

FCC Test Report

Report No.: RFBARR-WTW-P20110181K

FCC ID: RAS-MT7921K

Test Model: MT7921K

Received Date: 2021/10/21

Test Date: 2021/12/1 ~ 2022/1/6

Issued Date: 2022/1/18

Applicant: MediaTek Inc.

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

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Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
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**FCC Registration /
Designation Number:** 723255 / TW2022



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Release Control Record

Issue No.	Description	Date Issued
RFBARR-WTW-P20110181K	Original release.	2022/1/18

1 Certificate of Conformity

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

Brand: MediaTek

Test Model: MT7921K

Sample Status: Engineering sample

Applicant: MediaTek Inc.

Test Date: 2021/12/1 ~ 2022/1/6

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

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

Prepared by : Vivian Huang , **Date:** 2022/1/18
Vivian Huang / Specialist

Approved by : Clark Lin , **Date:** 2022/1/18
Clark Lin / Technical Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(8)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -4.09 dB at 21.16740 MHz.
15.407(b)(5)(8)	Radiated Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -3.6 dB at 35.56 MHz.
15.407(a)(3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
15.407(a)(3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6dB Bandwidth Measurement	Pass	Meet the requirement of limit.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.403	Operational restrictions U-NII 4 devices	Pass	Declaration by applicant
15.203 or 15.403	Antenna Requirement	Pass	Antenna connector is R-SMA or i-pex(MHF) not a standard connector.

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

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.9 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.1 dB
	30MHz ~ 1GHz	5.5 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	5.1 dB
	18GHz ~ 40GHz	5.3 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	2TX 11ax (WiFi6E) + BT/BLE Combo Card
Brand	MediaTek
Test Model	MT7921K
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 1024QAM for OFDMA in 11ax HE mode
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: up to 54 Mbps 802.11n: up to 300 Mbps 802.11ac: up to 866.7 Mbps 802.11ax: up to 1201.0 Mbps
Operating Frequency	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
EIRP	27.73 dBm (592.925 mW)
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	NA
Data Cable Supplied	NA

Note:

- This report is prepared for FCC class II permissive change. The difference compared with the original design is as the following:
 - ◆ Enable U-NII-4 and U-NII-3 & -4 span channels through software change.
- According to above conditions, all of test items need to be performed and all data was tested to meet the requirements.
- There are Bluetooth and WLAN (2.4GHz & 5GHz & 5.9GHz & 6GHz) technology used for the EUT.
- Simultaneously transmission condition.

Condition	Technology	
1	WLAN (2.4GHz)	Bluetooth
2	WLAN (5GHz / 5.9GHz / 6GHz)	Bluetooth

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

5. The antenna information is listed as below.

Ant. Set	RF Chain No.	Brand	Model	Ant. Net Gain (dBi)	Freq. Range (GHz)	Ant. Type	Connector Type	Cable Length (mm)	Cable Loss (dB)	Excluding Cable Loss Ant. Gain (dBi)
1	Chain0	Cortec	AN2450-4902BRS	2.42 3.87	2.4~2.4835 5.15~5.85	Dipole	R-SMA	150	2.4~2.4835GHz: 0.5 5.15~5.85GHz: 0.8	2.92 4.67
	Chain1	Cortec	AN2450-4902BRS	2.42 3.87	2.4~2.4835 5.15~5.85	Dipole	R-SMA	150	2.4~2.4835GHz: 0.5 5.15~5.85GHz: 0.8	2.92 4.67
2	Chain0	PSA	RFMTA340718EM LB302	3.18 4.92	2.4~2.4835 5.15~5.85	PIFA	i-pex(MHF)	200	included cable loss	-
	Chain1	PSA	RFMTA340718EM LB302	3.18 4.92	2.4~2.4835 5.15~5.85	PIFA	i-pex(MHF)	200	included cable loss	-
3	Chain0	PSA	RFMTA311020EM MB301	1.71 4.82 3.31	2.4~2.4835 5.15~5.85 5.92~7.125	PIFA	i-pex(MHF)	200	-	-
	Chain1	PSA	RFMTA311020EM MB301	1.71 4.82 3.31	2.4~2.4835 5.15~5.85 5.92~7.125	PIFA	i-pex(MHF)	200	-	-
4	Chain0	PSA	RFMTA311020EM MB301_V02	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	RFMTA311020EM MB301_V02	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	-	-
5	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	-	-
6	Chain0	Luxshare-ICT	LA9RF059-CS-H (Main)	0.3 1.3 1.2	2.4~2.4835 5.15~5.85 5.925~7.125	Dipole	RP SMA PLUG	925	-	-
	Chain1	Luxshare-ICT	LA9RF059-CS-H (Aux)	-1.10 -1.10 1.4	2.4~2.4835 5.15~5.85 5.925~7.125	Dipole	RP SMA PLUG	876	-	-
7	Chain0	ASUS	14008-02650500 Main ant.	1.03 2.07 2.80	2.4~2.4835 5.15~5.85 5.925~7.125	Dipole	RP SMA PLUG	800	-	-
	Chain1	ASUS	14008-02650500 Aux ant.	2.27 2.01 3.08	2.4~2.4835 5.15~5.85 5.925~7.125	Dipole	RP SMA PLUG	800	-	-

Note: Max. gain was selected for the final test, except for the radiated emissions test.

6. The EUT incorporates a MIMO function:

5GHz 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: The EUT doesn't support beamforming function.

7. 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.

8. The above Antenna information is declared by manufacturer, the laboratory shall not be held responsible.

3.2 Description of Test Modes

For U-NII-4

3 channels are provided for 802.11a, 802.11n, 802.11ac, 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, 802.11ac, 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
*167	5835 MHz	175	5875 MHz

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

Channel	Frequency
*171	5855 MHz

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

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To					Description
	RE $\geq$ 1G	RE<1G	IBE	PLC	APCM	
1	√	√	√	√	√	With PIFA antenna
2	√	√	-	-	-	With Dipole antenna

Where **RE $\geq$ 1G**: Radiated Emission above 1GHz **RE<1G**: Radiated Emission below 1GHz
PLC: Power Line Conducted Emission **APCM**: Antenna Port Conducted Measurement
IBE: In-Band Emission (MASK)

Note: In the original report, the EUT's antenna (PIFA) had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-plane**

Radiated Emission Measurement (Above 1GHz):

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

Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11a	169 to 177	169, 173, 177	OFDM	BPSK	6Mb/s
802.11ax (HE20)	169 to 177	169, 173, 177	OFDMA	BPSK	MCS0
802.11ax (HE40)	167 to 175	167, 175	OFDMA	BPSK	MCS0
802.11ax (HE80)	171	171	OFDMA	BPSK	MCS0

Radiated Emission Measurement (Below 1GHz):

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

Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE80)	171	171	OFDMA	BPSK	MCS0

Power Line Conducted Emission Measurement:

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

Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE80)	171	171	OFDMA	BPSK	MCS0

Antenna Port Conducted Measurement:

- ☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, RU configurations and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11a	169 to 177	169, 173, 177	OFDM	BPSK	6Mb/s
802.11ac (VHT20) (output power only)	169 to 177	169, 173, 177	OFDM	BPSK	MCS0
802.11ac (VHT40) (output power only)	167 to 175	167, 175	OFDM	BPSK	MCS0
802.11ac (VHT80) (output power only)	171	171	OFDM	BPSK	MCS0
802.11ax (HE20)	169 to 177	169, 173, 177	OFDMA	BPSK	MCS0
802.11ax (HE40)	167 to 175	167, 175	OFDMA	BPSK	MCS0
802.11ax (HE80)	171	171	OFDMA	BPSK	MCS0

Test Condition:

Applicable To	Environmental Conditions	Input Power (System)	Tested By
RE $\geq$ 1G	22deg. C, 70%RH	120Vac, 60Hz	Carter Lin
RE<1G	23deg. C, 66%RH	120Vac, 60Hz	Tom Yang
PLC	25deg. C, 75%RH	120Vac, 60Hz	Carter Lin
APCM	24deg. C, 60%RH	120Vac, 60Hz	Eric Peng

3.3 Duty Cycle of Test Signal

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

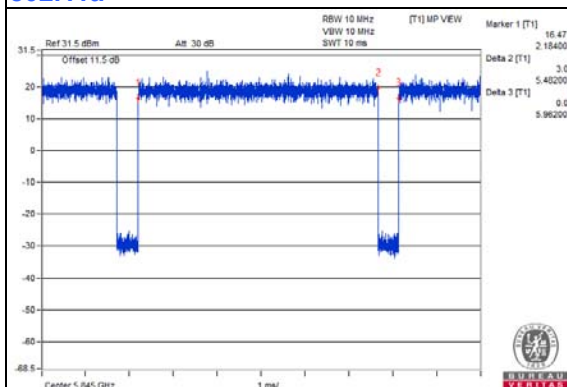
802.11a: Duty cycle = 5.482 ms/5.962 ms = 0.919, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.36 \text{ dB}$

802.11ax (HE20): Duty cycle = 3.876 ms/4.364 ms = 0.888, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.52 \text{ dB}$

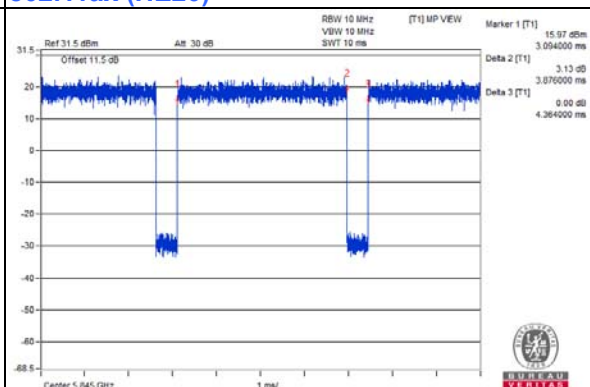
802.11ax (HE40): Duty cycle = 3.786 ms/4.425 ms = 0.856, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.68 \text{ dB}$

802.11ax (HE80): Duty cycle = 1.843 ms/2.475 ms = 0.745, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 1.28 \text{ dB}$

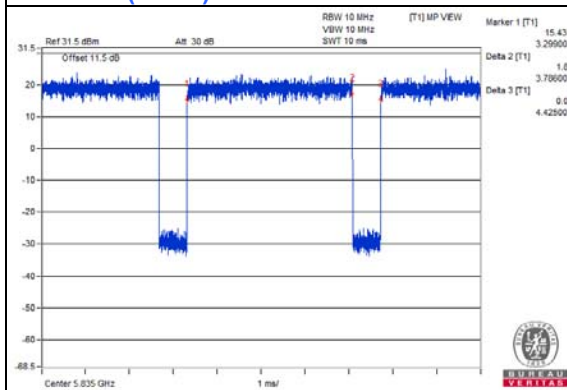
802.11a



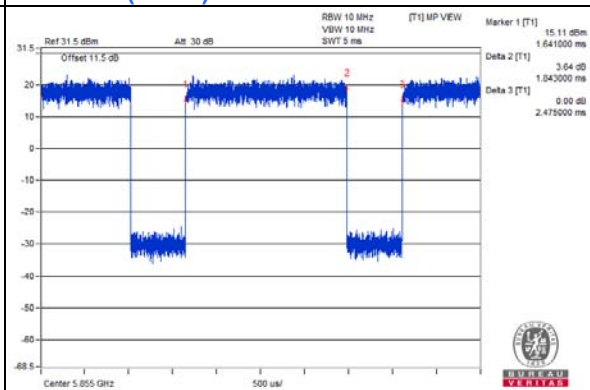
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)



3.4 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

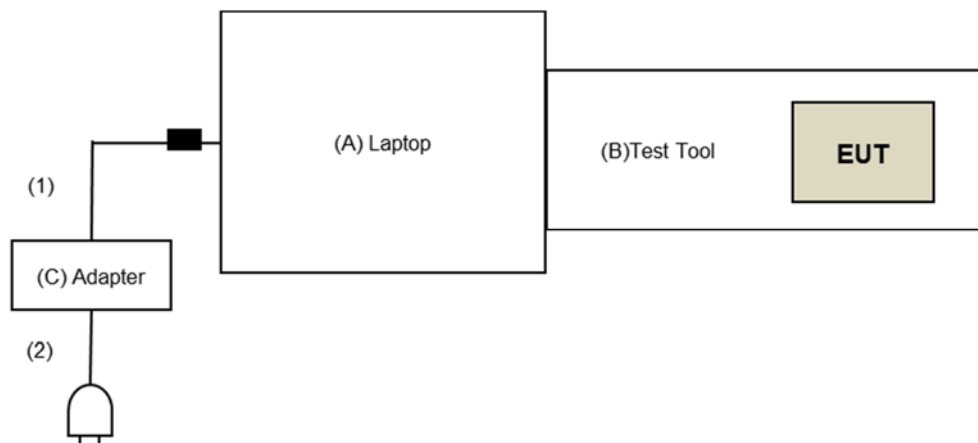
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	DELL	E6440	F9LYQ32	FCC DoC	Provided by Lab
B.	Test Tool	MTK	NA	NA	NA	Supplied by client
C.	Adapter	Dell	FA65NE0-00	NA	NA	Provided by Lab

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Cable	1	1.6	No	1	Provided by Lab
2.	AC Cable	1	1	No	0	Provided by Lab

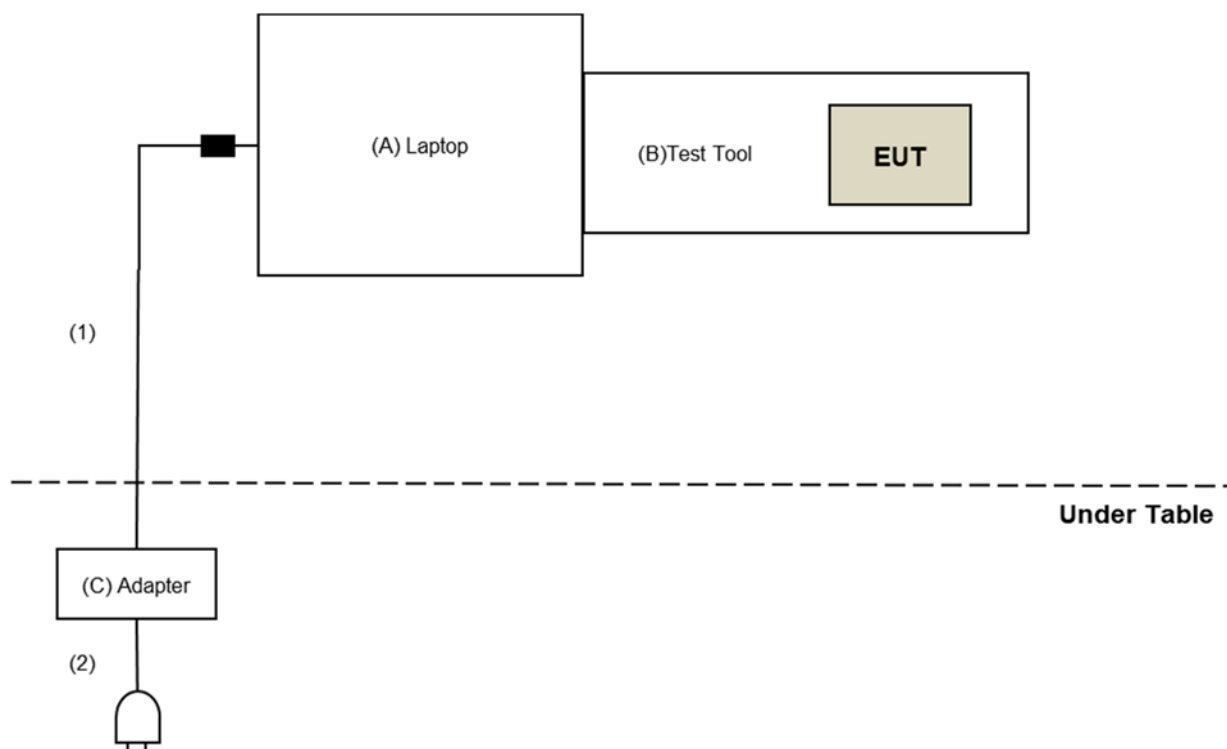
Note: The core is originally attached to the cable.

