FCC RF Test Report

FCC ID	:	UZ7WCMTA
EQUIPMENT	:	Touch Computer
BRAND NAME	:	Zebra
MODEL NAME	:	WCMTA
APPLICANT	:	Zebra Technologies Corporation 1 Zebra Plaza, Holtsville, NY 11742
MANUFACTURER	:	Zebra Technologies Corporation 1 Zebra Plaza, Holtsville, NY 11742
STANDARD	:	FCC Part 15 Subpart E §15.407
CLASSIFICATION	:	(NII) Unlicensed National Information Infrastructure
TEST DATE(S)	:	Feb. 04, 2023 ~ Apr. 24, 2023

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia

ACCREDITED Cert #5145.02

Sporton International Inc. (Kunshan)
No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR311602E	Rev. 01	Initial issue of report	Apr. 27, 2023

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit for U-NII-1 ~ U-NII-2C	Limit for U-NII-3	Result	Remark
3.1	2.1049 & 15.403(i)	26dB & 99% Bandwidth	-	> 500kHz	Report only	-
3.2	15.407(a)	Maximum Conducted Output Power	≤ 24 dBm	≤ 30 dBm	Pass	-
3.3	15.407(a)	Power Spectral Density	≤ 11 dBm	≤ 30 dBm/500kHz	Pass	-
3.4	15.407(b)	Unwanted Emissions	15.407(b) & 15.209(a)	15.407(b)(4)(i) &15.209(a)	Pass	Under limit 1.12 dB at 5457.360 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	15.207(a)	Pass	Under limit 16.94 dB at 0.150 MHz
3.6	15.203 & 15.407(a)	Antenna Requirement	15.203 & 15.407(a)	15.203 & 15.407(a)	Pass	-

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Touch Computer
Brand Name	Zebra
Model Name	WCMTA
FCC ID	UZ7WCMTA
Sample 1	Scanner(SE4710)
Sample 2	Scanner(SE5500)
HW Version	DV
SW Version	13-09-09.00-TG-U00-PRD-ATH-04
FW Version	FUSION_QA_4_1.1.0.001_T
MFD	09MAR23
EUT Stage	Identical Prototype

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

2. There are two types of EUT: the main differences between them are the scanner and memory. According to the difference, we choose the Sample 1 to perform full test, and verify the worst RSE mode for Sample 2.

Specification of Accessory				
Battery 1	**Brand Name**	Zebra	**Model Number**	BT-000473

Supported Unit used in test configuration and system				
Battery 2	**Brand Name**	Zebra	**Model Number**	BT-000473B
Battery 3	**Brand Name**	Zebra	**Model Number**	BT-000473E
AC Adapter	**Brand Name**	Zebra	**Part Number**	PWR-WUA5V12W0US
Earphone 1	**Brand Name**	Zebra	**Part Number**	HDST-35MM-PTT1-01
Earphone 2	**Brand Name**	Zebra	**Part Number**	HDST-USBC-PTT1-01
USB Cable (Type C to Type A)	**Brand Name**	Zebra	**Part Number**	CBL-TC5X-USBC2A-01
Type C-Audio Cable (Type C to 3.5mm)	**Brand Name**	Zebra	**Part Number**	ADP-USBC-35MM1-01
Trigger Handle	**Brand Name**	Zebra	**Part Number**	TRG-TC2L-SNP1-01
Hand Strap	**Brand Name**	Zebra	**Part Number**	SG-TC2L-HSTRP1-01
Soft Holster	**Brand Name**	Zebra	**Part Number**	SG-TC2L-HLSTR1-01

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz 5745 MHz ~ 5825 MHz
Maximum Output Power to Antenna	**<MIMO Ant. 7+8>** **<5180 MHz ~ 5240 MHz>** 802.11a : 22.67 dBm / 0.1849W 802.11n HT20 : 22.85 dBm / 0.1928W 802.11n HT40 : 22.81 dBm / 0.1910W 802.11ac VHT20 : 22.88 dBm / 0.1941W 802.11ac VHT40 : 22.84 dBm / 0.1923W 802.11ac VHT80 : 20.12 dBm / 0.1028W 802.11ac VHT160 : 18.27 dBm / 0.0671W 802.11ax HE20 : 22.91 dBm / 0.1954W 802.11ax HE40 : 22.86 dBm / 0.1932W 802.11ax HE80 : 20.12 dBm / 0.1028W 802.11ax HE160 : 18.35 dBm / 0.0684W **<5260 MHz ~ 5320 MHz>** 802.11a : 22.81 dBm / 0.1910W 802.11n HT20 : 22.67 dBm / 0.1849W 802.11n HT40 : 22.52 dBm / 0.1786W 802.11ac VHT20 : 22.69 dBm / 0.1858W 802.11ac VHT40 : 22.55 dBm / 0.1799W 802.11ac VHT80 : 19.71 dBm / 0.0935W 802.11ac VHT160 : 18.27 dBm / 0.0671W 802.11ax HE20 : 22.71 dBm / 0.1866W 802.11ax HE40 : 22.58 dBm / 0.1811W 802.11ax HE80 : 19.72 dBm / 0.0938W 802.11ax HE160 : 18.35 dBm / 0.0684W **<5500 MHz ~ 5720 MHz >** 802.11a : 22.35 dBm / 0.1718W 802.11n HT20 : 22.66 dBm / 0.1845W 802.11n HT40 : 22.92 dBm / 0.1959W 802.11ac VHT20 : 22.69 dBm / 0.1858W 802.11ac VHT40 : 22.95 dBm / 0.1972W 802.11ac VHT80 : 21.45 dBm / 0.1396W 802.11ac VHT160 : 18.33 dBm / 0.0681W 802.11ax HE20 : 22.72 dBm / 0.1871W 802.11ax HE40 : 22.98 dBm / 0.1986W 802.11ax HE80 : 21.47 dBm / 0.1403W 802.11ax HE160 : 18.43 dBm / 0.0697W **<5745 MHz ~ 5825 MHz>** 802.11a : 21.73 dBm / 0.1489W 802.11n HT20 : 21.62 dBm / 0.1452W 802.11n HT40 : 21.50 dBm / 0.1413W 802.11ac VHT20 : 21.66 dBm / 0.1466W 802.11ac VHT40 : 21.55 dBm / 0.1429W 802.11ac VHT80 : 21.33 dBm / 0.1358W 802.11ax HE20 : 21.74 dBm / 0.1493W 802.11ax HE40 : 21.59 dBm / 0.1442W 802.11ax HE80 : 21.41 dBm / 0.1384W
99% Occupied Bandwidth	**<5180 MHz ~ 5240 MHz>** 802.11a : 18.42 MHz

	802.11ax HE20 : 19.42 MHz 802.11ax HE40 : 38.76 MHz 802.11ax HE80 : 78.16 MHz 802.11ax HE160: 157.92 MHz **<5260 MHz ~ 5320 MHz >** 802.11a : 17.66 MHz 802.11ax HE20 : 19.38 MHz 802.11ax HE40 : 38.44 MHz 802.11ax HE80 : 78.32 MHz **<5500 MHz ~ 5720 MHz >** 802.11a : 20.10 MHz 802.11ax HE20 : 19.22 MHz 802.11ax HE40 : 38.20 MHz 802.11ax HE80 : 77.84 MHz 802.11ax HE160: 157.28 MHz **<5745 MHz ~ 5825 MHz>** 802.11a : 18.62 MHz 802.11ax HE20 : 19.42 MHz 802.11ax HE40 : 38.36 MHz 802.11ax HE80 : 77.84 MHz
Antenna Type / Gain	**<5180 MHz ~ 5240 MHz>** <Ant. 7> : IFA Antenna with gain -0.65 dBi <Ant. 8> : IFA Antenna with gain -3.50 dBi **<5260 MHz ~ 5320 MHz>** <Ant. 7> : IFA Antenna with gain -0.84 dBi <Ant. 8> : IFA Antenna with gain -3.40 dBi **<5500 MHz ~ 5700 MHz>** <Ant. 7> : IFA Antenna with gain -0.31 dBi <Ant. 8> : IFA Antenna with gain -0.20 dBi **<5745 MHz ~ 5825 MHz>** <Ant. 7> : IFA Antenna with gain 0.87 dBi <Ant. 8> : IFA Antenna with gain 0.40 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) 802.11ax: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM /1024QAM)

Note:

1. For 802.11n/ac/ax 20/40/80/160MHz mode, the whole testing has assessed only 802.11ax HE20/HE40/HE80/HE160MHz by referring to the higher output power.
2. WIFI MIMO support CDD & Tx Beamforming mode by manufacturer declared.
3. For WLAN SISO & MIMO(CDD) mode of 802.11a/n/ac, the whole testing has assessed CDD mode by referring to the higher normal conducted power.
4. 802.11ax support Tx Beamforming mode for 802.11ax, and the manufacturer declares that Tx Beamforming power/EIRP is not greater than CDD mode, so CDD mode covers Tx Beamforming mode.
5. 802.11ax support OFDMA full RU tone and partial RU tone, both full RU and partial RU-left (for low CH) and partial RU-right (for high CH) test Power/PSD/RSE, the full RU power > partial RU, therefore the full RU perform full test and Partial RU verified power/PSD/RSE.
6. The device support TPC mechanism.

1.3 Modification of EUT

No modifications are made to the EUT during all test items.

1.4 Testing Location

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	CO01-KS 03CH08-KS TH01-KS	CN1257	314309

1.5 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH08-KS	AUDIX	E3	6.2009-8-24
2.	CO01-KS	AUDIX	E3	6.2009-8-24

1.6 Applicable Standards

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

- 47 CFR Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.

b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5180-5240 MHz U-NII-1	36	5180	44	5220
	38*	5190	46*	5230
	40	5200	48	5240
	42#	5210	50$	5250

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5260-5320 MHz U-NII-2A	52	5260	60	5300
	54*	5270	62*	5310
	56	5280	64	5320
	58#	5290		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5470-5725 MHz U-NII-2C	100	5500	114$	5570
	102*	5510	116	5580
	104	5520	132	5660
	106#	5530	134*	5670
	108	5540	136	5680
	110*	5550	140	5700
	112	5560		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5745-5825 MHz U-NII-3	149	5745	157	5785
	151*	5755	159*	5795
	153	5765	161	5805
	155#	5775	165	5825

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
TDWR Channel	118*	5590	124	5620
	120	5600	126*	5630
	122#	5610	128	5640

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Straddle Channel	138#	5690	144	5720
	142*	5710		

Note:

1. The above Frequency and Channel in "*" were 802.11n HT40 and 802.11ac VHT40 and 802.11ax HE40.
2. The above Frequency and Channel in "#" were 802.11ac VHT80 and 802.11ax HE80.
3. The above Frequency and Channel in "$" were 802.11ax HE160.

2.2 Test Mode

Final test modes are considering the modulation and worse data rates as below table.

MIMO Mode

Modulation	Data Rate
802.11a	6 Mbps
802.11ax HE20	MCS0
802.11ax HE40	MCS0
802.11ax HE80	MCS0
802.11ax HE160	MCS0

Test Cases	
AC Conducted Emission	Mode 1 : 5G NR n71 Rx + Bluetooth Link + WLAN Link(5G) + Battery(BT-000473) + USB Cable (CBL-TC5X-USBC2A-01) + Charging from AC Adapter (PWR-WUA5V12W0US)

Remark:

1. RSE Co-location mode is combination from the worst BT/WLAN TX mode and WWAN Link mode.
2. For Radiated Test Cases, the tests were performed with Adapter and USB Cable. All radiated test mode refer to Appendix B of this report.

Ch. #		U-NII-1	U-NII-2A	U-NII-2C	U-NII-3
		802.11a	802.11a	802.11a	802.11a
L	Low	36	52	100	149
M	Middle	44	60	116	157
H	High	48	64	140	165
Straddle		-	-	144	-

Ch. #		U-NII-1	U-NII-2A	U-NII-2C	U-NII-3
		802.11ax HE20	802.11ax HE20	802.11ax HE20	802.11ax HE20
L	Low	36	52	100	149
M	Middle	44	60	116	157
H	High	48	64	140	165
Straddle		-	-	144	-

Ch. #		U-NII-1	U-NII-2A	U-NII-2C	U-NII-3
		802.11ax HE40	802.11ax HE40	802.11ax HE40	802.11ax HE40
L	Low	38	54	102	151
M	Middle	-	-	110	-
H	High	46	62	134	159
Straddle		-	-	142	-

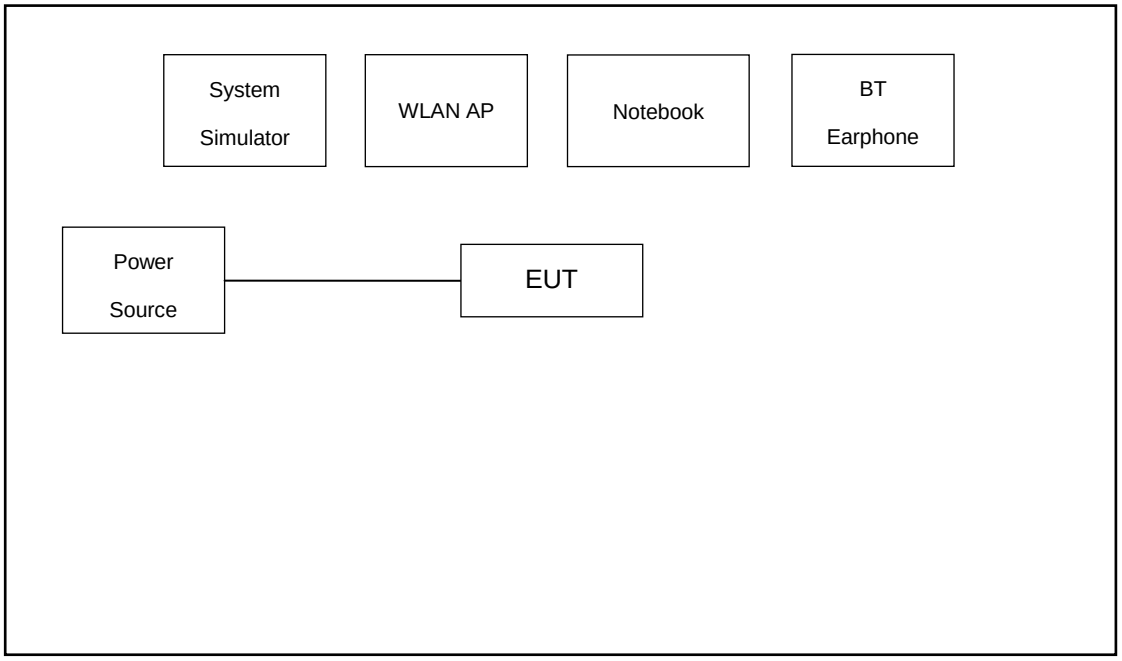
Ch. #		U-NII-1	U-NII-2A	U-NII-2C	U-NII-3
		802.11ax HE80	802.11ax HE80	802.11ax HE80	802.11ax HE80
L	Low	-	-	106	-
M	Middle	42	58	-	155
H	High	-	-	122	-
Straddle		-	-	138	-

Ch. #		U-NII-1	U-NII-2A	U-NII-2C	U-NII-3
		802.11ax HE160	802.11ax HE160	802.11ax HE160	802.11ax HE160
M	Middle	50		114	-

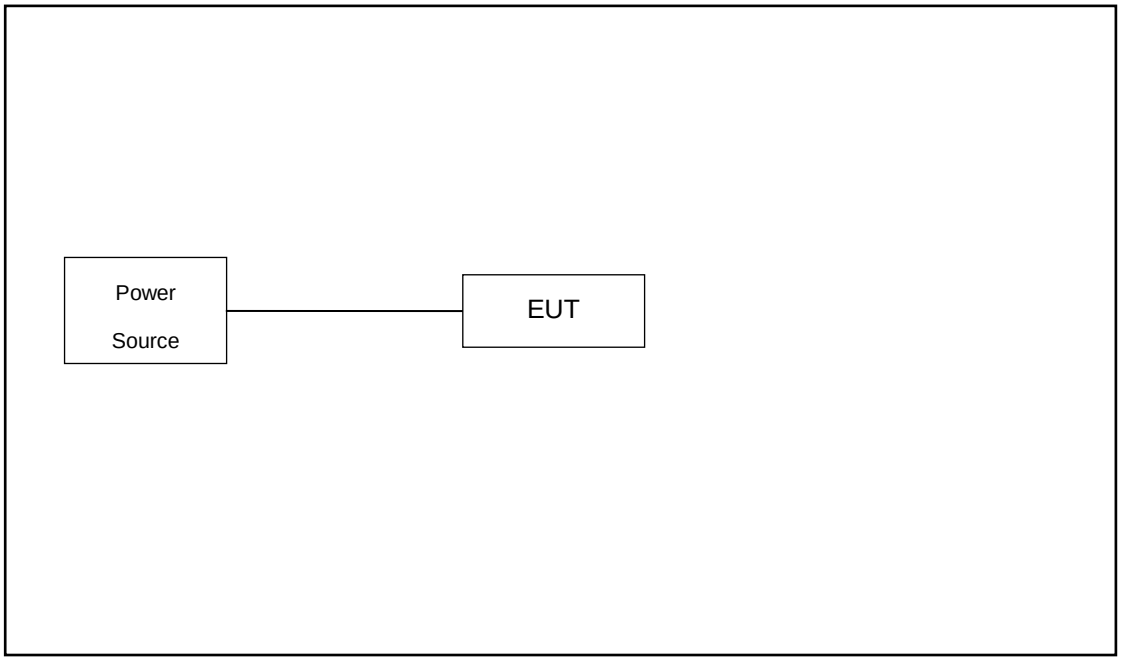
Remark: For radiation spurious emission, the final modulation and the worst data rate was reference the max RF conducted power.

2.3 Connection Diagram of Test System

For Conducted Emission:



For Radiated Emission:



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
2.	System Simulator	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m
3.	WLAN AP	D-link	DIR-655	KA21R655B1	N/A	Unshielded, 1.8m
4.	Notebook	Lenovo	G480	QDS-BRCM1050I	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
5.	Bluetooth Earphone	Lenovo	LBH308	N/A	N/A	N/A

2.5 EUT Operation Test Setup

For WLAN RF test items, an engineering test program was provided and enabled to make EUT continuously transmit/receive.

For AC power line conducted emissions, the EUT was set to connect with the WLAN AP under large package sizes transmission.

2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 7.08 dB and 10dB attenuator.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 7.08 + 10 = 17.08 (dB)

3 Test Result

3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement

3.1.1 Description of 6dB and 26dB and 99% Occupied Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

26dB and 99% Occupied bandwidth are reporting only.

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

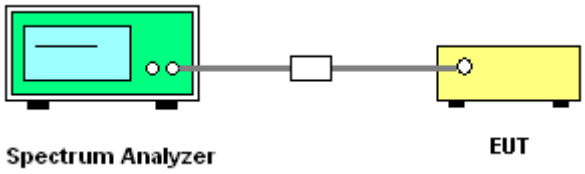
3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

☒	Section C) Bandwidth Measurement 1. Emission Bandwidth (EBW)
	1. Set RBW = approximately 1% of the emission bandwidth. **2.** Set the VBW > RBW. **3.** Detector = Peak. **4.** Trace mode = max hold **5.** Measure the maximum width of the emission that is 26 dB down from the peak 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%, Set the VBW > RBW. **6.** For 6dB BW, Set RBW = 100kHz, Set the VBW ≥ 3 x RBW. **7.** For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1%~5% of OBW and set the Video bandwidth (VBW) ≥ 3 * RBW. **8.** Measure and record the results in the test report.

