



RF MEASUREMENT REPORT

FCC ID: 2BCGWBE65V2
Applicant: TP-LINK CORPORATION PTE. LTD.
Product: BE11000 Whole Home Mesh Wi-Fi 7 AP
Model No.: HB610
Brand Name: tp-link
FCC Classification: Unlicensed National Information Infrastructure (NII)
FCC Rule Part(s): Part 15 Subpart E (Section 15.407)
Result: Complies
Received Date: 2025-07-24
Test Date: 2025-07-30 ~ 2025-10-27

Reviewed By:

Yuri Li

Yuri Li

Approved By:

Robin Wu

Robin Wu



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report. Testing was performed in accordance with the applicable measurement procedures. The test results reported herein apply only to the specific item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.



Revision History

Report No.	Version	Description	Issue Date	Note
R25S1045074-U202	V01	Initial Report	2025-12-31	Valid

Note: This report is prepared as a supplementary report for Class II permissive change. It is based on FCC ID: 2BCGWBE65V2 (original grant date: 01/31/2024) and intends to implement specific changes. For details, refer to Section 6.1 of this report.

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1. General Information

1.1. Applicant

TP-LINK CORPORATION PTE. LTD.

7 Temasek Boulevard #29-03 Suntec Tower One, Singapore 038987

1.2. Manufacturer

TP-LINK CORPORATION PTE. LTD.

7 Temasek Boulevard #29-03 Suntec Tower One, Singapore 038987

1.3. Testing Facility

☒	Test Site - MRT Suzhou Laboratory	
	Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China	
	Laboratory Location (Suzhou - SIP) 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China	
	Laboratory Location (Suzhou - Wujiang) Building 1, No.1 Xingdong Road, Wujiang, Suzhou, Jiangsu, People's Republic of China	
	Laboratory Accreditations	
	A2LA: 3628.01 FCC: CN1166	CNAS: L10551 ISED: CN0001
☐	Test Site - MRT Shenzhen Laboratory	
	Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China	
	Laboratory Accreditations	
	A2LA: 3628.02 FCC: CN1284	CNAS: L10551 ISED: CN0105
☐	Test Site - MRT Taiwan Laboratory	
	Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)	
	Laboratory Accreditations	
	TAF: 3261 FCC: 291082, TW3261	ISED: TW3261

1.4. Product Information

Product Name	BE11000 Whole Home Mesh Wi-Fi 7 AP
Model No.	HB610
Brand Name	tp-link
EUT Identification No.	20250724Sample#03 (Conducted) 20250724Sample#04 (Radiated) 20251011Sample#01(Conducted) 20251011Sample#02(Radiated)
Wi-Fi Specification	802.11a/b/g/n/ac/ax/be
Antenna Specification	Refer to clause 1.7
Operating Temp.	0 ~ 40 °C
Power Type	AC/DC Adapter
Accessories	
AC/DC Adapter #1	BRAND: tp-link MODEL: T120250-2B4 INPUT: 100 – 240 V ~ 50/60 Hz 0.8 A. OUTPUT: DC 12.0 V 2.5 A Cable Out: Non-shielding, 1.5 m
AC/DC Adapter #2	Model: GQ24-120250-AU Input: 100-240 V ~ 50/60 Hz 1.0 A Output: 12.0 V = 2.5 A
Notes:	
1. The information of the EUT (Equipment Under Test) was provided by the manufacturer. The accuracy, completeness, and validity of the information are solely the responsibility of the manufacturer.	
2. Adapter #1 was selected for RF test.	

1.5. Radio Specification under Test

Frequency Range	UNII-1: 5150 ~ 5250 MHz UNII-2A: 5250 ~ 5350 MHz UNII-2C: 5470 ~ 5725 MHz UNII-3: 5725 ~ 5850 MHz	
Type of Modulation	802.11a/n/ac: OFDM 802.11ax/be: OFDMA	
Data Rate	802.11a: 6/9/12/18/24/36/48/54 Mbps 802.11n: up to 600 Mbps 802.11ac: up to 1733.3 Mbps 802.11ax: up to 2402 Mbps 802.11be: up to 4323 Mbps	
Channel Puncturing Function	☐ Supported	☒ Unsupported
Support RU	☒ Full RU	☐ Partial RU

1.6. Working Frequencies

802.11a/n-HT20/ac-VHT20/ax-HE20/be-EHT20

Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz
48	5240 MHz	52	5260 MHz	56	5280 MHz
60	5300 MHz	64	5320 MHz	100	5500 MHz
104	5520 MHz	108	5540 MHz	112	5560 MHz
116	5580 MHz	120	5600 MHz	124	5620 MHz
128	5640 MHz	132	5660 MHz	136	5680 MHz
140	5700 MHz	144	5720 MHz	149	5745 MHz
153	5765 MHz	157	5785 MHz	161	5805 MHz
165	5825 MHz	--	--	--	--

802.11n-HT40/ac-VHT40/ax-HE40/be-EHT40

Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz	54	5270 MHz
62	5310 MHz	102	5510 MHz	110	5550 MHz
118	5590 MHz	126	5630 MHz	134	5670 MHz
142	5710 MHz	151	5755 MHz	159	5795 MHz

802.11ac-VHT80/ax-HE80/be-EHT80

Channel	Frequency	Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz	106	5530 MHz
122	5610 MHz	138	5690 MHz	155	5775 MHz

802.11ac-VHT160/ax-HE160/be-EHT160

Channel	Frequency	Channel	Frequency	Channel	Frequency
50	5250 MHz	114	5570 MHz	--	--

802.11be-EHT240

Channel	Frequency	Channel	Frequency	Channel	Frequency
130	5650 MHz	--	--	--	--

1.7. Antenna Details

Antenna Type	Frequency Band (MHz)	Tx Paths	Number of spatial streams	Antenna Gain (dBi)		Beamforming Directional Gain (dBi)	CDD Directional Gain (dBi)	
				Ant 0	Ant 1		For Power	For PSD
Dipole	2400 ~ 2483.5	2	1	1.98	1.85	4.37	1.98	4.37
Dipole	5150 ~ 5350	2	1	3.00	3.00	5.51	3.00	5.51
	5470 ~ 5850	2	1	3.00	3.00	5.78	3.00	5.78
Franklin	5925 ~ 6425	2	1	3.00	3.00	5.45	3.00	5.45
			2	3.00	3.00	--	3.00	3.00
	6425 ~ 7125	2	1	3.00	3.00	5.51	3.00	5.51
			2	3.00	3.00	--	3.00	3.00

- The device supports CDD Mode and Beamforming mode, details refer to the table as below.
- CDD signals are correlated, the directional gain as follows,
When $N_{SS} = 1$, for power measurements: Array Gain = 0 dB for $N_{ANT} \leq 4$, the directional gain = max antenna gain + array gain
For power spectral density (PSD) measurements: the max directional gain (each angle) = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}]$
When $N_{SS} = 2$, the Directional Gain = $G_{ANT MAX} + 10 \log(N_{ANT} / N_{SS})$ dBi
- Beamforming signals are correlated, the directional gain as follows,
the max directional gain (each angle) = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}]$
- The information as above is from the antenna report.

Test Mode	T _x Paths	CDD Mode	Beamforming Mode
802.11b/g (DTS)	2	√	X
802.11n/ax/be (DTS)	2	√	√
802.11a (NII)	2	√	X
802.11n/ac/ax/be (NII)	2	√	√
802.11ax/be (6ID & 6PP)	2	√	√

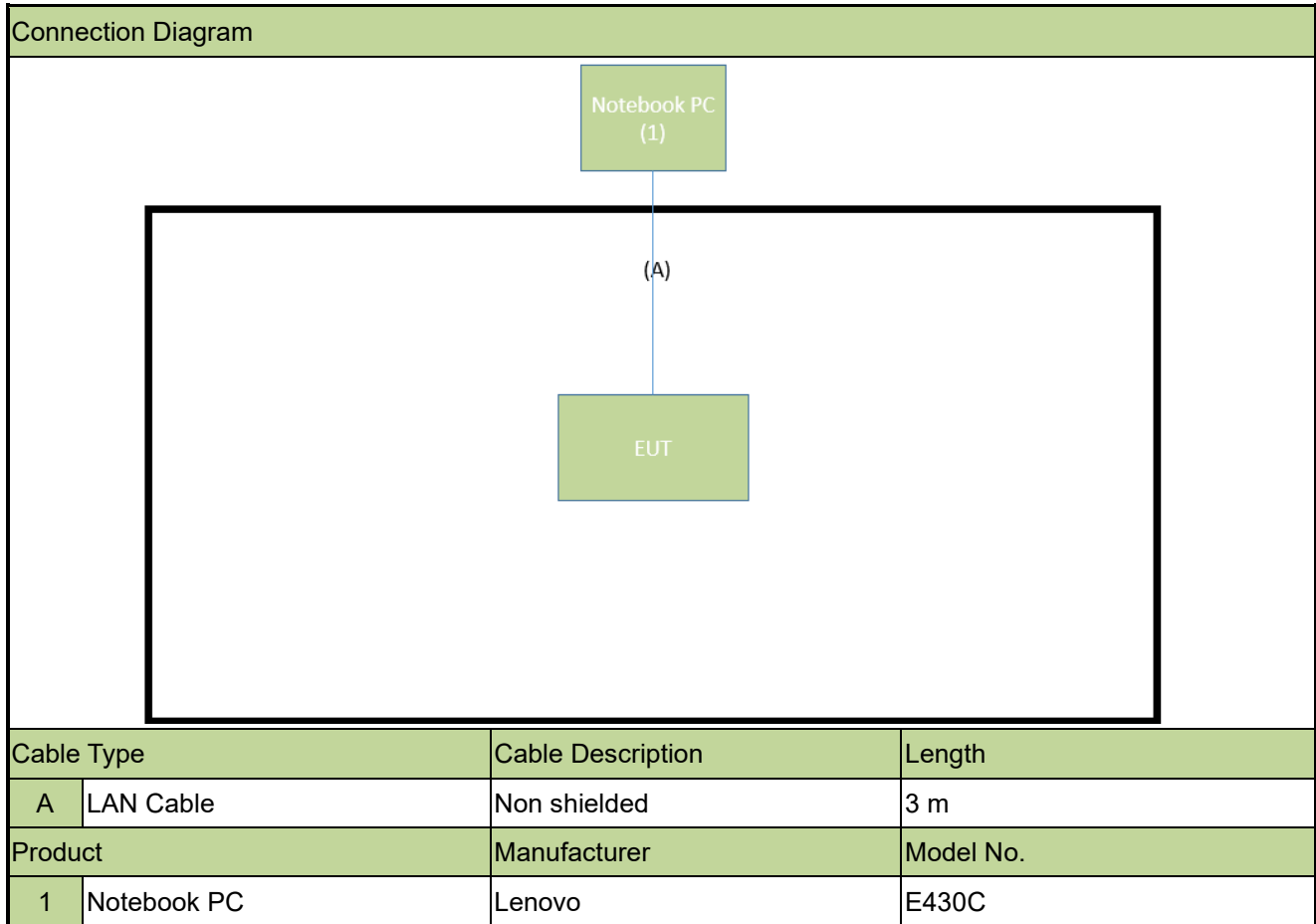
2. Test Configuration

2.1. Test Mode

CDD Mode
Mode 1: Transmit by 802.11a_N _{SS} = 1 (6 Mbps)
Mode 2: Transmit by 802.11ac-VHT20_ N _{SS} = 1 (MCS0)
Mode 3: Transmit by 802.11ac-VHT40_ N _{SS} = 1 (MCS0)
Mode 4: Transmit by 802.11ac-VHT80_ N _{SS} = 1 (MCS0)
Mode 5: Transmit by 802.11ac-VHT160_ N _{SS} = 1 (MCS0)
Mode 6: Transmit by 802.11ax-HE20_ N _{SS} = 1 (MCS0)
Mode 7: Transmit by 802.11ax-HE40_ N _{SS} = 1 (MCS0)
Mode 8: Transmit by 802.11ax-HE80_ N _{SS} = 1 (MCS0)
Mode 9: Transmit by 802.11ax-HE160_ N _{SS} = 1 (MCS0)
Mode 10: Transmit by 802.11be-EHT20_ N _{SS} = 1 (MCS0)
Mode 11: Transmit by 802.11be-EHT40_ N _{SS} = 1 (MCS0)
Mode 12: Transmit by 802.11be-EHT80_ N _{SS} = 1 (MCS0)
Mode 13: Transmit by 802.11be-EHT160_ N _{SS} = 1 (MCS0)
Mode 14: Transmit by 802.11be-EHT240_ N _{SS} = 1 (MCS0)
Notes:
1. All modes of operation and data rates were investigated, so all RF test requirements shall be executed at the worst data rate which power is the greatest. 2. 802.11n and 802.11ac have same modulation type and same power value, so we only show 802.11ac test data in report. 3. For CDD mode, this device supports 2 Nss and power level is the same of spatial multiplexing. The worst case is Nss = 1. 4. For beamforming operation, the manufacturer automatically reduces power based on a factor calculated as the difference between the beamforming directional gain and the CDD directional power gain. Thus, only the CDD mode was evaluated in this report.

