



FCC RF Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2307-1
FCC ID : IHDT56AM7
STANDARD : FCC Part 15 Subpart C §15.247
CLASSIFICATION : (DTS) Digital Transmission System
TEST DATE(S) : Jun. 20, 2023 ~ Jul. 18, 2023

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

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

Jason Jia

Approved by: Jason Jia



Sporton International Inc. (Kunshan)

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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..... 6

 1.8 Applicable Standards..... 7

 1.9 Specification of Accessory..... 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 11

 2.5 EUT Operation Test Setup 11

 2.6 Measurement Results Explanation Example..... 11

3 TEST RESULT 12

 3.1 6dB and 99% Bandwidth Measurement 12

 3.2 Output Power Measurement..... 13

 3.3 Power Spectral Density Measurement 14

 3.4 Conducted Band Edges and Spurious Emission Measurement 16

 3.5 Radiated Band Edges and Spurious Emission Measurement 17

 3.6 AC Conducted Emission Measurement..... 21

 3.7 Antenna Requirements 23

4 LIST OF MEASURING EQUIPMENT 24

5 MEASUREMENT UNCERTAINTY 25

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



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	6dB Bandwidth	≥ 0.5MHz	Pass	-
3.1	-	99% Bandwidth	-	Report Only	-
3.2	15.247(b)	Power Output Measurement	≤ 30dBm	Pass	-
3.3	15.247(e)	Power Spectral Density	≤ 8dBm/3kHz	Pass	-
3.4	15.247(d)	Conducted Band Edges	≤ 20dBc	Pass	-
		Conducted Spurious Emission		Pass	-
3.5	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	15.209(a) & 15.247(d)	Pass	Under limit 3.13 dB at 2483.50 MHz
3.6	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 3.38 dB at 0.151 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	15.203 & 15.247(b)	Pass	-

Conformity Assessment Condition:

- 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.
- 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

Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

1.2 Manufacturer

Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2307-1
FCC ID	IHDT56AM7
IMEI Code	Conducted: 353852880027674/353852880027682 Conduction: 353852880027732/353852880027740 Radiation: 353852880027732/353852880027740
HW Version	DVT2
SW Version	TTM 33.38
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	2412 MHz ~ 2462 MHz
Maximum (Peak) Output Power to antenna	<MIMO Ant3+Ant5> 802.11b : 26.06 dBm (0.4036 W) 802.11g : 28.56 dBm (0.7178 W) 802.11n HT20 : 28.21 dBm (0.6622 W) 802.11n HT40 : 28.33 dBm (0.6808 W) 802.11ac VHT20 : 28.26 dBm (0.6699 W) 802.11ac VHT40 : 28.36 dBm (0.6855 W) 802.11ax HE20 : 28.30 dBm (0.6761 W) 802.11ax HE40 : 28.41 dBm (0.6934 W)
99% Occupied Bandwidth	<MIMO Ant3+Ant5> 802.11b : 12.627MHz 802.11g : 17.383MHz 802.11ax HE20 : 19.261MHz 802.11ax HE40 : 38.202MHz
Antenna Type / Gain	PIFA Antenna type with gain -6 dBi
Type of Modulation	802.11b : DSSS (DBPSK / DQPSK / CCK)



	802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) 802.11ax : OFDM (BPSK / QPSK / 16QAM / 64QAM/256QAM/1024QAM)
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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 & 802.11ac & 802.11ax mode, the whole testing have assessed only 802.11ax HE20 /HE40 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 > partial RU, therefore the full RU perform full test to cover partial RU and Partial RU verified power/PSD/RSE.

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 03CH05-KS TH01-KS	CN1257	314309

1.7 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH05-KS	AUDIX	E3	6.2009-8-24
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:

- ♦ 47 CFR Part 15 Subpart C §15.247
- ♦ FCC KDB 558074 D01 15.247 Meas Guidance v05r02
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ ANSI C63.10-2013

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

1.9 Specification of Accessory

Specification of Accessory			
AC Adapter 1(US)	Brand Name	Motorola(Acbel)	Model Name MC-681N
AC Adapter 1(EU)	Brand Name	Motorola(Acbel)	Model Name MC-682N
AC Adapter 1(UK)	Brand Name	Motorola(Acbel)	Model Name MC-683N
AC Adapter 1(AU)	Brand Name	Motorola(Acbel)	Model Name MC-685N
AC Adapter 1(AR)	Brand Name	Motorola(Acbel)	Model Name MC-686N
AC Adapter 1(BR)	Brand Name	Motorola(Acbel)	Model Name MC-687N
AC Adapter 2(US)	Brand Name	Motorola(Chenyang)	Model Name MC-681N
AC Adapter 2(EU)	Brand Name	Motorola(Chenyang)	Model Name MC-682N
AC Adapter 2(UK)	Brand Name	Motorola(Chenyang)	Model Name MC-683N
AC Adapter 2(AU)	Brand Name	Motorola(Chenyang)	Model Name MC-685N
AC Adapter 2(AR)	Brand Name	Motorola(Chenyang)	Model Name MC-686N
AC Adapter 2(BR)	Brand Name	Motorola(Chenyang)	Model Name MC-687N
AC Adapter 2(CHILE)	Brand Name	Motorola(Chenyang)	Model Name MC-689N
AC Adapter 2(KR)	Brand Name	Motorola(Chenyang)	Model Name MC-680N
Battery 1	Brand Name	Motorola(SUNWODA)	Model Name QM50
Battery 2	Brand Name	Motorola(CosMX)	Model Name QM50
Earphone	Brand Name	Motorola(Lyand)	Model Name MI181C(SH38D62338)
USB Cable 1	Brand Name	Saibao(Motorola)	Model Name SC18D71644
USB Cable 2	Brand Name	Saibao(Motorola)	Model Name SC18D86731



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)
2400-2483.5 MHz	1	2412	7	2442
	2	2417	8	2447
	3	2422	9	2452
	4	2427	10	2457
	5	2432	11	2462
	6	2437		



2.2 Test Mode

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

MIMO Antenna

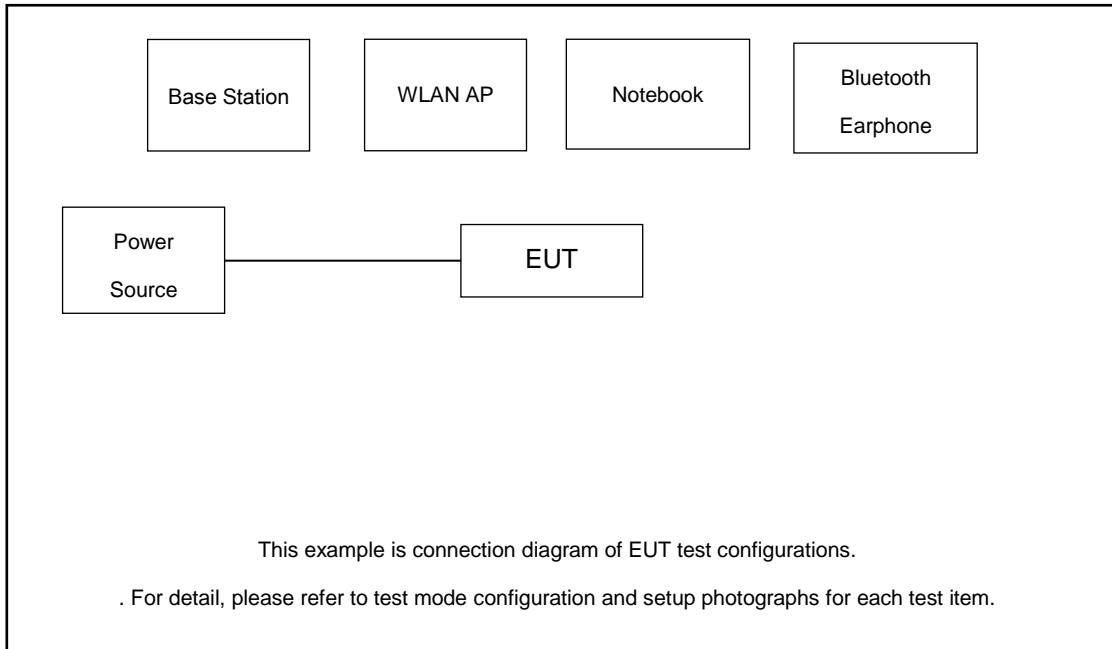
Modulation	Data Rate
802.11b	1 Mbps
802.11g	6 Mbps
802.11ax HE20	MCS0
802.11ax HE40	MCS0

Test Cases	
AC Conducted Emission	Mode 1 :GSM 850 Idle + WLAN Link (2.4G) + Bluetooth Link + USB Cable1(Charging from Adapter 1)
Remark: For Radiated Test Cases, The tests were performed with Earphone 1.	

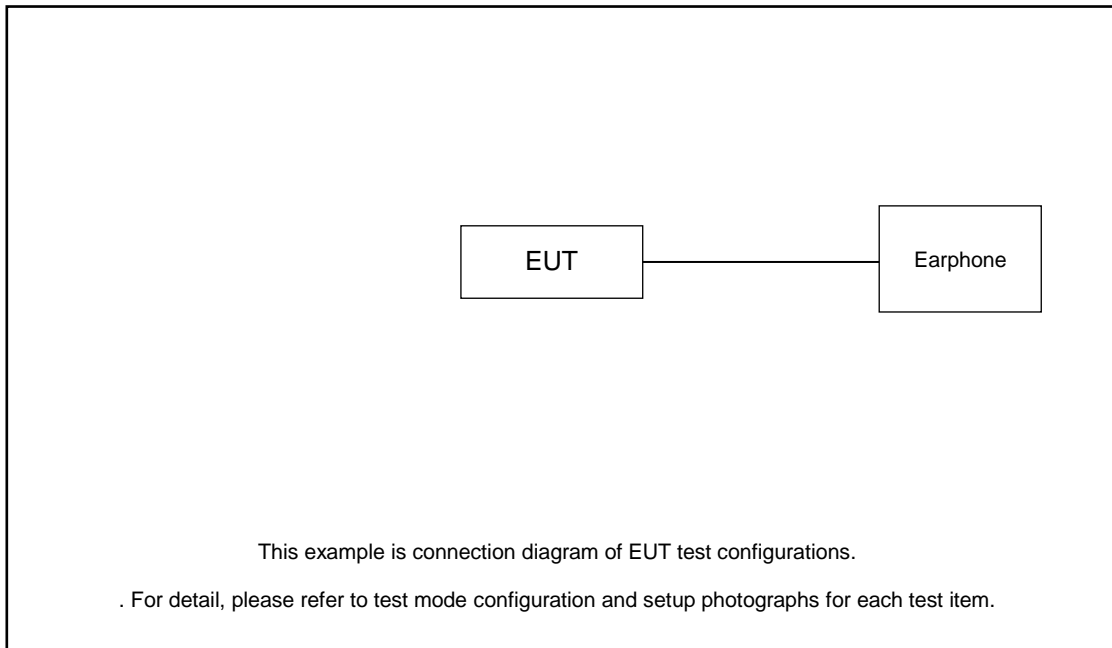
Co-location
GSM 850 Link + 802.11ax HE20 CH10 Tx GMS 850 Link + 802.11ax HE20 CH10 Tx + BLE 2Mbps CH 39 Tx

2.3 Connection Diagram of Test System

AC Conducted Emission:



Radiated Emission:





2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Base Station	Anritsu	MT8821C	N/A	N/A	Unshielded,1.8m
2.	Notebook	Lenovo	G480	QDS-BRCM1050I	N/A	shielded cable DC O/P 1.8m , Unshielded AC I/P cable 1.8m
3.	Bluetooth Earphone	Motorola	Moto earbuds 135	N/A	N/A	N/A
4.	WLAN AP	D-link	DIR-655	KA21R655B1	N/A	Unshielded,1.8m

2.5 EUT Operation Test Setup

For WLAN RF test items, an engineering test program was provided and enabled to make EUT continuous 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 1.91 dB and 10dB attenuator.

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

$$= 1.91 + 10 = 11.91\ (dB)$$

3 Test Result

3.1 6dB and 99% Bandwidth Measurement

3.1.1 Limit of 6dB and 99% Bandwidth

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

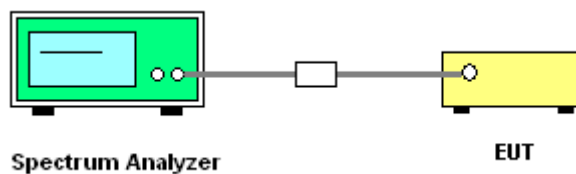
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. The testing follows ANSI C63.10-2013 clause 11.8
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
5. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) = 1%~5% of OBW and set the VBW is set to 3 times of the RBW.
6. Measure and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

Please refer to Appendix A.

3.2 Output Power Measurement

3.2.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm. If transmitting antenna with directional gain greater than 6dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

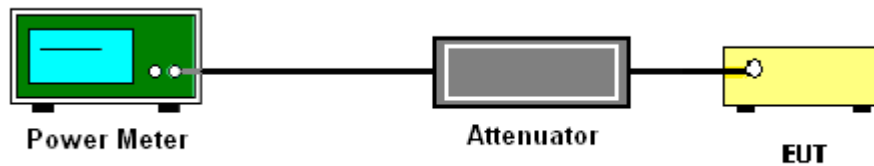
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

1. The testing follows the Measurement Procedure of ANSI C63.10-2013 clause 11.9.1.3 PKPM1 Peak power meter or ANSI C63.10-2013 clause 11.9.2.3.1 Method AVGPM method.
2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Measure the conducted output power and record the results in the test report.
5. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

3.2.4 Test Setup



3.2.5 Test Result of Peak Output Power

Please refer to Appendix A.

3.2.6 Test Result of Average Output Power (Reporting Only)

Please refer to Appendix A.



3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

The peak power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

1. The testing follows Measurement Procedure of ANSI C63.10-2013 clause 11.10.2 Method PKPSD.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.
7. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

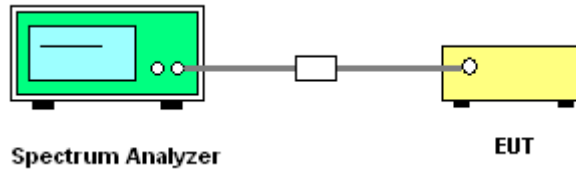
If measurements performed using method (2) plus $10 \log(N)$ exceeds the emission limit, the test should choose method (1) before declaring that the device fails the emission limit.

Method (1): Measure and sum the spectra across the outputs.

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

Method (2): Measure and add $10 \log(N)$ dB, where N is the number of outputs. (N=2)

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

3.4 Conducted Band Edges and Spurious Emission Measurement

3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

In any 100 kHz bandwidth outside of the authorized frequency band, the emissions which fall in the non-restricted bands shall be attenuated at least 20 dB / 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement.

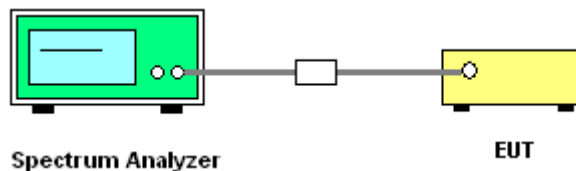
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

1. The testing follows ANSI C63.10-2013 clause 11.11
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.4.4 Test Setup



3.4.5 Test Result of Conducted Band Edges and Spurious Emission

Please refer to Appendix A.



