FCC RF Test Report

APPLICANT	:	MTRLC LLC
EQUIPMENT	:	D3.1 Cable Modem plus AX3000 Router
BRAND NAME	:	Motorola
MODEL NAME	:	G11
FCC ID	:	2AF5PG11
STANDARD	:	FCC Part 15 Subpart E §15.407
CLASSIFICATION	:	(NII) Unlicensed National Information Infrastructure
TEST DATE(S)	:	Jan. 03, 2023 ~ Feb. 06, 2023

We, Sporton International Inc. (ShenZhen), 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. (ShenZhen), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia

Sporton International Inc. (ShenZhen)
1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055
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 5
1.5 Modification of EUT 6
1.6 Testing Location 6
1.7 Test Software 7
1.8 Applicable Standards 7
2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST **8**
2.1 Carrier Frequency and Channel 8
2.2 Test Mode 9
2.3 Connection Diagram of Test System 10
2.4 Support Unit used in test configuration and system 10
2.5 EUT Operation Test Setup 11
2.6 Measurement Results Explanation Example 11
3 TEST RESULT **12**
3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement 12
3.2 Maximum Conducted Output Power Measurement 13
3.3 Power Spectral Density Measurement 14
3.4 Unwanted Emissions Measurement 15
3.5 AC Conducted Emission Measurement 19
3.6 Antenna Requirements 21
4 LIST OF MEASURING EQUIPMENT **23**
5 UNCERTAINTY OF EVALUATION **24**
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
FR2D1901C	Rev. 01	Initial issue of report	Feb. 20, 2023

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Result	Remark
3.1	15.407(e)	6dB, 26dB and 99% Occupied Bandwidth	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	Pass	-
3.3	15.407(a)	Power Spectral Density	Pass	-
3.4	15.407(b)	Unwanted Emissions	Pass	Under limit 0.10 dB at 5925.80 MHz
3.5	15.207	AC Conducted Emission	Pass	Under limit 11.70 dB at 12.58 MHz
3.6	15.203 & 15.407(a)	Antenna Requirement	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 Applicant

MTRLC LLC
275 Turnpike Street Suite 101 Canton, MA 02021

1.2 Manufacturer

MTRLC LLC
275 Turnpike Street Suite 101 Canton, MA 02021

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	D3.1 Cable Modem plus AX3000 Router
Brand Name	Motorola
Model Name	G11
FCC ID	2AF5PG11
HW Version	REV1.0
SW Version	G11-22.3.3 DAG
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 Channel Frequency Range	5850 MHz ~ 5895 MHz
Maximum EIRP Output Power	**<CDD Mode>** 802.11a : 28.55 dBm / 0.7161 W 802.11n HT20 : 28.79 dBm / 0.7568 W 802.11n HT40 : 31.97 dBm / 1.5740 W 802.11ac VHT20: 28.41 dBm / 0.6934 W 802.11ac VHT40: 31.89 dBm / 1.5453 W 802.11ac VHT80: 30.71 dBm / 1.1776 W 802.11ax HE20: 29.13 dBm / 0.8185 W 802.11ax HE40: 32.18 dBm / 1.6520 W 802.11ax HE80: 30.73 dBm / 1.1830 W 802.11ax HE160: 27.32 dBm / 0.5395 W
99% Occupied Bandwidth	802.11a : 17.98 MHz 802.11ax HE20: 19.62 MHz 802.11ax HE40: 47.07 MHz 802.11ax HE80: 131.39 MHz 802.11ax HE160: 270.13 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 / Gain	<Ant. 1> : Dipole Antenna with gain 3.50 dBi <Ant. 2> : Dipole Antenna with gain 3.50 dBi
Antenna Function Description	<table><tr><td></td><td>Ant. 1</td><td>Ant. 2</td></tr><tr><td>802.11 a/n/ac/ax SISO</td><td>V</td><td>V</td></tr><tr><td>802.11 a/n/ac/ax CDD/Beamforming</td><td colspan="2">V</td></tr></table>

Note:

1. For WLAN SISO & MIMO mode, the whole testing has assessed only MIMO mode by referring to the higher normal conducted power.
2. For 802.11n HT20 / ac VHT20 / ax HE20 and 802.11n HT40 / ac VHT40 / ax HE40 and 802.11ac VHT80 / ax HE80 mode, the whole testing have assessed only 802.11ax HE20 / ax HE40 / ax HE80 by referring to the higher output power.
3. The TxBF Power/EIRP of EUT will less than CDD mode power/EIRP when Beamforming mode is active. So we only evaluate CDD mode by referring to their maximum conducted power/EIRP.
4. The device does not support partial RU for 802.11ax mode.

1.5 Modification of EUT

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

1.6 Testing Location

Sporton International Inc. (ShenZhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	CO01-SZ	CN1256	421272

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City Guangdong Province China 518103 TEL: +86-755-33202398		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH03-SZ	CN1256	421272

1.7 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH03-SZ	AUDIX	E3	6.2009-8-24
2.	CO01-SZ	AUDIX	E3	6.120613b

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
- ANSI C63.10-2013
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- FCC KDB 291074 D01 General Requirements v01
- FCC KDB 291074 D02 EMC Measurement v01

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)
5850-5895 MHz	173	5865	175*	5875
	177	5885		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Straddle Channels	163##	5815	167*	5835
	169	5845	171#	5855

Note:

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

2.2 Test Mode

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

CDD Mode

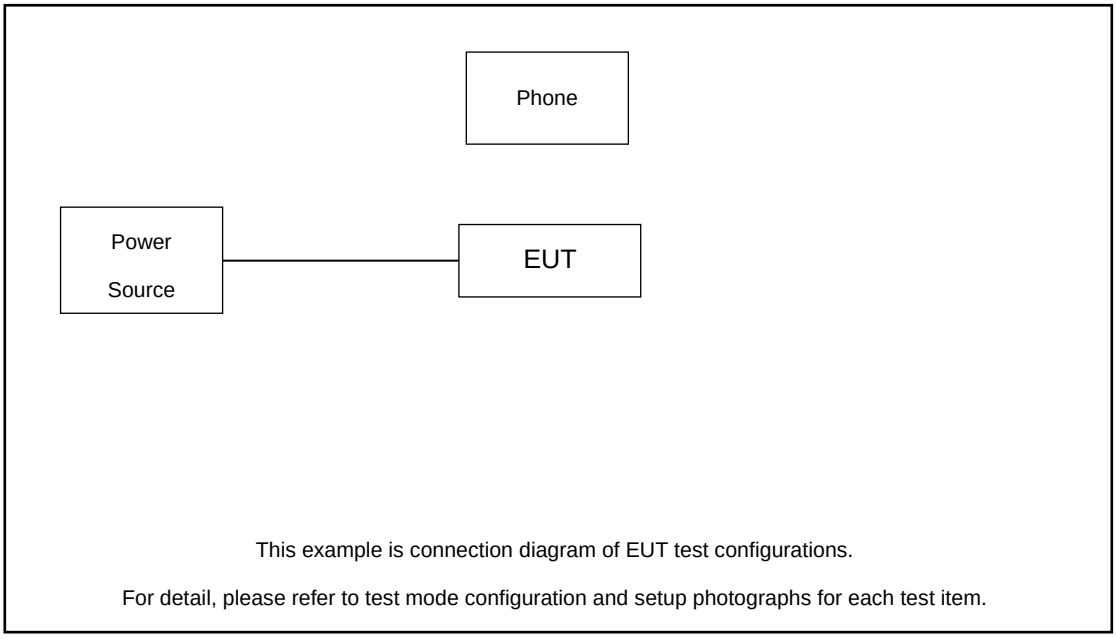
Modulation	Data Rate
802.11a	6 Mbps
802.11ax HE20	MCS0
802.11ax HE40	MCS0
802.11ax HE80	MCS0
802.11ax HE160	MCS0

AC Conducted Emission	Mode 1 : EUT + WLAN (5G) Link + Power from Adapter
Remark: For Radiated Test Cases, the tests were performance with Adapter.	

Ch. #		U-NII-4 : 5850-5895 MHz				
		802.11a	802.11ax HE20	802.11ax HE40	802.11ax HE80	802.11ax HE160
L	Low	169	169	167	-	-
M	Middle	173	173	-	171	163
H	High	177	177	175	-	-

2.3 Connection Diagram of Test System

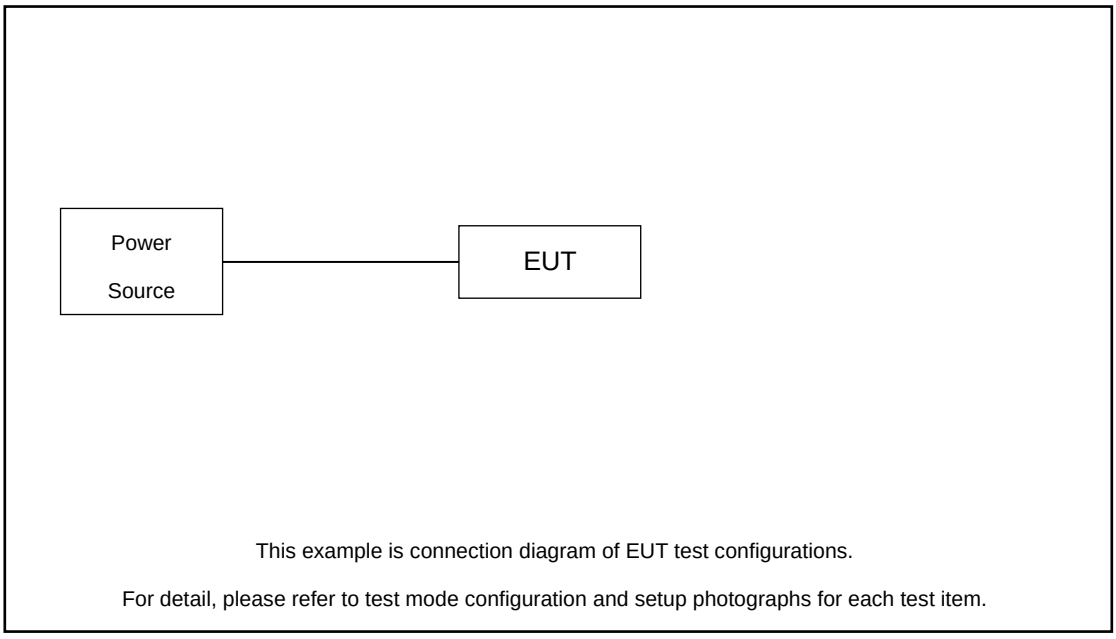
For Conducted Emission:



This example is connection diagram of EUT test configurations.

For detail, please refer to test mode configuration and setup photographs for each test item.

For Radiated Emission:



This example is connection diagram of EUT test configurations.

For detail, please refer to test mode configuration and setup photographs for each test item.

2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Phone	NA	NA	NA	NA	NA

2.5 EUT Operation Test Setup

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

For AC power line conducted emissions, the EUT was set to connect with phone 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 4.41 dB and 20dB attenuator.

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

= 4.41 + 20 = 24.41 (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.

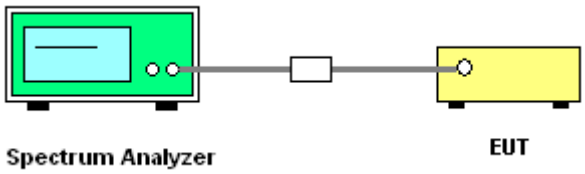
3.1.2 Measuring Instruments

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 II C for Emission Bandwidth and Section II D for 99% Occupied Bandwidth
2. For 6dB BW, Set RBW = 100kHz.
   For 26dB BW, Set RBW = approximately 1% of the emission bandwidth.
   For 99% OBW, Set RBW = 1% to 5% of the OBW.
3. For 26dB BW, Set the VBW > RBW.
   For 6dB BW & 99% OBW, Set the VBW ≥ 3 x RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.
7. 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

Device Category		Limit (dBm) (Maximum EIRP Average power)
Applied	Indoor access point	< 36
☐	Subordinate device	< 36
☐	Client device	< 30

3.2.2 Measuring Instruments

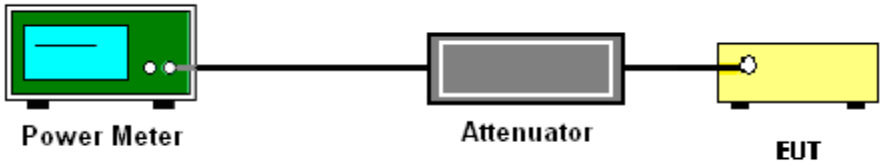
The measuring equipment is listed in the section 4 of this test report.

3.2.3 Test Procedures

The testing follows Section II E of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method PM (Measurement using an RF average power meter)

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

Device Category		Limit (dBm/MHz) (Maximum EIRP PSD)
Applied	Indoor access point	< 20
☐	Subordinate device	< 20
☐	Client device	< 14

Note: For all U-NII-4 and U-NII-3 & -4 span channels shall met above EIRP values.

3.3.2 Measuring Instruments

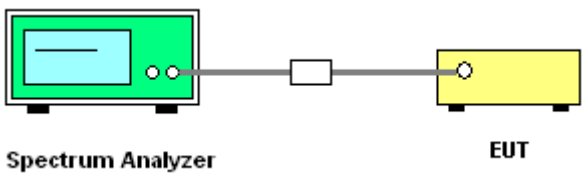
The measuring equipment is listed in the section 4 of this test report.

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section F) Method SA-2 Maximum power spectral density. (trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction)

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 (b): Measure and sum spectral maxima across the outputs.
   With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs.

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 is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

3.4.1 Limit of Unwanted Emissions

(1) 15.407(b)(5)(i) For an indoor access point or subordinate device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of 15 dBm/MHz and shall decrease linearly to an e.i.r.p. of - 7 dBm/MHz at or above 5.925 GHz.

(ii) For a client device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of -5 dBm/MHz and shall decrease linearly to an e.i.r.p. of -27 dBm/MHz at or above 5.925 GHz.

(iii) For a client device or indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of -27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/ MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.

(2) 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

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

$$EIRP = E_{Meas} + 20\log(d_{Meas}) - 104.77$$

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 v02r01. 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

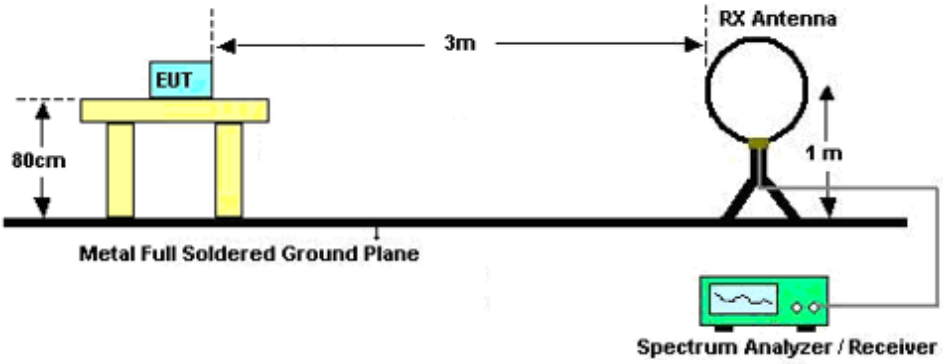
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

2. Unwanted band-edge emissions below 5725 MHz should be measured using peak-detection while emission above 5895 MHz should be measured using average. If the EIRP limit is met with a Peak detector retesting with an RMS detector is not required.
3. 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.
4. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
5. 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.
6. 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.

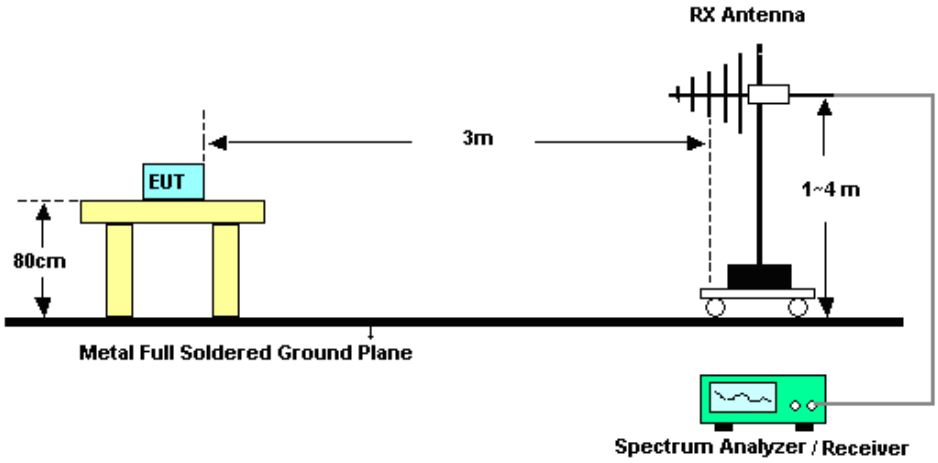
7. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
8. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than peak 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.

