddle channel power, use compute power by integrating the spectrum across the 26 dB EBW or 99% OBW of the signal using the instrument’s band power measurement function, with band limits set equal to the EBW or OBW band edges. If the instrument does not have a band power function, then sum the spectrum levels (in power units) at 1 MHz intervals extending across the 26 dB EBW or 99% OBW of the spectrum.

6.3 Power Spectral Density

6.3.1 Test Setup



6.3.2 Test Procedure

For specified measurement bandwidth 1 MHz:
Method SA-2

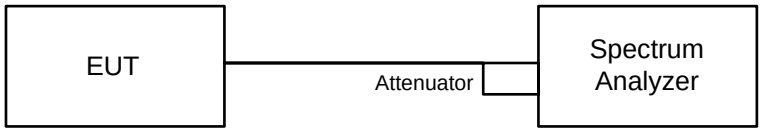
a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
c. Sweep points ≥ [2 × span / RBW]. (This gives bin-to-bin spacing ≤ RBW / 2, so that narrowband signals are not lost between frequency bins.)
d. Sweep time = auto, trigger set to “free run”.
e. Trace average at least 100 traces in power averaging mode.
f. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
g. Record the max value and add 10 log (1/duty cycle).

For specified measurement bandwidth 500 kHz:
Method SA-2

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS
c. Scale the observed power level to an equivalent value in 500 kHz by adjusting (increasing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/300 kHz)
d. Sweep points ≥ [2 × span / RBW]. (This gives bin-to-bin spacing ≤ RBW / 2, so that narrowband signals are not lost between frequency bins.)
e. Sweep time = auto, trigger set to “free run”.
f. Trace average at least 100 traces in power averaging mode.
g. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
h. Record the max value and add 10 log (1/duty cycle).

6.4 Occupied Bandwidth

6.4.1 Test Setup

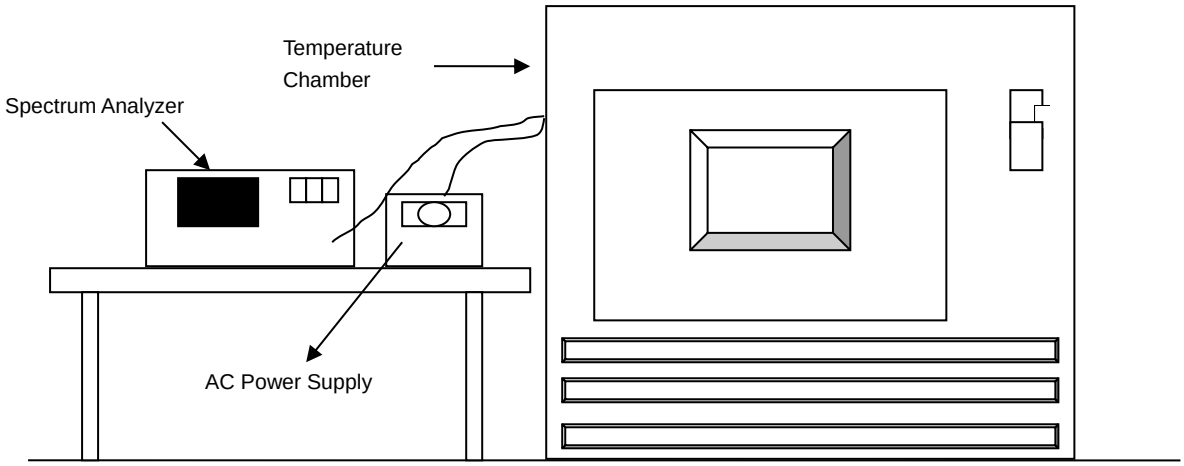


6.4.2 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to Sampling. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean power of a given emission.

6.5 Frequency Stability

6.5.1 Test Setup

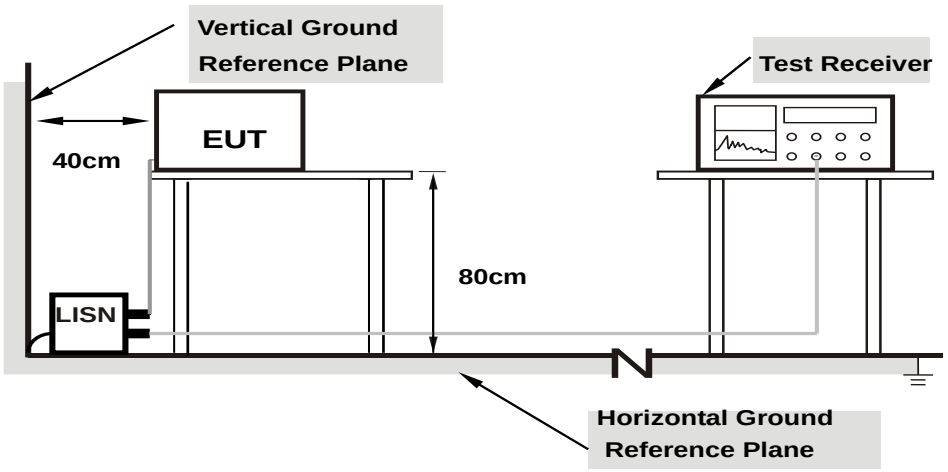


6.5.2 Test Procedure

a. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
b. Turn the EUT on and couple its output to a spectrum analyzer.
c. Turn the EUT off and set the chamber to the highest temperature specified.
d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 Minutes.
e. Repeat step (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed.
f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 Minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

6.6 AC Power Conducted Emissions

6.6.1 Test Setup



Note: 1.Support units were connected to second LISN.

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

6.6.2 Test Procedure

a. The EUT was placed on a 0.8 meter to the top of table and 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/ 50 uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

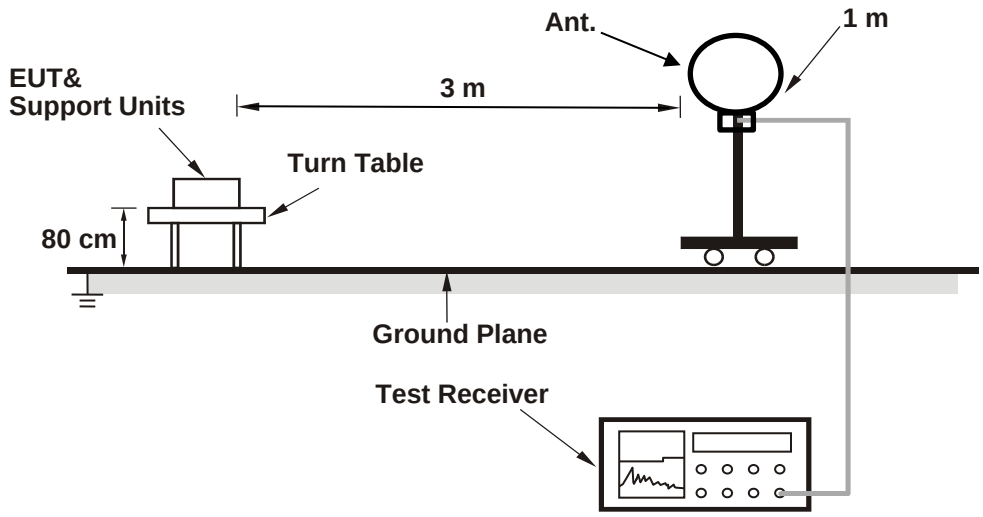
c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

Note: The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz-30 MHz.

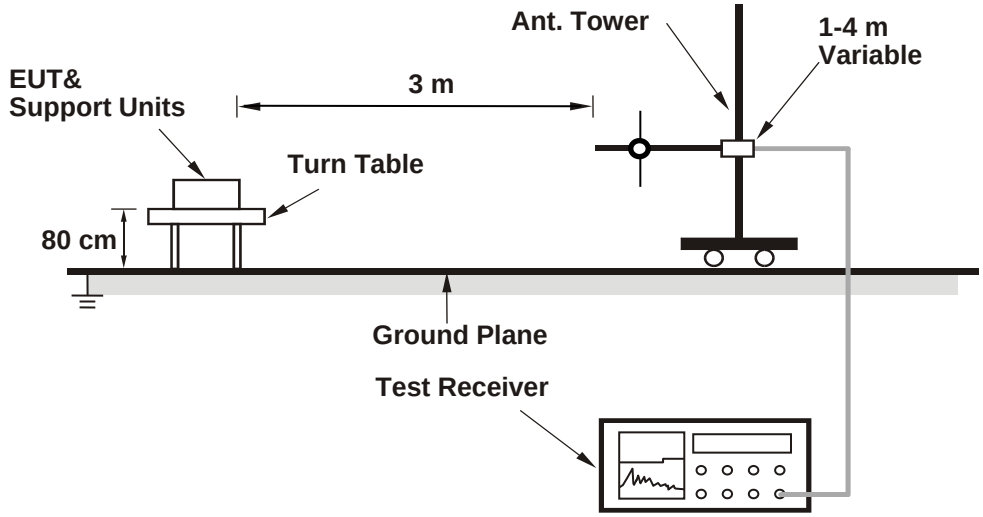
6.7 Unwanted Emissions below 1 GHz

6.7.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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

6.7.2 Test Procedure

For Radiated emission below 30 MHz

a. The EUT was placed on the top of a rotating table 0.8 meters 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. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode, except for the frequency band (9 kHz to 90 kHz and 110 kHz to 490 kHz) set to average detect function and peak detect function.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 200 Hz at frequency below 150 kHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz or 10 kHz at frequency (150 kHz to 30 MHz).
3. All modes of operation were investigated and the worst-case emissions are reported.

For Radiated emission above 30 MHz

a. The EUT was placed on the top of a rotating table 0.8 meters 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.

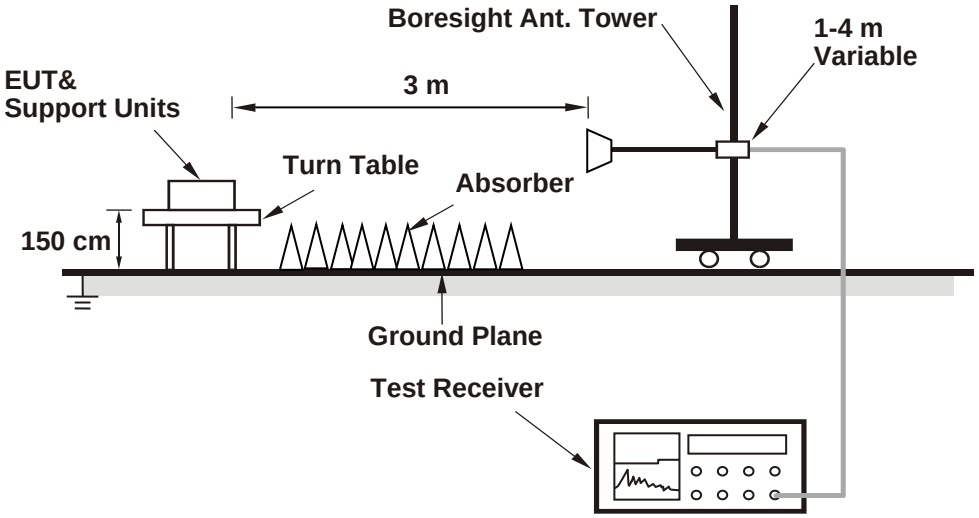
e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

6.8 Unwanted Emissions above 1 GHz

6.8.1 Test Setup



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

6.8.2 Test Procedure

a. The EUT was placed on the top of a rotating table 1.5 meters 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 peak and average detects 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.

Notes:

1. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
2. For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10 Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1 GHz.
3. All modes of operation were investigated and the worst-case emissions are reported.

7 Test Results of Test Item

7.1 26 dB Bandwidth

Mode A

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Kevin Ko

802.11a

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	20.48	20.70
60	5300	19.96	20.68
64	5320	20.75	20.24
100	5500	20.18	20.68
116	5580	20.31	20.53
140	5700	20.61	20.00
144 (U-NII-2C)	5720	15.25	15.16

Determined Output Power Limit					
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)		
52	5260	20.48	24.11	>	24
60	5300	19.96	24	=	24
64	5320	20.24	24.06	>	24
100	5500	20.18	24.04	>	24
116	5580	20.31	24.07	>	24
140	5700	20.00	24.01	>	24
144 (U-NII-2C)	5720	15.16	22.8	<	24

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.

802.11ax (HE20)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	21.26	21.13
60	5300	21.02	21.91
64	5320	21.27	21.66
100	5500	20.99	21.28
116	5580	21.27	21.14
140	5700	21.05	21.43
144 (U-NII-2C)	5720	15.59	15.46

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	21.13	24.24 > 24
60	5300	21.02	24.22 > 24
64	5320	21.27	24.27 > 24
100	5500	20.99	24.22 > 24
116	5580	21.14	24.25 > 24
140	5700	21.05	24.23 > 24
144 (U-NII-2C)	5720	15.46	22.89 < 24

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.

802.11ax (HE40)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	41.93	41.88
62	5310	42.04	41.51
102	5510	41.79	41.95
110	5550	41.92	41.96
134	5670	41.14	41.76
142 (U-NII-2C)	5710	35.63	35.86

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
54	5270	41.88	27.22 > 24
62	5310	41.51	27.18 > 24
102	5510	41.79	27.21 > 24
110	5550	41.92	27.22 > 24
134	5670	41.14	27.14 > 24
142 (U-NII-2C)	5710	35.63	26.51 > 24

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.

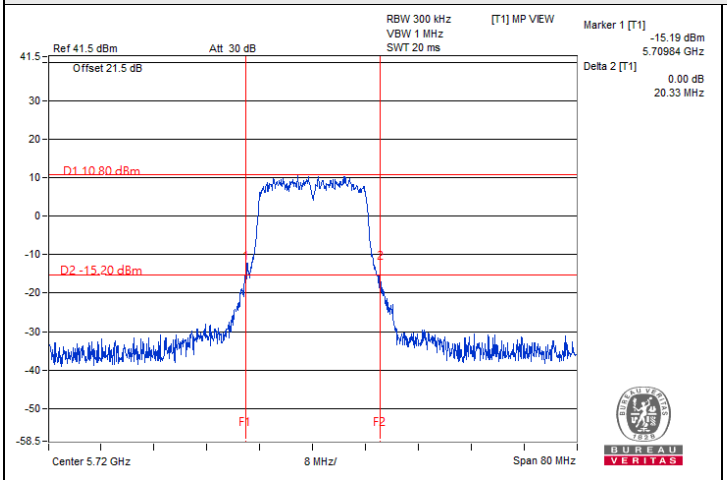
802.11ax (HE80)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	82.57	82.56
106	5530	81.84	82.98
122	5610	82.04	82.42
138 (U-NII-2C)	5690	75.95	76.15

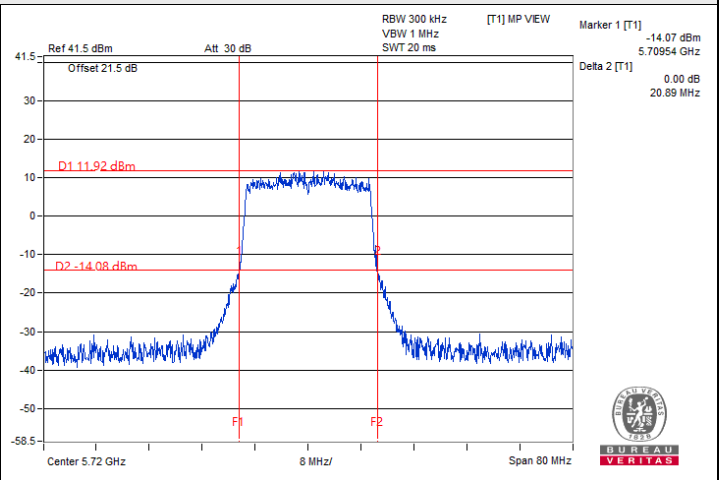
Determined Output Power Limit					
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)		
58	5290	82.56	30.16	>	24
106	5530	81.84	30.12	>	24
122	5610	82.04	30.14	>	24
138 (U-NII-2C)	5690	75.95	29.8	>	24

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.

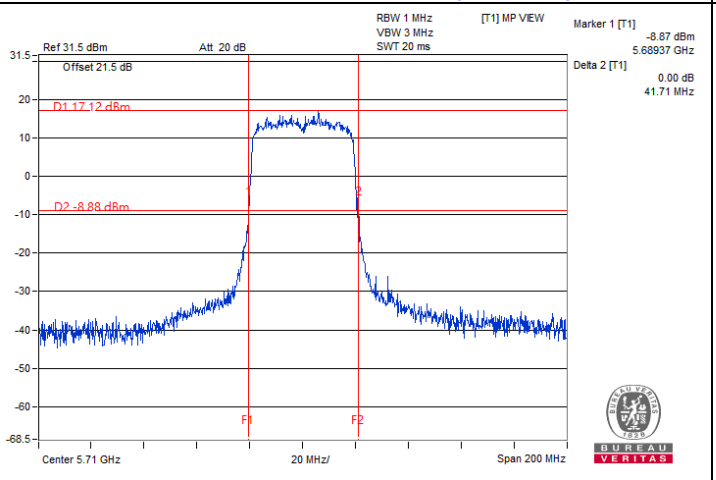
Spectrum Plot of Minimum Value



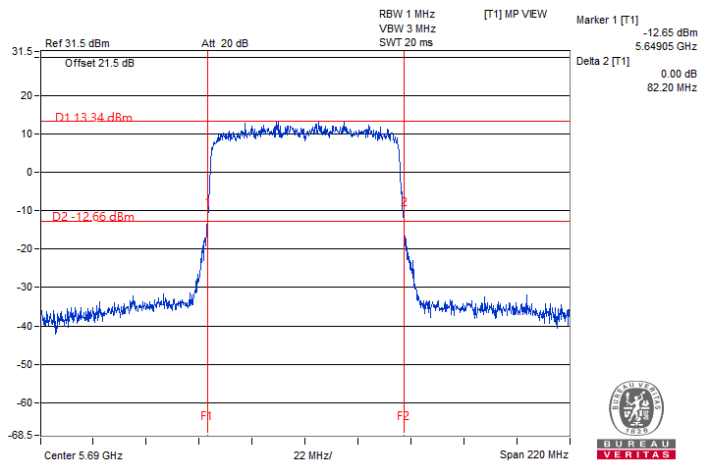
802.11a / Chain1 : CH 144 (U-NII-2C)



802.11ax (HE20) / Chain1 : CH 144 (U-NII-2C)



802.11ax (HE40) / Chain0 : CH 142 (U-NII-2C)



802.11ax (HE80) / Chain0 : CH 138 (U-NII-2C)

Notes:

1. For U-NII-2C straddle channel = 5725 MHz - Marker 1

7.2 RF Output Power

Mode A

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Kevin Ko

802.11a CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
52	5260	19.34	19.56	176.266	22.46	24	Pass
60	5300	19.14	19.35	168.135	22.26	24	Pass
64	5320	19.09	19.34	166.997	22.23	24	Pass
100	5500	19.19	19.42	170.483	22.32	24	Pass
116	5580	19.08	19.33	166.613	22.22	24	Pass
140	5700	19.05	19.28	165.075	22.18	24	Pass
*144 (U-NII-2C)	5720	18.12	17.87	131.711	21.20	22.8	Pass
*144 (U-NII-3)	5720	11.56	11.25	28.888	14.61	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-2A, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-3, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT20) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
52	5260	19.33	19.59	176.695	22.47	24	Pass
60	5300	19.19	19.66	175.455	22.44	24	Pass
64	5320	19.22	19.60	174.761	22.42	24	Pass
100	5500	19.14	19.54	171.985	22.35	24	Pass
116	5580	19.11	19.57	172.044	22.36	24	Pass
140	5700	19.18	19.56	173.159	22.38	24	Pass
*144 (U-NII-2C)	5720	18.75	18.24	149.318	21.74	22.89	Pass
*144 (U-NII-3)	5720	12.61	12.33	37.247	15.71	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-2A, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-3, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT40) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
54	5270	20.38	20.72	227.176	23.56	24	Pass
62	5310	20.25	20.64	221.803	23.46	24	Pass
102	5510	20.27	20.62	221.76	23.46	24	Pass
110	5550	20.22	20.69	222.416	23.47	24	Pass
134	5670	20.29	20.71	224.666	23.52	24	Pass
*142 (U-NII-2C)	5710	20.11	19.65	203.732	23.09	24	Pass
*142 (U-NII-3)	5710	9.42	9.34	18.133	12.58	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-2A, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-3, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT80) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
58	5290	20.51	20.69	229.68	23.61	24	Pass
106	5530	20.34	20.72	226.175	23.54	24	Pass
122	5610	20.68	20.48	228.636	23.59	24	Pass
*138 (U-NII-2C)	5690	20.30	20.14	220.399	23.43	24	Pass
*138 (U-NII-3)	5690	6.71	5.84	8.929	9.51	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-2A, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-3, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE20) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
52	5260	19.57	19.86	187.401	22.73	24	Pass
60	5300	19.44	19.92	186.077	22.70	24	Pass
64	5320	19.46	19.83	184.469	22.66	24	Pass
100	5500	19.37	19.77	181.339	22.58	24	Pass
116	5580	19.35	19.84	182.482	22.61	24	Pass
140	5700	19.43	19.81	183.419	22.63	24	Pass
*144 (U-NII-2C)	5720	18.75	18.24	149.318	21.74	22.89	Pass
*144 (U-NII-3)	5720	12.61	12.33	37.247	15.71	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-2A, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-3, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE40) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
54	5270	20.64	20.97	240.904	23.82	24	Pass
62	5310	20.47	20.89	234.173	23.70	24	Pass
102	5510	20.53	20.88	235.441	23.72	24	Pass
110	5550	20.49	20.92	235.539	23.72	24	Pass
134	5670	20.53	20.95	237.431	23.76	24	Pass
*142 (U-NII-2C)	5710	20.11	19.65	203.732	23.09	24	Pass
*142 (U-NII-3)	5710	9.42	9.34	18.133	12.58	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-2A, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-3, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE80) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
58	5290	20.75	20.94	243.015	23.86	24	Pass
106	5530	20.57	20.98	239.339	23.79	24	Pass
122	5610	20.81	20.63	236.115	23.73	24	Pass
*138 (U-NII-2C)	5690	20.30	20.14	220.399	23.43	24	Pass
*138 (U-NII-3)	5690	6.71	5.84	8.929	9.51	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-2A, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-3, the maximum gain is 4.46 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
52	5260	18.72	19.39	161.369	22.08	22.53	Pass
60	5300	18.71	19.16	156.716	21.95	22.53	Pass
64	5320	18.67	19.08	154.53	21.89	22.53	Pass
100	5500	18.63	19.04	153.114	21.85	22.53	Pass
116	5580	18.61	19.07	153.334	21.86	22.53	Pass
140	5700	18.67	19.09	154.717	21.90	22.53	Pass
*144 (U-NII-2C)	5720	17.75	17.24	118.608	20.74	21.42	Pass
*144 (U-NII-3)	5720	12.61	12.33	37.247	15.71	28.53	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-2A, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.47-6)].
4. For U-NII-2C, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.47-6)].
5. For U-NII-3, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to 30-(7.47-6) = 28.53 dBm.

802.11ac (VHT40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
54	5270	18.96	19.28	163.427	22.13	22.53	Pass
62	5310	18.75	19.17	157.593	21.98	22.53	Pass
102	5510	18.86	19.14	158.948	22.01	22.53	Pass
110	5550	18.79	19.22	159.244	22.02	22.53	Pass
134	5670	18.86	19.24	160.859	22.06	22.53	Pass
*142 (U-NII-2C)	5710	18.91	18.45	154.546	21.89	22.53	Pass
*142 (U-NII-3)	5710	9.22	9.14	17.317	12.38	28.53	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-2A, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.47-6)].
4. For U-NII-2C, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.47-6)].
5. For U-NII-3, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to 30-(7.47-6) = 28.53 dBm.

802.11ac (VHT80) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
58	5290	19.03	19.24	163.929	22.15	22.53	Pass
106	5530	18.81	19.26	160.366	22.05	22.53	Pass
122	5610	19.22	19.03	163.544	22.14	22.53	Pass
*138 (U-NII-2C)	5690	19.30	19.14	175.069	22.43	22.53	Pass
*138 (U-NII-3)	5690	6.71	5.84	8.929	9.51	28.53	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-2A, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.47-6)].
4. For U-NII-2C, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.47-6)].
5. For U-NII-3, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to 30-(7.47-6) = 28.53 dBm.

