

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart E (Section 15.407)
Report No.: RFBBQZ-WTW-P22031009-1
FCC ID: PY322100556
Model No.: RBR860, RBS860
Received Date: 2022/4/14
Test Date: 2022/5/13 ~ 2022/6/7
Issued Date: 2022/6/22

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Hsin Chu Laboratory
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Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
FCC Registration / 723255 / TW2022
Designation Number:

Approved by: _____, **Date:** 2022/6/22
May Chen / Manager

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Prepared by : Vivian Huang / Specialist



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Release Control Record

Issue No.	Description	Date Issued
RFBBQZ-WTW-P22031009-1	Original release.	2022/6/22

1 Certificate

Product: Orbi Router, Orbi Satellite

Brand: NETGEAR

Test Model: RBR860, RBS860

Sample Status: Engineering sample

Applicant: NETGEAR, Inc.

Test Date: 2022/5/13 ~ 2022/6/7

Standard: 47 CFR FCC Part 15, Subpart E (Section 15.407)

Measurement ANSI C63.10-2013

procedure: 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)(1/2/3)	RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(1/2/3)	Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6 dB Bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
---	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 -10.78 dB at 0.33750 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -3.3 dB at 65.19 MHz
15.407(b)(1/2/3/4(i)/10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.2 dB at 5147.21, 5150.00 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	5.5 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	5.1 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	Orbi Router, Orbi Satellite
Brand	NETGEAR
Test Model	RBR860, RBS860
Status of EUT	Engineering sample
Power Supply Rating	12Vdc from adapter
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode 1024QAM for OFDMA in 11ax HE mode
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: up to 54 Mbps 802.11n: up to 600 Mbps 802.11ac: up to 1733.3 Mbps 802.11ax: up to 2401.9 Mbps
Operating Frequency	5180 ~ 5240 MHz 5745 ~ 5825 MHz
Number of Channel	802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 9 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 4 802.11ac (VHT80), 802.11ax (HE80): 2
Output Power	CDD Mode 5180 ~ 5240 MHz : 933.866 mW (29.7 dBm) 5745 ~ 5825 MHz : 996.461 mW (29.98 dBm) Beamforming Mode 5180 ~ 5240 MHz : 927.018 mW (29.67 dBm) 5745 ~ 5825 MHz : 877.931 mW (29.43 dBm)
EUT Category	Indoor Access Point

Note:

1. The EUT has below model names which are identical to each other in all aspects except for the following table:

Product Name	Model Name	Description
Orbi Router	RBR860	Has master function only With WAN port
Orbi Satellite	RBS860	Has master and client function

Note: This product have two different colors of housing (black & white) for marketing purpose.

2. The EUT has below radios as following table:

Radio 1	Radio 2	Radio 3
WLAN 2.4GHz	WLAN 5GHz_LB	WLAN 5GHz_HB

3. Simultaneously transmission condition.

Condition	Technology
1	WLAN 2.4GHz + WLAN 5GHz_LB + WLAN 5GHz_HB

Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.

4. The EUT uses following accessories.

AC Adapter 1			
Brand	Model	Part Number	Specification
NETGEAR	AD2150F10	332-11093-02	AC Input : 100-120V~ 50/60Hz 1.0A DC Output : 12V, 3.5A DC Output Cable : 1.8m non-shielded and without core Plug : FCC
AC Adapter 2			
Brand	Model	Part Number	Specification
NETGEAR	2ABN042F	332-10888-02	AC Input : 100-120V~ 50/60Hz 1.3A DC Output : 12V, 3.5A DC Output Cable : 1.8m non-shielded and without core Plug : FCC
AC Adapter 3			
Brand	Model	Part Number	Specification
NETGEAR	AD2150F10	332-11494-02	AC Input : 100-120V~ 50/60Hz 1.0A DC Output : 12V, 3.5A DC Output Cable : 1.8m non-shielded and without core Plug : FCC
AC Adapter 4			
Brand	Model	Part Number	Specification
NETGEAR	ADS-45FI-12 12042EPCU-L ADS-45FI-12 12042EPC-L	332-11526-02	AC Input : 100-120V~ 50/60Hz 1.3A DC Output : 12V, 3.5A DC Output Cable : 1.8m non-shielded and without core Plug : FCC
Ethernet Cable			
Specification			
Signal Line : 2 m, Unshielded			
Note: FCC Adapter 1 is identical to Adapter 3 (The only different is the housing color).			

5. 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 directional antenna gain, please refer to the following table:

Frequency Range (GHz)	Directional Antenna Gain (dBi)	Antenna Type	Antenna Connector
2.4~2.4835	6.1	Dipole	ipex(MHF)
5.15 ~ 5.25	6.29		
5.725 ~ 5.85	6.41		

Note: More detailed information, please refer to antenna specification.

2. The EUT incorporates a MIMO function:

5 GHz Band		
MODULATION MODE	TX & RX CONFIGURATION	
802.11a	4TX	4RX
802.11n (HT20)	4TX	4RX
802.11n (HT40)	4TX	4RX
802.11ac (VHT20)	4TX	4RX
802.11ac (VHT40)	4TX	4RX
802.11ac (VHT80)	4TX	4RX
802.11ax (HE20)	4TX	4RX
802.11ax (HE40)	4TX	4RX
802.11ax (HE80)	4TX	4RX

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 (40MHz, 80MHz), 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 5180 ~ 5240 MHz

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

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

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

Channel	Frequency
38	5190 MHz
46	5230 MHz

1 channels are provided for 802.11ac (VHT80) and 802.11ax (HE80):

Channel	Frequency
42	5210 MHz

FOR 5745 ~ 5825 MHz:

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

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

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

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

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

Channel	Frequency
155	5775 MHz

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. The AC Adapter has the following models: AD2150F10 / 2ABN042F / ADS-45FI-12 12042EPCU-L ADS-45FI-12 12042EPC-L 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: Standing. Pre-scan in these ways and find the worst case as a representative test condition.
Worst Case:	1. AC Adapter Worst Condition: 2ABN042F for AC Power Conducted Emissions, AD2150F10 for Unwanted Emissions Below 1GHz. 2. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

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

Test Item	EUT Configure Mode	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
AC Power Conducted Emissions	A,C	802.11ax (HE40)	CDD	46	BPSK	MCS0
	B,D	802.11ax (HE40)	CDD	159	BPSK	MCS0
Unwanted Emissions below 1 GHz	A,C	802.11ax (HE40)	CDD	46	BPSK	MCS0
	B,D	802.11ax (HE40)	CDD	159	BPSK	MCS0
Unwanted Emissions above 1 GHz	A	802.11a	CDD	36, 40, 48	BPSK	6Mb/s
		802.11ax (HE20)	CDD	36, 40, 48	BPSK	MCS0
		802.11ax (HE40)	CDD	38, 46	BPSK	MCS0
		802.11ax (HE80)	CDD	42	BPSK	MCS0
	B	802.11a	CDD	149, 157, 165	BPSK	6Mb/s
		802.11ax (HE20)	CDD	149, 157, 165	BPSK	MCS0
		802.11ax (HE40)	CDD	151, 159	BPSK	MCS0
		802.11ax (HE80)	CDD	155	BPSK	MCS0
RF Output Power	A	802.11a	CDD	36, 40, 48	BPSK	6Mb/s
		802.11ax (HE20)	CDD & Beamforming	36, 40, 48	BPSK	MCS0
		802.11ax (HE40)	CDD & Beamforming	38, 46	BPSK	MCS0
		802.11ax (HE80)	CDD & Beamforming	42	BPSK	MCS0
	B	802.11a	CDD	149, 157, 165	BPSK	6Mb/s
		802.11ax (HE20)	CDD & Beamforming	149, 157, 165	BPSK	MCS0
		802.11ax (HE40)	CDD & Beamforming	151, 159	BPSK	MCS0
		802.11ax (HE80)	CDD & Beamforming	155	BPSK	MCS0

Power Spectral Density / Occupied Bandwidth	A	802.11a	CDD	36, 40, 48	BPSK	6Mb/s
		802.11ax (HE20)	CDD	36, 40, 48	BPSK	MCS0
		802.11ax (HE40)	CDD	38, 46	BPSK	MCS0
		802.11ax (HE80)	CDD	42	BPSK	MCS0
	B	802.11a	CDD	149, 157, 165	BPSK	6Mb/s
		802.11ax (HE20)	CDD	149, 157, 165	BPSK	MCS0
		802.11ax (HE40)	CDD	151, 159	BPSK	MCS0
		802.11ax (HE80)	CDD	155	BPSK	MCS0
6 dB Bandwidth	B	802.11a	CDD	149, 157, 165	BPSK	6Mb/s
		802.11ax (HE20)	CDD	149, 157, 165	BPSK	MCS0
		802.11ax (HE40)	CDD	151, 159	BPSK	MCS0
		802.11ax (HE80)	CDD	155	BPSK	MCS0
Frequency Stability	A	802.11a	-	36	un-modulation	-
	B	802.11a	-	149	un-modulation	-
EUT Configure Mode:	A	RBR860 with 5GL Radio				
	B	RBR860 with 5GH Radio				
	C	RBS860 with 5GL Radio				
	D	RBS860 with 5GH Radio				

3.5 Duty Cycle of Test Signal

Mode A

Duty cycle of test signal is $\geq 98\%$, duty factor is not required.

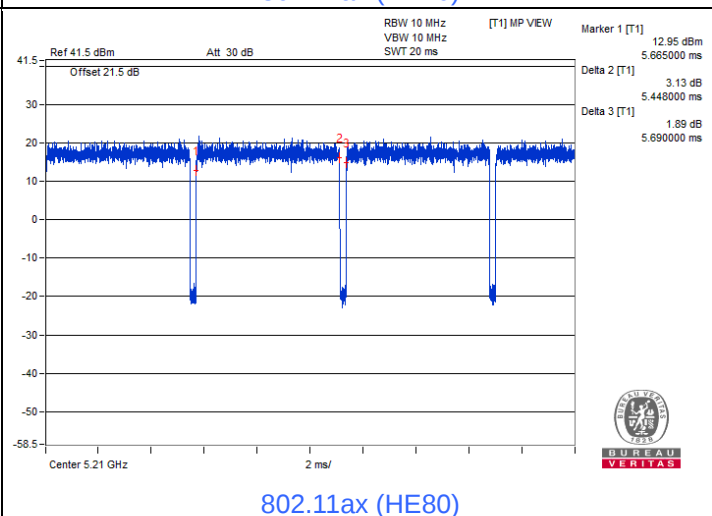
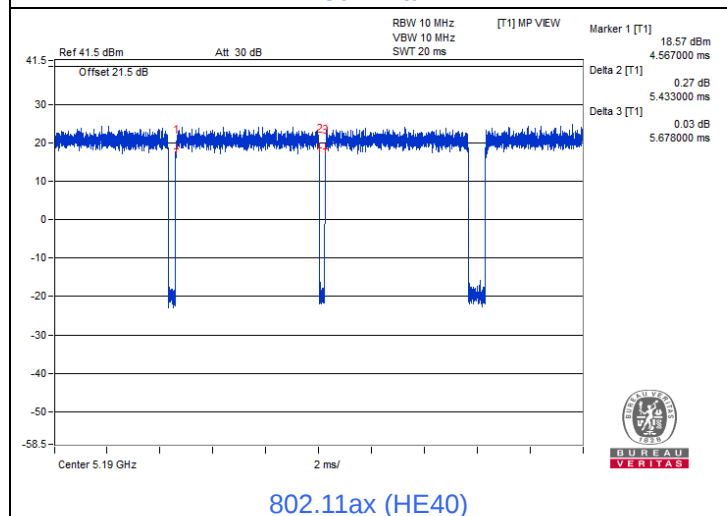
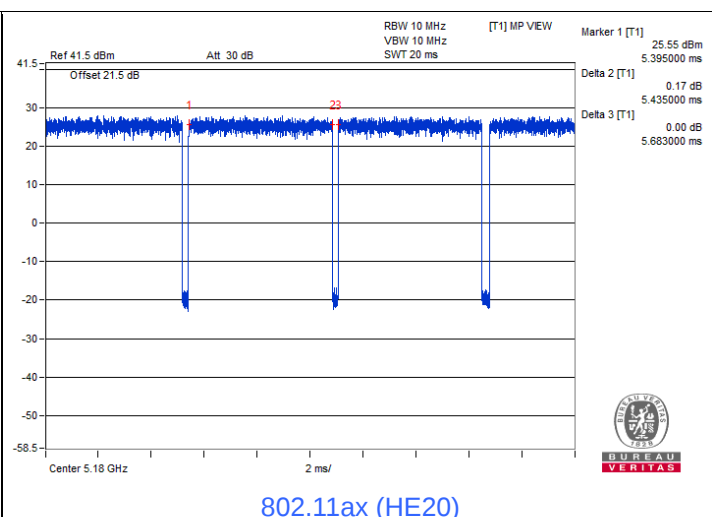
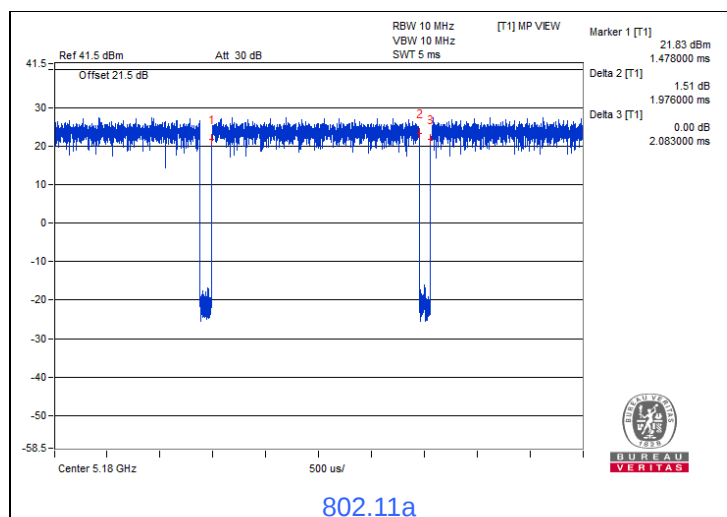
Duty cycle of test signal is $< 98\%$, duty factor shall be considered.

802.11a: Duty cycle = $1.976 \text{ ms} / 2.083 \text{ ms} \times 100\% = 94.9\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.23 \text{ dB}$

802.11ax (HE20): Duty cycle = $5.435 \text{ ms} / 5.683 \text{ ms} \times 100\% = 95.6\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.19 \text{ dB}$

802.11ax (HE40): Duty cycle = $5.433 \text{ ms} / 5.678 \text{ ms} \times 100\% = 95.7\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.19 \text{ dB}$

802.11ax (HE80): Duty cycle = $5.448 \text{ ms} / 5.69 \text{ ms} \times 100\% = 95.7\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.19 \text{ dB}$



Mode B

Duty cycle of test signal is $\geq 98\%$, duty factor is not required.

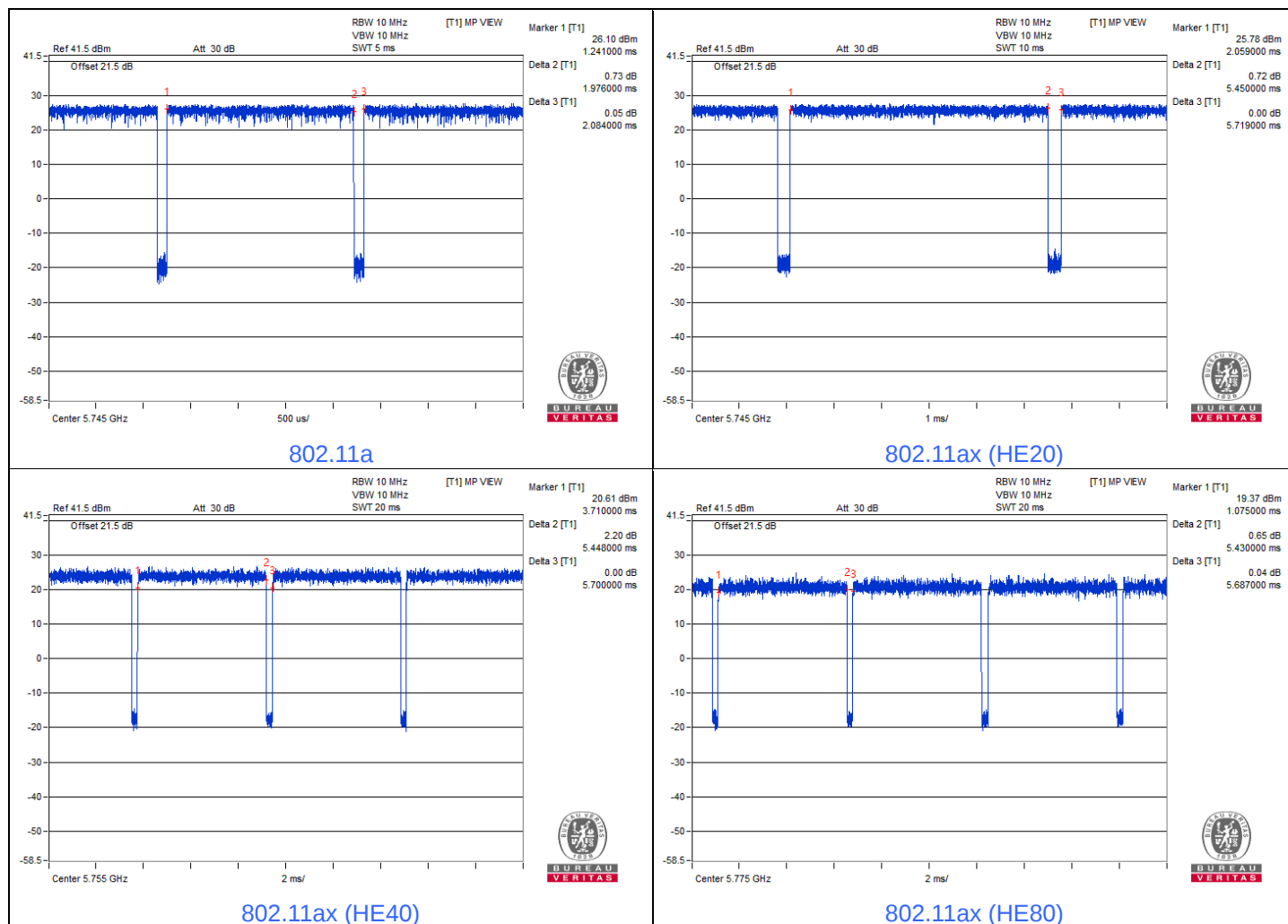
Duty cycle of test signal is $< 98\%$, duty factor shall be considered.

802.11a: Duty cycle = $1.976 \text{ ms} / 2.084 \text{ ms} \times 100\% = 94.8\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.23 \text{ dB}$

802.11ax (HE20): Duty cycle = $5.45 \text{ ms} / 5.719 \text{ ms} \times 100\% = 95.3\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.21 \text{ dB}$

802.11ax (HE40): Duty cycle = $5.448 \text{ ms} / 5.7 \text{ ms} \times 100\% = 95.6\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.20 \text{ dB}$

802.11ax (HE80): Duty cycle = $5.43 \text{ ms} / 5.687 \text{ ms} \times 100\% = 95.5\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.20 \text{ dB}$

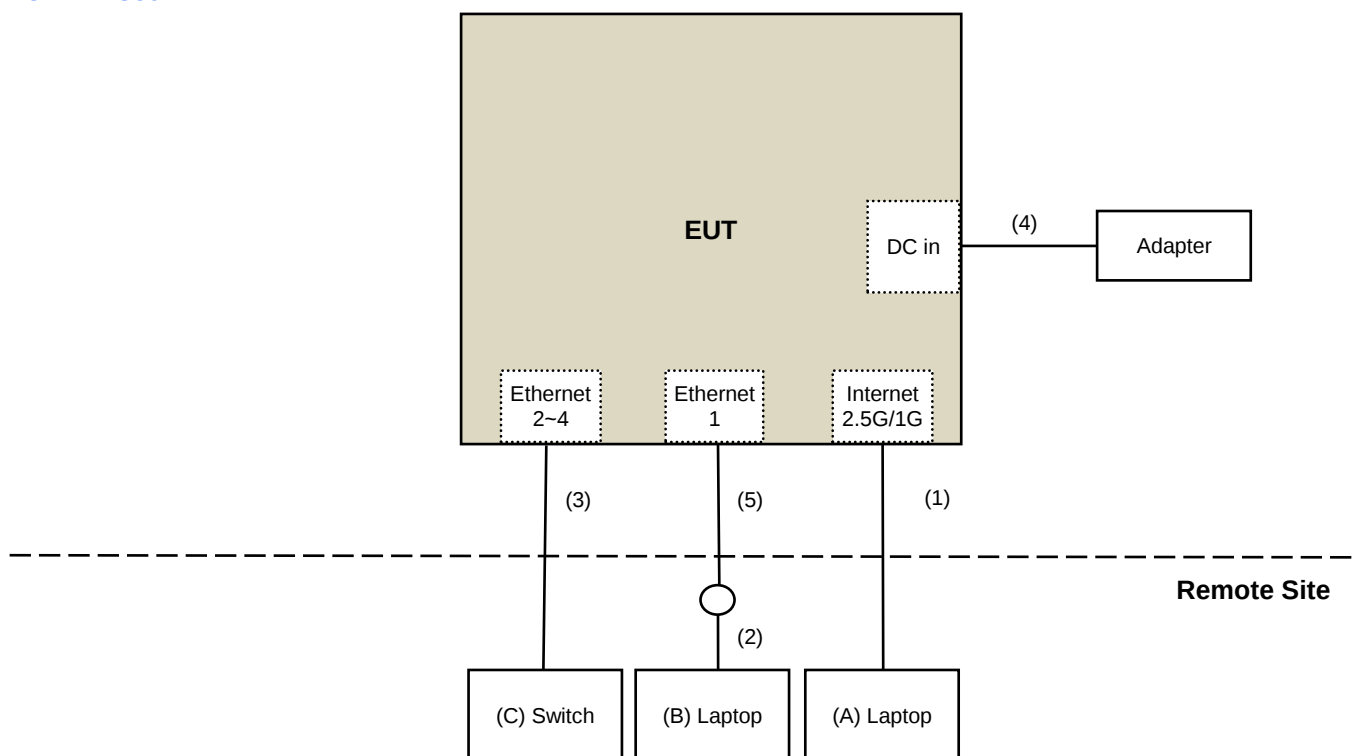


3.6 Test Program Used and Operation Descriptions

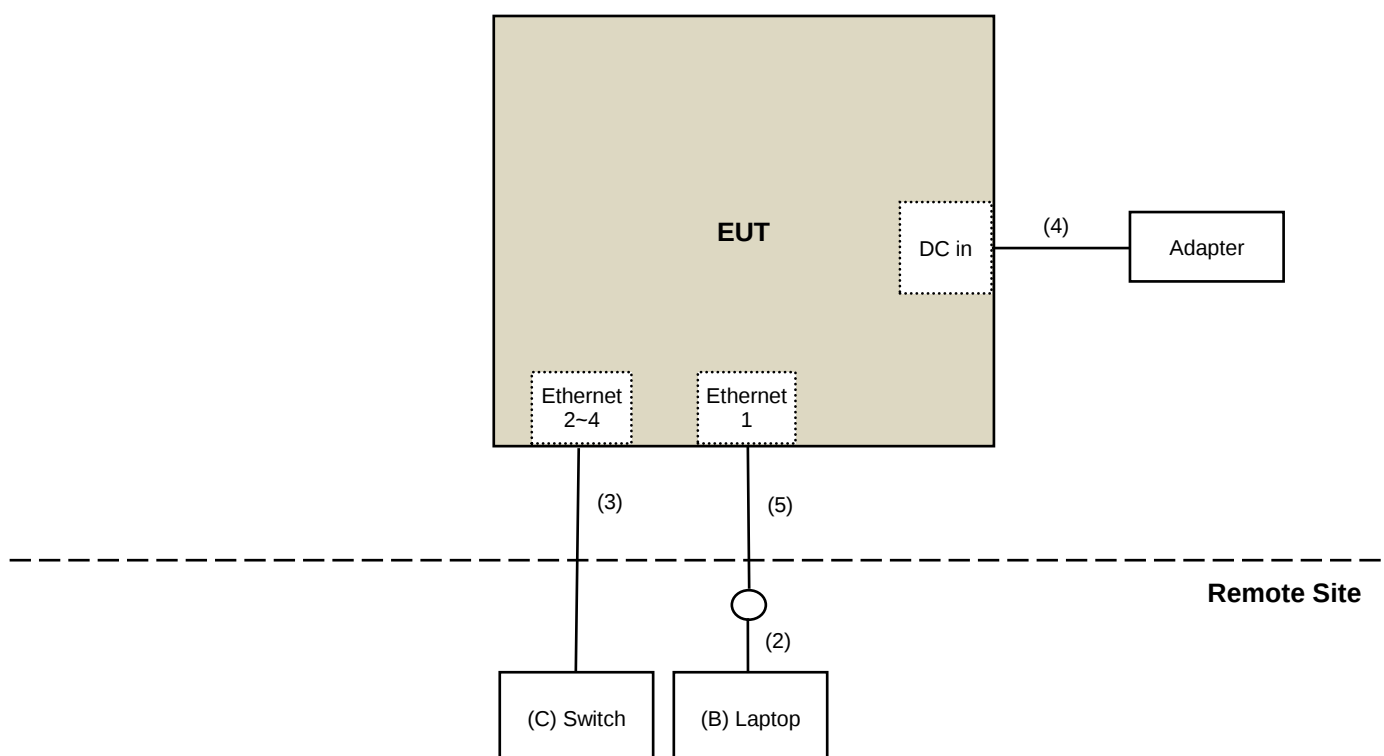
Controlling software (qdart_conn.win.1.0_installer_00056.1) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices

For RBR860



For RBS860



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Laptop	DELL	E5430	4YV4VY1	DoC	Provided by Lab
B	Laptop	DELL	E5430	HYV4VY1	DoC	Provided by Lab
C	Switch	D-Link	DGS-1005D	DR8WC92000523	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	RJ-45 Cable	1	10	No	0	Provided by Lab
2	RJ-45 Cable	1	10	No	0	Provided by Lab
3	RJ-45 Cable	3	10	No	0	Provided by Lab
4	DC Cable	1	1.8	No	0	Supplied by applicant
5	RJ-45 Cable	1	2	No	0	Supplied by applicant

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 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	2021/6/21	2022/6/20
Pulse Power Sensor Anritsu	MA2411B	1339443	2021/5/31	2022/5/30
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2022/5/28

4.2 Power Spectral Density

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	100964	2021/5/31	2022/5/30

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2022/5/28

4.3 6 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	100964	2021/5/31	2022/5/30

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2022/5/28

4.4 Occupied Bandwidth

Refer to section 4.2 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
DC POWER SUPPLY Topward	6603D	795558	N/A	N/A
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	100964	2021/5/31	2022/5/30
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	2021/6/2	2022/6/1

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2022/5/28

4.6 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohms Terminator	50	3	2021/10/27	2022/10/26
Fixed attenuator STI	STI02-2200-10	005	2021/8/27	2022/8/26
LISN R&S	ESH3-Z5	848773/004	2021/10/29	2022/10/28
RF Coaxial Cable JYEBO	5D-FB	COCCAB-001	2021/9/25	2022/9/24
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	2022/10/12

Notes:

1. The test was performed in Conduction 1
2. Tested Date: 2022/5/19 ~ 2022/5/31

4.7 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-03	2022/1/10	2023/1/9
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 EMCI	EMC330N	980701	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	2023/1/5
RF Coaxial Cable COMMATE/PEWC	8D	966-4-1	2022/3/8	2023/3/7
		966-4-2	2022/3/8	2023/3/7
		966-4-3	2022/3/8	2023/3/7
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Test Receiver Agilent	N9038A	MY51210202	2021/11/19	2022/11/18
Trilog Broadband Antenna Schwarzbeck	VULB 9168	9168-406	2021/10/27	2022/10/26

Notes:

1. The test was performed in 966 Chamber No. 4.
2. Tested Date: 2022/5/19 ~ 2022/5/31

4.8 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-783	2021/11/14	2022/11/13
	BBHA 9170	9170-739	2021/11/14	2022/11/13
Pre_Amplifier EMCI	EMC 12630 SE	980638	2022/4/5	2023/4/4
	EMC184045SE	980387	2022/1/10	2023/1/9
RF Cable-Frequency Range : 1- 26.5GHz EMCI	EMC104-SM-SM-1200	160922	2021/12/24	2022/12/23
RF Cable-Frequency range: 1- 40GHz EMCI	EMC102-KM-KM-1200	160924	2022/1/10	2023/1/9
RF Coaxial Cable EMCI	EMC104-SM-SM-2000	180502	2022/4/25	2023/4/24
	EMC104-SM-SM-6000	210704	2021/11/9	2022/11/8
	EMC-KM-KM-4000	200214	2022/3/8	2023/3/7
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Test Receiver Agilent	N9038A	MY51210202	2021/11/19	2022/11/18

Notes:

1. The test was performed in 966 Chamber No. 4.
2. Tested Date: 2022/5/13 ~ 2022/6/7

5 Limits of Test Items

5.1 RF Output Power

Operation Band	EUT Category	Limit
U-NII-1	Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p $\leq$ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
	Fixed point-to-point Access Point	1 Watt (30 dBm)
	Indoor Access Point	1 Watt (30 dBm)
	Mobile and Portable client device	250 mW (24 dBm)

Operation Band	Limit
U-NII-3	1 Watt (30 dBm)

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.

