Report No.: DDT-R21123116-2E04

Issued Date: Jun. 27, 2022

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 with wireless subwoofer
Model No.	**:**	BAR 1000
Trade Mark	**:**	JBL
FCC ID	**:**	APIBAR1000
IC	**:**	6132A-BAR1000
Manufacturer	**:**	Harman International Industries, Inc.
Address	**:**	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES

Issued By: 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, **E-mail:** ddt@dgddt.com, http://www.dgddt.com

REPORT

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Test Report Declare

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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-R21123116-2E04		
Date of Receipt:	Feb. 18, 2022	**Date of Test:**	Feb. 18, 2022 ~ Jun. 27, 2022

Prepared By:

Johnny Wang

Johnny Wang/Engineer

Approved By:

DONGGUAN DONGDIAN TESTING SERVICE CO., LTD. APPROVED

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	Jun. 27, 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
Note: This product has two audio power amplifier ICs (TAS5825M and TAS5825P). All items are tested on TAS5825M. According to the test results of TAS5825M, TAS5825P only the Radiation Emission (below 1 GHz) tested.		

2. General Test Information

2.1. Description of EUT

EUT* Name	:	Multi-Channel Soundbar with wireless subwoofer
Model Number	:	BAR 1000
EUT function description	:	Please reference user manual of this device
Power supply	:	AC 100-240V-50/60Hz 70W
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, 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: 2.59 dBi Antenna 2: FPC antenna, Maximum PK gain: 2.59 dBi
Sample Type	:	Series production
Sample Number	:	S21123116-04 for conductive S21123116-05 for radiation

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

Antenna information			
	Ant1 gain	Ant2 gain	MIMO
IEEE 802.11b	2.59	2.59	/
IEEE 802.11g	2.59	2.59	/
IEEE 802.11n HT20	2.59	2.59	5.60
IEEE 802.11n HT40	2.59	2.59	5.60
IEEE 802.11ax HE20	2.59	2.59	5.60
IEEE 802.11ax HE40	2.59	2.59	5.60

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	

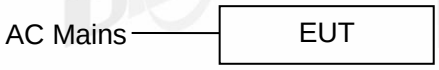
2.2. Accessories of EUT

Description of Accessories	Manufacturer	Model number	Description	Other
AC cable	Harman	N/A	N/A	Length: 1.85m,
HDMI cable	Harman	N/A	N/A	Length: 1.17m, with two magnetic rings
Remote control	Harman	N/A	N/A	N/A

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
The pathloss of external cable: 0.5dB (According to the manufacturer's claims)

Tested mode, channel, and data rate information					
Mode	Setting Tx Power		data rate (Mbps) (see Note)	Channel	Frequency (MHz)
	Ant1	Ant2			
IEEE 802.11b	12		1	LCH: CH1	2412
	12		1	MCH: CH6	2437
	12		1	HCH: CH11	2462
IEEE 802.11g	12		6	LCH: CH1	2412
	12		6	MCH: CH6	2437
	12		6	HCH: CH11	2462
IEEE 802.11n HT20	7		MCS 0	LCH: CH1	2412
	7		MCS 0	MCH: CH6	2437
	7		MCS 0	HCH: CH11	2462
IEEE 802.11n HT40	7		MCS 0	LCH: CH3	2422
	7		MCS 0	MCH: CH6	2437
	7		MCS 0	HCH: CH9	2452
IEEE 802.11ax HE20	/		MCS 0	LCH: CH1	2412
	/		MCS 0	MCH: CH6	2437
	/		MCS 0	HCH: CH11	2462
IEEE 802.11ax HE40	/		MCS 0	LCH: CH3	2422
	/		MCS 0	MCH: CH6	2437
	/		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℃
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 MHz ≤ f < 3.6 GHz);
	1.38 dB (3.6 GHz ≤ f < 8 GHz)
Peak Output Power (Conducted) (Power Sensor)	0.74 dB
Power Spectral Density	0.74 dB (10 MHz ≤ f < 3.6 GHz);
	1.38 dB (3.6 GHz ≤ f < 8 GHz)
Frequencies Stability	6.7×10^{-8} (Antenna couple method)
	5.5×10^{-8} (Conducted method)
Conducted spurious emissions	0.86 dB (10 MHz ≤ f < 3.6 GHz);
	1.40 dB (3.6 GHz ≤ f < 8 GHz)
	1.66 dB (8 GHz≤ f < 22 GHz)
Uncertainty for radio frequency (RBW<20 kHz)	3×10^{-8}
Temperature	0.4℃
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	3.32 dB (150 kHz-30 MHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

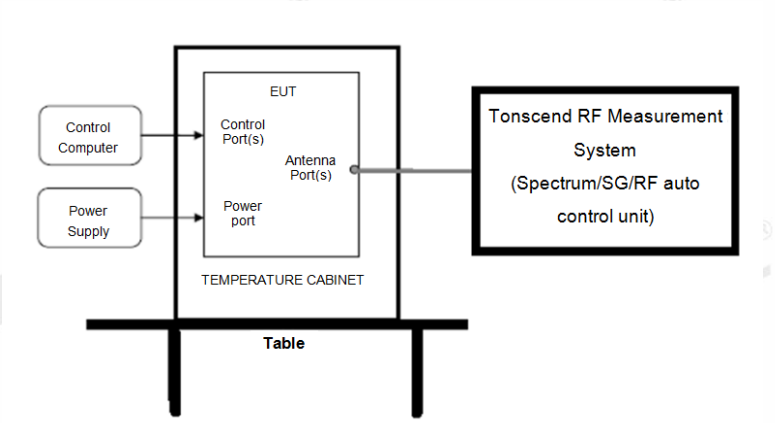
3. Equipment Used During Test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
☒RF Connected Test (Tonscend RF Measurement System 3#)					
Spectrum Analyzer	R&S	FSU26	200071	Sep. 02, 2021	1 Year
Wideband Radio Communication tester	R&S	CMW500	117491	Jun. 01, 2021	1 Year
Wideband Radio Communication tester	R&S	CMW500	117491	May 18, 2022	1 Year
Vector Signal Generator	Agilent	N5182A	MY19060405	Jun. 01, 2021	1 Year
Vector Signal Generator	Agilent	N5182A	MY19060405	May 18, 2022	1 Year
Vector Signal Generator	Agilent	N5182A	MY48180912	Jun. 01, 2021	1 Year
Vector Signal Generator	Agilent	N5182A	MY48180912	May 18, 2022	1 Year
RF Control Unit	Tonsend	JS0806-2	DDT-ZC01449	Jun. 01, 2021	1 Year
RF Control Unit	Tonsend	JS0806-2	DDT-ZC01449	May 18, 2022	1 Year
Temp&Humi Programmable	ZHIXIANG	ZXGDJS-150L	ZX170110-A	Jun. 01, 2021	1 Year
Temp&Humi Programmable	ZHIXIANG	ZXGDJS-150L	ZX170110-A	May 26, 2022	1 Year
Test Software	JS Tonscend	JS1120-3	Ver.2.6.77.0518	N/A	N/A
☒Radiation 3#chamber					
EMI Test Receiver	R&S	ESU	100472	Jun. 01, 2021	1 Year
EMI Test Receiver	R&S	ESU	100472	May 18, 2022	1 Year
Spectrum analyzer	Agilent	E4447A	MY50180031	Jun. 01, 2021	1 Year
Spectrum analyzer	Agilent	E4447A	MY50180031	May 18, 2022	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
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	790	May 06, 2022	1 Year
Pre-amplifier	COM-POWER	PAM-118A	18040084	Sep. 02, 2021	1 Year
Pre-amplifier	COM-POWER	PAM-840A	461369	Mar. 15, 2021	1 Year
Pre-amplifier	COM-POWER	PAM-840A	461369	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

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	8.16	0.5	Pass
11B	2437	Ant1	8.16	0.5	Pass
11B	2437	Ant2	8.16	0.5	Pass
11B	2462	Ant1	8.12	0.5	Pass
11B	2462	Ant2	8.12	0.5	Pass
11G	2412	Ant1	15.08	0.5	Pass
11G	2412	Ant2	15.16	0.5	Pass
11G	2437	Ant1	15.16	0.5	Pass
11G	2437	Ant2	15.52	0.5	Pass
11G	2462	Ant1	15.56	0.5	Pass
11G	2462	Ant2	15.88	0.5	Pass
11N20MIMO	2412	Ant1	15.20	0.5	Pass
11N20MIMO	2412	Ant2	15.16	0.5	Pass
11N20MIMO	2437	Ant1	15.80	0.5	Pass
11N20MIMO	2437	Ant2	16.40	0.5	Pass
11N20MIMO	2462	Ant1	15.12	0.5	Pass
11N20MIMO	2462	Ant2	15.80	0.5	Pass
11N40MIMO	2422	Ant1	35.28	0.5	Pass
11N40MIMO	2422	Ant2	35.20	0.5	Pass
11N40MIMO	2437	Ant1	35.28	0.5	Pass
11N40MIMO	2437	Ant2	34.00	0.5	Pass
11N40MIMO	2452	Ant1	35.20	0.5	Pass
11N40MIMO	2452	Ant2	35.20	0.5	Pass
11AX20SU	2412	Ant1	18.52	0.5	Pass
11AX20SU	2412	Ant2	16.20	0.5	Pass
11AX20SU	2437	Ant1	18.12	0.5	Pass
11AX20SU	2437	Ant2	18.60	0.5	Pass
11AX20SU	2462	Ant1	17.88	0.5	Pass
11AX20SU	2462	Ant2	16.44	0.5	Pass
11AX40SU	2422	Ant1	36.64	0.5	Pass
11AX40SU	2422	Ant2	35.28	0.5	Pass
11AX40SU	2437	Ant1	36.48	0.5	Pass
11AX40SU	2437	Ant2	36.64	0.5	Pass
11AX40SU	2452	Ant1	35.28	0.5	Pass
11AX40SU	2452	Ant2	35.20	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	2.68	0.5	PASS
				RU8	2.08	0.5	PASS
			52Tone	RU37	17.00	0.5	PASS
				RU38	15.00	0.5	PASS
				RU39	15.08	0.5	PASS
				RU40	17.08	0.5	PASS
			106Tone	RU53	17.12	0.5	PASS
				RU54	17.08	0.5	PASS
	Ant2	2412	26Tone	RU0	2.00	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	17.04	0.5	PASS
			106Tone	RU53	17.12	0.5	PASS
				RU54	17.12	0.5	PASS
	Ant1	2437	26Tone	RU0	2.08	0.5	PASS
				RU4	2.64	0.5	PASS
				RU8	2.12	0.5	PASS
			52Tone	RU37	17.08	0.5	PASS
				RU38	15.08	0.5	PASS
				RU39	15.04	0.5	PASS
				RU40	17.00	0.5	PASS
			106Tone	RU53	17.12	0.5	PASS
				RU54	17.08	0.5	PASS
	Ant2	2437	26Tone	RU0	2.04	0.5	PASS
				RU4	2.64	0.5	PASS
				RU8	2.12	0.5	PASS
			52Tone	RU37	17.04	0.5	PASS
				RU38	15.12	0.5	PASS
				RU39	15.04	0.5	PASS
				RU40	17.08	0.5	PASS
			106Tone	RU53	17.12	0.5	PASS
				RU54	17.16	0.5	PASS
	Ant1	2462	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	15.04	0.5	PASS
				RU39	3.96	0.5	PASS
				RU40	17.04	0.5	PASS
			106Tone	RU53	17.68	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	2.04	0.5	PASS

			52Tone	RU37	17.08	0.5	PASS
				RU38	15.00	0.5	PASS
				RU39	15.04	0.5	PASS
				RU40	17.00	0.5	PASS
			106Tone	RU53	17.12	0.5	PASS
				RU54	17.16	0.5	PASS
11AX40MIMO	Ant1	2422	242Tone	RU61	18.72	0.5	PASS
				RU62	18.80	0.5	PASS
	Ant2	2422	242Tone	RU61	18.64	0.5	PASS
				RU62	18.72	0.5	PASS
	Ant1	2437	242Tone	RU61	18.80	0.5	PASS
				RU62	18.80	0.5	PASS
	Ant2	2437	242Tone	RU61	18.64	0.5	PASS
				RU62	18.80	0.5	PASS
	Ant1	2452	242Tone	RU61	18.80	0.5	PASS
				RU62	18.80	0.5	PASS
	Ant2	2452	242Tone	RU61	18.72	0.5	PASS
				RU62	18.80	0.5	PASS

Test Mode	Test	Ant	99% OBW [MHz]	Limit [MHz]	Verdict
11B	2412	Ant1	12.36	---	Pass
11B	2412	Ant2	12.20	---	Pass
11B	2437	Ant1	12.48	---	Pass
11B	2437	Ant2	12.28	---	Pass
11B	2462	Ant1	12.44	---	Pass
11B	2462	Ant2	12.28	---	Pass
11G	2412	Ant1	17.16	---	Pass
11G	2412	Ant2	17.20	---	Pass
11G	2437	Ant1	19.36	---	Pass
11G	2437	Ant2	19.32	---	Pass
11G	2462	Ant1	19.24	---	Pass
11G	2462	Ant2	19.28	---	Pass
11N20MIMO	2412	Ant1	17.96	---	Pass
11N20MIMO	2412	Ant2	17.76	---	Pass
11N20MIMO	2437	Ant1	20.20	---	Pass
11N20MIMO	2437	Ant2	18.76	---	Pass
11N20MIMO	2462	Ant1	20.24	---	Pass
11N20MIMO	2462	Ant2	18.76	---	Pass
11N40MIMO	2422	Ant1	36.24	---	Pass
11N40MIMO	2422	Ant2	36.32	---	Pass
11N40MIMO	2437	Ant1	36.16	---	Pass
11N40MIMO	2437	Ant2	36.24	---	Pass
11N40MIMO	2452	Ant1	36.24	---	Pass

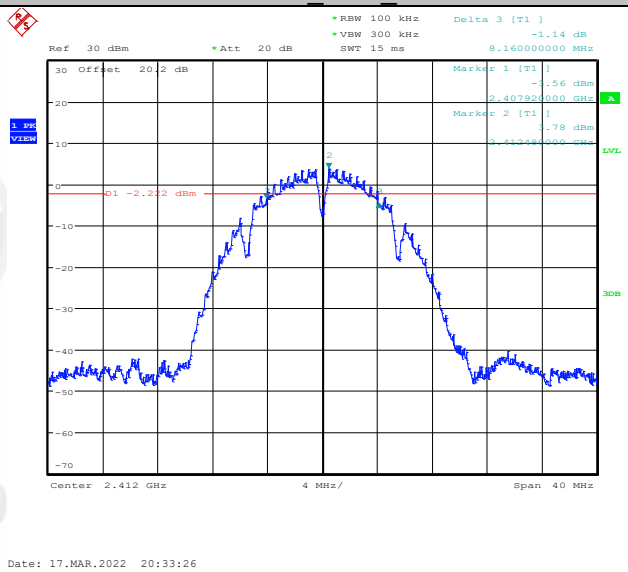
11N40MIMO	2452	Ant2	36.24	---	Pass
11AX20SU	2412	Ant1	18.88	---	Pass
11AX20SU	2412	Ant2	18.88	---	Pass
11AX20SU	2437	Ant1	19.36	---	Pass
11AX20SU	2437	Ant2	19.32	---	Pass
11AX20SU	2462	Ant1	19.36	---	Pass
11AX20SU	2462	Ant2	19.32	---	Pass
11AX40SU	2422	Ant1	37.84	---	Pass
11AX40SU	2422	Ant2	37.84	---	Pass
11AX40SU	2437	Ant1	37.92	---	Pass
11AX40SU	2437	Ant2	37.92	---	Pass
11AX40SU	2452	Ant1	37.76	---	Pass
11AX40SU	2452	Ant2	37.76	---	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.

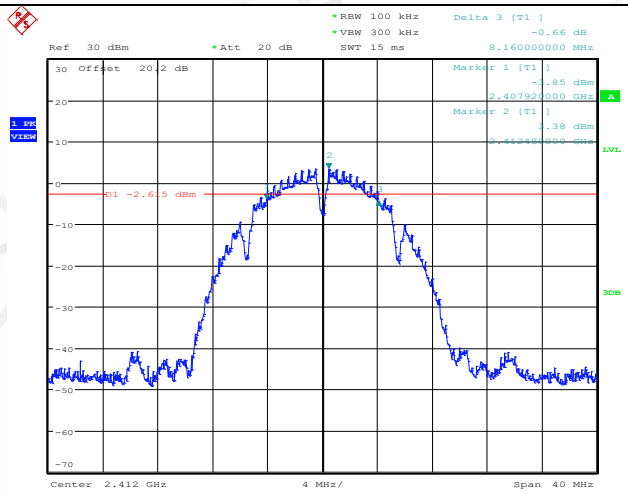
4.5. Original test data

6 dB bandwidth：

11B_Ant1_2412



11B_Ant2_2412



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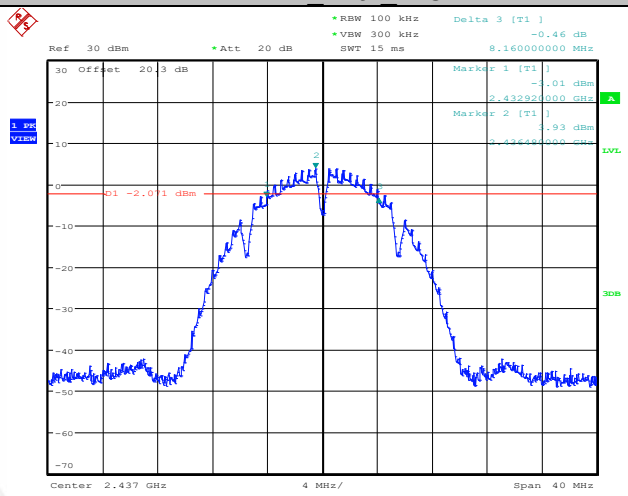

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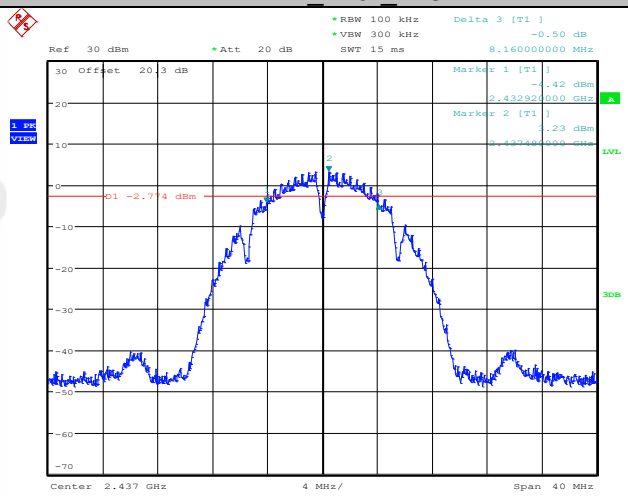

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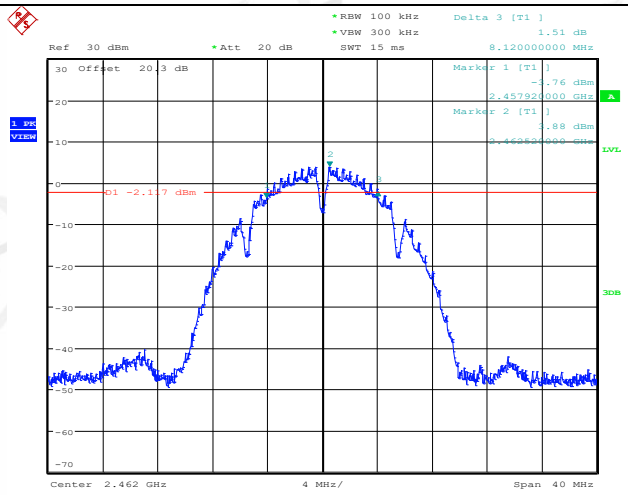

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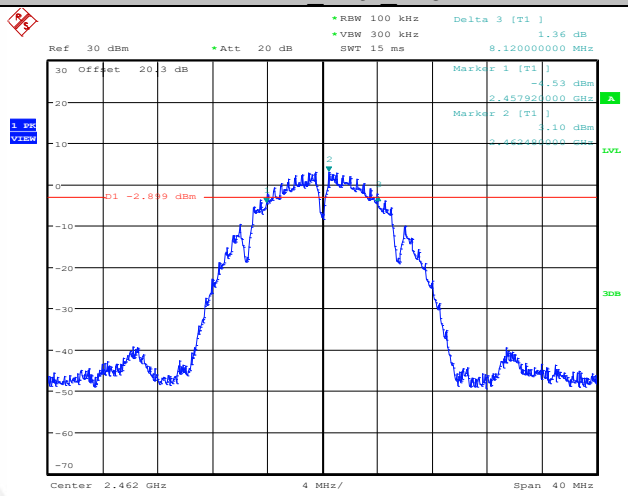

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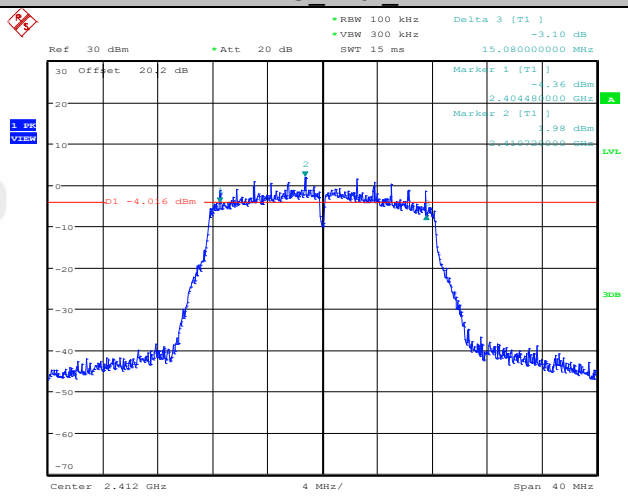

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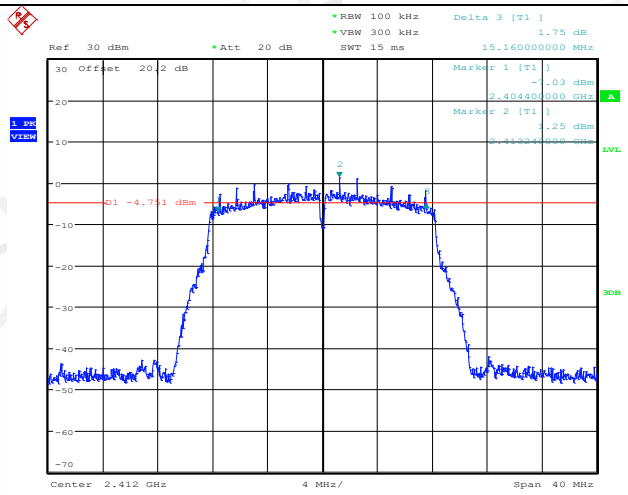

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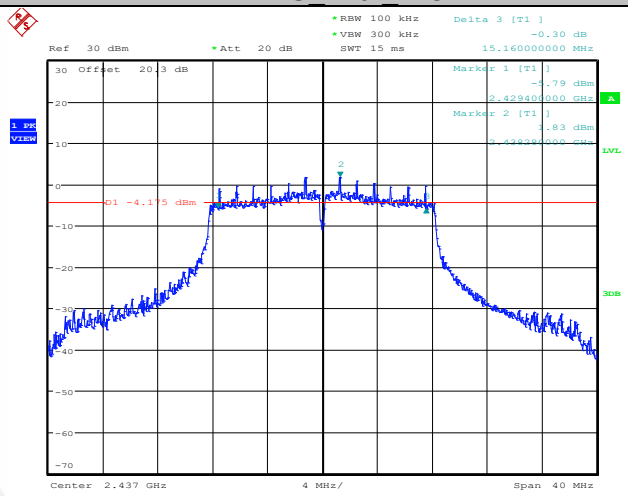

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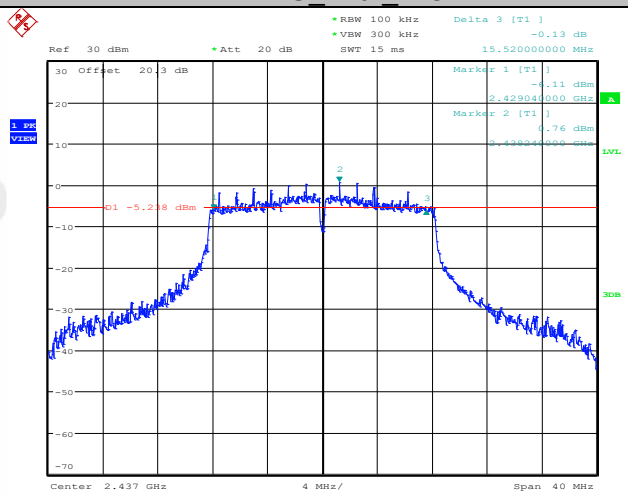

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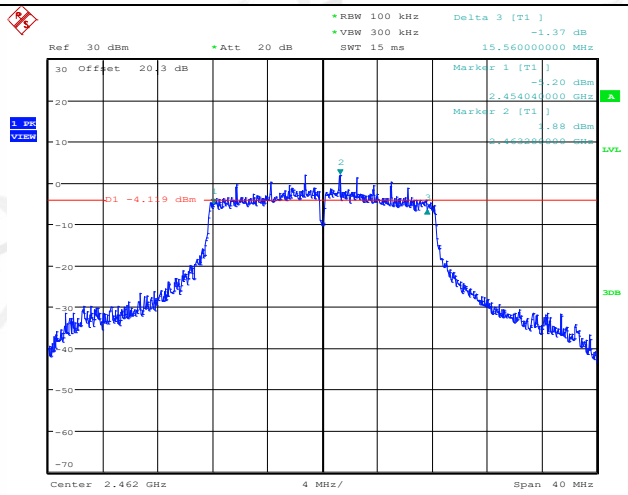

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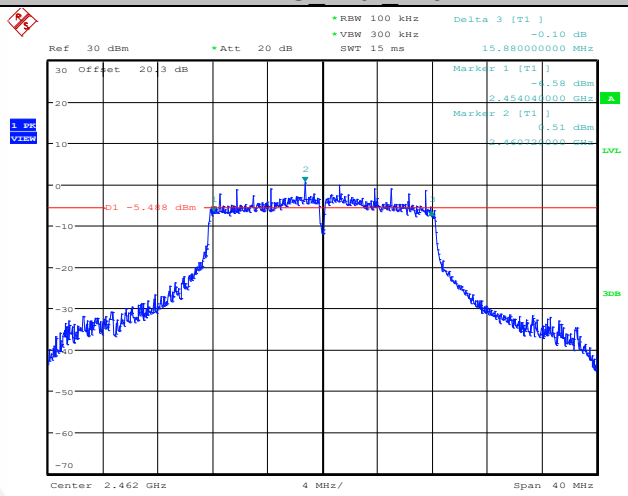

