



TEST REPORT

REPORT NUMBER: I23W00036-WIFI 5G RF-FCC

ON

Type of Equipment: POS System
Type of Designation: L15A1, L15B1
Brand Name: SUNMI
Manufacturer: Shanghai Sunmi Technology Co.,Ltd.
FCC ID: 2AH25T3PRO

ACCORDING TO

FCC Part 15E

Chongqing Academy of Information and Communications Technology

Month date, year

October 23, 2023

Signature

Director

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of Chongqing Academy of Information and Communications Technology.



Report No.: I23W00036-WIFI 5G RF-FCC

Revision Version

Report Number	Revision	Date	Memo
I23W00036-WIFI 5G RF-FCC	00	2023-09-13	Initial creation of test report
I23W00036-WIFI 5G RF-FCC	01	2023-10-18	first change of test report
I23W00036-WIFI 5G RF-FCC	02	2023-10-23	Second change of test report

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Report No.: I23W00036-WIFI 5G RF-FCC
CONTENTS

1.	Test Laboratory	5
1.1.	Testing Location	5
1.2.	Testing Environment.....	5
1.3.	Project data	5
1.4.	Signature.....	5
2.	Client Information	6
2.1.	Applicant Information	6
2.2.	Manufacturer Information	6
3.	Equipment under Test (EUT) and Ancillary Equipment (AE).....	7
3.1.	About EUT	7
3.2.	Internal Identification of EUT used during the test	8
3.3.	Outline of Equipment under Test.....	8
3.4.	Internal Identification of AE used during the test.....	8
3.5.	EUT Test RF Configuration.....	9
4.	Reference Documents.....	12
4.1.	Documents supplied by applicant.....	12
4.2.	Reference Documents for testing.....	12
5.	Test Equipments Utilized.....	13
5.1.	RF Test System	13
5.2.	RSE Test System.....	13
5.3.	Climate Chamber.....	14
5.4.	Anechoic chamber Vibration table.....	14
5.5.	Test software.....	14
6.	Test Results	15
6.1	Summary of Test Results	15
6.2	Duty Cycle.....	16
6.3	Maximum conducted output power	24

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Tel: 0086-23-88069965 FAX:0086-23-88608777



Report No.: I23W00036-WIFI 5G RF-FCC

6.4	Peak Power Spectral Density.....	177
6.5	99% Occupied Bandwidth.....	328
6.6	Occupied 26dB Bandwidth.....	473
6.7	Band Edges Compliance.....	618
6.8	Transmitter Spurious Emission.....	645
6.9	Frequency Stability.....	689
6.10	AC Powerline Conducted Emission.....	690
ANNEX A EUT Photos.....		693
ANNEX B Deviations from Prescribed Test Methods.....		694

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Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
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1. Test Laboratory

1.1. Testing Location

Name:	Chongqing Academy of Information and Communications Technology
Identifier Number:	CN0044
Designation Number:	CN1239
Address:	Building C, Technology Innovation Center, No.8, Yuma Road, Chayuan New Area, Nan'an District, Chongqing, People's Republic of China
Postal Code:	401336
Telephone:	0086-23-88069965
Fax:	0086-23-88608777




1.2. Testing Environment

Normal Temperature:	15-35°C
Relative Humidity:	25-75%

1.3. Project data

Testing Start Date:	2023-07-20
Testing End Date:	2023-10-23

1.4. Signature

	2023-10-23
Dong Junxin (Prepared this test report)	Date
	2023-10-23
Wang Lili (Reviewed this test report)	Date
	2023-10-23
Xiang Luoyong Director of the laboratory (Approved this test report)	Date

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2. Client Information

2.1. Applicant Information

Company Name:	Shanghai Sunmi Technology Co.,Ltd.
Address /Post:	Room 505,No.388,Song Hu Road,Yang Pu District,Shanghai,China
City:	Shanghai
Country:	China
Telephone:	+86 17302160204
Fax:	N/A
Email:	minfei.chen@sunmi.com
Contact Person:	Chen Minfei

2.2. Manufacturer Information

Company Name:	Shanghai Sunmi Technology Co.,Ltd.
Address /Post:	Room 505,No.388,Song Hu Road,Yang Pu District,Shanghai,China
City:	Shanghai
Country:	China
Telephone:	+86 17302160204
Fax:	N/A
Email:	minfei.chen@sunmi.com
Contact Person:	Chen Minfei

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3. Equipment under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

EUT Description	POS System
Model name	L15A1, L15B1
Brand name	SUNMI
WLAN Frequency Band	Wi-Fi 2.4G:802.11b/g/n/ax Wi-Fi 5G U-NII-1/ U-NII-2a/U-NII-2c/U-NII-3:802.11a/n/ac/ax Wi-Fi 6E U-NII-5/U-NII-6/U-NII-7/U-NII-8:802.11ax
Type of WLAN modulation	DSSS/OFDM/OFDMA
Power Rating	DC 24 from Adapter

Note: Photographs of EUT are shown in ANNEX A of this test report.

Note: High and low voltage values in extreme condition test are given by manufacturer.

