TEST REPORT

CERTIFICATE OF CONFORMITY

Standard:	**47 CFR FCC Part 15, Subpart E (Section 15.407)**
Report No.:	RFBBQZ-WTW-P22060724-2
FCC ID:	PY322100561
Product:	AX1600 WiFi Router
Brand:	NETGEAR
Model No.:	RAX5
Received Date:	2022/7/7
Test Date:	2022/8/2 ~ 2022/9/30
Issued Date:	2022/10/06
Applicant and Manufacturer:	NETGEAR, INC
Address:	350 East Plumeria Drive San Jose, CA 95134
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kewi Shan Dist., Taoyuan City 33383, Taiwan
FCC Registration / Designation Number:	788550 / TW0003

Approved by: Jeremy Lin , **Date:** 2022/10/06

Jeremy Lin / Project Engineer

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Prepared by : Polly Chien / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBBQZ-WTW-P22060724-2	Original release.	2022/10/06

1 Certificate

Product:	AX1600 WiFi Router
Brand:	NETGEAR
Test Model:	RAX5
Sample Status:	Engineering sample
Applicant and Manufacturer:	NETGEAR, INC.
Test Date:	2022/8/2 ~ 2022/9/29
Standard:	47 CFR FCC Part 15, Subpart E (Section 15.407)
Measurement procedure:	ANSI C63.10-2013 KDB 291074 D02 EMC Measurement v01 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)(3)	RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(3)	Power Spectral Density	Pass	Meet the requirement of limit.
15.407(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -11.59 dB at 0.46200 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -8.9 dB at 303.54 MHz
15.407(b) (5) 15.407(b) (8)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.2 dB at 5648.32 MHz
15.407(e)	6 dB Bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.403	Operational restrictions U-NII 4 devices	-	Declaration by applicant.
15.203	Antenna Requirement	Pass	Antenna connector is IPEX 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	9 kHz ~ 30 MHz	2.79 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.59 dB
	30 MHz ~ 1 GHz	3.64 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	2.29 dB
	18 GHz ~ 40 GHz	2.29 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	AX1600 WiFi Router
Brand	NETGEAR
Test Model	RAX5
Status of EUT	Engineering sample
Power Supply Rating	12 Vdc (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: 54/48/36/24/18/12/9/6 Mbps 802.11n: up to 300 Mbps 802.11ac: up to 866.7 Mbps 802.11ax: up to 1201.0 Mbps
Operating Frequency	5.835 GHz ~ 5.885 GHz
Number of Channel	802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 3 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 1
Output Power	CDD Mode: EIRP: 763.836 mW (28.83 dBm) Beamforming Mode: EIRP: 1116.863 mW (30.48 dBm)
EUT Category	Indoor access point

Note:

1. The EUT uses following accessories.

AC Adapter 1			
Brand	Model	Part Number	Specification
Honor	ADS-18FQ-12 12018EPCU-L, ADS-18FQ-12 12018EPC-L	332-11523-02	AC Input: 100-120V, ~60Hz Max, 0.7A DC Output: 12Vdc, 1.5A DC Output Cable: 1.8M / 0core
AC Adapter 2			
Brand	Model	Part Number	Specification
Channel Well Technology Co., Ltd.	2AAJ018F 1	332-11572-01	AC Input: 100-120V ~50/60Hz, 0.6A DC Output: 12Vdc, 1.5A, 18.0W DC Output Cable: 1.8M / 0core
RJ-45			
Specification			
Signal Line : 1.95M			

2. The EUT supports Full RU only.
3. There are WLAN (2.4 GHz), WLAN (5 GHz) and WLAN (5.9 GHz) technology used for the EUT.
4. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

ANT. No.	Type	Connector	Frequency Range	Ant 0 (dBi)	Ant 1 (dBi)	Directional Gain (dBi)
2.4	PIFA	IPEX	2400~2483.5MHz	1.44	1.47	4.47
5G	PIFA	IPEX	5150~5250MHz	1.84	1.57	4.72
			5725~5850MHz	2.61	2.60	5.62
5.9G	PIFA	IPEX	5850~5895MHz	2.53	2.60	5.58

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

2. The EUT incorporates a MIMO function:

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

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

3.3 Channel List

FOR 5845 ~ 5885 MHz

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

Channel	Frequency	Channel	Frequency	Channel	Frequency
*169	5845 MHz	173	5865 MHz	177	5885 MHz

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

Channel	Frequency	Channel	Frequency
*167	5835 MHz	175	5875 MHz

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

Channel	Frequency
*171	5855 MHz

Note: * U-NII-3 & -4 span channels.

3.4 Test Mode Applicability and Tested Channel Detail

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

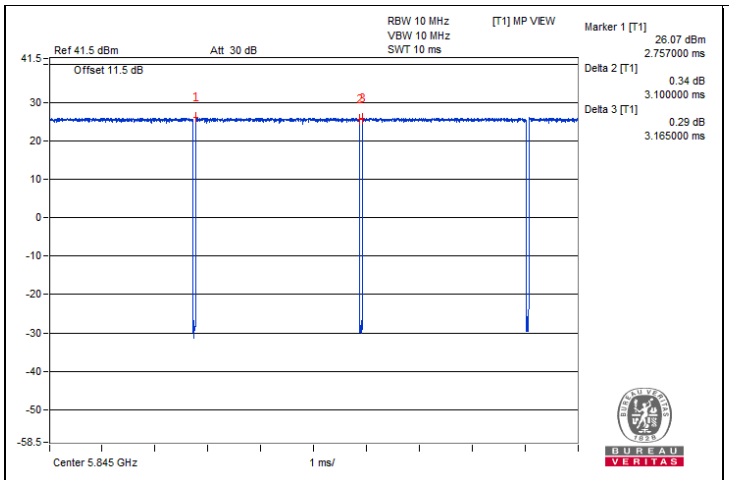
Test Item	EUT Configure Mode	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
RF Output Power / Power Spectral Density	A	802.11a	CDD	169, 173, 177	BPSK	6Mb/s
		802.11ax (HE20)	CDD & Beamforming	169, 173, 177	BPSK	MCS0
		802.11ax (HE40)	CDD & Beamforming	167, 175	BPSK	MCS0
		802.11ax (HE80)	CDD & Beamforming	171	BPSK	MCS0
6 dB Bandwidth	A	802.11a	CDD	169, 173, 177	BPSK	6Mb/s
		802.11ax (HE20)	CDD & Beamforming	169, 173, 177	BPSK	MCS0
		802.11ax (HE40)	CDD & Beamforming	167, 175	BPSK	MCS0
		802.11ax (HE80)	CDD & Beamforming	171	BPSK	MCS0
Frequency Stability	A	802.11a	CDD	177	-	-
AC Power Conducted Emissions	A, B	802.11ax (HE40)	Beamforming	167	BPSK	MCS0
Unwanted Emissions below 1 GHz	A, B	802.11ax (HE40)	Beamforming	167	BPSK	MCS0
Unwanted Emissions above 1 GHz	A	802.11a	CDD	169, 173, 177	BPSK	6Mb/s
		802.11ax (HE20)	Beamforming	169, 173, 177	BPSK	MCS0
		802.11ax (HE40)	Beamforming	167, 175	BPSK	MCS0
		802.11ax (HE80)	Beamforming	171	BPSK	MCS0
EUT Configure Mode:	A	Powered by adapter 1				
	B	Powered by adapter 2				

Note: The EUT is designed to be positioned on the z-plane only.

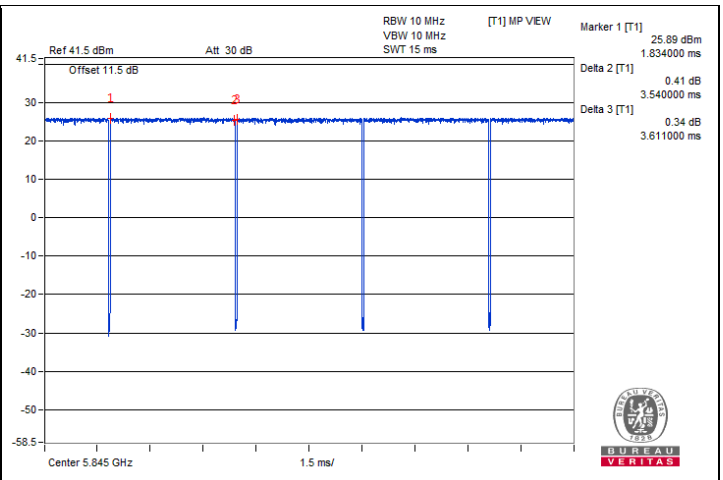
3.5 Duty Cycle of Test Signal

Duty cycle of test signal is >= 98 %, duty factor is not required.
Duty cycle of test signal is < 98 %, duty factor shall be considered.

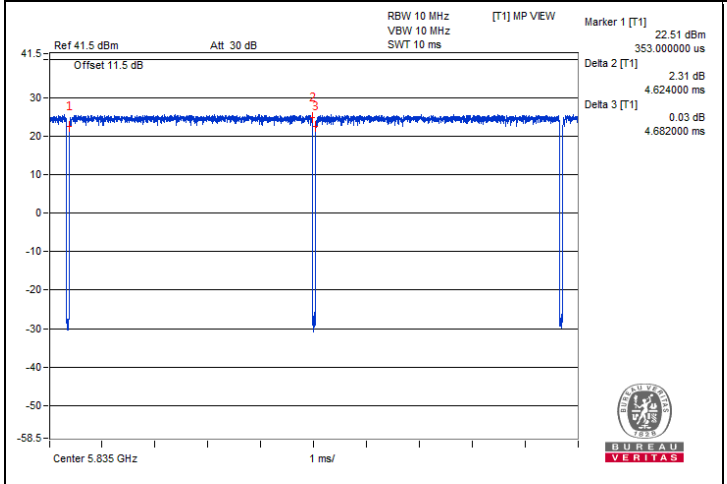
802.11a: Duty cycle = 3.100 ms / 3.165 ms x 100% = 98.0%
802.11ax (HE20): Duty cycle = 3.54 ms / 3.611 ms x 100% = 98.0%
802.11ax (HE40): Duty cycle = 4.624 ms / 4.682 ms x 100% = 98.8%
802.11ax (HE80): Duty cycle = 4.624 ms / 4.707 ms x 100% = 98.2%



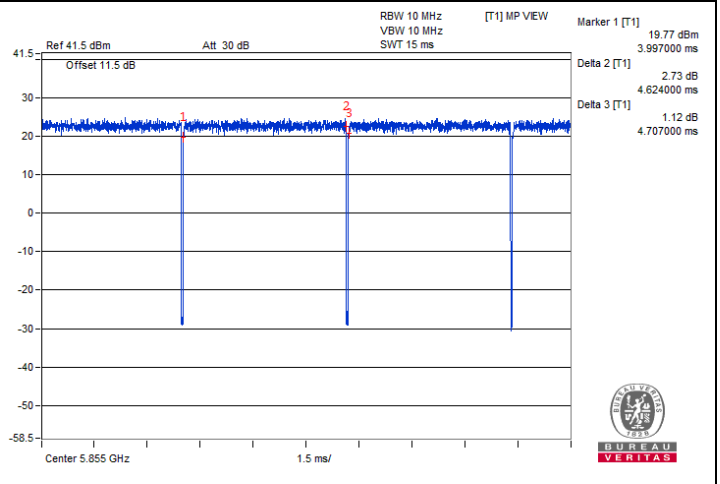
802.11a



802.11ax (HE20)



802.11ax (HE40)



