



FCC RF Test Report

APPLICANT : Nextivity, Inc.
EQUIPMENT : SHIELD MegaFi 2
BRAND NAME : Nextivity
MODEL NAME : M4D-UC
FCC ID : YETM4D-UC
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure
TEST DATE(S) : Dec. 10, 2024 ~ Jan. 21, 2025

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



Sporton International Inc. (Kunshan)

**No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China**



TABLE OF CONTENTS

REVISION HISTORY	3
SUMMARY OF TEST RESULT	4
1 GENERAL DESCRIPTION	5
1.1 Applicant	5
1.2 Manufacturer	5
1.3 Product Feature of Equipment Under Test	5
1.4 Product Specification of Equipment Under Test	6
1.5 Modification of EUT	7
1.6 Testing Location	8
1.7 Test Software	8
1.8 Applicable Standards	8
2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST	9
2.1 Carrier Frequency and Channel	9
2.2 Test Mode	10
2.3 Connection Diagram of Test System	11
2.4 Support Unit used in test configuration and system	12
2.5 EUT Operation Test Setup	12
2.6 Measurement Results Explanation Example	12
3 TEST RESULT	13
3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement	13
3.2 Maximum Conducted Output Power Measurement	15
3.3 Power Spectral Density Measurement	18
3.4 Unwanted Emissions Measurement	20
3.5 AC Conducted Emission Measurement	25
3.6 Antenna Requirements	27
4 LIST OF MEASURING EQUIPMENT	28
5 MEASUREMENT UNCERTAINTY	29
APPENDIX A. CONDUCTED TEST RESULTS	
APPENDIX B. AC CONDUCTED EMISSION TEST RESULT	
APPENDIX C. RADIATED SPURIOUS EMISSION	
APPENDIX D. DUTY CYCLE PLOTS	
APPENDIX E. SETUP PHOTOGRAPHS	



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR492317B	Rev. 01	Initial issue of report	Feb. 10, 2025

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit for U-NII-1	Limit for U-NII-3	Result	Remark
3.1	2.1049 & 15.403(i)	6dB, 26dB & 99% Bandwidth	-	6dB Bandwidth > 500kHz	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	≤ 24 dBm	≤ 30 dBm	Pass	-
3.3	15.407(a)	Power Spectral Density	≤ 11 dBm/MHz	≤ 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 0.50 dB at 5139.92 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	15.207(a)	Pass	Under limit 13.32 dB at 0.156 MHz
3.6	15.203 & 15.407(a)	Antenna Requirement	15.203 & 15.407(a)	15.203 & 15.407(a)	Pass	-

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty"

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.



1 General Description

1.1 Applicant

Nextivity, Inc.

16550 West Bernardo Drive, Building 5, Suite 550, San Diego, CA 92127 USA

1.2 Manufacturer

Asiatelco Technologies Co.

#68 HuaTuo Road, Building-8, Zhangjiang Hi-Tech Park, Pudong, Shanghai 201204, China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	SHIELD MegaFi 2
Brand Name	Nextivity
Model Name	M4D-UC
FCC ID	YETM4D-UC
SN Code	Conducted: 243902000030 Conduction: 243902000032 Radiation: 243902000026
HW Version	1.0
SW Version	1.2.0.0
EUT Stage	Identical Prototype

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

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5745 MHz ~ 5825 MHz
Maximum Output Power to Antenna	MIMO <Ant. 1 + 2 + 3> <5180 MHz ~ 5240 MHz> 802.11a : 14.21 dBm / 0.0264 W 802.11n HT20 : 14.68 dBm / 0.0294 W 802.11n HT40 : 15.50 dBm / 0.0355 W 802.11ac VHT20: 14.71 dBm / 0.0296 W 802.11ac VHT40: 15.54 dBm / 0.0358 W 802.11ac VHT80: 8.77 dBm / 0.0075 W 802.11ax HE20: 14.80 dBm / 0.0302 W 802.11ax HE40: 15.68 dBm / 0.0370 W 802.11ax HE80: 8.88 dBm / 0.0077 W <5745 MHz ~ 5825 MHz> 802.11a : 20.20 dBm / 0.1047 W 802.11n HT20 : 19.94 dBm / 0.0986 W 802.11n HT40 : 20.18 dBm / 0.1042 W 802.11ac VHT20: 19.98 dBm / 0.0995 W 802.11ac VHT40: 20.24 dBm / 0.1057 W 802.11ac VHT80: 18.25 dBm / 0.0668 W 802.11ax HE20: 20.09 dBm / 0.1021 W 802.11ax HE40: 20.56 dBm / 0.1138 W 802.11ax HE80: 18.45 dBm / 0.0700 W
99% Occupied Bandwidth	<5180 MHz ~ 5240 MHz> 802.11a : 17.505 MHz 802.11ac VHT20 : 18.552 MHz 802.11ac VHT40 : 36.762 MHz 802.11ac VHT80 : 75.962 MHz 802.11ax HE20: 19.314 MHz 802.11ax HE40: 38.095 MHz 802.11ax HE80: 77.562 MHz <5745 MHz ~ 5825 MHz> 802.11a : 17.638 MHz 802.11ac VHT20 : 18.571 MHz 802.11ac VHT40 : 37.029 MHz 802.11ac VHT80 : 75.581 MHz 802.11ax HE20: 19.333 MHz 802.11ax HE40: 38.057 MHz 802.11ax HE80: 77.257 MHz
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)
Antenna Type	Paddle Antenna: Dipole Antenna Sharkfin Antenna: Monopole Antenna

Antenna Function Description		Ant. 1	Ant. 2	Ant. 3
	802.11 a/n/ac/ax SISO	V	V	V
	802.11 a/n/ac/ax CDD 1S3T	V	V	V

Note:

1. For WLAN SISO & CDD MIMO mode, the whole testing has assessed only MIMO mode by referring to the higher normal conducted power.
2. For 802.11n & 802.11ac mode, the whole testing have assessed only 802.11ac VHT20/40 by referring to the higher output power for conducted testing.
3. For 802.11n & 802.11ac & 802.11ax mode, the whole testing have assessed only 802.11ax HE20/40/80 by referring to the higher output power for RSE testing
4. The device does not support partial RU tone for 802.11ax mode
5. The device supports multiple spatial streams, the worst case directional gain will occur when NSS = 1, therefore, the 1S3T mode is the worst; 1S3T: NSS=1, MIMO 3Tx.
6. There are two type of EUT, which only differ in antenna. Sample 1 with paddle antenna and sample 2 with sharkfin antenna. Based on the max antenna gain, we chose sample 2 for RF testing.

Paddle Antenna:

Frequency Band	Max Single Antenna gain (dBi)			CDD DG (dBi)	
	Ant.1	Ant.2	Ant.3	For Power	For PSD
5GHz UNII-1	2.2	2.2	2.2	2.2	6.97
5GHz UNII-3	1.9	1.9	1.9	1.9	6.67

Sharkfin Antenna:

Frequency Band	Max Single Antenna gain (dBi)			CDD DG (dBi)	
	Ant.1	Ant.2	Ant.3	For Power	For PSD
5GHz UNII-1	2.94	2.94	2.94	2.94	7.71
5GHz UNII-3	2.11	2.11	2.11	2.11	6.88

Description of antenna naming for each test item:

Test data	EUT Antenna port	Antenna Report
Ant.1	WIFI3	UNII-1/UNII-3
Ant.2	WIFI2	UNII-1/UNII-3
Ant.3	WIFI1	UNII-1/UNII-3

Remark: The Ant.1 of test data in this report corresponding to EUT antenna port is WIFI3, Ant.2 of test data corresponding to EUT antenna port is WIFI2, Ant.3 of test data corresponding to EUT antenna port is WIFI1. The three antennas are identical and correspond to UNII-1/UNII-3 in the antenna report.

1.5 Modification of EUT

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



1.6 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

1.7 Test Software

Item	Site	Manufacturer	Name	Version
1.	TH01-KS	Tonscend	JS1120-3 test system China_210602	3.3.10
2.	03CH08-KS	AUDIX	E3	210616
3.	CO01-KS	AUDIX	E3	6.2009-8-24

1.8 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 (X 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	-	-

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

Note:

1. The above Frequency and Channel in "*" are 40MHz bandwidth.
2. The above Frequency and Channel in "#" are 80MHz bandwidth.



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
802.11n HT20 (Covered by VHT20)	MCS0
802.11n HT40 (Covered by VHT40)	MCS0
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0
802.11ax HE20	MCS0
802.11ax HE40	MCS0
802.11ax HE80	MCS0

AC Conducted Emission	Mode 1 : LTE Band 5 Idle + WLAN Tx(5G) + Power From Adapter
Remark: For Radiated Test Cases, the tests were performance with Adapter	

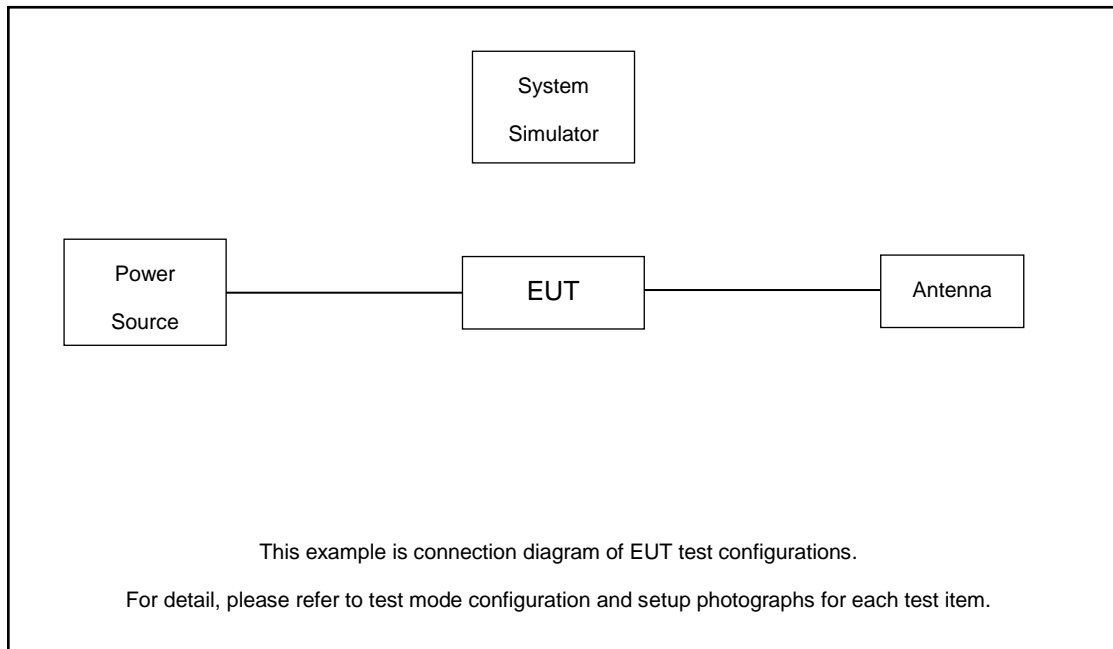
Ch. #		U-NII-1	U-NII-3
		20M BW	20M BW
L	Low	36	149
M	Middle	44	157
H	High	48	165

Ch. #		U-NII-1	U-NII-3
		40M BW	40M BW
L	Low	38	151
M	Middle	-	-
H	High	46	159

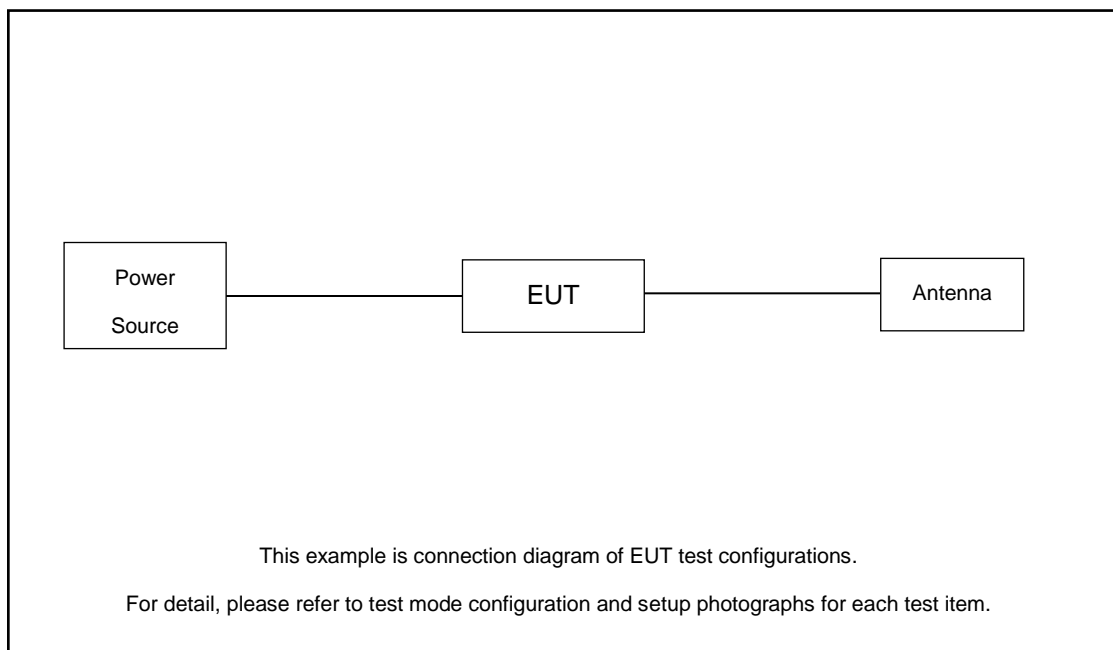
Ch. #		U-NII-1	U-NII-3
		80M BW	80M BW
L	Low	-	-
M	Middle	42	155
H	High	-	-

2.3 Connection Diagram of Test System

AC Conducted Emission:



Radiated Emission:



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	LTE Base Station	Anritus	MT8821C	N/A	N/A	Unshielded, 1.8m
2.	Notebook	Lenovo	G480	QDS-BRCM1050I	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

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

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 4.08 dB and 20dB attenuator.

$$\begin{aligned}\text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\ &= 4.08 + 20 = 24.08 \text{ (dB)}\end{aligned}$$



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.

3.1.2 Measuring Instruments

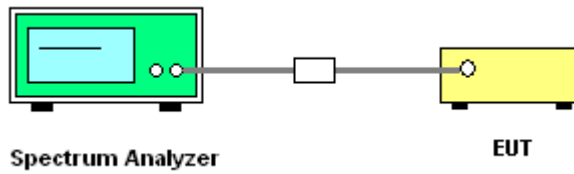
The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedures

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

<input checked="" type="checkbox"/>	Section C) Bandwidth Measurement 1. Emission Bandwidth (EBW) and 99% OBW
	<ol style="list-style-type: none">1. Set RBW = approximately 1% of the emission bandwidth.2. Set the VBW > RBW.3. Detector = Peak.4. Trace mode = max hold5. 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%.6. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set to 1%~5% of the OBW and set the Video bandwidth (VBW) $\geq 3 * RBW$.7. Measure and record the results in the test report.
<input checked="" type="checkbox"/>	Section C) Bandwidth Measurement 2. Minimum Emission Bandwidth for the band 5.725 - 5.85 GHz
	<ol style="list-style-type: none">1. Set RBW = 100kHz.2. Set the VBW $\geq 3 * RBW$.3. Detector = Peak.4. Trace mode = max hold5. 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 Bandwidth

Please refer to Appendix A.

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

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.

For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

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

3.2.2 Measuring Instruments

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

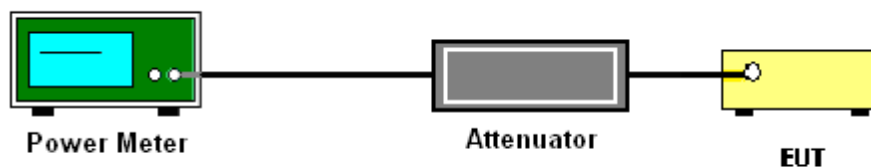
3.2.3 Test Procedures

The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method PM (Measurement using an RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, $10 \log(1/x)$, where x is the duty cycle.
4. For MIMO mode, the measure-and-sum technique should be used for measuring the in-band transmit power of a device.