3.4.1 Configuration of System under Test

For Conducted Emissions test:



For Radiated Emissions test:



3.5 General Description of Applied Standards and References

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

Test Standard:

FCC Part 15, Subpart E (15.407)

ANSI C63.10-2013

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

References Test Guidance:

KDB 291074 D02 EMC Measurement v01

KDB 789033 D02 General UNII Test Procedure New Rules v02r01

KDB 662911 D01 Multiple Transmitter Output v02r01

All test items have been performed as a reference to the above KDB test guidance.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

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

Limits of unwanted emission out of the restricted bands

- (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:

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

4.1.2 Test Instruments

For Radiated Emission (below 1 GHz) & Bandedge test:

Description & Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Test Receiver Agilent	N9038A	MY51210202	2021/11/19	2022/11/18
Software	ADT_Radiated_V8 .7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA
Pre_Amplifier EMCI	EMC001340	980142	2021/5/24	2022/5/23
LOOP ANTENNA Electro-Metrics	EM-6879	264	2021/3/5	2022/3/4
RF Coaxial Cable JYEBO	5D-FB	LOOPCAB-001	2021/1/7	2022/1/6
RF Coaxial Cable JYEBO	5D-FB	LOOPCAB-002	2021/1/7	2022/1/6
Pre_Amplifier EMCI	EMC330N	980701	2021/3/10	2022/3/9
Trilog Broadband Antenna Schwarzbeck	VULB 9168	9168-406	2021/10/27	2022/10/26
RF Coaxial Cable COMDATE/PEWC	8D	966-4-1	2021/3/17	2022/3/16
RF Coaxial Cable COMDATE/PEWC	8D	966-4-2	2021/3/17	2022/3/16
RF Coaxial Cable COMDATE/PEWC	8D	966-4-3	2021/3/17	2022/3/16
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-03	2021/1/11	2022/1/10
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-783	2021/11/14	2022/11/13
Pre_Amplifier EMCI	EMC 12630 SE	980638	2021/4/7	2022/4/6
RF Cable-Frequency Range : 1-26.5GHz EMCI	EMC104-SM-SM- 1200	160922	2020/12/25	2021/12/24
RF Coaxial Cable EMCI	EMC104-SM-SM- 2000	180502	2021/4/26	2022/4/25
RF Coaxial Cable EMCI	EMC104-SM-SM- 6000	210704	2021/11/9	2022/11/8
Pre_Amplifier EMCI	EMC184045SE	980387	2021/1/11	2022/1/10
Horn Antenna Schwarzbeck	BBHA 9170	BBHA9170519	2021/11/14	2022/11/13
RF Cable-Frequency range: 1-40GHz EMCI	EMC102-KM-KM- 1200	160924	2021/1/11	2022/1/10
RF cable (40GHz) EMCI	EMC-KM-KM-4000	200214	2021/3/10	2022/3/9

- Note: 1. The test was performed in 966 Chamber No. 4.
 2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 3. Tested Date: 2021/12/21 ~ 2021/12/23

For Radiated Emission (above 1 GHz) test:

Description & Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Test Receiver Agilent	N9038A	MY51210202	2021/11/19	2022/11/18
Software	ADT_Radiated_V8 .7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-783	2021/11/14	2022/11/13
Pre_Amplifier EMCI	EMC 12630 SE	980638	2021/4/7	2022/4/6
RF Cable-Frequency Range : 1-26.5GHz EMCI	EMC104-SM-SM- 1200	160922	2021/12/24	2022/12/23
RF Coaxial Cable EMCI	EMC104-SM-SM- 2000	180502	2021/4/26	2022/4/25
RF Coaxial Cable EMCI	EMC104-SM-SM- 6000	210704	2021/11/9	2022/11/8
Pre_Amplifier EMCI	EMC184045SE	980387	2021/1/11	2022/1/10
Horn Antenna Schwarzbeck	BBHA 9170	BBHA9170519	2021/11/14	2022/11/13
RF Cable-Frequency range: 1-40GHz EMCI	EMC102-KM-KM- 1200	160924	2021/1/11	2022/1/10
RF cable (40GHz) EMCI	EMC-KM-KM-4000	200214	2021/3/10	2022/3/9

- Note: 1. The test was performed in 966 Chamber No. 4.
 2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 3. Tested Date: 2022/1/6

For other test items:

Description & Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Spectrum Analyzer R&S	FSV40	101516	2021/3/8	2022/3/7
Power Meter Anritsu	ML2495A	1529002	2021/6/21	2022/6/20
Pulse Power Sensor Anritsu	MA2411B	1339443	2021/5/31	2022/5/30
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2021/4/13	2022/4/12
Software	ADT_RF Test Software V6.6.5.4	NA	NA	NA
DC POWER SUPPLY Topward	6603D	795558	NA	NA
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP- AR	MAA0812-008	2021/1/14	2022/1/13
True RMS Clamp Meter Fluke	325	31130711WS	2021/6/2	2022/6/1

- Note: 1. The test was performed in Oven room 2.
 2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 3. Tested Date: 2021/12/1

4.1.3 Test Procedure

For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. 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.

NOTE:

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

For Radiated emission above 30MHz

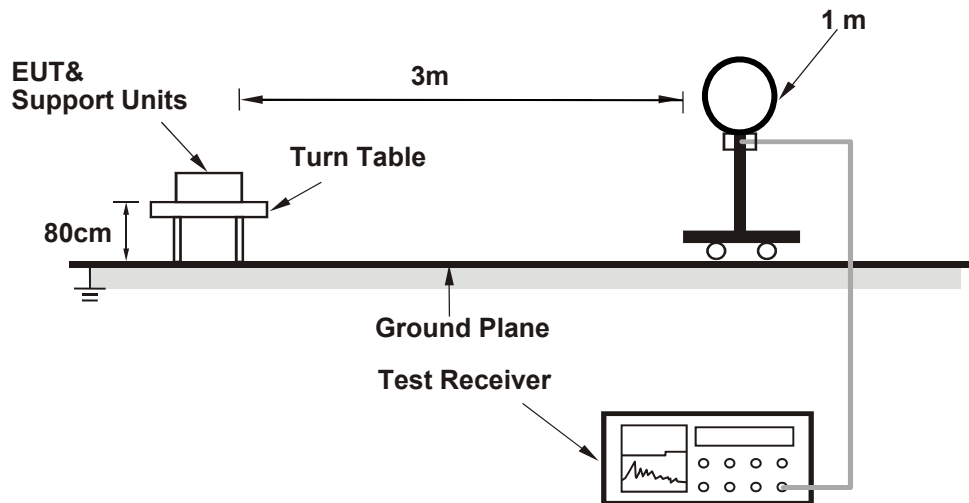
- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak 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 RMS detector is unnecessary.

Note:

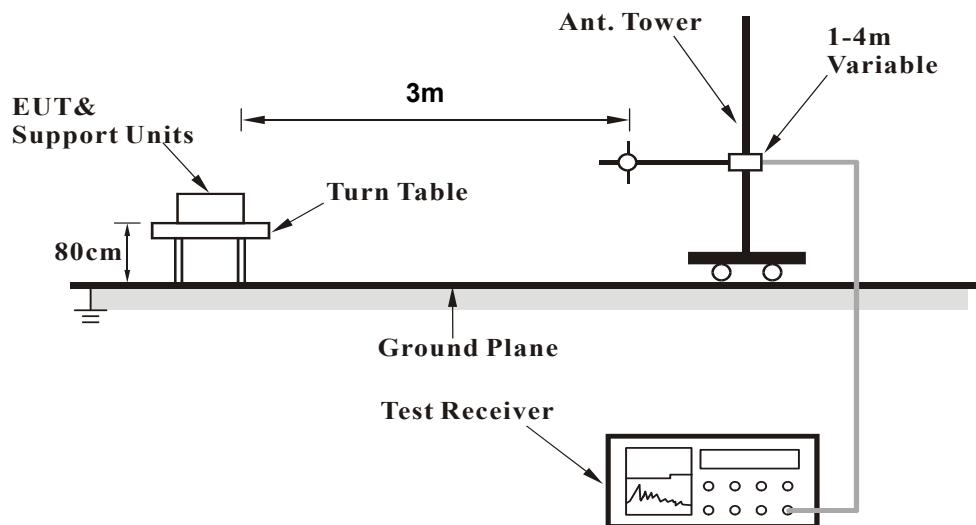
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

4.1.4 Test Setup

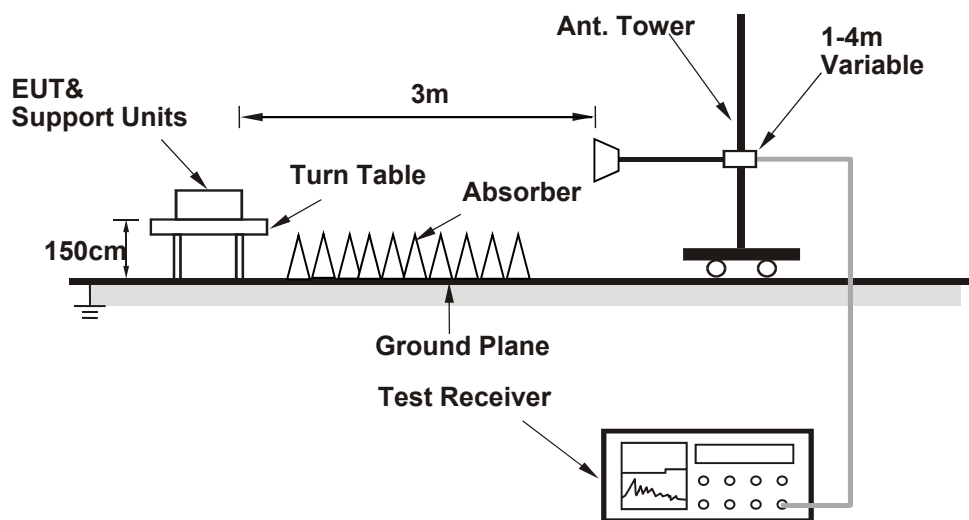
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.5 EUT Operating Condition

- Placed the EUT on the testing table.
- Controlling software (MT7961 QA 0.0.2.33) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

4.1.6 Test Results (Mode 1)

Above 1GHz Data:

RF Mode	TX 802.11a	Channel	CH 169 : 5845 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Carter 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	*5845.00	119.5 PK			2.02 H	89	118.2	1.3
2	*5845.00	112.6 AV			2.02 H	89	111.3	1.3
3	11690.00	52.5 PK	74.0	-21.5	1.10 H	229	41.2	11.3
4	11690.00	42.2 AV	54.0	-11.8	1.10 H	229	30.9	11.3
5	#17535.00	59.4 PK	88.2	-28.8	3.61 H	64	41.4	18.0
6	#17535.00	47.6 AV	68.2	-20.6	3.61 H	64	29.6	18.0
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	*5845.00	111.7 PK			1.52 V	31	110.4	1.3
2	*5845.00	104.3 AV			1.52 V	31	103.0	1.3
3	11690.00	58.8 PK	74.0	-15.2	3.73 V	337	47.5	11.3
4	11690.00	47.2 AV	54.0	-6.8	3.73 V	337	35.9	11.3
5	#17535.00	66.7 PK	88.2	-21.5	3.65 V	327	48.7	18.0
6	#17535.00	53.9 AV	68.2	-14.3	3.65 V	327	35.9	18.0

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 173 : 5865 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Carter 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	*5865.00	119.3 PK			2.01 H	85	117.9	1.4
2	*5865.00	112.4 AV			2.01 H	85	111.0	1.4
3	11730.00	53.2 PK	74.0	-20.8	1.10 H	241	42.0	11.2
4	11730.00	42.7 AV	54.0	-11.3	1.10 H	241	31.5	11.2
5	#17595.00	59.5 PK	88.2	-28.7	3.56 H	66	41.1	18.4
6	#17595.00	47.5 AV	68.2	-20.7	3.56 H	66	29.1	18.4
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	111.6 PK			1.51 V	33	110.2	1.4
2	*5865.00	104.1 AV			1.51 V	33	102.7	1.4
3	11730.00	59.4 PK	74.0	-14.6	3.75 V	329	48.2	11.2
4	11730.00	47.5 AV	54.0	-6.5	3.75 V	329	36.3	11.2
5	#17595.00	67.1 PK	88.2	-21.1	3.66 V	332	48.7	18.4
6	#17595.00	53.7 AV	68.2	-14.5	3.66 V	332	35.3	18.4

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 177 : 5885 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Carter 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	*5885.00	119.3 PK			2.03 H	86	118.0	1.3
2	*5885.00	112.1 AV			2.03 H	86	110.8	1.3
3	11770.00	53.8 PK	74.0	-20.2	1.11 H	230	42.7	11.1
4	11770.00	43.1 AV	54.0	-10.9	1.11 H	230	32.0	11.1
5	#17655.00	58.9 PK	88.2	-29.3	3.55 H	59	40.2	18.7
6	#17655.00	47.1 AV	68.2	-21.1	3.55 H	59	28.4	18.7
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	*5885.00	111.3 PK			1.52 V	31	110.0	1.3
2	*5885.00	103.8 AV			1.52 V	31	102.5	1.3
3	11770.00	59.2 PK	74.0	-14.8	3.77 V	328	48.1	11.1
4	11770.00	47.6 AV	54.0	-6.4	3.77 V	328	36.5	11.1
5	#17655.00	66.1 PK	88.2	-22.1	3.67 V	318	47.4	18.7
6	#17655.00	53.5 AV	68.2	-14.7	3.67 V	318	34.8	18.7

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 169 : 5845 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Carter 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	*5845.00	118.1 PK			2.03 H	92	116.8	1.3
2	*5845.00	108.6 AV			2.03 H	92	107.3	1.3
3	11690.00	53.6 PK	74.0	-20.4	1.11 H	245	42.3	11.3
4	11690.00	43.2 AV	54.0	-10.8	1.11 H	245	31.9	11.3
5	#17535.00	58.9 PK	88.2	-29.3	3.58 H	68	40.9	18.0
6	#17535.00	47.0 AV	68.2	-21.2	3.58 H	68	29.0	18.0
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	*5845.00	111.6 PK			1.48 V	39	110.3	1.3
2	*5845.00	102.1 AV			1.48 V	39	100.8	1.3
3	11690.00	58.8 PK	74.0	-15.2	3.82 V	342	47.5	11.3
4	11690.00	47.4 AV	54.0	-6.6	3.82 V	342	36.1	11.3
5	#17535.00	66.2 PK	88.2	-22.0	3.66 V	324	48.2	18.0
6	#17535.00	53.7 AV	68.2	-14.5	3.66 V	324	35.7	18.0

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 173 : 5865 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Carter 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	*5865.00	117.5 PK			2.00 H	87	116.1	1.4
2	*5865.00	108.5 AV			2.00 H	87	107.1	1.4
3	11730.00	53.9 PK	74.0	-20.1	1.09 H	247	42.7	11.2
4	11730.00	43.5 AV	54.0	-10.5	1.09 H	247	32.3	11.2
5	#17595.00	58.7 PK	88.2	-29.5	3.60 H	83	40.3	18.4
6	#17595.00	46.7 AV	68.2	-21.5	3.60 H	83	28.3	18.4
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	111.9 PK			1.49 V	40	110.5	1.4
2	*5865.00	102.4 AV			1.49 V	40	101.0	1.4
3	11730.00	59.4 PK	74.0	-14.6	3.79 V	339	48.2	11.2
4	11730.00	47.9 AV	54.0	-6.1	3.79 V	339	36.7	11.2
5	#17595.00	66.4 PK	88.2	-21.8	3.68 V	319	48.0	18.4
6	#17595.00	54.0 AV	68.2	-14.2	3.68 V	319	35.6	18.4

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 177 : 5885 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Carter 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	*5885.00	112.5 PK			2.02 H	89	111.2	1.3
2	*5885.00	105.8 AV			2.02 H	89	104.5	1.3
3	11770.00	50.1 PK	74.0	-23.9	1.09 H	237	39.0	11.1
4	11770.00	42.8 AV	54.0	-11.2	1.09 H	237	31.7	11.1
5	#17655.00	54.4 PK	88.2	-33.8	3.62 H	75	35.7	18.7
6	#17655.00	43.6 AV	68.2	-24.6	3.62 H	75	24.9	18.7
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	*5885.00	108.1 PK			1.48 V	41	106.8	1.3
2	*5885.00	98.8 AV			1.48 V	41	97.5	1.3
3	11770.00	55.2 PK	74.0	-18.8	3.74 V	328	44.1	11.1
4	11770.00	43.6 AV	54.0	-10.4	3.74 V	328	32.5	11.1
5	#17655.00	61.8 PK	88.2	-26.4	3.62 V	313	43.1	18.7
6	#17655.00	49.6 AV	68.2	-18.6	3.62 V	313	30.9	18.7

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 167 : 5835 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Carter 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	*5835.00	118.0 PK			2.00 H	89	116.7	1.3
2	*5835.00	108.1 AV			2.00 H	89	106.8	1.3
3	11670.00	54.7 PK	74.0	-19.3	1.09 H	228	43.5	11.2
4	11670.00	43.9 AV	54.0	-10.1	1.09 H	228	32.7	11.2
5	#17505.00	58.8 PK	88.2	-29.4	3.68 H	83	41.0	17.8
6	#17505.00	47.1 AV	68.2	-21.1	3.68 H	83	29.3	17.8
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	*5835.00	112.6 PK			1.52 V	41	111.3	1.3
2	*5835.00	102.6 AV			1.52 V	41	101.3	1.3
3	11670.00	59.9 PK	74.0	-14.1	3.77 V	326	48.7	11.2
4	11670.00	48.2 AV	54.0	-5.8	3.77 V	326	37.0	11.2
5	#17505.00	66.3 PK	88.2	-21.9	3.71 V	328	48.5	17.8
6	#17505.00	54.1 AV	68.2	-14.1	3.71 V	328	36.3	17.8

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5875 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Carter 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	*5875.00	117.2 PK			1.96 H	90	115.8	1.4
2	*5875.00	107.7 AV			1.96 H	90	106.3	1.4
3	11750.00	54.2 PK	74.0	-19.8	1.15 H	234	43.1	11.1
4	11750.00	43.7 AV	54.0	-10.3	1.15 H	234	32.6	11.1
5	#17625.00	58.3 PK	88.2	-29.9	3.73 H	92	39.7	18.6
6	#17625.00	46.7 AV	68.2	-21.5	3.73 H	92	28.1	18.6
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	*5875.00	111.8 PK			1.54 V	40	110.4	1.4
2	*5875.00	100.2 AV			1.54 V	40	98.8	1.4
3	11750.00	59.8 PK	74.0	-14.2	3.80 V	328	48.7	11.1
4	11750.00	47.9 AV	54.0	-6.1	3.80 V	328	36.8	11.1
5	#17625.00	66.3 PK	88.2	-21.9	3.67 V	343	47.7	18.6
6	#17625.00	54.2 AV	68.2	-14.0	3.67 V	343	35.6	18.6

Remarks:

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

RF Mode	TX 802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Carter 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	*5855.00	118.4 PK			3.13 H	86	117.1	1.3
2	*5855.00	103.0 AV			3.13 H	86	101.7	1.3
3	11710.00	50.1 PK	74.0	-23.9	1.15 H	243	38.9	11.2
4	11710.00	40.3 AV	54.0	-13.7	1.15 H	243	29.1	11.2
5	#17565.00	55.3 PK	88.2	-32.9	3.79 H	81	37.2	18.1
6	#17565.00	43.7 AV	68.2	-24.5	3.79 H	81	25.6	18.1
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	*5855.00	106.9 PK			1.53 V	39	105.6	1.3
2	*5855.00	97.5 AV			1.53 V	39	96.2	1.3
3	11710.00	55.8 PK	74.0	-18.2	3.77 V	315	44.6	11.2
4	11710.00	44.6 AV	54.0	-9.4	3.77 V	315	33.4	11.2
5	#17565.00	62.8 PK	88.2	-25.4	3.69 V	349	44.7	18.1
6	#17565.00	50.4 AV	68.2	-17.8	3.69 V	349	32.3	18.1

Remarks:

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

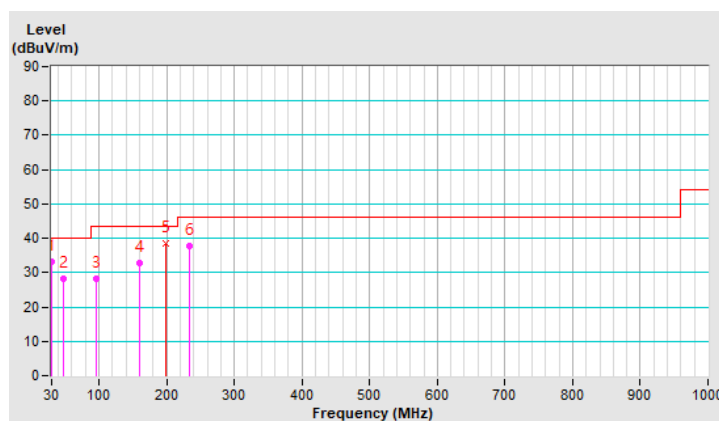
Below 1GHz Data:

RF Mode	TX 802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)
Input Power	120Vac, 60Hz	Environmental Conditions	23 °C, 66 % RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	30.62	33.1 QP	40.0	-6.9	1.00 H	150	46.8	-13.7
2	48.21	28.1 QP	40.0	-11.9	1.00 H	300	40.7	-12.6
3	95.23	28.2 QP	43.5	-15.3	1.00 H	254	45.8	-17.6
4	159.11	32.9 QP	43.5	-10.6	1.00 H	266	44.9	-12.0
5	199.12	38.5 QP	43.5	-5.0	1.00 H	320	53.5	-15.0
6	232.77	37.8 QP	46.0	-8.2	1.50 H	214	51.8	-14.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

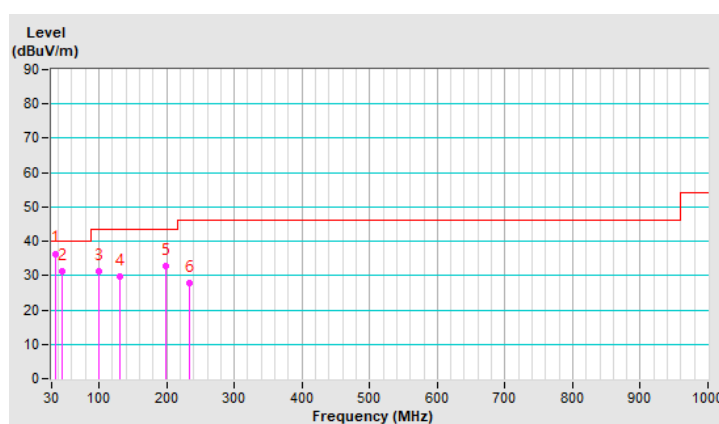


RF Mode	TX 802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)
Input Power	120Vac, 60Hz	Environmental Conditions	24 °C, 68 % RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	35.56	36.4 QP	40.0	-3.6	1.00 V	139	50.0	-13.6
2	44.85	31.3 QP	40.0	-8.7	1.00 V	56	43.9	-12.6
3	100.17	31.1 QP	43.5	-12.4	1.00 V	142	47.8	-16.7
4	130.04	29.6 QP	43.5	-13.9	1.00 V	181	42.9	-13.3
5	198.75	32.7 QP	43.5	-10.8	1.50 V	246	47.7	-15.0
6	233.13	27.7 QP	46.0	-18.3	1.50 V	112	41.7	-14.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



4.1.7 Test Results (Mode 2)

Above 1GHz Data:

RF Mode	TX 802.11a	Channel	CH 169 : 5845 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Vic Huang		

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	104.6 PK			1.26 H	205	103.3	1.3
2	*5845.00	97.5 AV			1.26 H	205	96.2	1.3
3	11690.00	57.9 PK	74.0	-16.1	3.33 H	220	46.6	11.3
4	11690.00	46.1 AV	54.0	-7.9	3.33 H	220	34.8	11.3
5	#17535.00	60.5 PK	88.2	-27.7	3.01 H	111	42.5	18.0
6	#17535.00	49.6 AV	68.2	-18.6	3.01 H	111	31.6	18.0
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	*5845.00	112.1 PK			2.85 V	357	110.8	1.3
2	*5845.00	104.4 AV			2.85 V	357	103.1	1.3
3	11690.00	61.1 PK	74.0	-12.9	3.49 V	349	49.8	11.3
4	11690.00	49.8 AV	54.0	-4.2	3.49 V	349	38.5	11.3
5	#17535.00	62.9 PK	88.2	-25.3	2.29 V	316	44.9	18.0
6	#17535.00	52.2 AV	68.2	-16.0	2.29 V	316	34.2	18.0

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 173 : 5865 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Vic Huang		

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	105.1 PK			1.26 H	209	103.7	1.4
2	*5865.00	97.7 AV			1.26 H	209	96.3	1.4
3	11730.00	58.1 PK	74.0	-15.9	3.33 H	205	46.9	11.2
4	11730.00	46.3 AV	54.0	-7.7	3.33 H	205	35.1	11.2
5	#17595.00	60.9 PK	88.2	-27.3	3.02 H	95	42.5	18.4
6	#17595.00	49.9 AV	68.2	-18.3	3.02 H	95	31.5	18.4
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	112.2 PK			2.84 V	357	110.8	1.4
2	*5865.00	104.9 AV			2.84 V	357	103.5	1.4
3	11730.00	60.7 PK	74.0	-13.3	3.49 V	340	49.5	11.2
4	11730.00	49.5 AV	54.0	-4.5	3.49 V	340	38.3	11.2
5	#17595.00	63.1 PK	88.2	-25.1	2.23 V	310	44.7	18.4
6	#17595.00	52.4 AV	68.2	-15.8	2.23 V	310	34.0	18.4

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 177 : 5885 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Vic Huang		

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	*5885.00	105.6 PK			1.27 H	208	104.3	1.3
2	*5885.00	98.4 AV			1.27 H	208	97.1	1.3
3	11770.00	58.2 PK	74.0	-15.8	3.34 H	195	47.1	11.1
4	11770.00	46.4 AV	54.0	-7.6	3.34 H	195	35.3	11.1
5	#17655.00	61.3 PK	88.2	-26.9	3.01 H	90	42.6	18.7
6	#17655.00	50.3 AV	68.2	-17.9	3.01 H	90	31.6	18.7
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	*5885.00	112.4 PK			2.83 V	359	111.1	1.3
2	*5885.00	105.1 AV			2.83 V	359	103.8	1.3
3	11770.00	60.3 PK	74.0	-13.7	3.48 V	350	49.2	11.1
4	11770.00	49.5 AV	54.0	-4.5	3.48 V	350	38.4	11.1
5	#17655.00	62.6 PK	88.2	-25.6	2.29 V	305	43.9	18.7
6	#17655.00	51.8 AV	68.2	-16.4	2.29 V	305	33.1	18.7

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 169 : 5845 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Vic Huang		

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	104.8 PK			1.25 H	206	103.5	1.3
2	*5845.00	94.8 AV			1.25 H	206	93.5	1.3
3	11690.00	57.5 PK	74.0	-16.5	3.37 H	208	46.2	11.3
4	11690.00	45.9 AV	54.0	-8.1	3.37 H	208	34.6	11.3
5	#17535.00	61.2 PK	88.2	-27.0	2.96 H	95	43.2	18.0
6	#17535.00	50.3 AV	68.2	-17.9	2.96 H	95	32.3	18.0
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	*5845.00	113.0 PK			2.85 V	359	111.7	1.3
2	*5845.00	103.7 AV			2.85 V	359	102.4	1.3
3	11690.00	59.7 PK	74.0	-14.3	3.46 V	356	48.4	11.3
4	11690.00	49.2 AV	54.0	-4.8	3.46 V	356	37.9	11.3
5	#17535.00	61.8 PK	88.2	-26.4	2.25 V	315	43.8	18.0
6	#17535.00	50.8 AV	68.2	-17.4	2.25 V	315	32.8	18.0

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 173 : 5865 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Vic Huang		

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	104.8 PK			1.23 H	208	103.4	1.4
2	*5865.00	94.7 AV			1.23 H	208	93.3	1.4
3	11730.00	57.7 PK	74.0	-16.3	3.37 H	196	46.5	11.2
4	11730.00	45.9 AV	54.0	-8.1	3.37 H	196	34.7	11.2
5	#17595.00	61.6 PK	88.2	-26.6	2.91 H	100	43.2	18.4
6	#17595.00	50.7 AV	68.2	-17.5	2.91 H	100	32.3	18.4
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	112.9 PK			2.84 V	357	111.5	1.4
2	*5865.00	102.9 AV			2.84 V	357	101.5	1.4
3	11730.00	59.5 PK	74.0	-14.5	3.46 V	358	48.3	11.2
4	11730.00	48.9 AV	54.0	-5.1	3.46 V	358	37.7	11.2
5	#17595.00	61.9 PK	88.2	-26.3	2.29 V	314	43.5	18.4
6	#17595.00	51.2 AV	68.2	-17.0	2.29 V	314	32.8	18.4

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 177 : 5885 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Vic Huang		

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	*5885.00	105.3 PK			1.22 H	206	104.0	1.3
2	*5885.00	94.9 AV			1.22 H	206	93.6	1.3
3	11770.00	57.3 PK	74.0	-16.7	3.39 H	188	46.2	11.1
4	11770.00	45.7 AV	54.0	-8.3	3.39 H	188	34.6	11.1
5	#17655.00	61.5 PK	88.2	-26.7	2.87 H	86	42.8	18.7
6	#17655.00	50.3 AV	68.2	-17.9	2.87 H	86	31.6	18.7
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	*5885.00	113.3 PK			2.83 V	2	112.0	1.3
2	*5885.00	103.3 AV			2.83 V	2	102.0	1.3
3	11770.00	59.9 PK	74.0	-14.1	3.48 V	351	48.8	11.1
4	11770.00	49.1 AV	54.0	-4.9	3.48 V	351	38.0	11.1
5	#17655.00	62.2 PK	88.2	-26.0	2.29 V	304	43.5	18.7
6	#17655.00	51.7 AV	68.2	-16.5	2.29 V	304	33.0	18.7

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 167 : 5835 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Vic Huang		

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	*5835.00	105.8 PK			1.36 H	340	104.5	1.3
2	*5835.00	95.3 AV			1.36 H	340	94.0	1.3
3	11670.00	54.5 PK	74.0	-19.5	3.42 H	186	43.3	11.2
4	11670.00	43.5 AV	54.0	-10.5	3.42 H	186	32.3	11.2
5	#17505.00	59.0 PK	88.2	-29.2	2.85 H	100	41.2	17.8
6	#17505.00	48.1 AV	68.2	-20.1	2.85 H	100	30.3	17.8
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	*5835.00	112.8 PK			1.62 V	180	111.5	1.3
2	*5835.00	103.8 AV			1.62 V	180	102.5	1.3
3	11670.00	57.2 PK	74.0	-16.8	3.42 V	352	46.0	11.2
4	11670.00	47.1 AV	54.0	-6.9	3.42 V	352	35.9	11.2
5	#17505.00	59.2 PK	88.2	-29.0	2.29 V	306	41.4	17.8
6	#17505.00	49.1 AV	68.2	-19.1	2.29 V	306	31.3	17.8

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5875 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Vic Huang		

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	*5875.00	106.3 PK			1.37 H	344	104.9	1.4
2	*5875.00	95.5 AV			1.37 H	344	94.1	1.4
3	11750.00	54.6 PK	74.0	-19.4	3.40 H	189	43.5	11.1
4	11750.00	43.8 AV	54.0	-10.2	3.40 H	189	32.7	11.1
5	#17625.00	58.4 PK	88.2	-29.8	2.88 H	93	39.8	18.6
6	#17625.00	47.6 AV	68.2	-20.6	2.88 H	93	29.0	18.6
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	*5875.00	111.4 PK			1.50 V	178	110.0	1.4
2	*5875.00	102.5 AV			1.50 V	178	101.1	1.4
3	11750.00	57.1 PK	74.0	-16.9	3.48 V	351	46.0	11.1
4	11750.00	47.1 AV	54.0	-6.9	3.48 V	351	36.0	11.1
5	#17625.00	59.2 PK	88.2	-29.0	2.31 V	315	40.6	18.6
6	#17625.00	49.3 AV	68.2	-18.9	2.31 V	315	30.7	18.6

Remarks:

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

RF Mode	TX 802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	22 °C, 70 % RH
Tested By	Vic Huang		

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	*5855.00	103.9 PK			2.65 H	344	102.6	1.3
2	*5855.00	94.7 AV			2.65 H	344	93.4	1.3
3	11710.00	50.4 PK	74.0	-23.6	3.33 H	182	39.2	11.2
4	11710.00	40.2 AV	54.0	-13.8	3.33 H	182	29.0	11.2
5	#17565.00	53.7 PK	88.2	-34.5	2.81 H	101	35.6	18.1
6	#17565.00	42.2 AV	68.2	-26.0	2.81 H	101	24.1	18.1
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	*5855.00	109.9 PK			3.13 V	64	108.6	1.3
2	*5855.00	100.3 AV			3.13 V	64	99.0	1.3
3	11710.00	54.1 PK	74.0	-19.9	3.50 V	354	42.9	11.2
4	11710.00	43.8 AV	54.0	-10.2	3.50 V	354	32.6	11.2
5	#17565.00	54.5 PK	88.2	-33.7	2.26 V	309	36.4	18.1
6	#17565.00	44.6 AV	68.2	-23.6	2.26 V	309	26.5	18.1

Remarks:

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

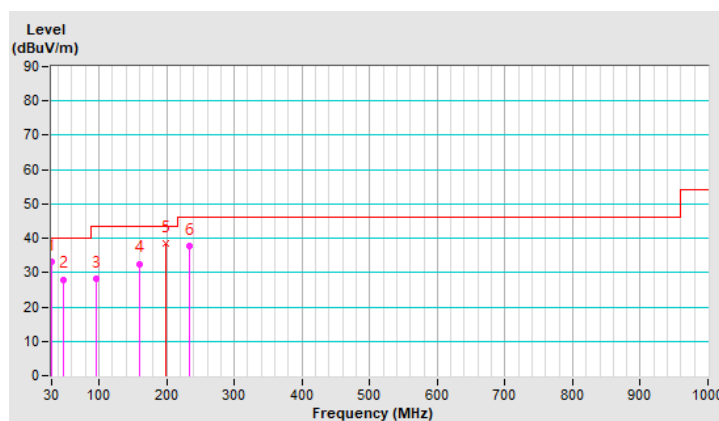
Below 1GHz Data:

RF Mode	TX 802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)
Input Power	120Vac, 60Hz	Environmental Conditions	23 °C, 66 % RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	30.37	33.0 QP	40.0	-7.0	1.50 H	142	46.6	-13.6
2	47.96	28.0 QP	40.0	-12.0	1.50 H	297	40.6	-12.6
3	95.46	28.1 QP	43.5	-15.4	1.50 H	249	45.7	-17.6
4	159.64	32.6 QP	43.5	-10.9	1.00 H	267	44.6	-12.0
5	198.74	38.4 QP	43.5	-5.1	1.00 H	324	53.4	-15.0
6	233.15	37.6 QP	46.0	-8.4	1.00 H	211	51.5	-13.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

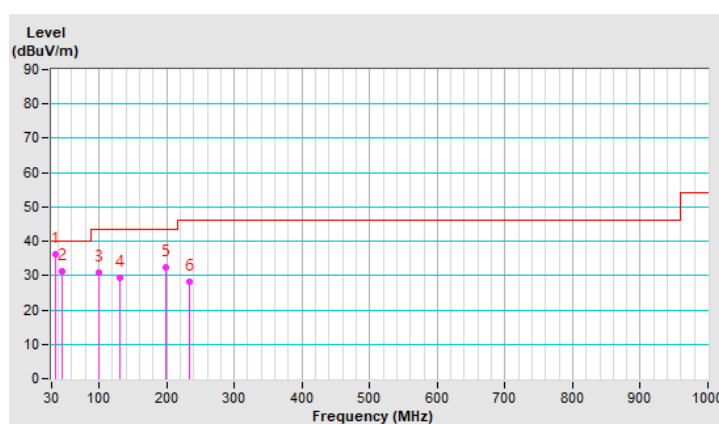


RF Mode	TX 802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)
Input Power	120Vac, 60Hz	Environmental Conditions	24 °C, 68 % RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	36.22	36.2 QP	40.0	-3.8	1.50 V	136	49.8	-13.6
2	45.09	31.4 QP	40.0	-8.6	1.00 V	53	44.0	-12.6
3	99.68	30.8 QP	43.5	-12.7	1.00 V	145	47.6	-16.8
4	130.49	29.3 QP	43.5	-14.2	1.00 V	185	42.5	-13.2
5	198.15	32.4 QP	43.5	-11.1	1.00 V	240	47.4	-15.0
6	233.88	28.0 QP	46.0	-18.0	1.50 V	107	41.7	-13.7

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 of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Test Receiver R&S	ESCS 30	847124/029	2021/10/13	2022/10/12
LISN R&S	ESH3-Z5	848773/004	2021/10/29	2022/10/28
LISN R & S	ESH3-Z5	835239/001	2021/3/26	2022/3/25
50 ohms Terminator	50	3	2021/10/27	2022/10/26
RF Coaxial Cable JYEBO	5D-FB	COCCAB-001	2021/9/25	2022/9/24
Fixed attenuator STI	STI02-2200-10	005	2021/8/27	2022/8/26
Software BVADT	BVADT_Cond_V7.3.7.4	NA	NA	NA

Note: 1. The test was performed in Conduction 1.

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

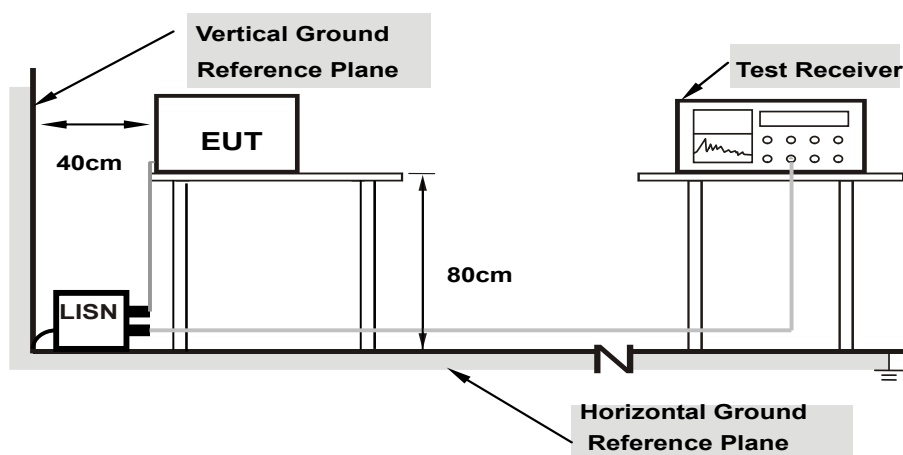
3. Tested Date: 2021/12/23

4.2.3 Test Procedure

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

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

4.2.4 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).