3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

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

3.5.2 Measuring Instruments

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

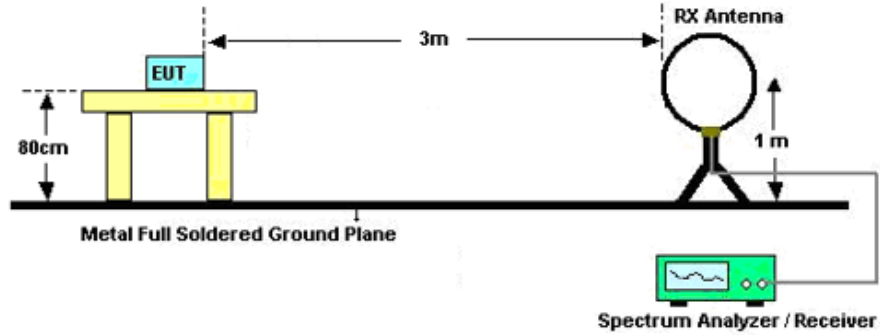


3.5.3 Test Procedures

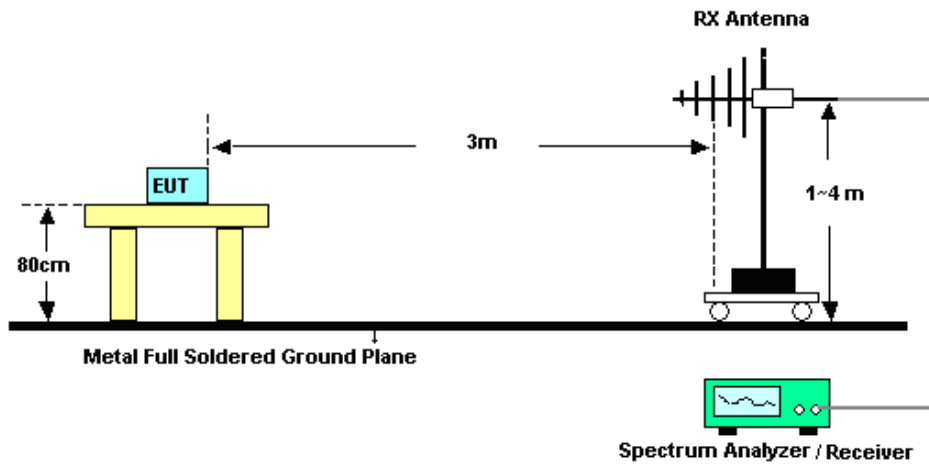
1. The testing follows ANSI C63.10-2013 clause 11.11 & 11.12
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
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. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
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 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.
8. Use the following spectrum analyzer settings:
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Set RBW=100 kHz for $f < 1$ GHz; VBW \geq RBW; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement.
For average measurement:
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

3.5.4 Test Setup

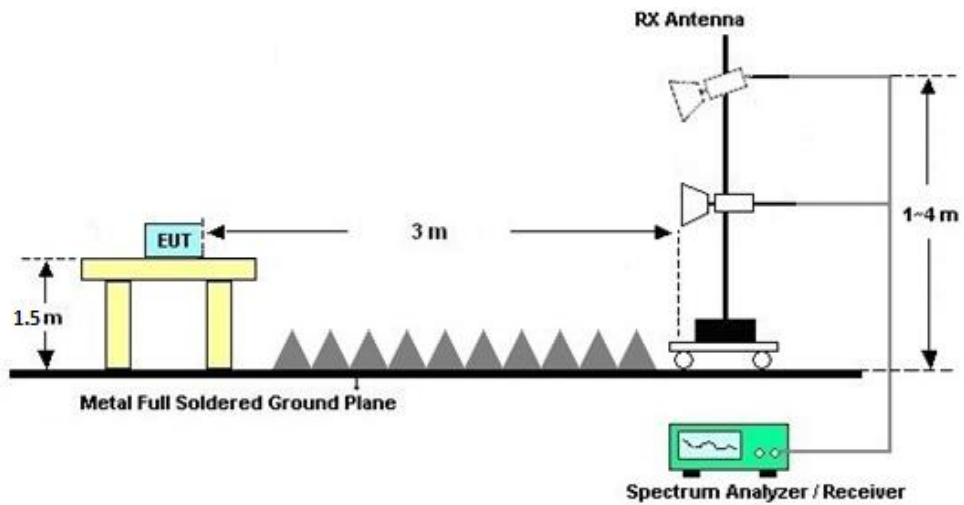
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz





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

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.

3.5.6 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 Emission (30MHz ~ 10th Harmonic or 40GHz, whichever is lower)

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.

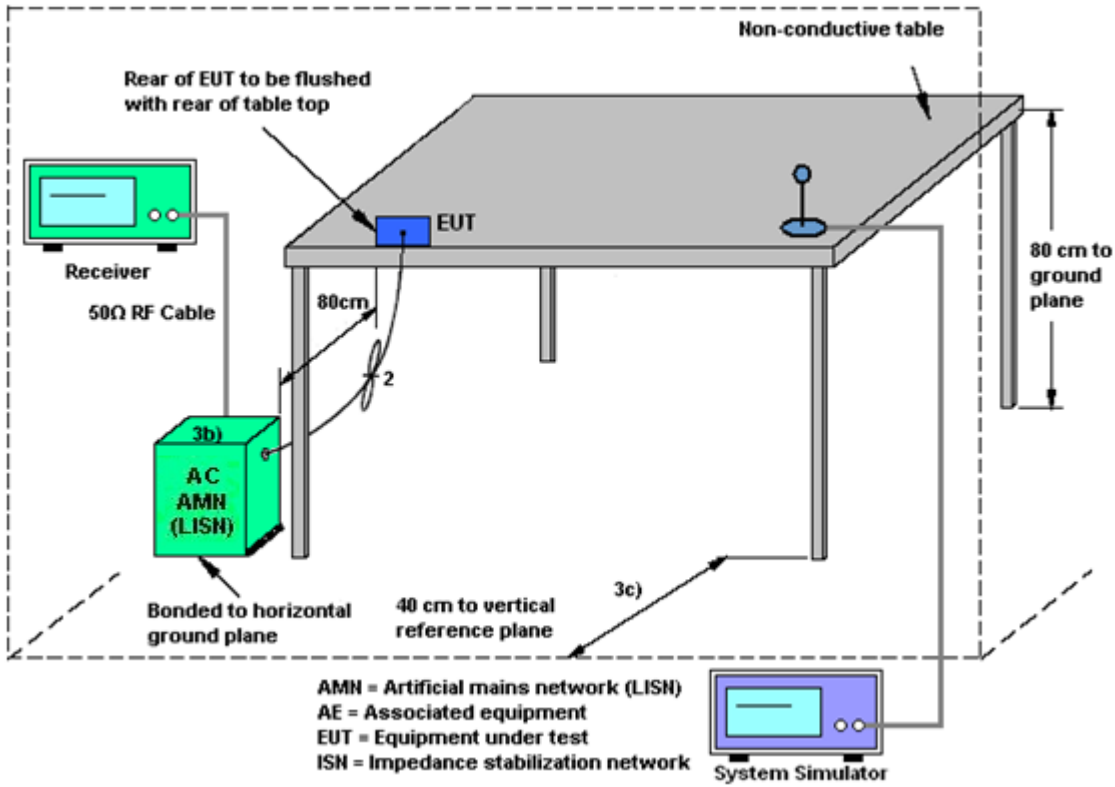
3.6.2 Measuring Instruments

The measuring equipment is listed in the section 4 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, and it 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 (IF bandwidth = 9kHz) 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

If directional gain of transmitting Antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. 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 rule.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

<STBC Modes>

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For completely uncorrelated transmissions, directional gain is calculated as,

Directional gain = $G_{ANT\ MAX}(Ant.1\ Gain, Ant.2\ Gain, \dots)$, as following table

The power and PSD limit should be modified if the directional gain of EUT is over 6 dBi,

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

<STBC Modes>						
			DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
	Ant. 3 (dBi)	Ant. 5 (dBi)				
2.4 GHz	-6.00	-6.00	-6.00	-6.00	0.00	0.00

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

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

This device supports STBC mode, not support CDD (Cyclic Delay Diversity) mode which controlled by MTK chipset software. This chipset support WIFI MIMO, and support STBC mode by manufacturer declared.

Space time block coding (STBC) transmits multiple copies of one data flow in wireless communication. STBC uses two antennas (Ant 3 and Ant 5) to produce multiple receive versions of data, improving data transmission reliability. Among these data copies, optimal copies are combined to provide most reliable data. This redundancy increases the chance of using one or more copies of received data to correctly decode the received data. STBC combines all the copies of received signals to produce the useful data.



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 12, 2022	Jun. 25, 2023~ Jul. 18, 2023	Oct. 11, 2023	Conducted (TH01-KS)
Pulse Power Sensor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 05, 2023	Jun. 25, 2023~ Jul. 18, 2023	Jan. 04, 2024	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 05, 2023	Jun. 25, 2023~ Jul. 18, 2023	Jan. 04, 2024	Conducted (TH01-KS)
EMI Receiver	R&S	ESC17	100768	9kHz~7GHz;	May 16, 2023	Jul. 05, 2023	May 15, 2024	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Oct. 13, 2022	Jul. 05, 2023	Oct. 12, 2023	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	May 16, 2023	Jul. 05, 2023	May 15, 2024	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP00000811	AC 0V~300V, 45Hz~1000Hz	Oct. 12, 2022	Jul. 05, 2023	Oct. 11, 2023	Conduction (CO01-KS)
EMI Test Receiver	Keysight	N9038A	MY56400004	3Hz~8.5GHz;Max x 30dBm	Oct. 13, 2022	Jun. 20, 2023~ Jul. 07, 2023	Oct. 12, 2023	Radiation (03CH05-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz~44G,MAX 30dB	Mar. 24, 2023	Jun. 20, 2023~ Jul. 07, 2023	Mar. 23, 2024	Radiation (03CH05-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 16, 2022	Jun. 20, 2023~ Jul. 07, 2023	Oct. 15, 2023	Radiation (03CH05-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	Apr. 09, 2023	Jun. 20, 2023~ Jul. 07, 2023	Apr. 08, 2024	Radiation (03CH05-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00218642	1GHz~18GHz	Apr. 06, 2023	Jun. 20, 2023~ Jul. 07, 2023	Apr. 05, 2024	Radiation (03CH05-KS)
SHF-EHF Horn	Com-power	AH-840	101093	18GHz~40GHz	Jan. 08, 2023	Jun. 20, 2023~ Jul. 07, 2023	Jan. 07, 2024	Radiation (03CH05-KS)
Amplifier	SONOMA	310N	380826	9KHz-1GHz	Jul. 11, 2022	Jun. 20, 2023~ Jul. 07, 2023	Jul. 10, 2023	Radiation (03CH05-KS)
Amplifier	EM	EM18G40GA	060852	18~40GHz	Jan. 05, 2023	Jun. 20, 2023~ Jul. 07, 2023	Jan. 04, 2024	Radiation (03CH05-KS)
high gain Amplifier	EM	EM01G18GA	060839	1Ghz-18Ghz	Oct. 12, 2022	Jun. 20, 2023~ Jul. 07, 2023	Oct. 11, 2023	Radiation (03CH05-KS)
Amplifier	EM	EM01G18GA	060833	1Ghz-18Ghz	Jan. 05, 2023	Jun. 20, 2023~ Jul. 07, 2023	Jan. 04, 2024	Radiation (03CH05-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Jun. 20, 2023~ Jul. 07, 2023	NCR	Radiation (03CH05-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Jun. 20, 2023~ Jul. 07, 2023	NCR	Radiation (03CH05-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Jun. 20, 2023~ Jul. 07, 2023	NCR	Radiation (03CH05-KS)

NCR: No Calibration Required



5 Measurement Uncertainty

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

Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Power	±0.46 dB
Conducted Emissions	±0.2.26 dB
Occupied Channel Bandwidth	±0.1 %
Conducted Power Spectral Density	±0.88 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.94 dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	6.28 dB
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.88 dB
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

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



Appendix A. Conducted Test Results

A1. Conducted Test Results

Test Engineer:	Jiang Jun	Temperature:	21~25	°C
Test Date:	2023.6.25~2023.7.18	Relative Humidity:	51~54	%

TEST RESULTS DATA
Peak Output Power

2.4GHz Band MIMO																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant3	Ant5	SUM	Ant3	Ant5	Ant3	Ant5	Ant3	Ant5	Ant3	Ant5	
11b	1Mbps	2	1	2412	22.66	23.41	26.06	30.00		-6.00		20.06		36.00		Pass
11b	1Mbps	2	6	2437	22.72	21.56	25.19	30.00		-6.00		19.19		36.00		Pass
11b	1Mbps	2	11	2462	22.19	22.54	25.38	30.00		-6.00		19.38		36.00		Pass
11g	6Mbps	2	1	2412	25.23	25.58	28.42	30.00		-6.00		22.42		36.00		Pass
11g	6Mbps	2	6	2437	25.86	25.21	28.56	30.00		-6.00		22.56		36.00		Pass
11g	6Mbps	2	10	2457	25.21	25.48	28.36	30.00		-6.00		22.36		36.00		Pass
11g	6Mbps	2	11	2462	21.48	22.91	25.26	30.00		-6.00		19.26		36.00		Pass
HT20	MCS8	2	1	2412	24.55	24.11	27.35	30.00		-6.00		21.35		36.00		Pass
HT20	MCS8	2	6	2437	25.49	24.89	28.21	30.00		-6.00		22.21		36.00		Pass
HT20	MCS8	2	9	2452	24.83	25.36	28.11	30.00		-6.00		22.11		36.00		Pass
HT20	MCS8	2	10	2457	24.28	23.79	27.05	30.00		-6.00		21.05		36.00		Pass
HT20	MCS8	2	11	2462	22.38	23.14	25.79	30.00		-6.00		19.79		36.00		Pass
HT40	MCS8	2	3	2422	24.55	24.76	27.67	30.00		-6.00		21.67		36.00		Pass
HT40	MCS8	2	6	2437	25.38	25.25	28.33	30.00		-6.00		22.33		36.00		Pass
HT40	MCS8	2	7	2442	24.32	23.95	27.15	30.00		-6.00		21.15		36.00		Pass
HT40	MCS8	2	8	2447	22.06	21.77	24.93	30.00		-6.00		18.93		36.00		Pass
HT40	MCS8	2	9	2452	21.83	21.94	24.90	30.00		-6.00		18.90		36.00		Pass
VHT20	MCS0	2	1	2412	24.58	24.19	27.40	30.00		-6.00		21.40		36.00		Pass
VHT20	MCS0	2	6	2437	25.55	24.92	28.26	30.00		-6.00		22.26		36.00		Pass
VHT20	MCS0	2	9	2452	24.86	25.36	28.13	30.00		-6.00		22.13		36.00		Pass
VHT20	MCS0	2	10	2457	24.32	23.78	27.07	30.00		-6.00		21.07		36.00		Pass
VHT20	MCS0	2	11	2462	22.38	23.16	25.80	30.00		-6.00		19.80		36.00		Pass
VHT40	MCS0	2	3	2422	24.62	24.81	27.73	30.00		-6.00		21.73		36.00		Pass
VHT40	MCS0	2	6	2437	25.41	25.29	28.36	30.00		-6.00		22.36		36.00		Pass
VHT40	MCS0	2	7	2442	24.34	23.95	27.16	30.00		-6.00		21.16		36.00		Pass
VHT40	MCS0	2	8	2447	22.12	21.82	24.98	30.00		-6.00		18.98		36.00		Pass
VHT40	MCS0	2	9	2452	21.85	21.93	24.90	30.00		-6.00		18.90		36.00		Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Peak Output Power

2.4GHz Band MIMO																	
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
						Ant3	Ant5	SUM	Ant3	Ant5	Ant3	Ant5	Ant3	Ant5	Ant3	Ant5	
HE20	MCS0	2	1	2412	Full	24.64	24.23	27.45	30.00		-6.00		21.45		36.00		Pass
HE20	MCS0	2	1	2412	26/0	18.66	18.16	21.43	30.00		-6.00		15.43		36.00		Pass
HE20	MCS0	2	1	2412	52/37	21.74	21.67	24.72	30.00		-6.00		18.72		36.00		Pass
HE20	MCS0	2	1	2412	106/53	23.59	23.42	26.52	30.00		-6.00		20.52		36.00		Pass
HE20	MCS0	2	6	2437	Full	25.60	24.95	28.30	30.00		-6.00		22.30		36.00		Pass
HE20	MCS0	2	6	2437	26/0	17.05	17.71	20.40	30.00		-6.00		14.40		36.00		Pass
HE20	MCS0	2	6	2437	52/37	22.06	22.01	25.05	30.00		-6.00		19.05		36.00		Pass
HE20	MCS0	2	6	2437	106/53	24.01	23.58	26.81	30.00		-6.00		20.81		36.00		Pass
HE20	MCS0	2	9	2452	Full	24.89	25.42	28.17	30.00		-6.00		22.17		36.00		Pass
HE20	MCS0	2	10	2457	Full	24.35	23.86	27.12	30.00		-6.00		21.12		36.00		Pass
HE20	MCS0	2	11	2462	Full	22.48	23.15	25.84	30.00		-6.00		19.84		36.00		Pass
HE20	MCS0	2	11	2462	26/8	16.69	16.45	19.58	30.00		-6.00		13.58		36.00		Pass
HE20	MCS0	2	11	2462	52/40	20.05	19.83	22.95	30.00		-6.00		16.95		36.00		Pass
HE20	MCS0	2	11	2462	106/54	21.67	21.05	24.38	30.00		-6.00		18.38		36.00		Pass
HE40	MCS0	2	3	2422	Full	24.69	24.85	27.78	30.00		-6.00		21.78		36.00		Pass
HE40	MCS0	2	6	2437	Full	25.46	25.34	28.41	30.00		-6.00		22.41		36.00		Pass
HE40	MCS0	2	7	2442	Full	24.42	24.02	27.23	30.00		-6.00		21.23		36.00		Pass
HE40	MCS0	2	8	2447	Full	22.15	21.85	25.01	30.00		-6.00		19.01		36.00		Pass
HE40	MCS0	2	9	2452	Full	21.86	22.04	24.96	30.00		-6.00		18.96		36.00		Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Output Power

