FCC RF Test Report

APPLICANT	:	**iMozen Group INC.**
EQUIPMENT	:	**Handheld mobile computer**
BRAND NAME	:	**iMozen Group INC.**
MODEL NAME	:	**TC605AN**
FCC ID	:	**SPYTC605AN**
STANDARD	:	**FCC Part 15 Subpart E §15.407**
CLASSIFICATION	:	**15E 6 GHz Low Power Dual Client (6CD) (Under control of Standard access point)**
TEST DATE(S)	:	**Dec. 09, 2023 ~ Jan. 11, 2024**

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

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

Jason Jia

Approved by: Jason Jia

ACCREDITED Cert #5145.02

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

Table of Contents

History of this test report

Report No.	Version	Description	Issued Date
FR3N2109-02G	01	Initial issue of report	Jan. 11, 2024

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.403(i)	26dB Emission Bandwidth	Pass	-
3.1	15.407(a)(10)	99% Occupied Bandwidth	Reporting only	-
3.2	15.407(a)(8)	Maximum Conducted Output Power	Reporting only	-
3.2	15.407(a)(8)	Fundamental Maximum EIRP	Pass	-
3.3	15.407(a)(8)	Fundamental Power Spectral Density	Pass	-
3.4	15.407(b)(6)	In-Band Emissions (Channel Mask)	Pass	-
3.5	15.407(b)	Unwanted Emissions	Pass	Under limit 3.04 dB at 5924.97 MHz
3.6	15.207	AC Conducted Emission	Pass	Under limit 8.30 dB at 0.953 MHz
3.7	15.203 15.407(a)	Antenna Requirement	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/manufacturer 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

iMozen Group INC.

6 F., No. 288, Sec. 6, Civic Blvd., Xinyi Dist., Taipei City 110417, Taiwan (R.O.C.)

1.2 Manufacturer

iMozen Group INC.

6 F., No. 288, Sec. 6, Civic Blvd., Xinyi Dist., Taipei City 110417, Taiwan (R.O.C.)

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Handheld mobile computer
Brand Name	iMozen Group INC.
Model Name	TC605AN
FCC ID	SPYTC605AN
IMEI Code	Conducted: 352149450707620 Conduction: 352149450708560 Radiation: 352149450708867/352149450708875 for sample 1 352149450712224/352149450712232 for sample 2
HW Version	V4
SW Version	ST6919A_20231220121856
EUT Stage	Identical Prototype

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. There are three configs of samples, the differences could be referred to the TC605A_Operational Description of Product Equality Declaration which is exhibit separately. According to the difference, sample 1 full test and the sample 2 verify the worst case RSE for the difference, sample 3 no need additional test.

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	U-NII-5: 5925 MHz ~ 6425 MHz U-NII-7: 6525 MHz ~ 6875 MHz
Maximum EIRP	**<MIMO Ant.3+4>** **<U-NII-5>** 802.11a : 8.07 dBm / 0.0064 W 802.11ax HE20 : 8.00 dBm / 0.0063 W 802.11ax HE40 : 7.98 dBm / 0.0063 W 802.11ax HE80 : 7.29 dBm / 0.0054 W 802.11ax HE160 : 7.88 dBm / 0.0061 W **<U-NII-7>** 802.11a : 12.01 dBm / 0.0159 W 802.11ax HE20 : 11.90 dBm / 0.0155 W 802.11ax HE40 : 12.13 dBm / 0.0163 W 802.11ax HE80 : 11.98 dBm / 0.0158 W 802.11ax HE160 : 8.85 dBm / 0.0077 W
99% Occupied Bandwidth	802.11a : 16.783 MHz 802.11ax HE20 : 19.061 MHz 802.11ax HE40 : 38.122 MHz 802.11ax HE80 : 77.842 MHz 802.11ax HE160 : 157.602 MHz
Antenna Type / Gain	**<5925 MHz ~ 6425 MHz > & <6525 MHz ~ 6875 MHz >** <Ant. 3> : IFA Antenna with gain -5.32 dBi <Ant. 4> : PIFA Antenna with gain -5.45 dBi
Type of Modulation	802.11a: OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ax: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM / 1024QAM)

Remark:

1. WIFI MIMO support CDD by manufacturer declared.
2. For WLAN SISO & MIMO mode, the whole testing has assessed only MIMO mode by referring to the higher output power.
3. 802.11ax support OFDMA full RU tone and partial RU tone, both full RU and partial RU-left (for low CH) and partial RU-right (for high CH) test output power, the full RU Power/PSD > partial RU, therefore the full RU perform full test to cover partial RU except for Spurious and bandedge.
4. The EUT does not support 802.11ax channel puncturing mode.

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 03CH06-KS TH01-KS	CN1257	314309

1.7 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH06-KS	AUDIX	E3	6.2009-8-24al
2.	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:

- FCC Part 15 Subpart E
- FCC KDB 987594 D02 U-NII 6 GHz EMC Measurement v02r01
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- FCC KDB 414788 D01 Radiated Test Site v01r01.
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ANSI C63.10-2013

Remark:

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

2 Test Configuration of Equipment Under Test

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

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

2.1 Carrier Frequency and Channel

<U-NII-5>

BW 20M	**Channel**	2/1	5	9	13	17	21	25	29
	Freq. (MHz)	5935/5955	5975	5995	6015	6035	6055	6075	6095
BW 40M	**Channel**	3		11		19		27	
	Freq. (MHz)	5965		6005		6045		6085	
BW 80M	**Channel**	7				23			
	Freq. (MHz)	5985				6065			
BW 160M	**Channel**	15							
	Freq. (MHz)	6025							

BW 20M	**Channel**	33	37	41	45	49	53	57	61
	Freq. (MHz)	6115	6135	6155	6175	6195	6215	6235	6255
BW 40M	**Channel**	35		43		51		59	
	Freq. (MHz)	6125		6165		6205		6245	
BW 80M	**Channel**	39				55			
	Freq. (MHz)	6145				6225			
BW 160M	**Channel**	47							
	Freq. (MHz)	6185							

BW 20M	**Channel**	65	69	73	77	81	85	89	93
	Freq. (MHz)	6275	6295	6315	6335	6355	6375	6395	6415
BW 40M	**Channel**	67		75		83		91	
	Freq. (MHz)	6285		6325		6365		6405	
BW 80M	**Channel**	71				87			
	Freq. (MHz)	6305				6385			
BW 160M	**Channel**	79							
	Freq. (MHz)	6345							

<U-NII- 7>

BW 20M	**Channel**	-	-	-	-	-	117	121	125
	Freq. (MHz)	-	-	-	-	-	6535	6555	6575
BW 40M	**Channel**	-		-		-		123	
	Freq. (MHz)	-		-		-		6565	

BW 20M	**Channel**	129	133	137	141	145	149	153	157
	Freq. (MHz)	6595	6615	6635	6655	6675	6695	6715	6735
BW 40M	**Channel**	131		139		147		155	
	Freq. (MHz)	6605		6645		6685		6725	
BW 80M	**Channel**	135				151			
	Freq. (MHz)	6625				6705			
BW 160M	**Channel**	143							
	Freq. (MHz)	6665							

BW 20M	**Channel**	161	165	169	173	177	181	-	-
	Freq. (MHz)	6755	6775	6795	6815	6835	6855	-	-
BW 40M	**Channel**	163		171		179		-	
	Freq. (MHz)	6765		6805		6845		-	
BW 80M	**Channel**	167				-			
	Freq. (MHz)	6785				-			

2.2 Test Mode

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

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

Test Cases	
AC Conducted Emission	Mode 1 : GSM 850 Idle + BT Link + WLAN(6G) Link + USB Cable(Charging From Adapter) + Sample 1
Remark: For Radiated Test Cases, the tests were performed with Adapter, USB Cable.	

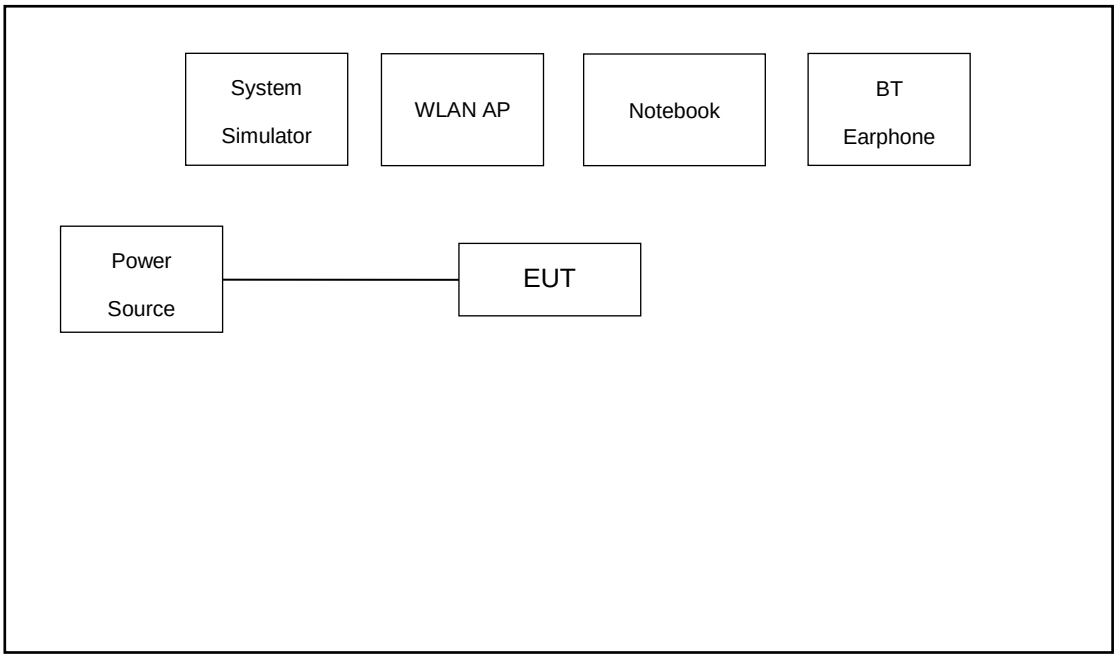
Ch. #		5925-6425 MHz UNII-5	6525-6875 MHz UNII-7	5925-6425 MHz UNII-5	6525-6875 MHz UNII-7
		802.11a/ax HE20	802.11a/ax HE20	802.11ax HE40	802.11ax HE40
L	Low	002/001	117	003	123
M	Middle	049	149	051	147
H	High	093	181	091	179

Ch. #		5925-6425 MHz UNII-5	6525-6875 MHz UNII-7	5925-6425 MHz UNII-5	6525-6875 MHz UNII-7
		802.11ax HE80	802.11ax HE80	802.11ax HE160	802.11ax HE160
L	Low	007	135	015	143
M	Middle	055	151	047	-
H	High	087	167	079	-

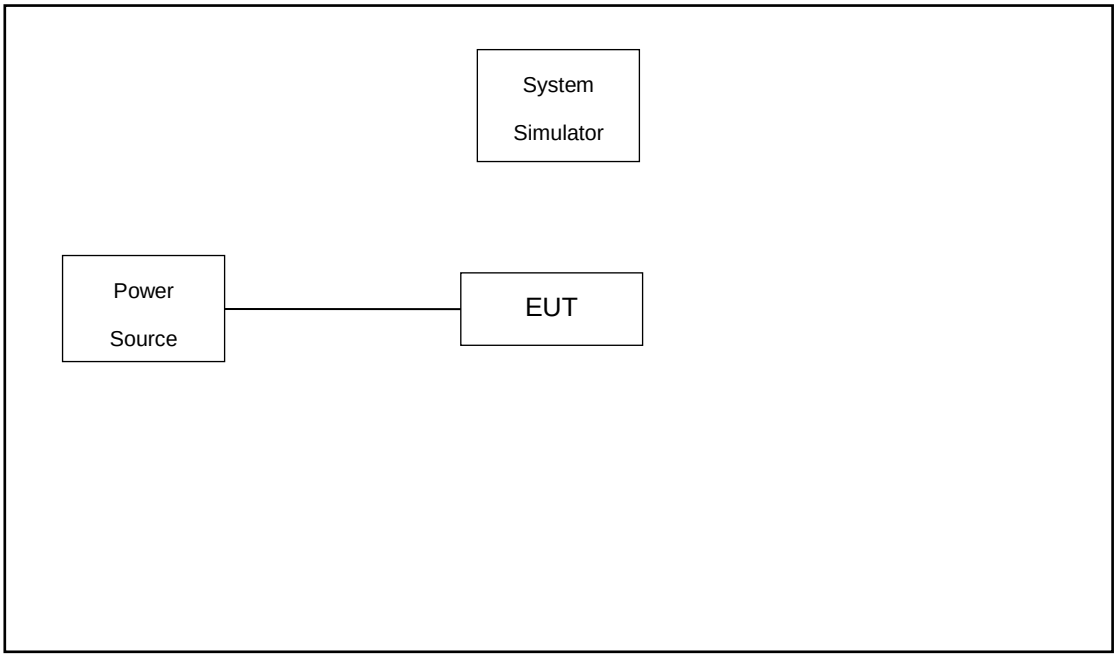
Remark: For radiation spurious emission, the final modulation and the worst data rate was reference the max RF conducted power.

2.3 Connection Diagram of Test System

For Conducted Emission:



For Radiated Emission:



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8m
2.	WLAN AP	D-link	DIR-655	KA21R655B1	N/A	Unshielded, 1.8m
3.	Bluetooth Earphone	Lenovo	thinkplus-BH3	N/A	N/A	N/A

2.5 EUT Operation Test Setup

For WLAN RF test items, an engineering test program (QRCT TX Tool) was provided and enabled to make EUT continuously transmit.

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

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 5.07 dB and 10dB attenuator.

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

=5.07 + 10 = 15.07 (dB)

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 CFR 15.407 (a)(10)

The maximum transmitter channel bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 megahertz.

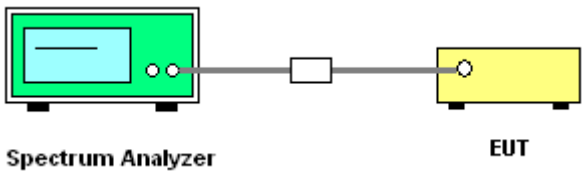
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. 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%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) ≥ 3 * RBW.
8. Measure and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

3.2 Maximum conducted Output Power and Fundamental Maximum EIRP Measurement

3.2.1 Limit of Fundamental Maximum EIRP

<FCC 14-30 CFR 15.407>

(a)(7) For client devices, except for fixed client devices as defined in this subpart, operating under the control of a standard power access point in 5.925-6.425 GHz and 6.525-6.875 GHz bands, the maximum e.i.r.p. over the frequency band of operation must not exceed 30 dBm and the device must limit its power to no more than 6 dB below its associated standard power access point's authorized transmit power

3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

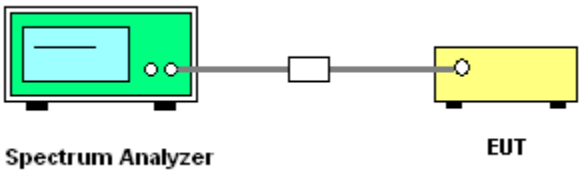
3.2.3 Test Procedures

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 Fundamental Maximum EIRP

Please refer to Appendix A.

3.3 Fundamental Power Spectral Density Measurement

3.3.1 Limit of Fundamental Power Spectral Density

<FCC 14-30 CFR 15.407>

(a)(7) For client devices, except for fixed client devices as defined in this subpart, operating under the control of a standard power access point in 5.925-6.425 GHz and 6.525-6.875 GHz bands, the maximum power spectral density must not exceed 17 dBm e.i.r.p. in any 1-megahertz band.

3.3.2 Measuring Instruments

See list of measuring equipment 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) Maximum power spectral density.

 # Method SA-2 #

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

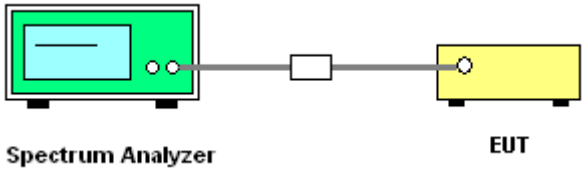
- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add 10 log(1/x), 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.

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, attenuator loss and duty factor. 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.

   The measurement on each individual output were performed with the same span and number on each individual output. The maximum value (peak) 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 In-Band Emissions (Channel Mask)

3.4.1 Limit of Unwanted Emissions

<FCC 14-30 CFR 15.407>

(b)(6) For transmitters operating within the 5.925-7.125 GHz bands: Power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.

3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

3.4.3 Test Procedures

The testing follows FCC KDB 987594 D02 U-NII 6GHz EMC Measurement.

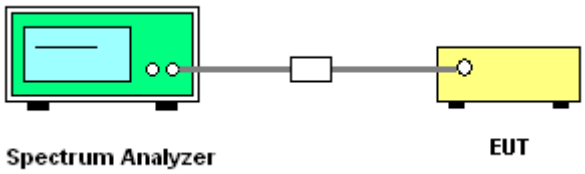
Section J) In-Band Emissions.

1. Take nominal bandwidth as reference channel bandwidth provided that 26 dB emission bandwidth is always larger than nominal bandwidth
2. Measure the power spectral density (which will be used for emissions mask reference) using the following procedure:
   a) Set the span to encompass the entire 26 dB EBW of the signal.
   b) Set RBW = same RBW used for 26 dB EBW measurement.
   c) Set VBW ≥ 3 X RBW
   d) Number of points in sweep ≥ [2 X span / RBW].
   e) Sweep time = auto.
   f) Detector = RMS (i.e., power averaging)
   g) Trace average at least 100 traces in power averaging (rms) mode.
   h) Use the peak search function on the instrument to find the peak of the spectrum.
3. Using the measuring equipment limit line function, develop the emissions mask based on the following requirements. The emissions power spectral density must be reduced below the peak power spectral density (in dB) as follows:
   a. Suppressed by 20 dB at 1 MHz outside of the channel edge.
   b. Suppressed by 28 dB at one channel bandwidth from the channel center.

c. Suppressed by 40 dB at one- and one-half times the channel bandwidth from the channel center.

4. Adjust the span to encompass the entire mask as necessary.
5. Clear trace.
6. Trace average at least 100 traces in power averaging (rms) mode.
7. Adjust the reference level as necessary so that the crest of the channel touches the top of the emission mask.

3.4.4 Test Setup



3.4.5 Test Result

Please refer to Appendix A.

