

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart E (Section 15.407)
Report No.: RFBARR-WTW-P22120081S-2
FCC ID: RAS-MT7922A22M
Product: 2TX 11ax (WiFi6E) BW160 + BT/BLE Combo Card
Brand: MediaTek
Model No.: MT7922A22M
Received Date: 2024/9/26
Test Date: 2024/10/18 ~ 2024/11/19
Issued Date: 2024/11/28
Applicant: MediaTek Inc.
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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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FCC Registration / (1) 788550 / TW0003
Designation Number: (2) 281270 / TW0032

Approved by: Jeremy Lin, **Date:** 2024/11/28
Jeremy Lin / Project Engineer

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Prepared by : Vera Huang / Specialist



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Release Control Record

Issue No.	Description	Date Issued
RFBARR-WTW-P22120081S-2	Original Release	2024/11/28



1 Certificate

Product: 2TX 11ax (WiFi6E) BW160 + BT/BLE Combo Card

Brand: MediaTek

Test Model: MT7922A22M

Sample Status: Engineering sample

Applicant: MediaTek Inc.

Test Date: 2024/10/18 ~ 2024/11/19

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

Measurement ANSI C63.10-2013

procedure: KDB 291074 D02 EMC Measurement v01

KDB 789033 D02 General UNII Test Procedure New Rules 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	N/A	Refer to Note 1
15.407(a)(3)	Power Spectral Density	N/A	Refer to Note 1
15.407(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -16.41 dB at 0.16148 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -5.8 dB at 298.69 MHz
15.407(b)(5) 15.407(b)(10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.2 dB at 5925.00 MHz
15.407(e)	6 dB Bandwidth	N/A	Refer to Note 1
15.203	Antenna Requirement	Pass	Antenna connector is ipex(MHF) / R-SMA / RP SMA PLUG / IPEX-4L / IPEX not a standard connector.

Notes:

- Only AC power conducted emissions and unwanted emissions tests were performed for this addendum. Please refer to original report for others testing data.
- 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:

Parameter	Specification	Uncertainty (±)
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.90 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3 dB
	30 MHz ~ 1 GHz	2.93 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	1.76 dB
	18 GHz ~ 40 GHz	1.77 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	2TX 11ax (WiFi6E) BW160 + BT/BLE Combo Card
Brand	MediaTek
Test Model	MT7922A22M
Status of EUT	Engineering sample
Power Supply Rating	3.3 Vdc from host equipment
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode only 1024QAM for OFDMA in 11ax mode only
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: up to 54 Mbps 802.11n: up to 300 Mbps 802.11ac: up to 1733.3 Mbps 802.11ax: up to 2401.9 Mbps
Operating Frequency	5.845 ~ 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): 1 802.11ac (VHT160), 802.11ax (HE160): 1

Note:

1. This is a supplementary report of Report No.: RFBARR-WTW-P21030485D. The differences between them are as below information:
◆ Add Monopole antennas (Refer to section 3.2)
2. According to above condition, only AC power conducted emissions and unwanted emissions tests were verified. And all data are verified to meet the requirements.
3. There are Bluetooth and WLAN (2.4GHz & 5GHz & 5.9GHz & 6GHz) technology used for the EUT.
4. The equipment supports 2 types of M.2 form factor A-E Key and E Key. E Key was selected as representative type for the test and its data was recorded in this report.
5. Simultaneously transmission condition.

Condition	Technology	
1	WLAN (5GHz)	Bluetooth
2	WLAN (6GHz)	Bluetooth
3	WLAN (5.9GHz)	Bluetooth

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

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

3.2 Antenna Description of EUT

1. The following antennas were provided to the EUT. (New antenna is marked in gray.)

Ant. No.	RF Chain No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
1	Chain0	PSA	RFMTA340718 EMLB302	3.18 4.92	2.4~2.4835 5.15~5.85	PIFA	i-pex (MHF)	200
	Chain1	PSA	RFMTA340718 EMLB302	3.18 4.92	2.4~2.4835 5.15~5.85	PIFA	i-pex (MHF)	200
2	Chain0	PSA	RFMTA311020 EMMB301	1.71 4.82 4.76 4.29 4.61 4.09	2.4~2.4835 5.15~5.85 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	i-pex (MHF)	200
	Chain1	PSA	RFMTA311020 EMMB301	1.71 4.82 4.76 4.29 4.61 4.09	2.4~2.4835 5.15~5.85 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	i-pex (MHF)	200
3	Chain0	Cortec	AN2450-4902BRS	2.42 3.87	2.4~2.4835 5.15~5.85	Dipole	R-SMA	150
	Chain1	Cortec	AN2450-4902BRS	2.42 3.87	2.4~2.4835 5.15~5.85	Dipole	R-SMA	150
4	Chain0	VSO	JR2Q00340-1	1.62 3.2 3.93 3.61 3.61 3.14	2.4~2.4835 5.15~5.85 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	Dipole	RP SMA PLUG	40
	Chain1	VSO	JR2Q00340-1	1.62 3.2 3.93 3.61 3.61 3.14	2.4~2.4835 5.15~5.85 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	Dipole	RP SMA PLUG	40
5	Chain0	MSI	WA-P-LE-02-045 (Main)	2.24 2.68 3.01 -1.23 -1.96 -3.68	2.4~2.4835 5.15~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	IPEX-4L	190
	Chain1	MSI	WA-P-LE-02-046 (Aux)	-2.96 1.16 0.99 -2.31 -2.54 -7.44	2.4~2.4835 5.15~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	IPEX-4L	325
6	Chain0	PSA	RFPCA460632IMMB701	-13.2 -13.67 -13.67 -13.09	5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	Dipole	IPEX	320
	Chain1	PSA	RFPCA460632IMMB701	-13.2 -13.67 -13.67 -13.09	5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	Dipole	IPEX	320

Ant. No.	RF Chain No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
7	Chain0	PSA	RFMTA421230IMMB701	-13.92 -13.91 -13.91 -14.46	5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	IPEX	300
	Chain1	PSA	RFMTA421230IMMB701	-13.92 -13.91 -13.91 -14.46	5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	IPEX	300
8	Chain0	HongBo	260-25105	3.1 3.33 4.23 4.22 4.01 3.07	2.4~2.4835 5.15~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	Monopole	ipex(MHF)	486
	Chain1	HongBo	260-25105	3.1 3.33 4.23 4.22 4.01 3.07	2.4~2.4835 5.15~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	Monopole	ipex(MHF)	486
9	Chain0	HongBo	260-25106	4.91 4.73 4.29 4.58 4.09	5.15~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	Monopole	ipex(MHF)	350
	Chain1	HongBo	260-25106	4.91 4.73 4.29 4.58 4.09	5.15~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	Monopole	ipex(MHF)	350

* Antenna 9 was chosen for final test.

* 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
802.11ac (VHT160)	2TX	2RX
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
802.11ax (HE80)	2TX	2RX
802.11ax (HE160)	2TX	2RX
802.11ax (RU26/52/106/242/484/996/996*2)	2TX	2RX

Note:

1. The bandwidth and modulation are similar for HT20/HT40 on 802.11n mode and VHT20/VHT40 on 802.11ac mode and HE20/HE40 on 802.11ax mode. The bandwidth and modulation are similar for VHT80/VHT160 on 802.11ac mode and HE80/HE160 on 802.11ax mode. Therefore the investigated worst case is the representative mode in test report.

3.3 Channel List

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

1 channel is provided for 802.11ac (VHT160), 802.11ax (HE160):

Channel	Frequency
*163	5815 MHz

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

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. EUT can be used in the following ways: X-axis / Y-axis / Z-axis. Pre-scan these ways and find the worst case as a representative test condition. 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). 3. The worst-case Partial RU modes across all supported bandwidth modes has been determined via pre-scan.
Worst Case:	1. EUT Worst Condition: Z-axis

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

Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter	RU/MRU Index
AC Power Conducted Emissions	802.11ax (HE80)	171	BPSK	MCS0	NA
Unwanted Emissions below 1 GHz	802.11ax (HE80)	171	BPSK	MCS0	NA
Unwanted Emissions above 1 GHz	802.11a	169, 173, 177	BPSK	6Mb/s	NA
	802.11ax (HE20)	169, 173, 177	BPSK	MCS0	NA
	802.11ax (HE40)	167, 175	BPSK	MCS0	NA
	802.11ax (HE80)	171	BPSK	MCS0	NA
	802.11ax (HE160)	163	BPSK	MCS0	NA
	802.11ax (HE20) 26-tone RU	169, 173, 177	BPSK	MCS0	0, 8
	802.11ax (HE20) 52-tone RU	169, 173, 177	BPSK	MCS0	37, 40
	802.11ax (HE20) 106-tone RU	169, 173, 177	BPSK	MCS0	53, 54

3.5 Duty Cycle of Test Signal

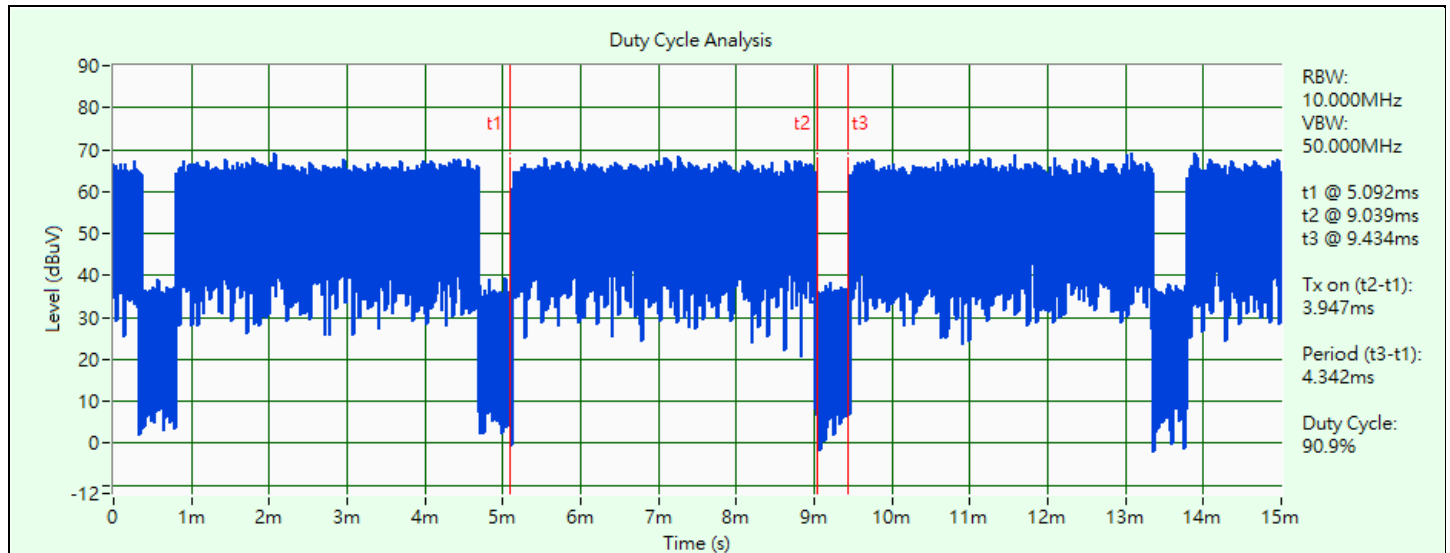
802.11a: Duty cycle = $3.947 \text{ ms} / 4.342 \text{ ms} \times 100\% = 90.9\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.41 \text{ dB}$

802.11ax (HE20): Duty cycle = $3.967 \text{ ms} / 4.362 \text{ ms} \times 100\% = 90.9\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.41 \text{ dB}$

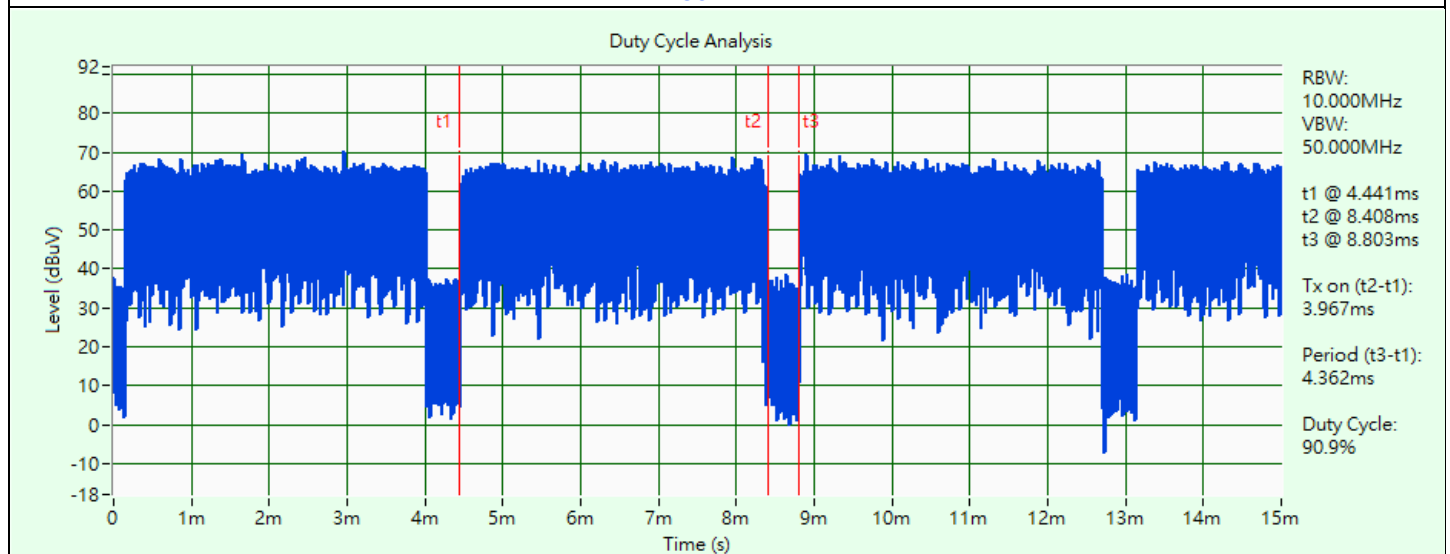
802.11ax (HE40): Duty cycle = $3.842 \text{ ms} / 4.394 \text{ ms} \times 100\% = 87.4\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 0.58 \text{ dB}$