3.2.4 Test Setup





3.2.5 Test Result of Maximum Conducted Output Power

U-NII-1															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Ant	Average Conducted Power with duty factor (dBm)				FCC Power Limit (dBm)	DG (dBi)	FCC EIRP Power (dBm)	FCC EIRP Power Limit (dBm)	Pass/Fail	Power setting
						Ant 1	Ant 2	Ant 3	SUM						
11a	6Mbps	3	36	5180	1+2+3	8.90	9.99	9.36	14.21	30.00	2.94	17.15	-	Pass	8.5
11a	6Mbps	3	44	5220	1+2+3	5.69	7.04	6.76	11.30	30.00	2.94	14.24	-	Pass	5.5
11a	6Mbps	3	48	5240	1+2+3	5.51	7.02	6.87	11.29	30.00	2.94	14.23	-	Pass	5.5
HT20	MCS0	3	36	5180	1+2+3	9.47	10.41	9.80	14.68	30.00	2.94	17.62	-	Pass	10.5
HT20	MCS0	3	44	5220	1+2+3	6.46	7.53	7.40	11.92	30.00	2.94	14.86	-	Pass	7.5
HT20	MCS0	3	48	5240	1+2+3	5.27	6.57	3.51	10.06	30.00	2.94	13.00	-	Pass	6.5
HT40	MCS0	3	38	5190	1+2+3	8.60	9.55	9.06	13.86	30.00	2.94	16.80	-	Pass	9.5
HT40	MCS0	3	46	5230	1+2+3	9.92	11.34	10.81	15.50	30.00	2.94	18.44	-	Pass	11
VHT20	MCS0	3	36	5180	1+2+3	9.50	10.46	9.82	14.71	30.00	2.94	17.65	-	Pass	10.5
VHT20	MCS0	3	44	5220	1+2+3	6.50	7.55	7.42	11.95	30.00	2.94	14.89	-	Pass	7.5
VHT20	MCS0	3	48	5240	1+2+3	5.32	6.60	3.55	10.10	30.00	2.94	13.04	-	Pass	6.5
VHT40	MCS0	3	38	5190	1+2+3	8.67	9.58	9.09	13.90	30.00	2.94	16.84	-	Pass	9.5
VHT40	MCS0	3	46	5230	1+2+3	9.95	11.39	10.86	15.54	30.00	2.94	18.48	-	Pass	11
VHT80	MCS0	3	42	5210	1+2+3	3.16	4.33	4.40	8.77	30.00	2.94	11.71	-	Pass	5
HE20	MCS0	3	36	5180	1+2+3	9.56	10.55	9.92	14.80	30.00	2.94	17.74	-	Pass	10.5
HE20	MCS0	3	44	5220	1+2+3	6.58	7.63	7.51	12.03	30.00	2.94	14.97	-	Pass	7.5
HE20	MCS0	3	48	5240	1+2+3	5.39	6.71	3.62	10.19	30.00	2.94	13.13	-	Pass	6.5
HE40	MCS0	3	38	5190	1+2+3	8.83	9.74	9.25	14.06	30.00	2.94	17.00	-	Pass	9.5
HE40	MCS0	3	46	5230	1+2+3	10.08	11.52	11.00	15.68	30.00	2.94	18.62	-	Pass	11
HE80	MCS0	3	42	5210	1+2+3	3.31	4.43	4.49	8.88	30.00	2.94	11.82	-	Pass	5



U-NII-3													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power with duty factor (dBm)				FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/ Fail	Power setting
					Ant 1	Ant 2	Ant 3	SUM		Ant 1	Ant 2		
11a	6Mbps	3	149	5745	14.76	15.80	15.67	20.20	30.00	2.11		Pass	15.5
11a	6Mbps	3	157	5785	13.84	14.31	14.81	19.11	30.00	2.11		Pass	14
11a	6Mbps	3	165	5825	13.63	13.99	14.34	18.76	30.00	2.11		Pass	14
HT20	MCS0	3	149	5745	14.41	15.43	15.47	19.90	30.00	2.11		Pass	16.5
HT20	MCS0	3	157	5785	13.90	14.37	14.71	19.11	30.00	2.11		Pass	15.5
HT20	MCS0	3	165	5825	14.66	15.38	15.43	19.94	30.00	2.11		Pass	16.5
HT40	MCS0	3	151	5755	14.58	15.59	15.51	20.02	30.00	2.11		Pass	16.5
HT40	MCS0	3	159	5795	14.77	15.77	15.61	20.18	30.00	2.11		Pass	16.5
VHT20	MCS0	3	149	5745	14.49	15.49	15.51	19.96	30.00	2.11		Pass	16.5
VHT20	MCS0	3	157	5785	13.93	14.39	14.77	19.15	30.00	2.11		Pass	15.5
VHT20	MCS0	3	165	5825	14.71	15.42	15.47	19.98	30.00	2.11		Pass	16.5
VHT40	MCS0	3	151	5755	14.64	15.68	15.58	20.09	30.00	2.11		Pass	16.5
VHT40	MCS0	3	159	5795	14.83	15.82	15.69	20.24	30.00	2.11		Pass	16.5
VHT80	MCS0	3	155	5775	12.82	13.86	13.67	18.25	30.00	2.11		Pass	15
HE20	MCS0	3	149	5745	14.57	15.57	15.60	20.04	30.00	2.11		Pass	16.5
HE20	MCS0	3	157	5785	14.00	14.47	14.85	19.22	30.00	2.11		Pass	15.5
HE20	MCS0	3	165	5825	14.80	15.55	15.57	20.09	30.00	2.11		Pass	16.5
HE40	MCS0	3	151	5755	14.88	15.92	15.82	20.34	30.00	2.11		Pass	16.5
HE40	MCS0	3	159	5795	15.15	16.13	16.01	20.56	30.00	2.11		Pass	16.5
HE80	MCS0	3	155	5775	13.06	14.00	13.93	18.45	30.00	2.11		Pass	15

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

For the band 5.725–5.85 GHz, 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, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.
Section F) Maximum power spectral density.

For devices operating in the bands UNII-1

Method SA-2

(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW \geq 3 MHz.
- Number of points in sweep \geq 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add $10 \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.

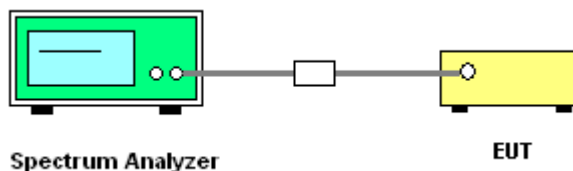
For devices operating in the band UNII-3**# Method SA-2 #**

(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

- Measure the duty cycle.
 - Set span to encompass the entire emission bandwidth (EBW) of the signal.
 - Set RBW = 500KHz (or 300 kHz if the SA can't set RBW=500KHz).
 - Set VBW ≥ 1 MHz.
 - Number of points in sweep ≥ 2 Span / RBW.
 - Sweep time = auto.
 - Detector = RMS
 - Trace average at least 100 traces in power averaging mode.
 - If the SA can't set RBW=500KHz, then add $10 \log(500\text{kHz}/\text{RBW})$ to the test result.
 - Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add $10 \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.
1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
 2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
 3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

Method (a): Measure and sum the spectra across the outputs.

The total final Power Spectral Density is the bin-by-bin summation to obtain the combined spectrum. For the device with 3 transmitter outputs. The spectrum measurements of the individual outputs are all performed with the same span and number of points, the spectrum value in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3 to obtain the value for the first frequency bin of the summed spectrum.

3.3.4 Test Setup**3.3.5 Test Result of Power Spectral Density**

Please refer to Appendix A.

3.4 Unwanted Emissions Measurement

This section as specified in FCC Part 15.407(b) is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement. The unwanted emissions shall comply with 15.407(b)(1) to (6), and restricted bands per FCC Part 15.205.

3.4.1 Limit of Unwanted Emissions

- (1) For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27dBm/MHz.
- (2) For transmitters operating in the 5.725-5.85 GHz band:
15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
- (3) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits as below table,

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

(4) EIRP (dBm)	Field Strength at 3m (dBμV/m)
- 27	68.2

Note: The following formula is used to convert the EIRP to field strength.

$$\text{EIRP} = E_{\text{Meas}} + 20\log(d_{\text{Meas}}) - 104.7$$

where

EIRP is the equivalent isotropically radiated power, in dBm

E_{Meas} is the field strength of the emission at the measurement distance, in dBμV/m

d_{Meas} is the measurement distance, in m

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.
Section G) Unwanted emissions measurement.
 - (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
 - RBW = 120 kHz
 - VBW = 300 kHz
 - Detector = Peak
 - Trace mode = max hold
 - (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
 - RBW = 1 MHz
 - VBW ≥ 3 MHz
 - Detector = Peak
 - Sweep time = auto
 - Trace mode = max hold
 - (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
 - RBW = 1 MHz
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on.
 - (4) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
 - RBW = 1 MHz
 - VBW = 3 MHz
 - Detector = power averaging (rms), set span/(# of points in sweep) ≥ RBW/2.
 - Averaging type = power averaging(RMS)
 - The correction factor shall be offset is 10 log (1/x), where x is the duty cycle.
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top

of a variable height antenna tower.

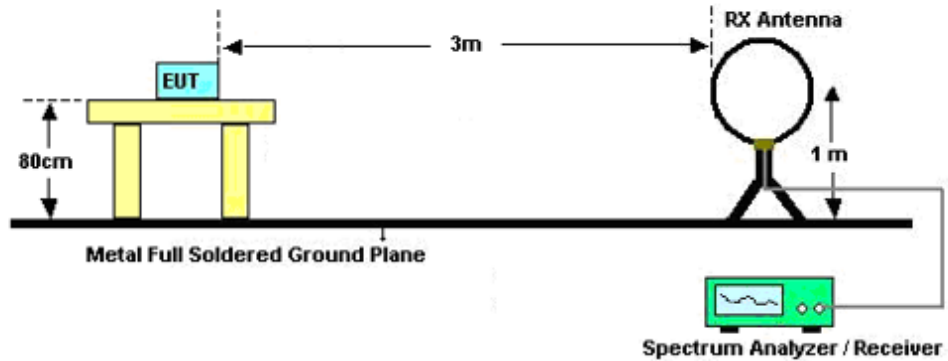
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Antenna-port conducted measurements for Band Edge

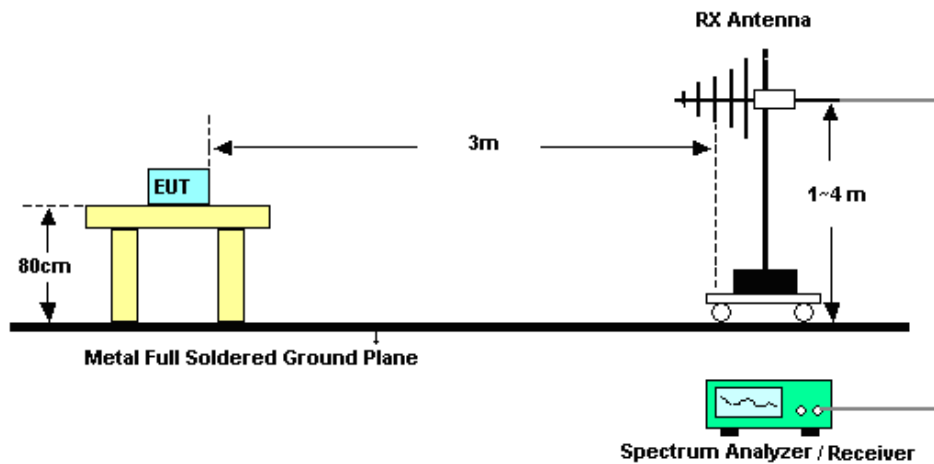
1. The RF output of EUT was connected to the spectrum analyzer by RF cable. The path loss was compensated to the results for each measurement.
2. Set to the maximum power setting and enable the EUT transmit continuously.
3. Peak measurement: $f \geq 1$ GHz; Set RBW = 1 MHz, VBW= 3MHz; Detector function = peak; Sweep time = auto couple, Trace = max hold.
4. Average measurement:
VBW = 10 Hz, when duty cycle is no less than 98 percent.
VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
5. The plot has included the antenna port summation compensation 3×3 MIMO = $10 \log 3 = 4.77$ dB, max gain, attenuation, cable loss and EIRP to E convert factor.

3.4.4 Test Setup

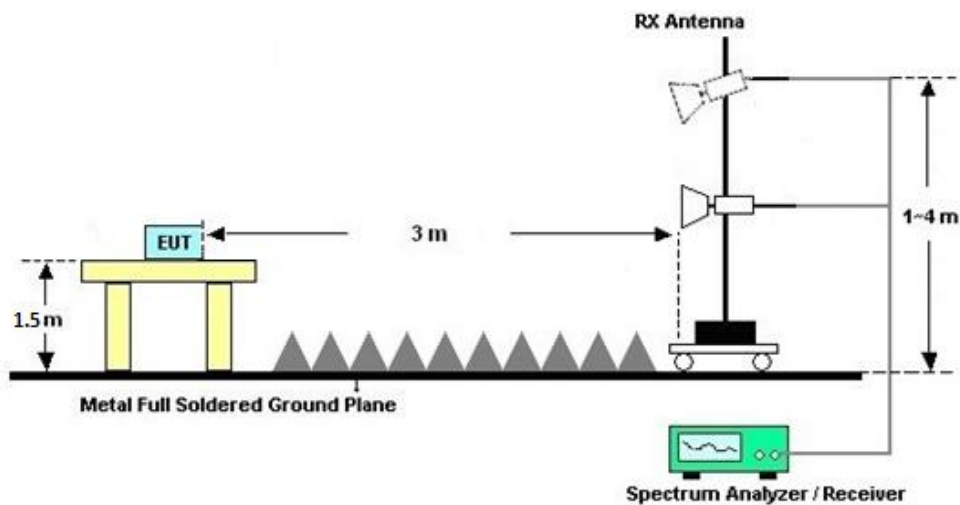
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



**3.4.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)**

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C.

3.4.7 Duty Cycle

Please refer to Appendix D.

3.4.8 Test Result of Radiated Spurious Emissions (30MHz ~ 10th Harmonic)

Please refer to Appendix C.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

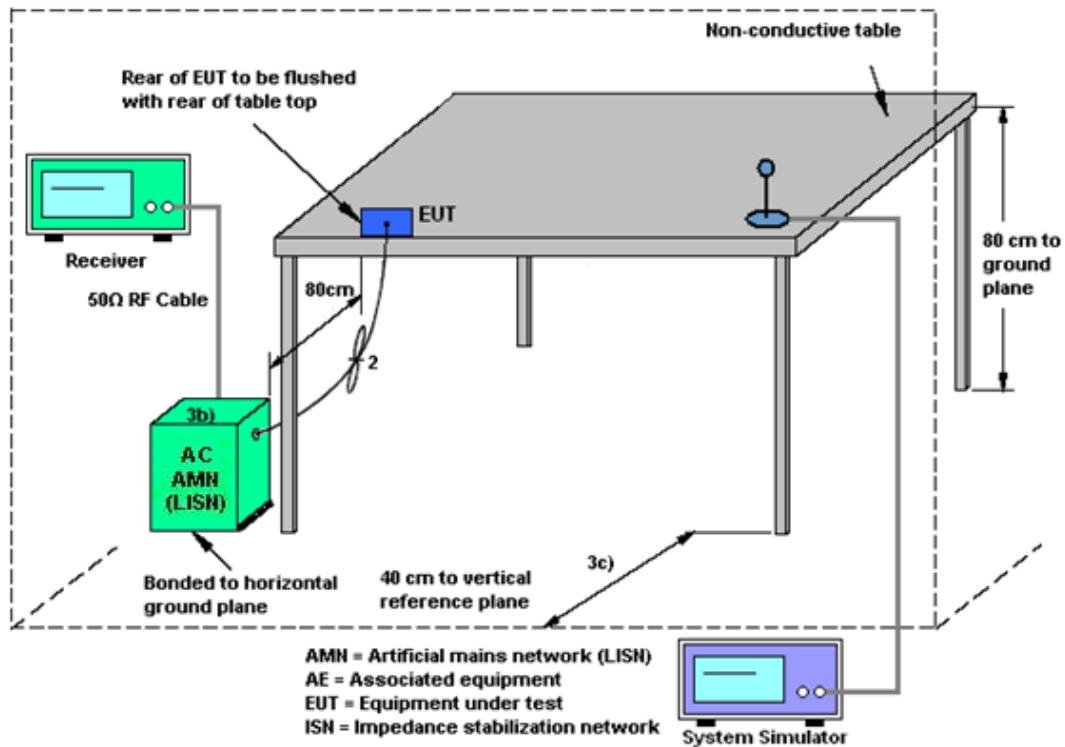
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Antenna Requirements

3.6.1 Standard Applicable

According to FCC 47 CFR Section 15.407(a)(1)(2) ,if transmitting antenna directional gain is greater than 6 dBi, both the peak transmit 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.

3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.6.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For 802.11b/g/n/ax mode, directional gain is calculated as

For power, the directional gain G_{ANT} is set equal to the antenna having the highest gain, i.e.,

Directional gain = $G_{ANT\ MAX}(Ant.1\ Gain, Ant.2\ Gain, \dots) + \text{Array Gain}$, as following table for Power, where Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

For PSD, the directional gain calculation is following,

Directional gain = $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_n/20})^2 / N_{ANT}]$ dBi, as following table for PSD.

N_{ANT} = number of transmit antennas

N_{SS} = number of spatial streams. (The worst case directional gain will occur when $N_{SS} = 1$)

The directional gain "DG" is calculated as following table.