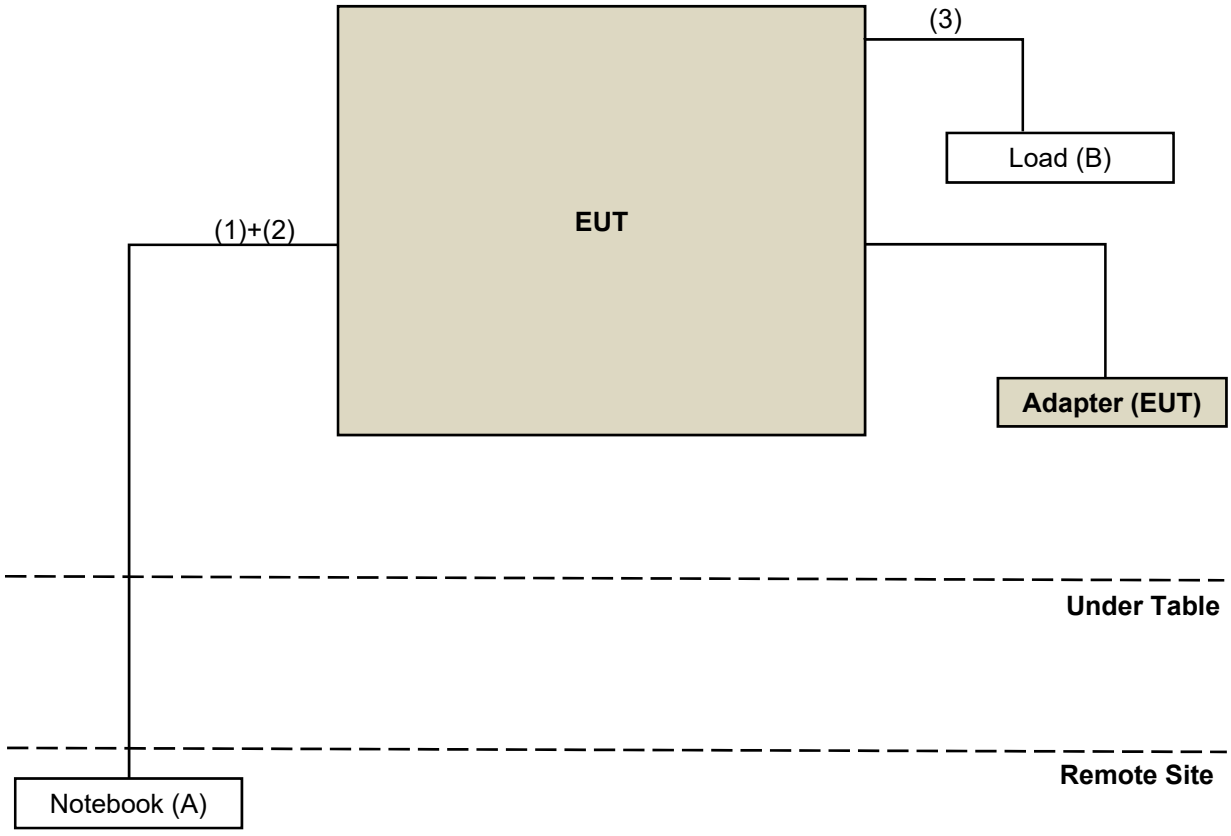
802.11ax (HE80)

3.6 Test Program Used and Operation Descriptions

Controlling software MT7915 QA 0.0.2.33 has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices

Test Mode A, B



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Notebook	DELL	E5430	2RL3YW1	N/A	Provided by Lab
B	Load	N/A	N/A	N/A	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	RJ-45 Cable	1	10	N/A	0	Provided by Lab
2	RJ-45 Cable	1	1.95	N/A	0	Accessory of EUT
3	RJ-45 Cable	4	1.5	N/A	0	Provided by Lab

4 Test Instruments

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

4.1 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	100979	2022/3/25	2023/3/24

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/9/29 ~ 2022/9/30

4.2 Power Spectral Density

Refer to section 4.1 to get information of the instruments.

4.3 6 dB Bandwidth

Refer to section 4.1 to get information of the instruments.

4.4 Frequency Stability

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
AC Power Source ExTech	CFW-105	E000603	N/A	N/A
Digital Multimeter Fluke	87-III	70360742	2022/6/23	2023/6/22
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	100979	2022/3/25	2023/3/24
Temperature & Humidity Chamber TERCHY	HRM-120RF	931022	2022/1/3	2023/1/2

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/9/29

4.5 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
DC-LISN SCHWARZBECK MESS-ELETRONIK	NNBM 8126G	8126G-069	2021/11/10	2022/11/9
LISN R&S	ESH3-Z5	100220	2021/11/25	2022/11/24
LISN ROHDE & SCHWARZ	ENV216	101826	2022/3/14	2023/3/13
RF Coaxial Cable WOKEN	5D-FB	Cable-cond1-01	2022/1/15	2023/1/14
Software BVADT	BVADT_Cond_ V7.3.7.4	N/A	N/A	N/A
Test Receiver Rohde&Schwarz	ESCI	100613	2021/12/3	2022/12/2
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2022/8/31	2023/8/30

Notes:

1. The test was performed in HY - Conduction 1.
2. Tested Date: 2022/9/7 ~ 2022/9/27

4.6 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower inn-co GmbH	MA 4000	010303	N/A	N/A
Bi_Log Antenna Schwarbeck	VULB9168	9168-155	2021/11/1	2022/10/31
Loop Antenna EMCI	EM-6879	269	2022/9/19	2023/9/18
Loop Antenna TESEQ	HLA 6121	45745	2022/7/27	2023/7/26
Pre-amplifier EMCI	EMC001340	980201	2022/9/23	2023/9/22
Pre_Amplifier Agilent	8447D	2944A10631	2022/5/14	2023/5/13
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	2022/1/15	2023/1/14
	EMC102-KM-KM-600	150928	2022/7/9	2023/7/8
	EMC102-KM-KM-3000	150929	2022/7/9	2023/7/8
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Spectrum Analyzer R&S	FSW43	101582	2022/4/13	2023/4/12
Test Receiver R&S	ESCI	100424	2021/12/30	2022/12/29
Turn Table BV ADT	TT100	TT93021705	N/A	N/A
Turn Table Controller BV ADT	SC100	SC93021705	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 3.
2. Tested Date: 2022/9/27

4.7 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower inn-co GmbH	MA 4000	010303	N/A	N/A
Boresight antenna tower fixture BV	BAF-02	5	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9170	BBHA9170241	2021/10/26	2022/10/25
Pre-Ammlifier EMCI	EMC 184045	980116	2021/10/5	2022/10/4
Pre_Amplifier KEYSIGHT	83017A	MY53270295	2022/5/14	2023/5/13
RF cable HUBER+SUHNER	Sucoflex 104	MY 13380+295012/04	2022/5/14	2023/5/13
RF Coaxial Cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03(250724)	2022/5/14	2023/5/13
		CABLE-CH9-(250795/4)	2022/1/15	2023/1/14
RF Coaxial Cable HUBER+SUHNER&EMCI	SUCOFLEX 104& EMC104-SM-SM8000	CABLE-CH9-02 (248780+171006)	2022/1/15	2023/1/14
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Spectrum Analyzer R&S	FSW43	101582	2022/4/13	2023/4/12
Test Receiver R&S	ESCI	100424	2021/12/30	2022/12/29
Turn Table BV ADT	TT100	TT93021705	N/A	N/A
Turn Table Controller BV ADT	SC100	SC93021705	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 3.
2. Tested Date: 2022/8/2 ~ 2022/9/7

5 Limits of Test Items

5.1 RF Output Power

Device Category	Limit (Max Average Power)
Indoor access point	EIRP 36 dBm
Subordinate device	EIRP 36 dBm
Client device	EIRP 30 dBm
Note: For all U-NII-4 and U-NII-3 & -4 span channels shall met above EIRP values.	

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

5.2 Power Spectral Density

Device Category	Limit
Indoor access point	EIRP 20 dBm/MHz
Subordinate device	EIRP 20 dBm/MHz
Client device	EIRP 14 dBm/MHz
Note: For all U-NII-4 and U-NII-3 & -4 span channels shall met above EIRP values.	

5.3 6 dB Bandwidth

Within the 5.725-5.850 GHz and 5.850-5.895 GHz bands, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

5.4 Frequency Stability

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

5.5 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.

5.6 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).

5.7 Unwanted Emissions above 1 GHz

(i) For an indoor access point or subordinate device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of 15 dBm/MHz and shall decrease linearly to an e.i.r.p. of −7 dBm/MHz at or above 5.925 GHz.

(ii) For a client device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of −5 dBm/MHz and shall decrease linearly to an e.i.r.p. of −27 dBm/MHz at or above 5.925 GHz.

(iii) For a client device or indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of −27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.

Note:

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

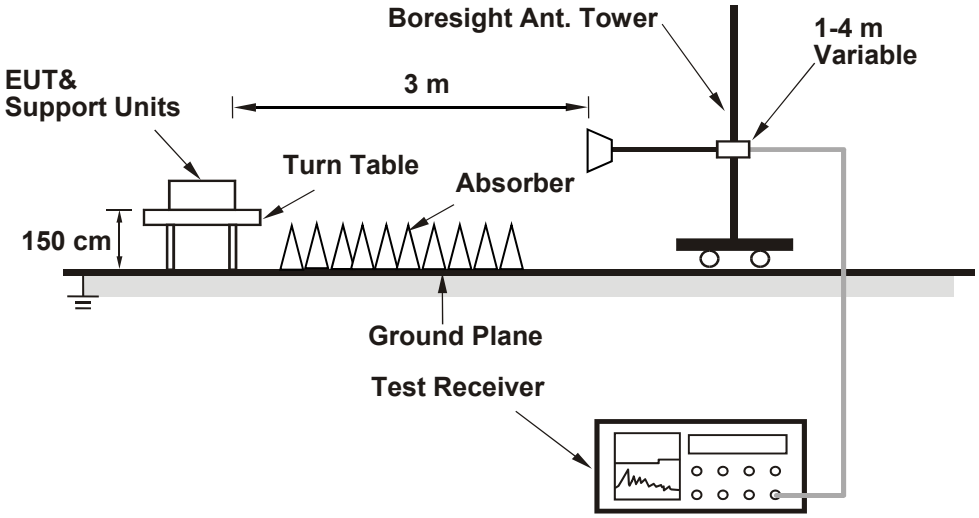
$$E = \frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts).

6 Test Arrangements

6.1 RF Output Power

6.1.1 Test Setup

Radiated Measurement Method



6.1.2 Test Procedure

Radiated Measurement Method

a. The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

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

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP level.

e. Follow ANSI C63.10 section 12.7.3, EIRP Value (dBm) = Field Strength Value (dBuV / m) + Correction Factor @ 3 m.

f. Correction Factor (dB) @ 3 m = 20log(D) – 104.77; where D is the measurement distance @3 m = -95.23 dB

Spectrum analyzer setting as below:
Method SA-1

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.

b. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS

c. Sweep points ≥ [2 × span / RBW]. (This gives bin-to-bin spacing ≤ RBW / 2, so that narrowband signals are not lost between frequency bins.)

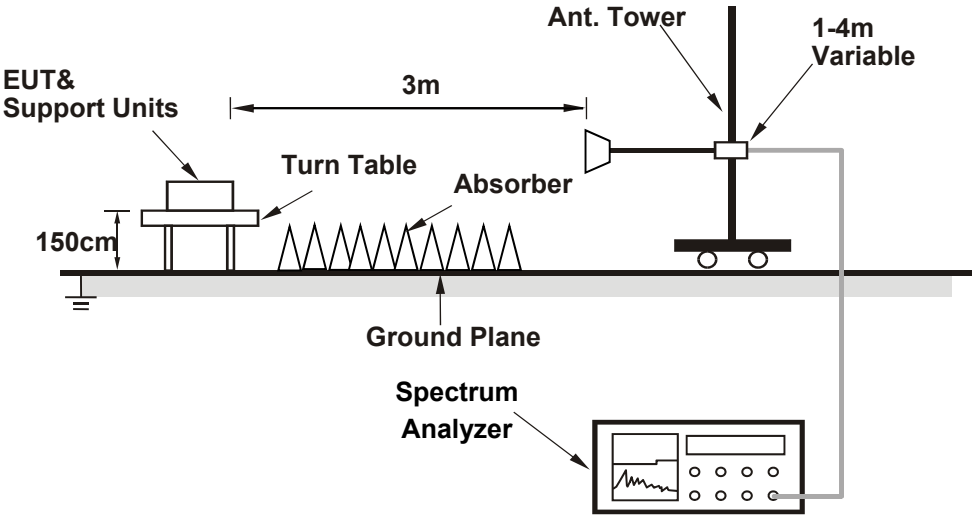
d. Sweep time = auto, trigger set to “free run”.

e. Trace average at least 100 traces in power averaging mode.

f. Record the max value

6.2 Power Spectral Density

6.2.1 Test Setup



6.2.2 Test Procedure

a. The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

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

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP level.

e. Follow ANSI 63.10 and KDB 412172 D01 v01r01, EIRP Value (dBm) = Field Strength Value (dBμV/m) + Correction Factor @ 3m.