3.5 Unwanted Emissions Measurement

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

3.5.1 Limit of Unwanted Emissions

(1) For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of −27 dBm/MHz.

EIRP (dBm)	Field Strength at 3m (dBμV/m)
- 27 (RMS)	68.2
- 7 (Peak)	88.2

Unwanted emissions outside of restricted bands are measured with a RMS detector.
In addition, 15.35(b) applies where the peak emissions must be limited to no more than 20 dB above the average limit

(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

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

$$E=\frac{1000000\sqrt{30P}}{3}\ \mu V/m, \text{ where P is the eirp (Watts)}$$

3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

3.5.3 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

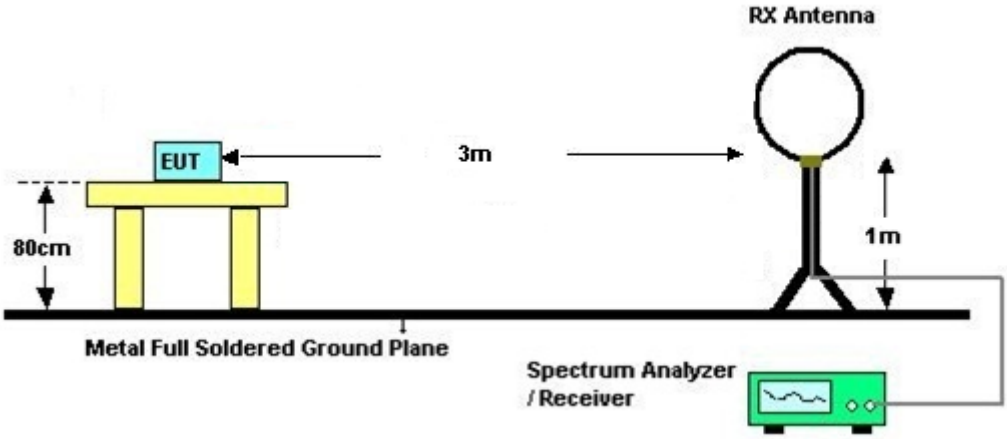
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

   - 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.

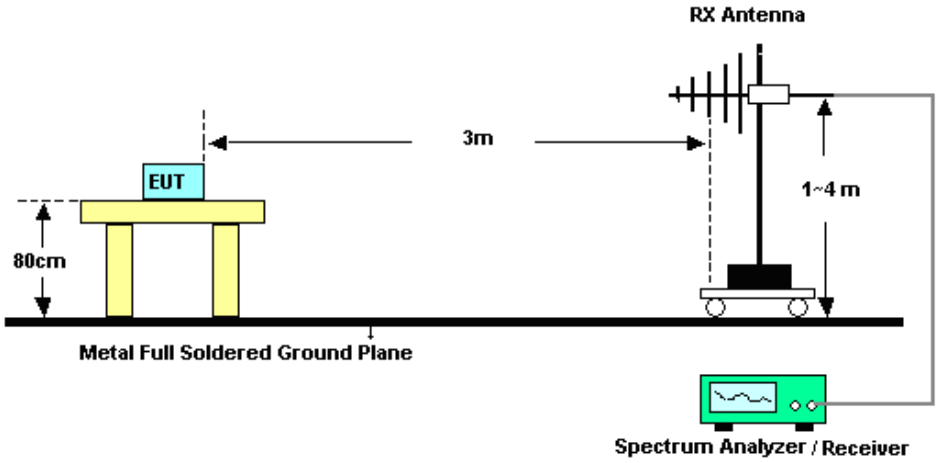
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband 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.

3.5.4 Test Setup

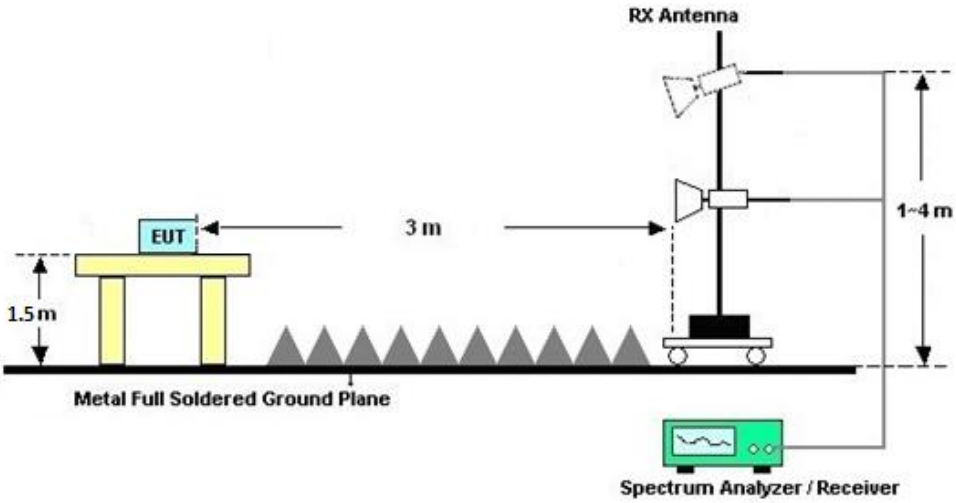
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.5.5 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 adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C

3.5.7 Duty Cycle

Please refer to Appendix D.

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

Please refer to Appendix C.

3.6 AC Conducted Emission Measurement

3.6.1 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.

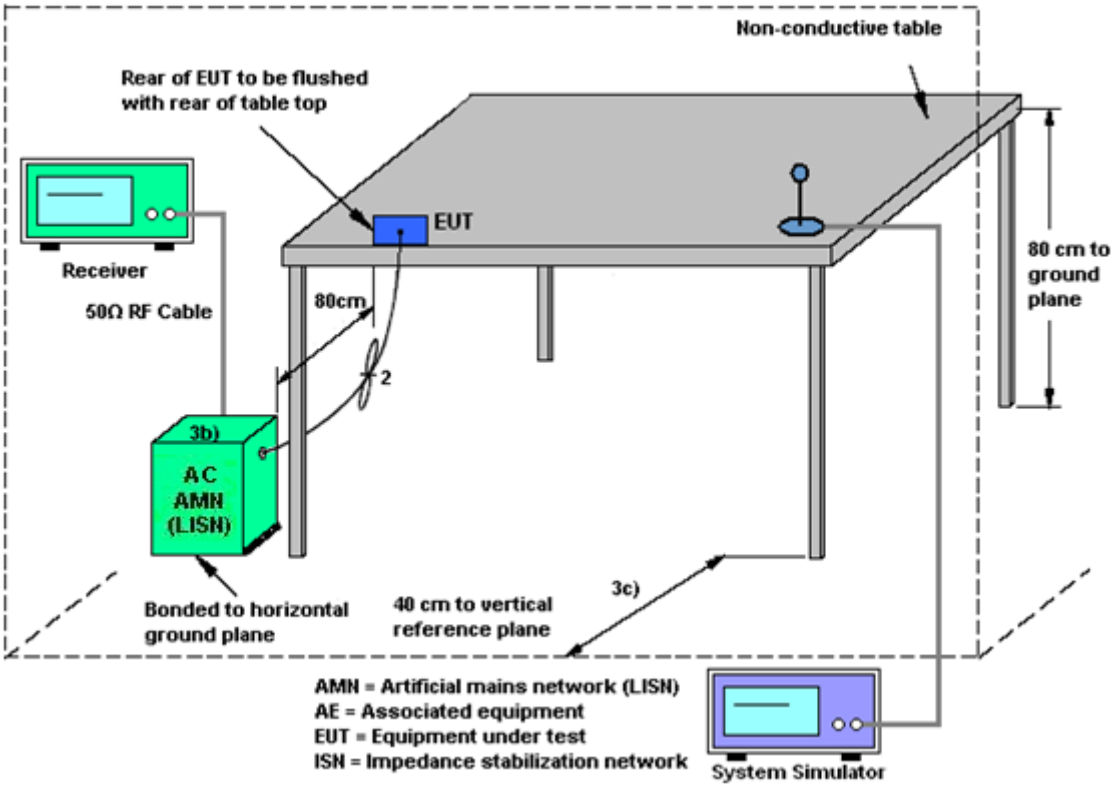
3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 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.

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.7 Antenna Requirements

3.7.1 Standard Applicable

§15.203: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used. The EUT complies with the requirement of 15.203.

3.7.3 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. 3 (dBi)	Ant. 4 (dBi)	DG for Power (dBi)	DG for PSD (dBi)
U-NII-5	-5.32	-5.45	-5.32	-2.37
U-NII-7	-5.32	-5.45	-5.32	-2.37

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 11, 2023	Dec. 09, 2023~ Jan. 11, 2024	Oct. 10, 2024	Conducted (TH01-KS)
Pulse Power Senor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 05, 2023	Dec. 09, 2023~ Jan. 11, 2024	Jan. 04, 2024	Conducted (TH01-KS)
Pulse Power Senor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 02, 2024		Jan. 01, 2025	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 05, 2023	Dec. 09, 2023~ Jan. 11, 2024	Jan. 04, 2024	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 02, 2024		Jan. 01, 2025	Conducted (TH01-KS)
EMI Test Receiver	Keysight	N9038A	MY56400004	3Hz~8.5GHz;Max 30dBm	Oct. 10, 2023	Dec. 25, 2023	Oct. 09, 2024	Radiation (03CH06-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY60242126	10Hz-44GHz	Oct. 10, 2023	Dec. 25, 2023	Oct. 09, 2024	Radiation (03CH06-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 10, 2023	Dec. 25, 2023	Oct. 09, 2024	Radiation (03CH06-KS)
Bilog Antenna	TeseQ	CBL6111D	49921	30MHz-1GHz	Apr. 09, 2023	Dec. 25, 2023	Apr. 08, 2024	Radiation (03CH06-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00218652	1GHz~18GHz	Apr. 06, 2023	Dec. 25, 2023	Apr. 05, 2024	Radiation (03CH06-KS)
SHF-EHF Horn	Com-power	AH-840	101093	18GHz~40GHz	Jan. 08, 2023	Dec. 25, 2023	Jan. 07, 2024	Radiation (03CH06-KS)
Amplifier	SONOMA	310N	380827	9KHz ~1GHZ	Jul. 06, 2023	Dec. 25, 2023	Jul. 05, 2024	Radiation (03CH06-KS)
Amplifier	MITEQ	EM18G40GGA	060728	18~40GHz	Jan. 05, 2023	Dec. 25, 2023	Jan. 04, 2024	Radiation (03CH06-KS)
high gain Amplifier	MITEQ	AMF-7D-00101800-30-10P	2082395	1Ghz-18Ghz	Jan. 05, 2023	Dec. 25, 2023	Jan. 04, 2024	Radiation (03CH06-KS)
Amplifier	Keysight	83017A	MY53270319	500MHz~26.5GHz	Oct. 10, 2023	Dec. 25, 2023	Oct. 09, 2024	Radiation (03CH06-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Dec. 25, 2023	NCR	Radiation (03CH06-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Dec. 25, 2023	NCR	Radiation (03CH06-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Dec. 25, 2023	NCR	Radiation (03CH06-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	May 16, 2023	Dec. 25, 2023	May 15, 2024	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Oct. 11, 2023	Dec. 25, 2023	Oct. 10, 2024	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	May 16, 2023	Dec. 25, 2023	May 15, 2024	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 11, 2023	Dec. 25, 2023	Oct. 10, 2024	Conduction (CO01-KS)

NCR: No Calibration Required

5 Measurement Uncertainty

Uncertainty of Conducted Measurement

Conducted Spurious Emission & Bandedge	**±2.26 dB**
Occupied Channel Bandwidth	**±0.1%**
Conducted Power	**±0.46 dB**
Conducted Power Spectral Density	**±0.88 dB**
Frequency	**±0.4 Hz**
Conducted Generated signal Levels	**±0.56 dB**
Conducted Time	**0.38%**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.94dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.32dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**6.26dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.02dB**

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

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

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

Appendix A. Conducted Test Results

Report Number : FR3N2109-02G

Test Engineer:	Long Wu	Temperature:	21~25	°C
Test Date:	2023.12.09~2024.1.11	Relative Humidity:	51~54	%

Report Number : FR3N2109-02G

TEST RESULTS DATA
EIRP Power Table

UNII-5 MIMO														
Mod.	Data Rate	NTX	Freq. (MHz)	Duty Factor (dB)		Conducted Power with duty factor (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail	Power Setting
				Ant 3	Ant 4	Ant 3	Ant 4	SUM	Ant 3	Ant 4	SUM			Ant 3 / Ant 4
11a	6Mbps	2	5935	0.03	0.03	8.89	2.98	9.88	-5.32		4.56	30.00	Pass	8.5
11a	6Mbps	2	5955	0.03	0.03	11.67	6.14	12.74	-5.32		7.42	30.00	Pass	11.5
11a	6Mbps	2	6175	0.03	0.03	11.41	6.45	12.61	-5.32		7.29	30.00	Pass	11.5
11a	6Mbps	2	6415	0.03	0.03	12.28	6.91	13.39	-5.32		8.07	30.00	Pass	11.5

Report Number : FR3N2109-02G

TEST RESULTS DATA
EIRP Power Table

UNII-5 MIMO																
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power with duty factor (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail	Power Setting	
					Ant 3	Ant 4	Ant 3	Ant 4	SUM	Ant 3	Ant 4	SUM			Ant 3	Ant 4
HE20	MCS0	2	5955	Full	0.00	0.00	11.61	6.02	12.67	-5.32		7.35	30.00	Pass	11.5	
HE20	MCS0	2	5955	26/0	0.00	0.00	2.39	-3.18	3.45	-5.32		-1.87	30.00	Pass	3	
HE20	MCS0	2	5955	52/37	0.00	0.00	4.83	-1.01	5.84	-5.32		0.52	30.00	Pass	5.5	
HE20	MCS0	2	5955	106/53	0.00	0.00	8.48	2.96	9.55	-5.32		4.23	30.00	Pass	8	
HE20	MCS0	2	5935	Full	0.00	0.00	-7.98	-14.77	-7.15	-5.32		-12.47	30.00	Pass	-8	
HE20	MCS0	2	5935	26/0	0.00	0.00	-17.43	-24.16	-16.59	-5.32		-21.91	30.00	Pass	-17.5	
HE20	MCS0	2	5935	52/37	0.00	0.00	-14.56	-21.09	-13.69	-5.32		-19.01	30.00	Pass	-14.5	
HE20	MCS0	2	5935	106/53	0.00	0.00	-11.61	-18.05	-10.72	-5.32		-16.04	30.00	Pass	-11.5	
HE20	MCS0	2	6175	Full	0.00	0.00	11.31	6.34	12.51	-5.32		7.19	30.00	Pass	11.5	
HE20	MCS0	2	6175	26/0	0.00	0.00	1.73	-3.05	2.98	-5.32		-2.34	30.00	Pass	3	
HE20	MCS0	2	6175	52/37	0.00	0.00	3.91	-1.28	5.06	-5.32		-0.26	30.00	Pass	5	
HE20	MCS0	2	6175	106/53	0.00	0.00	8.27	3.16	9.44	-5.32		4.12	30.00	Pass	8	
HE20	MCS0	2	6415	Full	0.00	0.00	12.21	6.85	13.32	-5.32		8.00	30.00	Pass	11.5	
HE20	MCS0	2	6415	26/8	0.00	0.00	3.24	-1.81	4.42	-5.32		-0.90	30.00	Pass	3	
HE20	MCS0	2	6415	52/40	0.00	0.00	6.17	0.84	7.29	-5.32		1.97	30.00	Pass	5	
HE20	MCS0	2	6415	106/54	0.00	0.00	8.41	3.57	9.64	-5.32		4.32	30.00	Pass	8	
HE40	MCS0	2	5965	Full	0.00	0.00	11.46	6.08	12.57	-5.32		7.25	30.00	Pass	11.5	
HE40	MCS0	2	6165	Full	0.00	0.00	11.29	6.35	12.50	-5.32		7.18	30.00	Pass	11.5	
HE40	MCS0	2	6405	Full	0.00	0.00	12.15	6.98	13.30	-5.32		7.98	30.00	Pass	11.5	
HE80	MCS0	2	5985	Full	0.00	0.00	11.45	6.23	12.59	-5.32		7.27	30.00	Pass	11.5	
HE80	MCS0	2	6145	Full	0.00	0.00	11.39	6.51	12.61	-5.32		7.29	30.00	Pass	11.5	
HE80	MCS0	2	6385	Full	0.00	0.00	11.08	6.54	12.39	-5.32		7.07	30.00	Pass	11.5	
HE160	MCS0	2	6025	Full	0.00	0.00	12.03	6.94	13.20	-5.32		7.88	30.00	Pass	11.5	
HE160	MCS0	2	6185	Full	0.00	0.00	11.36	6.67	12.63	-5.32		7.31	30.00	Pass	11.5	
HE160	MCS0	2	6345	Full	0.00	0.00	11.42	6.85	12.72	-5.32		7.40	30.00	Pass	11.5	

Report Number : FR3N2109-02G

TEST RESULTS DATA
EIRP Power Table

UNII-7 MIMO														
Mod.	Data Rate	NTX	Freq. (MHz)	Duty Factor (dB)		Conducted Power with duty factor (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail	Power Setting	
				Ant 3	Ant 4	Ant 3	Ant 4	SUM	Ant 3	Ant 4	SUM			Ant 3	Ant 4
11a	6Mbps	2	6535	0.03	0.03	15.61	11.29	16.98	-5.32		11.66	30.00	Pass	16	
11a	6Mbps	2	6695	0.03	0.03	14.28	11.65	16.17	-5.32		10.85	30.00	Pass	16	
11a	6Mbps	2	6855	0.03	0.03	15.96	11.67	17.33	-5.32		12.01	30.00	Pass	16	

