

RF TEST REPORT

Test Equipment : AIRTMS S807
Model Name : AIRTMS S807
HVIN(IC) : S807
FCC ID : 2BRSL-S807
IC : 34476-S807
Date of receipt : 2025-07-16
Test duration : 2025-09-03 ~ 2025-10-24
Date of issue : 2025-11-17

Applicant : KORNIC GLORY CO., Ltd.
WonyoungBldg. 3F~4F, 155, Hakdong-ro, Gangnam-gu, Seoul,
Republic of Korea

Test Laboratory : Lab-T, Inc.
2182-42 Baegok-daero, Mohyeon-eup, Cheoin-gu, Yongin-si
Gyeonggi-do 17036, Korea

Test specification : FCC Part 15 Subpart E 15.407
RSS-247 Issue 4 (2025-07), RSS-GEN Issue 5 A2 (2021-02)

RF Output Power : 19.51 dBm

Test result : Pass

The above equipment was tested by Lab-T Testing Laboratory for compliance
with the requirements of FCC, IC Rules and Regulations.
The test results presented in this test report are limited only to the sample supplied by applicant
and the use of this test report is inhibited other than its purpose.
This test report shall not be reproduced except in full, without the written approval of Lab-T, Inc

Tested by:



Engineer
SungSin Kim

Reviewed by:



Technical Manager
SangHoon Yu

CONTENTS

1. Revision history.....	3
2. Information	4
2.1 Applicant Information	4
2.2 Test Laboratory information.....	4
2.3 Test Location.....	4
3. Information About Test Equipment	5
3.1 Equipment Information	5
3.2 Antenna Information	5
3.3 Test frequency.....	6
3.4 Worst-case.....	6
3.5 Tested Companion Device Information	7
3.6 Operating conditions for the EUT.....	7
4. Test Report.....	8
4.1 Summary	8
4.2 Measurement Uncertainty.....	8
4.3 Transmitter Requirements	9
4.3.1 Antenna Requirement.....	9
4.3.2 Maximum Conducted Output Power.....	10
4.3.3 Maximum Power Spectral Density(PSD).....	20
4.3.4 Emission Bandwidth.....	49
4.3.5 Frequency Stability	97
4.3.6 Spurious Emission, Band Edge, and Restricted bands	109
4.3.7 Conducted Emission	151
APPENDIX I.....	153

1. Revision history

Test Report No.	Date	Description
TRRFCC25-0003	2025-11-17	Initial issue

2. Information

2.1 Applicant Information

Applicant name	KORNIC GLORY CO., Ltd.
Address	WonyoungBldg. 3F~4F, 155, Hakdong-ro, Gangnam-gu, Seoul, Republic of Korea
Telephone No.	+82-2-6003-0953
Person in charge	KYUNGIL KANG / cs@kglory.co.kr
Manufacturer	DAVOLINK Inc.
Address	112, Beolmal-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Republic of Korea

2.2 Test Laboratory information

Corporate name	Lab-T, Inc.
Representative	Duke (Jongyoung) Kim
Address	2182-42 Baegok-daero, Mohyeon-eup, Cheoin-gu, Yongin-si, Gyeonggi-do 17036, Korea(Republic of)
FCC & IC MRA Designation No.	KR0159
ISED No.	22000
Telephone	+82-31-322-6767
Fax	+82-31-322-6768
E-mail	info@lab-t.net

2.3 Test Location

Test Site	used	Address
Building L	☒	2182-40 Baegok-daero, Mohyeon-eup, Cheoin-gu, Yongin-si, Gyeonggi-do 17036, Korea(Republic of)
Building T	☒	2182-42 Baegok-daero, Mohyeon-eup, Cheoin-gu, Yongin-si, Gyeonggi-do 17036, Korea(Republic of)
Building A	☐	2182-44 Baegok-daero, Mohyeon-eup, Cheoin-gu, Yongin-si, Gyeonggi-do 17036, Korea(Republic of)

3. Information About Test Equipment

3.1 Equipment Information

Equipment type	AIRTMS S807
Equipment model name	AIRTMS S807
HVIN ^{Note3}	S807
Frequency range	5 180 MHz ~ 5 825 MHz (20MHz BW) 5 190 MHz ~ 5 795 MHz (40MHz BW) 5 210 MHz ~ 5 775 MHz (80MHz BW)
Modulation type	OFDM, OFDMA
Power supply ^{Note 2}	DC 12 V, PoE(48V)
H/W version	DV-PCB-DVW-704-V1.0
S/W version	TESS AIRTMS V5.0

Note 1 : The above EUT information was declared by the manufacturer.

Note 2 : The test was performed only at DC 12 V.

Note 3 : HVIN is model name of the IC

3.2 Antenna Information

Type	Model No.	Gain				Note.
		5150 ~ 5250	5250 ~ 5350	5470 ~ 5725	5725 ~ 5850	
PCB antenna 1	Anray2313049309PA01	3.5 dBi	3.5 dBi	3.5 dBi	3.5 dBi	TRX
PCB antenna 2	Anray2313049309PB02	3.5 dBi	3.5 dBi	3.5 dBi	3.5 dBi	RX

3.3 Test frequency

Test mode	Test frequency (MHz)			
	Band	Lowest Frequency	Middle Frequency	Highest Frequency
802.11a /802.11n(HT20) /802.11ac(VHT20) /802.11ax(HE20) /802.11be(EHT20)	5 150 ~ 5 250	5 180	5 200	5 240
	5 250 ~ 5 350	5 260	5 280	5 320
	5 470 ~ 5 725	5 500	5 580	5 700
	straddle	5 720	-	-
	5 725 ~ 5 850	5 745	5 785	5 825
802.11n(HT40) /802.11ac(VHT40) /802.11ax(HE40) /802.11be(EHT40)	5 150 ~ 5 250	5 190	5 230	-
	5 250 ~ 5 350	5 270	5 310	-
	5 470 ~ 5 725	5 510	5 550	5 670
	straddle	5 710	-	-
	5 725 ~ 5 850	5 755	5 795	-
802.11ac(VHT80) /802.11ax(HE80) /802.11be(EHT80)	5 150 ~ 5 250	5 210	-	-
	5 250 ~ 5 350	5 290	-	-
	5 470 ~ 5 725	5 530	5 610	-
	straddle	5 690	-	-
	5 725 ~ 5 850	5 775	-	-

3.4 Worst-case

802.11a	6 Mbps	802.11ax(HE20)	MCS0
802.11n(HT20)	MCS0	802.11ax(HE40)	MCS0
802.11n(HT40)	MCS0	802.11ax(HE80)	MCS0
802.11ac(VHT20)	MCS0	802.11be(EHT20)	MCS0
802.11ac(VHT40)	MCS0	802.11be(EHT40)	MCS0
802.11ac(VHT80)	MCS0	802.11 be(EHT 80)	MCS0

Note1 : The power measurement has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates.

3.5 Tested Companion Device Information

Type	Manufacturer	Model	Note
Wireless Module	Intel	BE200	Mounted on the Desktop PC FCCID : PD9BE200NG IC : 1000M-BE200NG
AC/DC ADAPTER	POWER-TEK	SWPP-12003000-W	

3.6 Operating conditions for the EUT

Firmware state		TESS AIRTMS V5.0
Test software name(version)		QRCT v4.0
Test power setting		Declared setting value
Serial number (Setup mode)	EUT #1	00434 (RF Conducted, DFS)
	EUT #2	00433 (Radiated & Conducted Emission)

4. Test Report

4.1 Summary

FCC Part 15E 407 / RSS-247				
FCC Rule	IC Rule	Parameter	Clause	Status
Transmitter Requirements				
15.203 15.407(a)	RSS-GEN 6.8	Antenna Requirement	4.3.1	C
15.407(a)	RSS-247 7.3.1.2 RSS-247 7.3.2.2	Maximum Conducted Output Power	4.3.2	C
15.407(a)	RSS-247 7.3.3.2 RSS-247 7.3.4.3	Maximum Power Spectral Density	4.3.3	C
15.407(a),(e)	-	Emission Bandwidth	4.3.4	C
-	RSS-GEN 6.7	Occupied Bandwidth	4.3.4	C
15.407(g)	RSS-GEN 6.11	Frequency Stability	4.3.5	C
15.407(b) 15.205(a) 15.209(a)	RSS-247 7.3.1.3 RSS-247 7.3.2.3 RSS-247 7.3.3.3 RSS-247 7.3.4.4	Radiated Emission, Band Edge and Restricted bands	4.3.6	C
15.207(a) 15.407(b)(9)	RSS-GEN 8.8	Conducted Emissions	4.3.7	C
15.407(h)	RSS-247 7.3.6	Dynamic Frequency Selection	-	C ^{note2}
NOTE 1 : C = Comply N/C = Not Comply N/T = Not Tested N/A = Not Applicable				
NOTE 2 : Refer to DFS Report(TRRFCC25-0004)				

* The general test methods used to test this device is ANSI C63.10:2020

4.2 Measurement Uncertainty

Mesurement items	Expanded Uncertainty	
RF Output Power	1.16 dB	(The confidence level is about 95 %, k=2)
Power Spectral Density	1.47 dB	(The confidence level is about 95 %, k=2)
Occupied Channel Bandwidth	13.15 kHz	(The confidence level is about 95 %, k=2)
Conducted Spurious Emissions	0.48 dB	(The confidence level is about 95 %, k=2)
Radiated Spurious Emissions (1 GHz under)	4.85 dB	(The confidence level is about 95 %, k=2)
Radiated Spurious Emissions (Above 1 GHz)	4.39 dB	(The confidence level is about 95 %, k=2)
Conducted emission	2.42 dB	(The confidence level is about 95 %, k=2)

4.3 Transmitter Requirements

4.3.1 Antenna Requirement

4.3.1.1 Regulation

According to §15.203 An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

And according to §15.407(a)(1)(2)(3), If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to §RSS-GEN 6.8 The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

4.3.1.2 Result

Comply

(The transmitter has a Internal PCB Antenna. The directional peak gain of the antenna is 3.5 dBi.)

4.3.1.3 Measurement data

Antenna	Directional Gain For Power(dBi)	Directional Gain For PSD(dBi)	Power Limit Reduction(dB)	PSD Limit Reduction(dB)
Band	5150 ~ 5850			
PCB antenna 1	3.5	3.5	0.00	0.00

4.3.2 Maximum Conducted Output Power

4.3.2.1 Regulation

According to §15.407(a)(1)(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to §RSS-247 7.3.1.2 For other devices, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

According to §15.407(a)(2) and RSS-247 7.3.2.2, RSS-247 7.3.3.2 For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to RSS-247 7.3.2.2, RSS-247 7.3.3.2 For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

According to §15.407(a)(3) and RSS-247 7.3.4.3 For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

4.3.2.2 Measurement Procedure

These test measurement settings are specified in section E of 789033 D02 General UNII Test Procedures.

4.3.2.2.1 Measurement using a Power Meter (PM)

(i) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied.

The EUT is configured to transmit continuously or to transmit with a constant duty cycle.

At all times when the EUT is transmitting, it must be transmitting at its maximum power control level.

The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.

(ii) If the transmitter does not transmit continuously, measure the duty cycle, x , of the transmitter output signal as described in section II.B.

(iii) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.

(iv) Adjust the measurement in dBm by adding $10 \log (1/x)$ where x is the duty cycle (e.g., $10 \log (1/0.25)$ if the duty cycle is 25%).

4.3.2.3 Result

Comply (measurement data : refer to the next page)

4.3.2.4 Measurement data

Test mode : 802.11a

Freq. (MHz)	Result (dBm)	Result (mW)	Limit (mW)
5 180	17.85	60.95	1000.00
5 200	17.63	57.94	1000.00
5 240	17.85	60.95	1000.00
5 260	18.96	78.70	250.00
5 280	19.29	84.92	250.00
5 320	19.28	84.72	250.00
5 500	19.27	84.53	250.00
5 580	18.73	74.64	250.00
5 700	19.23	83.75	250.00
5 720	19.22	83.56	250.00
5 745	19.39	86.90	1000.00
5 785	18.75	74.99	1000.00
5 825	18.31	67.76	1000.00

Test mode : 802.11n(HT20)

Freq. (MHz)	Result (dBm)	Result (mW)	Limit (mW)
5 180	18.46	70.13	1000.00
5 200	18.18	65.76	1000.00
5 240	17.80	60.25	1000.00
5 260	19.09	81.08	250.00
5 280	19.33	85.69	250.00
5 320	19.48	88.70	250.00
5 500	19.34	85.89	250.00
5 580	18.80	75.85	250.00
5 700	19.32	85.49	250.00
5 720	19.29	84.90	250.00
5 745	19.40	87.08	1000.00
5 785	18.80	75.85	1000.00
5 825	18.35	68.38	1000.00

Note 1 : refer to 4.3.1 for information on limit reduction.

Note 2 : We took the insertion loss of the cable loss into consideration within the measuring instrument.

Note 3 : Result : Measured Value + Duty cycle Factor

Note 4 : Duty cycle Factor : $10 \cdot \log(1/(\text{on-time}/\text{Period}))$ refer to 4.3.6.7

Test mode : 802.11n(HT40)

Freq. (MHz)	Result (dBm)	Result (mW)	Limit (mW)
5 190	15.92	39.04	1000.00
5 230	19.11	81.39	1000.00
5 270	19.39	86.81	250.00
5 310	17.60	57.48	250.00
5 510	15.04	31.88	250.00
5 550	19.49	88.83	250.00
5 670	19.51	89.24	250.00
5 710	19.37	86.41	250.00
5 755	19.35	86.01	1000.00
5 795	18.83	76.30	1000.00

Test mode : 802.11ac(VHT80)

Freq. (MHz)	Result (dBm)	Result (mW)	Limit (mW)
5 210	14.87	30.69	1000.00
5 290	16.40	43.65	250.00
5 530	15.00	31.62	250.00
5 610	18.06	63.97	250.00
5 690	18.97	78.89	250.00
5 775	18.69	73.96	1000.00

Note 1 : refer to 4.3.1 for information on limit reduction.

Note 2 : We took the insertion loss of the cable loss into consideration within the measuring instrument.

Note 3 : Result : Measured Value + Duty cycle Factor

Note 4 : Duty cycle Factor : $10 \cdot \log(1/(\text{on-time}/\text{Period}))$ refer to 4.3.6.7

Test mode : 802.11ax(HE20)

Freq. (MHz)	Result (dBm)	Result (mW)	Limit (mW)
5 180	18.48	70.47	1000.00
5 200	18.24	66.68	1000.00
5 240	17.93	62.09	1000.00
5 260	19.14	82.03	250.00
5 280	19.47	88.51	250.00
5 320	19.45	88.10	250.00
5 500	19.44	87.90	250.00
5 580	18.86	76.91	250.00
5 700	18.19	65.92	250.00
5 720	19.34	85.90	250.00
5 745	19.48	88.71	1000.00
5 785	18.84	76.56	1000.00
5 825	18.44	69.82	1000.00

Test mode : 802.11ax(HE40)

Freq. (MHz)	Result (dBm)	Result (mW)	Limit (mW)
5 190	15.39	34.60	1000.00
5 230	19.21	83.38	1000.00
5 270	19.47	88.53	250.00
5 310	17.56	57.03	250.00
5 510	15.07	32.14	250.00
5 550	19.23	83.77	250.00
5 670	19.50	89.14	250.00
5 710	19.43	87.72	250.00
5 755	19.42	87.52	1000.00
5 795	18.83	76.40	1000.00

Test mode : 802.11ax(HE80)

Freq. (MHz)	Result (dBm)	Result (mW)	Limit (mW)
5 210	15.18	33.00	1000.00
5 290	16.69	46.72	250.00
5 530	15.03	31.88	250.00
5 610	18.20	66.14	250.00
5 690	19.00	79.52	250.00
5 775	18.82	76.29	1000.00

Note 1 : refer to 4.3.1 for information on limit reduction.

Note 2 : We took the insertion loss of the cable loss into consideration within the measuring instrument.

Note 3 : Result : Measured Value + Duty cycle Factor

Note 4 : Duty cycle Factor : $10 \cdot \log(1/(\text{on-time}/\text{Period}))$ refer to 4.3.6.7

Test mode : 802.11be(EHT20)

Freq. (MHz)	Result (dBm)	Result (mW)	Limit (mW)
5 180	18.17	65.61	1000.00
5 200	17.90	61.66	1000.00
5 240	17.60	57.54	1000.00
5 260	18.89	77.45	250.00
5 280	19.17	82.60	250.00
5 320	19.19	82.99	250.00
5 500	19.04	80.17	250.00
5 580	18.59	72.28	250.00
5 700	18.05	63.83	250.00
5 720	19.12	81.66	250.00
5 745	19.38	86.70	1000.00
5 785	18.77	75.34	1000.00
5 825	18.28	67.30	1000.00

Test mode : 802.11be(EHT40)

Freq. (MHz)	Result (dBm)	Result (mW)	Limit (mW)
5 190	15.21	33.22	1000.00
5 230	19.06	80.62	1000.00
5 270	19.10	81.37	250.00
5 310	17.45	55.65	250.00
5 510	14.86	30.65	250.00
5 550	19.08	80.99	250.00
5 670	19.48	88.81	250.00
5 710	19.16	82.50	250.00
5 755	19.07	80.81	1000.00
5 795	18.43	69.73	1000.00

Test mode : 802.11be(EHT80)

Freq. (MHz)	Result (dBm)	Result (mW)	Limit (mW)
5 210	15.11	32.45	1000.00
5 290	16.57	45.42	250.00
5 530	15.09	32.30	250.00
5 610	18.14	65.19	250.00
5 690	18.96	78.74	250.00
5 775	18.60	72.48	1000.00

Note 1 : refer to 4.3.1 for information on limit reduction.

Note 2 : We took the insertion loss of the cable loss into consideration within the measuring instrument.

