



RF MEASUREMENT REPORT

FCC ID: 2AXJ4BE95

Applicant: TP-Link Corporation Limited

Product: BE33000 Whole Home Mesh Wi-Fi 7 System

Model No.: Deco BE95

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: 2023-01-03

Test Date: 2023-01-10 ~ 2023-02-17

Reviewed By:

Kevin Guo

Approved By:

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 and was tested in accordance with the measurement procedures specified in KDB789033. Test results reported herein relate only to the 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
2212RSU044-U4	V01	Initial Report	2023-03-27	Valid

Note: This report is prepared for FCC Class II permissive change supplement based on MRT original “2212RSU044-U2” report to open the NII-2a/-2c/-5/-7/-8 bands via the software.

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1. General Information

1.1. Applicant

TP-Link Corporation Limited

Room 901, 9/F. , New East Ocean Centre, 9 Science Museum Road, Tsim Sha Tsui, Kowloon, Hongkong

1.2. Manufacturer

TP-Link Corporation Limited

Room 901, 9/F. , New East Ocean Centre, 9 Science Museum Road, Tsim Sha Tsui, Kowloon, Hongkong

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 Accreditations
	A2LA: 3628.01 FCC: CN1166 VCCI:
	CNAS: L10551 ISED: CN0001 ☐R-20025 ☐G-20034 ☐C-20020 ☐T-20020 ☐R-20141 ☐G-20134 ☐C-20103 ☐T-20104
☐	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: L3261-190725 FCC: 291082, TW3261
	ISED: TW3261

1.4. Product Information

Product Name	BE33000 Whole Home Mesh Wi-Fi 7 System
Model No.	Deco BE95
EUT Identification No.	20230103Sample#01 (Conducted) 20230103Sample#02 (Radiated and AC conducted Emission)
Wi-Fi Specification	802.11a/b/g/n/ac/ax/be
Antenna Information	Refer to selection 1.7
Power Type	By Adapter
Accessory	
Adapter	Model: T150500-2-DT INPYUT: 100-240~50/60Hz 2.0A OUTPUT: DC15.0V, 5.0A
Note: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

1.5. Radio Specification under Test

Frequency Range	For 802.11a/n-HT20/ac-VHT20/ax-HE20/be-EHT20: 5260~5320MHz, 5500~5720MHz For 802.11n-HT40/ac-VHT40/ax-HE40/be-EHT40: 5270~5310MHz, 5510~5710MHz For 802.11ac-VHT80/ax-HE80/be-EHT80: 5290MHz, 5530MHz, 5610 MHz, 5690MHz For 802.11ac-VHT160/ax-HE160/be-EHT160: 5250MHz, 5570MHz For 802.11be-EHT240: 5650MHz
Type of Modulation	802.11a/n/ac: OFDM 802.11ax/be: OFDMA
Data Rate	802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 600Mbps 802.11ac: up to 3466.7Mbps 802.11ax: up to 4804Mbps 802.11be: up to 8647Mbps

1.6. Working Frequencies

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

Channel	Frequency	Channel	Frequency	Channel	Frequency
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	--	--	--	--

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

Channel	Frequency	Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz	102	5510 MHz
110	5550MHz	118	5590 MHz	126	5630 MHz
134	5670 MHz	142	5710 MHz	--	--

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

Channel	Frequency	Channel	Frequency	Channel	Frequency
58	5290 MHz	106	5530 MHz	122	5610 MHz
138	5690 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)	T _x Paths	Number of spatial streams	Antenna Gain (dBi)				CDD Directional Gain (dBi)	
				Ant 0	Ant 1	Ant 2	Ant 3	For Power	For PSD
Dipole Antenna	5150 ~ 5250	4	1	2.59	2.63	2.83	2.97	2.97	8.99
	5725 ~ 5850								
	5250 ~ 5725	4	1	2.59	2.63	2.83	2.97	2.97	8.99
		4	4	2.59	2.63	2.83	2.97	2.97	2.97

Remark:

- The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.

Directional gain = Max. G_{ANT} + Array Gain, where Array Gain is as follows.

- For power spectral density (PSD) measurements on all devices,

Array Gain = $10 \log (N_{ANT} / N_{SS})$ dB;

- For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB for $N_{ANT} \leq 4$;

- The information as above is from the antenna specifications.

2. Test Configuration

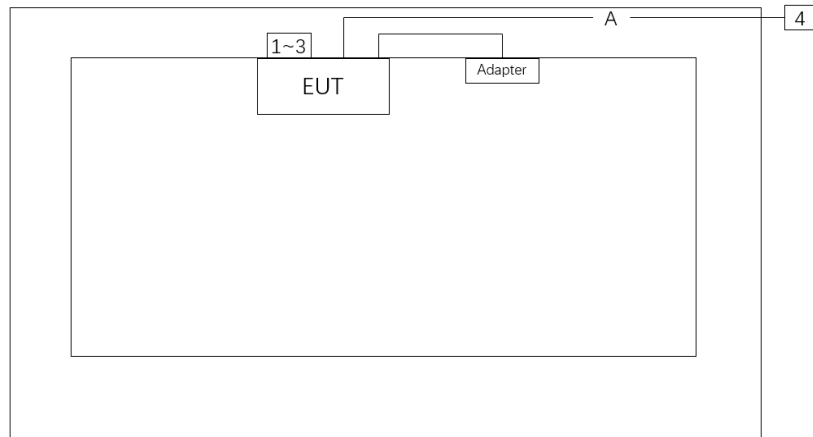
2.1. Test Mode

CDD Mode
Mode 1: Transmit by 802.11a _N _{SS} =1 (6Mbps)
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)
Mode 15: Transmit by 802.11ax-HE20 _N _{SS} =4 (MCS0)
Mode 16: Transmit by 802.11be-EHT20 _N _{SS} =4 (MCS0)
Note: - For Radiated emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power. - For CDD mode, this device supports 4 N_{SS} and power level is the same of spatial multiplexing. The worst case is N_{SS}=1. Meanwhile, N_{SS}=4 at 802.11ax-HE20/be-EHT20 of NII-2a/-2c was tested in this report. - EUT supports one configuration only in 802.11ax/be full RU mode. - Due to the same modulation between 802.11n and 802.11ac, so 802.11n-HT20 and HT40 are covered by 802.11ac-VHT20 and VHT40 in this report, meanwhile, power setting for 802.11n-HT20 and HT40 will not be greater than 802.11ac-VHT20 and VHT40. - As Designated by manufacturer, the lowest data rate was the worst condition, so all the tests were done with lowest data rate.

2.2. Test System Connection Diagram

The device was tested per the guidance ANSI C63.10: 2013 was used to reference the appropriate EUT setup for radiated emissions testing and AC line conducted testing.

Connection Diagram – Radiated Emission testing & AC Conducted Emissions



Cable Type		Cable Description
A	LAN Cable	Non shielded, > 10m

2.3. Test System Details

Product		Manufacturer	Model No.
1~3	Simulated load	N/A	001
4	Notebook	Lenovo	E431

2.4. Test Software

The test utility software used during testing was “QSPR”, and the version was 5.0-00202.

Note: Final power setting please refer to operational description.

2.5. 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 D02v02r01
- KDB 662911 D01v02r01
- ANSI C63.10-2013

2.6. 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
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2023-12-28	WZ-AC1
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2023-08-22	WZ-AC1
Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2023-05-08	WZ-AC1
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2023-06-21	WZ-AC1
Anechoic Chamber	TDK	WZ-AC1	MRTSUE06212	1 year	2023-04-21	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE06403	1 year	2023-06-06	WZ-AC1
Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2023-12-28	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE11039	1 year	2023-11-01	WZ-AC1
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2023-09-29	WZ-AC1
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06597	1 year	2023-11-05	WZ-AC1
Preamplifier	EMCI	EMC184045SE	MRTSUE06640	1 year	2024-01-12	WZ-AC1
Signal Analyzer	Agilent	N9020A	MRTSUE06106	1 year	2023-04-06	WZ-SR5
Thermohygrometer	testo	608-H1	MRTSUE06402	1 year	2023-06-06	WZ-SR5
Shielding Room	HUAMING	WZ-SR5	MRTSUE06442	N/A	N/A	WZ-SR5
USB Power Sensor	Keysight	U2021XA	MRTSUE06446	1 year	2023-06-04	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11090	1 year	2023-06-09	WZ
Attenuator	MVE	MVE2213	MRTSUE11081	1 year	2023-06-09	WZ
Anechoic Chamber	RIKEN	SIP-AC1	MRTSUE06554	1 year	2023-12-22	SIP-AC1
Preamplifier	EMCI	EMC051845SE	MRTSUE06600	1 year	2023-11-07	SIP-AC1
Horn Antenna	R&S	HF907	MRTSUE06610	1 year	2023-07-13	SIP-AC1
Thermohygrometer	testo	608-H1	MRTSUE06616	1 year	2023-11-01	SIP-AC1
Thermohygrometer	testo	608-H1	MRTSUE06620	1 year	2023-11-27	SIP-AC1
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06645	1 year	2023-07-30	SIP-AC1

Software	Version	Function
EMI Software	V3.0.0	EMI Test Software
Controller_MF 7802	2.03C	RE Antenna & Turntable
BenchVue Power Meter	2018.1	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 $k = 2$.

AC Conducted Emission Measurement
The maximum measurement uncertainty is evaluated as: 9kHz~150kHz: 3.58dB 150kHz~30MHz: 3.20dB
Radiated Emission Measurement
The maximum measurement uncertainty is evaluated as: Coaxial: 9kHz~30MHz: 2.59dB Coplanar: 9kHz~30MHz: 2.60dB Horizontal: 30MHz~200MHz: 3.85dB 200MHz~1GHz: 4.36dB 1GHz~40GHz: 4.98dB Vertical: 30MHz~200MHz: 4.06dB 200MHz~1GHz: 5.28dB 1GHz~40GHz: 4.91dB
Spurious Emissions, Conducted
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 2.3dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 1.5dB
Power Spectrum Density
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 2.3dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 3.2%

6. Test Result

6.1. Summary

FCC Section(s)	Test Description	Test Condition	Verdict
15.407(a)	26dB Bandwidth	Conducted	Pass
15.407(a)(2)	Maximum Conducted Output Power		Pass
15.407(h)(1)	Transmit Power Control		Pass
15.407(a)(2), (12)	Peak Power Spectral Density		Pass
15.407(b)(2), (3)	Undesirable Emissions	Radiated	Pass
15.205, 15.209 15.407(b)(8), (9), (10)	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)		Pass

Remark:

1. The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer.
The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
2. The test results shown in the following sections represent the worst-case emissions.

6.2. 26dB & 99% Bandwidth Measurement

6.2.1. Test Limit

N/A

6.2.2. Test Procedure

KDB 789033 D02v02r01- Section II)C)1) (26dB Bandwidth)

KDB 789033 D02v02r01- Section II)D) (99% Bandwidth)

6.2.3. Test Setting

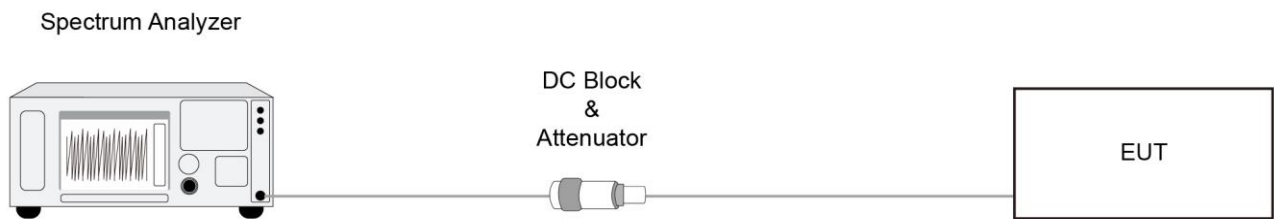
26dB Bandwidth

1. The analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth
2. RBW = approximately 1% of the emission bandwidth.
3. VBW > RBW
4. Detector = Peak.
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26 dB down from the maximum of the emission.
Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

99% Bandwidth

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 1% to 5% of the OBW
3. $VBW \geq 3 \times RBW$
4. Span = 1.5 times to 5 times the OBW
5. Detector = peak
6. Trace mode = max hold
7. Allow the trace to stabilize
8. Use the 99% power bandwidth function of the instrument.

6.2.4. Test Setup



6.2.5. Test Result

Refer to Appendix A.2.

6.3. Output Power Measurement

6.3.1. Test Limit

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.

6.3.2. Test Procedure

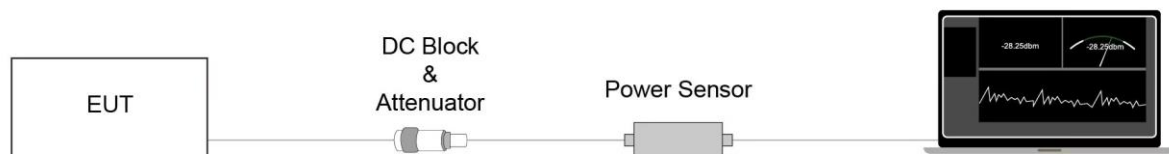
KDB 789033D02v02r01- Section II(E)3)b) Method PM-G

6.3.3. 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.

6.3.4. Test Setup



6.3.5. Test Result

Refer to Appendix A.3.

6.4. Transmit Power Control Measurement

6.4.1. Test Limit

The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

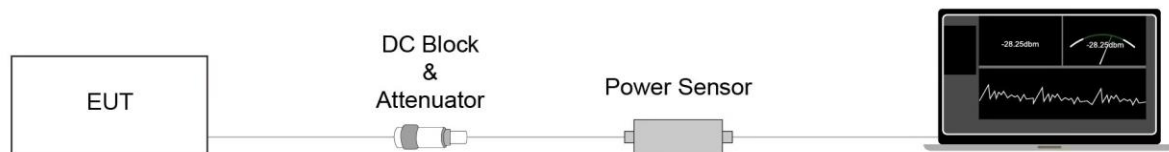
6.4.2. Test Procedure

KDB 789033 D02v01- Section II)E)3)b) Method PM-G

6.4.3. Test Setting

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. The trace was averaged over 100 traces to obtain the final measured average power.

6.4.4. Test Setup



6.4.5. Test Result

Device supports TPC mechanism, details refer to the operational description.

6.5. Power Spectral Density Measurement

6.5.1. Test Limit

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

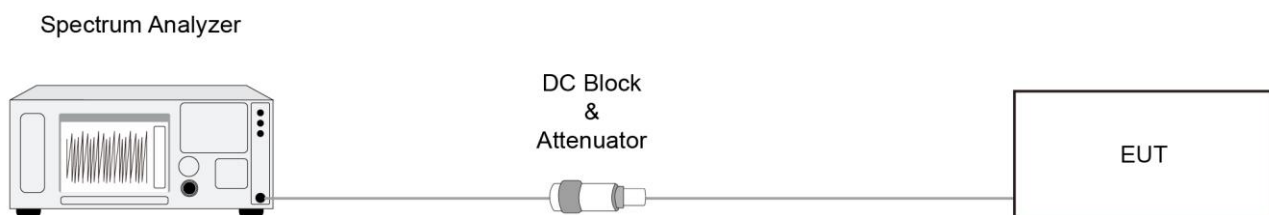
6.5.2. Test Procedure

KDB 789033 D02v02r01-Section II)F)

6.5.3. Test Setting

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz
4. VBW = $3 \times \text{RBW}$
5. Number of sweep points $\geq 2 \times (\text{span} / \text{RBW})$
6. Detector = power averaging (Average)
7. Sweep time = auto
8. Trigger = free run
9. Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter.
10. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
11. Add $10 \times \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add $10 \times \log(1/0.25) = 6 \text{ dB}$ if the duty cycle is 25 percent.