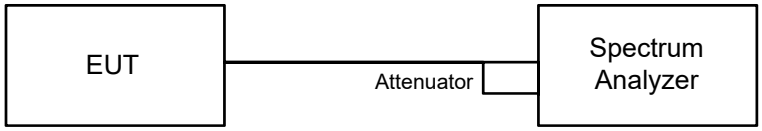
f. Correction Factor (dB) @ 3m = 20log(D) − 104.77; where D is the measurement distance @3m=-95.23dB

Note: Spectrum analyzer setting as below:
Method SA-1

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

6.3 6 dB Bandwidth

6.3.1 Test Setup

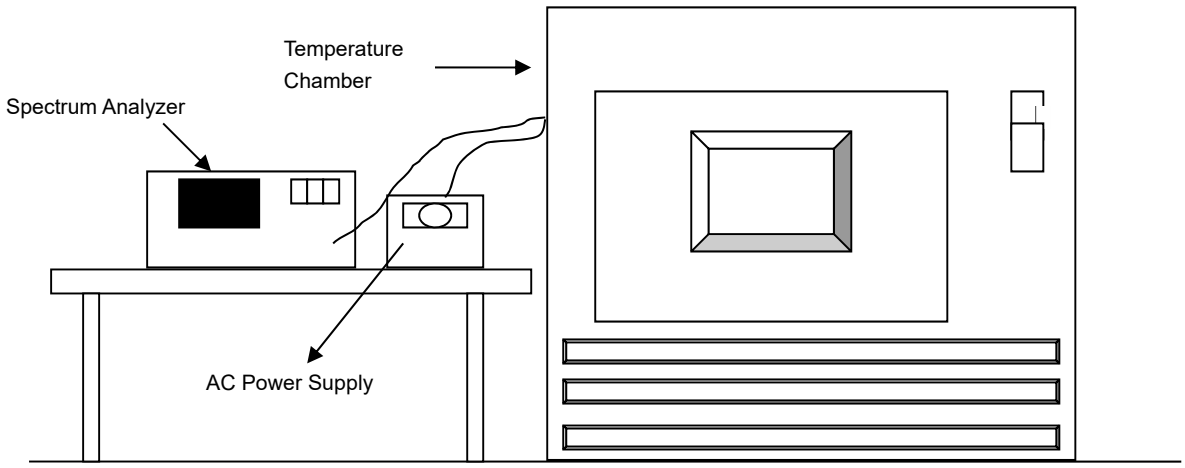


6.3.2 Test Procedure

a. Set resolution bandwidth (RBW) = 100 kHz.
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. 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 Frequency Stability

6.4.1 Test Setup

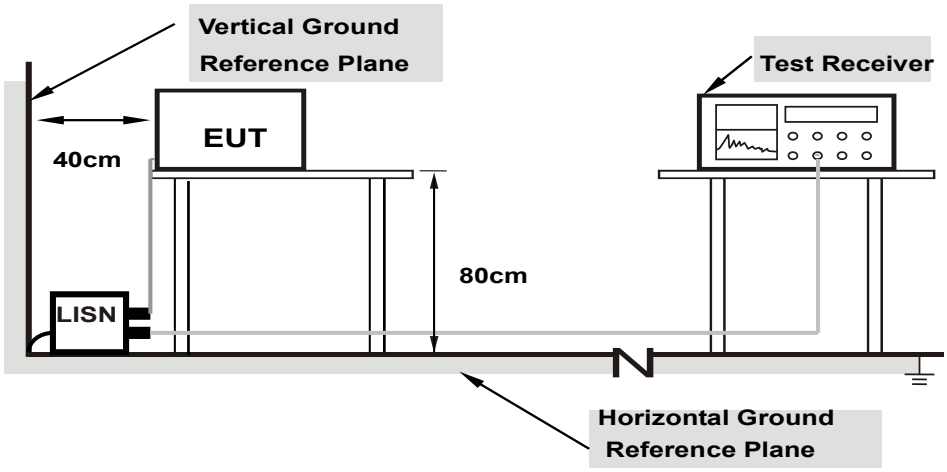


6.4.2 Test Procedure

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

6.5 AC Power Conducted Emissions

6.5.1 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).

6.5.2 Test Procedure

a. The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50 uH of coupling impedance for the measuring instrument.

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

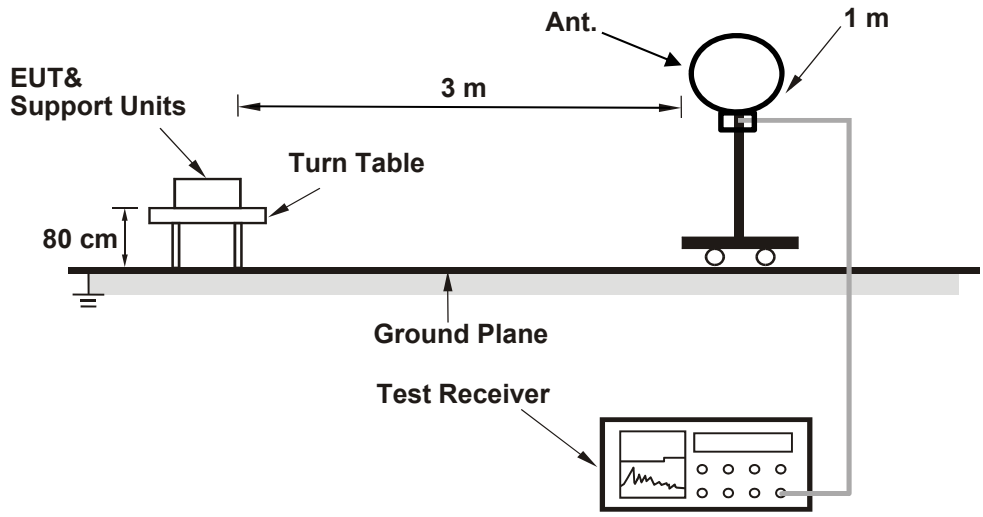
c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

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

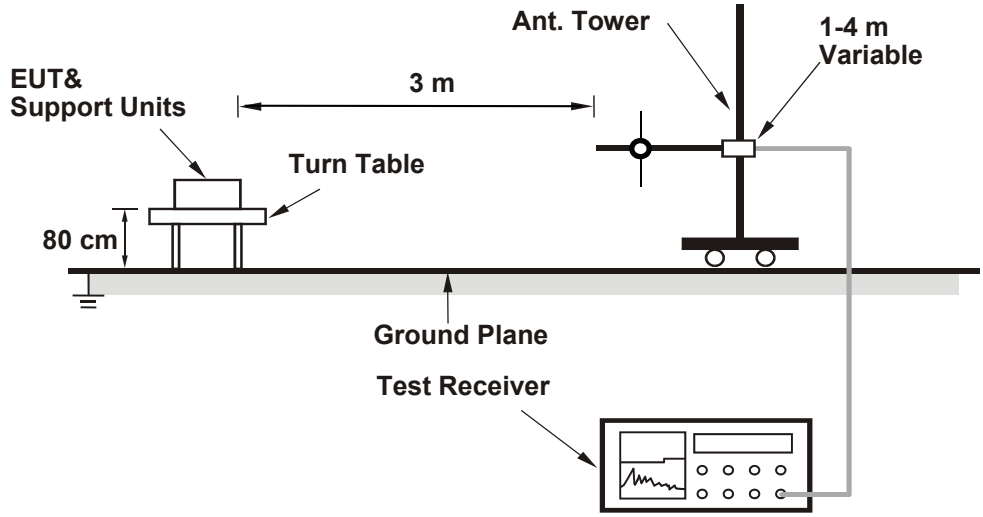
6.6 Unwanted Emissions below 1 GHz

6.6.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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

6.6.2 Test Procedure

For Radiated emission below 30 MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

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

c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

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

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

Notes:

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

For Radiated emission above 30 MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

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

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

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

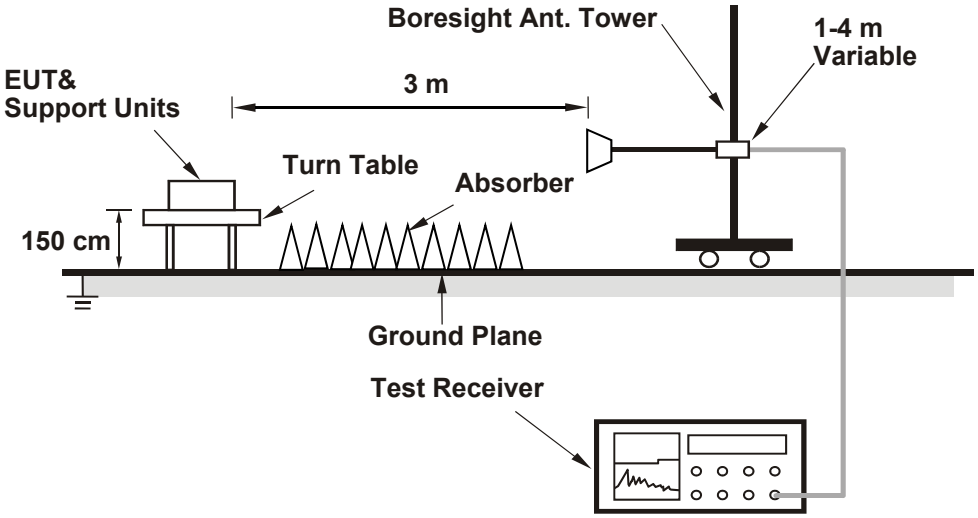
e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

Notes:

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

6.7 Unwanted Emissions above 1 GHz

6.7.1 Test Setup



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

6.7.2 Test Procedure

a. The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

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

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

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

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

Notes:

1. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
2. For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10 Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1 GHz.
3. For band edge measurement, the integration method is used, the resolution bandwidth of test spectrum analyzer is 100 kHz and the video bandwidth is 300 kHz. Please refer to the following for other instrument settings.
4. All modes of operation were investigated and the worst-case emissions are reported.

7 Test Results of Test Item

7.1 RF Output Power

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

802.11a CDD

Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
169	5845	123.87	-95.23	731.139	28.64	36	Pass
173	5865	123.91	-95.23	737.904	28.68	36	Pass
177	5885	123.86	-95.23	729.458	28.63	36	Pass

802.11ax (HE20) CDD

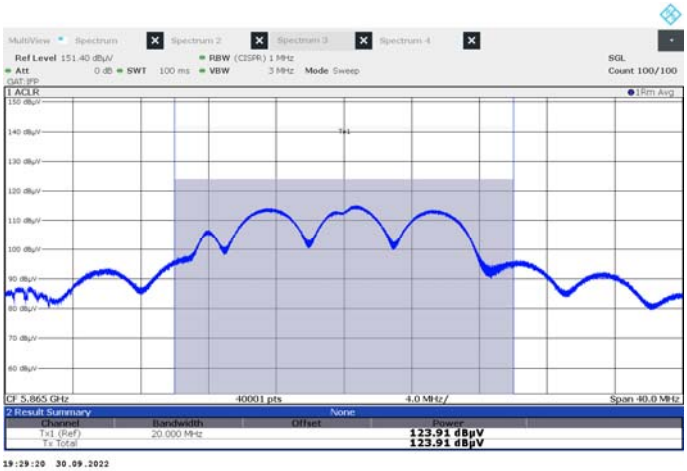
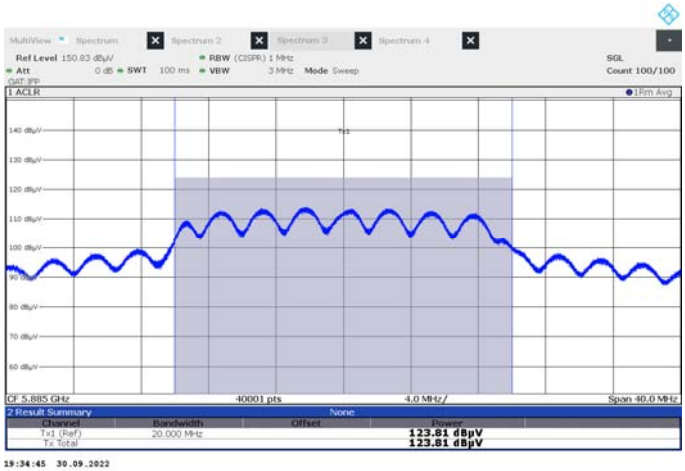
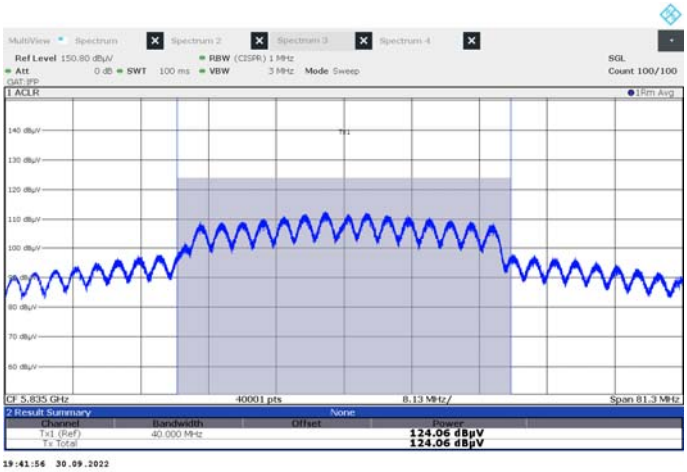
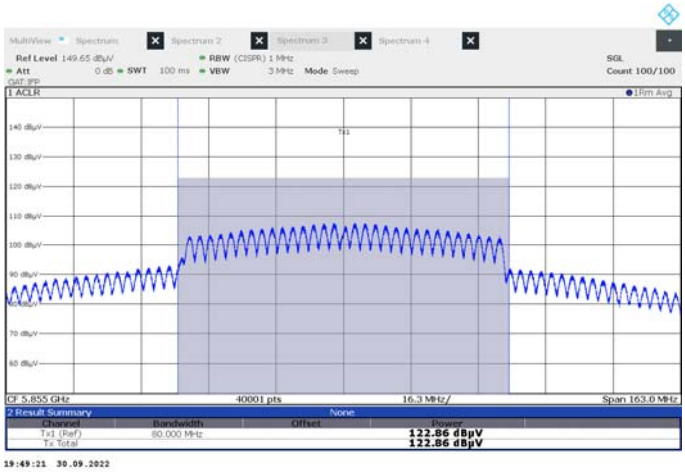
Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
169	5845	123.51	-95.23	672.977	28.28	36	Pass
173	5865	123.35	-95.23	648.634	28.12	36	Pass
177	5885	123.81	-95.23	721.107	28.58	36	Pass