5.2 Power Spectral Density

Operation Band	EUT Category	Limit
U-NII-1	Outdoor Access Point	17 dBm/ MHz
	Fixed point-to-point Access Point	
	Indoor Access Point	
	Mobile and Portable client device	11 dBm/ MHz

Operation Band	Limit
U-NII-3	30 dBm/ 500 kHz

5.3 6 dB Bandwidth

Within the 5.725-5.850 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

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. ^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.		^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. ^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.	

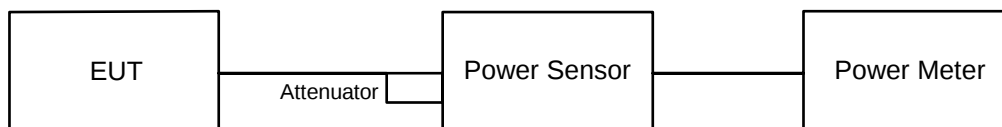
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

6 Test Arrangements

6.1 RF Output Power

6.1.1 Test Setup

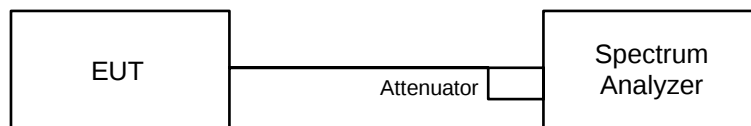


6.1.2 Test Procedure

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.

6.2 Power Spectral Density

6.2.1 Test Setup



6.2.2 Test Procedure

For specified measurement bandwidth 1 MHz:

Method SA-2

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz, Set VBW $\geq$ 3 MHz, Detector = RMS
- Sweep points $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- Sweep time = auto, trigger set to "free run".
- Trace average at least 100 traces in power averaging mode.
- Use the peak search function on the instrument to find the peak of the spectrum and record its value.
- Record the max value and add 10 log (1/duty cycle).

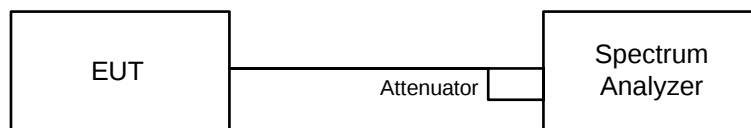
For specified measurement bandwidth 500 kHz:

Method SA-1

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 300 kHz, Set VBW $\geq$ 1 MHz, Detector = RMS
- 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 $\text{BWCF} = 10\log(500 \text{ kHz}/300 \text{ kHz})$
- Sweep points $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- Sweep time = auto, trigger set to "free run".
- Trace average at least 100 traces in power averaging mode.
- Record the max value

6.3 6 dB Bandwidth

6.3.1 Test Setup

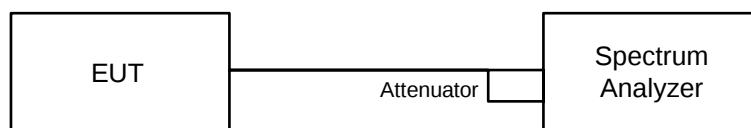


6.3.2 Test Procedure

- h. Set resolution bandwidth (RBW) = 100 kHz.
- i. Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = Peak.
- j. Trace mode = max hold.
- k. Sweep = auto couple.
- l. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.4 Occupied Bandwidth

6.4.1 Test Setup

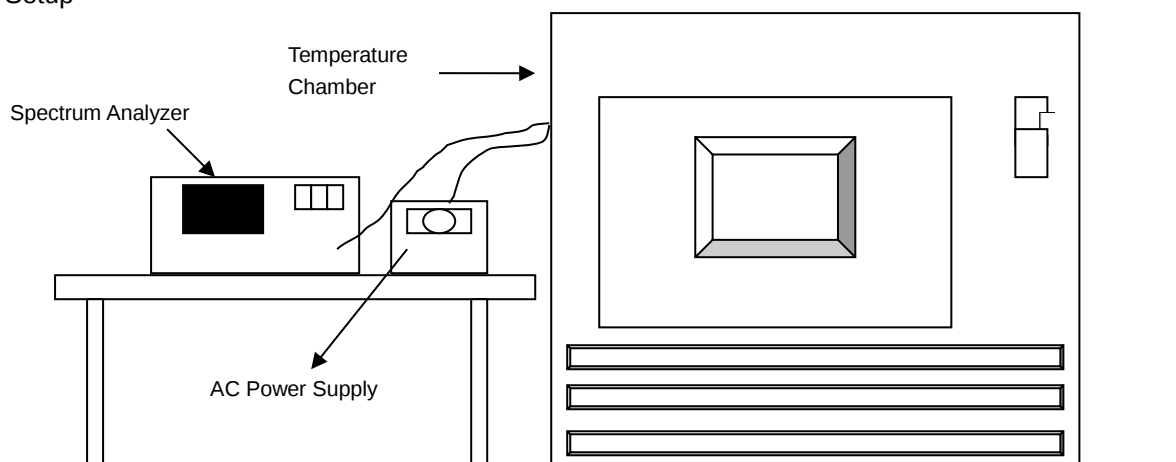


6.4.2 Test Procedure

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

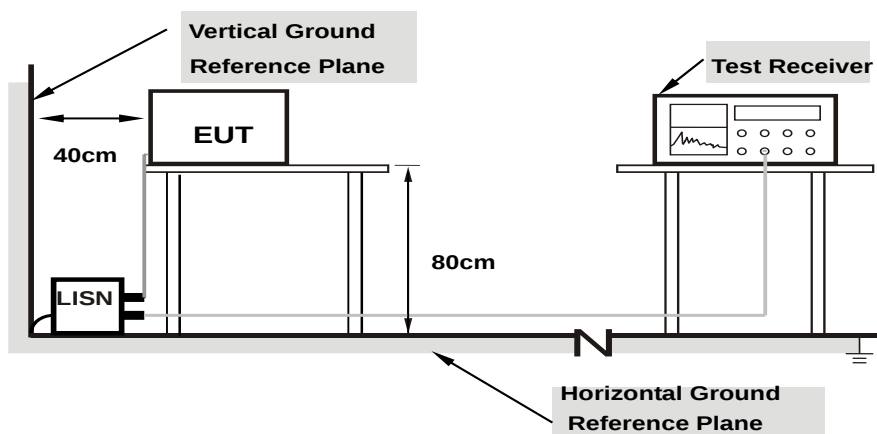


6.5.2 Test Procedure

- The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
- Turn the EUT on and couple its output to a spectrum analyzer.
- Turn the EUT off and set the chamber to the highest temperature specified.
- 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.
- Repeat step (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed.
- 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

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

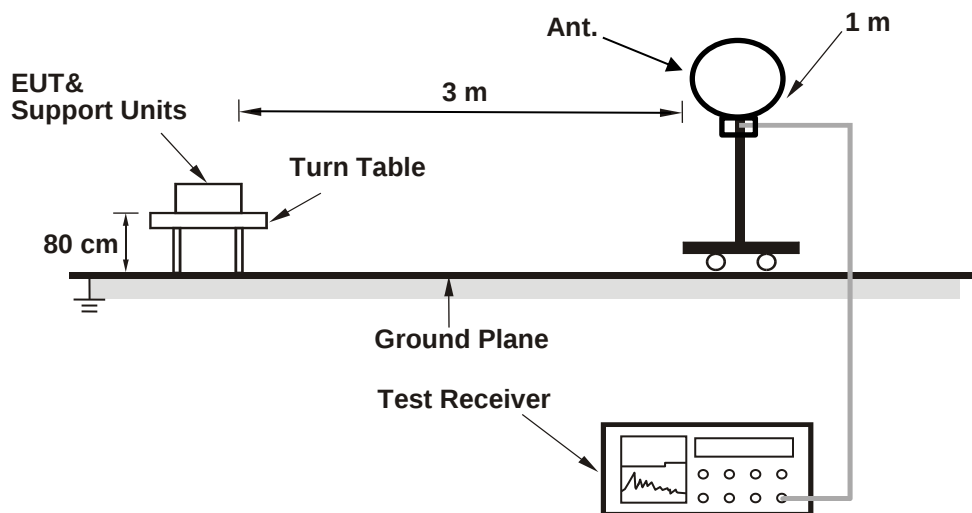
Note:

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.

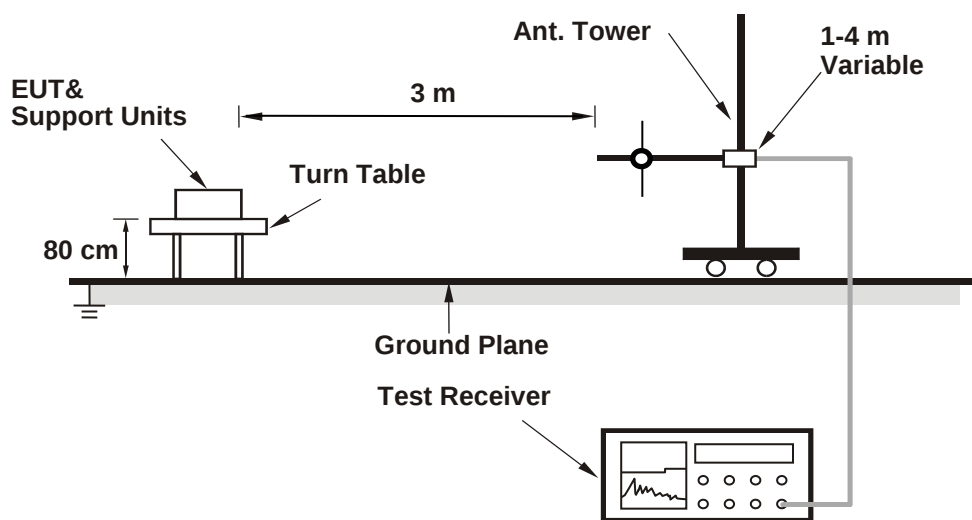
6.7 Unwanted Emissions below 1 GHz

6.7.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz at frequency below 30 MHz.
2. 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.

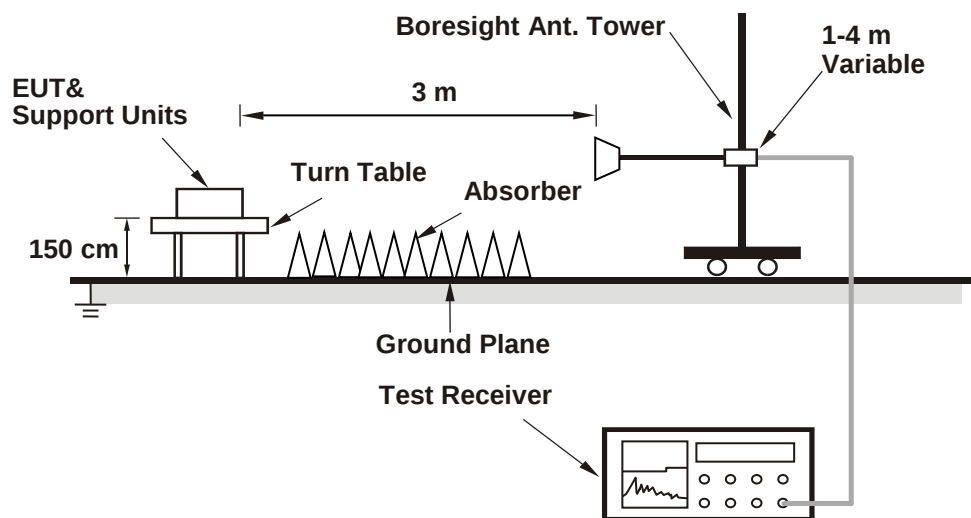
Notes:

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 Radiated emission above 1 GHz



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

6.8.2 Test Procedure

- 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.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- 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.
- 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.
- 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:

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

7 Test Results of Test Item

7.1 RF Output Power

Mode A

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Eric Peng
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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	Chain 2	Chain 3				
36	5180	22.92	22.81	22.79	23.56	803.964	29.05	30	Pass
40	5200	23.65	23.32	23.64	24.04	931.242	29.69	30	Pass
48	5240	23.58	23.43	23.72	23.98	933.866	29.70	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-1, the directional gain is 2.5 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	Chain 2	Chain 3				
36	5180	23.52	23.37	23.08	23.01	845.397	29.27	30	Pass
40	5200	23.89	23.71	23.20	23.52	913.705	29.61	30	Pass
48	5240	23.94	23.85	23.04	23.43	912.068	29.60	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-1, the directional gain is 2.5 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	Chain 2	Chain 3				
38	5190	20.85	20.43	20.38	20.14	444.447	26.48	30	Pass
46	5230	23.67	23.72	23.62	23.59	927.018	29.67	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-1, the maximum gain is 2.5 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	Chain 2	Chain 3				
42	5210	21.02	21.04	21.08	20.98	507.078	27.05	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-1, the maximum gain is 2.5 dBi < 6 dBi, so the output power limit shall not be reduced.

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	Chain 2	Chain 3				
36	5180	23.52	23.37	23.08	23.01	845.397	29.27	29.71	Pass
40	5200	23.89	23.71	23.20	23.52	913.705	29.61	29.71	Pass
48	5240	23.94	23.85	23.04	23.43	912.068	29.60	29.71	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-1, the directional gain is 6.29 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.29 - 6) = 29.71$ 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	Chain 2	Chain 3				
38	5190	20.85	20.43	20.38	20.14	444.447	26.48	29.71	Pass
46	5230	23.67	23.72	23.62	23.59	927.018	29.67	29.71	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-1, the directional gain is 6.29 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.29 - 6) = 29.71$ 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	Chain 2	Chain 3				
42	5210	21.02	21.04	21.08	20.98	507.078	27.05	29.71	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-1, the directional gain is 6.29 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.29 - 6) = 29.71$ dBm.

Mode B

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Eric Peng
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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	Chain 2	Chain 3				
149	5745	24.21	23.92	23.11	24.15	974.897	29.89	30	Pass
157	5785	24.11	23.89	23.04	24.05	958.008	29.81	30	Pass
165	5825	24.18	24.03	23.07	24.12	975.742	29.89	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-3, the directional gain is 2.9 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	Chain 2	Chain 3				
149	5745	23.81	24.20	23.06	24.25	971.838	29.88	30	Pass
157	5785	23.76	24.10	22.97	24.13	951.698	29.78	30	Pass
165	5825	23.83	24.17	23.03	24.22	967.912	29.86	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-3, the directional gain is 2.9 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	Chain 2	Chain 3				
151	5755	23.60	24.31	23.45	24.12	978.396	29.91	30	Pass
159	5795	23.71	24.41	23.30	24.34	996.461	29.98	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-3, the maximum gain is 2.9 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	Chain 2	Chain 3				
155	5775	22.98	23.47	22.42	23.33	810.801	29.09	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-3, the maximum gain is 2.9 dBi < 6 dBi, so the output power limit shall not be reduced.

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	Chain 2	Chain 3				
149	5745	23.30	23.69	22.55	23.74	864.159	29.37	29.59	Pass
157	5785	23.25	23.59	22.46	23.62	846.251	29.27	29.59	Pass
165	5825	23.32	23.66	22.52	23.71	860.669	29.35	29.59	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-3, the directional gain is 6.41 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.41 - 6) = 29.59$ 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	Chain 2	Chain 3				
151	5755	23.05	23.76	22.90	23.57	862.015	29.36	29.59	Pass
159	5795	23.16	23.86	22.75	23.79	877.931	29.43	29.59	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-3, the directional gain is 6.41 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.41 - 6) = 29.59$ 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	Chain 2	Chain 3				
155	5775	22.98	23.47	22.42	23.33	810.801	29.09	29.59	Pass

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-3, the directional gain is 6.41 dBi > 6 dBi, so the output power limit shall be reduced to $30 - (6.41 - 6) = 29.59$ dBm.

7.2 Power Spectral Density

Mode A

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Eric Peng
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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	Chain 2	Chain 3				
36	5180	10.87	10.40	10.33	9.81	0.23	16.62	16.71	Pass
40	5200	10.57	10.21	10.33	9.77	0.23	16.48	16.71	Pass
48	5240	9.90	10.62	10.80	10.09	0.23	16.62	16.71	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 is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-1, the directional gain is 6.29 dBi > 6dBi, so the power density limit shall be reduced to $17 - (6.29 - 6) = 16.71$ 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	Chain 2	Chain 3				
36	5180	9.85	9.72	9.30	8.75	0.19	15.64	16.71	Pass
40	5200	10.26	9.62	10.57	9.90	0.19	16.31	16.71	Pass
48	5240	10.17	9.36	10.83	9.69	0.19	16.26	16.71	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 is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-1, the directional gain is 6.29 dBi > 6dBi, so the power density limit shall be reduced to $17 - (6.29 - 6) = 16.71$ 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	Chain 2	Chain 3				
38	5190	3.15	3.35	3.80	3.30	0.19	9.62	16.71	Pass
46	5230	6.24	6.18	7.53	6.98	0.19	12.98	16.71	Pass

Notes:

- 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.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-1, the directional gain is 6.29 dBi > 6dBi, so the power density limit shall be reduced to $17 - (6.29 - 6) = 16.71$ dBm/MHz.

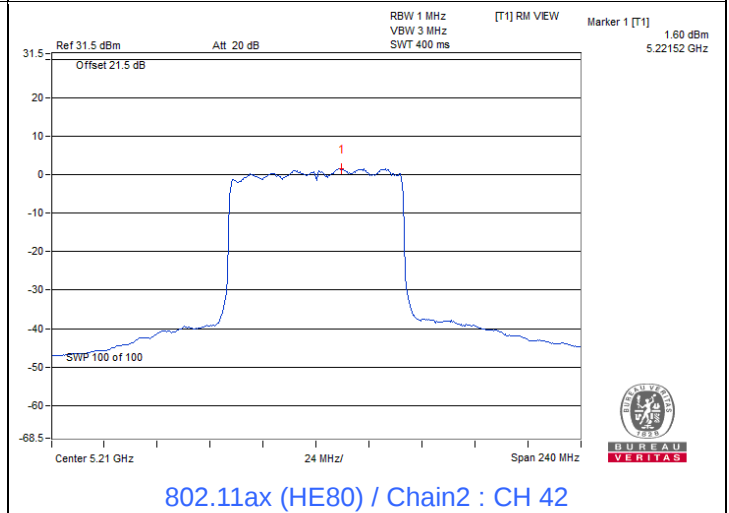
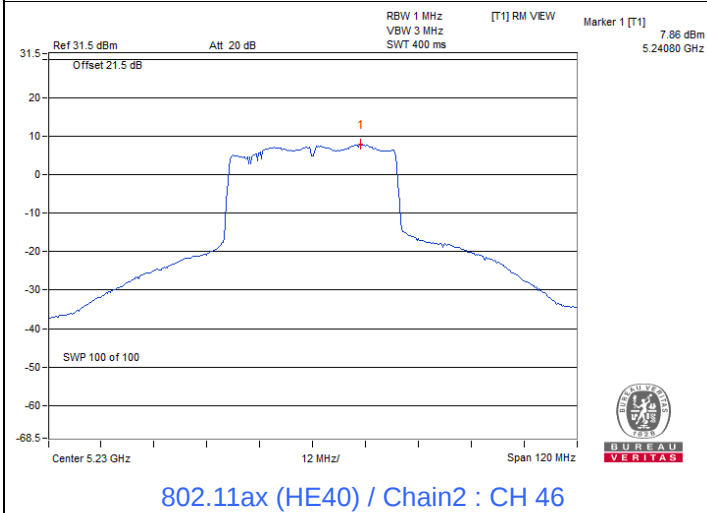
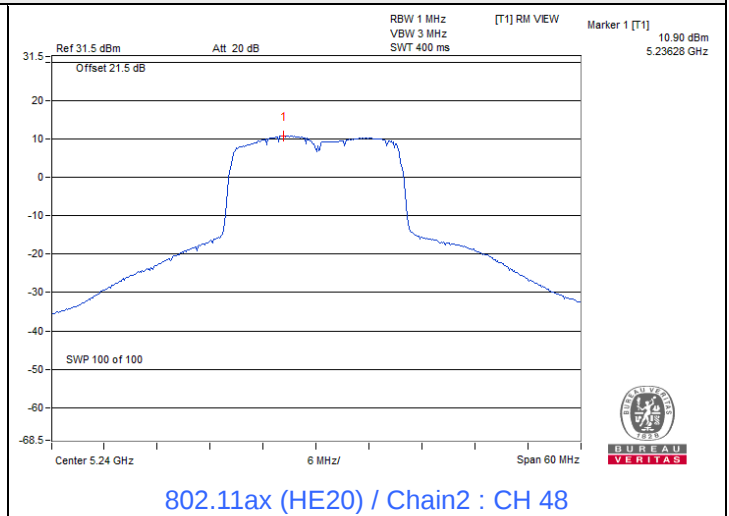
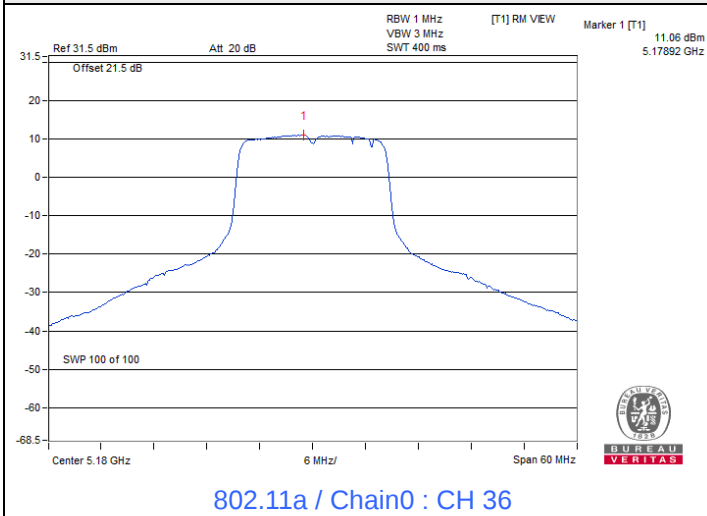
802.11ax (HE80)

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	Chain 2	Chain 3				
42	5210	0.42	0.12	0.91	0.51	0.19	6.71	16.71	Pass

Notes:

- 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.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-1, the directional gain is 6.29 dBi > 6dBi, so the power density limit shall be reduced to $17 - (6.29 - 6) = 16.71$ dBm/MHz.

Spectrum Plot of Maximum Value



Mode B

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Eric Peng
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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	Chain 2	Chain 3					
149	5745	1.84	2.48	1.33	2.68	8.14	0.23	10.59	29.59	Pass
157	5785	2.50	2.23	2.68	2.65	8.54	0.23	10.99	29.59	Pass
165	5825	1.93	2.74	1.93	2.43	8.29	0.23	10.74	29.59	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 is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-3, the directional gain is 6.41 dBi > 6 dBi, so the power density limit shall be reduced to $30 - (6.41 - 6) = 29.59$ dBm/500kHz.

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	Chain 2	Chain 3					
149	5745	0.62	1.09	0.43	1.13	6.85	0.21	9.28	29.59	Pass
157	5785	0.50	0.76	1.11	1.16	6.91	0.21	9.34	29.59	Pass
165	5825	0.59	1.40	0.56	1.21	6.98	0.21	9.41	29.59	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 is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-3, the directional gain is 6.41 dBi > 6 dBi, so the power density limit shall be reduced to $30 - (6.41 - 6) = 29.59$ dBm/500kHz.

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	Chain 2	Chain 3					
151	5755	-1.85	-2.49	-2.14	-2.02	3.9	0.2	6.32	29.59	Pass
159	5795	-2.52	-1.20	-1.88	-1.76	4.21	0.2	6.63	29.59	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 is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-3, the directional gain is 6.41 dBi > 6 dBi, so the power density limit shall be reduced to $30 - (6.41 - 6) = 29.59$ dBm/500kHz.

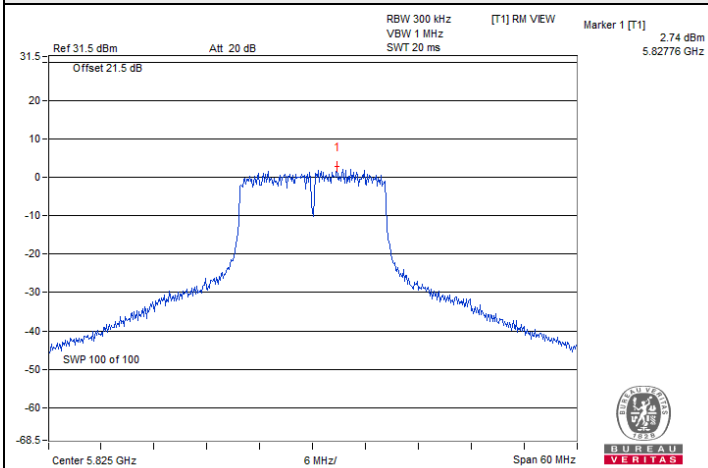
802.11ax (HE80)

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	Chain 2	Chain 3					
155	5775	-5.57	-5.56	-5.18	-5.43	0.59	0.2	3.01	29.59	Pass

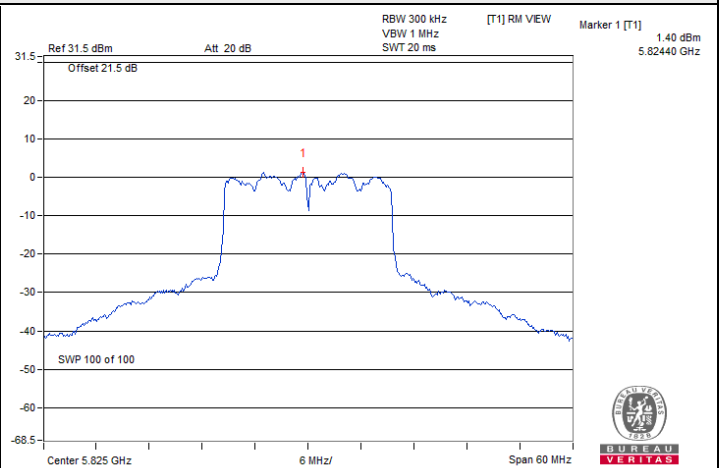
Notes:

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 is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-3, the directional gain is 6.41 dBi > 6 dBi, so the power density limit shall be reduced to $30 - (6.41 - 6) = 29.59$ dBm/500kHz.

