TEST REPORT

CERTIFICATE OF CONFORMITY

Standard:	**47 CFR FCC Part 15, Subpart E (Section 15.407)**
Report No.:	RFBHVI-WTW-P24080244A-2
FCC ID:	N6C-PCEBE
Product:	Wi-Fi 7/BT combo module
Brand:	Silex Technology
Model No.:	SX-PCEBE
Received Date:	2025/2/5
Test Date:	2025/4/2 ~ 2025/5/19
Issued Date:	2025/6/2
Applicant:	Silex Technology, Inc.
Address:	2-3-1 Hikaridai, Seika-cho, Soraku-gun, Kyoto 619-0237, Japan
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

Approved by: _____ , **Date:** 2025/6/2

May Chen / Manager

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Prepared by : Phoenix Huang / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBHVI-WTW-P24080244A-2	Original release.	2025/6/2

1 Certificate

Product:	Wi-Fi 7/BT combo module
Brand:	Silex Technology
Test Model:	SX-PCEBE
Sample Status:	Engineering sample
Applicant:	Silex Technology, Inc.
Test Date:	2025/4/2 ~ 2025/5/19
Standard:	47 CFR FCC Part 15, Subpart E (Section 15.407)
Measurement procedure:	ANSI C63.10-2013 KDB 291074 D02 EMC Measurement v01 KDB 789033 D02 General UNII Test Procedure New Rules v02r01 KDB 662911 D01 Multiple Transmitter Output v02r01

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

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
Clause	Test Item	Result	Remark
15.407(a)(3)	RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(3)	Power Spectral Density	Pass	Meet the requirement of limit.
15.407(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -14.85 dB at 0.42344 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -2.18 dB at 33.4 MHz
15.407(b)(5) 15.407(b)(10)	Unwanted Emissions above 1 GHz	N/A	Refer to Note 1 below
15.407(e)	6 dB Bandwidth	N/A	Refer to Note 1 below
15.203	Antenna Requirement	Pass	Antenna connector is MHF 4L not a standard connector.

Note:
1. Only RF Output Power, Power Spectral Density, AC Power Conducted Emissions and Unwanted Emissions below 1 GHz test items were performed for this addendum. The others testing data refer to original test report (Original FCC ID: J9C-QCNCM825).
2. 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
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	5.5 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	Wi-Fi 7/BT combo module
Brand	Silex Technology
Test Model	SX-PCEBE
Status of EUT	Engineering sample
Power Supply Rating	3.3 Vdc from host equipment
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM for OFDM in 11ac mode 4096QAM 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 300 Mbps 802.11ac: up to 2166.7 Mbps 802.11ax: up to 2969.7 Mbps 802.11be: up to 2882.4 Mbps
Operating Frequency	5.835 GHz ~ 5.875 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
Resource Unit (RU)	Single RU: 26-tone, 52-tone, 106-tone, 242-tone, 484-tone, 996-tone, 2 * 996-tone Multi-RU (Small RU): 52-tone + 26-tone, 106-tone + 26-tone Multi-RU (Large RU): 484-tone + 242-tone, 996-tone + 484-tone
Channel Puncturing (Large RU)	80 MHz punctured by 20 MHz; 160 MHz punctured by 20 MHz 160 MHz punctured by 40 MHz
Output Power	EIRP: 384.301 mW (25.85 dBm)
EUT Category	Client device

Note:

1. This report is prepared for FCC class II permissive change. The difference compared with the original design is as the following:
   - ◆ Decrease TX power of specific channels via SW, the conditions for reducing power are applicable solely to the retesting channel. (with original chip: WCN7851)
   - ◆ WLAN 2.4G BW20 ch12 and ch13; BW 40 ch10 and ch11 were disabled via software and is non-modifiable by any third-party.
2. According to above conditions, there are RF Output Power, Power Spectral Density, AC Power Conducted Emissions and Unwanted Emissions below 1 GHz test items need to be performed. All data for meeting the requirement is verified.
3. There are Bluetooth (EDR, BLE, QHS) and WLAN (2.4 GHz & 5 GHz & 6 GHz) technology used for the EUT.

4. Simultaneously transmission combination.

Combination	Technology	
1	WLAN(2.4 GHz)_Ant 0+1	WLAN(5 GHz)_Ant 0+1
2	WLAN(2.4 GHz)_Ant 0+1	WLAN(6 GHz)_Ant 0+1
3	WLAN(5 GHz)_Ant 0+1	Bluetooth_Ant 0
4	WLAN(5 GHz)_Ant 0+1	Bluetooth_Ant 1
5	WLAN(5 GHz)_Ant 0+1	Bluetooth_Ant 0+1
6	WLAN(6 GHz)_Ant 0+1	Bluetooth_Ant 0
7	WLAN(6 GHz)_Ant 0+1	Bluetooth_Ant 1
8	WLAN(6 GHz)_Ant 0+1	Bluetooth_Ant 0+1
9	WLAN(2.4 GHz)_Ant 0	Bluetooth_Ant 1
10	WLAN(2.4 GHz)_Ant 1	Bluetooth_Ant 0