2.2. Test System Connection Diagram

The device was tested per the guidance ANSI C63.10-2020 was used to reference the appropriate EUT setup for radiated emissions testing.



2.3. Test Software

The test utility software used during testing was “QSPR”, the version is ver5.0-00202.

Note: Final power setting please refer to operational description.

2.4. Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15.407
- KDB 789033 D02 v02r01
- KDB 662911 D01 v02r01
- ANSI C63.10-2020
- ANSI C63.10-2020/Cor1-2023
- ANSI C63.10a-2024

2.5. Test Environment Condition

Ambient Temperature	15 ~ 35 °C
Relative Humidity	20 ~ 75%RH

3. Antenna Requirements

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

- The antenna of the device is **permanently attached**.
- There are no provisions for connection to an external antenna.

Conclusion:

The unit complies with the requirement of §15.203.

4. Measuring Instrument

Instrument	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
Thermohygrometer	testo	608-H1	MRTSUE11039	1 year	2025-10-16	WZ-AC1
					2026-10-08	
Anechoic Chamber	TDK	WZ-AC1	MRTSUE06212	1 year	2026-04-17	WZ-AC1
Loop Antenna	Schwarzbeck	FMZB 1519 B	MRTSUE06937	1 year	2026-01-04	WZ-AC1
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2025-12-05	WZ-AC1
EMI Test Receiver	Agilent	N9038A	MRTSUE06125	1 year	2026-04-26	WZ-AC1
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2026-05-11	WZ-AC1
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2026-07-19	WZ-AC1
Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2025-11-08	WZ-AC1
Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2025-10-13	WZ-AC1
					2026-09-28	
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06597	1 year	2025-11-03	WZ-AC1
Preamplifier	EMCI	EMC184045SE	MRTSUE06640	1 year	2026-01-09	WZ-AC1
EMI Test Receiver	R&S	ESR3	MRTSUE06185	1 year	2025-12-05	SIP-AC3
Thermohygrometer	testo	608-H1	MRTSUE06619	1 year	2025-10-17	SIP-AC3
					2026-10-16	
Active Loop Antenna	Schwarzbeck	FMZB 1519-60 D	MRTSUE07075	1 year	2025-11-19	SIP-AC3
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06646	1 year	2026-07-03	SIP-AC3
Signal Analyzer	Keysight	N9010B	MRTSUE06559	1 year	2026-04-26	SIP-AC3
Preamplifier	EMCI	EMC012645SE	MRTSUE06642	1 year	2026-01-05	SIP-AC3
Horn Antenna	R&S	HF907	MRTSUE06611	1 year	2026-06-20	SIP-AC3
Preamplifier	EMCI	EMC184045SE	MRTSUE06602	1 year	2026-09-29	SIP-AC3
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06598	1 year	2025-11-03	SIP-AC3
Anechoic Chamber	RIKEN	SIP-AC3	MRTSUE06782	1 year	2025-12-19	SIP-AC3
Thermohygrometer	testo	608-H1	MRTSUE11022	1 year	2025-10-16	SIP-TR1
					2026-10-16	
Signal Analyzer	R&S	SMU200A	MRTSUE06489	1 year	2026-01-21	SIP-TR1
USB Power Sensor	Keysight	U2021XA	MRTSUE06596	1 year	2026-07-14	SIP-TR1

Software	Version	Function
e3	230711	RE & CE
Controller_MF 7802	2.03C	RE Antenna & Turntable
Controller_MF 7802BS	1.02	RE Antenna & Turntable
Agilent Power Analyzer/Agilent Power Panel	V R03.09.00	Power

5. Decision Rules and Measurement Uncertainty

5.1. Decision Rules

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4: 2012 Clause 8.2.

(Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.2. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Radiated Emission Measurement	
The maximum measurement uncertainty is evaluated as:	
Coaxial:	9 kHz ~ 30 MHz: 2.35 dB
Coplanar:	9 kHz ~ 30 MHz: 2.37 dB
Horizontal:	30 MHz ~ 200 MHz: 3.47 dB
	200 MHz ~ 1 GHz: 4.17 dB
	1 GHz ~ 40 GHz: 4.97 dB
Vertical:	30 MHz ~ 200 MHz: 4.07 dB
	200 MHz ~ 1 GHz: 5.28 dB
	1 GHz ~ 40 GHz: 4.84 dB
Output Power	
Measuring Uncertainty for a Level of Confidence of 95% ($U=2 U_c(y)$): 1.5 dB	

6. Test Result

6.1. Summary

FCC Section(s)	Test Description	Test Condition	Verdict
15.407(a)	26 dB Bandwidth	Conducted	N/P
15.407(e)	6 dB Bandwidth		N/P
15.407(a)(1)(ii), (2), (3)(i)	Maximum Conducted Output Power		Pass
15.407(h)(1)	Transmit Power Control		N/A ^{Note 3}
15.407(g)	Frequency Stability		N/P
15.407(a)(1)(ii), (2), (3)(i), (13)	Peak Power Spectral Density		N/P
15.407(h)(2)	Dynamic Frequency Selection (DFS)		N/P
15.407(b)(1), (2), (3), (4)(i)	Undesirable Emissions	Radiated	N/P
15.205, 15.209 15.407(b)(8), (9), (10)	General Field Strength (Restricted Bands and Radiated Emissions)		Pass
15.207	AC Conducted Emissions 150 kHz - 30 MHz	Line Conducted	N/P

Remark:

- The analyzer plots shown in this section were captured using a correction table to account for cable and attenuator losses in the system connecting the EUT to the analyzer across relevant frequencies.
- For radiated emission test, every axis (X, Y, Z) was also verified. The test results shown in the following sections represent the worst-case emissions.
- "N/A" means not applicable, the EUT's EIRP is below 27 dBm, so this test item is not applicable.
- "N/P" means not performed, please refer to the original approval.
- This product is an extension based on FCC ID: 2BCGWBE65V2 (original grant date: 01/31/2024), with a specific modification below:

Change Items	Remark
1	2.4G and 5G FEM has new alternative materials and satisfy PIN-TO-PIN
2	Change the product name and model

6.2. Output Power Measurement

6.2.1. Test Limit

For the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30 dBm).

If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

6.2.2. Test Procedure

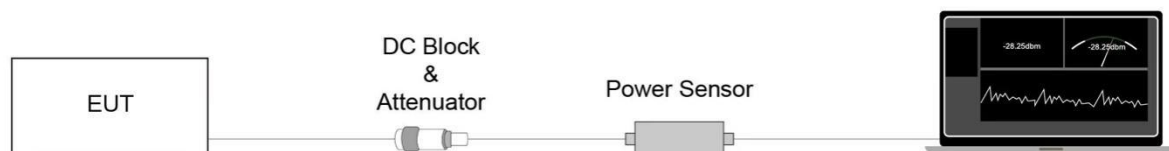
KDB 789033 D02 v02r01 - Section II - E.3.b (Method PM-G)

6.2.3. Test Setting

Average Power Measurement

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

6.2.4. Test Setup



6.2.5. Test Result

Refer to Appendix A.1.

6.3. Radiated Spurious Emission Measurement

6.3.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [$\mu\text{V/m}$]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

6.3.2. Test Procedure

KDB 789033 D02 v02r01 - Section II - G

6.3.3. Test Setting

Table 1 - RBW as a function of frequency

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Quasi-Peak Measurements below 1 GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1 MHz
3. RBW = as specified in Table 1
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Peak Measurements above 1 GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1 MHz
3. VBW = 3 MHz
4. Detector = Peak
5. Sweep time = Auto couple
6. Trace mode = Max hold
7. Trace was allowed to stabilize

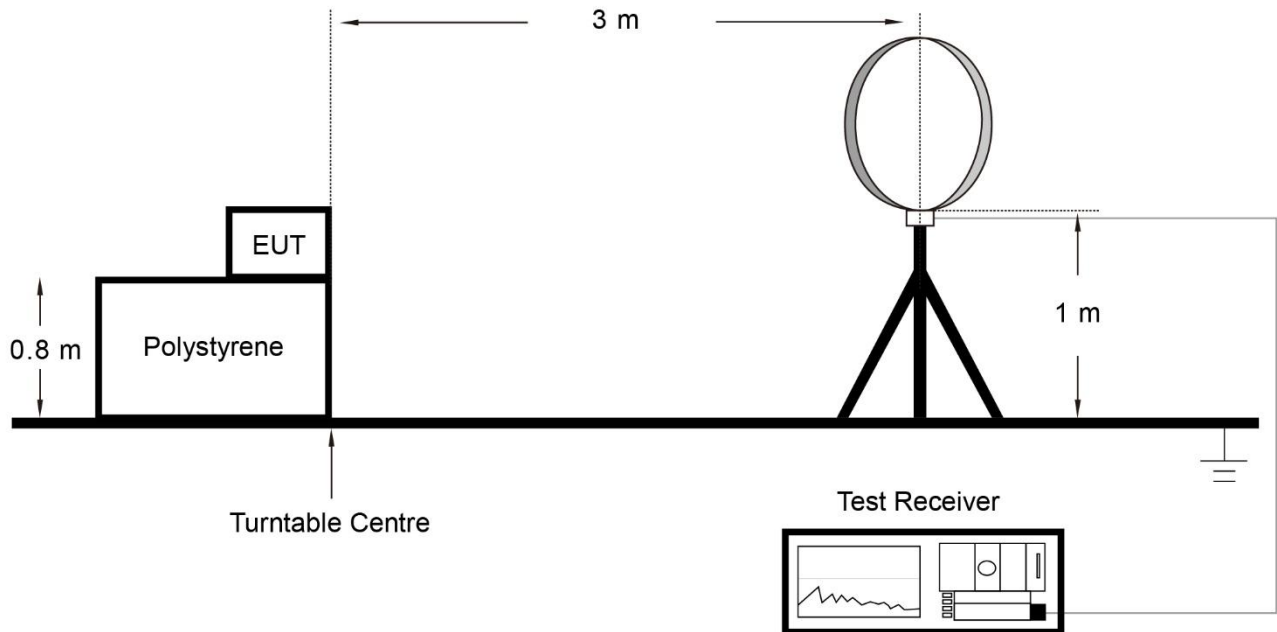
Average Measurements above 1 GHz (Method VB)

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1 MHz
3. VBW; if the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz

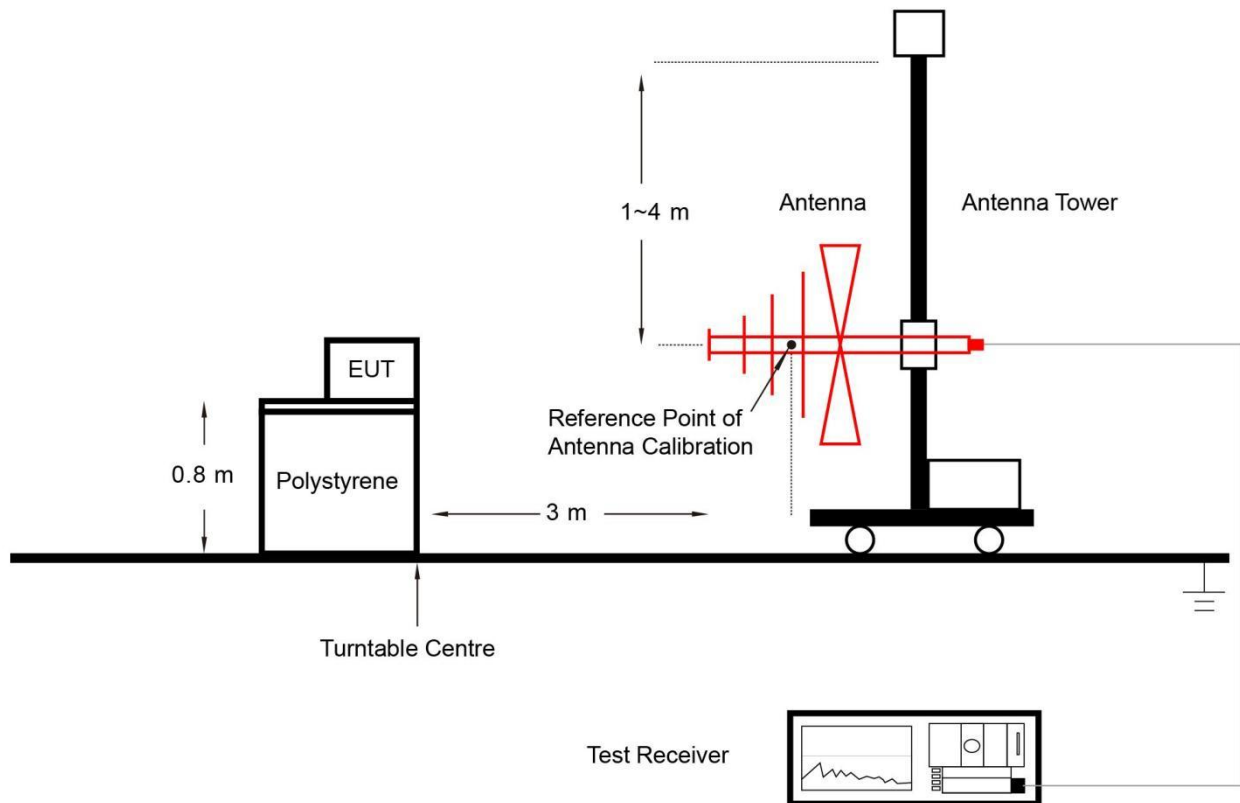
If the EUT duty cycle is $< 98\%$, set $VBW \geq 1/T$. T is the minimum transmission duration.
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode
5. Detector = Peak
6. Sweep time = Auto
7. Trace mode = Max hold
8. Trace was allowed to stabilize

