

FCC AND ISED CERTIFICATION TEST REPORT

FOR

Applicant	:	Harman International Industries, Inc.
Address	:	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES
Equipment under Test	:	Multi-Channel Soundbar
Model No.	:	BAR 300
Trade Mark	:	JBL
FCC ID	:	APIBAR300
IC	:	6132A-BAR300
Manufacturer	:	Harman International Industries, Inc.
Address	:	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES

Issued By: Dongguan Dongdian Testing Service Co., Ltd.

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REPORT

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Test Report Declare

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Address	:	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES

Test Standard Used: FCC Rules and Regulations Part 15 Subpart C, RSS-247 Issue 2 February 2017.

Test procedure used: ANSI C63.10:2013, RSS-Gen Issue 5, Apr. 2018, 558074 D01 15.247 Meas Guidance v05r02, 662911 D01 Multiple Transmitter Output v02r01

We Declare:

The equipment described above is tested by Dongguan Dongdian Testing Service Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Dongguan Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC&ISED standards.

Report No:	DDT-R21123008-2E03		
Date of Receipt:	Jan. 25, 2022	Date of Test:	Jan. 25, 2022 ~ Apr. 25, 2022

Prepared By:

Ella Gong

Ella Gong/Engineer

Approved By:



Damon Hu/EMC Manager

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	Apr. 25, 2022	

1. Summary of Test Results

The EUT have been tested according to the applicable standards as referenced below.		
Description of Test Item	Standard	Results
6dB Bandwidth and 99% Bandwidth	FCC Part 15: 15.247 ANSI C63.10:2013 RSS-247 Issue 2	Pass
Conducted Output Power	FCC Part 15: 15.247 ANSI C63.10:2013 RSS-247 Issue 2	Pass
Power Spectral Density	FCC Part 15:15.247 ANSI C63.10:2013 RSS-247 Issue 2	Pass
Band-edge and Spurious Emissions (Conducted)	FCC Part 15: 15.209 FCC Part 15: 15.247 ANSI C63.10: 2013 RSS-247 Issue 2 RSS-Gen Issue 5	Pass
Radiated Spurious Emissions	FCC Part 15: 15.247 ANSI C63.10:2013 RSS-247 Issue 2 RSS-Gen Issue 5	Pass
Radiated Band Edge Compliance	FCC Part 15: 15.209 FCC Part 15: 15.247 ANSI C63.10: 2013 RSS-247 Issue 2 RSS-Gen Issue 5	Pass
Power Line Conducted Emission	FCC Part 15: 15.207 ANSI C63.10: 2013 RSS-Gen Issue 5	Pass
Antenna requirement	FCC Part 15: 15.203 RSS-Gen Issue 5	Pass

2. General Test Information

2.1. Description of EUT

EUT* Name	: Multi-Channel Soundbar
Model Number	: BAR 300
EUT function description	: Please reference user manual of this device
Power supply	: 100-240V ~ 50/60Hz 60W
Radio Technology	: IEEE 802.11b/g/n/ax
Operation frequency	: IEEE 802.11b: 2412MHz-2462MHz IEEE 802.11g: 2412MHz-2462MHz IEEE 802.11n HT20: 2412MHz-2462MHz IEEE 802.11n HT40: 2422MHz-2452MHz IEEE 802.11ax HE20: 2412MHz-2462MHz IEEE 802.11ax HE40: 2422MHz-2452MHz
Modulation	: IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax HE20, HE40: OFDM (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)
Transmitter rate	: IEEE 802.11b: up to 11 Mbps IEEE 802.11g: up to 54 Mbps IEEE 802.11n HT20, HT40: up to 130 Mbps IEEE 802.11ax HE20, HE40: up to 573.5 Mbps
Antenna Type	: Antenna 1: FPC antenna, Maximum PK gain: 2.39 dBi Antenna 2: FPC antenna, Maximum PK gain: 2.39 dBi
Sample Type	: Series production
Sample Number	: S21123008-01 for conductive S21123008-02 for radiation

Note: EUT is the ab. of equipment under test.

Antenna information			
	Ant1 gain	Ant2 gain	MIMO
IEEE 802.11b	2.39	2.39	/
IEEE 802.11g	2.39	2.39	/
IEEE 802.11n HT20	2.39	2.39	5.40
IEEE 802.11n HT40	2.39	2.39	5.40
IEEE 802.11ax HE20	2.39	2.39	5.40
IEEE 802.11ax HE40	2.39	2.39	5.40

Channel information					
CH	Frequency (MHz)	CH	Frequency (MHz)	CH	Frequency (MHz)
1	2412	5	2432	9	2452
2	2417	6	2437	10	2457
3	2422	7	2442	11	2462
4	2427	8	2447	/	/

Operating Mode	Resource Unit	26 Tone(2M)	
IEEE 802.11ax(HE20)	Specific Resource Unit	0	
		1	
		2	
		3	
		4	
		5	
		6	
		7	
		8	
		9	
	Resource Unit	52 Tone(4M)	
	Specific Resource Unit	37	
		38	
		39	
		40	
	Resource Unit	106 Tone(8M)	
	Specific Resource Unit	53	
		54	
	Resource Unit	242 Tone(20M)	
	Specific Resource Unit	61	
Operating Mode	Resource Unit	26 Tone(2M)	
IEEE 802.11ax(HE40)	Specific Resource Unit	0	9
		1	10
		2	11
		3	12
		4	13
		5	14
		6	15
		7	16
		8	17
	Resource Unit	52 Tone(4M)	
	Specific Resource Unit	37	41
		38	42
		39	43
		40	44
	Resource Unit	106 Tone(8M)	
	Specific Resource Unit	53	55
		54	56
	Resource Unit	242 Tone(20M)	
	Specific Resource Unit	61	62
	Resource Unit	484 Tone(40M)	
	Specific Resource Unit	65	

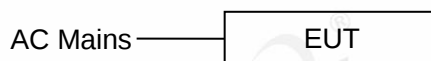
2.2. Accessories of EUT

Description of Accessories	Manufacturer	Model number	Description	Remark
HDMI cable	Harman	N/A	N/A	Length: 1.17m, shielded, with two magnetic rings
Remote control	Harman	N/A	N/A	N/A
AC cable	Harman	N/A	N/A	Length: 1.40m, unshielded

2.3. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	EMC Compliance	SN
N/A	N/A	N/A	N/A	N/A

2.4. Block diagram of EUT configuration for test



The test software was used to control EUT work in Continuous Tx mode and select test channel, wireless mode as below table.

Test software: adb.exe

Tested mode, channel, and data rate information				
Mode	Setting Tx Power	data rate (Mbps) (see Note)	Channel	Frequency (MHz)
IEEE 802.11b	14	1	LCH: CH1	2412
	14	1	MCH: CH6	2437
	14	1	HCH: CH11	2462
IEEE 802.11g	15	6	LCH: CH1	2412
	15	6	MCH: CH6	2437
	15	6	HCH: CH11	2462
IEEE 802.11n HT20	15	MCS 0	LCH: CH1	2412
	15	MCS 0	MCH: CH6	2437
	15	MCS 0	HCH: CH11	2462
IEEE 802.11n HT40	14	MCS 0	LCH: CH3	2422
	14	MCS 0	MCH: CH6	2437
	14	MCS 0	HCH: CH9	2452
IEEE 802.11ax HE20	15	MCS 0	LCH: CH1	2412
	15	MCS 0	MCH: CH6	2437
	15	MCS 0	HCH: CH11	2462
IEEE 802.11ax HE40	14	MCS 0	LCH: CH3	2422
	14	MCS 0	MCH: CH6	2437
	14	MCS 0	HCH: CH9	2452

Note: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.

2.5. Deviations of test standard

No Deviation

2.6. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25°C
Humidity range:	40-75%
Pressure range:	86-106kPa

2.7. Test laboratory

Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808.

Tel.: +86-0769-38826678, <http://www.dgddt.com>, Email: ddt@dgddt.com.

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

VCCI facility registration number: C-20087, T-20088, R-20123, G-20118

2.8. Measurement uncertainty

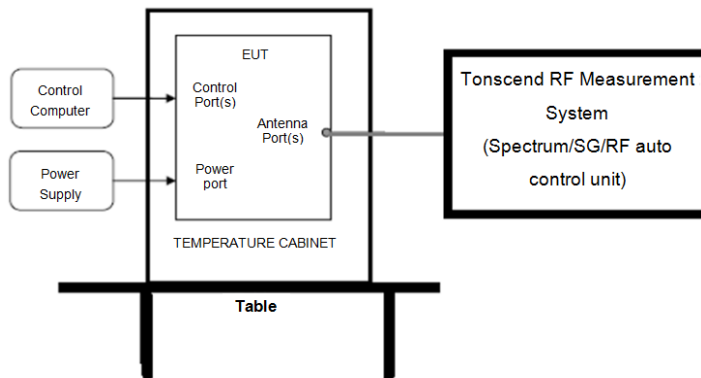
Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power (Conducted) (Spectrum analyzer)	0.86 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$);
	1.38 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$)
Peak Output Power (Conducted) (Power Sensor)	0.74 dB
Power Spectral Density	0.74 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$);
	1.38 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$)
Frequencies Stability	6.7×10^{-8} (Antenna couple method)
	5.5×10^{-8} (Conducted method)
Conducted spurious emissions	0.86 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$);
	1.40 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$)
	1.66 dB ($8 \text{ GHz} \leq f < 22 \text{ GHz}$)
Uncertainty for radio frequency (RBW<20 kHz)	3×10^{-8}
Temperature	0.4°C
Humidity	2%
Uncertainty for Radiation Emission test (30 MHz-1 GHz)	4.70 dB (Antenna Polarize: V)
	4.84 dB (Antenna Polarize: H)
Uncertainty for Radiation Emission test (1 GHz-40 GHz)	4.10 dB (1-6 GHz)
	4.40 dB (6 GHz-18 GHz)
	3.54 dB (18 GHz-26 GHz)
	4.30 dB (26 GHz-40 GHz)
Uncertainty for Power line conduction emission test	3.34dB (150KHz-30MHz)
	3.72dB (9KHz-150KHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

3. Equipment Used During Test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
☑RF Connected Test (Tonscend RF Measurement System 4#)					
MXA Signal Analyzer	Agilent	N9020A	MY49100362	Sep. 02, 2021	1 Year
Wideband Radio Communication tester	R&S	CMW500	120259	Jun. 01, 2021	1 Year
MXG Vector Signal Generator	Agilent	N5182B	MY59100192	Jun. 01, 2021	1 Year
Vector Signal Generator	Agilent	E8267D	US49060192	Sep. 18, 2021	1 Year
RF Control Unit	Tonsend	JS0806-2	218060485	Oct. 18, 2021	1 Year
Temp&Humi Programmable	ZHIXIANG	ZXGDJS-150L	ZX170110-A	Jun. 01, 2021	1 Year
Test Software	JS Tonscend	JS1120-3	Ver.2.6.88.0330	N/A	N/A
☑Radiation 3#chamber					
EMI Test Receiver	R&S	ESU	100472	Jun. 01, 2021	1 Year
Spectrum analyzer	Agilent	E4447A	MY50180031	Jun. 01, 2021	1 Year
Active Loop antenna	Schwarzbeck	FMZB-1519	1519-038	Sep. 19, 2021	1 Year
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	01429	Aug. 07, 2021	1 Year
Double Ridged Horn Antenna	Schwarzbeck	BBHA9120	02108	Jul. 17, 2021	1 Year
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	790	May 08, 2021	1 Year
Pre-amplifier	COM-POWER	PAM-118A	18040084	Sep. 02, 2021	1 Year
Pre-amplifier	COM-POWER	PAM-840A	461369	Mar. 15, 2021 Apr. 11, 2022	1 Year
Test software	Audix	E3	V 6.1.1.1	N/A	N/A
☑Power Line Conducted Emissions Test 1#					
Test Receiver	R&S	ESCI	100551	Sep. 02, 2021	1 Year
LISN 1	R&S	ENV216	101109	Sep. 02, 2021	1 Year
LISN 2	R&S	ESH2-Z5	100309	Sep. 02, 2021	1 Year
Pulse Limiter	R&S	ESH3-Z2	101242	Sep. 02, 2021	1 Year
CE Cable 1	HUBSER	N/A	W10.01	Sep. 02, 2021	1 Year
LISN 3	SCHWARZBECK	NSLK 8163	00017	Sep. 02, 2021	1 Year
Test software	Audix	E3	V 6.1111b	N/A	N/A

4. 6dB Bandwidth and 99% Bandwidth

4.1. Block diagram of test setup



4.2. Limits

For direct sequence systems, the minimum 6 dB bandwidth shall be at least 500 kHz

4.3. Test procedure

(1) Connect EUT's antenna output to spectrum analyzer by RF cable.

(2) 99% Bandwidth set the spectrum analyzer as follows:

RBW:	300 kHz
VBW:	1 MHz
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

(3) 6dB Bandwidth set the spectrum analyzer as follows:

RBW:	100 kHz
VBW:	300 kHz
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

(4) Allow the trace to stabilize, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

4.4. Test result

Test Mode	Test	Ant	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	2412	Ant1	8.16	0.5	Pass
11B	2412	Ant2	8.12	0.5	Pass
11B	2437	Ant1	8.12	0.5	Pass
11B	2437	Ant2	8.12	0.5	Pass
11B	2462	Ant1	8.16	0.5	Pass
11B	2462	Ant2	8.12	0.5	Pass
11G	2412	Ant1	15.16	0.5	Pass
11G	2412	Ant2	15.16	0.5	Pass
11G	2437	Ant1	15.16	0.5	Pass
11G	2437	Ant2	15.88	0.5	Pass
11G	2462	Ant1	15.16	0.5	Pass
11G	2462	Ant2	15.88	0.5	Pass
11N20MIMO	2412	Ant1	15.20	0.5	Pass
11N20MIMO	2412	Ant2	15.80	0.5	Pass
11N20MIMO	2437	Ant1	15.16	0.5	Pass
11N20MIMO	2437	Ant2	16.64	0.5	Pass
11N20MIMO	2462	Ant1	15.56	0.5	Pass
11N20MIMO	2462	Ant2	16.76	0.5	Pass
11N40MIMO	2422	Ant1	35.20	0.5	Pass
11N40MIMO	2422	Ant2	35.28	0.5	Pass
11N40MIMO	2437	Ant1	35.20	0.5	Pass
11N40MIMO	2437	Ant2	35.20	0.5	Pass
11N40MIMO	2452	Ant1	35.20	0.5	Pass
11N40MIMO	2452	Ant2	35.20	0.5	Pass
11AX20SU	2412	Ant1	18.080	0.5	Pass
11AX20SU	2412	Ant2	17.760	0.5	Pass
11AX20SU	2437	Ant1	18.640	0.5	Pass
11AX20SU	2437	Ant2	18.440	0.5	Pass
11AX20SU	2462	Ant1	18.240	0.5	Pass
11AX20SU	2462	Ant2	18.560	0.5	Pass
11AX40SU	2422	Ant1	37.120	0.5	Pass
11AX40SU	2422	Ant2	37.280	0.5	Pass
11AX40SU	2437	Ant1	36.560	0.5	Pass
11AX40SU	2437	Ant2	35.840	0.5	Pass
11AX40SU	2452	Ant1	37.280	0.5	Pass
11AX40SU	2452	Ant2	36.640	0.5	Pass

Test Mode	Antenna	Channel	Ru Size	Ru Index	DTS BW [MHz]	Limit [MHz]	Verdict
11AX20MIMO	Ant1	2412	26Tone	RU0	2.12	0.5	PASS
				RU4	2.60	0.5	PASS
				RU8	1.96	0.5	PASS
			52Tone	RU37	3.92	0.5	PASS
				RU38	15.08	0.5	PASS
				RU39	15.08	0.5	PASS
				RU40	15.76	0.5	PASS
			106Tone	RU53	17.12	0.5	PASS
				RU54	17.08	0.5	PASS
	Ant2	2412	26Tone	RU0	2.08	0.5	PASS
				RU4	2.60	0.5	PASS
				RU8	2.04	0.5	PASS
			52Tone	RU37	14.44	0.5	PASS
				RU38	12.56	0.5	PASS
				RU39	15.08	0.5	PASS
				RU40	17.08	0.5	PASS
			106Tone	RU53	17.12	0.5	PASS
				RU54	17.12	0.5	PASS
	Ant1	2437	26Tone	RU0	2.12	0.5	PASS
				RU4	2.64	0.5	PASS
				RU8	2.08	0.5	PASS
			52Tone	RU37	17.04	0.5	PASS
				RU38	15.08	0.5	PASS
				RU39	15.04	0.5	PASS
				RU40	17.04	0.5	PASS
			106Tone	RU53	17.12	0.5	PASS
				RU54	17.16	0.5	PASS
	Ant2	2437	26Tone	RU0	2.08	0.5	PASS
				RU4	2.60	0.5	PASS
				RU8	2.08	0.5	PASS
			52Tone	RU37	17.04	0.5	PASS
				RU38	15.04	0.5	PASS
				RU39	15.08	0.5	PASS
				RU40	17.08	0.5	PASS
			106Tone	RU53	17.16	0.5	PASS
				RU54	17.12	0.5	PASS
	Ant1	2462	26Tone	RU0	2.04	0.5	PASS
				RU4	2.60	0.5	PASS
				RU8	2.04	0.5	PASS
			52Tone	RU37	17.00	0.5	PASS
				RU38	15.04	0.5	PASS
				RU39	15.08	0.5	PASS
				RU40	17.12	0.5	PASS
			106Tone	RU53	17.12	0.5	PASS
				RU54	17.12	0.5	PASS
	Ant2	2462	26Tone	RU0	2.08	0.5	PASS
				RU4	2.64	0.5	PASS
				RU8	2.00	0.5	PASS

			52Tone	RU37	17.08	0.5	PASS			
				RU38	15.04	0.5	PASS			
				RU39	15.04	0.5	PASS			
			106Tone	RU53	17.12	0.5	PASS			
				RU54	17.16	0.5	PASS			
			11AX40MIMO	Ant1	2422	26Tone	RU0	2.08	0.5	PASS
							RU8	2.16	0.5	PASS
							RU17	2.08	0.5	PASS
52Tone	RU37	16.56				0.5	PASS			
	RU40	17.20				0.5	PASS			
	RU44	16.56				0.5	PASS			
106Tone	RU53	17.52				0.5	PASS			
	RU54	17.28				0.5	PASS			
	RU55	17.28				0.5	PASS			
	RU56	16.64				0.5	PASS			
242Tone	RU61	18.80				0.5	PASS			
	RU62	18.72				0.5	PASS			
Ant2	2422	26Tone		RU0	2.00	0.5	PASS			
				RU8	2.00	0.5	PASS			
				RU17	2.08	0.5	PASS			
		52Tone		RU37	16.56	0.5	PASS			
				RU40	17.28	0.5	PASS			
				RU44	16.64	0.5	PASS			
		106Tone		RU53	16.56	0.5	PASS			
				RU54	17.28	0.5	PASS			
				RU55	17.28	0.5	PASS			
				RU56	16.64	0.5	PASS			
		242Tone		RU61	18.64	0.5	PASS			
				RU62	18.80	0.5	PASS			
Ant1	2437	26Tone		RU0	2.08	0.5	PASS			
				RU8	2.08	0.5	PASS			
				RU17	1.92	0.5	PASS			
		52Tone		RU37	16.64	0.5	PASS			
				RU40	17.28	0.5	PASS			
				RU44	16.56	0.5	PASS			
		106Tone	RU53	16.64	0.5	PASS				
			RU54	17.36	0.5	PASS				
			RU55	17.36	0.5	PASS				
			RU56	16.64	0.5	PASS				
		242Tone	RU61	18.72	0.5	PASS				
			RU62	18.64	0.5	PASS				
Ant2	2437	26Tone	RU0	2.08	0.5	PASS				
			RU8	2.16	0.5	PASS				
			RU17	2.00	0.5	PASS				
		52Tone	RU37	16.64	0.5	PASS				
			RU40	17.28	0.5	PASS				
			RU44	16.64	0.5	PASS				
		106Tone	RU53	16.64	0.5	PASS				
			RU54	17.28	0.5	PASS				
			RU55	17.28	0.5	PASS				
			RU56	16.56	0.5	PASS				

	Ant1	2452	242Tone	RU61	18.56	0.5	PASS
				RU62	18.80	0.5	PASS
			26Tone	RU0	2.00	0.5	PASS
				RU8	2.08	0.5	PASS
				RU17	2.08	0.5	PASS
			52Tone	RU37	16.56	0.5	PASS
				RU40	17.20	0.5	PASS
				RU44	16.56	0.5	PASS
			106Tone	RU53	16.56	0.5	PASS
				RU54	17.36	0.5	PASS
				RU55	17.28	0.5	PASS
				RU56	16.64	0.5	PASS
			242Tone	RU61	18.80	0.5	PASS
				RU62	18.80	0.5	PASS
	Ant2	2452	26Tone	RU0	2.08	0.5	PASS
				RU8	2.08	0.5	PASS
				RU17	2.08	0.5	PASS
			52Tone	RU37	16.56	0.5	PASS
				RU40	17.28	0.5	PASS
				RU44	16.56	0.5	PASS
			106Tone	RU53	16.56	0.5	PASS
				RU54	17.28	0.5	PASS
				RU55	17.20	0.5	PASS
				RU56	16.64	0.5	PASS
			242Tone	RU61	18.32	0.5	PASS
				RU62	18.80	0.5	PASS

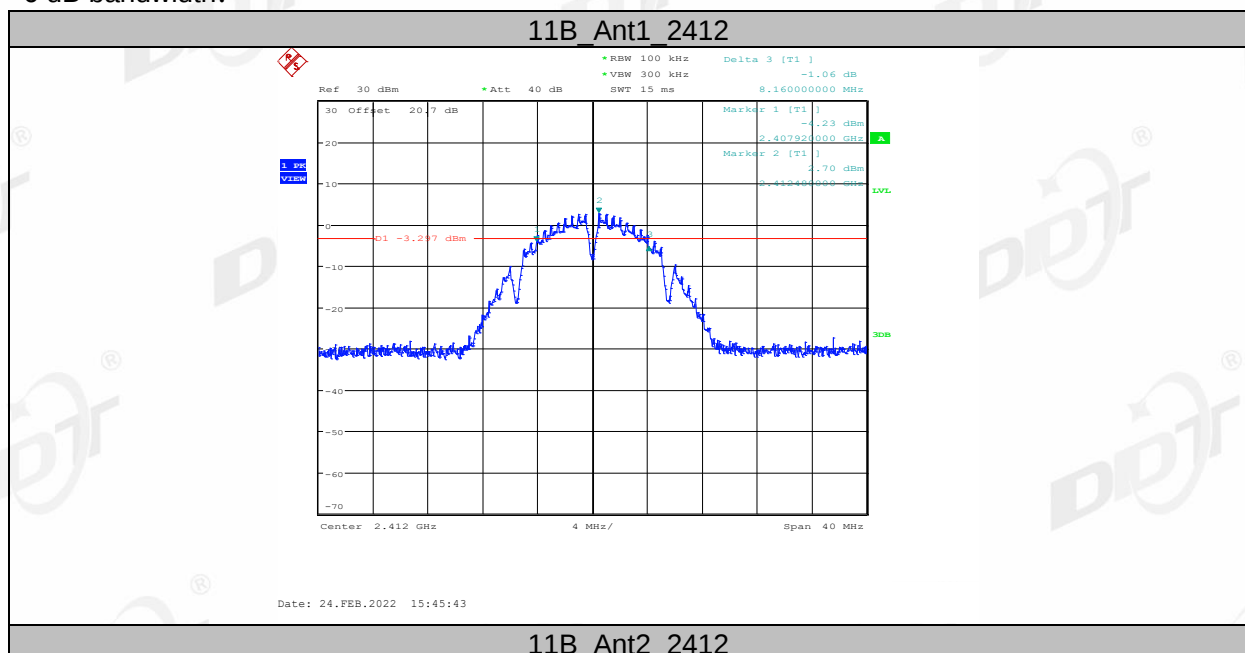
Test Mode	Test	Ant	99% OBW [MHz]	Limit [MHz]	Verdict
11B	2412	Ant1	14.92	---	Pass
11B	2412	Ant2	13.80	---	Pass
11B	2437	Ant1	15.00	---	Pass
11B	2437	Ant2	14.12	---	Pass
11B	2462	Ant1	13.64	---	Pass
11B	2462	Ant2	14.20	---	Pass
11G	2412	Ant1	17.56	---	Pass
11G	2412	Ant2	17.44	---	Pass
11G	2437	Ant1	19.64	---	Pass
11G	2437	Ant2	19.80	---	Pass
11G	2462	Ant1	19.92	---	Pass
11G	2462	Ant2	20	---	Pass
11N20MIMO	2412	Ant1	18.16	---	Pass
11N20MIMO	2412	Ant2	17.72	---	Pass
11N20MIMO	2437	Ant1	20.24	---	Pass
11N20MIMO	2437	Ant2	18.6	---	Pass
11N20MIMO	2462	Ant1	20.44	---	Pass

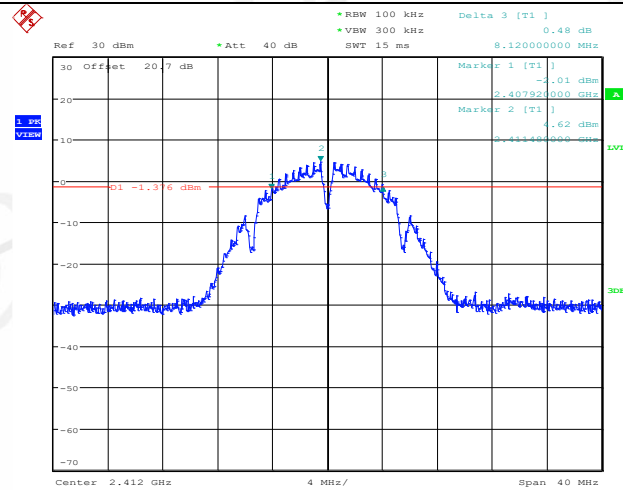
11N20MIMO	2462	Ant2	18.64	---	Pass
11N40MIMO	2422	Ant1	38.24	---	Pass
11N40MIMO	2422	Ant2	37.6	---	Pass
11N40MIMO	2437	Ant1	37.76	---	Pass
11N40MIMO	2437	Ant2	37.36	---	Pass
11N40MIMO	2452	Ant1	37.68	---	Pass
11N40MIMO	2452	Ant2	37.52	---	Pass
11AX20SU	2412	Ant1	19	---	Pass
11AX20SU	2412	Ant2	18.92	---	Pass
11AX20SU	2437	Ant1	19.44	---	Pass
11AX20SU	2437	Ant2	19.36	---	Pass
11AX20SU	2462	Ant1	19.52	---	Pass
11AX20SU	2462	Ant2	19.44	---	Pass
11AX40SU	2422	Ant1	38.24	---	Pass
11AX40SU	2422	Ant2	38.24	---	Pass
11AX40SU	2437	Ant1	38.16	---	Pass
11AX40SU	2437	Ant2	38.32	---	Pass
11AX40SU	2452	Ant1	38.32	---	Pass
11AX40SU	2452	Ant2	38.24	---	Pass

Note: according exploratory explorer test, for 802.11ax Mode, Specific Resource Unit have no distinct influence on 99% OBW, so for 99% OBW, the final test was only performed with EUT working in 802.11ax SU mode.