Report Number : FR3N2109-02G

TEST RESULTS DATA
EIRP Power Table

UNII-7 MIMO															
Mod.	Data Rate	NTX	Freq. (MHz)	RU Config.	Duty Factor (dB)		Conducted Power with duty factor (dBm)			DG (dBi)		EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail	Power Setting
					Ant 3	Ant 4	Ant 3	Ant 4	SUM	Ant 3	Ant 4	SUM			Ant 3 / Ant 4
HE20	MCS0	2	6535	Full	0.00	0.00	15.58	11.17	16.92	-5.32		11.60	30.00	Pass	16
HE20	MCS0	2	6535	26/0	0.00	0.00	6.02	2.11	7.50	-5.32		2.18	30.00	Pass	6.5
HE20	MCS0	2	6535	52/37	0.00	0.00	8.70	5.02	10.25	-5.32		4.93	30.00	Pass	9.5
HE20	MCS0	2	6535	106/53	0.00	0.00	12.90	7.89	14.09	-5.32		8.77	30.00	Pass	12
HE20	MCS0	2	6695	Full	0.00	0.00	14.17	11.59	16.08	-5.32		10.76	30.00	Pass	16
HE20	MCS0	2	6695	26/0	0.00	0.00	4.98	1.89	6.71	-5.32		1.39	30.00	Pass	6
HE20	MCS0	2	6695	52/37	0.00	0.00	7.26	4.83	9.22	-5.32		3.90	30.00	Pass	9
HE20	MCS0	2	6695	106/53	0.00	0.00	10.46	7.94	12.39	-5.32		7.07	30.00	Pass	12
HE20	MCS0	2	6855	Full	0.00	0.00	15.82	11.61	17.22	-5.32		11.90	30.00	Pass	16
HE20	MCS0	2	6855	26/8	0.00	0.00	6.48	2.08	7.83	-5.32		2.51	30.00	Pass	6
HE20	MCS0	2	6855	52/40	0.00	0.00	8.90	5.16	10.43	-5.32		5.11	30.00	Pass	9
HE20	MCS0	2	6855	106/54	0.00	0.00	12.33	7.90	13.67	-5.32		8.35	30.00	Pass	12
HE40	MCS0	2	6565	Full	0.00	0.00	16.16	11.55	17.45	-5.32		12.13	30.00	Pass	16
HE40	MCS0	2	6685	Full	0.00	0.00	14.22	11.67	16.14	-5.32		10.82	30.00	Pass	16
HE40	MCS0	2	6845	Full	0.00	0.00	16.01	11.61	17.36	-5.32		12.04	30.00	Pass	16
HE80	MCS0	2	6625	Full	0.00	0.00	15.78	11.55	17.17	-5.32		11.85	30.00	Pass	16
HE80	MCS0	2	6705	Full	0.00	0.00	14.16	11.63	16.09	-5.32		10.77	30.00	Pass	16
HE80	MCS0	2	6785	Full	0.00	0.00	15.98	11.48	17.30	-5.32		11.98	30.00	Pass	16
HE160	MCS0	2	6665	Full	0.00	0.00	12.73	8.68	14.17	-5.32		8.85	30.00	Pass	13

Emission Bandwidth

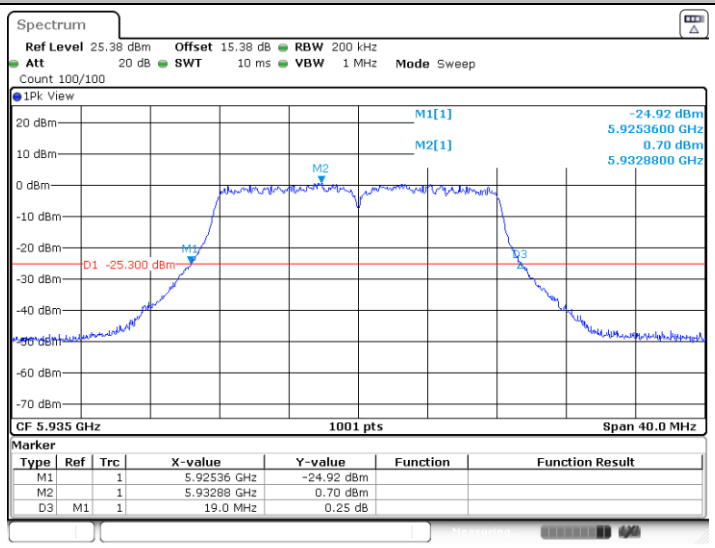
Test Result

TestMode	Antenna	Freq(MHz)	26dB EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A-CDD	Ant3	5935	19.00	5925.36	5944.36	≤320	PASS
	Ant4	5935	19.36	5925.28	5944.64	≤320	PASS
	Ant3	5955	19.00	5945.40	5964.40	≤320	PASS
	Ant4	5955	19.20	5945.40	5964.60	≤320	PASS
	Ant3	6175	19.12	6165.28	6184.40	≤320	PASS
	Ant4	6175	19.16	6165.40	6184.56	≤320	PASS
	Ant3	6415	19.20	6405.36	6424.56	≤320	PASS
	Ant4	6415	19.16	6405.40	6424.56	≤320	PASS
	Ant3	6535	18.84	6525.44	6544.28	≤320	PASS
	Ant4	6535	19.20	6525.36	6544.56	≤320	PASS
	Ant3	6695	18.80	6685.52	6704.32	≤320	PASS
	Ant4	6695	19.28	6685.32	6704.60	≤320	PASS
	Ant3	6855	18.92	6845.36	6864.28	≤320	PASS
	Ant4	6855	19.32	6845.28	6864.60	≤320	PASS
11AX20MIMO	Ant3	5935	20.92	5924.52	5945.44	≤320	PASS
	Ant4	5935	21.04	5924.52	5945.56	≤320	PASS
	Ant3	5955	21.20	5944.52	5965.72	≤320	PASS
	Ant4	5955	20.76	5944.64	5965.40	≤320	PASS
	Ant3	6175	21.16	6164.52	6185.68	≤320	PASS
	Ant4	6175	20.80	6164.56	6185.36	≤320	PASS
	Ant3	6415	20.72	6404.72	6425.44	≤320	PASS
	Ant4	6415	21.04	6404.48	6425.52	≤320	PASS
	Ant3	6535	20.92	6524.48	6545.40	≤320	PASS
	Ant4	6535	21.04	6524.56	6545.60	≤320	PASS
	Ant3	6695	20.80	6684.64	6705.44	≤320	PASS
	Ant4	6695	20.96	6684.40	6705.36	≤320	PASS
	Ant3	6855	21.08	6844.48	6865.56	≤320	PASS
	Ant4	6855	20.84	6844.56	6865.40	≤320	PASS
11AX40MIMO	Ant3	5965	40.64	5944.68	5985.32	≤320	PASS
	Ant4	5965	40.48	5944.68	5985.16	≤320	PASS
	Ant3	6165	40.64	6144.68	6185.32	≤320	PASS
	Ant4	6165	40.88	6144.60	6185.48	≤320	PASS
	Ant3	6405	40.88	6384.60	6425.48	≤320	PASS
	Ant4	6405	40.48	6384.76	6425.24	≤320	PASS
	Ant3	6565	40.72	6544.60	6585.32	≤320	PASS
	Ant4	6565	40.64	6544.76	6585.40	≤320	PASS
	Ant3	6685	40.80	6664.60	6705.40	≤320	PASS
	Ant4	6685	40.96	6664.60	6705.56	≤320	PASS
	Ant3	6845	40.72	6824.52	6865.24	≤320	PASS

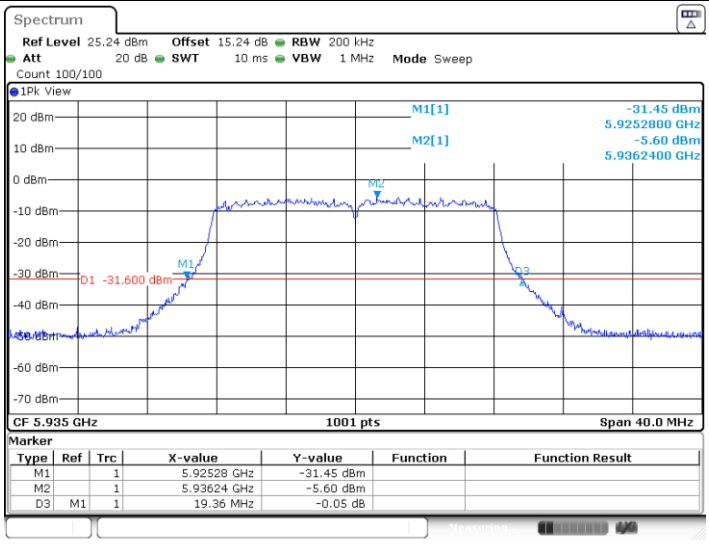
	Ant4	6845	40.56	6824.60	6865.16	≤320	PASS
11AX80MIMO	Ant3	5985	82.40	5943.56	6025.96	≤320	PASS
	Ant4	5985	82.40	5943.88	6026.28	≤320	PASS
	Ant3	6145	82.56	6103.72	6186.28	≤320	PASS
	Ant4	6145	82.40	6103.88	6186.28	≤320	PASS
	Ant3	6385	82.88	6343.72	6426.60	≤320	PASS
	Ant4	6385	82.88	6343.56	6426.44	≤320	PASS
	Ant3	6625	82.72	6583.56	6666.28	≤320	PASS
	Ant4	6625	82.88	6583.56	6666.44	≤320	PASS
	Ant3	6705	82.72	6663.88	6746.60	≤320	PASS
	Ant4	6705	82.56	6663.56	6746.12	≤320	PASS
	Ant3	6785	82.56	6743.88	6826.44	≤320	PASS
	Ant4	6785	82.72	6743.40	6826.12	≤320	PASS
11AX160MIMO	Ant3	6025	166.40	5942.12	6108.52	≤320	PASS
	Ant4	6025	166.40	5941.80	6108.20	≤320	PASS
	Ant3	6185	166.08	6102.12	6268.20	≤320	PASS
	Ant4	6185	166.40	6101.80	6268.20	≤320	PASS
	Ant3	6345	167.04	6261.16	6428.20	≤320	PASS
	Ant4	6345	166.08	6262.12	6428.20	≤320	PASS
	Ant3	6665	165.76	6581.80	6747.56	≤320	PASS
	Ant4	6665	164.48	6582.44	6746.92	≤320	PASS