6.3.4. Test Setup

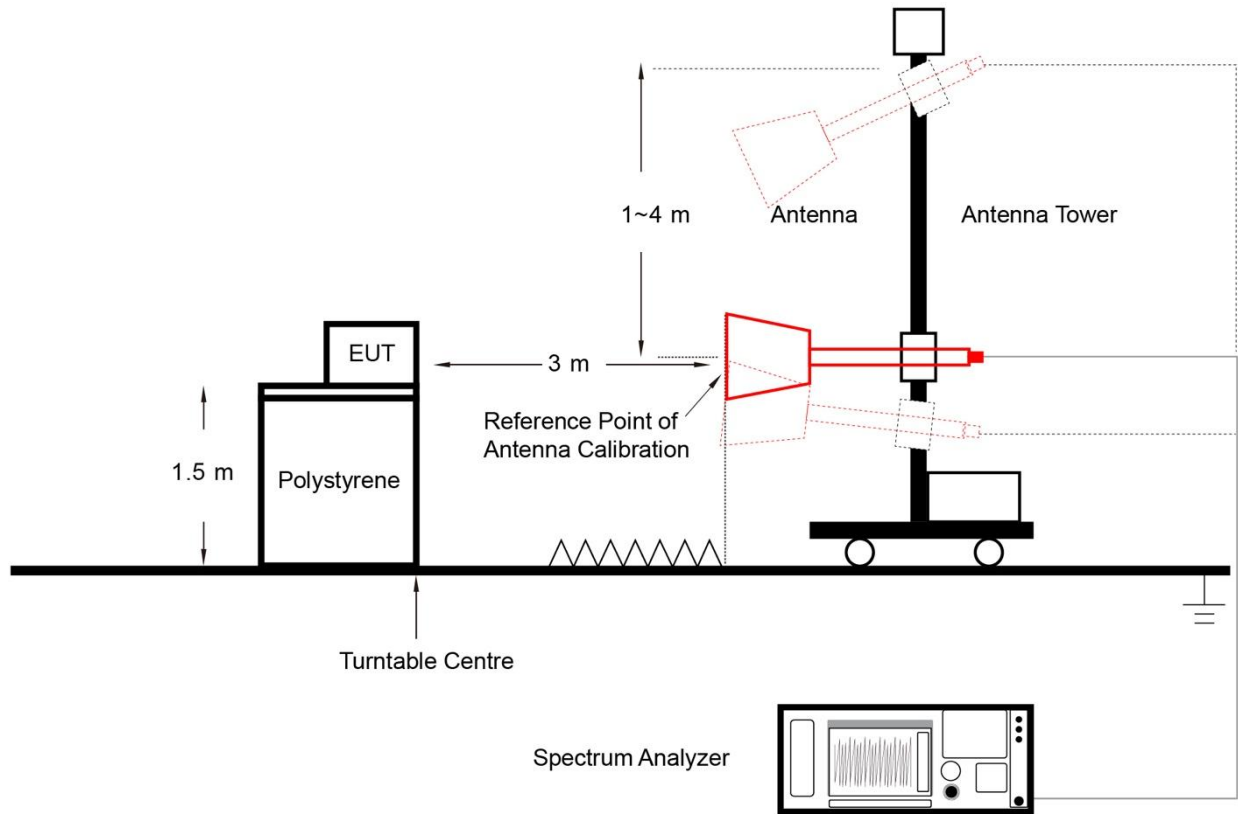
Below 30 MHz Test Setup:



Below 1 GHz Test Setup:



Above 1 GHz Test Setup:



6.3.5. Test Result

Refer to Appendix A.2.

6.4. Radiated Restricted Band Edge Measurement

6.4.1. Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	- 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)
13.36 - 13.41	--	--	--

For 15.407(b) requirement:

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Refer to KDB 789033 D02 v02r01 G)2)c), as specified in § 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a maximum emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in § 15.407(b)(4)). However, an out-of-band emission that complies with both the peak and average limits of § 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz maximum emission limit.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [μV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

6.4.2. Test Procedure

KDB 789033 D02 v02r01 - Section II - G

6.4.3. Test Setting

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1 MHz
3. VBW = 3 MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

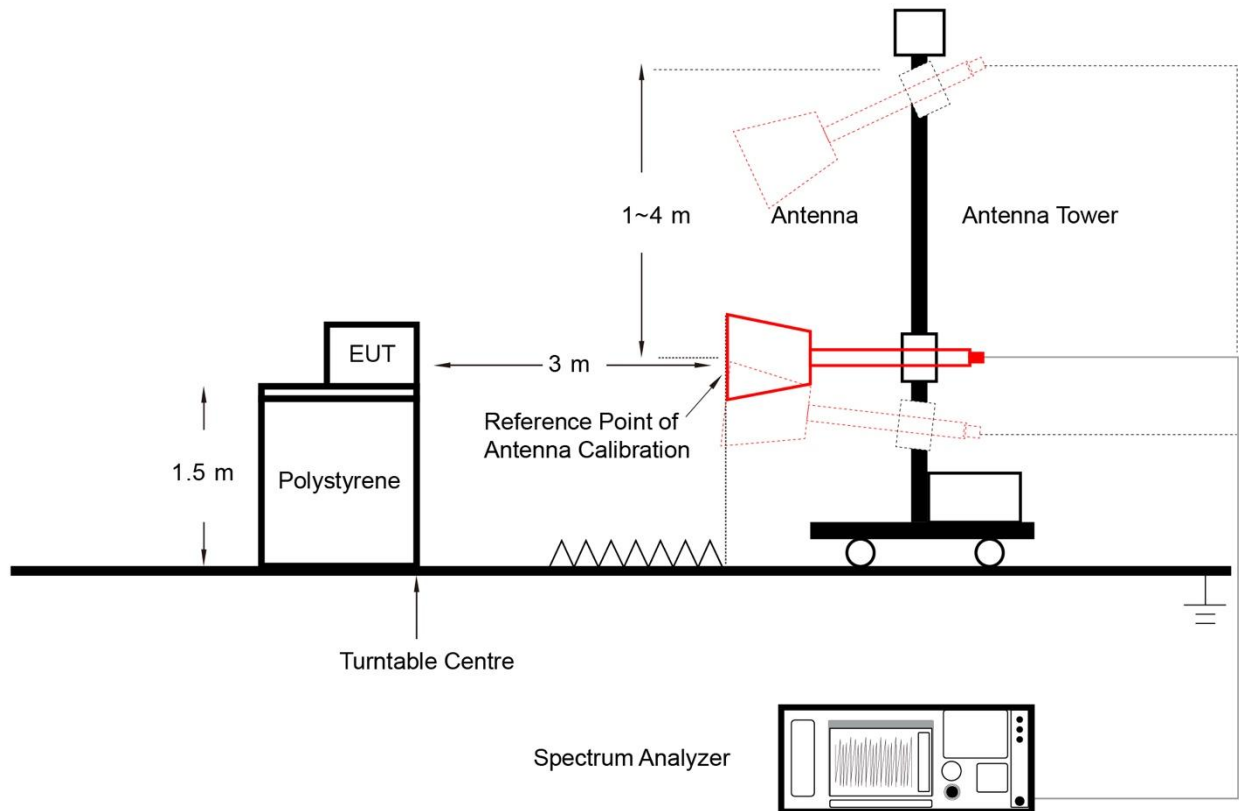
Average Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1 MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.

If the EUT duty cycle is $< 98\%$, set $VBW \geq 1/T$. T is the minimum transmission duration.

4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode
5. Detector = Peak
6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces

6.4.4. Test Setup



6.4.5. Test Result

Refer to Appendix A.3.

Appendix A - Test Result

A.1 Output Power Test Result

QPF4559:

Test Site	SIP-TR1	Test Engineer	Alan Yu
Test Date	2025-07-30	Test Mode	CDD Mode

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Power Limit (dBm)
				Ant 0	Ant 1		
11a	6 Mbps	36	5180	21.97	21.99	24.99	≤ 30.00
11a	6 Mbps	44	5220	25.17	25.47	28.33	≤ 30.00
11a	6 Mbps	48	5240	25.34	25.36	28.36	≤ 30.00
11a	6 Mbps	52	5260	19.47	19.62	22.56	≤ 23.98
11a	6 Mbps	60	5300	19.12	19.48	22.31	≤ 23.98
11a	6 Mbps	64	5320	19.31	19.72	22.53	≤ 23.98
11a	6 Mbps	100	5500	19.87	19.15	22.54	≤ 23.98
11a	6 Mbps	116	5580	19.94	20.36	23.17	≤ 23.98
11a	6 Mbps	140	5700	19.52	19.61	22.58	≤ 23.98
11a	6 Mbps	144	5720	19.15	19.08	22.13	≤ 23.00
11a	6 Mbps	149	5745	24.81	24.97	27.90	≤ 30.00
11a	6 Mbps	157	5785	24.49	23.89	27.21	≤ 30.00
11a	6 Mbps	165	5825	24.70	24.76	27.74	≤ 30.00
11ac-VHT20	MCS0	36	5180	21.65	21.48	24.58	≤ 30.00
11ac-VHT20	MCS0	44	5220	25.19	25.28	28.25	≤ 30.00
11ac-VHT20	MCS0	48	5240	25.48	25.29	28.40	≤ 30.00
11ac-VHT20	MCS0	52	5260	20.44	20.31	23.39	≤ 23.98
11ac-VHT20	MCS0	60	5300	19.69	20.06	22.89	≤ 23.98
11ac-VHT20	MCS0	64	5320	19.92	20.36	23.16	≤ 23.98
11ac-VHT20	MCS0	100	5500	20.22	20.09	23.17	≤ 23.98
11ac-VHT20	MCS0	116	5580	19.97	20.32	23.16	≤ 23.98
11ac-VHT20	MCS0	140	5700	20.12	19.96	23.05	≤ 23.98
11ac-VHT20	MCS0	144	5720	19.22	19.08	22.16	≤ 23.08
11ac-VHT20	MCS0	149	5745	24.92	25.22	28.08	≤ 30.00
11ac-VHT20	MCS0	157	5785	24.54	24.02	27.30	≤ 30.00
11ac-VHT20	MCS0	165	5825	24.79	24.97	27.89	≤ 30.00

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Power Limit (dBm)
				Ant 0	Ant 1		
11ac-VHT40	MCS0	38	5190	21.29	20.88	24.10	≤ 30.00
11ac-VHT40	MCS0	46	5230	25.66	25.45	28.57	≤ 30.00
11ac-VHT40	MCS0	54	5270	20.71	20.58	23.66	≤ 23.98
11ac-VHT40	MCS0	62	5310	20.30	20.52	23.42	≤ 23.98
11ac-VHT40	MCS0	102	5510	19.97	20.31	23.15	≤ 23.98
11ac-VHT40	MCS0	110	5550	20.16	20.54	23.36	≤ 23.98
11ac-VHT40	MCS0	134	5670	20.34	19.53	22.96	≤ 23.98
11ac-VHT40	MCS0	142	5710	20.14	20.04	23.10	≤ 23.98
11ac-VHT40	MCS0	151	5755	24.86	25.05	27.97	≤ 30.00
11ac-VHT40	MCS0	159	5795	24.76	24.79	27.79	≤ 30.00
11ac-VHT80	MCS0	42	5210	20.17	20.56	23.38	≤ 30.00
11ac-VHT80	MCS0	58	5290	18.98	18.91	21.96	≤ 23.98
11ac-VHT80	MCS0	106	5530	20.02	21.09	23.60	≤ 23.98
11ac-VHT80	MCS0	122	5610	20.42	21.05	23.76	≤ 23.98
11ac-VHT80	MCS0	138	5690	20.04	19.89	22.98	≤ 23.98
11ac-VHT80	MCS0	155	5775	19.22	19.06	22.15	≤ 30.00
11ac-VHT160	MCS0	50	5250	19.34	19.30	22.33	≤ 23.98
11ac-VHT160	MCS0	114	5570	18.07	18.21	21.15	≤ 23.98
11ax-HE20	MCS0	36	5180	21.84	21.75	24.81	≤ 30.00
11ax-HE20	MCS0	44	5220	25.39	25.47	28.44	≤ 30.00
11ax-HE20	MCS0	48	5240	25.64	25.48	28.57	≤ 30.00
11ax-HE20	MCS0	52	5260	20.44	20.17	23.32	≤ 23.98
11ax-HE20	MCS0	60	5300	19.73	20.15	22.96	≤ 23.98
11ax-HE20	MCS0	64	5320	19.35	20.14	22.77	≤ 23.98
11ax-HE20	MCS0	100	5500	20.01	20.32	23.18	≤ 23.98
11ax-HE20	MCS0	116	5580	19.75	20.45	23.12	≤ 23.98
11ax-HE20	MCS0	140	5700	20.08	20.12	23.11	≤ 23.98
11ax-HE20	MCS0	144	5720	19.24	19.27	22.27	≤ 23.09
11ax-HE20	MCS0	149	5745	24.84	25.11	27.99	≤ 30.00
11ax-HE20	MCS0	157	5785	24.26	23.95	27.12	≤ 30.00
11ax-HE20	MCS0	165	5825	24.63	25.02	27.84	≤ 30.00