Technology	Band	UL Freq.(MHz)	DL Freq.(MHz)
WLAN	5G	UNII 1: 5150MHz-5250MHz UNII 2A: 5250MHz-5350MHz UNII 2C: 5470MHz-5725MHz	

Test frequency list:

UNII-1 and UNII-2A:

BW_20M	Channel	36	40	44	48	52	56	60	64
	Freq. (MHz)	5180	5200	5220	5240	5260	5280	5300	5320
BW_40M	Channel	38		46		54		62	
	Freq. (MHz)	5190		5230		5270		5310	
BW_80M	Channel	42				58			
	Freq. (MHz)	5210				5290			
BW_160M	Channel	50							
	Freq. (MHz)	5250							

UNII-2C:

BW_20M	Channel	100	104	108	112	116	120	124	128	132	136	140
	Freq. (MHz)	5500	5520	5540	5560	5580	5600	5620	5640	5660	5680	5700
BW_40M	Channel	102		110		118		126		134		/
	Freq. (MHz)	5510		5550		5590		5630		5670		/
BW_80M	Channel	106				122						
	Freq. (MHz)	5530				5610						
BW_160M	Channel	114										
	Freq. (MHz)	5570										

Note: “/” Represents empty

Note: This report is for WLAN UNII-1, UNII-2A and UNII-2C only.

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3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
S3	T302D37140072	6490Coreboard_MB_V2.0	1.0.0	2023-07-20
S8	T302D37140061	6490Coreboard_MB_V2.0	1.0.0	2023-07-20
S11	TK02D37240116	6490Coreboard_MB_V2.0	1.0.0	2023-07-20

*EUT ID: is used to identify the test sample in the lab internally.

Techno logy	Band	Frequency range(MHz)	Support mode	Antenna gain ^{Note2}	Simultaneous TX port	Directional gain ^{Note4}
WLAN	2.4G	2400-2483.5	802.11b/g/n(HT20/40) /ax(HE20/40) ^{Note1}	Ant1:2.6 Ant2:2.5	2TX	Power:2.6dBi PSD:2.6dBi+10log(2)=5.61dBi
	5G	UNII 1: 5150MHz-5250MHz UNII 2A: 5250MHz-5350MHz UNII 2C: 5470MHz-5725MHz UNII 3: 5725MHz-5850MHz	802.11a/n(HT20/40) /ac (VHT20/40/80/160) /ax (HE20/40/80/160) ^{Note1}	Ant1:3.5 Ant2:3.0	2TX	Power:3.5dBi PSD: 3.5dBi+10log(2)=6.51dBi
	6G	UNII 5: 5925MHz-6425MHz UNII 6: 6425MHz-6525MHz UNII 7: 6525MHz-6875MHz UNII 8: 6875MHz-7125MHz	802.11ax (HE20/40/80/160) ^{Note1}	Ant1:3.5 Ant2:3.0	2TX	Power:3.5dBi PSD: 3.5dBi+10log(2)=6.51dBi

Note1: This device only supports full RU transmission.

Note2: Antenna gain data provided by the customer ANT1 and ANT2 antennas have the unequal gain. We choose the maximum gain value to calculate the directional gain.

Note: EUT supports CDD technology.

Note4: According to KDB 662911 D01 Multiple Transmitter Output V02R01, if any transmit signals are correlated with each other, Directional gain = $G_{ant} + \text{Array Gain}$, For power measurements: Array Gain = 0 dB; For power spectral density measurements: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

3.3. Outline of Equipment under Test

3.4. Internal Identification of AE used during the test

AE ID*	Description	Note
CB04	Adapter	Model: CYSE65-240250 Input:100-240V~50/60Hz 1.7A Output: 24.0V=2.5A 60.0W
AE1	RF cable	1dB

*AE ID: is used to identify the test sample in the lab internally.

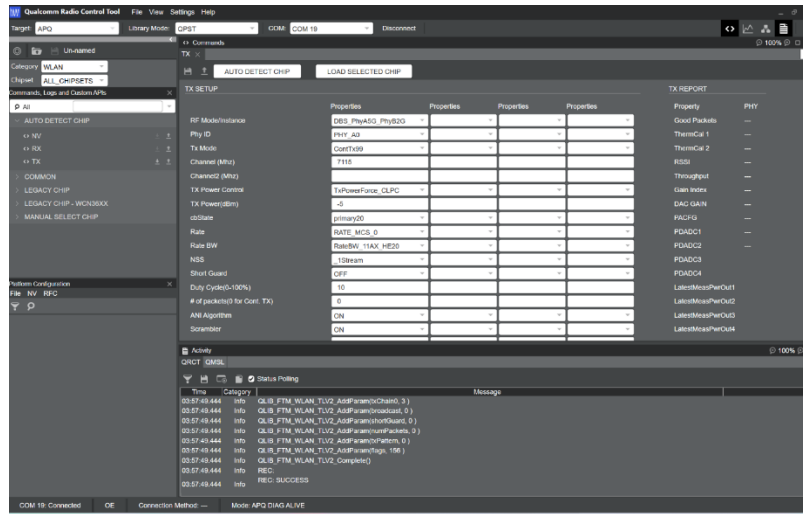
dB*: is provided customer.

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3.5. EUT Test RF Configuration

EUT uses QRCT working control emission measurement, Change power level, channel, rate and HT .



Power Level:

Test Mode	Frequency [MHz]	Power Level
11a	5180	15
	5200	15
	5240	15
	5260	20.5
	5280	20.5
	5320	20.5
	5500	20.5
	5580	20.5
	5700	20.5
11n 20M	5180	12
	5200	12
	5240	12
	5260	17
	5280	20.5
	5320	17
	5500	17
	5580	20.5
	5700	17
11n 40M	5190	12
	5230	12
	5270	17
	5310	19
	5550	17

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Report No.: I23W00036-WIFI 5G RF-FCC