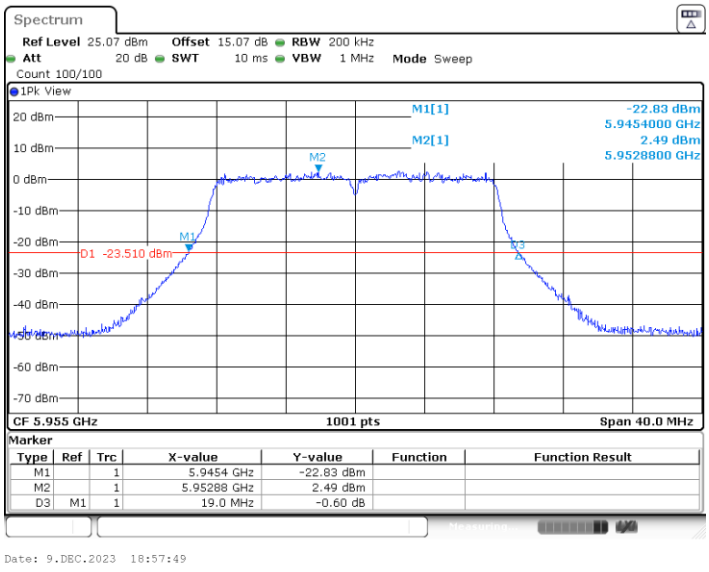
Test Graphs

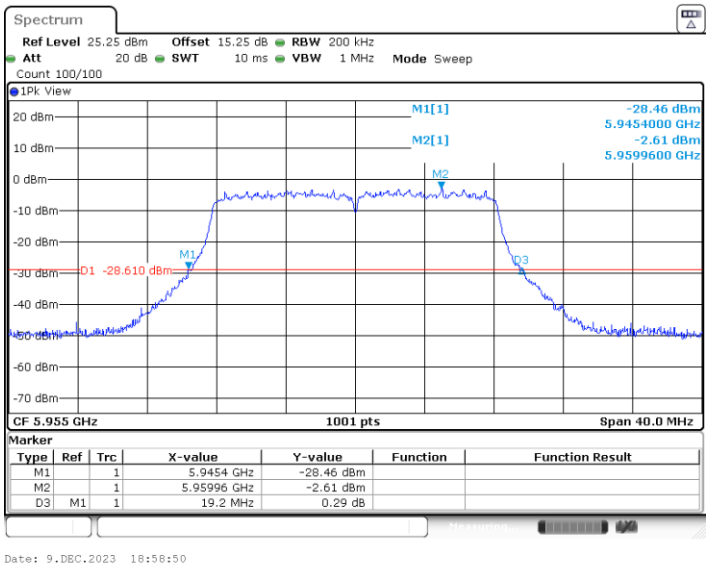
11A-CDD_Ant3_5935

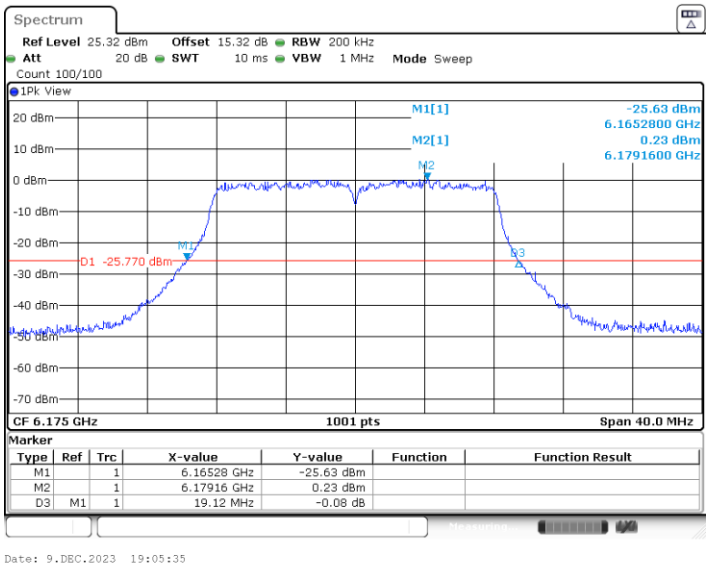


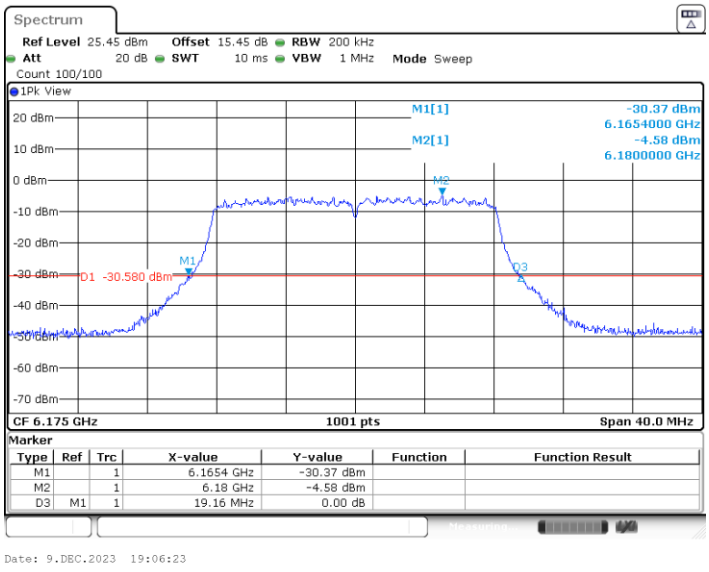
11A-CDD_Ant4_5935

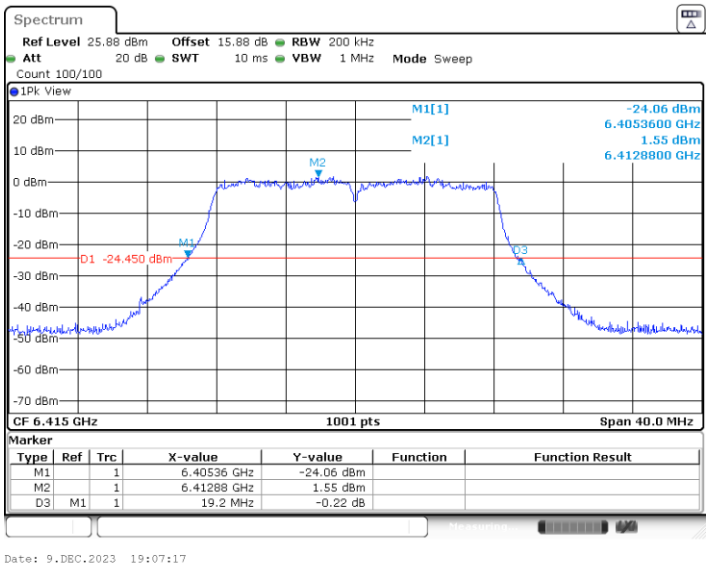


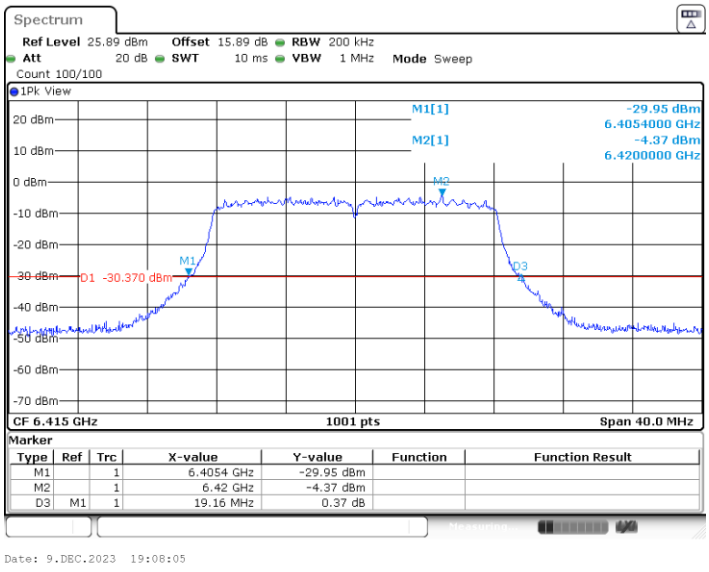
11A-CDD_Ant3_5955


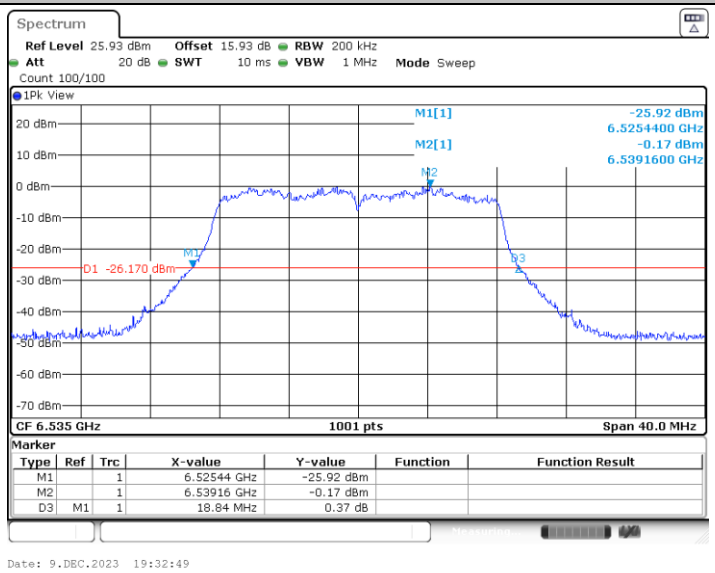
11A-CDD_Ant4_5955


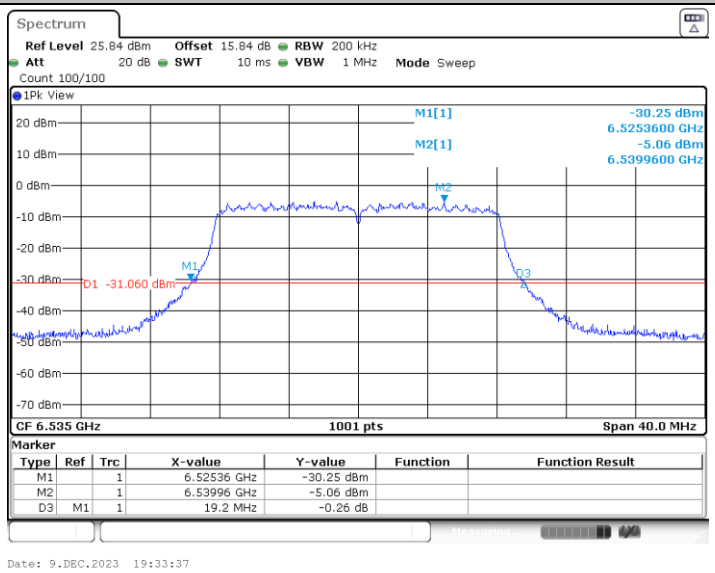
11A-CDD_Ant3_6175


11A-CDD_Ant4_6175


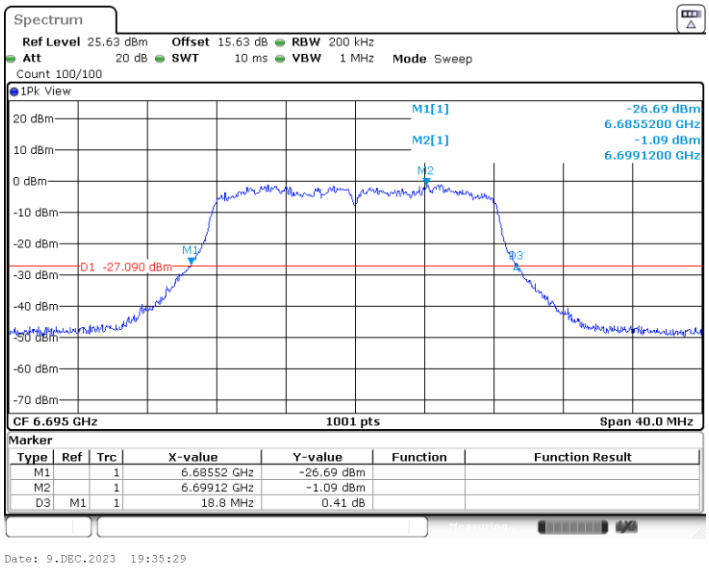
11A-CDD_Ant3_6415


11A-CDD_Ant4_6415


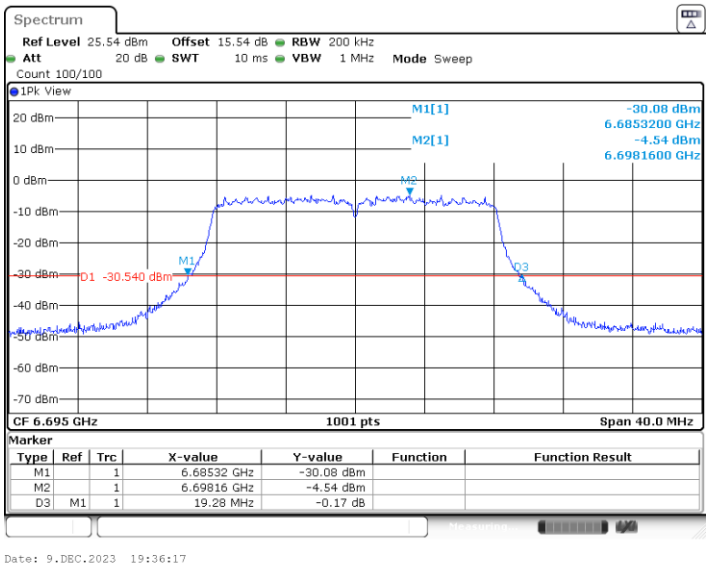
11A-CDD_Ant3_6535


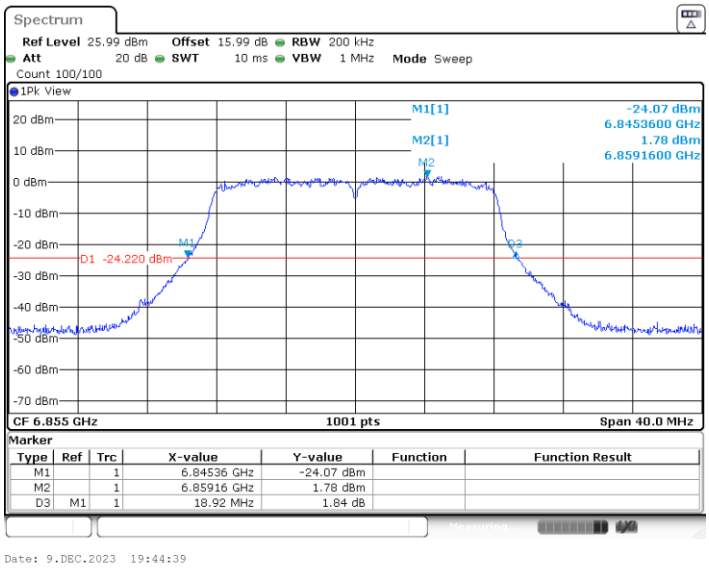
11A-CDD_Ant4_6535


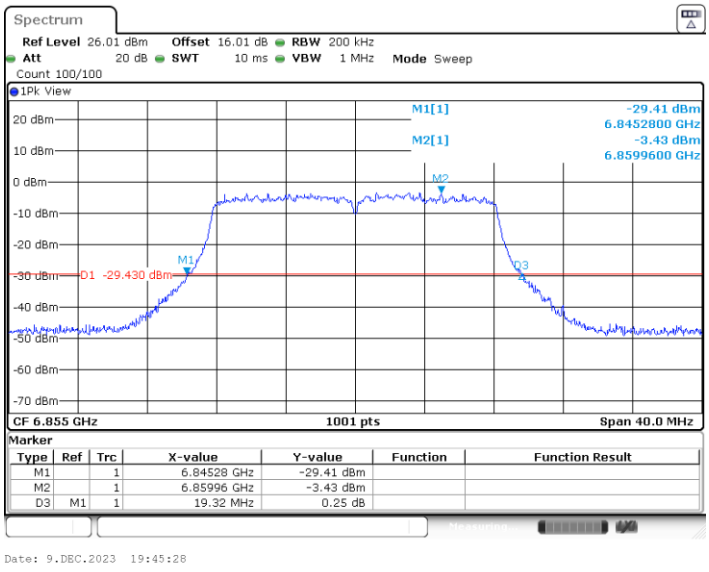
11A-CDD_Ant3_6695

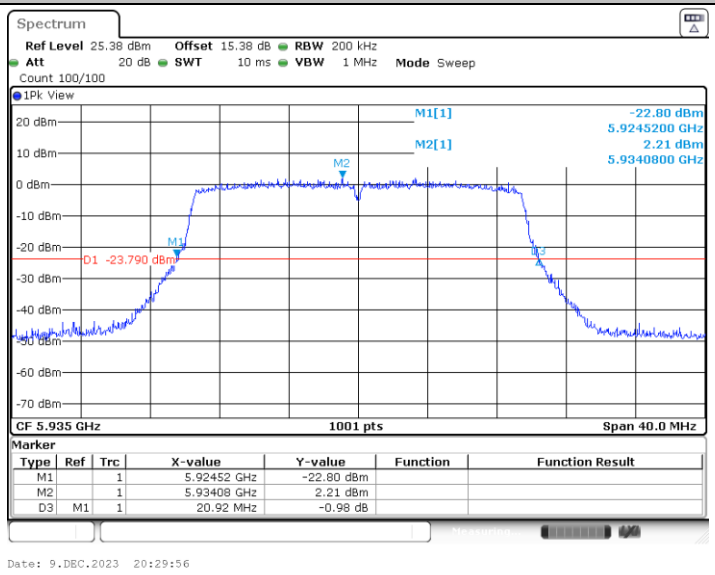


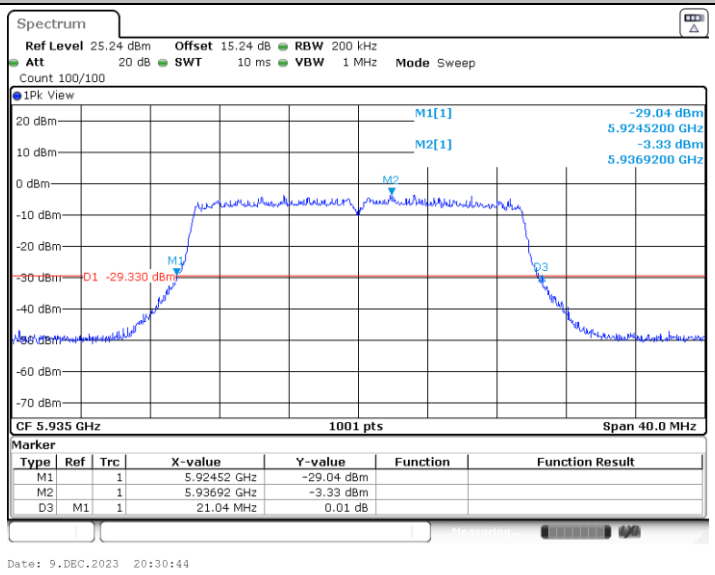
11A-CDD_Ant4_6695

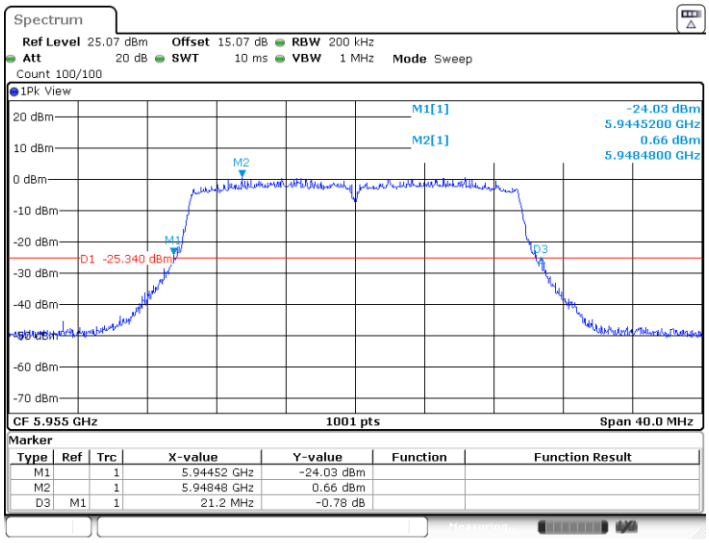


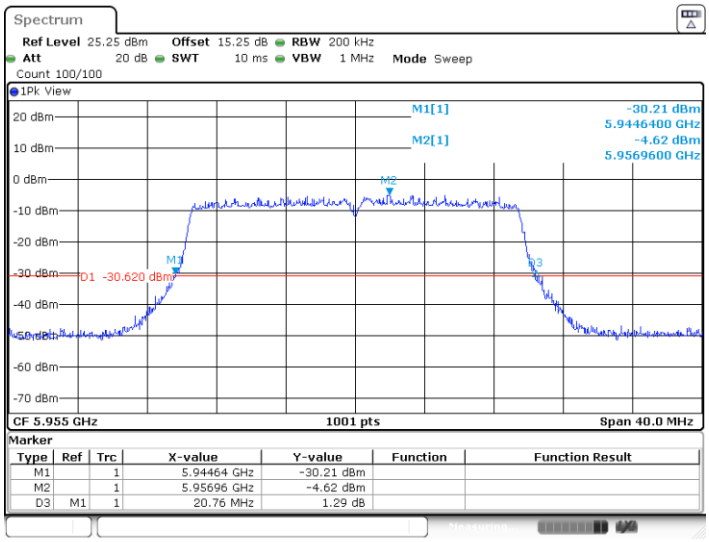
11A-CDD_Ant3_6855


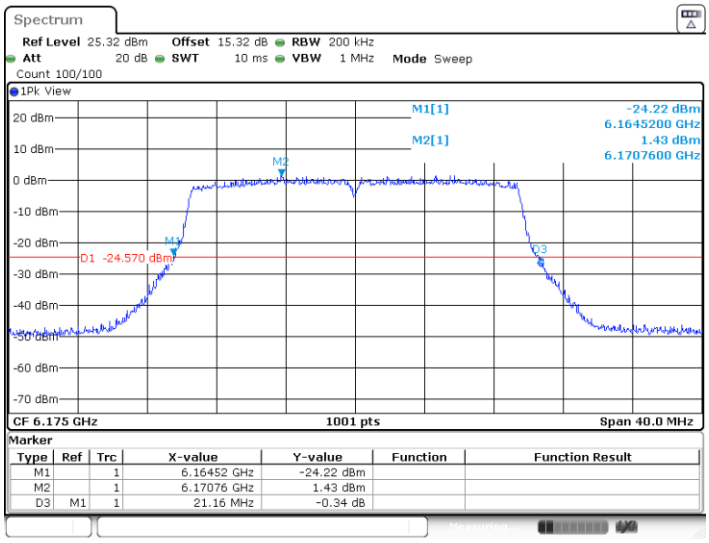
11A-CDD_Ant4_6855


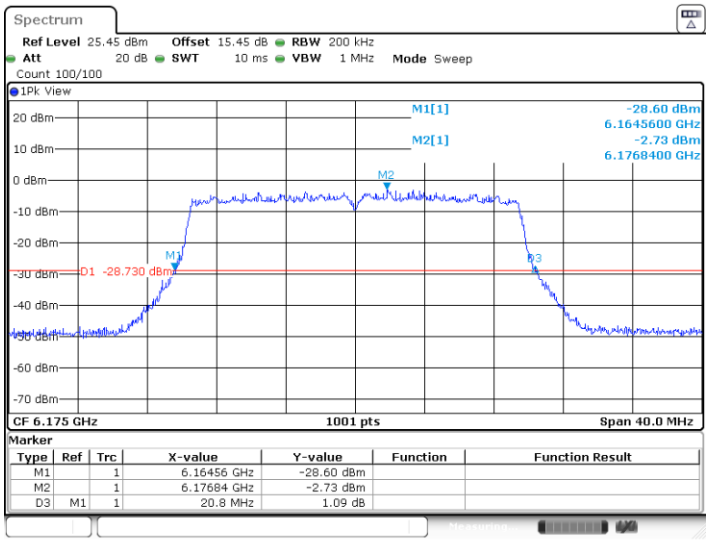
11AX20MIMO_Ant3_5935


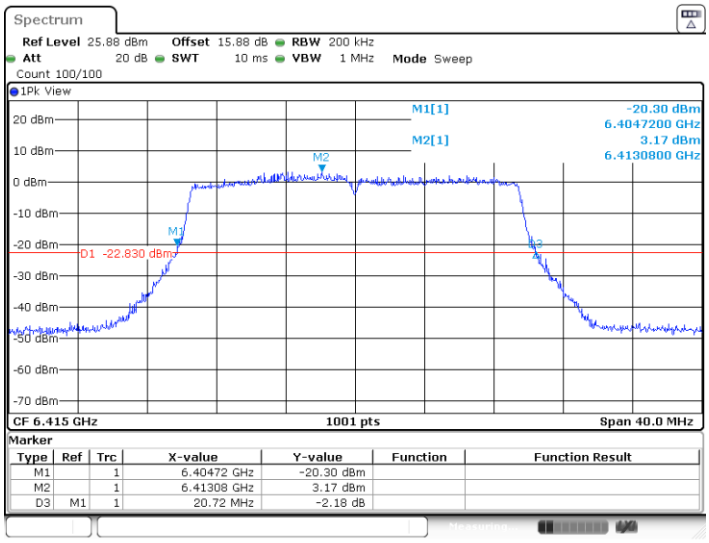
11AX20MIMO_Ant4_5935


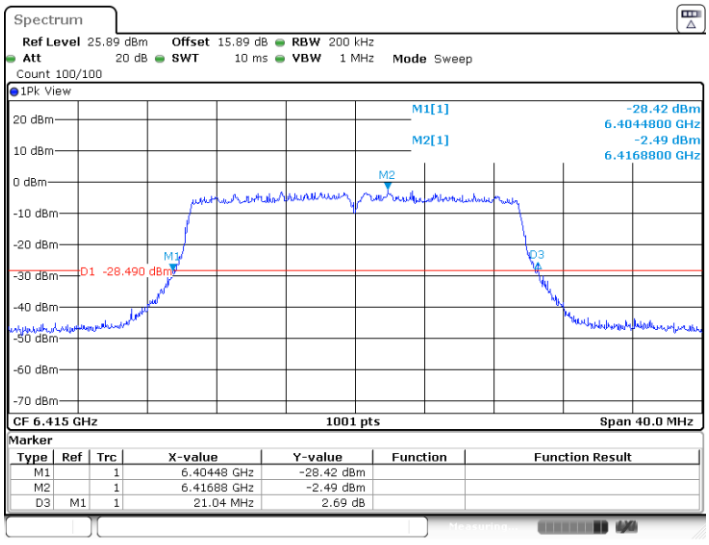
11AX20MIMO_Ant3_5955


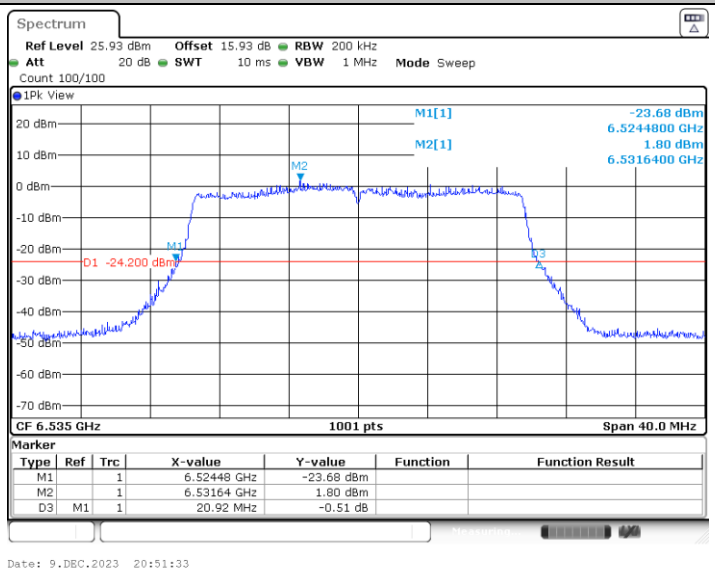
11AX20MIMO_Ant4_5955


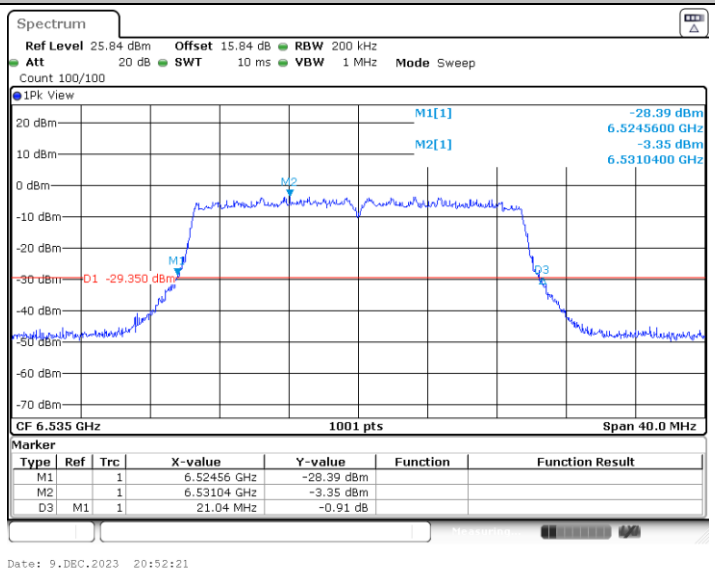
11AX20MIMO_Ant3_6175


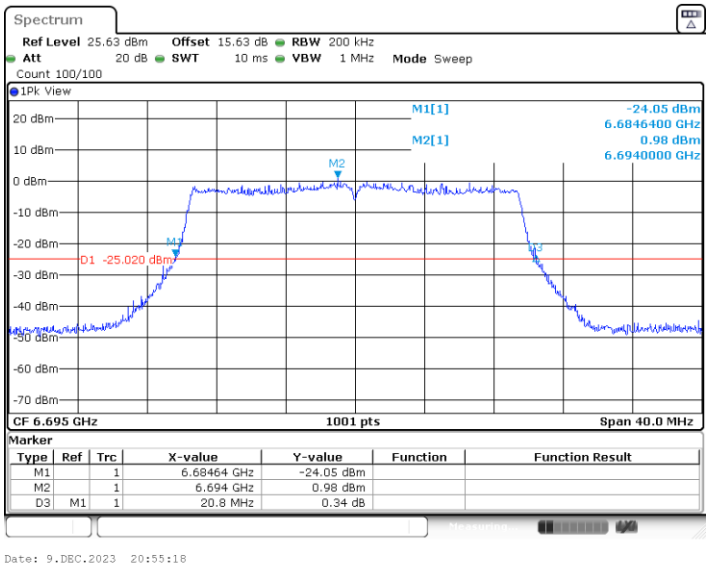
