

TEST REPORT

CERTIFICATE OF CONFORMITY

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

Report No.: RFBHQZ-WTW-P26060674-2

FCC ID: 2AWHPR261

Product: Starlink Router

Brand: SPACEX, SPACEX, X, STARLINK

Model No.: UTR-261

Received Date: 2026/6/26

Test Date: 2026/7/16 ~ 2026/8/4

Issued Date: 2026/8/7

Applicant: Space Exploration Technologies Corp. (SPACEX)

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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FCC Registration / 723255 / TW2022

Designation Number:

Approved by: _____

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, Date: _____

2026/8/7

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Prepared by : Phoenix Huang / Specialist



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Release Control Record

Issue No.	Description	Date Issued
RFBHQZ-WTW-P26060674-2	Original release.	2026/8/7

1 Certificate

Product: Starlink Router

Brand: SPACEX, *SPACEX*, *X*, STARLINK

Test Model: UTR-261

Sample Status: Engineering sample

Applicant: Space Exploration Technologies Corp. (SPACEX)

Test Date: 2026/7/16 ~ 2026/8/4

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

Measurement procedure: ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024
KDB 291074 D02 EMC Measurement v01
KDB 789033 D02 General UNII Test Procedure New Rules v02r01
KDB 662911 D01 Multiple Transmitter Output v02r01

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

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
Clause	Test Item	Result	Remark
15.407(a)(3)	RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(3)	Power Spectral Density	Pass	Meet the requirement of limit.
15.407(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -12.71 dB at 0.86094 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -4.4 dB at 138.86 MHz
15.407(b)(5) 15.407(b)(10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -2.4 dB at 5650.00 MHz
15.407(e)	6 dB Bandwidth	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is ipex(MHF) not a standard connector.

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

2.1 Measurement Uncertainty

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

Measurement	Specification	Expanded Uncertainty (k=2) (±)
RF Output Power	-	1.1 dB
Power Spectral Density	-	1.3 dB
6 dB Bandwidth	-	1050.00 Hz
AC Power Conducted Emissions	150 kHz ~ 30 MHz	1.9 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.1 dB
	30 MHz ~ 1 GHz	5.4 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	5.0 dB
	18 GHz ~ 40 GHz	5.3 dB

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Starlink Router
Brand	SPACE X, STARLINK
Test Model	UTR-261
Status of EUT	Engineering sample
Input Rating	20 Vdc, 1.5A ; 15 Vdc, 2A ; 57 Vdc, 0.5A
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode 1024QAM for OFDMA in 11ax mode 4096QAM for OFDMA in 11be mode
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: up to 54 Mbps 802.11n: up to 600 Mbps 802.11ac: up to 3120.0 Mbps 802.11ax: up to 4323.5 Mbps 802.11be: up to 5188.2 Mbps
Operating Frequency	5.815 GHz ~ 5.885 GHz
Number of Channel	802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20), 802.11be (EHT20): 3 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40), 802.11be (EHT40): 2 802.11ac (VHT80), 802.11ax (HE80), 802.11be (EHT80): 1 802.11ac (VHT160), 802.11ax (HE160), 802.11be (EHT160): 1
Partial RU Mode	Not support
Channel Puncturing	Not support
Output Power	CDD: EIRP: 2264.947 mW (33.55 dBm) Beamforming: EIRP: 2264.947 mW (33.55 dBm)
EUT Category	Indoor access point

Note:

1. The EUT uses following accessories.

Item	Brand	Model	Specification
AC Adapter	STARLINK	UTP-271L	AC Input: 100-240 Vac, 1.5A, 50/60 Hz DC Output: 5.0 Vdc, 3.0A ; 9.0 Vdc, 3.0A ; 15.0 Vdc, 3.0 A ; 20.0 Vdc, 3.0 A LPS
PoE Adapter	STARLINK	UTP-253L	AC Input: 100-240 V~, 2.5 A, 50/60 Hz DC Output: 57 V, 1.75A(x2) LPS(MAX 195 W)
AC Power Cable	STARLINK	-	Signal Line: 1.6 m, non-shielded
RJ45 Cable 1	STARLINK	-	CAT5E: 2 m, shielded
RJ45 Cable 2	STARLINK	-	CAT5E: 15 m, shielded

2. There are WLAN (2.4 GHz & 5 GHz) technology used for the EUT.

3. Simultaneously transmission combination.

Combination	Technology	
1	WLAN (2.4 GHz)	WLAN (5 GHz)

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

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

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna NO.	RF Chain NO.	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type
1	0	3.6	2.4~2.4835	PCB	ipex(MHF)
2	1	4.04	2.4~2.4835	PCB	ipex(MHF)
3	2	3.43	2.4~2.4835	PCB	ipex(MHF)
4	3	3.38	2.4~2.4835	PCB	ipex(MHF)
5	0	1.17	5.15~5.25	PCB	ipex(MHF)
		1.31	5.25~5.35		
		2.29	5.47~5.725		
		0.81	5.725~5.85		
		1.32	5.85~5.895		
6	1	3.03	5.15~5.25	PCB	ipex(MHF)
		3.19	5.25~5.35		
		2.87	5.47~5.725		
		2.90	5.725~5.85		
		2.57	5.85~5.895		
7	2	2.83	5.15~5.25	PCB	ipex(MHF)
		2.89	5.25~5.35		
		2.52	5.47~5.725		
		2.13	5.725~5.85		
		1.72	5.85~5.895		
8	3	3.38	5.15~5.25	PCB	ipex(MHF)
		3.38	5.25~5.35		
		3.66	5.47~5.725		
		3.47	5.725~5.85		
		3.28	5.85~5.895		
9	4	1.86	5.15~5.25	PCB	ipex(MHF)
		2.20	5.25~5.35		
		3.44	5.47~5.725		
		1.56	5.725~5.85		
		2.22	5.85~5.895		

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

2. The directional gain table:

Frequency Range (GHz)	Directional Antenna Gain (dBi)
2.4~2.4835	6.11
5.15 ~ 5.25	5.73
5.725 ~ 5.85	5.91
5.85~5.895	5.90

3. The EUT incorporates a MIMO function:

5 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11a	5TX	5RX
802.11n (HT20)	5TX	5RX
802.11n (HT40)	5TX	5RX
802.11ac (VHT20)	5TX	5RX
802.11ac (VHT40)	5TX	5RX
802.11ac (VHT80)	5TX	5RX
802.11ac (VHT160)	5TX	5RX
802.11ax (HE20)	5TX	5RX
802.11ax (HE40)	5TX	5RX
802.11ax (HE80)	5TX	5RX
802.11ax (HE160)	5TX	5RX
802.11be (EHT20)	5TX	5RX
802.11be (EHT40)	5TX	5RX
802.11be (EHT80)	5TX	5RX
802.11be (EHT160)	5TX	5RX

Note:

1. All of modulation mode support beamforming function except 802.11a modulation mode.
2. The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
3. After investigation, 802.11be mode 20 MHz (40 MHz, 80 MHz, 160 MHz) represents the worst mode in the report since the power setting is the same or higher than 802.11n mode 20 MHz (40 MHz) and 802.11ac/ax mode 20 MHz (40 MHz, 80 MHz, 160 MHz), and the modulation type and bandwidth are all similar.

3.3 Channel List

3 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20), 802.11be (EHT20):

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

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40), 802.11be (EHT40):

Channel	Frequency	Channel	Frequency
*167	5835 MHz	175	5875 MHz

1 channel is provided for 802.11ac (VHT80), 802.11ax (HE80), 802.11be (EHT80):

Channel	Frequency
*171	5855 MHz

1 channel is provided for 802.11ac (VHT160), 802.11ax (HE160), 802.11be (EHT160):

Channel	Frequency
*163	5815 MHz

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

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. EUT has the following operations/ usages: AC Adapter(UTP-271L)/ POE(UTP-253L). Pre-scan these operations/ usages and find the worst case as a representative test condition. 2. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
Worst Case:	1. POE/ AC Adapter worst condition: POE(UTP-253L)

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

Test Item	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
RF Output Power	802.11a	CDD	169, 173, 177	BPSK	6Mb/s
	802.11be (EHT20)	CDD & Beamforming	169, 173, 177	BPSK	MCS0
	802.11be (EHT40)	CDD & Beamforming	167, 175	BPSK	MCS0
	802.11be (EHT80)	CDD & Beamforming	171	BPSK	MCS0
	802.11be (EHT160)	CDD & Beamforming	163	BPSK	MCS0
Power Spectral Density	802.11a	CDD	169, 173, 177	BPSK	6Mb/s
	802.11be (EHT20)	CDD	169, 173, 177	BPSK	MCS0
	802.11be (EHT40)	CDD	167, 175	BPSK	MCS0
	802.11be (EHT80)	CDD	171	BPSK	MCS0
	802.11be (EHT160)	CDD	163	BPSK	MCS0
6 dB Bandwidth	802.11a	CDD	169, 173, 177	BPSK	6Mb/s
	802.11be (EHT20)	CDD	169, 173, 177	BPSK	MCS0
	802.11be (EHT40)	CDD	167, 175	BPSK	MCS0
	802.11be (EHT80)	CDD	171	BPSK	MCS0
	802.11be (EHT160)	CDD	163	BPSK	MCS0
AC Power Conducted Emissions	802.11be (EHT40)	CDD	175	BPSK	MCS0
Unwanted Emissions below 1 GHz	802.11be (EHT40)	CDD	175	BPSK	MCS0
Unwanted Emissions above 1 GHz	802.11a	CDD	169, 173, 177	BPSK	6Mb/s
	802.11be (EHT20)	CDD	169, 173, 177	BPSK	MCS0
	802.11be (EHT40)	CDD	167, 175	BPSK	MCS0
	802.11be (EHT80)	CDD	171	BPSK	MCS0
	802.11be (EHT160)	CDD	163	BPSK	MCS0

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

3.5 Duty Cycle of Test Signal

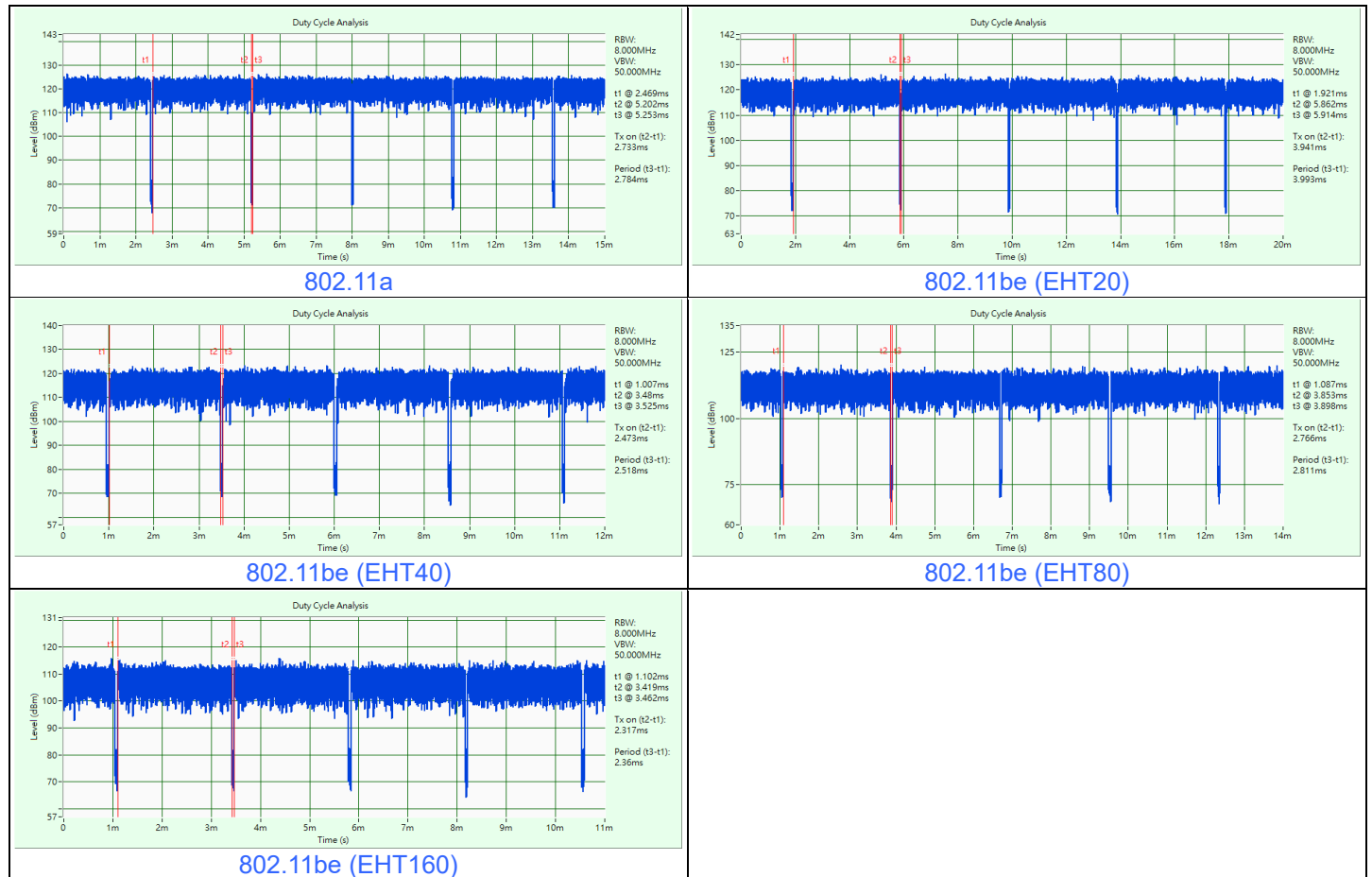
802.11a: Duty cycle = 2.733 ms / 2.784 ms x 100% = 98.2%

802.11be (EHT20): Duty cycle = 3.941 ms / 3.993 ms x 100% = 98.7%

802.11be (EHT40): Duty cycle = 2.473 ms / 2.518 ms x 100% = 98.2%

802.11be (EHT80): Duty cycle = 2.766 ms / 2.811 ms x 100% = 98.4%

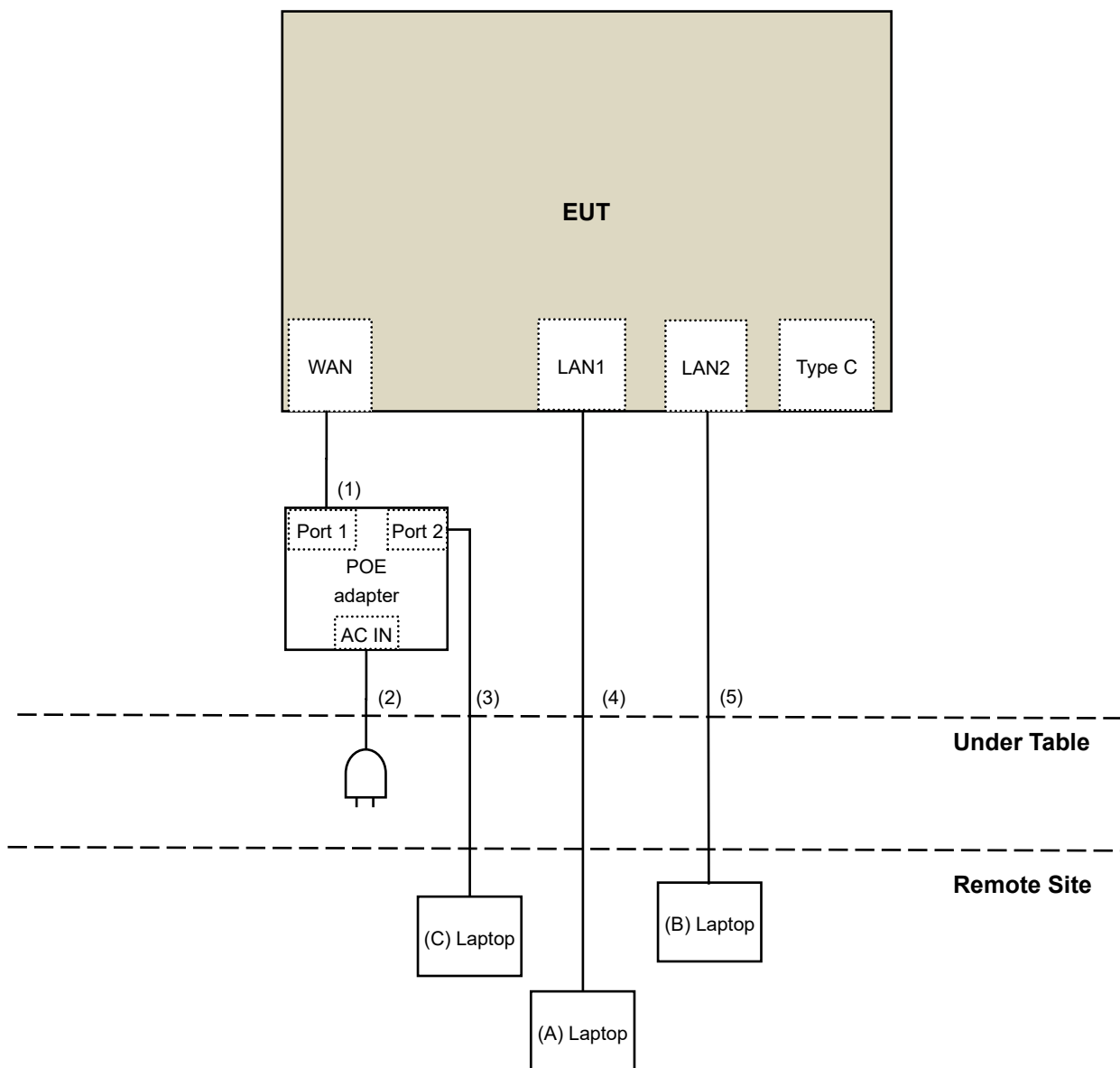
802.11be (EHT160): Duty cycle = 2.317 ms / 2.36 ms x 100% = 98.2%



