FCC CERTIFICATION TEST REPORT

Applicant	:	Guangzhou FiiO Electronics Technology Co., Ltd.
Address of Applicant	:	2/F, F Building, Hougang Industrial Zone, Shigang, Huangshi West Road, Baiyun District, Guangzhou, China
Manufacturer	:	Guangzhou FiiO Electronics Technology Co., Ltd.
Address of Manufacturer	:	2/F, F Building, Hougang Industrial Zone, Shigang, Huangshi West Road, Baiyun District, Guangzhou, China
Equipment under Test	:	Desktop DAC and Headphone Amplifier
Model No.	:	F4161K, F4162K, F4163K, F4164K, F4165K, F4166K, F4167K, F4168K, F4169K
FCC ID	:	R56-F41611
Test Standard(s)	:	FCC Rules and Regulations Part 15 Subpart E, ANSI C63.10:2013, 789033 D02 General U-NII Test Procedures New Rules v02r01
Report No.	:	DDT-RE24110729-1E10
Issue Date	:	2025/01/24
Issue By	:	Guangdong Dongdian Testing Service Co., Ltd. Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808

REPORT

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Test Report Declare

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Equipment under Test	:	Desktop DAC and Headphone Amplifier
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Manufacturer	:	Guangzhou FiiO Electronics Technology Co., Ltd.
Address of Manufacturer	:	2/F, F Building, Hougang Industrial Zone, Shigang, Huangshi West Road, Baiyun District, Guangzhou, China

Test Standard Used:

FCC Rules and Regulations Part 15 Subpart E,
ANSI C63.10:2013,
789033 D02 General U-NII Test Procedures New Rules v02r01,

We Declare:

The equipment described above is tested by Guangdong 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 Guangdong Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

Report No.:	DDT-RE24110729-1E10		
Date of Receipt:	2024/11/12	**Date of Test:**	2024/11/12 - 2025/01/24

Created: Ziqin Chen	Reviewed: Ella Gong	Approved: Damon Hu
Ziqin chen.	Ella Gong	GUANGDONG DONGDIAN TESTING SERVICE CO.,LTD. 广东东电检测技术有限公司 Damon Hu Certificate and Report Seal 检验检测专用章
2025/01/24	2025/01/24	2025/01/24

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

Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	2025/01/24	Damon Hu

1. Summary of Test Results

No.	Test Parameter	Clause No.	Condition	Result
1	6/26db Bandwidth and 99% Bandwidth	FCC 15.407 (e)	/	Pass
2	Output Power	FCC 15.407 (a)	/	Pass
3	Power Spectral Density	FCC 15.407 (a)	/	Pass
4	Frequency Stability Measurement	FCC 15.407 (g)	/	Pass
5	Radiated Emission	FCC 15.407 (b); FCC 15.209; FCC 15.205	/	Pass
6	Band Edge Compliance	FCC 15.407 (b); FCC 15.209; FCC 15.205	/	Pass
7	Power Line Conducted Emissions	FCC Part 15: 15.207(a)	/	Pass
8	Antenna Requirement	FCC Part 15: 15.203	/	Pass
9	Dynamic Frequency Selection	FCC 15.407 (h)	/	Pass
Note: N/A is an abbreviation for Not Applicable, and means this item is not applicable for this device or no need to test according to standard.				

2. General Test Information

2.1. Description of EUT

EUT Name	:	Desktop DAC and Headphone Amplifier
Model Number	:	F4161K, F4162K, F4163K, F4164K, F4165K, F4166K, F4167K, F4168K, F4169K
Difference of model number	:	Above models are identical in schematic and structure, only the model number are different, therefore the test performed on the model F4161K
EUT Function Description	:	Please reference user manual of this device
Power Supply	:	AC 100-120V/220-240V 50/60Hz
Hardware Version	:	V00
Software Version	:	V24+V44
Antenna Type	:	FPC Antenna
Max Antenna Gain(dBi)	:	8.16

Note: This EUT support Bluetooth BR/EDR/LE, 2.4 GHz WLAN, 5 GHz WLAN, this report only for 5 GHz WLAN.

Radio Technology	:	IEEE 802.11a/n/ac
Operation frequency	:	IEEE 802.11a: 5180MHz-5240MHz, 5260MHz-5320MHz, 5500MHz-5720MHz, 5745MHz-5825MHz IEEE 802.11n HT20: 5180MHz-5240MHz, 5260MHz-5320MHz, 5500MHz-5720MHz, 5745MHz-5825MHz IEEE 802.11n HT40: 5190MHz-5230MHz, 5270MHz-5310MHz, 5510MHz-5710MHz, 5755MHz-5795MHz IEEE 802.11ac VHT20: 5180MHz-5240MHz, 5260MHz-5320MHz, 5500MHz-5720MHz, 5745MHz-5825MHz IEEE 802.11ac VHT40: 5190MHz-5230MHz, 5270MHz-5310MHz, 5510MHz-5710MHz, 5755MHz-5795MHz IEEE 802.11ac VHT80: 5210MHz, 5290MHz, 5530MHz, 5610MHz, 5690MHz, 5775MHz
Modulation	:	IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)

Channel information					
IEEE 802.11a IEEE 802.11n (HT20) IEEE 802.11ac (VHT20)		IEEE 802.11n (HT40) IEEE 802.11ac (VHT40)		IEEE 802.11ac (VHT80)	
UNII-1					
CH	Frequency (MHz)	CH	Frequency (MHz)	CH	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230	/	/
44	5220	/	/	/	/
48	5240	/	/	/	/
UNII-2A					
52	5260	54	5270	58	5290

56	5280	62	5310		/
60	5300	/	/	/	/
64	5320	/	/	/	/
UNII-2C					
100	5500	102	5510	106	5530
104	5520	110	5550	122	5610
108	5540	118	5590	/	/
112	5560	126	5630	/	/
116	5580	134	5670	/	/
120	5600	/	/	/	/
124	5620	/	/	/	/
128	5640	/	/	/	/
132	5660	/	/	/	/
136	5680	/	/	/	/
140	5700	/	/	/	/
UNII-3					
149	5745	151	5755	155	5775
153	5765	159	5795	/	/
157	5785	/	/	/	/
161	5805	/	/	/	/
165	5825	/	/	/	/
Note: Band 5600-5650MHz will be disabled when shipped to Canada					

Note : “☒” means to be chosen or applicable; “☐” means don’t to be chosen or not applicable; This note applies to entire report.

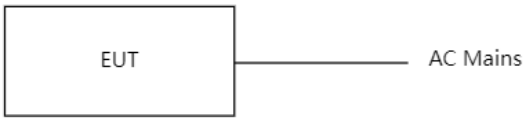
Note: The above EUT information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications or User's Manual. The above Antenna information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

“☒” means to be chosen or applicable; “□” means don’t to be chosen or not applicable; This note applies to entire report.

2.2. Accessories of EUT

Accessories	Manufacturer	Model number	Description
/	/	/	/

2.3. Block diagram of EUT configuration for test



2.4. Decision of final test mode

According pre-test, the worst test modes were reported as below:
Test software: putty.exe

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

The pathloss of external cable: 2 dB (According to the manufacturer's claims)

Tested mode, channel, and data rate information				
Mode	Setting Tx Power	Data rate (Mpbs) (see Note)	Channel	Frequency (MHz)
	ANT1			
IEEE 802.11a	12	6	Low: CH36	5180
	12	6	Middle: CH40	5200
	12	6	High: CH48	5240
	12	6	Low: CH52	5260
	12	6	Middle: CH56	5280
	12	6	High: CH64	5320
	12	6	Low: CH100	5500
	12	6	Middle: CH116	5580
	12	6	High: CH140	5700
	12	6	Straddle:CH144	5720
	12	6	Low: CH149	5745
	12	6	Middle: CH157	5785
	12	6	High: CH165	5825
IEEE 802.11n HT20	12	MCS 0	Low: CH36	5180
	12	MCS 0	Middle: CH40	5200
	12	MCS 0	High: CH48	5240
	12	MCS 0	Low: CH52	5260
	12	MCS 0	Middle: CH56	5280
	12	MCS 0	High: CH64	5320
	12	MCS 0	Low: CH100	5500
	12	MCS 0	Middle: CH116	5580

	12	MCS 0	High: CH140	5700
	12	MCS 0	Straddle:CH144	5720
	12	MCS 0	Low: CH149	5745
	12	MCS 0	Middle: CH157	5785
	12	MCS 0	High: CH165	5825
IEEE 802.11n HT40	10	MCS 0	Low: CH38	5190
	10	MCS 0	Middle: CH46	5230
	10	MCS 0	High: CH54	5270
	10	MCS 0	Low: CH62	5310
	10	MCS 0	Middle: CH102	5510
	10	MCS 0	High: CH110	5550
	10	MCS 0	Low: CH134	5670
	10	MCS 0	Middle: CH151	5755
	10	MCS 0	High: CH159	5795
IEEE 802.11ac VHT20	12	MCS 0	Low: CH36	5180
	12	MCS 0	Middle: CH40	5200
	12	MCS 0	High: CH48	5240
	12	MCS 0	Low: CH52	5260
	12	MCS 0	Middle: CH56	5280
	12	MCS 0	High: CH64	5320
	12	MCS 0	Low: CH100	5500
	12	MCS 0	Middle: CH116	5580
	12	MCS 0	High: CH140	5700
	12	MCS 0	Straddle:CH144	5720
	12	MCS 0	Low: CH149	5745
	12	MCS 0	Middle: CH157	5785
	12	MCS 0	High: CH165	5825
IEEE 802.11 ac VHT40	12	MCS 0	Low: CH38	5190
	12	MCS 0	Middle: CH46	5230
	12	MCS 0	High: CH54	5270
	12	MCS 0	Low: CH62	5310
	12	MCS 0	Middle: CH102	5510
	12	MCS 0	High: CH110	5550
	12	MCS 0	Low: CH134	5670
	12	MCS 0	Straddle: CH142	5710
	12	MCS 0	Middle: CH151	5755
	12	MCS 0	High: CH159	5795
IEEE 802.11ac VHT80	10	MCS 0	CH42	5210
	10	MCS 0	CH58	5290
	10	MCS 0	CH106	5530

	10	MCS 0	CH122	5610
	10	MCS 0	CH138	5690
	10	MCS 0	CH155	5775
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:	+15℃ to +35 ℃
Humidity range:	20% to 75%
Pressure range:	86 kPa to106 kPa

Note: The specific temperature and humidity information of each test item refers to the temperature and humidity record in the corresponding test data.

2.7. Test laboratory

Guangdong Dongdian Testing Service Co., Ltd.

Add.: Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, 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, R-20155, G-20118

2.8. Measurement uncertainty

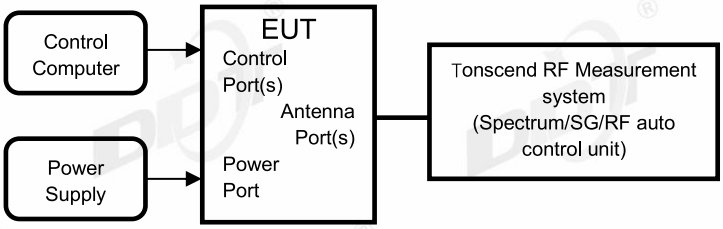
Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power (Conducted) (Spectrum analyzer)	0.86 dB (10 MHz ≤ f < 3.6 GHz);
	1.38 dB (3.6 GHz ≤ f < 8 GHz)
Peak Output Power (Conducted) (Power Sensor)	0.74 dB
Power Spectral Density	0.74 dB (10 MHz ≤ f < 3.6 GHz);
	1.38 dB (3.6 GHz ≤ f < 8 GHz)
Frequencies Stability	6.7 x 10^{-8} (Antenna couple method)
	5.5 x 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 < 26.5 GHz)
Uncertainty for radio frequency (RBW < 20 kHz)	3×10^{-8}
Temperature	0.4 ℃
Humidity	2 %
Uncertainty for Radiation Emission test (9 kHz – 30 MHz)	3.44 dB
Uncertainty for Radiation Emission test (30 MHz - 1 GHz)	4.70 dB (Antenna Polarize: V)
	4.84 dB (Antenna Polarize: H)
Uncertainty for Radiation Emission test (1 GHz - 40 GHz)	4.10 dB (1 - 6 GHz)
	4.40 dB (6 GHz - 18 GHz)
	3.54 dB (18 GHz - 26 GHz)
	4.30 dB (26 GHz - 40 GHz)
Uncertainty for Power line conduction emission test	3.34dB (150KHz-30MHz)
	3.72dB (9KHz-150KHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

3. Equipment Used During Conductive Test

Equipment	Manufacturer	Model No.	Serial Number	Due Date
☒ RF Connected Test (RF Measurement System 1#)				
SIGNAL ANALYZER	R&S	FSQ26	101272	2025/03/31
Wideband Radio Communication Tester	R&S	CMW500	120259	2025/07/08
MXG Vector Signal Generator	KEYSIGHT	N5182B	MY59100192	2025/03/31
MXG Vector Signal Generator	Agilent	N5182A	MY19060405	2025/03/31
RF Control Unit	Tonsend	JS0806-2	158060010	2025/03/31
TEMP&HUMI Programmable Chamber	ZHIXIANG	ZXGDJS-150L	ZX170110-A	2025/04/22
Test Software	Tonscend	JS1120-3	Ver.3.2.22	N/A

4. 26dB Bandwidth

4.1. Block diagram of test setup



4.2. Limits

FCC Part15, Subpart E/ RSS-247		
Test Item	Limit	Frequency Range (MHz)
26 dB Bandwidth	---	5150 - 5250
	---	5250 - 5350
	---	For FCC: 5470 - 5725 For IC: 5470 - 5600 5650 - 5725

4.3. Test procedure

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

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	approximately 1% of the emission bandwidth.
VBW	> RBW
Trace	Max hold
Sweep	Auto couple

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 26 dB relative to the maximum level measured in the fundamental emission.

4.4. Test result

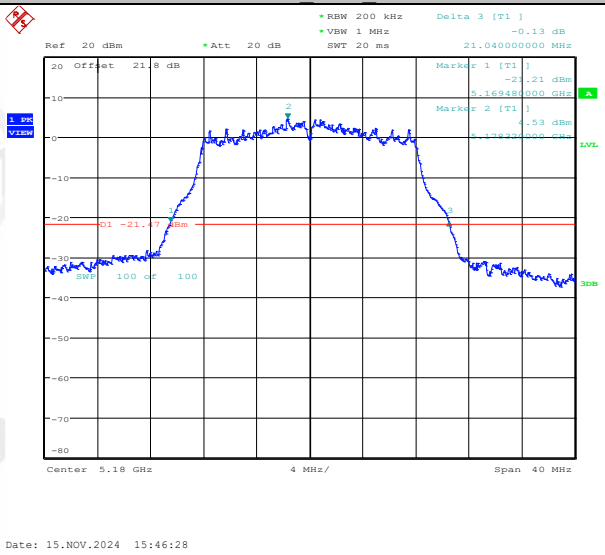
Test Engineer:	Zora Zhang	Test Site:	RF Measurement System 1#
Ambient Condition:	24.2℃,55%RH	Test Date:	2024.12.16-2025.01.14
Test Power Supply:	AC230V/50Hz	Sample Number:	S24110729-001

Test Mode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	21.04	5169.48	5190.52	---	---
		5200	21.00	5189.44	5210.44	---	---
		5240	21.00	5229.44	5250.44	---	---
		5260	21.00	5249.48	5270.48	---	---
		5280	21.04	5269.48	5290.52	---	---
		5320	20.96	5309.48	5330.44	---	---
		5500	21.12	5489.48	5510.60	---	---
		5580	21.00	5569.44	5590.44	---	---
		5700	21.08	5689.44	5710.52	---	---
		5720	21.04	5709.52	5730.56	---	---
		5720_UNII-2C	15.48	5709.52	5725	---	---
		5720_UNII-3	5.56	5725	5730.56	---	---
		5745	21.08	5734.48	5755.56	---	---
		5785	21.12	5774.44	5795.56	---	---
		5825	21.08	5814.40	5835.48	---	---
11N20SISO	Ant1	5180	21.44	5169.32	5190.76	---	---
		5200	21.68	5189.12	5210.80	---	---
		5240	21.44	5229.24	5250.68	---	---
		5260	21.44	5249.32	5270.76	---	---
		5280	21.60	5269.12	5290.72	---	---
		5320	21.40	5309.24	5330.64	---	---
		5500	21.56	5489.16	5510.72	---	---
		5580	21.56	5569.20	5590.76	---	---
		5700	21.56	5689.12	5710.68	---	---
		5720	21.48	5709.32	5730.80	---	---
		5720_UNII-2C	15.68	5709.32	5725	---	---
		5720_UNII-3	5.8	5725	5730.80	---	---
		5745	21.52	5734.12	5755.64	---	---
		5785	21.48	5774.24	5795.72	---	---
		5825	21.48	5814.16	5835.64	---	---
11N40SISO	Ant1	5190	39.92	5170.00	5209.92	---	---
		5230	40.00	5209.92	5249.92	---	---
		5270	40.24	5249.92	5290.16	---	---
		5310	40.16	5289.92	5330.08	---	---
		5510	40.32	5489.68	5530.00	---	---
		5550	40.24	5529.76	5570.00	---	---
		5670	40.00	5650.00	5690.00	---	---
		5710	40.24	5689.76	5730.00	---	---
		5710_UNII-2C	35.24	5689.76	5725	---	---
		5710_UNII-3	5	5725	5730.00	---	---
		5755	39.92	5735.08	5775.00	---	---
		5795	40.08	5774.92	5815.00	---	---
11AC20SISO	Ant1	5180	21.68	5169.12	5190.80	---	---
		5200	21.48	5189.20	5210.68	---	---
		5240	21.24	5229.32	5250.56	---	---
		5260	21.40	5249.28	5270.68	---	---
		5280	21.40	5269.28	5290.68	---	---
		5320	21.40	5309.28	5330.68	---	---
		5500	21.40	5489.24	5510.64	---	---
		5580	21.56	5569.20	5590.76	---	---
		5700	21.28	5689.36	5710.64	---	---
		5720	21.44	5709.32	5730.76	---	---
		5720_UNII-2C	15.68	5709.32	5725	---	---
		5720_UNII-3	5.76	5725	5730.76	---	---
		5745	21.48	5734.20	5755.68	---	---

		5785	21.36	5774.32	5795.68	---	---
		5825	21.52	5814.20	5835.72	---	---
11AC40SISO	Ant1	5190	39.84	5170.08	5209.92	---	---
		5230	40.08	5210.00	5250.08	---	---
		5270	40.08	5249.92	5290.00	---	---
		5310	40.08	5290.00	5330.08	---	---
		5510	40.00	5489.92	5529.92	---	---
		5550	40.00	5530.00	5570.00	---	---
		5670	40.00	5650.00	5690.00	---	---
		5710	40.16	5689.92	5730.08	---	---
		5710_UNII-2C	35.08	5689.92	5725	---	---
		5710_UNII-3	5.08	5725	5730.08	---	---
		5755	40.00	5735.08	5775.08	---	---
		5795	40.08	5774.92	5815.00	---	---
11AC80SISO	Ant1	5210	81.92	5169.20	5251.12	---	---
		5290	81.28	5249.36	5330.64	---	---
		5530	81.92	5489.04	5570.96	---	---
		5610	81.76	5569.20	5650.96	---	---
		5690	82.08	5649.04	5731.12	---	---
		5690_UNII-2C	75.96	5649.04	5725	---	---
		5690_UNII-3	6.12	5725	5731.12	---	---
		5775	82.40	5734.20	5816.60	---	---

4.5. Test graphs

11A_Ant1_5180



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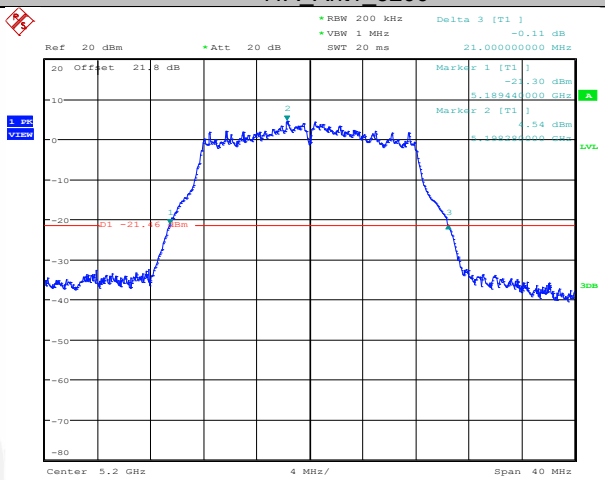

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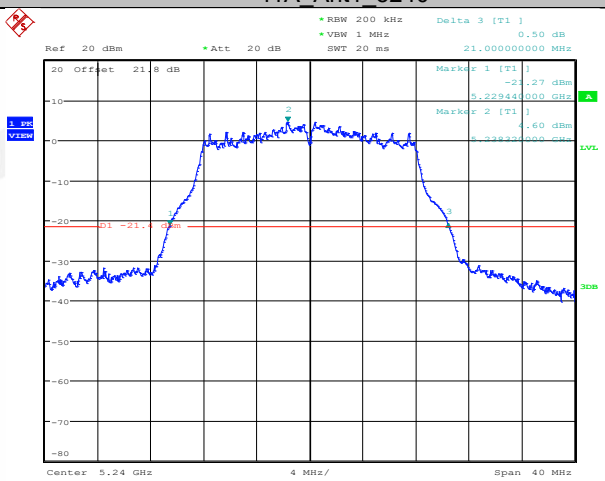

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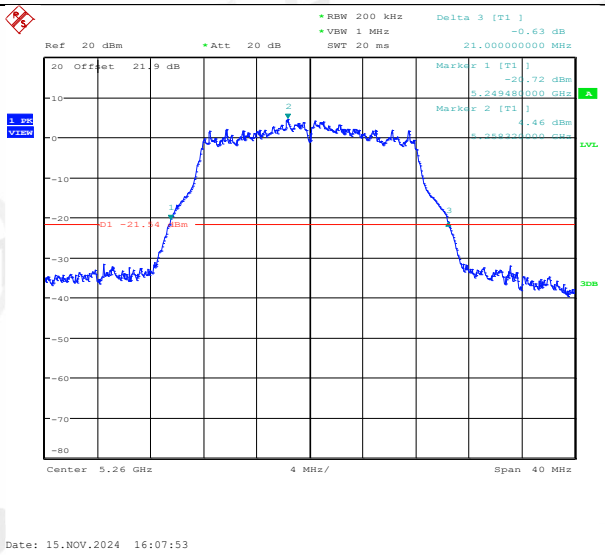

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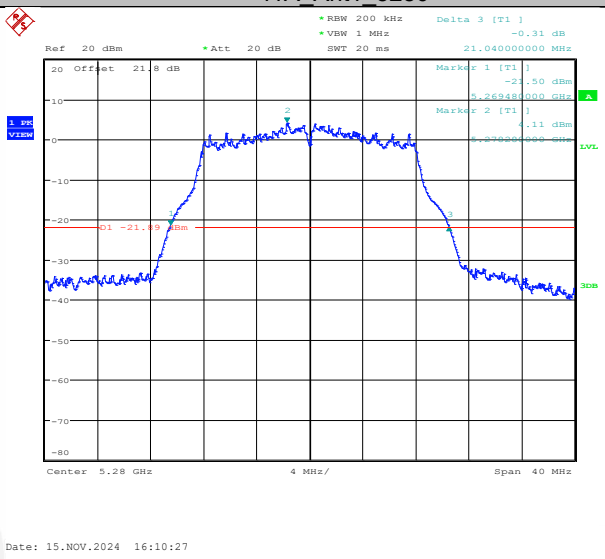

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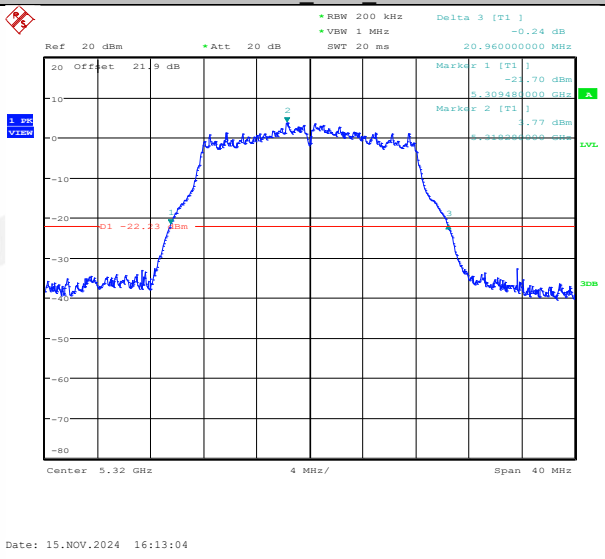

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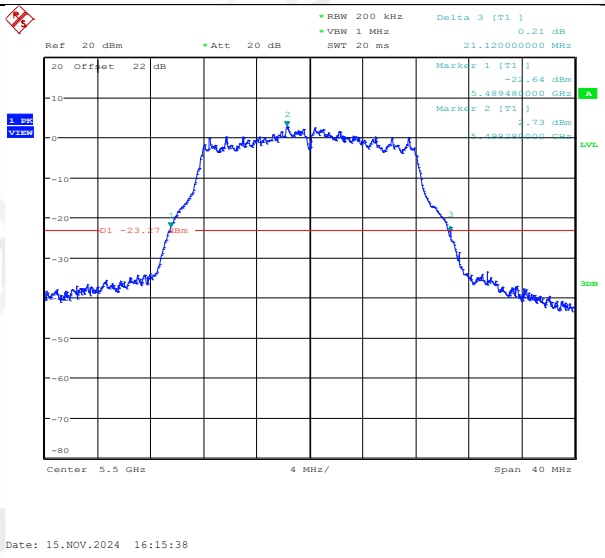

