



■ Report No.: DDT-R21122216-2E05

■ Issued Date: Mar. 08, 2022

FCC AND ISED CERTIFICATION TEST REPORT

FOR

Applicant	:	AudioCodes Ltd.
Address	:	1 Hayarden St. Airport City, Lod Israel 70151
Equipment under Test	:	Video Collaboration Bar
Model No.	:	RXV81
Trade Mark	:	audiocodes
FCC ID	:	XAK-RXV81
IC	:	3808A-RXV81
Manufacturer	:	Guangzhou Shirui Electronics Co Ltd
Address	:	No. 192 Kezhu Road Science Park Economic-Technological Development Area Guangzhou, Guangdong, 510530 CN

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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Manufacturer	:	Guangzhou Shirui Electronics Co Ltd
Address	:	No. 192 Kezhu Road Science Park Economic-Technological Development Area Guangzhou, Guangdong, 510530 CN

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-R21122216-2E05		
Date of Receipt:	Jan. 07, 2022	Date of Test:	Jan. 07, 2022 ~ Mar. 07, 2022

Prepared By:

Johnny Wang

Johnny Wang/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	Mar. 08, 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	: Video Collaboration Bar
Model Number	: RXV81
EUT function description	: Please reference user manual of this device
Power supply	: Input: 100-240V ~ 50/60Hz
Radio Technology	: IEEE 802.11b/g/n
FCC Operation frequency	: IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n HT20: 2412MHz—2462MHz IEEE 802.11n HT40: 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)
Transmitter rate	: IEEE 802.11b: 1, 2, 5.5, 11 Mbps IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps IEEE 802.11n HT20: up to 144.4 Mbps IEEE 802.11n HT40: up to 300 Mbps
Antenna Gain	: Antenna 1: PCB antenna, Maximum PK gain: 1.0 dBi Antenna 2: PCB antenna, Maximum PK gain: 1.0 dBi
Sample Type	: Series production

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

Antenna information			
	Ant1 gain	Ant2 gain	MIMO
IEEE 802.11b	1.0	1.0	/
IEEE 802.11g	1.0	1.0	/
IEEE 802.11n HT20	1.0	1.0	4.01
IEEE 802.11n HT40	1.0	1.0	4.01

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	/	/

2.2. Accessories of EUT

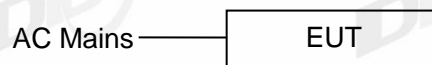
Assistant equipment	Manufacturer	Model number	Other
Switching adapter	GangQi	GQ36-120300-Ax	Input: 100-240V 50/60Hz ~ Output: DC 12V3A
HDMI cable	N/A	N/A	Length: 1.00m
Remote control	N/A	N/A	N/A

Type-C cable	N/A	N/A	Length: 2.50m
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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: MobaXterm.exe

Tested mode, channel, and data rate information				
Mode	Setting Tx Power	data rate (Mbps) (see Note)	Channel	Frequency (MHz)
IEEE 802.11b	65	1	LCH: CH1	2412
	65	1	MCH: CH6	2437
	65	1	HCH: CH11	2462
IEEE 802.11g	55	6	LCH: CH1	2412
	55	6	MCH: CH6	2437
	55	6	HCH: CH11	2462
IEEE 802.11n HT20	55	MCS 0	LCH: CH1	2412
	55	MCS 0	MCH: CH6	2437
	55	MCS 0	HCH: CH11	2462
IEEE 802.11n HT40	55	MCS 0	LCH: CH3	2422
	55	MCS 0	MCH: CH6	2437
	55	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

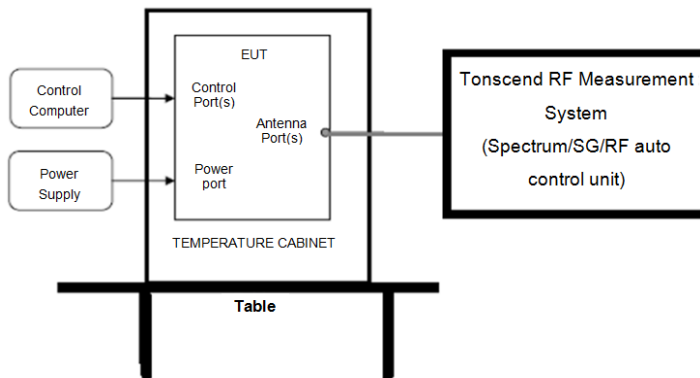
Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power (Conducted) (Spectrum analyzer)	0.86 dB (10 MHz ≤ f < 3.6 GHz);
	1.38 dB (3.6 GHz ≤ f < 8 GHz)
Peak Output Power (Conducted) (Power Sensor)	0.74 dB
Power Spectral Density	0.74 dB (10 MHz ≤ f < 3.6 GHz);
	1.38 dB (3.6 GHz ≤ f < 8 GHz)
Frequencies 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 °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	3.32 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 1#)					
Spectrum analyzer	R&S	FSU26	200071	Sep. 02, 2021	1 Year
Wideband Radio Communication tester	R&S	CMW500	120259	Sep. 02, 2021	1 Year
Vector Signal Generator	Agilent	E8267D	US49060192	Sep. 18, 2021	1 Year
Vector Signal Generator	Agilent	N5182A	MY48180737	Jun. 01, 2021	1 Year
RF Control Unit	Tonsend	JS0806-2	158060010	Jun. 01, 2021	1 Year
Temp&Humi Programmable	ZHIXIANG	ZXGDJS-150L	ZX170110-A	Jun. 01, 2021	1 Year
Test Software	JS Tonscend	JS1120-3	Ver.2.6.77.0518	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	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 6.11111b	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

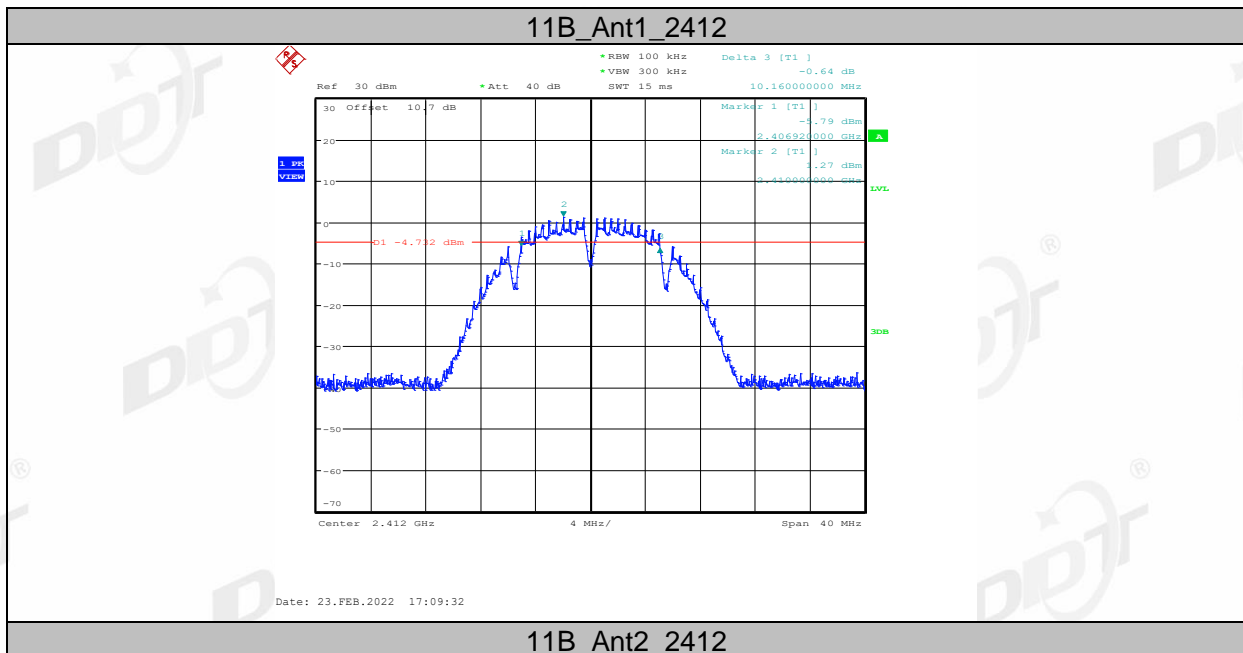
Test Mode	Test	Ant	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	2412	Ant1	10.160	0.5	Pass
11B	2412	Ant2	10.160	0.5	Pass
11B	2437	Ant1	10.160	0.5	Pass
11B	2437	Ant2	10.160	0.5	Pass
11B	2462	Ant1	10.120	0.5	Pass
11B	2462	Ant2	10.160	0.5	Pass
11G	2412	Ant1	15.880	0.5	Pass
11G	2412	Ant2	15.160	0.5	Pass
11G	2437	Ant1	16.000	0.5	Pass
11G	2437	Ant2	15.800	0.5	Pass
11G	2462	Ant1	15.880	0.5	Pass
11G	2462	Ant2	15.720	0.5	Pass
11N20MIMO	2412	Ant1	15.400	0.5	Pass
11N20MIMO	2412	Ant2	15.480	0.5	Pass
11N20MIMO	2437	Ant1	15.880	0.5	Pass
11N20MIMO	2437	Ant2	16.400	0.5	Pass
11N20MIMO	2462	Ant1	15.720	0.5	Pass
11N20MIMO	2462	Ant2	16.360	0.5	Pass
11N40MIMO	2422	Ant1	35.200	0.5	Pass
11N40MIMO	2422	Ant2	35.360	0.5	Pass
11N40MIMO	2437	Ant1	35.600	0.5	Pass
11N40MIMO	2437	Ant2	35.600	0.5	Pass
11N40MIMO	2452	Ant1	35.680	0.5	Pass
11N40MIMO	2452	Ant2	35.680	0.5	Pass

Test Mode	Test	Ant	99% OBW [MHz]	Limit [MHz]	Verdict
11B	2412	Ant1	14.76	---	Pass
11B	2412	Ant2	15.00	---	Pass
11B	2437	Ant1	14.96	---	Pass
11B	2437	Ant2	15.08	---	Pass
11B	2462	Ant1	14.84	---	Pass
11B	2462	Ant2	15.12	---	Pass
11G	2412	Ant1	17.08	---	Pass
11G	2412	Ant2	17.16	---	Pass
11G	2437	Ant1	17.12	---	Pass
11G	2437	Ant2	17.20	---	Pass

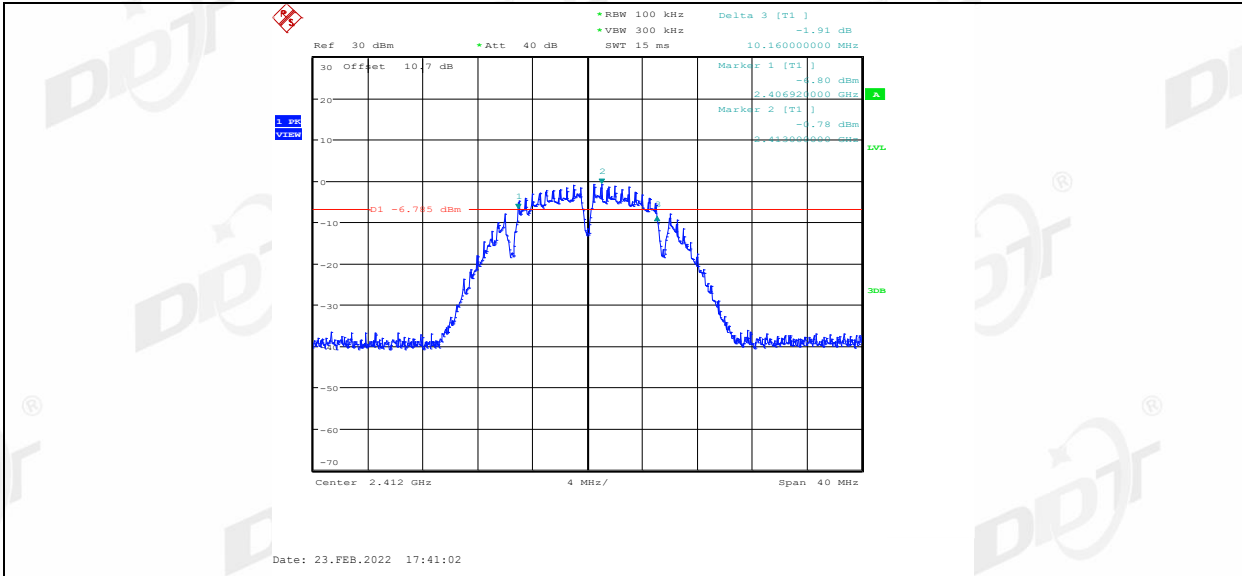
11G	2462	Ant1	17.16	---	Pass
11G	2462	Ant2	17.12	---	Pass
11N20MIMO	2412	Ant1	16.92	---	Pass
11N20MIMO	2412	Ant2	16.72	---	Pass
11N20MIMO	2437	Ant1	17.00	---	Pass
11N20MIMO	2437	Ant2	16.80	---	Pass
11N20MIMO	2462	Ant1	16.92	---	Pass
11N20MIMO	2462	Ant2	16.80	---	Pass
11N40MIMO	2422	Ant1	36.64	---	Pass
11N40MIMO	2422	Ant2	36.72	---	Pass
11N40MIMO	2437	Ant1	36.80	---	Pass
11N40MIMO	2437	Ant2	36.72	---	Pass
11N40MIMO	2452	Ant1	36.72	---	Pass
11N40MIMO	2452	Ant2	36.96	---	Pass

4.5. original test data

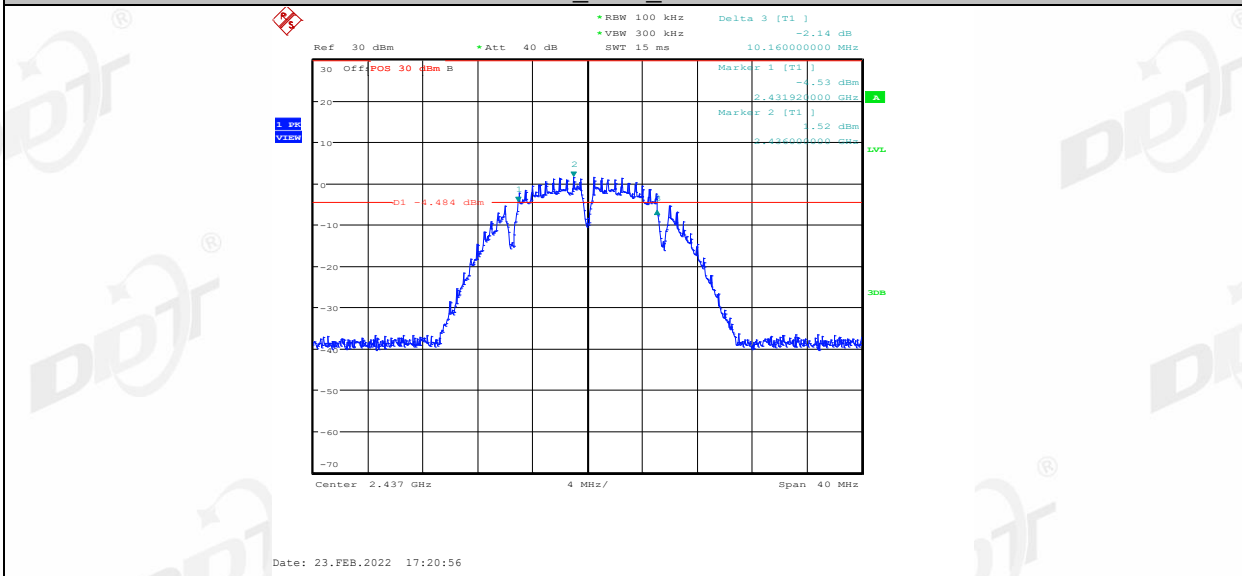
6 dB bandwidth:



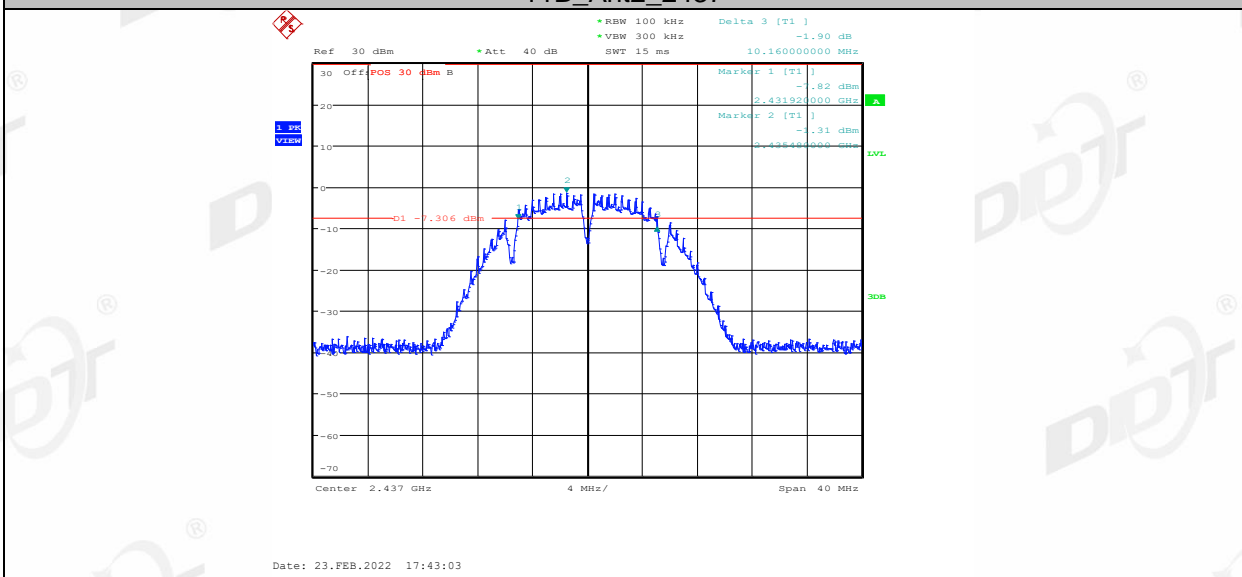
11B_Ant2_2412



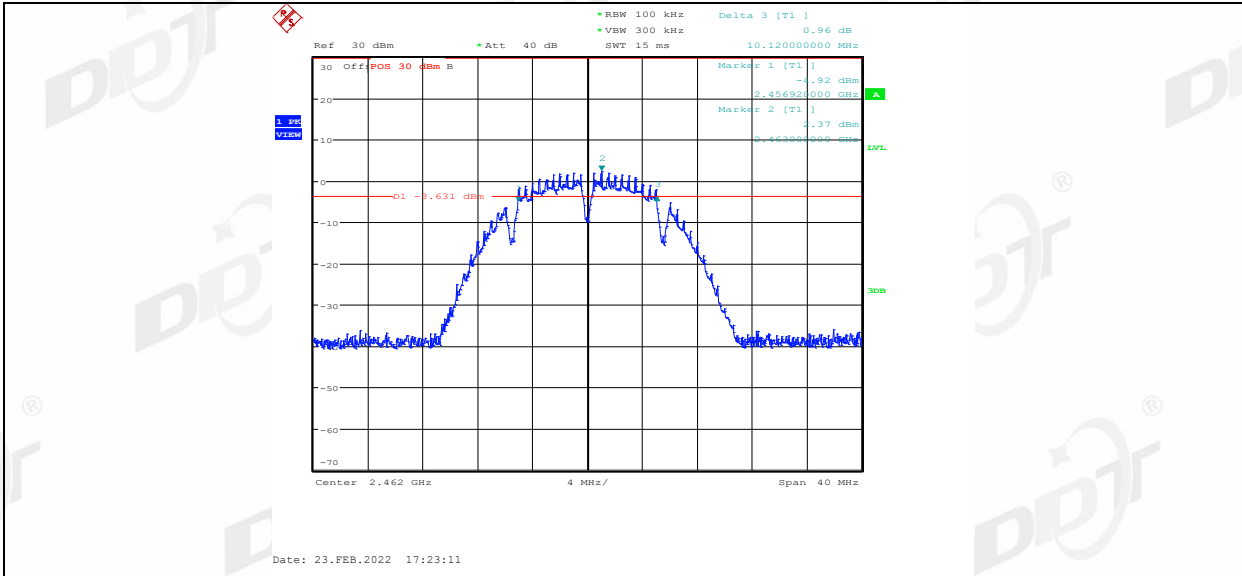
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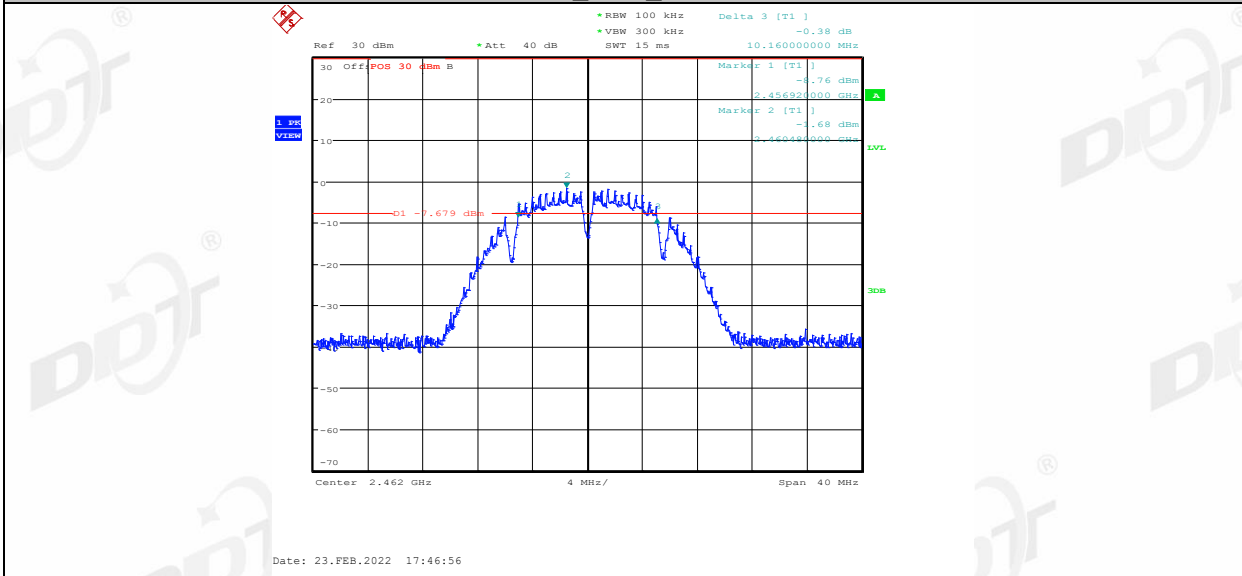
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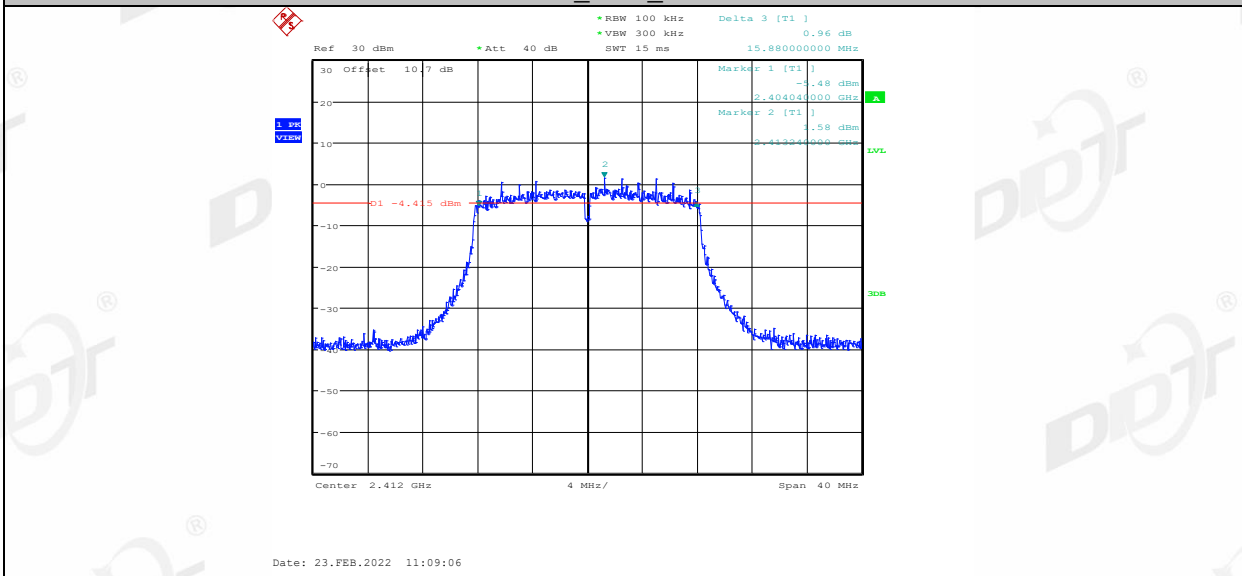
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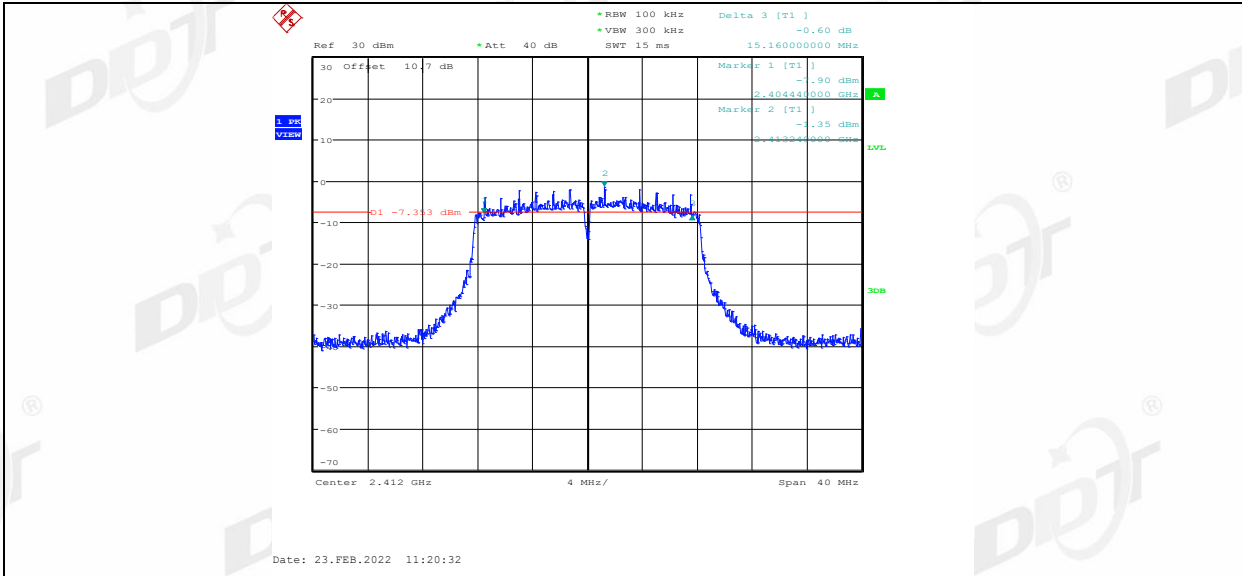
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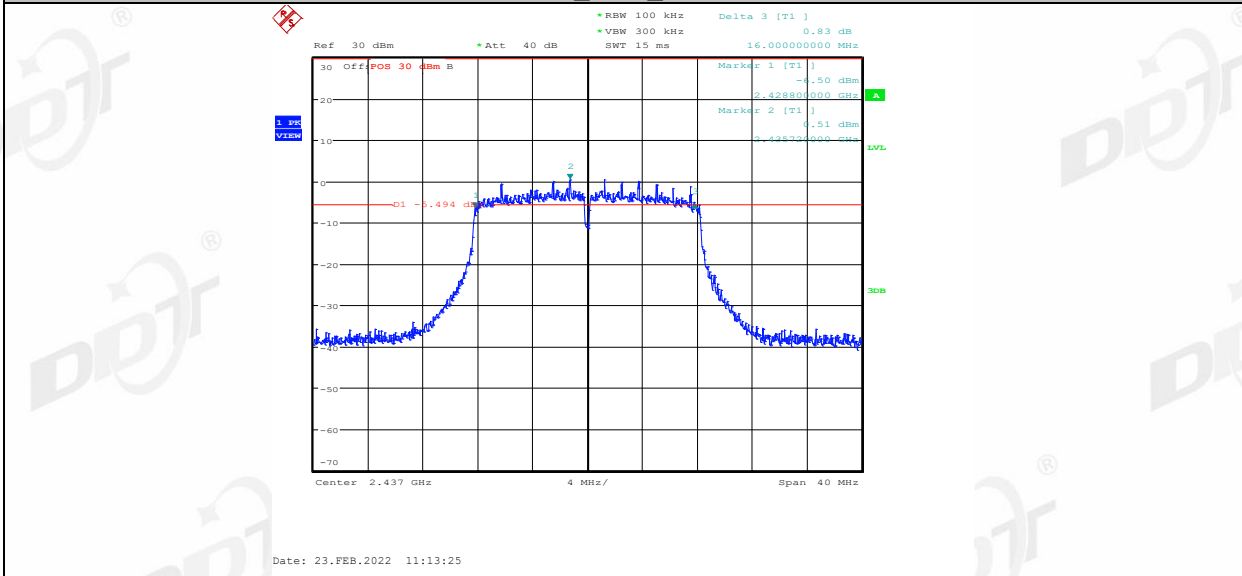
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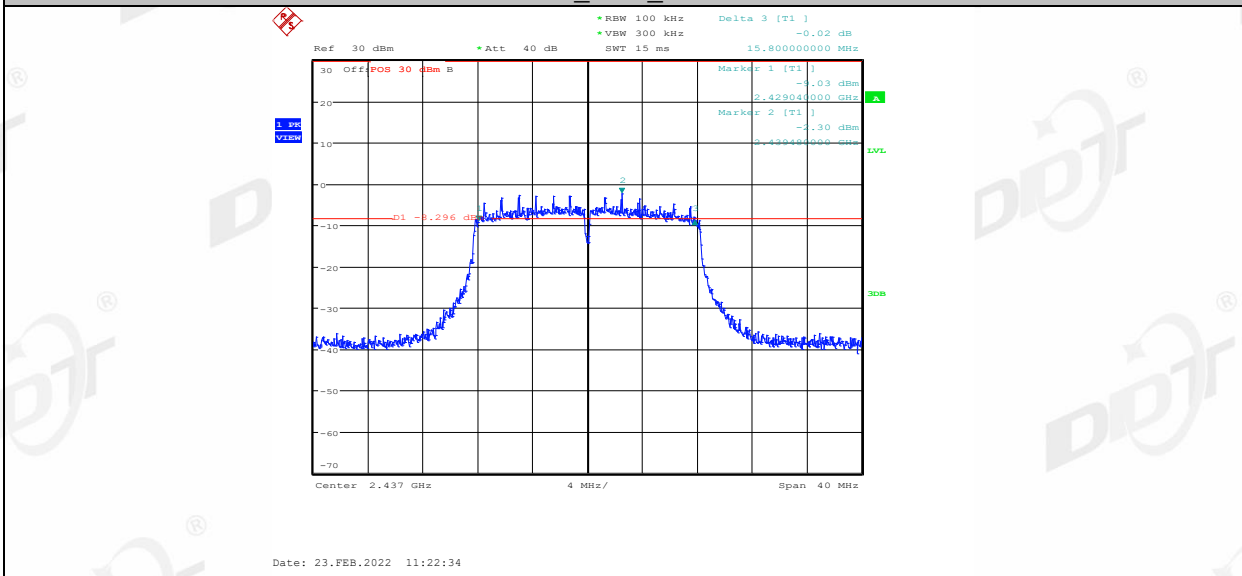
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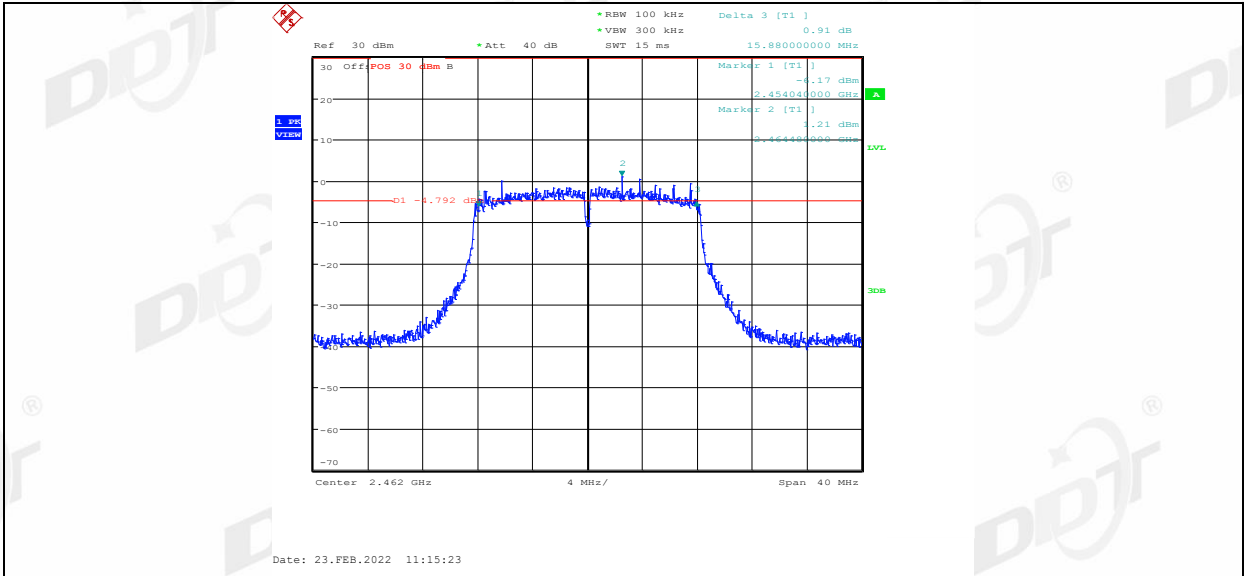
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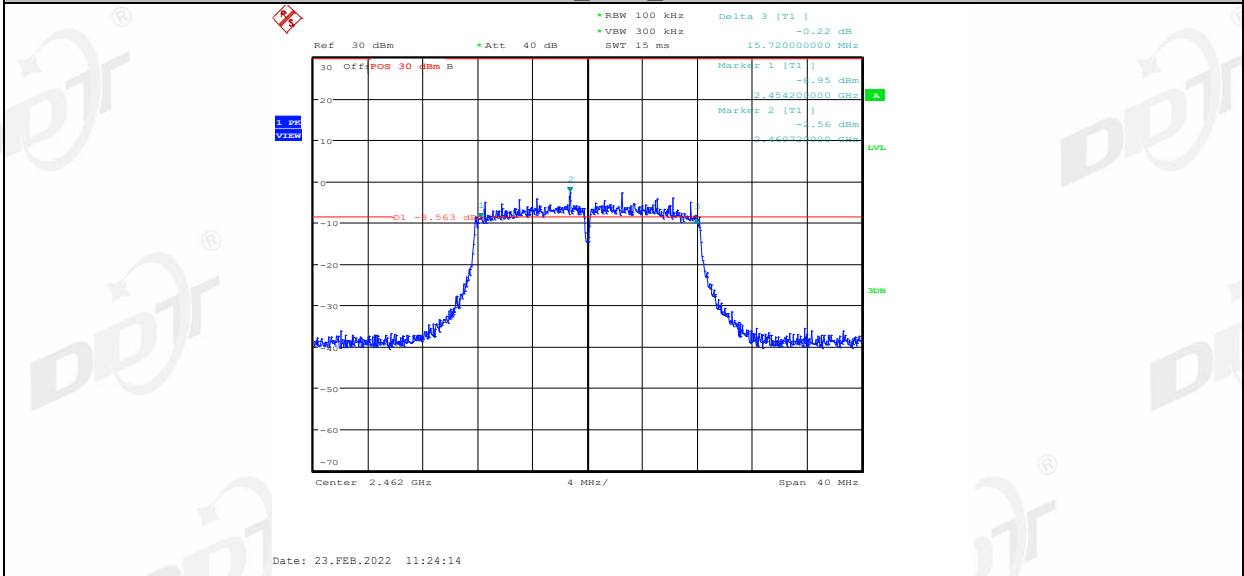
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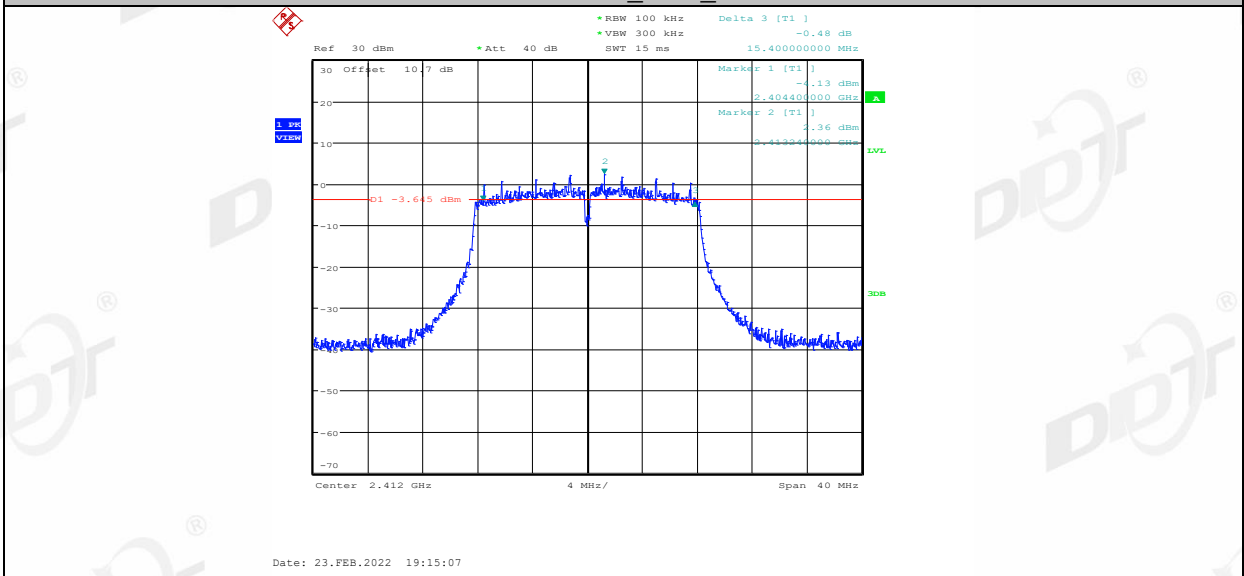
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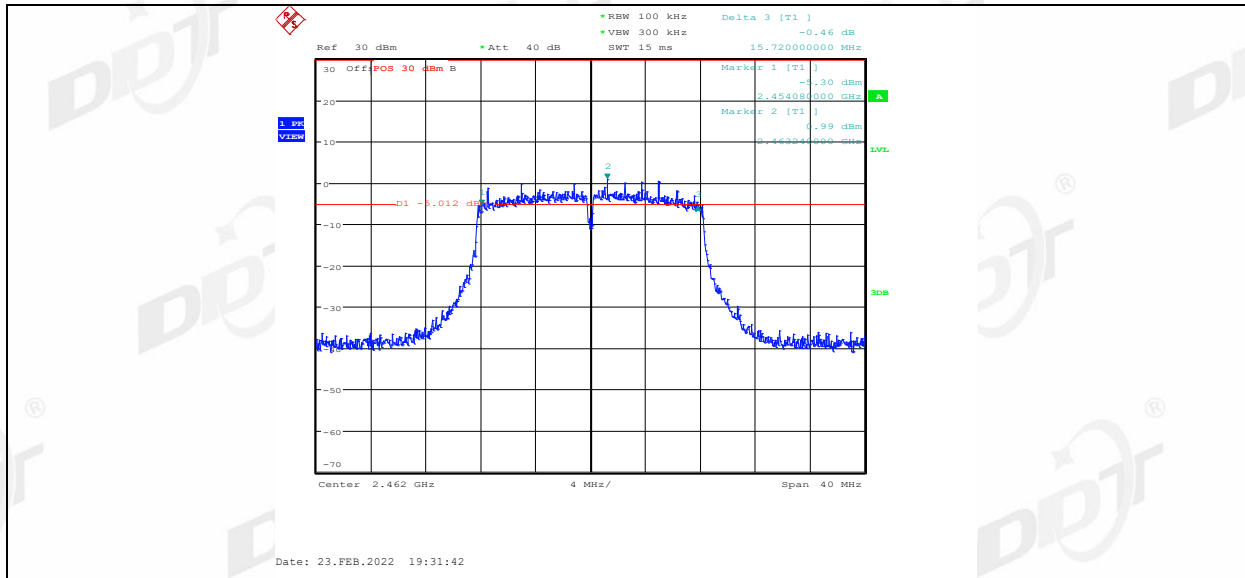
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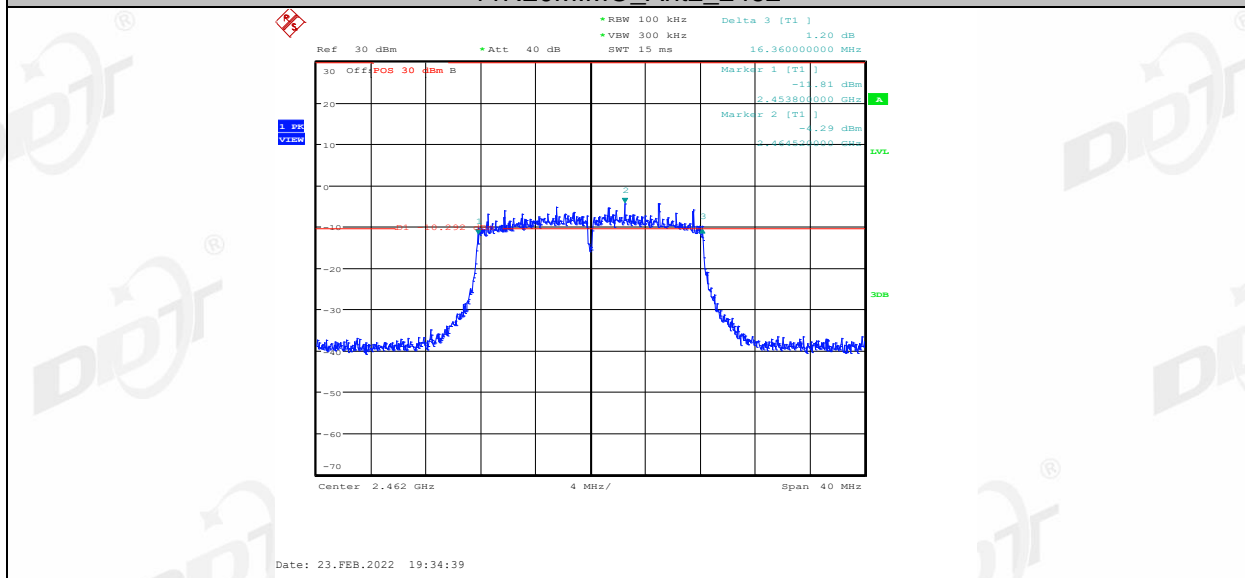
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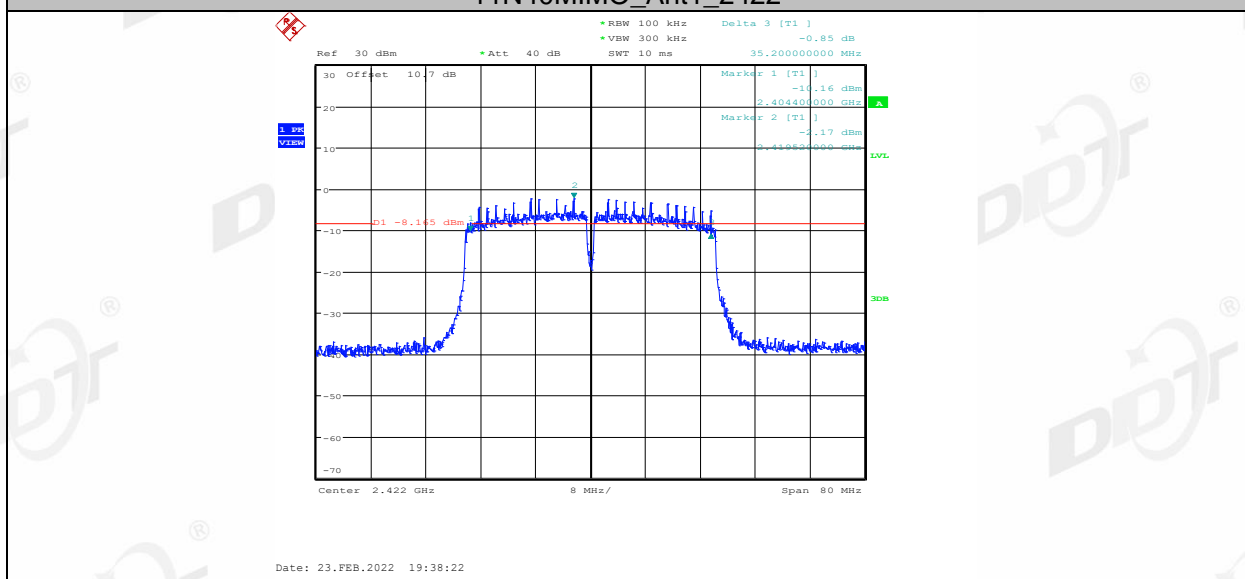
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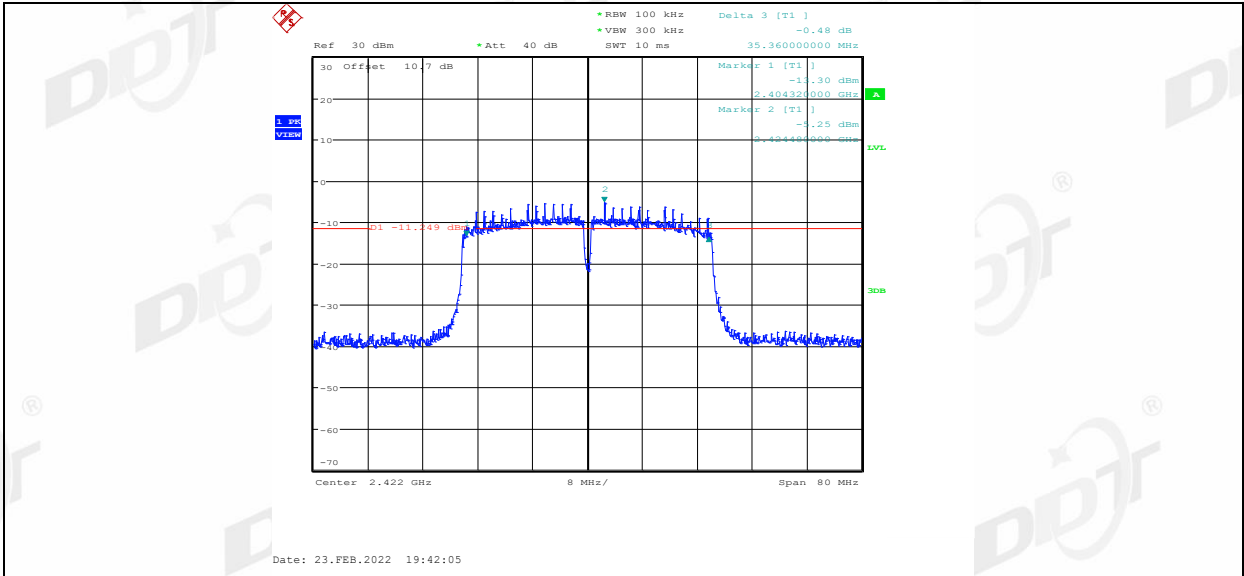
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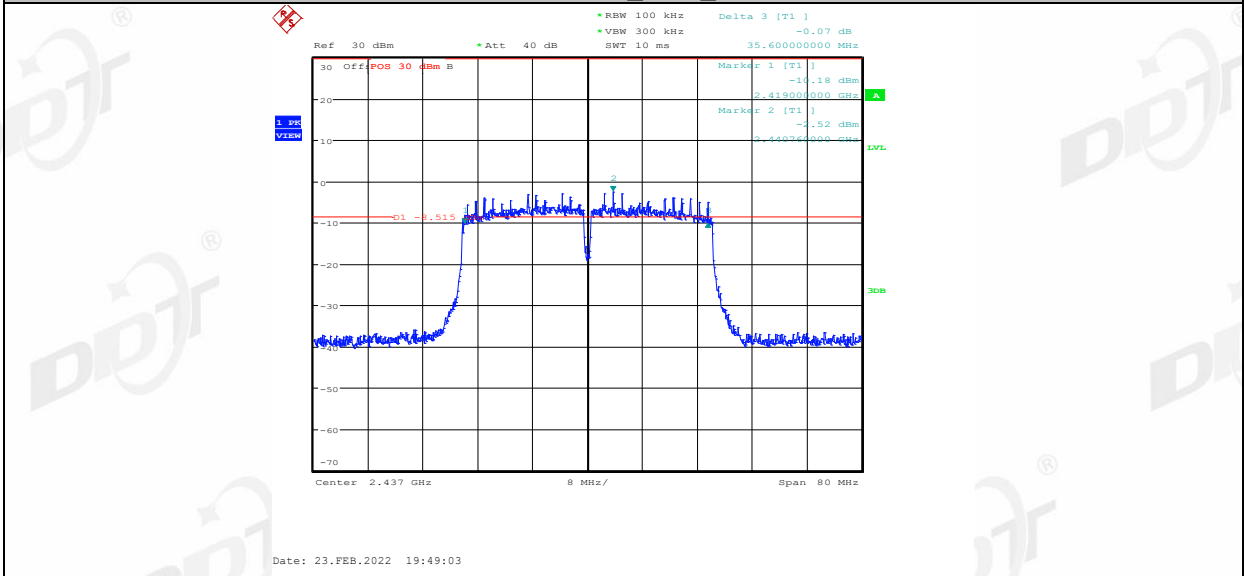
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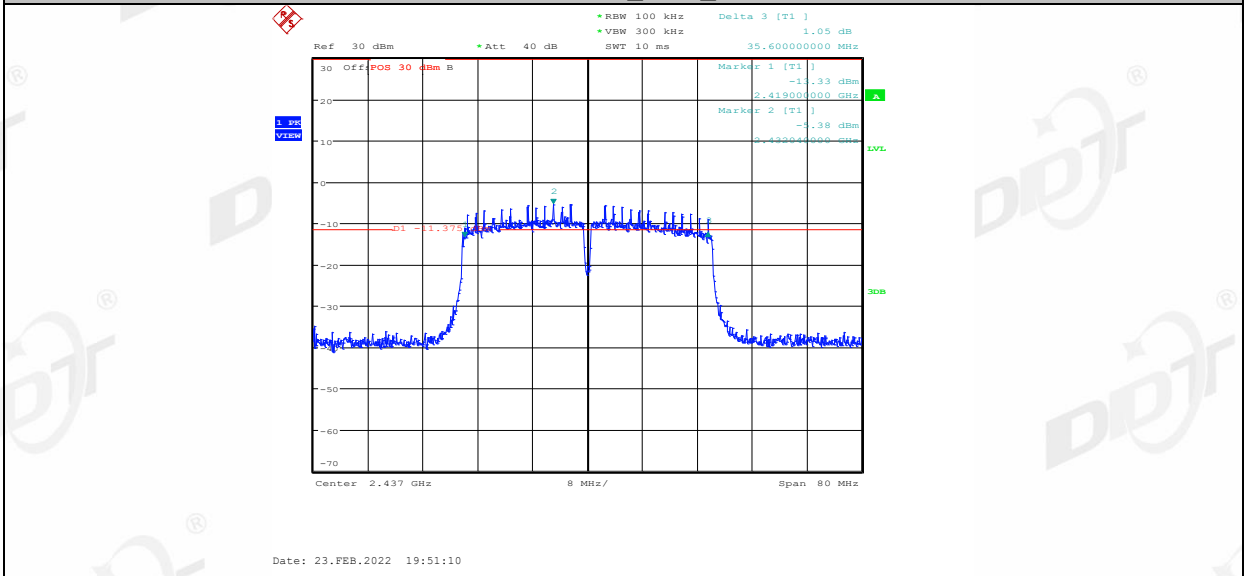
11N40MIMO_Ant2_2422



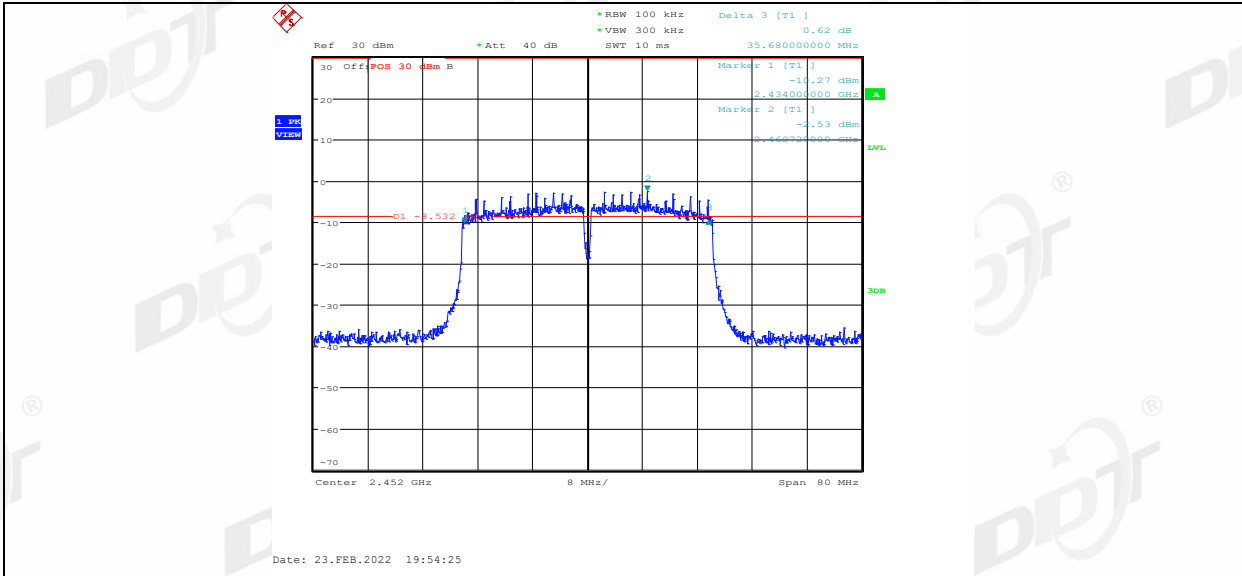
11N40MIMO_Ant1_2437



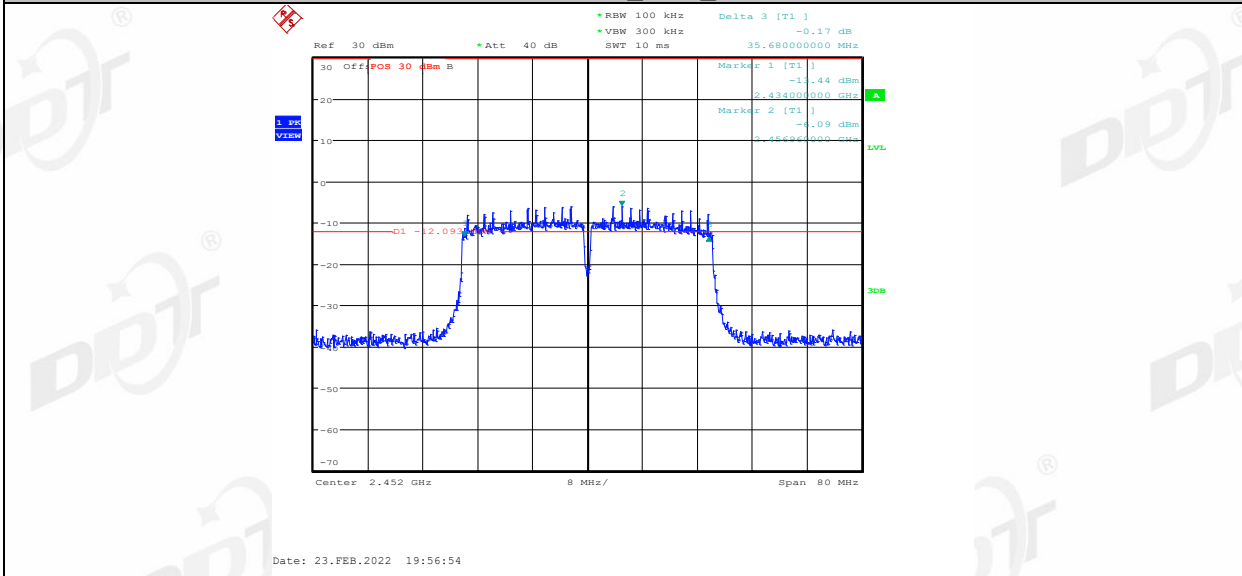
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11N40MIMO_Ant1_2452

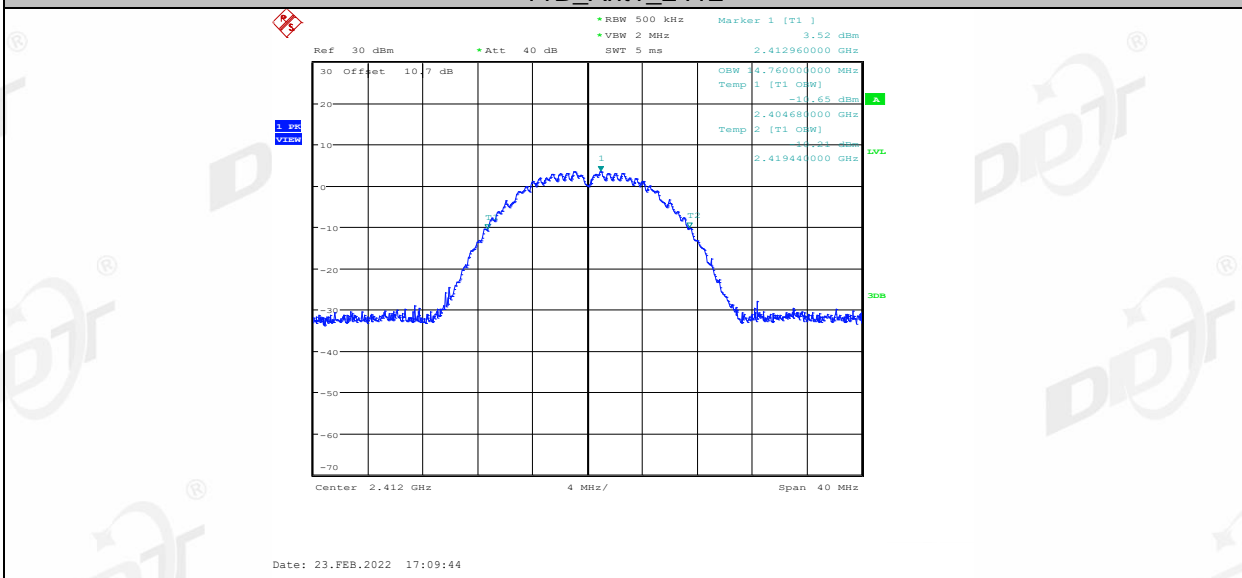


11N40MIMO Ant2_2452

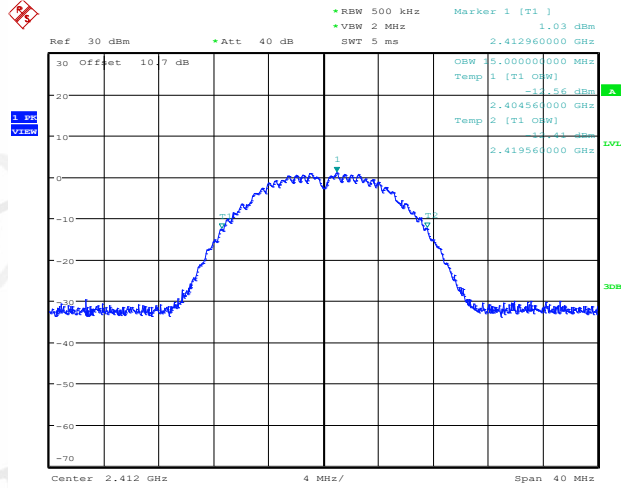


99% bandwidth:

11B_Ant1_2412

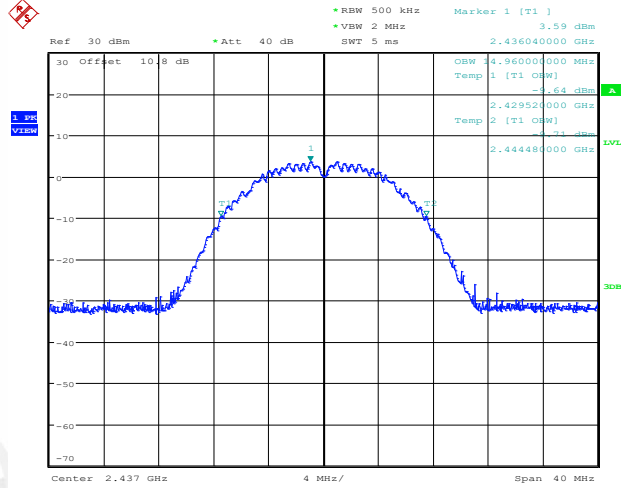


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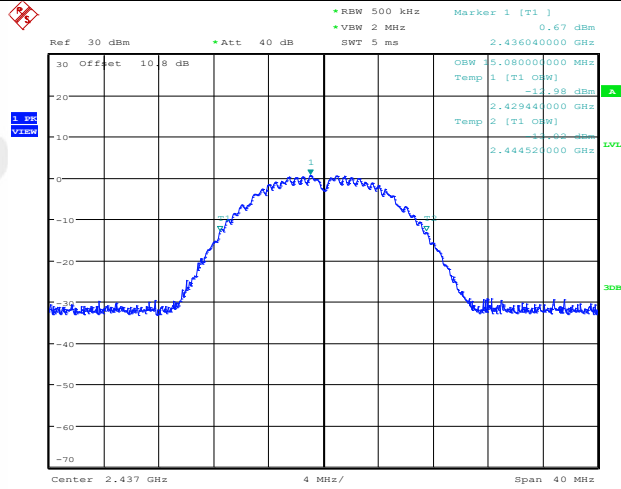
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11B_Ant1_2437



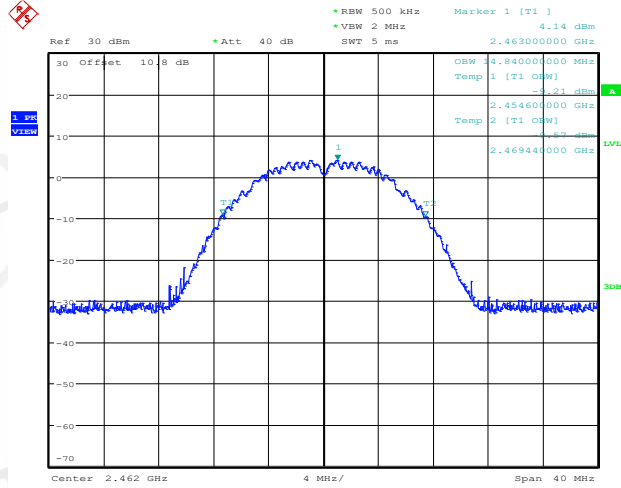
Date: 23.FEB.2022 17:21:08

11B_Ant2_2437



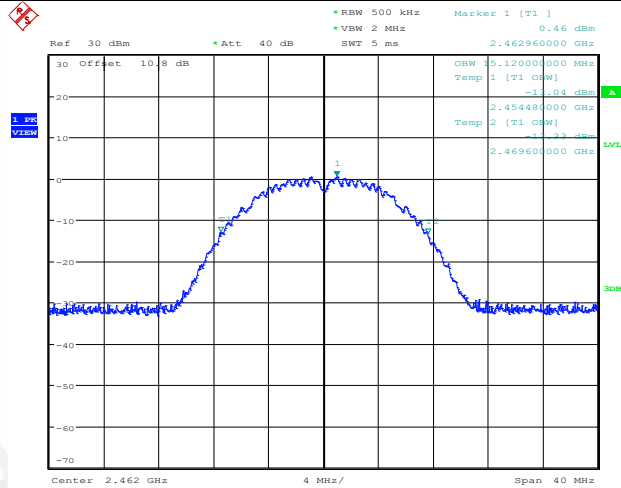
Date: 23.FEB.2022 17:43:14

11B_Ant1_2462



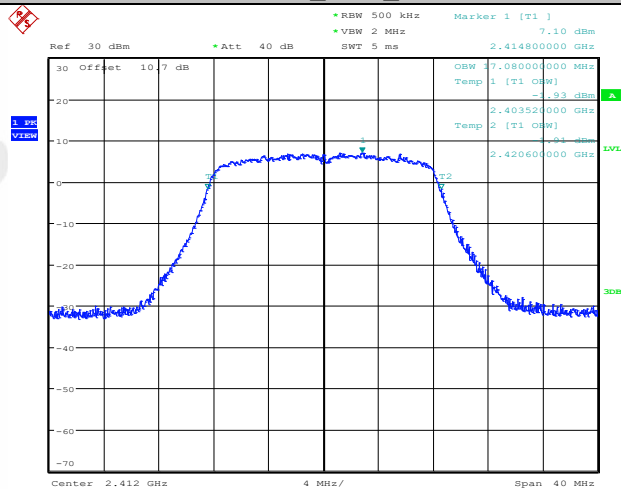
Date: 23.FEB.2022 17:23:23

11B_Ant2_2462



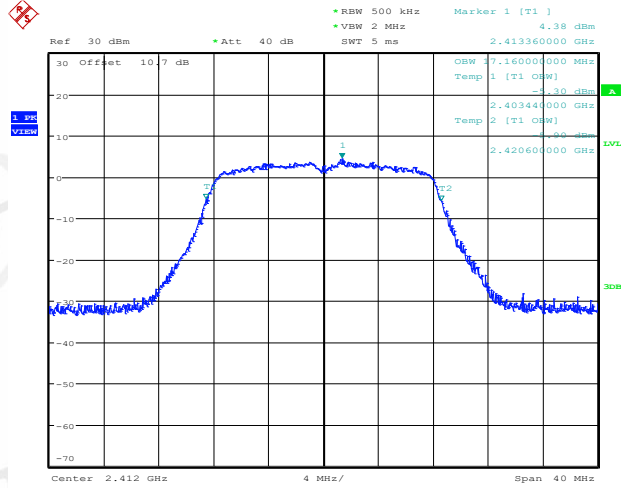
Date: 23.FEB.2022 17:47:07

11G_Ant1_2412



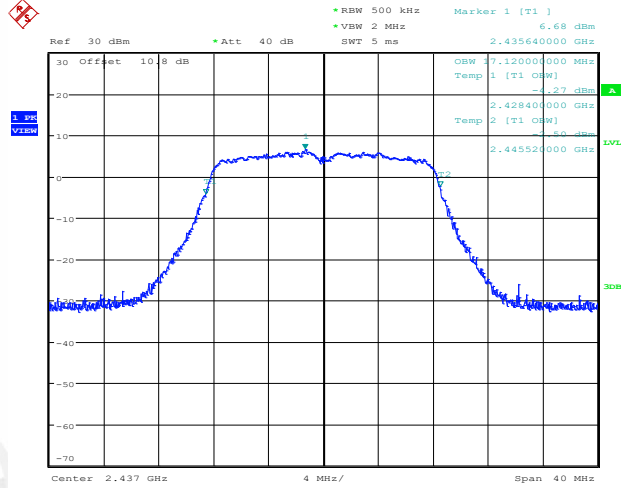
Date: 23.FEB.2022 11:09:17

11G_Ant2_2412



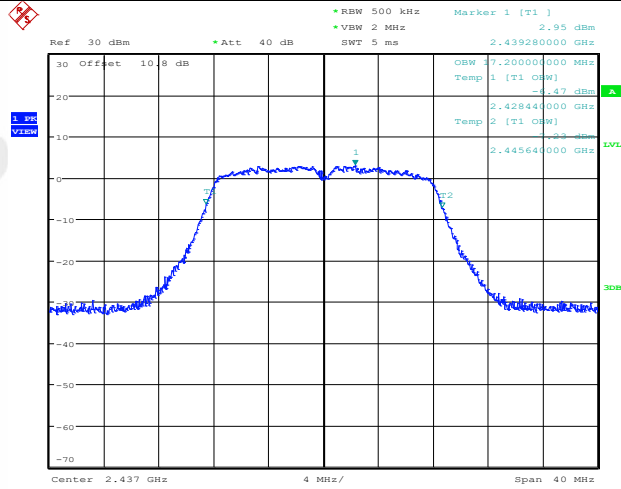
Date: 23.FEB.2022 11:20:43

11G_Ant1_2437



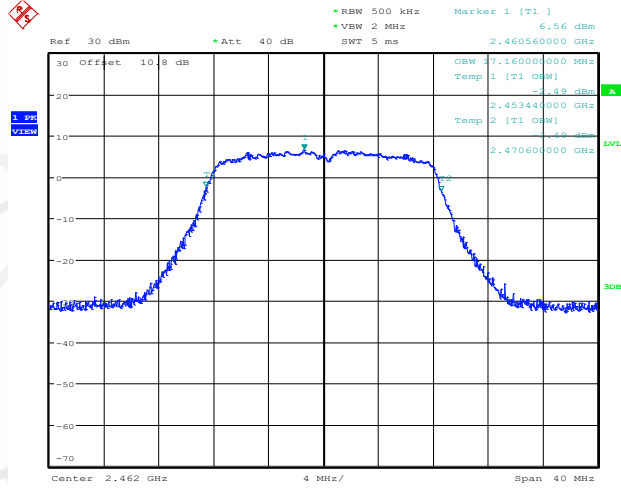
Date: 23.FEB.2022 11:13:36

11G_Ant2_2437



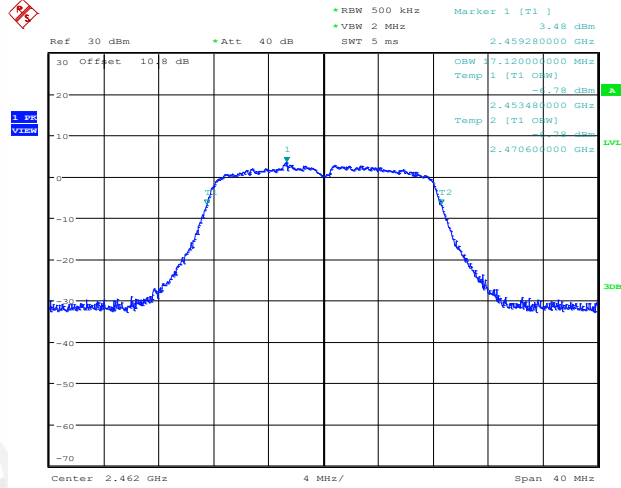
Date: 23.FEB.2022 11:22:46

11G_Ant1_2462



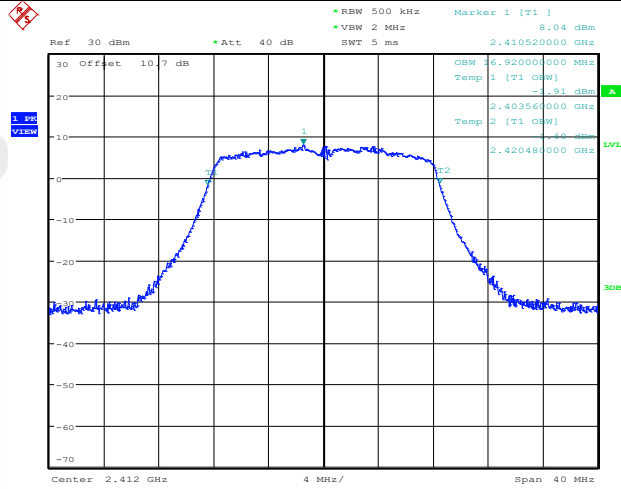
Date: 23.FEB.2022 11:15:34

11G_Ant2_2462



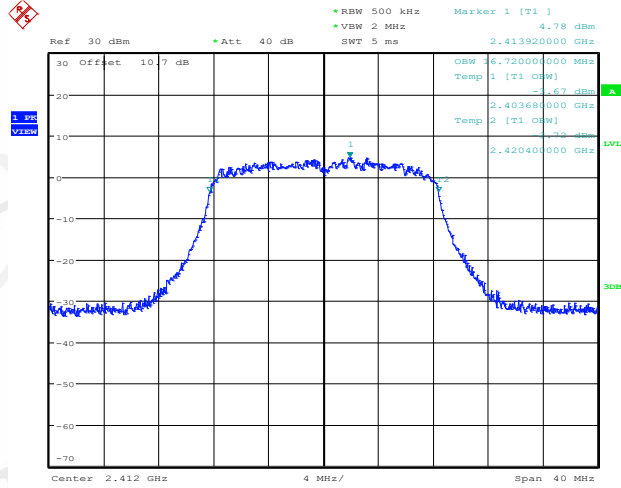
Date: 23.FEB.2022 11:24:25

11N20MIMO_Ant1_2412



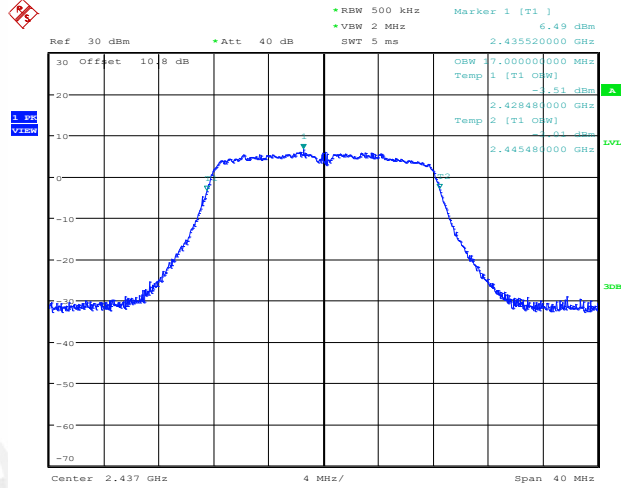
Date: 23.FEB.2022 19:15:18

11N20MIMO_Ant2_2412



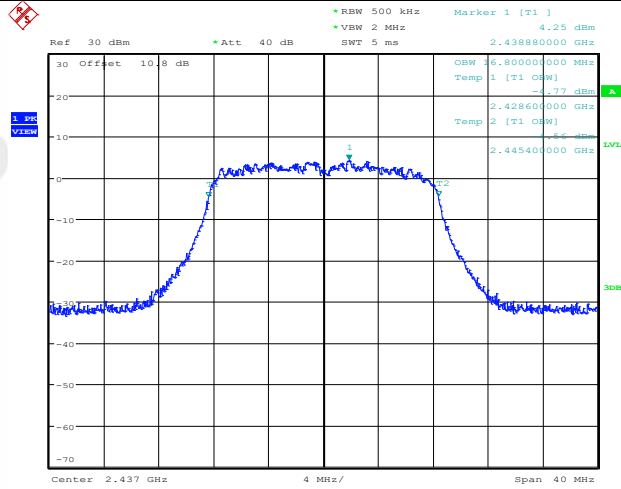
Date: 23.FEB.2022 19:20:28

11N20MIMO_Ant1_2437



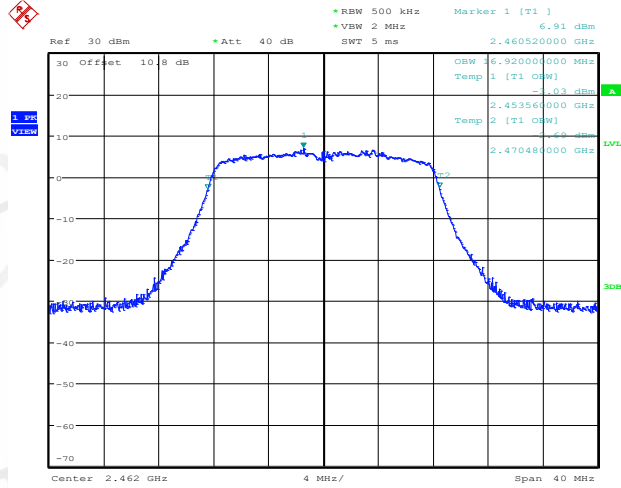
Date: 23.FEB.2022 19:22:49

11N20MIMO_Ant2_2437



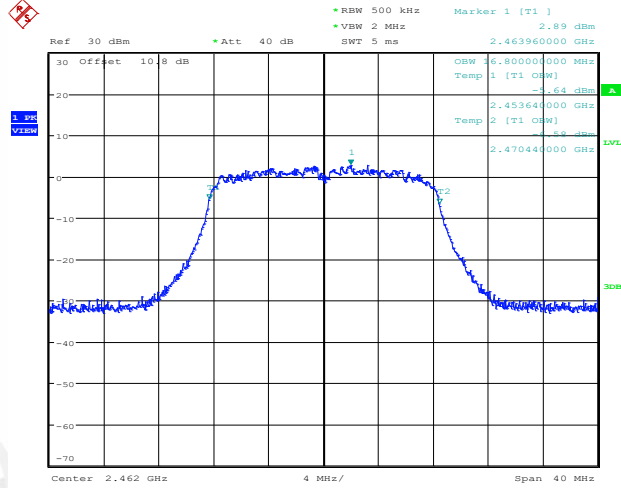
Date: 23.FEB.2022 19:25:39

11N20MIMO_Ant1_2462



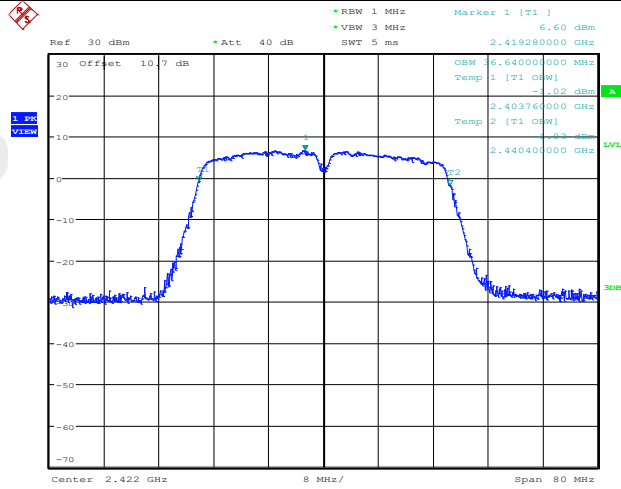
Date: 23.FEB.2022 19:31:53

11N20MIMO_Ant2_2462



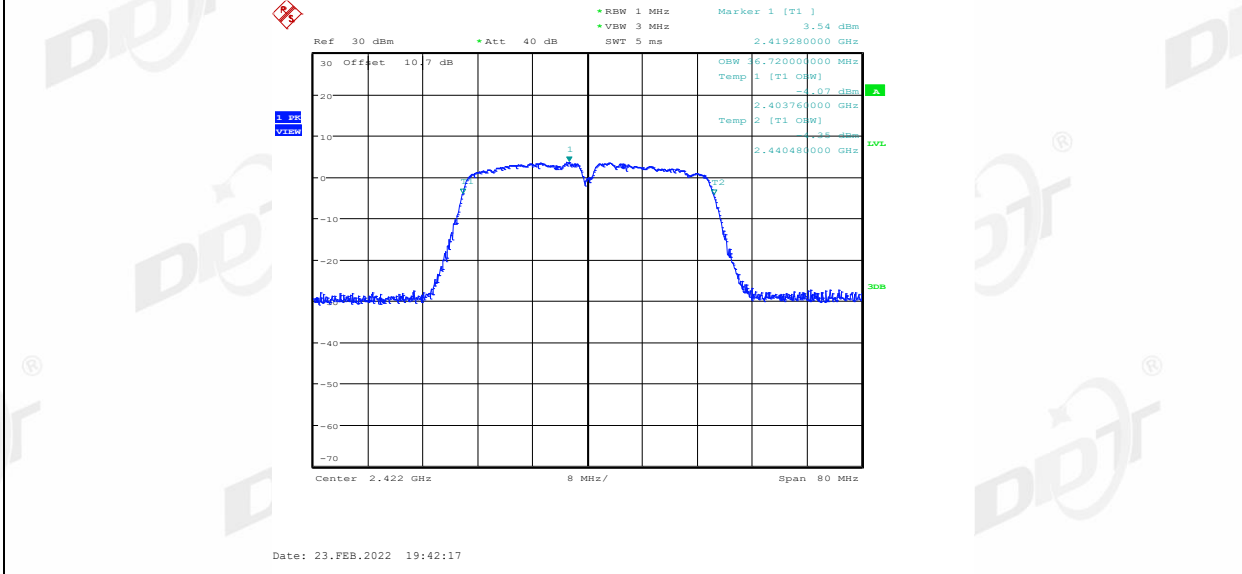
Date: 23.FEB.2022 19:34:51

11N40MIMO_Ant1_2422

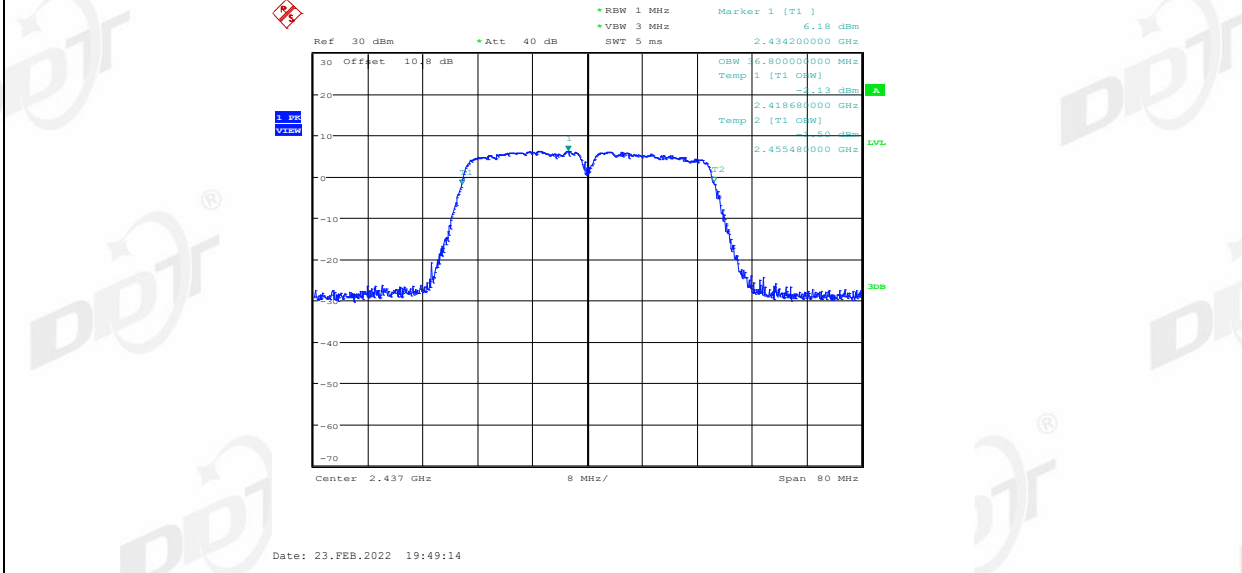


Date: 23.FEB.2022 19:38:34

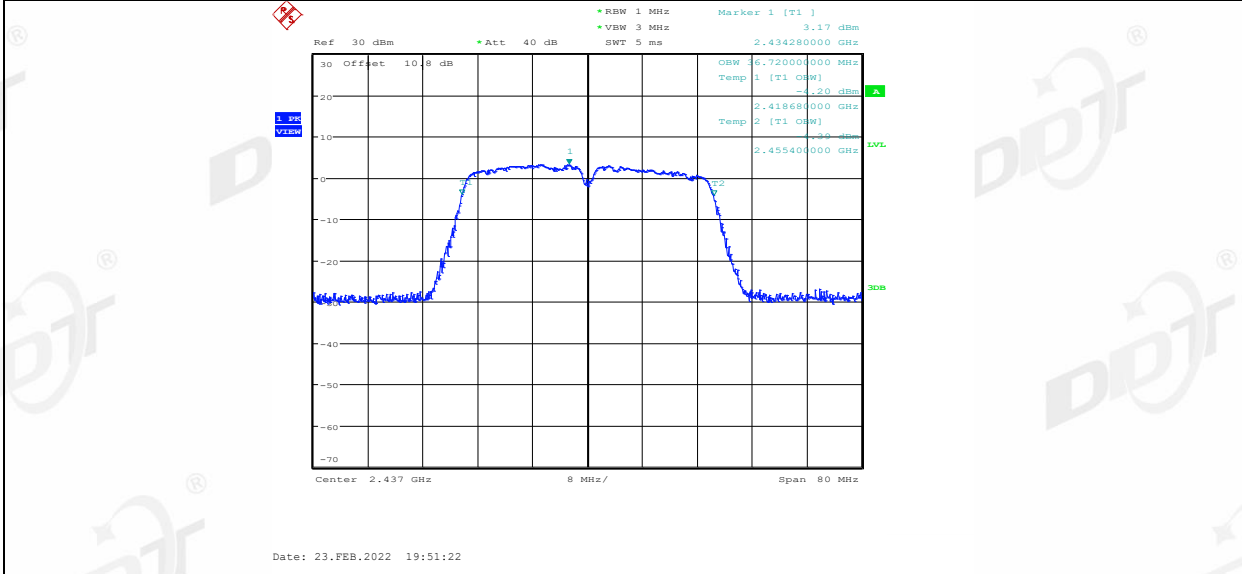
11N40MIMO_Ant2_2422

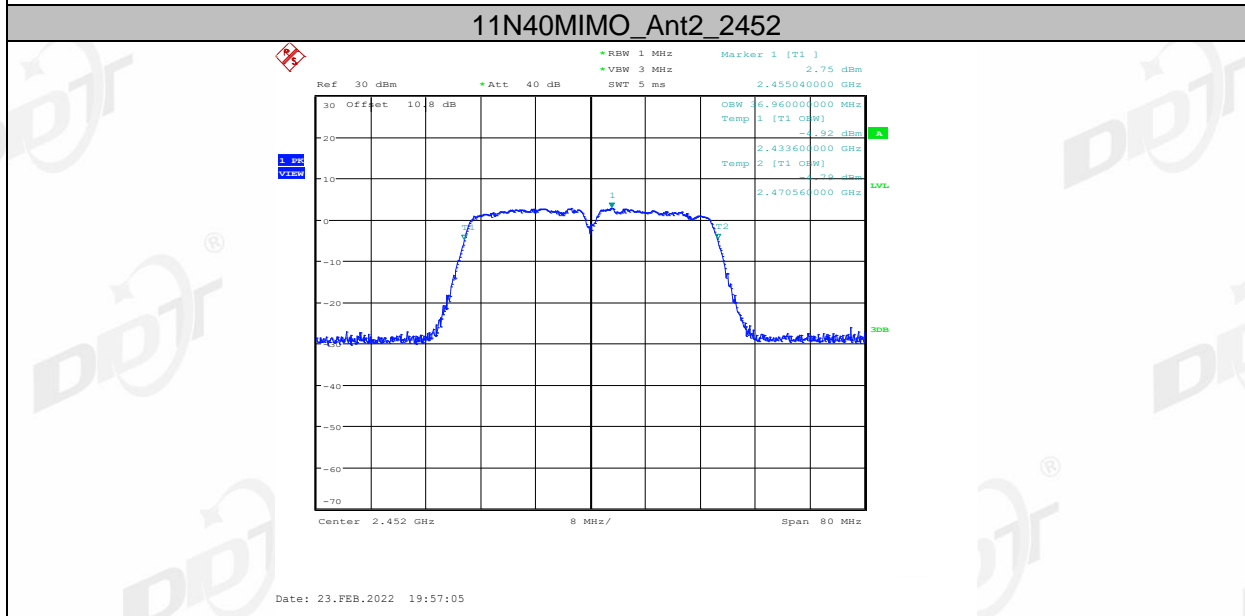
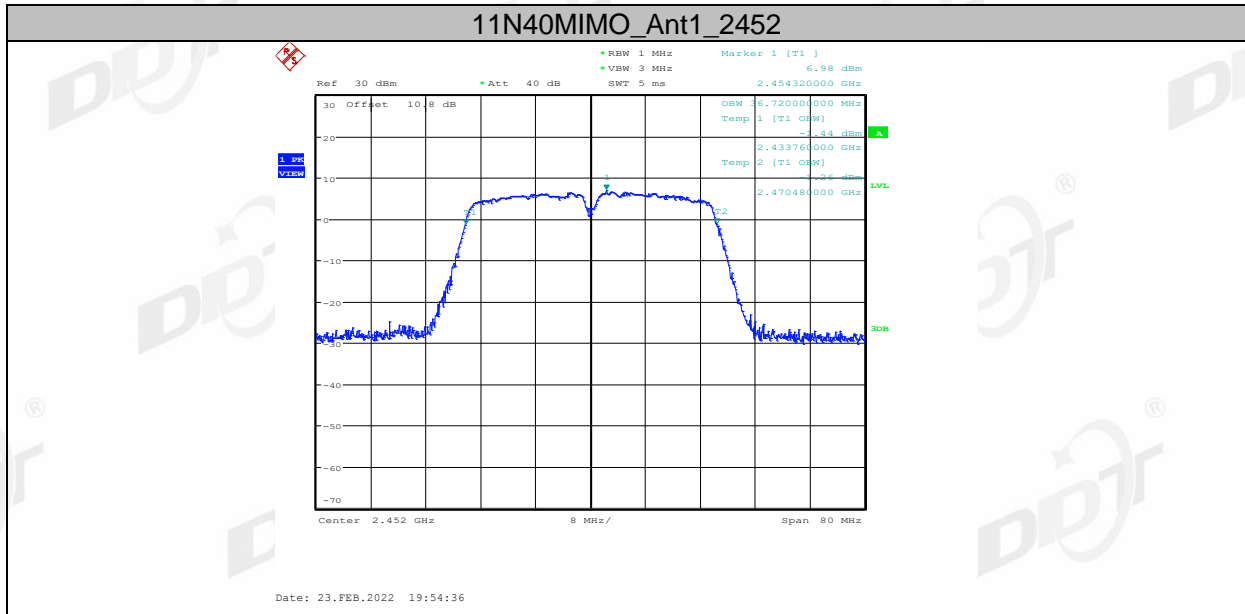