6.5.4. Test Setup



6.5.5. Test Result

Refer to Appendix A.4.

6.6. Radiated Spurious Emission Measurement

6.6.1. 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 [uV/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

6.6.2. Test Procedure

KDB 789033 D02v02r01- Section II)G)

6.6.3. 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
> 1000MHz	1MHz

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
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 1GHz

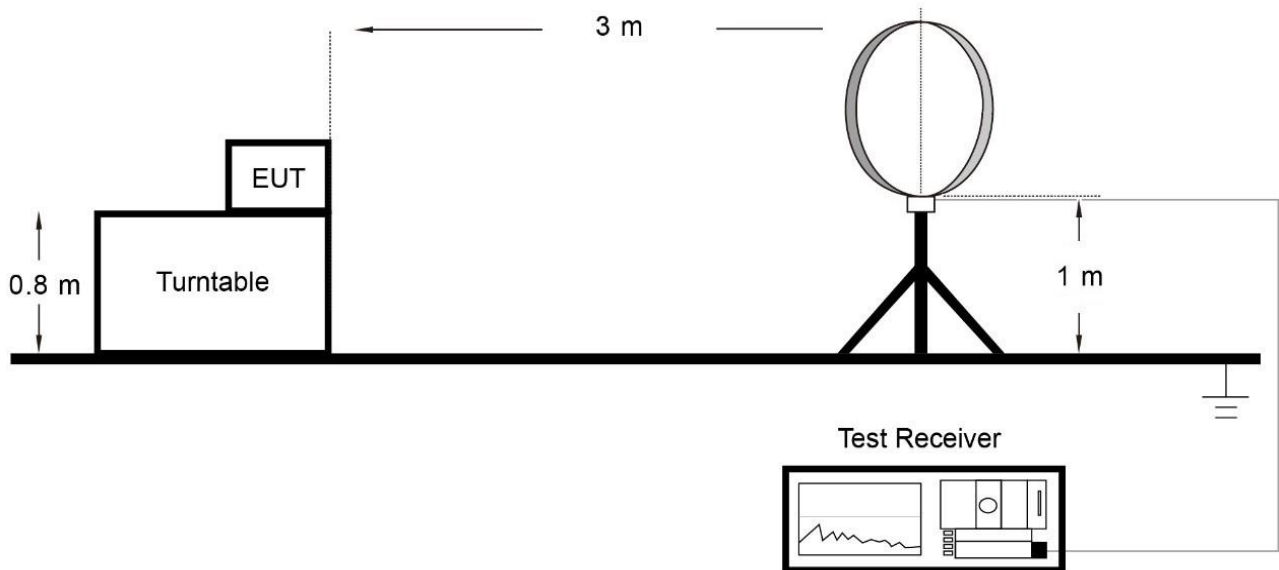
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

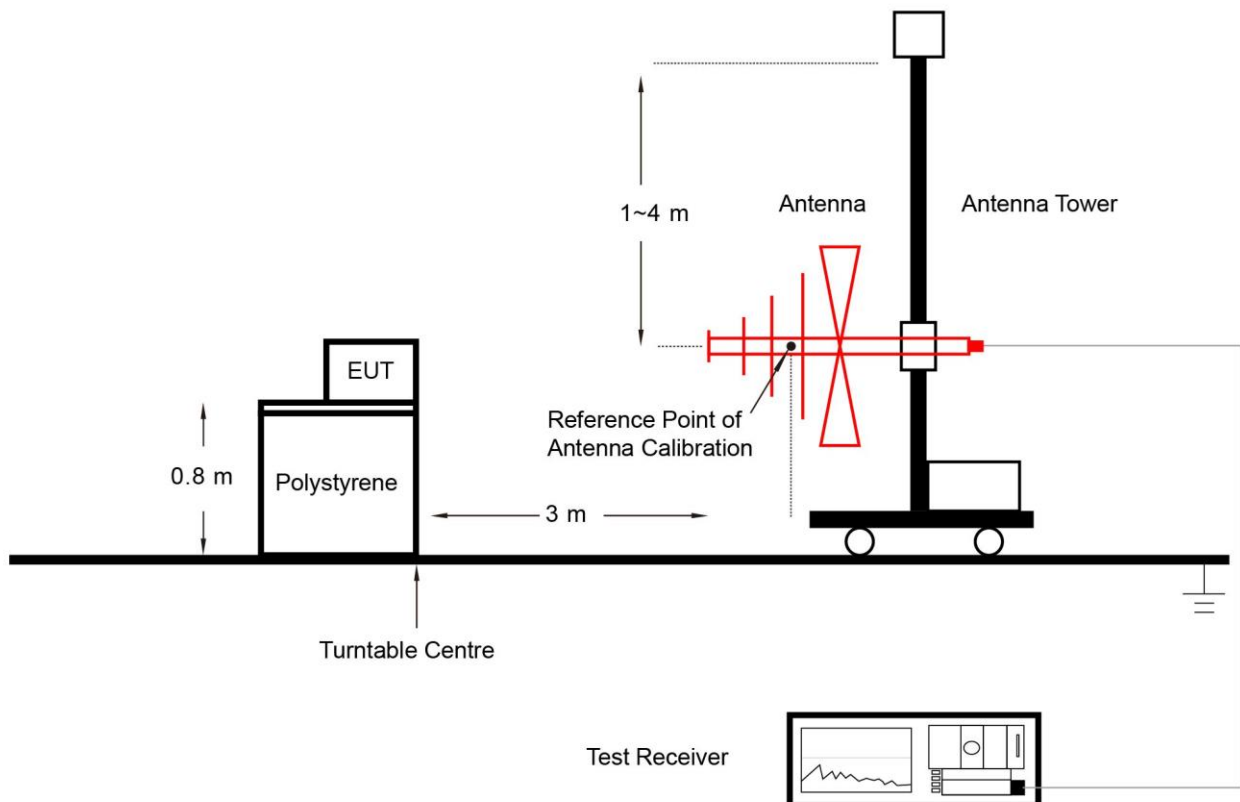
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.
If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration.
4. Detector = Peak
5. Sweep time = auto
6. Trace mode = max hold
7. Trace was allowed to stabilize

6.6.4. Test Setup

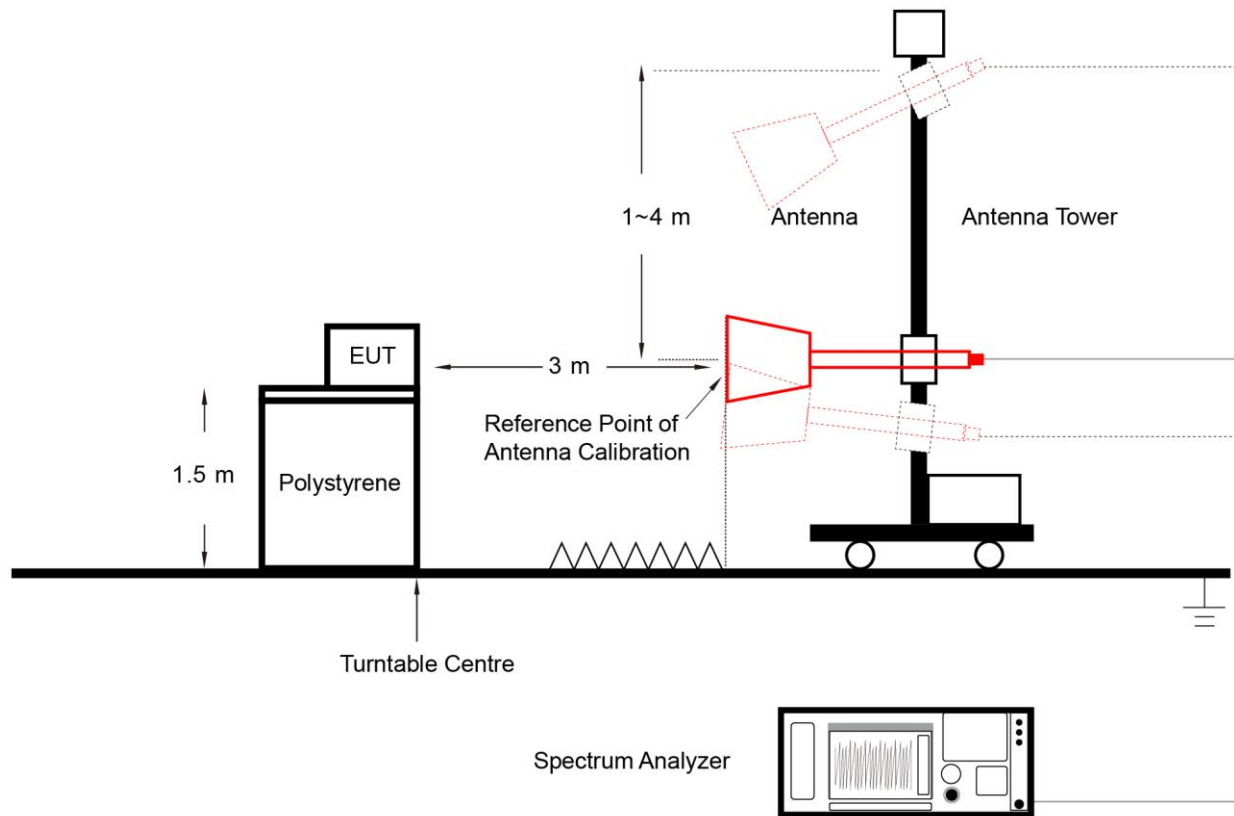
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.6.5. Test Result

Refer to Appendix A.5.

6.7. Radiated Restricted Band Edge Measurement

6.7.1. 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	25.5 - 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 5.25-5.35 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.

Refer to KDB 789033 D02v02r01 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 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/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

6.7.2. Test Procedure

KDB 789033 D02v02r01- Section II)G)

6.7.3. Test Setting

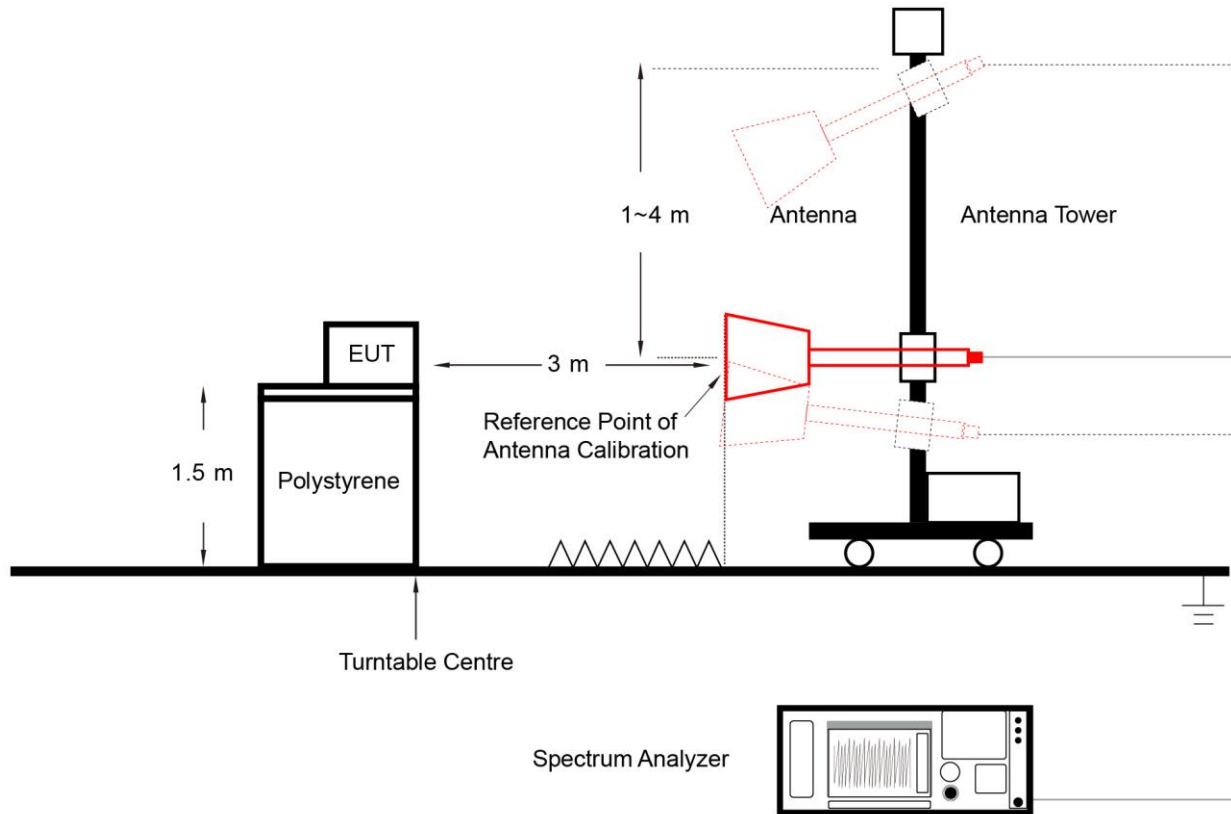
Peak Measurements above 1GHz

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

Average Measurements above 1GHz (Method VB)

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; if the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10Hz
4. If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration
5. Detector = Peak
6. Sweep time = Auto
7. Trace mode = Max hold
8. Trace was allowed to stabilize

6.7.4. Test Setup



6.7.5. Test Result

Refer to Appendix A.6.