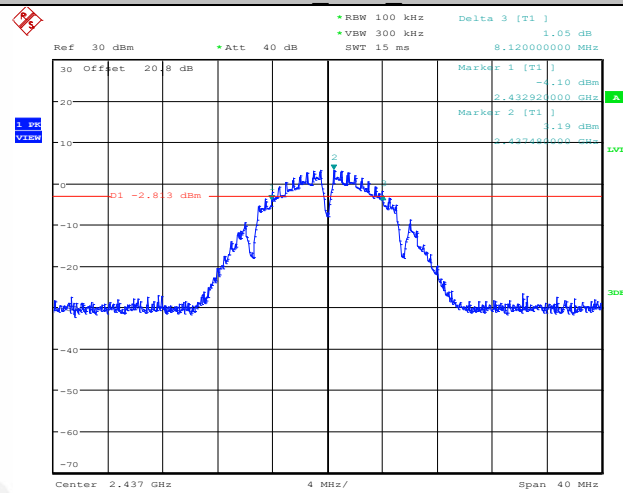
4.5. Original test data

6 dB bandwidth:

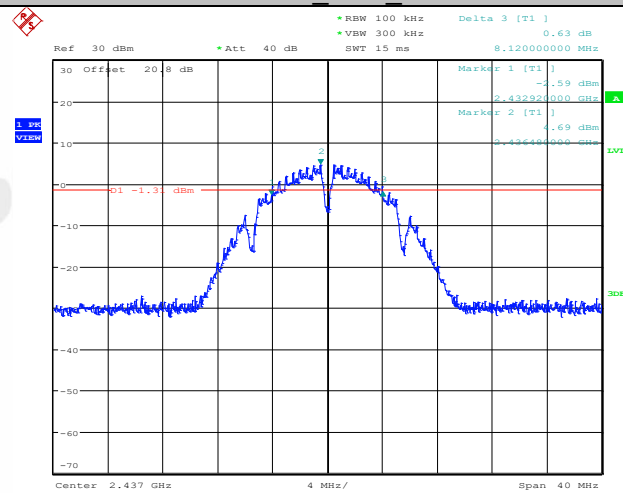




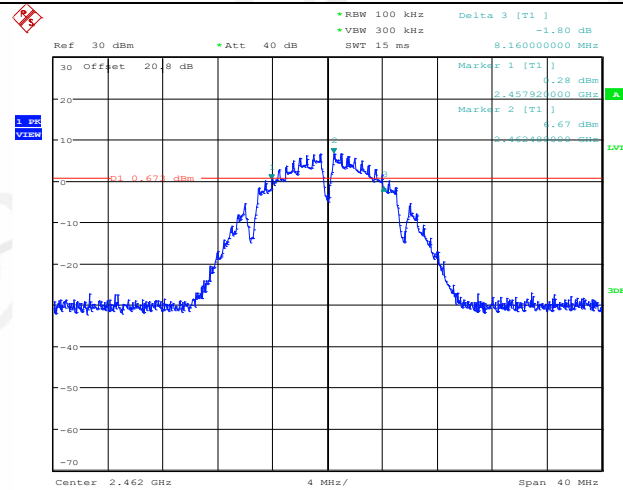
11B_Ant1_2437



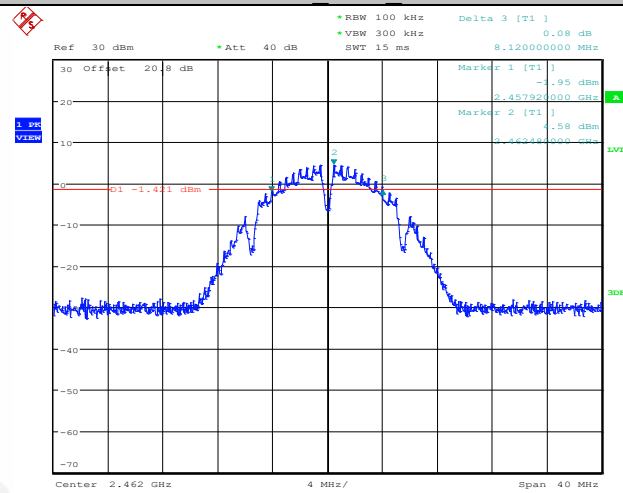
11B_Ant2_2437



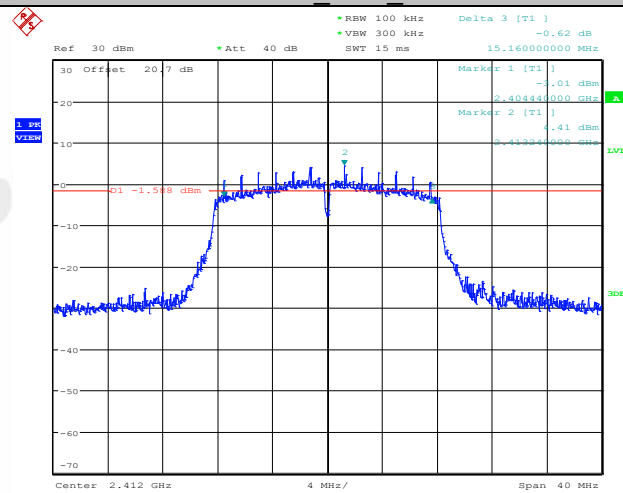
11B_Ant1_2462



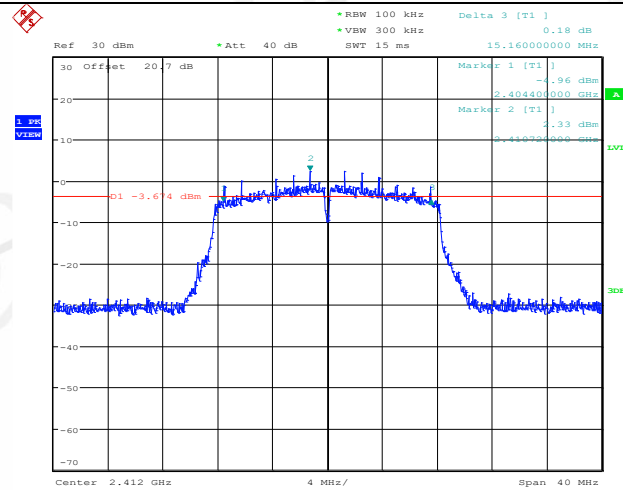
11B Ant2 2462



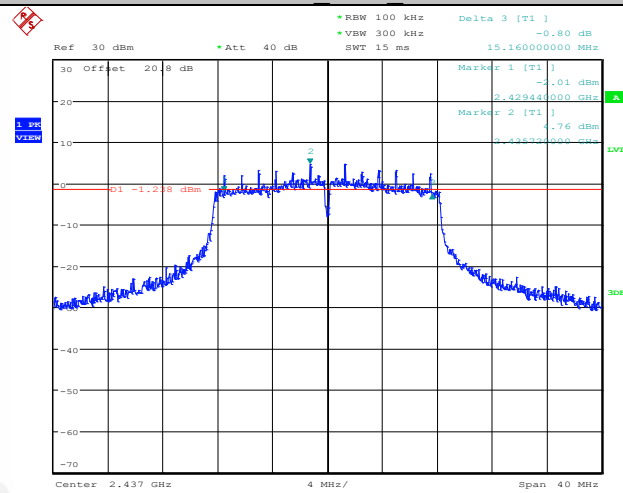
11G Ant1 2412



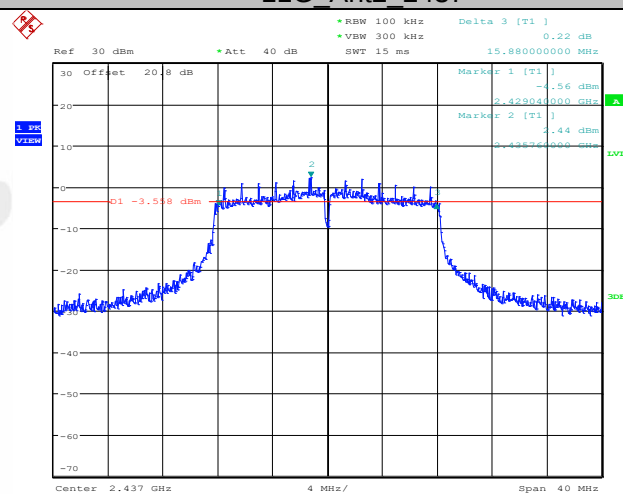
11G Ant2 2412



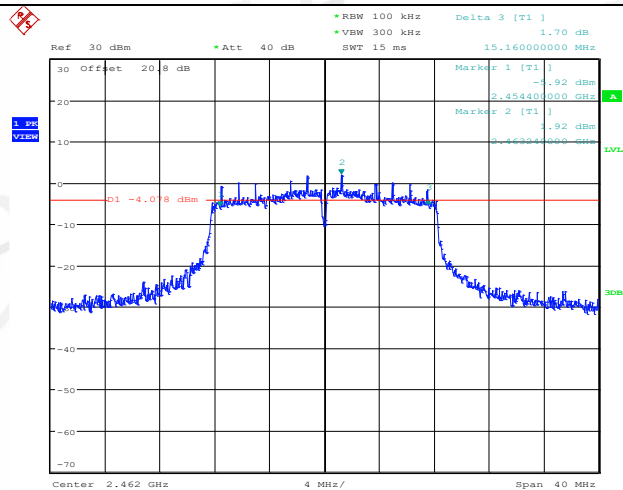
11G_Ant1_2437



11G_Ant2_2437

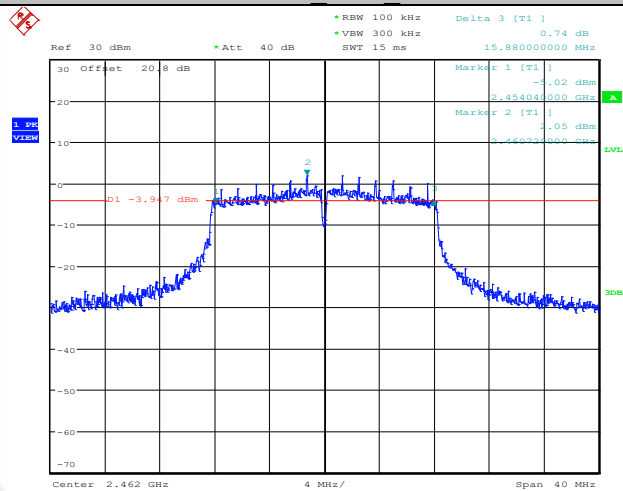


11G_Ant1_2462



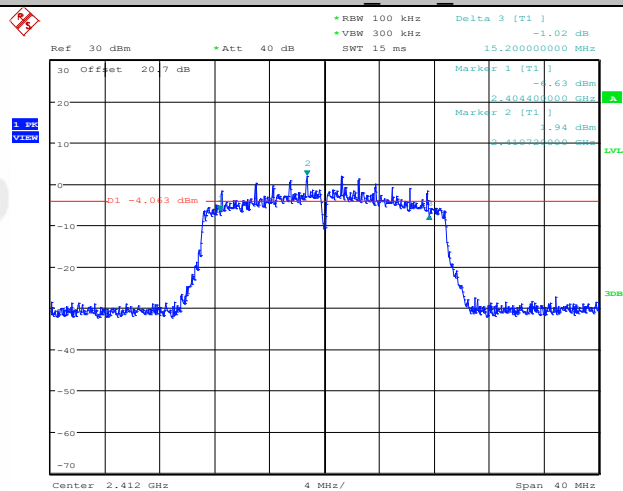
Date: 24.FEB.2022 16:09:00

11G_Ant2_2462



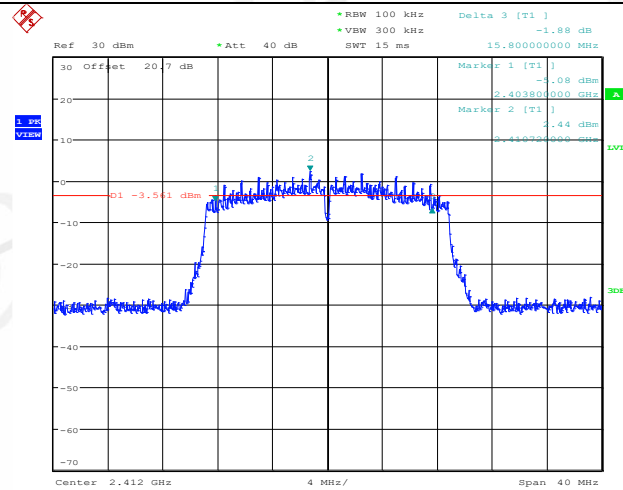
Date: 24.FEB.2022 16:22:18

11N20MIMO_Ant1_2412

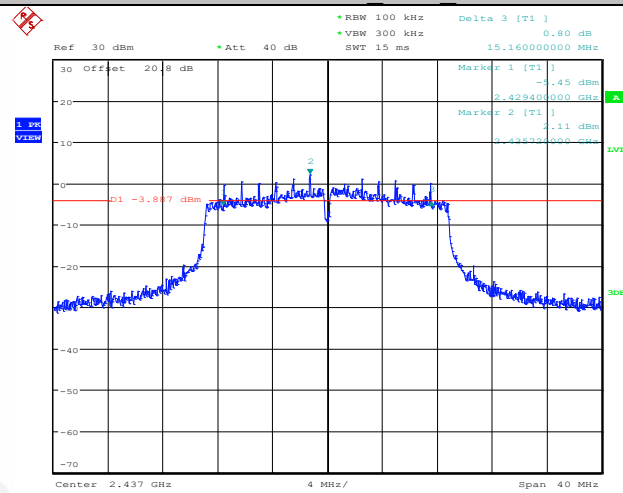


Date: 24.FEB.2022 16:26:07

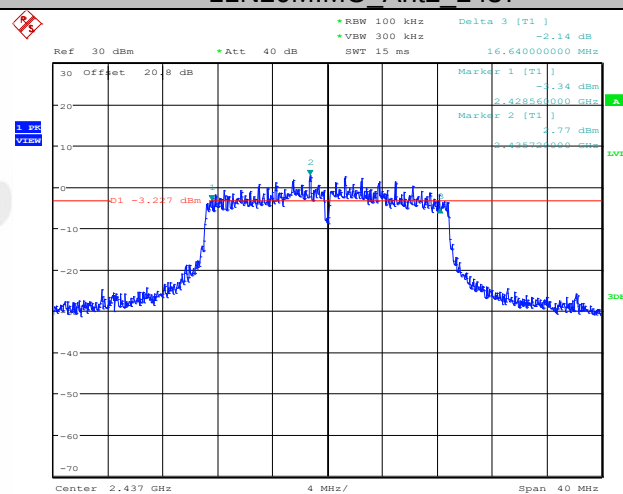
11N20MIMO_Ant2_2412



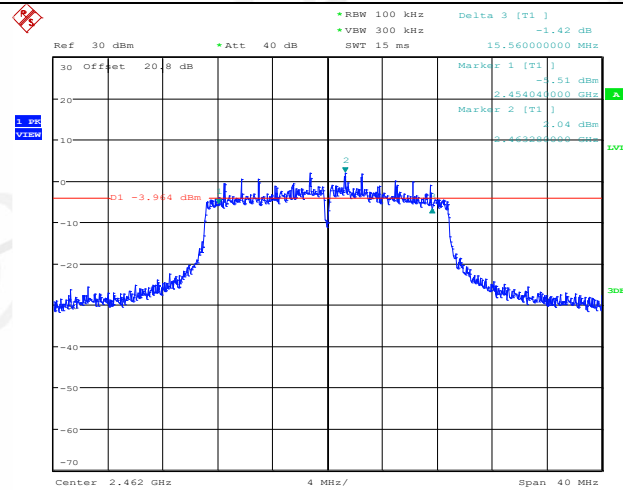
11N20MIMO_Ant1_2437



11N20MIMO_Ant2_2437

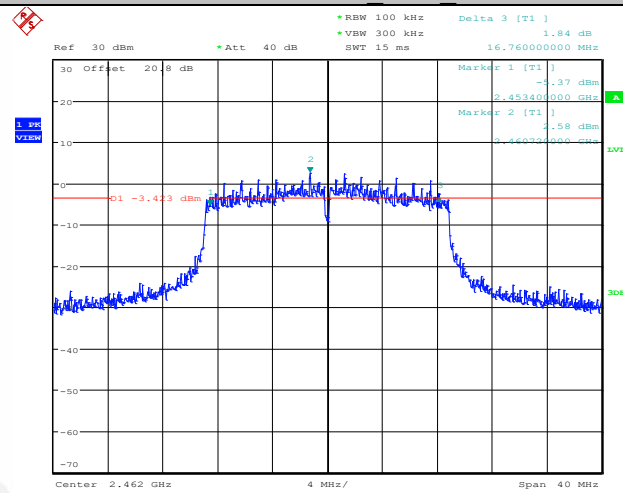


11N20MIMO_Ant1_2462



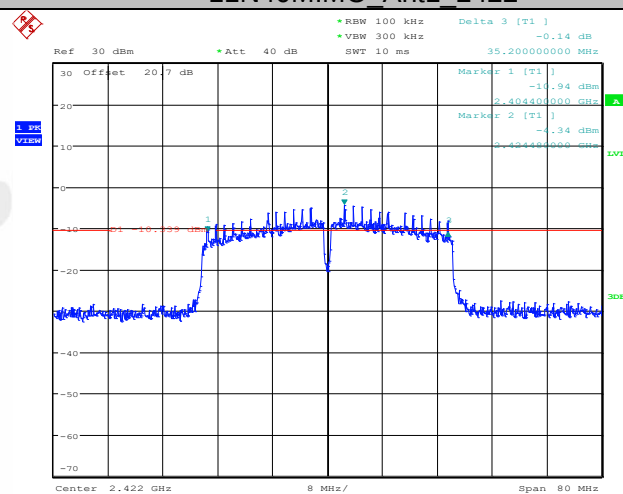
Date: 24.FEB.2022 16:33:35

11N20MIMO_Ant2_2462



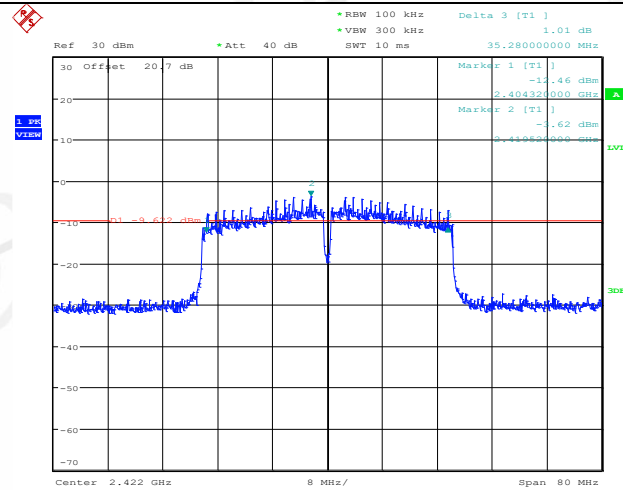
Date: 24.FEB.2022 16:36:14

11N40MIMO_Ant1_2422



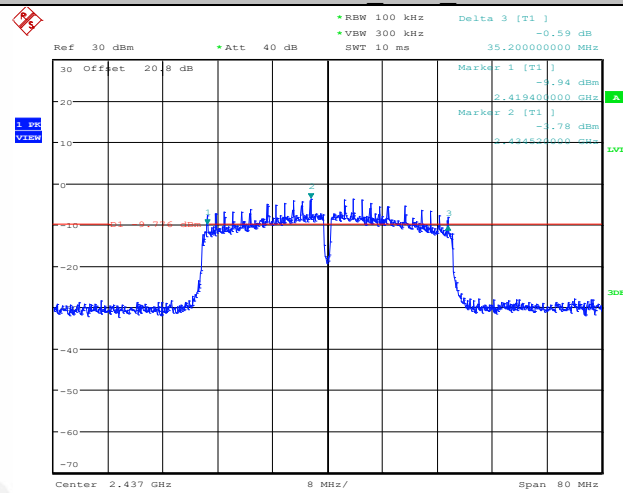
Date: 24.FEB.2022 17:09:37

11N40MIMO_Ant2_2422



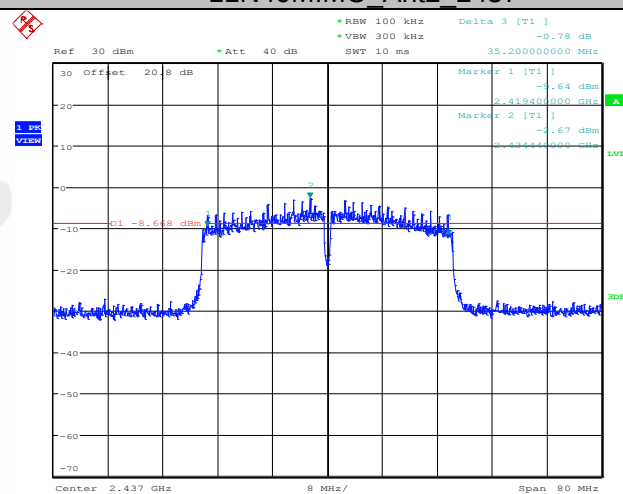
Date: 24.FEB.2022 17:44:07

11N40MIMO_Ant1_2437



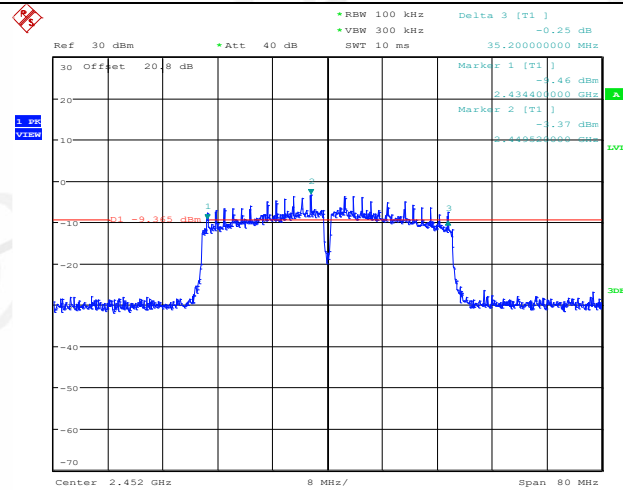
Date: 24.FEB.2022 17:47:43

11N40MIMO_Ant2_2437

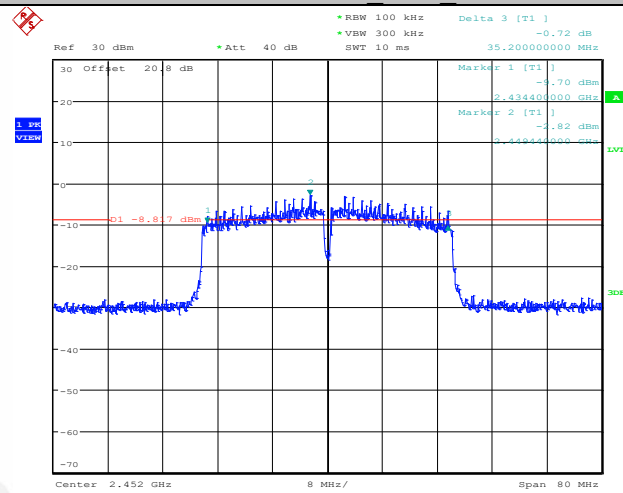


Date: 24.FEB.2022 17:50:05

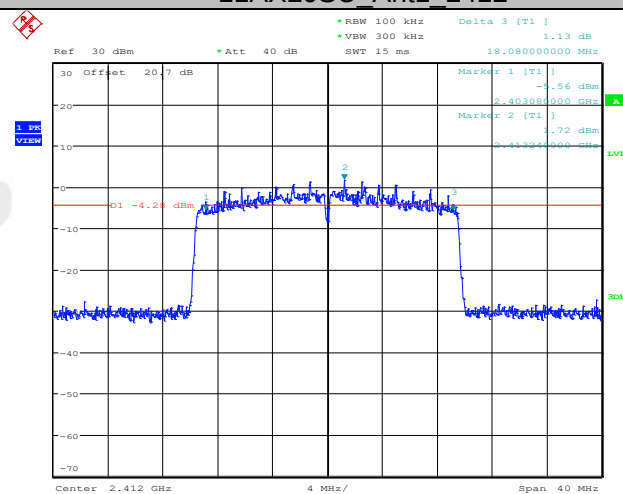
11N40MIMO_Ant1_2452



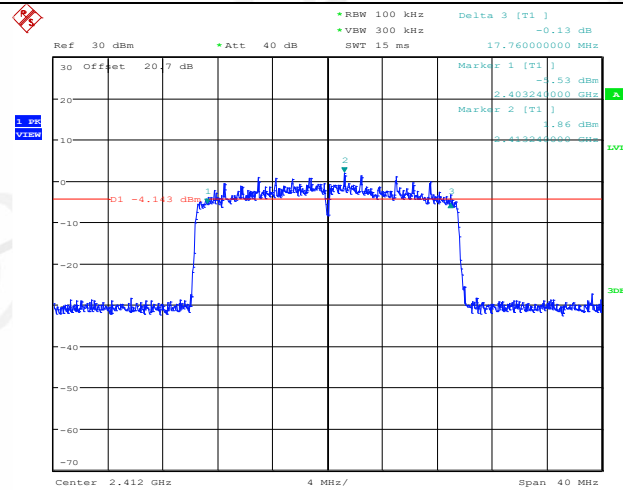
11N40MIMO_Ant2_2452



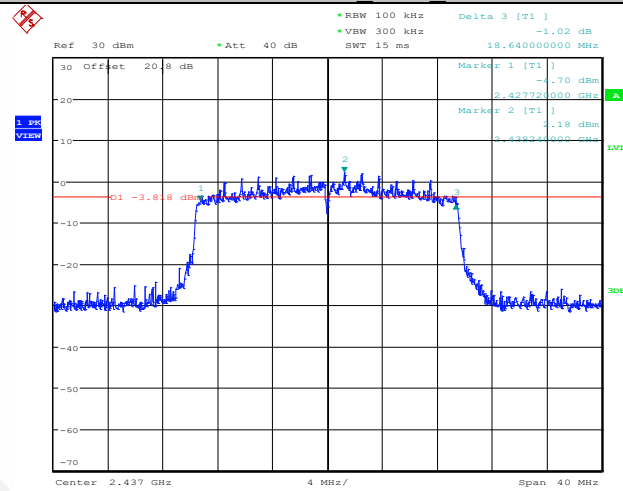
11AX20SU_Ant1_2412



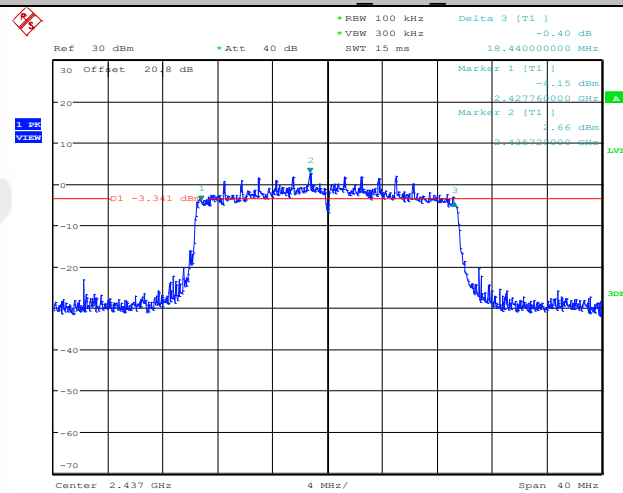
11AX20SU_Ant2_2412



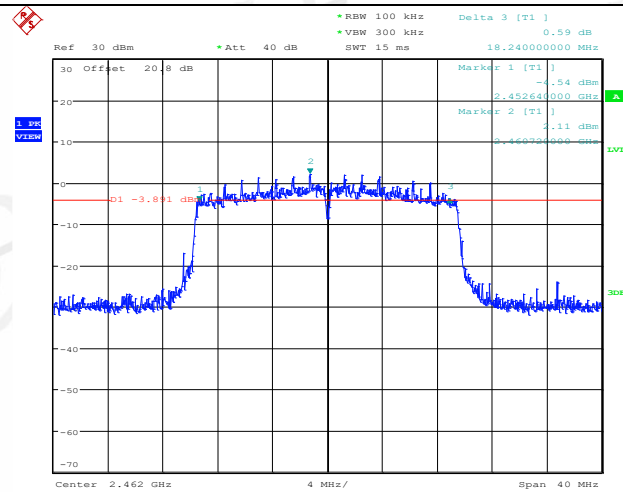
11AX20SU_Ant1_2437



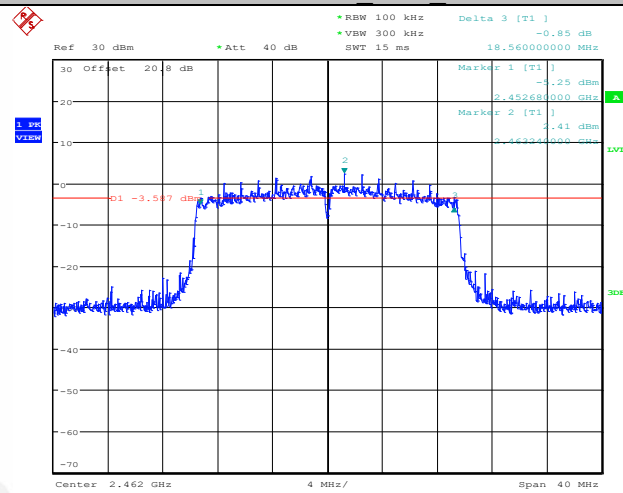
11AX20SU_Ant2_2437



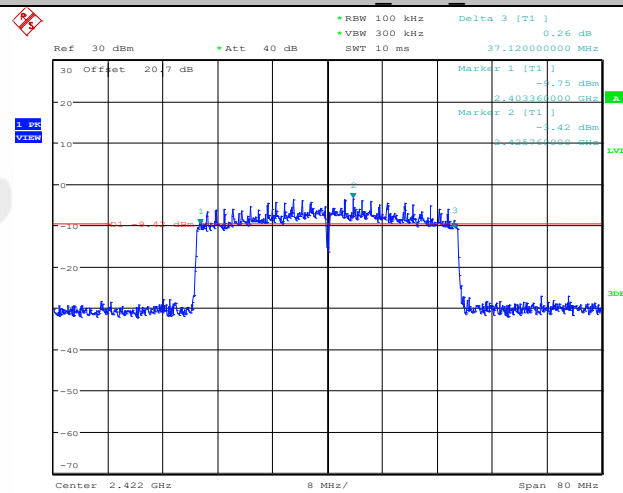
11AX20SU_Ant1_2462



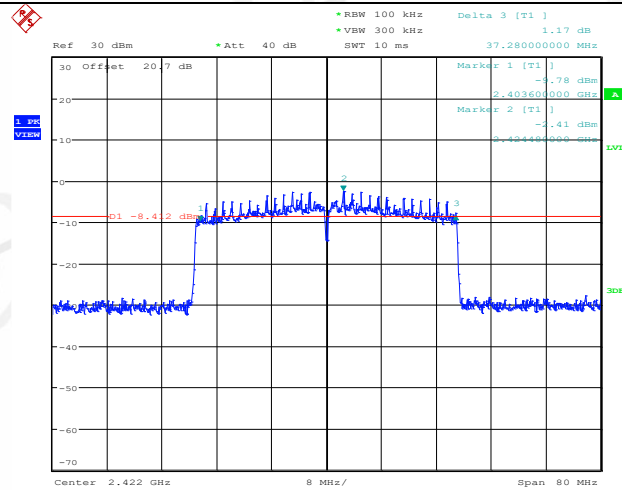
11AX20SU Ant2 2462



11AX40MIMO Ant1 2422

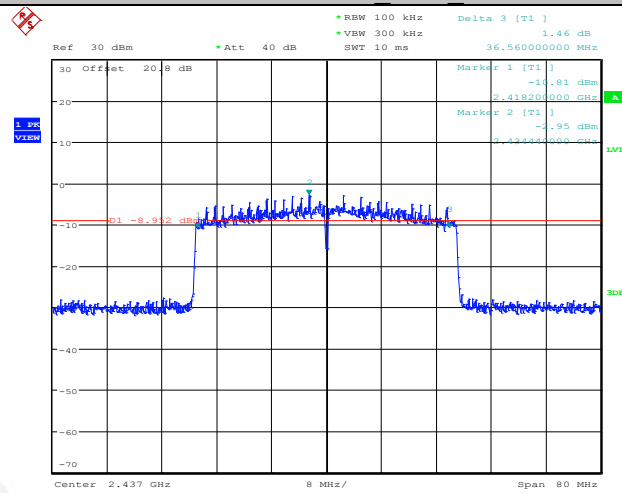


11AX40MIMO Ant2 2422



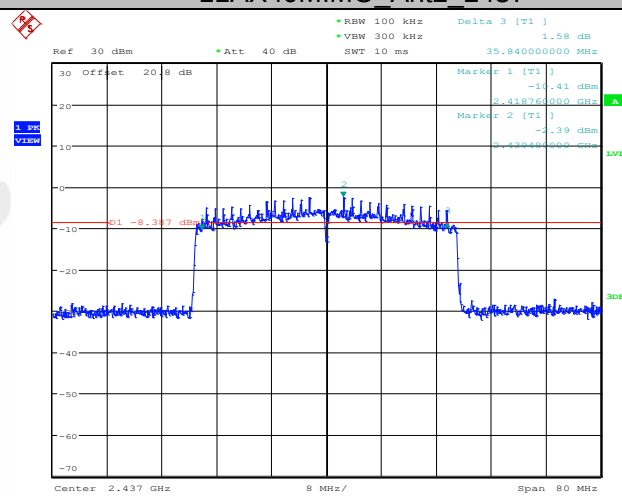
Date: 24.FEB.2022 19:15:58

11AX40MIMO_Ant1_2437



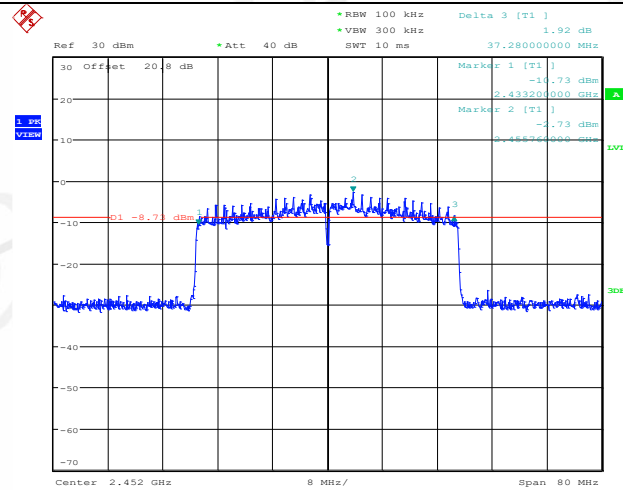
Date: 24.FEB.2022 19:20:00

11AX40MIMO_Ant2_2437



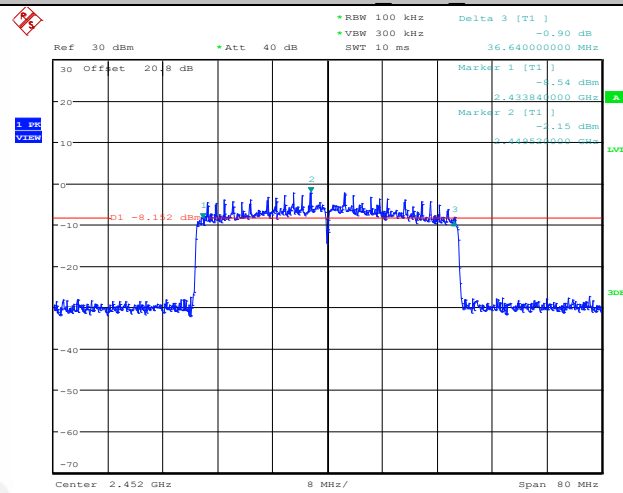
Date: 24.FEB.2022 19:22:15

11AX40MIMO_Ant1_2452



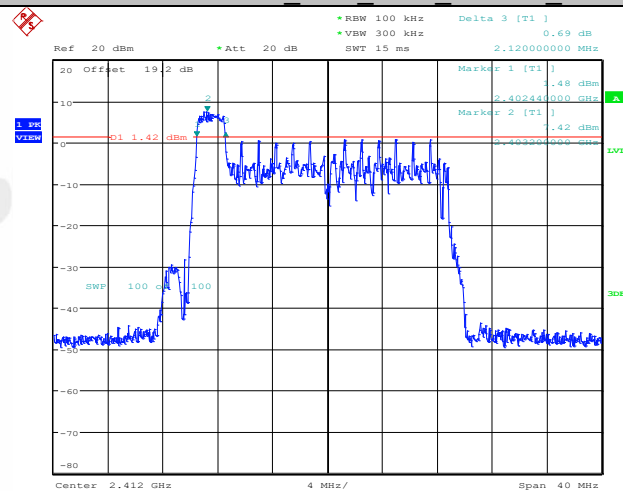
Date: 24.FEB.2022 19:25:12