11N40MIMO_Ant1_2437



11N40MIMO_Ant2_2437





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	Antenna	Channel	Conducted Output Power (dBm)	Limit [dBm]	Verdict
11B	Ant1	2412	16.54	<=30	Pass
	Ant2	2412	10.22	<=30	Pass
	Ant1	2437	14.77	<=30	Pass
	Ant2	2437	9.63	<=30	Pass
	Ant1	2462	15.05	<=30	Pass
	Ant2	2462	9.63	<=30	Pass
11G	Ant1	2412	14.83	<=30	Pass
	Ant2	2412	11.03	<=30	Pass
	Ant1	2437	14.37	<=30	Pass
	Ant2	2437	9.80	<=30	Pass
	Ant1	2462	14.09	<=30	Pass
	Ant2	2462	10.33	<=30	Pass
11N20MIMO	Ant1	2412	15.39	<=30	Pass
	Ant2	2412	11.13	<=30	Pass
	total	2412	16.80	<=30	Pass
	Ant1	2437	14.78	<=30	Pass
	Ant2	2437	10.16	<=30	Pass
	total	2437	16.10	<=30	Pass
	Ant1	2462	14.49	<=30	Pass
	Ant2	2462	10.32	<=30	Pass
	total	2462	15.90	<=30	Pass
11N40MIMO	Ant1	2422	15.18	<=30	Pass
	Ant2	2422	10.94	<=30	Pass
	total	2422	16.60	<=30	Pass
	Ant1	2437	14.26	<=30	Pass
	Ant2	2437	10.00	<=30	Pass
	total	2437	15.60	<=30	Pass
	Ant1	2452	14.67	<=30	Pass

	Ant2	2452	10.24	<=30	Pass
	total	2452	16.00	<=30	Pass

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Test Mode	Antenna	Channel	Conducted Output Power (dBm)	Limit [dBm]	Verdict
11B	total	2412	17.88	<=30	Pass
	total	2437	16.39	<=30	Pass
	total	2462	16.73	<=30	Pass
11G	total	2412	16.38	<=30	Pass
	total	2437	15.81	<=30	Pass
	total	2462	15.80	<=30	Pass
11N20MIMO	total	2412	17.83	<=30	Pass
	total	2437	17.08	<=30	Pass
	total	2462	17.06	<=30	Pass
11N40MIMO	total	2422	17.52	<=30	Pass
	total	2437	16.66	<=30	Pass
	total	2452	16.98	<=30	Pass

Test Mode	Antenna	Channel	EIRP (dBm)	Limit [dBm]	Verdict
11B	Ant1	2412	17.54	<=36	Pass
	Ant2	2412	11.22	<=36	Pass
	Ant1	2437	15.77	<=36	Pass
	Ant2	2437	10.63	<=36	Pass
	Ant1	2462	16.05	<=36	Pass
	Ant2	2462	10.63	<=36	Pass
11G	Ant1	2412	15.83	<=36	Pass
	Ant2	2412	12.03	<=36	Pass
	Ant1	2437	15.37	<=36	Pass
	Ant2	2437	10.80	<=36	Pass
	Ant1	2462	15.09	<=36	Pass
	Ant2	2462	11.33	<=36	Pass
11N20MIMO	Ant1	2412	16.39	<=36	Pass
	Ant2	2412	12.13	<=36	Pass
	total	2412	17.80	<=36	Pass
	Ant1	2437	15.78	<=36	Pass
	Ant2	2437	11.16	<=36	Pass
	total	2437	17.10	<=36	Pass
	Ant1	2462	15.49	<=36	Pass
	Ant2	2462	11.32	<=36	Pass
11N40MIMO	total	2462	16.90	<=36	Pass
	Ant1	2422	16.18	<=36	Pass
	Ant2	2422	11.94	<=36	Pass
	total	2422	17.60	<=36	Pass
	Ant1	2437	15.26	<=36	Pass
	Ant2	2437	11.00	<=36	Pass
	total	2437	16.60	<=36	Pass
	Ant1	2452	15.67	<=36	Pass
	Ant2	2452	11.24	<=36	Pass
total	2452	17.00	<=36	Pass	

Note: EIRP (dBm)=Conducted Output Power (dBm)+ Antenna Gain (dBi)

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Test Mode	Antenna	Channel	EIRP (dBm)	Limit [dBm]	Verdict
11B	total	2412	20.68	<=36	Pass
	total	2437	19.44	<=36	Pass
	total	2462	19.84	<=36	Pass
11G	total	2412	19.39	<=36	Pass
	total	2437	18.70	<=36	Pass
	total	2462	18.93	<=36	Pass
11N20MIMO	total	2412	20.32	<=36	Pass
	total	2437	19.53	<=36	Pass
	total	2462	19.68	<=36	Pass
11N40MIMO	total	2422	19.90	<=36	Pass
	total	2437	19.18	<=36	Pass
	total	2452	19.41	<=36	Pass

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:	$3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$
VBW:	$\geq 3\text{RBW}$
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

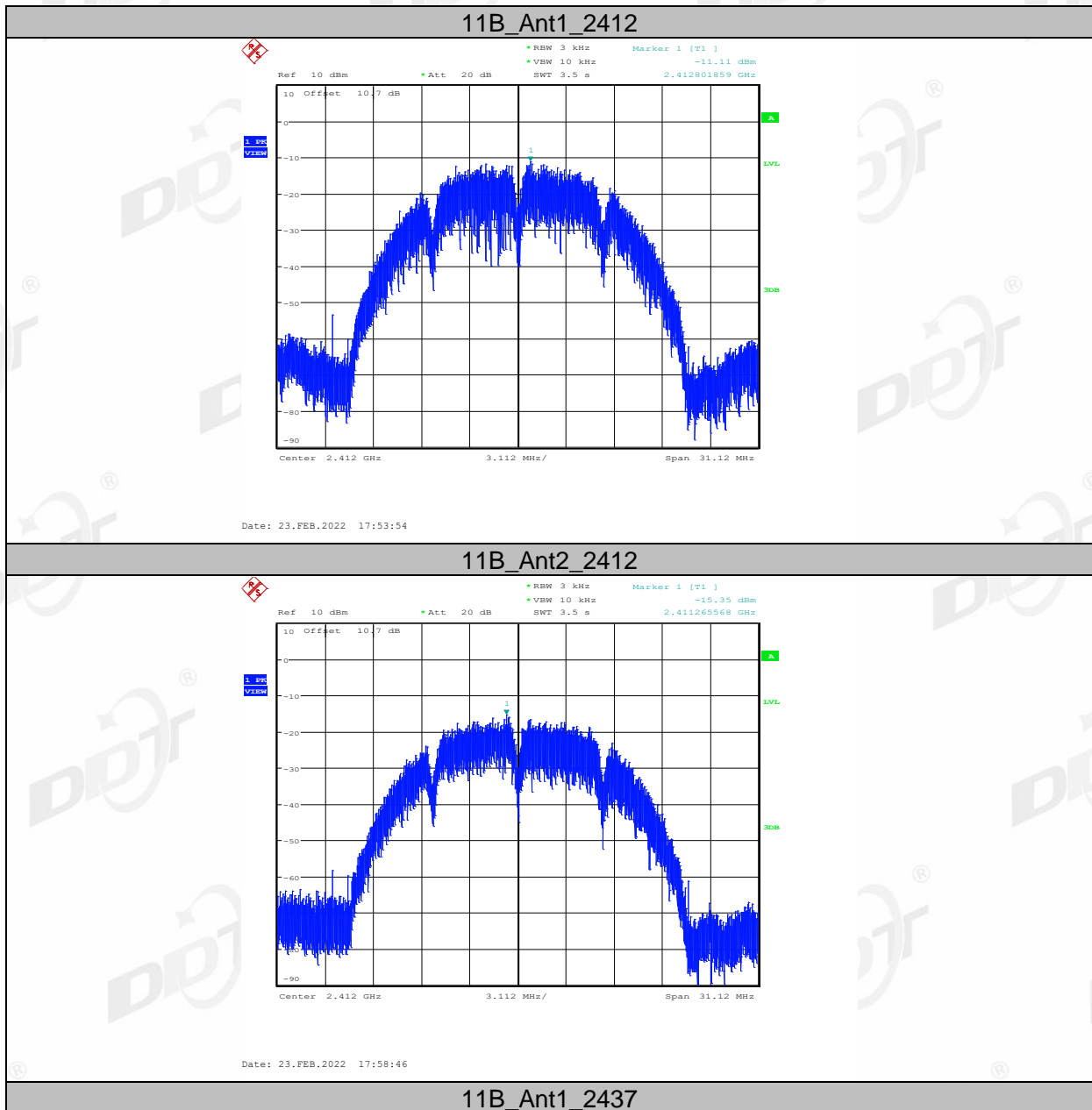
Test Mode	Test Channel	Ant	PSD [dBm]	Limit [dBm/3kHz]	Verdict
11B	2412	ANT1	-11.11	8.00	Pass
11B	2412	ANT2	-15.35	8.00	Pass
11B	2437	ANT1	-10.56	8.00	Pass
11B	2437	ANT2	-15.90	8.00	Pass
11B	2462	ANT1	-11.76	8.00	Pass
11B	2462	ANT2	-15.89	8.00	Pass
11G	2412	ANT1	-12.58	8.00	Pass
11G	2412	ANT2	-15.33	8.00	Pass
11G	2437	ANT1	-12.59	8.00	Pass
11G	2437	ANT2	-16.83	8.00	Pass
11G	2462	ANT1	-12.50	8.00	Pass
11G	2462	ANT2	-15.82	8.00	Pass

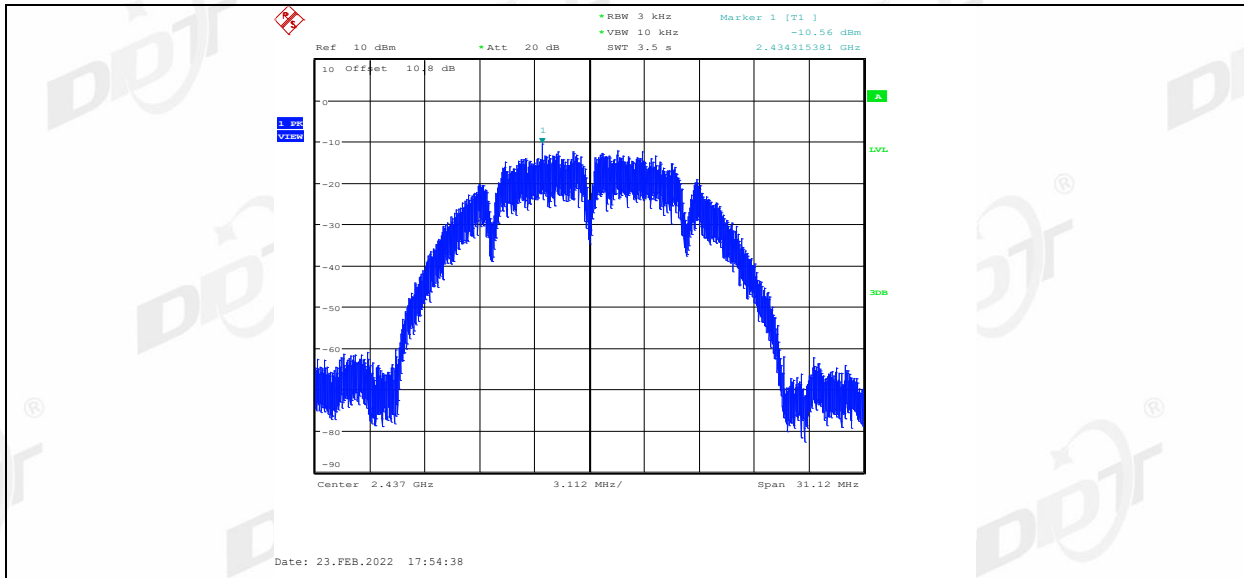
11N20MIMO	2412	ANT1	-13.27	8.00	Pass
11N20MIMO	2412	ANT2	-16.84	8.00	Pass
11N20MIMO	2412	total	-11.69	8.00	Pass
11N20MIMO	2437	ANT1	-14.79	8.00	Pass
11N20MIMO	2437	ANT2	-16.78	8.00	Pass
11N20MIMO	2437	total	-12.66	8.00	Pass
11N20MIMO	2462	ANT1	-15.34	8.00	Pass
11N20MIMO	2462	ANT2	-18.12	8.00	Pass
11N20MIMO	2462	total	-13.50	8.00	Pass
11N40MIMO	2422	ANT1	-15.76	8.00	Pass
11N40MIMO	2422	ANT2	-18.49	8.00	Pass
11N40MIMO	2422	total	-13.90	8.00	Pass
11N40MIMO	2437	ANT1	-15.63	8.00	Pass
11N40MIMO	2437	ANT2	-19.13	8.00	Pass
11N40MIMO	2437	total	-14.03	8.00	Pass
11N40MIMO	2452	ANT1	-15.61	8.00	Pass
11N40MIMO	2452	ANT2	-19.42	8.00	Pass
11N40MIMO	2452	total	-14.10	8.00	Pass

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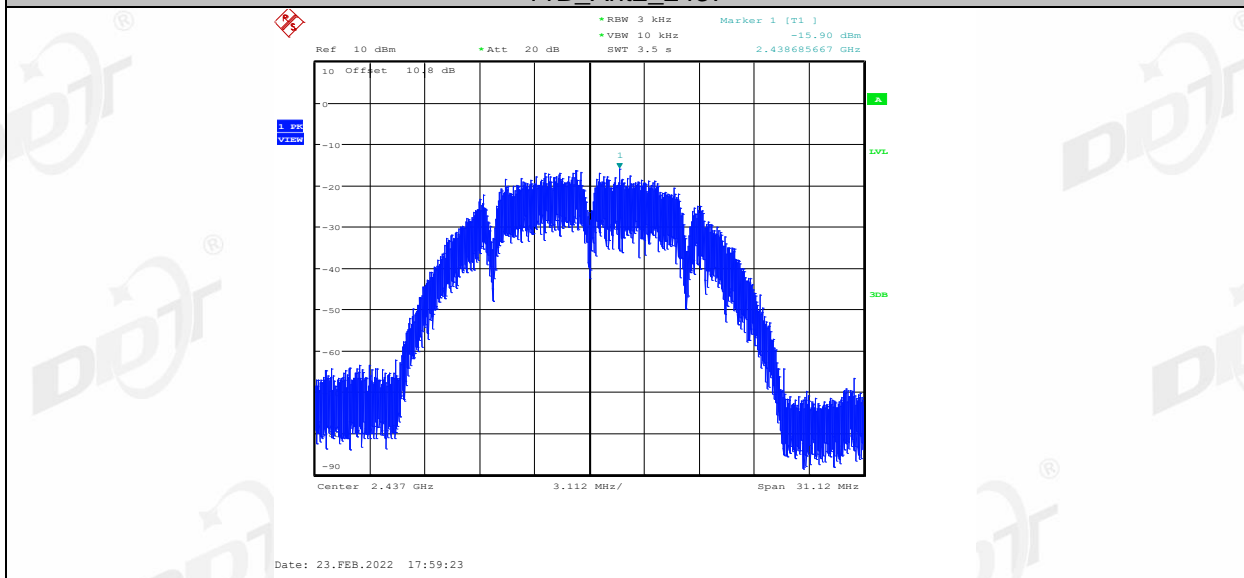
Test Mode	Test Channel	Ant	PSD [dBm]	Limit [dBm/3kHz]	Verdict
11B	2412	total	-9.84	8.00	Pass
11B	2437	total	-9.43	8.00	Pass
11B	2462	total	-10.49	8.00	Pass
11G	2412	total	-11.73	8.00	Pass
11G	2437	total	-11.25	8.00	Pass
11G	2462	total	-11.60	8.00	Pass
11N20MIMO	2412	total	-10.77	8.00	Pass
11N20MIMO	2437	total	-11.70	8.00	Pass
11N20MIMO	2462	total	-12.31	8.00	Pass
11N40MIMO	2422	total	-12.92	8.00	Pass
11N40MIMO	2437	total	-13.03	8.00	Pass
11N40MIMO	2452	total	-13.04	8.00	Pass