4.2.5 EUT Operating Condition

Same as 4.1.5.

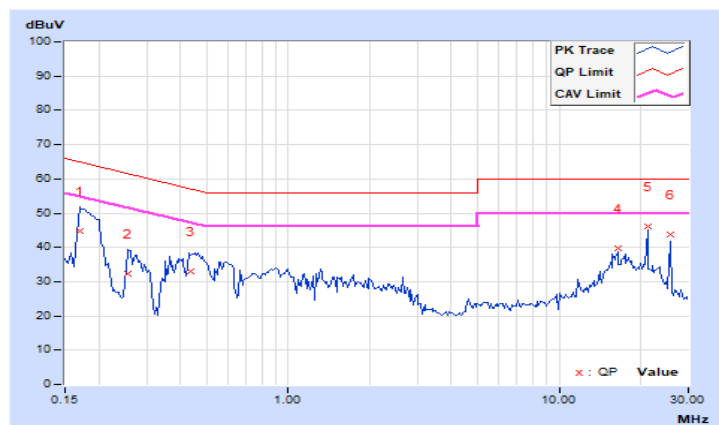
4.2.6 Test Results

RF Mode	TX 802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Carter 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	0.16958	10.07	34.56	7.28	44.63	17.35	64.98	54.98	-20.35	-37.63
2	0.25540	10.09	22.35	-1.43	32.44	8.66	61.58	51.58	-29.14	-42.92
3	0.43584	10.11	22.97	4.11	33.08	14.22	57.14	47.14	-24.06	-32.92
4	16.46463	11.29	28.32	26.87	39.61	38.16	60.00	50.00	-20.39	-11.84
5	21.16740	11.60	34.54	34.31	46.14	45.91	60.00	50.00	-13.86	-4.09
6	25.87178	11.72	31.89	31.26	43.61	42.98	60.00	50.00	-16.39	-7.02

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

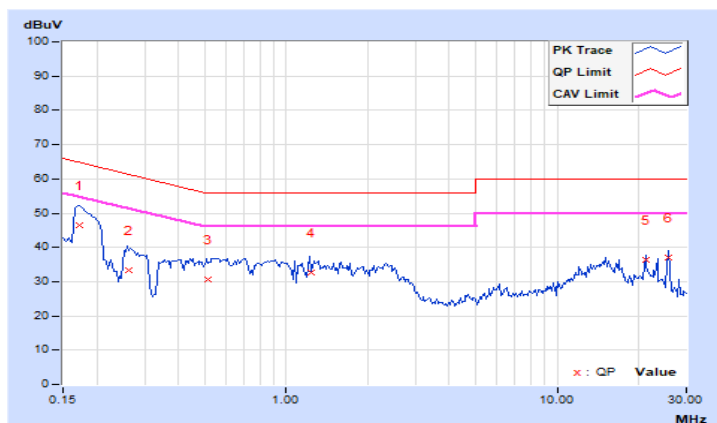


RF Mode	TX 802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 75 % RH
Tested By	Carter Lin		

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	0.17250	10.06	36.42	12.51	46.48	22.57	64.84	54.84	-18.36	-32.27
2	0.26159	10.09	23.36	0.51	33.45	10.60	61.38	51.38	-27.93	-40.78
3	0.51439	10.10	20.44	4.76	30.54	14.86	56.00	46.00	-25.46	-31.14
4	1.22861	10.16	22.35	7.67	32.51	17.83	56.00	46.00	-23.49	-28.17
5	21.16771	11.29	25.17	24.86	36.46	36.15	60.00	50.00	-23.54	-13.85
6	25.87141	11.35	25.67	25.25	37.02	36.60	60.00	50.00	-22.98	-13.40

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



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

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.		

Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

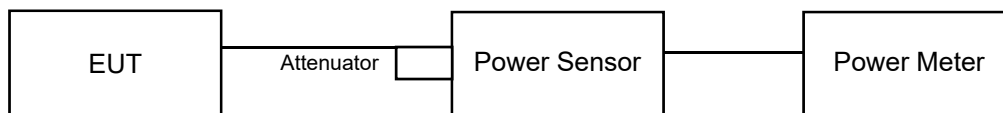
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

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

4.3.2 Test Setup



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

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

4.3.5 EUT Operating Condition

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.6 Test Result

802.11a

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
169	5845	13.63	13.70	46.51	16.68	4.92	144.544	21.6	30	Pass
173	5865	13.62	13.81	47.058	16.73	4.92	146.218	21.65	30	Pass
177	5885	13.66	13.76	46.996	16.72	4.92	145.881	21.64	30	Pass

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
169	5845	13.60	13.80	46.897	16.71	4.92	145.546	21.63	30	Pass
173	5865	13.57	13.83	46.906	16.71	4.92	145.546	21.63	30	Pass
177	5885	13.52	13.78	46.369	16.66	4.92	143.88	21.58	30	Pass

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
167	5835	16.39	16.81	91.525	19.62	4.92	284.446	24.54	30	Pass
175	5875	16.37	16.75	90.666	19.57	4.92	281.19	24.49	30	Pass

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
171	5855	19.38	19.69	179.807	22.55	4.92	558.47	27.47	30	Pass

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
169	5845	13.86	14.01	49.499	16.95	4.92	153.815	21.87	30	Pass
173	5865	13.90	14.05	49.957	16.99	4.92	155.239	21.91	30	Pass
177	5885	13.81	14.04	49.395	16.94	4.92	153.462	21.86	30	Pass

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
167	5835	16.61	17.20	98.295	19.93	4.92	305.492	24.85	30	Pass
175	5875	16.64	17.14	97.892	19.91	4.92	304.089	24.83	30	Pass

802.11ax (HE80)

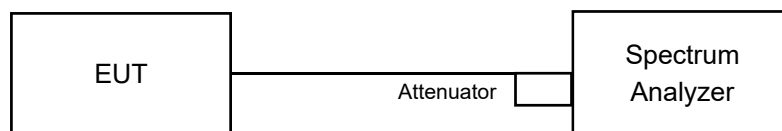
Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
171	5855	19.58	20.01	191.013	22.81	4.92	592.925	27.73	30	Pass

4.4 6dB Bandwidth Measurement

4.4.1 Limits of Emission Bandwidth Measurement

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.

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedure

- Set resolution bandwidth (RBW) = 100kHz
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- 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

4.4.5 EUT Operating Condition

Same as Item 4.3.5.

4.4.6 Test Results

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
169	5845	16.34	16.35	0.5	Pass
173	5865	16.34	16.36	0.5	Pass
177	5885	16.35	16.36	0.5	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
169	5845	18.86	18.88	0.5	Pass
173	5865	18.93	18.94	0.5	Pass
177	5885	18.88	18.92	0.5	Pass

802.11ax (HE40)

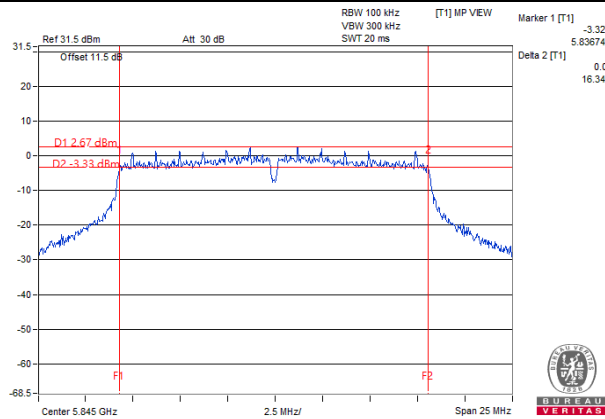
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
167	5835	35.09	35.17	0.5	Pass
175	5875	35.09	32.81	0.5	Pass

802.11ax (HE80)

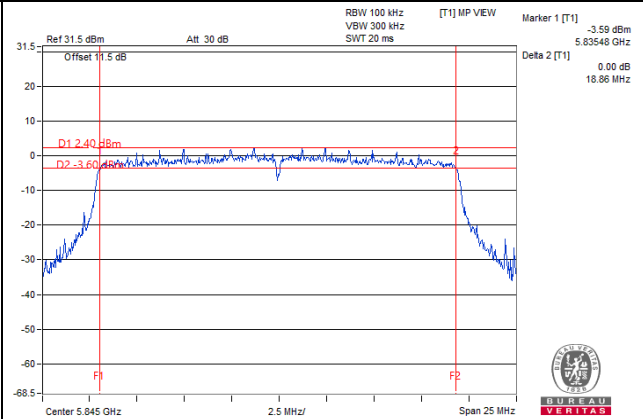
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
171	5855	74.11	74.03	0.5	Pass

Spectrum Plot of Worst Value

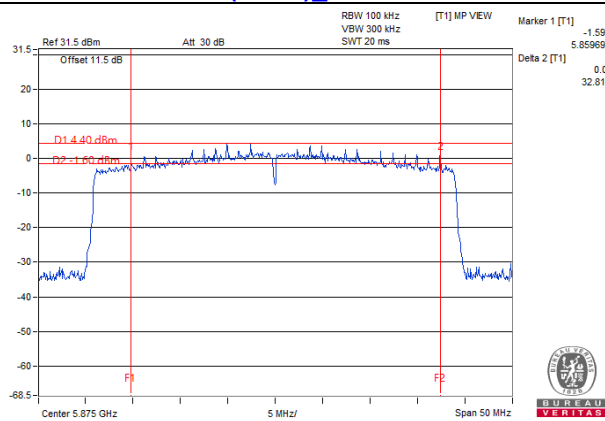
802.11a_Chain 0 / CH169



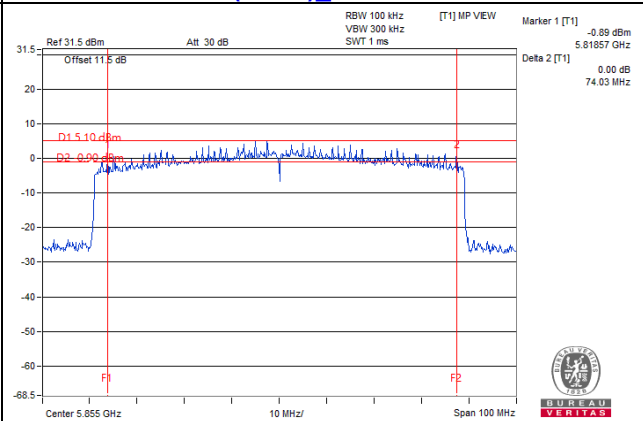
802.11ax (HE20)_Chain 0 / CH169



802.11ax (HE40)_Chain 1 / CH175



802.11ax (HE80)_Chain 1 / CH171

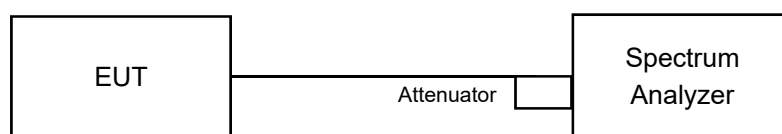


4.5 Peak Power Spectral Density Measurement

4.5.1 Limits of Peak Power Spectral Density Measurement

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.		

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

Method SA-2

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 300 kHz, Set VBW $\geq$ 1 MHz, Detector = RMS
3. Sweep time = auto, trigger set to "free run".
4. Trace average at least 100 traces in power averaging mode.
5. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
6. Scale the observed power level to an equivalent value in 1 MHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where $BWCF = 10 \log(1 \text{ MHz}/300 \text{ kHz}) = 5.23 \text{ dB}$
7. Record the max value and add $10 \log(1/\text{duty cycle})$.

4.5.5 EUT Operating Condition

Same as Item 4.3.5.

4.5.6 Test Results

Directional Gain Calculation

The directional gain = 4.92 dBi + 10log(2) = 7.93 dBi

The highest directional gain used for EIRP calculation.

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1							
169	5845	-2.89	-2.75	0.19	0.36	5.78	7.93	13.71	14	Pass
173	5865	-2.79	-2.52	0.36	0.36	5.95	7.93	13.88	14	Pass
177	5885	-2.63	-2.78	0.31	0.36	5.90	7.93	13.83	14	Pass

Note: Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1							
169	5845	-3.09	-2.97	-0.02	0.52	5.73	7.93	13.66	14	Pass
173	5865	-2.92	-2.92	0.09	0.52	5.84	7.93	13.77	14	Pass
177	5885	-2.84	-3.12	0.03	0.52	5.78	7.93	13.71	14	Pass

Note: Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

802.11ax (HE40)

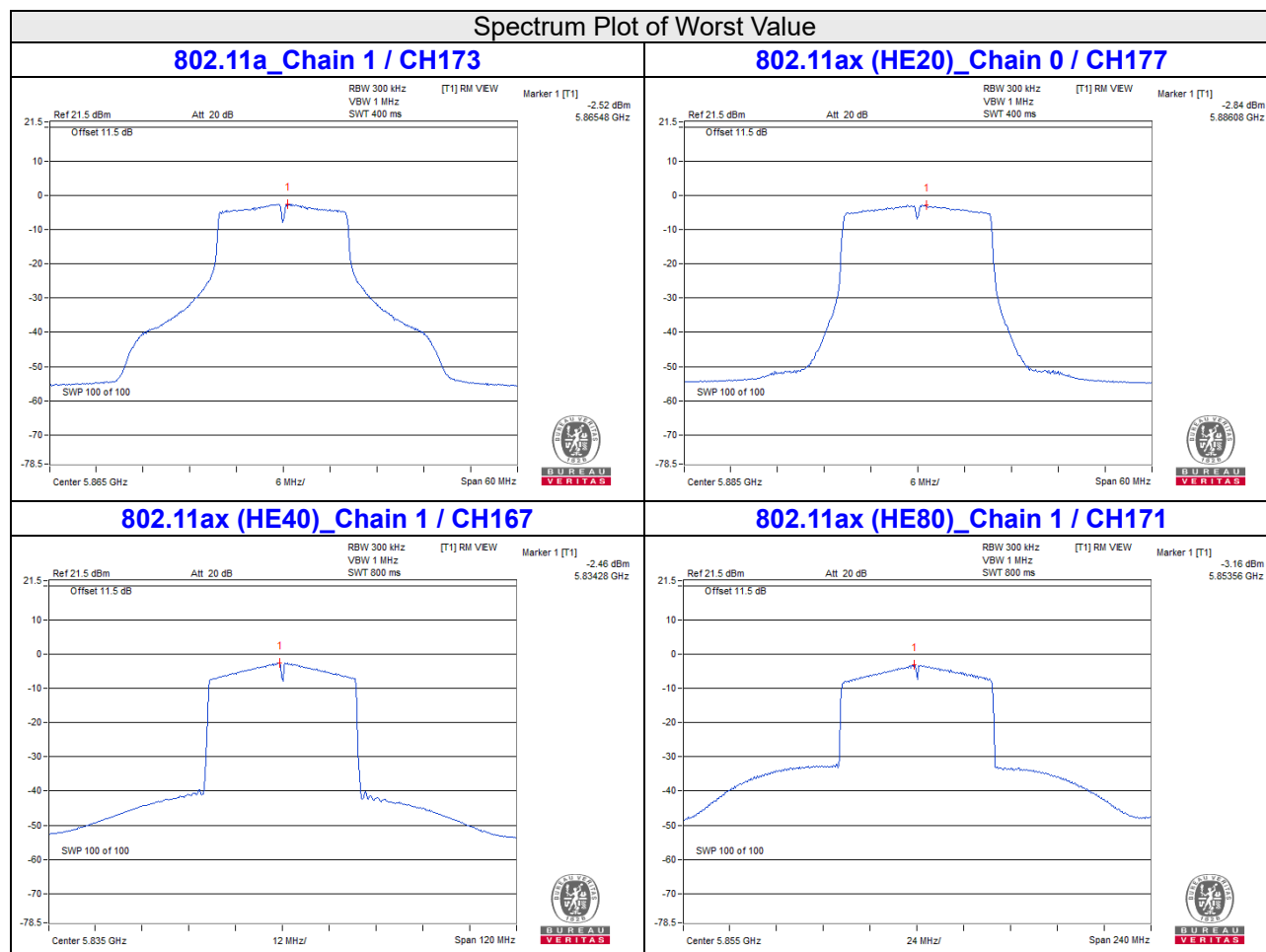
Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1							
167	5835	-3.52	-2.46	0.05	0.68	5.96	7.93	13.89	14	Pass
175	5875	-3.50	-2.91	-0.18	0.68	5.73	7.93	13.66	14	Pass

Note: Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1							
171	5855	-4.25	-3.28	-0.73	1.28	5.78	7.93	13.71	14	Pass

Note: Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

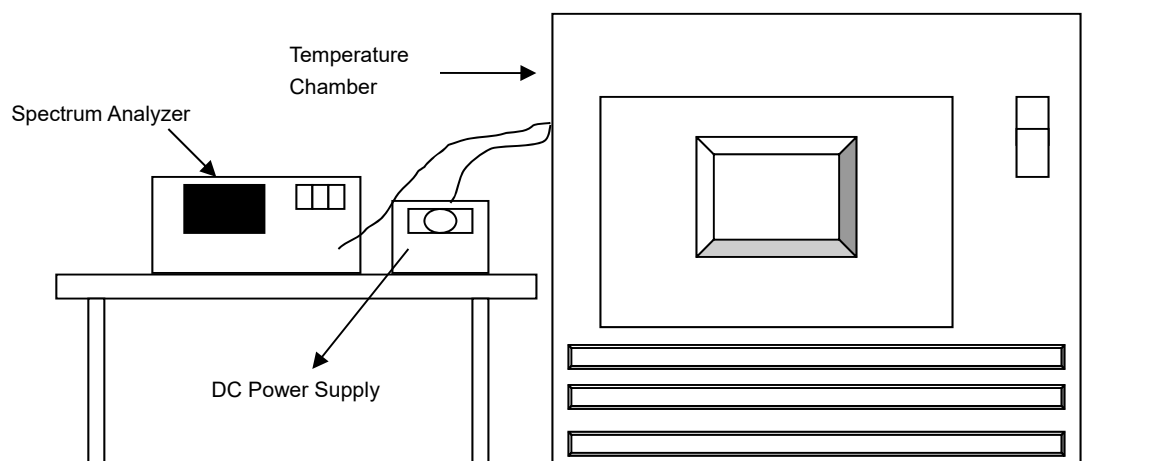


4.6 Frequency Stability Measurement

4.6.1 Limits of Frequency Stability Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

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

4.6.5 EUT Operating Condition

Set the EUT transmit at un-modulation mode to test frequency stability.