802.11ax (HE40) CDD

Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
167	5835	124.06	-95.23	763.836	28.83	36	Pass
175	5875	123.38	-95.23	653.131	28.15	36	Pass

802.11ax (HE80) CDD

Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
171	5855	122.86	-95.23	579.429	27.63	36	Pass

Spectrum Plot of Maximum Value	
 802.11a / CH 173	 802.11ax (HE20) / CH 177
 802.11ax (HE40) / CH 167	 802.11ax (HE80) / CH 171

802.11ax (HE20) Beamforming

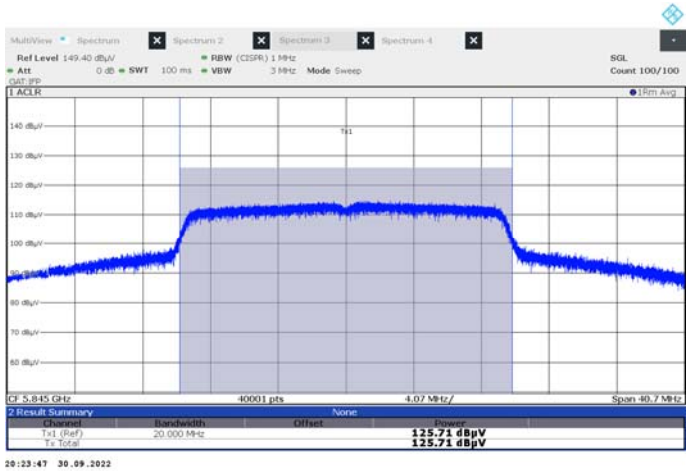
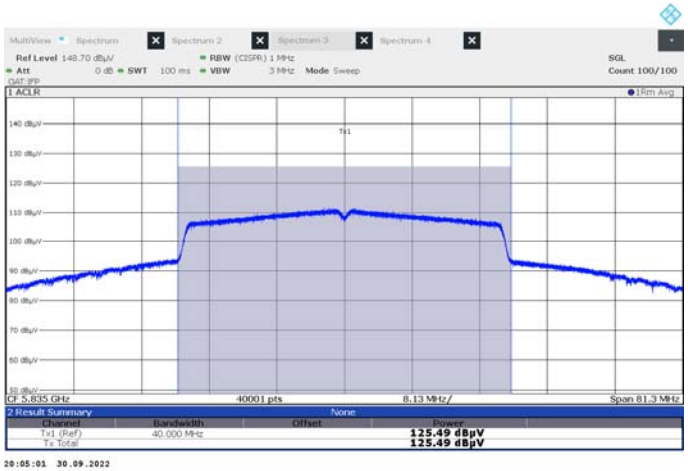
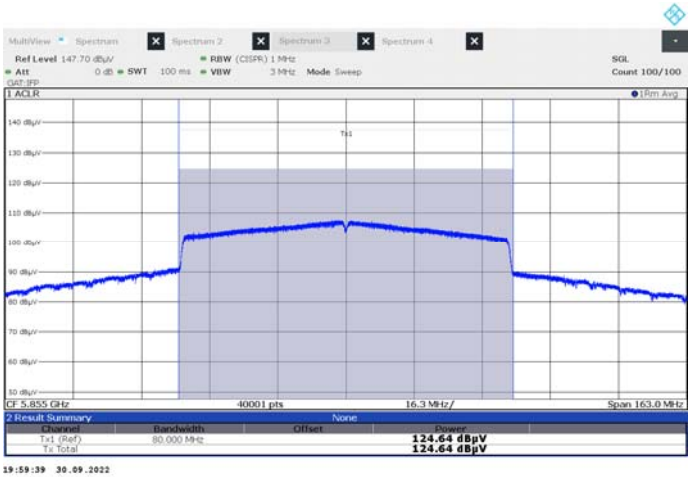
Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
169	5845	125.71	-95.23	1116.863	30.48	36	Pass
173	5865	125.66	-95.23	1104.079	30.43	36	Pass
177	5885	125.65	-95.23	1101.539	30.42	36	Pass

802.11ax (HE40) Beamforming

Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
167	5835	125.49	-95.23	1061.696	30.26	36	Pass
175	5875	125.43	-95.23	1047.129	30.20	36	Pass

802.11ax (HE80) Beamforming

Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
171	5855	124.64	-95.23	872.971	29.41	36	Pass

Spectrum Plot of Maximum Value	
 802.11ax (HE20) / CH 169	 802.11ax (HE40) / CH 167
 802.11ax (HE80) / CH 171	

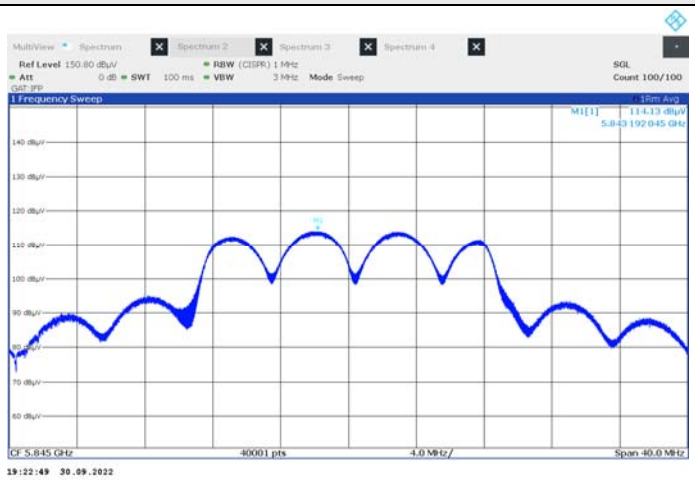
7.2 Power Spectral Density

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

802.11a CDD

Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
169	5845	114.13	-95.23	18.90	20	Pass
173	5865	113.89	-95.23	18.66	20	Pass
177	5885	113.95	-95.23	18.72	20	Pass

Spectrum Plot of Maximum Value



802.11a / CH 169

802.11ax (HE20) Beamforming

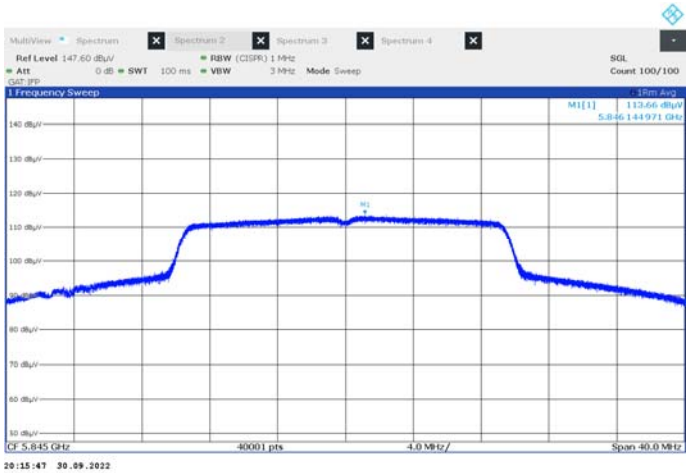
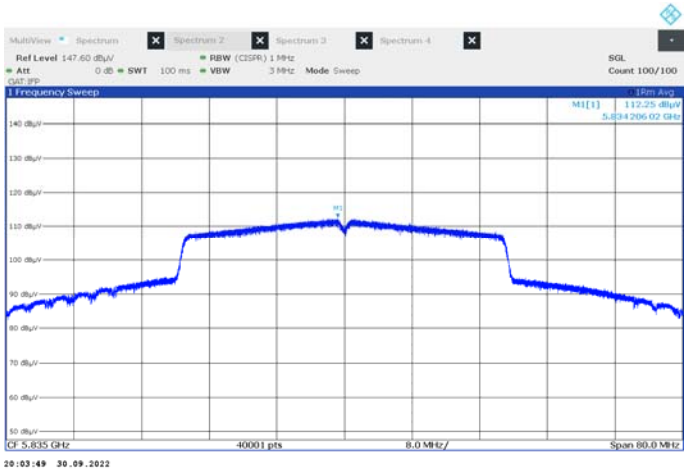
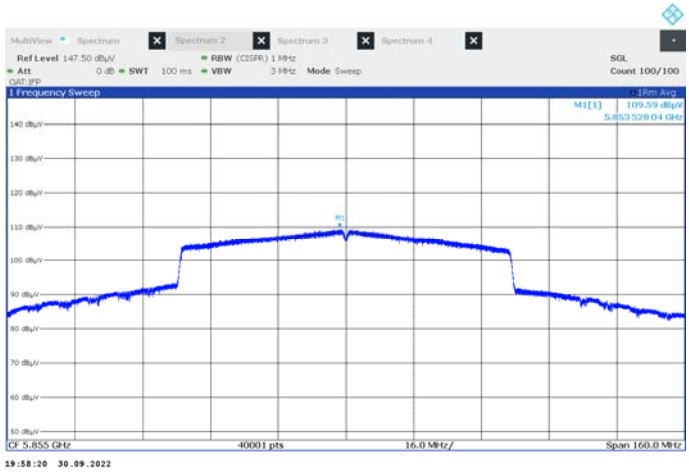
Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
169	5845	113.66	-95.23	18.43	20	Pass
173	5865	113.56	-95.23	18.33	20	Pass
177	5885	113.21	-95.23	17.98	20	Pass

802.11ax (HE40) Beamforming

Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
167	5835	112.25	-95.23	17.02	20	Pass
175	5875	111.25	-95.23	16.02	20	Pass

802.11ax (HE80) Beamforming

Chan.	Chan. Freq. (MHz)	Field Strength (dBuV/m)	Correction Factor (dB)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
171	5855	109.59	-95.23	14.36	20	Pass

Spectrum Plot of Maximum Value	
 802.11ax (HE20) / CH 169	 802.11ax (HE40) / CH 167
 802.11ax (HE80) / CH 171	

7.3 6 dB Bandwidth

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

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
169	5845	16.36	16.31	0.5	Pass
173	5865	15.95	16.35	0.5	Pass
177	5885	16.35	16.36	0.5	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
169	5845	18.70	18.21	0.5	Pass
173	5865	18.62	18.87	0.5	Pass
177	5885	18.30	18.21	0.5	Pass

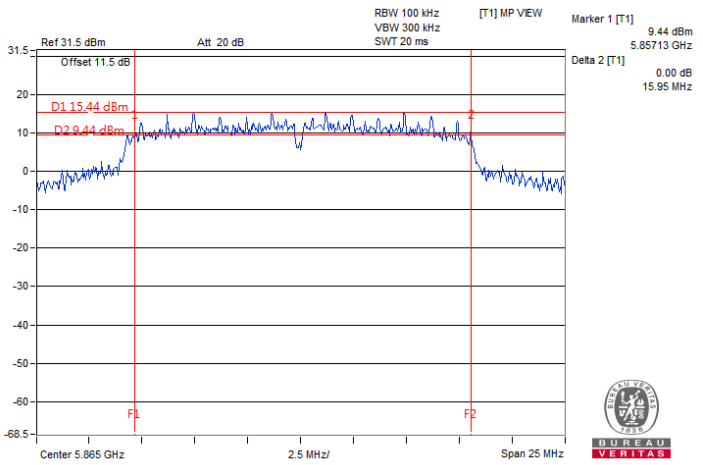
802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
167	5835	32.55	33.32	0.5	Pass
175	5875	32.67	33.93	0.5	Pass

