

FCC Test Report

Report No.: RFBARR-WTW-P21060023B

FCC ID: RAS-MT7922A12L

Test Model: MT7922A12L

Received Date: 2021/10/18

Test Date: 2021/11/2 ~ 2021/12/2

Issued Date: 2021/12/20

Applicant: MediaTek Inc.

Address: No. 1, Dusing 1st Rd., Hsinchu Science Park Hsinchu City 30078, Taiwan

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

Lab Address: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
Taiwan

Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
Taiwan

**FCC Registration /
Designation Number:** 723255 / TW2022



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specifically mentioned, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification.

Table of Contents

Release Control Record	4
1 Certificate of Conformity.....	5
2 Summary of Test Results	6
2.1 Measurement Uncertainty	6
2.2 Modification Record	6
3 General Information.....	7
3.1 General Description of EUT	7
3.2 Description of Test Modes	10
3.2.1 Test Mode Applicability and Tested Channel Detail	11
3.3 Duty Cycle of Test Signal	13
3.4 Description of Support Units	15
3.4.1 Configuration of System under Test	16
3.5 General Description of Applied Standards and References	17
4 Test Types and Results	18
4.1 Radiated Emission and Bandedge Measurement.....	18
4.1.1 Limits of Radiated Emission and Bandedge Measurement	18
4.1.2 Test Instruments	19
4.1.3 Test Procedure	22
4.1.4 Test Setup.....	23
4.1.5 EUT Operating Condition	24
4.1.6 Test Results	25
4.2 Conducted Emission Measurement	40
4.2.1 Limits of Conducted Emission Measurement	40
4.2.2 Test Instruments	40
4.2.3 Test Procedure	41
4.2.4 Test Setup.....	41
4.2.5 EUT Operating Condition	41
4.2.6 Test Results	42
4.3 Transmit Power Measurement	44
4.3.1 Limits of Transmit Power Measurement	44
4.3.2 Test Setup.....	44
4.3.3 Test Instruments	44
4.3.4 Test Procedure	44
4.3.5 EUT Operating Condition	44
4.3.6 Test Result.....	45
4.4 6dB Bandwidth Measurement	47
4.4.1 Limits of Emission Bandwidth Measurement.....	47
4.4.2 Test Setup.....	47
4.4.3 Test Instruments	47
4.4.4 Test Procedure	47
4.4.5 EUT Operating Condition	47
4.4.6 Test Results	48
4.5 Peak Power Spectral Density Measurement	51
4.5.1 Limits of Peak Power Spectral Density Measurement	51
4.5.2 Test Setup.....	51
4.5.3 Test Instruments	51
4.5.4 Test Procedure	51
4.5.5 EUT Operating Condition	51
4.5.6 Test Results	52
4.6 Frequency Stability Measurement.....	56
4.6.1 Limits of Frequency Stability Measurement	56
4.6.2 Test Setup.....	56
4.6.3 Test Instruments	56

4.6.4	Test Procedure	56
4.6.5	EUT Operating Condition	56
4.6.6	Test Results	57
4.7	Operational Restrictions for U-NII 4 Devices	58
4.7.1	Limits of Operational Restrictions for U-NII 4 Devices	58
4.7.2	Test Setup	58
4.7.3	Test Instruments	58
4.7.4	Test Procedure	58
4.7.5	Test Results	58
5	Pictures of Test Arrangements	59
	Annex A - Band-Edge Measurement	60
	Appendix – Information of the Testing Laboratories	86

Release Control Record

Issue No.	Description	Date Issued
RFBARR-WTW-P21060023B	Original release.	2021/12/20

1 Certificate of Conformity

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

Brand: MediaTek

Test Model: MT7922A12L

Sample Status: Engineering sample

Applicant: MediaTek Inc.

Test Date: 2021/11/2 ~ 2021/12/2

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:** 2021/12/20
Vivian Huang / Specialist

Approved by : Clark Lin , **Date:** 2021/12/20
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 -13.82 dB at 0.15000 MHz.
15.407(b)(5)(8)	Radiated Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -3.1 dB at 700.00 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 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	5.0 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) BW160 + BT/BLE Combo Card
Brand	MediaTek
Test Model	MT7922A12L
Status of EUT	Engineering sample
Power Supply Rating	3.3 Vdc from host equipment
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode only 1024QAM for OFDMA in 11ax mode only
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: up to 54 Mbps 802.11n: up to 300 Mbps 802.11ac: up to 1733.3 Mbps 802.11ax: up to 2401.9 Mbps
Operating Frequency	5.845 ~ 5.885 GHz
Number of Channel	802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 3 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 1 802.11ac (VHT160), 802.11ax (HE160): 1
EIRP	26.91 dBm (490.908 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 change. The difference compared with the Report No.: RFBARR-WTW-P21060023-1 as the following:
 - ◆ Enable U-NII-4 and U-NII-3 & -4 span channels through software change.
 - ◆ Add antenna sets (Refer to note 5).
- 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 (5GHz)	Bluetooth
2	WLAN (6GHz)	Bluetooth
3	WLAN (5.9GHz)	Bluetooth

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

5. The antenna information is listed as below.

Original

Ant. Set	RF Chain No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
1	Chain0	PSA	RFMTA340718EMLB302	3.18 4.92	2.4~2.4835 5.15~5.895	PIFA	i-pex(MHF)	200
	Chain1	PSA	RFMTA340718EMLB302	3.18 4.92	2.4~2.4835 5.15~5.895	PIFA	i-pex(MHF)	200
2	Chain0	PSA	RFMTA311020EMMB301	1.71 4.82 4.76 4.29 4.61 4.09	2.4~2.4835 5.15~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	i-pex(MHF)	200
	Chain1	PSA	RFMTA311020EMMB301	1.71 4.82 4.76 4.29 4.61 4.09	2.4~2.4835 5.15~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	i-pex(MHF)	200

Newly

Antenna Set	RF Chain No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
3	Chain0	MSI	WA-P-LE-02-045 (Main)	2.24 2.68 3.01 -1.23 -1.96 -3.68	2.4~2.4835 5.15~5.85 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	IPEX-4L	190
	Chain1	MSI	WA-P-LE-02-046 (Aux)	-2.96 1.16 0.99 -2.31 -2.54 -7.44	2.4~2.4835 5.15~5.85 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	IPEX-4L	325
4	Chain0	PSA	RFPCA460632IMMB701	-13.20 -13.67 -13.67 -13.09	5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	Dipole	IPEX	320
	Chain1	PSA	RFPCA460632IMMB701	-13.20 -13.67 -13.67 -13.09	5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	Dipole	IPEX	320
5	Chain0	PSA	RFMTA421230IMMB701	-13.92 -13.91 -13.91 -14.46	5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	IPEX	300
	Chain1	PSA	RFMTA421230IMMB701	-13.92 -13.91 -13.91 -14.46	5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	PIFA	IPEX	300

Note: Max. gain was selected for the final 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
802.11ac (VHT160)	2TX	2RX
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
802.11ax (HE80)	2TX	2RX
802.11ax (HE160)	2TX	2RX
802.11ax (RU26/52/106/242/484/996/1992)	2TX	2RX

Note:

1. The modulation and bandwidth are similar for 802.11n mode for 20MHz (40MHz), 802.11ac mode for 20MHz (40MHz, 80MHz, 160MHz) and 802.11ax mode for 20MHz (40MH, 80MHz, 160MHz), therefore the manufacturer will control the power for 802.11n/ac mode is the same as the 802.11ax or more lower than it and investigated worst case to representative mode in test report. (Final test mode refer to section 3.2.1)
2. For Partial RU, after pre-tested, only the worse cases were chosen for final test and presented in the test report. (Final test mode refer section 3.2.1)

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 and for more detailed features description, please refer to the manufacturer's specifications, 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

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

Channel	Frequency
*163	5815 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	
-	√	√	√	√	√	-

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

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, 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	RU Configuration
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	-
802.11ax (HE160)	163	163	OFDMA	BPSK	MCS0	-
802.11ax (RU26)	169 to 177	177	OFDMA	BPSK	MCS0	26/8
802.11ax (RU52)	169 to 177	177	OFDMA	BPSK	MCS0	52/40
802.11ax (RU106)	169 to 177	177	OFDMA	BPSK	MCS0	106/54

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, 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
802.11ax (HE40)	167 to 175	175	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, 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
802.11ax (HE40)	167 to 175	175	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	RU Configuration
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	-
802.11ac (VHT160) (output power only)	163	163	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	
802.11ax (HE160)	163	163	OFDMA	BPSK	MCS0	
802.11ax (RU26)	169 to 177	177	OFDMA	BPSK	MCS0	26/8
802.11ax (RU52)	169 to 177	177	OFDMA	BPSK	MCS0	52/40
802.11ax (RU106)	169 to 177	177	OFDMA	BPSK	MCS0	106/54

Test Condition:

Applicable To	Environmental Conditions	Input Power (System)	Tested By
RE_≥1G	25deg. C, 66%RH	120Vac, 60Hz	Carter Lin
RE_{<}1G	25deg. C, 66%RH	120Vac, 60Hz	Tom Yang
PLC	25deg. C, 66%RH	120Vac, 60Hz	Tom Yang
APCM	23deg. C, 66%RH	120Vac, 60Hz	Eric Peng

3.3 Duty Cycle of Test Signal

For Legacy mode:

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

802.11a: Duty cycle = 5.481 ms/5.823 ms = 0.941, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.26 \text{ dB}$

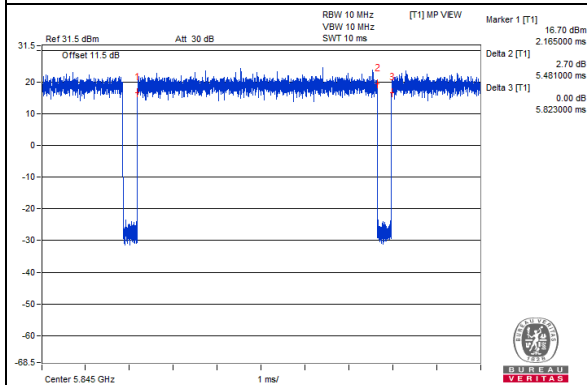
802.11ax (HE20): Duty cycle = 3.875 ms/4.219 ms = 0.918, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.37 \text{ dB}$

802.11ax (HE40): Duty cycle = 3.787 ms/4.265 ms = 0.888, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.52 \text{ dB}$

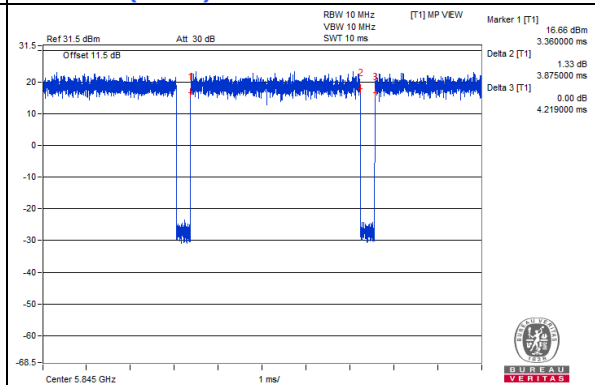
802.11ax (HE80): Duty cycle = 1.842 ms/2.318 ms = 0.795, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 1 \text{ dB}$

802.11ax (HE160): Duty cycle = 0.955 ms/1.421 ms = 0.672, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 1.73 \text{ dB}$

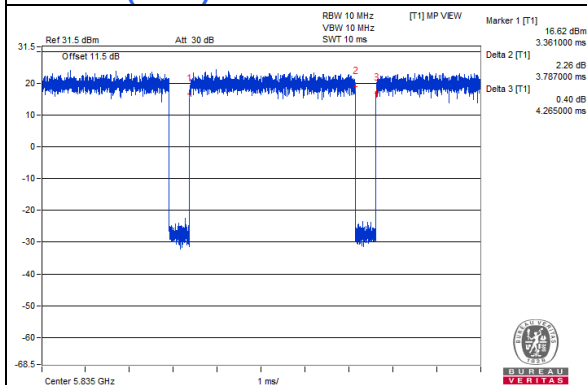
802.11a



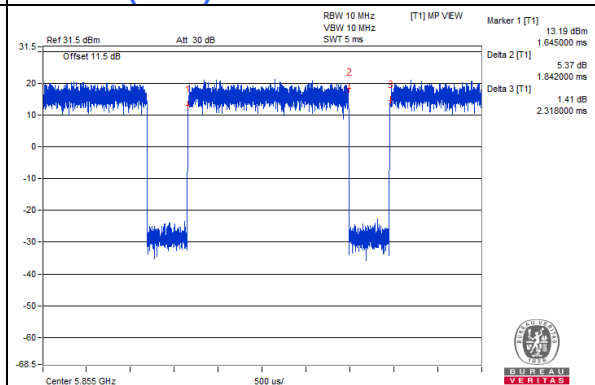
802.11ax (HE20)



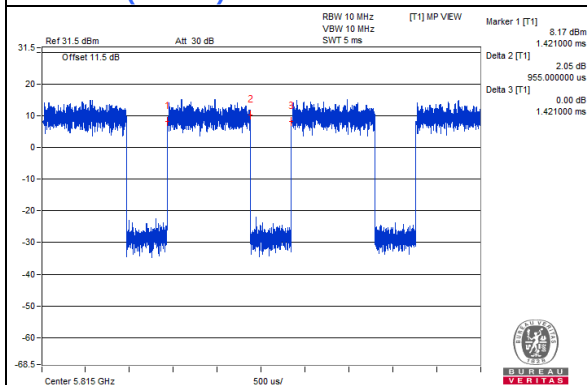
802.11ax (HE40)



802.11ax (HE80)



802.11ax (HE160)



For RU mode:

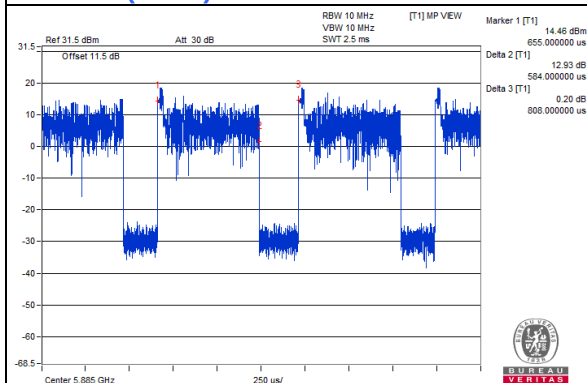
Duty cycle of test signal is < 98%, duty factor shall be considered.

802.11ax (RU26): Duty cycle = 0.584 ms/0.808 ms = 0.723, Duty factor = $10 * \log(1/\text{Duty cycle}) = 1.41 \text{ dB}$

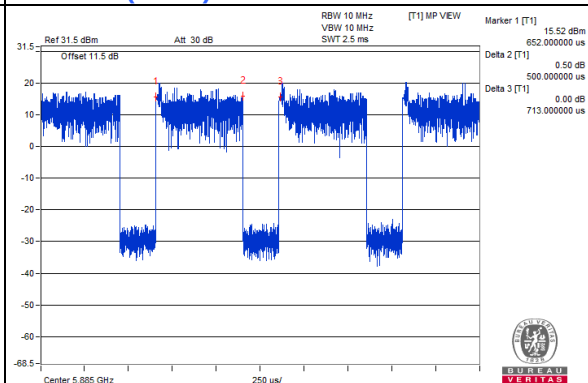
802.11ax (RU52): Duty cycle = 0.5 ms/0.713 ms = 0.701, Duty factor = $10 * \log(1/\text{Duty cycle}) = 1.54 \text{ dB}$

802.11ax (RU106): Duty cycle = 0.435 ms/0.641 ms = 0.679, Duty factor = $10 * \log(1/\text{Duty cycle}) = 1.68 \text{ dB}$

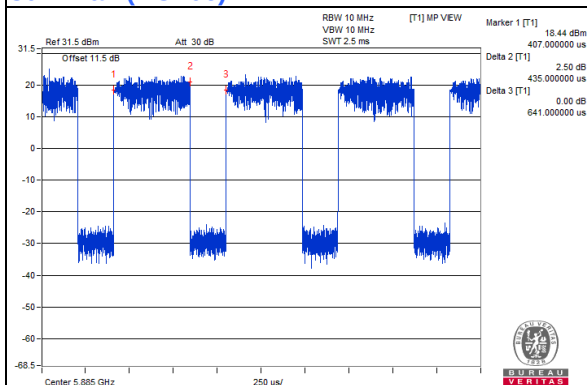
802.11ax (RU26)



802.11ax (RU52)



802.11ax (RU106)



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.