Note 3 : Result : Measured Value + Duty cycle Factor

Note 4 : Duty cycle Factor : $10 \cdot \log(1/(\text{on-time}/\text{Period}))$ refer to 4.3.6.7

4.3.2.5 Measurement data_E.I.R.P_IC

Test mode : 802.11a

Freq. (MHz)	Output Power (dBm)	Result eirp (dBm)	Result eirp (mW)	Limit (mW)
5 180	17.85	21.35	136.46	200.00
5 200	17.63	21.13	129.72	200.00
5 240	17.85	21.35	136.46	200.00
5 260	18.96	22.46	176.20	1000.00
5 300	19.29	22.79	190.11	1000.00
5 320	19.28	22.78	189.67	1000.00
5 500	19.27	22.77	189.23	1000.00
5 580	18.73	22.23	167.11	1000.00
5 700	19.23	22.73	187.50	1000.00
5 720	19.22	22.72	187.07	1000.00
5 745	19.39	22.89	194.54	4000.00
5 785	18.75	22.25	167.88	4000.00
5 825	18.31	21.81	151.71	4000.00

Test mode : 802.11n(HT20)

Freq. (MHz)	Output Power (dBm)	Result eirp (dBm)	Result eirp (mW)	Limit (mW)
5 180	18.46	21.96	157.01	200.00
5 200	18.18	21.68	147.21	200.00
5 240	17.80	21.30	134.88	200.00
5 260	19.09	22.59	181.52	1000.00
5 300	19.33	22.83	191.84	1000.00
5 320	19.48	22.98	198.58	1000.00
5 500	19.34	22.84	192.28	1000.00
5 580	18.80	22.30	169.80	1000.00
5 700	19.32	22.82	191.40	1000.00
5 720	19.29	22.79	190.08	1000.00
5 745	19.40	22.90	194.95	4000.00
5 785	18.80	22.30	169.80	4000.00
5 825	18.35	21.85	153.08	4000.00

Note 1 : refer to 4.3.1 for information on limit reduction and Antenna gain

Note 2 : Result eirp(dBm) : Output Power(dBm) + Antenna gain(dBi)

Test mode : 802.11n(HT40)

Freq. (MHz)	Output Power (dBm)	Result eirp (dBm)	Result eirp (mW)	Limit (mW)
5 190	15.92	19.42	87.41	200.00
5 230	19.11	22.61	182.20	200.00
5 270	19.39	22.89	194.34	1000.00
5 310	17.60	21.10	128.69	1000.00
5 510	15.04	18.54	71.38	1000.00
5 550	19.49	22.99	198.86	1000.00
5 670	19.51	23.01	199.78	1000.00
5 710	19.37	22.87	193.44	1000.00
5 755	19.35	22.85	192.55	4000.00
5 795	18.83	22.33	170.83	4000.00

Test mode : 802.11ac(VHT80)

Freq. (MHz)	Output Power (dBm)	Result eirp (dBm)	Result eirp (mW)	Limit (mW)
5 210	14.87	18.37	68.71	200.00
5 290	16.40	19.90	97.72	1000.00
5 530	15.00	18.50	70.79	1000.00
5 610	18.06	21.56	143.22	1000.00
5 690	18.97	22.47	176.60	1000.00
5 775	18.69	22.19	165.58	4000.00

Note 1 : refer to 4.3.1 for information on limit reduction and Antenna gain
Note 2 : Result eirp(dBm) : Output Power(dBm) + Antenna gain(dBi)

Test mode : 802.11ax(HE20)

Freq. (MHz)	Output Power (dBm)	Result eirp (dBm)	Result eirp (mW)	Limit (mW)
5 180	18.48	21.98	157.76	200.00
5 200	18.24	21.74	149.28	200.00
5 240	17.93	21.43	138.99	200.00
5 260	19.14	22.64	183.65	1000.00
5 300	19.47	22.97	198.15	1000.00
5 320	19.45	22.95	197.24	1000.00
5 500	19.44	22.94	196.79	1000.00
5 580	18.86	22.36	172.18	1000.00
5 700	18.19	21.69	147.57	1000.00
5 720	19.34	22.84	192.31	1000.00
5 745	19.48	22.98	198.61	4000.00
5 785	18.84	22.34	171.39	4000.00
5 825	18.44	21.94	156.31	4000.00

Test mode : 802.11ax(HE40)

Freq. (MHz)	Output Power (dBm)	Result eirp (dBm)	Result eirp (mW)	Limit (mW)
5 190	15.39	18.89	77.46	200.00
5 230	19.21	22.71	186.67	200.00
5 270	19.47	22.97	198.19	1000.00
5 310	17.56	21.06	127.67	1000.00
5 510	15.07	18.57	71.96	1000.00
5 550	19.23	22.73	187.54	1000.00
5 670	19.50	23.00	199.57	1000.00
5 710	19.43	22.93	196.37	1000.00
5 755	19.42	22.92	195.92	4000.00
5 795	18.83	22.33	171.03	4000.00

Test mode : 802.11ax(HE80)

Freq. (MHz)	Output Power (dBm)	Result eirp (dBm)	Result eirp (mW)	Limit (mW)
5 210	15.18	18.68	73.87	200.00
5 290	16.69	20.19	104.59	1000.00
5 530	15.03	18.53	71.36	1000.00
5 610	18.20	21.70	148.07	1000.00
5 690	19.00	22.50	178.02	1000.00
5 775	18.82	22.32	170.80	4000.00

Note 1 : refer to 4.3.1 for information on limit reduction and Antenna gain

Note 2 : Result eirp(dBm) : Output Power(dBm) + Antenna gain(dBi)

Test mode : 802.11be(EHT20)

Freq. (MHz)	Output Power (dBm)	Result eirp (dBm)	Result eirp (mW)	Limit (mW)
5 180	18.17	21.67	146.89	200.00
5 200	17.90	21.40	138.04	200.00
5 240	17.60	21.10	128.82	200.00
5 260	18.89	22.39	173.38	1000.00
5 300	19.17	22.67	184.93	1000.00
5 320	19.19	22.69	185.78	1000.00
5 500	19.04	22.54	179.47	1000.00
5 580	18.59	22.09	161.81	1000.00
5 700	18.05	21.55	142.89	1000.00
5 720	19.12	22.62	182.81	1000.00
5 745	19.38	22.88	194.09	4000.00
5 785	18.77	22.27	168.66	4000.00
5 825	18.28	21.78	150.66	4000.00

Test mode : 802.11be(EHT40)

Freq. (MHz)	Output Power (dBm)	Result eirp (dBm)	Result eirp (mW)	Limit (mW)
5 190	15.21	18.71	74.38	200.00
5 230	19.06	22.56	180.48	200.00
5 270	19.10	22.60	182.15	1000.00
5 310	17.45	20.95	124.58	1000.00
5 510	14.86	18.36	68.62	1000.00
5 550	19.08	22.58	181.32	1000.00
5 670	19.48	22.98	198.81	1000.00
5 710	19.16	22.66	184.69	1000.00
5 755	19.07	22.57	180.90	4000.00
5 795	18.43	21.93	156.11	4000.00

Test mode : 802.11be(EHT80)

Freq. (MHz)	Output Power (dBm)	Result eirp (dBm)	Result eirp (mW)	Limit (mW)
5 210	15.11	18.61	72.65	200.00
5 290	16.57	20.07	101.67	1000.00
5 530	15.09	18.59	72.31	1000.00
5 610	18.14	21.64	145.95	1000.00
5 690	18.96	22.46	176.28	1000.00
5 775	18.60	22.10	162.26	4000.00

Note 1 : refer to 4.3.1 for information on limit reduction and Antenna gain

Note 2 : Result eirp(dBm) : Output Power(dBm) + Antenna gain(dBi)

4.3.3 Maximum Power Spectral Density(PSD)

4.3.3.1 Regulation

According to §15.407(a)(1)(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to §RSS-247 7.3.1.2 For other devices, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log 10B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

According to §15.407(a)(2) and RSS-247 7.3.2.2, RSS-247 7.3.3.2 For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to §15.407(a)(3) and RSS-247 7.3.4.3 For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

4.3.3.2 Measurement Procedure

These test measurement settings are specified in section F of 789033 D02 General UNII Test Procedures.

4.3.3.2.1 Maximum Power Spectral Density (PSD)

The rules requires “maximum power spectral density” measurements where the intent is to measure the maximum value of the time average of the power spectral density measured during a period of continuous transmission.

1. Create an average power spectrum for the EUT operating mode being tested by following the instructions in section II.E.2. for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA-1, SA-2, SA-3, or alternatives to each) and apply it up to, but not including, the step labeled, “Compute power....” (This procedure is required even if the maximum conducted output power measurement was performed using a power meter, method PM.)

2. Use the peak search function on the instrument to find the peak of the spectrum and record its value.

3. Make the following adjustments to the peak value of the spectrum, if applicable:

- a) If Method SA-2 or SA-2 Alternative was used, add $10 \log (1/x)$, where x is the duty cycle, to the peak of the spectrum.
- b) If Method SA-3 Alternative was used and the linear mode was used in step II.E.2.g)(viii), add 1 dB to the final result to compensate for the difference between linear averaging and power averaging.

4. The result is the Maximum PSD over 1 MHz reference bandwidth.

5. For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:

- a) Set $RBW \geq 1/T$, where T is defined in section II.B.I.a).
- b) Set $VBW \geq 3$ RBW.
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10 \log (500 \text{ kHz}/RBW)$ to the measured result, whereas $RBW (< 500 \text{ kHz})$ is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
- d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add $10 \log (1\text{MHz}/RBW)$ to the measured result, whereas $RBW (< 1 \text{ MHz})$ is the reduced resolution bandwidth of spectrum analyzer set during measurement.
- e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 kHz for the sections 5.c) and 5.d) above, since $RBW=100 \text{ kHz}$ is available on nearly all spectrum analyzers.

4.3.3.3 Result

Comply (measurement data : refer to the next page)

4.3.3.4 Measurement data

Test mode : 802.11a

Freq. (MHz)	Measured (dBm/MHz)	Result (dBm/MHz)	Limit (dBm/MHz)
5 180	6.11	6.11	17.00
5 200	6.02	6.02	17.00
5 240	6.24	6.24	17.00
5 260	7.74	7.74	11.00
5 280	7.73	7.73	11.00
5 320	7.80	7.80	11.00
5 500	6.97	6.97	11.00
5 580	7.08	7.08	11.00
5 700	7.29	7.29	11.00
5 720	6.78	6.78	11.00
5 745	4.65	4.65	30.00
5 785	4.00	4.00	30.00
5 825	3.59	3.59	30.00

Test mode : 802.11n(HT20)

Freq. (MHz)	Measured (dBm/MHz)	Result (dBm/MHz)	Limit (dBm/MHz)
5 180	6.28	6.40	17.00
5 200	6.24	6.36	17.00
5 240	6.01	6.13	17.00
5 260	7.12	7.24	11.00
5 280	7.30	7.42	11.00
5 320	7.23	7.35	11.00
5 500	7.36	7.48	11.00
5 580	6.68	6.80	11.00
5 700	6.88	7.00	11.00
5 720	6.32	6.44	11.00
5 745	4.27	4.39	30.00
5 785	3.74	3.86	30.00
5 825	3.07	3.19	30.00

NOTE1 : refer to 4.3.1 for information on limit reduction.
NOTE2 : We took the insertion loss of the cable loss into consideration within the measuring instrument.
NOTE3 : Duty cycle Factor : $10 \cdot \log(1/(\text{on-time}/\text{Period}))$ refer to 4.3.6.7
NOTE4 : Result : Measured Value + Duty cycle Factor
NOTE5 : 5150MHz ~ 5725MHz : dBm/MHz
5725MHz ~ 5850MHz : dBm/500kHz

Test mode : 802.11n(HT40)

Freq. (MHz)	Measured (dBm/MHz)	Result (dBm/MHz)	Limit (dBm/MHz)
5 190	4.65	4.78	17.00
5 230	4.49	4.62	17.00
5 270	4.64	4.77	11.00
5 310	4.69	4.82	11.00
5 510	-0.19	-0.07	11.00
5 550	4.68	4.81	11.00
5 670	4.27	4.40	11.00
5 710	3.80	3.93	11.00
5 755	1.27	1.40	30.00
5 795	0.92	1.05	30.00

Test mode : 802.11ac(VHT80)

Freq. (MHz)	Measured (dBm/MHz)	Result (dBm/MHz)	Limit (dBm/MHz)
5 210	1.24	1.24	17.00
5 290	1.65	1.65	11.00
5 530	-3.13	-3.13	11.00
5 610	0.37	0.37	11.00
5 690	0.41	0.41	11.00
5 775	-1.77	-1.77	30.00

NOTE1 : refer to 4.3.1 for information on limit reduction.
NOTE2 : We took the insertion loss of the cable loss into consideration within the measuring instrument.
NOTE3 : Duty cycle Factor : $10 \cdot \log(1/(\text{on-time}/\text{Period}))$ refer to 4.3.6.7
NOTE4 : Result : Measured Value + Duty cycle Factor
NOTE5 : 5150MHz ~ 5725MHz : dBm/MHz
5725MHz ~ 5850MHz : dBm/500kHz

Test mode : 802.11ax(HE20)

Freq. (MHz)	Measured (dBm/MHz)	Result (dBm/MHz)	Limit (dBm/MHz)
5 180	6.25	6.39	17.00
5 200	5.93	6.07	17.00
5 240	6.04	6.18	17.00
5 260	7.03	7.17	11.00
5 280	7.48	7.62	11.00
5 320	7.16	7.30	11.00
5 500	7.12	7.25	11.00
5 580	6.63	6.76	11.00
5 700	5.39	5.53	11.00
5 720	6.41	6.55	11.00
5 745	4.15	4.29	30.00
5 785	3.40	3.54	30.00
5 825	3.06	3.20	30.00

Test mode : 802.11ax(HE40)

Freq. (MHz)	Measured (dBm/MHz)	Result (dBm/MHz)	Limit (dBm/MHz)
5 190	4.28	4.43	17.00
5 230	4.02	4.17	17.00
5 270	4.18	4.33	11.00
5 310	4.52	4.67	11.00
5 510	-0.23	-0.08	11.00
5 550	4.35	4.50	11.00
5 670	4.21	4.36	11.00
5 710	3.30	3.45	11.00
5 755	1.21	1.36	30.00
5 795	0.89	1.04	30.00

Test mode : 802.11ax(HE80)

Freq. (MHz)	Measured (dBm/MHz)	Result (dBm/MHz)	Limit (dBm/MHz)
5 210	1.20	1.30	17.00
5 290	1.50	1.61	11.00
5 530	-2.98	-2.88	11.00
5 610	0.31	0.42	11.00
5 690	0.21	0.32	11.00
5 775	-2.05	-1.95	30.00

NOTE1 : refer to 4.3.1 for information on limit reduction.
NOTE2 : We took the insertion loss of the cable loss into consideration within the measuring instrument.
NOTE3 : Duty cycle Factor : $10 \cdot \log(1/(\text{on-time}/\text{Period}))$ refer to 4.3.6.7
NOTE4 : Result : Measured Value + Duty cycle Factor
NOTE5 : 5150MHz ~ 5725MHz : dBm/MHz
5725MHz ~ 5850MHz : dBm/500kHz

Test mode : 802.11be(EHT20)

Freq. (MHz)	Measured (dBm/MHz)	Result (dBm/MHz)	Limit (dBm/MHz)
5 180	6.18	6.18	17.00
5 200	6.18	6.18	17.00
5 240	6.17	6.17	17.00
5 260	6.79	6.79	11.00
5 280	7.19	7.19	11.00
5 320	7.28	7.28	11.00
5 500	7.02	7.02	11.00
5 580	6.42	6.42	11.00
5 700	5.48	5.48	11.00
5 720	6.21	6.21	11.00
5 745	4.16	4.16	30.00
5 785	3.47	3.47	30.00
5 825	3.14	3.14	30.00

Test mode : 802.11be(EHT40)

Freq. (MHz)	Measured (dBm/MHz)	Result (dBm/MHz)	Limit (dBm/MHz)
5 190	4.53	4.63	17.00
5 230	3.97	4.07	17.00
5 270	4.25	4.35	11.00
5 310	4.35	4.45	11.00
5 510	-0.55	-0.45	11.00
5 550	4.20	4.30	11.00
5 670	4.31	4.42	11.00
5 710	3.34	3.44	11.00
5 755	0.85	0.96	30.00
5 795	0.64	0.74	30.00

Test mode : 802.11be(EHT80)

Freq. (MHz)	Measured (dBm/MHz)	Result (dBm/MHz)	Limit (dBm/MHz)
5 210	1.31	1.44	17.00
5 290	1.93	2.07	11.00
5 530	-2.98	-2.85	11.00
5 610	0.35	0.48	11.00
5 690	0.31	0.44	11.00
5 775	-2.02	-1.89	30.00

NOTE1 : refer to 4.3.1 for information on limit reduction.
NOTE2 : We took the insertion loss of the cable loss into consideration within the measuring instrument.
NOTE3 : Duty cycle Factor : $10 \cdot \log(1/(\text{on-time}/\text{Period}))$ refer to 4.3.6.7
NOTE4 : Result : Measured Value + Duty cycle Factor
NOTE5 : 5150MHz ~ 5725MHz : dBm/MHz
5725MHz ~ 5850MHz : dBm/500kHz

4.3.3.4 Measurement data_E.I.R.P_IC

Test mode : 802.11a

Freq. (MHz)	PSD (dBm/MHz)	Result PSD eirp (dBm/MHz)	Limit (dBm/MHz)
5180	6.11	9.61	10.00
5200	6.02	9.52	10.00
5240	6.24	9.74	10.00

Test mode : 802.11n(HT20)

Freq. (MHz)	PSD (dBm/MHz)	Result PSD eirp (dBm/MHz)	Limit (dBm/MHz)
5180	6.40	9.90	10.00
5200	6.36	9.86	10.00
5240	6.13	9.63	10.00

Test mode : 802.11n(HT40)

Freq. (MHz)	PSD (dBm/MHz)	Result PSD eirp (dBm/MHz)	Limit (dBm/MHz)
5 190	4.78	8.28	10.00
5 230	4.62	8.12	10.00

Test mode : 802.11ac(VHT80)

Freq. (MHz)	PSD (dBm/MHz)	Result PSD eirp (dBm/MHz)	Limit (dBm/MHz)
5 210	1.24	4.74	10.00

Note 1 : refer to 4.3.1 for information on Antenna gain

Note 2 : Result eirp(dBm) : PSD(dBm) + Antenna gain(dBi)

Test mode : 802.11ax(HE20)

Freq. (MHz)	PSD (dBm/MHz)	Result PSD eirp (dBm/MHz)	Limit (dBm/MHz)
5180	6.39	9.89	10.00
5200	6.07	9.57	10.00
5240	6.18	9.68	10.00

Test mode : 802.11ax(HE40)

Freq. (MHz)	PSD (dBm/MHz)	Result PSD eirp (dBm/MHz)	Limit (dBm/MHz)
5 190	4.43	7.93	10.00
5 230	4.17	7.67	10.00

Test mode : 802.11ax(HE80)

Freq. (MHz)	PSD (dBm/MHz)	Result PSD eirp (dBm/MHz)	Limit (dBm/MHz)
5 210	1.30	4.80	10.00

Test mode : 802.11be(EHT20)

Freq. (MHz)	PSD (dBm/MHz)	Result PSD eirp (dBm/MHz)	Limit (dBm/MHz)
5180	6.18	9.68	10.00
5200	6.18	9.68	10.00
5240	6.17	9.67	10.00

Test mode : 802.11be(EHT40)

Freq. (MHz)	PSD (dBm/MHz)	Result PSD eirp (dBm/MHz)	Limit (dBm/MHz)
5 190	4.63	8.13	10.00
5 230	4.07	7.57	10.00

Test mode : 802.11be(EHT80)

Freq. (MHz)	PSD (dBm/MHz)	Result PSD eirp (dBm/MHz)	Limit (dBm/MHz)
5 210	1.44	4.94	10.00

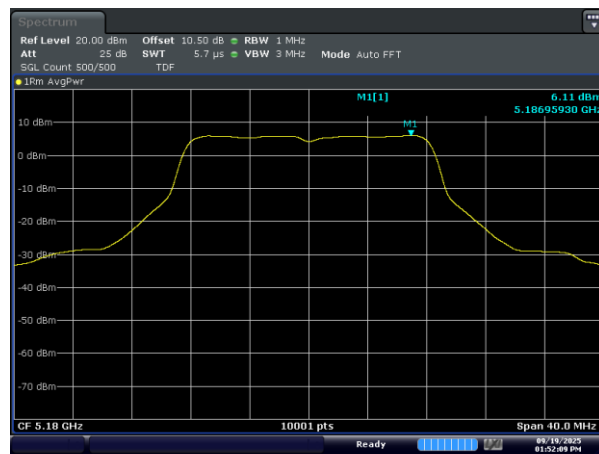
Note 1 : refer to 4.3.1 for information on Antenna gain

Note 2 : Result eirp(dBm) : PSD(dBm) + Antenna gain(dBi)