11AX40MIMO Ant2 2452



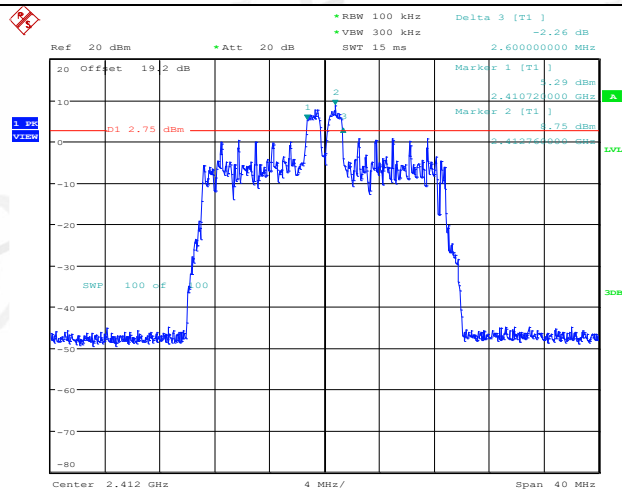
Date: 24.FEB.2022 19:28:17

11AX20MIMO Ant1 2412 26Tone RU0

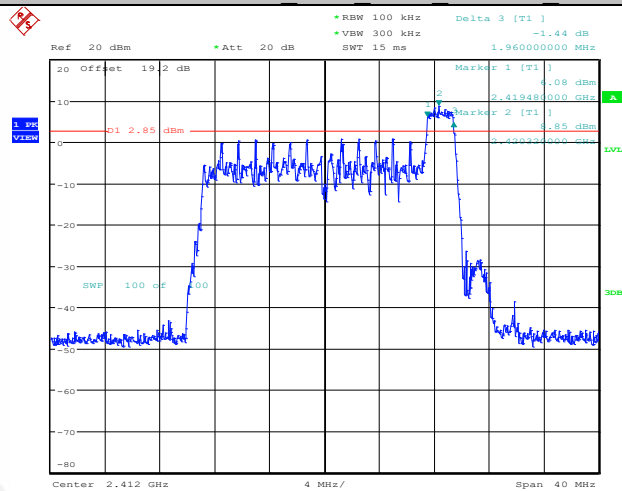


Date: 12.MAR.2022 10:33:10

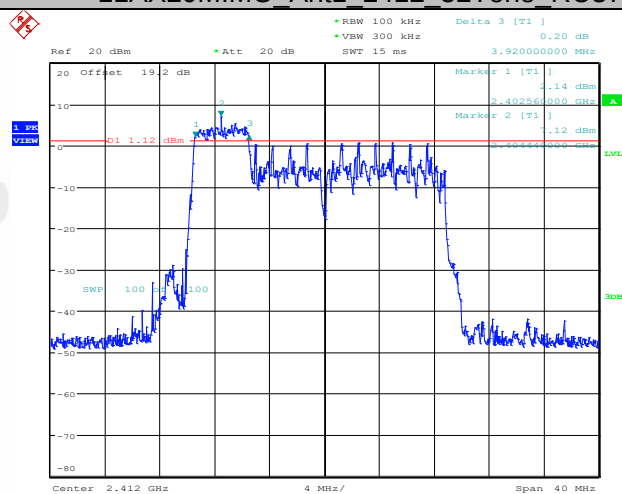
11AX20MIMO Ant1 2412 26Tone RU4



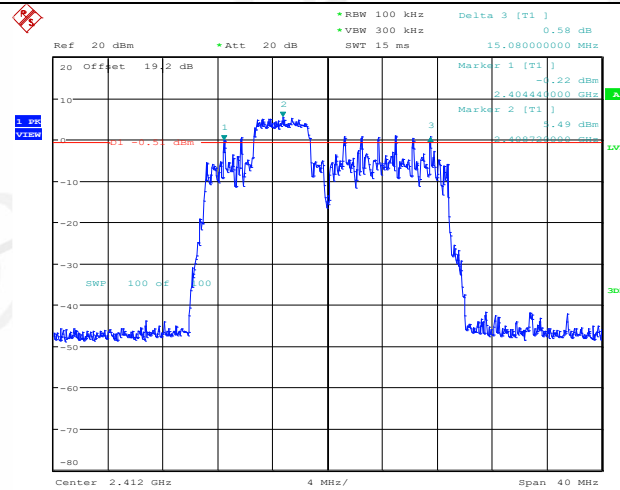
11AX20MIMO Ant1 2412 26Tone RU8



11AX20MIMO Ant1 2412 52Tone RU37

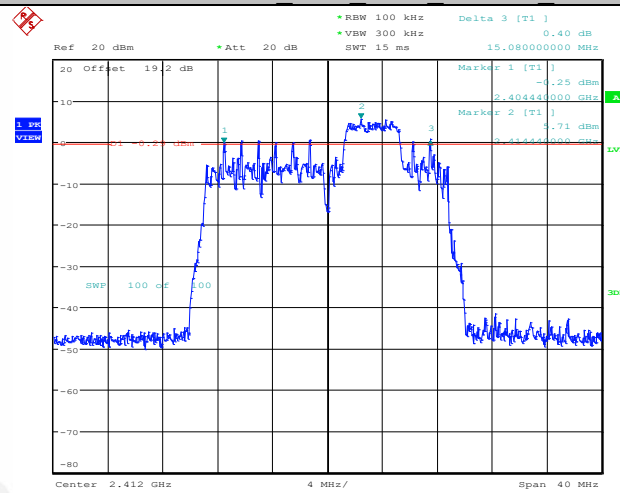


11AX20MIMO Ant1 2412 52Tone RU38



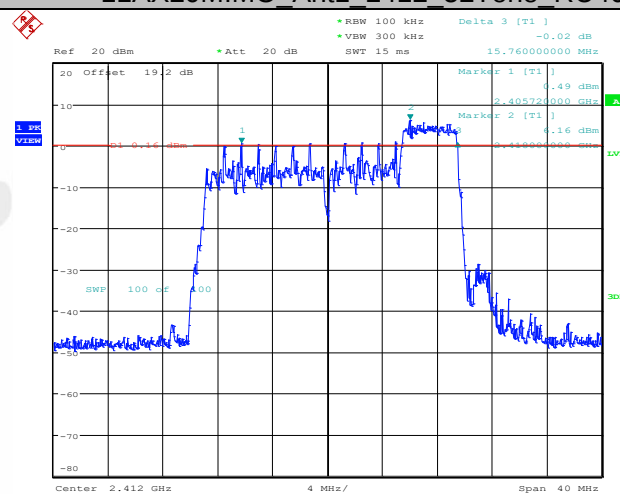
Date: 12.MAR.2022 11:03:54

11AX20MIMO Ant1 2412 52Tone RU39



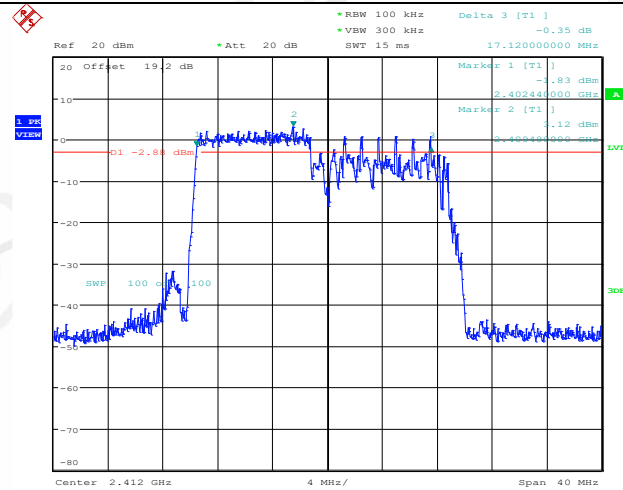
Date: 12.MAR.2022 11:10:28

11AX20MIMO Ant1 2412 52Tone RU40



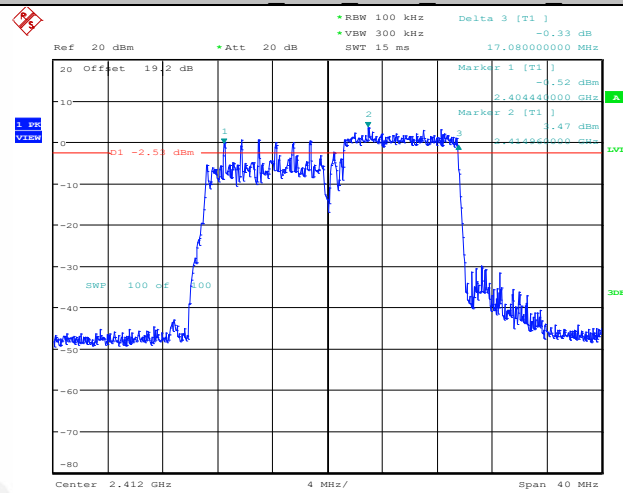
Date: 12.MAR.2022 11:17:30

11AX20MIMO Ant1 2412 106Tone RU53



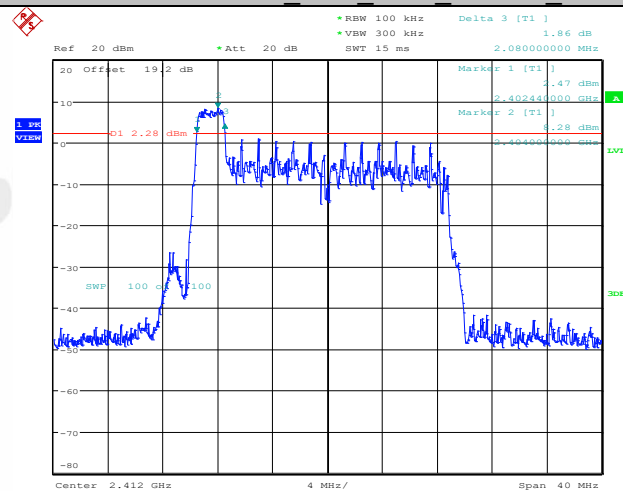
Date: 12.MAR.2022 11:23:56

11AX20MIMO Ant1 2412 106Tone RU54



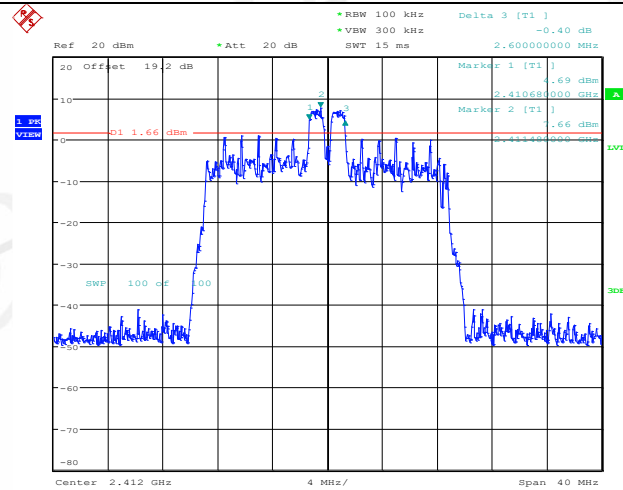
Date: 12.MAR.2022 11:30:43

11AX20MIMO Ant2 2412 26Tone RU0

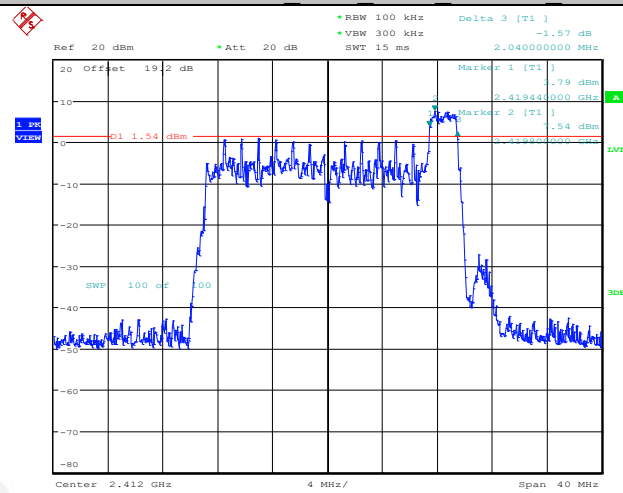


Date: 12.MAR.2022 10:34:04

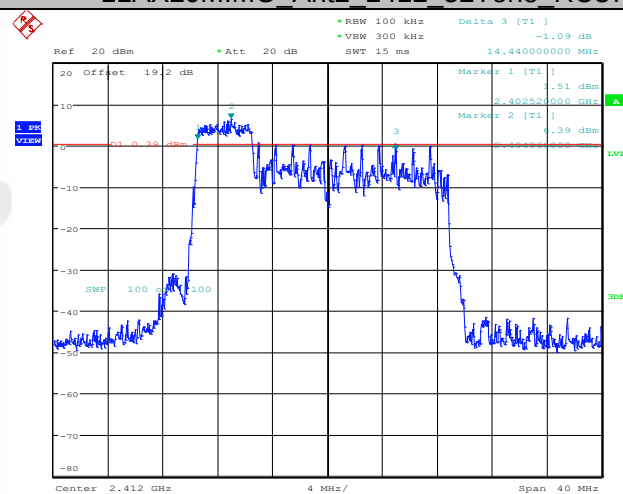
11AX20MIMO Ant2 2412 26Tone RU4



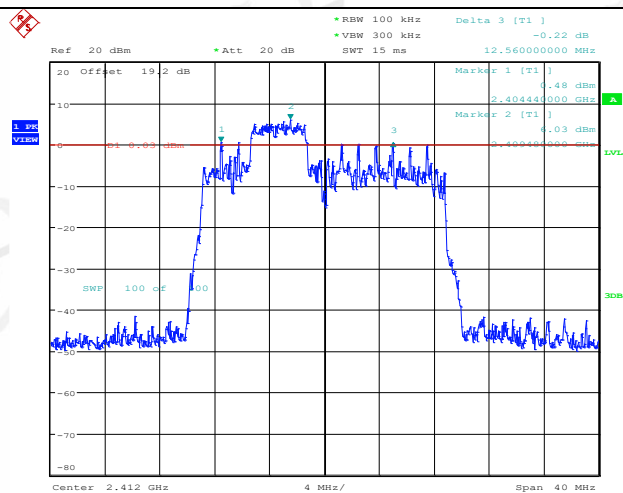
11AX20MIMO Ant2 2412 26Tone RU8



11AX20MIMO Ant2 2412 52Tone RU37

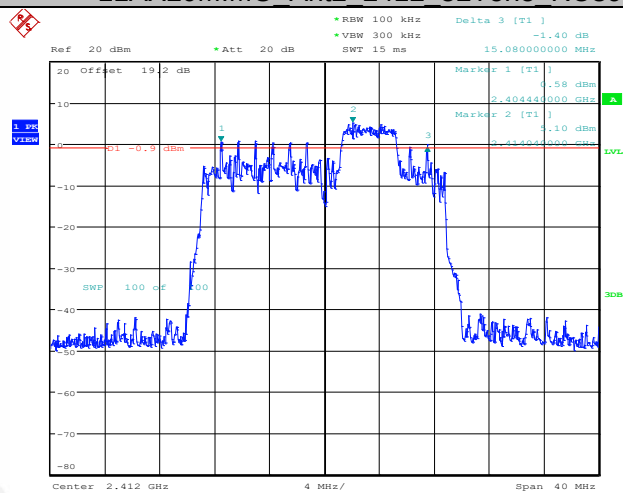


11AX20MIMO Ant2 2412 52Tone RU38



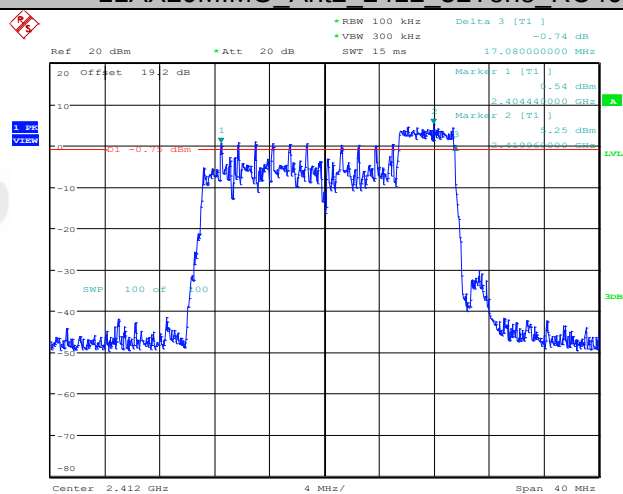
Date: 12.MAR.2022 11:06:47

11AX20MIMO Ant2 2412 52Tone RU39



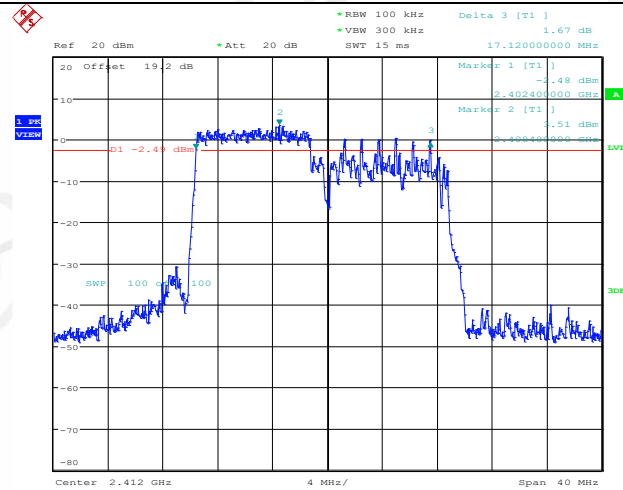
Date: 12.MAR.2022 11:13:24

11AX20MIMO Ant2 2412 52Tone RU40



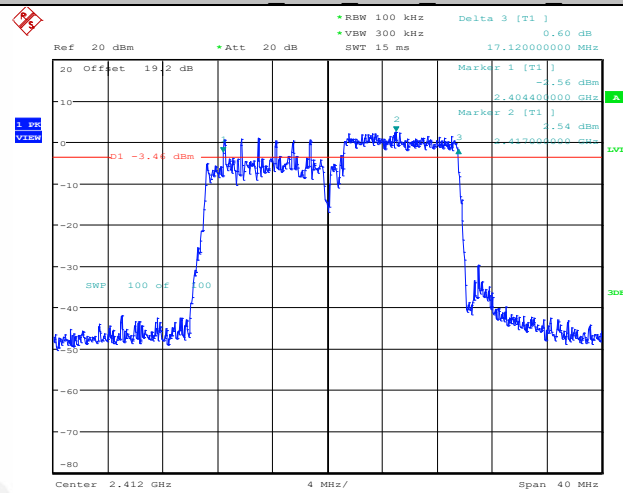
Date: 12.MAR.2022 11:20:25

11AX20MIMO Ant2 2412 106Tone RU53



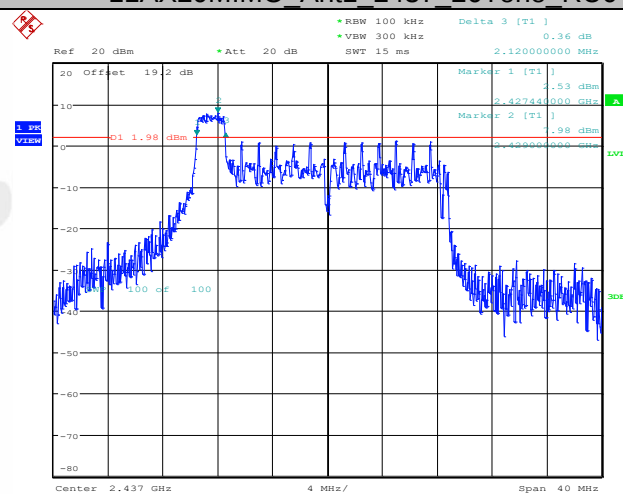
Date: 12.MAR.2022 11:26:52

11AX20MIMO Ant2 2412 106Tone RU54



Date: 12.MAR.2022 11:33:38

11AX20MIMO Ant1 2437 26Tone RU0



Date: 12.MAR.2022 11:39:22

11AX20MIMO Ant1 2437 26Tone RU4

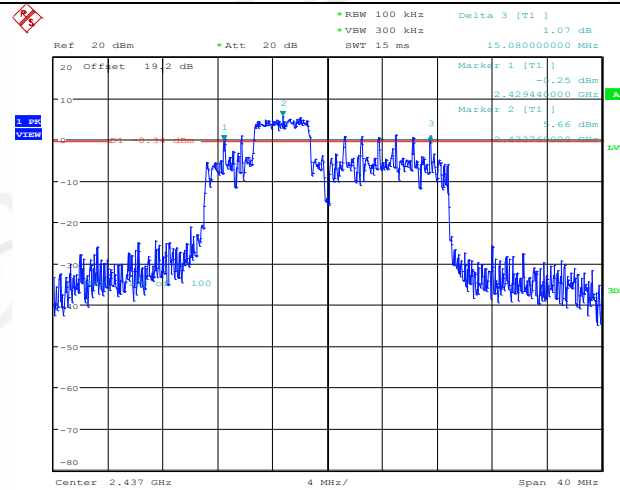
[illegible]

Date: 12.MAR.2022 11:54:15

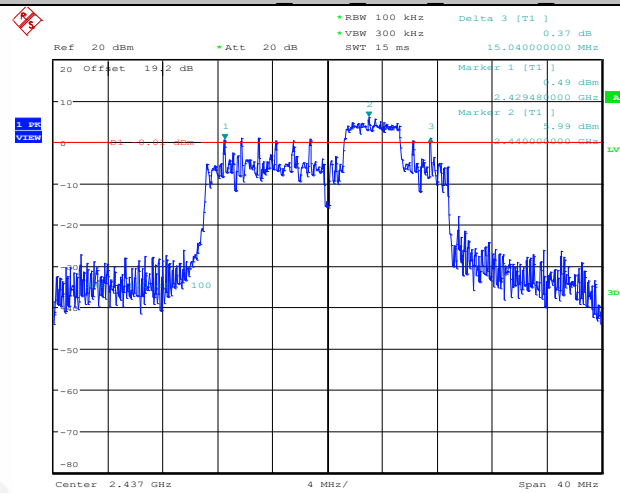
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Date: 12.MAR.2022 12:00:08

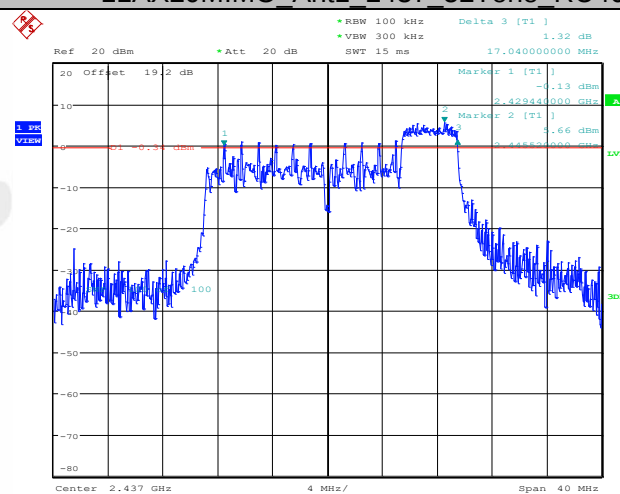
11AX20MIMO Ant1 2437 52Tone RU38



11AX20MIMO_Ant1_2437_52Tone_RU39



11AX20MIMO_Ant1_2437_52Tone_RU40



11AX20MIMO_Ant1_2437_106Tone_RU53



RBW 100 kHz Delta 3 [T1] -0.09 dB
 VSW 300 kHz
 SWT 15 ms 17.16000000 MHz

20 Offset 19.2 dB
 -3.28 dBm
 Marker 1 [T1] -3.93 dBm 2.42340000 GHz
 Marker 2 [T1] -3.72 dBm 2.42720000 GHz
 100

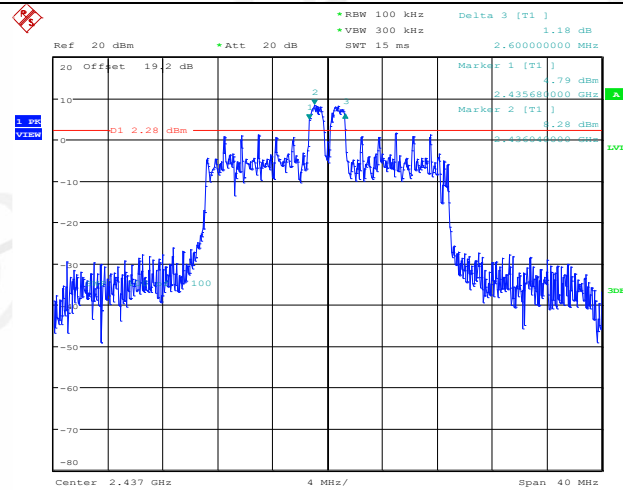
Center 2.437 GHz 4 MHz/ Span 40 MHz

Date: 12.MAR.2022 12:38:47

[illegible]