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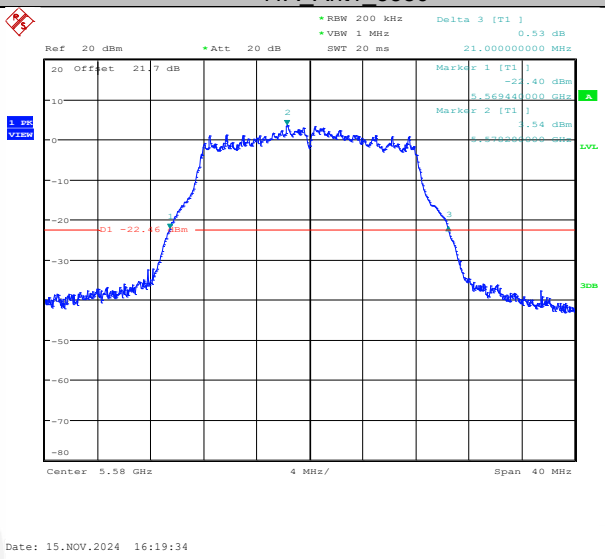

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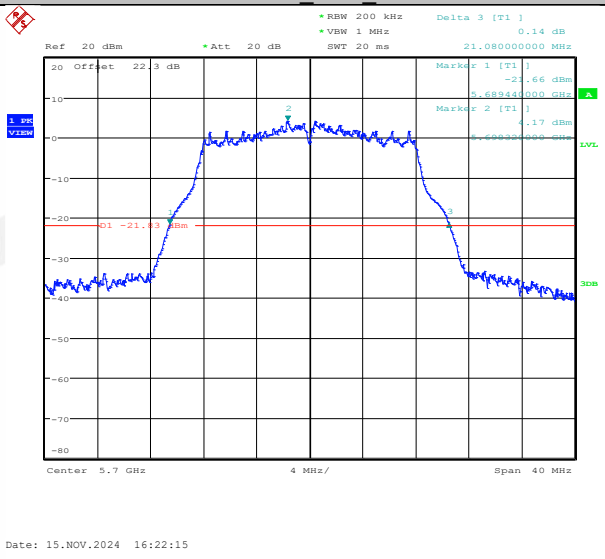

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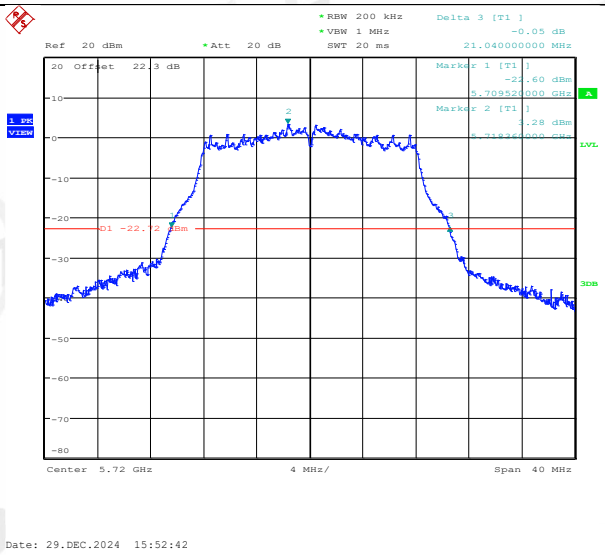

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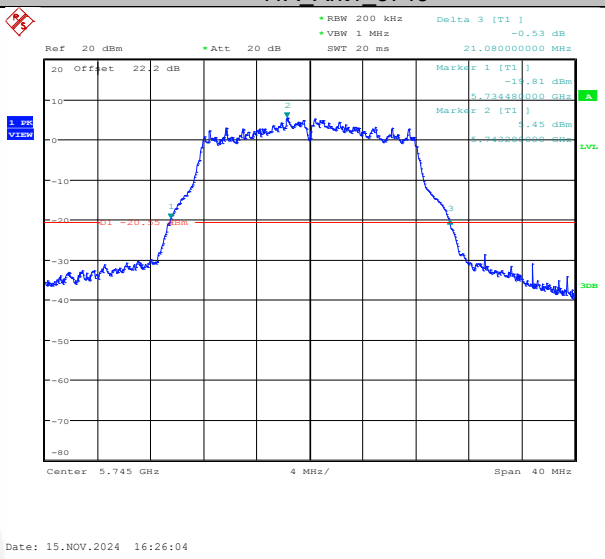

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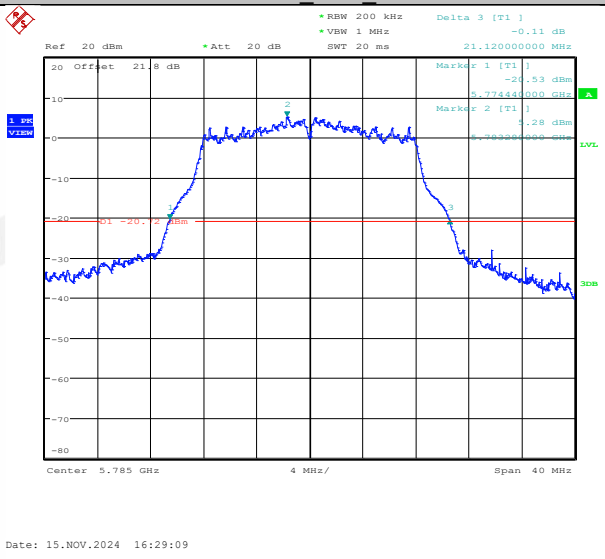

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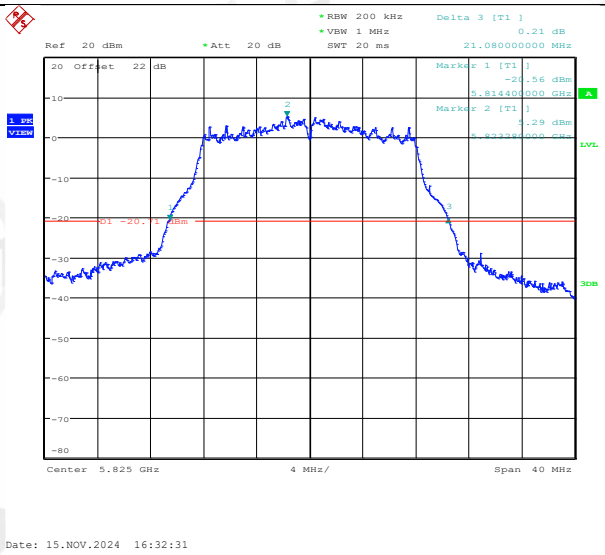

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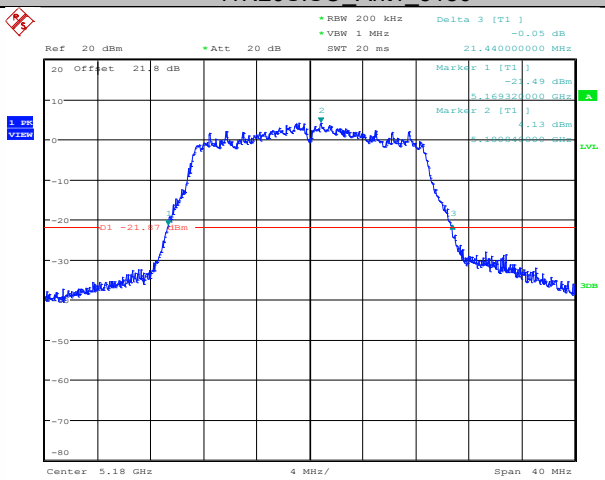

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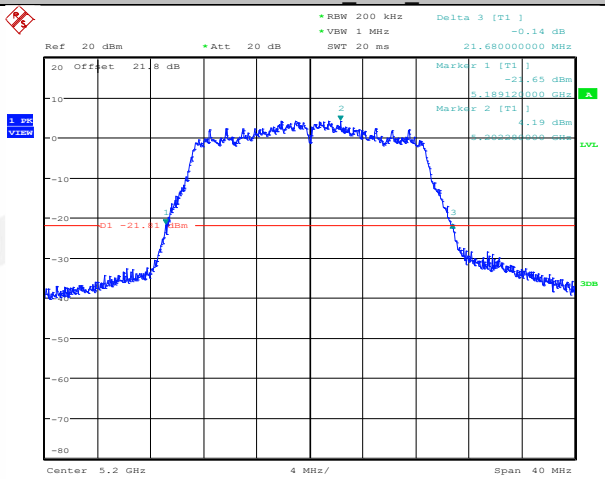

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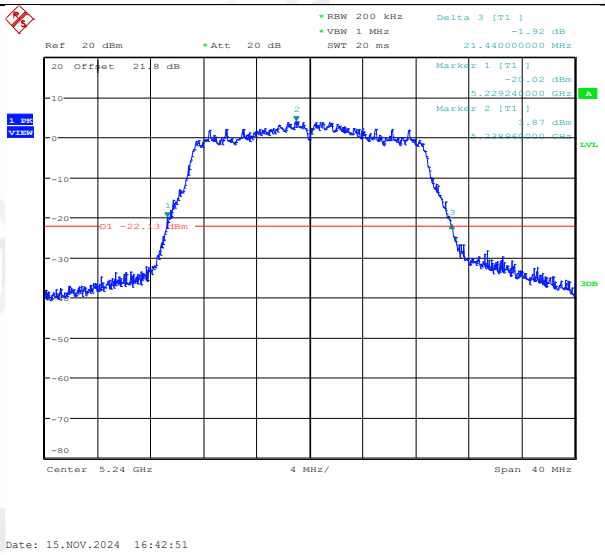

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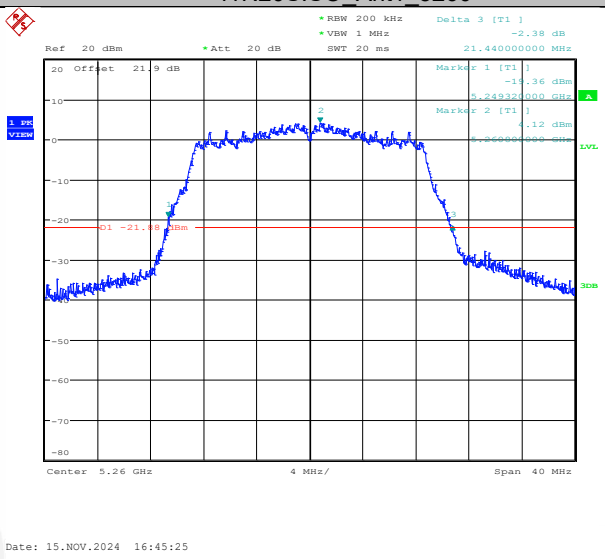

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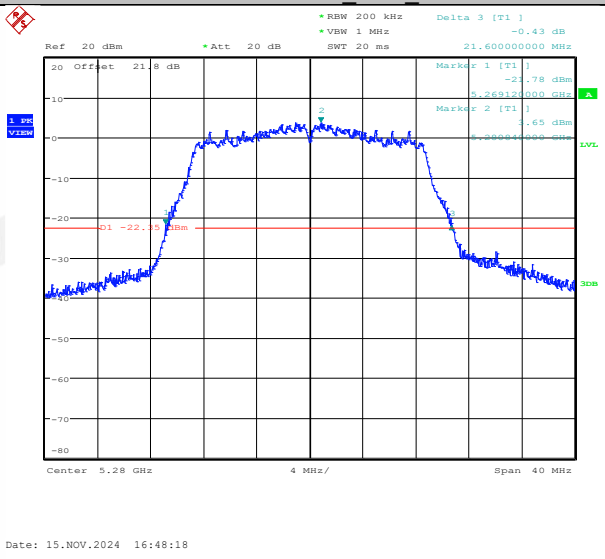

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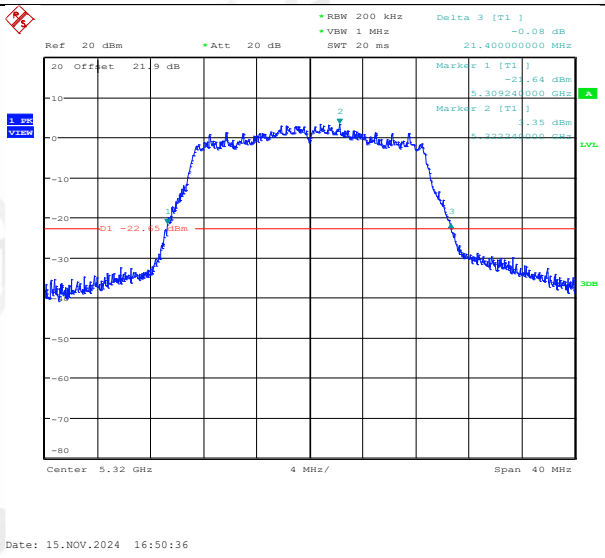

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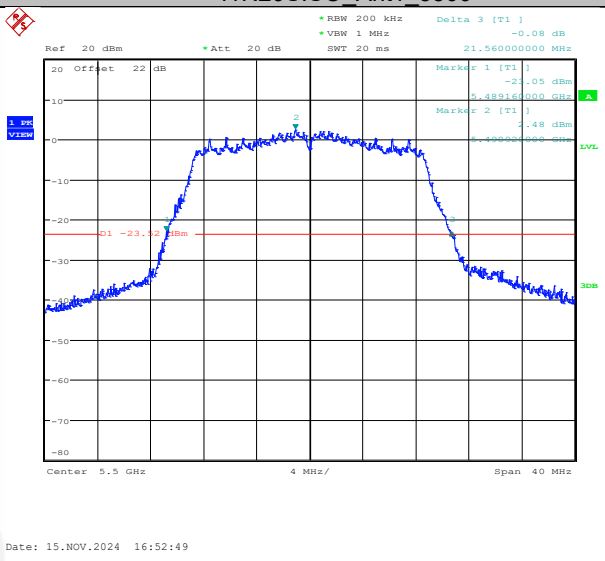

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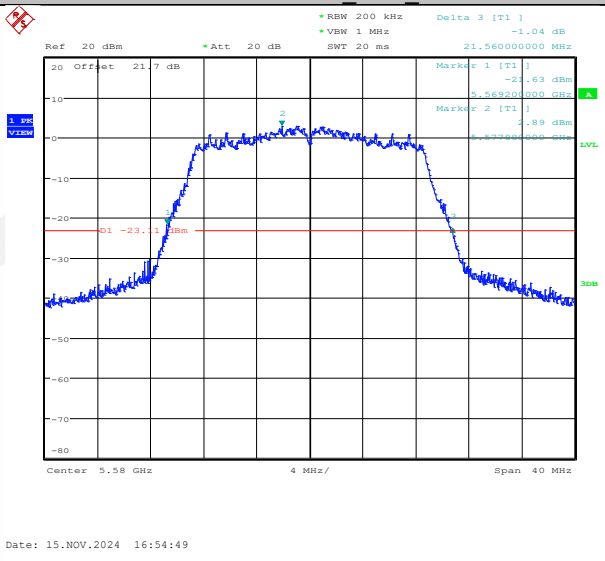

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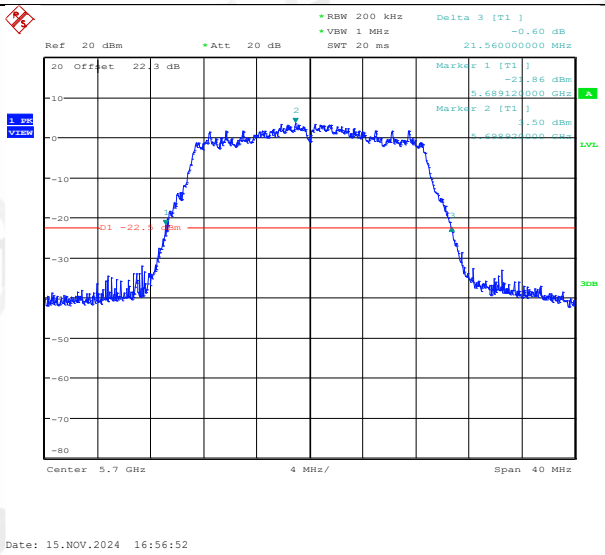

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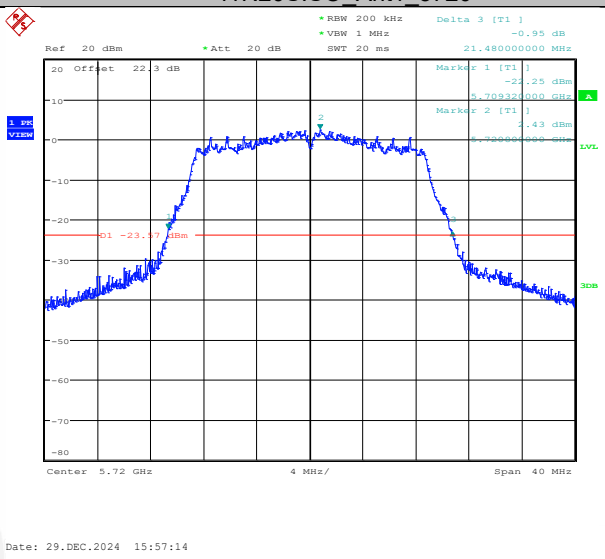

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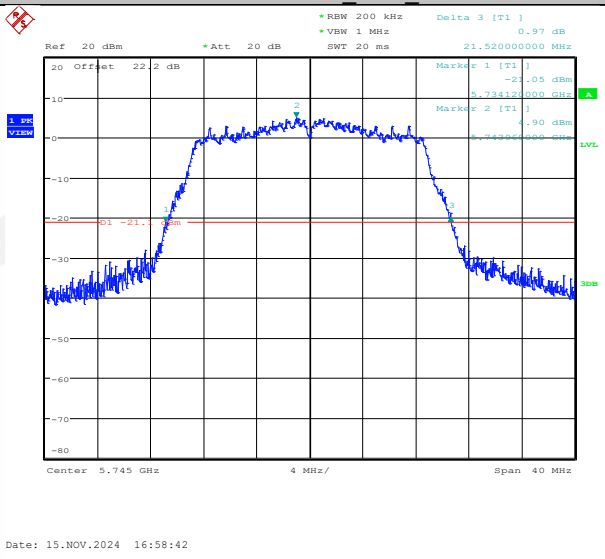

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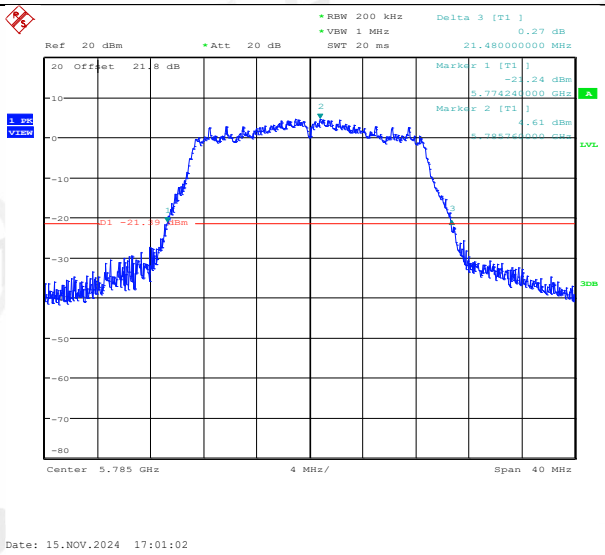

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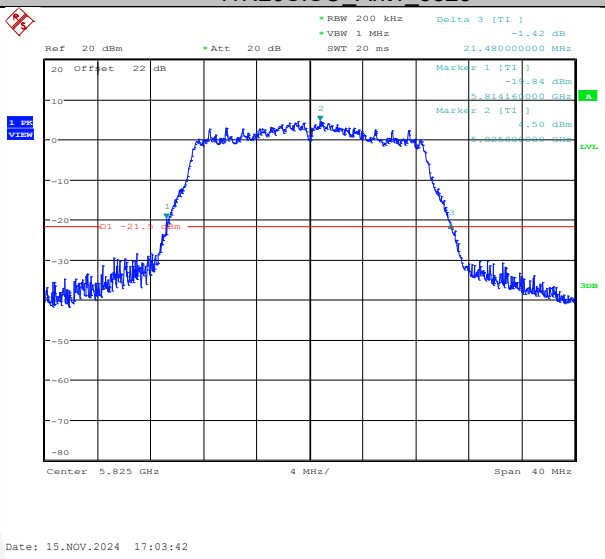

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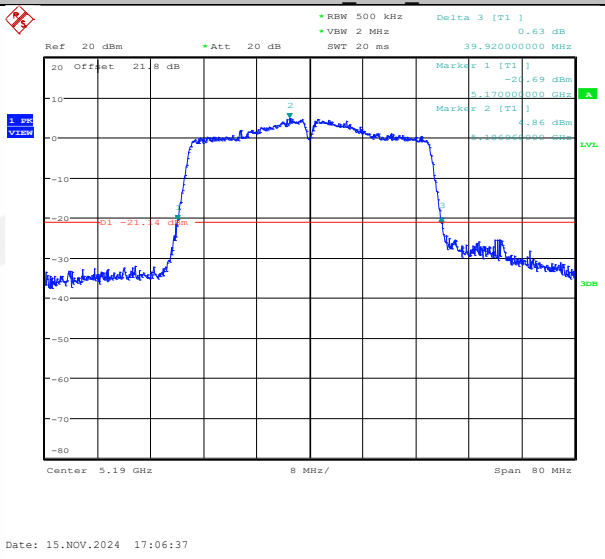

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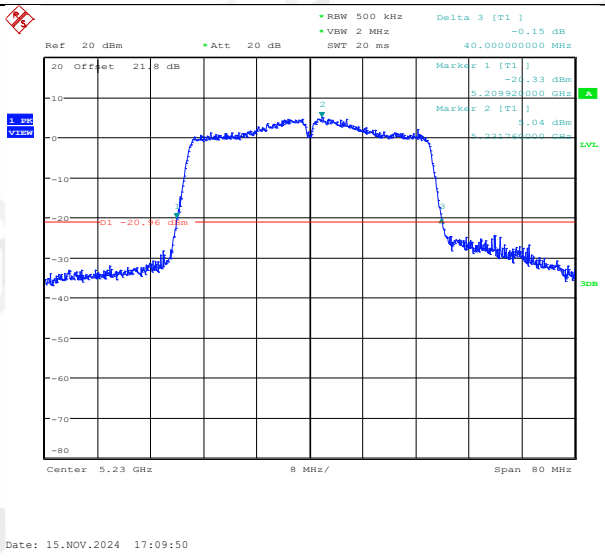

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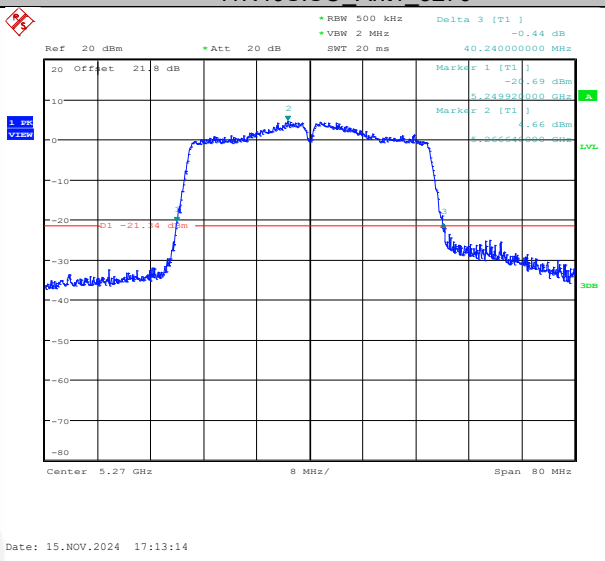

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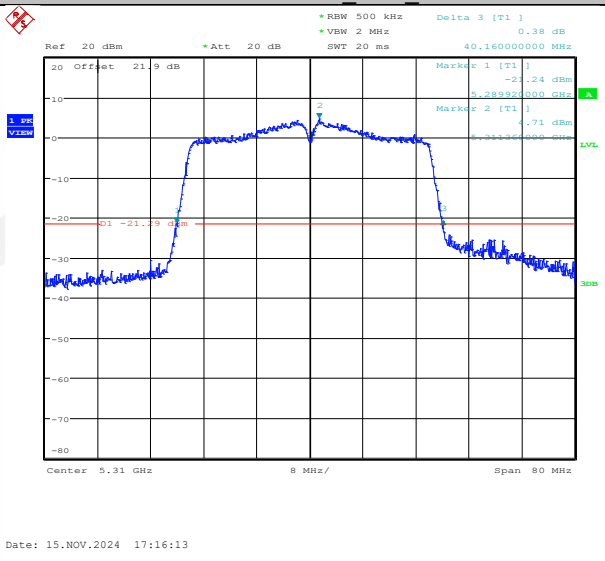

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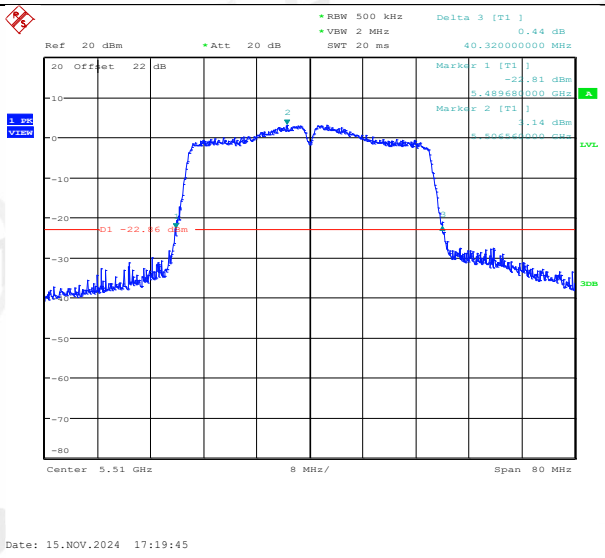