☒	Section C) Bandwidth Measurement 2. Minimum Emission Bandwidth for the band 5.725 - 5.85 GHz
	1. Set RBW = 100kHz. **2.** Set the VBW ≥ 3 x RBW. **3.** Detector = Peak. **4.** Trace mode = max hold **5.** Measure the maximum width of the emission that is 6 dB down from the peak of the emission. **6.** Measure and record the results in the test report.

3.1.4 Test Setup



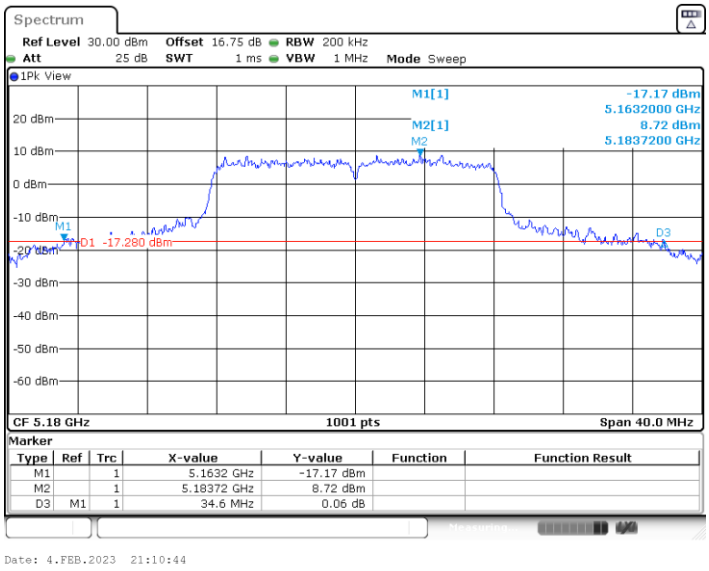
3.1.5 Test Result of 6dB & 26dB & 99% Occupied Bandwidth

Test Engineer:	Jiang Jun	Temperature:	21~25°C
		Relative Humidity:	51~54%

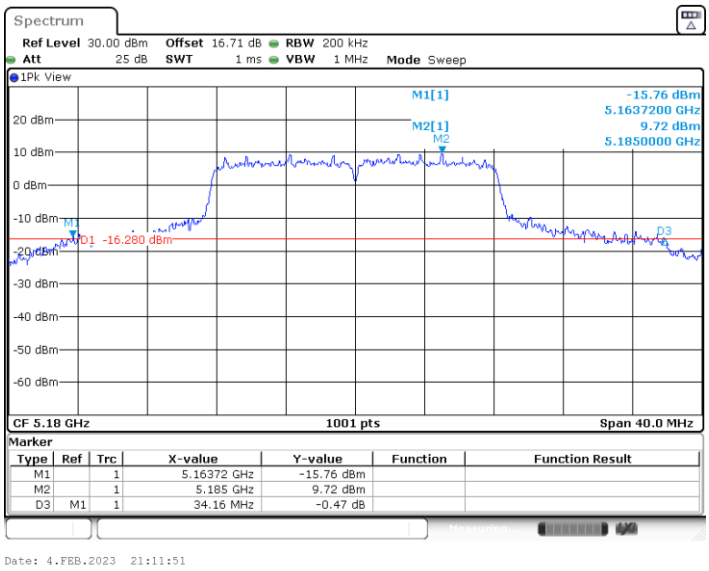
TestMode	Antenna	Freq(MHz)	26dB EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A-CDD	Ant7	5180	34.60	5163.20	5197.80	---	---
	Ant8	5180	34.16	5163.72	5197.88	---	---
	Ant7	5220	33.24	5203.20	5236.44	---	---
	Ant8	5220	33.76	5203.28	5237.04	---	---
	Ant7	5240	30.32	5225.92	5256.24	---	---
	Ant8	5240	33.28	5223.44	5256.72	---	---
	Ant7	5260	32.24	5244.04	5276.28	---	---
	Ant8	5260	31.40	5243.64	5275.04	---	---
	Ant7	5300	29.16	5285.88	5315.04	---	---
	Ant8	5300	25.52	5287.08	5312.60	---	---
	Ant7	5320	32.96	5303.28	5336.24	---	---
	Ant8	5320	32.60	5303.64	5336.24	---	---
	Ant7	5500	26.68	5487.08	5513.76	---	---
	Ant8	5500	34.20	5483.56	5517.76	---	---
	Ant7	5580	26.68	5567.12	5593.80	---	---
	Ant8	5580	31.36	5564.92	5596.28	---	---
	Ant7	5700	27.88	5687.12	5715.00	---	---
	Ant8	5700	34.60	5683.24	5717.84	---	---
	Ant7	5720	26.48	5707.12	5733.60	---	---
	Ant8	5720	34.16	5703.32	5737.48	---	---
	Ant7	5745	25.72	5733.08	5758.80	---	---
	Ant8	5745	33.76	5728.48	5762.24	---	---
	Ant7	5785	25.92	5772.84	5798.76	---	---
	Ant8	5785	32.72	5768.48	5801.20	---	---
	Ant7	5825	33.00	5808.28	5841.28	---	---
	Ant8	5825	35.12	5807.76	5842.88	---	---
11AX20MIMO	Ant7	5180	38.28	5160.16	5198.44	---	---
	Ant8	5180	32.64	5164.76	5197.40	---	---
	Ant7	5220	32.52	5203.60	5236.12	---	---
	Ant8	5220	37.72	5200.44	5238.16	---	---
	Ant7	5240	29.72	5226.36	5256.08	---	---
	Ant8	5240	28.08	5226.04	5254.12	---	---
	Ant7	5260	32.72	5242.84	5275.56	---	---
	Ant8	5260	26.36	5245.52	5271.88	---	---
	Ant7	5300	34.52	5284.16	5318.68	---	---
	Ant8	5300	28.64	5286.68	5315.32	---	---
	Ant7	5320	35.56	5302.32	5337.88	---	---
	Ant8	5320	28.60	5305.08	5333.68	---	---
	Ant7	5500	22.60	5488.24	5510.84	---	---
	Ant8	5500	27.76	5486.64	5514.40	---	---
	Ant7	5580	24.00	5568.20	5592.20	---	---
	Ant8	5580	26.08	5566.04	5592.12	---	---
	Ant7	5700	26.32	5687.36	5713.68	---	---

	Ant8	5700	27.24	5687.80	5715.04	---	---
	Ant7	5720	26.32	5707.40	5733.72	---	---
	Ant8	5720	24.04	5708.56	5732.60	---	---
	Ant7	5745	27.04	5731.44	5758.48	---	---
	Ant8	5745	30.44	5730.80	5761.24	---	---
	Ant7	5785	29.44	5771.40	5800.84	---	---
	Ant8	5785	28.48	5770.48	5798.96	---	---
	Ant7	5825	34.60	5807.00	5841.60	---	---
	Ant8	5825	35.80	5806.56	5842.36	---	---
11AX40MIMO	Ant7	5190	73.44	5152.88	5226.32	---	---
	Ant8	5190	69.12	5155.28	5224.40	---	---
	Ant7	5230	69.76	5197.20	5266.96	---	---
	Ant8	5230	76.64	5192.40	5269.04	---	---
	Ant7	5270	65.36	5239.04	5304.40	---	---
	Ant8	5270	69.28	5235.68	5304.96	---	---
	Ant7	5310	65.84	5279.12	5344.96	---	---
	Ant8	5310	60.96	5280.40	5341.36	---	---
	Ant7	5510	49.52	5489.36	5538.88	---	---
	Ant8	5510	44.40	5486.80	5531.20	---	---
	Ant7	5550	41.52	5529.36	5570.88	---	---
	Ant8	5550	62.24	5520.24	5582.48	---	---
	Ant7	5670	54.80	5646.80	5701.60	---	---
	Ant8	5670	48.40	5645.36	5693.76	---	---
	Ant7	5710	51.84	5689.36	5741.20	---	---
	Ant8	5710	54.48	5686.80	5741.28	---	---
	Ant7	5755	52.64	5733.80	5786.44	---	---
	Ant8	5755	62.16	5724.20	5786.36	---	---
	Ant7	5795	64.80	5761.64	5826.44	---	---
	Ant8	5795	68.80	5757.56	5826.36	---	---
11AX80MIMO	Ant7	5210	87.04	5167.60	5254.64	---	---
	Ant8	5210	88.64	5163.60	5252.24	---	---
	Ant7	5290	111.68	5237.20	5348.88	---	---
	Ant8	5290	83.04	5248.08	5331.12	---	---
	Ant7	5530	83.20	5488.56	5571.76	---	---
	Ant8	5530	84.64	5488.88	5573.52	---	---
	Ant7	5610	83.04	5568.40	5651.44	---	---
	Ant8	5610	82.72	5568.56	5651.28	---	---
	Ant7	5690	83.68	5648.40	5732.08	---	---
	Ant8	5690	83.68	5648.40	5732.08	---	---
	Ant7	5775	82.88	5733.56	5816.44	---	---
	Ant8	5775	85.44	5732.12	5817.56	---	---
11AX160MIMO	Ant7	5250	169.92	5166.48	5336.40	---	---
	Ant8	5250	165.12	5167.76	5332.88	---	---
	Ant7	5570	167.04	5487.12	5654.16	---	---
	Ant8	5570	165.12	5488.08	5653.20	---	---

11A-CDD_Ant7_5180



11A-CDD_Ant8_5180



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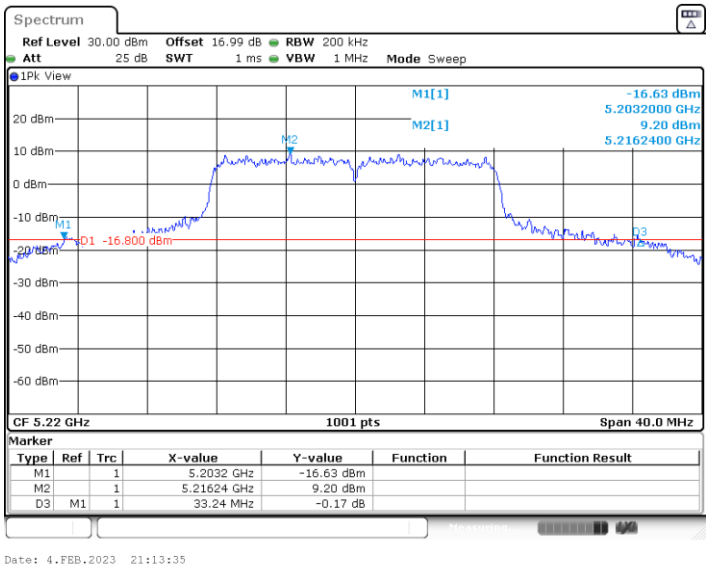

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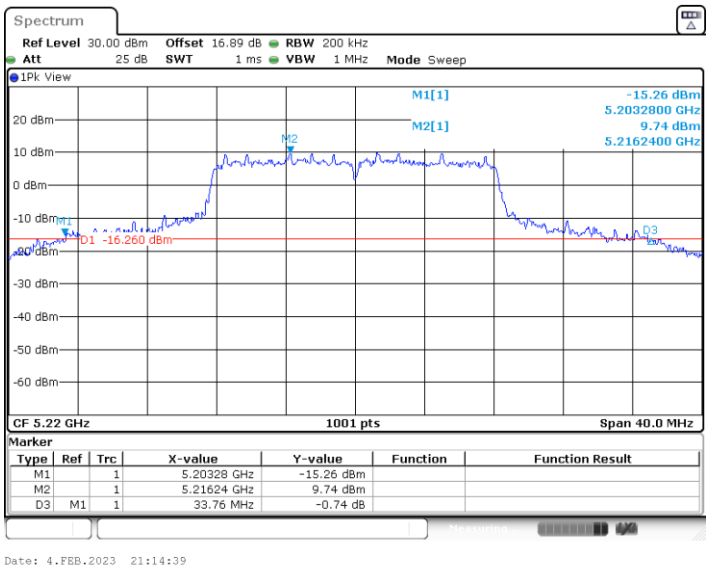
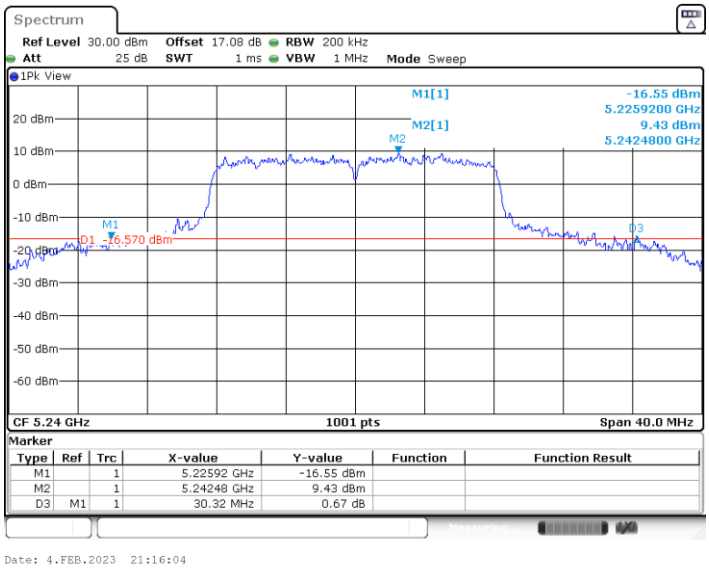
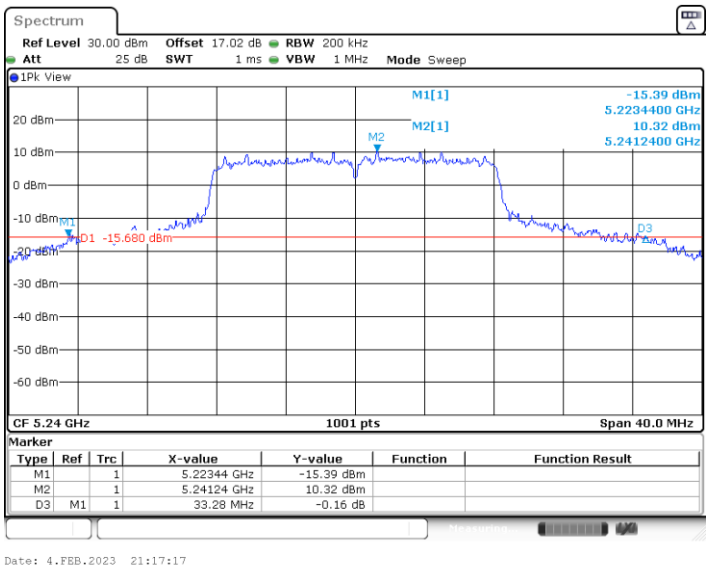


11A-CDD_Ant7_5240



11A-CDD_Ant8_5240



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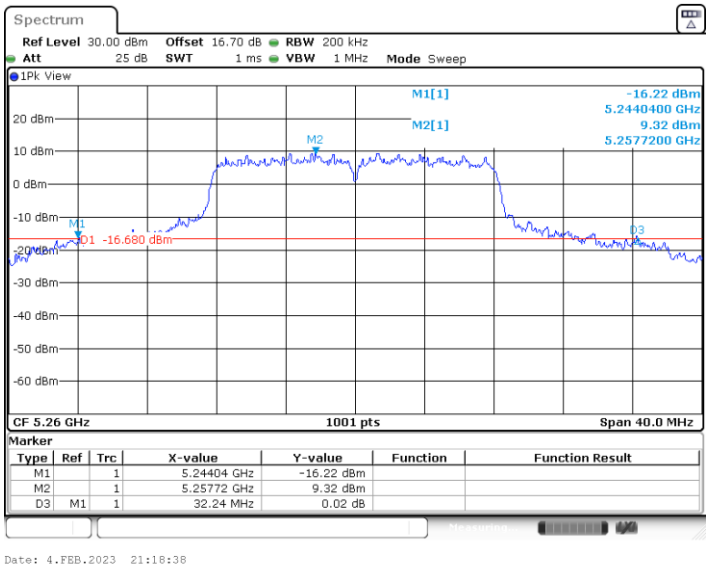

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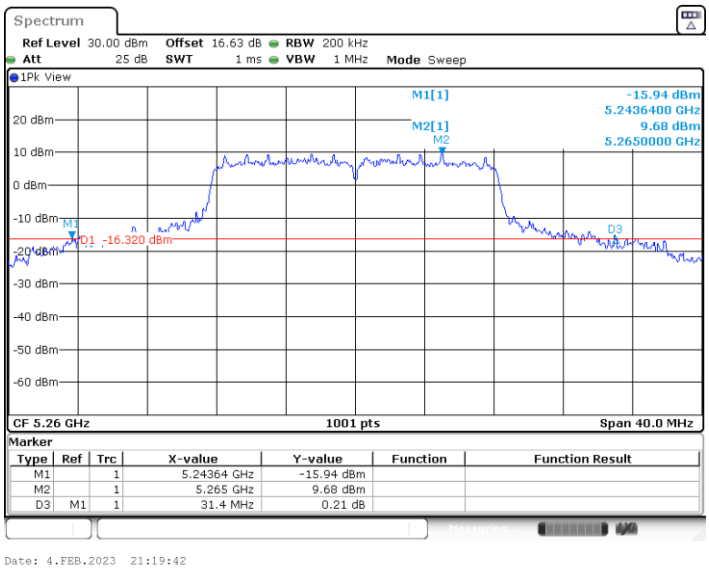
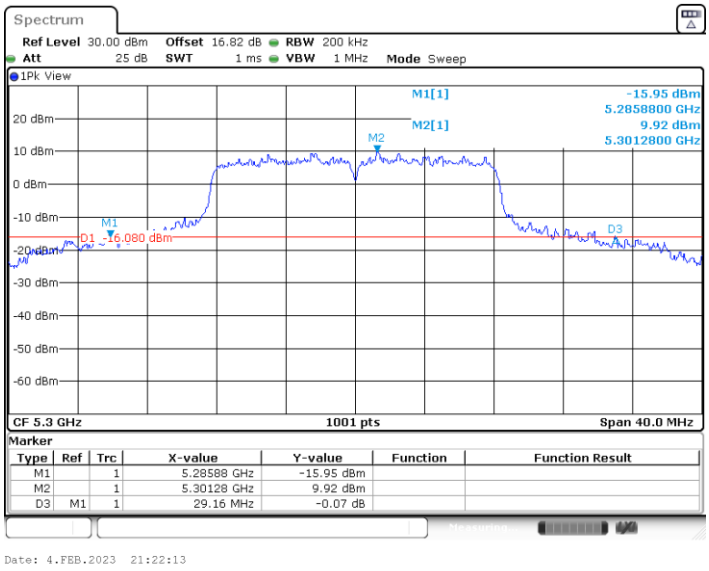