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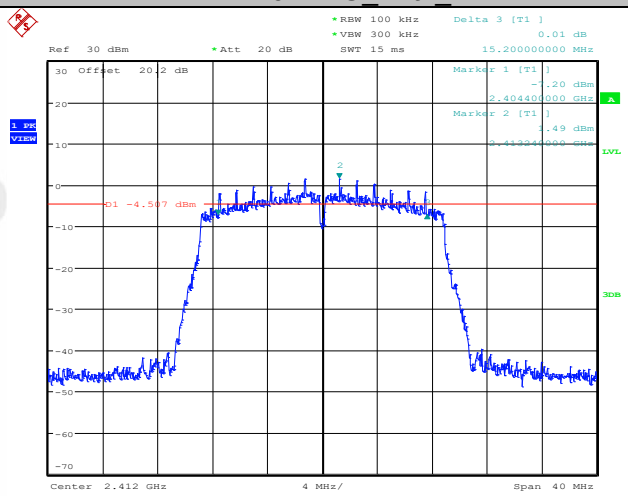

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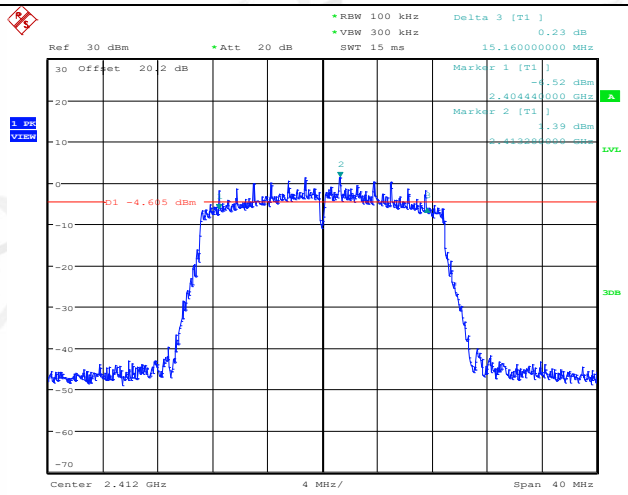

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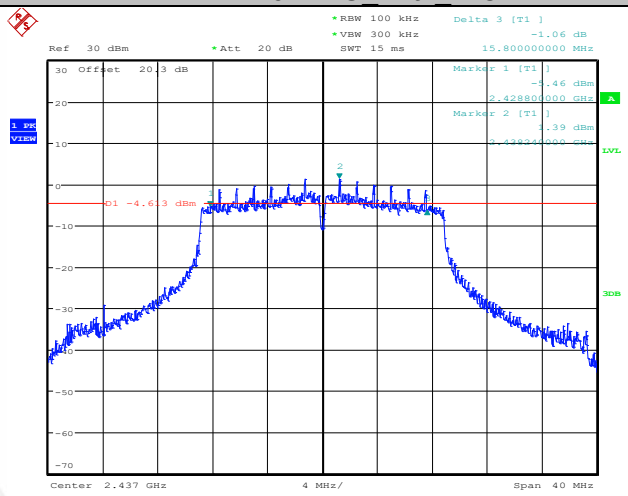

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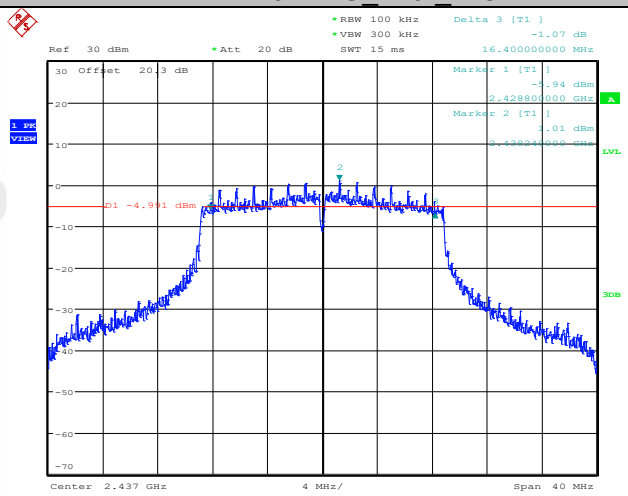

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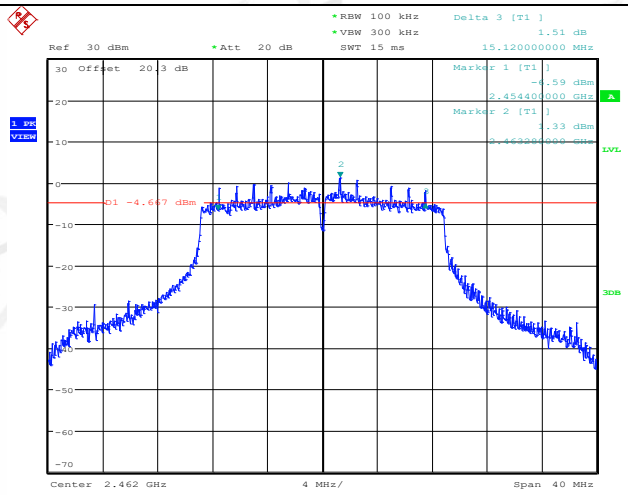

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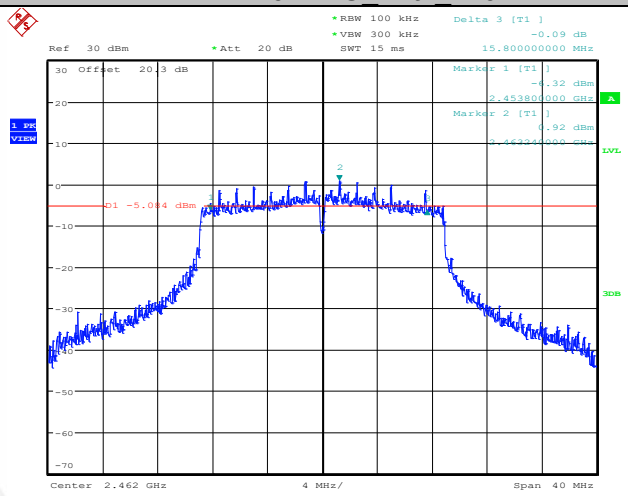

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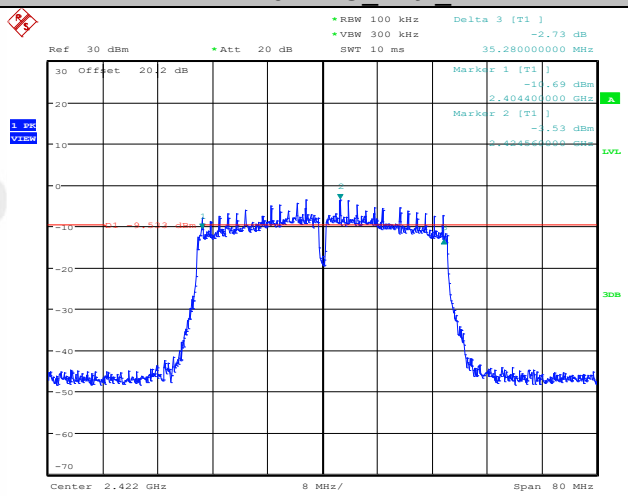

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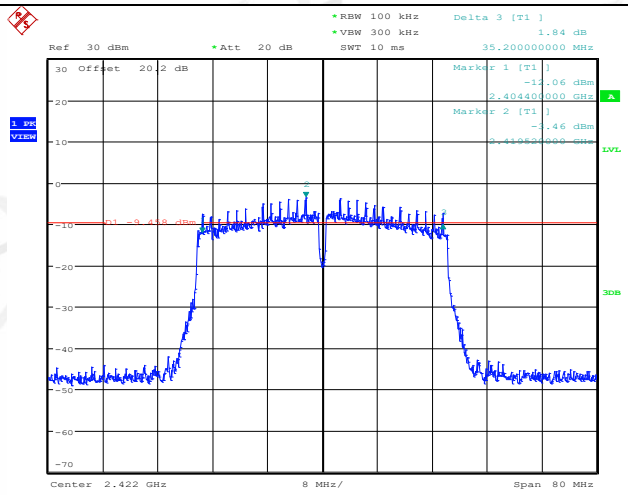

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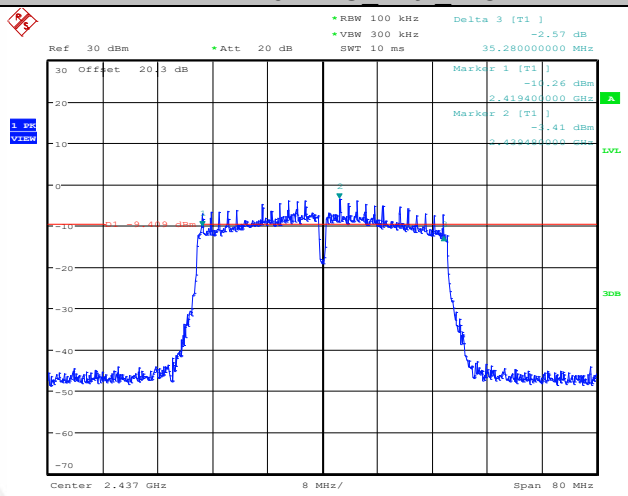

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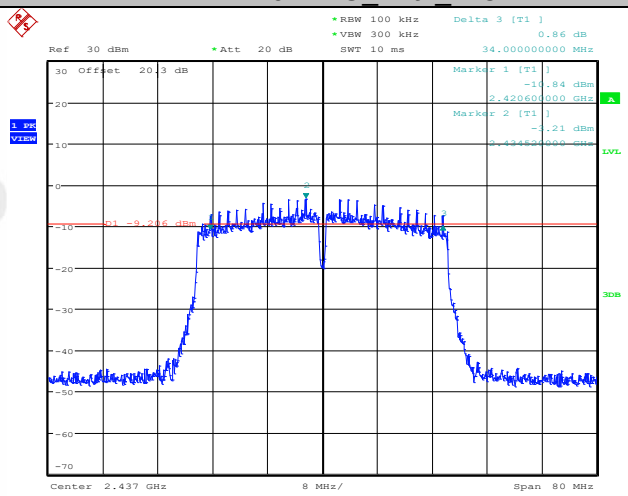

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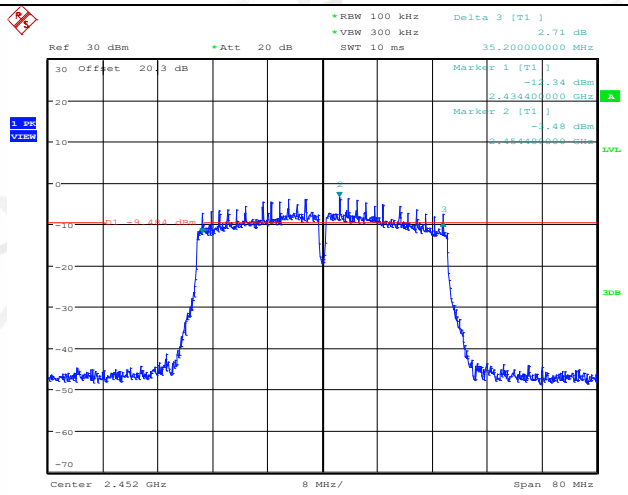

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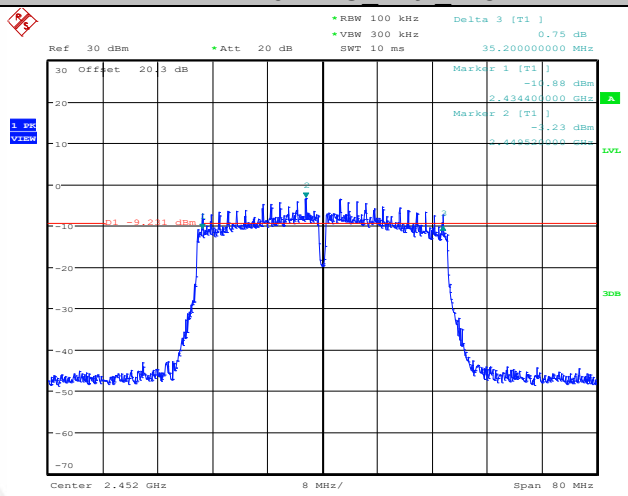

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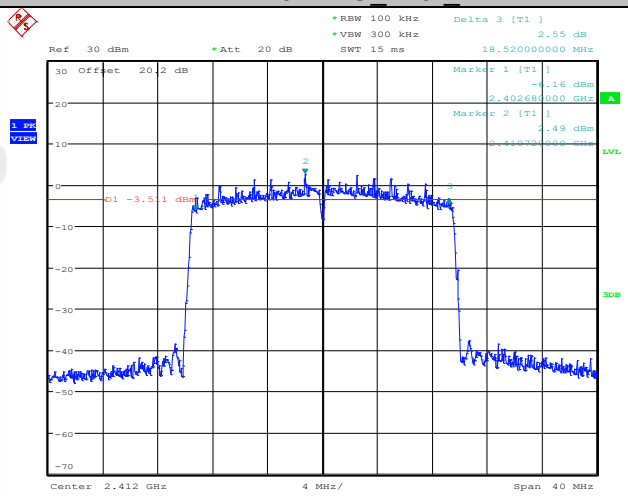

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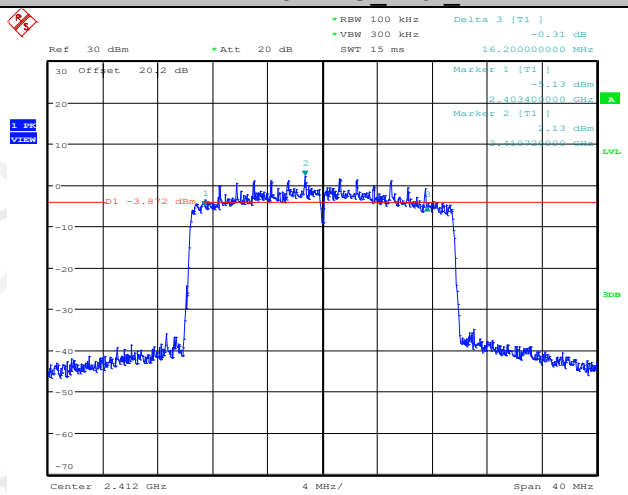

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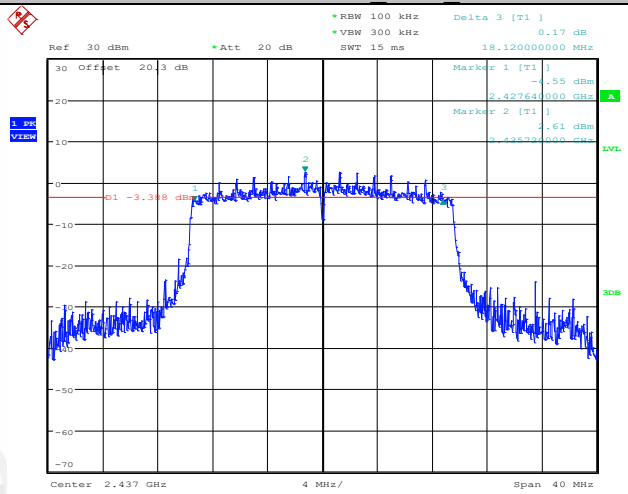

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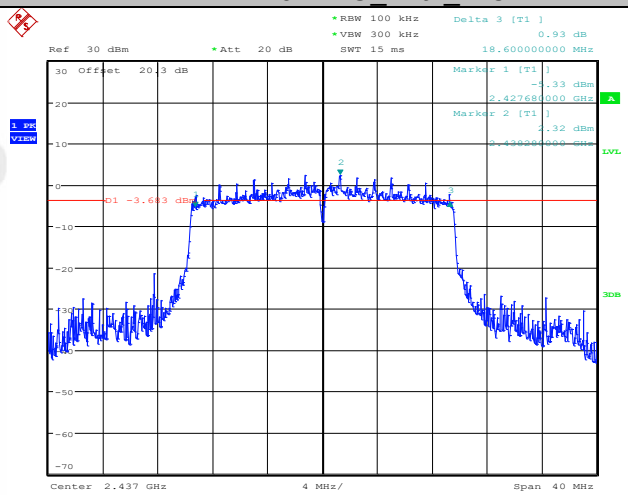

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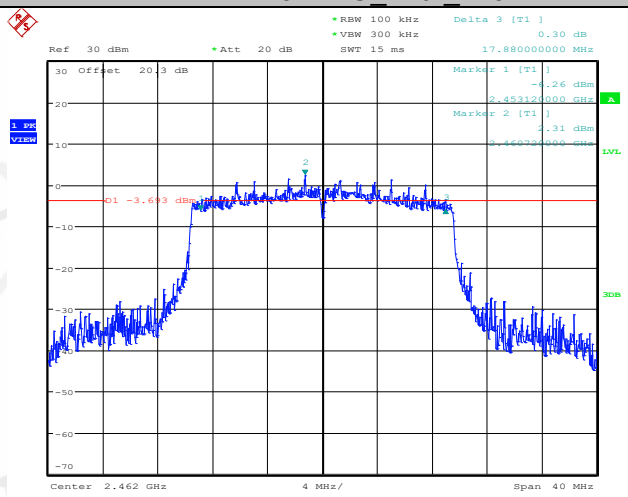

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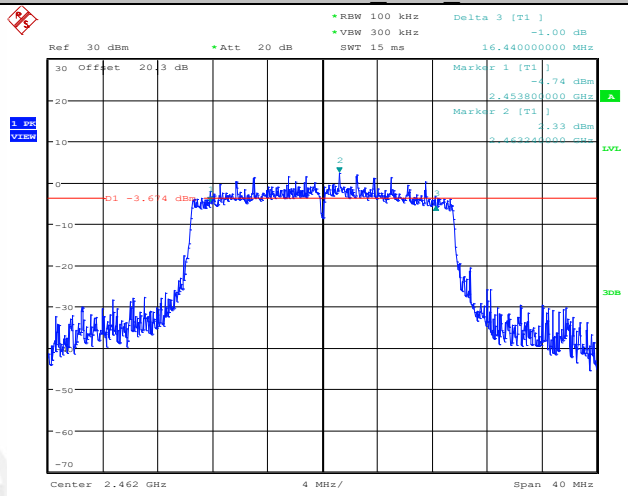

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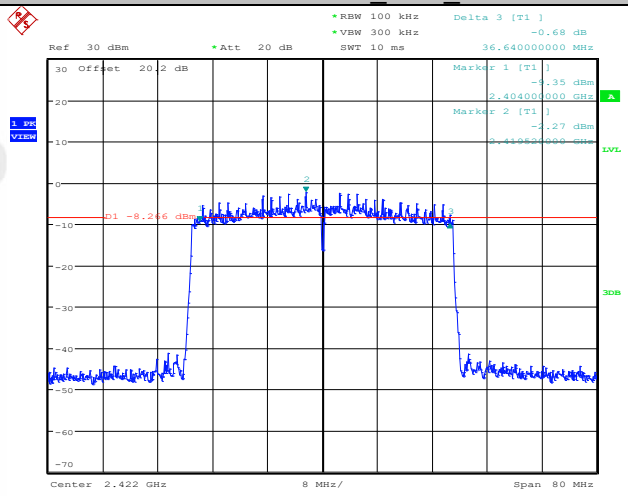

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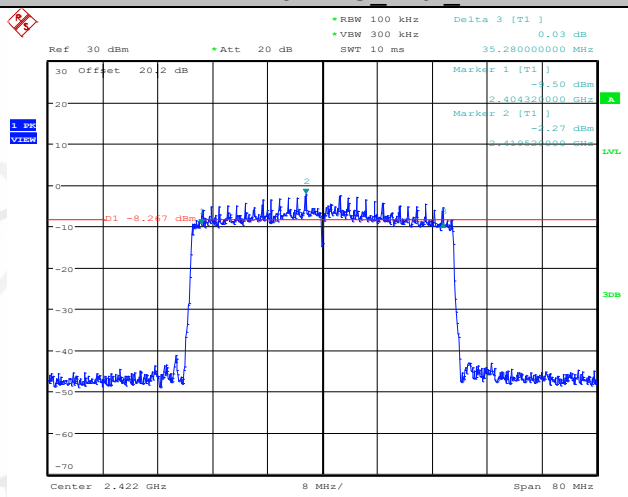

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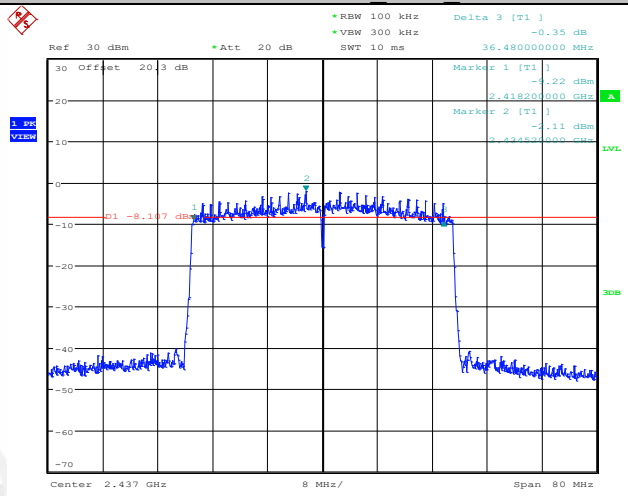

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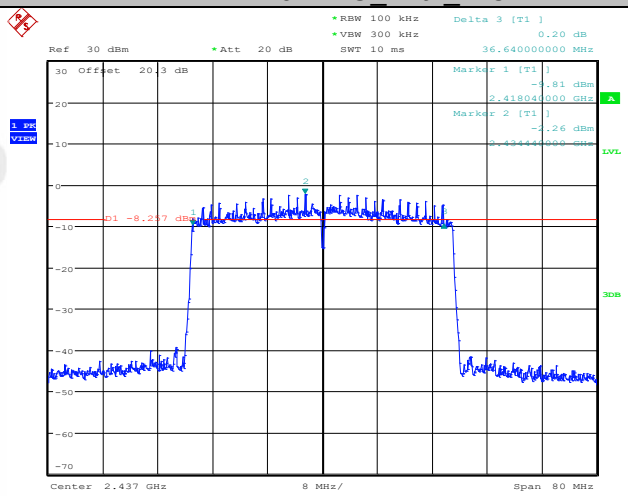

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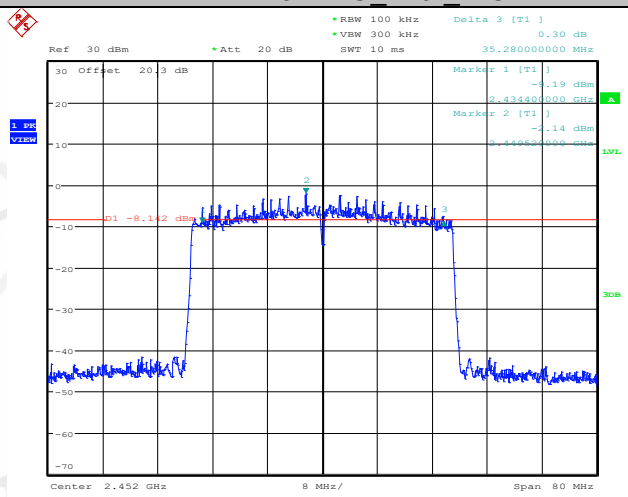

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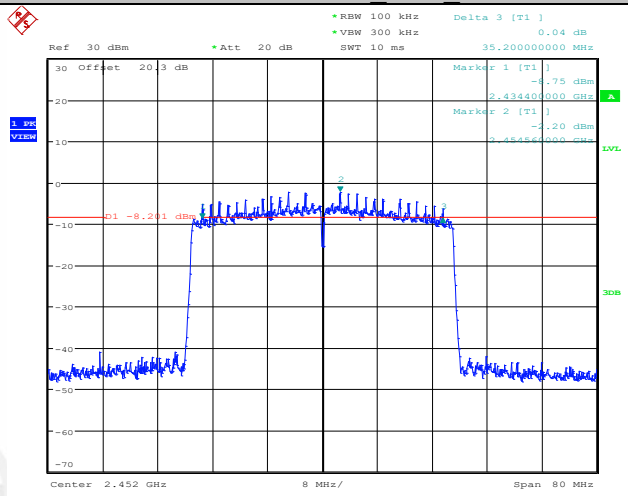

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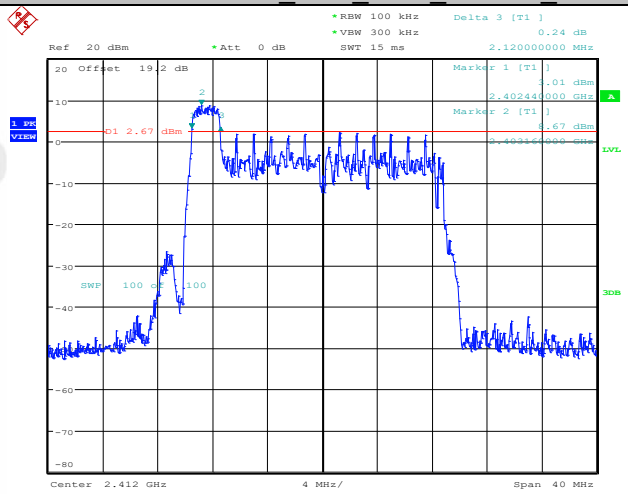
11AX20MIMO_Ant1_2412_26Tone_RU0



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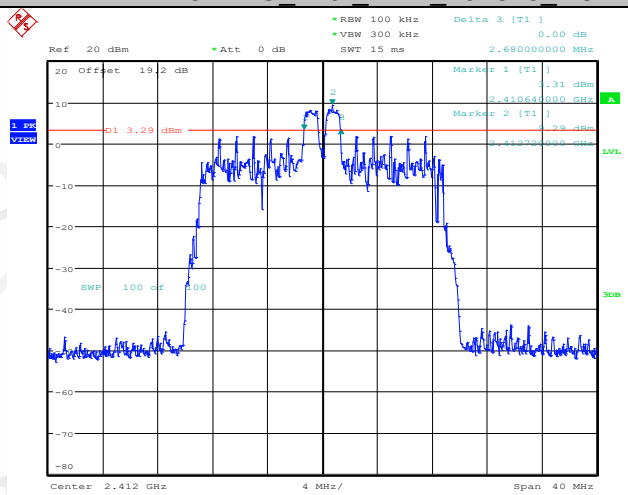