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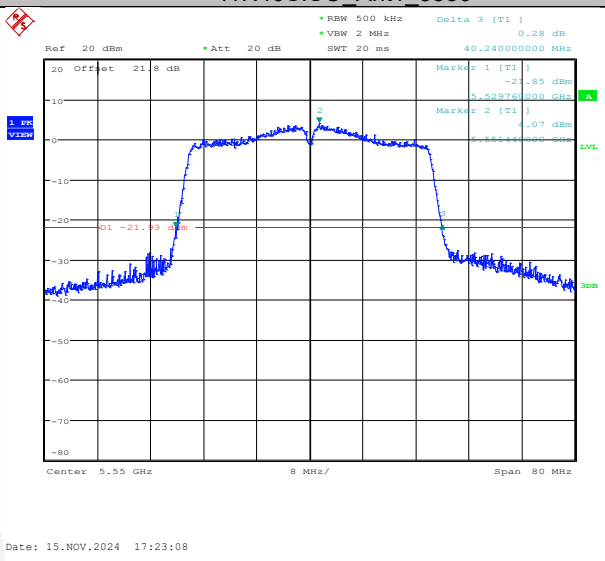

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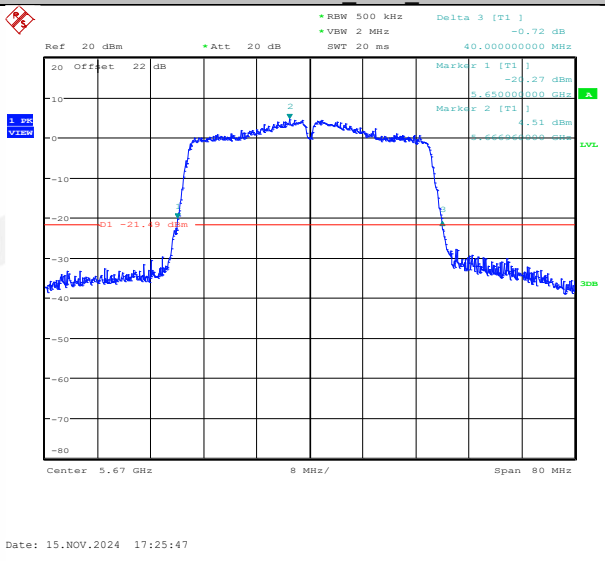

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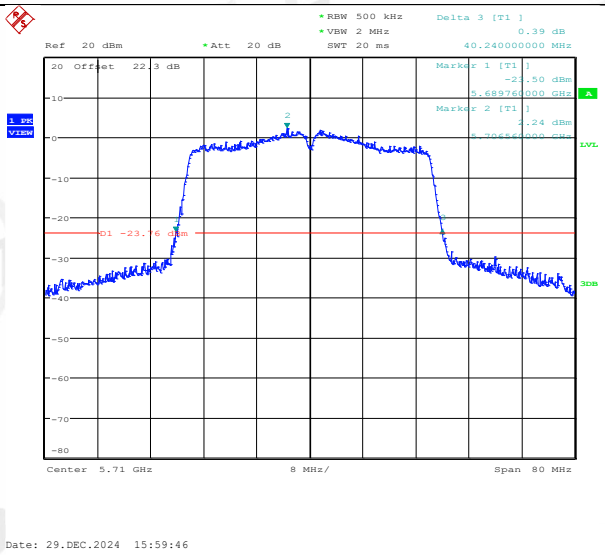

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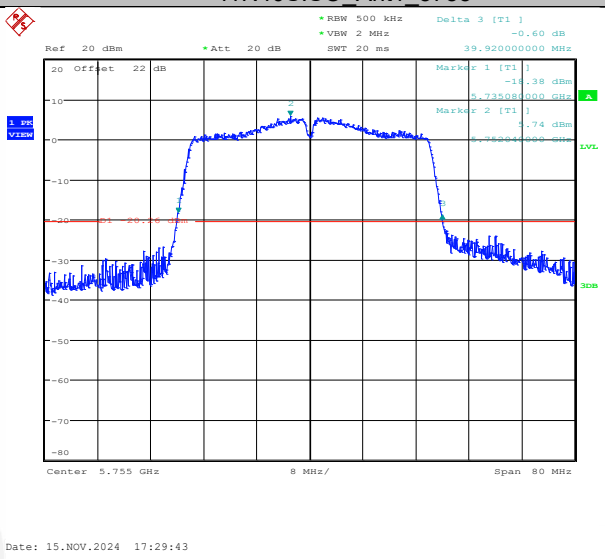

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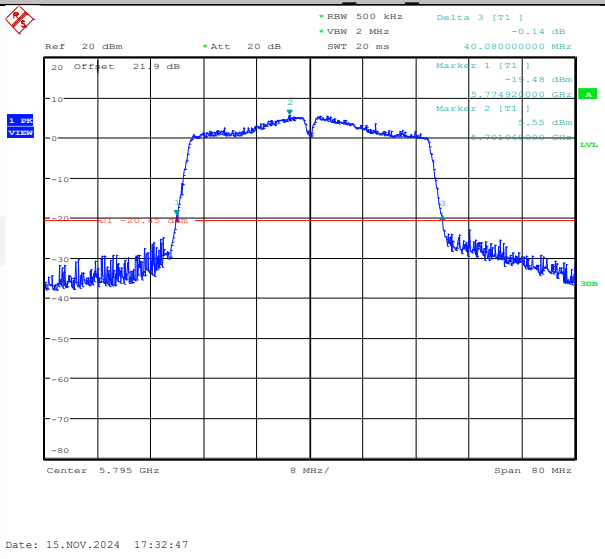

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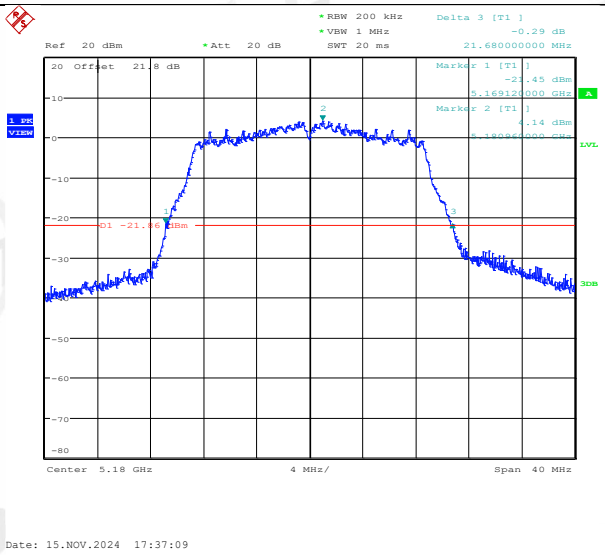

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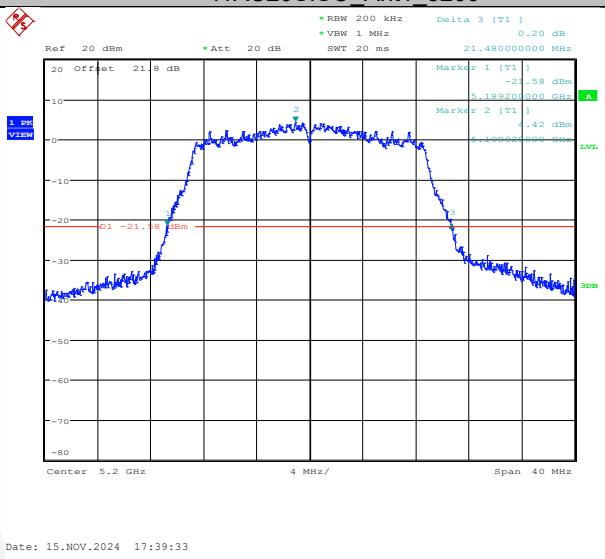

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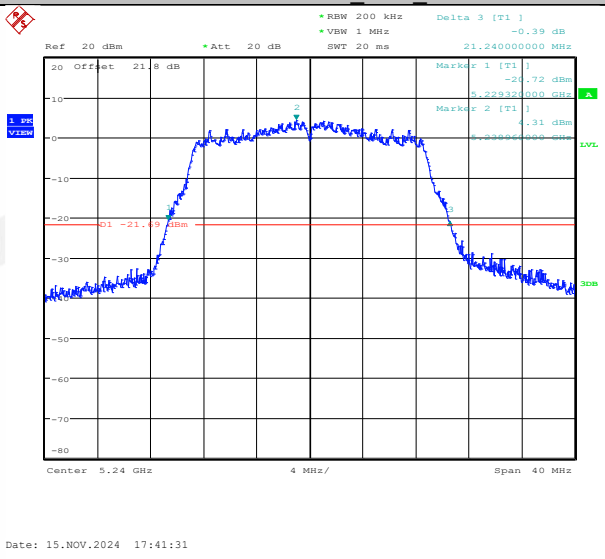

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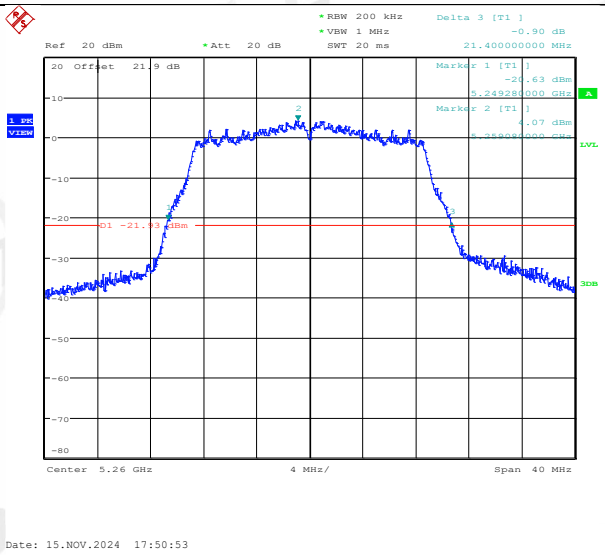

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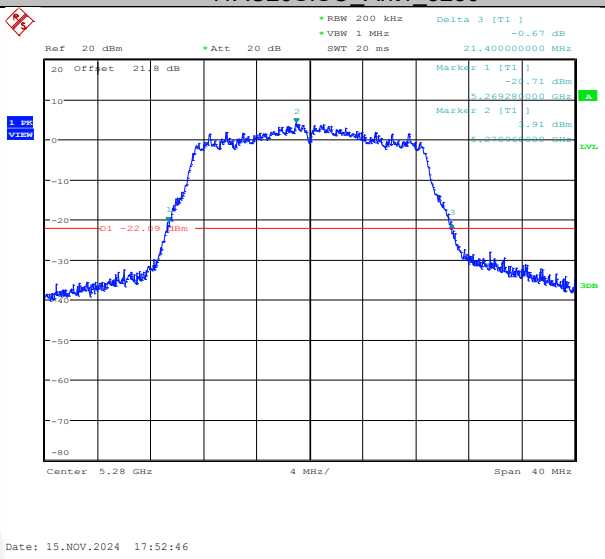

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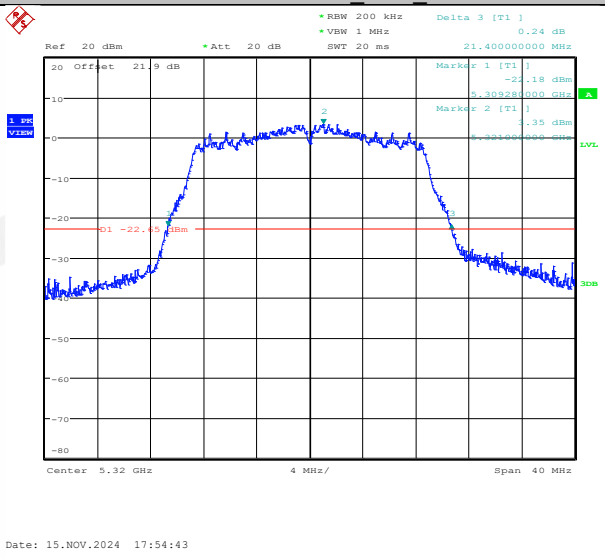

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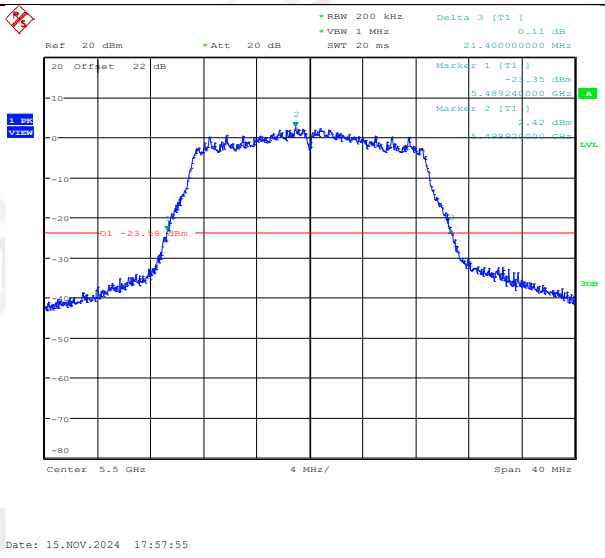

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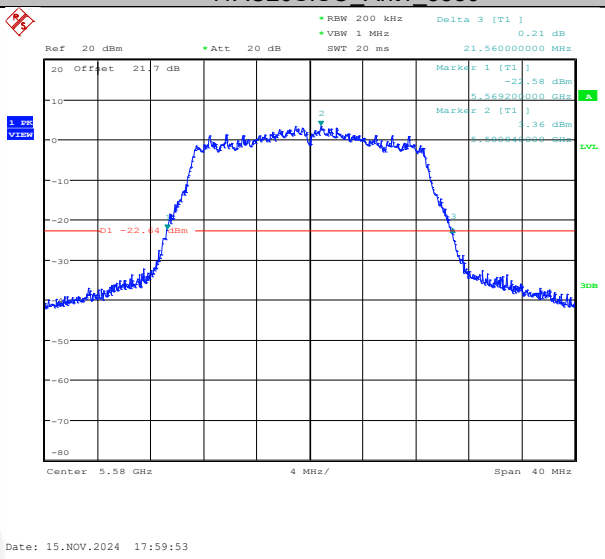

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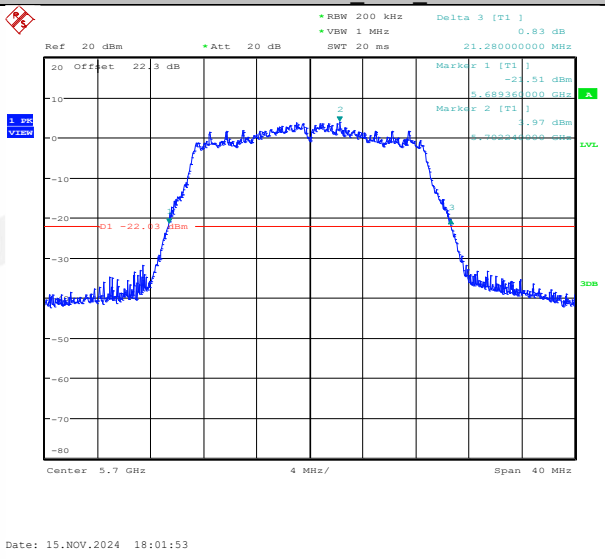

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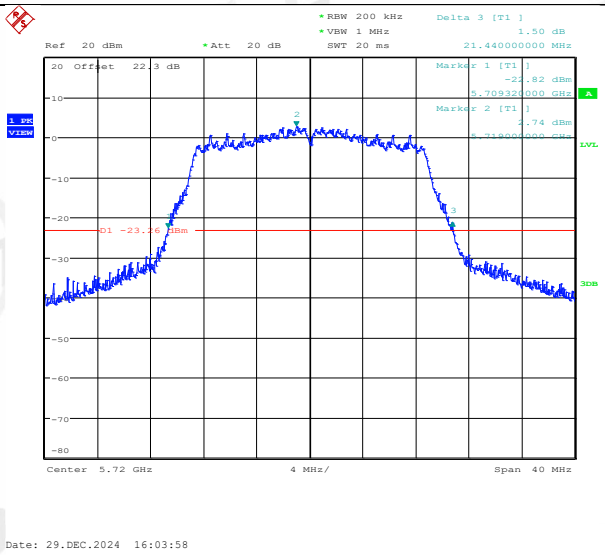

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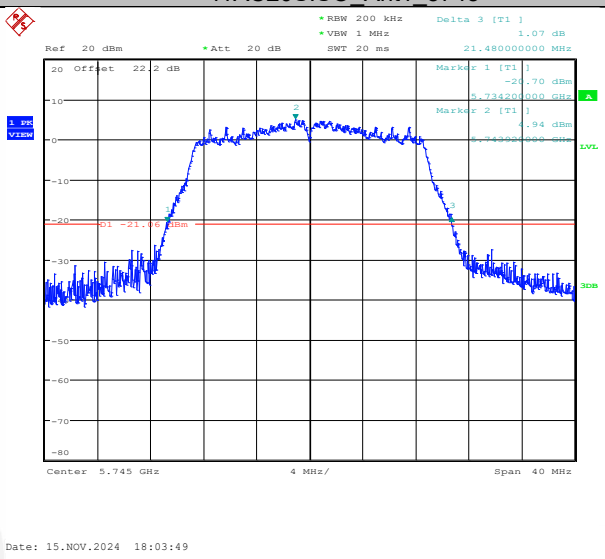

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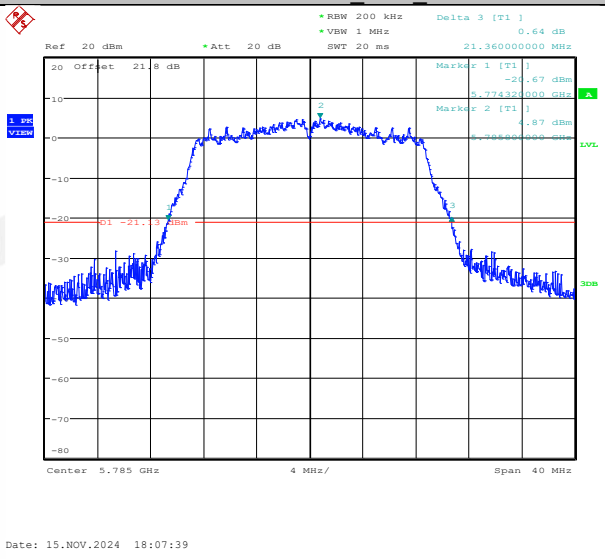

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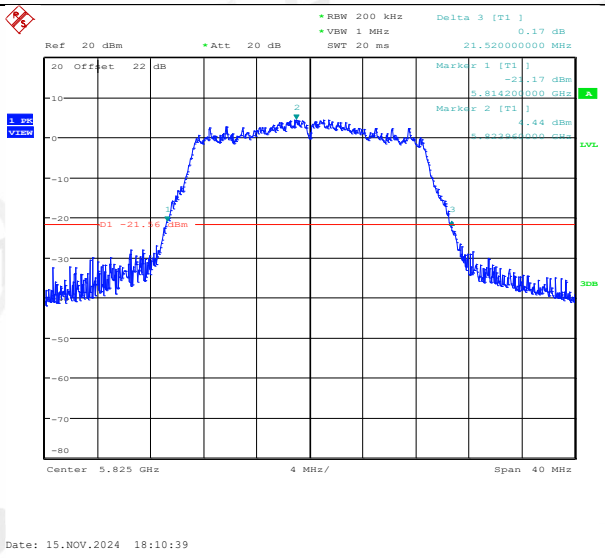

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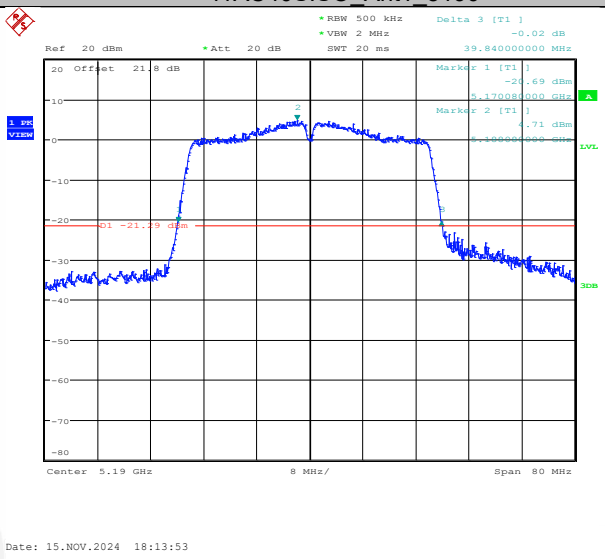

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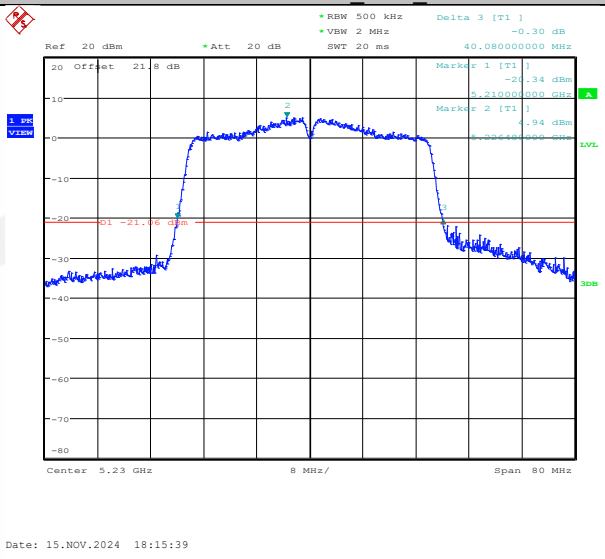

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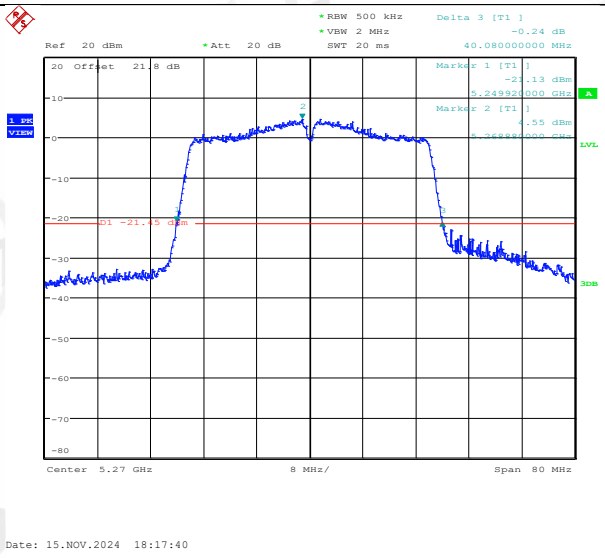

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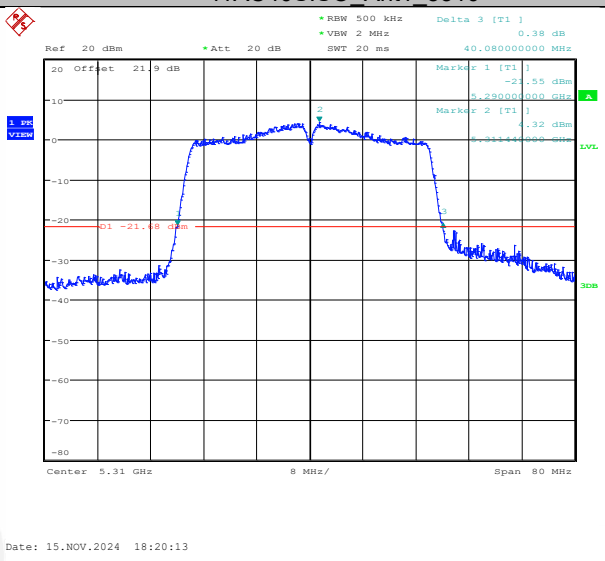
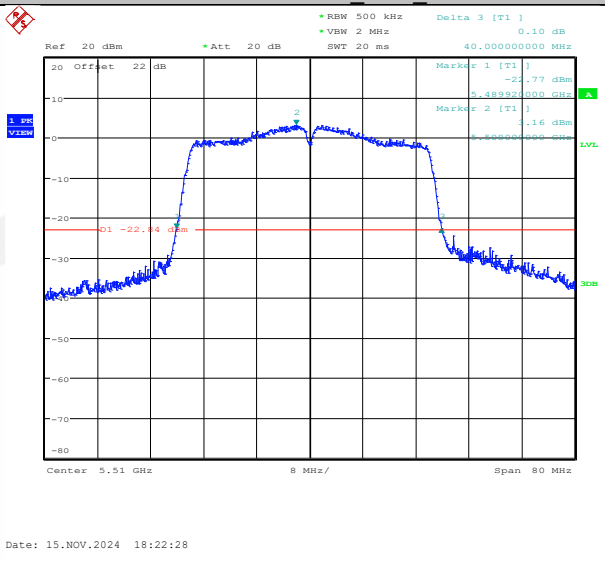
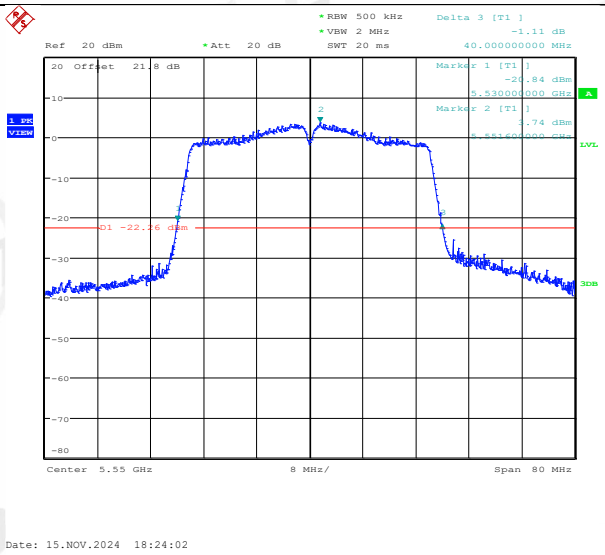