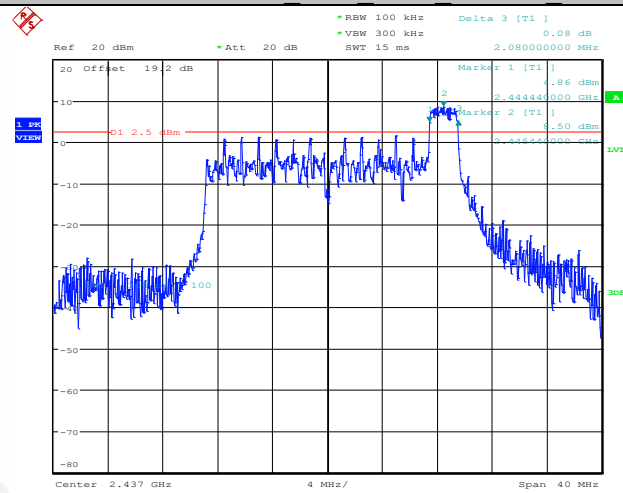
Date: 12.MAR.2022 11:41:58

11AX20MIMO Ant2 2437 26Tone RU4



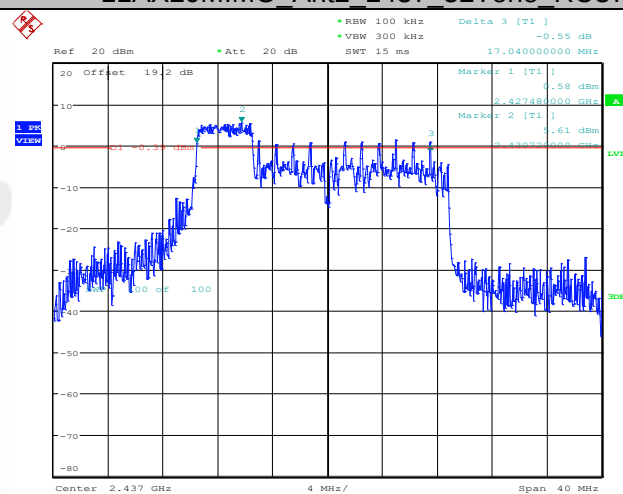
Date: 12.MAR.2022 11:50:20

11AX20MIMO Ant2 2437 26Tone RU8



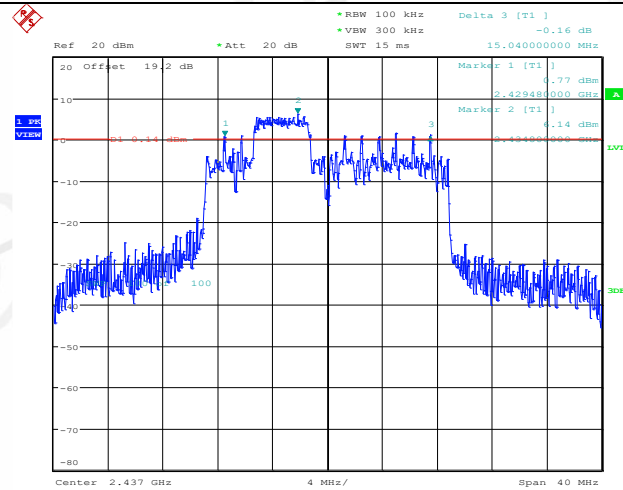
Date: 12.MAR.2022 11:56:50

11AX20MIMO Ant2 2437 52Tone RU37



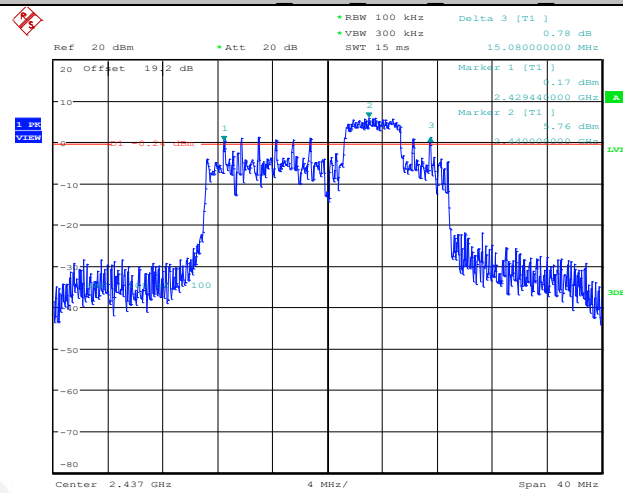
Date: 12.MAR.2022 12:02:42

11AX20MIMO Ant2 2437 52Tone RU38



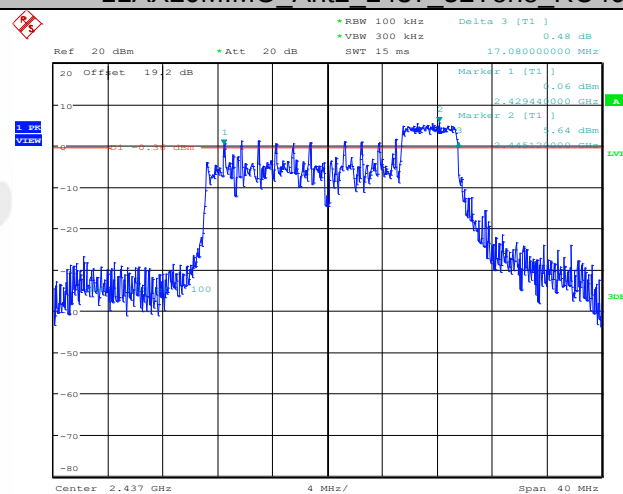
Date: 12.MAR.2022 12:08:49

11AX20MIMO Ant2 2437 52Tone RU39



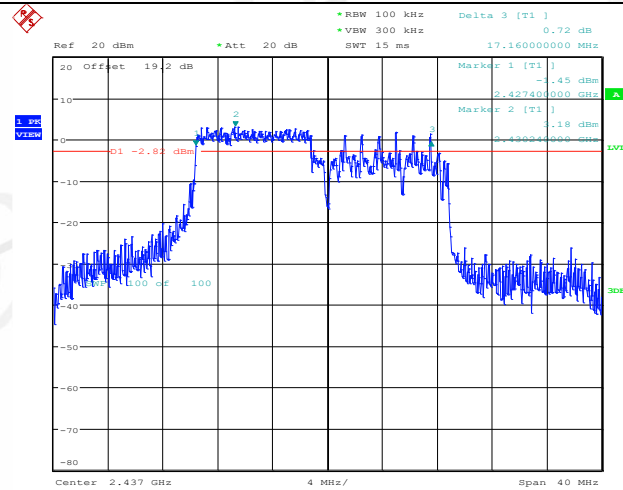
Date: 12.MAR.2022 12:15:12

11AX20MIMO Ant2 2437 52Tone RU40

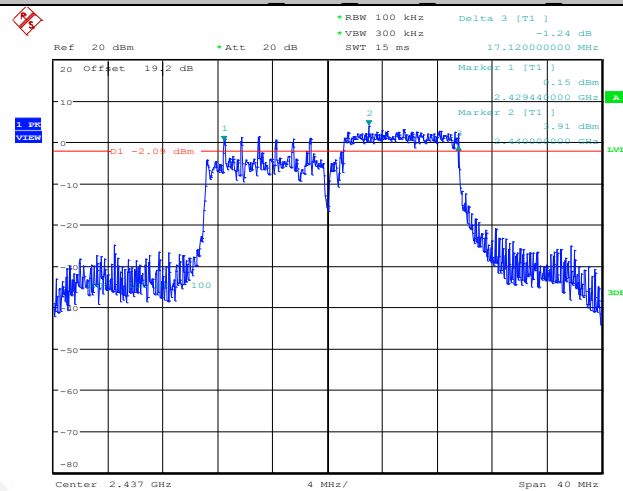


Date: 12.MAR.2022 12:21:22

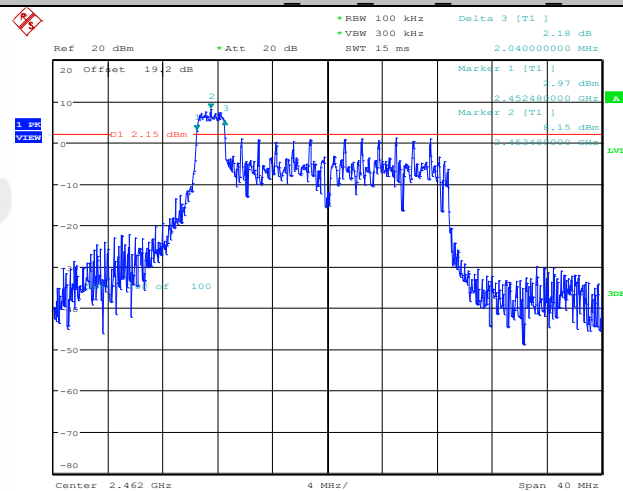
11AX20MIMO Ant2 2437 106Tone RU53



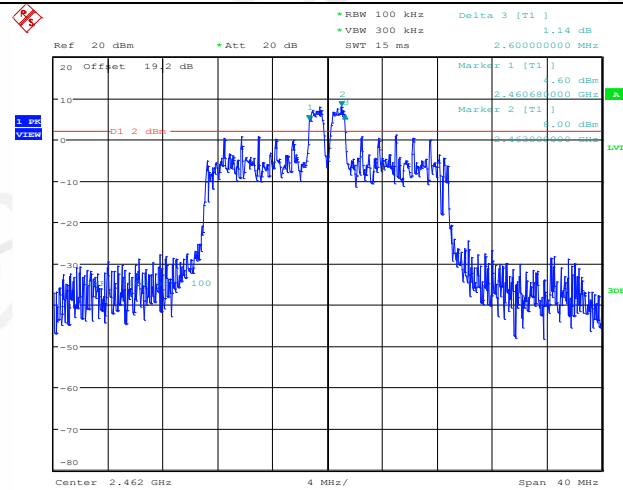
11AX20MIMO Ant2 2437 106Tone RU54



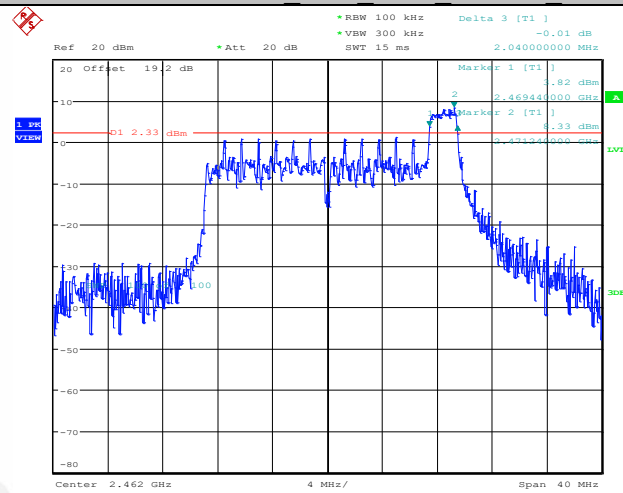
11AX20MIMO Ant1 2462 26Tone RU0



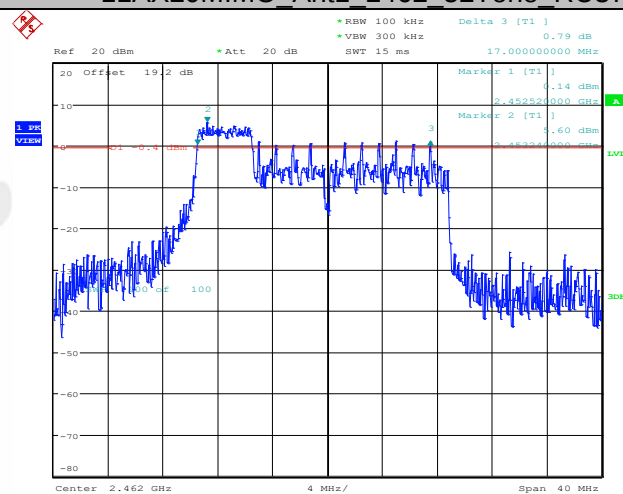
11AX20MIMO Ant1 2462 26Tone RU4



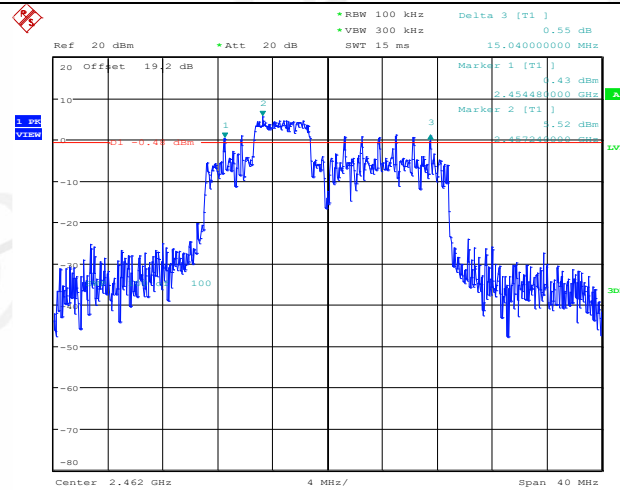
11AX20MIMO Ant1 2462 26Tone RU8



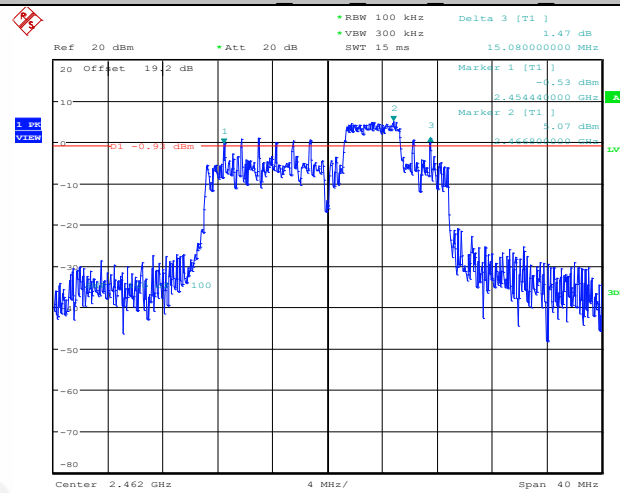
11AX20MIMO Ant1 2462 52Tone RU37



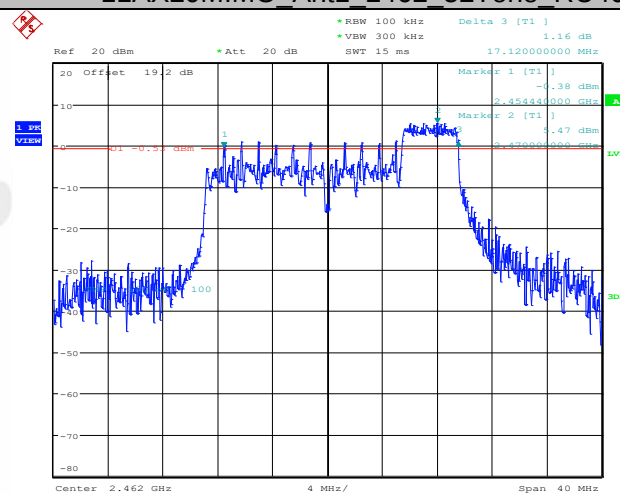
11AX20MIMO Ant1 2462 52Tone RU38



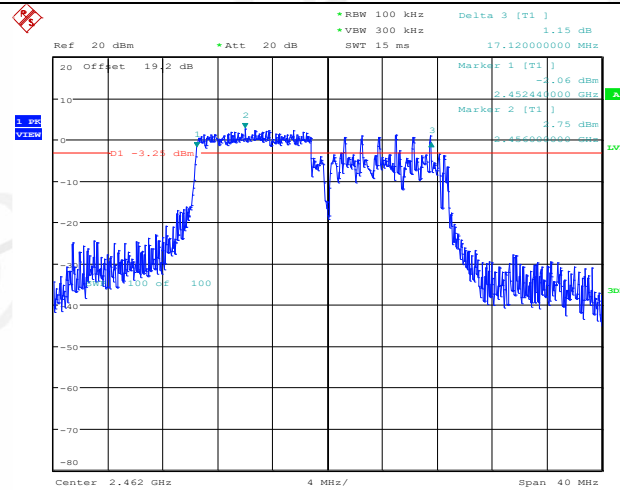
11AX20MIMO Ant1 2462 52Tone RU39



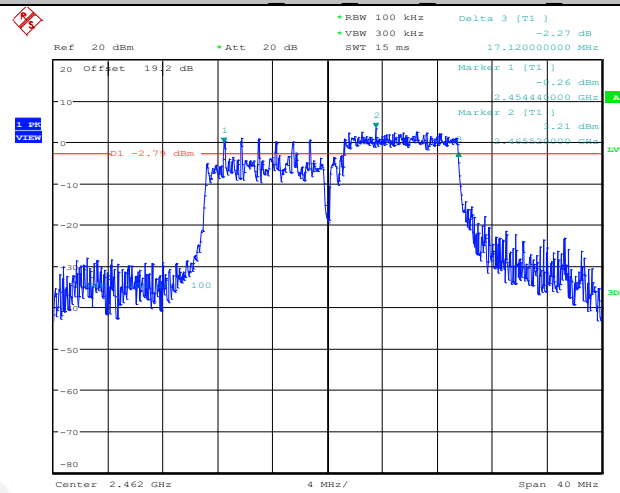
11AX20MIMO Ant1 2462 52Tone RU40



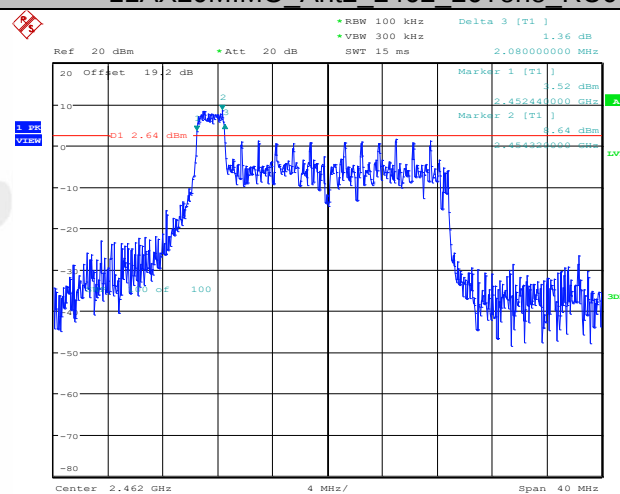
11AX20MIMO Ant1 2462 106Tone RU53



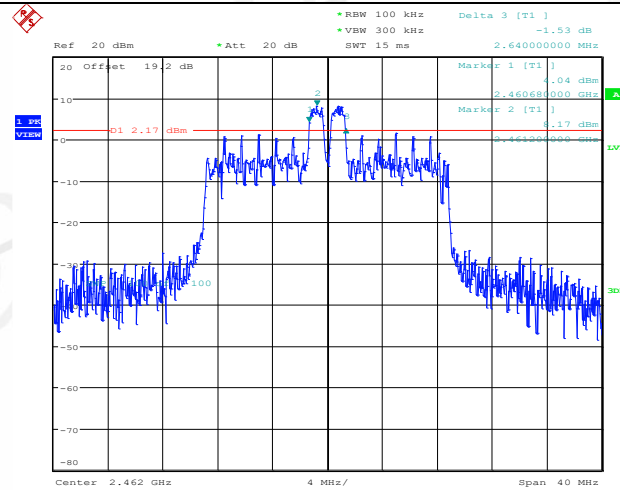
11AX20MIMO Ant1 2462 106Tone RU54



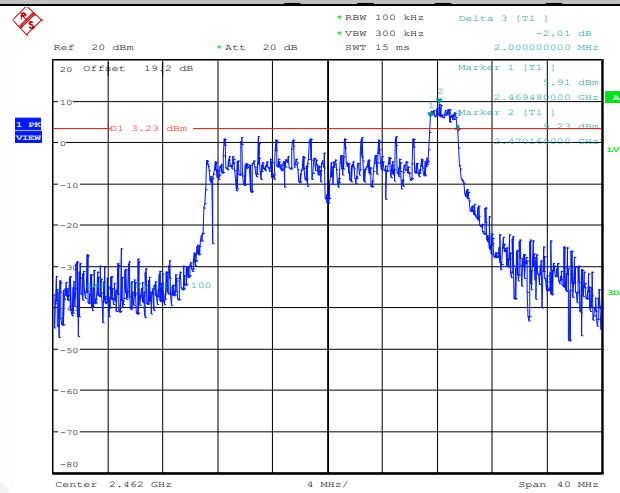
11AX20MIMO Ant2 2462 26Tone RU0



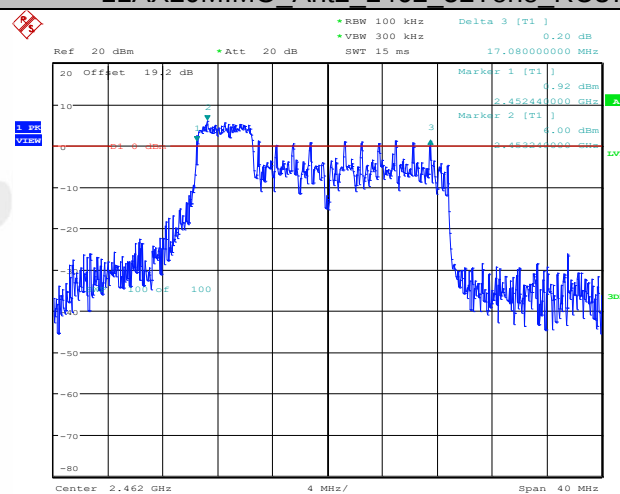
11AX20MIMO Ant2 2462 26Tone RU4



11AX20MIMO Ant2 2462 26Tone RU8



11AX20MIMO Ant2 2462 52Tone RU37



11AX20MIMO Ant2 2462 52Tone RU38



Ref 20 dBm *Att 20 dB
 •RBW 100 kHz Delta 3 [T1]
 •VBW 300 kHz 0.43 dB
 SWT 15 ms 15.04000000 MHz

20 Offset 19.2 dB
 Marker 1 [T1] -0.75 dBm
 2.4548000 GHz
 Marker 2 [T1] -1.38 dBm
 2.4548000 GHz
 100
 1
 2
 3
 10
 -10
 -20
 -30
 -40
 -50
 -60
 -70
 -80

Center 2.462 GHz 4 MHz/
 Span 40 MHz

Date: 12.MAR.2022 13:25:43

Ref 20 dBm *Att 20 dB Delta 3 [T1] 0.79 dB
 VSW 300 kHz SWF 15 ms 17.120000000 MHz