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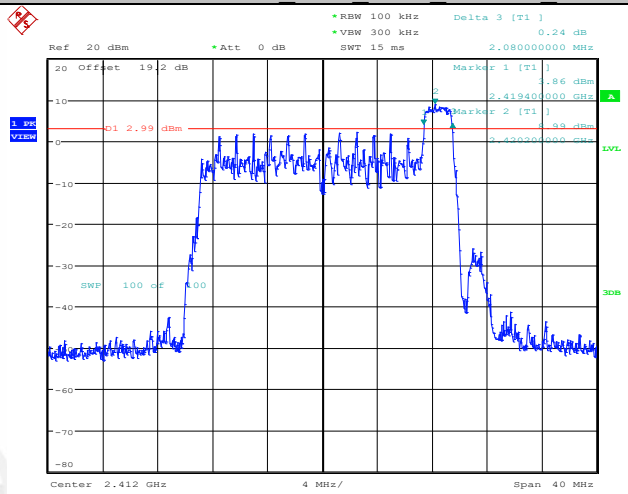
11AX20MIMO_Ant1_2412_26Tone_RU8



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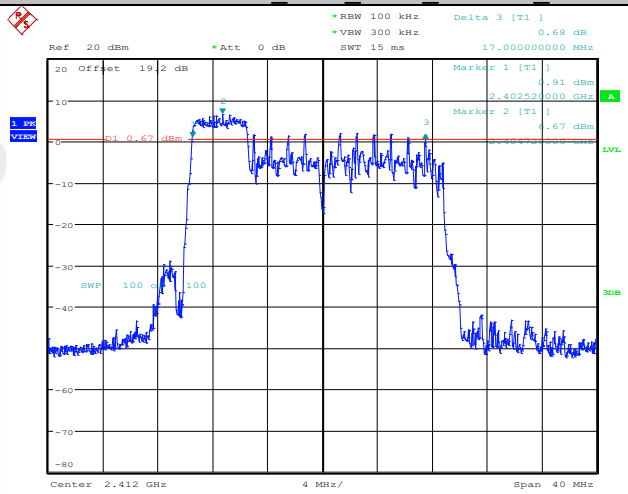

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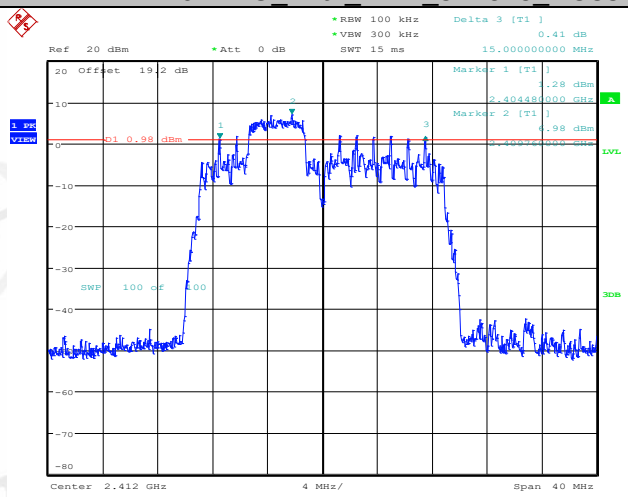

Date: 1.APR.2022 11:48:26

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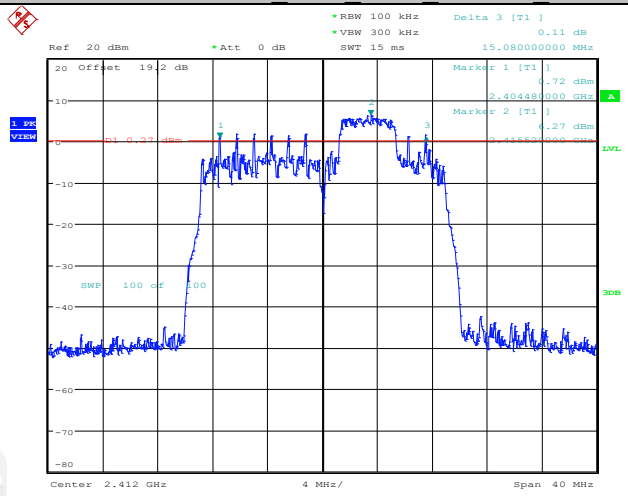

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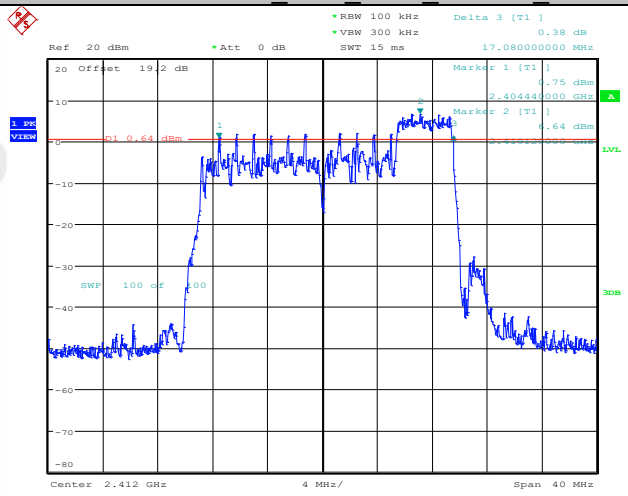

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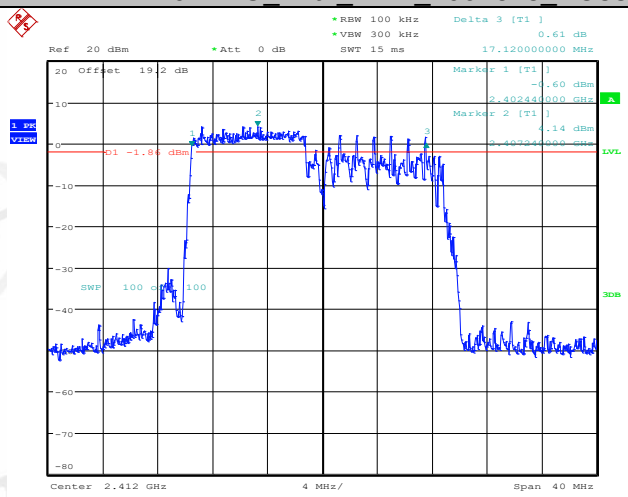

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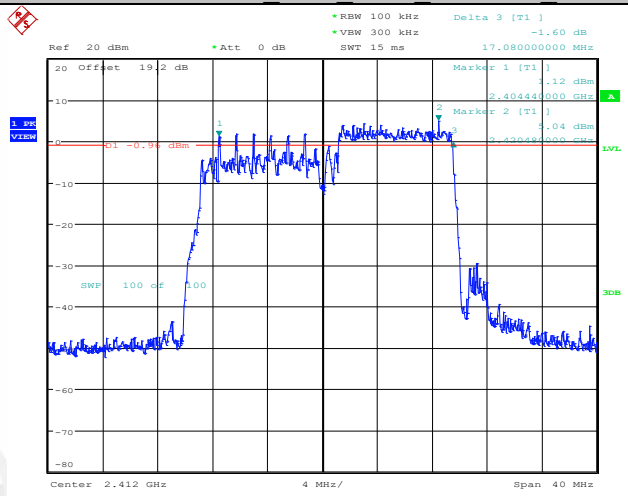

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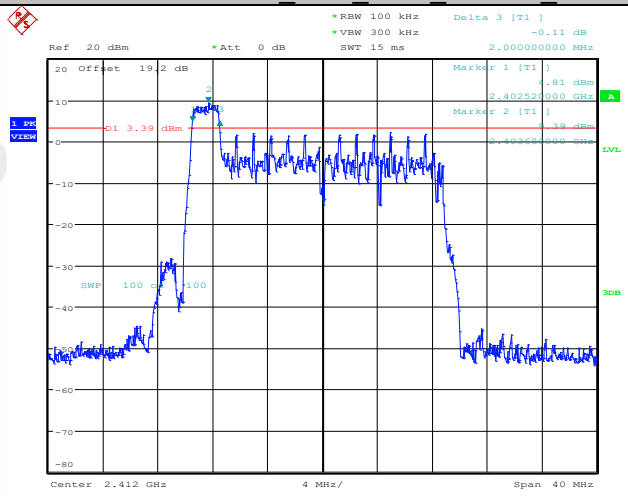
11AX20MIMO_Ant2_2412_26Tone_RU0



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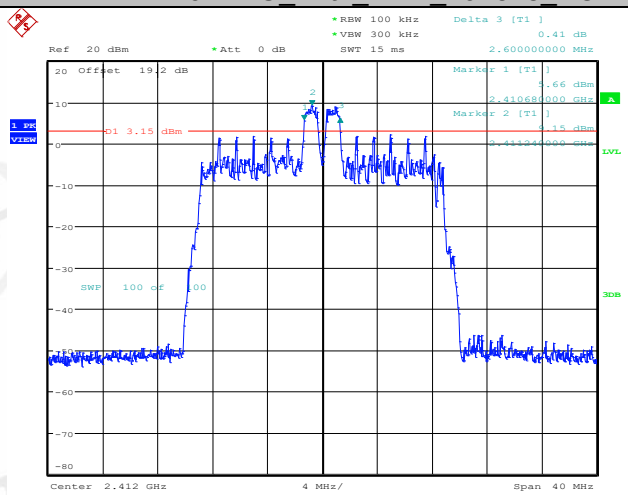

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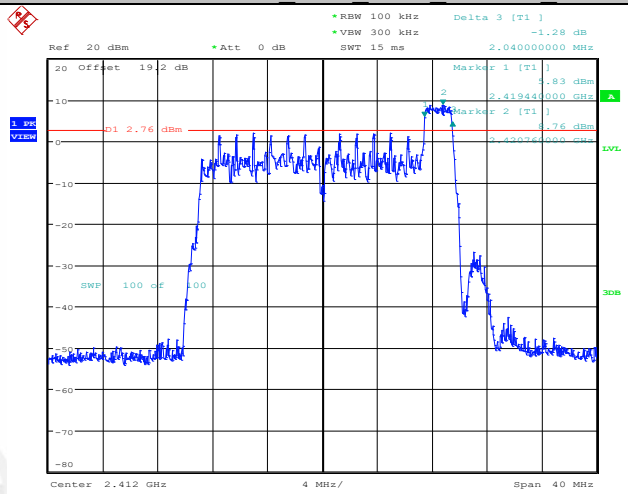

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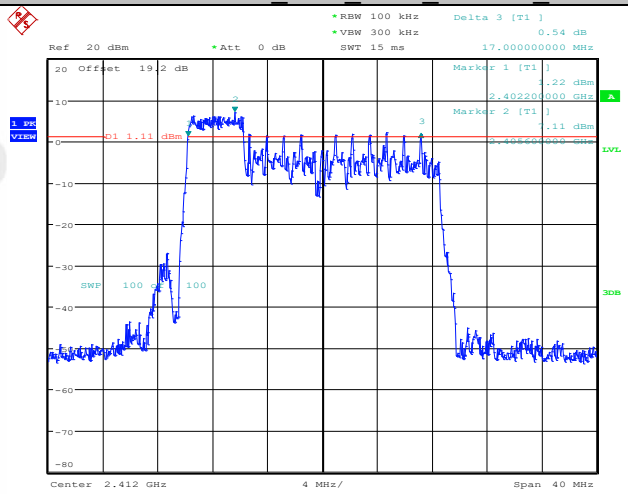
11AX20MIMO_Ant2_2412_52Tone_RU37



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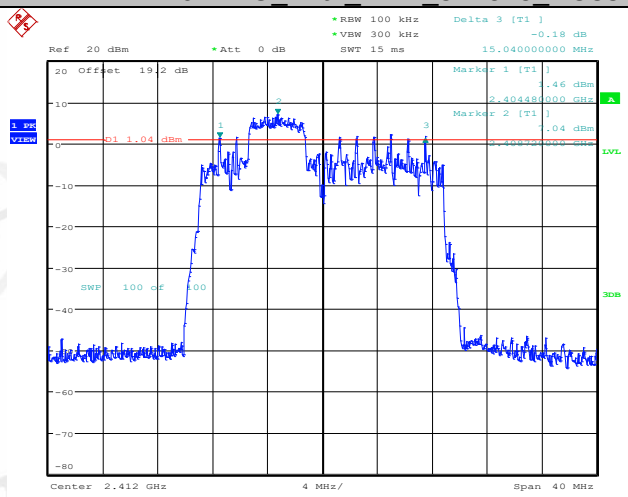

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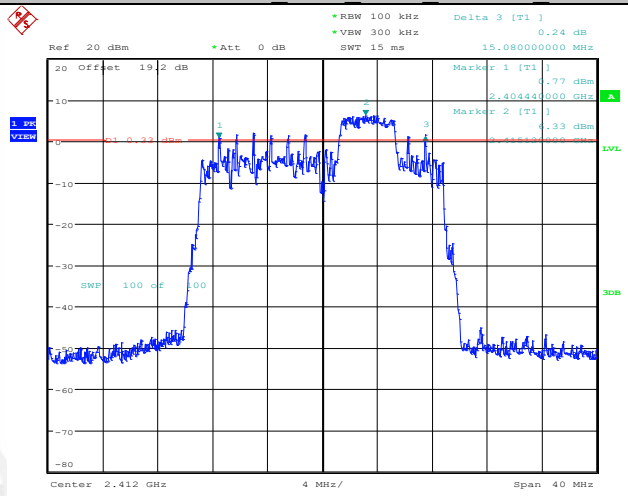

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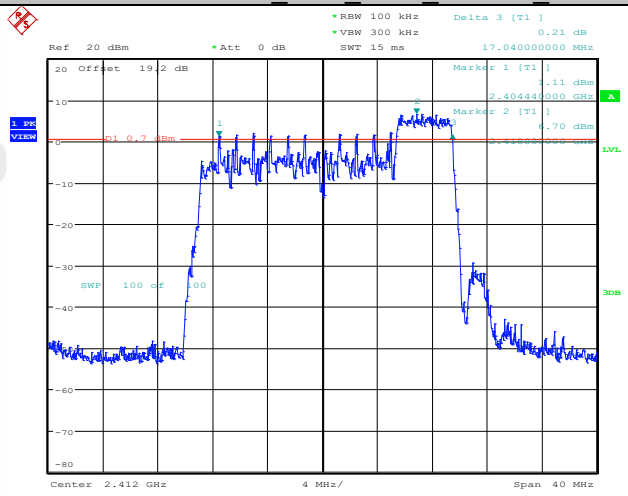

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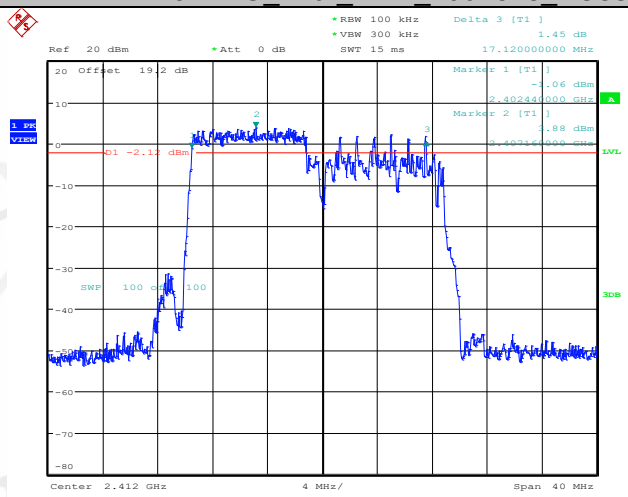

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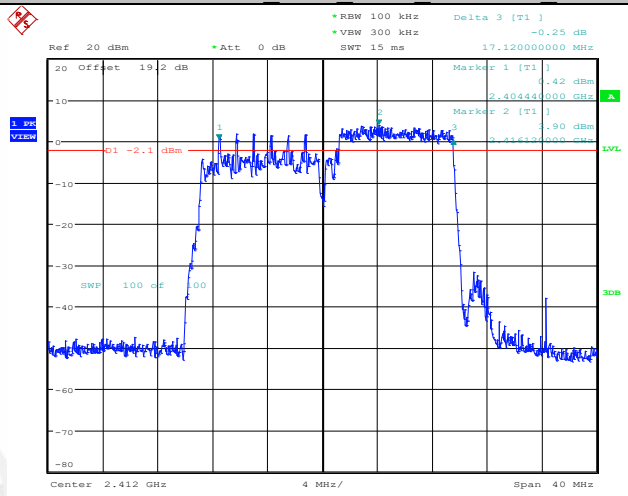
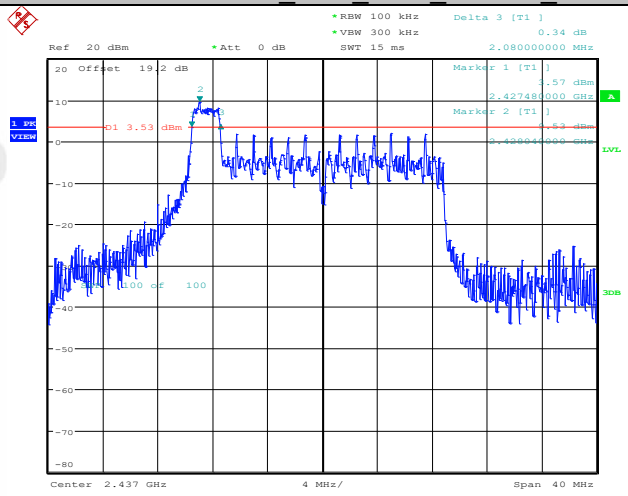
11AX20MIMO_Ant2_2412_106Tone_RU54



Date: 1.APR.2022 14:44:15

11AX20MIMO_Ant1_2437_26Tone_RU0



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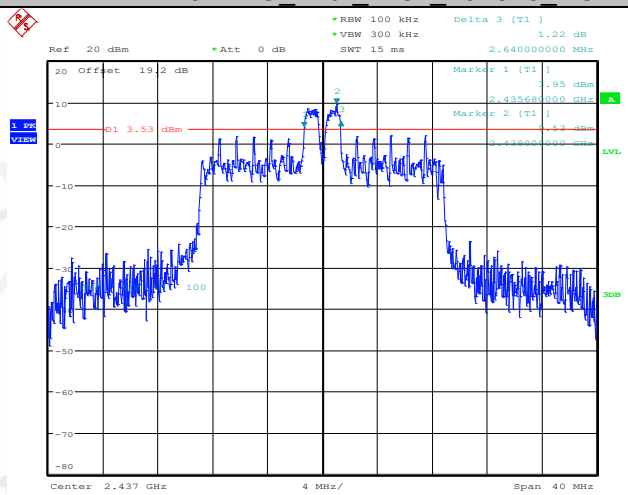
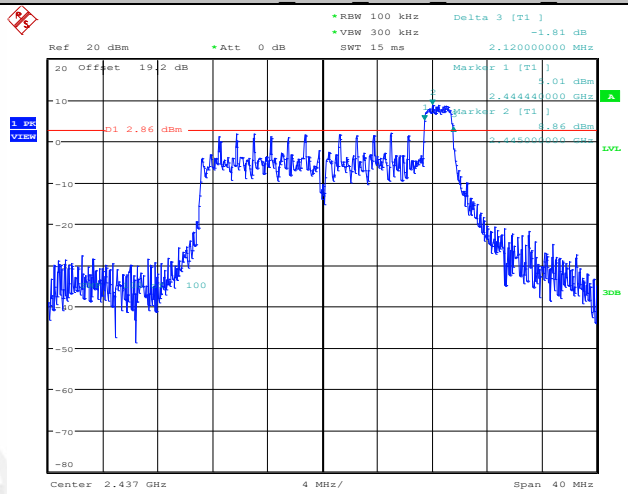
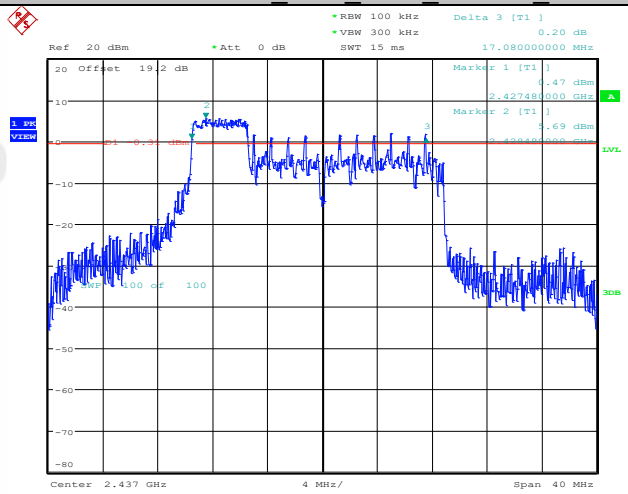
11AX20MIMO_Ant1_2437_26Tone_RU4



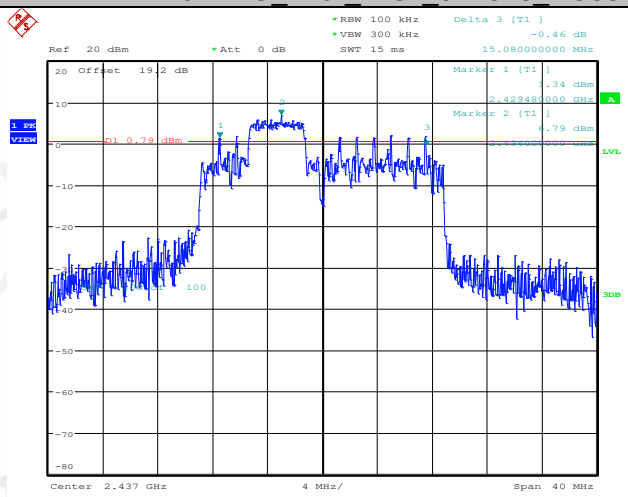
11AX20MIMO_Ant1_2437_26Tone_RU8



11AX20MIMO_Ant1_2437_52Tone_RU37

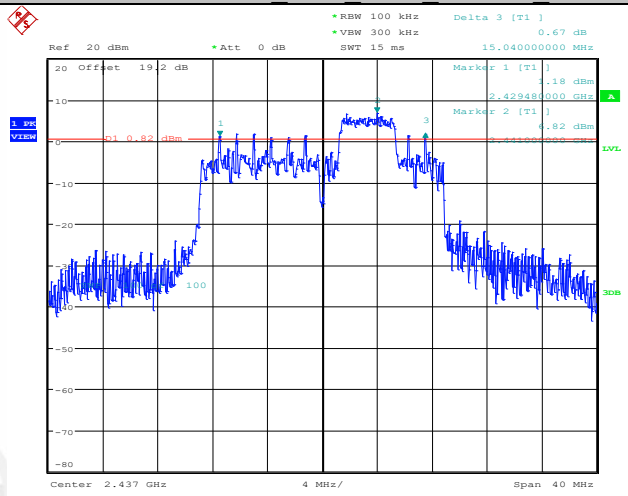


11AX20MIMO_Ant1_2437_52Tone_RU38



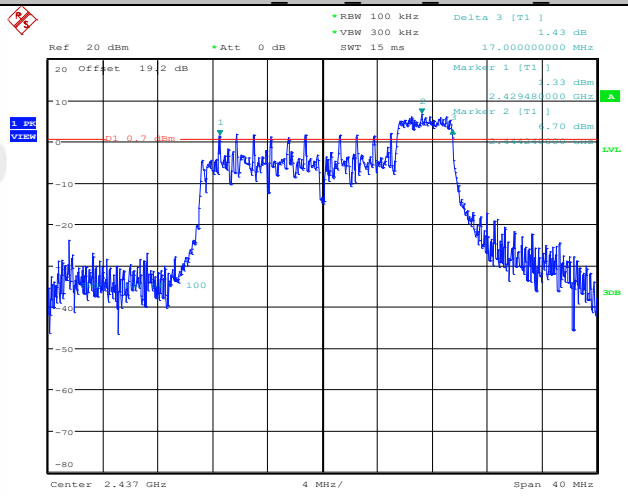
Date: 1.APR.2022 15:01:46

11AX20MIMO_Ant1_2437_52Tone_RU39



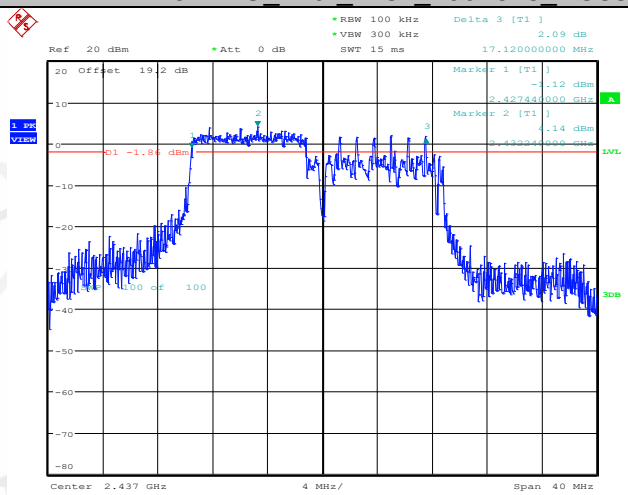
Date: 1.APR.2022 15:03:59

11AX20MIMO_Ant1_2437_52Tone_RU40



Date: 1.APR.2022 15:06:17

11AX20MIMO_Ant1_2437_106Tone_RU53



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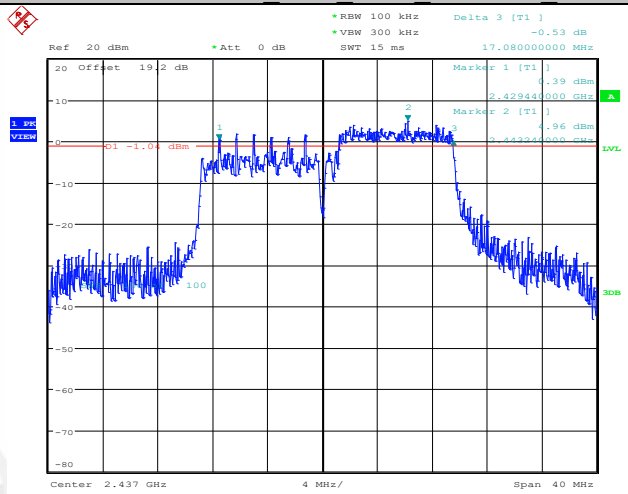
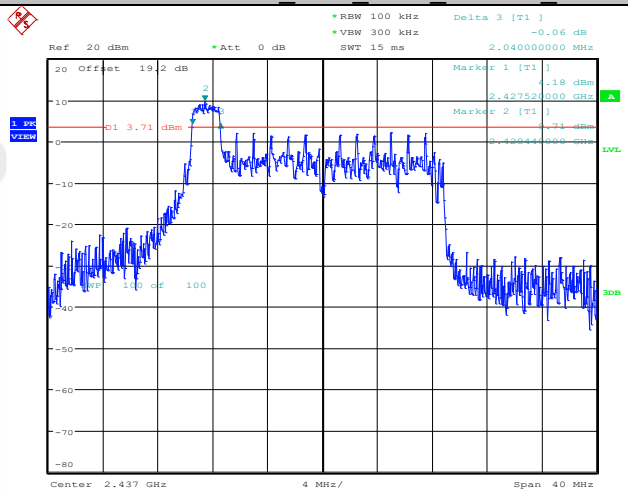