11A-CDD_Ant7_5300



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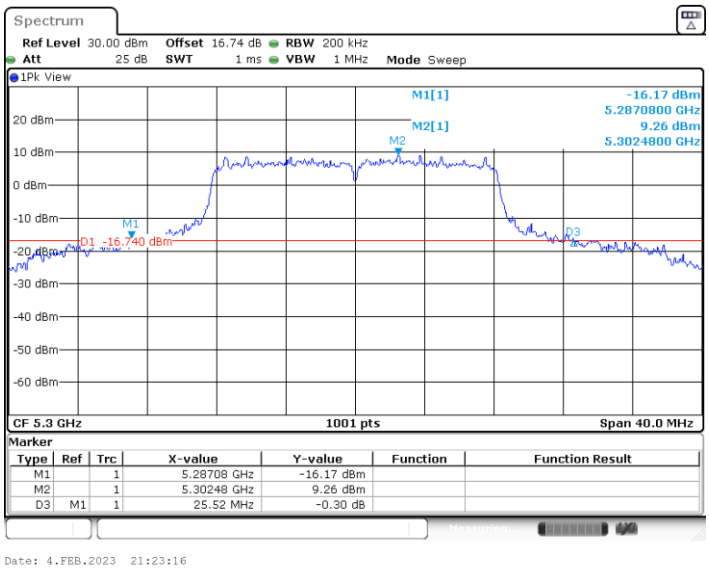

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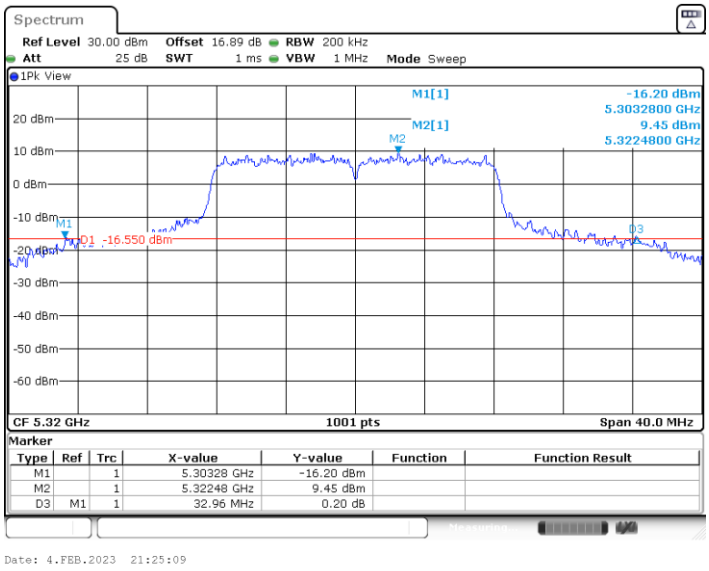

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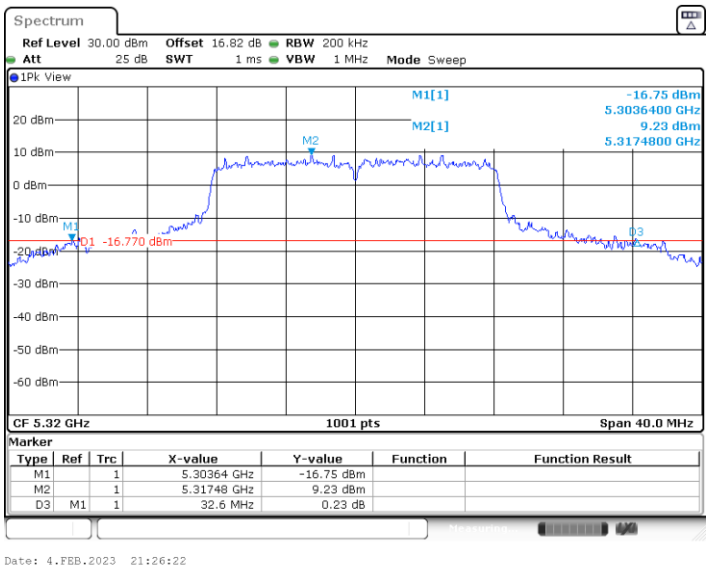

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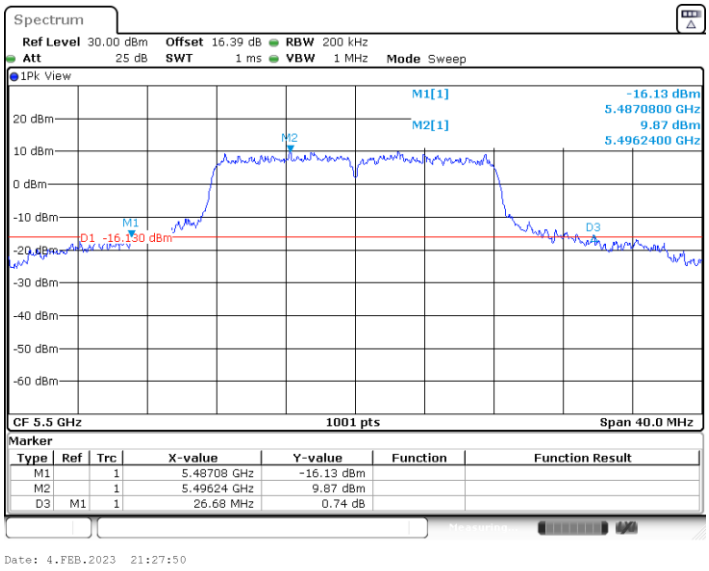

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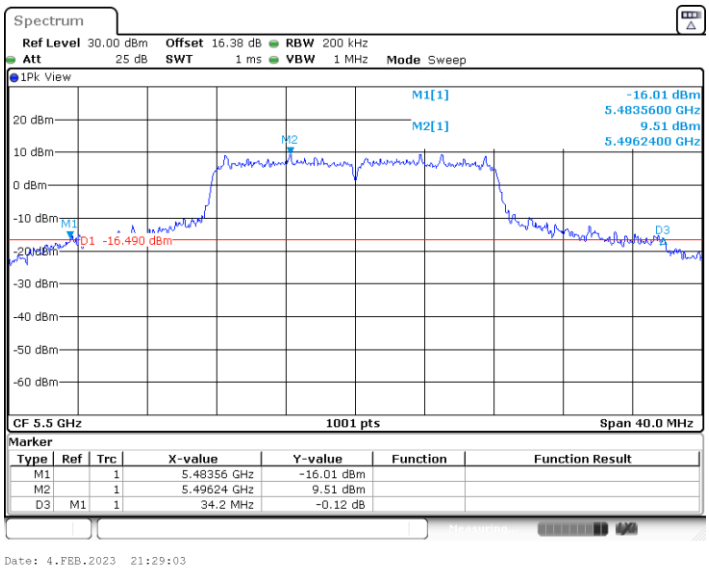

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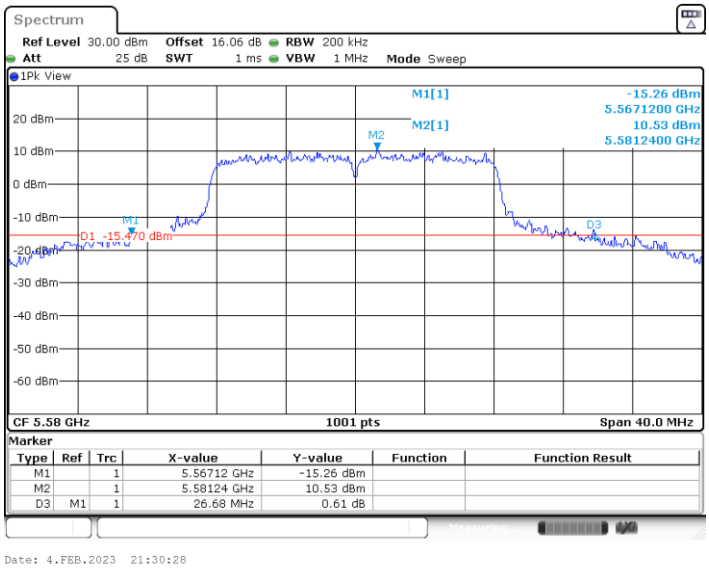

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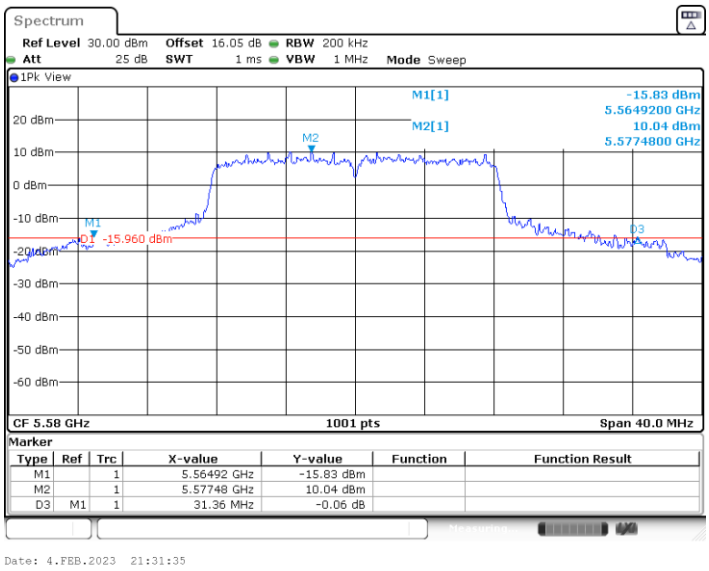

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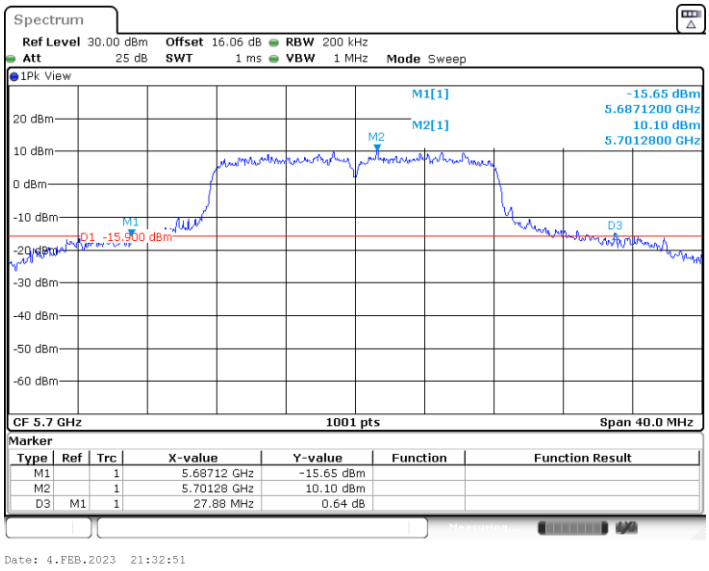

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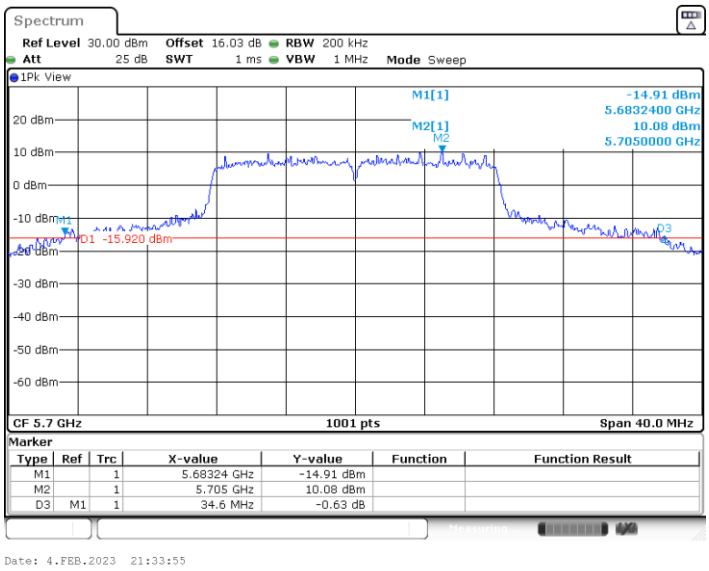

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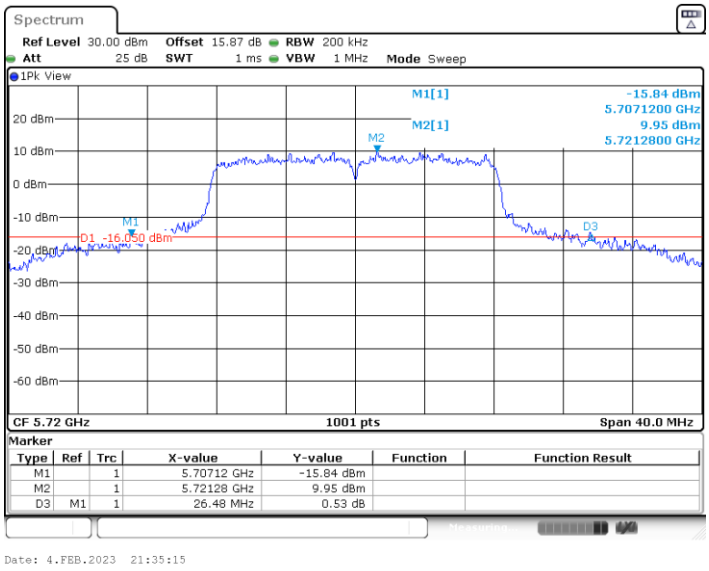

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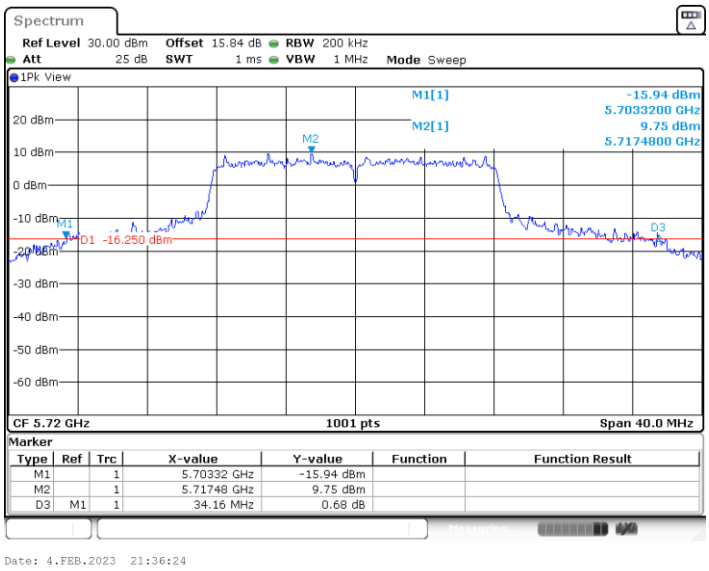

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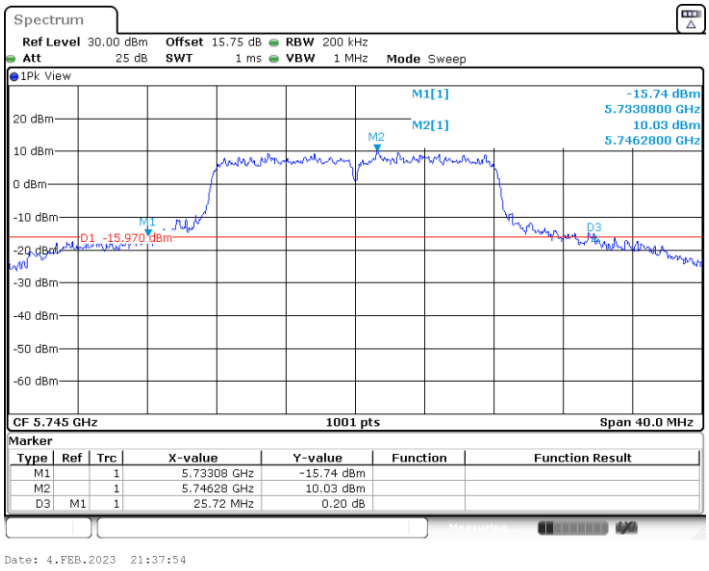

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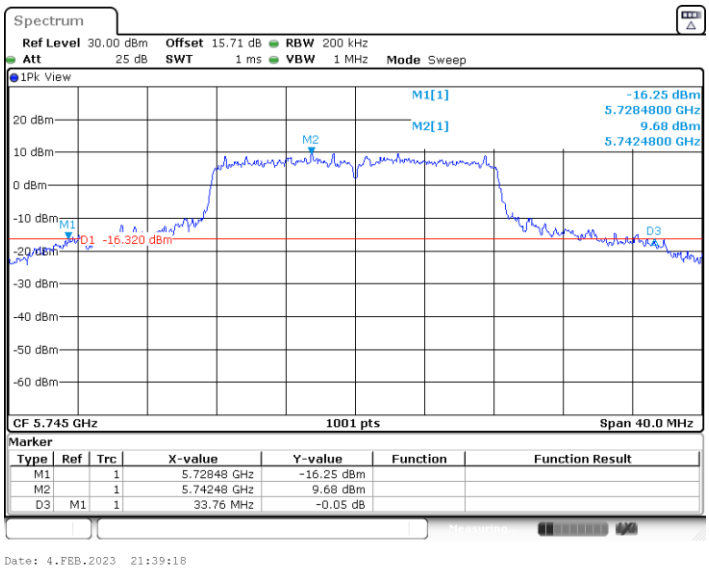

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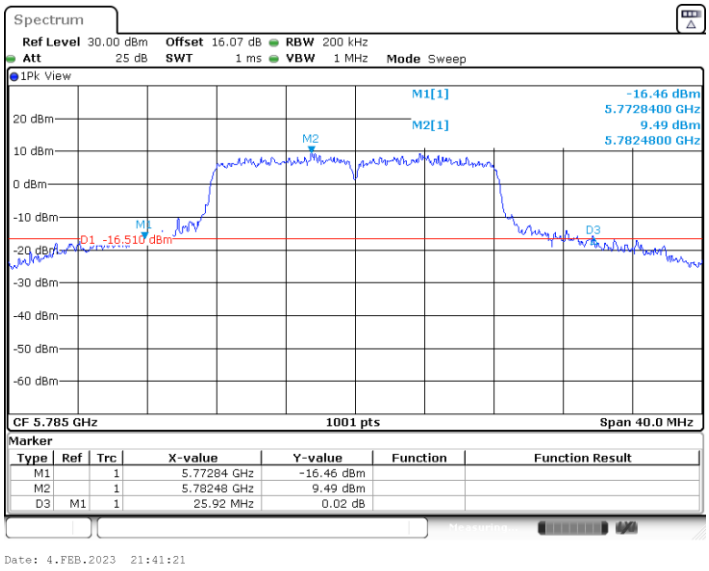