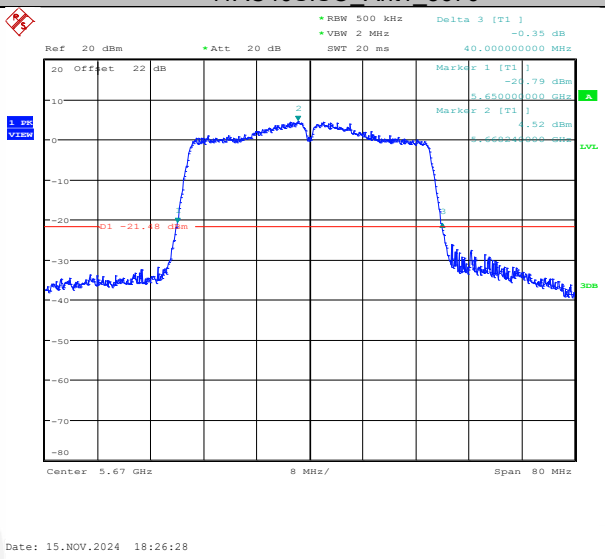
11AC40SISO_Ant1_5510



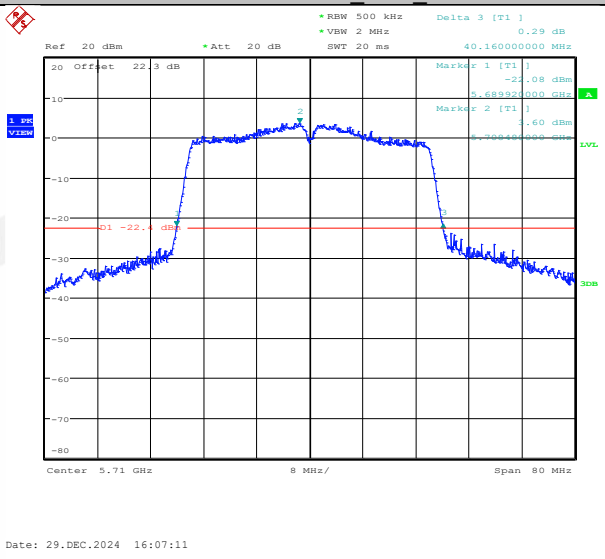
11AC40SISO_Ant1_5550



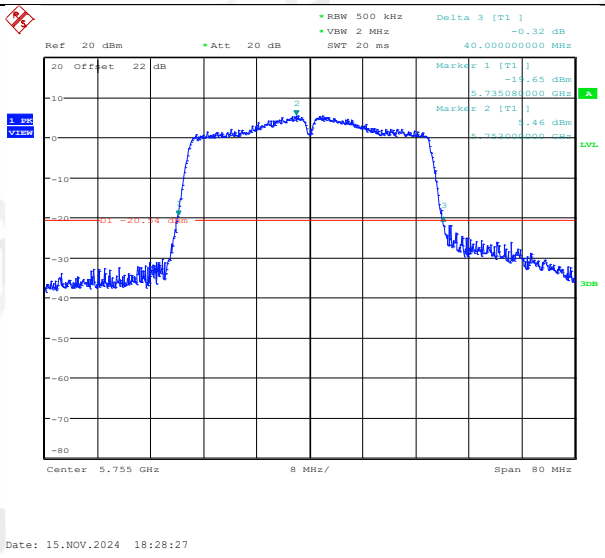
11AC40SISO_Ant1_5670



11AC40SISO_Ant1_5710



11AC40SISO_Ant1_5755



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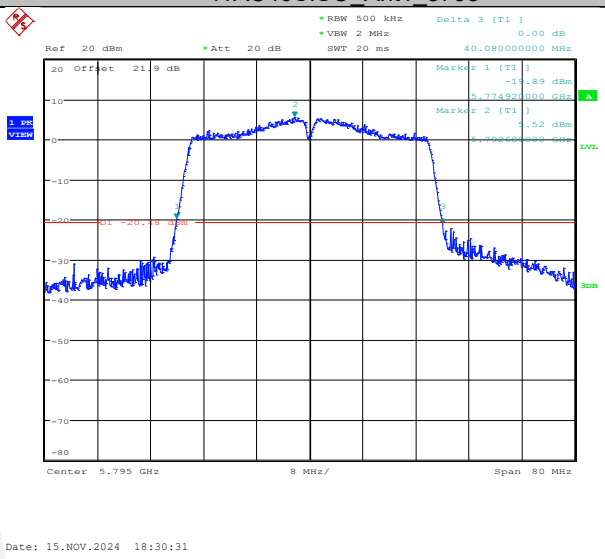
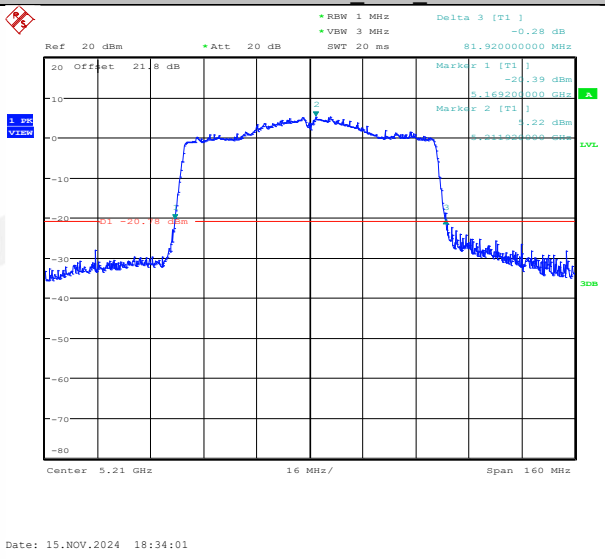
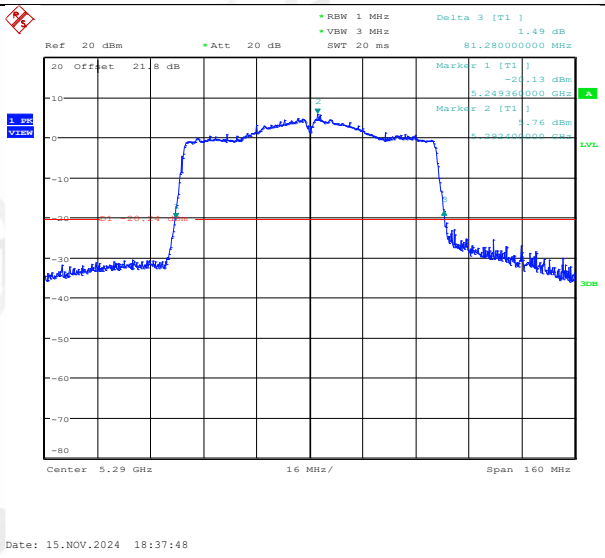


11AC80SISO_Ant1_5210



11AC80SISO_Ant1_5290



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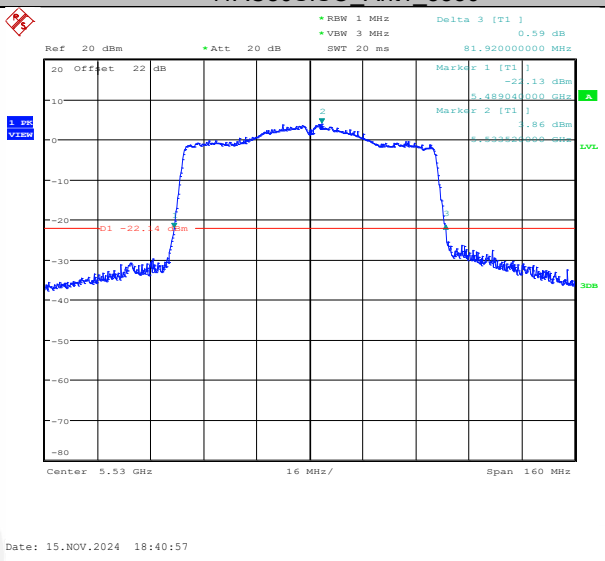
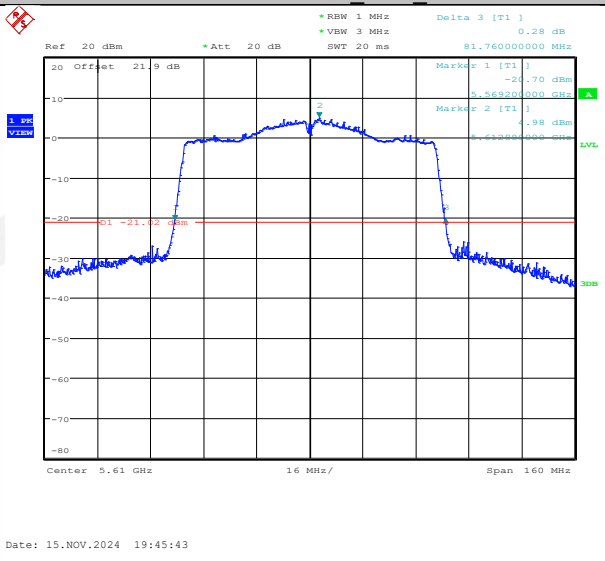


11AC80SISO_Ant1_5610



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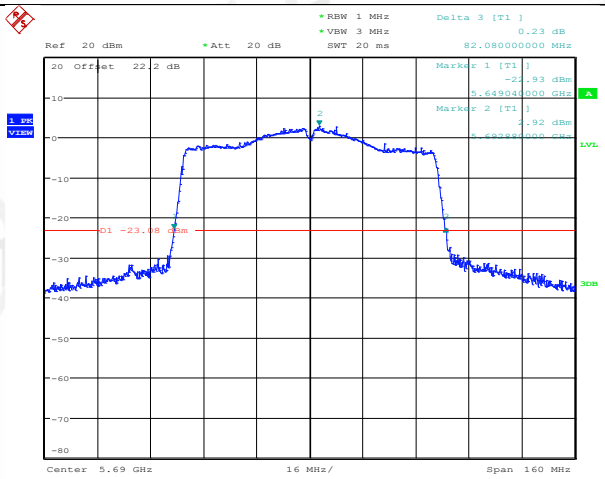
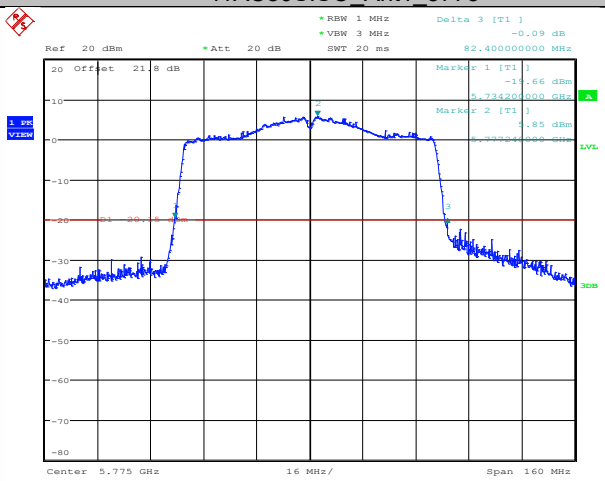
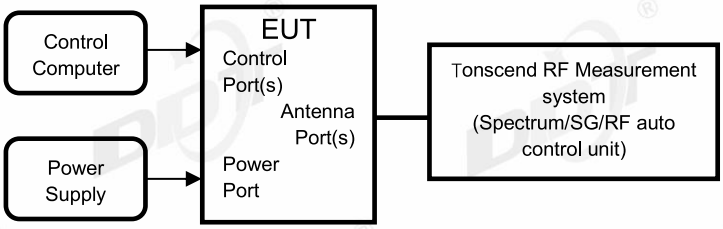


11AC80SISO_Ant1_5775



5. 6dB Bandwidth

5.1. Block diagram of test setup



5.2. Limits

FCC Part15, Subpart E/ RSS-247		
Test Item	Limit	Frequency Range (MHz)
6 dB Bandwidth	Minimum 500 kHz	5725 - 5850

5.3. Test procedure

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

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	For 6 dB Bandwidth: RBW=100 kHz For 26 dB Bandwidth: approximately 1% of the emission bandwidth.
VBW	For 6 dB Bandwidth: VBW=300 kHz For 26 dB Bandwidth: >3 RBW
Trace	Max hold
Sweep	Auto couple

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.

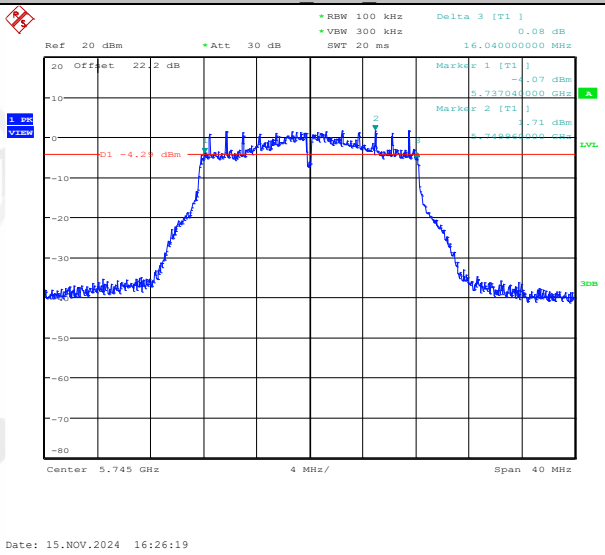
5.4. Test result B4

Test Engineer:	Zora Zhang	Test Site:	RF Measurement System 1#
Ambient Condition:	24.2℃,55%RH	Test Date:	2024.12.16-2025.01.14
Test Power Supply:	AC230V/50Hz	Sample Number:	S24110729-001

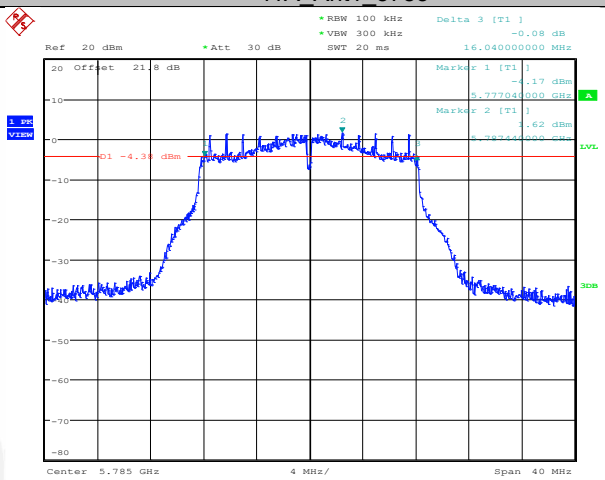
Test Mode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.04	5737.04	5753.08	0.5	PASS
		5785	16.04	5777.04	5793.08	0.5	PASS
		5825	16.28	5816.80	5833.08	0.5	PASS
11N20SISO	Ant1	5745	16.28	5737.08	5753.36	0.5	PASS
		5785	16.40	5777.08	5793.48	0.5	PASS
		5825	16.68	5816.44	5833.12	0.5	PASS
11N40SISO	Ant1	5755	35.44	5737.40	5772.84	0.5	PASS
		5795	35.20	5777.32	5812.52	0.5	PASS
11AC20SISO	Ant1	5745	16.36	5737.08	5753.44	0.5	PASS
		5785	17.04	5776.44	5793.48	0.5	PASS
		5825	16.52	5816.56	5833.08	0.5	PASS
11AC40SISO	Ant1	5755	35.28	5737.32	5772.60	0.5	PASS
		5795	35.36	5777.16	5812.52	0.5	PASS
11AC80SISO	Ant1	5775	75.20	5737.40	5812.60	0.5	PASS

5.5. Test graphs B4

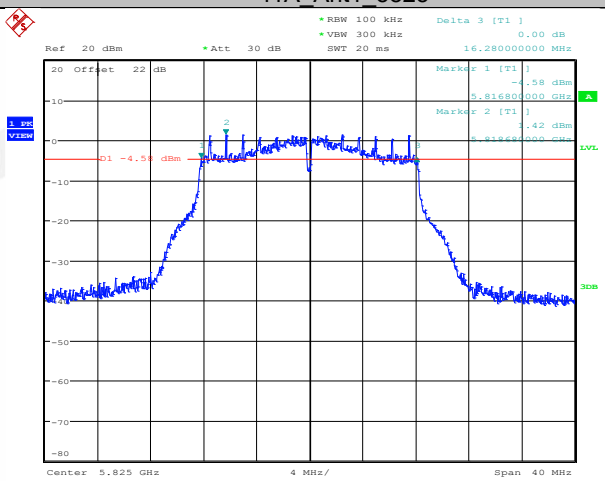
11A_Ant1_5745



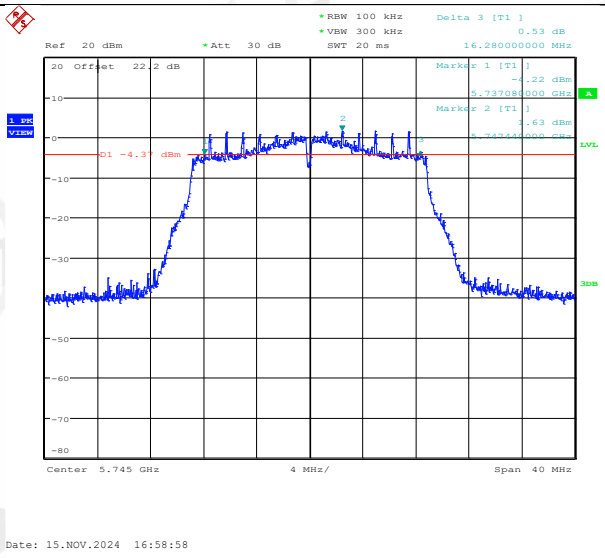
11A_Ant1_5785



11A_Ant1_5825



11N20SISO_Ant1_5745



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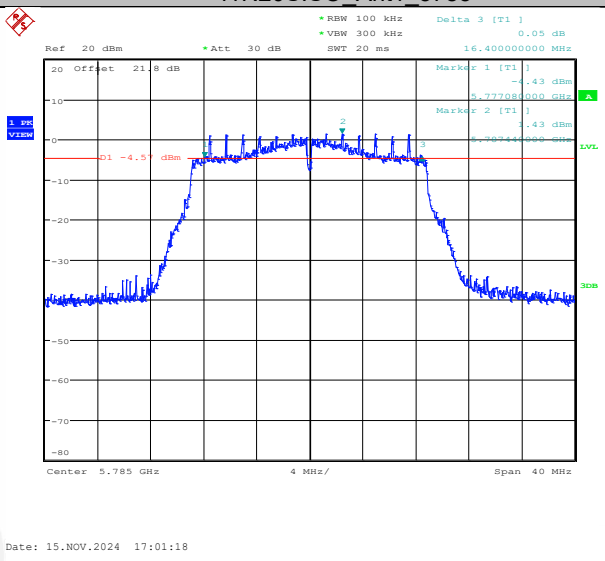

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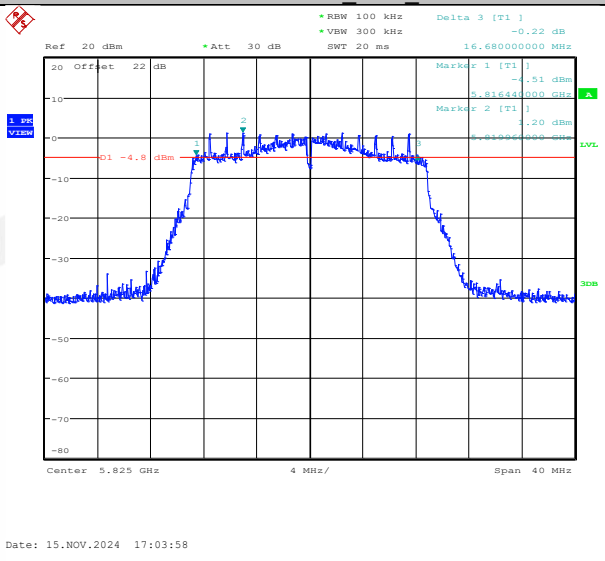
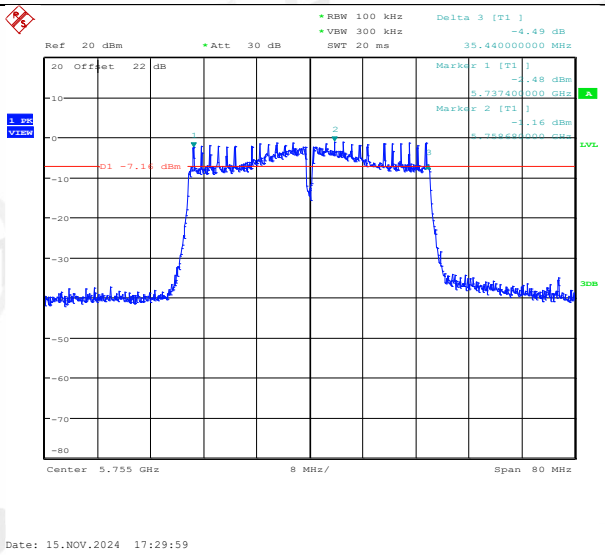
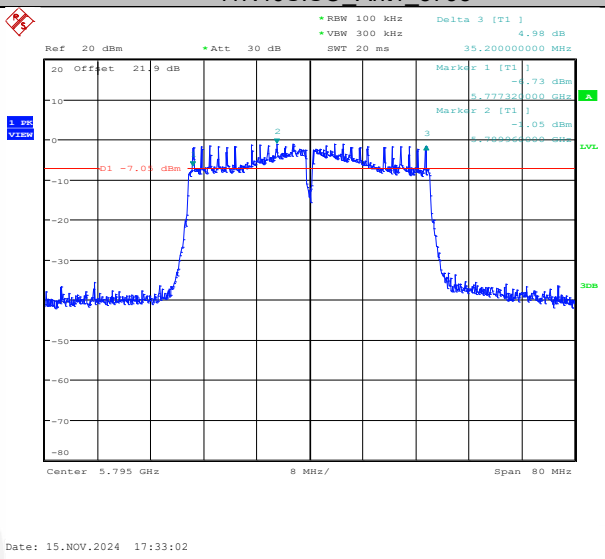


11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



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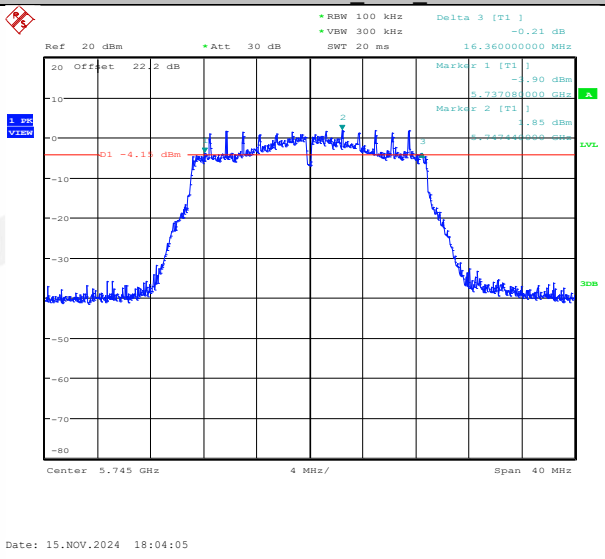

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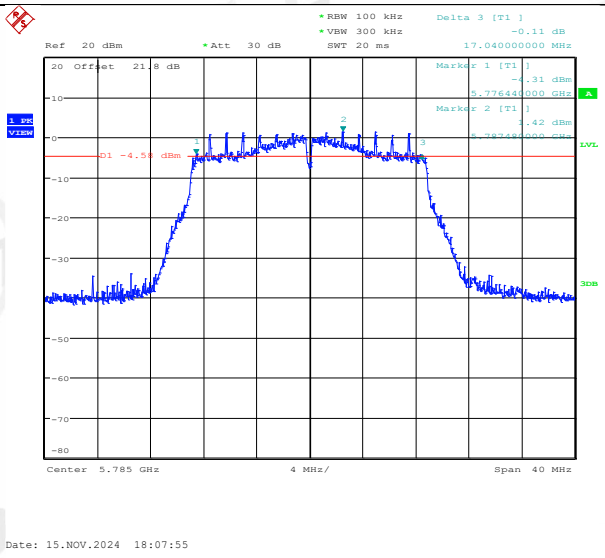

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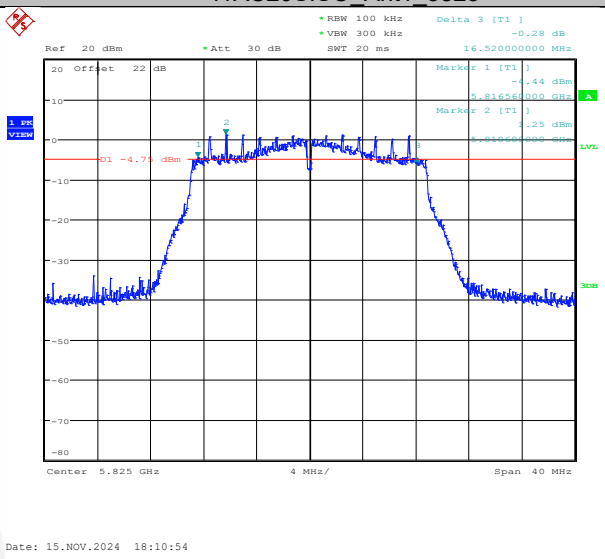