4.6.6 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5865MHz									
TEMP. (°C)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
70	3.3	5865.0204	Pass	5865.0217	Pass	5865.0217	Pass	5865.0201	Pass
60	3.3	5864.9801	Pass	5864.9854	Pass	5864.9804	Pass	5864.9858	Pass
50	3.3	5864.9888	Pass	5864.9867	Pass	5864.9907	Pass	5864.987	Pass
40	3.3	5864.9813	Pass	5864.9803	Pass	5864.9805	Pass	5864.9851	Pass
30	3.3	5865.0077	Pass	5865.0055	Pass	5865.0075	Pass	5865.0077	Pass
20	3.3	5864.9937	Pass	5864.9939	Pass	5864.9949	Pass	5864.9928	Pass
10	3.3	5865.023	Pass	5865.027	Pass	5865.0267	Pass	5865.0226	Pass
0	3.3	5864.9731	Pass	5864.9742	Pass	5864.9779	Pass	5864.9778	Pass
-10	3.3	5865.0235	Pass	5865.0242	Pass	5865.023	Pass	5865.0216	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5865MHz									
TEMP. (°C)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
20	3.795	5864.9954	Pass	5864.995	Pass	5864.997	Pass	5864.9941	Pass
	3.3	5864.9937	Pass	5864.9939	Pass	5864.9949	Pass	5864.9928	Pass
	2.805	5864.9905	Pass	5864.9884	Pass	5864.9871	Pass	5864.9911	Pass

4.7 Operational Restrictions for U-NII 4 Devices

4.7.1 Limits of Operational Restrictions for U-NII 4 Devices

☐ (1) *Indoor Access Point.*

An access point that operates in the 5.850-5.895 GHz, 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.

☐ (2) *Subordinate Device.*

A subordinate device that operates in the 5.850-5.895 GHz band under the control of an Indoor Access Point, is supplied power from a wired connection, has an integrated antenna, is not battery powered, does not have a weatherized enclosure, and does not have a direct connection to the internet. Subordinate devices must not be used to connect devices between separate buildings or structures. Subordinate devices must be authorized under certification procedures in part 2 of this chapter. Modules may not be certified as subordinate devices.

☒ (3) *Client Device.*

A client device whose transmissions are generally under the control of an access point and is not capable of initiating a network

4.7.2 Test Setup

N/A

4.7.3 Test Instruments

N/A

4.7.4 Test Procedure

N/A.

4.7.5 Test Results

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

5 Pictures of Test Arrangements

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

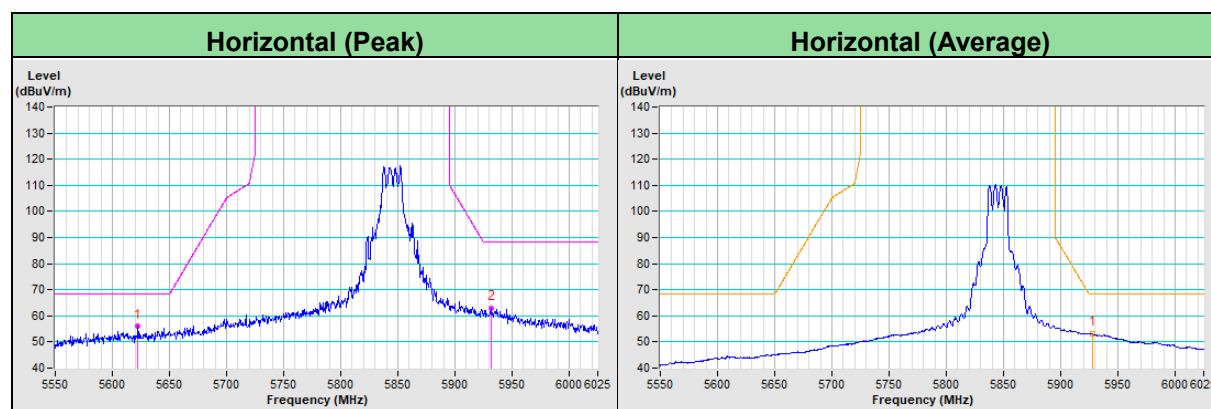
Annex A.1 - Band-Edge Measurement (Mode 1)

RF Mode	TX 802.11a	Channel	CH 169 : 5845 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5622.08	55.9 PK	68.2	-12.3	2.02 H	89	54.3	1.6
PK.2	#5931.72	62.9 PK	88.2	-25.3	2.02 H	89	60.9	2.0
AV.1	#5927.68	53.2 AV	68.2	-15.0	2.02 H	89	51.2	2.0

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

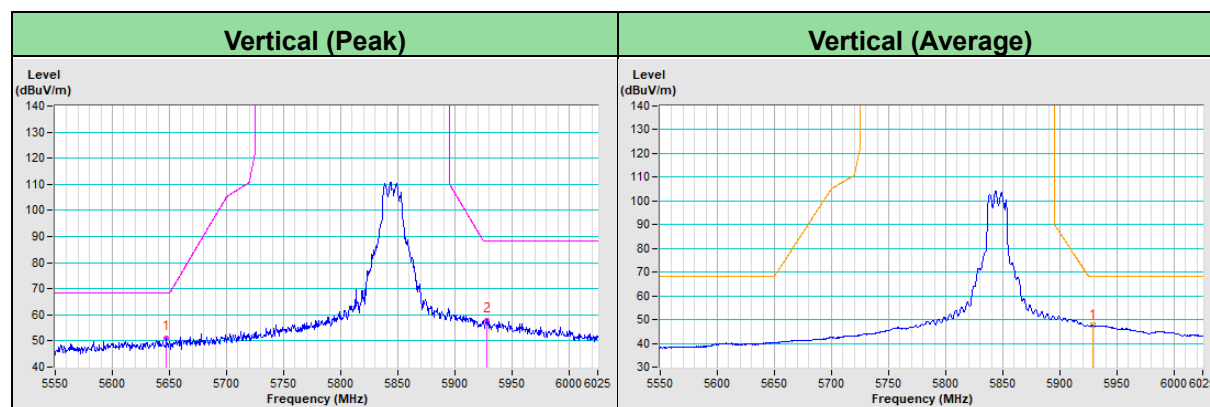


RF Mode	TX 802.11a	Channel	CH 169 : 5845 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5647.42	50.9 PK	68.2	-17.3	1.52 V	31	49.3	1.6
PK.2	#5928.23	58.0 PK	88.2	-30.2	1.52 V	31	56.0	2.0
AV.1	#5929.20	47.6 AV	68.2	-20.6	1.52 V	31	45.6	2.0

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

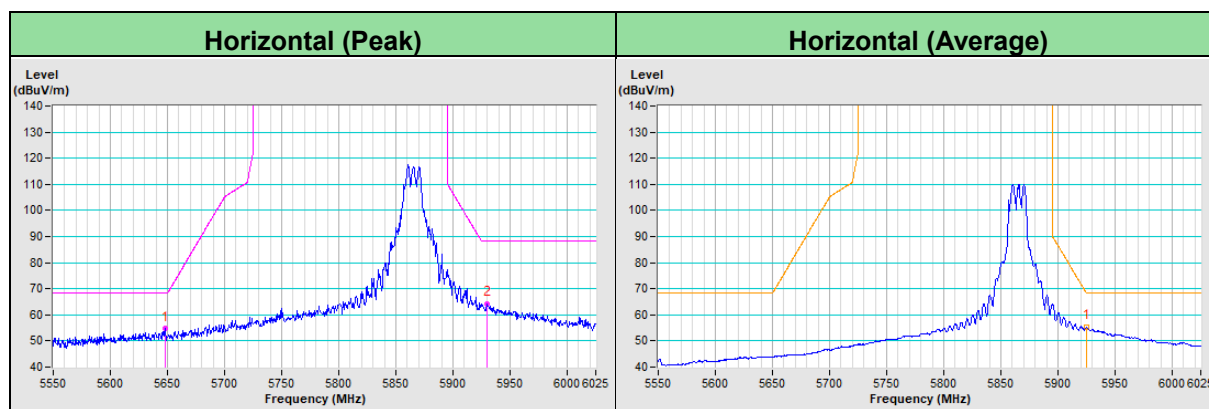


RF Mode	TX 802.11a	Channel	CH 173 : 5865 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5648.31	54.7 PK	68.2	-13.5	2.01 H	85	53.1	1.6
PK.2	#5929.68	64.2 PK	88.2	-24.0	2.01 H	85	62.2	2.0
AV.1	#5925.23	55.2 AV	68.2	-13.0	2.01 H	85	53.2	2.0

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

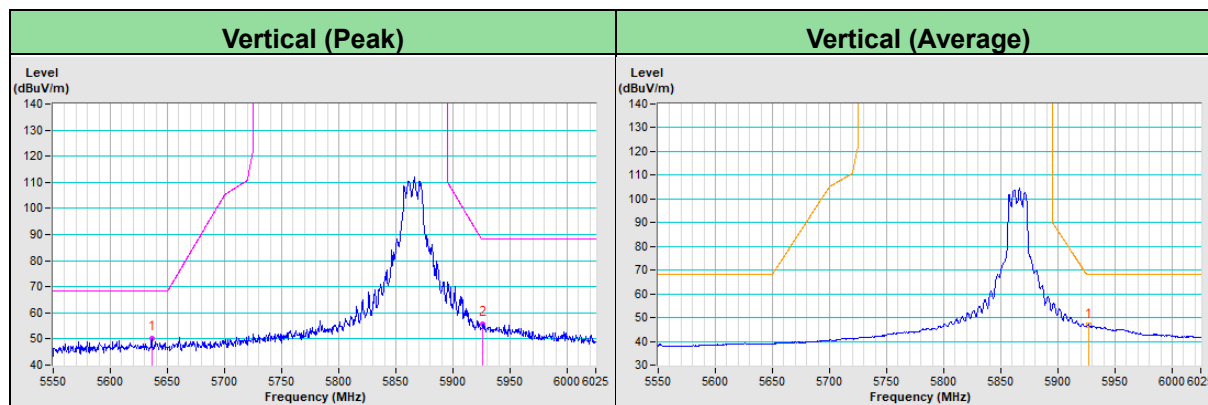


RF Mode	TX 802.11a	Channel	CH 173 : 5865 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5636.26	50.2 PK	68.2	-18.0	1.51 V	33	48.6	1.6
PK.2	#5926.43	55.8 PK	88.2	-32.4	1.51 V	33	53.8	2.0
AV.1	#5926.66	47.0 AV	68.2	-21.2	1.51 V	33	45.0	2.0

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

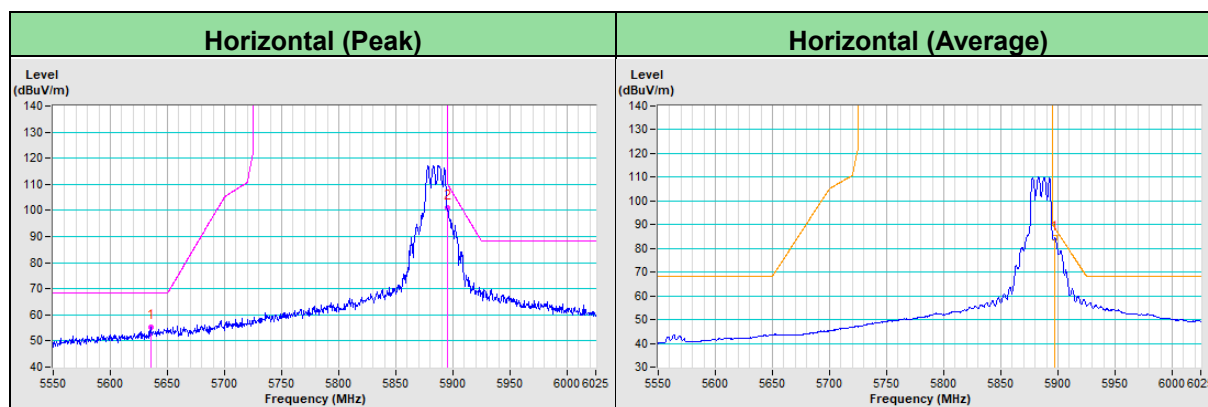


RF Mode	TX 802.11a	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5635.11	55.3 PK	68.2	-12.9	2.03 H	86	53.7	1.6
PK.2	#5895.00	101.1 PK	110.2	-9.1	2.03 H	86	99.2	1.9
AV.1	#5897.15	84.6 AV	88.6	-4.0	2.03 H	86	82.7	1.9

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

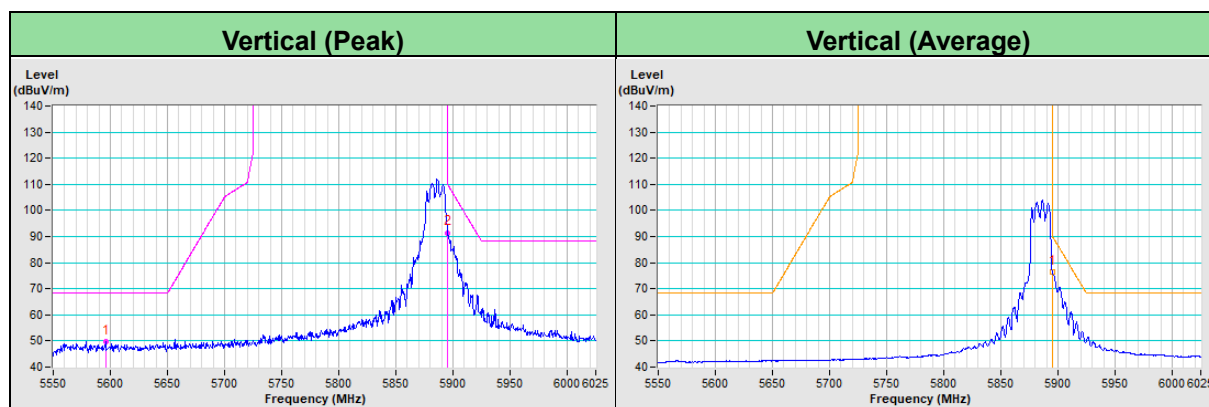


RF Mode	TX 802.11a	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5595.85	49.6 PK	68.2	-18.6	1.52 V	31	48.1	1.5
PK.2	#5895.00	91.3 PK	110.2	-18.9	1.52 V	31	89.4	1.9
AV.1	#5895.00	76.3 AV	90.2	-13.9	1.52 V	31	74.4	1.9

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

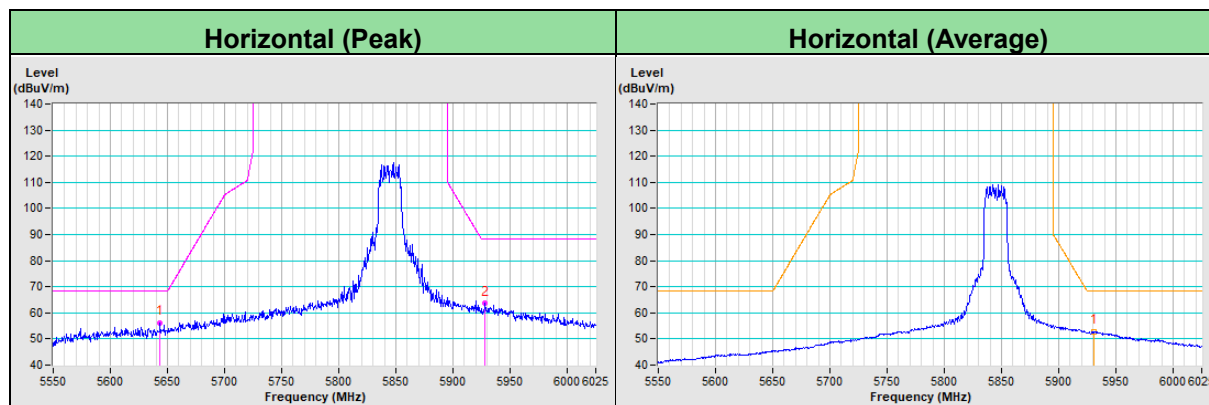


RF Mode	TX 802.11ax (HE20)	Channel	CH 169 : 5845 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5643.53	56.1 PK	68.2	-12.1	2.03 H	92	54.5	1.6
PK.2	#5928.33	63.6 PK	88.2	-24.6	2.03 H	92	61.6	2.0
AV.1	#5931.09	52.7 AV	68.2	-15.5	2.03 H	92	50.7	2.0

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

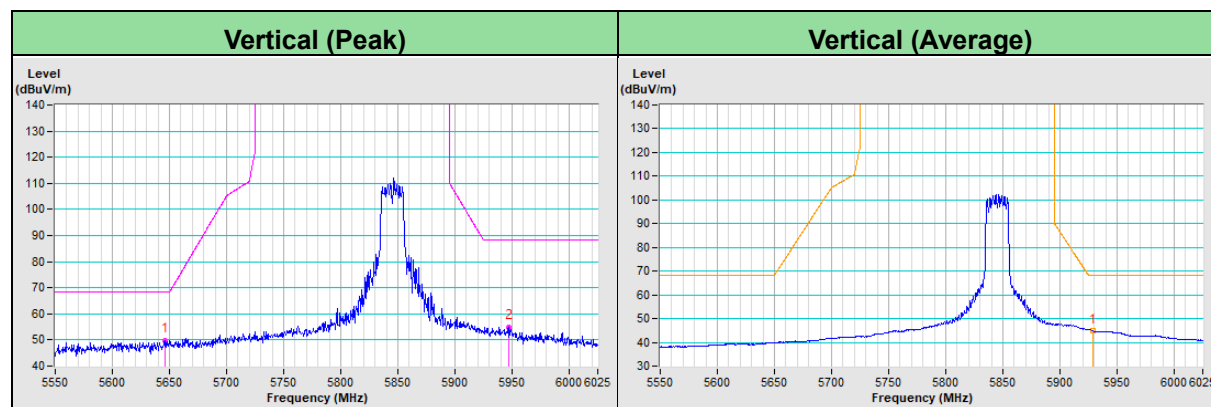


RF Mode	TX 802.11ax (HE20)	Channel	CH 169 : 5845 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5646.14	49.7 PK	68.2	-18.5	1.48 V	39	48.1	1.6
PK.2	#5946.66	55.0 PK	88.2	-33.2	1.48 V	39	52.8	2.2
AV.1	#5928.49	45.0 AV	68.2	-23.2	1.48 V	39	43.0	2.0