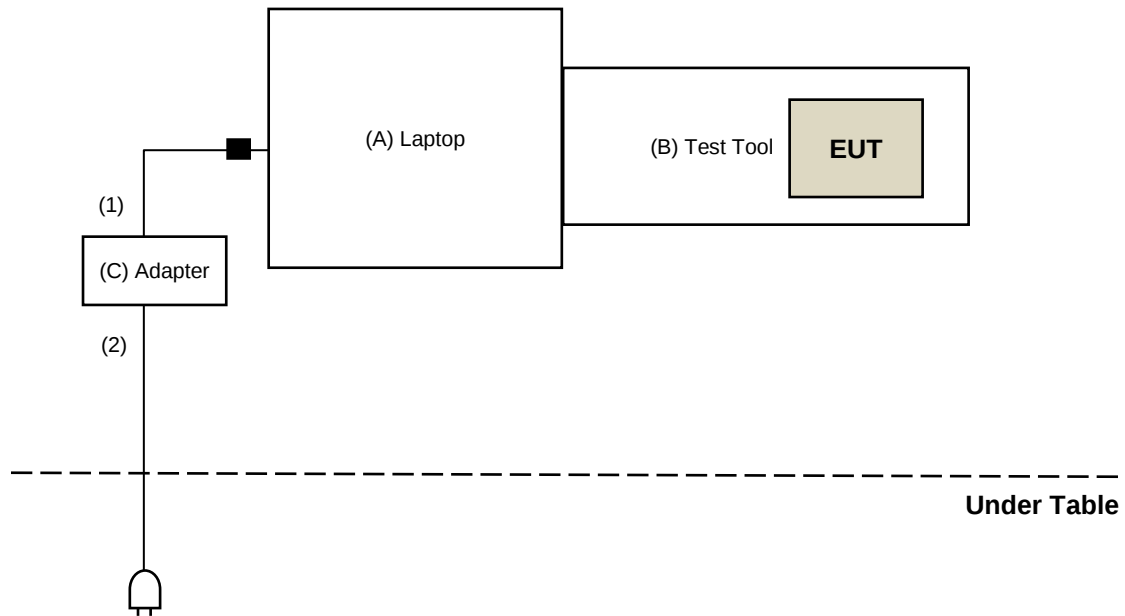
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	DELL	E5430	HYV4VY1	FCC DoC	Provided by Lab
B.	Test Tool	Mediatek	MTK1849	NA	NA	Supplied by Applicant
C.	Adapter	Dell	LA65NS2-01	NA	NA	Provided by Lab

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Cable	1	1.8	No	1	Provided by Lab
2.	AC Cable	1	1.8	No	0	Provided by Lab

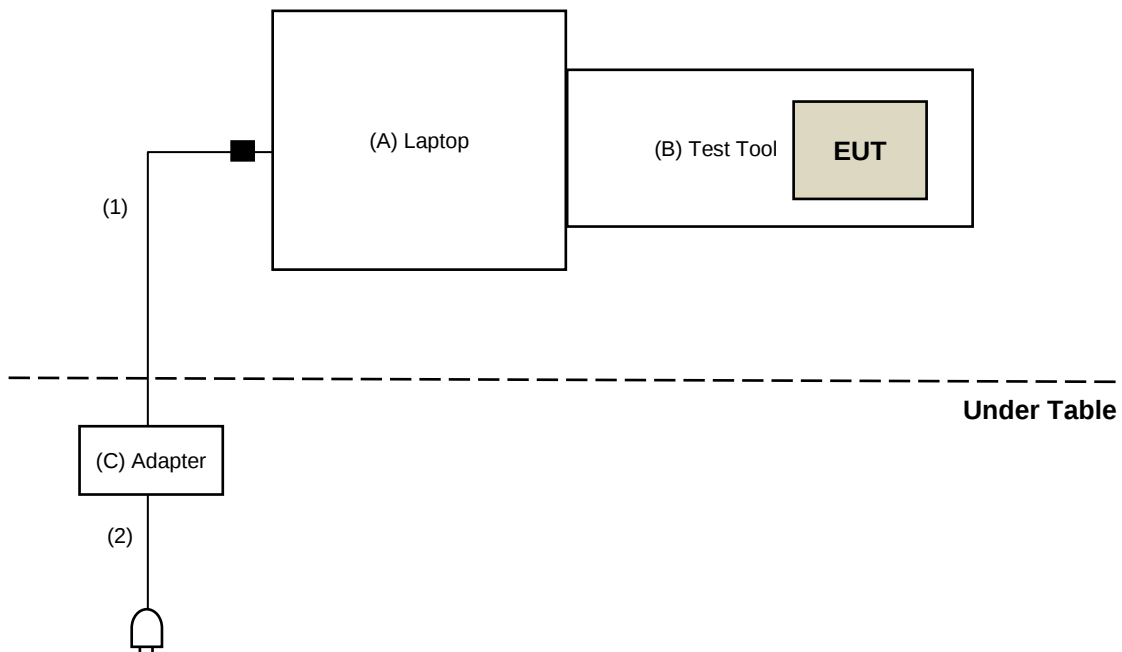
Note: The core is originally attached to the cable.

3.4.1 Configuration of System under Test

For AC Power Conducted Emission test:



For Radiated Emission 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 (above 1 GHz) test:

Description & Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Spectrum Analyzer KEYSIGHT	N9030B	MY57142938	2021/4/26	2022/4/25
Software	ADT_Radiated_V8 .7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Horn Antenna Schwarzbeck	BBHA9120-D	9120D-406	2021/11/14	2022/11/13
Pre_Amplifier EMCI	EMC12630SE	980384	2021/1/11	2022/1/10
RF Coaxial Cable EMCI	EMC104-SM-SM- 1500	180504	2021/4/26	2022/4/25
RF Coaxial Cable EMCI	EMC104-SM-SM- 2000	180601	2021/6/8	2022/6/7
RF Coaxial Cable EMCI	EMC104-SM-SM- 6000	210201	2021/5/13	2022/5/12
Fix tool for Boresight antenna tower BV	FBA-01	FBA_SIP01	NA	NA
Spectrum Analyzer Keysight	N9030A	MY54490679	2021/7/9	2022/7/8
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. 3.
 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

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

Description & Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Signal Analyzer Keysight	N9010A	MY56070348	2021/9/15	2022/9/14
MXE EMI Receiver KEYSIGHT	N9038B	MY60180019	2021/2/1	2022/1/31
Software	ADT_Radiated_V8.7.08	NA	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 COMMATE/PEWC	8D	966-4-1	2021/3/17	2022/3/16
RF Coaxial Cable COMMATE/PEWC	8D	966-4-2	2021/3/17	2022/3/16
RF Coaxial Cable COMMATE/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	180418	2021/4/26	2022/4/25
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: 2021/11/16 ~ 2021/12/2

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: 2021/11/2 ~ 2021/11/16

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

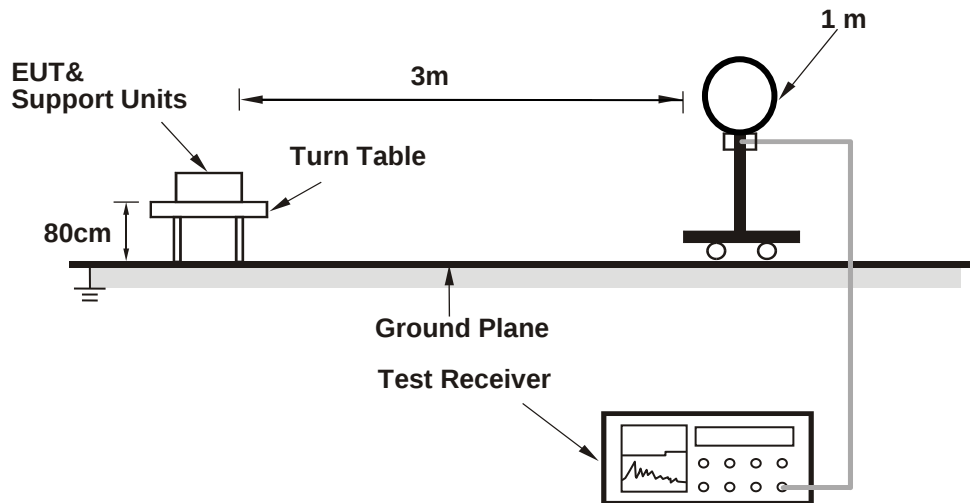
- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving 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:

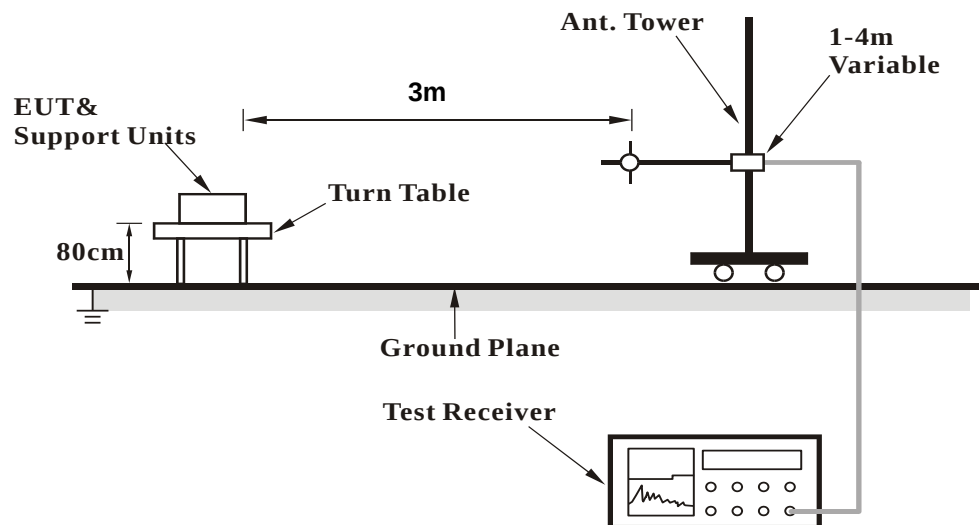
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
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

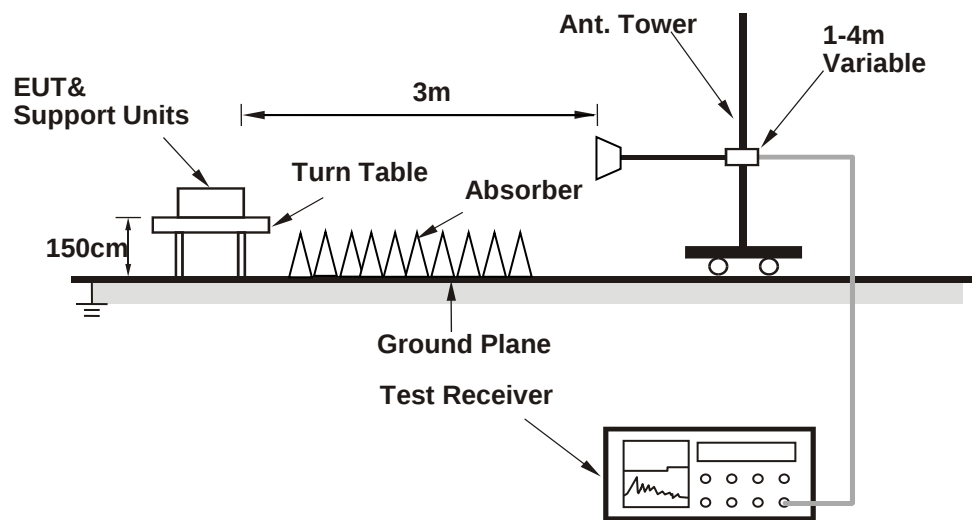
For Radiated emission below 30MHz



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 (MT7922 QA 0.0.2.55) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

4.1.6 Test Results

Above 1GHz Data:

RF Mode	TX 802.11a	Channel	CH 169 : 5.845 GHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % 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	120.9 PK			3.01 H	91	117.0	3.9
2	*5845.00	111.5 AV			3.01 H	91	107.6	3.9
3	11690.00	51.3 PK	74.0	-22.7	2.20 H	134	38.2	13.1
4	11690.00	40.1 AV	54.0	-13.9	2.20 H	134	27.0	13.1
5	#17535.00	52.6 PK	88.2	-35.6	1.84 H	277	34.9	17.7
6	#17535.00	41.3 AV	68.2	-26.9	1.84 H	277	23.6	17.7
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	*5845.00	112.8 PK			1.50 V	38	108.9	3.9
2	*5845.00	104.7 AV			1.50 V	38	100.8	3.9
3	11690.00	52.0 PK	74.0	-22.0	3.87 V	68	38.9	13.1
4	11690.00	40.2 AV	54.0	-13.8	3.87 V	68	27.1	13.1
5	#17535.00	52.8 PK	88.2	-35.4	1.94 V	99	35.1	17.7
6	#17535.00	41.4 AV	68.2	-26.8	1.94 V	99	23.7	17.7

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 802.11a	Channel	CH 173 : 5.865 GHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % 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	119.8 PK			3.17 H	88	115.9	3.9
2	*5865.00	111.8 AV			3.17 H	88	107.9	3.9
3	11730.00	51.0 PK	74.0	-23.0	2.27 H	142	37.8	13.2
4	11730.00	40.2 AV	54.0	-13.8	2.27 H	142	27.0	13.2
5	#17595.00	51.7 PK	88.2	-36.5	1.84 H	280	33.6	18.1
6	#17595.00	40.6 AV	68.2	-27.6	1.84 H	280	22.5	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	*5865.00	112.9 PK			1.48 V	37	109.0	3.9
2	*5865.00	105.6 AV			1.48 V	37	101.7	3.9
3	11730.00	53.0 PK	74.0	-21.0	3.95 V	72	39.8	13.2
4	11730.00	41.1 AV	54.0	-12.9	3.95 V	72	27.9	13.2
5	#17595.00	52.1 PK	88.2	-36.1	2.01 V	101	34.0	18.1
6	#17595.00	41.3 AV	68.2	-26.9	2.01 V	101	23.2	18.1

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 177 : 5.885 GHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % 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	119.7 PK			3.14 H	88	116.0	3.7
2	*5885.00	111.5 AV			3.14 H	88	107.8	3.7
3	11770.00	51.4 PK	74.0	-22.6	2.26 H	133	38.2	13.2
4	11770.00	40.5 AV	54.0	-13.5	2.26 H	133	27.3	13.2
5	#17655.00	52.1 PK	88.2	-36.1	1.87 H	266	33.6	18.5
6	#17655.00	42.0 AV	68.2	-26.2	1.87 H	266	23.5	18.5
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	113.8 PK			1.62 V	36	110.1	3.7
2	*5885.00	105.1 AV			1.62 V	36	101.4	3.7
3	11770.00	52.4 PK	74.0	-21.6	3.91 V	82	39.2	13.2
4	11770.00	40.6 AV	54.0	-13.4	3.91 V	82	27.4	13.2
5	#17655.00	52.2 PK	88.2	-36.0	1.96 V	109	33.7	18.5
6	#17655.00	41.2 AV	68.2	-27.0	1.96 V	109	22.7	18.5

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 169 : 5.845 GHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % 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	119.8 PK			3.12 H	92	115.9	3.9
2	*5845.00	109.5 AV			3.12 H	92	105.6	3.9
3	11690.00	51.1 PK	74.0	-22.9	2.20 H	145	38.0	13.1
4	11690.00	39.9 AV	54.0	-14.1	2.20 H	145	26.8	13.1
5	#17535.00	51.9 PK	88.2	-36.3	1.90 H	264	34.2	17.7
6	#17535.00	41.7 AV	68.2	-26.5	1.90 H	264	24.0	17.7
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	*5845.00	113.8 PK			1.45 V	36	109.9	3.9
2	*5845.00	104.7 AV			1.45 V	36	100.8	3.9
3	11690.00	52.2 PK	74.0	-21.8	3.93 V	62	39.1	13.1
4	11690.00	40.2 AV	54.0	-13.8	3.93 V	62	27.1	13.1
5	#17535.00	52.5 PK	88.2	-35.7	1.96 V	104	34.8	17.7
6	#17535.00	41.4 AV	68.2	-26.8	1.96 V	104	23.7	17.7