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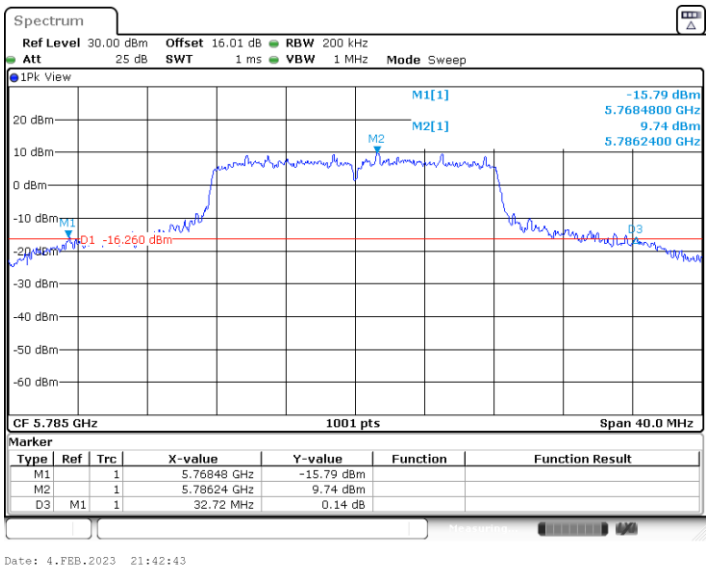

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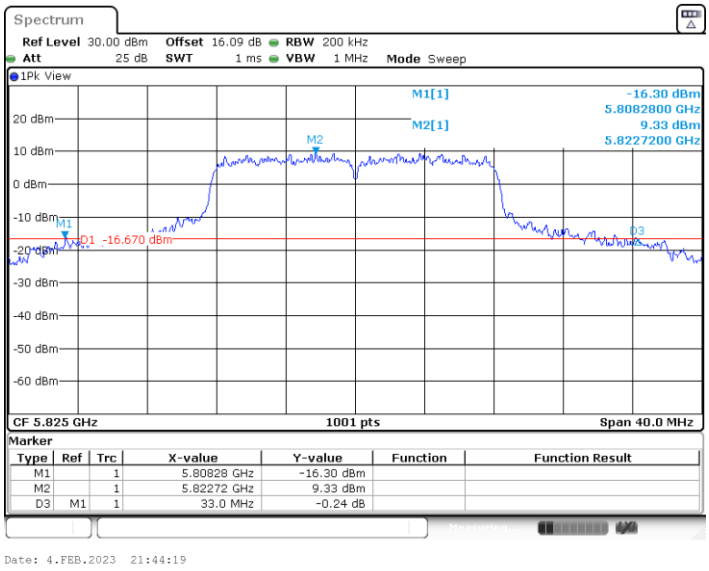

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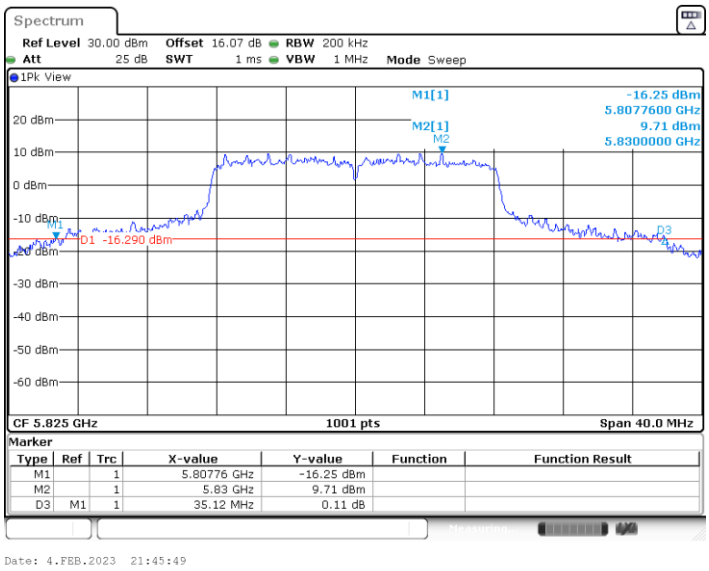

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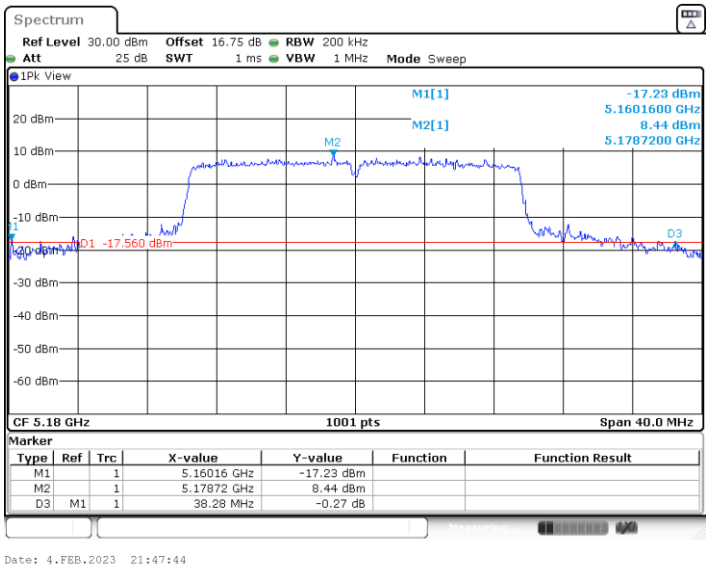

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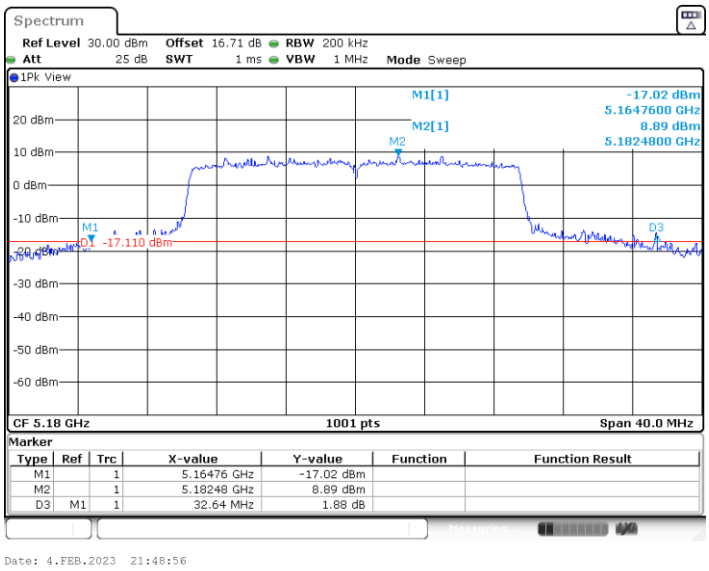

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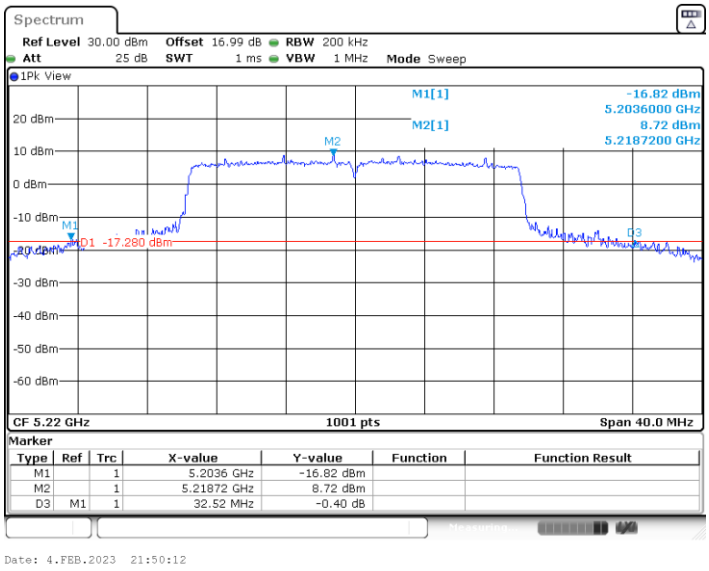

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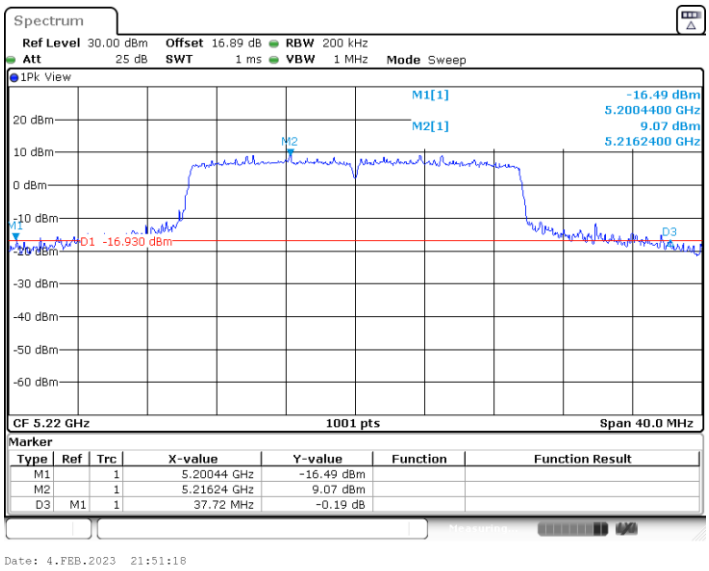

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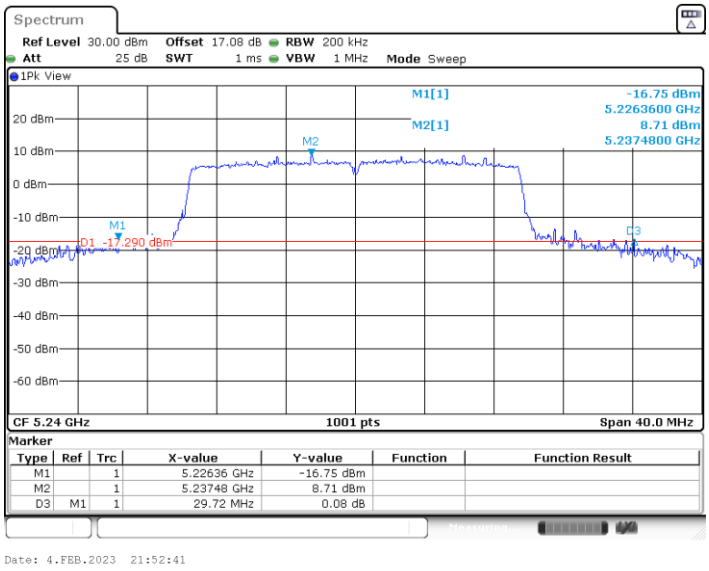

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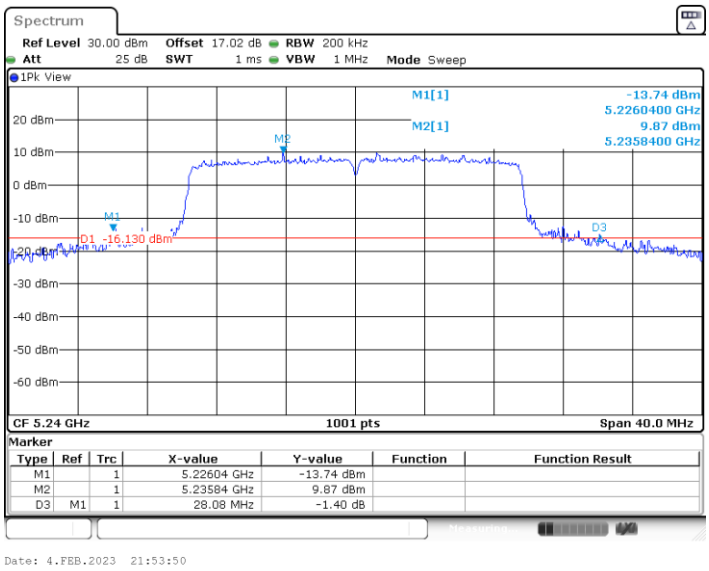

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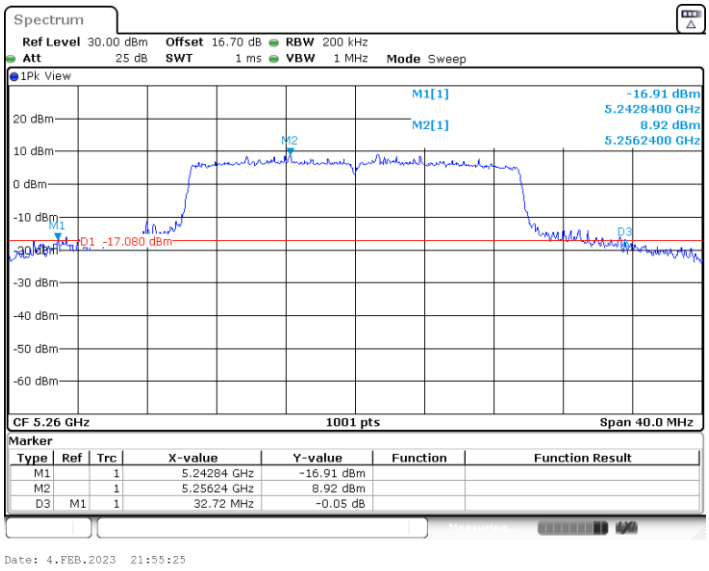

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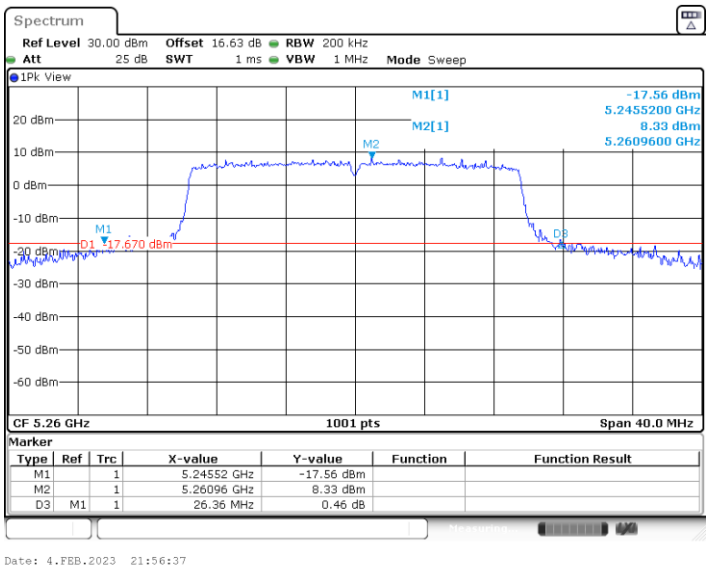

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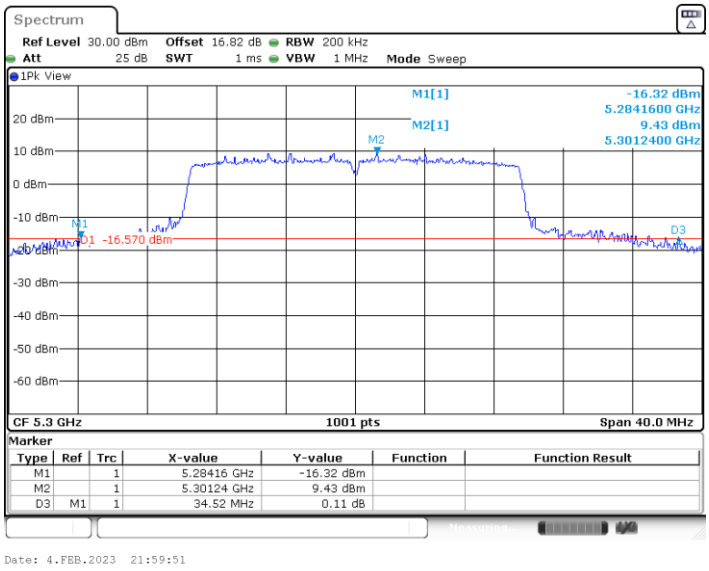

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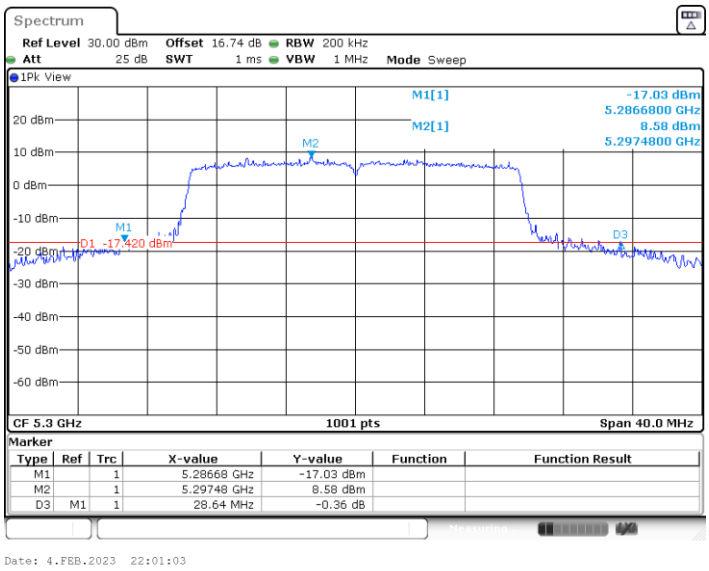

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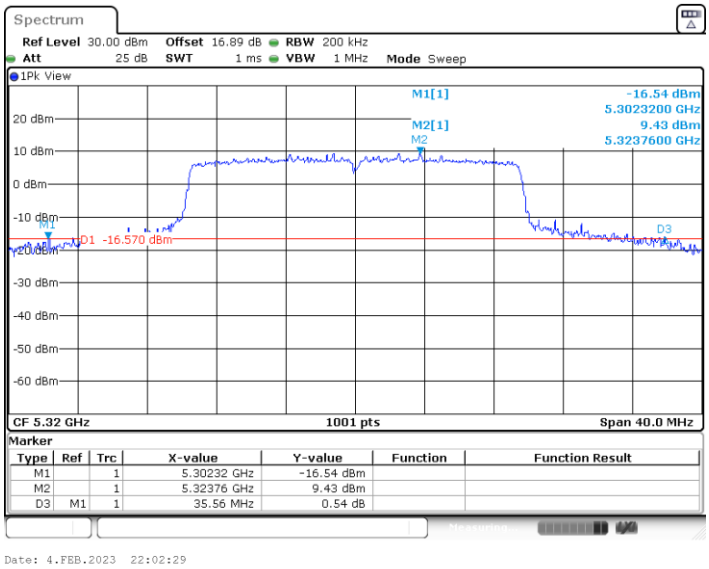

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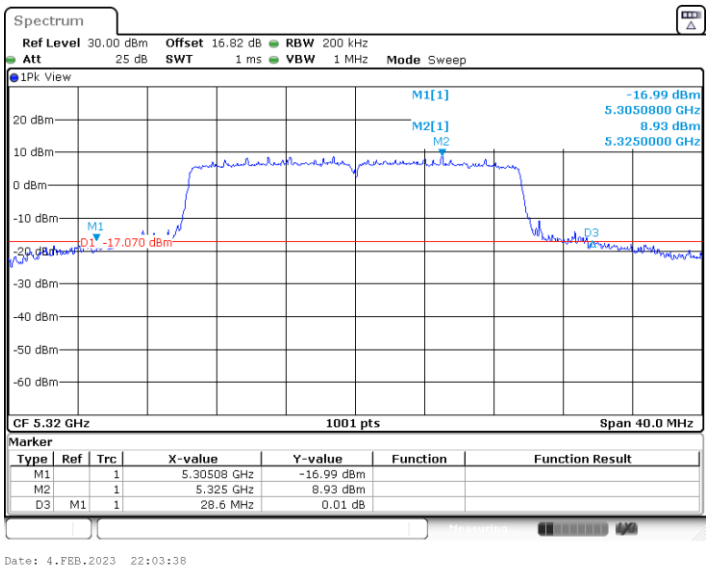