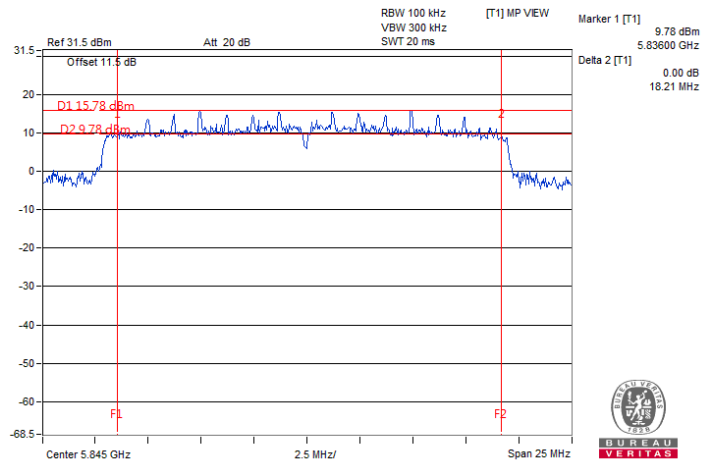
802.11ax (HE80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
171	5855	72.63	72.68	0.5	Pass

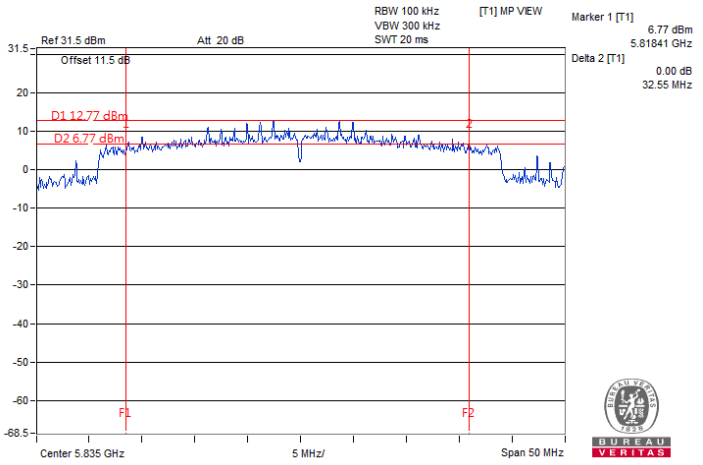
Spectrum Plot of Minimum Value



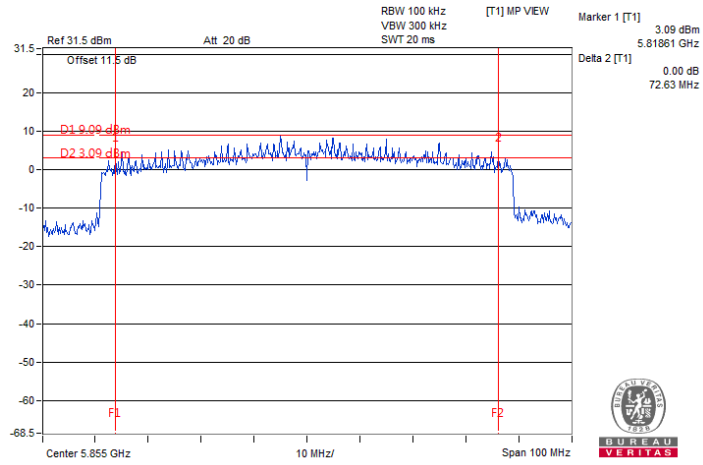
802.11a / Chain0 : CH 173



802.11ax (HE20) / Chain1 : CH 169



802.11ax (HE40) / Chain0 : CH 167



802.11ax (HE80) / Chain0 : CH 171

7.4 Frequency Stability

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

802.11a

Frequency Stability Versus Temp.									
Operating Frequency: 5885 MHz									
TEMP. (℃)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
40	120	5885.0094	Pass	5885.0093	Pass	5885.0081	Pass	5885.0067	Pass
30	120	5885.0192	Pass	5885.0204	Pass	5885.0216	Pass	5885.0239	Pass
20	120	5885.0104	Pass	5885.0108	Pass	5885.0098	Pass	5885.0112	Pass
10	120	5884.9889	Pass	5884.9932	Pass	5884.9916	Pass	5884.9894	Pass
0	120	5885.0303	Pass	5885.0273	Pass	5885.029	Pass	5885.0283	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5885 MHz									
TEMP. (℃)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
20	138	5885.0147	Pass	5885.0172	Pass	5885.0172	Pass	5885.0179	Pass
	120	5885.0104	Pass	5885.0108	Pass	5885.0098	Pass	5885.0112	Pass
	102	5885.0165	Pass	5885.0168	Pass	5885.0126	Pass	5885.0151	Pass

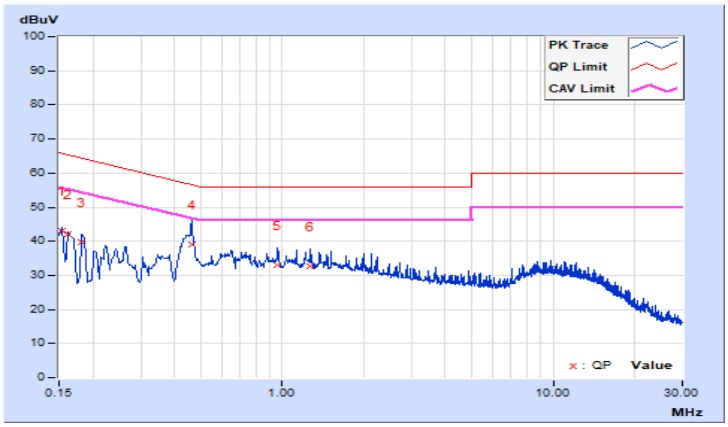
7.5 AC Power Conducted Emissions

RF Mode	TX 802.11ax (HE40)	**Channel**	CH 167：5835 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**	23°C, 66% RH
Tested By	Titan HSU	**Test Mode**	A

Phase Of Power : Line (L)										
No	**Frequency (MHz)**	**Correction Factor (dB)**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
			Q.P.	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	0.15400	9.68	33.34	21.26	43.02	30.94	65.78	55.78	-22.76	-24.84
2	0.16190	9.69	32.37	20.63	42.06	30.32	65.37	55.37	-23.31	-25.05
3	0.18200	9.71	29.97	18.44	39.68	28.15	64.39	54.39	-24.71	-26.24
4	**0.46200**	**9.80**	**29.31**	**25.27**	**39.11**	**35.07**	**56.66**	**46.66**	**-17.55**	**-11.59**
5	0.96200	9.84	23.03	19.85	32.87	29.69	56.00	46.00	-23.13	-16.31
6	1.27400	9.86	22.81	19.59	32.67	29.45	56.00	46.00	-23.33	-16.55

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

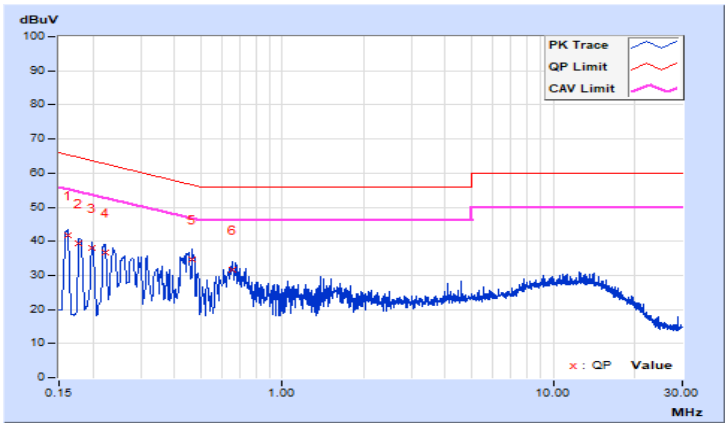


RF Mode	TX 802.11ax (HE40)	Channel	CH 167：5835 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan HSU	Test Mode	A

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	0.16190	9.69	32.11	17.32	41.80	27.01	65.37	55.37	-23.57	-28.36
2	0.17800	9.70	29.56	15.71	39.26	25.41	64.58	54.58	-25.32	-29.17
3	0.19800	9.72	28.16	14.11	37.88	23.83	63.69	53.69	-25.81	-29.86
4	0.22152	9.73	26.98	13.51	36.71	23.24	62.76	52.76	-26.05	-29.52
5	0.46600	9.82	24.96	16.56	34.78	26.38	56.58	46.58	-21.80	-20.20
6	0.65800	9.83	21.72	15.89	31.55	25.72	56.00	46.00	-24.45	-20.28

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

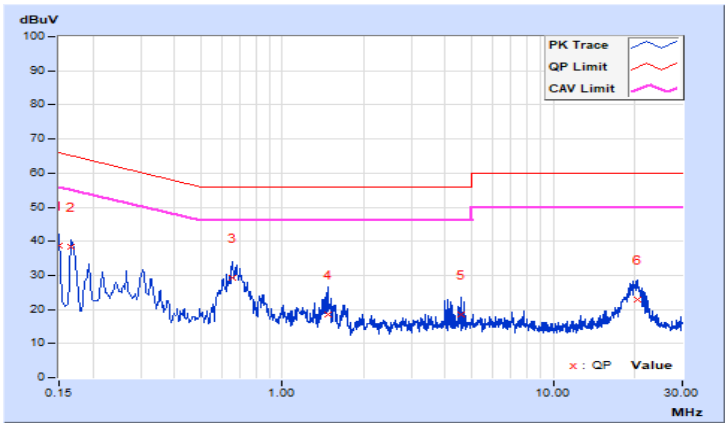


RF Mode	TX 802.11ax (HE40)	**Channel**	CH 167：5835 MHz
Frequency Range	150 kHz ~ 30 MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	Titan HSU	**Test Mode**	B

Phase Of Power : Line (L)										
No	**Frequency (MHz)**	**Correction Factor (dB)**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
			Q.P.	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	0.15000	9.68	29.12	16.74	38.80	26.42	66.00	56.00	-27.20	-29.58
2	0.16600	9.69	28.55	11.18	38.24	20.87	65.16	55.16	-26.92	-34.29
3	0.65800	9.82	19.37	13.88	29.19	23.70	56.00	46.00	-26.81	-22.30
4	1.47400	9.87	8.64	2.54	18.51	12.41	56.00	46.00	-37.49	-33.59
5	4.57400	9.96	8.40	2.13	18.36	12.09	56.00	46.00	-37.64	-33.91
6	20.46600	10.16	12.57	5.65	22.73	15.81	60.00	50.00	-37.27	-34.19

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

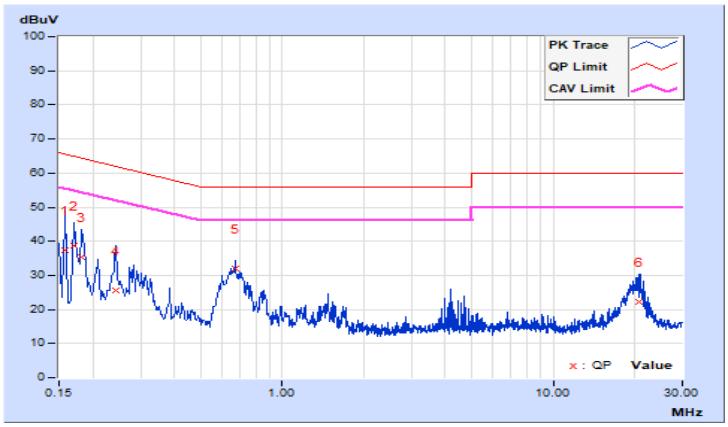


RF Mode	TX 802.11ax (HE40)	**Channel**	CH 167：5835 MHz
Frequency Range	150 kHz ~ 30 MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	Titan HSU	**Test Mode**	B

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	0.15800	9.69	27.55	9.96	37.24	19.65	65.57	55.57	-28.33	-35.92
2	0.17000	9.70	29.03	11.29	38.73	20.99	64.96	54.96	-26.23	-33.97
3	0.18200	9.71	25.65	9.23	35.36	18.94	64.39	54.39	-29.03	-35.45
4	0.24200	9.74	15.90	9.45	25.64	19.19	62.03	52.03	-36.39	-32.84
5	0.66987	9.83	22.17	14.93	32.00	24.76	56.00	46.00	-24.00	-21.24
6	20.70200	10.20	12.04	5.42	22.24	15.62	60.00	50.00	-37.76	-34.38

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



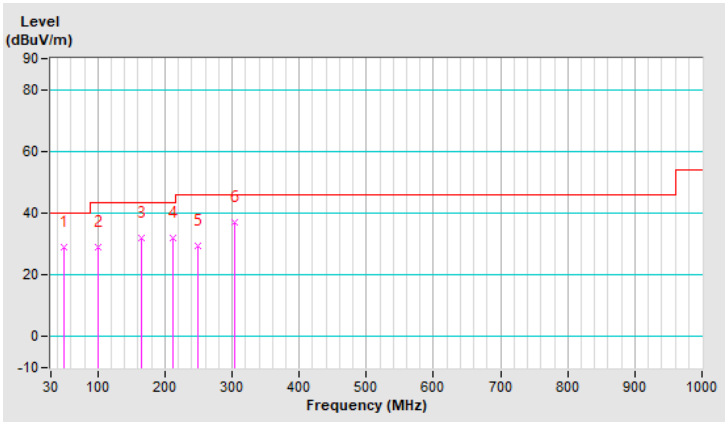
7.6 Unwanted Emissions below 1 GHz

RF Mode	TX 802.11ax (HE40)	**Channel**	CH 167：5835 MHz
Frequency Range	9 kHz ~ 1 GHz	**Detector Function & Bandwidth**	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	21°C, 68% RH
Tested By	Luis Lee	**Test Mode**	A

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	49.40	28.9 QP	40.0	-11.1	1.01 H	152	37.7	-8.8
2	99.84	29.1 QP	43.5	-14.4	1.01 H	148	42.4	-13.3
3	165.80	31.9 QP	43.5	-11.6	1.01 H	152	40.6	-8.7
4	212.36	32.0 QP	43.5	-11.5	1.01 H	152	43.2	-11.2
5	249.22	29.4 QP	46.0	-16.6	1.01 H	130	38.5	-9.1
6	**303.54**	**37.1 QP**	**46.0**	**-8.9**	**1.01 H**	**276**	**44.4**	**-7.3**

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.