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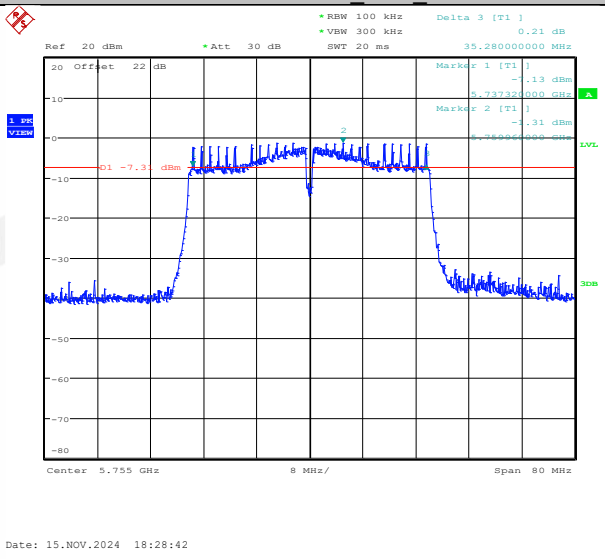

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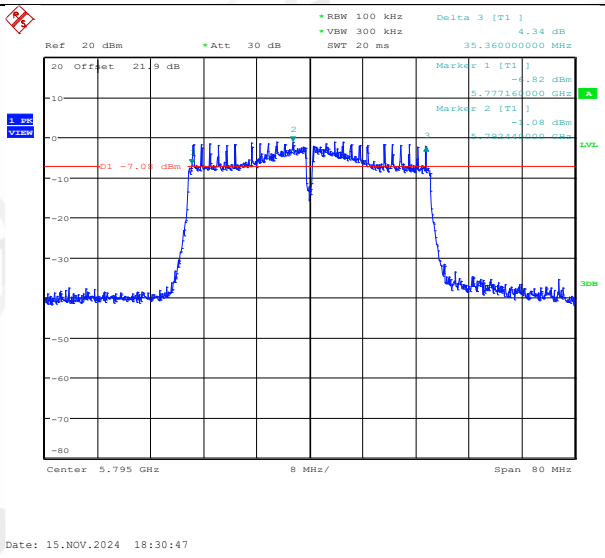
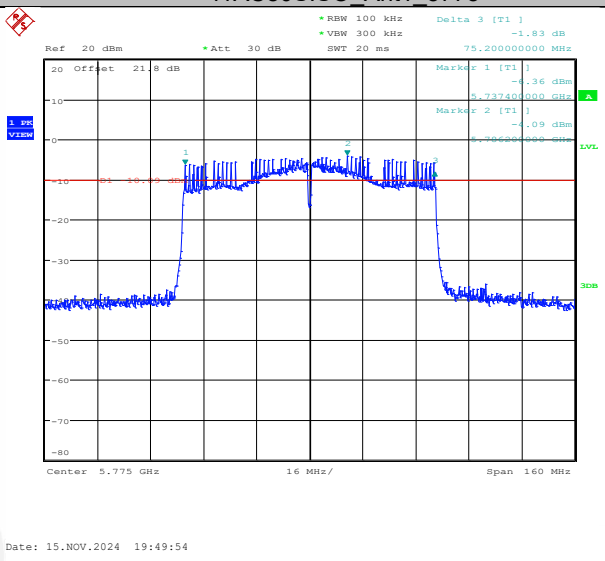
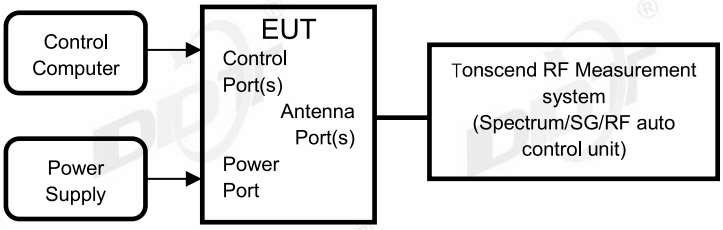


11AC80SISO_Ant1_5775



6. 99% Bandwidth

6.1. Block diagram of test setup



6.2. Limits

Just for Report.

6.3. Test procedure

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

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	1% to 5% of the OBW
VBW	approximately three times the RBW
Trace	Max hold

Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.

6.4. Test result

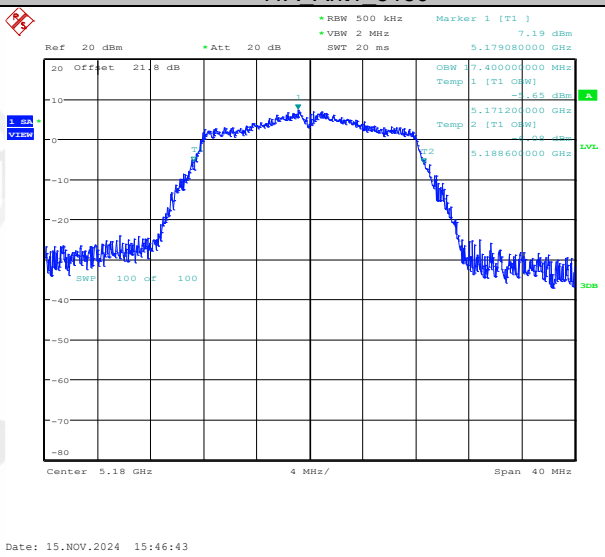
Test Engineer:	Zora Zhang	Test Site:	RF Measurement System 1#
Ambient Condition:	24.2℃,55%RH	Test Date:	2024.12.16-2025.01.14
Test Power Supply:	AC230V/50Hz	Sample Number:	S24110729-001

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.4	5171.2000	5188.6000	---	---
		5200	17.32	5191.2400	5208.5600	---	---
		5240	17.32	5231.2400	5248.5600	---	---
		5260	17.28	5251.2400	5268.5200	---	---
		5280	17.28	5271.2800	5288.5600	---	---
		5320	17.24	5311.2800	5328.5200	---	---
		5500	17.28	5491.2400	5508.5200	---	---
		5580	17.32	5571.2400	5588.5600	---	---
		5700	17.32	5691.2400	5708.5600	---	---
		5720	17.36	5711.2800	5728.6400	---	---
		5720_UNII-2C	13.72	5711.2800	5725	---	---
		5720_UNII-3	3.64	5725	5728.6400	---	---
		5745	17.28	5736.2800	5753.5600	---	---
		5785	17.4	5776.1600	5793.5600	---	---
		5825	17.32	5816.2400	5833.5600	---	---
11N20SISO	Ant1	5180	18.2	5170.8400	5189.0400	---	---
		5200	18.2	5190.8400	5209.0400	---	---
		5240	18.24	5230.8400	5249.0800	---	---
		5260	18.24	5250.8400	5269.0800	---	---
		5280	18.24	5270.8000	5289.0400	---	---
		5320	18.32	5310.8000	5329.1200	---	---
		5500	18.28	5490.8000	5509.0800	---	---
		5580	18.24	5570.8400	5589.0800	---	---
		5700	18.2	5690.8400	5709.0400	---	---
		5720	18.24	5710.8800	5729.1200	---	---
		5720_UNII-2C	14.12	5710.8800	5725	---	---
		5720_UNII-3	4.12	5725	5729.1200	---	---
		5745	18.2	5735.8800	5754.0800	---	---
		5785	18.2	5775.8400	5794.0400	---	---
		5825	18.28	5815.7600	5834.0400	---	---
11N40SISO	Ant1	5190	36.24	5171.8400	5208.0800	---	---
		5230	36.32	5211.8400	5248.1600	---	---
		5270	36.32	5251.7600	5288.0800	---	---
		5310	36.32	5291.8400	5328.1600	---	---
		5510	36.32	5491.7600	5528.0800	---	---
		5550	36.32	5531.7600	5568.0800	---	---
		5670	36.32	5651.7600	5688.0800	---	---
		5710	36.32	5691.8400	5728.1600	---	---
		5710_UNII-2C	33.16	5691.8400	5725	---	---
		5710_UNII-3	3.16	5725	5728.1600	---	---
		5755	36.32	5736.8400	5773.1600	---	---
		5795	36.32	5776.7600	5813.0800	---	---
11AC20SISO	Ant1	5180	18.28	5170.8000	5189.0800	---	---
		5200	18.36	5190.7200	5209.0800	---	---
		5240	18.28	5230.8000	5249.0800	---	---
		5260	18.28	5250.8000	5269.0800	---	---
		5280	18.24	5270.8400	5289.0800	---	---
		5320	18.32	5310.8400	5329.1600	---	---
		5500	18.28	5490.8000	5509.0800	---	---
		5580	18.28	5570.8000	5589.0800	---	---
		5700	18.16	5690.8800	5709.0400	---	---
		5720	18.2	5710.8800	5729.0800	---	---
		5720_UNII-2C	14.12	5710.8800	5725	---	---
		5720_UNII-3	4.08	5725	5729.0800	---	---
		5745	18.28	5735.8000	5754.0800	---	---
		5785	18.32	5775.8000	5794.1200	---	---

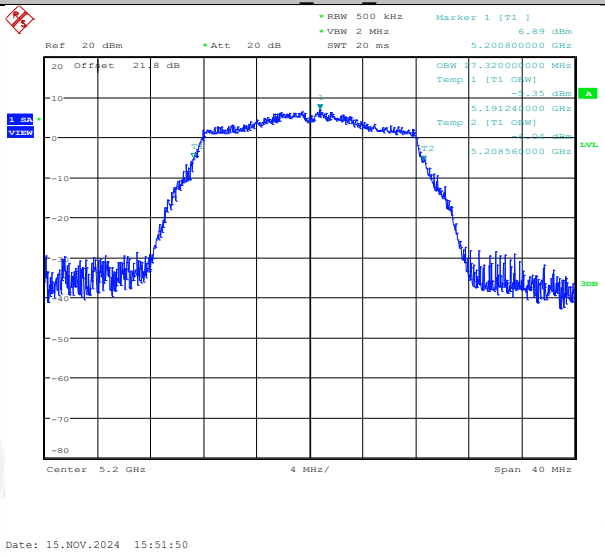
		5825	18.2	5815.8000	5834.0000	---	---
11AC40SISO	Ant1	5190	36.24	5171.8400	5208.0800	---	---
		5230	36.32	5211.8400	5248.1600	---	---
		5270	36.32	5251.7600	5288.0800	---	---
		5310	36.24	5291.8400	5328.0800	---	---
		5510	36.32	5491.7600	5528.0800	---	---
		5550	36.32	5531.7600	5568.0800	---	---
		5670	36.32	5651.7600	5688.0800	---	---
		5710	36.32	5691.8400	5728.1600	---	---
		5710_UNII-2C	33.16	5691.8400	5725	---	---
		5710_UNII-3	3.16	5725	5728.1600	---	---
		5755	36.32	5736.8400	5773.1600	---	---
		5795	36.24	5776.8400	5813.0800	---	---
11AC80SISO	Ant1	5210	75.52	5172.2400	5247.7600	---	---
		5290	76	5251.9200	5327.9200	---	---
		5530	75.68	5492.0800	5567.7600	---	---
		5610	75.68	5572.0800	5647.7600	---	---
		5690	75.52	5652.2400	5727.7600	---	---
		5690_UNII-2C	72.76	5652.2400	5725	---	---
		5690_UNII-3	2.76	5725	5727.7600	---	---
		5775	75.52	5737.2400	5812.7600	---	---

6.5. Test graphs

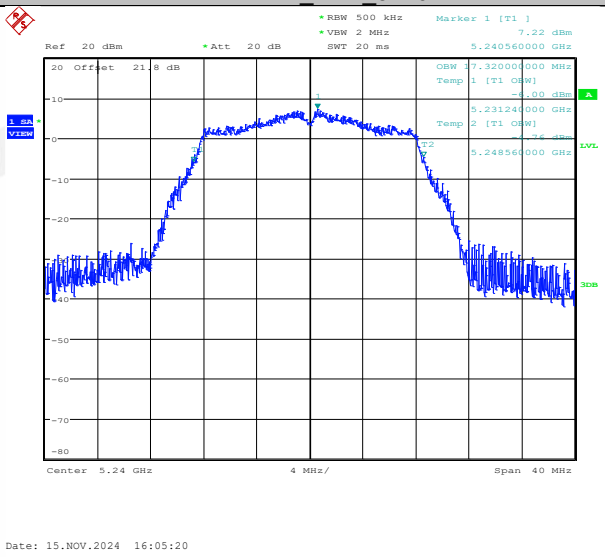
11A_Ant1_5180



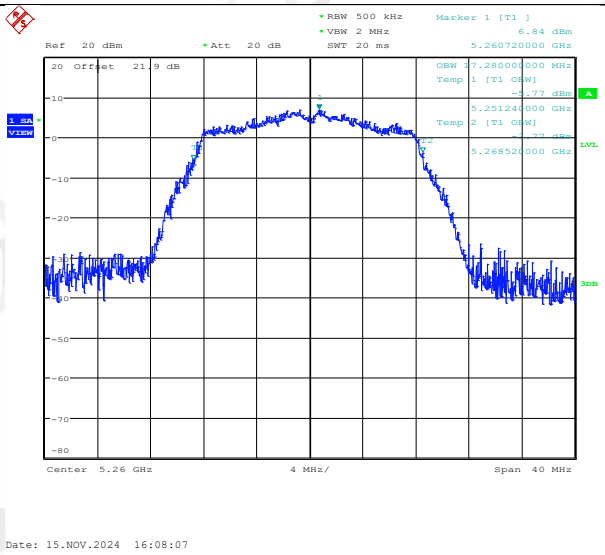
11A_Ant1_5200



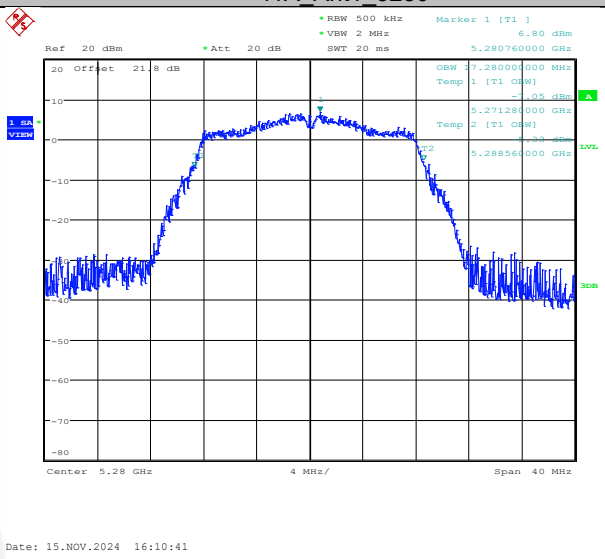
11A_Ant1_5240



11A_Ant1_5260



11A_Ant1_5280



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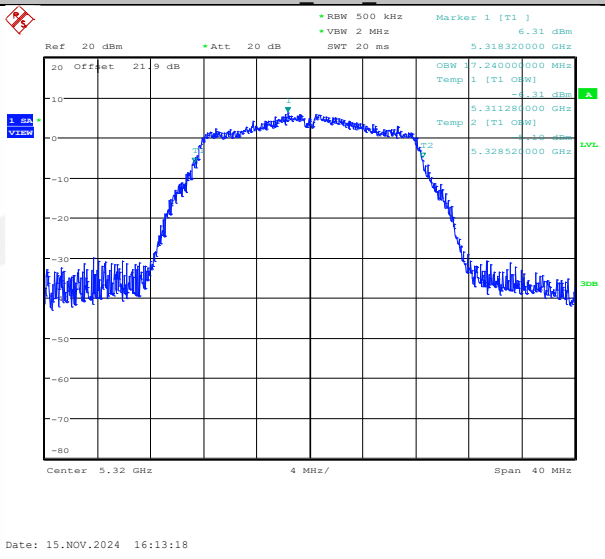

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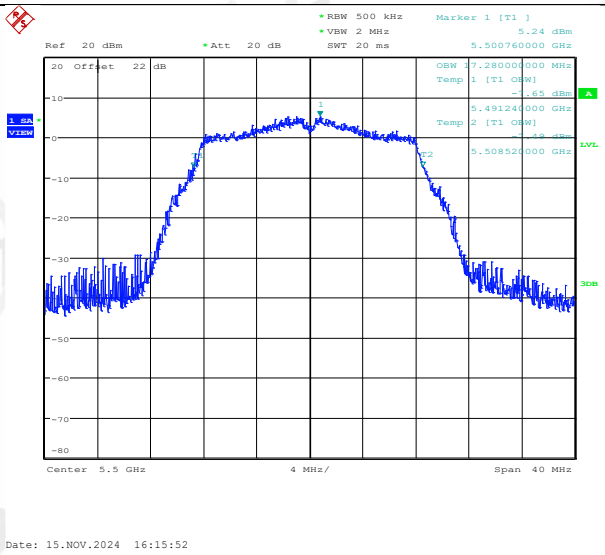

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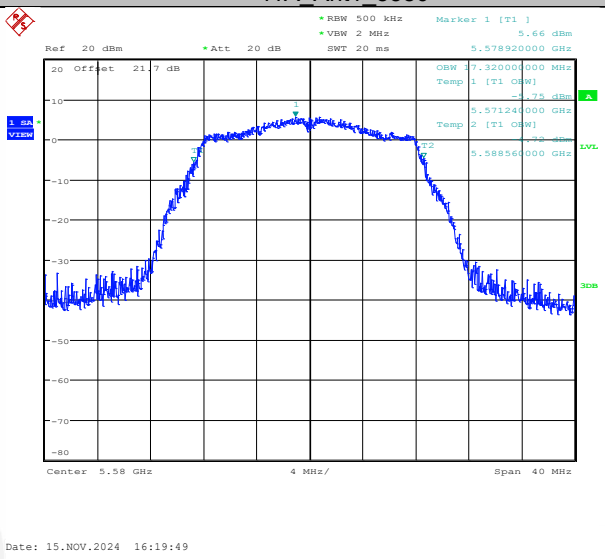

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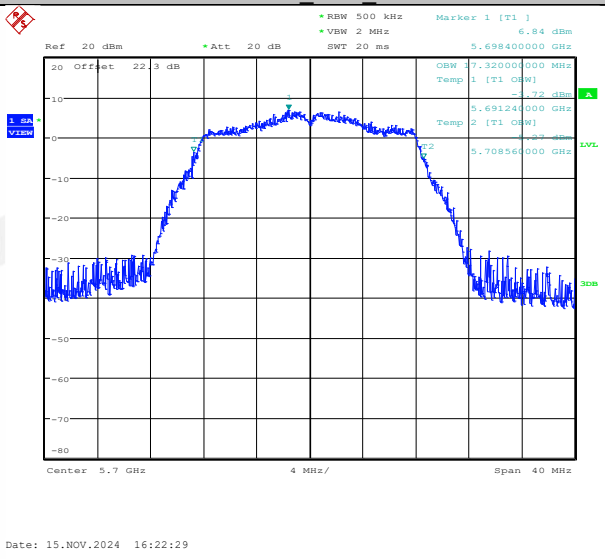

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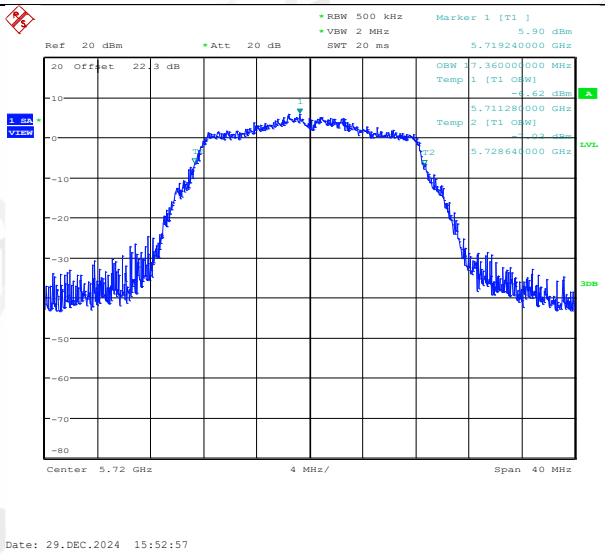

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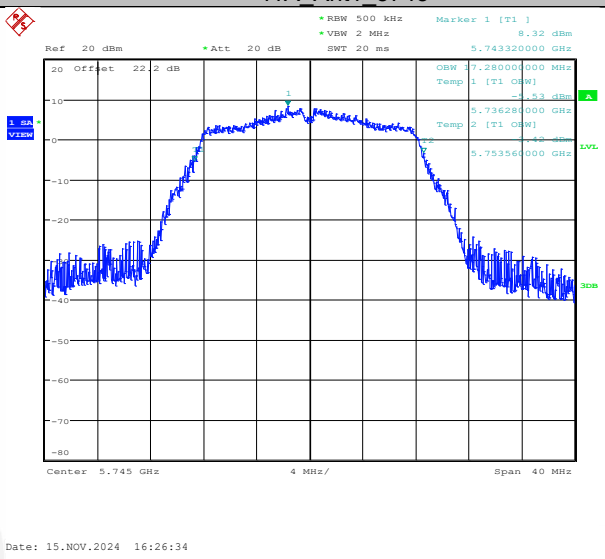

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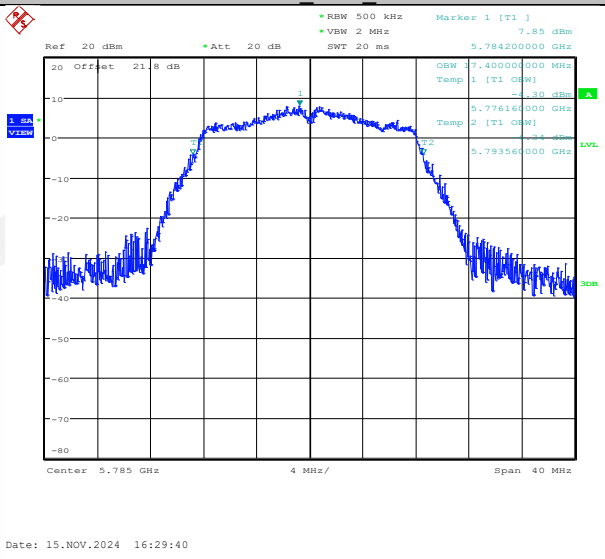

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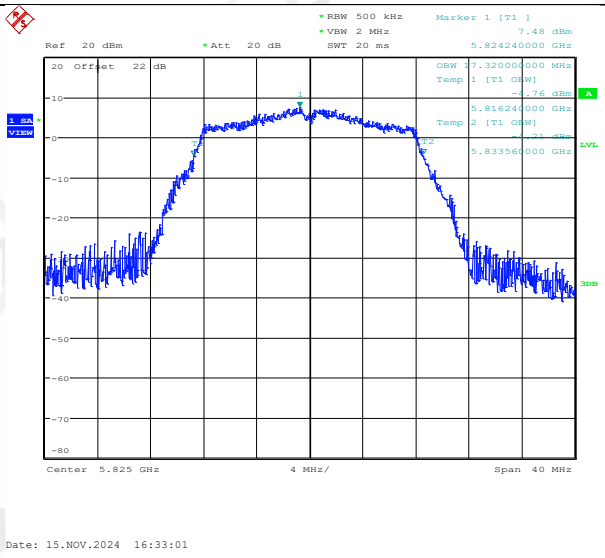

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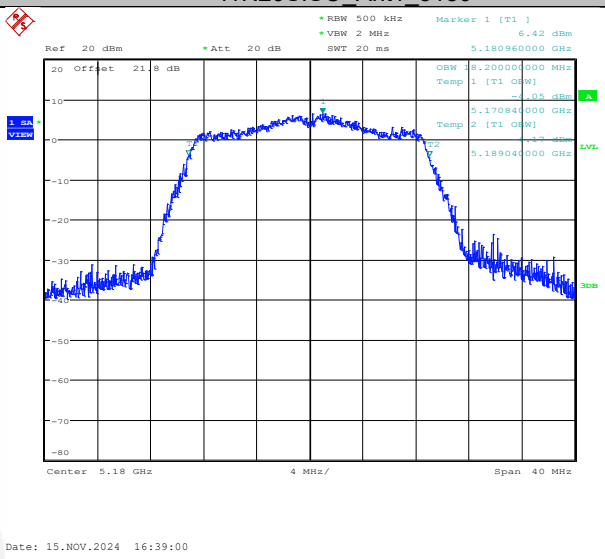

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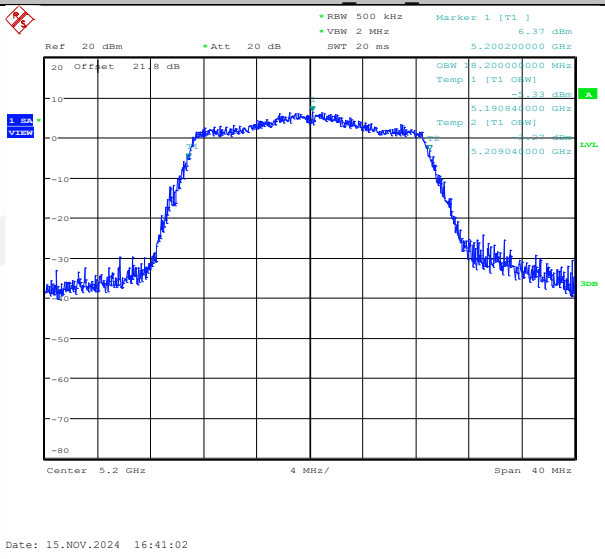