6.5. original test data

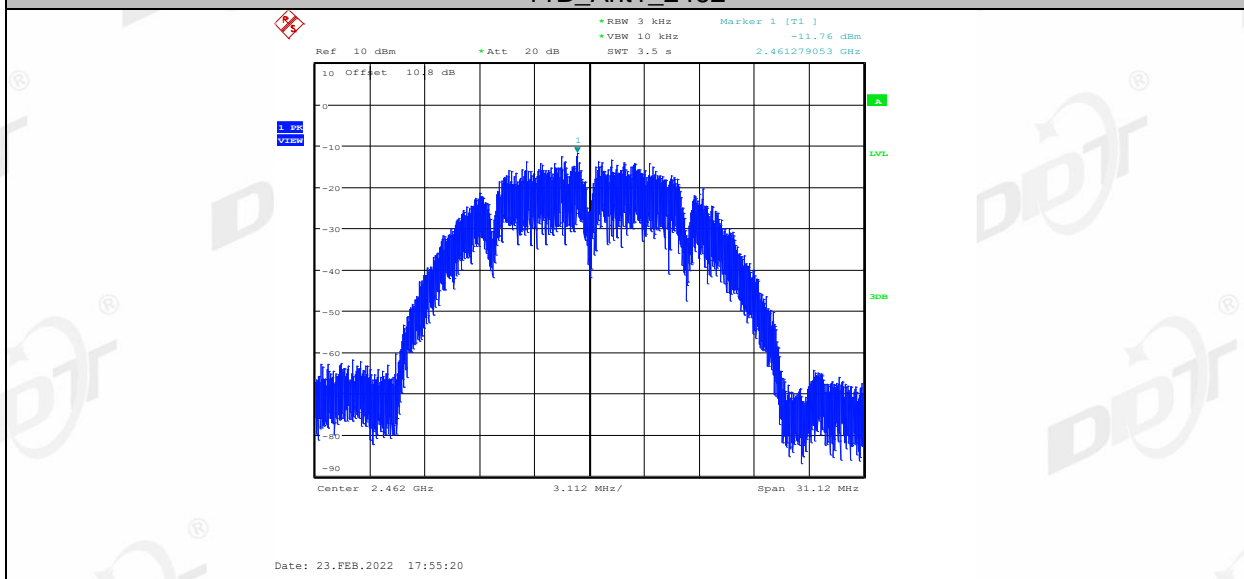




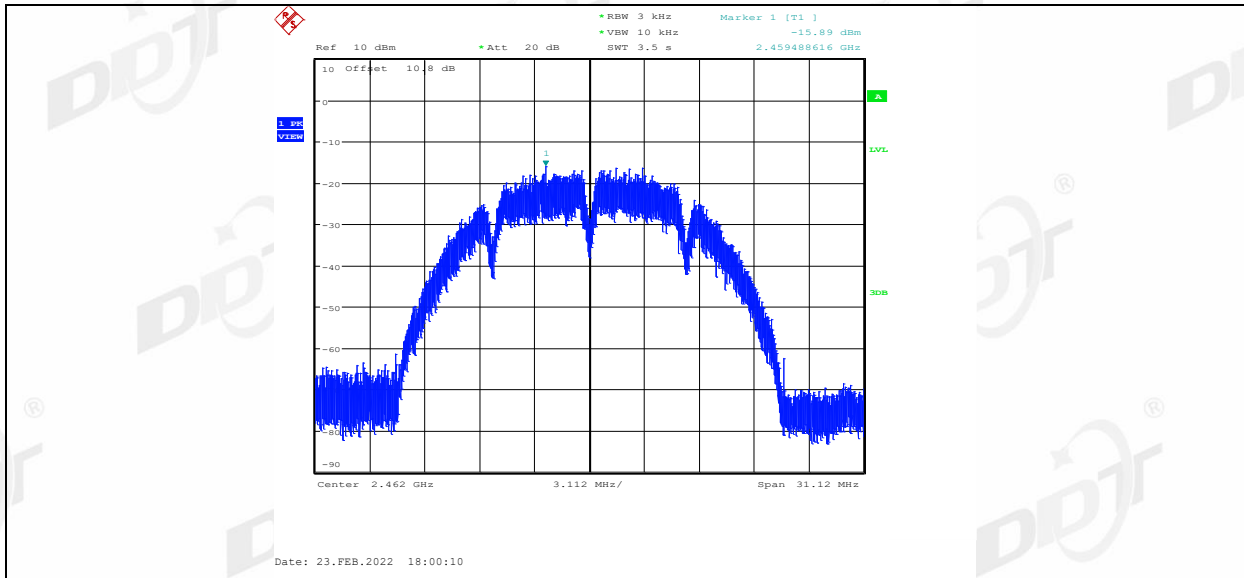
11B_Ant2_2437



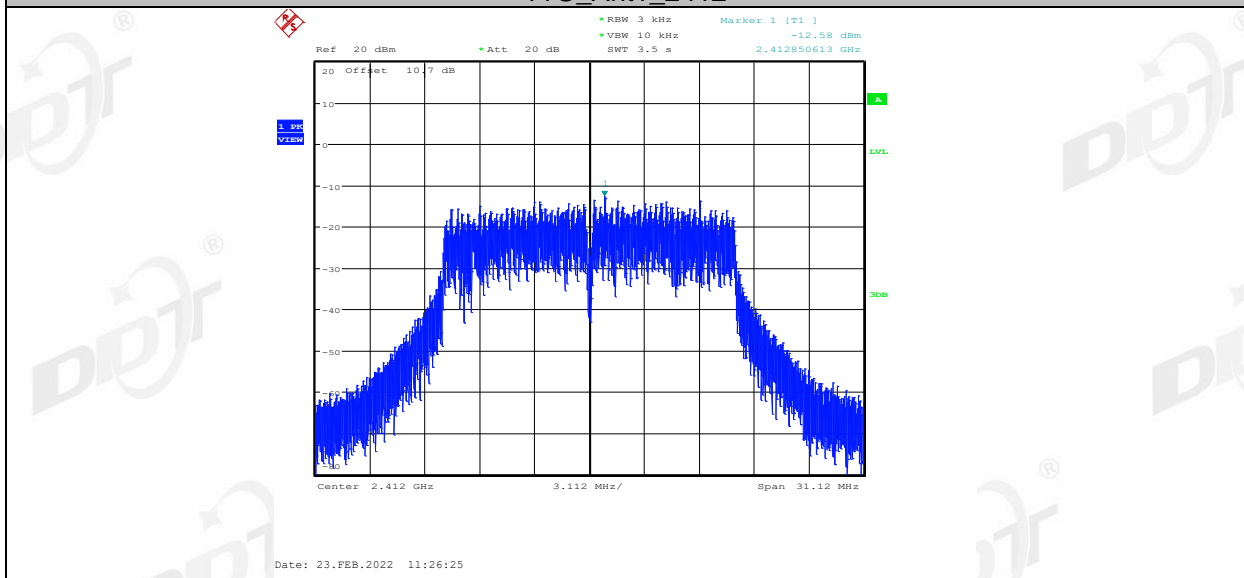
11B_Ant1_2462



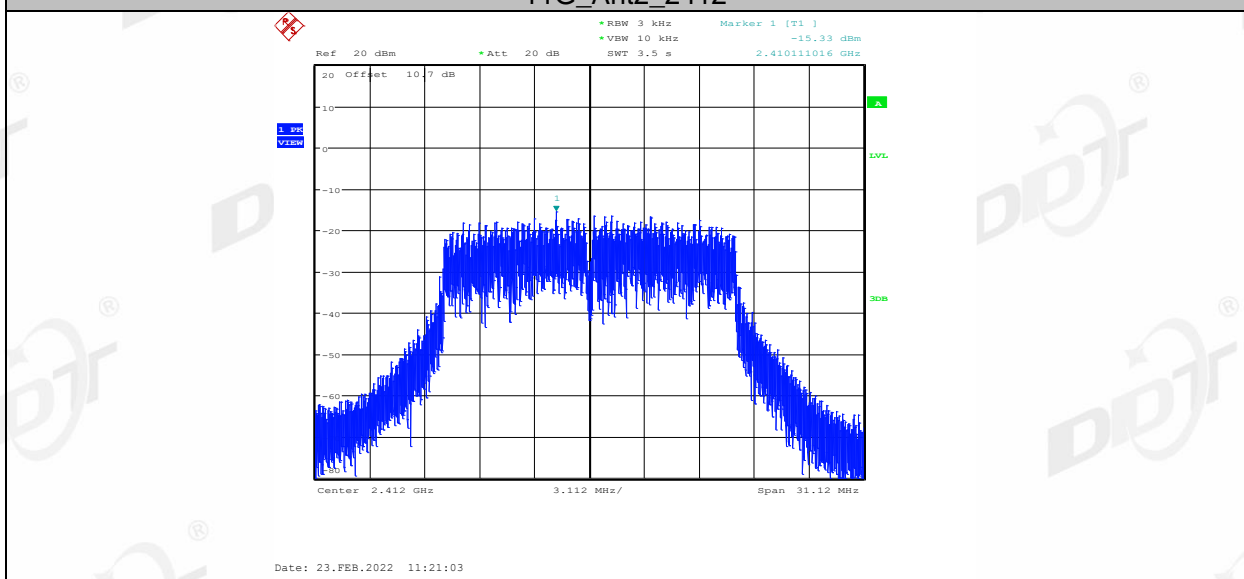
11B_Ant2_2462



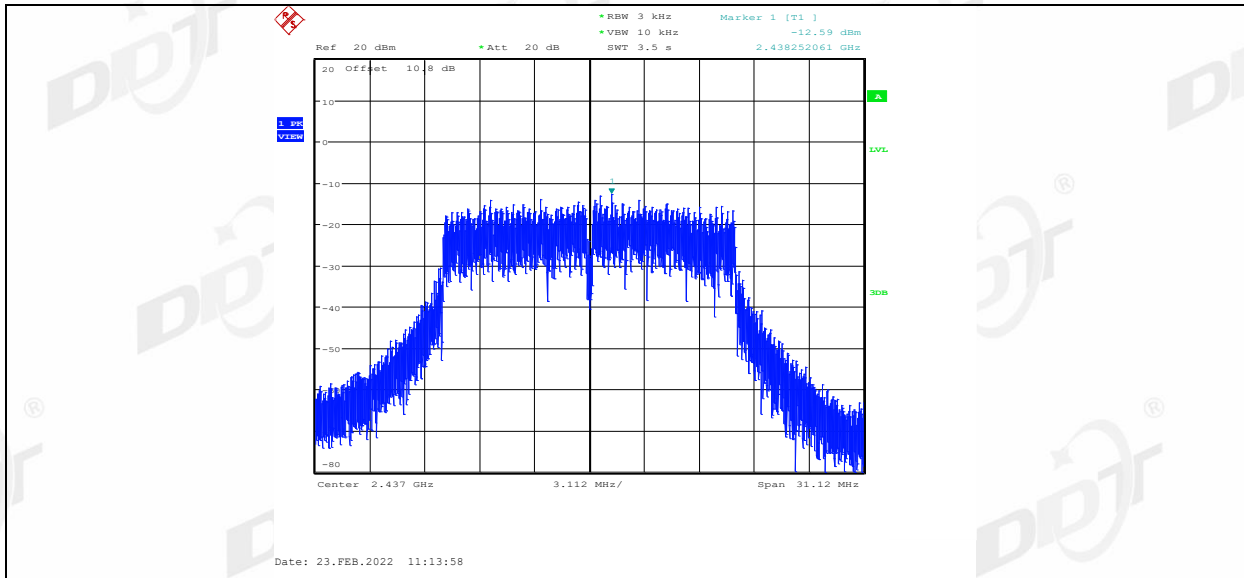
11G_Ant1_2412



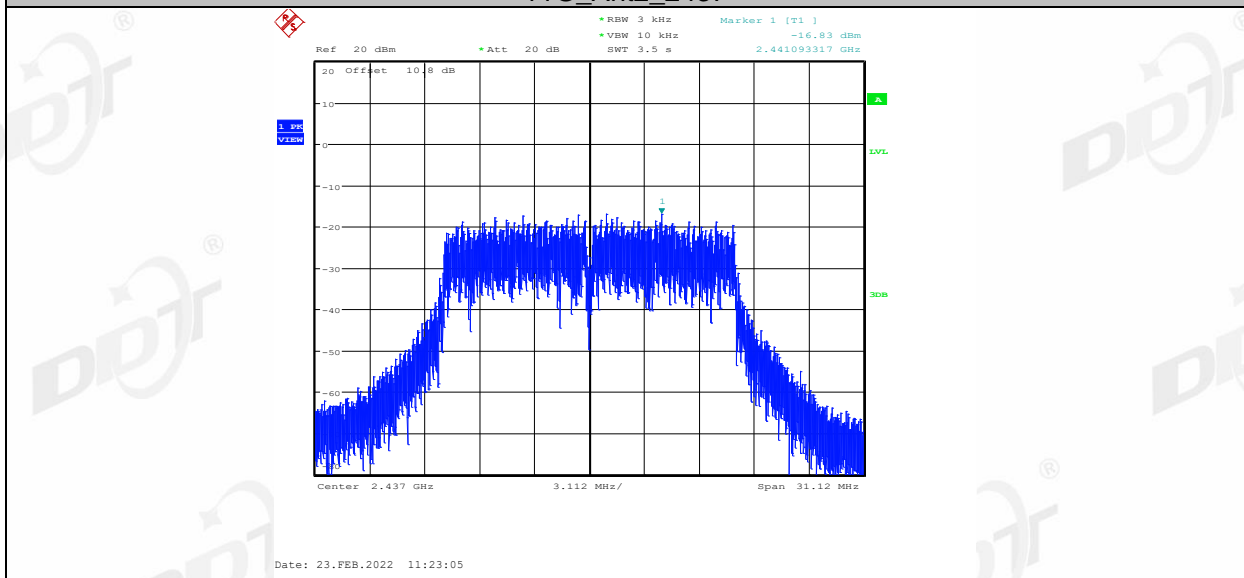
11G_Ant2_2412



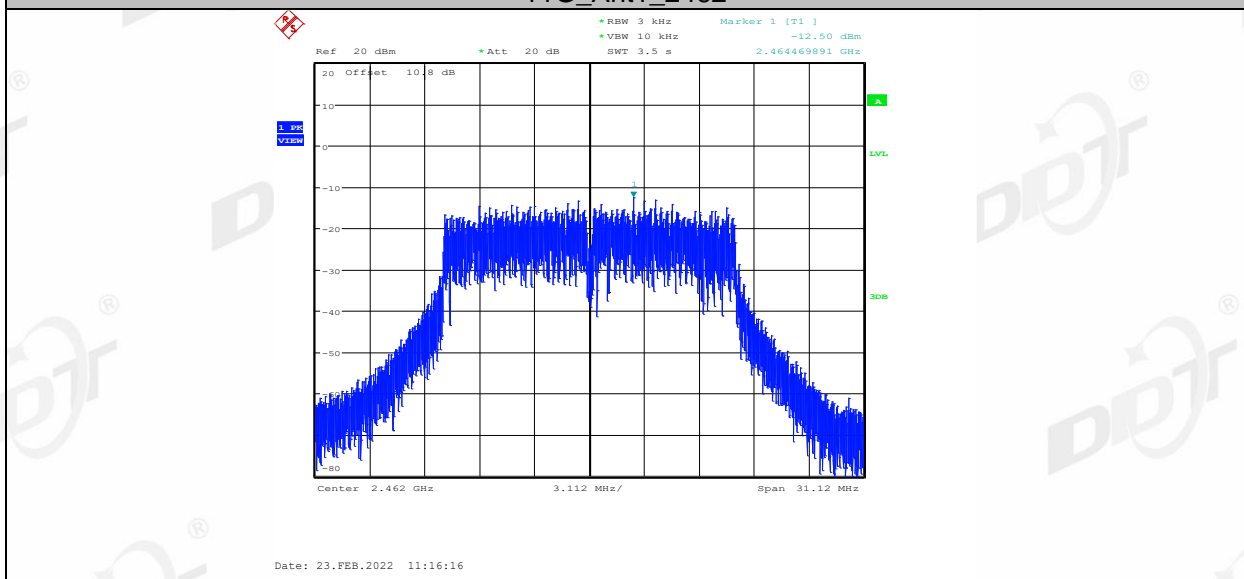
11G_Ant1_2437



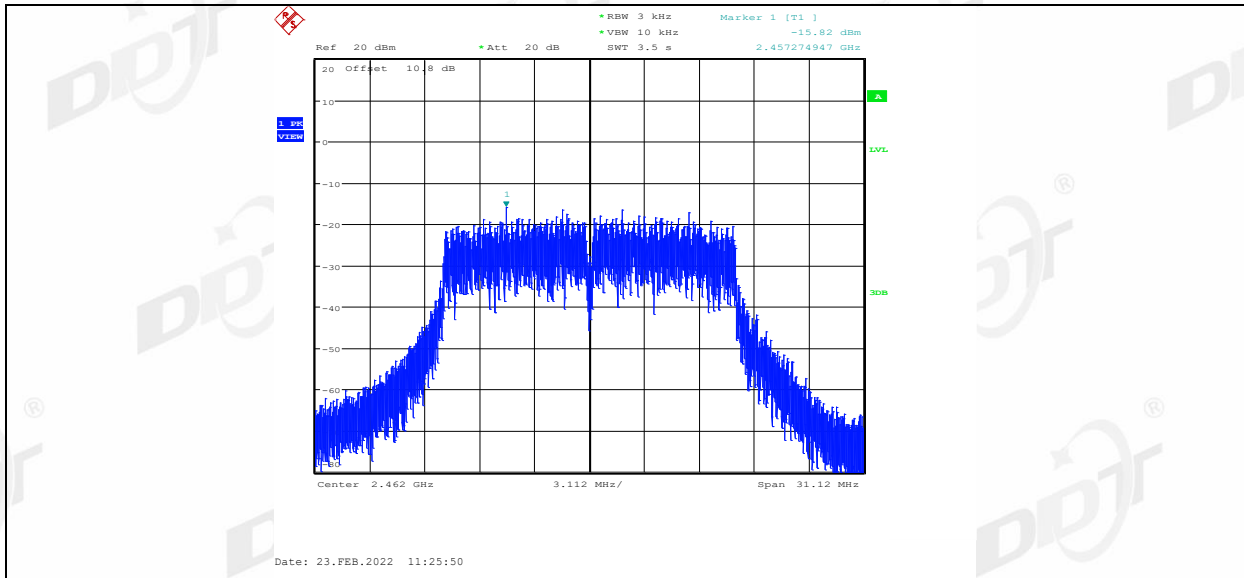
11G_Ant2_2437



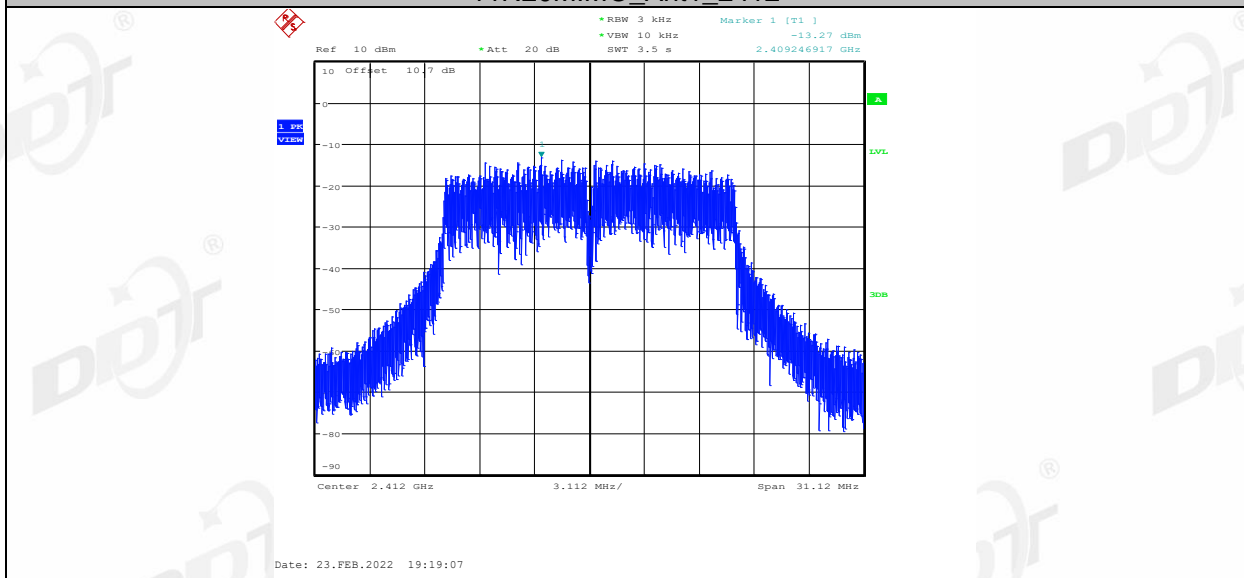
11G_Ant1_2462



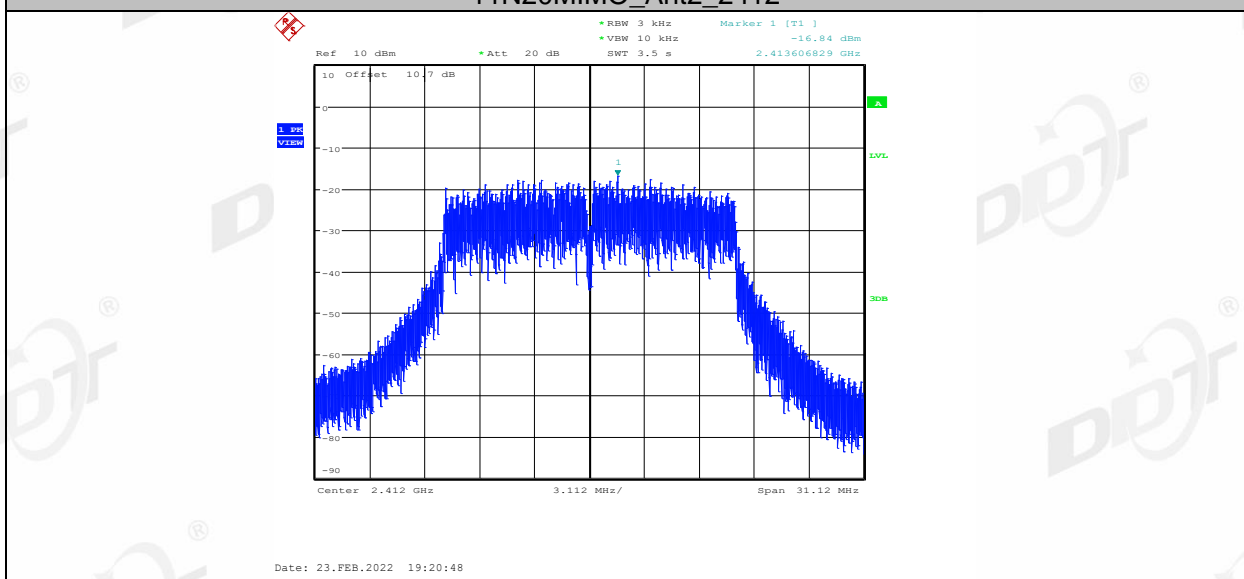
11G_Ant2_2462



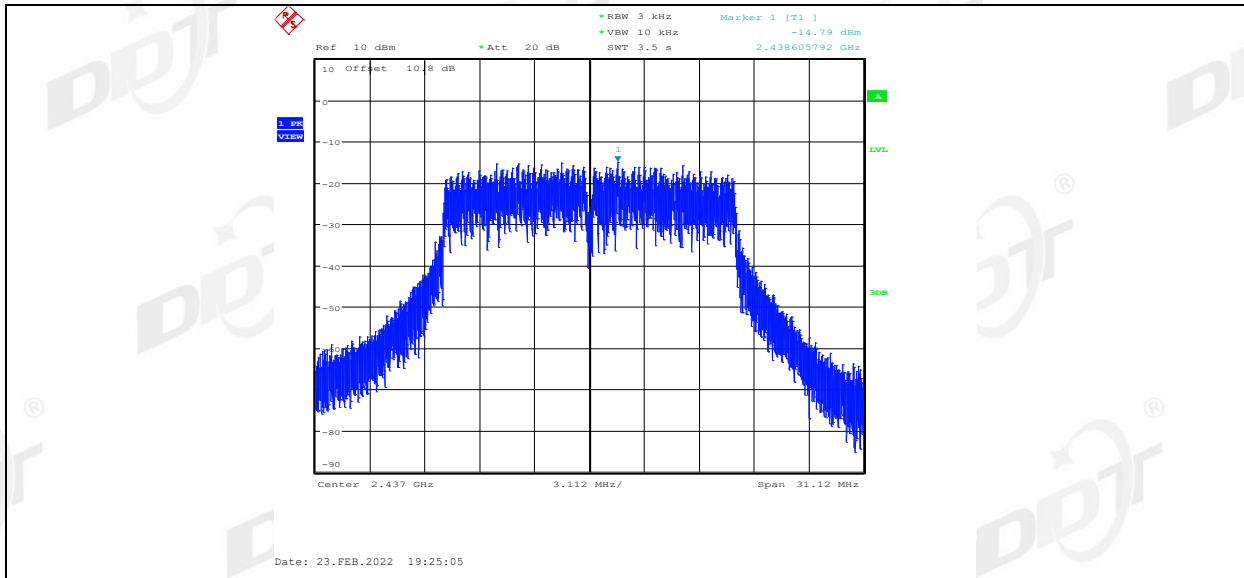
11N20MIMO_Ant1_2412



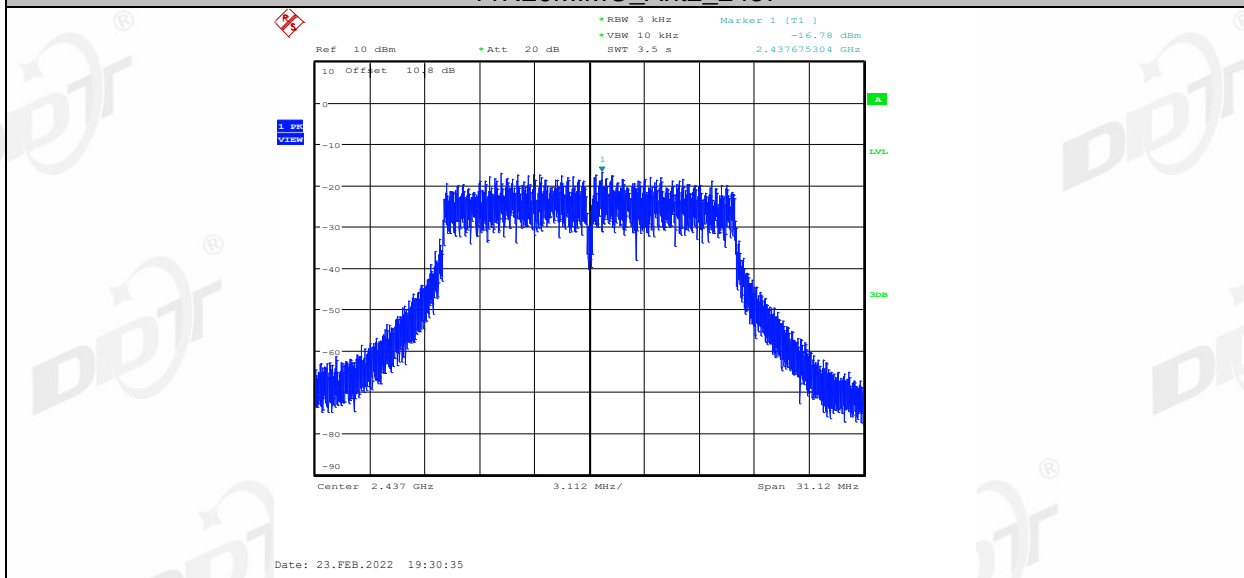
11N20MIMO_Ant2_2412



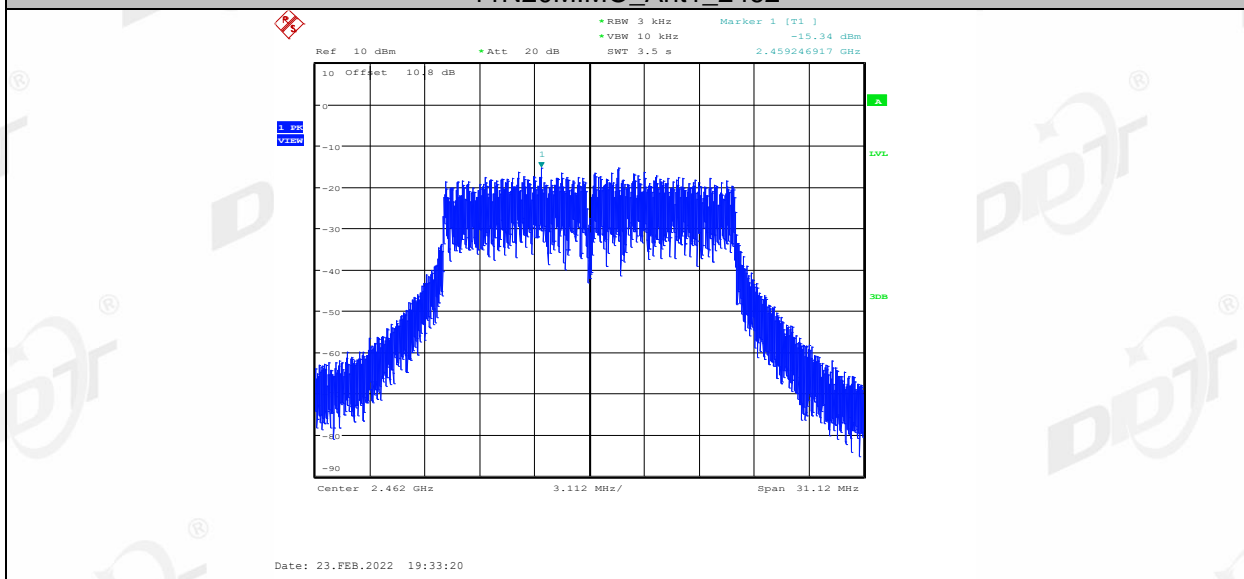
11N20MIMO_Ant1_2437



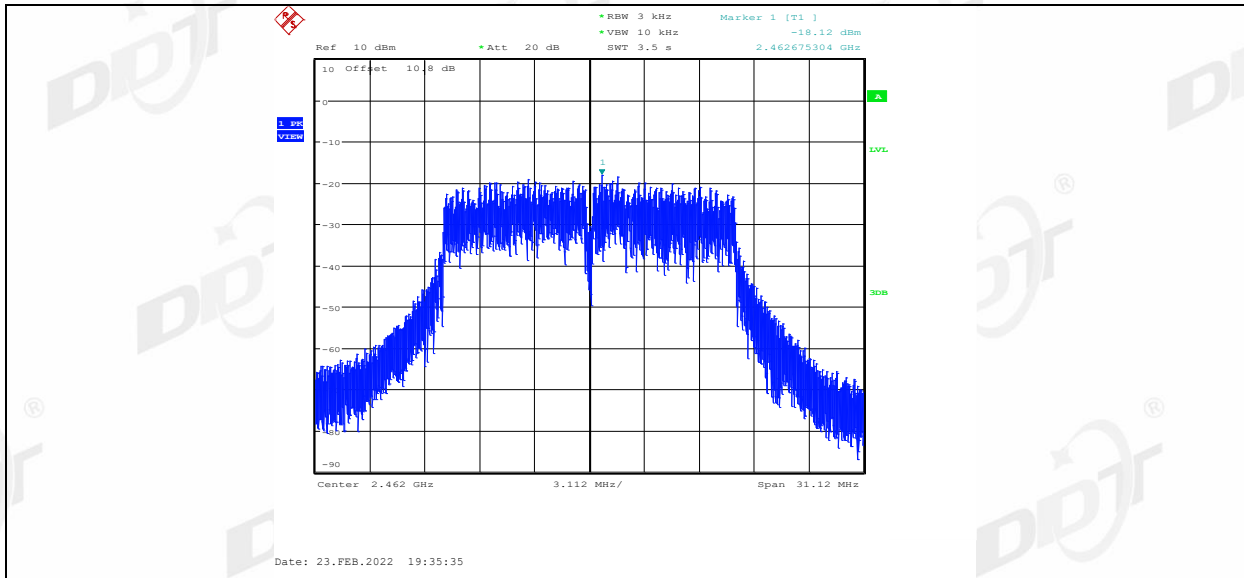
11N20MIMO_Ant2_2437



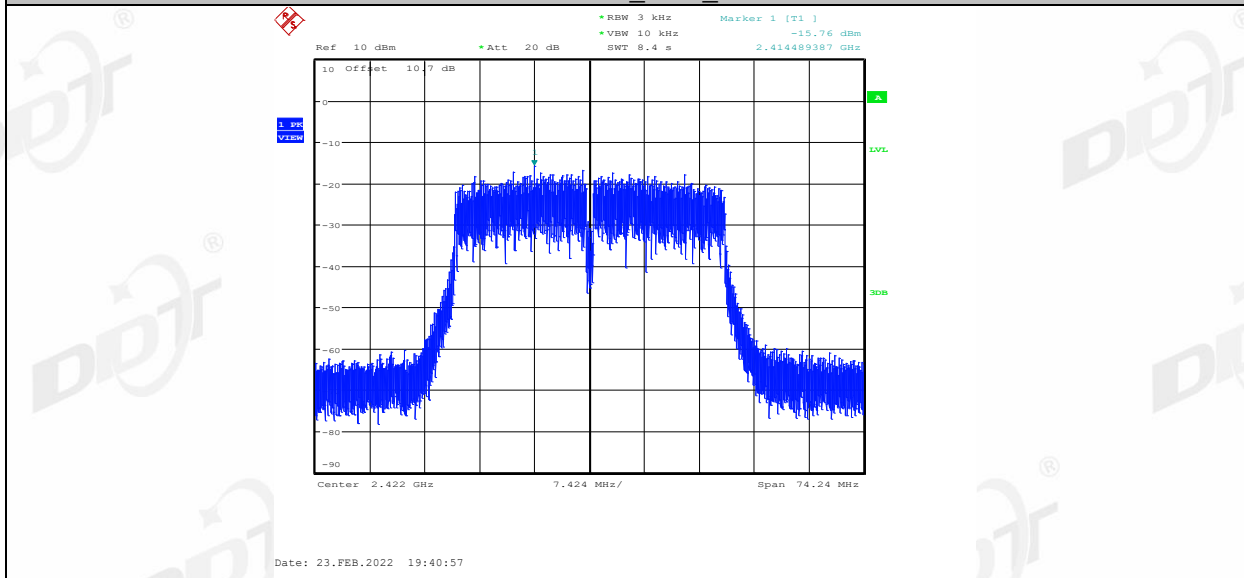
11N20MIMO_Ant1_2462



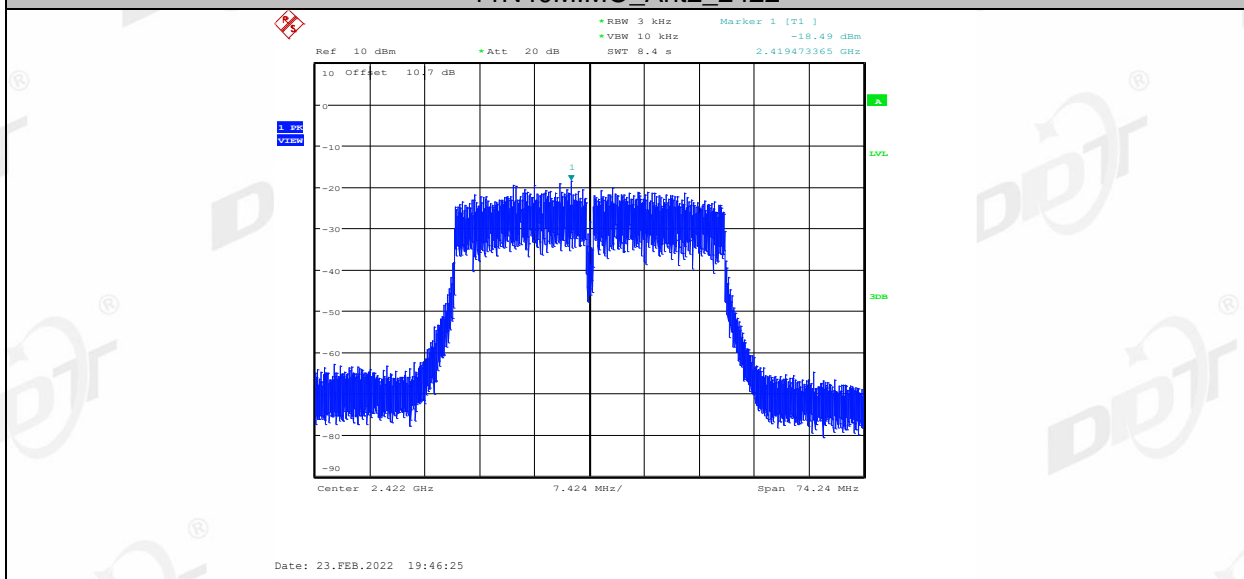
11N20MIMO_Ant2_2462



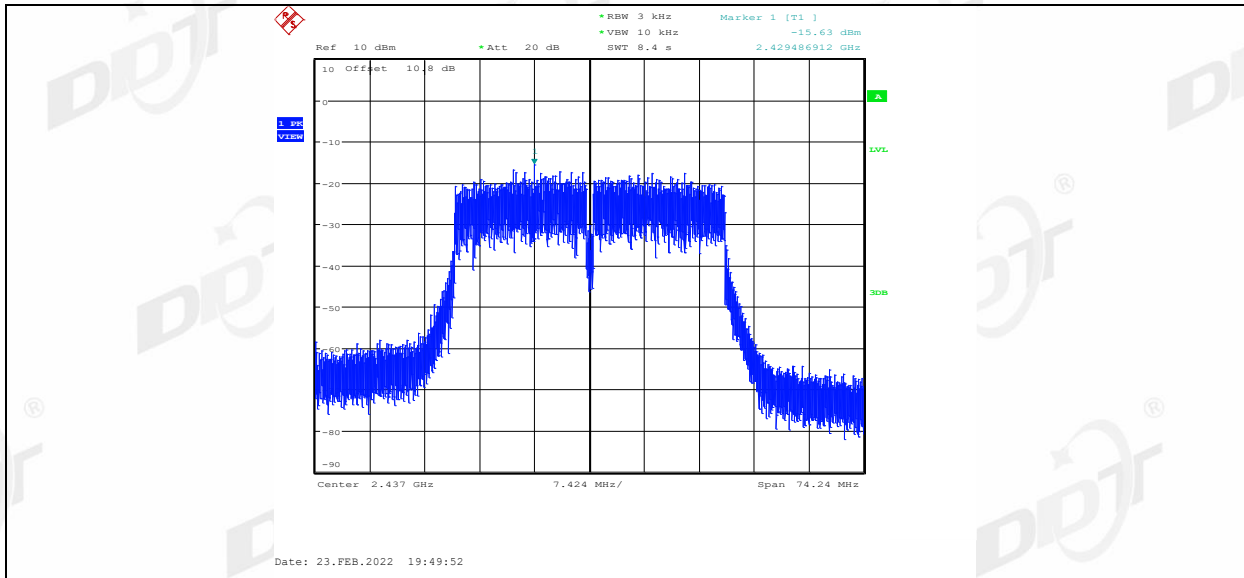
11N40MIMO_Ant1_2422



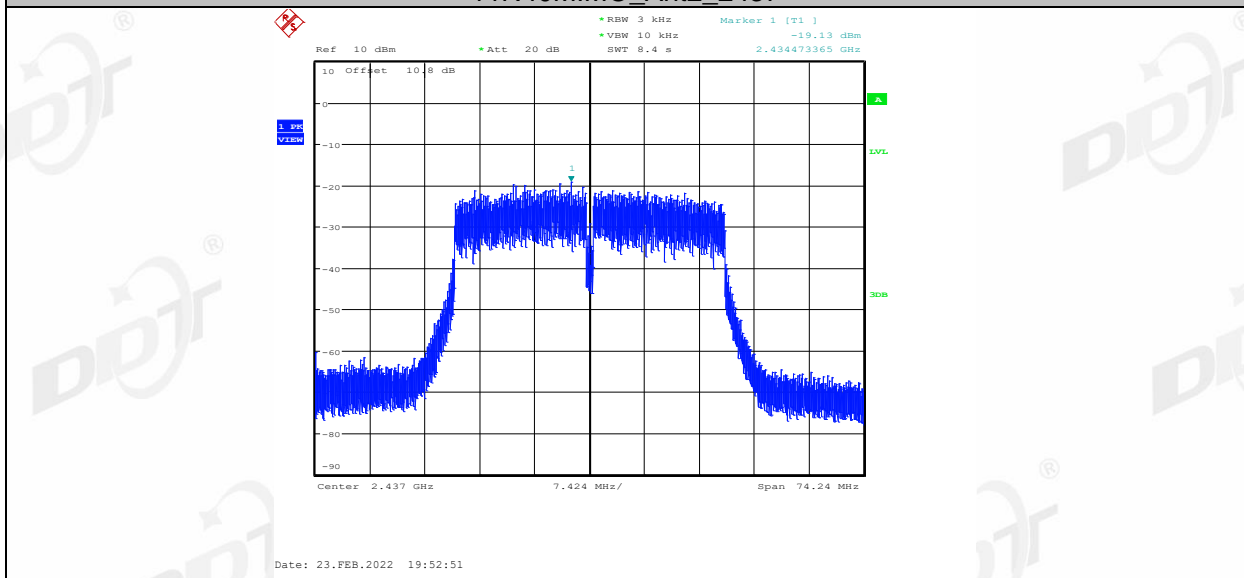
11N40MIMO_Ant2_2422



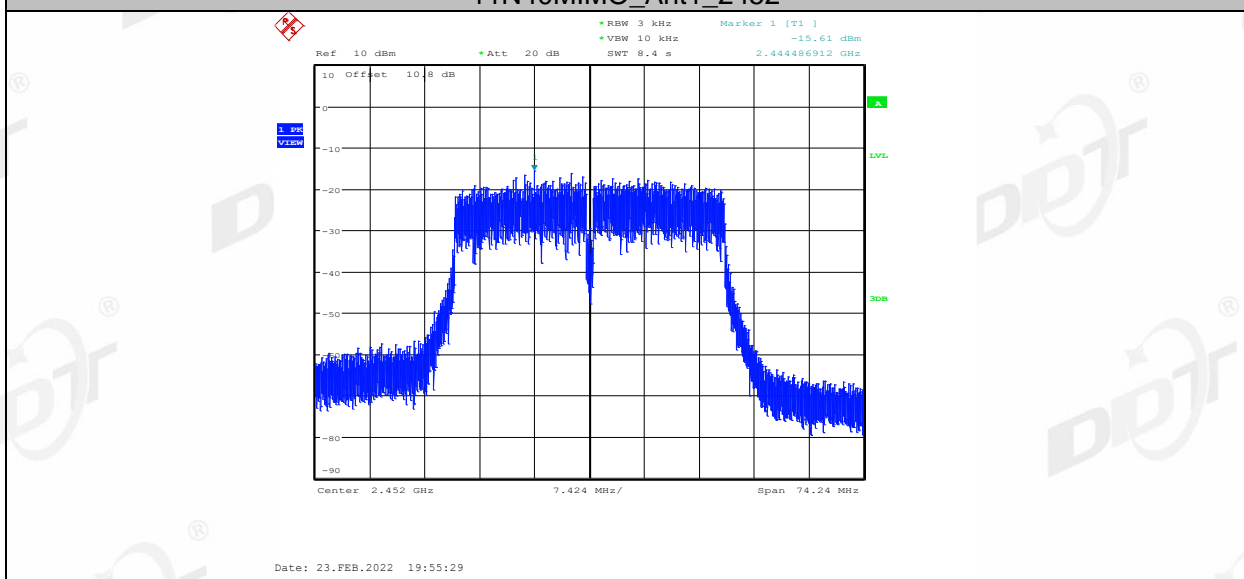
11N40MIMO_Ant1_2437



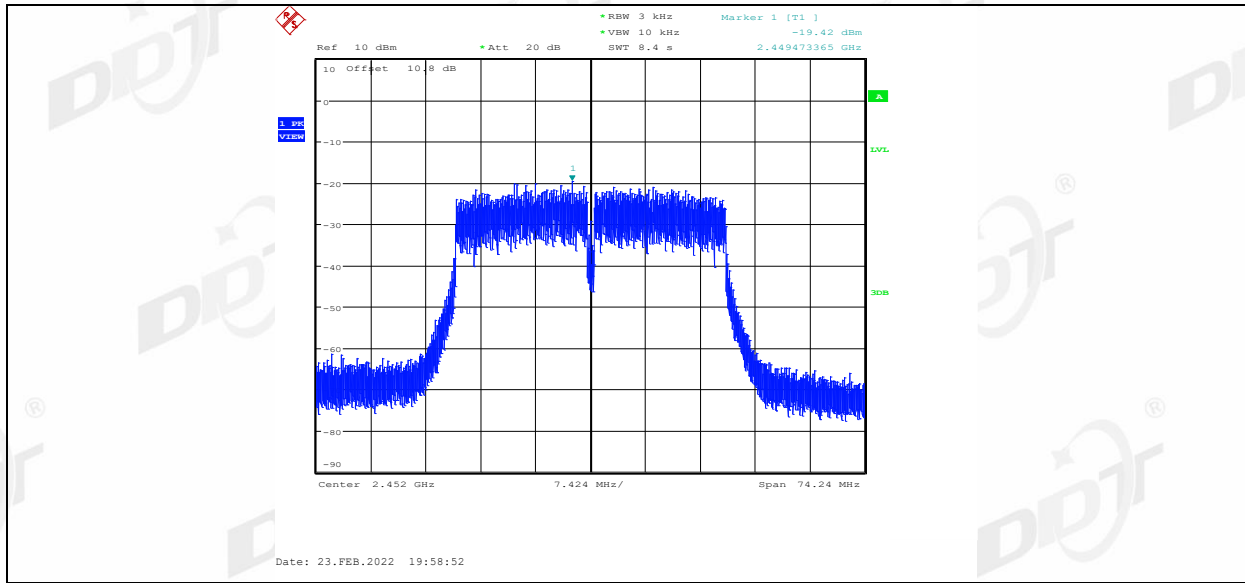
11N40MIMO_Ant2_2437



11N40MIMO_Ant1_2452



11N40MIMO_Ant2_2452



7. Band Edge and Spurious Emissions (Conducted)

7.1. Block diagram of test setup

Same as section 4.1

7.2. Limits

In any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

7.3. Test Procedure

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

(2) Establish a reference level by using the following procedure:

Center frequency	DTS Channel center frequency
RBW:	100 kHz
VBW:	300 kHz
Span	1.5 times the DTS bandwidth
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

(3) Allow the trace to stabilize, use the peak marker function to determine the maximum peak power level to establish the reference level.