	5670	17
11ac 20M	5180	12
	5200	12
	5240	12
	5260	17
	5280	17
	5320	17
	5500	17
	5580	17
	5700	17
	11ac 40M	5190
5230		12
5270		17
5310		19
5510		17
5550		17
5670		17
11ac 80M	5210	15.5
	5290	15.5
	5530	17
	5610	18.5
11ac 160M	5250_UNII-1	14
	5250_UNII-2A	14
	5570	13.5
11ax 20M	5180	12
	5200	14.5
	5240	14.5
	5260	14.5
	5280	14.5
	5320	14.5
	5500	14.5
	5580	14.5
	5700	14.5
11ax 40M	5190	14.5
	5230	14.5
	5270	14.5
	5310	14.5
	5510	14.5
	5550	14.5
	5670	14.5
11ax 80M	5210	14.5
	5290	14.5
	5530	14.5
	5610	14.5

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Report No.: I23W00036-WIFI 5G RF-FCC

11ax 160M	5250_UNII-1	14.5
	5250_UNII-2A	14.5
	5570	14.5

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4. Reference Documents

4.1. Documents supplied by applicant

PICS/PIXIT, referring to Annex B for detailed information, is supplied by the client or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part 15E	FCC CFR 47, Part 15, Subpart E: Unlicensed National Information Infrastructure Devices	--
ANSI C63.10	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	2013
KDB 789033 D02 General UNII Test Procedures New Rules v02r01	Information Infrastructure (U-NII) Devices - Part 15, Subpart E	--
KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02	Compliance Measurement Procedures For Unlicensed-National Information Infrastructure Devices Operating In The 5250-5350 Mhz And 5470-5725 Mhz Bands Incorporating Dynamic Frequency Selection	--
KDB 662911 D01 Multiple Transmitter Output v02r01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band	--
<p>Note: KDB 789033 D02 General UNII Test Procedures New Rules v02r01, KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02 and KDB 662911 D01 Multiple Transmitter Output v02r01 are not A2LA certified.</p>		

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5. Test Equipments Utilized

5.1. RF Test System

No.	Equipment	Model	SN	HW Version	SW Version	Manufacturer	Cal. Interval	Cal.Due Date
1	Spectrum analyzer	FSQ 26	201137/026	--	--	R&S	1 Year	2024-06-28
2	Spectrum analyzer	FSW26	104280	--	--	R&S	1 Year	2024-06-28
3	DC Power Supply	62015L-60-6	L02000001587	--	--	Chroma	1 Year	2024-06-28

5.2. RSE Test System

No.	Equipment	Model	SN	HW Version	SW Version	Manufacturer	Cal. Interval	Cal.Due Date
1	EMI Test Receiver	ESU40	100307	--	--	R&S	1 Year	2024-06-28
2	TRILOG Broadband Antenna	VULB9163	9163-586	--	--	Schwarzbeck	2 Years	2023-10-29
3	Horn antenna	9120D	1083	--	--	Schwarzbeck	2 Years	2024-12-14
4	Horn antenna	DATE 1152	LM7127	--	--	ETS	2 Years	2024-09-06
5	Horn antenna	DATE 1012	LM5945	--	--	ETS	2 Years	2024-09-06
6	Loop Antenna	6502	00213256	--	--	ETS	1 Year	2024-06-29
7	Amplifier1	SCU-08F1	8320027	--	--	R&S	1 Year	2024-06-28
8	Amplifier2	SCU-18F	180093	--	--	R&S	1 Year	2024-06-28
9	2-Line V-Network	ENV216	102368	--	--	R&S	1 Year	2024-05-27
10	Test Receiver	ESR 3	101382	03	3.48 SP2	R&S	1 Year	2024-01-28
11	Test Receiver	ESW 26	101382	00	1.50 SP1	R&S	1 Year	2024-06-28

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5.3. Climate Chamber

No.	Name	Type	SN	Manufacture	Cal. Interval	Cal.Due Date
--	--	--	--	--	--	--

5.4. Anechoic chamber Vibration table

No.	Name	Type	SN	Manufacture	Cal. Interval	Cal.Due Date
1	Fully-Anechoic Chamber	FAC5	--	TDK	3Years	2024-09-22
2	Anechoic Chamber	SAC 10	--	TDK	3Years	2024-08-26

5.5. Test software

No.	Name	version	SN	Manufacture
1	EMC32 (Transmitter Spurious Emission-Radiated Above 1GHz)	V 10.20.01	--	R&S
2	EMC32 (Transmitter Spurious Emission-Radiated Below 1GHz)	V9.26.01	--	R&S
3	EMC32 (AC Powerline Conducted Emission)	V 10.40.10	--	R&S

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6. Test Results

6.1 Summary of Test Results

A brief summary of the tests carried out is shown as following.

FCC Rules	Name of Test	Result
15.407(a)	Duty Cycle	Pass
15.407(a)	Maximum Output Power	Pass
15.407(a)	Power Spectral Density	Pass
15.407(a)	99% Occupied Bandwidth	Pass
15.407(a)	Occupied 26dB Bandwidth	Pass
15.209 & 15.407(b)	Band edge compliance	Pass
15.209 & 15.407(b)	Transmitter spurious emissions radiated	Pass
15.407(g)	Frequency Stability	Pass
15.407(h)	Transmit Power Control	N/A ^{Note 3}
15.207	AC Powerline Conducted Emission	Pass
15.203	Antenna requirement	Pass ^{Note 2}

NOTE 1

The L15A1, L15B1, manufactured by Shanghai Sunmi Technology Co.,Ltd.is a new product for testing. There are two configurations S3 &S8 mainly supply (With Printer) & S11 secondary supply (Without Printer). We mainly tested S3 mainly supply (conducted), S8 mainly supply(radiated) and S11 secondary supply tested the worst mode of the S8 mainly supply and recorded the test results of the worst respectively in the report.