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

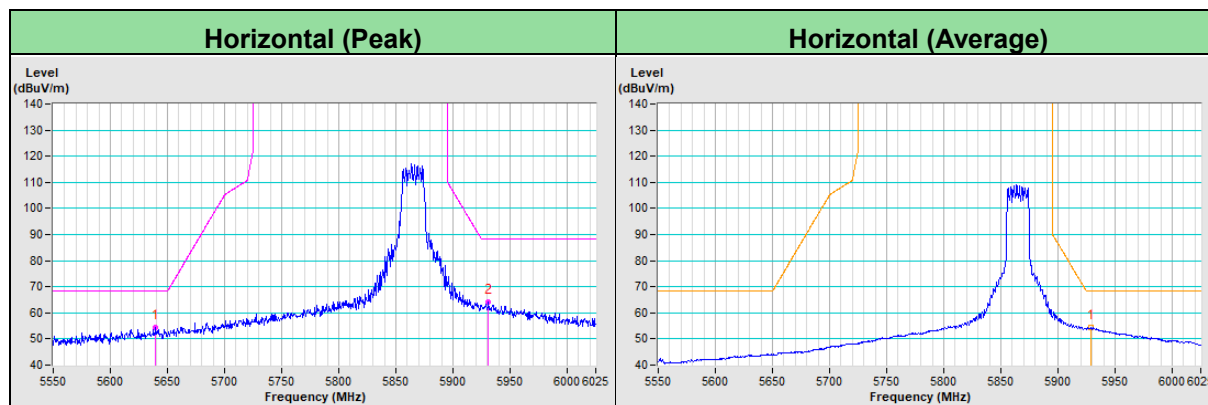


RF Mode	TX 802.11ax (HE20)	Channel	CH 173 : 5865 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5639.82	54.6 PK	68.2	-13.6	2.00 H	87	53.0	1.6
PK.2	#5931.14	64.2 PK	88.2	-24.0	2.00 H	87	62.2	2.0
AV.1	#5928.62	54.4 AV	68.2	-13.8	2.00 H	87	52.4	2.0

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

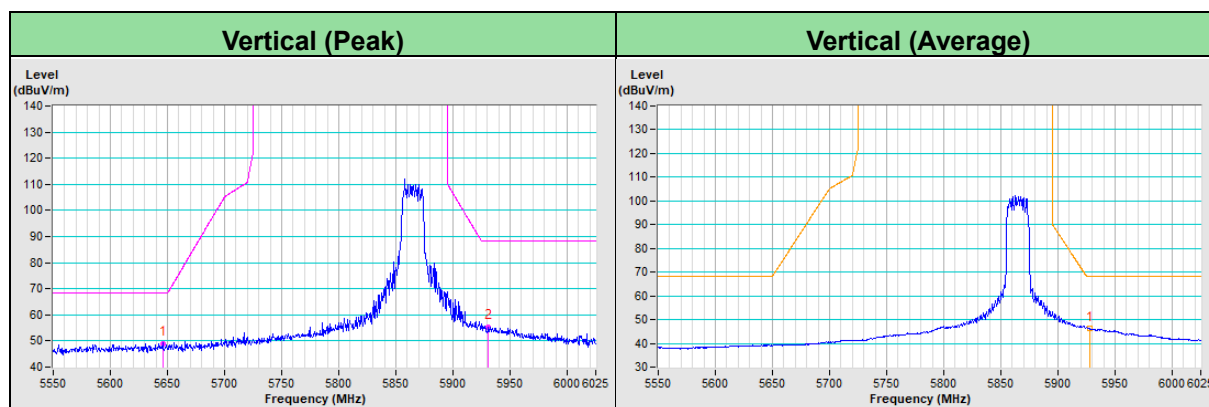


RF Mode	TX 802.11ax (HE20)	Channel	CH 173 : 5865 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5646.34	49.1 PK	68.2	-19.1	1.49 V	40	47.5	1.6
PK.2	#5930.62	55.4 PK	88.2	-32.8	1.49 V	40	53.4	2.0
AV.1	#5927.52	46.4 AV	68.2	-21.8	1.49 V	40	44.4	2.0

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

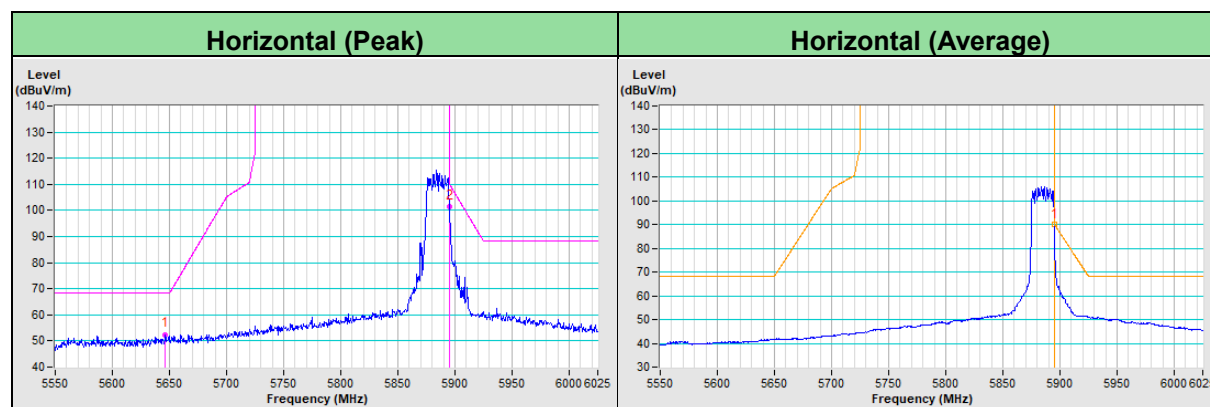


RF Mode	TX 802.11ax (HE20)	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5646.45	52.5 PK	68.2	-15.7	2.02 H	89	50.9	1.6
PK.2	#5895.00	101.3 PK	110.2	-8.9	2.02 H	89	99.4	1.9
AV.1	#5895.00	89.9 AV	90.2	-0.3	2.02 H	89	88.0	1.9

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

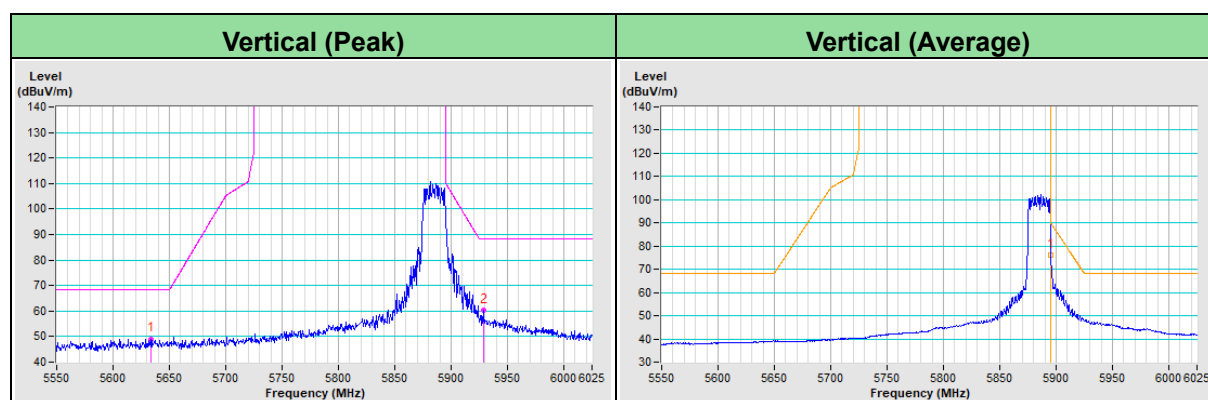


RF Mode	TX 802.11ax (HE20)	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5633.49	48.8 PK	68.2	-19.4	1.48 V	41	47.2	1.6
PK.2	#5928.54	60.2 PK	88.2	-28.0	1.48 V	41	58.2	2.0
AV.1	#5895.35	76.1 AV	89.9	-13.8	1.48 V	41	74.2	1.9

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

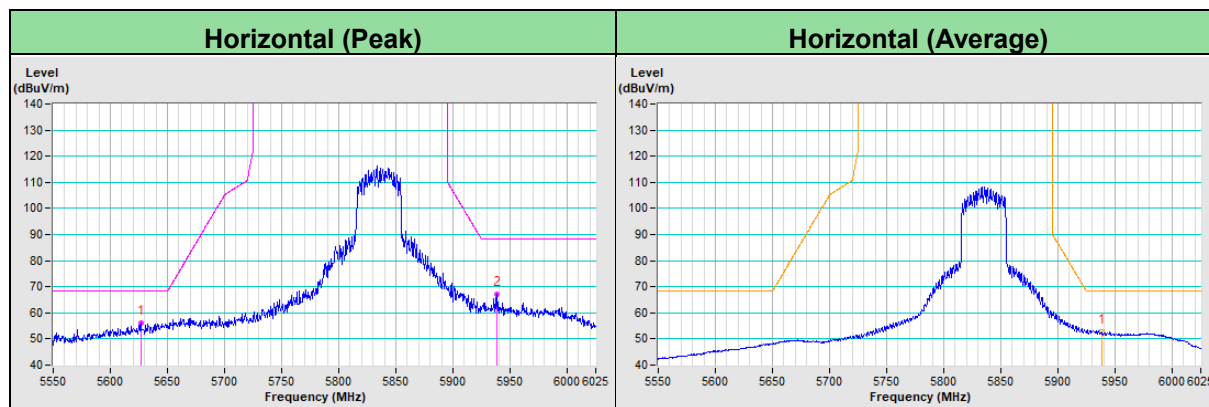


RF Mode	TX 802.11ax (HE40)	Channel	CH 167 : 5835 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5626.80	56.2 PK	68.2	-12.0	2.00 H	89	54.6	1.6
PK.2	#5938.32	67.1 PK	88.2	-21.1	2.00 H	89	65.0	2.1
AV.1	#5938.32	52.6 AV	68.2	-15.6	2.00 H	89	50.5	2.1

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

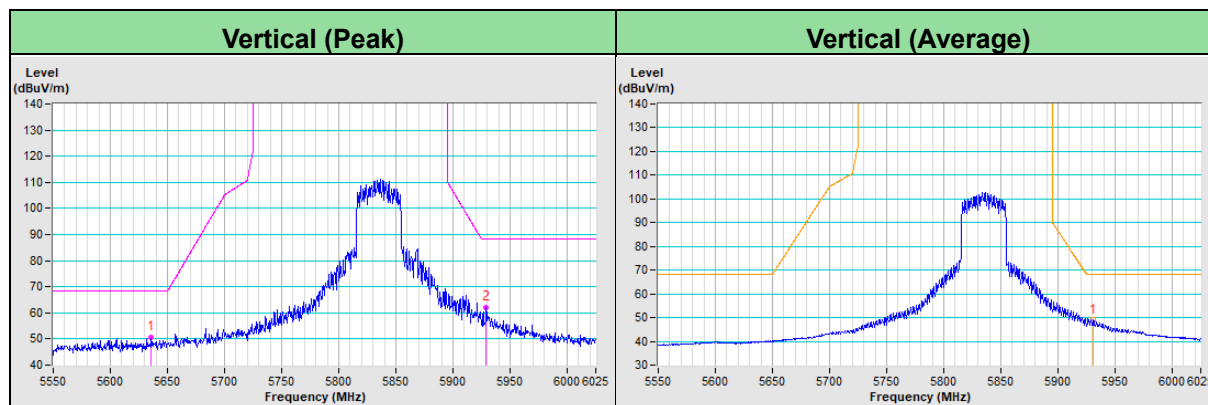


RF Mode	TX 802.11ax (HE40)	Channel	CH 167 : 5835 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5635.68	50.4 PK	68.2	-17.8	1.52 V	41	48.8	1.6
PK.2	#5928.91	61.9 PK	88.2	-26.3	1.52 V	41	59.9	2.0
AV.1	#5931.23	48.9 AV	68.2	-19.3	1.52 V	41	46.9	2.0

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

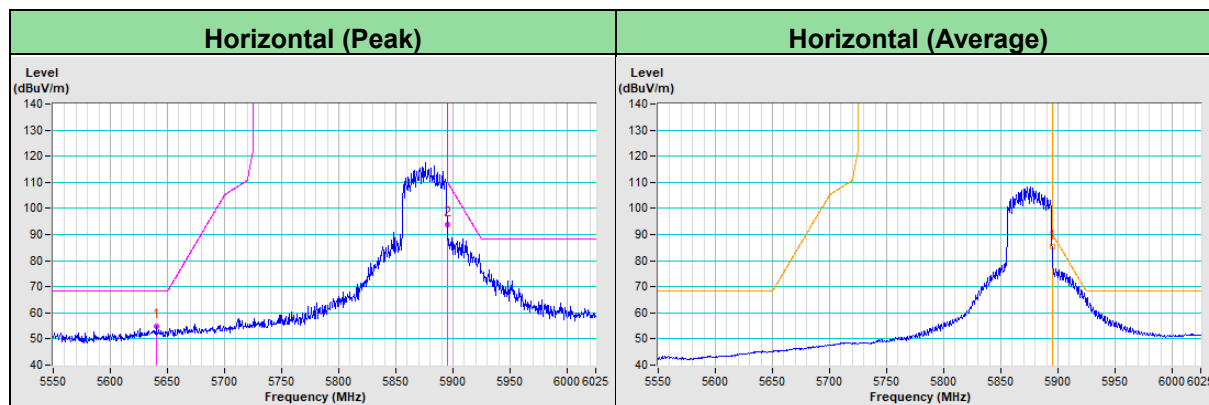


RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5875 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5640.35	54.8 PK	68.2	-13.4	1.96 H	90	53.2	1.6
PK.2	#5895.00	93.7 PK	110.2	-16.5	1.96 H	90	91.8	1.9
AV.1	#5895.00	85.2 AV	90.2	-5.0	1.96 H	90	83.3	1.9

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

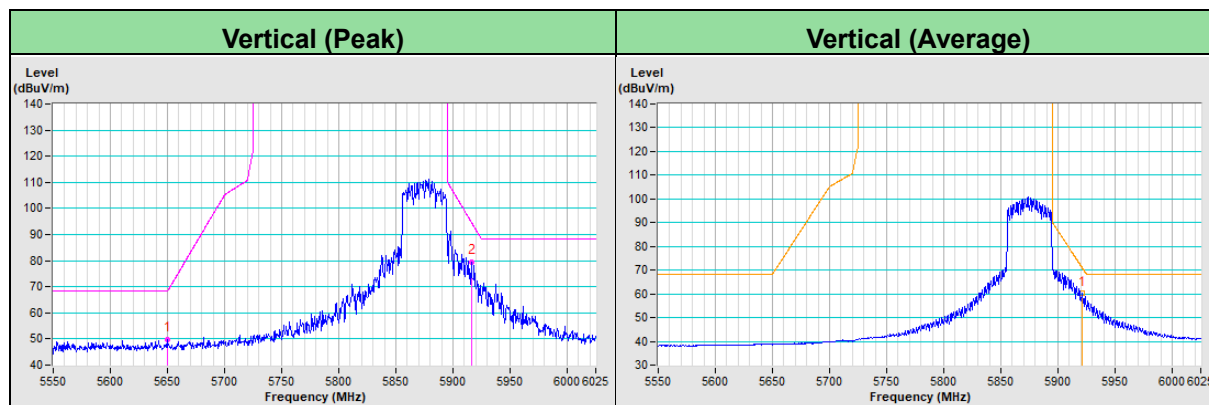


RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5875 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5649.63	49.9 PK	68.2	-18.3	1.54 V	40	48.3	1.6
PK.2	#5916.02	79.5 PK	94.8	-15.3	1.54 V	40	77.5	2.0
AV.1	#5921.31	60.4 AV	70.9	-10.5	1.54 V	40	58.4	2.0

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

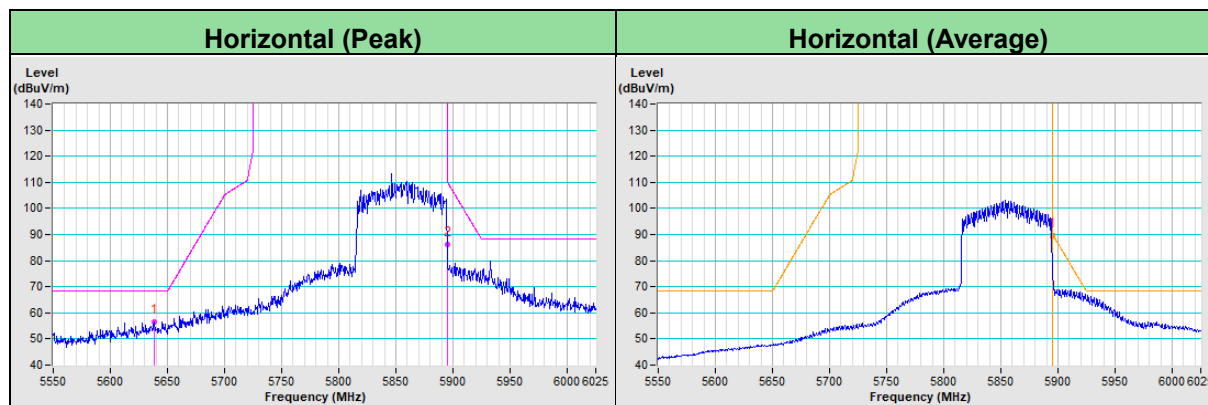


RF Mode	TX 802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5638.81	56.4 PK	68.2	-11.8	3.13 H	86	54.8	1.6
PK.2	#5895.00	86.2 PK	110.2	-24.0	3.13 H	86	84.3	1.9
AV.1	#5895.00	89.5 AV	90.2	-0.7	3.13 H	86	87.6	1.9