3.4.4 Test Setup

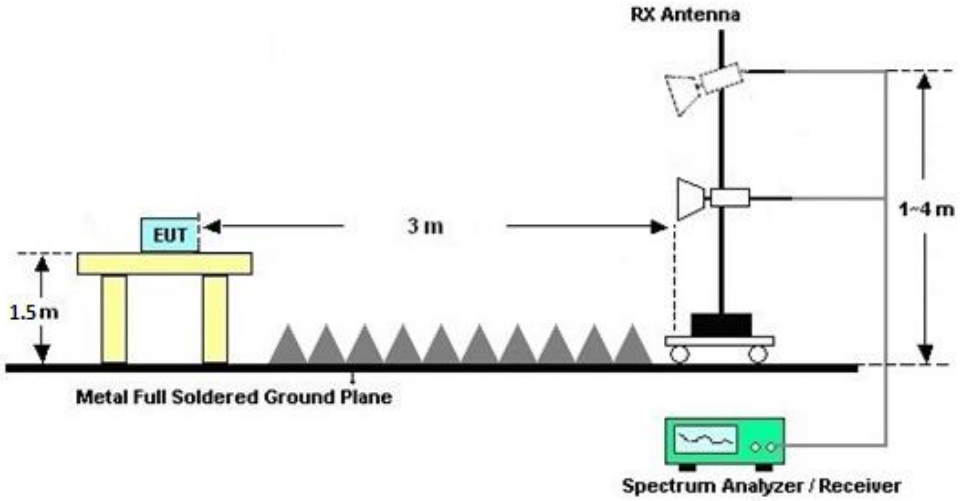
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.4.5 Test Results of Radiated 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 Band Edges

Please refer to Appendix C&D.

3.4.7 Duty Cycle

Please refer to Appendix E.

3.4.8 Test Result of Unwanted Radiated Emission (30MHz ~ 10th Harmonic or 40GHz, whichever is lower)

Please refer to Appendix C&D.

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 (dBμV)	
	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.

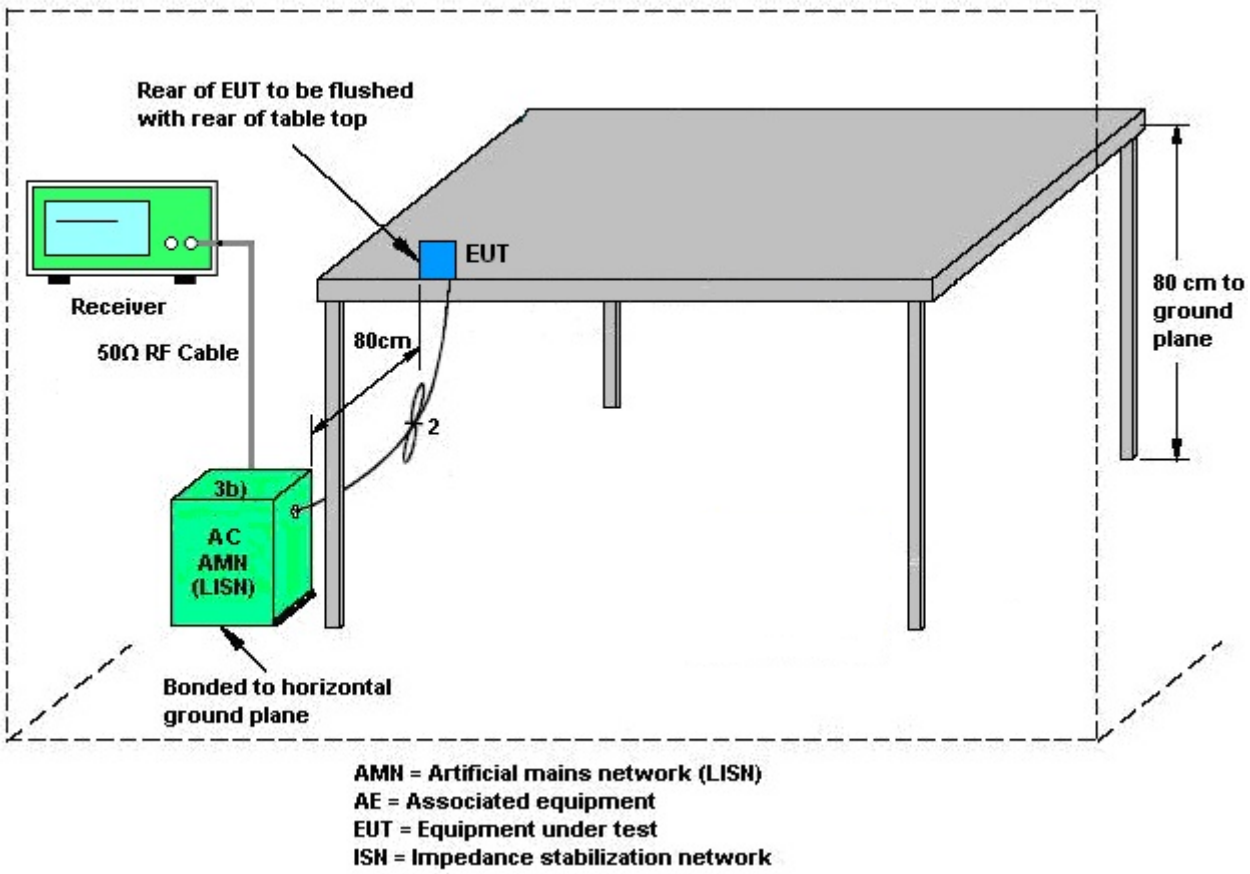
3.5.2 Measuring Instruments

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

Section 15.203 & 15.407(a)

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 CDD transmissions, directional gain is calculated as

For power, the directional gain GANT is set equal to the antenna having the highest gain, i.e.,

Directional gain = $G_{ANT\ MAX}$(Ant.1 Gain, Ant.2 Gain,…) + Array Gain, as following table for Power,

where Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4;

For PSD, the directional gain calculation is following,

Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{Gn/20})^2$ /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 NSS = 1)

<CDD Modes>

	Ant. 1 (dBi)	Ant. 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)
UNII-4	3.50	3.50	3.50	6.51

TXBF modes

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k / 20}$ if the kth antenna is being fed by spatial stream j, or zero if it is not;

G_k is the gain in dBi of the kth antenna.

The EUT supports beamforming for 802.11a/an/ac/ax modes.

The directional gain calculation is following F)2)e)ii) of KDB 662911 D01 v02r01.

The directional gain “DG” is calculated as following table.

	Ant 1 (dBi)	Ant 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)
UNII-4	3.50	3.50	6.51	6.51

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 07, 2022	Jan. 03, 2023~ Feb. 06, 2023	Apr. 08, 2023	Conducted (TH01-SZ)
Pulse Power Senor	Anritsu	MA2411B	1339473	30MHz~40GHz	Dec. 27, 2022	Jan. 03, 2023~ Feb. 06, 2023	Dec. 26, 2023	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1542004	50MHz Bandwidth	Dec. 27, 2022	Jan. 03, 2023~ Feb. 06, 2023	Dec. 26, 2023	Conducted (TH01-SZ)
EMI Test Receiver&SA	KEYSIGHT	N9038A	MY54450083	20Hz~8.4GHz	Apr. 06, 2022	Jan. 11, 2023~ Jan. 16, 2023	Apr. 05, 2023	Radiation (03CH03-SZ)
EXA Spectrum Anaiyzer	KEYSIGHT	N9010A	MY55150246	10Hz~44GHz;	Apr. 06, 2022	Jan. 11, 2023~ Jan. 16, 2023	Apr. 05, 2023	Radiation (03CH03-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jul. 28, 2022	Jan. 11, 2023~ Jan. 16, 2023	Jul. 27, 2024	Radiation (03CH03-SZ)
Bilog Antenna	TeseQ	CBL6112D	35408	30MHz-2GHz	AUG. 09, 2021	Jan. 11, 2023~ Jan. 16, 2023	Aug. 08, 2023	Radiation (03CH03-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1355	1GHz~18GHz	Apr. 08, 2022	Jan. 11, 2023~ Jan. 16, 2023	Apr. 07, 2023	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 06, 2022	Jan. 11, 2023~ Jan. 16, 2023	Jul. 05, 2023	Radiation (03CH03-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 10, 2022	Jan. 11, 2023~ Jan. 16, 2023	Apr. 09, 2023	Radiation (03CH03-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz ~3000MHz	Oct. 19, 2022	Jan. 11, 2023~ Jan. 16, 2023	Oct. 18, 2023	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1943528	1GHz~18GHz	Oct. 19, 2022	Jan. 11, 2023~ Jan. 16, 2023	Oct. 18, 2023	Radiation (03CH03-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Dec. 26, 2022	Jan. 11, 2023~ Jan. 16, 2023	Dec. 25, 2023	Radiation (03CH03-SZ)
AC Power Source	Chroma	61601	616010002729	1 N/A	Nov. 10, 2022	Jan. 11, 2023~ Jan. 16, 2023	Nov. 09, 2023	Radiation (03CH03-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Jan. 11, 2023~ Jan. 16, 2023	NCR	Radiation (03CH03-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Jan. 11, 2023~ Jan. 16, 2023	NCR	Radiation (03CH03-SZ)
EMI Receiver	R&S	ESR7	101630	9kHz~7GHz;	Jul. 07, 2022	Jan. 10, 2023	Jul. 06, 2023	Conduction (CO01-SZ)
AC LISN	R&S	ENV216	100063	9kHz~30MHz	Sep. 15, 2022	Jan. 10, 2023	Sep. 14, 2023	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	EMCO	3816/2SH	00103892	9kHz~30MHz	Oct. 17, 2022	Jan. 10, 2023	Oct. 16, 2023	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891	100Vac~250Vac	Jul. 07, 2022	Jan. 10, 2023	Jul. 06, 2023	Conduction (CO01-SZ)

NCR: No Calibration Required

5 Uncertainty of Evaluation

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

Test Item	Uncertainty
Conducted Power	±1.34 dB
Conducted Emissions	±1.34 dB
Occupied Channel Bandwidth	±0.13 %
Conducted Power Spectral Density	±1.32 dB

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.2dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.0dB

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.9dB

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.0dB

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

Appendix A. Conducted Test Results

Report Number : FR2D1901C

Test Engineer:	Zhang Xue Yi	Temperature:	21~25	°C
Test Date:	2023/1/3~2023/2/6	Relative Humidity:	51~54	%

<CDD Mode>

Report Number : FR2D1901C

TEST RESULTS DATA
Average Power Table

U-NII-4 MIMO																	
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power with duty factor (dBm)			EIRP power	EIRP Power Limit (dBm)		DG (dBi)		Pass/Fail	Power Setting	
					Ant 1	Ant 2	Ant 1	Ant 2	SUM		Ant 1	Ant 2	Ant 1	Ant 2		Ant 1	Ant 2
11a	6Mbps	2	169	5845	2.66	2.66	21.41	22.58	25.05	28.55	36.00		3.50		Pass	92	
11a	6Mbps	2	173	5865	2.66	2.66	21.34	22.47	24.95	28.45	36.00		3.50		Pass	92	
11a	6Mbps	2	177	5885	2.66	2.66	21.33	22.40	24.91	28.41	36.00		3.50		Pass	92	
HT20	MCS0	2	169	5845	2.22	2.34	21.68	22.77	25.27	28.77	36.00		3.50		Pass	94	
HT20	MCS0	2	173	5865	2.22	2.34	21.58	22.71	25.19	28.69	36.00		3.50		Pass	94	
HT20	MCS0	2	177	5885	2.22	2.34	21.58	22.89	25.29	28.79	36.00		3.50		Pass	94	
HT40	MCS0	2	167	5835	2.63	2.63	24.94	25.92	28.47	31.97	36.00		3.50		Pass	110	
HT40	MCS0	2	175	5875	2.63	2.63	24.83	25.97	28.45	31.95	36.00		3.50		Pass	110	
VHT20	MCS0	2	169	5845	0.79	0.79	21.29	22.43	24.91	28.41	36.00		3.50		Pass	94	
VHT20	MCS0	2	173	5865	0.79	0.79	21.27	22.35	24.86	28.36	36.00		3.50		Pass	94	
VHT20	MCS0	2	177	5885	0.79	0.79	21.26	22.35	24.85	28.35	36.00		3.50		Pass	94	
VHT40	MCS0	2	167	5835	0.90	0.90	24.89	25.82	28.39	31.89	36.00		3.50		Pass	110	
VHT40	MCS0	2	175	5875	0.90	0.90	24.73	25.84	28.33	31.83	36.00		3.50		Pass	110	
VHT80	MCS0	2	171	5855	0.97	0.97	23.70	24.65	27.21	30.71	36.00		3.50		Pass	101	
HE20	MCS0	2	169	5845	0.39	0.39	22.11	23.07	25.63	29.13	36.00		3.50		Pass	94	
HE20	MCS0	2	173	5865	0.39	0.39	22.00	23.07	25.58	29.08	36.00		3.50		Pass	94	
HE20	MCS0	2	177	5885	0.39	0.39	21.98	23.01	25.53	29.03	36.00		3.50		Pass	94	
HE40	MCS0	2	167	5835	0.40	0.40	25.12	26.15	28.68	32.18	36.00		3.50		Pass	110	
HE40	MCS0	2	175	5875	0.40	0.40	25.03	26.05	28.58	32.08	36.00		3.50		Pass	110	
HE80	MCS0	2	171	5855	0.43	0.43	23.72	24.68	27.23	30.73	36.00		3.50		Pass	101	
HE160	MCS0	2	163	5815	0.56	0.56	20.01	21.48	23.82	27.32	36.00		3.50		Pass	84	

Note: EIRP = 10*log(10^(Ant 1 power/10)+10^(Ant 2 power/10)) + DG

<TxBF Mode>

Report Number : FR2D1901C

TEST RESULTS DATA
Average Power Table

U-NII-4 MIMO																	
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power with duty factor (dBm)			EIRP power	EIRP Power Limit (dBm)		DG (dBi)		Pass/Fail	Power Setting	
					Ant 1	Ant 2	Ant 1	Ant 2	SUM		Ant 1	Ant 2	Ant 1	Ant 2		Ant 1	Ant 2
11a	6Mbps	2	169	5845	2.66	2.66	18.09	19.28	21.74	28.25	36.00		6.51		Pass	78	
11a	6Mbps	2	173	5865	2.66	2.66	18.05	19.18	21.66	28.17	36.00		6.51		Pass	78	
11a	6Mbps	2	177	5885	2.66	2.66	18.02	19.10	21.61	28.12	36.00		6.51		Pass	78	
HT20	MCS0	2	169	5845	2.22	2.34	18.40	19.49	21.99	28.50	36.00		6.51		Pass	80	
HT20	MCS0	2	173	5865	2.22	2.34	18.30	19.43	21.91	28.42	36.00		6.51		Pass	80	
HT20	MCS0	2	177	5885	2.22	2.34	18.31	19.58	22.00	28.51	36.00		6.51		Pass	80	
HT40	MCS0	2	167	5835	2.63	2.63	21.54	22.52	25.07	31.58	36.00		6.51		Pass	96	
HT40	MCS0	2	175	5875	2.63	2.63	21.44	22.58	25.06	31.57	36.00		6.51		Pass	96	
VHT20	MCS0	2	169	5845	0.79	0.79	18.00	19.14	21.62	28.13	36.00		6.51		Pass	80	
VHT20	MCS0	2	173	5865	0.79	0.79	17.99	19.06	21.57	28.08	36.00		6.51		Pass	80	
VHT20	MCS0	2	177	5885	0.79	0.79	17.97	19.05	21.56	28.07	36.00		6.51		Pass	80	
VHT40	MCS0	2	167	5835	0.90	0.90	21.50	22.43	25.00	31.51	36.00		6.51		Pass	96	
VHT40	MCS0	2	175	5875	0.90	0.90	21.35	22.46	24.95	31.46	36.00		6.51		Pass	96	
VHT80	MCS0	2	171	5855	0.97	0.97	20.31	21.26	23.82	30.33	36.00		6.51		Pass	87	
HE20	MCS0	2	169	5845	0.39	0.39	18.83	19.77	22.33	28.85	36.00		6.51		Pass	80	
HE20	MCS0	2	173	5865	0.39	0.39	18.72	19.78	22.29	28.80	36.00		6.51		Pass	80	
HE20	MCS0	2	177	5885	0.39	0.39	18.68	19.72	22.24	28.75	36.00		6.51		Pass	80	
HE40	MCS0	2	167	5835	0.40	0.40	21.73	22.76	25.29	31.80	36.00		6.51		Pass	96	
HE40	MCS0	2	175	5875	0.40	0.40	21.65	22.67	25.20	31.71	36.00		6.51		Pass	96	
HE80	MCS0	2	171	5855	0.43	0.43	20.33	21.29	23.84	30.35	36.00		6.51		Pass	87	
HE160	MCS0	2	163	5815	0.56	0.56	17.14	17.80	20.49	27.00	36.00		6.51		Pass	72	