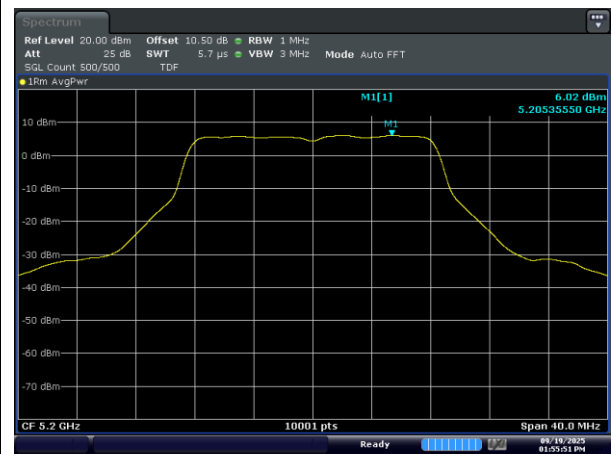
4.3.3.5 Test Plot

Test mode : 802.11a

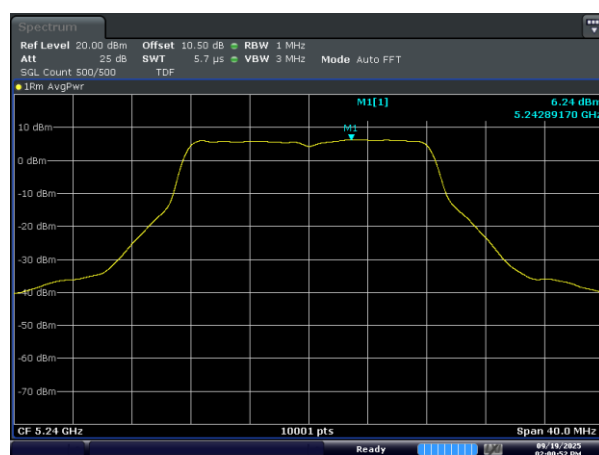
5180MHz



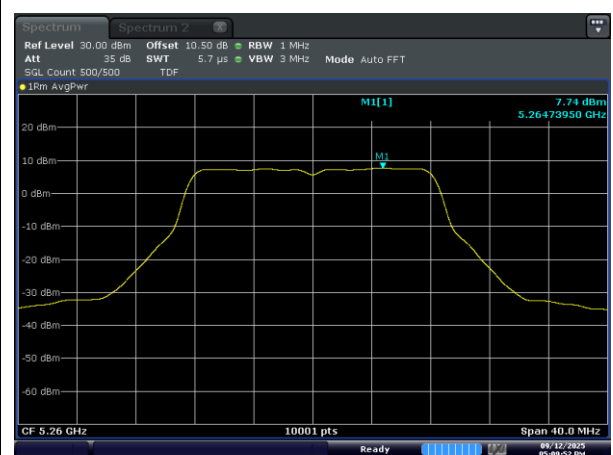
5200MHz



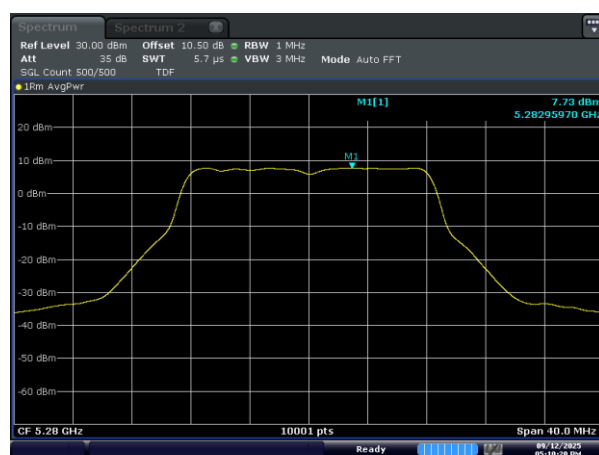
5240MHz



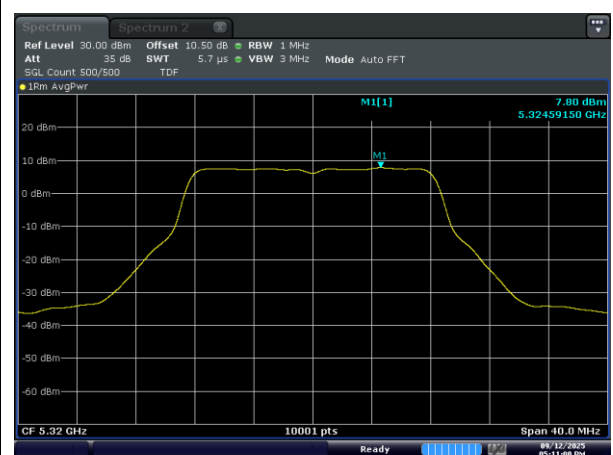
5260MHz



5280MHz

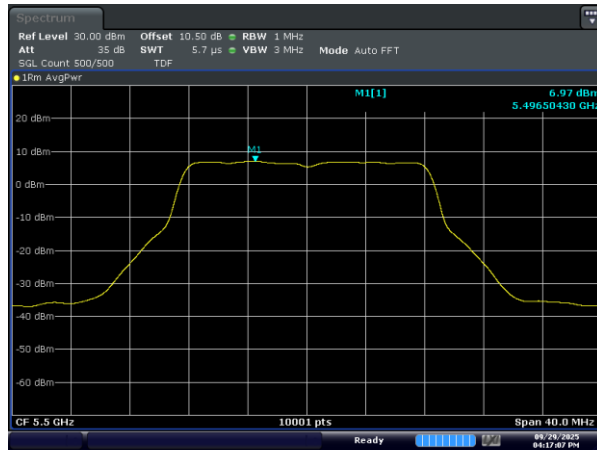


5320MHz

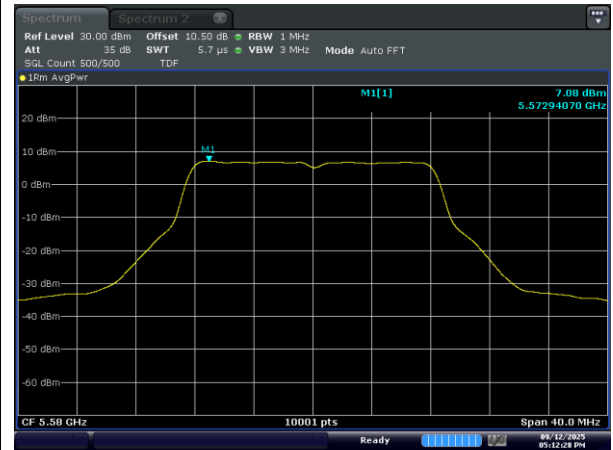


Test mode : 802.11a

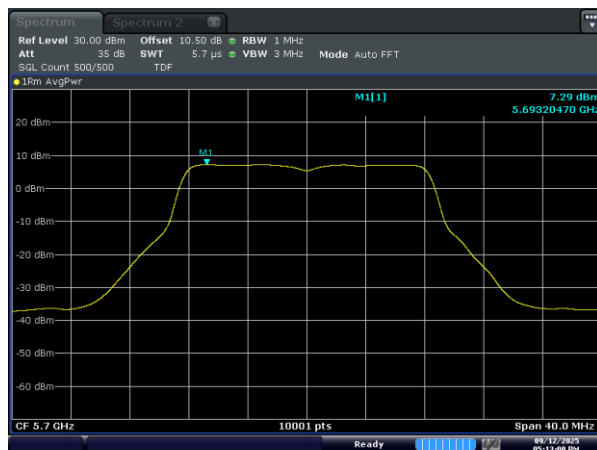
5500MHz



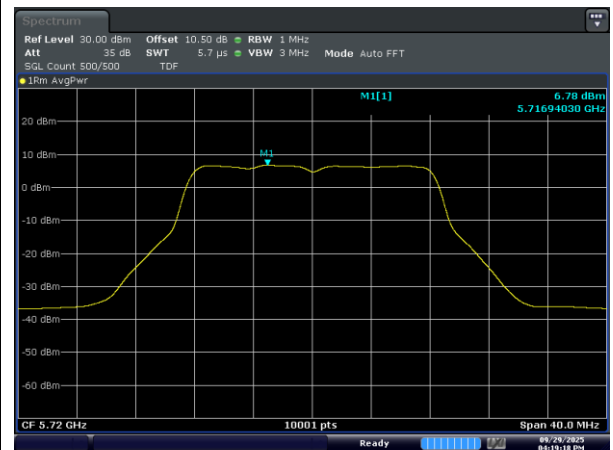
5580MHz



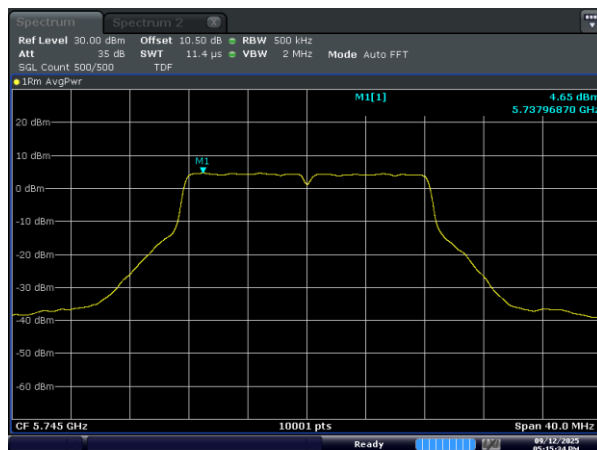
5700MHz



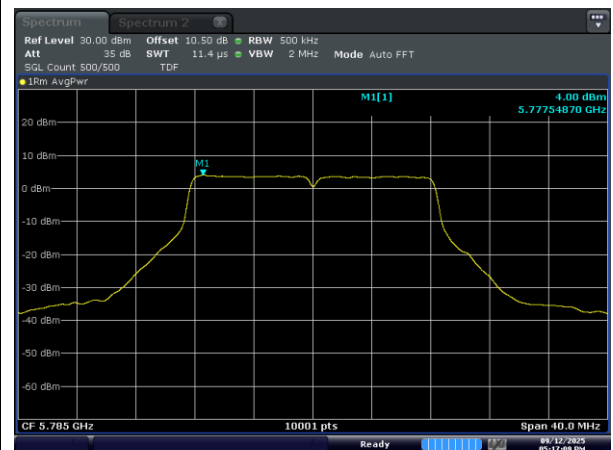
5720MHz



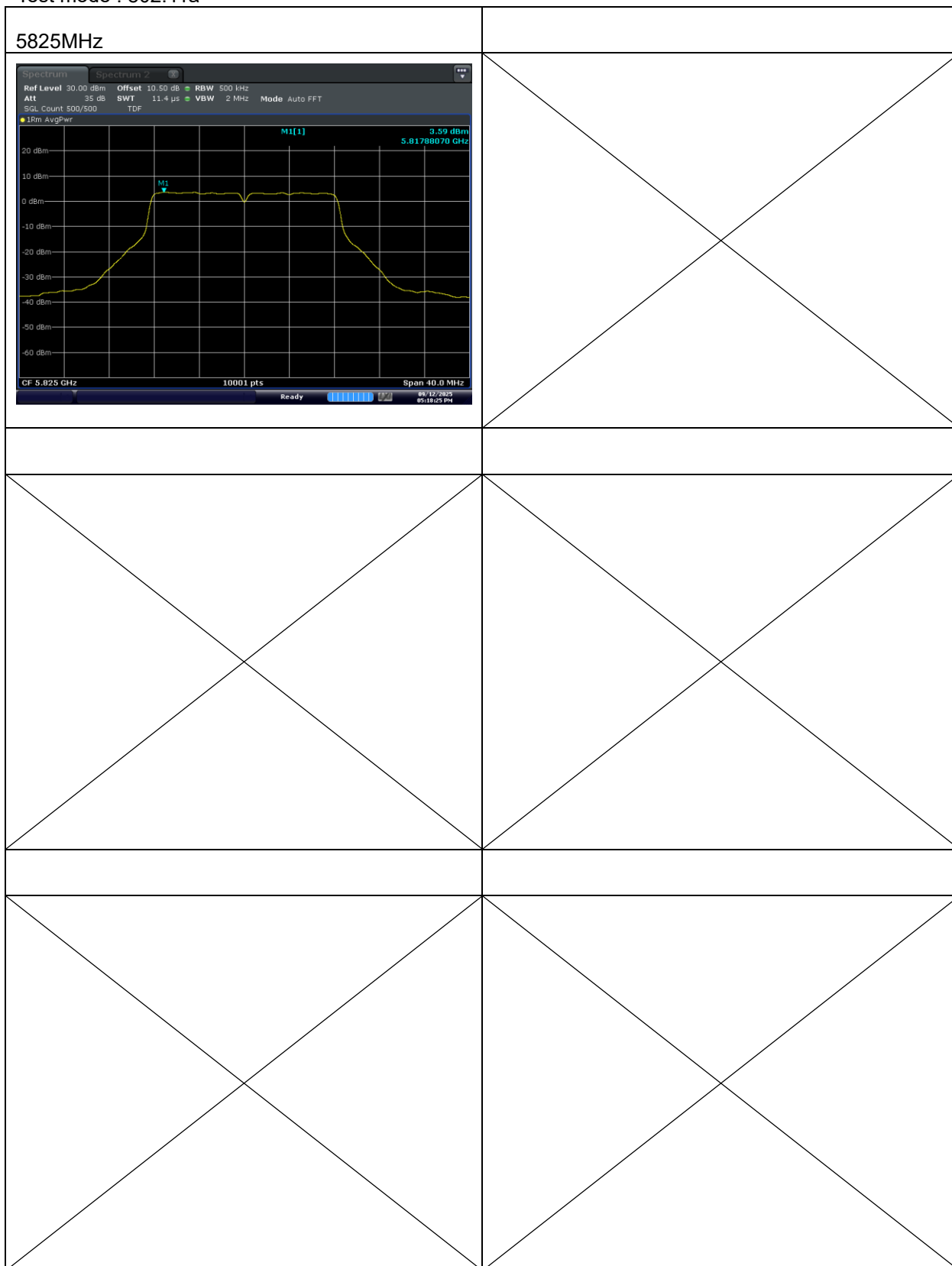
5745MHz



5785MHz

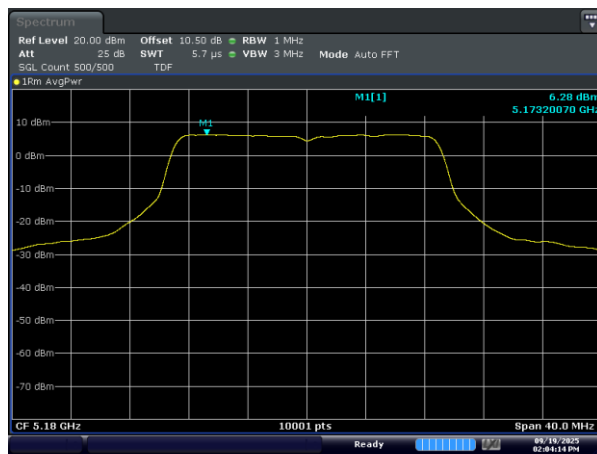


Test mode : 802.11a

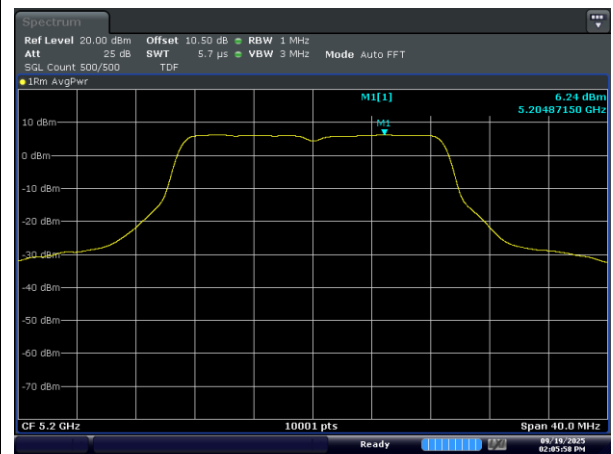


Test mode : 802.11n(HT20)

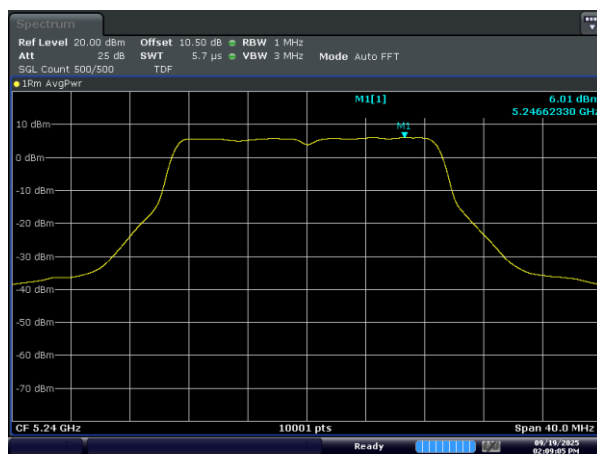
5180MHz



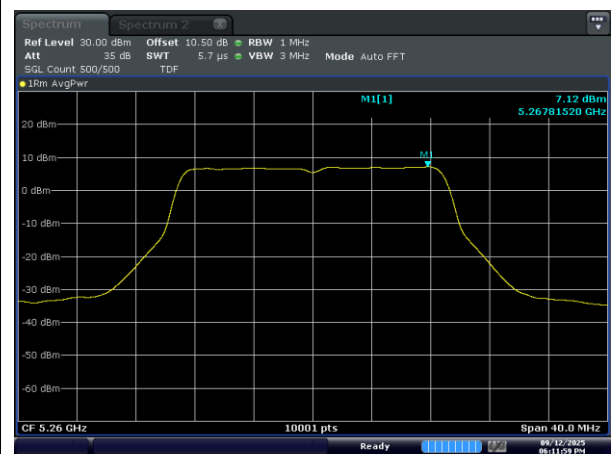
5200MHz



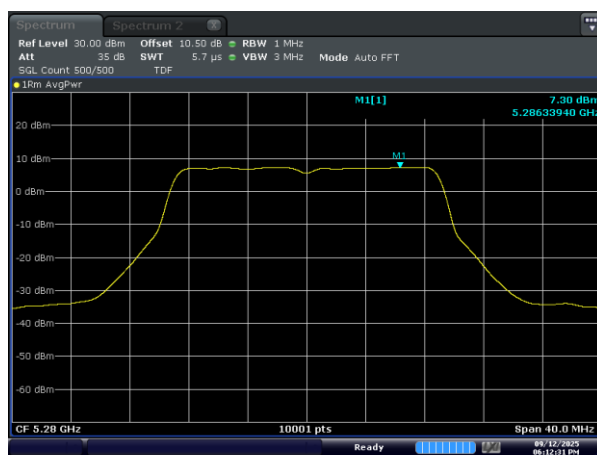
5240MHz



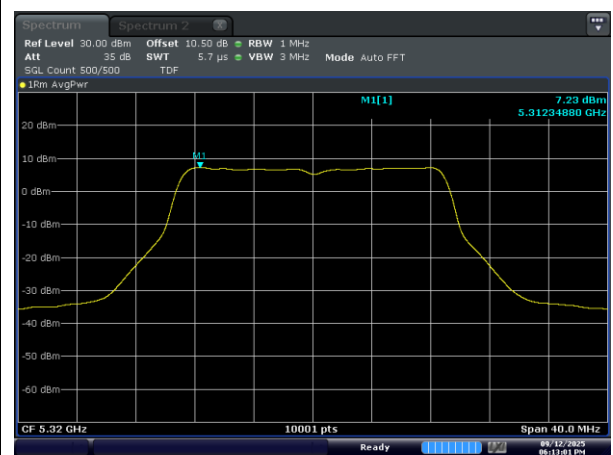
5260MHz



5280MHz

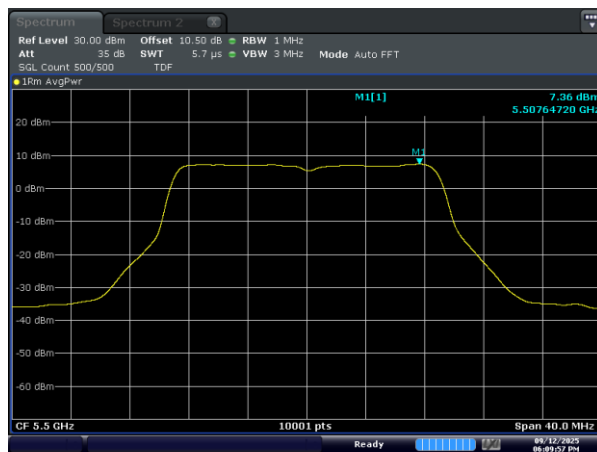


5320MHz

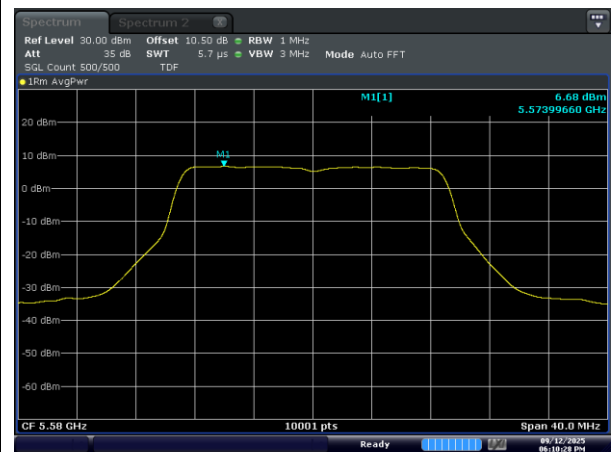


Test mode : 802.11n(HT20)