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

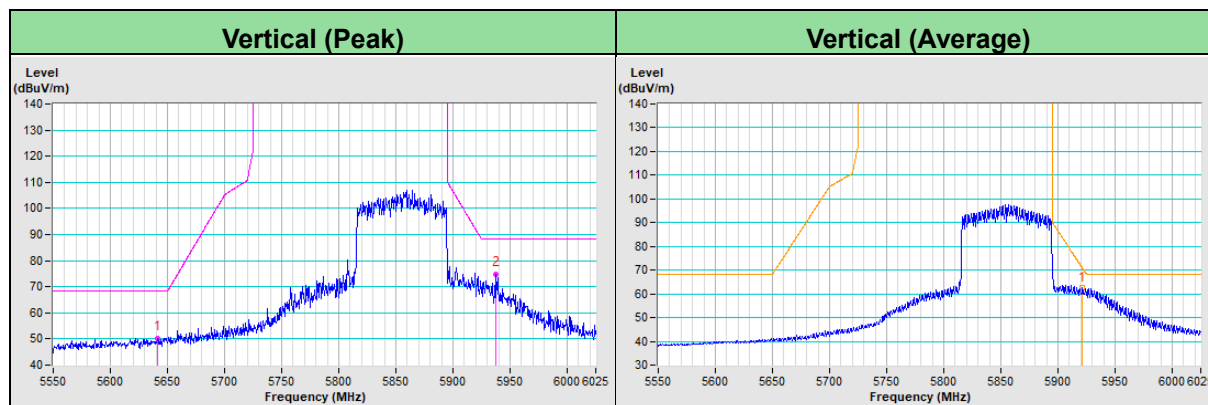


RF Mode	TX 802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5641.22	50.2 PK	68.2	-18.0	1.53 V	39	48.6	1.6
PK.2	#5937.79	74.7 PK	88.2	-13.5	1.53 V	39	72.6	2.1
AV.1	#5921.62	62.5 AV	70.7	-8.2	1.53 V	39	60.5	2.0

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



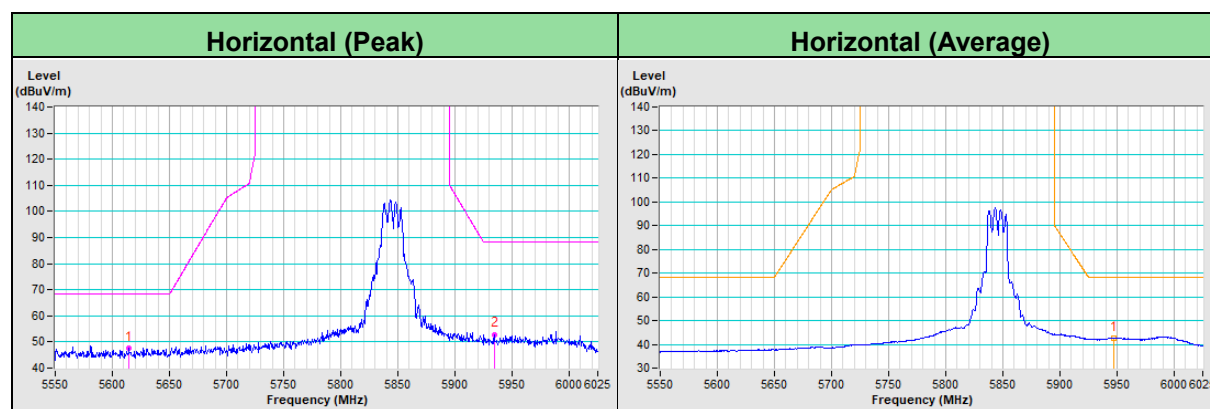
Annex A.2 - Band-Edge Measurement (Mode 2)

RF Mode	TX 802.11a	Channel	CH 169 : 5845 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5614.56	47.5 PK	68.2	-20.7	1.26 H	205	46.0	1.5
PK.2	#5934.41	52.8 PK	88.2	-35.4	1.26 H	205	50.8	2.0
AV.1	#5946.81	42.8 AV	68.2	-25.4	1.26 H	205	40.6	2.2

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

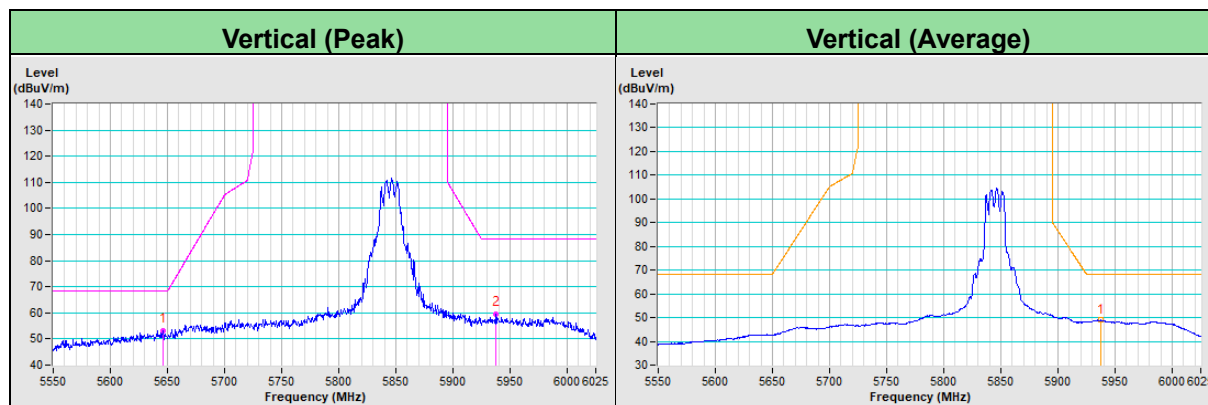


RF Mode	TX 802.11a	Channel	CH 169 : 5845 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5645.93	53.2 PK	68.2	-15.0	2.85 V	357	51.6	1.6
PK.2	#5937.97	59.6 PK	88.2	-28.6	2.85 V	357	57.5	2.1
AV.1	#5937.83	49.0 AV	68.2	-19.2	2.85 V	357	46.9	2.1

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

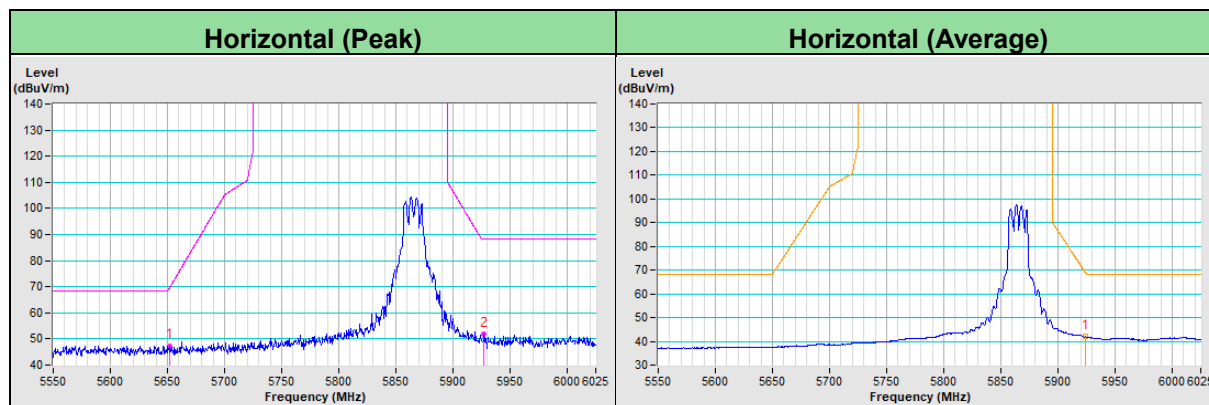


RF Mode	TX 802.11a	Channel	CH 173 : 5865 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5651.52	47.4 PK	69.3	-21.9	1.26 H	209	45.8	1.6
PK.2	#5927.24	51.7 PK	88.2	-36.5	1.26 H	209	49.7	2.0
AV.1	#5923.80	42.1 AV	69.1	-27.0	1.26 H	209	40.1	2.0

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

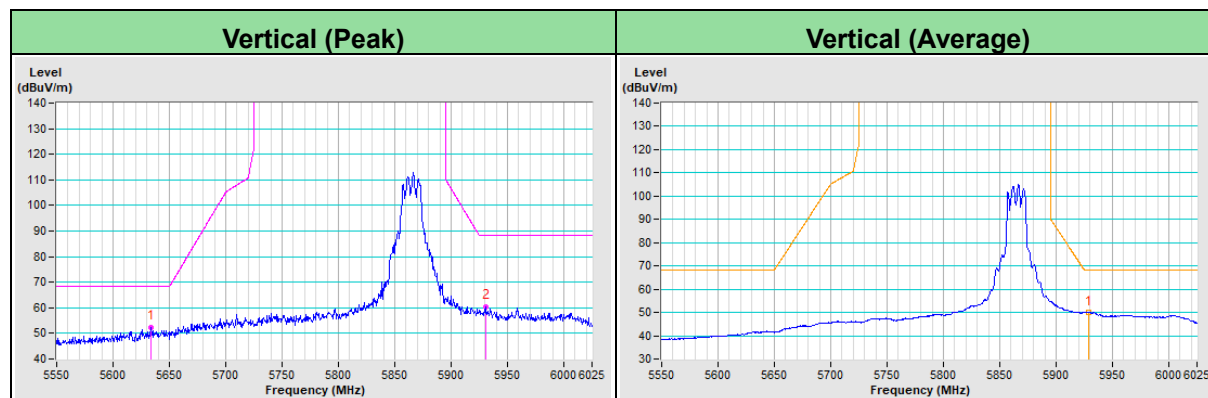


RF Mode	TX 802.11a	Channel	CH 173 : 5865 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5633.62	52.5 PK	68.2	-15.7	2.84 V	357	50.9	1.6
PK.2	#5930.89	60.3 PK	88.2	-27.9	2.84 V	357	58.3	2.0
AV.1	#5929.10	50.1 AV	68.2	-18.1	2.84 V	357	48.1	2.0

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

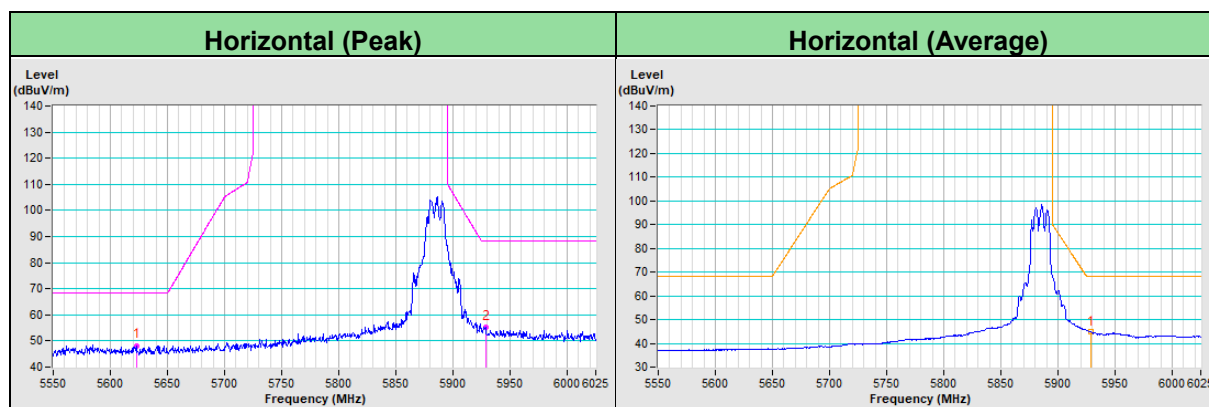


RF Mode	TX 802.11a	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5622.77	48.2 PK	68.2	-20.0	1.27 H	208	46.6	1.6
PK.2	#5928.88	55.1 PK	88.2	-33.1	1.27 H	208	53.1	2.0
AV.1	#5929.10	44.8 AV	68.2	-23.4	1.27 H	208	42.8	2.0

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

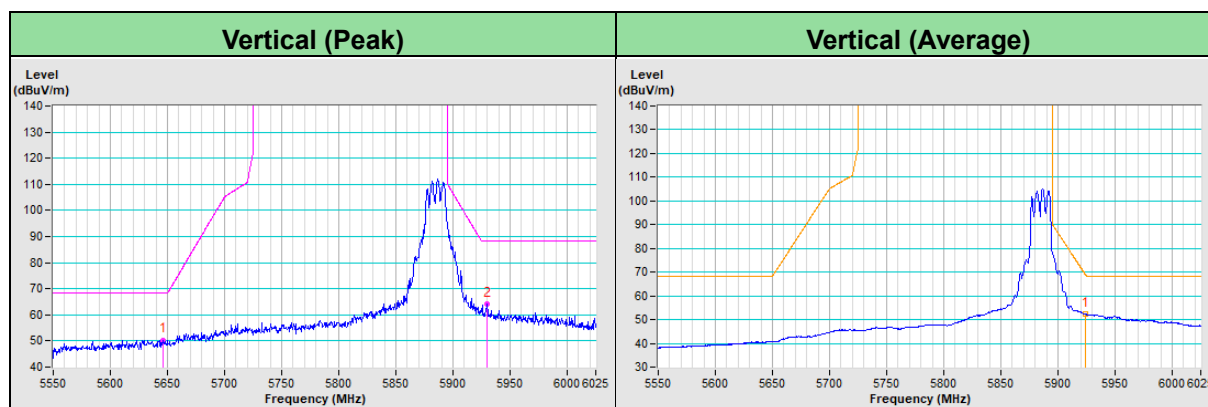


RF Mode	TX 802.11a	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5646.54	50.3 PK	68.2	-17.9	2.83 V	359	48.7	1.6
PK.2	#5929.54	64.0 PK	88.2	-24.2	2.83 V	359	62.0	2.0
AV.1	#5924.18	52.6 AV	68.8	-16.2	2.83 V	359	50.6	2.0

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

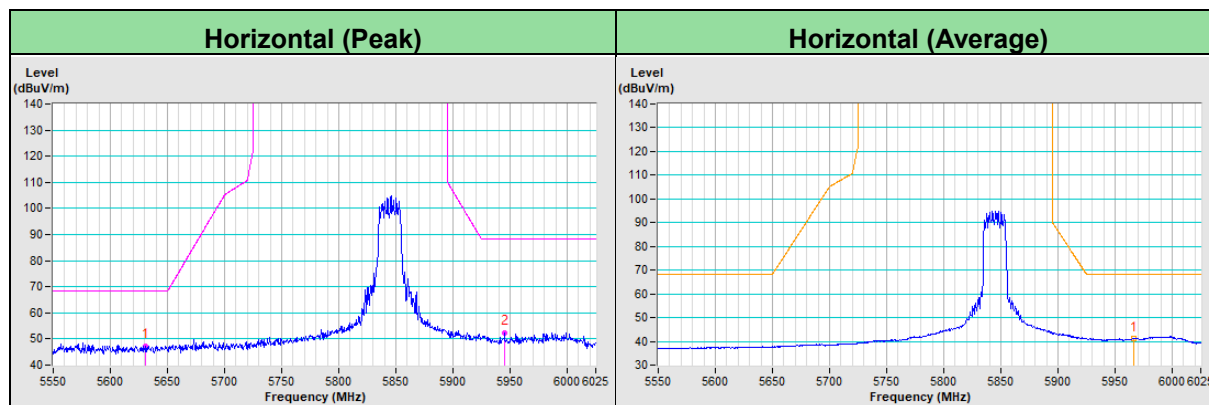


RF Mode	TX 802.11ax (HE20)	Channel	CH 169 : 5845 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5630.33	47.3 PK	68.2	-20.9	1.25 H	206	45.7	1.6
PK.2	#5944.83	52.3 PK	88.2	-35.9	1.25 H	206	50.1	2.2
AV.1	#5966.02	41.2 AV	68.2	-27.0	1.25 H	206	39.0	2.2

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

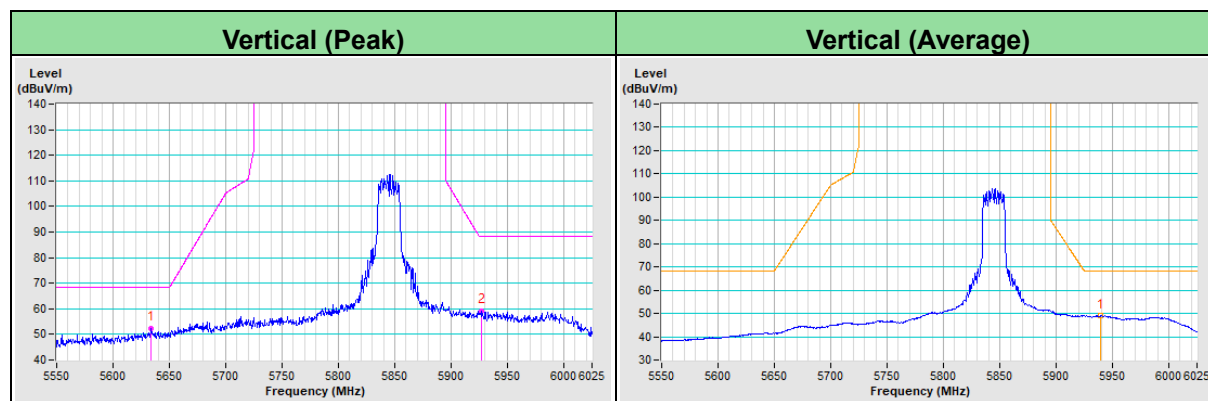


RF Mode	TX 802.11ax (HE20)	Channel	CH 169 : 5845 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5633.62	52.3 PK	68.2	-15.9	2.83 V	359	50.7	1.6
PK.2	#5926.65	59.2 PK	88.2	-29.0	2.83 V	359	57.2	2.0
AV.1	#5939.30	49.2 AV	68.2	-19.0	2.83 V	359	47.0	2.2

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

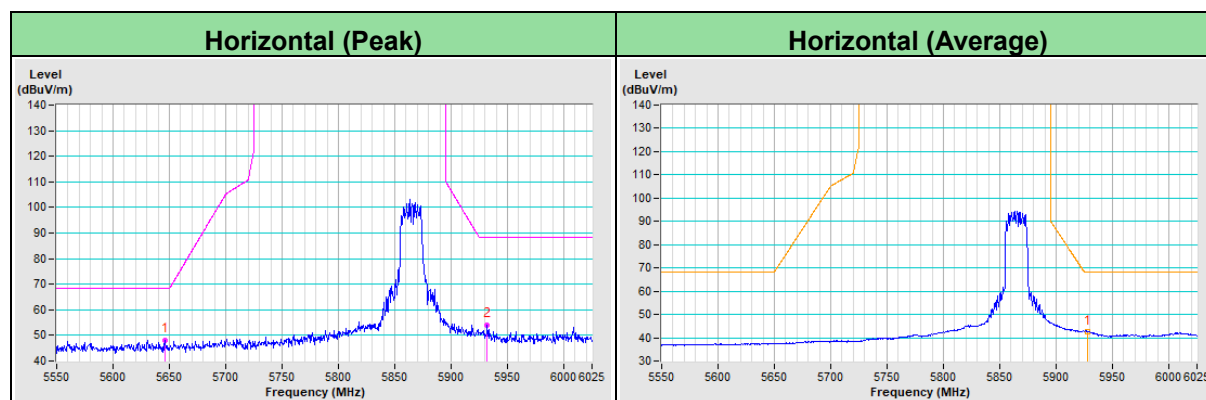


RF Mode	TX 802.11ax (HE20)	Channel	CH 173 : 5865 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5646.40	48.0 PK	68.2	-20.2	1.23 H	208	46.4	1.6
PK.2	#5932.15	54.1 PK	88.2	-34.1	1.23 H	208	52.1	2.0
AV.1	#5928.29	42.7 AV	68.2	-25.5	1.23 H	208	40.7	2.0