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Power Limit (dBm)
				Ant 0	Ant 1		
11ax-HE40	MCS0	38	5190	20.65	20.21	23.45	≤ 30.00
11ax-HE40	MCS0	46	5230	25.74	25.42	28.59	≤ 30.00
11ax-HE40	MCS0	54	5270	20.73	20.58	23.67	≤ 23.98
11ax-HE40	MCS0	62	5310	20.29	20.56	23.44	≤ 23.98
11ax-HE40	MCS0	102	5510	20.26	20.47	23.38	≤ 23.98
11ax-HE40	MCS0	110	5550	20.15	20.68	23.43	≤ 23.98
11ax-HE40	MCS0	134	5670	20.13	19.49	22.83	≤ 23.98
11ax-HE40	MCS0	142	5710	19.91	20.06	23.00	≤ 23.98
11ax-HE40	MCS0	151	5755	25.43	25.59	28.52	≤ 30.00
11ax-HE40	MCS0	159	5795	25.06	24.92	28.00	≤ 30.00
11ax-HE80	MCS0	42	5210	20.42	20.96	23.71	≤ 30.00
11ax-HE80	MCS0	58	5290	19.64	19.83	22.75	≤ 23.98
11ax-HE80	MCS0	106	5530	20.32	20.73	23.54	≤ 23.98
11ax-HE80	MCS0	122	5610	20.59	20.86	23.74	≤ 23.98
11ax-HE80	MCS0	138	5690	20.25	19.81	23.05	≤ 23.98
11ax-HE80	MCS0	155	5775	18.78	18.62	21.71	≤ 30.00
11ax-HE160	MCS0	50	5250	19.39	19.26	22.34	≤ 23.98
11ax-HE160	MCS0	114	5570	18.16	18.38	21.28	≤ 23.98
11be-EHT20	MCS0	36	5180	21.71	21.38	24.56	≤ 30.00
11be-EHT20	MCS0	44	5220	25.21	25.28	28.26	≤ 30.00
11be-EHT20	MCS0	48	5240	25.39	25.21	28.31	≤ 30.00
11be-EHT20	MCS0	52	5260	20.26	20.34	23.31	≤ 23.98
11be-EHT20	MCS0	60	5300	19.77	19.91	22.85	≤ 23.98
11be-EHT20	MCS0	64	5320	19.93	20.54	23.26	≤ 23.98
11be-EHT20	MCS0	100	5500	20.17	20.08	23.14	≤ 23.98
11be-EHT20	MCS0	116	5580	19.69	20.46	23.10	≤ 23.98
11be-EHT20	MCS0	140	5700	19.83	19.98	22.92	≤ 23.98
11be-EHT20	MCS0	144	5720	18.81	19.15	21.99	≤ 23.02
11be-EHT20	MCS0	149	5745	24.66	25.03	27.86	≤ 30.00
11be-EHT20	MCS0	157	5785	24.13	24.02	27.09	≤ 30.00
11be-EHT20	MCS0	165	5825	24.52	24.86	27.70	≤ 30.00

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Power Limit (dBm)
				Ant 0	Ant 1		
11be-EHT40	MCS0	38	5190	20.97	20.75	23.87	≤ 30.00
11be-EHT40	MCS0	46	5230	25.54	25.31	28.44	≤ 30.00
11be-EHT40	MCS0	54	5270	20.55	20.51	23.54	≤ 23.98
11be-EHT40	MCS0	62	5310	19.97	20.38	23.19	≤ 23.98
11be-EHT40	MCS0	102	5510	20.29	20.26	23.29	≤ 23.98
11be-EHT40	MCS0	110	5550	20.45	21.19	23.85	≤ 23.98
11be-EHT40	MCS0	134	5670	20.38	19.95	23.18	≤ 23.98
11be-EHT40	MCS0	142	5710	20.24	20.04	23.15	≤ 23.98
11be-EHT40	MCS0	151	5755	23.66	23.50	26.59	≤ 30.00
11be-EHT40	MCS0	159	5795	24.93	24.66	27.81	≤ 30.00
11be-EHT80	MCS0	42	5210	20.15	20.56	23.37	≤ 30.00
11be-EHT80	MCS0	58	5290	19.51	19.75	22.64	≤ 23.98
11be-EHT80	MCS0	106	5530	19.82	21.13	23.53	≤ 23.98
11be-EHT80	MCS0	122	5610	19.74	20.23	23.00	≤ 23.98
11be-EHT80	MCS0	138	5690	19.64	19.58	22.62	≤ 23.98
11be-EHT80	MCS0	155	5775	19.30	19.20	22.26	≤ 30.00
11be-EHT160	MCS0	50	5250	19.33	19.27	22.31	≤ 23.98
11be-EHT160	MCS0	114	5570	18.13	18.37	21.26	≤ 23.98
11be-EHT240	MCS0	130	5650	13.42	12.74	16.10	≤ 23.98

Note 1: Total Average Power (dBm) = $10 \times \log \{10^{(\text{Ant 0 Average Power} / 10)} + 10^{(\text{Ant 1 Average Power} / 10)}\}$.

Note 2: For Band-Crossing channel, Average Power Limit = 23.98 dBm or $11 + 10 \times \log_{10} \text{EBW}_{2C}$ which is less.

KCT8570HT:

Test Site	SIP-TR1	Test Engineer	Alan Yu
Test Date	2025-10-27	Test Mode	CDD Mode

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Power Limit (dBm)
				Ant 0	Ant 1		
11a	6 Mbps	36	5180	22.04	21.16	24.63	≤ 30.00
11a	6 Mbps	44	5220	24.98	23.9	27.48	≤ 30.00
11a	6 Mbps	48	5240	25.01	23.97	27.53	≤ 30.00
11a	6 Mbps	52	5260	19.68	18.85	22.30	≤ 23.98
11a	6 Mbps	60	5300	19.12	19.09	22.12	≤ 23.98
11a	6 Mbps	64	5320	19.25	19.6	22.44	≤ 23.98
11a	6 Mbps	100	5500	19.90	19.13	22.54	≤ 23.98
11a	6 Mbps	116	5580	20.12	18.92	22.57	≤ 23.98
11a	6 Mbps	140	5700	18.98	18.82	21.91	≤ 23.98
11a	6 Mbps	144	5720	19.47	19.13	22.31	≤ 23.00
11a	6 Mbps	149	5745	25.16	23.79	27.54	≤ 30.00
11a	6 Mbps	157	5785	24.19	23.84	27.03	≤ 30.00
11a	6 Mbps	165	5825	24.71	24.20	27.47	≤ 30.00
11ac-VHT20	MCS0	36	5180	21.65	20.73	24.22	≤ 30.00
11ac-VHT20	MCS0	44	5220	24.93	23.93	27.47	≤ 30.00
11ac-VHT20	MCS0	48	5240	25.02	24.01	27.55	≤ 30.00
11ac-VHT20	MCS0	52	5260	20.08	19.54	22.83	≤ 23.98
11ac-VHT20	MCS0	60	5300	19.60	19.68	22.65	≤ 23.98
11ac-VHT20	MCS0	64	5320	19.79	20.03	22.92	≤ 23.98
11ac-VHT20	MCS0	100	5500	20.53	19.67	23.13	≤ 23.98
11ac-VHT20	MCS0	116	5580	20.14	19.11	22.67	≤ 23.98
11ac-VHT20	MCS0	140	5700	19.61	19.43	22.53	≤ 23.98
11ac-VHT20	MCS0	144	5720	19.51	19.32	22.43	≤ 23.08
11ac-VHT20	MCS0	149	5745	24.93	24.01	27.50	≤ 30.00
11ac-VHT20	MCS0	157	5785	24.17	23.95	27.07	≤ 30.00
11ac-VHT20	MCS0	165	5825	23.89	24.23	27.07	≤ 30.00

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Power Limit (dBm)
				Ant 0	Ant 1		
11ac-VHT40	MCS0	38	5190	21.08	20.22	23.68	≤ 30.00
11ac-VHT40	MCS0	46	5230	25.68	24.35	28.08	≤ 30.00
11ac-VHT40	MCS0	54	5270	20.68	19.82	23.28	≤ 23.98
11ac-VHT40	MCS0	62	5310	20.43	20.16	23.31	≤ 23.98
11ac-VHT40	MCS0	102	5510	20.47	19.44	23.00	≤ 23.98
11ac-VHT40	MCS0	110	5550	20.70	18.88	22.89	≤ 23.98
11ac-VHT40	MCS0	134	5670	19.12	18.93	22.04	≤ 23.98
11ac-VHT40	MCS0	142	5710	20.03	19.83	22.94	≤ 23.98
11ac-VHT40	MCS0	151	5755	24.98	24.59	27.80	≤ 30.00
11ac-VHT40	MCS0	159	5795	24.24	24.05	27.16	≤ 30.00
11ac-VHT80	MCS0	42	5210	20.13	19.09	22.65	≤ 30.00
11ac-VHT80	MCS0	58	5290	19.12	18.88	22.01	≤ 23.98
11ac-VHT80	MCS0	106	5530	20.41	18.66	22.63	≤ 23.98
11ac-VHT80	MCS0	122	5610	20.42	19.93	23.19	≤ 23.98
11ac-VHT80	MCS0	138	5690	19.44	19.23	22.35	≤ 23.98
11ac-VHT80	MCS0	155	5775	19.09	18.58	21.85	≤ 30.00
11ac-VHT160	MCS0	50	5250	19.28	18.12	21.75	≤ 23.98
11ac-VHT160	MCS0	114	5570	18.42	16.62	20.62	≤ 23.98
11ax-HE20	MCS0	36	5180	21.72	20.92	24.35	≤ 30.00
11ax-HE20	MCS0	44	5220	25.01	24.11	27.59	≤ 30.00
11ax-HE20	MCS0	48	5240	25.05	24.13	27.62	≤ 30.00
11ax-HE20	MCS0	52	5260	19.92	19.56	22.75	≤ 23.98
11ax-HE20	MCS0	60	5300	19.82	19.85	22.85	≤ 23.98
11ax-HE20	MCS0	64	5320	19.26	19.83	22.56	≤ 23.98
11ax-HE20	MCS0	100	5500	20.52	19.73	23.15	≤ 23.98
11ax-HE20	MCS0	116	5580	20.33	19.20	22.81	≤ 23.98
11ax-HE20	MCS0	140	5700	19.66	19.52	22.60	≤ 23.98
11ax-HE20	MCS0	144	5720	19.43	19.34	22.40	≤ 23.09
11ax-HE20	MCS0	149	5745	24.96	23.84	27.45	≤ 30.00
11ax-HE20	MCS0	157	5785	24.13	23.81	26.98	≤ 30.00
11ax-HE20	MCS0	165	5825	23.82	24.18	27.01	≤ 30.00