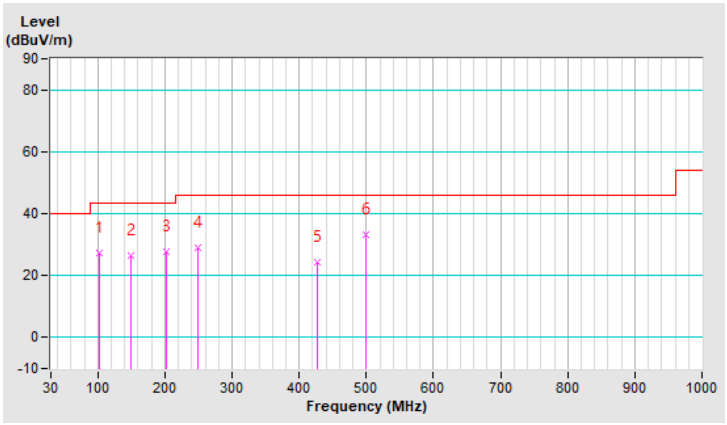


RF Mode	TX 802.11ax (HE40)	**Channel**	CH 167：5835 MHz
Frequency Range	9 kHz ~ 1 GHz	**Detector Function & Bandwidth**	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	21°C, 68% RH
Tested By	Luis Lee	**Test Mode**	A

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	101.78	27.2 QP	43.5	-16.3	1.00 V	221	40.2	-13.0
2	148.34	26.3 QP	43.5	-17.2	1.49 V	159	35.0	-8.7
3	202.66	27.9 QP	43.5	-15.6	1.49 V	127	39.3	-11.4
4	249.22	29.1 QP	46.0	-16.9	1.00 V	111	38.2	-9.1
5	427.70	24.5 QP	46.0	-21.5	1.49 V	246	29.7	-5.2
6	499.48	33.2 QP	46.0	-12.8	1.49 V	133	37.4	-4.2

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.

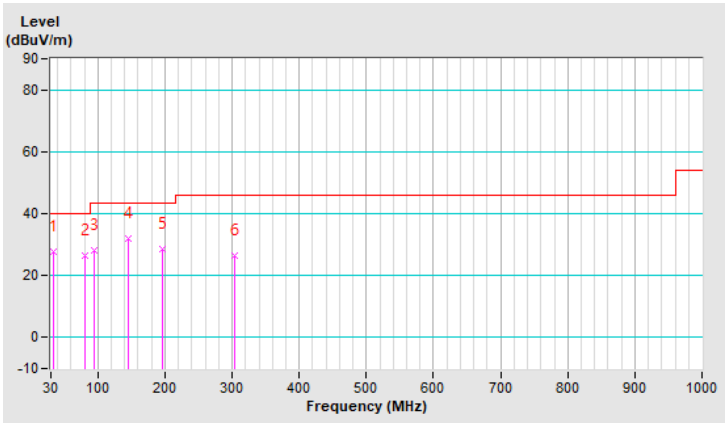


RF Mode	TX 802.11ax (HE40)	Channel	CH 167：5835 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	21°C, 68% RH
Tested By	Luis Lee	Test Mode	B

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	33.88	27.9 QP	40.0	-12.1	1.49 H	351	38.0	-10.1
2	80.44	26.3 QP	40.0	-13.7	1.00 H	6	39.4	-13.1
3	94.02	28.0 QP	43.5	-15.5	1.00 H	351	42.1	-14.1
4	144.46	31.8 QP	43.5	-11.7	1.00 H	136	40.6	-8.8
5	196.84	28.5 QP	43.5	-15.0	1.00 H	349	39.9	-11.4
6	303.54	26.3 QP	46.0	-19.7	1.00 H	351	33.6	-7.3

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.

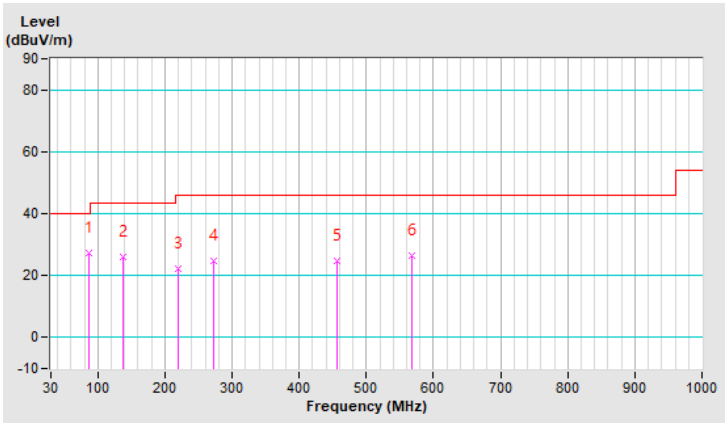


RF Mode	TX 802.11ax (HE40)	**Channel**	CH 167：5835 MHz
Frequency Range	9 kHz ~ 1 GHz	**Detector Function & Bandwidth**	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	21°C, 68% RH
Tested By	Luis Lee	**Test Mode**	B

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	86.26	27.4 QP	40.0	-12.6	1.01 V	16	41.6	-14.2
2	136.70	25.9 QP	43.5	-17.6	1.50 V	162	35.2	-9.3
3	220.12	22.2 QP	46.0	-23.8	1.50 V	164	33.3	-11.1
4	272.50	24.6 QP	46.0	-21.4	1.50 V	133	32.8	-8.2
5	456.80	24.7 QP	46.0	-21.3	1.50 V	22	29.3	-4.6
6	567.38	26.6 QP	46.0	-19.4	1.50 V	124	29.6	-3.0

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 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.



7.7 Unwanted Emissions above 1 GHz

RF Mode	TX 802.11a	Channel	CH 169：5845 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 69% RH
Tested By	Noah Chang		

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	*5845.00	122.8 PK			1.83 H	284	78.8	44.0
2	*5845.00	112.3 AV			1.83 H	284	68.3	44.0
3	#5921.93	73.1 PK	90.4	-17.3	1.83 H	284	59.3	13.8
4	#5926.20	74.0 PK	88.2	-14.2	1.83 H	284	60.2	13.8
5	11690.00	66.7 PK	74.0	-7.3	1.45 H	281	43.6	23.1
6	11690.00	52.7 AV	54.0	-1.3	1.45 H	281	29.6	23.1
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	*5845.00	121.8 PK			1.98 V	269	77.8	44.0
2	*5845.00	111.3 AV			1.98 V	269	67.3	44.0
3	#5904.82	74.0 PK	103.0	-29.0	1.98 V	269	60.3	13.7
4	#5934.27	67.9 PK	88.2	-20.3	1.98 V	269	54.1	13.8
5	11690.00	65.8 PK	74.0	-8.2	1.80 V	158	42.7	23.1
6	11690.00	52.4 AV	54.0	-1.6	1.80 V	158	29.3	23.1

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, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11a	Channel	CH 173：5865 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 69% RH
Tested By	Noah Chang		

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	*5865.00	123.4 PK			1.80 H	283	79.4	44.0
2	*5865.00	112.0 AV			1.80 H	283	68.0	44.0
3	#5924.30	80.1 PK	88.7	-8.6	1.80 H	283	66.3	13.8
4	#5928.57	77.4 PK	88.2	-10.8	1.80 H	283	63.6	13.8
5	11730.00	66.4 PK	74.0	-7.6	1.58 H	280	43.5	22.9
6	11730.00	52.3 AV	54.0	-1.7	1.58 H	280	29.4	22.9
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	*5865.00	121.9 PK			1.83 V	281	77.9	44.0
2	*5865.00	111.4 AV			1.83 V	281	67.4	44.0
3	#5901.98	85.6 PK	105.1	-19.5	1.83 V	281	71.9	13.7
4	#5931.43	72.3 PK	88.2	-15.9	1.83 V	281	58.5	13.8
5	11730.00	65.7 PK	74.0	-8.3	1.82 V	155	42.8	22.9
6	11730.00	52.1 AV	54.0	-1.9	1.82 V	155	29.2	22.9

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 177：5885 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 69% RH
Tested By	Noah Chang		

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	#5624.10	60.1 PK	68.2	-8.1	1.77 H	281	47.5	12.6
2	*5885.00	122.4 PK			1.77 H	281	78.3	44.1
3	*5885.00	112.2 AV			1.77 H	281	68.1	44.1
4	#5917.18	92.3 PK	113.9	-21.6	1.77 H	281	78.6	13.7
5	#5921.93	74.3 AV	90.4	-16.1	1.77 H	281	60.5	13.8
6	#5926.68	86.1 PK	108.2	-22.1	1.77 H	281	72.3	13.8
7	#5926.68	73.3 AV	88.2	-14.9	1.77 H	281	59.5	13.8
8	11770.00	66.1 PK	74.0	-7.9	1.51 H	280	43.5	22.6
9	11770.00	52.2 AV	54.0	-1.8	1.51 H	280	29.6	22.6
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	#5635.02	60.5 PK	68.2	-7.7	1.84 V	280	47.8	12.7
2	*5885.00	121.7 PK			1.84 V	280	77.6	44.1
3	*5885.00	111.3 AV			1.84 V	280	67.2	44.1
4	#5900.55	88.9 AV	106.1	-17.2	1.84 V	280	75.2	13.7
5	#5901.98	101.0 PK	125.1	-24.1	1.84 V	280	87.3	13.7
6	#5925.25	70.9 AV	88.2	-17.3	1.84 V	280	57.1	13.8
7	#5927.15	83.4 PK	108.2	-24.8	1.84 V	280	69.6	13.8
8	11770.00	65.5 PK	74.0	-8.5	1.85 V	155	42.9	22.6
9	11770.00	52.0 AV	54.0	-2.0	1.85 V	155	29.4	22.6

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 169：5845 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 69% RH
Tested By	Noah Chang		

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	*5845.00	122.0 PK			1.77 H	276	78.0	44.0
2	*5845.00	110.6 AV			1.77 H	276	66.6	44.0
3	#5902.93	86.3 PK	104.4	-18.1	1.77 H	276	72.6	13.7
4	#5925.25	77.9 PK	88.2	-10.3	1.77 H	276	64.1	13.8
5	11690.00	66.7 PK	74.0	-7.3	1.73 H	286	43.6	23.1
6	11690.00	53.0 AV	54.0	-1.0	1.73 H	286	29.9	23.1
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	*5845.00	121.7 PK			1.72 V	274	77.7	44.0
2	*5845.00	110.2 AV			1.72 V	274	66.2	44.0
3	#5921.45	76.9 PK	90.8	-13.9	1.72 V	274	63.1	13.8
4	#5933.80	72.1 PK	88.2	-16.1	1.72 V	274	58.3	13.8
5	11690.00	66.1 PK	74.0	-7.9	1.75 V	156	43.0	23.1
6	11690.00	52.5 AV	54.0	-1.5	1.75 V	156	29.4	23.1

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, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	Channel	CH 173：5865 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 69% RH
Tested By	Noah Chang		

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	*5865.00	122.1 PK			1.84 H	282	78.1	44.0
2	*5865.00	109.8 AV			1.84 H	282	65.8	44.0
3	#5911.00	91.0 PK	98.5	-7.5	1.84 H	282	77.3	13.7
4	#5933.32	81.7 PK	88.2	-6.5	1.84 H	282	67.9	13.8
5	11730.00	67.0 PK	74.0	-7.0	1.35 H	282	44.1	22.9
6	11730.00	52.8 AV	54.0	-1.2	1.35 H	282	29.9	22.9
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	*5865.00	121.5 PK			1.76 V	275	77.5	44.0
2	*5865.00	109.6 AV			1.76 V	275	65.6	44.0
3	#5905.30	84.7 PK	102.6	-17.9	1.76 V	275	71.0	13.7
4	#5935.23	75.0 PK	88.2	-13.2	1.76 V	275	61.2	13.8
5	11730.00	65.9 PK	74.0	-8.1	1.77 V	162	43.0	22.9
6	11730.00	52.4 AV	54.0	-1.6	1.77 V	162	29.5	22.9