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

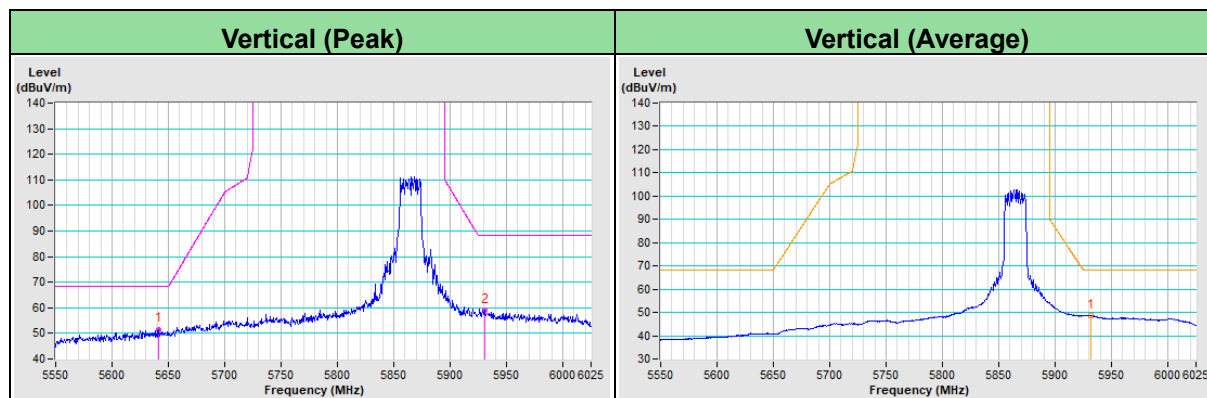


RF Mode	TX 802.11ax (HE20)	Channel	CH 173 : 5865 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5641.63	51.6 PK	68.2	-16.6	2.84 V	357	50.0	1.6
PK.2	#5930.46	58.9 PK	88.2	-29.3	2.84 V	357	56.9	2.0
AV.1	#5931.76	48.8 AV	68.2	-19.4	2.84 V	357	46.8	2.0

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

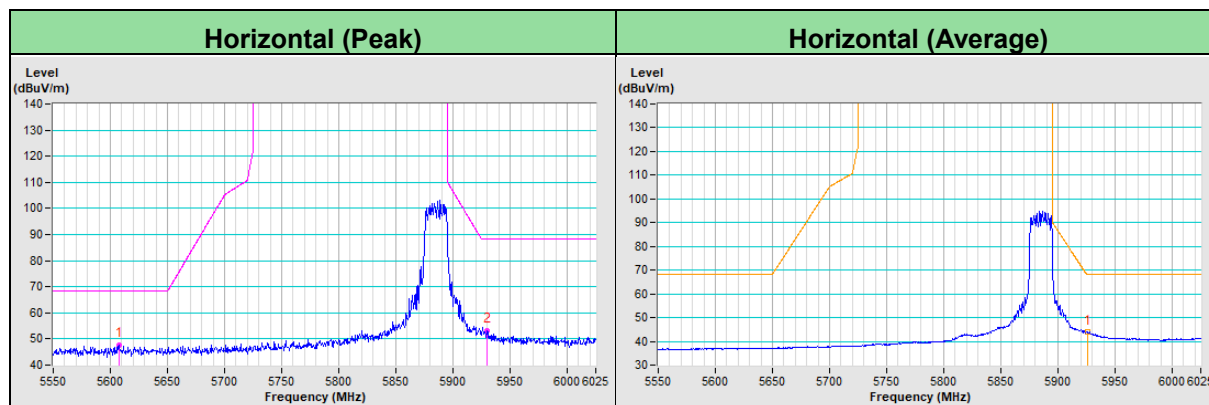


RF Mode	TX 802.11ax (HE20)	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5607.91	47.7 PK	68.2	-20.5	1.22 H	206	46.2	1.5
PK.2	#5930.12	53.2 PK	88.2	-35.0	1.22 H	206	51.2	2.0
AV.1	#5925.57	44.2 AV	68.2	-24.0	1.22 H	206	42.2	2.0

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

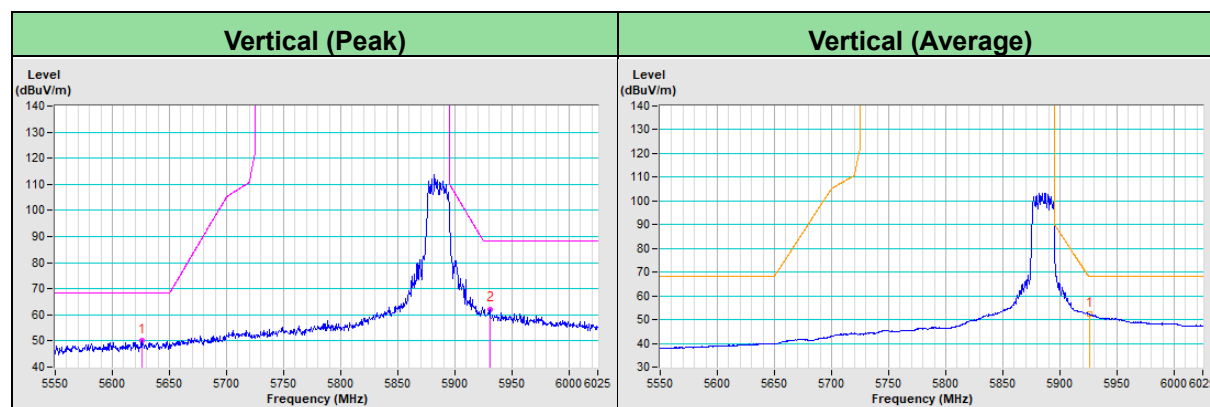


RF Mode	TX 802.11ax (HE20)	Channel	CH 177 : 5885 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5625.52	50.0 PK	68.2	-18.2	2.83 V	2	48.5	1.5
PK.2	#5930.39	62.2 PK	88.2	-26.0	2.83 V	2	60.2	2.0
AV.1	#5925.97	52.5 AV	68.2	-15.7	2.83 V	2	50.5	2.0

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

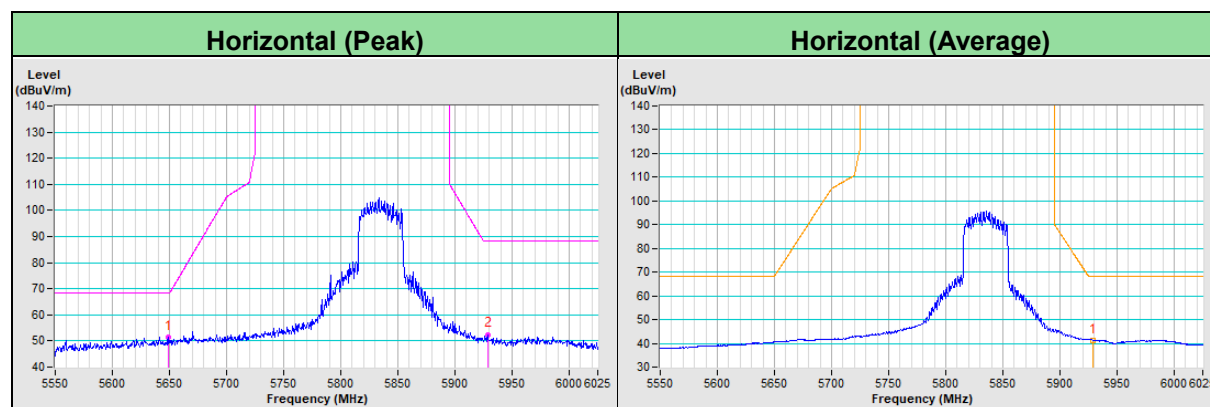


RF Mode	TX 802.11ax (HE40)	Channel	CH 167 : 5835 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5649.37	51.3 PK	68.2	-16.9	1.35 H	339	49.7	1.6
PK.2	#5928.97	52.3 PK	88.2	-35.9	1.35 H	339	50.3	2.0
AV.1	#5929.00	41.1 AV	68.2	-27.1	1.35 H	339	39.1	2.0

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

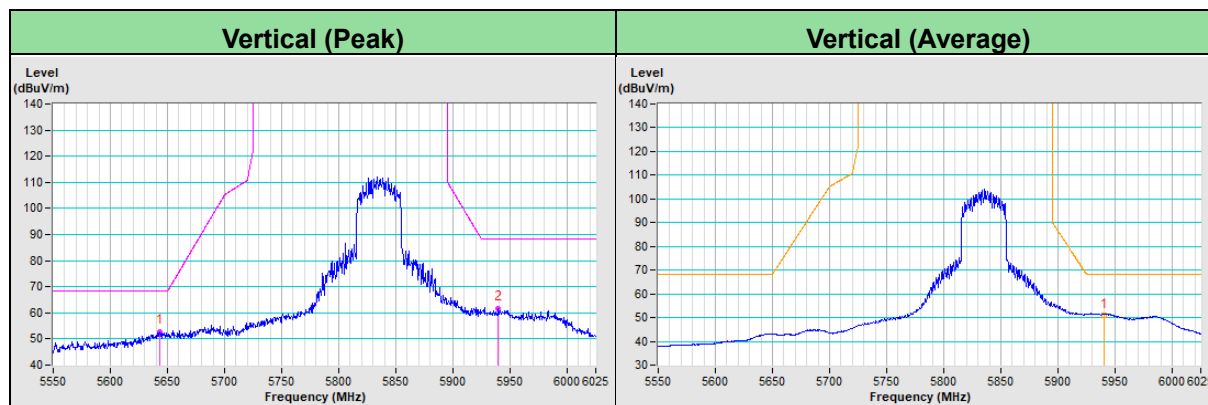


RF Mode	TX 802.11ax (HE40)	Channel	CH 167 : 5835 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5643.61	52.6 PK	68.2	-15.6	1.62 V	180	51.0	1.6
PK.2	#5939.81	61.7 PK	88.2	-26.5	1.62 V	180	59.5	2.2
AV.1	#5940.00	51.2 AV	68.2	-17.0	1.62 V	180	49.0	2.2

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

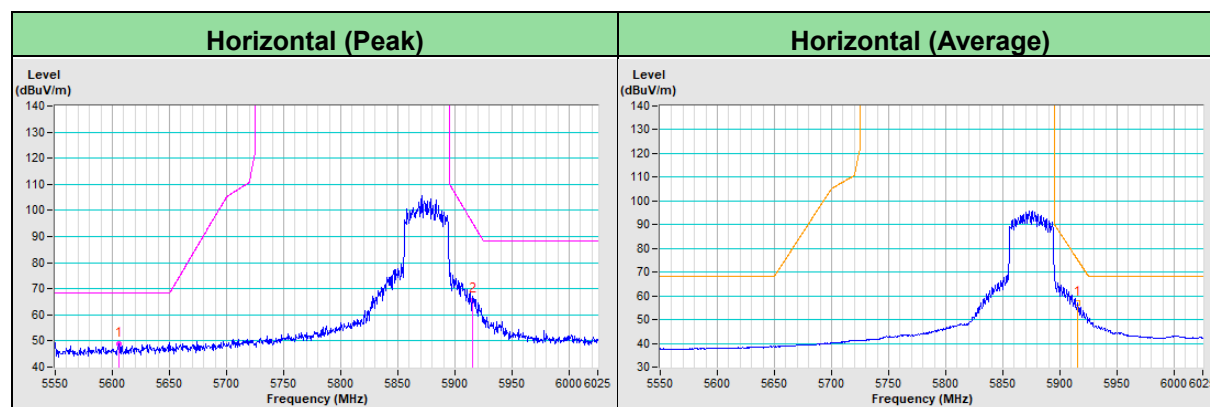


RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5875 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5605.60	48.7 PK	68.2	-19.5	1.37 H	344	47.2	1.5
PK.2	#5915.38	65.3 PK	95.2	-29.9	1.37 H	344	63.3	2.0
AV.1	#5915.38	57.0 AV	75.2	-18.2	1.37 H	344	55.0	2.0

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

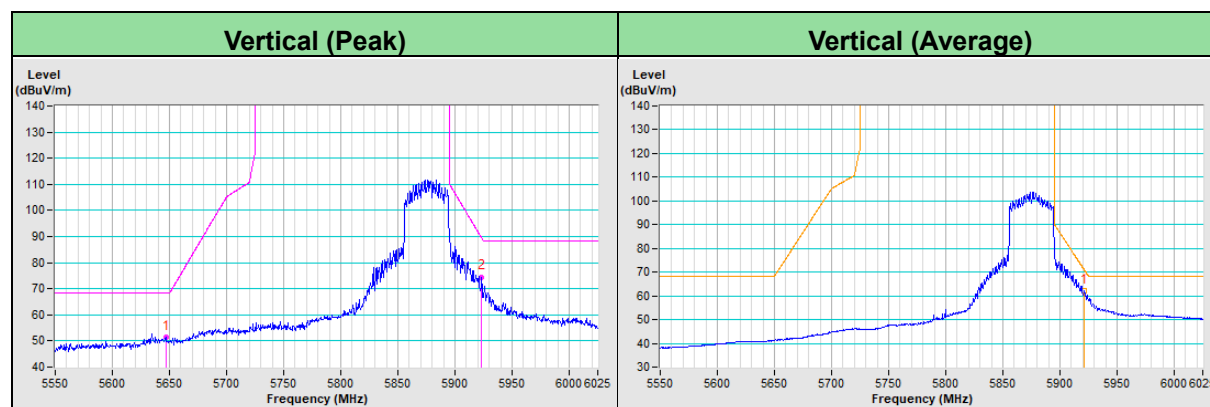


RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5875 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5646.75	51.3 PK	68.2	-16.9	1.50 V	178	49.7	1.6
PK.2	#5923.29	74.5 PK	89.5	-15.0	1.50 V	178	72.5	2.0
AV.1	#5921.37	62.3 AV	70.9	-8.6	1.50 V	178	60.3	2.0

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

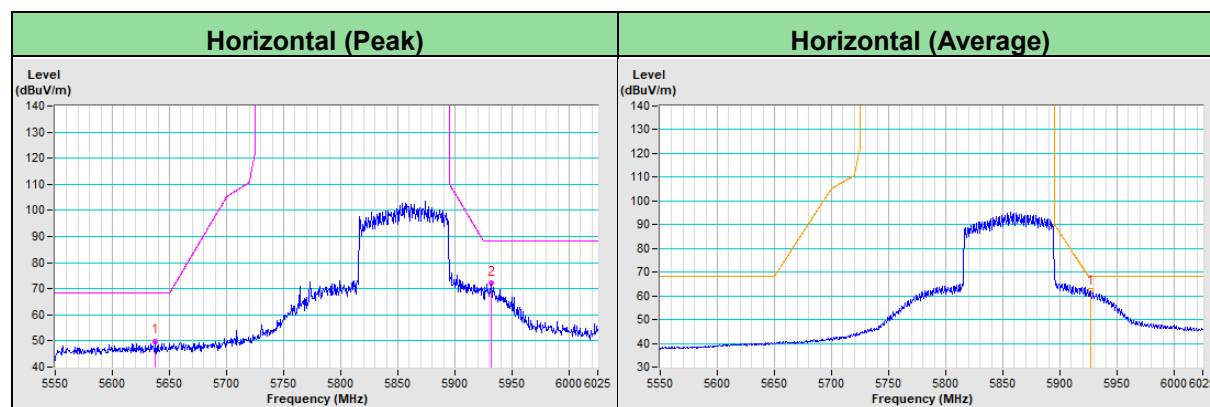


RF Mode	TX 802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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)
PK.1	#5637.96	49.7 PK	68.2	-18.5	2.65 H	343	48.1	1.6
PK.2	#5931.92	72.0 PK	88.2	-16.2	2.65 H	343	70.0	2.0
AV.1	#5926.52	62.0 AV	68.2	-6.2	2.65 H	343	60.0	2.0

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

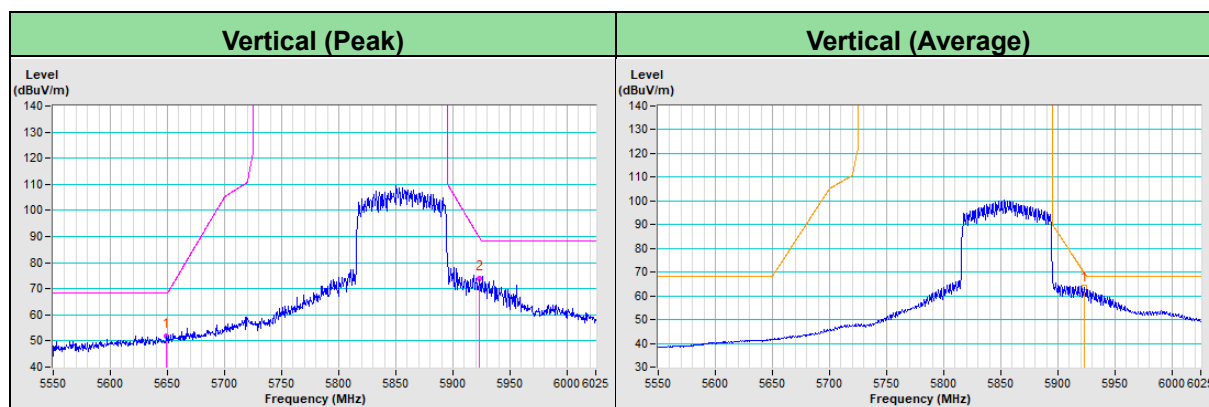


RF Mode	TX 802.11ax (HE80)	Channel	CH 171 : 5855 MHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Vertical at 3m								
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)
PK.1	#5649.04	51.8 PK	68.2	-16.4	3.13 V	64	50.2	1.6
PK.2	#5923.00	74.1 PK	89.7	-15.6	3.13 V	64	72.1	2.0
AV.1	#5922.91	63.4 AV	69.7	-6.3	3.13 V	64	61.4	2.0

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



Appendix – 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.

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Web Site: www.bureauveritas-adt.com

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

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