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Power Limit (dBm)
				Ant 0	Ant 1		
11ax-HE40	MCS0	38	5190	20.50	19.80	23.17	≤ 30.00
11ax-HE40	MCS0	46	5230	25.51	24.30	27.96	≤ 30.00
11ax-HE40	MCS0	54	5270	20.57	19.80	23.21	≤ 23.98
11ax-HE40	MCS0	62	5310	20.40	20.22	23.32	≤ 23.98
11ax-HE40	MCS0	102	5510	20.46	19.44	22.99	≤ 23.98
11ax-HE40	MCS0	110	5550	20.51	18.77	22.74	≤ 23.98
11ax-HE40	MCS0	134	5670	18.99	18.87	21.94	≤ 23.98
11ax-HE40	MCS0	142	5710	19.98	19.86	22.93	≤ 23.98
11ax-HE40	MCS0	151	5755	24.92	24.62	27.78	≤ 30.00
11ax-HE40	MCS0	159	5795	24.19	24.09	27.15	≤ 30.00
11ax-HE80	MCS0	42	5210	20.16	19.04	22.65	≤ 30.00
11ax-HE80	MCS0	58	5290	19.31	19.36	22.35	≤ 23.98
11ax-HE80	MCS0	106	5530	20.32	18.74	22.61	≤ 23.98
11ax-HE80	MCS0	122	5610	20.18	19.99	23.10	≤ 23.98
11ax-HE80	MCS0	138	5690	19.13	19.29	22.22	≤ 23.98
11ax-HE80	MCS0	155	5775	18.35	18.31	21.34	≤ 30.00
11ax-HE160	MCS0	50	5250	19.17	18.04	21.65	≤ 23.98
11ax-HE160	MCS0	114	5570	18.39	16.81	20.68	≤ 23.98
11be-EHT20	MCS0	36	5180	21.43	20.79	24.13	≤ 30.00
11be-EHT20	MCS0	44	5220	25.01	23.84	27.47	≤ 30.00
11be-EHT20	MCS0	48	5240	24.93	23.98	27.49	≤ 30.00
11be-EHT20	MCS0	52	5260	20.06	19.44	22.77	≤ 23.98
11be-EHT20	MCS0	60	5300	19.61	19.77	22.70	≤ 23.98
11be-EHT20	MCS0	64	5320	19.83	20.01	22.93	≤ 23.98
11be-EHT20	MCS0	100	5500	20.48	19.67	23.10	≤ 23.98
11be-EHT20	MCS0	116	5580	20.21	19.02	22.67	≤ 23.98
11be-EHT20	MCS0	140	5700	19.45	19.42	22.45	≤ 23.98
11be-EHT20	MCS0	144	5720	19.36	19.17	22.28	≤ 23.02
11be-EHT20	MCS0	149	5745	24.86	23.84	27.39	≤ 30.00
11be-EHT20	MCS0	157	5785	23.94	23.86	26.91	≤ 30.00
11be-EHT20	MCS0	165	5825	23.57	24.29	26.96	≤ 30.00

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Power Limit (dBm)
				Ant 0	Ant 1		
11be-EHT40	MCS0	38	5190	20.99	20.17	23.61	≤ 30.00
11be-EHT40	MCS0	46	5230	25.60	24.32	28.02	≤ 30.00
11be-EHT40	MCS0	54	5270	20.56	19.80	23.21	≤ 23.98
11be-EHT40	MCS0	62	5310	20.20	20.16	23.19	≤ 23.98
11be-EHT40	MCS0	102	5510	20.31	19.41	22.89	≤ 23.98
11be-EHT40	MCS0	110	5550	20.89	19.20	23.14	≤ 23.98
11be-EHT40	MCS0	134	5670	19.35	19.31	22.34	≤ 23.98
11be-EHT40	MCS0	142	5710	20.25	20.16	23.22	≤ 23.98
11be-EHT40	MCS0	151	5755	24.39	23.45	26.96	≤ 30.00
11be-EHT40	MCS0	159	5795	23.96	24.36	27.17	≤ 30.00
11be-EHT80	MCS0	42	5210	20.23	19.17	22.74	≤ 30.00
11be-EHT80	MCS0	58	5290	19.39	19.32	22.37	≤ 23.98
11be-EHT80	MCS0	106	5530	20.41	18.82	22.70	≤ 23.98
11be-EHT80	MCS0	122	5610	19.96	19.61	22.80	≤ 23.98
11be-EHT80	MCS0	138	5690	19.08	19.06	22.08	≤ 23.98
11be-EHT80	MCS0	155	5775	19.01	18.72	21.88	≤ 30.00
11be-EHT160	MCS0	50	5250	19.22	18.23	21.76	≤ 23.98
11be-EHT160	MCS0	114	5570	18.45	16.75	20.69	≤ 23.98
11be-EHT240	MCS0	130	5650	11.93	12.34	15.15	≤ 23.98

Note 1: Total Average Power (dBm) = $10 \times \log \{10^{(\text{Ant 0 Average Power} / 10)} + 10^{(\text{Ant 1 Average Power} / 10)}\}$.

Note 2: For Band-Crossing channel, Average Power Limit = 23.98 dBm or $11 + 10 \times \log_{10} \text{EBW}_{2C}$ which is less.

A.2 Radiated Spurious Emission Test Result

QPF4559:

Test Site	WZ-AC1	Test Engineer	Lucas Wang
Test Date	2025-08-06	Test Mode	802.11ac-VHT20 - Channel 48
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20 dB below limit line within 1-18 GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB/m)	Detector	Polarization
*	10470.70	38.83	15.25	54.08	68.20	-14.12	Peak	Horizontal
	11252.70	36.67	14.11	50.79	74.00	-23.21	Peak	Horizontal
*	16927.30	36.57	16.45	53.02	68.20	-15.18	Peak	Horizontal
	17988.10	15.70	24.05	39.75	54.00	-14.25	Average	Horizontal
	17988.10	36.48	24.05	60.53	74.00	-13.47	Peak	Horizontal
*	10256.50	35.87	14.80	50.67	68.20	-17.53	Peak	Vertical
	10992.60	36.55	14.89	51.44	74.00	-22.56	Peak	Vertical
*	16917.10	36.54	16.34	52.89	68.20	-15.31	Peak	Vertical
	17983.00	19.66	24.00	43.66	54.00	-10.34	Average	Vertical
	17983.00	35.81	24.00	59.81	74.00	-14.19	Peak	Vertical

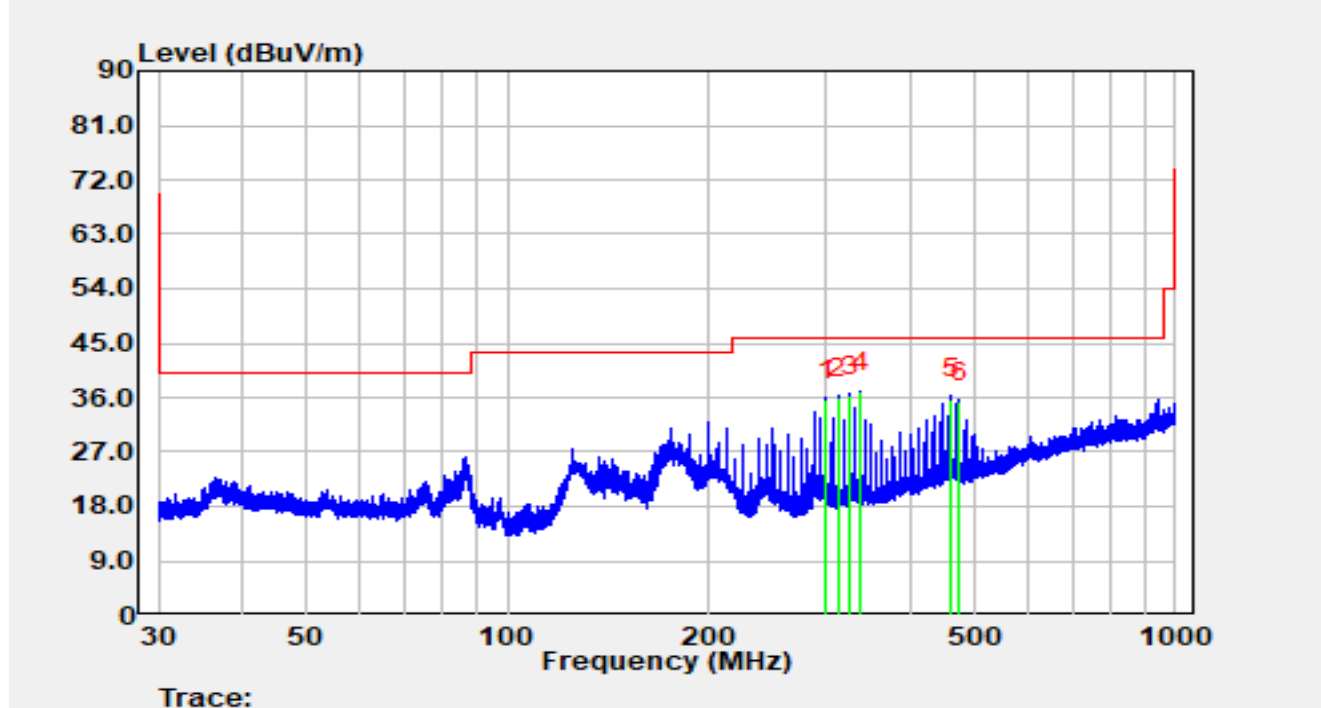
Note 1: "*" is not in restricted band, its limit is -27 dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2 dB to the EIRP limit of -27 dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The Result of Radiated Emission below 1 GHz:

Site	WZ-AC1	Test Date	2025-08-06
Temperature	24.7 °C	Humidity	54.2%
Limit	FCC_Part 15.209_RSE (3 m)	Test Engineer	Lucas Wang
Factor	VULB 9168_00662	Polarity	Horizontal
EUT	BE11000 Whole Home Mesh Wi-Fi 7 AP	Test Voltage	AC 120 V/60 Hz
Test Mode	Transmit by 802.11ac-VHT20 at 5240 MHz		

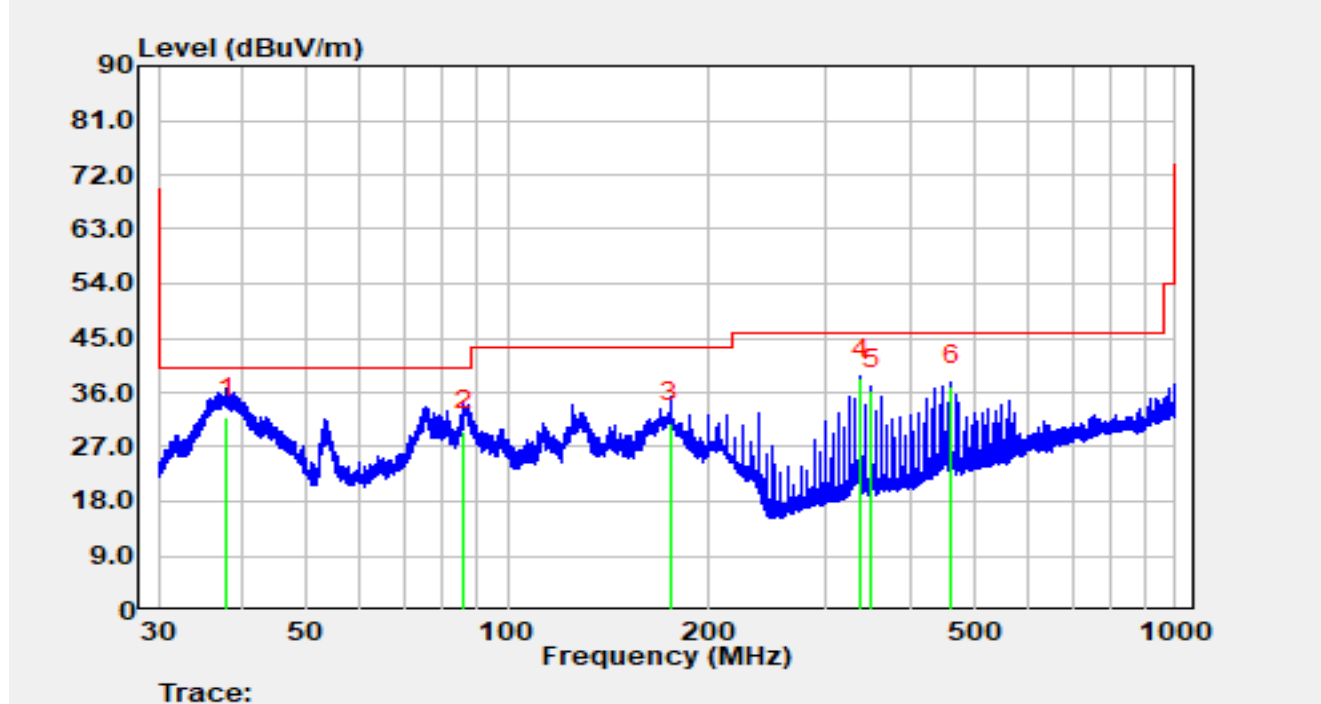


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		300.05	16.80	18.83	35.63	-10.37	46.00	QP
2		312.51	16.70	19.24	35.94	-10.06	46.00	QP
3		325.03	16.70	19.61	36.31	-9.69	46.00	QP
4	*	337.57	17.10	19.89	36.99	-9.01	46.00	QP
5		462.51	12.80	22.98	35.78	-10.22	46.00	QP
6		475.00	12.10	23.19	35.29	-10.71	46.00	QP

Notes:

- "*" indicates the worst-case emission level observed during the measurement.
- C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).
- Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).
- The amplitude of radiated emissions (frequency range from 9 kHz to 30 MHz and 18 GHz to 40 GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Site	WZ-AC1	Test Date	2025-08-06
Temperature	24.7 °C	Humidity	54.2%
Limit	FCC_Part 15.209_RSE (3m)	Test Engineer	Lucas Wang
Factor	VULB 9168_00662	Polarity	Vertical
EUT	BE11000 Whole Home Mesh Wi-Fi 7 AP	Test Voltage	AC 120 V/60 Hz
Test Mode	Transmit by 802.11ac-VHT20 at 5240 MHz		



No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		38.00	14.10	17.79	31.89	-8.11	40.00	QP
2		85.81	16.20	13.35	29.55	-10.45	40.00	QP
3		175.04	13.10	17.82	30.92	-12.58	43.50	QP
4	*	337.57	18.40	19.89	38.29	-7.71	46.00	QP
5		349.99	16.50	19.93	36.43	-9.57	46.00	QP
6		462.51	14.20	22.98	37.18	-8.82	46.00	QP

Notes:

- "*" indicates the worst-case emission level observed during the measurement.
- C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).
- Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).
- The amplitude of radiated emissions (frequency range from 9 kHz to 30 MHz and 18 GHz to 40 GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

KCT8570HT:

Test Site	SIP-AC3	Test Engineer	Yuuki Qiu
Test Date	2025-10-27	Test Mode	802.11ac-VHT20 - Channel 48
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20 dB below limit line within 1-18 GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB/m)	Detector	Polarization
	8221.60	46.96	-1.63	45.33	74.00	-28.67	Peak	Horizontal
*	10475.80	48.77	0.08	48.85	68.20	-19.35	Peak	Horizontal
	12442.70	46.02	1.62	47.64	74.00	-26.36	Peak	Horizontal
*	13648.00	45.86	2.69	48.56	68.20	-19.64	Peak	Horizontal
	8361.00	46.39	-1.42	44.97	74.00	-29.03	Peak	Vertical
*	9632.60	47.34	-0.34	47.00	68.20	-21.20	Peak	Vertical
	12531.10	45.16	1.68	46.84	74.00	-27.16	Peak	Vertical
*	13546.00	43.98	3.75	47.73	68.20	-20.47	Peak	Vertical

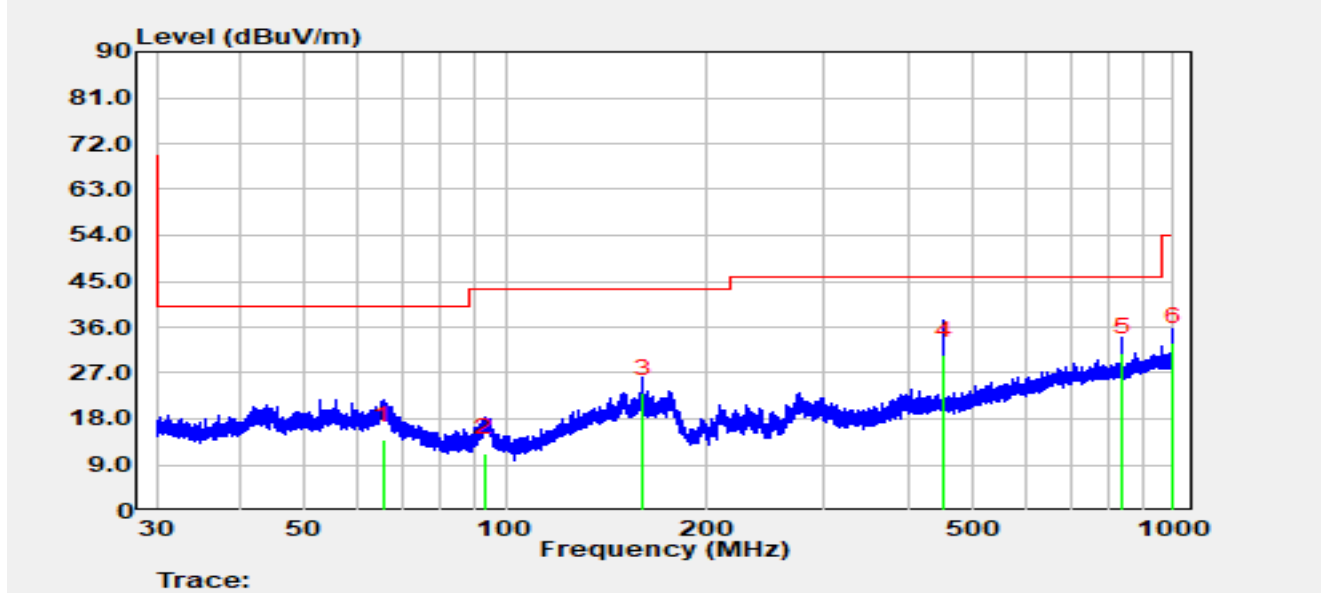
Note 1: “*” is not in restricted band, its limit is -27 dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2 dB to the EIRP limit of -27 dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The Result of Radiated Emission below 1 GHz:

Site	SIP-AC3	Test Date	2025-10-27
Temperature	21.9 °C	Humidity	62.8%
Limit	FCC_Part 15.209_RSE(3 m)	Test Engineer	Yuuki Qiu
Test Voltage	AC 120 V/60 Hz	Polarity	Horizontal
Test Mode	Transmit by 802.11ac-VHT20 at 5240 MHz		

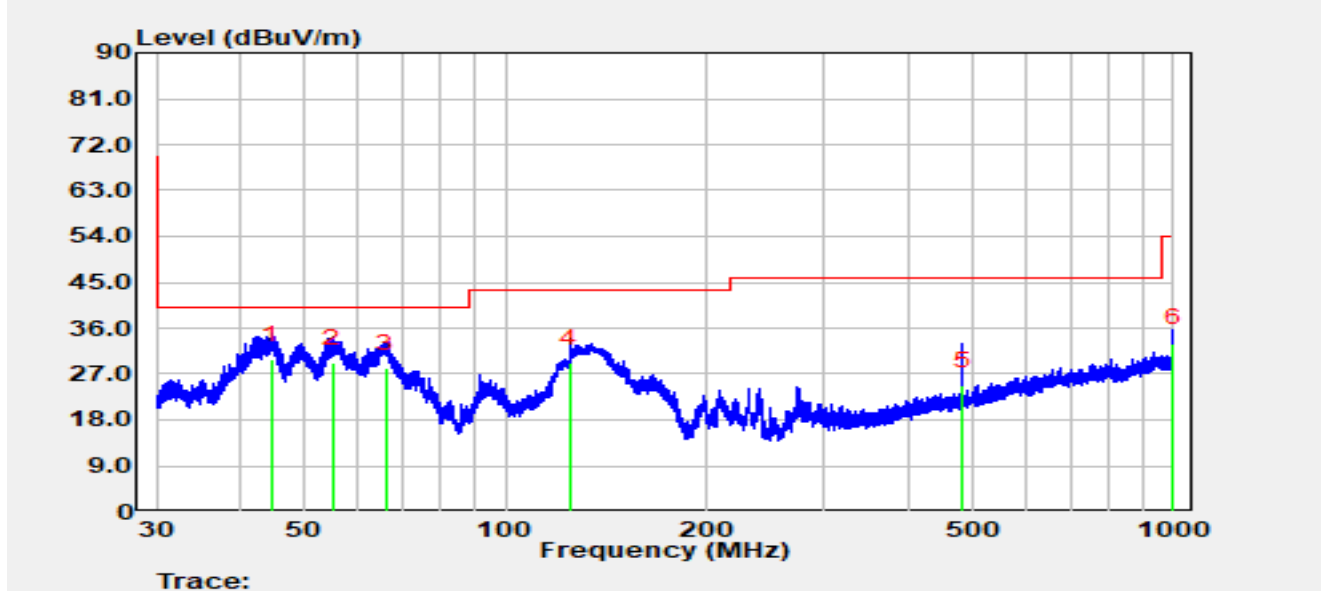


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		65.481	-2.90	16.81	13.91	-26.09	40.00	QP
2		93.146	-1.20	12.41	11.21	-32.29	43.50	QP
3		160.290	4.80	18.20	23.00	-20.50	43.50	QP
4		453.673	7.80	22.64	30.44	-15.56	46.00	QP
5	*	837.418	2.00	29.00	31.00	-15.00	46.00	QP
6		1000.000	2.40	30.69	33.09	-20.91	54.00	QP

Notes:

- "*" indicates the worst-case emission level observed during the measurement.
- C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).
- Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).
- The amplitude of radiated emissions (frequency range from 9 kHz to 30 MHz and 18 GHz to 40 GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Site	SIP-AC3	Test Date	2025-10-27
Temperature	21.9 °C	Humidity	62.8%
Limit	FCC_Part 15.209_RSE(3 m)	Test Engineer	Yuuki Qiu
Test Voltage	AC 120 V/60 Hz	Polarity	Vertical
Test Mode	Transmit by 802.11ac-VHT20 at 5240 MHz		



No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	44.665	11.60	18.16	29.76	-10.24	40.00	QP
2		54.950	11.10	18.11	29.21	-10.79	40.00	QP
3		66.313	11.50	16.66	28.16	-11.84	40.00	QP
4		125.007	12.50	16.55	29.05	-14.45	43.50	QP
5		483.401	1.80	22.98	24.78	-21.22	46.00	QP
6		1000.000	2.30	30.69	32.99	-21.01	54.00	QP

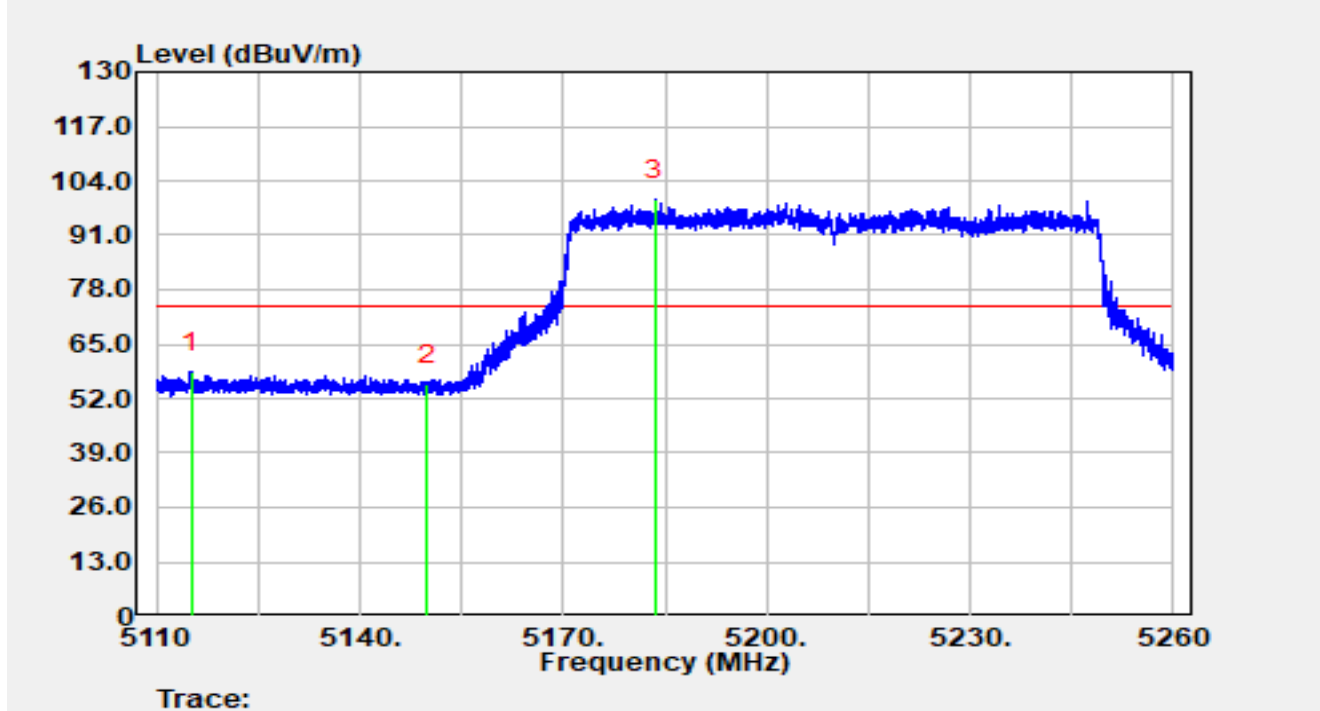
Notes:

- "*" indicates the worst-case emission level observed during the measurement.
- C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).
- Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).
- The amplitude of radiated emissions (frequency range from 9 kHz to 30 MHz and 18 GHz to 40 GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

A.3 Radiated Restricted Band Edge Test Result

QPF4559:

Site	WZ-AC1	Test Date	2025-08-06
Temperature	25.5 °C	Humidity	55.8%
Limit	FCC_5G_RE (3 m)	Test Engineer	Jerry Lu
Factor	BBHA 9120D_01167	Polarity	Horizontal
EUT	BE11000 Whole Home Mesh Wi-Fi 7 AP	Test Voltage	AC 120 V/60 Hz
Test Mode	Transmit by 802.11ax-HE80 at 5210 MHz		