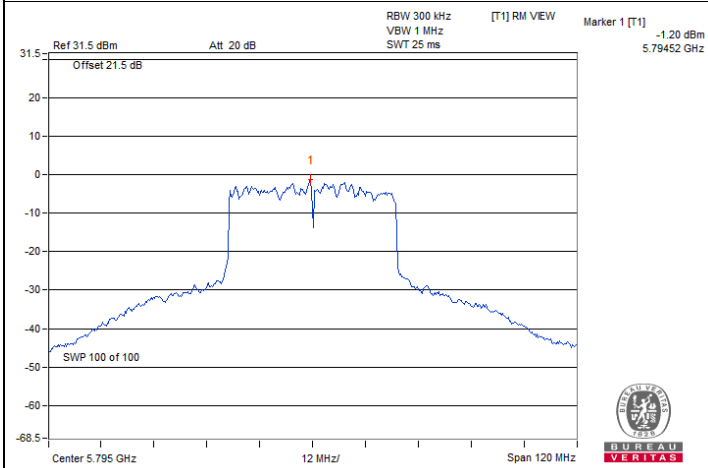
Spectrum Plot of Maximum Value



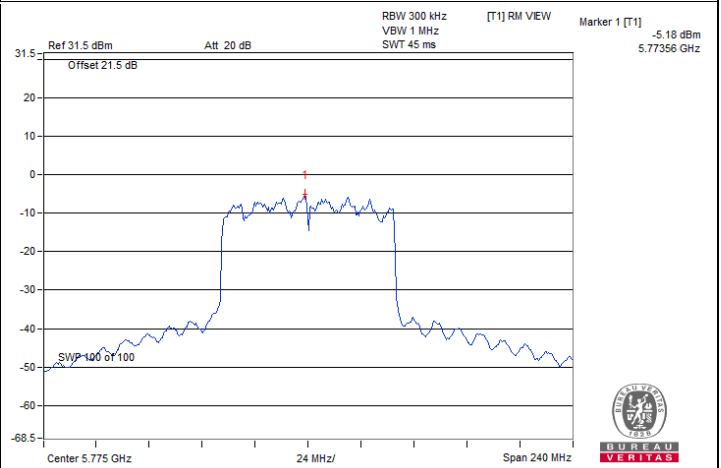
802.11a / Chain1 : CH 165



802.11ax (HE20) / Chain1 : CH 165



802.11ax (HE40) / Chain1 : CH 159



802.11ax (HE80) / Chain2 : CH 155

7.3 6 dB Bandwidth

Mode B

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Eric Peng
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802.11a

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
149	5745	16.03	15.66	15.73	15.92	0.5	Pass
157	5785	16.07	15.95	15.76	15.97	0.5	Pass
165	5825	15.43	16.31	15.37	16.09	0.5	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
149	5745	18.55	18.51	18.59	18.74	0.5	Pass
157	5785	19.00	18.80	17.59	18.72	0.5	Pass
165	5825	18.81	19.00	18.86	18.46	0.5	Pass

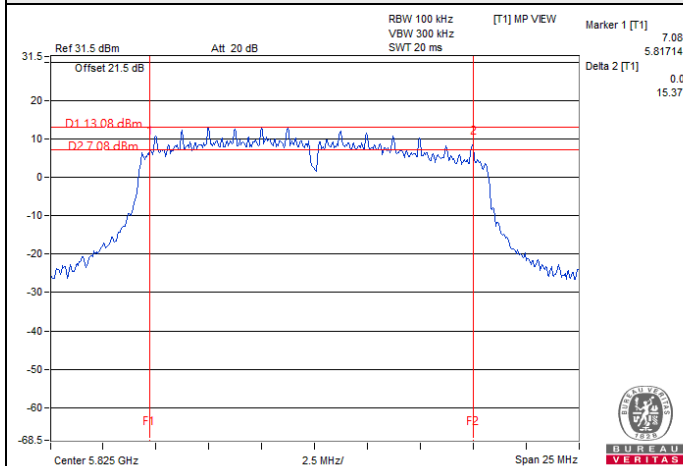
802.11ax (HE40)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
151	5755	37.88	37.85	38.05	37.85	0.5	Pass
159	5795	37.62	38.11	38.16	37.81	0.5	Pass

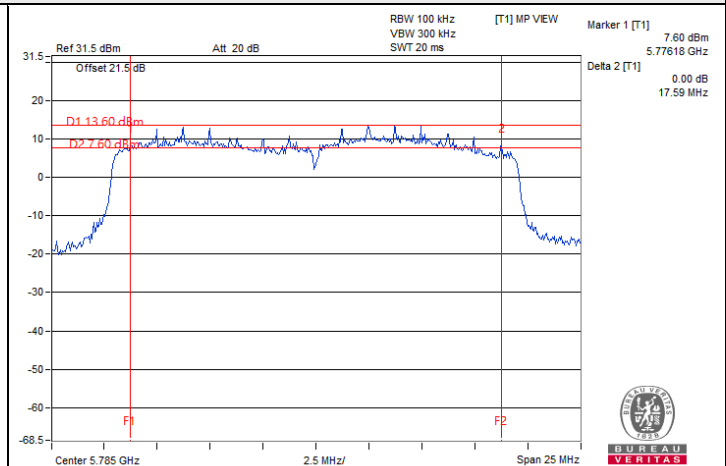
802.11ax (HE80)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
155	5775	76.06	77.89	76.62	76.54	0.5	Pass

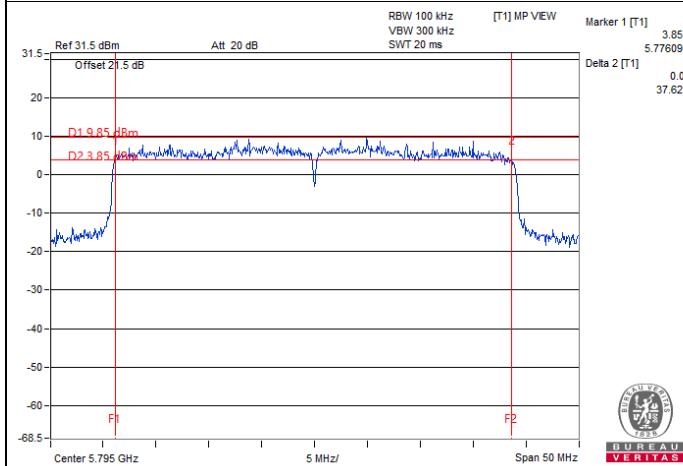
Spectrum Plot of Minimum Value



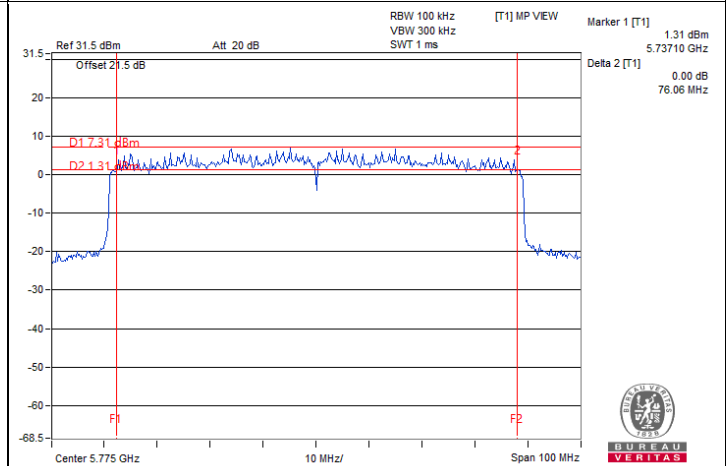
802.11a / Chain2 : CH 165



802.11ax (HE20) / Chain2 : CH 157



802.11ax (HE40) / Chain0 : CH 159



802.11ax (HE80) / Chain0 : CH 155

7.4 Occupied Bandwidth

Mode A

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Eric Peng
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802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	16.56	16.44	16.44	16.44
40	5200	16.44	16.44	16.68	16.44
48	5240	16.44	16.44	16.56	16.44

802.11ax (HE20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	18.96	19.08	18.96	18.96
40	5200	18.96	19.08	18.96	19.08
48	5240	18.96	18.84	19.08	18.96

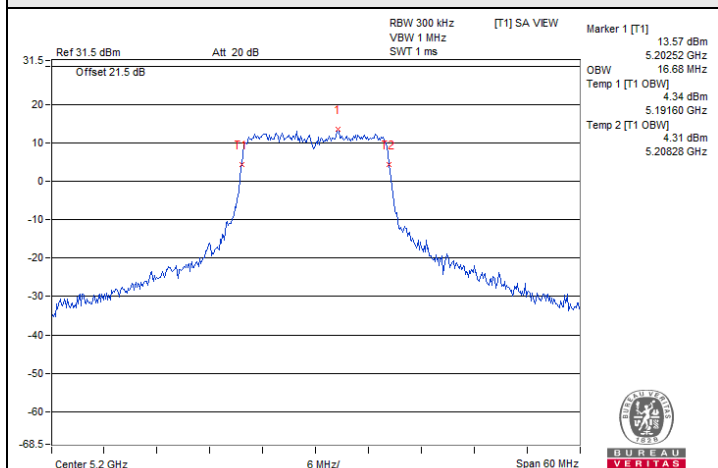
802.11ax (HE40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	38.88	38.88	38.16	38.16
46	5230	38.16	38.40	38.64	38.16

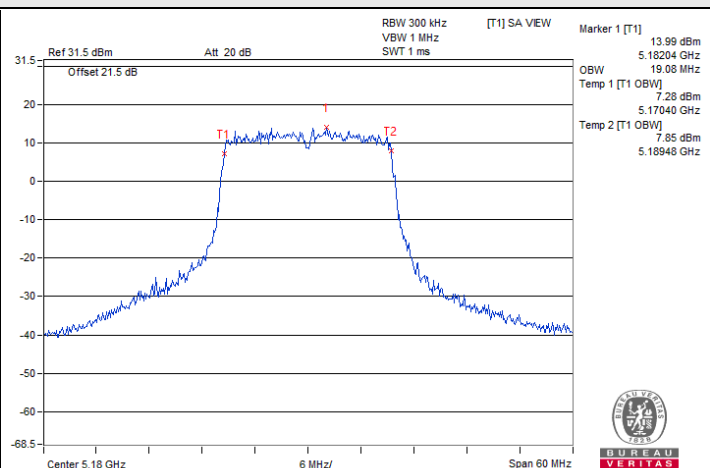
802.11ax (HE80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	78.24	77.76	77.76	77.76

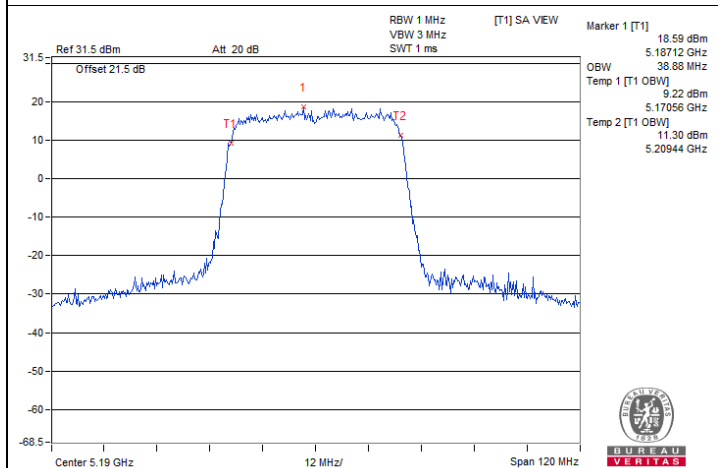
Spectrum Plot of Maximum Value



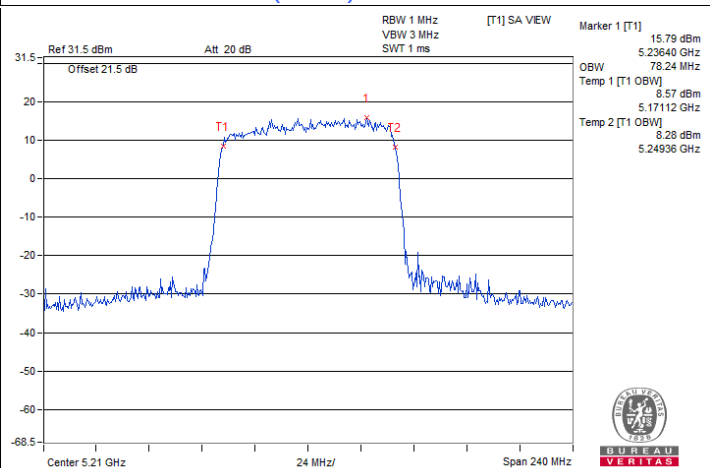
802.11a / Chain2 : CH 40



802.11ax (HE20) / Chain1 : CH 36

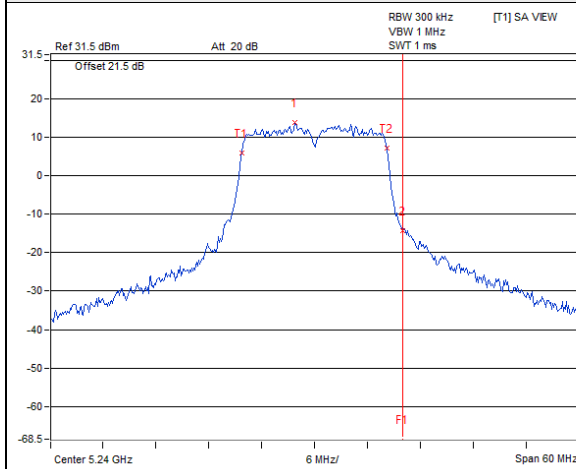


802.11ax (HE40) / Chain0 : CH 38

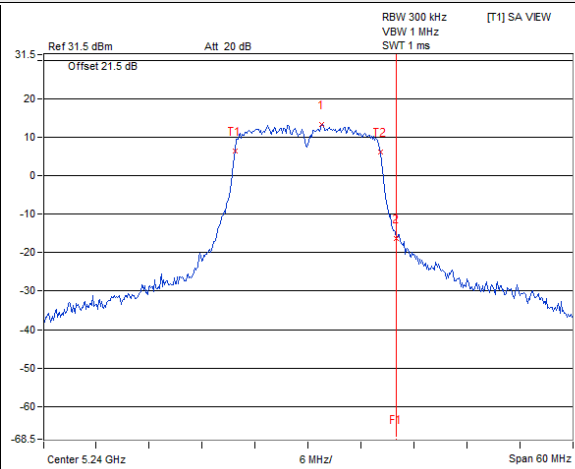


802.11ax (HE80) / Chain0 : CH 42

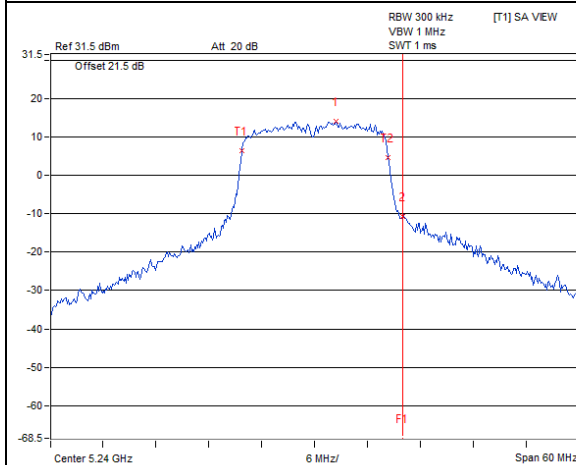
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2A band)



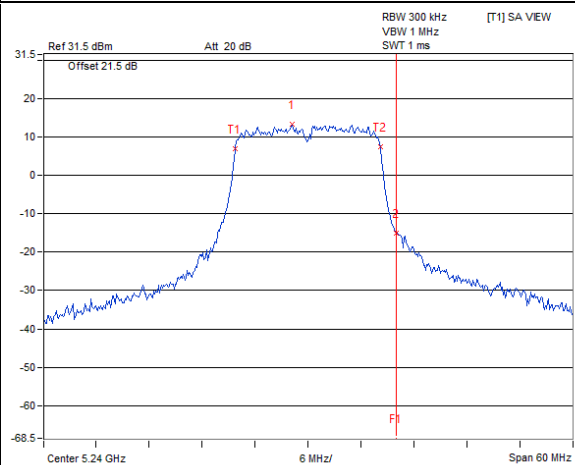
802.11a / Chain 0 : CH 48



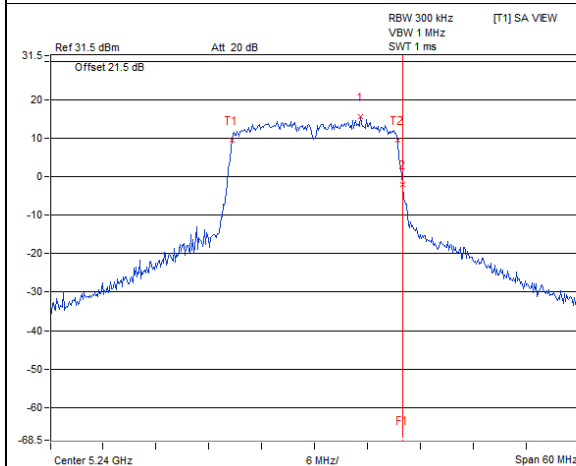
802.11a / Chain 1 : CH 48



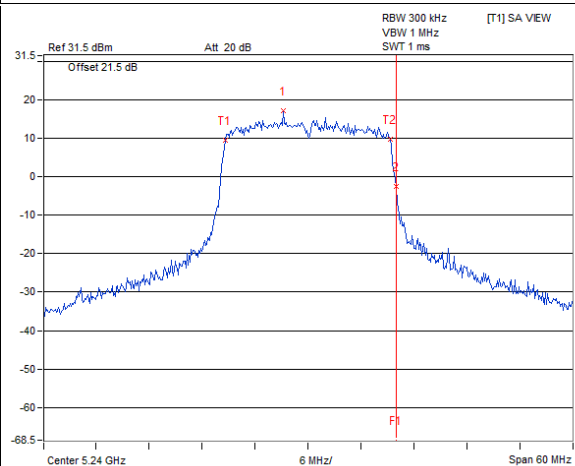
802.11a / Chain 2 : CH 48



802.11a / Chain 3 : CH 48

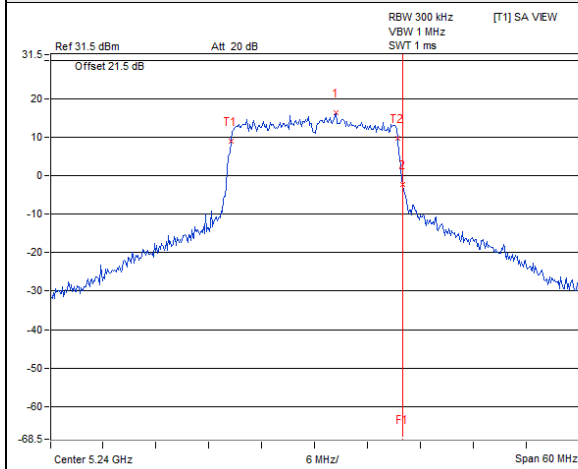


802.11ax (HE20) / Chain 0 : CH 48

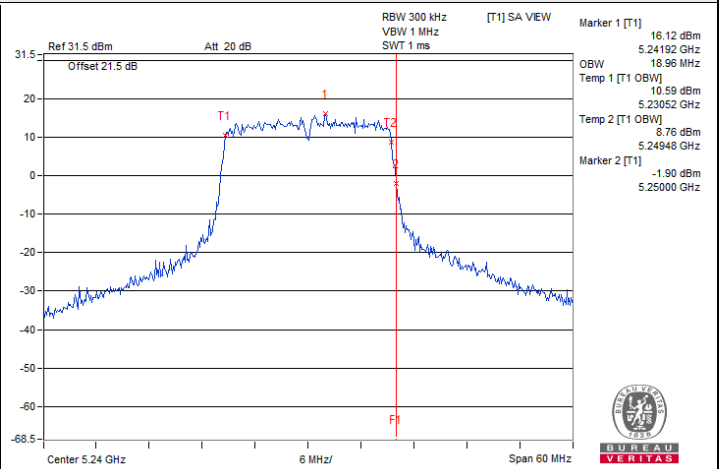


802.11ax (HE20) / Chain 1 : CH 48

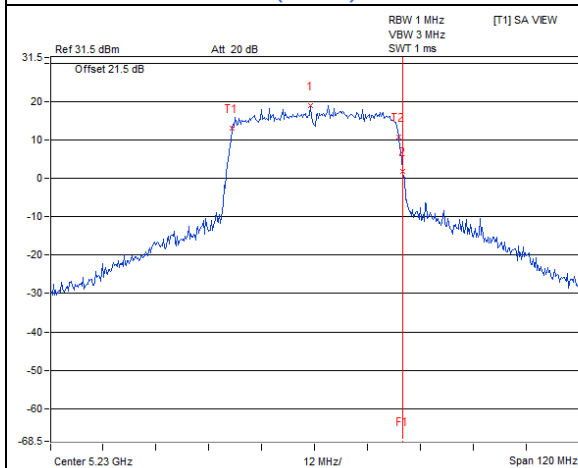
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2A band)



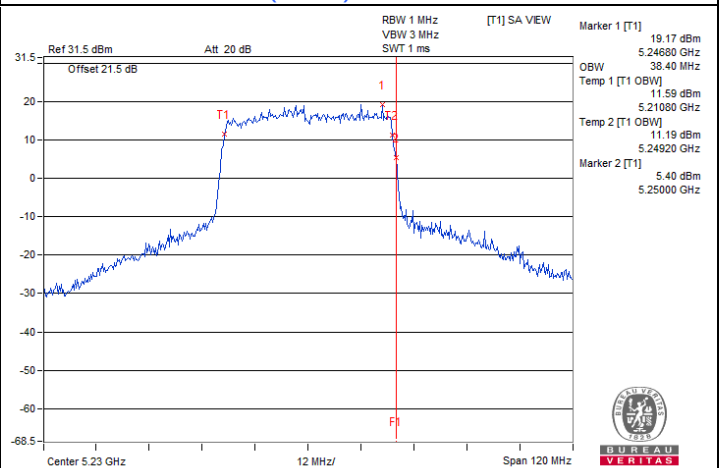
802.11ax (HE20) / Chain 2 : CH 48



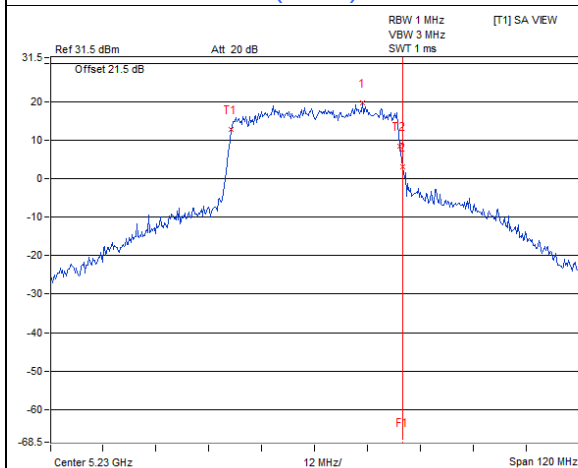
802.11ax (HE20) / Chain 3 : CH 48



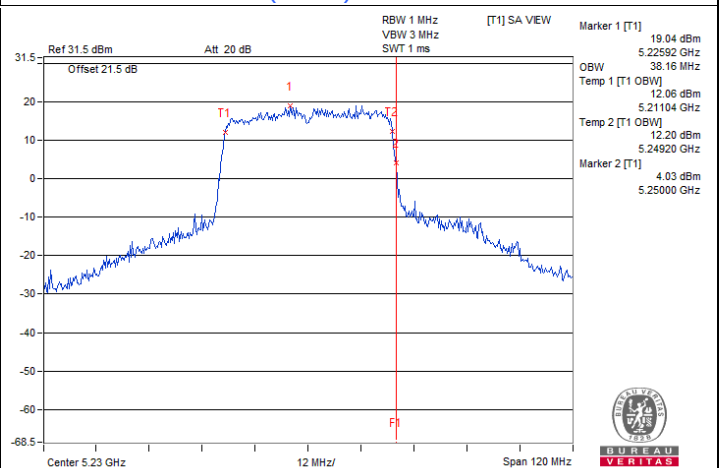
802.11ax (HE40) / Chain 0 : CH 46



802.11ax (HE40) / Chain 1 : CH 46

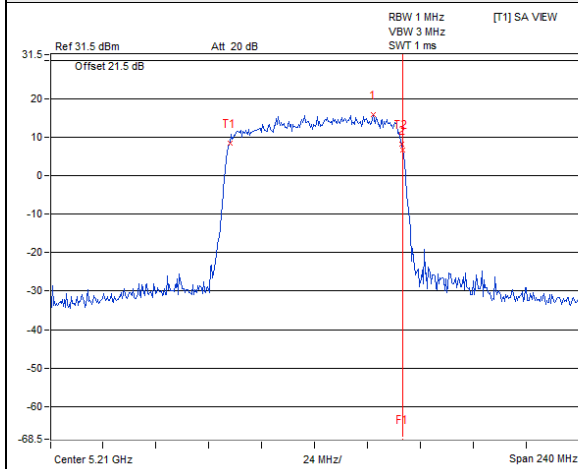


802.11ax (HE40) / Chain 2 : CH 46

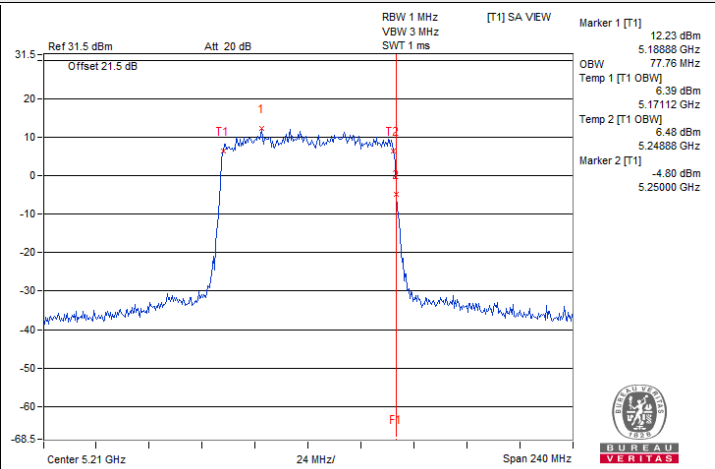


802.11ax (HE40) / Chain 3 : CH 46

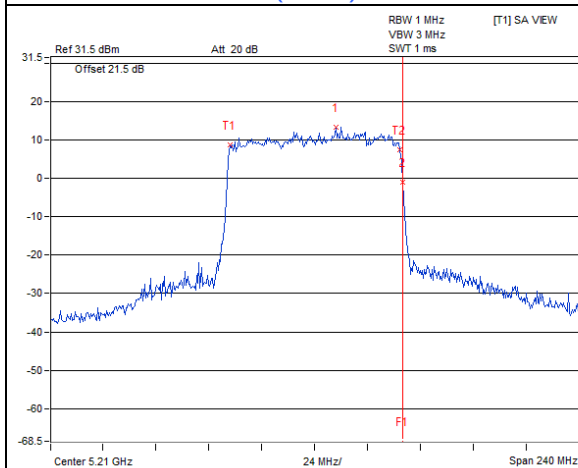
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2A band)



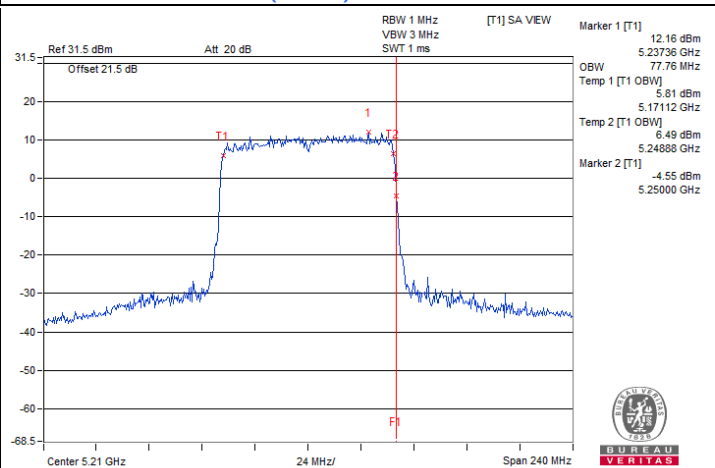
802.11ax (HE80) / Chain 0 : CH 42



802.11ax (HE80) / Chain 1 : CH 42



802.11ax (HE80) / Chain 2 : CH 42



802.11ax (HE80) / Chain 3 : CH 42

Mode B

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Eric Peng
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802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
149	5745	18.44	17.04	16.78	17.31
157	5785	21.24	16.92	16.80	16.68
165	5825	16.68	16.68	16.32	16.56

802.11ax (HE20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
149	5745	19.20	19.32	19.20	19.20
157	5785	19.32	19.20	18.96	19.08
165	5825	19.08	19.08	19.08	19.08