2.4GHz Band MIMO																		
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power with duty factor (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant 3	Ant 5	Ant3	Ant5	SUM	Ant3	Ant5	Ant3	Ant5	Ant3	Ant5	Ant3	Ant5	
11b	1Mbps	2	1	2412	0.02	0.02	20.10	20.38	23.25	30.00	-6.00	17.25	36.00	Pass				
11b	1Mbps	2	6	2437	0.02	0.02	20.03	19.13	22.61	30.00	-6.00	16.61	36.00	Pass				
11b	1Mbps	2	11	2462	0.02	0.02	19.61	19.94	22.79	30.00	-6.00	16.79	36.00	Pass				
11g	6Mbps	2	1	2412	0.13	0.13	18.41	18.06	21.25	30.00	-6.00	15.25	36.00	Pass				
11g	6Mbps	2	6	2437	0.13	0.13	17.95	17.02	20.52	30.00	-6.00	14.52	36.00	Pass				
11g	6Mbps	2	10	2457	0.13	0.13	17.49	17.58	20.55	30.00	-6.00	14.55	36.00	Pass				
11g	6Mbps	2	11	2462	0.13	0.13	12.12	12.60	15.38	30.00	-6.00	9.38	36.00	Pass				
HT20	MCS8	2	1	2412	0.14	0.14	16.10	15.92	19.02	30.00	-6.00	13.02	36.00	Pass				
HT20	MCS8	2	6	2437	0.14	0.14	17.01	16.09	19.58	30.00	-6.00	13.58	36.00	Pass				
HT20	MCS8	2	9	2452	0.14	0.14	16.26	16.72	19.51	30.00	-6.00	13.51	36.00	Pass				
HT20	MCS8	2	10	2457	0.14	0.14	13.63	14.10	16.88	30.00	-6.00	10.88	36.00	Pass				
HT20	MCS8	2	11	2462	0.14	0.14	12.26	12.50	15.39	30.00	-6.00	9.39	36.00	Pass				
HT40	MCS8	2	3	2422	0.28	0.28	15.09	15.66	18.39	30.00	-6.00	12.39	36.00	Pass				
HT40	MCS8	2	6	2437	0.28	0.28	16.90	16.51	19.72	30.00	-6.00	13.72	36.00	Pass				
HT40	MCS8	2	7	2442	0.28	0.28	14.75	14.59	17.68	30.00	-6.00	11.68	36.00	Pass				
HT40	MCS8	2	8	2447	0.28	0.28	11.91	11.63	14.78	30.00	-6.00	8.78	36.00	Pass				
HT40	MCS8	2	9	2452	0.28	0.28	11.44	11.70	14.58	30.00	-6.00	8.58	36.00	Pass				
VHT20	MCS0	2	1	2412	0.14	0.14	16.13	15.95	19.05	30.00	-6.00	13.05	36.00	Pass				
VHT20	MCS0	2	6	2437	0.14	0.14	17.06	16.23	19.68	30.00	-6.00	13.68	36.00	Pass				
VHT20	MCS0	2	9	2452	0.14	0.14	16.23	16.77	19.52	30.00	-6.00	13.52	36.00	Pass				
VHT20	MCS0	2	10	2457	0.14	0.14	13.69	14.16	16.94	30.00	-6.00	10.94	36.00	Pass				
VHT20	MCS0	2	11	2462	0.14	0.14	12.32	12.57	15.46	30.00	-6.00	9.46	36.00	Pass				
VHT40	MCS0	2	3	2422	0.28	0.26	15.12	15.67	18.41	30.00	-6.00	12.41	36.00	Pass				
VHT40	MCS0	2	6	2437	0.28	0.26	17.11	16.74	19.94	30.00	-6.00	13.94	36.00	Pass				
VHT40	MCS0	2	7	2442	0.28	0.26	14.80	14.65	17.74	30.00	-6.00	11.74	36.00	Pass				
VHT40	MCS0	2	8	2447	0.28	0.26	11.97	11.66	14.83	30.00	-6.00	8.83	36.00	Pass				
VHT40	MCS0	2	9	2452	0.28	0.26	11.47	11.69	14.59	30.00	-6.00	8.59	36.00	Pass				

Setting		Restriction
Ant 3	Ant 5	
18.50	18.50	Target
18.50	18.50	Target
18.50	18.50	Target
16.00	16.00	Target
16.00	16.00	Target
16.00	16.00	Target
11.00	11.00	Target
14.00	14.00	Target
15.00	15.00	Target
15.00	15.00	Target
12.00	12.00	Target
11.00	11.00	Target
13.50	13.50	Target
15.00	15.00	Target
13.00	13.00	Target
10.50	10.50	Target
10.00	10.00	Target
14.00	14.00	Target
15.00	15.00	Target
15.00	15.00	Target
12.00	12.00	Target
11.00	11.00	Target
13.50	13.50	Target
15.00	15.00	Target
13.00	13.00	Target
10.50	10.50	Target
10.00	10.00	Target

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Output Power

2.4GHz Band MIMO																			
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Duty Factor (dB)		Average Conducted Power with duty factor (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
						Ant3	Ant5	Ant3	Ant5	SUM	Ant3	Ant5	Ant3	Ant5	Ant3	Ant5	Ant3	Ant5	
HE20	MCS0	2	1	2412	Full	0.18	0.18	16.24	16.04	19.15	30.00	-6.00	13.15	36.00	Pass				
HE20	MCS0	2	1	2412	26/0	0.13	0.13	9.20	8.52	11.88	30.00	-6.00	5.88	36.00	Pass				
HE20	MCS0	2	1	2412	52/37	0.04	0.04	11.39	10.69	14.06	30.00	-6.00	8.06	36.00	Pass				
HE20	MCS0	2	1	2412	106/53	0.08	0.08	14.29	14.00	17.16	30.00	-6.00	11.16	36.00	Pass				
HE20	MCS0	2	6	2437	Full	0.18	0.18	17.13	16.32	19.75	30.00	-6.00	13.75	36.00	Pass				
HE20	MCS0	2	6	2437	26/0	0.13	0.13	7.71	8.11	10.92	30.00	-6.00	4.92	36.00	Pass				
HE20	MCS0	2	6	2437	52/37	0.04	0.04	10.43	10.72	13.59	30.00	-6.00	7.59	36.00	Pass				
HE20	MCS0	2	6	2437	106/53	0.08	0.08	14.34	14.14	17.25	30.00	-6.00	11.25	36.00	Pass				
HE20	MCS0	2	9	2452	Full	0.18	0.18	16.37	16.84	19.62	30.00	-6.00	13.62	36.00	Pass				
HE20	MCS0	2	10	2457	Full	0.18	0.18	13.76	14.19	16.99	30.00	-6.00	10.99	36.00	Pass				
HE20	MCS0	2	11	2462	Full	0.18	0.18	12.41	12.67	15.55	30.00	-6.00	9.55	36.00	Pass				
HE20	MCS0	2	11	2462	26/8	0.13	0.13	6.28	5.82	9.07	30.00	-6.00	3.07	36.00	Pass				
HE20	MCS0	2	11	2462	52/40	0.04	0.04	8.32	8.36	11.35	30.00	-6.00	5.35	36.00	Pass				
HE20	MCS0	2	11	2462	106/54	0.08	0.08	10.89	10.59	13.75	30.00	-6.00	7.75	36.00	Pass				
HE40	MCS0	2	3	2422	Full	0.34	0.34	15.21	15.79	18.52	30.00	-6.00	12.52	36.00	Pass				
HE40	MCS0	2	6	2437	Full	0.34	0.34	17.22	16.95	20.10	30.00	-6.00	14.10	36.00	Pass				
HE40	MCS0	2	7	2442	Full	0.34	0.34	14.89	14.73	17.82	30.00	-6.00	11.82	36.00	Pass				
HE40	MCS0	2	8	2447	Full	0.34	0.34	12.06	11.77	14.93	30.00	-6.00	8.93	36.00	Pass				
HE40	MCS0	2	9	2452	Full	0.34	0.34	11.55	11.78	14.68	30.00	-6.00	8.68	36.00	Pass				

Setting		Restriction
Ant 3	Ant 5	
14.00		Target
7.50		Target
10.00		Target
12.00		Target
15.00		Target
6.50		Target
9.50		Target
12.50		Target
15.00		Target
12.00		Target
11.00		Target
3.50		Target
6.00		Target
8.00		Target
13.50		Target
15.00		Target
13.00		Target
10.50		Target
10.00		Target

Note: Measured power (dBm) has offset with cable loss.



DTS Bandwidth

Test Result

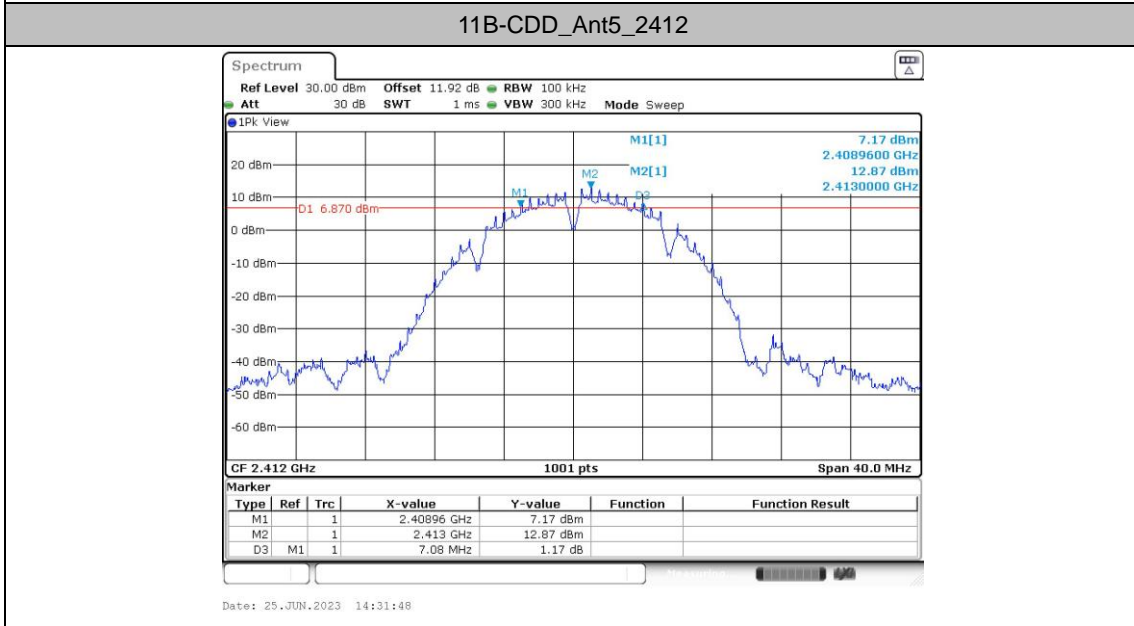
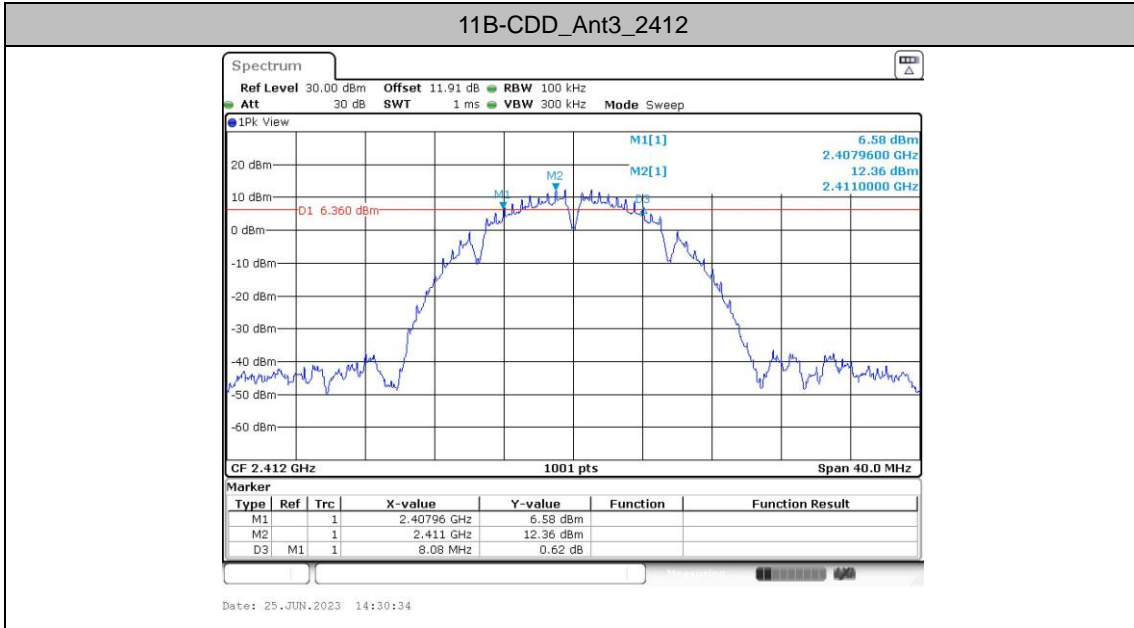
TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B-CDD	Ant3	2412	8.08	2407.96	2416.04	0.5	PASS
	Ant5	2412	7.08	2408.96	2416.04	0.5	PASS
	Ant3	2437	8.04	2433.00	2441.04	0.5	PASS
	Ant5	2437	8.08	2432.48	2440.56	0.5	PASS
	Ant3	2462	7.60	2458.44	2466.04	0.5	PASS
	Ant5	2462	7.52	2458.00	2465.52	0.5	PASS
11G-CDD	Ant3	2412	15.32	2404.24	2419.56	0.5	PASS
	Ant5	2412	16.32	2403.84	2420.16	0.5	PASS
	Ant3	2437	15.68	2429.48	2445.16	0.5	PASS
	Ant5	2437	15.68	2428.84	2444.52	0.5	PASS
	Ant3	2457	16.32	2448.84	2465.16	0.5	PASS
	Ant5	2457	14.40	2450.72	2465.12	0.5	PASS
	Ant3	2462	16.04	2454.12	2470.16	0.5	PASS
	Ant5	2462	15.72	2453.84	2469.56	0.5	PASS
11AX20MIMO	Ant3	2412	18.20	2402.72	2420.92	0.5	PASS
	Ant5	2412	18.88	2402.48	2421.36	0.5	PASS
	Ant3	2437	18.20	2428.00	2446.20	0.5	PASS
	Ant5	2437	17.08	2427.48	2444.56	0.5	PASS
	Ant3	2452	16.92	2442.68	2459.60	0.5	PASS
	Ant5	2452	16.96	2444.48	2461.44	0.5	PASS
	Ant3	2457	18.36	2447.80	2466.16	0.5	PASS
	Ant5	2457	15.32	2450.72	2466.04	0.5	PASS
	Ant3	2462	18.44	2453.00	2471.44	0.5	PASS
	Ant5	2462	15.56	2452.76	2468.32	0.5	PASS



11AX40MIMO	Ant3	2422	37.92	2403.12	2441.04	0.5	PASS
	Ant5	2422	36.24	2403.36	2439.60	0.5	PASS
	Ant3	2437	37.20	2418.44	2455.64	0.5	PASS
	Ant5	2437	37.68	2418.20	2455.88	0.5	PASS
	Ant3	2442	36.96	2423.52	2460.48	0.5	PASS
	Ant5	2442	38.08	2423.04	2461.12	0.5	PASS
	Ant3	2447	37.28	2428.36	2465.64	0.5	PASS
	Ant5	2447	37.92	2428.12	2466.04	0.5	PASS
	Ant3	2452	37.60	2433.28	2470.88	0.5	PASS
	Ant5	2452	35.12	2434.48	2469.60	0.5	PASS

