MEASUREMENT REPORT

Applicant:	ALE USA Inc.
Address:	2000 Corporate Center Drive Thousand Oaks, CA 91320
Product:	OmniAccess Stellar
Model No.:	OAW-AP1521
Brand Name:	Alcatel-Lucent Enterprise
Product Category:	Article 2, Paragraph 1, Item 80
Test Procedure:	6GHz 帯小電力データ通信システムの 特性試験方法 Test method temporarily determined by DSPR
Result:	Complies
Received Date:	2025-02-14
Test Date:	2025-03-06 ~ 2025-03-20

Reviewed By: Vincent Yu

Approved By: Robin Wu

The test results relate only to the samples tested.
The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.
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Revision History

Report No.	Version	Description	Issue Date	Note
R25S1026029-J205	V01	Initial Report	2025-03-25	Valid

複製禁止

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1. General Information

1.1. Applicant

ALE USA Inc.

2000 Corporate Center Drive Thousand Oaks, CA 91320

1.2. Manufacturer

ALE USA Inc.

2000 Corporate Center Drive Thousand Oaks, CA 91320

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 CNAS: L10551 FCC: CN1166 ISED: CN0001 VCCI: ☐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 CNAS: L10551 FCC: CN1284 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	OmniAccess Stellar
Model No.	OAW-AP1521
EUT Identification No.	20250220Sample#04
Wi-Fi Specification	802.11a/b/g/n/ac/ax/be
Zigbee Specification	802.15.4
Bluetooth Specification	V5.1 single mode, BLE only
Antenna Information	Refer to section 1.7
Power Type	AC/DC Adapter Input or PoE Input
Operating Environment	Indoor Use
Accessories	
Adapter	Model: ADP-50GR B Input: 100-240V ~ 1.3A 50-60Hz Output: 48.0V, 1.042A 50.1W
PoE Injector	Model: POE60U-1BT-X (ALE P/N: POE60U-1BT-X-R) Input: 100-240V ~ 1.5A, 50/60Hz Output: 56.0V, 0.535A, 30W PIN 3, 6+ PIN 1, 2 Return Output: 56.0V, 0.535A, 30W PIN 4, 5+ PIN 7, 8 Return

Remark:

1. The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.
2. AC/DC Power Adapter and PoE Injector are not sold with Product.
   For this report, we select AC/DC Adapter for testing.

1.5. Radio Specification under Test

Frequency Range	802.11ax-HE20/be-EHT20: 5955 ~ 6415 MHz 802.11ax-HE40/be-EHT40: 5965 ~ 6405 MHz 802.11ax-HE80/be-EHT80: 5985 ~ 6385 MHz 802.11ax-HE160/be-EHT160: 6025 ~ 6345 MHz 802.11be-EHT320: 6105 ~ 6265 MHz
Channel Number	802.11ax-HE20/be-EHT20: 24 802.11ax-HE40/be-EHT40: 12 802.11ax-HE80/be-EHT80: 6 802.11ax-HE160/be-EHT160: 3 802.11be-EHT320: 2
Type of Modulation	802.11ax/be: OFDMA
Data Rate	802.11ax: up to 2402Mbps 802.11be: up to 5764.8 Mbps
Channel Puncturing Function	☐ Supported
Support RU	☒ Full RU

Declared Output Power	
20MHz System	10.00mW/MHz
40MHz System	5.00mW/MHz
80MHz System	2.00mW/MHz
160MHz System	0.50mW/MHz
320MHz System	0.25mW/MHz

1.6. Working Frequencies

802.11ax-HE20/be-EHT20

Channel	Frequency	Channel	Frequency	Channel	Frequency
1	5955 MHz	5	5975 MHz	9	5995 MHz
13	6015 MHz	17	6035 MHz	21	6055 MHz
25	6075 MHz	29	6095 MHz	33	6115 MHz
37	6135 MHz	41	6155 MHz	45	6175 MHz
49	6195 MHz	53	6215 MHz	57	6235 MHz
61	6255 MHz	65	6275 MHz	69	6295 MHz
73	6315 MHz	77	6335 MHz	81	6355 MHz
85	6375 MHz	89	6395 MHz	93	6415 MHz

802.11ax-HE40/be-EHT40

Channel	Frequency	Channel	Frequency	Channel	Frequency
3	5965 MHz	11	6005 MHz	19	6045 MHz
27	6085 MHz	35	6125 MHz	43	6165 MHz
51	6205 MHz	59	6245 MHz	67	6285 MHz
75	6325 MHz	83	6365 MHz	91	6405 MHz

802.11ax-HE80/be-EHT80

Channel	Frequency	Channel	Frequency	Channel	Frequency
7	5985 MHz	23	6065 MHz	39	6145 MHz
55	6225 MHz	71	6305 MHz	87	6385 MHz

802.11ax-HE160/be-EHT160

Channel	Frequency	Channel	Frequency	Channel	Frequency
15	6025 MHz	47	6185 MHz	79	6345 MHz

802.11be-EHT320

Channel	Frequency	Channel	Frequency	Channel	Frequency
15	6105 MHz	79	6265 MHz	--	--

1.7. Antenna Details

Antenna Type	Frequency Band (MHz)	Peak Gain (dBi)			
		Ant 0	Ant 1	Ant 2	Ant 3
Wi-Fi Antenna					
PIFA	2400 ~ 2483.5	3.7	4.6	--	--
	5150 ~ 5250	4.8	4.2	4.9	4.8
	5250 ~ 5350	5.3	4.8	4.6	4.9
	5470 ~ 5725	5.8	4.4	5.9	4.2
PIFA & Dipole	5925 ~ 6425	3.2	5.7	--	--

2. Test Configuration

2.1. Test Mode

Mode 1: Transmit by 802.11ax-HE20 (MCS0)
Mode 2: Transmit by 802.11ax-HE40 (MCS0)
Mode 3: Transmit by 802.11ax-HE80 (MCS0)
Mode 4: Transmit by 802.11ax-HE160 (MCS0)
Mode 5: Transmit by 802.11be-EHT20 (MCS0)
Mode 6: Transmit by 802.11be-EHT40 (MCS0)
Mode 7: Transmit by 802.11be-EHT80 (MCS0)
Mode 8: Transmit by 802.11be-EHT160 (MCS0)
Mode 9: Transmit by 802.11be-EHT320 (MCS0)
Mode 10: Receive by 802.11ax-HE20
Mode 11: Receive by 802.11ax-HE40
Mode 12: Receive by 802.11ax-HE80
Mode 13: Receive by 802.11ax-HE160
Mode 14: Receive by 802.11be-EHT20
Mode 15: Receive by 802.11be-EHT40
Mode 16: Receive by 802.11be-EHT80
Mode 17: Receive by 802.11be-EHT160
Mode 18: Receive by 802.11be-EHT320
Note: 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.

2.2. Test Software

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

2.3. Test Condition

The change of the Measurement voltage at the radio part of the EUT is below ±1%, when input voltage from external power supply to the equipment under test is varied by ±10%, thus the RF test is tested at rated voltage only.

Test Site	SIP-TR1	Temperature	17.2 °C
Test Engineer	Chase Zhu	Humidity	50.3 %RH
Test Date	2025-03-18		

Extreme Voltage	100V	90V	110V
Measure Voltage	4.166V	4.166V	4.166V
Tolerance	-	0%	0%

2.4. Applied Standards

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

- Article 49-20 and the relevant articles of the Ordinance Regulating Radio Equipment
- 6GHz 帯小電力データ通信システムの 特性試験方法

2.5. Test Environment Condition

Ambient Temperature	15 ~ 35°C
Relative Humidity	45 ~ 75%RH

3. Measuring Instrument

Conducted Test Equipment (SIP-TR1)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Date	Cali. Due Date	Cali. Body	Cali. Method
USB Power Sensor	Keysight	U2021XA	MRTSUE06596	1 year	2024-07-24	2025-07-23	Ceprei	c
Signal Generator	Keysight	N5182B	MRTSUE06605	1 year	2024-09-06	2025-09-05	Ceprei	c
Digital Multimeter	Fluke	17B	MRTSUE11363	1 year	2024-07-29	2025-07-28	Ceprei	c
Signal Analyzer	Keysight	N9010B	MRTSUE07036	1 year	2025-01-22	2026-01-21	Ceprei	c
Thermohygrometer	testo	608-H1	MRTSUE11022	1 year	2024-10-17	2025-10-16	Ceprei	c

Note: All the above test equipment was used and kept valid calibration period during the testing.

Calibration Method:

a) Calibration conducted by the National Institute of Information and Communications Technology (NICT) or a designated calibration agency under Article 102-18 paragraph.

b) Correction conducted pursuant to the previous of Article 135 or Article 144 of the measurement Law (Law No. 51 of 1992), Japan calibration Service System

c) Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph.

4. Decision Rules and Measurement Uncertainty

4.1. 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.)

4.2. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Spurious Emissions, Conducted
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 2.5dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 2.5dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 3.2%
Adjacent Channel Emitted Power
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 1.5dB

5. Test Result

5.1. Summary

ORRE Reference	Test Description	Test Condition	Test Result
Article 49-20.4	Antenna Power	Conducted	Pass
Article 14	Antenna Power Tolerance		Pass
Article 49-20.4	EIRP		Pass
Article 6	Occupied Bandwidth		Pass
Article 5	Frequency Tolerance		Pass
Article 49-20.4	Adjacent Channel Emitted Power		Pass
Article 7	Unwanted Emission Strength		Pass
Article 24.2	Receiver Spurious Emissions		Pass
Article 49-20.4	Carrier Sensing		Pass
Article 49-20.4	Transmission Burst Length		Pass
Article 9-4.5	Interference Prevention Function	Radiated	Pass

Notes:

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) For test items “Unwanted Emission Strength” & “Secondary Radiated Emissions Strength” & “Transmission Burst Length”, we used the combiner to perform testing. For test items “Occupied Bandwidth” & “Frequency Tolerance”, we selected Ant 0 port to perform testing.
3) ORRE: Ordinance Regulating Radio Equipment.

5.2. Antenna Power, Antenna Power Tolerance and EIRP Measurement

5.2.1. Test Limit

Limit for Antenna Power, Output Power Tolerance, EIRP			
Test Bandwidth (MHz)	Antenna Power (mW/MHz)	Output Power Tolerance (%)	EIRP (mW/MHz)
20	10	+20 ~ -80	10
40	5	+20 ~ -80	5
80	2.5	+20 ~ -80	2.5
160	1.25	+20 ~ -80	1.25
320	0.625	+20 ~ -80	0.625

5.2.2. Test Procedure

Option A

a) Set the spectrum analyzer as follows when searching for the frequency that gives the maximum antenna power

1. Set instrument center frequency to the channel center frequency
2. Set span to about 2 times the OBW
3. RBW = 1MHz
4. VBW = 3MHz
5. Set sweep time to minimum time for guaranteed measurement accuracy
6. Trigger condition = free run
7. Sweep mode = continuous sweep
8. Detection mode = positive peak
9. Display mode = max hold

b) Set the spectrum analyzer as follows when measuring the antenna power

1. Set center frequency to the frequency that gives the maximum power
2. Set span to 0Hz
3. RBW = 1MHz
4. VBW = 1MHz
5. Sweep mode = continuous sweep

c) Connect the high frequency power meter to the IF output terminal of the spectrum analyzer and then record the result

Option B

a) When searching for the frequency that gives the maximum antenna power, the setting is same as Annex 43.

b) Set the spectrum analyzer as follows when measuring the antenna power

1. Make the spectrum analyzer into channel power function mode
2. Set center frequency to the frequency that gives the maximum antenna power
3. Set span to about 2 times the OBW
4. RBW = 1MHz
5. VBW = 1MHz
6. Set integral bandwidth = 1MHz
7. Sweep mode = continuous sweep
8. Detection mode = RMS
9. Display mode = Trace Average

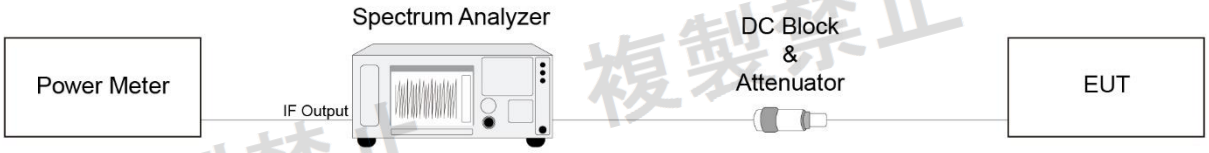
c) Record the channel power of integral bandwidth

Note: The two test methods (Option A and Option B) are compared, the Measurement values are close.

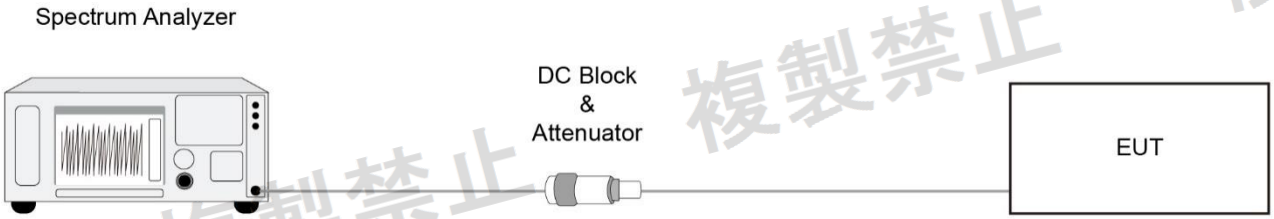
We choose option B for power testing

5.2.3. Test Setup

Option A



Option B



5.2.4. Test Result

Test Site	SIP-TR1	Temperature	18.1 °C
Test Engineer	Ryan Wang	Humidity	47.2 %RH
Test Date	2025-03-06	Test Item	Output Power

Test Mode	Frequency (MHz)	Output Power (dBm/MHz)		Total Output Power (dBm/MHz)	Total Output Power (mW/MHz)	Limit (mW/MHz)	Result
		Ant 0	Ant 1				
11ax-HE20	5955	1.73	2.27	5.02	3.18	≤ 10.00	Pass
	6195	1.75	2.42	5.11	3.24	≤ 10.00	Pass
	6415	1.89	2.24	5.08	3.22	≤ 10.00	Pass
11ax-HE40	5965	-1.35	-0.68	2.01	1.59	≤ 5.00	Pass
	6205	-1.28	-0.75	2.00	1.59	≤ 5.00	Pass
	6405	-0.95	-0.99	2.04	1.60	≤ 5.00	Pass
11ax-HE80	5985	-4.47	-4.23	-1.34	0.73	≤ 2.50	Pass
	6225	-4.36	-3.77	-1.04	0.79	≤ 2.50	Pass
	6385	-4.39	-4.40	-1.38	0.73	≤ 2.50	Pass
11ax-HE160	6025	-7.42	-7.05	-4.22	0.38	≤ 1.25	Pass
	6185	-7.87	-6.97	-4.39	0.36	≤ 1.25	Pass
	6345	-6.69	-7.03	-3.85	0.41	≤ 1.25	Pass
11be-EHT20	5955	1.87	2.51	5.21	3.32	≤ 10.00	Pass
	6195	1.63	2.42	5.05	3.20	≤ 10.00	Pass
	6415	1.91	2.16	5.05	3.20	≤ 10.00	Pass
11be-EHT40	5965	-1.53	-0.91	1.80	1.51	≤ 5.00	Pass
	6205	-1.41	-0.99	1.82	1.52	≤ 5.00	Pass
	6405	-1.07	-1.16	1.90	1.55	≤ 5.00	Pass
11be-EHT80	5985	-4.78	-3.75	-1.22	0.75	≤ 2.50	Pass
	6225	-4.61	-3.94	-1.25	0.75	≤ 2.50	Pass
	6385	-4.43	-4.13	-1.27	0.75	≤ 2.50	Pass
11be-EHT160	6025	-7.64	-7.07	-4.34	0.37	≤ 1.25	Pass
	6185	-7.17	-6.65	-3.89	0.41	≤ 1.25	Pass
	6345	-6.87	-6.83	-3.84	0.41	≤ 1.25	Pass
11be-EHT320	6105	-10.67	-9.80	-7.20	0.19	≤ 0.625	Pass
	6265	-10.17	-9.70	-6.92	0.20	≤ 0.625	Pass

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

Note 2: Total Output Power (mW/MHz) = $10^{[\text{Total Output Power (dBm/MHz)}/10]}$.

Test Site	SIP-TR1	Temperature	18.1 °C
Test Engineer	Ryan Wang	Humidity	47.2 %RH
Test Date	2025-03-06	Test Item	Output Power Tolerance

Test Mode	Frequency (MHz)	Total Output Power (mW/MHz)	Declared Output Power (mW/MHz)	Tolerance (%)	Limit (%)	Result
11ax-HE20	5955	3.18	10.00	-68.24	+20 ~ -80	Pass
	6195	3.24	10.00	-67.58	+20 ~ -80	Pass
	6415	3.22	10.00	-67.80	+20 ~ -80	Pass
11ax-HE40	5965	1.59	5.00	-68.24	+20 ~ -80	Pass
	6205	1.59	5.00	-68.28	+20 ~ -80	Pass
	6405	1.60	5.00	-68.01	+20 ~ -80	Pass
11ax-HE80	5985	0.73	2.00	-63.26	+20 ~ -80	Pass
	6225	0.79	2.00	-60.69	+20 ~ -80	Pass
	6385	0.73	2.00	-63.65	+20 ~ -80	Pass
11ax-HE160	6025	0.38	0.50	-24.32	+20 ~ -80	Pass
	6185	0.36	0.50	-27.16	+20 ~ -80	Pass
	6345	0.41	0.50	-17.51	+20 ~ -80	Pass
11be-EHT20	5955	3.32	10.00	-66.79	+20 ~ -80	Pass
	6195	3.20	10.00	-67.99	+20 ~ -80	Pass
	6415	3.20	10.00	-68.03	+20 ~ -80	Pass
11be-EHT40	5965	1.51	5.00	-69.72	+20 ~ -80	Pass
	6205	1.52	5.00	-69.62	+20 ~ -80	Pass
	6405	1.55	5.00	-69.06	+20 ~ -80	Pass
11be-EHT80	5985	0.75	2.00	-62.28	+20 ~ -80	Pass
	6225	0.75	2.00	-62.52	+20 ~ -80	Pass
	6385	0.75	2.00	-62.65	+20 ~ -80	Pass
11be-EHT160	6025	0.37	0.50	-26.30	+20 ~ -80	Pass
	6185	0.41	0.50	-18.37	+20 ~ -80	Pass
	6345	0.41	0.50	-17.38	+20 ~ -80	Pass
11be-EHT320	6105	0.19	0.25	-23.83	+20 ~ -80	Pass
	6265	0.20	0.25	-18.67	+20 ~ -80	Pass

Note: Tolerance (%) = (Total Output Power (mW/MHz) - Declared Output Power (mW/MHz)) / Declared Output Power (mW/MHz)* 100%.

Test Site	SIP-TR1	Temperature	18.1 °C
Test Engineer	Ryan Wang	Humidity	47.2 %RH
Test Date	2025-03-06	Test Item	EIRP

Test Mode	Frequency (MHz)	Total Output Power (dBm/MHz)	EIRP (dBm/MHz)	EIRP (mW/MHz)	Limit (mW/MHz)	Result
11ax-HE20	5955	5.02	9.72	9.38	≤ 10.00	Pass
	6195	5.11	9.83	9.61	≤ 10.00	Pass
	6415	5.08	9.76	9.45	≤ 10.00	Pass
11ax-HE40	5965	2.01	6.73	4.71	≤ 5.00	Pass
	6205	2.00	6.70	4.68	≤ 5.00	Pass
	6405	2.04	6.66	4.64	≤ 5.00	Pass
11ax-HE80	5985	-1.34	3.32	2.15	≤ 2.50	Pass
	6225	-1.04	3.66	2.33	≤ 2.50	Pass
	6385	-1.38	3.24	2.11	≤ 2.50	Pass
11ax-HE160	6025	-4.22	0.46	1.11	≤ 1.25	Pass
	6185	-4.39	0.36	1.09	≤ 1.25	Pass
	6345	-3.85	0.73	1.18	≤ 1.25	Pass
11be-EHT20	5955	5.21	9.93	9.84	≤ 10.00	Pass
	6195	5.05	9.79	9.53	≤ 10.00	Pass
	6415	5.05	9.71	9.35	≤ 10.00	Pass
11be-EHT40	5965	1.80	6.51	4.48	≤ 5.00	Pass
	6205	1.82	6.50	4.47	≤ 5.00	Pass
	6405	1.90	6.51	4.48	≤ 5.00	Pass
11be-EHT80	5985	-1.22	3.54	2.26	≤ 2.50	Pass
	6225	-1.25	3.47	2.22	≤ 2.50	Pass
	6385	-1.27	3.40	2.19	≤ 2.50	Pass
11be-EHT160	6025	-4.34	0.37	1.09	≤ 1.25	Pass
	6185	-3.89	0.81	1.20	≤ 1.25	Pass
	6345	-3.84	0.79	1.20	≤ 1.25	Pass
11be-EHT320	6105	-7.20	-2.46	0.57	≤ 0.625	Pass
	6265	-6.92	-2.23	0.60	≤ 0.625	Pass

Note 1: EIRP (dBm/MHz) = Total Output Power (dBm/MHz) + Ant Gain (dBi).

Note 2: EIRP (mW/MHz) = $10^{[\text{EIRP (dBm/MHz)}/10]}$.

5.3. Occupied Bandwidth Measurement

5.3.1. Test Limit

≤ 20MHz for 20MHz BW

≤ 40MHz for 40MHz BW

≤ 80MHz for 80MHz BW

≤ 160MHz for 160MHz BW

≤ 320MHz for 320MHz BW

5.3.2. Test Procedure

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

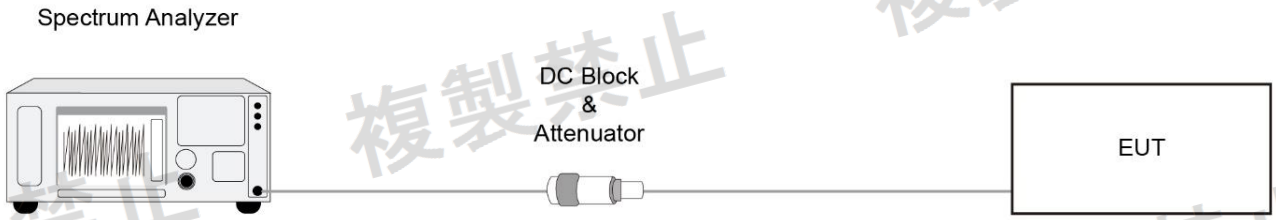
A positive peak detector function must be used.

A measurement instrument with an integrated 99% power bandwidth function may be used to automate the test process.

The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.

'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

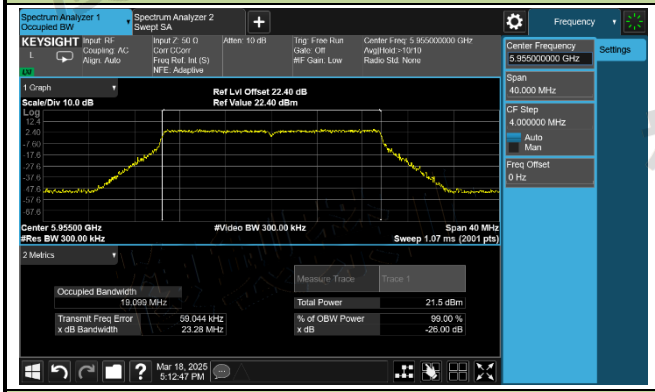
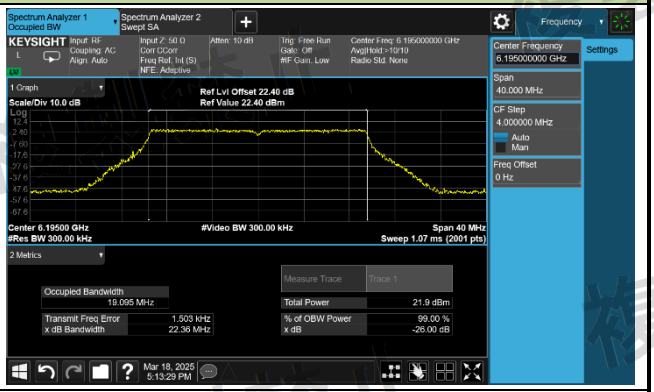
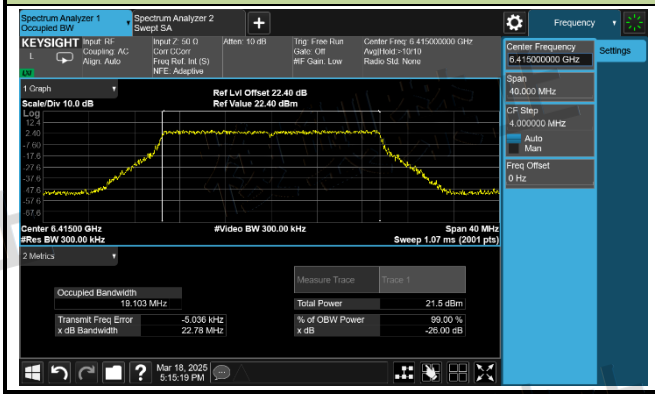
5.3.3. Test Setup

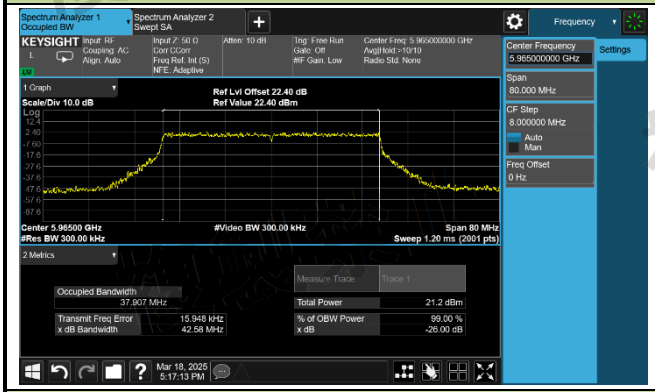
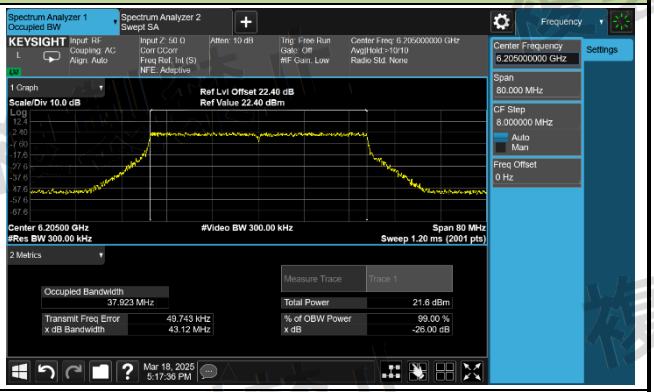
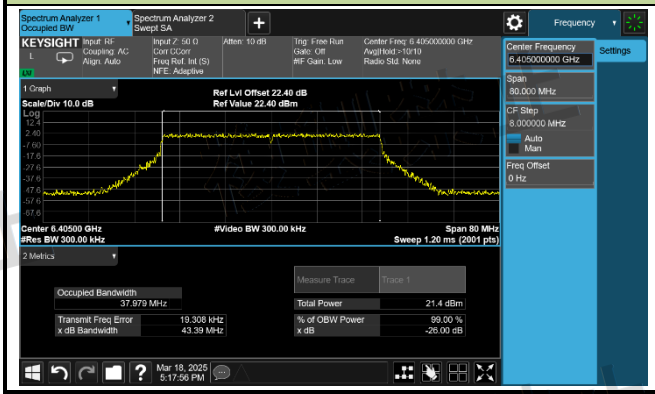


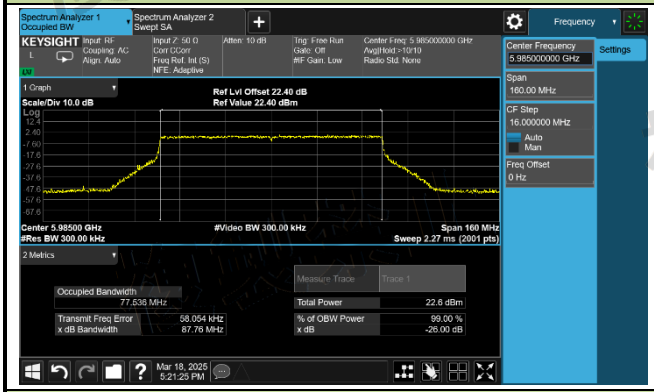
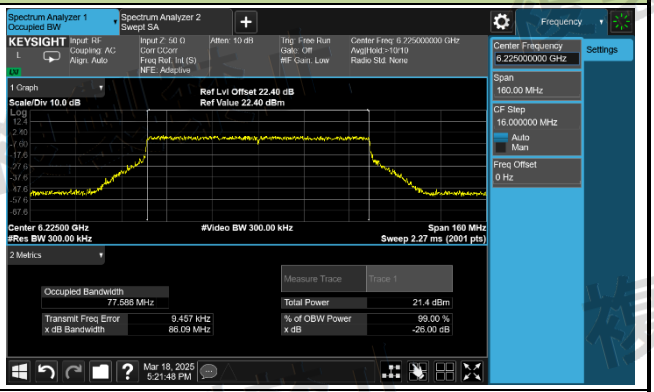
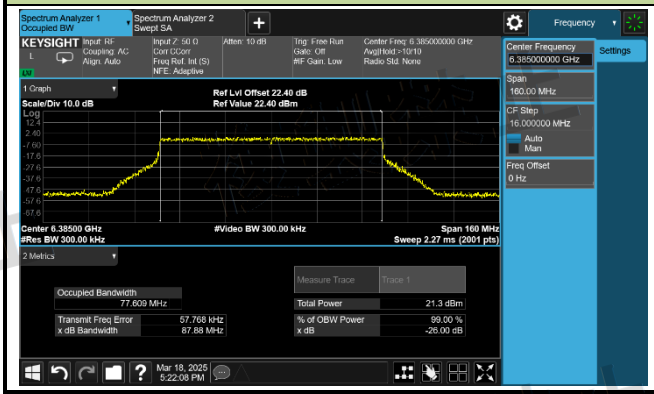
5.3.4. Test Result

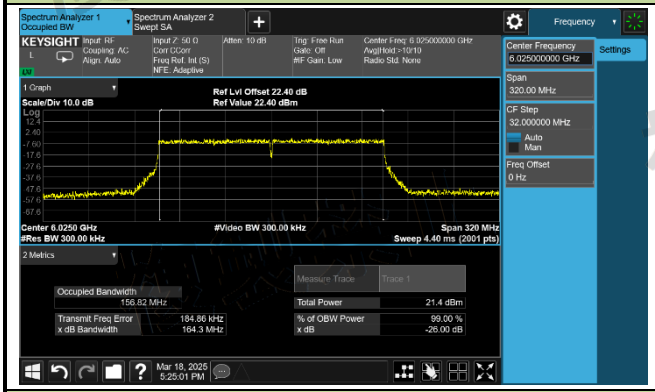
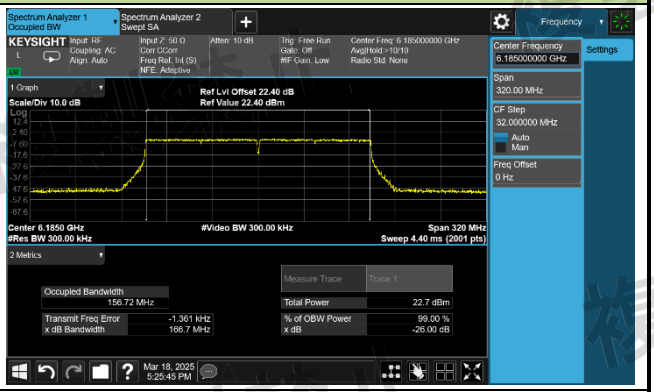
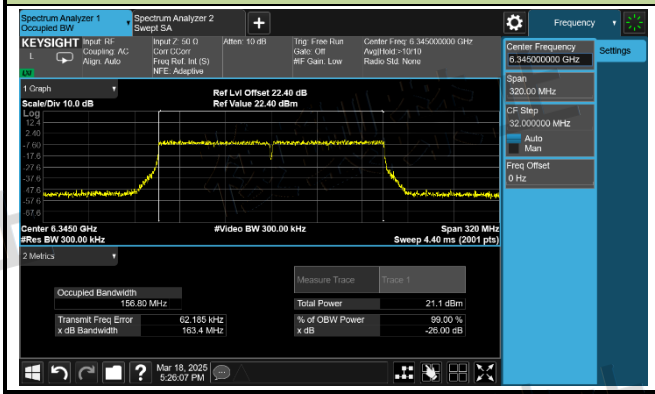
Test Site	SIP-TR1	Temperature	17.2 °C
Test Engineer	Ryan Wang	Humidity	50.3 %RH
Test Date	2025-03-18		