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 177：5885 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 69% RH
Tested By	Noah Chang		

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	#5641.20	61.4 PK	68.2	-6.8	1.73 H	280	48.7	12.7
2	*5885.00	122.4 PK			1.73 H	280	78.3	44.1
3	*5885.00	111.0 AV			1.73 H	280	66.9	44.1
4	#5920.50	95.1 PK	111.5	-16.4	1.73 H	280	81.3	13.8
5	#5922.87	75.9 AV	89.8	-13.9	1.73 H	280	62.1	13.8
6	#5925.73	90.5 PK	108.2	-17.7	1.73 H	280	76.7	13.8
7	#5928.10	73.6 AV	88.2	-14.6	1.73 H	280	59.8	13.8
8	11770.00	66.1 PK	74.0	-7.9	1.98 H	297	43.5	22.6
9	11770.00	52.4 AV	54.0	-1.6	1.98 H	297	29.8	22.6
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	#5641.68	60.2 PK	68.2	-8.0	1.81 V	278	47.5	12.7
2	*5885.00	121.5 PK			1.81 V	278	77.4	44.1
3	*5885.00	109.8 AV			1.81 V	278	65.7	44.1
4	#5900.55	93.8 AV	106.1	-12.3	1.81 V	278	80.1	13.7
5	#5910.52	99.5 PK	118.8	-19.3	1.81 V	278	85.8	13.7
6	#5925.73	89.9 PK	108.2	-18.3	1.81 V	278	76.1	13.8
7	#5925.73	71.4 AV	88.2	-16.8	1.81 V	278	57.6	13.8
8	11770.00	65.5 PK	74.0	-8.5	1.82 V	155	42.9	22.6
9	11770.00	52.1 AV	54.0	-1.9	1.82 V	155	29.5	22.6

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 167：5835 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 69% RH
Tested By	Noah Chang		

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	#5635.50	67.6 PK	68.2	-0.6	1.89 H	279	54.9	12.7
2	*5835.00	120.3 PK			1.89 H	279	76.3	44.0
3	*5835.00	108.8 AV			1.89 H	279	64.8	44.0
4	#5913.37	86.1 PK	96.7	-10.6	1.89 H	279	72.4	13.7
5	#5930.95	83.4 PK	88.2	-4.8	1.89 H	279	69.6	13.8
6	11670.00	67.1 PK	74.0	-6.9	1.55 H	288	43.9	23.2
7	11670.00	51.7 AV	54.0	-2.3	1.55 H	288	28.5	23.2
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	#5649.27	64.2 PK	68.2	-4.0	1.74 V	280	51.5	12.7
2	*5835.00	120.0 PK			1.74 V	280	76.0	44.0
3	*5835.00	108.5 AV			1.74 V	280	64.5	44.0
4	#5902.93	86.6 PK	104.4	-17.8	1.74 V	280	72.9	13.7
5	#5927.15	80.0 PK	88.2	-8.2	1.74 V	280	66.2	13.8
6	11670.00	66.3 PK	74.0	-7.7	1.77 V	162	43.1	23.2
7	11670.00	51.6 AV	54.0	-2.4	1.77 V	162	28.4	23.2

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 175：5875 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 69% RH
Tested By	Noah Chang		

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	#5633.12	64.4 PK	68.2	-3.8	1.90 H	268	51.7	12.7
2	*5875.00	120.6 PK			1.90 H	268	76.6	44.0
3	*5875.00	108.7 AV			1.90 H	268	64.7	44.0
4	#5912.43	99.2 PK	117.4	-18.2	1.90 H	268	85.5	13.7
5	#5920.02	84.7 AV	91.8	-7.1	1.90 H	268	70.9	13.8
6	#5925.25	94.0 PK	108.2	-14.2	1.90 H	268	80.2	13.8
7	#5930.00	82.7 AV	88.2	-5.5	1.90 H	268	68.9	13.8
8	11750.00	66.9 PK	74.0	-7.1	1.85 H	266	44.2	22.7
9	11750.00	51.5 AV	54.0	-2.5	1.85 H	266	28.8	22.7
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	#5646.90	62.5 PK	68.2	-5.7	1.82 V	278	49.8	12.7
2	*5875.00	120.0 PK			1.82 V	278	76.0	44.0
3	*5875.00	108.3 AV			1.82 V	278	64.3	44.0
4	#5906.73	90.4 AV	101.6	-11.2	1.82 V	278	76.7	13.7
5	#5916.70	97.5 PK	114.3	-16.8	1.82 V	278	83.8	13.7
6	#5926.68	91.5 PK	108.2	-16.7	1.82 V	278	77.7	13.8
7	#5926.68	80.1 AV	88.2	-8.1	1.82 V	278	66.3	13.8
8	11750.00	65.9 PK	74.0	-8.1	1.76 V	153	43.2	22.7
9	11750.00	51.2 AV	54.0	-2.8	1.76 V	153	28.5	22.7

Remarks:

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

RF Mode	TX 802.11ax (HE80)	Channel	CH 171：5855 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 69% RH
Tested By	Noah Chang		

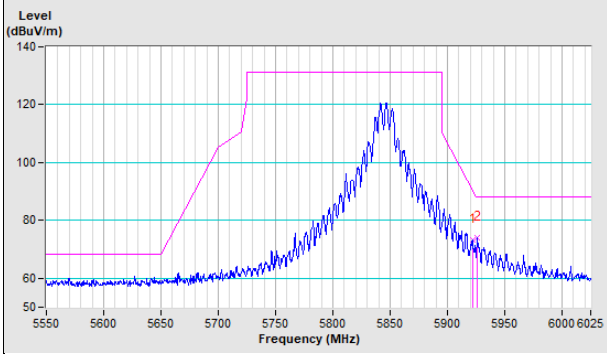
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	**#5648.32**	**68.0 PK**	**68.2**	**-0.2**	**1.91 H**	**271**	**55.3**	**12.7**
2	*5855.00	116.9 PK			1.91 H	271	72.9	44.0
3	*5855.00	104.7 AV			1.91 H	271	60.7	44.0
4	#5920.02	83.2 AV	91.8	-8.6	1.91 H	271	69.4	13.8
5	#5920.50	92.3 PK	111.5	-19.2	1.91 H	271	78.5	13.8
6	#5928.10	82.1 AV	88.2	-6.1	1.91 H	271	68.3	13.8
7	#5930.00	89.3 PK	108.2	-18.9	1.91 H	271	75.5	13.8
8	11710.00	67.2 PK	74.0	-6.8	1.51 H	288	44.3	22.9
9	11710.00	51.6 AV	54.0	-2.4	1.51 H	288	28.7	22.9
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	#5645.95	64.9 PK	68.2	-3.3	1.87 V	278	52.2	12.7
2	*5855.00	116.2 PK			1.87 V	278	72.2	44.0
3	*5855.00	104.2 AV			1.87 V	278	60.2	44.0
4	#5903.87	83.2 AV	103.7	-20.5	1.87 V	278	69.5	13.7
5	#5904.35	93.2 PK	123.3	-30.1	1.87 V	278	79.5	13.7
6	#5929.05	79.6 AV	88.2	-8.6	1.87 V	278	65.8	13.8
7	#5931.90	90.3 PK	108.2	-17.9	1.87 V	278	76.5	13.8
8	11710.00	66.0 PK	74.0	-8.0	1.84 V	159	43.1	22.9
9	11710.00	51.4 AV	54.0	-2.6	1.84 V	159	28.5	22.9

Remarks:

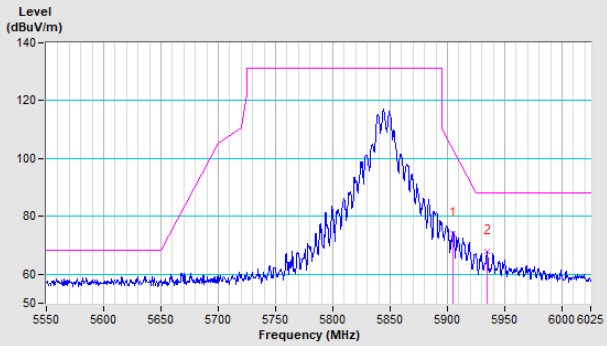
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency,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

802.11a Channel 169

Horizontal (Peak)

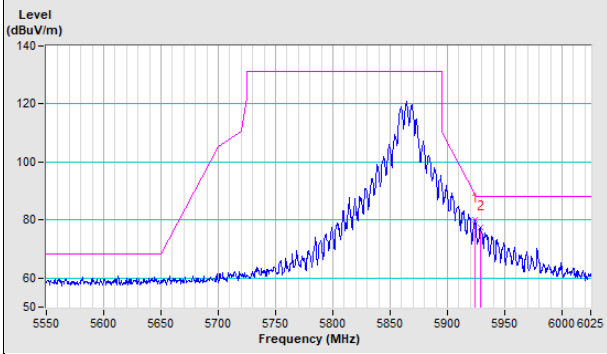


Vertical (Peak)

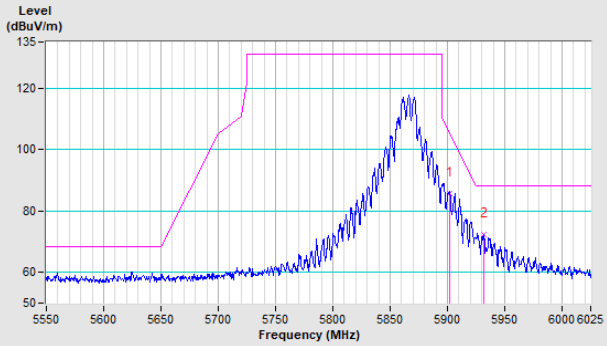


802.11a Channel 173

Horizontal (Peak)

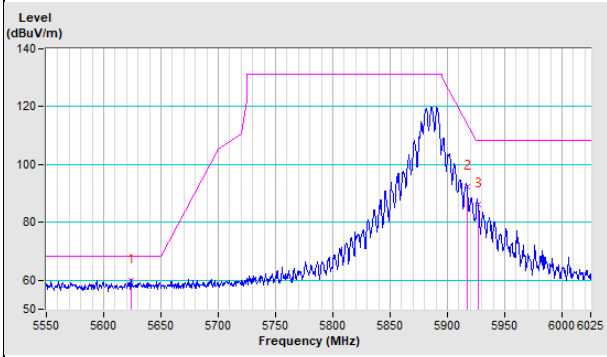


Vertical (Peak)

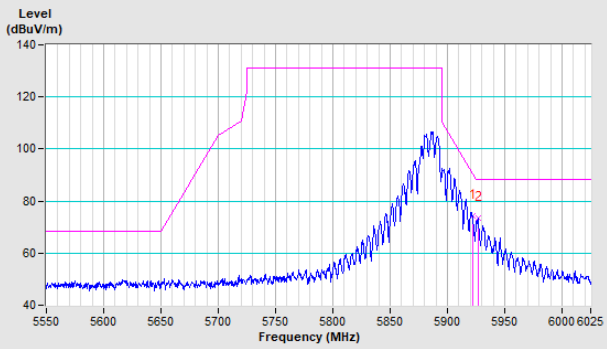


802.11a Channel 177

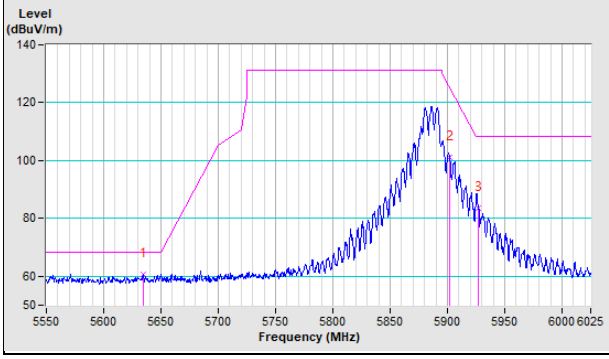
Horizontal (Peak)



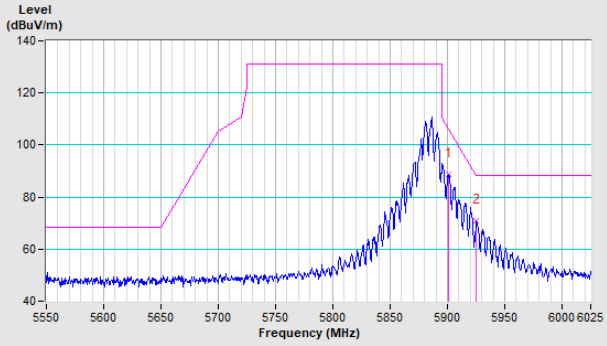
Horizontal (Average)