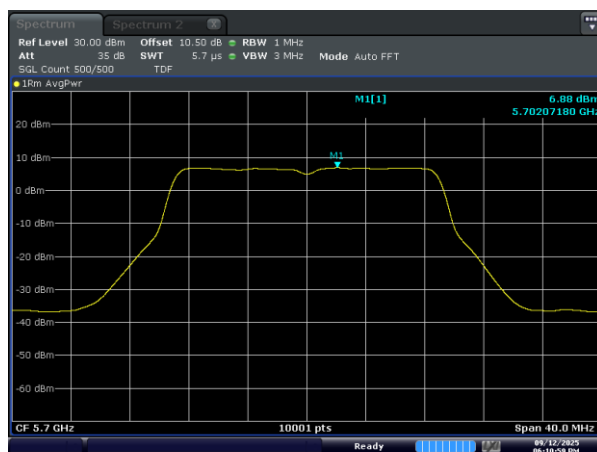
5500MHz



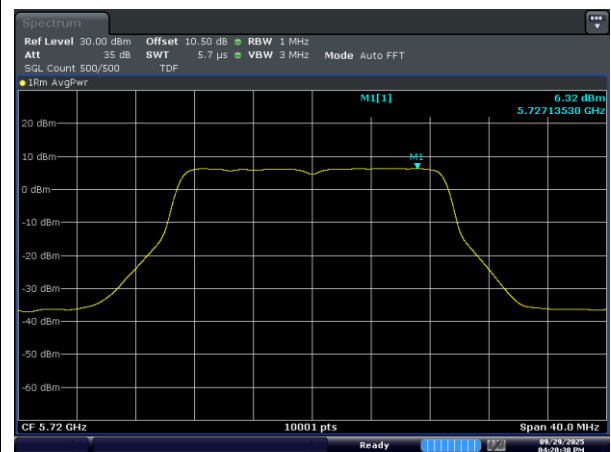
5580MHz



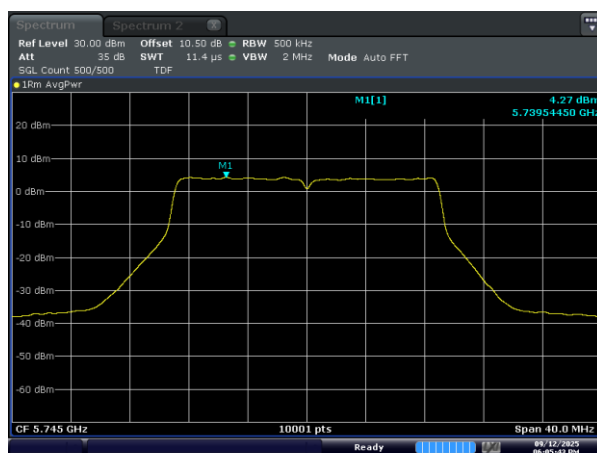
5700MHz



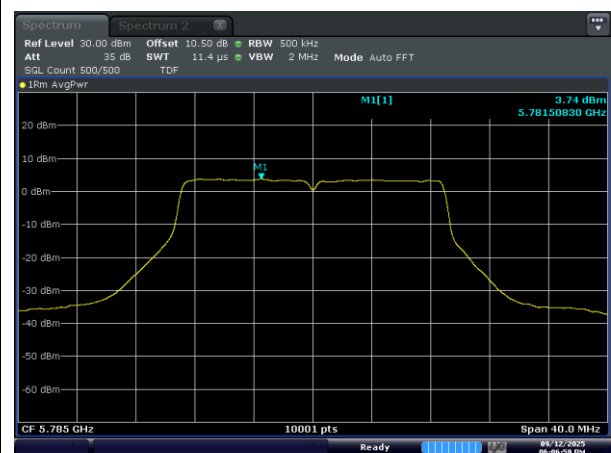
5720MHz



5745MHz

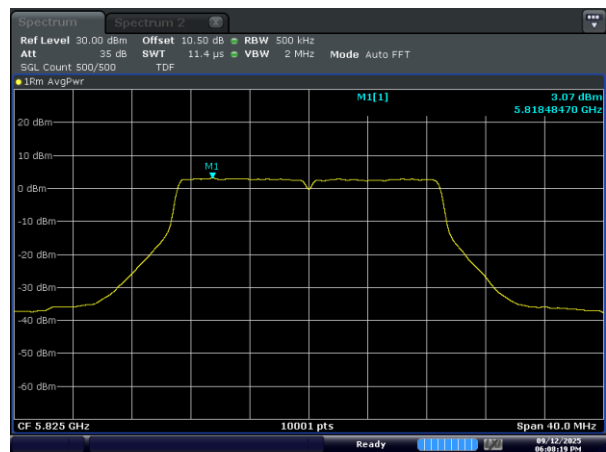


5785MHz



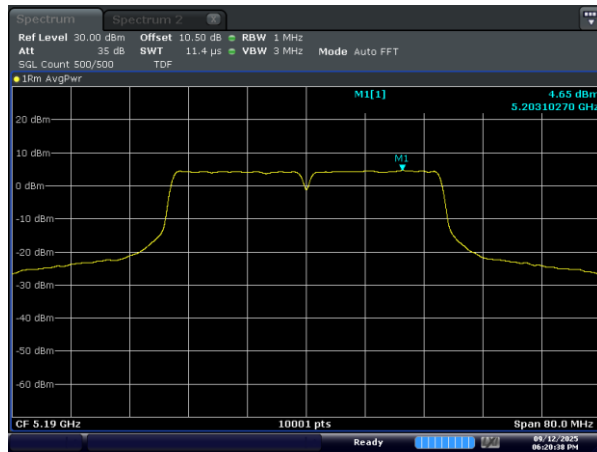
Test mode : 802.11n(HT20)

5825MHz

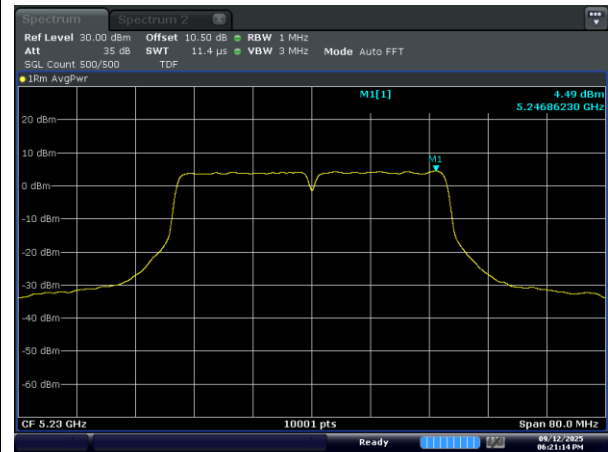


Test mode : 802.11n(HT40)

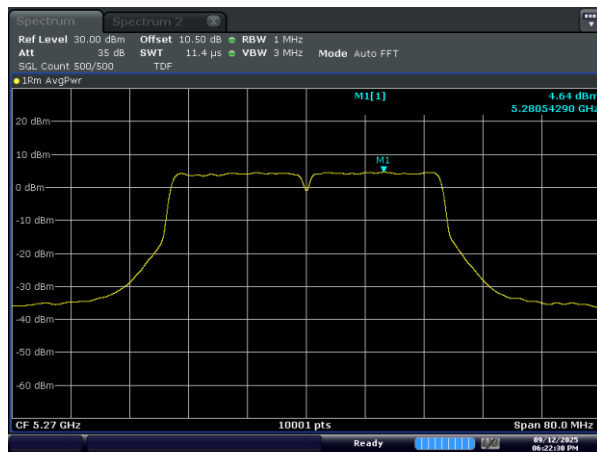
5190MHz



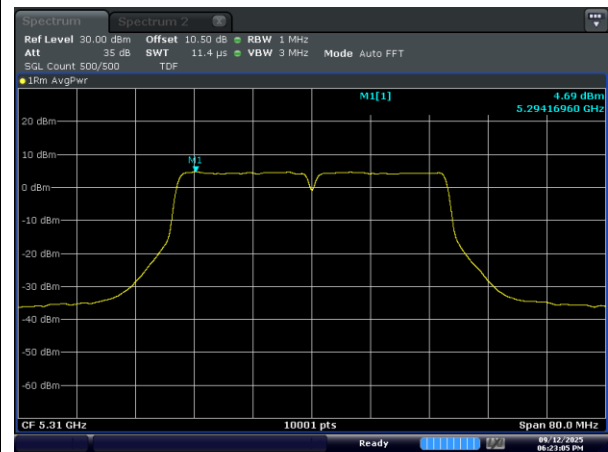
5230MHz



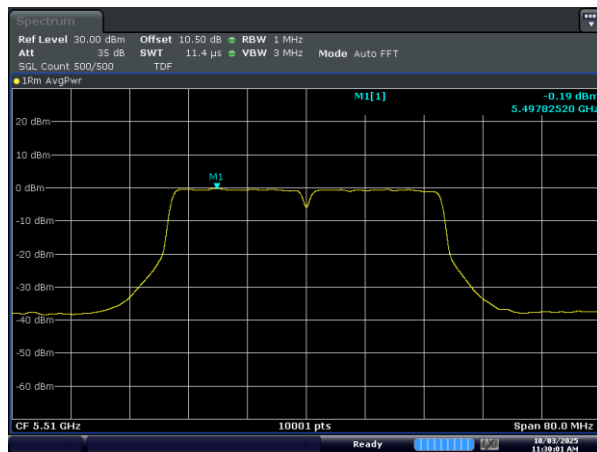
5270MHz



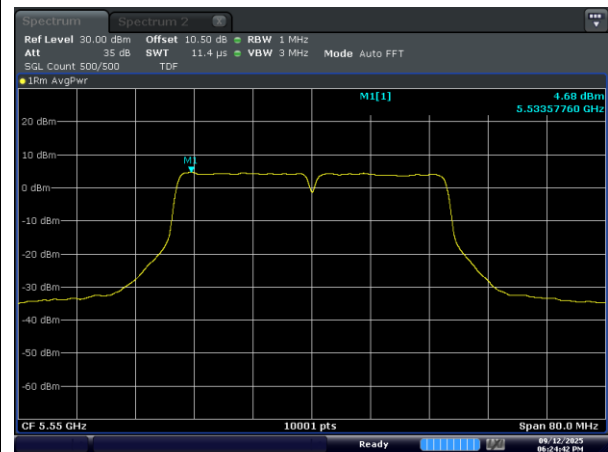
5310MHz



5510MHz

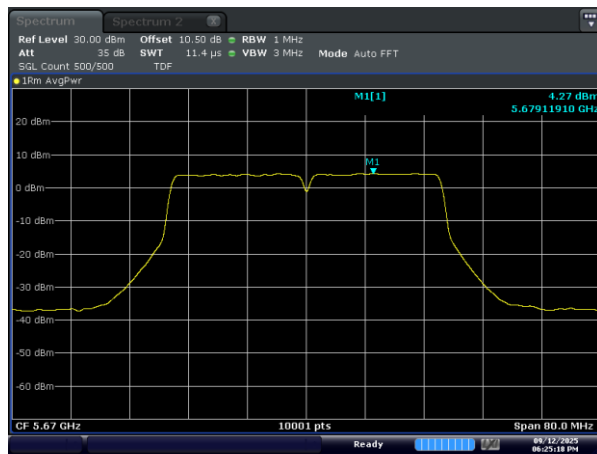


5550MHz

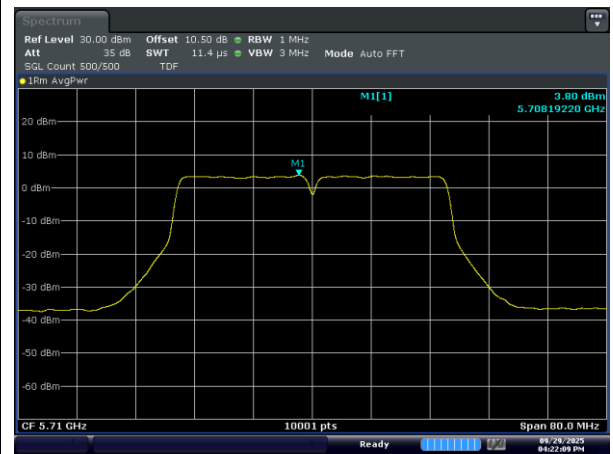


Test mode : 802.11n(HT40)

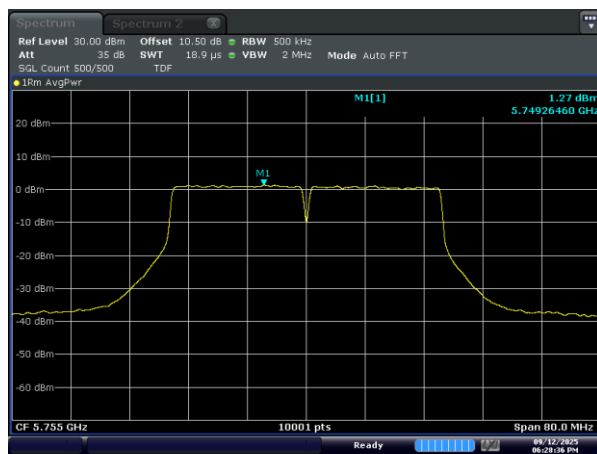
5670MHz



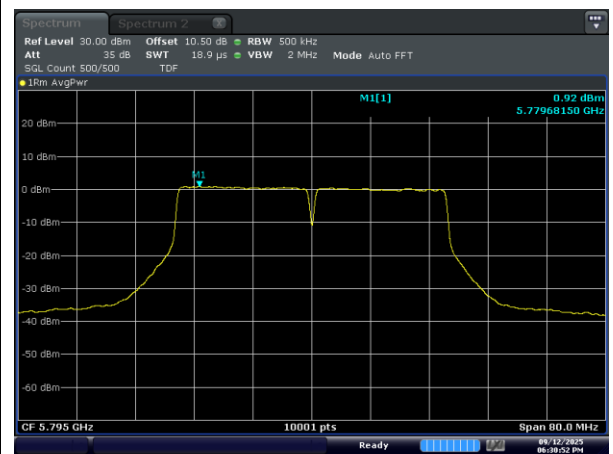
5710MHz



5755MHz

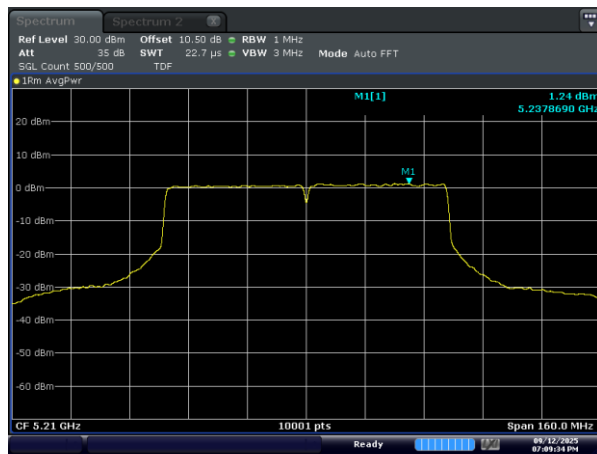


5795MHz

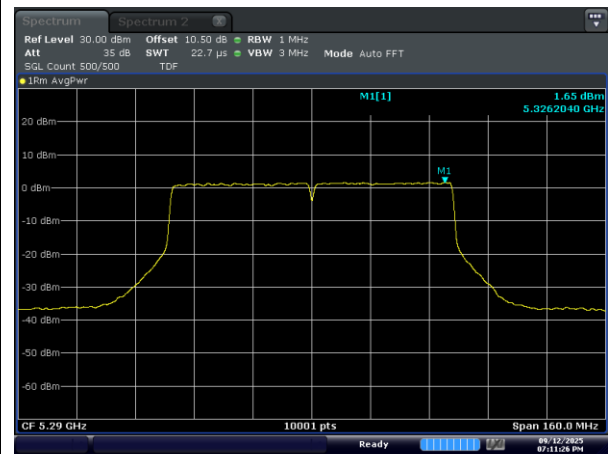


Test mode : 802.11ac(VHT80)

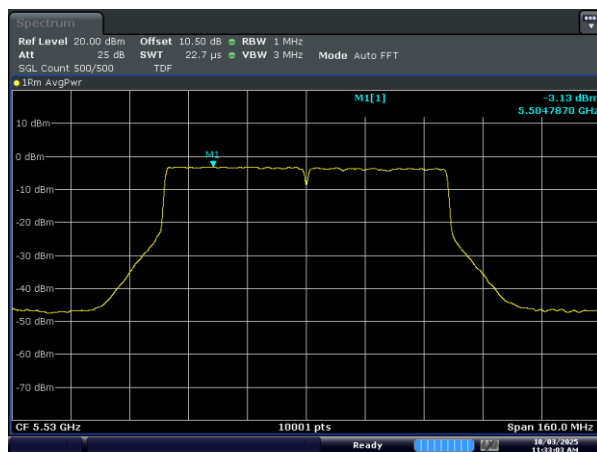
5210MHz



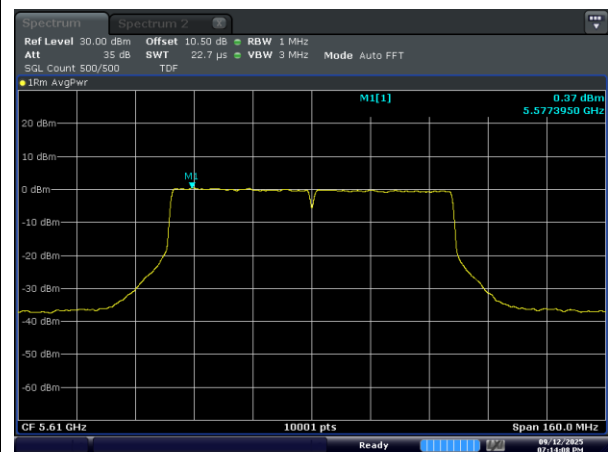
5290MHz



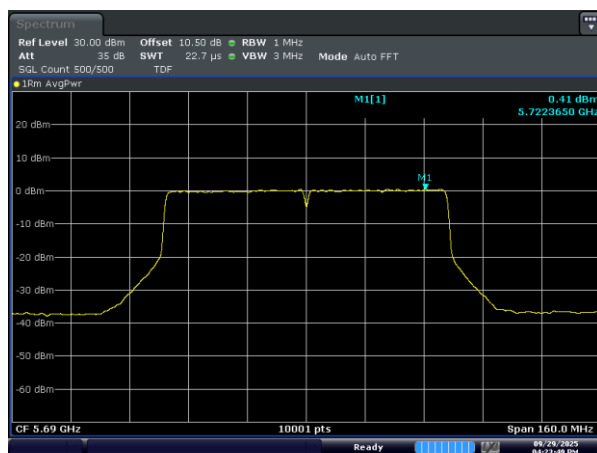
5530MHz



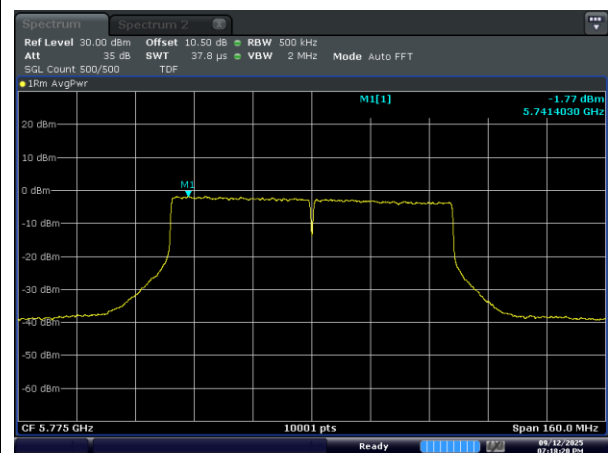
5610MHz



5690MHz

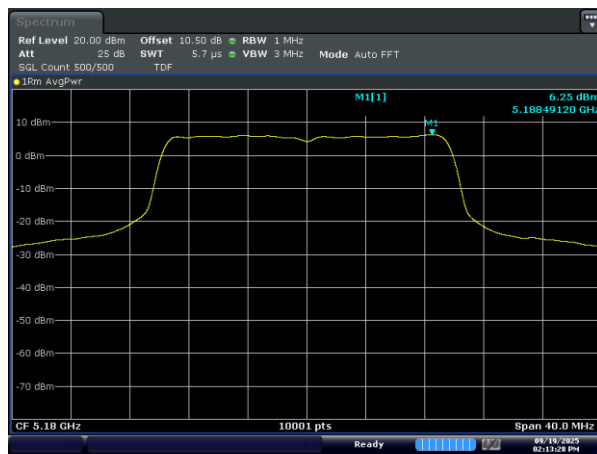


5775MHz

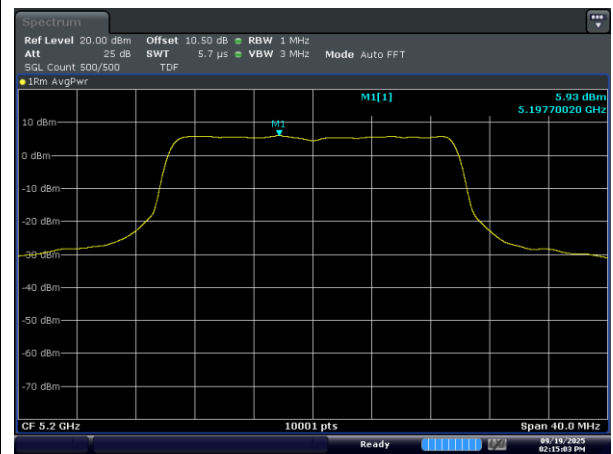


Test mode : 802.11ax(HE20)