802.11ax (HE80): Duty cycle = $1.894 \text{ ms} / 2.427 \text{ ms} \times 100\% = 78.0\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 1.08 \text{ dB}$

802.11ax (HE160): Duty cycle = $0.991 \text{ ms} / 1.536 \text{ ms} \times 100\% = 64.5\%$, duty factor = $10 * \log (1/\text{Duty cycle}) = 1.90 \text{ dB}$

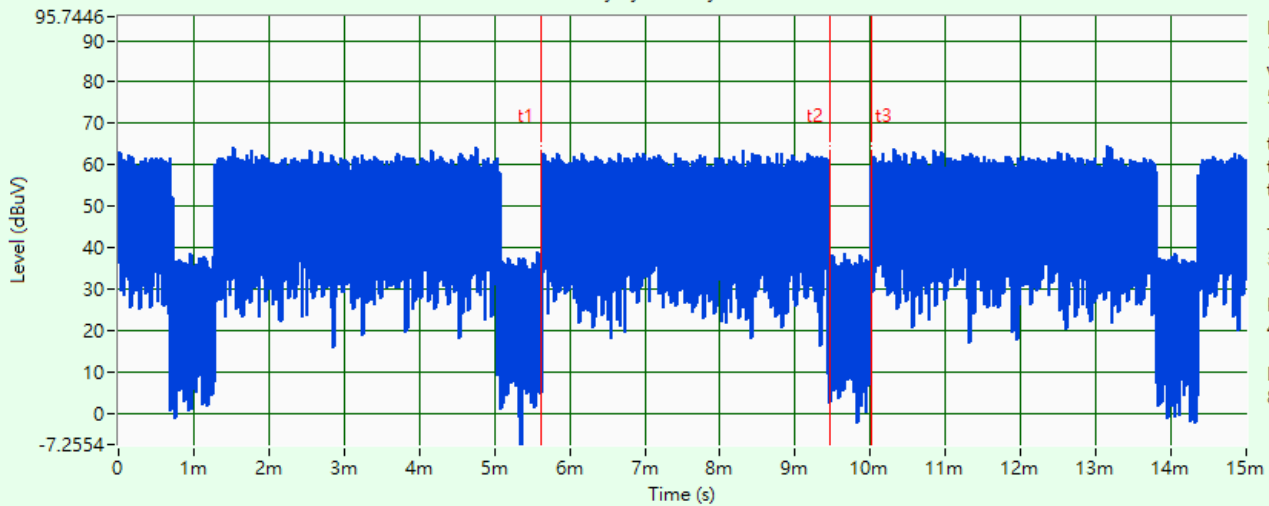


802.11a



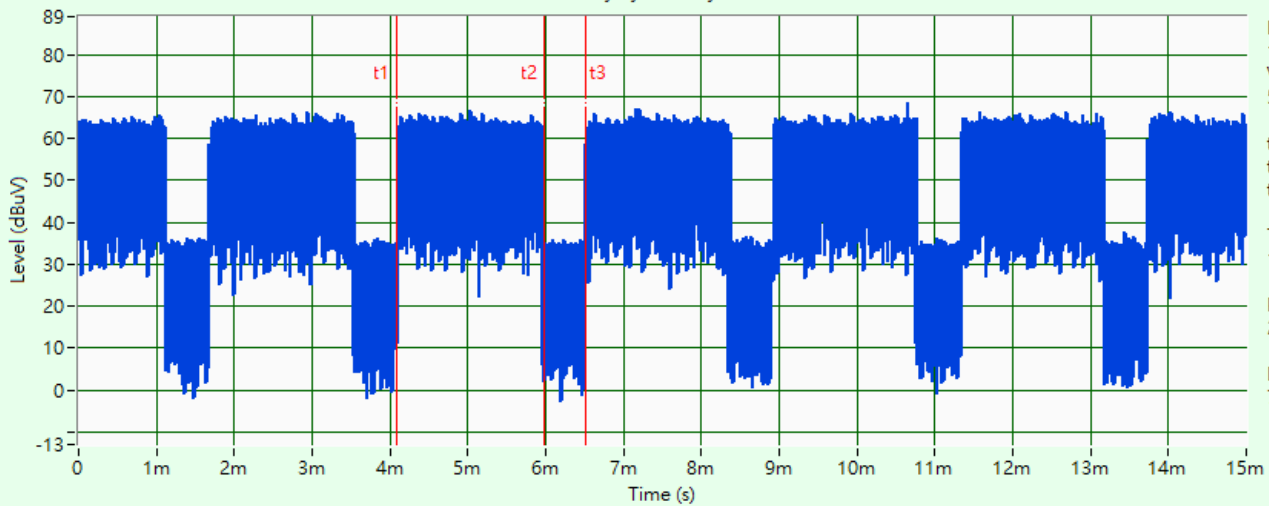
802.11ax (HE20)

Duty Cycle Analysis



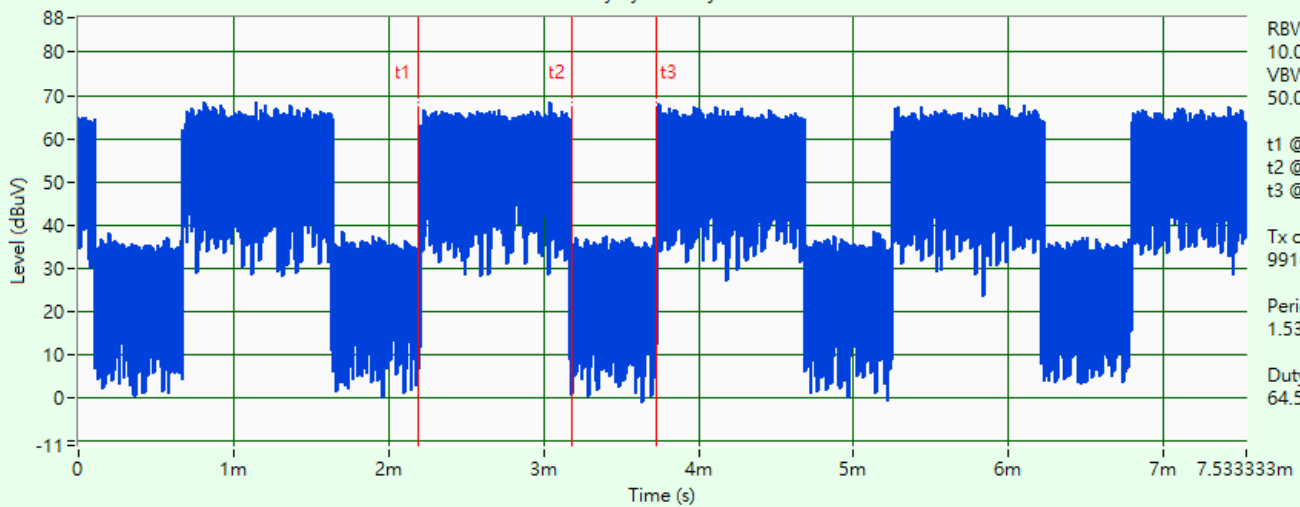
802.11ax (HE40)

Duty Cycle Analysis



802.11ax (HE80)

Duty Cycle Analysis

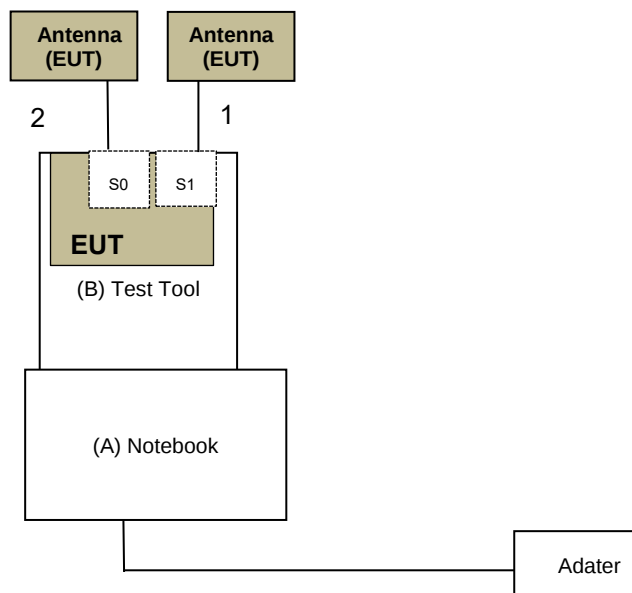


802.11ax (HE160)

3.6 Test Program Used and Operation Descriptions

Controlling software QATool_Ulv2.55 has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices



Under Table

Remote Site

3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Notebook	Lenove	L440	N/A	N/A	Provided by Lab
B	Test Tool	Mediatek	MTK1849	N/A	N/A	Supplied by applicant (for RF Setup)

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	RF Cable	1	0.3	No	0	Supplied by applicant
2	RF Cable	1	0.3	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 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance HUBER+SUHNER	E1-011315	13	2023/11/22	2024/11/21
50 ohm terminal resistance	E1-011279	04	2023/11/22	2024/11/21
	E1-011280	05	2023/11/22	2024/11/21
EMI Test Receiver R&S	ESCI	100613	2023/12/4	2024/12/3
Fixed Attenuator Mini-Circuits	HAT-10+	PAD-COND1-01	2024/1/6	2025/1/5
LISN R&S	ENV216	101826	2024/3/25	2025/3/24
	ESH3-Z5	100311	2024/9/5	2025/9/4
RF Coaxial Cable Woken	5D-FB	Cable-cond1-01	2024/1/6	2025/1/5
Software BVADT	BVADT_Conc_ V7.4.1.0	N/A	N/A	N/A
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2024/8/28	2025/8/27

Notes:

1. The test was performed in HY - Conduction 1.
2. Tested Date: 2024/11/6 ~ 2024/11/7

4.2 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFA-515BSN	N/A	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-1214	2024/10/15	2025/10/14
EXA Signal Analyzer Agilent	N9010A	MY52220207	2023/12/28	2024/12/27
Loop Antenna TESEQ	HLA 6121	45745	2024/8/21	2025/8/20
MXE EMI Receiver Agilent	N9038A	MY52260177	2024/9/19	2025/9/18
Preamplifier EMCI	EMC330N	980798	2024/1/15	2025/1/14
	EMC001340	980201	2024/9/24	2025/9/23
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-500	201248	2024/1/15	2025/1/14
	EMCCFD400-NM-NM-3000	201249	2024/1/15	2025/1/14
	EMCCFD400-NM-NM-9000	201251(with PAD)	2024/1/15	2025/1/14
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208676	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 9.
2. Tested Date: 2024/11/6

4.3 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFA-515BSN	N/A	N/A	N/A
EXA Signal Analyzer Agilent	N9010A	MY52220207	2023/12/28	2024/12/27
Horn Antenna RFSPIN	DRH18-E	210104A18E	2023/11/12 2024/11/10	2024/11/11 2025/11/9
Horn Antenna Schwarzbeck	BBHA 9170	9170-1049	2023/11/12 2024/11/10	2024/11/11 2025/11/9
MXE EMI Receiver Agilent	N9038A	MY52260177	2024/9/19	2025/9/18
Preamplifier Agilent	83017A	MY39501357	2024/6/12	2025/6/11
Preamplifier EMCI	EMC184045SE	980788	2024/1/15	2025/1/14
RF Coaxial Cable EMCI	EMC101G-KM-KM-2000	201254	2024/1/15	2025/1/14
	EMC101G-KM-KM-3000	201258	2024/1/15	2025/1/14
	EMC101G-KM-KM-5000	201261	2024/1/15	2025/1/14
	EMC104-SM-SM-1000	210103	2024/1/15	2025/1/14
	EMC104-SM-SM-3000	201241	2024/1/15	2025/1/14
	EMC104-SM-SM-9000	201244	2024/1/15	2025/1/14
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208676	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 9.
2. Tested Date: 2024/10/18 ~ 2024/11/19

5 Limits of Test Items

5.1 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.

5.2 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).

5.3 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:

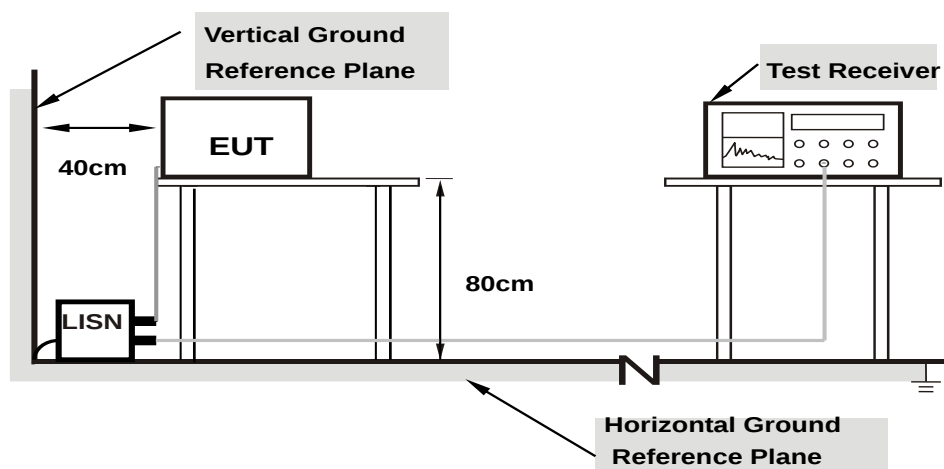
The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

6 Test Arrangements

6.1 AC Power Conducted Emissions

6.1.1 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).