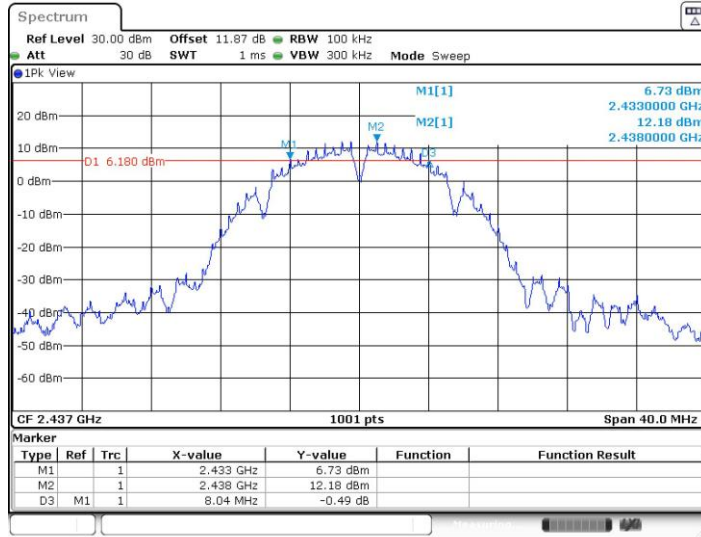


Test Graphs



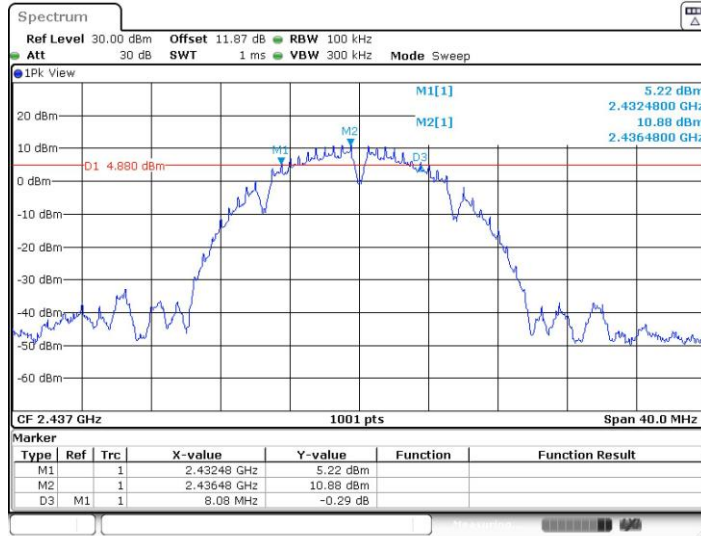


11B-CDD_Ant3_2437



Date: 25 JUN.2023 14:36:02

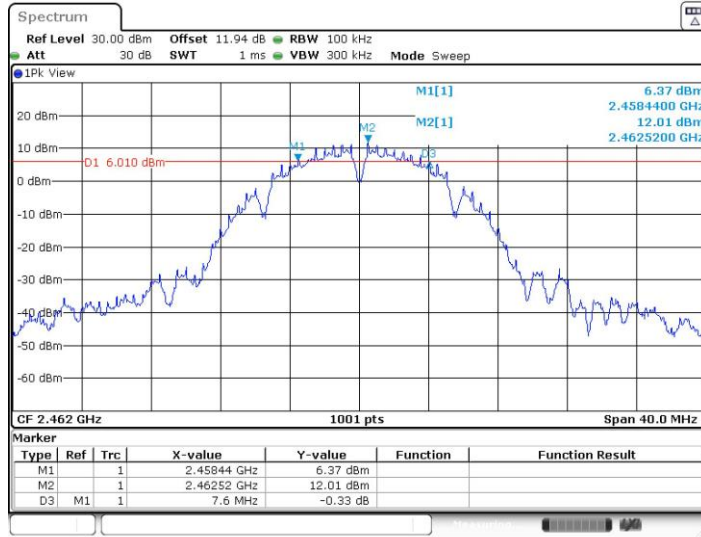
11B-CDD_Ant5_2437



Date: 25 JUN.2023 14:37:03

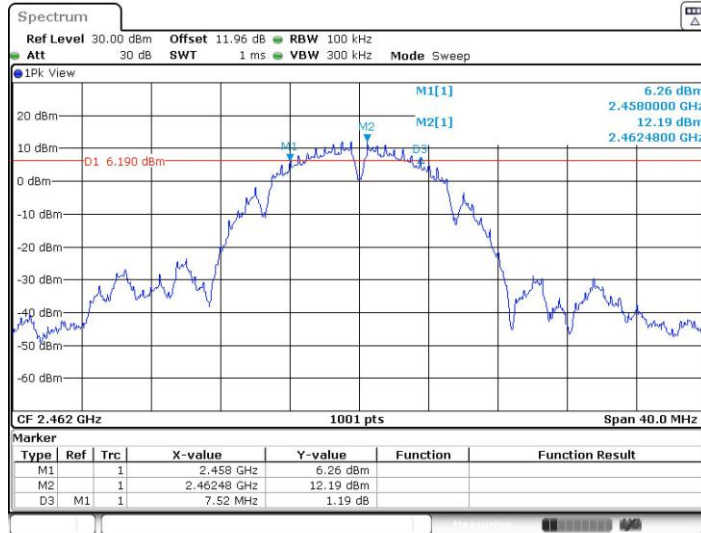


11B-CDD_Ant3_2462



Date: 25.JUN.2023 14:38:18

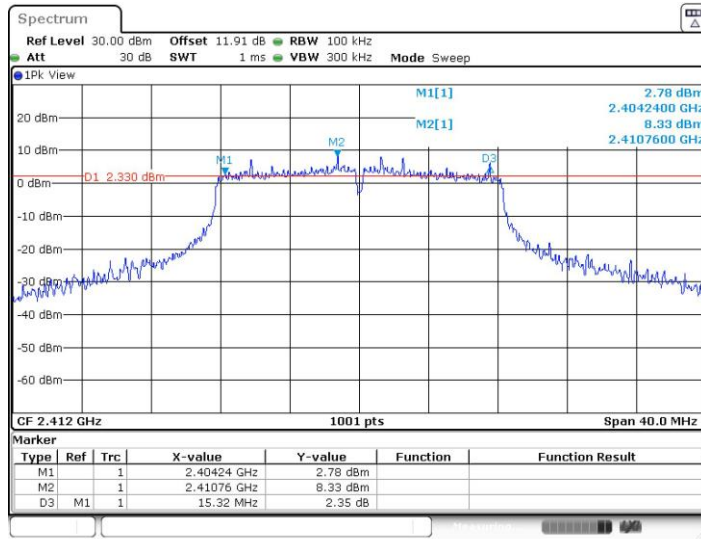
11B-CDD_Ant5_2462



Date: 25.JUN.2023 14:39:32

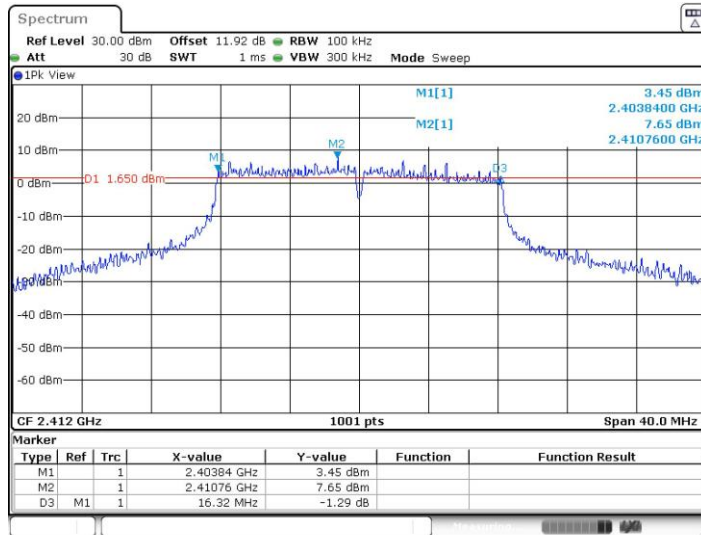


11G-CDD_Ant3_2412



Date: 25.JUN.2023 14:41:15

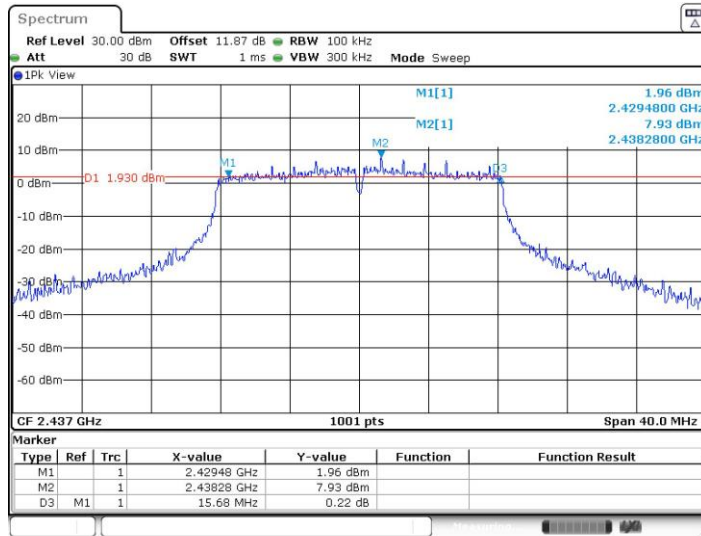
11G-CDD_Ant5_2412



Date: 25.JUN.2023 14:42:28

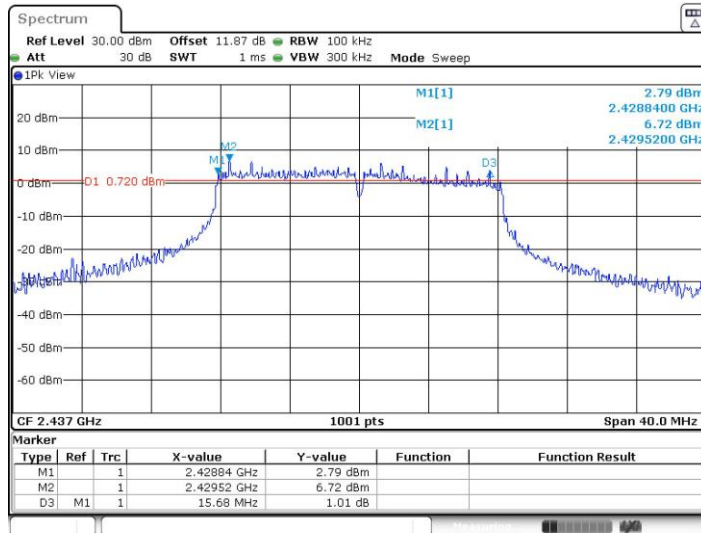


11G-CDD_Ant3_2437



Date: 25.JUN.2023 14:44:16

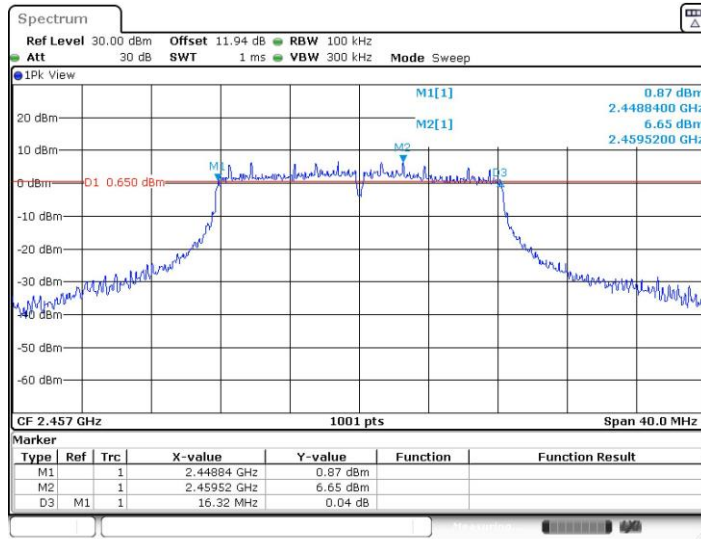
11G-CDD_Ant5_2437



Date: 25.JUN.2023 14:45:15

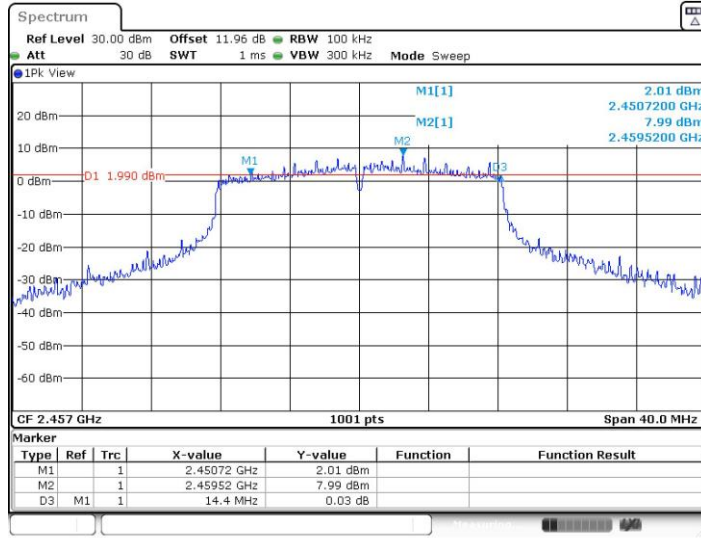


11G-CDD_Ant3_2457



Date: 5.JUL.2023 16:46:50

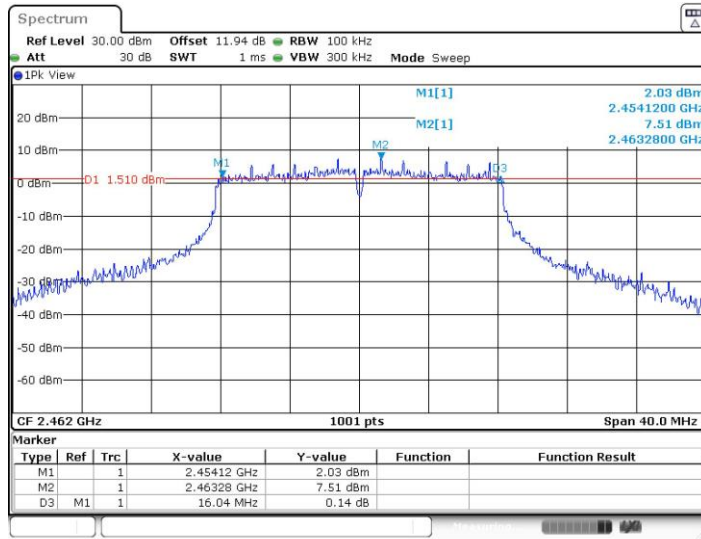
11G-CDD_Ant5_2457



Date: 5.JUL.2023 16:47:57

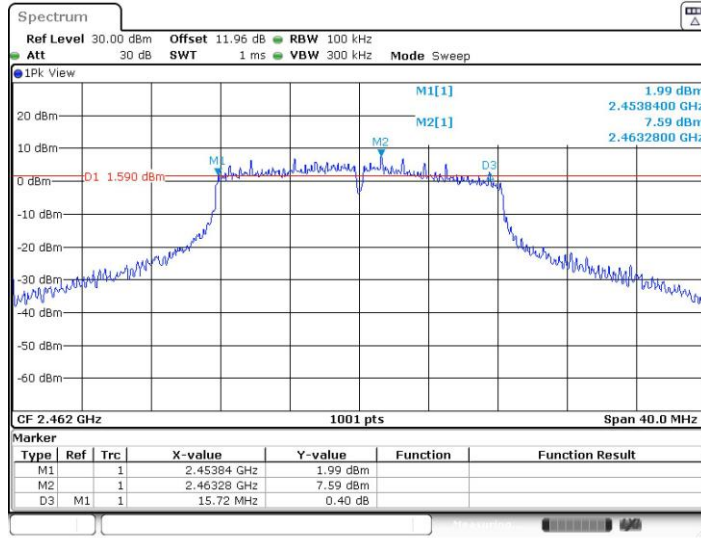


11G-CDD_Ant3_2462



Date: 25.JUN.2023 14:46:25

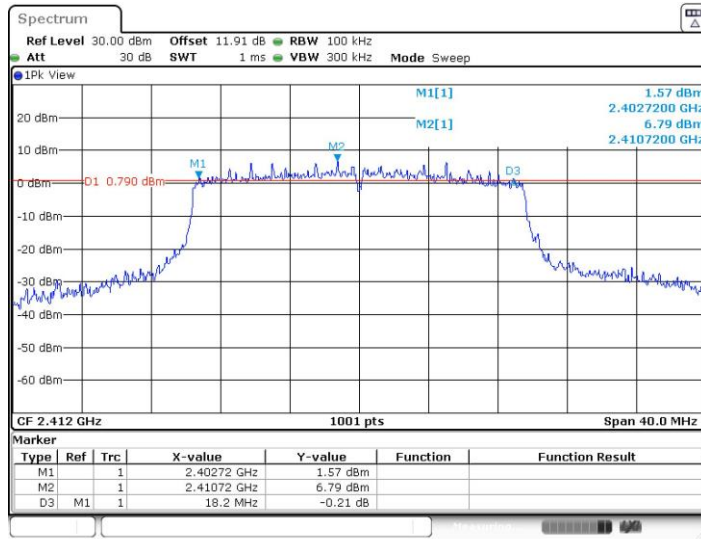
11G-CDD_Ant5_2462



Date: 25.JUN.2023 14:47:39

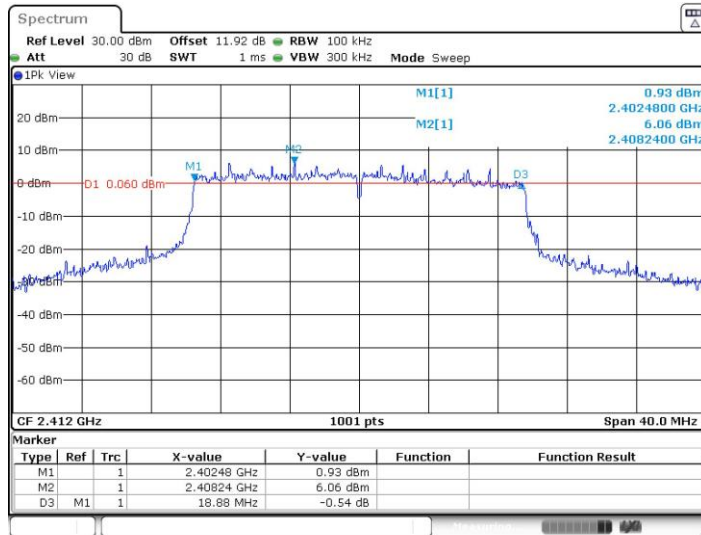


11AX20MIMO_Ant3_2412



Date: 25.JUN.2023 14:49:44

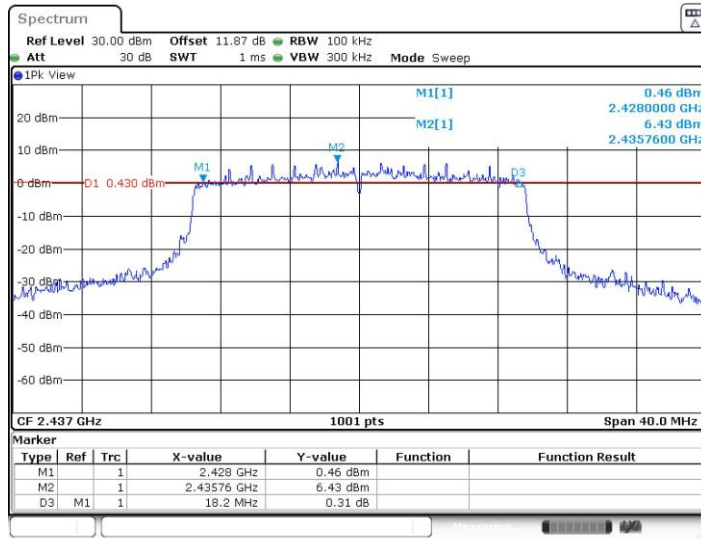
11AX20MIMO_Ant5_2412



Date: 25.JUN.2023 14:50:57

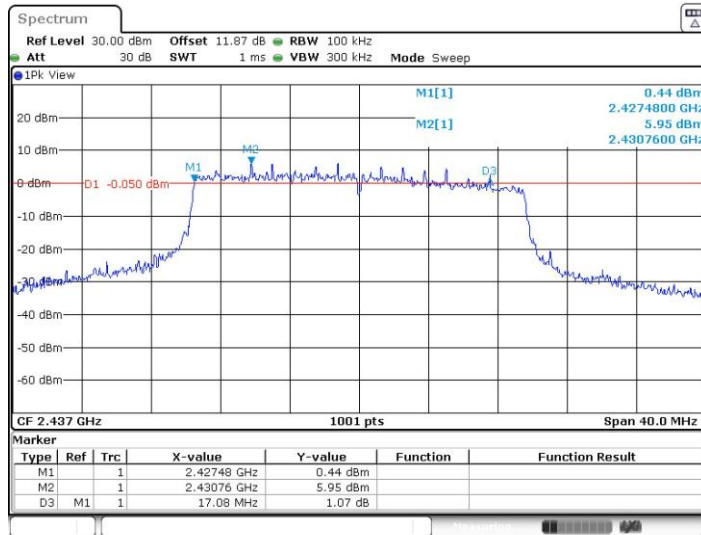


11AX20MIMO_Ant3_2437



Date: 25.JUN.2023 14:52:36

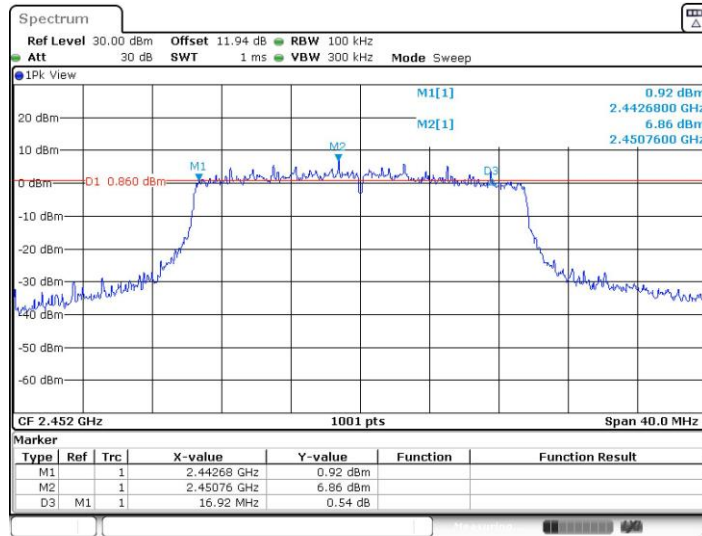
11AX20MIMO_Ant5_2437



Date: 25.JUN.2023 14:53:35

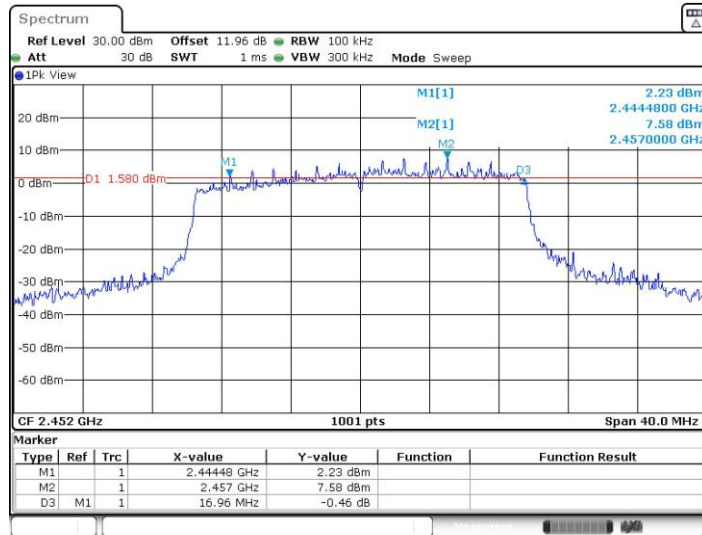