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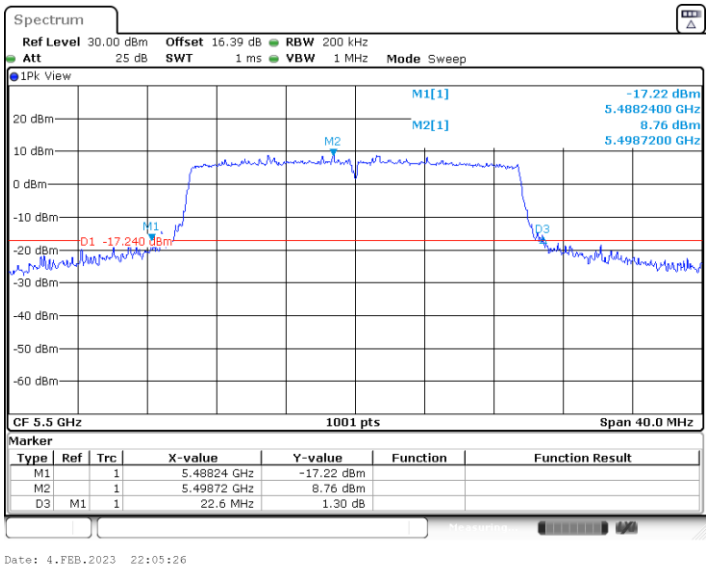

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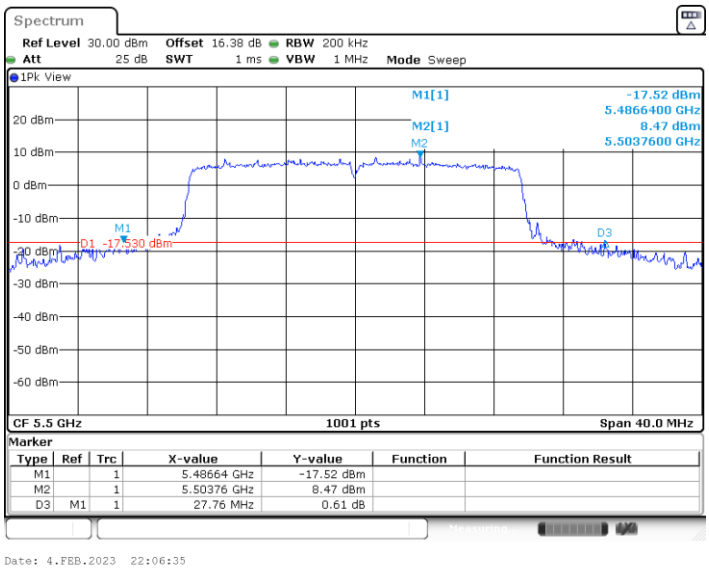

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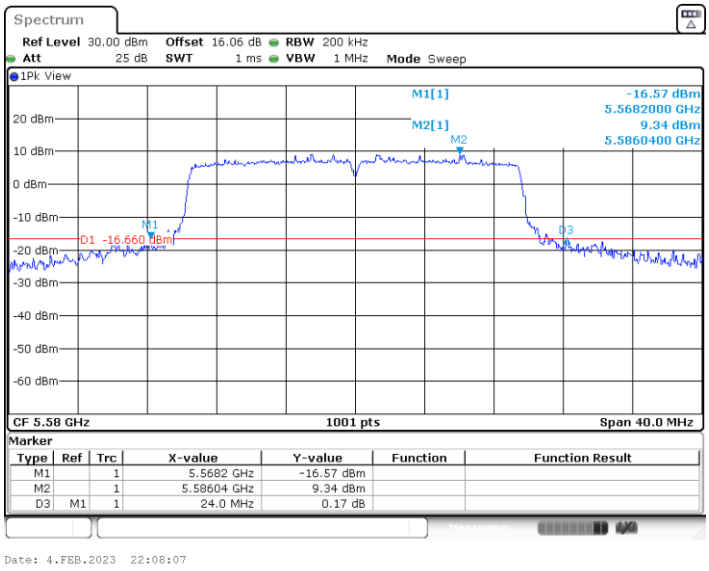

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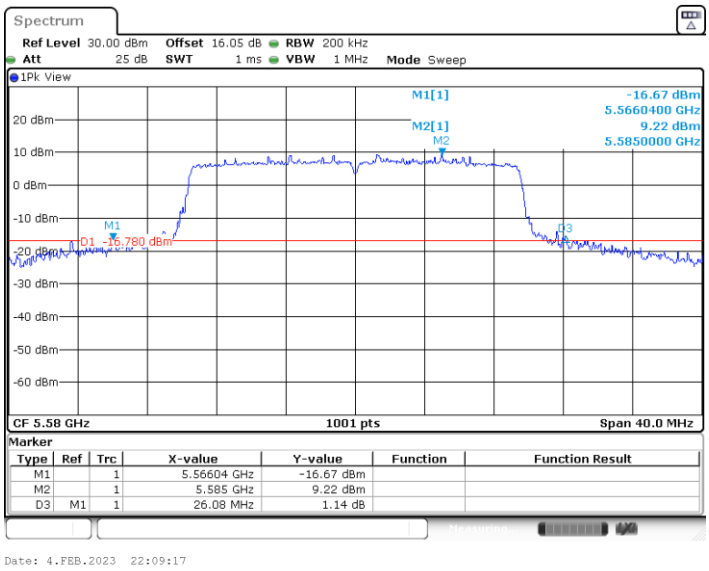

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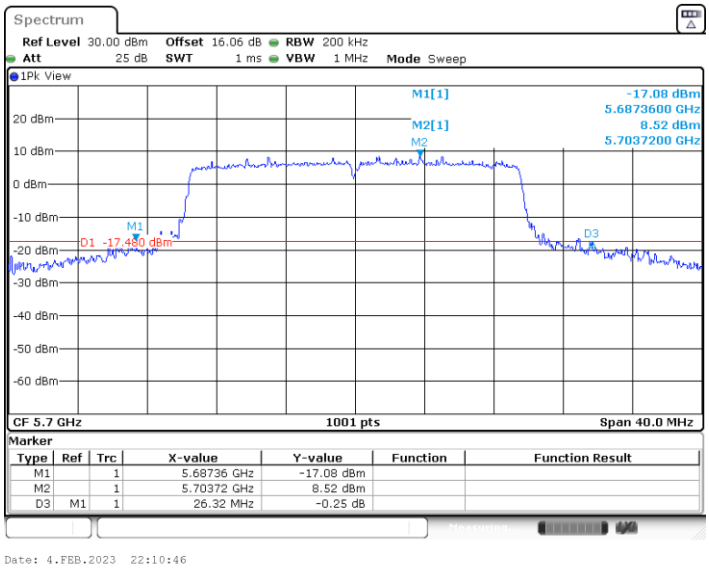

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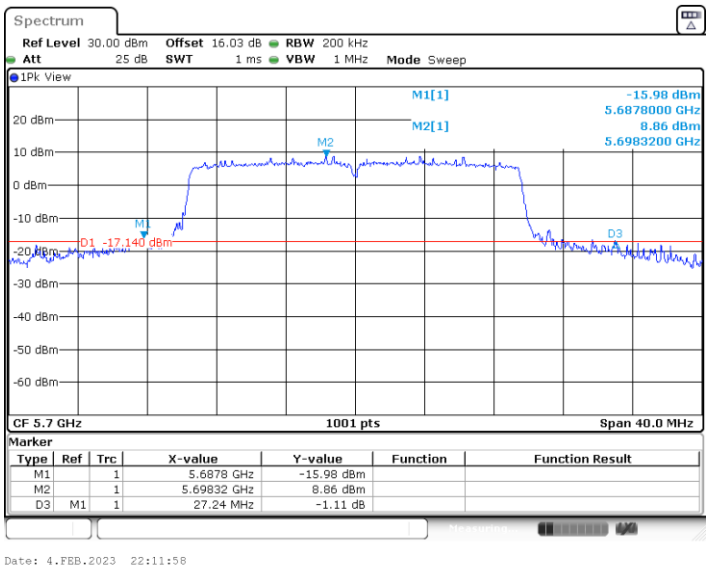

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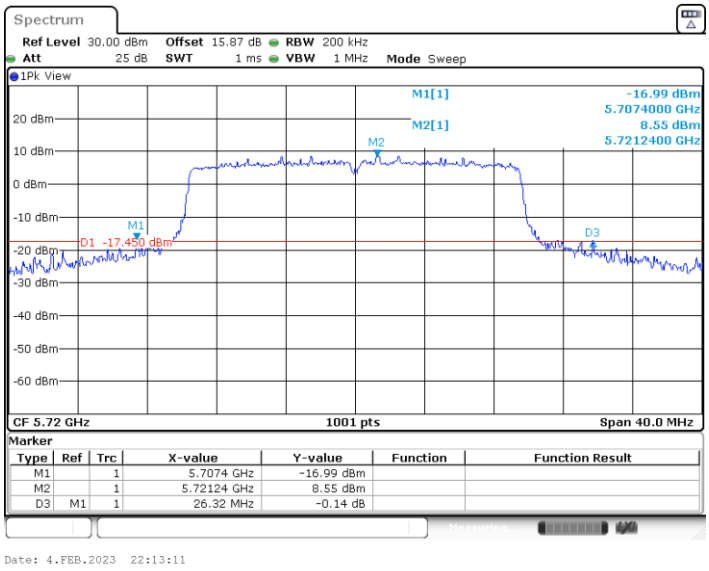

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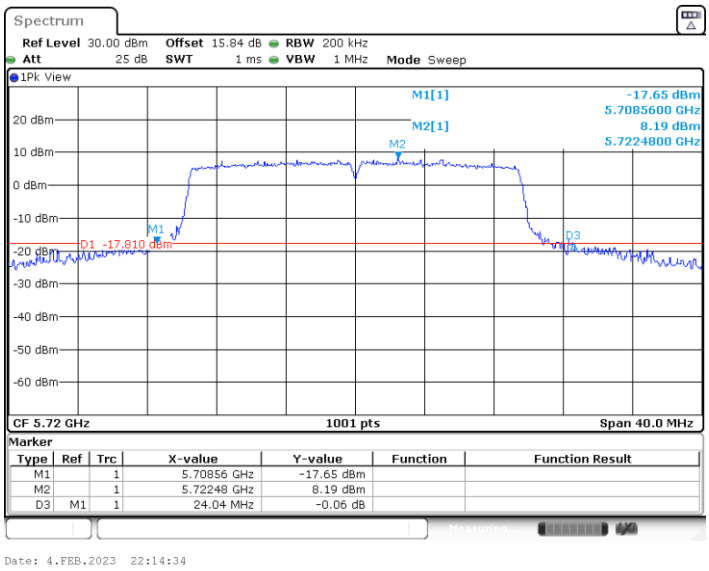

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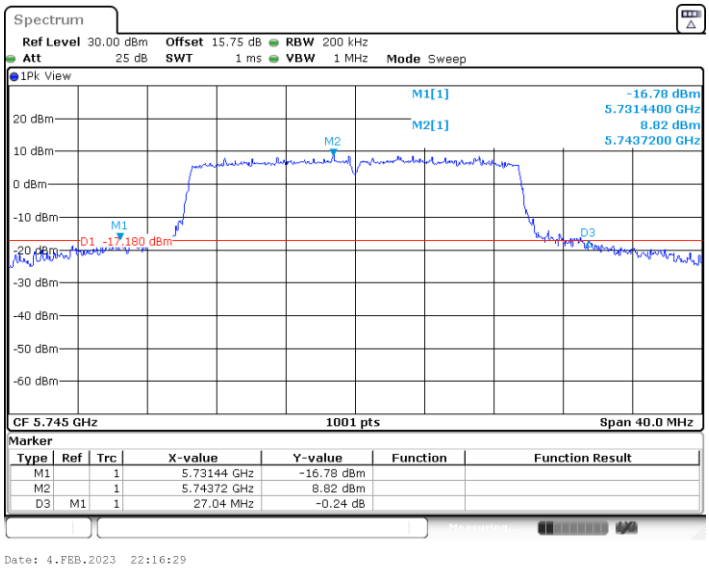

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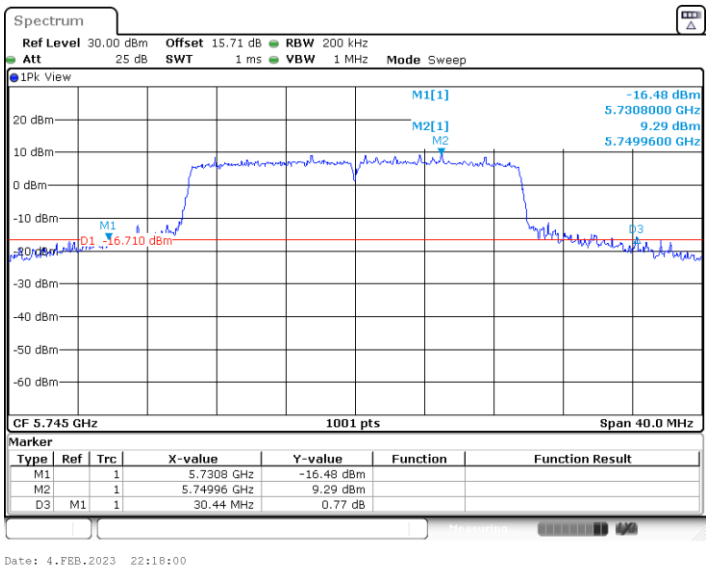

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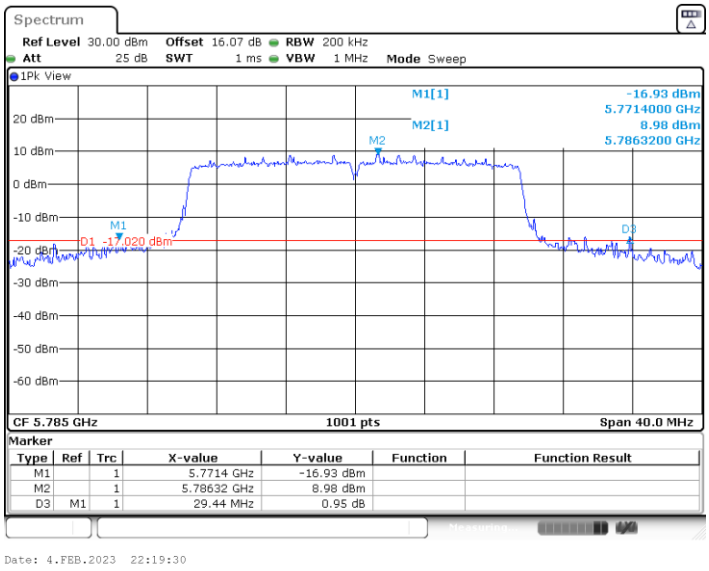

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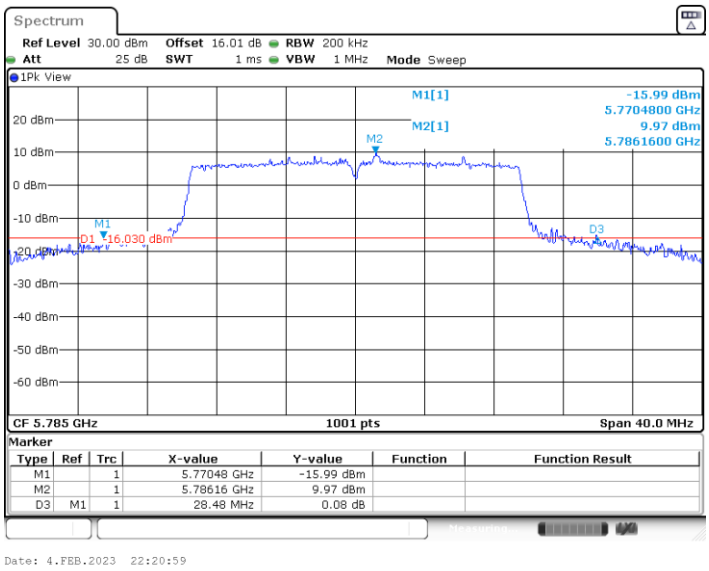

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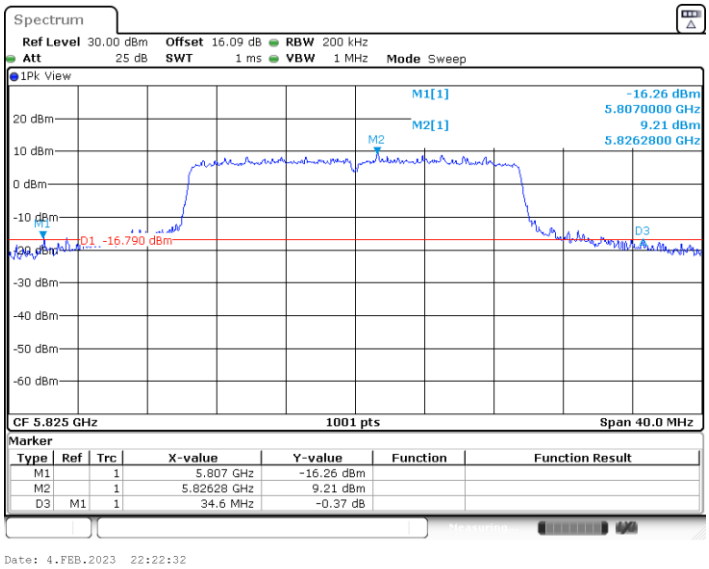
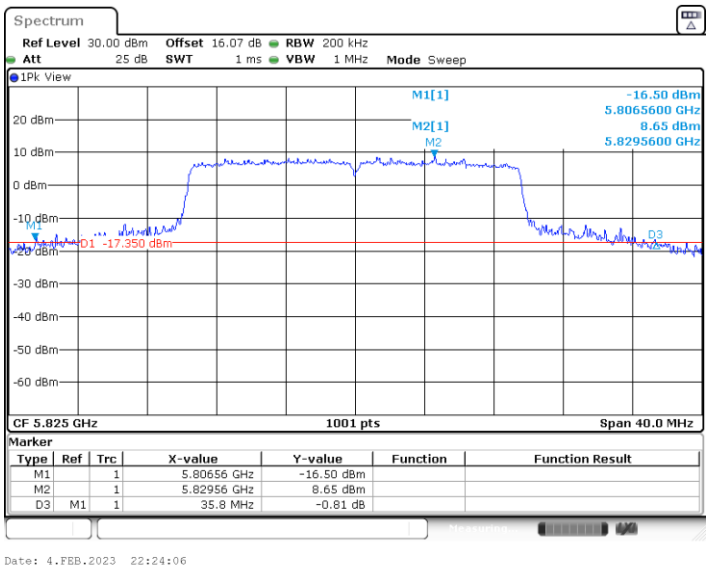