802.11ax (HE20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
52	5260	19.05	19.39	167.249	22.23	22.53	Pass
60	5300	18.96	19.43	166.405	22.21	22.53	Pass
64	5320	18.94	19.35	164.442	22.16	22.53	Pass
100	5500	18.89	19.31	162.756	22.12	22.53	Pass
116	5580	18.87	19.34	162.992	22.12	22.53	Pass
140	5700	18.91	19.32	163.31	22.13	22.53	Pass
*144 (U-NII-2C)	5720	17.75	17.24	118.608	20.74	21.42	Pass
*144 (U-NII-3)	5720	12.61	12.33	37.247	15.71	28.53	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-2A, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.47-6)].
4. For U-NII-2C, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.47-6)].
5. For U-NII-3, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to 30-(7.47-6) = 28.53 dBm.

802.11ax (HE40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
54	5270	19.19	19.52	172.522	22.37	22.53	Pass
62	5310	19.02	19.44	167.702	22.25	22.53	Pass
102	5510	19.08	19.41	168.207	22.26	22.53	Pass
110	5550	19.04	19.46	168.476	22.27	22.53	Pass
134	5670	19.13	19.52	171.383	22.34	22.53	Pass
*142 (U-NII-2C)	5710	18.91	18.45	154.546	21.89	22.53	Pass
*142 (U-NII-3)	5710	9.22	9.14	17.317	12.38	28.53	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-2A, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.47-6)].
4. For U-NII-2C, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.47-6)].
5. For U-NII-3, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to 30-(7.47-6) = 28.53 dBm.

802.11ax (HE80) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
58	5290	19.31	19.48	174.026	22.41	22.53	Pass
106	5530	19.15	19.53	171.967	22.35	22.53	Pass
122	5610	19.47	19.29	173.43	22.39	22.53	Pass
*138 (U-NII-2C)	5690	18.03	18.67	143.653	21.57	22.53	Pass
*138 (U-NII-3)	5690	4.47	3.29	5.166	7.13	28.53	Pass

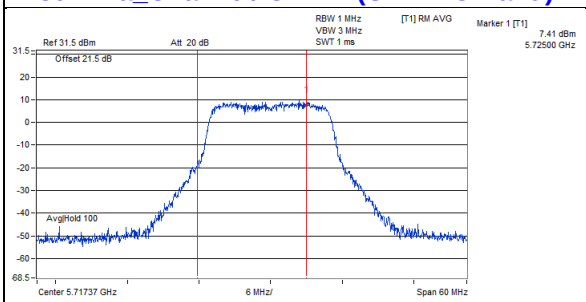
Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-2A, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.47-6)].
4. For U-NII-2C, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.47-6)].
5. For U-NII-3, the directional gain is 7.47 dBi > 6 dBi, so the output power limit shall be reduced to 30-(7.47-6) = 28.53 dBm.

For channel straddling 5725MHz of Power

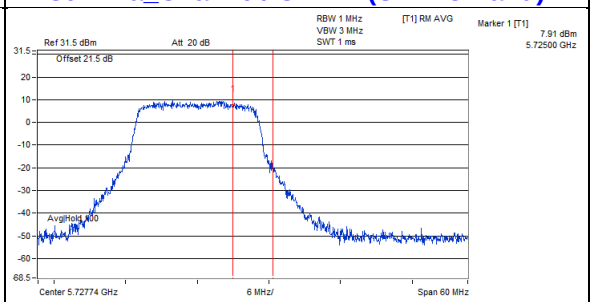
Spectrum Plot Value of Power

802.11a_Chain 0 / CH144 (U-NII-2C Band)



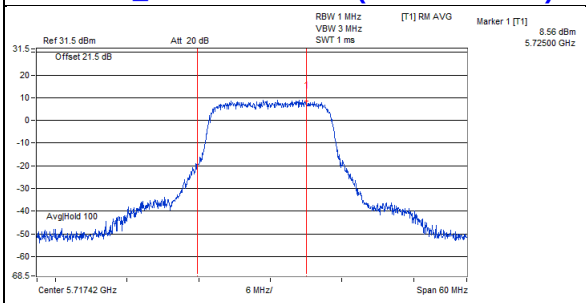
TX Channel Bandwidth 15.25 MHz Power 18.12 dBm

802.11a_Chain 0 / CH144 (U-NII-3 Band)



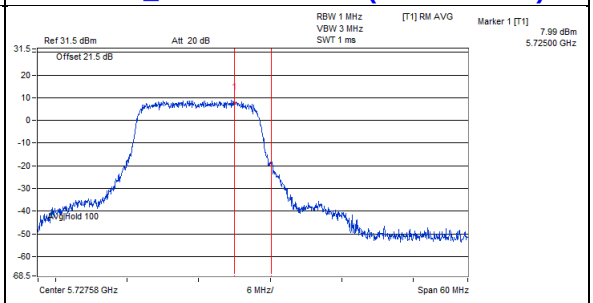
TX Channel Bandwidth 5.49 MHz Power 11.56 dBm

802.11a_Chain 1 / CH144 (U-NII-2C Band)



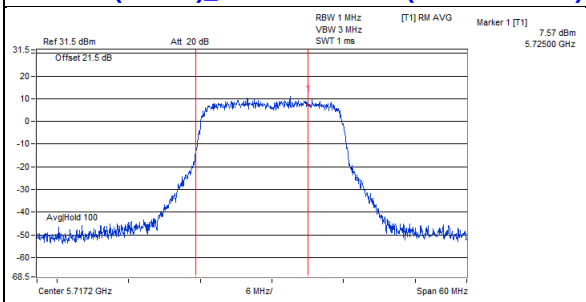
TX Channel Bandwidth 15.16 MHz Power 17.87 dBm

802.11a_Chain 1 / CH144 (U-NII-3 Band)



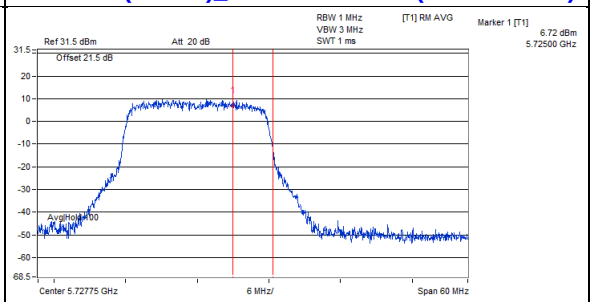
TX Channel Bandwidth 5.17 MHz Power 11.25 dBm

802.11ac (VHT20)_Chain 0 / CH144 (U-NII-2C Band)



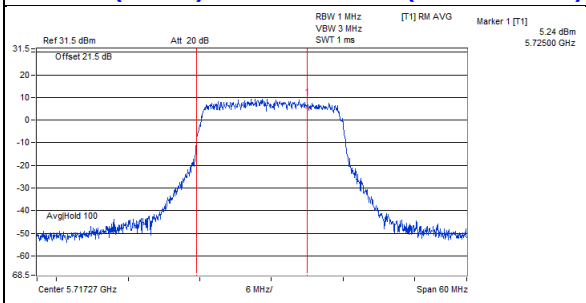
TX Channel Bandwidth 15.59 MHz Power 18.75 dBm

802.11ac (VHT20)_Chain 0 / CH144 (U-NII-3 Band)



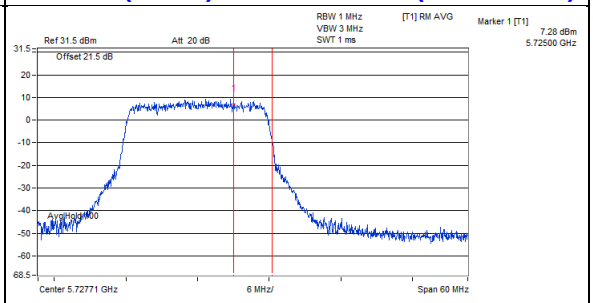
TX Channel Bandwidth 5.51 MHz Power 12.61 dBm

802.11ac (VHT20)_Chain 1 / CH144 (U-NII-2C Band)



TX Channel Bandwidth 15.46 MHz Power 18.24 dBm

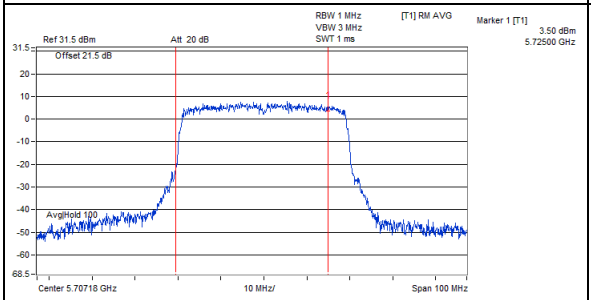
802.11ac (VHT20)_Chain 1 / CH144 (U-NII-3 Band)



TX Channel Bandwidth 5.43 MHz Power 12.33 dBm

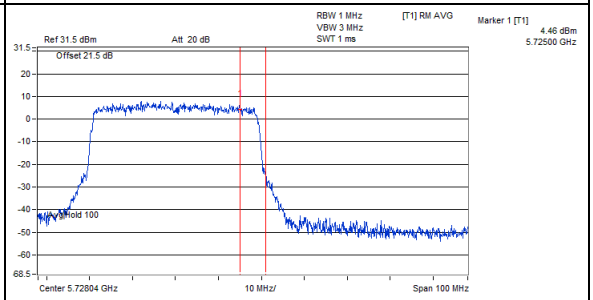
Spectrum Plot Value of Power

802.11ac (VHT40)_Chain 0 / CH142 (U-NII-2C Band)



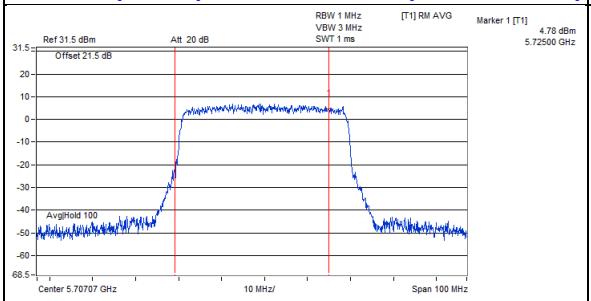
TX Channel Bandwidth 35.63 MHz Power 20.11 dBm

802.11ac (VHT40)_Chain 0 / CH142 (U-NII-3 Band)



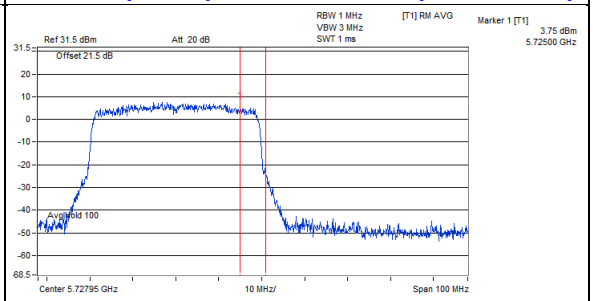
TX Channel Bandwidth 6.08 MHz Power 9.42 dBm

802.11ac (VHT40)_Chain 1 / CH142 (U-NII-2C Band)



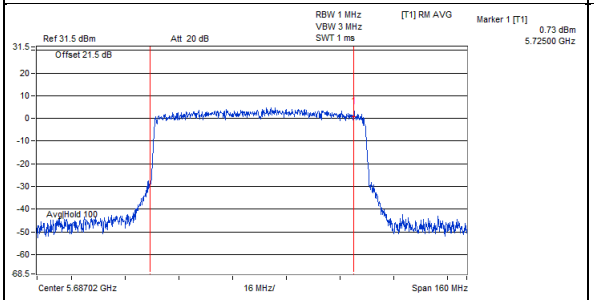
TX Channel Bandwidth 35.86 MHz Power 19.65 dBm

802.11ac (VHT40)_Chain 1 / CH142 (U-NII-3 Band)



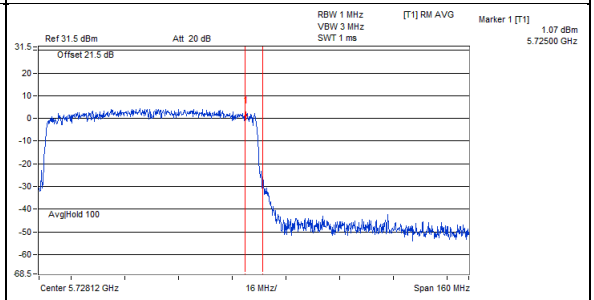
TX Channel Bandwidth 5.9 MHz Power 9.34 dBm

802.11ac (VHT80)_Chain 0 / CH138 (U-NII-2C Band)



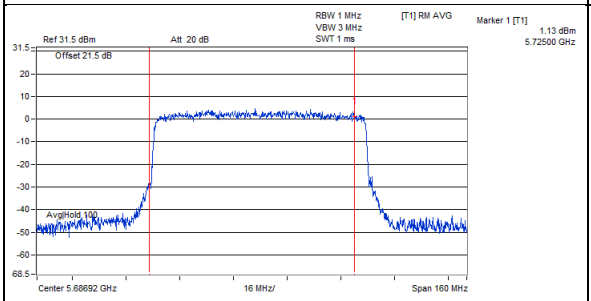
TX Channel Bandwidth 75.95 MHz Power 20.3 dBm

802.11ac (VHT80)_Chain 0 / CH138 (U-NII-3 Band)



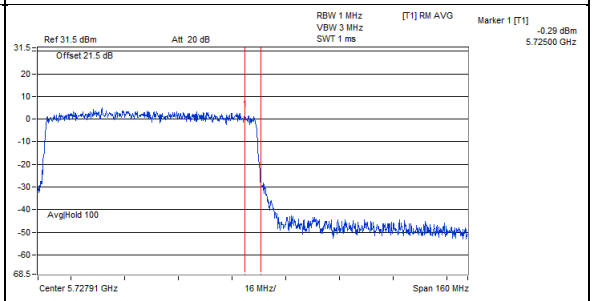
TX Channel Bandwidth 6.25 MHz Power 6.71 dBm

802.11ac (VHT80)_Chain 1 / CH138 (U-NII-2C Band)



TX Channel Bandwidth 76.15 MHz Power 20.14 dBm

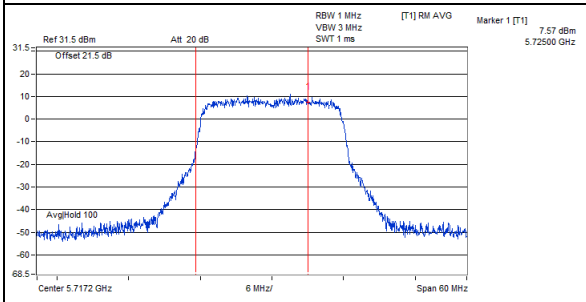
802.11ac (VHT80)_Chain 1 / CH138 (U-NII-3 Band)



TX Channel Bandwidth 5.82 MHz Power 5.84 dBm

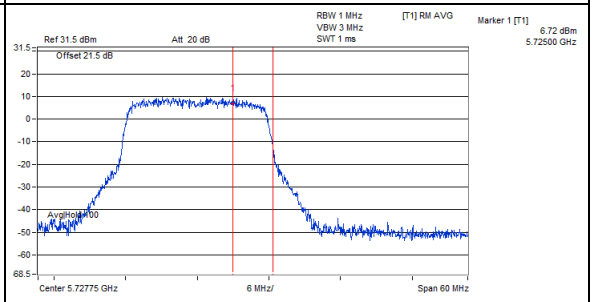
Spectrum Plot Value of Power

802.11ax (HE20)_Chain 0 / CH144 (U-NII-2C Band)



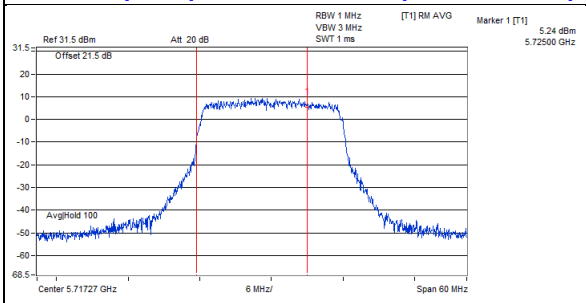
TX Channel Bandwidth 15.59 MHz Power 18.75 dBm

802.11ax (HE20)_Chain 0 / CH144 (U-NII-3 Band)



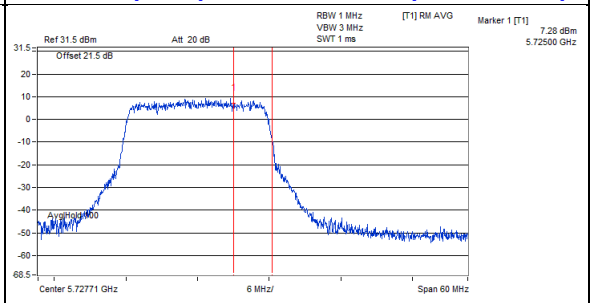
TX Channel Bandwidth 5.51 MHz Power 12.61 dBm

802.11ax (HE20)_Chain 1 / CH144 (U-NII-2C Band)



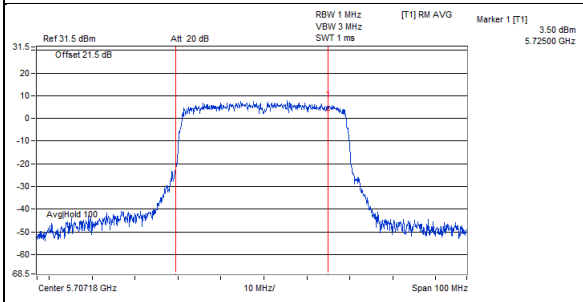
TX Channel Bandwidth 15.46 MHz Power 18.24 dBm

802.11ax (HE20)_Chain 1 / CH144 (U-NII-3 Band)



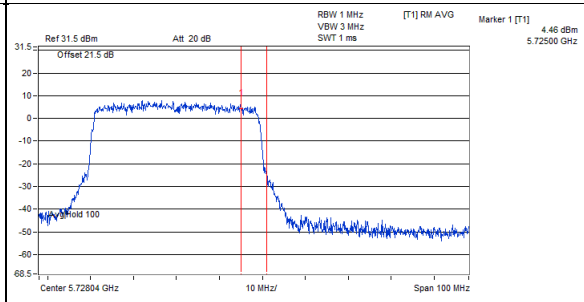
TX Channel Bandwidth 5.43 MHz Power 12.33 dBm

802.11ax (HE40)_Chain 0 / CH142 (U-NII-2C Band)



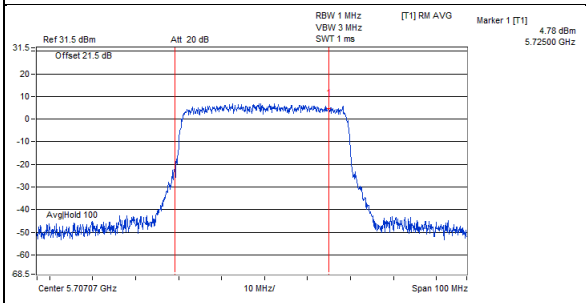
TX Channel Bandwidth 35.63 MHz Power 20.11 dBm

802.11ax (HE40)_Chain 0 / CH142 (U-NII-3 Band)



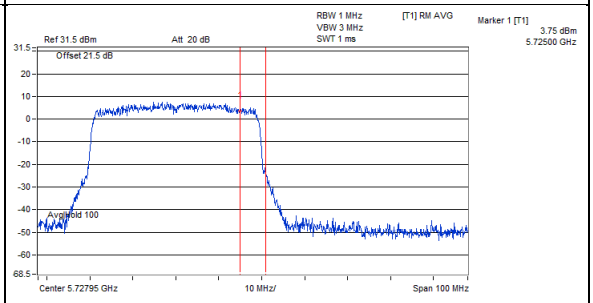
TX Channel Bandwidth 6.08 MHz Power 9.42 dBm

802.11ax (HE40)_Chain 1 / CH142 (U-NII-2C Band)

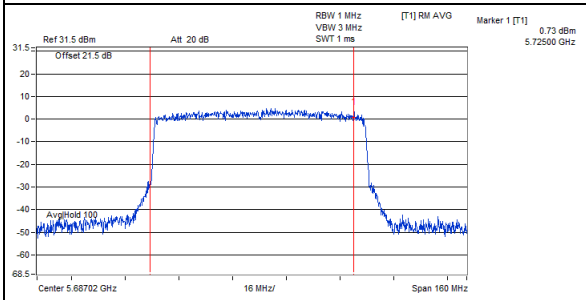
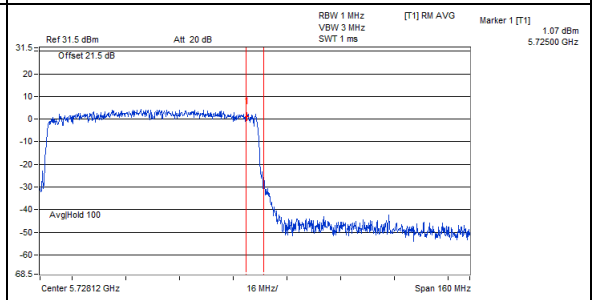
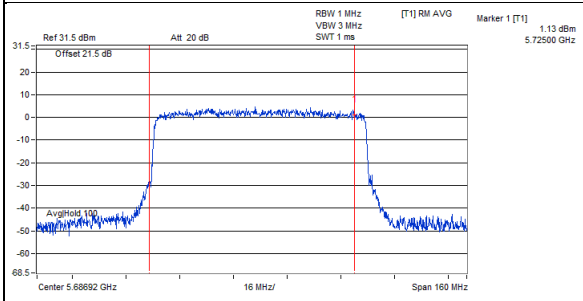
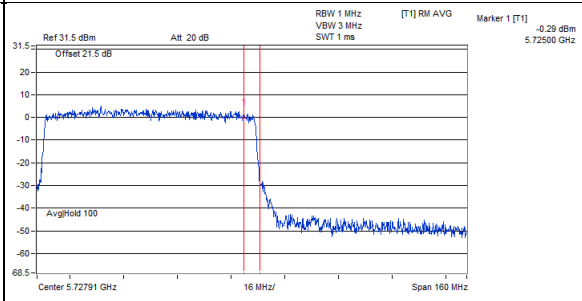


TX Channel Bandwidth 35.86 MHz Power 19.65 dBm

802.11ax (HE40)_Chain 1 / CH142 (U-NII-3 Band)



TX Channel Bandwidth 5.9 MHz Power 9.34 dBm

Spectrum Plot Value of Power	
802.11ax (HE80)_Chain 0 / CH138 (U-NII-2C Band)	**802.11ax (HE80)_Chain 0 / CH138 (U-NII-3 Band)**
 TX Channel Bandwidth 75.95 MHz Power 20.3 dBm	 TX Channel Bandwidth 6.25 MHz Power 6.71 dBm
802.11ax (HE80)_Chain 1 / CH138 (U-NII-2C Band)	**802.11ax (HE80)_Chain 1 / CH138 (U-NII-3 Band)**
 TX Channel Bandwidth 76.15 MHz Power 20.14 dBm	 TX Channel Bandwidth 5.82 MHz Power 5.84 dBm

7.3 Power Spectral Density

Mode A

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Kevin Ko

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
52	5260	6.33	5.76	0.19	9.25	9.53	Pass
60	5300	6.08	5.60	0.19	9.05	9.53	Pass
64	5320	6.01	5.60	0.19	9.01	9.53	Pass
100	5500	6.07	5.79	0.19	9.13	9.53	Pass
116	5580	5.48	5.86	0.19	8.87	9.53	Pass
140	5700	5.82	6.33	0.19	9.28	9.53	Pass
144 (U-NII-2C)	5720	6.25	6.39	0.19	9.52	9.53	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-2A, the directional gain is 7.47 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.47-6) = 9.53 dBm/MHz.
4. For U-NII-2C, the directional gain is 7.47 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.47-6) = 9.53 dBm/MHz.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
52	5260	6.16	5.63	0.23	9.14	9.53	Pass
60	5300	6.02	5.67	0.23	9.09	9.53	Pass
64	5320	5.45	5.64	0.23	8.79	9.53	Pass
100	5500	5.67	5.67	0.23	8.91	9.53	Pass
116	5580	5.47	5.52	0.23	8.74	9.53	Pass
140	5700	5.86	6.31	0.23	9.33	9.53	Pass
144 (U-NII-2C)	5720	6.23	5.82	0.23	9.27	9.53	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-2A, the directional gain is 7.47 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.47-6) = 9.53 dBm/MHz.
4. For U-NII-2C, the directional gain is 7.47 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.47-6) = 9.53 dBm/MHz.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
54	5270	4.15	3.91	0.19	7.23	9.53	Pass
62	5310	3.93	3.62	0.19	6.98	9.53	Pass
102	5510	4.18	3.33	0.19	6.98	9.53	Pass
110	5550	3.98	3.48	0.19	6.94	9.53	Pass
134	5670	3.42	4.35	0.19	7.11	9.53	Pass
142 (U-NII-2C)	5710	4.26	4.20	0.19	7.43	9.53	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-2A, the directional gain is 7.47 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.47-6) = 9.53 dBm/MHz.
4. For U-NII-2C, the directional gain is 7.47 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.47-6) = 9.53 dBm/MHz.