3.6 Test Program Used and Operation Descriptions

Controlling software (QATool_20260409_mt76) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Laptop	Lenovo	81A4	YD02YN2A	PD93165N GU	Provided by Lab
B	Laptop	Lenovo	L480	RF1PRC03	N/A	Provided by Lab
C	Laptop	DELL	E6230	G94PSY1	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	RJ-45 Cable	1	2	Yes	0	Supplied by applicant
2	AC Power Cable	1	1.6	No	0	Supplied by applicant
3	RJ-45 Cable	1	15	Yes	0	Supplied by applicant
4	RJ-45 Cable	1	10	No	0	Provided by Lab
5	RJ-45 Cable	1	10	No	0	Provided by Lab

4 Test Instruments

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

4.1 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Fixed Attenuator Woken	00800A1K01A-20	00800A1K01A-20-02	2026/5/21	2027/5/20
Pulse Power Sensor Anritsu	MA2411B	1726433	2026/5/8	2027/5/7
RF Power Meter Anritsu	ML2496A	1529003	2026/6/15	2027/6/14

Notes:

1. The test was performed in HC - Oven room 2(Hsinchu).
2. Tested Date: 2026/7/24

4.2 Power Spectral Density

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Fixed Attenuator Woken	00800A1K01A-10	00800A1K01A-10-01	2026/5/21	2027/5/20
MXA Signal Analyzer Keysight	N9020B	MY60112408	2026/2/12	2027/2/11
Software	ADT_RF Test Software v8.5.6.4	N/A	N/A	N/A

Notes:

1. The test was performed in HC - Oven room 2(Hsinchu).
2. Tested Date: 2026/7/24

4.3 6 dB Bandwidth

Refer to section 4.2 to get the tested date and information of the instruments.

4.4 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance Telegartner	50 ohm	3	2025/10/29	2026/10/28
EMI Test Receiver R&S	ESCS 30	100375	2026/5/20	2027/5/19
Fixed Attenuator STI	STI02-2200-10	005	2026/2/9	2027/2/8
LISN R&S	ESH3-Z5	835239/001	2026/3/30	2027/3/29
		848773/004	2025/10/3	2026/10/2
RF Coaxial Cable JYEBAO	5D-FB	COCCAB-001	2026/2/9	2027/2/8
Software BVADT	BVADT_Cond_V7.4.1.0	N/A	N/A	N/A

Notes:

1. The test was performed in HC - Conduction 1(Hsinchu).
2. Tested Date: 2026/7/30

4.5 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-361	2025/9/16	2026/9/15
Fix tool for Boresight antenna tower BV	FBA-01	FBA_SIP01	N/A	N/A
Fixed Attenuator Woken	00800N1G01A-05	00800N1G01A-05-003	2026/1/31	2027/1/30
Loop Antenna TESEQ	HLA 6121	63620	2025/10/20	2026/10/19
MXE EMI Receiver Agilent	N9038A	MY50010156	2026/6/22	2027/6/21
Preamplifier EMCI	EMC330N	980852	2026/1/31	2027/1/30
RF Coaxial Cable PEWC	8D	001	2026/1/31	2027/1/30
		966-3-2	2026/1/31	2027/1/30
		966-3-3	2026/1/31	2027/1/30
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in HC - 966 Chamber No. 3(Hsinchu).
2. Tested Date: 2026/7/29

4.6 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	N/A	N/A
Fix tool for Boresight antenna tower BV	FBA-01	FBA_SIP01	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-406	2025/11/9	2026/11/8
	BBHA 9170	9170-739	2025/11/9	2026/11/8
MXE EMI Receiver Agilent	N9038A	MY50010156	2026/6/22	2027/6/21
Preamplifier EMCI	EMC12630SE	980384	2026/1/10	2027/1/9
	EMC184045SE	980387	2025/8/7	2026/8/6
PXA Signal Analyzer Keysight	N9030B	MY57141948	2026/5/25	2027/5/24
RF Coaxial Cable EMCI	EMC102-KM-KM-1200	160924	2026/1/15	2027/1/14
	EMC102-KM-KM-4000	200214	2026/1/15	2027/1/14
	EMC104-SM-SM-1500	180504	2026/1/17	2027/1/16
	EMC104-SM-SM-2000	180601	2026/1/17	2027/1/16
	EMC104-SM-SM-6000	210201	2026/1/17	2027/1/16
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in HC - 966 Chamber No. 3(Hsinchu).
2. Tested Date: 2026/7/16 ~ 2026/8/4

5 Limits of Test Items

5.1 RF Output Power

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

5.2 Power Spectral Density

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

5.3 6 dB Bandwidth

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

5.4 AC Power Conducted Emissions

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

Notes:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

5.5 Unwanted Emissions below 1 GHz

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

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

Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).

5.6 Unwanted Emissions above 1 GHz

- (i) For an indoor access point or subordinate device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of 15 dBm/MHz and shall decrease linearly to an e.i.r.p. of -7 dBm/MHz at or above 5.925 GHz.
- (ii) For a client device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of -5 dBm/MHz and shall decrease linearly to an e.i.r.p. of -27 dBm/MHz at or above 5.925 GHz.
- (iii) For a client device or indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of -27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.

Note:

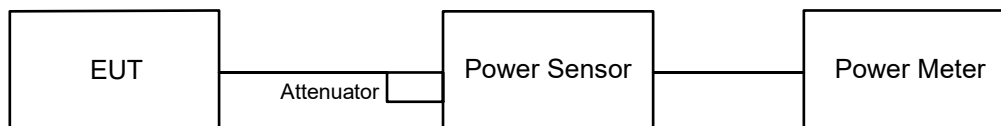
The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

6 Test Arrangements

6.1 RF Output Power

6.1.1 Test Setup



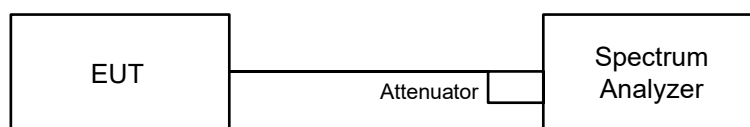
Note: The correction factor has already been compensated by the instrument.

6.1.2 Test Procedure

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

6.2 Power Spectral Density

6.2.1 Test Setup



Note: The correction factor has already been compensated by the instrument.

6.2.2 Test Procedure

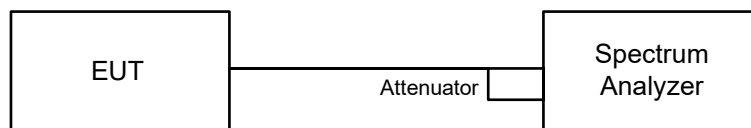
For specified measurement bandwidth 1 MHz:

Method SA-1

- a. Set span to encompass the entire 99% OBW of the signal.
- b. Set RBW = 1 MHz, Set VBW $\geq$ 3 MHz, Detector = RMS.
- c. Sweep points $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- d. Sweep time = auto, trigger set to "free run".
- e. Trace average at least 100 traces in power averaging mode.
- f. Record the max value

6.3 6 dB Bandwidth

6.3.1 Test Setup



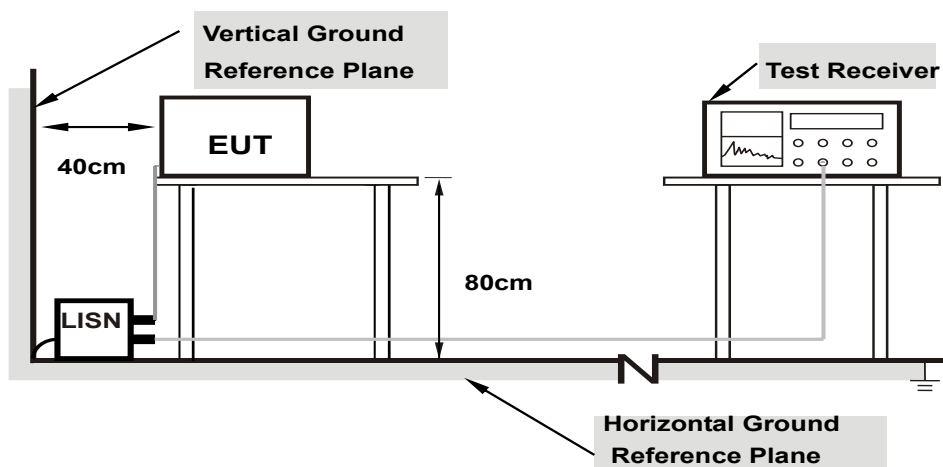
Note: The correction factor has already been compensated by the instrument.

6.3.2 Test Procedure

- a. Set RBW = 100 kHz.
- b. Set the VBW $\geq [3 \times \text{RBW}]$.
- c. Detector = peak.
- d. Trace mode = max-hold.
- e. Sweep = No faster than coupled (auto) time.
- f. Allow the trace to stabilize.
- g. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.4 AC Power Conducted Emissions

6.4.1 Test Setup



Note: 1.Support units were connected to second LISN.

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

6.4.2 Test Procedure

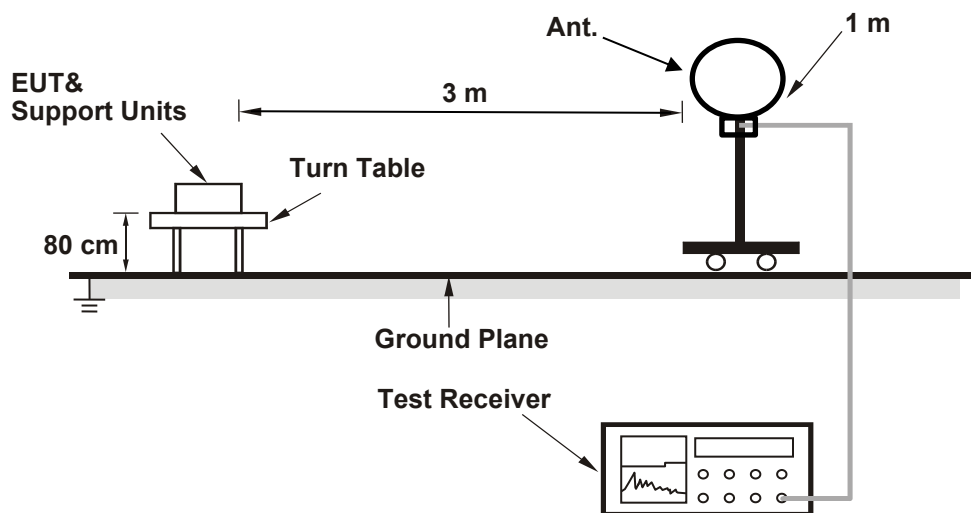
- Exploratory ac power-line conducted emission measurements: The EUT shall be operated on the mid channel and in the mode with highest output power unless the fundamental operates in the AC power-line emission test range then the EUT shall be operated in the range of typical modes of operation.
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50 uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

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

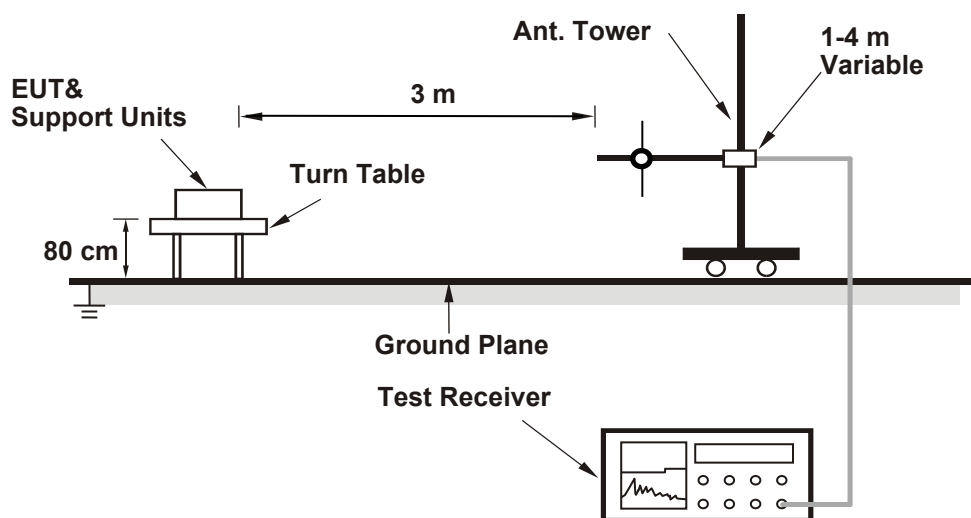
6.5 Unwanted Emissions below 1 GHz

6.5.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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

6.5.2 Test Procedure

For Radiated emission below 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode (however, peak detector measurements may be used to determine compliance with QP requirements), except for the frequency band (9 kHz to 90 kHz and 110 kHz to 490 kHz) set to average detect function and peak detect function.

Notes:

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

For Radiated emission above 30 MHz

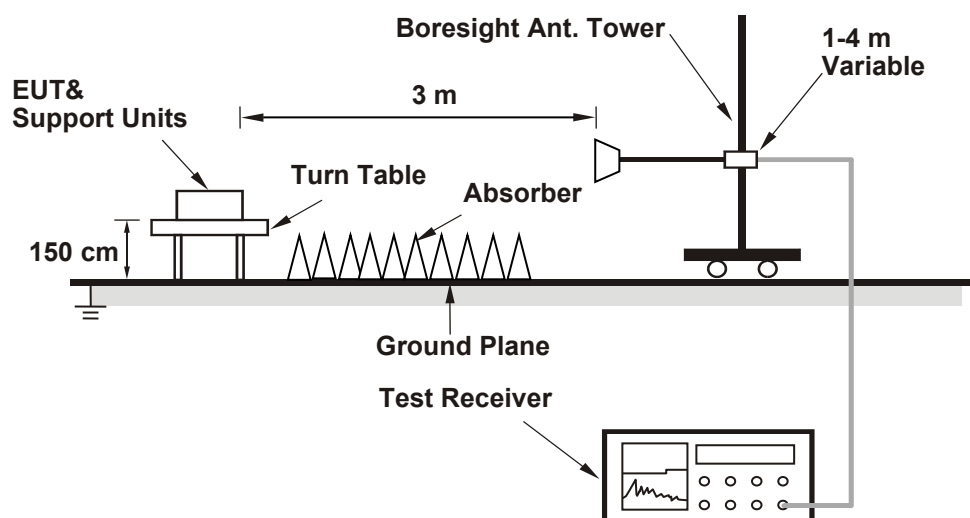
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the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

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz (however, peak detector measurements may be used to determine compliance with QP requirements).
2. All modes of operation were investigated and the worst-case emissions are reported.

6.6 Unwanted Emissions above 1 GHz

6.6.1 Test Setup



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

6.6.2 Test Procedure

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

Notes:

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

7 Test Results of Test Item

7.1 RF Output Power

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	26°C, 62% RH	Tested By:	Stars Liu
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802.11a CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)					Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4		
169	5845	19.56	19.47	19.01	19.48	18.74	422.025	26.25
173	5865	19.52	19.41	19.08	19.56	18.74	422.925	26.26
177	5885	19.57	19.43	19.02	18.67	18.63	404.639	26.07

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)
169	5845	26.25	5.91	1645.653	32.16	36
173	5865	26.26	5.9	1645.369	32.16	36
177	5885	26.07	5.9	1574.228	31.97	36

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-3 & -4 span channel, the maximum gain is 5.91 dBi.
3. For U-NII-4, The maximum gain is 5.9 dBi.