11AX20MIMO_Ant8_5825



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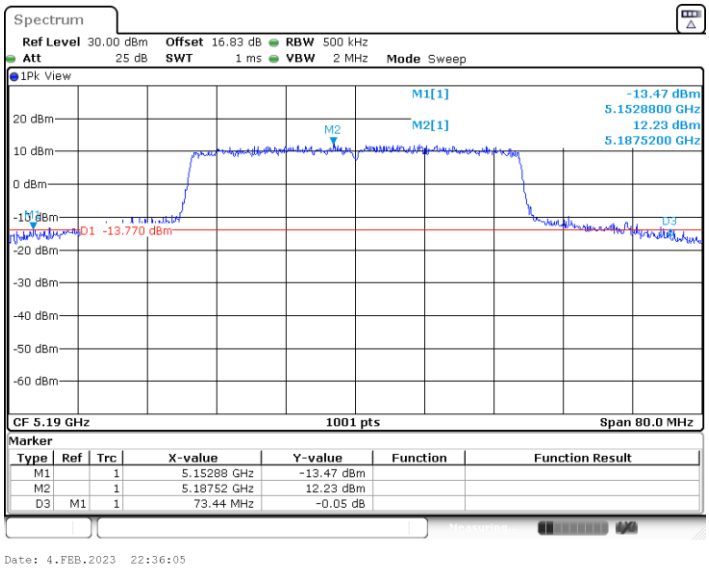
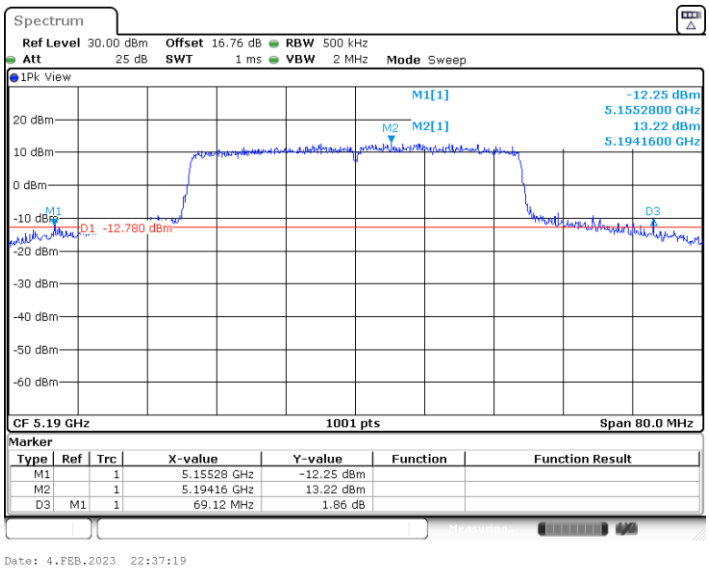
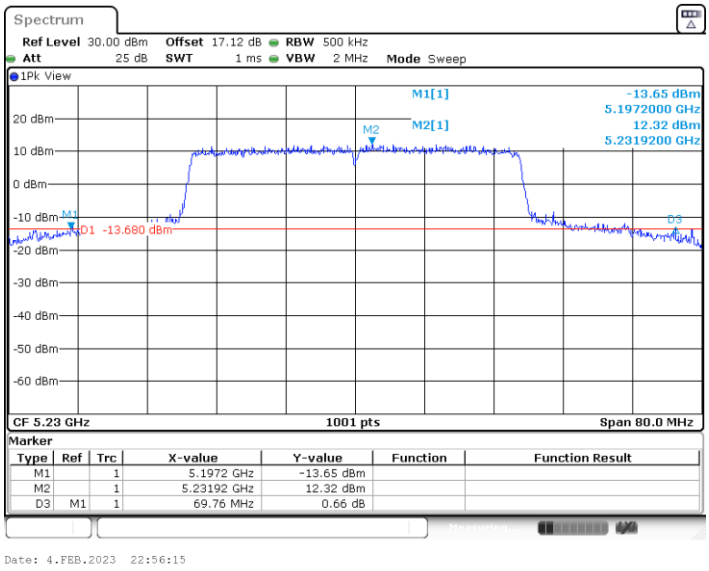


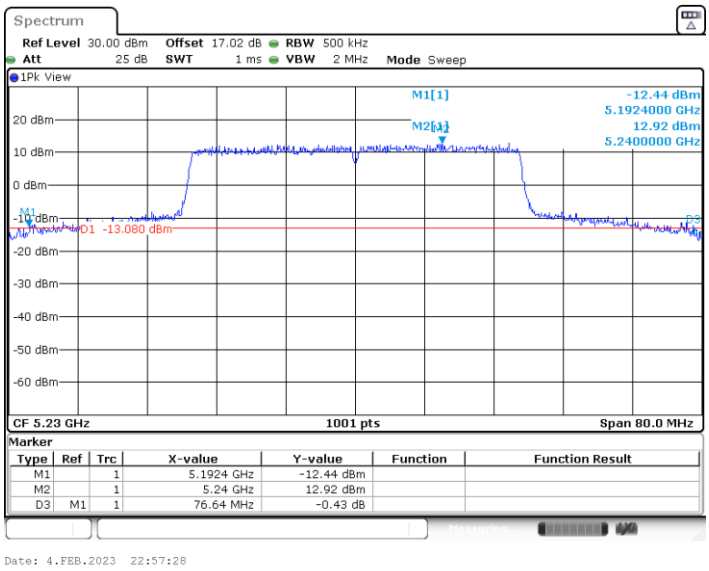
11AX40MIMO_Ant8_5190



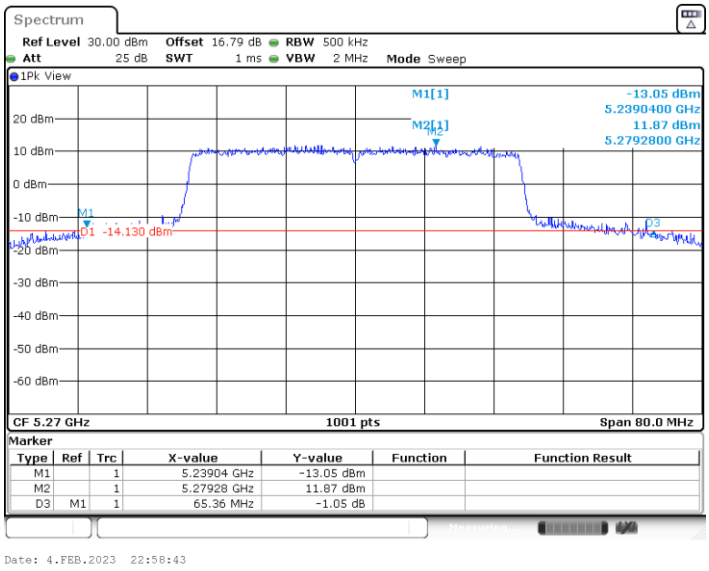
11AX40MIMO_Ant7_5230



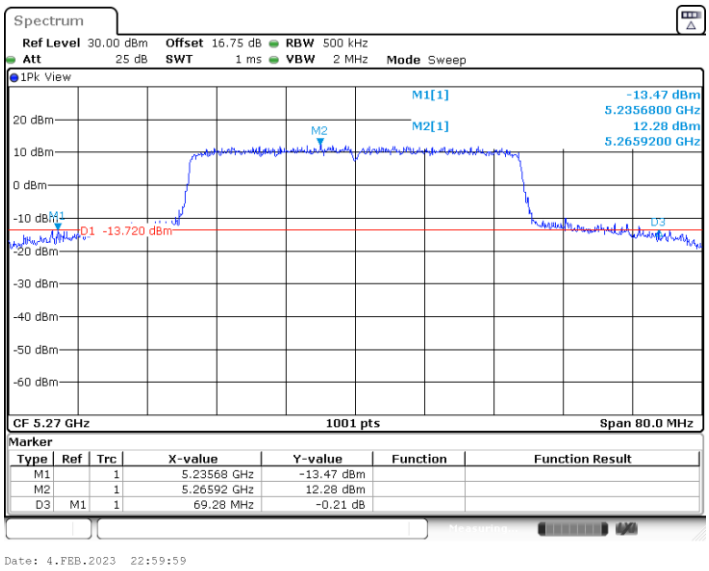
11AX40MIMO_Ant8_5230



11AX40MIMO_Ant7_5270



11AX40MIMO_Ant8_5270



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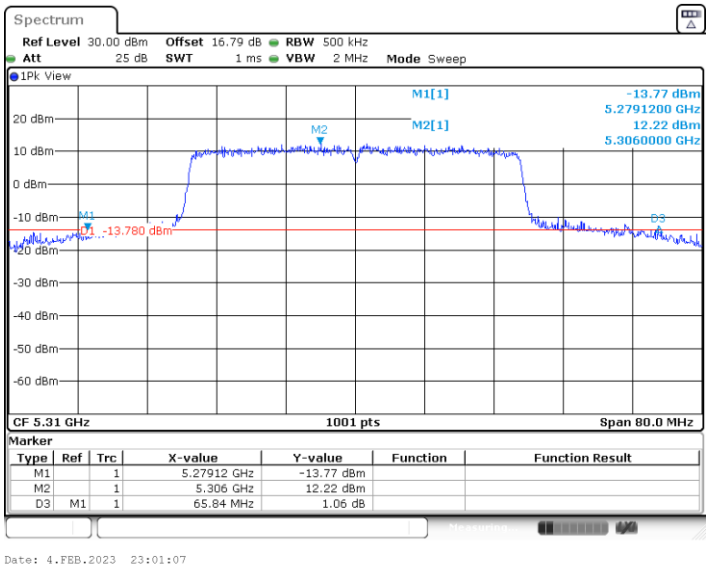
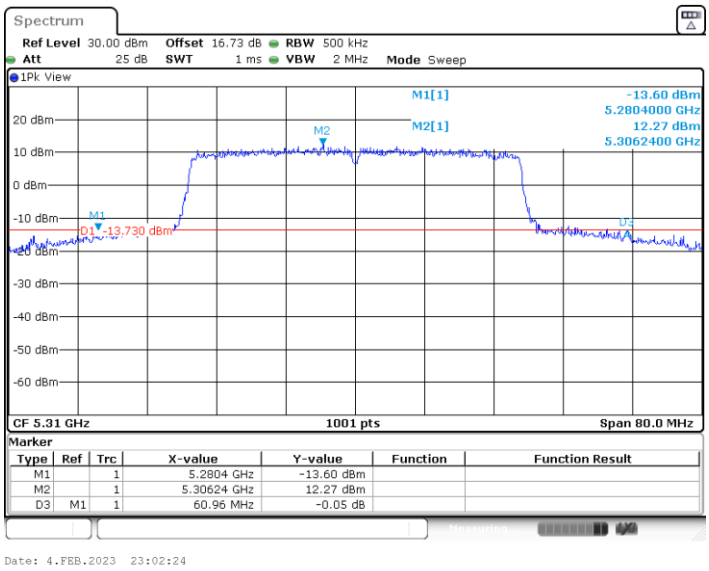
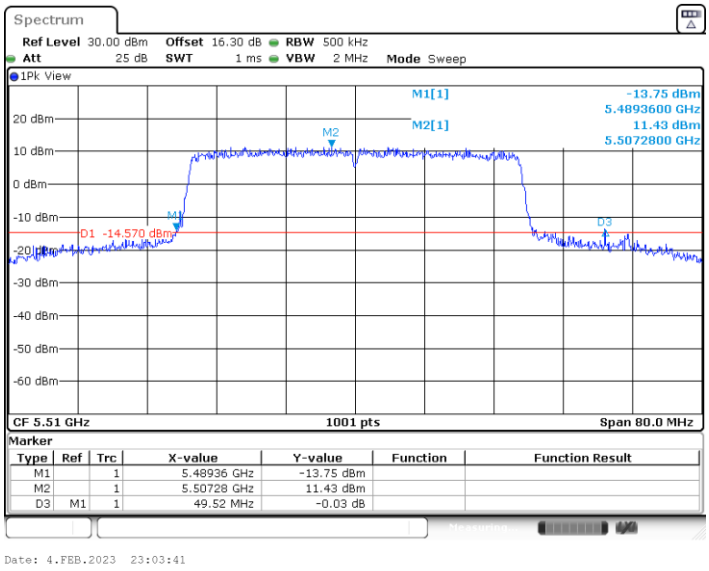