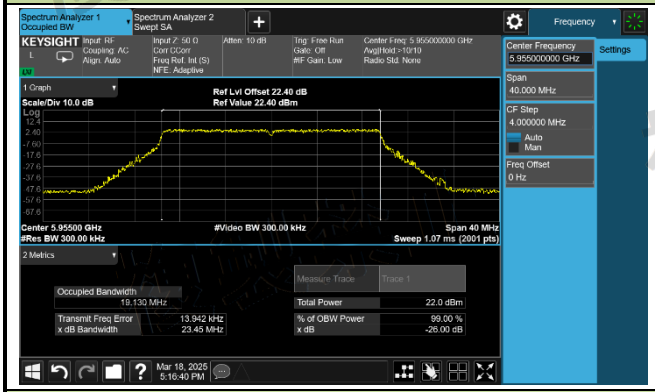
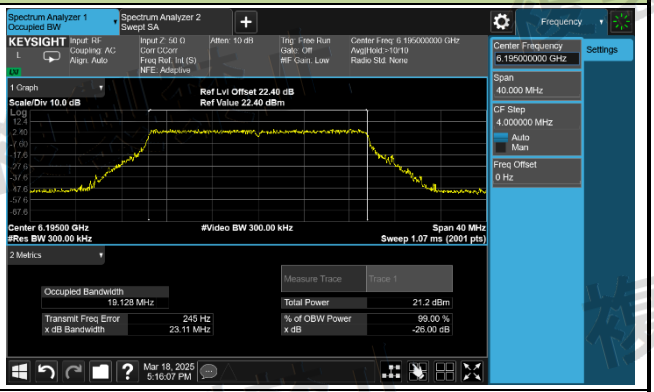
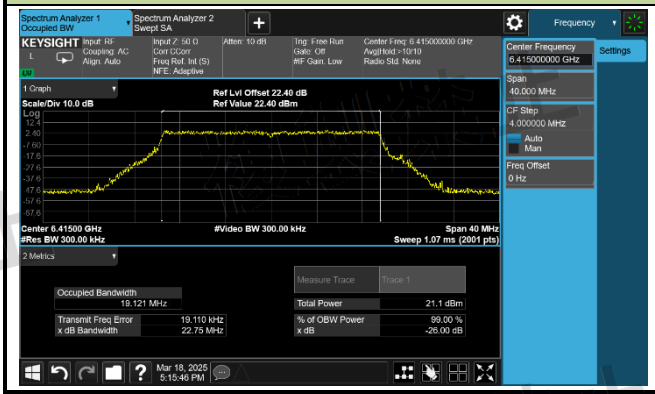
Test Mode	Frequency (MHz)	Occupied Bandwidth (MHz)	Limit (MHz)	Result
11ax-HE20	5955	19.099	≤ 20.0	Pass
	6195	19.095	≤ 20.0	Pass
	6415	19.103	≤ 20.0	Pass
11ax-HE40	5965	37.907	≤ 40.0	Pass
	6205	37.923	≤ 40.0	Pass
	6405	37.979	≤ 40.0	Pass
11ax-HE80	5985	77.536	≤ 80.0	Pass
	6225	77.586	≤ 80.0	Pass
	6385	77.609	≤ 80.0	Pass
11ax-HE160	6025	156.82	≤ 160.0	Pass
	6185	156.72	≤ 160.0	Pass
	6345	156.80	≤ 160.0	Pass
11be-EHT20	5955	19.130	≤ 20.0	Pass
	6195	19.128	≤ 20.0	Pass
	6415	19.121	≤ 20.0	Pass
11be-EHT40	5965	37.937	≤ 40.0	Pass
	6205	37.946	≤ 40.0	Pass
	6405	37.940	≤ 40.0	Pass
11be-EHT80	5985	77.527	≤ 80.0	Pass
	6225	77.485	≤ 80.0	Pass
	6385	77.489	≤ 80.0	Pass
11be-EHT160	6025	156.73	≤ 160.0	Pass
	6185	156.59	≤ 160.0	Pass
	6345	156.97	≤ 160.0	Pass
11be-EHT320	6105	314.92	≤ 320.0	Pass
	6265	315.14	≤ 320.0	Pass

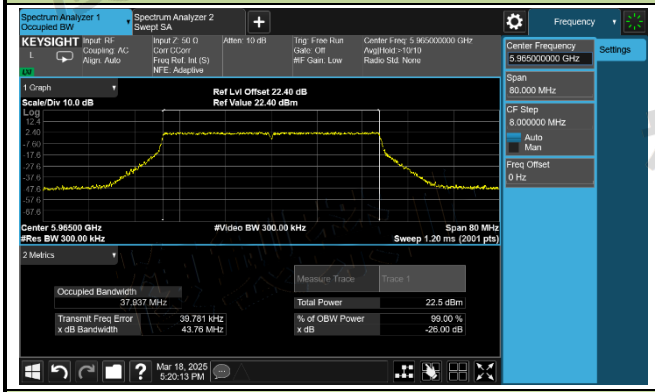
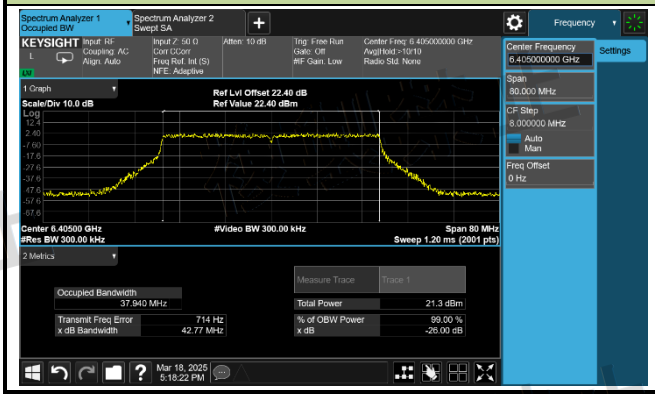
802.11ax-HE20 Occupied Bandwidth	
5955MHz	6195MHz
	
6415MHz	
	

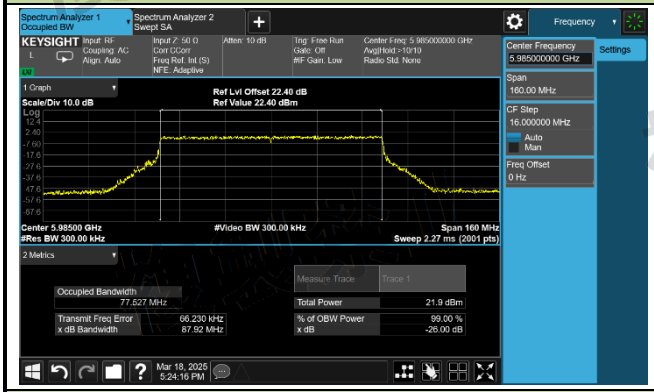
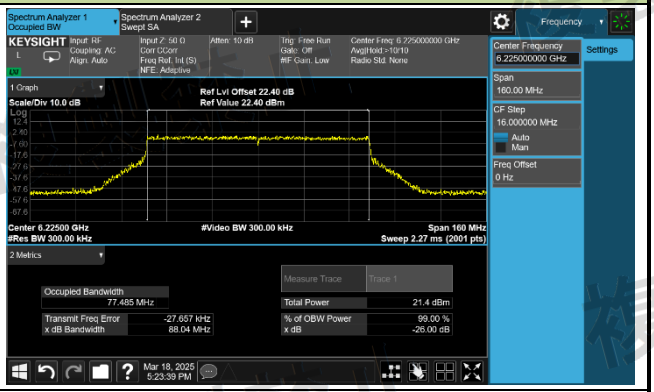
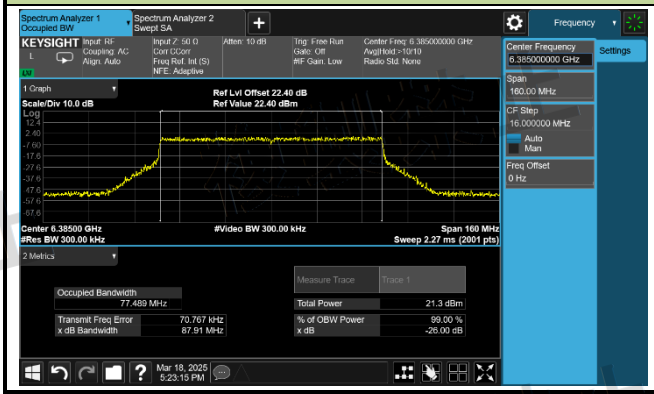
802.11ax-HE40 Occupied Bandwidth	
5965MHz	6205MHz
	
6405MHz	
	

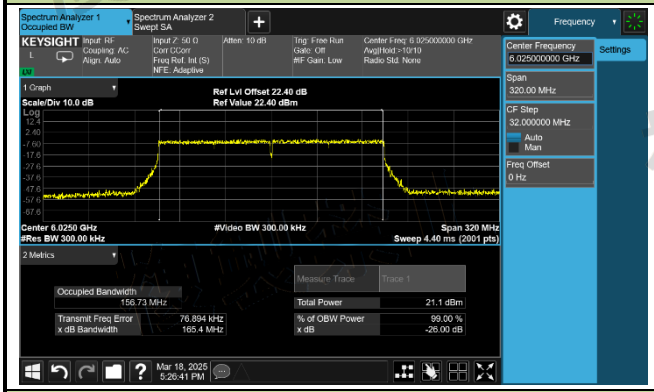
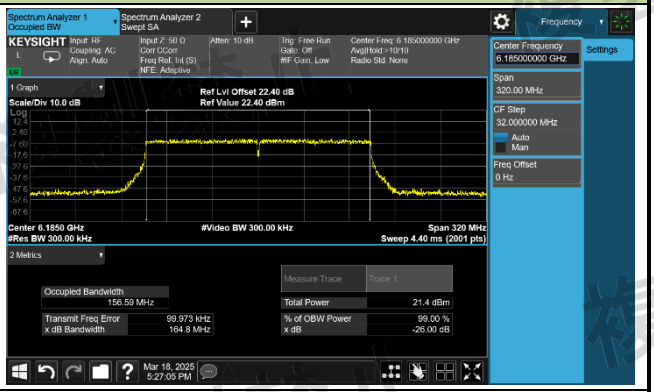
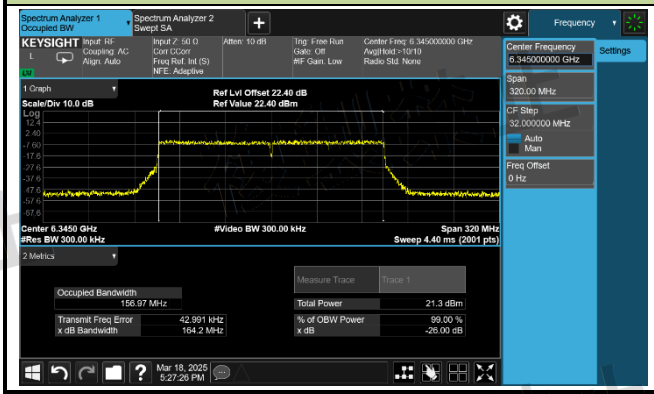
802.11ax-HE80 Occupied Bandwidth	
5985MHz	6225MHz
	
6385MHz	
	

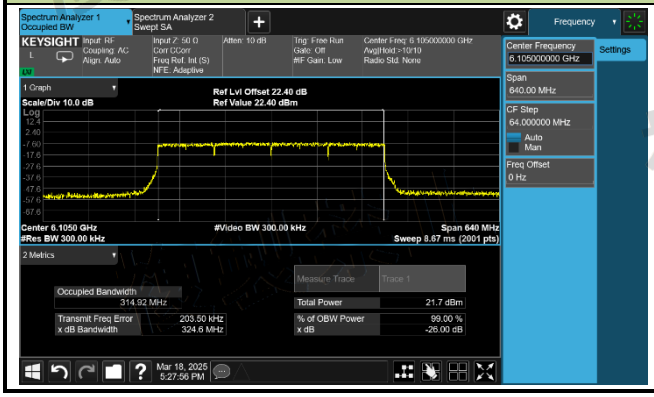
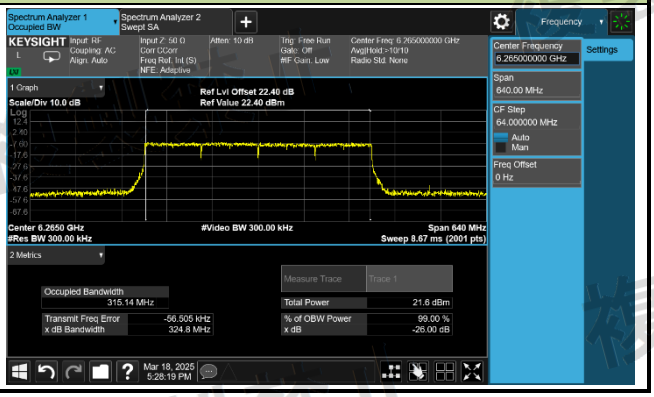
802.11ax-HE160 Occupied Bandwidth	
6025MHz	6185MHz
	
6345MHz	
	

802.11be-EHT20 Occupied Bandwidth	
5955MHz	6195MHz
	
6415MHz	
	

802.11be-EHT40 Occupied Bandwidth	
5965MHz	6205MHz
	
6405MHz	
	

802.11be-EHT80 Occupied Bandwidth	
5985MHz	6225MHz
	
6385MHz	
	

802.11be-EHT160 Occupied Bandwidth	
6025MHz	6185MHz
	
6345MHz	
	

802.11be-EHT320 Occupied Bandwidth	
6105MHz	6265MHz
	

5.4. Frequency Tolerance Measurement

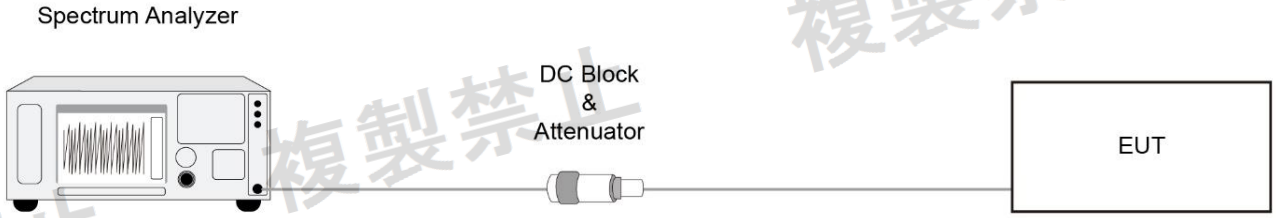
5.4.1. Test Limit

- 20 ~ +20 ppm

5.4.2. Test Procedure

1. A spectrum analyzer or similar device shall be used to observe a sample of the unmodulated transmitter's radio frequency power output.
2. A positive peak detector function must be used.
3. The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slowly, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
4. 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

5.4.3. Test Setup

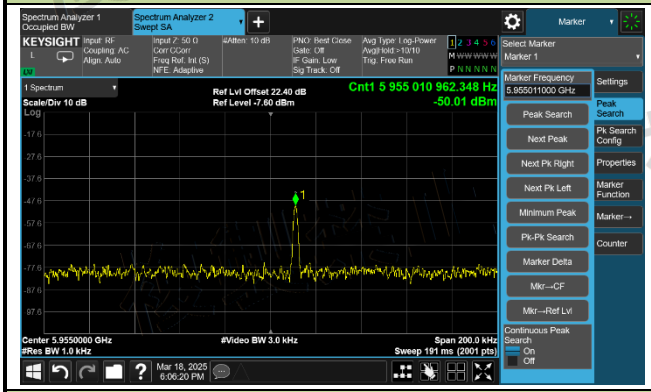
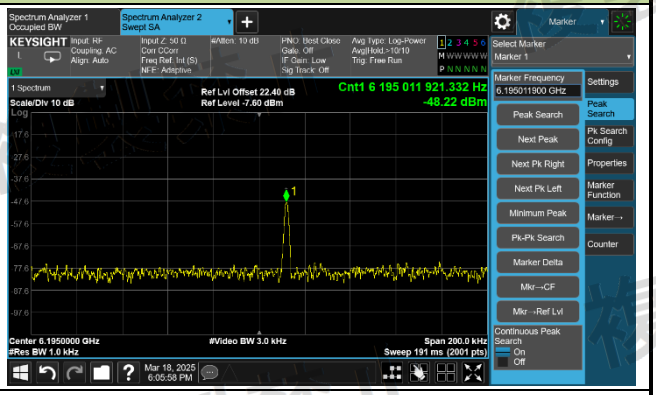
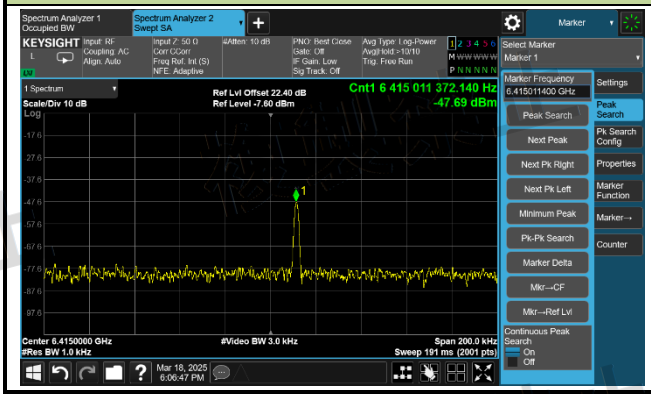


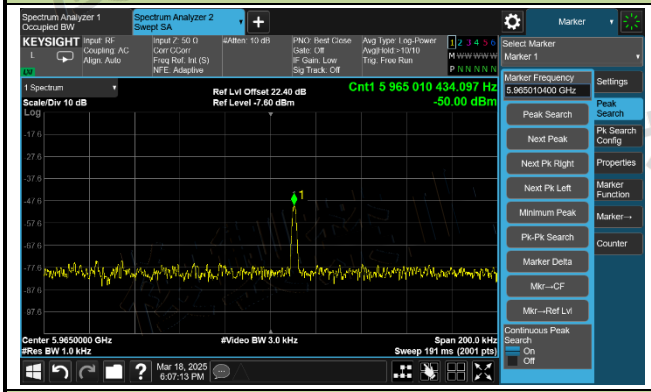
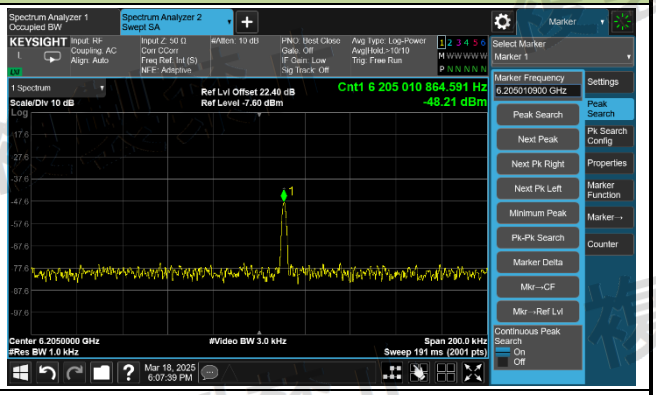
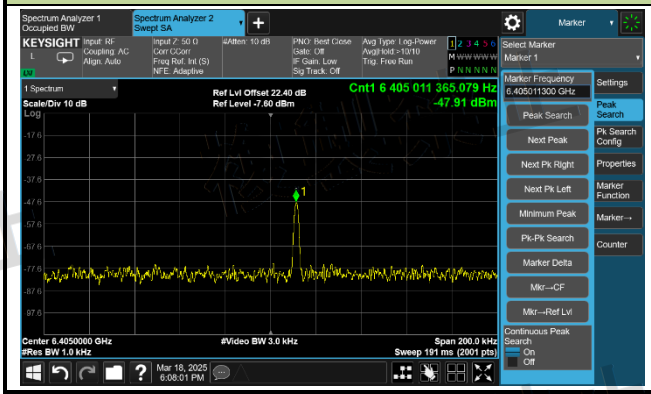
5.4.4. Test Result

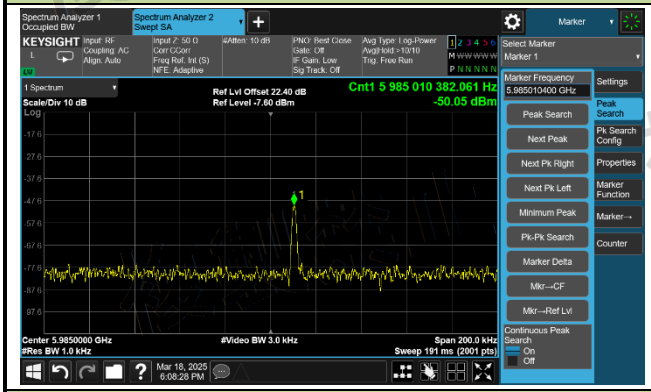
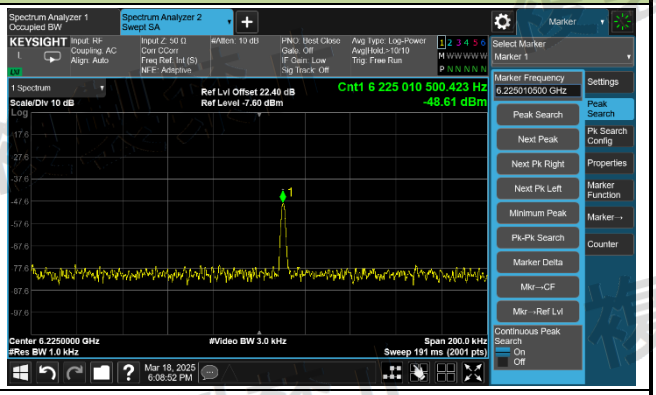
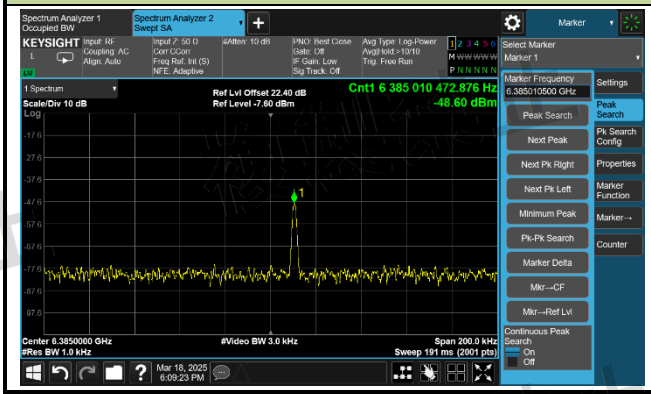
Test Site	SIP-TR1	Temperature	17.2 °C
Test Engineer	Ryan Wang	Humidity	50.3 %RH
Test Date	2025-03-18		

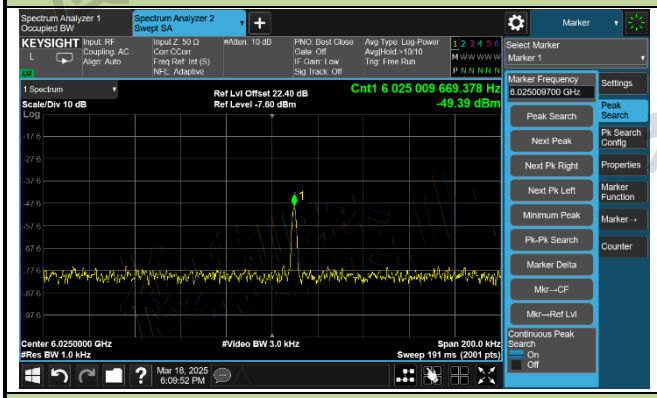
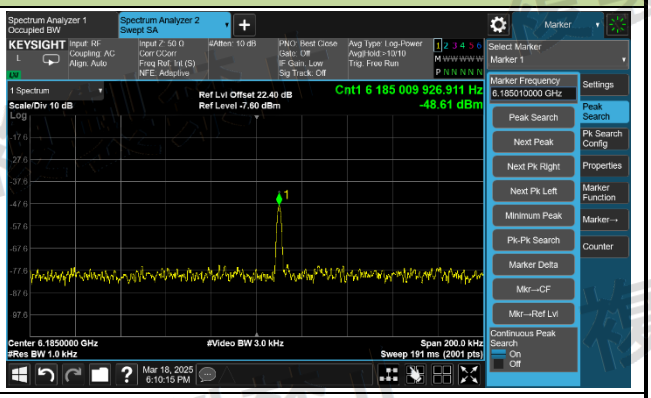
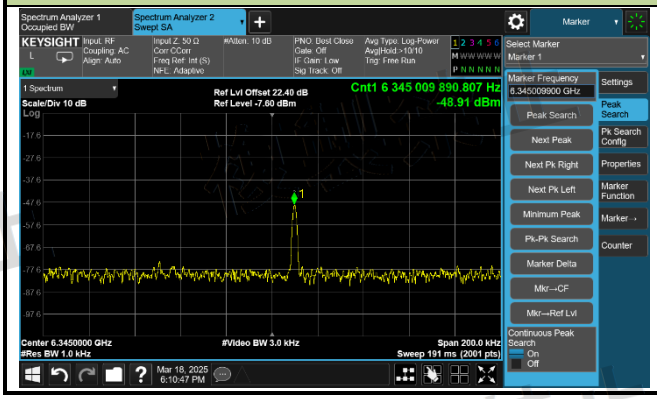
Test Mode	Measurement Frequency (MHz)	Reading Frequency (MHz)	Frequency Tolerance (ppm)	Limit (ppm)	Result
Continuous Wave-20M	5955	5955.010962	1.84	-20 ~ +20	Pass
	6195	6195.011921	1.92	-20 ~ +20	Pass
	6415	6415.011372	1.77	-20 ~ +20	Pass
Continuous Wave-40M	5965	5965.010434	1.75	-20 ~ +20	Pass
	6205	6205.010865	1.75	-20 ~ +20	Pass
	6405	6405.011365	1.77	-20 ~ +20	Pass
Continuous Wave-80M	5985	5985.010382	1.73	-20 ~ +20	Pass
	6225	6225.010500	1.69	-20 ~ +20	Pass
	6385	6385.010473	1.64	-20 ~ +20	Pass
Continuous Wave-160M	6025	6025.009669	1.60	-20 ~ +20	Pass
	6185	6185.009927	1.61	-20 ~ +20	Pass
	6345	6345.009891	1.56	-20 ~ +20	Pass
Continuous Wave-320M	6105	6105.012001	1.97	-20 ~ +20	Pass
	6265	6265.010546	1.68	-20 ~ +20	Pass

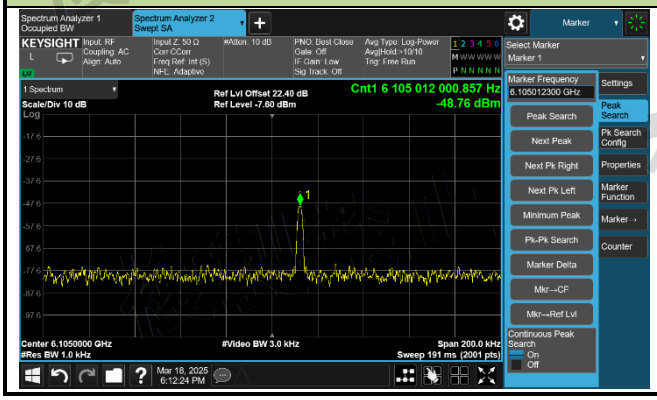
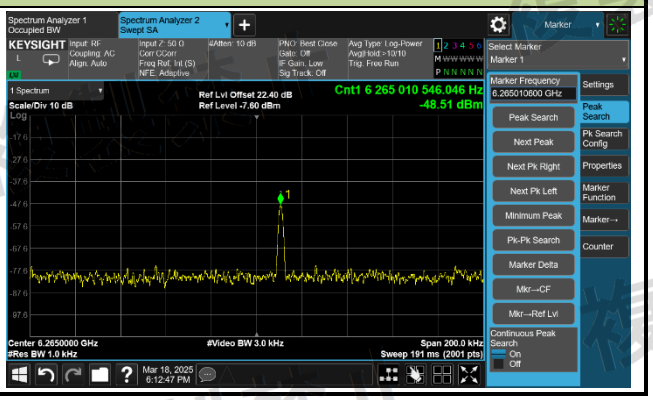
Note: Frequency Tolerance (ppm) = (Reading Frequency (MHz)- Measurement Frequency (MHz)) / Measurement Frequency (MHz)* 10^6

Continuous Wave-20M	
5955MHz	6195MHz
	
6415MHz	
	

Continuous Wave-40M	
5965MHz	6205MHz
	
6405MHz	
	

Continuous Wave-80M	
5985MHz	6225MHz
	
6385MHz	
	

Continuous Wave-160M	
6025MHz	6185MHz
	
6345MHz	
	

Continuous Wave-320M	
6105MHz	6265MHz
	

5.5. Adjacent Channel Emitted Power Measurement

5.5.1. Test Limit

For 20MHz BW

≤ -25dBc for ±20MHz; ≤ -40dBc for ±40MHz

For 40MHz BW

≤ -25dBc for ±40MHz; ≤ -40dBc for ±80MHz

For 80MHz BW

≤ -25dBc for ±80MHz BW; ≤ -40dBc for ±160MHz

For 160MHz BW

≤ -25dBc for ±160MHz BW; ≤ -40dBc for ±320MHz

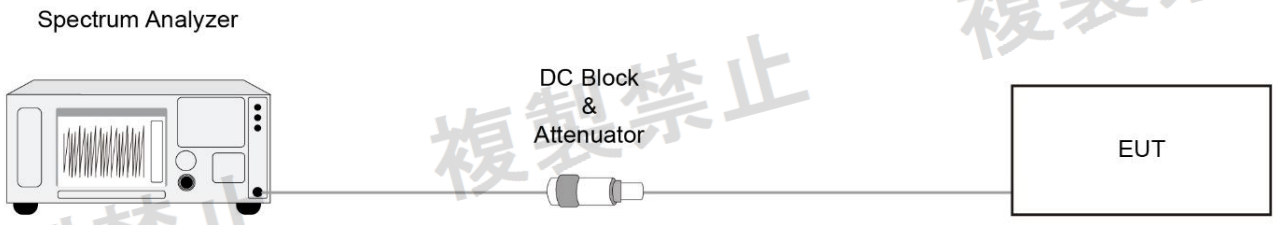
For 320MHz BW

≤ -25dBc for ±320MHz BW

5.5.2. Test Procedure

1. A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.
2. A sample detector function must be used.
3. Open spectrum analyzer "Adjacent Channel Power' function.
4. Set points of ±20MHz and ±40MHz.
5. The measurement instrument bandwidth and span must be set sufficiently with, and the scan time set sufficiently slowly, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
6. 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

5.5.3. Test Setup



5.5.4. Test Result

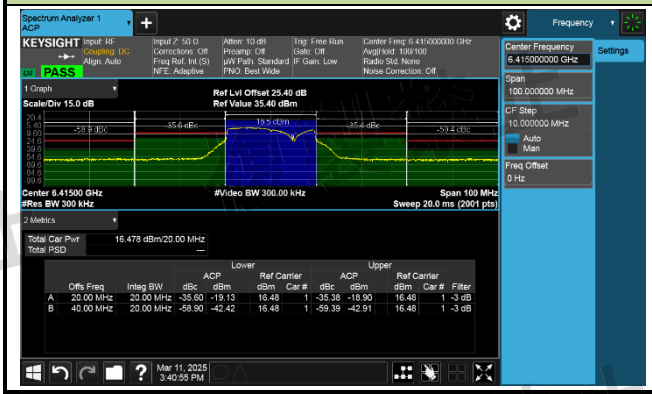
Test Site	SIP-TR1	Temperature	18.3 °C
Test Engineer	Ryan Wang	Humidity	63.2 %RH
Test Date	2025-03-11		