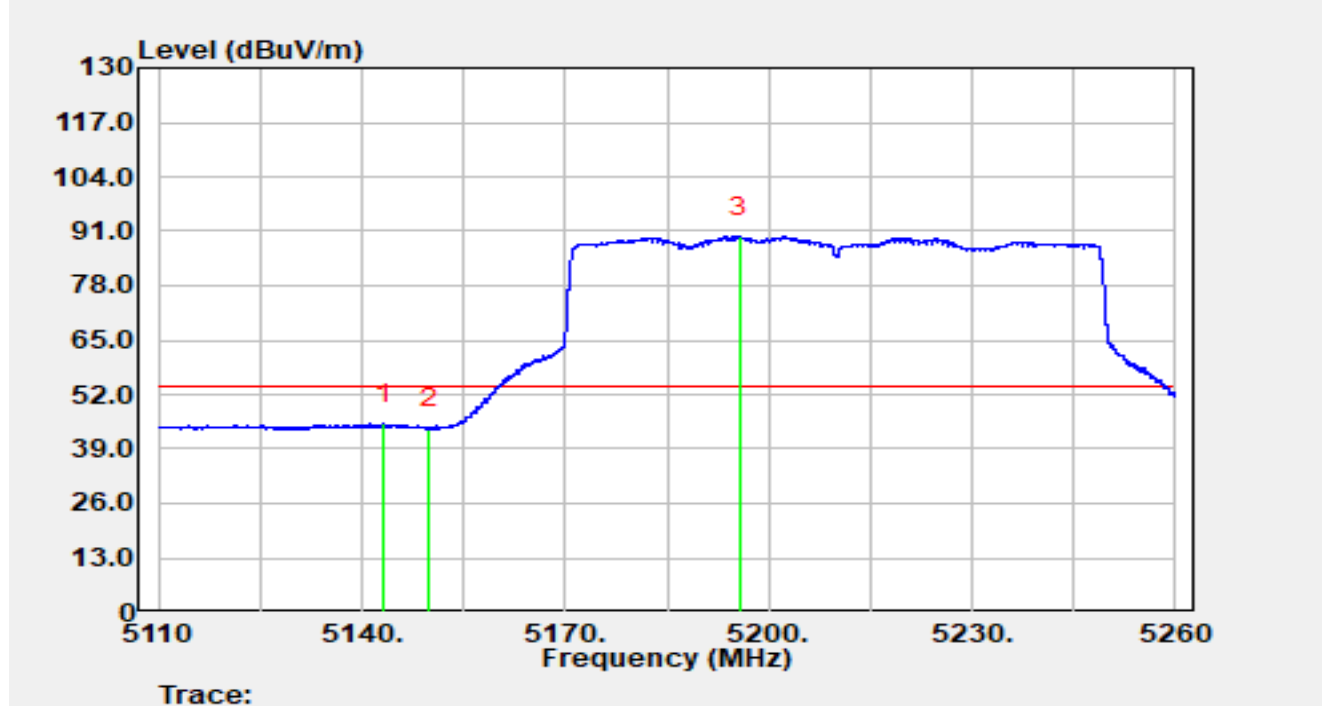


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	5115.07	37.62	20.60	58.22	-15.78	74.00	Peak
2		5150.00	34.89	20.41	55.29	-18.71	74.00	Peak
3		5183.56	79.15	20.25	99.40	N/A	N/A	Peak

Notes:

- "*" indicates the worst-case emission level observed during the measurement.
- C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) + Attenuation (dB) - AMP (dB).
- Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).

Site	WZ-AC1	Test Date	2025-08-06
Temperature	25.5 °C	Humidity	55.8%
Limit	FCC_5G_RE (3 m)	Test Engineer	Jerry Lu
Factor	BBHA 9120D_01167	Polarity	Horizontal
EUT	BE11000 Whole Home Mesh Wi-Fi 7 AP	Test Voltage	AC 120 V/60 Hz
Test Mode	Transmit by 802.11ax-HE80 at 5210 MHz		

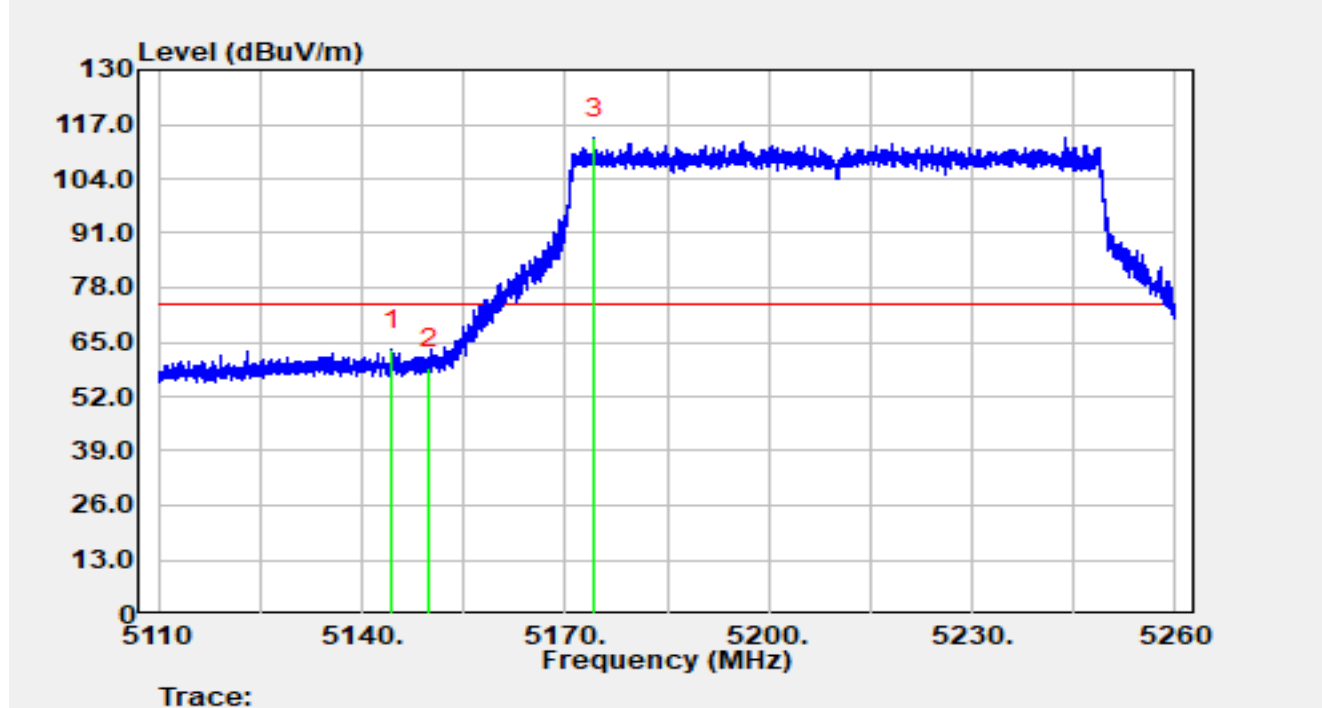


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	5143.20	24.56	20.41	44.97	-9.03	54.00	Average
2		5150.00	23.43	20.41	43.83	-10.17	54.00	Average
3		5195.62	69.37	20.29	89.65	N/A	N/A	Average

Notes:

- "*" indicates the worst-case emission level observed during the measurement.
- C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) + Attenuation (dB) - AMP (dB).
- Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).

Site	WZ-AC1	Test Date	2025-08-06
Temperature	25.5 °C	Humidity	55.8%
Limit	FCC_5G_RE (3 m)	Test Engineer	Jerry Lu
Factor	BBHA 9120D_01167	Polarity	Vertical
EUT	BE11000 Whole Home Mesh Wi-Fi 7 AP	Test Voltage	AC 120 V/60 Hz
Test Mode	Transmit by 802.11ax-HE80 at 5210 MHz		

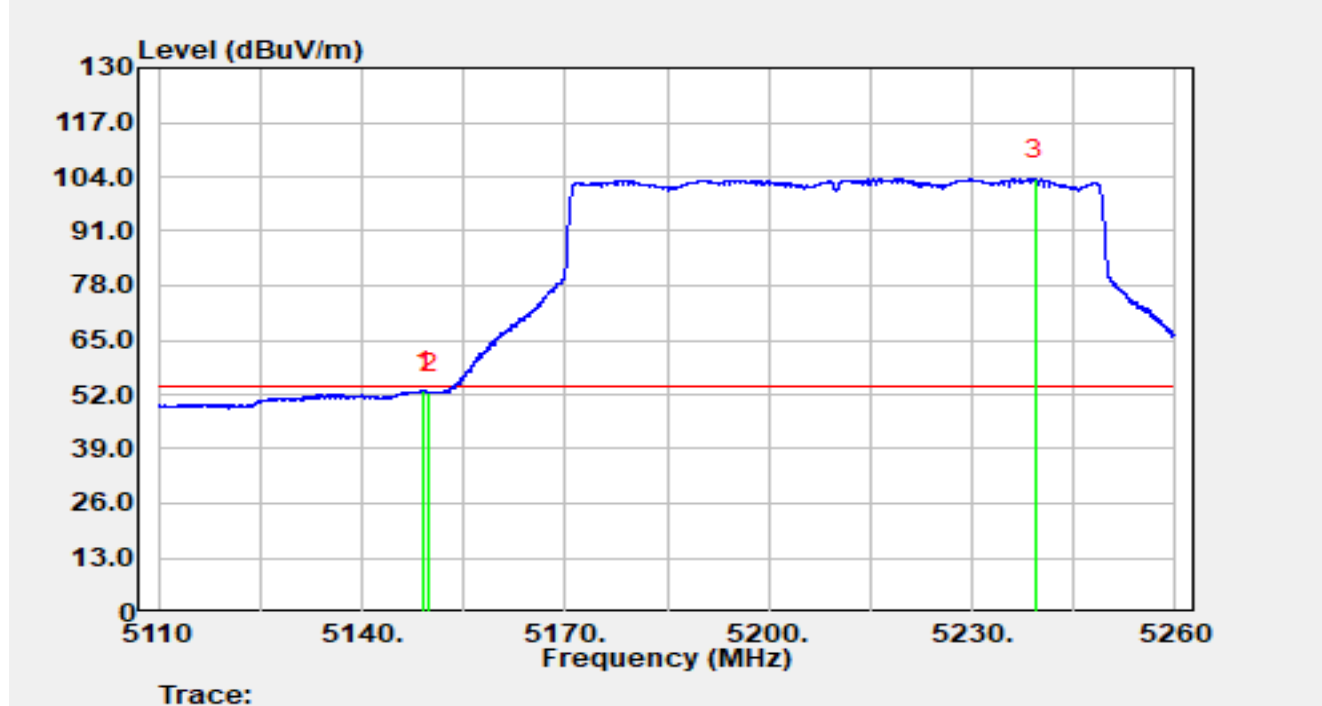


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	5144.50	42.81	20.41	63.22	-10.78	74.00	Peak
2		5150.00	38.31	20.41	58.71	-15.29	74.00	Peak
3		5174.23	93.40	20.27	113.67	N/A	N/A	Peak

Notes:

- "*" indicates the worst-case emission level observed during the measurement.
- C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) + Attenuation (dB) - AMP (dB).
- Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).