Appendix A – Test Result

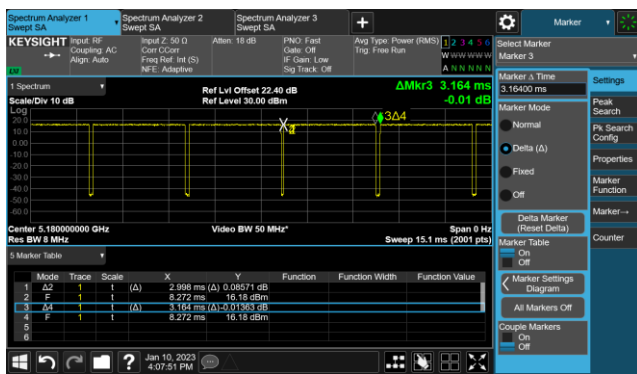
A.1 Duty Cycle Test Result

Test Site	WZ-SR5	Test Engineer	Jeff Yang
Test Date	2023-01-11 ~ 2023-01-28		

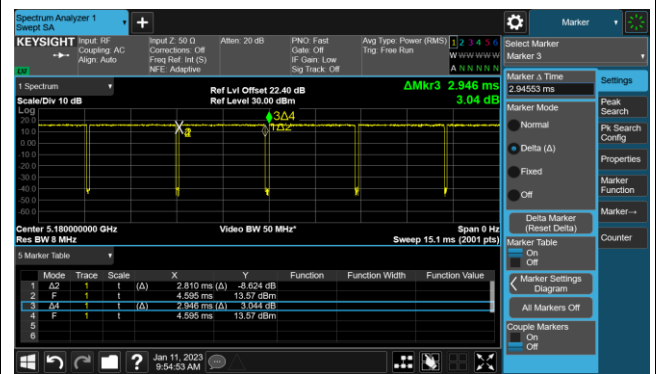
Test Mode	Duty Cycle
802.11a	94.75%
802.11ac-VHT20	95.38%
802.11ac-VHT40	92.16%
802.11ac-VHT80	91.78%
802.11ac-VHT160	91.63%
802.11ax-HE20	96.31%
802.11ax-HE40	93.85%
802.11ax-HE80	95.43%
802.11ax-HE160	95.44%
802.11be-EHT20	95.85%
802.11be-EHT40	93.57%
802.11be-EHT80	96.84%
802.11be-EHT160	93.15%
802.11be-EHT240	96.60%

Duty Cycle (T = Transmission Duration)

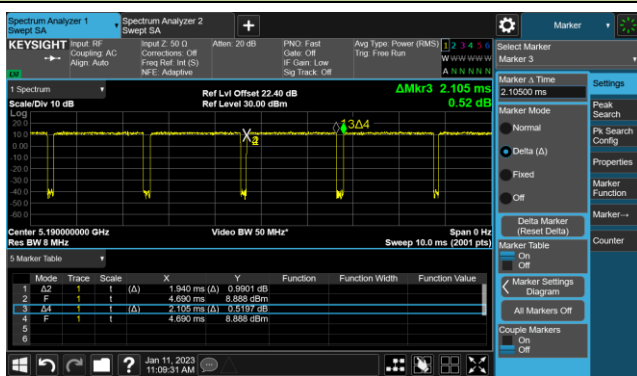
802.11a (T = 2.998ms)



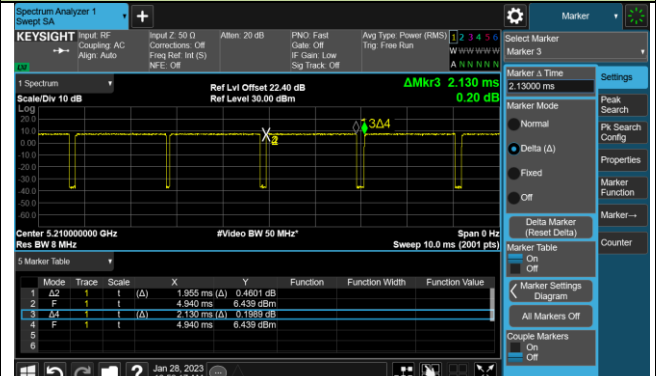
802.11ac-VHT20 (T = 2.810ms)



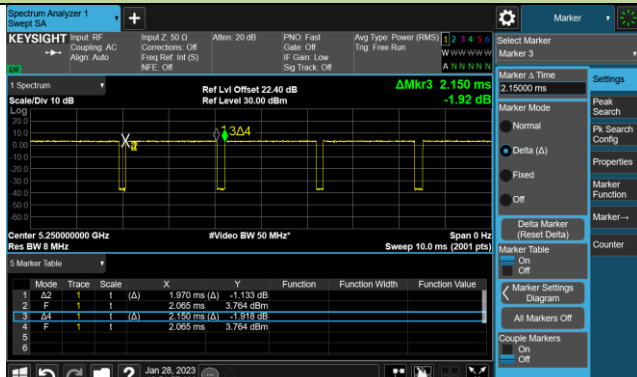
802.11ac-VHT40 (T = 1.940ms)



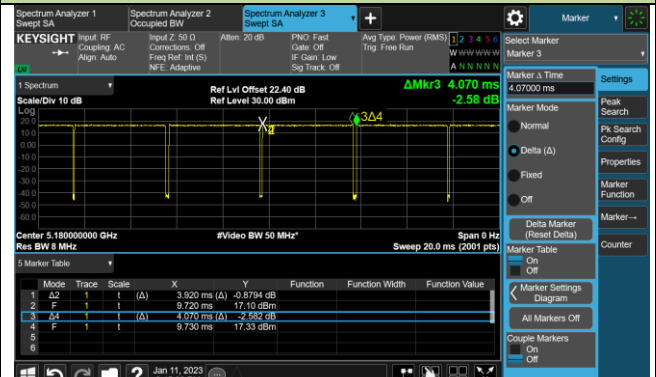
802.11ac-VHT80 (T = 1.955ms)



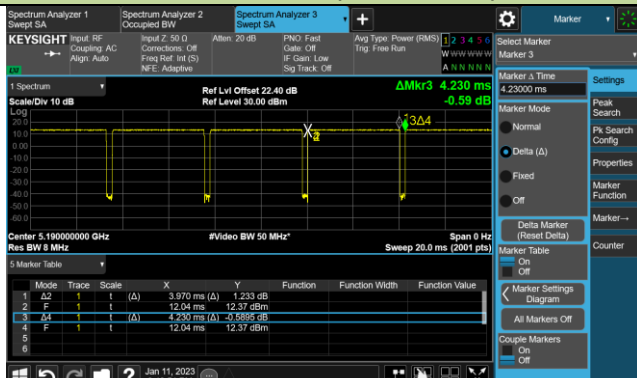
802.11ac-VHT160 (T = 1.970ms)



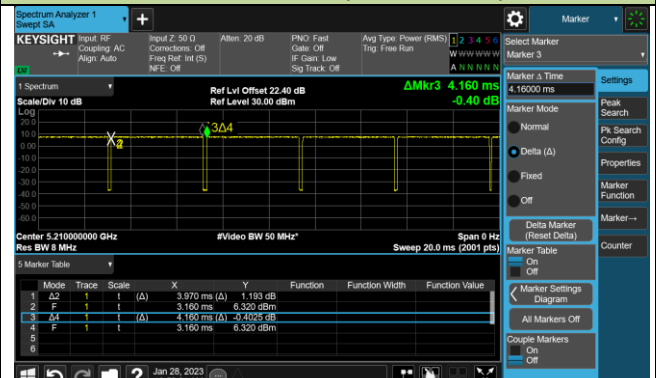
802.11ax-HE20 (T = 3.920ms)



802.11ax-HE40 (T = 3.970ms)

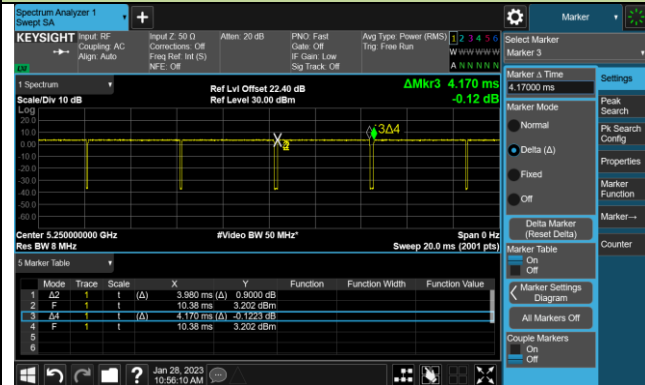


802.11ax-HE80 (T = 3.970ms)

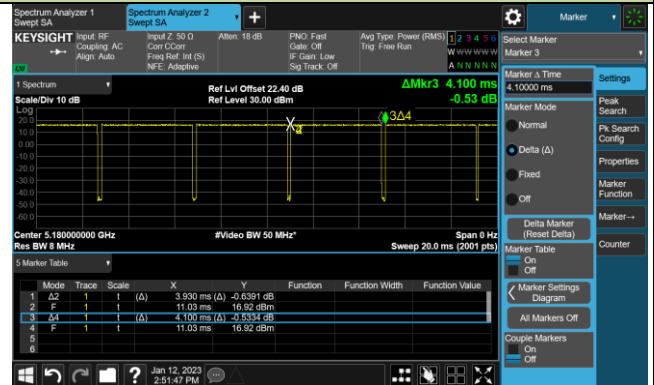


Duty Cycle (T = Transmission Duration)

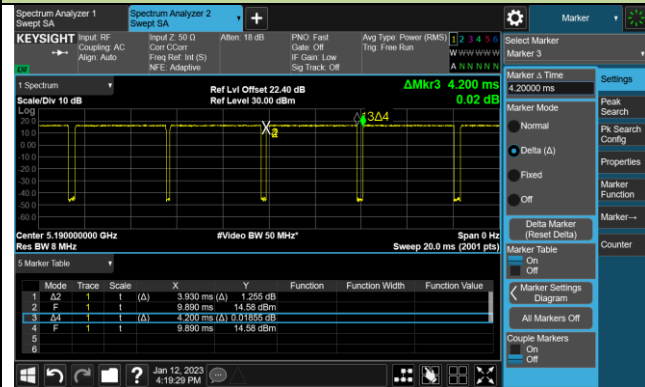
802.11ax-HE160 (T = 3.980ms)



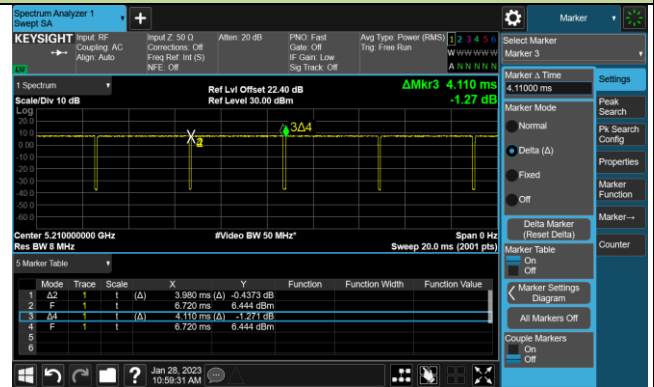
802.11be-EHT20 (T = 3.930ms)



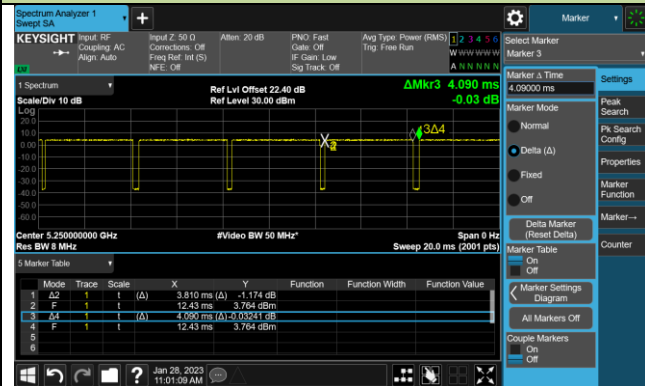
802.11be-EHT40 (T = 3.930ms)



802.11be-EHT80 (T = 3.980ms)



802.11be-EHT160 (T = 3.810ms)



802.11be-EHT240 (T = 3.98ms)



A.2 26dB Bandwidth Test Result

Test Site	WZ-SR5	Test Engineer	Jeff Yang
Test Date	2023-02-03 ~ 2023-02-07		

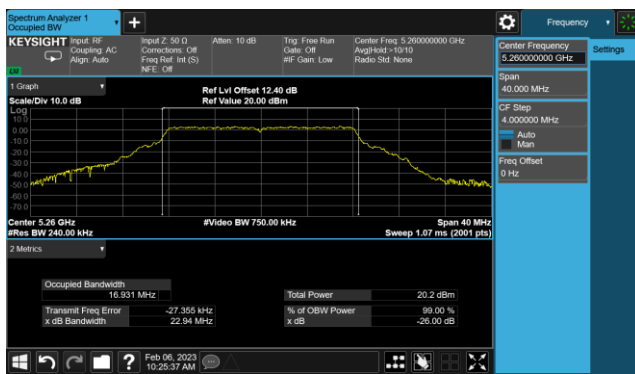
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	6Mbps	52	5260	22.94	16.931
11a	6Mbps	60	5300	22.47	16.851
11a	6Mbps	64	5320	22.86	16.939
11a	6Mbps	100	5500	22.80	16.820
11a	6Mbps	116	5580	22.89	16.915
11a	6Mbps	140	5700	22.83	16.901
11a	6Mbps	144	5720	22.94	16.889
11ac-VHT20	MCS0	52	5260	22.90	17.964
11ac-VHT20	MCS0	60	5300	22.31	17.863
11ac-VHT20	MCS0	64	5320	22.67	17.933
11ac-VHT20	MCS0	100	5500	22.56	17.888
11ac-VHT20	MCS0	116	5580	22.80	17.913
11ac-VHT20	MCS0	140	5700	23.41	17.932
11ac-VHT20	MCS0	144	5720	23.83	17.963
11ac-VHT40	MCS0	54	5270	44.01	36.538
11ac-VHT40	MCS0	62	5310	44.61	36.558
11ac-VHT40	MCS0	102	5510	44.27	36.568
11ac-VHT40	MCS0	110	5550	45.13	36.542
11ac-VHT40	MCS0	134	5670	44.19	36.576
11ac-VHT40	MCS0	142	5710	44.25	36.558
11ac-VHT80	MCS0	58	5290	90.48	76.186
11ac-VHT80	MCS0	106	5530	90.33	76.172
11ac-VHT80	MCS0	112	5610	90.47	76.185
11ac-VHT80	MCS0	138	5690	90.84	76.193
11ac-VHT160	MCS0	50	5250	172.10	155.36
11ac-VHT160	MCS0	114	5570	173.60	155.31

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
11ax-HE20	MCS0	52	5260	21.63	19.080
11ax-HE20	MCS0	60	5300	21.78	19.013
11ax-HE20	MCS0	64	5320	21.84	19.114
11ax-HE20	MCS0	100	5500	21.13	19.074
11ax-HE20	MCS0	116	5580	21.69	19.069
11ax-HE20	MCS0	140	5700	21.93	19.086
11ax-HE20	MCS0	144	5720	22.08	18.976
11ax-HE40	MCS0	54	5270	44.15	38.041
11ax-HE40	MCS0	62	5310	44.08	38.011
11ax-HE40	MCS0	102	5510	44.43	38.125
11ax-HE40	MCS0	110	5550	44.35	38.106
11ax-HE40	MCS0	134	5670	44.46	38.137
11ax-HE40	MCS0	142	5710	44.11	38.123
11ax-HE80	MCS0	58	5290	87.91	77.707
11ax-HE80	MCS0	106	5530	87.97	77.623
11ax-HE80	MCS0	112	5610	88.43	77.696
11ax-HE80	MCS0	138	5690	88.06	77.796
11ax-HE160	MCS0	50	5250	169.10	156.88
11ax-HE160	MCS0	114	5570	171.10	156.93
11be-EHT20	MCS0	52	5260	22.01	19.029
11be-EHT20	MCS0	60	5300	21.74	19.014
11be-EHT20	MCS0	64	5320	21.42	19.013
11be-EHT20	MCS0	100	5500	22.92	19.104
11be-EHT20	MCS0	116	5580	23.20	19.136
11be-EHT20	MCS0	140	5700	23.12	19.080
11be-EHT20	MCS0	144	5720	23.38	19.098
11be-EHT40	MCS0	54	5270	42.57	37.956
11be-EHT40	MCS0	62	5310	42.88	38.031
11be-EHT40	MCS0	102	5510	42.31	38.010
11be-EHT40	MCS0	110	5550	43.07	37.979
11be-EHT40	MCS0	134	5670	42.73	37.924
11be-EHT40	MCS0	142	5710	42.58	37.955