<CDD Modes>	Paddle Antenna:						
				DG for	DG for	Power Limit	PSD Limit
	Ant. 1 (dBi)	Ant. 2 (dBi)	Ant. 3 (dBi)	Power (dBi)	PSD (dBi)	Reduction (dB)	Reduction (dB)
UNII-1	2.20	2.20	2.20	2.20	6.97	0.00	0.97
UNII-3	1.90	1.90	1.90	1.90	6.67	0.00	0.67

<CDD Modes>	Sharkfin Antenna:						
				DG for	DG for	Power Limit	PSD Limit
	Ant. 1 (dBi)	Ant. 2 (dBi)	Ant. 3 (dBi)	Power (dBi)	PSD (dBi)	Reduction (dB)	Reduction (dB)
UNII-1	2.94	2.94	2.94	2.94	7.71	0.00	1.71
UNII-3	2.11	2.11	2.11	2.11	6.88	0.00	0.88

Power Limit Reduction = $DG(\text{Power}) - 6\text{dBi}$, (min = 0)

PSD Limit Reduction = $DG(\text{PSD}) - 6\text{dBi}$, (min = 0)



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 10, 2024	Dec. 10, 2024	Oct. 09, 2025	Conducted (TH01-KS)
Pulse Power Sensor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 02, 2024	Dec. 10, 2024	Jan. 01, 2025	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 02, 2024	Dec. 10, 2024	Jan. 01, 2025	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 04, 2024	Dec. 10, 2024	Jul. 03, 2025	Conducted (TH01-KS)
EMI Test Receiver	Keysight	N9038A	MY57290151	3Hz~8.5GHz;Max 30dBm	Jul. 04, 2024	Jan. 21, 2025	Jul. 03, 2025	Radiation (03CH08-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY57441079	10Hz~44GHz	Oct. 09, 2024	Jan. 21, 2025	Oct. 08, 2025	Radiation (03CH08-KS)
Loop Antenna	R&S	HFH2-Z2E	101125	9kHz~30MHz	Sep. 08, 2024	Jan. 21, 2025	Sep. 07, 2025	Radiation (03CH08-KS)
Bilog Antenna	TESEQ	CBL 6111D	59915	30MHz~1GHz	Aug. 18, 2024	Jan. 21, 2025	Aug. 17, 2025	Radiation (03CH08-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00240138	1GHz~18GHz	Jul. 06, 2024	Jan. 21, 2025	Jul. 05, 2025	Radiation (03CH08-KS)
high gain Amplifier	EM	EM01G18GA	060890	1Ghz~18Ghz	Jul. 23, 2024	Jan. 21, 2025	Jul. 22, 2025	Radiation (03CH08-KS)
SHF-EHF Horn	Com-power	AH-840	101116	18GHz~40GHz	Oct. 22, 2024	Jan. 21, 2025	Oct. 21, 2025	Radiation (03CH08-KS)
Amplifier	SONOMA	310N	380826	9KHz~1GHz	Jul. 03, 2024	Jan. 21, 2025	Jul. 02, 2025	Radiation (03CH08-KS)
Amplifier	Keysight	83017A	MY53270417	500MHz~26.5GHz	Oct. 09, 2024	Jan. 21, 2025	Oct. 08, 2025	Radiation (03CH08-KS)
Amplifier	EM	EM18G40GGA	060737	18~40GHz	Jan. 03, 2025	Jan. 21, 2025	Jan. 02, 2026	Radiation (03CH08-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Jan. 21, 2025	NCR	Radiation (03CH08-KS)
Turn Table	EM	EM 1000-T	N/A	0~360 degree	NCR	Jan. 21, 2025	NCR	Radiation (03CH08-KS)
Antenna Mast	EM	EM 1000-A	N/A	1 m~4 m	NCR	Jan. 21, 2025	NCR	Radiation (03CH08-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 18, 2024	Jan. 20, 2025	Apr. 17, 2025	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Aug. 20, 2024	Jan. 20, 2025	Aug. 19, 2025	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	Apr. 18, 2024	Jan. 20, 2025	Apr. 17, 2025	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP00000811	AC 0V~300V, 45Hz~1000Hz	Oct. 09, 2024	Jan. 20, 2025	Oct. 08, 2025	Conduction (CO01-KS)

NCR: No Calibration Required

5 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.10-2013. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Conducted Measurement

Conducted Spurious Emission & Bandedge	±2.22 dB
Occupied Channel Bandwidth	±0.1%
Conducted Power	±0.50 dB
Conducted Power Spectral Density	±0.90 dB
Frequency	±0.4 Hz

Uncertainty of AC Conducted Emission Measurement (0.15 MHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.84dB
---	--------

Uncertainty of Radiated Emission Measurement (9 KHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.30 dB
---	---------

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	6.04 dB
---	---------

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.26 dB
---	---------

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.40 dB
---	---------

----- THE END -----



Appendix A. Conducted Test Results

**Ambient Condition:** 25 °C, 45 %RH**Test Date:** 2024.12.10**Test Engineer:** Gene Wang**Emission Bandwidth
Test Result**

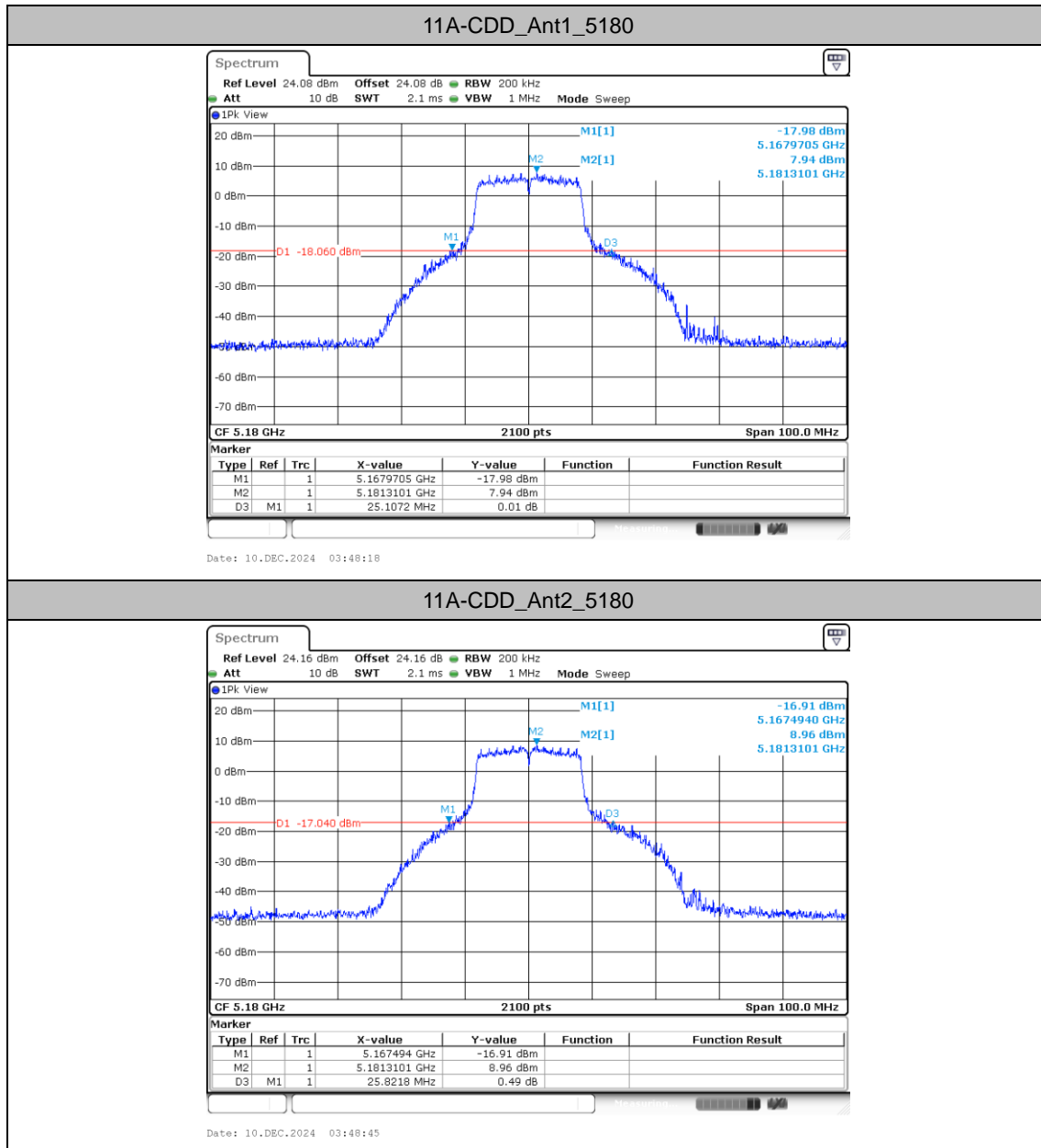
TestMode	Antenna	Freq(MHz)	26dB EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A-CDD	Ant1	5180	25.11	5167.97	5193.08	---	---
	Ant2	5180	25.82	5167.49	5193.32	---	---
	Ant3	5180	27.49	5167.21	5194.70	---	---
	Ant1	5220	20.58	5209.73	5230.31	---	---
	Ant2	5220	20.25	5209.92	5230.17	---	---
	Ant3	5220	21.34	5209.16	5230.51	---	---
	Ant1	5240	20.01	5230.02	5250.03	---	---
	Ant2	5240	20.82	5229.16	5249.98	---	---
	Ant3	5240	20.63	5229.78	5250.41	---	---
	Ant1	5745	24.58	5733.88	5758.46	---	---
	Ant2	5745	23.63	5734.45	5758.08	---	---
	Ant3	5745	26.06	5734.35	5760.41	---	---
	Ant1	5785	20.68	5774.64	5795.31	---	---
	Ant2	5785	20.87	5774.40	5795.27	---	---
	Ant3	5785	21.25	5774.21	5795.46	---	---
	Ant1	5825	24.20	5811.64	5835.84	---	---
	Ant2	5825	24.68	5811.83	5836.51	---	---
	Ant3	5825	26.25	5810.30	5836.55	---	---
11AC20MIMO	Ant1	5180	26.68	5166.59	5193.27	---	---
	Ant2	5180	26.73	5167.78	5194.51	---	---
	Ant3	5180	28.35	5167.21	5195.56	---	---
	Ant1	5220	21.53	5209.21	5230.74	---	---
	Ant2	5220	20.96	5209.45	5230.41	---	---
	Ant3	5220	21.01	5209.59	5230.60	---	---
	Ant1	5240	20.34	5229.92	5250.27	---	---
	Ant2	5240	20.15	5229.97	5250.12	---	---
	Ant3	5240	20.44	5229.78	5250.22	---	---
	Ant1	5745	24.34	5734.16	5758.51	---	---
	Ant2	5745	25.39	5734.16	5759.55	---	---
	Ant3	5745	24.01	5734.16	5758.17	---	---
	Ant1	5785	21.39	5774.49	5795.89	---	---
	Ant2	5785	21.49	5774.16	5795.65	---	---
	Ant3	5785	21.11	5774.40	5795.51	---	---
	Ant1	5825	25.87	5810.02	5835.89	---	---
	Ant2	5825	27.20	5809.49	5836.70	---	---
	Ant3	5825	27.39	5809.40	5836.79	---	---
11AC40MIMO	Ant1	5190	51.83	5165.66	5217.49	---	---
	Ant2	5190	52.41	5168.89	5221.30	---	---
	Ant3	5190	47.83	5167.75	5215.58	---	---
	Ant1	5230	40.59	5209.85	5250.44	---	---
	Ant2	5230	40.21	5209.94	5250.15	---	---
	Ant3	5230	40.50	5209.85	5250.34	---	---
	Ant1	5755	53.26	5734.47	5787.73	---	---



	Ant2	5755	47.17	5734.66	5781.82	---	---
	Ant3	5755	47.45	5734.28	5781.73	---	---
	Ant1	5795	40.69	5774.85	5815.53	---	---
	Ant2	5795	40.11	5774.94	5815.06	---	---
	Ant3	5795	40.59	5774.85	5815.44	---	---
11AC80MIMO	Ant1	5210	96.43	5165.12	5261.55	---	---
	Ant2	5210	94.90	5165.88	5260.79	---	---
	Ant3	5210	108.81	5164.17	5272.98	---	---
	Ant1	5775	80.04	5735.27	5815.30	---	---
	Ant2	5775	79.47	5735.46	5814.92	---	---
11AX20MIMO	Ant3	5775	79.66	5735.27	5814.92	---	---
	Ant1	5180	26.82	5167.64	5194.46	---	---
	Ant2	5180	26.77	5167.59	5194.36	---	---
	Ant3	5180	29.20	5166.68	5195.89	---	---
	Ant1	5220	21.68	5209.02	5230.70	---	---
	Ant2	5220	21.34	5209.45	5230.79	---	---
	Ant3	5220	21.92	5209.26	5231.17	---	---
	Ant1	5240	19.87	5230.11	5249.98	---	---
	Ant2	5240	19.91	5230.11	5250.03	---	---
	Ant3	5240	19.87	5230.11	5249.98	---	---
	Ant1	5745	26.39	5733.54	5759.94	---	---
	Ant2	5745	21.77	5734.49	5756.27	---	---
	Ant3	5745	23.34	5734.16	5757.51	---	---
	Ant1	5785	22.06	5773.97	5796.03	---	---
	Ant2	5785	21.34	5774.30	5795.65	---	---
	Ant3	5785	21.39	5774.49	5795.89	---	---
	Ant1	5825	26.49	5810.16	5836.65	---	---
	Ant2	5825	27.49	5809.54	5837.03	---	---
	Ant3	5825	25.87	5811.26	5837.12	---	---
11AX40MIMO	Ant1	5190	49.45	5167.27	5216.73	---	---
	Ant2	5190	50.31	5167.37	5217.68	---	---
	Ant3	5190	51.55	5165.18	5216.73	---	---
	Ant1	5230	39.73	5210.23	5249.96	---	---
	Ant2	5230	39.64	5210.23	5249.87	---	---
	Ant3	5230	39.54	5210.32	5249.87	---	---
	Ant1	5755	45.26	5735.23	5780.49	---	---
	Ant2	5755	49.83	5735.23	5785.06	---	---
	Ant3	5755	47.36	5735.32	5782.68	---	---
	Ant1	5795	39.73	5775.23	5814.96	---	---
	Ant2	5795	39.45	5775.32	5814.77	---	---
	Ant3	5795	39.54	5775.23	5814.77	---	---
11AX80MIMO	Ant1	5210	83.09	5169.12	5252.21	---	---
	Ant2	5210	89.76	5168.93	5258.69	---	---
	Ant3	5210	92.42	5167.03	5259.45	---	---
	Ant1	5775	80.23	5735.08	5815.30	---	---
	Ant2	5775	80.23	5735.08	5815.30	---	---
	Ant3	5775	80.23	5735.08	5815.30	---	---