802.11be (EHT20) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)					Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4		
169	5845	19.83	19.81	19.31	20.17	18.95	459.706	26.62
173	5865	19.88	19.72	19.37	20.21	18.89	459.928	26.63
177	5885	19.78	19.77	19.36	20.15	18.99	458.965	26.62

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)
169	5845	26.62	5.91	1792.587	32.53	36
173	5865	26.63	5.9	1789.328	32.53	36
177	5885	26.62	5.9	1785.581	32.52	36

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-3 & -4 span channel, The directional gain is 5.91 dBi.
3. For U-NII-4, The directional gain is 5.9 dBi.

802.11be (EHT40) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)					Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4		
167	5835	20.87	20.79	20.18	20.92	19.96	569.04	27.55
175	5875	20.99	20.95	20.37	21.01	19.87	582.181	27.65

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)
167	5835	27.55	5.91	2218.926	33.46	36
175	5875	27.65	5.9	2264.947	33.55	36

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-3 & -4 span channel, the maximum gain is 5.91 dBi.
3. For U-NII-4, The maximum gain is 5.9 dBi.

802.11be (EHT80) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)					Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4		
171	5855	20.37	20.28	19.81	20.42	19.37	507.923	27.06

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)
171	5855	27.06	5.91	1980.605	32.97	36

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-3 & -4 span channel, the maximum gain is 5.91 dBi.
3. For U-NII-4, The maximum gain is 5.9 dBi.

802.11be (EHT160) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)					Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4		
163	5815	17.04	17.48	17.16	17.24	16.78	259.167	24.14

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)
163	5815	24.14	5.91	1010.601	30.05	36

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-3 & -4 span channel, the maximum gain is 5.91 dBi.
3. For U-NII-4, The maximum gain is 5.9 dBi.

802.11be (EHT20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)					Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4		
169	5845	19.83	19.81	19.31	20.17	18.95	459.706	26.62
173	5865	19.88	19.72	19.37	20.21	18.89	459.928	26.63
177	5885	19.78	19.77	19.36	20.15	18.99	458.965	26.62

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)
169	5845	26.62	5.91	1792.587	32.53	36
173	5865	26.63	5.9	1789.328	32.53	36
177	5885	26.62	5.9	1785.581	32.52	36

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-3 & -4 span channel, The directional gain is 5.91 dBi.
3. For U-NII-4, The directional gain is 5.9 dBi.

802.11be (EHT40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)					Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4		
167	5835	20.87	20.79	20.18	20.92	19.96	569.04	27.55
175	5875	20.99	20.95	20.37	21.01	19.87	582.181	27.65

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)
167	5835	27.55	5.91	2218.926	33.46	36
175	5875	27.65	5.9	2264.947	33.55	36

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-3 & -4 span channel, The directional gain is 5.91 dBi.
3. For U-NII-4, The directional gain is 5.9 dBi.

802.11be (EHT80) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)					Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4		
171	5855	20.37	20.28	19.81	20.42	19.37	507.923	27.06

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)
171	5855	27.06	5.91	1980.605	32.97	36

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-3 & -4 span channel, The directional gain is 5.91 dBi.
3. For U-NII-4, The directional gain is 5.9 dBi.

802.11be (EHT160) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)					Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4		
163	5815	17.04	17.48	17.16	17.24	16.78	259.167	24.14

Chan.	Chan. Freq. (MHz)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)
163	5815	24.14	5.91	1010.601	30.05	36

Notes:

1. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
2. For U-NII-3 & -4 span channel, The directional gain is 5.91 dBi.
3. For U-NII-4, The directional gain is 5.9 dBi.

7.2 Power Spectral Density

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	26°C, 62% RH	Tested By:	Stars Liu
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802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)					Total PSD (dBm/MHz)
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4	
169	5845	5.96	6.46	5.55	5.81	5.45	12.85
173	5865	5.71	6.53	5.48	5.70	5.60	12.81
177	5885	6.02	6.48	5.55	6.02	5.49	12.92

Chan.	Chan. Freq. (MHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
169	5845	12.85	5.91	18.76	20	Pass
173	5865	12.81	5.9	18.71	20	Pass
177	5885	12.92	5.9	18.82	20	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-3 & -4 span channel, The directional gain is 5.91 dBi.
4. For U-NII-4, The directional gain is 5.9 dBi.

802.11be (EHT20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)					Total PSD (dBm/MHz)
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4	
169	5845	5.74	6.37	5.62	5.59	5.59	12.78
173	5865	6.22	6.32	5.58	6.10	5.67	12.98
177	5885	5.76	6.44	5.27	5.38	4.84	12.56

Chan.	Chan. Freq. (MHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
169	5845	12.78	5.91	18.69	20	Pass
173	5865	12.98	5.9	18.88	20	Pass
177	5885	12.56	5.9	18.46	20	Pass

Notes:

- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-3 & -4 span channel, The directional gain is 5.91 dBi.
- For U-NII-4, The directional gain is 5.9 dBi.

802.11be (EHT40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)					Total PSD (dBm/MHz)
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4	
167	5835	6.09	5.70	5.69	5.87	5.09	12.69
175	5875	6.05	5.59	5.69	6.10	4.88	12.67

Chan.	Chan. Freq. (MHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
167	5835	12.69	5.91	18.60	20	Pass
175	5875	12.67	5.9	18.57	20	Pass

Notes:

- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
- For U-NII-3 & -4 span channel, The directional gain is 5.91 dBi.
- For U-NII-4, The directional gain is 5.9 dBi.

802.11be (EHT80)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)					Total PSD (dBm/MHz)
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4	
171	5855	2.39	2.09	2.10	2.72	1.25	9.13

Chan.	Chan. Freq. (MHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
171	5855	9.13	5.91	15.04	20	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-3 & -4 span channel, The directional gain is 5.91 dBi.
4. For U-NII-4, The directional gain is 5.9 dBi.

802.11be (EHT160)

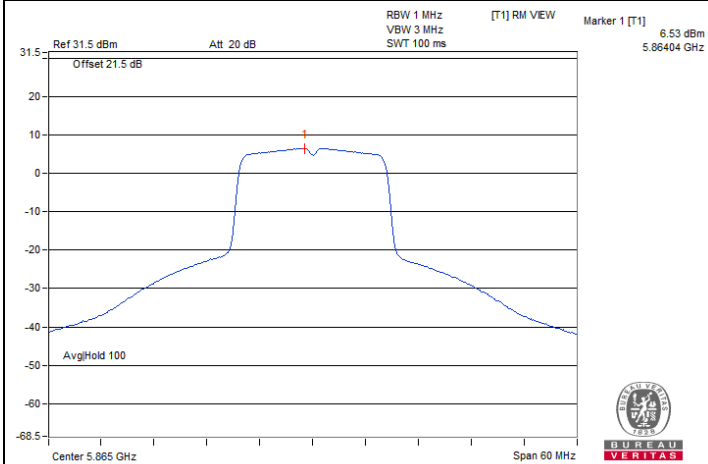
Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)					Total PSD (dBm/MHz)
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4	
163	5815	-4.05	-2.96	-3.75	-3.44	-3.76	3.41

Chan.	Chan. Freq. (MHz)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
163	5815	3.41	5.91	9.32	20	Pass

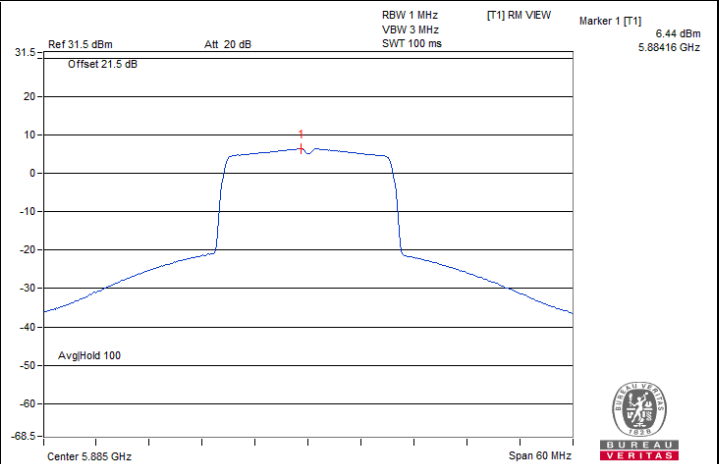
Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain is the measured value according to KDB 662911 D03 Method of MIMO Antenna Gain Measurement.
3. For U-NII-3 & -4 span channel, The directional gain is 5.91 dBi.
4. For U-NII-4, The directional gain is 5.9 dBi.

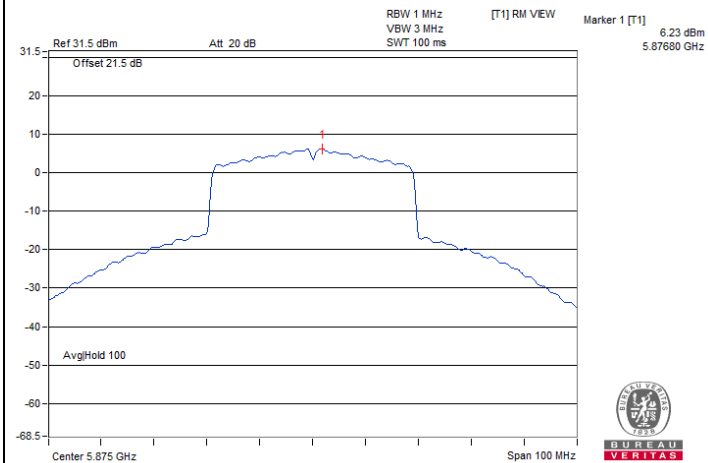
Spectrum Plot of Maximum Value



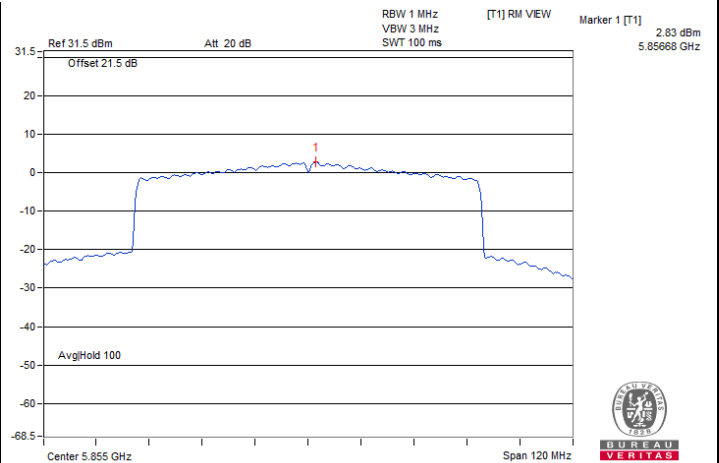
802.11a / Chain 1: CH 173



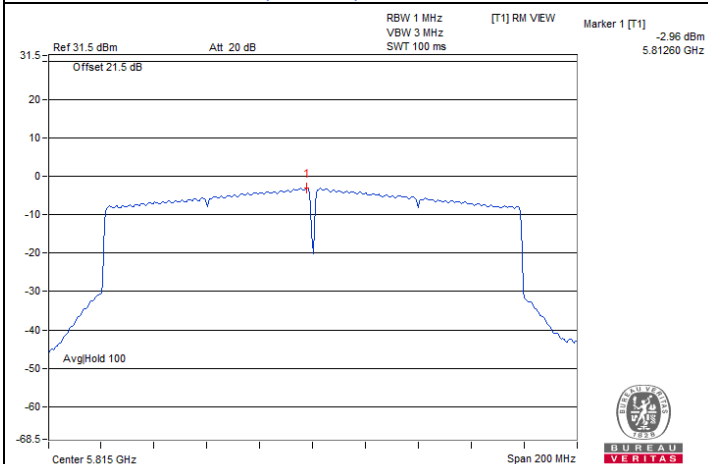
802.11be (EHT20) / Chain 1: CH 177



802.11be (EHT40) / Chain 3: CH 175



802.11be (EHT80) / Chain 3: CH 171



802.11be (EHT160) / Chain 1: CH 163

7.3 6 dB Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	26°C, 62% RH	Tested By:	Stars Liu
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802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)					Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4		
169	5845	16.35	16.32	16.33	16.33	16.33	0.5	Pass
173	5865	16.31	16.34	16.32	16.31	15.94	0.5	Pass
177	5885	16.34	16.33	16.34	16.31	16.32	0.5	Pass

802.11be (EHT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)					Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4		
169	5845	18.74	18.59	18.36	18.62	18.65	0.5	Pass
173	5865	18.54	18.94	18.85	18.80	18.72	0.5	Pass
177	5885	18.83	18.84	18.64	18.52	18.53	0.5	Pass

802.11be (EHT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)					Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4		
167	5835	33.83	35.16	35.19	34.80	35.20	0.5	Pass
175	5875	35.38	35.14	35.11	35.51	32.81	0.5	Pass

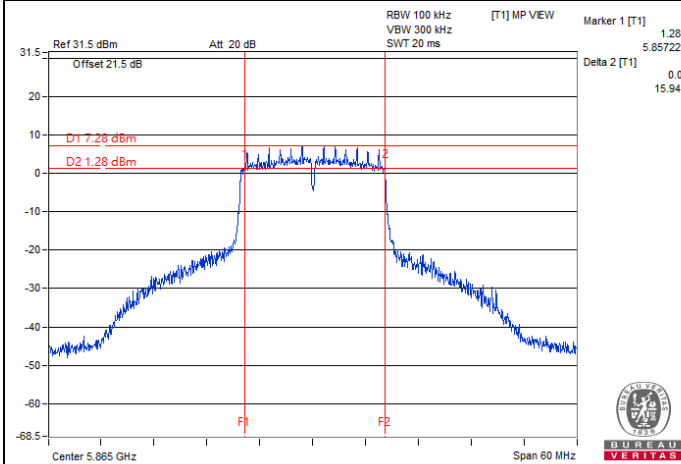
802.11be (EHT80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)					Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4		
171	5855	75.23	70.21	72.91	75.38	75.41	0.5	Pass

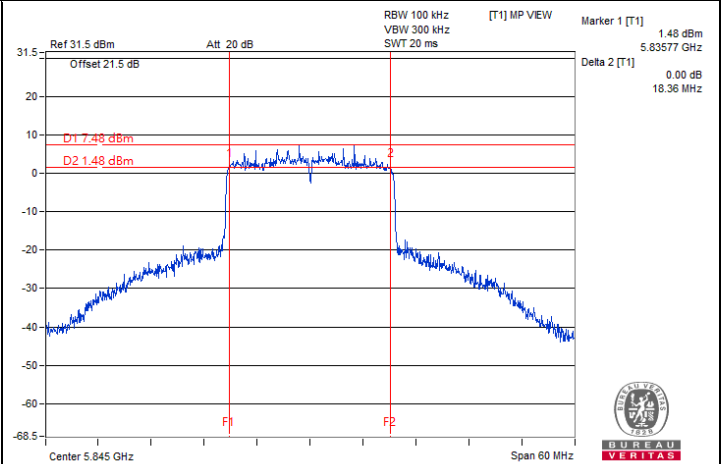
802.11be (EHT160)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)					Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3	Chain 4		
163	5815	153.83	154.28	150.32	152.64	152.95	0.5	Pass