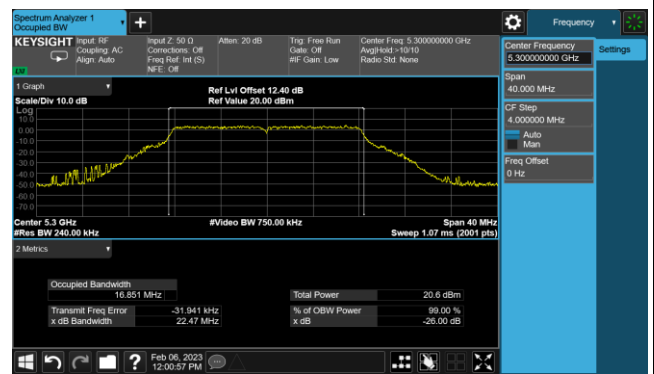
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
11be-EHT80	MCS0	58	5290	89.84	77.652
11be-EHT80	MCS0	106	5530	88.42	77.740
11be-EHT80	MCS0	112	5610	88.96	77.657
11be-EHT80	MCS0	138	5690	89.39	77.691
11be-EHT160	MCS0	50	5250	170.30	156.80
11be-EHT160	MCS0	114	5570	170.90	156.82
11be-EHT240	MCS0	130	5650	261.20	236.09

802.11a 26dB Bandwidth & 99% Bandwidth

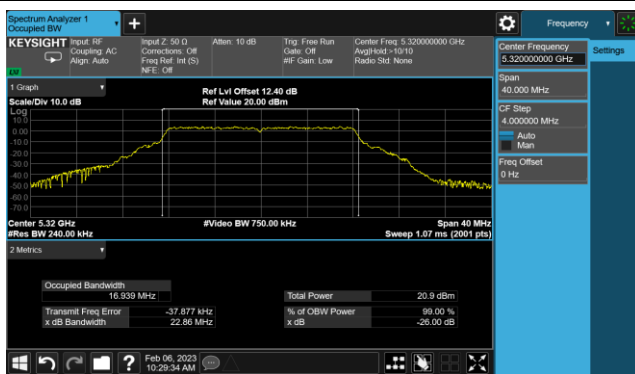
Channel 52 (5260MHz)



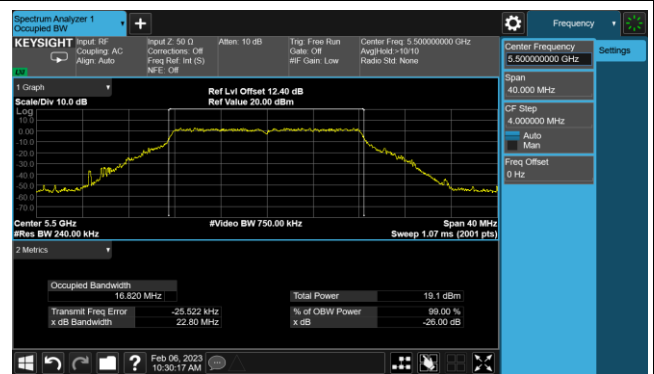
Channel 60 (5300MHz)



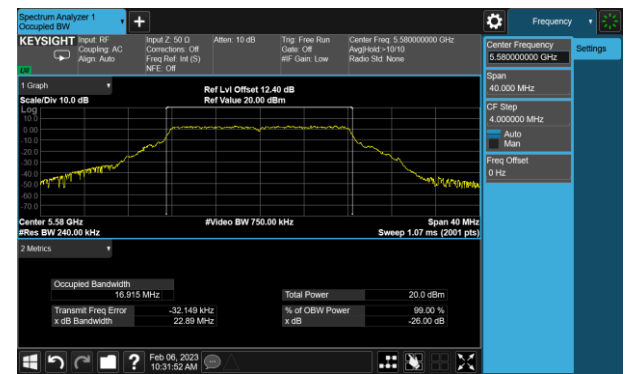
Channel 64 (5320MHz)



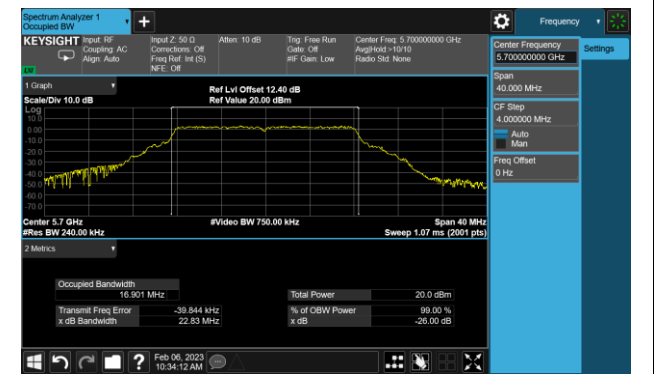
Channel 100 (5500MHz)



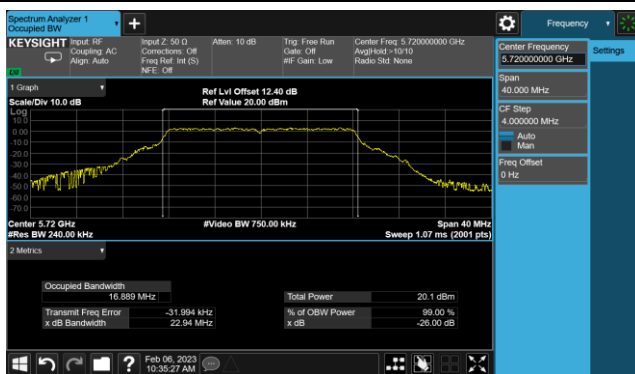
Channel 116 (5580MHz)



Channel 140 (5700MHz)

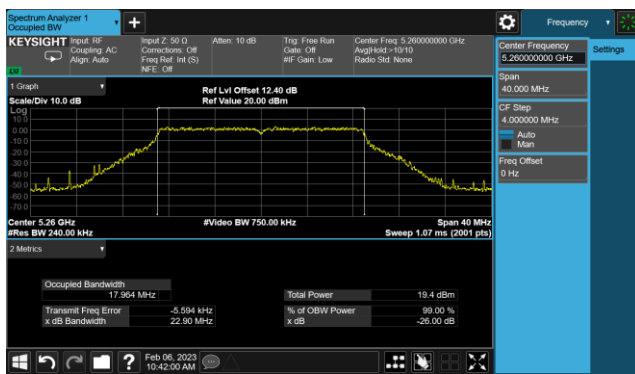


Channel 144 (5720MHz)

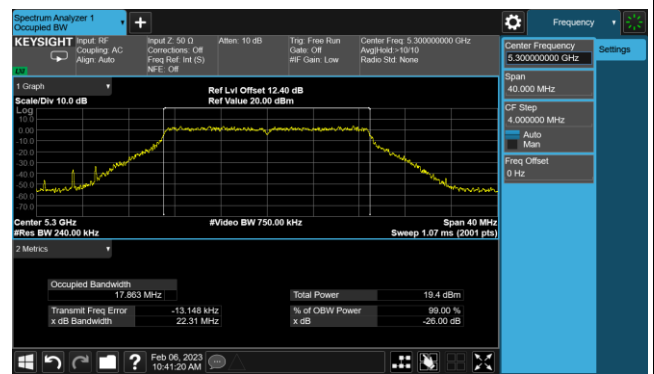


802.11ac-VHT20 26dB Bandwidth & 99% Bandwidth

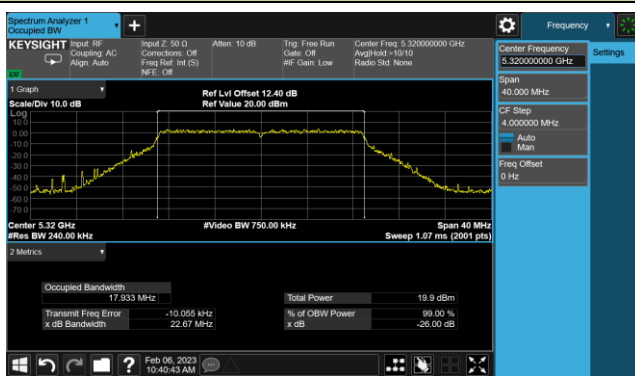
Channel 52 (5260MHz)



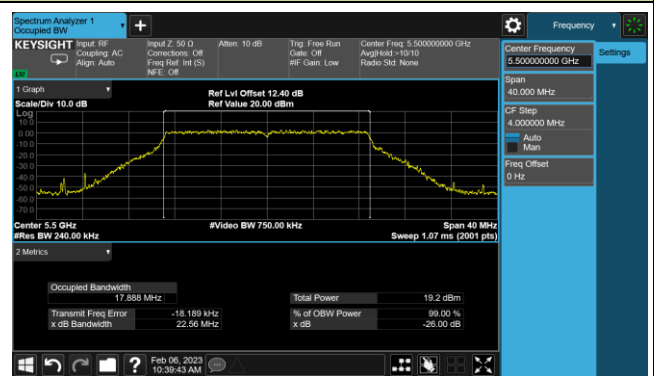
Channel 60 (5300MHz)



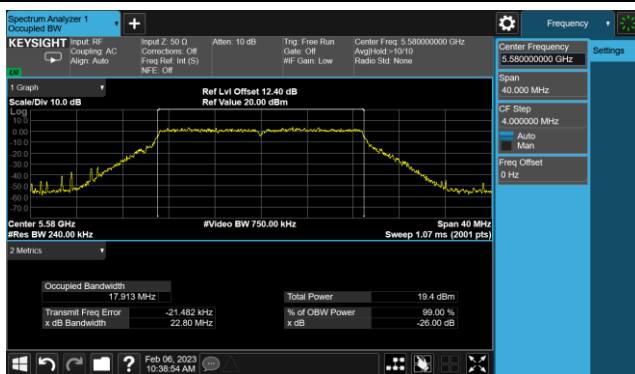
Channel 64 (5320MHz)



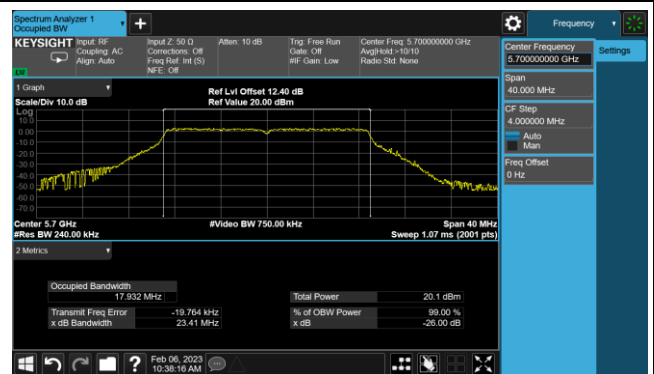
Channel 100 (5500MHz)



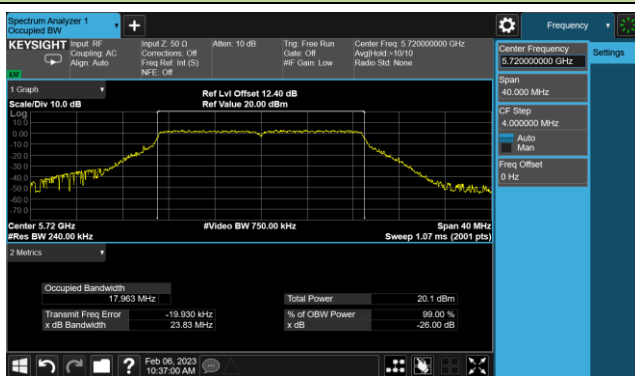
Channel 116 (5580MHz)



Channel 140 (5700MHz)

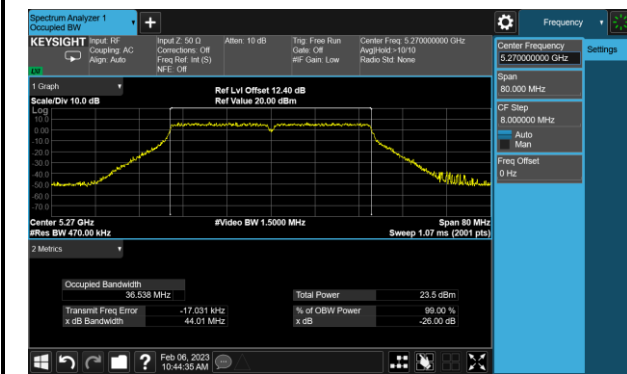


Channel 144 (5720MHz)

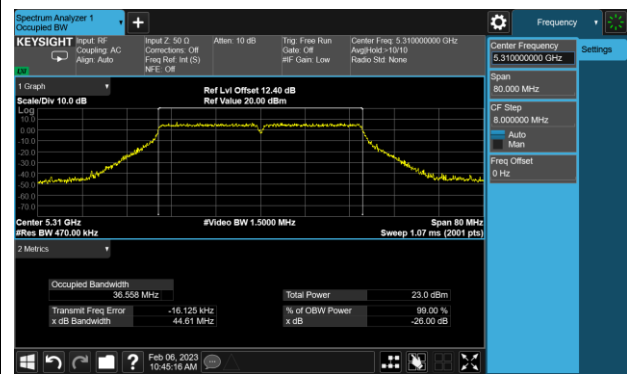


802.11ac-VHT40 26dB Bandwidth & 99% Bandwidth

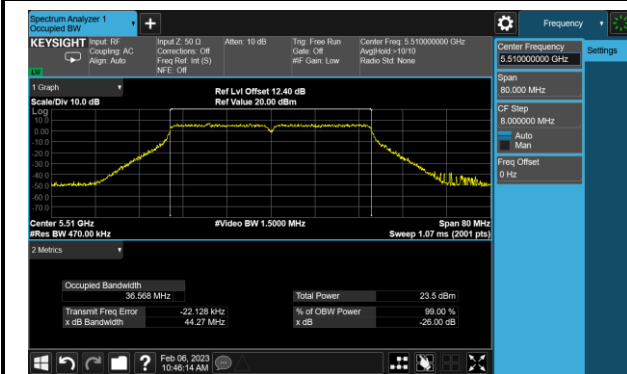
Channel 54 (5270MHz)



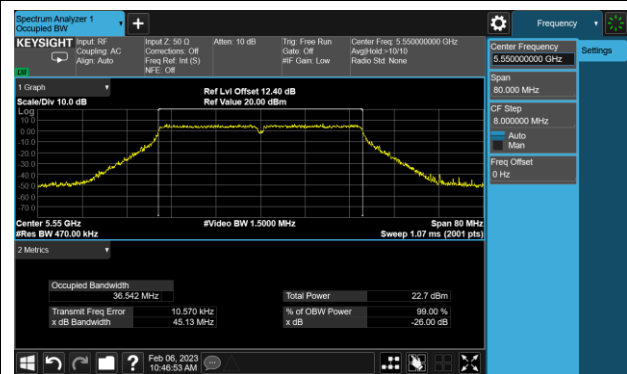
Channel 62 (5310MHz)