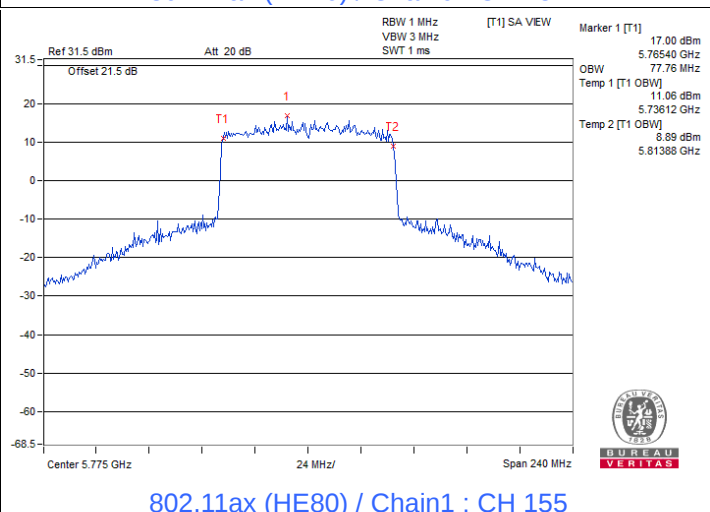
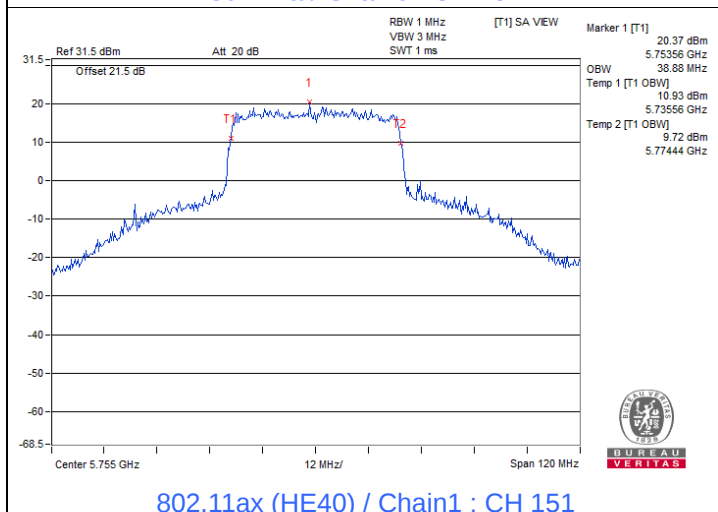
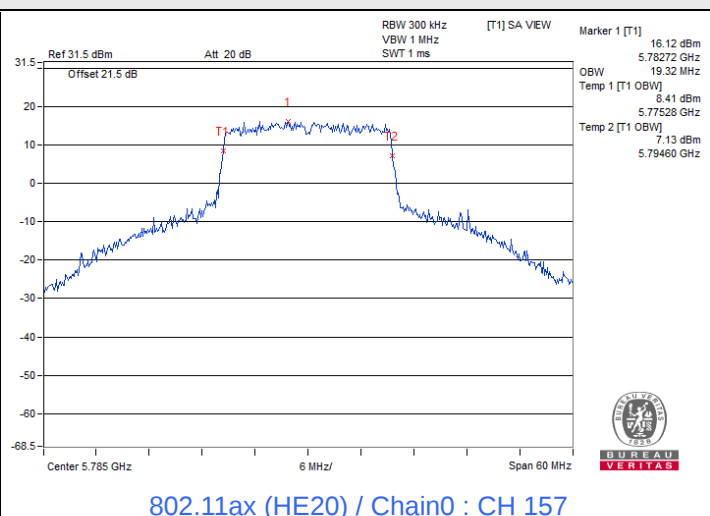
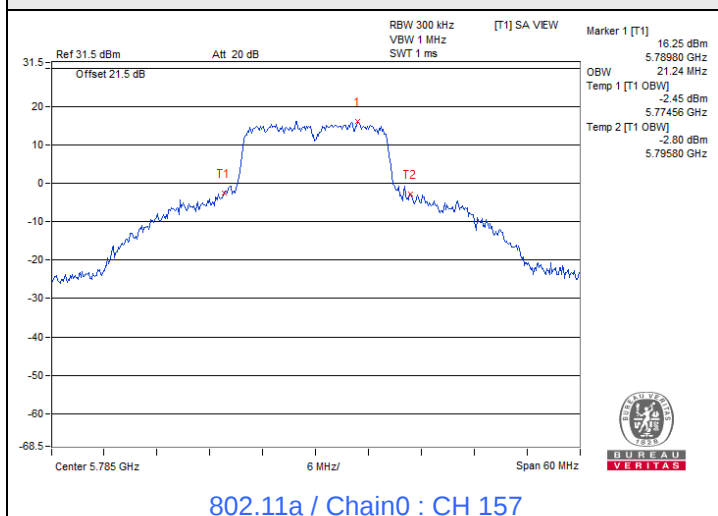
802.11ax (HE40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
151	5755	38.40	38.88	38.64	38.64
159	5795	38.43	38.64	38.40	38.64

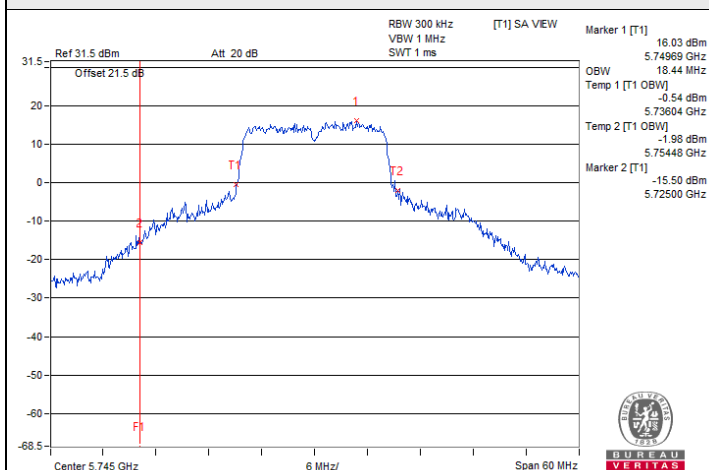
802.11ax (HE80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
155	5775	77.28	77.76	77.76	77.28

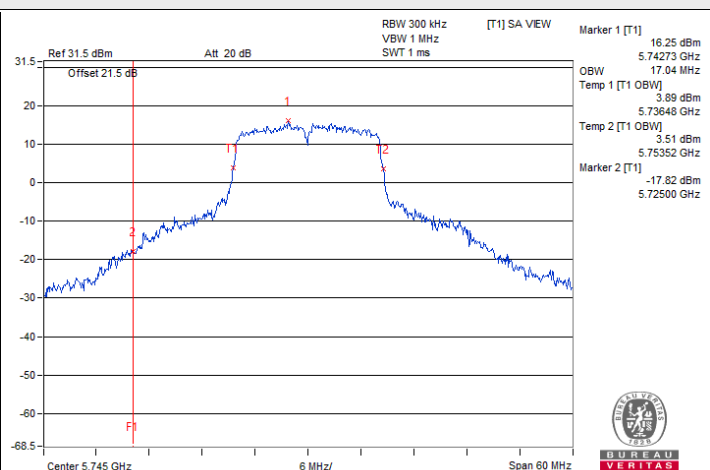
Spectrum Plot of Maximum Value



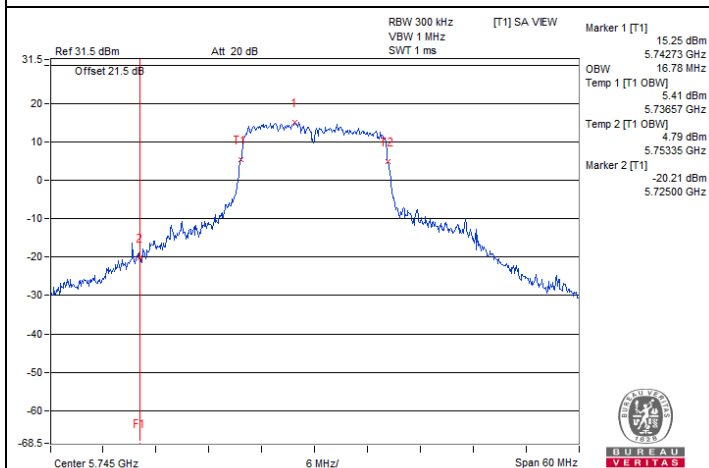
Spectrum Plot for nearby DFS band
(DFS is required, if 99% OCP straddle into U-NII-2C band)



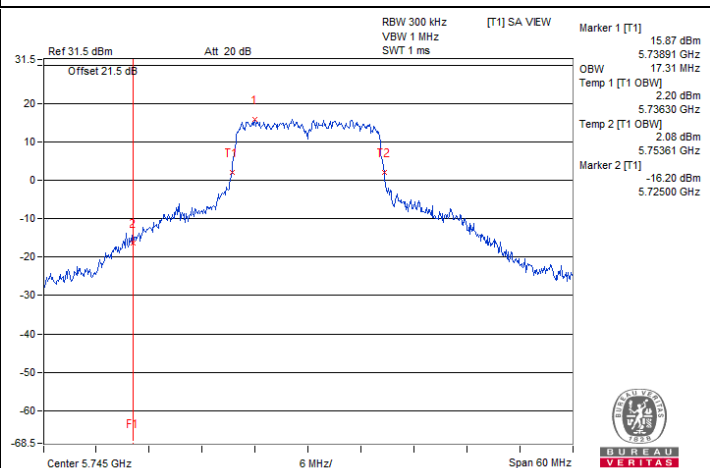
802.11a / Chain 0 : CH 149



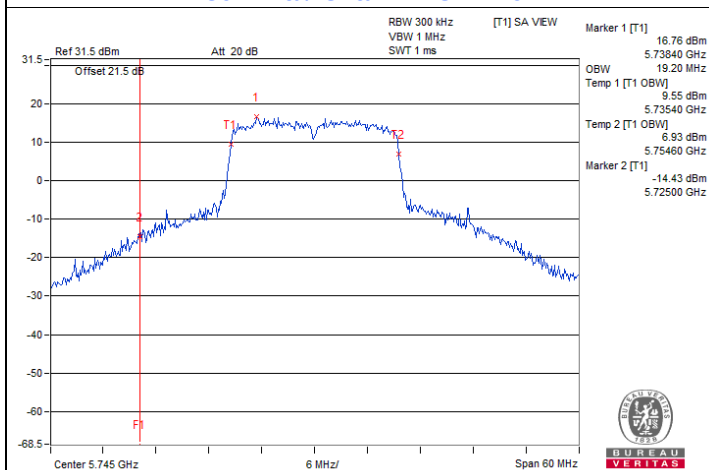
802.11a / Chain 1 : CH 149



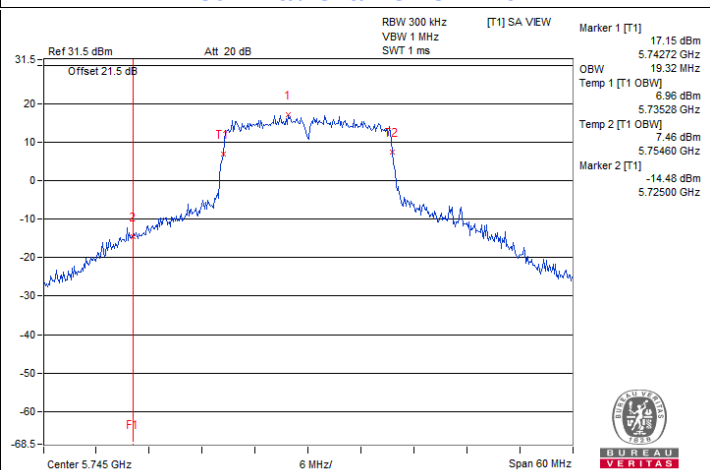
802.11a / Chain 2 : CH 149



802.11a / Chain 3 : CH 149

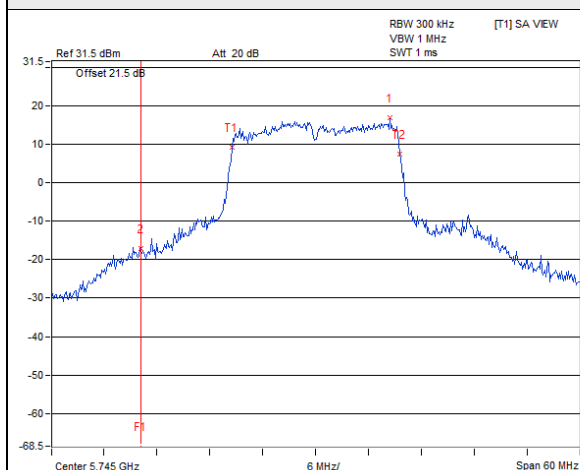


802.11ax (HE20) / Chain 0 : CH 149

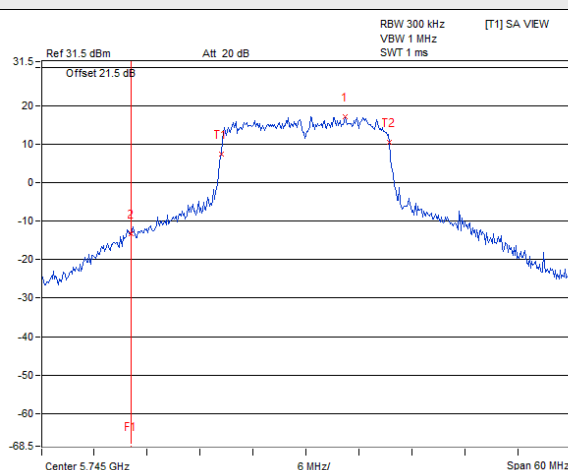


802.11ax (HE20) / Chain 1 : CH 149

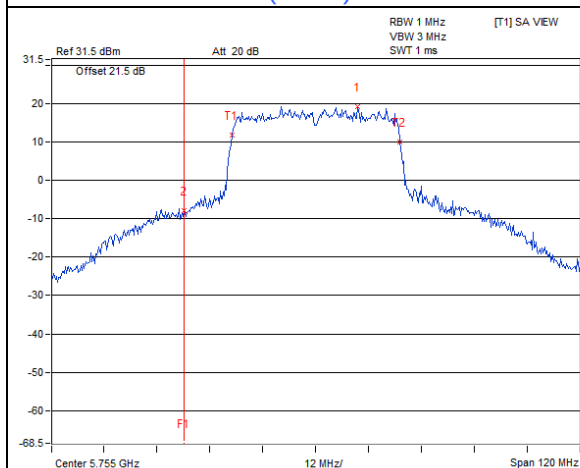
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2C band)



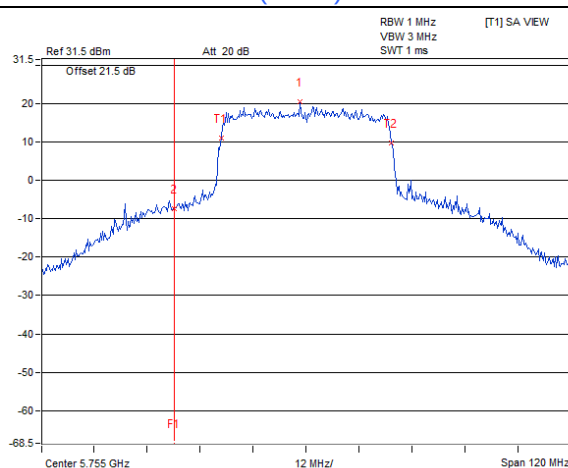
802.11ax (HE20) / Chain 2 : CH 149



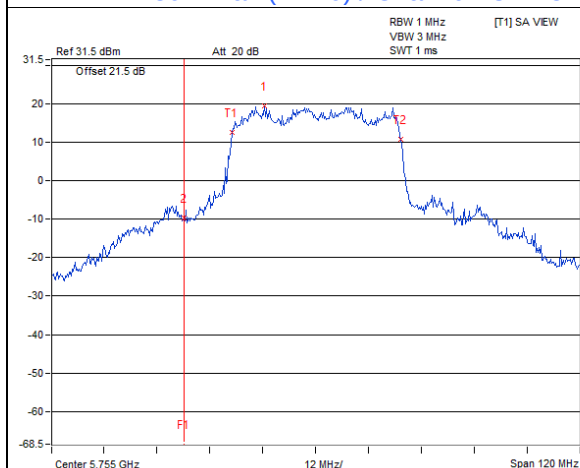
802.11ax (HE20) / Chain 3 : CH 149



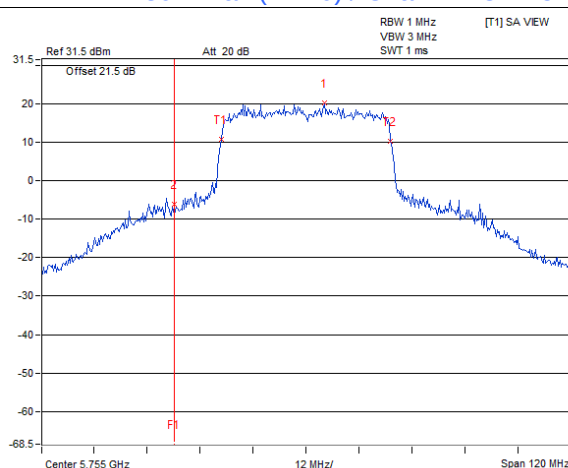
802.11ax (HE40) / Chain 0 : CH 151



802.11ax (HE40) / Chain 1 : CH 151

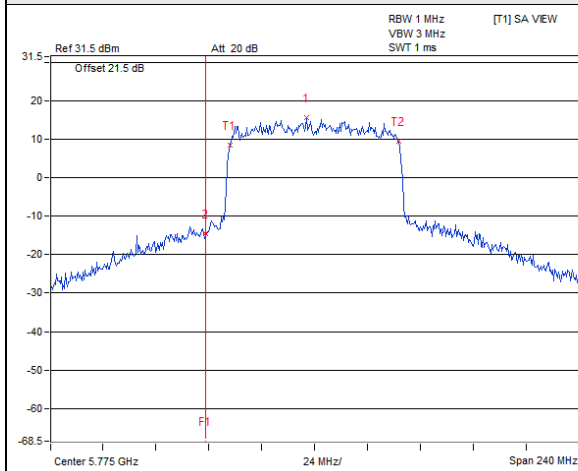


802.11ax (HE40) / Chain 2 : CH 151

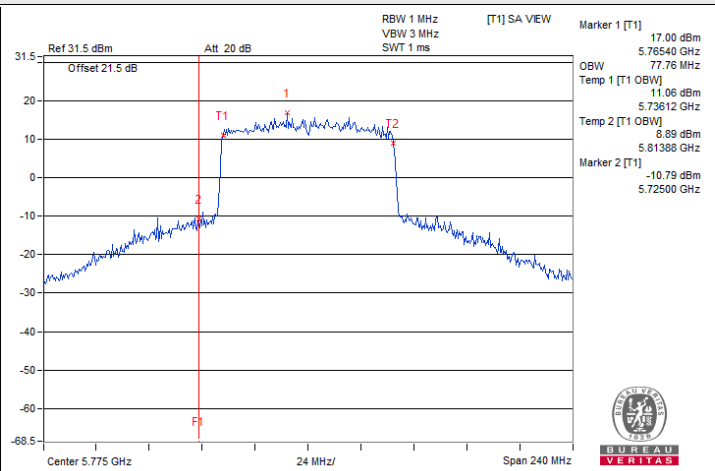


802.11ax (HE40) / Chain 3 : CH 151

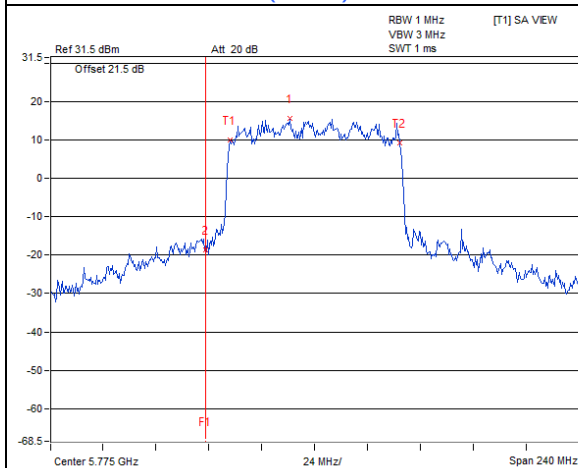
Spectrum Plot for nearby DFS band (DFS is required, if 99% OCP straddle into U-NII-2C band)



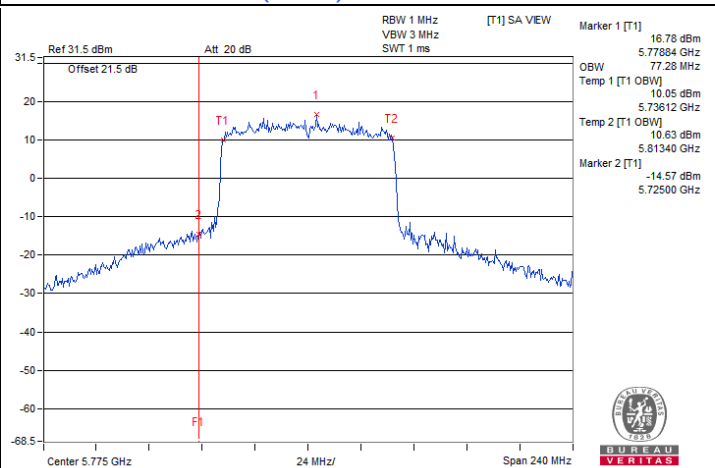
802.11ax (HE80) / Chain 0 : CH 155



802.11ax (HE80) / Chain 1 : CH 155



802.11ax (HE80) / Chain 2 : CH 155



802.11ax (HE80) / Chain 3 : CH 155

7.5 Frequency Stability

Mode A

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Eric Peng
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802.11a

Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
TEMP. (°C)	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	5179.9961	Pass	5179.9975	Pass	5179.9999	Pass	5179.9971	Pass
30	120	5179.999	Pass	5179.9981	Pass	5180.0007	Pass	5179.998	Pass
20	120	5180.0128	Pass	5180.0154	Pass	5180.0139	Pass	5180.0161	Pass
10	120	5179.9974	Pass	5179.9978	Pass	5180	Pass	5179.9962	Pass
0	120	5179.9944	Pass	5179.9968	Pass	5179.9938	Pass	5179.9933	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5180 MHz									
TEMP. (°C)	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	5179.9996	Pass	5179.998	Pass	5179.9988	Pass	5180.0024	Pass
	120	5179.9974	Pass	5179.9978	Pass	5180	Pass	5179.9962	Pass
	102	5179.9971	Pass	5179.9999	Pass	5179.9986	Pass	5179.9982	Pass

Mode B

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Eric Peng
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802.11a

Frequency Stability Versus Temp.									
Operating Frequency: 5745 MHz									
TEMP. (°C)	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	5744.974	Pass	5744.9704	Pass	5744.9715	Pass	5744.9728	Pass
30	120	5744.9939	Pass	5744.9892	Pass	5744.9918	Pass	5744.9899	Pass
20	120	5744.9951	Pass	5744.9914	Pass	5744.9922	Pass	5744.9931	Pass
10	120	5745.0058	Pass	5745.0086	Pass	5745.0096	Pass	5745.0094	Pass
0	120	5745.0278	Pass	5745.0223	Pass	5745.0264	Pass	5745.0266	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5745 MHz									
TEMP. (°C)	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	5745.017	Pass	5745.0136	Pass	5745.0139	Pass	5745.0139	Pass
	120	5745.0058	Pass	5745.0086	Pass	5745.0096	Pass	5745.0094	Pass
	102	5744.9922	Pass	5744.9971	Pass	5744.9958	Pass	5744.995	Pass

7.6 AC Power Conducted Emissions

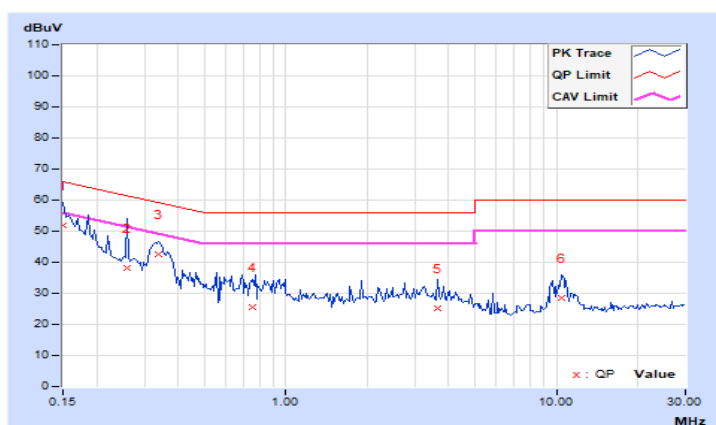
Mode A

RF Mode	TX 802.11ax (HE40)	Channel	CH 46 : 5230 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, 66% RH
Tested By	Tom Yang		

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	10.07	41.77	23.52	51.84	33.59	66.00	56.00	-14.16	-22.41
2	0.25938	10.09	27.98	18.90	38.07	28.99	61.45	51.45	-23.38	-22.46
3	0.33750	10.10	32.54	27.93	42.64	38.03	59.26	49.26	-16.62	-11.23
4	0.75156	10.13	15.55	5.16	25.68	15.29	56.00	46.00	-30.32	-30.71
5	3.61719	10.32	14.99	9.22	25.31	19.54	56.00	46.00	-30.69	-26.46
6	10.43750	10.82	17.82	11.68	28.64	22.50	60.00	50.00	-31.36	-27.50

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

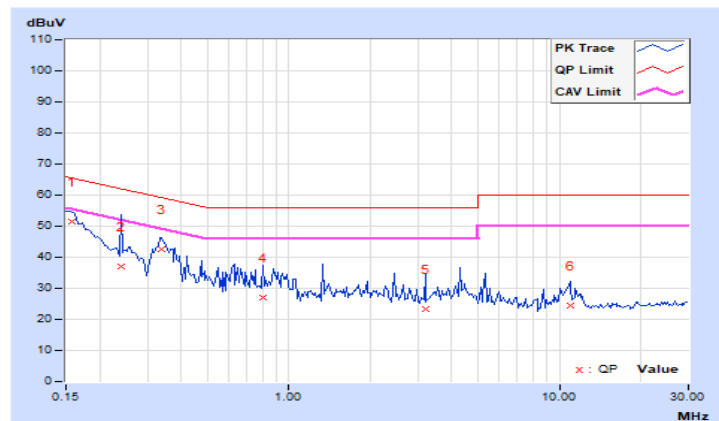


RF Mode	TX 802.11ax (HE40)	Channel	CH 46 : 5230 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Tom Yang		

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	0.15781	10.05	41.50	23.06	51.55	33.11	65.58	55.58	-14.03	-22.47
2	0.23984	10.08	27.14	12.22	37.22	22.30	62.10	52.10	-24.88	-29.80
3	0.33750	10.09	32.64	27.17	42.73	37.26	59.26	49.26	-16.53	-12.00
4	0.80625	10.13	16.83	10.08	26.96	20.21	56.00	46.00	-29.04	-25.79
5	3.19141	10.29	13.04	6.11	23.33	16.40	56.00	46.00	-32.67	-29.60
6	10.96094	10.74	13.63	7.16	24.37	17.90	60.00	50.00	-35.63	-32.10

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



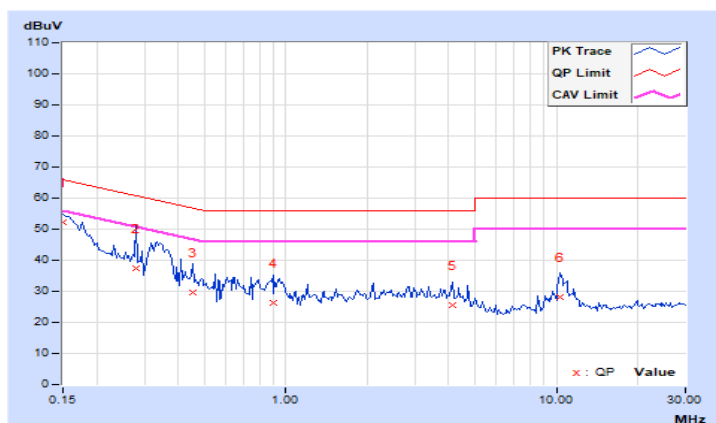
Mode B

RF Mode	TX 802.11ax (HE40)	Channel	CH 159 : 5795 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, 66% RH
Tested By	Tom Yang		