6.1.2 Test Procedure

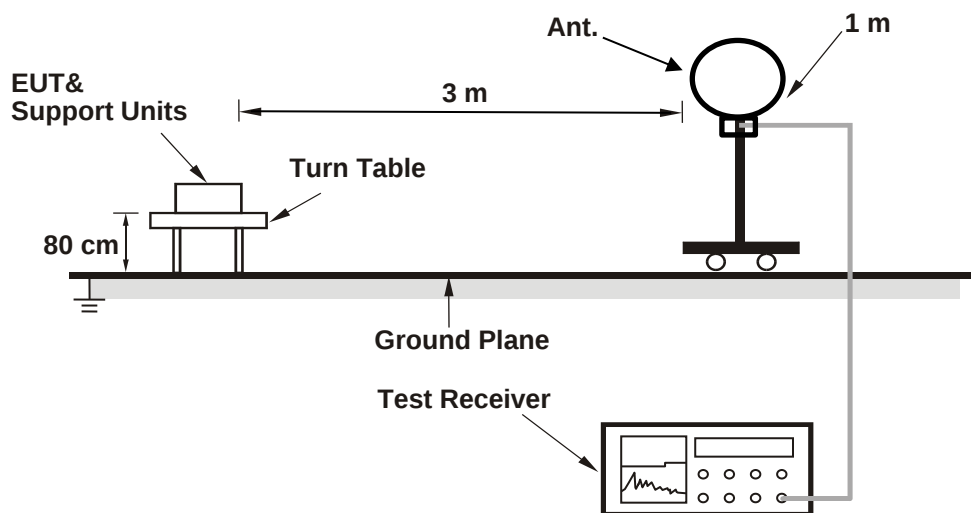
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The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

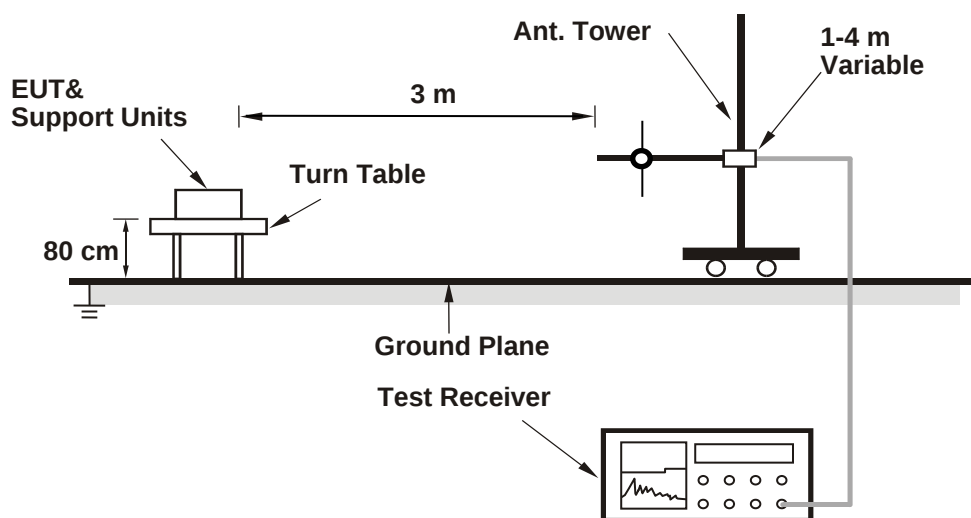
6.2 Unwanted Emissions below 1 GHz

6.2.1 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).

6.2.2 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

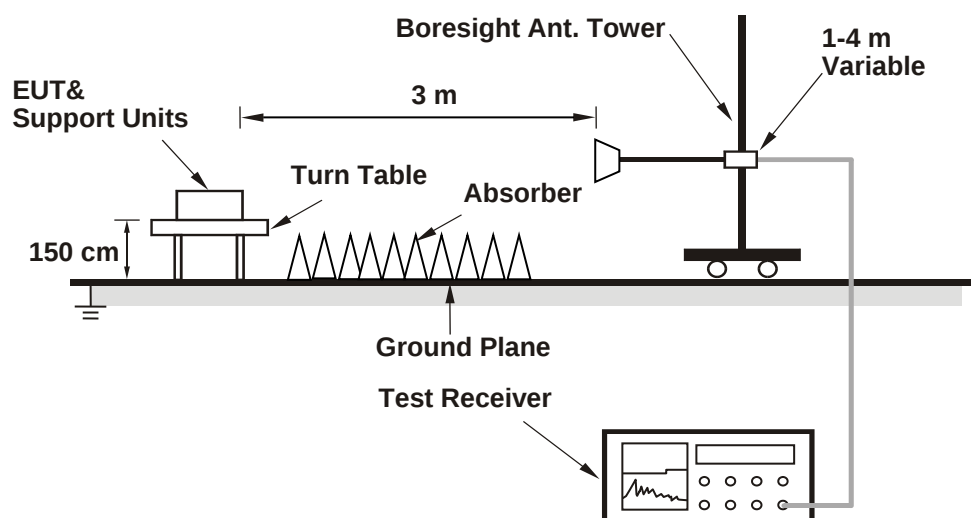
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the 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.

6.3 Unwanted Emissions above 1 GHz

6.3.1 Test Setup



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

6.3.2 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

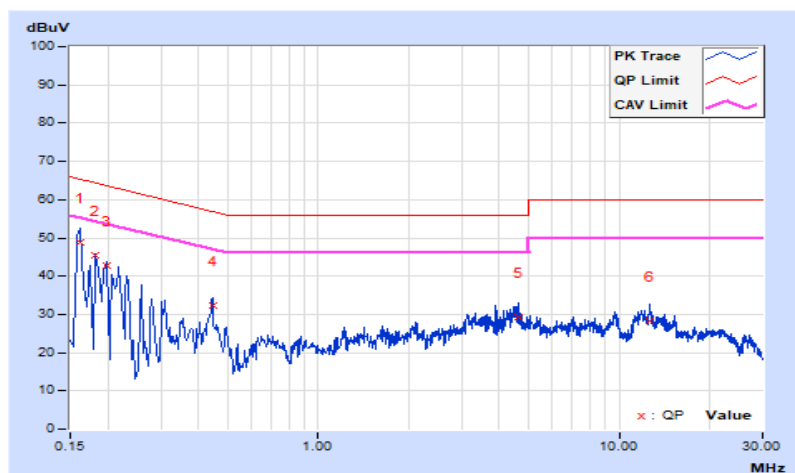
7.1 AC Power Conducted Emissions

RF Mode	802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Greg Lin		

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	0.16148	9.67	39.31	17.56	48.98	27.23	65.39	55.39	-16.41	-28.16
2	0.18200	9.66	35.65	18.07	45.31	27.73	64.39	54.39	-19.08	-26.66
3	0.19800	9.66	33.10	12.76	42.76	22.42	63.69	53.69	-20.93	-31.27
4	0.44529	9.69	22.74	8.87	32.43	18.56	56.96	46.96	-24.53	-28.40
5	4.64200	9.79	19.55	7.87	29.34	17.66	56.00	46.00	-26.66	-28.34
6	12.65000	9.90	18.54	8.42	28.44	18.32	60.00	50.00	-31.56	-31.68

Remarks:

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

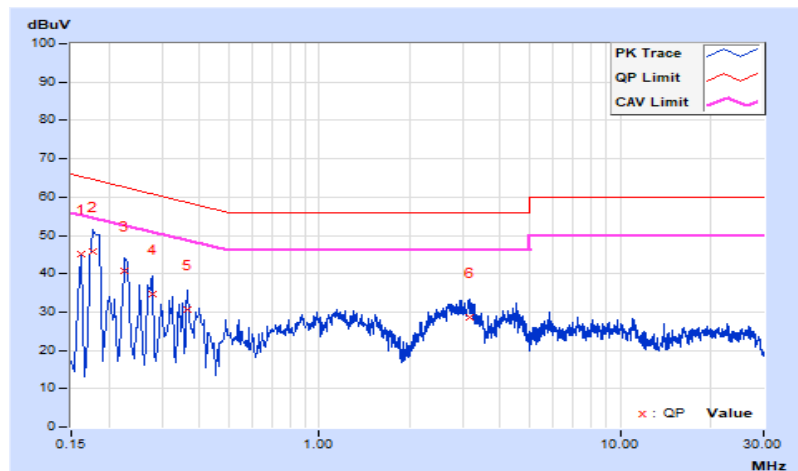


RF Mode	802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Greg Lin		

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	0.16148	9.64	35.40	16.78	45.04	26.42	65.39	55.39	-20.35	-28.97
2	0.17800	9.65	36.22	15.58	45.87	25.23	64.58	54.58	-18.71	-29.35
3	0.22600	9.66	31.08	11.50	40.74	21.16	62.60	52.60	-21.86	-31.44
4	0.27800	9.67	25.03	8.60	34.70	18.27	60.88	50.88	-26.18	-32.61
5	0.36600	9.70	20.81	7.93	30.51	17.63	58.59	48.59	-28.08	-30.96
6	3.17800	9.77	18.75	7.26	28.52	17.03	56.00	46.00	-27.48	-28.97

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



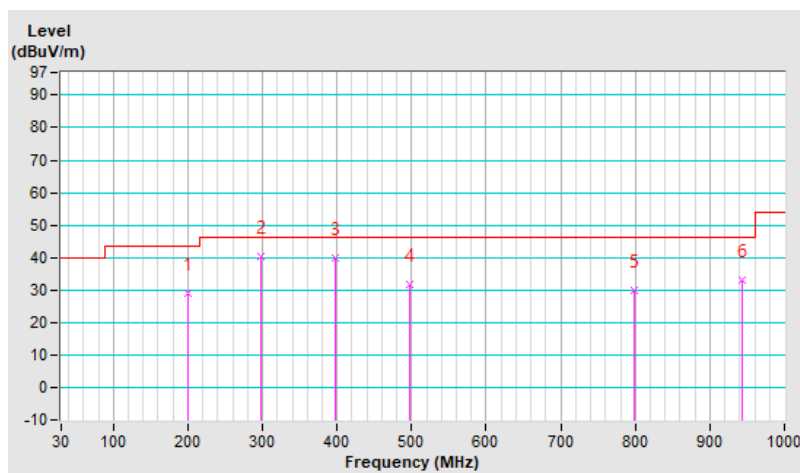
7.2 Unwanted Emissions below 1 GHz

RF Mode	802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Greg Lin		

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	199.75	28.9 QP	43.5	-14.6	1.25 H	191	45.3	-16.4
2	298.69	40.2 QP	46.0	-5.8	1.00 H	75	52.6	-12.4
3	398.60	40.0 QP	46.0	-6.0	1.50 H	275	49.8	-9.8
4	497.54	31.6 QP	46.0	-14.4	1.25 H	157	39.3	-7.7
5	799.21	29.7 QP	46.0	-16.3	1.00 H	84	31.7	-2.0
6	943.74	33.0 QP	46.0	-13.0	1.25 H	46	32.9	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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

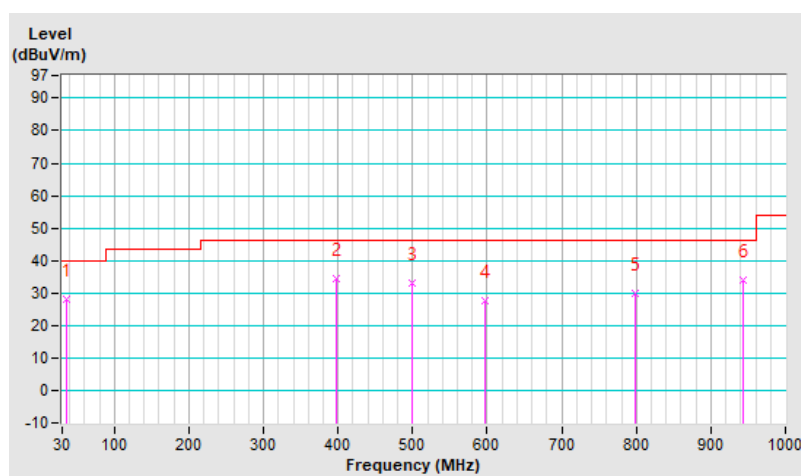


RF Mode	802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Greg Lin		

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	36.79	28.0 QP	40.0	-12.0	1.50 V	102	41.8	-13.8
2	398.60	34.3 QP	46.0	-11.7	1.25 V	42	44.1	-9.8
3	499.48	33.2 QP	46.0	-12.8	1.00 V	244	40.8	-7.6
4	597.45	27.7 QP	46.0	-18.3	1.00 V	226	32.9	-5.2
5	799.21	29.8 QP	46.0	-16.2	1.50 V	20	31.8	-2.0
6	943.74	34.0 QP	46.0	-12.0	1.25 V	38	33.9	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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



7.3 Unwanted Emissions above 1 GHz

RF Mode	802.11a	Channel	CH 169 : 5845 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	52.9 PK	68.2	-15.3	2.38 H	170	48.7	4.2
2	*5845.00	107.8 PK			2.38 H	170	65.0	42.8
3	*5845.00	101.2 AV			2.38 H	170	58.4	42.8
4	#5895.00	54.4 PK	90.2	-35.8	2.38 H	170	49.7	4.7
5	11690.00	56.6 PK	74.0	-17.4	2.06 H	144	46.7	9.9
6	11690.00	47.6 AV	54.0	-6.4	2.06 H	144	37.7	9.9
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	#5650.00	52.6 PK	68.2	-15.6	1.41 V	181	48.4	4.2
2	*5845.00	103.8 PK			1.41 V	181	61.0	42.8
3	*5845.00	97.6 AV			1.41 V	181	54.8	42.8
4	#5895.00	54.0 PK	90.2	-36.2	1.41 V	181	49.3	4.7
5	11690.00	56.2 PK	74.0	-17.8	2.57 V	311	46.3	9.9
6	11690.00	47.3 AV	54.0	-6.7	2.57 V	311	37.4	9.9

Remarks:

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

RF Mode	802.11a	Channel	CH 173 : 5865 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	53.6 PK	68.2	-14.6	2.48 H	172	49.4	4.2
2	*5865.00	107.4 PK			2.48 H	172	64.7	42.7
3	*5865.00	100.7 AV			2.48 H	172	58.0	42.7
4	#5895.00	54.7 PK	90.2	-35.5	2.48 H	172	50.0	4.7
5	11730.00	56.4 PK	74.0	-17.6	2.01 H	148	46.5	9.9
6	11730.00	47.4 AV	54.0	-6.6	2.01 H	148	37.5	9.9
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	#5650.00	53.1 PK	68.2	-15.1	1.50 V	180	48.9	4.2
2	*5865.00	103.1 PK			1.50 V	180	60.4	42.7
3	*5865.00	96.9 AV			1.50 V	180	54.2	42.7
4	#5895.00	54.3 PK	90.2	-35.9	1.50 V	180	49.6	4.7
5	11730.00	56.2 PK	74.0	-17.8	2.55 V	310	46.3	9.9
6	11730.00	47.4 AV	54.0	-6.6	2.55 V	310	37.5	9.9

Remarks:

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

RF Mode	802.11a	Channel	CH 177 : 5885 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	52.8 PK	68.2	-15.4	2.33 H	171	48.6	4.2
2	*5885.00	107.6 PK			2.33 H	171	65.0	42.6
3	*5885.00	100.8 AV			2.33 H	171	58.2	42.6
4	#5895.00	89.1 PK	90.2	-1.1	2.33 H	171	84.4	4.7
5	11770.00	56.8 PK	74.0	-17.2	2.11 H	143	46.8	10.0
6	11770.00	47.5 AV	54.0	-6.5	2.11 H	143	37.5	10.0
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	#5650.00	52.7 PK	68.2	-15.5	1.76 V	181	48.5	4.2
2	*5885.00	103.4 PK			1.76 V	181	60.8	42.6
3	*5885.00	96.9 AV			1.76 V	181	54.3	42.6
4	#5895.00	85.5 PK	90.2	-4.7	1.76 V	181	80.8	4.7
5	11770.00	56.3 PK	74.0	-17.7	2.53 V	308	46.3	10.0
6	11770.00	47.2 AV	54.0	-6.8	2.53 V	308	37.2	10.0

Remarks:

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

RF Mode	802.11ax (HE20)	Channel	CH 169 : 5845 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	53.2 PK	68.2	-15.0	2.19 H	171	49.0	4.2
2	*5845.00	109.1 PK			2.19 H	171	66.3	42.8
3	*5845.00	100.2 AV			2.19 H	171	57.4	42.8
4	#5895.00	54.8 PK	90.2	-35.4	2.19 H	171	50.1	4.7
5	11690.00	56.8 PK	74.0	-17.2	2.00 H	153	46.9	9.9
6	11690.00	47.6 AV	54.0	-6.4	2.00 H	153	37.7	9.9
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	#5650.00	52.7 PK	68.2	-15.5	1.76 V	181	48.5	4.2
2	*5845.00	105.5 PK			1.76 V	181	62.7	42.8
3	*5845.00	97.6 AV			1.76 V	181	54.8	42.8
4	#5895.00	54.6 PK	90.2	-35.6	1.76 V	181	49.9	4.7
5	11690.00	56.3 PK	74.0	-17.7	2.61 V	320	46.4	9.9
6	11690.00	47.4 AV	54.0	-6.6	2.61 V	320	37.5	9.9

Remarks:

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

RF Mode	802.11ax (HE20)	Channel	CH 173 : 5865 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	53.1 PK	68.2	-15.1	2.28 H	169	48.9	4.2
2	*5865.00	108.2 PK			2.28 H	169	65.5	42.7
3	*5865.00	100.5 AV			2.28 H	169	57.8	42.7
4	#5895.00	56.3 PK	90.2	-33.9	2.28 H	169	51.6	4.7
5	11730.00	56.7 PK	74.0	-17.3	2.10 H	152	46.8	9.9
6	11730.00	47.4 AV	54.0	-6.6	2.10 H	152	37.5	9.9
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	#5650.00	53.4 PK	68.2	-14.8	1.62 V	180	49.2	4.2
2	*5865.00	104.3 PK			1.62 V	180	61.6	42.7
3	*5865.00	96.6 AV			1.62 V	180	53.9	42.7
4	#5895.00	54.7 PK	90.2	-35.5	1.62 V	180	50.0	4.7
5	11730.00	56.4 PK	74.0	-17.6	2.22 V	315	46.5	9.9
6	11730.00	47.3 AV	54.0	-6.7	2.22 V	315	37.4	9.9

Remarks:

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

RF Mode	802.11ax (HE20)	Channel	CH 177 : 5885 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	53.4 PK	68.2	-14.8	2.20 H	170	49.2	4.2
2	*5885.00	110.8 PK			2.20 H	170	68.2	42.6
3	*5885.00	101.5 AV			2.20 H	170	58.9	42.6
4	#5895.00	89.0 PK	90.2	-1.2	2.20 H	170	84.3	4.7
5	11770.00	57.0 PK	74.0	-17.0	2.01 H	165	47.0	10.0
6	11770.00	47.8 AV	54.0	-6.2	2.01 H	165	37.8	10.0
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	#5650.00	52.6 PK	68.2	-15.6	1.76 V	183	48.4	4.2
2	*5885.00	105.8 PK			1.76 V	183	63.2	42.6
3	*5885.00	97.4 AV			1.76 V	183	54.8	42.6
4	#5895.00	88.7 PK	90.2	-1.5	1.76 V	183	84.0	4.7
5	11770.00	56.6 PK	74.0	-17.4	2.63 V	332	46.6	10.0
6	11770.00	47.6 AV	54.0	-6.4	2.63 V	332	37.6	10.0

Remarks:

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

RF Mode	802.11ax (HE40)	Channel	CH 167 : 5835 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	53.1 PK	68.2	-15.1	2.31 H	173	48.9	4.2
2	*5835.00	111.3 PK			2.31 H	173	68.6	42.7
3	*5835.00	102.9 AV			2.31 H	173	60.2	42.7
4	#5895.00	58.7 PK	90.2	-31.5	2.31 H	173	54.0	4.7
5	11670.00	57.0 PK	74.0	-17.0	1.99 H	182	47.0	10.0
6	11670.00	47.7 AV	54.0	-6.3	1.99 H	182	37.7	10.0
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	#5650.00	52.5 PK	68.2	-15.7	1.78 V	181	48.3	4.2
2	*5835.00	107.7 PK			1.78 V	181	65.0	42.7
3	*5835.00	100.0 AV			1.78 V	181	57.3	42.7
4	#5895.00	55.7 PK	90.2	-34.5	1.78 V	181	51.0	4.7
5	11670.00	56.5 PK	74.0	-17.5	2.70 V	313	46.5	10.0
6	11670.00	47.4 AV	54.0	-6.6	2.70 V	313	37.4	10.0

Remarks:

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

RF Mode	802.11ax (HE40)	Channel	CH 175 : 5875 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	54.0 PK	68.2	-14.2	2.29 H	172	49.8	4.2
2	*5875.00	111.5 PK			2.29 H	172	68.8	42.7
3	*5875.00	103.0 AV			2.29 H	172	60.3	42.7
4	#5895.00	82.2 PK	90.2	-8.0	2.29 H	172	77.5	4.7
5	11750.00	57.1 PK	74.0	-16.9	2.09 H	174	47.2	9.9
6	11750.00	47.7 AV	54.0	-6.3	2.09 H	174	37.8	9.9
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	#5650.00	52.9 PK	68.2	-15.3	1.71 V	179	48.7	4.2
2	*5875.00	105.9 PK			1.71 V	179	63.2	42.7
3	*5875.00	98.7 AV			1.71 V	179	56.0	42.7
4	#5895.00	75.7 PK	90.2	-14.5	1.71 V	179	71.0	4.7
5	11750.00	56.7 PK	74.0	-17.3	2.81 V	315	46.8	9.9
6	11750.00	47.2 AV	54.0	-6.8	2.81 V	315	37.3	9.9

Remarks:

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

RF Mode	802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	54.4 PK	68.2	-13.8	2.15 H	171	50.2	4.2
2	*5855.00	111.6 PK			2.15 H	171	68.8	42.8
3	*5855.00	102.8 AV			2.15 H	171	60.0	42.8
4	#5895.00	85.6 PK	110.2	-24.6	2.15 H	171	80.9	4.7
5	#5895.00	75.3 AV	90.2	-14.9	2.15 H	171	70.6	4.7
6	#5925.00	77.8 PK	88.2	-10.4	2.15 H	171	73.1	4.7
7	#5925.00	67.0 AV	68.2	-1.2	2.15 H	171	62.3	4.7
8	11710.00	56.7 PK	74.0	-17.3	2.17 H	156	46.8	9.9
9	11710.00	47.5 AV	54.0	-6.5	2.17 H	156	37.6	9.9

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	#5650.00	52.9 PK	68.2	-15.3	1.73 V	181	48.7	4.2
2	*5855.00	107.6 PK			1.73 V	181	64.8	42.8
3	*5855.00	100.1 AV			1.73 V	181	57.3	42.8
4	#5895.00	81.9 PK	110.2	-28.3	1.73 V	181	77.2	4.7
5	#5895.00	71.6 AV	90.2	-18.6	1.73 V	181	66.9	4.7
6	#5925.00	74.0 PK	88.2	-14.2	1.73 V	181	69.3	4.7
7	#5925.00	64.4 AV	68.2	-3.8	1.73 V	181	59.7	4.7
8	11710.00	56.4 PK	74.0	-17.6	2.30 V	326	46.5	9.9
9	11710.00	47.3 AV	54.0	-6.7	2.30 V	326	37.4	9.9

Remarks:

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

RF Mode	802.11ax (HE160)	Channel	CH 163 : 5815 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=2 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	61.5 PK	68.2	-6.7	2.27 H	170	57.3	4.2
2	*5815.00	101.6 PK			2.27 H	170	59.0	42.6
3	*5815.00	93.9 AV			2.27 H	170	51.3	42.6
4	#5895.00	71.4 PK	90.2	-18.8	2.27 H	170	66.7	4.7
5	#5925.00	68.0 PK	68.2	-0.2	2.27 H	170	63.3	4.7
6	11630.00	56.6 PK	74.0	-17.4	2.10 H	153	46.7	9.9
7	11630.00	47.3 AV	54.0	-6.7	2.10 H	153	37.4	9.9
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	#5650.00	57.4 PK	68.2	-10.8	1.67 V	180	53.2	4.2
2	*5815.00	97.0 PK			1.67 V	180	54.4	42.6
3	*5815.00	90.6 AV			1.67 V	180	48.0	42.6
4	#5895.00	67.4 PK	90.2	-22.8	1.67 V	180	62.7	4.7
5	#5925.00	58.4 PK	68.2	-9.8	1.67 V	180	53.7	4.7
6	11630.00	56.4 PK	74.0	-17.6	2.21 V	326	46.5	9.9
7	11630.00	47.3 AV	54.0	-6.7	2.21 V	326	37.4	9.9

Remarks:

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

RF Mode	802.11ax (HE20) 26-tone RU	Channel	CH 169 : 5845 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	53.4 PK	68.2	-14.8	2.20 H	176	49.2	4.2
2	*5845.00	111.7 PK			2.20 H	176	68.9	42.8
3	*5845.00	105.0 AV			2.20 H	176	62.2	42.8
4	#5895.00	54.0 PK	90.2	-36.2	2.20 H	176	49.3	4.7
5	11690.00	56.7 PK	74.0	-17.3	2.03 H	154	46.8	9.9
6	11690.00	47.6 AV	54.0	-6.4	2.03 H	154	37.7	9.9
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	#5650.00	52.9 PK	68.2	-15.3	1.61 V	178	48.7	4.2
2	*5845.00	108.8 PK			1.61 V	178	66.0	42.8
3	*5845.00	101.7 AV			1.61 V	178	58.9	42.8
4	#5895.00	53.1 PK	90.2	-37.1	1.61 V	178	48.4	4.7
5	11690.00	56.4 PK	74.0	-17.6	2.67 V	325	46.5	9.9
6	11690.00	47.4 AV	54.0	-6.6	2.67 V	325	37.5	9.9

Remarks:

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

RF Mode	802.11ax (HE20) 26-tone RU	Channel	CH 173 : 5865 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	53.2 PK	68.2	-15.0	2.26 H	172	49.0	4.2
2	*5865.00	112.4 PK			2.26 H	172	69.7	42.7
3	*5865.00	104.5 AV			2.26 H	172	61.8	42.7
4	#5895.00	53.9 PK	90.2	-36.3	2.26 H	172	49.2	4.7
5	11730.00	56.5 PK	74.0	-17.5	2.12 H	155	46.6	9.9
6	11730.00	47.3 AV	54.0	-6.7	2.12 H	155	37.4	9.9
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	#5650.00	53.4 PK	68.2	-14.8	1.65 V	179	49.2	4.2
2	*5865.00	108.9 PK			1.65 V	179	66.2	42.7
3	*5865.00	99.9 AV			1.65 V	179	57.2	42.7
4	#5895.00	53.6 PK	90.2	-36.6	1.65 V	179	48.9	4.7
5	11730.00	56.1 PK	74.0	-17.9	2.19 V	317	46.2	9.9
6	11730.00	47.1 AV	54.0	-6.9	2.19 V	317	37.2	9.9

Remarks:

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

RF Mode	802.11ax (HE20) 26-tone RU	Channel	CH 177 : 5885 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	53.2 PK	68.2	-15.0	2.23 H	174	49.0	4.2
2	*5885.00	111.3 PK			2.23 H	174	68.7	42.6
3	*5885.00	103.2 AV			2.23 H	174	60.6	42.6
4	#5895.00	96.7 PK	110.2	-13.5	2.23 H	174	92.0	4.7
5	#5895.00	85.5 AV	90.2	-4.7	2.23 H	174	80.8	4.7
6	11770.00	56.8 PK	74.0	-17.2	2.10 H	173	46.8	10.0
7	11770.00	47.6 AV	54.0	-6.4	2.10 H	173	37.6	10.0
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	#5650.00	52.6 PK	68.2	-15.6	1.65 V	177	48.4	4.2
2	*5885.00	106.9 PK			1.69 V	180	64.3	42.6
3	*5885.00	99.2 AV			1.69 V	180	56.6	42.6
4	#5895.00	90.1 PK	110.2	-20.1	1.65 V	177	85.4	4.7
5	#5895.00	78.9 AV	90.2	-11.3	1.65 V	177	74.2	4.7
6	11770.00	56.5 PK	74.0	-17.5	2.66 V	336	46.5	10.0
7	11770.00	47.4 AV	54.0	-6.6	2.66 V	336	37.4	10.0