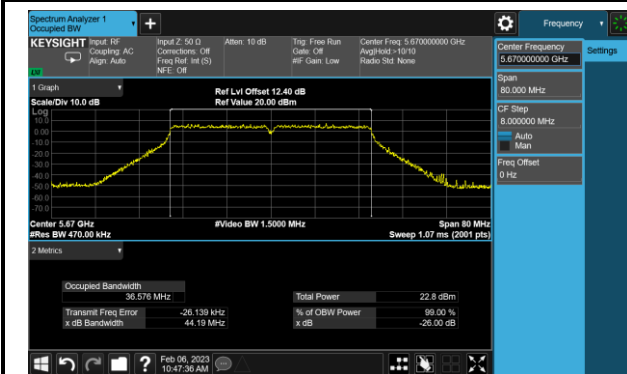
Channel 102 (5510MHz)



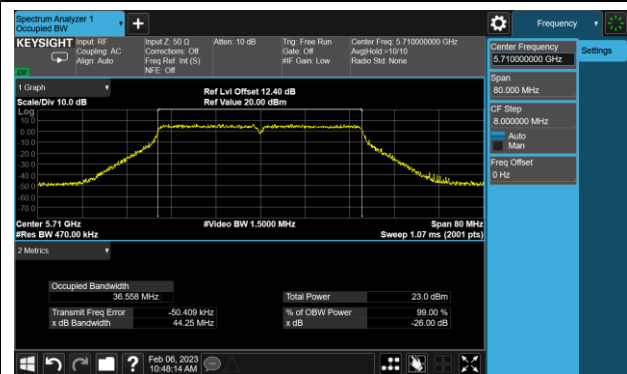
Channel 110 (5550MHz)



Channel 134 (5670MHz)

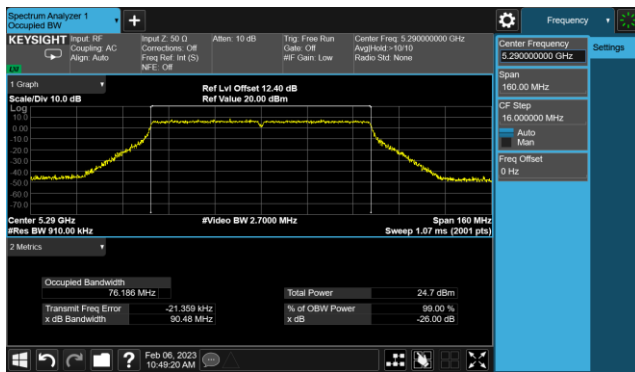


Channel 142 (5710MHz)

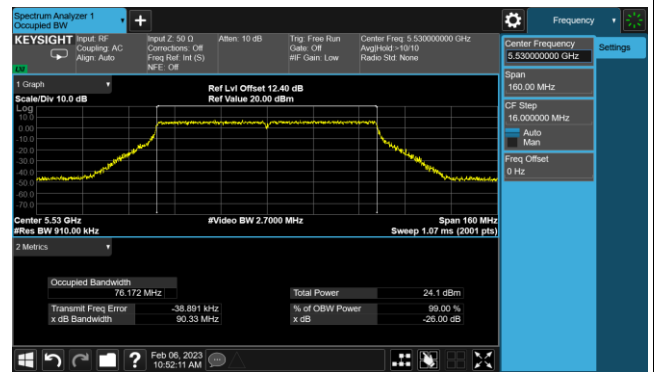


802.11ac-VHT80 26dB Bandwidth & 99% Bandwidth

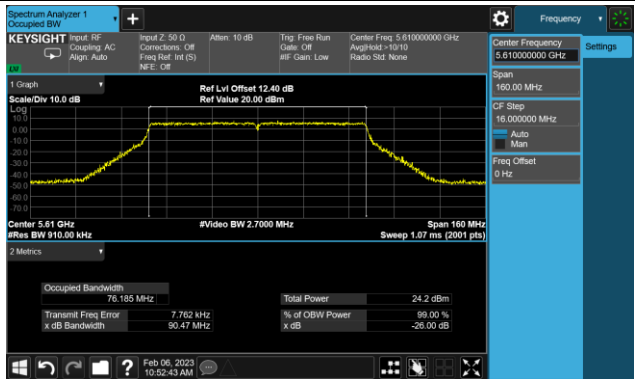
Channel 58 (5290MHz)



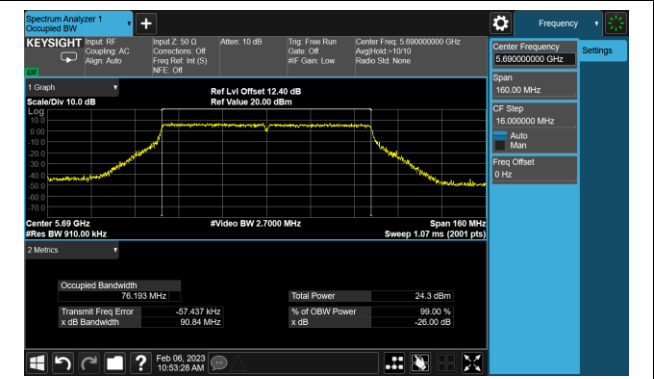
Channel 106 (5530MHz)



Channel 122 (5610MHz)

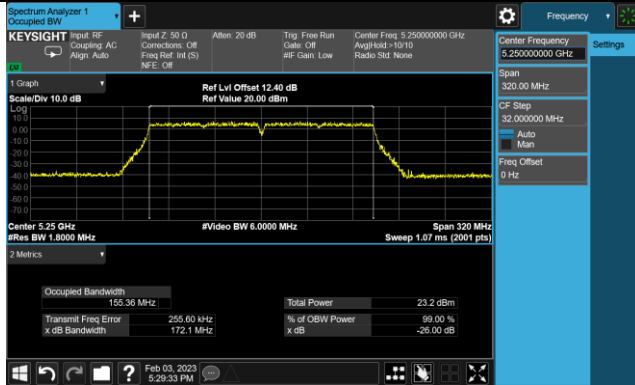


Channel 138 (5690MHz)

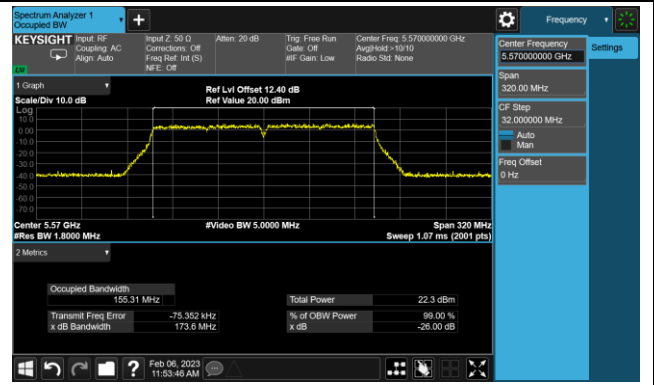


802.11ac-VHT160 26dB Bandwidth & 99% Bandwidth

Channel 50 (5250MHz)

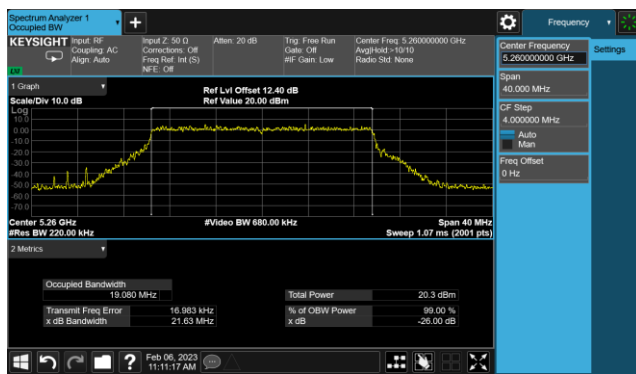


Channel 114 (5570MHz)

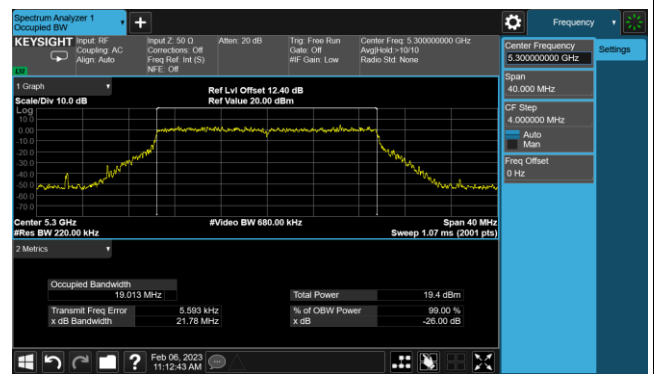


802.11ax-HE20 26dB Bandwidth & 99% Bandwidth

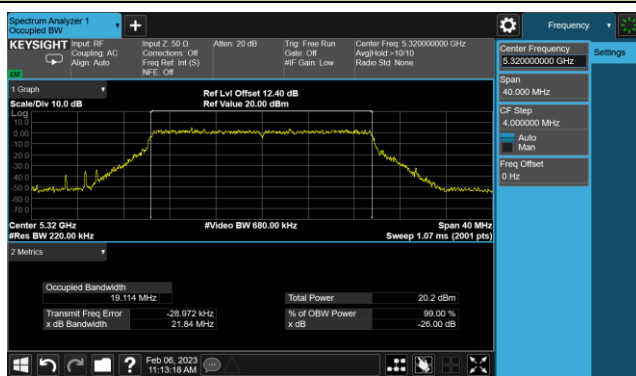
Channel 52 (5260MHz)



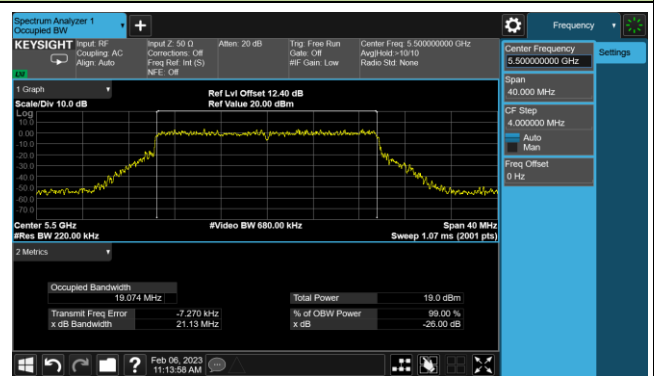
Channel 60 (5300MHz)



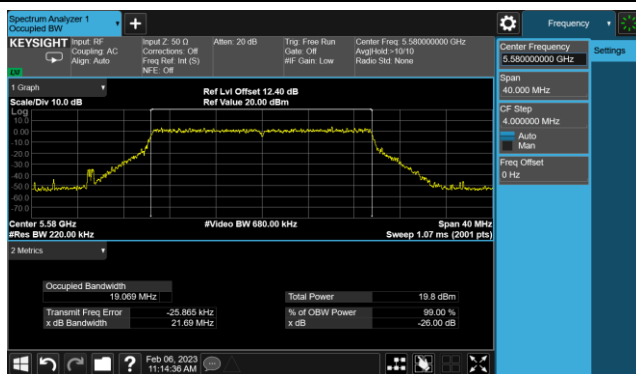
Channel 64 (5320MHz)



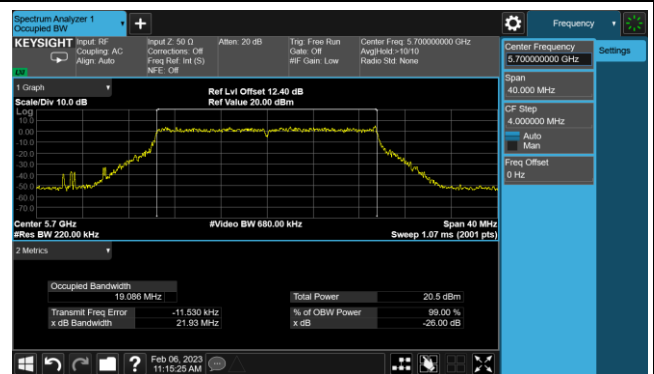
Channel 100 (5500MHz)



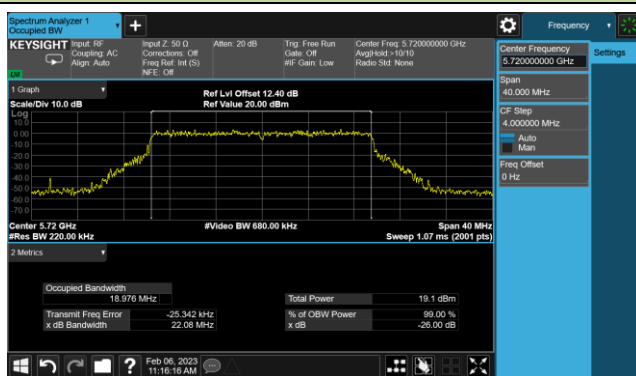
Channel 116 (5580MHz)



Channel 140 (5700MHz)

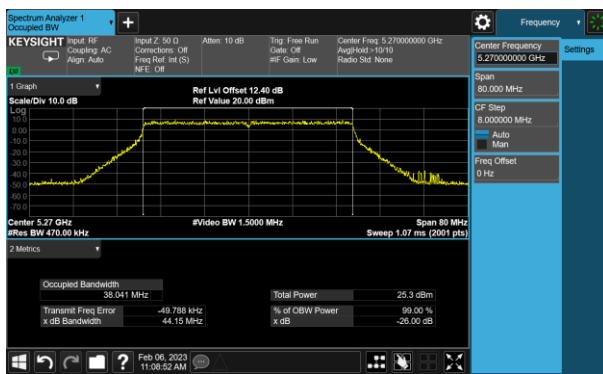


Channel 144 (5720MHz)

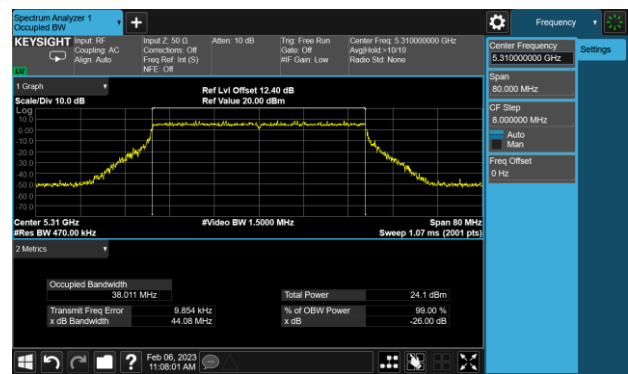


802.11ax-HE40 26dB Bandwidth & 99% Bandwidth

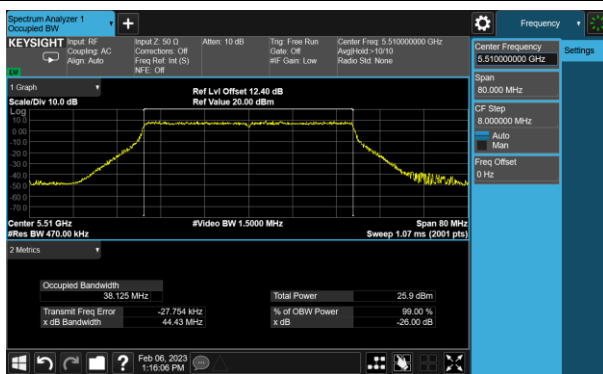
Channel 54 (5270MHz)