11AX20MIMO_Ant3_2452



Date: 5.JUL.2023 16:50:53

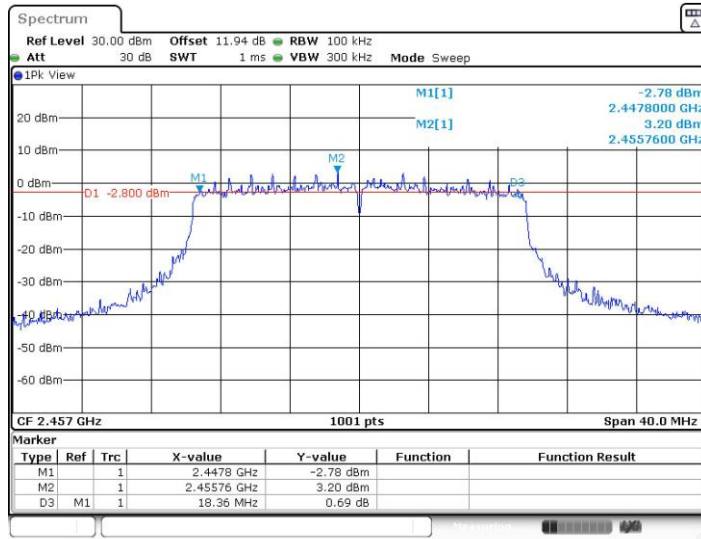
11AX20MIMO_Ant5_2452



Date: 5.JUL.2023 16:52:01

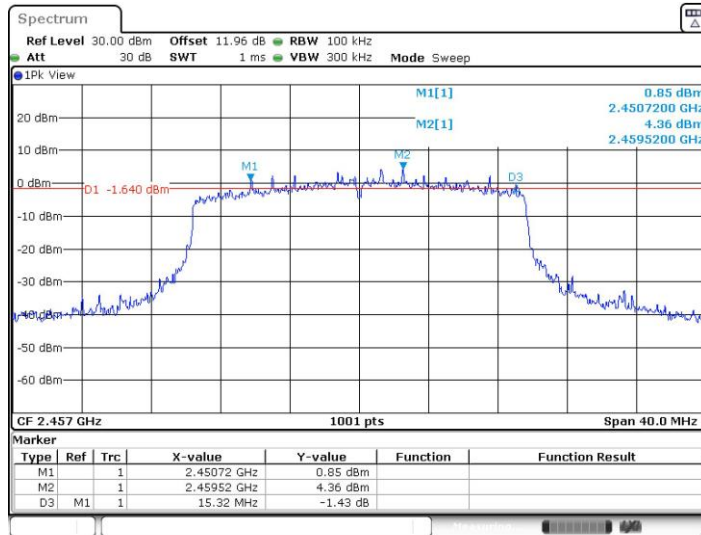


11AX20MIMO_Ant3_2457



Date: 5.JUL.2023 16:56:27

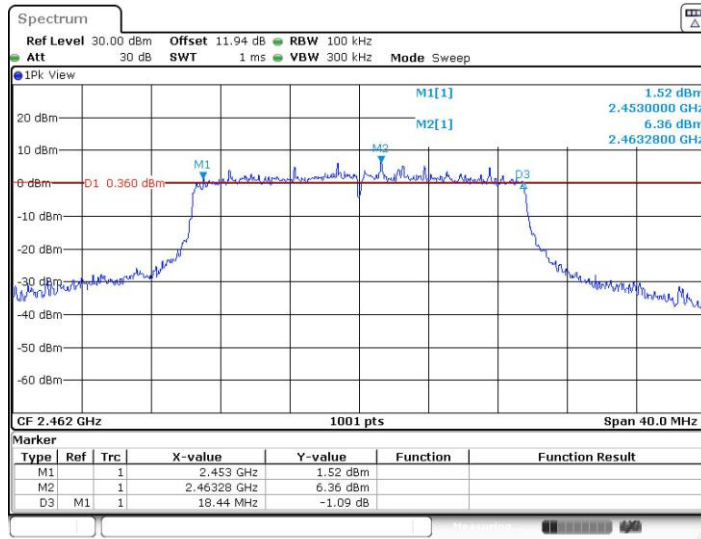
11AX20MIMO_Ant5_2457



Date: 5.JUL.2023 16:57:34

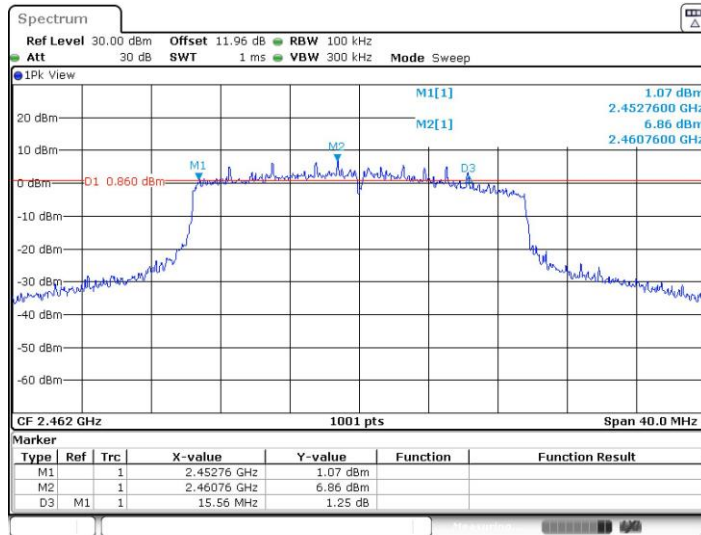


11AX20MIMO_Ant3_2462



Date: 25.JUN.2023 14:54:52

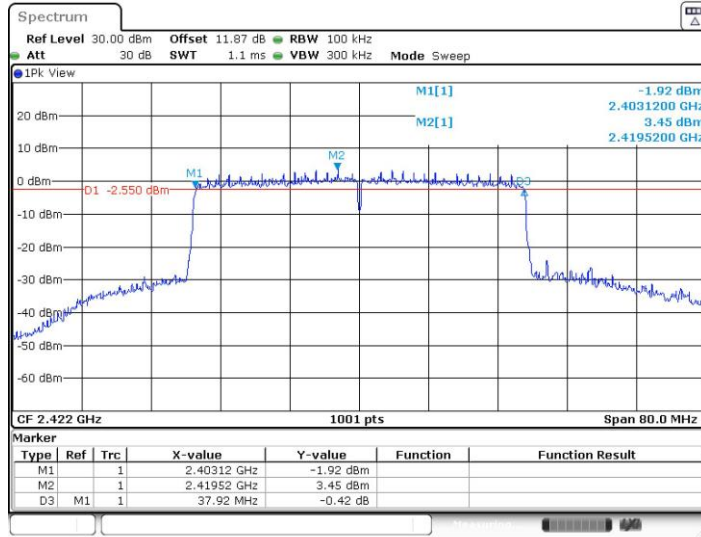
11AX20MIMO_Ant5_2462



Date: 25.JUN.2023 14:56:06

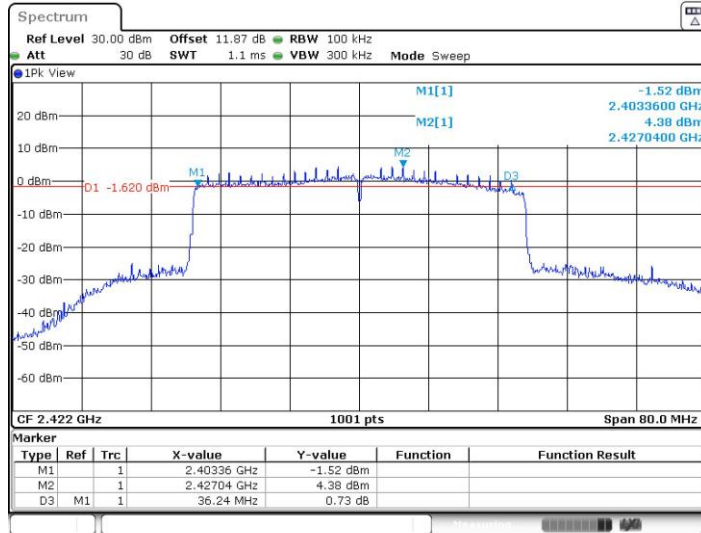


11AX40MIMO_Ant3_2422



Date: 25.JUN.2023 14:58:53

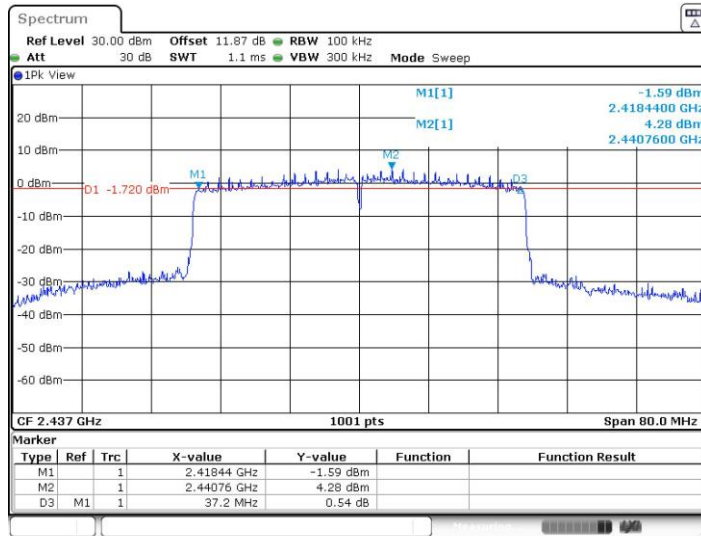
11AX40MIMO_Ant5_2422



Date: 25.JUN.2023 15:00:07

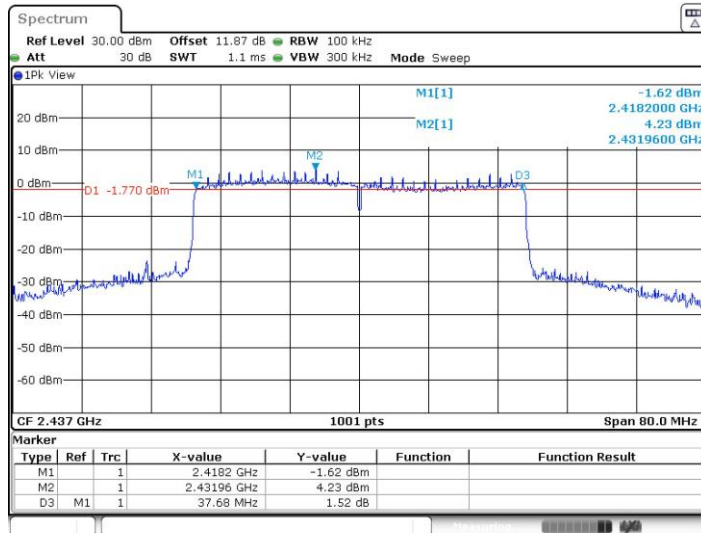


11AX40MIMO_Ant3_2437



Date: 25.JUN.2023 15:01:56

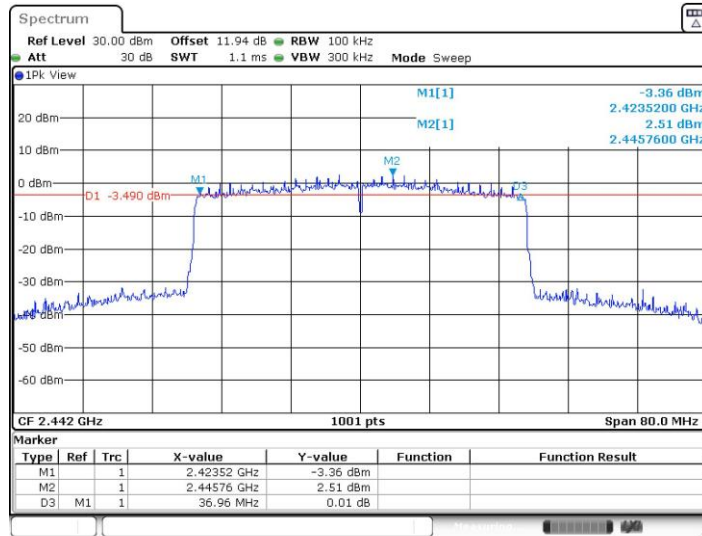
11AX40MIMO_Ant5_2437



Date: 25.JUN.2023 15:02:57

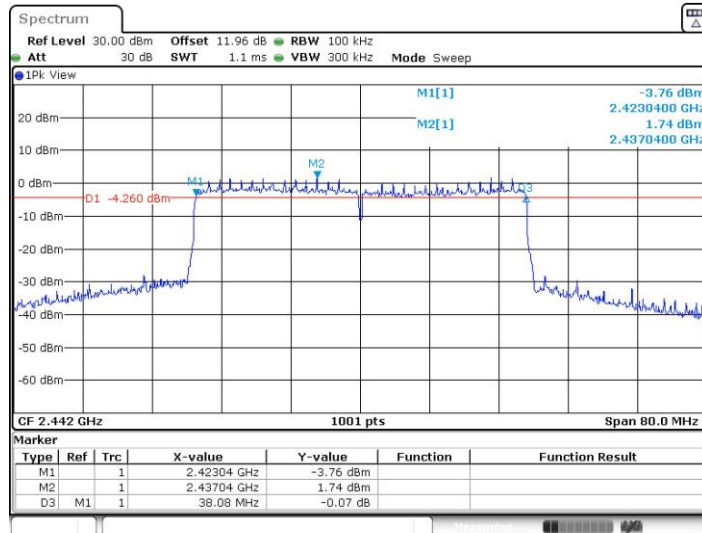


11AX40MIMO_Ant3_2442



Date: 5.JUL.2023 17:00:41

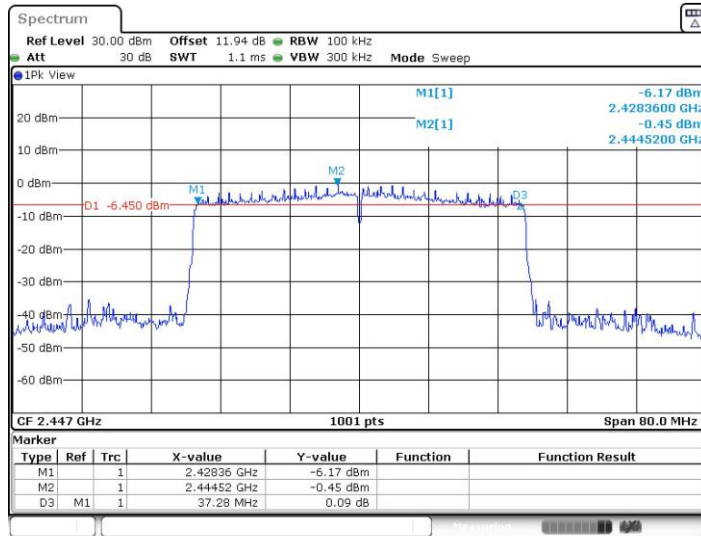
11AX40MIMO_Ant5_2442



Date: 5.JUL.2023 17:01:49

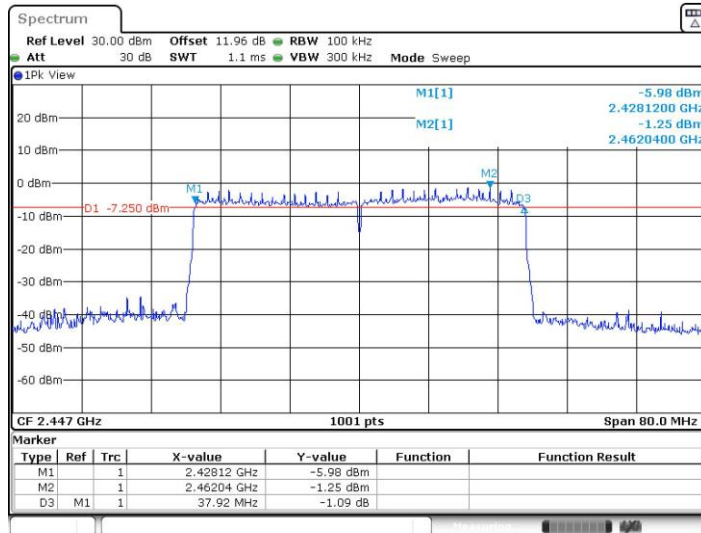


11AX40MIMO_Ant3_2447



Date: 5.JUL.2023 17:03:09

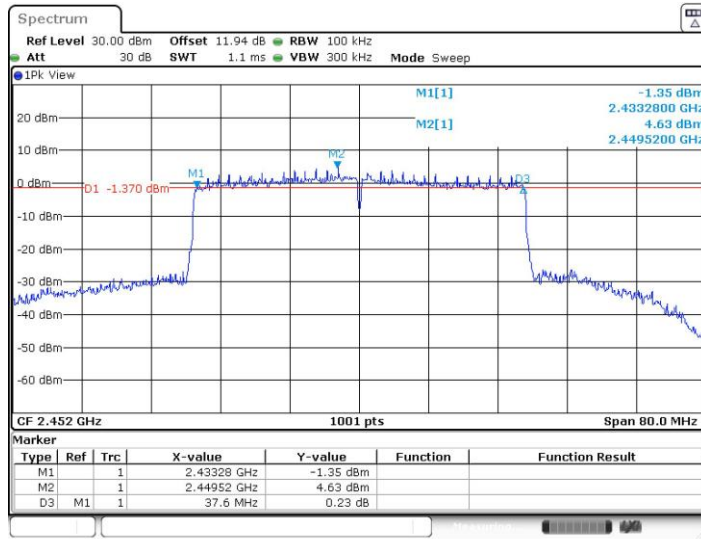
11AX40MIMO_Ant5_2447



Date: 5.JUL.2023 17:04:16

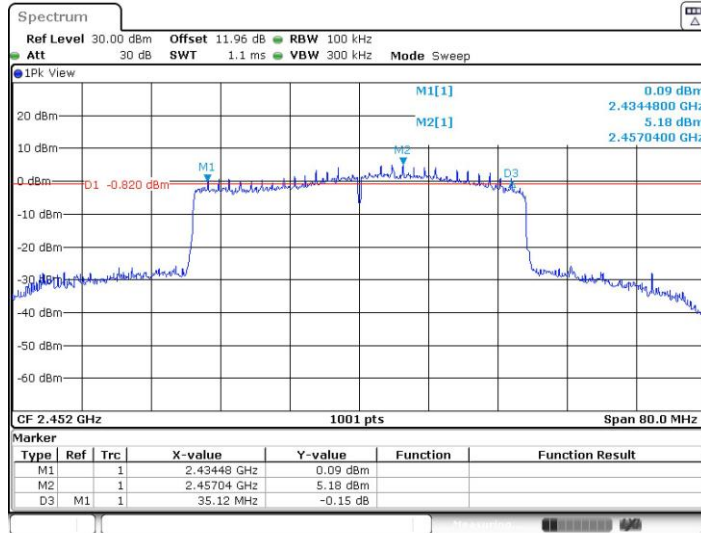


11AX40MIMO_Ant3_2452



Date: 25.JUN.2023 15:04:11

11AX40MIMO_Ant5_2452



Date: 25.JUN.2023 15:05:25



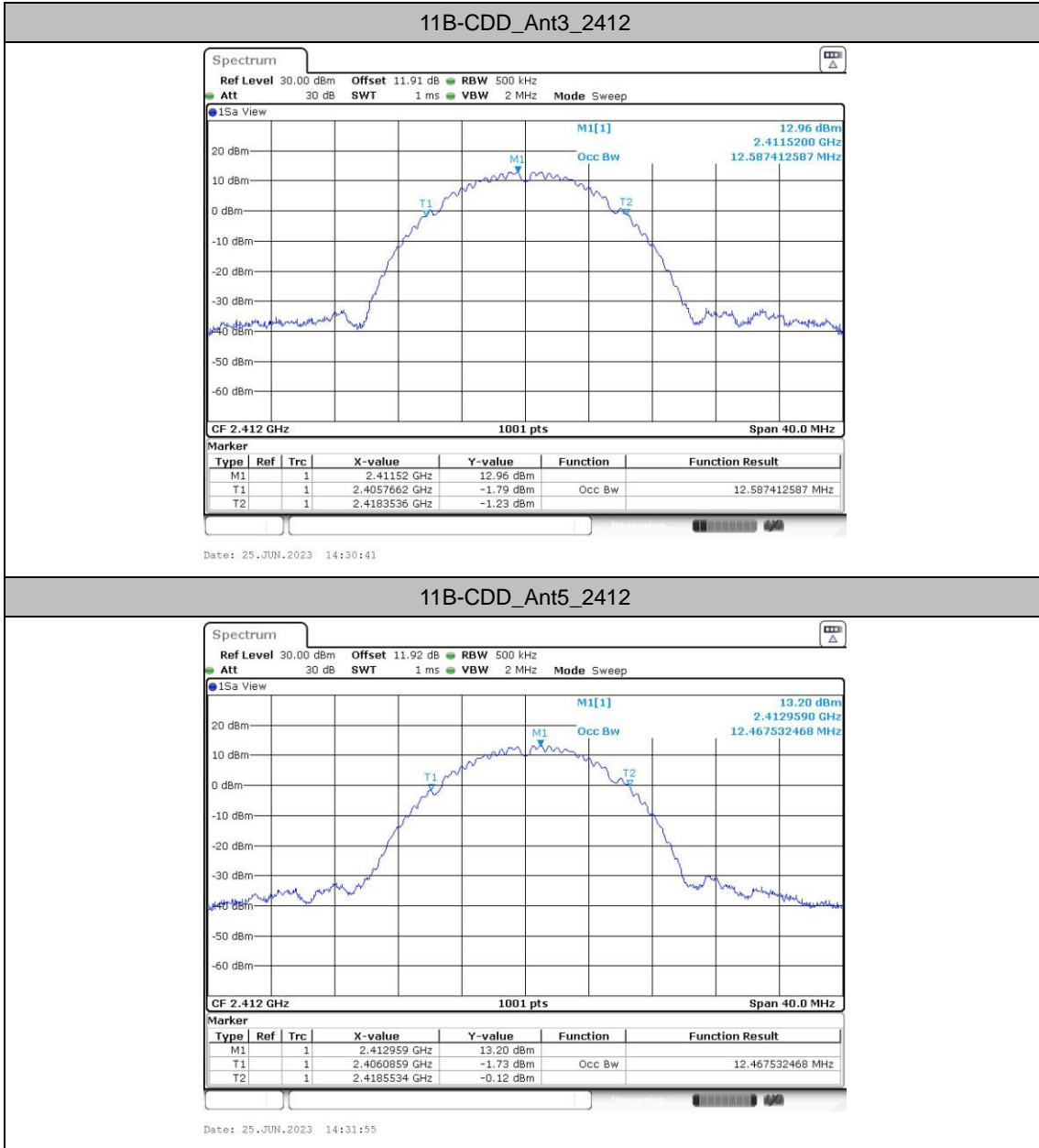
Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B-CDD	Ant3	2412	12.587	2405.7662	2418.3536	---	---