11AX20MIMO_Ant4_6175


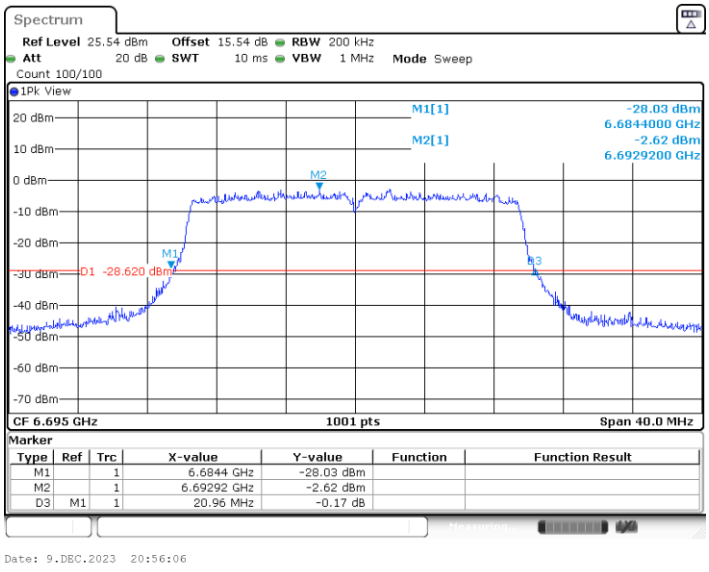
11AX20MIMO_Ant3_6415


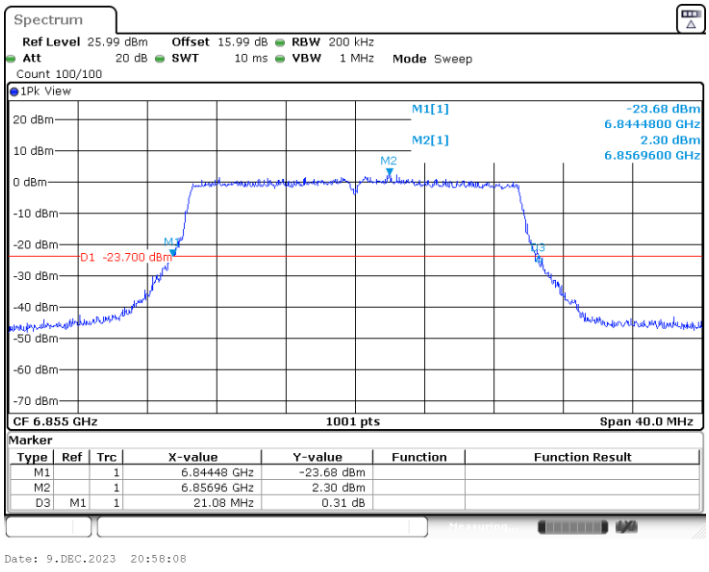
11AX20MIMO_Ant4_6415


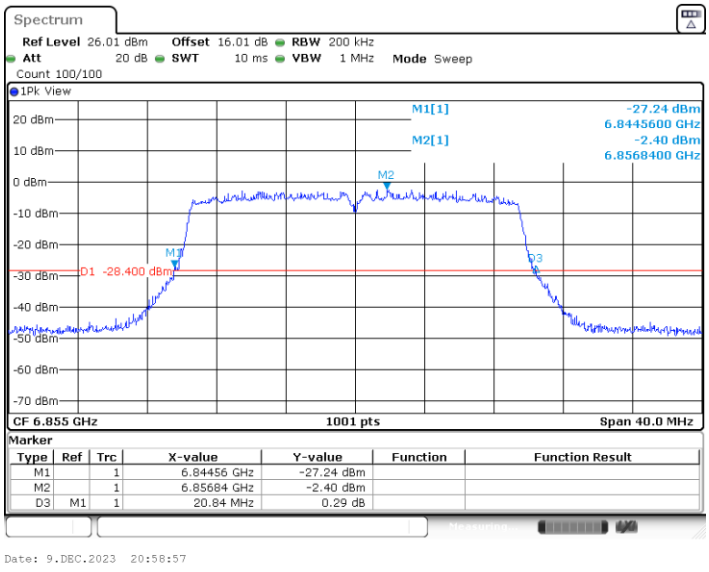
11AX20MIMO_Ant3_6535


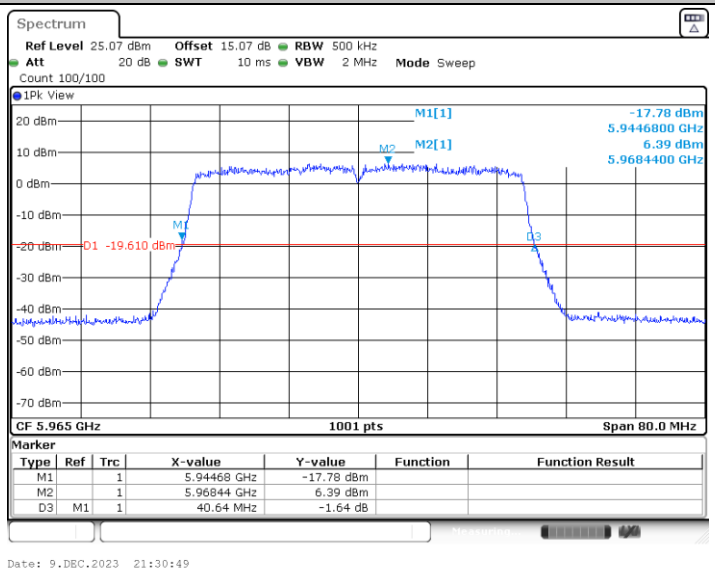
11AX20MIMO_Ant4_6535


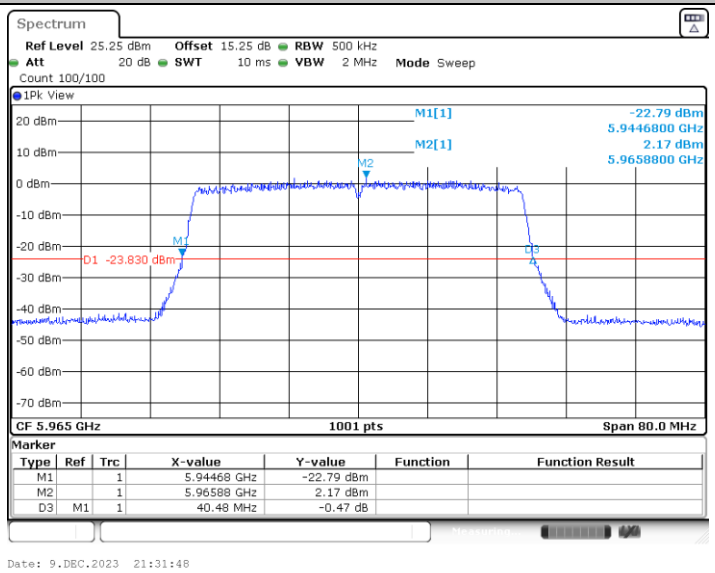
11AX20MIMO_Ant3_6695


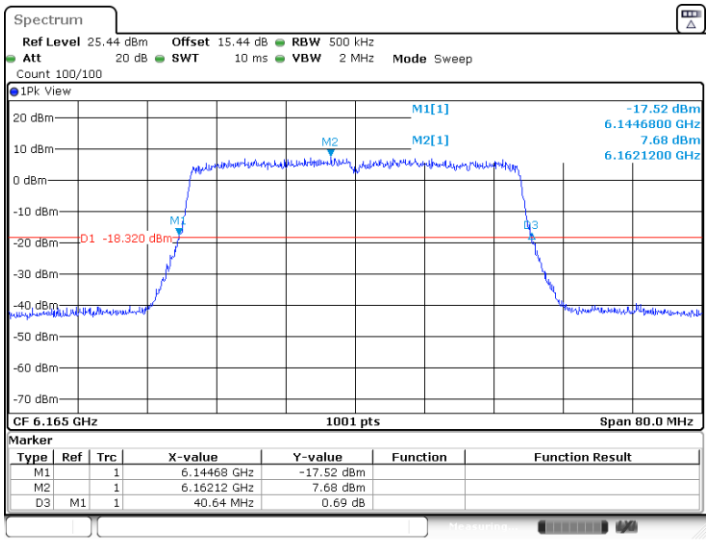
11AX20MIMO_Ant4_6695


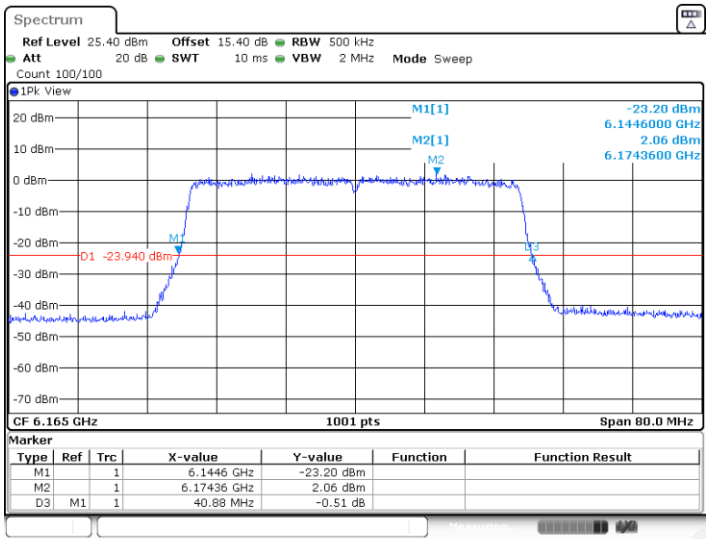
11AX20MIMO_Ant3_6855


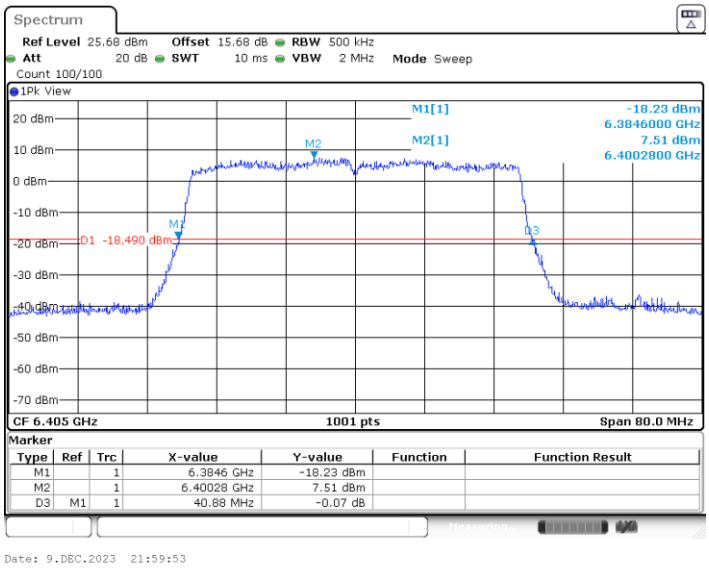
11AX20MIMO_Ant4_6855


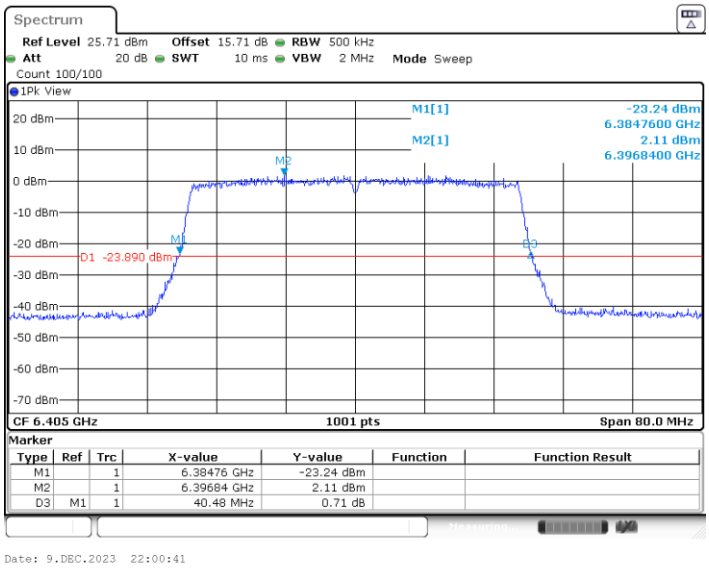
11AX40MIMO_Ant3_5965


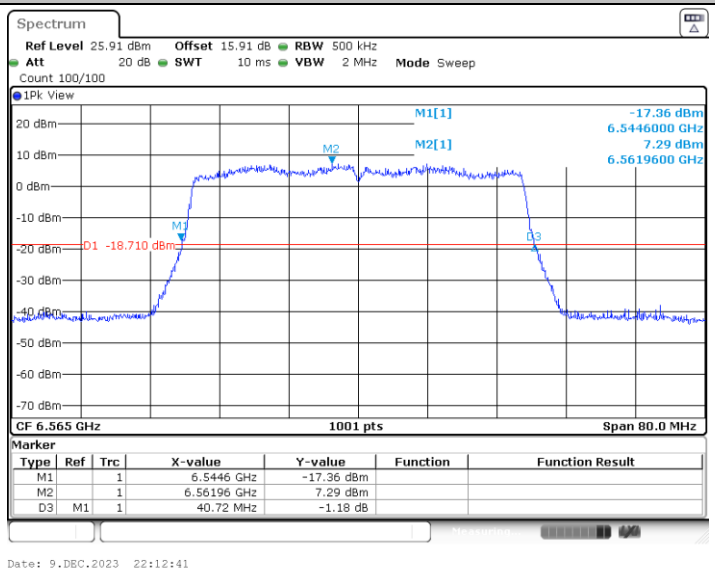
11AX40MIMO_Ant4_5965


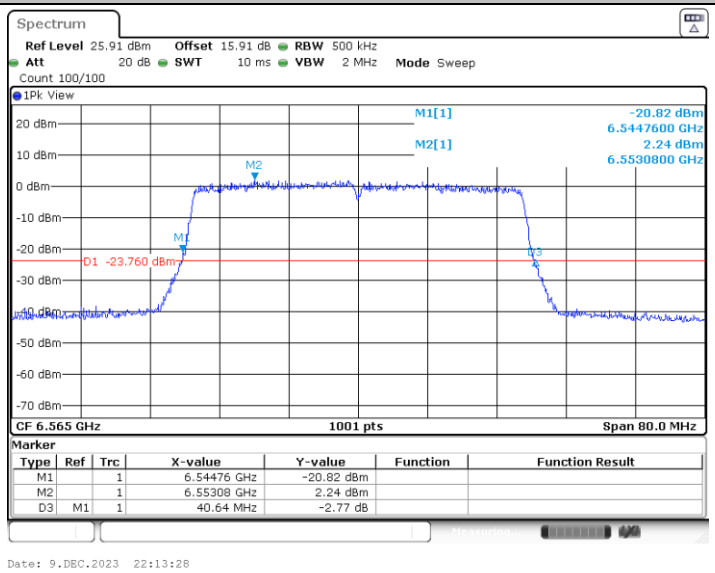
11AX40MIMO_Ant3_6165


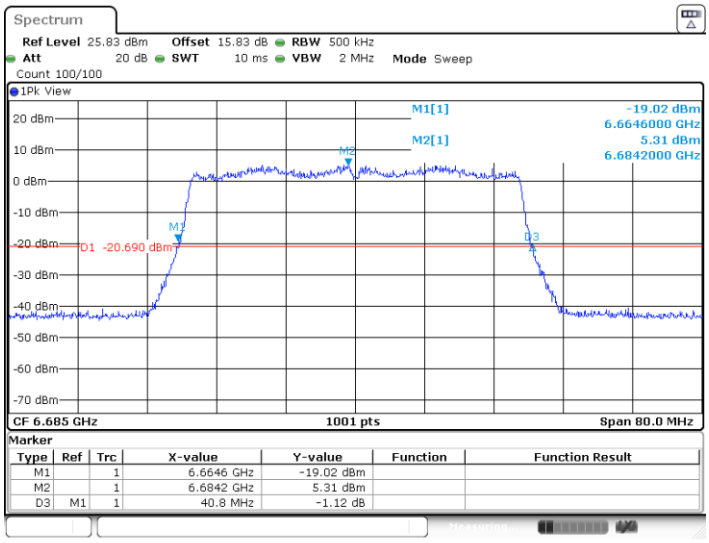
11AX40MIMO_Ant4_6165


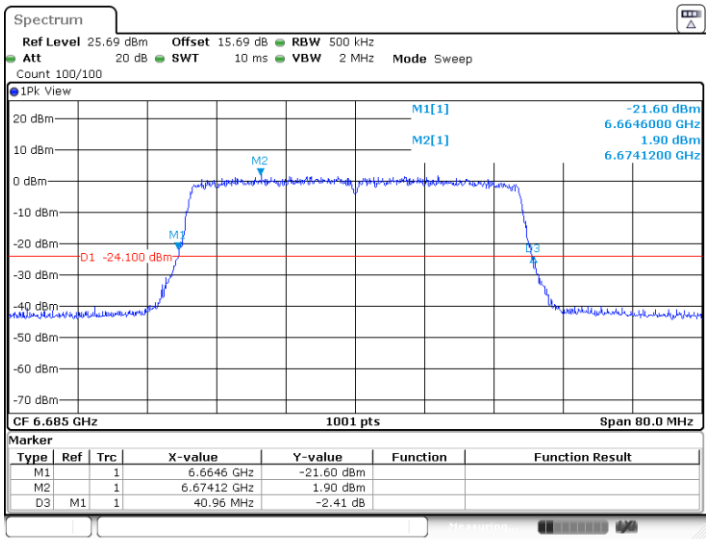
11AX40MIMO_Ant3_6405


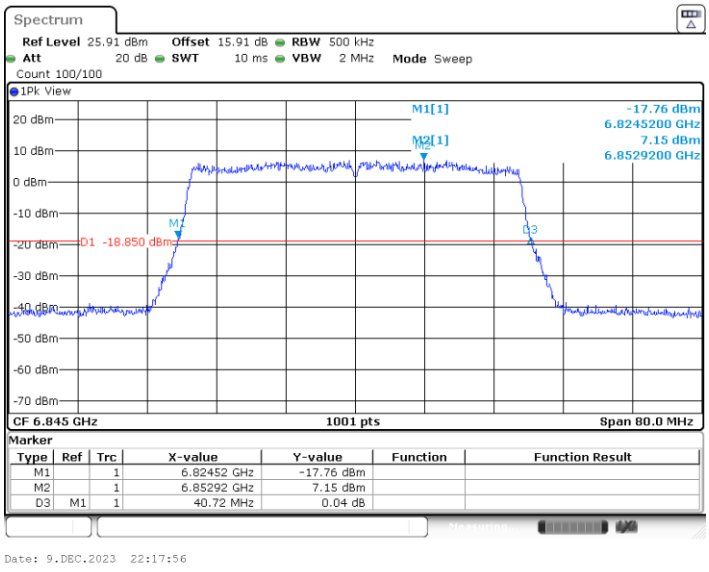
11AX40MIMO_Ant4_6405


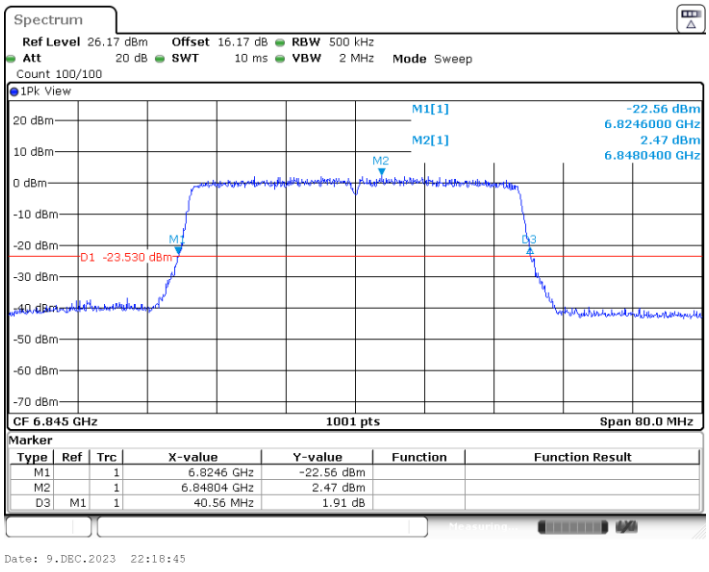
11AX40MIMO_Ant3_6565


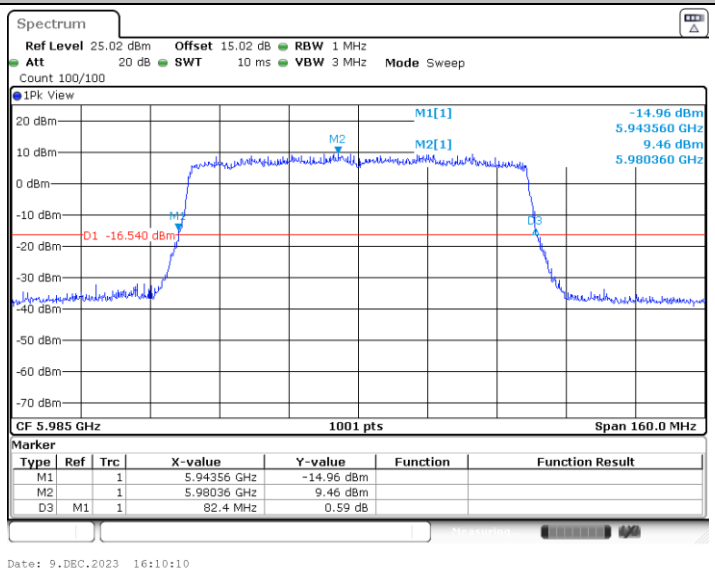
11AX40MIMO_Ant4_6565


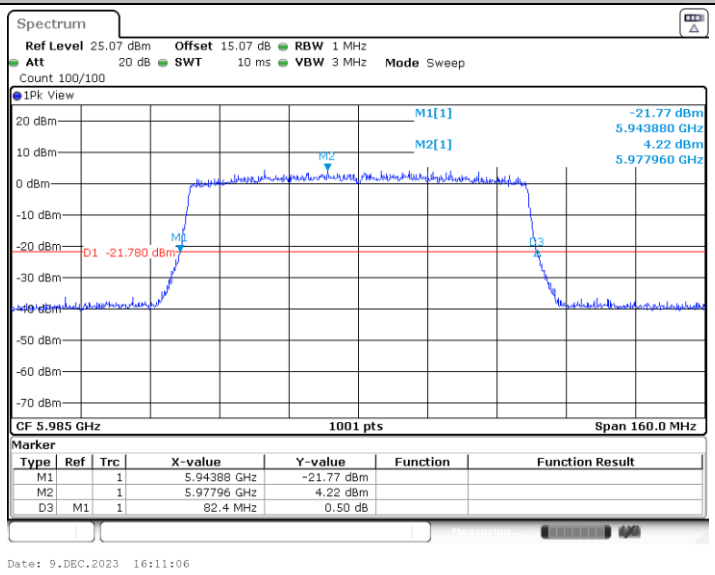
11AX40MIMO_Ant3_6685


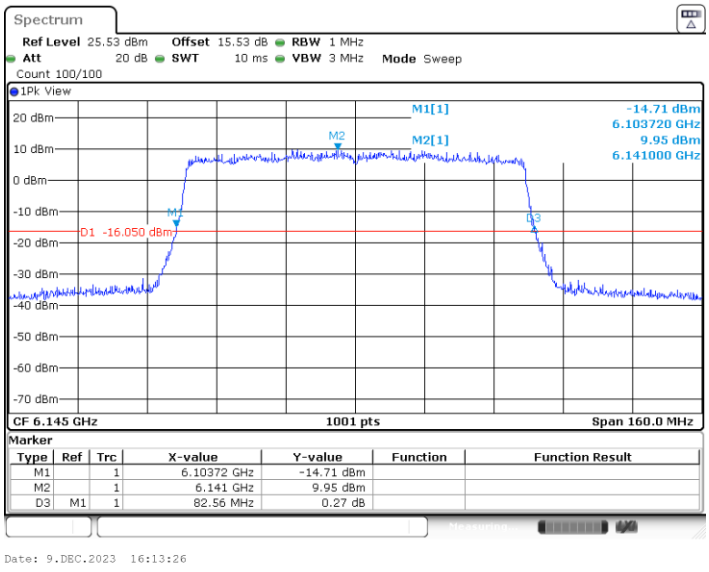
11AX40MIMO_Ant4_6685


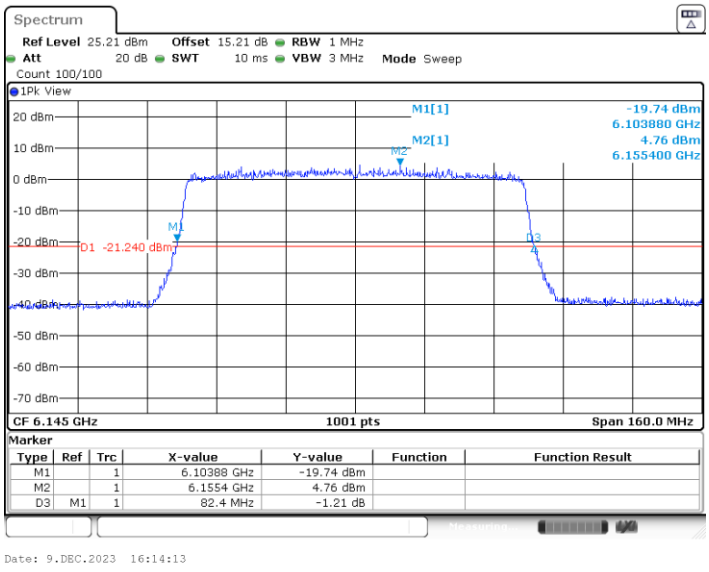
11AX40MIMO_Ant3_6845


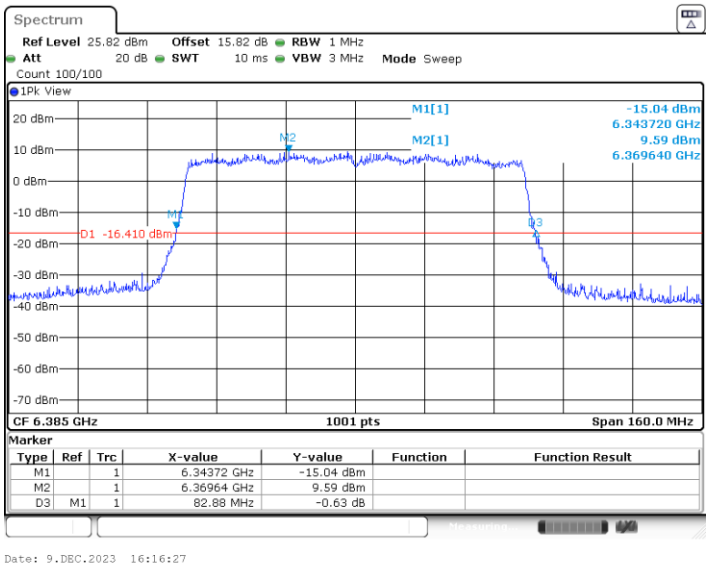
11AX40MIMO_Ant4_6845


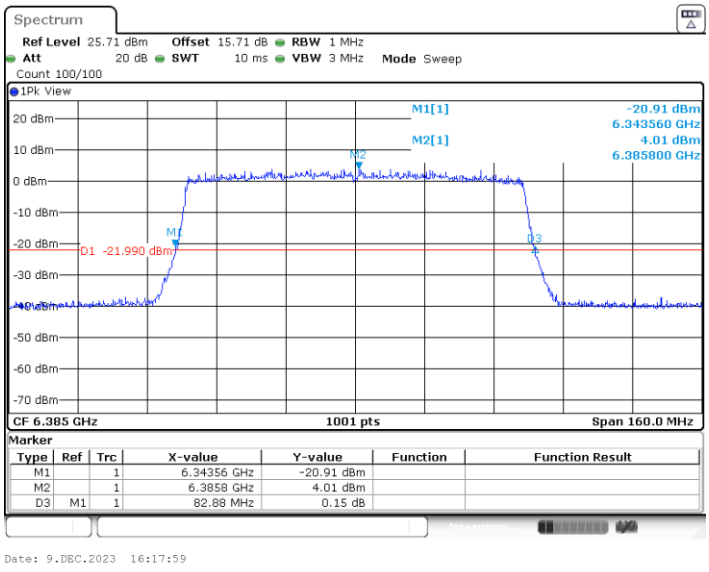