Date: 1.APR.2022 15:11:17

11AX20MIMO_Ant2_2437_26Tone_RU0



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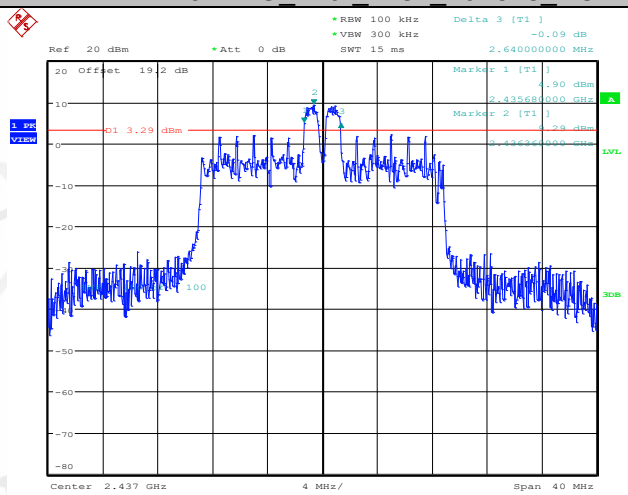
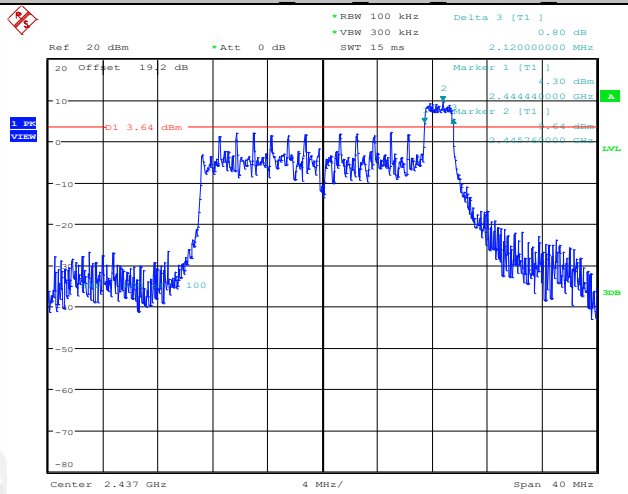
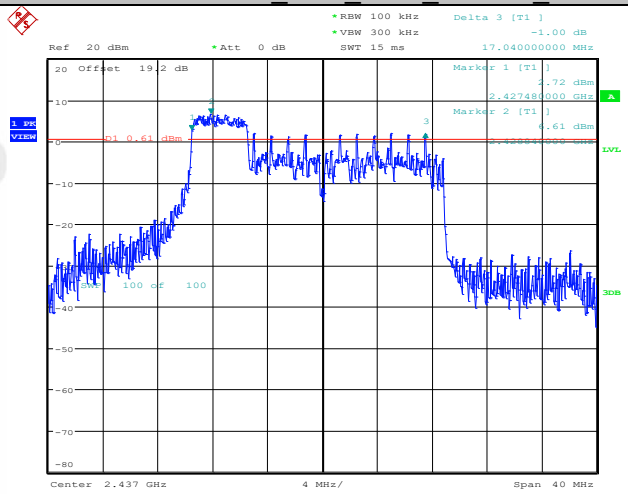
11AX20MIMO_Ant2_2437_26Tone_RU4



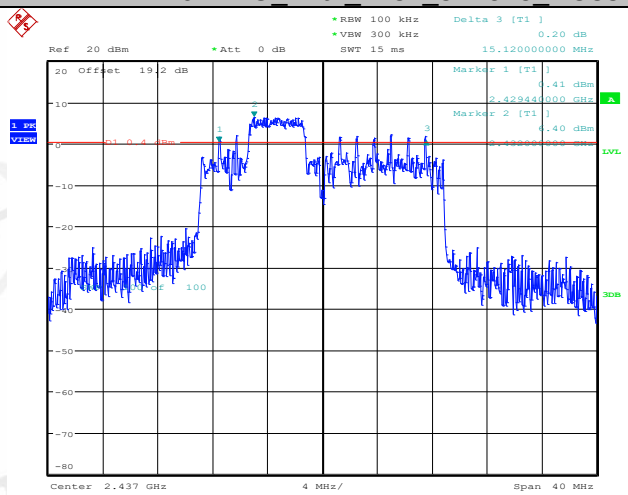
11AX20MIMO_Ant2_2437_26Tone_RU8



11AX20MIMO_Ant2_2437_52Tone_RU37



11AX20MIMO_Ant2_2437_52Tone_RU38



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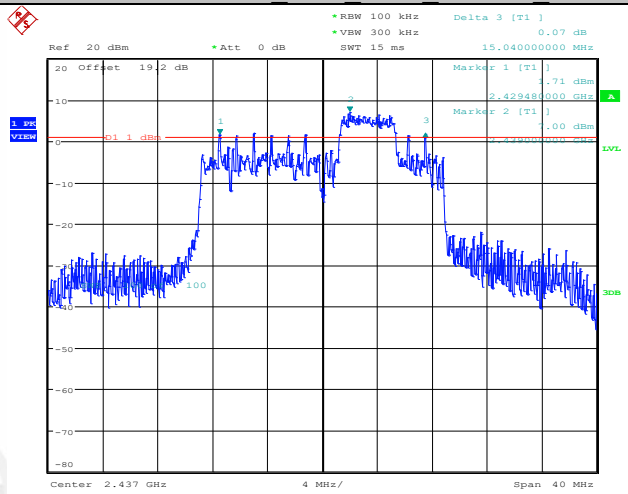
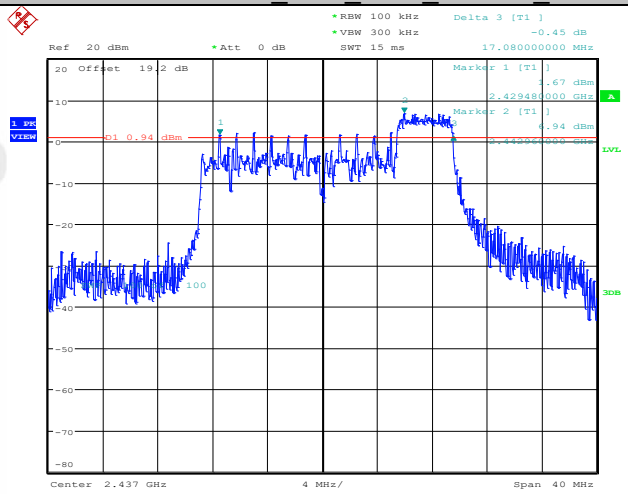
11AX20MIMO_Ant2_2437_52Tone_RU39



Date: 1.APR.2022 15:27:47

11AX20MIMO_Ant2_2437_52Tone_RU40



Date: 1.APR.2022 15:30:06

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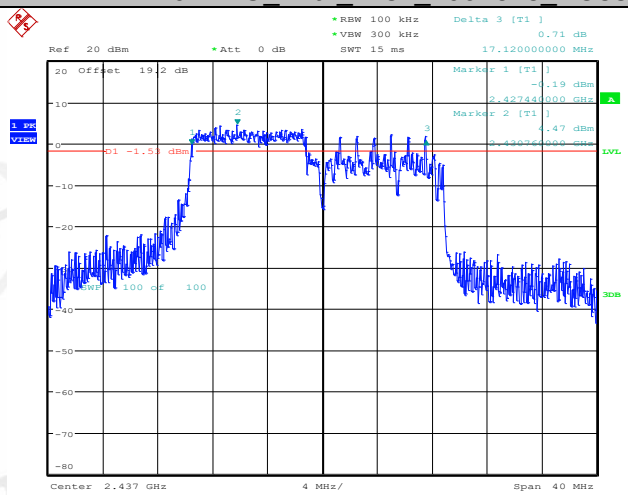

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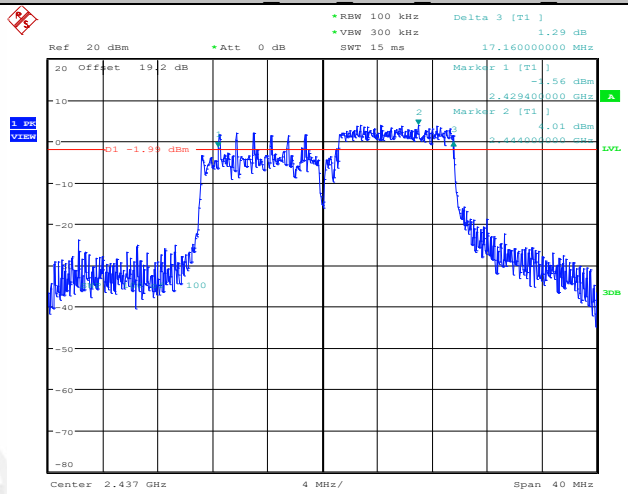
11AX20MIMO_Ant2_2437_106Tone_RU54



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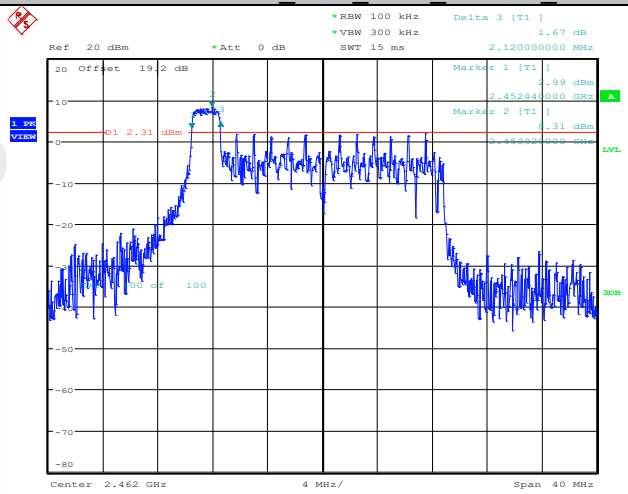
11AX20MIMO_Ant1_2462_26Tone_RU0



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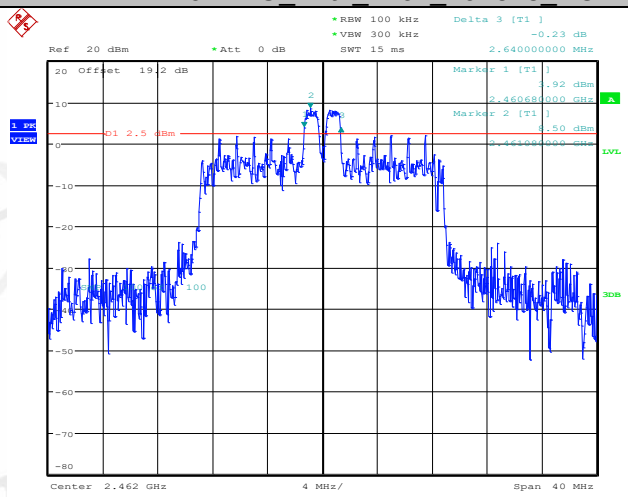

Date: 1.APR.2022 15:40:44

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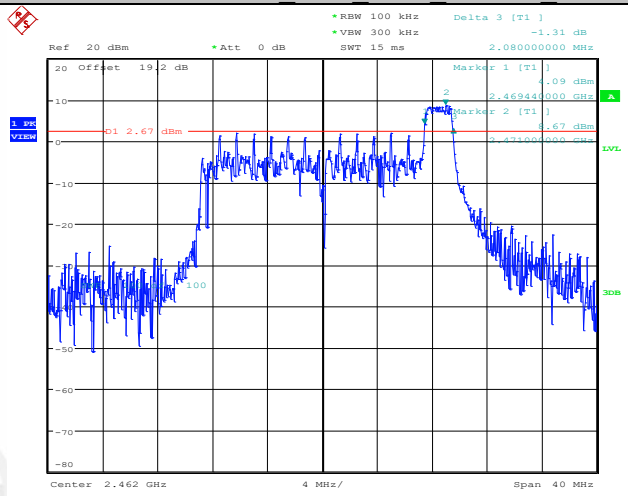
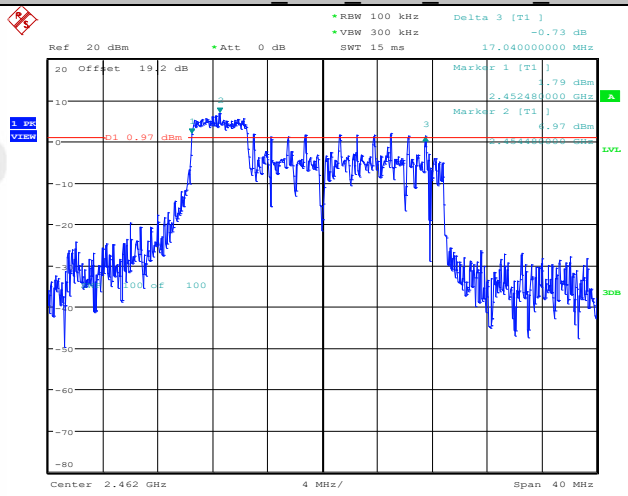


Date: 1.APR.2022 15:43:37

11AX20MIMO_Ant1_2462_52Tone_RU37



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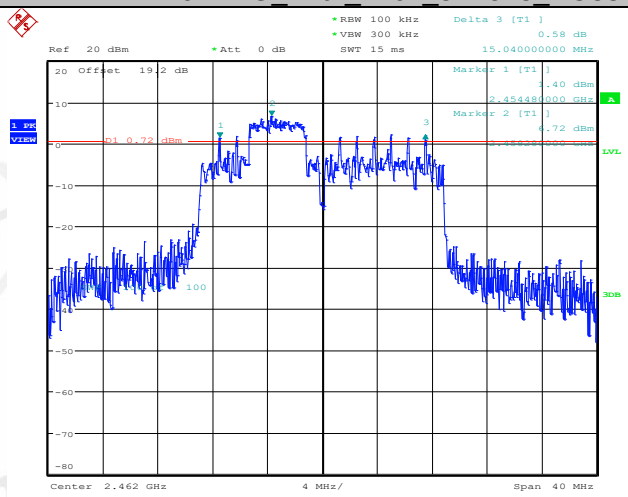
11AX20MIMO_Ant1_2462_52Tone_RU38



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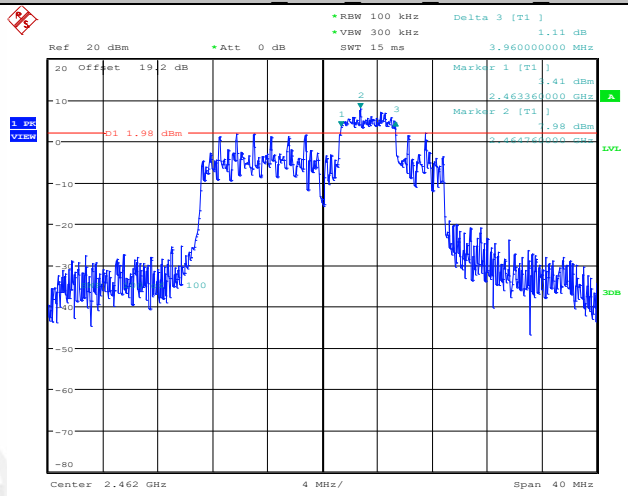
11AX20MIMO_Ant1_2462_52Tone_RU39



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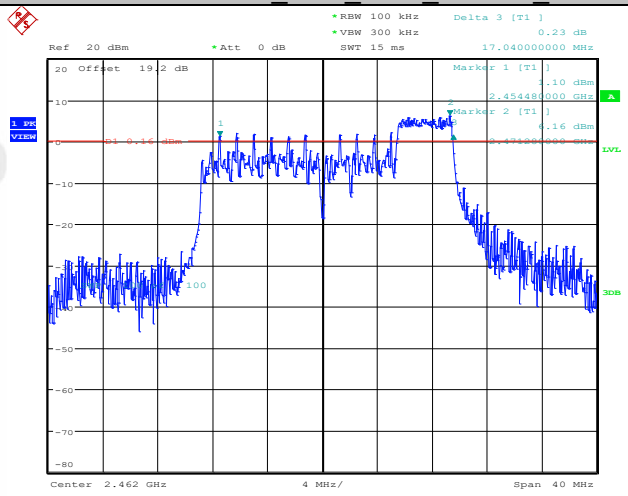

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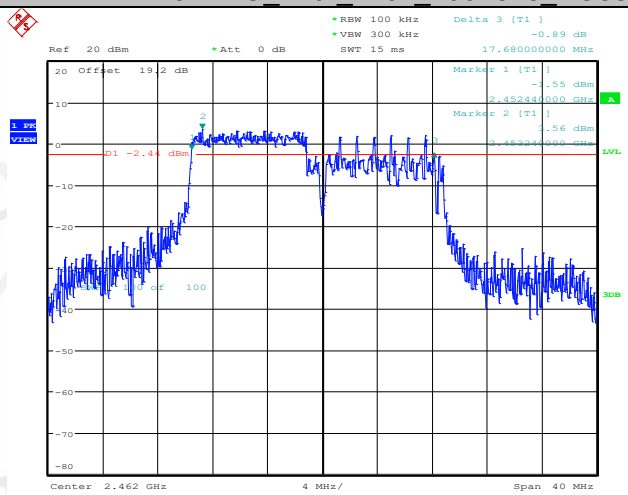

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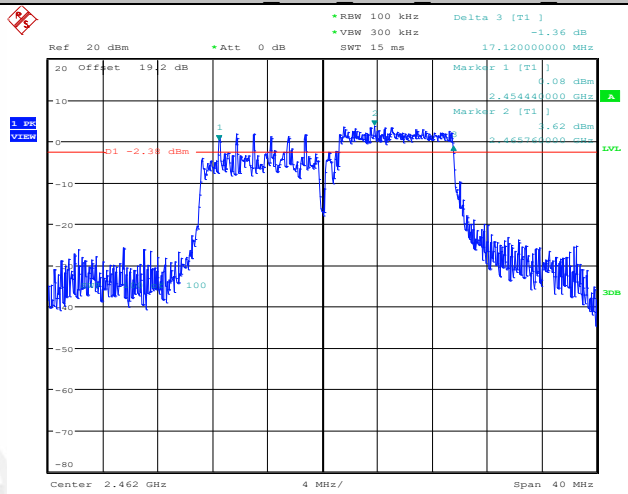

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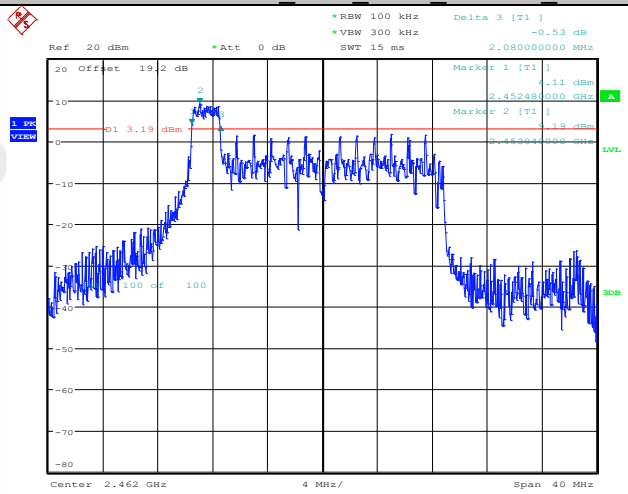
11AX20MIMO_Ant2_2462_26Tone_RU0



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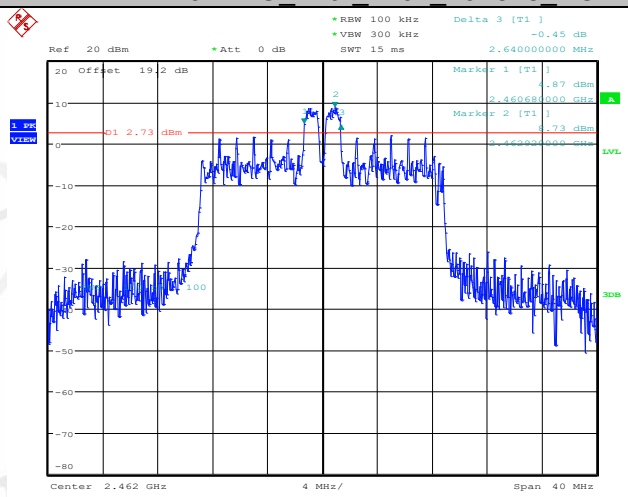

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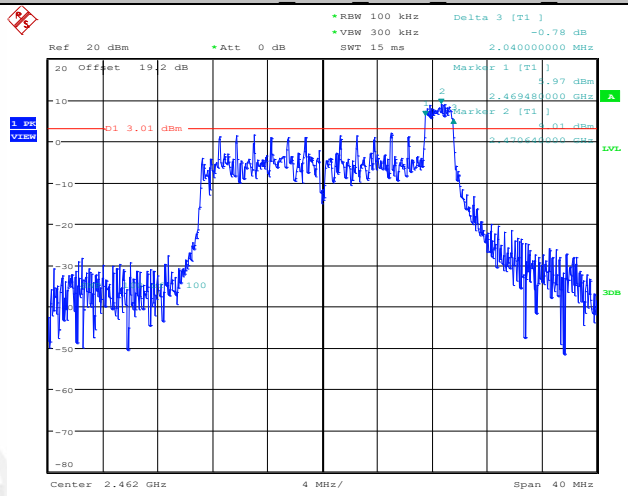

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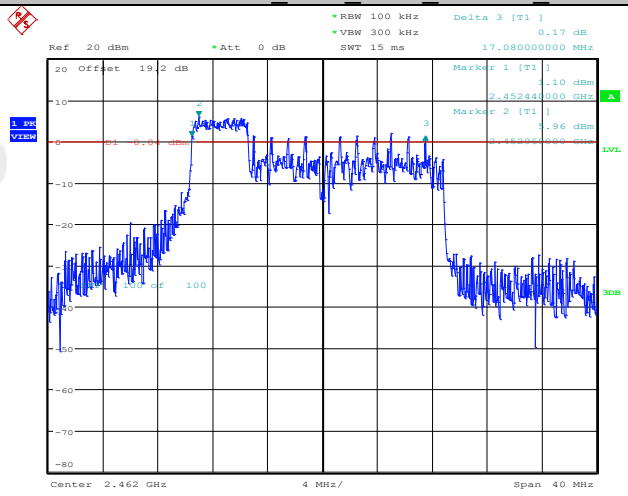

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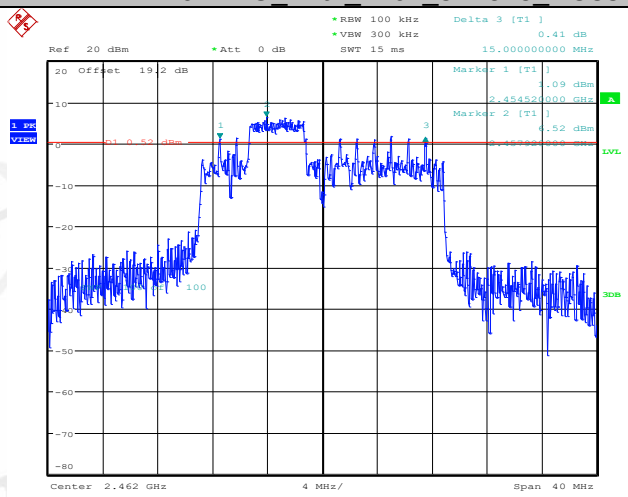

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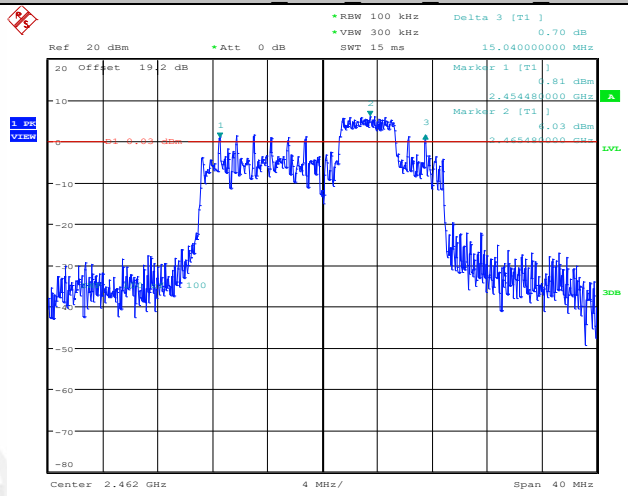

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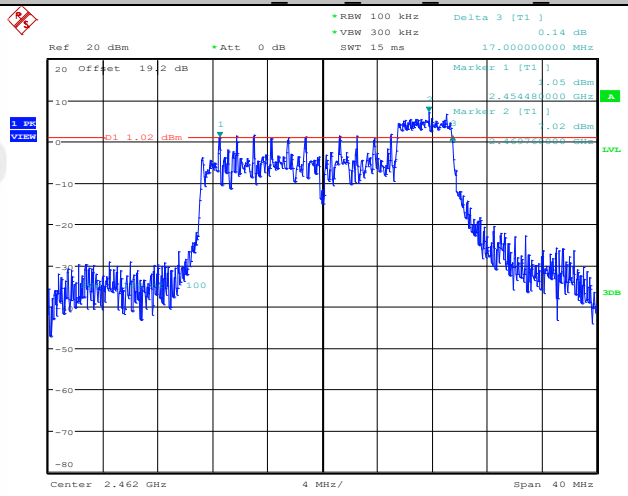