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	10.07	42.08	23.64	52.15	33.71	66.00	56.00	-13.85	-22.29
2	0.27891	10.09	27.34	18.15	37.43	28.24	60.85	50.85	-23.42	-22.61
3	0.45469	10.11	19.41	12.40	29.52	22.51	56.79	46.79	-27.27	-24.28
4	0.89609	10.14	16.12	8.04	26.26	18.18	56.00	46.00	-29.74	-27.82
5	4.10938	10.36	15.03	9.10	25.39	19.46	56.00	46.00	-30.61	-26.54
6	10.26172	10.80	17.34	11.10	28.14	21.90	60.00	50.00	-31.86	-28.10

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

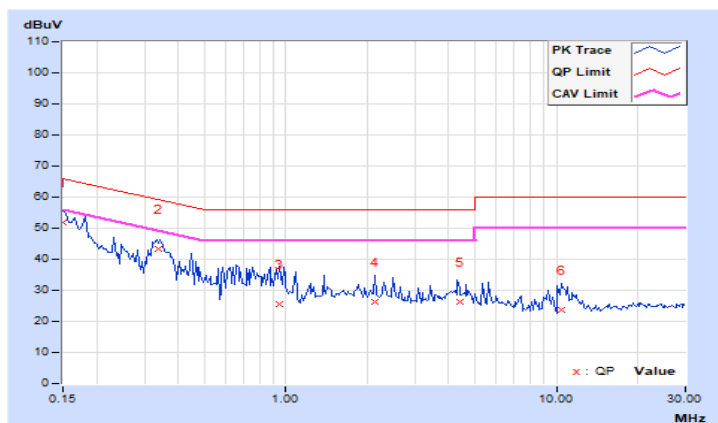


RF Mode	TX 802.11ax (HE40)	Channel	CH 159 : 5795 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Tom Yang		

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	10.05	41.71	23.70	51.76	33.75	66.00	56.00	-14.24	-22.25
2	0.33750	10.09	33.36	28.39	43.45	38.48	59.26	49.26	-15.81	-10.78
3	0.95078	10.14	15.46	7.82	25.60	17.96	56.00	46.00	-30.40	-28.04
4	2.14453	10.23	16.21	10.09	26.44	20.32	56.00	46.00	-29.56	-25.68
5	4.38281	10.35	15.93	8.95	26.28	19.30	56.00	46.00	-29.72	-26.70
6	10.41406	10.71	12.81	4.41	23.52	15.12	60.00	50.00	-36.48	-34.88

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



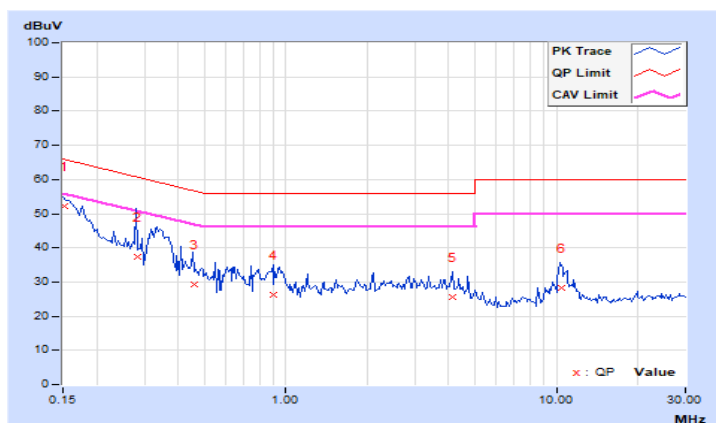
Mode C

RF Mode	TX 802.11ax (HE40)	Channel	CH 46 : 5230 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, 68% RH
Tested By	Tom Yang		

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	0.15157	10.07	42.15	23.76	52.22	33.83	65.91	55.91	-13.69	-22.08
2	0.28154	10.09	27.15	18.01	37.24	28.10	60.77	50.77	-23.53	-22.67
3	0.46017	10.11	19.34	12.26	29.45	22.37	56.69	46.69	-27.24	-24.32
4	0.90175	10.14	16.26	8.17	26.40	18.31	56.00	46.00	-29.60	-27.69
5	4.11570	10.36	15.23	9.35	25.59	19.71	56.00	46.00	-30.41	-26.29
6	10.40157	10.81	17.56	11.46	28.37	22.27	60.00	50.00	-31.63	-27.73

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

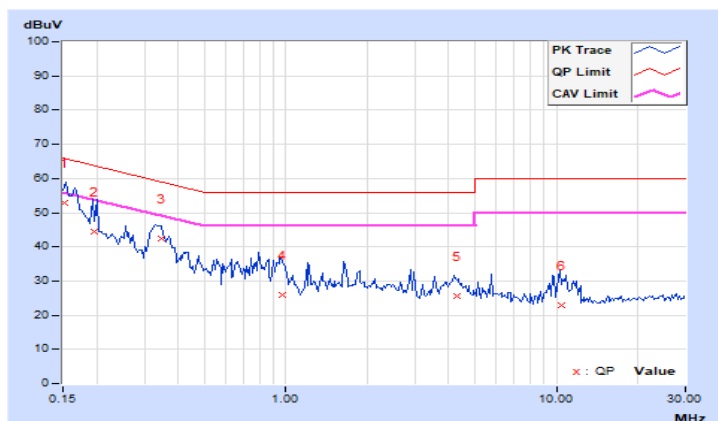


RF Mode	TX 802.11ax (HE40)	Channel	CH 46 : 5230 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	0.15217	10.05	42.76	24.35	52.81	34.40	65.88	55.88	-13.07	-21.48
2	0.19576	10.08	34.35	18.46	44.43	28.54	63.79	53.79	-19.36	-25.25
3	0.34530	10.09	32.17	23.11	42.26	33.20	59.07	49.07	-16.81	-15.87
4	0.96547	10.14	15.86	8.57	26.00	18.71	56.00	46.00	-30.00	-27.29
5	4.29717	10.35	15.34	8.46	25.69	18.81	56.00	46.00	-30.31	-27.19
6	10.40533	10.70	12.34	4.46	23.04	15.16	60.00	50.00	-36.96	-34.84

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



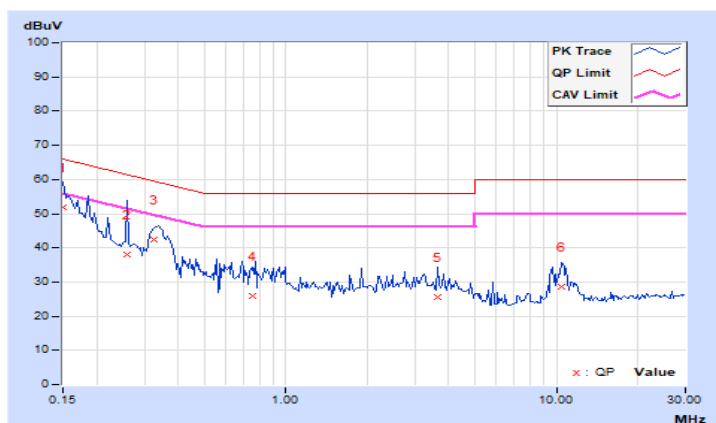
Mode D

RF Mode	TX 802.11ax (HE40)	Channel	CH 159 : 5795 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, 68% RH
Tested By	Tom Yang		

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	10.07	41.86	23.60	51.93	33.67	66.00	56.00	-14.07	-22.33
2	0.26015	10.09	28.07	18.90	38.16	28.99	61.43	51.43	-23.27	-22.44
3	0.32475	10.10	32.43	27.76	42.53	37.86	59.58	49.58	-17.05	-11.72
4	0.75507	10.13	15.67	5.35	25.80	15.48	56.00	46.00	-30.20	-30.52
5	3.62573	10.32	15.17	9.35	25.49	19.67	56.00	46.00	-30.51	-26.33
6	10.45706	10.82	17.94	11.77	28.76	22.59	60.00	50.00	-31.24	-27.41

Remarks:

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

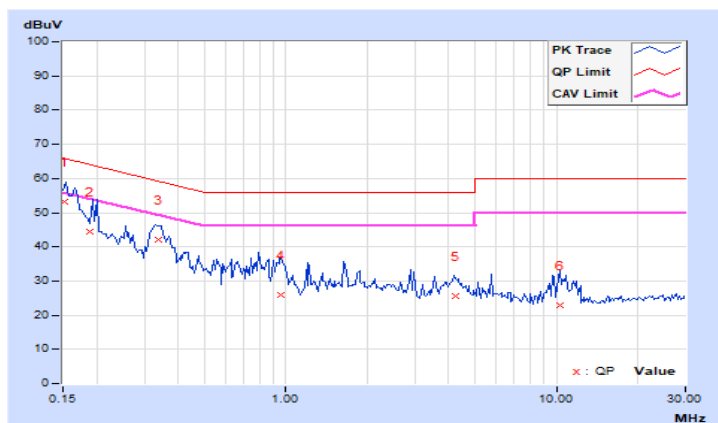


RF Mode	TX 802.11ax (HE40)	Channel	CH 159 : 5795 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 68% RH
Tested By	Tom Yang		

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	0.15177	10.05	43.11	24.53	53.16	34.58	65.90	55.90	-12.74	-21.32
2	0.18949	10.07	34.30	18.33	44.37	28.40	64.06	54.06	-19.69	-25.66
3	0.34015	10.09	32.15	23.16	42.24	33.25	59.20	49.20	-16.96	-15.95
4	0.96301	10.14	15.86	8.54	26.00	18.68	56.00	46.00	-30.00	-27.32
5	4.22371	10.34	15.37	8.21	25.71	18.55	56.00	46.00	-30.29	-27.45
6	10.37611	10.70	12.34	4.46	23.04	15.16	60.00	50.00	-36.96	-34.84

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

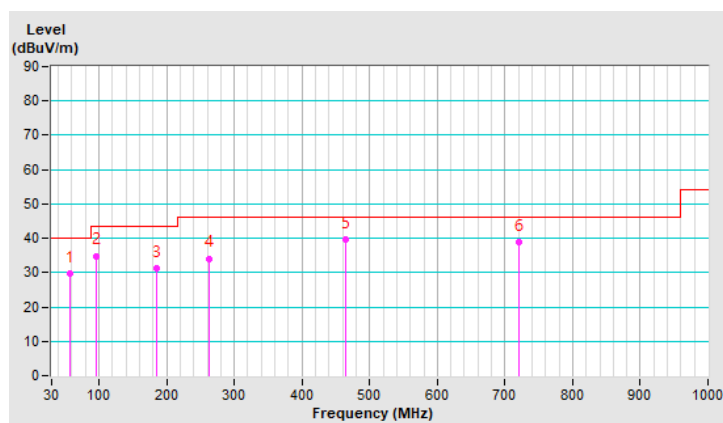
Mode A

RF Mode	TX 802.11ax (HE40)	Channel	CH 46 : 5230 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Tom Yang		

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	58.06	29.7 QP	40.0	-10.3	1.50 H	135	42.5	-12.8
2	95.62	34.9 QP	43.5	-8.6	2.00 H	258	52.1	-17.2
3	185.73	31.4 QP	43.5	-12.1	1.50 H	266	45.2	-13.8
4	262.41	34.1 QP	46.0	-11.9	1.00 H	336	46.1	-12.0
5	464.00	39.8 QP	46.0	-6.2	1.50 H	62	45.3	-5.5
6	719.99	39.0 QP	46.0	-7.0	1.00 H	2	39.2	-0.2

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.

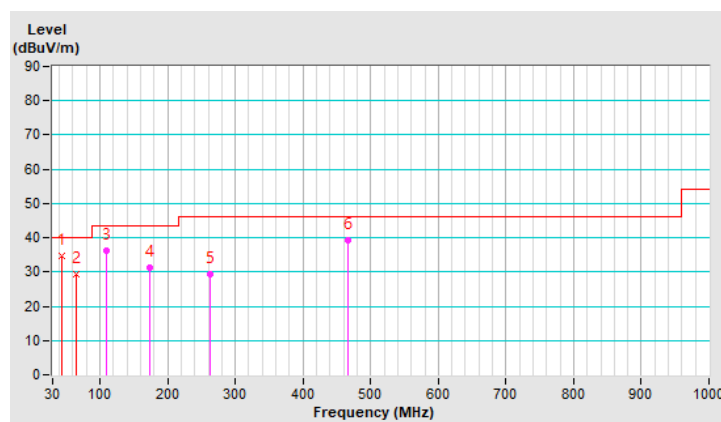


RF Mode	TX 802.11ax (HE40)	Channel	CH 46 : 5230 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Tom Yang		

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	43.67	34.5 QP	40.0	-5.5	1.00 V	247	46.9	-12.4
2	64.87	29.3 QP	40.0	-10.7	1.50 V	169	42.9	-13.6
3	108.57	36.2 QP	43.5	-7.3	1.50 V	91	51.1	-14.9
4	174.21	31.2 QP	43.5	-12.3	1.00 V	140	43.7	-12.5
5	262.44	29.5 QP	46.0	-16.5	2.00 V	170	41.5	-12.0
6	467.23	39.3 QP	46.0	-6.7	1.00 V	312	44.8	-5.5

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 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.



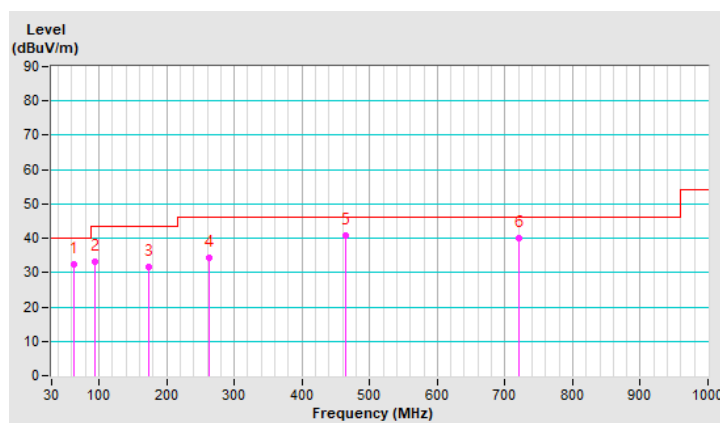
Mode B

RF Mode	TX 802.11ax (HE40)	Channel	CH 159 : 5795 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Tom Yang		

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	63.54	32.2 QP	40.0	-7.8	3.00 H	250	45.4	-13.2
2	94.97	33.1 QP	43.5	-10.4	2.00 H	258	50.3	-17.2
3	173.58	31.8 QP	43.5	-11.7	2.00 H	89	44.2	-12.4
4	262.39	34.3 QP	46.0	-11.7	1.00 H	355	46.3	-12.0
5	464.00	40.9 QP	46.0	-5.1	2.00 H	62	46.4	-5.5
6	720.01	40.1 QP	46.0	-5.9	1.00 H	22	40.2	-0.1

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.

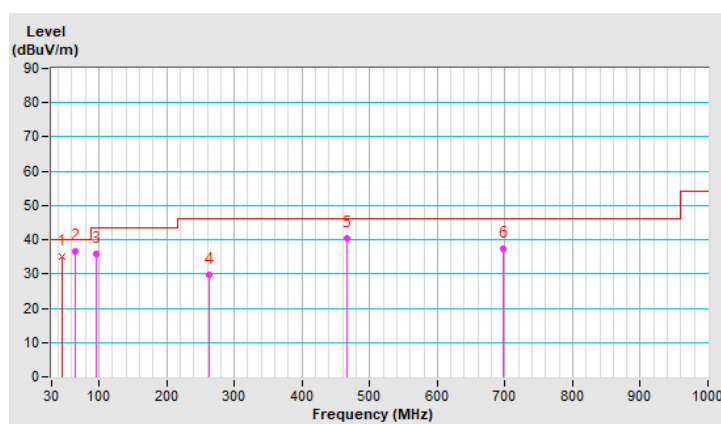


RF Mode	TX 802.11ax (HE40)	Channel	CH 159 : 5795 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Tom Yang		

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	46.35	34.9 QP	40.0	-5.1	1.00 V	269	47.1	-12.2
2	65.19	36.7 QP	40.0	-3.3	1.50 V	210	50.4	-13.7
3	95.28	35.9 QP	43.5	-7.6	1.00 V	148	53.1	-17.2
4	262.41	29.8 QP	46.0	-16.2	2.00 V	169	41.8	-12.0
5	467.23	40.3 QP	46.0	-5.7	1.00 V	311	45.8	-5.5
6	697.70	37.5 QP	46.0	-8.5	1.50 V	360	37.8	-0.3

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 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.



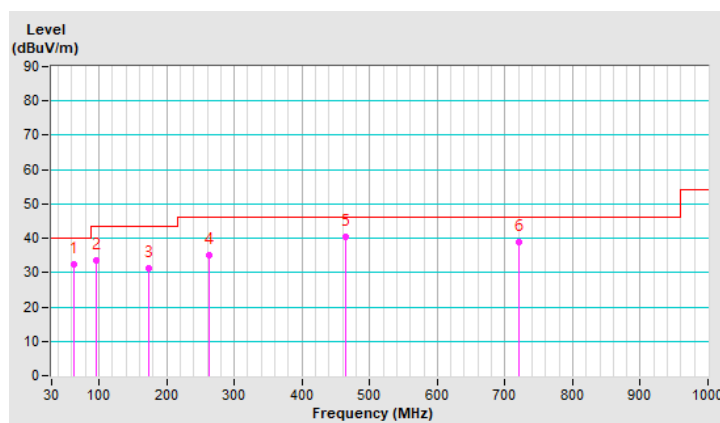
Mode C

RF Mode	TX 802.11ax (HE40)	Channel	CH 46 : 5230 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Tom Yang		

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	63.87	32.5 QP	40.0	-7.5	2.00 H	213	45.7	-13.2
2	95.10	33.5 QP	43.5	-10.0	2.00 H	281	50.7	-17.2
3	173.13	31.2 QP	43.5	-12.3	1.00 H	56	43.6	-12.4
4	262.61	34.9 QP	46.0	-11.1	1.00 H	360	46.9	-12.0
5	463.67	40.3 QP	46.0	-5.7	1.50 H	5	45.8	-5.5
6	719.77	39.0 QP	46.0	-7.0	1.00 H	0	39.2	-0.2

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.

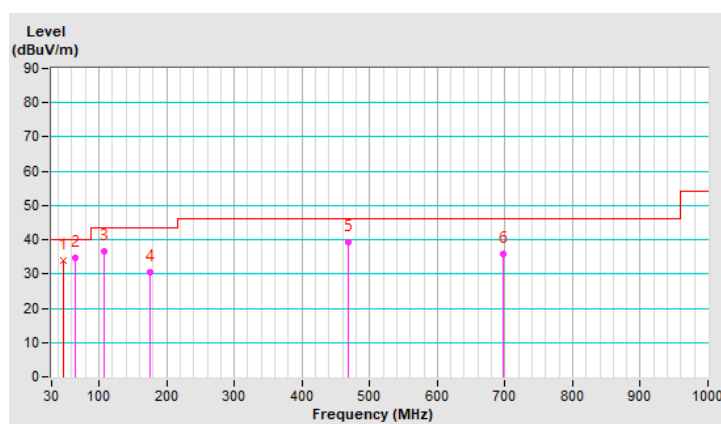


RF Mode	TX 802.11ax (HE40)	Channel	CH 46 : 5230 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Tom Yang		

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	46.62	33.8 QP	40.0	-6.2	1.00 V	292	46.0	-12.2
2	64.58	34.8 QP	40.0	-5.2	1.00 V	3	48.3	-13.5
3	107.92	36.6 QP	43.5	-6.9	1.50 V	61	51.5	-14.9
4	175.26	30.5 QP	43.5	-13.0	2.00 V	342	43.1	-12.6
5	468.04	39.4 QP	46.0	-6.6	1.00 V	355	44.9	-5.5
6	697.98	35.8 QP	46.0	-10.2	1.50 V	7	36.1	-0.3

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 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.



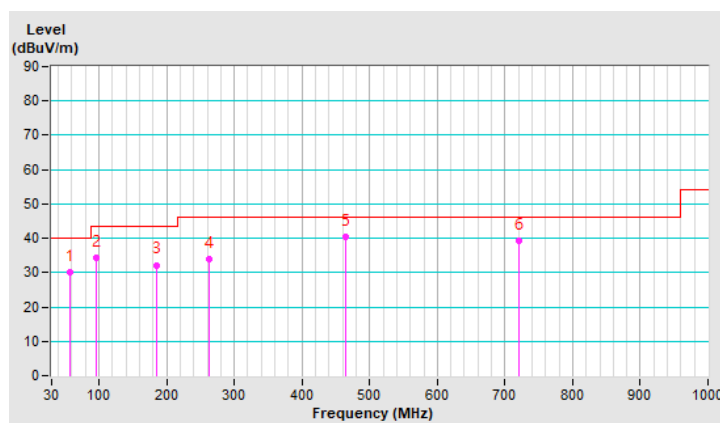
Mode D

RF Mode	TX 802.11ax (HE40)	Channel	CH 159 : 5795 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Tom Yang		

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	57.83	30.1 QP	40.0	-9.9	1.00 H	306	42.9	-12.8
2	95.30	34.4 QP	43.5	-9.1	1.50 H	235	51.6	-17.2
3	185.73	32.2 QP	43.5	-11.3	1.50 H	289	46.0	-13.8
4	262.09	33.9 QP	46.0	-12.1	1.00 H	356	45.9	-12.0
5	464.22	40.3 QP	46.0	-5.7	2.00 H	2	45.8	-5.5
6	720.12	39.4 QP	46.0	-6.6	1.00 H	360	39.5	-0.1

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.

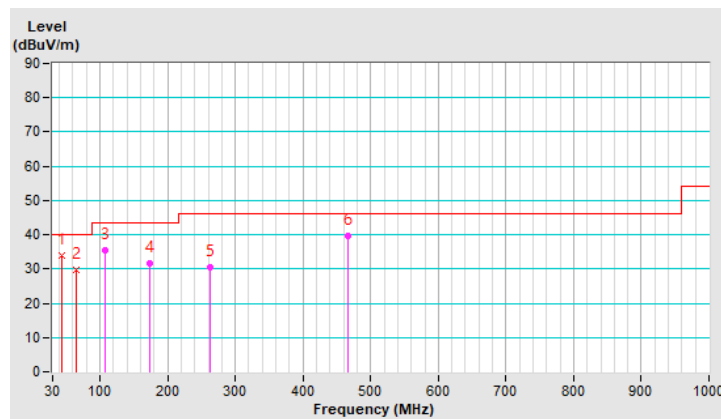


RF Mode	TX 802.11ax (HE40)	Channel	CH 159 : 5795 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Tom Yang		

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	43.46	34.0 QP	40.0	-6.0	1.00 V	270	46.5	-12.5
2	64.59	29.7 QP	40.0	-10.3	2.00 V	243	43.2	-13.5
3	108.03	35.6 QP	43.5	-7.9	1.00 V	56	50.5	-14.9
4	174.44	31.7 QP	43.5	-11.8	1.00 V	173	44.2	-12.5
5	262.66	30.4 QP	46.0	-15.6	1.50 V	303	42.4	-12.0
6	466.71	39.7 QP	46.0	-6.3	1.00 V	345	45.2	-5.5

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 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

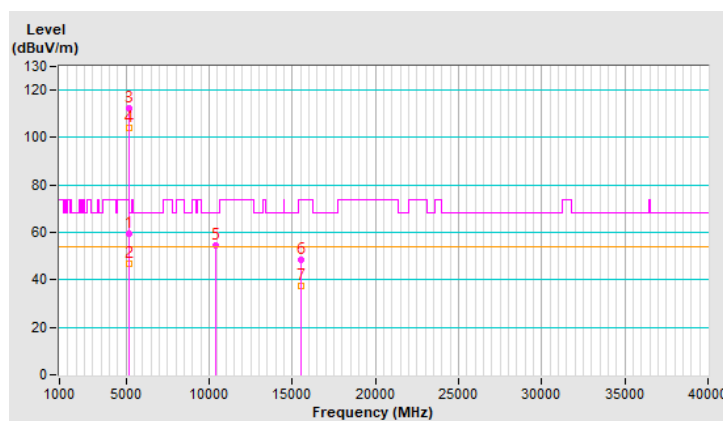
Mode A

RF Mode	TX 802.11a	Channel	CH 36 : 5180 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	25°C, 66% 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	5150.00	59.7 PK	74.0	-14.3	3.42 H	16	58.8	0.9
2	5150.00	46.6 AV	54.0	-7.4	3.42 H	16	45.7	0.9
3	*5180.00	112.6 PK			3.42 H	16	112.0	0.6
4	*5180.00	104.1 AV			3.42 H	16	103.5	0.6
5	#10360.00	54.7 PK	68.2	-13.5	1.49 H	134	44.3	10.4
6	15540.00	48.5 PK	74.0	-25.5	1.64 H	152	37.0	11.5
7	15540.00	37.2 AV	54.0	-16.8	1.64 H	152	25.7	11.5

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.
6. " # ": The radiated frequency is out of the restricted band.

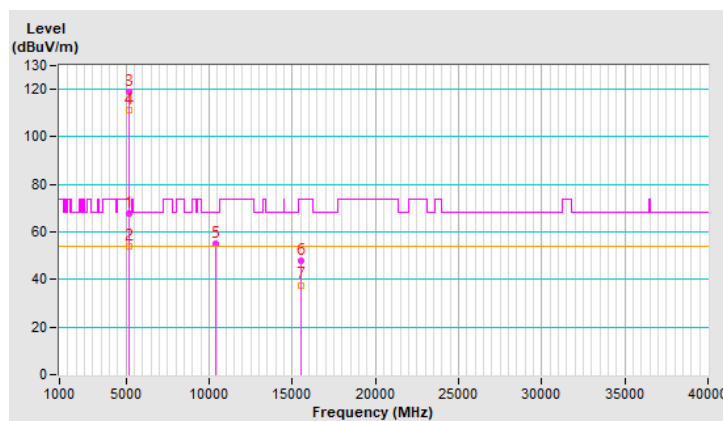


RF Mode	TX 802.11a	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	5147.21	67.5 PK	74.0	-6.5	1.28 V	12	66.6	0.9
2	5147.21	53.8 AV	54.0	-0.2	1.28 V	12	52.9	0.9
3	*5180.00	119.2 PK			1.28 V	12	118.6	0.6
4	*5180.00	111.1 AV			1.28 V	12	110.5	0.6
5	#10360.00	55.1 PK	68.2	-13.1	2.44 V	228	44.7	10.4
6	15540.00	47.9 PK	74.0	-26.1	2.79 V	176	36.4	11.5
7	15540.00	37.7 AV	54.0	-16.3	2.79 V	176	26.2	11.5

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.
6. " # ": The radiated frequency is out of the restricted band.

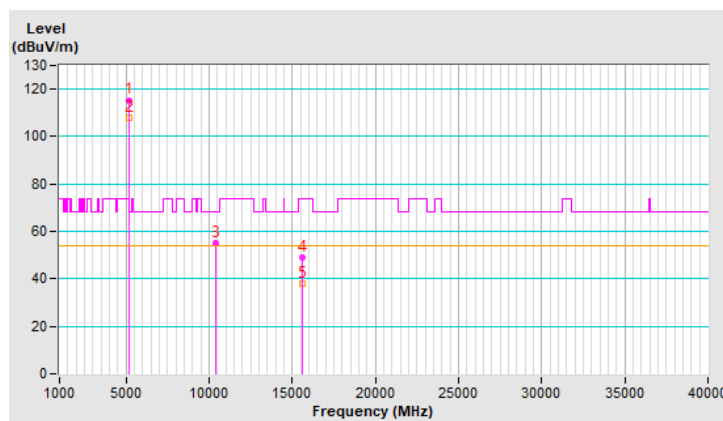


RF Mode	TX 802.11a	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	*5200.00	115.4 PK			2.68 H	283	115.1	0.3
2	*5200.00	108.0 AV			2.68 H	283	107.7	0.3
3	#10400.00	55.2 PK	68.2	-13.0	1.60 H	132	44.6	10.6
4	15600.00	49.2 PK	74.0	-24.8	1.70 H	159	37.7	11.5
5	15600.00	38.1 AV	54.0	-15.9	1.70 H	159	26.6	11.5

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.
6. " # ": The radiated frequency is out of the restricted band.