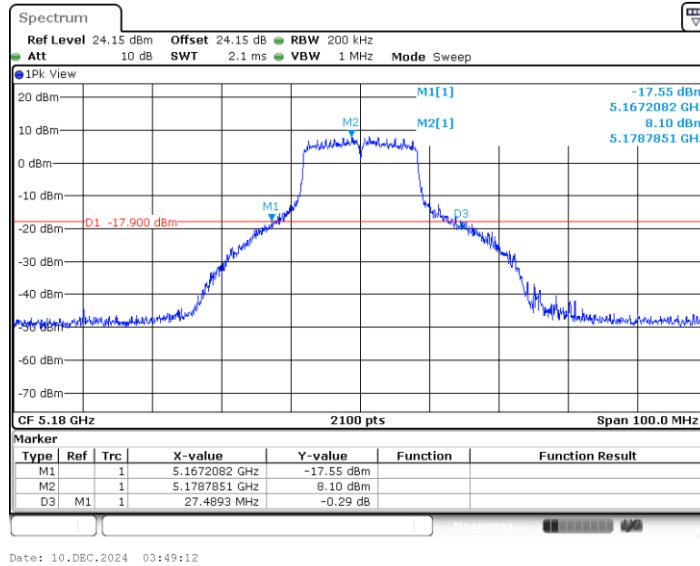


Test Graphs

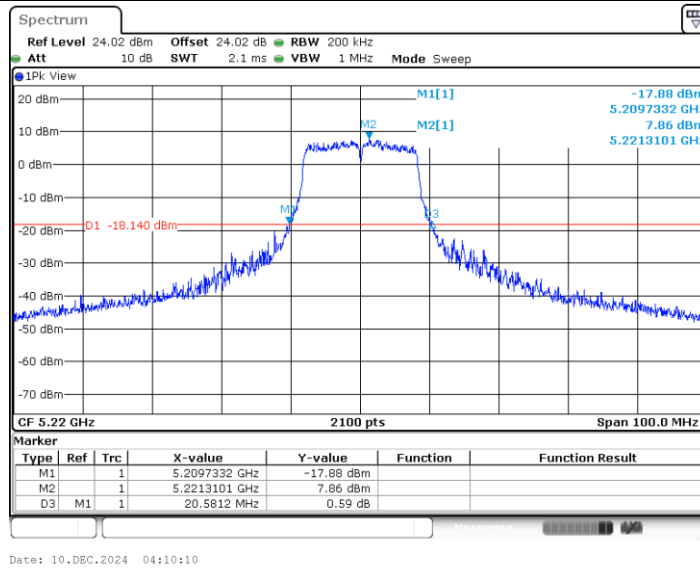




11A-CDD_Ant3_5180

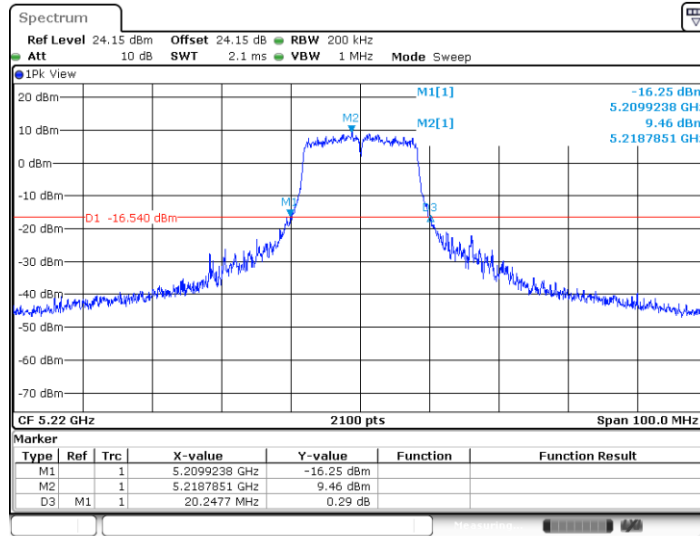


11A-CDD_Ant1_5220

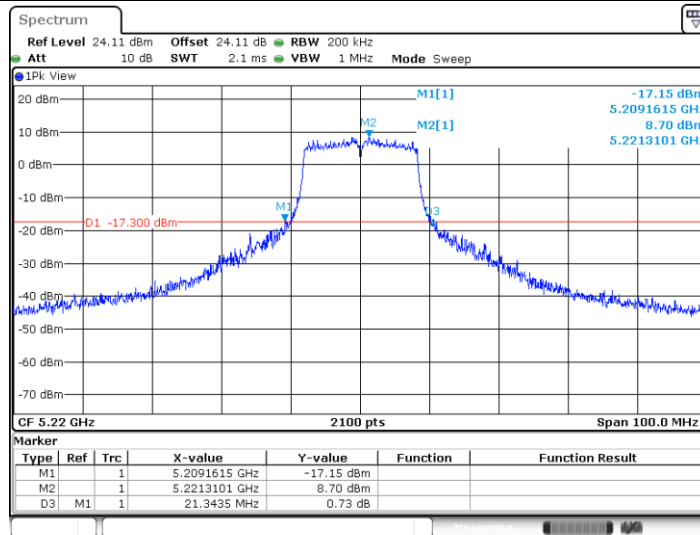




11A-CDD_Ant2_5220

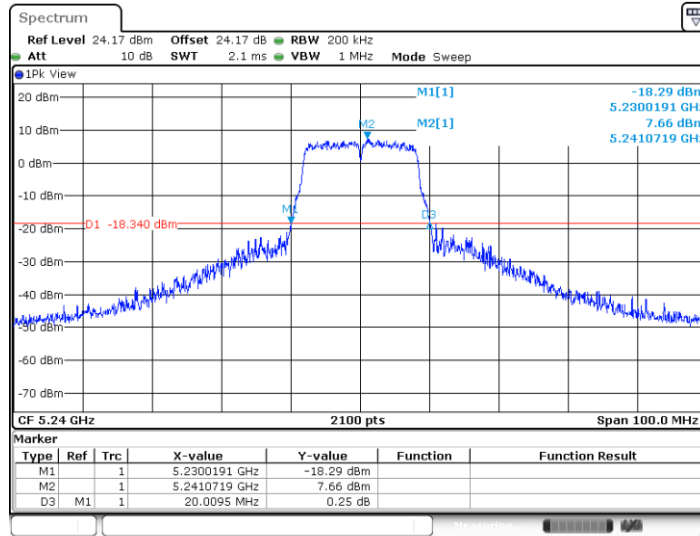


11A-CDD_Ant3_5220



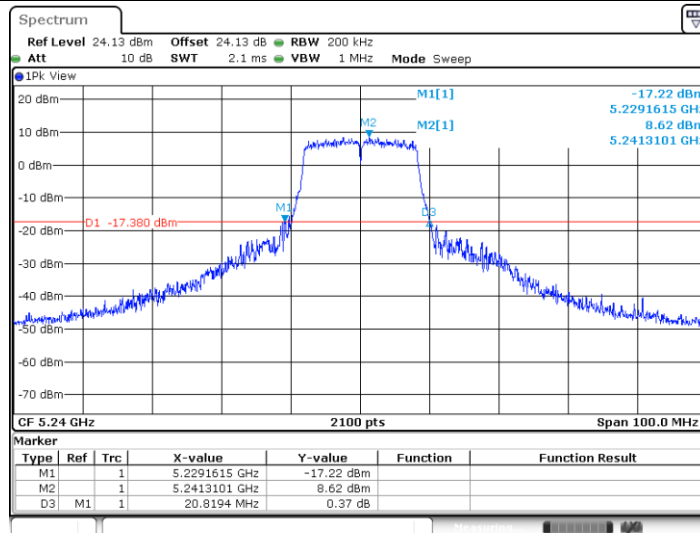


11A-CDD_Ant1_5240



Date: 10.DEC.2024 04:11:48

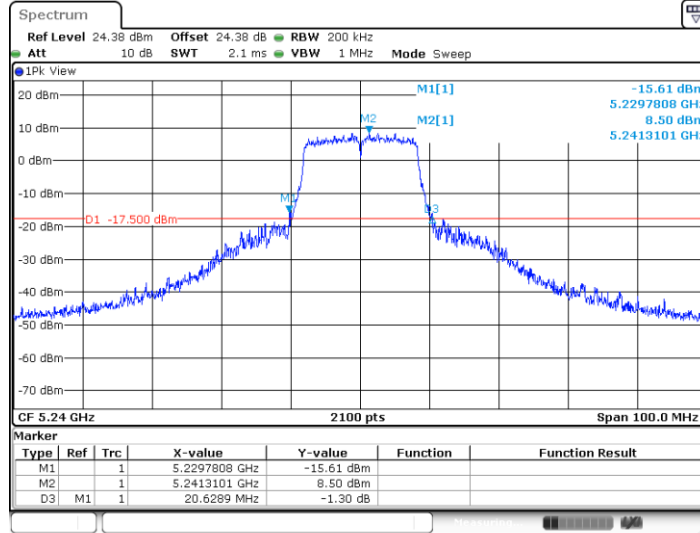
11A-CDD_Ant2_5240



Date: 10.DEC.2024 04:12:15

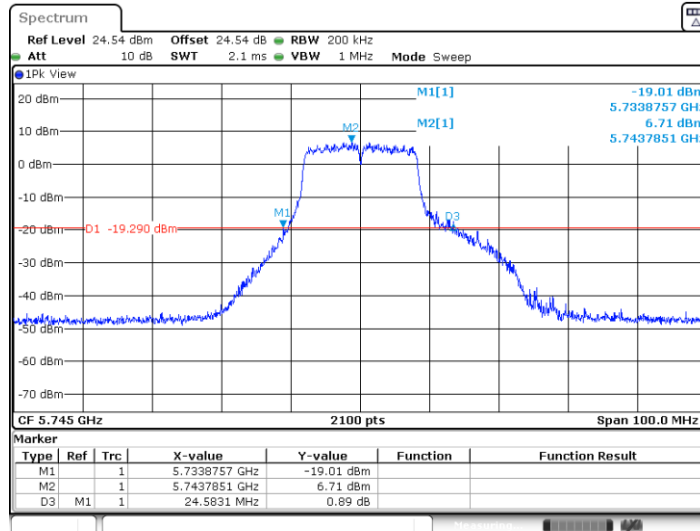


11A-CDD_Ant3_5240



Date: 10.DEC.2024 04:12:44

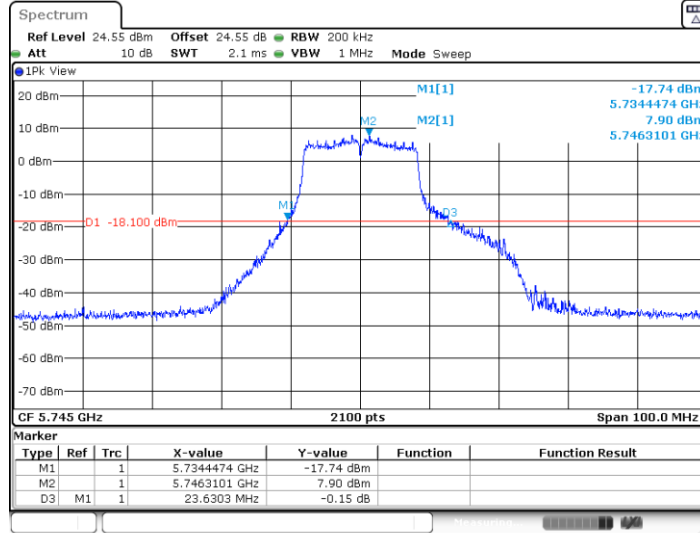
11A-CDD_Ant1_5745



Date: 10.DEC.2024 04:04:30

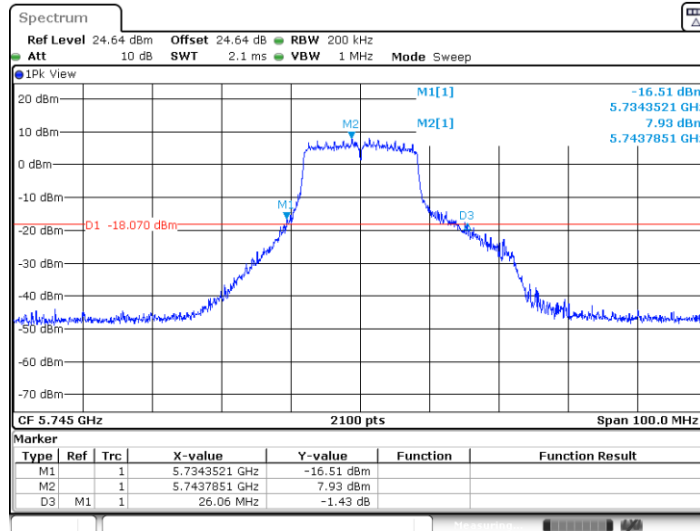


11A-CDD_Ant2_5745



Date: 10 DEC 2024 04:05:05

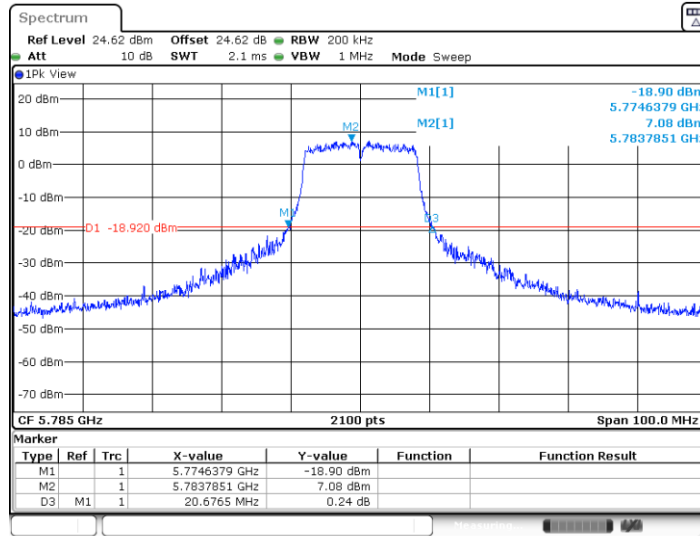
11A-CDD_Ant3_5745



Date: 10 DEC 2024 04:05:41

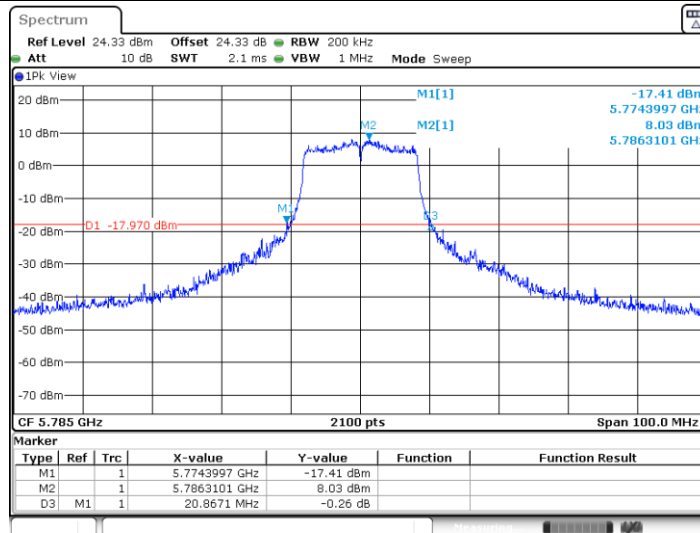


11A-CDD_Ant1_5785



Date: 10 DEC 2024 04:06:25

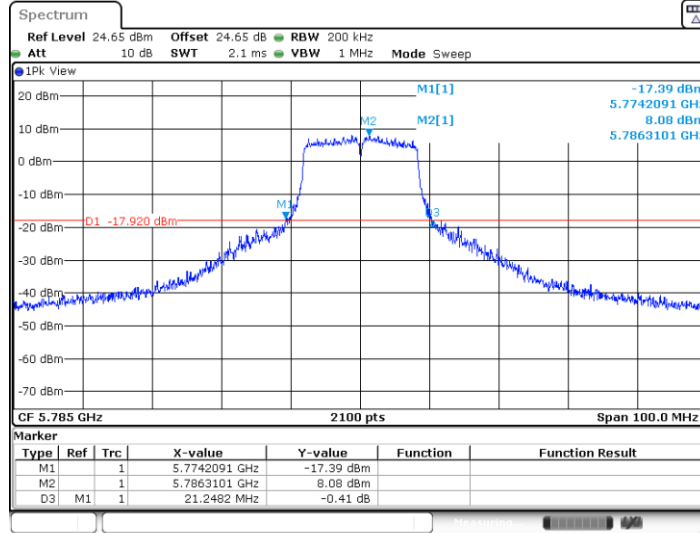
11A-CDD_Ant2_5785



Date: 10 DEC 2024 04:07:00

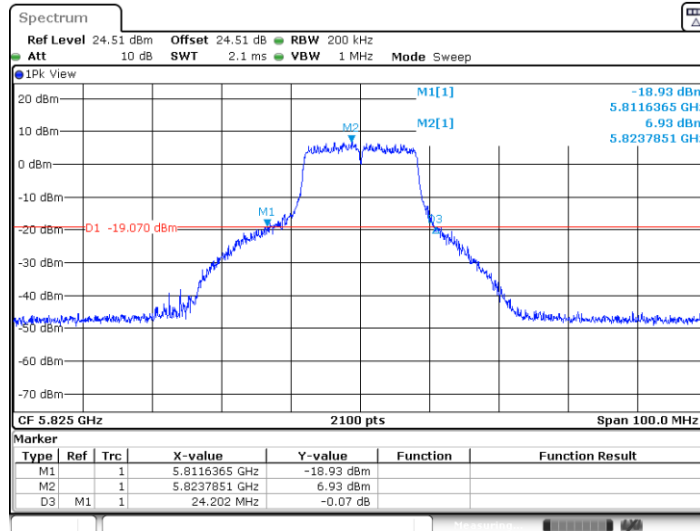


11A-CDD_Ant3_5785



Date: 10 DEC 2024 04:07:35

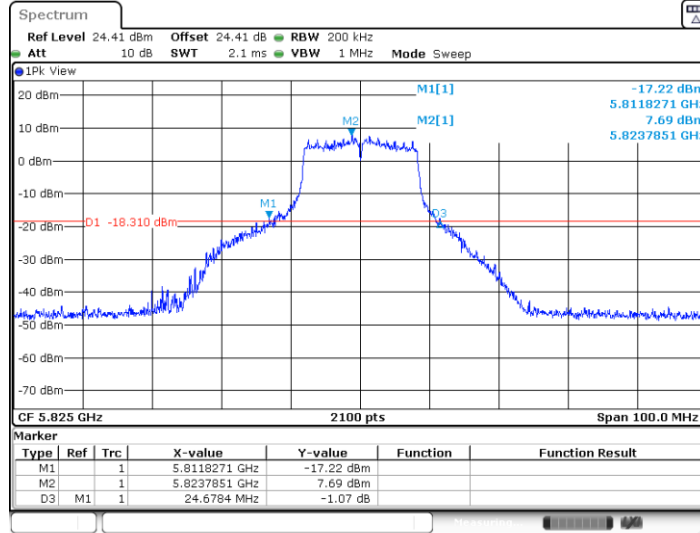
11A-CDD_Ant1_5825



Date: 10 DEC 2024 04:08:28

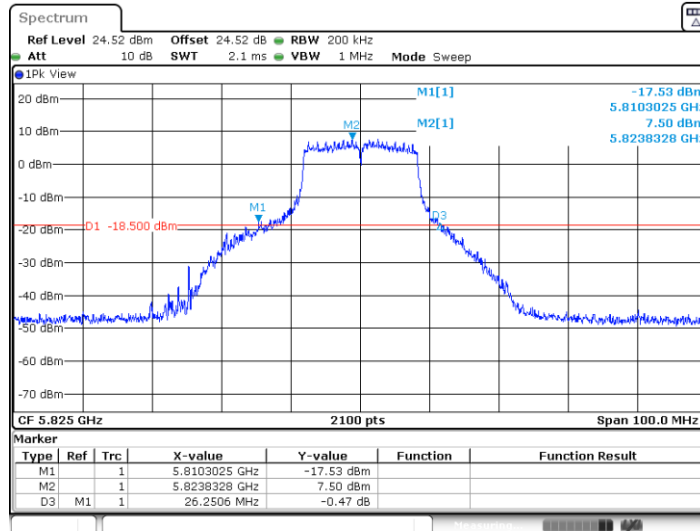


11A-CDD_Ant2_5825



Date: 10 DEC 2024 04:09:03