5. The EUT support OFDMA and Partial RU mode, therefore partial RU combination were investigated and the worst case scenario was identified.
6. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna Set	RF Chain No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (GHz)	Cable Loss (dB)	Antenna Type	Connector Type	Cable Length (mm)
1	Chain0/1	Hong-Bo	260-25094	3.53 3.06 3.07 4.81 4.2	2.4~2.4835 5.15~5.25 5.25~5.35 5.47~5.725 5.725~5.850	0.74 1.16 1.18 1.26 1.28	PIFA	MHF 4L	300
2	Chain0/1	Hong-Bo	260-25083	5.09 5.14 5.09 5.16 5.12	5.850~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	1.29 1.35 1.38 1.45 1.50	PIFA	MHF 4L	300
3	Chain0/1	Hong-Bo	260-25084	3.22 3.35 3.42 4.77 4.72 4.71 4.75 4.29 4.81 4.74	2.4~2.4835 5.150~5.250 5.250~5.350 5.470~5.725 5.725~5.850 5.850~5.895 5.925~6.425 6.425~6.525 6.525~6.875 6.875~7.125	0.49 0.76 0.77 0.80 0.84 0.84 0.86 0.91 0.96 0.98	Monopole	MHF 4L	200

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

2. The EUT incorporates a MIMO function:

5 GHz Band		
Modulation Mode	**Tx & Rx Configuration**	
802.11a	2Tx	2Rx
802.11n (HT20)	2Tx	2Rx
802.11n (HT40)	2Tx	2Rx
802.11ac (VHT20)	2Tx	2Rx
802.11ac (VHT40)	2Tx	2Rx
802.11ac (VHT80)	2Tx	2Rx
802.11ac (VHT160)	2Tx	2Rx
802.11ax (HE20)	2Tx	2Rx
802.11ax (HE40)	2Tx	2Rx
802.11ax (HE80)	2Tx	2Rx
802.11ax (HE160)	2Tx	2Rx
802.11be (EHT20)	2Tx	2Rx
802.11be (EHT40)	2Tx	2Rx
802.11be (EHT80)	2Tx	2Rx
802.11be (EHT160)	2Tx	2Rx
802.11ax (RU26/52/106/242/484/996/2*996)	2Tx	2Rx
802.11be (RU26/52/106/242/484/996/2*996 MRU52+26/106+26/ 484+242/996+484)	2Tx	2Rx
Note: The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), 802.11ac mode for 20 MHz (40 MHz, 80 MHz, 160 MHz), 802.11ax mode for 20 MHz (40 MHz, 80 MHz, 160 MHz) and 802.11be mode for 20 MHz (40 MHz, 80 MHz, 160 MHz). Therefore the investigated worst case is the representative mode in test report.		

3.3 Channel List

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

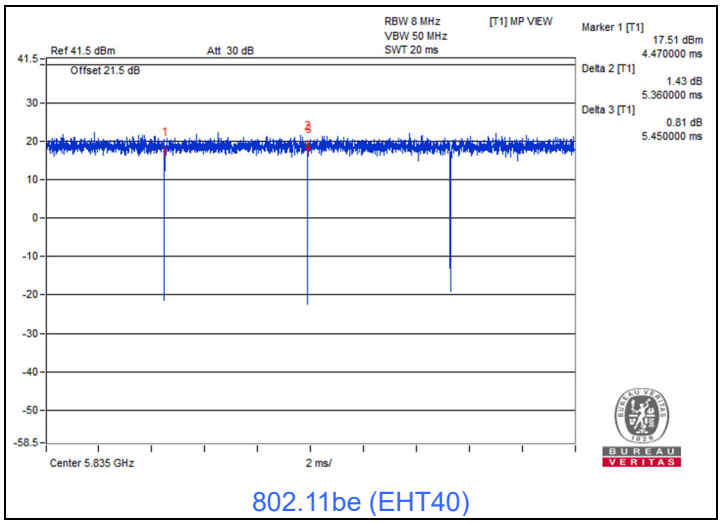
Pre-Scan:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates.

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

Test Item	EUT Configure Mode	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
RF Output Power / Power Spectral Density	A	802.11be (EHT40)	CDD	167, 175	BPSK	MCS0
AC Power Conducted Emissions	C	802.11be (EHT40)	CDD	167	BPSK	MCS0
Unwanted Emissions below 1 GHz	A, B	802.11be (EHT40)	CDD	167	BPSK	MCS0
EUT Configure Mode:	A	EUT only (remove 50 ohm terminator and Connect to the appropriate equipment)_Nss 1				
	B	EUT with 50 ohm terminator_Nss 1				
	C	EUT with antenna set 2 (Model: 260-25083)				