The description of the differences between S3&S8 and S11 is as follows:

EUT ID	SN or IMEI	Model	Printer
S3	T302D37140072	L15A1	80 Printer
S8	T302D37140061	L15A1	80 Printer
S11	TK02D37240116	L15B1	N/A

NOTE 2:

The EUT has two internal FPC antennas. The antenna gain refers to section 3.2, So this EUT complies with the FCC section 15.203 antenna requirements, please refer to the internal photos.

NOTE 3:

A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

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6.2 Duty Cycle

Specifications:	15.407(a)
DUT Serial Number:	S3
Test conditions:	Ambient Temperature:20°C Relative Humidity:40% Air pressure: 90kPa
Test Results:	Pass

Measurement Uncertainty:

Measurement Uncertainty	--
-------------------------	----

Test Procedure:

The measurement method is made according to KDB 789033 B

Measurements of duty cycle and transmission duration shall be performed using one of the following techniques:

- a) A diode detector and an oscilloscope that together have sufficiently short response time to permit accurate measurements of the on and off times of the transmitted signal.
- b) The zero-span mode on a spectrum analyzer or EMI receiver, if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal. Set the center frequency of the instrument to the center frequency of the transmission, Set $RBW > EBW$ if possible; otherwise, set RBW to the largest available value. Set $VBW > RBW$. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$, where T is defined in II.B.1.a), and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if $T < 16.7$ microseconds.)

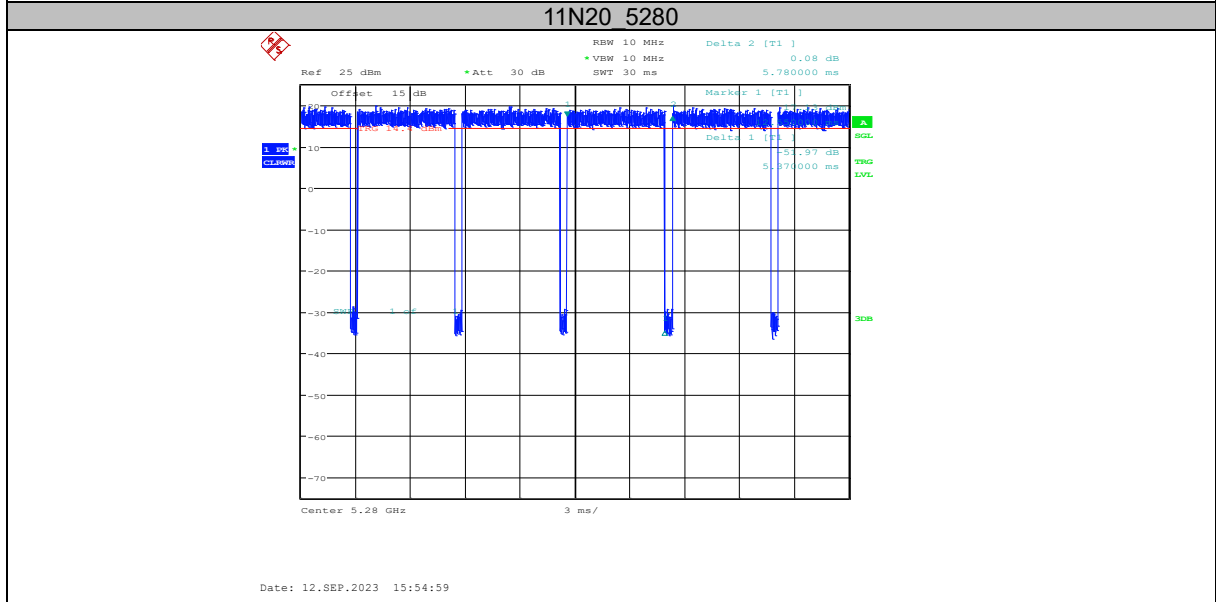
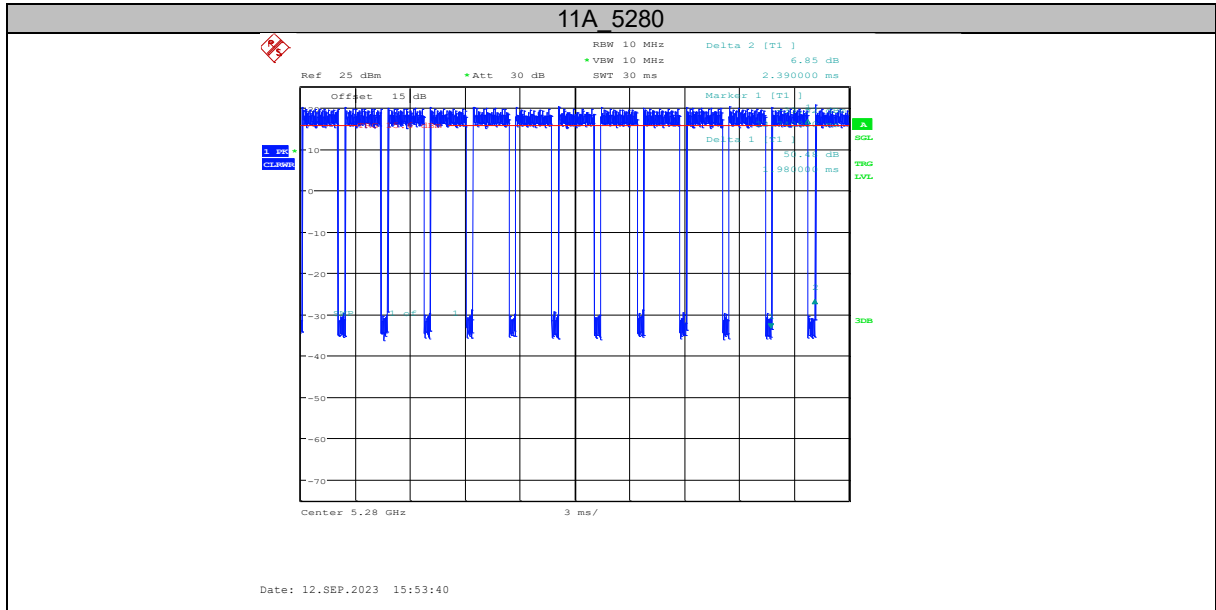
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Measurement Results:

TestMode	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	5280	1.98	2.39	82.85
11N20	5280	5.37	5.78	92.91
11N40	5310	5.40	5.83	92.62
11AC20	5280	5.37	5.79	92.75
11AC40	5310	5.37	5.74	93.55
11AC80	5290	3.12	3.57	87.39
11AC160	5250	2.20	2.56	85.94
11AX20	5280	5.36	5.73	93.54
11AX40	5310	4.82	5.20	92.69
11AX80	5530	2.56	3.00	85.33
11AX160	5250	2.21	2.62	84.35

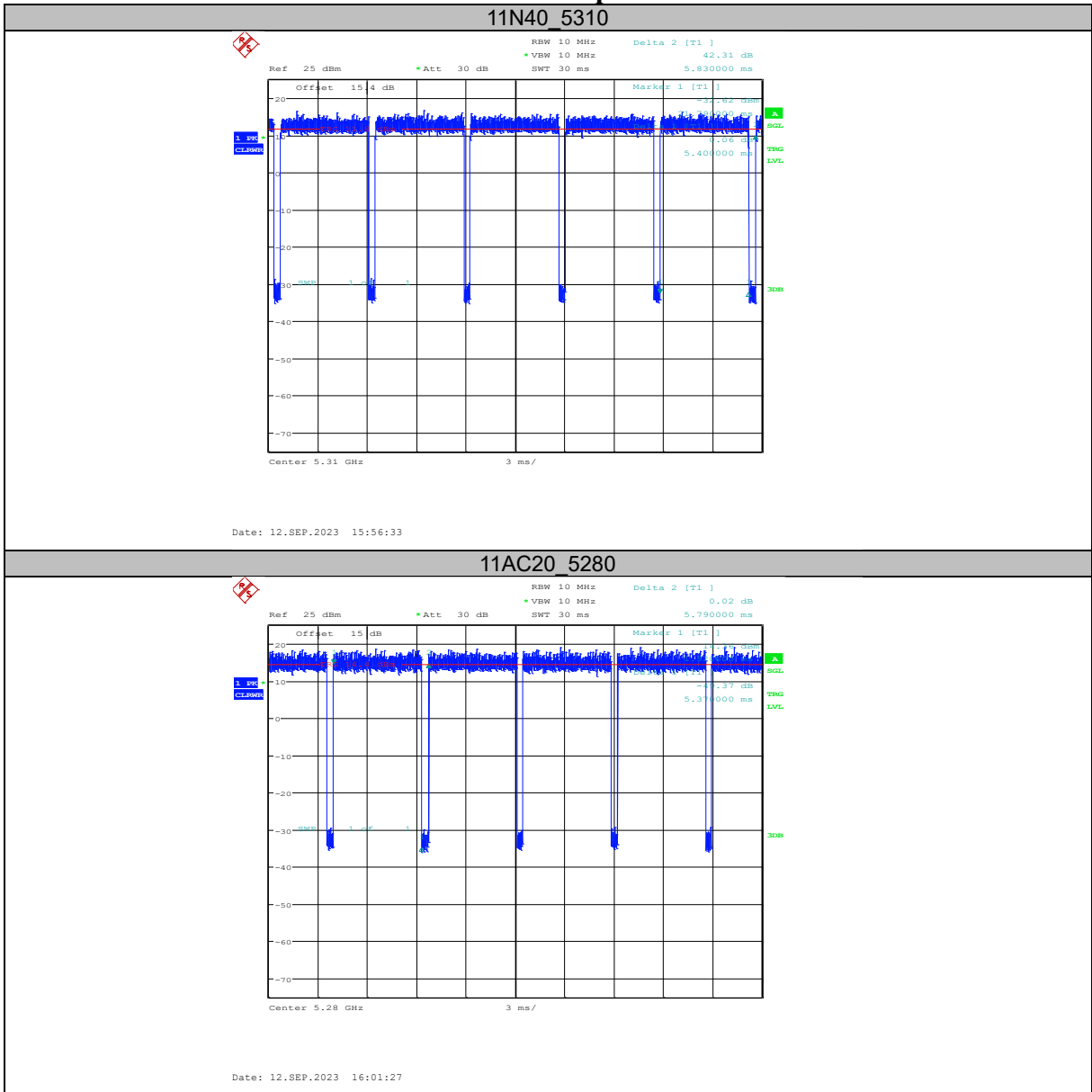
Test Graphs



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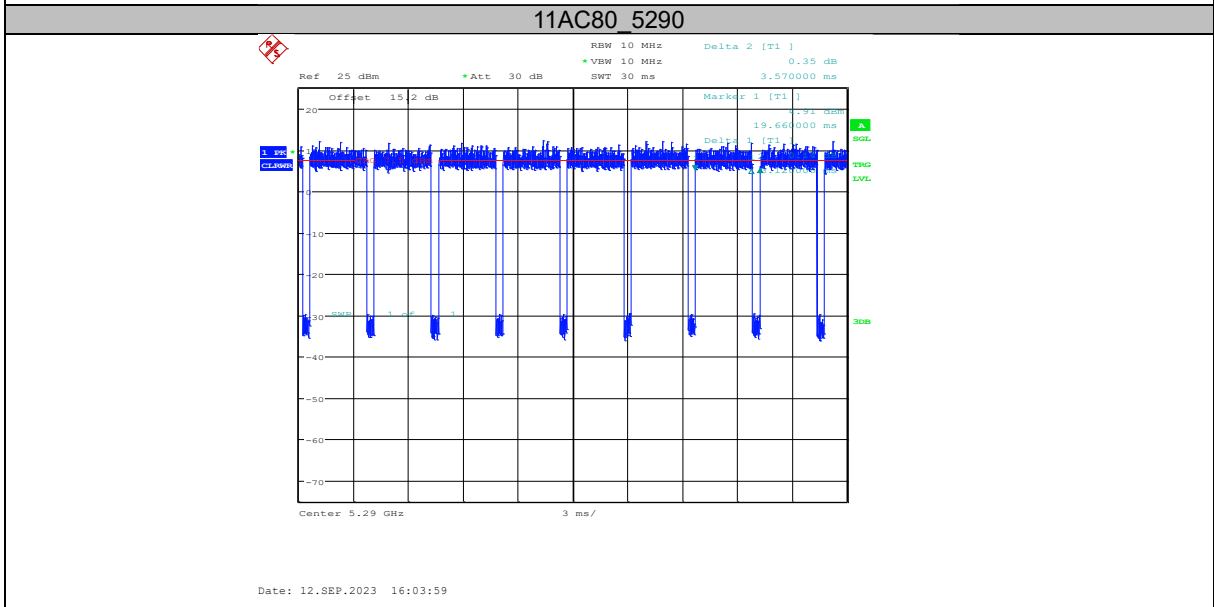
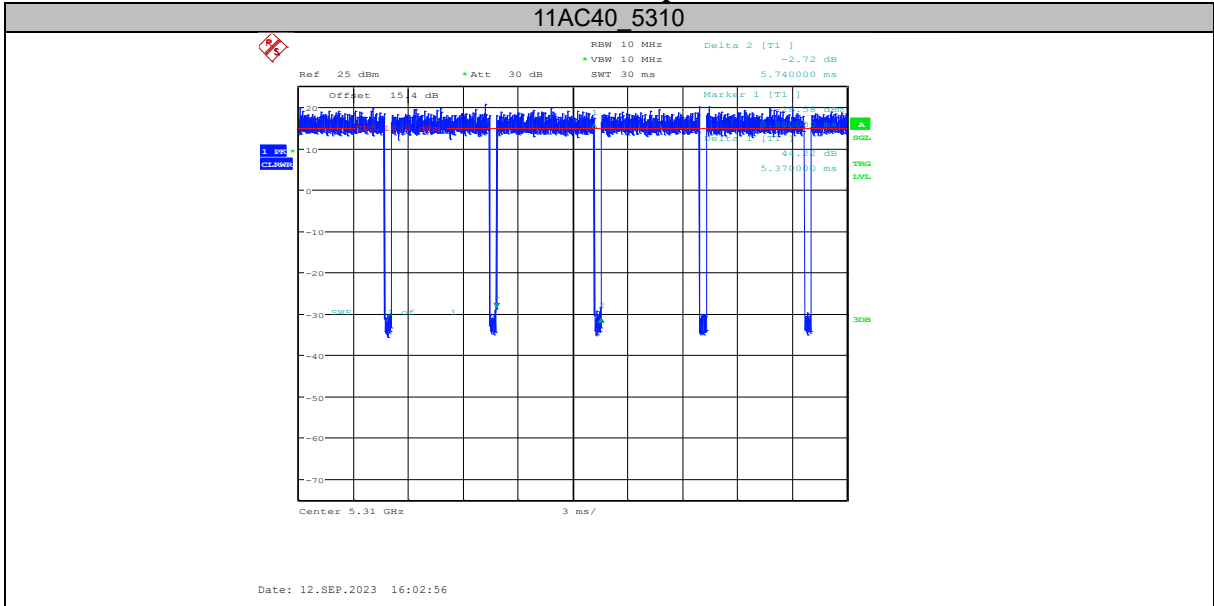
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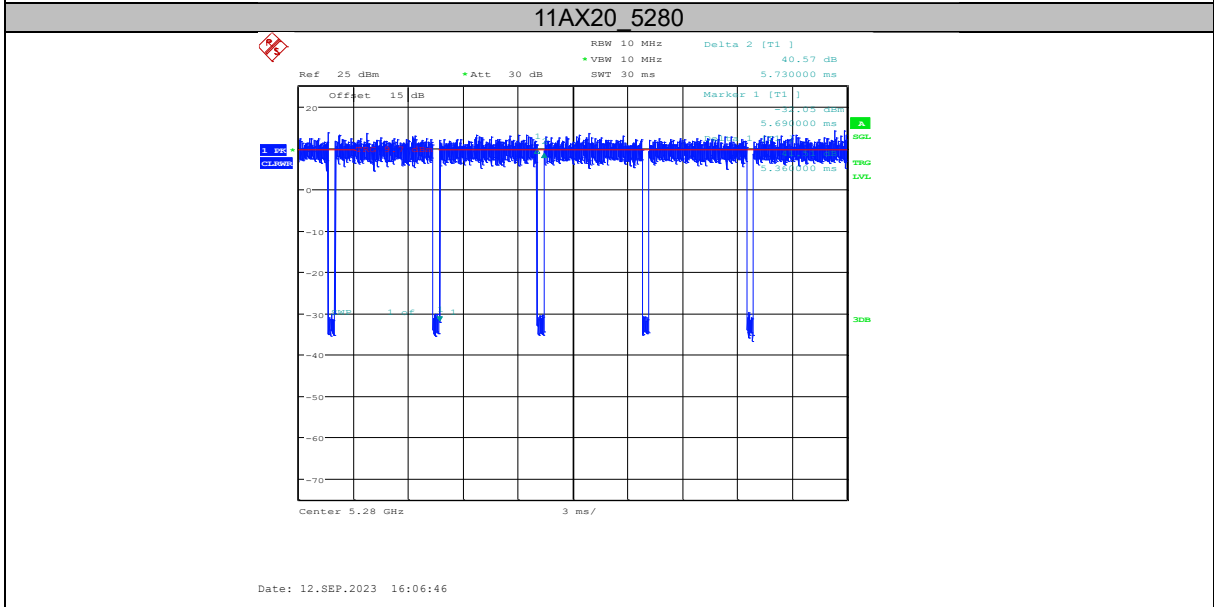
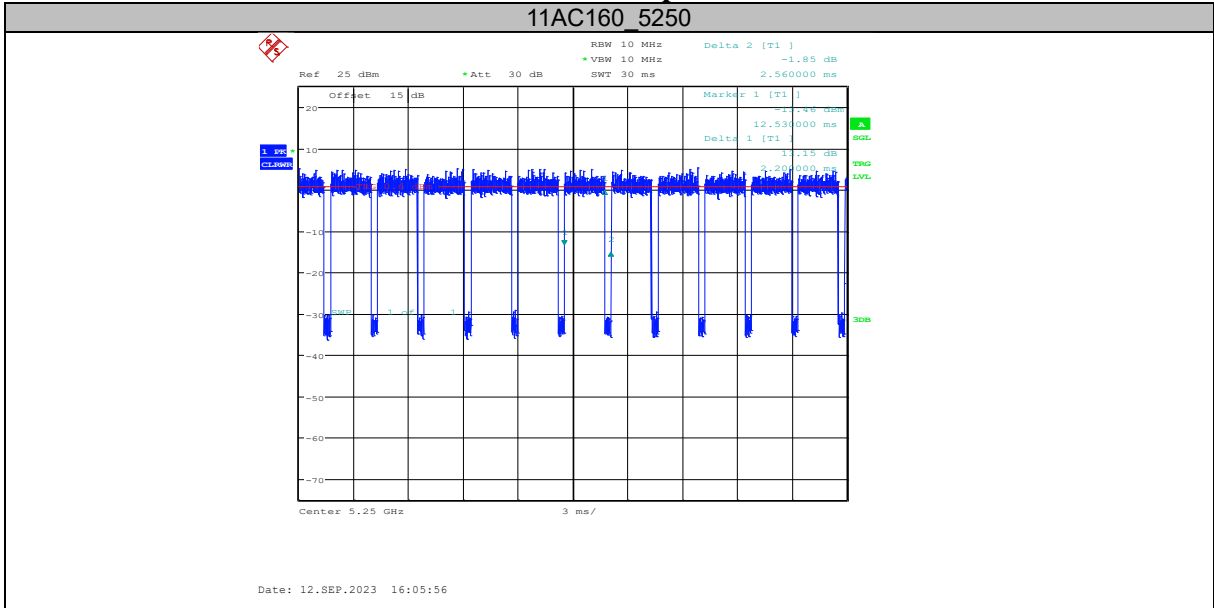