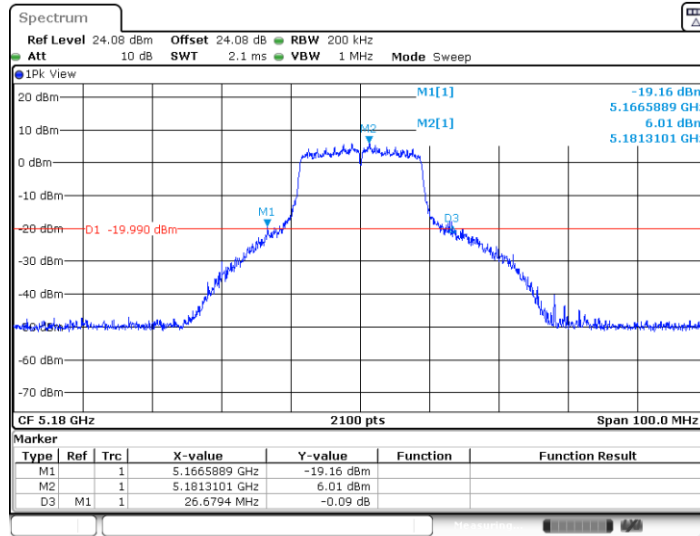
11A-CDD_Ant3_5825



Date: 10 DEC 2024 04:09:38

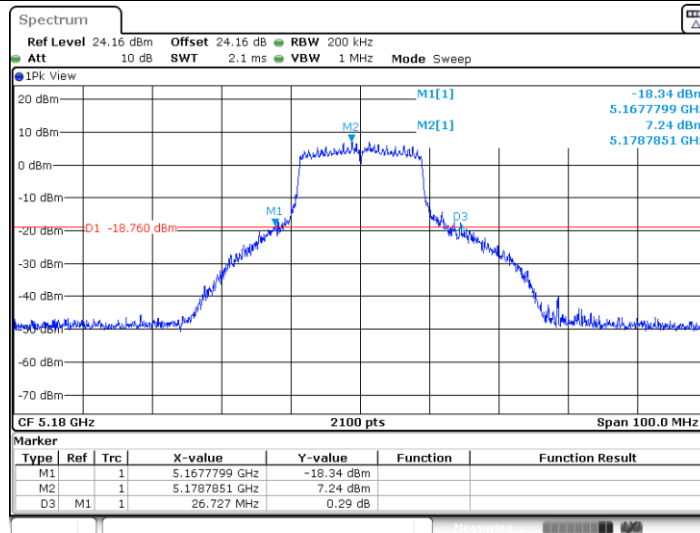


11AC20MIMO_Ant1_5180



Date: 10 DEC 2024 04:20:43

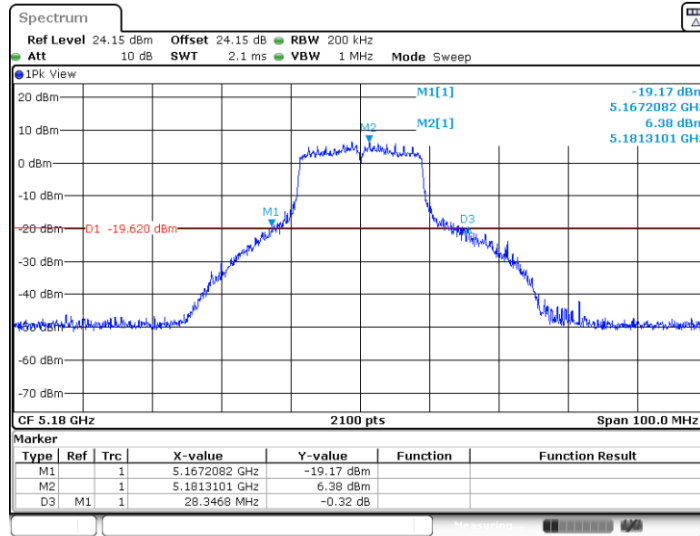
11AC20MIMO_Ant2_5180



Date: 10 DEC 2024 04:21:09

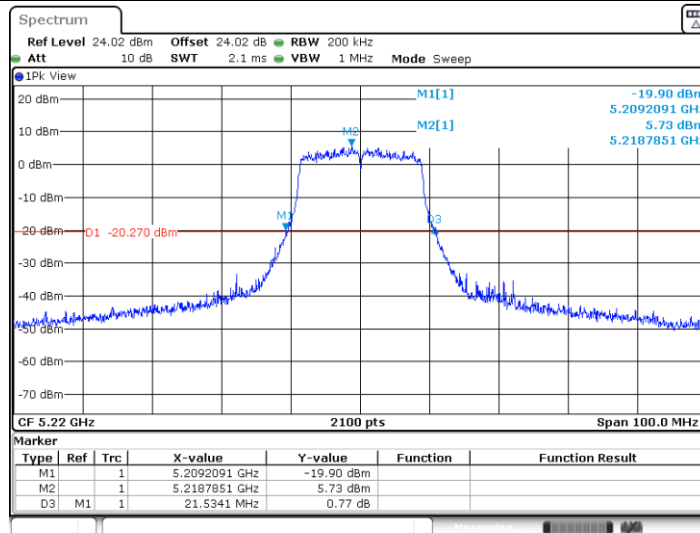


11AC20MIMO_Ant3_5180



Date: 10 DEC 2024 04:21:36

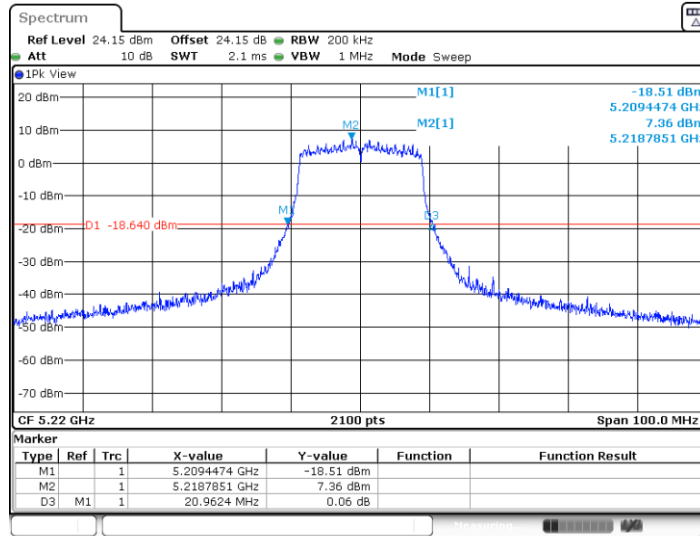
11AC20MIMO_Ant1_5220



Date: 10 DEC 2024 04:22:29

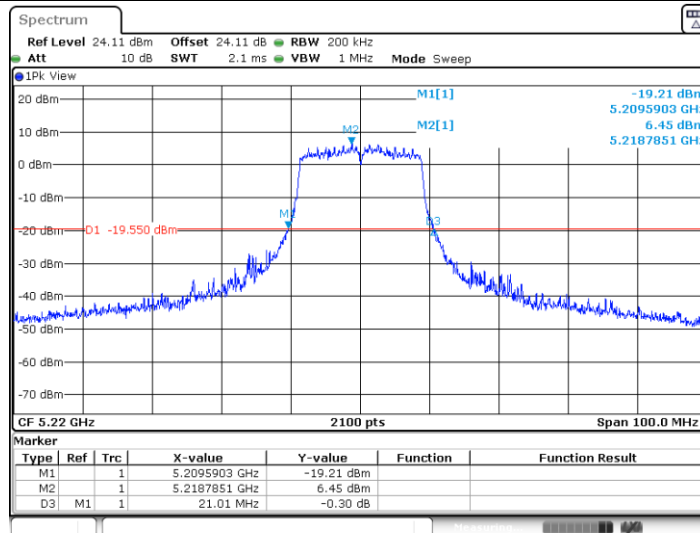


11AC20MIMO_Ant2_5220



Date: 10 DEC 2024 04:22:55

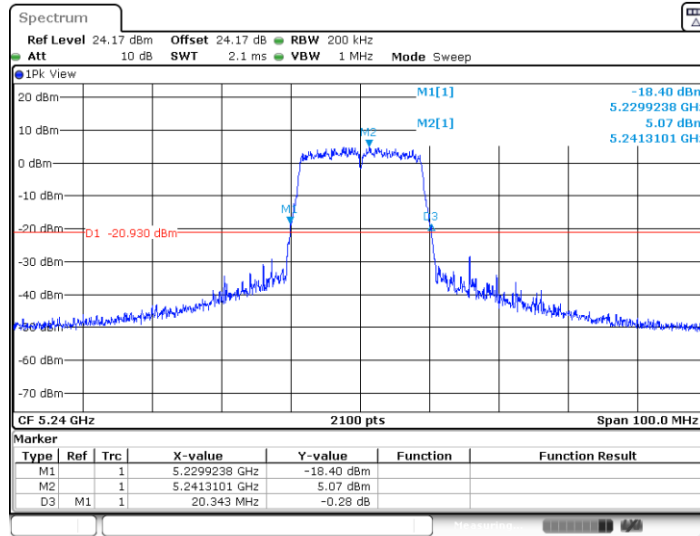
11AC20MIMO_Ant3_5220



Date: 10 DEC 2024 04:23:22

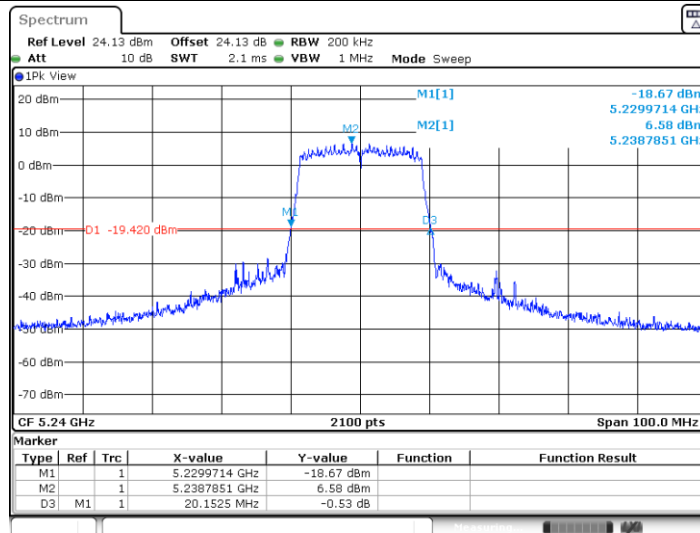


11AC20MIMO_Ant1_5240



Date: 10 DEC 2024 04:24:07

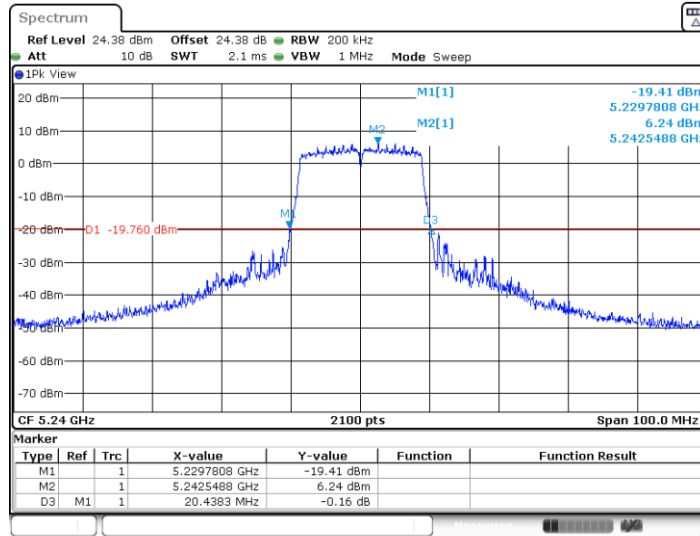
11AC20MIMO_Ant2_5240



Date: 10 DEC 2024 04:24:35

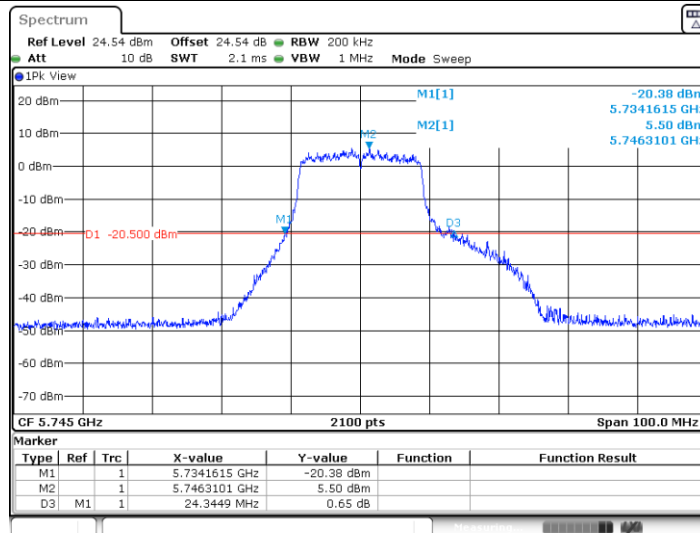


11AC20MIMO_Ant3_5240



Date: 10 DEC 2024 04:25:02

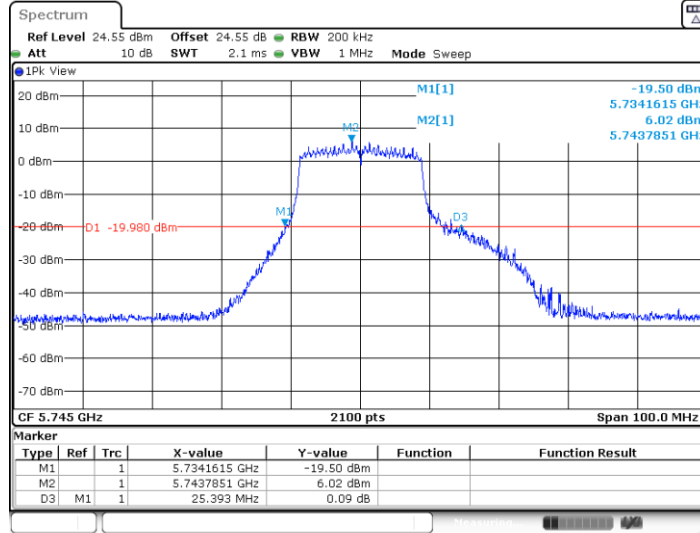
11AC20MIMO_Ant1_5745



Date: 10 DEC 2024 04:54:12

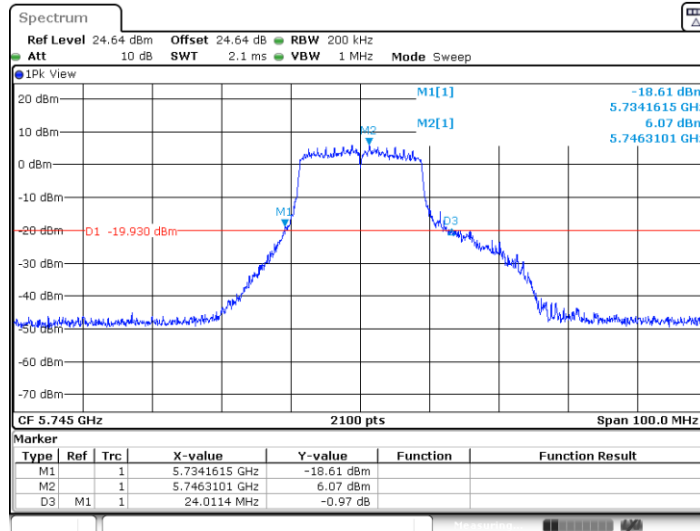


11AC20MIMO_Ant2_5745



Date: 10 DEC 2024 04:55:09

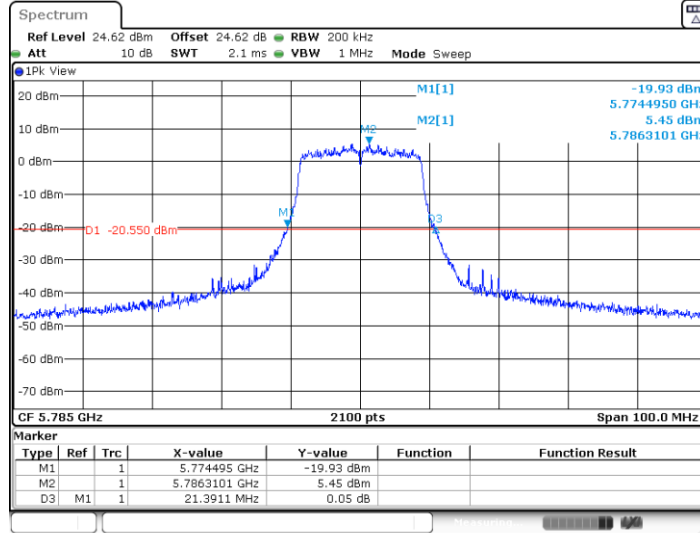
11AC20MIMO_Ant3_5745



Date: 10 DEC 2024 04:55:44

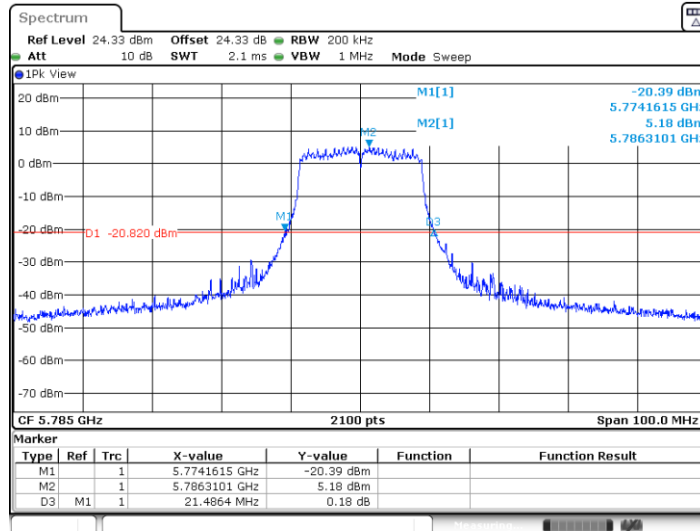


11AC20MIMO_Ant1_5785



Date: 10 DEC 2024 05:03:11

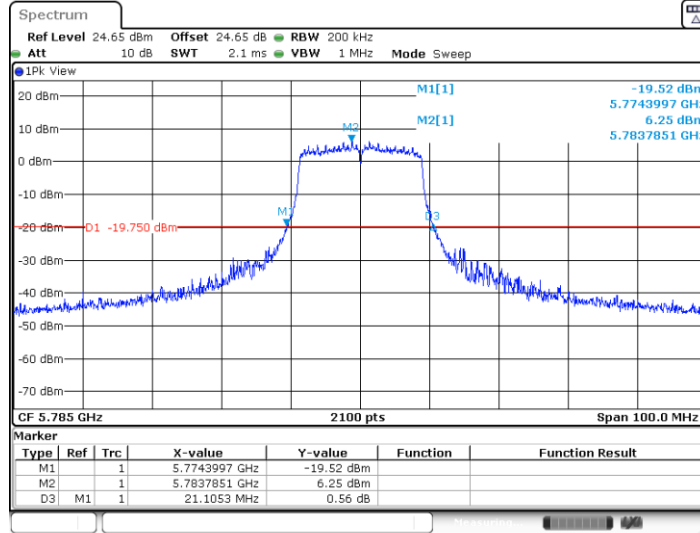