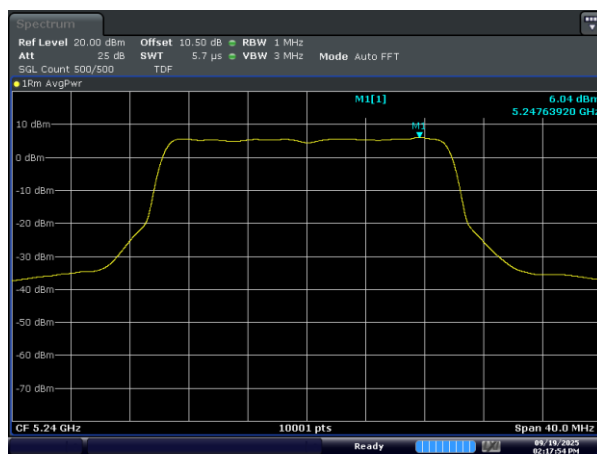
5180MHz



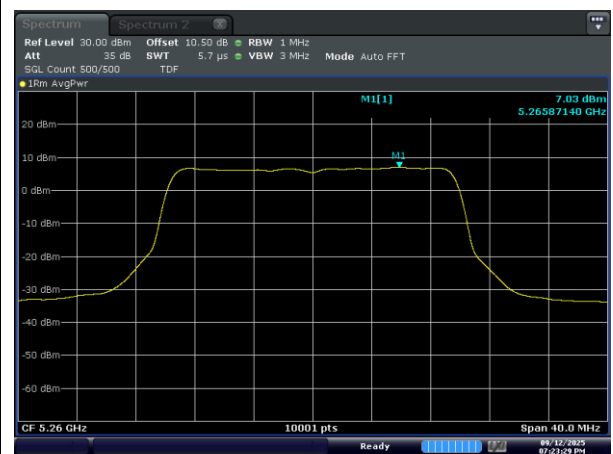
5200MHz



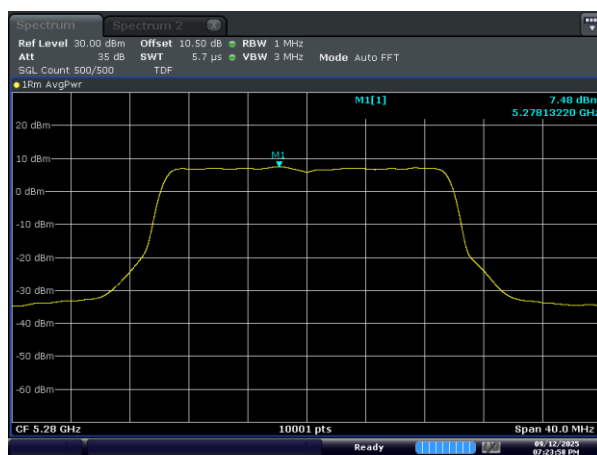
5240MHz



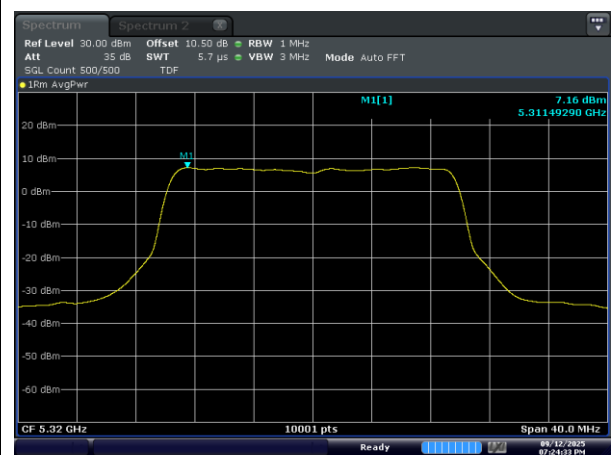
5260MHz



5280MHz

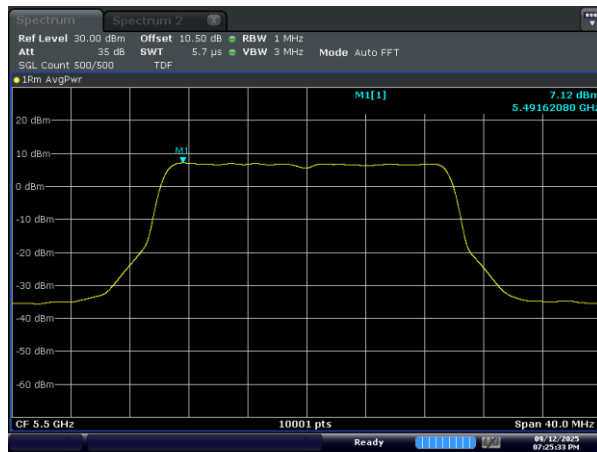


5320MHz

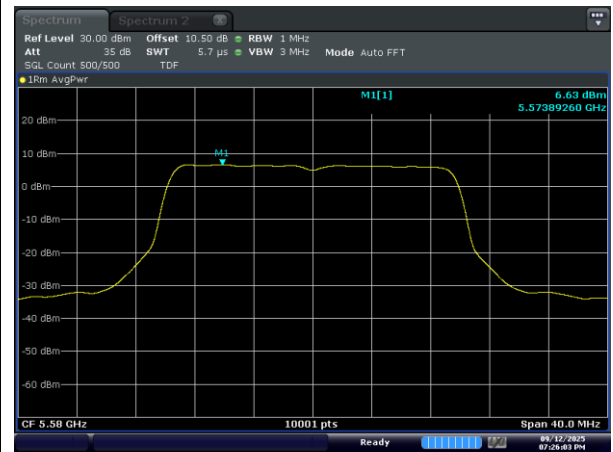


Test mode : 802.11ax(HE20)

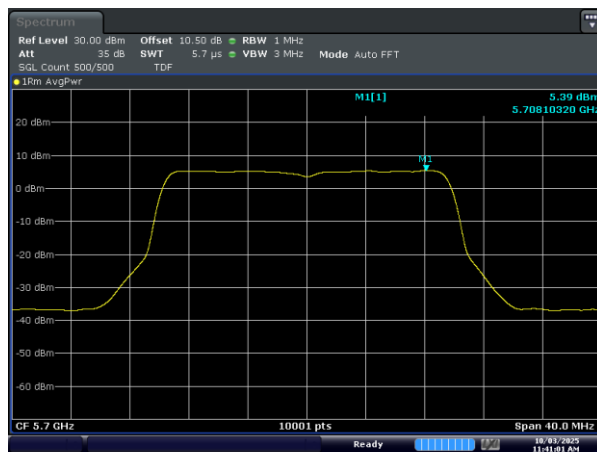
5500MHz



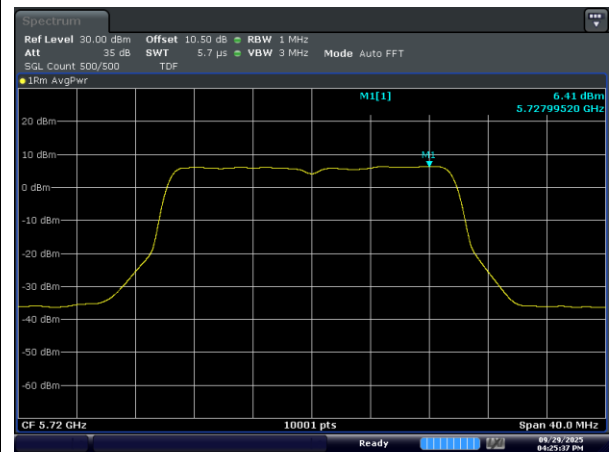
5580MHz



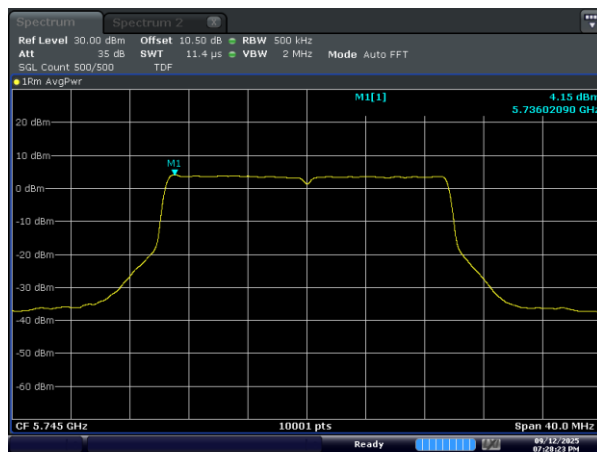
5700MHz



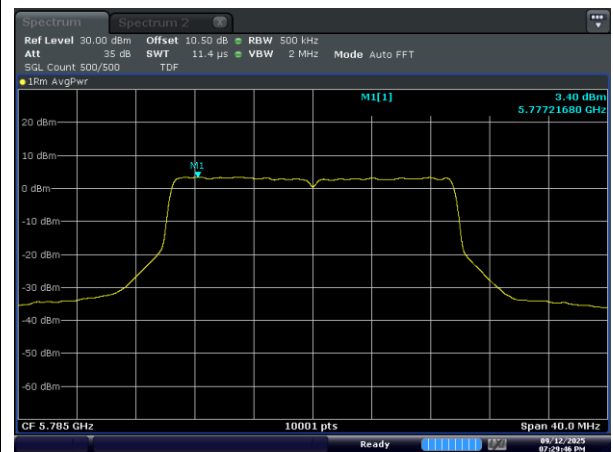
5720MHz



5745MHz

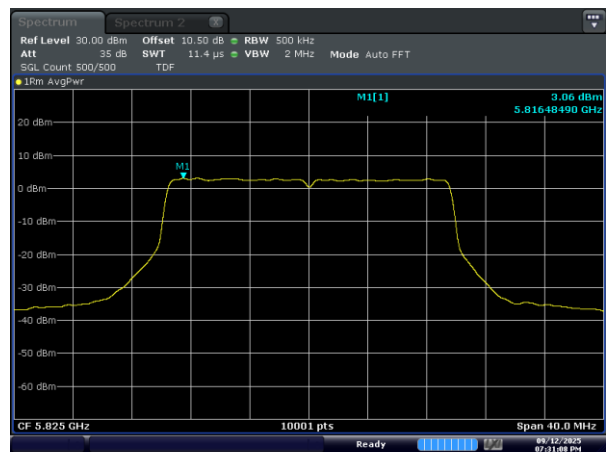


5785MHz



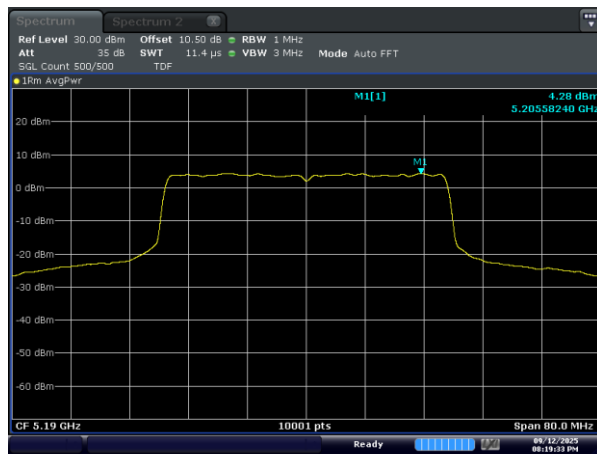
Test mode : 802.11ax(HE20)

5825MHz

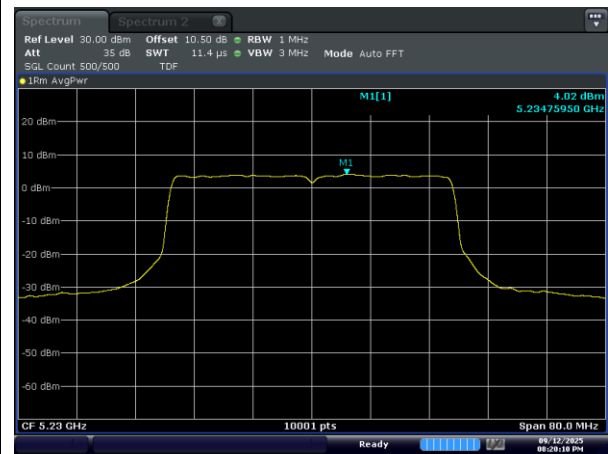


Test mode : 802.11ax(HE40)

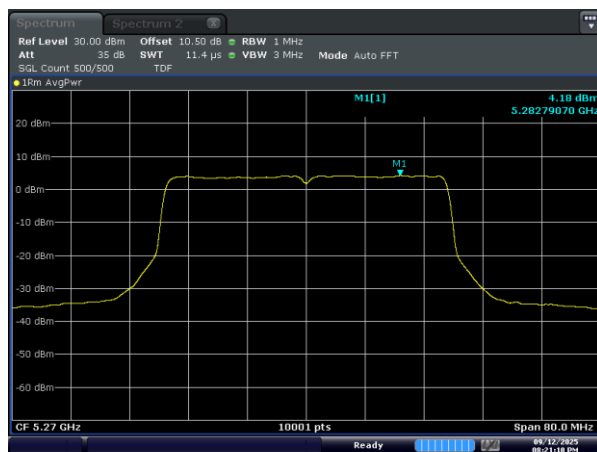
5190MHz



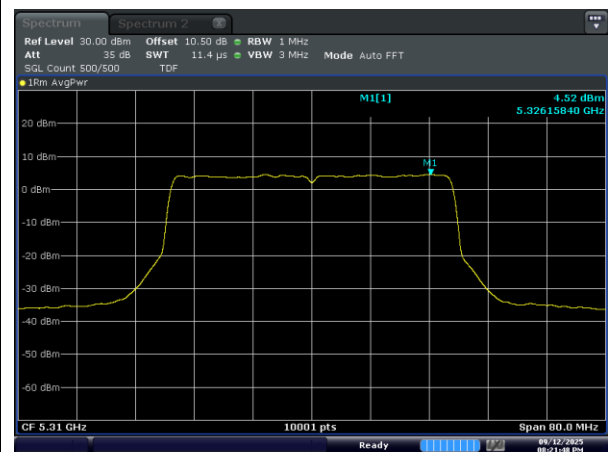
5230MHz



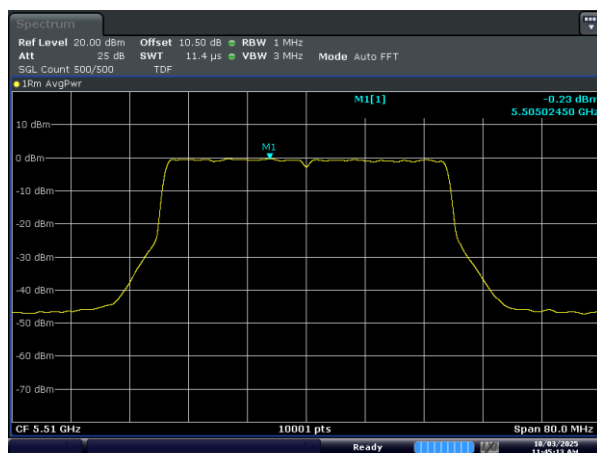
5270MHz



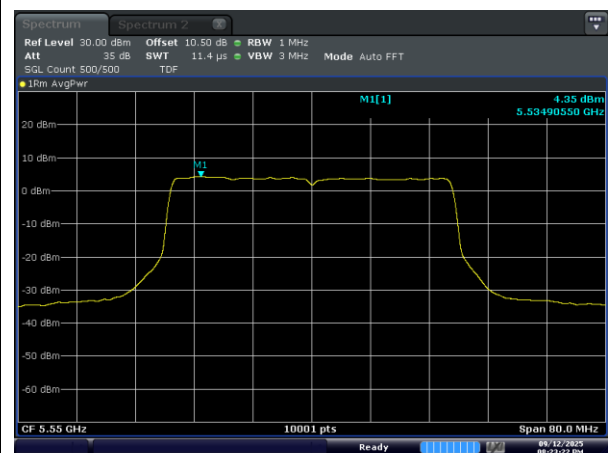
5310MHz



5510MHz

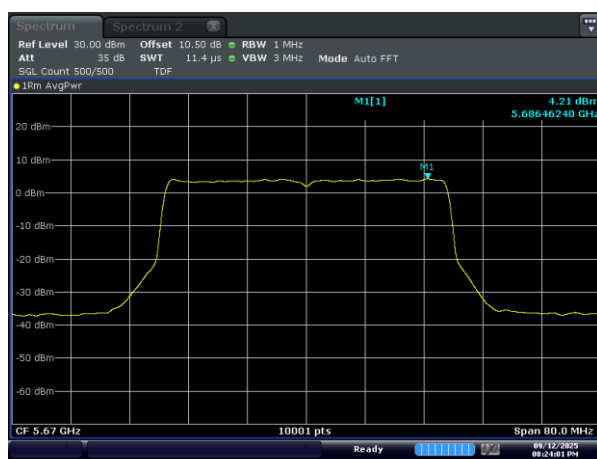


5550MHz

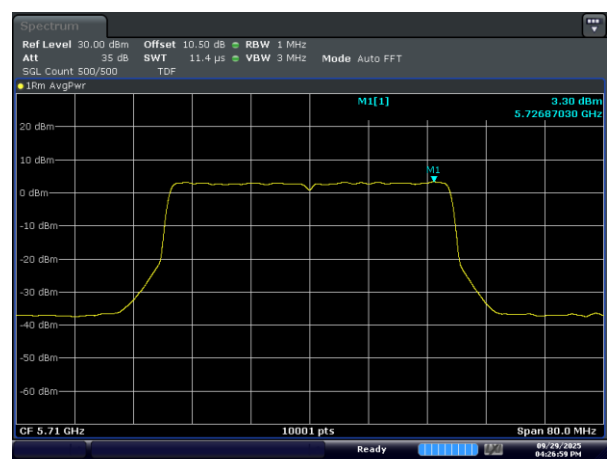


Test mode : 802.11ax(HE40)