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 173 : 5.865 GHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % 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	119.4 PK			3.14 H	90	115.5	3.9
2	*5865.00	109.9 AV			3.14 H	90	106.0	3.9
3	11730.00	51.0 PK	74.0	-23.0	2.21 H	120	37.8	13.2
4	11730.00	39.6 AV	54.0	-14.4	2.21 H	120	26.4	13.2
5	#17595.00	52.5 PK	88.2	-35.7	1.86 H	268	34.4	18.1
6	#17595.00	41.3 AV	68.2	-26.9	1.86 H	268	23.2	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	*5865.00	113.5 PK			1.40 V	38	109.6	3.9
2	*5865.00	104.0 AV			1.40 V	38	100.1	3.9
3	11730.00	51.9 PK	74.0	-22.1	3.84 V	52	38.7	13.2
4	11730.00	39.8 AV	54.0	-14.2	3.84 V	52	26.6	13.2
5	#17595.00	53.2 PK	88.2	-35.0	1.98 V	99	35.1	18.1
6	#17595.00	41.4 AV	68.2	-26.8	1.98 V	99	23.3	18.1

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 177 : 5.885 GHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % 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	113.4 PK			3.08 H	91	109.7	3.7
2	*5885.00	104.8 AV			3.08 H	91	101.1	3.7
3	11770.00	51.3 PK	74.0	-22.7	2.25 H	139	38.1	13.2
4	11770.00	39.8 AV	54.0	-14.2	2.25 H	139	26.6	13.2
5	#17655.00	52.3 PK	88.2	-35.9	1.84 H	276	33.8	18.5
6	#17655.00	42.0 AV	68.2	-26.2	1.84 H	276	23.5	18.5
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	109.1 PK			1.61 V	38	105.4	3.7
2	*5885.00	98.6 AV			1.61 V	38	94.9	3.7
3	11770.00	52.3 PK	74.0	-21.7	3.87 V	79	39.1	13.2
4	11770.00	40.5 AV	54.0	-13.5	3.87 V	79	27.3	13.2
5	#17655.00	52.8 PK	88.2	-35.4	1.92 V	114	34.3	18.5
6	#17655.00	40.9 AV	68.2	-27.3	1.92 V	114	22.4	18.5

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 167 : 5.835 GHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % 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	117.7 PK			3.12 H	89	113.9	3.8
2	*5835.00	107.4 AV			3.12 H	89	103.6	3.8
3	11670.00	51.7 PK	74.0	-22.3	2.19 H	160	38.6	13.1
4	11670.00	40.3 AV	54.0	-13.7	2.19 H	160	27.2	13.1
5	#17505.00	52.0 PK	88.2	-36.2	1.88 H	267	34.5	17.5
6	#17505.00	42.4 AV	68.2	-25.8	1.88 H	267	24.9	17.5
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	111.8 PK			1.48 V	36	108.0	3.8
2	*5835.00	101.3 AV			1.48 V	36	97.5	3.8
3	11670.00	52.0 PK	74.0	-22.0	3.91 V	68	38.9	13.1
4	11670.00	40.1 AV	54.0	-13.9	3.91 V	68	27.0	13.1
5	#17505.00	52.6 PK	88.2	-35.6	1.93 V	93	35.1	17.5
6	#17505.00	41.2 AV	68.2	-27.0	1.93 V	93	23.7	17.5

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5.875 GHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % 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	117.1 PK			3.03 H	95	113.4	3.7
2	*5875.00	107.4 AV			3.03 H	95	103.7	3.7
3	11750.00	50.6 PK	74.0	-23.4	2.19 H	133	37.4	13.2
4	11750.00	39.2 AV	54.0	-14.8	2.19 H	133	26.0	13.2
5	#17625.00	52.4 PK	88.2	-35.8	1.90 H	261	34.1	18.3
6	#17625.00	41.6 AV	68.2	-26.6	1.90 H	261	23.3	18.3
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	110.2 PK			1.67 V	38	106.5	3.7
2	*5875.00	101.1 AV			1.67 V	38	97.4	3.7
3	11750.00	52.2 PK	74.0	-21.8	3.87 V	66	39.0	13.2
4	11750.00	40.2 AV	54.0	-13.8	3.87 V	66	27.0	13.2
5	#17625.00	53.3 PK	88.2	-34.9	2.03 V	111	35.0	18.3
6	#17625.00	40.7 AV	68.2	-27.5	2.03 V	111	22.4	18.3

Remarks:

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

RF Mode	TX 802.11ax (HE80)	Channel	CH 171 : 5.855 GHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % 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	109.7 PK			3.13 H	94	105.8	3.9
2	*5855.00	102.3 AV			3.13 H	94	98.4	3.9
3	11710.00	50.6 PK	74.0	-23.4	2.15 H	112	37.5	13.1
4	11710.00	39.2 AV	54.0	-14.8	2.15 H	112	26.1	13.1
5	#17565.00	52.4 PK	88.2	-35.8	1.90 H	252	34.5	17.9
6	#17565.00	41.6 AV	68.2	-26.6	1.90 H	252	23.7	17.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5855.00	105.6 PK			1.49 V	35	101.7	3.9
2	*5855.00	95.0 AV			1.49 V	35	91.1	3.9
3	11710.00	52.0 PK	74.0	-22.0	3.91 V	72	38.9	13.1
4	11710.00	40.4 AV	54.0	-13.6	3.91 V	72	27.3	13.1
5	#17565.00	52.6 PK	88.2	-35.6	1.88 V	119	34.7	17.9
6	#17565.00	41.2 AV	68.2	-27.0	1.88 V	119	23.3	17.9

Remarks:

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

RF Mode	TX 802.11ax (HE160)	Channel	CH 163 : 5.815 GHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % 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	*5815.00	106.9 PK			3.19 H	92	103.2	3.7
2	*5815.00	98.0 AV			3.19 H	92	94.3	3.7
3	11630.00	50.8 PK	74.0	-23.2	2.17 H	122	37.7	13.1
4	11630.00	39.4 AV	54.0	-14.6	2.17 H	122	26.3	13.1
5	#17445.00	51.9 PK	88.2	-36.3	1.80 H	278	35.0	16.9
6	#17445.00	42.0 AV	68.2	-26.2	1.80 H	278	25.1	16.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5815.00	100.0 PK			1.50 V	36	96.3	3.7
2	*5815.00	91.4 AV			1.50 V	36	87.7	3.7
3	11630.00	52.1 PK	74.0	-21.9	3.96 V	67	39.0	13.1
4	11630.00	40.3 AV	54.0	-13.7	3.96 V	67	27.2	13.1
5	#17445.00	52.7 PK	88.2	-35.5	1.91 V	117	35.8	16.9
6	#17445.00	41.6 AV	68.2	-26.6	1.91 V	117	24.7	16.9

Remarks:

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

RF Mode	TX 802.11ax (RU26)	Channel	CH 177 : 5.885 GHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % 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	116.7 PK			3.14 H	84	113.0	3.7
2	*5885.00	108.0 AV			3.14 H	84	104.3	3.7
3	11770.00	57.4 PK	74.0	-16.6	3.37 H	225	44.2	13.2
4	11770.00	44.7 AV	54.0	-9.3	3.37 H	225	31.5	13.2
5	#17655.00	52.3 PK	88.2	-35.9	1.73 H	225	33.8	18.5
6	#17655.00	42.1 AV	68.2	-26.1	1.73 H	225	23.6	18.5
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	110.3 PK			1.67 V	37	106.6	3.7
2	*5885.00	101.3 AV			1.67 V	37	97.6	3.7
3	11770.00	46.9 PK	74.0	-27.1	2.41 V	134	33.7	13.2
4	11770.00	36.2 AV	54.0	-17.8	2.41 V	134	23.0	13.2
5	#17655.00	52.1 PK	88.2	-36.1	1.63 V	76	33.6	18.5
6	#17655.00	42.0 AV	68.2	-26.2	1.63 V	76	23.5	18.5

Remarks:

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

RF Mode	TX 802.11ax (RU52)	Channel	CH 177 : 5.885 GHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % 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	115.6 PK			3.13 H	88	111.9	3.7
2	*5885.00	106.3 AV			3.13 H	88	102.6	3.7
3	11770.00	57.8 PK	74.0	-16.2	3.37 H	107	44.6	13.2
4	11770.00	45.2 AV	54.0	-8.8	3.37 H	107	32.0	13.2
5	#17655.00	52.3 PK	88.2	-35.9	1.72 H	24	33.8	18.5
6	#17655.00	42.2 AV	68.2	-26.0	1.72 H	24	23.7	18.5
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	108.6 PK			1.63 V	38	104.9	3.7
2	*5885.00	99.3 AV			1.63 V	38	95.6	3.7
3	11770.00	47.1 PK	74.0	-26.9	2.41 V	122	33.9	13.2
4	11770.00	36.6 AV	54.0	-17.4	2.41 V	122	23.4	13.2
5	#17655.00	52.5 PK	88.2	-35.7	1.64 V	82	34.0	18.5
6	#17655.00	42.3 AV	68.2	-25.9	1.64 V	82	23.8	18.5

Remarks:

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

RF Mode	TX 802.11ax (RU106)	Channel	CH 177 : 5.885 GHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) Average (AV)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % 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	112.9 PK			3.03 H	92	109.2	3.7
2	*5885.00	103.0 AV			3.03 H	92	99.3	3.7
3	11770.00	57.2 PK	74.0	-16.8	3.32 H	125	44.0	13.2
4	11770.00	44.8 AV	54.0	-9.2	3.32 H	125	31.6	13.2
5	#17655.00	42.3 PK	88.2	-45.9	1.78 H	212	23.8	18.5
6	#17655.00	42.3 AV	68.2	-25.9	1.78 H	212	23.8	18.5
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	105.2 PK			1.60 V	37	101.5	3.7
2	*5885.00	96.4 AV			1.60 V	37	92.7	3.7
3	11770.00	46.6 PK	74.0	-27.4	2.42 V	141	33.4	13.2
4	11770.00	36.1 AV	54.0	-17.9	2.42 V	141	22.9	13.2
5	#17655.00	51.3 PK	88.2	-36.9	1.60 V	87	32.8	18.5
6	#17655.00	41.5 AV	68.2	-26.7	1.60 V	87	23.0	18.5

Remarks:

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

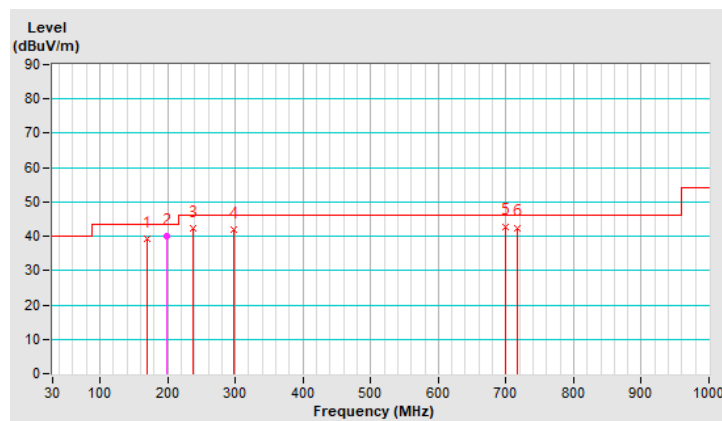
Below 1GHz Data:

RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5.875 GHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	169.66	39.4 QP	43.5	-4.1	1.50 H	175	51.9	-12.5
2	198.02	40.0 QP	43.5	-3.5	1.00 H	114	55.0	-15.0
3	238.06	42.4 QP	46.0	-3.6	1.50 H	181	55.7	-13.3
4	297.14	41.8 QP	46.0	-4.2	1.00 H	359	52.7	-10.9
5	700.00	42.9 QP	46.0	-3.1	1.00 H	265	43.5	-0.6
6	717.59	42.5 QP	46.0	-3.5	1.50 H	264	42.9	-0.4

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 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.

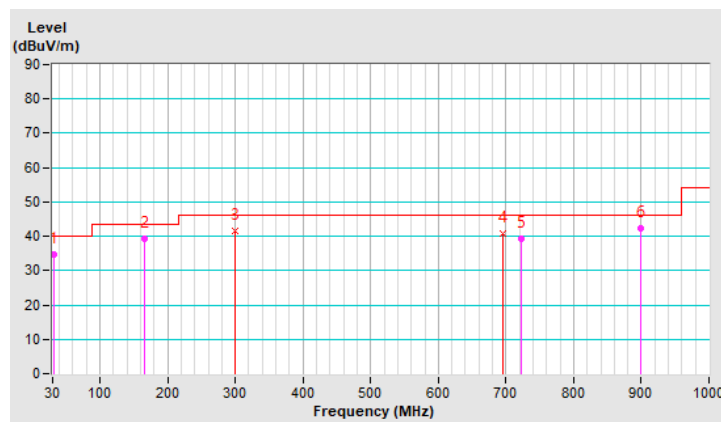


RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5.875 GHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % RH
Tested By	Tom Yang		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	32.01	34.8 QP	40.0	-5.2	1.00 V	3	48.5	-13.7
2	165.35	39.1 QP	43.5	-4.4	1.50 V	345	51.4	-12.3
3	299.44	41.6 QP	46.0	-4.4	1.50 V	285	52.4	-10.8
4	695.08	40.8 QP	46.0	-5.2	2.00 V	275	41.5	-0.7
5	722.97	39.2 QP	46.0	-6.8	1.00 V	211	39.5	-0.3
6	898.99	42.2 QP	46.0	-3.8	1.50 V	298	39.0	3.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 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.

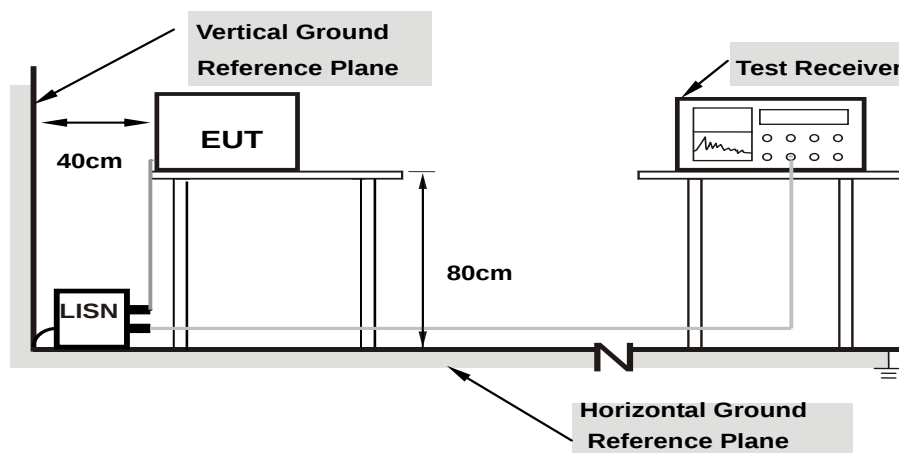
3. Tested Date: 2021/12/1

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.