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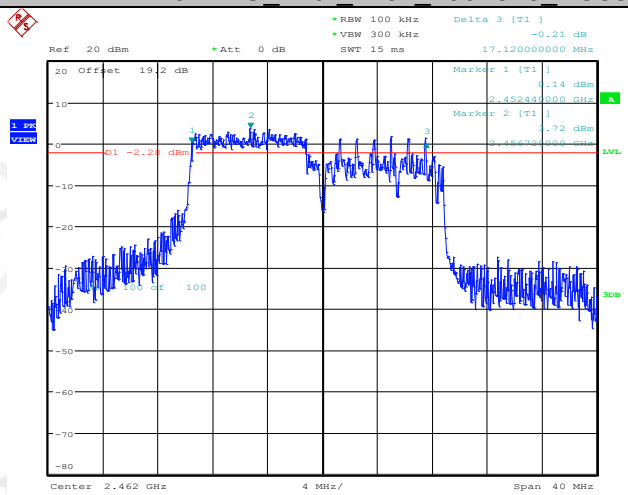
11AX20MIMO_Ant2_2462_106Tone_RU53



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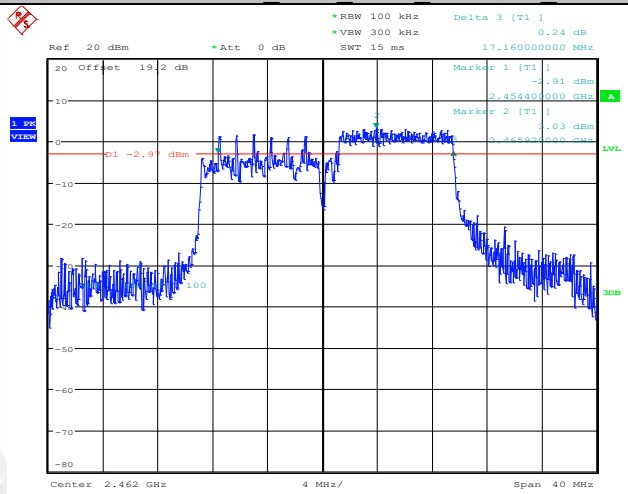

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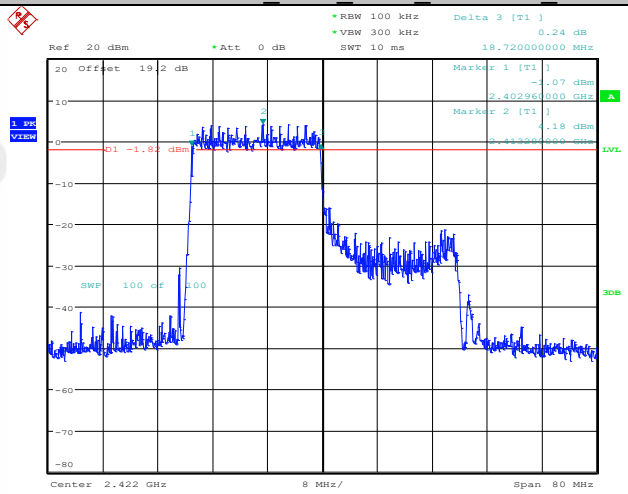
11AX40MIMO_Ant1_2422_242Tone_RU61



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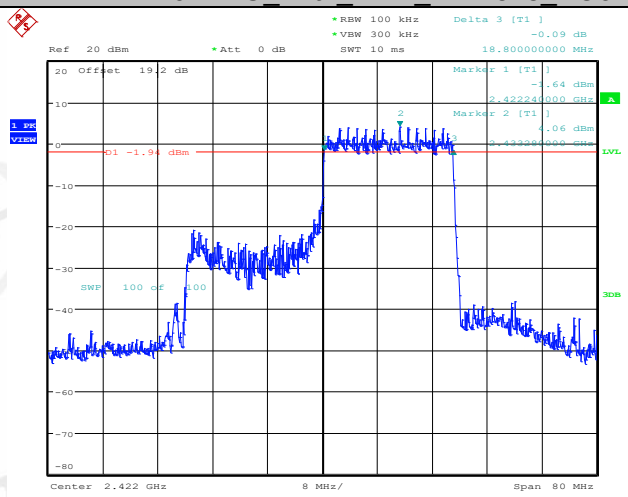
11AX40MIMO_Ant1_2422_242Tone_RU62



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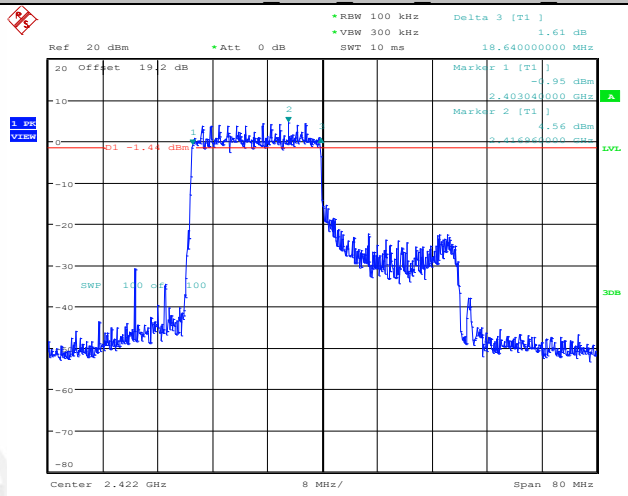

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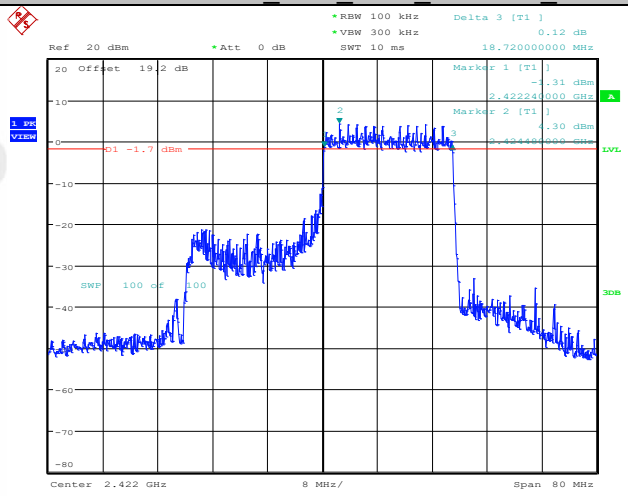
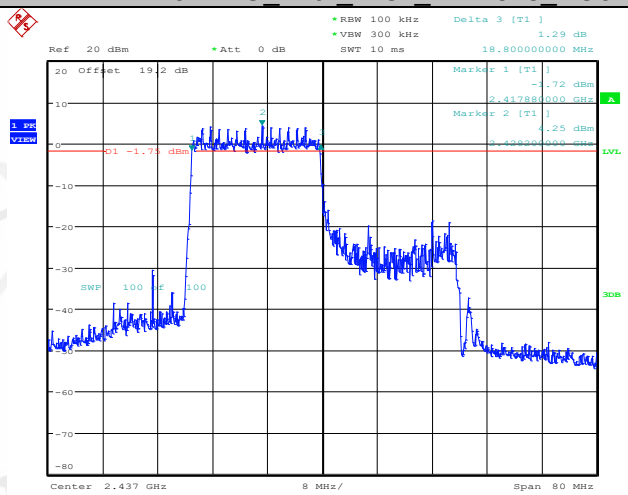
11AX40MIMO_Ant2_2422_242Tone_RU62



Date: 1.APR.2022 16:43:46

11AX40MIMO_Ant1_2437_242Tone_RU61



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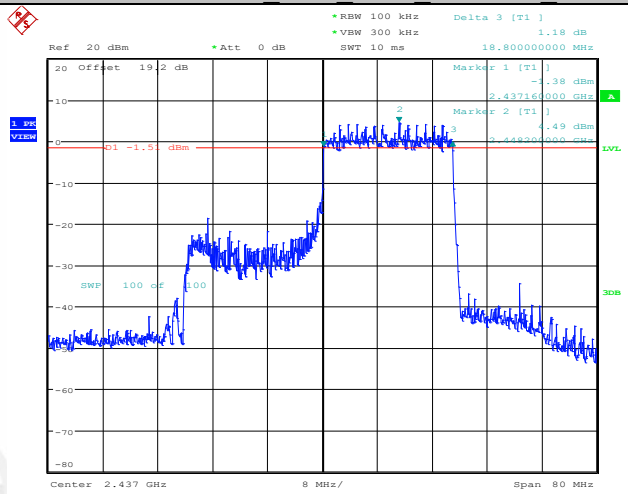
11AX40MIMO_Ant1_2437_242Tone_RU62



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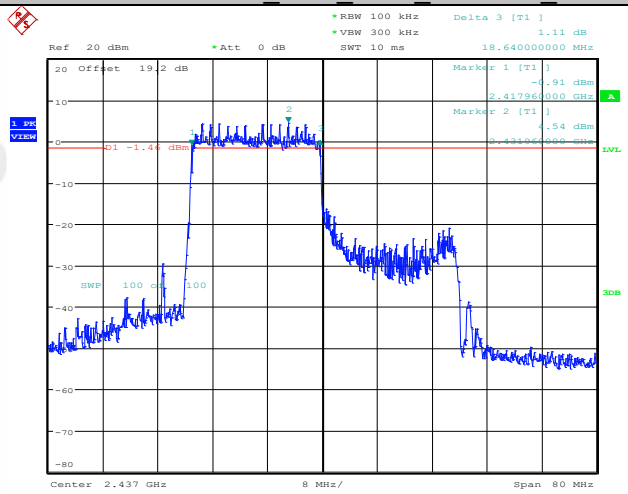
11AX40MIMO_Ant2_2437_242Tone_RU61



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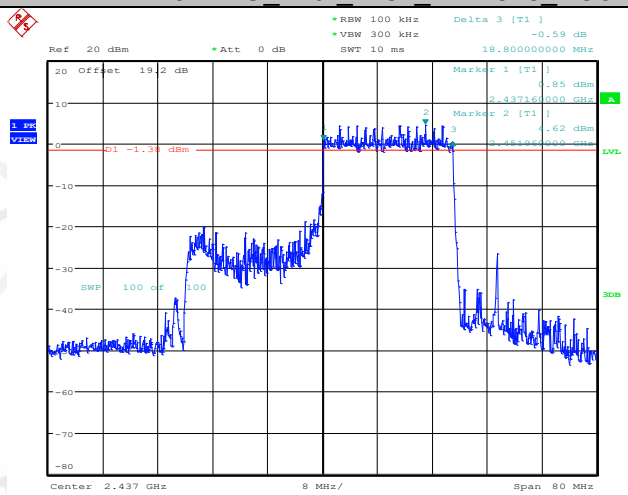

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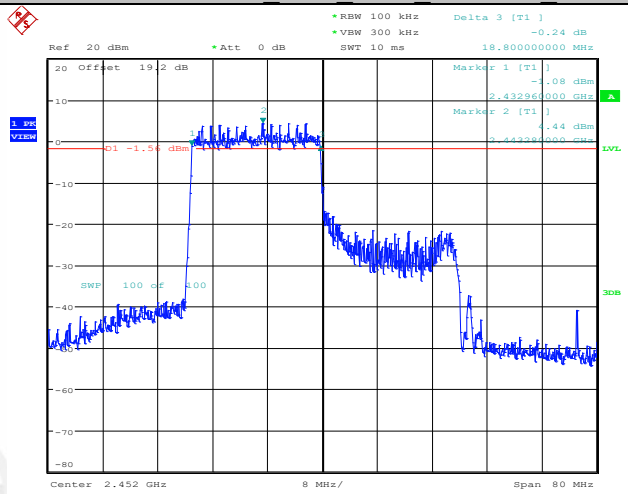

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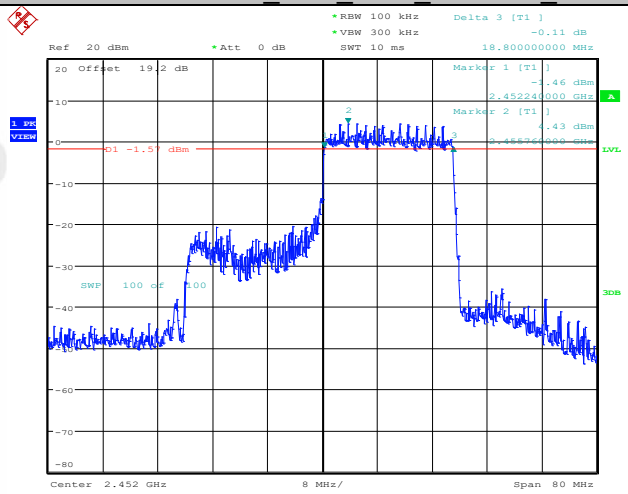

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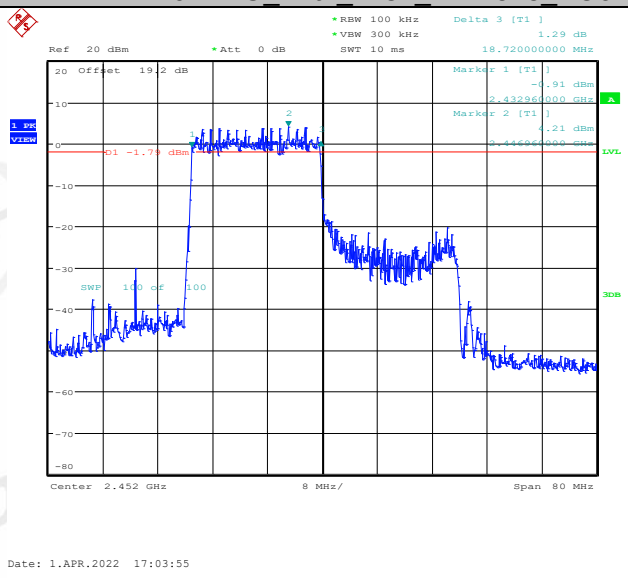

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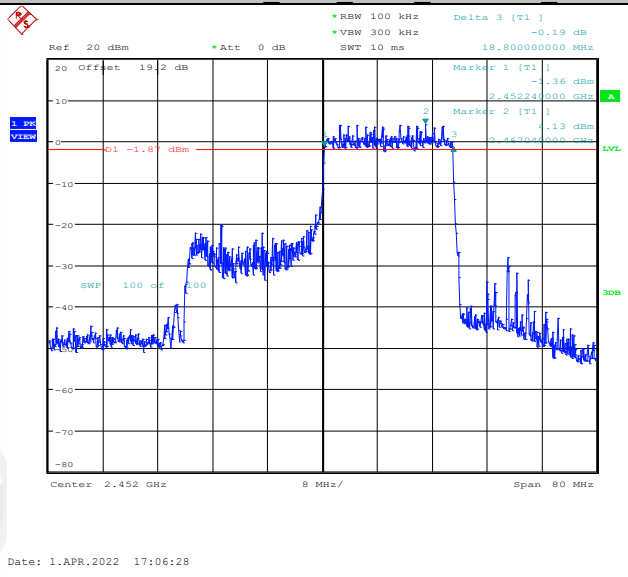

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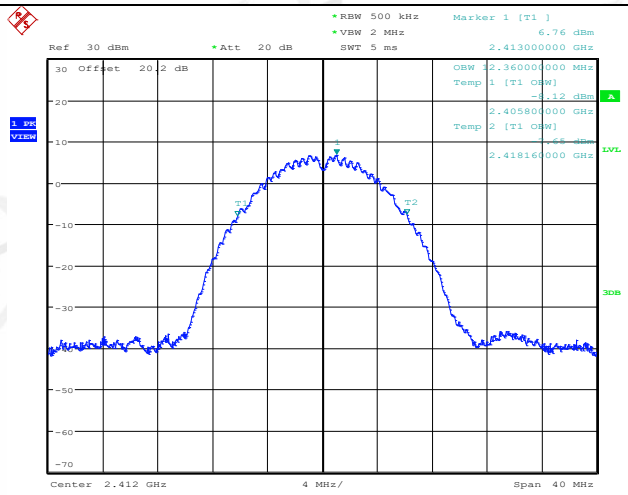
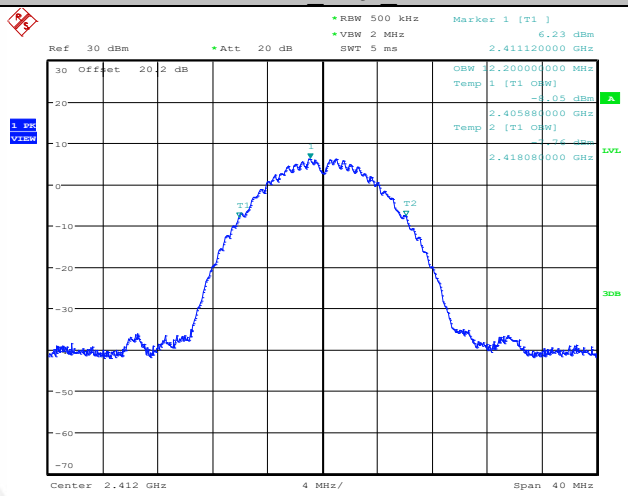
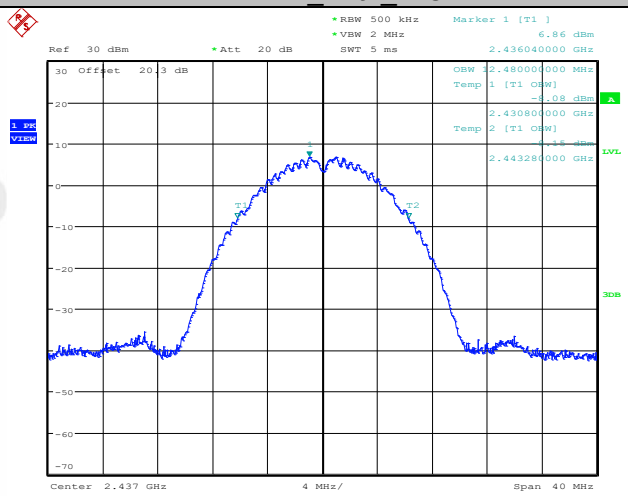
11B_Ant1_2412