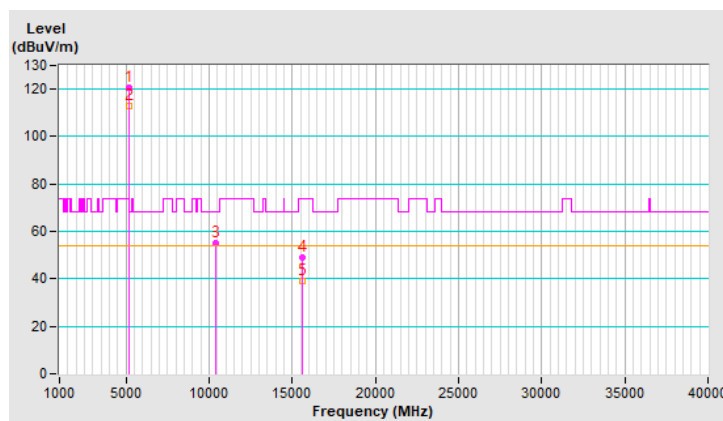


RF Mode	TX 802.11a	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	*5200.00	120.8 PK			1.35 V	16	120.5	0.3
2	*5200.00	112.7 AV			1.35 V	16	112.4	0.3
3	#10400.00	55.2 PK	68.2	-13.0	2.53 V	216	44.6	10.6
4	15600.00	49.1 PK	74.0	-24.9	2.83 V	182	37.6	11.5
5	15600.00	38.9 AV	54.0	-15.1	2.83 V	182	27.4	11.5

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.
6. " # ": The radiated frequency is out of the restricted band.

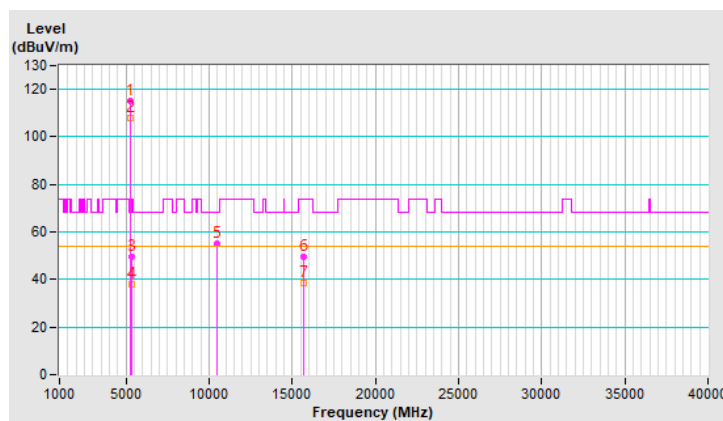


RF Mode	TX 802.11a	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	*5240.00	115.2 PK			2.71 H	286	115.0	0.2
2	*5240.00	107.7 AV			2.71 H	286	107.5	0.2
3	5357.20	49.7 PK	74.0	-24.3	2.71 H	286	49.2	0.5
4	5357.20	37.8 AV	54.0	-16.2	2.71 H	286	37.3	0.5
5	#10480.00	55.3 PK	68.2	-12.9	1.54 H	142	44.9	10.4
6	15720.00	49.8 PK	74.0	-24.2	1.67 H	148	38.8	11.0
7	15720.00	38.5 AV	54.0	-15.5	1.67 H	148	27.5	11.0

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.
6. " # ": The radiated frequency is out of the restricted band.

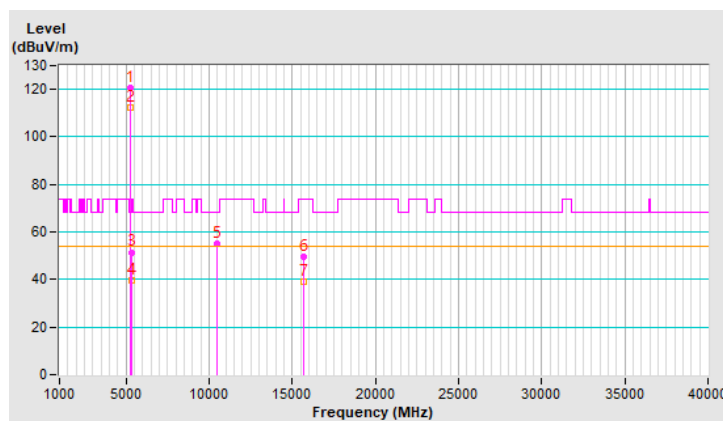


RF Mode	TX 802.11a	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	*5240.00	120.8 PK			1.55 V	9	120.6	0.2
2	*5240.00	112.5 AV			1.55 V	9	112.3	0.2
3	5351.86	51.5 PK	74.0	-22.5	1.55 V	9	51.0	0.5
4	5351.86	39.8 AV	54.0	-14.2	1.55 V	9	39.3	0.5
5	#10480.00	54.9 PK	68.2	-13.3	2.49 V	229	44.5	10.4
6	15720.00	49.4 PK	74.0	-24.6	2.83 V	181	38.4	11.0
7	15720.00	39.0 AV	54.0	-15.0	2.83 V	181	28.0	11.0

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.
6. " # ": The radiated frequency is out of the restricted band.

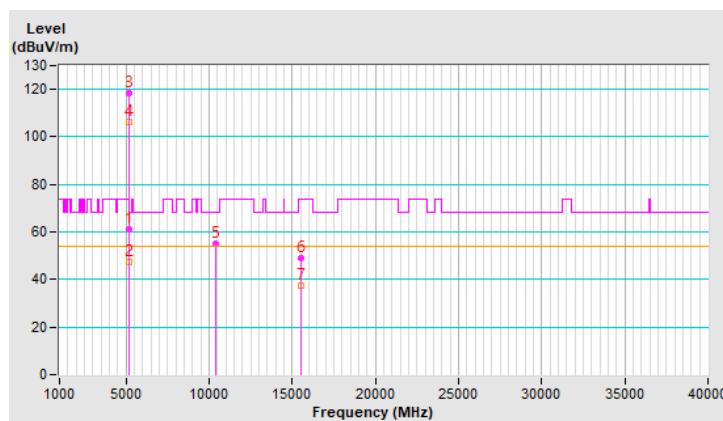


RF Mode	TX 802.11ax (HE20)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	5150.00	61.1 PK	74.0	-12.9	2.43 H	264	60.2	0.9
2	5150.00	47.4 AV	54.0	-6.6	2.43 H	264	46.5	0.9
3	*5180.00	118.3 PK			2.43 H	264	117.7	0.6
4	*5180.00	106.1 AV			2.43 H	264	105.5	0.6
5	#10360.00	55.2 PK	68.2	-13.0	1.45 H	127	44.8	10.4
6	15540.00	48.8 PK	74.0	-25.2	1.65 H	162	37.3	11.5
7	15540.00	37.2 AV	54.0	-16.8	1.65 H	162	25.7	11.5

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.
6. " # ": The radiated frequency is out of the restricted band.

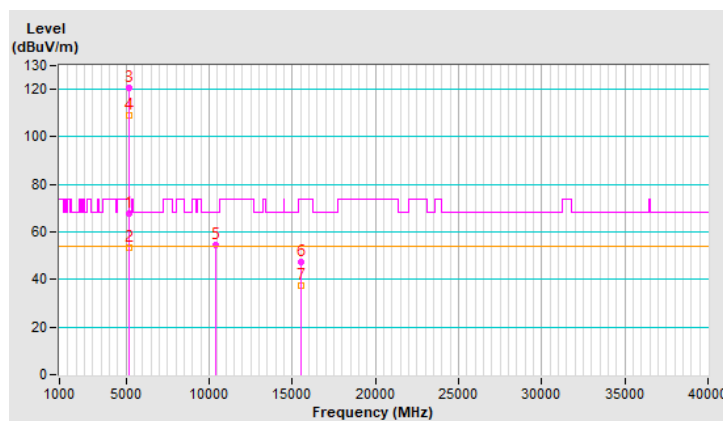


RF Mode	TX 802.11ax (HE20)	Channel	CH 36 : 5180 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	5150.00	67.9 PK	74.0	-6.1	1.36 V	320	67.0	0.9
2	5150.00	53.4 AV	54.0	-0.6	1.36 V	320	52.5	0.9
3	*5180.00	120.5 PK			1.36 V	320	119.9	0.6
4	*5180.00	109.3 AV			1.36 V	320	108.7	0.6
5	#10360.00	54.4 PK	68.2	-13.8	2.42 V	235	44.0	10.4
6	15540.00	47.5 PK	74.0	-26.5	2.78 V	167	36.0	11.5
7	15540.00	37.2 AV	54.0	-16.8	2.78 V	167	25.7	11.5

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.
6. " # ": The radiated frequency is out of the restricted band.

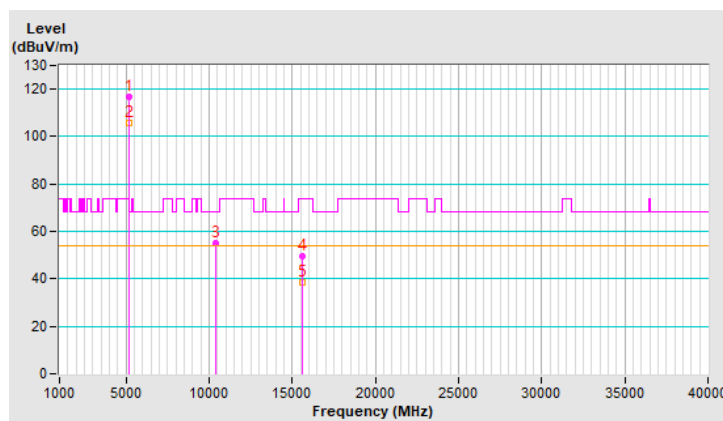


RF Mode	TX 802.11ax (HE20)	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	*5200.00	117.0 PK			2.48 H	268	116.7	0.3
2	*5200.00	105.9 AV			2.48 H	268	105.6	0.3
3	#10400.00	55.2 PK	68.2	-13.0	1.50 H	147	44.6	10.6
4	15600.00	49.8 PK	74.0	-24.2	1.71 H	152	38.3	11.5
5	15600.00	38.6 AV	54.0	-15.4	1.71 H	152	27.1	11.5

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.
6. " # ": The radiated frequency is out of the restricted band.

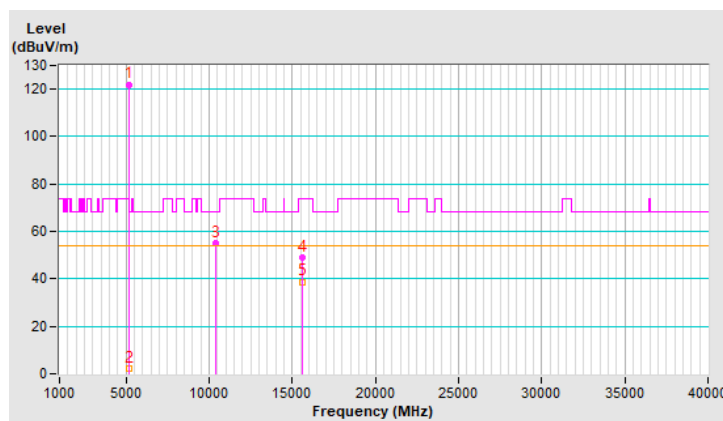


RF Mode	TX 802.11ax (HE20)	Channel	CH 40 : 5200 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	*5200.00	122.0 PK			1.08 V	182	121.7	0.3
2	*5200.00	2.0 AV			1.08 V	182	1.7	0.3
3	#10400.00	55.3 PK	68.2	-12.9	2.43 V	234	44.7	10.6
4	15600.00	48.8 PK	74.0	-25.2	2.81 V	177	37.3	11.5
5	15600.00	38.8 AV	54.0	-15.2	2.81 V	177	27.3	11.5

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.
6. " # ": The radiated frequency is out of the restricted band.

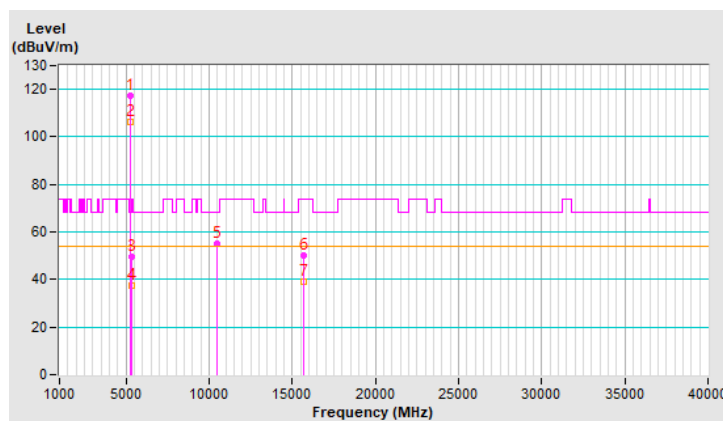


RF Mode	TX 802.11ax (HE20)	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	*5240.00	117.1 PK			2.68 H	279	116.9	0.2
2	*5240.00	106.1 AV			2.68 H	279	105.9	0.2
3	5351.00	49.7 PK	74.0	-24.3	2.68 H	279	49.2	0.5
4	5351.00	37.5 AV	54.0	-16.5	2.68 H	279	37.0	0.5
5	#10480.00	55.1 PK	68.2	-13.1	1.54 H	147	44.7	10.4
6	15720.00	50.2 PK	74.0	-23.8	1.64 H	138	39.2	11.0
7	15720.00	38.9 AV	54.0	-15.1	1.64 H	138	27.9	11.0

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.
6. " # ": The radiated frequency is out of the restricted band.

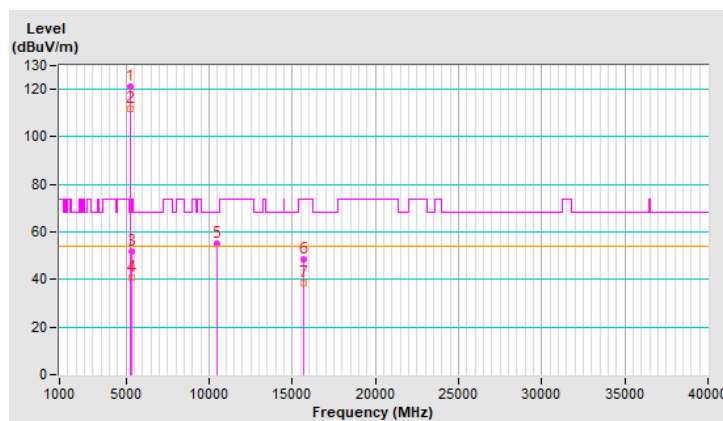


RF Mode	TX 802.11ax (HE20)	Channel	CH 48 : 5240 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	*5240.00	121.4 PK			1.04 V	187	121.2	0.2
2	*5240.00	111.8 AV			1.04 V	187	111.6	0.2
3	5350.00	51.9 PK	74.0	-22.1	1.04 V	187	51.5	0.4
4	5350.00	40.6 AV	54.0	-13.4	1.04 V	187	40.2	0.4
5	#10480.00	55.0 PK	68.2	-13.2	2.40 V	222	44.6	10.4
6	15720.00	48.5 PK	74.0	-25.5	2.73 V	186	37.5	11.0
7	15720.00	38.4 AV	54.0	-15.6	2.73 V	186	27.4	11.0

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.
6. " # ": The radiated frequency is out of the restricted band.

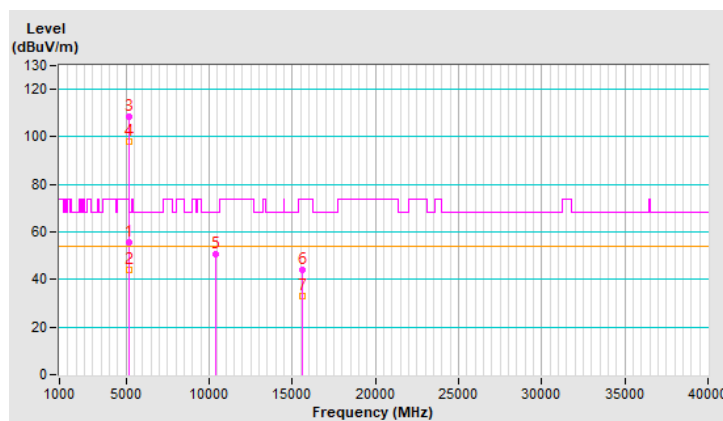


RF Mode	TX 802.11ax (HE40)	Channel	CH 38 : 5190 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	5148.10	55.6 PK	74.0	-18.4	3.01 H	310	54.7	0.9
2	5148.10	44.3 AV	54.0	-9.7	3.01 H	310	43.4	0.9
3	*5190.00	108.4 PK			3.01 H	310	107.9	0.5
4	*5190.00	97.8 AV			3.01 H	310	97.3	0.5
5	#10380.00	50.5 PK	68.2	-17.7	1.54 H	158	40.0	10.5
6	15570.00	43.9 PK	74.0	-30.1	1.70 H	155	32.4	11.5
7	15570.00	32.9 AV	54.0	-21.1	1.70 H	155	21.4	11.5

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.
6. " # ": The radiated frequency is out of the restricted band.

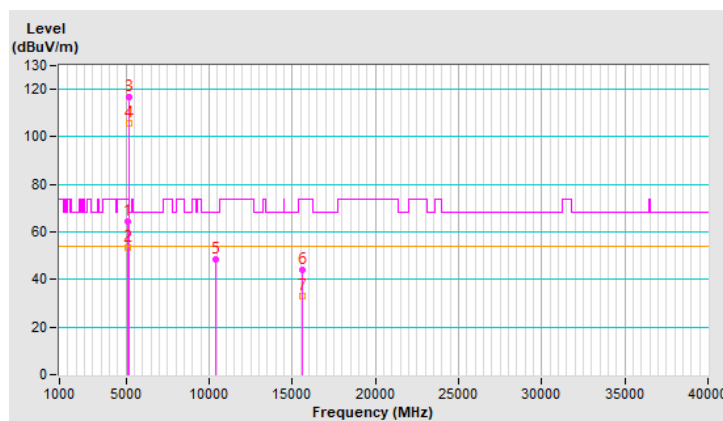


RF Mode	TX 802.11ax (HE40)	Channel	CH 38 : 5190 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	5141.40	64.2 PK	74.0	-9.8	1.30 V	329	63.3	0.9
2	5141.40	53.3 AV	54.0	-0.7	1.30 V	329	52.4	0.9
3	*5190.00	116.9 PK			1.30 V	329	116.4	0.5
4	*5190.00	105.8 AV			1.30 V	329	105.3	0.5
5	#10380.00	48.6 PK	68.2	-19.6	2.46 V	235	38.1	10.5
6	15570.00	43.8 PK	74.0	-30.2	2.66 V	158	32.3	11.5
7	15570.00	33.2 AV	54.0	-20.8	2.66 V	158	21.7	11.5

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.
6. " # ": The radiated frequency is out of the restricted band.

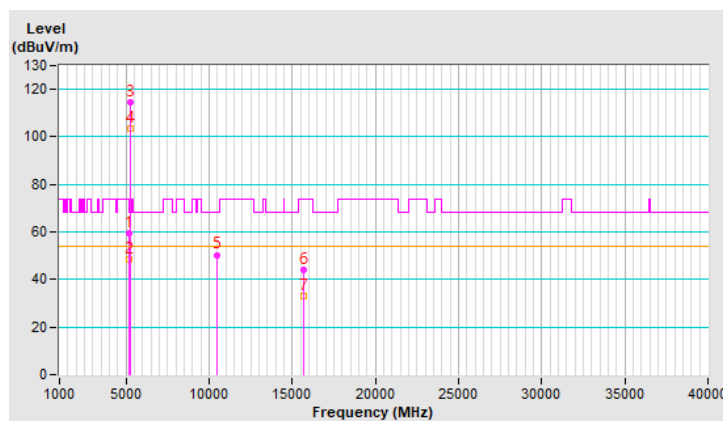


RF Mode	TX 802.11ax (HE40)	Channel	CH 46 : 5230 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	5148.40	59.4 PK	74.0	-14.6	2.41 H	262	58.5	0.9
2	5148.40	48.4 AV	54.0	-5.6	2.41 H	262	47.5	0.9
3	*5230.00	114.4 PK			2.41 H	262	114.2	0.2
4	*5230.00	103.4 AV			2.41 H	262	103.2	0.2
5	#10460.00	50.4 PK	68.2	-17.8	1.55 H	156	39.9	10.5
6	15690.00	44.2 PK	74.0	-29.8	1.64 H	139	33.1	11.1
7	15690.00	33.2 AV	54.0	-20.8	1.64 H	139	22.1	11.1

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.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

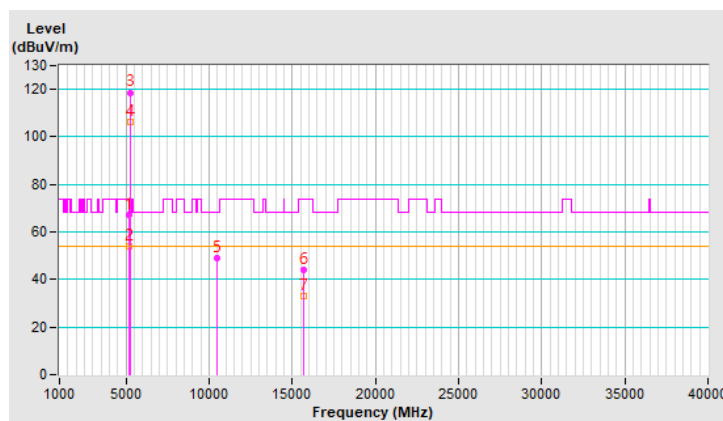


RF Mode	TX 802.11ax (HE40)	Channel	CH 46 : 5230 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	5150.00	67.4 PK	74.0	-6.6	1.40 V	146	66.5	0.9
2	5150.00	53.8 AV	54.0	-0.2	1.40 V	146	52.9	0.9
3	*5230.00	118.7 PK			1.40 V	146	118.5	0.2
4	*5230.00	106.5 AV			1.40 V	146	106.3	0.2
5	#10460.00	49.2 PK	68.2	-19.0	2.41 V	222	38.7	10.5
6	15690.00	43.8 PK	74.0	-30.2	2.69 V	173	32.7	11.1
7	15690.00	33.1 AV	54.0	-20.9	2.69 V	173	22.0	11.1

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.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

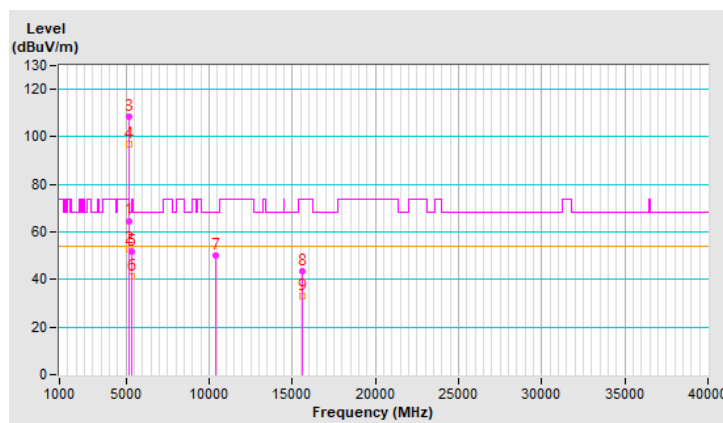


RF Mode	TX 802.11ax (HE80)	Channel	CH 42 : 5210 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	5147.00	64.7 PK	74.0	-9.3	2.41 H	262	63.8	0.9
2	5147.00	52.8 AV	54.0	-1.2	2.41 H	262	51.9	0.9
3	*5210.00	108.6 PK			2.41 H	262	108.3	0.3
4	*5210.00	96.8 AV			2.41 H	262	96.5	0.3
5	5350.00	51.7 PK	74.0	-22.3	2.41 H	262	51.3	0.4
6	5350.00	41.4 AV	54.0	-12.6	2.41 H	262	41.0	0.4
7	#10420.00	50.1 PK	68.2	-18.1	1.50 H	156	39.6	10.5
8	15630.00	43.7 PK	74.0	-30.3	1.59 H	144	32.3	11.4
9	15630.00	32.8 AV	54.0	-21.2	1.59 H	144	21.4	11.4

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.
6. " # ": The radiated frequency is out of the restricted band.