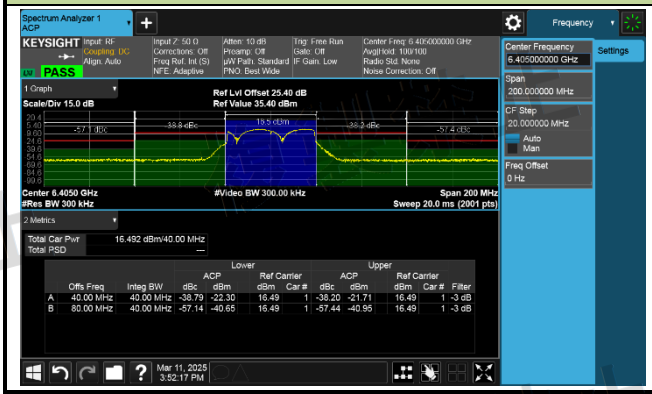
Test Mode	Frequency Range (MHz)	Measurement Value (dBc)	Limit (dBc)	Result
802.11ax-HE20				
5955MHz	-40	-60.77	≤ -40	Pass
	-20	-36.20	≤ -25	Pass
	+20	-35.00	≤ -25	Pass
	+40	-58.66	≤ -40	Pass
6195MHz	-40	-58.99	≤ -40	Pass
	-20	-35.68	≤ -25	Pass
	+20	-35.92	≤ -25	Pass
	+40	-59.18	≤ -40	Pass
6415MHz	-40	-58.90	≤ -40	Pass
	-20	-35.60	≤ -25	Pass
	+20	-35.38	≤ -25	Pass
	+40	-59.39	≤ -40	Pass
802.11ax-HE40				
5965MHz	-80	-61.25	≤ -40	Pass
	-40	-38.71	≤ -25	Pass
	+40	-37.55	≤ -25	Pass
	+80	-56.74	≤ -40	Pass
6205MHz	-80	-57.11	≤ -40	Pass
	-40	-38.33	≤ -25	Pass
	+40	-38.12	≤ -25	Pass
	+80	-56.76	≤ -40	Pass
6405MHz	-80	-57.14	≤ -40	Pass
	-40	-38.79	≤ -25	Pass
	+40	-38.20	≤ -25	Pass
	+80	-57.44	≤ -40	Pass

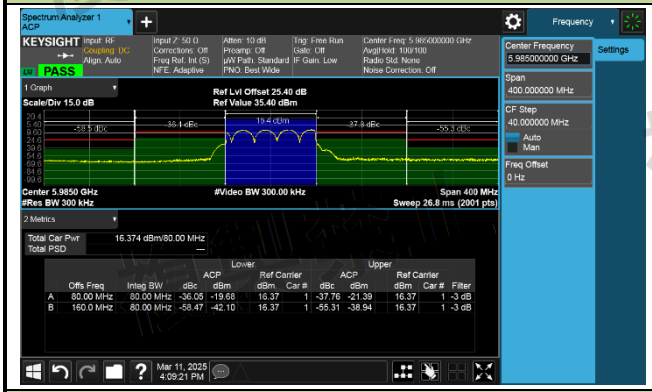
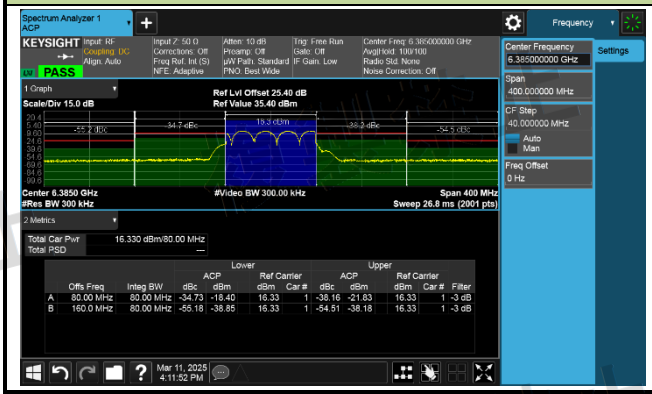
Test Mode	Frequency Range (MHz)	Measurement Value (dBc)	Limit (dBc)	Result
802.11ax-HE80				
5985MHz	-160	-58.47	≤ -40	Pass
	-80	-36.05	≤ -25	Pass
	+80	-37.76	≤ -25	Pass
	+160	-55.31	≤ -40	Pass
6225MHz	-160	-55.21	≤ -40	Pass
	-80	-35.17	≤ -25	Pass
	+80	-37.86	≤ -25	Pass
	+160	-55.72	≤ -40	Pass
6385MHz	-160	-55.18	≤ -40	Pass
	-80	-34.73	≤ -25	Pass
	+80	-38.16	≤ -25	Pass
	+160	-54.51	≤ -40	Pass
802.11ax-HE160				
6025MHz	-320	-55.01	≤ -40	Pass
	-160	-44.25	≤ -25	Pass
	+160	-41.76	≤ -25	Pass
	+320	-52.40	≤ -40	Pass
6185MHz	-320	-54.87	≤ -40	Pass
	-160	-43.42	≤ -25	Pass
	+160	-42.05	≤ -25	Pass
	+320	-52.32	≤ -40	Pass
6345MHz	-320	-52.37	≤ -40	Pass
	-160	-43.16	≤ -25	Pass
	+160	-42.59	≤ -25	Pass
	+320	-52.88	≤ -40	Pass

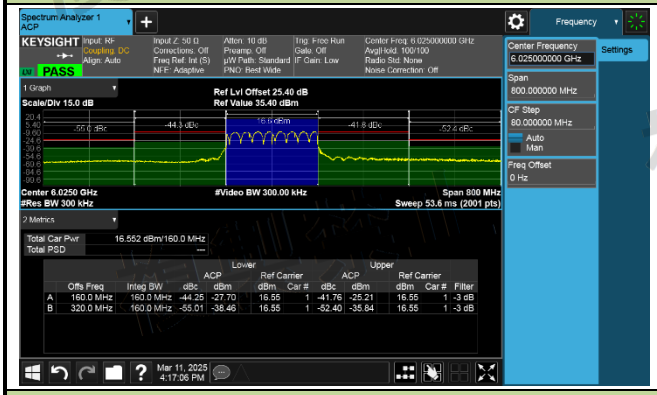
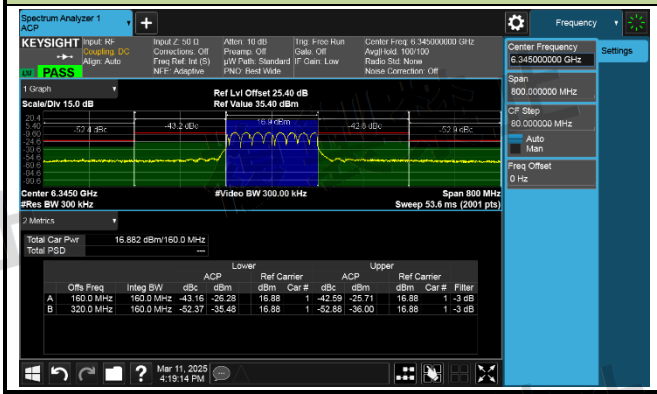
Test Mode	Frequency Range (MHz)	Measurement Value (dBc)	Limit (dBc)	Result
802.11be-EHT20				
5955MHz	-40	-61.38	≤ -40	Pass
	-20	-35.79	≤ -25	Pass
	+20	-35.57	≤ -25	Pass
	+40	-59.54	≤ -40	Pass
6195MHz	-40	-58.92	≤ -40	Pass
	-20	-35.35	≤ -25	Pass
	+20	-35.49	≤ -25	Pass
	+40	-59.20	≤ -40	Pass
6415MHz	-40	-58.73	≤ -40	Pass
	-20	-35.42	≤ -25	Pass
	+20	-35.11	≤ -25	Pass
	+40	-59.15	≤ -40	Pass
802.11be-EHT40				
5965MHz	-80	-61.11	≤ -40	Pass
	-40	-38.26	≤ -25	Pass
	+40	-37.53	≤ -25	Pass
	+80	-56.95	≤ -40	Pass
6205MHz	-80	-57.27	≤ -40	Pass
	-40	-38.13	≤ -25	Pass
	+40	-37.92	≤ -25	Pass
	+80	-56.90	≤ -40	Pass
6405MHz	-80	-56.22	≤ -40	Pass
	-40	-38.27	≤ -25	Pass
	+40	-38.09	≤ -25	Pass
	+80	-56.56	≤ -40	Pass

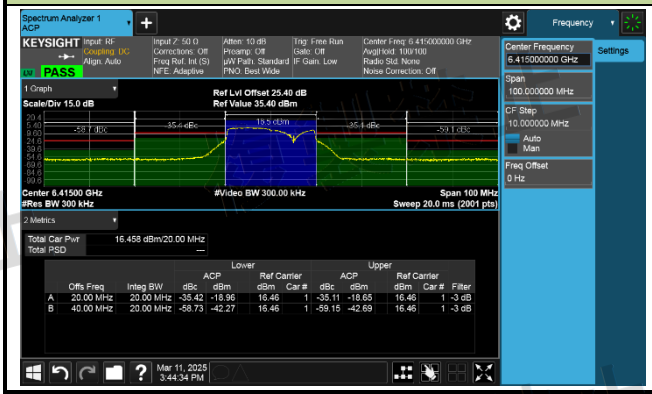
Test Mode	Frequency Range (MHz)	Measurement Value (dBc)	Limit (dBc)	Result
802.11be-EHT80				
5985MHz	-160	-58.54	≤ -40	Pass
	-80	-36.46	≤ -25	Pass
	+80	-37.91	≤ -25	Pass
	+160	-55.31	≤ -40	Pass
6225MHz	-160	-55.31	≤ -40	Pass
	-80	-35.44	≤ -25	Pass
	+80	-38.44	≤ -25	Pass
	+160	-55.98	≤ -40	Pass
6385MHz	-160	-54.99	≤ -40	Pass
	-80	-35.19	≤ -25	Pass
	+80	-38.41	≤ -25	Pass
	+160	-54.43	≤ -40	Pass
802.11be-EHT160				
6025MHz	-320	-54.68	≤ -40	Pass
	-160	-44.83	≤ -25	Pass
	+160	-42.36	≤ -25	Pass
	+320	-52.01	≤ -40	Pass
6185MHz	-320	-55.05	≤ -40	Pass
	-160	-43.09	≤ -25	Pass
	+160	-42.72	≤ -25	Pass
	+320	-52.40	≤ -40	Pass
6345MHz	-320	-52.37	≤ -40	Pass
	-160	-42.85	≤ -25	Pass
	+160	-42.47	≤ -25	Pass
	+320	-52.95	≤ -40	Pass
802.11be-EHT320				
6105MHz	-320	-46.46	≤ -40	Pass
	+320	-43.51	≤ -40	Pass
6265MHz	-320	-44.87	≤ -40	Pass
	+320	-44.72	≤ -40	Pass

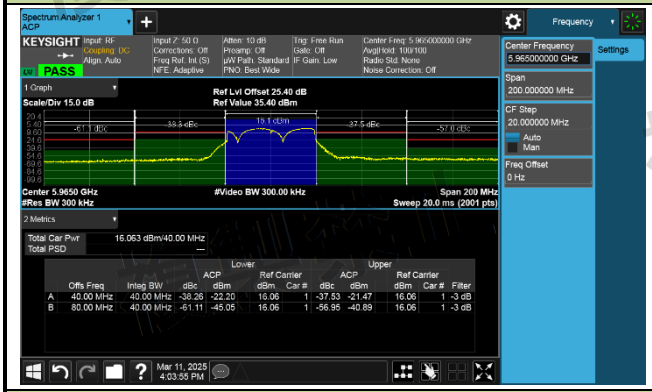
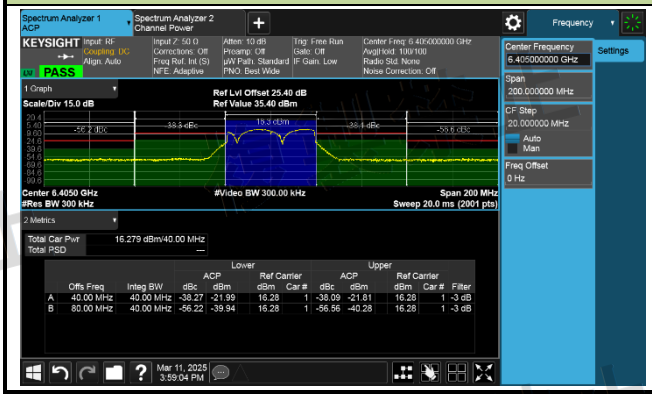
802.11ax-HE20 Adjacent Channel Emitted Power	
5955MHz	6195MHz
	
6415MHz	
	

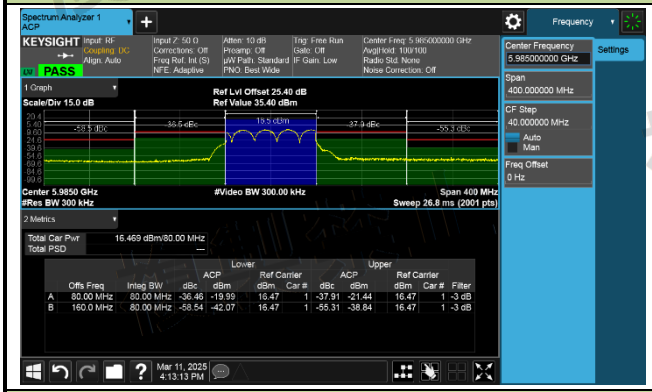
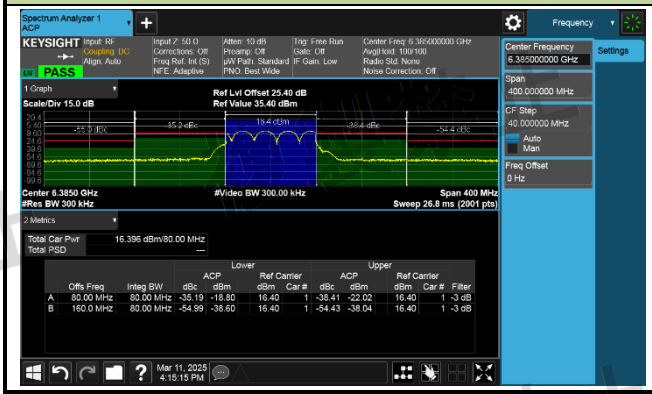
802.11ax-HE40 Adjacent Channel Emitted Power	
5965MHz	6205MHz
	
6405MHz	
	

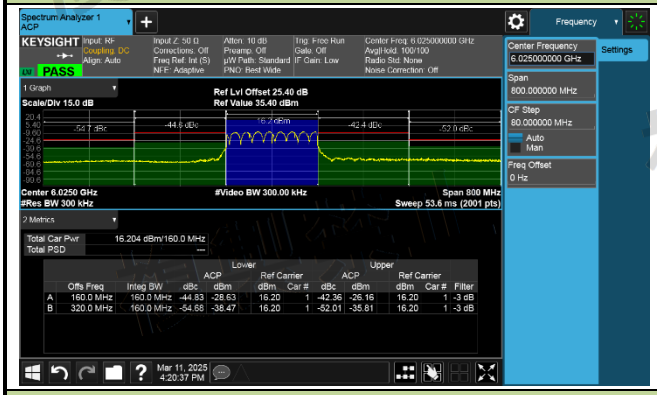
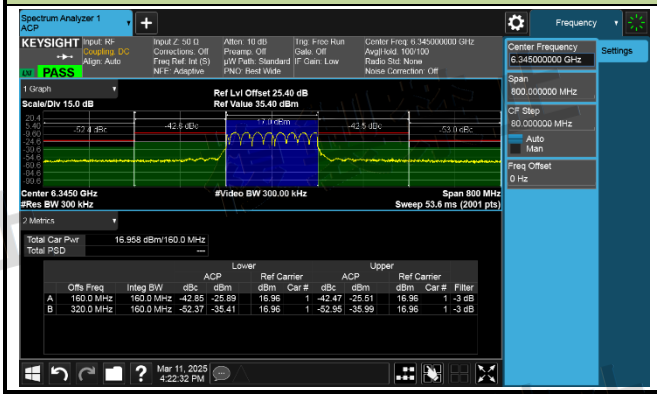
802.11ax-HE80 Adjacent Channel Emitted Power	
5985MHz	6225MHz
	
6385MHz	
	

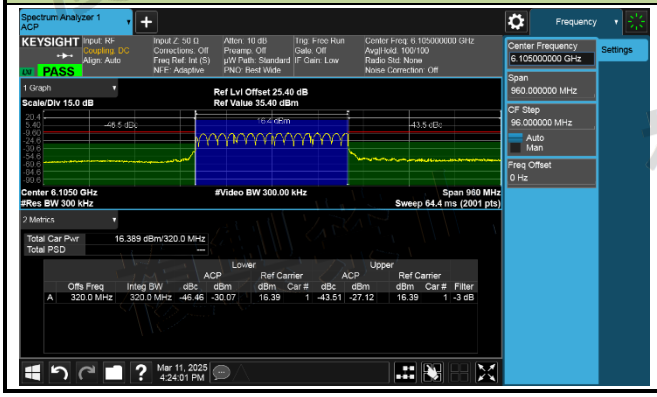
802.11ax-HE160 Adjacent Channel Emitted Power	
6025MHz	6185MHz
	
6345MHz	
	

802.11be-EHT20 Adjacent Channel Emitted Power	
5955MHz	6195MHz
	
6415MHz	
	

802.11be-EHT40 Adjacent Channel Emitted Power	
5965MHz	6205MHz
	
6405MHz	
	

802.11be-EHT80 Adjacent Channel Emitted Power	
5985MHz	6225MHz
	
6385MHz	
	

802.11be-EHT160 Adjacent Channel Emitted Power	
6025MHz	6185MHz
	
6345MHz	
	

802.11be-EHT320 Adjacent Channel Emitted Power	
6105MHz	6265MHz
	

5.6. Unwanted Emission Strength Measurement

5.6.1. Test Limit

20MHz system	
5955MHz	6415MHz
≤ 2μW/MHz for 30 - 5925MHz	≤ 50μW/MHz for 6425 – 6435.9MHz ≤ 12.5μW/MHz for 6435.9 - 26000MHz
40MHz system	
5965MHz	6405MHz
≤ 2μW/MHz for 30 - 5925MHz	≤ 50μW/MHz for 6425 – 6440.1MHz ≤ 12.5μW/MHz for 6440.1 - 26000MHz
80MHz system	
5985MHz	6385MHz
≤ 2μW/MHz for 30 - 5925MHz	≤ 50μW/MHz for 6425 – 6440.4MHz ≤ 12.5μW/MHz for 6440.4 - 26000MHz
160MHz system	
6025MHz	6345MHz
≤ 2μW/MHz for 30 - 5925MHz	≤ 50μW/MHz for 6425 – 6425.5MHz ≤ 12.5μW/MHz for 6425.5 - 26000MHz
320MHz system	
6105MHz	6265MHz
≤ 2μW/MHz for 30 - 5925MHz	≤ 50μW/MHz for 6425 – 6425.7MHz ≤ 12.5μW/MHz for 6425.7 - 26000MHz

5.6.2. Test Procedure

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter’s radio frequency power output.

A positive peak detector function must be used.

The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slowly, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.

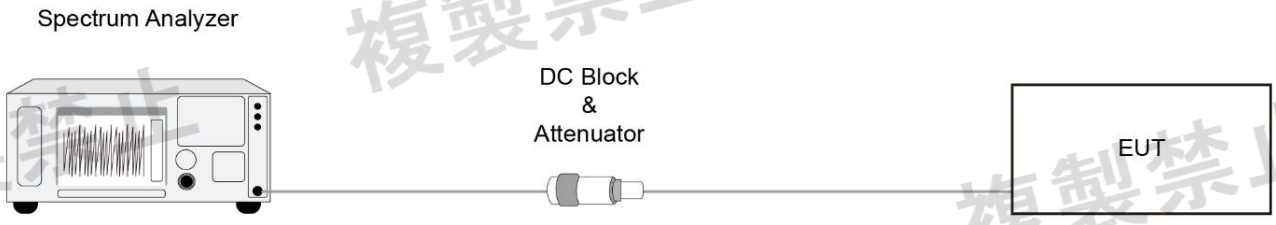
‘Maximum Hold’ mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

If the peak power is over the limit, the follow procedure as below shall be used.

Spectrum analyzer setting as below

1. Center Frequency: Searched Frequency
2. Span: 0Hz (Zero Span)
3. RBW: 1MHz
4. VBW: Same as RBW
5. Sweep Time: Auto (Minimum time to ensure measurement accuracy. In case of burst wave, one burst shall be included per data point)
6. Data Points: 400 points or more
7. Sweep Mode: Single Sweep
8. Detection Mode: Sample
9. Y-axis Scale: 10dB/Div
10. Reference Level: Enough level for maximum dynamic range
11. Set the spectrum analyzer as above, and it takes in a value of all data point. Regarding the all data value, it transforms the “dBm” value into “mW” value.
12. It adds the all values and calculates a grand total. <- Define a grand total as “P”. It divides “P” by sample data point (ex. 401, 501) and calculates the mean value. It reports the mean value.
13. If the above validation test results still fail, we will reduce the RBW into 100kHz and add the factor 10*log (1000/100) into the final test data.

5.6.3. Test Setup



5.6.4. Test Result

Test Site	SIP-TR1	Temperature	17.2 °C
Test Engineer	Ryan Wang	Humidity	50.3 %RH
Test Date	2025-03-15 ~ 2025-03-20		

Test Channel	Frequency Range (MHz)	Measurement Freq (MHz)	Measurement Level (dBm/MHz)	Antenna Gain (dBi)	Final Level (dBm/MHz)	Final Level (μW/MHz)	Limit (μW/MHz)	Result
802.11ax-HE20								
5955MHz	30 ~ 5925	5925.0	-45.19	5.70	-39.49	0.112	≤ 2.0	Pass
	6425 ~ 6435.9	6425.25615	-46.78	5.70	-41.08	0.078	≤ 50.0	Pass
	6435.9 ~ 18000	17965.0	-42.12	5.70	-36.42	0.228	≤ 12.5	Pass
	18000 ~ 26000	25660.0	-36.28	5.70	-30.58	0.875	≤ 12.5	Pass
6415MHz	30 ~ 5925	4831.5	-46.40	5.70	-40.70	0.085	≤ 2.0	Pass
	6425 ~ 6435.9	6425.07630	-29.08	5.70	-23.38	4.592	≤ 50.0	Pass
	6435.9 ~ 18000	17676.0	-42.59	5.70	-36.89	0.205	≤ 12.5	Pass
	18000 ~ 26000	25744.0	-35.80	5.70	-30.10	0.977	≤ 12.5	Pass
802.11ax-HE40								
5965MHz	30 ~ 5925	4315.7	-46.26	5.70	-40.56	0.088	≤ 2.0	Pass
	6425 ~ 6440.1	6439.44315	-47.62	5.70	-41.92	0.064	≤ 50.0	Pass
	6440.1 ~ 18000	13682.0	-41.61	5.70	-35.91	0.256	≤ 12.5	Pass
	18000 ~ 26000	25832.0	-36.78	5.70	-31.08	0.780	≤ 12.5	Pass
6405MHz	30 ~ 5925	4071.0	-46.29	5.70	-40.59	0.087	≤ 2.0	Pass
	6425 ~ 6440.1	6425.11325	-25.88	5.70	-20.18	9.594	≤ 50.0	Pass
	6440.1 ~ 18000	17503.0	-42.46	5.70	-36.76	0.211	≤ 12.5	Pass
	18000 ~ 26000	25748.0	-36.13	5.70	-30.43	0.906	≤ 12.5	Pass
802.11ax-HE80								
5985MHz	30 ~ 5925	5925.0	-45.17	5.70	-39.47	0.113	≤ 2.0	Pass
	6425 ~ 6440.4	6425.74690	-46.57	5.70	-40.87	0.082	≤ 50.0	Pass
	6440.4 ~ 18000	14567.0	-42.61	5.70	-36.91	0.204	≤ 12.5	Pass
	18000 ~ 26000	25976.0	-35.49	5.70	-29.79	1.050	≤ 12.5	Pass
6385MHz	30 ~ 5925	5314.9	-42.97	5.70	-37.27	0.187	≤ 2.0	Pass
	6425 ~ 6440.4	6425.00770	-27.11	5.70	-21.41	7.228	≤ 50.0	Pass
	6440.4 ~ 18000	6440.0	-29.55	5.70	-23.85	4.121	≤ 12.5	Pass
	18000 ~ 26000	25456.0	-35.82	5.70	-30.12	0.973	≤ 12.5	Pass

Test Channel	Frequency Range (MHz)	Measurement Freq (MHz)	Measurement Level (dBm/MHz)	Antenna Gain (dBi)	Final Level (dBm/MHz)	Final Level (μW/MHz)	Limit (μW/MHz)	Result
802.11ax-HE160								
6025MHz	30 ~ 5925	5919.1	-44.05	5.70	-38.35	0.146	≤ 2.0	Pass
	6425 ~ 6425.5	6425.13950	-45.55	5.70	-39.85	0.104	≤ 50.0	Pass
	6425.5 ~ 18000	17797.0	-42.85	5.70	-37.15	0.193	≤ 12.5	Pass
	18000 ~ 26000	25972.0	-35.51	5.70	-29.81	1.045	≤ 12.5	Pass
6345MHz	30 ~ 5925	3811.6	-46.37	5.70	-40.67	0.086	≤ 2.0	Pass
	6425 ~ 6425.5	6425.20125	-26.10	5.70	-20.40	9.120	≤ 50.0	Pass
	6425.5 ~ 18000	6426.0	-33.05	5.70	-27.35	1.841	≤ 12.5	Pass
	18000 ~ 26000	25948.0	-36.20	5.70	-30.50	0.891	≤ 12.5	Pass

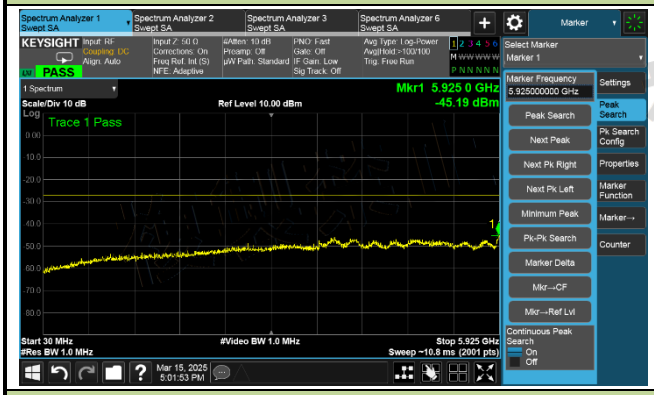
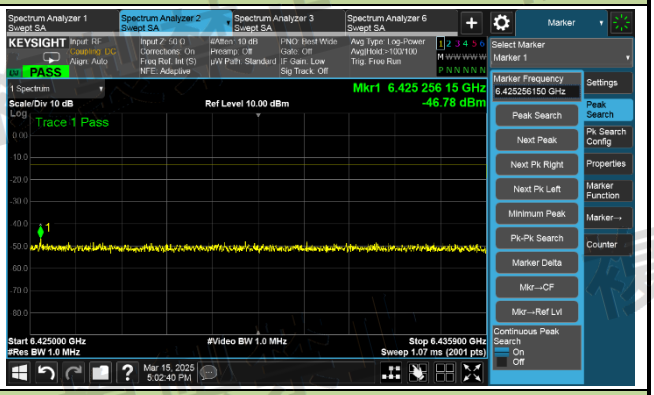
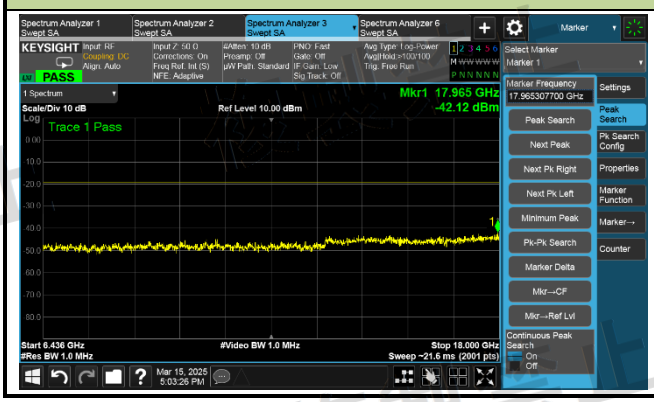
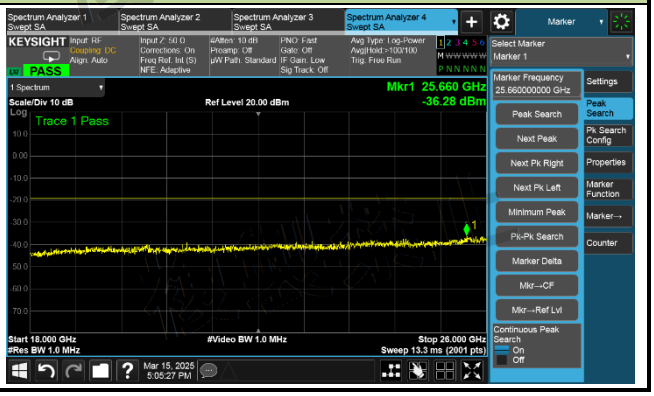
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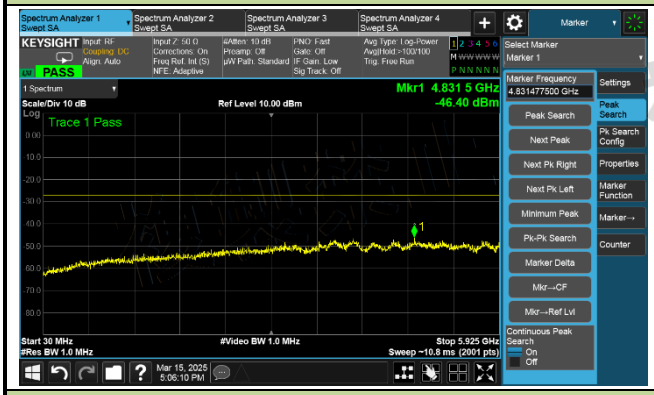
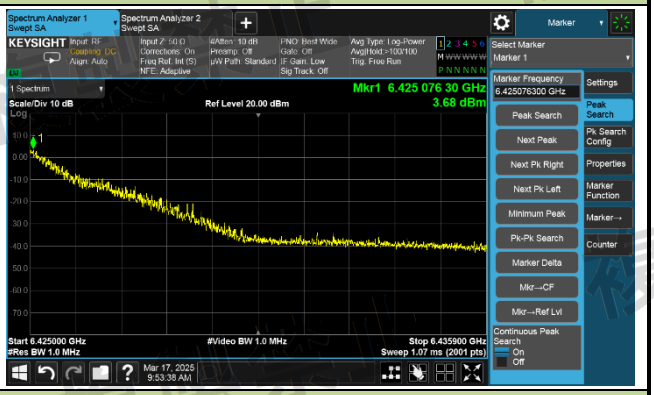
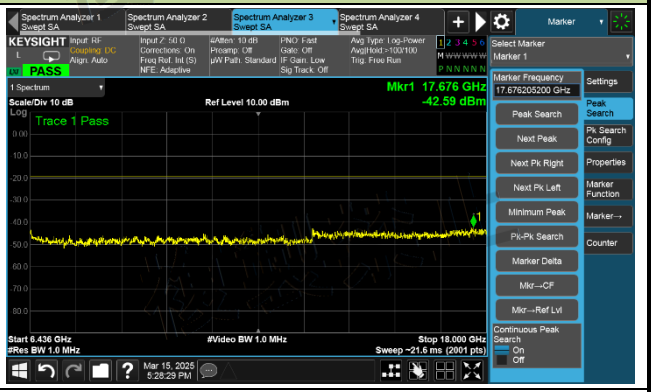
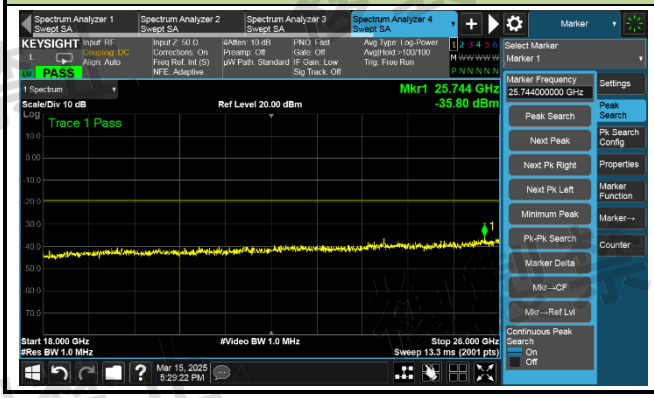
Test Channel	Frequency Range (MHz)	Measurement Freq (MHz)	Measurement Level (dBm/MHz)	Antenna Gain (dBi)	Final Level (dBm/MHz)	Final Level (μW/MHz)	Limit (μW/MHz)	Result
802.11be-EHT20								
5955MHz	30 ~ 5925	5922.1	-44.43	5.70	-38.73	0.134	≤ 2.0	Pass
	6425 ~ 6435.9	6425.10900	-47.60	5.70	-41.90	0.065	≤ 50.0	Pass
	6435.9 ~ 18000	17225.0	-41.05	5.70	-35.35	0.292	≤ 12.5	Pass
	18000 ~ 26000	25764.0	-36.37	5.70	-30.67	0.857	≤ 12.5	Pass
6415MHz	30 ~ 5925	4035.7	-45.69	5.70	-39.99	0.100	≤ 2.0	Pass
	6425 ~ 6435.9	6425.01635	-28.64	5.70	-22.94	5.082	≤ 50.0	Pass
	6435.9 ~ 18000	17769.0	-42.07	5.70	-36.37	0.231	≤ 12.5	Pass
	18000 ~ 26000	25760.0	-36.80	5.70	-31.10	0.776	≤ 12.5	Pass
802.11be-EHT40								
5965MHz	30 ~ 5925	5916.2	-45.43	5.70	-39.73	0.106	≤ 2.0	Pass
	6425 ~ 6440.1	6439.63945	-47.06	5.70	-41.36	0.073	≤ 50.0	Pass
	6440.1 ~ 18000	14682.0	-42.53	5.70	-36.83	0.207	≤ 12.5	Pass
	18000 ~ 26000	25900.0	-36.69	5.70	-30.99	0.796	≤ 12.5	Pass
6405MHz	30 ~ 5925	3785.1	-45.64	5.70	-39.94	0.101	≤ 2.0	Pass
	6425 ~ 6440.1	6425.04530	-32.10	5.70	-26.40	2.291	≤ 50.0	Pass
	6440.1 ~ 18000	17162.0	-42.82	5.70	-37.12	0.194	≤ 12.5	Pass
	18000 ~ 26000	25688.0	-35.95	5.70	-30.25	0.944	≤ 12.5	Pass
802.11be-EHT80								
5985MHz	30 ~ 5925	5925.0	-45.36	5.70	-39.66	0.108	≤ 2.0	Pass
	6425 ~ 6440.4	6436.92730	-46.68	5.70	-40.98	0.080	≤ 50.0	Pass
	6440.4 ~ 18000	17775.0	-41.61	5.70	-35.91	0.256	≤ 12.5	Pass
	18000 ~ 26000	25744.0	-35.44	5.70	-29.74	1.062	≤ 12.5	Pass
6385MHz	30 ~ 5925	4068.1	-46.67	5.70	-40.97	0.080	≤ 2.0	Pass
	6425 ~ 6440.4	6425.11550	-21.03	5.70	-15.33	29.309	≤ 50.0	Pass
	6440.4 ~ 18000	6440.0	-32.93	5.70	-27.23	1.892	≤ 12.5	Pass
	18000 ~ 26000	25688.0	-35.74	5.70	-30.04	0.991	≤ 12.5	Pass