Note: EIRP = 10*log(10^(Ant 1 power/10)+10^(Ant 2 power/10)) + DG

<CDD Mode>

Emission Bandwidth

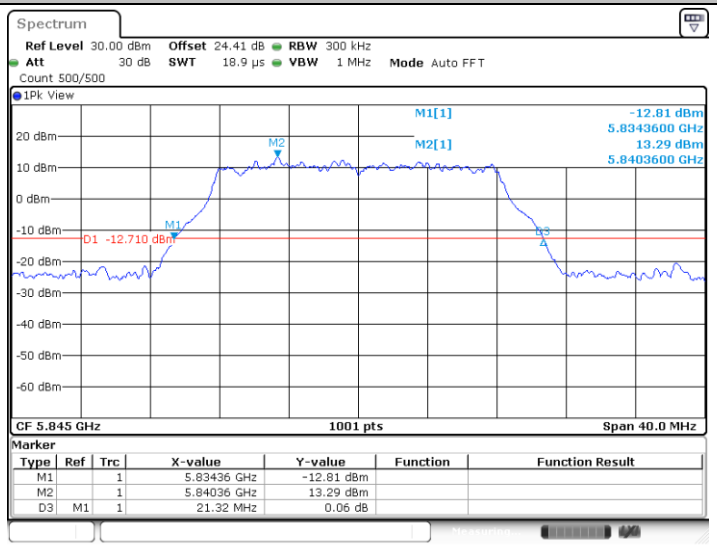
Test Result

TestMode	Antenna	Freq(MHz)	26dB EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A-CDD	Ant1	5845	21.32	5834.36	5855.68	---	---
	Ant2	5845	21.36	5834.20	5855.56	---	---
	Ant1	5845_UNII-3	15.64	5834.36	5850	---	---
	Ant2	5845_UNII-3	15.8	5834.20	5850	---	---
	Ant1	5845_UNII-4	5.68	5850	5855.68	---	---
	Ant2	5845_UNII-4	5.56	5850	5855.56	---	---
	Ant1	5865	21.40	5854.36	5875.76	---	---
	Ant2	5865	21.36	5854.24	5875.60	---	---
	Ant1	5885	21.32	5874.44	5895.76	---	---
	Ant2	5885	21.28	5874.24	5895.52	---	---
11AX20MIMO	Ant1	5845	21.64	5834.12	5855.76	---	---
	Ant2	5845	22.20	5833.48	5855.68	---	---
	Ant1	5845_UNII-3	15.88	5834.12	5850	---	---
	Ant2	5845_UNII-3	16.52	5833.48	5850	---	---
	Ant1	5845_UNII-4	5.76	5850	5855.76	---	---
	Ant2	5845_UNII-4	5.68	5850	5855.68	---	---
	Ant1	5865	21.72	5854.12	5875.84	---	---
	Ant2	5865	22.60	5853.20	5875.80	---	---
	Ant1	5885	21.92	5873.92	5895.84	---	---
	Ant2	5885	25.64	5873.16	5898.80	---	---
11AX40MIMO	Ant1	5835	63.72	5806.20	5869.92	---	---
	Ant2	5835	87.00	5793.84	5880.84	---	---
	Ant1	5835_UNII-3	43.8	5806.20	5850	---	---
	Ant2	5835_UNII-3	56.16	5793.84	5850	---	---
	Ant1	5835_UNII-4	19.92	5850	5869.92	---	---
	Ant2	5835_UNII-4	30.84	5850	5880.84	---	---
	Ant1	5875	84.84	5834.68	5919.52	---	---
	Ant2	5875	86.76	5833.96	5920.72	---	---
11AX80MIMO	Ant1	5855	96.48	5806.52	5903.00	---	---
	Ant2	5855	90.72	5809.40	5900.12	---	---
	Ant1	5855_UNII-3	43.48	5806.52	5850	---	---

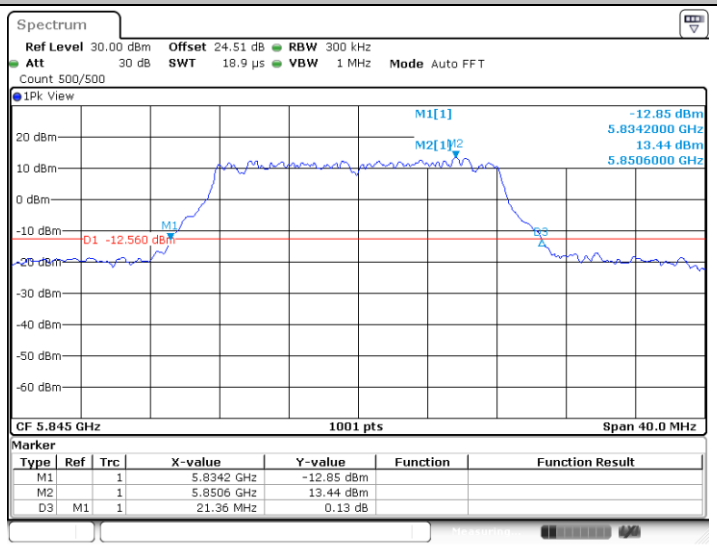
	Ant2	5855_UNII-3	40.6	5809.40	5850	---	---
	Ant1	5855_UNII-4	53	5850	5903.00	---	---
	Ant2	5855_UNII-4	50.12	5850	5900.12	---	---
11AX160MIMO	Ant1	5815	165.44	5731.80	5897.24	---	---
	Ant2	5815	163.52	5732.76	5896.28	---	---
	Ant1	5815_UNII-3	118.2	5731.80	5850	---	---
	Ant2	5815_UNII-3	117.24	5732.76	5850	---	---
	Ant1	5815_UNII-4	47.24	5850	5897.24	---	---
	Ant2	5815_UNII-4	46.28	5850	5896.28	---	---