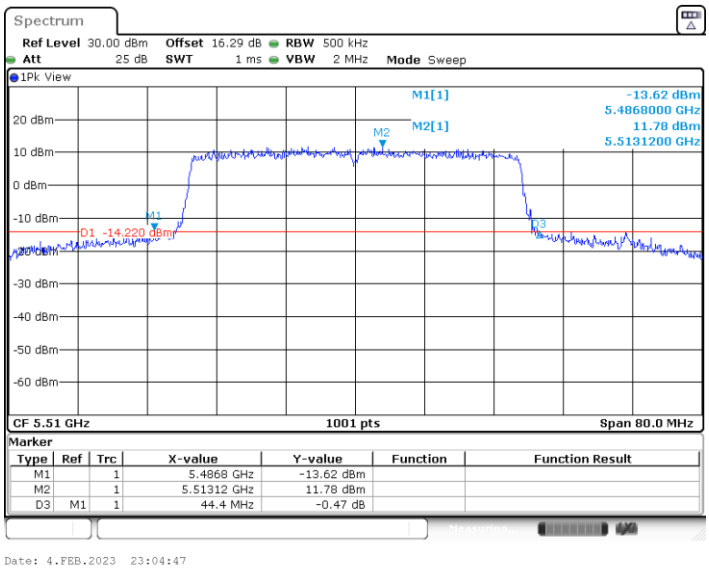
11AX40MIMO_Ant8_5310



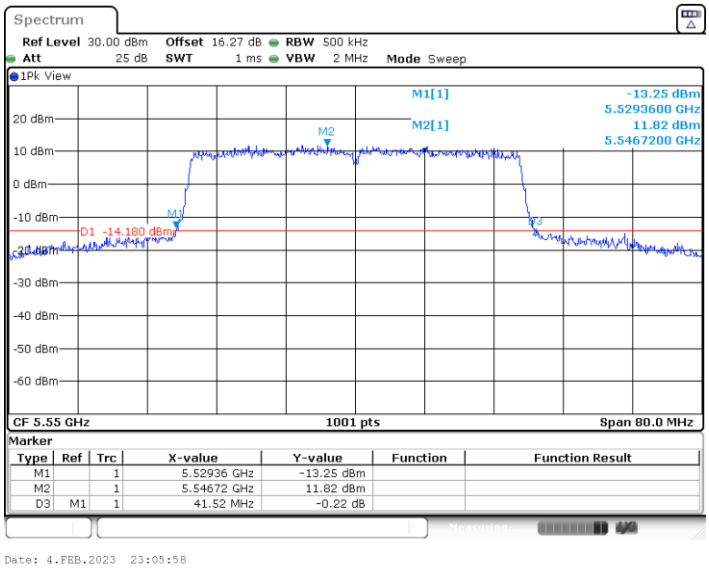
11AX40MIMO_Ant7_5510



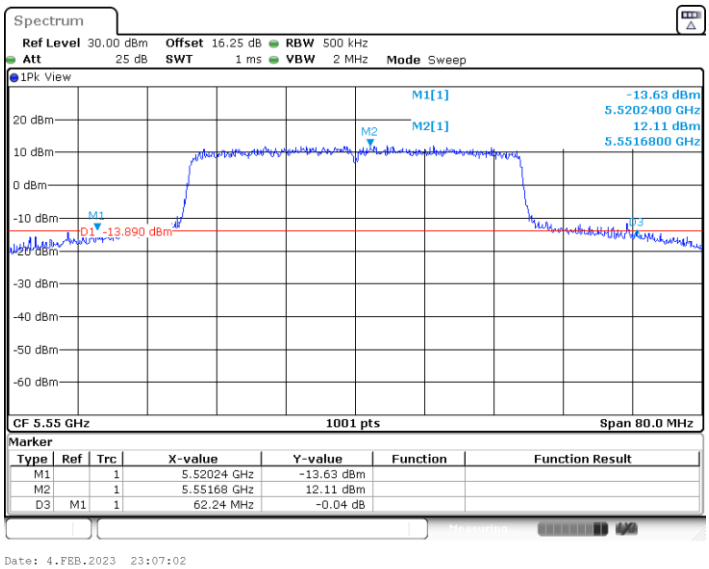
11AX40MIMO_Ant8_5510



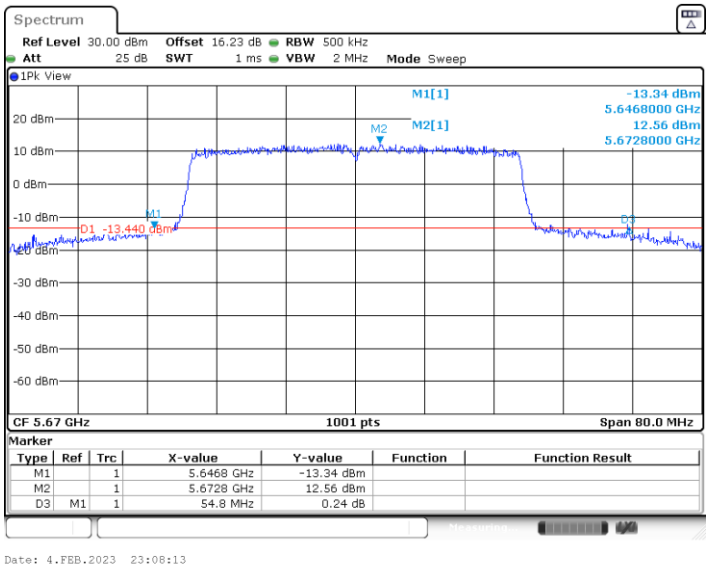
11AX40MIMO_Ant7_5550



11AX40MIMO_Ant8_5550

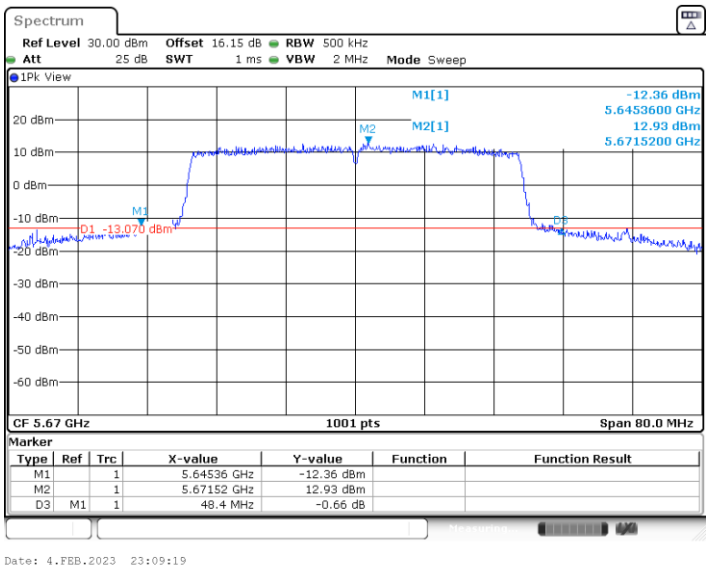


11AX40MIMO_Ant7_5670



Date: 4.FEB.2023 23:08:13

11AX40MIMO_Ant8_5670



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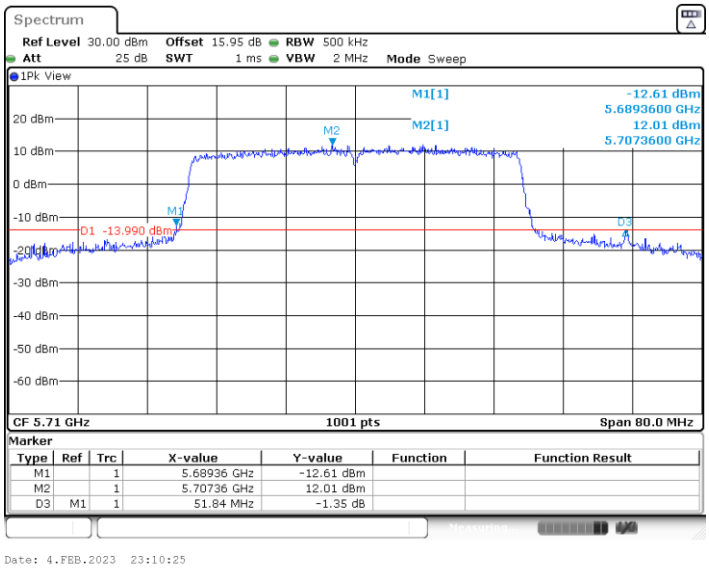
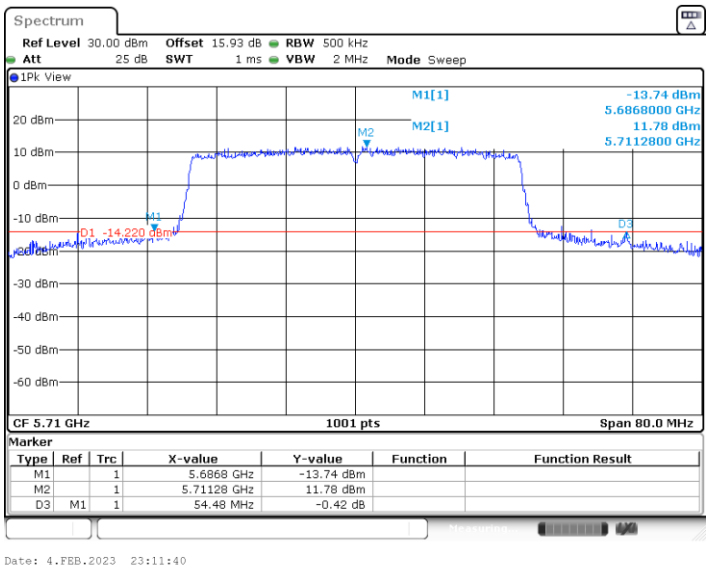
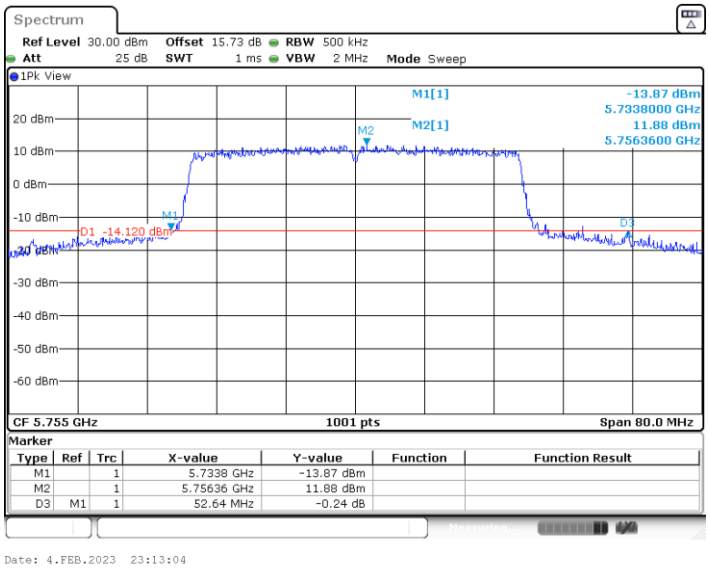
11AX40MIMO_Ant7_5710



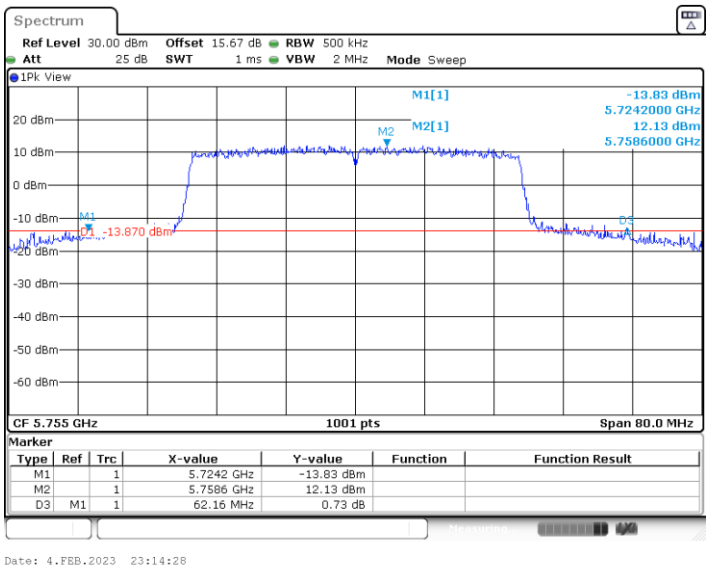
11AX40MIMO_Ant8_5710



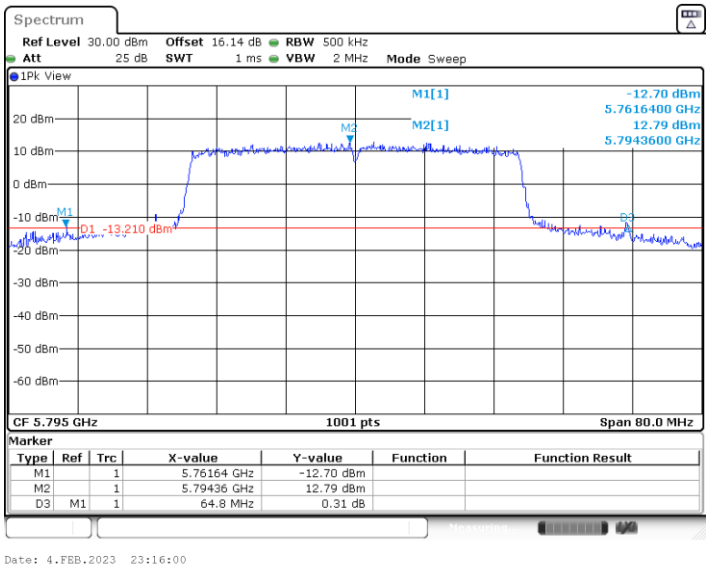
11AX40MIMO_Ant7_5755



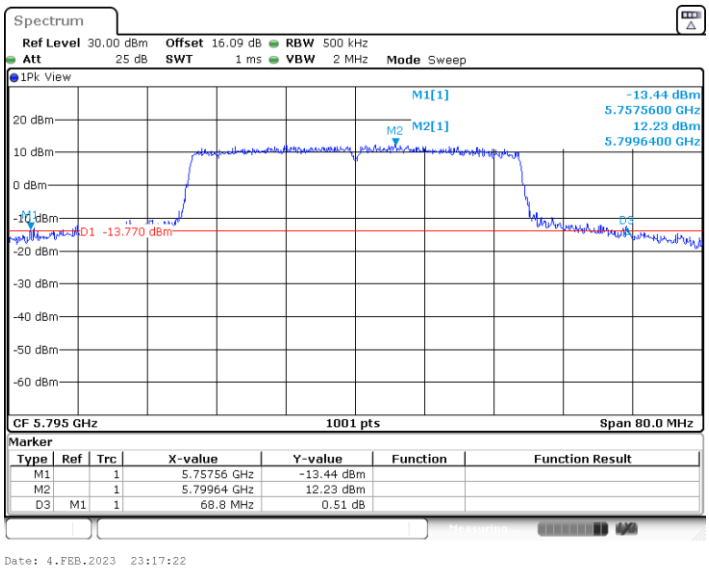
11AX40MIMO_Ant8_5755



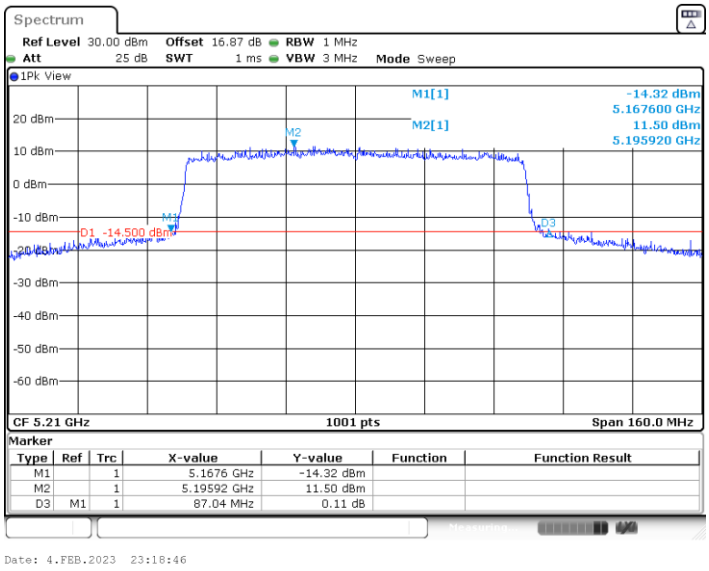
11AX40MIMO_Ant7_5795



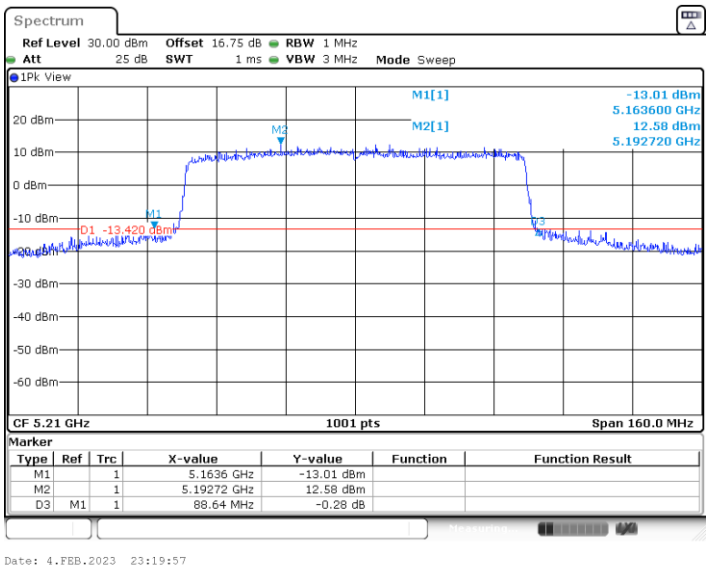
11AX40MIMO_Ant8_5795



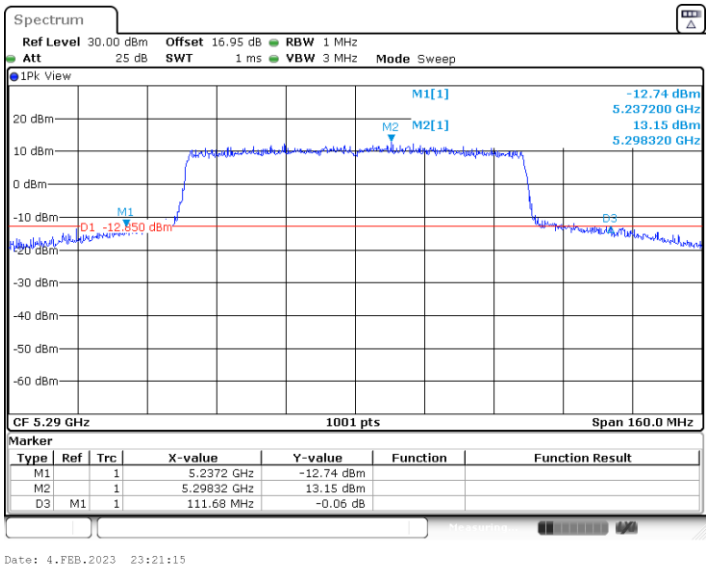
11AX80MIMO_Ant7_5210



11AX80MIMO_Ant8_5210



11AX80MIMO_Ant7_5290



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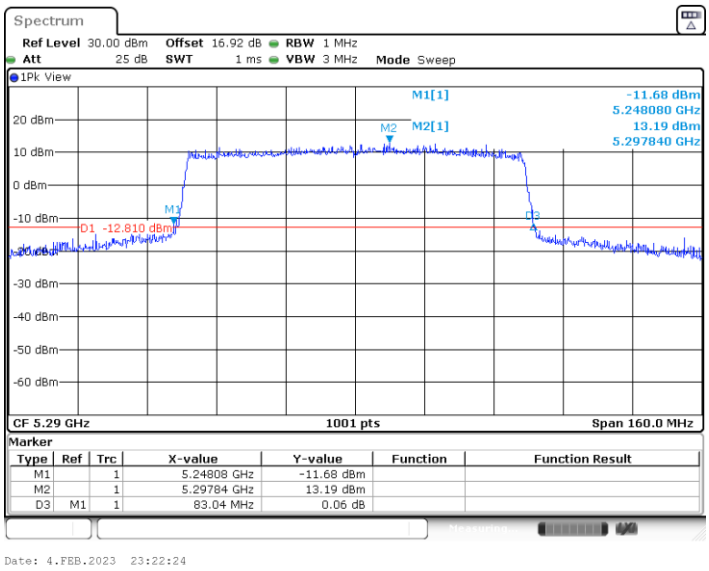
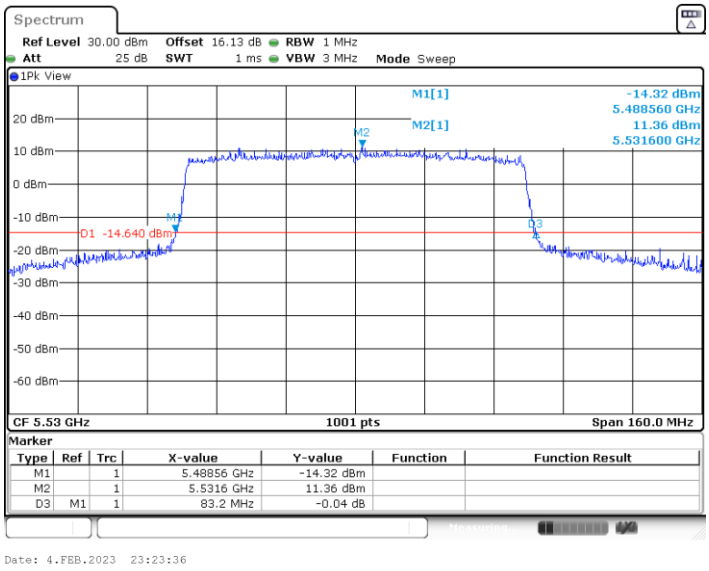


11AX80MIMO_Ant7_5530



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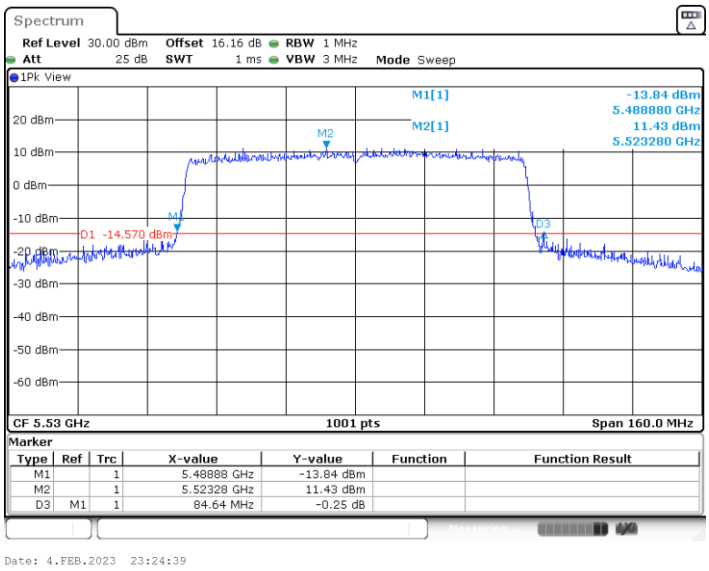
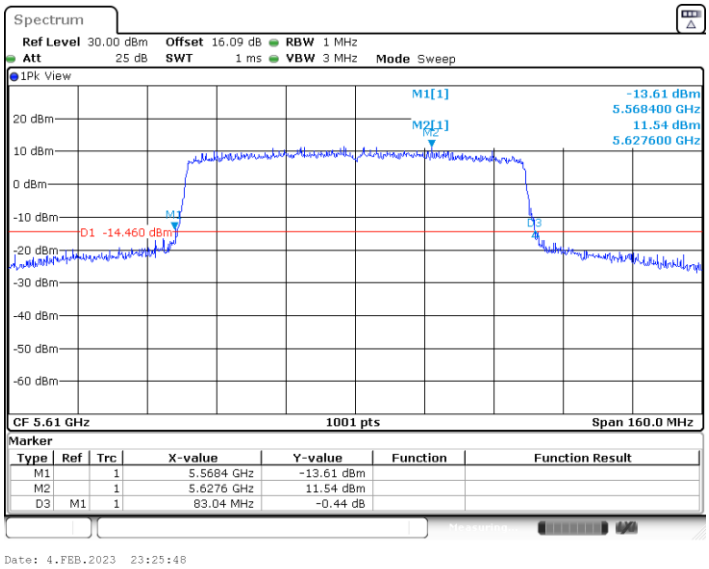