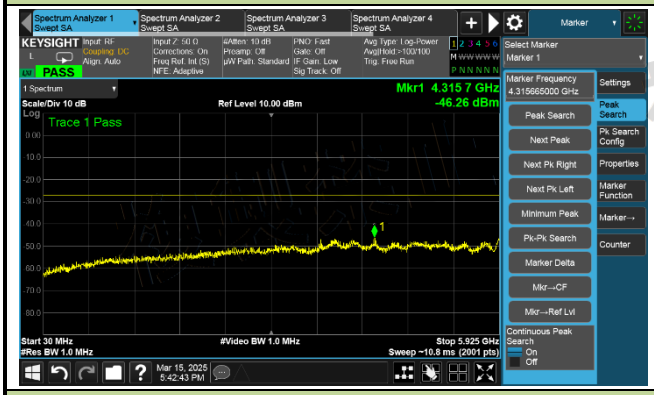
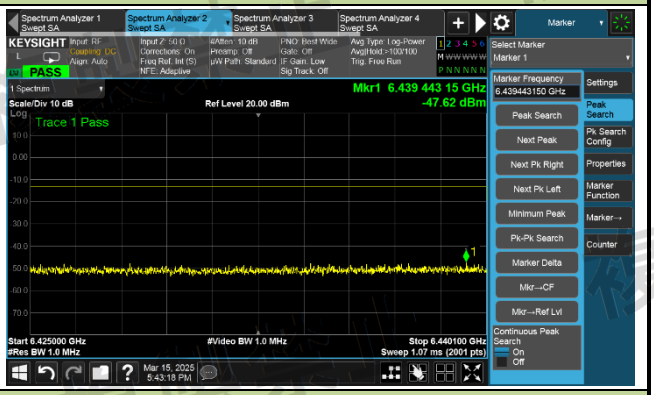
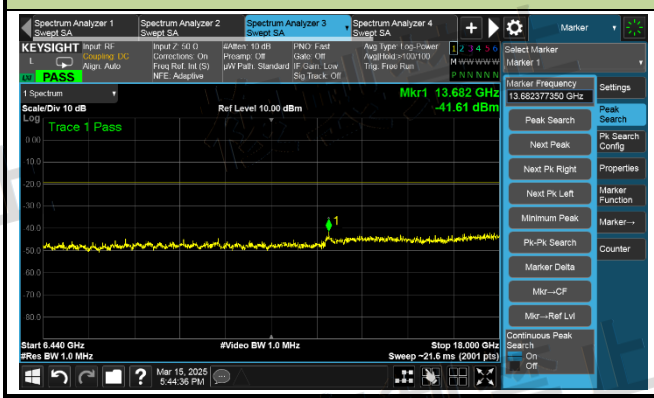
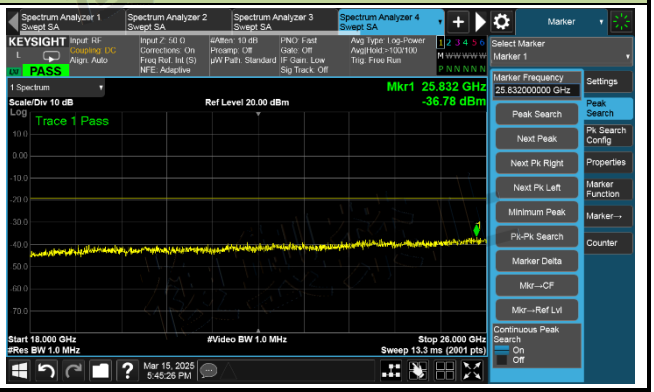
Test Channel	Frequency Range (MHz)	Measurement Freq (MHz)	Measurement Level (dBm/MHz)	Antenna Gain (dBi)	Final Level (dBm/MHz)	Final Level (μW/MHz)	Limit (μW/MHz)	Result
802.11be-EHT160								
6025MHz	30 ~ 5925	5922.1	-44.01	5.70	-38.31	0.148	≤ 2.0	Pass
	6425 ~ 6425.5	6425.45350	-45.46	5.70	-39.76	0.106	≤ 50.0	Pass
	6425.5 ~ 18000	17473.0	-41.72	5.70	-36.02	0.250	≤ 12.5	Pass
	18000 ~ 26000	25708.0	-36.54	5.70	-30.84	0.824	≤ 12.5	Pass
6345MHz	30 ~ 5925	5294.2	-46.09	5.70	-40.39	0.091	≤ 2.0	Pass
	6425 ~ 6425.5	6425.16725	-25.50	5.70	-19.80	10.471	≤ 50.0	Pass
	6425.5 ~ 18000	6426.0	-33.11	5.70	-27.41	1.816	≤ 12.5	Pass
	18000 ~ 26000	25720.0	-36.59	5.70	-30.89	0.815	≤ 12.5	Pass
802.11be-EHT320								
6105MHz	30 ~ 5925	5925.0	-40.55	5.70	-34.85	0.327	≤ 2.0	Pass
	6425 ~ 6425.7	6425.54180	-44.87	5.70	-39.17	0.121	≤ 50.0	Pass
	6425.7 ~ 18000	17647.0	-42.45	5.70	-36.75	0.211	≤ 12.5	Pass
	18000 ~ 26000	25920.0	-36.22	5.70	-30.52	0.887	≤ 12.5	Pass
6265MHz	30 ~ 5925	4855.1	-46.00	5.70	-40.30	0.093	≤ 2.0	Pass
	6425 ~ 6425.7	6425.07910	-26.87	5.70	-21.17	7.638	≤ 50.0	Pass
	6425.7 ~ 18000	6426.0	-36.48	5.70	-30.78	0.836	≤ 12.5	Pass
	18000 ~ 26000	25924.0	-35.86	5.70	-30.16	0.964	≤ 12.5	Pass

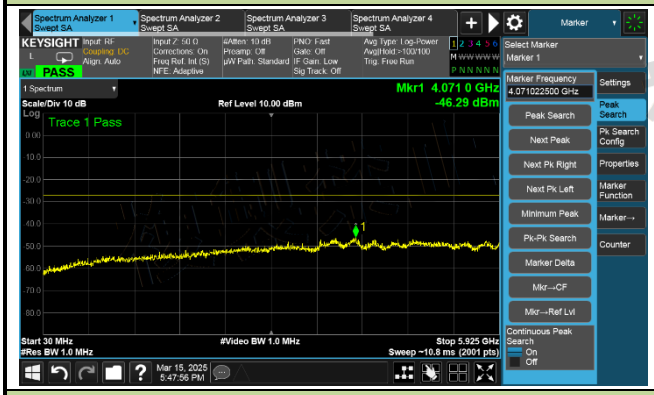
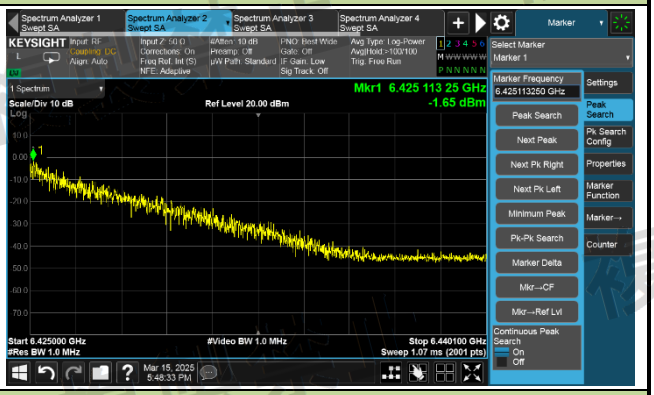
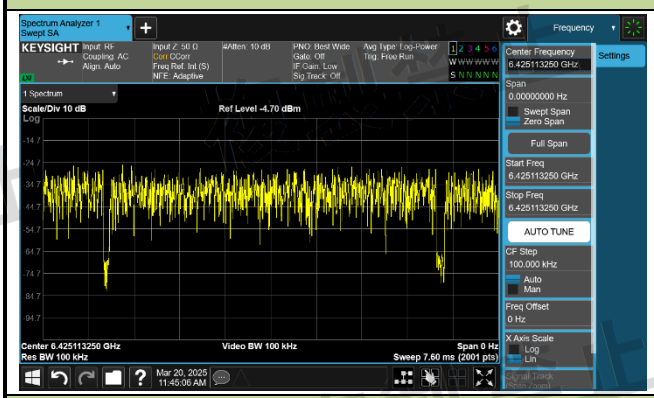
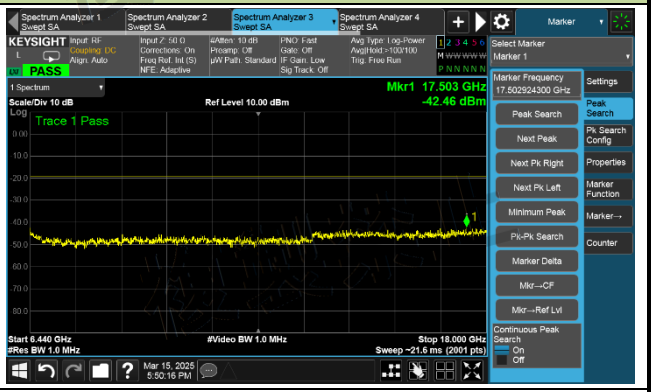
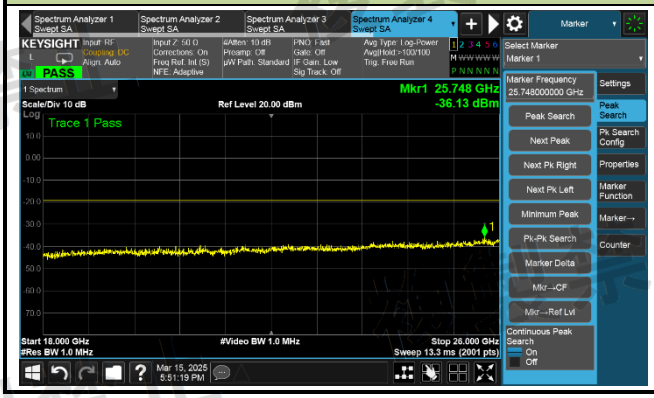
Note 1: Final level (dBm/MHz) = Measurement Level (dBm/MHz) + Antenna Gain (dBi)

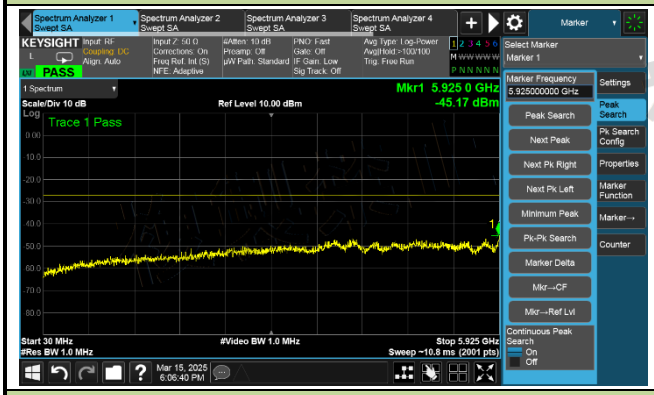
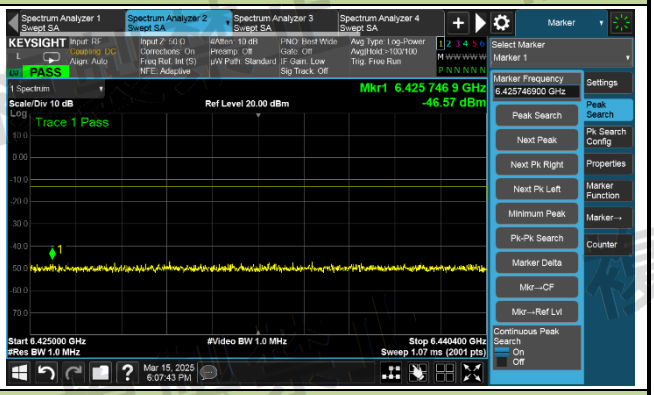
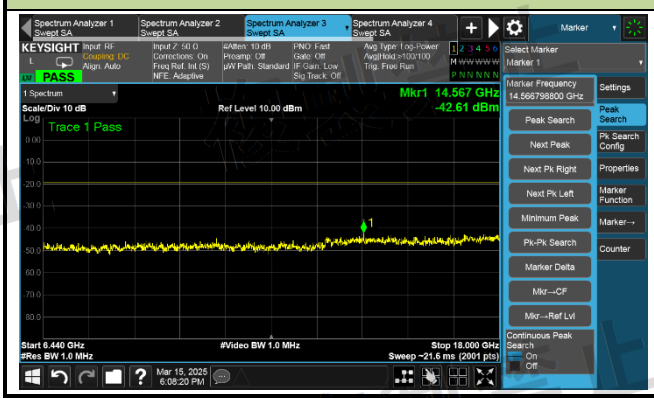
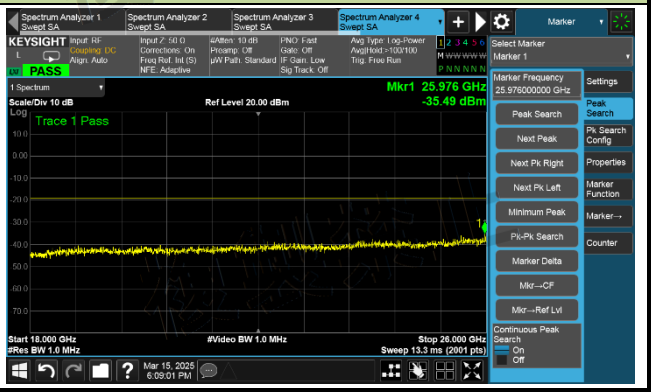
Note 2: Max Reading Level (dBm/MHz) = Max Reading Level (dBm/100kHz) + 10*log (1000/100).

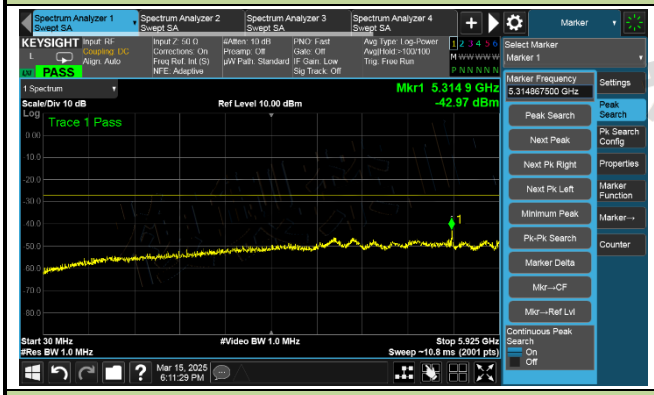
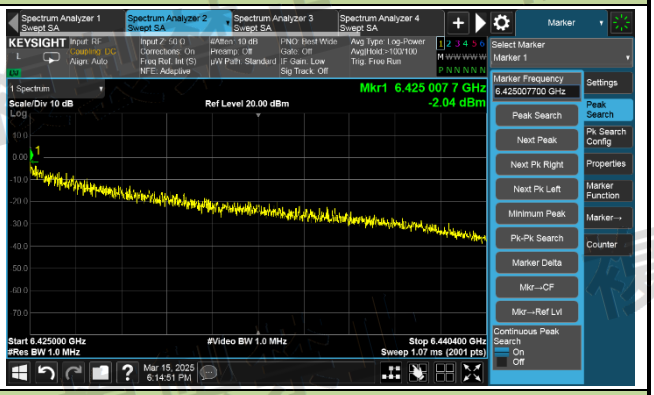
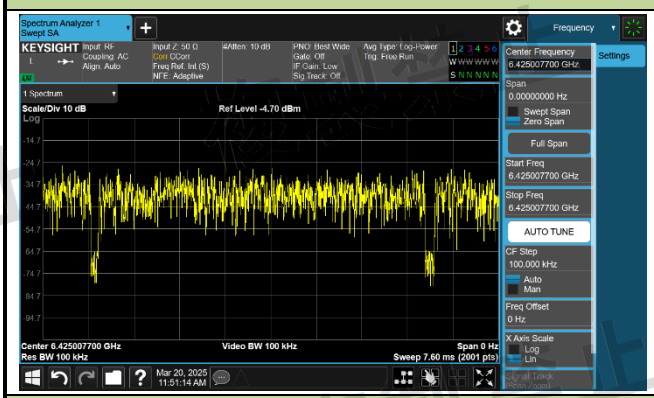
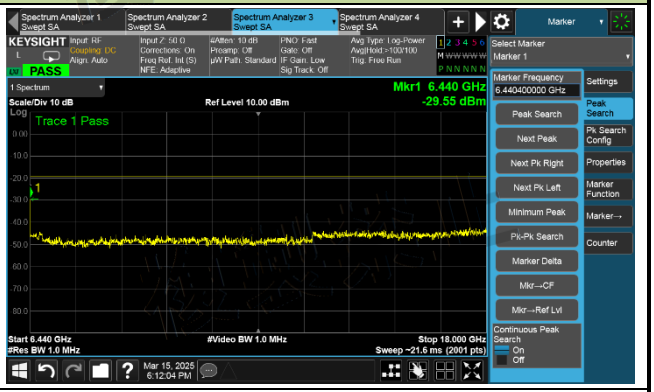
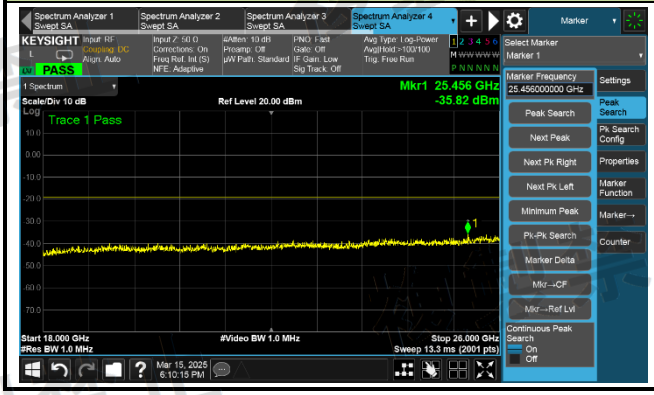
802.11ax-HE20 Unwanted Emission Strength	
Channel 01 (5955MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6435.9MHz
	
6435.9MHz ~1 8000MHz	18000MHz ~ 26000MHz
	

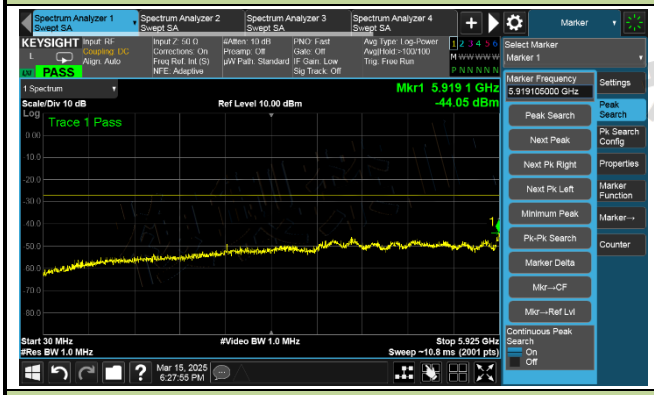
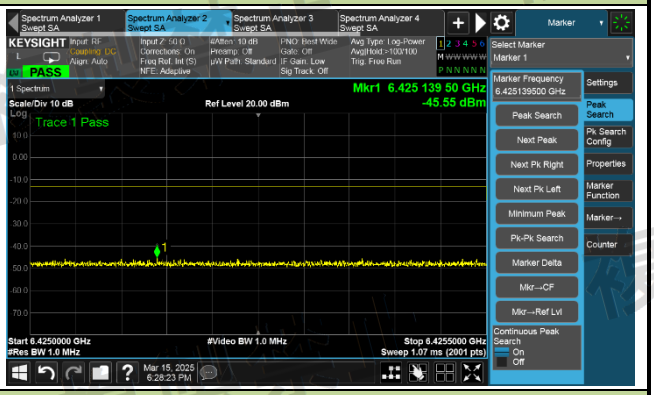
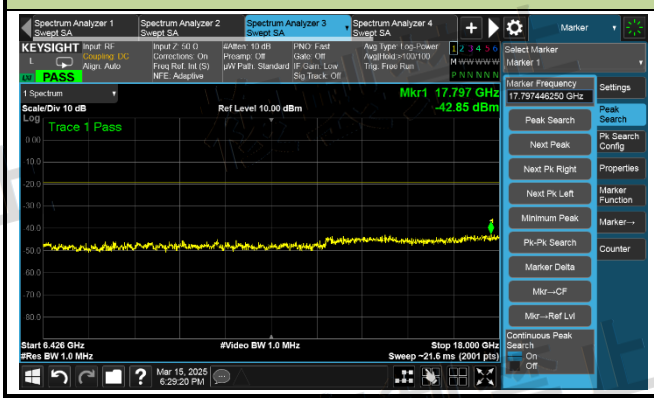
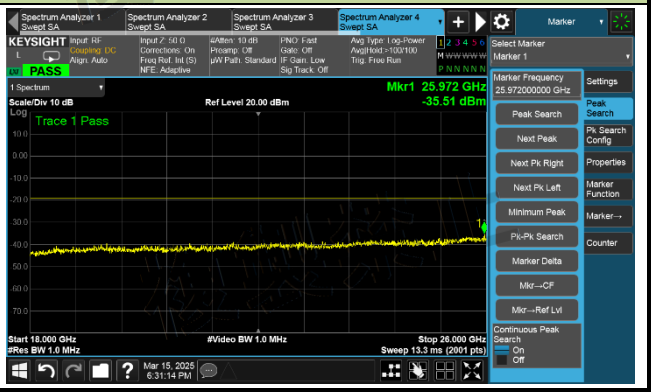
802.11ax-HE20 Unwanted Emission Strength	
Channel 93 (6415MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6435.9MHz-Pretest
	
6425MHz ~ 6435.9MHz - Verification	6435.9MHz ~ 18000MHz
	
18000MHz ~ 26000MHz	
	

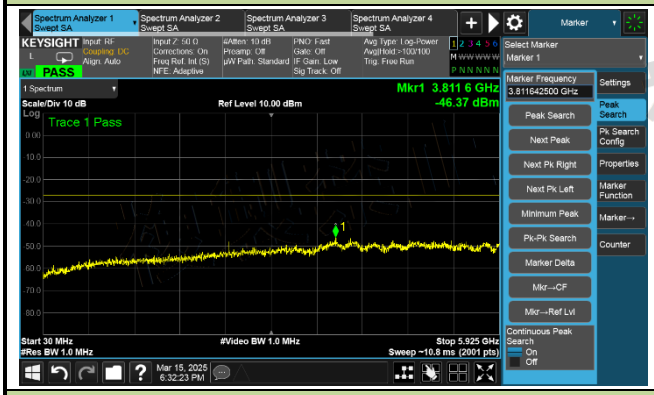
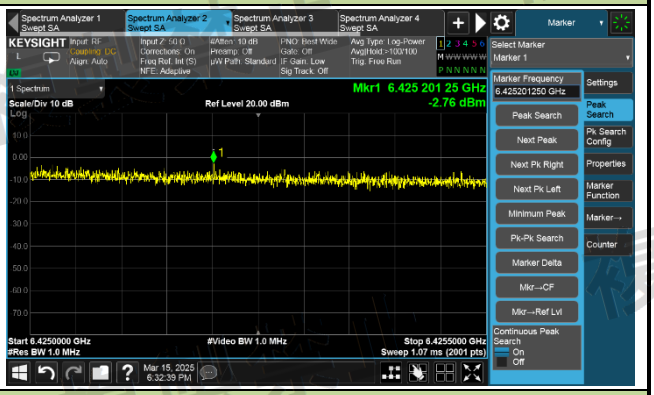
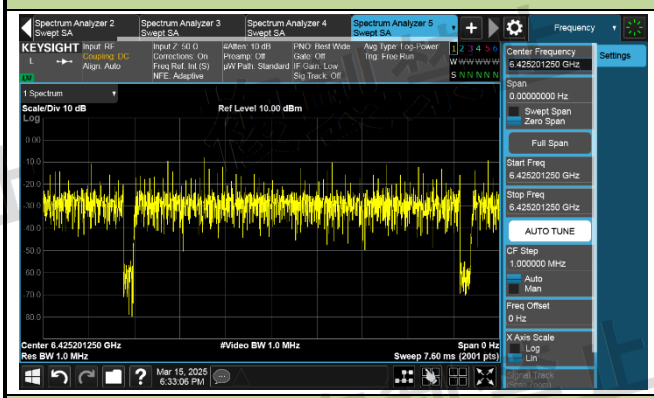
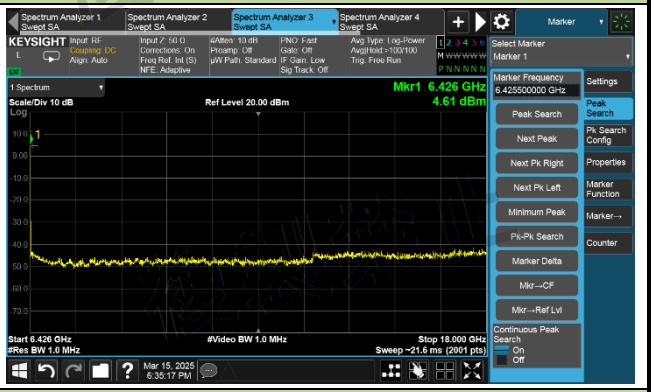
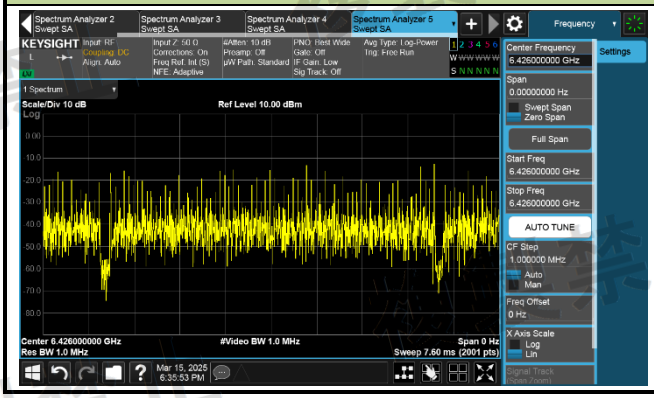
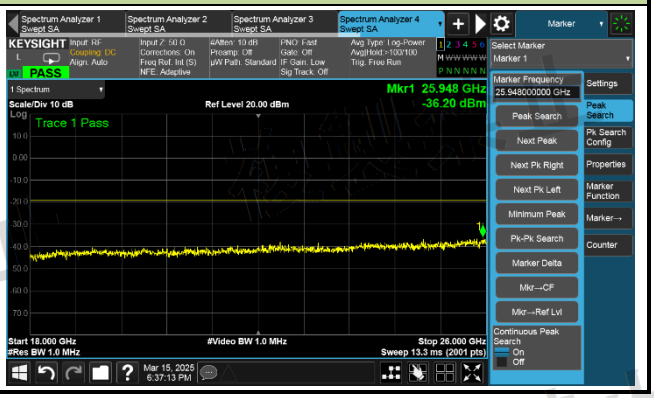
802.11ax-HE40 Unwanted Emission Strength	
Channel 03 (5965MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6440.1MHz
	