3.5 Duty Cycle of Test Signal

802.11be (EHT40): Duty cycle = 5.36 ms / 5.45 ms x 100% = 98.3%



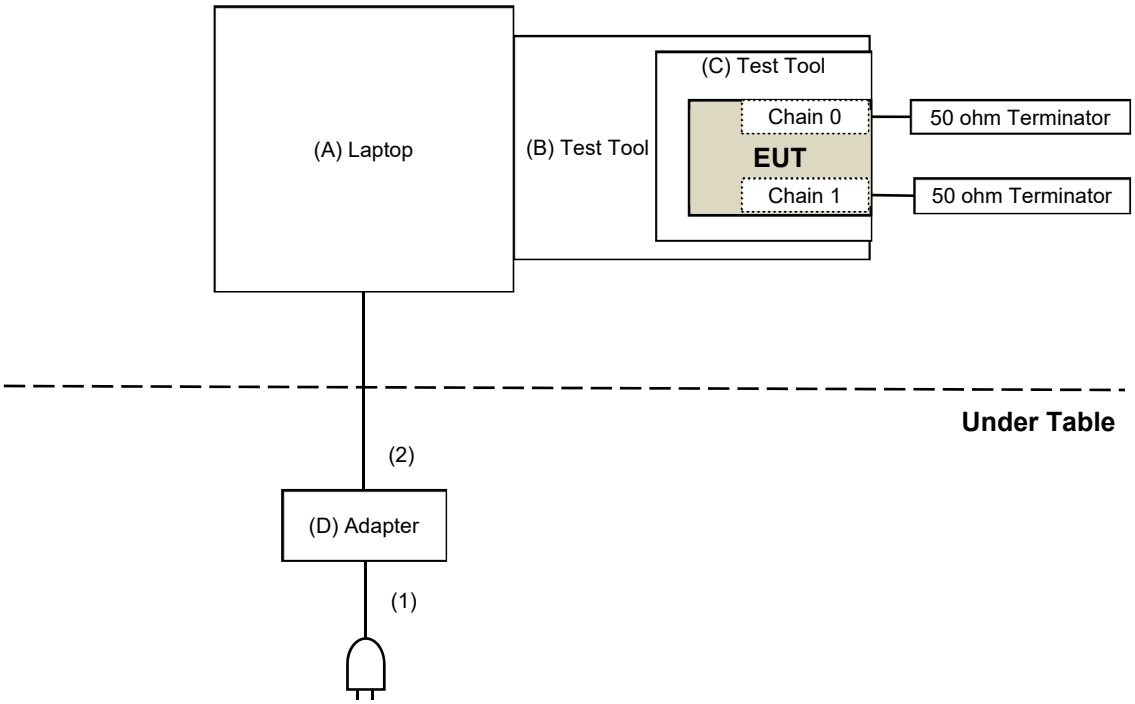
802.11be (EHT40)

3.6 Test Program Used and Operation Descriptions

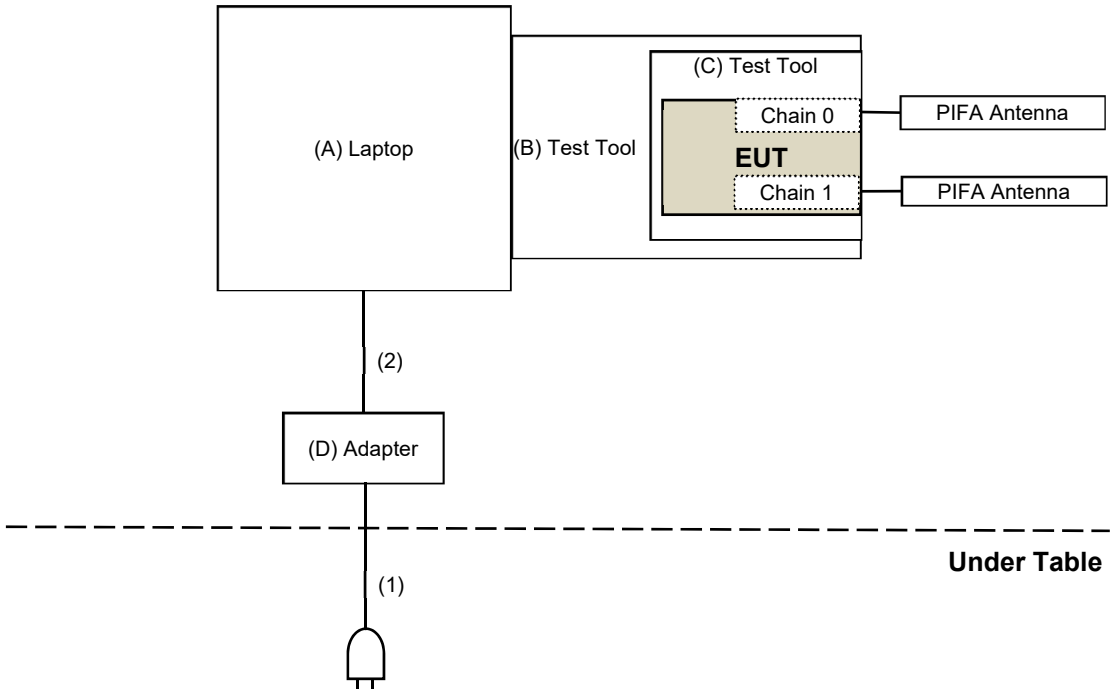
Controlling software (QRCT 1.0.00098) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices

For Unwanted Emissions test:



For AC Power Conducted Emission test:



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Laptop	HP	HSN-Q32C-5	N/A	N/A	Supplied by applicant
B	Test Tool	Silex	NGFF(A+E) TO Mini PCI-E Adapter	N/A	N/A	Supplied by applicant
C	Test Tool	Silex	PW105500XX	N/A	N/A	Supplied by applicant
D	Adapter	HP	TPN-DA22	N/A	N/A	Supplied by applicant

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	AC Cable	1	0.85	No	0	Supplied by applicant
2	DC Cable	1	1.6	No	0	Supplied by applicant

4 Test Instruments

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

4.1 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Pulse Power Sensor Anritsu	MA2411B	1726434	2024/6/7	2025/6/6
RF Power Meter Anritsu	ML2495A	1529002	2024/6/7	2025/6/6