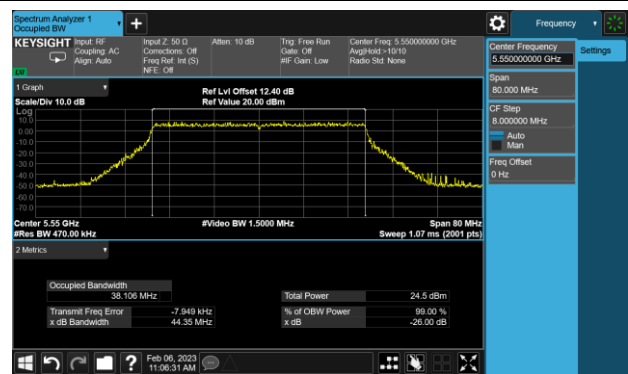
Channel 62 (5310MHz)



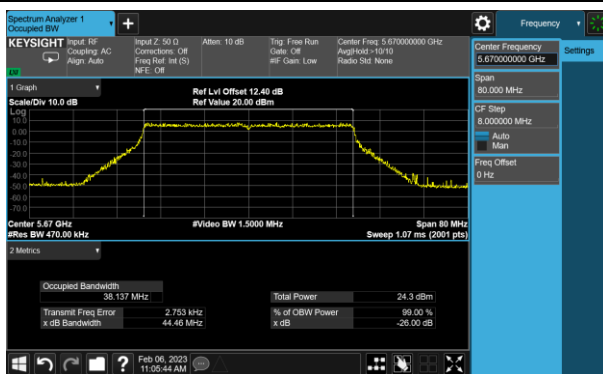
Channel 102 (5510MHz)



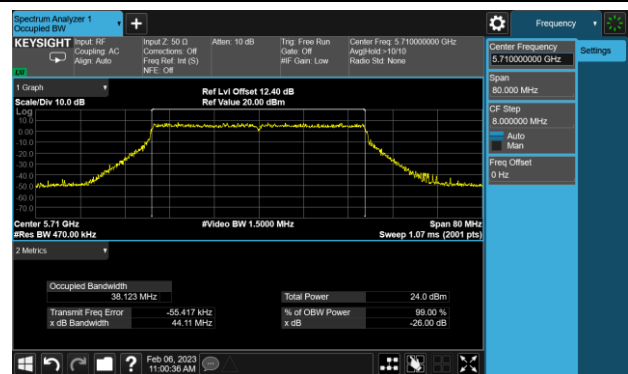
Channel 110 (5550MHz)



Channel 134 (5670MHz)

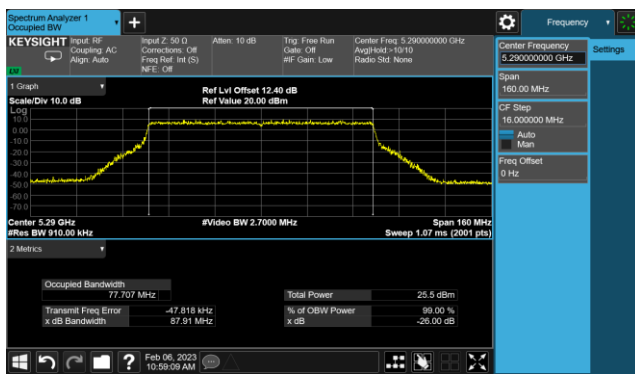


Channel 142 (5710MHz)

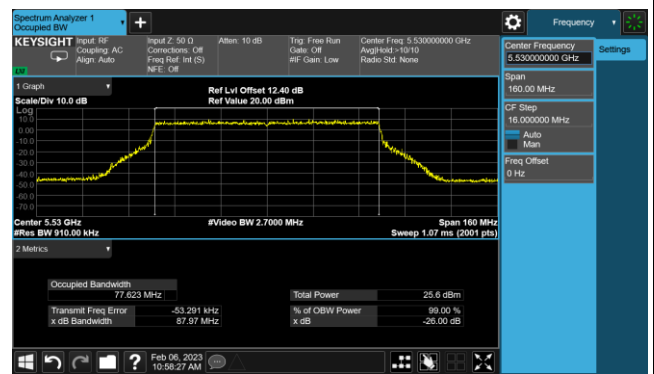


802.11ax-HE80 26dB Bandwidth & 99% Bandwidth

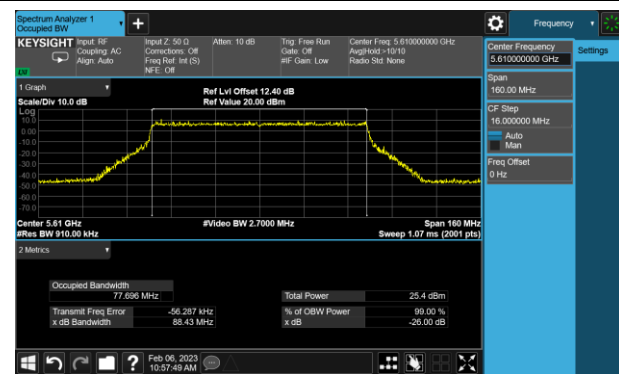
Channel 58 (5290MHz)



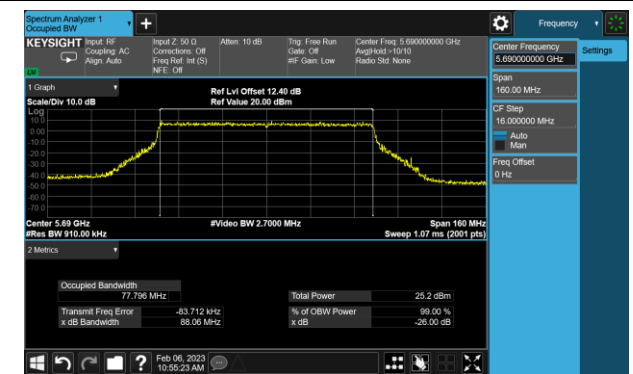
Channel 106 (5530MHz)



Channel 122 (5610MHz)

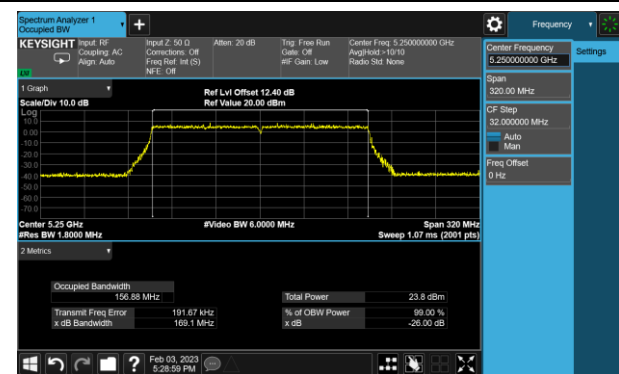


Channel 138 (5690MHz)

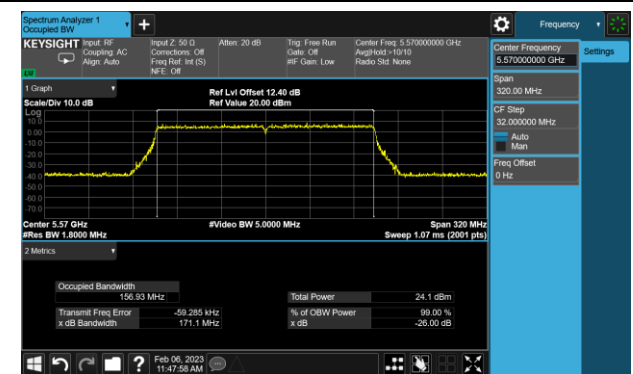


802.11ax-HE160 26dB Bandwidth & 99% Bandwidth

Channel 50 (5250MHz)

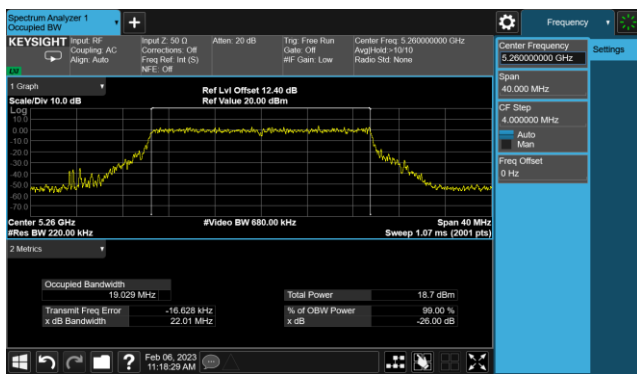


Channel 114 (5570MHz)

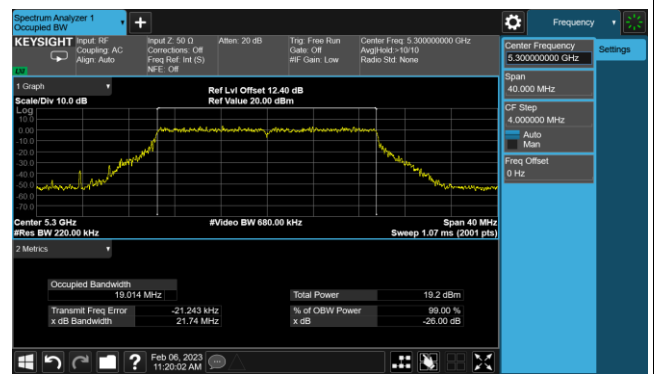


802.11be-EHT20 26dB Bandwidth & 99% Bandwidth

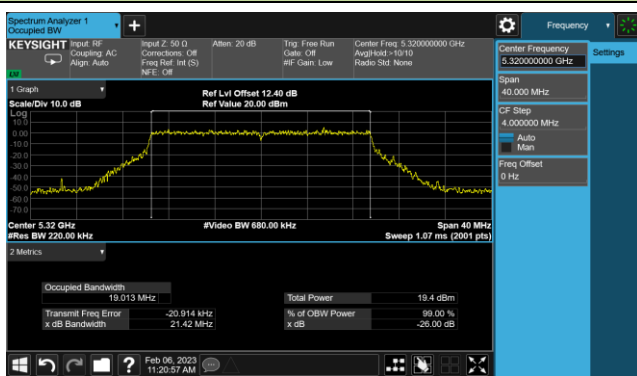
Channel 52 (5260MHz)



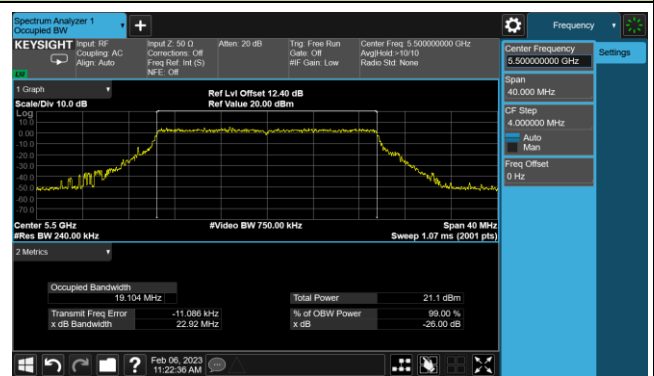
Channel 60 (5300MHz)



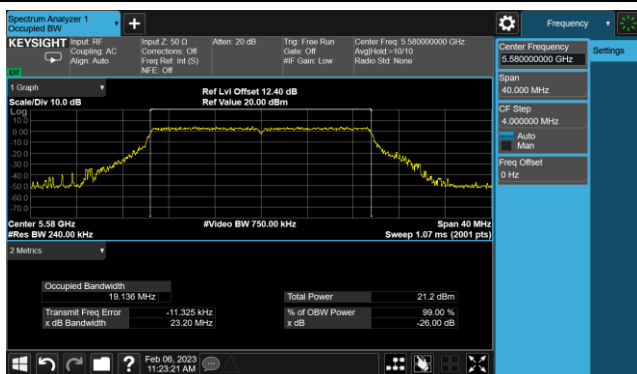
Channel 64 (5320MHz)



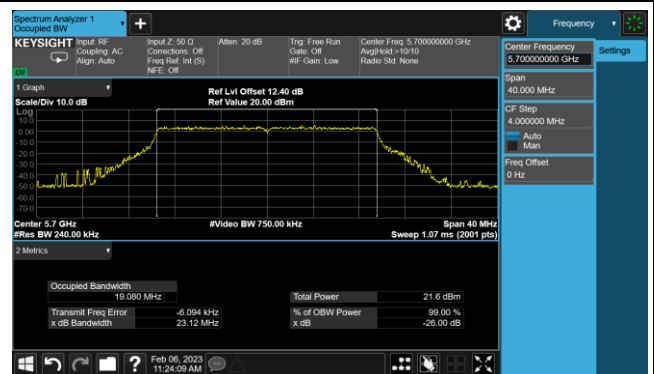
Channel 100 (5500MHz)



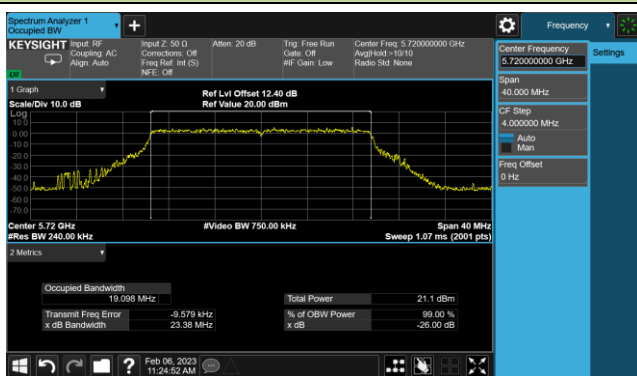
Channel 116 (5580MHz)



Channel 140 (5700MHz)

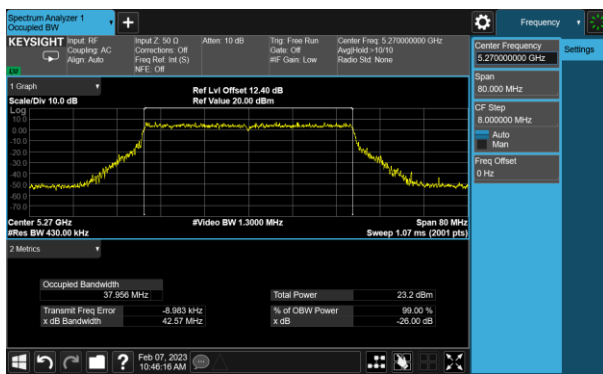


Channel 144 (5720MHz)