(4) Set the spectrum analyzer as follows:

RBW:	100 kHz
VBW:	300 kHz
Span	Encompass frequency range to be measured
Number of measurement points	$\geq \text{span}/\text{RBW}$
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

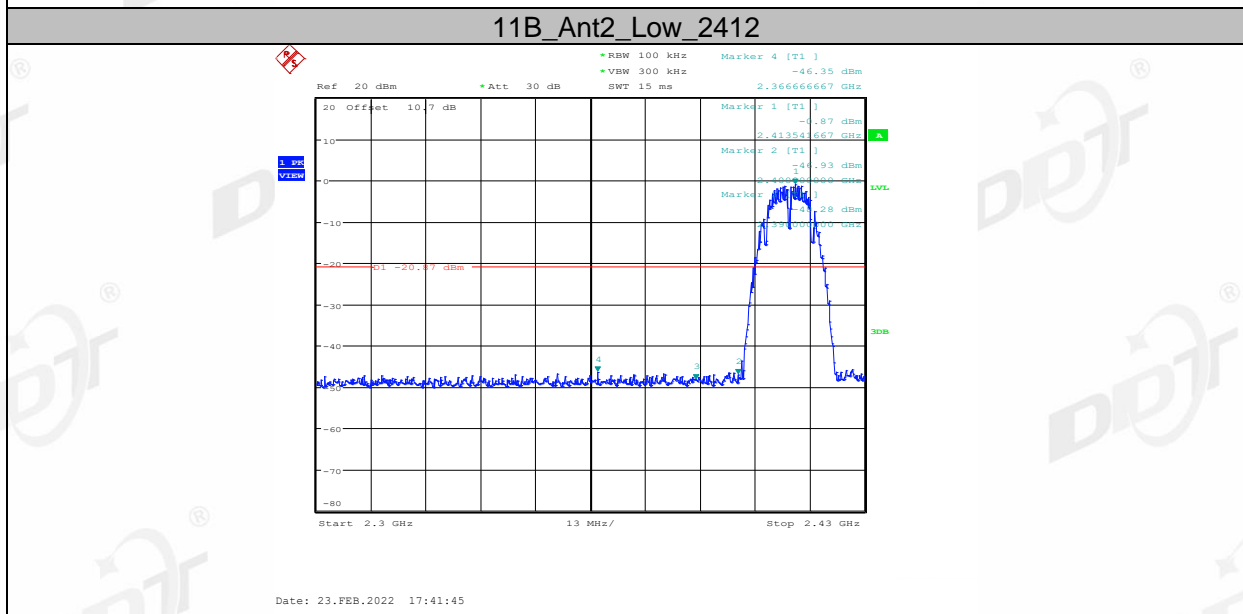
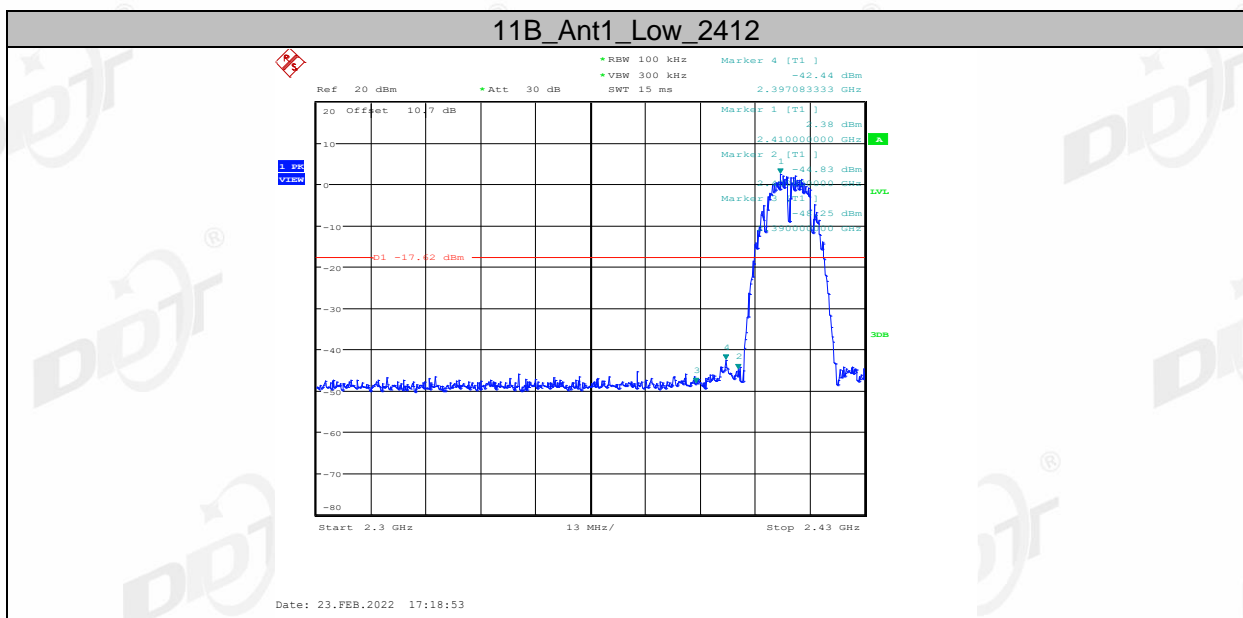
(5) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude of all unwanted emissions outside of the authorized frequency band

7.4. Test Result

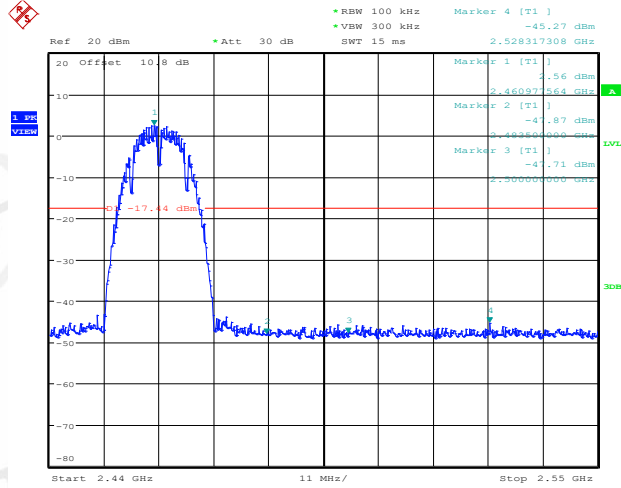
EUT Set Mode	CH or Frequency	Result (dBm)	EUT Set Mode	CH or Frequency	Result (dBm)
11b	CH1	Pass	11n HT 20	CH1	Pass
	CH6	Pass		CH6	Pass
	CH11	Pass		CH11	Pass
11g	CH1	Pass	11n HT 40	CH3	Pass
	CH6	Pass		CH6	Pass
	CH11	Pass		CH9	Pass

7.5. original test data

Band Edge

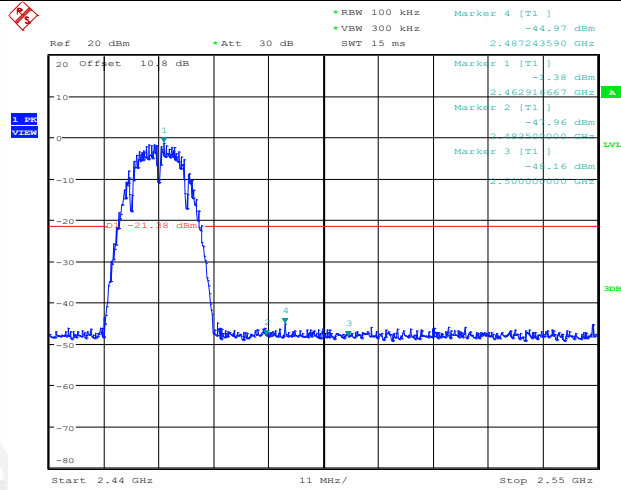


11B_Ant1_High_2462



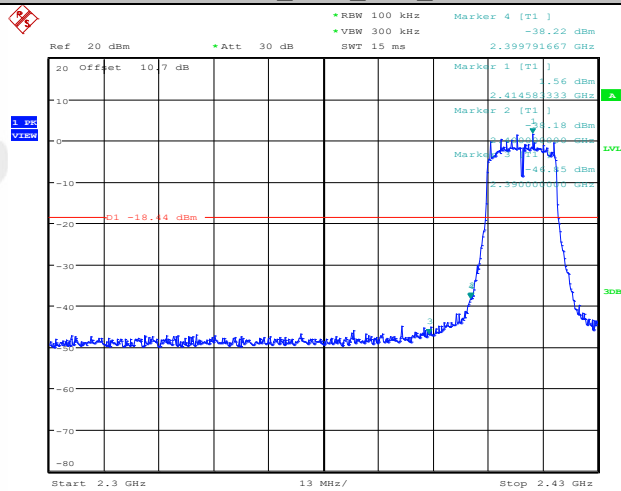
Date: 23.FEB.2022 17:24:03

11B_Ant2_High_2462



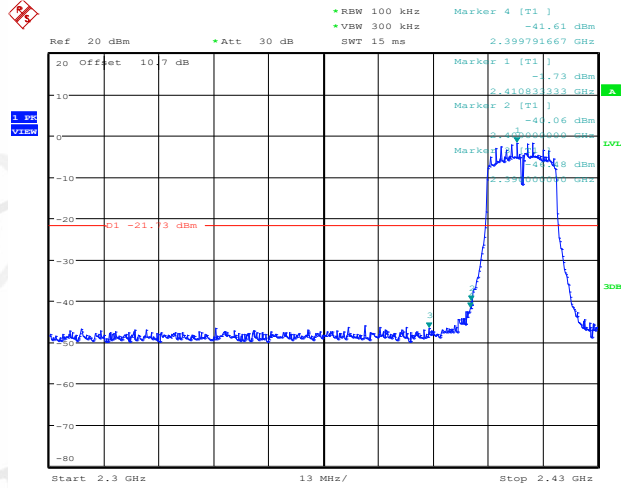
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11G_Ant1_Low_2412



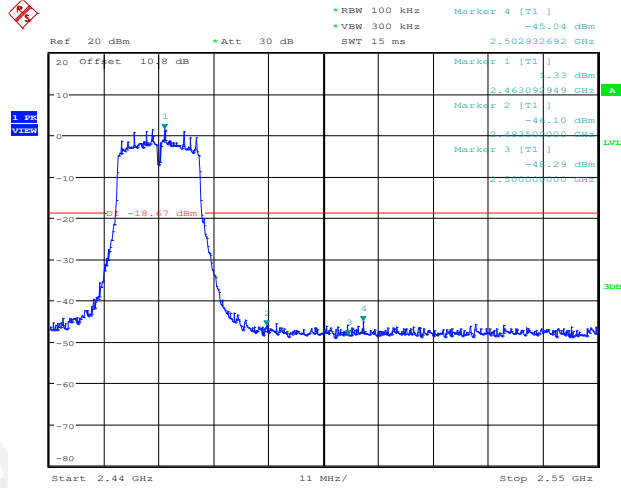
Date: 23.FEB.2022 11:12:26

11G_Ant2_Low_2412



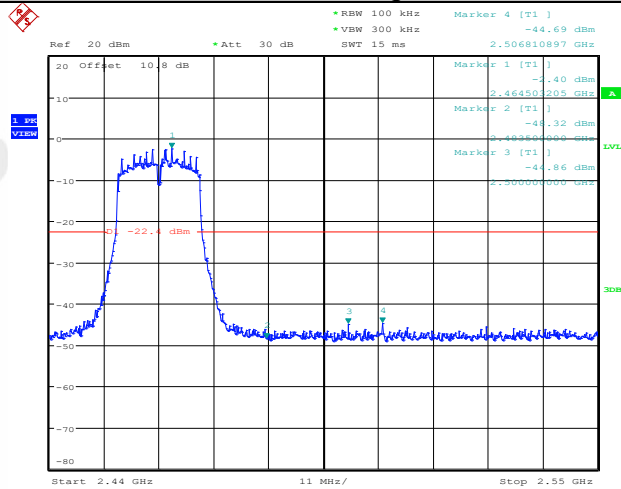
Date: 23.FEB.2022 11:21:13

11G_Ant1_High_2462



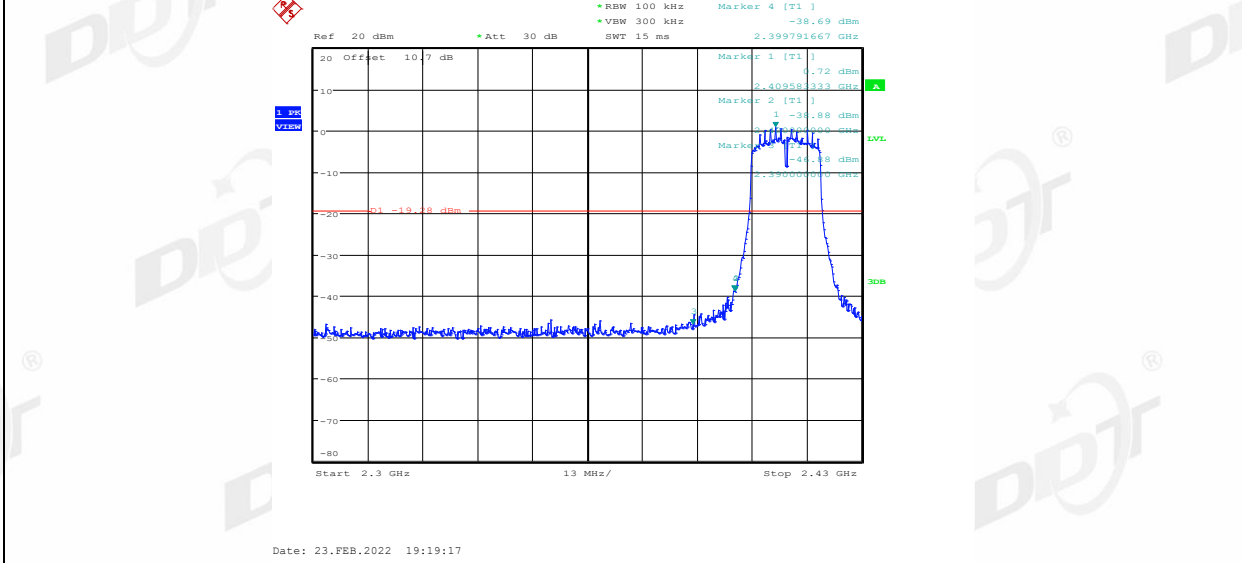
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11G_Ant2_High_2462

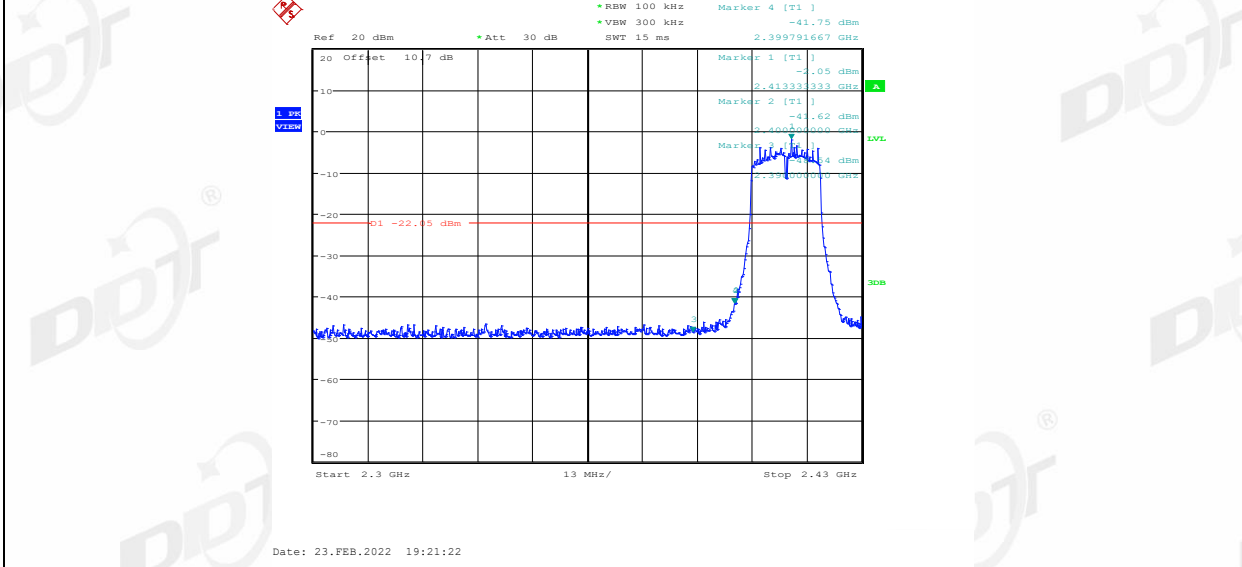


Date: 23.FEB.2022 11:24:45

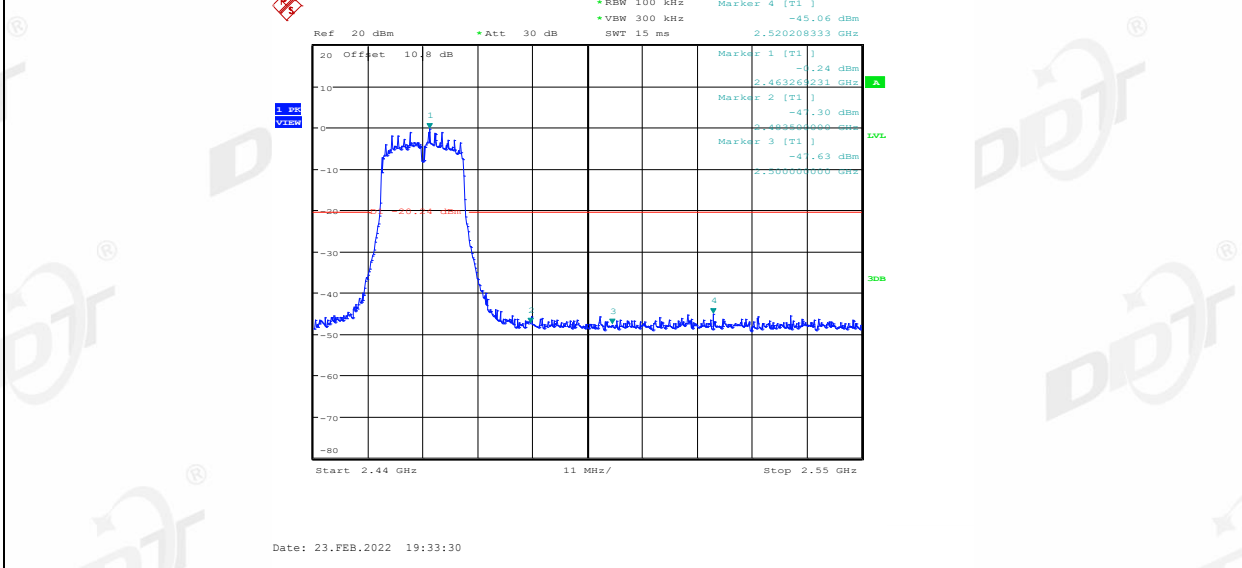
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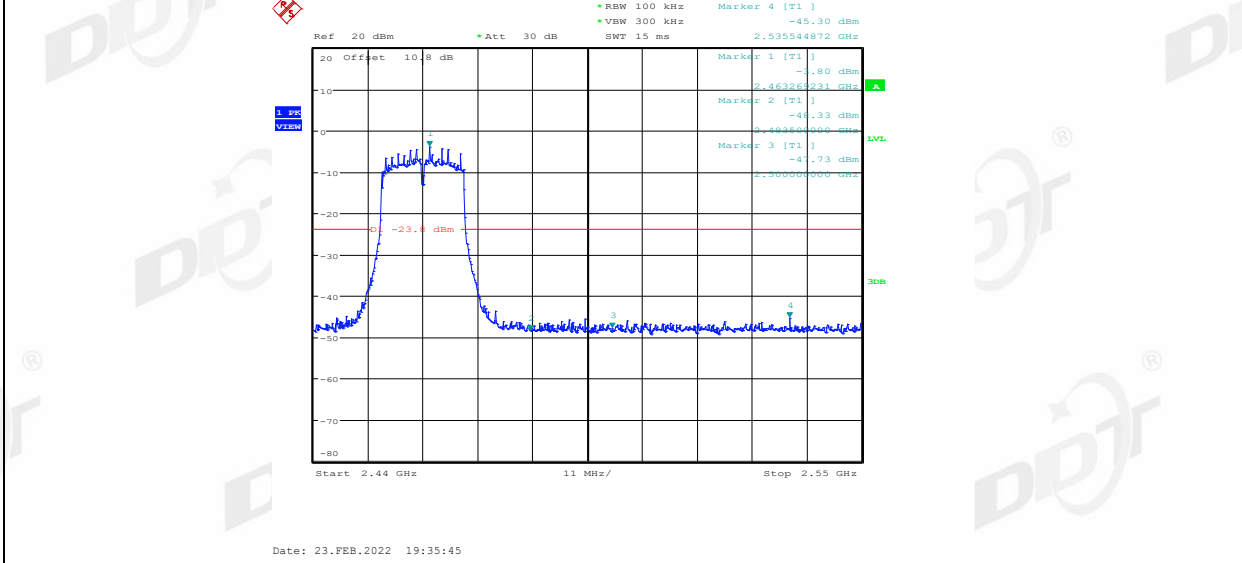
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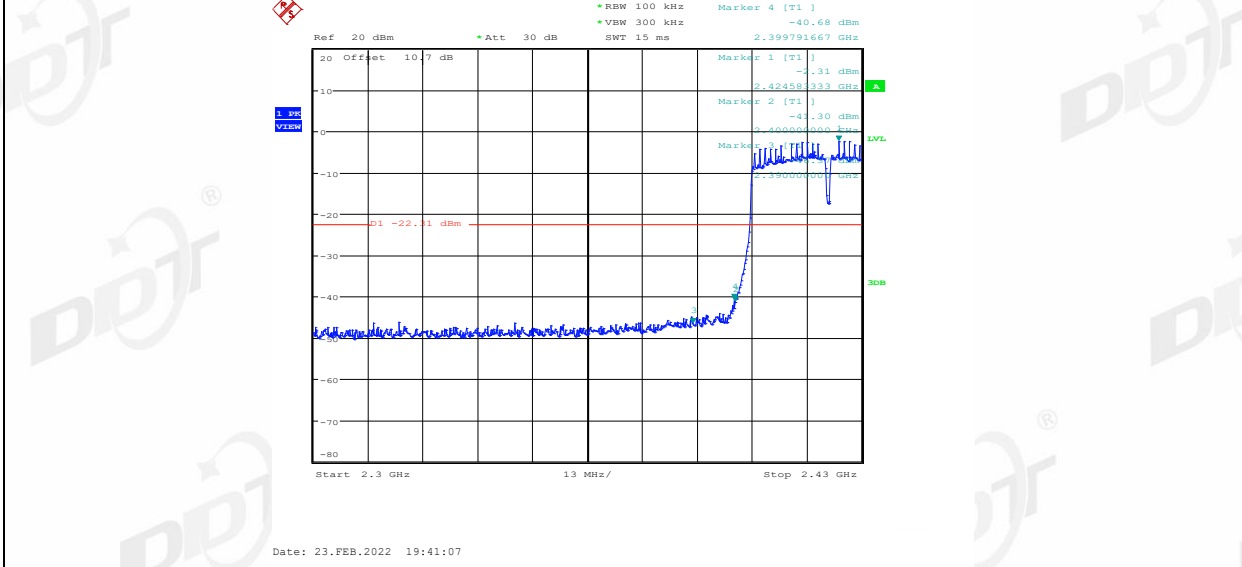
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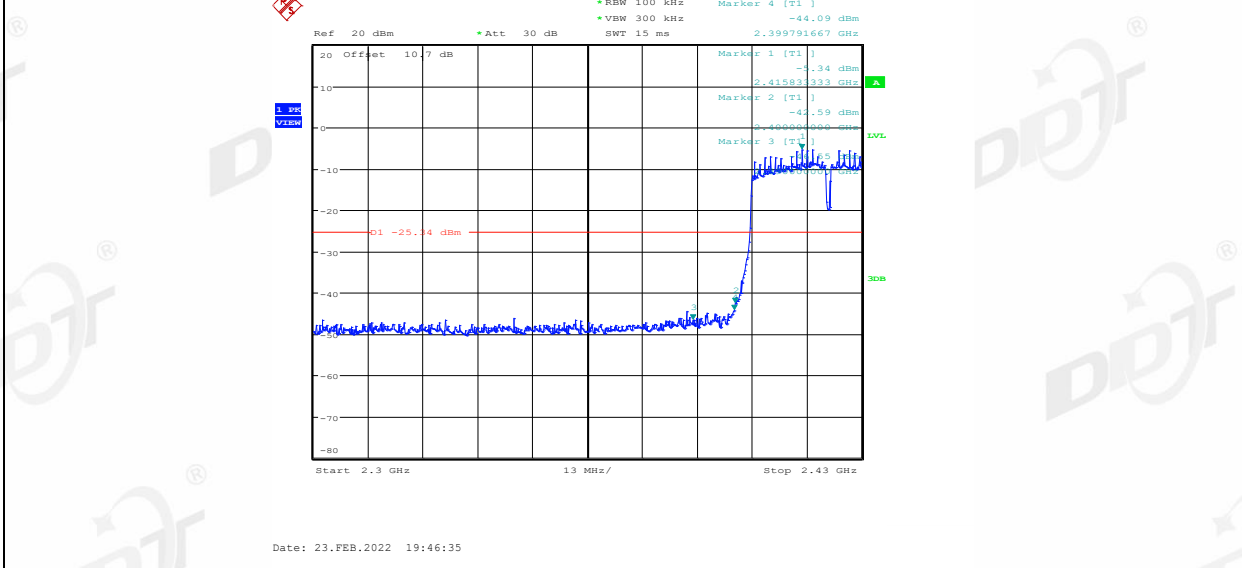
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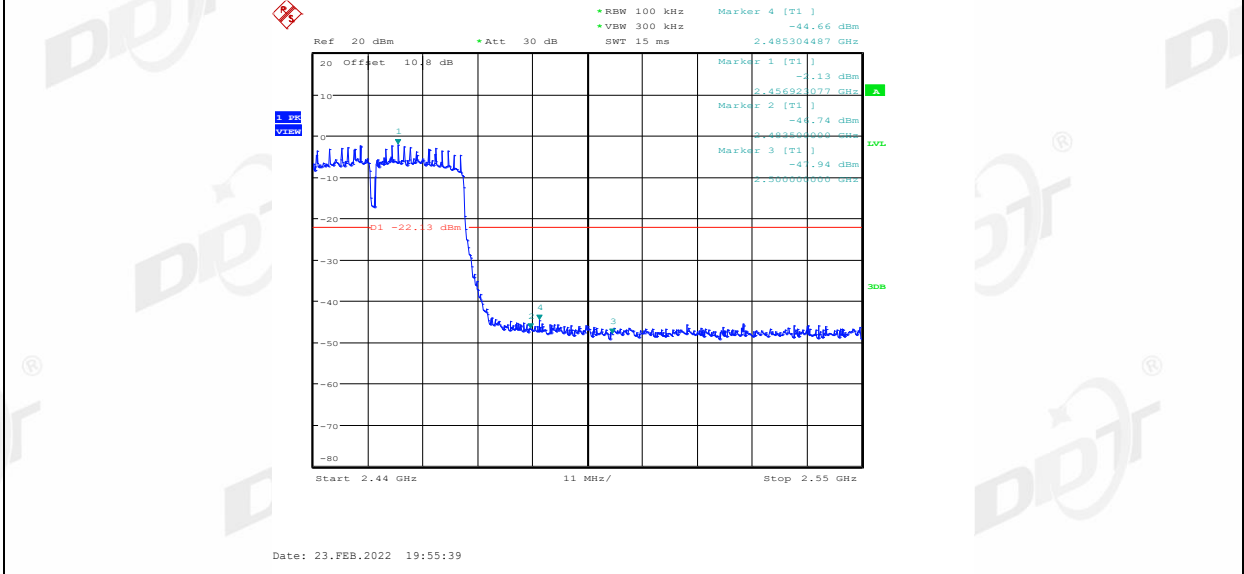
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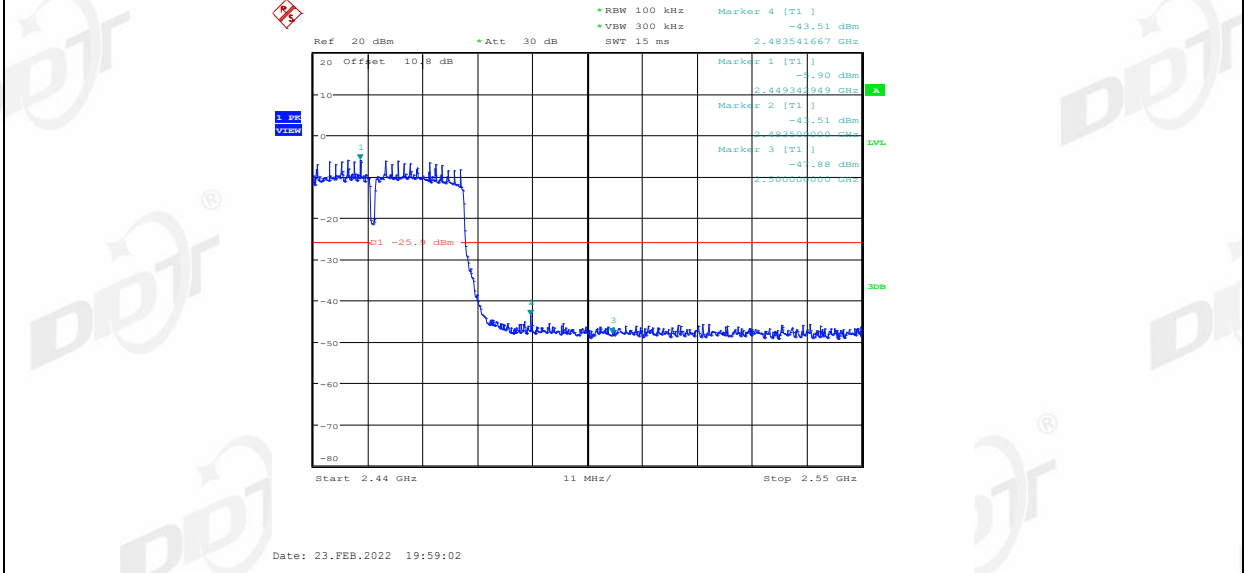
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11N40MIMO_Ant1_High_2452