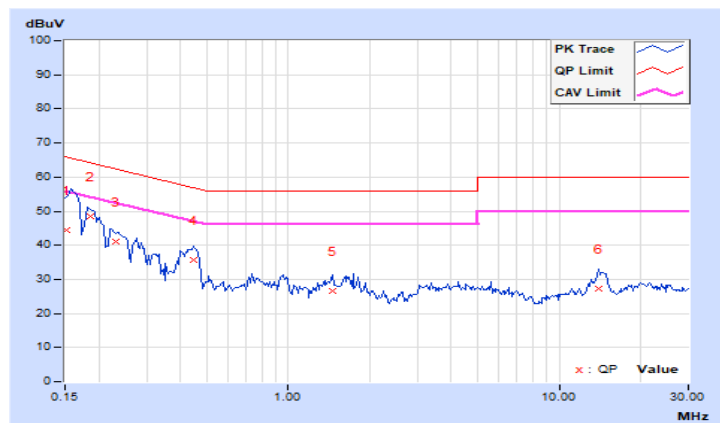
4.2.6 Test Results

RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5.875 GHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % RH
Tested By	Tom Yang		

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15247	10.05	34.43	16.25	44.48	26.30	65.86	55.86	-21.38	-29.56
2	0.18676	10.05	38.37	27.24	48.42	37.29	64.18	54.18	-15.76	-16.89
3	0.23071	10.05	31.15	19.39	41.20	29.44	62.42	52.42	-21.22	-22.98
4	0.44983	10.07	25.52	16.37	35.59	26.44	56.88	46.88	-21.29	-20.44
5	1.46307	10.13	16.51	11.06	26.64	21.19	56.00	46.00	-29.36	-24.81
6	13.96577	10.86	16.26	8.62	27.12	19.48	60.00	50.00	-32.88	-30.52

Remarks:

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

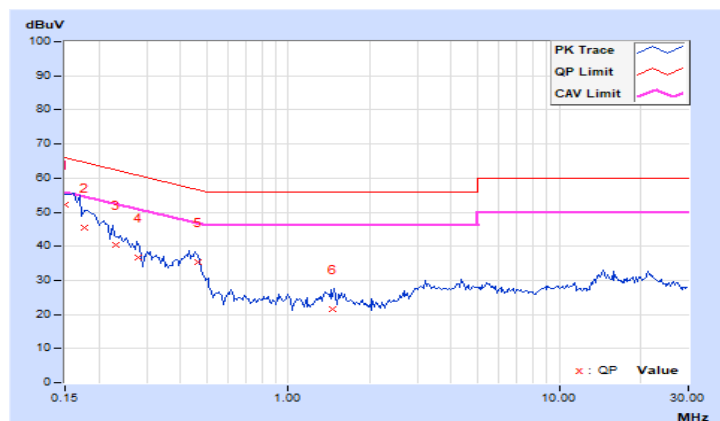


RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5.875 GHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25 °C, 66 % RH
Tested By	Tom Yang		

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.02	42.16	23.11	52.18	33.13	66.00	56.00	-13.82	-22.87
2	0.17753	10.03	35.56	13.62	45.59	23.65	64.60	54.60	-19.01	-30.95
3	0.23083	10.03	30.51	16.59	40.54	26.62	62.42	52.42	-21.88	-25.80
4	0.27941	10.03	26.56	19.77	36.59	29.80	60.83	50.83	-24.24	-21.03
5	0.46237	10.04	25.43	18.29	35.47	28.33	56.65	46.65	-21.18	-18.32
6	1.44947	10.10	11.53	4.66	21.63	14.76	56.00	46.00	-34.37	-31.24

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,

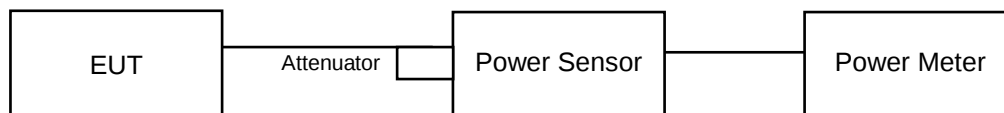
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

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	13.71	13.75	47.21	16.74	4.92	146.555	21.66	30	Pass
173	5865	13.50	13.53	44.93	16.53	4.92	139.637	21.45	30	Pass
177	5885	13.53	13.49	44.878	16.52	4.92	139.316	21.44	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	14.56	14.45	56.437	17.52	4.92	175.388	22.44	30	Pass
173	5865	14.42	14.35	54.896	17.40	4.92	170.608	22.32	30	Pass
177	5885	14.31	14.40	54.52	17.37	4.92	169.434	22.29	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	16.72	16.63	93.015	19.69	4.92	289.068	24.61	30	Pass
175	5875	16.71	16.59	92.485	19.66	4.92	287.078	24.58	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	18.76	18.72	149.635	21.75	4.92	464.515	26.67	30	Pass

802.11ac (VHT160)

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							
163	5815	15.85	15.88	77.185	18.88	4.92	239.883	23.8	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	14.77	14.63	59.032	17.71	4.92	183.231	22.63	30	Pass
173	5865	14.68	14.56	57.952	17.63	4.92	179.887	22.55	30	Pass
177	5885	14.55	14.58	57.218	17.58	4.92	177.828	22.5	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	16.94	16.86	97.96	19.91	4.92	304.089	24.83	30	Pass
175	5875	16.96	16.80	97.522	19.89	4.92	302.691	24.81	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	19.00	18.96	158.137	21.99	4.92	490.908	26.91	30	Pass

802.11ax (HE160)

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							
163	5815	16.11	16.15	82.042	19.14	4.92	254.683	24.06	30	Pass

802.11ax (RU26)

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							
177	5885	8.37	7.46	12.443	10.95	4.92	38.637	15.87	30	Pass

802.11ax (RU52)

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							
177	5885	11.34	11.27	27.011	14.32	4.92	83.946	19.24	30	Pass

802.11ax (RU106)

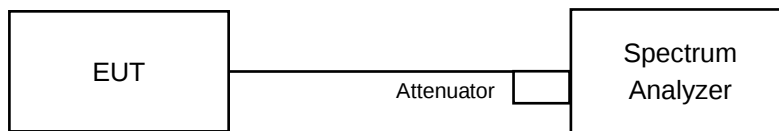
Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
177	5885	12.01	11.72	30.745	14.88	4.92	95.499	19.8	30	Pass

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	16.32	16.37	0.5	Pass
173	5865	16.34	16.38	0.5	Pass
177	5885	16.34	16.37	0.5	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
169	5845	18.96	18.88	0.5	Pass
173	5865	18.91	18.94	0.5	Pass
177	5885	18.9	18.94	0.5	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
167	5835	36.06	35.4	0.5	Pass
175	5875	35.22	35.23	0.5	Pass

802.11ax (HE80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
171	5855	75.37	75.37	0.5	Pass

802.11ax (HE160)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
163	5815	153.01	149.11	0.5	Pass

802.11ax (RU26)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
177	5885	2.14	2.1	0.5	Pass

802.11ax (RU52)

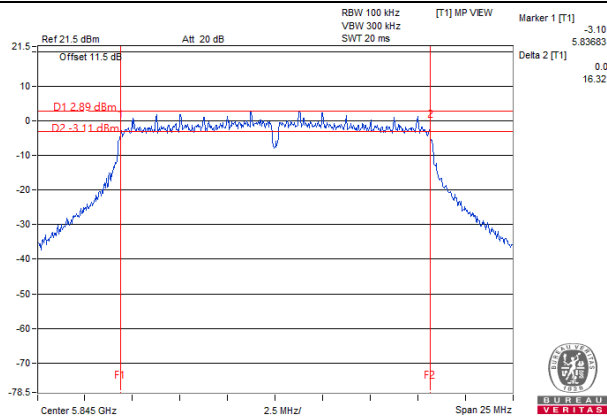
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
177	5885	17.09	17.08	0.5	Pass

802.11ax (RU106)

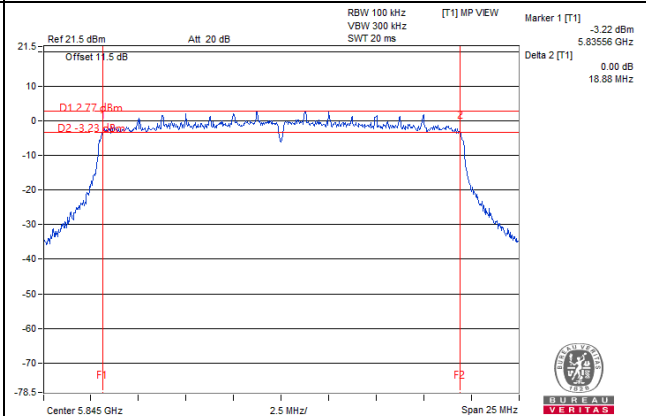
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
177	5885	17.18	17.17	0.5	Pass

Spectrum Plot of Worst Value

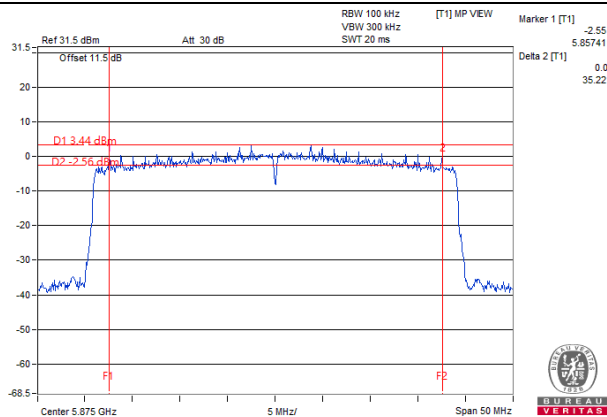
802.11a_Chain 0 / CH169



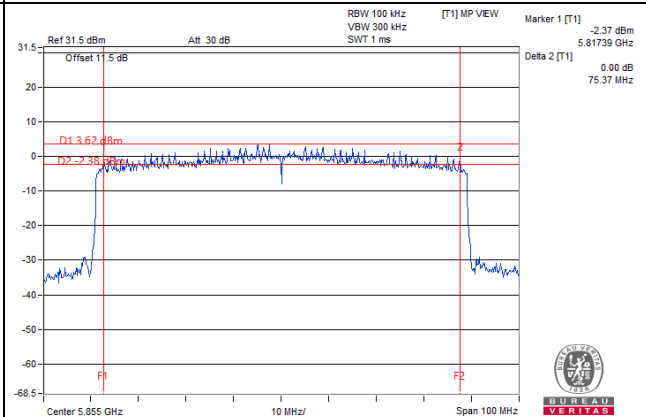
802.11ax (HE20)_Chain 1 / CH169



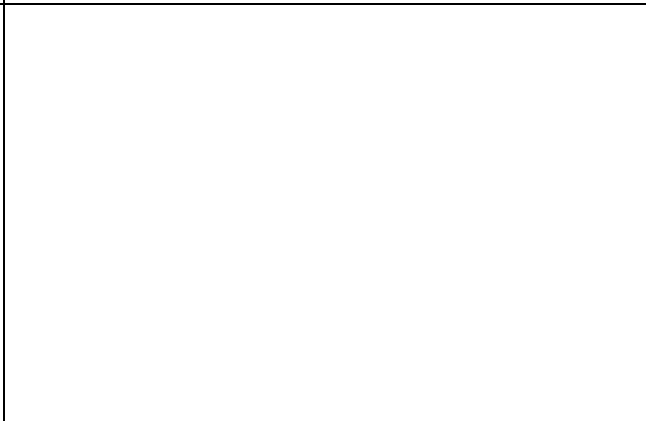
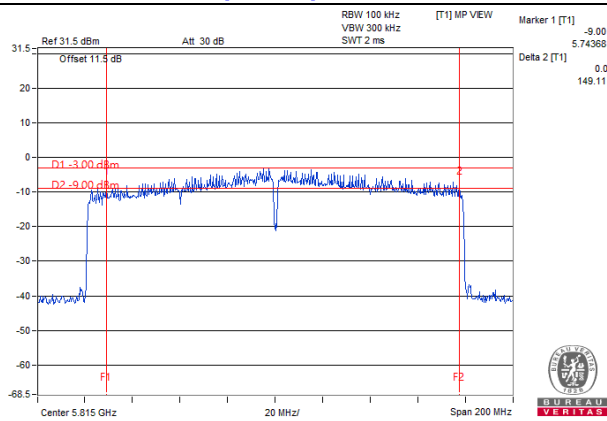
802.11ax (HE40)_Chain 0 / CH175



802.11ax (HE80)_Chain 0 / CH171

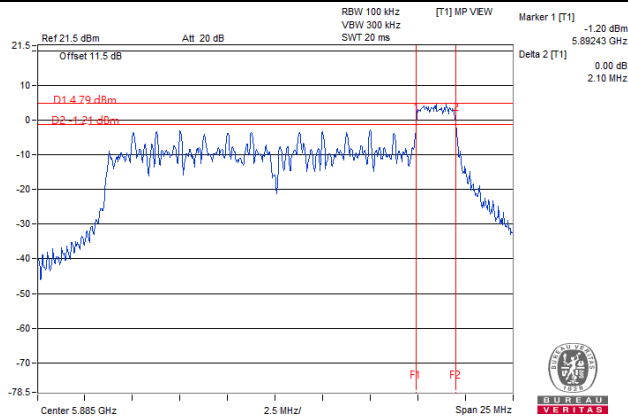


802.11ax (HE160)_Chain 1 / CH163

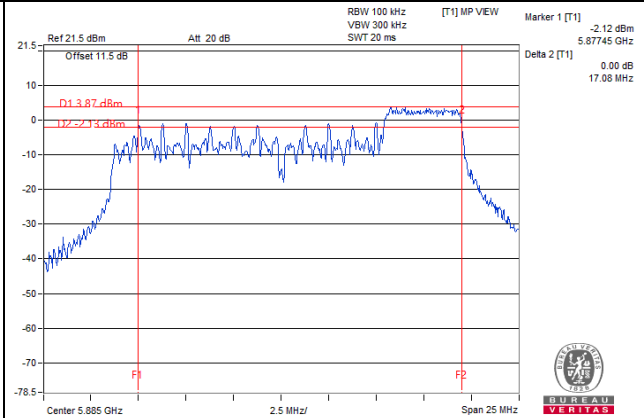


Spectrum Plot of Worst Value

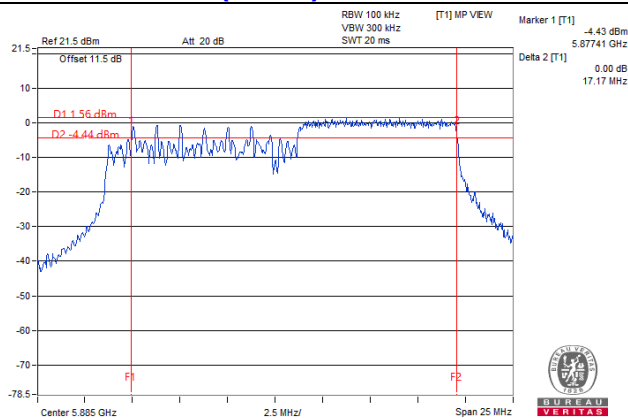
802.11ax (RU26)_Chain 1 / CH177



802.11ax (RU52)_Chain 1 / CH177



802.11ax (RU106)_Chain 1 / CH177

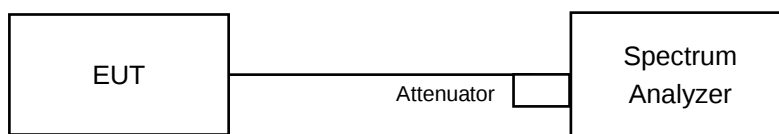


4.5 Peak Power Spectral Density Measurement

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	-2.40	-2.57	0.53	0.26	6.02	7.93	13.95	14	Pass
173	5865	-2.73	-2.76	0.27	0.26	5.76	7.93	13.69	14	Pass
177	5885	-2.78	-2.79	0.23	0.26	5.72	7.93	13.65	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	-2.68	-2.50	0.42	0.37	6.02	7.93	13.95	14	Pass
173	5865	-2.66	-2.45	0.46	0.37	6.06	7.93	13.99	14	Pass
177	5885	-2.59	-2.54	0.45	0.37	6.05	7.93	13.98	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	-2.77	-2.86	0.2	0.52	5.95	7.93	13.88	14	Pass
175	5875	-3.01	-2.77	0.12	0.52	5.87	7.93	13.8	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	-3.86	-3.98	-0.91	1	5.32	7.93	13.25	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 (HE160)

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							
163	5815	-10.64	-10.55	-7.58	1.73	-0.62	7.93	7.31	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 (RU26)

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							
177	5885	-4.69	-5.28	-1.96	1.41	4.68	7.93	12.61	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 (RU52)

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							
177	5885	-5.03	-5.18	-2.09	1.54	4.68	7.93	12.61	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.