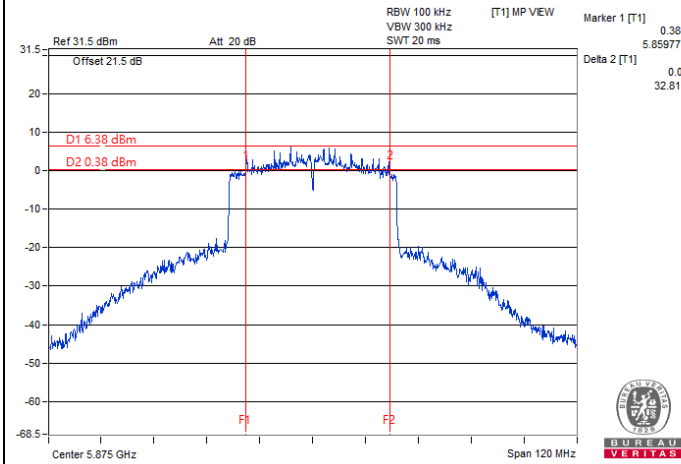
Spectrum Plot of Minimum Value



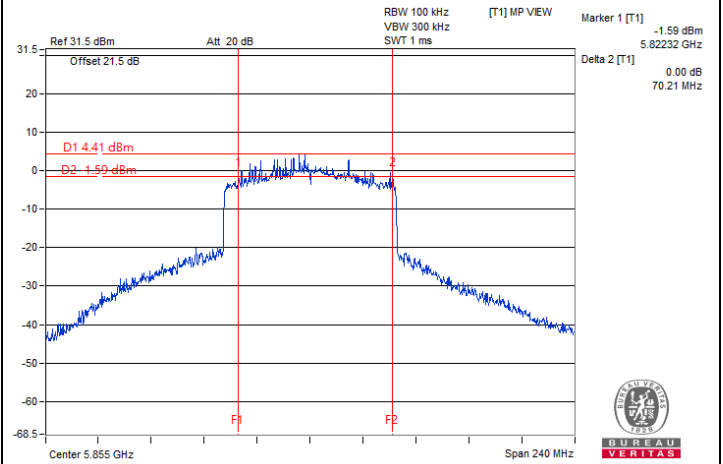
802.11a / Chain 4: CH 173



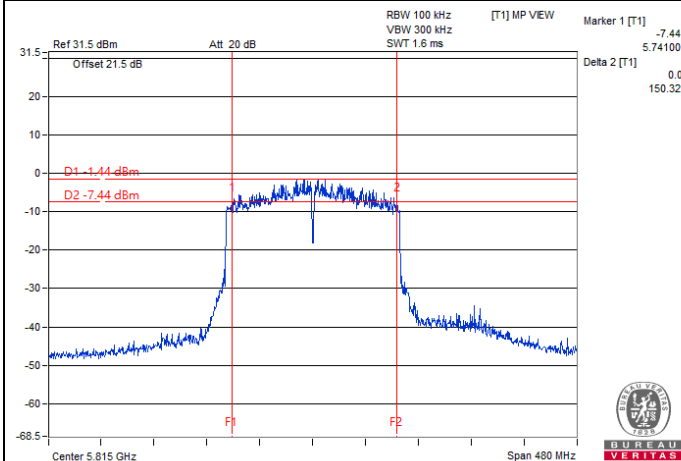
802.11be (EHT20) / Chain 2: CH 169



802.11be (EHT40) / Chain 4: CH 175



802.11be (EHT80) / Chain 1: CH 171



802.11be (EHT160) / Chain 2: CH 163

7.4 AC Power Conducted Emissions

CDD

RF Mode	802.11be (EHT40)	Channel	CH 175 : 5875 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75% RH
Tested By	Stars Liu		

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	0.51719	10.12	19.82	7.27	29.94	17.39	56.00	46.00	-26.06	-28.61
2	0.86094	10.19	33.10	22.32	43.29	32.51	56.00	46.00	-12.71	-13.49
3	1.14453	10.23	21.26	11.27	31.49	21.50	56.00	46.00	-24.51	-24.50
4	2.66016	10.35	5.77	-4.84	16.12	5.51	56.00	46.00	-39.88	-40.49
5	7.44141	10.74	15.36	4.88	26.10	15.62	60.00	50.00	-33.90	-34.38
6	10.89844	11.00	4.74	-4.21	15.74	6.79	60.00	50.00	-44.26	-43.21

Remarks:

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



RF Mode	802.11be (EHT40)	Channel	CH 175 : 5875 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75% RH
Tested By	Stars Liu		

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	0.57188	9.97	23.96	14.63	33.93	24.60	56.00	46.00	-22.07	-21.40
2	0.86094	10.00	33.16	22.69	43.16	32.69	56.00	46.00	-12.84	-13.31
3	1.21875	10.03	20.89	10.78	30.92	20.81	56.00	46.00	-25.08	-25.19
4	2.51563	10.12	5.37	-5.49	15.49	4.63	56.00	46.00	-40.51	-41.37
5	7.22656	10.43	14.56	4.06	24.99	14.49	60.00	50.00	-35.01	-35.51
6	14.55469	10.86	9.11	2.16	19.97	13.02	60.00	50.00	-40.03	-36.98

Remarks:

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



7.5 Unwanted Emissions below 1 GHz

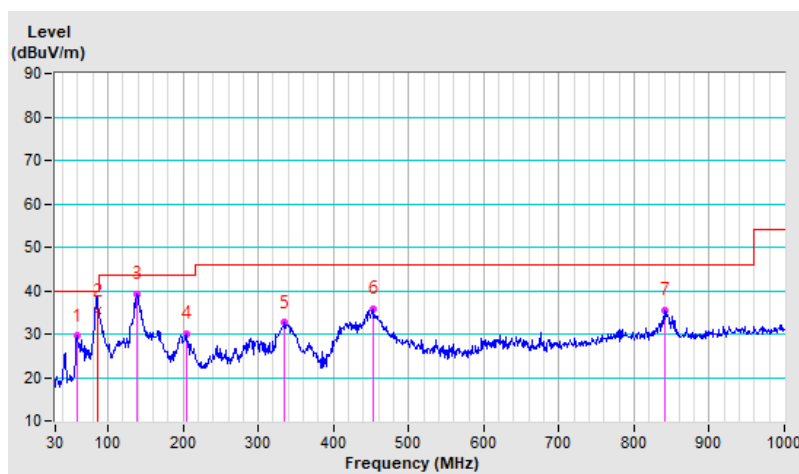
CDD

RF Mode	802.11be (EHT40)	Channel	CH 175 : 5875 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	PK: RB=120 kHz, DET=Peak QP: RB=120 kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75% RH
Tested By	Owen Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	59.83	29.5 PK	40.0	-10.5	3.00 H	153	43.0	-13.5
2	85.41	35.3 QP	40.0	-4.7	2.46 H	199	53.9	-18.6
3	138.86	39.1 PK	43.5	-4.4	2.00 H	228	52.1	-13.0
4	203.99	30.0 PK	43.5	-13.5	2.00 H	283	45.9	-15.9
5	335.43	32.6 PK	46.0	-13.4	2.00 H	360	43.4	-10.8
6	453.57	35.9 PK	46.0	-10.1	2.00 H	153	43.9	-8.0
7	840.05	35.4 PK	46.0	-10.6	1.00 H	138	36.6	-1.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

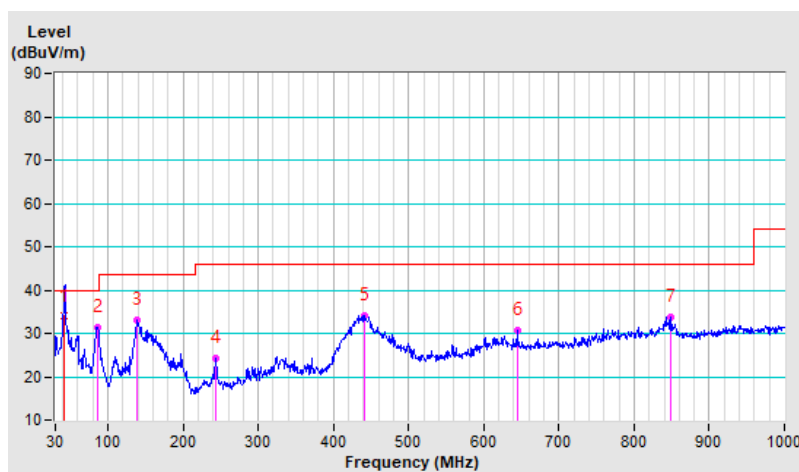


RF Mode	802.11be (EHT40)	Channel	CH 175 : 5875 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	PK: RB=120 kHz, DET=Peak QP: RB=120 kHz, DET=Quasi-Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	25 °C, 75% RH
Tested By	Owen Lee		

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	42.37	33.9 QP	40.0	-6.1	1.00 V	130	46.9	-13.0
2	86.50	31.5 PK	40.0	-8.5	3.00 V	294	50.1	-18.6
3	139.59	33.2 PK	43.5	-10.3	1.00 V	308	46.2	-13.0
4	243.42	24.2 PK	46.0	-21.8	1.00 V	26	38.1	-13.9
5	440.46	34.1 PK	46.0	-11.9	1.00 V	157	42.4	-8.3
6	644.35	30.8 PK	46.0	-15.2	2.00 V	230	34.8	-4.0
7	848.78	33.8 PK	46.0	-12.2	1.00 V	146	35.0	-1.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



7.6 Unwanted Emissions above 1 GHz

CDD

RF Mode	802.11a	Channel	CH 169 : 5845 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 69% RH
Tested By	Stars Liu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	52.2 PK	68.2	-16.0	3.67 H	343	49.4	2.8
2	*5845.00	117.3 PK			3.67 H	343	114.5	2.8
3	*5845.00	109.5 AV			3.67 H	343	106.7	2.8
4	#5895.00	62.1 PK	130.2	-68.1	3.67 H	343	59.2	2.9
5	#5895.00	51.0 AV	110.2	-59.2	3.67 H	343	48.1	2.9
6	11690.00	47.3 PK	74.0	-26.7	3.30 H	274	36.0	11.3
7	11690.00	33.7 AV	54.0	-20.3	3.30 H	274	22.4	11.3
8	#17535.00	56.8 PK	88.2	-31.4	1.44 H	114	38.4	18.4
9	#17535.00	41.8 AV	68.2	-26.4	1.44 H	114	23.4	18.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	54.9 PK	68.2	-13.3	1.73 V	356	52.1	2.8
2	*5845.00	117.7 PK			1.73 V	356	114.9	2.8
3	*5845.00	109.6 AV			1.73 V	356	106.8	2.8
4	#5895.00	65.6 PK	130.2	-64.6	1.73 V	356	62.7	2.9
5	#5895.00	47.0 AV	110.2	-63.2	1.73 V	356	44.1	2.9
6	11690.00	48.3 PK	74.0	-25.7	1.57 V	15	37.0	11.3
7	11690.00	35.8 AV	54.0	-18.2	1.57 V	15	24.5	11.3
8	#17535.00	58.2 PK	88.2	-30.0	1.01 V	88	39.8	18.4
9	#17535.00	43.6 AV	68.2	-24.6	1.01 V	88	25.2	18.4

Remarks:

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

RF Mode	802.11a	Channel	CH 173 : 5865 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 69% RH
Tested By	Stars Liu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	51.2 PK	68.2	-17.0	3.27 H	2	48.4	2.8
2	*5865.00	116.6 PK			3.27 H	2	113.7	2.9
3	*5865.00	109.2 AV			3.27 H	2	106.3	2.9
4	#5895.00	78.6 PK	130.2	-51.6	3.27 H	2	75.7	2.9
5	#5895.00	63.0 AV	110.2	-47.2	3.27 H	2	60.1	2.9
6	11730.00	47.5 PK	74.0	-26.5	3.28 H	306	36.2	11.3
7	11730.00	34.2 AV	54.0	-19.8	3.28 H	306	22.9	11.3
8	#17595.00	56.2 PK	88.2	-32.0	1.36 H	155	37.2	19.0
9	#17595.00	41.5 AV	68.2	-26.7	1.36 H	155	22.5	19.0

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	51.9 PK	68.2	-16.3	1.72 V	340	49.1	2.8
2	*5865.00	117.6 PK			1.72 V	340	114.7	2.9
3	*5865.00	109.5 AV			1.72 V	340	106.6	2.9
4	#5895.00	81.1 PK	130.2	-49.1	1.72 V	340	78.2	2.9
5	#5895.00	63.5 AV	110.2	-46.7	1.72 V	340	60.6	2.9
6	11730.00	47.9 PK	74.0	-26.1	1.51 V	2	36.6	11.3
7	11730.00	35.5 AV	54.0	-18.5	1.51 V	2	24.2	11.3
8	#17595.00	58.6 PK	88.2	-29.6	1.01 V	78	39.6	19.0
9	#17595.00	42.6 AV	68.2	-25.6	1.01 V	78	23.6	19.0

Remarks:

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

RF Mode	802.11a	Channel	CH 177 : 5885 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 69% RH
Tested By	Stars Liu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	51.9 PK	68.2	-16.3	3.14 H	13	49.1	2.8
2	*5885.00	116.8 PK			3.14 H	13	113.9	2.9
3	*5885.00	108.4 AV			3.14 H	13	105.5	2.9
4	#5895.00	89.0 PK	130.2	-41.2	3.14 H	13	86.1	2.9
5	#5895.00	83.2 AV	110.2	-27.0	3.14 H	13	80.3	2.9
6	11770.00	47.2 PK	74.0	-26.8	3.13 H	273	35.9	11.3
7	11770.00	34.9 AV	54.0	-19.1	3.13 H	273	23.6	11.3
8	#17655.00	55.6 PK	88.2	-32.6	1.35 H	135	36.7	18.9
9	#17655.00	41.3 AV	68.2	-26.9	1.35 H	135	22.4	18.9

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	52.1 PK	68.2	-16.1	1.83 V	121	49.3	2.8
2	*5885.00	118.6 PK			1.83 V	121	115.7	2.9
3	*5885.00	109.6 AV			1.83 V	121	106.7	2.9
4	#5895.00	98.4 PK	130.2	-31.8	1.83 V	121	95.5	2.9
5	#5895.00	85.0 AV	110.2	-25.2	1.83 V	121	82.1	2.9
6	11770.00	48.5 PK	74.0	-25.5	1.54 V	6	37.2	11.3
7	11770.00	36.1 AV	54.0	-17.9	1.54 V	6	24.8	11.3
8	#17655.00	57.9 PK	88.2	-30.3	1.01 V	67	39.0	18.9
9	#17655.00	42.9 AV	68.2	-25.3	1.01 V	67	24.0	18.9

Remarks:

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

RF Mode	802.11be (EHT20)	Channel	CH 169 : 5845 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 69% RH
Tested By	Stars Liu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	52.2 PK	68.2	-16.0	3.40 H	170	49.4	2.8
2	*5845.00	118.7 PK			3.40 H	170	115.9	2.8
3	*5845.00	108.8 AV			3.40 H	170	106.0	2.8
4	#5895.00	71.9 PK	130.2	-58.3	3.40 H	170	69.0	2.9
5	#5895.00	55.0 AV	110.2	-55.2	3.40 H	170	52.1	2.9
6	11690.00	47.7 PK	74.0	-26.3	2.91 H	270	36.4	11.3
7	11690.00	35.5 AV	54.0	-18.5	2.91 H	270	24.2	11.3
8	#17535.00	56.5 PK	88.2	-31.7	1.39 H	141	38.1	18.4
9	#17535.00	40.9 AV	68.2	-27.3	1.39 H	141	22.5	18.4

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	53.7 PK	68.2	-14.5	1.71 V	354	50.9	2.8
2	*5845.00	120.6 PK			1.71 V	354	117.8	2.8
3	*5845.00	110.2 AV			1.71 V	354	107.4	2.8
4	#5895.00	66.7 PK	130.2	-63.5	1.71 V	354	63.8	2.9
5	#5895.00	54.1 AV	110.2	-56.1	1.71 V	354	51.2	2.9
6	11690.00	48.4 PK	74.0	-25.6	3.11 V	354	37.1	11.3
7	11690.00	35.7 AV	54.0	-18.3	3.11 V	354	24.4	11.3
8	#17535.00	57.6 PK	88.2	-30.6	1.00 V	84	39.2	18.4
9	#17535.00	42.5 AV	68.2	-25.7	1.00 V	84	24.1	18.4

Remarks:

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

RF Mode	802.11be (EHT20)	Channel	CH 173 : 5865 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 69% RH
Tested By	Stars Liu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	52.1 PK	68.2	-16.1	3.26 H	173	49.3	2.8
2	*5865.00	118.7 PK			3.26 H	173	115.8	2.9
3	*5865.00	110.0 AV			3.26 H	173	107.1	2.9
4	#5895.00	80.9 PK	130.2	-49.3	3.26 H	173	78.0	2.9
5	#5895.00	64.3 AV	110.2	-45.9	3.26 H	173	61.4	2.9
6	11730.00	46.8 PK	74.0	-27.2	2.96 H	289	35.5	11.3
7	11730.00	34.7 AV	54.0	-19.3	2.96 H	289	23.4	11.3
8	#17595.00	56.1 PK	88.2	-32.1	1.31 H	155	37.1	19.0
9	#17595.00	40.3 AV	68.2	-27.9	1.31 H	155	21.3	19.0

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	53.5 PK	68.2	-14.7	1.69 V	356	50.7	2.8
2	*5865.00	119.3 PK			1.69 V	356	116.4	2.9
3	*5865.00	109.5 AV			1.69 V	356	106.6	2.9
4	#5895.00	78.1 PK	130.2	-52.1	1.69 V	356	75.2	2.9
5	#5895.00	66.4 AV	110.2	-43.8	1.69 V	356	63.5	2.9
6	11730.00	48.3 PK	74.0	-25.7	3.11 V	344	37.0	11.3
7	11730.00	35.6 AV	54.0	-18.4	3.11 V	344	24.3	11.3
8	#17595.00	57.7 PK	88.2	-30.5	1.32 V	77	38.7	19.0
9	#17595.00	43.1 AV	68.2	-25.1	1.32 V	77	24.1	19.0

Remarks:

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

RF Mode	802.11be (EHT20)	Channel	CH 177 : 5885 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 69% RH
Tested By	Stars Liu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	51.6 PK	68.2	-16.6	3.24 H	177	48.8	2.8
2	*5885.00	119.5 PK			3.24 H	177	116.6	2.9
3	*5885.00	108.9 AV			3.24 H	177	106.0	2.9
4	#5895.00	97.4 PK	130.2	-32.8	3.24 H	177	94.5	2.9
5	#5895.00	82.9 AV	110.2	-27.3	3.24 H	177	80.0	2.9
6	11770.00	45.9 PK	74.0	-28.1	3.00 H	295	34.6	11.3
7	11770.00	33.6 AV	54.0	-20.4	3.00 H	295	22.3	11.3
8	#17655.00	55.7 PK	88.2	-32.5	1.69 H	140	36.8	18.9
9	#17655.00	41.9 AV	68.2	-26.3	1.69 H	140	23.0	18.9

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	52.1 PK	68.2	-16.1	2.25 V	297	49.3	2.8
2	*5885.00	120.1 PK			2.25 V	297	117.2	2.9
3	*5885.00	109.9 AV			2.25 V	297	107.0	2.9
4	#5895.00	98.3 PK	130.2	-31.9	2.25 V	297	95.4	2.9
5	#5895.00	90.1 AV	110.2	-20.1	2.25 V	297	87.2	2.9
6	11770.00	48.3 PK	74.0	-25.7	3.09 V	348	37.0	11.3
7	11770.00	35.3 AV	54.0	-18.7	3.09 V	348	24.0	11.3
8	#17655.00	57.5 PK	88.2	-30.7	1.27 V	75	38.6	18.9
9	#17655.00	43.1 AV	68.2	-25.1	1.27 V	75	24.2	18.9

Remarks:

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

RF Mode	802.11be (EHT40)	Channel	CH 167 : 5835 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 69% RH
Tested By	Stars Liu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	52.0 PK	68.2	-16.2	3.29 H	188	49.2	2.8
2	*5835.00	116.4 PK			3.29 H	188	113.5	2.9
3	*5835.00	106.8 AV			3.29 H	188	103.9	2.9
4	#5895.00	71.9 PK	130.2	-58.3	3.29 H	188	69.0	2.9
5	#5895.00	55.7 AV	110.2	-54.5	3.29 H	188	52.8	2.9
6	11670.00	47.6 PK	74.0	-26.4	3.05 H	278	36.2	11.4
7	11670.00	33.8 AV	54.0	-20.2	3.05 H	278	22.4	11.4
8	#17505.00	54.9 PK	88.2	-33.3	1.45 H	114	36.9	18.0
9	#17505.00	41.1 AV	68.2	-27.1	1.45 H	114	23.1	18.0

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	53.2 PK	68.2	-15.0	1.60 V	346	50.4	2.8
2	*5835.00	117.3 PK			1.60 V	346	114.4	2.9
3	*5835.00	108.7 AV			1.60 V	346	105.8	2.9
4	#5895.00	71.5 PK	130.2	-58.7	1.60 V	346	68.6	2.9
5	#5895.00	60.5 AV	110.2	-49.7	1.60 V	346	57.6	2.9
6	11670.00	47.1 PK	74.0	-26.9	3.13 V	360	35.7	11.4
7	11670.00	34.3 AV	54.0	-19.7	3.13 V	360	22.9	11.4
8	#17505.00	55.2 PK	88.2	-33.0	1.28 V	77	37.2	18.0
9	#17505.00	41.4 AV	68.2	-26.8	1.28 V	77	23.4	18.0

Remarks:

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

RF Mode	802.11be (EHT40)	Channel	CH 175 : 5875 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 69% RH
Tested By	Stars Liu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	52.5 PK	68.2	-15.7	3.21 H	181	49.7	2.8
2	*5875.00	115.8 PK			3.21 H	181	112.9	2.9
3	*5875.00	105.8 AV			3.21 H	181	102.9	2.9
4	#5895.00	93.6 PK	130.2	-36.6	3.21 H	181	90.7	2.9
5	#5895.00	78.9 AV	110.2	-31.3	3.21 H	181	76.0	2.9
6	11750.00	46.0 PK	74.0	-28.0	3.11 H	297	34.8	11.2
7	11750.00	33.4 AV	54.0	-20.6	3.11 H	297	22.2	11.2
8	#17625.00	54.2 PK	88.2	-34.0	1.50 H	133	35.2	19.0
9	#17625.00	41.9 AV	68.2	-26.3	1.50 H	133	22.9	19.0

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	52.7 PK	68.2	-15.5	2.89 V	279	49.9	2.8
2	*5875.00	117.0 PK			2.89 V	279	114.1	2.9
3	*5875.00	107.4 AV			2.89 V	279	104.5	2.9
4	#5895.00	95.7 PK	130.2	-34.5	2.89 V	279	92.8	2.9
5	#5895.00	83.8 AV	110.2	-26.4	2.89 V	279	80.9	2.9
6	11750.00	47.5 PK	74.0	-26.5	3.10 V	352	36.3	11.2
7	11750.00	34.7 AV	54.0	-19.3	3.10 V	352	23.5	11.2
8	#17625.00	55.2 PK	88.2	-33.0	1.23 V	86	36.2	19.0
9	#17625.00	41.8 AV	68.2	-26.4	1.23 V	86	22.8	19.0

Remarks:

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

RF Mode	802.11be (EHT80)	Channel	CH 171 : 5855 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 69% RH
Tested By	Stars Liu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	55.8 PK	68.2	-12.4	3.28 H	182	53.0	2.8
2	*5855.00	113.2 PK			3.28 H	182	110.4	2.8
3	*5855.00	104.1 AV			3.28 H	182	101.3	2.8
4	#5895.00	90.9 PK	130.2	-39.3	3.28 H	182	88.0	2.9
5	#5895.00	75.0 AV	110.2	-35.2	3.28 H	182	72.1	2.9
6	11710.00	46.4 PK	74.0	-27.6	2.99 H	298	35.2	11.2
7	11710.00	33.6 AV	54.0	-20.4	2.99 H	298	22.4	11.2
8	#17565.00	54.8 PK	88.2	-33.4	1.24 H	142	36.2	18.6
9	#17565.00	41.2 AV	68.2	-27.0	1.24 H	142	22.6	18.6

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	56.5 PK	68.2	-11.7	1.62 V	354	53.7	2.8
2	*5855.00	114.2 PK			1.62 V	354	111.4	2.8
3	*5855.00	104.9 AV			1.62 V	354	102.1	2.8
4	#5895.00	88.0 PK	130.2	-42.2	1.62 V	354	85.1	2.9
5	#5895.00	77.6 AV	110.2	-32.6	1.62 V	354	74.7	2.9
6	11710.00	47.2 PK	74.0	-26.8	3.08 V	360	36.0	11.2
7	11710.00	34.3 AV	54.0	-19.7	3.08 V	360	23.1	11.2
8	#17565.00	55.1 PK	88.2	-33.1	1.25 V	95	36.5	18.6
9	#17565.00	41.2 AV	68.2	-27.0	1.25 V	95	22.6	18.6

Remarks:

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

RF Mode	802.11be (EHT160)	Channel	CH 163 : 5815 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=10 Hz, DET=Peak
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 69% RH
Tested By	Stars Liu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5650.00	62.6 PK	68.2	-5.6	3.32 H	180	59.8	2.8
2	*5815.00	107.9 PK			3.32 H	180	104.8	3.1
3	*5815.00	99.3 AV			3.32 H	180	96.2	3.1
4	#5895.00	80.7 PK	130.2	-49.5	3.32 H	180	77.8	2.9
5	#5895.00	68.0 AV	110.2	-42.2	3.32 H	180	65.1	2.9
6	11630.00	46.8 PK	74.0	-27.2	3.02 H	293	35.2	11.6
7	11630.00	33.1 AV	54.0	-20.9	3.02 H	293	21.5	11.6
8	#17445.00	53.9 PK	88.2	-34.3	1.35 H	132	35.8	18.1
9	#17445.00	40.6 AV	68.2	-27.6	1.35 H	132	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	#5650.00	65.8 PK	68.2	-2.4	2.13 V	1	63.0	2.8
2	*5815.00	108.5 PK			2.13 V	1	105.4	3.1
3	*5815.00	99.8 AV			2.13 V	1	96.7	3.1
4	#5895.00	80.3 PK	130.2	-49.9	2.13 V	1	77.4	2.9
5	#5895.00	70.7 AV	110.2	-39.5	2.13 V	1	67.8	2.9
6	11630.00	47.1 PK	74.0	-26.9	3.08 V	360	35.5	11.6
7	11630.00	34.3 AV	54.0	-19.7	3.08 V	360	22.7	11.6
8	#17445.00	54.1 PK	88.2	-34.1	1.28 V	84	36.0	18.1
9	#17445.00	41.5 AV	68.2	-26.7	1.28 V	84	23.4	18.1

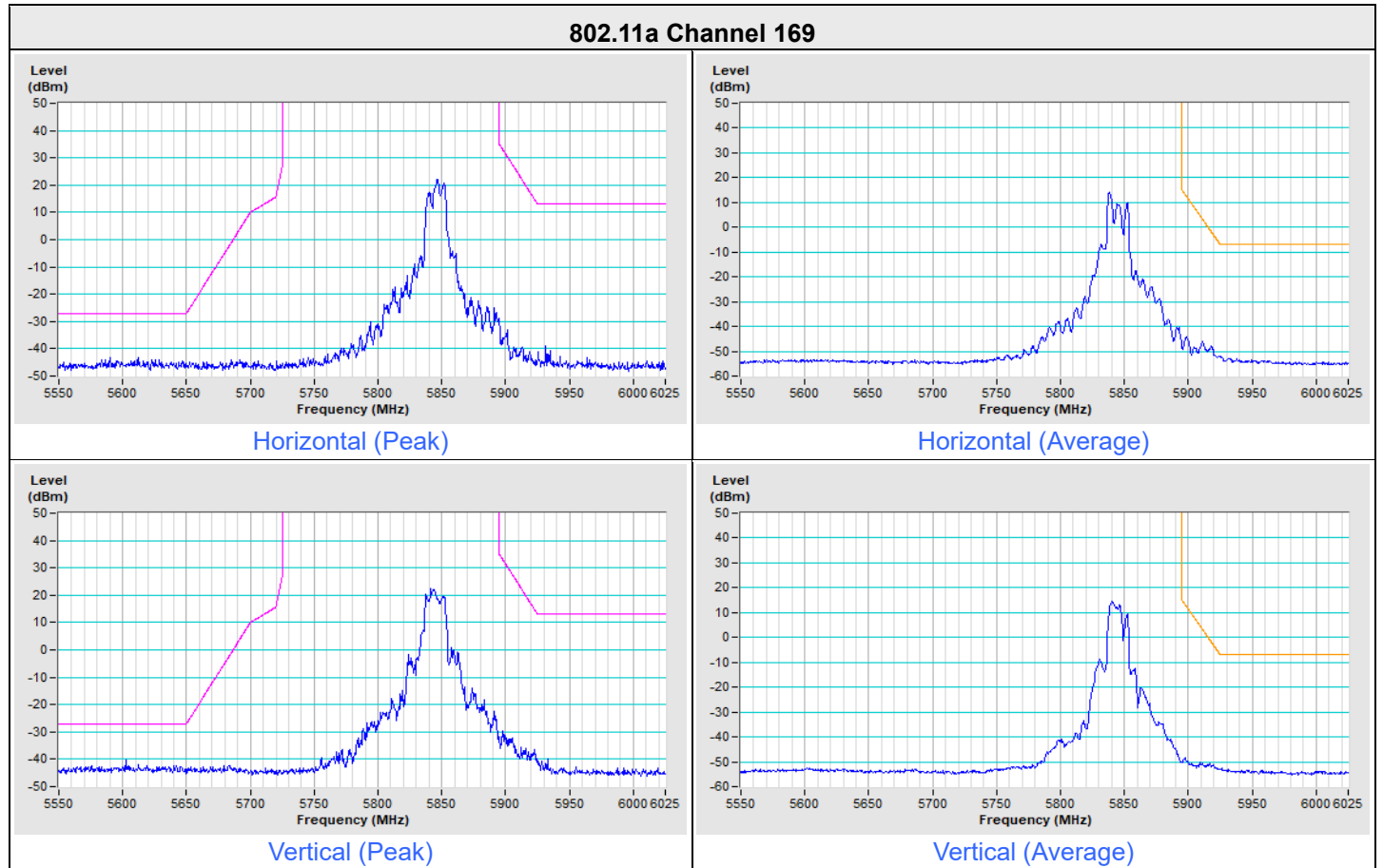
Remarks:

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

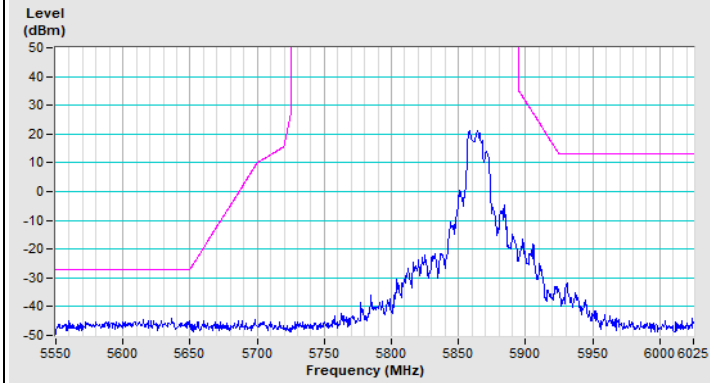
Plot of Band Edge

CDD

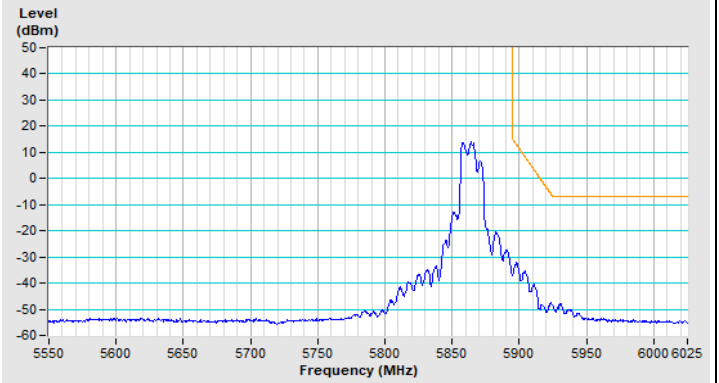
Frequency Range	5.55 GHz ~ 6.025 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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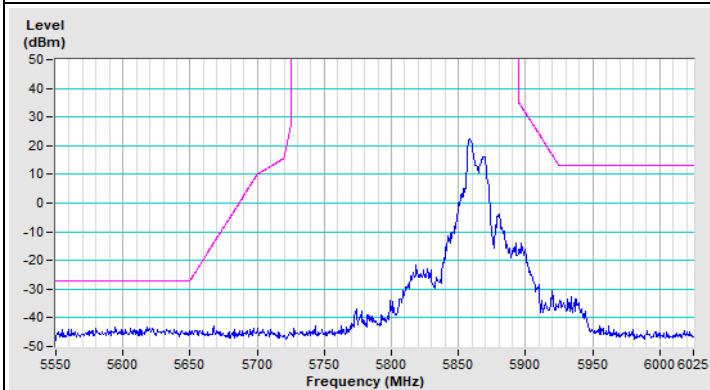
802.11a Channel 173



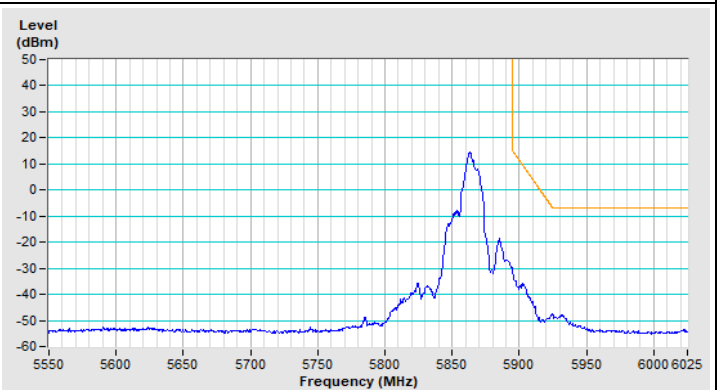
Horizontal (Peak)



Horizontal (Average)

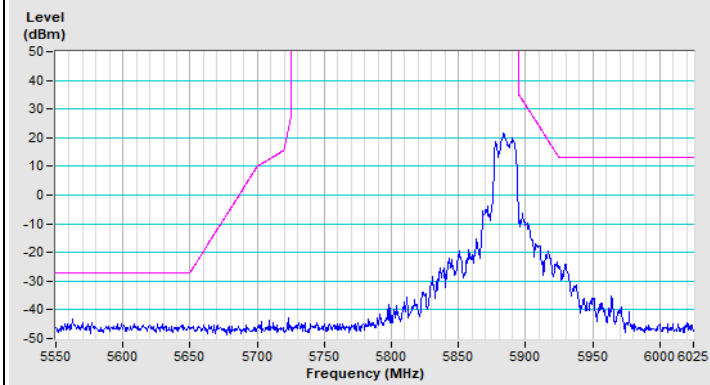


Vertical (Peak)