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2025/4/2

4.2 Power Spectral Density

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
PXA Signal Analyzer Keysight	N9030A	MY55410176	2024/6/12	2025/6/11
Software	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2025/4/2

4.3 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance Telegartner	50 ohm	3	2024/11/1	2025/10/31
EMI Test Receiver R&S	ESCS 30	100375	2024/5/20	2025/5/19
Fixed Attenuator STI	STI02-2200-10	005	2025/2/17	2026/2/16
LISN R&S	ESH3-Z5	835239/001	2025/3/27	2026/3/26
		848773/004	2024/10/7	2025/10/6
RF Coaxial Cable JYEBAO	5D-FB	COCCAB-001	2025/2/17	2026/2/16
Software BVADT	BVADT_Cond_V7.3.7.4	N/A	N/A	N/A

Notes:

1. The test was performed in Conduction 1
2. Tested Date: 2025/5/19

4.4 Unwanted Emissions below 1 GHz

Mode A

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
PXA Signal Analyzer Keysight	N9030A	MY55410176	2024/6/12	2025/6/11
Software	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2025/4/6

Mode B

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-406	2024/10/8	2025/10/7
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Fixed Attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-03	2025/2/15	2026/2/14
Loop Antenna TESEQ	HLA 6121	63620	2024/10/17	2025/10/16
MXE EMI Receiver Agilent	N9038A	MY51210202	2024/7/29	2025/7/28
Preamplifier EMCI	EMC330N	980701	2025/2/15	2026/2/14
	EMC001340	980142	2025/2/17	2026/2/16
RF Coaxial Cable mTJ	100100-CFD400LW-200	CFD400-200	2025/2/15	2026/2/14
	100100-CFD400LW-400	CFD400-400	2025/2/15	2026/2/14
	100100-CFD400LW-800	CFD400-800	2025/2/15	2026/2/14
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in 966 Chamber No. 4.
2. Tested Date: 2025/5/16

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.	

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.

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 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.

5.4 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).

6 Test Arrangements

6.1 RF Output Power

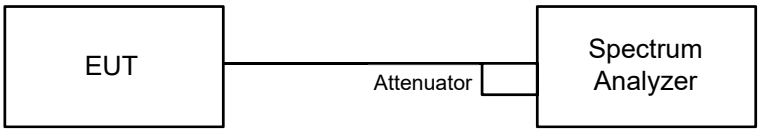
6.1.1 Test Setup

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



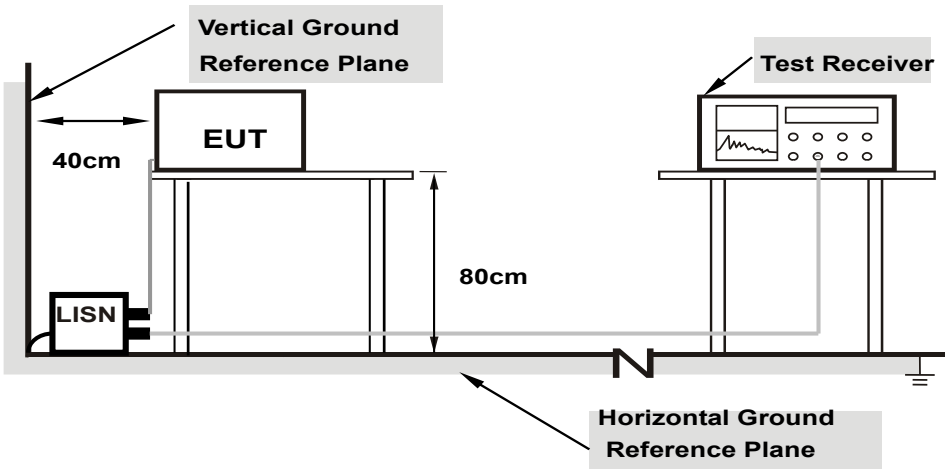
6.2.2 Test Procedure

For specified measurement bandwidth 1 MHz:
Method SA-1

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

6.3 AC Power Conducted Emissions

6.3.1 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).

6.3.2 Test Procedure

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

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

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

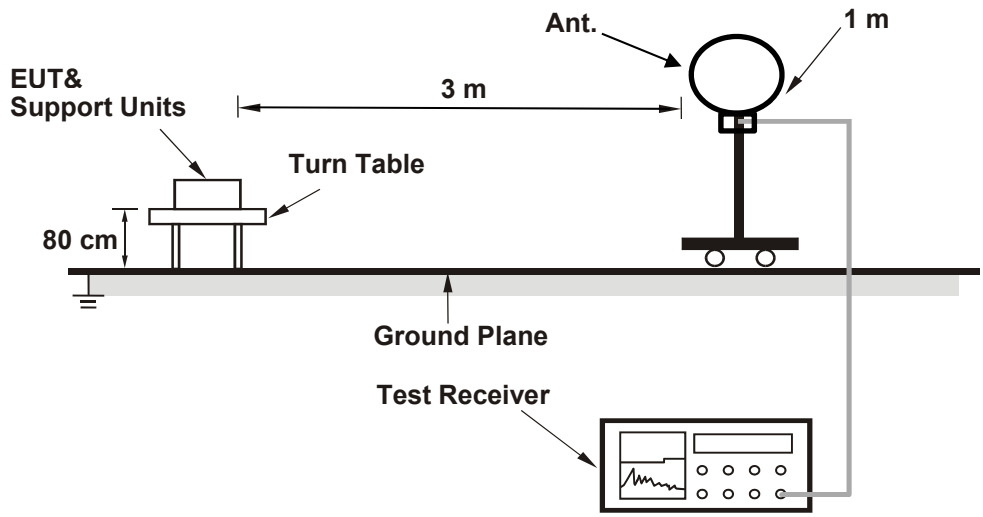
Note: The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz-30 MHz.