11AC20MIMO_Ant2_5785



Date: 10 DEC 2024 05:03:46

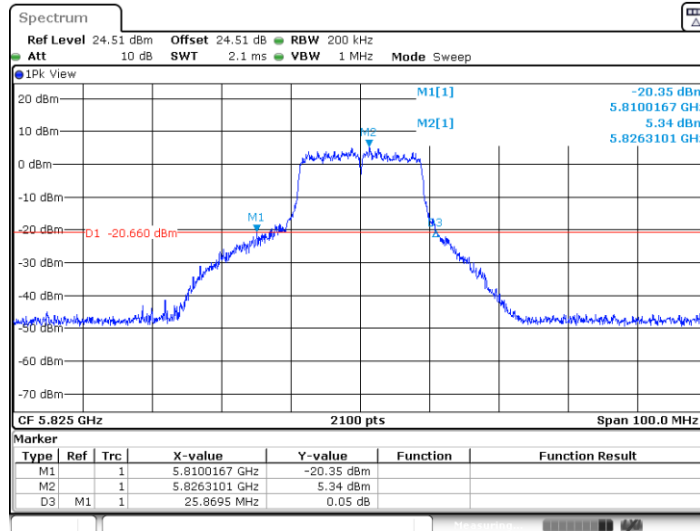


11AC20MIMO_Ant3_5785



Date: 10 DEC 2024 05:04:22

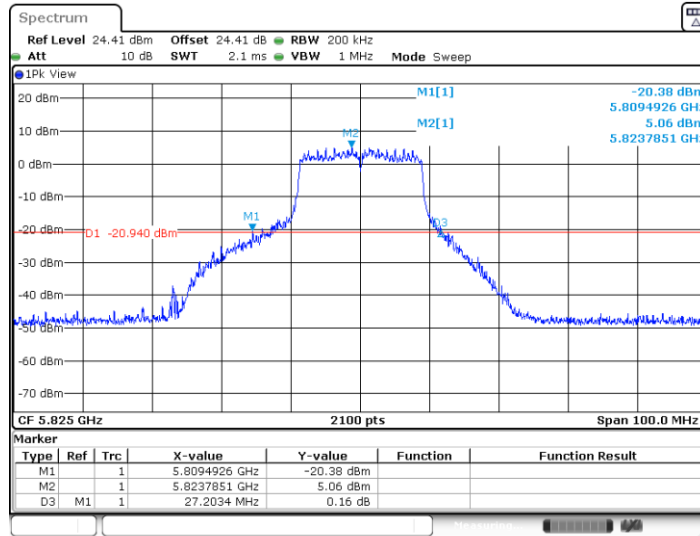
11AC20MIMO_Ant1_5825



Date: 10 DEC 2024 05:10:40

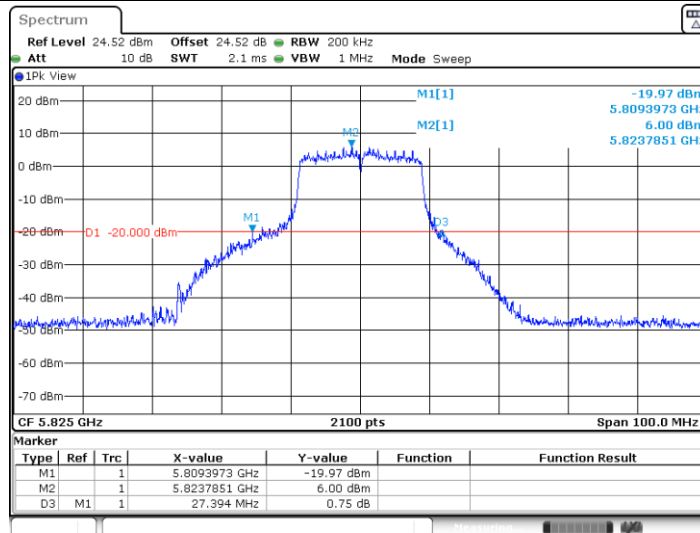


11AC20MIMO_Ant2_5825



Date: 10 DEC 2024 05:11:15

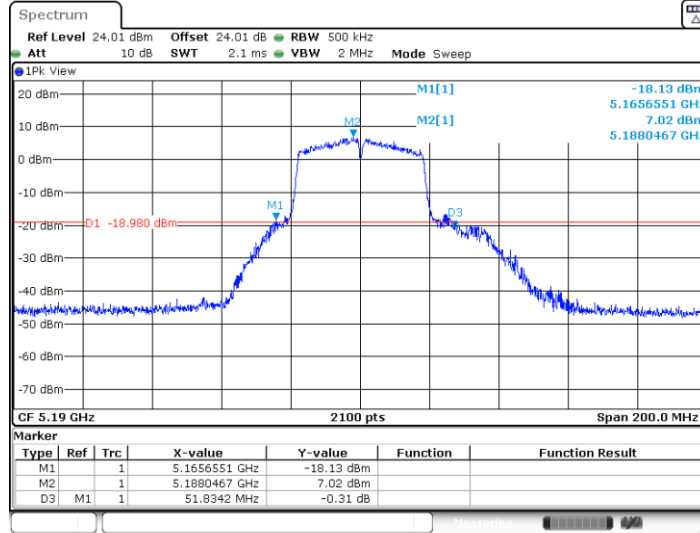
11AC20MIMO_Ant3_5825



Date: 10 DEC 2024 05:11:51

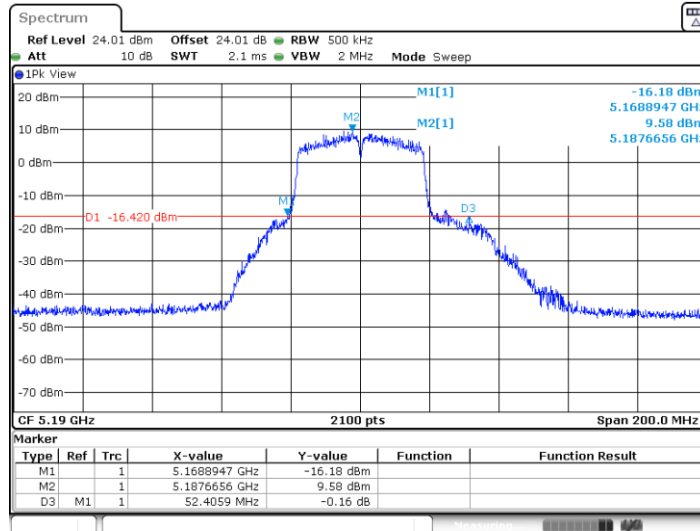


11AC40MIMO_Ant1_5190



Date: 10 DEC 2024 05:16:19

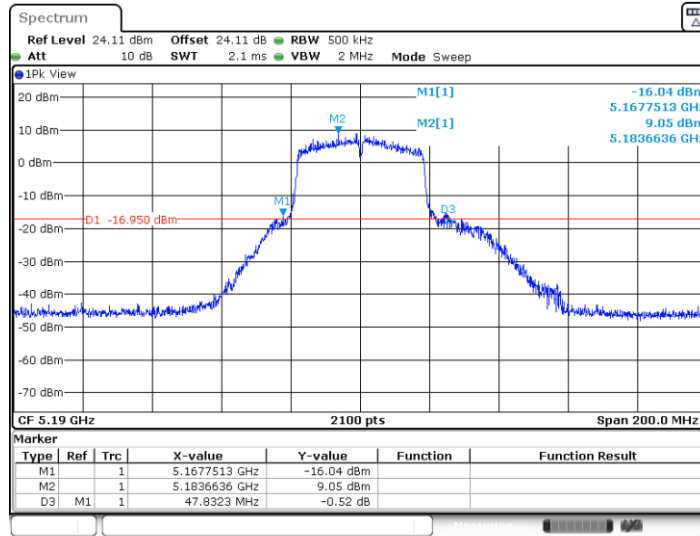
11AC40MIMO_Ant2_5190



Date: 10 DEC 2024 05:16:45

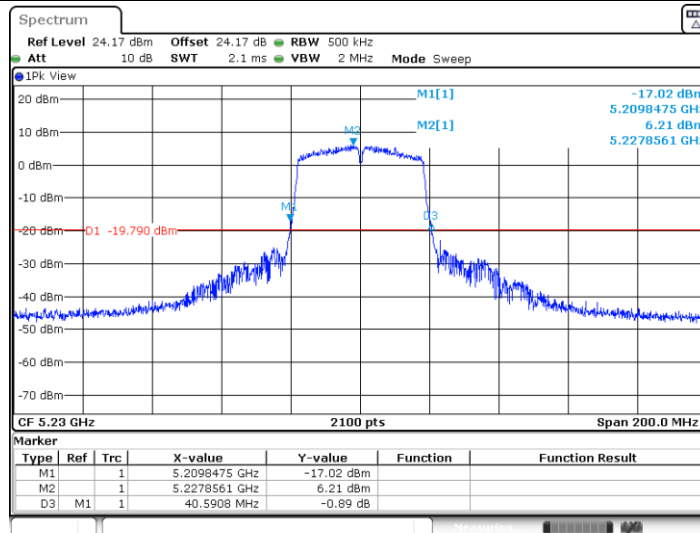


11AC40MIMO_Ant3_5190



Date: 10 DEC 2024 05:17:11

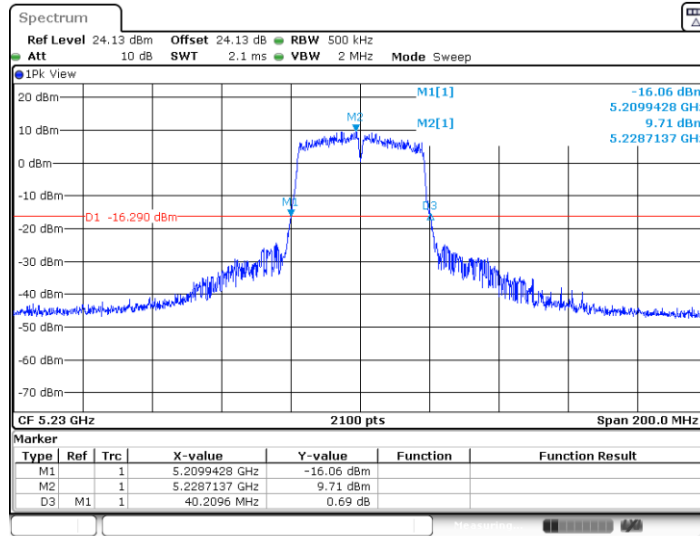
11AC40MIMO_Ant1_5230



Date: 10 DEC 2024 05:17:59

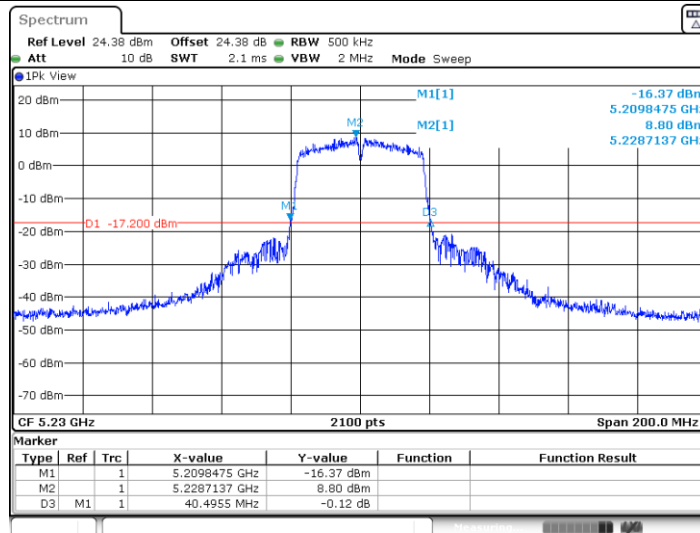


11AC40MIMO_Ant2_5230



Date: 10 DEC 2024 05:18:25

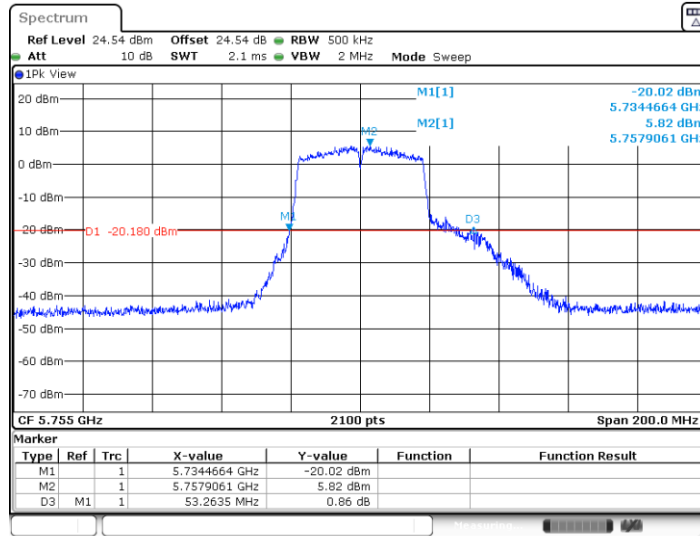
11AC40MIMO_Ant3_5230



Date: 10 DEC 2024 05:18:51

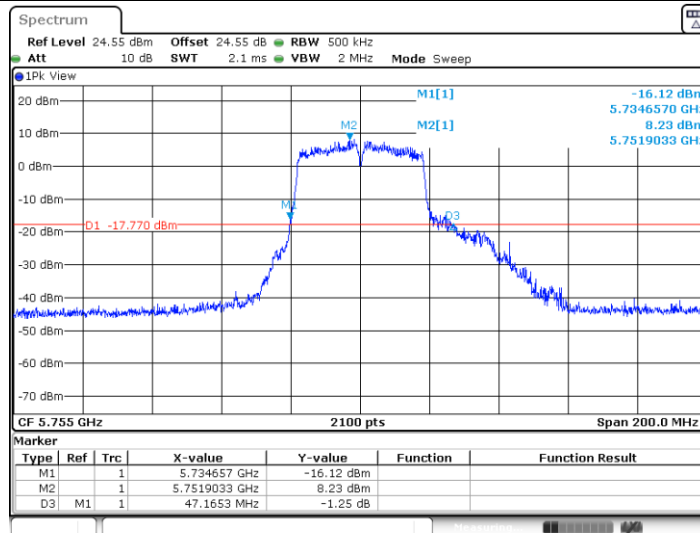


11AC40MIMO_Ant1_5755



Date: 10 DEC 2024 05:37:29

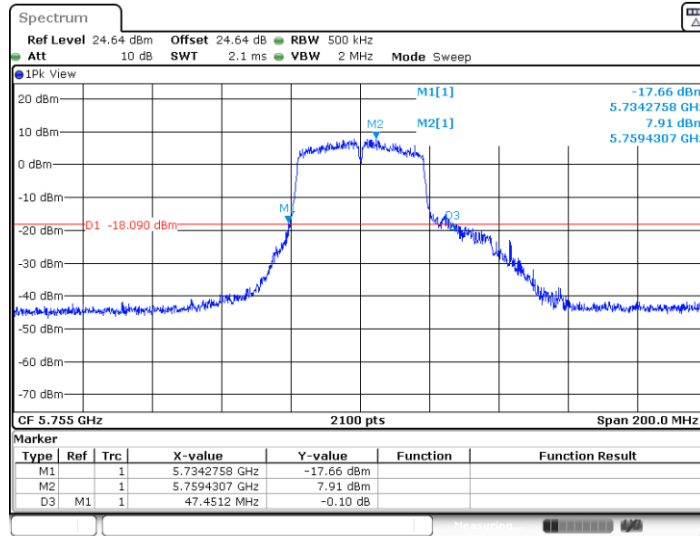
11AC40MIMO_Ant2_5755



Date: 10 DEC 2024 05:38:04

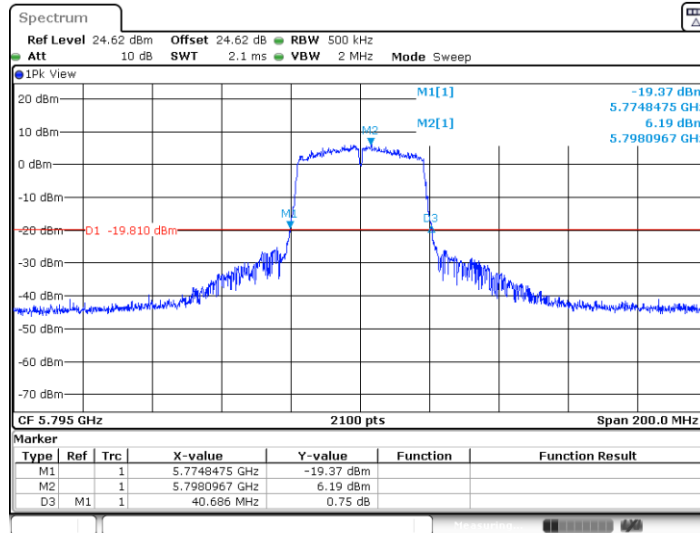


11AC40MIMO_Ant3_5755



Date: 10 DEC 2024 05:38:40

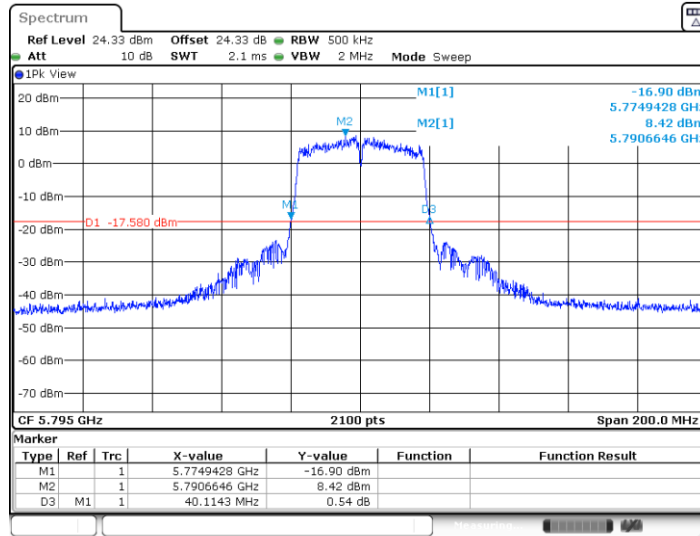