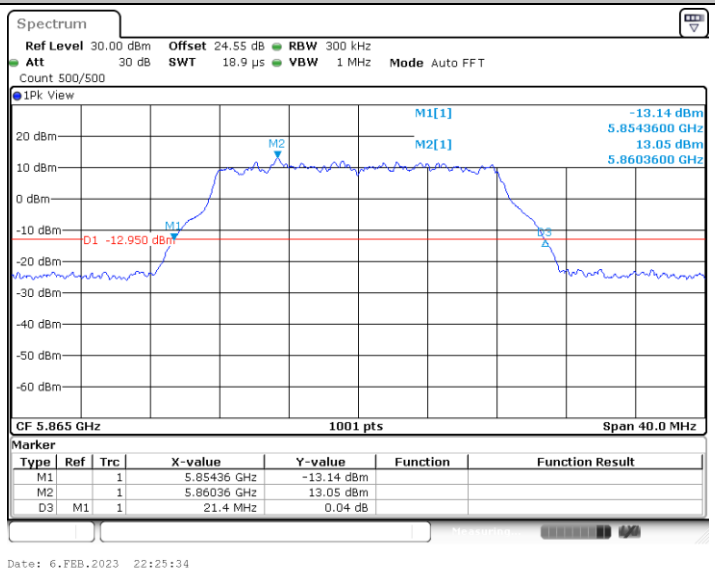
Test Graphs

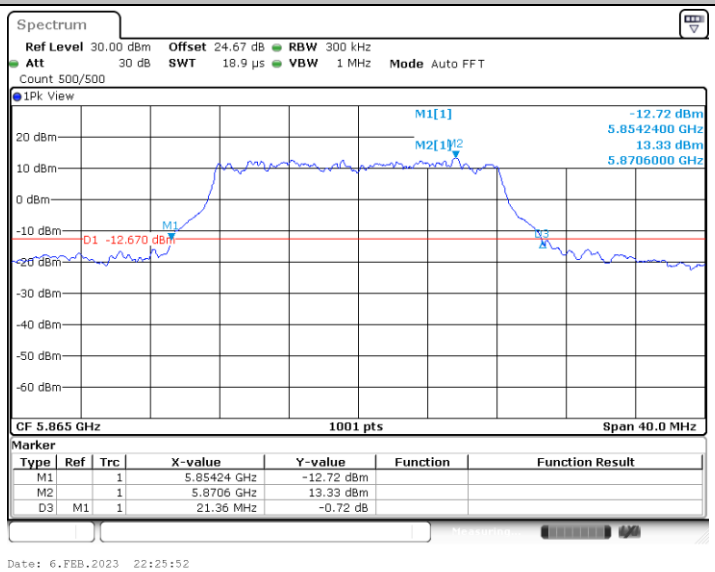
11A-CDD_Ant1_5845

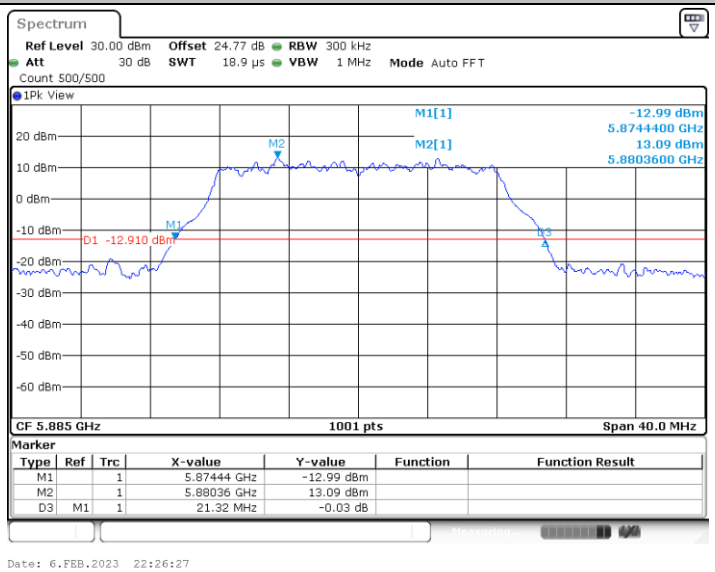


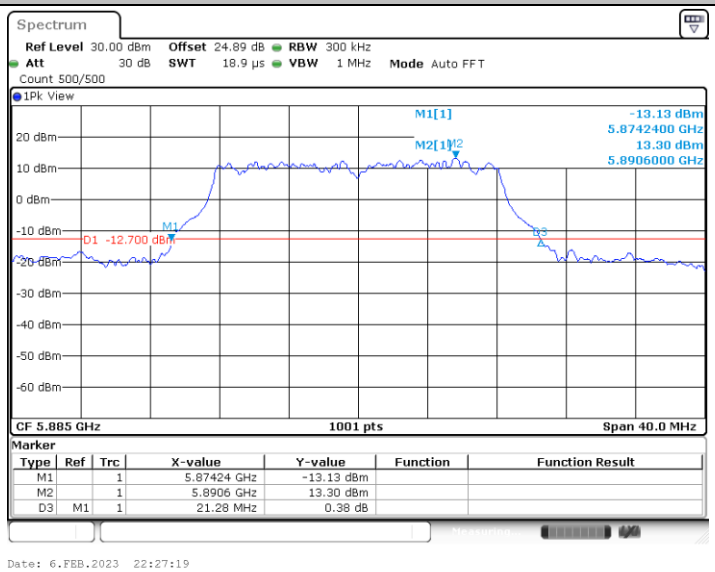
11A-CDD_Ant2_5845

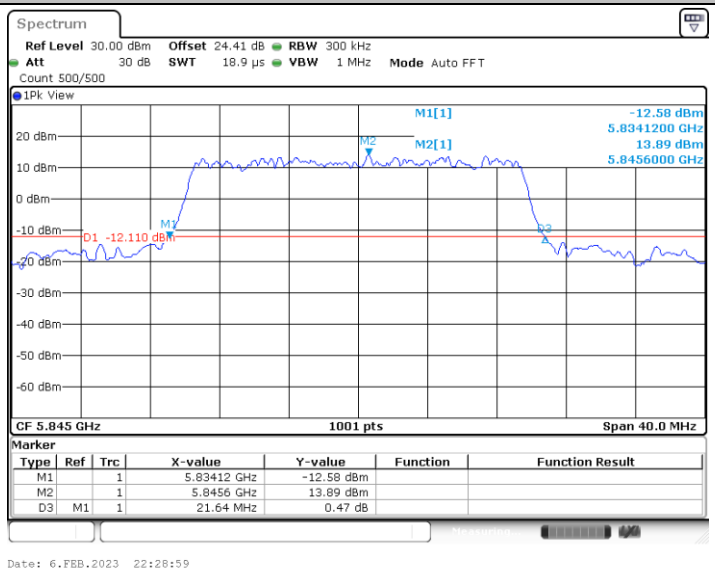


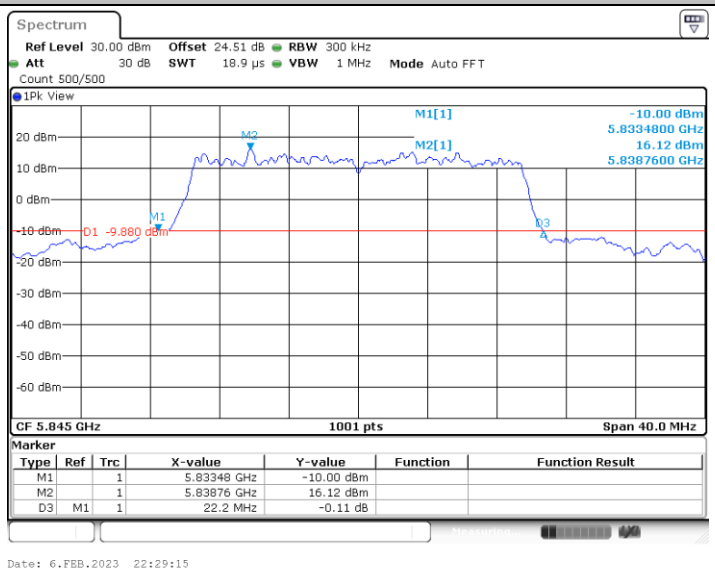
11A-CDD_Ant1_5865


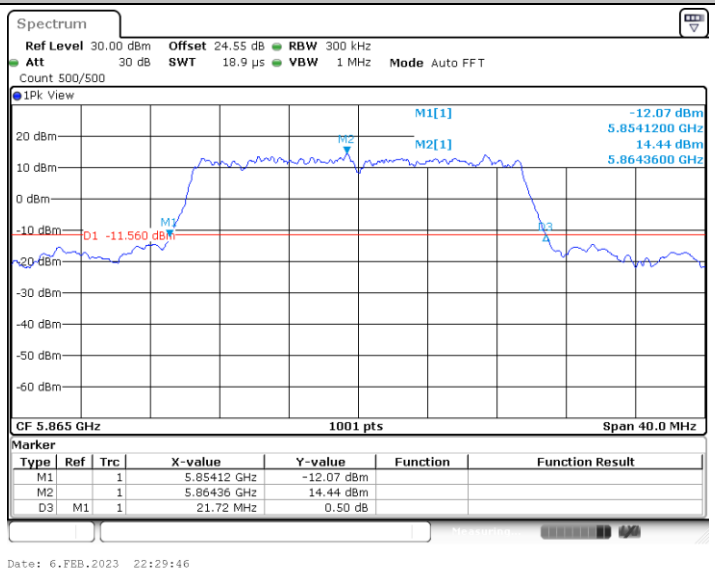
11A-CDD_Ant2_5865


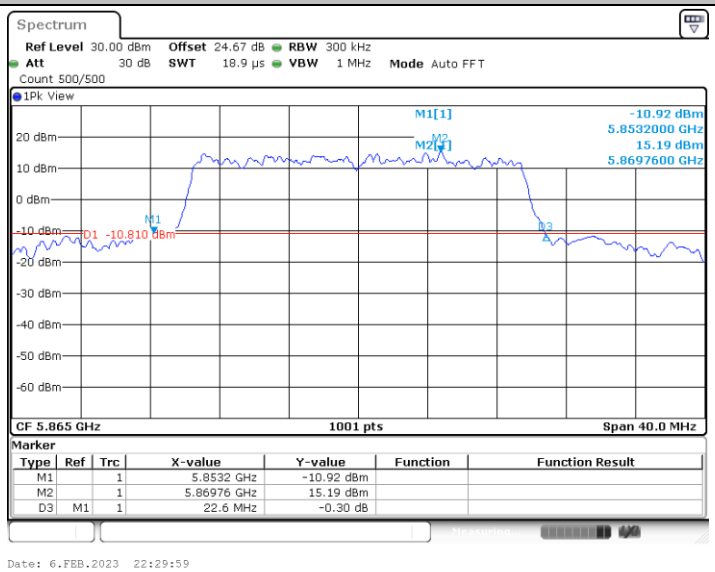
11A-CDD_Ant1_5885


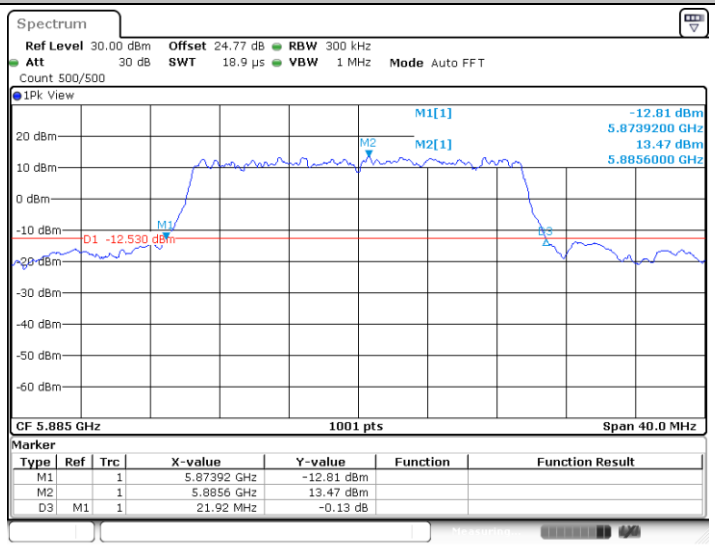
11A-CDD_Ant2_5885


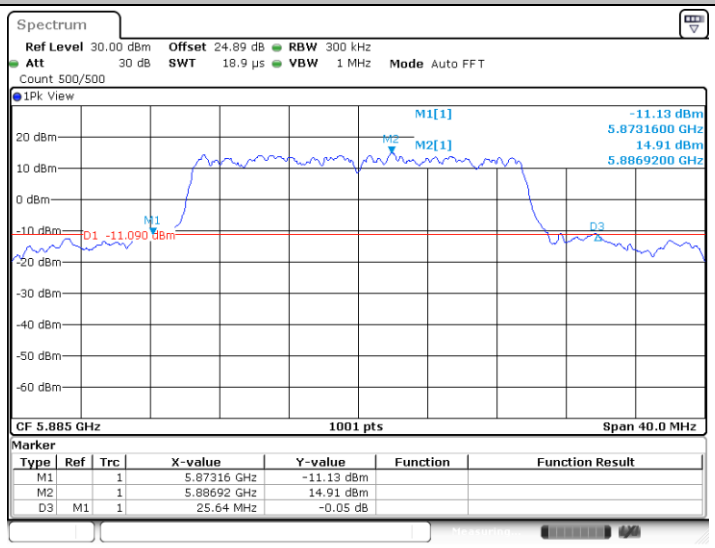
11AX20MIMO_Ant1_5845


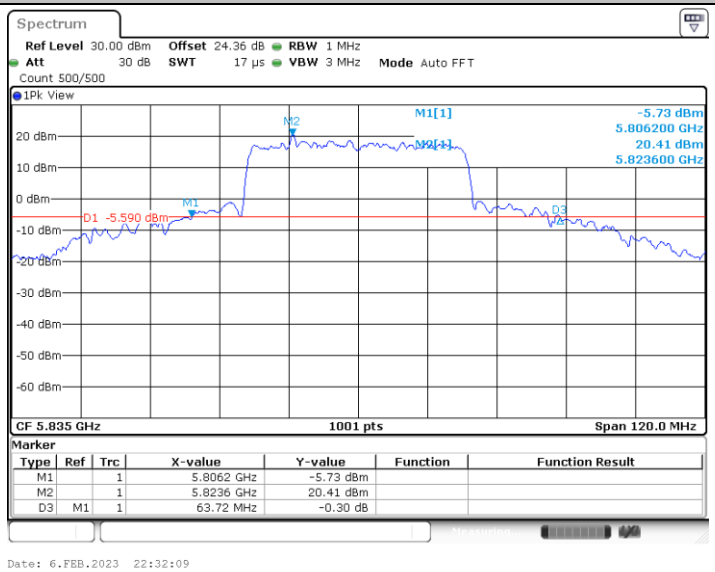
11AX20MIMO_Ant2_5845


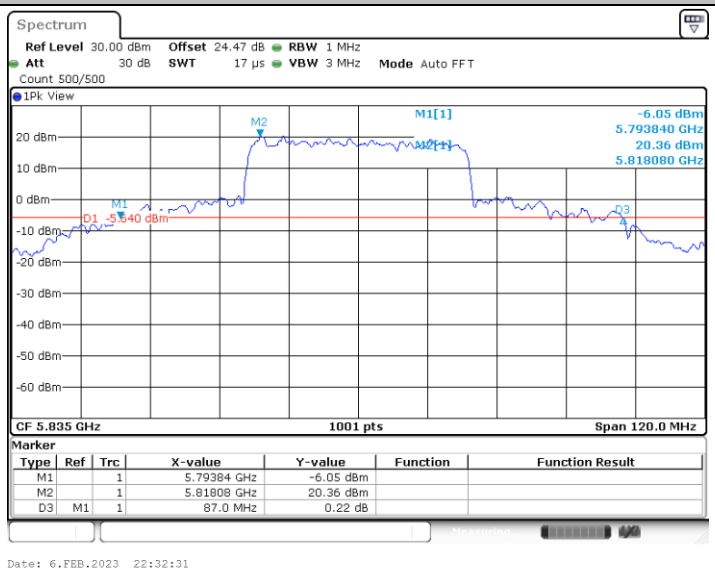
11AX20MIMO_Ant1_5865


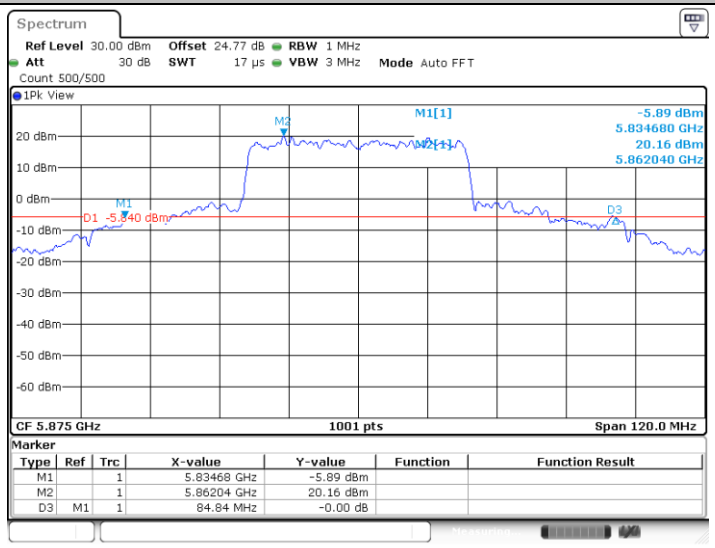
11AX20MIMO_Ant2_5865


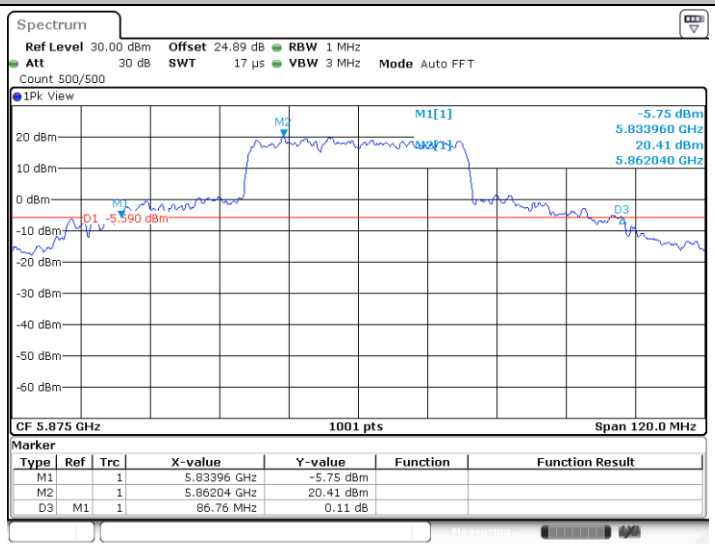
11AX20MIMO_Ant1_5885


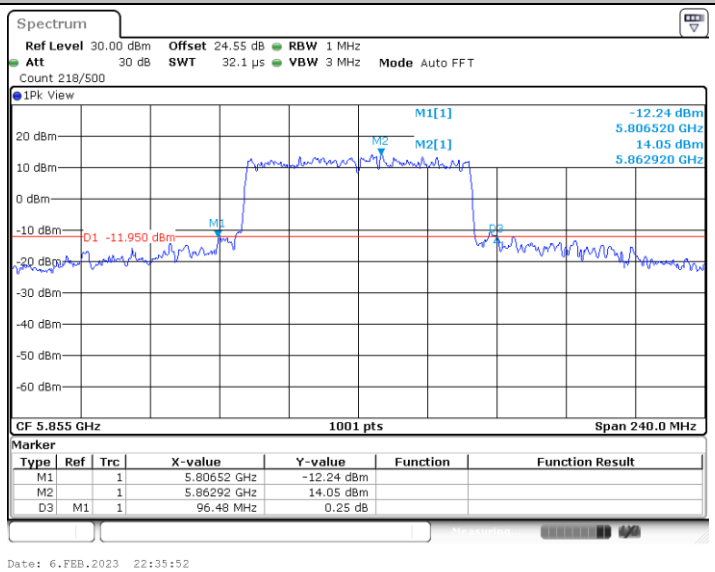
11AX20MIMO_Ant2_5885


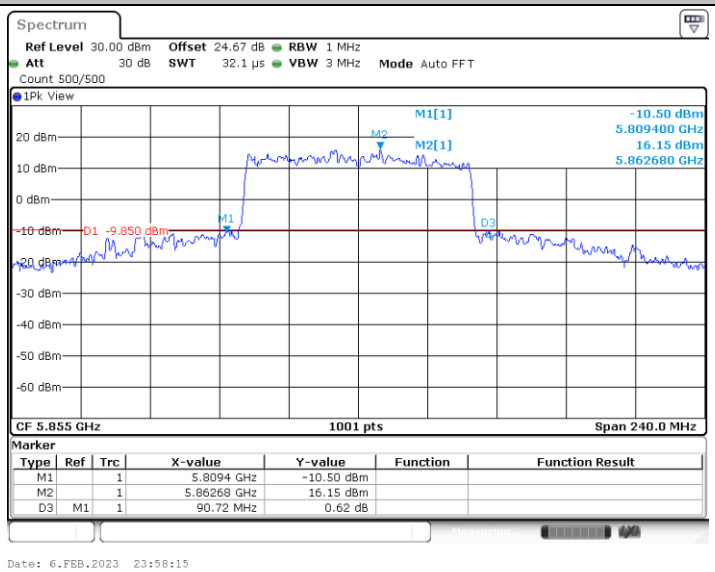
11AX40MIMO_Ant1_5835


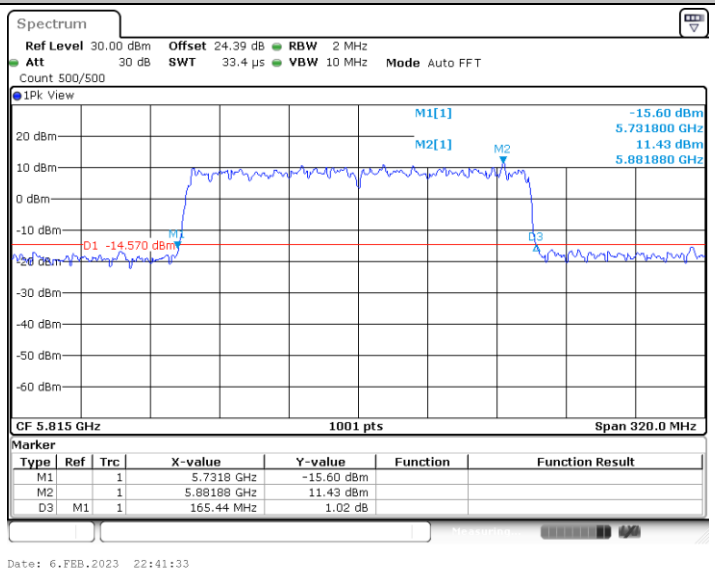
11AX40MIMO_Ant2_5835


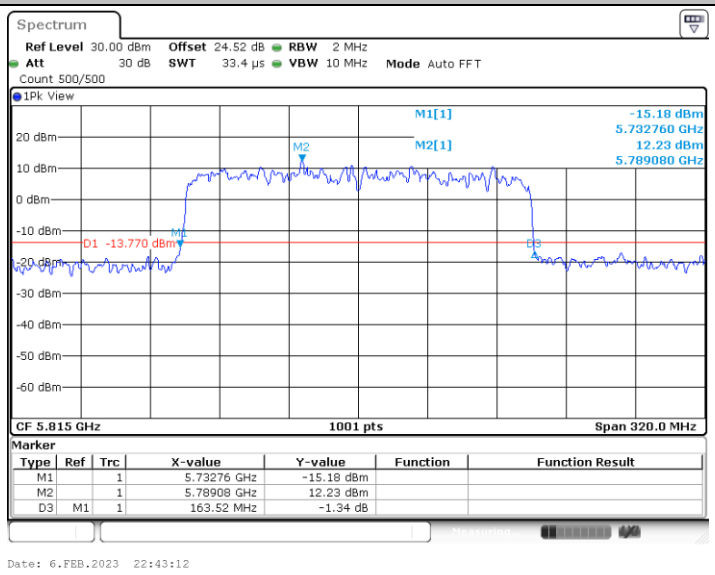
11AX40MIMO_Ant1_5875


11AX40MIMO_Ant2_5875


11AX80MIMO_Ant1_5855


11AX80MIMO_Ant2_5855


11AX160MIMO_Ant1_5815


11AX160MIMO_Ant2_5815


Occupied channel bandwidth

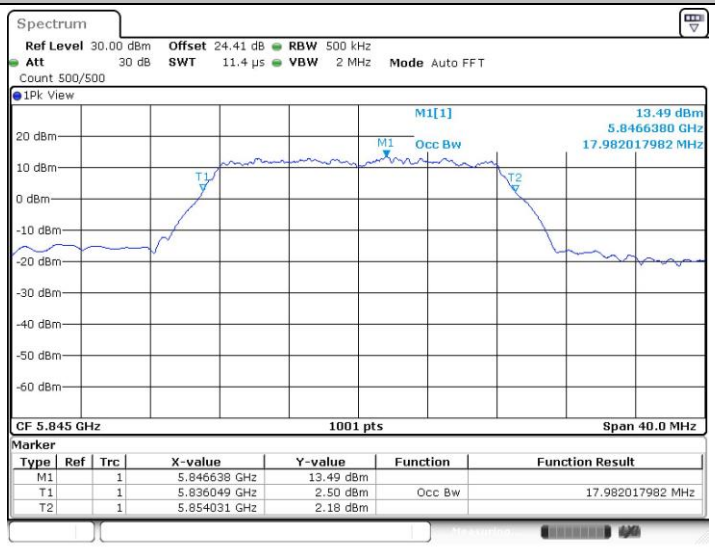
Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A-CDD	Ant1	5845	17.982	5836.0490	5854.0310	---	---
	Ant2	5845	17.702	5835.9690	5853.6713	---	---
	Ant1	5845_UNII-3	13.951	5836.0490	5850	---	---
	Ant2	5845_UNII-3	14.031	5835.9690	5850	---	---
	Ant1	5845_UNII-4	4.031	5850	5854.0310	---	---
	Ant2	5845_UNII-4	3.671	5850	5853.6713	---	---
	Ant1	5865	17.982	5856.1289	5874.1109	---	---
	Ant2	5865	17.622	5856.0889	5873.7113	---	---
	Ant1	5885	17.582	5876.2488	5893.8312	---	---
	Ant2	5885	17.542	5876.0490	5893.5914	---	---
11AX20MIMO	Ant1	5845	19.421	5835.2498	5854.6703	---	---
	Ant2	5845	19.341	5835.2897	5854.6304	---	---
	Ant1	5845_UNII-3	14.75	5835.2498	5850	---	---
	Ant2	5845_UNII-3	14.71	5835.2897	5850	---	---
	Ant1	5845_UNII-4	4.67	5850	5854.6703	---	---
	Ant2	5845_UNII-4	4.63	5850	5854.6304	---	---
	Ant1	5865	19.62	5855.2098	5874.8302	---	---
	Ant2	5865	19.421	5855.1698	5874.5904	---	---
	Ant1	5885	19.5	5875.2498	5894.7502	---	---
	Ant2	5885	19.421	5875.2498	5894.6703	---	---
11AX40MIMO	Ant1	5835	38.362	5815.8192	5854.1808	---	---
	Ant2	5835	43.876	5812.7023	5856.5784	---	---
	Ant1	5835_UNII-3	34.181	5815.8192	5850	---	---
	Ant2	5835_UNII-3	37.298	5812.7023	5850	---	---
	Ant1	5835_UNII-4	4.181	5850	5854.1808	---	---
	Ant2	5835_UNII-4	6.578	5850	5856.5784	---	---
	Ant1	5875	38.601	5855.6593	5894.2607	---	---
	Ant2	5875	47.073	5849.5854	5896.6583	---	---
11AX80MIMO	Ant1	5855	91.588	5808.8062	5900.3946	---	---
	Ant2	5855	131.389	5785.7892	5917.1778	---	---
	Ant1	5855_UNII-3	41.194	5808.8062	5850	---	---
	Ant2	5855_UNII-3	64.211	5785.7892	5850	---	---
	Ant1	5855_UNII-4	50.395	5850	5900.3946	---	---