6.4 Unwanted Emissions below 1 GHz

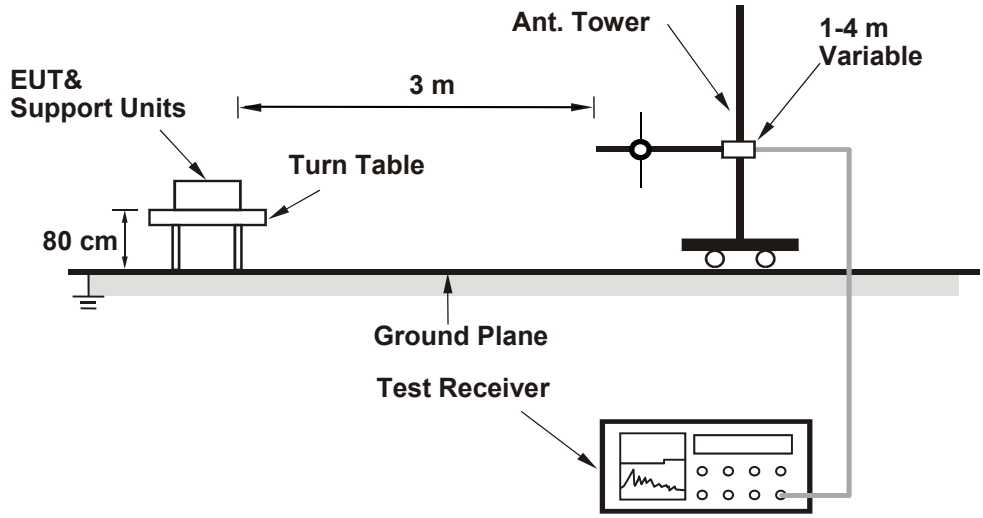
6.4.1 Test Setup

For Radiated Configuration:

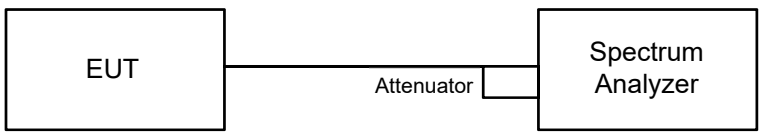
For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



For Conducted Configuration:



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

6.4.2 Test Procedure

Radiated versus Conducted Measurement.
The unwanted emission limits in both the restricted and non-restricted bands are based on antenna-port conducted measurements in conjunction with cabinet emissions tests are permitted to demonstrate compliance.
The following steps was performed:

a. Cabinet emissions measurements. Radiated measurement was performed to ensure that cabinet emissions are below the emission limits. For the cabinet-emission measurements the antenna was replaced by a termination matching the nominal impedance of the antenna.
b. Conducted tests was performed using equipment that matches the nominal impedance of the antenna assembly used with the EUT.
c. EIRP calculation. A value representative of an upper bound on out-of-band antenna gain (in dBi) shall be added to the measured antenna-port conducted emission power to compute EIRP within the specified measurement bandwidth. (For emissions in the restricted bands, additional calculations are required to convert EIRP to field strength at the specified distance.) The upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands or 2 dBi, whichever is greater.
d. EIRP adjustments for multiple outputs. (Follow the procedures specified in FCC KDB Publication 662911)
e. For all of Radiation emission test

For Radiated emission below 30 MHz

e-1.1. 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.

e-1.2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

e-1.3. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

e-1.4. 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-1.5. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode, except for the frequency band (9 kHz to 90 kHz and 110 kHz to 490 kHz) set to average detect function and peak detect function.

Notes:

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

For Radiated emission above 30 MHz

e-2.1. 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.

e-2.2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

e-2.3. 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.

e-2.4. 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-2.5. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

Notes:

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

Radiated versus Conducted Measurement
For Radiated measurement: The level of unwanted emissions was measured when radiated by the cabinet or structure of the equipment with the antenna connector(s) terminated by a specified load (cabinet radiation). For Conducted measurement: The level of unwanted emissions was measured as their power in a specified load (conducted spurious emissions).
Conducted Unwanted Emission Convert Formula
a. Emission Level (dBuV/m) = EIRP Level (dBm) – 20log(d) + 104.8 d = measurement distance in 3 meters. b. EIRP Level (dBm) = Raw Value(dBm) + Correction Factor(dB) c. Correction Factor is directional gain, and the composite gain will be used when signal support the correlated signal. For the out of band spurious the gain for the specific band may have been used rather than the highest gain across all bands. For the band edge the gain for the specific band may have been used. Notes: 1. In restricted bands below 1000 MHz, add upper bound on ground plane reflection: For frequencies between 30 MHz and 1000 MHz, add 4.7 dB. 2. The conducted emission test was considered some factor to compute test result.