6440.1MHz ~ 18000MHz	18000MHz ~ 26000MHz
	

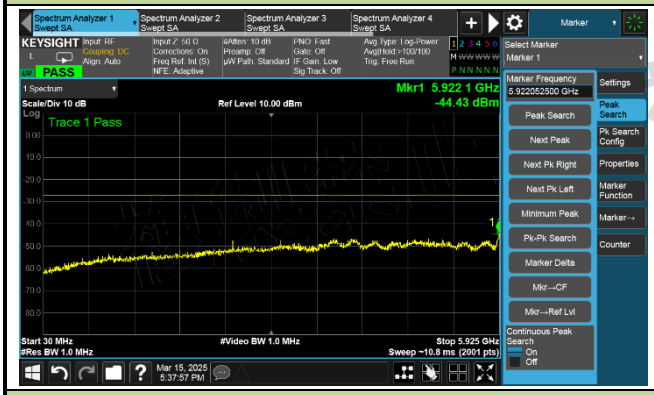
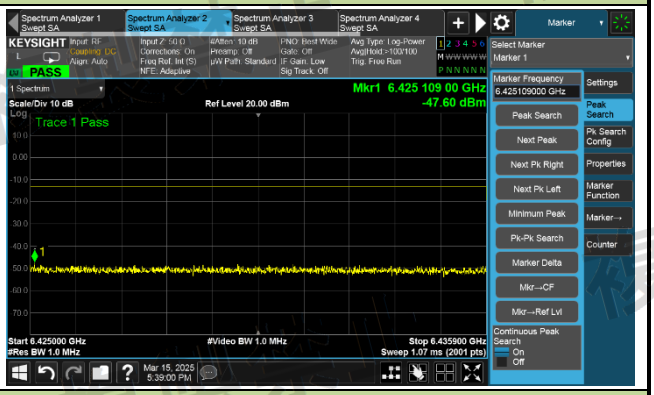
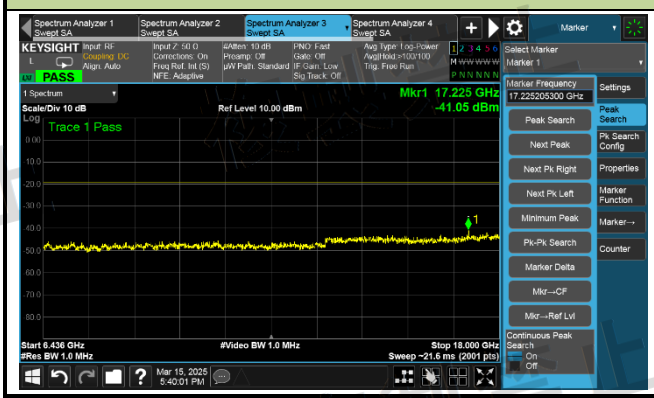
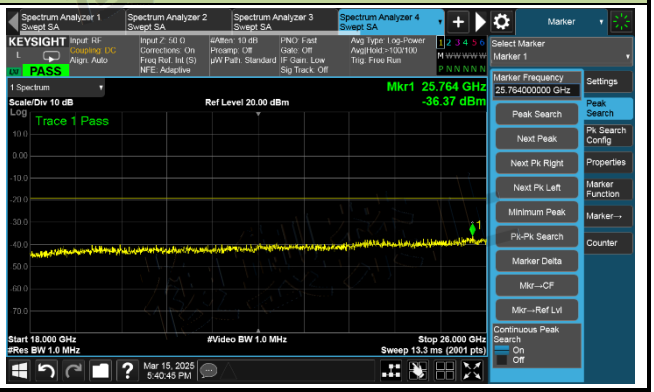
802.11ax-HE40 Unwanted Emission Strength	
Channel 91 (6405MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6440.1MHz-Pretest
	
6425MHz ~ 6440.1MHz - Verification	6440.1MHz ~ 18000MHz
	
18000MHz ~ 26000MHz	
	

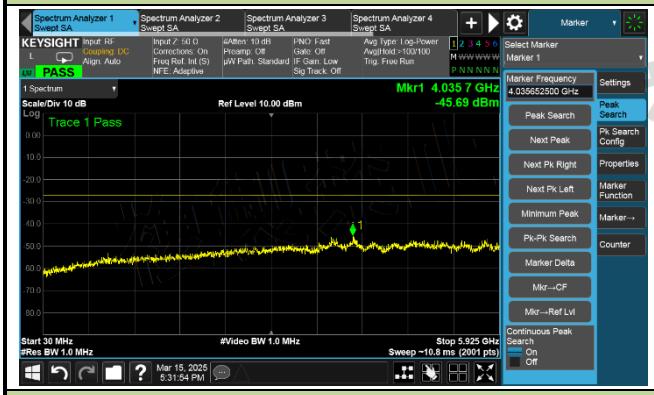
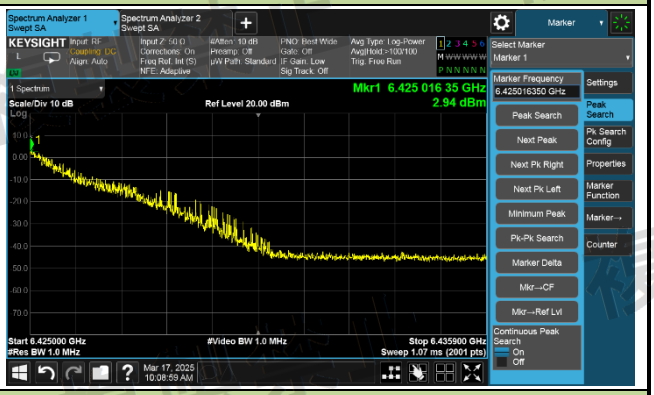
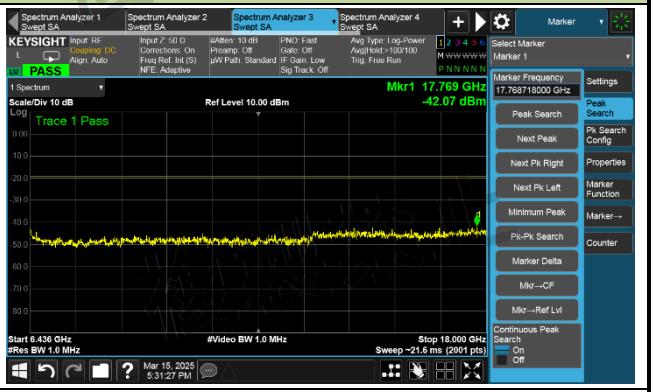
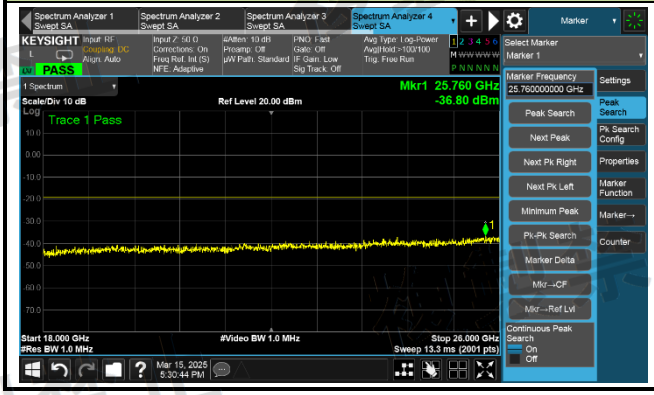
802.11ax-HE80 Unwanted Emission Strength	
Channel 07 (5985MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6440.4MHz
	
6440.4MHz ~ 18000MHz	18000MHz ~ 26000MHz
	

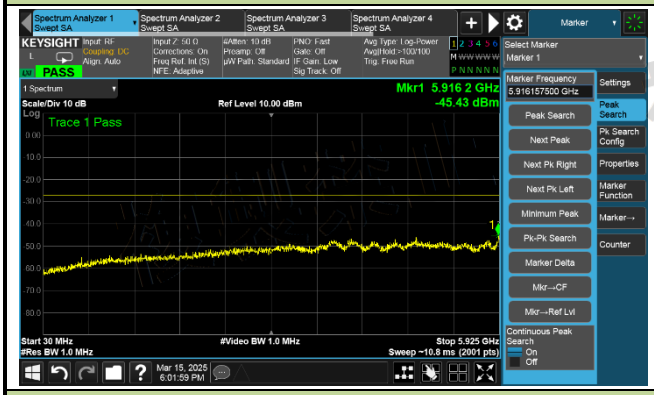
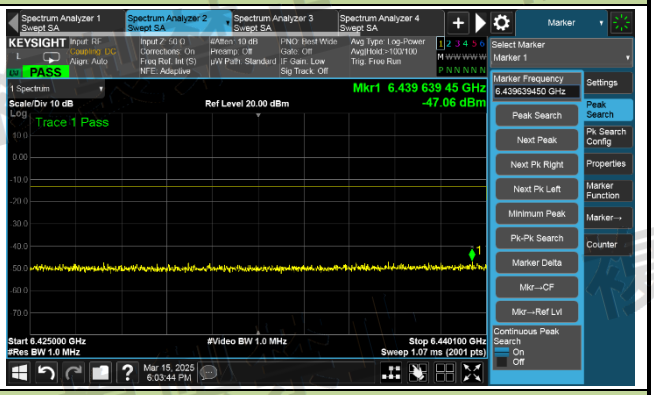
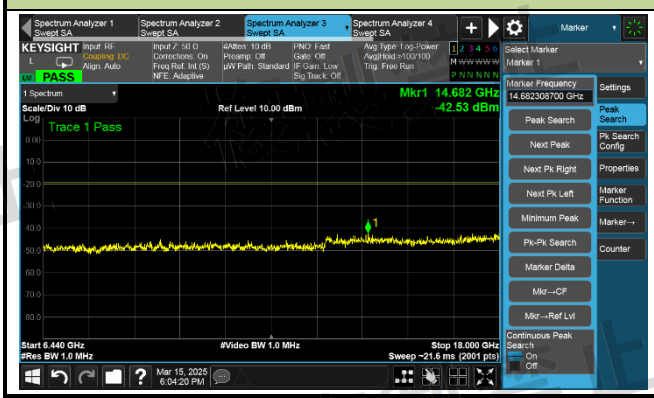
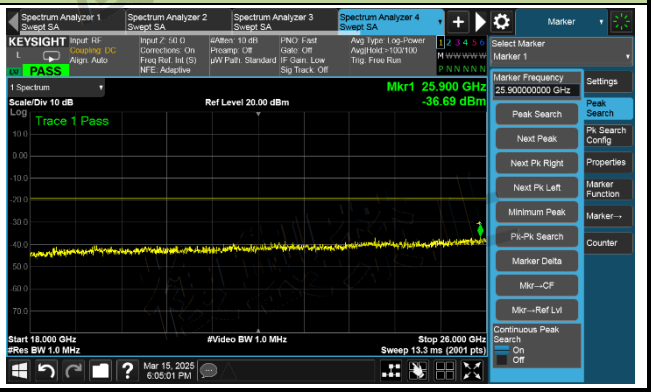
802.11ax-HE80 Unwanted Emission Strength	
Channel 87 (6385MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6440.4MHz-Pretest
	
6425MHz ~ 6440.4MHz - Verification	6440.4MHz ~ 18000MHz
	
18000MHz ~ 26000MHz	
	

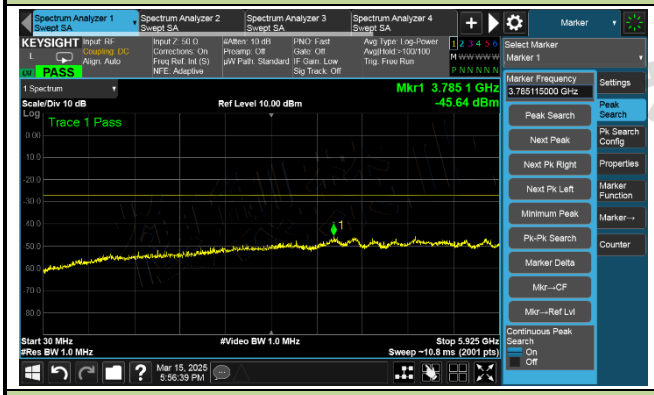
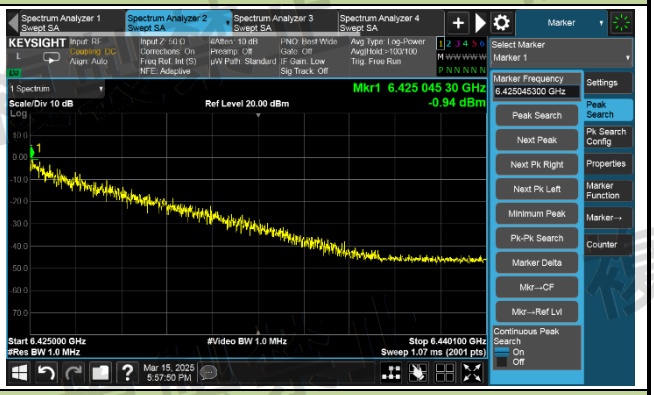
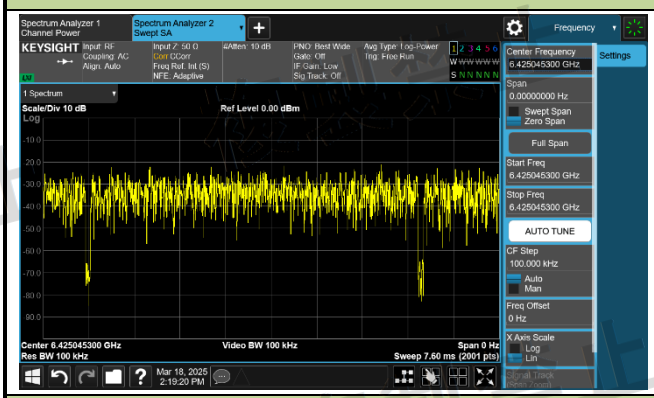
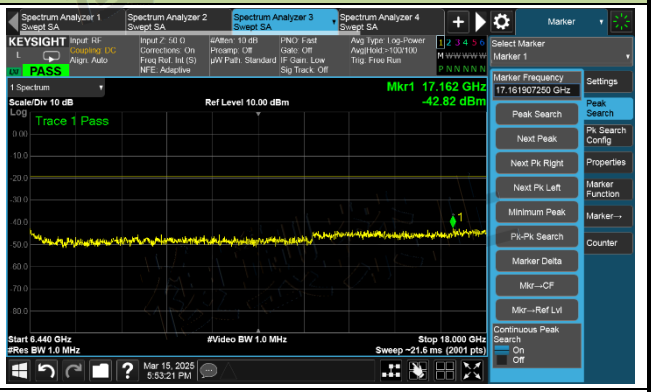
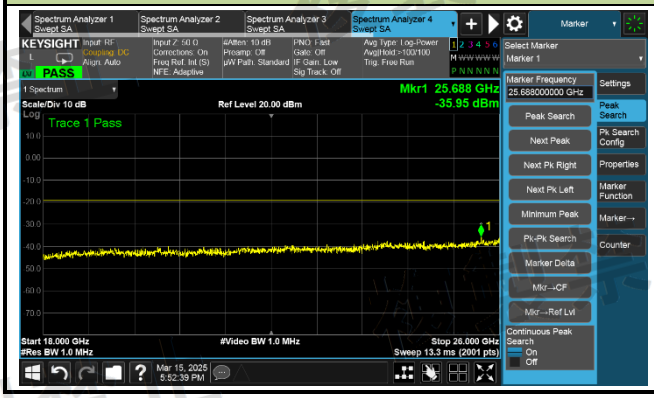
802.11ax-HE160 Unwanted Emission Strength	
Channel 15 (6025MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6425.5MHz
	
6425.5MHz ~ 18000MHz	18000MHz ~ 26000MHz
	

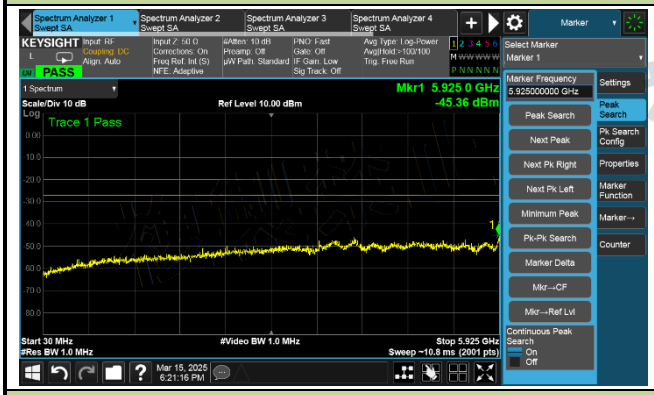
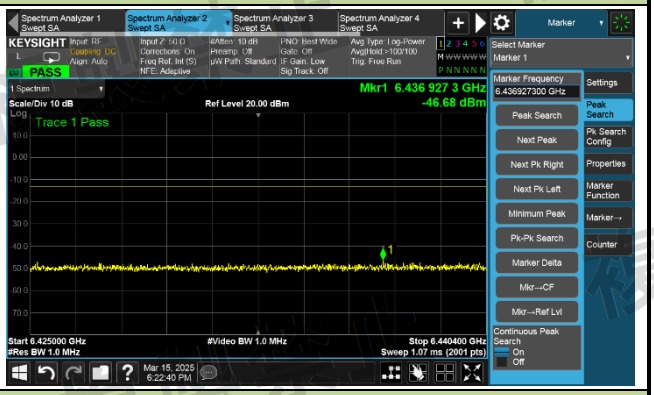
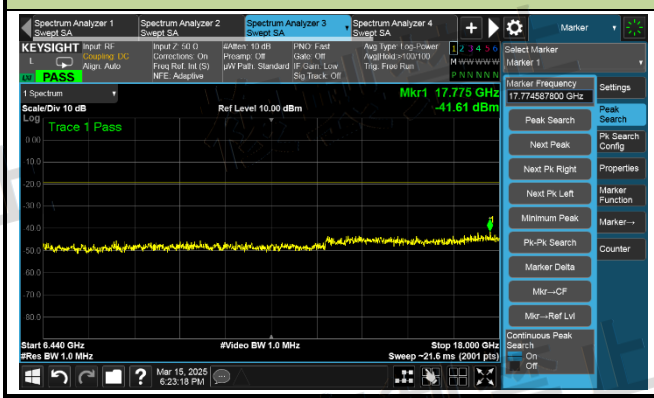
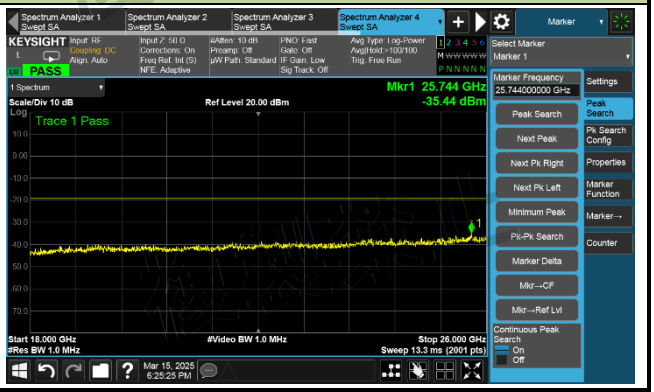
802.11ax-HE160 Unwanted Emission Strength	
Channel 79 (6345MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6425.5MHz-Pretest
	
6425MHz ~ 6425.5MHz - Verification	6425.5MHz ~ 18000MHz
	
6425.5MHz ~ 8000MHz - Verification	18000MHz ~ 26000MHz
	

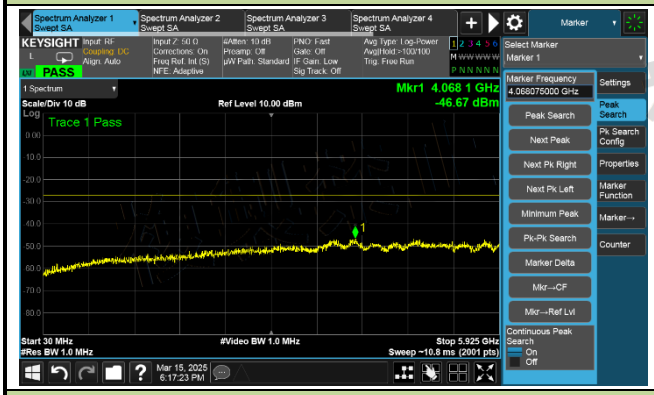
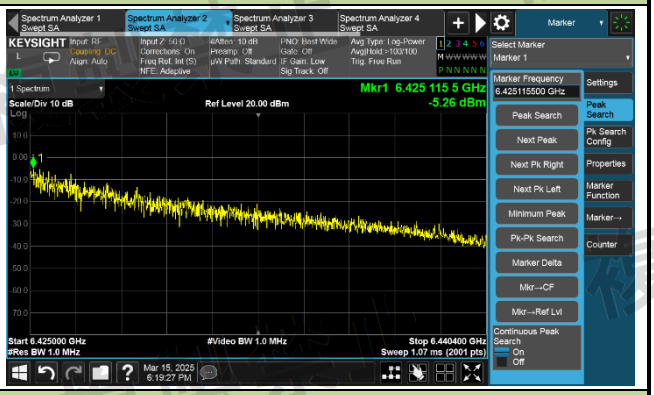
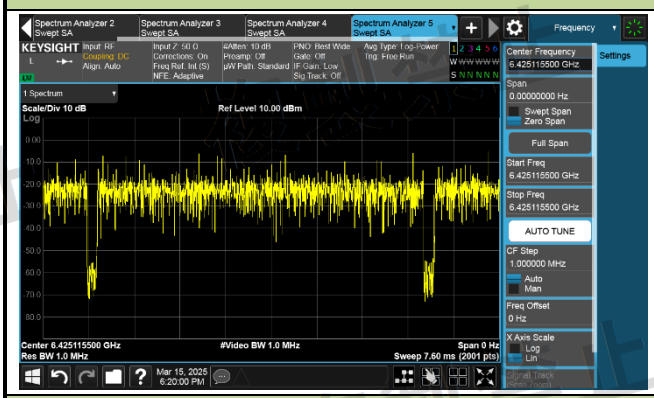
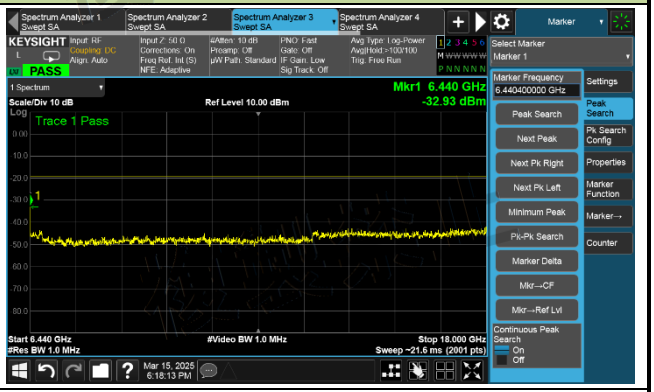
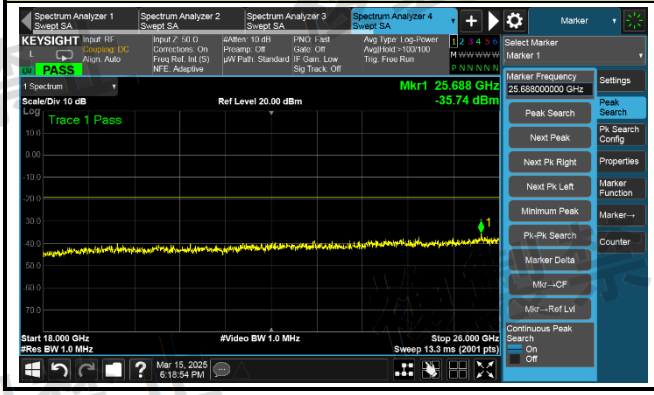
802.11be-EHT20 Unwanted Emission Strength	
Channel 01 (5955MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6435.9MHz
	
6435.9MHz ~ 18000MHz	18000MHz ~ 26000MHz
	

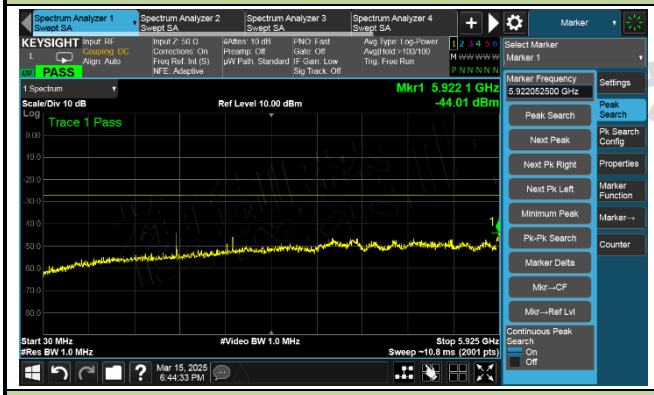
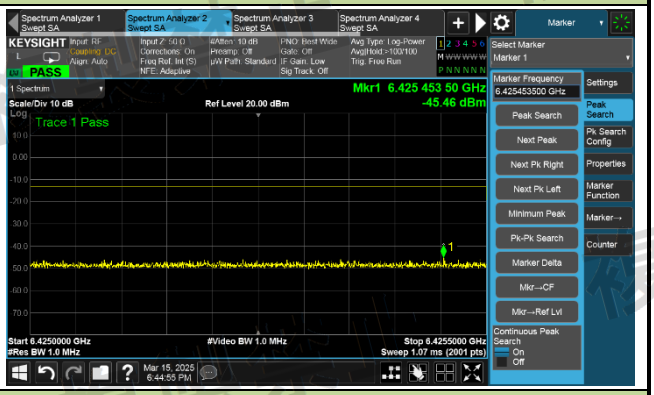
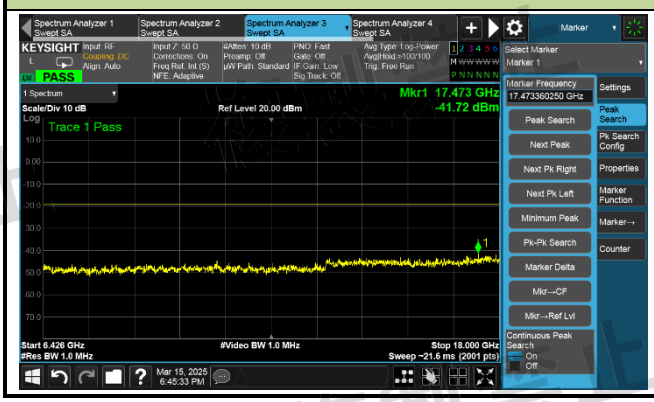
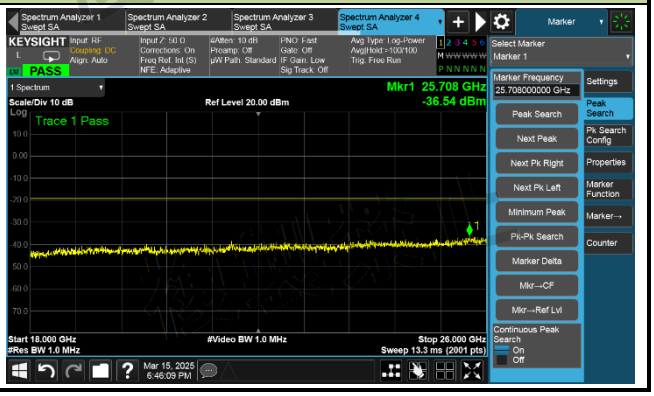
802.11be-EHT20 Unwanted Emission Strength	
Channel 93 (6415MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6435.9MHz-Pretest
	
6425MHz ~ 6435.9MHz - Verification	6435.9MHz ~ 18000MHz
	
18000MHz ~ 26000MHz	
	

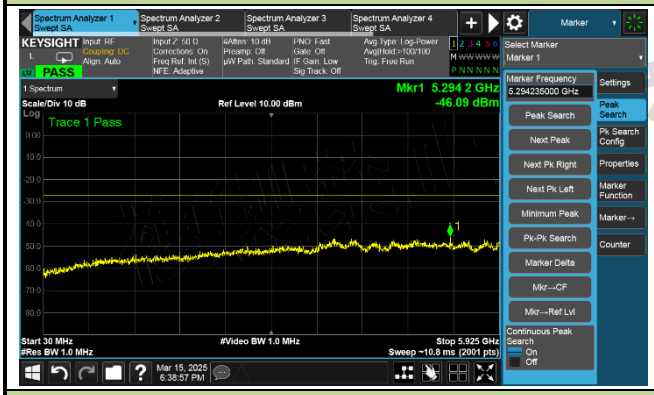
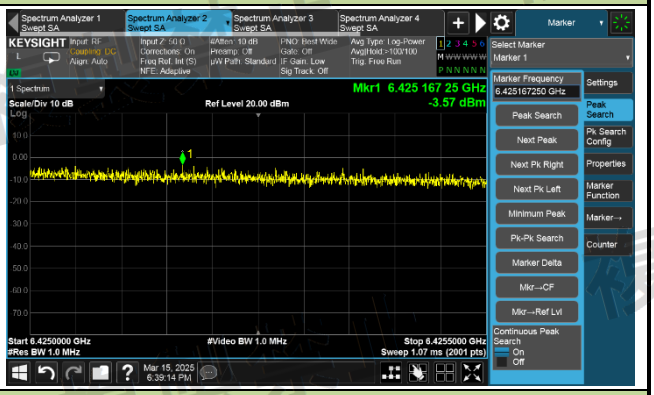
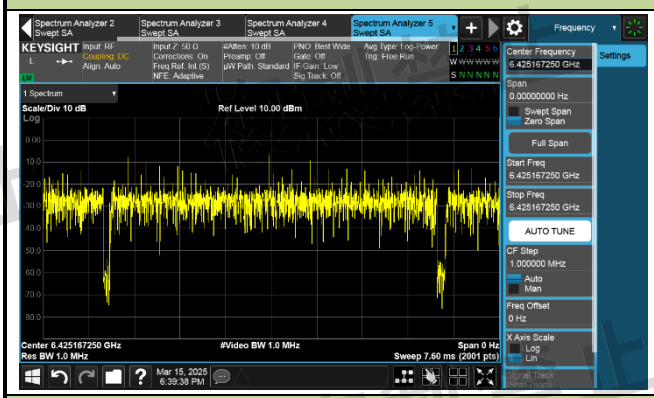
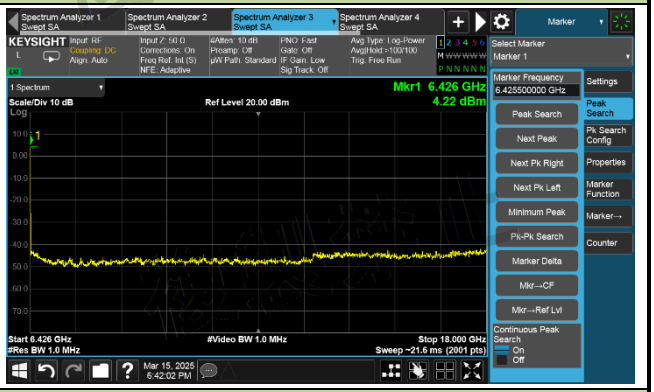
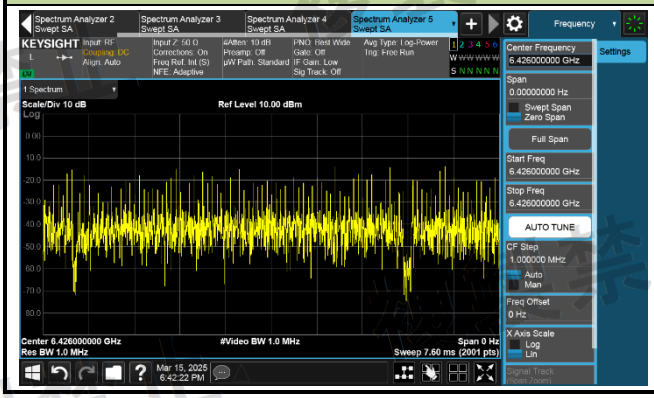
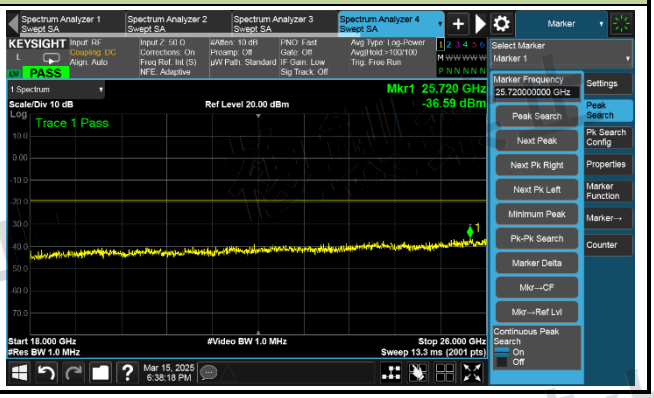
802.11be-EHT40 Unwanted Emission Strength	
Channel 03 (5965MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6440.1MHz
	