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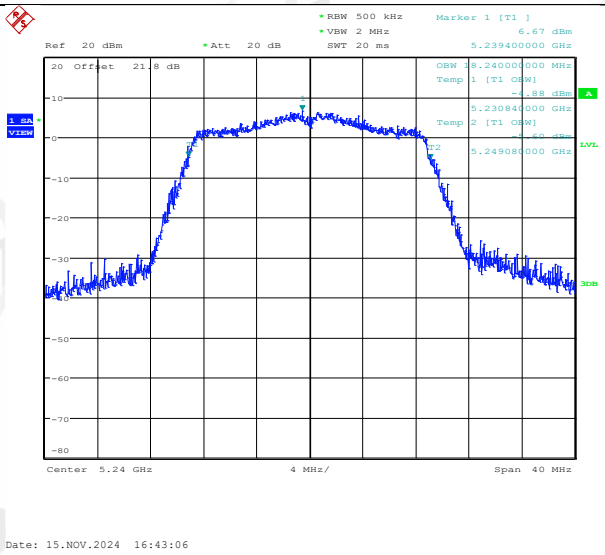

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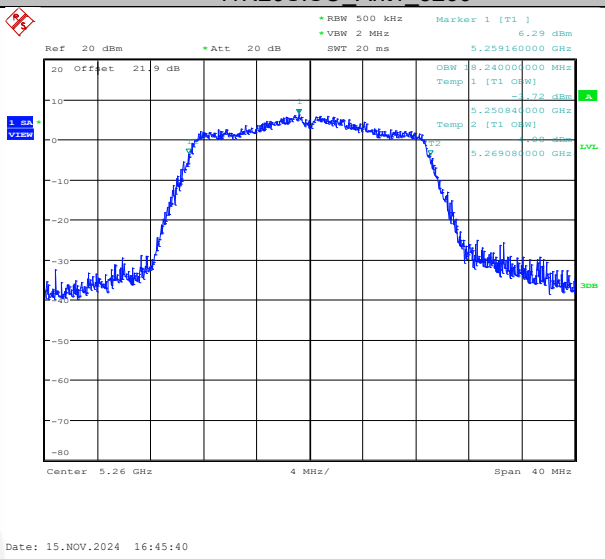

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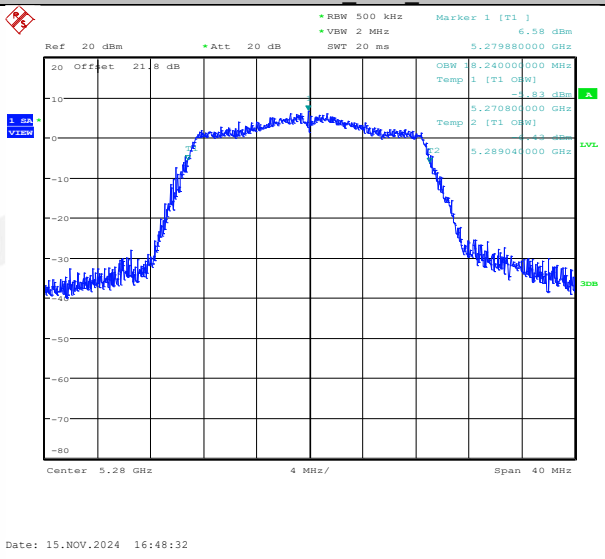

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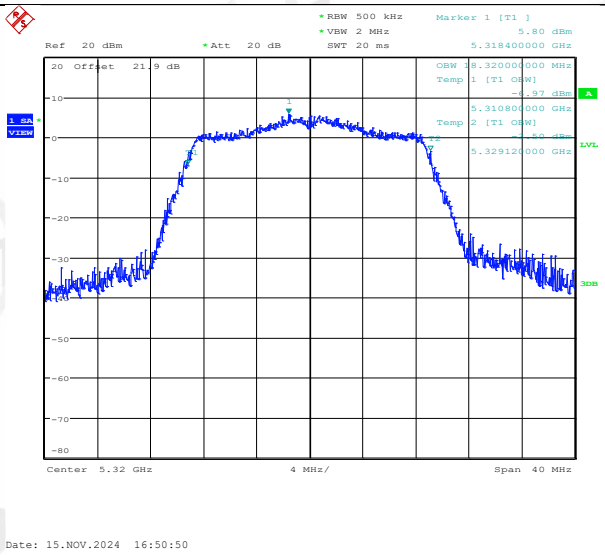

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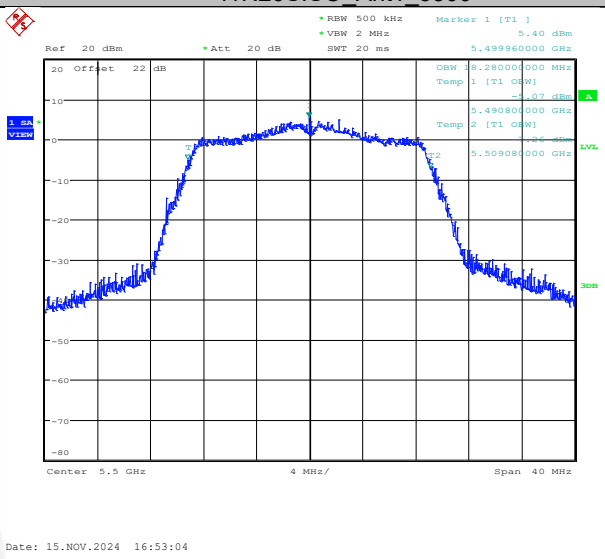

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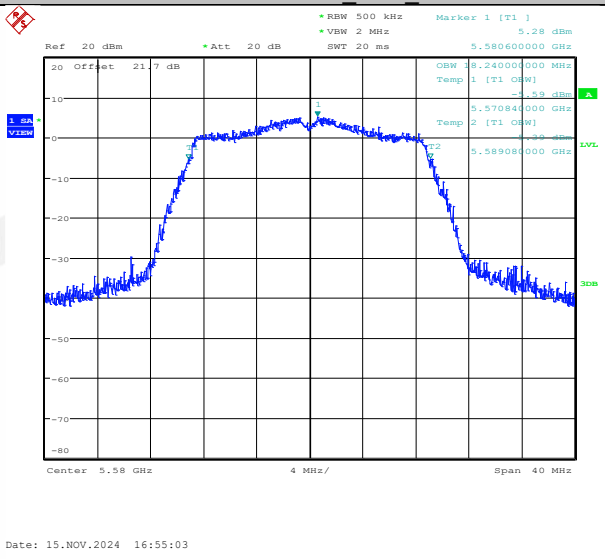

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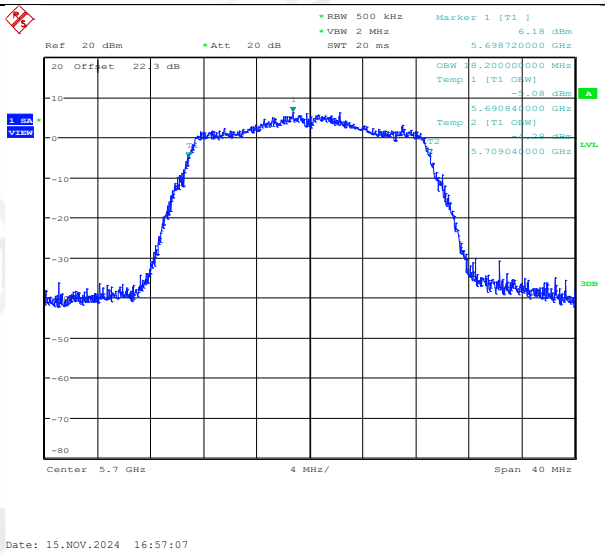

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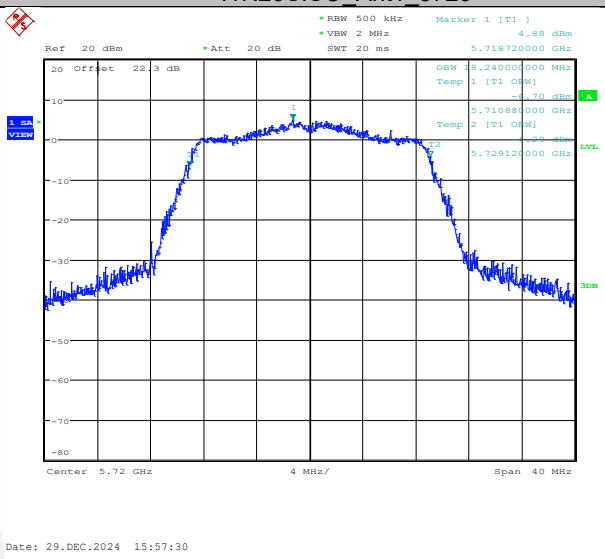

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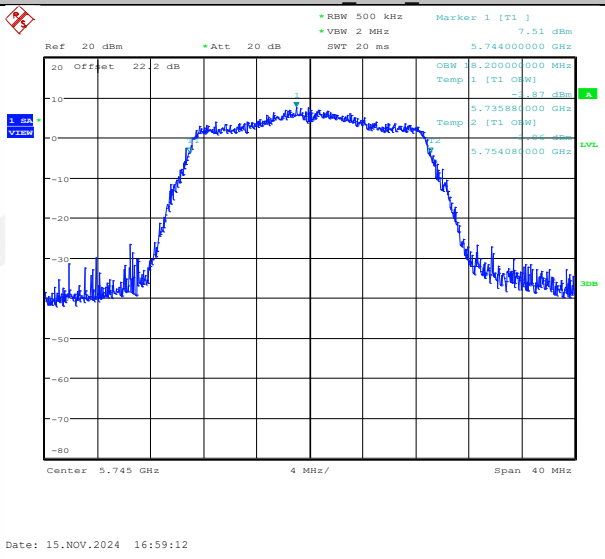

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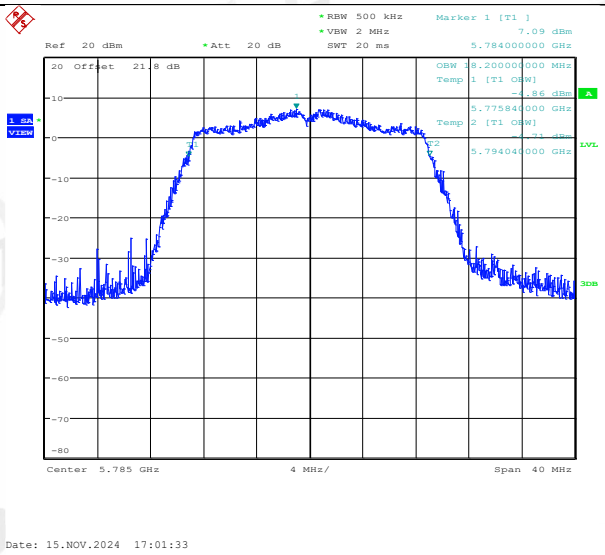

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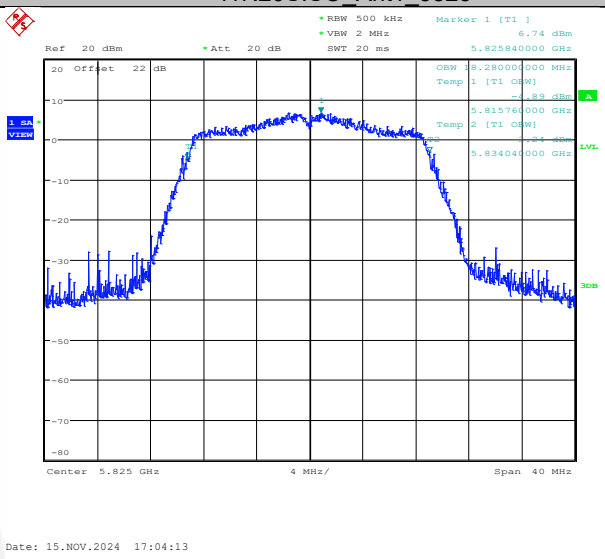

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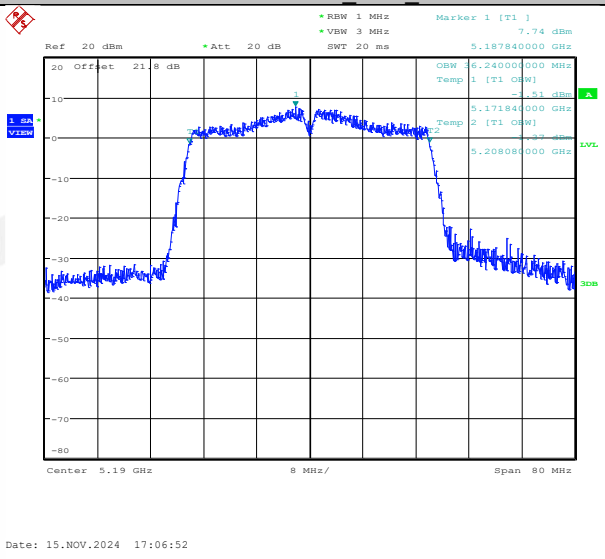

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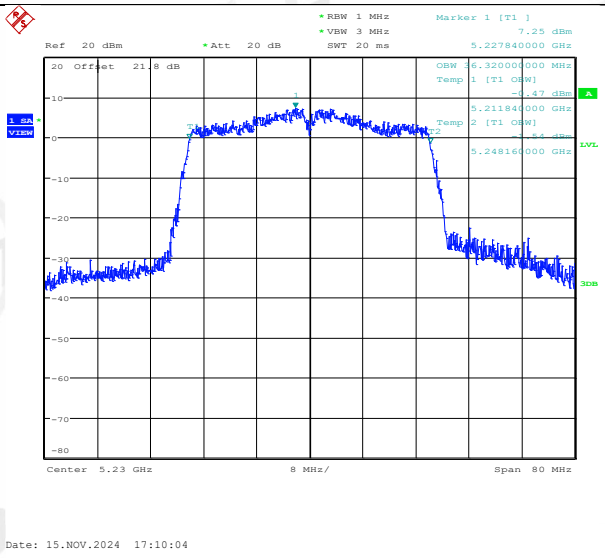

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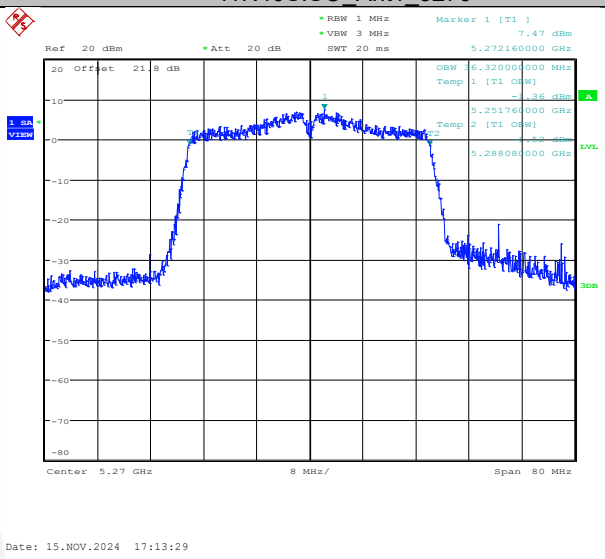

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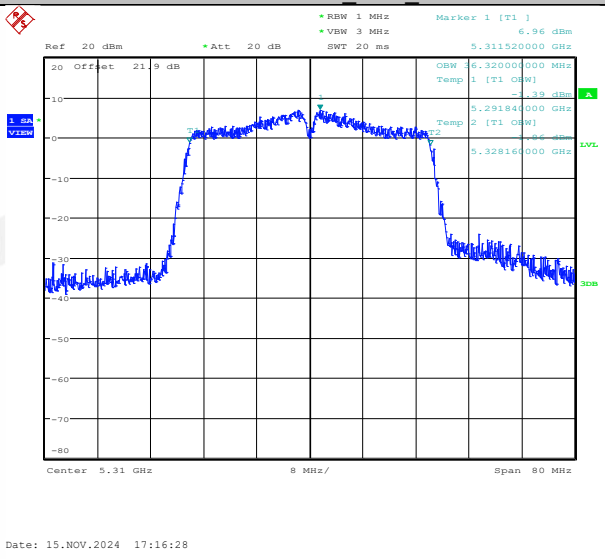

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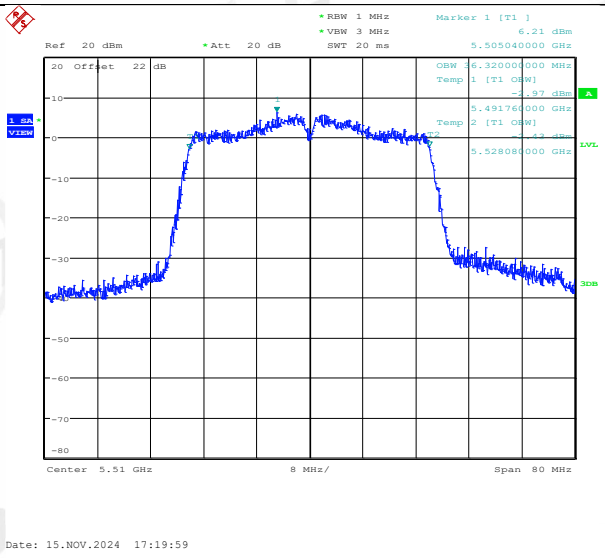

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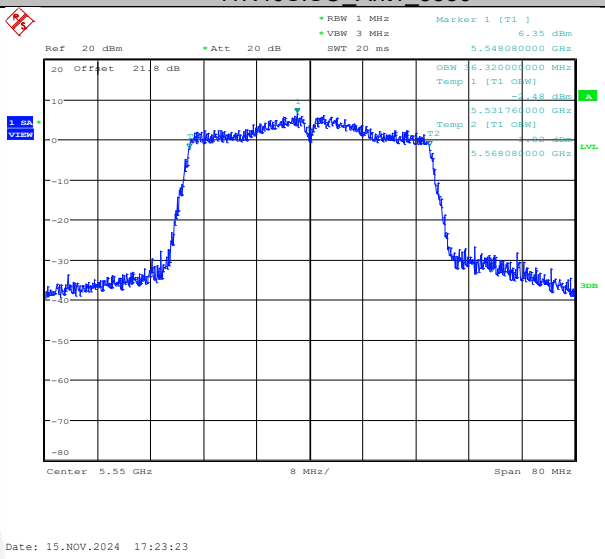

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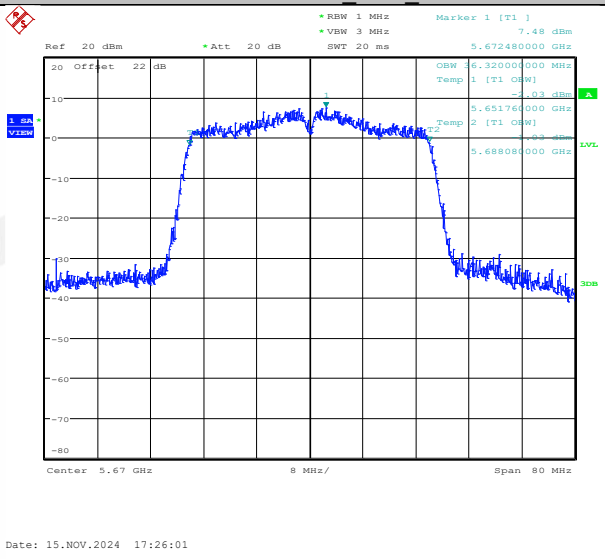

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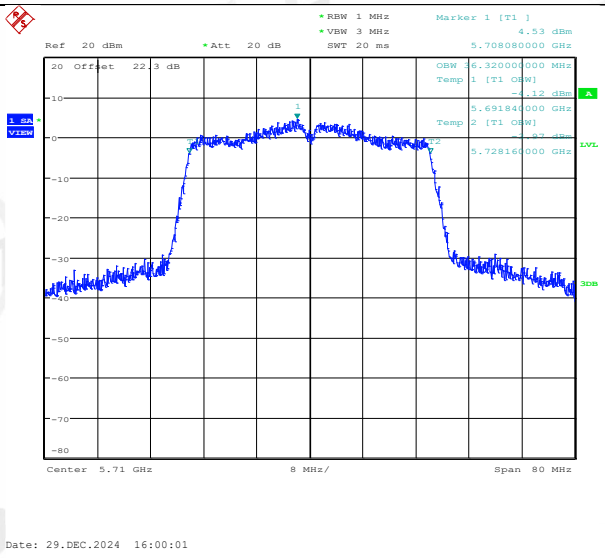

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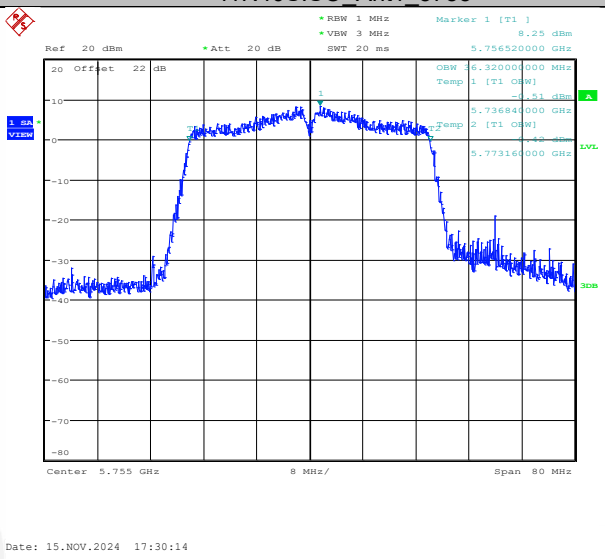

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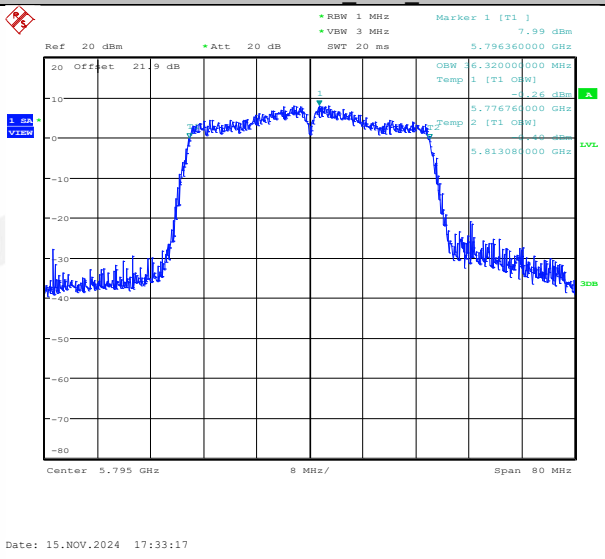

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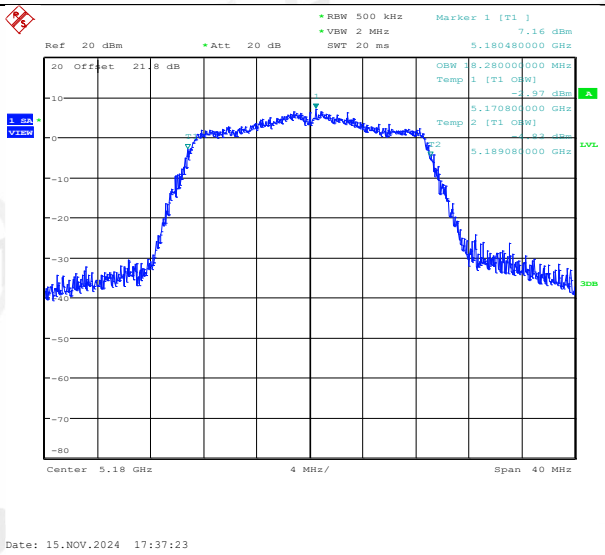

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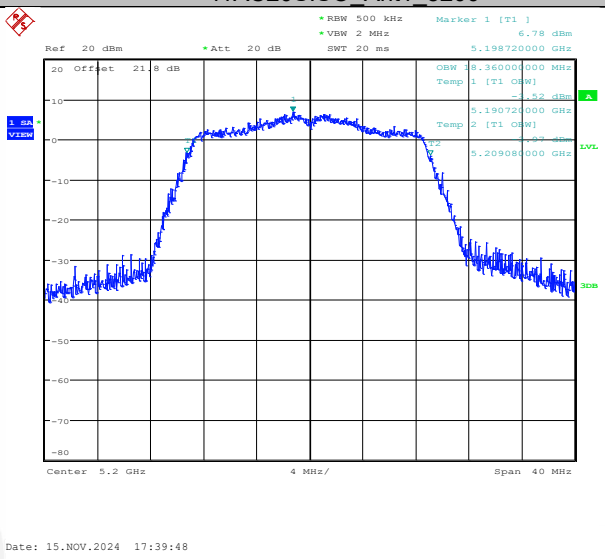

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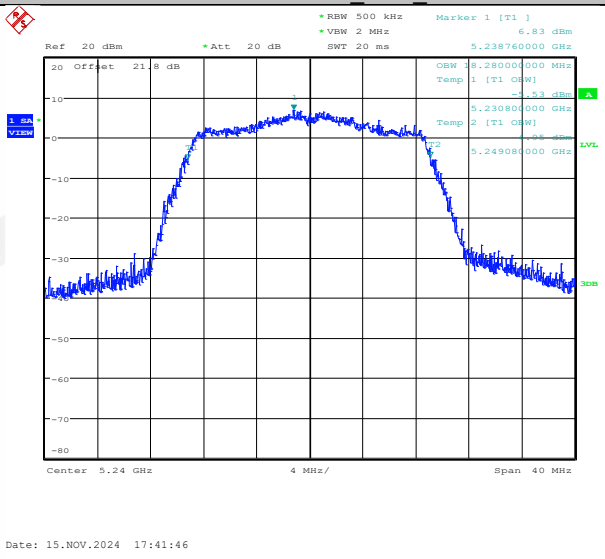