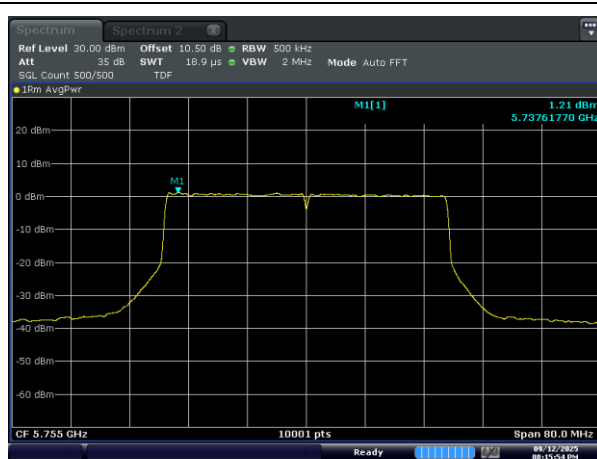
5670MHz



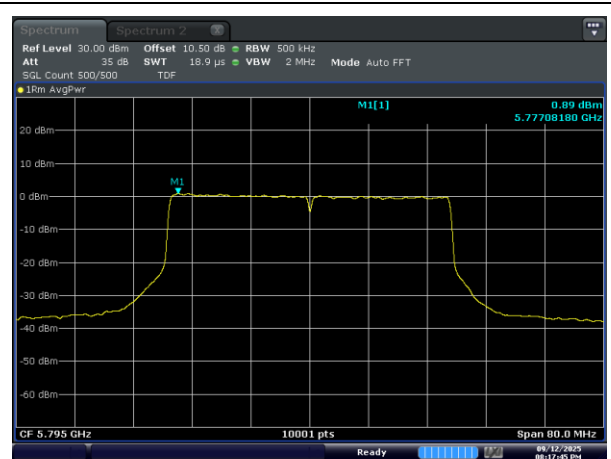
5710MHz



5755MHz

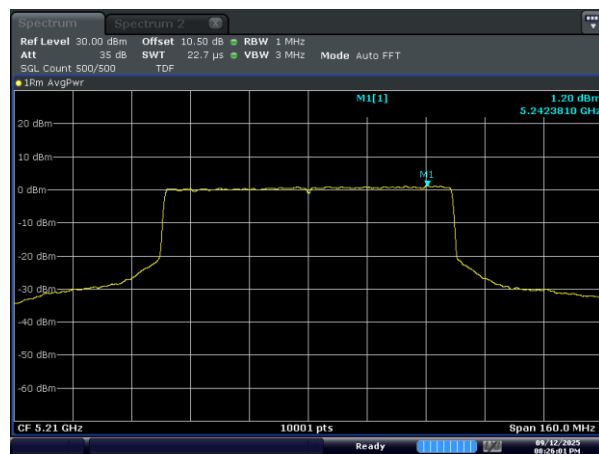


5795MHz

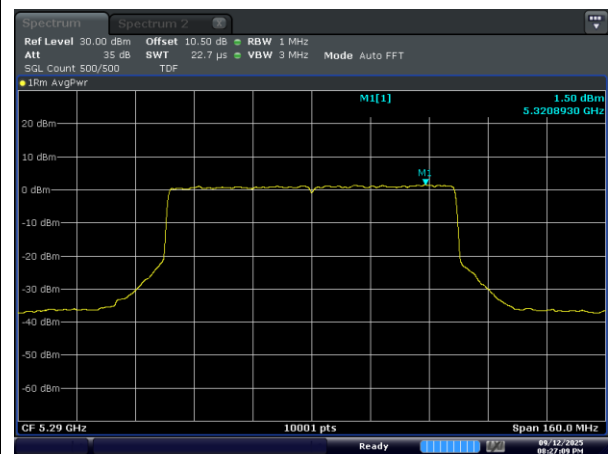


Test mode : 802.11ax(HE80)

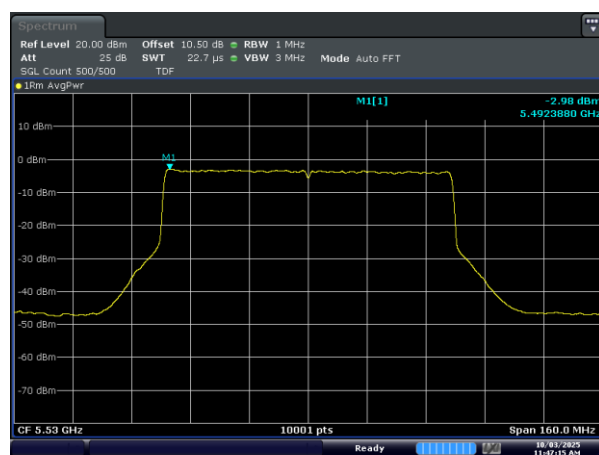
5210MHz



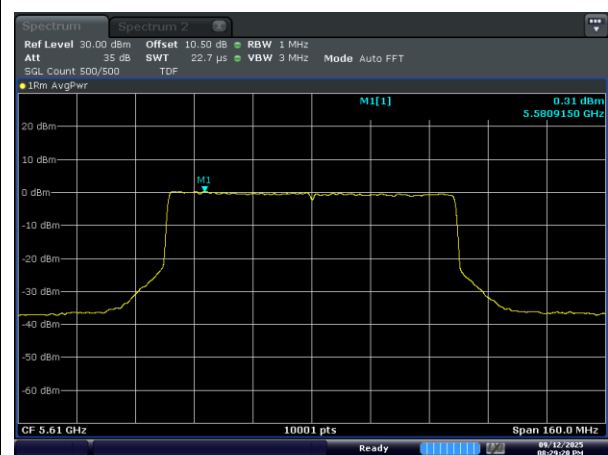
5290MHz



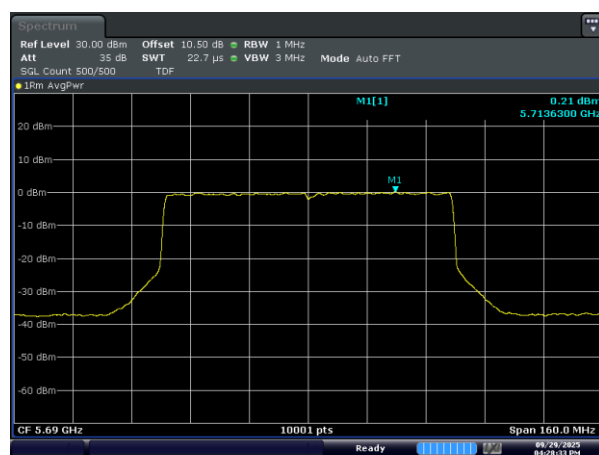
5530MHz



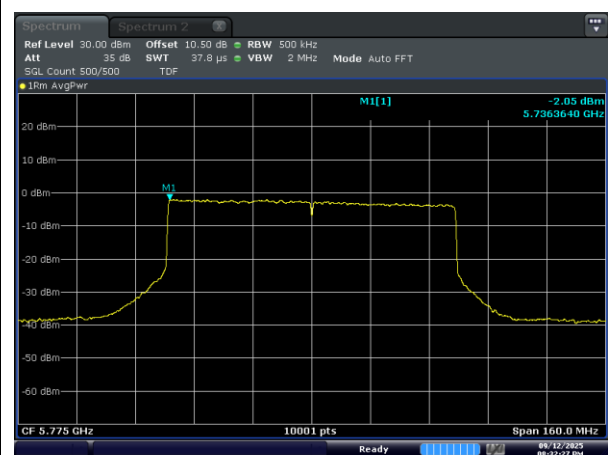
5610MHz



5690MHz

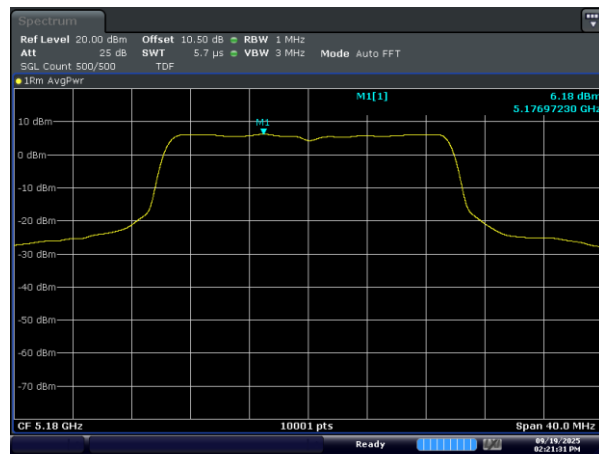


5775MHz

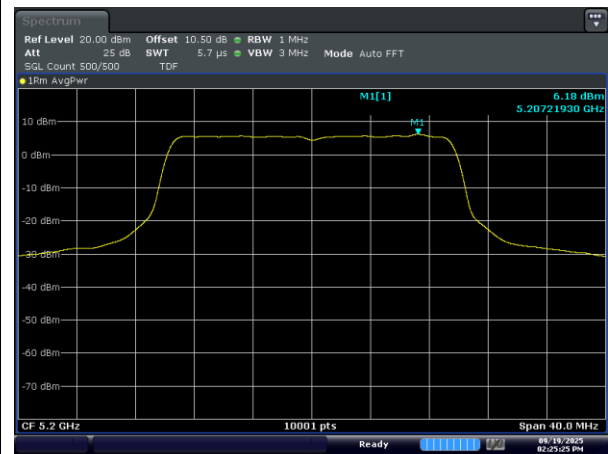


Test mode : 802.11be(EHT20)

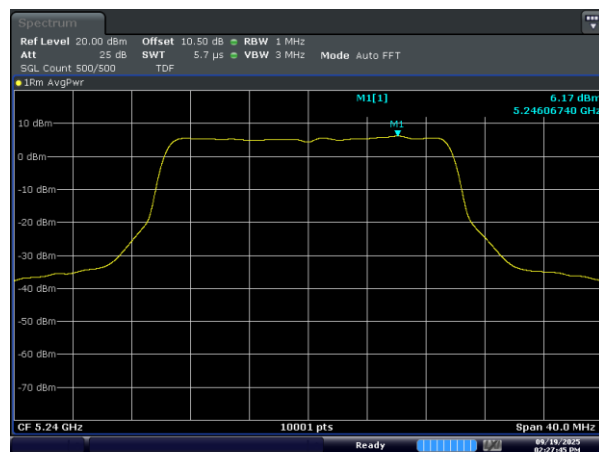
5180MHz



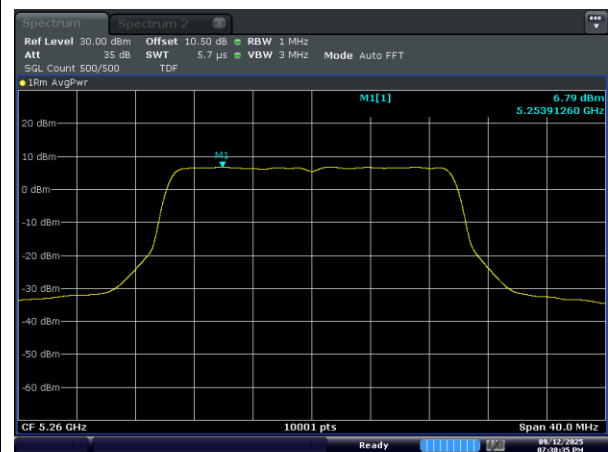
5200MHz



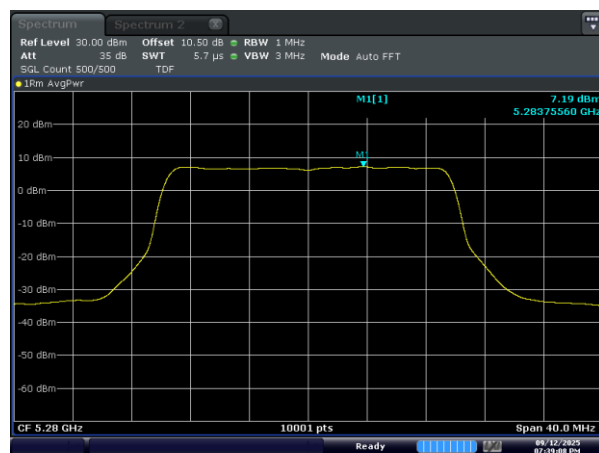
5240MHz



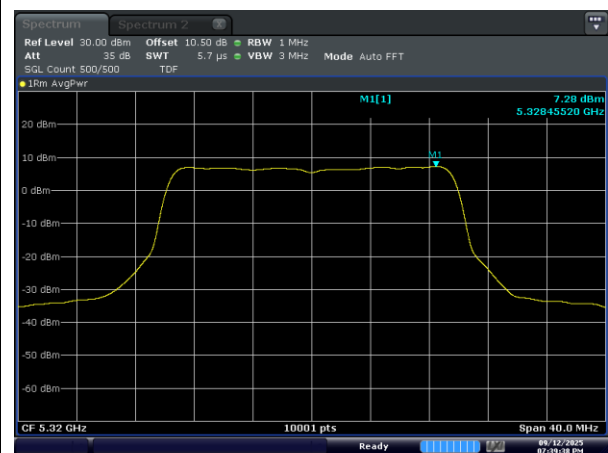
5260MHz



5280MHz

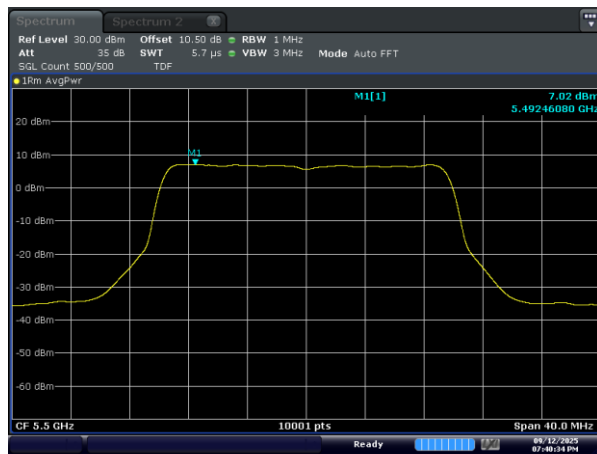


5320MHz

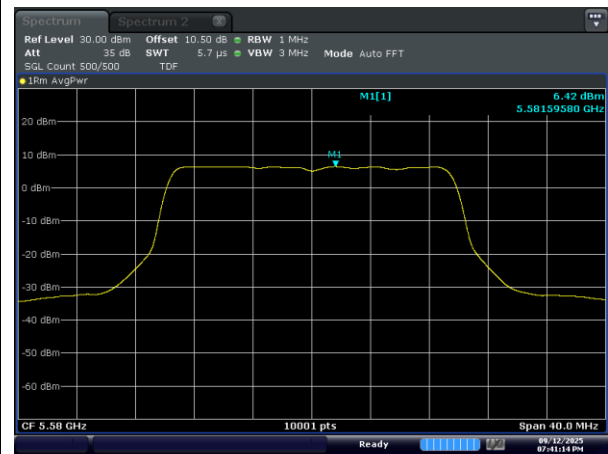


Test mode : 802.11be(EHT20)

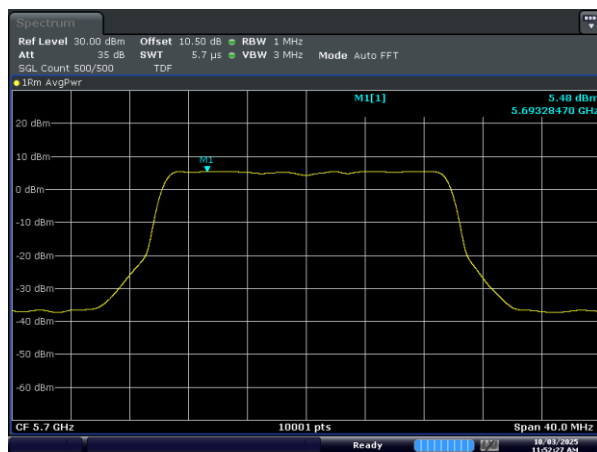
5500MHz



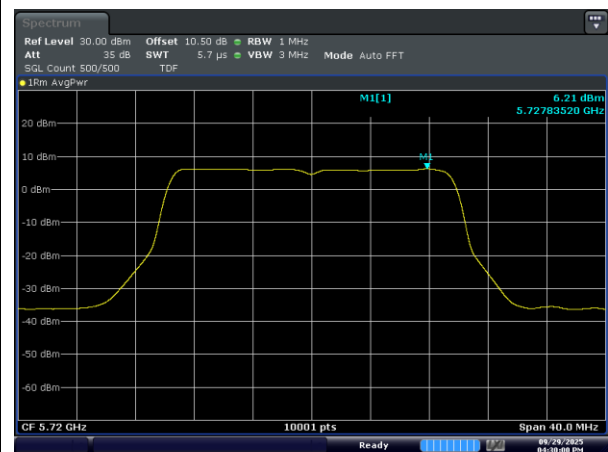
5580MHz



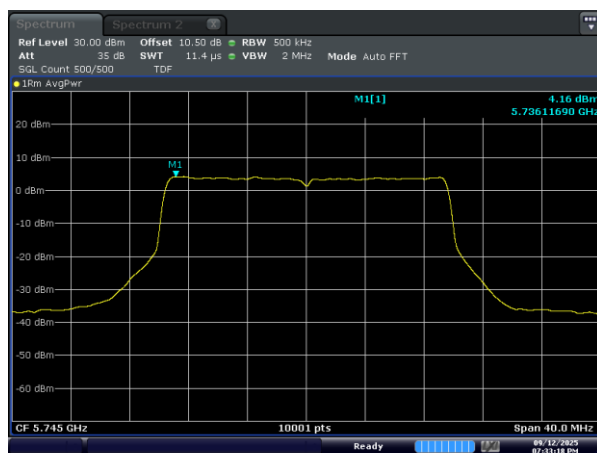
5700MHz



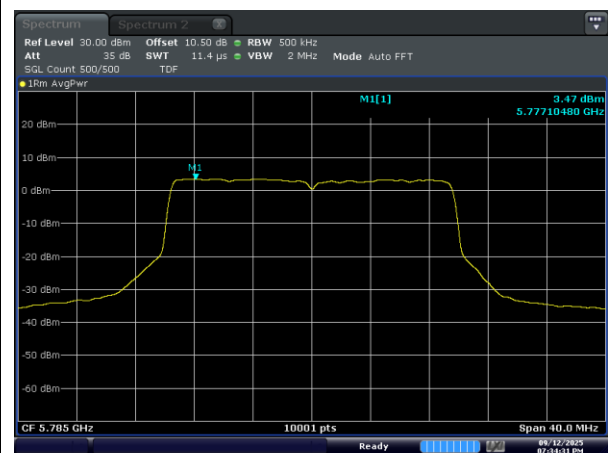
5720MHz



5745MHz

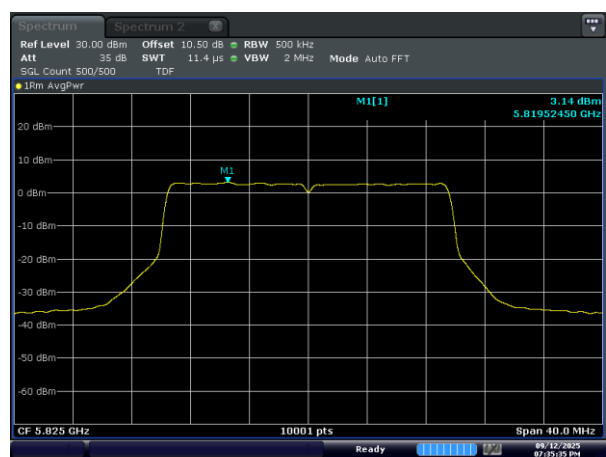


5785MHz



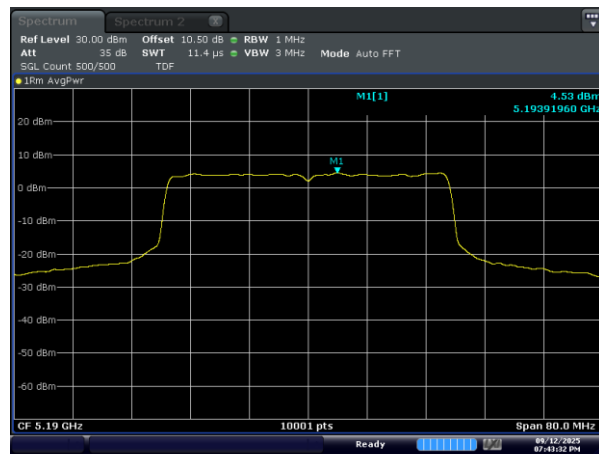
Test mode : 802.11be(EHT20)