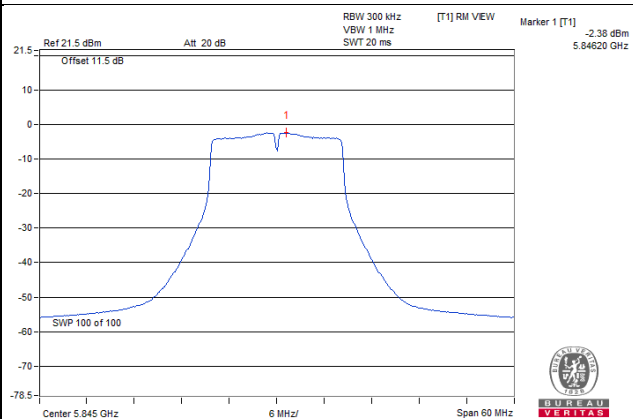
802.11ax (RU106)

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							
177	5885	-6.84	-6.97	-3.89	1.68	3.02	7.93	10.95	14	Pass

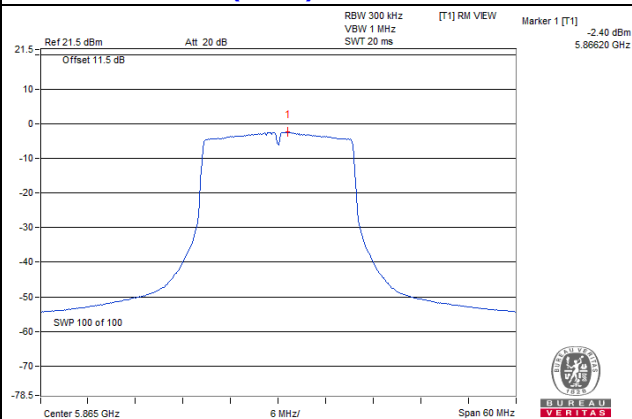
Note: Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

Spectrum Plot of Worst Value

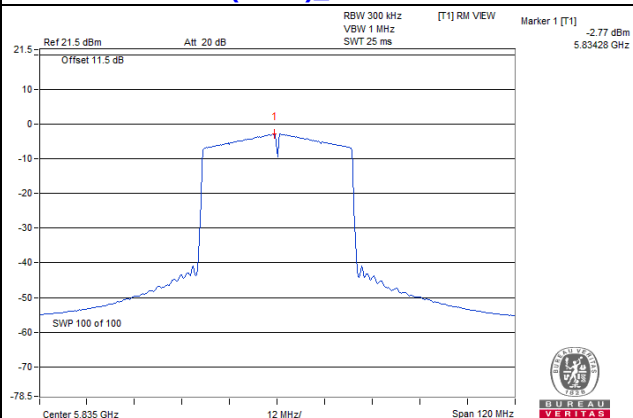
802.11a_Chain 0 / CH169



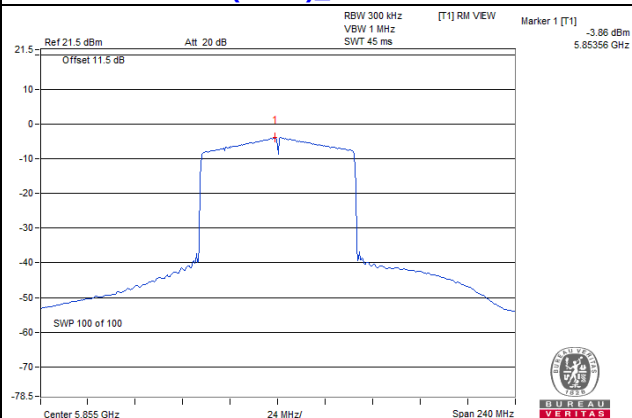
802.11ax (HE20)_Chain 1 / CH173



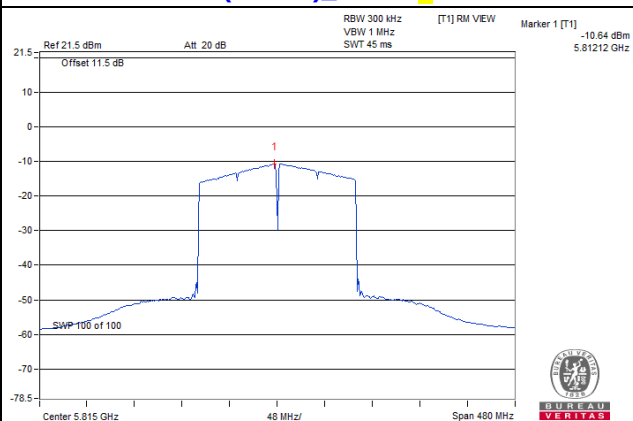
802.11ax (HE40)_Chain 0 / CH167



802.11ax (HE80)_Chain 0 / CH171

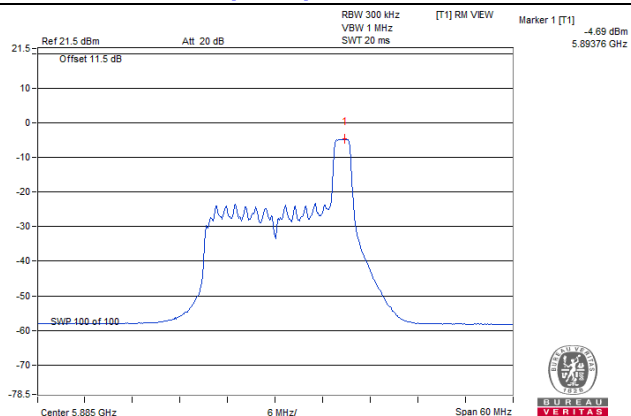


802.11ax (HE160)_Chain 0 / CH163

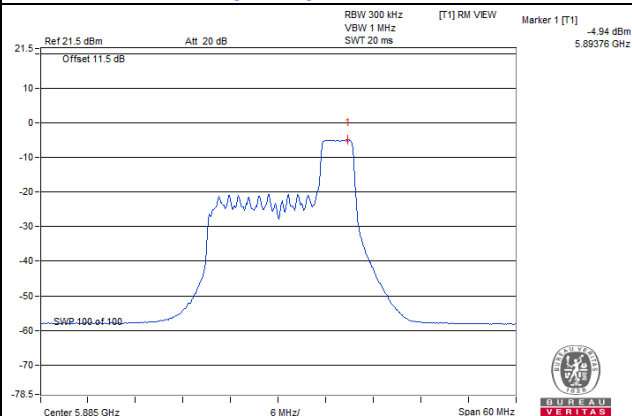


Spectrum Plot of Worst Value

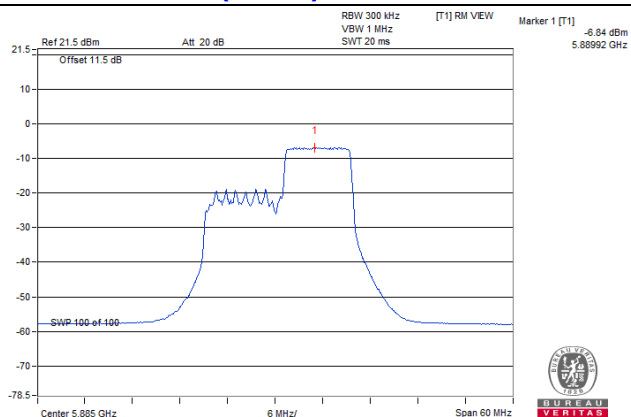
802.11ax (RU26)_Chain 0 / CH177



802.11ax (RU52)_Chain 0 / CH177



802.11ax (RU106)_Chain 0 / CH177

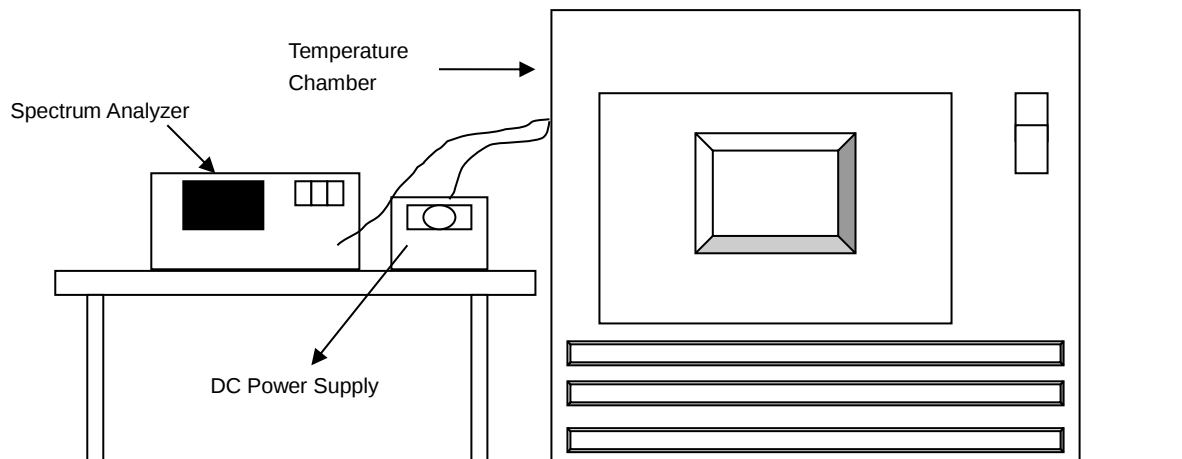


4.6 Frequency Stability Measurement

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	5864.9973	Pass	5864.997	Pass	5865.0002	Pass	5864.9992	Pass
60	3.3	5865.0135	Pass	5865.0105	Pass	5865.0112	Pass	5865.0098	Pass
50	3.3	5865.0154	Pass	5865.0164	Pass	5865.0155	Pass	5865.0192	Pass
40	3.3	5865.0129	Pass	5865.0144	Pass	5865.0115	Pass	5865.0122	Pass
30	3.3	5865.0207	Pass	5865.0177	Pass	5865.0205	Pass	5865.0227	Pass
20	3.3	5864.994	Pass	5864.9905	Pass	5864.9953	Pass	5864.9922	Pass
10	3.3	5864.9972	Pass	5864.999	Pass	5864.9979	Pass	5864.995	Pass
0	3.3	5864.9991	Pass	5864.999	Pass	5864.9989	Pass	5864.997	Pass
-10	3.3	5864.9771	Pass	5864.9761	Pass	5864.9788	Pass	5864.9759	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	5864.983	Pass	5864.9831	Pass	5864.9821	Pass	5864.9866	Pass
	3.3	5864.994	Pass	5864.9905	Pass	5864.9953	Pass	5864.9922	Pass
	2.805	5865.0001	Pass	5865.0034	Pass	5865.002	Pass	5864.9992	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).

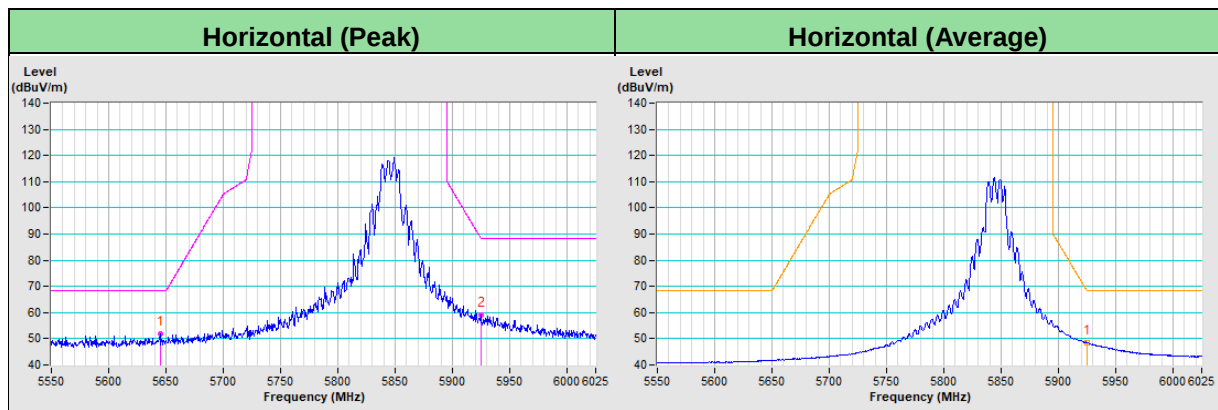
Annex A - Band-Edge Measurement

RF Mode	TX 802.11a	Channel	CH 169 : 5.845 GHz
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	#5644.77	51.9 PK	68.2	-16.3	3.01 H	91	50.3	1.6
PK.2	#5925.00	59.2 PK	88.2	-29.0	3.01 H	91	57.2	2.0
AV.1	#5925.00	48.5 AV	68.2	-19.7	3.01 H	91	46.5	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.

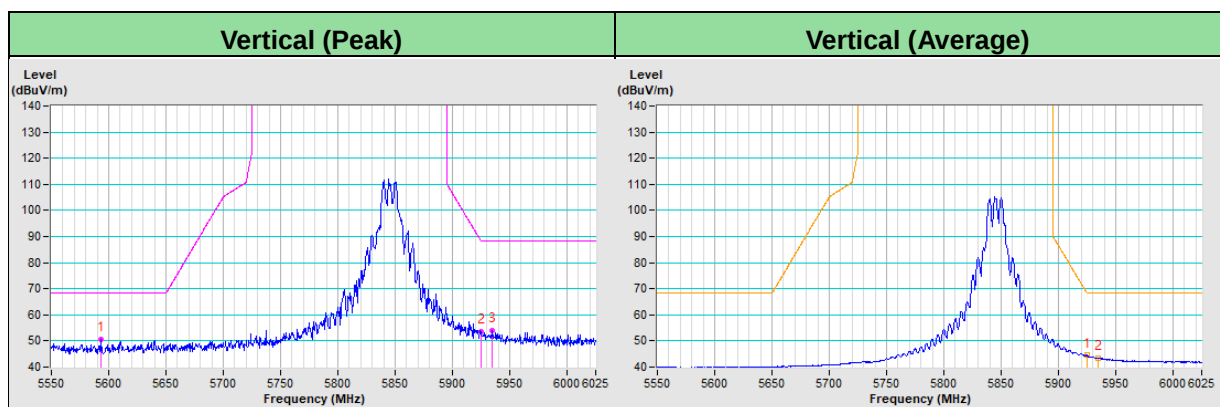


RF Mode	TX 802.11a	Channel	CH 169 : 5.845 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5593.05	50.6 PK	68.2	-17.6	1.50 V	38	49.1	1.5
PK.2	#5925.00	53.6 PK	88.2	-34.6	1.50 V	38	51.6	2.0
PK.3	#5934.83	53.9 PK	88.2	-34.3	1.50 V	38	51.9	2.0
AV.1	#5925.00	44.5 AV	68.2	-23.7	1.50 V	38	42.5	2.0
AV.2	#5934.83	43.6 AV	68.2	-24.6	1.50 V	38	41.6	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.

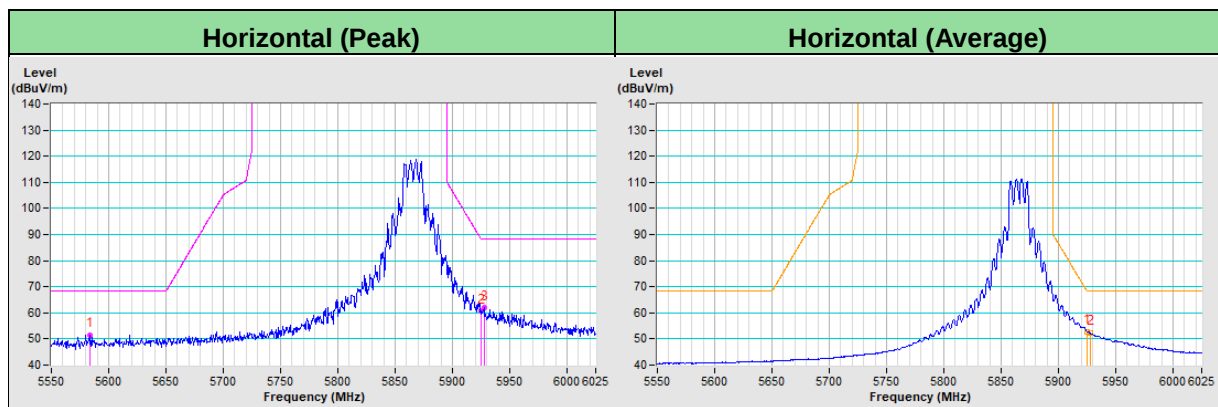


RF Mode	TX 802.11a	Channel	CH 173 : 5.865 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5584.05	51.5 PK	68.2	-16.7	3.17 H	88	50.0	1.5
PK.2	#5925.00	60.6 PK	88.2	-27.6	3.17 H	88	58.6	2.0
PK.3	#5927.52	61.9 PK	88.2	-26.3	3.17 H	88	59.9	2.0
AV.1	#5925.00	52.6 AV	68.2	-15.6	3.17 H	88	50.6	2.0
AV.2	#5927.52	52.2 AV	68.2	-16.0	3.17 H	88	50.2	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.