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
58	5290	1.63	0.89	0.20	4.49	9.53	Pass
106	5530	1.33	1.12	0.20	4.44	9.53	Pass
122	5610	1.14	1.19	0.20	4.38	9.53	Pass
138 (U-NII-2C)	5690	1.16	1.66	0.20	4.63	9.53	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-2A, the directional gain is 7.47 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.47-6) = 9.53 dBm/MHz.
4. For U-NII-2C, the directional gain is 7.47 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.47-6) = 9.53 dBm/MHz.

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1					
144 (U-NII-3)	5720	0.98	1.03	4.02	0.19	6.43	28.53	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1					
144 (U-NII-3)	5720	0.36	-0.12	3.14	0.23	5.59	28.53	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[(10$^{Chain0/20}$ + 10$^{Chain1/20}$)^2 / 2]

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1					
142 (U-NII-3)	5710	-1.96	-2.42	0.83	0.19	3.24	28.53	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[(10$^{Chain0/20}$ + 10$^{Chain1/20}$)^2 / 2]

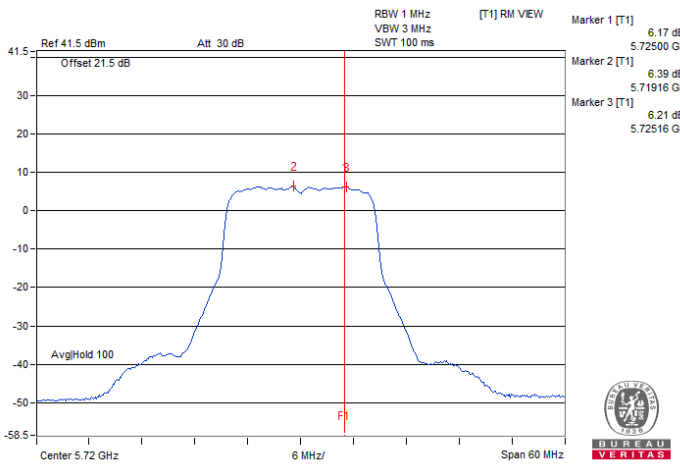
802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1					
138 (U-NII-3)	5690	-5.59	-5.93	-2.75	0.2	-0.33	28.53	Pass

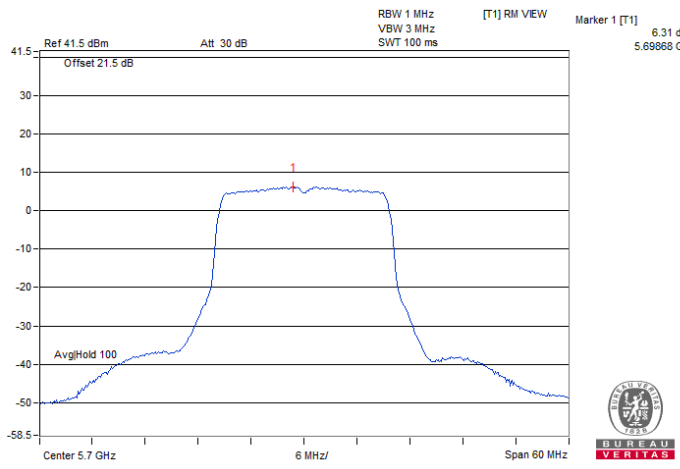
Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[(10$^{Chain0/20}$ + 10$^{Chain1/20}$)^2 / 2]

Spectrum Plot of Maximum Value

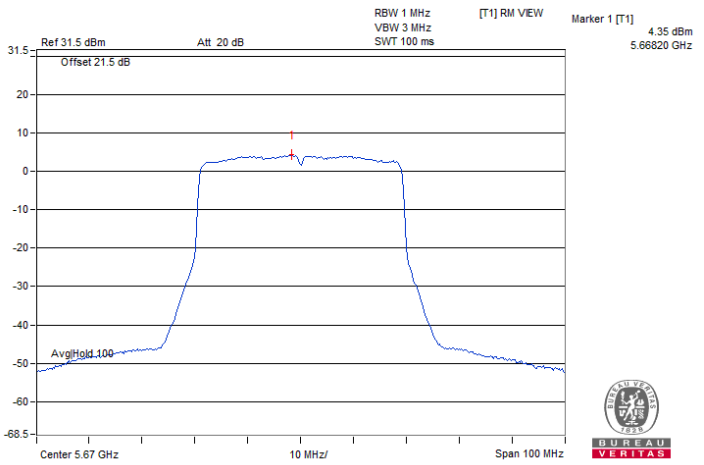


802.11a / Chain1 : CH 144 (U-NII-2C)

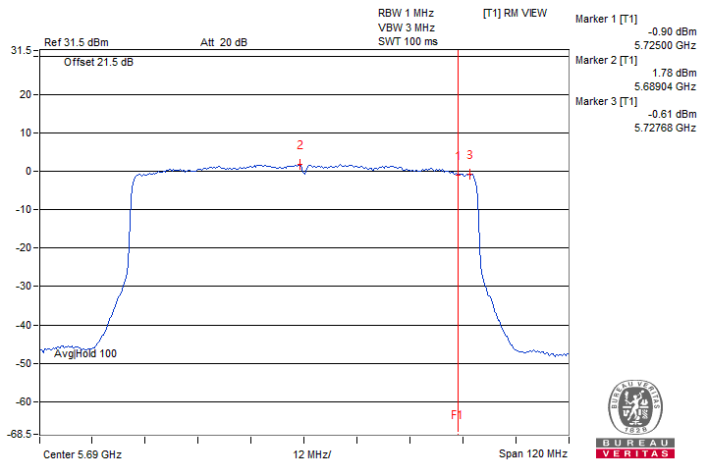


802.11ax (HE20) / Chain1 : CH 140

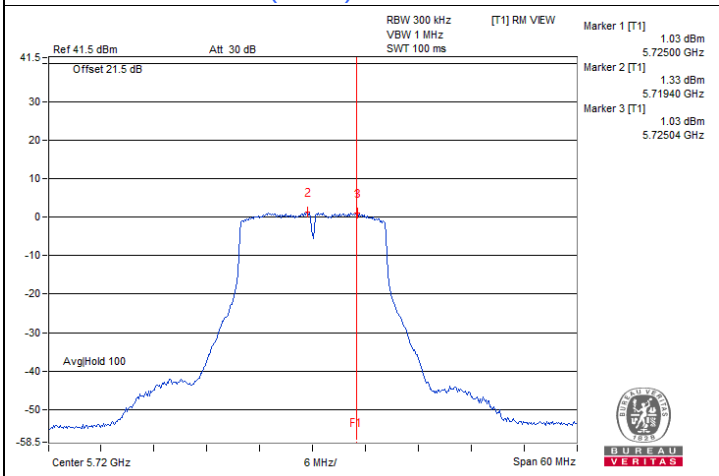
Spectrum Plot of Maximum Value



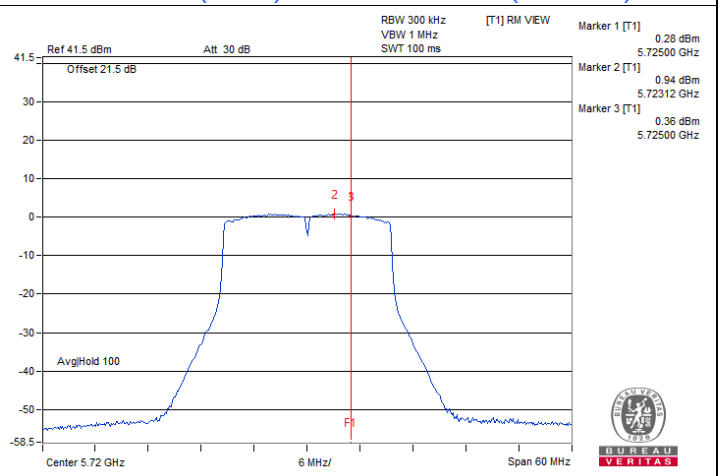
802.11ax (HE40) / Chain1 : CH 134



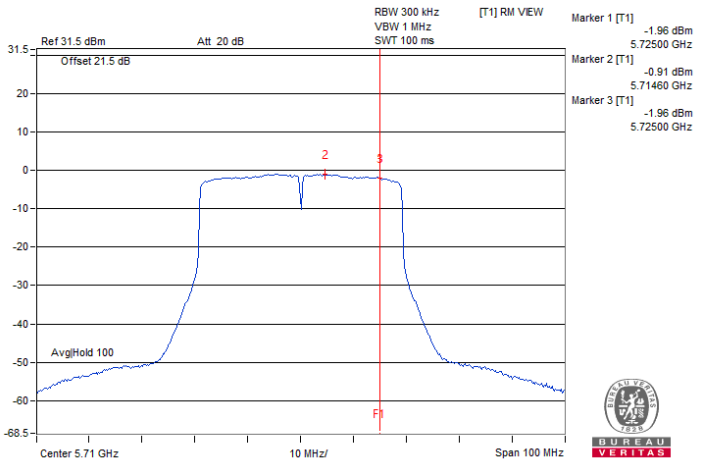
802.11ax (HE80) / Chain1 : CH 138 (U-NII-2C)



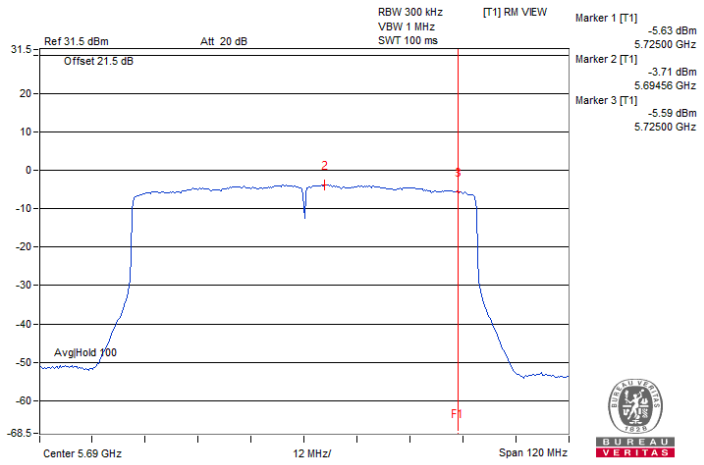
802.11a / Chain1 : CH 144 (U-NII-3)



802.11ax (HE20) / Chain0 : CH 144 (U-NII-3)



802.11ax (HE40) / Chain0 : CH 142 (U-NII-3)



802.11ax (HE80) / Chain0 : CH 138 (U-NII-3)

7.4 Occupied Bandwidth

Mode A

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Kevin Ko

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	16.44	16.44
60	5300	16.44	16.44
64	5320	16.44	16.50
100	5500	16.44	16.44
116	5580	16.44	16.44
140	5700	16.44	16.50
144 (U-NII-2C)	5720	13.22	13.22
144 (U-NII-3)	5720	3.16	3.16

802.11ax (HE20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	18.96	18.96
60	5300	18.96	18.90
64	5320	18.90	18.96
100	5500	18.96	18.96
116	5580	18.84	18.84
140	5700	18.96	18.96
144 (U-NII-2C)	5720	14.48	14.48
144 (U-NII-3)	5720	4.42	4.48

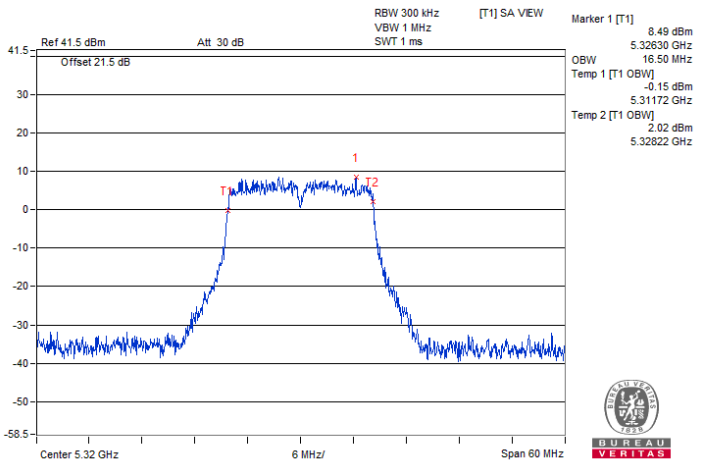
802.11ax (HE40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	37.80	38.04
62	5310	37.92	37.68
102	5510	37.92	37.80
110	5550	37.92	37.92
134	5670	37.80	37.92
142 (U-NII-2C)	5710	33.96	33.96
142 (U-NII-3)	5710	3.84	3.96

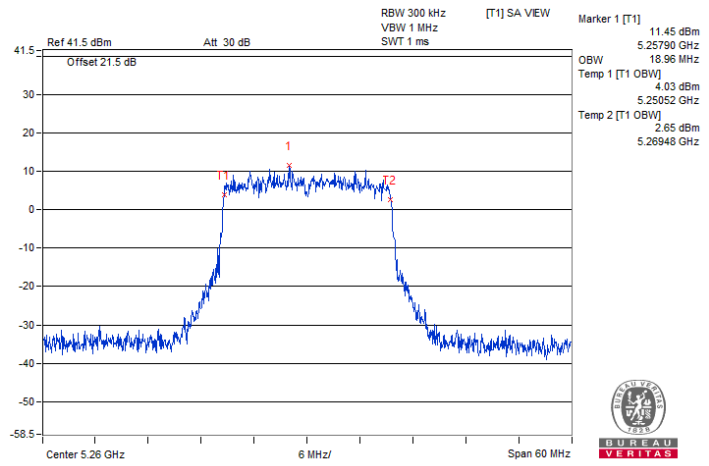
802.11ax (HE80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	77.04	77.04
106	5530	76.80	77.04
122	5610	77.28	76.80
138 (U-NII-2C)	5690	73.40	73.64
138 (U-NII-3)	5690	3.64	3.40

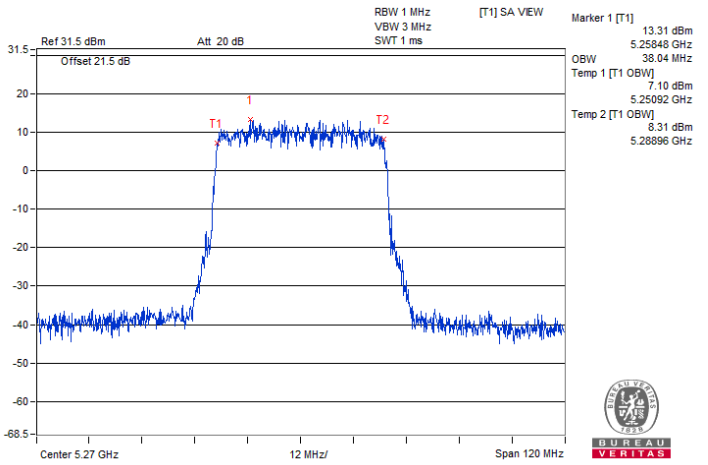
Spectrum Plot of Maximum Value



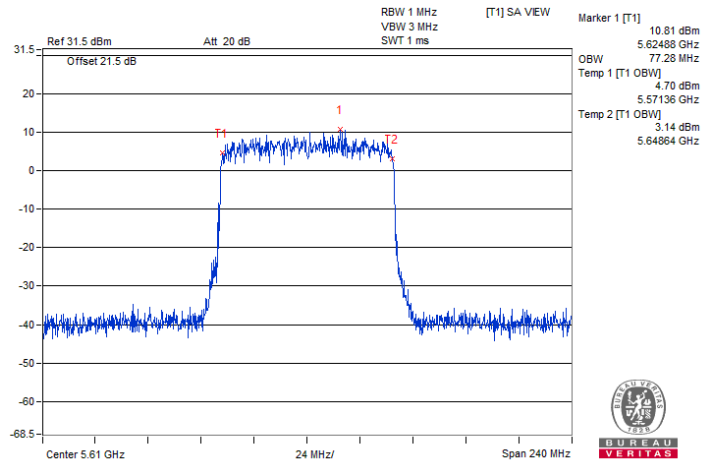
802.11a / Chain1 : CH 64



802.11ax (HE20) / Chain0 : CH 52



802.11ax (HE40) / Chain1 : CH 54



802.11ax (HE80) / Chain0 : CH 122

7.5 Frequency Stability

Mode A

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Kevin Ko

802.11a

Frequency Stability Versus Temp.									
Operating Frequency: 5260 MHz									
TEMP. (℃)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
40	120	5260.0175	Pass	5260.0132	Pass	5260.0127	Pass	5260.0156	Pass
30	120	5260.0212	Pass	5260.0232	Pass	5260.0199	Pass	5260.0246	Pass
20	120	5260.0112	Pass	5260.0122	Pass	5260.0122	Pass	5260.012	Pass
10	120	5260.0034	Pass	5260.0027	Pass	5260.0035	Pass	5260.0065	Pass
0	120	5259.9788	Pass	5259.9804	Pass	5259.9808	Pass	5259.9811	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5260 MHz									
TEMP. (℃)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
20	138	5260.0096	Pass	5260.0066	Pass	5260.0064	Pass	5260.0093	Pass
	120	5260.0112	Pass	5260.0122	Pass	5260.0122	Pass	5260.012	Pass
	102	5260.0116	Pass	5260.0102	Pass	5260.0106	Pass	5260.0079	Pass

7.6 AC Power Conducted Emissions

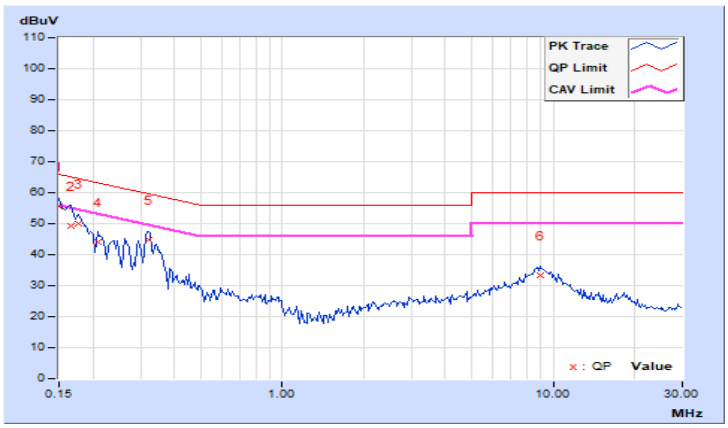
Mode A

RF Mode	802.11ax (HE80)	**Channel**	CH 58：5290 MHz
Frequency Range	150 kHz ~ 30 MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 75% RH
Tested By	Ryan Du		

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	0.15000	9.95	45.56	29.94	55.51	39.89	66.00	56.00	-10.49	-16.11
2	0.16562	9.95	39.22	25.34	49.17	35.29	65.18	55.18	-16.01	-19.89
3	0.17734	9.96	39.90	23.52	49.86	33.48	64.61	54.61	-14.75	-21.13
4	0.20859	9.96	34.24	21.28	44.20	31.24	63.26	53.26	-19.06	-22.02
5	0.32188	9.96	34.85	26.70	44.81	36.66	59.66	49.66	-14.85	-13.00
6	8.94922	10.54	22.69	16.85	33.23	27.39	60.00	50.00	-26.77	-22.61

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

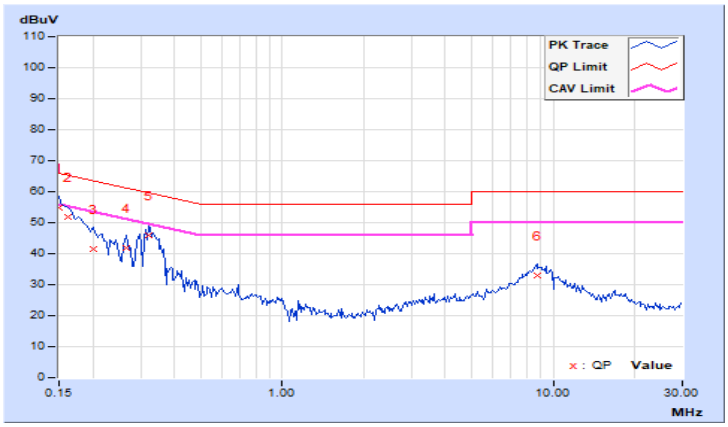


RF Mode	802.11ax (HE80)	**Channel**	CH 58：5290 MHz
Frequency Range	150 kHz ~ 30 MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 75% RH
Tested By	Ryan Du		

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	0.15000	9.95	44.99	28.79	54.94	38.74	66.00	56.00	-11.06	-17.26
2	0.16172	9.95	42.02	24.74	51.97	34.69	65.38	55.38	-13.41	-20.69
3	0.20078	9.96	31.57	16.87	41.53	26.83	63.58	53.58	-22.05	-26.75
4	0.26719	9.96	31.86	27.71	41.82	37.67	61.20	51.20	-19.38	-13.53
5	0.32188	9.96	36.10	28.88	46.06	38.84	59.66	49.66	-13.60	-10.82
6	8.73047	10.46	22.50	16.82	32.96	27.28	60.00	50.00	-27.04	-22.72

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



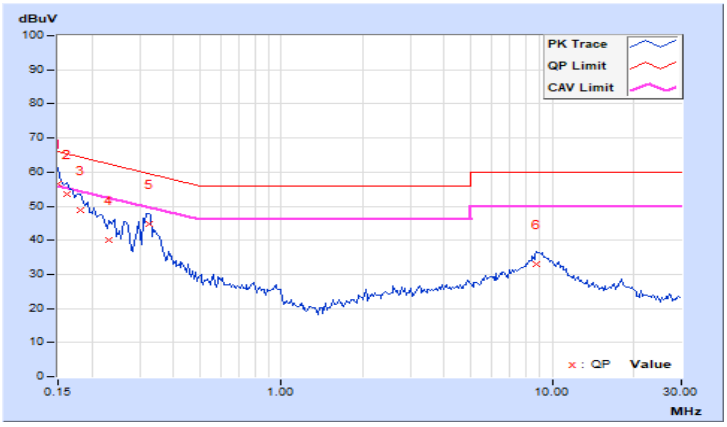
Mode B

RF Mode	802.11ax (HE80)	**Channel**	CH 58：5290 MHz
Frequency Range	150 kHz ~ 30 MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 75% RH
Tested By	Ryan Du		

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	**0.15000**	**9.95**	**46.72**	**30.75**	**56.67**	**40.70**	**66.00**	**56.00**	**-9.33**	**-15.30**
2	0.16164	9.95	43.67	26.98	53.62	36.93	65.38	55.38	-11.76	-18.45
3	0.18133	9.96	38.87	24.24	48.83	34.20	64.42	54.42	-15.59	-20.22
4	0.23215	9.96	30.22	16.13	40.18	26.09	62.37	52.37	-22.19	-26.28
5	0.32585	9.96	34.70	24.39	44.66	34.35	59.56	49.56	-14.90	-15.21
6	8.75397	10.52	22.42	16.42	32.94	26.94	60.00	50.00	-27.06	-23.06

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

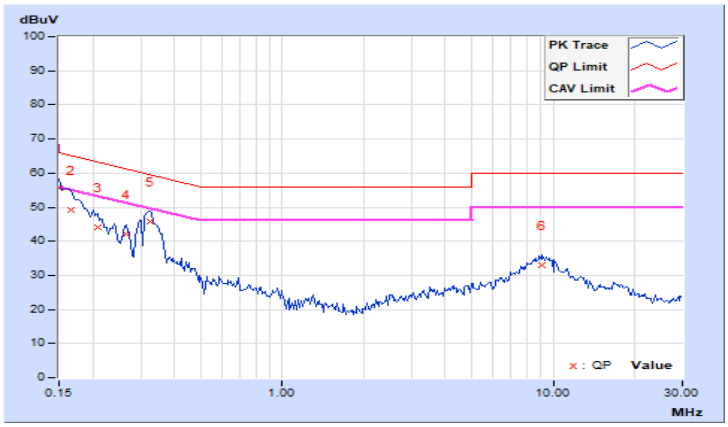


RF Mode	802.11ax (HE80)	**Channel**	CH 58：5290 MHz
Frequency Range	150 kHz ~ 30 MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 75% RH
Tested By	Ryan Du		