Vertical (Peak)

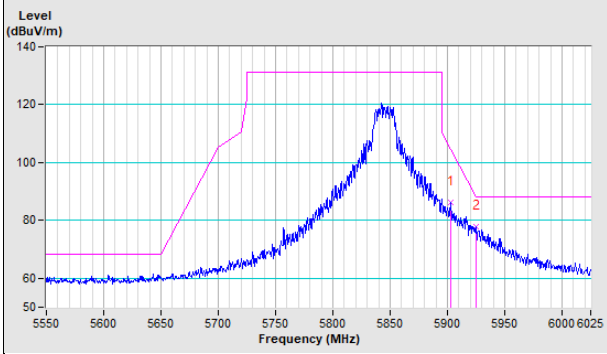


Vertical (Average)

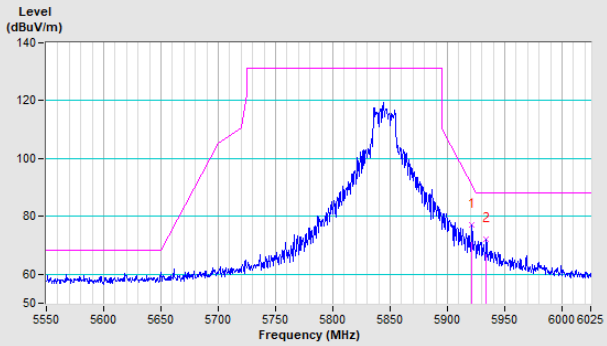


802.11ax (HE20) Channel 169

Horizontal (Peak)

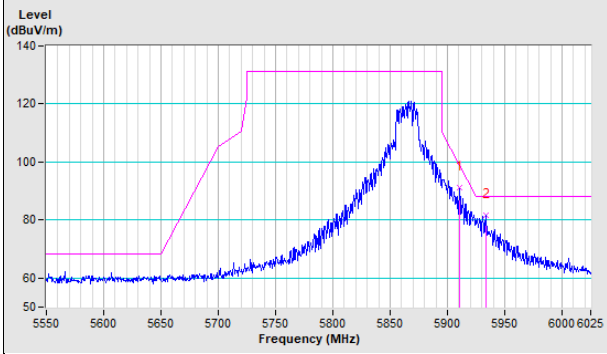


Vertical (Peak)

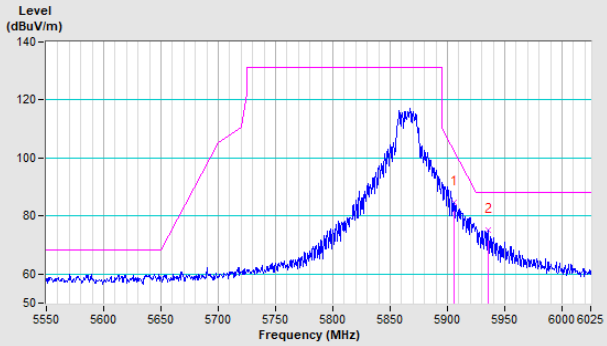


802.11ax (HE20) Channel 173

Horizontal (Peak)

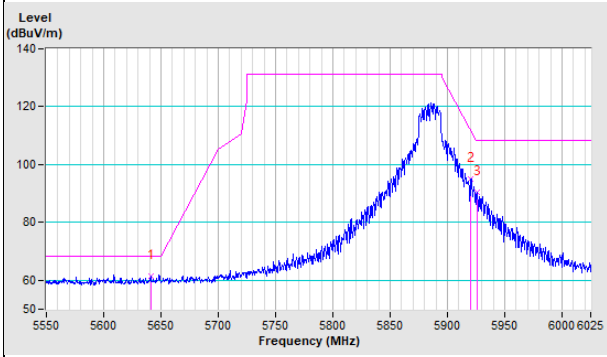


Vertical (Peak)

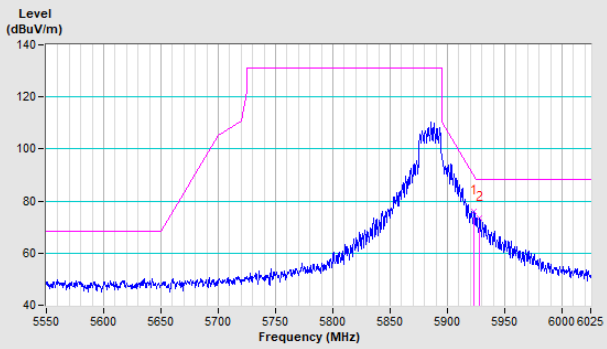


802.11ax (HE20) Channel 177

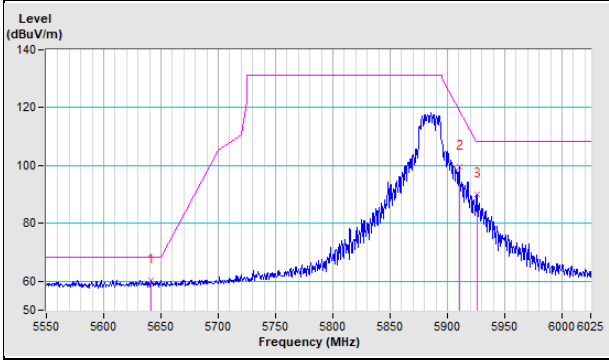
Horizontal (Peak)



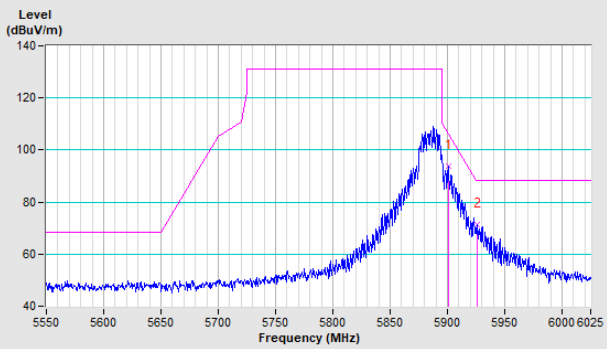
Horizontal (Average)

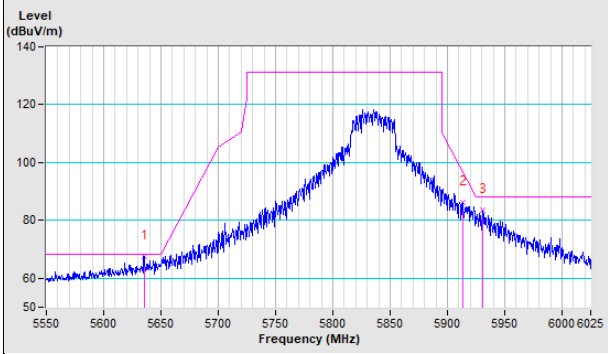
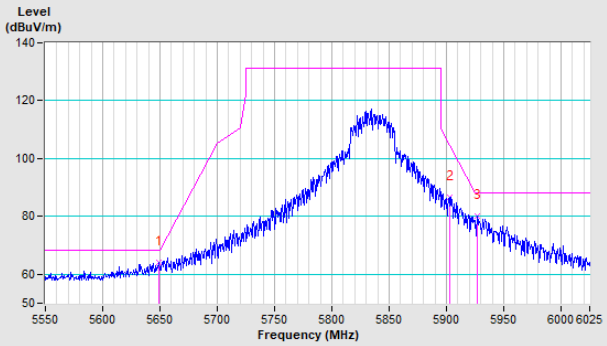
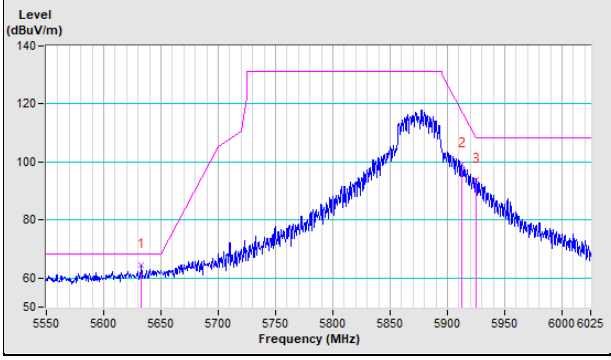
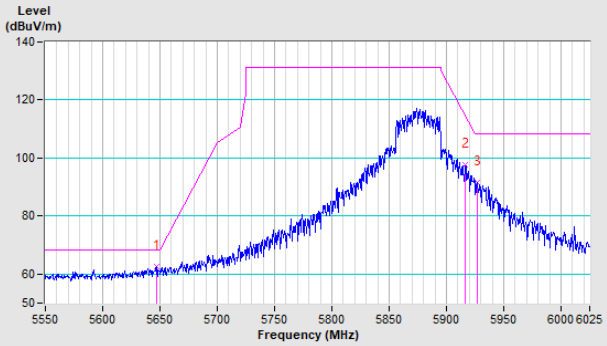


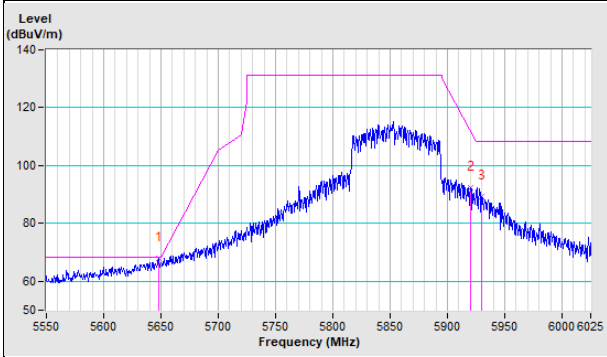
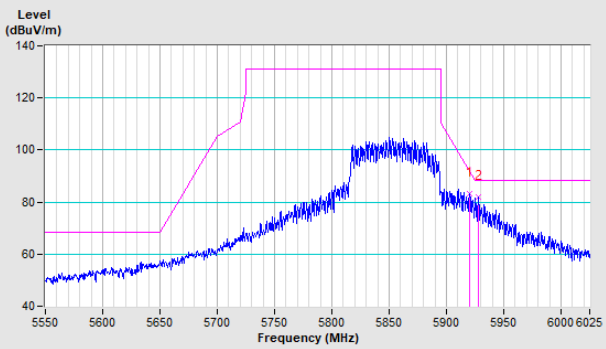
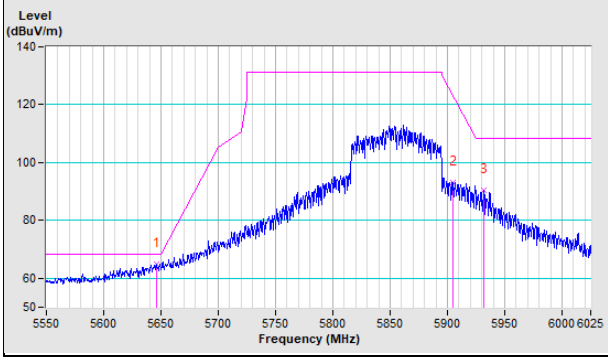
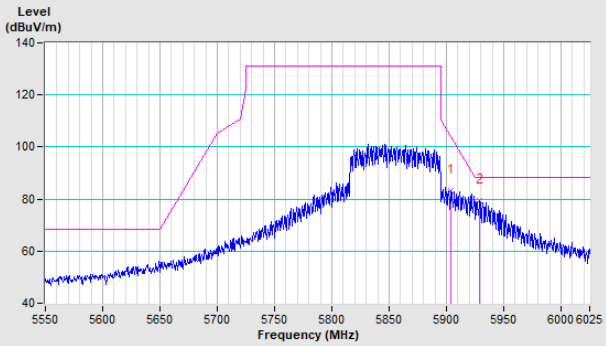
Vertical (Peak)



Vertical (Average)



802.11ax (HE40) Channel 167	
Horizontal (Peak)	Vertical (Peak)
	
802.11ax (HE40) Channel 175	
Horizontal (Peak)	Vertical (Peak)
	

802.11ax (HE80) Channel 171	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

8 Operational Restrictions for 5.85-5.895GHz U-NII Devices

For Indoor Access Point operates in the 5.850-5.895 GHz band, is supplied power from a wired connection, has an integrated antenna, is not battery powered, and does not have a weatherized enclosure. Indoor access point devices must bear the following statement in a conspicuous location on the device and in the user's manual: FCC regulations restrict operation of this device to indoor use only.

Device is a Indoor access point, all restrictions are meet the §15.403 requirements. Please refer to the Attestation letter exhibit supplied within this application.

9 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

10 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:

Lin Kou EMC/RF Lab
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab
Tel: 886-3-6668565
Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab
Tel: 886-3-3183232
Fax: 886-3-3270892

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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