11AX80MIMO_Ant7_5610



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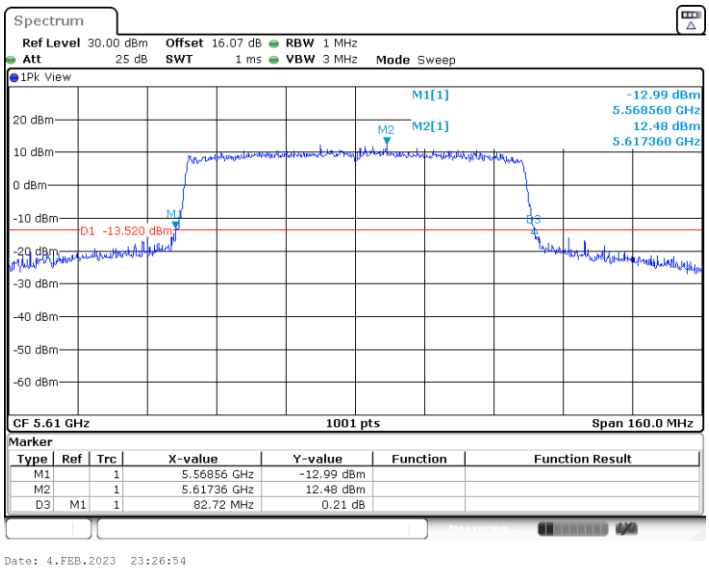
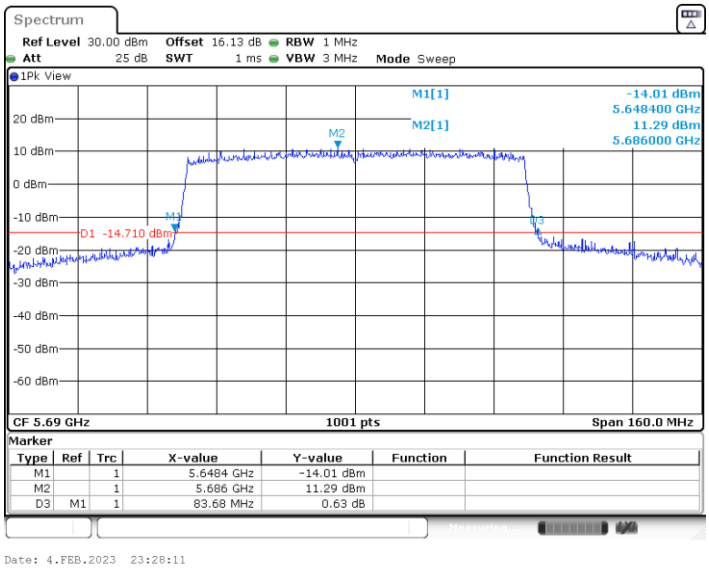
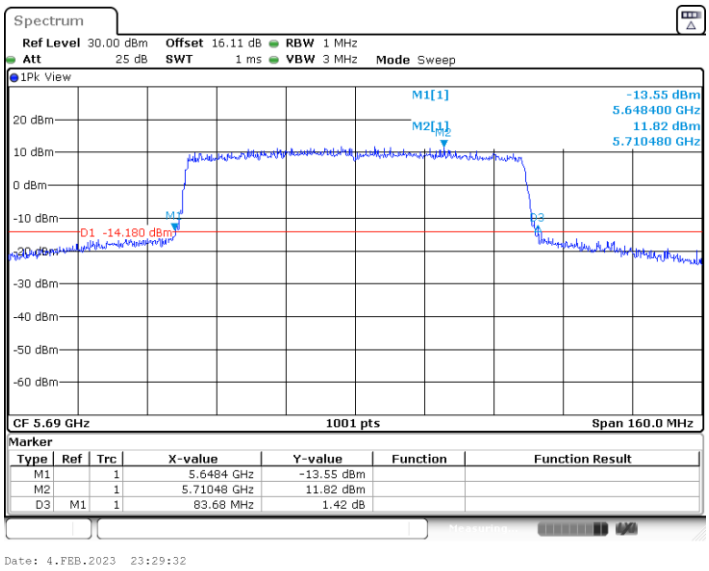


11AX80MIMO_Ant7_5690



11AX80MIMO_Ant8_5690



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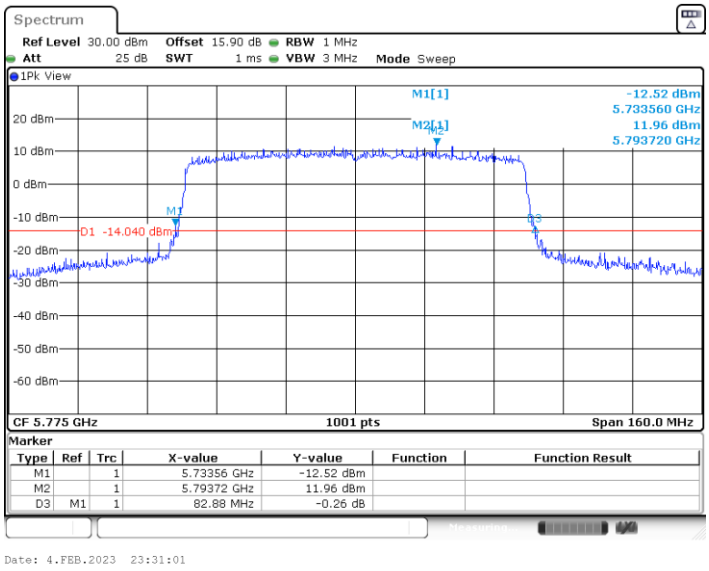
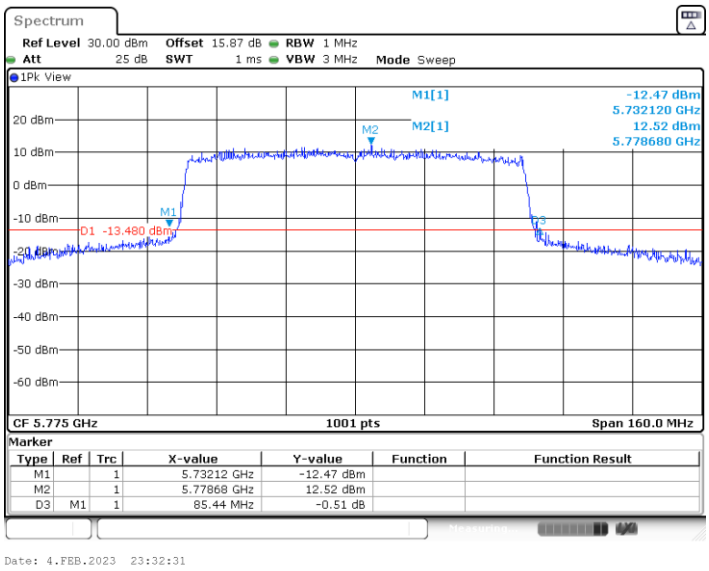
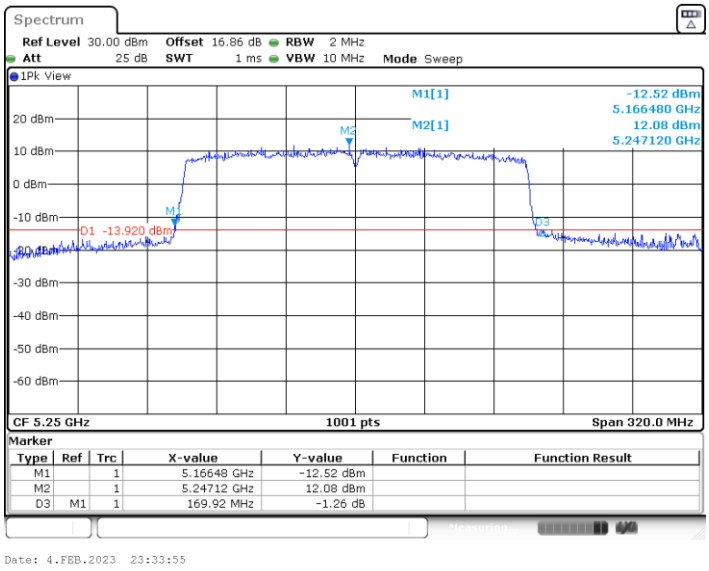


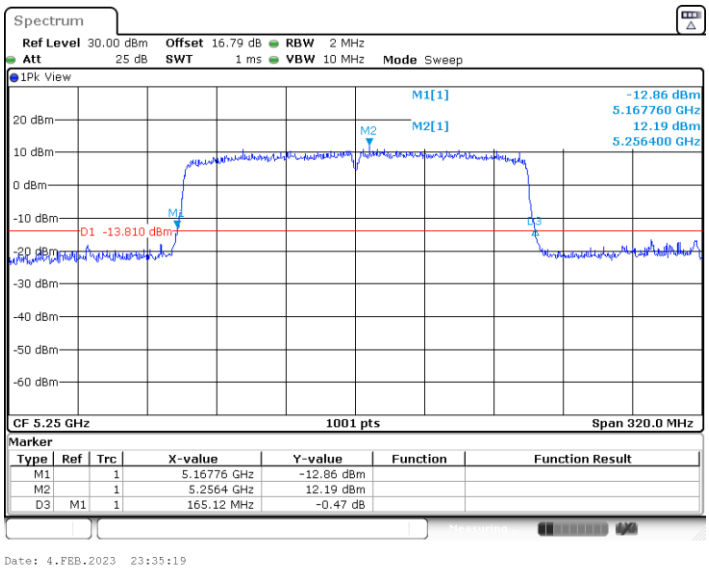
11AX80MIMO_Ant8_5775



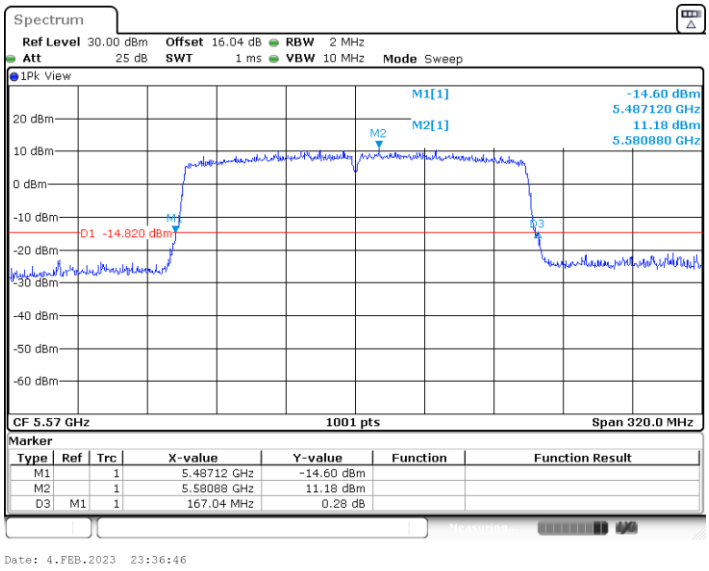
11AX160MIMO_Ant7_5250



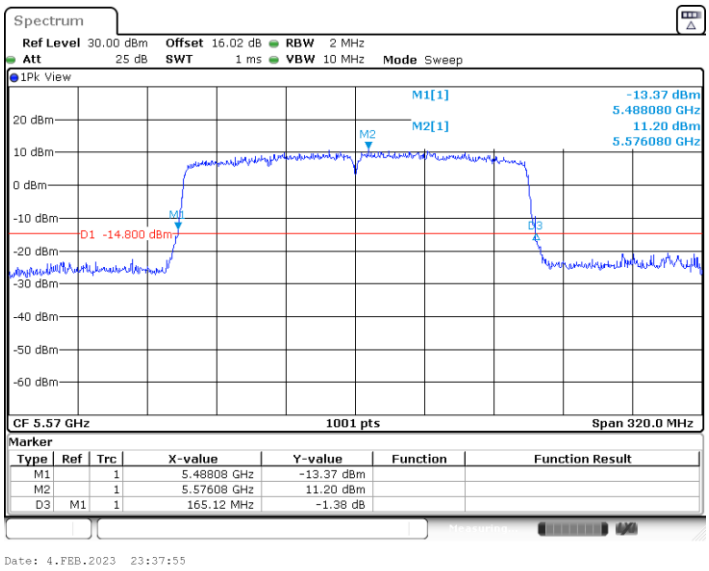
11AX160MIMO_Ant8_5250



11AX160MIMO_Ant7_5570



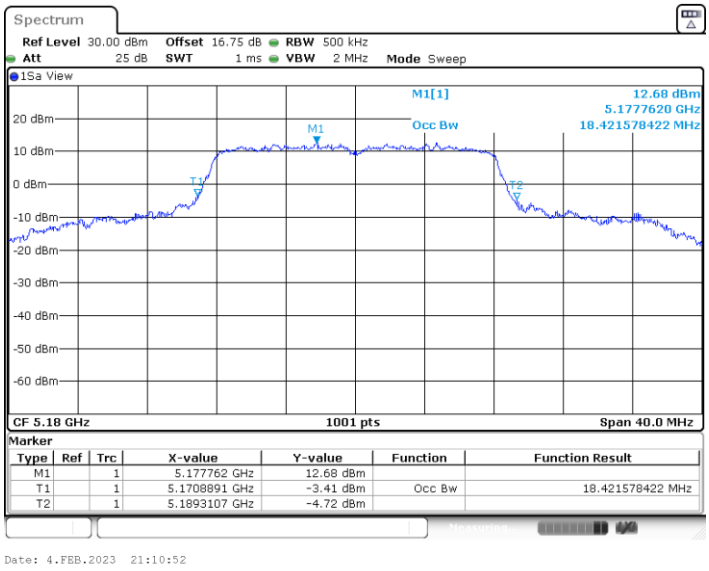
11AX160MIMO_Ant8_5570



TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A-CDD	Ant7	5180	18.422	5170.8891	5189.3107	---	---
	Ant8	5180	17.862	5171.2488	5189.1109	---	---
	Ant7	5220	17.862	5211.0090	5228.8711	---	---
	Ant8	5220	18.422	5210.8492	5229.2707	---	---
	Ant7	5240	17.423	5231.3287	5248.7512	---	---
	Ant8	5240	17.622	5231.3686	5248.9910	---	---
	Ant7	5260	17.662	5251.0490	5268.7113	---	---
	Ant8	5260	17.263	5251.3287	5268.5914	---	---
	Ant7	5300	17.423	5291.2887	5308.7113	---	---
	Ant8	5300	17.063	5291.4486	5308.5115	---	---
	Ant7	5320	17.502	5311.2488	5328.7512	---	---
	Ant8	5320	17.263	5311.3686	5328.6314	---	---
	Ant7	5500	17.263	5491.3287	5508.5914	---	---
	Ant8	5500	17.822	5491.1289	5508.9510	---	---
	Ant7	5580	17.263	5571.3686	5588.6314	---	---
	Ant8	5580	17.183	5571.4086	5588.5914	---	---
	Ant7	5700	17.582	5691.2488	5708.8312	---	---
	Ant8	5700	17.582	5691.2088	5708.7912	---	---
	Ant7	5720	17.263	5711.3686	5728.6314	---	---
	Ant8	5720	18.302	5711.0889	5729.3906	---	---
	Ant7	5745	17.383	5736.3287	5753.7113	---	---
	Ant8	5745	17.463	5736.2887	5753.7512	---	---
	Ant7	5785	17.303	5776.2887	5793.5914	---	---
	Ant8	5785	17.423	5776.3287	5793.7512	---	---
	Ant7	5825	17.542	5816.2088	5833.7512	---	---
	Ant8	5825	18.621	5815.6893	5834.3107	---	---
11AX20MIMO	Ant7	5180	19.421	5170.2897	5189.7103	---	---
	Ant8	5180	19.381	5170.3297	5189.7103	---	---
	Ant7	5220	19.381	5210.2498	5229.6304	---	---
	Ant8	5220	19.421	5210.2498	5229.6703	---	---
	Ant7	5240	19.221	5230.3696	5249.5904	---	---
	Ant8	5240	19.021	5230.4895	5249.5105	---	---
	Ant7	5260	19.301	5250.2897	5269.5904	---	---
	Ant8	5260	19.221	5250.3696	5269.5904	---	---
	Ant7	5300	19.341	5290.3297	5309.6703	---	---
	Ant8	5300	19.181	5290.3696	5309.5504	---	---
	Ant7	5320	19.381	5310.2897	5329.6703	---	---
	Ant8	5320	19.301	5310.3297	5329.6304	---	---
	Ant7	5500	19.101	5490.4096	5509.5105	---	---
	Ant8	5500	19.221	5490.3696	5509.5904	---	---
	Ant7	5580	19.141	5570.4096	5589.5504	---	---
	Ant8	5580	19.221	5570.3696	5589.5904	---	---
	Ant7	5700	19.181	5690.4096	5709.5904	---	---
	Ant8	5700	19.221	5690.3696	5709.5904	---	---
	Ant7	5720	19.141	5710.4096	5729.5504	---	---
	Ant8	5720	19.221	5710.3696	5729.5904	---	---
	Ant7	5745	19.181	5735.4096	5754.5904	---	---
	Ant8	5745	19.301	5735.3297	5754.6304	---	---

	Ant7	5785	19.181	5775.3696	5794.5504	---	---
	Ant8	5785	19.261	5775.3297	5794.5904	---	---
	Ant7	5825	19.301	5815.3297	5834.6304	---	---
	Ant8	5825	19.421	5815.2498	5834.6703	---	---
11AX40MIMO	Ant7	5190	38.442	5170.7393	5209.1808	---	---
	Ant8	5190	38.362	5170.8192	5209.1808	---	---
	Ant7	5230	38.442	5210.7393	5249.1808	---	---
	Ant8	5230	38.761	5210.6593	5249.4206	---	---
	Ant7	5270	38.442	5250.7393	5289.1808	---	---
	Ant8	5270	38.442	5250.8192	5289.2607	---	---
	Ant7	5310	38.442	5290.8192	5329.2607	---	---
	Ant8	5310	38.282	5290.8192	5329.1009	---	---
	Ant7	5510	38.042	5490.9790	5529.0210	---	---
	Ant8	5510	38.122	5490.8991	5529.0210	---	---
	Ant7	5550	38.122	5530.8991	5569.0210	---	---
	Ant8	5550	38.202	5530.8991	5569.1009	---	---
	Ant7	5670	38.202	5650.8991	5689.1009	---	---
	Ant8	5670	38.202	5650.8192	5689.0210	---	---
	Ant7	5710	38.122	5690.9790	5729.1009	---	---
	Ant8	5710	38.122	5690.8991	5729.0210	---	---
	Ant7	5755	38.202	5735.8991	5774.1009	---	---
	Ant8	5755	38.282	5735.8192	5774.1009	---	---
	Ant7	5795	38.282	5775.8192	5814.1009	---	---
	Ant8	5795	38.362	5775.7393	5814.1009	---	---
11AX80MIMO	Ant7	5210	78.162	5170.8392	5249.0010	---	---
	Ant8	5210	77.842	5171.1588	5249.0010	---	---
	Ant7	5290	78.322	5250.8392	5329.1608	---	---
	Ant8	5290	77.842	5250.9990	5328.8412	---	---
	Ant7	5530	77.682	5491.1588	5568.8412	---	---
	Ant8	5530	77.522	5491.3187	5568.8412	---	---
	Ant7	5610	77.522	5571.1588	5648.6813	---	---
	Ant8	5610	77.522	5571.1588	5648.6813	---	---
	Ant7	5690	77.682	5651.3187	5729.0010	---	---
	Ant8	5690	77.842	5650.9990	5728.8412	---	---
	Ant7	5775	77.682	5736.1588	5813.8412	---	---
	Ant8	5775	77.842	5735.9990	5813.8412	---	---
11AX160MIMO	Ant7	5250	157.922	5171.0390	5328.9610	---	---
	Ant8	5250	156.963	5171.6783	5328.6414	---	---
	Ant7	5570	157.283	5491.3586	5648.6414	---	---
	Ant8	5570	156.963	5491.6783	5648.6414	---	---

11A-CDD_Ant7_5180



11A-CDD_Ant8_5180