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	0.15000	9.95	45.55	29.46	55.50	39.41	66.00	56.00	-10.50	-16.59
2	0.16567	9.95	39.36	24.45	49.31	34.40	65.17	55.17	-15.86	-20.77
3	0.20863	9.96	34.19	20.95	44.15	30.91	63.26	53.26	-19.11	-22.35
4	0.26725	9.96	32.18	27.59	42.14	37.55	61.20	51.20	-19.06	-13.65
5	0.32587	9.96	35.91	26.30	45.87	36.26	59.56	49.56	-13.69	-13.30
6	9.12512	10.48	22.39	16.40	32.87	26.88	60.00	50.00	-27.13	-23.12

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



7.7 Unwanted Emissions below 1 GHz

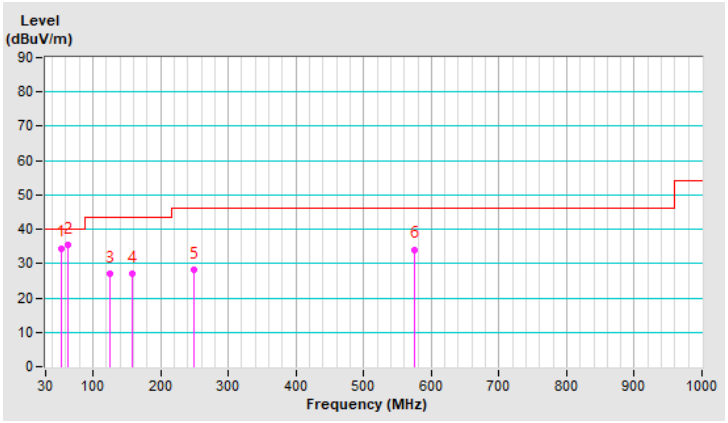
Mode A

RF Mode	802.11ax (HE80)	**Channel**	CH 58：5290 MHz
Frequency Range	30 MHz ~ 1 GHz	**Detector Function & Bandwidth**	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	53.29	34.5 QP	40.0	-5.5	1.00 H	58	42.9	-8.4
2	63.06	35.3 QP	40.0	-4.7	1.50 H	159	44.7	-9.4
3	125.02	27.2 QP	43.5	-16.3	2.00 H	263	36.8	-9.6
4	157.52	27.1 QP	43.5	-16.4	1.50 H	135	35.3	-8.2
5	250.01	28.2 QP	46.0	-17.8	1.50 H	49	37.8	-9.6
6	576.05	34.1 QP	46.0	-11.9	1.50 H	332	35.2	-1.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

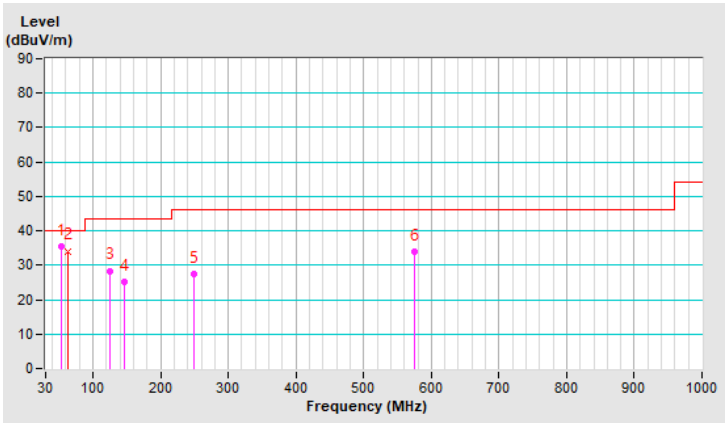


RF Mode	802.11ax (HE80)	**Channel**	CH 58：5290 MHz
Frequency Range	30 MHz ~ 1 GHz	**Detector Function & Bandwidth**	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	**52.66**	**35.6 QP**	**40.0**	**-4.4**	**1.50 V**	**195**	**43.9**	**-8.3**
2	63.84	34.1 QP	40.0	-5.9	1.01 V	252	43.4	-9.3
3	125.00	28.4 QP	43.5	-15.1	1.50 V	63	38.1	-9.7
4	147.05	25.2 QP	43.5	-18.3	1.00 V	135	33.1	-7.9
5	250.03	27.3 QP	46.0	-18.7	2.00 V	332	36.9	-9.6
6	576.01	34.0 QP	46.0	-12.0	1.50 V	341	35.1	-1.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



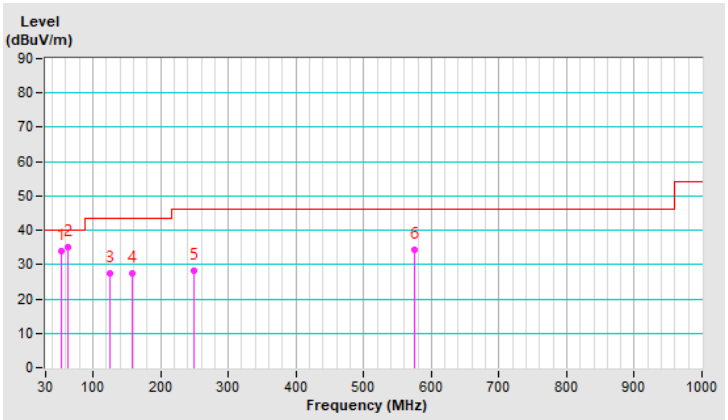
Mode B

RF Mode	802.11ax (HE80)	Channel	CH 58：5290 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	53.09	33.9 QP	40.0	-6.1	1.00 H	18	42.1	-8.2
2	63.07	34.9 QP	40.0	-5.1	1.50 H	122	43.9	-9.0
3	124.99	27.6 QP	43.5	-15.9	2.00 H	234	37.2	-9.6
4	157.54	27.4 QP	43.5	-16.1	1.50 H	147	35.6	-8.2
5	250.01	28.3 QP	46.0	-17.7	1.50 H	47	37.8	-9.5
6	576.02	34.3 QP	46.0	-11.7	1.50 H	342	35.5	-1.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

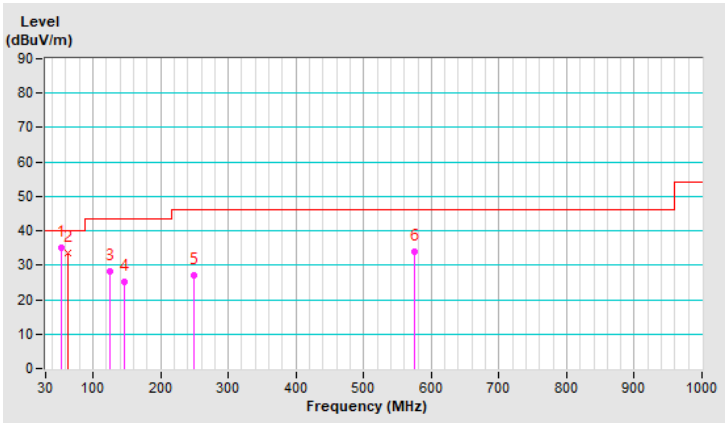


RF Mode	802.11ax (HE80)	**Channel**	CH 58：5290 MHz
Frequency Range	30 MHz ~ 1 GHz	**Detector Function & Bandwidth**	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	52.74	35.0 QP	40.0	-5.0	1.50 V	232	43.2	-8.2
2	63.74	33.7 QP	40.0	-6.3	1.01 V	289	43.1	-9.4
3	125.03	28.2 QP	43.5	-15.3	1.50 V	14	37.8	-9.6
4	147.06	25.2 QP	43.5	-18.3	1.00 V	127	33.2	-8.0
5	249.99	27.1 QP	46.0	-18.9	2.00 V	336	36.6	-9.5
6	576.01	33.8 QP	46.0	-12.2	1.50 V	298	35.0	-1.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



7.8 Unwanted Emissions above 1 GHz

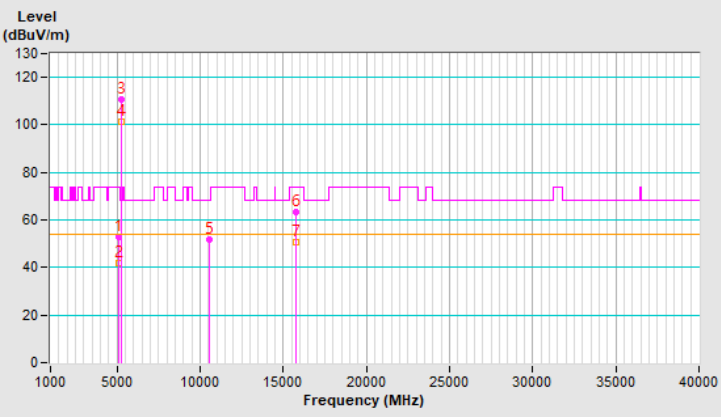
Mode A

RF Mode	802.11a	Channel	CH 52：5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5143.15	53.1 PK	74.0	-20.9	1.10 H	162	48.3	4.8
2	5143.15	41.8 AV	54.0	-12.2	1.10 H	162	37.0	4.8
3	*5260.00	110.6 PK			1.10 H	162	106.2	4.4
4	*5260.00	101.2 AV			1.10 H	162	96.8	4.4
5	#10520.00	51.6 PK	68.2	-16.6	1.34 H	197	37.2	14.4
6	15780.00	63.1 PK	74.0	-10.9	4.00 H	58	49.5	13.6
7	15780.00	50.9 AV	54.0	-3.1	4.00 H	58	37.3	13.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

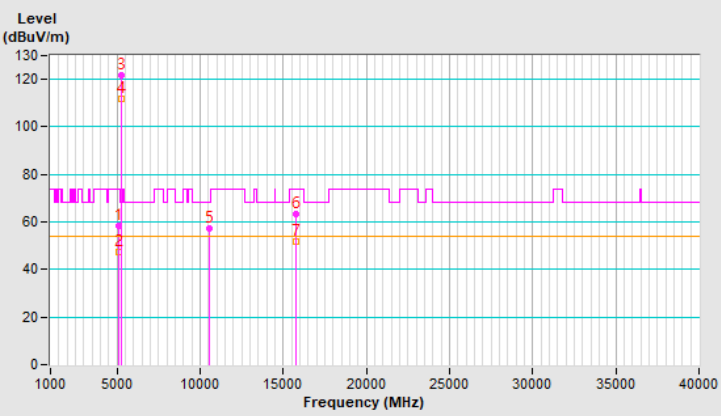


RF Mode	802.11a	Channel	CH 52：5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5067.39	58.3 PK	74.0	-15.7	2.40 V	201	53.9	4.4
2	5067.39	47.6 AV	54.0	-6.4	2.40 V	201	43.2	4.4
3	*5260.00	121.5 PK			2.40 V	201	117.1	4.4
4	*5260.00	112.0 AV			2.40 V	201	107.6	4.4
5	#10520.00	57.5 PK	68.2	-10.7	3.85 V	116	43.1	14.4
6	15780.00	63.3 PK	74.0	-10.7	3.82 V	100	49.7	13.6
7	15780.00	51.7 AV	54.0	-2.3	3.82 V	100	38.1	13.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

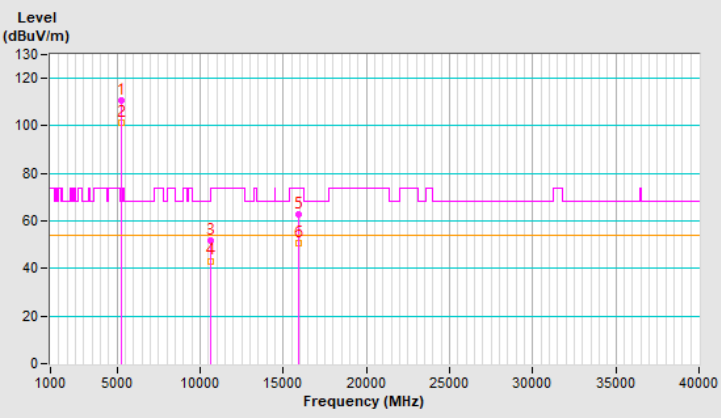


RF Mode	802.11a	**Channel**	CH 60：5300 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5300.00	110.5 PK			1.05 H	167	106.2	4.3
2	*5300.00	101.3 AV			1.05 H	167	97.0	4.3
3	10600.00	51.7 PK	74.0	-22.3	1.34 H	192	37.5	14.2
4	10600.00	43.2 AV	54.0	-10.8	1.34 H	192	29.0	14.2
5	15900.00	62.6 PK	74.0	-11.4	3.98 H	65	48.8	13.8
6	15900.00	50.9 AV	54.0	-3.1	3.98 H	65	37.1	13.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

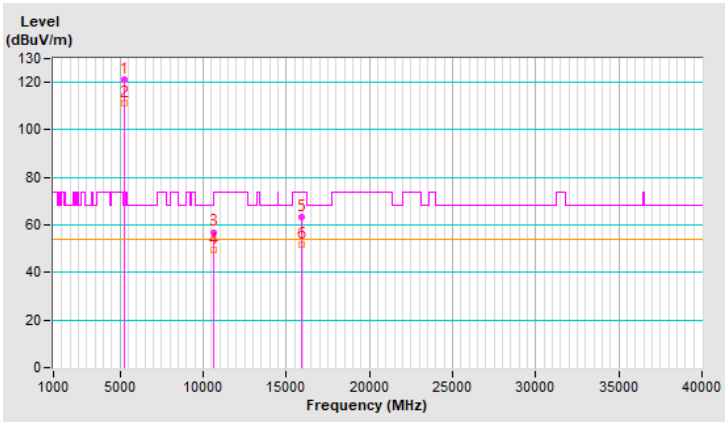


RF Mode	802.11a	**Channel**	CH 60：5300 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5300.00	121.3 PK			2.44 V	187	117.0	4.3
2	*5300.00	111.1 AV			2.44 V	187	106.8	4.3
3	10600.00	57.0 PK	74.0	-17.0	3.89 V	131	42.8	14.2
4	10600.00	49.7 AV	54.0	-4.3	3.89 V	131	35.5	14.2
5	15900.00	63.4 PK	74.0	-10.6	3.84 V	87	49.6	13.8
6	15900.00	52.0 AV	54.0	-2.0	3.84 V	87	38.2	13.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

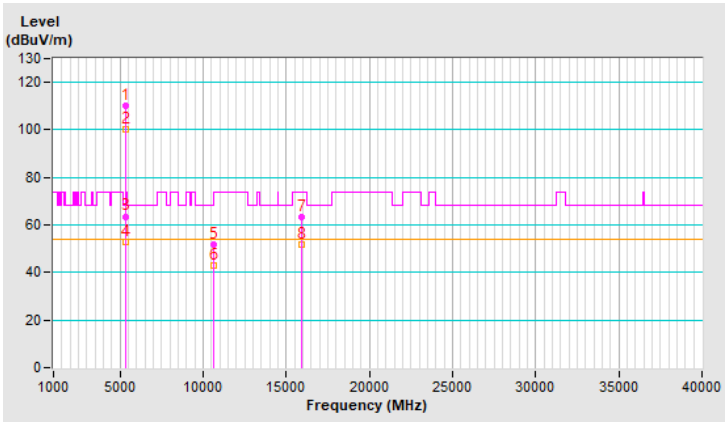


RF Mode	802.11a	Channel	CH 64：5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	110.4 PK			1.15 H	164	105.9	4.5
2	*5320.00	100.2 AV			1.15 H	164	95.7	4.5
3	5353.06	63.6 PK	74.0	-10.4	1.15 H	164	59.0	4.6
4	5353.06	52.9 AV	54.0	-1.1	1.15 H	164	48.3	4.6
5	10640.00	51.7 PK	74.0	-22.3	1.35 H	201	37.4	14.3
6	10640.00	43.1 AV	54.0	-10.9	1.35 H	201	28.8	14.3
7	15960.00	63.4 PK	74.0	-10.6	3.98 H	68	49.5	13.9
8	15960.00	51.6 AV	54.0	-2.4	3.98 H	68	37.7	13.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

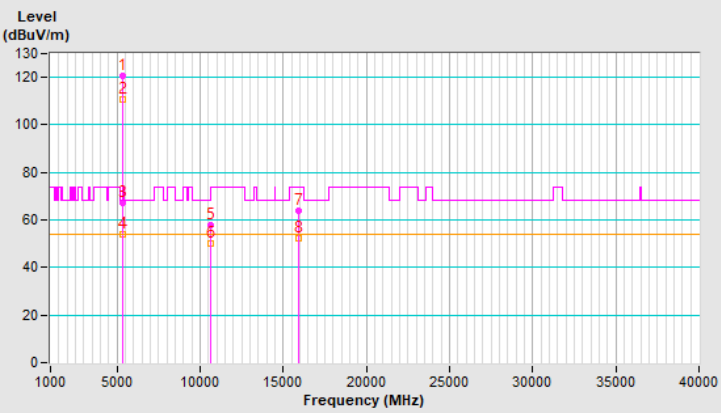


RF Mode	802.11a	Channel	CH 64：5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	120.7 PK			2.21 V	200	116.2	4.5
2	*5320.00	110.9 AV			2.21 V	200	106.4	4.5
3	5352.62	67.1 PK	74.0	-6.9	2.21 V	200	62.5	4.6
4	**5352.62**	**53.9 AV**	**54.0**	**-0.1**	**2.21 V**	**200**	**49.3**	**4.6**
5	10640.00	57.6 PK	74.0	-16.4	3.85 V	125	43.3	14.3
6	10640.00	50.1 AV	54.0	-3.9	3.85 V	125	35.8	14.3
7	15960.00	63.9 PK	74.0	-10.1	3.80 V	112	50.0	13.9
8	15960.00	52.1 AV	54.0	-1.9	3.80 V	112	38.2	13.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

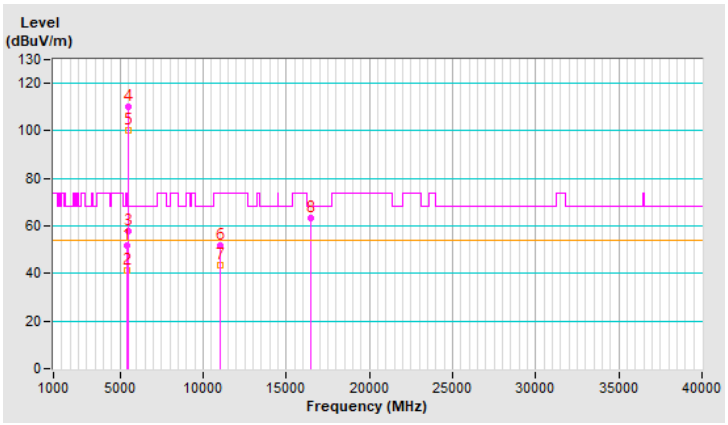


RF Mode	802.11a	Channel	CH 100：5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	51.7 PK	74.0	-22.3	1.00 H	168	46.9	4.8
2	5460.00	41.3 AV	54.0	-12.7	1.00 H	168	36.5	4.8
3	#5468.18	57.6 PK	68.2	-10.6	1.00 H	168	52.8	4.8
4	*5500.00	109.9 PK			1.00 H	168	105.1	4.8
5	*5500.00	100.3 AV			1.00 H	168	95.5	4.8
6	11000.00	51.7 PK	74.0	-22.3	1.27 H	185	36.9	14.8
7	11000.00	43.5 AV	54.0	-10.5	1.27 H	185	28.7	14.8
8	#16500.00	63.4 PK	68.2	-4.8	3.97 H	41	48.1	15.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

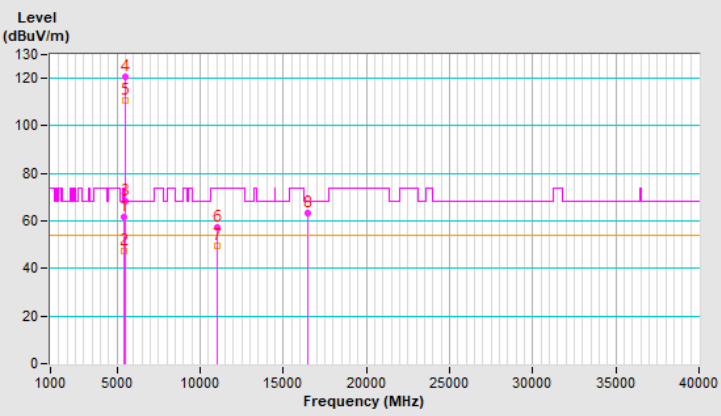


RF Mode	802.11a	Channel	CH 100：5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5459.83	61.6 PK	74.0	-12.4	2.17 V	183	56.8	4.8
2	5459.83	47.4 AV	54.0	-6.6	2.17 V	183	42.6	4.8
3	**#5467.98**	**68.1 PK**	**68.2**	**-0.1**	**2.17 V**	**183**	**63.3**	**4.8**
4	*5500.00	120.5 PK			2.17 V	183	115.7	4.8
5	*5500.00	110.8 AV			2.17 V	183	106.0	4.8
6	11000.00	57.5 PK	74.0	-16.5	3.85 V	109	42.7	14.8
7	11000.00	49.8 AV	54.0	-4.2	3.85 V	109	35.0	14.8
8	#16500.00	63.1 PK	68.2	-5.1	3.86 V	94	47.8	15.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

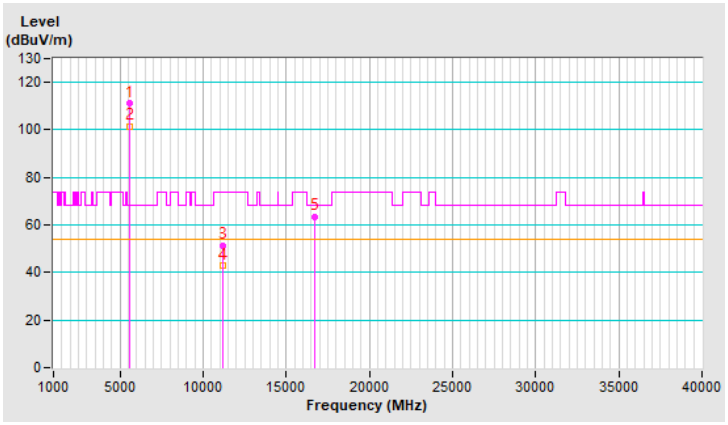


RF Mode	802.11a	**Channel**	CH 116：5580 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5580.00	111.0 PK			1.05 H	151	106.2	4.8
2	*5580.00	101.6 AV			1.05 H	151	96.8	4.8
3	11160.00	51.5 PK	74.0	-22.5	1.34 H	190	36.9	14.6
4	11160.00	42.9 AV	54.0	-11.1	1.34 H	190	28.3	14.6
5	#16740.00	63.6 PK	68.2	-4.6	3.91 H	53	46.8	16.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

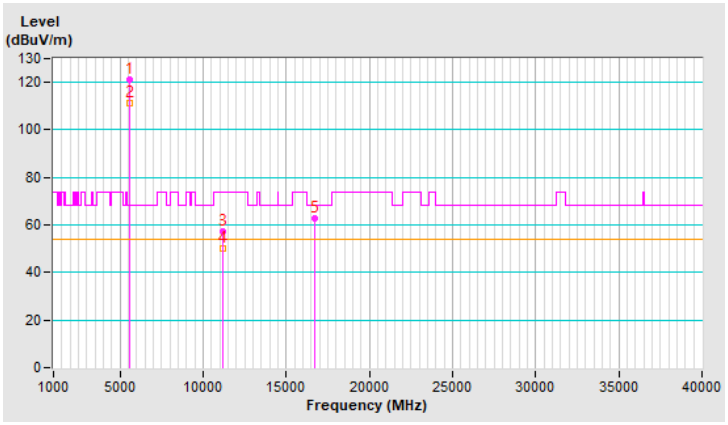


RF Mode	802.11a	Channel	CH 116：5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	121.2 PK			2.41 V	187	116.4	4.8
2	*5580.00	111.1 AV			2.41 V	187	106.3	4.8
3	11160.00	57.5 PK	74.0	-16.5	3.80 V	129	42.9	14.6
4	11160.00	49.9 AV	54.0	-4.1	3.80 V	129	35.3	14.6
5	#16740.00	62.6 PK	68.2	-5.6	3.77 V	94	45.8	16.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