11AX80MIMO_Ant3_5985


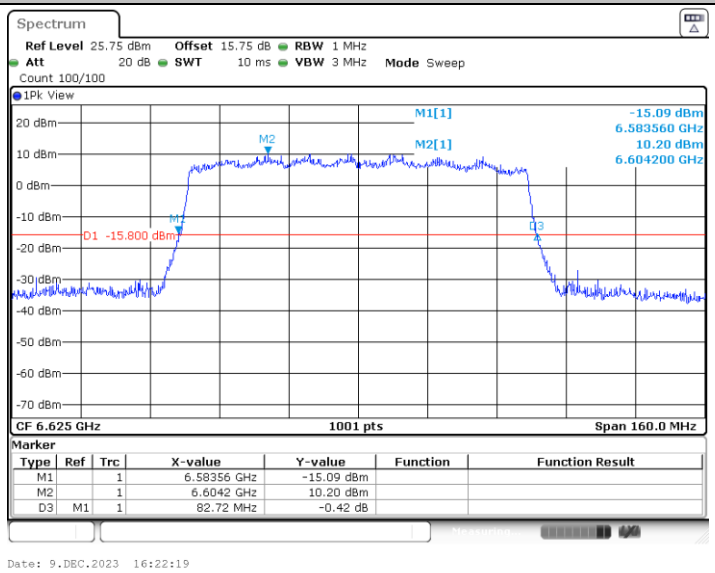
11AX80MIMO_Ant4_5985


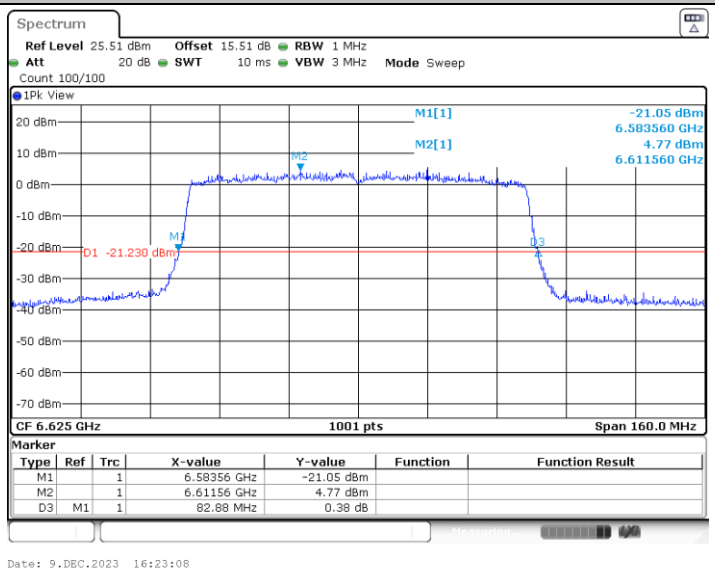
11AX80MIMO_Ant3_6145


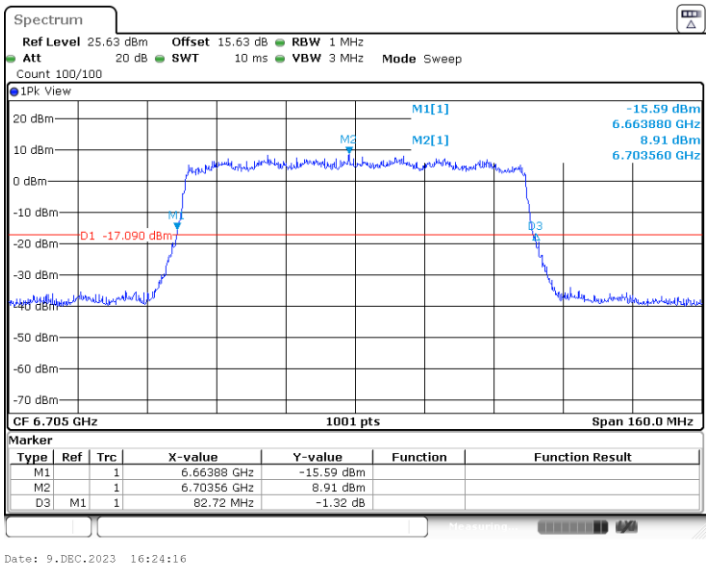
11AX80MIMO_Ant4_6145


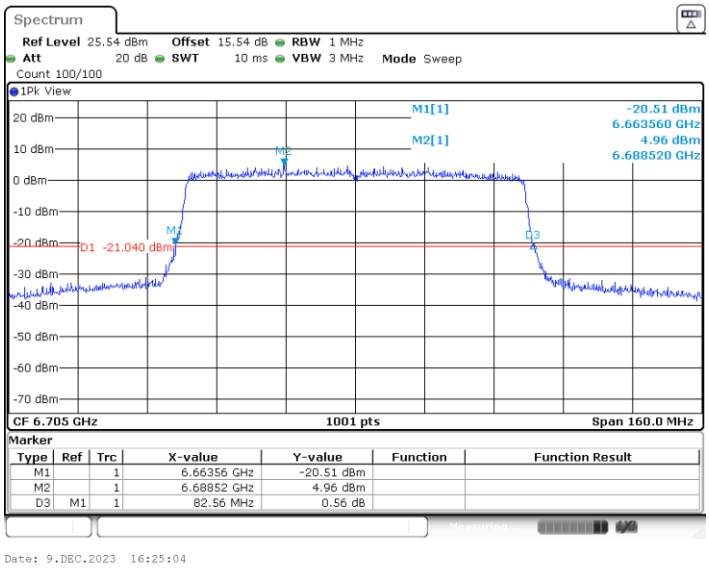
11AX80MIMO_Ant3_6385


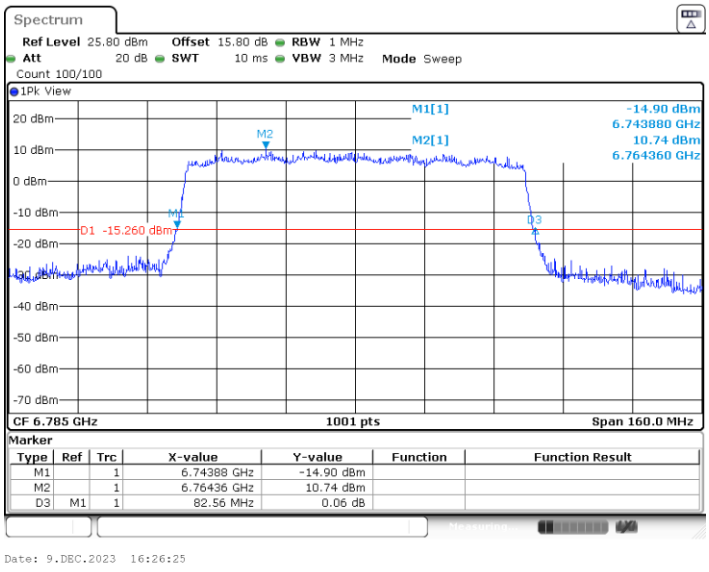
11AX80MIMO_Ant4_6385


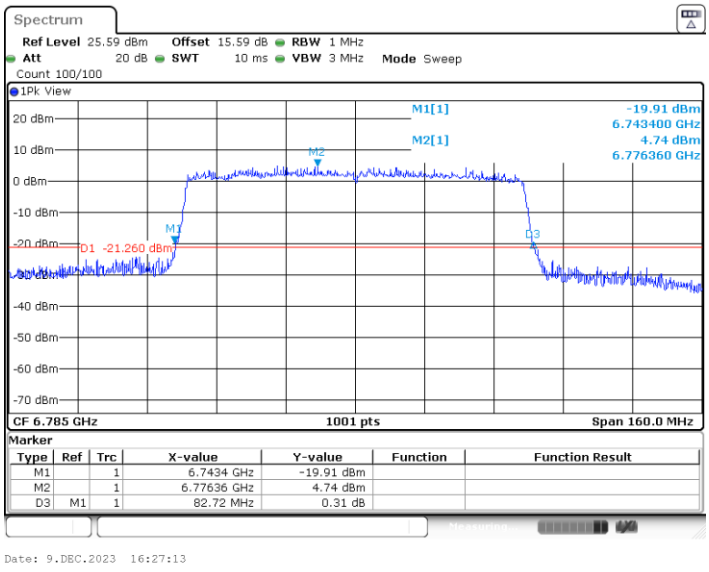
11AX80MIMO_Ant3_6625


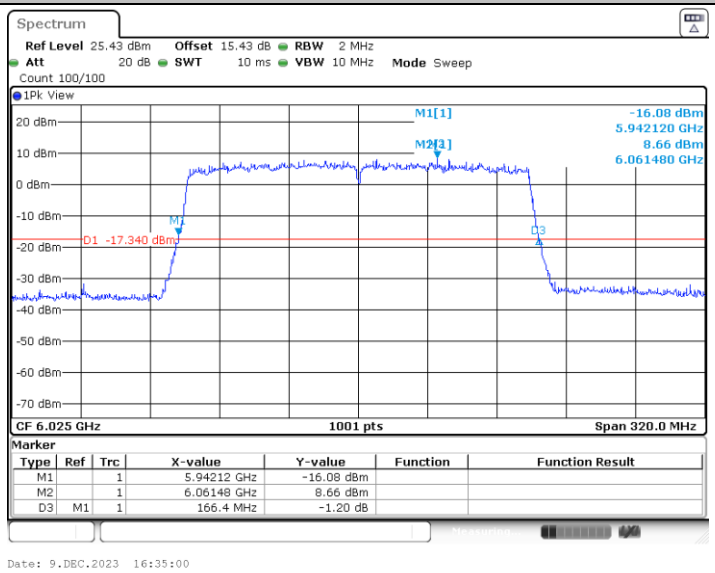
11AX80MIMO_Ant4_6625


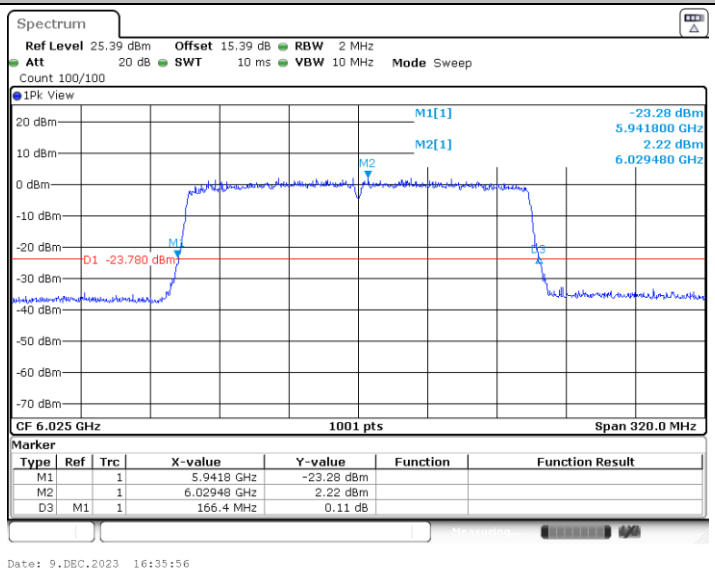
11AX80MIMO_Ant3_6705


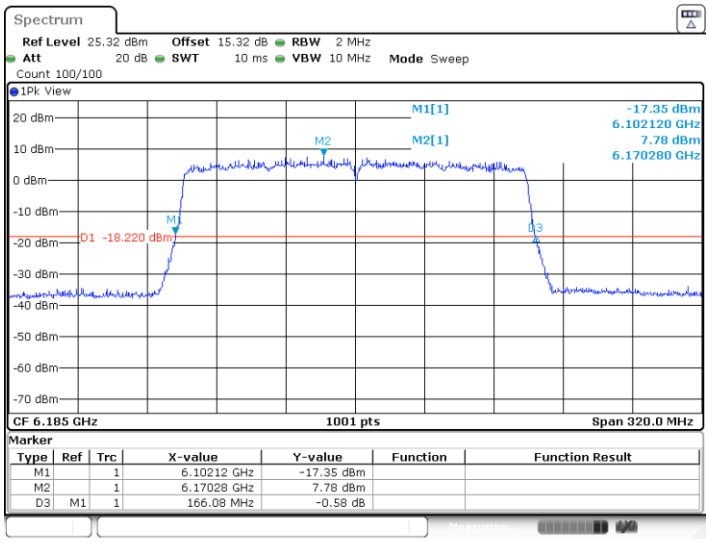
11AX80MIMO_Ant4_6705


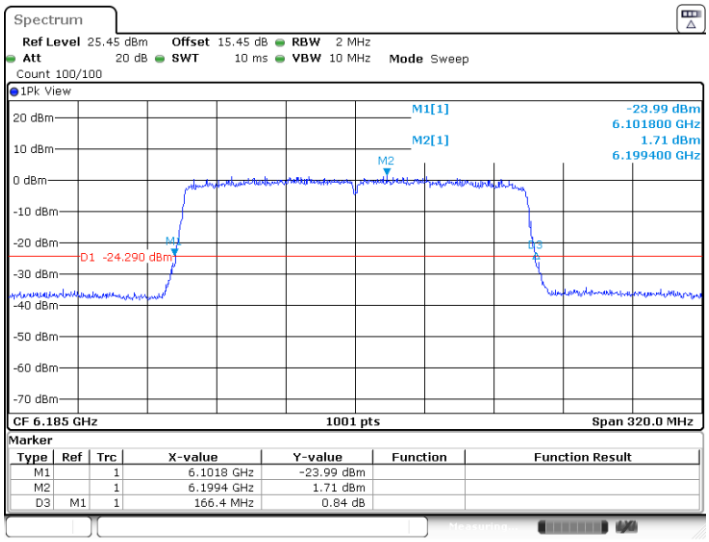
11AX80MIMO_Ant3_6785


11AX80MIMO_Ant4_6785


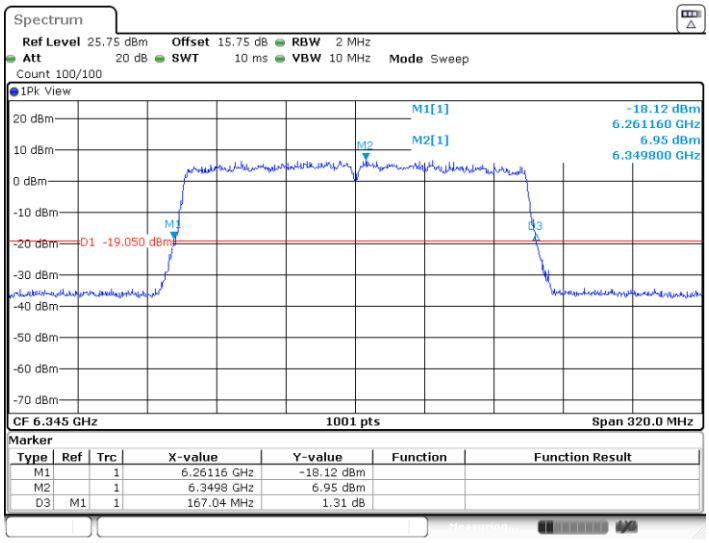
11AX160MIMO_Ant3_6025


11AX160MIMO_Ant4_6025


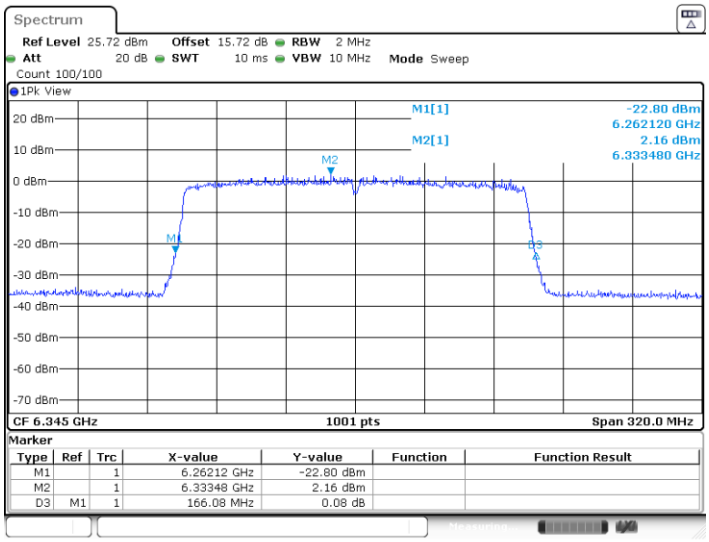
11AX160MIMO_Ant3_6185


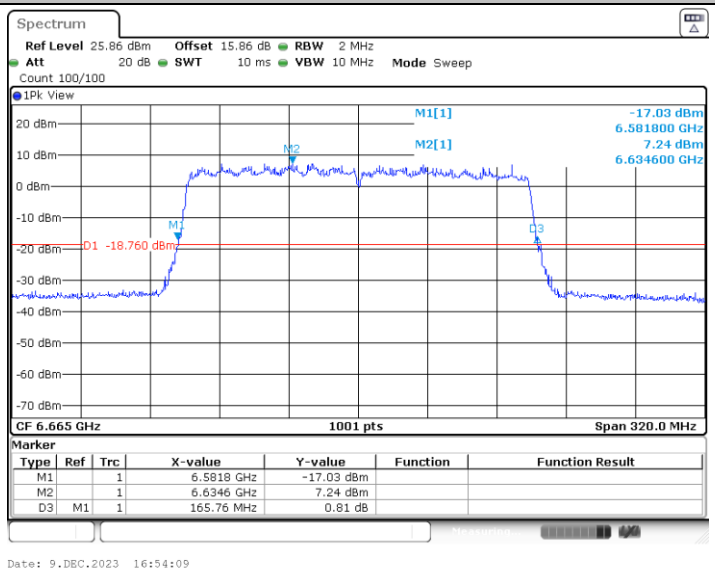
11AX160MIMO_Ant4_6185


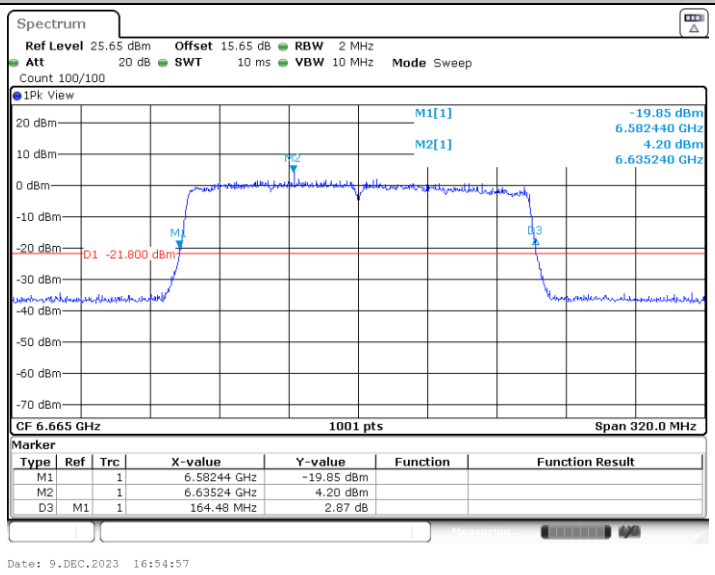
11AX160MIMO_Ant3_6345



11AX160MIMO_Ant4_6345



11AX160MIMO_Ant3_6665


11AX160MIMO_Ant4_6665


Occupied channel bandwidth

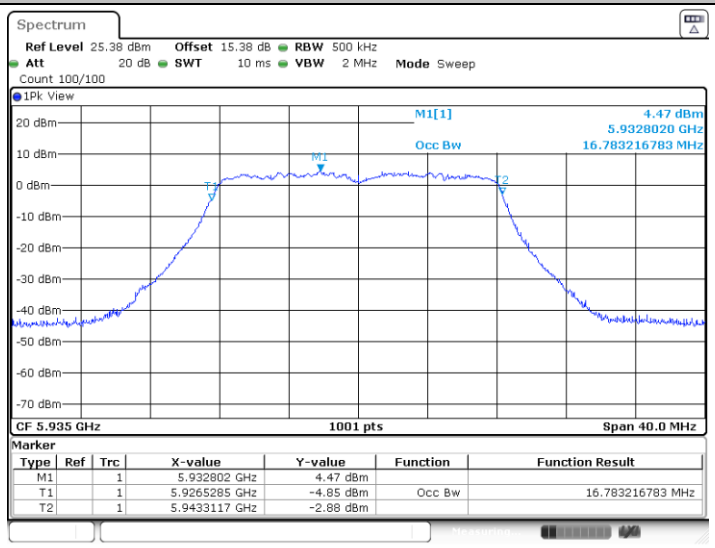
Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]
11A-CDD	Ant3	5935	16.783	5926.5285	5943.3117
	Ant4	5935	16.583	5926.6883	5943.2717
	Ant3	5955	16.783	5946.5684	5963.3516
	Ant4	5955	16.623	5946.6883	5963.3117
	Ant3	6175	16.743	6166.5684	6183.3117