20 Offset 19.2 dB
 Marker 1 [T1] -3.13 dBm
 2.452440000 GHz
 Marker 2 [T1] -3.95 dBm
 2.453000000 GHz

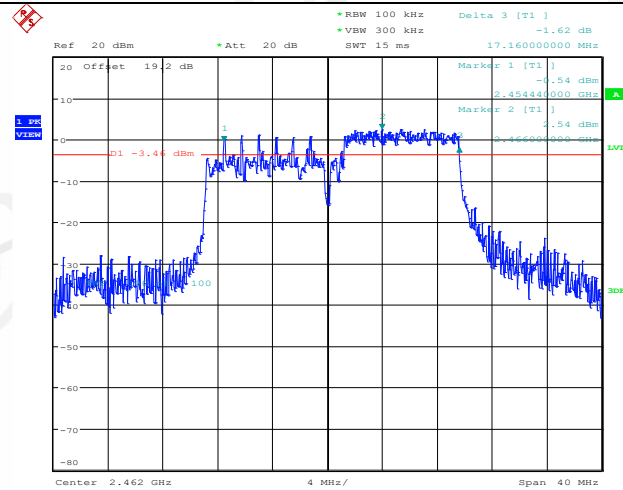
-3.05 dBm
 -3.05 dBm
 -3.05 dBm

100

Center 2.462 GHz 4 MHz/ Span 40 MHz

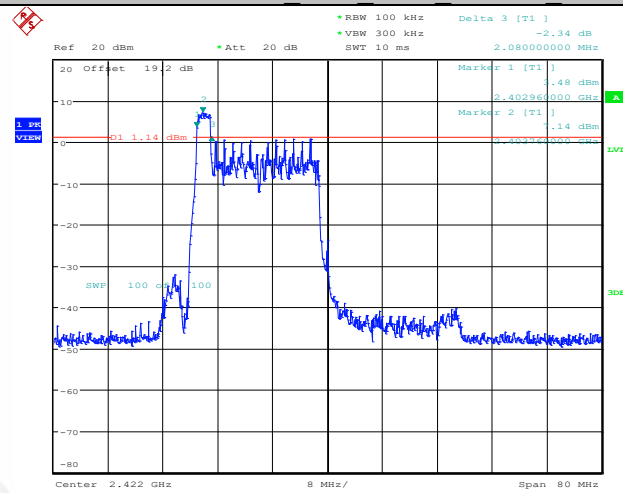
Date: 12.MAR.2022 13:39:20

11AX20MIMO Ant2 2462 106Tone RU54



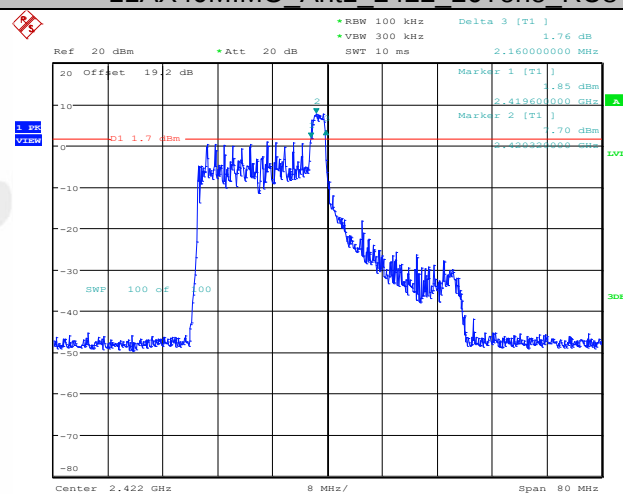
Date: 12.MAR.2022 13:48:54

11AX40MIMO Ant1 2422 26Tone RU0



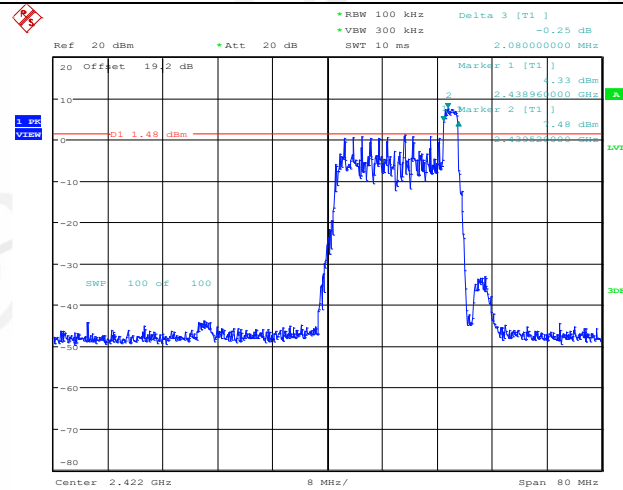
Date: 12.MAR.2022 13:53:39

11AX40MIMO Ant1 2422 26Tone RU8

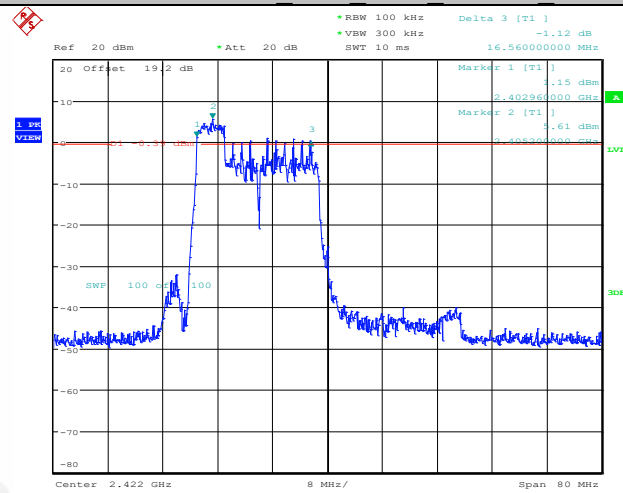


Date: 12.MAR.2022 14:00:23

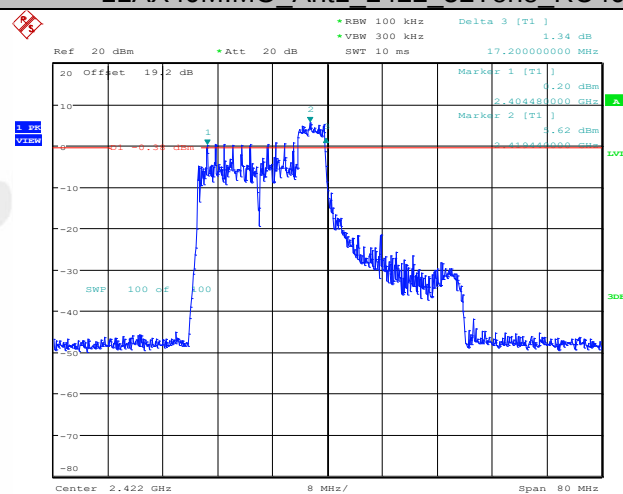
11AX40MIMO Ant1 2422 26Tone RU17



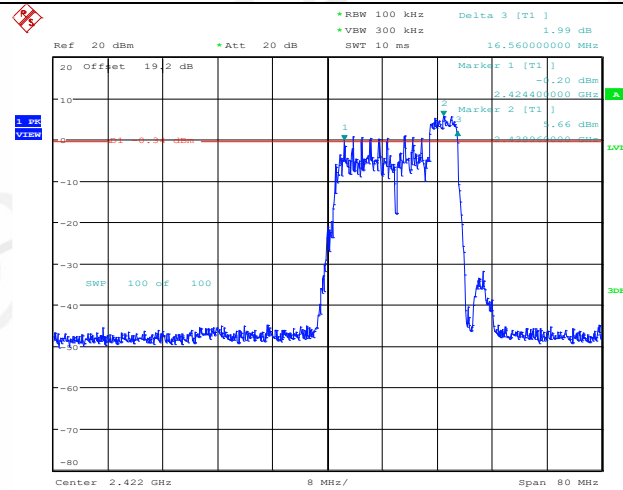
11AX40MIMO_Ant1_2422_52Tone_RU37



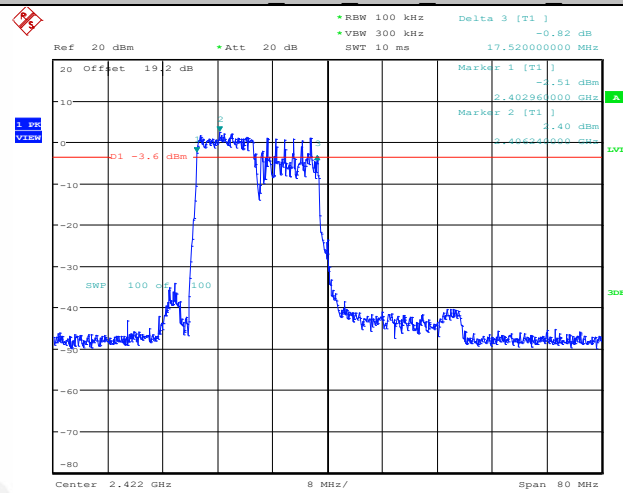
11AX40MIMO_Ant1_2422_52Tone_RU40



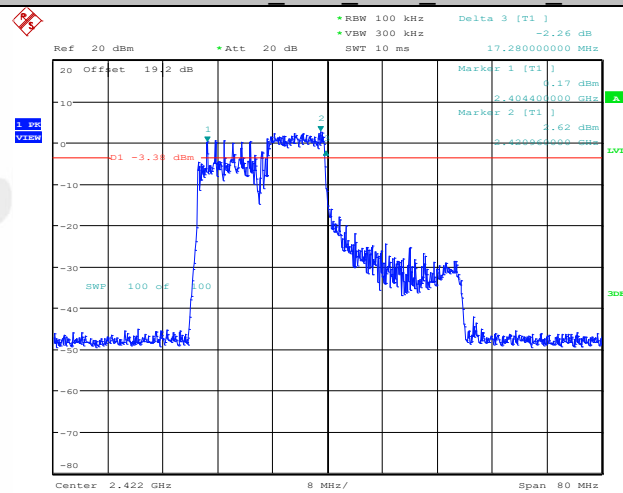
11AX40MIMO_Ant1_2422_52Tone_RU44



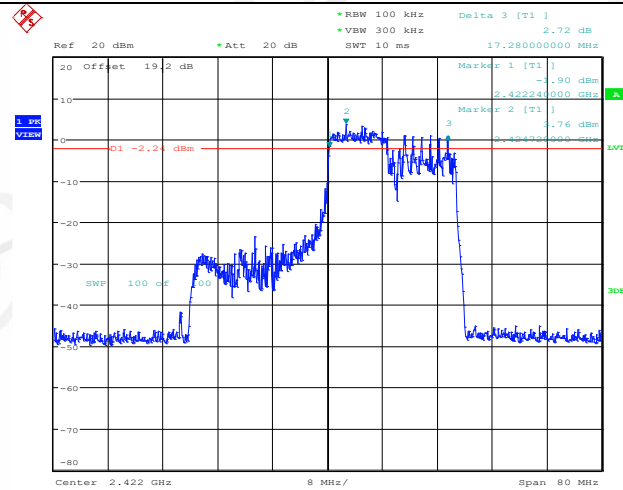
11AX40MIMO Ant1 2422 106Tone RU53



11AX40MIMO Ant1 2422 106Tone RU54

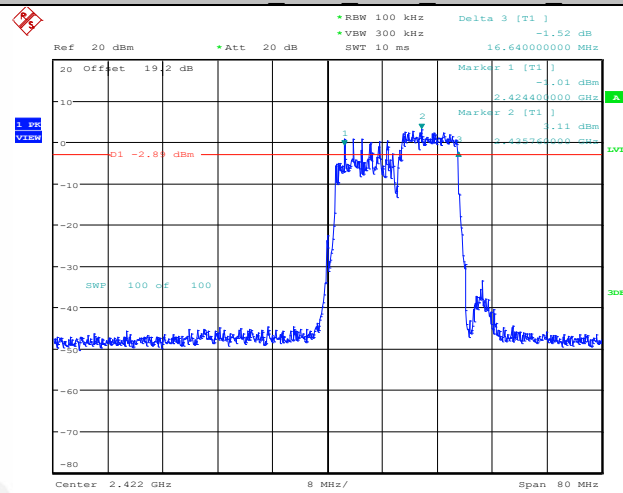


11AX40MIMO Ant1 2422 106Tone RU55



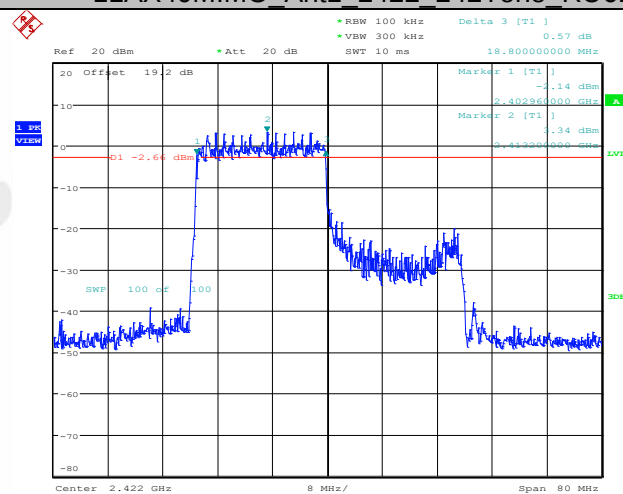
Date: 12.MAR.2022 14:47:40

11AX40MIMO Ant1 2422 106Tone RU56



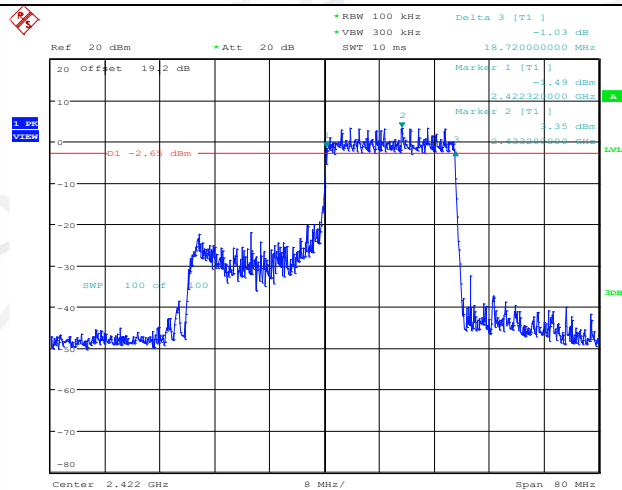
Date: 12.MAR.2022 14:54:29

11AX40MIMO Ant1 2422 242Tone RU61



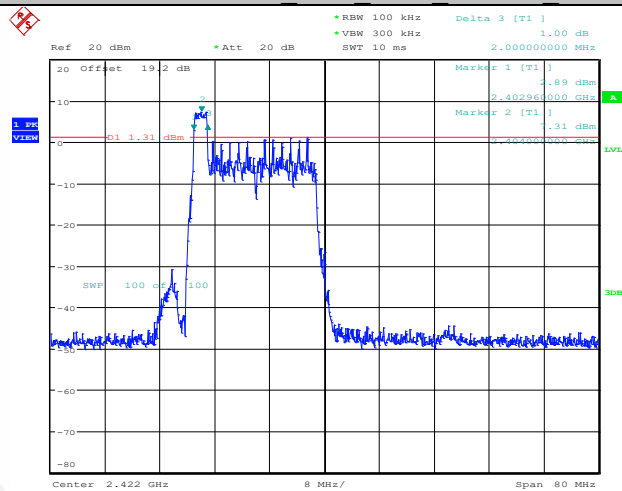
Date: 12.MAR.2022 15:01:03

11AX40MIMO Ant1 2422 242Tone RU62



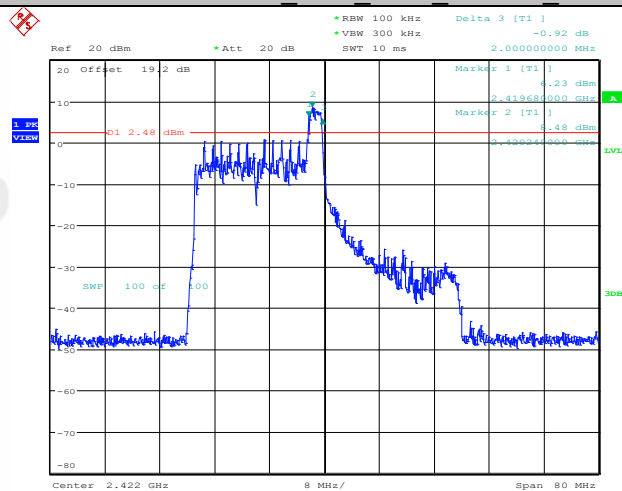
Date: 12.MAR.2022 15:07:36

11AX40MIMO Ant2 2422 26Tone RU0



Date: 12.MAR.2022 13:56:33

11AX40MIMO Ant2 2422 26Tone RU8



Date: 12.MAR.2022 14:03:17

11AX40MIMO Ant2 2422 26Tone RU17



Ref 20 dBm *Att 20 dB

*RBW 100 kHz Delta 3 [T1] -1.52 dBm

*VBW 300 kHz SWT 10 ms 16,56000000 MHz

20 Offset 19.2 dB

Marker 1 [T1] .73 dBm 2.40296000 GHz

Marker 2 [T1] -1.68 dBm 2.50333000 GHz

SWP 100 ns 100

Center 2.422 GHz 8 MHz/ Span 80 MHz

Date: 12.MAR.2022 14:16:20

*RBW 100 kHz
 *VBW 300 kHz
 SWF 10 ms

Ref 20 dBm
 *Att 20 dB

Delta 3 [T1]
 0.06 dB

17.28000000 MHz

20 Offset 19.2 dB

Marker 1 [T1]
 2.4048000 GHz
 -5.24 dBm

Marker 2 [T1]
 2.470 dBm
 -13.0000000 GHz

SWF 100

Center 2.422 GHz
 Span 80 MHz

Date: 12.MAR.2022 14:23:14

11AX40MIMO Ant2 2422 52Tone RU44



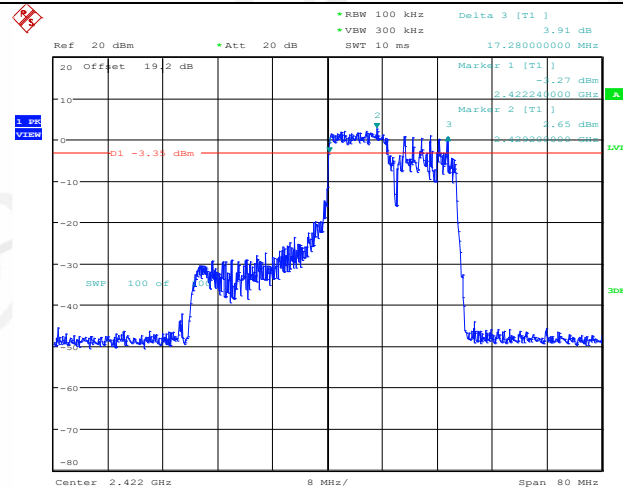
11AX40MIMO Ant2 2422 106Tone RU53



11AX40MIMO Ant2 2422 106Tone RU54

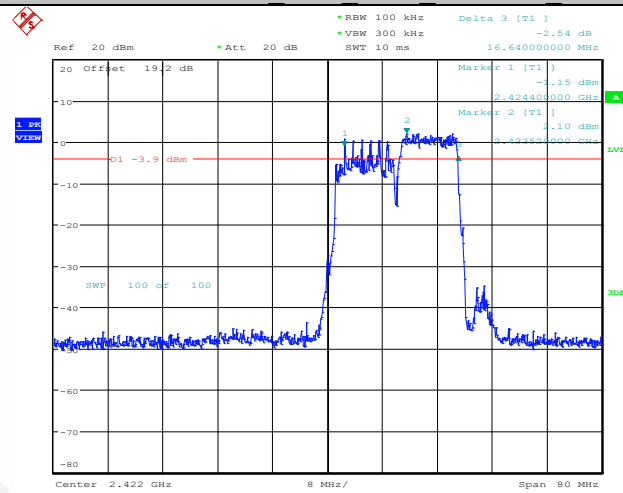


11AX40MIMO Ant2 2422 106Tone RU55



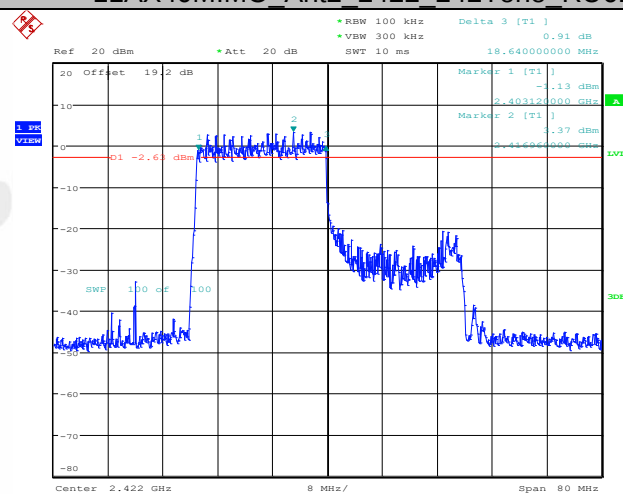
Date: 12.MAR.2022 14:50:43

11AX40MIMO Ant2 2422 106Tone RU56



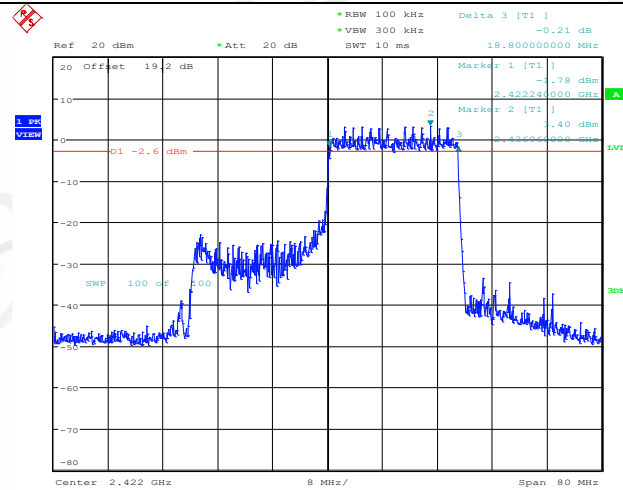
Date: 12.MAR.2022 14:57:22

11AX40MIMO Ant2 2422 242Tone RU61

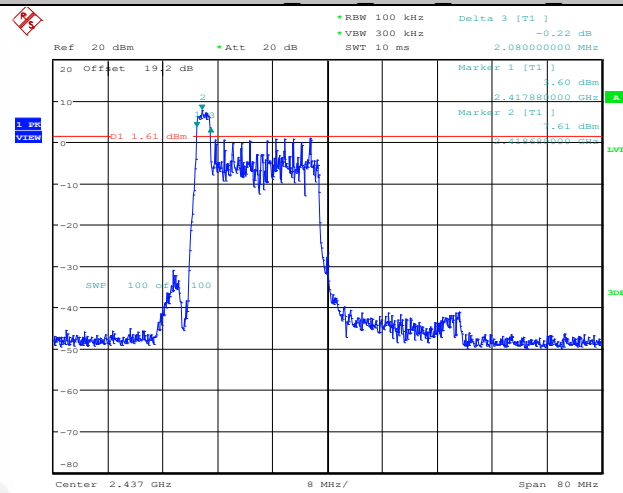


Date: 12.MAR.2022 15:03:55

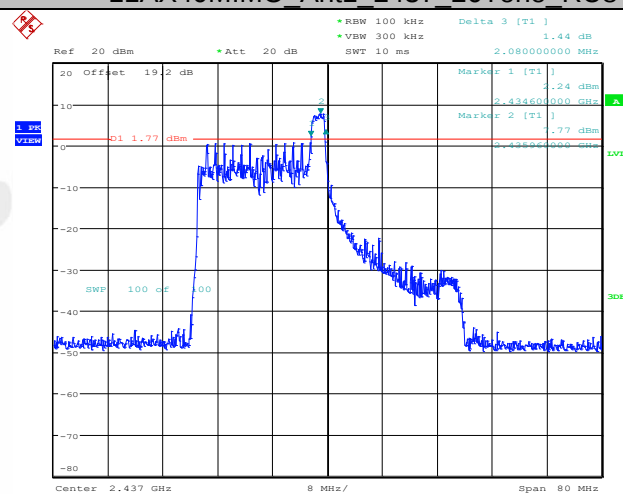
11AX40MIMO Ant2 2422 242Tone RU62



11AX40MIMO Ant1 2437 26Tone RU0



11AX40MIMO Ant1 2437 26Tone RU8



11AX40MIMO Ant1 2437 26Tone RU17



Ref 20 dBm *Att 20 dB RBW 100 kHz Delta 3 [T1] 0.72 dB
 SWF 10 ms VBW 300 kHz 16,64000000 MHz

20 Offset 19.2 dB

Marker 1 [T1] -18.18 dBm 2.43788100 GHz
 Marker 2 [T1] -1.49 dBm 2.43731600 GHz

C1 -0.9 dBm

SWF 100 GHz 100

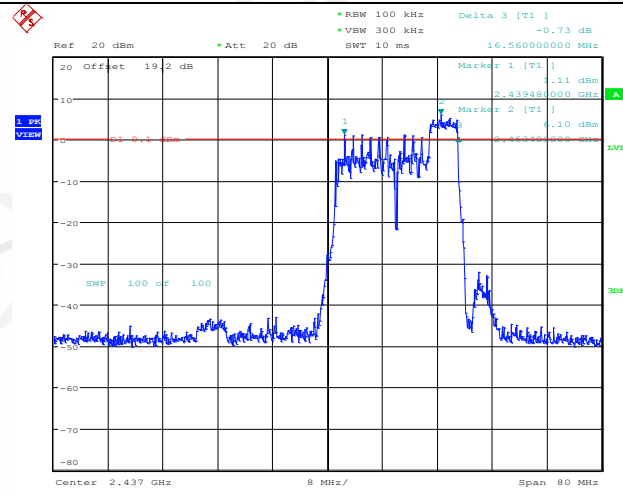
Center 2.437 GHz 8 MHz/ Span 80 MHz

Date: 12.MAR.2022 15:37:40

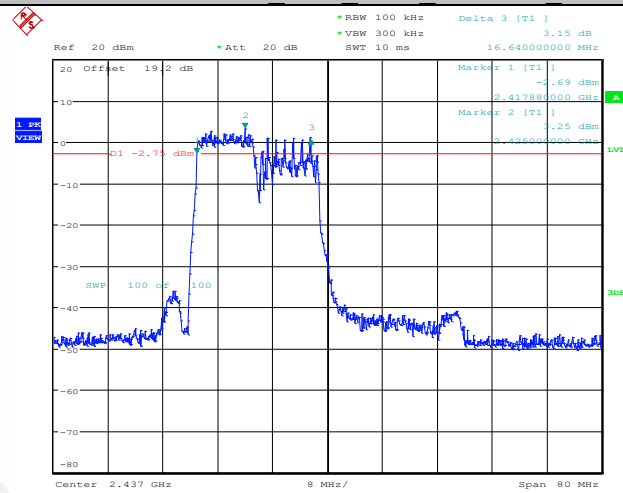
*RBW 100 kHz
 Delta 3 [T1] 0.95 dB
 *VSW 300 kHz
 SWF 10 ms
 17.280000000 MHz
 Marker 1 [T1] -1.24 dBm
 2.43400000 GHz
 Marker 2 [T1] -1.90 dBm
 2.43440000 GHz
 SWF 100 kHz
 100
 Center 2.437 GHz
 Span 80 MHz

Date: 12.MAR.2022 15:43:58

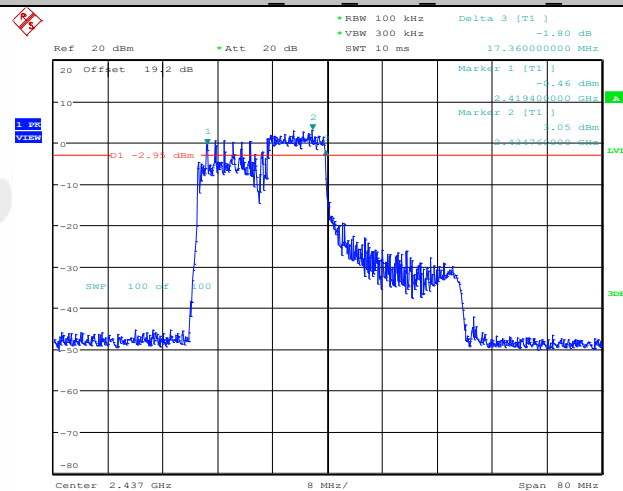
11AX40MIMO Ant1 2437 52Tone RU44



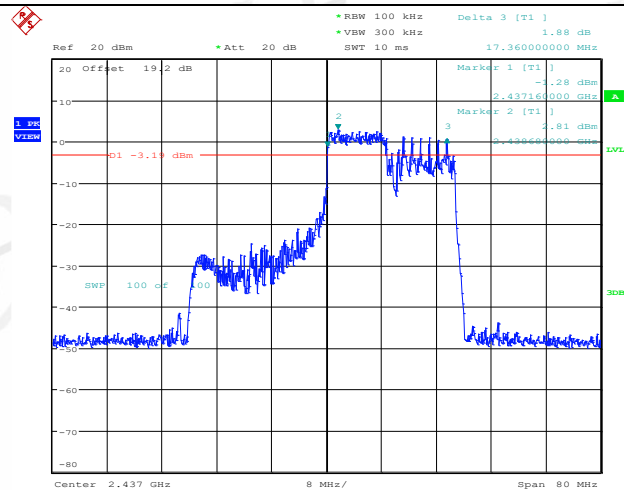
11AX40MIMO Ant1 2437 106Tone RU53



11AX40MIMO Ant1 2437 106Tone RU54

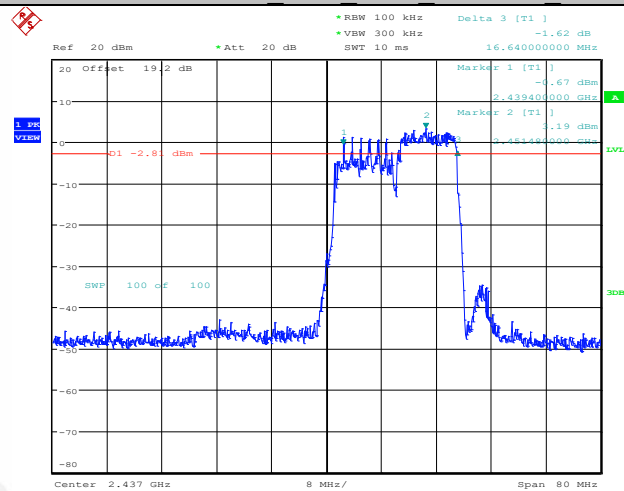


11AX40MIMO Ant1 2437 106Tone RU55



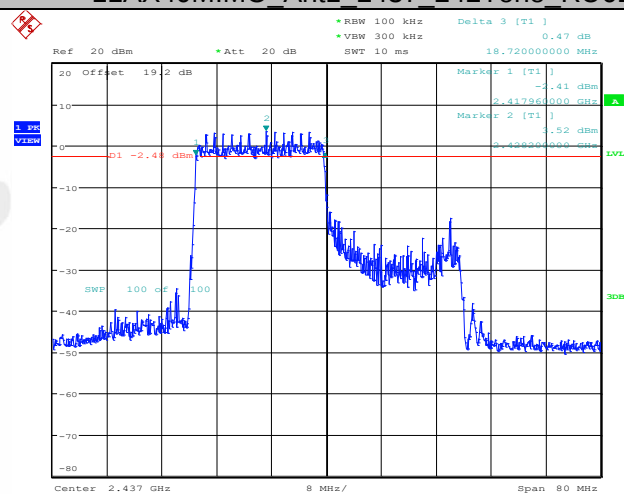
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11AX40MIMO Ant1 2437 106Tone RU56



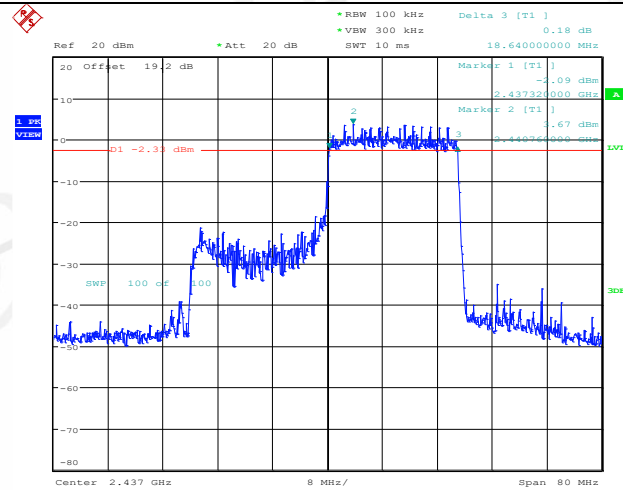
Date: 12.MAR.2022 16:13:03

11AX40MIMO Ant1 2437 242Tone RU61

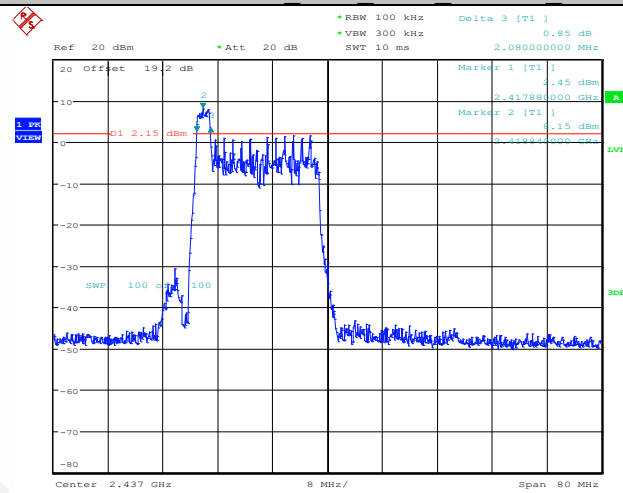


Date: 12.MAR.2022 16:19:31

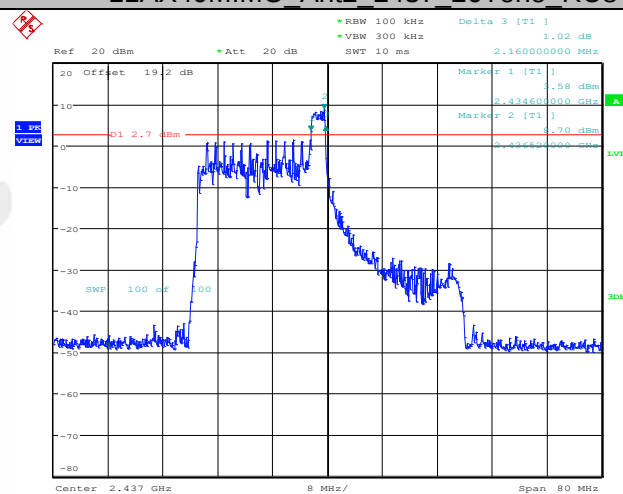
11AX40MIMO Ant1 2437 242Tone RU62



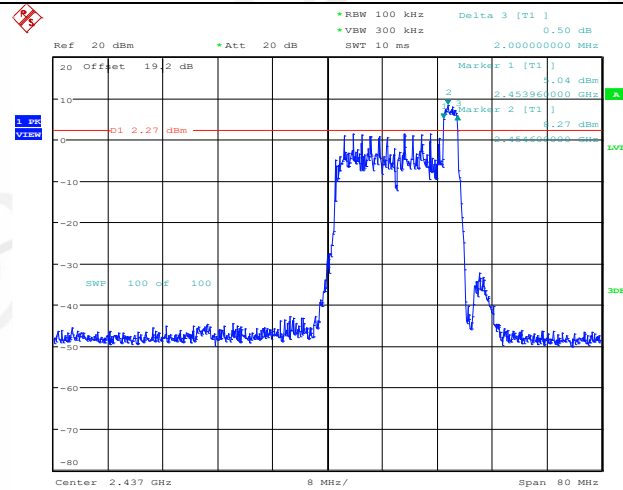
11AX40MIMO Ant2 2437 26Tone RU0



11AX40MIMO Ant2 2437 26Tone RU8

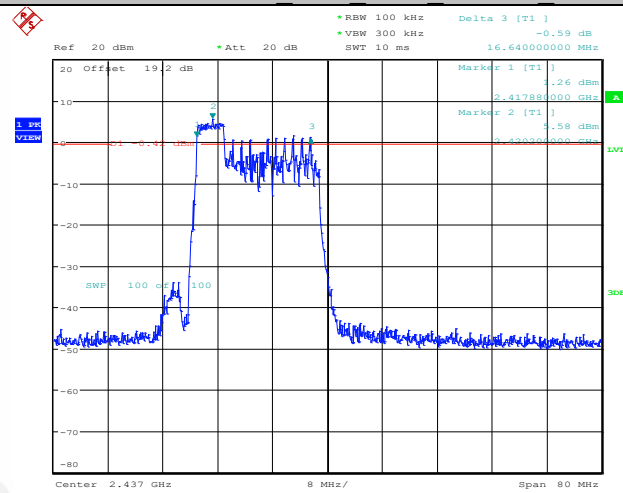


11AX40MIMO Ant2 2437 26Tone RU17



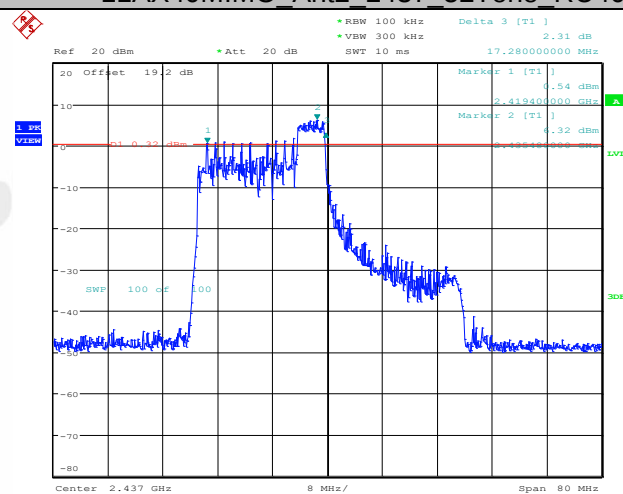
Date: 12.MAR.2022 15:34:39

11AX40MIMO Ant2 2437 52Tone RU37



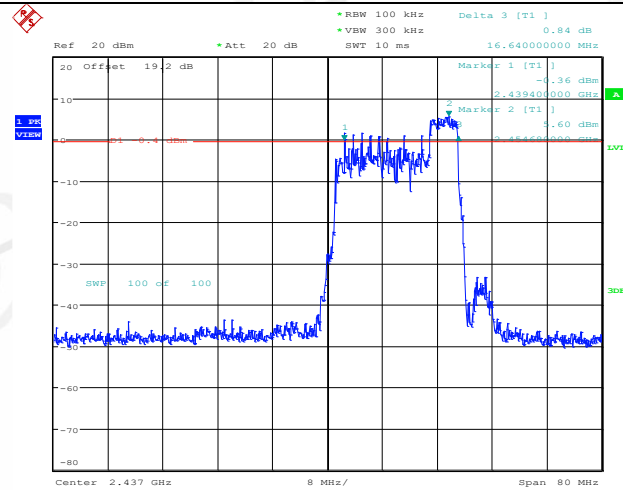
Date: 12.MAR.2022 15:40:14

11AX40MIMO Ant2 2437 52Tone RU40



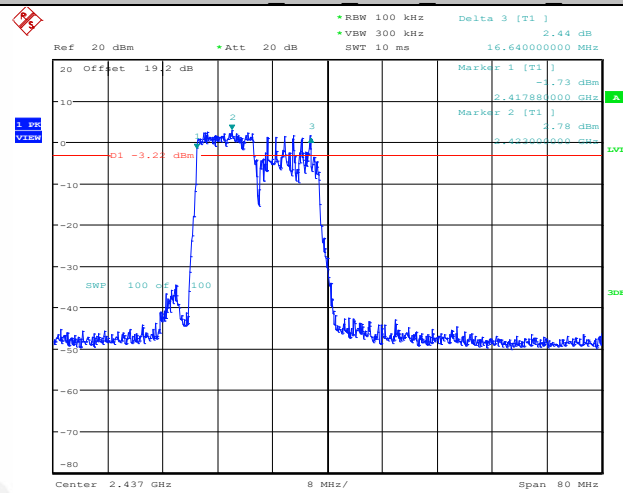
Date: 12.MAR.2022 15:46:33

11AX40MIMO Ant2 2437 52Tone RU44



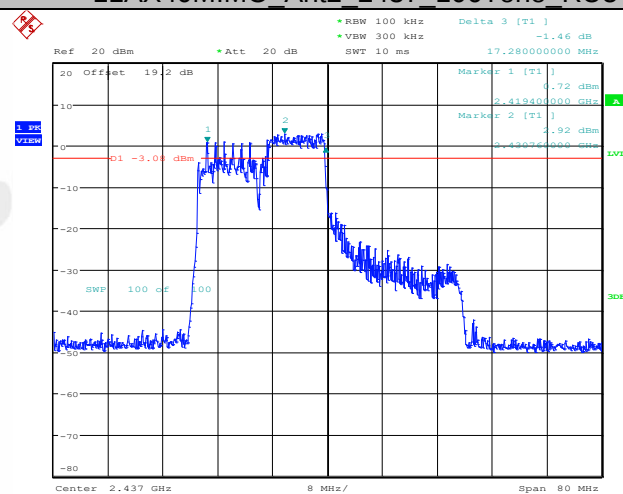
Date: 12.MAR.2022 15:52:52

11AX40MIMO Ant2 2437 106Tone RU53



Date: 12.MAR.2022 15:58:20

11AX40MIMO Ant2 2437 106Tone RU54



Date: 12.MAR.2022 16:04:08

11AX40MIMO Ant2 2437 106Tone RU55



RBW 100 kHz
 Delta 3 [T1] -1.86 dB
 VBW 300 kHz
 SWF 10 ms 16,560000000 MHz

Ref 20 dBm
 *Att 20 dB

20 Offset 19.2 dB
 Marker 1 [T1] .23 dBm
 2.43400000 GHz
 Marker 2 [T1] .06 dBm
 2.454000000 GHz

-2.94 dBm
 SWP 100 CF 100
 Center 2.437 GHz
 Span 80 MHz

Date: 12.MAR.2022 16:15:38

Ref 20 dBm *Att 20 dB RBW 100 kHz VSW 300 kHz SWP 10 ms Delta 3 [T1] -0.42 dB

20 Offset 19.2 dB Marker 1 [T1] -0.09 dBm 2.437200000 GHz

Marker 2 [T1] -0.09 dBm 2.437200000 GHz

C1 -1.9 dBm SWP 100 dB 100

Center 2.437 GHz 8 MHz/ Span 80 MHz

Date: 12.MAR.2022 16:22:04

11AX40MIMO Ant2 2437 242Tone RU62

[illegible]

Date: 12.MAR.2022 16:32:34

Ref 20 dBm * Att 20 dB SWT 10 ms Delta 3 [T1]

20 Offset 19.2 dB

10

0

-10

-20

-30

-40

-50

-60

-70

-80

Q1 2.18 dBm

Marker 1 [T1]

0.15 dBm

2.452680000 GHz

Marker 2 [T1]

0.18 dBm

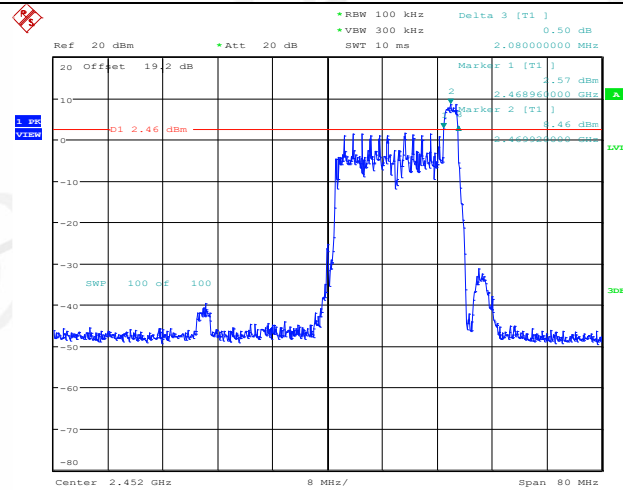
2.450000000 GHz

SWP 100.00

Center 2.452 GHz 8 MHz/ Span 80 MHz

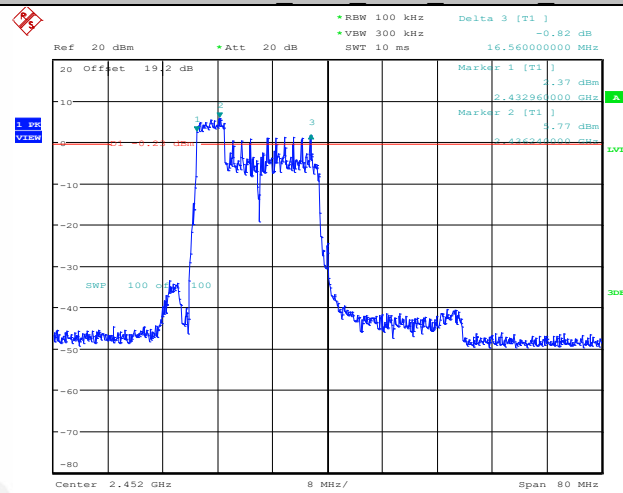
Date: 12.MAR.2022 17:02:08

11AX40MIMO Ant1 2452 26Tone RU17



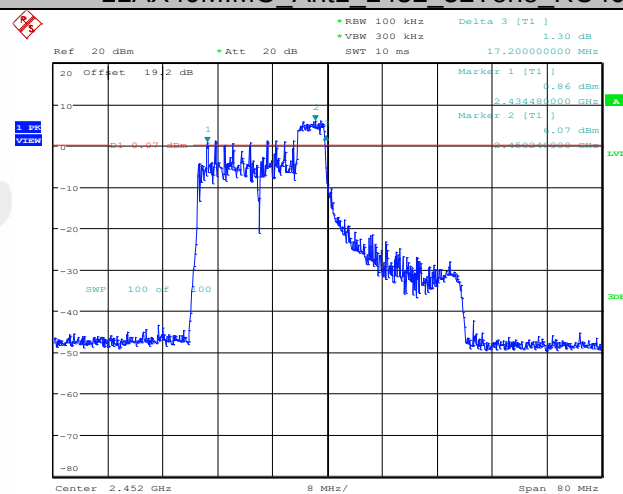
Date: 12.MAR.2022 17:08:50

11AX40MIMO Ant1 2452 52Tone RU37



Date: 12.MAR.2022 17:15:35

11AX40MIMO Ant1 2452 52Tone RU40



Date: 12.MAR.2022 17:22:47

11AX40MIMO Ant1 2452 52Tone RU44



RBW 100 kHz Delta 3 [T1] 3.38 dB
 VSW 300 kHz
 SWT 10 ms 16,560,000,000 MHz

Ref 20 dBm *Att 20 dB

20 Offset 19.2 dB
 Marker 1 [T1] -1.91 dBm
 2.43294100 GHz
 Marker 2 [T1] -1.50 dBm
 2.45000000 GHz

Q1 -2.5 dBm
 SWP 100 GHz 100

Center 2.452 GHz 8 MHz/
 Span 80 MHz

Date: 12.MAR.2022 17:37:07

*RBW 100 kHz Delta 3 [T1]
 *VBW 300 kHz
 SWF 10 ms 17.360000000 MHz

Ref 20 dBm *Att 20 dB
 20 Offset 19.2 dB

Marker 1 [T1]
 -2.74 dBm
 2.434400000 GHz
 Marker 2 [T1]
 -26 dBm
 2.442400000 GHz

C1 -2.74 dBm
 SWF 100 of 100

Center 2.452 GHz 8 MHz/
 Span 80 MHz

Date: 12.MAR.2022 17:44:00

11AX40MIMO	Ant1	2452	106Tone	RU55
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The screenshot shows a VectorStar spectrum analyzer interface. At the top, a status bar displays:

- RBW 100 kHz
- Delta 3 [T1]
- VBW 300 kHz
- 1.86 dB
- SWF 10 ms
- 16.640000000 MHz

The main display area shows a spectrum plot with a grid. The horizontal axis represents frequency, with labels at the bottom:

- Center 2.45 GHz
- 8 MHz/
- Span 80 MHz

 The vertical axis represents power level, with labels on the left:

- 20 Offset 19.2 dB
- 10
- 0
- 10
- 20
- 30
- 40
- 50
- 60
- 70
- 80

A blue trace shows the signal spectrum. A sharp peak is visible at approximately 2.454 GHz, reaching a power level of about -1.86 dB. A red horizontal line is drawn across the plot at approximately -2.8 dB, labeled "Q1 -2.8 dB".