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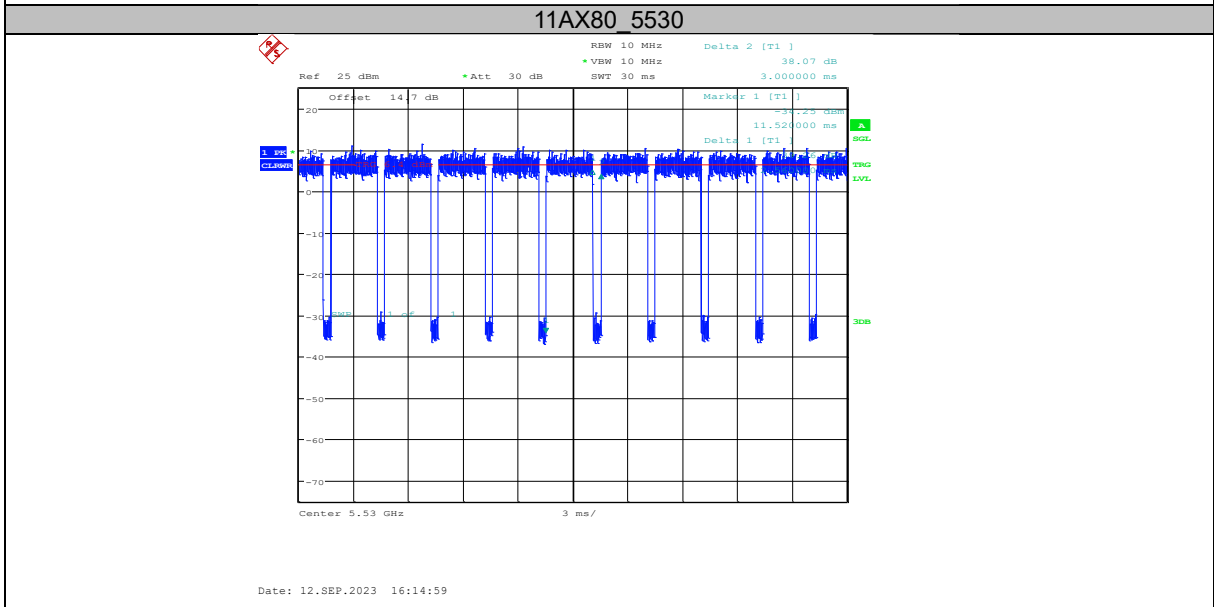
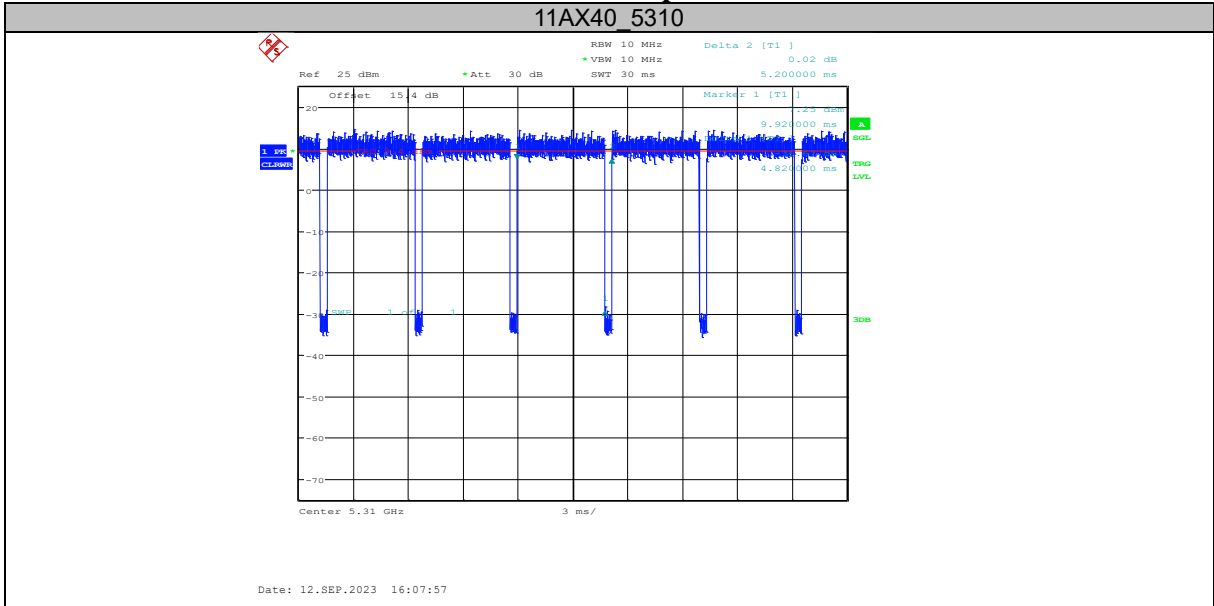