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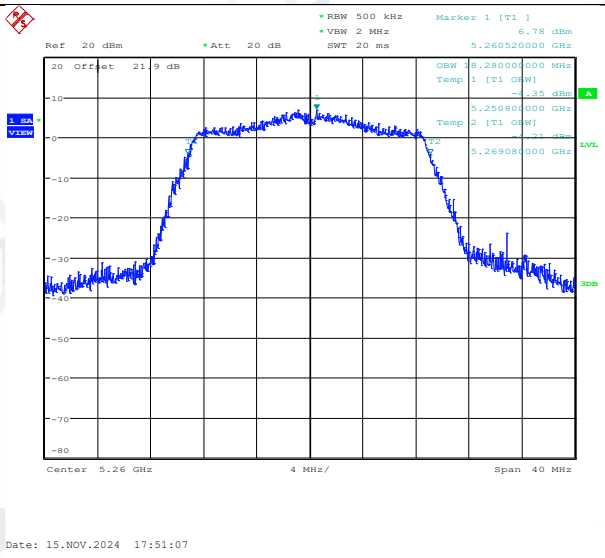

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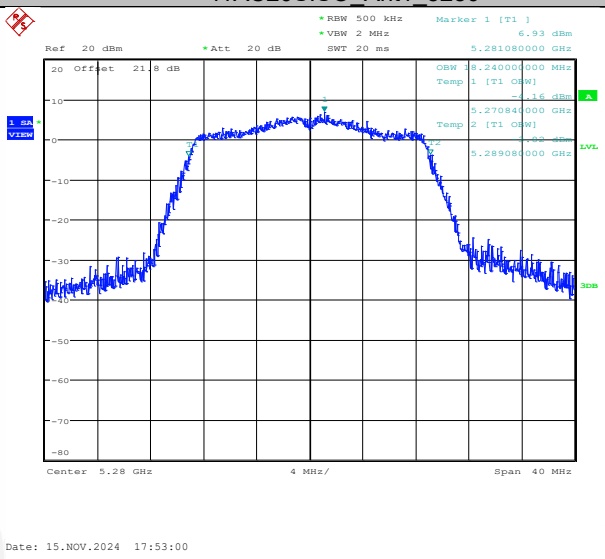

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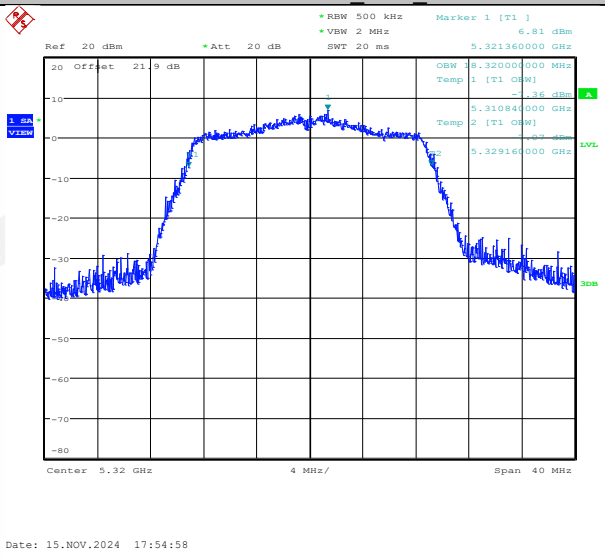

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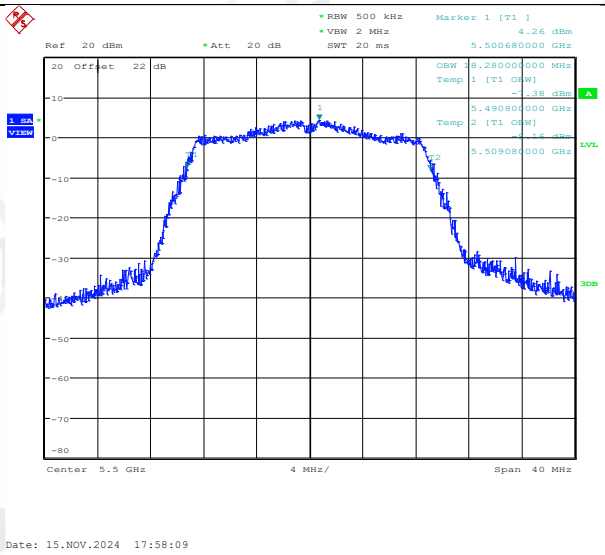

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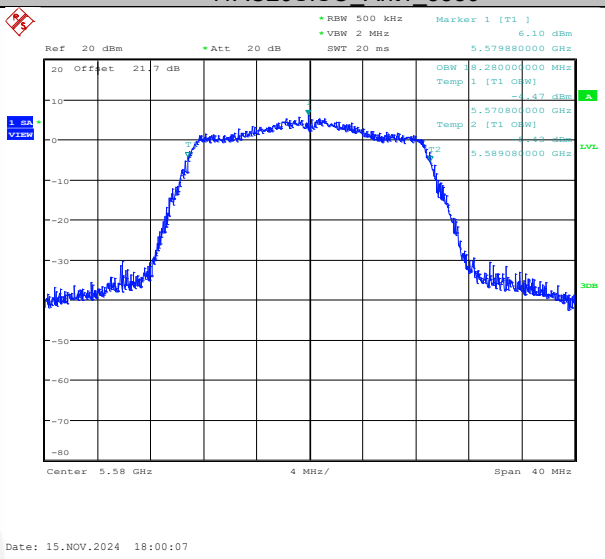

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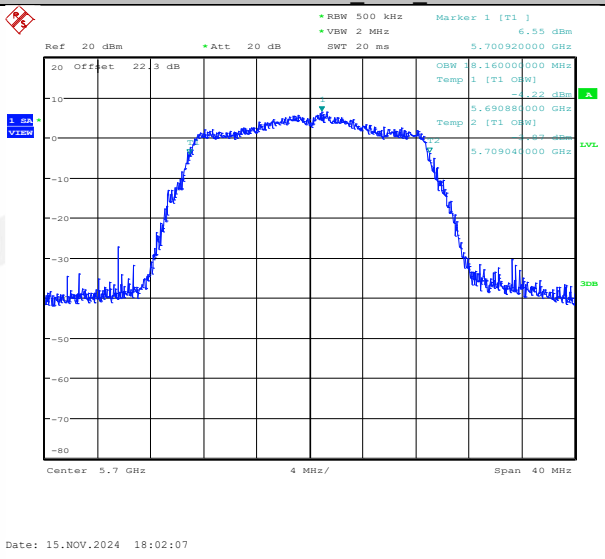

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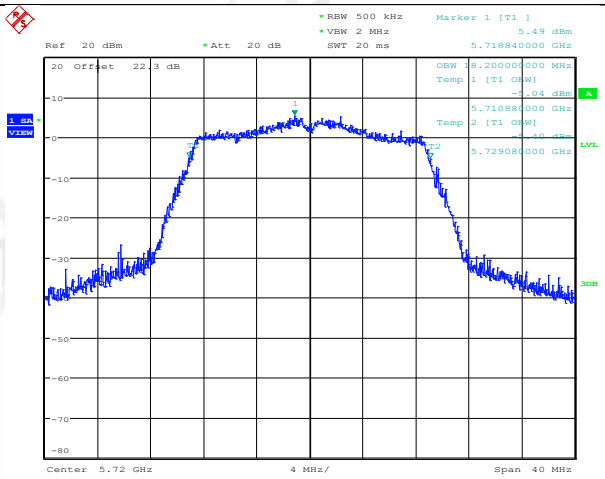

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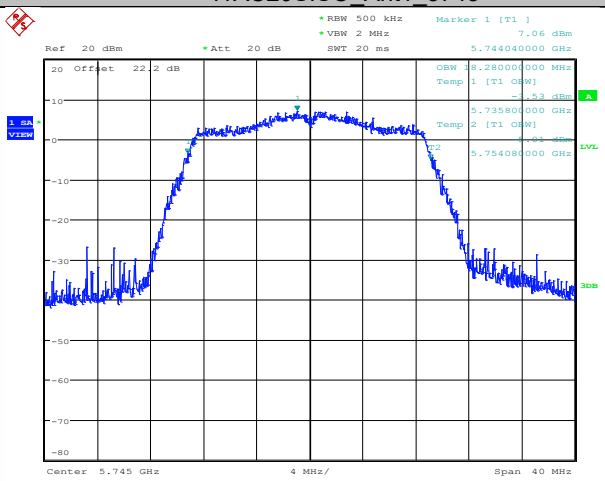

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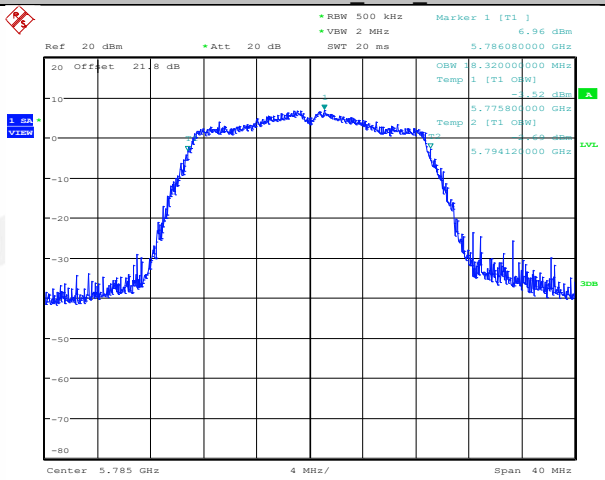

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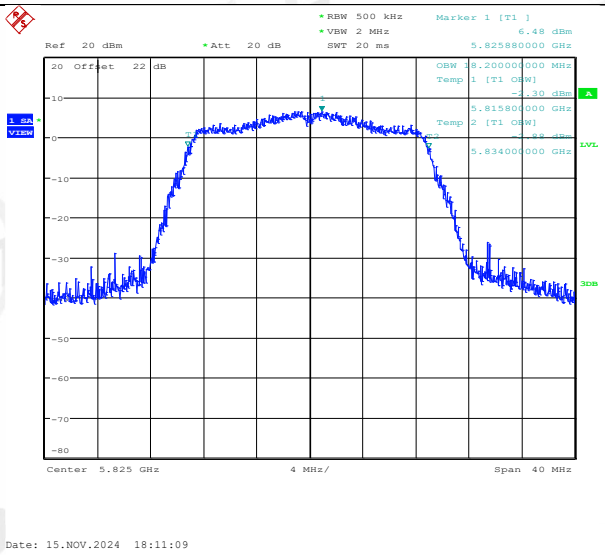

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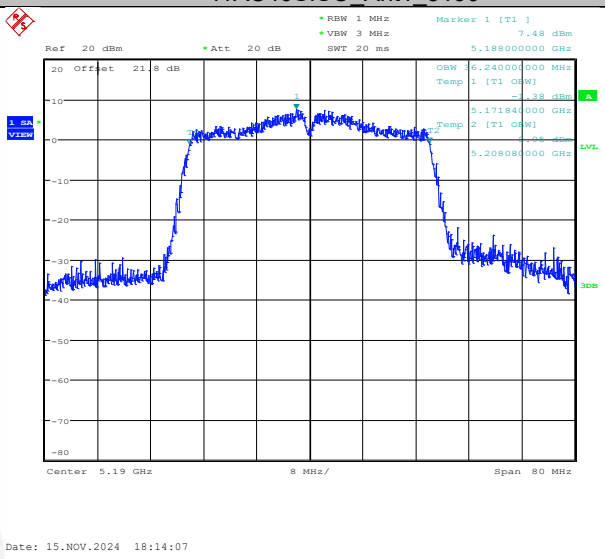

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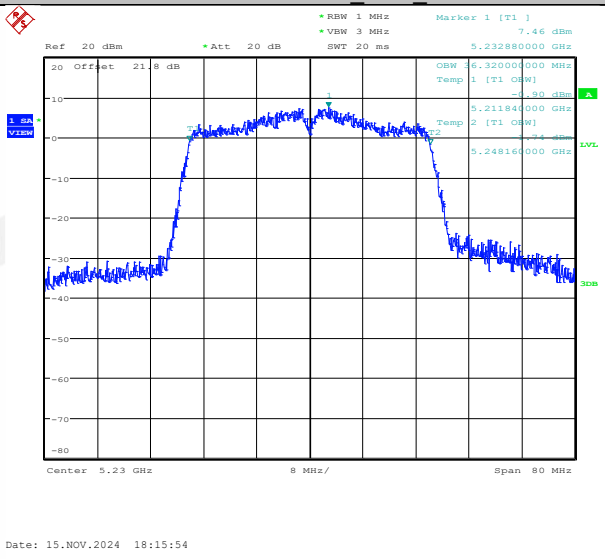

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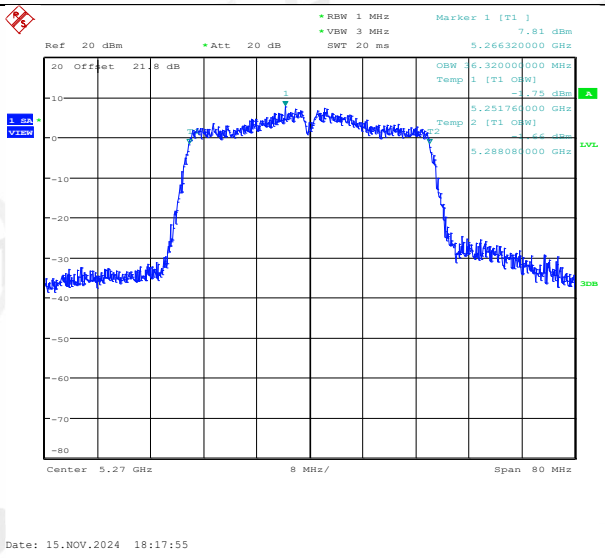

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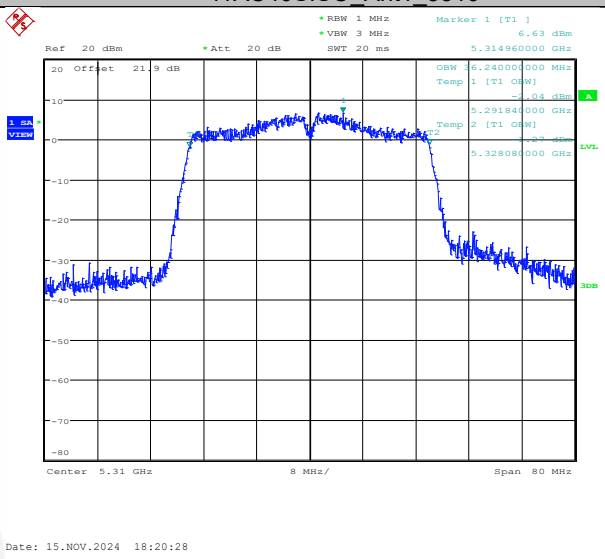

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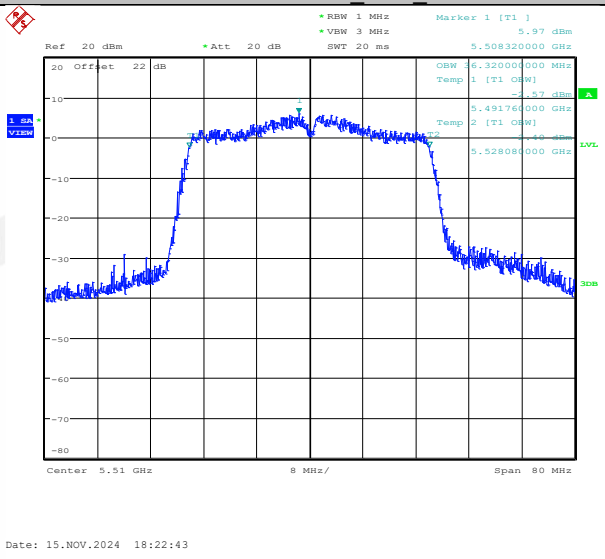

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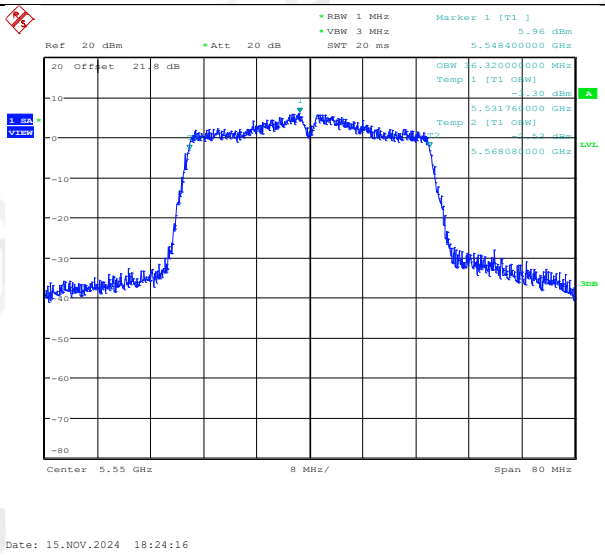

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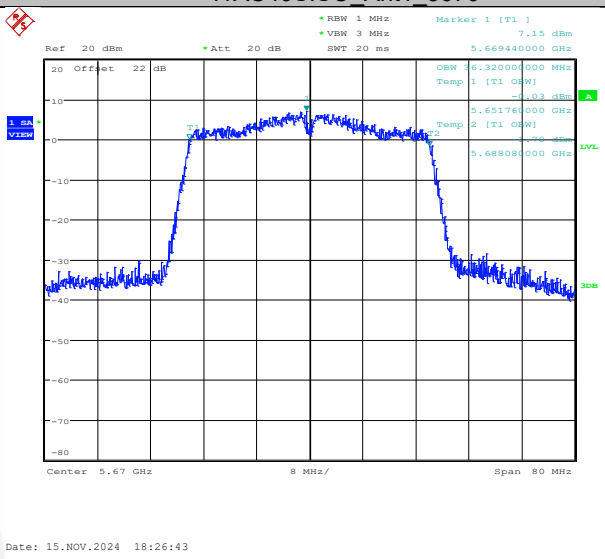
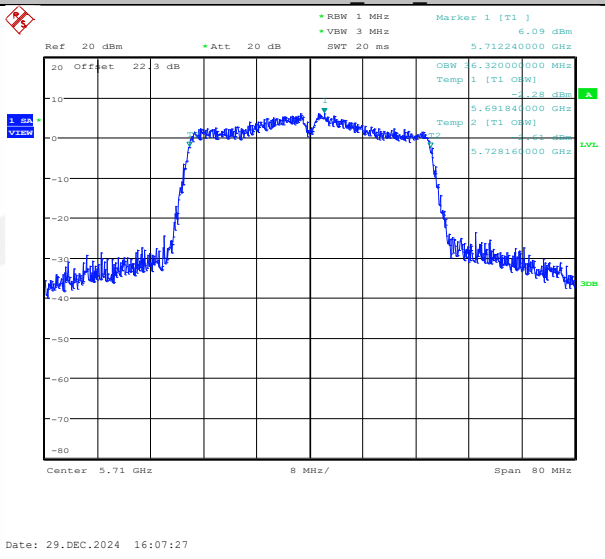


11AC40SISO_Ant1_5710



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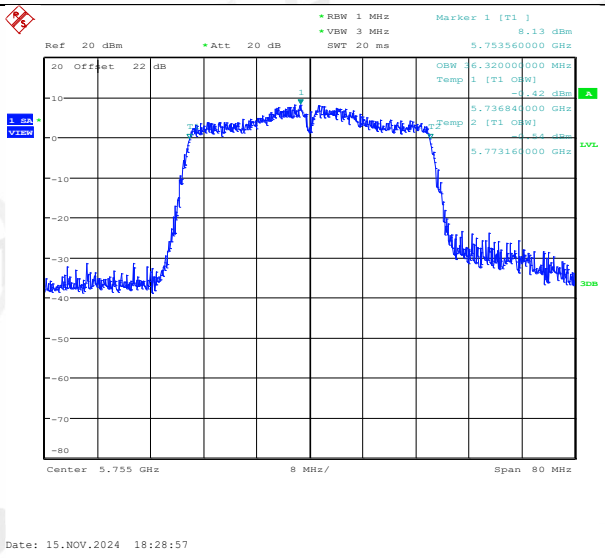

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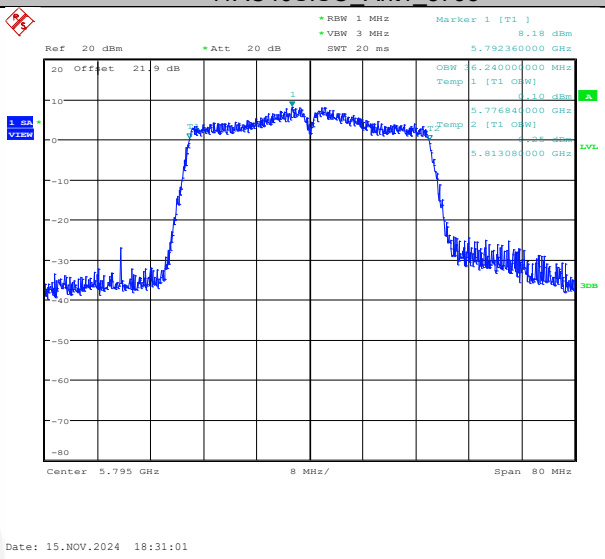

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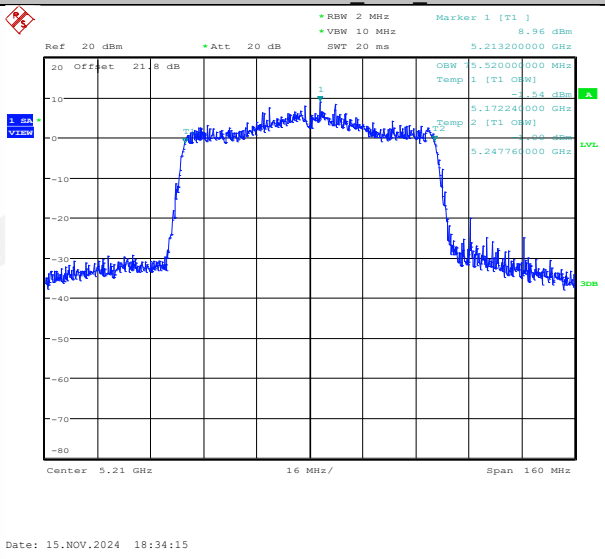

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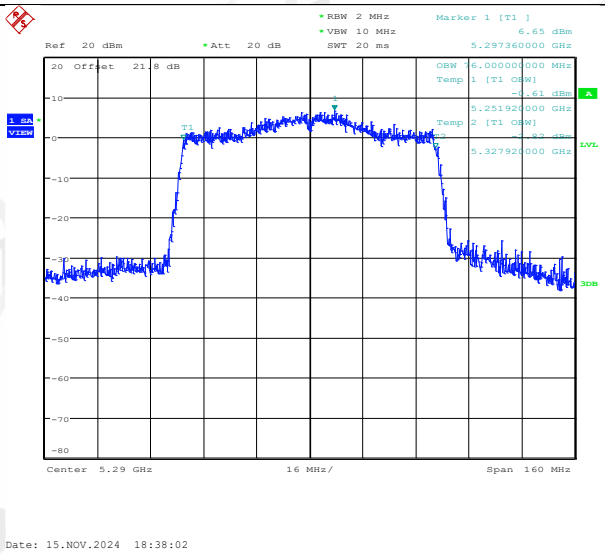

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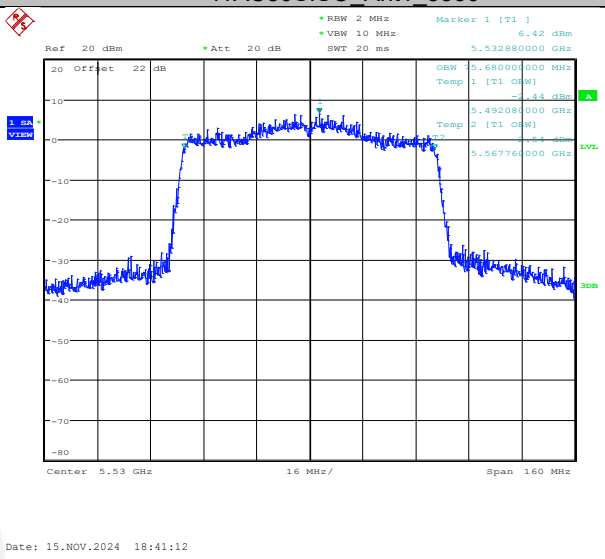

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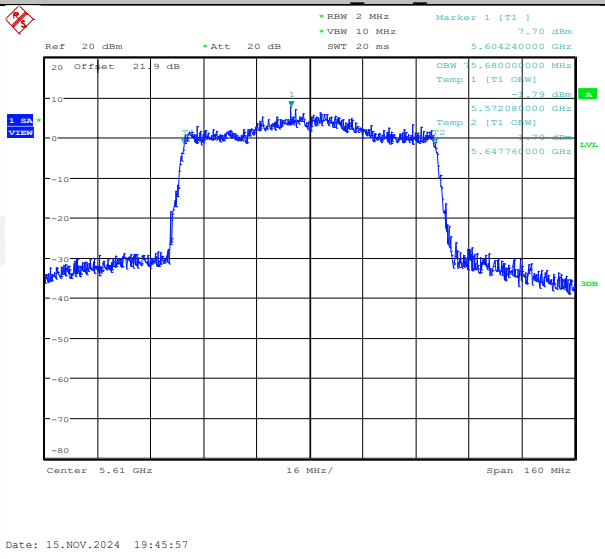

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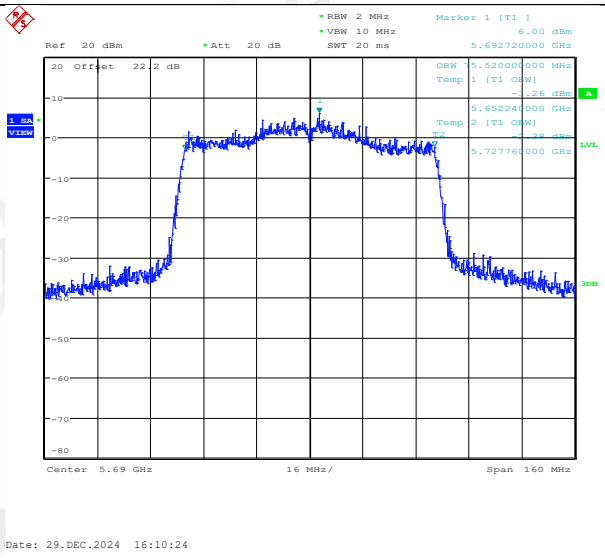

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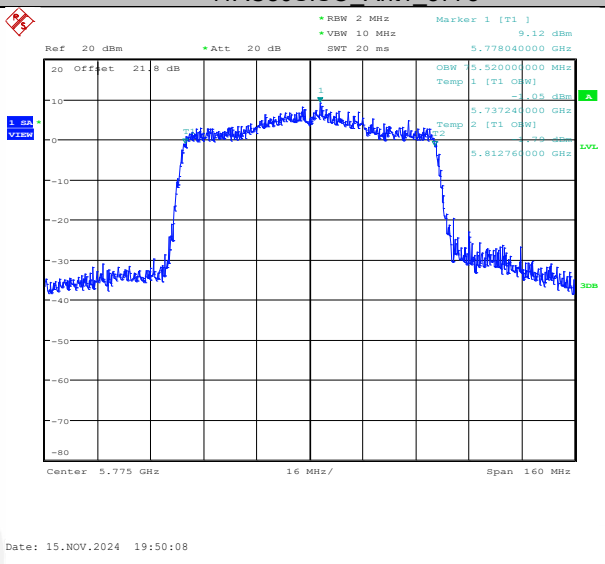
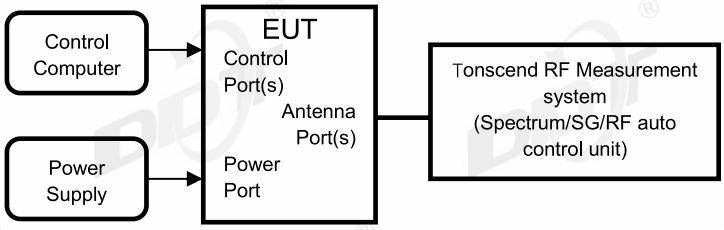


7. Duty Cycle

7.1. Block diagram of test setup



7.2. Limit

Just for Report.