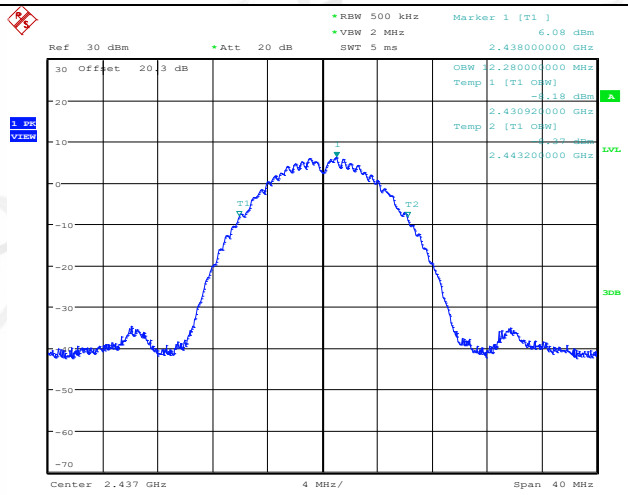
11B_Ant2_2412



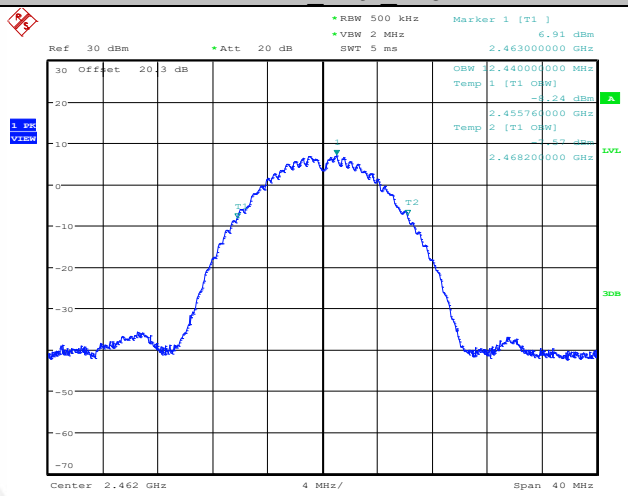
11B_Ant1_2437



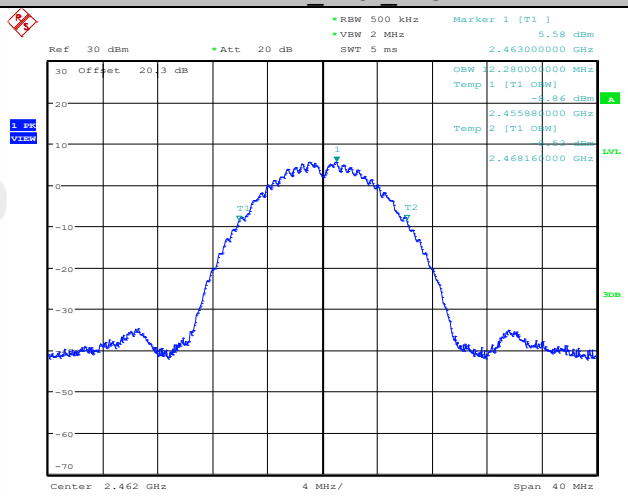
11B_Ant2_2437



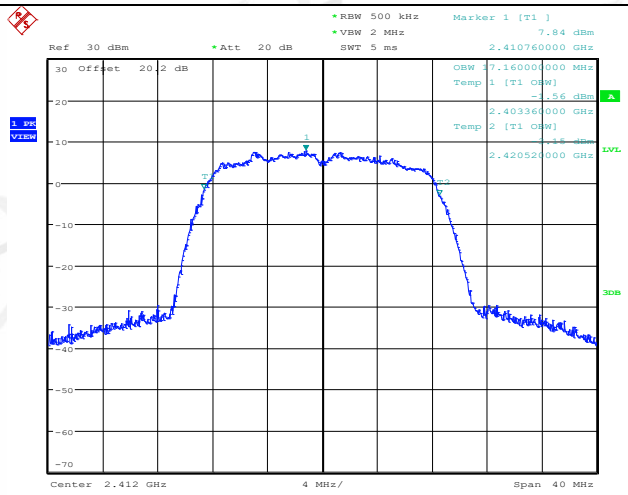
11B_Ant1_2462



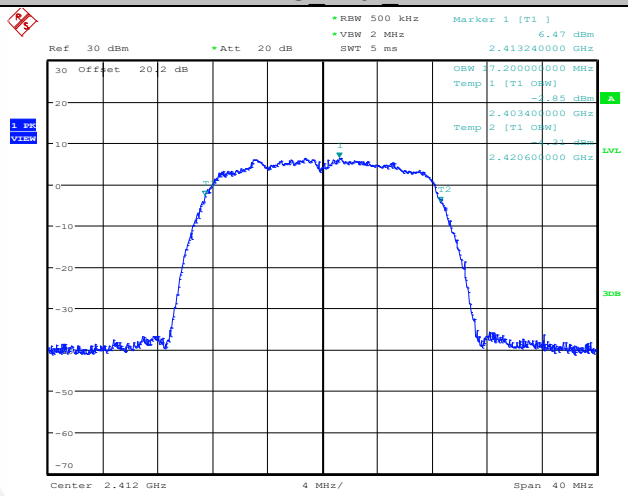
11B_Ant2_2462



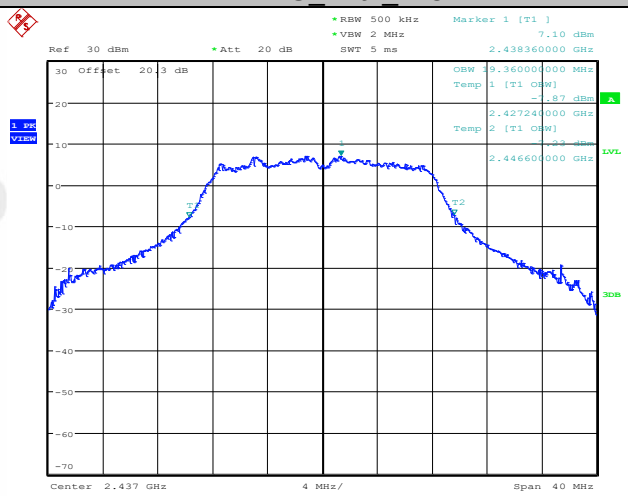
11G_Ant1_2412



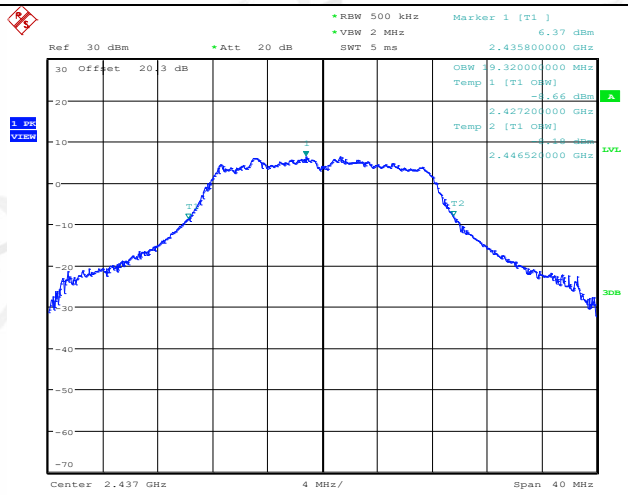
11G_Ant2_2412



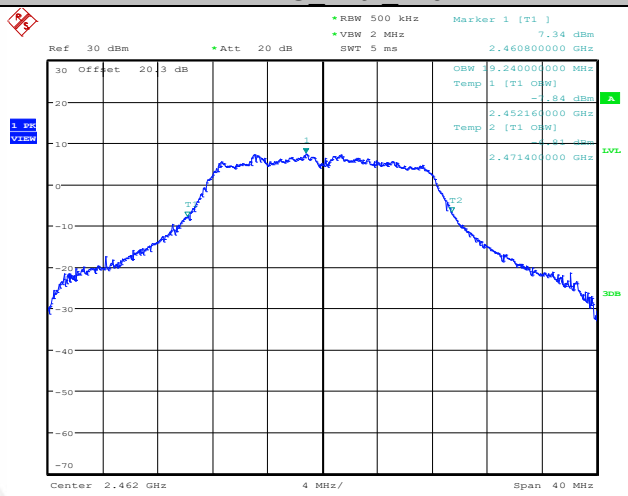
11G_Ant1_2437



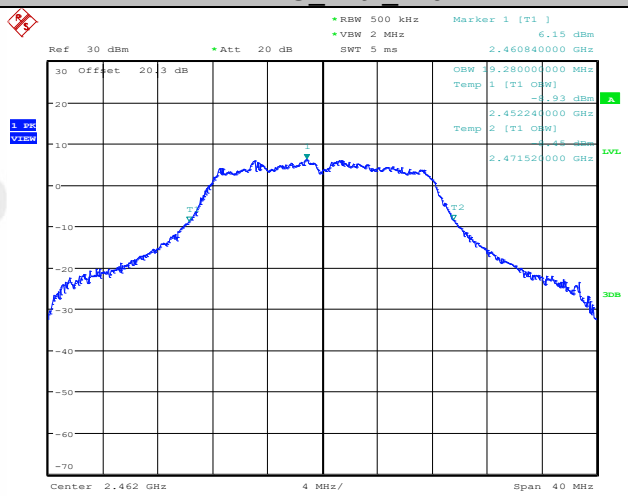
11G_Ant2_2437



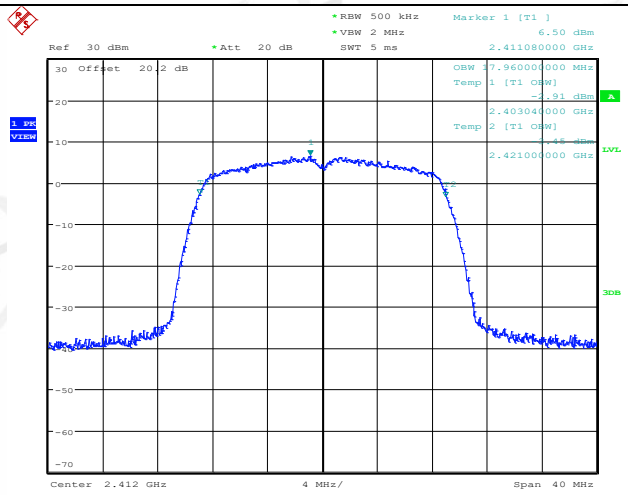
11G_Ant1_2462



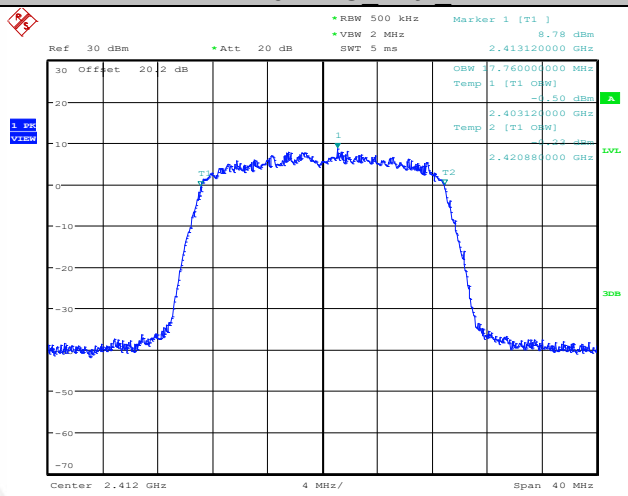
11G_Ant2_2462



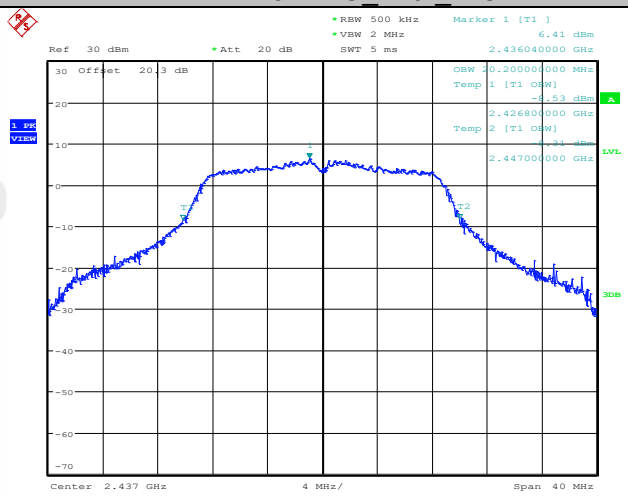
11N20MIMO_Ant1_2412



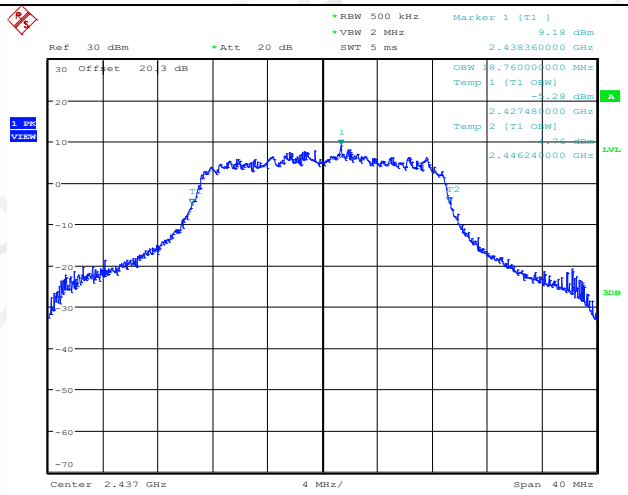
11N20MIMO_Ant2_2412



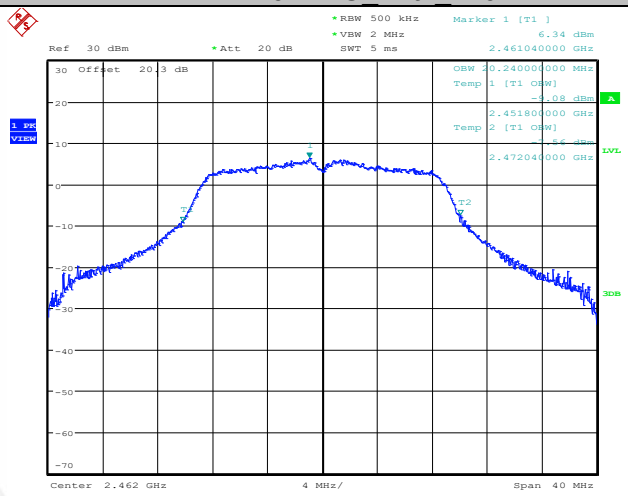
11N20MIMO_Ant1_2437



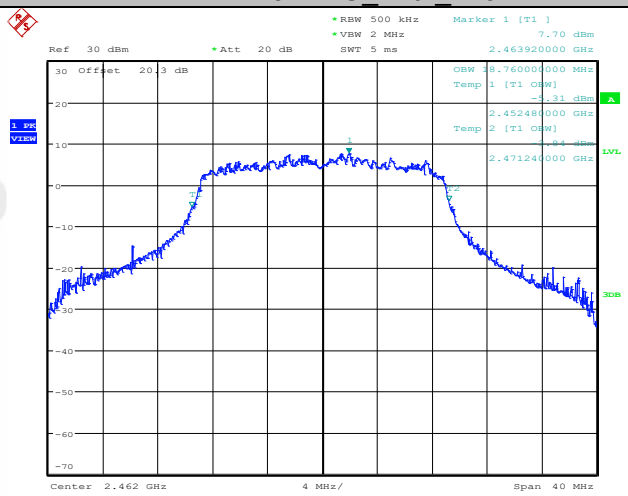
11N20MIMO_Ant2_2437



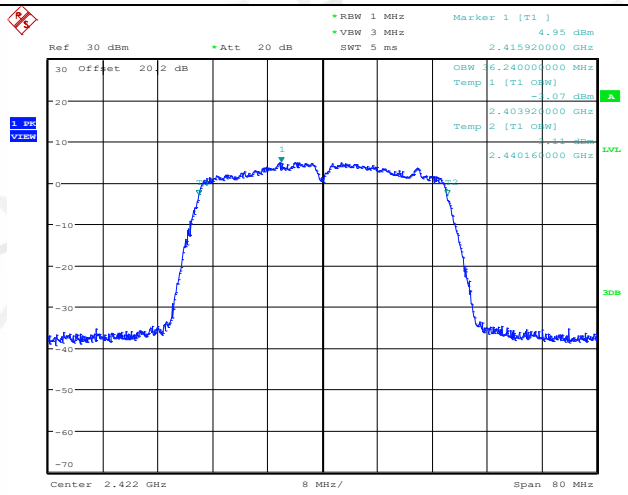
11N20MIMO_Ant1_2462



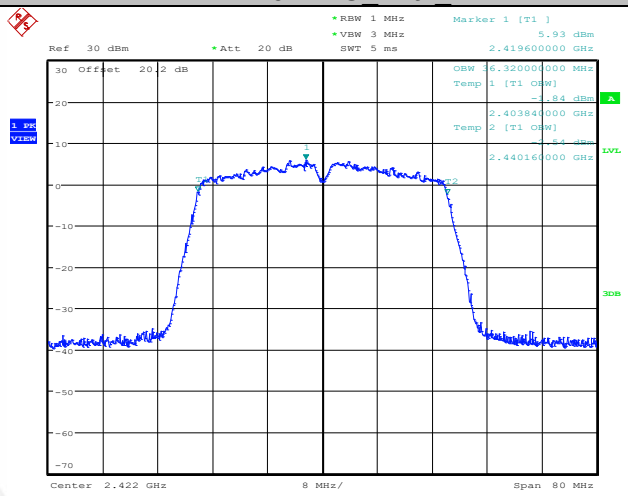
11N20MIMO_Ant2_2462



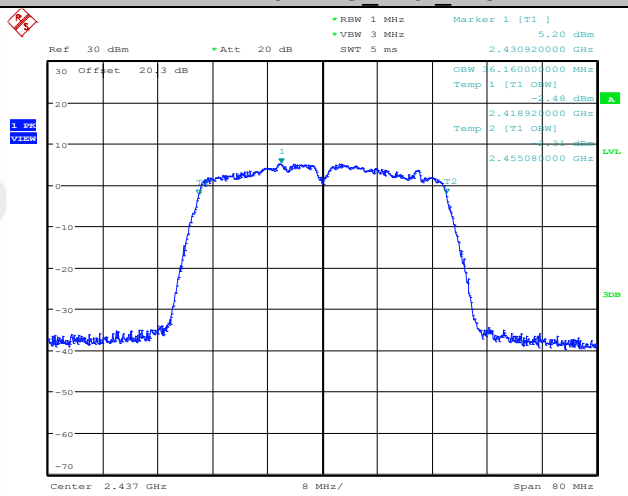
11N40MIMO_Ant1_2422



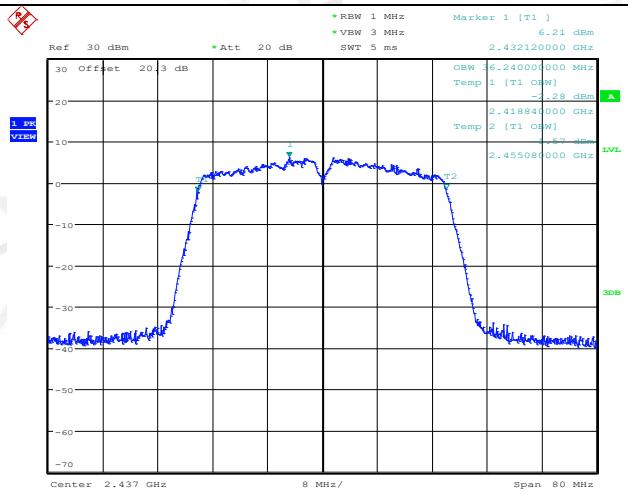
11N40MIMO_Ant2_2422



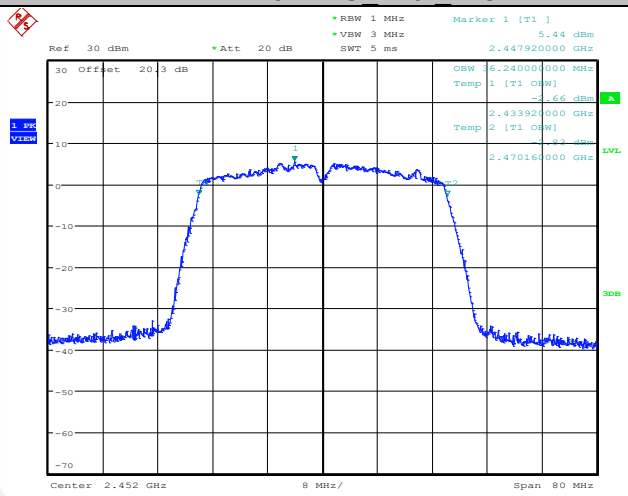
11N40MIMO_Ant1_2437



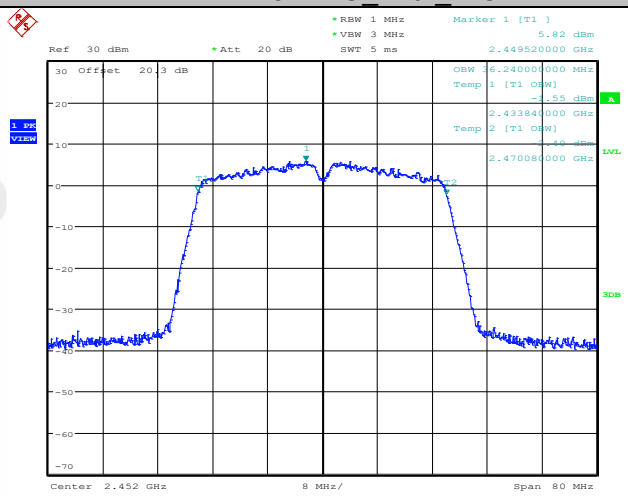
11N40MIMO_Ant2_2437



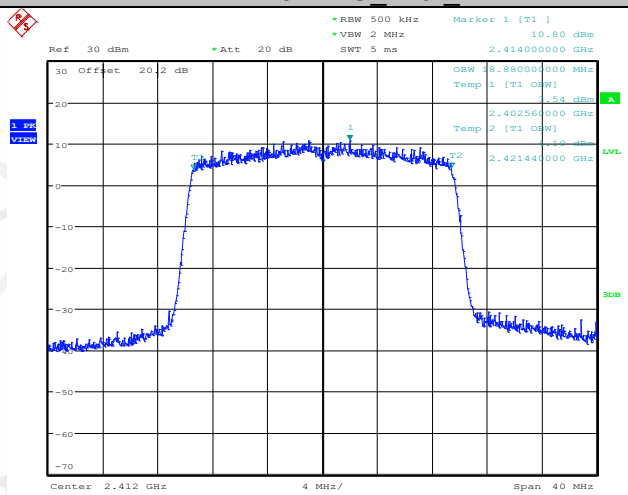
11N40MIMO_Ant1_2452



11N40MIMO_Ant2_2452

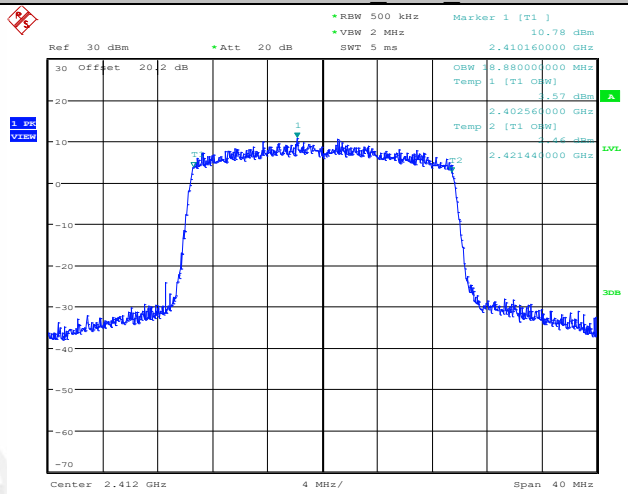


11AX20MIMO_Ant1_2412



Date: 18.MAR.2022 17:14:16

11AX20MIMO_Ant2_2412



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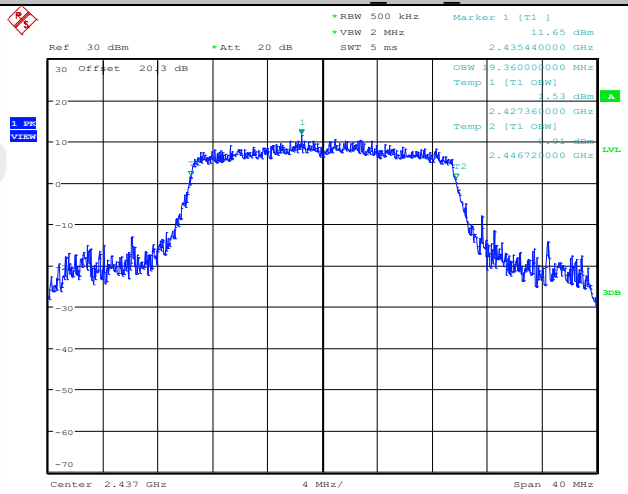
11AX20MIMO_Ant1_2437



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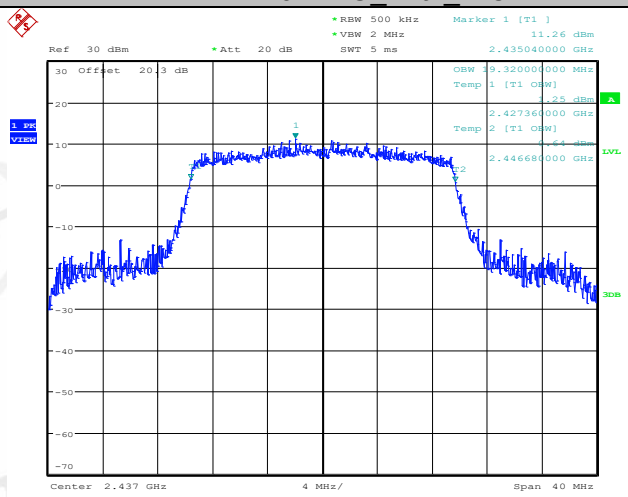
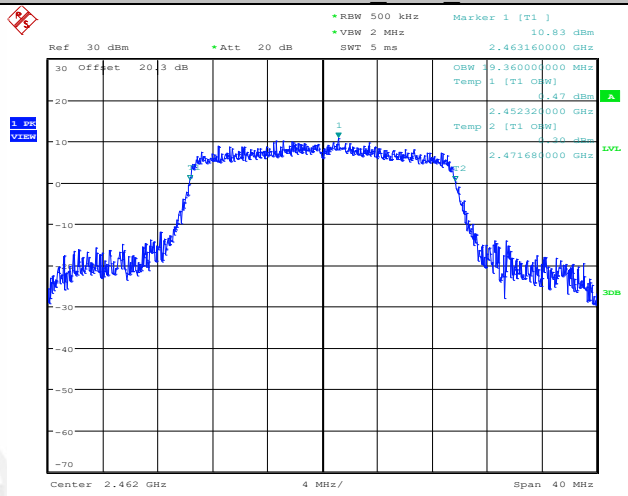
11AX20MIMO_Ant2_2437



Date: 18.MAR.2022 17:19:47

11AX20MIMO_Ant1_2462



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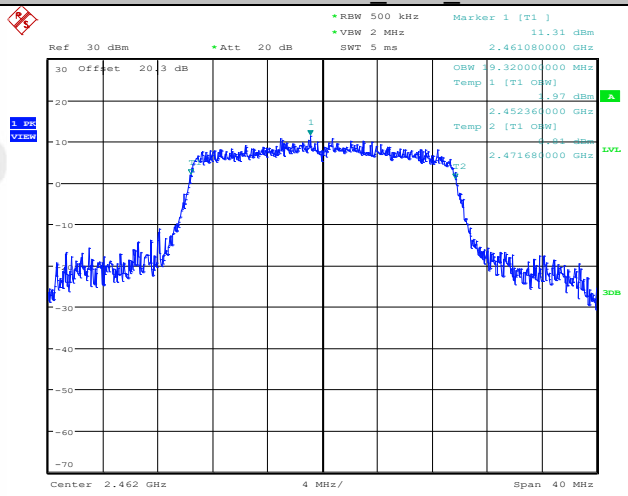
11AX20MIMO_Ant2_2462



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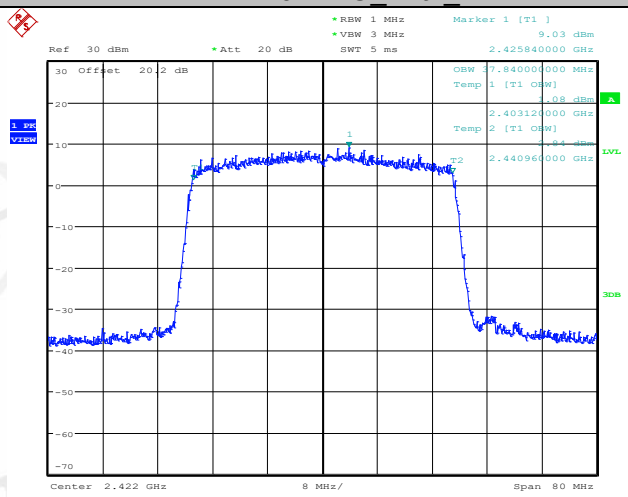
11AX40MIMO_Ant1_2422



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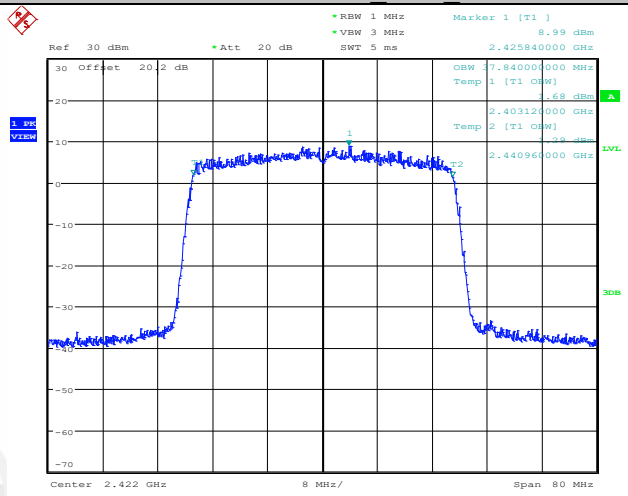
11AX40MIMO_Ant2_2422



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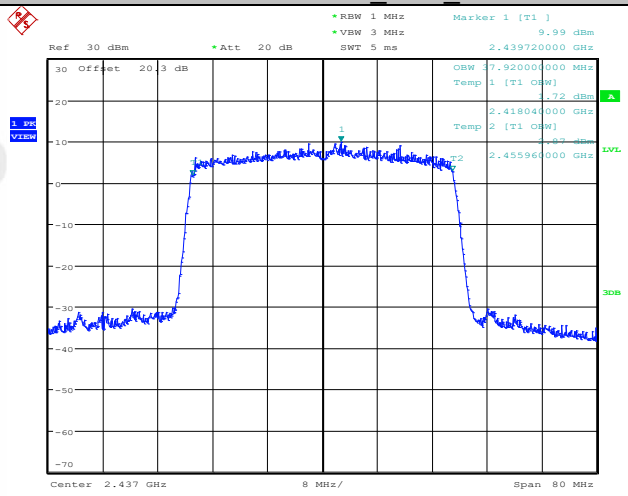
11AX40MIMO_Ant1_2437



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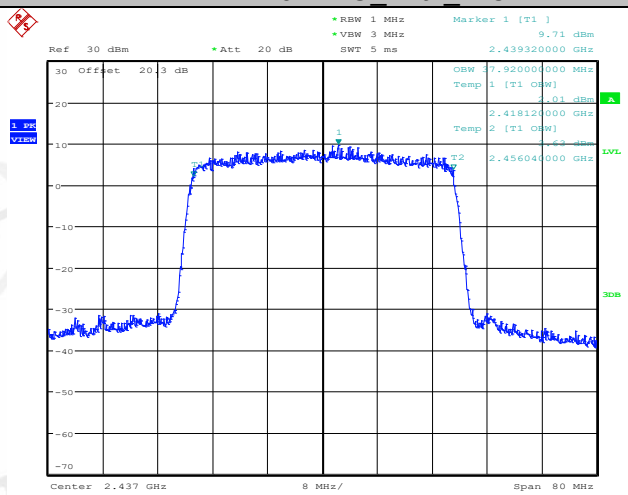
11AX40MIMO_Ant2_2437



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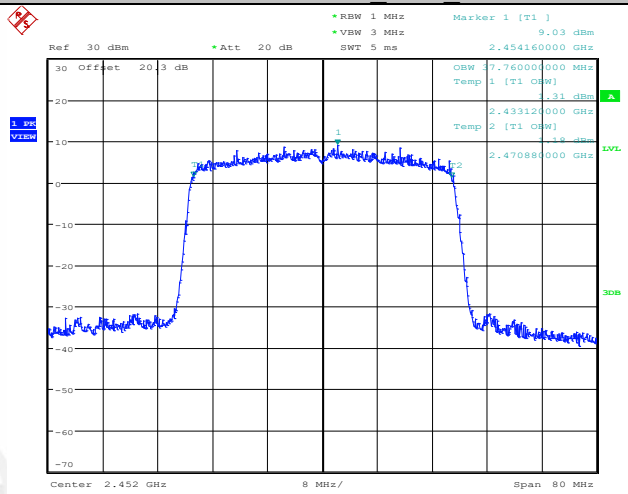
11AX40MIMO_Ant1_2452



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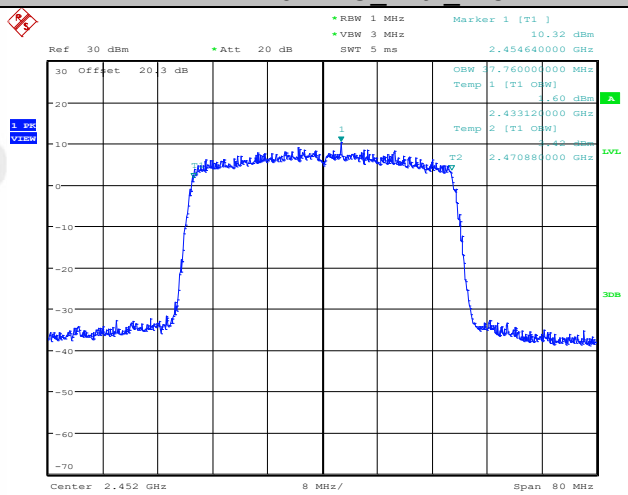
11AX40MIMO_Ant2_2452