Remarks:

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

RF Mode	802.11ax (HE20) 52-tone RU	Channel	CH 169 : 5845 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	54.5 PK	68.2	-13.7	2.17 H	172	50.3	4.2
2	*5845.00	113.3 PK			2.17 H	172	70.5	42.8
3	*5845.00	104.6 AV			2.17 H	172	61.8	42.8
4	#5895.00	54.9 PK	90.2	-35.3	2.17 H	172	50.2	4.7
5	11690.00	56.6 PK	74.0	-17.4	2.03 H	162	46.7	9.9
6	11690.00	47.4 AV	54.0	-6.6	2.03 H	162	37.5	9.9
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	#5650.00	52.9 PK	68.2	-15.3	1.72 V	182	48.7	4.2
2	*5845.00	110.4 PK			1.72 V	182	67.6	42.8
3	*5845.00	101.1 AV			1.72 V	182	58.3	42.8
4	#5895.00	53.8 PK	90.2	-36.4	1.72 V	182	49.1	4.7
5	11690.00	56.3 PK	74.0	-17.7	2.59 V	327	46.4	9.9
6	11690.00	47.3 AV	54.0	-6.7	2.59 V	327	37.4	9.9

Remarks:

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

RF Mode	802.11ax (HE20) 52-tone RU	Channel	CH 173 : 5865 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	53.3 PK	68.2	-14.9	2.14 H	171	49.1	4.2
2	*5865.00	112.7 PK			2.14 H	171	70.0	42.7
3	*5865.00	103.9 AV			2.14 H	171	61.2	42.7
4	#5895.00	54.6 PK	90.2	-35.6	2.14 H	171	49.9	4.7
5	11730.00	57.1 PK	74.0	-16.9	2.03 H	167	47.2	9.9
6	11730.00	47.8 AV	54.0	-6.2	2.03 H	167	37.9	9.9
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	#5650.00	53.0 PK	68.2	-15.2	1.93 V	181	48.8	4.2
2	*5865.00	110.3 PK			1.93 V	181	67.6	42.7
3	*5865.00	99.9 AV			1.93 V	181	57.2	42.7
4	#5895.00	54.0 PK	90.2	-36.2	1.93 V	181	49.3	4.7
5	11730.00	56.7 PK	74.0	-17.3	2.62 V	333	46.8	9.9
6	11730.00	47.4 AV	54.0	-6.6	2.62 V	333	37.5	9.9

Remarks:

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

RF Mode	802.11ax (HE20) 52-tone RU	Channel	CH 177 : 5885 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	53.2 PK	68.2	-15.0	2.23 H	174	49.0	4.2
2	*5885.00	113.0 PK			2.25 H	176	70.4	42.6
3	*5885.00	103.7 AV			2.25 H	176	61.1	42.6
4	#5895.00	99.4 PK	110.2	-10.8	2.23 H	174	94.7	4.7
5	#5895.00	87.6 AV	90.2	-2.6	2.23 H	174	82.9	4.7
6	11770.00	57.0 PK	74.0	-17.0	2.20 H	175	47.0	10.0
7	11770.00	47.7 AV	54.0	-6.3	2.20 H	175	37.7	10.0
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	#5650.00	52.7 PK	68.2	-15.5	1.73 V	177	48.5	4.2
2	*5885.00	107.9 PK			1.73 V	177	65.3	42.6
3	*5885.00	99.1 AV			1.73 V	177	56.5	42.6
4	#5895.00	94.5 PK	110.2	-15.7	1.73 V	177	89.8	4.7
5	#5895.00	83.1 AV	90.2	-7.1	1.73 V	177	78.4	4.7
6	11770.00	56.3 PK	74.0	-17.7	2.70 V	315	46.3	10.0
7	11770.00	47.4 AV	54.0	-6.6	2.70 V	315	37.4	10.0

Remarks:

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

RF Mode	802.11ax (HE20) 106-tone RU	Channel	CH 169 : 5845 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	53.5 PK	68.2	-14.7	2.17 H	172	49.3	4.2
2	*5845.00	113.0 PK			2.17 H	172	70.2	42.8
3	*5845.00	104.7 AV			2.17 H	172	61.9	42.8
4	#5895.00	54.4 PK	90.2	-35.8	2.17 H	172	49.7	4.7
5	11690.00	56.8 PK	74.0	-17.2	2.16 H	172	46.9	9.9
6	11690.00	47.6 AV	54.0	-6.4	2.16 H	172	37.7	9.9
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	#5650.00	53.3 PK	68.2	-14.9	1.70 V	179	49.1	4.2
2	*5845.00	109.9 PK			1.70 V	179	67.1	42.8
3	*5845.00	100.6 AV			1.70 V	179	57.8	42.8
4	#5895.00	53.6 PK	90.2	-36.6	1.70 V	179	48.9	4.7
5	11690.00	56.9 PK	74.0	-17.1	2.70 V	323	47.0	9.9
6	11690.00	47.6 AV	54.0	-6.4	2.70 V	323	37.7	9.9

Remarks:

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

RF Mode	802.11ax (HE20) 106-tone RU	Channel	CH 173 : 5865 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

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	#5650.00	53.2 PK	68.2	-15.0	2.19 H	172	49.0	4.2
2	*5865.00	114.1 PK			2.19 H	172	71.4	42.7
3	*5865.00	104.2 AV			2.19 H	172	61.5	42.7
4	#5895.00	54.9 PK	90.2	-35.3	2.19 H	172	50.2	4.7
5	11730.00	56.6 PK	74.0	-17.4	1.96 H	165	46.7	9.9
6	11730.00	47.5 AV	54.0	-6.5	1.96 H	165	37.6	9.9
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	#5650.00	53.0 PK	68.2	-15.2	1.70 V	179	48.8	4.2
2	*5865.00	110.1 PK			1.70 V	179	67.4	42.7
3	*5865.00	100.3 AV			1.70 V	179	57.6	42.7
4	#5895.00	53.4 PK	90.2	-36.8	1.70 V	179	48.7	4.7
5	11730.00	56.5 PK	74.0	-17.5	2.60 V	331	46.6	9.9
6	11730.00	47.4 AV	54.0	-6.6	2.60 V	331	37.5	9.9

Remarks:

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

RF Mode	802.11ax (HE20) 106-tone RU	Channel	CH 177 : 5885 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	21 °C, 67 % RH
Tested By	Edison Lee		

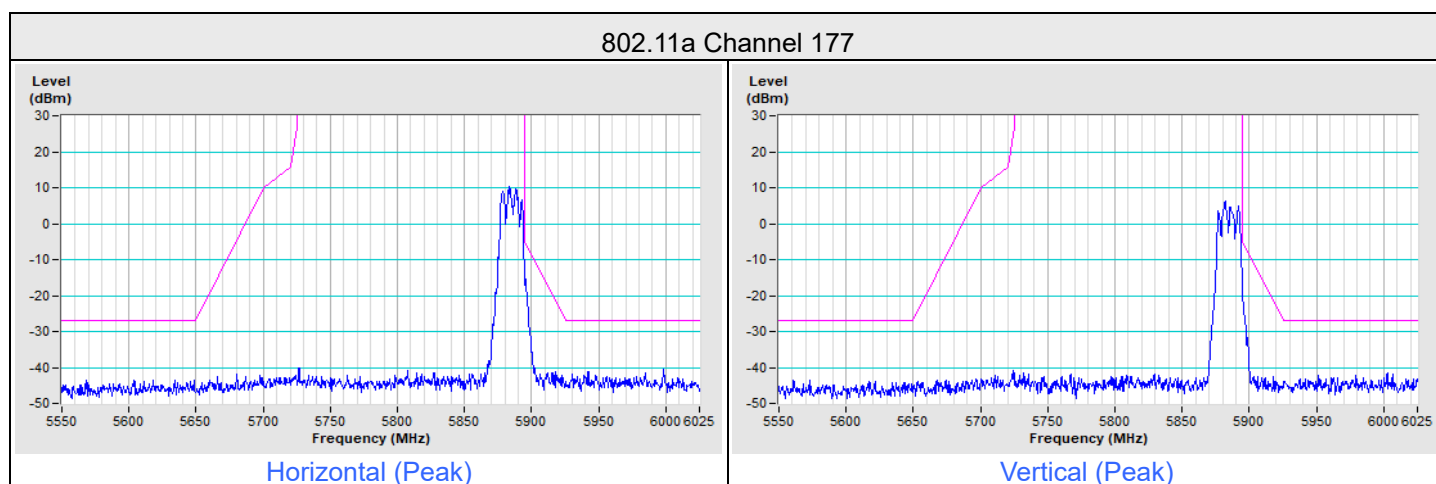
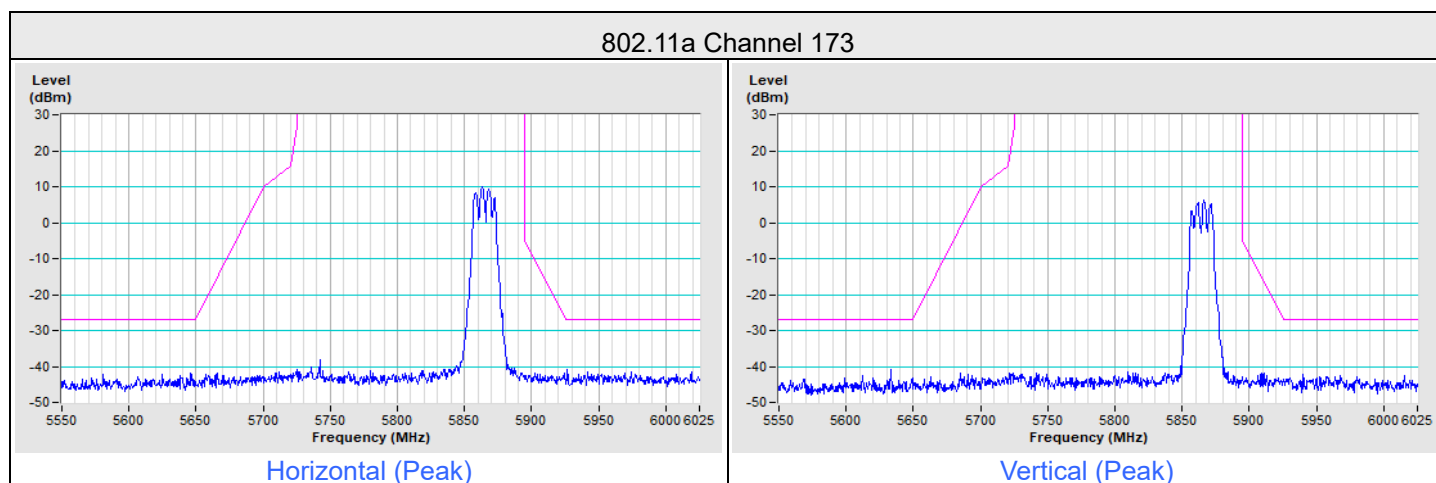
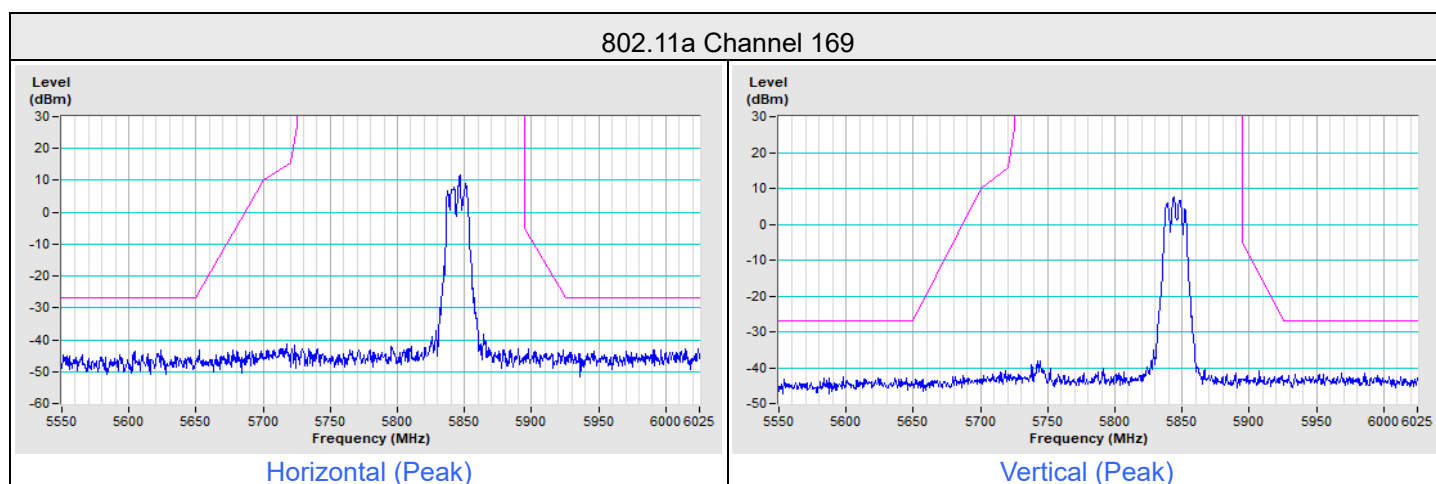
Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	53.4 PK	68.2	-14.8	2.31 H	218	49.2	4.2
2	*5885.00	110.8 PK			2.31 H	218	68.2	42.6
3	*5885.00	101.1 AV			2.31 H	218	58.5	42.6
4	#5895.00	95.4 PK	110.2	-14.8	2.31 H	218	90.7	4.7
5	#5895.00	84.3 AV	90.2	-5.9	2.31 H	218	79.6	4.7
6	11770.00	57.0 PK	74.0	-17.0	2.01 H	166	47.0	10.0
7	11770.00	47.8 AV	54.0	-6.2	2.01 H	166	37.8	10.0
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	#5650.00	53.0 PK	68.2	-15.2	1.66 V	183	48.8	4.2
2	*5885.00	104.6 PK			1.66 V	183	62.0	42.6
3	*5885.00	97.9 AV			1.66 V	183	55.3	42.6
4	#5895.00	85.9 PK	110.2	-24.3	1.66 V	183	81.2	4.7
5	#5895.00	74.9 AV	90.2	-15.3	1.66 V	183	70.2	4.7
6	11770.00	56.3 PK	74.0	-17.7	2.59 V	305	46.3	10.0
7	11770.00	47.5 AV	54.0	-6.5	2.59 V	305	37.5	10.0