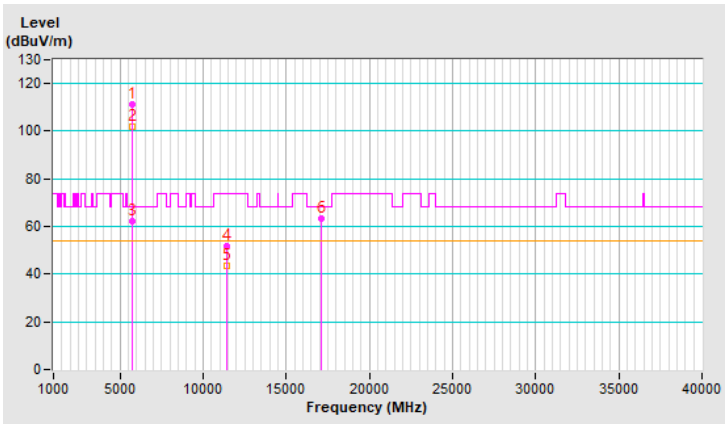


RF Mode	802.11a	Channel	CH 140：5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	111.0 PK			1.13 H	149	106.3	4.7
2	*5700.00	101.7 AV			1.13 H	149	97.0	4.7
3	#5725.00	62.4 PK	68.2	-5.8	1.13 H	149	57.5	4.9
4	11400.00	51.9 PK	74.0	-22.1	1.32 H	178	36.5	15.4
5	11400.00	43.5 AV	54.0	-10.5	1.32 H	178	28.1	15.4
6	#17100.00	63.5 PK	68.2	-4.7	3.96 H	40	45.0	18.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

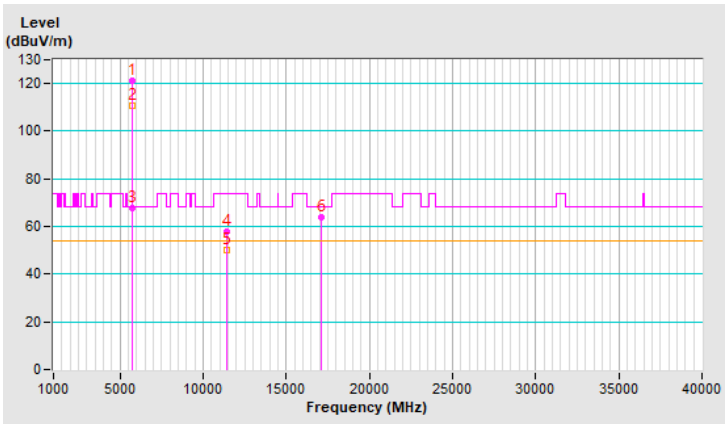


RF Mode	802.11a	Channel	CH 140：5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	121.0 PK			2.16 V	187	116.3	4.7
2	*5700.00	110.8 AV			2.16 V	187	106.1	4.7
3	#5725.00	67.8 PK	68.2	-0.4	2.16 V	187	62.9	4.9
4	11400.00	57.7 PK	74.0	-16.3	3.89 V	102	42.3	15.4
5	11400.00	50.2 AV	54.0	-3.8	3.89 V	102	34.8	15.4
6	#17100.00	63.9 PK	68.2	-4.3	3.78 V	92	45.4	18.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

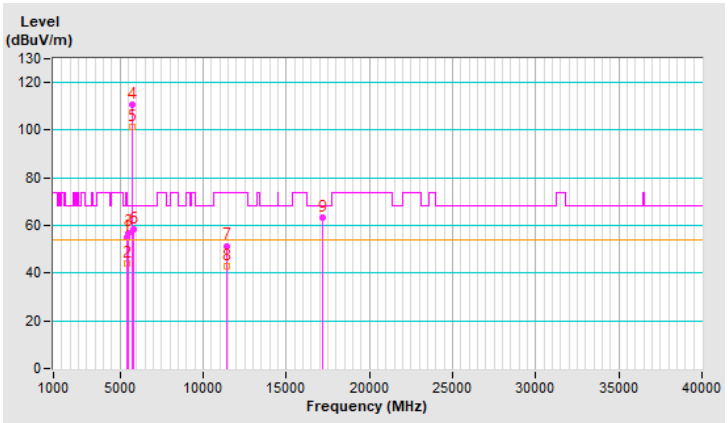


RF Mode	802.11a	Channel	CH 144：5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	55.3 PK	74.0	-18.7	1.12 H	167	50.5	4.8
2	5460.00	44.0 AV	54.0	-10.0	1.12 H	167	39.2	4.8
3	#5470.00	57.0 PK	68.2	-11.2	1.12 H	167	52.2	4.8
4	*5720.00	110.9 PK			1.12 H	167	106.1	4.8
5	*5720.00	101.4 AV			1.12 H	167	96.6	4.8
6	#5850.00	58.6 PK	68.2	-9.6	1.12 H	167	53.3	5.3
7	11440.00	51.5 PK	74.0	-22.5	1.31 H	191	36.2	15.3
8	11440.00	43.1 AV	54.0	-10.9	1.31 H	191	27.8	15.3
9	#17160.00	63.4 PK	68.2	-4.8	3.97 H	52	45.1	18.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

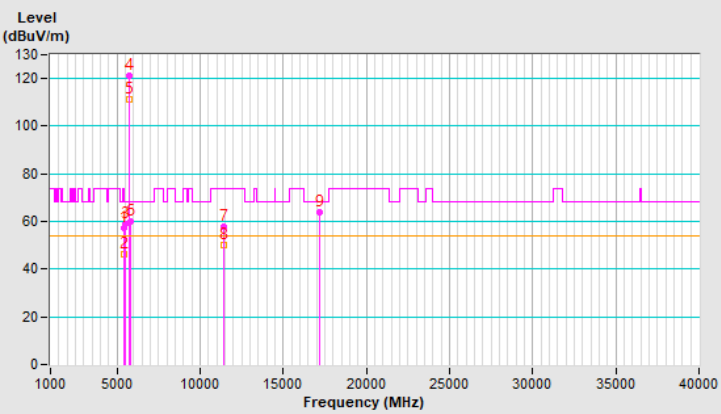


RF Mode	802.11a	Channel	CH 144：5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	57.1 PK	74.0	-16.9	2.46 V	192	52.3	4.8
2	5460.00	46.0 AV	54.0	-8.0	2.46 V	192	41.2	4.8
3	#5470.00	58.9 PK	68.2	-9.3	2.46 V	192	54.1	4.8
4	*5720.00	121.0 PK			2.46 V	192	116.2	4.8
5	*5720.00	111.1 AV			2.46 V	192	106.3	4.8
6	#5850.00	60.0 PK	68.2	-8.2	2.46 V	192	54.7	5.3
7	11440.00	57.6 PK	74.0	-16.4	3.84 V	127	42.3	15.3
8	11440.00	49.9 AV	54.0	-4.1	3.84 V	127	34.6	15.3
9	#17160.00	63.7 PK	68.2	-4.5	3.87 V	112	45.4	18.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

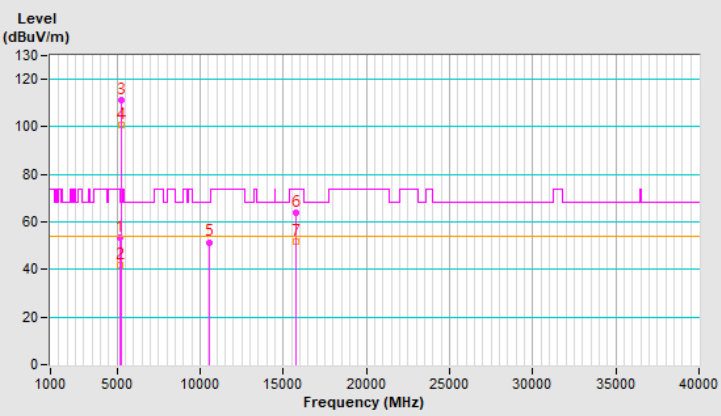


RF Mode	802.11ax (HE20)	**Channel**	CH 52：5260 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5144.88	53.3 PK	74.0	-20.7	1.31 H	163	48.5	4.8
2	5144.88	41.8 AV	54.0	-12.2	1.31 H	163	37.0	4.8
3	*5260.00	111.2 PK			1.31 H	163	106.8	4.4
4	*5260.00	100.8 AV			1.31 H	163	96.4	4.4
5	#10520.00	51.5 PK	68.2	-16.7	1.27 H	190	37.1	14.4
6	15780.00	63.8 PK	74.0	-10.2	3.97 H	47	50.2	13.6
7	15780.00	51.6 AV	54.0	-2.4	3.97 H	47	38.0	13.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

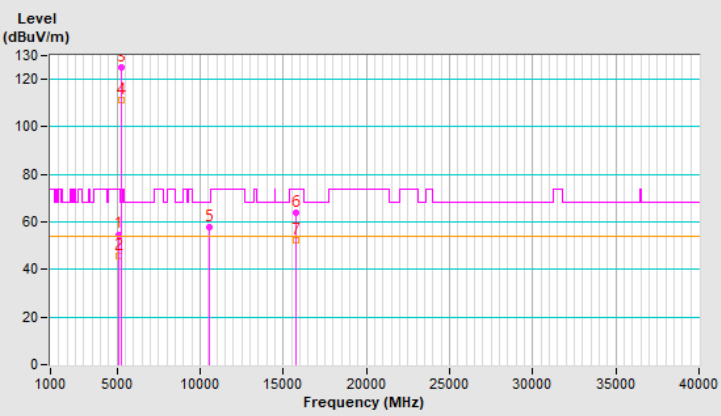


RF Mode	802.11ax (HE20)	Channel	CH 52：5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5088.03	54.8 PK	74.0	-19.2	2.29 V	199	50.1	4.7
2	5088.03	45.7 AV	54.0	-8.3	2.29 V	199	41.0	4.7
3	*5260.00	124.8 PK			2.29 V	199	120.4	4.4
4	*5260.00	111.3 AV			2.29 V	199	106.9	4.4
5	#10520.00	57.7 PK	68.2	-10.5	3.81 V	120	43.3	14.4
6	15780.00	64.1 PK	74.0	-9.9	3.88 V	101	50.5	13.6
7	15780.00	52.2 AV	54.0	-1.8	3.88 V	101	38.6	13.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

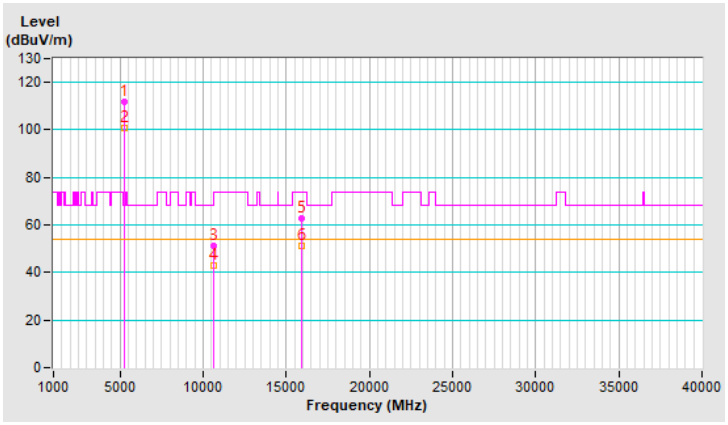


RF Mode	802.11ax (HE20)	**Channel**	CH 60：5300 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5300.00	111.6 PK			1.14 H	173	107.3	4.3
2	*5300.00	101.0 AV			1.14 H	173	96.7	4.3
3	10600.00	51.3 PK	74.0	-22.7	1.26 H	176	37.1	14.2
4	10600.00	43.1 AV	54.0	-10.9	1.26 H	176	28.9	14.2
5	15900.00	63.0 PK	74.0	-11.0	3.97 H	59	49.2	13.8
6	15900.00	51.1 AV	54.0	-2.9	3.97 H	59	37.3	13.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

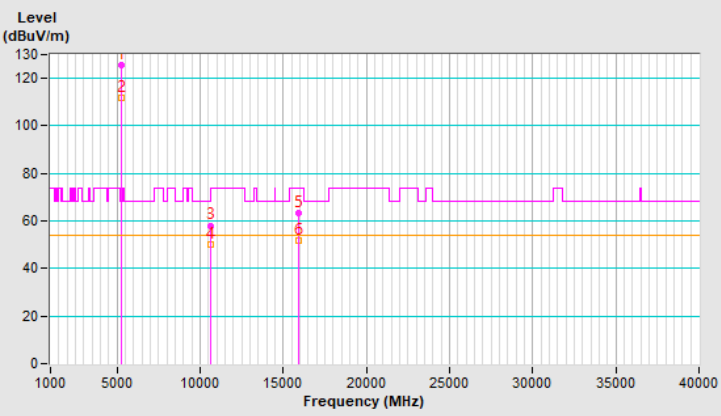


RF Mode	802.11ax (HE20)	**Channel**	CH 60：5300 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5300.00	125.4 PK			2.41 V	191	121.1	4.3
2	*5300.00	111.6 AV			2.41 V	191	107.3	4.3
3	10600.00	58.1 PK	74.0	-15.9	3.88 V	121	43.9	14.2
4	10600.00	50.1 AV	54.0	-3.9	3.88 V	121	35.9	14.2
5	15900.00	63.4 PK	74.0	-10.6	3.93 V	124	49.6	13.8
6	15900.00	51.8 AV	54.0	-2.2	3.93 V	124	38.0	13.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

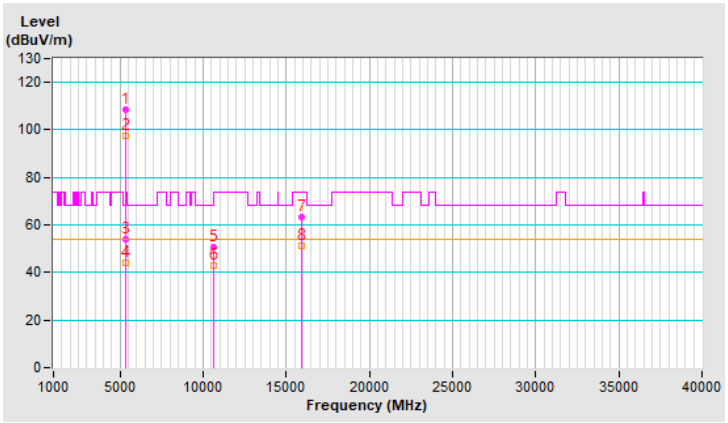


RF Mode	802.11ax (HE20)	Channel	CH 64：5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	108.6 PK			1.42 H	163	104.1	4.5
2	*5320.00	97.4 AV			1.42 H	163	92.9	4.5
3	5350.80	53.8 PK	74.0	-20.2	1.42 H	163	49.2	4.6
4	5350.80	43.8 AV	54.0	-10.2	1.42 H	163	39.2	4.6
5	10640.00	50.9 PK	74.0	-23.1	1.30 H	199	36.6	14.3
6	10640.00	42.8 AV	54.0	-11.2	1.30 H	199	28.5	14.3
7	15960.00	63.2 PK	74.0	-10.8	3.95 H	62	49.3	13.9
8	15960.00	51.0 AV	54.0	-3.0	3.95 H	62	37.1	13.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

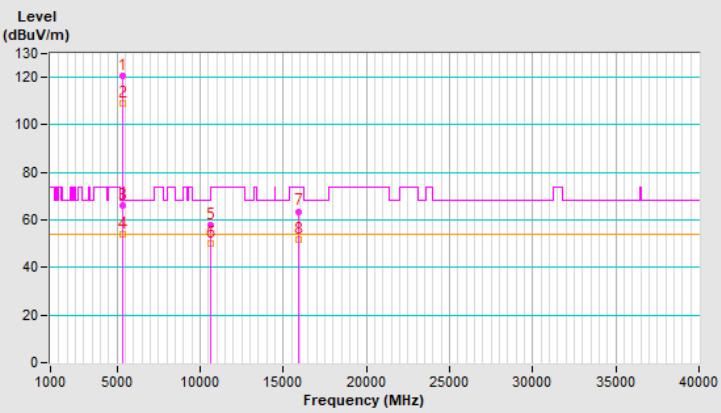


RF Mode	802.11ax (HE20)	**Channel**	CH 64：5320 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5320.00	120.8 PK			2.18 V	203	116.3	4.5
2	*5320.00	108.8 AV			2.18 V	203	104.3	4.5
3	5350.89	65.9 PK	74.0	-8.1	2.18 V	203	61.3	4.6
4	**5350.89**	**53.9 AV**	**54.0**	**-0.1**	**2.18 V**	**203**	**49.3**	**4.6**
5	10640.00	57.7 PK	74.0	-16.3	3.89 V	115	43.4	14.3
6	10640.00	50.3 AV	54.0	-3.7	3.89 V	115	36.0	14.3
7	15960.00	63.6 PK	74.0	-10.4	3.84 V	115	49.7	13.9
8	15960.00	51.9 AV	54.0	-2.1	3.84 V	115	38.0	13.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

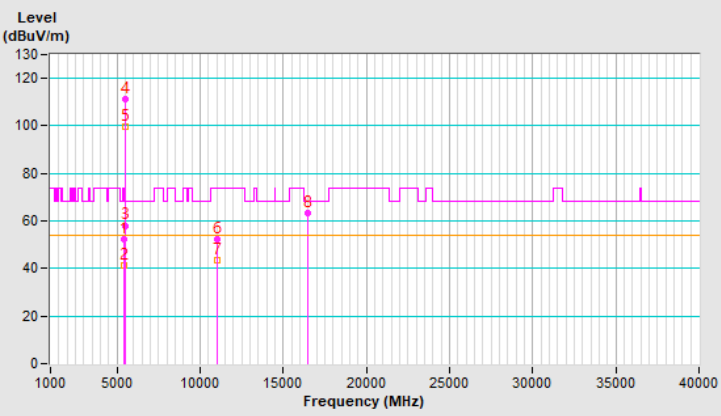


RF Mode	802.11ax (HE20)	**Channel**	CH 100：5500 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5459.00	52.4 PK	74.0	-21.6	1.43 H	167	47.6	4.8
2	5459.00	41.3 AV	54.0	-12.7	1.43 H	167	36.5	4.8
3	#5469.98	58.1 PK	68.2	-10.1	1.43 H	167	53.3	4.8
4	*5500.00	111.4 PK			1.43 H	167	106.6	4.8
5	*5500.00	99.6 AV			1.43 H	167	94.8	4.8
6	11000.00	52.1 PK	74.0	-21.9	1.27 H	200	37.3	14.8
7	11000.00	43.4 AV	54.0	-10.6	1.27 H	200	28.6	14.8
8	#16500.00	63.5 PK	68.2	-4.7	3.94 H	52	48.2	15.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

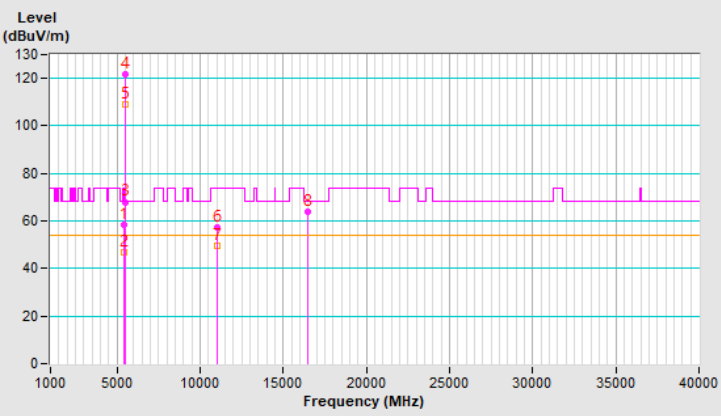


RF Mode	802.11ax (HE20)	**Channel**	CH 100：5500 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5460.00	58.3 PK	74.0	-15.7	2.17 V	195	53.5	4.8
2	5460.00	46.8 AV	54.0	-7.2	2.17 V	195	42.0	4.8
3	#5470.00	68.0 PK	68.2	-0.2	2.17 V	195	63.2	4.8
4	*5500.00	121.6 PK			2.17 V	195	116.8	4.8
5	*5500.00	109.1 AV			2.17 V	195	104.3	4.8
6	11000.00	57.4 PK	74.0	-16.6	3.86 V	111	42.6	14.8
7	11000.00	49.6 AV	54.0	-4.4	3.86 V	111	34.8	14.8
8	#16500.00	64.0 PK	68.2	-4.2	3.86 V	98	48.7	15.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

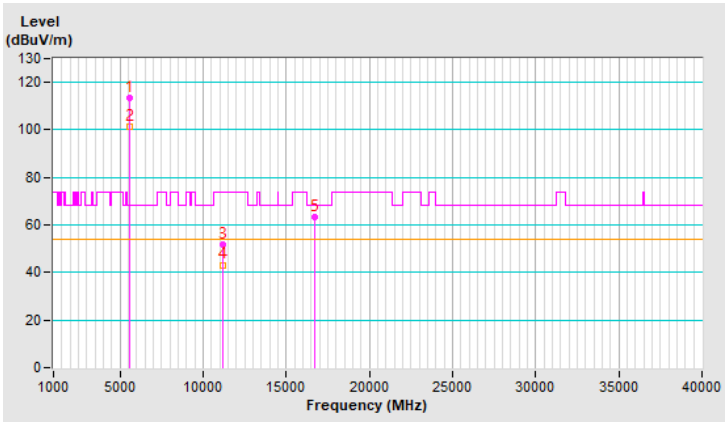


RF Mode	802.11ax (HE20)	**Channel**	CH 116：5580 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5580.00	113.2 PK			1.11 H	160	108.4	4.8
2	*5580.00	101.2 AV			1.11 H	160	96.4	4.8
3	11160.00	51.6 PK	74.0	-22.4	1.35 H	190	37.0	14.6
4	11160.00	43.2 AV	54.0	-10.8	1.35 H	190	28.6	14.6
5	#16740.00	63.5 PK	68.2	-4.7	3.95 H	49	46.7	16.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

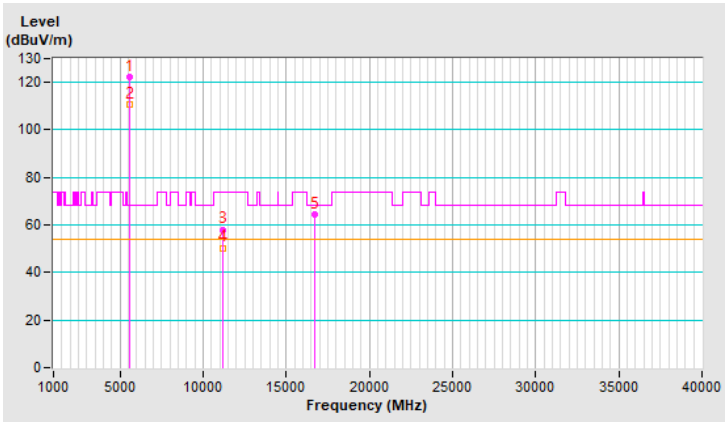


RF Mode	802.11ax (HE20)	**Channel**	CH 116：5580 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5580.00	122.4 PK			2.38 V	198	117.6	4.8
2	*5580.00	110.5 AV			2.38 V	198	105.7	4.8
3	11160.00	58.1 PK	74.0	-15.9	3.86 V	128	43.5	14.6
4	11160.00	50.4 AV	54.0	-3.6	3.86 V	128	35.8	14.6
5	#16740.00	64.2 PK	68.2	-4.0	3.82 V	97	47.4	16.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

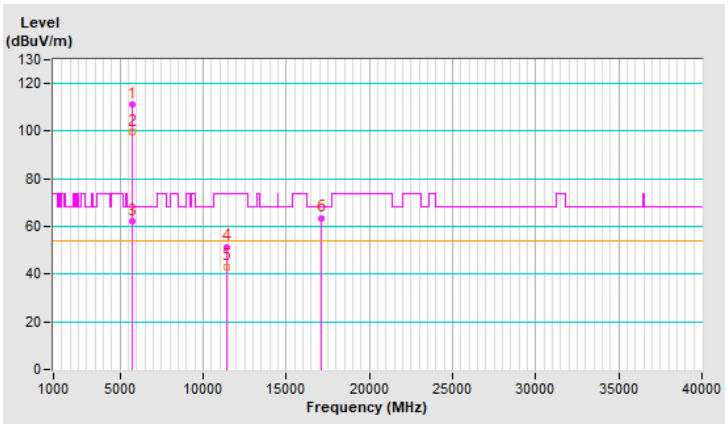


RF Mode	802.11ax (HE20)	**Channel**	CH 140：5700 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5700.00	111.5 PK			1.11 H	160	106.8	4.7
2	*5700.00	99.6 AV			1.11 H	160	94.9	4.7
3	#5725.00	62.1 PK	68.2	-6.1	1.11 H	160	57.2	4.9
4	11400.00	51.5 PK	74.0	-22.5	1.36 H	194	36.1	15.4
5	11400.00	43.2 AV	54.0	-10.8	1.36 H	194	27.8	15.4
6	#17100.00	63.6 PK	68.2	-4.6	3.92 H	43	45.1	18.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