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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	13.67	30	13.67	36	Pass
11B	2412	ANT2	13.88	30	13.88	36	Pass
11B	2437	ANT1	13.73	30	13.73	36	Pass
11B	2437	ANT2	13.64	30	13.64	36	Pass
11B	2462	ANT1	13.63	30	13.63	36	Pass
11B	2462	ANT2	13.57	30	13.57	36	Pass
11G	2412	ANT1	12.11	30	12.11	36	Pass
11G	2412	ANT2	12.21	30	12.21	36	Pass
11G	2437	ANT1	12.12	30	12.12	36	Pass
11G	2437	ANT2	12.28	30	12.28	36	Pass
11G	2462	ANT1	11.91	30	11.91	36	Pass
11G	2462	ANT2	11.96	30	11.96	36	Pass
11N20MIMO	2412	ANT1	6.59	30	6.59	36	Pass
11N20MIMO	2412	ANT2	6.61	30	6.61	36	Pass
11N20MIMO	2412	total	9.61	30	9.61	36	Pass
11N20MIMO	2437	ANT1	6.57	30	6.57	36	Pass
11N20MIMO	2437	ANT2	6.59	30	6.59	36	Pass
11N20MIMO	2437	total	9.59	30	9.59	36	Pass
11N20MIMO	2462	ANT1	6.53	30	6.53	36	Pass
11N20MIMO	2462	ANT2	6.44	30	6.44	36	Pass

11N20MIMO	2462	total	9.50	30	9.50	36	Pass
11N40MIMO	2422	ANT1	3.96	30	3.96	36	Pass
11N40MIMO	2422	ANT2	3.84	30	3.84	36	Pass
11N40MIMO	2422	total	6.91	30	6.91	36	Pass
11N40MIMO	2437	ANT1	3.82	30	3.82	36	Pass
11N40MIMO	2437	ANT2	3.89	30	3.89	36	Pass
11N40MIMO	2437	total	6.87	30	6.87	36	Pass
11N40MIMO	2452	ANT1	3.84	30	3.84	36	Pass
11N40MIMO	2452	ANT2	3.73	30	3.73	36	Pass
11N40MIMO	2452	total	6.80	30	6.80	36	Pass
11AX20SU	2412	ANT1	15.56	30	18.15	36	Pass
11AX20SU	2412	ANT2	14.12	30	16.71	36	Pass
11AX20SU	2412	total	17.90	30	20.49	36	Pass
11AX20SU	2437	ANT1	15.63	30	18.22	36	Pass
11AX20SU	2437	ANT2	14.52	30	17.11	36	Pass
11AX20SU	2437	total	**18.10**	30	20.69	36	Pass
11AX20SU	2462	ANT1	15.22	30	17.81	36	Pass
11AX20SU	2462	ANT2	14.33	30	16.92	36	Pass
11AX20SU	2462	total	17.80	30	20.39	36	Pass
11AX40SU	2422	ANT1	13.21	30	15.80	36	Pass
11AX40SU	2422	ANT2	12.05	30	14.64	36	Pass
11AX40SU	2422	total	15.70	30	18.29	36	Pass
11AX40SU	2437	ANT1	13.36	30	15.95	36	Pass
11AX40SU	2437	ANT2	12.20	30	14.79	36	Pass
11AX40SU	2437	total	15.80	30	18.39	36	Pass
11AX40SU	2452	ANT1	12.97	30	15.56	36	Pass
11AX40SU	2452	ANT2	12.20	30	14.79	36	Pass
11AX40SU	2452	total	15.60	30	18.19	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	14.01	30	16.60	36	PASS
				RU4	14.29	30	16.88	36	PASS
				RU8	14.25	30	16.84	36	PASS
			52Tone	RU37	14.12	30	16.71	36	PASS
				RU38	14.23	30	16.82	36	PASS
				RU39	14.38	30	16.97	36	PASS
				RU40	14.35	30	16.94	36	PASS
			106Tone	RU53	14.35	30	16.94	36	PASS
				RU54	14.51	30	17.10	36	PASS
	Ant2	2412	26Tone	RU0	14.20	30	16.79	36	PASS
				RU4	14.32	30	16.91	36	PASS
				RU8	14.33	30	16.92	36	PASS
			52Tone	RU37	14.29	30	16.88	36	PASS
				RU38	14.33	30	16.92	36	PASS
				RU39	14.30	30	16.89	36	PASS
				RU40	14.41	30	17.00	36	PASS
			106Tone	RU53	14.70	30	17.29	36	PASS
				RU54	14.80	30	17.39	36	PASS
	total	2412	26Tone	RU0	17.12	30	19.71	36	PASS
				RU4	17.32	30	19.91	36	PASS
				RU8	17.30	30	19.89	36	PASS
			52Tone	RU37	17.22	30	19.81	36	PASS
				RU38	17.29	30	19.88	36	PASS
				RU39	17.35	30	19.94	36	PASS
				RU40	17.39	30	19.98	36	PASS
			106Tone	RU53	17.54	30	20.13	36	PASS
				RU54	17.67	30	20.26	36	PASS
	Ant1	2437	26Tone	RU0	14.16	30	16.75	36	PASS
				RU4	14.07	30	16.66	36	PASS
				RU8	13.98	30	16.57	36	PASS
			52Tone	RU37	14.08	30	16.67	36	PASS
				RU38	14.14	30	16.73	36	PASS
				RU39	13.99	30	16.58	36	PASS
				RU40	14.19	30	16.78	36	PASS
			106Tone	RU53	14.19	30	16.78	36	PASS
				RU54	14.29	30	16.88	36	PASS
	Ant2	2437	26Tone	RU0	14.62	30	17.21	36	PASS
				RU4	14.62	30	17.21	36	PASS
				RU8	14.29	30	16.88	36	PASS
			52Tone	RU37	14.62	30	17.21	36	PASS
				RU38	14.59	30	17.18	36	PASS
				RU39	14.48	30	17.07	36	PASS
				RU40	14.31	30	16.90	36	PASS
			106Tone	RU53	14.66	30	17.25	36	PASS
				RU54	14.47	30	17.06	36	PASS
	total	2437	26Tone	RU0	17.41	30	20.00	36	PASS
				RU4	17.36	30	19.95	36	PASS

				RU8	17.15	30	19.74	36	PASS
			52Tone	RU37	17.37	30	19.96	36	PASS
				RU38	17.38	30	19.97	36	PASS
				RU39	17.25	30	19.84	36	PASS
				RU40	17.26	30	19.85	36	PASS
			106Tone	RU53	17.44	30	20.03	36	PASS
				RU54	17.39	30	19.98	36	PASS
	Ant1	2462	26Tone	RU0	13.81	30	16.40	36	PASS
				RU4	14.00	30	16.59	36	PASS
				RU8	14.29	30	16.88	36	PASS
			52Tone	RU37	13.96	30	16.55	36	PASS
				RU38	14.00	30	16.59	36	PASS
				RU39	14.25	30	16.84	36	PASS
				RU40	14.25	30	16.84	36	PASS
			106Tone	RU53	13.99	30	16.58	36	PASS
				RU54	14.25	30	16.84	36	PASS
	Ant2	2462	26Tone	RU0	13.61	30	16.20	36	PASS
				RU4	13.88	30	16.47	36	PASS
				RU8	13.99	30	16.58	36	PASS
			52Tone	RU37	13.68	30	16.27	36	PASS
				RU38	13.86	30	16.45	36	PASS
				RU39	14.01	30	16.60	36	PASS
				RU40	14.03	30	16.62	36	PASS
			106Tone	RU53	13.78	30	16.37	36	PASS
				RU54	13.93	30	16.52	36	PASS
	total	2462	26Tone	RU0	16.72	30	19.31	36	PASS
				RU4	16.95	30	19.54	36	PASS
				RU8	17.15	30	19.74	36	PASS
			52Tone	RU37	16.83	30	19.42	36	PASS
				RU38	16.94	30	19.53	36	PASS
				RU39	17.14	30	19.73	36	PASS
				RU40	17.15	30	19.74	36	PASS
			106Tone	RU53	16.90	30	19.49	36	PASS
				RU54	17.10	30	19.69	36	PASS
11AX40 MIMO	Ant1	2422	242Tone	RU61	16.70	30	19.29	36	PASS
				RU62	16.52	30	19.11	36	PASS
	Ant2	2422	242Tone	RU61	16.97	30	19.56	36	PASS
				RU62	16.86	30	19.45	36	PASS
	total	2422	242Tone	RU61	19.85	30	22.44	36	PASS
				RU62	19.70	30	22.29	36	PASS
	Ant1	2437	242Tone	RU61	16.85	30	19.44	36	PASS
				RU62	16.81	30	19.40	36	PASS
	Ant2	2437	242Tone	RU61	17.34	30	19.93	36	PASS
				RU62	16.89	30	19.48	36	PASS
	total	2437	242Tone	RU61	**20.11**	30	22.70	36	PASS
				RU62	19.86	30	22.45	36	PASS
	Ant1	2452	242Tone	RU61	16.55	30	19.14	36	PASS
				RU62	16.77	30	19.36	36	PASS
	Ant2	2452	242Tone	RU61	16.52	30	19.11	36	PASS
				RU62	16.70	30	19.29	36	PASS
	total	2452	242Tone	RU61	19.55	30	22.14	36	PASS

				RU62	19.75	30	22.34	36	PASS

Note 1: EIRP (dBm)=Conducted Output Power (dBm)+ Antenna Gain (dBi)
Note 2: HE20 SU represents HE20 242Tone, and HE40 SU represents HE40 484Tone, so for these Tones test performed with SU mode.

6. Power Spectral Density

6.1. Block diagram of test setup

Same as section 4.1

6.2. Limits

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

6.3. Test procedure

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

(2) Set the spectrum analyzer as follows:

Center frequency	DTS Channel center frequency
RBW:	3 kHz ≤ RBW ≤ 100 kHz
VBW:	≥ 3RBW
Span	1.5 times the DTS bandwidth
Detector Mode:	RMS
Sweep time:	auto
Trace mode	Max hold

(3) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude level within the RBW.

(4) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

6.4. Test result

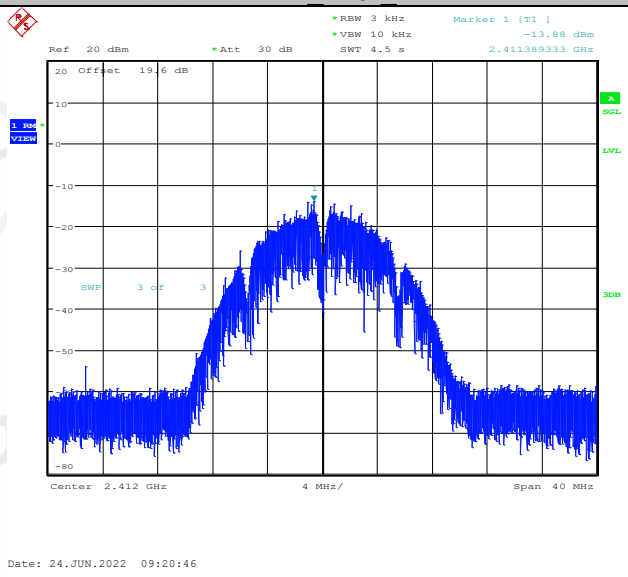
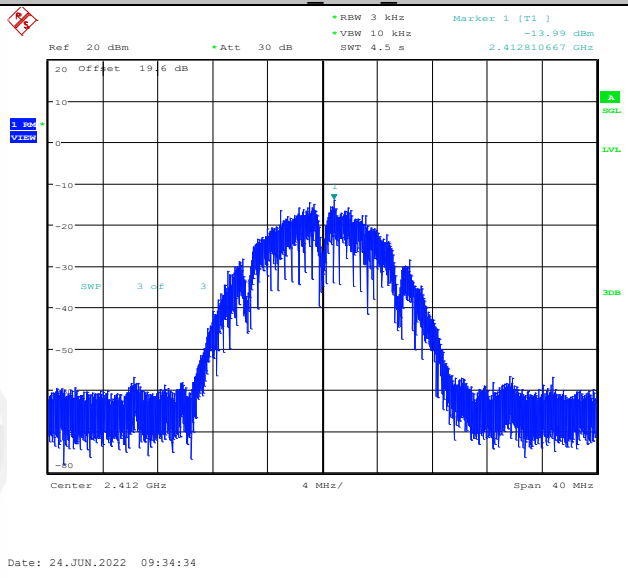
Test Mode	Test Channel	Ant	PSD [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	2412	ANT1	-13.88	8.00	Pass
11B	2412	ANT2	-13.99	8.00	Pass
11B	2437	ANT1	-15.3	8.00	Pass
11B	2437	ANT2	-14.26	8.00	Pass
11B	2462	ANT1	-15.38	8.00	Pass
11B	2462	ANT2	-15.26	8.00	Pass
11G	2412	ANT1	-16.09	8.00	Pass
11G	2412	ANT2	-15.97	8.00	Pass
11G	2437	ANT1	-15.86	8.00	Pass
11G	2437	ANT2	-17.12	8.00	Pass
11G	2462	ANT1	-16.49	8.00	Pass
11G	2462	ANT2	-16.83	8.00	Pass

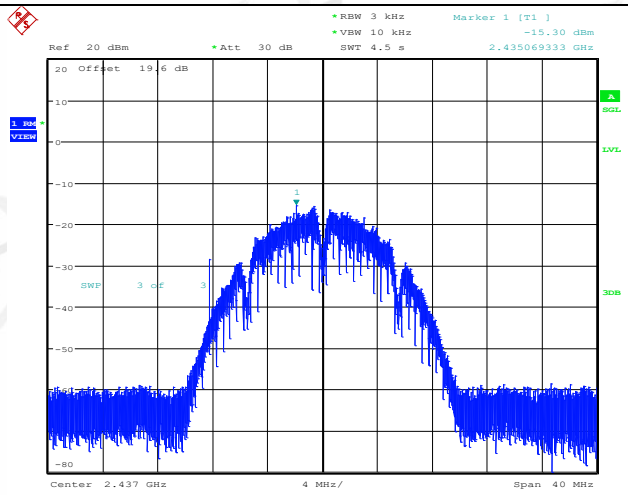
11N20MIMO	2412	ANT1	-21.86	8.00	Pass
11N20MIMO	2412	ANT2	-19.77	8.00	Pass
11N20MIMO	2412	total	-17.68	8.00	Pass
11N20MIMO	2437	ANT1	-21.25	8.00	Pass
11N20MIMO	2437	ANT2	-20.31	8.00	Pass
11N20MIMO	2437	total	-17.74	8.00	Pass
11N20MIMO	2462	ANT1	-19.93	8.00	Pass
11N20MIMO	2462	ANT2	-21.63	8.00	Pass
11N20MIMO	2462	total	-17.69	8.00	Pass
11N40MIMO	2422	ANT1	-25.18	8.00	Pass
11N40MIMO	2422	ANT2	-25.64	8.00	Pass
11N40MIMO	2422	total	-22.39	8.00	Pass
11N40MIMO	2437	ANT1	-26.01	8.00	Pass
11N40MIMO	2437	ANT2	-25.13	8.00	Pass
11N40MIMO	2437	total	-22.54	8.00	Pass
11N40MIMO	2452	ANT1	-24.47	8.00	Pass
11N40MIMO	2452	ANT2	-25.93	8.00	Pass
11N40MIMO	2452	total	-22.13	8.00	Pass
11AX20SU	2412	ANT1	-12.84	8.00	Pass
11AX20SU	2412	ANT2	-13.53	8.00	Pass
11AX20SU	2412	total	-10.16	8.00	Pass
11AX20SU	2437	ANT1	-12.61	8.00	Pass
11AX20SU	2437	ANT2	-13.15	8.00	Pass
11AX20SU	2437	total	-9.86	8.00	Pass
11AX20SU	2462	ANT1	-12.65	8.00	Pass
11AX20SU	2462	ANT2	-12.96	8.00	Pass
11AX20SU	2462	total	-9.79	8.00	Pass
11AX40SU	2422	ANT1	-17.42	8.00	Pass
11AX40SU	2422	ANT2	-18.34	8.00	Pass
11AX40SU	2422	total	-14.85	8.00	Pass
11AX40SU	2437	ANT1	-16.65	8.00	Pass
11AX40SU	2437	ANT2	-17.40	8.00	Pass
11AX40SU	2437	total	-14.00	8.00	Pass
11AX40SU	2452	ANT1	-17.70	8.00	Pass
11AX40SU	2452	ANT2	-17.74	8.00	Pass
11AX40SU	2452	total	-14.71	8.00	Pass

Test Mode	Antenna	Channel	Ru Size	Ru Index	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11AX20 MIMO	Ant1	2412	26Tone	RU0	-3.98	≤8.00	PASS
				RU4	-3.48	≤8.00	PASS
				RU8	-3.70	≤8.00	PASS
			52Tone	RU37	-6.79	≤8.00	PASS
				RU38	-6.38	≤8.00	PASS
				RU39	-6.80	≤8.00	PASS
				RU40	-6.63	≤8.00	PASS
			106Tone	RU53	-9.69	≤8.00	PASS
				RU54	-10.45	≤8.00	PASS
	Ant2	2412	26Tone	RU0	-2.92	≤8.00	PASS
				RU4	-3.12	≤8.00	PASS
				RU8	-3.82	≤8.00	PASS
			52Tone	RU37	-7.30	≤8.00	PASS
				RU38	-7.04	≤8.00	PASS
				RU39	-6.57	≤8.00	PASS
				RU40	-5.86	≤8.00	PASS
			106Tone	RU53	-10.12	≤8.00	PASS
				RU54	-9.49	≤8.00	PASS
	total	2412	26Tone	RU0	-0.41	≤8.00	PASS
				RU4	-0.29	≤8.00	PASS
				RU8	-0.75	≤8.00	PASS
			52Tone	RU37	-4.03	≤8.00	PASS
				RU38	-3.69	≤8.00	PASS
				RU39	-3.67	≤8.00	PASS
				RU40	-3.22	≤8.00	PASS
			106Tone	RU53	-6.89	≤8.00	PASS
				RU54	-6.93	≤8.00	PASS
	Ant1	2437	26Tone	RU0	-2.64	≤8.00	PASS
				RU4	-4.08	≤8.00	PASS
				RU8	-4.36	≤8.00	PASS
			52Tone	RU37	-6.72	≤8.00	PASS
				RU38	-5.46	≤8.00	PASS
				RU39	-6.86	≤8.00	PASS
				RU40	-7.22	≤8.00	PASS
			106Tone	RU53	-10.50	≤8.00	PASS
				RU54	-10.74	≤8.00	PASS
	Ant2	2437	26Tone	RU0	-3.60	≤8.00	PASS
				RU4	-2.96	≤8.00	PASS
				RU8	-3.98	≤8.00	PASS
			52Tone	RU37	-6.54	≤8.00	PASS
				RU38	-5.19	≤8.00	PASS
				RU39	-7.36	≤8.00	PASS
				RU40	-7.31	≤8.00	PASS
			106Tone	RU53	-9.13	≤8.00	PASS
				RU54	-9.62	≤8.00	PASS
	total	2437	26Tone	RU0	-0.08	≤8.00	PASS
				RU4	-0.47	≤8.00	PASS
				RU8	-1.16	≤8.00	PASS

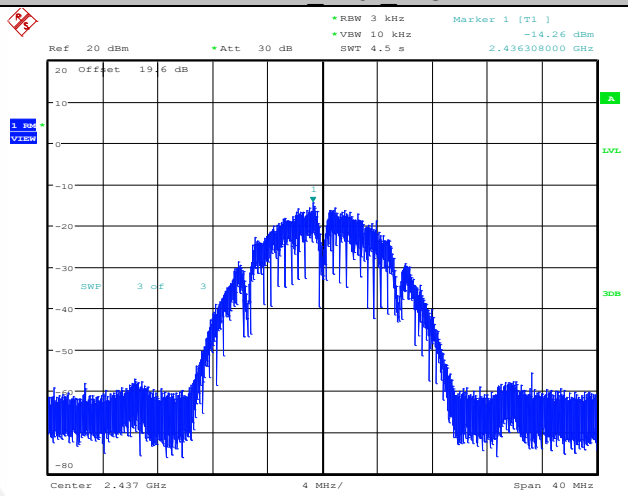
			52Tone	RU37	-3.62	≤8.00	PASS
				RU38	-2.31	≤8.00	PASS
				RU39	-4.09	≤8.00	PASS
				RU40	-4.25	≤8.00	PASS
			106Tone	RU53	-6.75	≤8.00	PASS
				RU54	-7.13	≤8.00	PASS
	Ant1	2462	26Tone	RU0	-3.10	≤8.00	PASS
				RU4	-2.55	≤8.00	PASS
				RU8	-2.51	≤8.00	PASS
			52Tone	RU37	-6.51	≤8.00	PASS
				RU38	-6.99	≤8.00	PASS
				RU39	-5.10	≤8.00	PASS
				RU40	-5.13	≤8.00	PASS
			106Tone	RU53	-10.64	≤8.00	PASS
				RU54	-9.25	≤8.00	PASS
	Ant2	2462	26Tone	RU0	-4.04	≤8.00	PASS
				RU4	-3.73	≤8.00	PASS
				RU8	-3.88	≤8.00	PASS
			52Tone	RU37	-6.61	≤8.00	PASS
				RU38	-6.22	≤8.00	PASS
				RU39	-5.59	≤8.00	PASS
				RU40	-6.91	≤8.00	PASS
			106Tone	RU53	-10.38	≤8.00	PASS
				RU54	-10.12	≤8.00	PASS
	total	2462	26Tone	RU0	-0.53	≤8.00	PASS
				RU4	-0.09	≤8.00	PASS
				RU8	-0.13	≤8.00	PASS
			52Tone	RU37	-3.55	≤8.00	PASS
				RU38	-3.58	≤8.00	PASS
				RU39	-2.33	≤8.00	PASS
				RU40	-2.92	≤8.00	PASS
			106Tone	RU53	-7.50	≤8.00	PASS
				RU54	-6.65	≤8.00	PASS
11AX40 MIMO	Ant1	2422	242Tone	RU61	-12.41	≤8.00	PASS
				RU62	-12.27	≤8.00	PASS
	Ant2	2422	242Tone	RU61	-12.03	≤8.00	PASS
				RU62	-11.61	≤8.00	PASS
	total	2422	242Tone	RU61	-9.21	≤8.00	PASS
				RU62	-8.92	≤8.00	PASS
	Ant1	2437	242Tone	RU61	-12.34	≤8.00	PASS
				RU62	-12.21	≤8.00	PASS
	Ant2	2437	242Tone	RU61	-11.33	≤8.00	PASS
				RU62	-10.77	≤8.00	PASS
	total	2437	242Tone	RU61	-8.80	≤8.00	PASS
				RU62	-8.42	≤8.00	PASS
	Ant1	2452	242Tone	RU61	-12.62	≤8.00	PASS
				RU62	-12.68	≤8.00	PASS
	Ant2	2452	242Tone	RU61	-11.91	≤8.00	PASS
				RU62	-11.37	≤8.00	PASS
	total	2452	242Tone	RU61	-9.24	≤8.00	PASS
				RU62	-8.97	≤8.00	PASS