	Ant4	6175	16.623	6166.6883	6183.3117
	Ant3	6415	16.743	6406.5684	6423.3117
	Ant4	6415	16.583	6406.6883	6423.2717
	Ant3	6535	16.663	6526.6084	6543.2717
	Ant4	6535	16.623	6526.6484	6543.2717
	Ant3	6695	16.583	6686.6484	6703.2318
	Ant4	6695	16.623	6686.6484	6703.2717
	Ant3	6855	16.663	6846.6084	6863.2717
	Ant4	6855	16.583	6846.6883	6863.2717
11AX20MIMO	Ant3	5935	18.941	5925.4895	5944.4306
	Ant4	5935	19.021	5925.4895	5944.5105
	Ant3	5955	18.981	5945.4895	5964.4705
	Ant4	5955	19.021	5945.4895	5964.5105
	Ant3	6175	18.981	6165.4895	6184.4705
	Ant4	6175	18.981	6165.4895	6184.4705
	Ant3	6415	18.941	6405.5295	6424.4705
	Ant4	6415	19.021	6405.4895	6424.5105
	Ant3	6535	19.021	6525.4895	6544.5105
	Ant4	6535	18.981	6525.4895	6544.4705
	Ant3	6695	19.061	6685.4496	6704.5105
	Ant4	6695	18.981	6685.4895	6704.4705
	Ant3	6855	19.021	6845.4496	6864.4705
	Ant4	6855	18.981	6845.4895	6864.4705
11AX40MIMO	Ant3	5965	37.882	5946.0589	5983.9411
	Ant4	5965	37.882	5946.0589	5983.9411
	Ant3	6165	37.962	6145.9790	6183.9411
	Ant4	6165	38.042	6145.9790	6184.0210
	Ant3	6405	37.882	6386.0589	6423.9411
	Ant4	6405	38.042	6385.9790	6424.0210
	Ant3	6565	38.122	6545.9790	6584.1009
	Ant4	6565	37.962	6545.9790	6583.9411
	Ant3	6685	38.042	6665.9790	6704.0210
	Ant4	6685	37.962	6665.9790	6703.9411
	Ant3	6845	38.042	6825.9790	6864.0210
	Ant4	6845	37.882	6826.0589	6863.9411