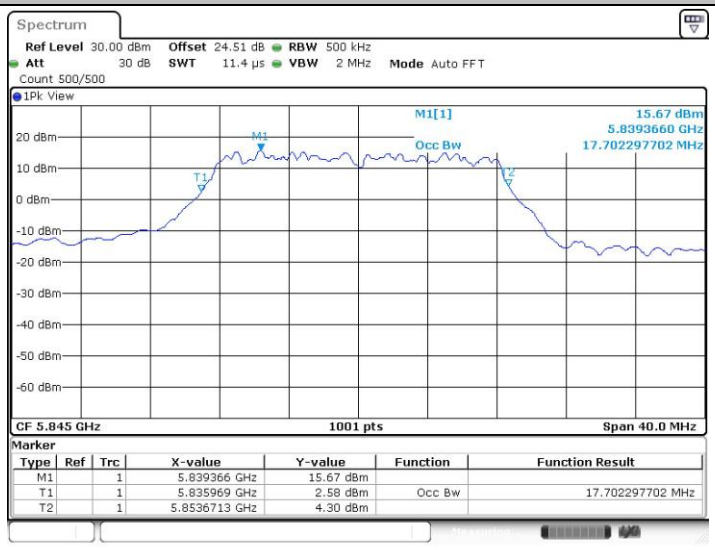
	Ant2	5855_UNII-4	67.178	5850	5917.1778	---	---
11AX160MIMO	Ant1	5815	220.26	5708.8661	5929.1259	---	---
	Ant2	5815	270.13	5672.7423	5942.8721	---	---
	Ant1	5815_UNII-3	141.134	5708.8661	5850	---	---
	Ant2	5815_UNII-3	177.258	5672.7423	5850	---	---
	Ant1	5815_UNII-4	79.126	5850	5929.1259	---	---
	Ant2	5815_UNII-4	92.872	5850	5942.8721	---	---