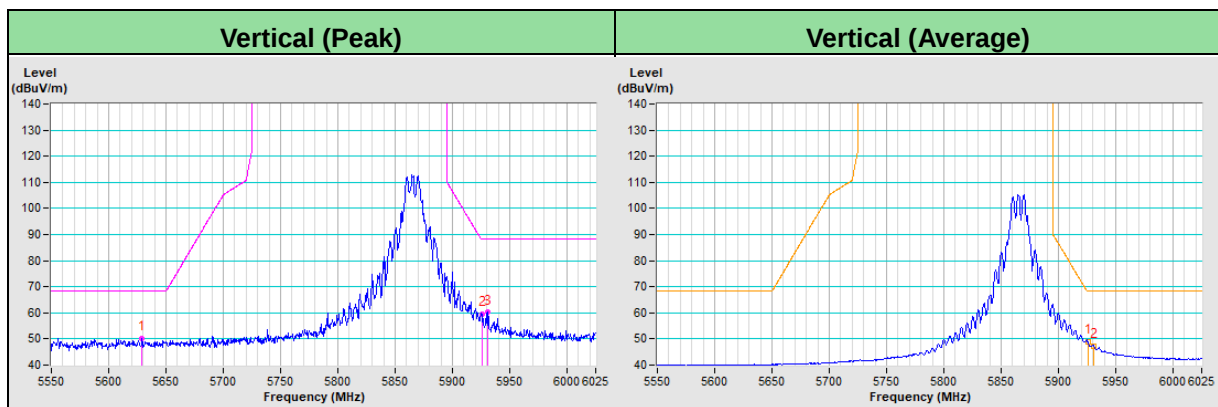


RF Mode	TX 802.11a	Channel	CH 173 : 5.865 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5628.46	50.1 PK	68.2	-18.1	1.48 V	37	48.5	1.6
PK.2	#5925.65	59.4 PK	88.2	-28.8	1.48 V	37	57.4	2.0
PK.3	#5931.13	60.2 PK	88.2	-28.0	1.48 V	37	58.2	2.0
AV.1	#5925.65	49.0 AV	68.2	-19.2	1.48 V	37	47.0	2.0
AV.2	#5931.13	47.2 AV	68.2	-21.0	1.48 V	37	45.2	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.

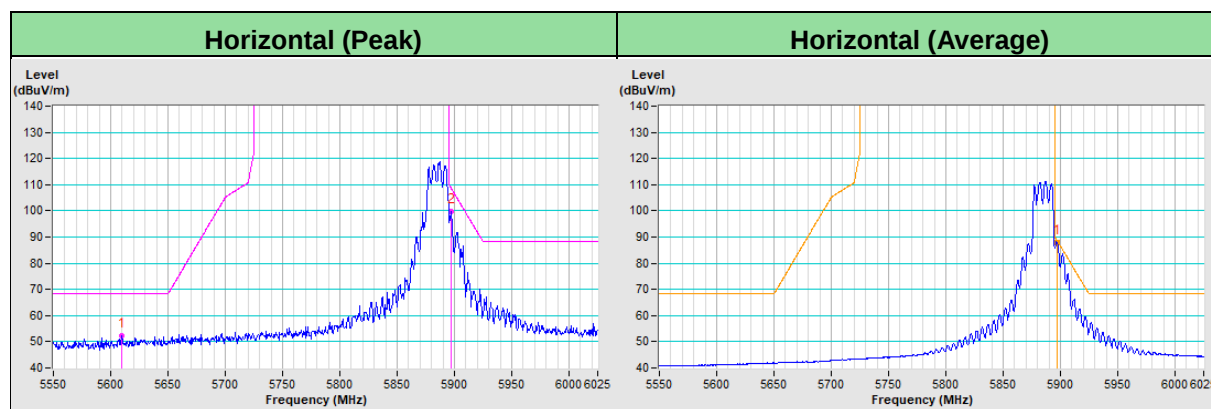


RF Mode	TX 802.11a	Channel	CH 177 : 5.885 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5609.85	52.2 PK	68.2	-16.0	3.14 H	88	50.7	1.5
PK.2	#5897.14	99.7 PK	108.6	-8.9	3.14 H	88	97.8	1.9
AV.1	#5897.14	87.8 AV	88.6	-0.8	3.14 H	88	85.9	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.

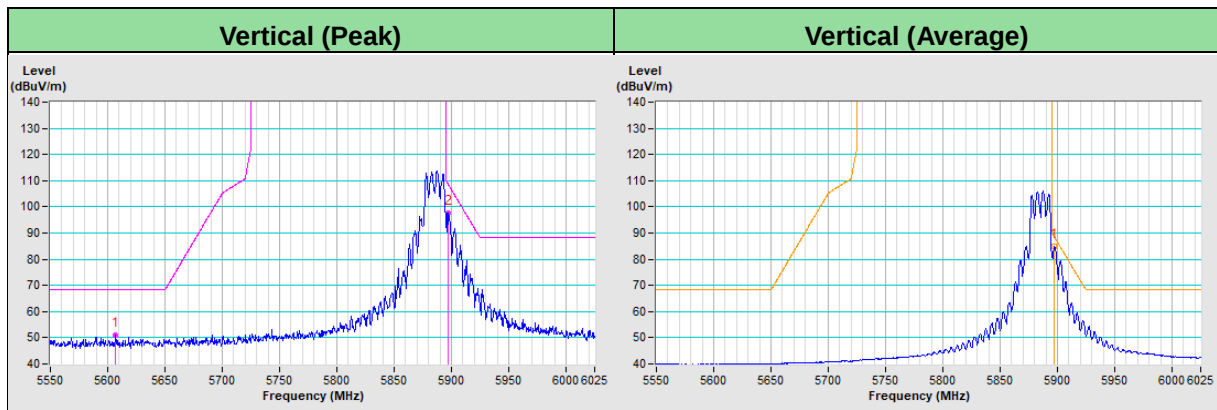


RF Mode	TX 802.11a	Channel	CH 177 : 5.885 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5607.05	51.1 PK	68.2	-17.1	1.62 V	36	49.6	1.5
PK.2	#5897.50	97.7 PK	108.4	-10.7	1.62 V	36	95.8	1.9
AV.1	#5897.50	84.9 AV	88.4	-3.5	1.62 V	36	83.0	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.

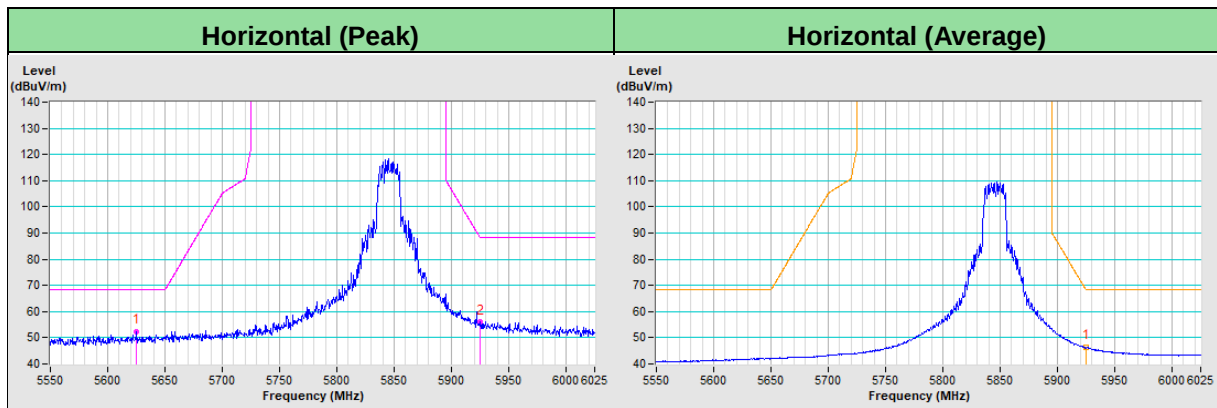


RF Mode	TX 802.11ax (HE20)	Channel	CH 169 : 5.845 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5624.62	52.3 PK	68.2	-15.9	3.12 H	92	50.7	1.6
PK.2	#5925.00	55.9 PK	88.2	-32.3	3.12 H	92	53.9	2.0
AV.1	#5925.00	46.5 AV	68.2	-21.7	3.12 H	92	44.5	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.

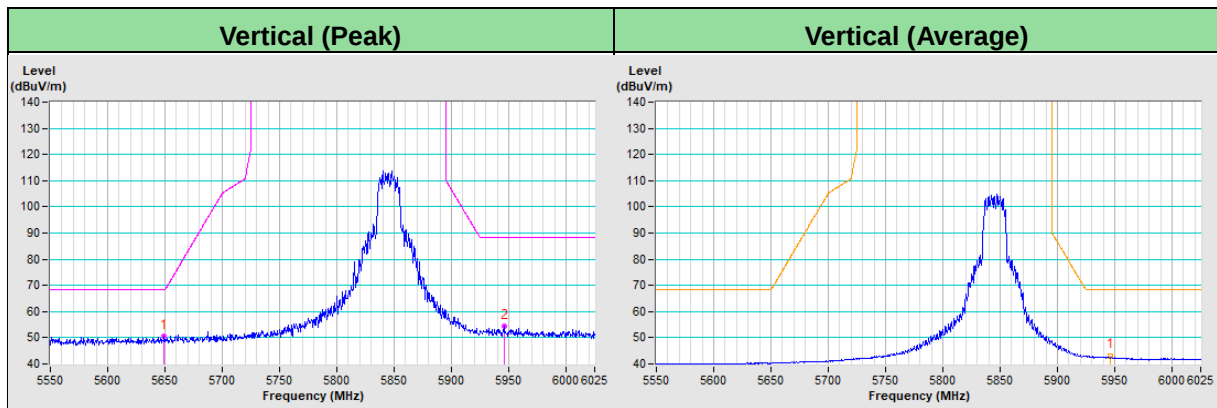


RF Mode	TX 802.11ax (HE20)	Channel	CH 169 : 5.845 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5649.49	50.4 PK	68.2	-17.8	1.45 V	36	48.8	1.6
PK.2	#5945.71	54.2 PK	88.2	-34.0	1.45 V	36	52.0	2.2
AV.1	#5945.71	42.9 AV	68.2	-25.3	1.45 V	36	40.7	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.

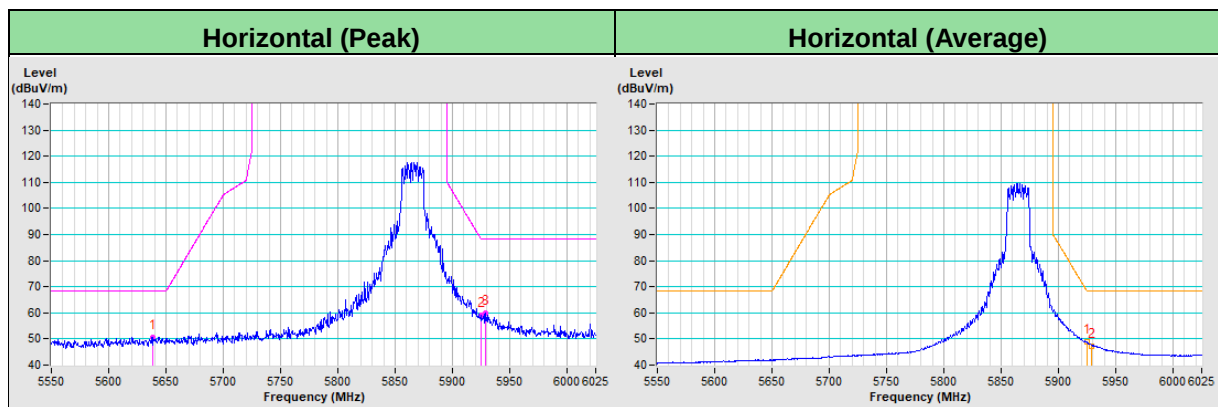


RF Mode	TX 802.11ax (HE20)	Channel	CH 173 : 5.865 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5638.92	50.5 PK	68.2	-17.7	3.14 H	90	48.9	1.6
PK.2	#5925.00	59.1 PK	88.2	-29.1	3.14 H	90	57.1	2.0
PK.3	#5929.17	59.9 PK	88.2	-28.3	3.14 H	90	57.9	2.0
AV.1	#5925.00	48.8 AV	68.2	-19.4	3.14 H	90	46.8	2.0
AV.2	#5929.17	47.4 AV	68.2	-20.8	3.14 H	90	45.4	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.

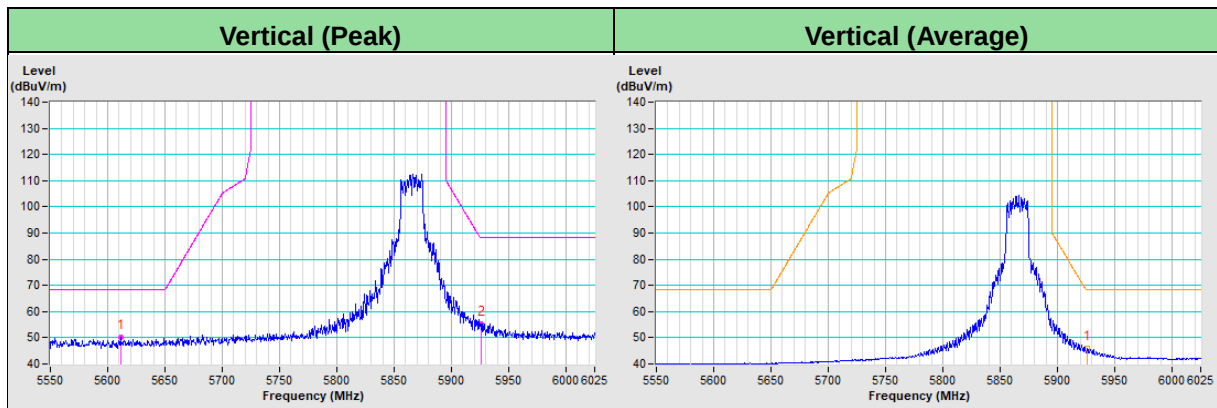


RF Mode	TX 802.11ax (HE20)	Channel	CH 173 : 5.865 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5611.17	50.1 PK	68.2	-18.1	1.40 V	36	48.6	1.5
PK.2	#5926.38	55.4 PK	88.2	-32.8	1.40 V	36	53.4	2.0
AV.1	#5926.38	46.1 AV	68.2	-22.1	1.40 V	36	44.1	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.