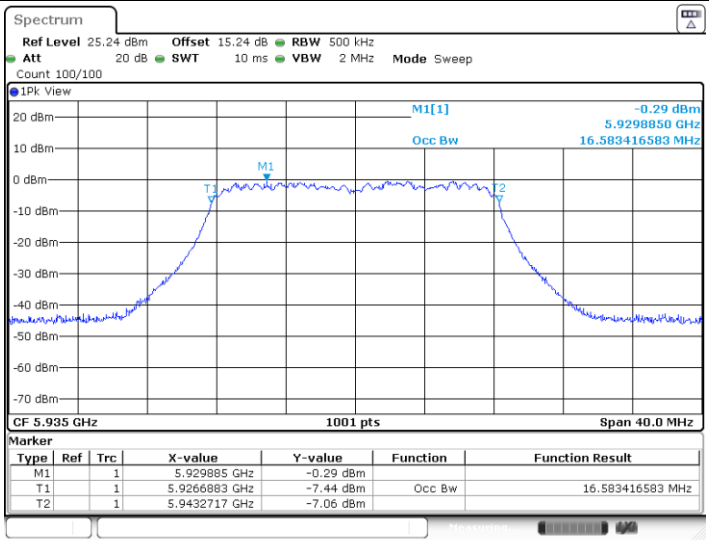
11AX80MIMO	Ant3	5985	77.203	5946.4785	6023.6813
	Ant4	5985	77.363	5946.3187	6023.6813
	Ant3	6145	77.522	6106.3187	6183.8412
	Ant4	6145	77.522	6106.1588	6183.6813
	Ant3	6385	77.522	6346.3187	6423.8412
	Ant4	6385	77.682	6346.1588	6423.8412
	Ant3	6625	77.522	6586.1588	6663.6813
	Ant4	6625	77.522	6586.1588	6663.6813
	Ant3	6705	77.682	6666.1588	6743.8412
	Ant4	6705	77.522	6666.1588	6743.6813
	Ant3	6785	77.522	6746.1588	6823.6813
	Ant4	6785	77.842	6745.9990	6823.8412
11AX160MIMO	Ant3	6025	157.283	5946.6783	6103.9610
	Ant4	6025	157.283	5946.6783	6103.9610
	Ant3	6185	157.283	6106.3586	6263.6414
	Ant4	6185	157.602	6106.0390	6263.6414
	Ant3	6345	156.963	6266.6783	6423.6414
	Ant4	6345	157.283	6266.3586	6423.6414
	Ant3	6665	157.283	6586.3586	6743.6414
	Ant4	6665	157.283	6586.0390	6743.3217

Test Graphs

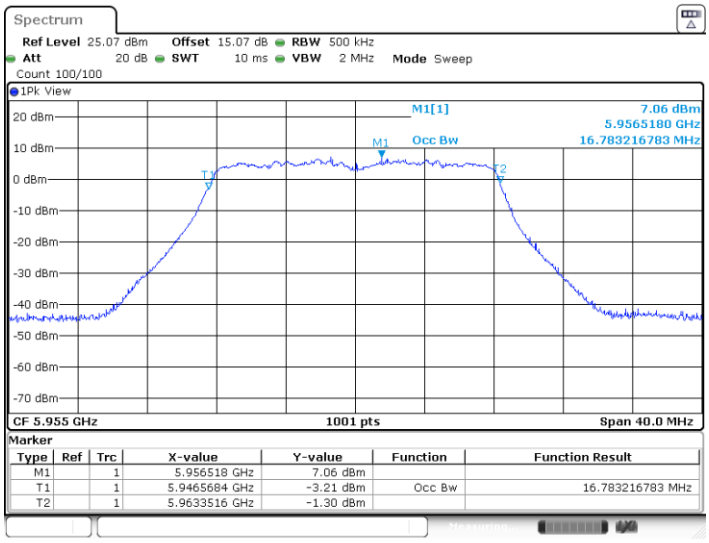
11A-CDD_Ant3_5935



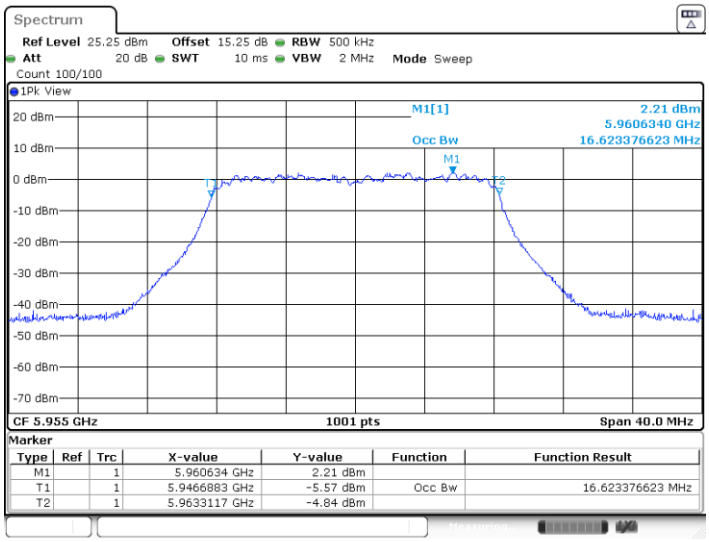
11A-CDD_Ant4_5935

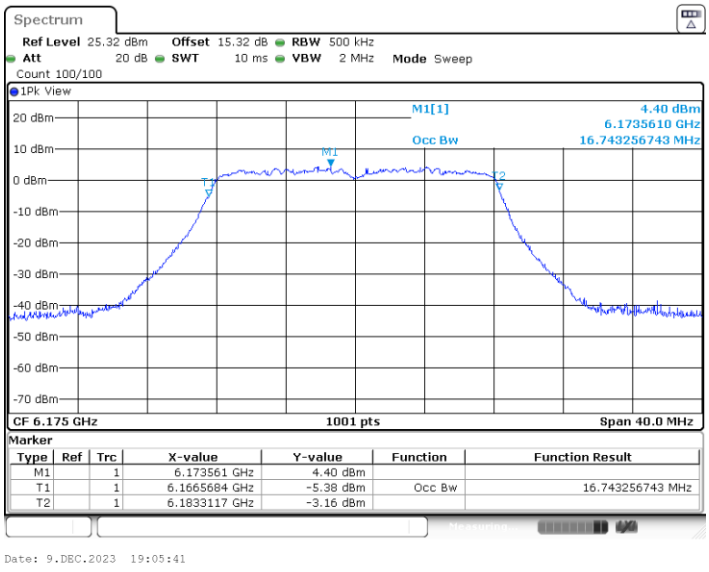


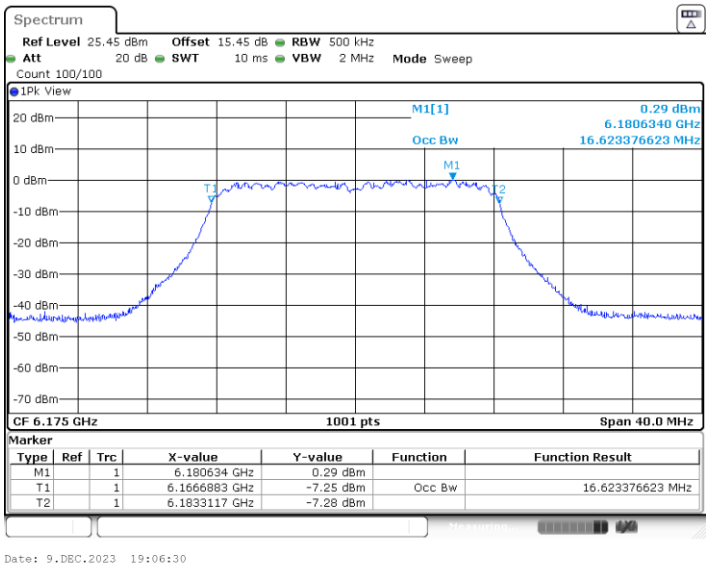
11A-CDD_Ant3_5955

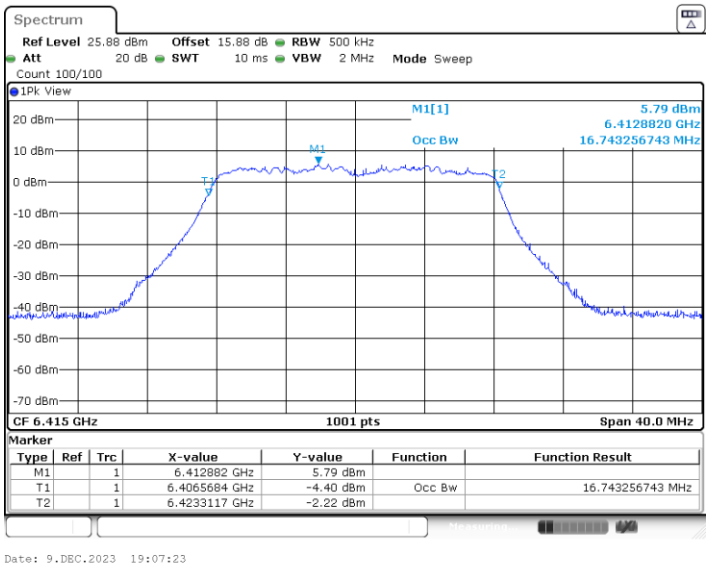


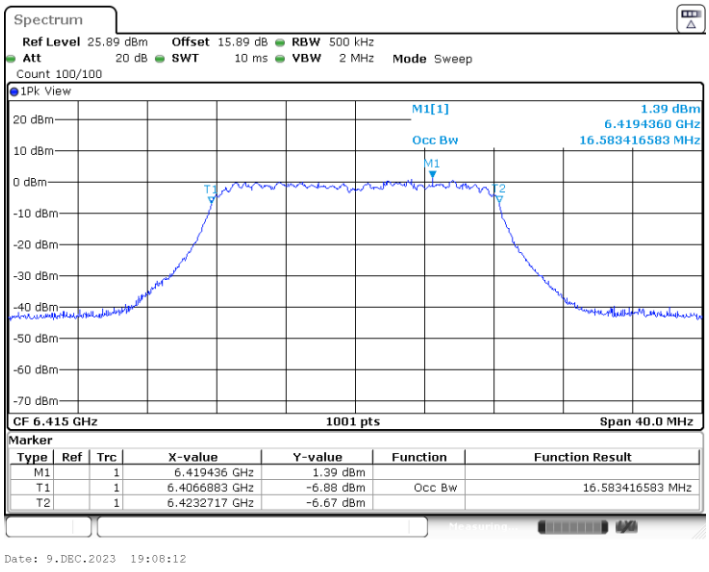
11A-CDD_Ant4_5955

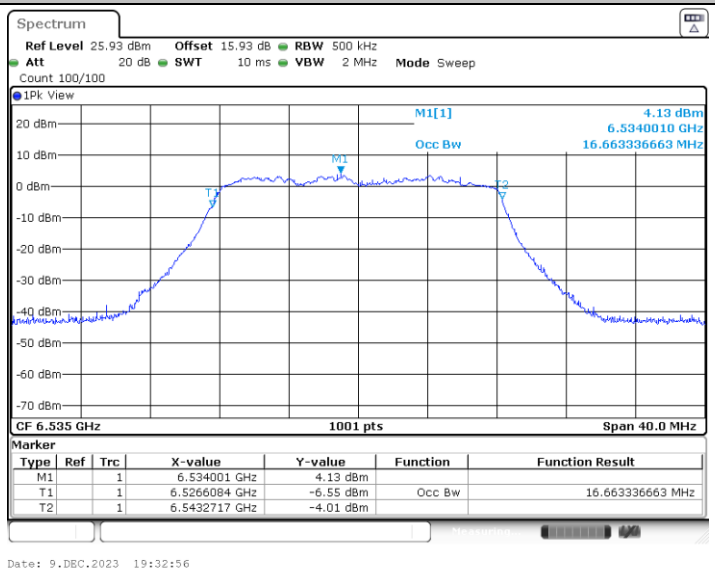


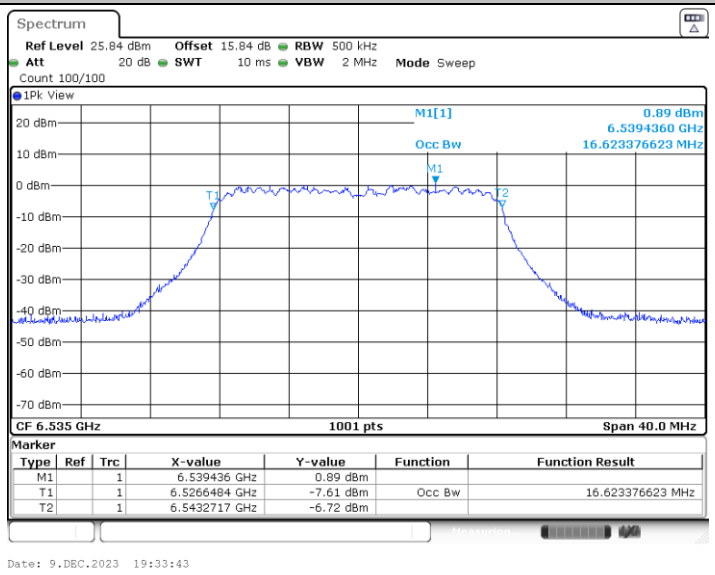
11A-CDD_Ant3_6175


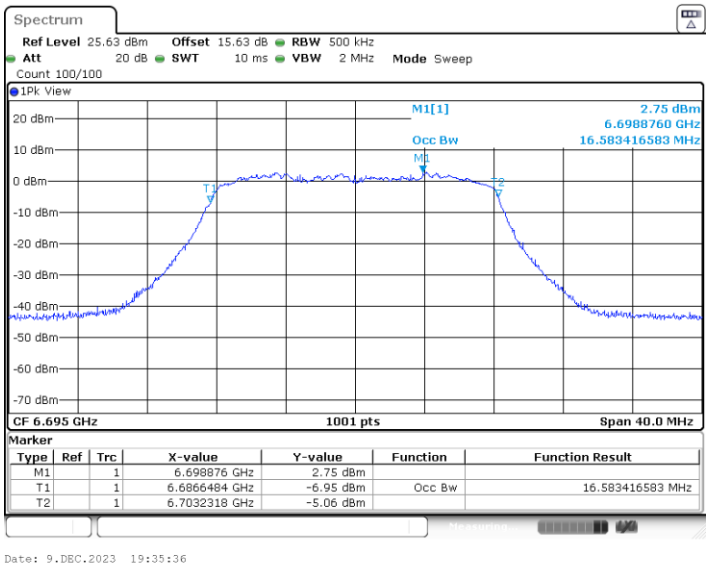
11A-CDD_Ant4_6175


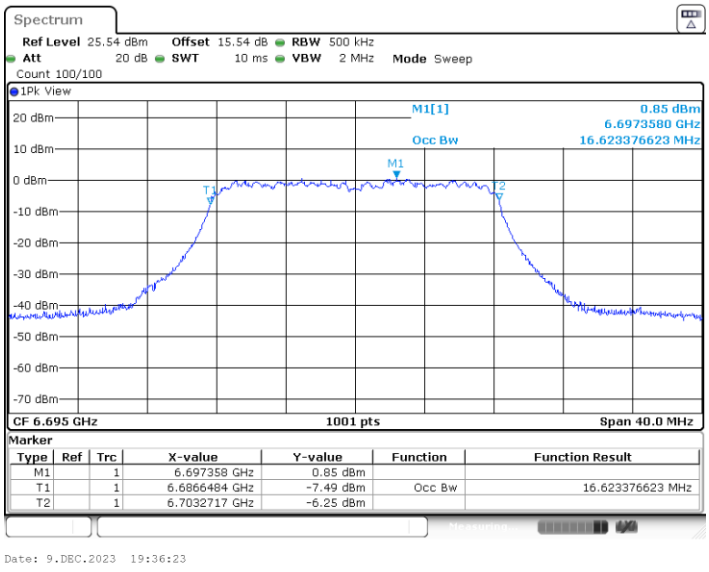
11A-CDD_Ant3_6415


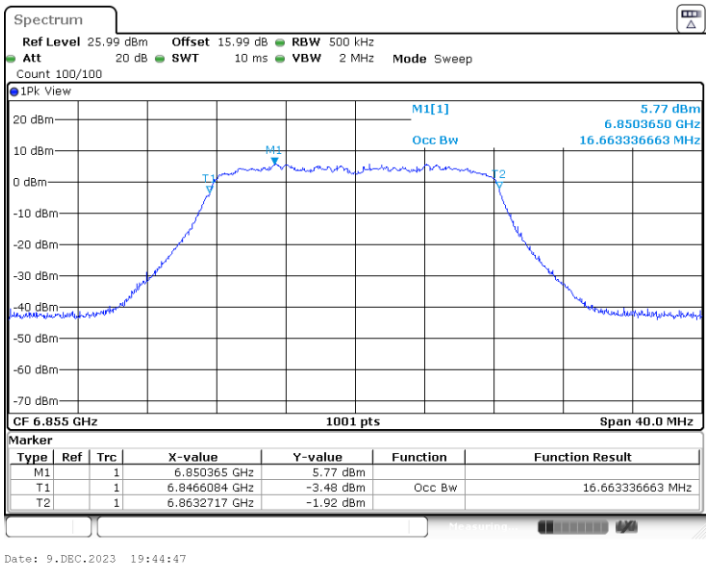
11A-CDD_Ant4_6415


11A-CDD_Ant3_6535


11A-CDD_Ant4_6535


11A-CDD_Ant3_6695


11A-CDD_Ant4_6695


11A-CDD_Ant3_6855


11A-CDD_Ant4_6855