6440.1MHz ~ 18000MHz	18000MHz ~ 26000MHz
	

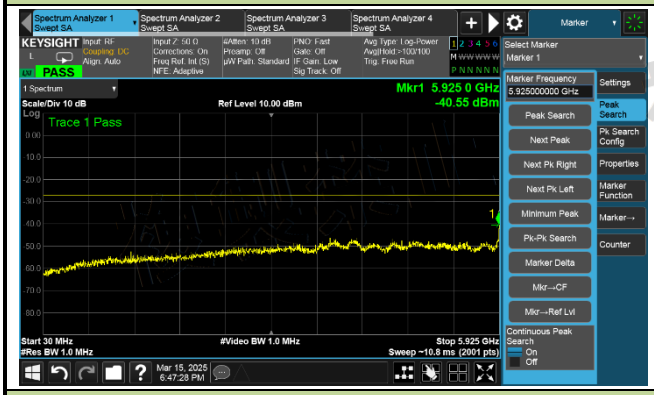
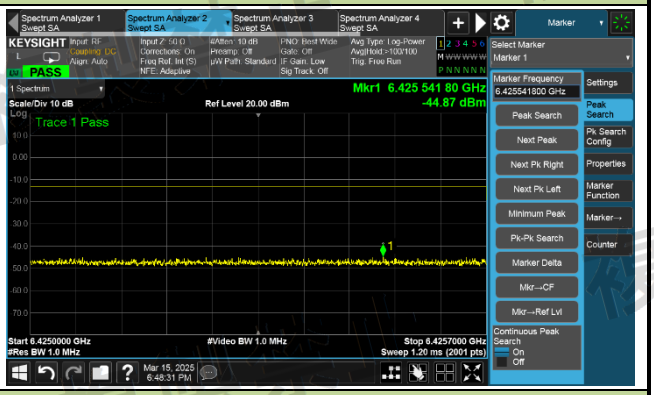
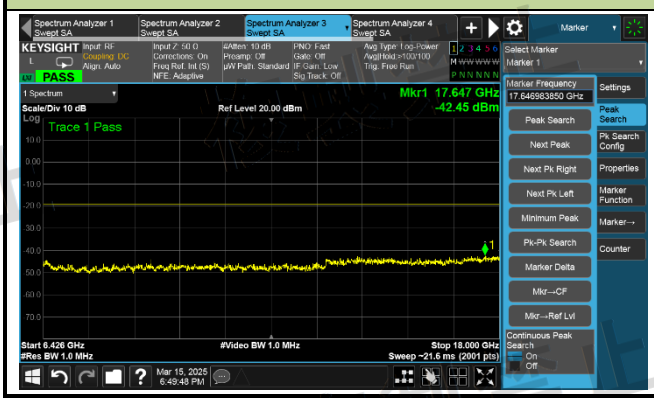
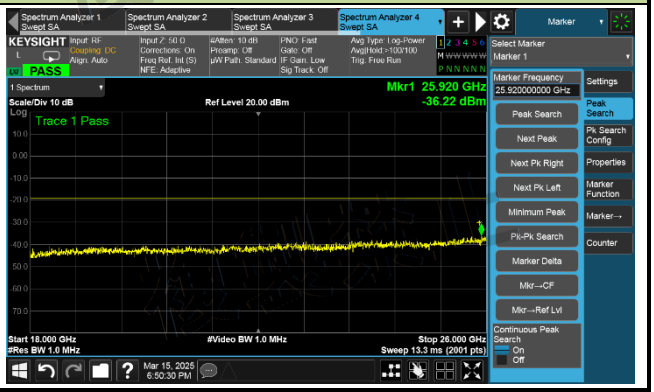
802.11be-EHT40 Unwanted Emission Strength	
Channel 91 (6405MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6440.1MHz-Pretest
	
6425MHz ~ 6440.1MHz - Verification	6440.1MHz ~ 18000MHz
	
18000MHz ~ 26000MHz	
	

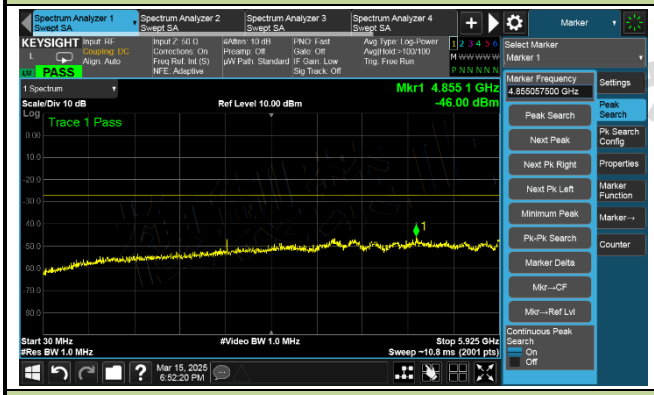
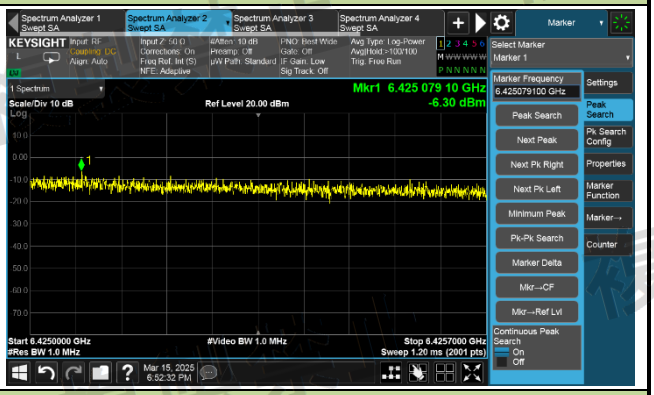
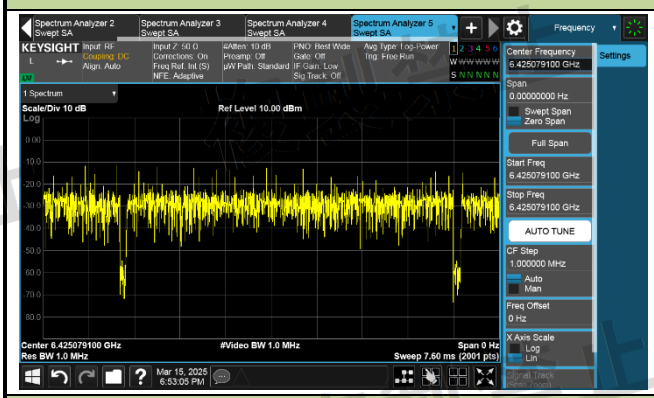
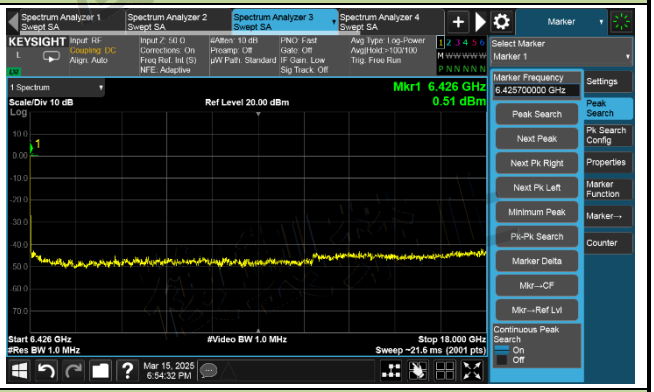
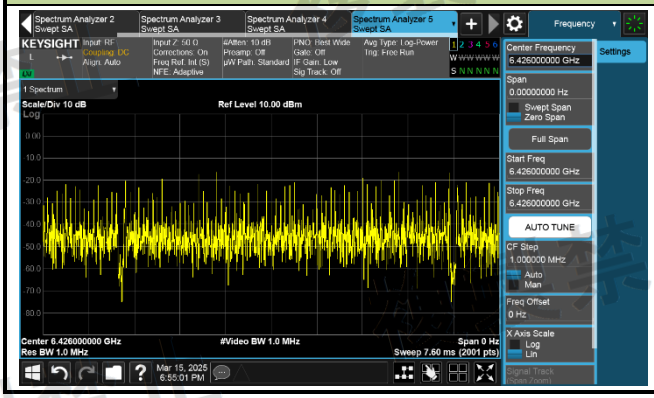
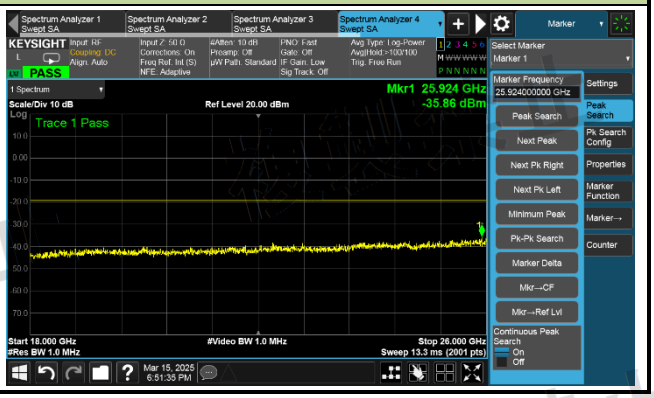
802.11be-EHT80 Unwanted Emission Strength	
Channel 07 (5985MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6440.4MHz
	
6440.4MHz ~ 18000MHz	18000MHz ~ 26000MHz
	

802.11be-EHT80 Unwanted Emission Strength	
Channel 87 (6385MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6440.4MHz-Pretest
	
6425MHz ~ 6440.4MHz - Verification	6440.4MHz ~ 18000MHz
	
18000MHz ~ 26000MHz	
	

802.11be-EHT160 Unwanted Emission Strength	
Channel 15 (6025MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6425.5MHz
	
6425.5MHz ~ 18000MHz	18000MHz ~ 26000MHz
	

802.11be-EHT160 Unwanted Emission Strength	
Channel 79 (6345MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6425.5MHz-Pretest
	
6425MHz ~ 6425.5MHz - Verification	6425.5MHz ~ 18000MHz-Pretest
	
6425.5MHz ~ 18000MHz - Verification	18000MHz ~ 26000MHz
	

802.11be-EHT320 Unwanted Emission Strength	
Channel 31 (6105MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6425.7MHz
	
6425.7MHz ~ 18000MHz	18000MHz ~ 26000MHz
	

802.11be-EHT320 Unwanted Emission Strength	
Channel 63 (6265MHz)	
30MHz ~ 5925MHz	6425MHz ~ 6425.7MHz-Pretest
	
6425MHz ~ 6425.7MHz-Verification	6425.7MHz ~ 18000MHz-Pretest
	
6425.7MHz ~ 18000MHz-Verification	18000MHz ~ 26000MHz
	

5.7. Receiver Spurious Emissions Measurement

5.7.1. Test Limit

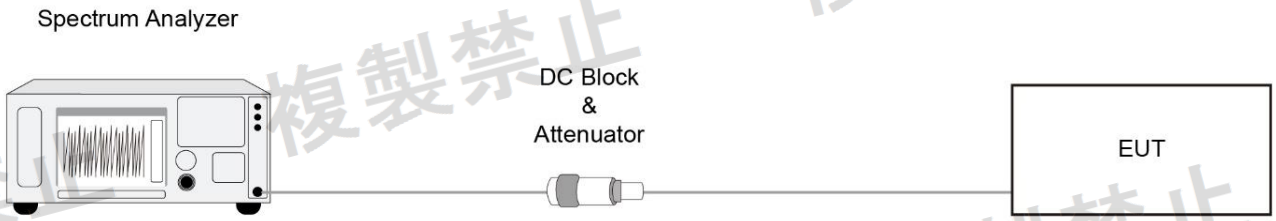
≤ 4nW for 30 ~ 1000MHz;

≤ 20nW for 1000 ~ 26000MHz;

5.7.2. Test Procedure

1. A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.
2. A positive peak detector function must be used.
3. The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
4. 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

5.7.3. Test Setup



5.7.4. Test Result

Test Site	SIP-TR1	Temperature	18.5 °C
Test Engineer	Ryan Wang	Humidity	53.7 %RH
Test Date	2025-03-15		

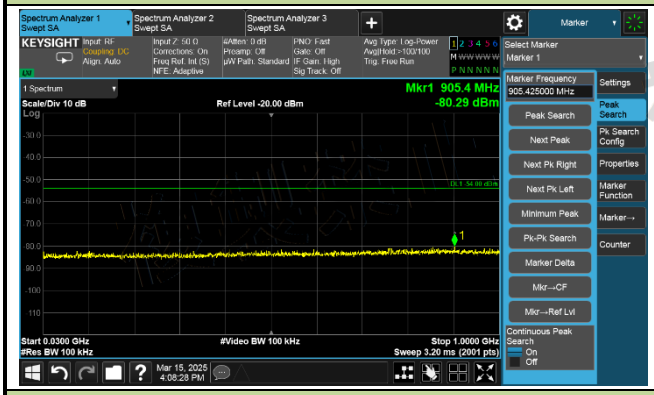
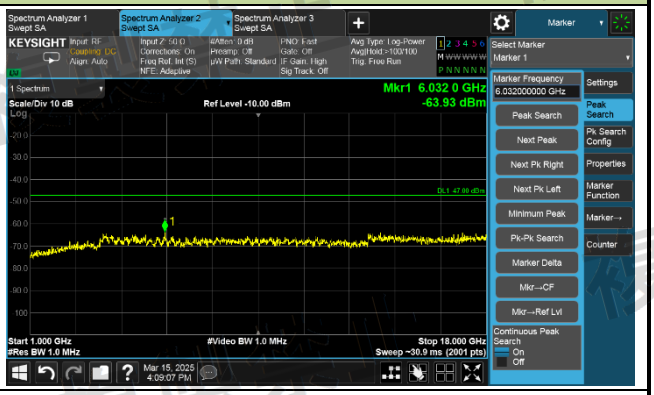
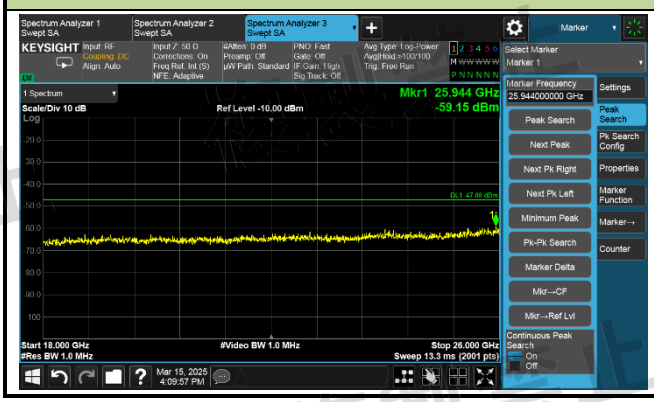
Test Channel	Frequency Range (MHz)	Measurement Freq (MHz)	Measurement Level (dBm)	Antenna Gain (dBi)	Final Level (dBm)	Final Level (nW)	Limit (nW)	Result
802.11ax-HE20								
5955MHz	30 ~ 1000	905.4	-80.29	5.70	-74.59	0.035	≤ 4.0	Pass
	1000 ~ 18000	6032.0	-63.93	5.70	-58.23	1.503	≤ 20.0	Pass
	18000 ~ 26000	25944.0	-59.15	5.70	-53.45	4.519	≤ 20.0	Pass
6415MHz	30 ~ 1000	861.8	-80.33	5.70	-74.63	0.034	≤ 4.0	Pass
	1000 ~ 18000	5309.5	-62.14	5.70	-56.44	2.270	≤ 20.0	Pass
	18000 ~ 26000	25920.0	-59.48	5.70	-53.78	4.188	≤ 20.0	Pass
802.11ax-HE40								
5965MHz	30 ~ 1000	737.6	-80.76	5.70	-75.06	0.031	≤ 4.0	Pass
	1000 ~ 18000	17643.0	-63.67	5.70	-57.97	1.596	≤ 20.0	Pass
	18000 ~ 26000	25960.0	-59.58	5.70	-53.88	4.093	≤ 20.0	Pass
6405MHz	30 ~ 1000	896.7	-80.22	5.70	-74.52	0.035	≤ 4.0	Pass
	1000 ~ 18000	4298.0	-63.64	5.70	-57.94	1.607	≤ 20.0	Pass
	18000 ~ 26000	25960.0	-59.24	5.70	-53.54	4.426	≤ 20.0	Pass
802.11ax-HE80								
5985MHz	30 ~ 1000	892.3	-80.91	5.70	-75.21	0.030	≤ 4.0	Pass
	1000 ~ 18000	5309.5	-62.15	5.70	-56.45	2.265	≤ 20.0	Pass
	18000 ~ 26000	25704.0	-59.44	5.70	-53.74	4.227	≤ 20.0	Pass
6385MHz	30 ~ 1000	830.7	-80.88	5.70	-75.18	0.030	≤ 4.0	Pass
	1000 ~ 18000	5301.0	-62.15	5.70	-56.45	2.265	≤ 20.0	Pass
	18000 ~ 26000	25744.0	-60.06	5.70	-54.36	3.664	≤ 20.0	Pass
802.11ax-HE160								
6025MHz	30 ~ 1000	807.0	-80.46	5.70	-74.76	0.033	≤ 4.0	Pass
	1000 ~ 18000	5309.5	-60.91	5.70	-55.21	3.013	≤ 20.0	Pass
	18000 ~ 26000	25732.0	-59.37	5.70	-53.67	4.295	≤ 20.0	Pass
6345MHz	30 ~ 1000	893.8	-80.40	5.70	-74.70	0.034	≤ 4.0	Pass
	1000 ~ 18000	5309.5	-60.07	5.70	-54.37	3.656	≤ 20.0	Pass
	18000 ~ 26000	25960.0	-60.16	5.70	-54.46	3.581	≤ 20.0	Pass

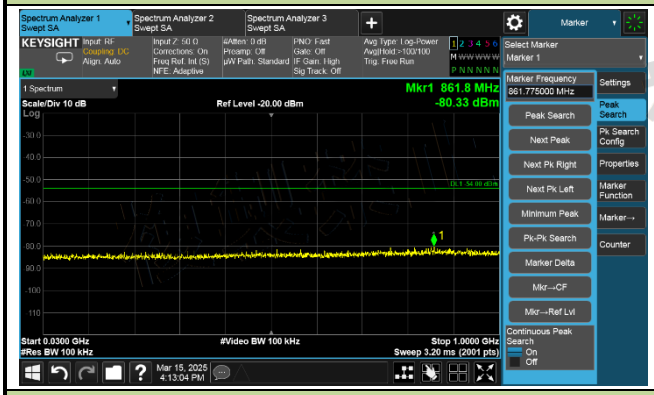
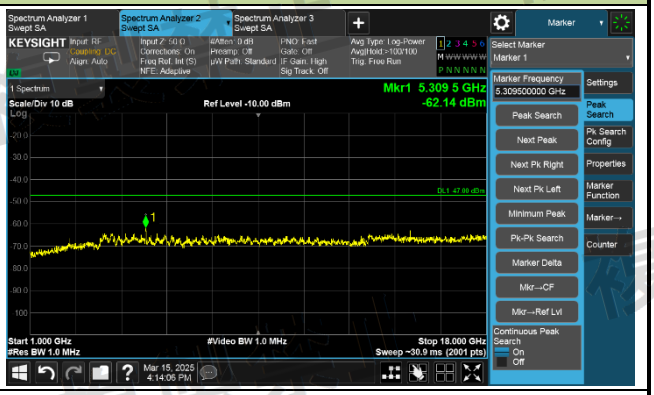
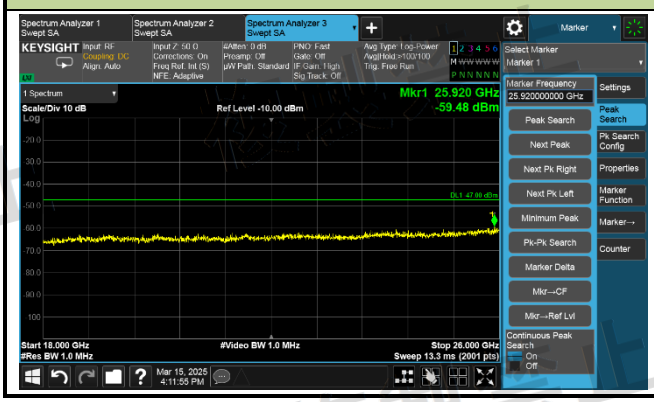
Test Channel	Frequency Range (MHz)	Measurement Freq (MHz)	Measurement Level (dBm)	Antenna Gain (dBi)	Final Level (dBm)	Final Level (nW)	Limit (nW)	Result
802.11be-EHT20								
5955MHz	30 ~ 1000	878.8	-81.13	5.70	-75.43	0.029	≤ 4.0	Pass
	1000 ~ 18000	5318.0	-58.78	5.70	-53.08	4.920	≤ 20.0	Pass
	18000 ~ 26000	25656.0	-59.56	5.70	-53.86	4.111	≤ 20.0	Pass
6415MHz	30 ~ 1000	859.4	-80.94	5.70	-75.24	0.030	≤ 4.0	Pass
	1000 ~ 18000	5309.5	-59.76	5.70	-54.06	3.926	≤ 20.0	Pass
	18000 ~ 26000	25668.0	-60.26	5.70	-54.56	3.499	≤ 20.0	Pass
802.11be-EHT40								
5965MHz	30 ~ 1000	835.6	-80.84	5.70	-75.14	0.031	≤ 4.0	Pass
	1000 ~ 18000	5309.5	-62.78	5.70	-57.08	1.959	≤ 20.0	Pass
	18000 ~ 26000	25996.0	-59.44	5.70	-53.74	4.227	≤ 20.0	Pass
6405MHz	30 ~ 1000	847.9	-81.07	5.70	-75.37	0.029	≤ 4.0	Pass
	1000 ~ 18000	5301.0	-61.04	5.70	-55.34	2.924	≤ 20.0	Pass
	18000 ~ 26000	25884.0	-59.57	5.70	-53.87	4.102	≤ 20.0	Pass
802.11be-EHT80								
5985MHz	30 ~ 1000	1000.0	-80.58	5.70	-74.88	0.033	≤ 4.0	Pass
	1000 ~ 18000	5309.5	-60.23	5.70	-54.53	3.524	≤ 20.0	Pass
	18000 ~ 26000	25684.0	-60.04	5.70	-54.34	3.681	≤ 20.0	Pass
6385MHz	30 ~ 1000	888.0	-80.85	5.70	-75.15	0.031	≤ 4.0	Pass
	1000 ~ 18000	5309.5	-60.23	5.70	-54.53	3.524	≤ 20.0	Pass
	18000 ~ 26000	25980.0	-59.03	5.70	-53.33	4.645	≤ 20.0	Pass
802.11be-EHT160								
6025MHz	30 ~ 1000	914.2	-81.15	5.70	-75.45	0.029	≤ 4.0	Pass
	1000 ~ 18000	5309.5	-59.66	5.70	-53.96	4.018	≤ 20.0	Pass
	18000 ~ 26000	25968.0	-59.29	5.70	-53.59	4.375	≤ 20.0	Pass
6345MHz	30 ~ 1000	902.0	-80.77	5.70	-75.07	0.031	≤ 4.0	Pass
	1000 ~ 18000	5301.0	-59.48	5.70	-53.78	4.188	≤ 20.0	Pass
	18000 ~ 26000	25924.0	-59.21	5.70	-53.51	4.457	≤ 20.0	Pass

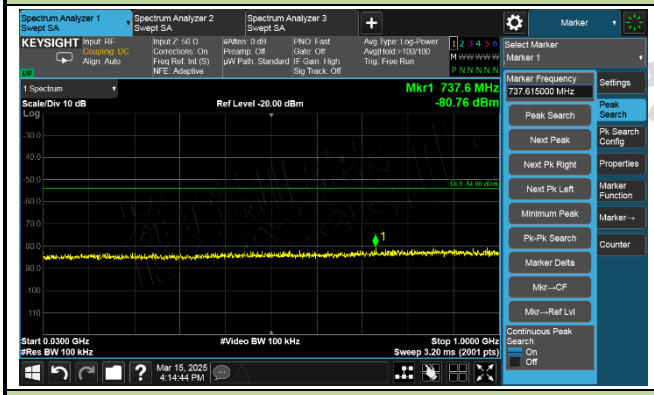
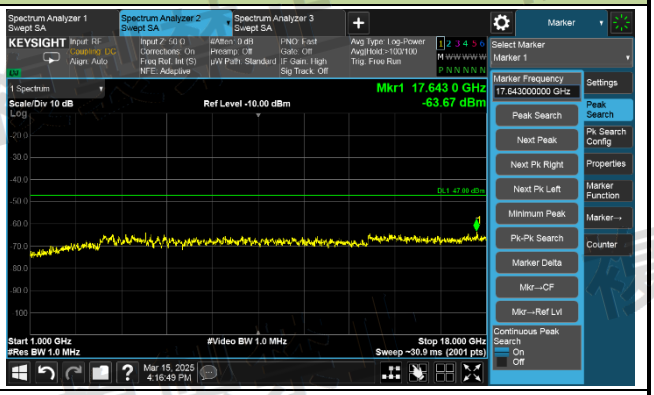
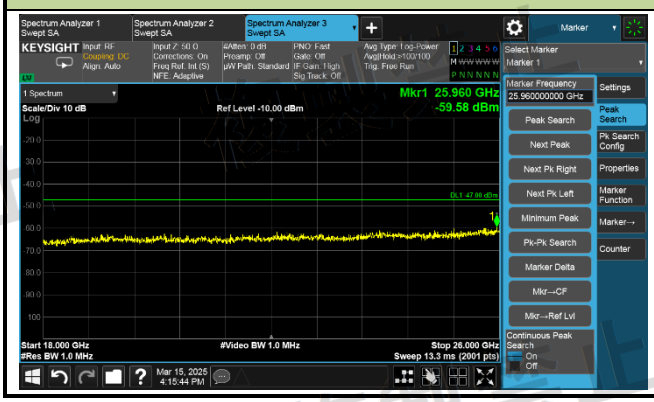
Test Channel	Frequency Range (MHz)	Measurement Freq (MHz)	Measurement Level (dBm)	Antenna Gain (dBi)	Final Level (dBm)	Final Level (nW)	Limit (nW)	Result
802.11be-EHT320								
6105MHz	30 ~ 1000	763.3	-81.05	5.70	-75.35	0.029	≤ 4.0	Pass
	1000 ~ 18000	5301.0	-60.25	5.70	-54.55	3.508	≤ 20.0	Pass
	18000 ~ 26000	25936.0	-59.71	5.70	-54.01	3.972	≤ 20.0	Pass
6265MHz	30 ~ 1000	937.0	-81.15	5.70	-75.45	0.029	≤ 4.0	Pass
	1000 ~ 18000	5309.5	-61.23	5.70	-55.53	2.799	≤ 20.0	Pass
	18000 ~ 26000	25980.0	-60.06	5.70	-54.36	3.664	≤ 20.0	Pass

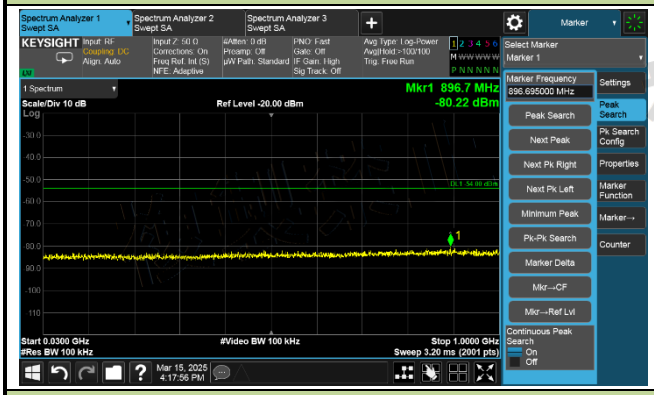
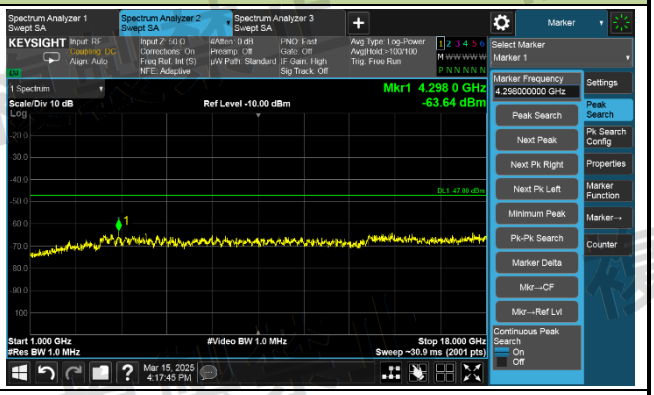
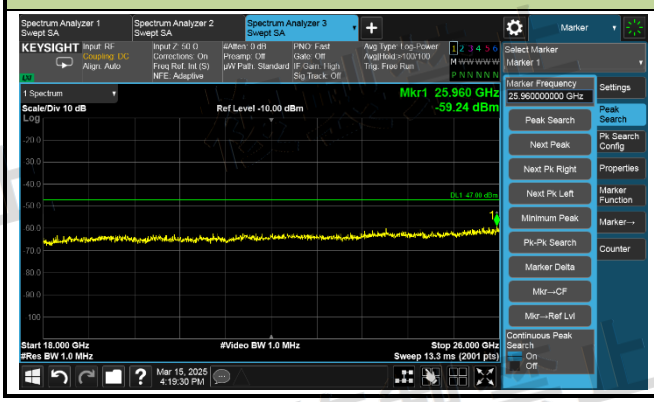
Note: Final level (dBm) = Measurement Level (dBm) + Antenna Gain (dBi)

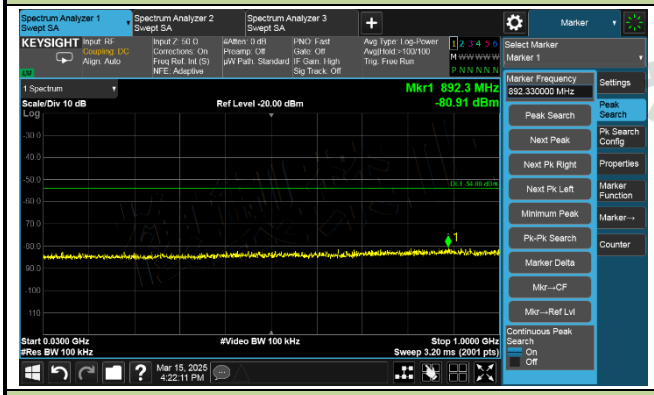
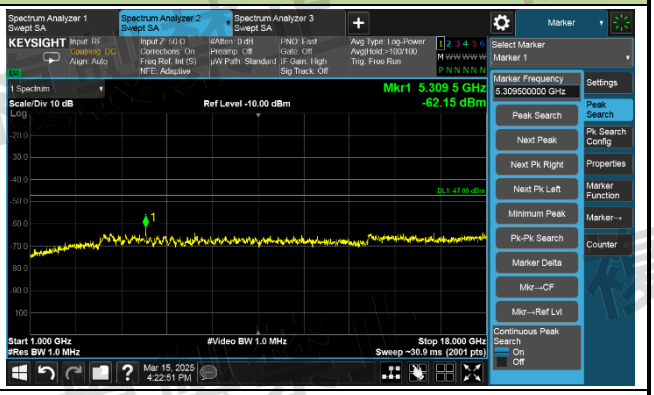
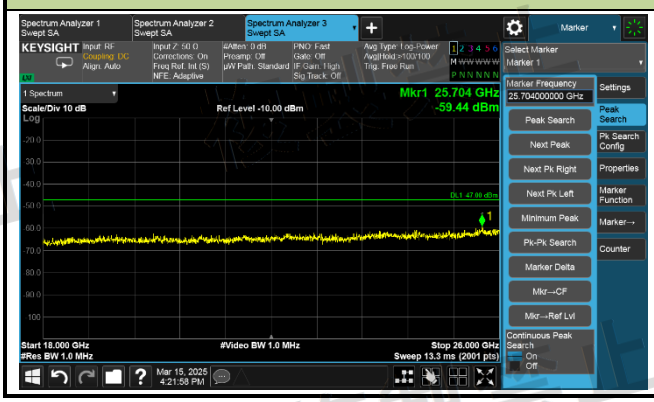
複製禁止