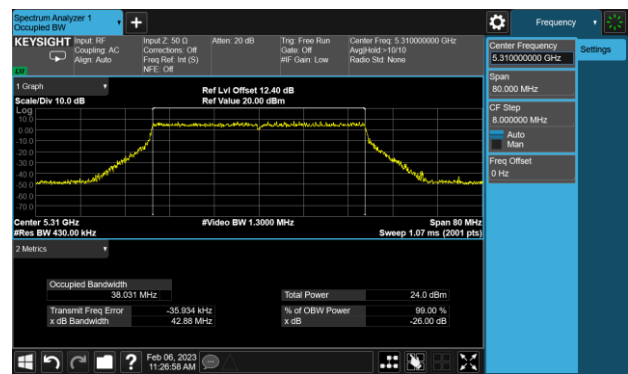


802.11be-EHT40 26dB Bandwidth & 99% Bandwidth

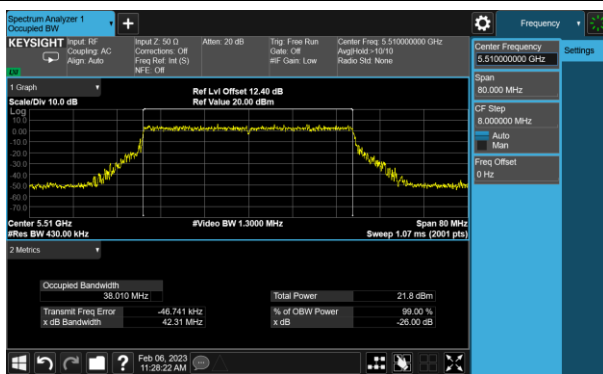
Channel 54 (5270MHz)



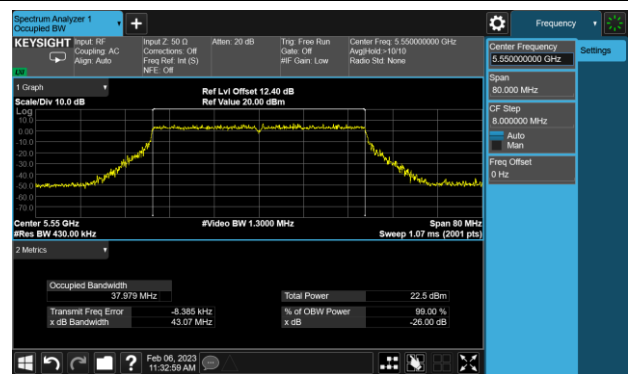
Channel 62 (5310MHz)



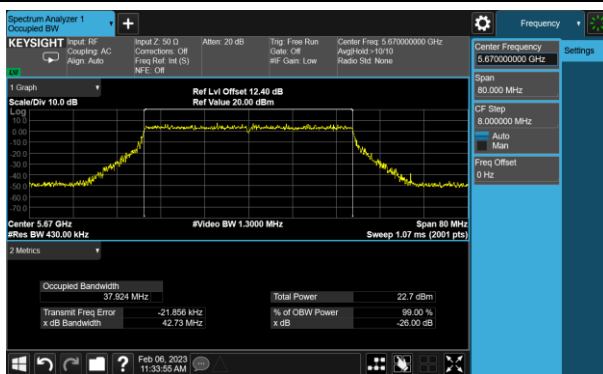
Channel 102 (5510MHz)



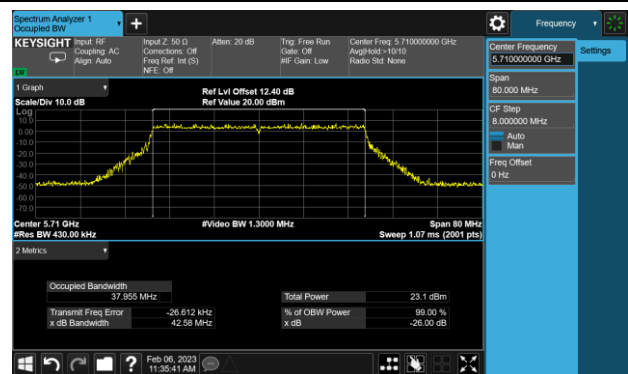
Channel 110 (5550MHz)



Channel 134 (5670MHz)

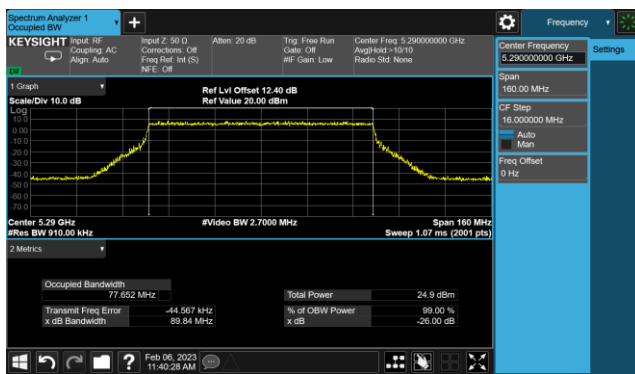


Channel 142 (5710MHz)

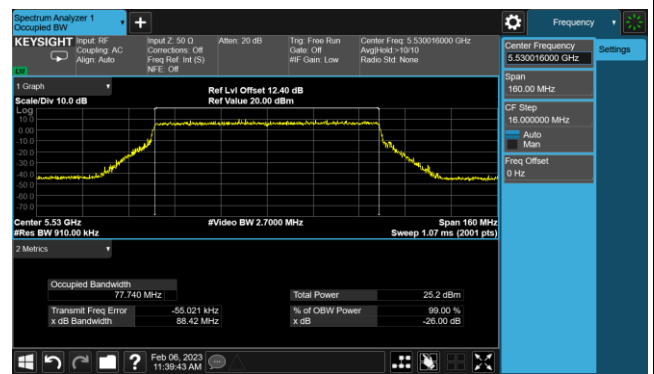


802.11be-EHT80 26dB Bandwidth & 99% Bandwidth

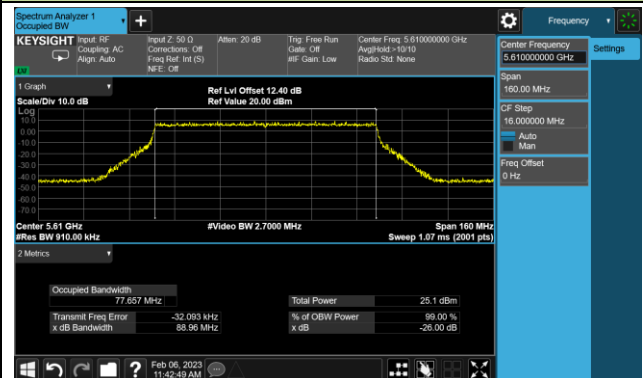
Channel 58 (5290MHz)



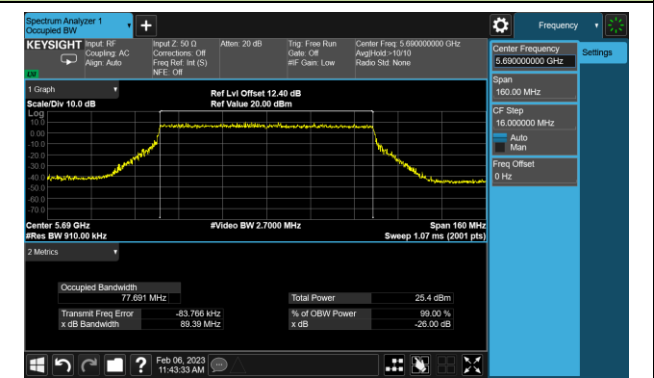
Channel 106 (5530MHz)



Channel 122 (5610MHz)

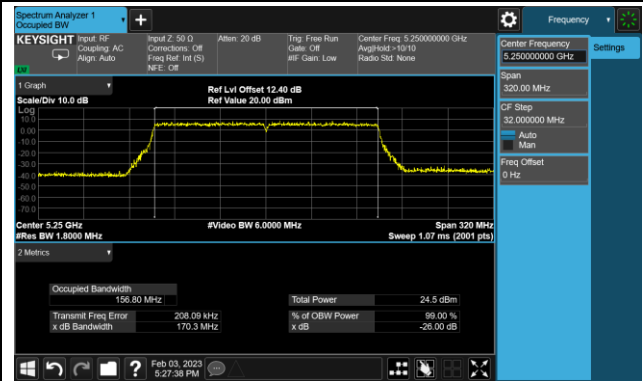


Channel 138 (5690MHz)

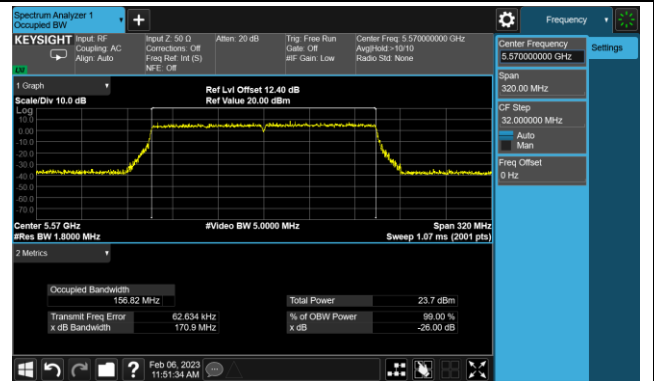


802.11be-EHT160 26dB Bandwidth & 99% Bandwidth

Channel 50 (5250MHz)

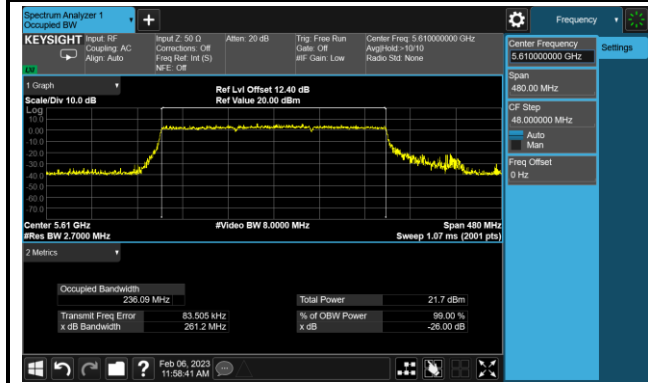


Channel 114 (5570MHz)



802.11be-EHT240 26dB Bandwidth & 99% Bandwidth

Channel 130 (5650MHz)



A.3 Output Power Test Result

Test Site	WZ-SR5	Test Engineer	Jeff Yang
Test Date	2023-01-16 ~ 2023-02-04	Test Mode	N _{ss} =1

Test Mode	Data Rate MCS	Channel No.	Freq. (MHz)	Average Power (dBm)				Total Average Power (dBm)	Power Limit (dBm)
				Ant 0	Ant 1	Ant 2	Ant 3		
11a	6Mbps	52	5260	14.39	13.45	13.41	13.74	19.79	≤ 23.98
11a	6Mbps	60	5300	14.50	13.95	13.61	13.87	20.02	≤ 23.98
11a	6Mbps	64	5320	14.71	14.14	13.75	14.18	20.23	≤ 23.98
11a	6Mbps	100	5500	13.41	13.61	13.09	13.48	19.42	≤ 23.98
11a	6Mbps	116	5580	13.58	13.67	13.02	13.81	19.55	≤ 23.98
11a	6Mbps	140	5700	13.51	13.66	12.96	13.80	19.51	≤ 23.98
11a	6Mbps	144	5720	13.41	13.71	13.03	13.65	19.48	≤ 23.16
11ac-VHT20	MCS0	52	5260	14.83	13.60	13.95	14.73	20.33	≤ 23.98
11ac-VHT20	MCS0	60	5300	14.57	13.78	13.45	13.95	19.98	≤ 23.98
11ac-VHT20	MCS0	64	5320	14.27	13.81	13.26	13.74	19.81	≤ 23.98
11ac-VHT20	MCS0	100	5500	13.85	14.14	13.45	13.90	19.86	≤ 23.98
11ac-VHT20	MCS0	116	5580	13.94	14.19	13.61	14.25	20.03	≤ 23.98
11ac-VHT20	MCS0	140	5700	13.66	13.61	13.19	13.65	19.55	≤ 23.98
11ac-VHT20	MCS0	144	5720	13.54	13.65	13.02	13.66	19.50	≤ 23.28
11ac-VHT40	MCS0	54	5270	17.24	16.70	16.11	16.68	22.72	≤ 23.98
11ac-VHT40	MCS0	62	5310	17.23	16.57	16.30	16.71	22.74	≤ 23.98
11ac-VHT40	MCS0	102	5510	16.86	17.06	15.95	17.05	22.77	≤ 23.98
11ac-VHT40	MCS0	110	5550	17.15	17.12	16.41	16.93	22.93	≤ 23.98
11ac-VHT40	MCS0	134	5670	16.57	16.64	15.79	16.41	22.39	≤ 23.98
11ac-VHT40	MCS0	142	5710	16.44	16.91	15.77	16.83	22.53	≤ 23.98
11ac-VHT80	MCS0	58	5290	18.24	17.03	17.24	17.71	23.60	≤ 23.98
11ac-VHT80	MCS0	106	5530	17.88	17.82	17.50	17.88	23.79	≤ 23.98
11ac-VHT80	MCS0	122	5610	17.91	17.86	17.45	18.00	23.83	≤ 23.98
11ac-VHT80	MCS0	138	5690	17.71	17.45	17.20	17.74	23.55	≤ 23.98
11ac-VHT160	MCS0	50	5250	17.95	17.19	17.03	17.19	23.38	≤ 23.98
11ac-VHT160	MCS0	114	5570	14.47	14.43	14.07	14.72	20.45	≤ 23.98

Test Mode	Data Rate MCS	Channel No.	Freq. (MHz)	Average Power (dBm)				Total Average Power (dBm)	Power Limit (dBm)
				Ant 0	Ant 1	Ant 2	Ant 3		
11ax-HE20	MCS0	52	5260	15.32	14.63	14.21	14.71	20.76	≤ 23.98
11ax-HE20	MCS0	60	5300	14.71	14.01	13.89	14.07	20.20	≤ 23.98
11ax-HE20	MCS0	64	5320	14.25	14.07	13.64	13.88	19.99	≤ 23.98
11ax-HE20	MCS0	100	5500	14.41	14.75	13.91	14.61	20.45	≤ 23.98
11ax-HE20	MCS0	116	5580	14.18	14.39	13.65	14.43	20.19	≤ 23.98
11ax-HE20	MCS0	140	5700	14.21	14.30	13.54	14.44	20.16	≤ 23.98
11ax-HE20	MCS0	144	5720	14.07	14.24	13.73	14.46	20.15	≤ 23.05
11ax-HE40	MCS0	54	5270	18.15	17.44	17.11	17.91	23.69	≤ 23.98
11ax-HE40	MCS0	62	5310	18.04	17.25	16.66	17.18	23.33	≤ 23.98
11ax-HE40	MCS0	102	5510	17.45	17.45	16.99	17.70	23.43	≤ 23.98
11ax-HE40	MCS0	110	5550	17.52	17.73	16.51	17.58	23.38	≤ 23.98
11ax-HE40	MCS0	134	5670	16.78	16.56	16.34	17.22	22.76	≤ 23.98
11ax-HE40	MCS0	142	5710	16.70	16.21	16.54	16.48	22.51	≤ 23.98
11ax-HE80	MCS0	58	5290	18.23	17.30	17.35	17.82	23.71	≤ 23.98
11ax-HE80	MCS0	106	5530	17.87	17.87	17.44	17.95	23.81	≤ 23.98
11ax-HE80	MCS0	122	5610	17.22	17.60	17.13	17.59	23.41	≤ 23.98
11ax-HE80	MCS0	138	5690	17.47	17.52	17.25	17.73	23.52	≤ 23.98
11ax-HE160	MCS0	50	5250	17.36	16.05	16.64	16.81	22.76	≤ 23.98
11ax-HE160	MCS0	114	5570	15.92	15.42	15.65	16.29	21.85	≤ 23.98
11be-EHT20	MCS0	52	5260	14.75	13.51	14.05	14.04	20.13	≤ 23.98
11be-EHT20	MCS0	60	5300	14.55	13.69	14.03	13.76	20.04	≤ 23.98
11be-EHT20	MCS0	64	5320	14.58	13.75	14.06	13.85	20.09	≤ 23.98
11be-EHT20	MCS0	100	5500	14.35	14.43	13.95	13.88	20.18	≤ 23.98
11be-EHT20	MCS0	116	5580	14.01	14.30	13.54	14.05	20.00	≤ 23.98
11be-EHT20	MCS0	140	5700	14.21	14.23	13.41	13.52	19.88	≤ 23.98
11be-EHT20	MCS0	144	5720	13.95	14.24	13.24	13.44	19.76	≤ 23.22
11be-EHT40	MCS0	54	5270	17.75	17.14	16.88	16.84	23.19	≤ 23.98
11be-EHT40	MCS0	62	5310	17.74	17.01	16.72	16.47	23.03	≤ 23.98
11be-EHT40	MCS0	102	5510	16.70	16.87	15.94	15.92	22.40	≤ 23.98
11be-EHT40	MCS0	110	5550	17.40	17.48	16.41	16.85	23.08	≤ 23.98
11be-EHT40	MCS0	134	5670	16.63	17.01	15.84	16.41	22.51	≤ 23.98
11be-EHT40	MCS0	142	5710	17.05	17.46	16.65	16.87	23.04	≤ 23.98