7 Test Results of Test Item

7.1 RF Output Power

Input Power:	3.3 Vdc	Environmental Conditions:	21°C, 61% RH	Tested By:	Katina Lu

802.11be (EHT40):

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	18.64	16.62	119.034	20.76	5.09	384.301	25.85	30	Pass
175	5875	16.39	14.22	69.975	18.45	5.09	225.914	23.54	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. The maximum gain is 5.09 dBi.

7.2 Power Spectral Density

Input Power:	3.3 Vdc	Environmental Conditions:	21°C, 61% RH	Tested By:	Katina Lu

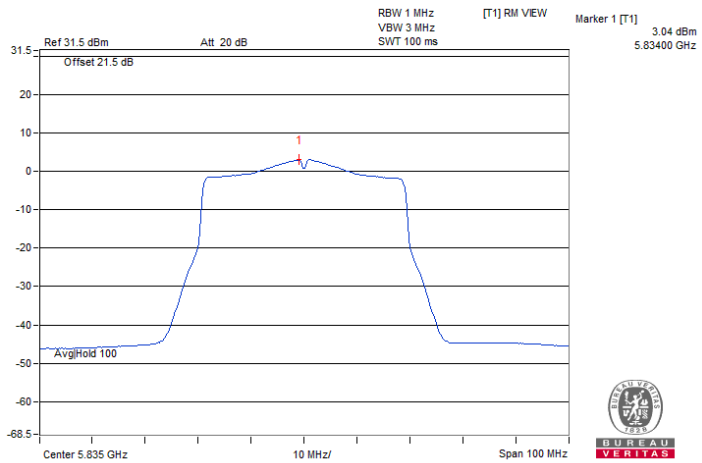
802.11be (EHT40):

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1					
167	5835	3.04	2.61	5.84	8.10	13.94	14	Pass
175	5875	2.07	1.55	4.83	8.10	12.93	14	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 = gain of antenna element + 10 log (2 of TX antenna elements)
3. The directional gain is 8.1 dBi.

Spectrum Plot of Maximum Value



Chain 0 : CH 167

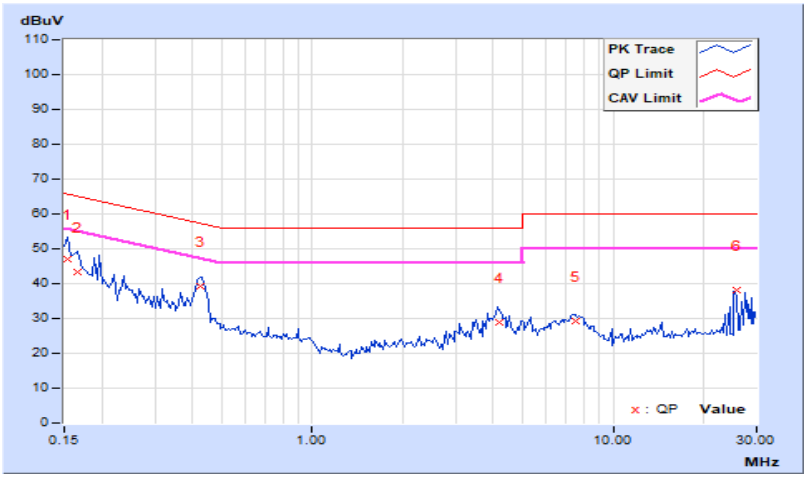
7.3 AC Power Conducted Emissions

RF Mode	802.11be (EHT40)	**Channel**	CH 167：5835 MHz
Frequency Range	150 kHz ~ 30 MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	25 °C, 75 % RH
Tested By	Tank Wu		

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	0.15391	10.00	37.09	19.10	47.09	29.10	65.79	55.79	-18.70	-26.69
2	0.16562	10.01	33.40	17.64	43.41	27.65	65.18	55.18	-21.77	-27.53
3	**0.42344**	**10.04**	**29.13**	**22.49**	**39.17**	**32.53**	**57.38**	**47.38**	**-18.21**	**-14.85**
4	4.17969	10.31	18.45	6.29	28.76	16.60	56.00	46.00	-27.24	-29.40
5	7.53125	10.53	18.77	12.18	29.30	22.71	60.00	50.00	-30.70	-27.29
6	25.90625	11.21	26.80	22.58	38.01	33.79	60.00	50.00	-21.99	-16.21

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

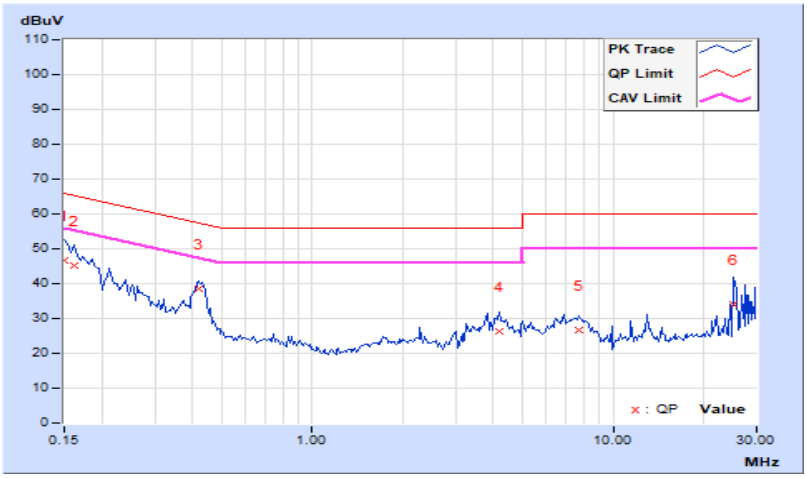


RF Mode	802.11be (EHT40)	**Channel**	CH 167：5835 MHz
Frequency Range	150 kHz ~ 30 MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	25 °C, 75 % RH
Tested By	Tank Wu		