	Ant5	2412	12.468	2406.0859	2418.5534	---	---
	Ant3	2437	12.308	2430.8861	2443.1938	---	---
	Ant5	2437	12.627	2430.4466	2443.0739	---	---
	Ant3	2462	12.547	2455.7662	2468.3137	---	---
	Ant5	2462	11.588	2456.0060	2467.5944	---	---
11G-CDD	Ant3	2412	17.303	2403.3287	2420.6314	---	---
	Ant5	2412	17.223	2403.2488	2420.4715	---	---
	Ant3	2437	17.223	2428.4086	2445.6314	---	---
	Ant5	2437	17.143	2428.2088	2445.3516	---	---
	Ant3	2457	17.223	2448.3287	2465.5514	---	---
	Ant5	2457	16.783	2448.7283	2465.5115	---	---
	Ant3	2462	17.383	2453.3287	2470.7113	---	---
	Ant5	2462	16.743	2453.4885	2470.2318	---	---
11AX20MIMO	Ant3	2412	19.181	2402.4096	2421.5904	---	---
	Ant5	2412	19.261	2402.2897	2421.5504	---	---
	Ant3	2437	19.141	2427.4496	2446.5904	---	---
	Ant5	2437	19.261	2427.2498	2446.5105	---	---
	Ant3	2452	19.101	2442.4096	2461.5105	---	---
	Ant5	2452	19.141	2442.5694	2461.7103	---	---
	Ant3	2457	19.141	2447.4496	2466.5904	---	---
	Ant5	2457	18.941	2447.5694	2466.5105	---	---
	Ant3	2462	19.221	2452.4096	2471.6304	---	---
	Ant5	2462	18.981	2452.4096	2471.3906	---	---
11AX40MIMO	Ant3	2422	37.962	2403.0589	2441.0210	---	---
	Ant5	2422	37.802	2402.9790	2440.7812	---	---
	Ant3	2437	37.802	2418.0589	2455.8611	---	---
	Ant5	2437	38.122	2417.9790	2456.1009	---	---
	Ant3	2442	37.722	2423.0589	2460.7812	---	---
	Ant5	2442	38.202	2422.8991	2461.1009	---	---
	Ant3	2447	37.802	2428.1389	2465.9411	---	---
	Ant5	2447	38.042	2427.9790	2466.0210	---	---
	Ant3	2452	37.962	2433.0589	2471.0210	---	---
	Ant5	2452	37.642	2433.1389	2470.7812	---	---