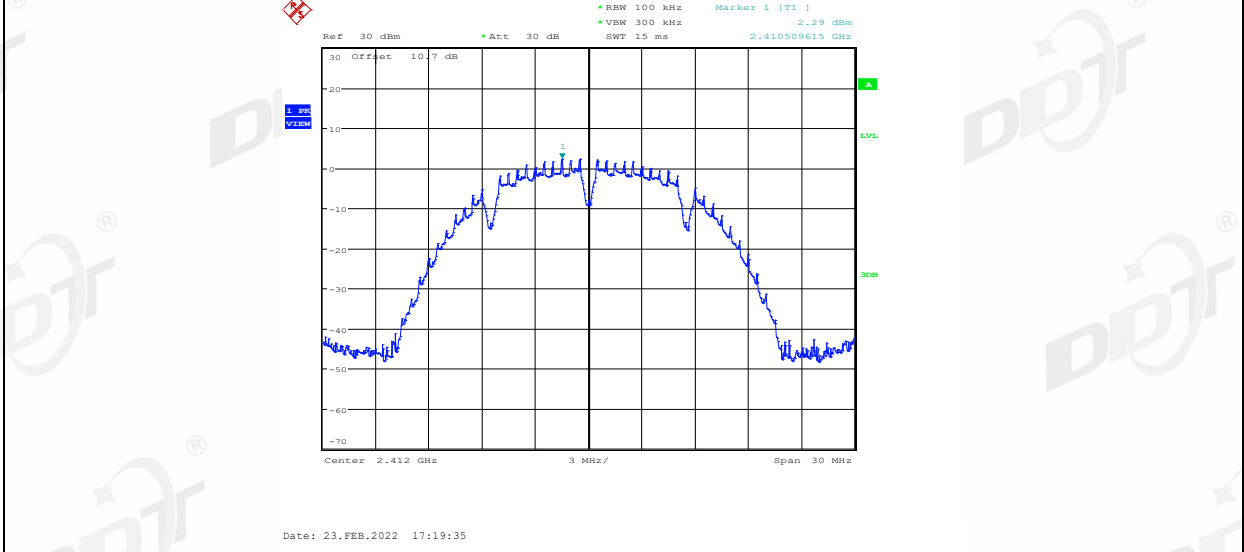


11N40MIMO_Ant2_High_2452

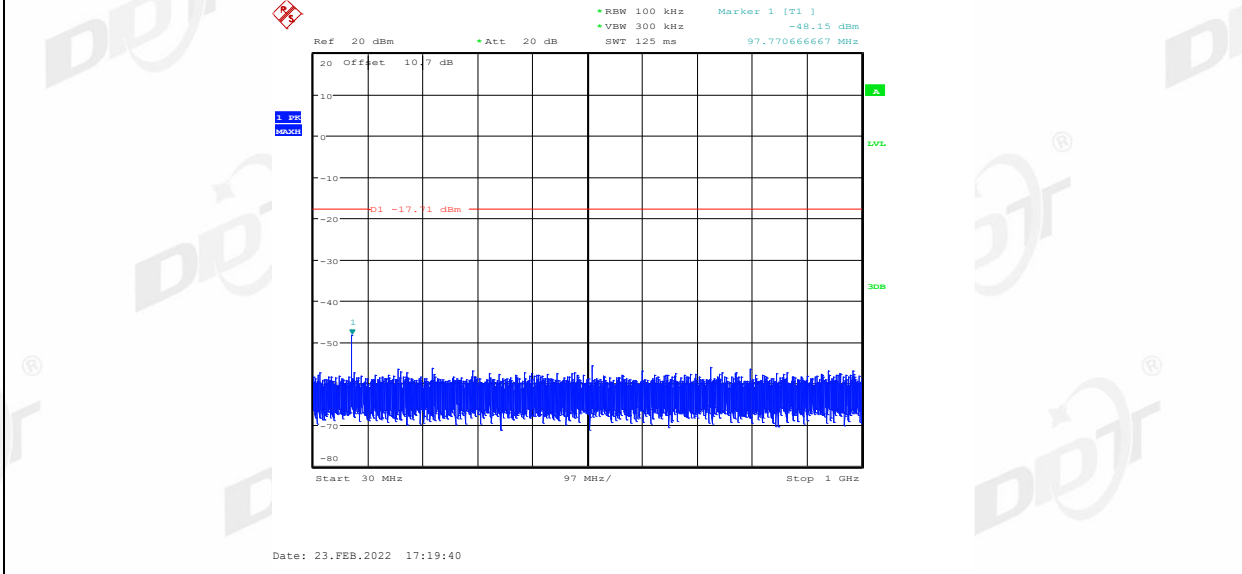


Spurious Emissions

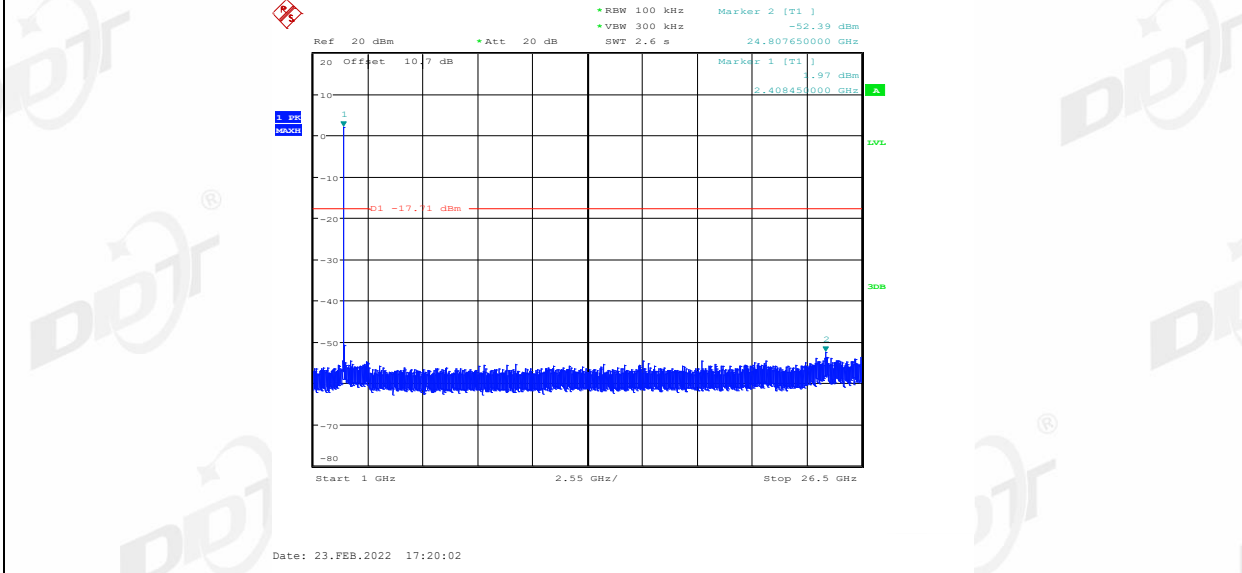
11B_Ant1_2412_0~Reference



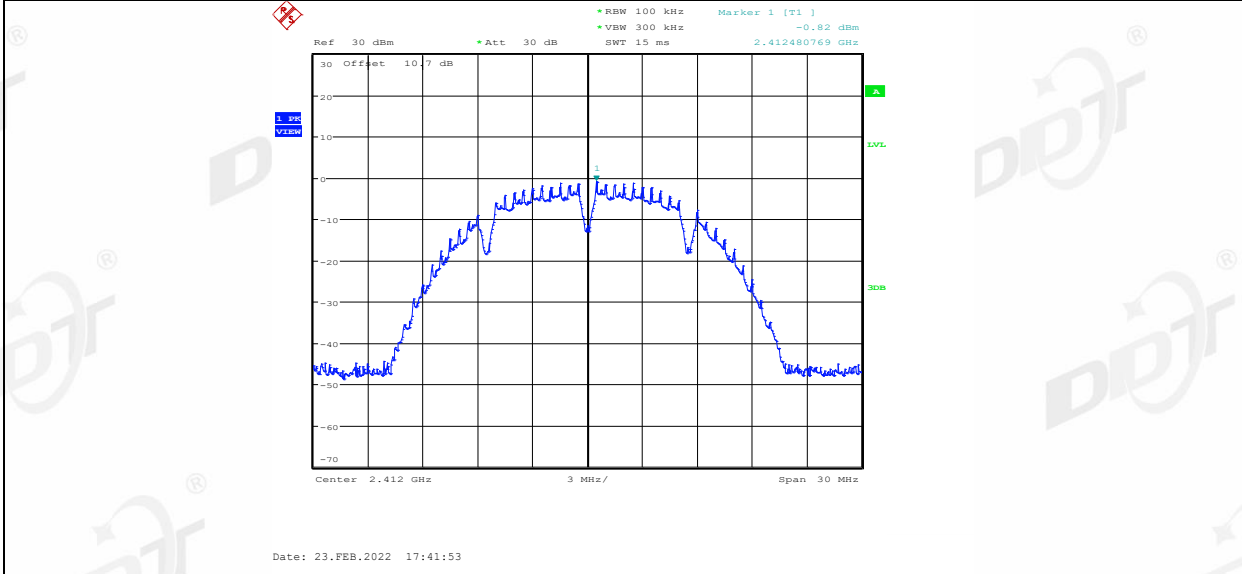
11B_Ant1_2412_30~1000



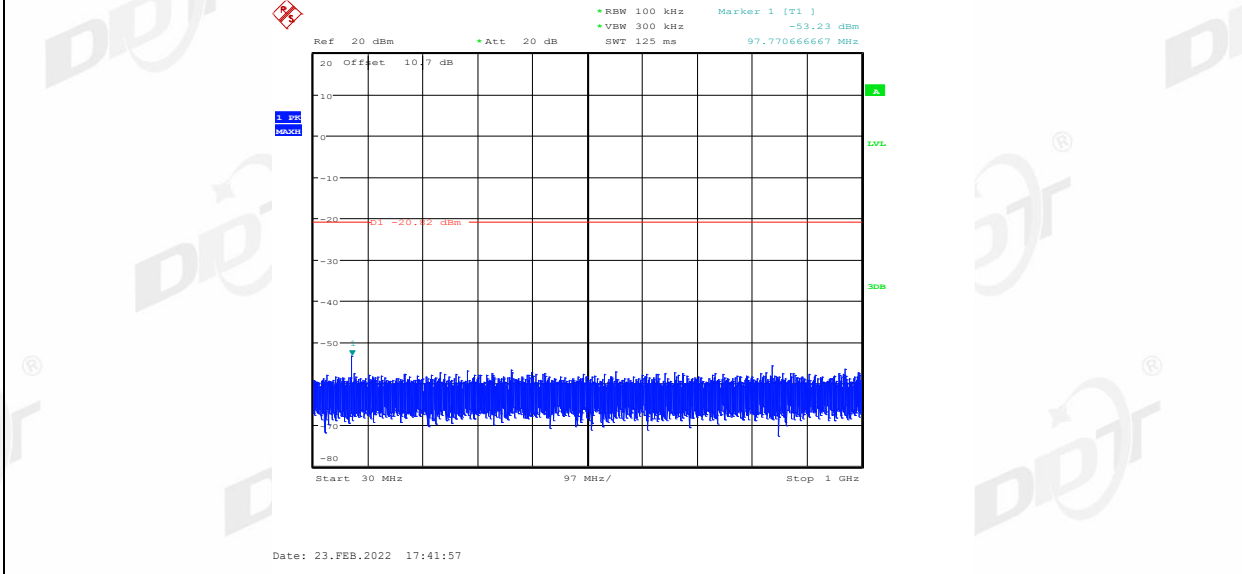
11B_Ant1_2412_1000~26500



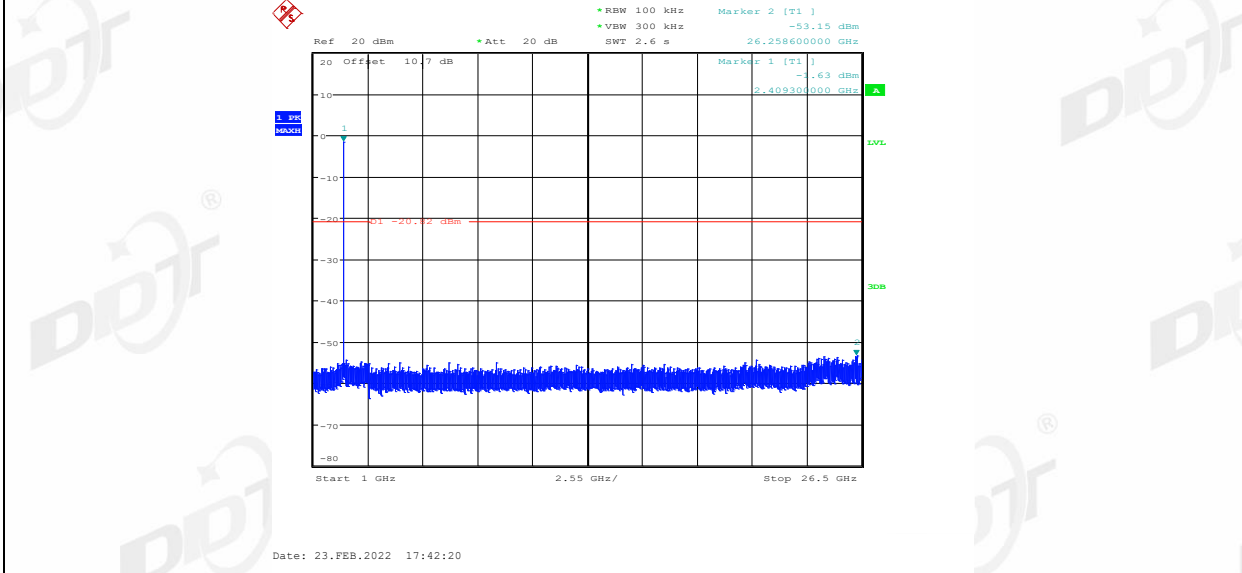
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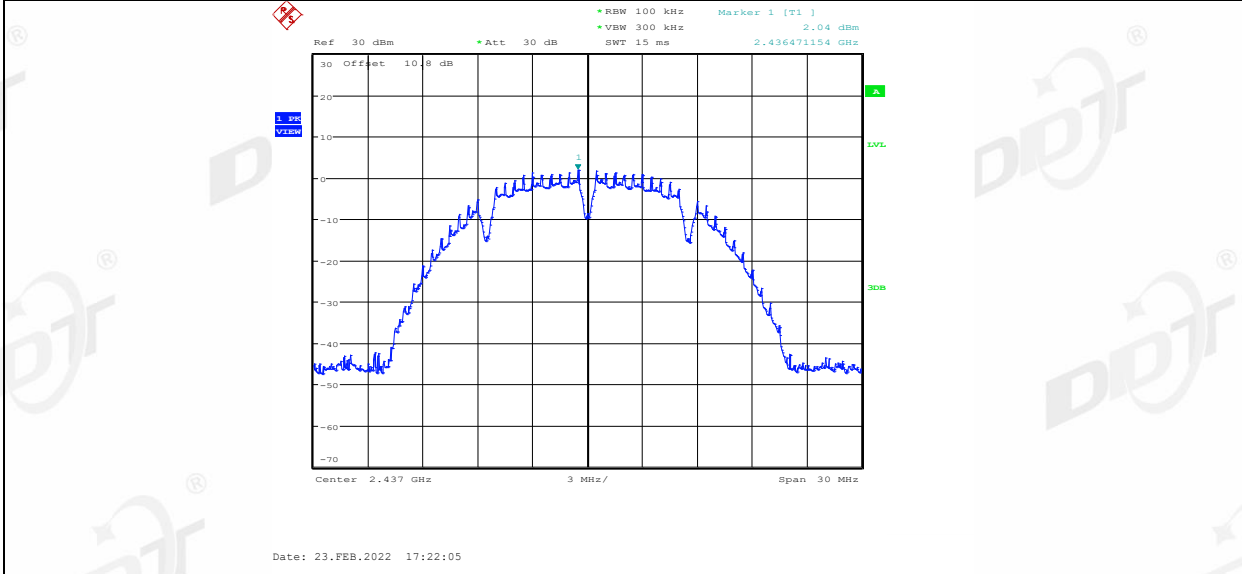
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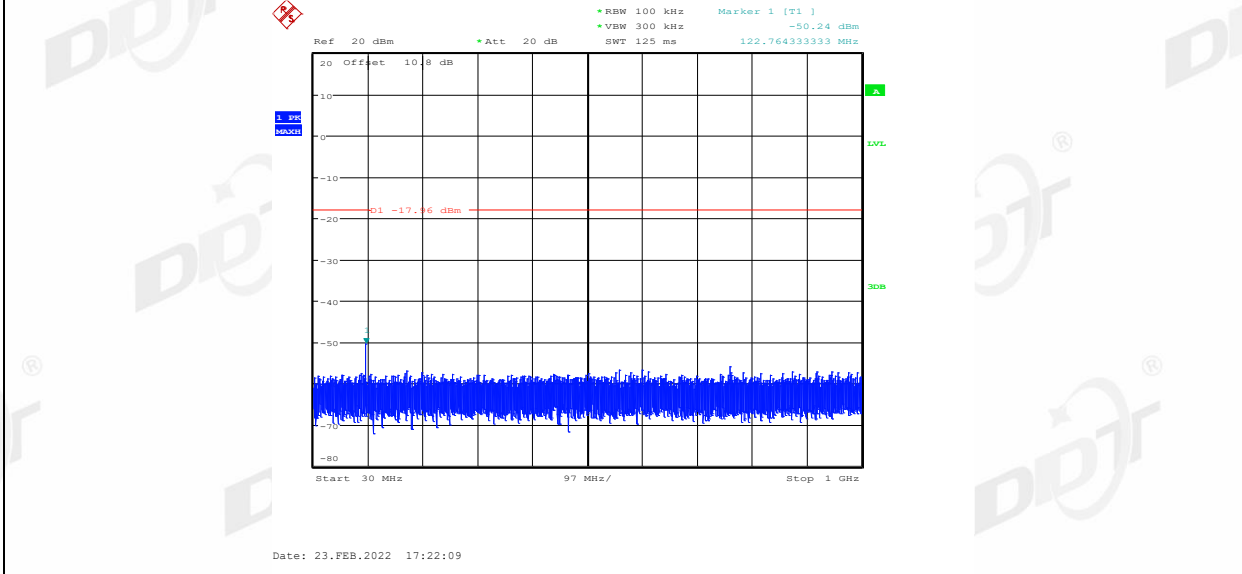
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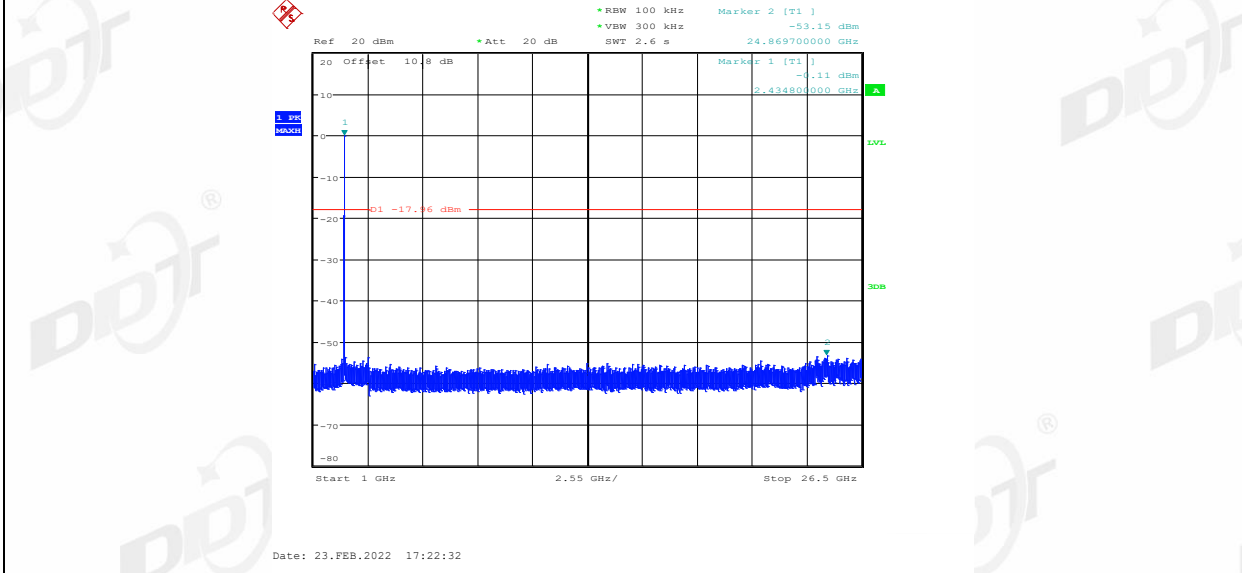
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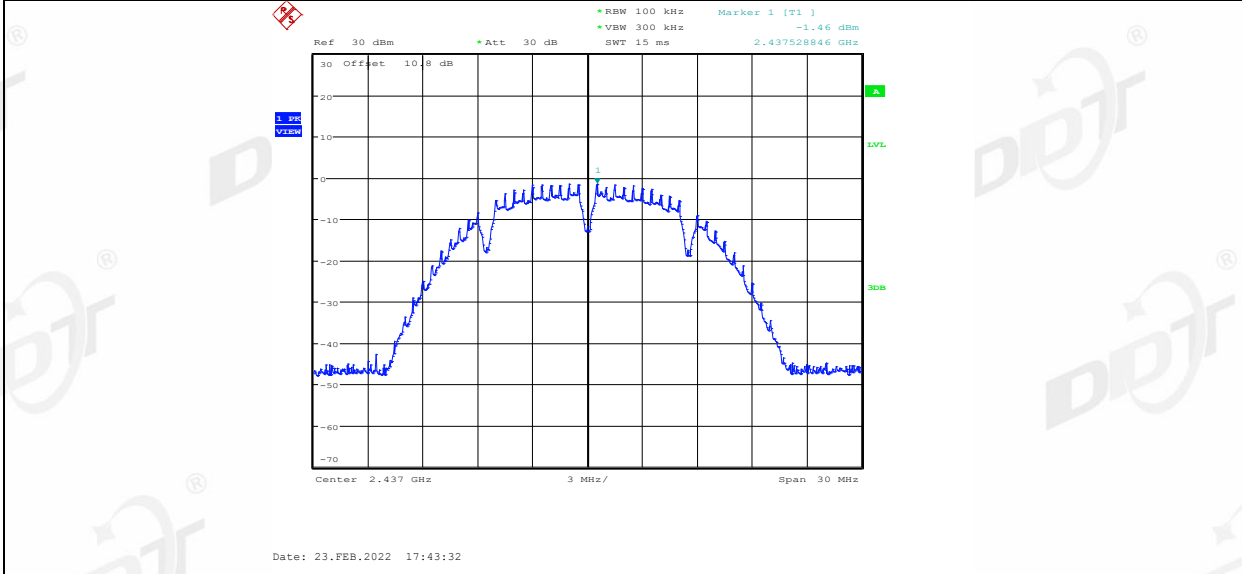
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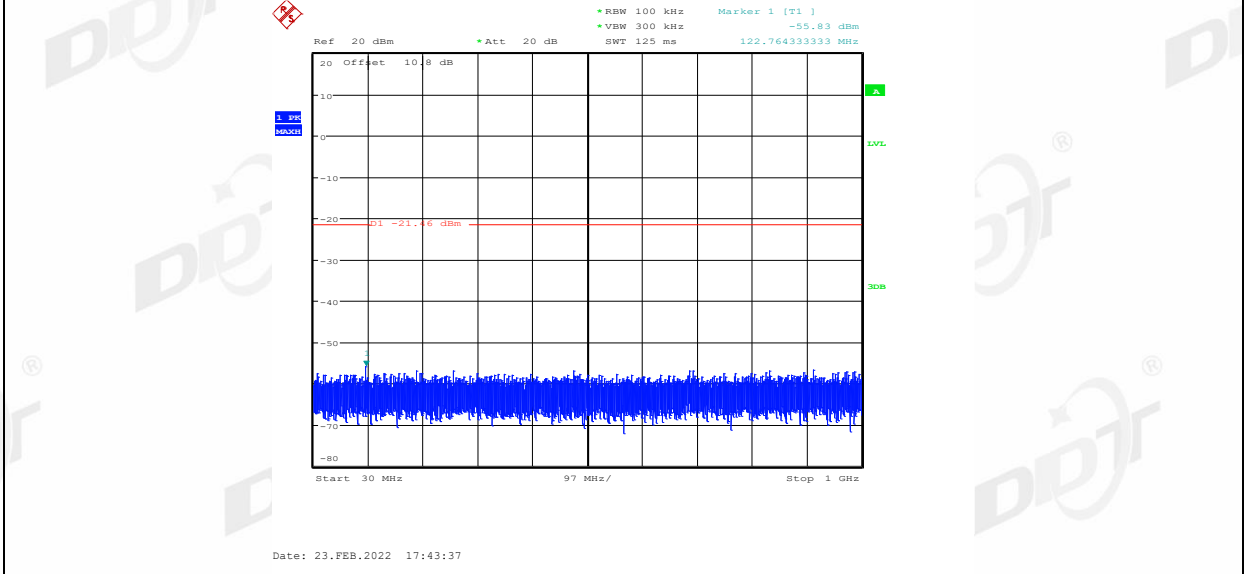
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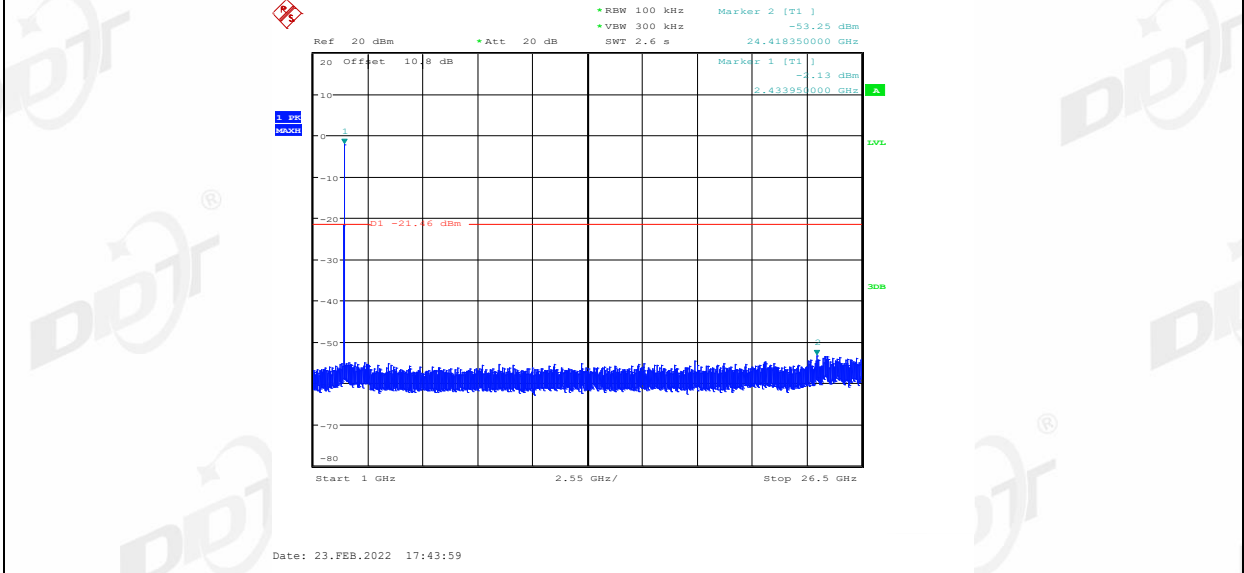
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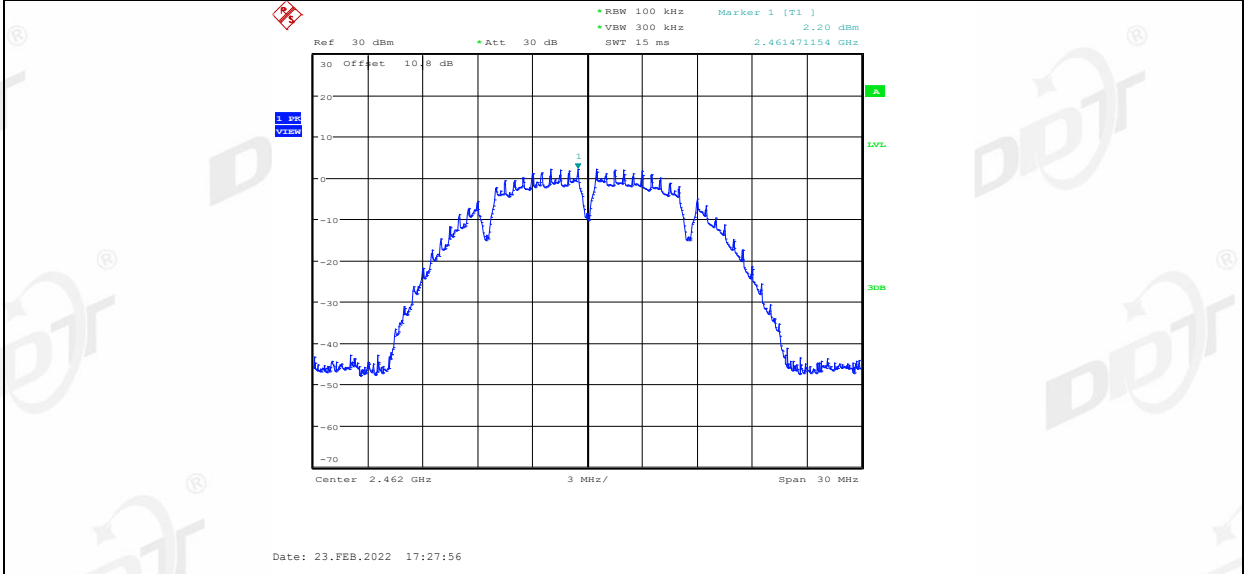
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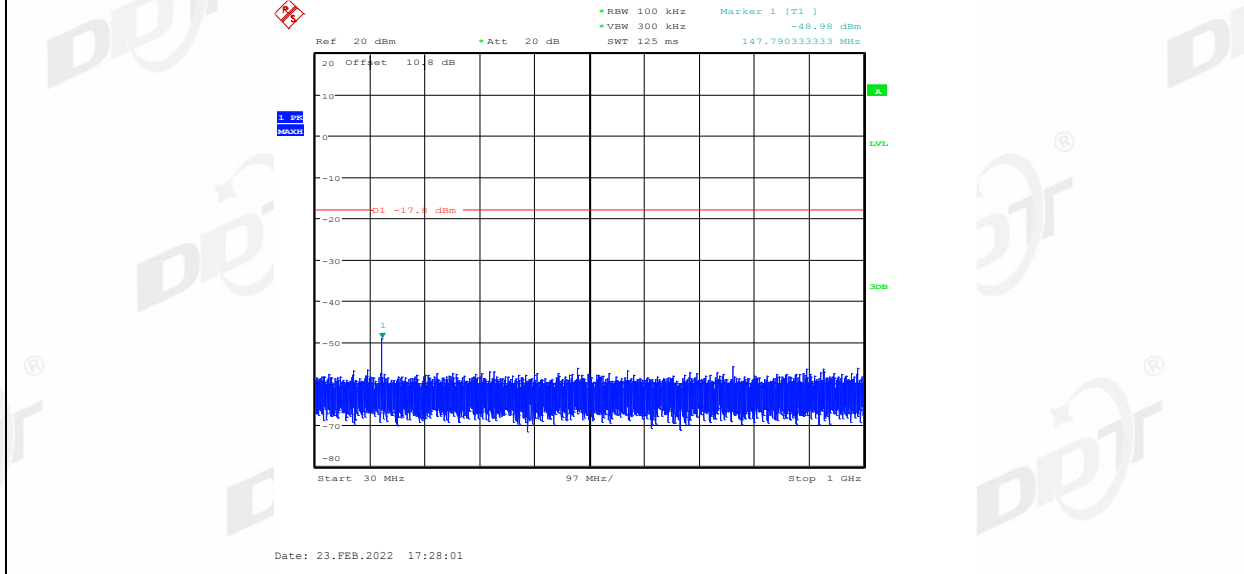
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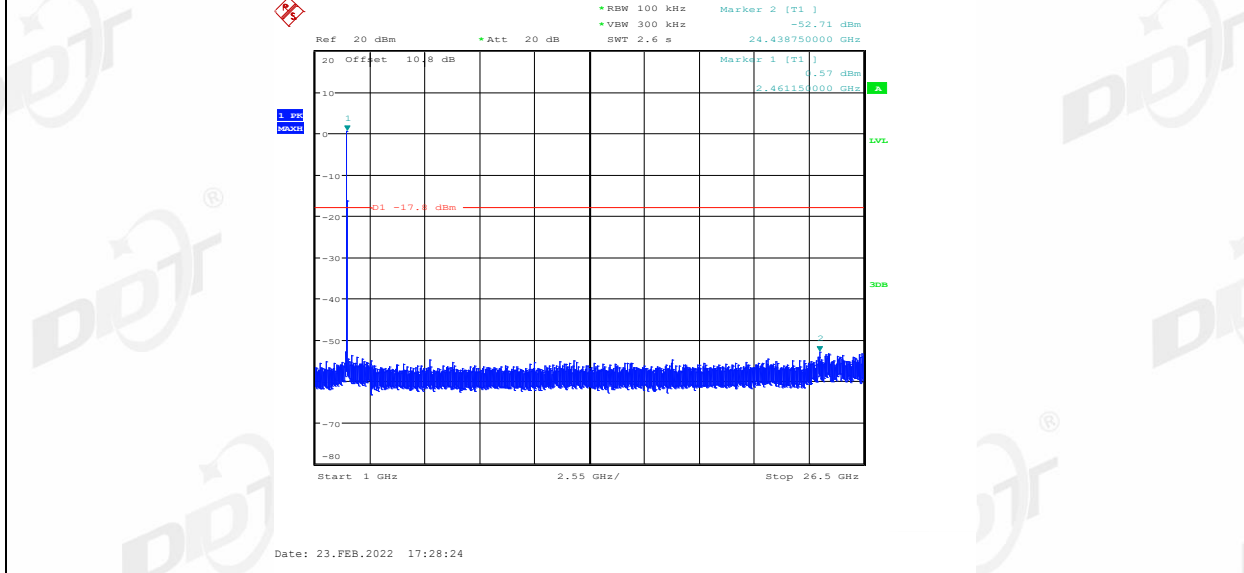
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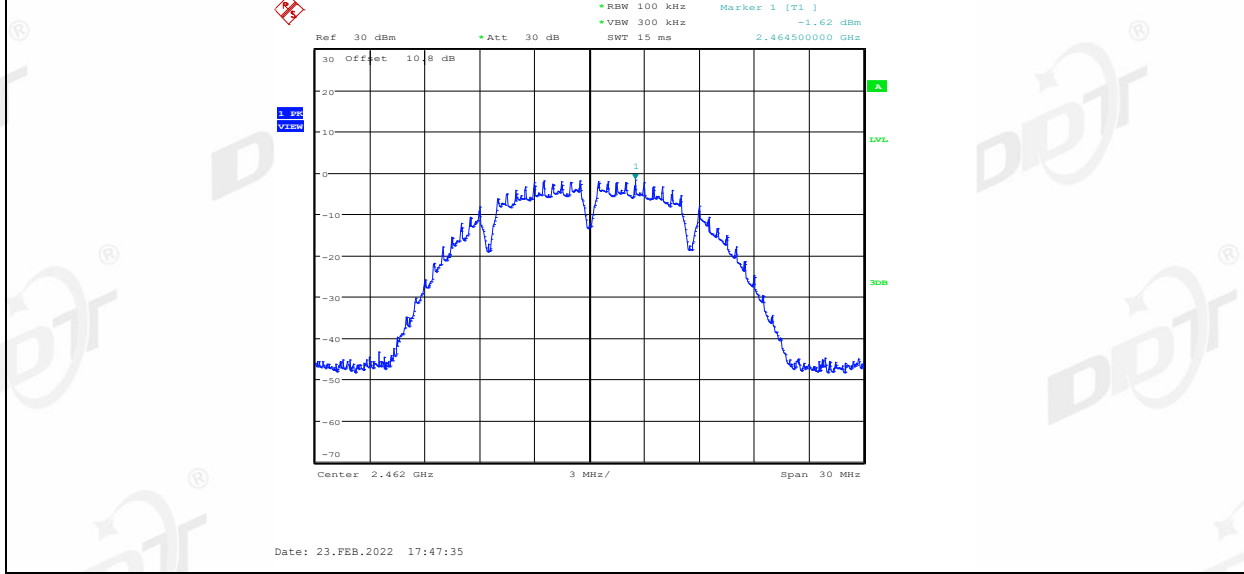
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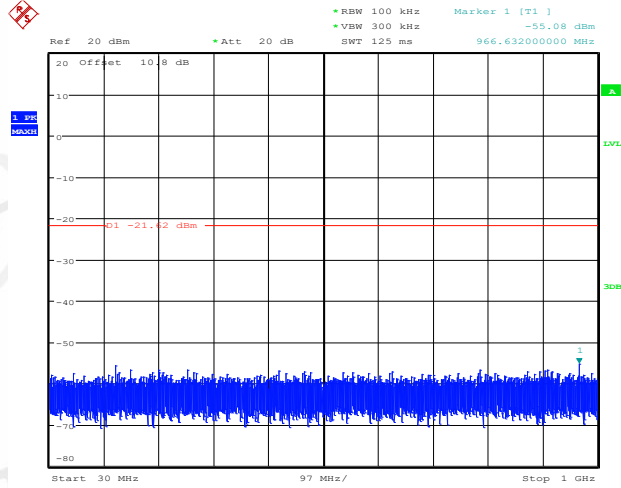
11B_Ant1_2462_1000~26500