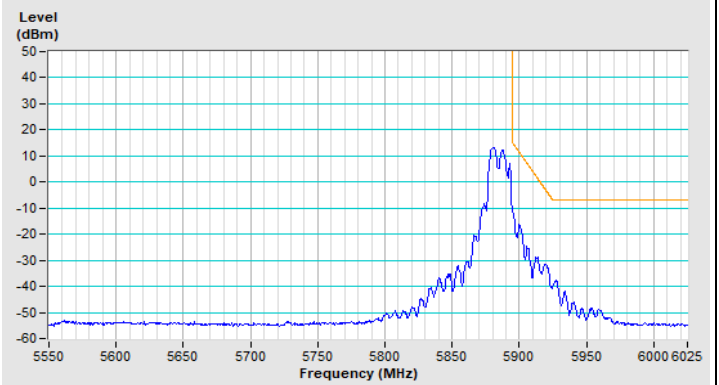


Vertical (Average)

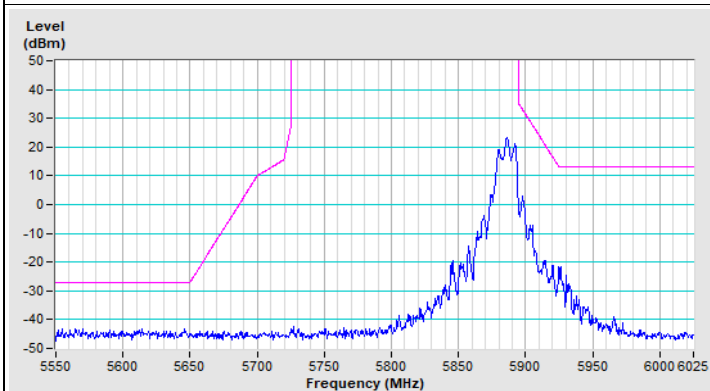
802.11a Channel 177



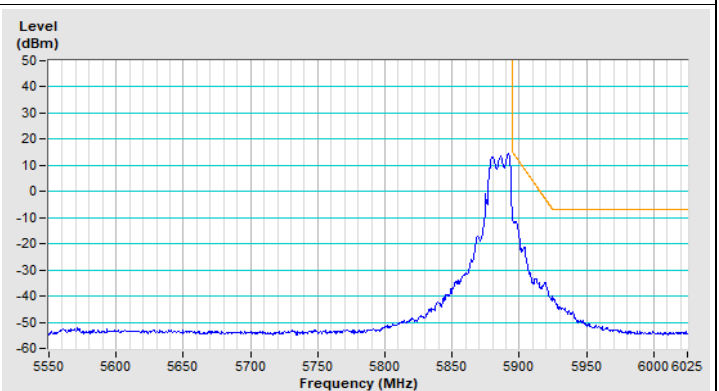
Horizontal (Peak)



Horizontal (Average)



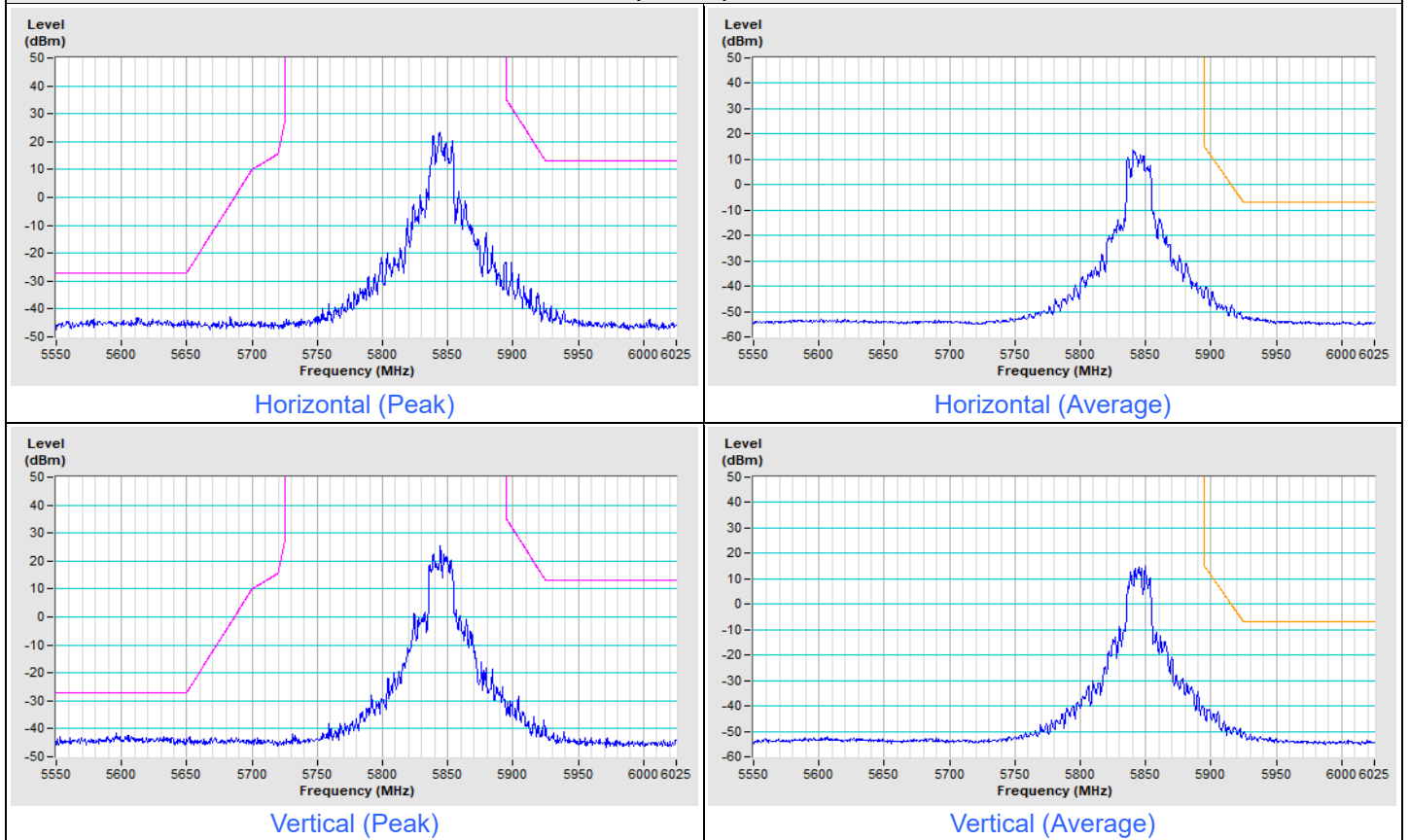
Vertical (Peak)



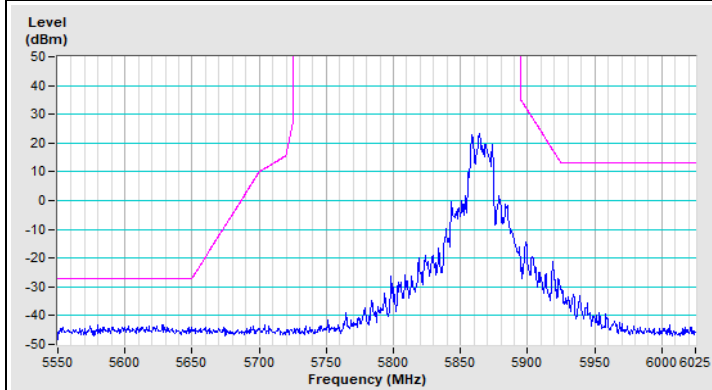
Vertical (Average)

Frequency Range	5.55 GHz ~ 6.025 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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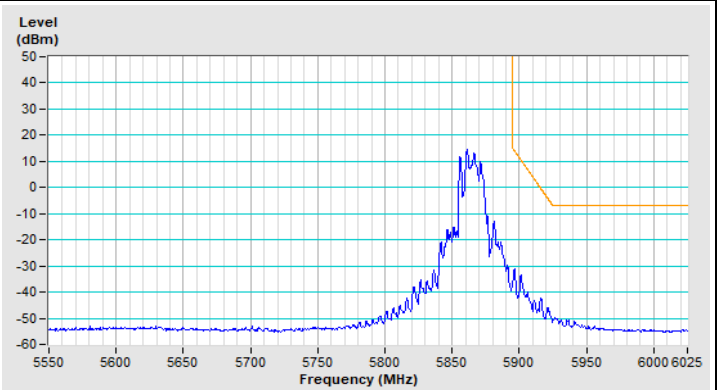
802.11be (EHT20) Channel 169



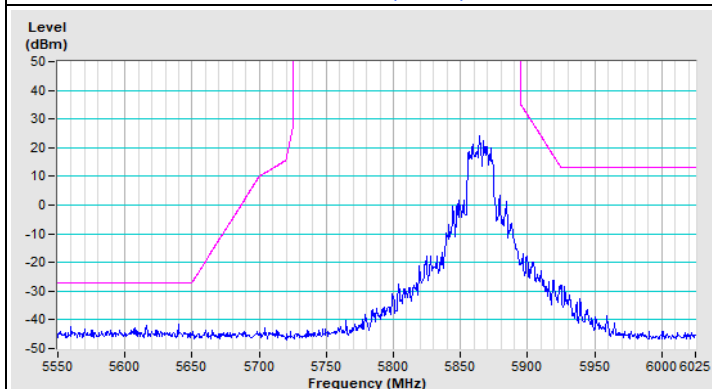
802.11be (EHT20) Channel 173



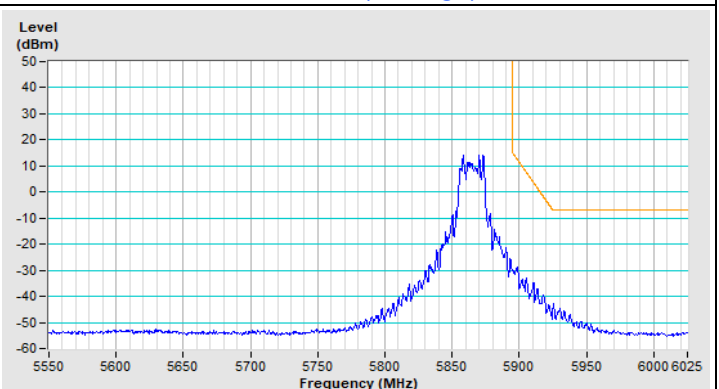
Horizontal (Peak)



Horizontal (Average)

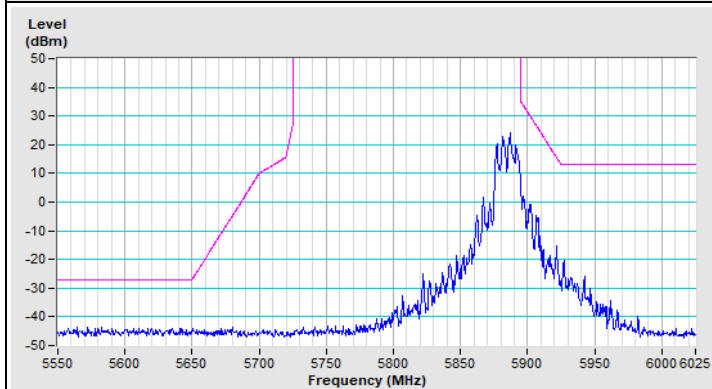


Vertical (Peak)

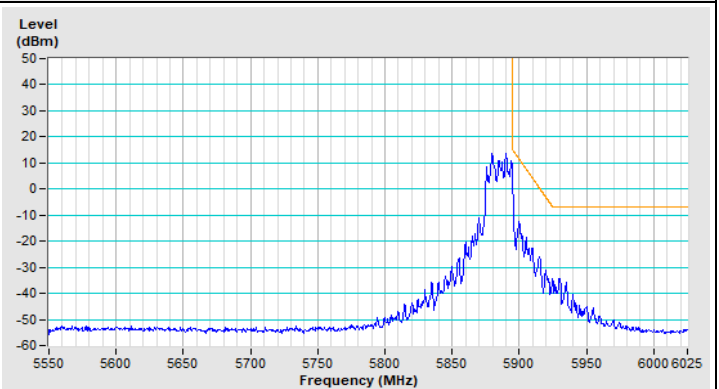


Vertical (Average)

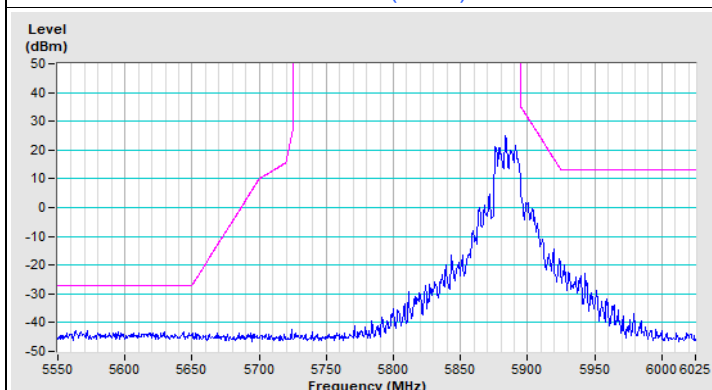
802.11be (EHT20) Channel 177



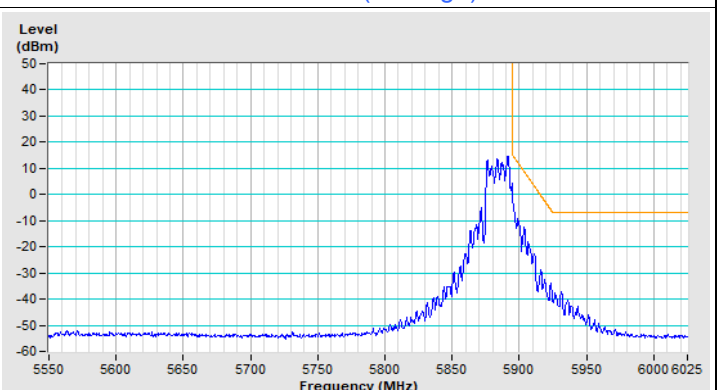
Horizontal (Peak)



Horizontal (Average)



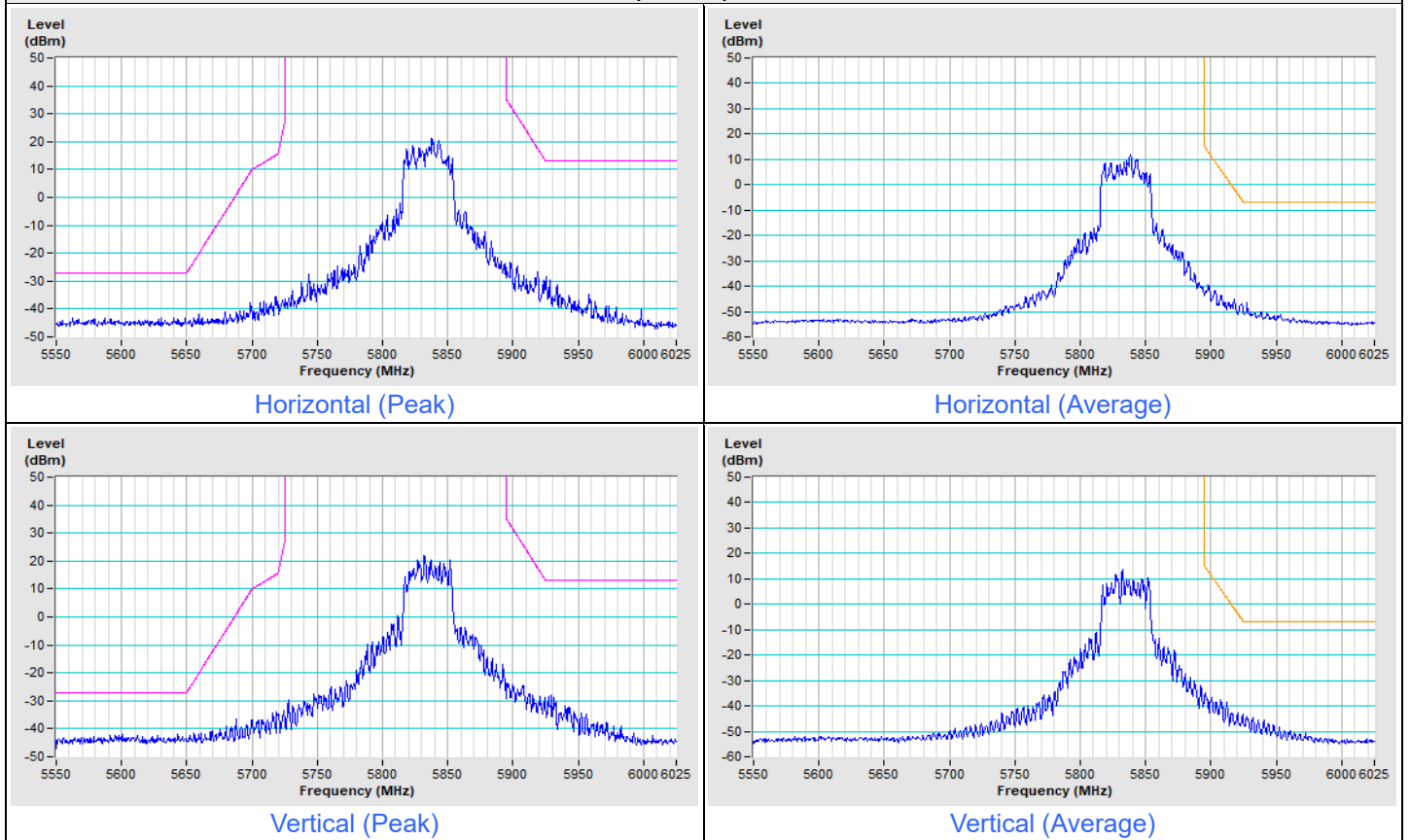
Vertical (Peak)