6.5. Original test data

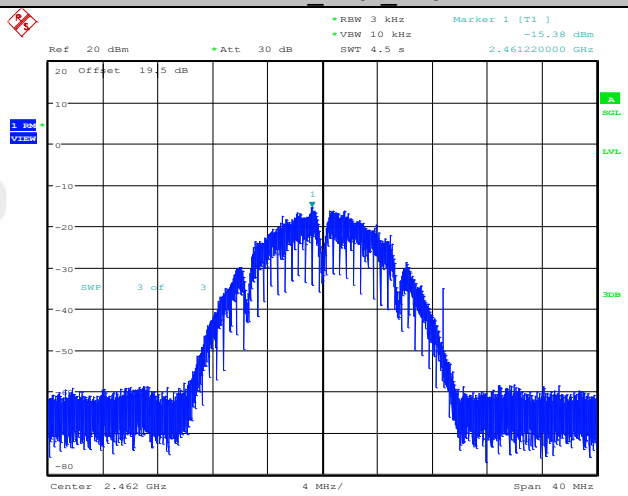
11B_Ant1_2412

11B_Ant2_2412

11B_Ant1_2437



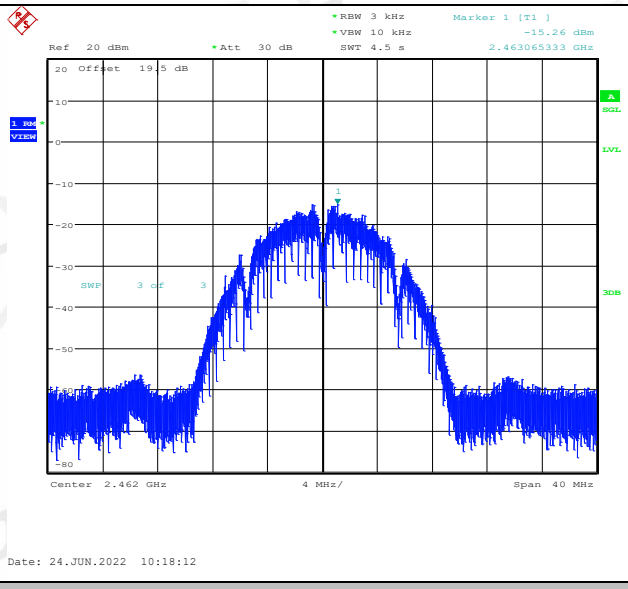
11B_Ant2_2437



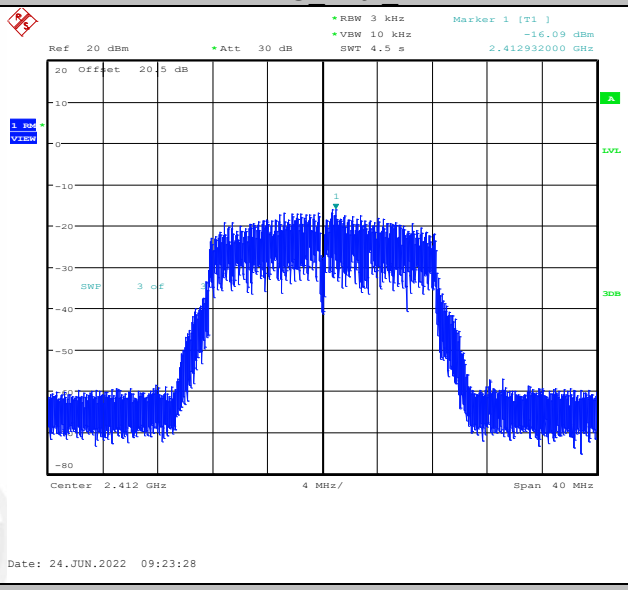
11B_Ant1_2462



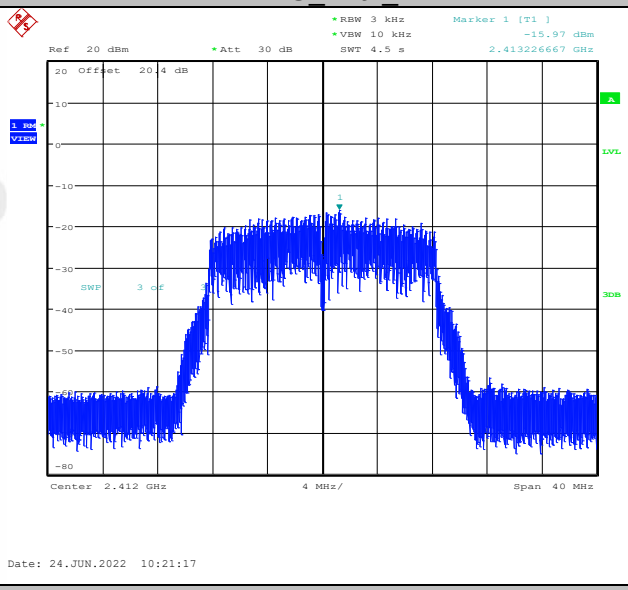
11B_Ant2_2462



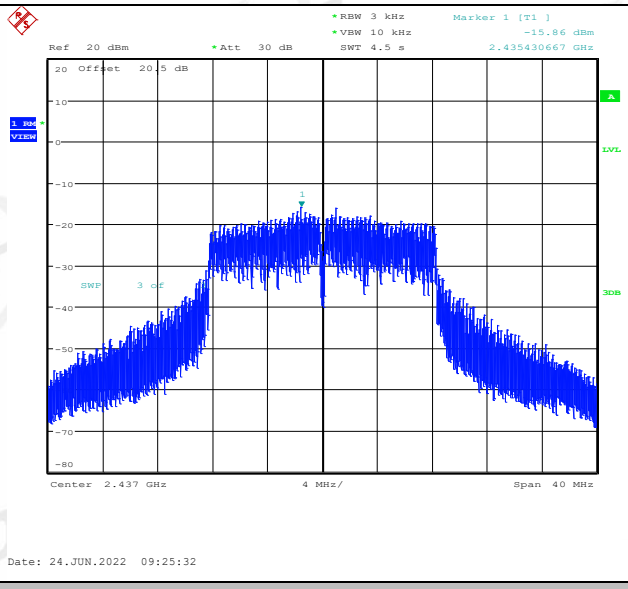
11G_Ant1_2412



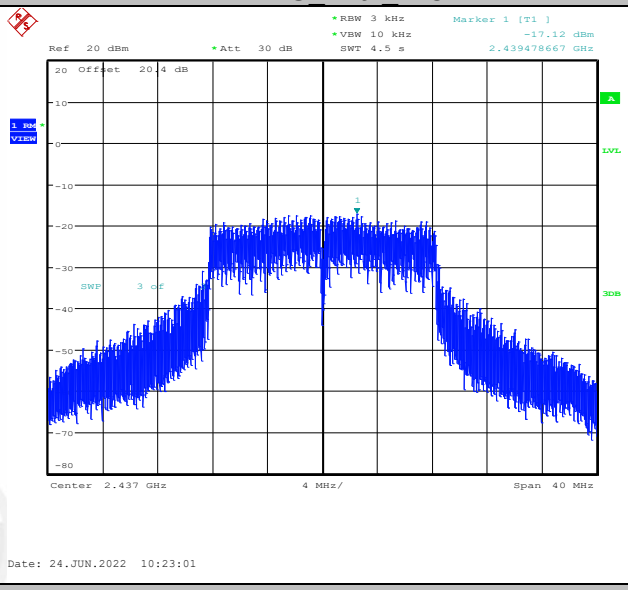
11G_Ant2_2412



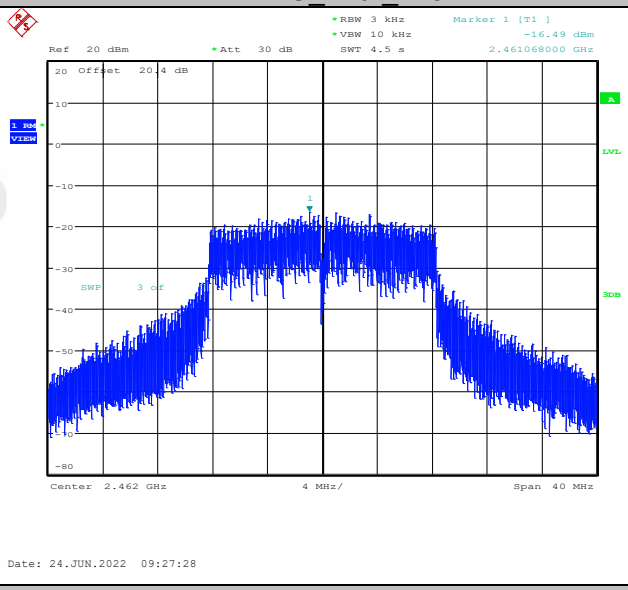
11G_Ant1_2437



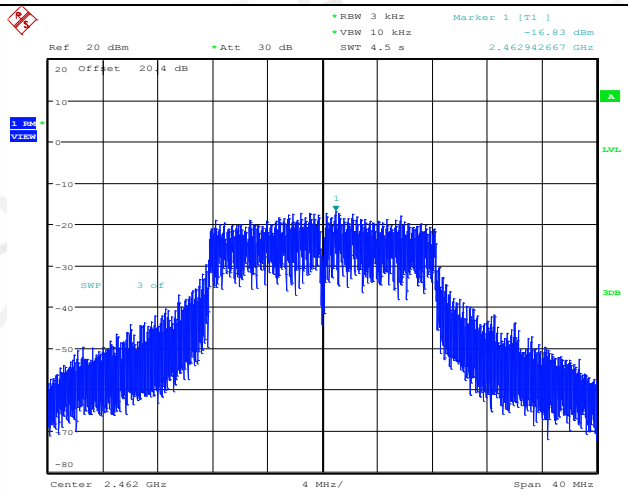
11G_Ant2_2437



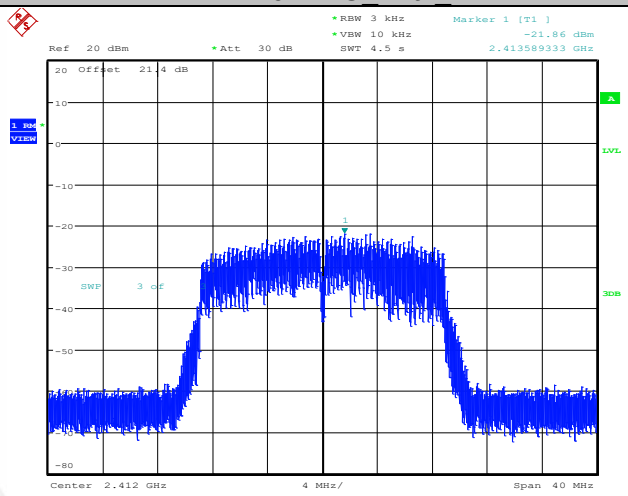
11G_Ant1_2462



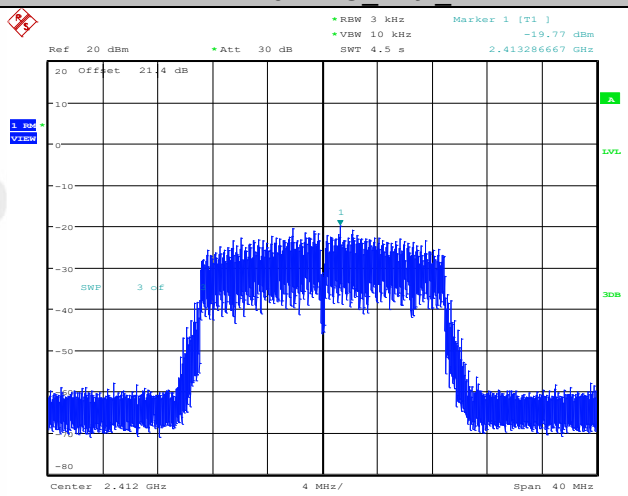
11G_Ant2_2462



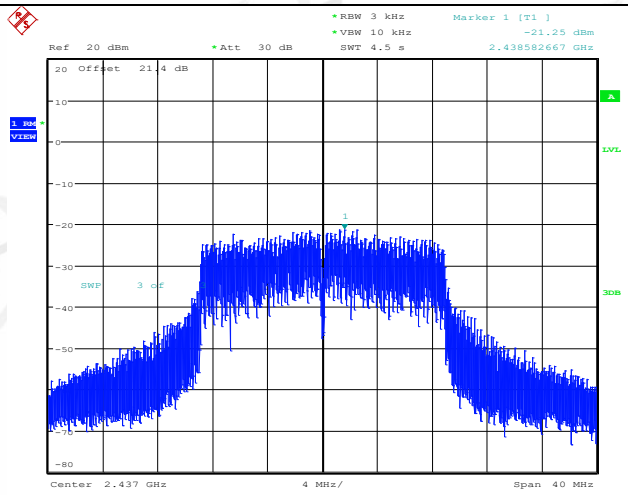
11N20MIMO_Ant1_2412



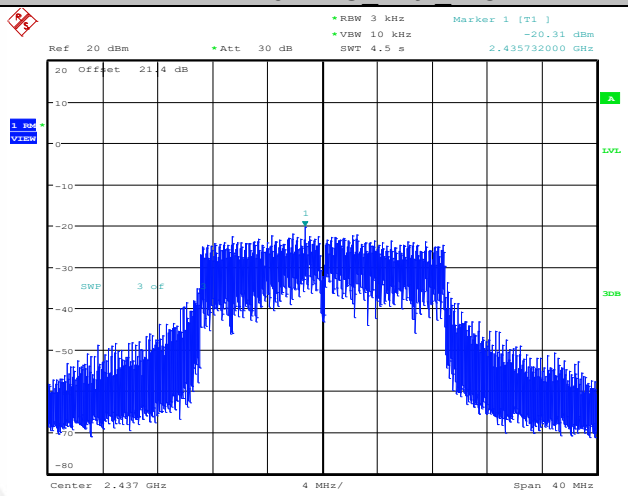
11N20MIMO_Ant2_2412



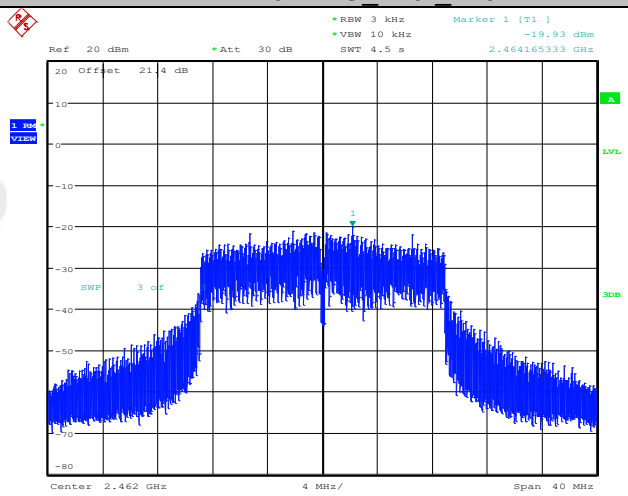
11N20MIMO_Ant1_2437



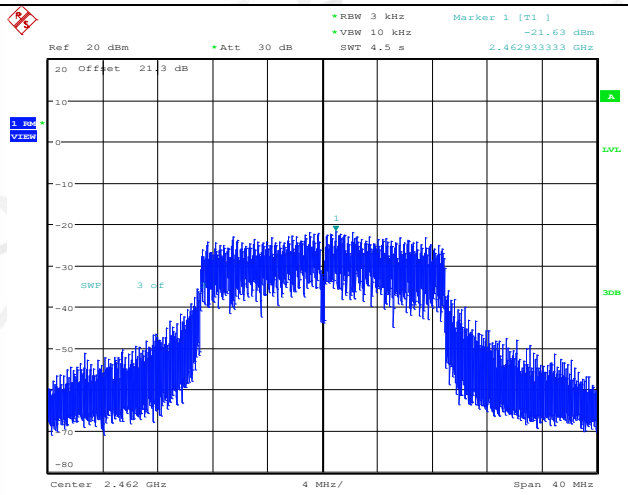
11N20MIMO_Ant2_2437



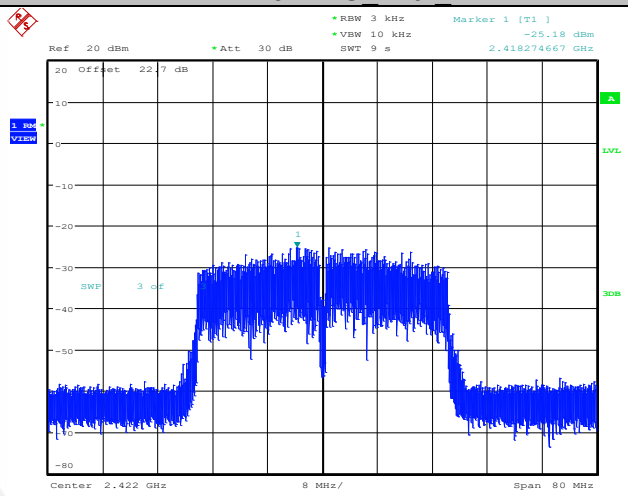
11N20MIMO_Ant1_2462



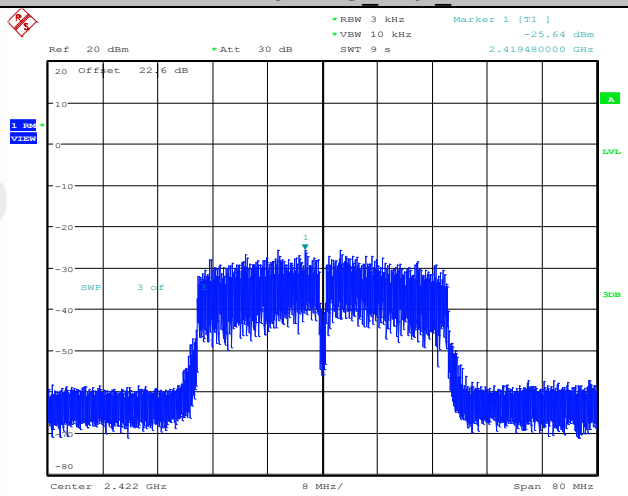
11N20MIMO_Ant2_2462



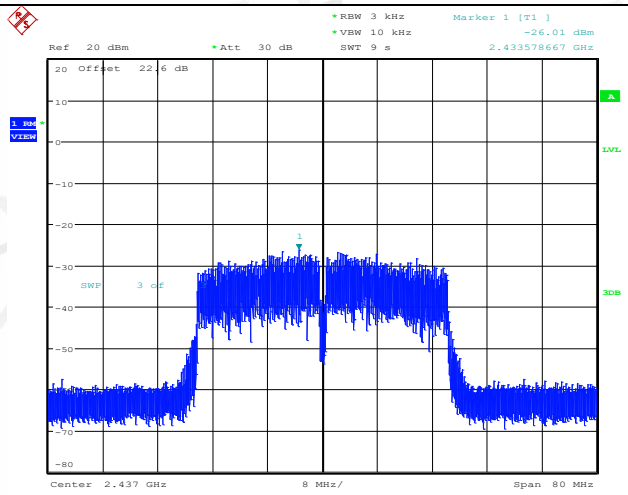
11N40MIMO_Ant1_2422



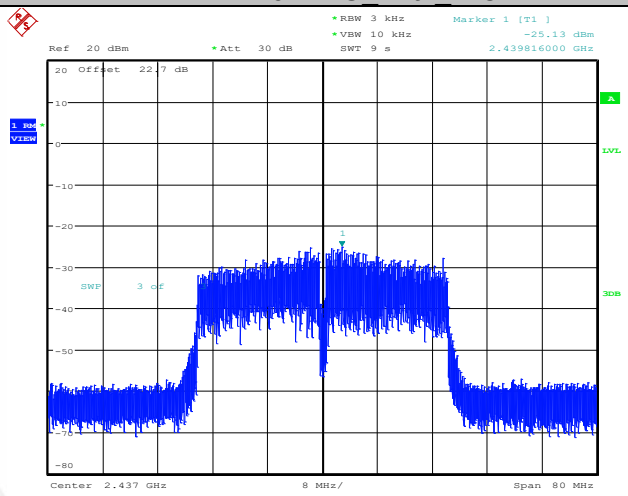
11N40MIMO_Ant2_2422



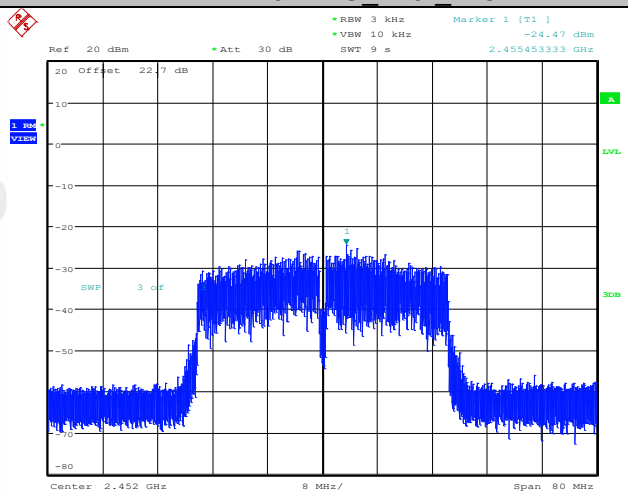
11N40MIMO_Ant1_2437



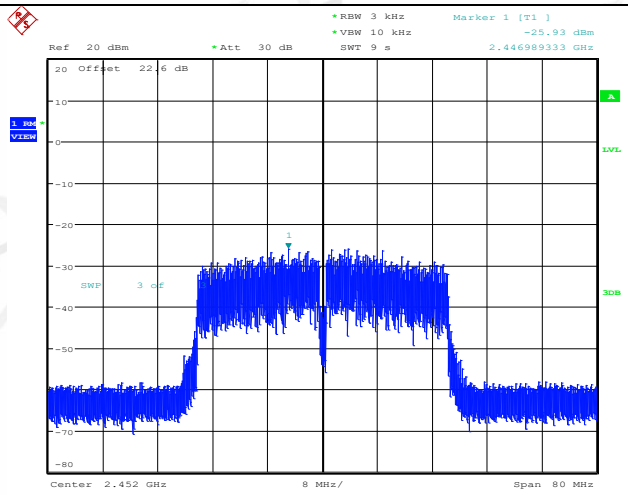
11N40MIMO_Ant2_2437



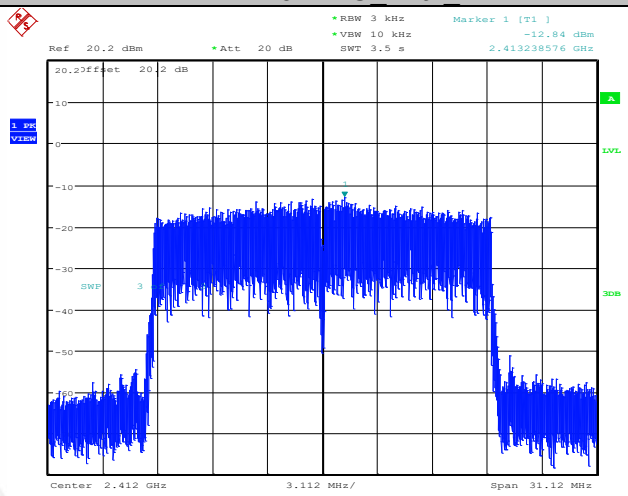
11N40MIMO_Ant1_2452



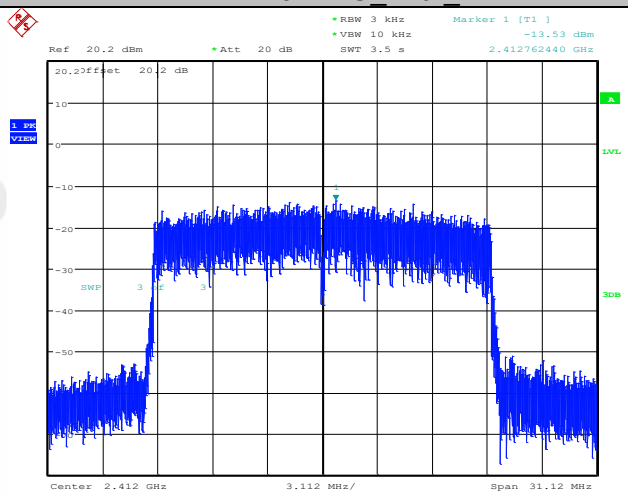
11N40MIMO_Ant2_2452



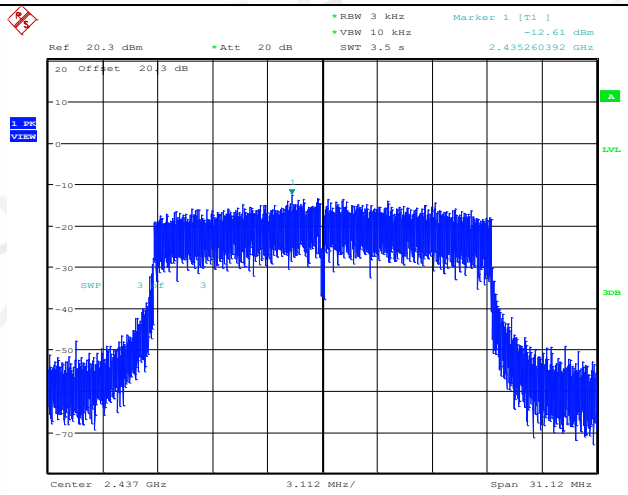
11AX20MIMO_Ant1_2412



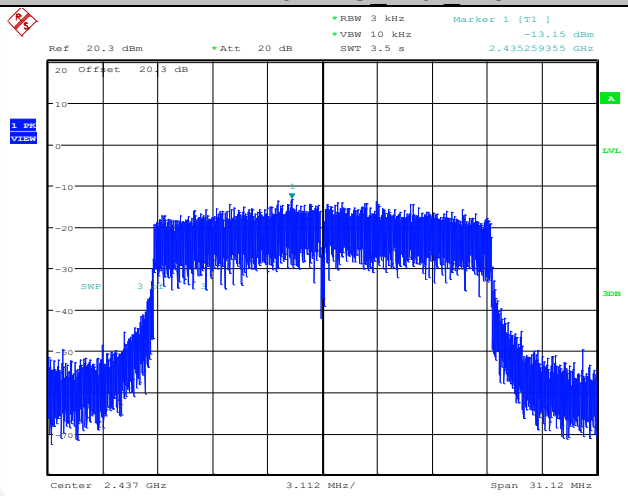
11AX20MIMO_Ant2_2412



11AX20MIMO_Ant1_2437



11AX20MIMO_Ant2_2437



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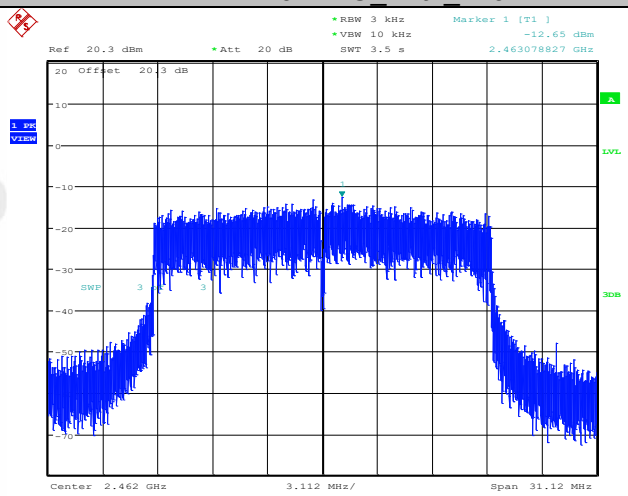

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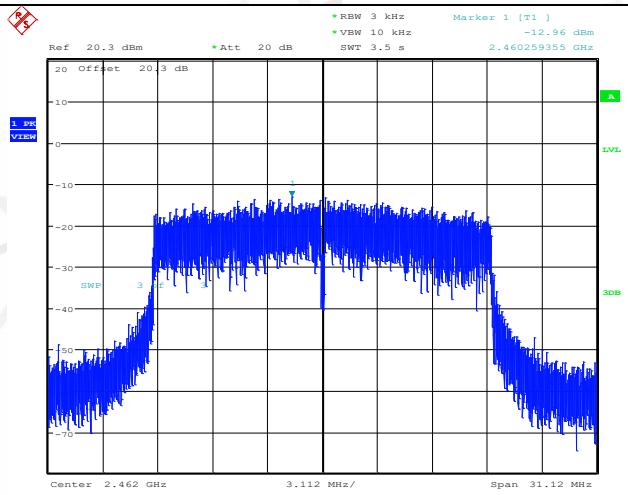

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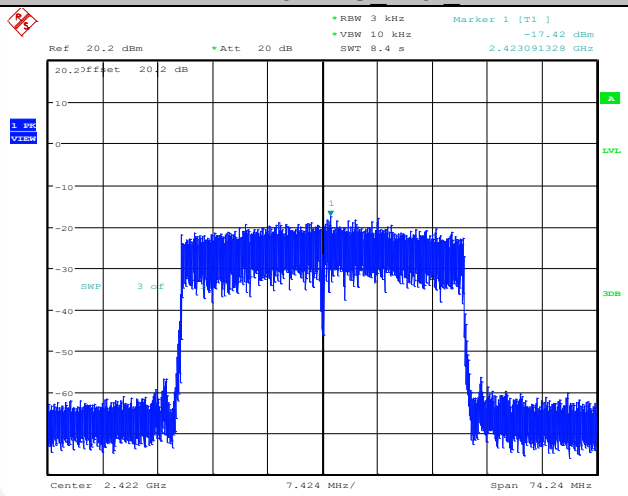

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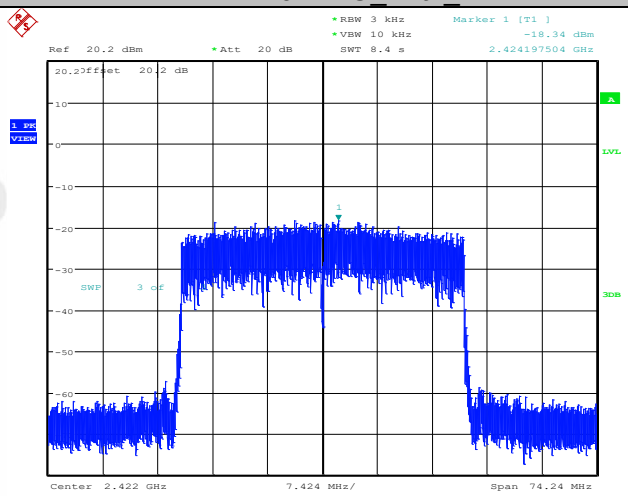

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