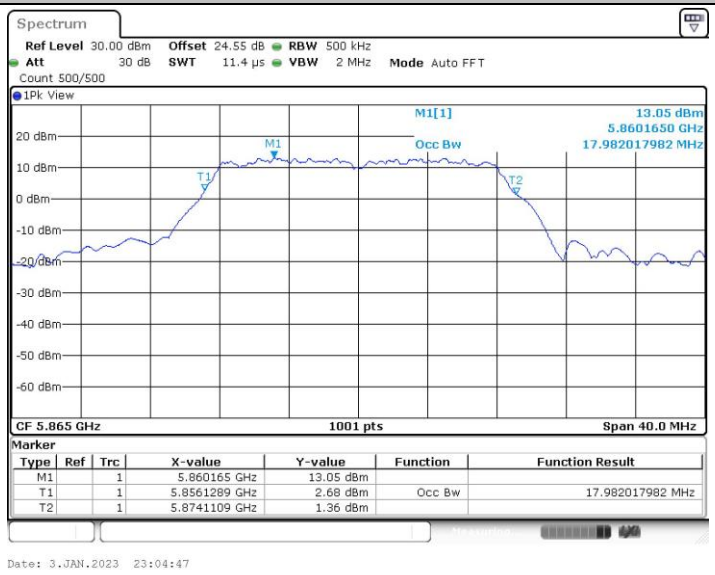
Test Graphs

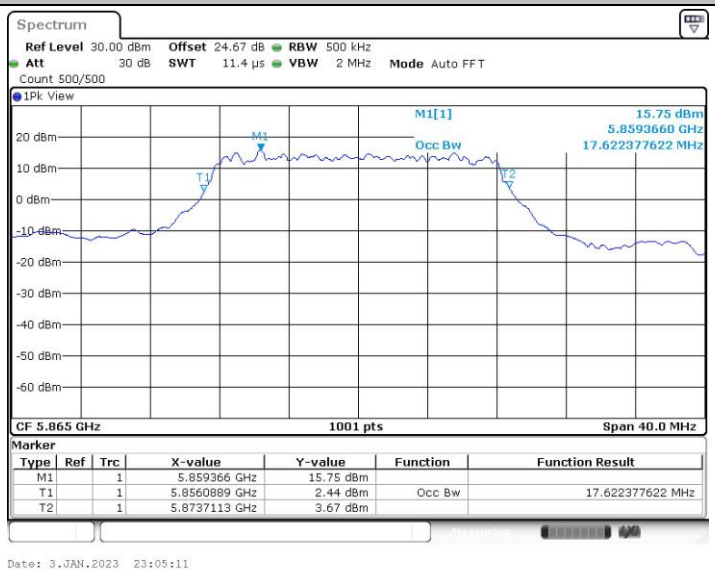
11A-CDD_Ant1_5845

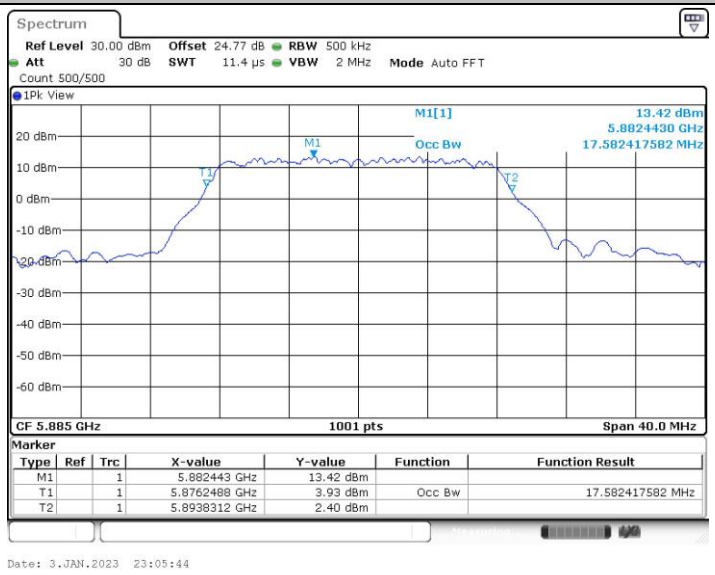


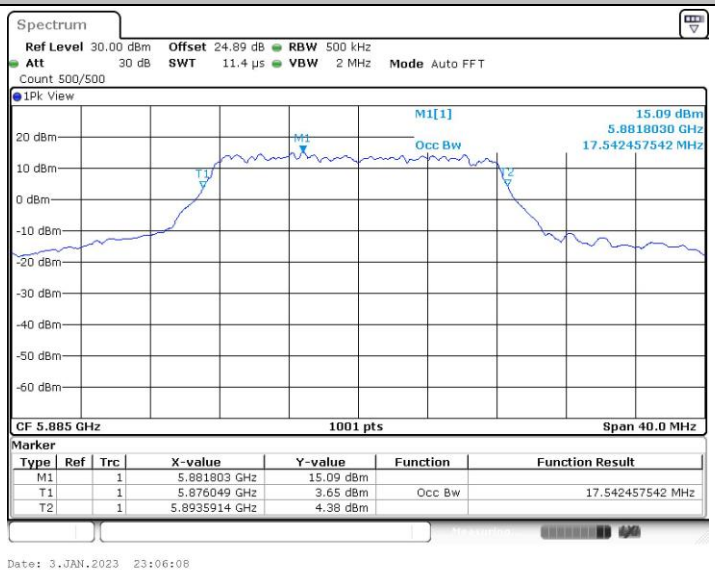
11A-CDD_Ant2_5845

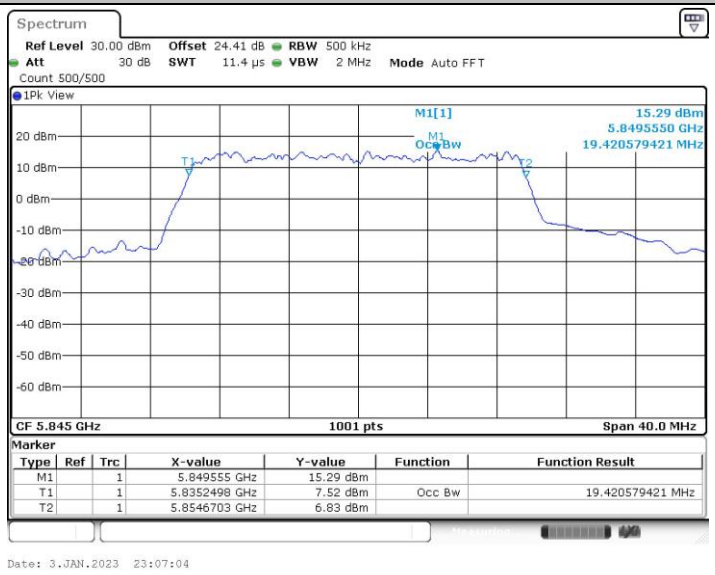


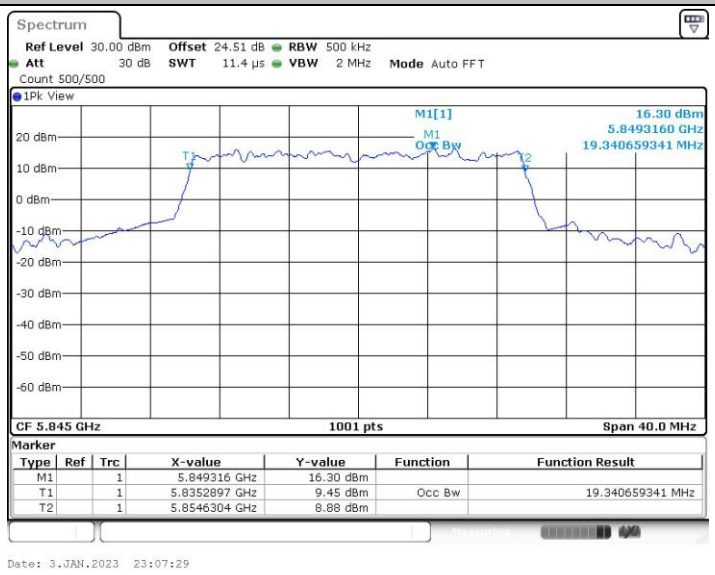
11A-CDD_Ant1_5865


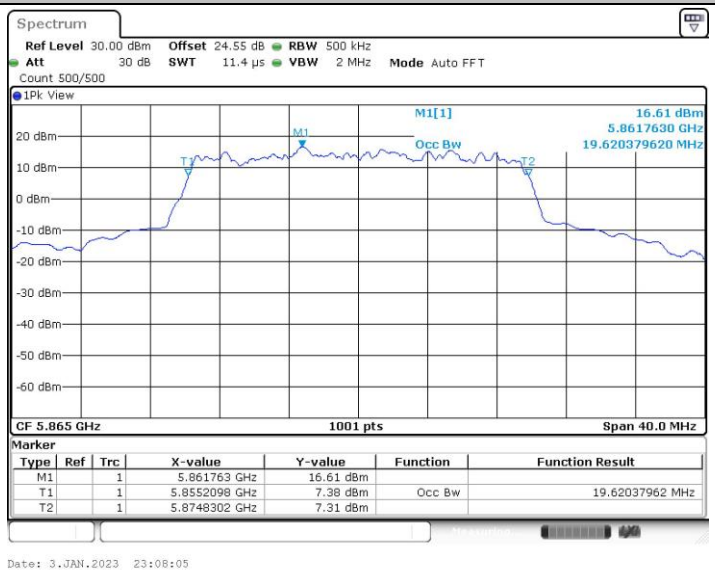
11A-CDD_Ant2_5865


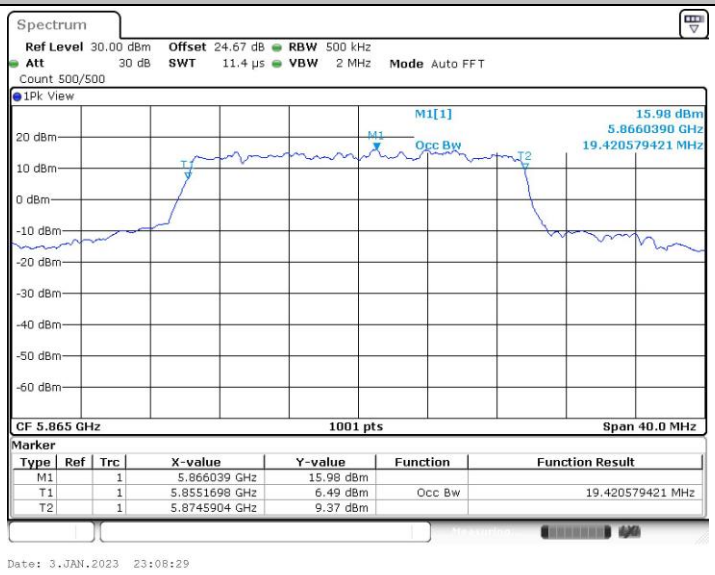
11A-CDD_Ant1_5885


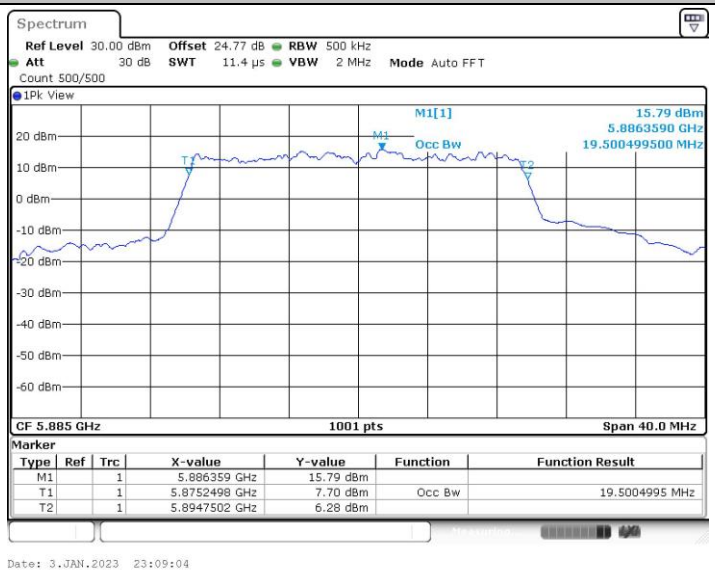
11A-CDD_Ant2_5885


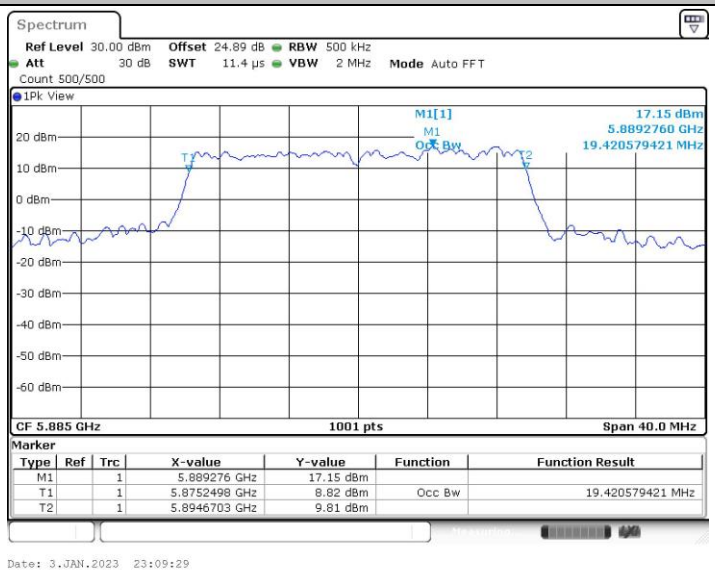
11AX20MIMO_Ant1_5845


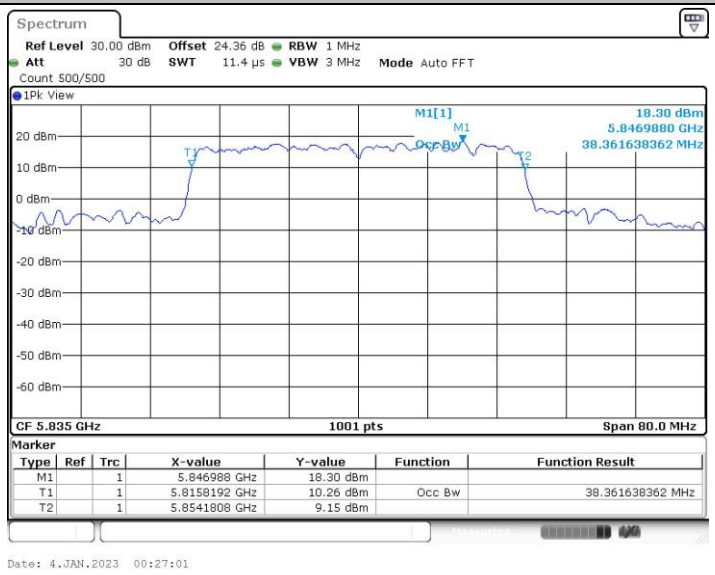
11AX20MIMO_Ant2_5845


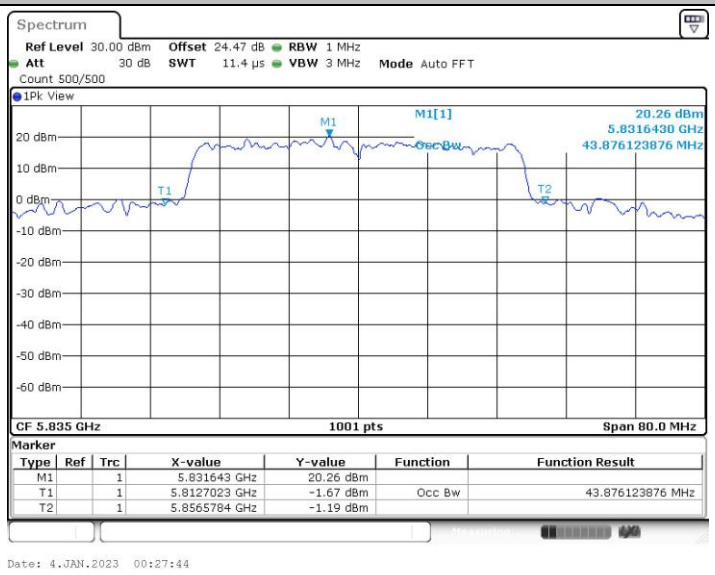
11AX20MIMO_Ant1_5865


11AX20MIMO_Ant2_5865


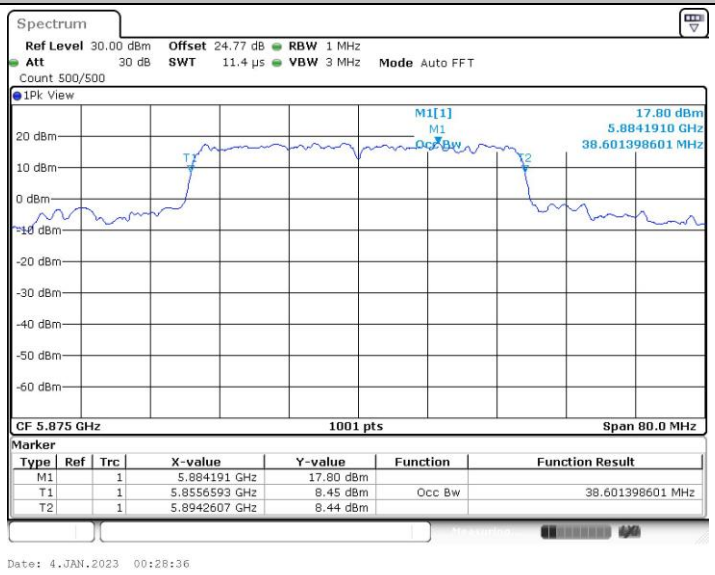
11AX20MIMO_Ant1_5885


11AX20MIMO_Ant2_5885


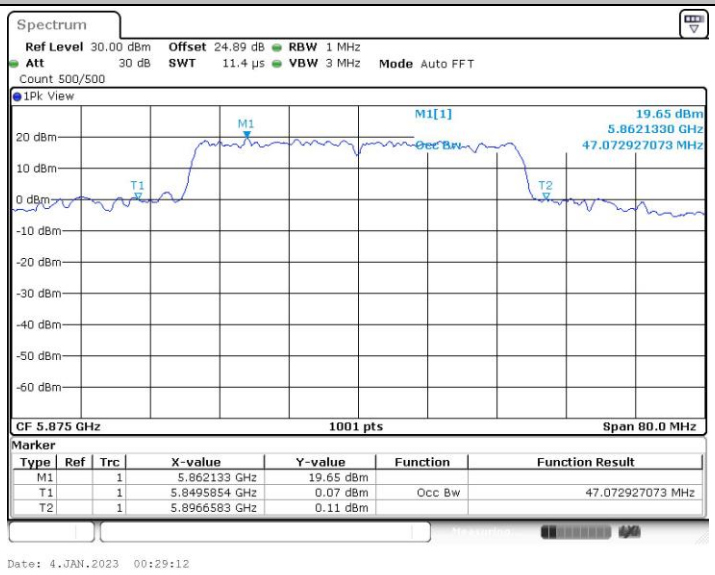
11AX40MIMO_Ant1_5835


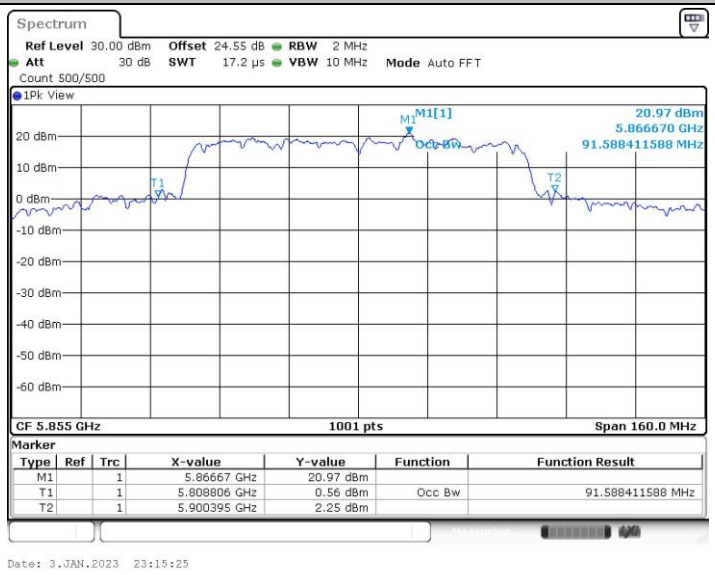
11AX40MIMO_Ant2_5835


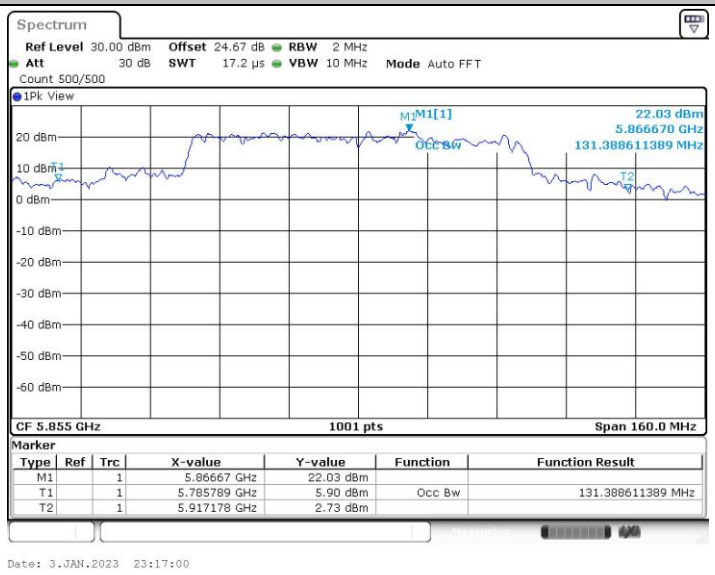
11AX40MIMO_Ant1_5875

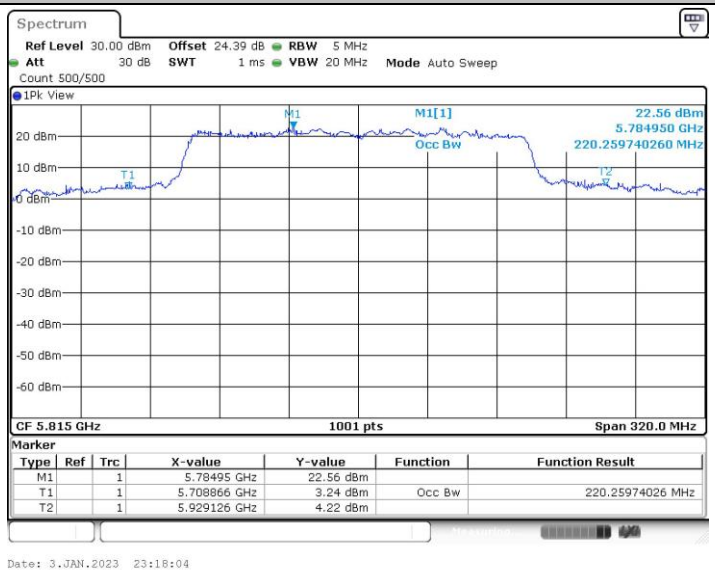


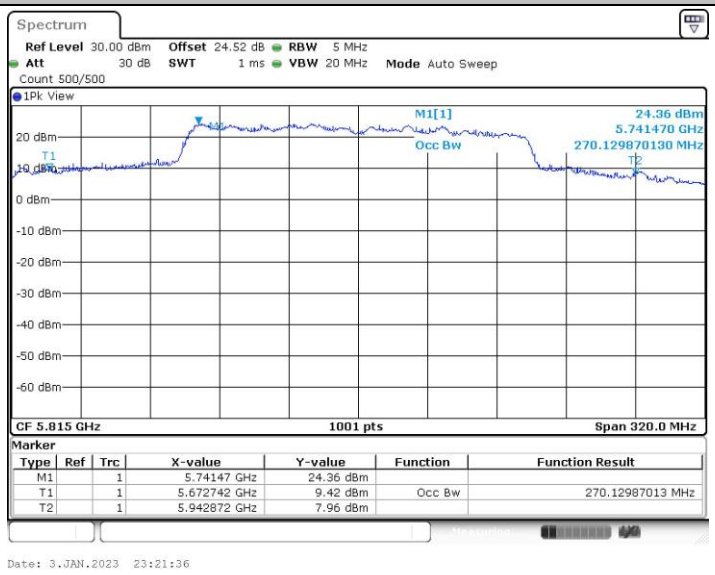
11AX40MIMO_Ant2_5875



11AX80MIMO_Ant1_5855


11AX80MIMO_Ant2_5855


11AX160MIMO_Ant1_5815


11AX160MIMO_Ant2_5815


Min emission bandwidth

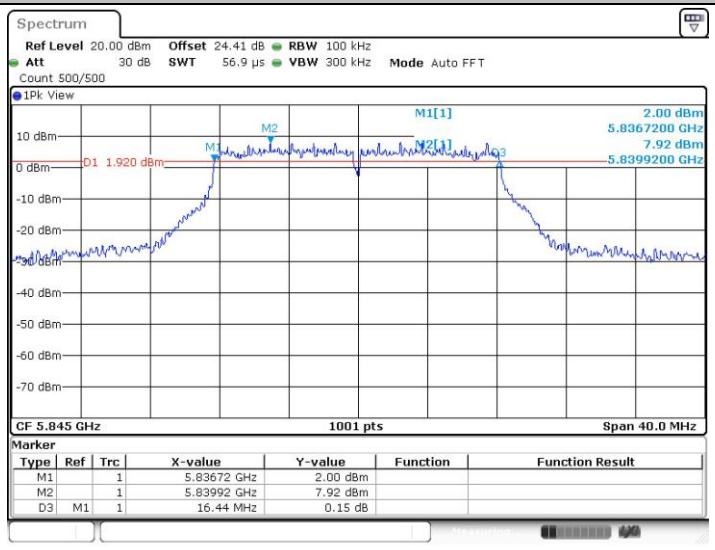
Test Result

TestMode	Antenna	Freq(MHz)	6dB EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A-CDD	Ant1	5845	16.44	5836.72	5853.16	0.5	PASS
	Ant2	5845	16.36	5836.76	5853.12	0.5	PASS
	Ant1	5845_UNII-3	13.28	5836.72	5850	0.5	PASS
	Ant2	5845_UNII-3	13.24	5836.76	5850	0.5	PASS
	Ant1	5845_UNII-4	3.16	5850	5853.16	0.5	PASS
	Ant2	5845_UNII-4	3.12	5850	5853.12	0.5	PASS
	Ant1	5865	16.36	5856.76	5873.12	0.5	PASS
	Ant2	5865	16.52	5856.68	5873.20	0.5	PASS
	Ant1	5885	16.40	5876.76	5893.16	0.5	PASS
	Ant2	5885	16.32	5876.76	5893.08	0.5	PASS
11AX20MIMO	Ant1	5845	19.04	5835.40	5854.44	0.5	PASS
	Ant2	5845	18.96	5835.44	5854.40	0.5	PASS
	Ant1	5845_UNII-3	14.6	5835.40	5850	0.5	PASS
	Ant2	5845_UNII-3	14.56	5835.44	5850	0.5	PASS
	Ant1	5845_UNII-4	4.44	5850	5854.44	0.5	PASS
	Ant2	5845_UNII-4	4.4	5850	5854.40	0.5	PASS
	Ant1	5865	19.04	5855.40	5874.44	0.5	PASS
	Ant2	5865	19.00	5855.44	5874.44	0.5	PASS
	Ant1	5885	19.04	5875.40	5894.44	0.5	PASS
	Ant2	5885	18.96	5875.48	5894.44	0.5	PASS
11AX40MIMO	Ant1	5835	37.60	5816.12	5853.72	0.5	PASS
	Ant2	5835	36.88	5816.12	5853.00	0.5	PASS
	Ant1	5835_UNII-3	33.88	5816.12	5850	0.5	PASS
	Ant2	5835_UNII-3	33.88	5816.12	5850	0.5	PASS
	Ant1	5835_UNII-4	3.72	5850	5853.72	0.5	PASS
	Ant2	5835_UNII-4	3	5850	5853.00	0.5	PASS
	Ant1	5875	37.60	5856.12	5893.72	0.5	PASS
	Ant2	5875	37.04	5856.12	5893.16	0.5	PASS
11AX80MIMO	Ant1	5855	76.32	5817.24	5893.56	0.5	PASS
	Ant2	5855	75.20	5817.24	5892.44	0.5	PASS
	Ant1	5855_UNII-3	32.76	5817.24	5850	0.5	PASS
	Ant2	5855_UNII-3	32.76	5817.24	5850	0.5	PASS
	Ant1	5855_UNII-4	43.56	5850	5893.56	0.5	PASS