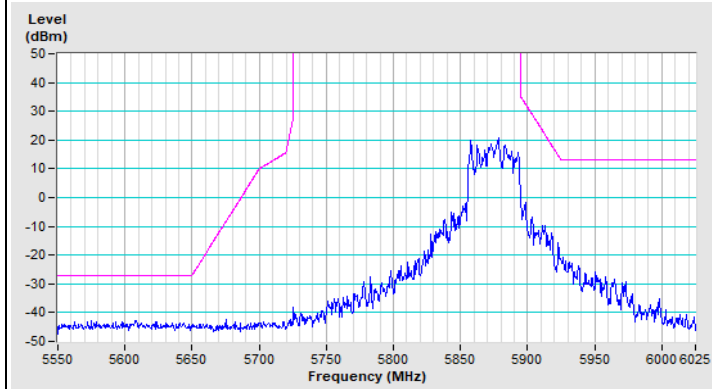
Vertical (Average)

Frequency Range	5.55 GHz ~ 6.025 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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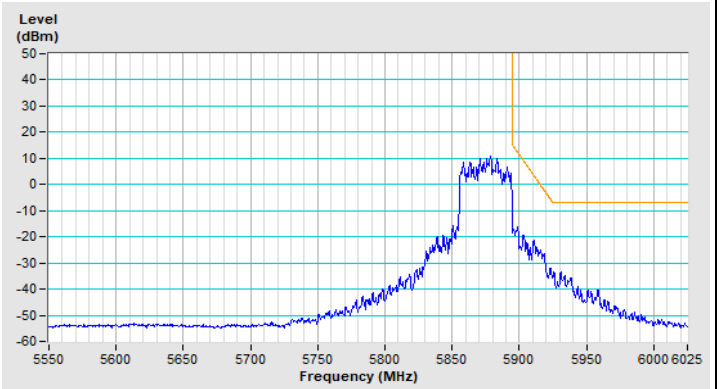
802.11be (EHT40) Channel 167



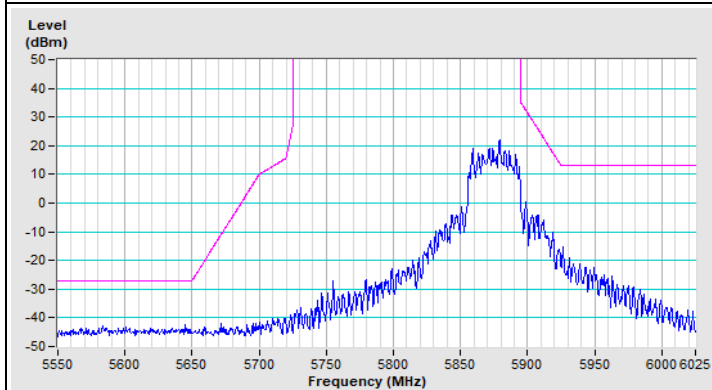
802.11be (EHT40) Channel 175



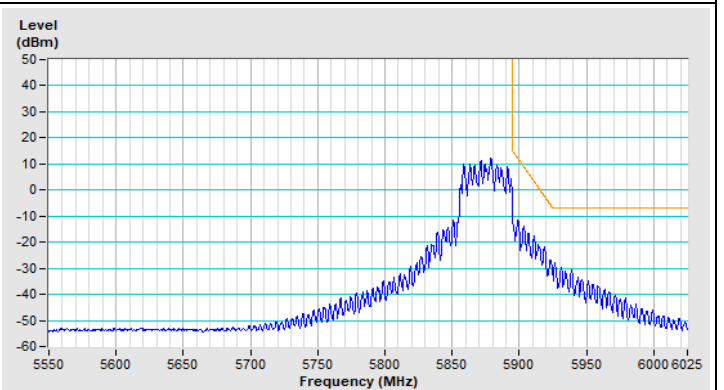
Horizontal (Peak)



Horizontal (Average)



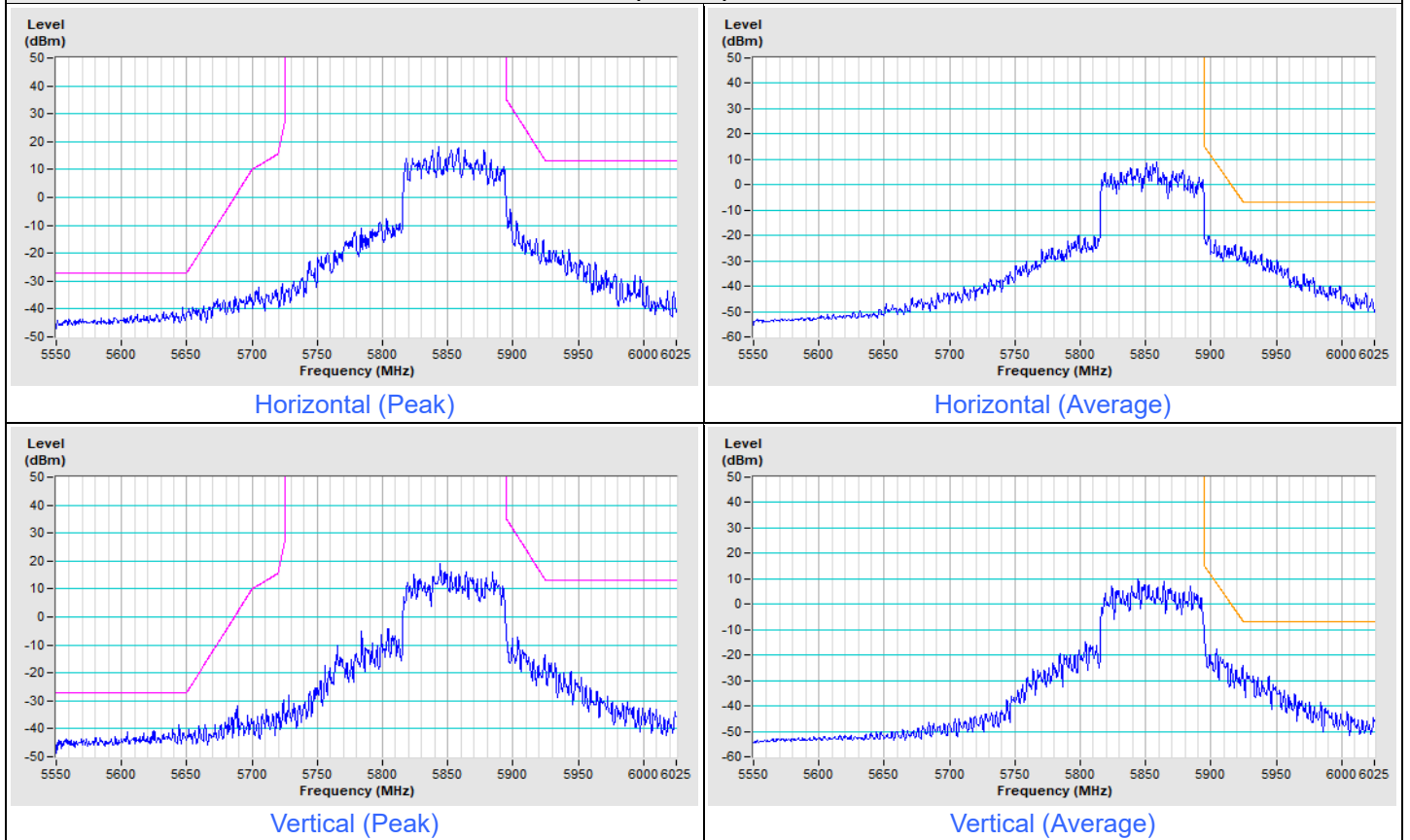
Vertical (Peak)



Vertical (Average)

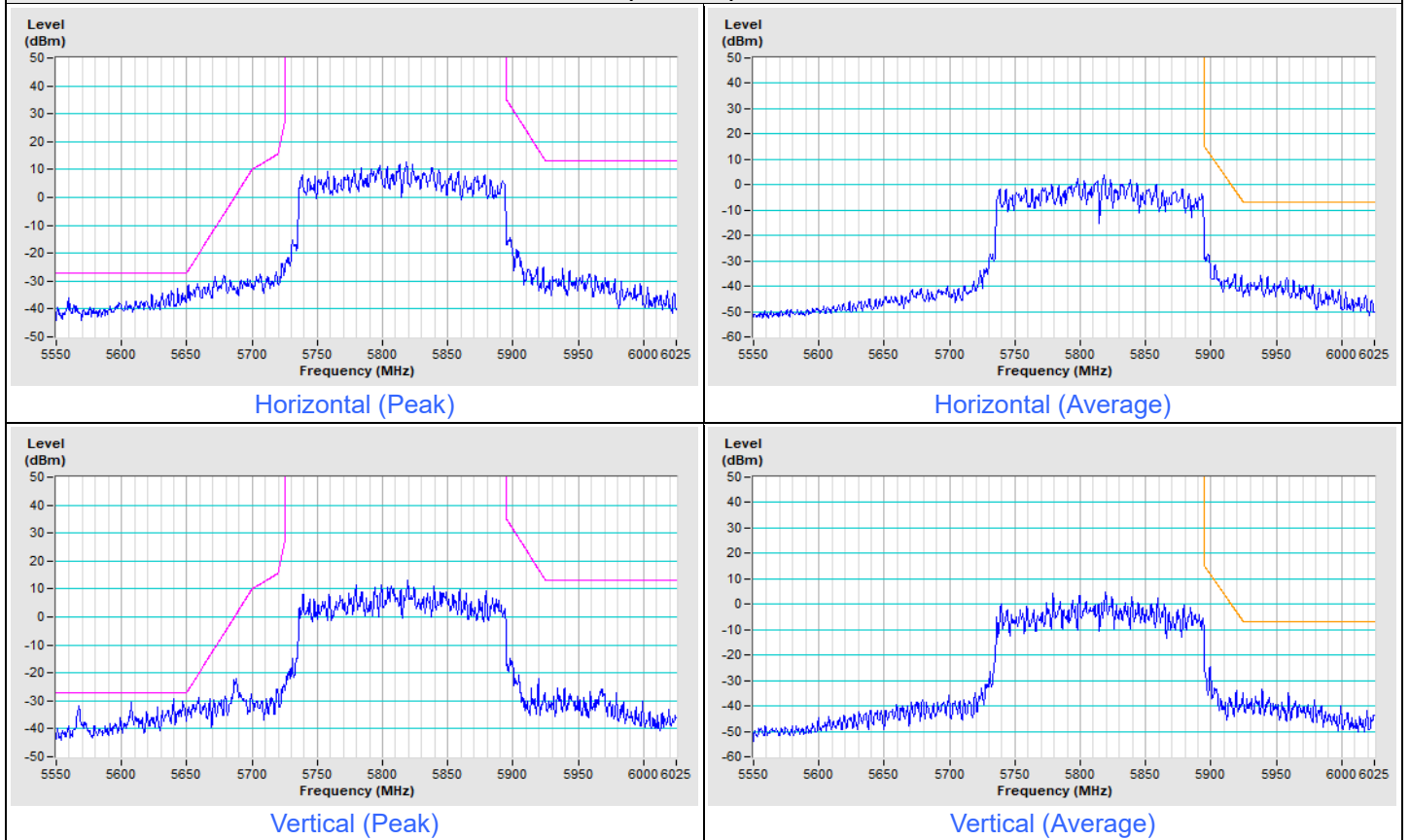
Frequency Range	5.55 GHz ~ 6.025 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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802.11be (EHT80) Channel 171



Frequency Range	5.55 GHz ~ 6.025 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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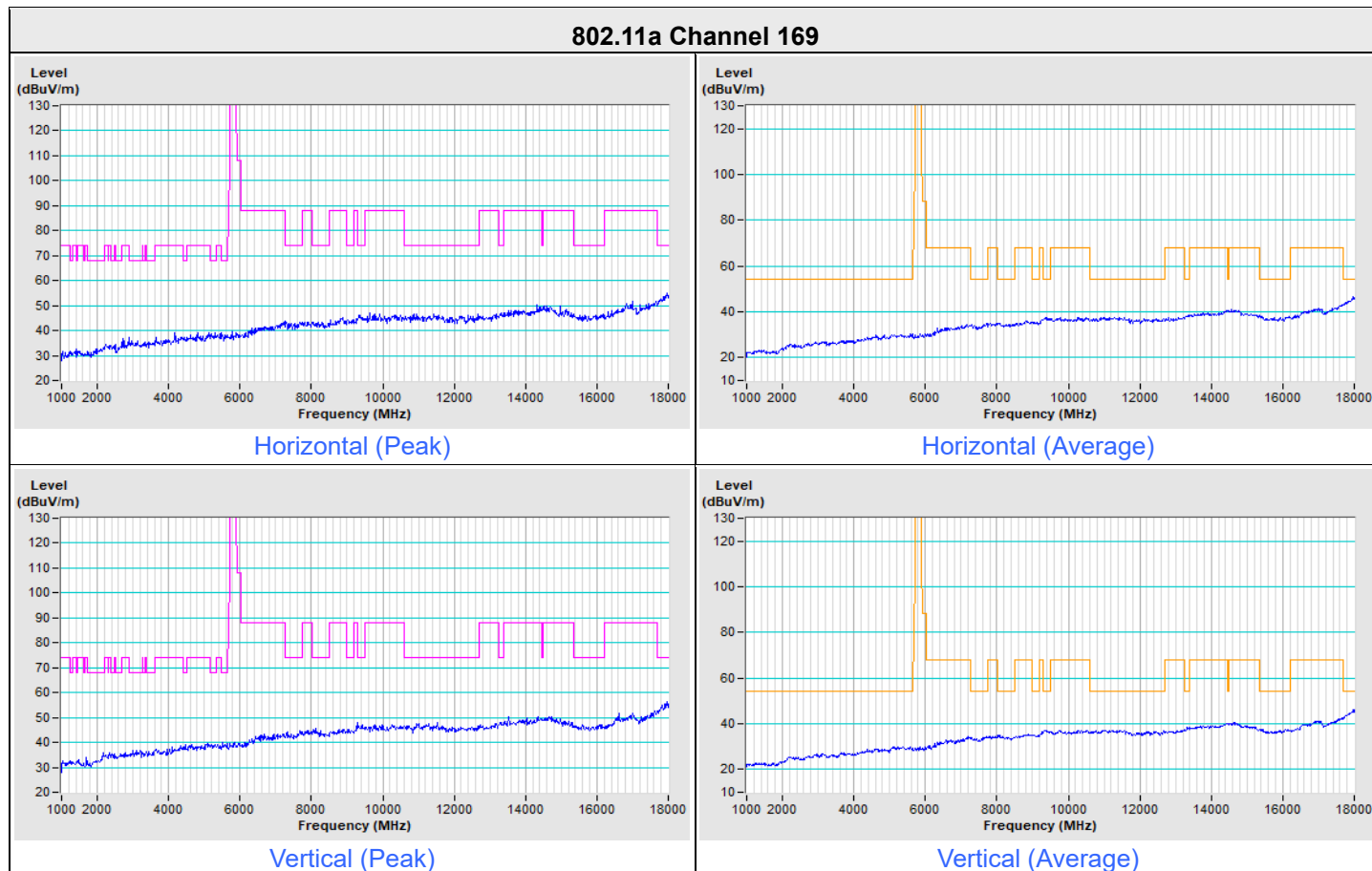
802.11be (EHT160) Channel 163