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	0.15021	10.02	36.80	20.32	46.82	30.34	65.99	55.99	-19.17	-25.65
2	0.16172	10.02	35.21	18.45	45.23	28.47	65.38	55.38	-20.15	-26.91
3	0.41953	10.02	28.38	21.32	38.40	31.34	57.46	47.46	-19.06	-16.12
4	4.20313	10.28	15.85	6.60	26.13	16.88	56.00	46.00	-29.87	-29.12
5	7.67969	10.48	16.10	11.69	26.58	22.17	60.00	50.00	-33.42	-27.83
6	25.16406	11.00	22.96	5.26	33.96	16.26	60.00	50.00	-26.04	-33.74

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



7.4 Unwanted Emissions below 1 GHz

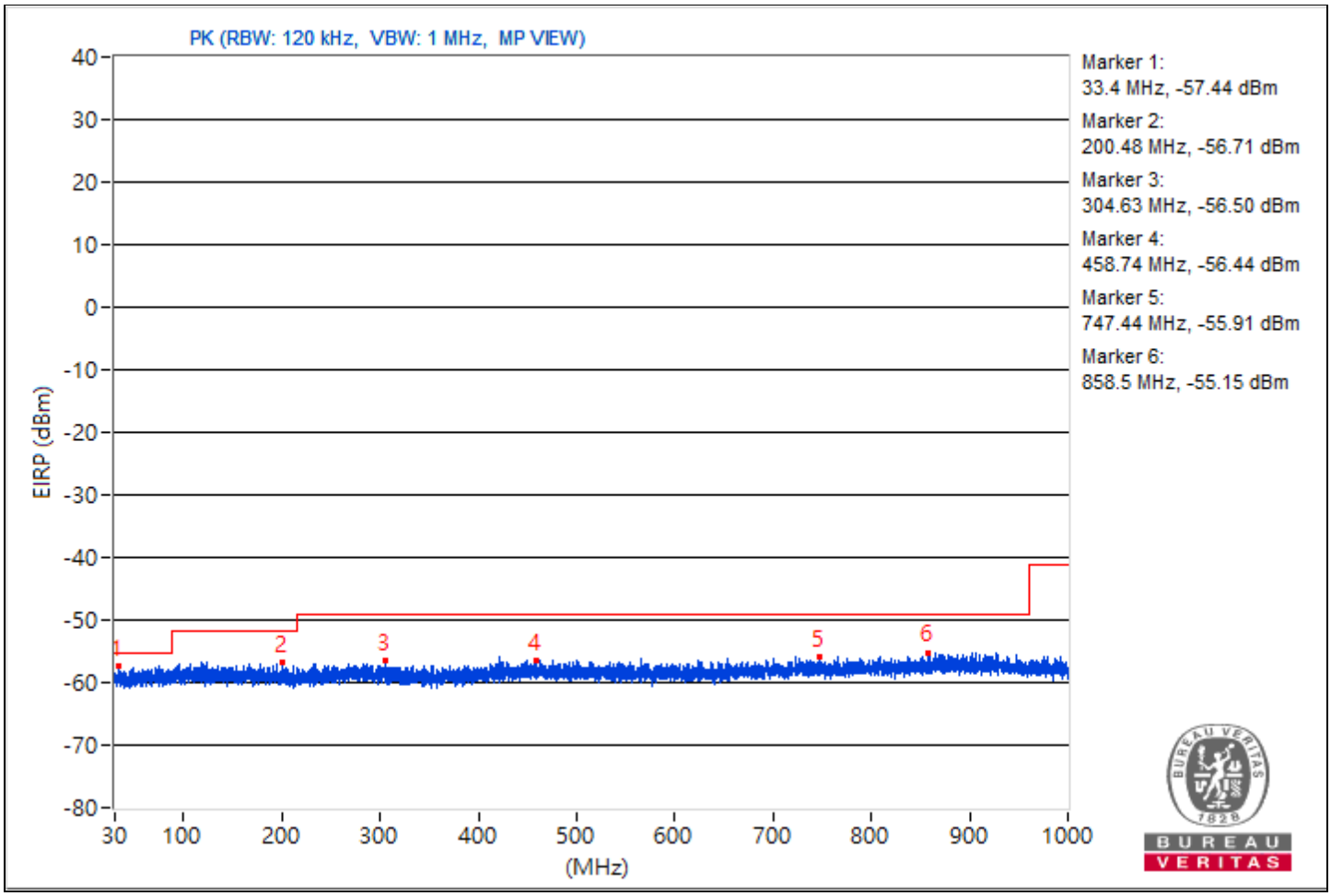
Mode A

RF Mode	802.11be (EHT40)	Channel	CH 167：5835 MHz
Frequency Range	30 MHz ~ 1 GHz	Environmental Conditions	22°C, 60% RH
Tested By	Katina Lu		