5825MHz

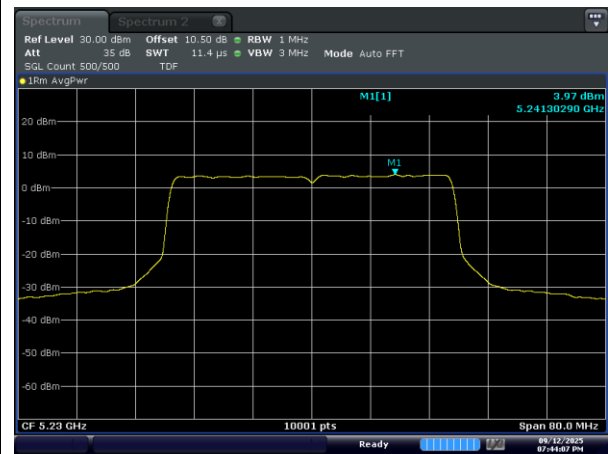


Test mode : 802.11be(EHT40)

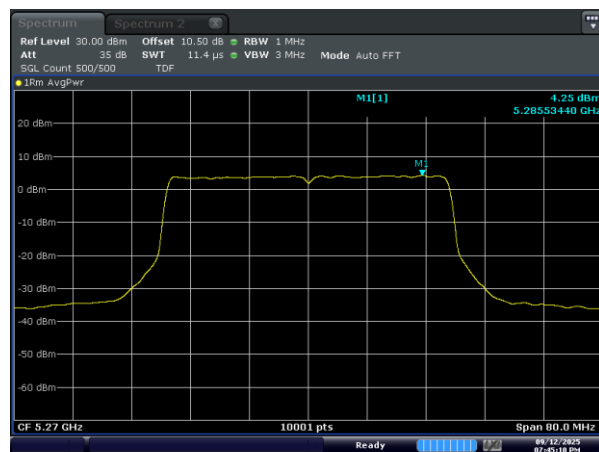
5190MHz



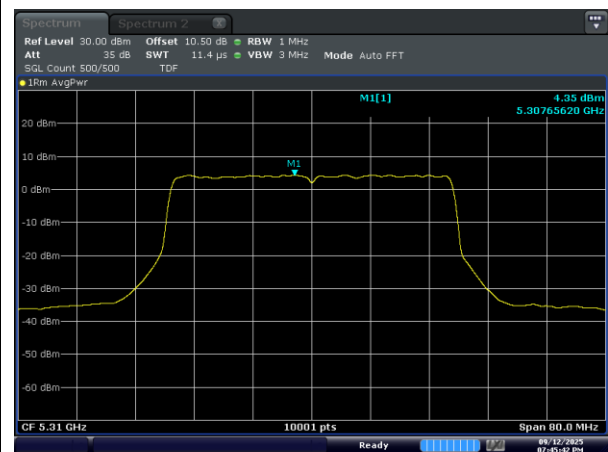
5230MHz



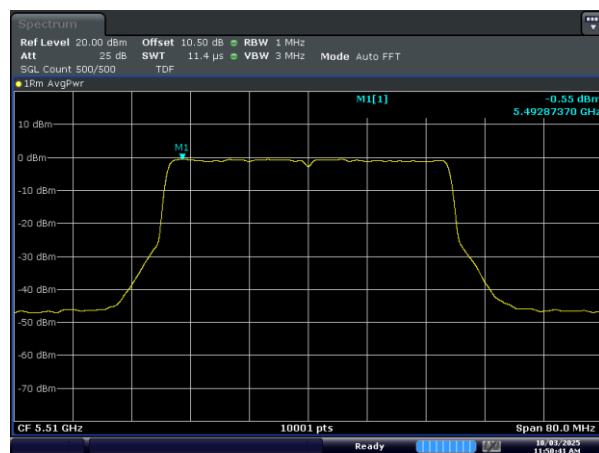
5270MHz



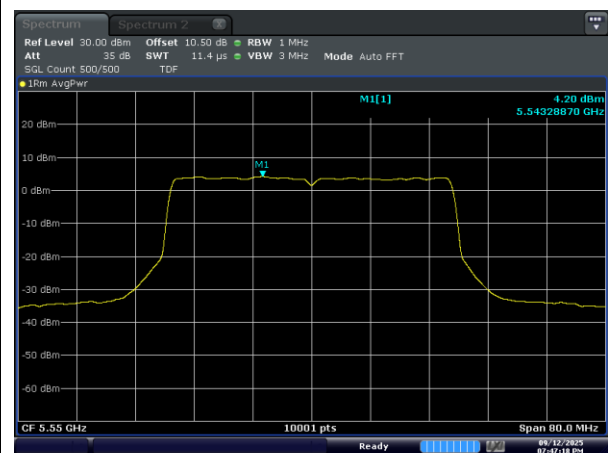
5310MHz



5510MHz

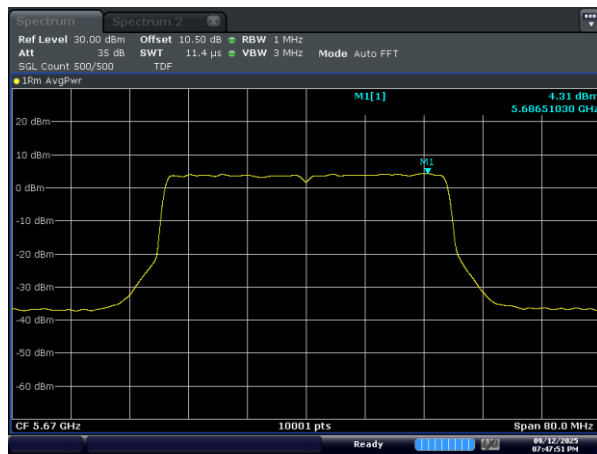


5550MHz

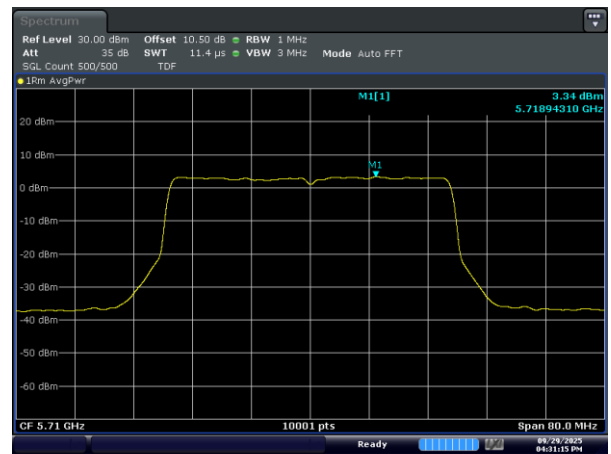


Test mode : 802.11be(EHT40)

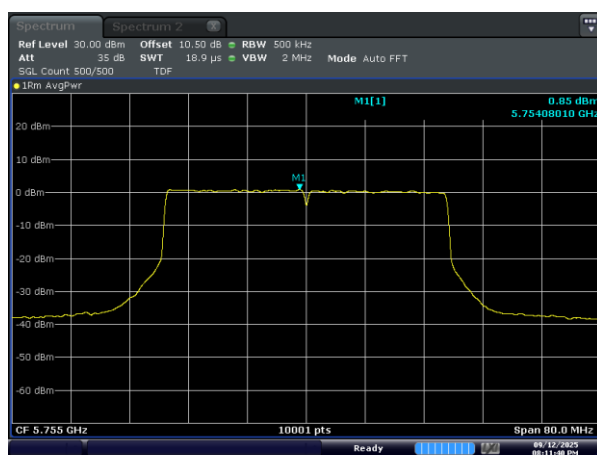
5670MHz



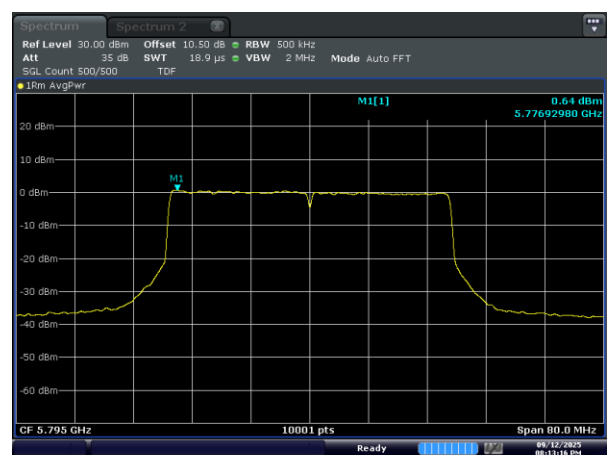
5710MHz



5755MHz

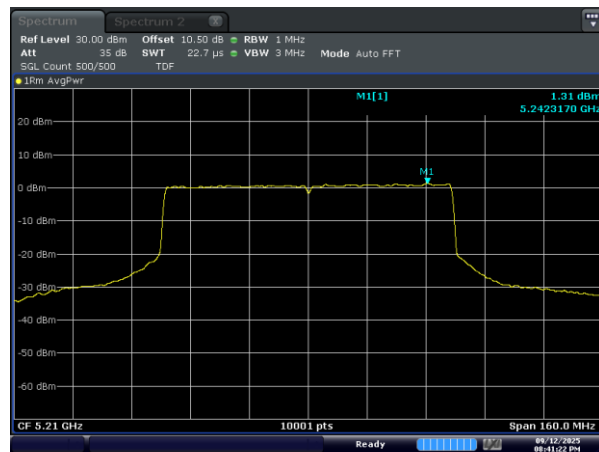


5795MHz

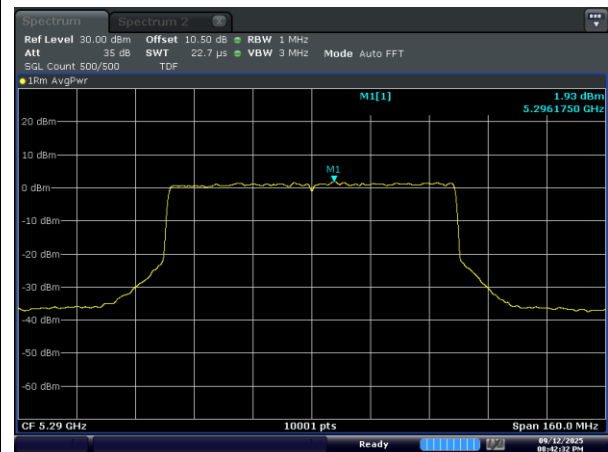


Test mode : 802.11be(EHT80)

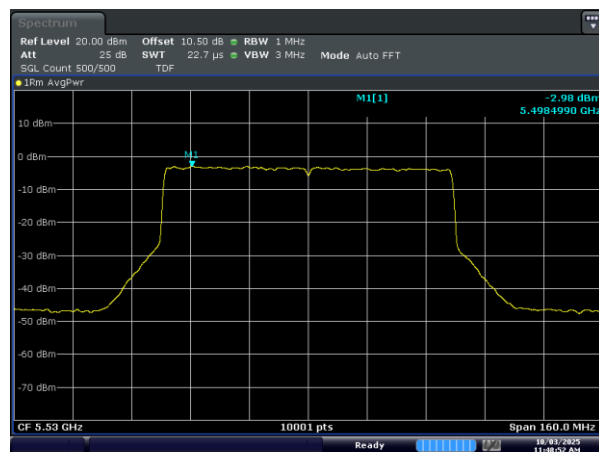
5210MHz



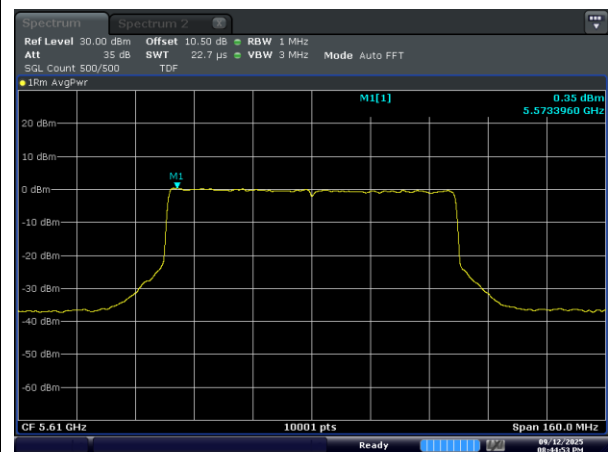
5290MHz



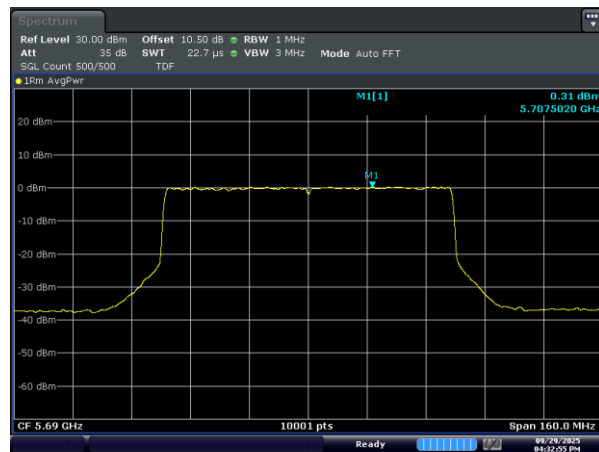
5530MHz



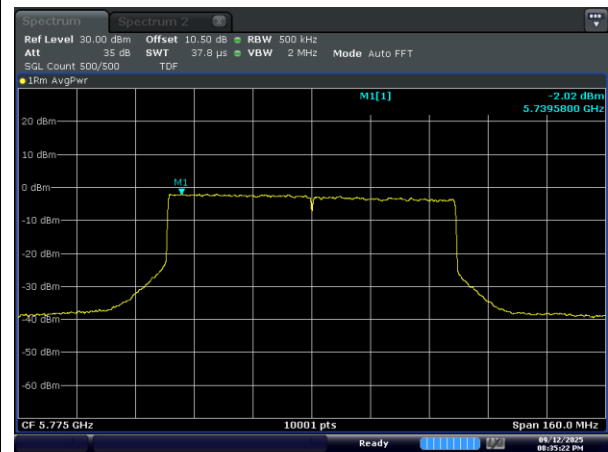
5610MHz



5690MHz



5775MHz



4.3.4 Emission Bandwidth

4.3.4.1 Regulation

According to §15.403 Emission bandwidth. For purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. Determination of the emissions bandwidth is based on the use of measurement instrumentation employing a peak detector function with an instrument resolution bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement.

According to §15.407(e) Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

According to §RSS-GEN 6.7 The occupied bandwidth or the “99% emission bandwidth” is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

In some cases, the “x dB bandwidth” is required, which is defined as the frequency range between two points, one at the lowest frequency below and one at the highest frequency above the carrier frequency, at which the maximum power level of the transmitted emission is attenuated x dB below the maximum in-band power level of the modulated signal, where the two points are on the outskirts of the in-band emission.

4.3.4.2 Measurement Procedure

These test measurement settings are specified in section C of 789033 D02 General UNII Test Procedures.

4.3.4.2.1 Emission Bandwidth (EBW)

- a) Set RBW = approximately 1% of the emission bandwidth.
- b) Set the VBW > RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

4.3.4.2.2 Minimum Emission Bandwidth for the band 5.725-5.85 GHz

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 kHz for the band 5.725-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

4.3.4.2.3 99% Occupied Bandwidth

The following procedure shall be used for measuring (99%) power bandwidth:

- 1. Set center frequency to the nominal EUT channel center frequency.
- 2. Set span = 1.5 times to 5.0 times the OBW.
- 3. Set RBW = 1% to 5% of the OBW
- 4. Set VBW $\geq 3 \times$ RBW
- 5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- 6. Use the 99% power bandwidth function of the instrument (if available).
- 7. If the instrument does not have a 99% power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

4.3.4.3 Result

Comply (measurement data : refer to the next page)

4.3.4.4 Emission Bandwidth Measurement data

Test mode : 802.11a

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	23.16	22.41	22.19
5 250 ~ 5 350	22.35	22.55	22.17
5 470 ~ 5 725	22.36	22.49	22.38
5 720(Straddle)	21.94	-	-
5 725 ~ 5 850	16.35	16.38	16.36

Test mode : 802.11n(HT20)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	24.17	23.68	23.41
5 250 ~ 5 350	22.86	22.71	22.78
5 470 ~ 5 725	22.97	22.88	22.90
5 720(Straddle)	22.71	-	-
5 725 ~ 5 850	17.60	17.60	17.81

Test mode : 802.11n(HT40)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	47.60	44.43	-
5 250 ~ 5 350	44.69	44.40	-
5 470 ~ 5 725	44.37	44.96	44.36
5 710(Straddle)	43.56	-	-
5 725 ~ 5 850	36.33	36.33	-

Test mode : 802.11ac(VHT80)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	90.15	-	-
5 250 ~ 5 350	90.76	-	-
5 470 ~ 5 725	91.88	88.66	-
5 690(Straddle)	88.34	-	-
5 725 ~ 5 850	76.38	-	-

Test mode : 802.11ax(HE20)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	22.70	22.81	22.90
5 250 ~ 5 350	22.56	22.61	22.24
5 470 ~ 5 725	22.31	22.72	21.87
5 720(Straddle)	22.35	-	-
5 725 ~ 5 850	19.04	19.02	19.07

NOTE1 : 5 725 ~ 5 825 Band Limit : >500kHz

Test mode : 802.11ax(HE40)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	44.57	42.67	-
5 250 ~ 5 350	42.97	42.89	-
5 470 ~ 5 725	43.61	42.68	43.20
5 710(Straddle)	43.76	-	-
5 725 ~ 5 850	38.07	38.20	-

Test mode : 802.11ax(HE80)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	87.61	-	-
5 250 ~ 5 350	89.26	-	-
5 470 ~ 5 725	87.53	87.74	-
5 690(Straddle)	87.99	-	-
5 725 ~ 5 850	78.01	-	-

Test mode : 802.11be(ETH20)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	22.68	22.95	22.13
5 250 ~ 5 350	22.56	22.89	22.44
5 470 ~ 5 725	23.21	22.39	22.19
5 720(Straddle)	22.09	-	-
5 725 ~ 5 850	19.05	19.07	19.12

Test mode : 802.11be(ETH40)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	44.04	43.16	-
5 250 ~ 5 350	44.48	43.79	-
5 470 ~ 5 725	43.16	43.44	43.11
5 710(Straddle)	43.36	-	-
5 725 ~ 5 850	38.29	38.04	-

Test mode : 802.11be(ETH80)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	90.09	-	-
5 250 ~ 5 350	87.61	-	-
5 470 ~ 5 725	85.59	86.98	-
5 690(Straddle)	87.37	-	-
5 725 ~ 5 850	78.01	-	-