7.3. Test procedure

(1) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, The cable loss and attenuator loss have been put into spectrum analyzer as amplitude offset.
set the Spectrum Analyzer as below:
Centre Frequency: The centre frequency of the middle hopping channel.
Resolution BW: 10 MHz.
Video BW: 10 MHz.
Span: Zero span.
Detector: Peak.
Trace Mode: Clear Write.
Sweep: Video Trigger

(2) When the trace is complete, measure the sending time of 1 burst and the duty cycle of 1 burst cycle.

(3) Calculate dwell time follow below formula:
Duty cycle= Pulse's on time / Burst cycle

7.4. Test result

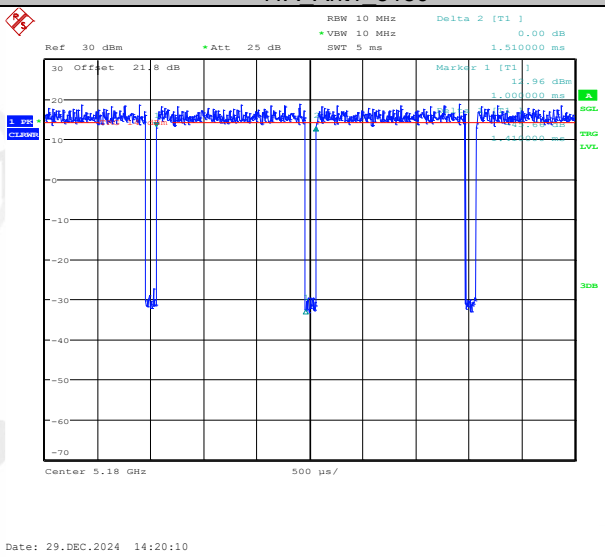
Test Engineer:	Zora Zhang	Test Site:	RF Measurement System 1#
Ambient Condition:	24.2℃,55%RH	Test Date:	2024.12.16-2025.01.14
Test Power Supply:	AC230V/50Hz	Sample Number:	S24110729-001

Test Mode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5180	1.41	1.51	93.38
		5200	1.40	1.51	92.72
		5240	1.40	1.51	92.72
		5260	1.41	1.51	93.38
		5280	1.40	1.51	92.72
		5320	1.40	1.51	92.72
		5500	1.41	1.51	93.38
		5580	1.41	1.51	93.38
		5700	1.40	1.51	92.72
		5720	1.41	1.51	93.38
		5745	1.40	1.51	92.72
		5785	1.40	1.50	93.33
		5825	1.40	1.50	93.33
11N20SISO	Ant1	5180	1.31	1.42	92.25
		5200	1.31	1.42	92.25
		5240	1.31	1.42	92.25
		5260	1.31	1.42	92.25
		5280	1.32	1.42	92.96
		5320	1.31	1.42	92.25
		5500	1.31	1.42	92.25
		5580	1.32	1.42	92.96
		5700	1.32	1.42	92.96
		5720	1.32	1.42	92.96
		5745	1.32	1.42	92.96
		5785	1.32	1.42	92.96
		5825	1.31	1.42	92.25
11N40SISO	Ant1	5190	0.65	0.69	94.20
		5230	0.65	0.69	94.20
		5270	0.65	0.69	94.20
		5310	0.65	0.70	92.86
		5510	0.65	0.69	94.20
		5550	0.65	0.70	92.86
		5670	0.65	0.70	92.86
		5710	0.65	0.70	92.86
		5755	0.65	0.70	92.86
		5795	0.65	0.70	92.86
11AC20SISO	Ant1	5180	1.32	1.37	96.35
		5200	1.33	1.37	97.08
		5240	1.32	1.37	96.35
		5260	1.33	1.37	97.08
		5280	1.32	1.37	96.35
		5320	1.32	1.37	96.35
		5500	1.32	1.36	97.06
		5580	1.32	1.36	97.06
		5700	1.32	1.37	96.35
		5720	1.32	1.36	97.06
		5745	1.32	1.36	97.06
		5785	1.32	1.36	97.06
		5825	1.32	1.36	97.06
11AC40SISO	Ant1	5190	0.66	0.70	94.29
		5230	0.66	0.71	92.96
		5270	0.66	0.71	92.96
		5310	0.66	0.71	92.96
		5510	0.66	0.70	94.29
		5550	0.66	0.70	94.29

		5670	0.66	0.71	92.96
		5710	0.66	0.70	94.29
		5755	0.66	0.70	94.29
		5795	0.66	0.70	94.29
11AC80SISO	Ant1	5210	0.33	0.37	89.19
		5290	0.33	0.37	89.19
		5530	0.33	0.37	89.19
		5610	0.33	0.37	89.19
		5690	0.32	0.37	86.49
		5775	0.33	0.37	89.19

7.5. Test graphs

11A_Ant1_5180



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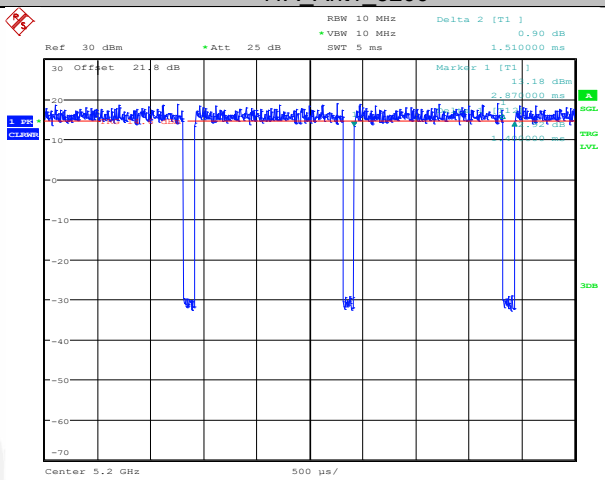

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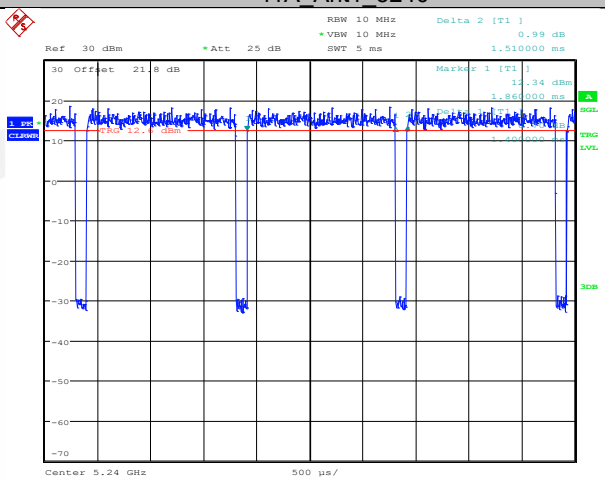

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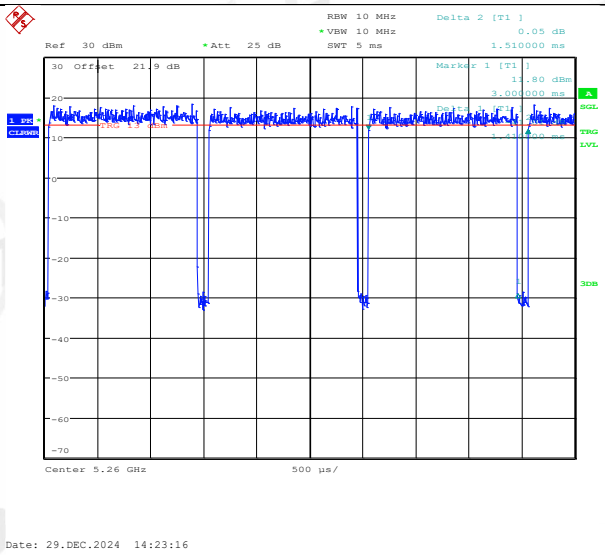

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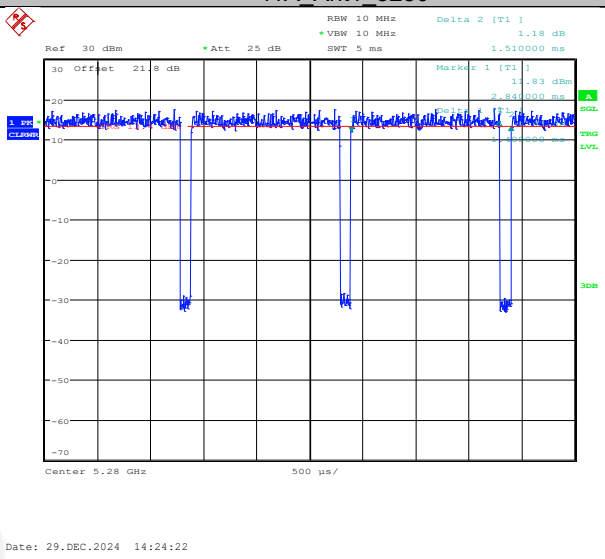

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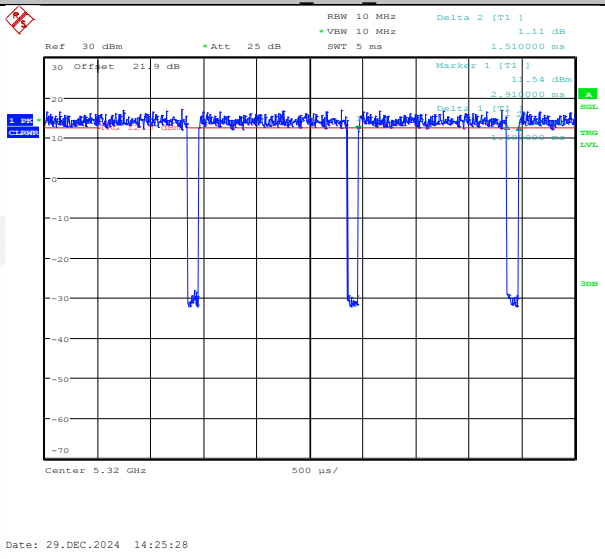

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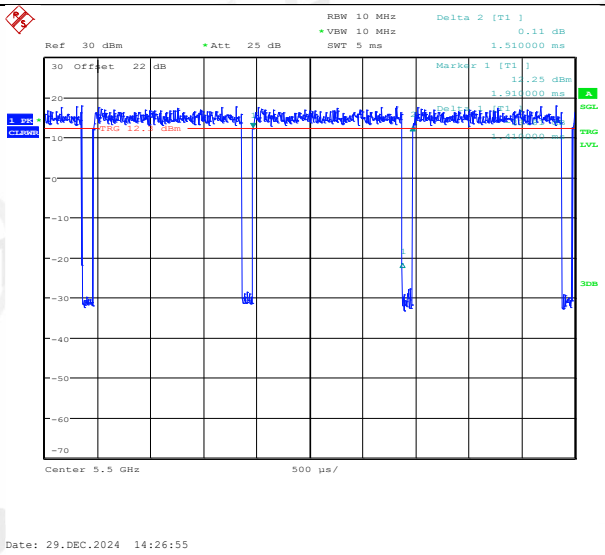

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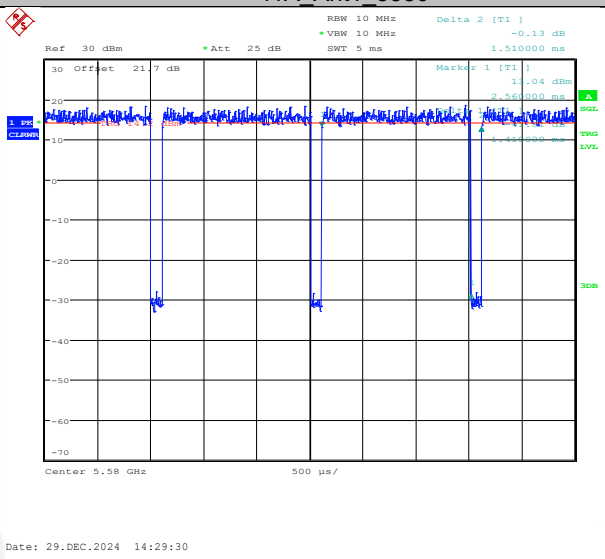

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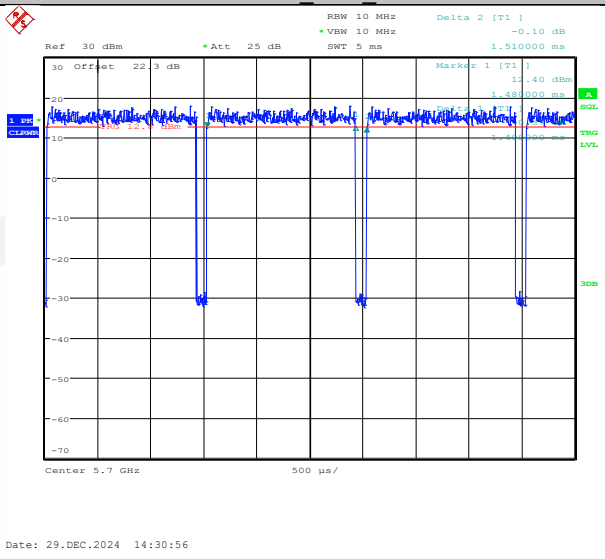

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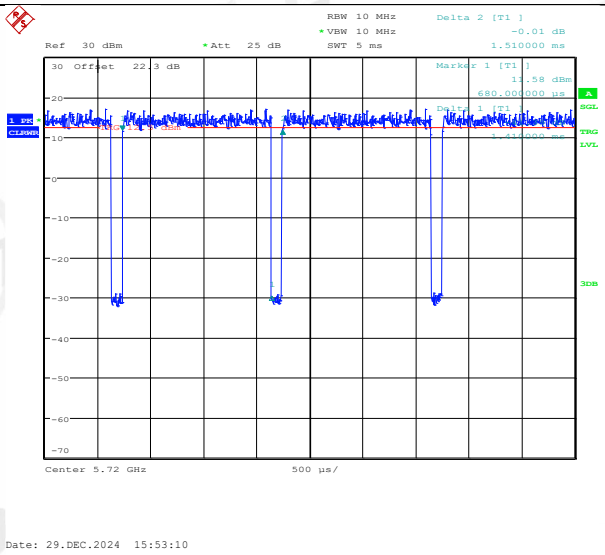

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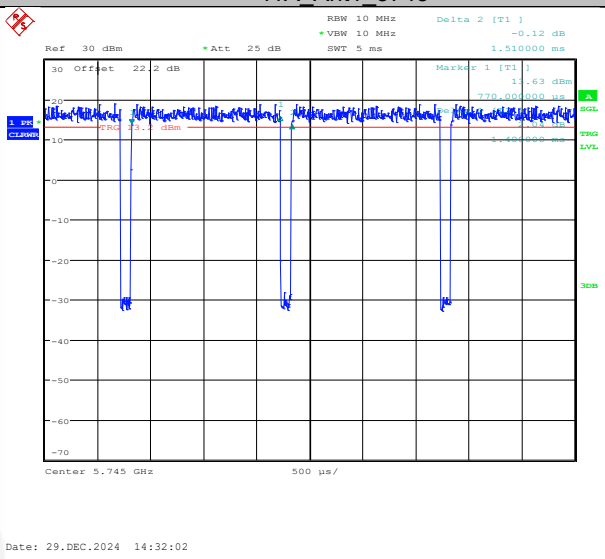

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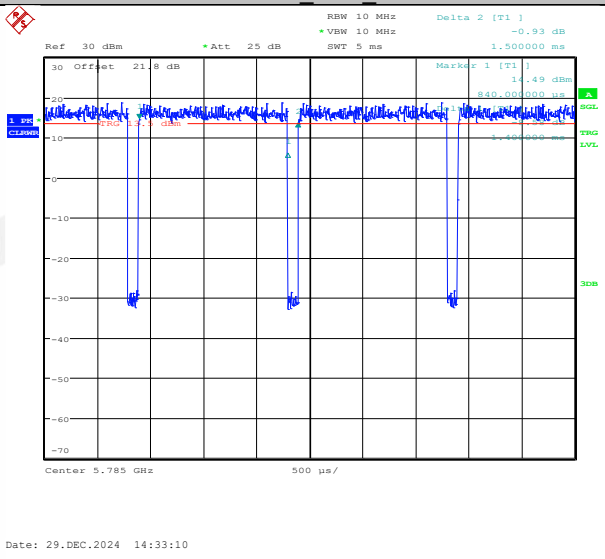

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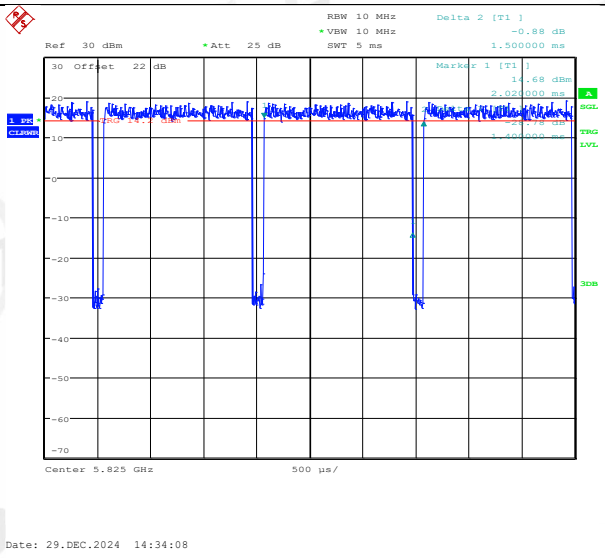

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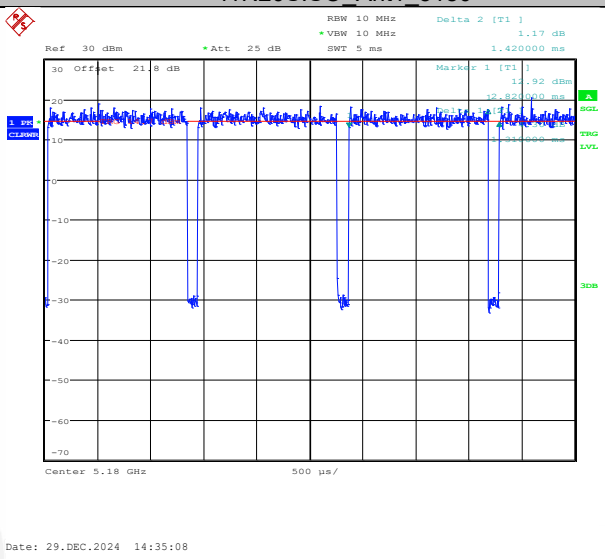

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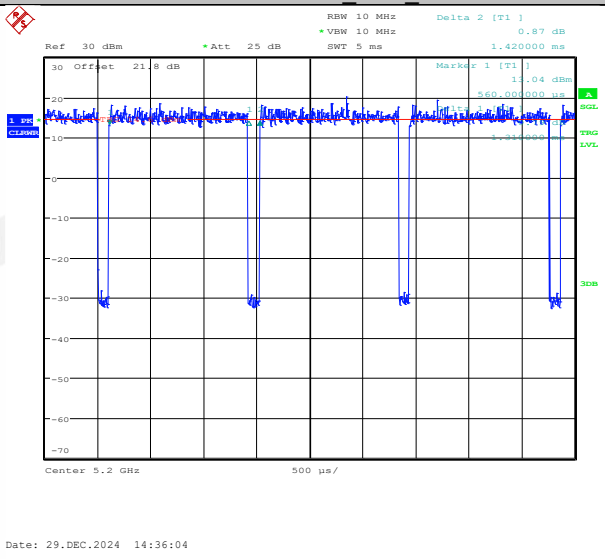

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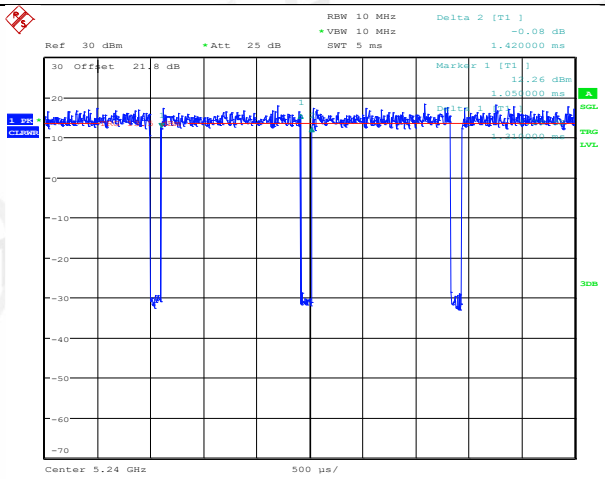

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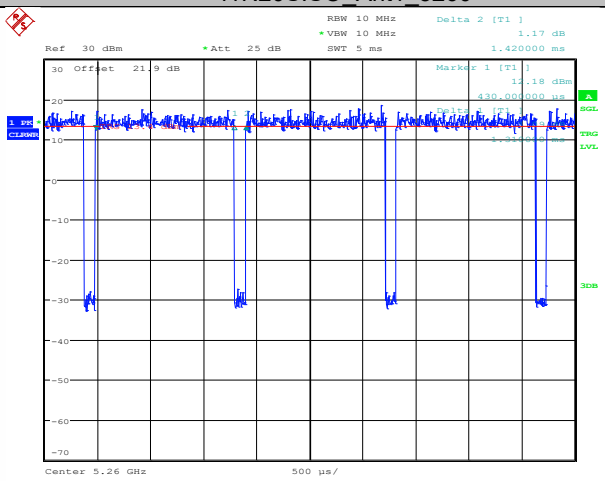

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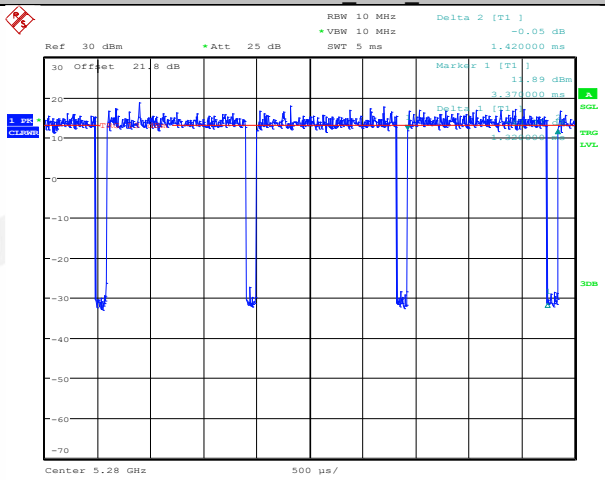

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