Site	WZ-AC1	Test Date	2025-08-06
Temperature	25.5 °C	Humidity	55.8%
Limit	FCC_5G_RE (3 m)	Test Engineer	Jerry Lu
Factor	BBHA 9120D_01167	Polarity	Vertical
EUT	BE11000 Whole Home Mesh Wi-Fi 7 AP	Test Voltage	AC 120 V/60 Hz
Test Mode	Transmit by 802.11ax-HE80 at 5210 MHz		



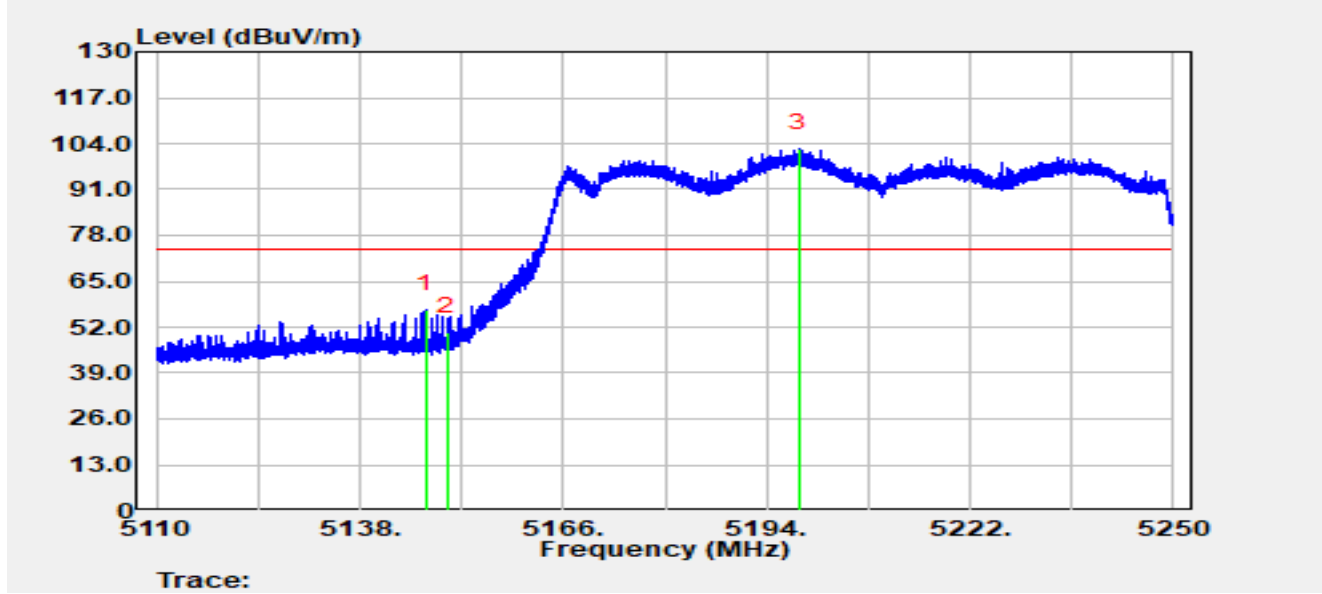
No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	5149.20	32.46	20.41	52.86	-1.14	54.00	Average
2		5150.00	32.02	20.41	52.43	-1.57	54.00	Average
3		5239.24	83.10	20.29	103.40	N/A	N/A	Average

Notes:

- "*" indicates the worst-case emission level observed during the measurement.
- C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) + Attenuation (dB) - AMP (dB).
- Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).

KCT8570HT:

Site	SIP-AC3	Test Date	2025-10-27
Temperature	20.4 °C	Humidity	61.2%
Limit	FCC_Part 15_Band Edge(3 m)	Test Engineer	Yuuki Qiu
Test Voltage	AC 120 V/60 Hz	Polarity	Horizontal
Test Mode	Transmit by 802.11ax-HE80 at 5210 MHz		

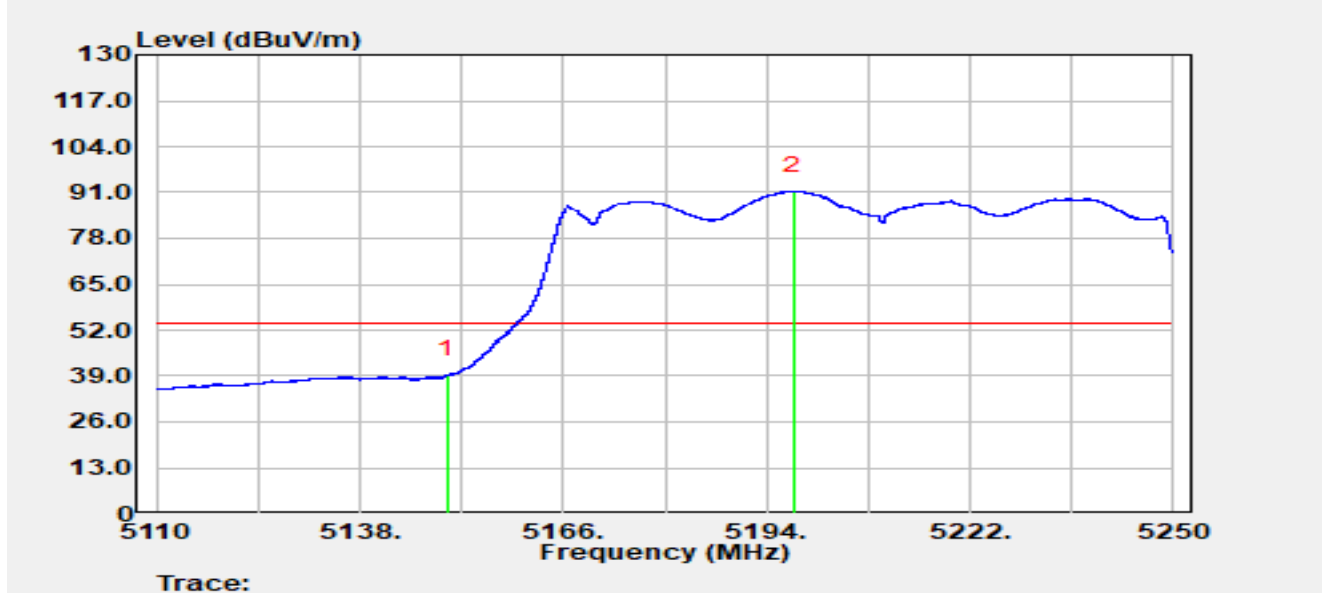


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	5147.156	59.51	-2.55	56.97	-17.03	74.00	Peak
2		5150.000	52.51	-1.96	50.54	-23.46	74.00	Peak
3		5198.382	65.90	36.67	102.57	N/A	N/A	Peak

Notes:

- "*" indicates the worst-case emission level observed during the measurement.
- C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) + Attenuation (dB) - AMP (dB).
- Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).

Site	SIP-AC3	Test Date	2025-10-27
Temperature	20.4 °C	Humidity	61.2%
Limit	FCC_Part 15_Band Edge(3 m)	Test Engineer	Yuuki Qiu
Test Voltage	AC 120 V/60 Hz	Polarity	Horizontal
Test Mode	Transmit by 802.11ax-HE80 at 5210 MHz		

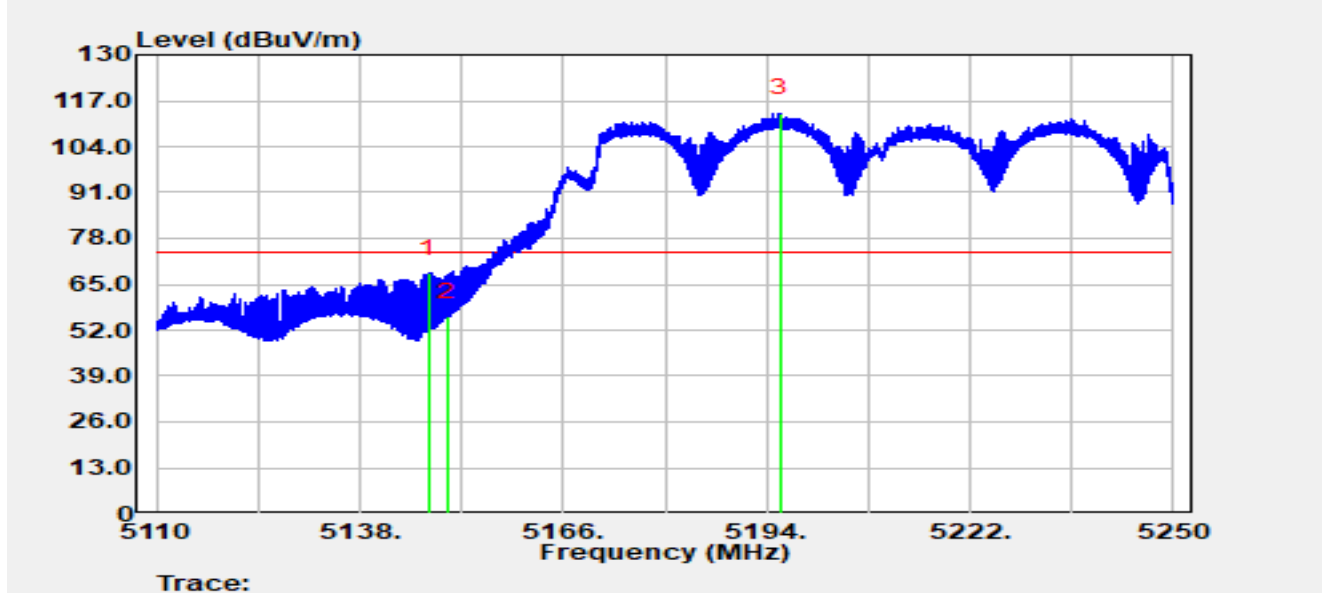


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	5150.000	41.27	-1.96	39.31	-14.69	54.00	Average
2		5197.766	55.20	36.22	91.42	N/A	N/A	Average

Notes:

- "*" indicates the worst-case emission level observed during the measurement.
- C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) + Attenuation (dB) - AMP (dB).
- Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).

Site	SIP-AC3	Test Date	2025-10-27
Temperature	20.4 °C	Humidity	61.2%
Limit	FCC_Part 15_Band Edge(3 m)	Test Engineer	Yuuki Qiu
Test Voltage	AC 120 V/60 Hz	Polarity	Vertical
Test Mode	Transmit by 802.11ax-HE80 at 5210 MHz		

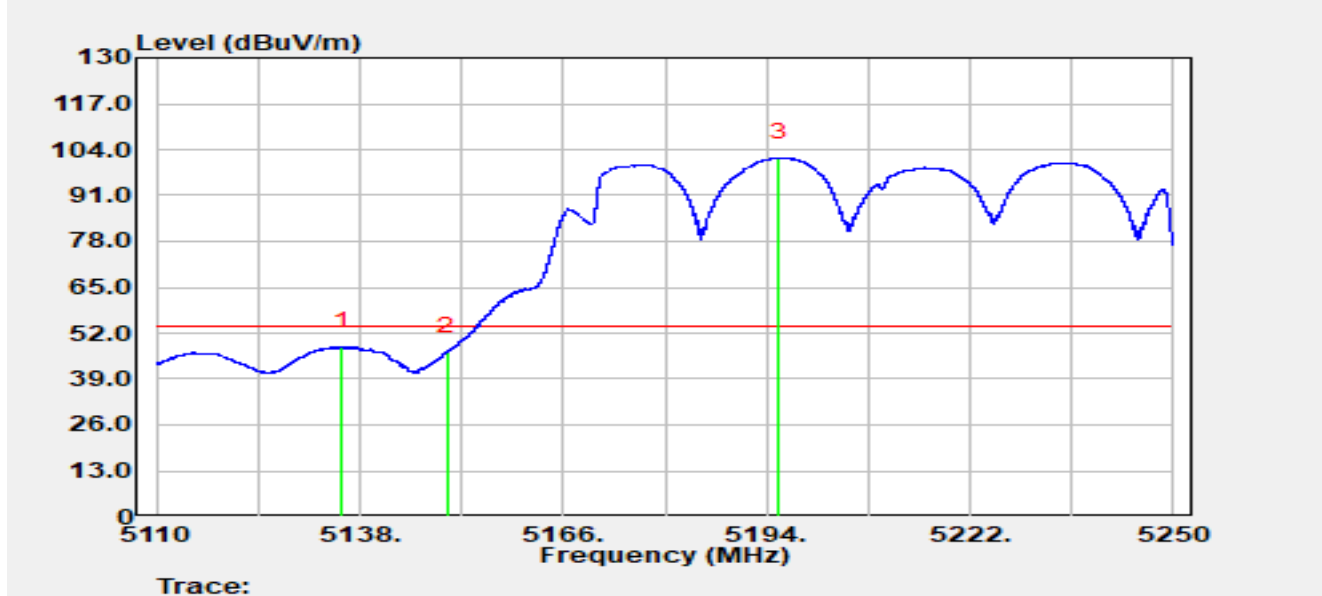


No	Mark	Frequency (MHz)	Reading (dBUV)	C.F (dB/m)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Detector
1	*	5147.422	70.59	-2.49	68.11	-5.89	74.00	Peak
2		5150.000	57.77	-1.96	55.80	-18.20	74.00	Peak
3		5195.806	77.89	35.65	113.54	N/A	N/A	Peak

Notes:

- "*" indicates the worst-case emission level observed during the measurement.
- C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) + Attenuation (dB) - AMP (dB).
- Measurement (dBUV/m) = Reading (dBUV) + C.F (dB/m).

Site	SIP-AC3	Test Date	2025-10-27
Temperature	20.4 °C	Humidity	61.2%
Limit	FCC_Part 15_Band Edge(3 m)	Test Engineer	Yuuki Qiu
Test Voltage	AC 120 V/60 Hz	Polarity	Vertical
Test Mode	Transmit by 802.11ax-HE80 at 5210 MHz		



No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	5135.592	52.15	-4.00	48.14	-5.86	54.00	Average
2		5150.000	48.68	-1.96	46.72	-7.28	54.00	Average
3		5195.722	66.06	35.66	101.72	N/A	N/A	Average

Notes:

- "*" indicates the worst-case emission level observed during the measurement.
- C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) + Attenuation (dB) - AMP (dB).
- Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).

Appendix B - Test Setup Photograph

Refer to "R25S1045074-UT" file.

Appendix C - EUT Photograph

Refer to "R25S1045074-UE" file.

_____ The End _____