11B_Ant2_2462_0~Reference

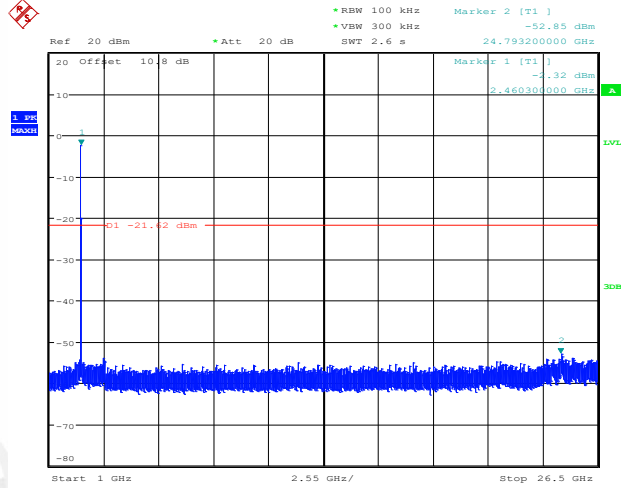


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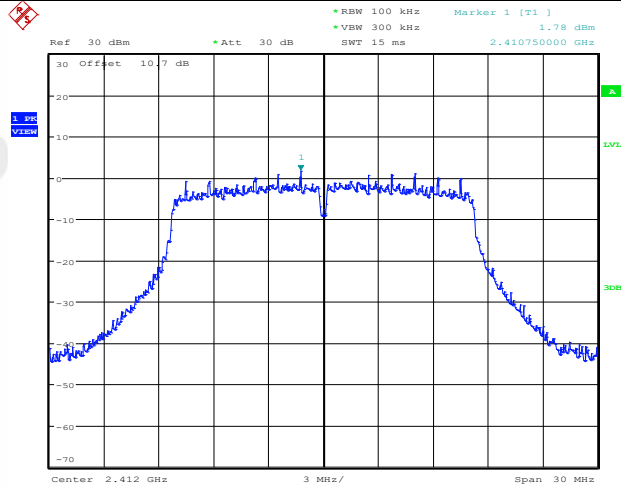
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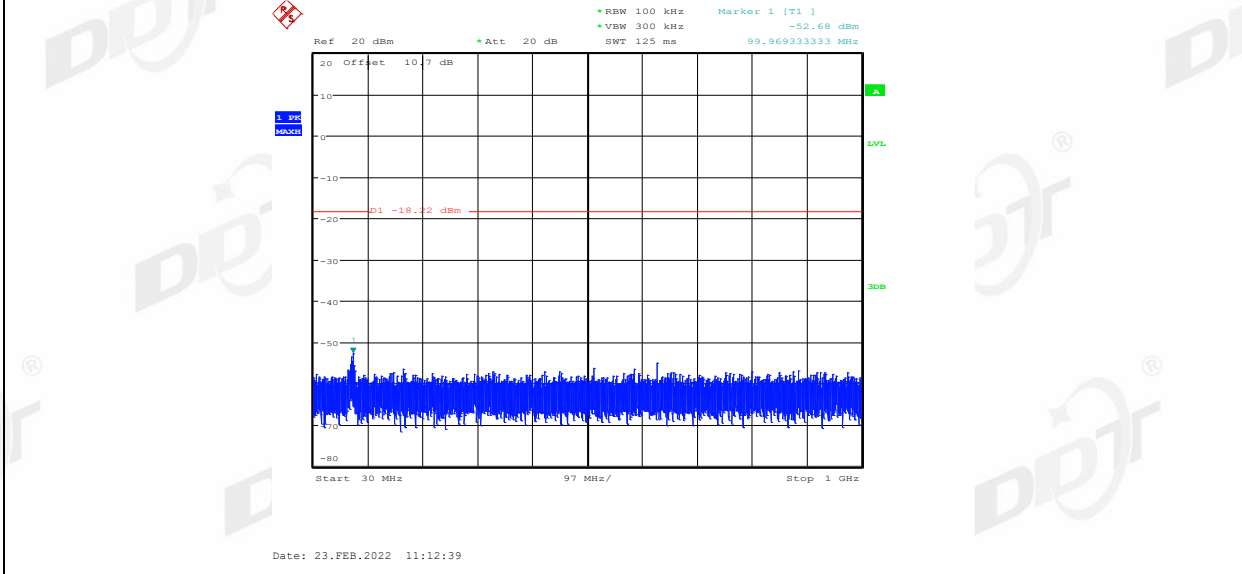
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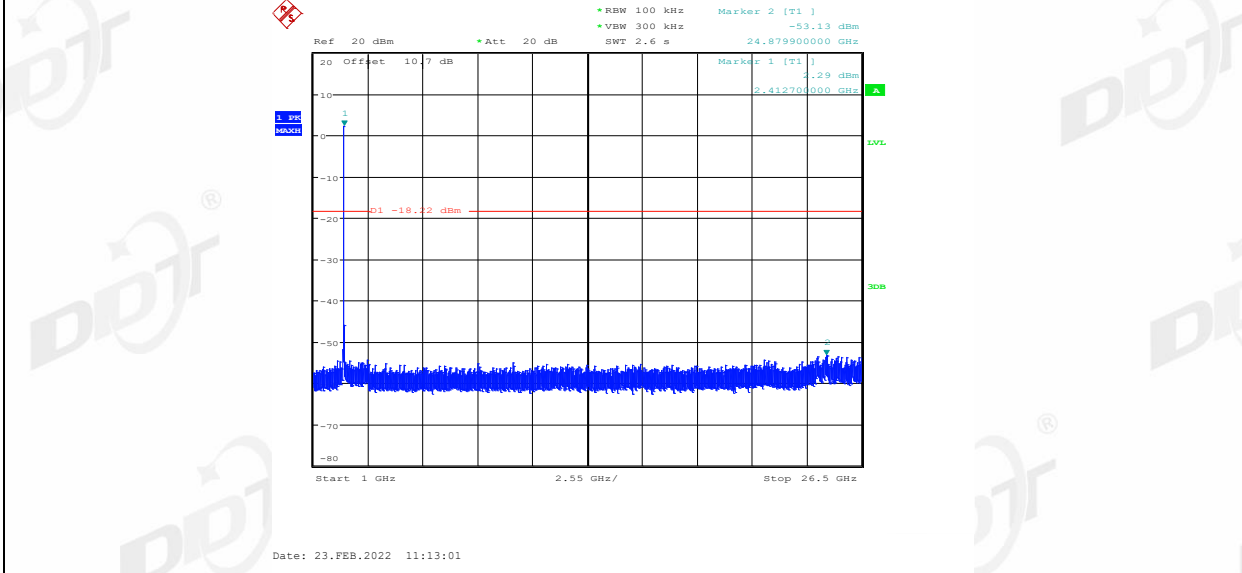


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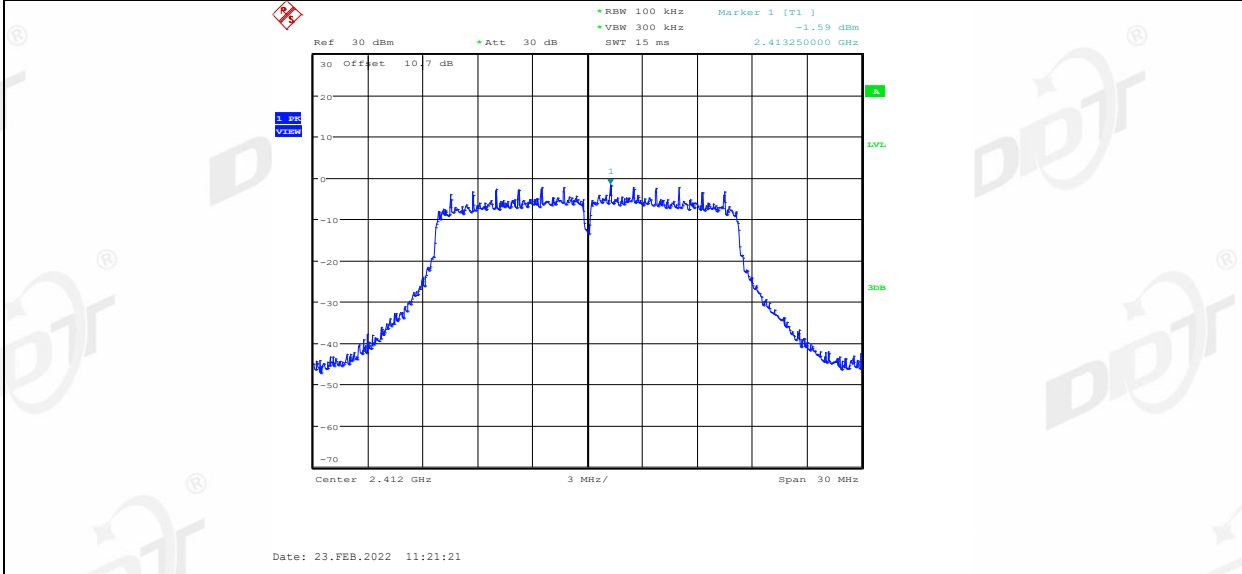
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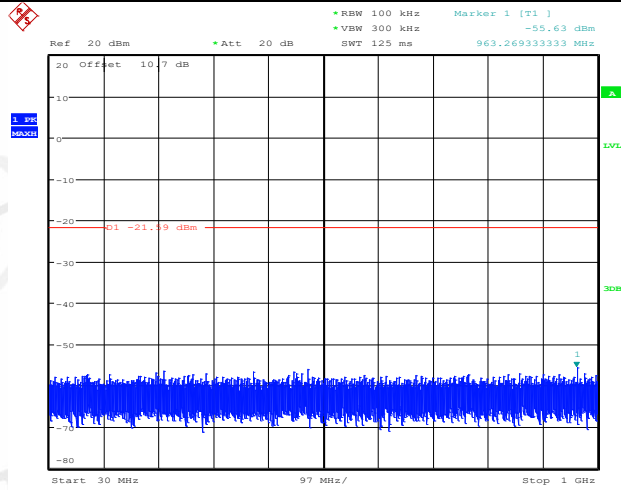
11G_Ant1_2412_1000~26500



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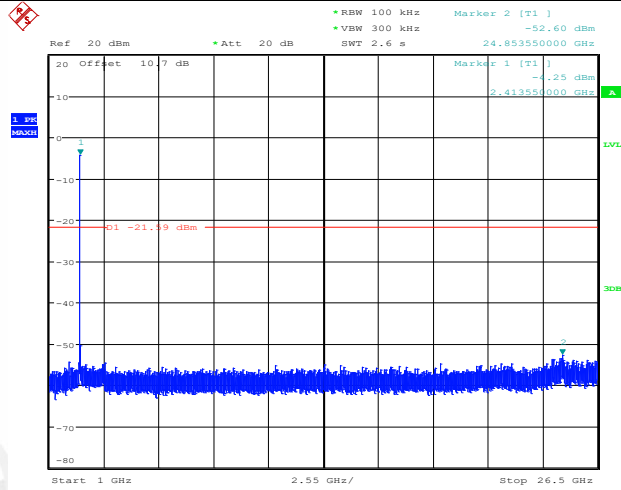


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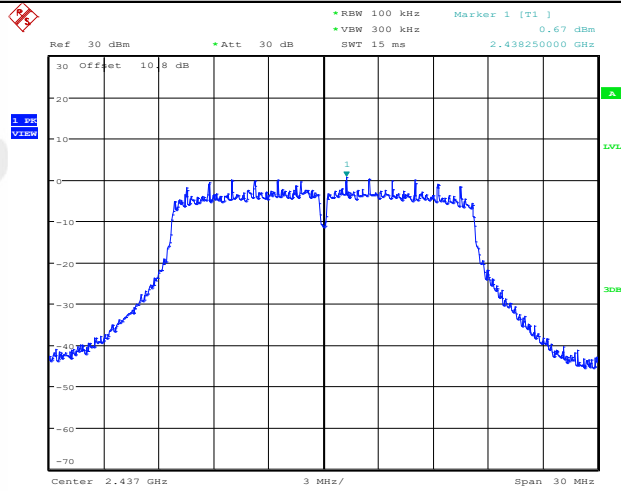
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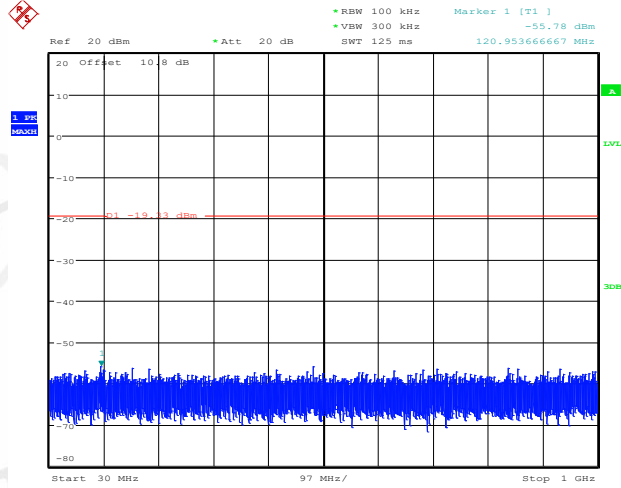
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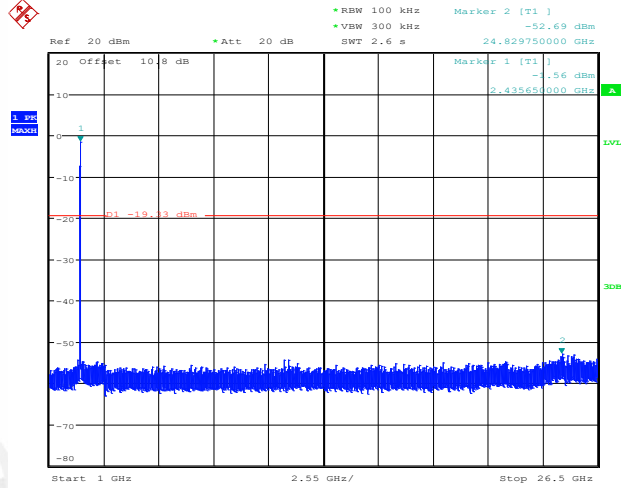
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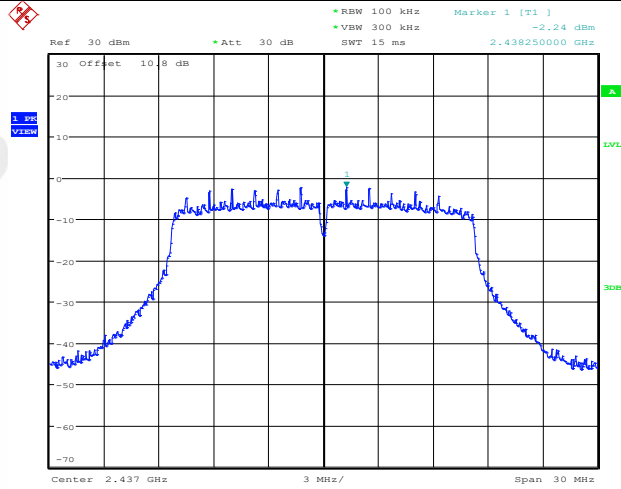
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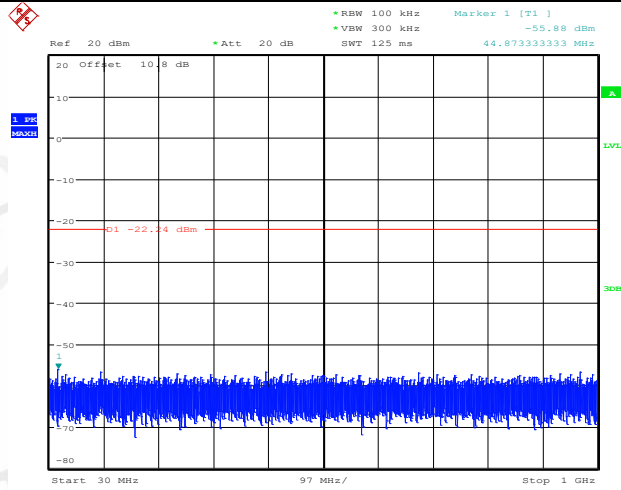
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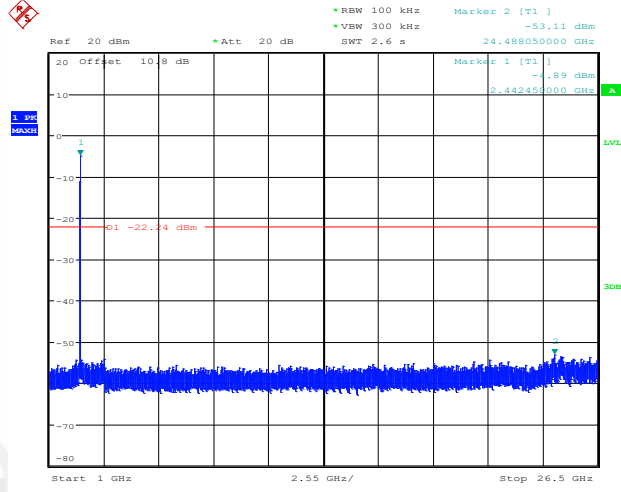
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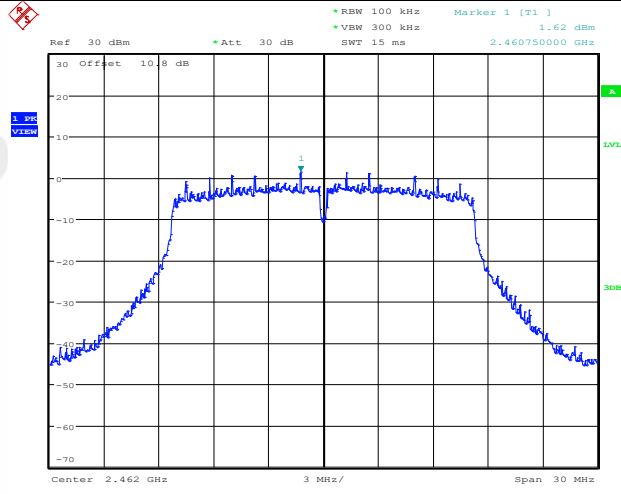
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11G_Ant2_2437_1000~26500



Date: 23.FEB.2022 11:23:40

11G_Ant1_2462_0~Reference



Date: 23.FEB.2022 11:16:33