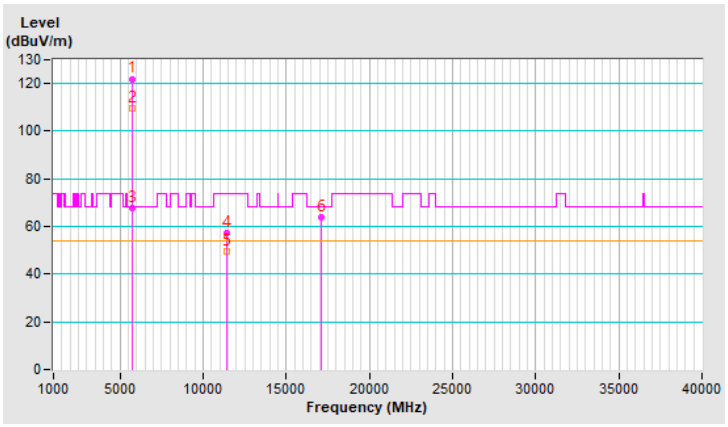


RF Mode	802.11ax (HE20)	**Channel**	CH 140：5700 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5700.00	122.0 PK			2.18 V	185	117.3	4.7
2	*5700.00	109.6 AV			2.18 V	185	104.9	4.7
3	#5725.00	67.9 PK	68.2	-0.3	2.18 V	185	63.0	4.9
4	11400.00	57.2 PK	74.0	-16.8	3.86 V	138	41.8	15.4
5	11400.00	49.5 AV	54.0	-4.5	3.86 V	138	34.1	15.4
6	#17100.00	64.0 PK	68.2	-4.2	3.88 V	100	45.5	18.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

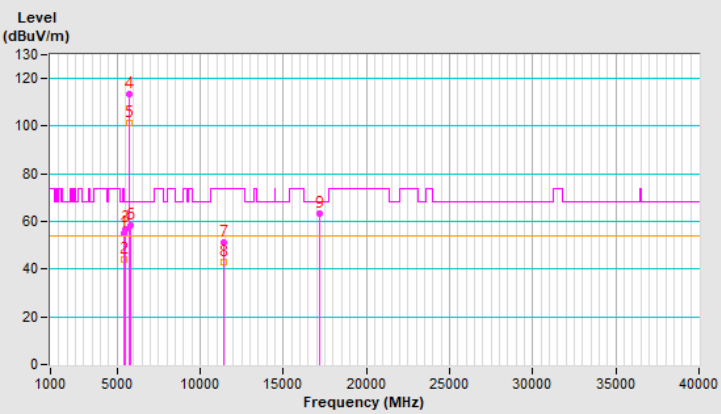


RF Mode	802.11ax (HE20)	Channel	CH 144：5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	55.2 PK	74.0	-18.8	1.06 H	154	50.4	4.8
2	5460.00	44.1 AV	54.0	-9.9	1.06 H	154	39.3	4.8
3	#5470.00	57.0 PK	68.2	-11.2	1.06 H	154	52.2	4.8
4	*5720.00	113.4 PK			1.06 H	154	108.6	4.8
5	*5720.00	101.4 AV			1.06 H	154	96.6	4.8
6	#5850.00	58.3 PK	68.2	-9.9	1.06 H	154	53.0	5.3
7	11440.00	51.2 PK	74.0	-22.8	1.36 H	192	35.9	15.3
8	11440.00	43.0 AV	54.0	-11.0	1.36 H	192	27.7	15.3
9	#17160.00	63.3 PK	68.2	-4.9	3.95 H	57	45.0	18.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

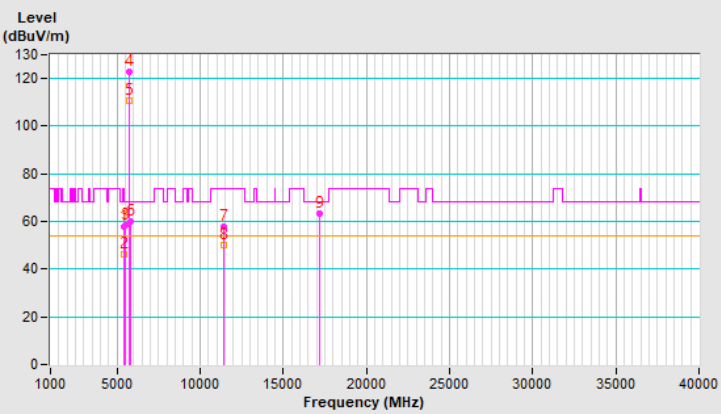


RF Mode	802.11ax (HE20)	**Channel**	CH 144：5720 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5460.00	57.7 PK	74.0	-16.3	2.41 V	216	52.9	4.8
2	5460.00	46.2 AV	54.0	-7.8	2.41 V	216	41.4	4.8
3	#5470.00	58.4 PK	68.2	-9.8	2.41 V	216	53.6	4.8
4	*5720.00	122.6 PK			2.41 V	216	117.8	4.8
5	*5720.00	110.7 AV			2.41 V	216	105.9	4.8
6	#5850.00	60.1 PK	68.2	-8.1	2.41 V	216	54.8	5.3
7	11440.00	57.7 PK	74.0	-16.3	3.87 V	120	42.4	15.3
8	11440.00	50.2 AV	54.0	-3.8	3.87 V	120	34.9	15.3
9	#17160.00	63.5 PK	68.2	-4.7	3.93 V	112	45.2	18.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

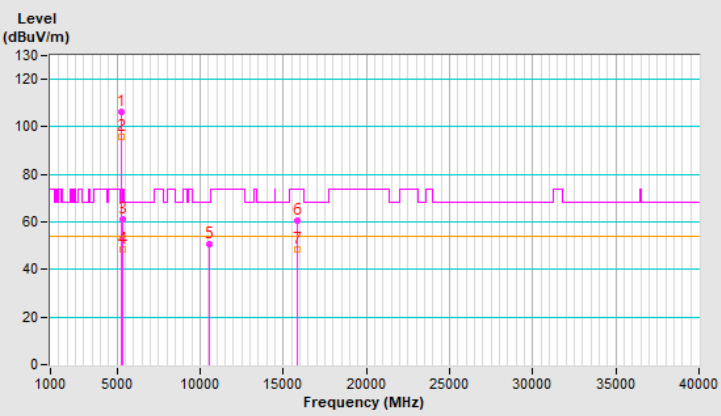


RF Mode	802.11ax (HE40)	**Channel**	CH 54：5270 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5270.00	106.5 PK			1.26 H	163	102.2	4.3
2	*5270.00	96.0 AV			1.26 H	163	91.7	4.3
3	5352.72	60.9 PK	74.0	-13.1	1.26 H	163	56.3	4.6
4	5352.72	48.3 AV	54.0	-5.7	1.26 H	163	43.7	4.6
5	#10540.00	50.8 PK	68.2	-17.4	1.36 H	199	36.4	14.4
6	15810.00	60.6 PK	74.0	-13.4	4.00 H	69	47.0	13.6
7	15810.00	48.7 AV	54.0	-5.3	4.00 H	69	35.1	13.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

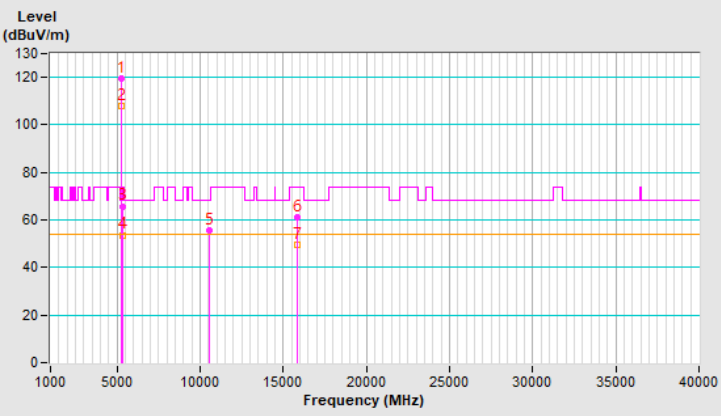


RF Mode	802.11ax (HE40)	Channel	CH 54：5270 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5270.00	119.7 PK			2.32 V	220	115.4	4.3
2	*5270.00	107.8 AV			2.32 V	220	103.5	4.3
3	5350.00	65.8 PK	74.0	-8.2	2.32 V	220	61.2	4.6
4	5350.00	53.7 AV	54.0	-0.3	2.32 V	220	49.1	4.6
5	#10540.00	55.8 PK	68.2	-12.4	3.90 V	129	41.4	14.4
6	15810.00	61.2 PK	74.0	-12.8	3.82 V	100	47.6	13.6
7	15810.00	49.5 AV	54.0	-4.5	3.82 V	100	35.9	13.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

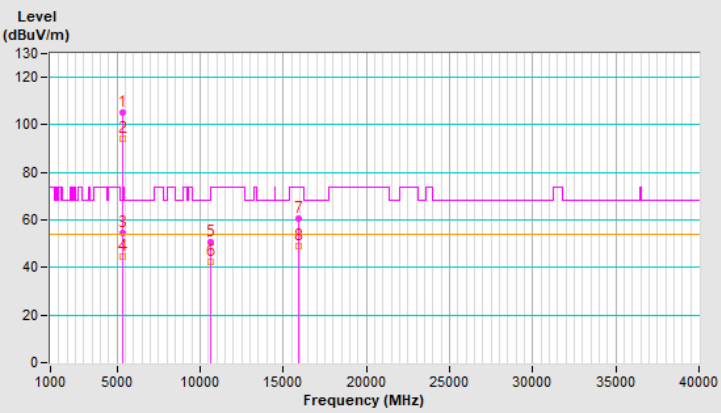


RF Mode	802.11ax (HE40)	**Channel**	CH 62：5310 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5310.00	105.2 PK			1.44 H	164	100.8	4.4
2	*5310.00	94.0 AV			1.44 H	164	89.6	4.4
3	5350.00	54.3 PK	74.0	-19.7	1.44 H	164	49.7	4.6
4	5350.00	44.6 AV	54.0	-9.4	1.44 H	164	40.0	4.6
5	10620.00	50.7 PK	74.0	-23.3	1.30 H	211	36.4	14.3
6	10620.00	42.6 AV	54.0	-11.4	1.30 H	211	28.3	14.3
7	15930.00	60.6 PK	74.0	-13.4	4.00 H	64	46.6	14.0
8	15930.00	48.9 AV	54.0	-5.1	4.00 H	64	34.9	14.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

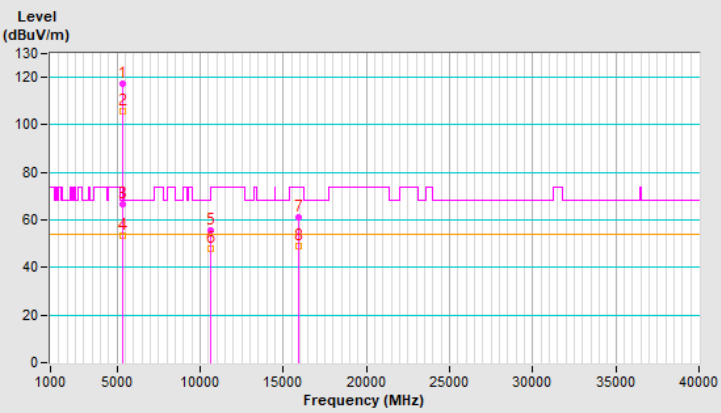


RF Mode	802.11ax (HE40)	**Channel**	CH 62：5310 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5310.00	117.4 PK			2.24 V	200	113.0	4.4
2	*5310.00	105.7 AV			2.24 V	200	101.3	4.4
3	5351.95	66.8 PK	74.0	-7.2	2.24 V	200	62.2	4.6
4	5351.95	53.6 AV	54.0	-0.4	2.24 V	200	49.0	4.6
5	10620.00	55.8 PK	74.0	-18.2	3.88 V	119	41.5	14.3
6	10620.00	47.9 AV	54.0	-6.1	3.88 V	119	33.6	14.3
7	15930.00	61.0 PK	74.0	-13.0	3.81 V	94	47.0	14.0
8	15930.00	49.0 AV	54.0	-5.0	3.81 V	94	35.0	14.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

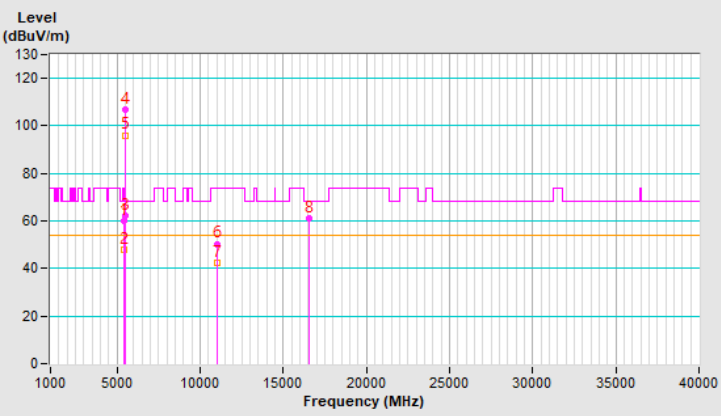


RF Mode	802.11ax (HE40)	Channel	CH 102：5510 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5458.75	60.2 PK	74.0	-13.8	1.03 H	169	55.4	4.8
2	5458.75	47.7 AV	54.0	-6.3	1.03 H	169	42.9	4.8
3	#5466.65	62.1 PK	68.2	-6.1	1.03 H	169	57.3	4.8
4	*5510.00	107.0 PK			1.03 H	169	102.1	4.9
5	*5510.00	96.1 AV			1.03 H	169	91.2	4.9
6	11020.00	50.4 PK	74.0	-23.6	1.39 H	194	35.7	14.7
7	11020.00	42.4 AV	54.0	-11.6	1.39 H	194	27.7	14.7
8	#16530.00	61.0 PK	68.2	-7.2	3.95 H	59	45.7	15.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

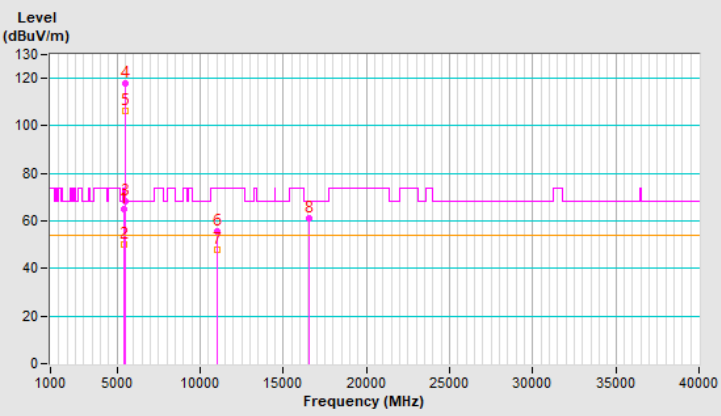


RF Mode	802.11ax (HE40)	**Channel**	CH 102：5510 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5454.88	65.2 PK	74.0	-8.8	2.37 V	189	60.4	4.8
2	5454.88	50.1 AV	54.0	-3.9	2.37 V	189	45.3	4.8
3	**#5466.41**	**68.1 PK**	**68.2**	**-0.1**	**2.37 V**	**189**	**63.3**	**4.8**
4	*5510.00	117.9 PK			2.37 V	189	113.0	4.9
5	*5510.00	106.5 AV			2.37 V	189	101.6	4.9
6	11020.00	55.5 PK	74.0	-18.5	3.90 V	133	40.8	14.7
7	11020.00	47.7 AV	54.0	-6.3	3.90 V	133	33.0	14.7
8	#16530.00	61.0 PK	68.2	-7.2	3.80 V	102	45.7	15.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

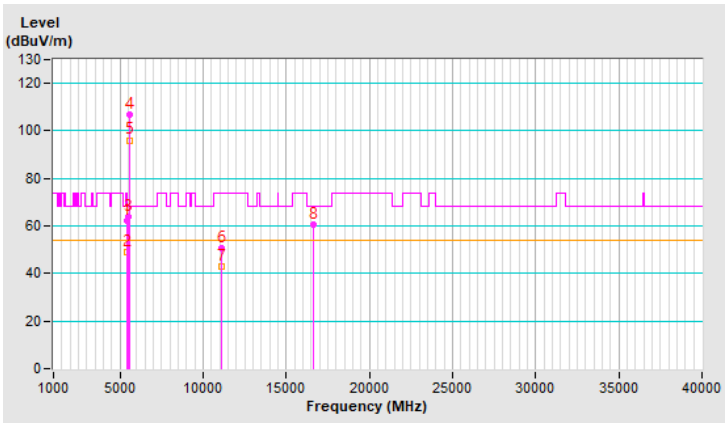


RF Mode	802.11ax (HE40)	Channel	CH 110：5550 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	62.3 PK	74.0	-11.7	1.09 H	150	57.5	4.8
2	5460.00	49.2 AV	54.0	-4.8	1.09 H	150	44.4	4.8
3	#5470.00	63.7 PK	68.2	-4.5	1.09 H	150	58.9	4.8
4	*5550.00	107.0 PK			1.09 H	150	102.2	4.8
5	*5550.00	96.1 AV			1.09 H	150	91.3	4.8
6	11100.00	50.9 PK	74.0	-23.1	1.40 H	213	36.4	14.5
7	11100.00	43.0 AV	54.0	-11.0	1.40 H	213	28.5	14.5
8	#16650.00	60.7 PK	68.2	-7.5	4.00 H	69	44.4	16.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

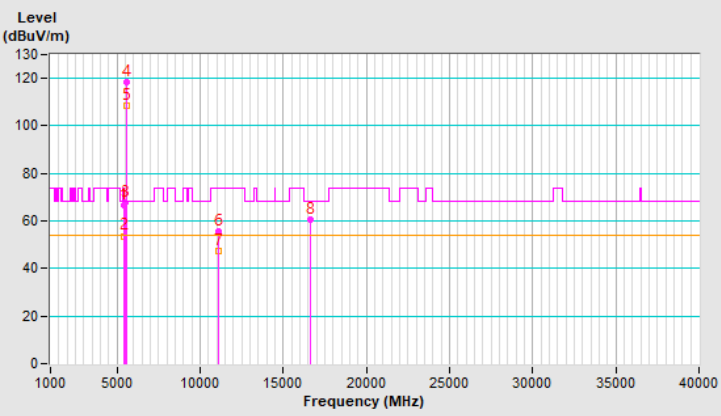


RF Mode	802.11ax (HE40)	**Channel**	CH 110：5550 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5460.00	66.8 PK	74.0	-7.2	2.32 V	187	62.0	4.8
2	5460.00	53.7 AV	54.0	-0.3	2.32 V	187	48.9	4.8
3	#5470.00	67.7 PK	68.2	-0.5	2.32 V	187	62.9	4.8
4	*5550.00	118.6 PK			2.32 V	187	113.8	4.8
5	*5550.00	108.3 AV			2.32 V	187	103.5	4.8
6	11100.00	55.4 PK	74.0	-18.6	3.89 V	118	40.9	14.5
7	11100.00	47.5 AV	54.0	-6.5	3.89 V	118	33.0	14.5
8	#16650.00	60.8 PK	68.2	-7.4	3.78 V	113	44.5	16.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

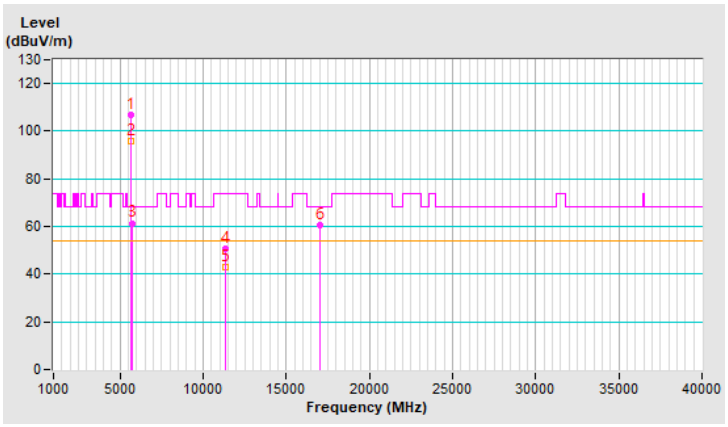


RF Mode	802.11ax (HE40)	Channel	CH 134：5670 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	106.7 PK			1.05 H	161	101.8	4.9
2	*5670.00	95.7 AV			1.05 H	161	90.8	4.9
3	#5725.00	61.4 PK	68.2	-6.8	1.05 H	161	56.5	4.9
4	11340.00	50.8 PK	74.0	-23.2	1.40 H	190	35.5	15.3
5	11340.00	42.9 AV	54.0	-11.1	1.40 H	190	27.6	15.3
6	#17010.00	60.4 PK	68.2	-7.8	4.00 H	68	42.1	18.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

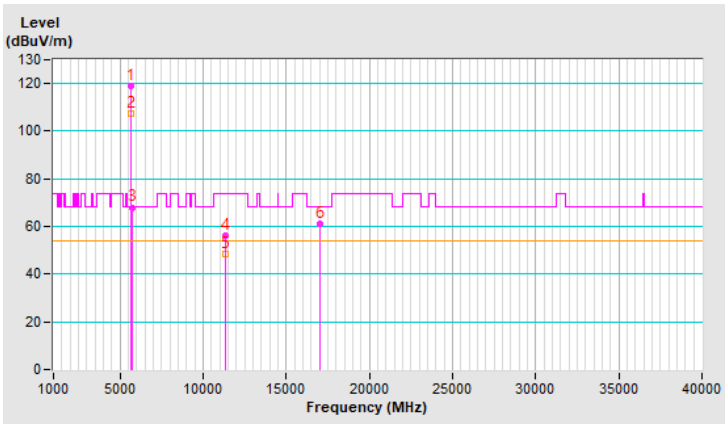


RF Mode	802.11ax (HE40)	**Channel**	CH 134：5670 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5670.00	118.8 PK			2.21 V	185	113.9	4.9
2	*5670.00	107.4 AV			2.21 V	185	102.5	4.9
3	#5725.00	68.0 PK	68.2	-0.2	2.21 V	185	63.1	4.9
4	11340.00	56.2 PK	74.0	-17.8	3.87 V	129	40.9	15.3
5	11340.00	48.3 AV	54.0	-5.7	3.87 V	129	33.0	15.3
6	#17010.00	61.2 PK	68.2	-7.0	3.85 V	115	42.9	18.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

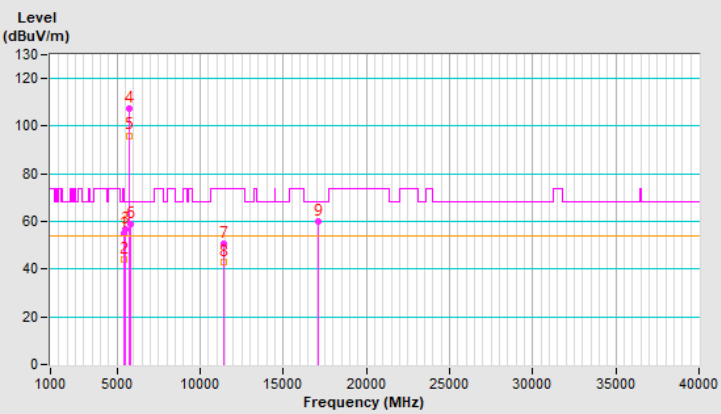


RF Mode	802.11ax (HE40)	**Channel**	CH 142：5710 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5460.00	55.2 PK	74.0	-18.8	1.09 H	161	50.4	4.8
2	5460.00	43.8 AV	54.0	-10.2	1.09 H	161	39.0	4.8
3	#5470.00	56.9 PK	68.2	-11.3	1.09 H	161	52.1	4.8
4	*5710.00	107.2 PK			1.09 H	161	102.4	4.8
5	*5710.00	96.1 AV			1.09 H	161	91.3	4.8
6	#5850.00	58.7 PK	68.2	-9.5	1.09 H	161	53.4	5.3
7	11420.00	50.8 PK	74.0	-23.2	1.32 H	193	35.5	15.3
8	11420.00	43.1 AV	54.0	-10.9	1.32 H	193	27.8	15.3
9	#17130.00	60.0 PK	68.2	-8.2	3.98 H	56	41.7	18.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