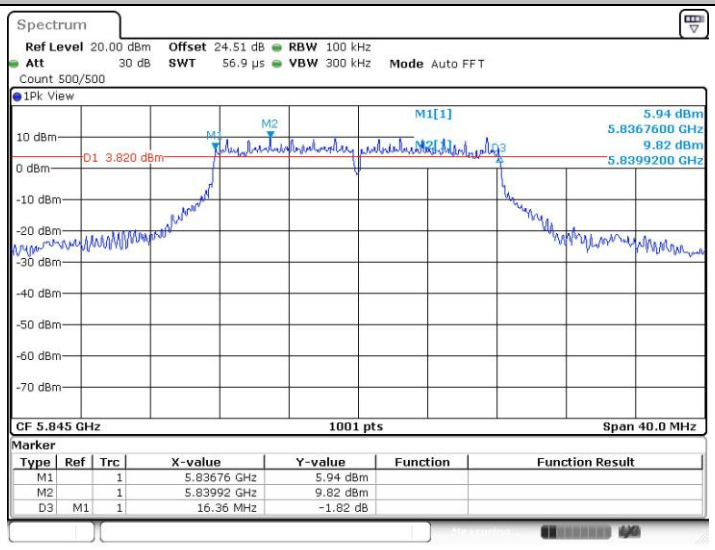
	Ant2	5855_UNII-4	42.44	5850	5892.44	0.5	PASS
11AX160MIMO	Ant1	5815	155.20	5737.24	5892.44	0.5	PASS
	Ant2	5815	155.20	5737.24	5892.44	0.5	PASS
	Ant1	5815_UNII-3	112.76	5737.24	5850	0.5	PASS
	Ant2	5815_UNII-3	112.76	5737.24	5850	0.5	PASS
	Ant1	5815_UNII-4	42.44	5850	5892.44	0.5	PASS
	Ant2	5815_UNII-4	42.44	5850	5892.44	0.5	PASS