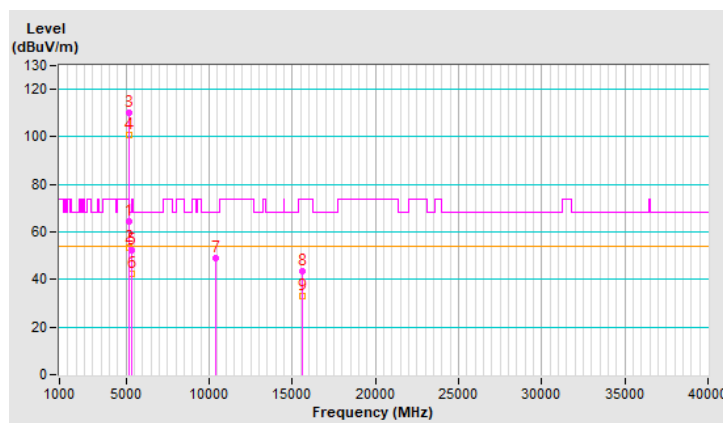


RF Mode	TX 802.11ax (HE80)	Channel	CH 42 : 5210 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

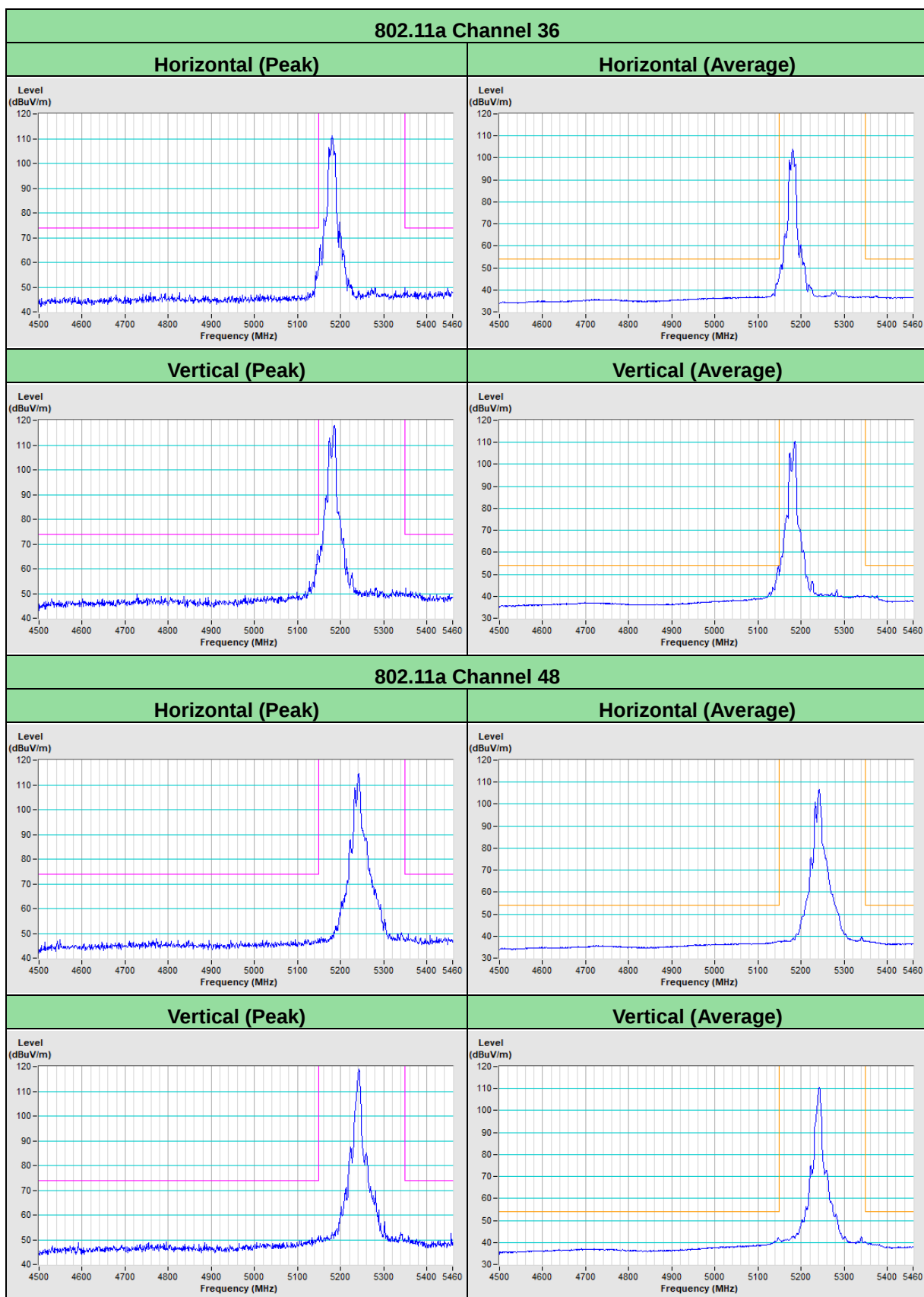
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	64.5 PK	74.0	-9.5	1.42 V	325	63.6	0.9
2	5150.00	53.3 AV	54.0	-0.7	1.42 V	325	52.4	0.9
3	*5210.00	110.0 PK			1.42 V	325	109.7	0.3
4	*5210.00	100.8 AV			1.42 V	325	100.5	0.3
5	5350.00	52.2 PK	74.0	-21.8	1.42 V	325	51.8	0.4
6	5350.00	42.4 AV	54.0	-11.6	1.42 V	325	42.0	0.4
7	#10420.00	48.8 PK	68.2	-19.4	2.49 V	230	38.3	10.5
8	15630.00	43.7 PK	74.0	-30.3	2.70 V	161	32.3	11.4
9	15630.00	32.9 AV	54.0	-21.1	2.70 V	161	21.5	11.4

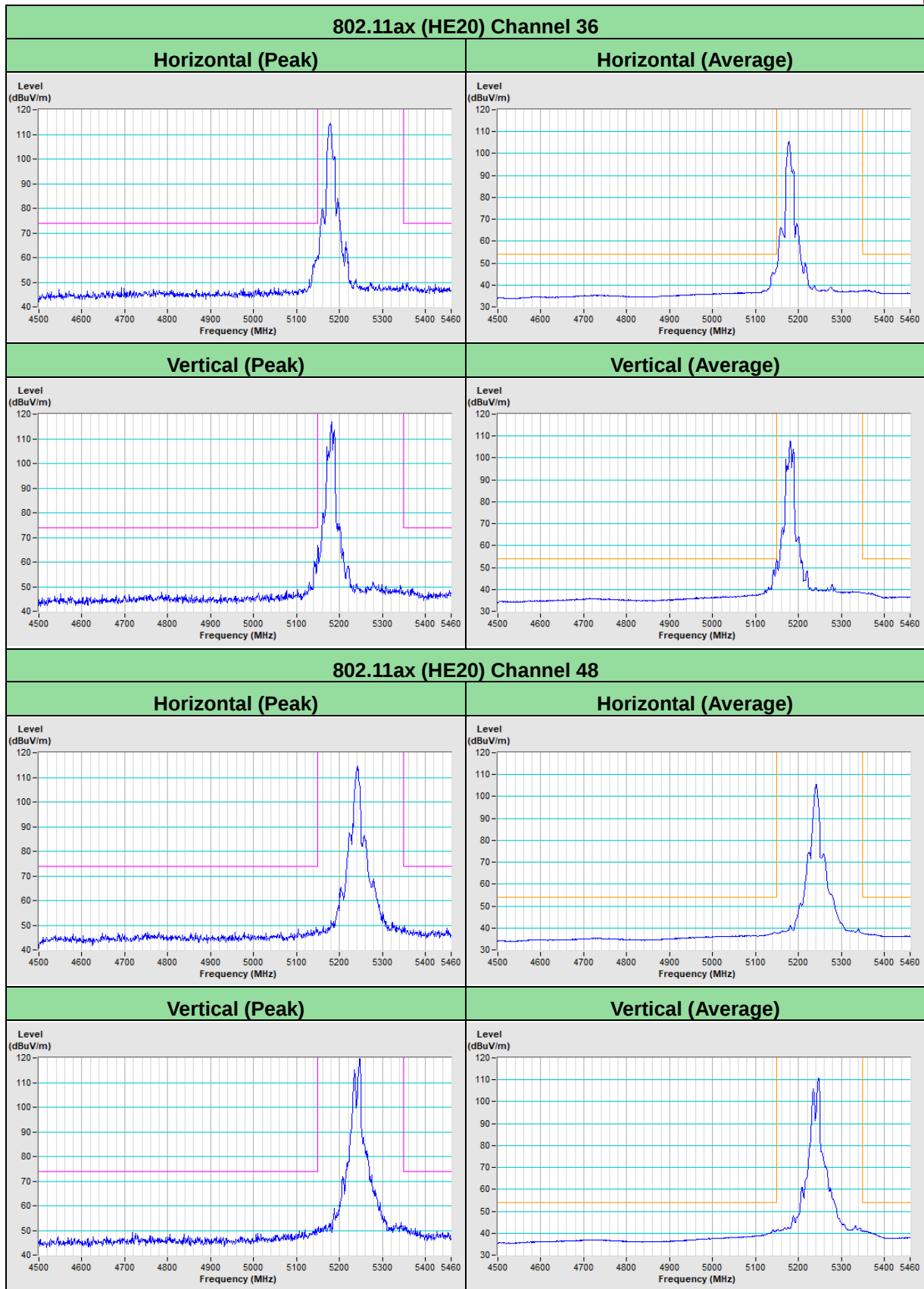
Remarks:

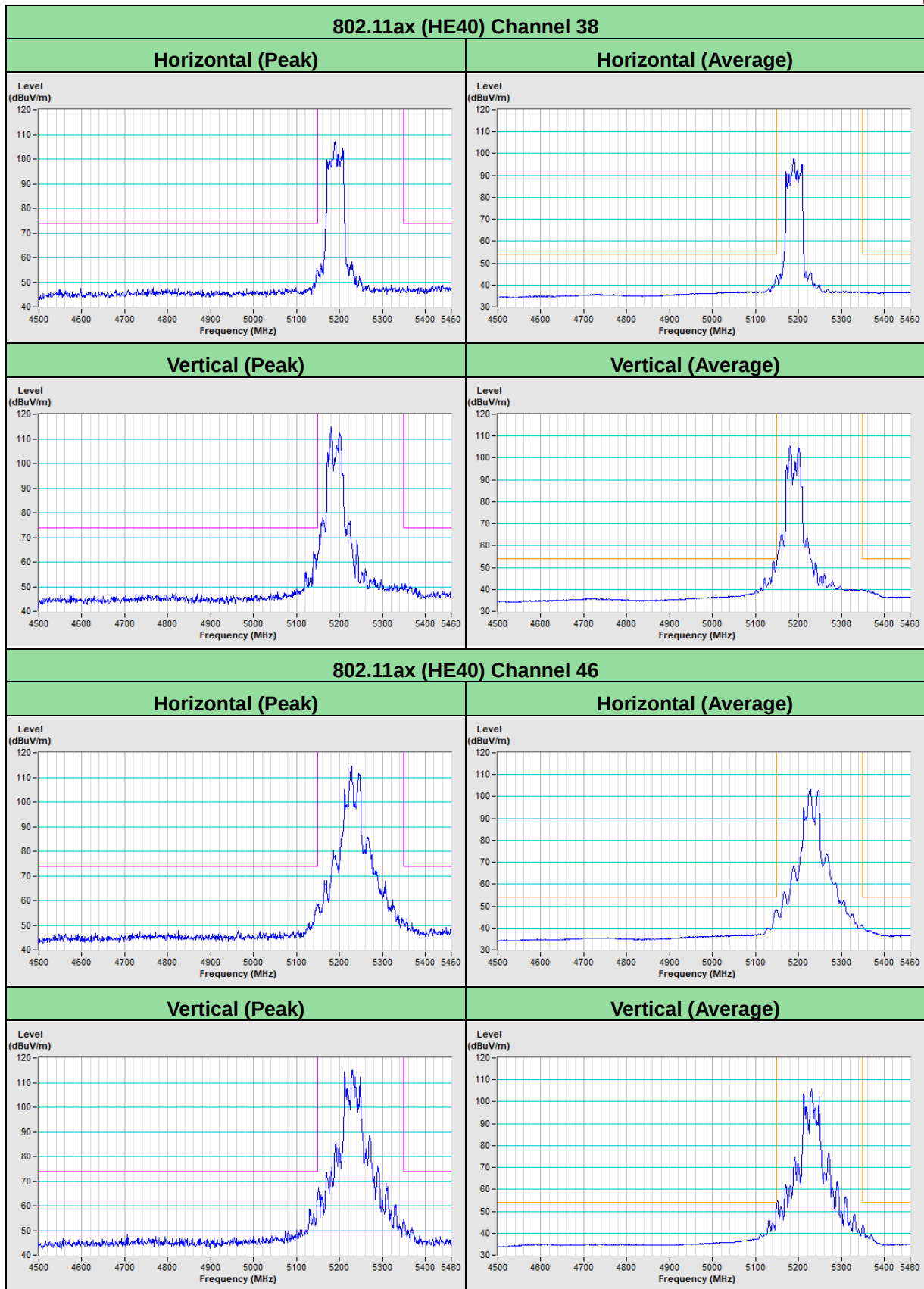
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.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

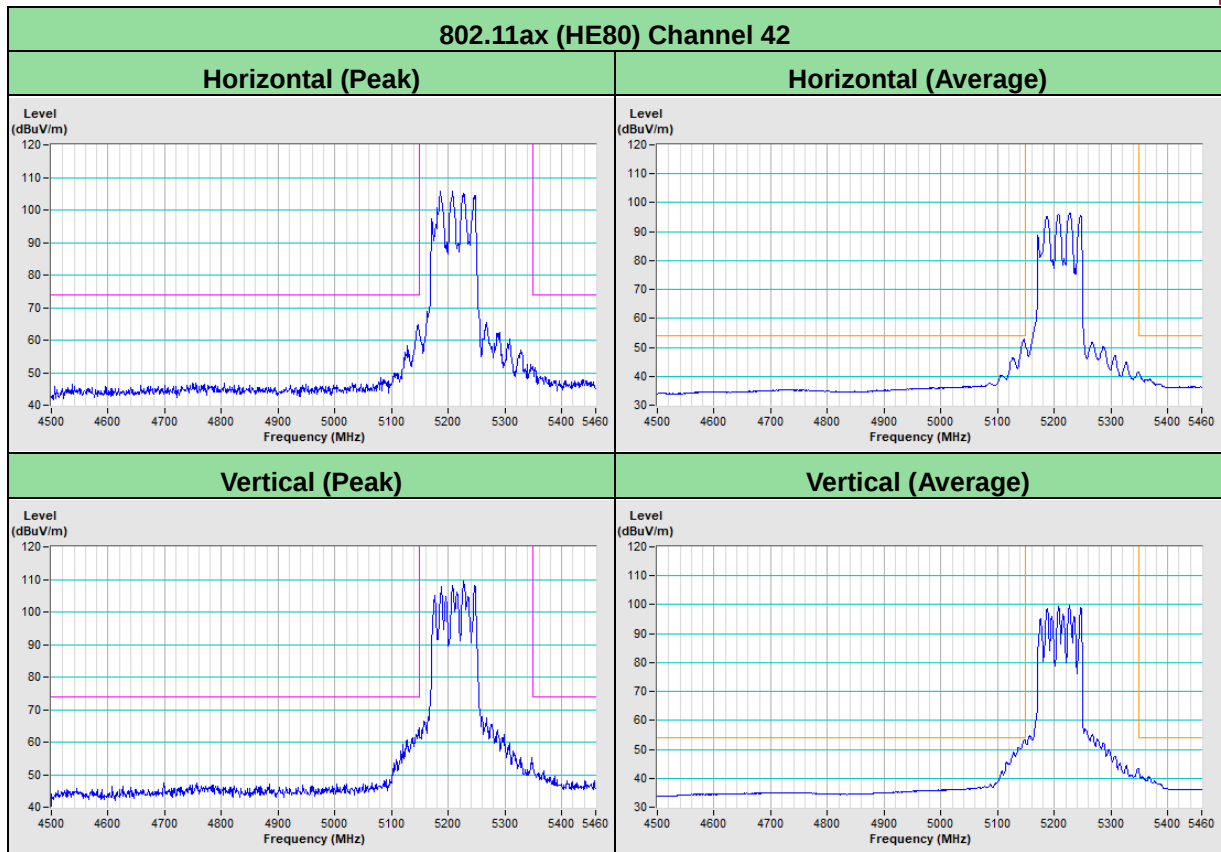


Mode A_Plot of Band Edge









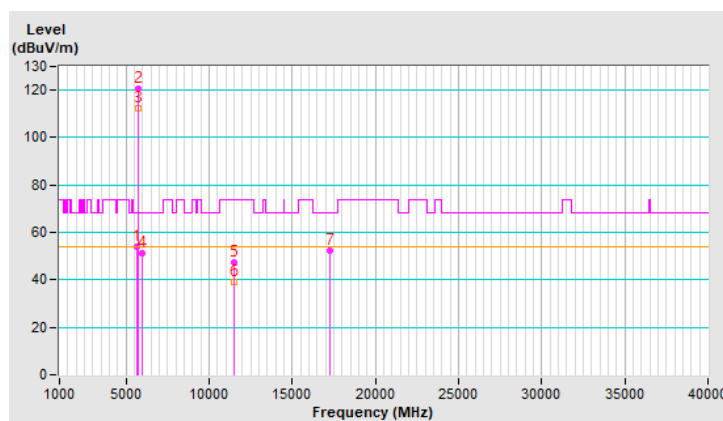
Mode B

RF Mode	TX 802.11a	Channel	CH 149 : 5745 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	25°C, 66% 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	#5647.53	54.2 PK	68.2	-14.0	2.39 H	197	53.3	0.9
2	*5745.00	120.7 PK			2.39 H	197	119.4	1.3
3	*5745.00	112.1 AV			2.39 H	197	110.8	1.3
4	#5936.51	51.4 PK	68.2	-16.8	2.39 H	197	49.9	1.5
5	11490.00	47.4 PK	74.0	-26.6	1.45 H	156	35.7	11.7
6	11490.00	39.3 AV	54.0	-14.7	1.45 H	156	27.6	11.7
7	#17235.00	52.5 PK	68.2	-15.7	1.46 H	117	36.7	15.8

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.
6. " # " : The radiated frequency is out of the restricted band.

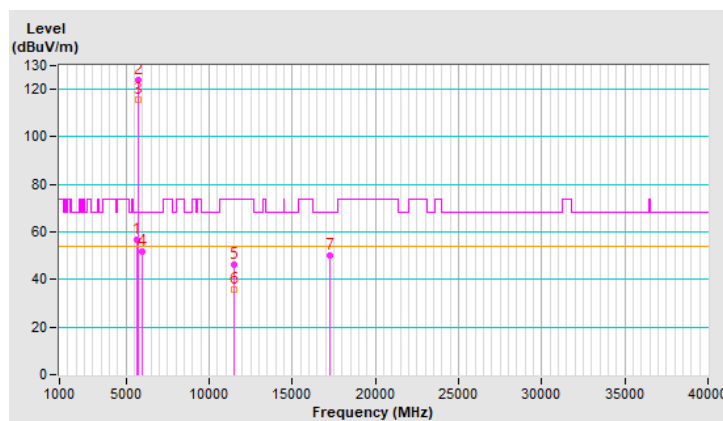


RF Mode	TX 802.11a	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	#5647.89	56.9 PK	68.2	-11.3	1.96 V	89	56.0	0.9
2	*5745.00	123.7 PK			1.96 V	89	122.4	1.3
3	*5745.00	115.5 AV			1.96 V	89	114.2	1.3
4	#5943.68	52.0 PK	68.2	-16.2	1.96 V	89	50.4	1.6
5	11490.00	46.1 PK	74.0	-27.9	1.81 V	121	34.4	11.7
6	11490.00	35.9 AV	54.0	-18.1	1.81 V	121	24.2	11.7
7	#17235.00	49.9 PK	68.2	-18.3	1.81 V	85	34.1	15.8

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.
6. " # ": The radiated frequency is out of the restricted band.

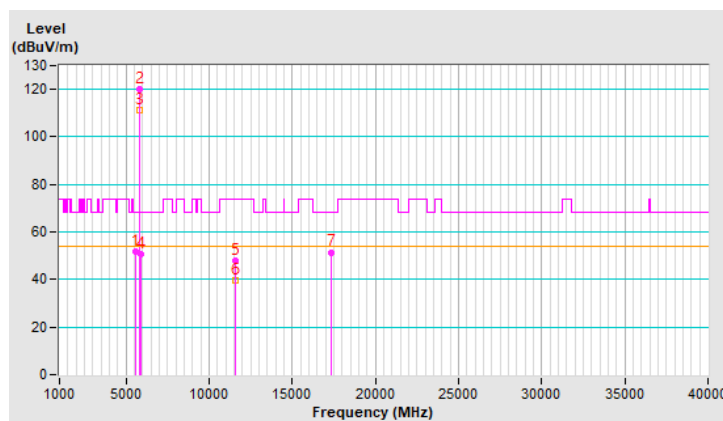


RF Mode	TX 802.11a	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	#5593.31	51.6 PK	68.2	-16.6	2.22 H	198	50.8	0.8
2	*5785.00	120.0 PK			2.22 H	198	118.8	1.2
3	*5785.00	111.4 AV			2.22 H	198	110.2	1.2
4	#5932.23	50.6 PK	68.2	-17.6	2.22 H	198	49.1	1.5
5	11570.00	47.8 PK	74.0	-26.2	1.46 H	171	36.3	11.5
6	11570.00	39.5 AV	54.0	-14.5	1.46 H	171	28.0	11.5
7	#17355.00	51.5 PK	68.2	-16.7	1.43 H	98	34.9	16.6

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.
6. " # " : The radiated frequency is out of the restricted band.

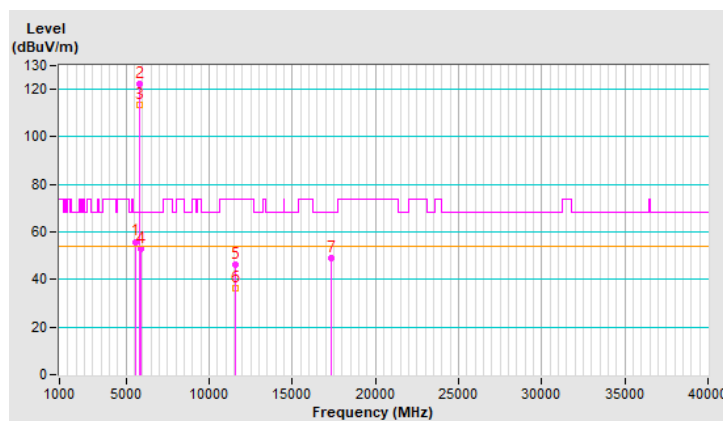


RF Mode	TX 802.11a	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	#5593.09	55.9 PK	68.2	-12.3	1.62 V	88	55.1	0.8
2	*5785.00	122.2 PK			1.62 V	88	121.0	1.2
3	*5785.00	113.5 AV			1.62 V	88	112.3	1.2
4	#5931.26	52.9 PK	68.2	-15.3	1.62 V	88	51.4	1.5
5	11570.00	46.3 PK	74.0	-27.7	1.77 V	126	34.8	11.5
6	11570.00	36.2 AV	54.0	-17.8	1.77 V	126	24.7	11.5
7	#17355.00	49.2 PK	68.2	-19.0	1.78 V	93	32.6	16.6

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.
6. " # " : The radiated frequency is out of the restricted band.

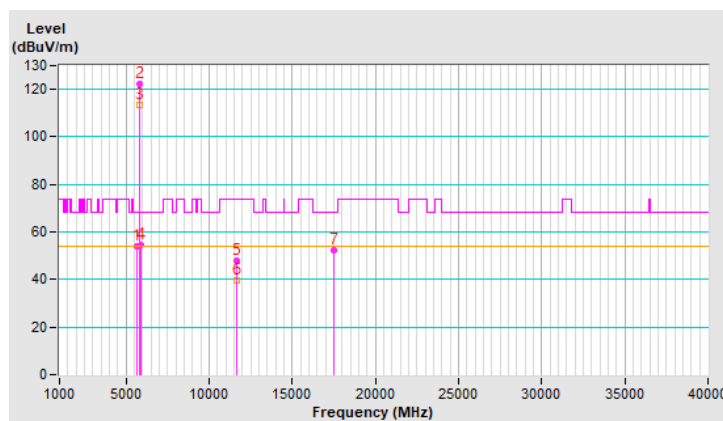


RF Mode	TX 802.11a	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	#5633.86	54.0 PK	68.2	-14.2	2.27 H	172	53.1	0.9
2	*5825.00	122.2 PK			2.27 H	172	121.0	1.2
3	*5825.00	113.2 AV			2.27 H	172	112.0	1.2
4	#5925.62	54.4 PK	68.2	-13.8	2.27 H	172	52.9	1.5
5	11650.00	47.7 PK	74.0	-26.3	1.45 H	160	36.5	11.2
6	11650.00	39.7 AV	54.0	-14.3	1.45 H	160	28.5	11.2
7	#17475.00	52.2 PK	68.2	-16.0	1.47 H	105	34.1	18.1

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.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

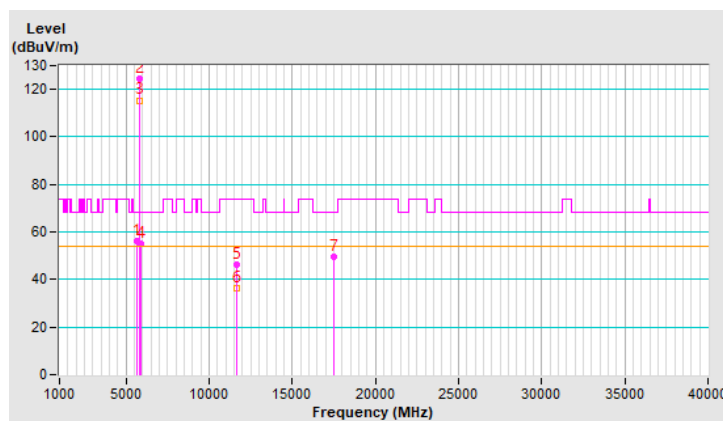


RF Mode	TX 802.11a	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 510 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	#5630.06	56.0 PK	68.2	-12.2	1.62 V	88	55.1	0.9
2	*5825.00	124.4 PK			1.62 V	88	123.2	1.2
3	*5825.00	115.4 AV			1.62 V	88	114.2	1.2
4	#5927.77	54.9 PK	68.2	-13.3	1.62 V	88	53.4	1.5
5	11650.00	46.1 PK	74.0	-27.9	1.82 V	122	34.9	11.2
6	11650.00	36.1 AV	54.0	-17.9	1.82 V	122	24.9	11.2
7	#17475.00	49.4 PK	68.2	-18.8	1.78 V	79	31.3	18.1

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.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

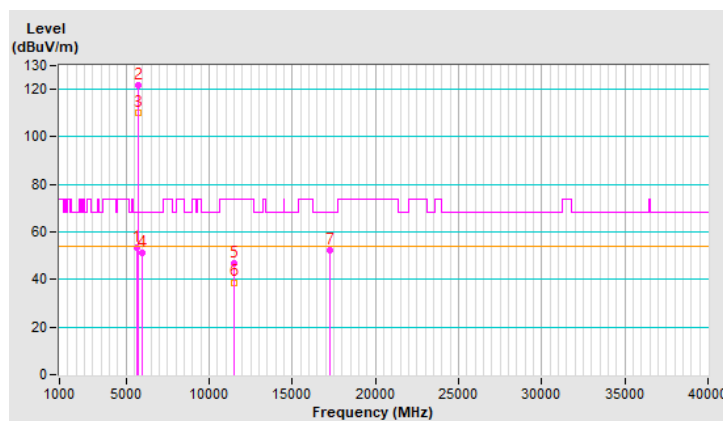


RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	#5640.37	53.5 PK	68.2	-14.7	2.06 H	195	52.6	0.9
2	*5745.00	121.7 PK			2.06 H	195	120.4	1.3
3	*5745.00	110.3 AV			2.06 H	195	109.0	1.3
4	#5943.79	51.3 PK	68.2	-16.9	2.06 H	195	49.7	1.6
5	11490.00	46.9 PK	74.0	-27.1	1.47 H	149	35.2	11.7
6	11490.00	38.8 AV	54.0	-15.2	1.47 H	149	27.1	11.7
7	#17235.00	52.4 PK	68.2	-15.8	1.40 H	110	36.6	15.8

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.
6. " # " : The radiated frequency is out of the restricted band.

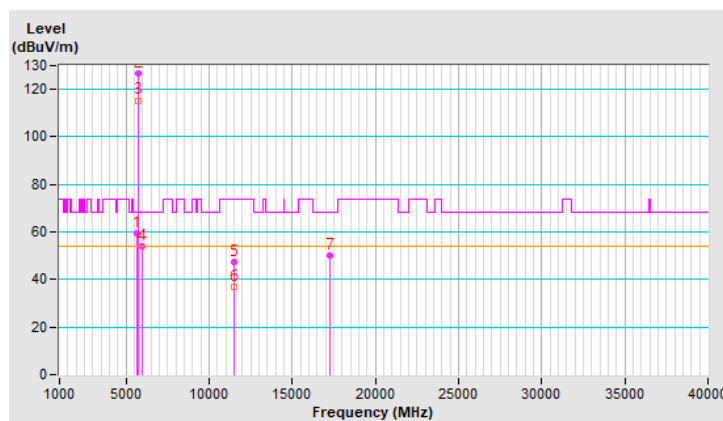


RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	#5649.57	59.6 PK	68.2	-8.6	1.64 V	90	58.7	0.9
2	*5745.00	126.6 PK			1.64 V	90	125.3	1.3
3	*5745.00	115.4 AV			1.64 V	90	114.1	1.3
4	#5939.64	53.8 PK	68.2	-14.4	1.64 V	90	52.2	1.6
5	11490.00	47.2 PK	74.0	-26.8	1.81 V	123	35.5	11.7
6	11490.00	36.8 AV	54.0	-17.2	1.81 V	123	25.1	11.7
7	#17235.00	50.0 PK	68.2	-18.2	1.78 V	80	34.2	15.8

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.
6. " # ": The radiated frequency is out of the restricted band.

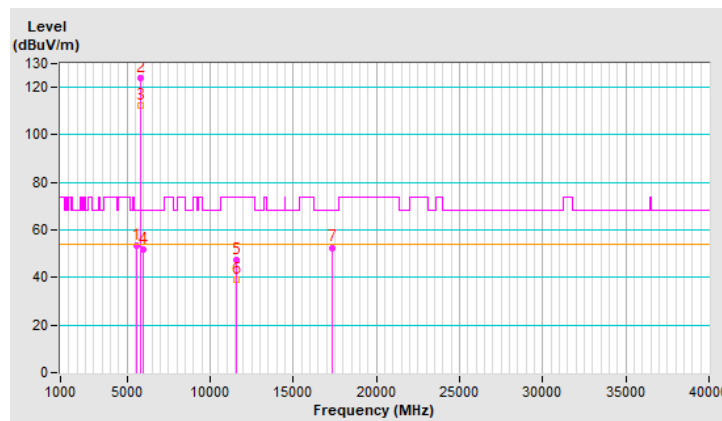


RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	#5596.66	53.2 PK	68.2	-15.0	2.35 H	196	52.4	0.8
2	*5785.00	124.1 PK			2.35 H	196	122.9	1.2
3	*5785.00	112.1 AV			2.35 H	196	110.9	1.2
4	#5980.48	51.8 PK	68.2	-16.4	2.35 H	196	50.2	1.6
5	11570.00	47.6 PK	74.0	-26.4	1.51 H	164	36.1	11.5
6	11570.00	39.3 AV	54.0	-14.7	1.51 H	164	27.8	11.5
7	#17355.00	52.6 PK	68.2	-15.6	1.42 H	108	36.0	16.6

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.
6. " # " : The radiated frequency is out of the restricted band.