Remarks:

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

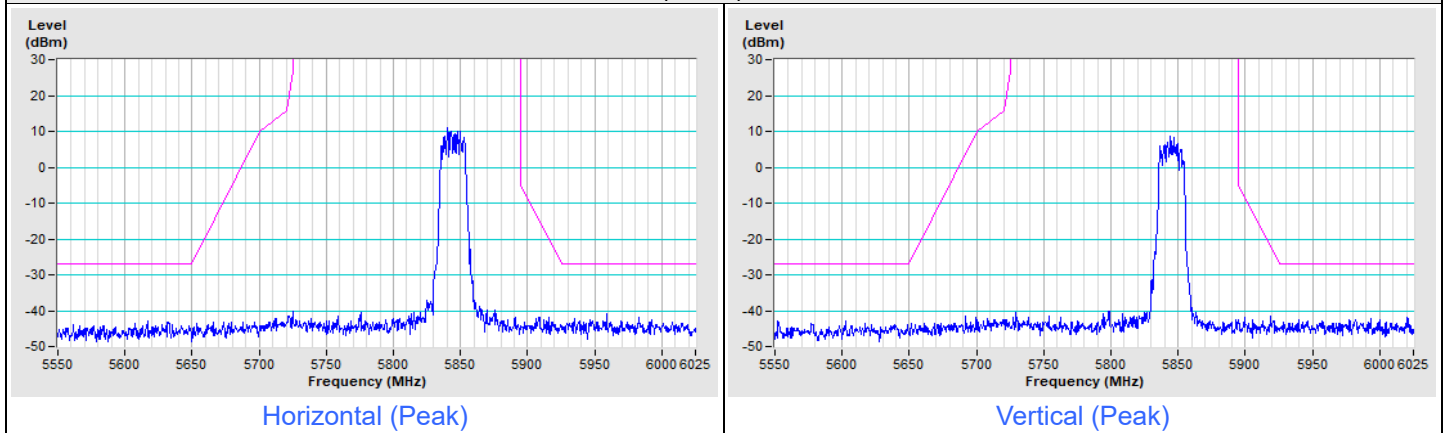
Plot of Band Edge

Frequency Range	5.55 GHz ~ 6.025 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak
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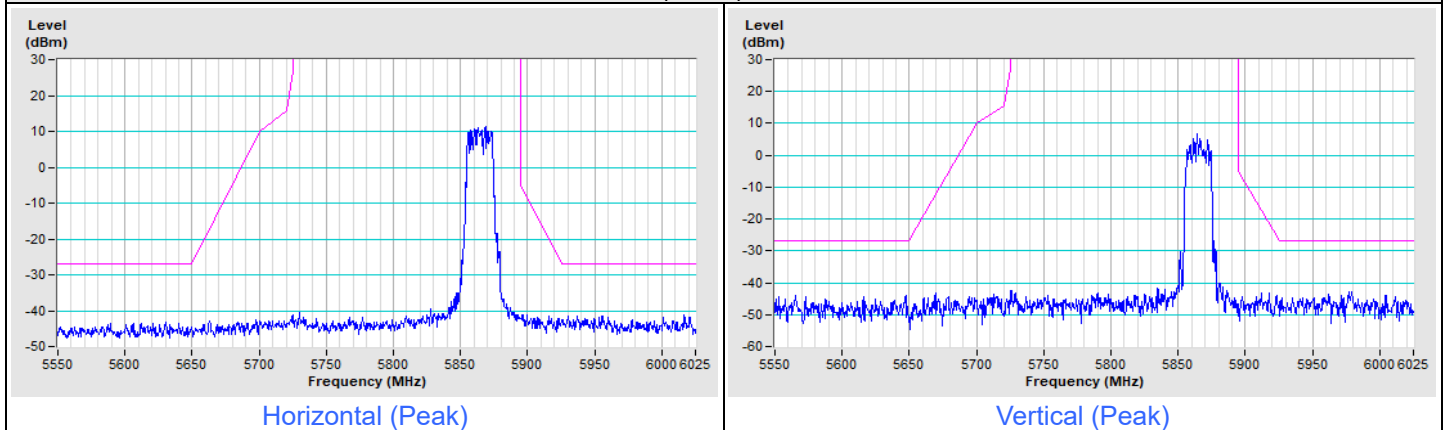


Frequency Range	5.55 GHz ~ 6.025 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak
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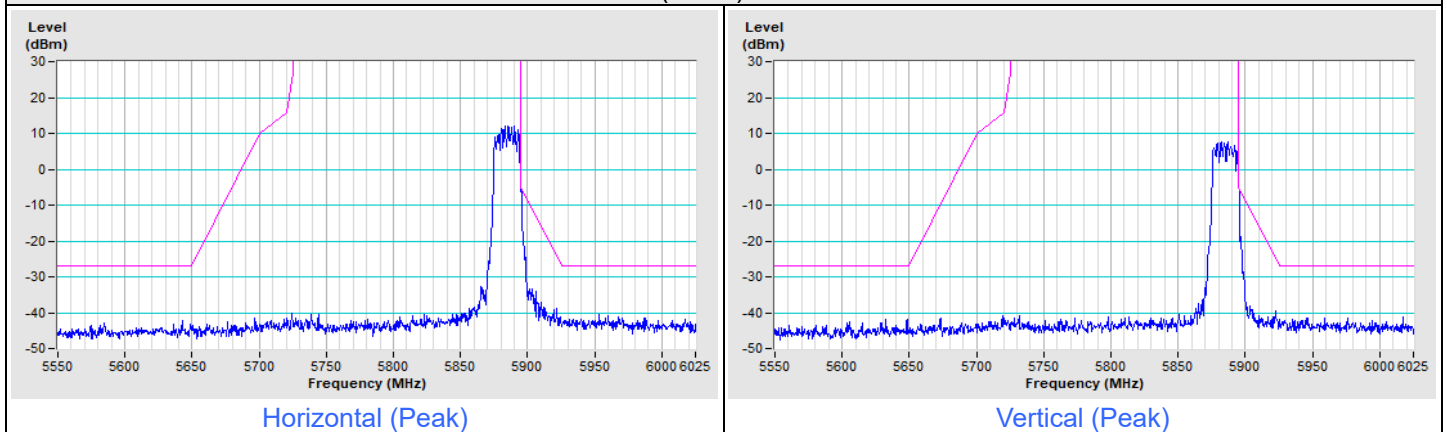
802.11ax (HE20) Channel 169



802.11ax (HE20) Channel 173

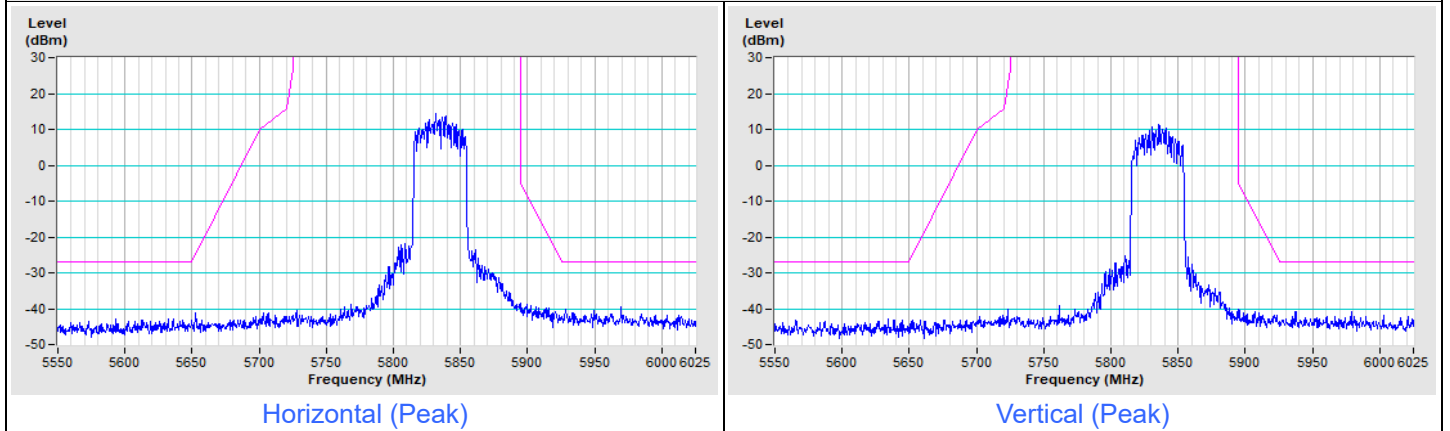


802.11ax (HE20) Channel 177

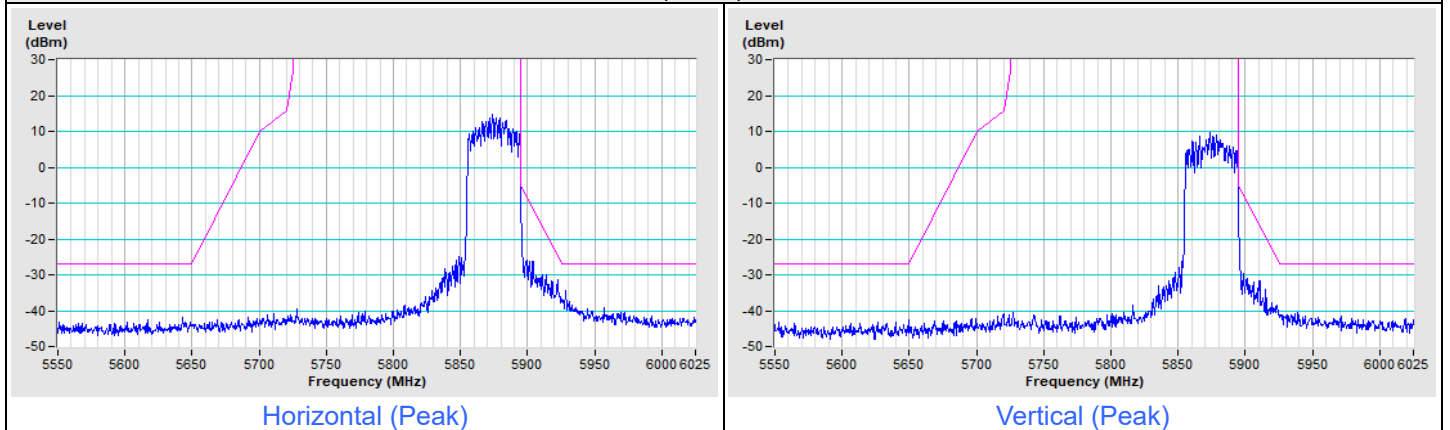


Frequency Range	5.55 GHz ~ 6.025 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak
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802.11ax (HE40) Channel 167