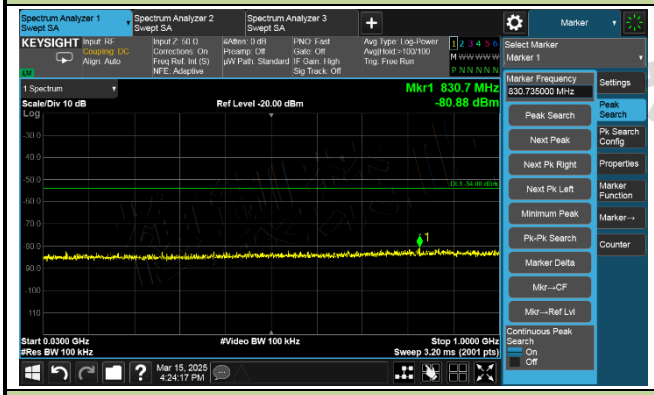
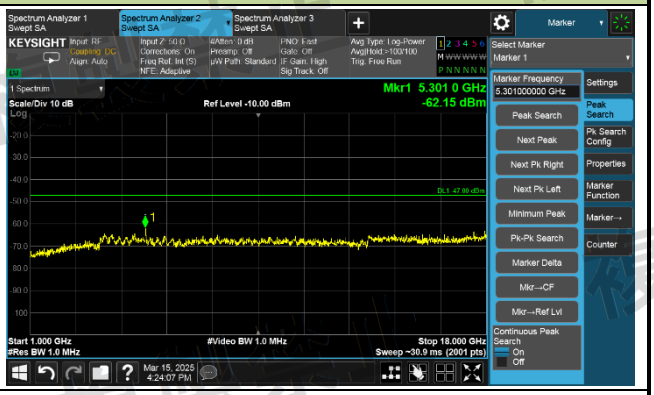
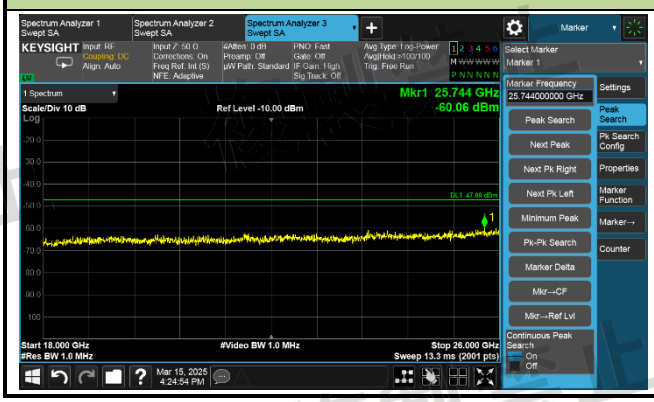
802.11ax-HE20 Receiver Spurious Emissions	
Channel 01 (5955MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

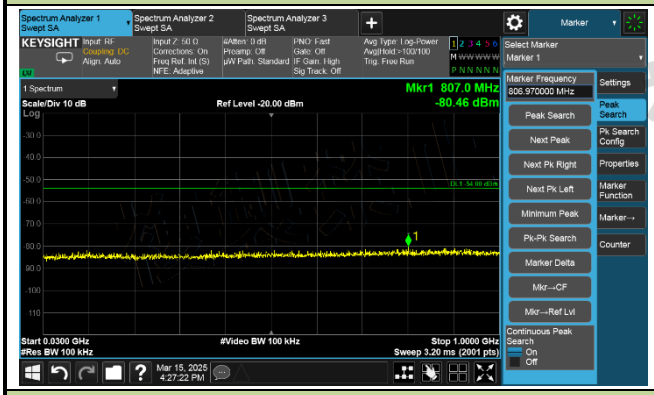
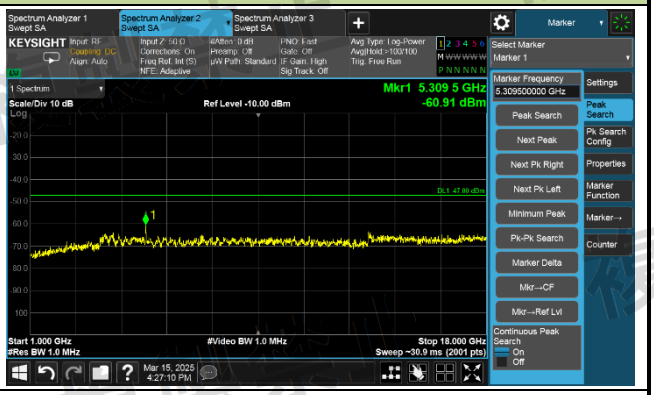
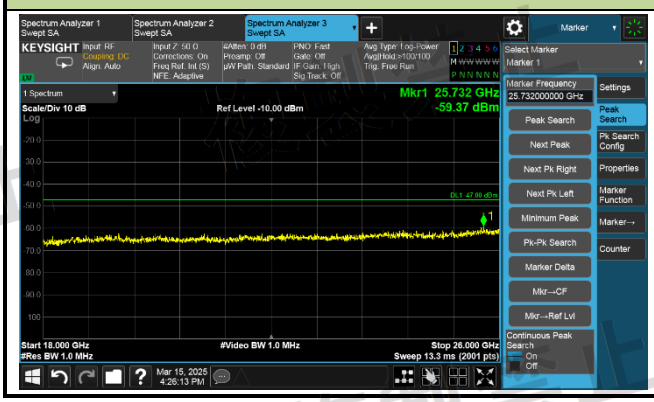
802.11ax-HE20 Receiver Spurious Emissions	
Channel 93 (6415MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

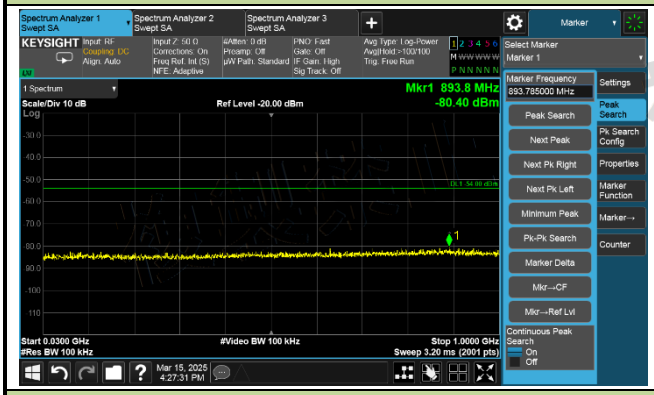
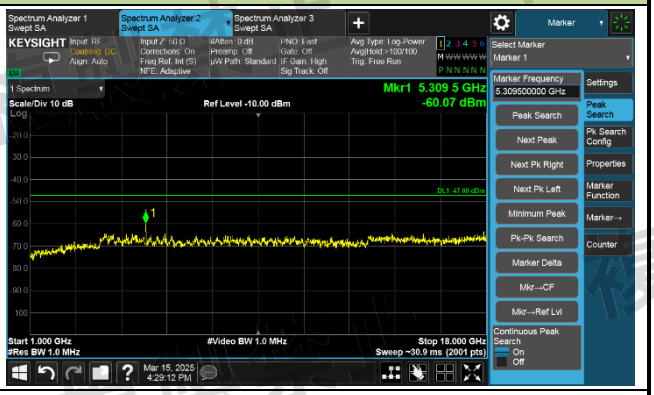
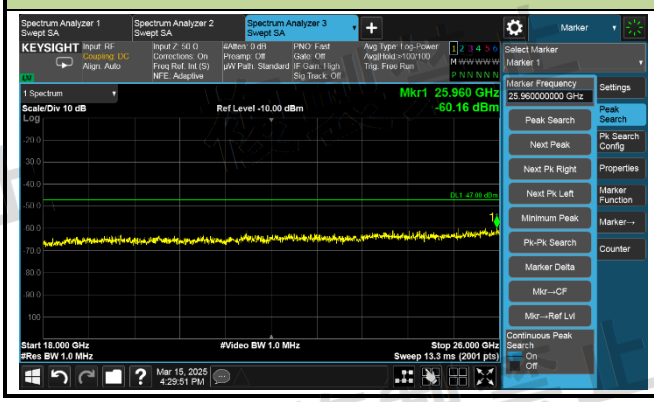
802.11ax-HE40 Receiver Spurious Emissions	
Channel 03 (5965MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

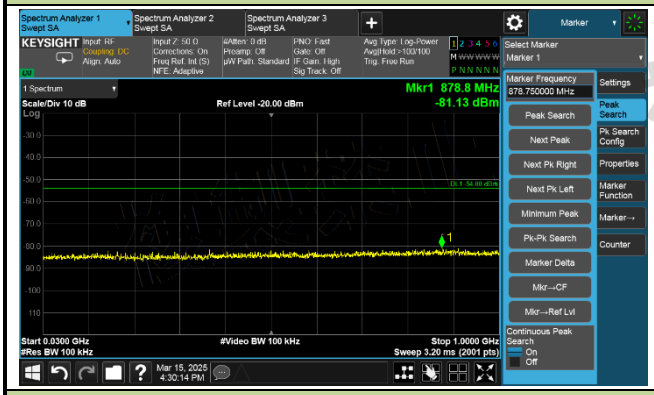
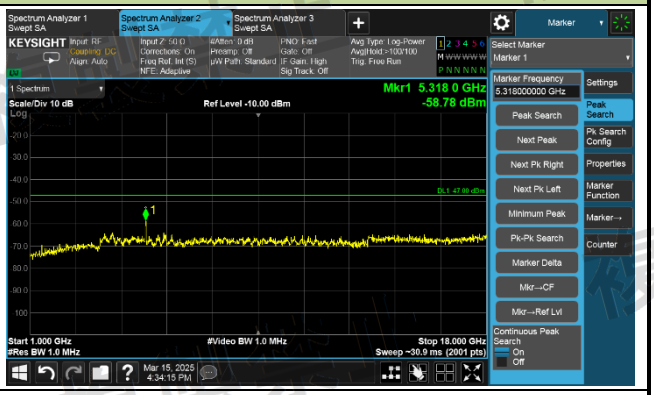
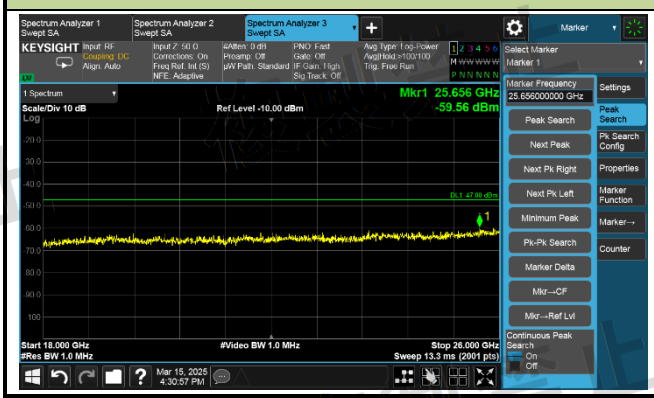
802.11ax-HE40 Receiver Spurious Emissions	
Channel 91 (6405MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

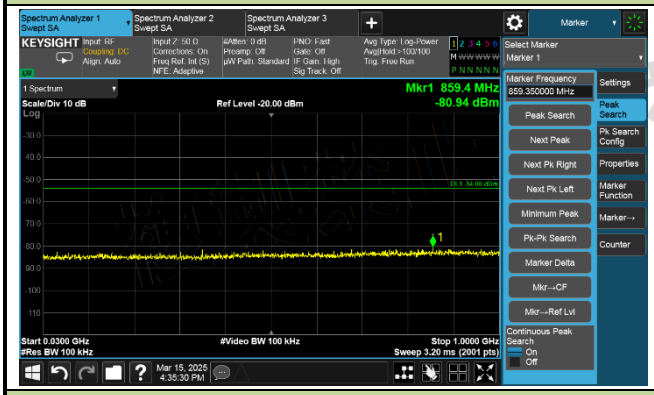
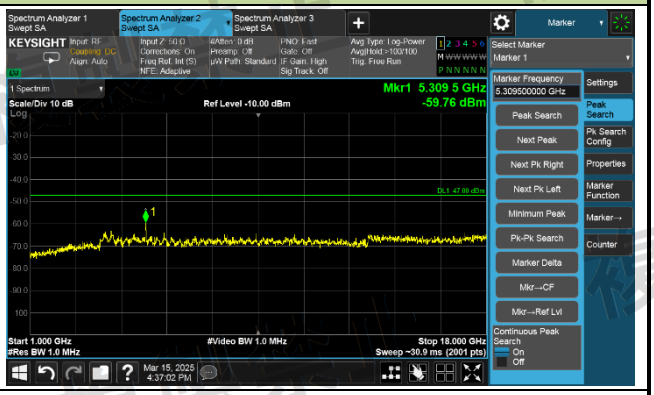
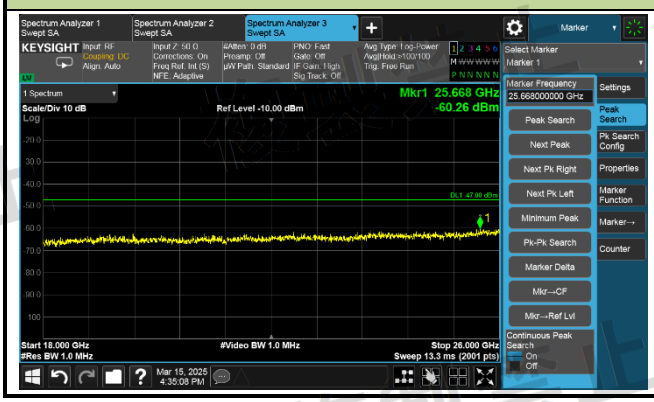
802.11ax-HE80 Receiver Spurious Emissions	
Channel 07 (5985MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

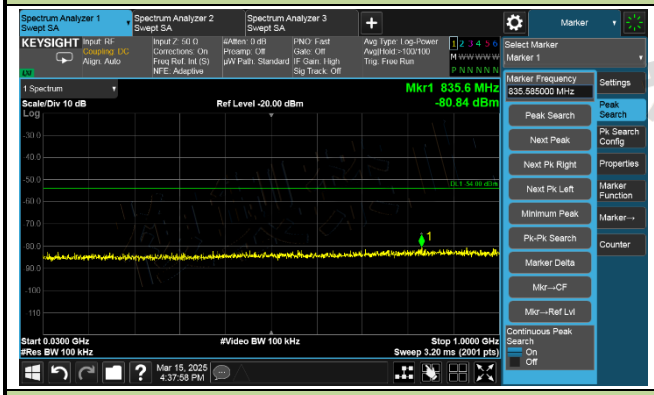
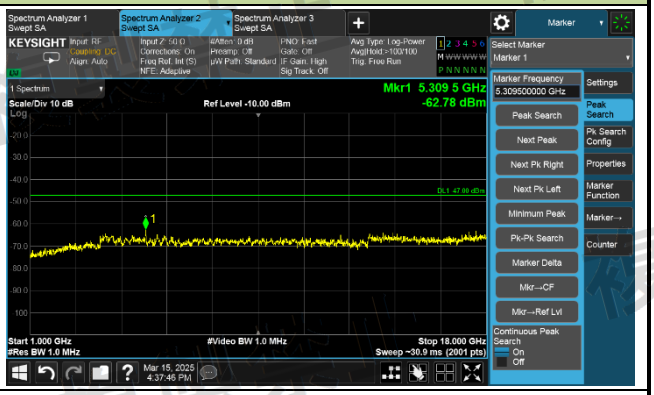
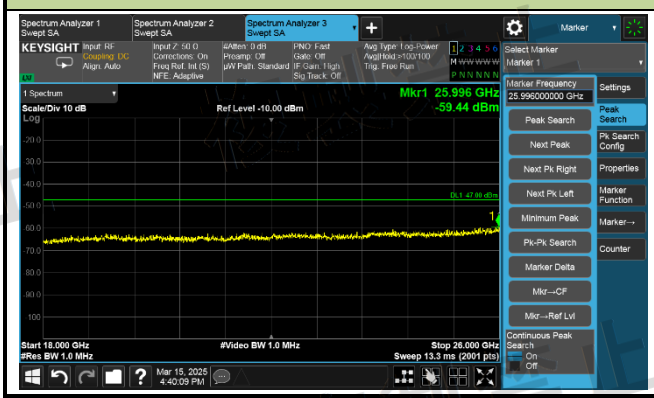
802.11ax-HE80 Receiver Spurious Emissions	
Channel 87 (6385MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

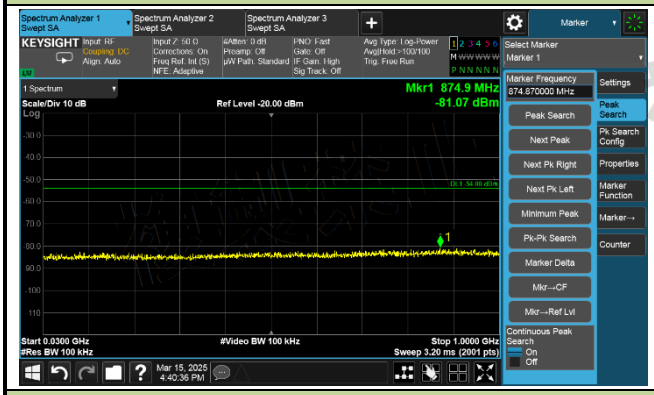
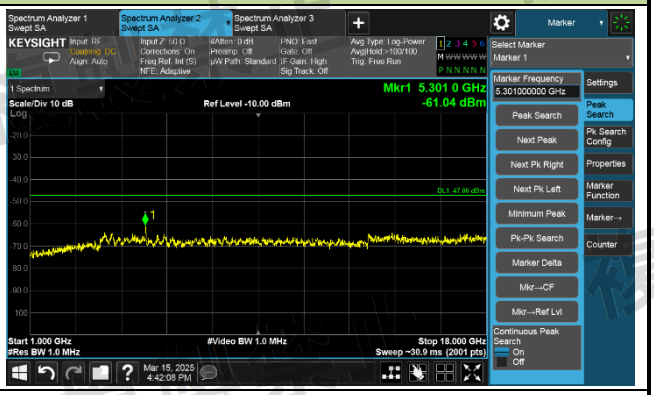
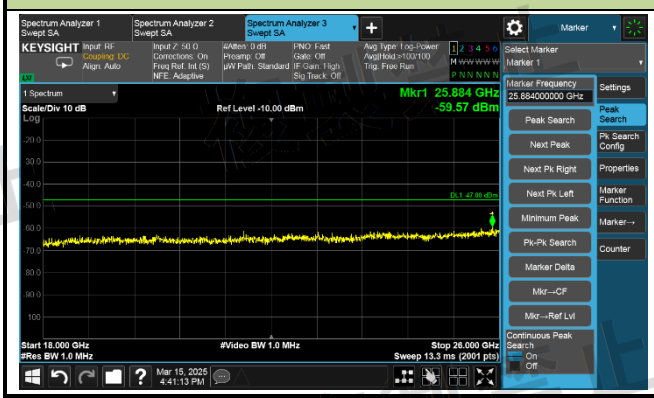
802.11ax-HE160 Receiver Spurious Emissions	
Channel 15 (6025MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

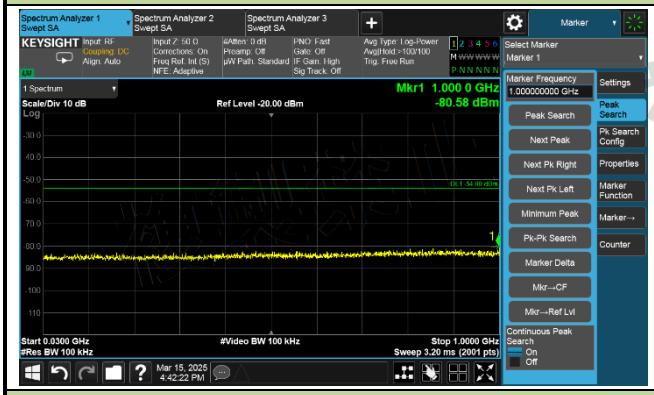
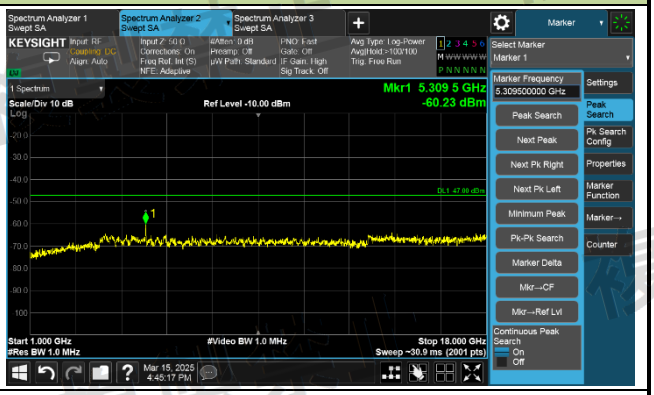
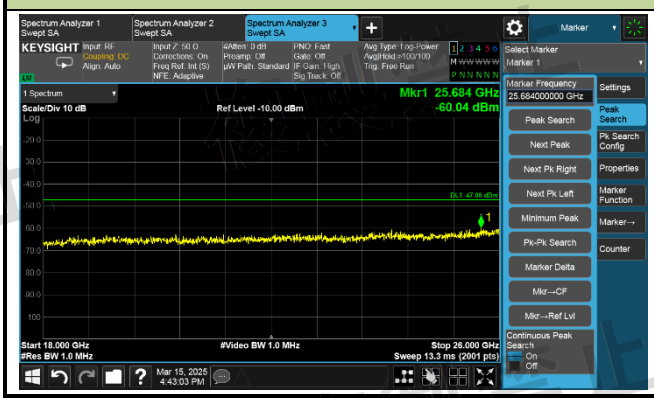
802.11ax-HE160 Receiver Spurious Emissions	
Channel 79 (6345MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

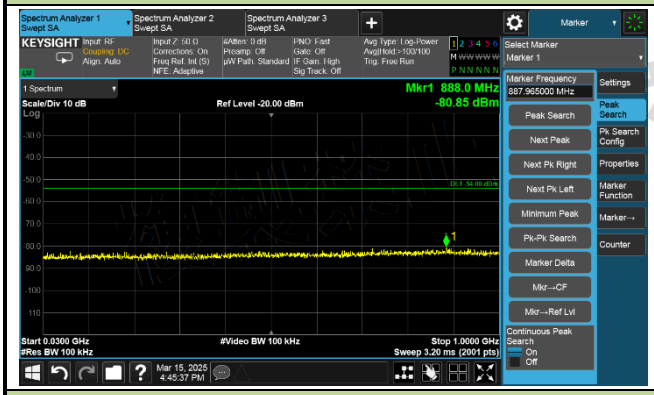
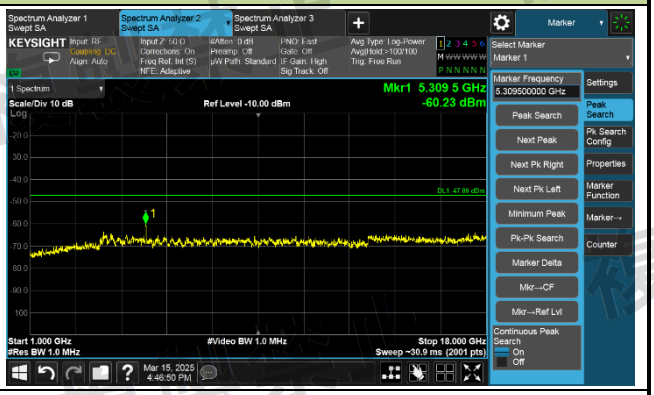
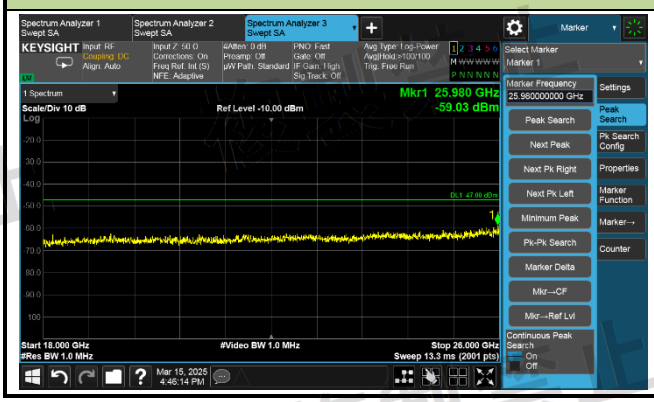
802.11be-EHT20 Receiver Spurious Emissions	
Channel 01 (5955MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

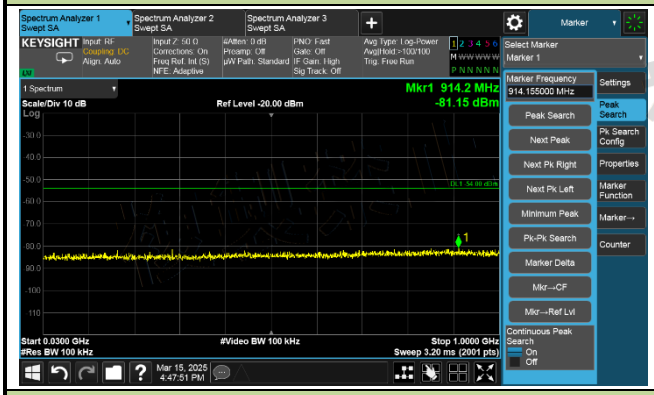
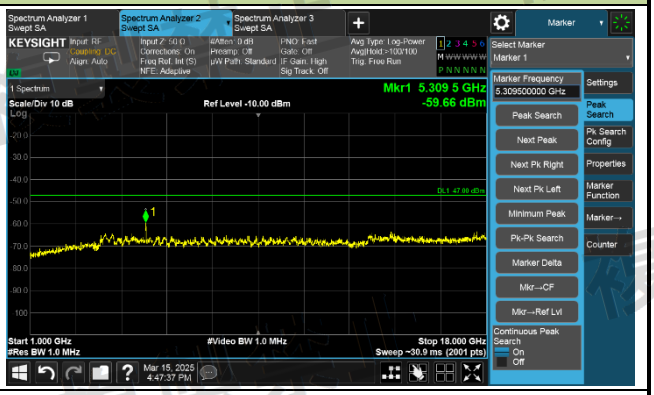
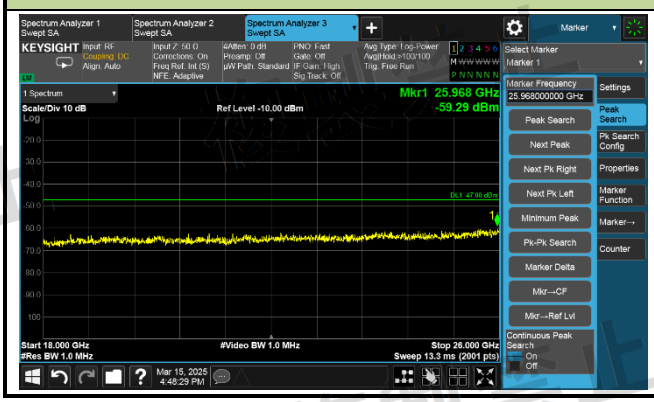
802.11be-EHT20 Receiver Spurious Emissions	
Channel 93 (6415MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

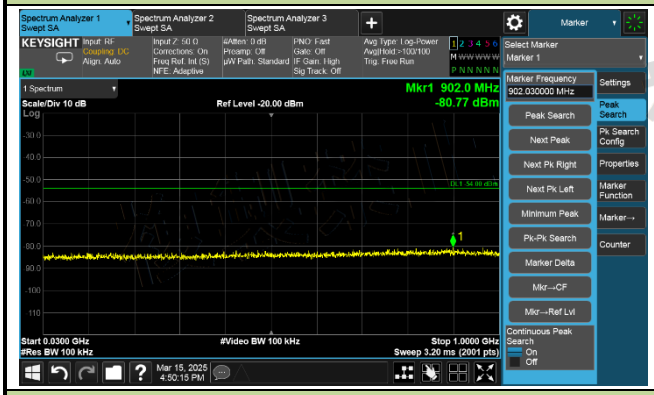
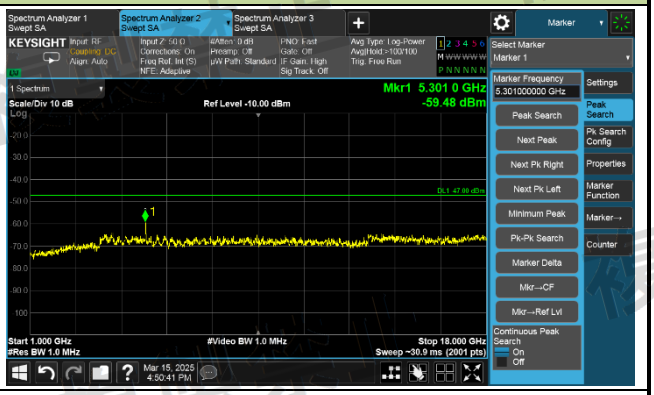
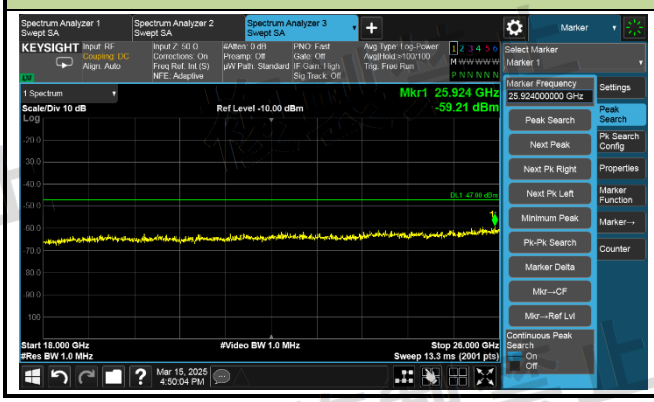
802.11be-EHT40 Receiver Spurious Emissions	
Channel 03 (5965MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

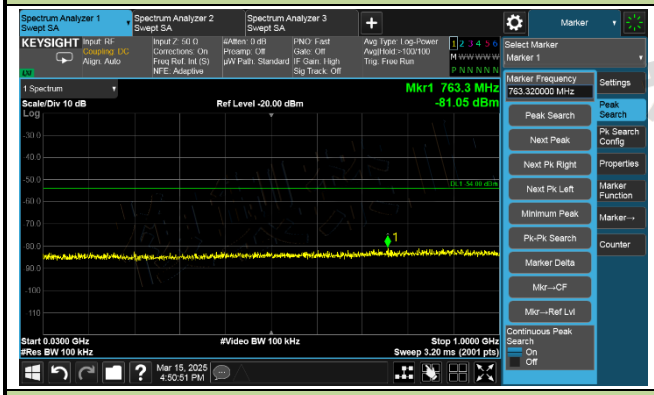
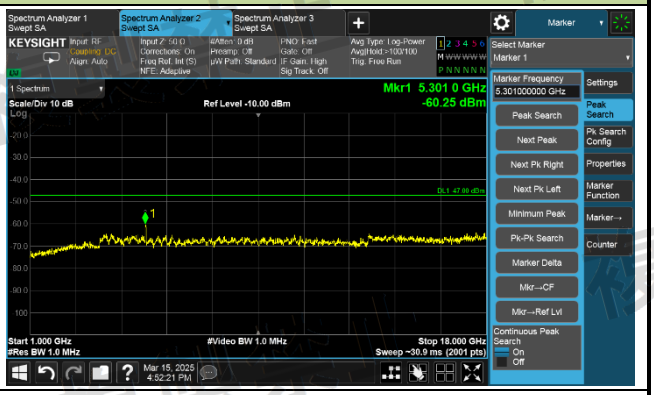
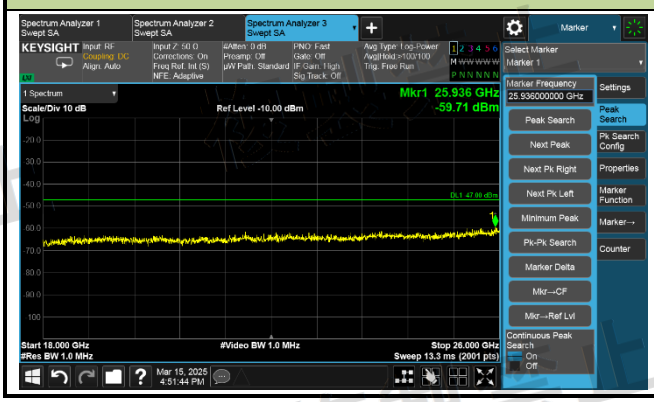
802.11be-EHT40 Receiver Spurious Emissions	
Channel 91 (6405MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

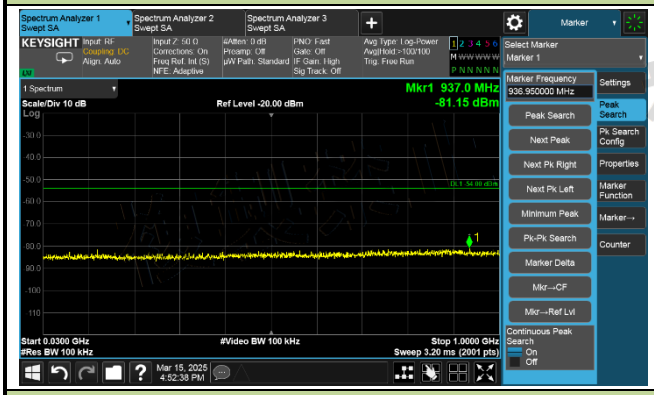
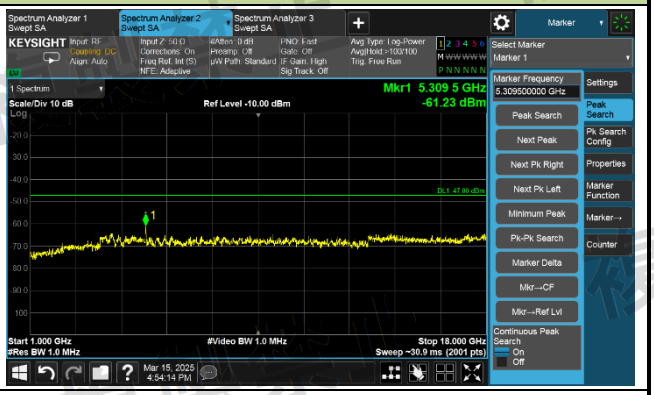
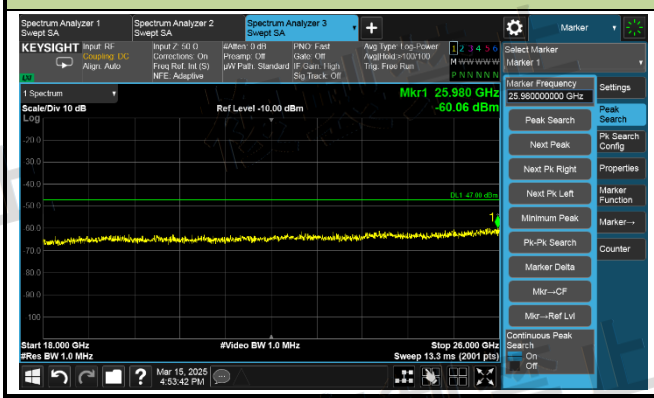
802.11be-EHT80 Receiver Spurious Emissions	
Channel 07 (5985MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

802.11be-EHT80 Receiver Spurious Emissions	
Channel 87 (6385MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

802.11be-EHT160 Receiver Spurious Emissions	
Channel 15 (6025MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

802.11be-EHT160 Receiver Spurious Emissions	
Channel 79 (6345MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

802.11be-EHT320 Receiver Spurious Emissions	
Channel 31 (6105MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

802.11be-EHT320 Receiver Spurious Emissions	
Channel 63 (6265MHz)	
30 ~ 1000MHz	1000 ~ 18000MHz
	
18000 ~ 26000MHz	
	

5.8. Carrier Sensing Measurement

5.8.1. Test Limit

Stop transmission while carrier detecting.