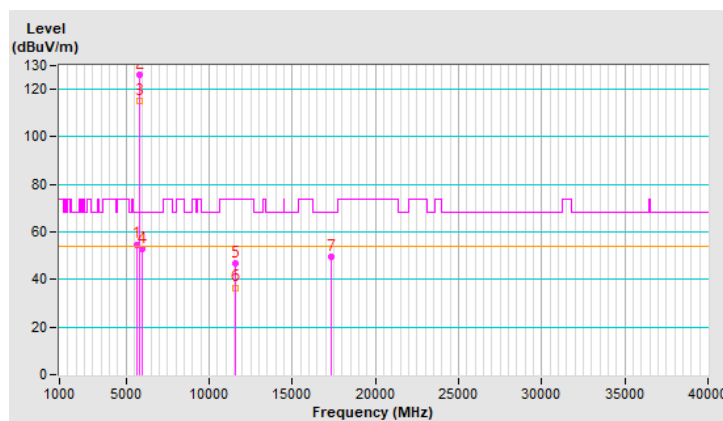


RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	#5640.29	54.8 PK	68.2	-13.4	1.82 V	150	53.9	0.9
2	*5785.00	126.3 PK			1.82 V	150	125.1	1.2
3	*5785.00	115.0 AV			1.82 V	150	113.8	1.2
4	#5980.71	52.7 PK	68.2	-15.5	1.82 V	150	51.1	1.6
5	11570.00	46.8 PK	74.0	-27.2	1.79 V	137	35.3	11.5
6	11570.00	36.6 AV	54.0	-17.4	1.79 V	137	25.1	11.5
7	#17355.00	49.8 PK	68.2	-18.4	1.73 V	65	33.2	16.6

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.
6. " # ": The radiated frequency is out of the restricted band.

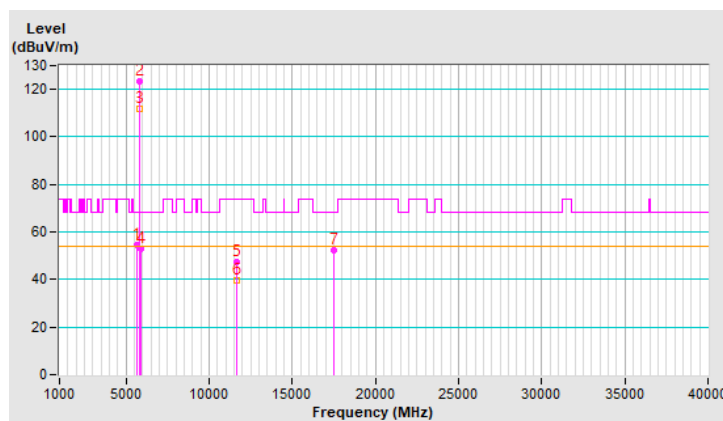


RF Mode	TX 802.11ax (HE20)	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	#5627.97	54.5 PK	68.2	-13.7	2.30 H	170	53.6	0.9
2	*5825.00	123.4 PK			2.30 H	170	122.2	1.2
3	*5825.00	112.0 AV			2.30 H	170	110.8	1.2
4	#5929.76	52.9 PK	68.2	-15.3	2.30 H	170	51.4	1.5
5	11650.00	47.5 PK	74.0	-26.5	1.47 H	161	36.3	11.2
6	11650.00	39.4 AV	54.0	-14.6	1.47 H	161	28.2	11.2
7	#17475.00	52.5 PK	68.2	-15.7	1.42 H	103	34.4	18.1

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.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

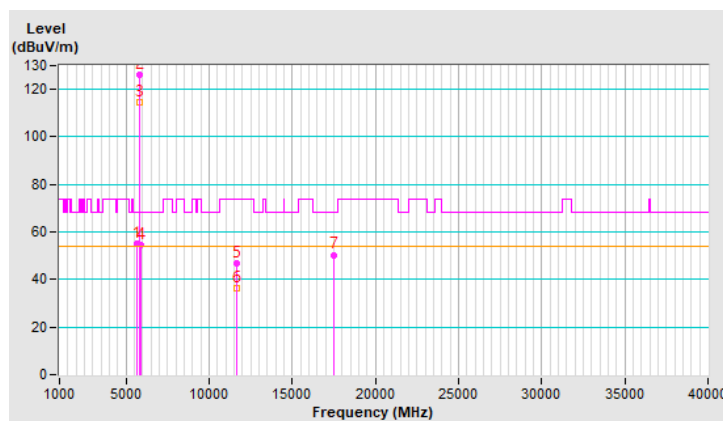


RF Mode	TX 802.11ax (HE20)	Channel	CH 165 : 5825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	#5629.82	55.1 PK	68.2	-13.1	1.50 V	144	54.2	0.9
2	*5825.00	125.9 PK			1.50 V	144	124.7	1.2
3	*5825.00	114.8 AV			1.50 V	144	113.6	1.2
4	#5927.47	54.4 PK	68.2	-13.8	1.50 V	144	52.9	1.5
5	11650.00	46.8 PK	74.0	-27.2	1.75 V	137	35.6	11.2
6	11650.00	36.5 AV	54.0	-17.5	1.75 V	137	25.3	11.2
7	#17475.00	50.4 PK	68.2	-17.8	1.69 V	56	32.3	18.1

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.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

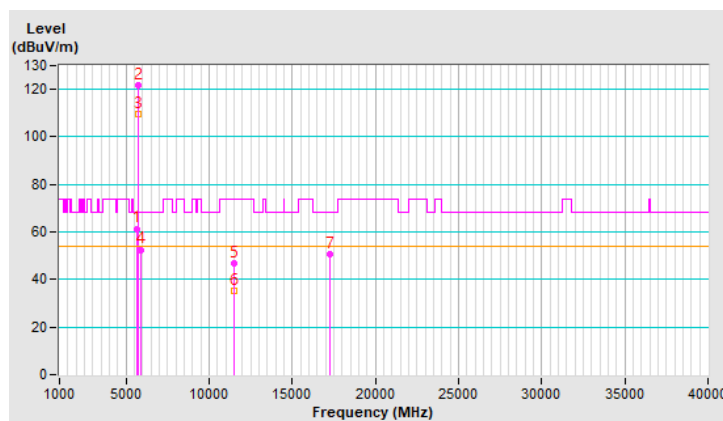


RF Mode	TX 802.11ax (HE40)	Channel	CH 151 : 5755 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	#5639.89	61.4 PK	68.2	-6.8	2.04 H	166	60.5	0.9
2	*5755.00	121.7 PK			2.04 H	166	120.5	1.2
3	*5755.00	109.7 AV			2.04 H	166	108.5	1.2
4	#5933.88	52.6 PK	68.2	-15.6	2.04 H	166	51.1	1.5
5	11510.00	47.0 PK	74.0	-27.0	1.51 H	164	35.2	11.8
6	11510.00	35.3 AV	54.0	-18.7	1.51 H	164	23.5	11.8
7	#17265.00	50.5 PK	68.2	-17.7	1.32 H	124	34.7	15.8

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.
6. " # " : The radiated frequency is out of the restricted band.

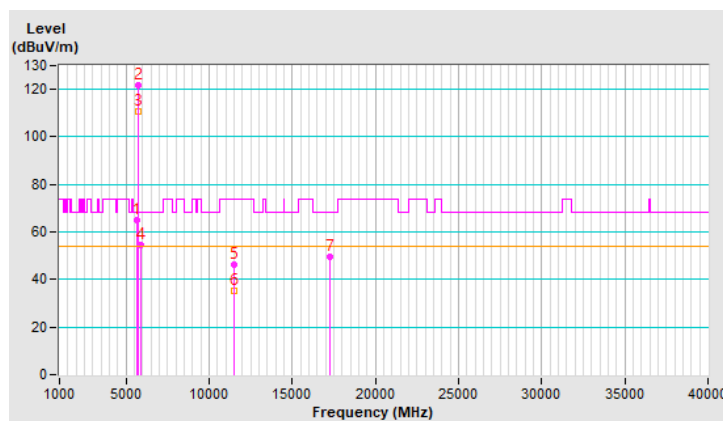


RF Mode	TX 802.11ax (HE40)	Channel	CH 151 : 5755 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	#5642.29	65.1 PK	68.2	-3.1	1.86 V	195	64.2	0.9
2	*5755.00	121.8 PK			1.86 V	195	120.6	1.2
3	*5755.00	110.8 AV			1.86 V	195	109.6	1.2
4	#5926.75	54.7 PK	68.2	-13.5	1.86 V	195	53.2	1.5
5	11510.00	46.4 PK	74.0	-27.6	1.89 V	137	34.6	11.8
6	11510.00	35.0 AV	54.0	-19.0	1.89 V	137	23.2	11.8
7	#17265.00	49.7 PK	68.2	-18.5	1.74 V	64	33.9	15.8

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.
6. " # " : The radiated frequency is out of the restricted band.

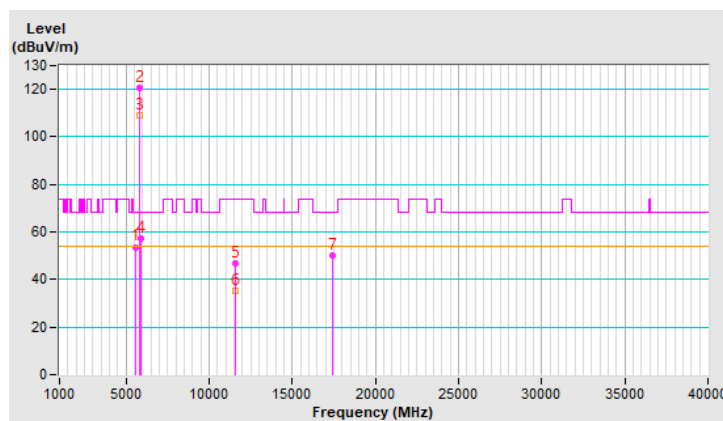


RF Mode	TX 802.11ax (HE40)	Channel	CH 159 : 5795 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	#5606.31	53.7 PK	68.2	-14.5	2.33 H	161	52.9	0.8
2	*5795.00	120.5 PK			2.33 H	161	119.3	1.2
3	*5795.00	109.1 AV			2.33 H	161	107.9	1.2
4	#5925.51	57.4 PK	68.2	-10.8	2.33 H	161	55.9	1.5
5	11590.00	46.6 PK	74.0	-27.4	1.51 H	161	35.2	11.4
6	11590.00	35.3 AV	54.0	-18.7	1.51 H	161	23.9	11.4
7	#17385.00	50.3 PK	68.2	-17.9	1.39 H	129	33.3	17.0

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.
6. " # " : The radiated frequency is out of the restricted band.

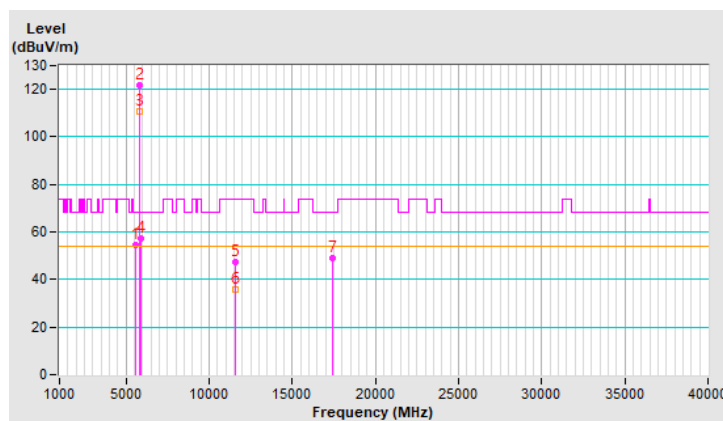


RF Mode	TX 802.11ax (HE40)	Channel	CH 159 : 5795 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	#5616.36	54.5 PK	68.2	-13.7	1.79 V	193	53.7	0.8
2	*5795.00	121.5 PK			1.79 V	193	120.3	1.2
3	*5795.00	110.6 AV			1.79 V	193	109.4	1.2
4	#5927.58	57.2 PK	68.2	-11.0	1.79 V	193	55.7	1.5
5	11590.00	47.2 PK	74.0	-26.8	1.79 V	154	35.8	11.4
6	11590.00	35.8 AV	54.0	-18.2	1.79 V	154	24.4	11.4
7	#17385.00	49.2 PK	68.2	-19.0	1.71 V	89	32.2	17.0

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.
6. " # ": The radiated frequency is out of the restricted band.

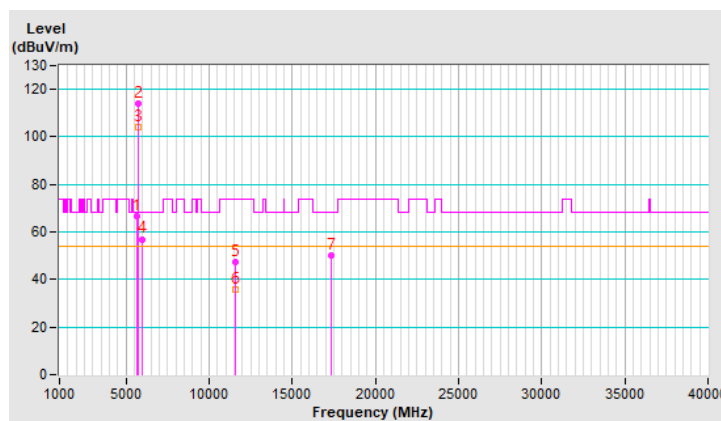


RF Mode	TX 802.11ax (HE80)	Channel	CH 155 : 5775 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

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	#5638.90	66.4 PK	68.2	-1.8	2.26 H	162	65.5	0.9
2	*5775.00	114.2 PK			2.26 H	162	113.0	1.2
3	*5775.00	104.2 AV			2.26 H	162	103.0	1.2
4	#5940.57	57.0 PK	68.2	-11.2	2.26 H	162	55.4	1.6
5	11550.00	47.2 PK	74.0	-26.8	1.52 H	169	35.7	11.5
6	11550.00	35.7 AV	54.0	-18.3	1.52 H	169	24.2	11.5
7	#17325.00	50.3 PK	68.2	-17.9	1.38 H	123	34.2	16.1

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.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

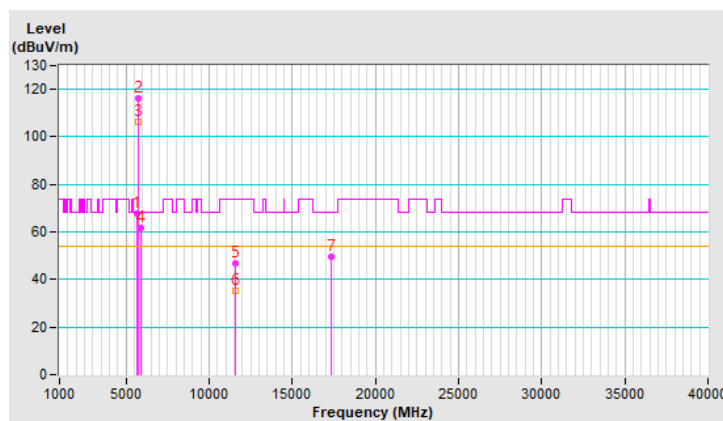


RF Mode	TX 802.11ax (HE80)	Channel	CH 155 : 5775 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 200 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 66% RH
Tested By	Ryan Du		

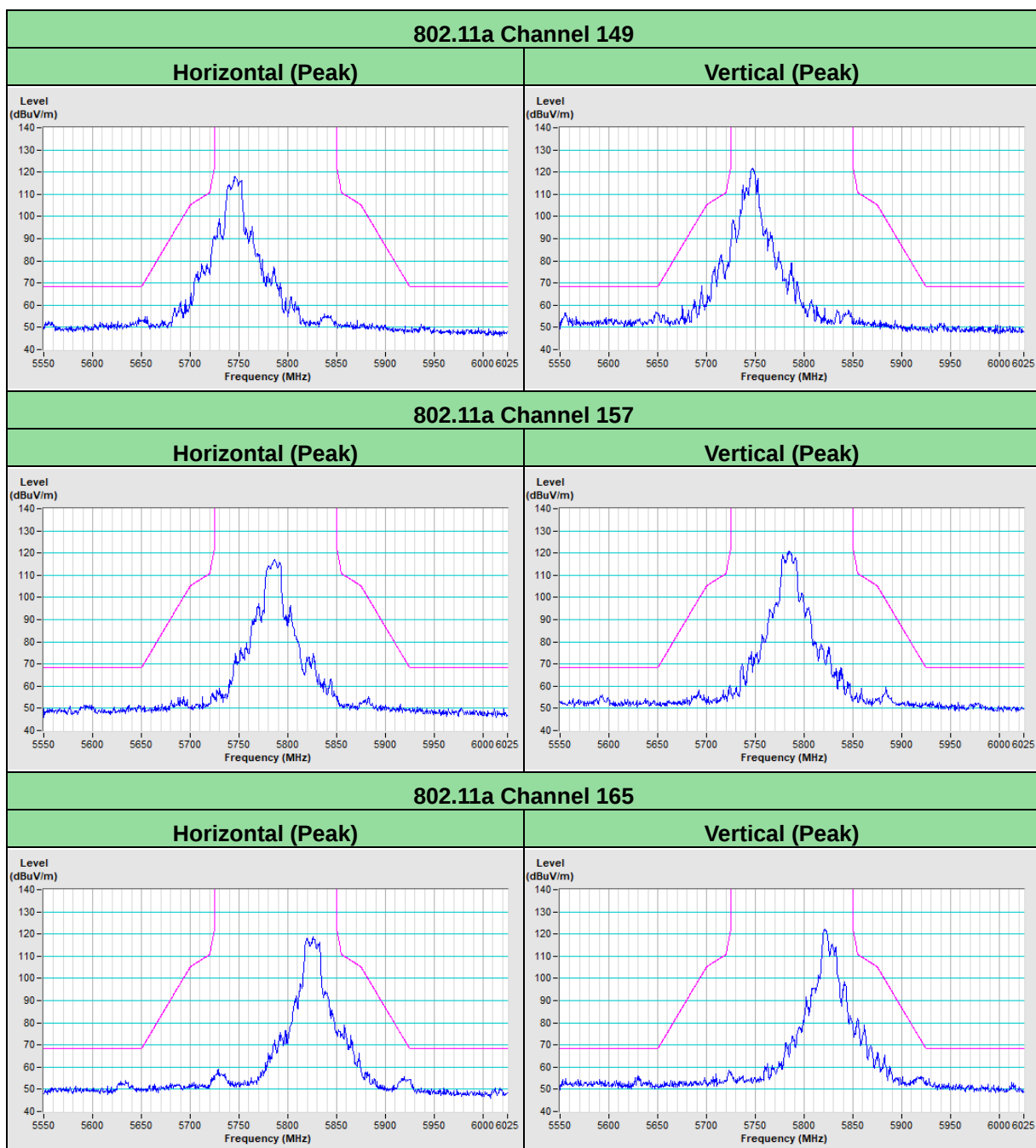
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5640.38	67.9 PK	68.2	-0.3	1.71 V	268	67.0	0.9
2	*5775.00	116.4 PK			1.71 V	268	115.2	1.2
3	*5775.00	106.2 AV			1.71 V	268	105.0	1.2
4	#5933.21	61.9 PK	68.2	-6.3	1.71 V	268	60.4	1.5
5	11550.00	46.7 PK	74.0	-27.3	1.84 V	152	35.2	11.5
6	11550.00	35.4 AV	54.0	-18.6	1.84 V	152	23.9	11.5
7	#17325.00	49.5 PK	68.2	-18.7	1.73 V	79	33.4	16.1

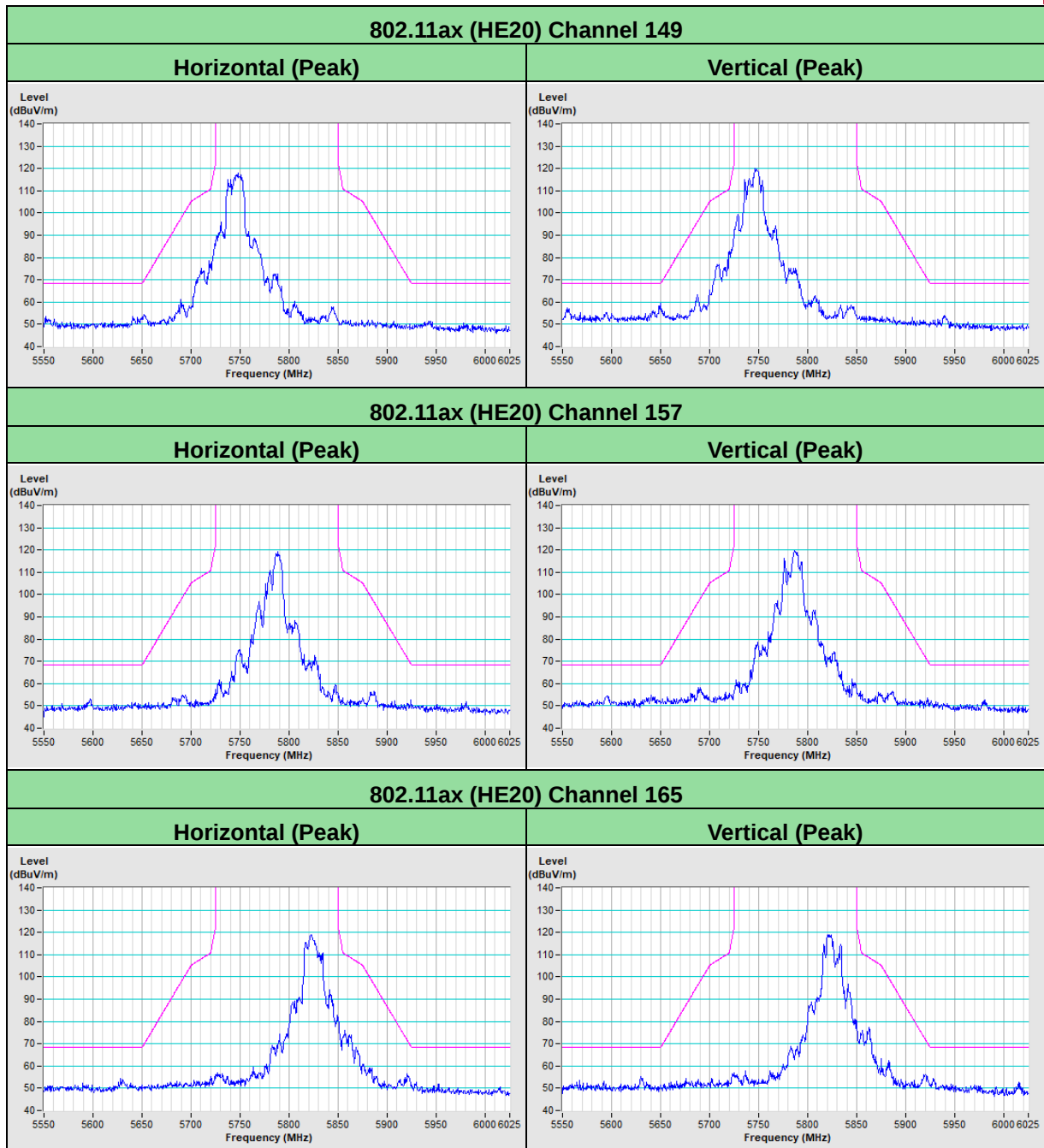
Remarks:

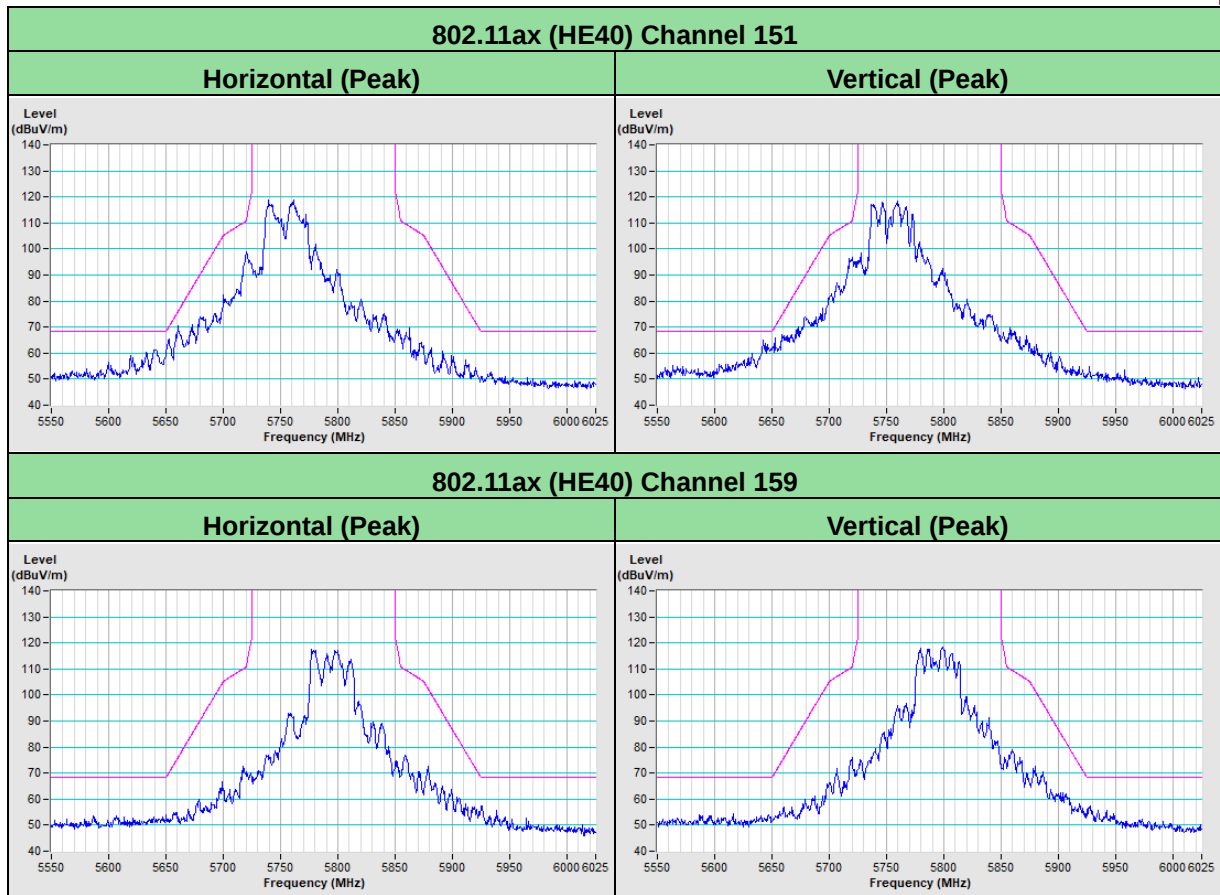
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.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

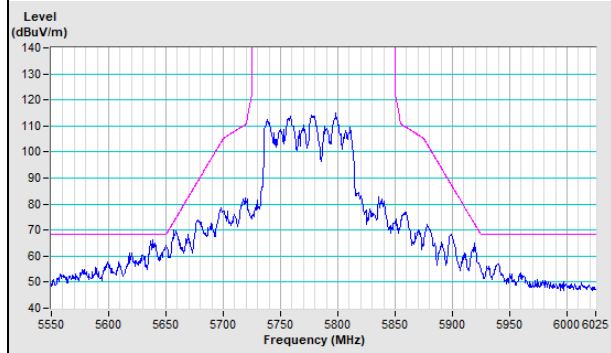
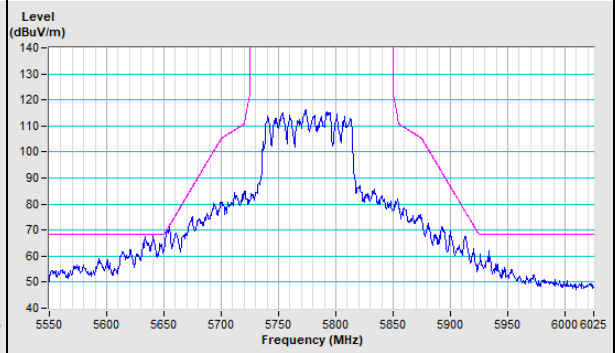


Mode B_Plot of Band Edge







802.11ax (HE80) Channel 155**Horizontal (Peak)****Vertical (Peak)**

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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Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

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Email: service.adt@bureauveritas.com

Web Site: <http://ee.bureauveritas.com.tw>

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

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