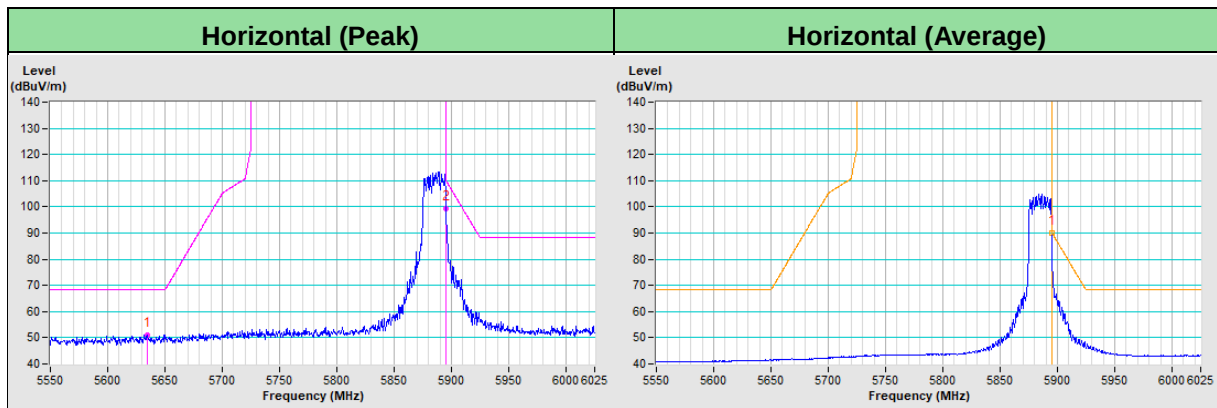


RF Mode	TX 802.11ax (HE20)	Channel	CH 177 : 5.885 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5634.51	51.0 PK	68.2	-17.2	3.08 H	91	49.4	1.6
PK.2	#5895.00	99.3 PK	110.2	-10.9	3.08 H	91	97.4	1.9
AV.1	#5895.00	90.0 AV	90.2	-0.2	3.08 H	91	88.1	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.

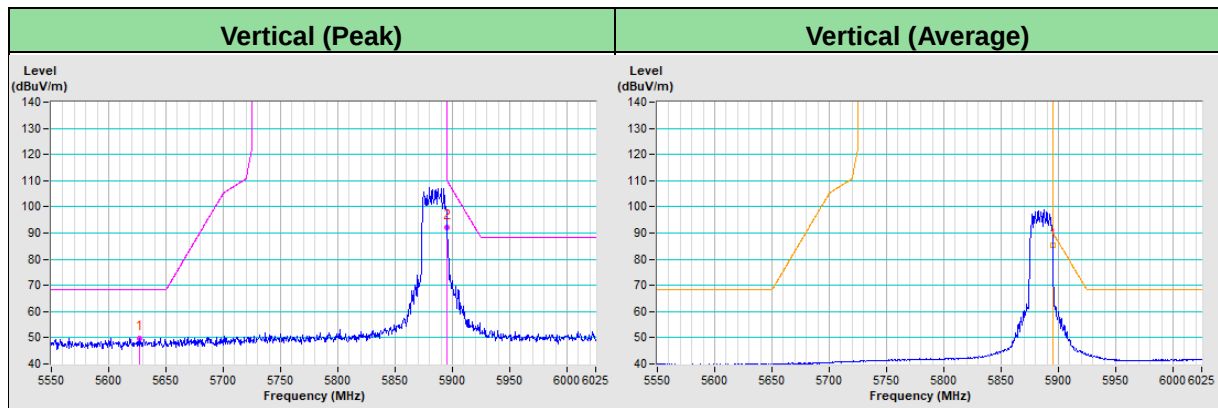


RF Mode	TX 802.11ax (HE20)	Channel	CH 177 : 5.885 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5626.62	49.9 PK	68.2	-18.3	1.61 V	38	48.3	1.6
PK.2	#5895.00	92.1 PK	110.2	-18.1	1.61 V	38	90.2	1.9
AV.1	#5895.00	85.2 AV	90.2	-5.0	1.61 V	38	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.

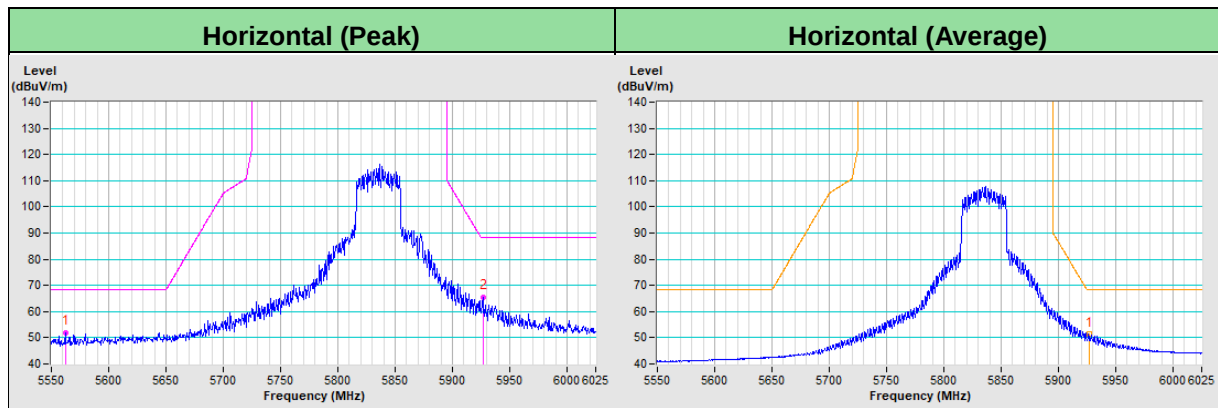


RF Mode	TX 802.11ax (HE40)	Channel	CH 167 : 5.835 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5562.12	51.9 PK	68.2	-16.3	3.12 H	89	50.5	1.4
PK.2	#5926.50	65.5 PK	88.2	-22.7	3.12 H	89	63.5	2.0
AV.1	#5926.50	51.3 AV	68.2	-16.9	3.12 H	89	49.3	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.

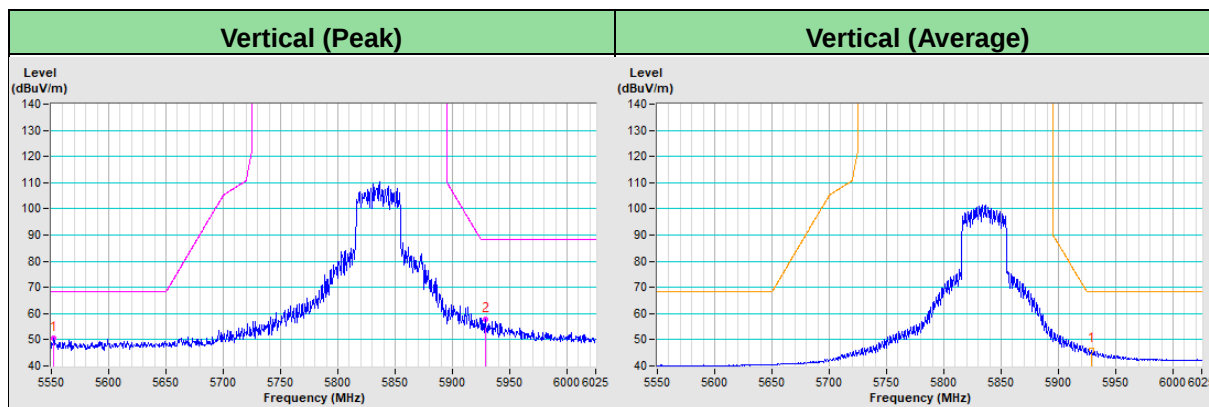


RF Mode	TX 802.11ax (HE40)	Channel	CH 167 : 5.835 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5551.95	50.4 PK	68.2	-17.8	1.48 V	36	49.1	1.3
PK.2	#5928.73	57.6 PK	88.2	-30.6	1.48 V	36	55.6	2.0
AV.1	#5928.73	46.0 AV	68.2	-22.2	1.48 V	36	44.0	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.

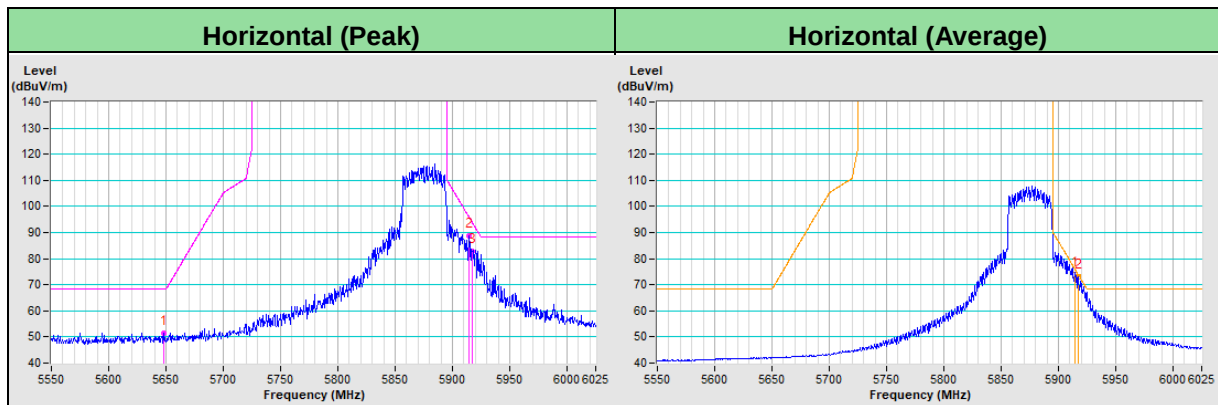


RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5.875 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5648.11	51.5 PK	68.2	-16.7	3.03 H	95	49.9	1.6
PK.2	#5914.35	88.9 PK	96.0	-7.1	3.03 H	95	86.9	2.0
PK.3	#5917.41	82.7 PK	93.8	-11.1	3.03 H	95	80.7	2.0
AV.1	#5914.35	74.1 AV	76.0	-1.9	3.03 H	95	72.1	2.0
AV.2	#5917.41	73.0 AV	73.8	-0.8	3.03 H	95	71.0	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.

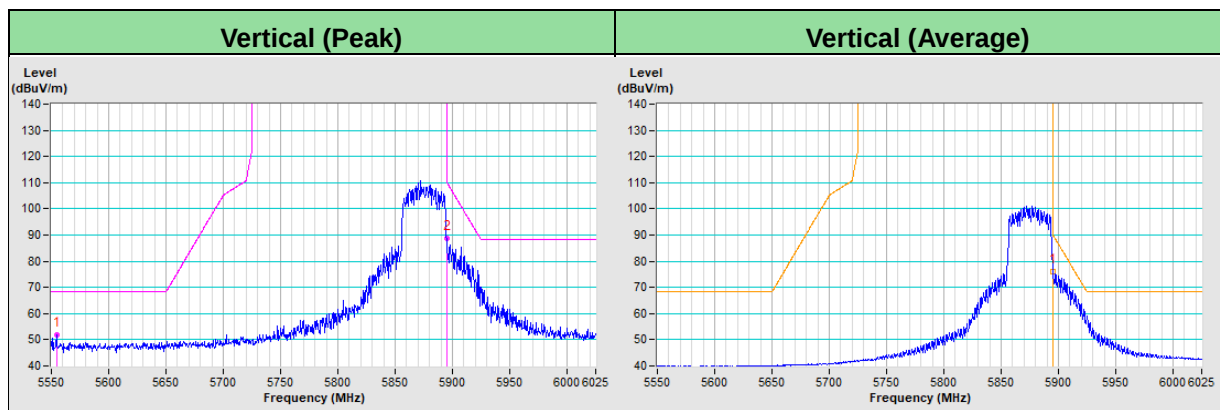


RF Mode	TX 802.11ax (HE40)	Channel	CH 175 : 5.875 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5554.64	51.9 PK	68.2	-16.3	1.67 V	38	50.6	1.3
PK.2	#5895.00	88.8 PK	110.2	-21.4	1.67 V	38	86.9	1.9
AV.1	#5895.00	76.2 AV	90.2	-14.0	1.67 V	38	74.3	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.

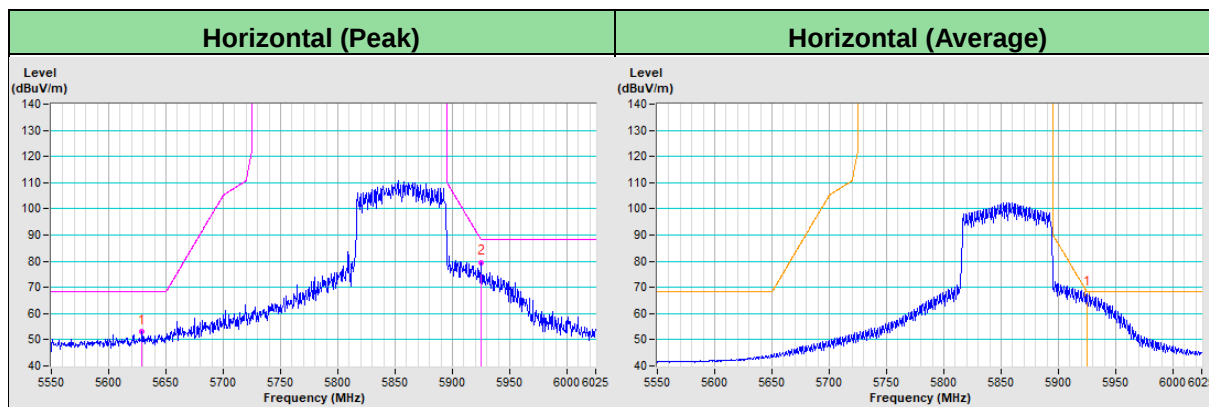


RF Mode	TX 802.11ax (HE80)	Channel	CH 171 : 5.855 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5629.18	53.0 PK	68.2	-15.2	3.13 H	94	51.4	1.6
PK.2	#5924.62	79.6 PK	88.5	-8.9	3.13 H	94	77.6	2.0
AV.1	#5924.62	67.7 AV	68.5	-0.8	3.13 H	94	65.7	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.

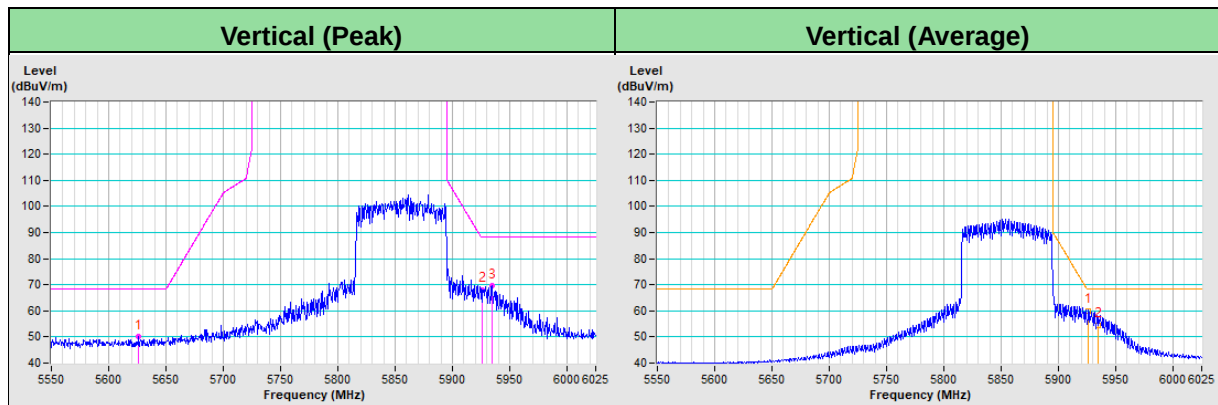


RF Mode	TX 802.11ax (HE80)	Channel	CH 171 : 5.855 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5626.38	50.0 PK	68.2	-18.2	1.49 V	35	48.4	1.6
PK.2	#5926.33	68.1 PK	88.2	-20.1	1.49 V	35	66.1	2.0
PK.3	#5934.70	69.5 PK	88.2	-18.7	1.49 V	35	67.5	2.0
AV.1	#5926.33	60.1 AV	68.2	-8.1	1.49 V	35	58.1	2.0
AV.2	#5934.70	54.4 AV	68.2	-13.8	1.49 V	35	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.