NOTE1 : 5 725 ~ 5 825 Band Limit : >500kHz

4.3.4.5 99% Occupied bandwidth Measurement data

Test mode : 802.11a

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	16.88	16.84	16.84
5 250 ~ 5 350	16.81	16.77	16.72
5 470 ~ 5 725	16.83	17.00	16.74
5 720(Straddle)	16.86	-	-
5 725 ~ 5 850	16.82	16.76	16.83

Test mode : 802.11n(HT20)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5150 ~ 5250	18.14	17.91	17.87
5250 ~ 5350	17.85	17.99	17.95
5470 ~ 5725	17.85	17.87	17.88
5720(Straddle)	17.91	-	-
5725 ~ 5850	17.93	17.97	17.94

Test mode : 802.11n(HT40)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	36.92	36.92	-
5 250 ~ 5 350	36.80	36.92	-
5 470 ~ 5 725	36.61	36.54	36.56
5 710(Straddle)	36.62	-	-
5 725 ~ 5 850	36.45	36.75	-

Test mode : 802.11ac(VHT80)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	76.39	-	-
5 250 ~ 5 350	76.52	-	-
5 470 ~ 5 725	76.28	76.28	-
5 690(Straddle)	76.26	-	-
5 725 ~ 5 850	76.54	-	-

Test mode : 802.11ax(HE20)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	19.15	19.05	19.17
5 250 ~ 5 350	19.07	19.05	19.15
5 470 ~ 5 725	19.05	19.03	19.09
5 720(Straddle)	19.08	-	-
5 725 ~ 5 850	19.03	19.04	19.03

Test mode : 802.11ax(HE40)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	38.24	37.93	-
5 250 ~ 5 350	37.98	38.08	-
5 470 ~ 5 725	38.09	37.92	38.05
5 710(Straddle)	37.96	-	-
5 725 ~ 5 850	37.96	38.02	-

Test mode : 802.11ax(HE80)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	77.75	-	-
5 250 ~ 5 350	77.78	-	-
5 470 ~ 5 725	77.61	77.66	-
5 690(Straddle)	77.69	-	-
5 725 ~ 5 850	77.58	-	-

Test mode : 802.11be(ETH20)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	19.12	19.15	19.11
5 250 ~ 5 350	19.02	18.99	19.07
5 470 ~ 5 725	19.15	19.10	19.00
5 720(Straddle)	19.05	-	-
5 725 ~ 5 850	19.09	19.08	19.07

Test mode : 802.11be(ETH40)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	38.14	38.16	-
5 250 ~ 5 350	38.11	38.11	-
5 470 ~ 5 725	38.00	37.94	38.08
5 710(Straddle)	38.10	-	-
5 725 ~ 5 850	37.94	38.02	-

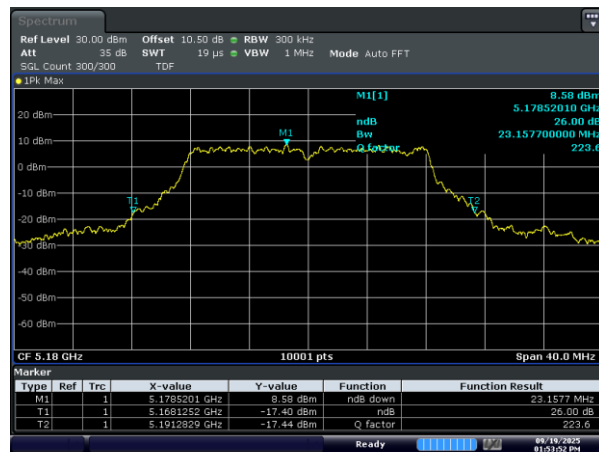
Test mode : 802.11be(ETH80)

Band	Lowest Frequency	Middle Frequency	Highest Frequency
5 150 ~ 5 250	77.74	-	-
5 250 ~ 5 350	77.72	-	-
5 470 ~ 5 725	77.56	77.64	-
5 690(Straddle)	77.56	-	-
5 725 ~ 5 850	77.48	-	-

4.3.4.6 Emission Bandwidth Test Plot

Test mode : 802.11a

5180MHz



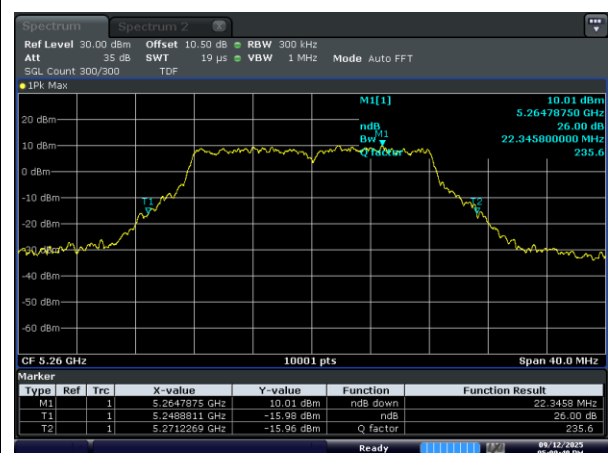
5200MHz



5240MHz



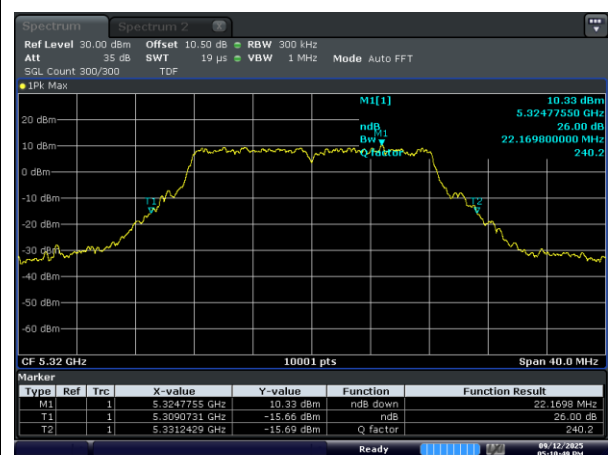
5260MHz



5280MHz

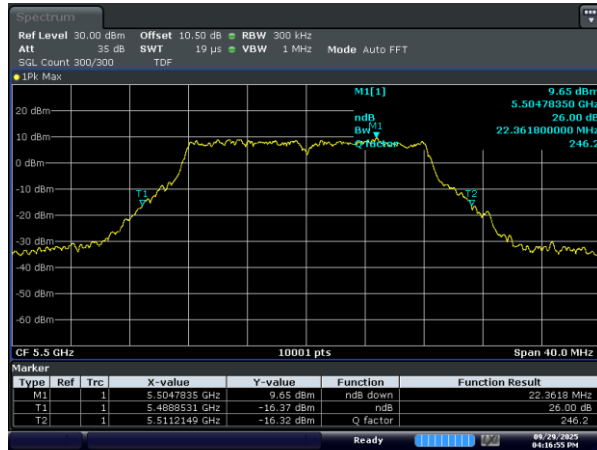


5320MHz



Test mode : 802.11a

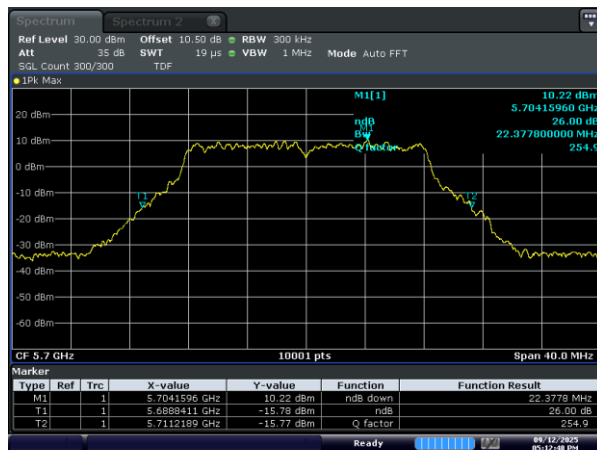
5500MHz



5580MHz



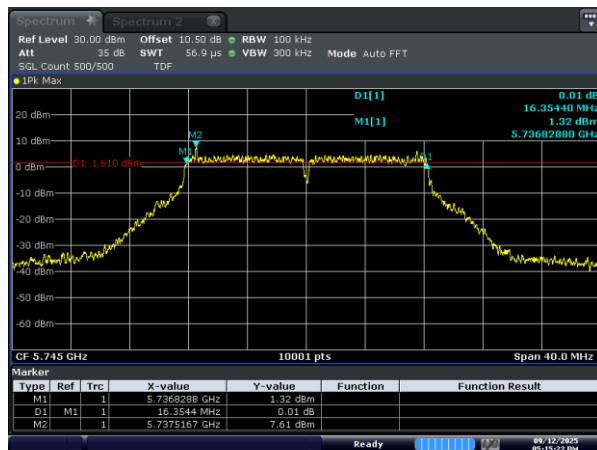
5700MHz



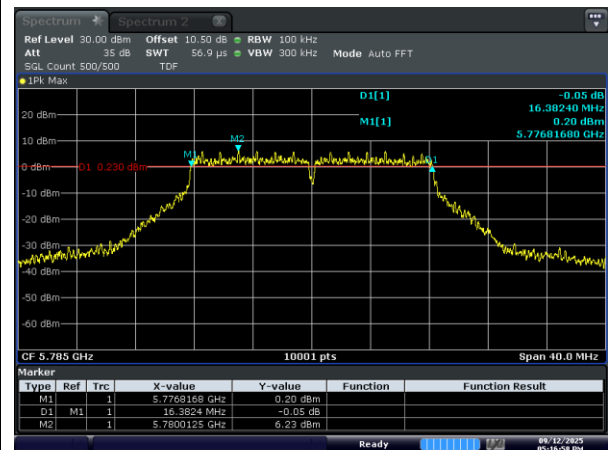
5720MHz



5745MHz

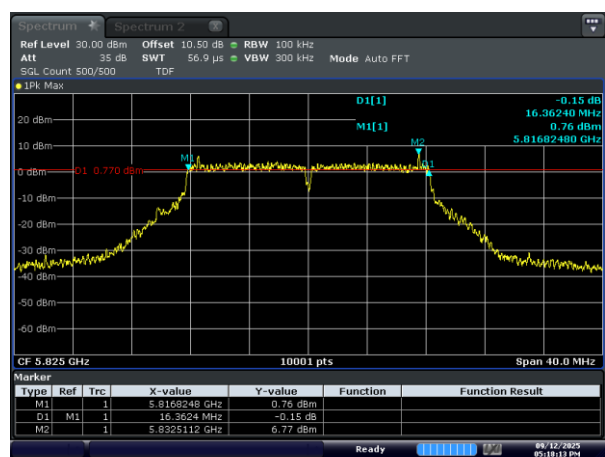


5785MHz



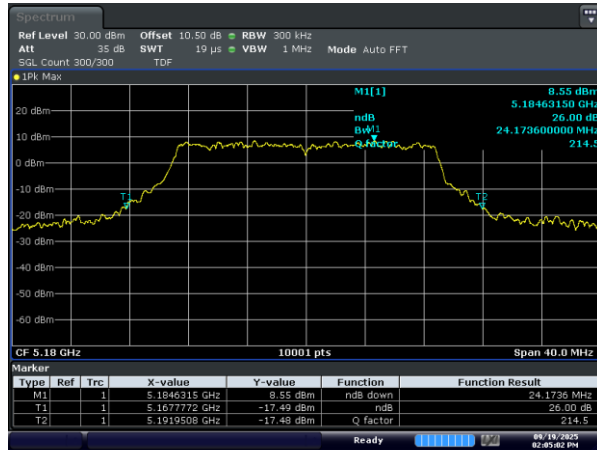
Test mode : 802.11a

5825MHz

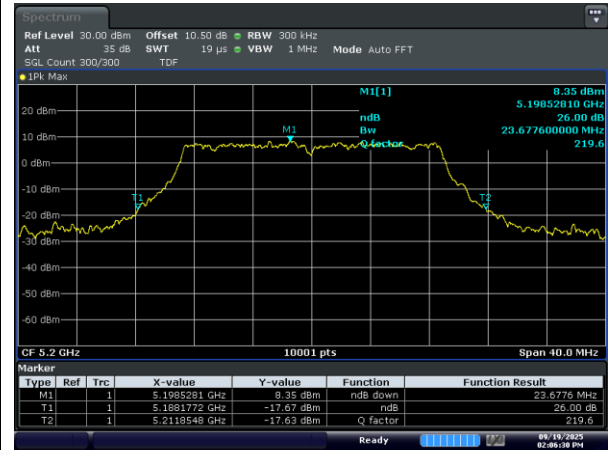


Test mode : 802.11n(HT20)

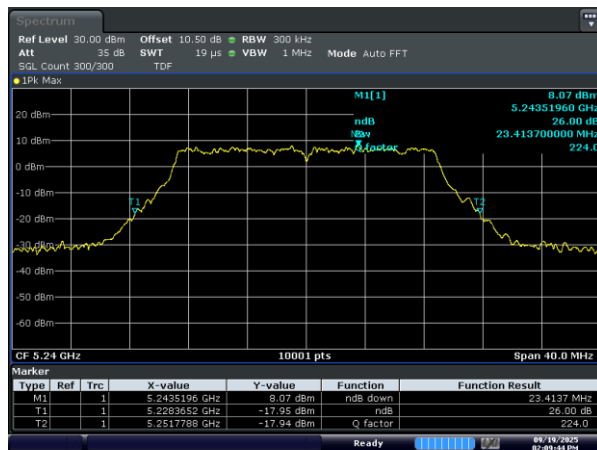
5180MHz



5200MHz



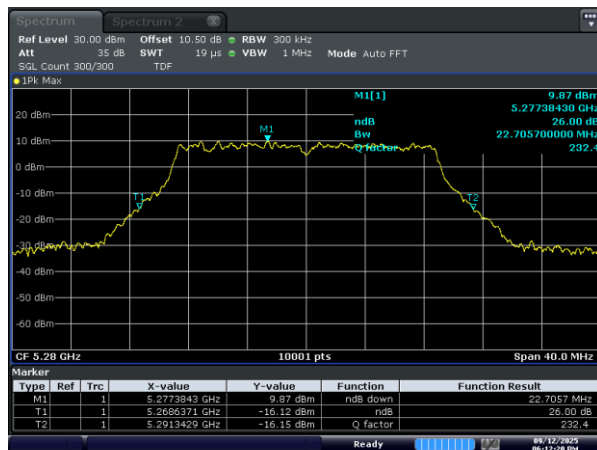
5240MHz



5260MHz



5280MHz

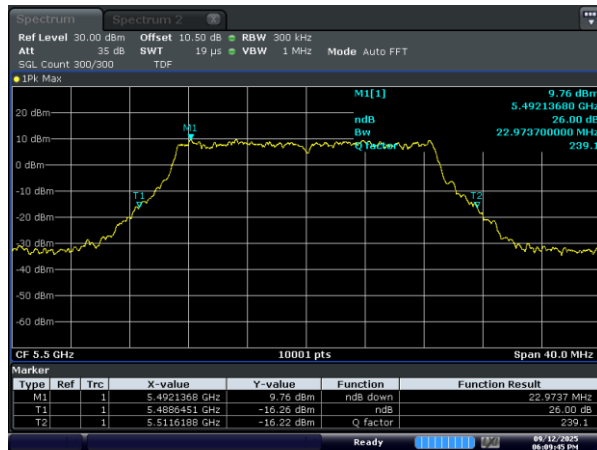


5320MHz

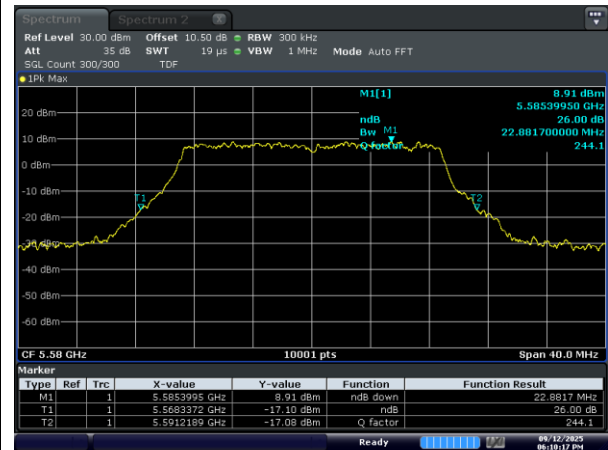


Test mode : 802.11n(HT20)

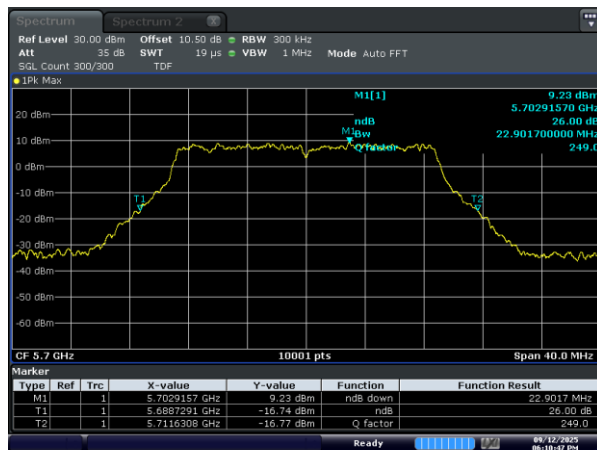
5500MHz



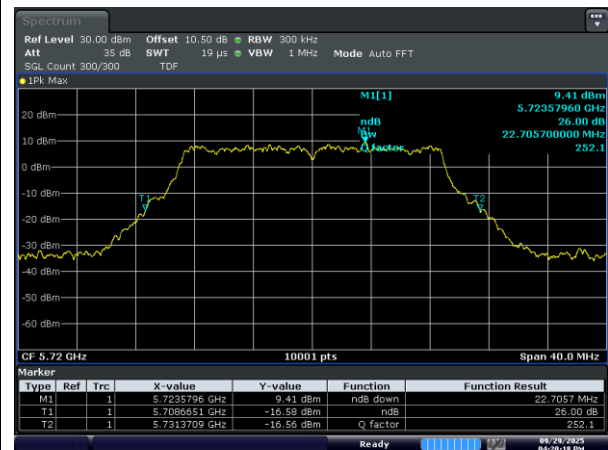
5580MHz



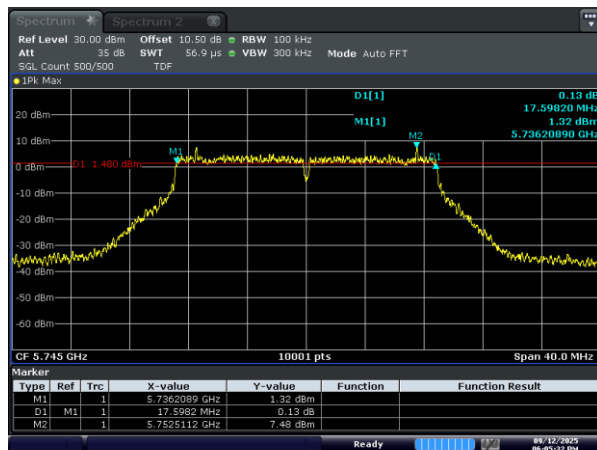
5700MHz



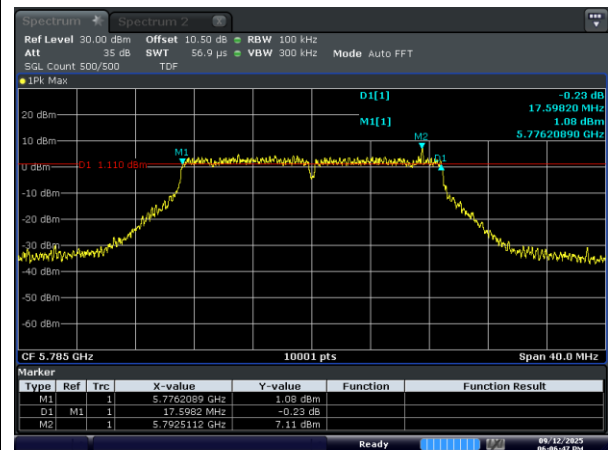
5720MHz



5745MHz



5785MHz



Test mode : 802.11n(HT20)