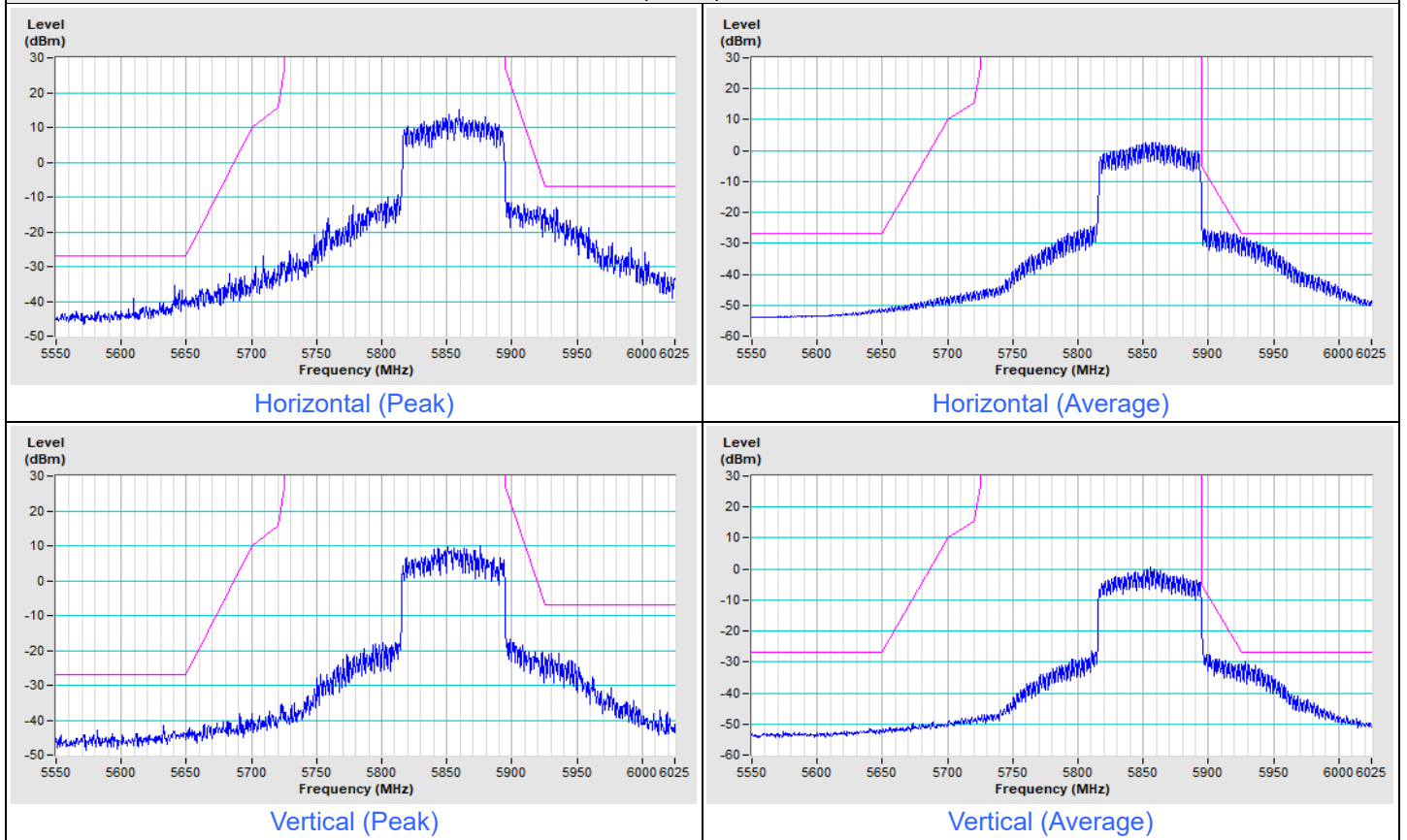


802.11ax (HE40) Channel 175



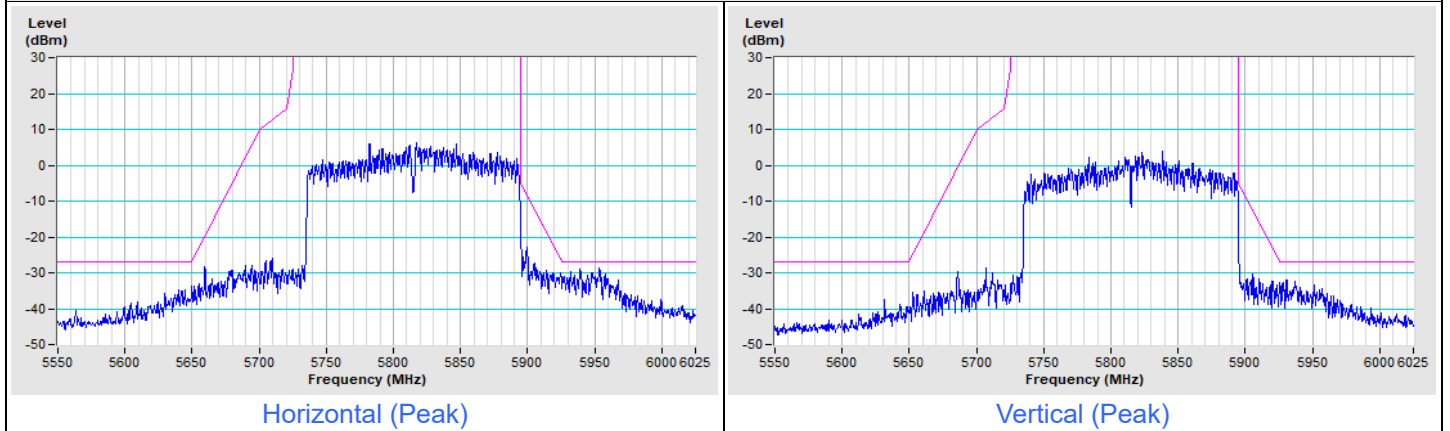
Frequency Range	5.55 GHz ~ 6.025 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=1 kHz, DET=Peak
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802.11ax (HE80) Channel 171



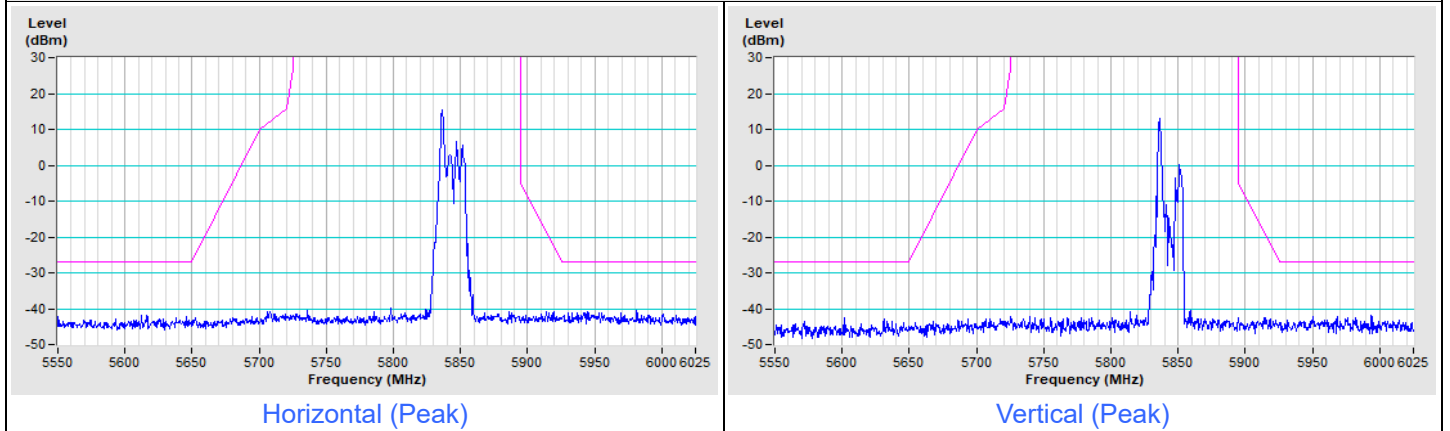
Frequency Range	5.55 GHz ~ 6.025 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak
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802.11ax (HE160) Channel 163

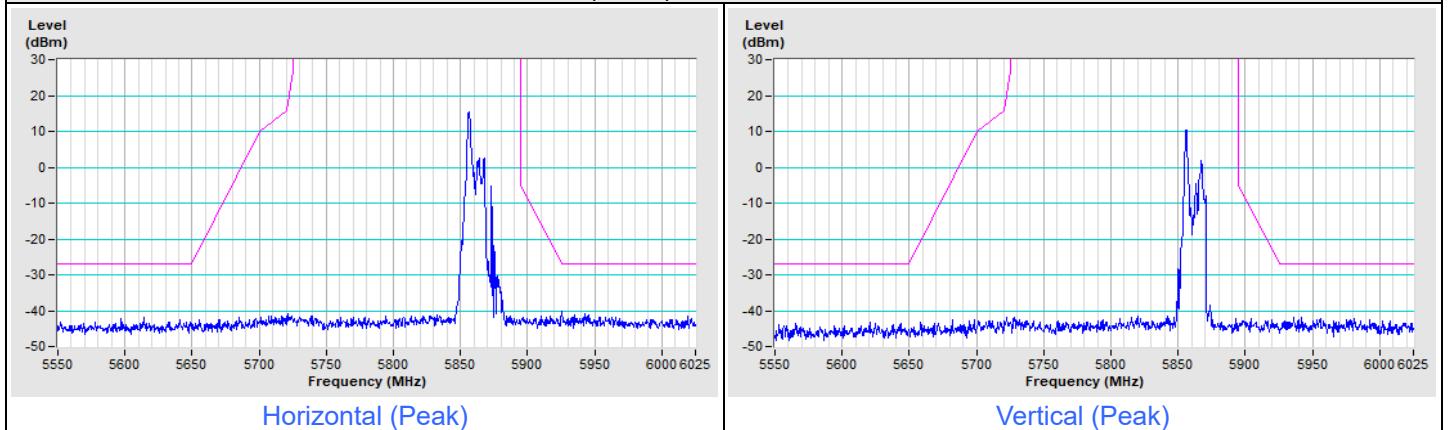


Frequency Range	5.55 GHz ~ 6.025 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak
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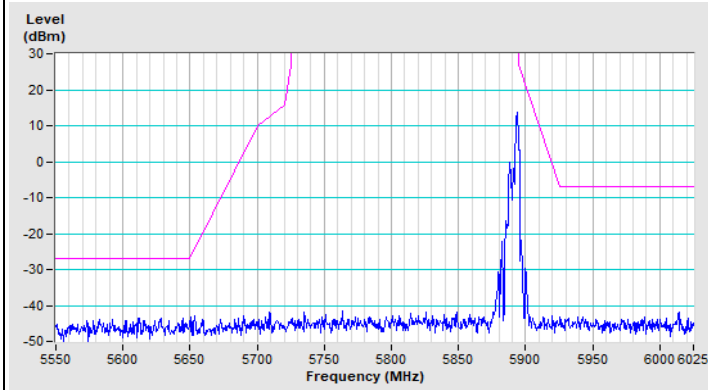
802.11ax (HE20) 26-tone RU Channel 169



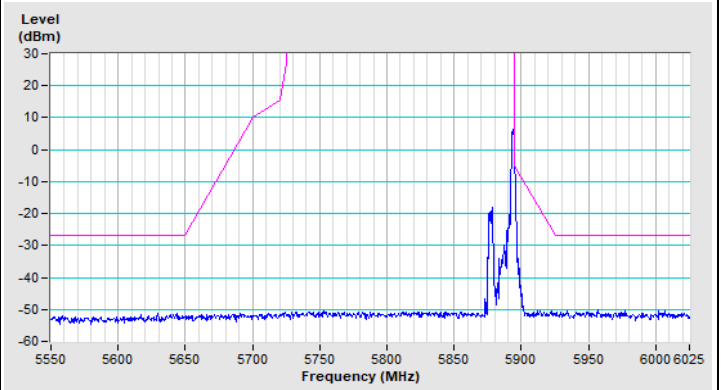
802.11ax (HE20) 26-tone RU Channel 173



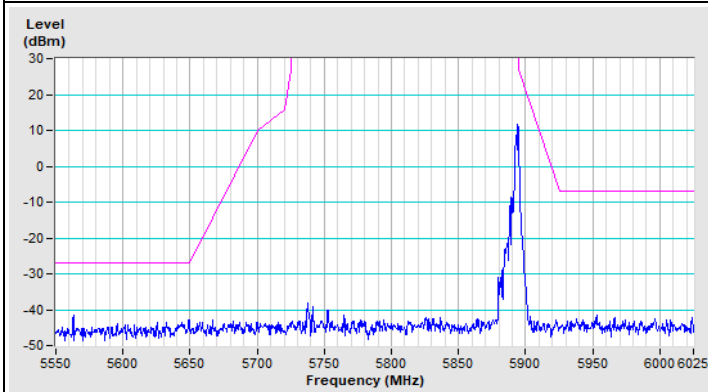
802.11ax (HE20) 26-tone RU Channel 177



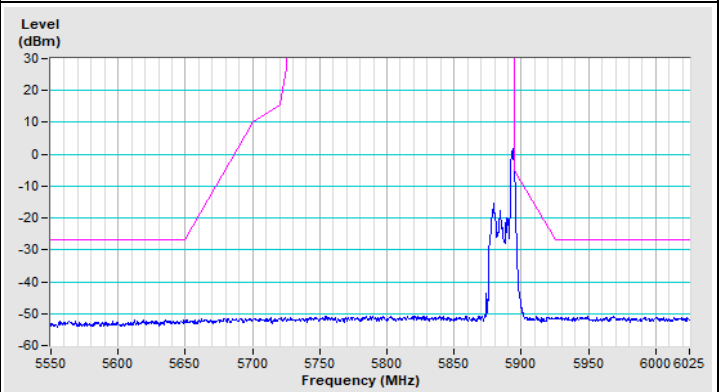
Horizontal (Peak)



Horizontal (Average)



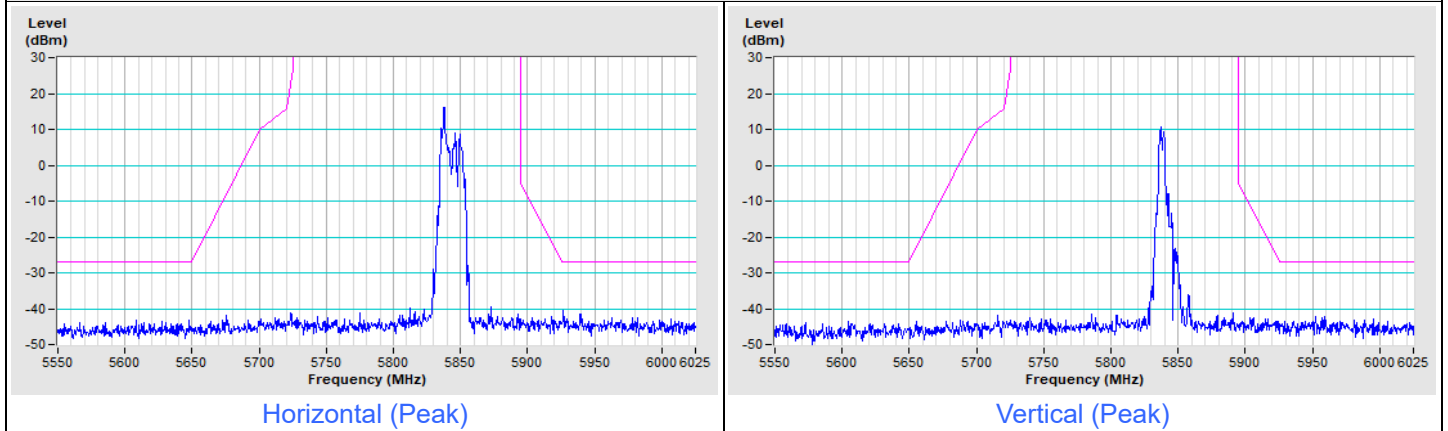
Vertical (Peak)