Test Mode	Data Rate MCS	Channel No.	Freq. (MHz)	Average Power (dBm)				Total Average Power (dBm)	Power Limit (dBm)
				Ant 0	Ant 1	Ant 2	Ant 3		
11be-EHT80	MCS0	58	5290	18.10	17.42	17.37	17.51	23.63	≤ 23.98
11be-EHT80	MCS0	106	5530	17.85	18.11	17.51	17.89	23.87	≤ 23.98
11be-EHT80	MCS0	122	5610	17.71	17.54	17.24	17.55	23.53	≤ 23.98
11be-EHT80	MCS0	138	5690	17.63	17.53	17.05	17.64	23.49	≤ 23.98
11be-EHT160	MCS0	50	5250	17.36	16.51	16.48	16.77	22.82	≤ 23.98
11be-EHT160	MCS0	114	5570	15.36	14.95	14.99	15.63	21.26	≤ 23.98
11be-EHT240	MCS0	130	5650	12.71	12.37	12.36	12.73	18.57	≤ 23.98

Note 1: Total Average Power (dBm) = $10 \cdot \log \{10^{(\text{Ant 0 Average Power} / 10)} + 10^{(\text{Ant 1 Average Power} / 10)} + 10^{(\text{Ant 2 Average Power} / 10)} + 10^{(\text{Ant 3 Average Power} / 10)}\}$.

Note 2: For 5720MHz, Average Power Limit = $11 + 10 \cdot \log(5 + BW_{26\text{dBc}} / 2)$.

Test Site	WZ-SR5	Test Engineer	Jeff Yang
Test Date	2023-02-07	Test Mode	Nss=4

Test Mode	Data Rate MCS	Channel No.	Freq. (MHz)	Average Power (dBm)				Total Average Power (dBm)	Power Limit (dBm)
				Ant 0	Ant 1	Ant 2	Ant 3		
11ax-HE20	MCS0	52	5260	17.89	17.48	17.29	17.33	23.57	≤ 23.98
11ax-HE20	MCS0	60	5300	17.87	17.25	17.02	17.10	23.44	≤ 23.98
11ax-HE20	MCS0	64	5320	18.16	17.49	17.33	17.39	23.65	≤ 23.98
11ax-HE20	MCS0	100	5500	17.94	17.71	17.16	17.49	23.61	≤ 23.98
11ax-HE20	MCS0	116	5580	17.61	17.87	17.27	17.40	23.72	≤ 23.98
11ax-HE20	MCS0	140	5700	17.11	17.14	16.63	17.13	23.00	≤ 23.98
11ax-HE20	MCS0	144	5720	17.38	16.67	16.84	17.25	23.00	≤ 23.05
11be-EHT20	MCS0	52	5260	18.07	17.25	17.13	17.22	23.52	≤ 23.98
11be-EHT20	MCS0	60	5300	17.74	16.82	16.73	16.78	23.24	≤ 23.98
11be-EHT20	MCS0	64	5320	17.43	16.57	16.43	16.86	22.90	≤ 23.98
11be-EHT20	MCS0	100	5500	17.05	17.12	16.54	17.14	22.95	≤ 23.98
11be-EHT20	MCS0	116	5580	17.21	17.34	16.57	17.26	23.19	≤ 23.98
11be-EHT20	MCS0	140	5700	17.18	17.16	16.46	17.14	22.98	≤ 23.98
11be-EHT20	MCS0	144	5720	17.21	17.05	16.57	17.24	22.98	≤ 23.22

Note 1: Total Average Power (dBm) = $10 \cdot \log \{10^{(\text{Ant 0 Average Power} / 10)} + 10^{(\text{Ant 1 Average Power} / 10)} + 10^{(\text{Ant 2 Average Power} / 10)} + 10^{(\text{Ant 3 Average Power} / 10)}\}$.

Note 2: For 5720MHz, Average Power Limit = $11 + 10 \cdot \log(5 + BW_{26\text{dBc}} / 2)$.

A.4 Power Spectral Density Test Result

Test Site	WZ-SR5	Test Engineer	Jeff Yang
Test Date	2023-01-10 ~ 2023-02-06	Test Mode	N _{ss} =1
Test Item	Power Spectral Density (UNII-Band 1 & UNII-2a & UNII-2c)		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	AVPSD (dBm/ MHz)				Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)
				Ant 0	Ant 1	Ant 2	Ant 3			
11a	6Mbps	52	5260	2.038	0.685	0.937	1.031	94.75	7.459	≤ 8.01
11a	6Mbps	60	5300	2.355	1.148	1.282	1.366	94.75	7.820	≤ 8.01
11a	6Mbps	64	5320	2.181	1.198	1.144	1.226	94.75	7.714	≤ 8.01
11a	6Mbps	100	5500	1.294	1.239	1.240	1.317	94.75	7.527	≤ 8.01
11a	6Mbps	116	5580	1.373	1.284	0.818	1.472	94.75	7.499	≤ 8.01
11a	6Mbps	140	5700	2.320	1.372	0.965	1.667	94.75	7.864	≤ 8.01
11a	6Mbps	144	5720	2.154	1.461	1.052	1.562	94.75	7.830	≤ 8.01
11ac-VHT20	MCS0	52	5260	2.412	1.154	1.291	1.505	95.38	7.845	≤ 8.01
11ac-VHT20	MCS0	60	5300	2.302	1.100	1.301	1.450	95.38	7.789	≤ 8.01
11ac-VHT20	MCS0	64	5320	1.982	1.150	1.043	1.334	95.38	7.619	≤ 8.01
11ac-VHT20	MCS0	100	5500	1.553	1.391	1.077	1.456	95.38	7.599	≤ 8.01
11ac-VHT20	MCS0	116	5580	1.792	1.606	1.227	1.913	95.38	7.868	≤ 8.01
11ac-VHT20	MCS0	140	5700	2.047	1.109	0.885	1.537	95.38	7.643	≤ 8.01
11ac-VHT20	MCS0	144	5720	1.829	1.316	0.939	1.532	95.38	7.642	≤ 8.01
11ac-VHT40	MCS0	54	5270	1.614	1.070	1.001	1.059	92.16	7.568	≤ 8.01
11ac-VHT40	MCS0	62	5310	1.944	1.044	0.916	1.108	92.16	7.648	≤ 8.01
11ac-VHT40	MCS0	102	5510	1.313	1.150	1.009	1.640	92.16	7.660	≤ 8.01
11ac-VHT40	MCS0	110	5550	1.601	1.199	0.879	1.418	92.16	7.658	≤ 8.01
11ac-VHT40	MCS0	134	5670	1.855	1.026	0.524	1.160	92.16	7.543	≤ 8.01
11ac-VHT40	MCS0	142	5710	1.902	1.449	0.656	1.515	92.16	7.779	≤ 8.01
11ac-VHT80	MCS0	58	5290	0.089	-1.033	-1.191	-0.658	91.78	5.724	≤ 8.01
11ac-VHT80	MCS0	106	5530	-0.349	-0.205	-1.055	-0.632	91.78	5.845	≤ 8.01
11ac-VHT80	MCS0	122	5610	-0.192	-0.423	-1.156	-0.653	91.78	5.802	≤ 8.01
11ac-VHT80	MCS0	138	5690	0.404	-0.145	-0.810	-0.283	91.78	6.206	≤ 8.01
11ac-VHT160	MCS0	50	5250	-3.104	-4.181	-4.277	-4.214	91.63	2.485	≤ 8.01
11ac-VHT160	MCS0	114	5570	-6.634	-6.795	-7.176	-6.760	91.63	-0.436	≤ 8.01

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	AVPSD (dBm/ MHz)				Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)
				Ant 0	Ant 1	Ant 2	Ant 3			
11ax-HE20	MCS0	52	5260	2.352	1.475	1.181	1.538	96.31	7.843	≤ 8.01
11ax-HE20	MCS0	60	5300	1.915	0.946	0.633	1.134	96.31	7.367	≤ 8.01
11ax-HE20	MCS0	64	5320	1.518	0.966	0.866	1.198	96.31	7.328	≤ 8.01
11ax-HE20	MCS0	100	5500	1.567	1.729	1.389	1.983	96.31	7.856	≤ 8.01
11ax-HE20	MCS0	116	5580	1.431	1.344	0.941	1.767	96.31	7.565	≤ 8.01
11ax-HE20	MCS0	140	5700	2.083	1.251	0.926	1.799	96.31	7.722	≤ 8.01
11ax-HE20	MCS0	144	5720	1.893	1.296	0.910	1.834	96.31	7.686	≤ 8.01
11ax-HE40	MCS0	54	5270	2.293	1.265	0.788	1.624	93.85	7.824	≤ 8.01
11ax-HE40	MCS0	62	5310	2.282	1.442	0.868	1.290	93.85	7.798	≤ 8.01
11ax-HE40	MCS0	102	5510	1.395	1.814	1.167	1.215	93.85	7.702	≤ 8.01
11ax-HE40	MCS0	110	5550	1.670	2.017	1.173	1.279	93.85	7.844	≤ 8.01
11ax-HE40	MCS0	134	5670	1.638	1.596	0.750	1.094	93.85	7.581	≤ 8.01
11ax-HE40	MCS0	142	5710	1.472	1.425	0.826	1.445	93.85	7.596	≤ 8.01
11ax-HE80	MCS0	58	5290	0.387	-0.854	-0.972	-0.595	95.43	5.749	≤ 8.01
11ax-HE80	MCS0	106	5530	-0.089	0.090	-0.729	-0.453	95.43	5.940	≤ 8.01
11ax-HE80	MCS0	122	5610	-0.177	-0.393	-1.097	-0.573	95.43	5.677	≤ 8.01
11ax-HE80	MCS0	138	5690	0.311	0.027	-0.665	-0.162	95.43	6.116	≤ 8.01
11ax-HE160	MCS0	50	5250	-3.577	-4.529	-4.873	-4.773	95.44	1.817	≤ 8.01
11ax-HE160	MCS0	114	5570	-5.102	-5.407	-5.778	-5.259	95.44	0.844	≤ 8.01
11be-EHT20	MCS0	52	5260	1.909	1.593	1.438	1.141	95.85	7.734	≤ 8.01
11be-EHT20	MCS0	60	5300	1.928	0.934	0.866	1.095	95.85	7.432	≤ 8.01
11be-EHT20	MCS0	64	5320	1.991	1.541	1.071	1.488	95.85	7.740	≤ 8.01
11be-EHT20	MCS0	100	5500	1.438	1.911	1.236	1.755	95.85	7.798	≤ 8.01
11be-EHT20	MCS0	116	5580	1.115	1.486	0.807	1.540	95.85	7.452	≤ 8.01
11be-EHT20	MCS0	140	5700	1.765	1.307	0.551	1.558	95.85	7.524	≤ 8.01
11be-EHT20	MCS0	144	5720	1.439	1.466	0.797	1.582	95.85	7.536	≤ 8.01
11be-EHT40	MCS0	54	5270	1.986	1.165	0.907	1.039	93.57	7.605	≤ 8.01
11be-EHT40	MCS0	62	5310	2.212	1.386	1.003	1.230	93.57	7.792	≤ 8.01
11be-EHT40	MCS0	102	5510	1.296	0.999	1.088	0.974	93.57	7.400	≤ 8.01
11be-EHT40	MCS0	110	5550	1.599	1.744	0.787	1.383	93.57	7.702	≤ 8.01
11be-EHT40	MCS0	134	5670	1.322	1.292	0.569	1.259	93.57	7.431	≤ 8.01
11be-EHT40	MCS0	142	5710	1.647	1.755	1.193	1.587	93.57	7.860	≤ 8.01

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	AVPSD (dBm/ MHz)				Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)
				Ant 0	Ant 1	Ant 2	Ant 3			
11be-EHT80	MCS0	58	5290	0.341	-0.884	-0.997	-0.616	96.84	5.654	≤ 8.01
11be-EHT80	MCS0	106	5530	-0.214	0.039	-0.701	-0.460	96.84	5.835	≤ 8.01
11be-EHT80	MCS0	122	5610	0.122	-0.446	-1.184	-0.692	96.84	5.636	≤ 8.01
11be-EHT80	MCS0	138	5690	0.338	-0.118	-0.718	-0.245	96.84	5.991	≤ 8.01
11be-EHT160	MCS0	50	5250	-3.422	-4.609	-4.833	-4.724	93.15	1.971	≤ 8.01
11be-EHT160	MCS0	114	5570	-5.406	-5.752	-6.266	-5.640	93.15	0.574	≤ 8.01
11be-EHT240	MCS0	130	5650	-9.020	-8.827	-9.834	-9.338	96.60	-3.067	≤ 8.01

Note 1: When EUT duty cycle < 98%, the total PSD (dBm/MHz) = $10 \cdot \log \{10^{(\text{Ant 0 AVGPSD}/10)} + 10^{(\text{Ant 1 AVGPSD}/10)} + 10^{(\text{Ant 2 AVGPSD}/10)} + 10^{(\text{Ant 3 AVGPSD}/10)}\} + 10 \cdot \log (1/\text{Duty cycle})$.

When EUT duty cycle ≥ 98%, the total PSD (dBm/MHz) = $10 \cdot \log \{10^{(\text{Ant 0 AVGPSD}/10)} + 10^{(\text{Ant 1 AVGPSD}/10)} + 10^{(\text{Ant 2 AVGPSD}/10)} + 10^{(\text{Ant 3 AVGPSD}/10)}\}$.

Note 2:

For 5250 - 5725MHz Band: Average Power Limit (dBm) = 11 - (8.99 - 6) = 8.01dBm/MHz