Conducted Unwanted Emissions								
No.	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw Value Chain 0 (dBm)	Raw Value Chain 1 (dBm)	Correction Factor (dB)	EIRP Level (dBm)
1	**33.4**	**37.82 PK**	**40**	**-2.18**	**-72.64**	**-74.11**	**12.87**	**-57.44**
2	200.48	38.55 PK	43.5	-4.95	-71.23	-74.57	12.87	-56.71
3	304.63	38.76 PK	46	-7.24	-72.98	-71.85	12.87	-56.5
4	458.74	38.82 PK	46	-7.18	-71.02	-74.18	12.87	-56.44
5	747.44	39.35 PK	46	-6.65	-73.8	-70.43	12.87	-55.91
6	858.5	40.11 PK	46	-5.89	-73.14	-69.61	12.87	-55.15

Notes:

1. Margin value = Emission Level - Limit value
2. 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.



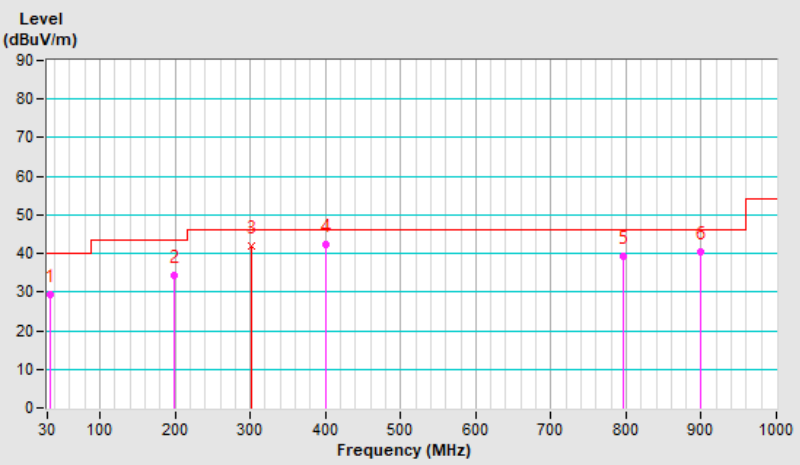
Mode B

RF Mode	802.11be (EHT40)	Channel	CH 167：5835 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	QP: RB=120kHz, DET=Quasi-Peak
Input Power (System)	120 Vac, 60 Hz	Environmental Conditions	25 °C, 65 % RH
Tested By	Tank Wu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	33.06	29.4 QP	40.0	-10.6	1.00 H	144	43.2	-13.8
2	199.17	34.4 QP	43.5	-9.1	2.00 H	143	50.6	-16.2
3	301.89	41.8 QP	46.0	-4.2	1.00 H	74	54.1	-12.3
4	399.89	42.3 QP	46.0	-3.7	3.00 H	198	52.1	-9.8
5	796.54	39.4 QP	46.0	-6.6	2.00 H	294	40.9	-1.5
6	899.80	40.5 QP	46.0	-5.5	1.00 H	330	40.8	-0.3

Remarks:

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

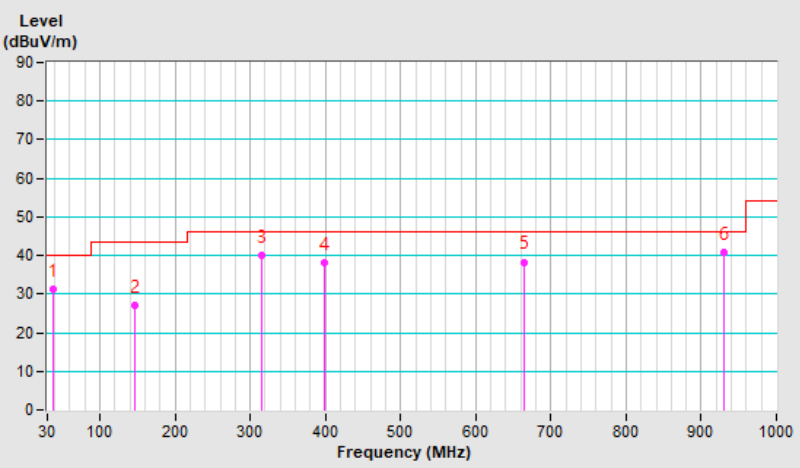


RF Mode	802.11be (EHT40)	**Channel**	CH 167：5835 MHz
Frequency Range	30 MHz ~ 1 GHz	**Detector Function & Bandwidth**	QP: RB=120kHz, DET=Quasi-Peak
Input Power (System)	120 Vac, 60 Hz	**Environmental Conditions**	25 °C, 65 % RH
Tested By	Tank Wu		

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	37.13	31.4 QP	40.0	-8.6	1.00 V	26	44.9	-13.5
2	146.86	27.0 QP	43.5	-16.5	1.00 V	149	39.9	-12.9
3	314.86	40.1 QP	46.0	-5.9	2.00 V	287	51.9	-11.8
4	398.36	38.2 QP	46.0	-7.8	1.00 V	41	48.0	-9.8
5	664.04	38.3 QP	46.0	-7.7	3.00 V	2	42.3	-4.0
6	929.58	40.8 QP	46.0	-5.2	2.00 V	168	40.4	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 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.



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.

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

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