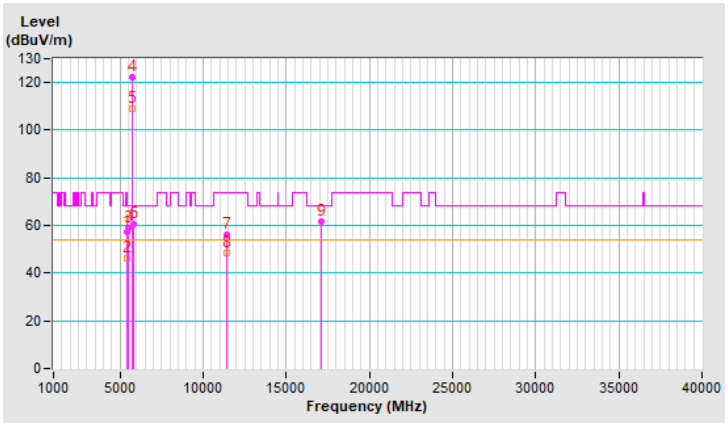


RF Mode	802.11ax (HE40)	Channel	CH 142：5710 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	57.3 PK	74.0	-16.7	2.22 V	185	52.5	4.8
2	5460.00	46.0 AV	54.0	-8.0	2.22 V	185	41.2	4.8
3	#5470.00	58.8 PK	68.2	-9.4	2.22 V	185	54.0	4.8
4	*5710.00	122.2 PK			2.22 V	185	117.4	4.8
5	*5710.00	109.3 AV			2.22 V	185	104.5	4.8
6	#5850.00	60.4 PK	68.2	-7.8	2.22 V	185	55.1	5.3
7	11420.00	56.1 PK	74.0	-17.9	3.90 V	129	40.8	15.3
8	11420.00	48.4 AV	54.0	-5.6	3.90 V	129	33.1	15.3
9	#17130.00	61.6 PK	68.2	-6.6	3.76 V	103	43.3	18.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

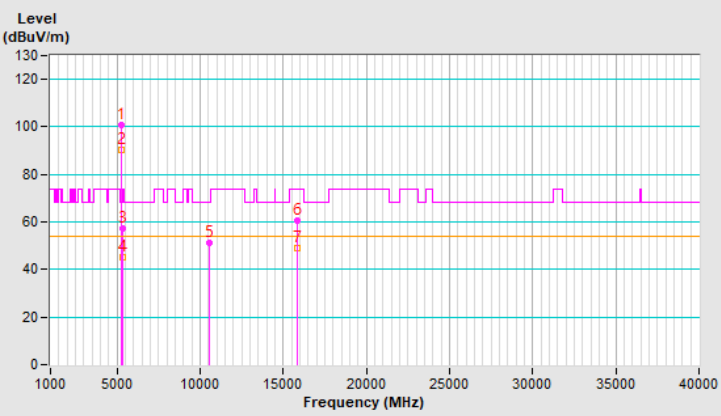


RF Mode	802.11ax (HE80)	Channel	CH 58：5290 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5290.00	101.0 PK			1.19 H	162	96.7	4.3
2	*5290.00	90.2 AV			1.19 H	162	85.9	4.3
3	5350.00	57.5 PK	74.0	-16.5	1.19 H	162	52.9	4.6
4	5350.00	45.0 AV	54.0	-9.0	1.19 H	162	40.4	4.6
5	#10580.00	51.1 PK	68.2	-17.1	1.30 H	200	36.8	14.3
6	15870.00	60.7 PK	74.0	-13.3	3.99 H	83	46.9	13.8
7	15870.00	49.1 AV	54.0	-4.9	3.99 H	83	35.3	13.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

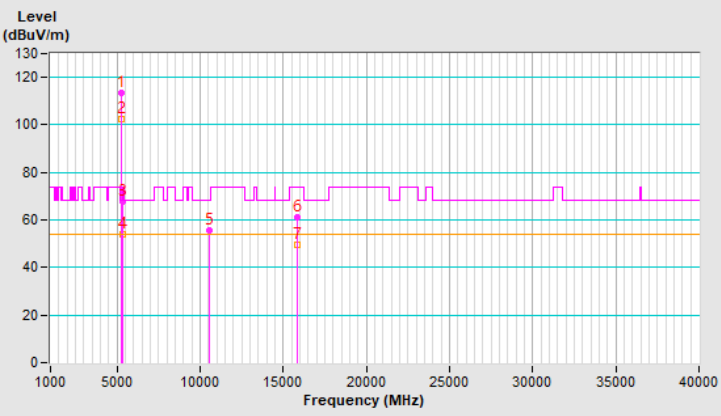


RF Mode	802.11ax (HE80)	**Channel**	CH 58：5290 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5290.00	113.2 PK			2.22 V	199	108.9	4.3
2	*5290.00	102.5 AV			2.22 V	199	98.2	4.3
3	5352.04	67.5 PK	74.0	-6.5	2.22 V	199	62.9	4.6
4	5352.04	53.8 AV	54.0	-0.2	2.22 V	199	49.2	4.6
5	#10580.00	55.7 PK	68.2	-12.5	3.90 V	119	41.4	14.3
6	15870.00	61.1 PK	74.0	-12.9	3.81 V	92	47.3	13.8
7	15870.00	49.4 AV	54.0	-4.6	3.81 V	92	35.6	13.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

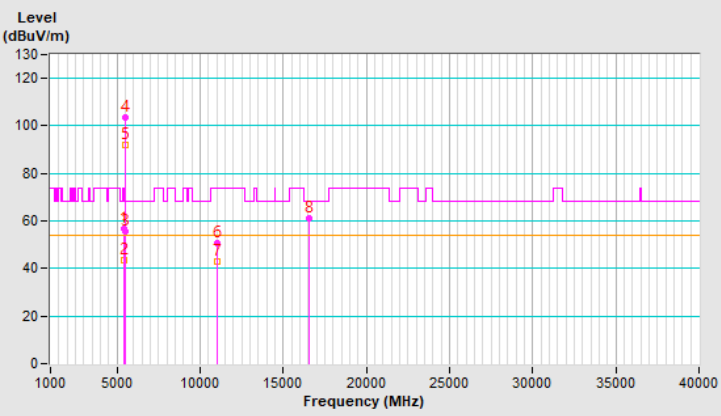


RF Mode	802.11ax (HE80)	Channel	CH 106：5530 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5453.93	56.8 PK	74.0	-17.2	1.31 H	167	52.0	4.8
2	5453.93	43.6 AV	54.0	-10.4	1.31 H	167	38.8	4.8
3	#5466.30	55.6 PK	68.2	-12.6	1.31 H	167	50.8	4.8
4	*5530.00	103.7 PK			1.31 H	167	98.9	4.8
5	*5530.00	92.2 AV			1.31 H	167	87.4	4.8
6	11060.00	50.6 PK	74.0	-23.4	1.35 H	189	36.0	14.6
7	11060.00	42.7 AV	54.0	-11.3	1.35 H	189	28.1	14.6
8	#16590.00	60.9 PK	68.2	-7.3	3.99 H	67	45.0	15.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

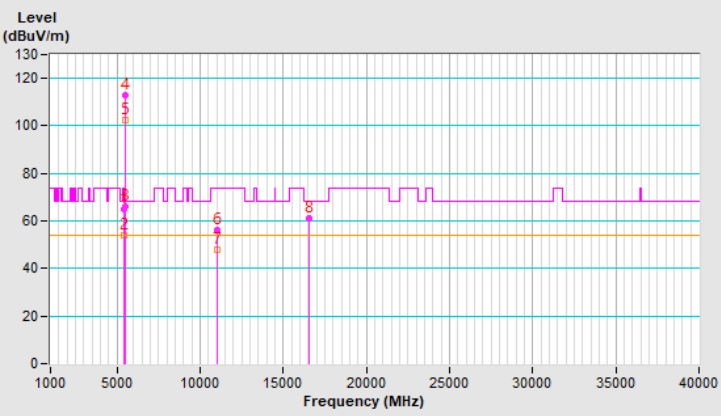


RF Mode	802.11ax (HE80)	**Channel**	CH 106：5530 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5459.76	65.0 PK	74.0	-9.0	2.32 V	177	60.2	4.8
2	5459.76	53.8 AV	54.0	-0.2	2.32 V	177	49.0	4.8
3	#5469.08	66.0 PK	68.2	-2.2	2.32 V	177	61.2	4.8
4	*5530.00	113.0 PK			2.32 V	177	108.2	4.8
5	*5530.00	102.2 AV			2.32 V	177	97.4	4.8
6	11060.00	56.1 PK	74.0	-17.9	3.86 V	133	41.5	14.6
7	11060.00	47.9 AV	54.0	-6.1	3.86 V	133	33.3	14.6
8	#16590.00	61.0 PK	68.2	-7.2	3.82 V	107	45.1	15.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

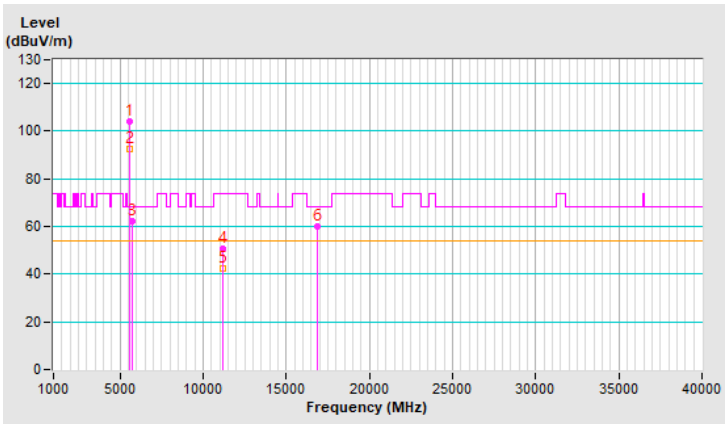


RF Mode	802.11ax (HE80)	**Channel**	CH 122：5610 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5610.00	104.1 PK			1.08 H	158	99.2	4.9
2	*5610.00	92.6 AV			1.08 H	158	87.7	4.9
3	#5725.00	62.2 PK	68.2	-6.0	1.08 H	158	57.3	4.9
4	11220.00	50.5 PK	74.0	-23.5	1.40 H	189	35.8	14.7
5	11220.00	42.5 AV	54.0	-11.5	1.40 H	189	27.8	14.7
6	#16830.00	60.2 PK	68.2	-8.0	4.00 H	69	43.0	17.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

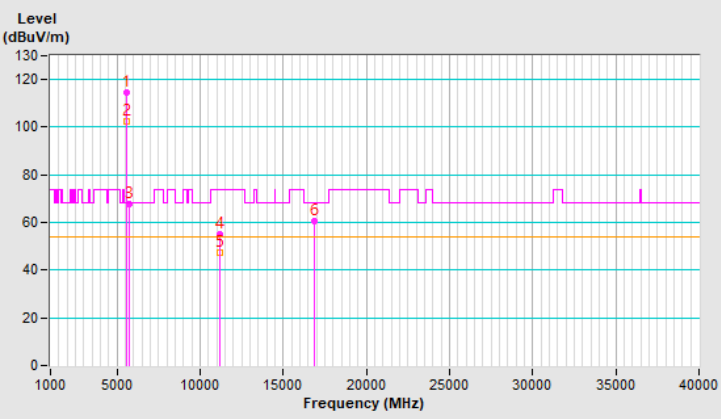


RF Mode	802.11ax (HE80)	Channel	CH 122：5610 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5610.00	114.6 PK			2.28 V	187	109.7	4.9
2	*5610.00	102.6 AV			2.28 V	187	97.7	4.9
3	#5725.00	67.9 PK	68.2	-0.3	2.28 V	187	63.0	4.9
4	11220.00	55.1 PK	74.0	-18.9	3.89 V	128	40.4	14.7
5	11220.00	47.5 AV	54.0	-6.5	3.89 V	128	32.8	14.7
6	#16830.00	60.5 PK	68.2	-7.7	3.77 V	115	43.3	17.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

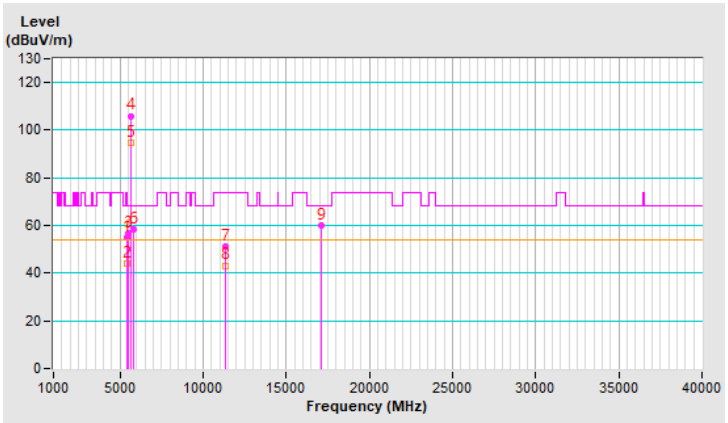


RF Mode	802.11ax (HE80)	**Channel**	CH 138：5690 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5460.00	55.3 PK	74.0	-18.7	1.12 H	163	50.5	4.8
2	5460.00	44.0 AV	54.0	-10.0	1.12 H	163	39.2	4.8
3	#5470.00	56.8 PK	68.2	-11.4	1.12 H	163	52.0	4.8
4	*5690.00	106.0 PK			1.12 H	163	101.3	4.7
5	*5690.00	94.6 AV			1.12 H	163	89.9	4.7
6	#5850.00	58.4 PK	68.2	-9.8	1.12 H	163	53.1	5.3
7	11380.00	51.3 PK	74.0	-22.7	1.34 H	208	35.9	15.4
8	11380.00	43.2 AV	54.0	-10.8	1.34 H	208	27.8	15.4
9	#17070.00	60.1 PK	68.2	-8.1	3.97 H	79	41.7	18.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

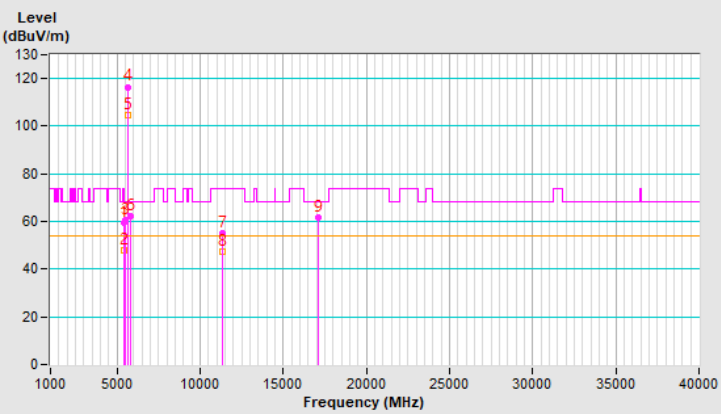


RF Mode	802.11ax (HE80)	**Channel**	CH 138：5690 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20°C, 70% RH
Tested By	Ryan Du		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5460.00	59.3 PK	74.0	-14.7	2.33 V	183	54.5	4.8
2	5460.00	48.0 AV	54.0	-6.0	2.33 V	183	43.2	4.8
3	#5470.00	60.8 PK	68.2	-7.4	2.33 V	183	56.0	4.8
4	*5690.00	116.5 PK			2.33 V	183	111.8	4.7
5	*5690.00	104.7 AV			2.33 V	183	100.0	4.7
6	#5850.00	62.4 PK	68.2	-5.8	2.33 V	183	57.1	5.3
7	11380.00	55.3 PK	74.0	-18.7	3.95 V	121	39.9	15.4
8	11380.00	47.5 AV	54.0	-6.5	3.95 V	121	32.1	15.4
9	#17070.00	61.5 PK	68.2	-6.7	3.83 V	108	43.1	18.4

Remarks:

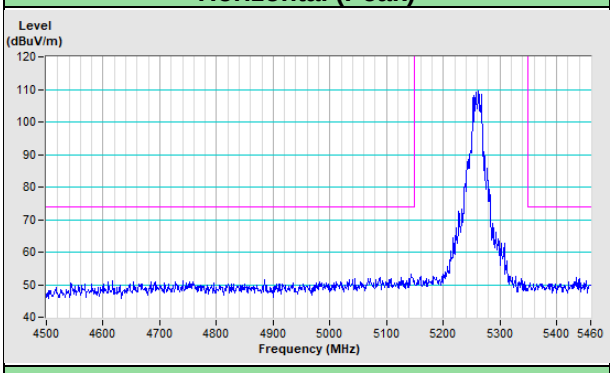
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.



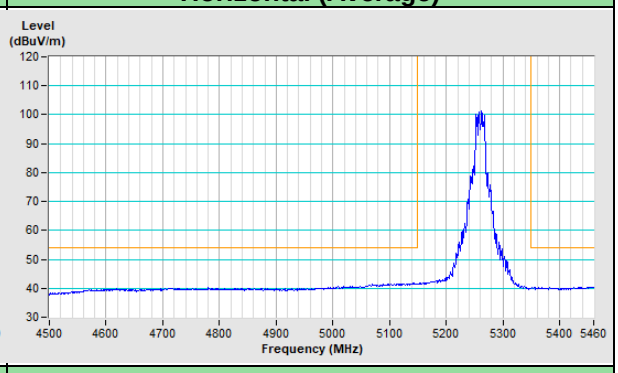
Plot of Band Edge

802.11a Channel 52

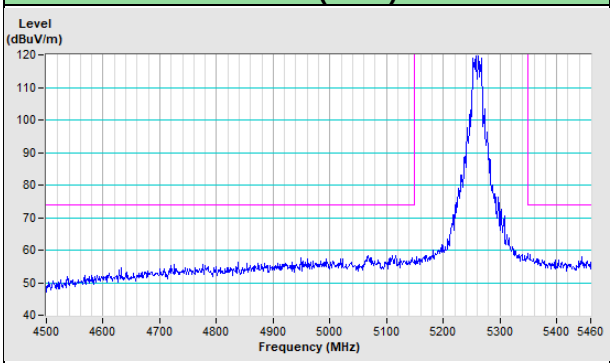
Horizontal (Peak)



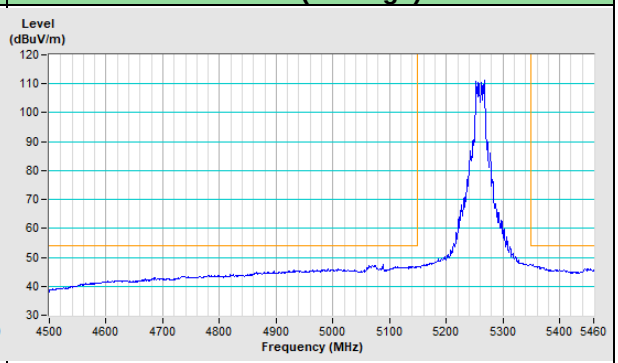
Horizontal (Average)



Vertical (Peak)

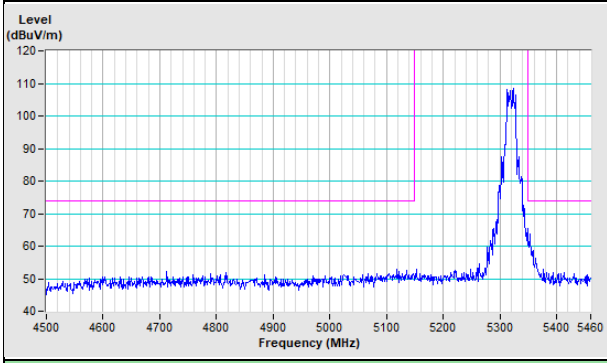


Vertical (Average)

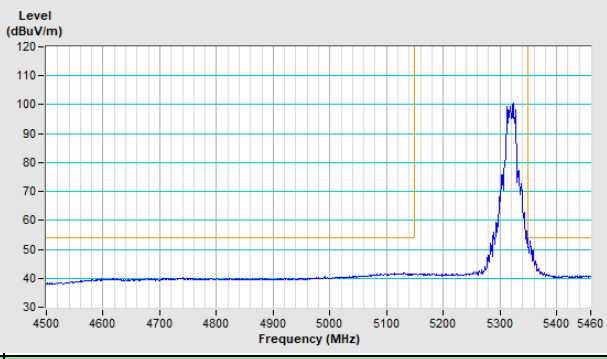


802.11a Channel 64

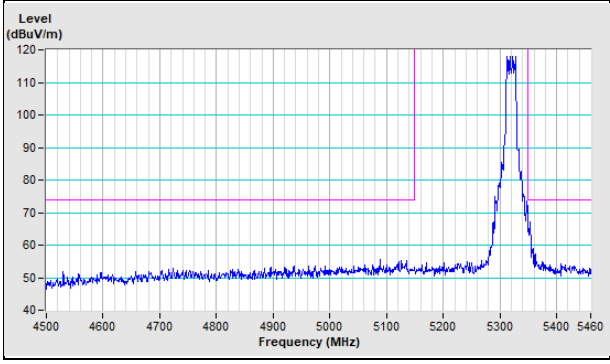
Horizontal (Peak)



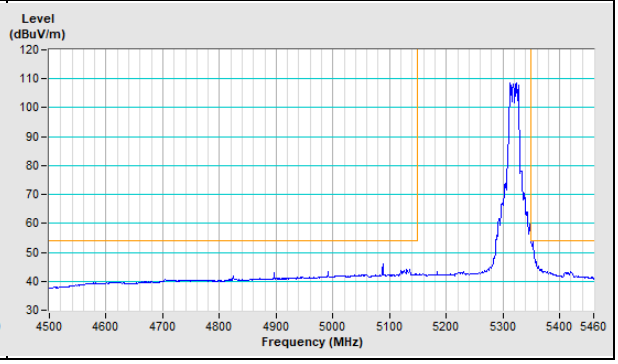
Horizontal (Average)

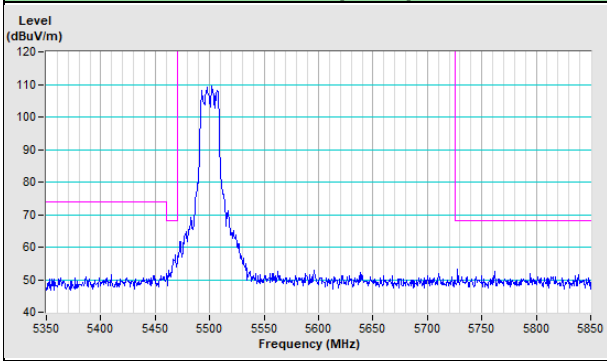
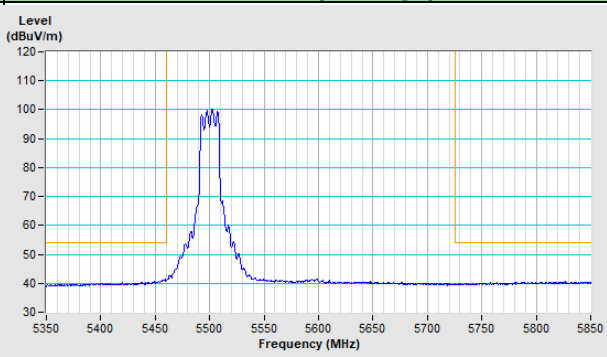
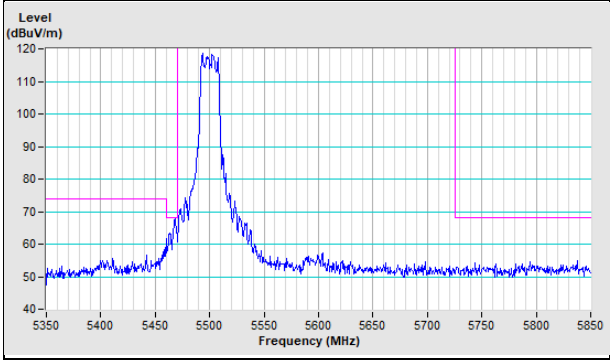
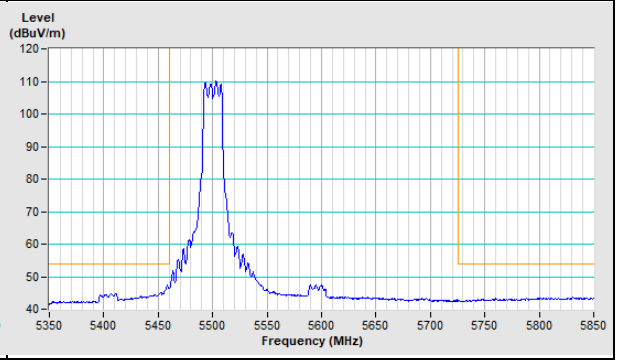