On the right side of the plot, there are two markers:

- Marker 1 [T1] at 2.45400000 GHz, -0.06 dBm
- Marker 2 [T1] at 2.45400000 GHz, -1.7 dBm

The bottom of the screen shows a blue bar with the text "1.98 VdBm".

Date: 12.MAR.2022 17:58:27

Ref 20 dBm *Att 20 dB RBW 100 kHz Delta 3 [T1] -0.25 dB
 VBW 300 kHz SWP 10 ms 18.800000000 MHz

Marker 1 [T1] -0.83 dBm
 2.43296000 GHz

Marker 2 [T1] -0.82 dBm
 2.44336000 GHz

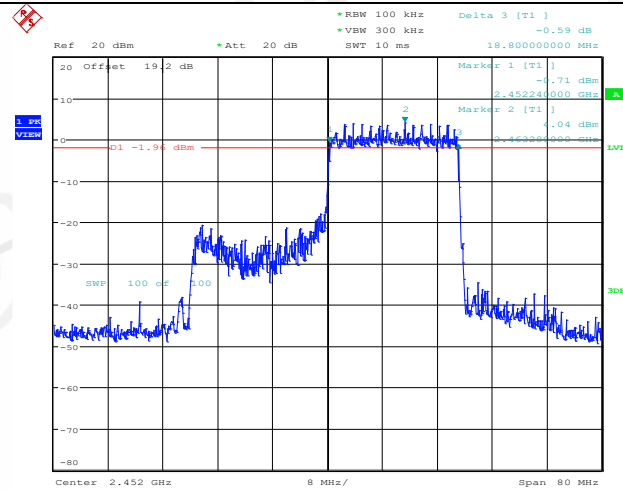
Q1 -2.14 dBm

SWP 100 dB 400

Center 2.452 GHz 8 MHz/ Span 80 MHz

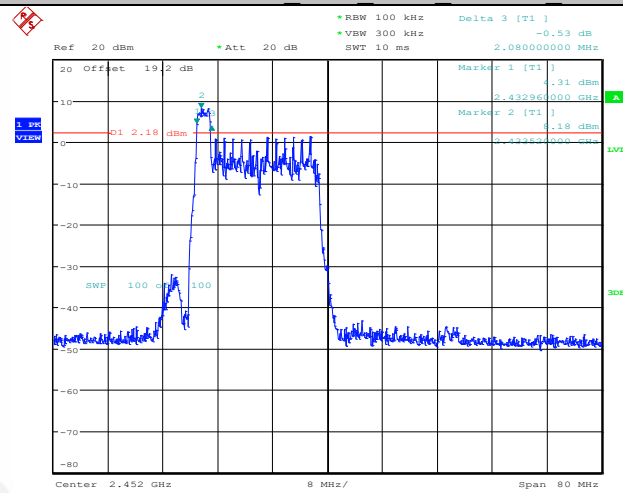
Date: 12.MAR.2022 18:04:57

11AX40MIMO Ant1 2452 242Tone RU62



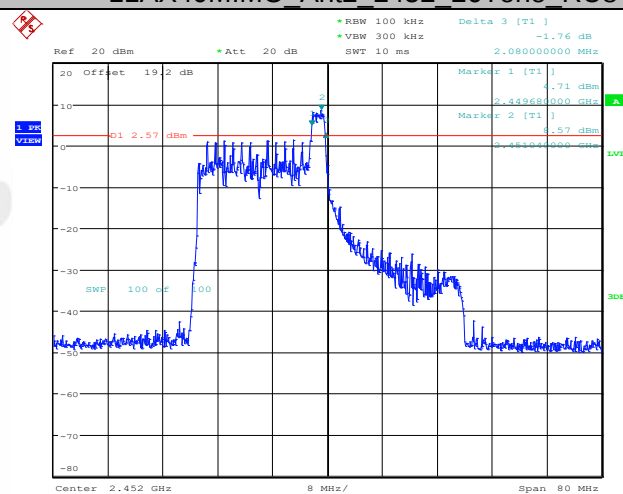
Date: 12.MAR.2022 18:11:55

11AX40MIMO Ant2 2452 26Tone RU0



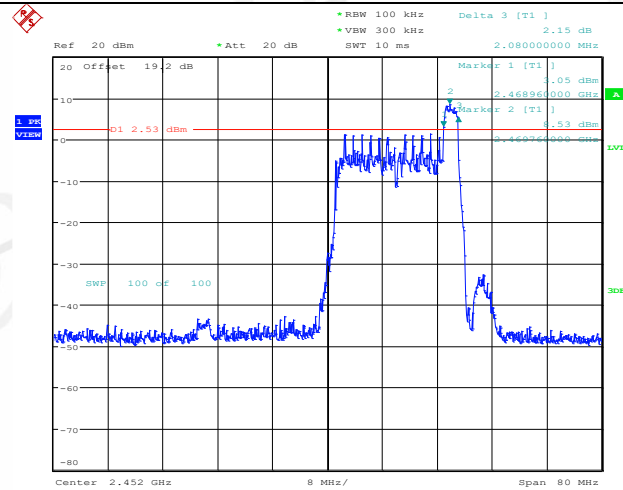
Date: 12.MAR.2022 16:36:30

11AX40MIMO Ant2 2452 26Tone RU8



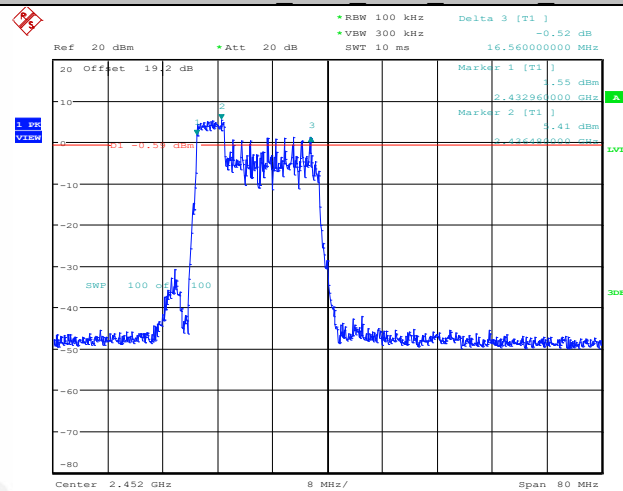
Date: 12.MAR.2022 17:05:03

11AX40MIMO Ant2 2452 26Tone RU17



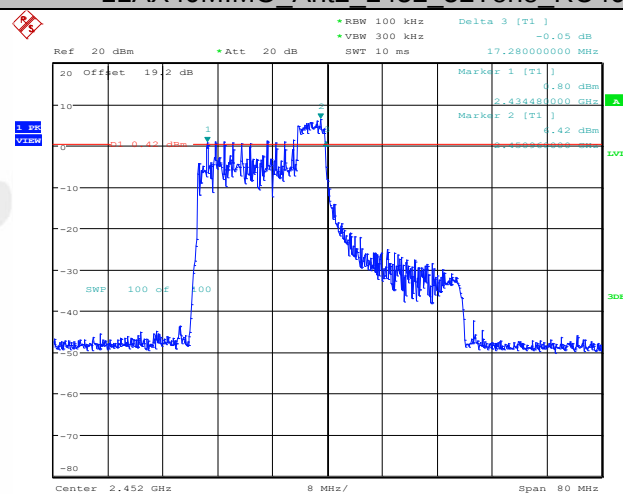
Date: 12.MAR.2022 17:11:44

11AX40MIMO Ant2 2452 52Tone RU37



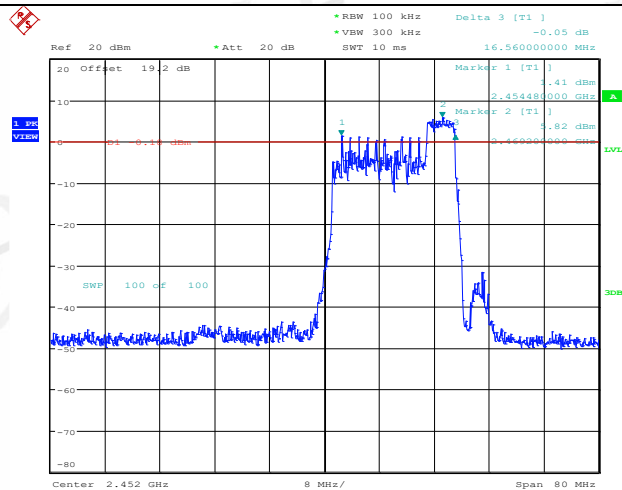
Date: 12.MAR.2022 17:18:29

11AX40MIMO Ant2 2452 52Tone RU40



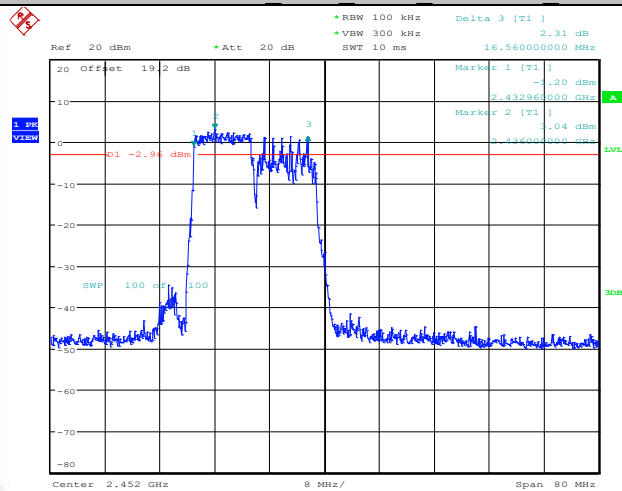
Date: 12.MAR.2022 17:25:58

11AX40MIMO Ant2 2452 52Tone RU44



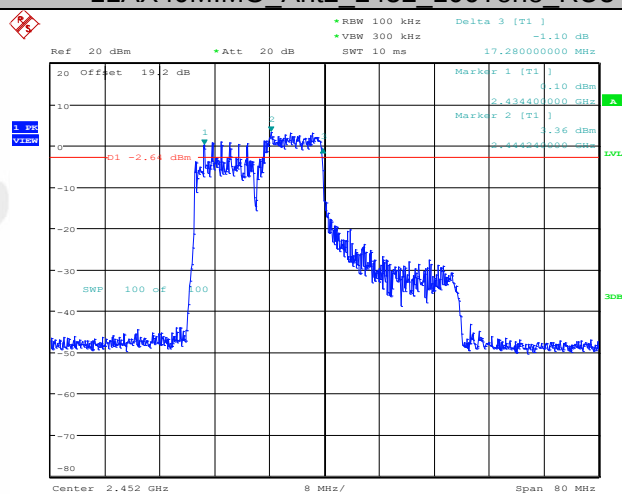
Date: 12.MAR.2022 17:32:52

11AX40MIMO Ant2 2452 106Tone RU53



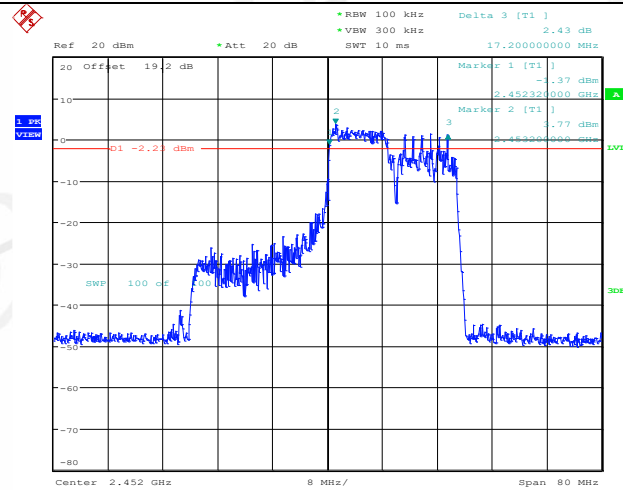
Date: 12.MAR.2022 17:40:02

11AX40MIMO Ant2 2452 106Tone RU54



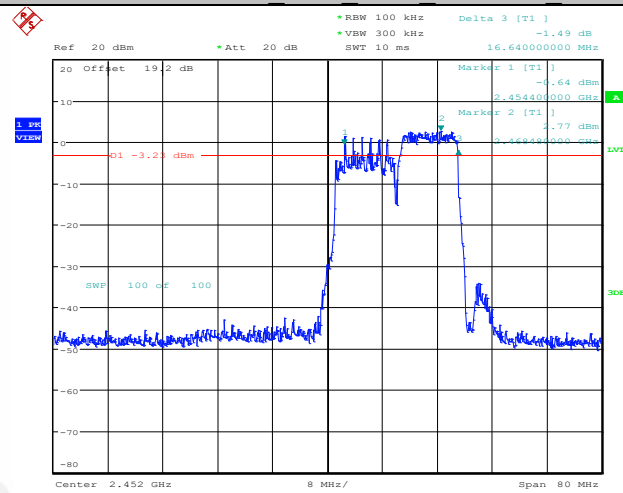
Date: 12.MAR.2022 17:46:53

11AX40MIMO Ant2 2452 106Tone RU55



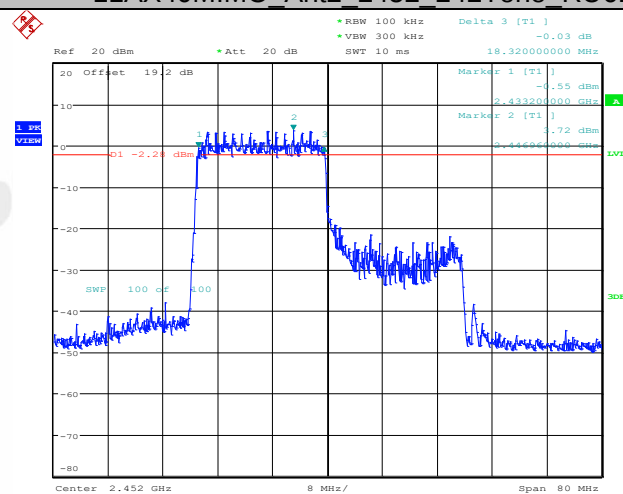
Date: 12.MAR.2022 17:55:08

11AX40MIMO Ant2 2452 106Tone RU56



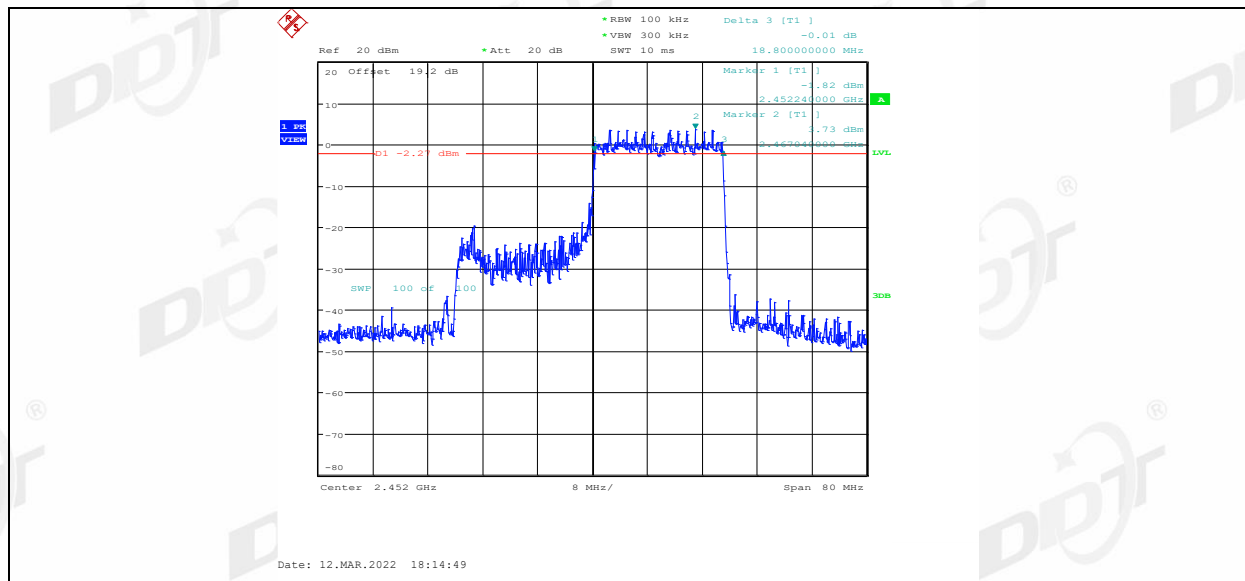
Date: 12.MAR.2022 18:01:21

11AX40MIMO Ant2 2452 242Tone RU61

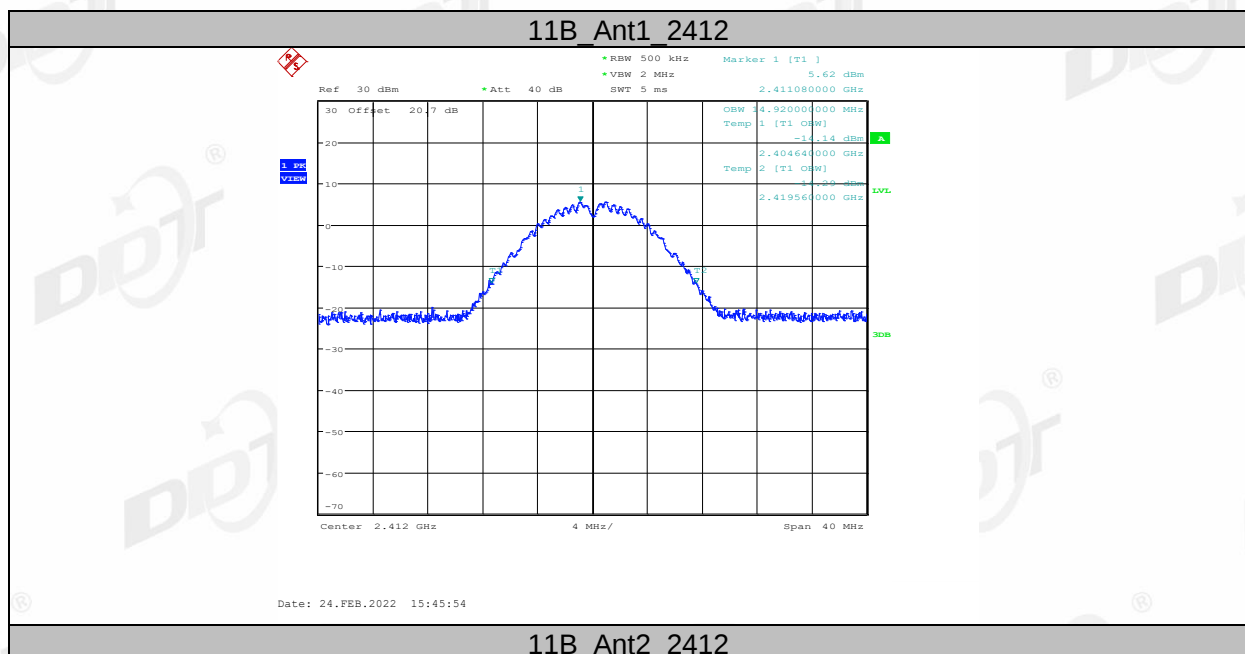


Date: 12.MAR.2022 18:08:32

11AX40MIMO Ant2 2452 242Tone RU62



99% bandwidth:





The screenshot shows a Spectrum Analyzer interface with the following details:

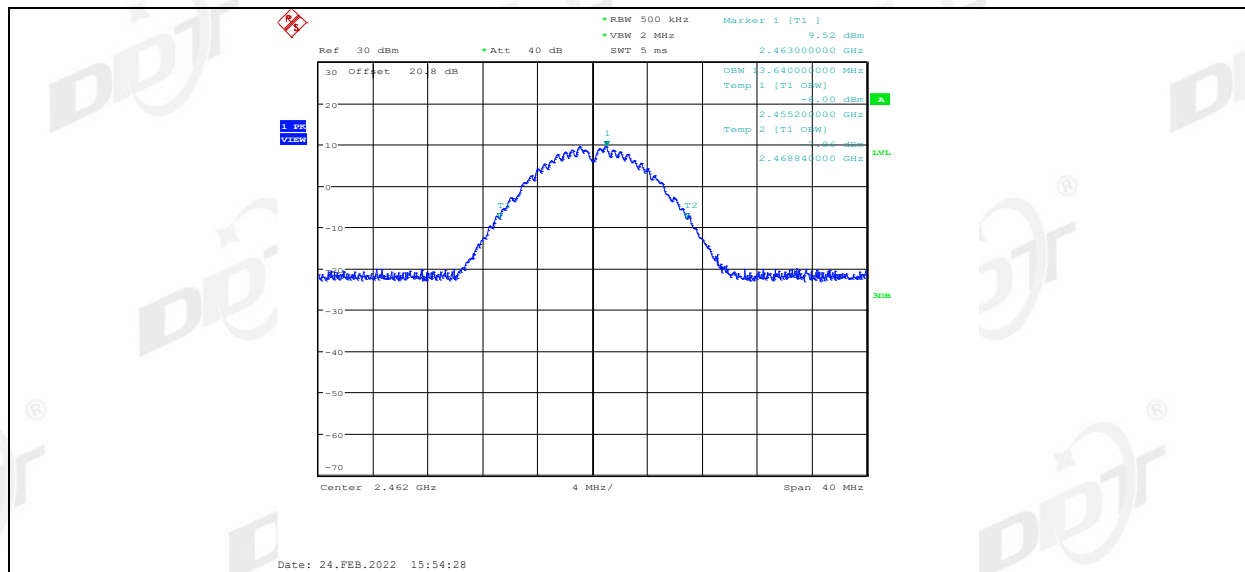
- Top Bar:**
 - Left: A red square icon with a white 'X' and a red 'F'.
 - Center:
 - RBW 500 kHz
 - VBW 2 MHz
 - SWP 5 ms
 - Right:
 - Marker 1 [T1]
 - 6.04 dBm
 - 2.437960000 GHz
- Plot Area:**
 - Y-axis: Power level in dBm, ranging from -70 to 30. The scale is labeled 'dBm' at the top.
 - X-axis: Frequency in MHz, ranging from 2.437 GHz to 2.445 GHz. The scale is labeled 'MHz' at the bottom.
 - Signal: A blue trace showing a peak at 2.437 GHz. The peak is labeled with a green '1' and a green arrow.
 - Grid: A grid is visible, with major lines every 10 dB on the y-axis and every 1 MHz on the x-axis.
- Bottom Bar:**
 - Center: 2.437 GHz
 - Right: Span 40 MHz

Date: 24.FEB.2022 15:48:28

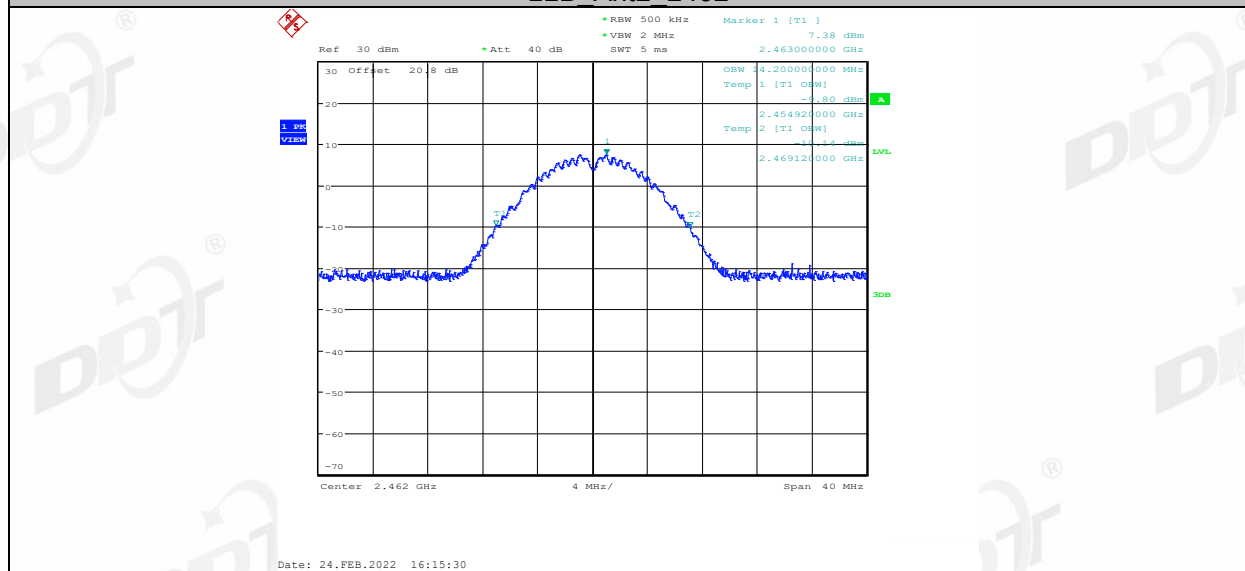
RBW 500 kHz
 VBW 2 MHz
 SWP 5 ms
 Ref 30 dBm
 Att 40 dB
 Marker 1 [T1]
 2.436045000 GHz
 7.47 dBm
 2.438000000 GHz
 1 [T1] 0 dBm
 2.438960000 GHz
 Temp 2 [T1] 0 dBm
 2.440800000 GHz
 11.41 dBm
 30 dBm
 Center 2.437 GHz
 Span 40 MHz