11AC40MIMO_Ant1_5795



Date: 10 DEC 2024 05:39:51

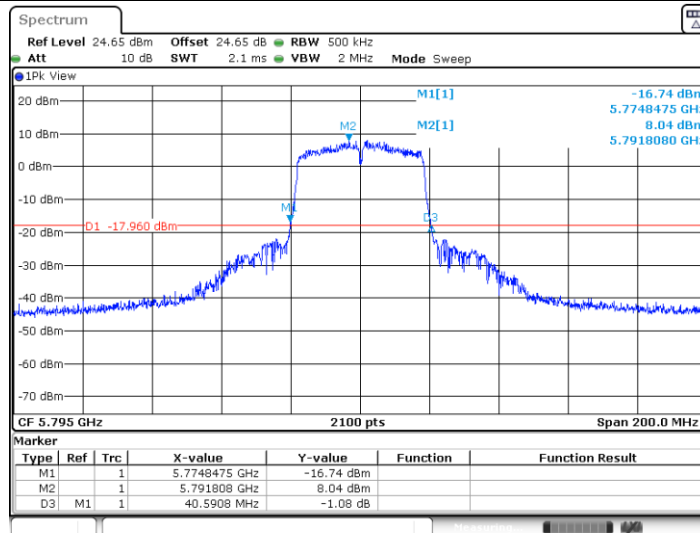


11AC40MIMO_Ant2_5795



Date: 10 DEC 2024 05:40:27

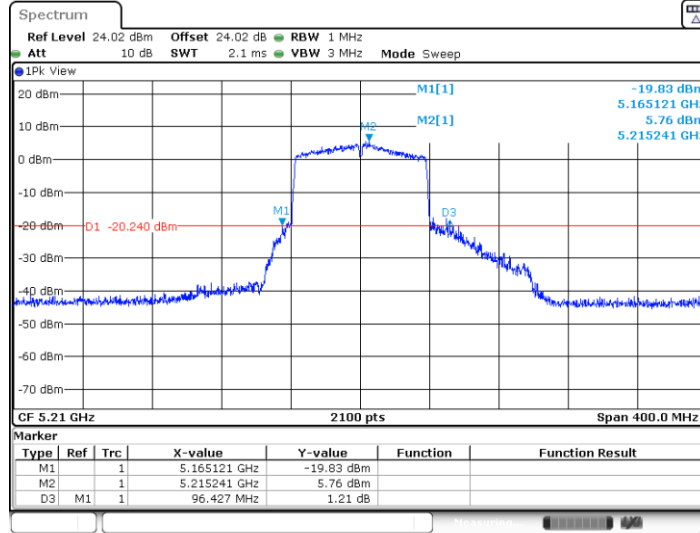
11AC40MIMO_Ant3_5795



Date: 10 DEC 2024 05:41:02

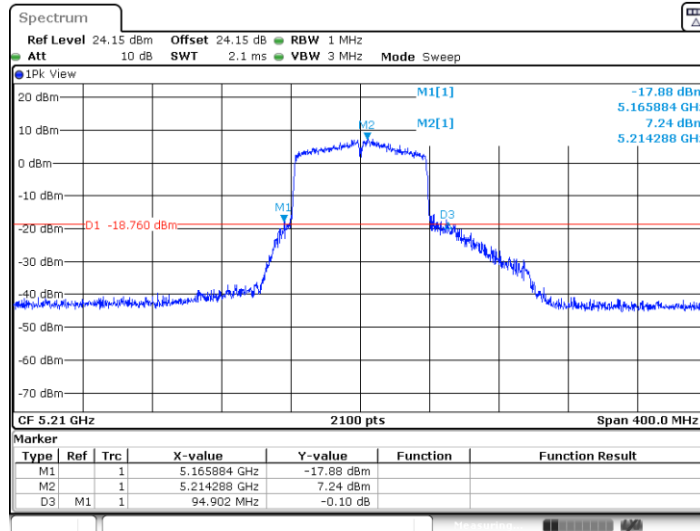


11AC80MIMO_Ant1_5210



Date: 10 DEC 2024 05:43:02

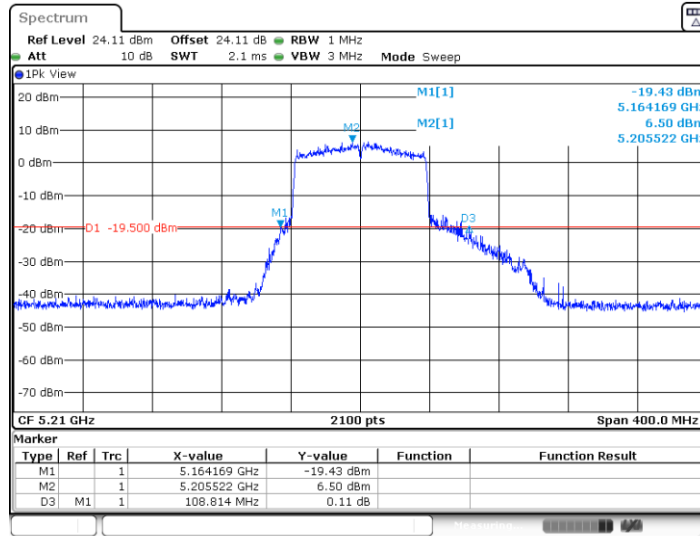
11AC80MIMO_Ant2_5210



Date: 10 DEC 2024 05:43:28

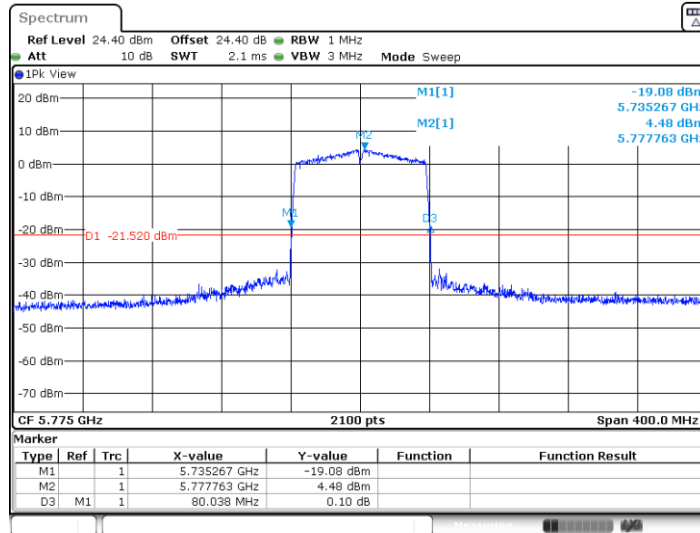


11AC80MIMO_Ant3_5210



Date: 10 DEC 2024 05:43:54

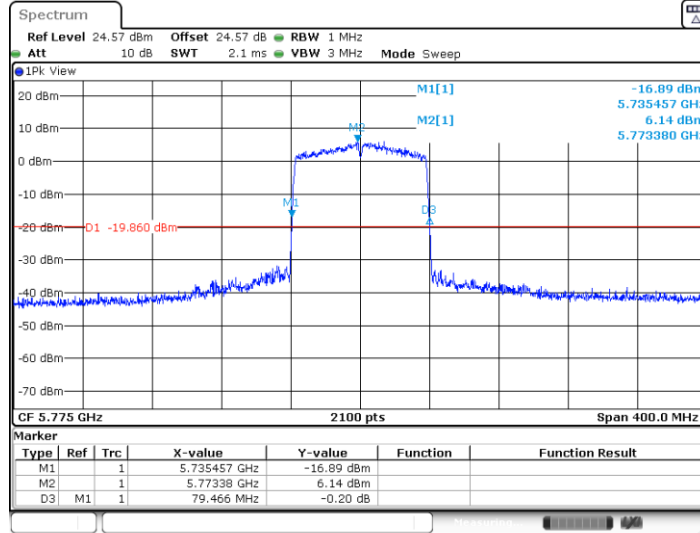
11AC80MIMO_Ant1_5775



Date: 10 DEC 2024 06:13:00

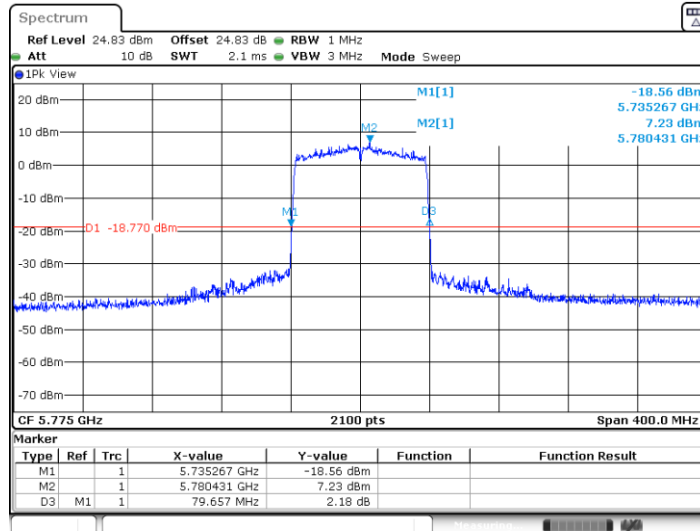


11AC80MIMO_Ant2_5775



Date: 10 DEC 2024 06:13:37

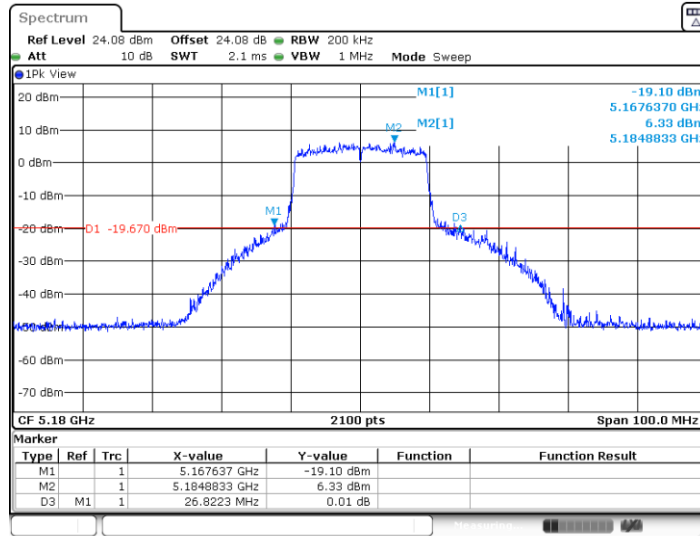
11AC80MIMO_Ant3_5775



Date: 10 DEC 2024 06:14:12

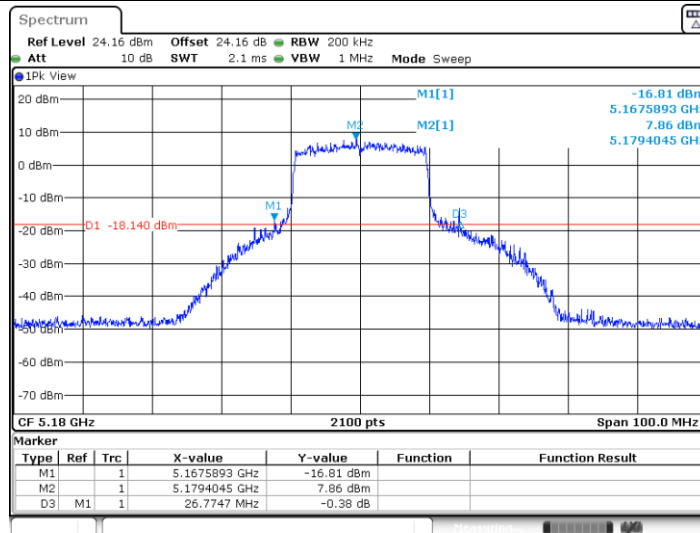


11AX20MIMO_Ant1_5180



Date: 10 DEC 2024 06:19:41

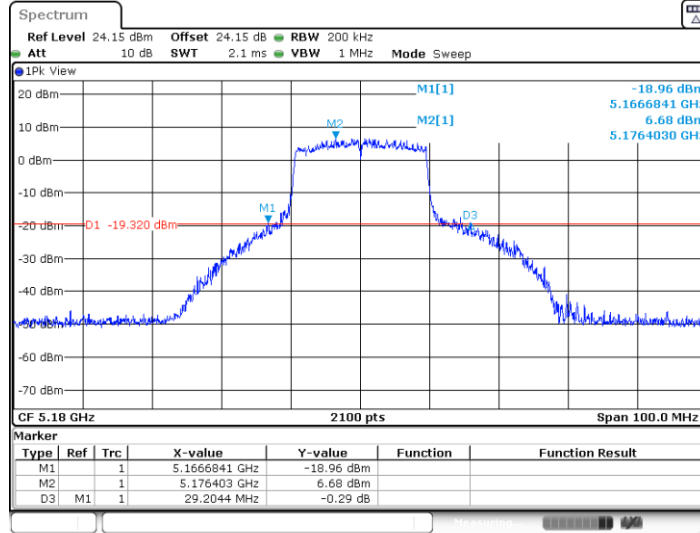
11AX20MIMO_Ant2_5180



Date: 10 DEC 2024 06:20:07

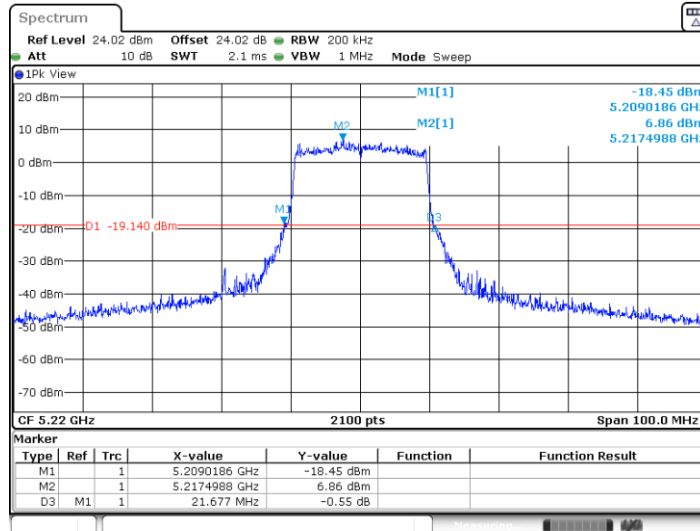


11AX20MIMO_Ant3_5180



Date: 10 DEC 2024 06:20:33

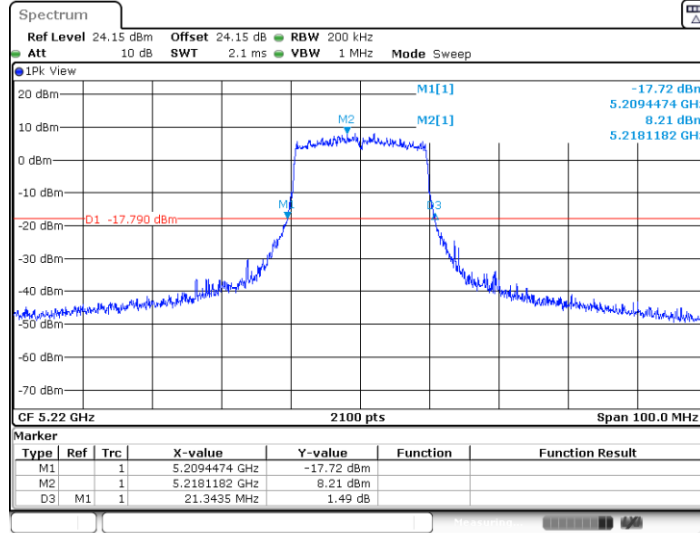
11AX20MIMO_Ant1_5220



Date: 10 DEC 2024 06:22:06

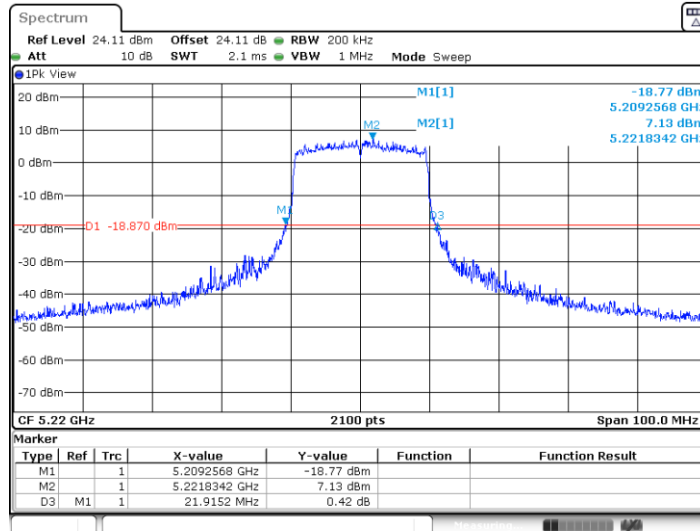


11AX20MIMO_Ant2_5220



Date: 10 DEC 2024 06:22:32

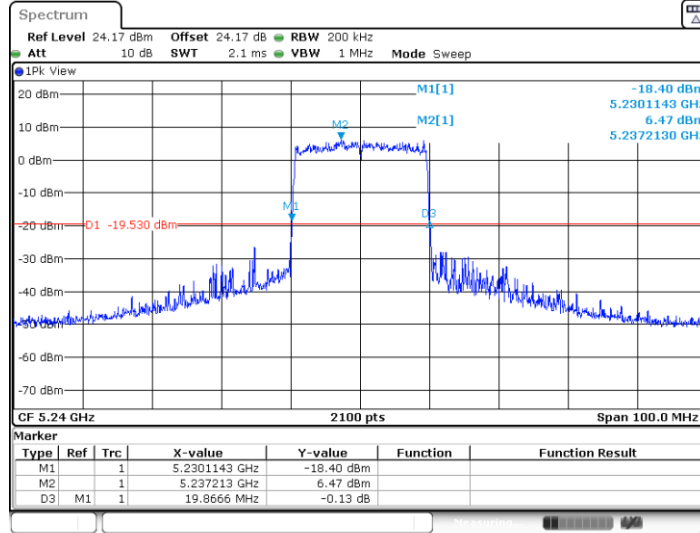