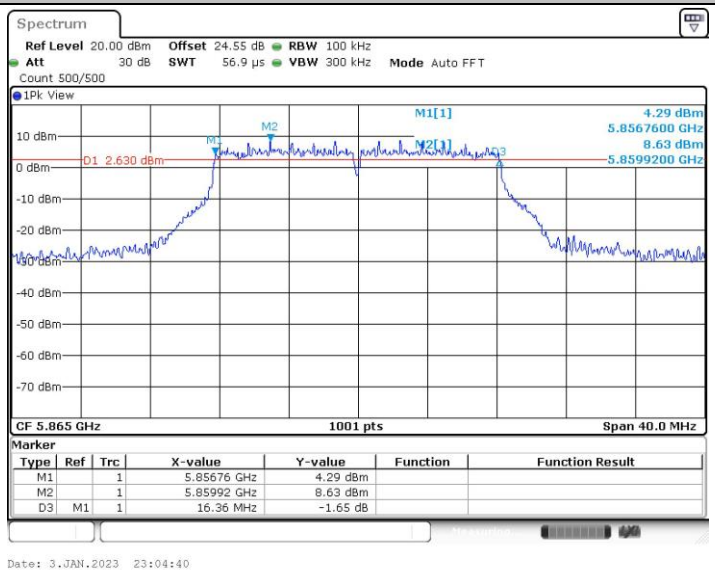
Test Graphs

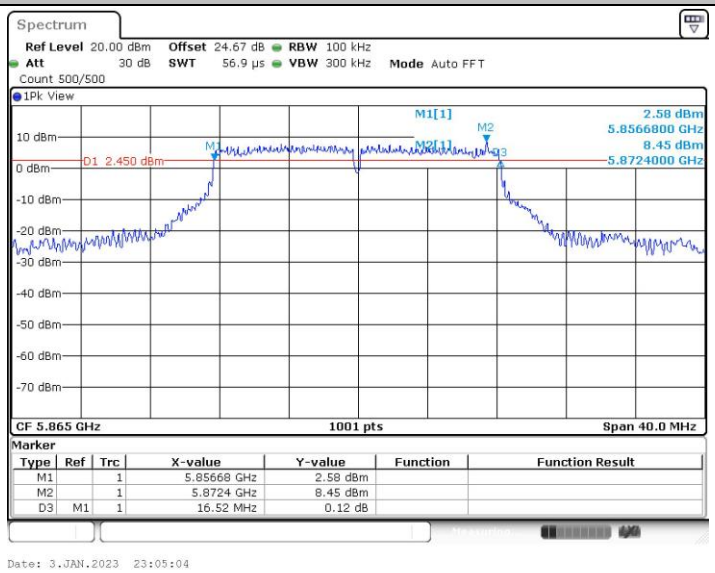
11A-CDD_Ant1_5845

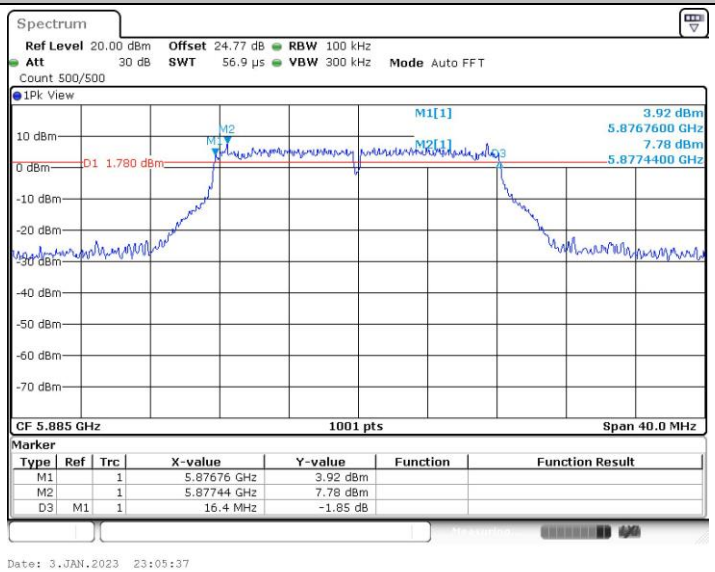


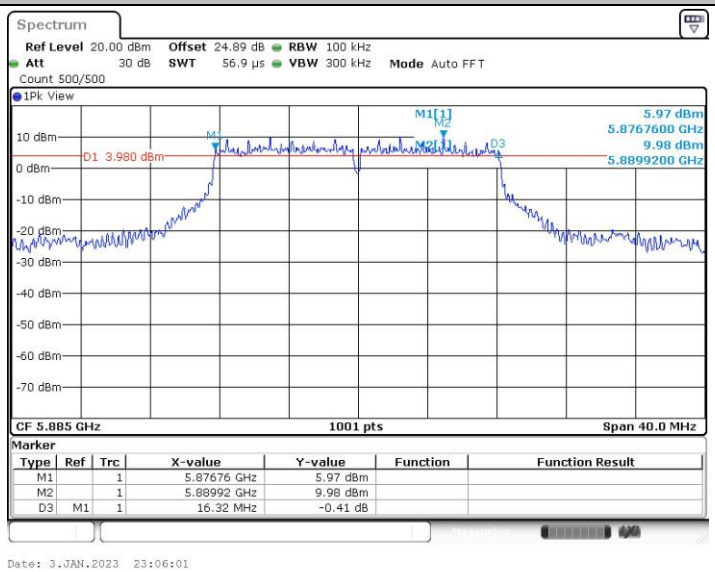
11A-CDD_Ant2_5845

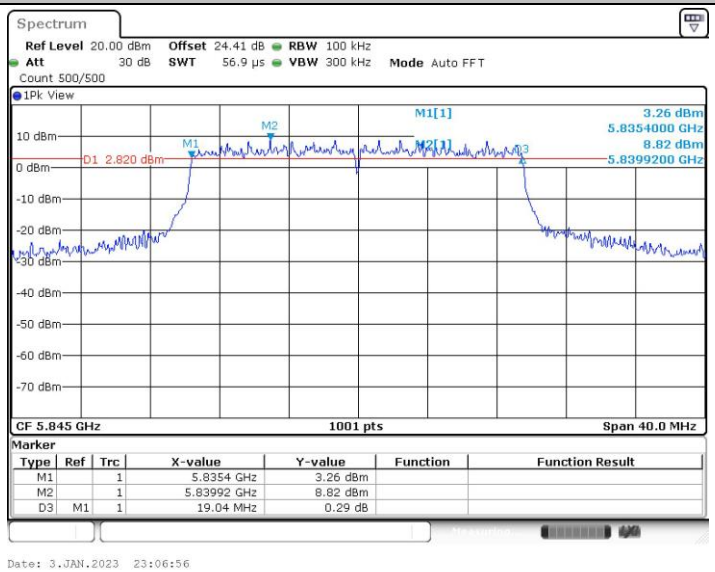


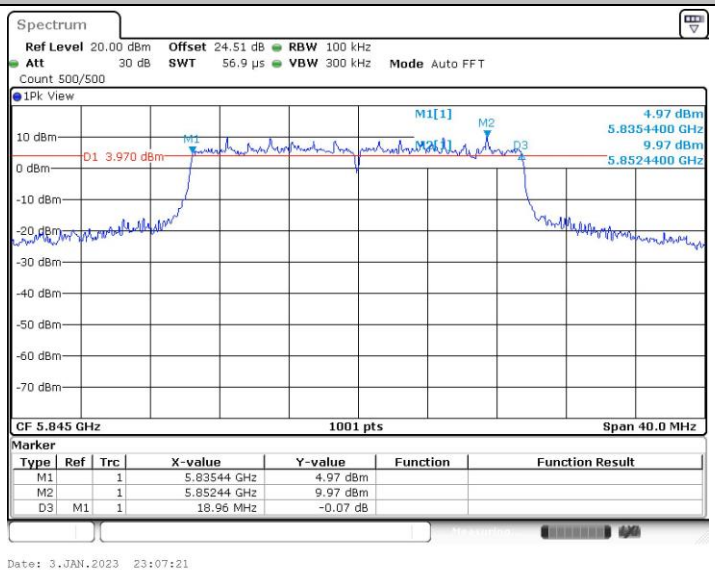
11A-CDD_Ant1_5865


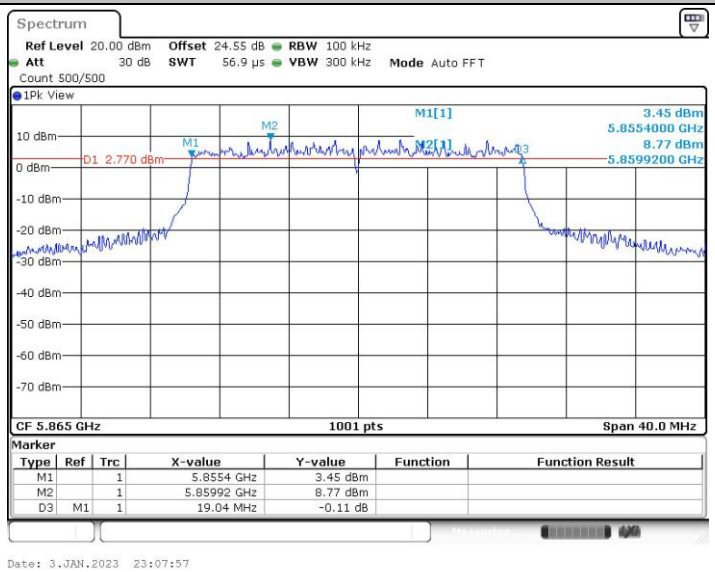
11A-CDD_Ant2_5865


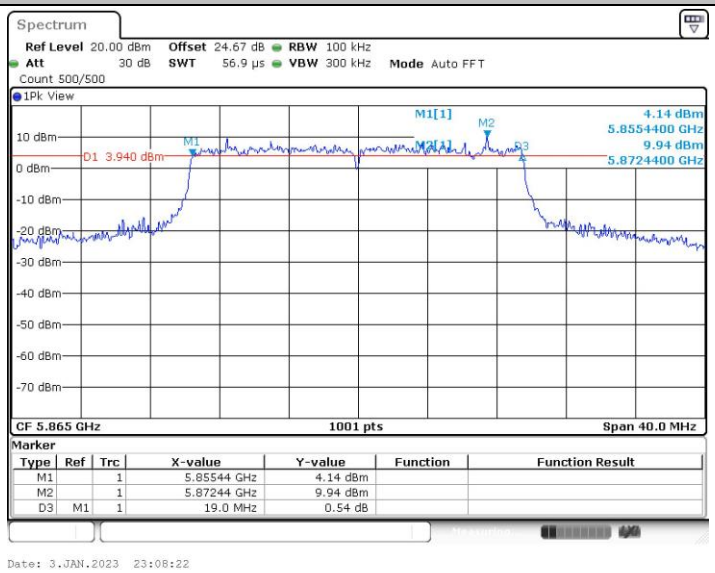
11A-CDD_Ant1_5885


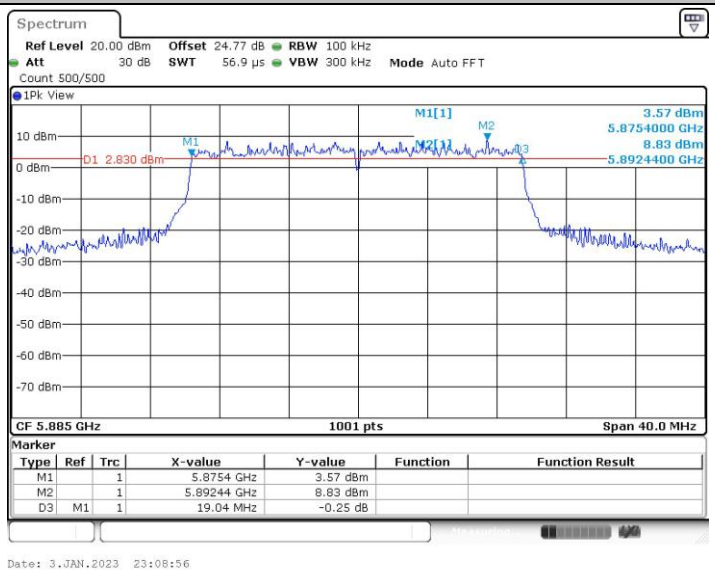
11A-CDD_Ant2_5885


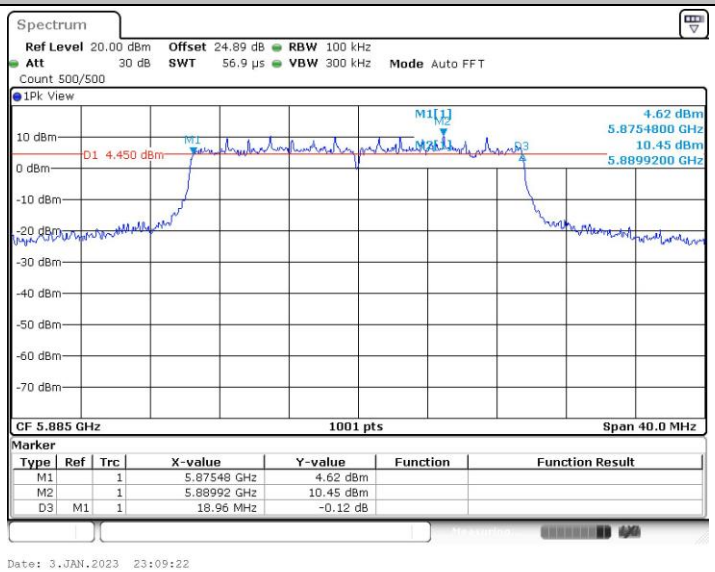
11AX20MIMO_Ant1_5845


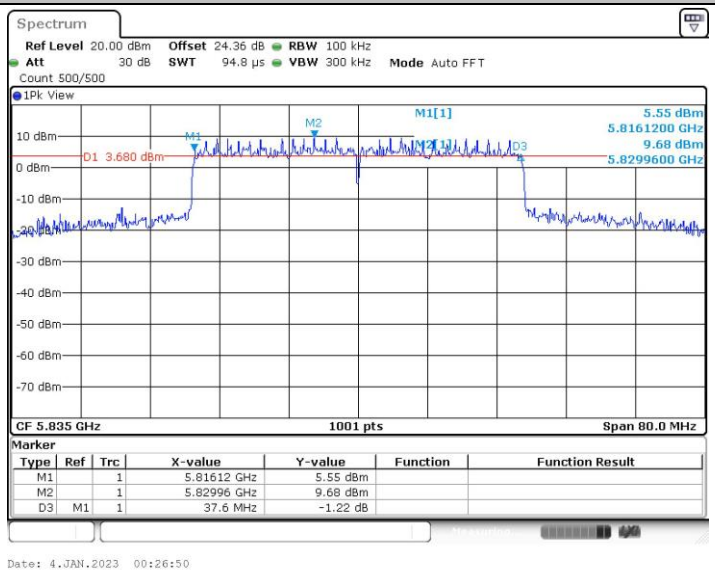
11AX20MIMO_Ant2_5845


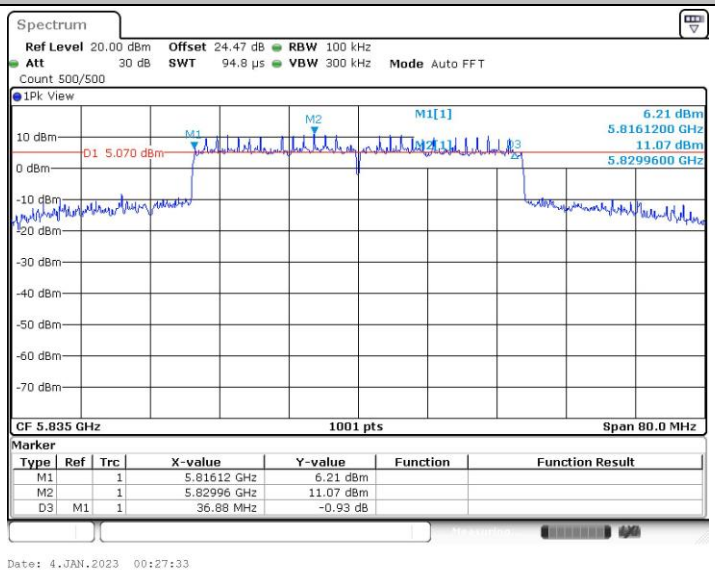
11AX20MIMO_Ant1_5865


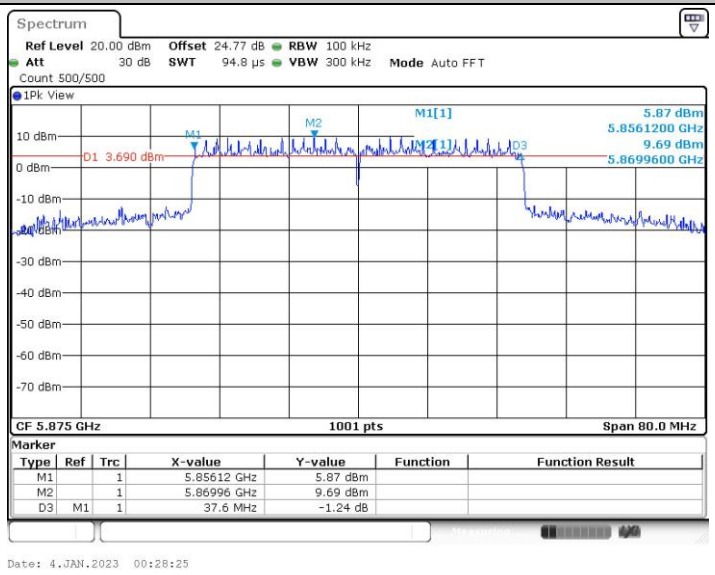
11AX20MIMO_Ant2_5865


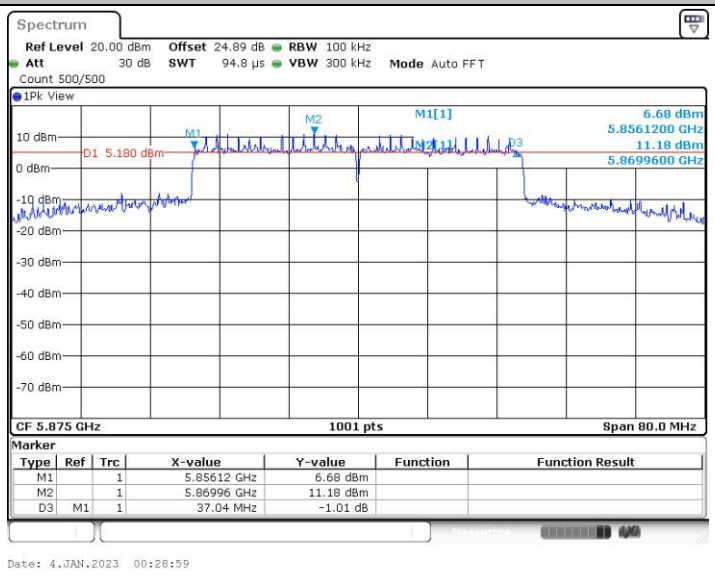
11AX20MIMO_Ant1_5885


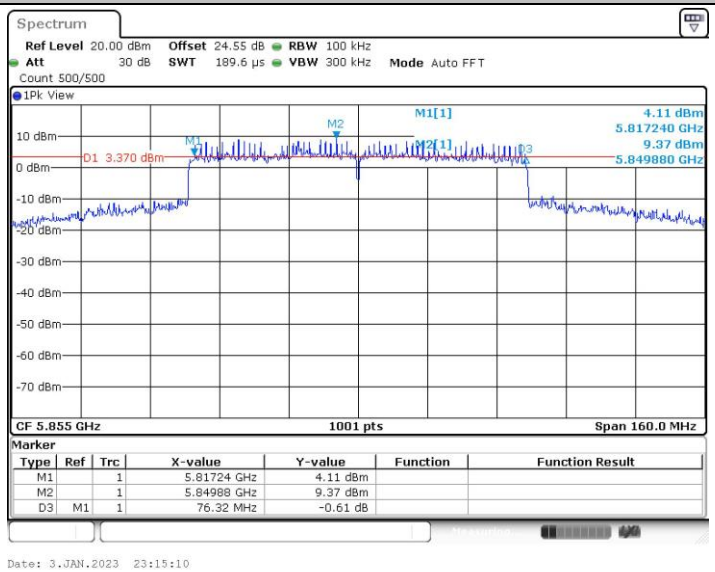
11AX20MIMO_Ant2_5885


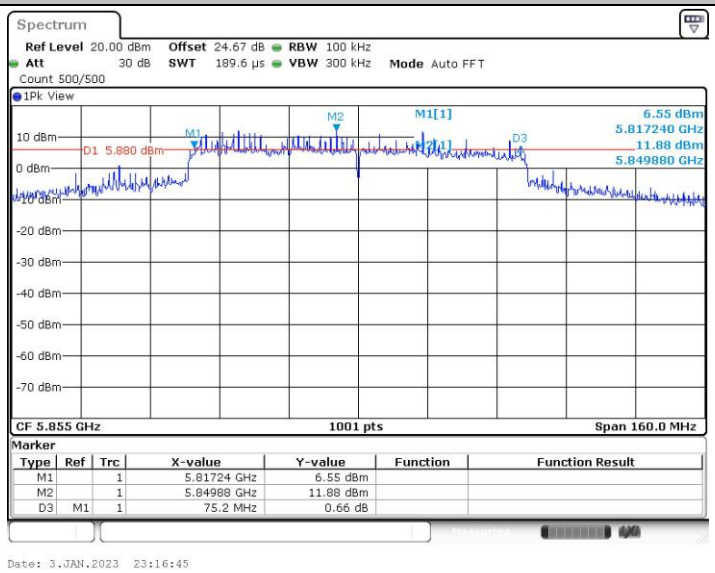
11AX40MIMO_Ant1_5835


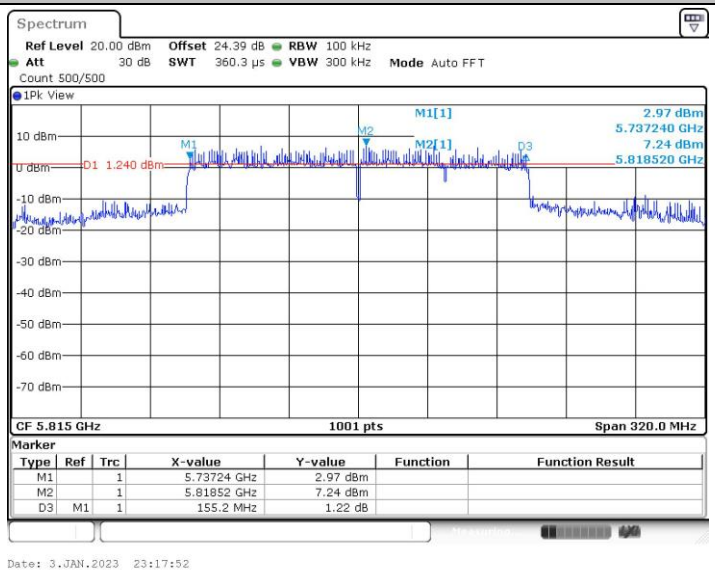
11AX40MIMO_Ant2_5835


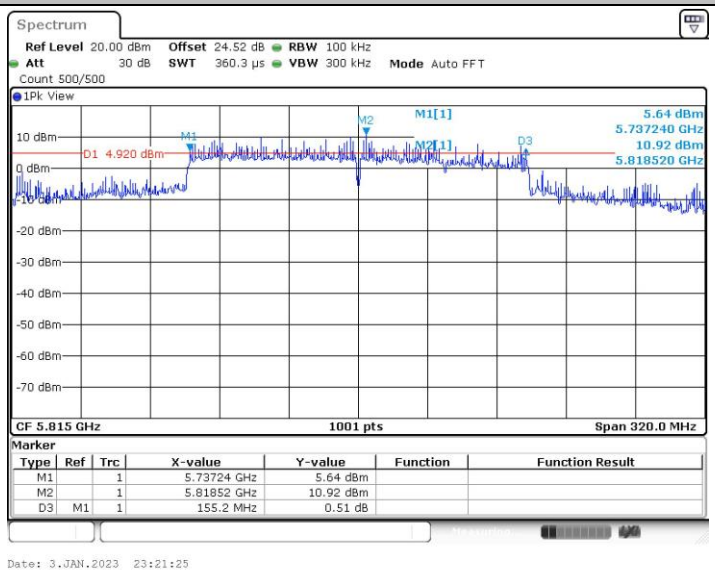
11AX40MIMO_Ant1_5875


11AX40MIMO_Ant2_5875


11AX80MIMO_Ant1_5855


11AX80MIMO_Ant2_5855


11AX160MIMO_Ant1_5815


11AX160MIMO_Ant2_5815


Maximum power spectral density

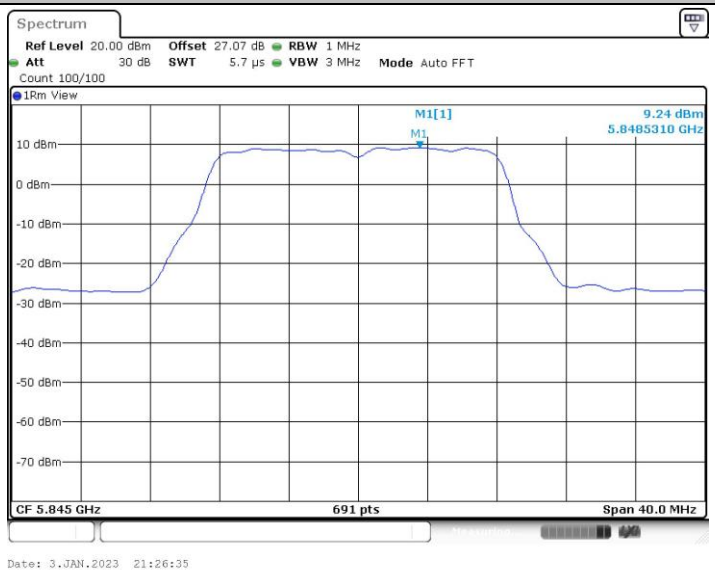
Test Result

TestMode	Antenna	Freq(MHz)	Result [dBm/MHz]	EIRP [dBm/MHz]	EIRP Limit [dBm/MHz]	Verdict
11A-CDD	Ant1	5845	9.24	12.74	≤20.00	PASS
	Ant2	5845	10.81	14.31	≤20.00	PASS
	total	5845	13.11	19.62	≤20.00	PASS
	Ant1	5865	9.46	12.96	≤20.00	PASS
	Ant2	5865	10.53	14.03	≤20.00	PASS
	total	5865	13.04	19.55	≤20.00	PASS
	Ant1	5885	9.78	13.28	≤20.00	PASS
	Ant2	5885	10.28	13.78	≤20.00	PASS
	total	5885	13.05	19.56	≤20.00	PASS
11AX20MIMO	Ant1	5845	9.53	13.03	≤20.00	PASS
	Ant2	5845	10.42	13.92	≤20.00	PASS
	total	5845	13.01	19.52	≤20.00	PASS
	Ant1	5865	9.41	12.91	≤20.00	PASS
	Ant2	5865	10.59	14.09	≤20.00	PASS
	total	5865	13.05	19.56	≤20.00	PASS
	Ant1	5885	9.53	13.03	≤20.00	PASS
	Ant2	5885	10.97	14.47	≤20.00	PASS
	total	5885	13.32	19.83	≤20.00	PASS
11AX40MIMO	Ant1	5835	9.43	12.93	≤20.00	PASS
	Ant2	5835	10.66	14.16	≤20.00	PASS
	total	5835	13.10	19.61	≤20.00	PASS
	Ant1	5875	9.67	13.17	≤20.00	PASS
	Ant2	5875	10.26	13.76	≤20.00	PASS
	total	5875	12.99	19.5	≤20.00	PASS
11AX80MIMO	Ant1	5855	8.33	11.83	≤20.00	PASS
	Ant2	5855	10.27	13.77	≤20.00	PASS
	total	5855	12.42	18.93	≤20.00	PASS
11AX160MIMO	Ant1	5815	5.87	9.37	≤20.00	PASS
	Ant2	5815	7.82	11.32	≤20.00	PASS
	total	5815	9.96	16.47	≤20.00	PASS

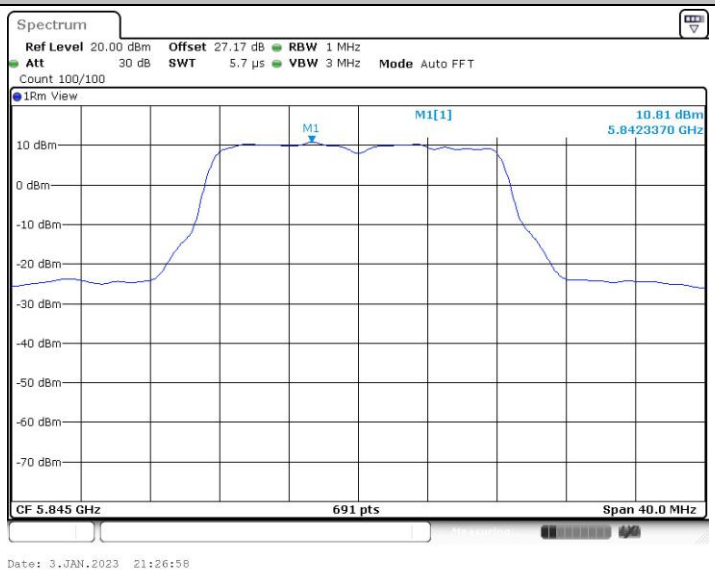
Note: EIRP PSD = 10*log(10^(Ant 1 PSD/10)+10^(Ant 2 PSD/10)) + DG; DG=6.51dBi.

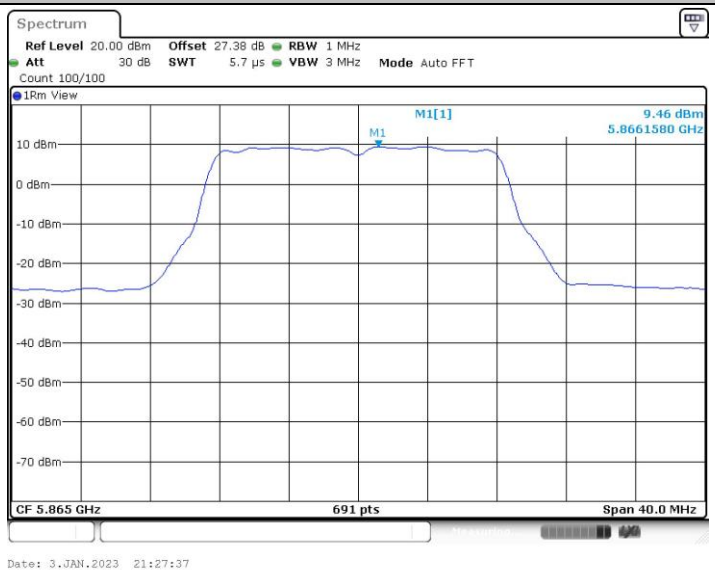
Test Graphs

11A-CDD_Ant1_5845



11A-CDD_Ant2_5845



11A-CDD_Ant1_5865


11A-CDD_Ant2_5865