Date: 24.FEB.2022 16:13:53

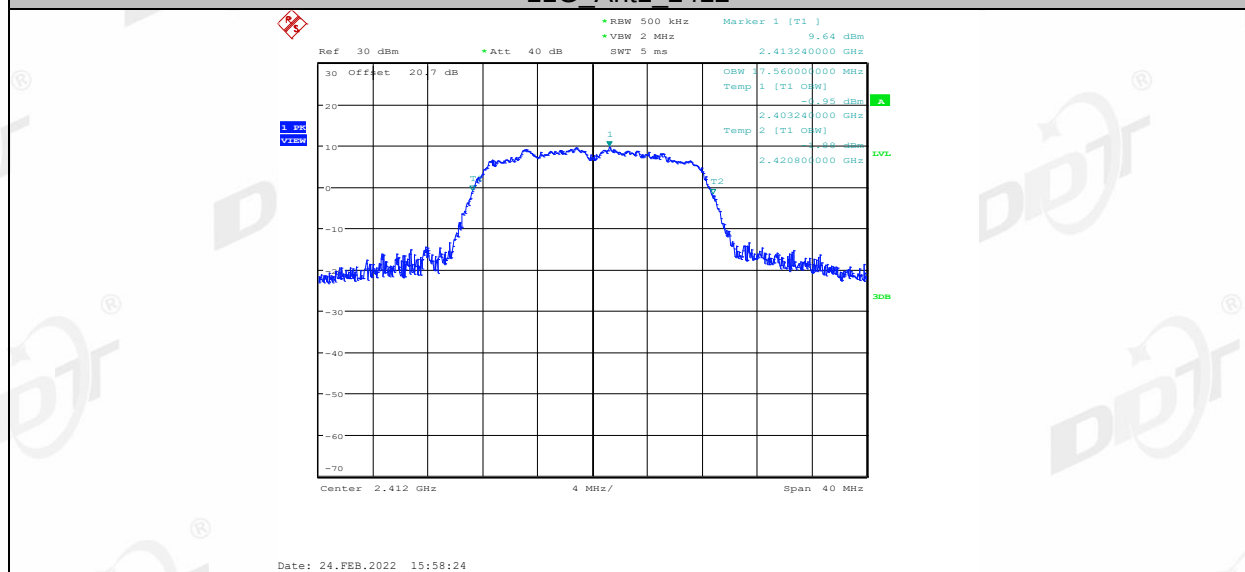
11B Ant1 2462



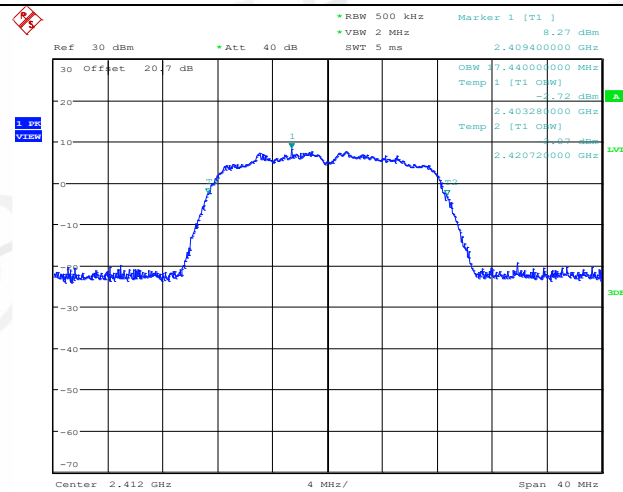
11B Ant2 2462



11G Ant1 2412

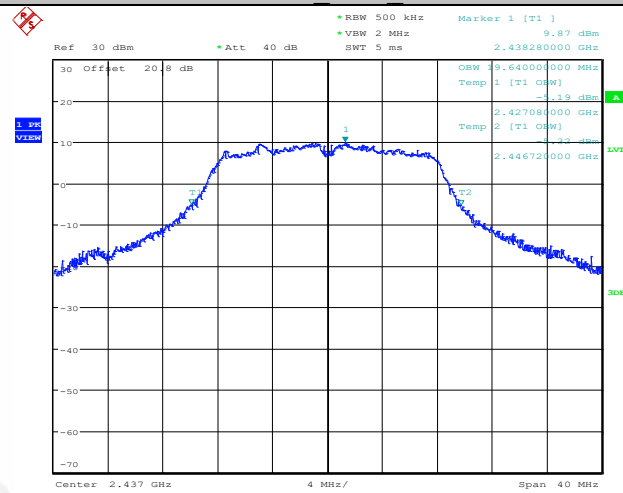


11G Ant2 2412



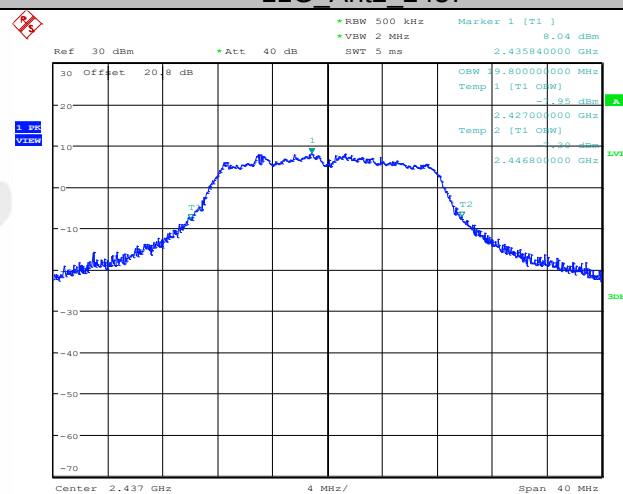
Date: 24.FEB.2022 16:18:51

11G_Ant1_2437



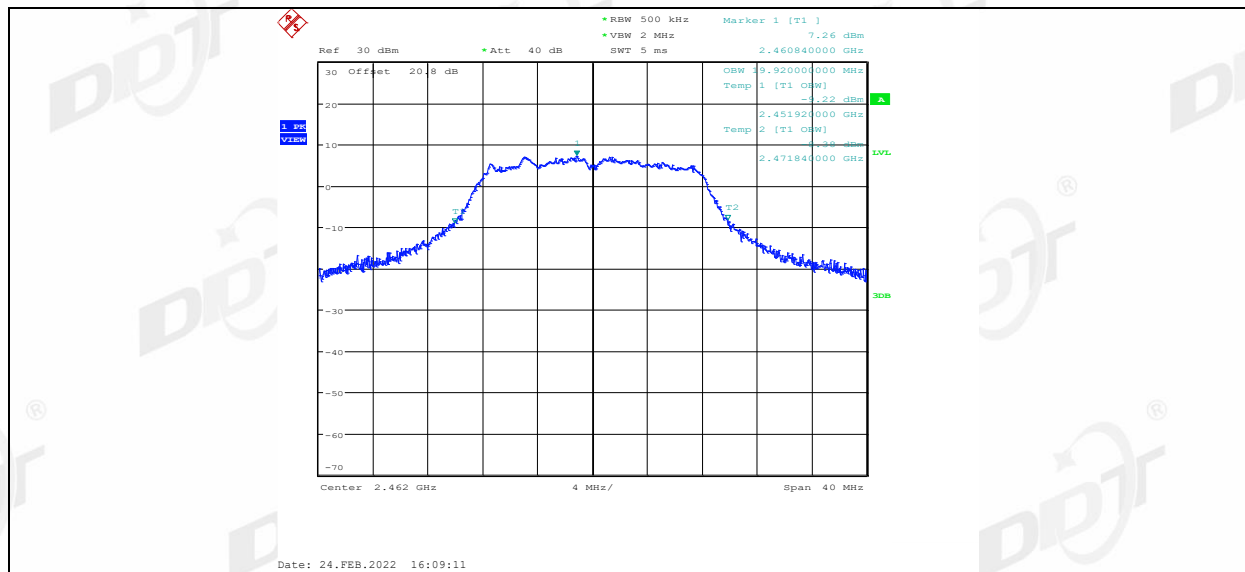
Date: 24.FEB.2022 16:00:43

11G_Ant2_2437

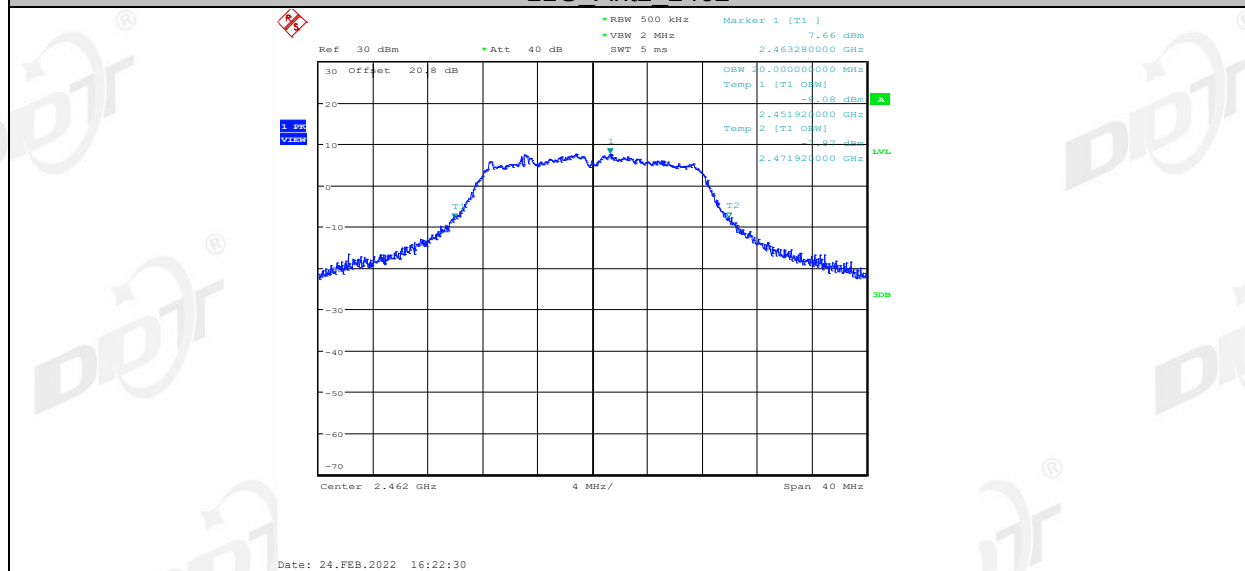


Date: 24.FEB.2022 16:20:40

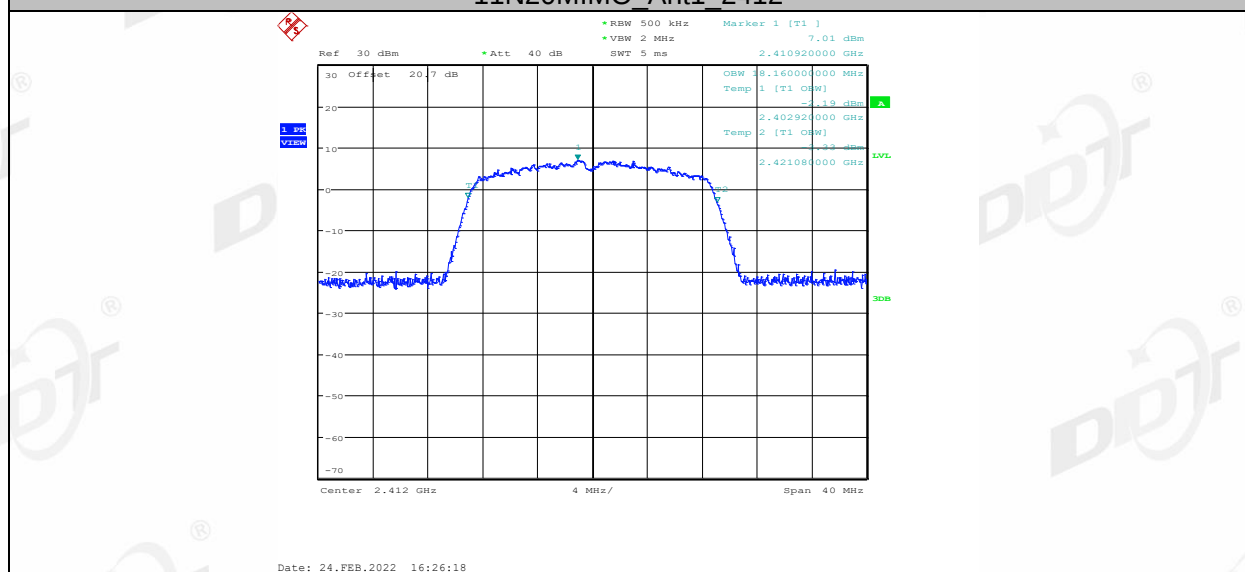
11G_Ant1_2462



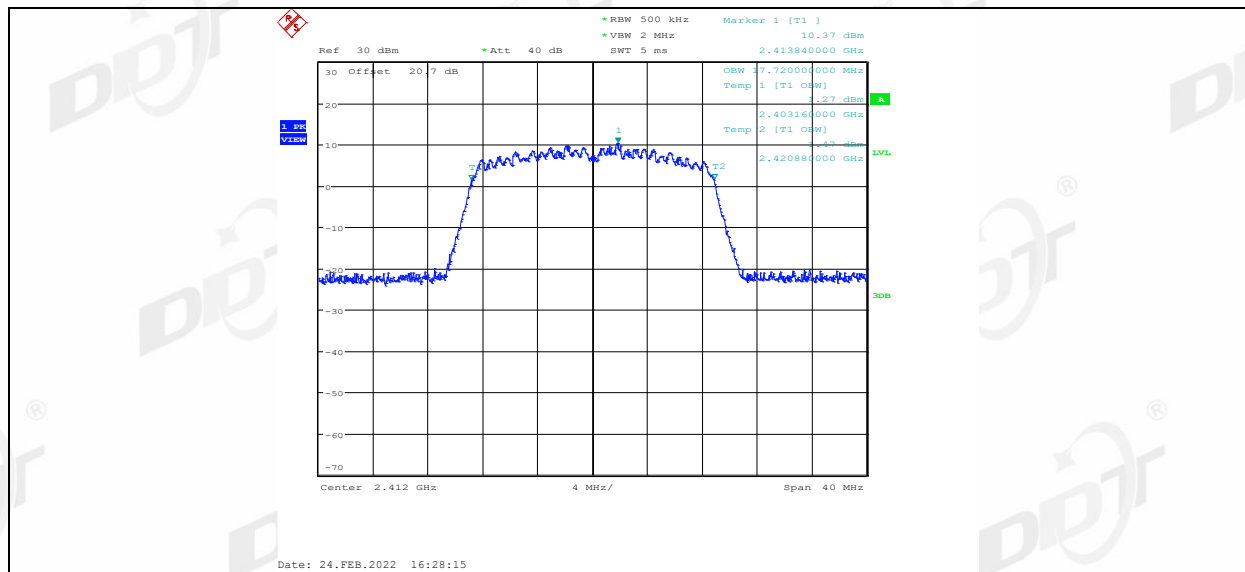
11G_Ant2_2462



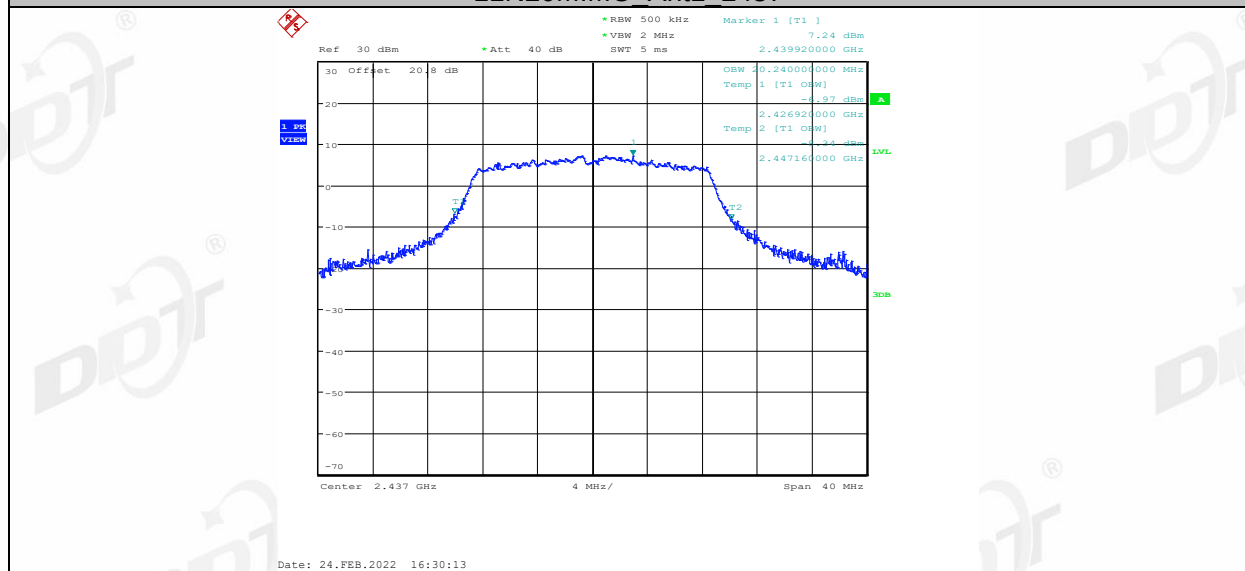
11N20MIMO_Ant1_2412



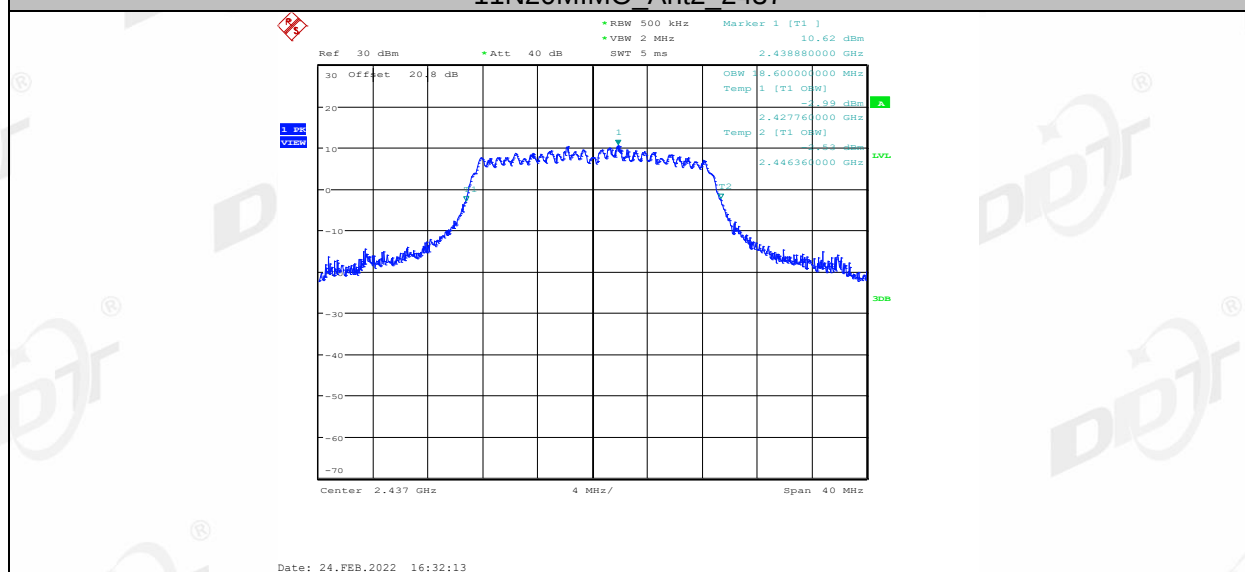
11N20MIMO_Ant2_2412



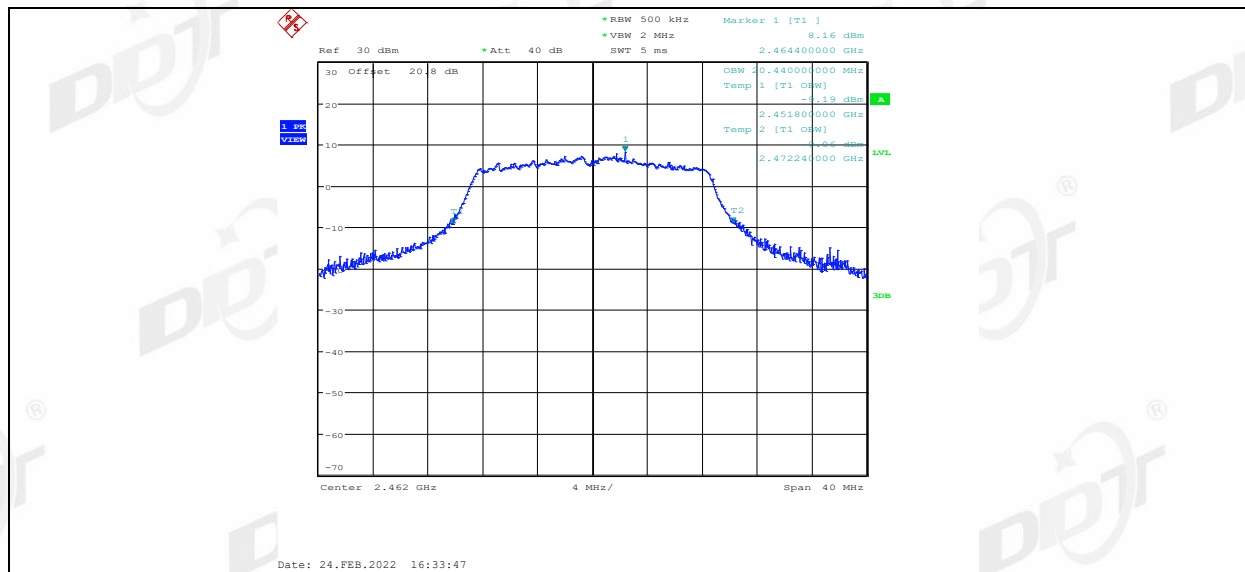
11N20MIMO_Ant1_2437



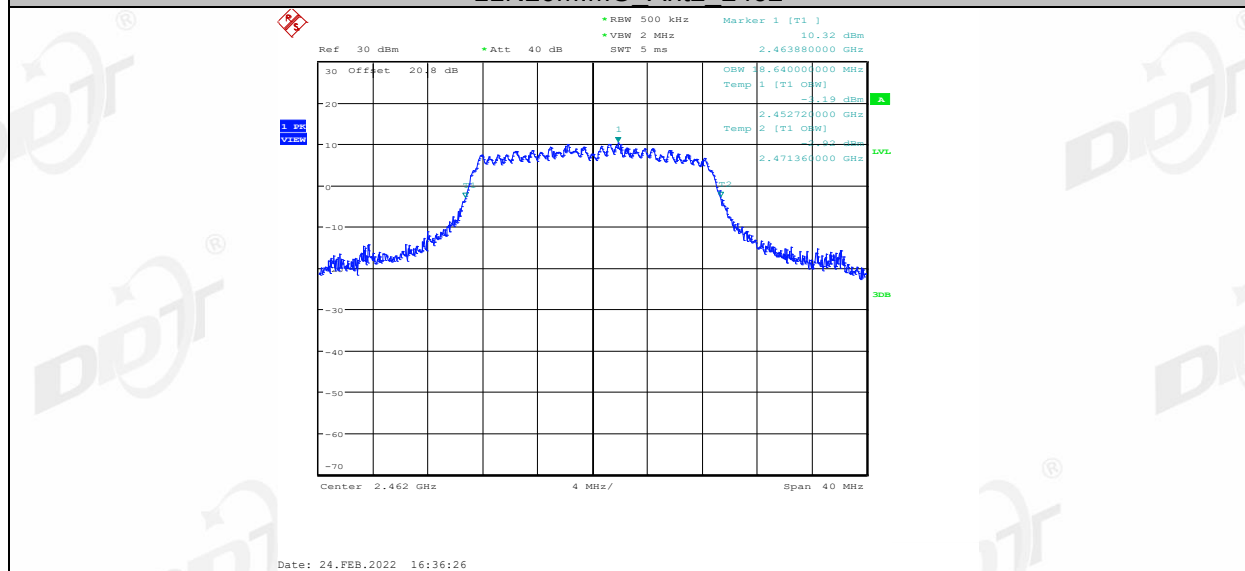
11N20MIMO_Ant2_2437



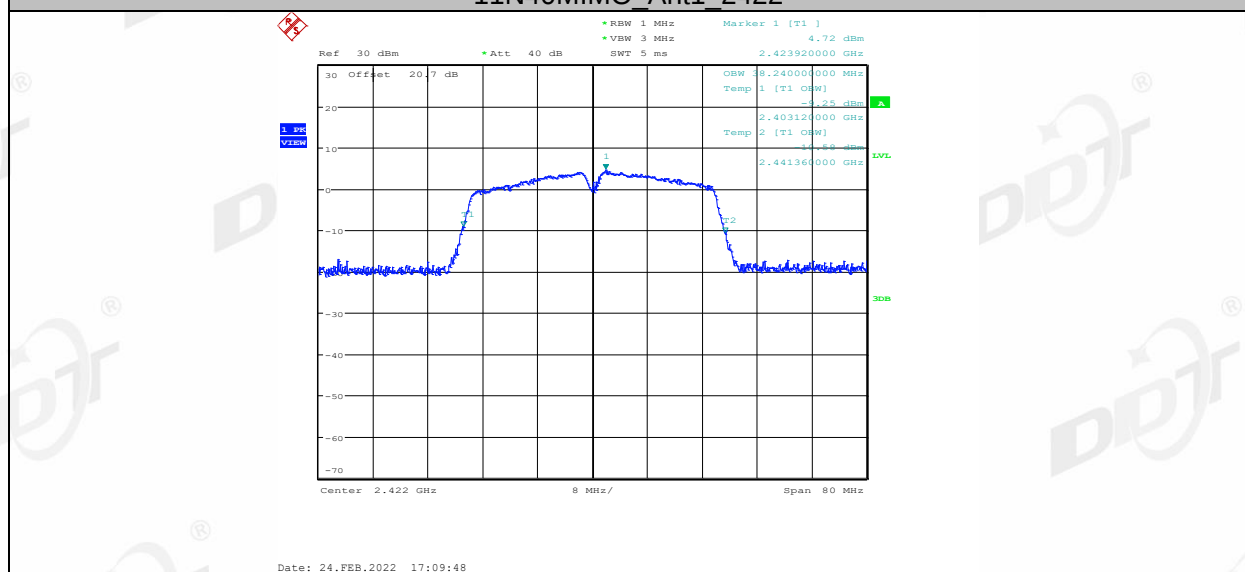
11N20MIMO_Ant1_2462



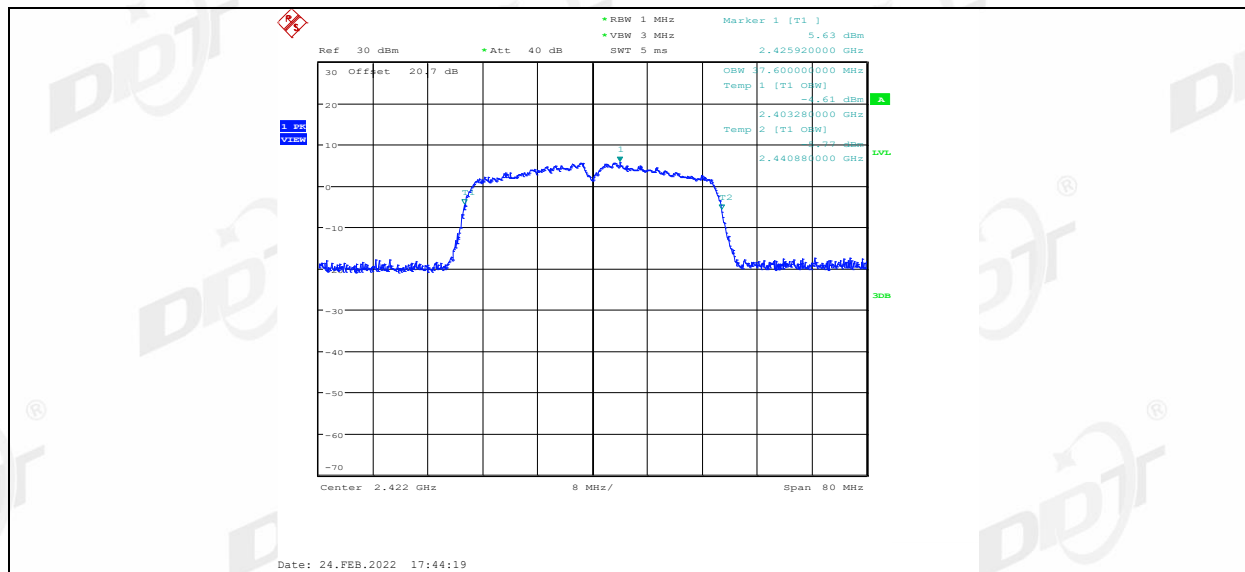
11N20MIMO Ant2 2462



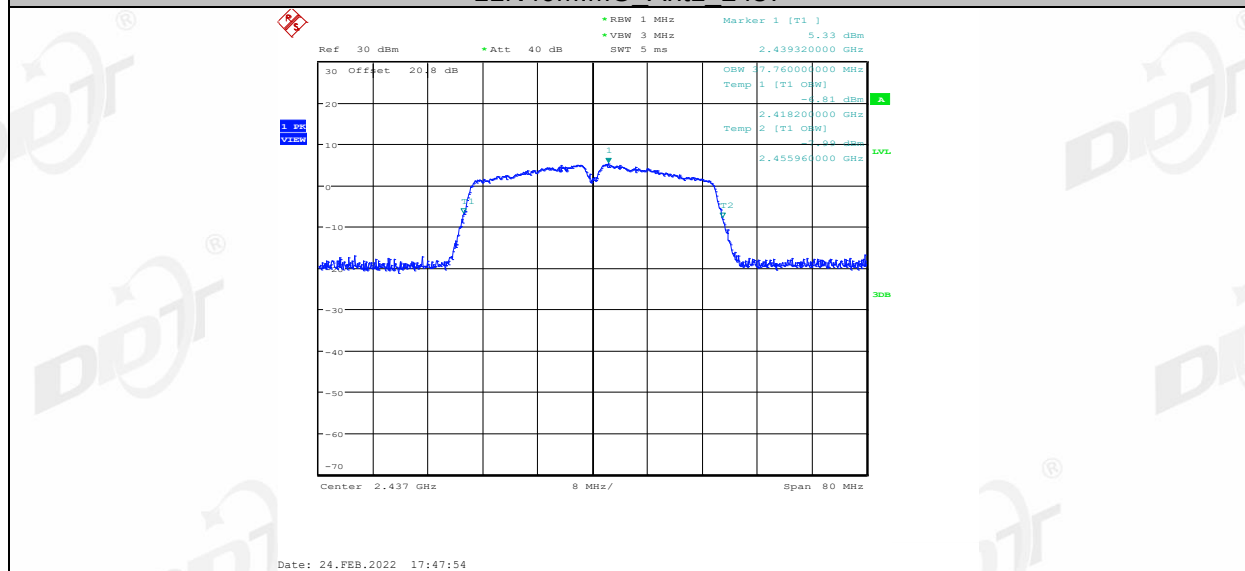
11N40MIMO Ant1 2422



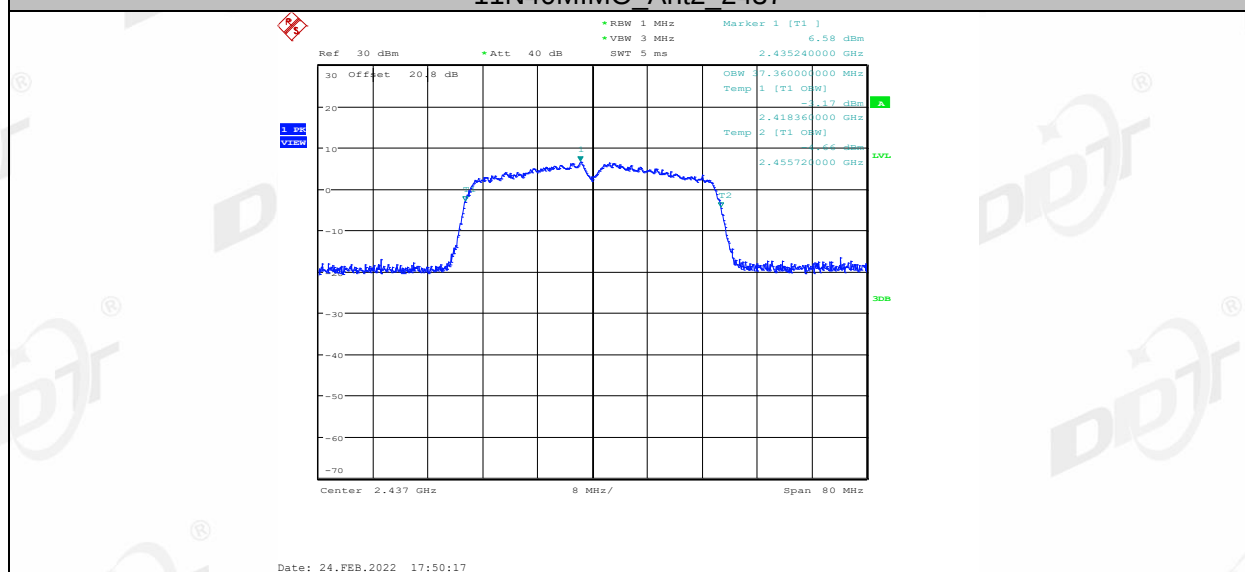
11N40MIMO Ant2 2422



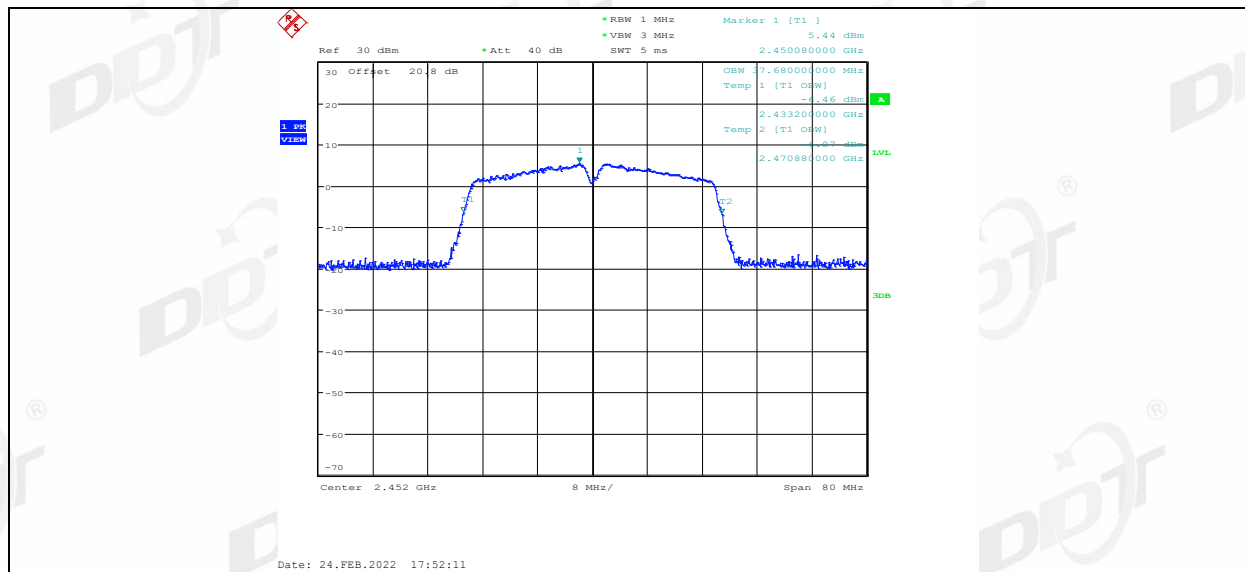
11N40MIMO Ant1 2437



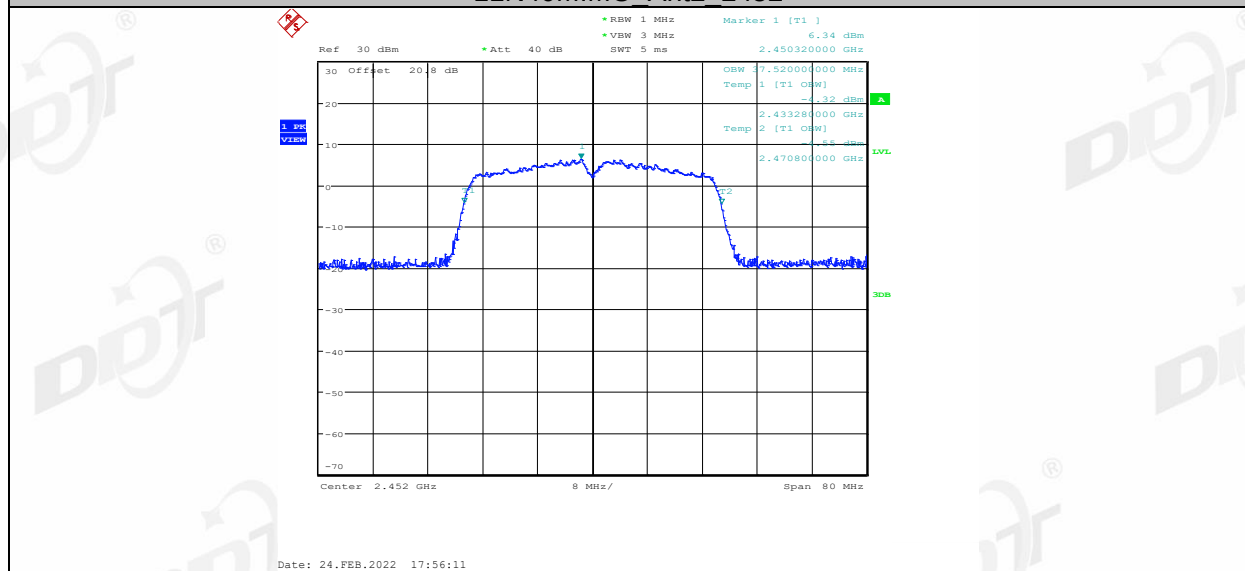
11N40MIMO Ant2 2437



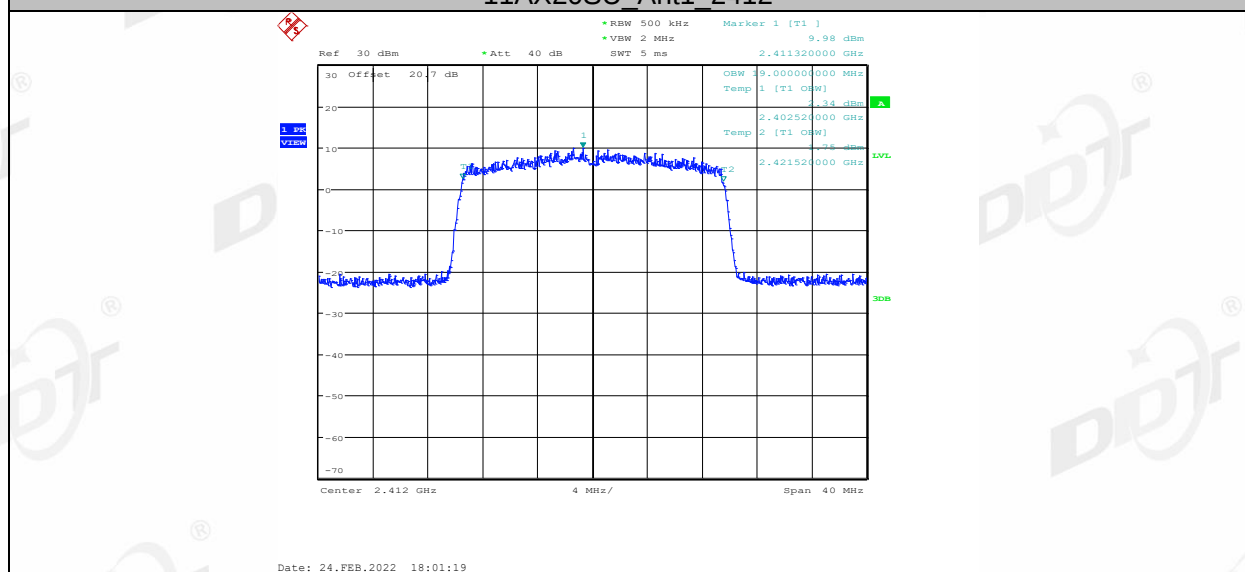
11N40MIMO Ant1 2452



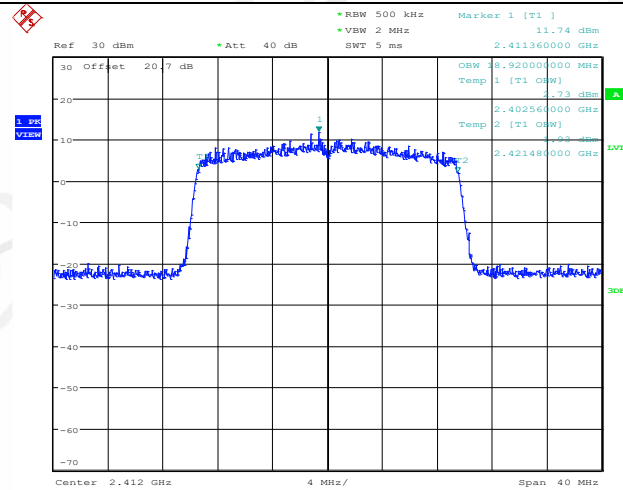
11N40MIMO_Ant2_2452



11AX20SU_Ant1_2412

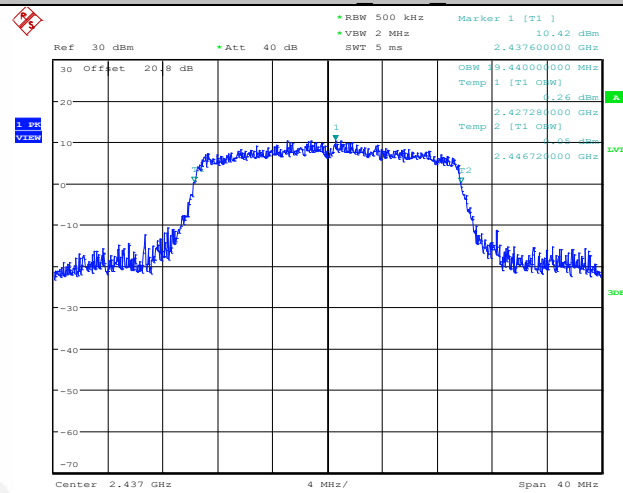


11AX20SU_Ant2_2412



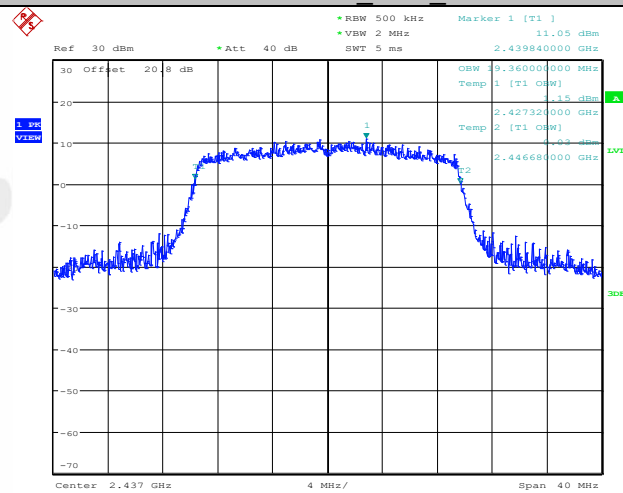
Date: 24.FEB.2022 18:04:34

11AX20SU_Ant1_2437



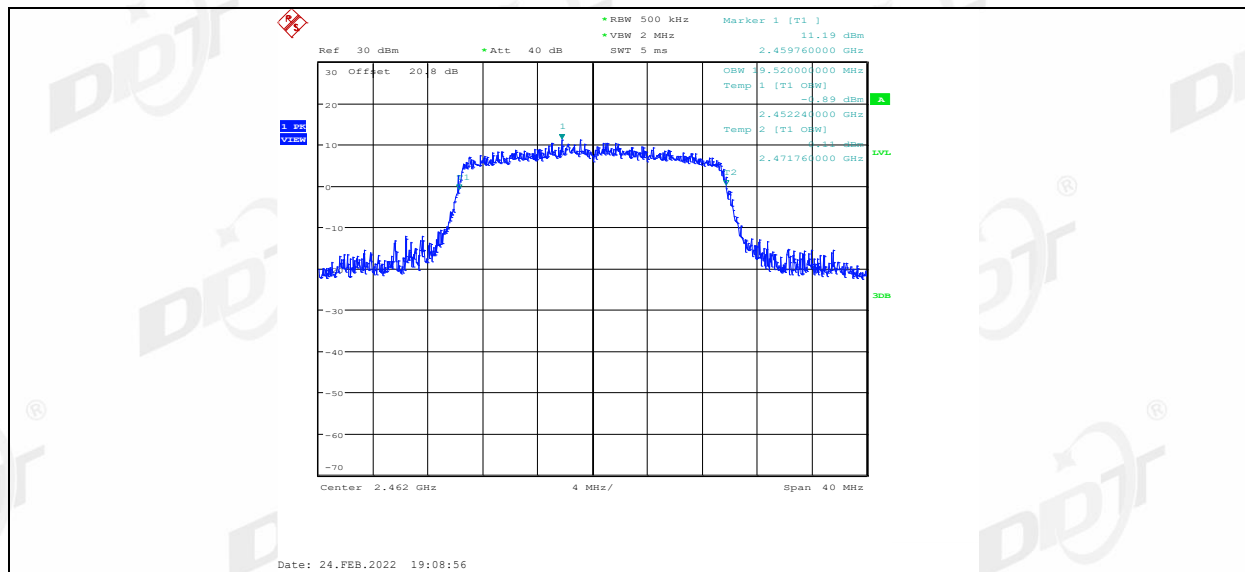
Date: 24.FEB.2022 19:04:27

11AX20SU_Ant2_2437

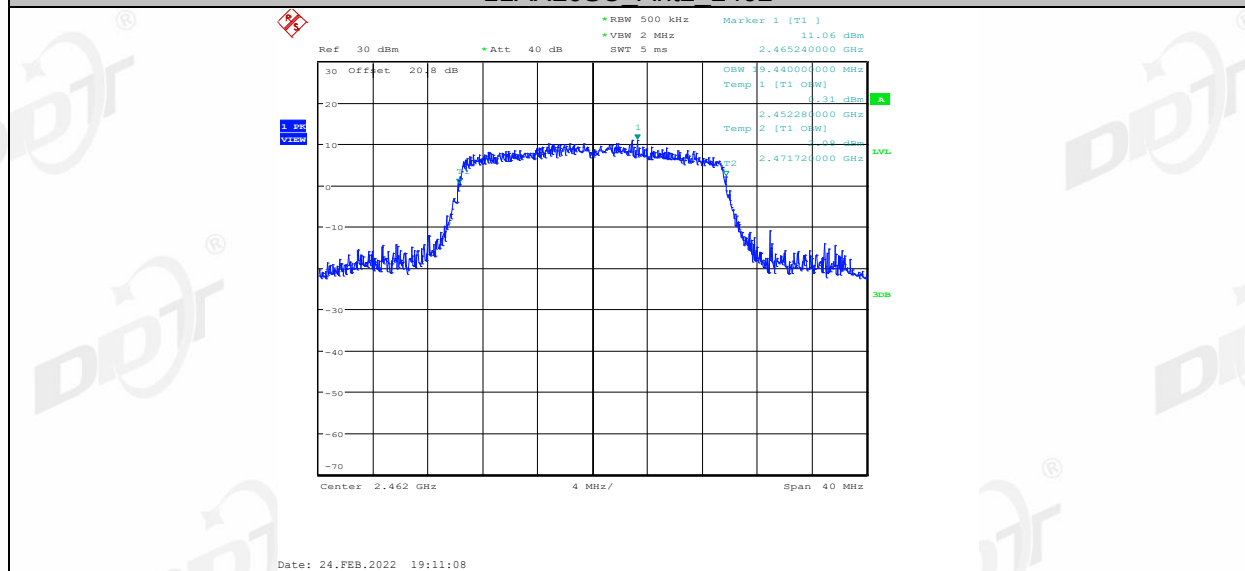


Date: 24.FEB.2022 19:06:06

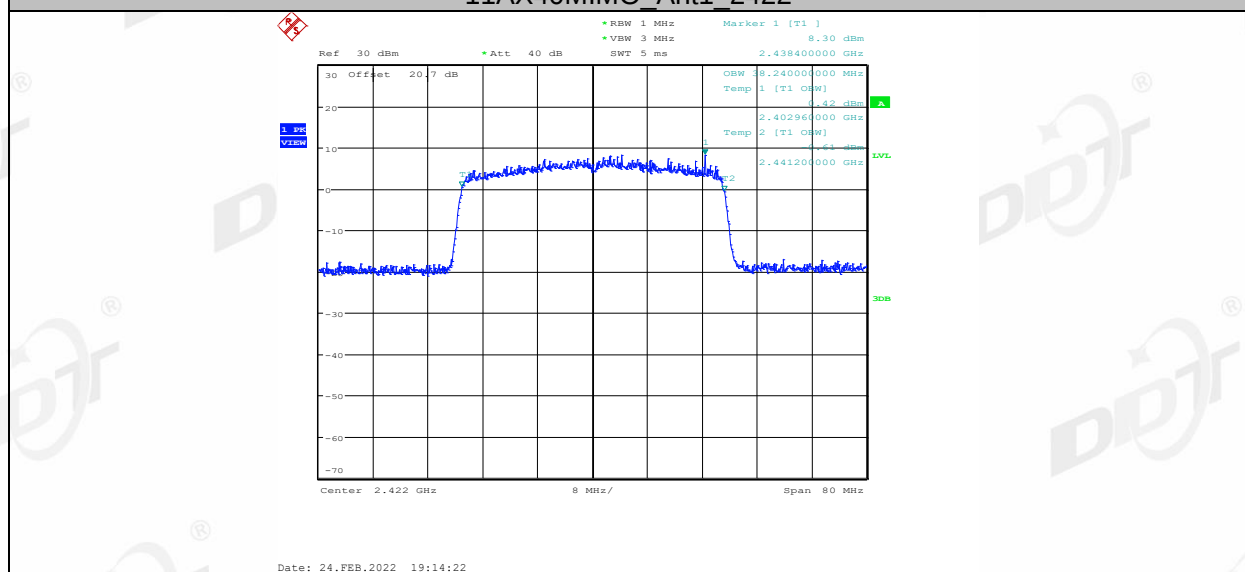
11AX20SU_Ant1_2462



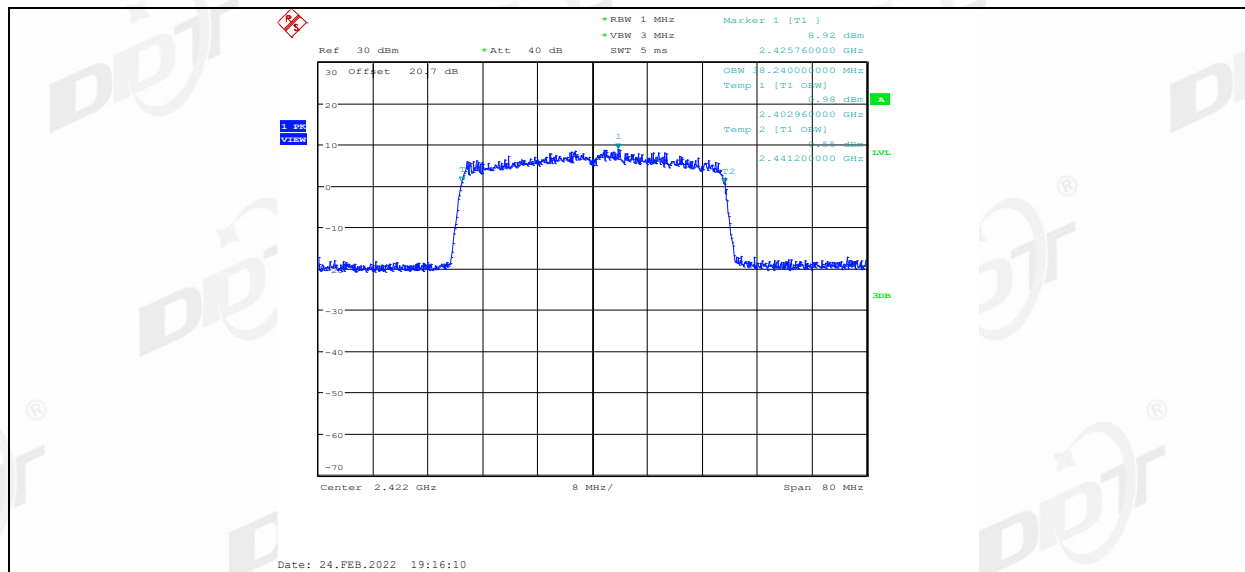
11AX20SU Ant2 2462



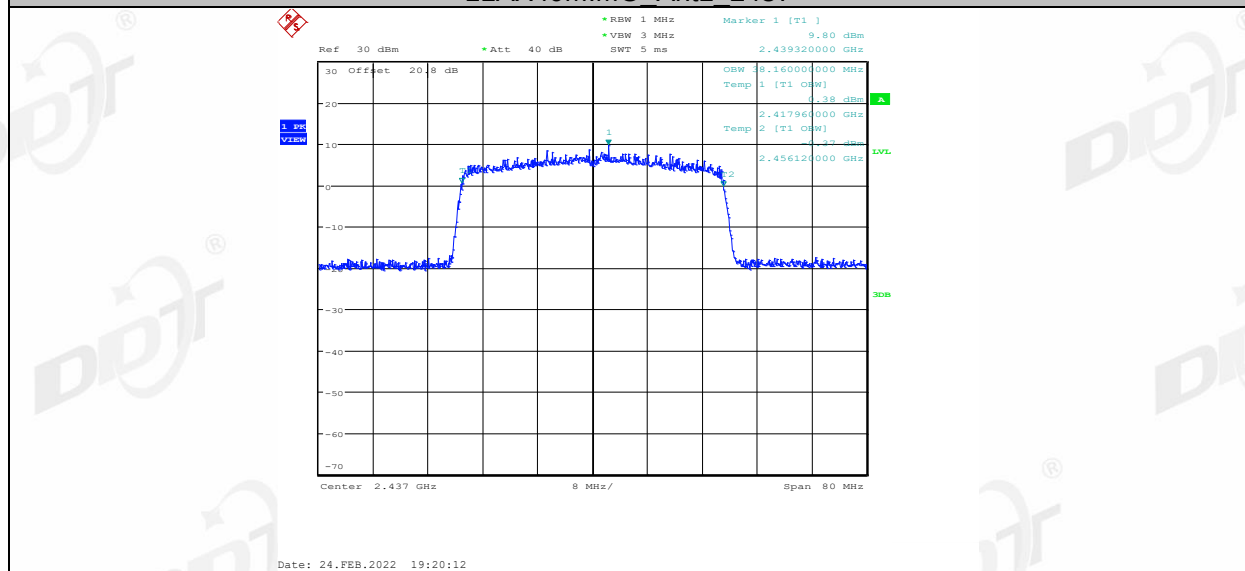
11AX40MIMO Ant1 2422



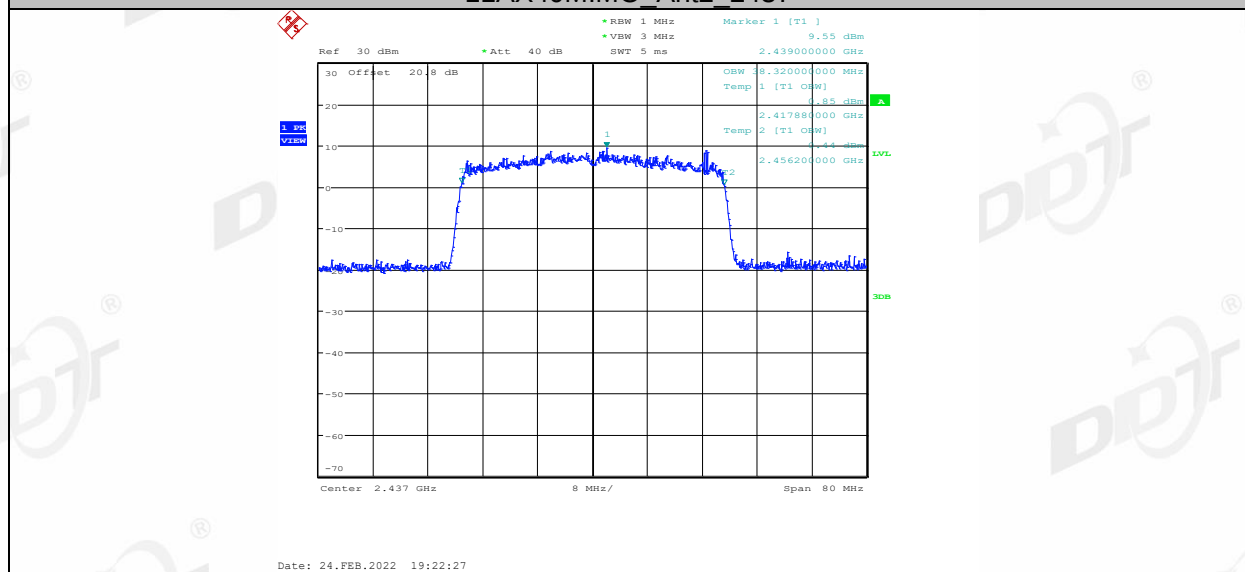
11AX40MIMO Ant2 2422



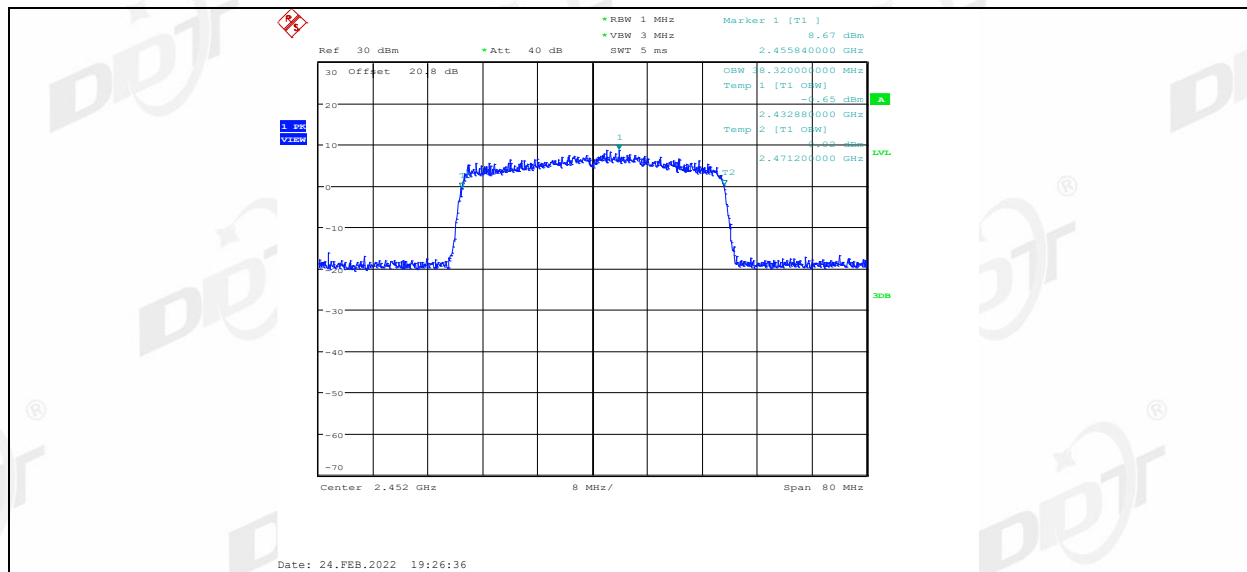
11AX40MIMO_Ant1_2437



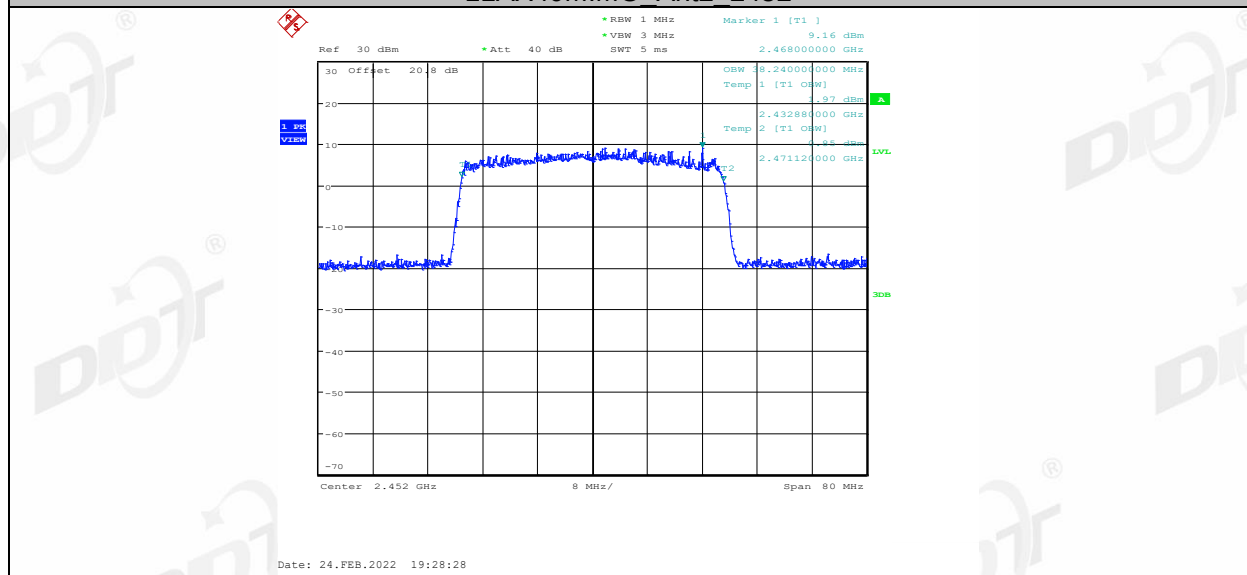
11AX40MIMO_Ant2_2437



11AX40MIMO_Ant1_2452



11AX40MIMO Ant2 2452



5. Conducted Peak Output Power

5.1. Block diagram of test setup

Same as section 4.1

5.2. Limits

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

5.3. Test procedure

Connect each EUT's antenna output to power sensor by RF cable and attenuator

Measure the PK output power of each antenna port by power meter.

5.4. Test result

Test Mode	Test Channel	Ant	Conducted Output Power (dBm)	Limit [dBm]	EIRP (dBm)	Limit [dBm]	Verdict
11B	2412	ANT1	15.50	30	17.89	36	Pass
11B	2412	ANT2	16.17	30	18.56	36	Pass
11B	2437	ANT1	15.81	30	18.20	36	Pass
11B	2437	ANT2	16.12	30	18.51	36	Pass
11B	2462	ANT1	16.91	30	19.30	36	Pass
11B	2462	ANT2	16.14	30	18.53	36	Pass
11G	2412	ANT1	15.58	30	17.97	36	Pass
11G	2412	ANT2	15.16	30	17.55	36	Pass
11G	2437	ANT1	15.68	30	18.07	36	Pass
11G	2437	ANT2	15.34	30	17.73	36	Pass
11G	2462	ANT1	15.94	30	18.33	36	Pass
11G	2462	ANT2	15.23	30	17.62	36	Pass
11N20MIMO	2412	ANT1	15.51	30	17.90	36	Pass
11N20MIMO	2412	ANT2	15.33	30	17.72	36	Pass
11N20MIMO	2412	total	18.40	30	20.82	36	Pass
11N20MIMO	2437	ANT1	15.79	30	18.18	36	Pass