Test Graphs



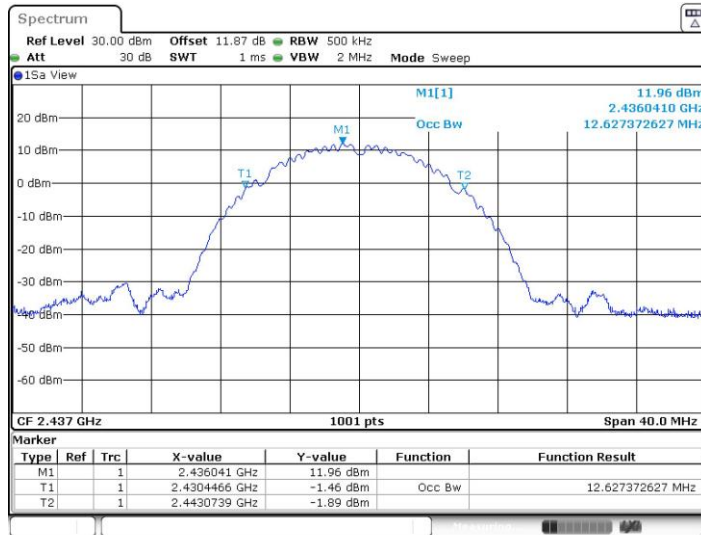


11B-CDD_Ant3_2437



Date: 25.JUN.2023 14:36:10

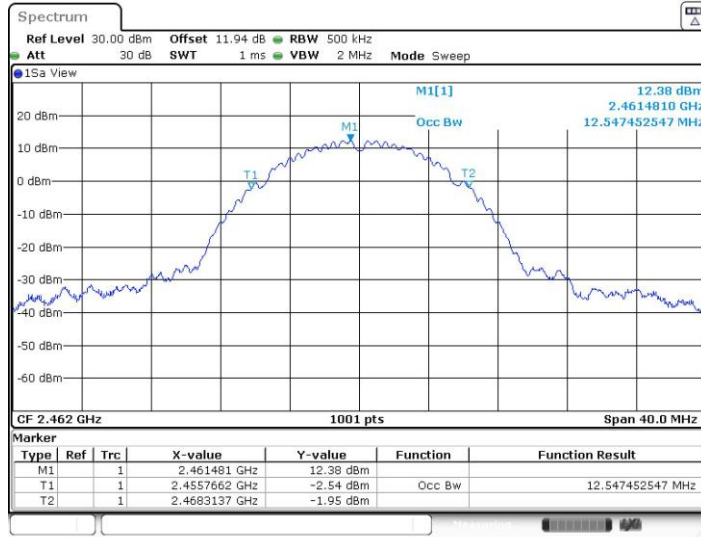
11B-CDD_Ant5_2437



Date: 25.JUN.2023 14:37:09

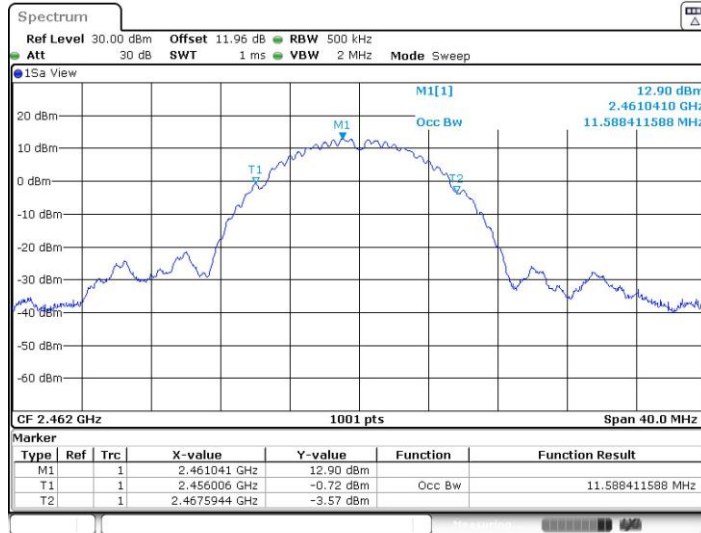


11B-CDD_Ant3_2462



Date: 25.JUN.2023 14:38:25

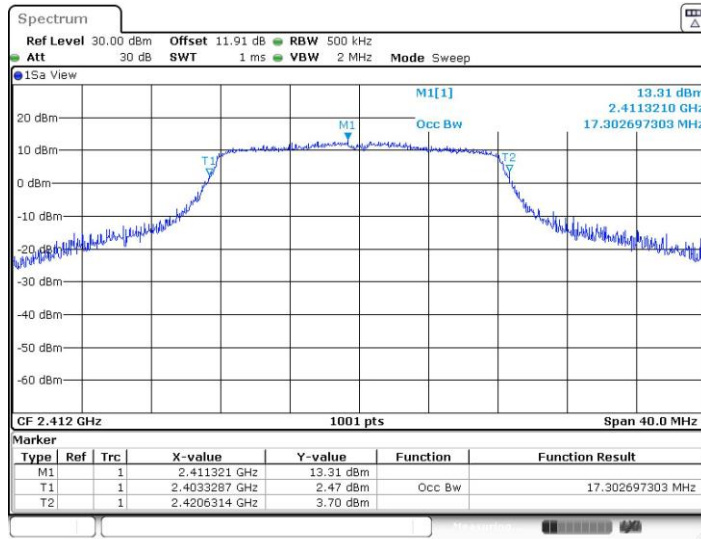
11B-CDD_Ant5_2462



Date: 25.JUN.2023 14:39:38

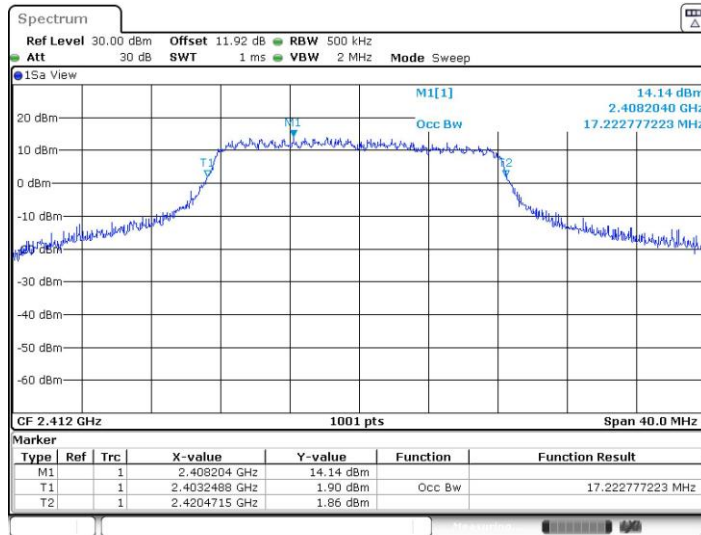


11G-CDD_Ant3_2412



Date: 25.JUN.2023 14:41:21

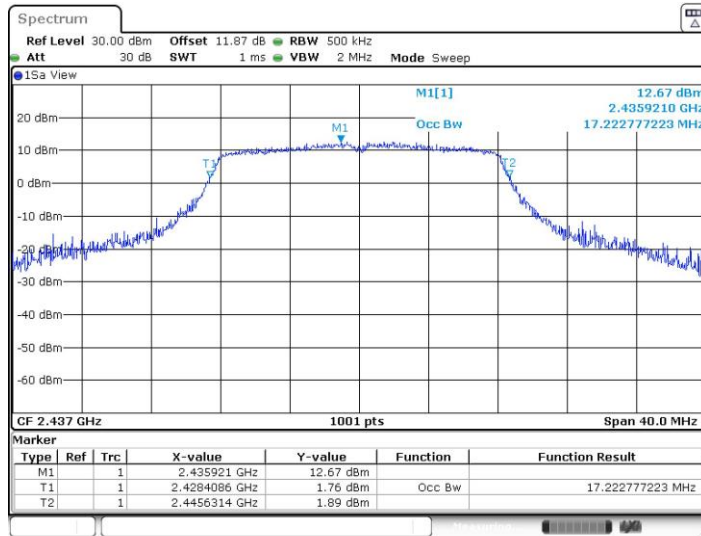
11G-CDD_Ant5_2412



Date: 25.JUN.2023 14:42:34

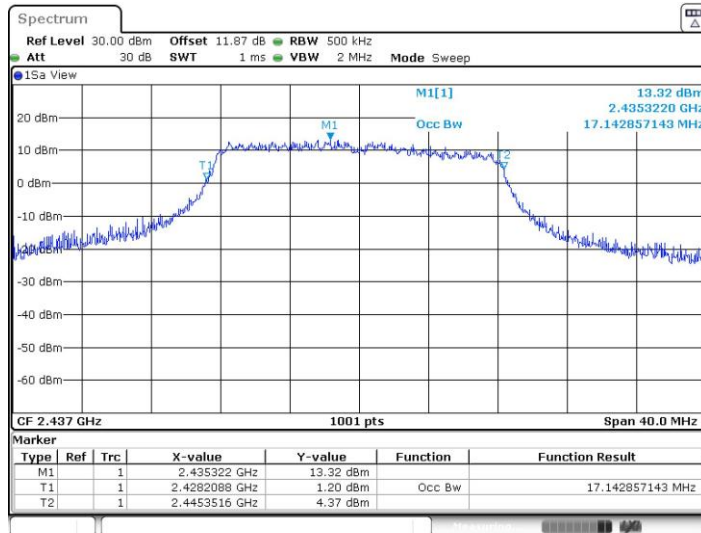


11G-CDD_Ant3_2437



Date: 25.JUN.2023 14:44:22

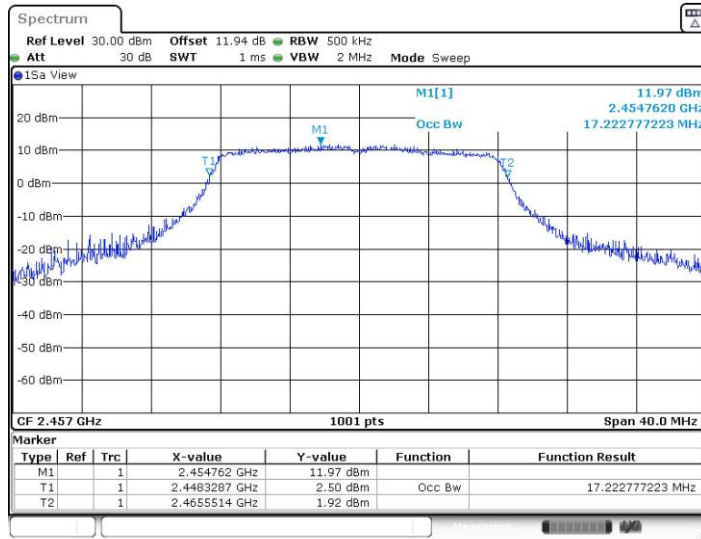
11G-CDD_Ant5_2437



Date: 25.JUN.2023 14:45:21

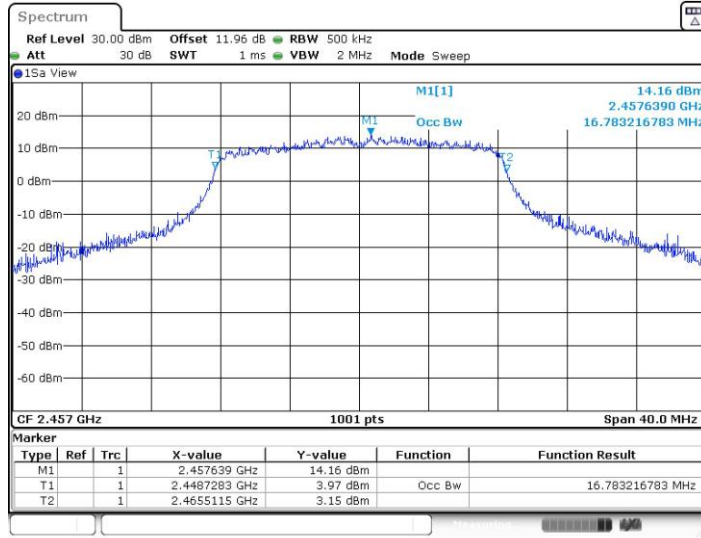


11G-CDD_Ant3_2457



Date: 5.JUL.2023 16:46:56

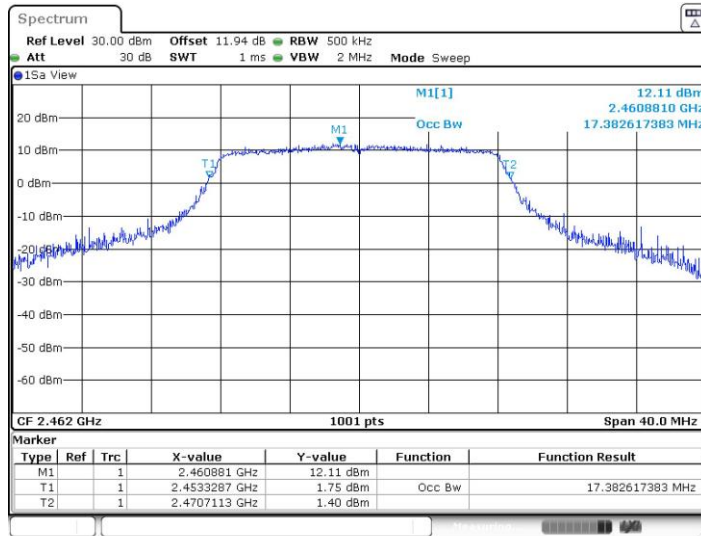
11G-CDD_Ant5_2457



Date: 5.JUL.2023 16:48:03

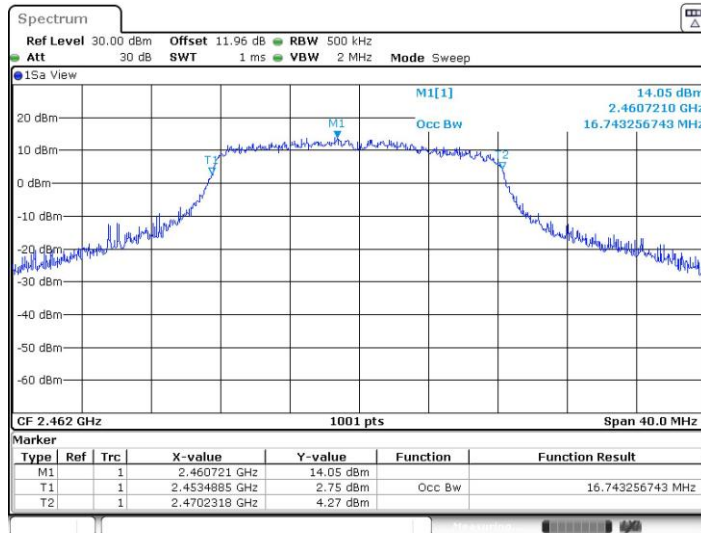


11G-CDD_Ant3_2462



Date: 25.JUN.2023 14:46:32

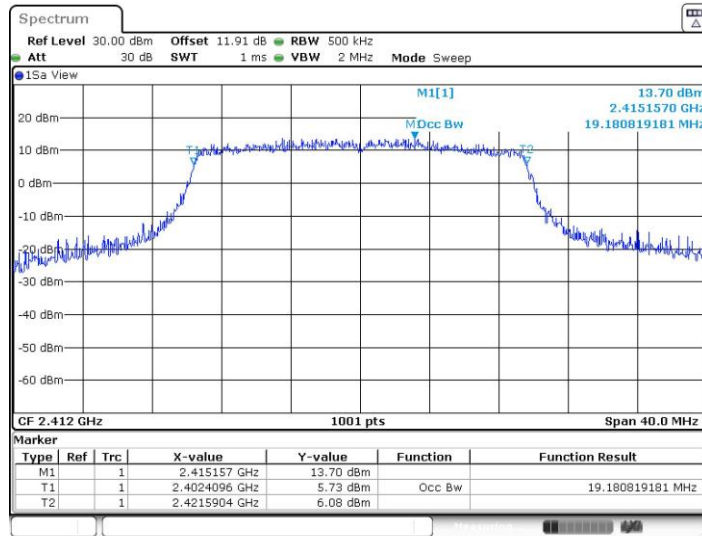
11G-CDD_Ant5_2462



Date: 25.JUN.2023 14:47:45

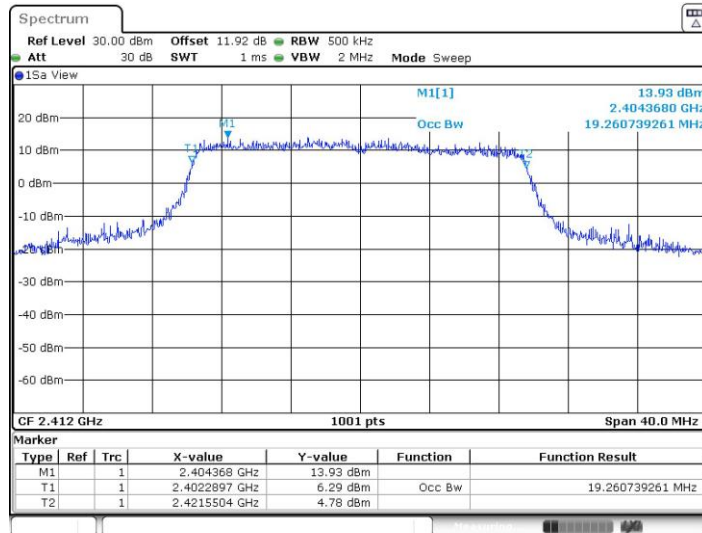


11AX20MIMO_Ant3_2412



Date: 25.JUN.2023 14:49:51