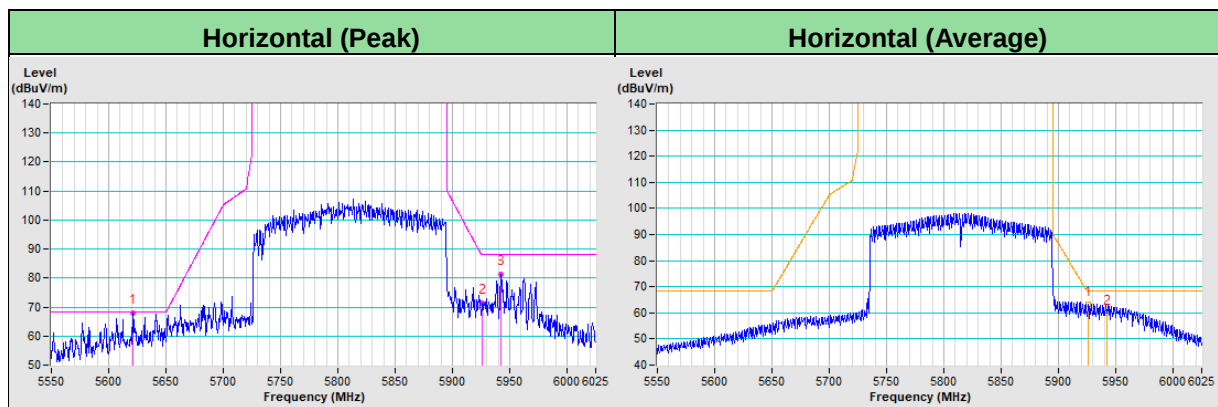


RF Mode	TX 802.11ax (HE160)	Channel	CH 163 : 5.815 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5621.40	68.0 PK	68.2	-0.2	3.19 H	92	66.5	1.5
PK.2	#5926.24	71.2 PK	88.2	-17.0	3.19 H	92	69.2	2.0
PK.3	#5942.46	81.4 PK	88.2	-6.8	3.19 H	92	79.2	2.2
AV.1	#5926.24	63.3 AV	68.2	-4.9	3.19 H	92	61.3	2.0
AV.2	#5942.46	59.8 AV	68.2	-8.4	3.19 H	92	57.6	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.

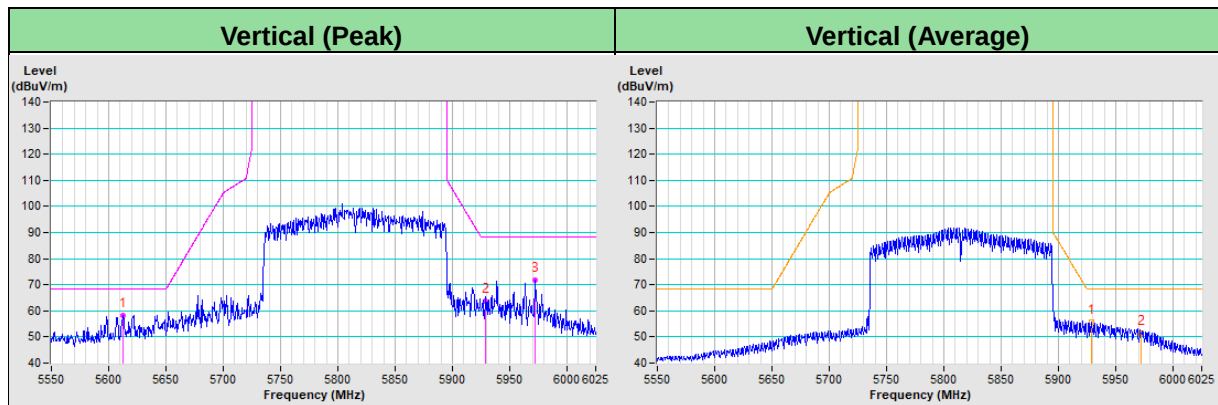


RF Mode	TX 802.11ax (HE160)	Channel	CH 163 : 5.815 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5612.83	58.3 PK	68.2	-9.9	1.50 V	36	56.8	1.5
PK.2	#5928.77	63.7 PK	88.2	-24.5	1.50 V	36	61.7	2.0
PK.3	#5972.49	71.9 PK	88.2	-16.3	1.50 V	36	69.7	2.2
AV.1	#5928.77	55.6 AV	68.2	-12.6	1.50 V	36	53.6	2.0
AV.2	#5972.49	51.6 AV	68.2	-16.6	1.50 V	36	49.4	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.

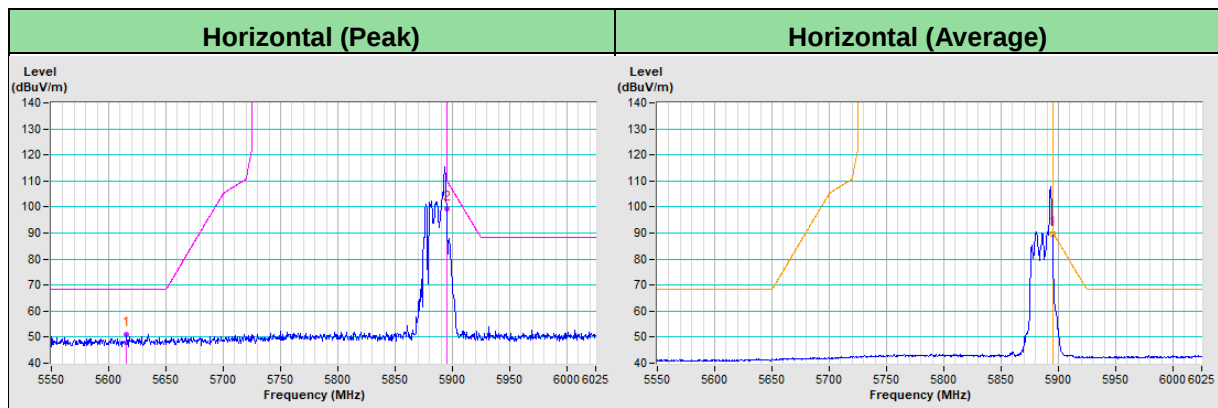


RF Mode	TX 802.11ax (RU26)	Channel	CH 177 : 5.885 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5615.66	51.0 PK	68.2	-17.2	3.14 H	84	49.5	1.5
PK.2	#5895.00	99.2 PK	110.2	-11.0	3.14 H	84	97.3	1.9
AV.1	#5895.00	89.7 AV	90.2	-0.5	3.14 H	84	87.8	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.

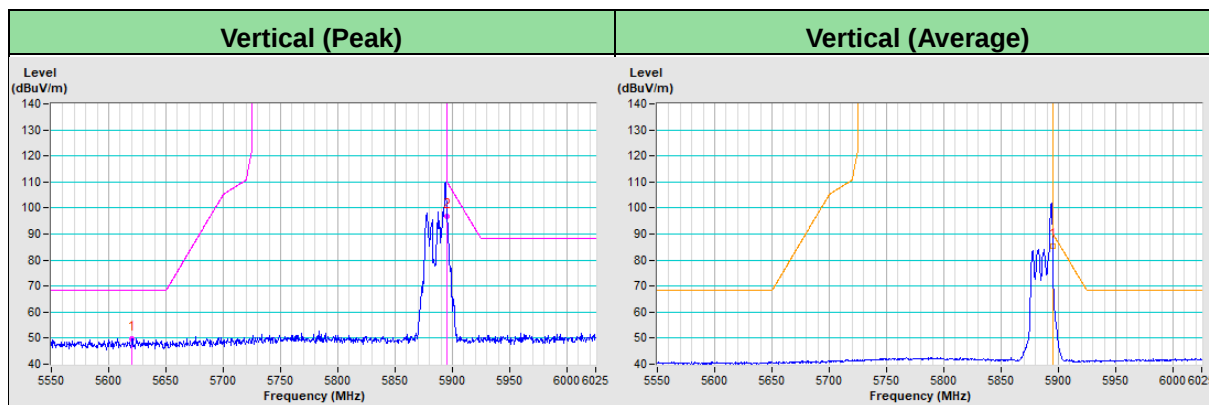


RF Mode	TX 802.11ax (RU26)	Channel	CH 177 : 5.885 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5620.07	49.7 PK	68.2	-18.5	1.67 V	37	48.2	1.5
PK.2	#5895.00	96.7 PK	110.2	-13.5	1.67 V	37	94.8	1.9
AV.1	#5895.00	85.5 AV	90.2	-4.7	1.67 V	37	83.6	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.

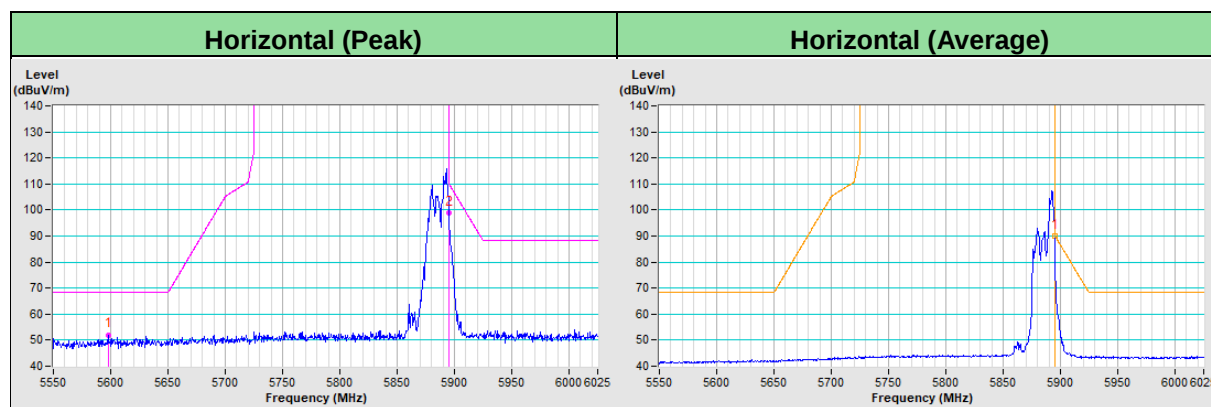


RF Mode	TX 802.11ax (RU52)	Channel	CH 177 : 5.885 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5597.80	51.8 PK	68.2	-16.4	3.13 H	88	50.3	1.5
PK.2	#5895.00	98.7 PK	110.2	-11.5	3.13 H	88	96.8	1.9
AV.1	#5895.00	89.8 AV	90.2	-0.4	3.13 H	88	87.9	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.

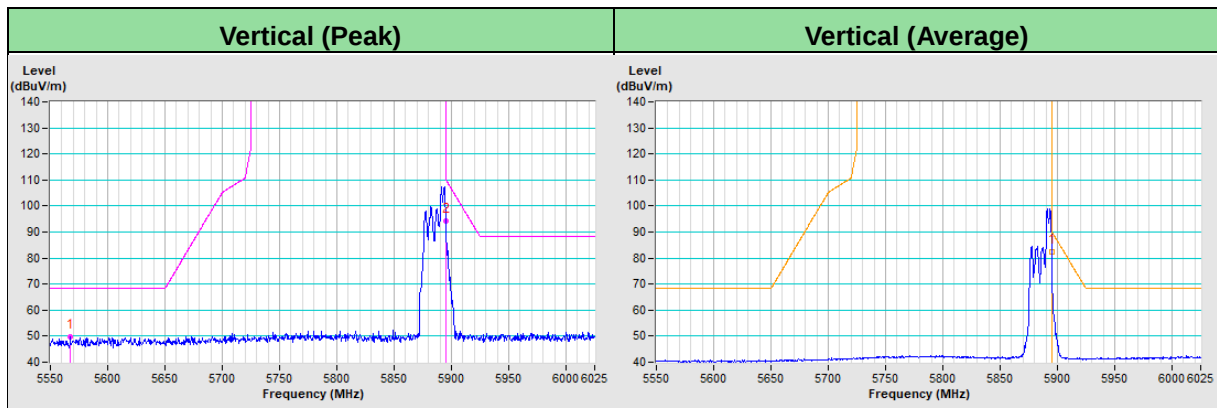


RF Mode	TX 802.11ax (RU52)	Channel	CH 177 : 5.885 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5567.49	49.8 PK	68.2	-18.4	1.63 V	38	48.4	1.4
PK.2	#5895.00	94.2 PK	110.2	-16.0	1.63 V	38	92.3	1.9
AV.1	#5895.00	82.4 AV	90.2	-7.8	1.63 V	38	80.5	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.

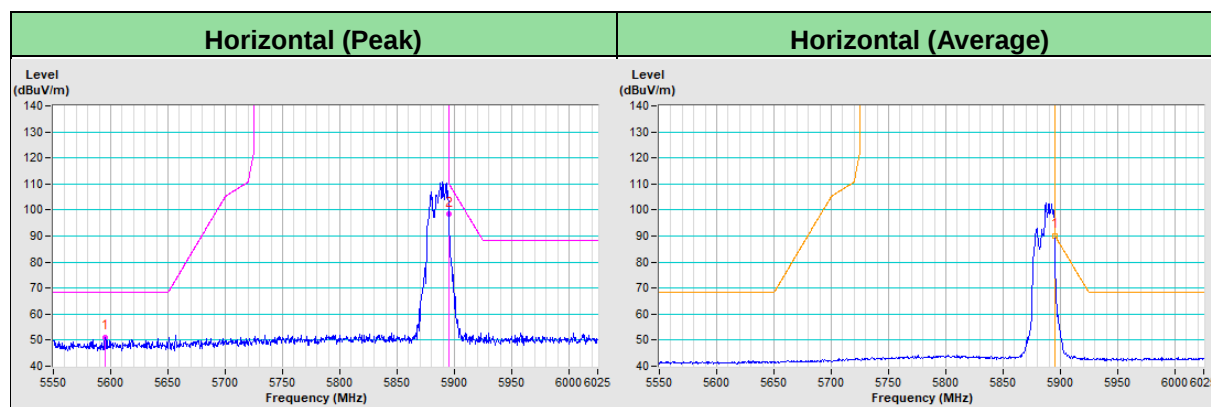


RF Mode	TX 802.11ax (RU106)	Channel	CH 177 : 5.885 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5595.34	50.9 PK	68.2	-17.3	3.03 H	92	49.4	1.5
PK.2	#5895.00	98.3 PK	110.2	-11.9	3.03 H	92	96.4	1.9
AV.1	#5895.00	90.0 AV	90.2	-0.2	3.03 H	92	88.1	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.

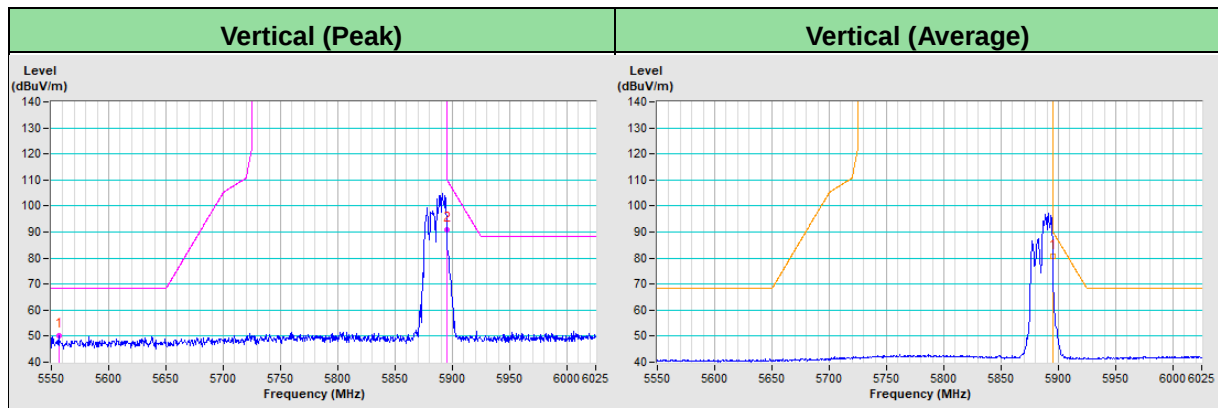


RF Mode	TX 802.11ax (RU106)	Channel	CH 177 : 5.885 GHz
Frequency Range	5550MHz ~ 6025MHz	Detector Function	Peak (PK) Average (AV)

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	#5556.56	50.1 PK	68.2	-18.1	1.60 V	37	48.8	1.3
PK.2	#5895.00	90.9 PK	110.2	-19.3	1.60 V	37	89.0	1.9
AV.1	#5895.00	80.5 AV	90.2	-9.7	1.60 V	37	78.6	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.



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.

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

Lin Kou EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

--- END ---