Plot of Other Emission

CDD

Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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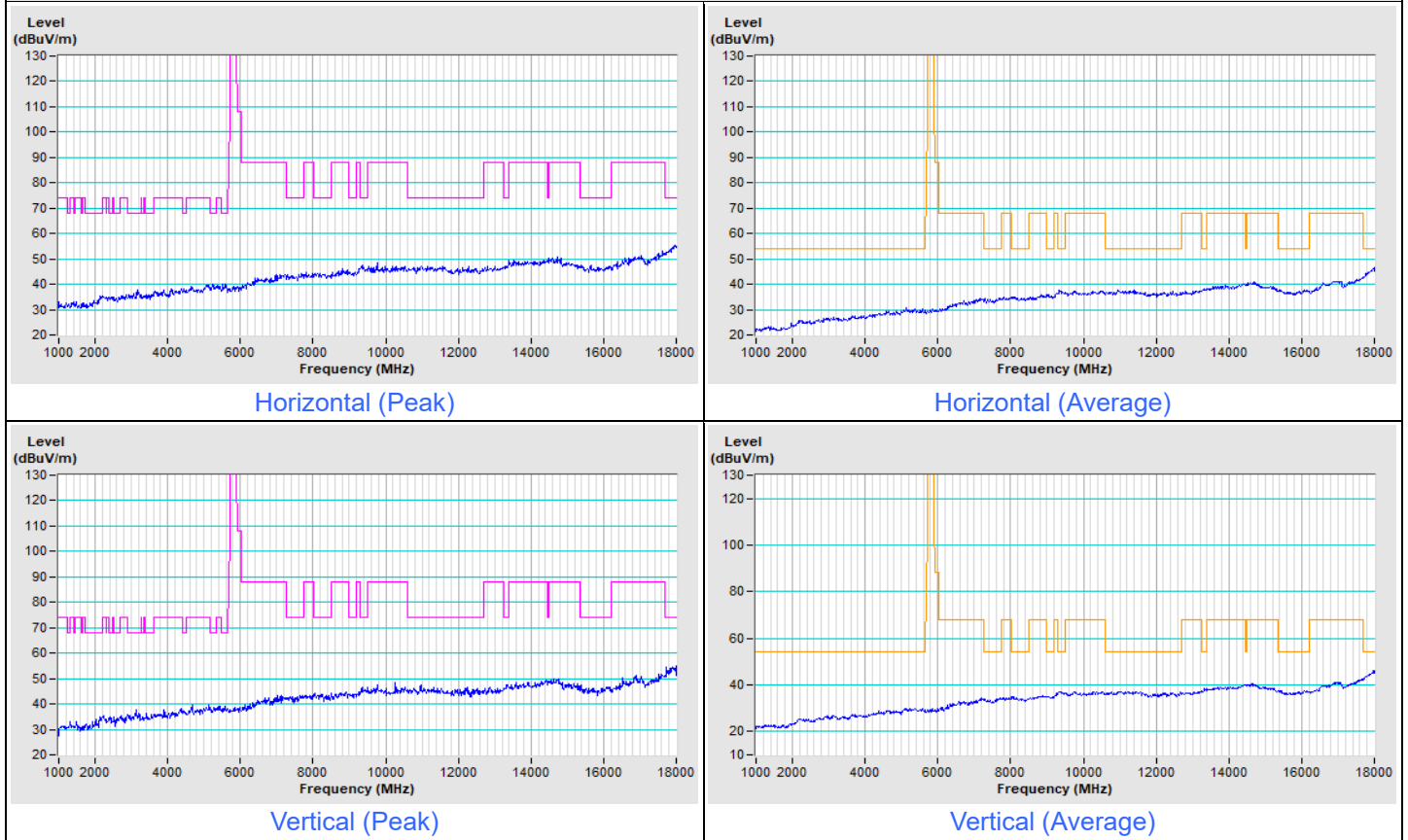


Notes:

1. For radiated emission test data, complete spectral plots shall be presented in the report only for the worst-case scenarios of each mode within each operating frequency band.
2. The frequency range 18 GHz ~ 40 GHz: After investigation, no any emissions were found to exist, therefore they are not recorded in this report.

Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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802.11be (EHT20) Channel 177

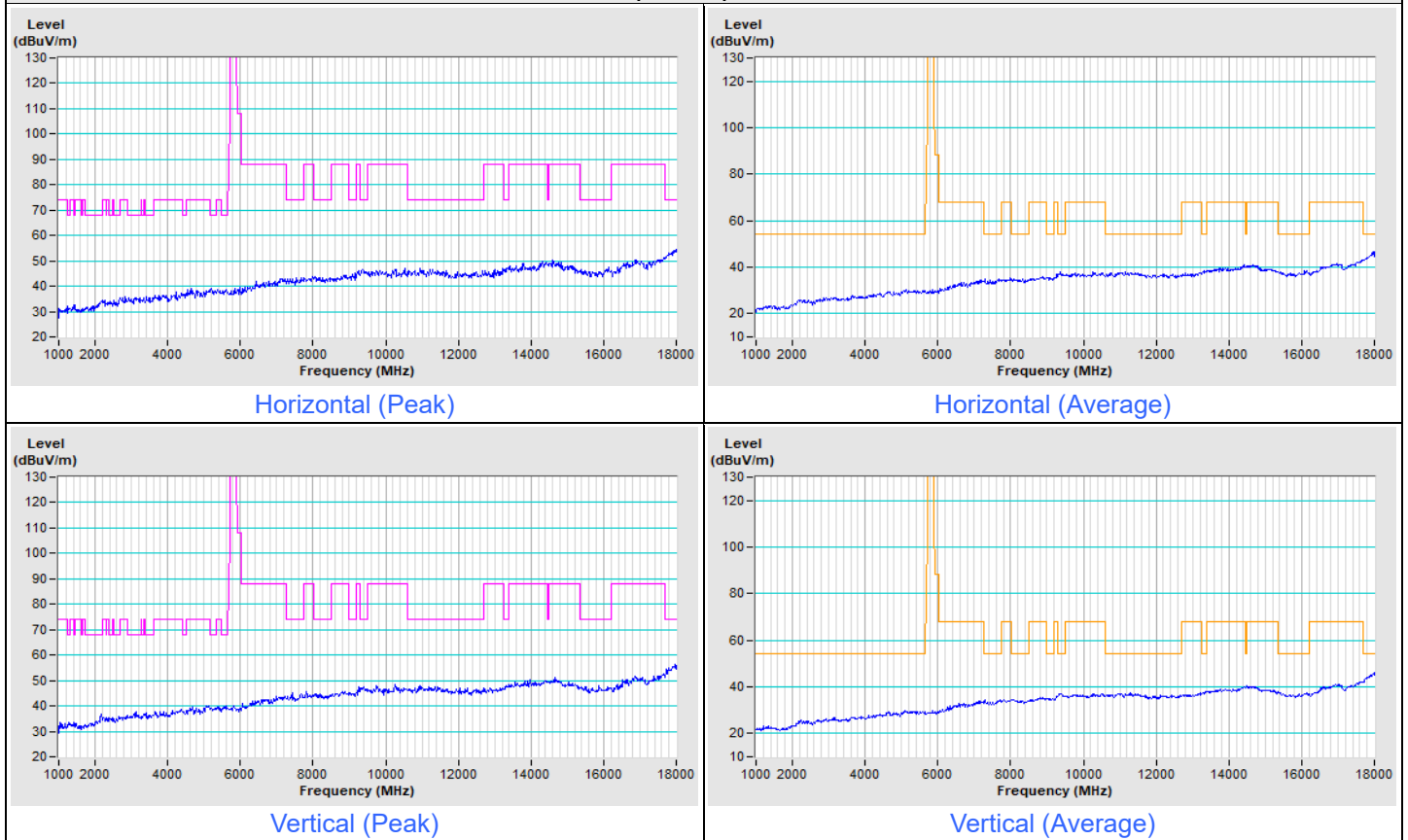


Notes:

1. For radiated emission test data, complete spectral plots shall be presented in the report only for the worst-case scenarios of each mode within each operating frequency band.
2. The frequency range 18 GHz ~ 40 GHz: After investigation, no any emissions were found to exist, therefore they are not recorded in this report.

Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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802.11be (EHT40) Channel 175

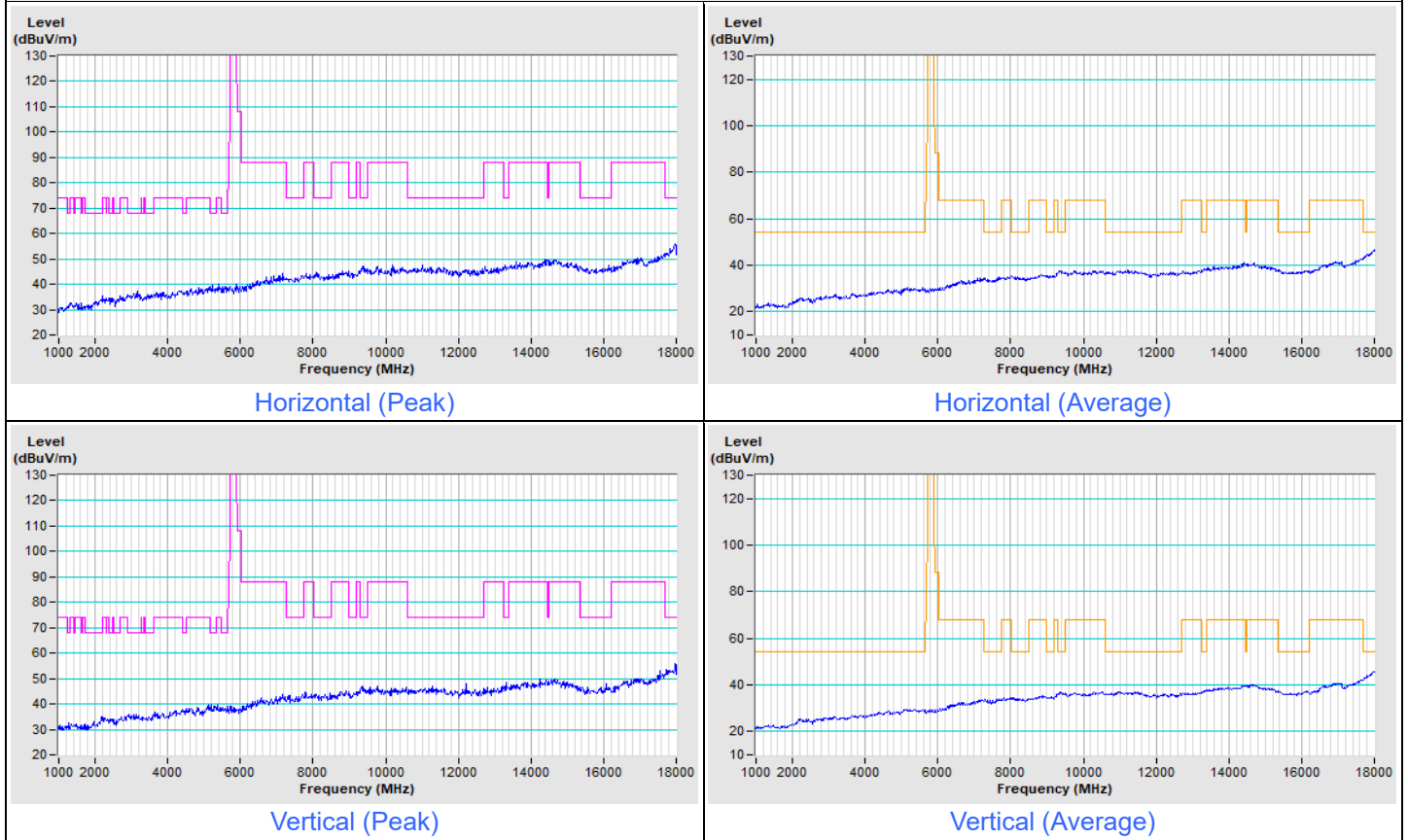


Notes:

1. For radiated emission test data, complete spectral plots shall be presented in the report only for the worst-case scenarios of each mode within each operating frequency band.
2. The frequency range 18 GHz ~ 40 GHz: After investigation, no any emissions were found to exist, therefore they are not recorded in this report.

Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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802.11be (EHT80) Channel 171

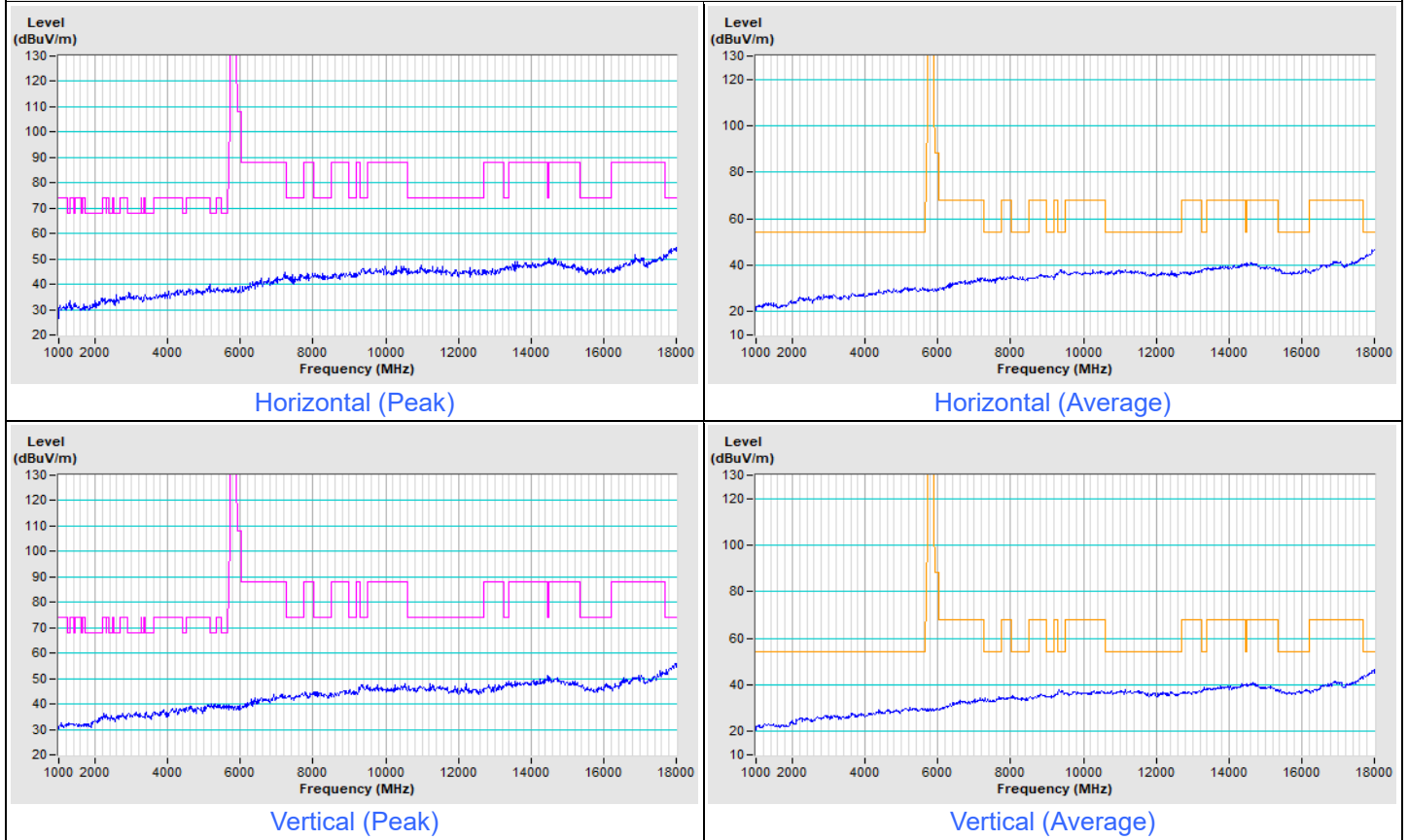


Notes:

1. For radiated emission test data, complete spectral plots shall be presented in the report only for the worst-case scenarios of each mode within each operating frequency band.
2. The frequency range 18 GHz ~ 40 GHz: After investigation, no any emissions were found to exist, therefore they are not recorded in this report.

Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3 MHz, DET=RMS
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802.11be (EHT160) Channel 163



Notes:

1. For radiated emission test data, complete spectral plots shall be presented in the report only for the worst-case scenarios of each mode within each operating frequency band.
2. The frequency range 18 GHz ~ 40 GHz: After investigation, no any emissions were found to exist, therefore they are not recorded in this report.

8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

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

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

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

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

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