11AX20MIMO_Ant3_5220



Date: 10 DEC 2024 06:22:58

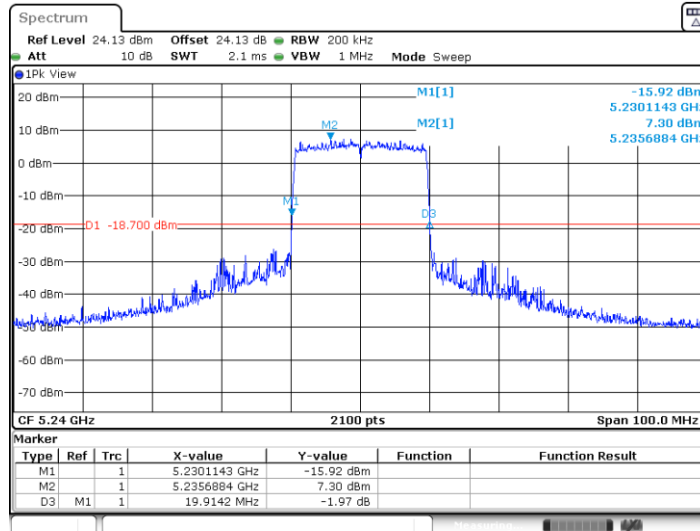


11AX20MIMO_Ant1_5240



Date: 10 DEC 2024 06:23:39

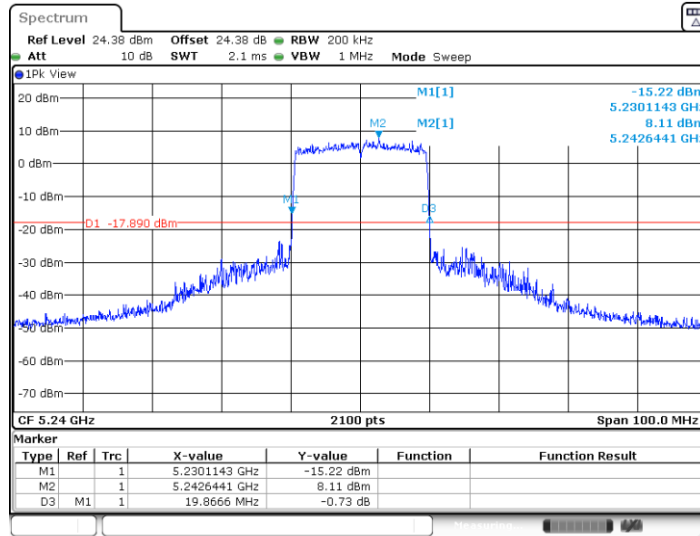
11AX20MIMO_Ant2_5240



Date: 10 DEC 2024 06:24:05

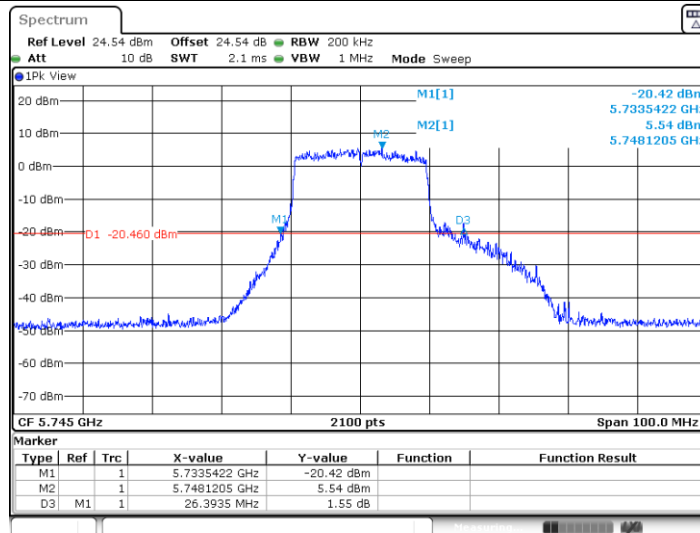


11AX20MIMO_Ant3_5240



Date: 10 DEC 2024 06:24:31

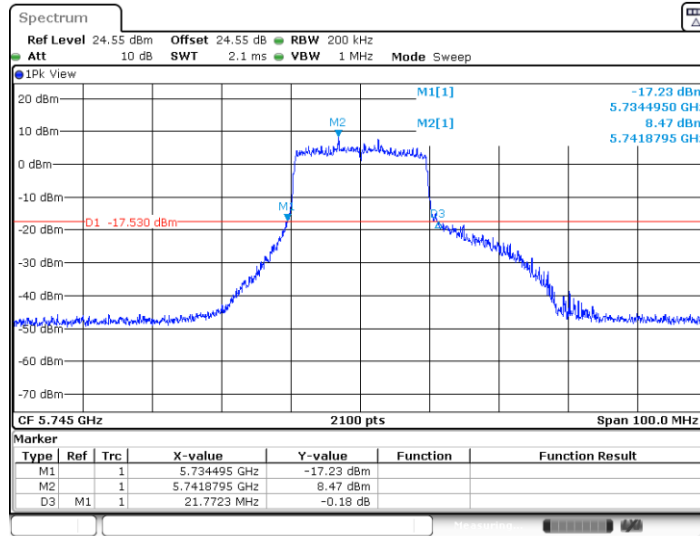
11AX20MIMO_Ant1_5745



Date: 10 DEC 2024 06:39:21

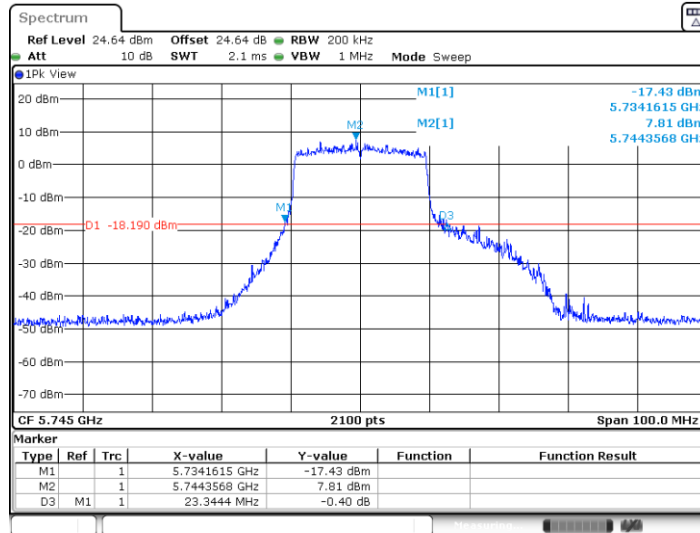


11AX20MIMO_Ant2_5745



Date: 10 DEC 2024 06:39:56

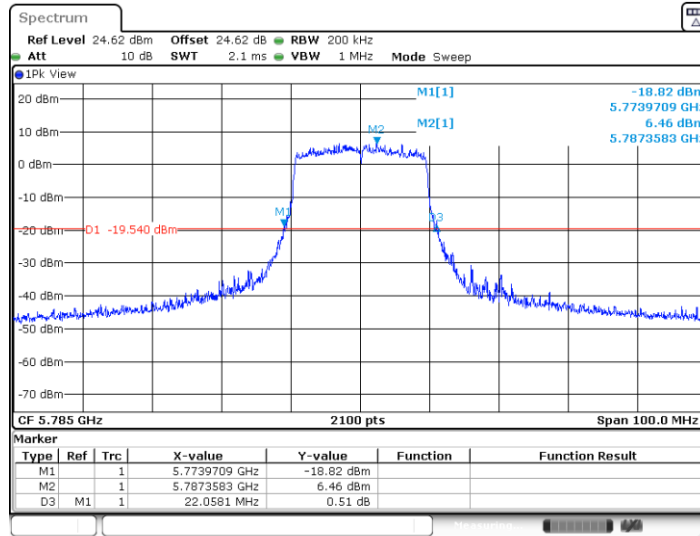
11AX20MIMO_Ant3_5745



Date: 10 DEC 2024 06:40:31

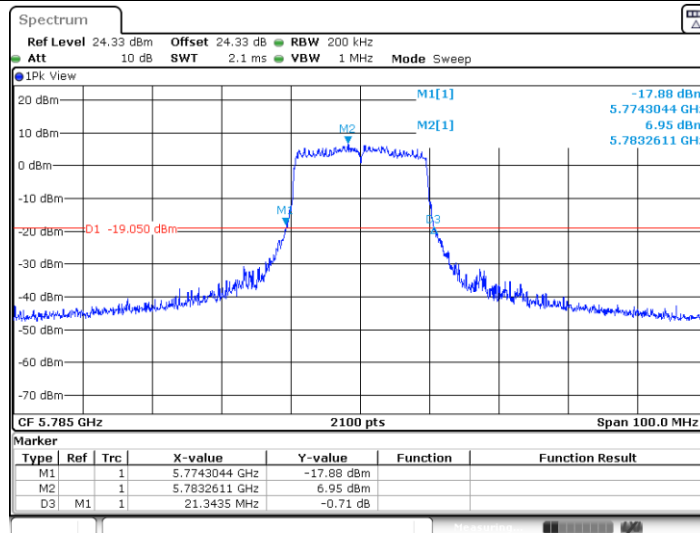


11AX20MIMO_Ant1_5785



Date: 10 DEC 2024 06:41:15

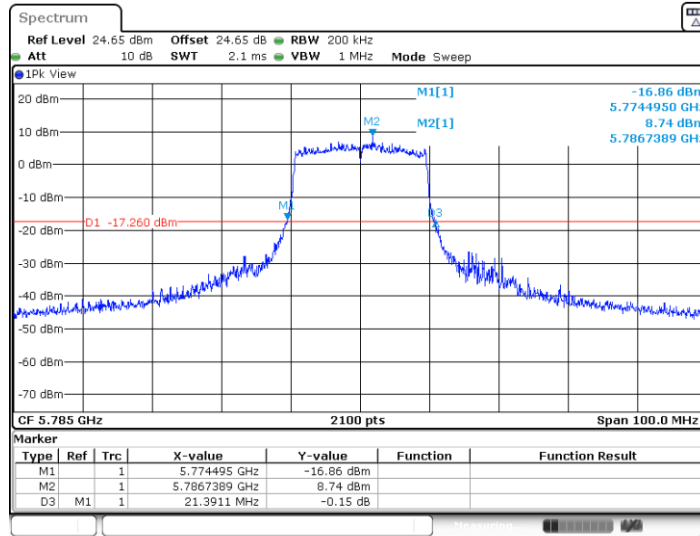
11AX20MIMO_Ant2_5785



Date: 10 DEC 2024 06:41:51

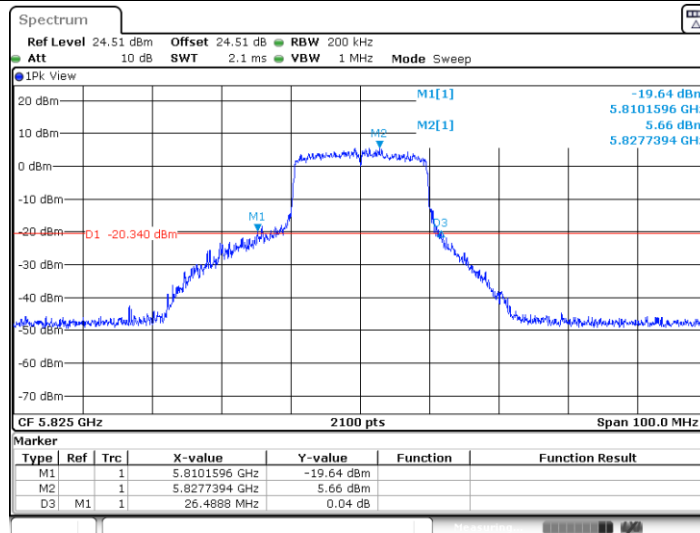


11AX20MIMO_Ant3_5785



Date: 10 DEC 2024 06:42:26

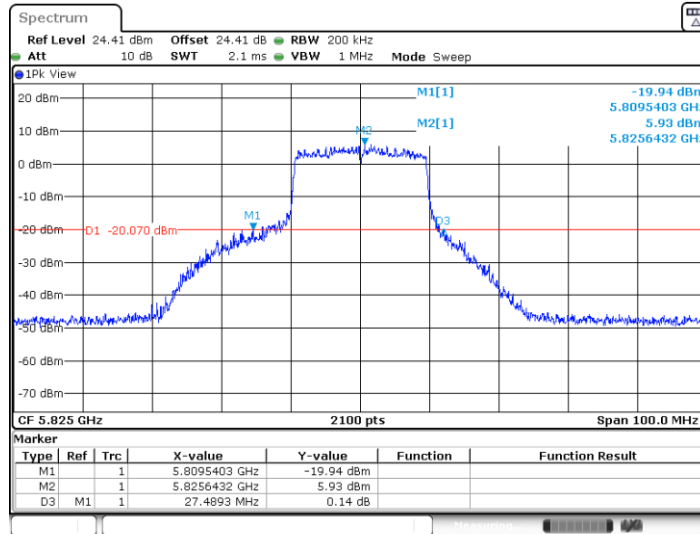
11AX20MIMO_Ant1_5825



Date: 10 DEC 2024 06:43:23

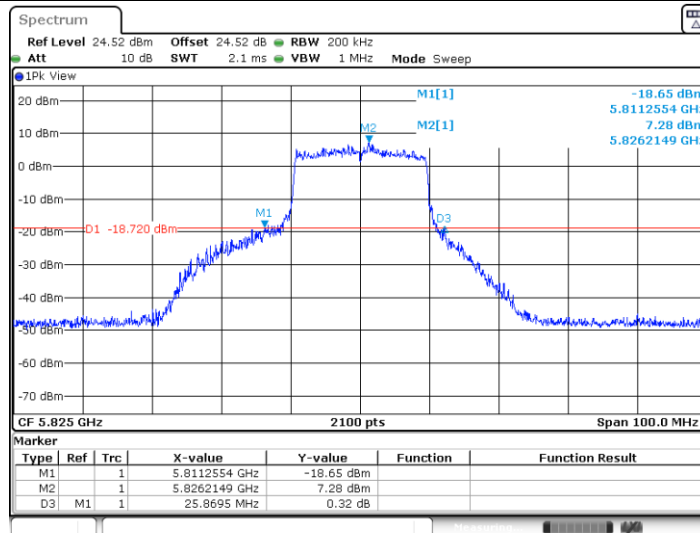


11AX20MIMO_Ant2_5825



Date: 10 DEC 2024 06:43:59

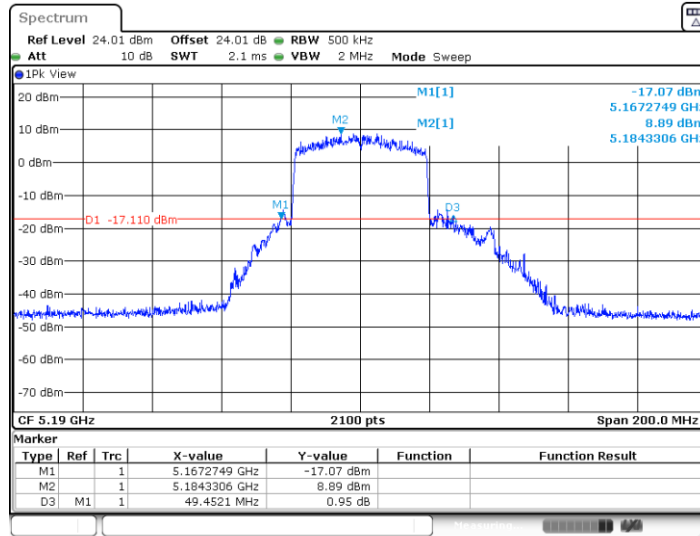
11AX20MIMO_Ant3_5825



Date: 10 DEC 2024 06:44:34

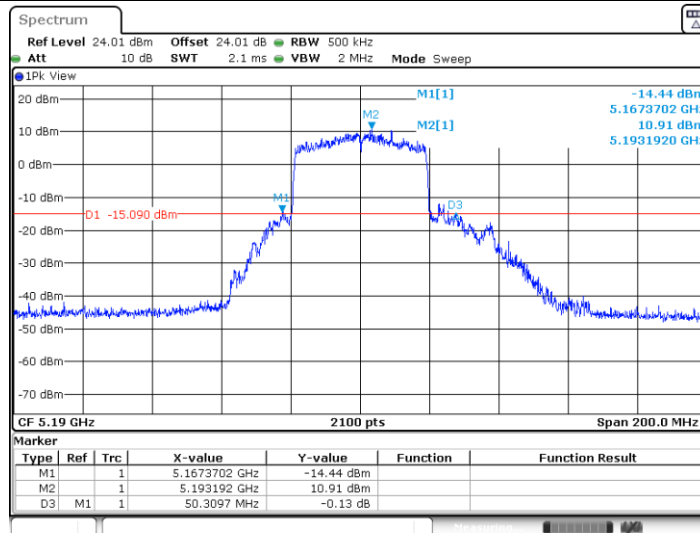


11AX40MIMO_Ant1_5190



Date: 10 DEC 2024 06:45:31

11AX40MIMO_Ant2_5190



Date: 10 DEC 2024 06:45:56