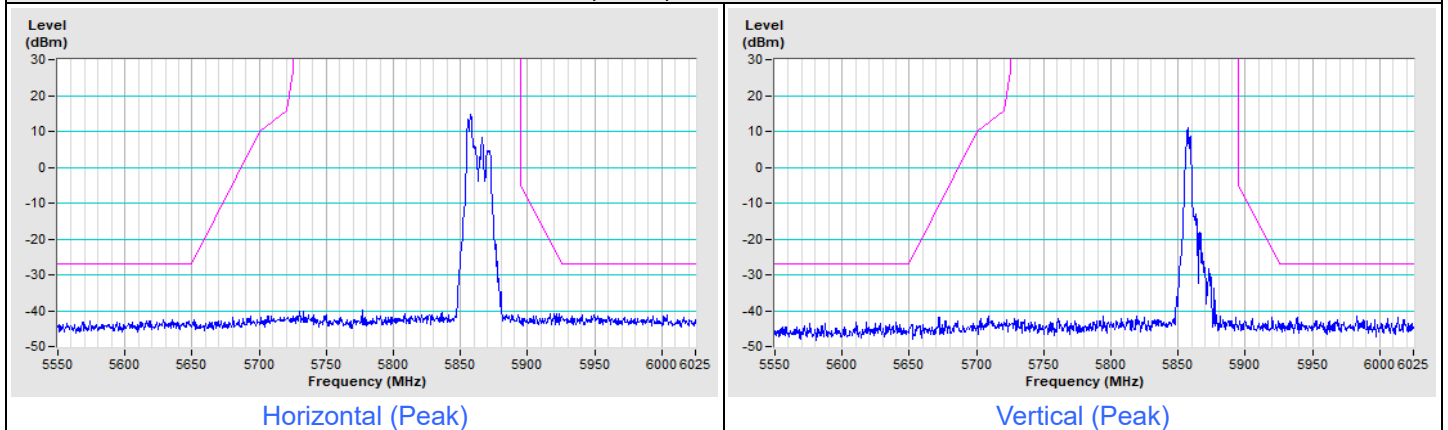
Vertical (Average)

Frequency Range	5.55 GHz ~ 6.025 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak
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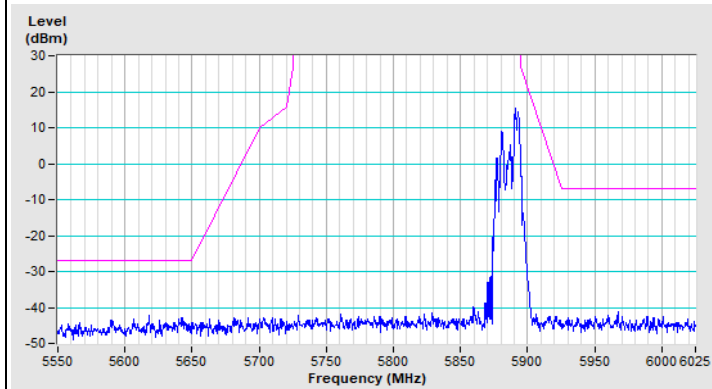
802.11ax (HE20) 52-tone RU Channel 169



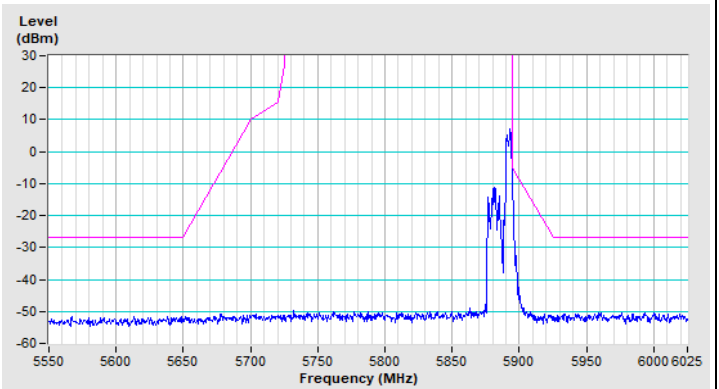
802.11ax (HE20) 52-tone RU Channel 173



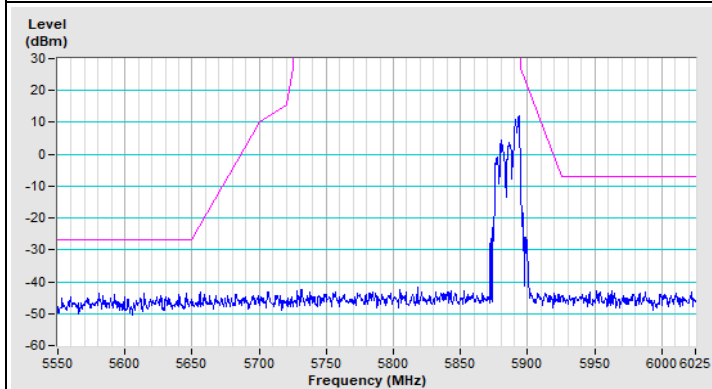
802.11ax (HE20) 52-tone RU Channel 177



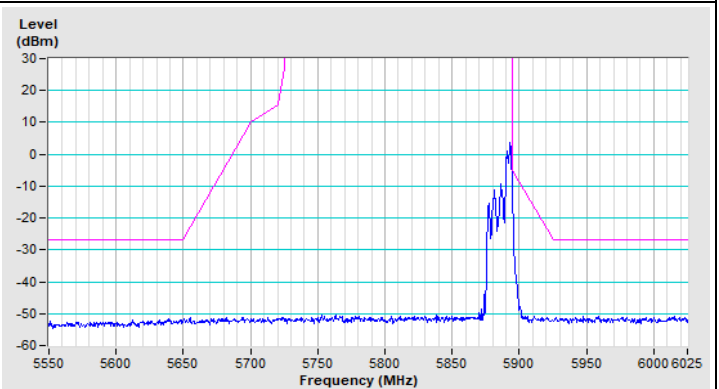
Horizontal (Peak)



Horizontal (Average)

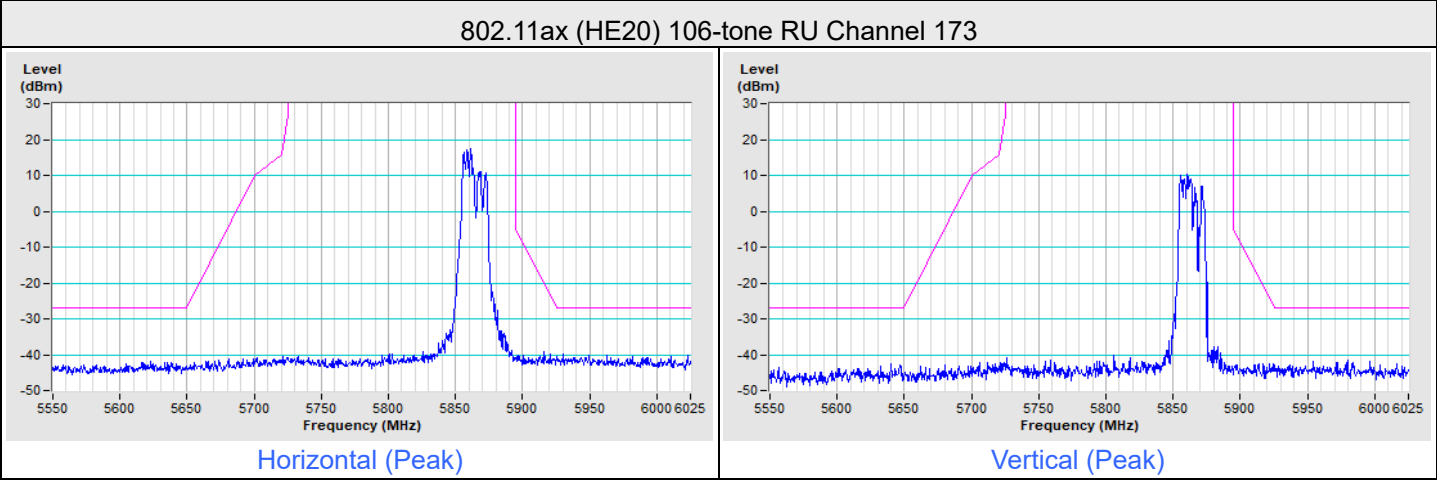
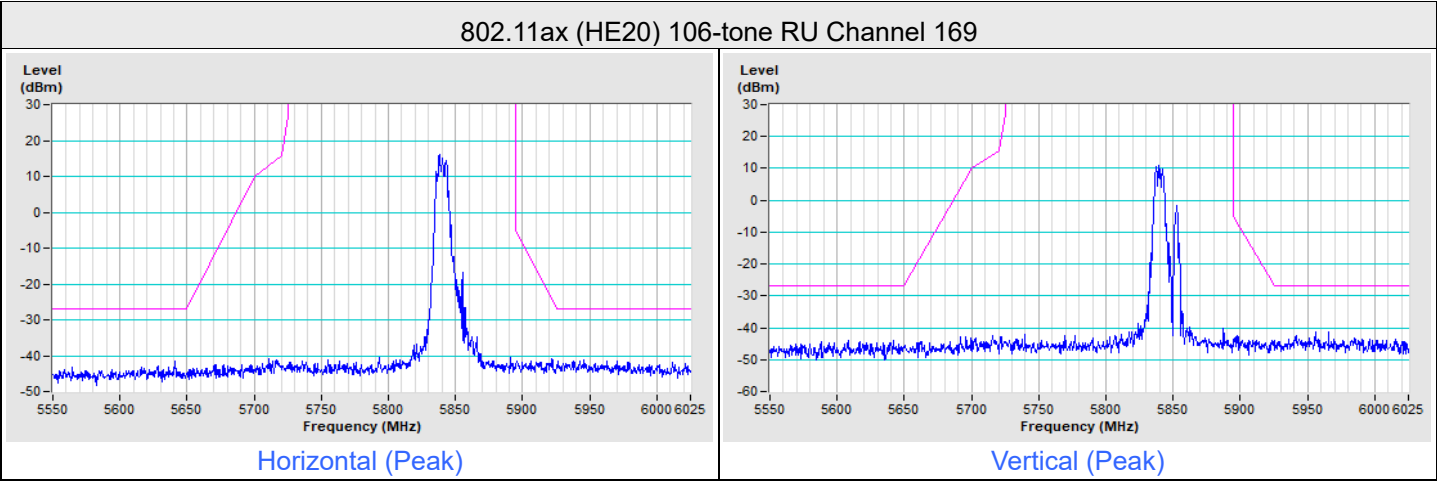


Vertical (Peak)

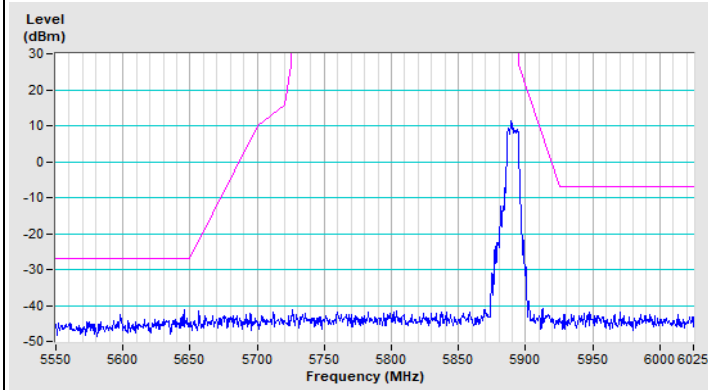


Vertical (Average)

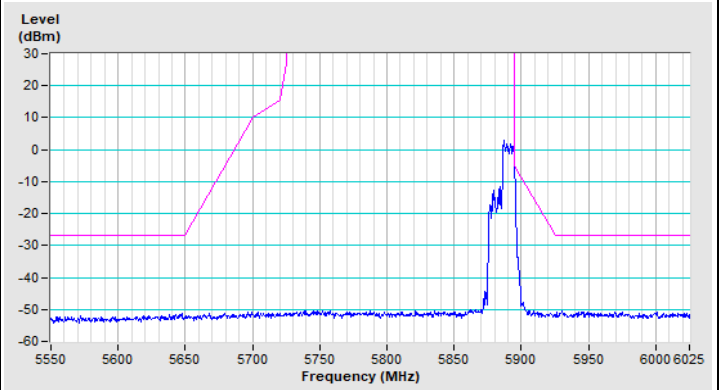
Frequency Range	5.55 GHz ~ 6.025 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak
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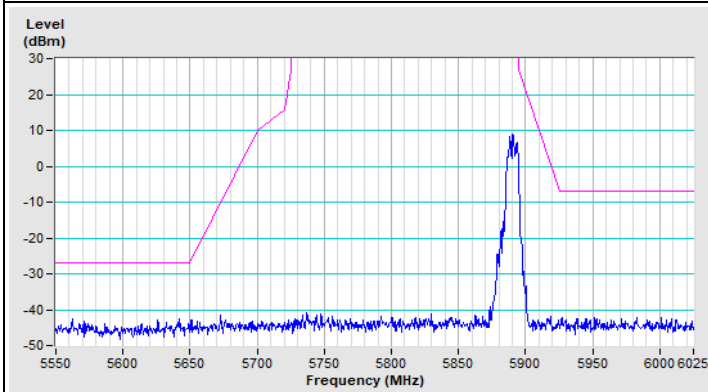
802.11ax (HE20) 106-tone RU Channel 177



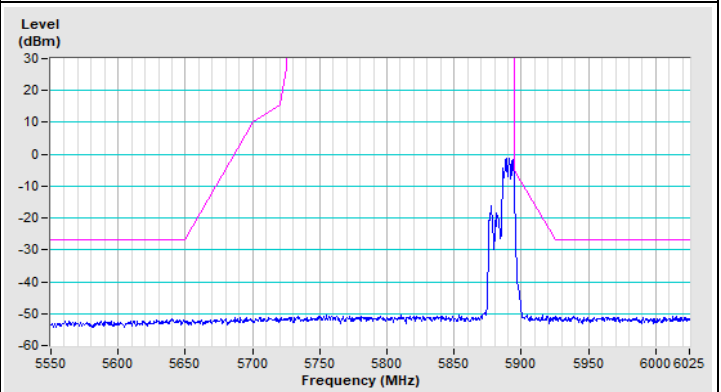
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)



Vertical (Average)

8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

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

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

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Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

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Fax: 886-3-6668323

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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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