11N20MIMO	2437	ANT2	15.66	30	18.05	36	Pass
11N20MIMO	2437	total	18.70	30	21.13	36	Pass
11N20MIMO	2462	ANT1	15.98	30	18.37	36	Pass
11N20MIMO	2462	ANT2	15.55	30	17.94	36	Pass

11N20MIMO	2462	total	18.80	30	21.17	36	Pass
11N40MIMO	2422	ANT1	12.92	30	15.31	36	Pass
11N40MIMO	2422	ANT2	12.52	30	14.91	36	Pass
11N40MIMO	2422	total	15.70	30	18.12	36	Pass
11N40MIMO	2437	ANT1	13.25	30	15.64	36	Pass
11N40MIMO	2437	ANT2	13.01	30	15.40	36	Pass
11N40MIMO	2437	total	16.10	30	18.53	36	Pass
11N40MIMO	2452	ANT1	13.45	30	15.84	36	Pass
11N40MIMO	2452	ANT2	12.80	30	15.19	36	Pass
11N40MIMO	2452	total	16.10	30	18.54	36	Pass
11AX20SU	2412	ANT1	13.06	30	15.45	36	Pass
11AX20SU	2412	ANT2	12.28	30	14.67	36	Pass
11AX20SU	2412	total	15.7	30	18.09	36	Pass
11AX20SU	2437	ANT1	13.33	30	15.72	36	Pass
11AX20SU	2437	ANT2	12.34	30	14.73	36	Pass
11AX20SU	2437	total	15.9	30	18.26	36	Pass
11AX20SU	2462	ANT1	13.35	30	15.74	36	Pass
11AX20SU	2462	ANT2	12.46	30	14.85	36	Pass
11AX20SU	2462	total	15.9	30	18.33	36	Pass
11AX40SU	2422	ANT1	10.02	30	12.41	36	Pass
11AX40SU	2422	ANT2	9.18	30	11.57	36	Pass
11AX40SU	2422	total	12.6	30	15.02	36	Pass
11AX40SU	2437	ANT1	10.02	30	12.41	36	Pass
11AX40SU	2437	ANT2	9.17	30	11.56	36	Pass
11AX40SU	2437	total	12.6	30	15.02	36	Pass
11AX40SU	2452	ANT1	10.12	30	12.51	36	Pass
11AX40SU	2452	ANT2	9.12	30	11.51	36	Pass
11AX40SU	2452	total	12.7	30	15.05	36	Pass

Test Mode	Antenna	Channel	Ru Size	Ru Index	Peak Power [dBm]	Conducted Limit [dBm]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11AX20 MIMO	Ant1	2412	26Tone	RU0	12.77	30	15.16	36	PASS
				RU4	13.03	30	15.42	36	PASS
				RU8	13.30	30	15.69	36	PASS
			52Tone	RU37	13.04	30	15.43	36	PASS
				RU38	12.95	30	15.34	36	PASS
				RU39	13.28	30	15.67	36	PASS
			106Tone	RU40	13.36	30	15.75	36	PASS
				RU53	13.16	30	15.55	36	PASS
				RU54	13.59	30	15.98	36	PASS
	Ant2	2412	26Tone	RU0	13.61	30	16.00	36	PASS
				RU4	13.17	30	15.56	36	PASS
				RU8	12.57	30	14.96	36	PASS
			52Tone	RU37	13.52	30	15.91	36	PASS
				RU38	13.48	30	15.87	36	PASS
				RU39	12.90	30	15.29	36	PASS
			106Tone	RU40	12.83	30	15.22	36	PASS
				RU53	13.86	30	16.25	36	PASS
				RU54	12.97	30	15.36	36	PASS
	total	2412	26Tone	RU0	16.22	30	18.61	36	PASS
				RU4	16.11	30	18.50	36	PASS
				RU8	15.96	30	18.35	36	PASS
			52Tone	RU37	16.30	30	18.69	36	PASS
				RU38	16.23	30	18.62	36	PASS
				RU39	16.10	30	18.49	36	PASS
			106Tone	RU40	16.11	30	18.50	36	PASS
				RU53	16.53	30	18.92	36	PASS
				RU54	16.30	30	18.69	36	PASS
	Ant1	2437	26Tone	RU0	13.08	30	15.47	36	PASS
				RU4	13.18	30	15.57	36	PASS
				RU8	12.90	30	15.29	36	PASS
			52Tone	RU37	13.06	30	15.45	36	PASS
				RU38	13.15	30	15.54	36	PASS
				RU39	13.18	30	15.57	36	PASS
			106Tone	RU40	13.11	30	15.50	36	PASS
				RU53	13.15	30	15.54	36	PASS
				RU54	13.10	30	15.49	36	PASS
	Ant2	2437	26Tone	RU0	13.50	30	15.89	36	PASS
				RU4	13.50	30	15.89	36	PASS
				RU8	13.53	30	15.92	36	PASS
			52Tone	RU37	13.52	30	15.91	36	PASS
				RU38	13.59	30	15.98	36	PASS
				RU39	13.69	30	16.08	36	PASS
			106Tone	RU40	13.61	30	16.00	36	PASS
				RU53	13.80	30	16.19	36	PASS
				RU54	13.69	30	16.08	36	PASS
	total	2437	26Tone	RU0	16.31	30	18.70	36	PASS
				RU4	16.35	30	18.74	36	PASS