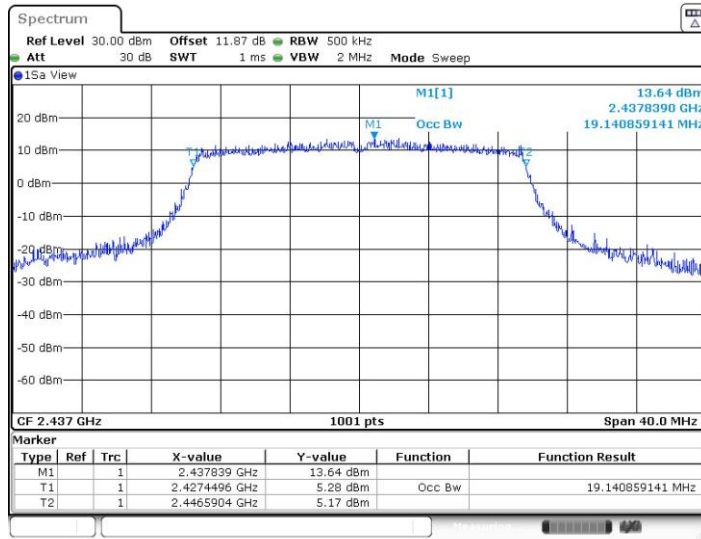
11AX20MIMO_Ant5_2412



Date: 25.JUN.2023 14:51:03

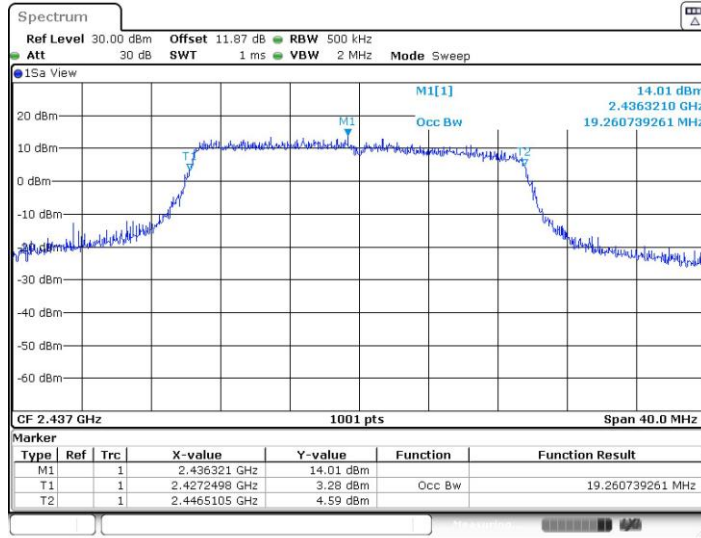


11AX20MIMO_Ant3_2437



Date: 25.JUN.2023 14:52:42

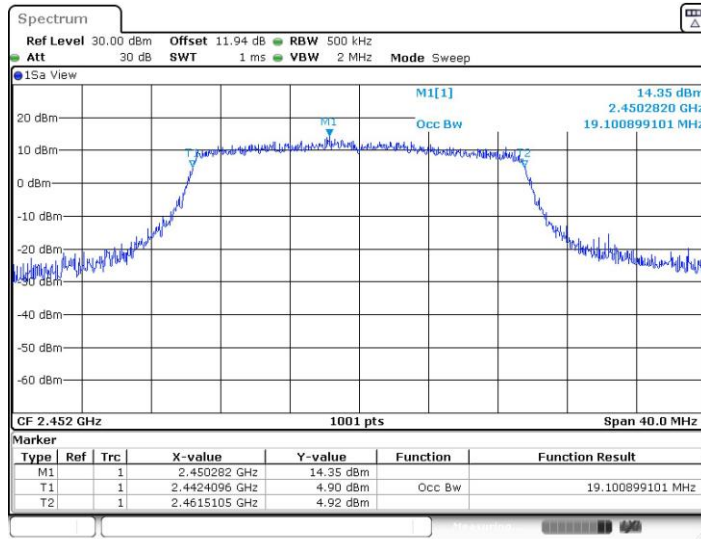
11AX20MIMO_Ant5_2437



Date: 25.JUN.2023 14:53:41

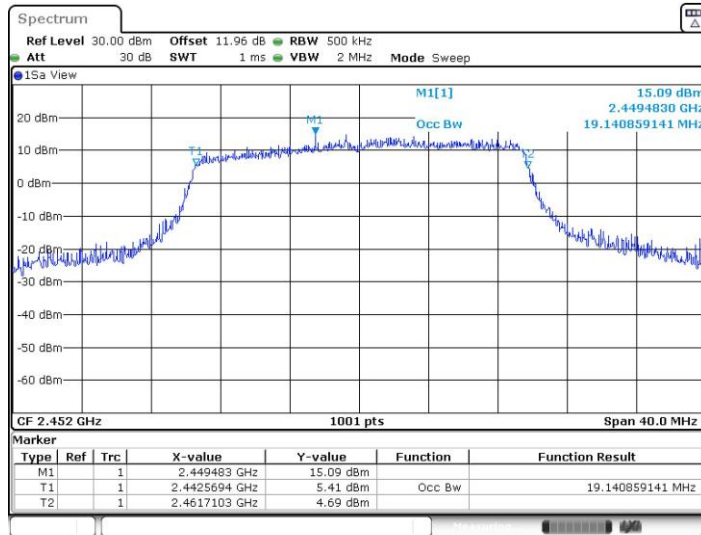


11AX20MIMO_Ant3_2452



Date: 5.JUL.2023 16:50:58

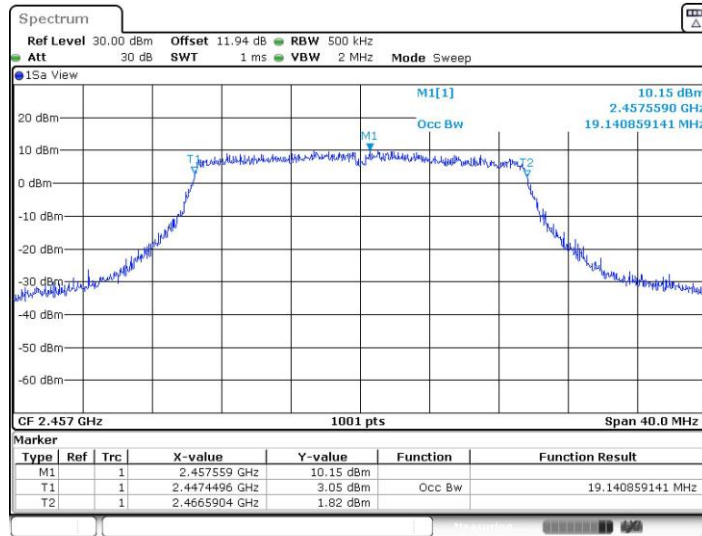
11AX20MIMO_Ant5_2452



Date: 5.JUL.2023 16:52:06

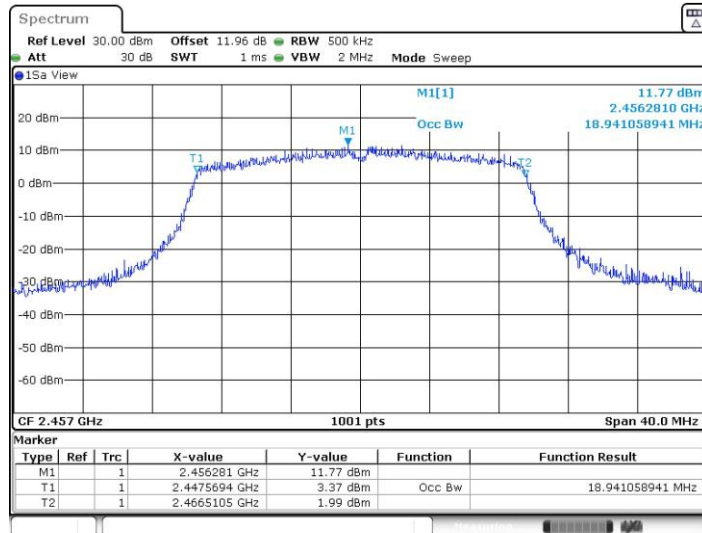


11AX20MIMO_Ant3_2457



Date: 5.JUL.2023 16:56:32

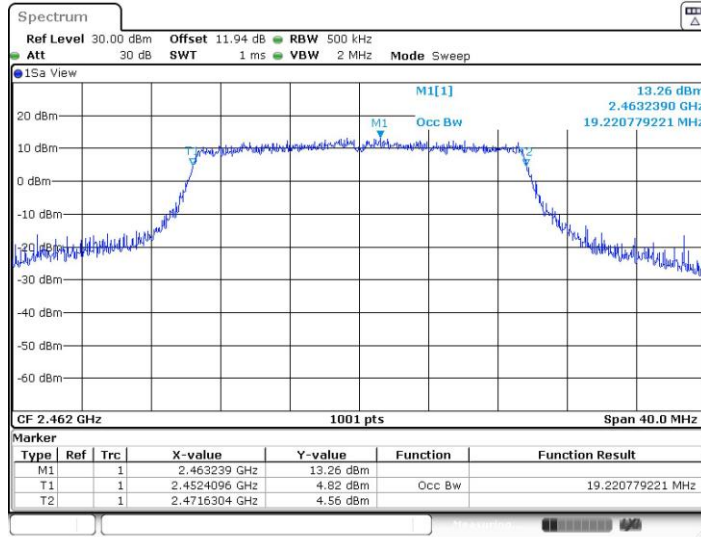
11AX20MIMO_Ant5_2457



Date: 5.JUL.2023 16:57:39

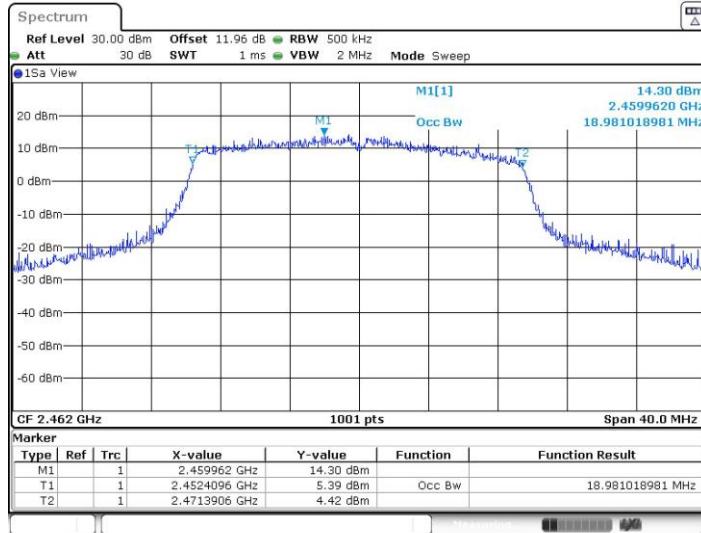


11AX20MIMO_Ant3_2462



Date: 25.JUN.2023 14:54:59

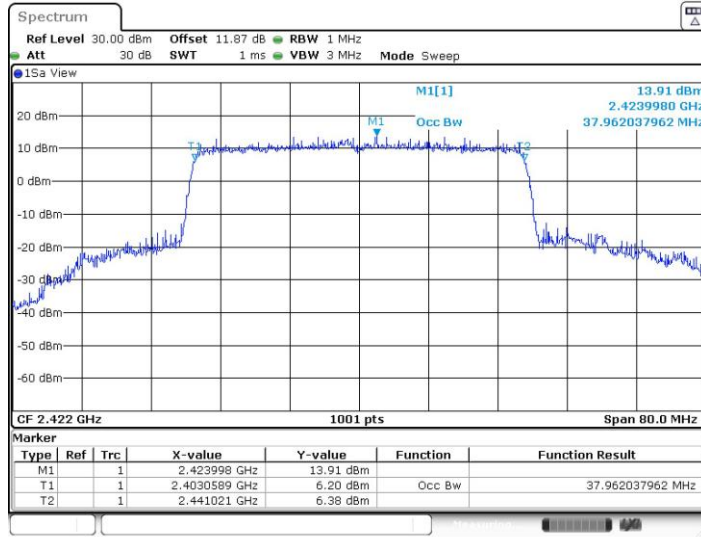
11AX20MIMO_Ant5_2462



Date: 25.JUN.2023 14:56:12

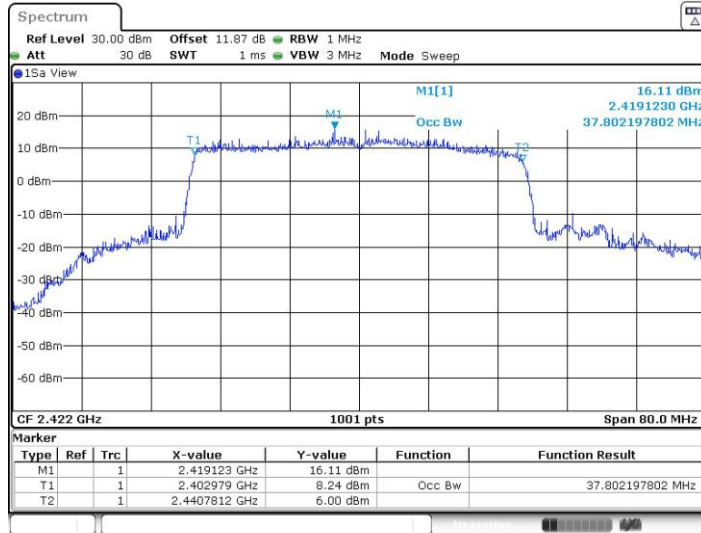


11AX40MIMO_Ant3_2422



Date: 25.JUN.2023 14:58:59

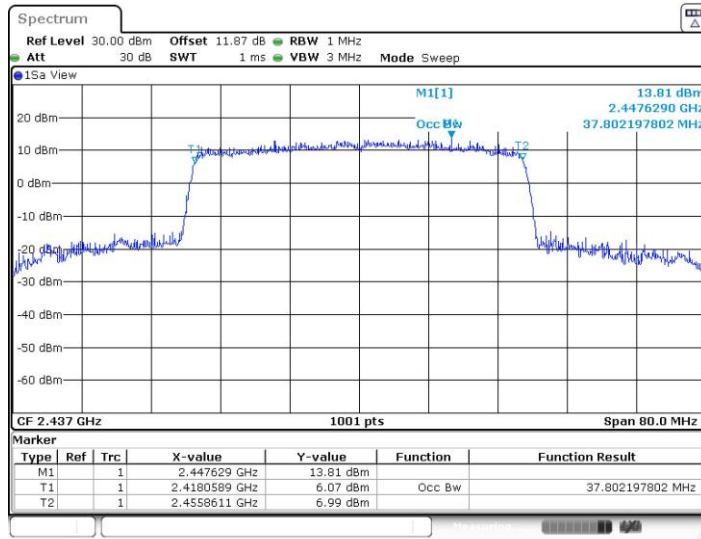
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Date: 25.JUN.2023 15:00:13

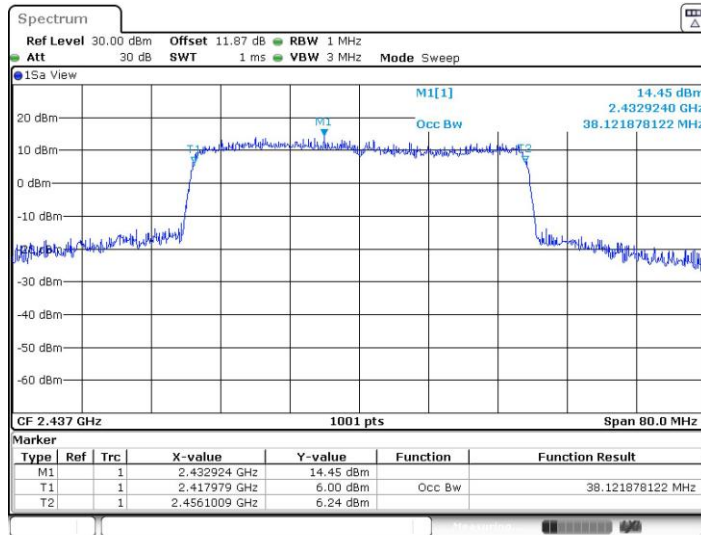


11AX40MIMO_Ant3_2437



Date: 25 JUN.2023 15:02:03

11AX40MIMO_Ant5_2437



Date: 25 JUN.2023 15:03:03