Field intensity in the direction of the maximum gain of a receiving antenna: 100mV/m (It's a radiated testing detection threshold level).

Refer to ARIB STD-T71 V6_1, the conducted detection threshold level shows as below:

(6)式の電界強度 E を既定値の 100mV/m（100dBμV/m）とし、λ(m)を F（MHz）に変換し、P を dBm 単位で表すと（7）式を得る。

$$P[dBm]=22.79+G-20\log F \quad \text{----------} \quad (7)$$

P: 受信機のアンテナ端子に入力される受信電力 [dBm]
G: 受信アンテナの絶対利得 [dBi]
F: キャリア周波数 [MHz]

5.8.2. Test Procedure

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

(a) Link EUT and Access Point to Directional Coupler input port.

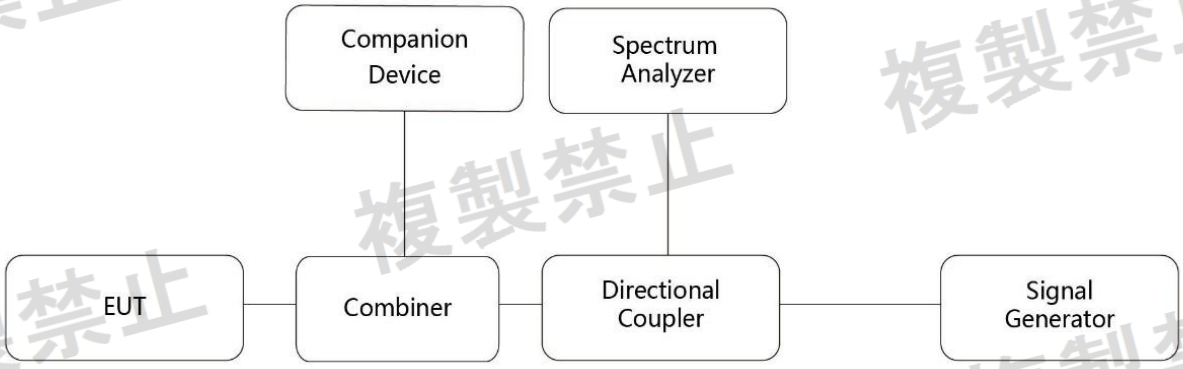
(b) Link Signal Generator and Spectrum Analyzer to test port and output port in the Directional Coupler separately.

(c) A positive Peak Detector function in Spectrum Analyzer must be used.

(d) Set the Span to Zero.

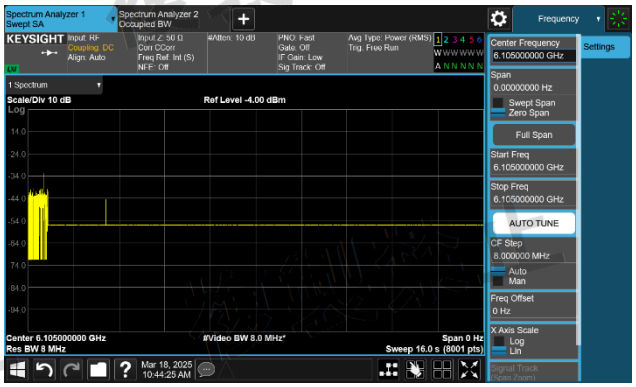
(e) Press the Signal Generator on and it will output the Carrier Signal. When the Link breaks off, wait a minute and press the Signal Generator off. After a while, reset the Link and done the test.

5.8.3. Test Setup



5.8.4. Test Result

Test Site	SIP-TR1	Temperature	17.2 °C
Test Engineer	Alan Yu	Humidity	50.3 %RH
Test Date	2025-03-18		

Carrier Sensing	
802.11be-EHT320 - 6105MHz	
	Signal Generator Power Level (dBm) = Path Loss + G - 20log (F) Path Loss: 22.79 G: Antenna Gain F: operation frequency Power lever = 22.79 + 5.7 -20log (6105MHz) = -47.22dBm Test Result: Pass
802.11be-EHT320 - 6265MHz	
	Signal Generator Power Level (dBm) = Path Loss + G - 20log (F) Path Loss: 22.79 G: Antenna Gain F: operation frequency Power lever = 22.79 + 5.7 -20log (6265MHz) = -47.45dBm Test Result: Pass

5.9. Transmission Burst Length Measurement

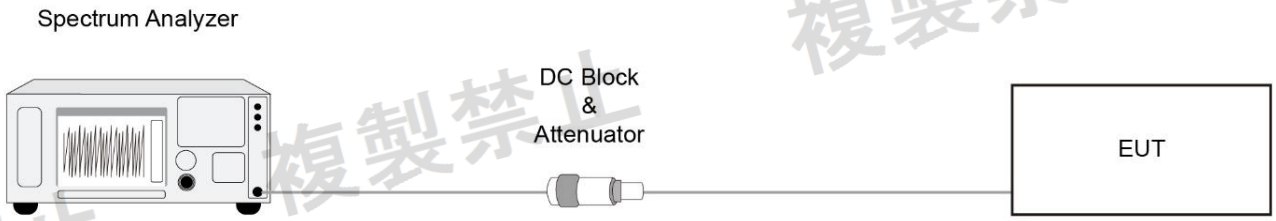
5.9.1. Test Limit

Transmission burst length must be 8ms or less.

5.9.2. Test Procedure

1. A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.
2. A positive peak detector function must be used.
3. The center frequency is set to the test frequency and the span is switched to zero.
4. The measurement instrument bandwidth must be set sufficiently with, and, the scan time set sufficiently slowly, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
5. "Single sweep" mode may be used to capture a packet over a single scan.

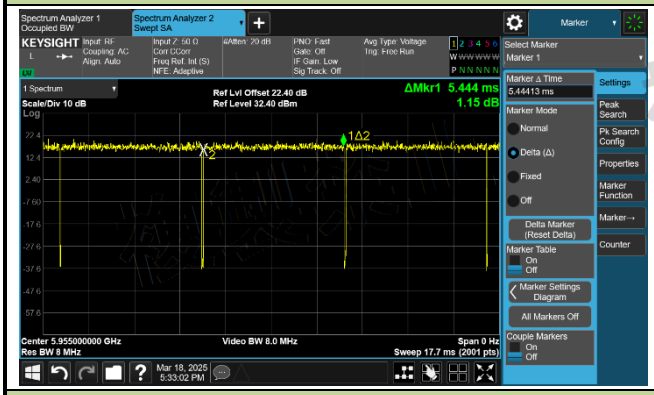
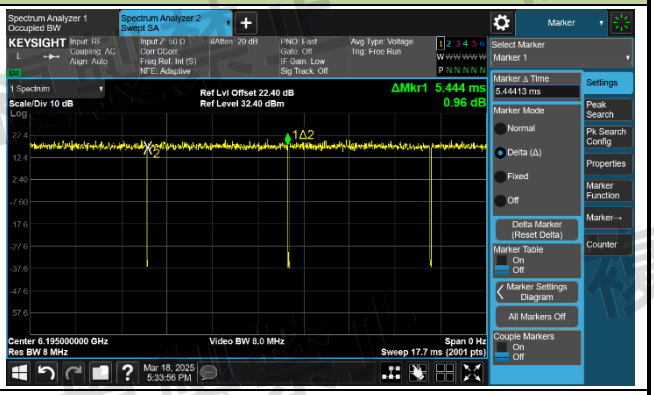
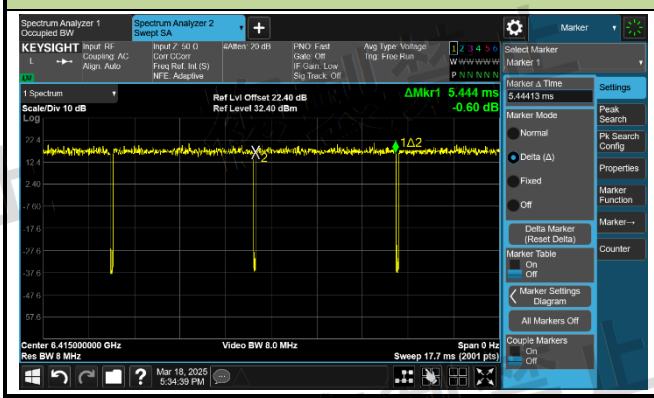
5.9.3. Test Setup

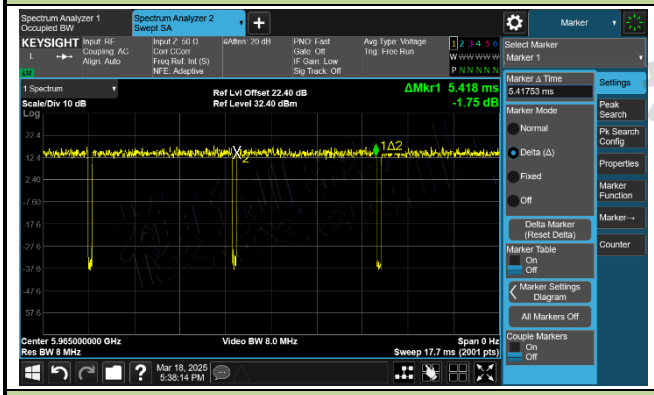
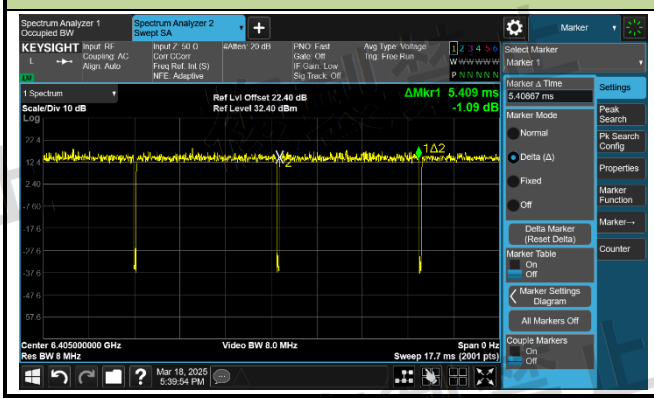


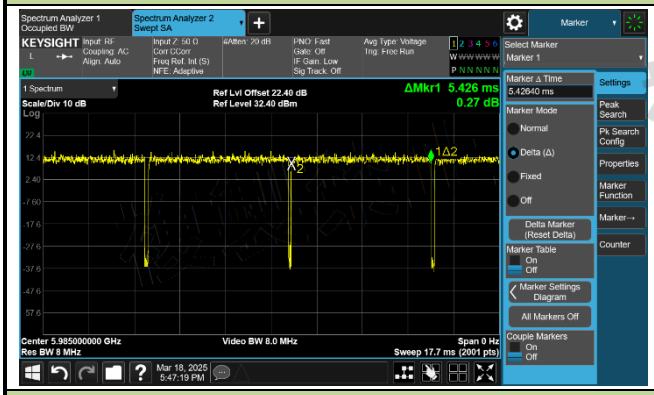
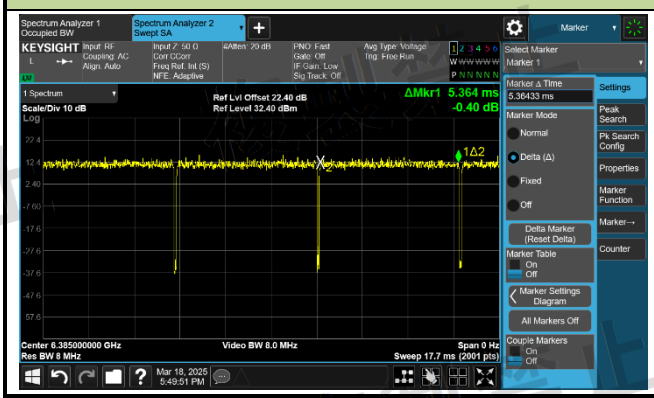
5.9.4. Test Result

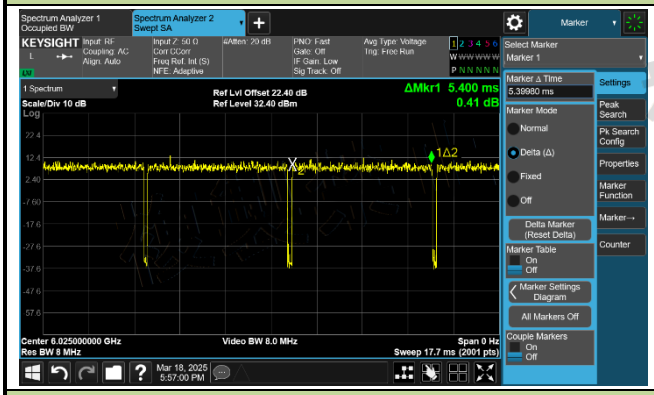
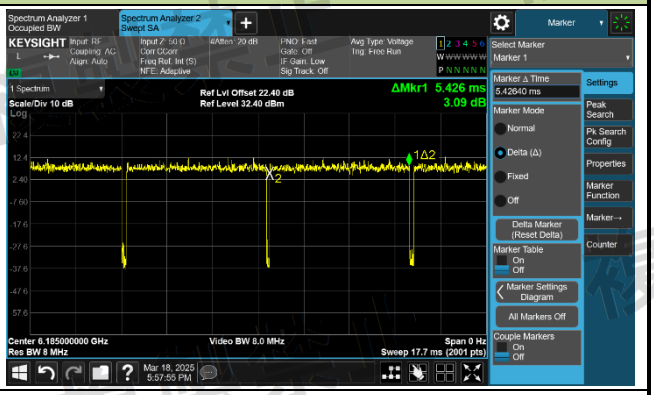
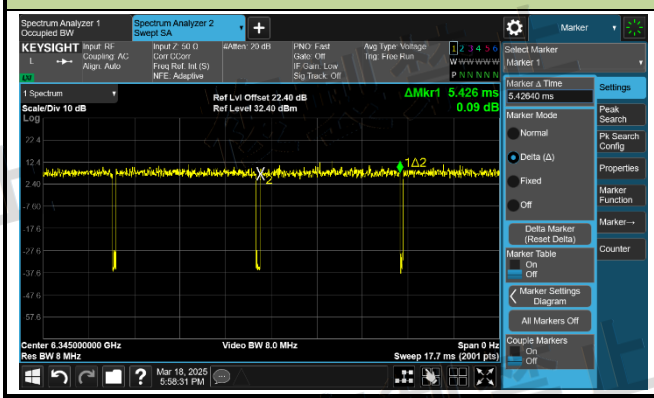
Test Site	SIP-TR1	Temperature	17.2 °C
Test Engineer	Ryan Wang	Humidity	50.3 %RH
Test Date	2025-03-18		

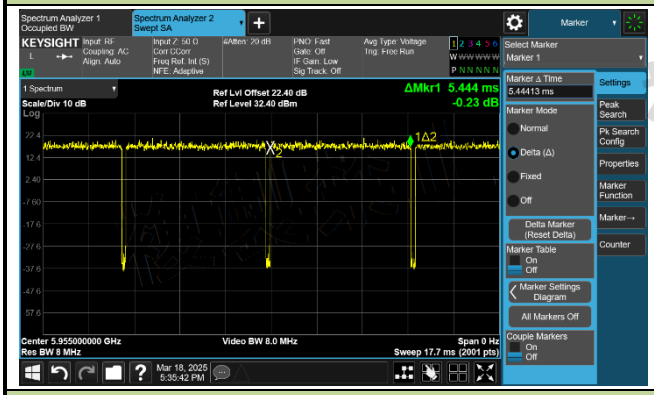
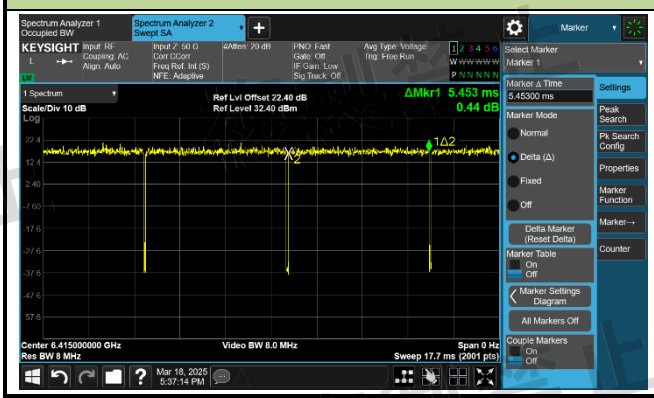
Test Mode	Frequency (MHz)	Transmission Time (ms)	Limit (ms)	Result
11ax-HE20	5955	5.444	≤ 8	Pass
	6195	5.444	≤ 8	Pass
	6415	5.444	≤ 8	Pass
11ax-HE40	5965	5.418	≤ 8	Pass
	6205	5.409	≤ 8	Pass
	6405	5.409	≤ 8	Pass
11ax-HE80	5985	5.426	≤ 8	Pass
	6225	5.426	≤ 8	Pass
	6385	5.364	≤ 8	Pass
11ax-HE160	6025	5.400	≤ 8	Pass
	6185	5.426	≤ 8	Pass
	6345	5.426	≤ 8	Pass
11be-EHT20	5955	5.444	≤ 8	Pass
	6195	5.453	≤ 8	Pass
	6415	5.453	≤ 8	Pass
11be-EHT40	5965	5.426	≤ 8	Pass
	6205	5.426	≤ 8	Pass
	6405	5.418	≤ 8	Pass
11be-EHT80	5985	5.435	≤ 8	Pass
	6225	5.409	≤ 8	Pass
	6385	5.391	≤ 8	Pass
11be-EHT160	6025	5.426	≤ 8	Pass
	6185	5.435	≤ 8	Pass
	6345	5.400	≤ 8	Pass
11be-EHT320	6105	5.446	≤ 8	Pass
	6265	5.436	≤ 8	Pass

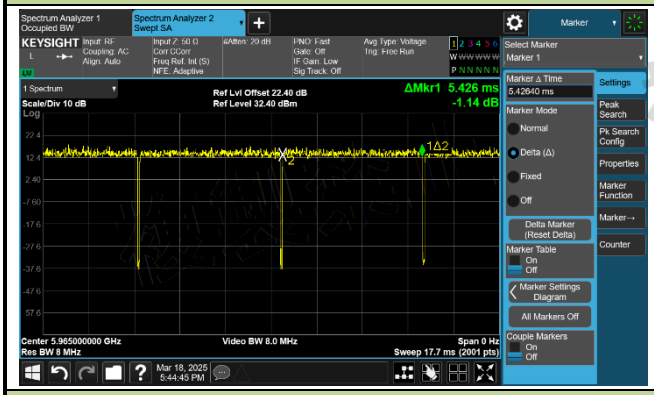
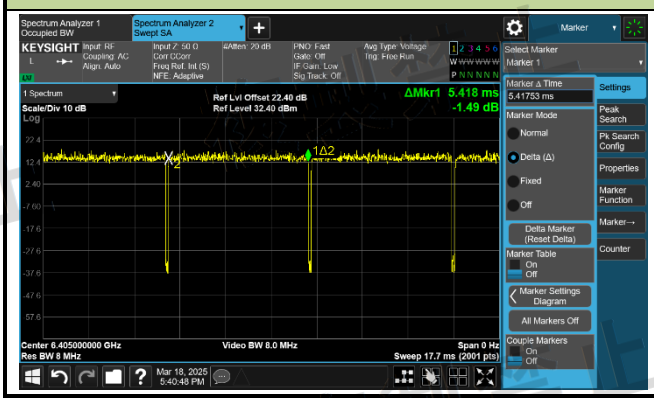
Transmission burst length	
802.11ax-HE20	
5955MHz	6195MHz
	
6415MHz	
	

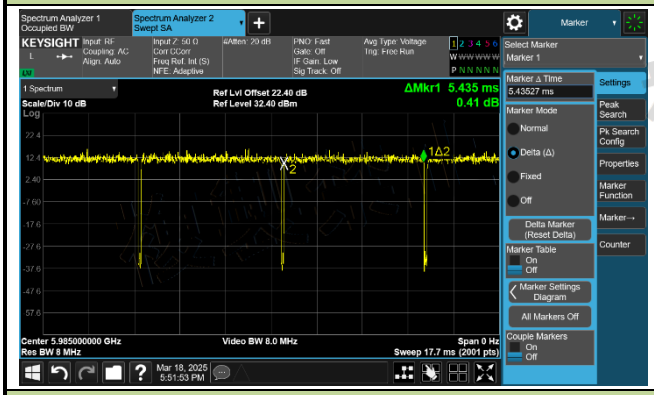
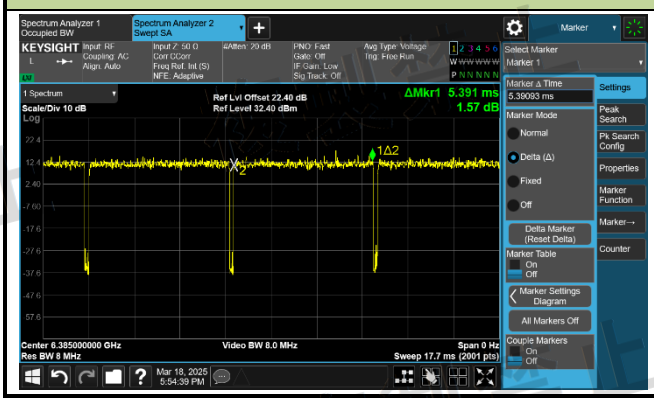
Transmission burst length	
802.11ax-HE40	
5965MHz	6205MHz
	
6405MHz	
	

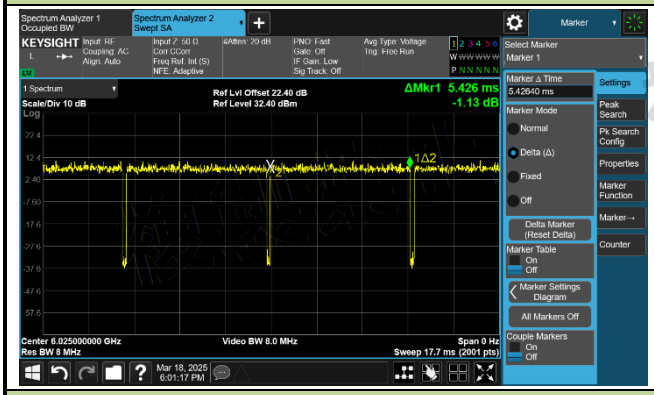
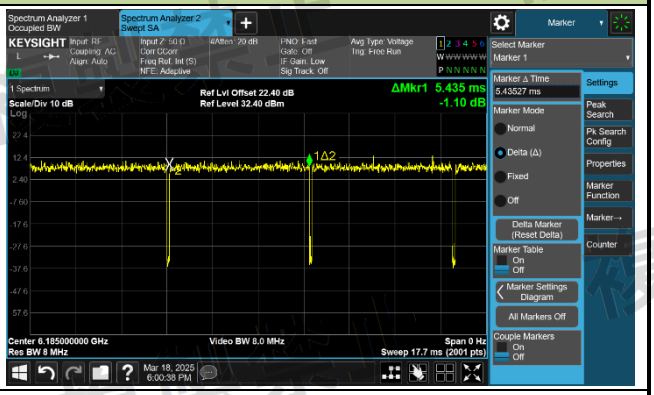
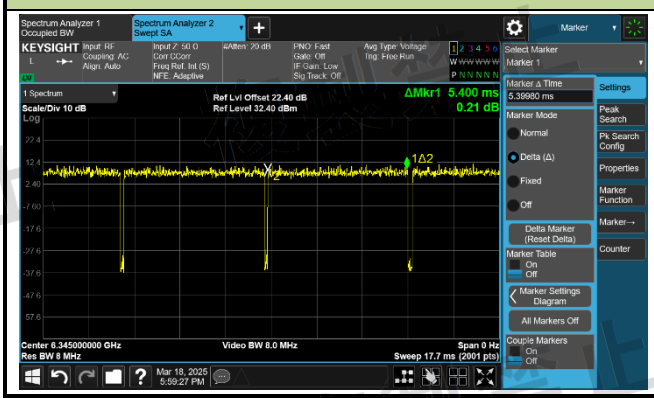
Transmission burst length	
802.11ax-HE80	
5985MHz	6225MHz
	
6385MHz	
	

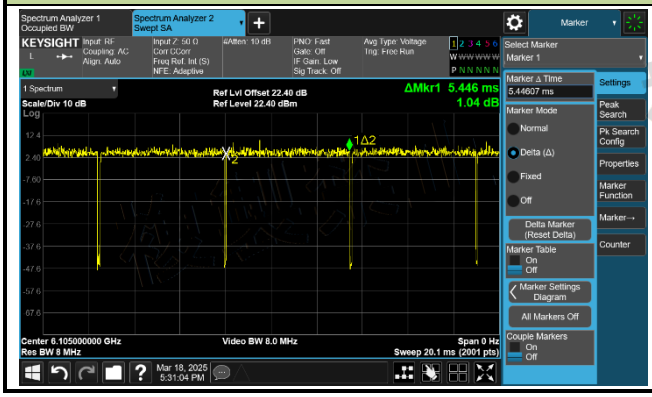
Transmission burst length	
802.11ax-HE160	
6025MHz	6185MHz
	
6345MHz	
	

Transmission burst length	
802.11be-EHT20	
5955MHz	6195MHz
	
6415MHz	
	

Transmission burst length	
802.11be-EHT40	
5965MHz	6205MHz
	
6405MHz	
	

Transmission burst length	
802.11be-EHT80	
5985MHz	6225MHz
	
6385MHz	
	

Transmission burst length	
802.11be-EHT160	
6025MHz	6185MHz
	
6345MHz	
	

Transmission burst length	
802.11be-EHT320	
6105MHz	6265MHz
	

5.10. Interference Protection Function Measurement

5.10.1. Test Limit

Chiefly, the one automatically to transmit and to receive identification coed with the wireless equipment of the wireless station used in the same premises.

5.10.2. Test Procedure

(1) In the case that the EUT has the function of automatically transmitting the identification codes:

a. Transmit the predetermined identification codes from the EUT.

b. Check the transmitted identification codes with the demodulator.

(2) In the case of receiving the identification codes:

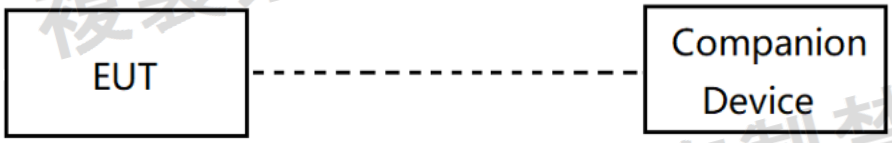
a. Transmit the predetermined identification codes from the counterpart.

b. Check if the communication is normal.

c. Transmit the signals other than predetermined ID codes from the counterpart.

d. Check if the EUT stops the transmission, or if it displays that the identification codes are different from the predetermined ones.

5.10.3. Test Setup



5.10.4. Test Result

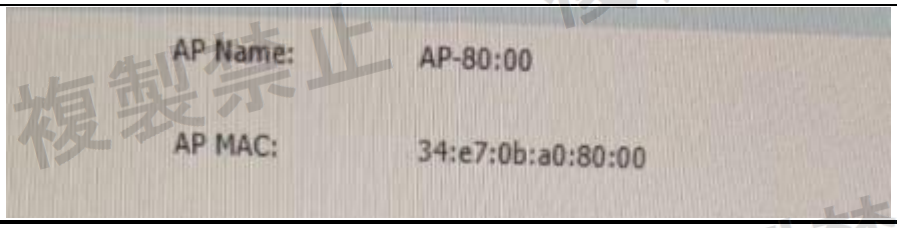
Test Site	SIP-TR1	Temperature	17.2 °C
Test Engineer	Alan Yu	Humidity	50.3 %RH
Test Date	2025-03-18		

The Result of Interference Protection Function	
☒	Good
☐	NG

Note:

1, NG means not good.

2, When the EUT work on normal operation, we can read this EUT address from EUT's Setting interface.



Appendix A - EUT Photograph

Refer to “R25S1026029-JE” file.

Appendix B - Test Setup Photograph

Refer to “R25S1026029-JT” file.

The End