Vertical (Peak)



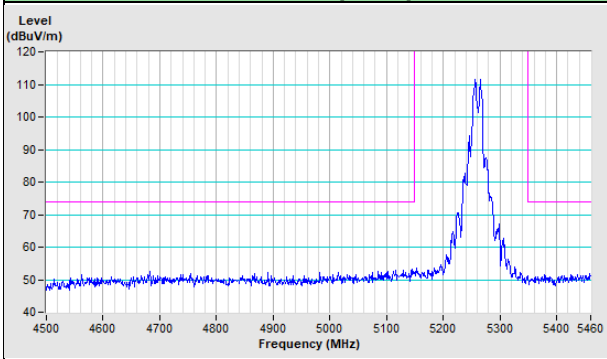
Vertical (Average)



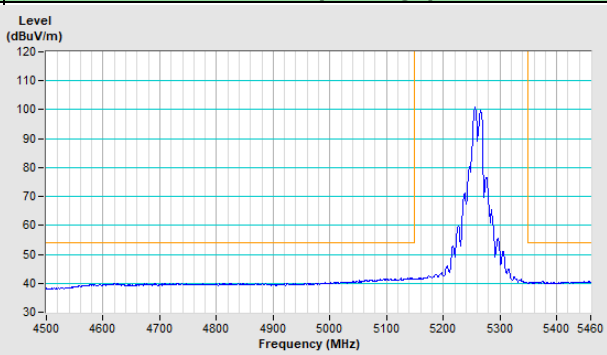
802.11a Channel 100	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ax (HE20) Channel 52

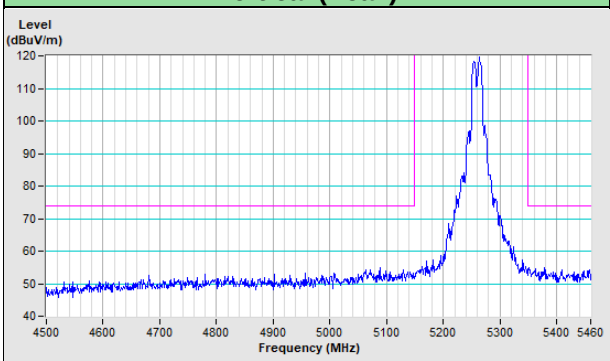
Horizontal (Peak)



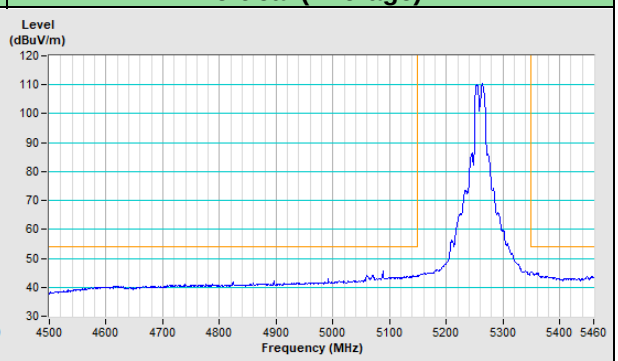
Horizontal (Average)



Vertical (Peak)

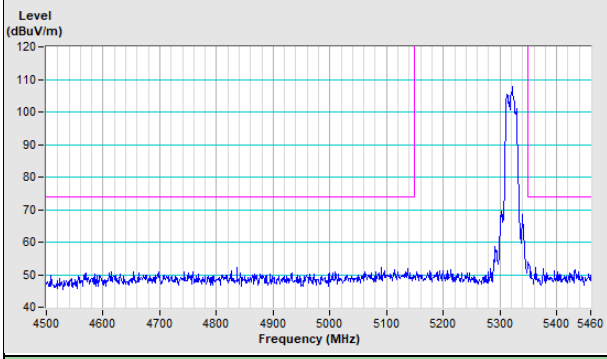


Vertical (Average)

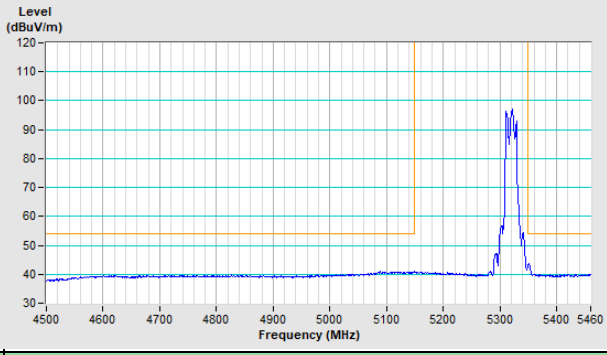


802.11ax (HE20) Channel 64

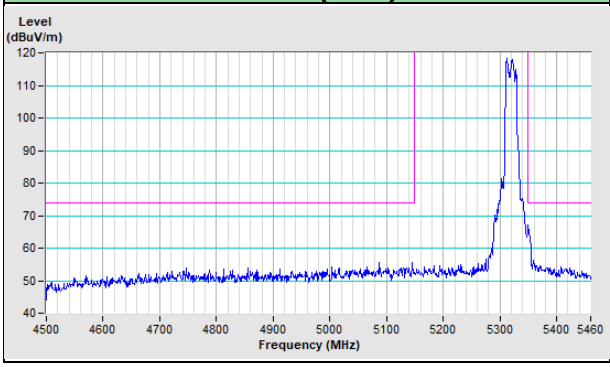
Horizontal (Peak)



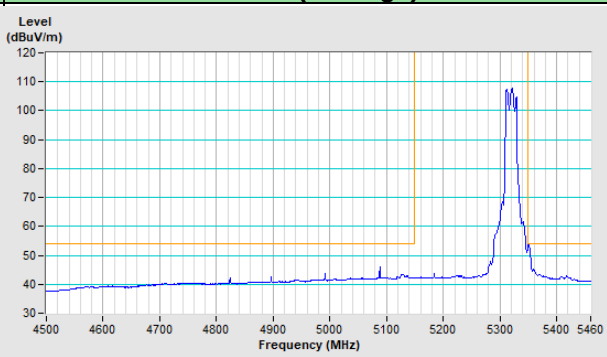
Horizontal (Average)

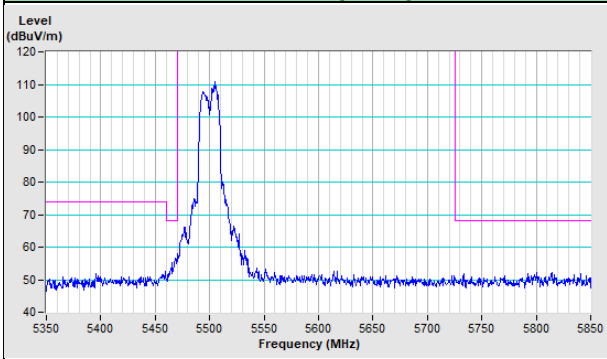
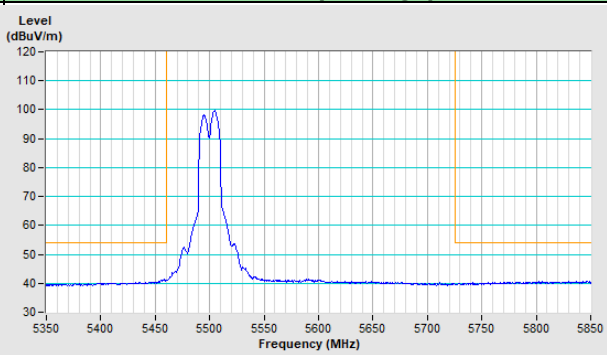
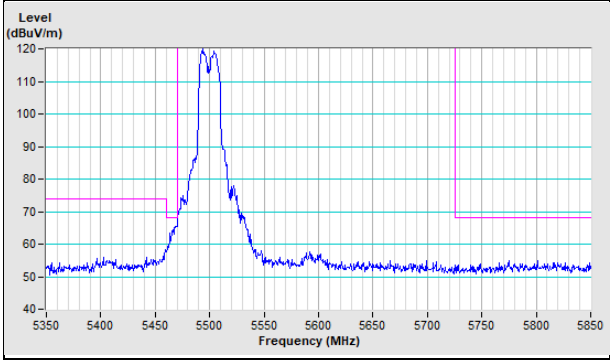
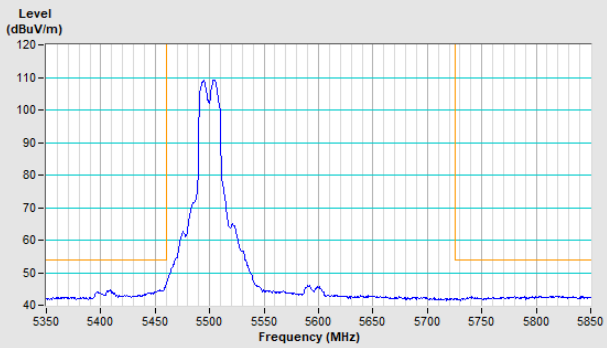


Vertical (Peak)



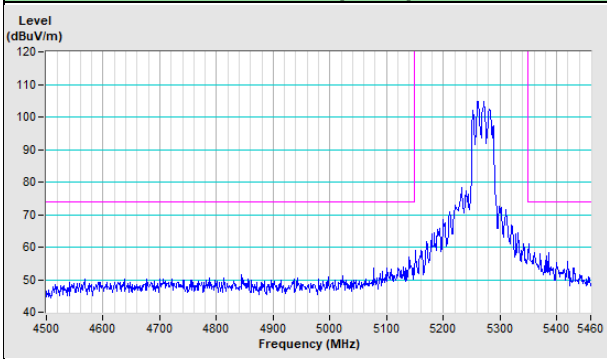
Vertical (Average)



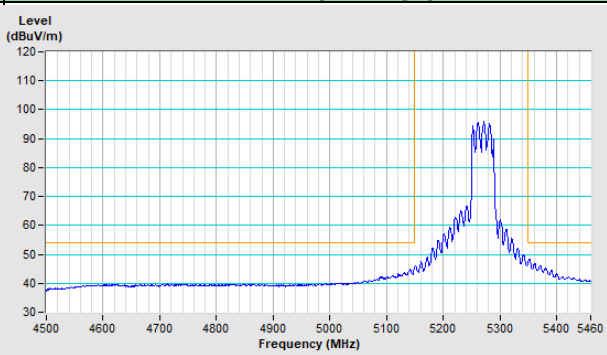
802.11ax (HE20) Channel 100	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ax (HE40) Channel 54

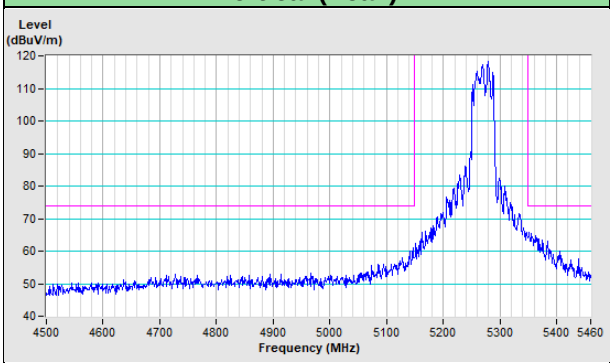
Horizontal (Peak)



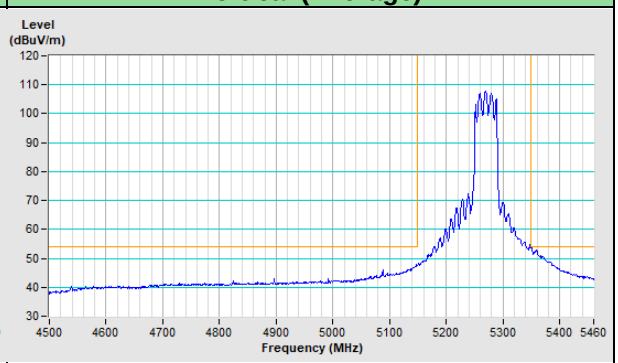
Horizontal (Average)



Vertical (Peak)

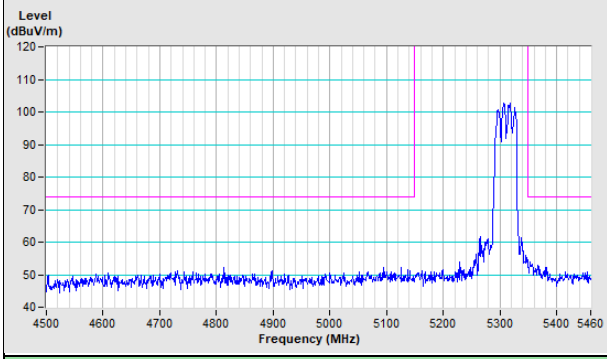


Vertical (Average)

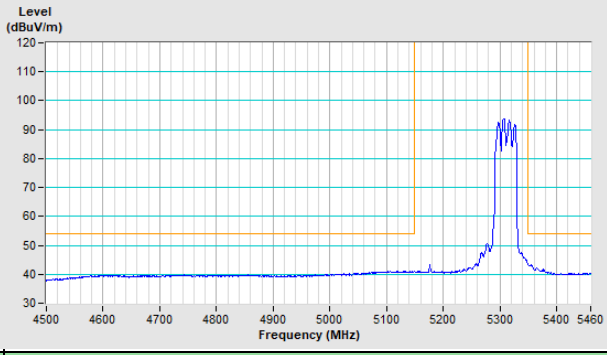


802.11ax (HE40) Channel 62

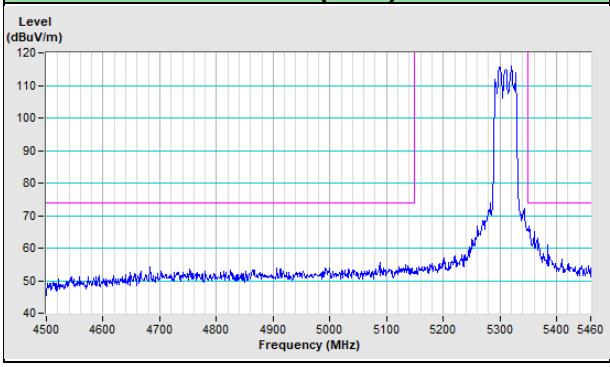
Horizontal (Peak)



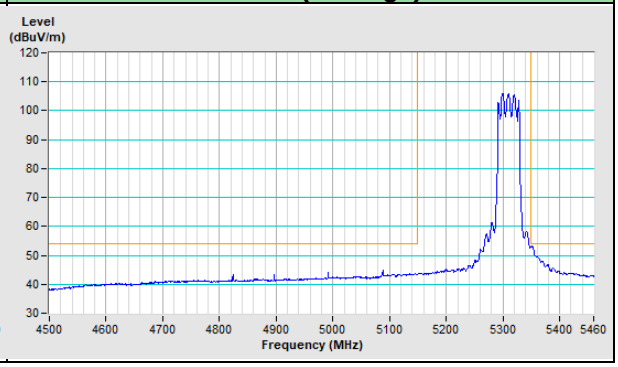
Horizontal (Average)

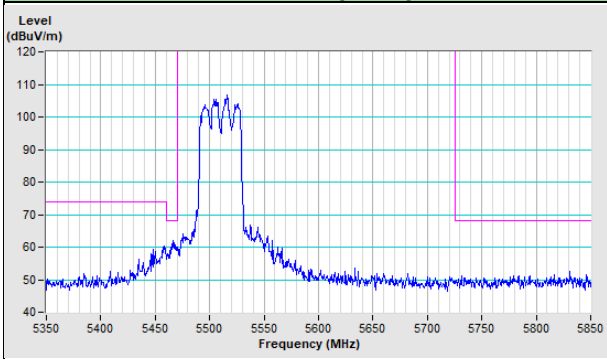
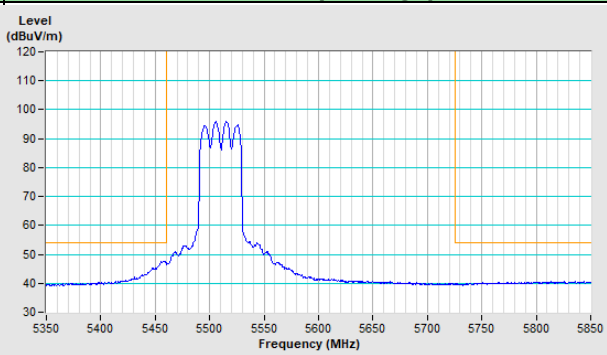
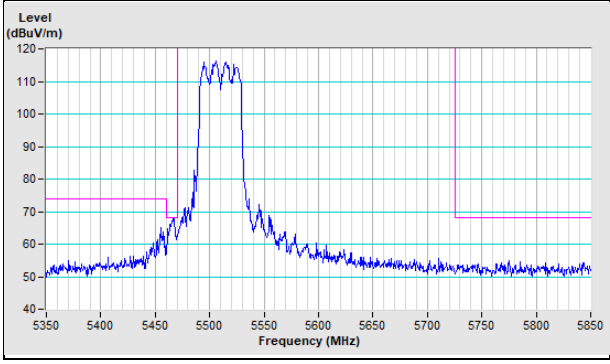
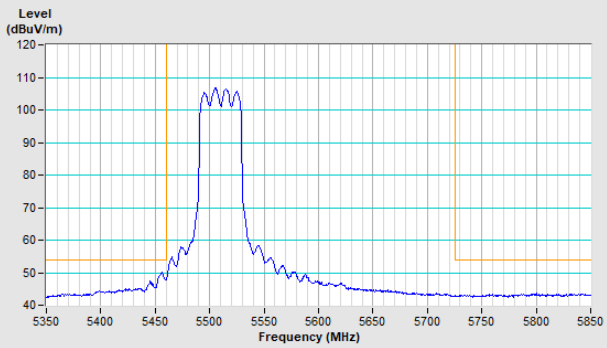


Vertical (Peak)



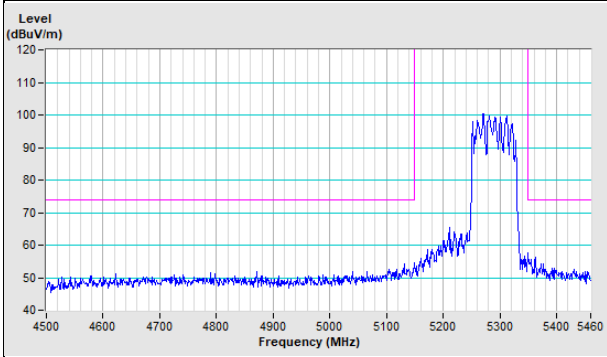
Vertical (Average)



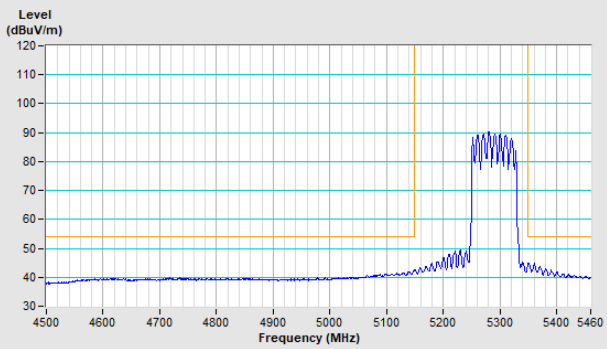
802.11ax (HE40) Channel 102	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ax (HE80) Channel 58

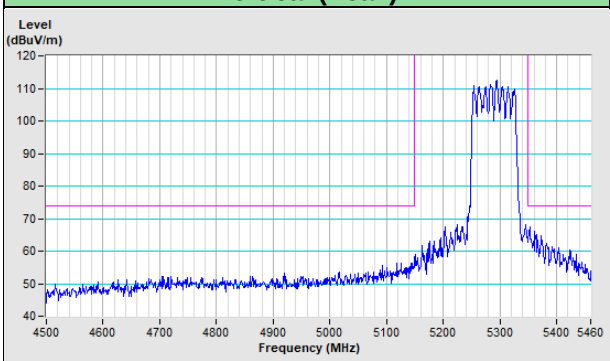
Horizontal (Peak)



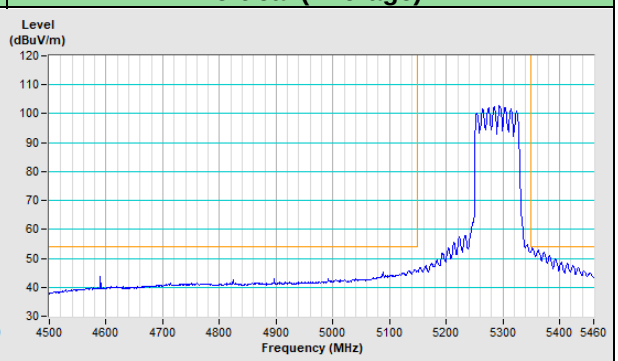
Horizontal (Average)



Vertical (Peak)

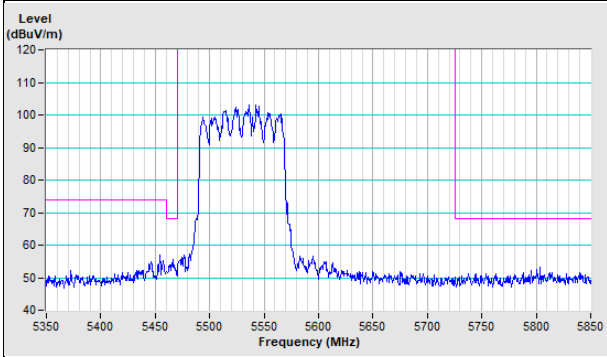


Vertical (Average)

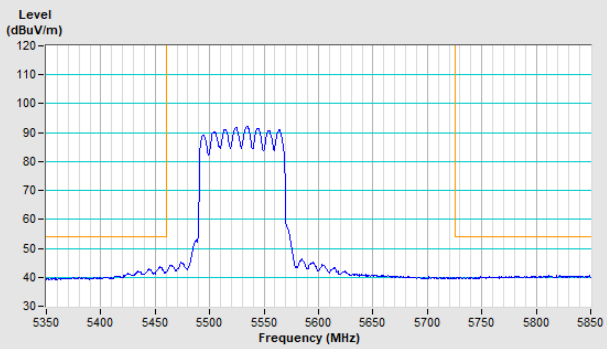


802.11ax (HE80) Channel 106

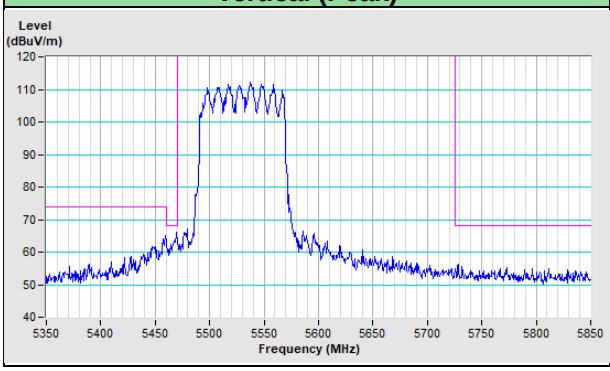
Horizontal (Peak)



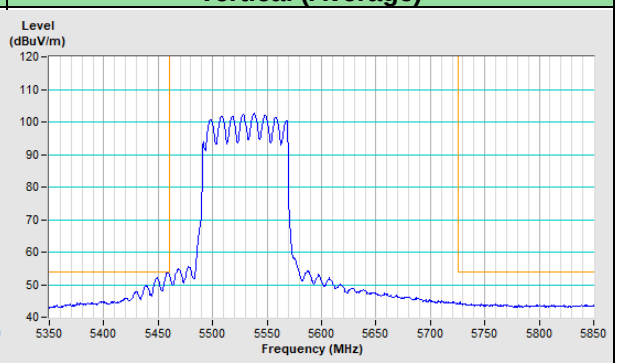
Horizontal (Average)



Vertical (Peak)



Vertical (Average)



8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

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

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