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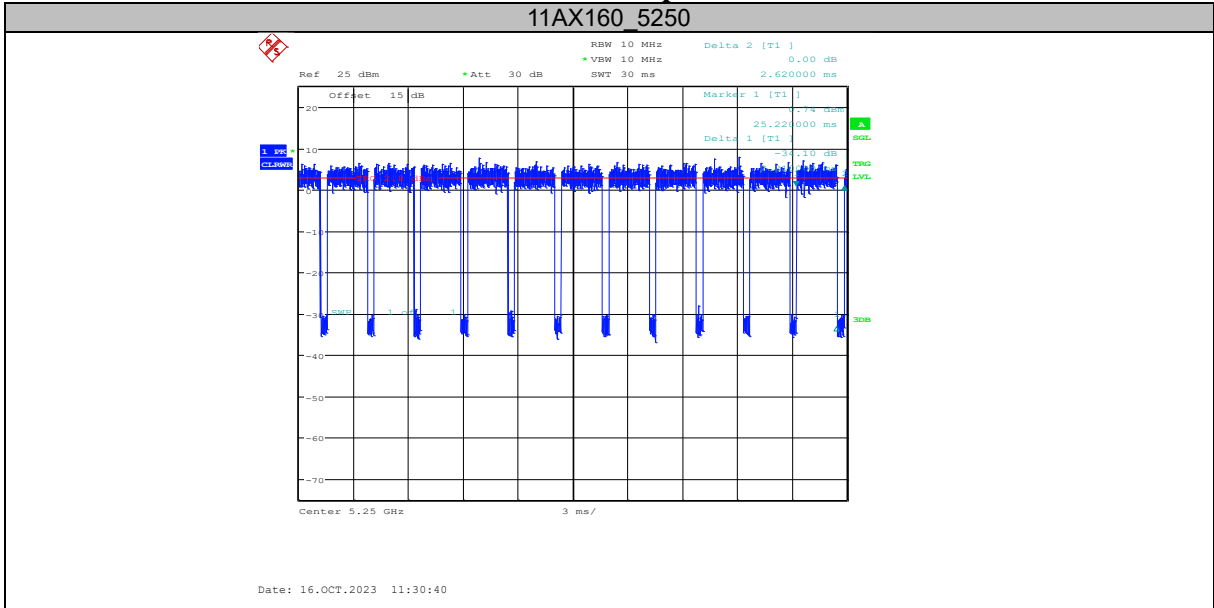


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Tel: 0086-23-88069965 FAX: 0086-23-88608777



Report No.: I23W00036-WIFI 5G RF-FCC



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6.3 Maximum conducted output power

Specifications:	15.407(a)
DUT Serial Number:	S3
Test conditions:	Ambient Temperature:20°C Relative Humidity:40% Air pressure: 90kPa
Test Results:	Pass

Limit Level Construction:

Standard	Limit
15.407(a)	<p>For client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.</p> <p>For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.</p> <p>If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.</p>

Measurement Uncertainty:

Measurement Uncertainty	±0.48dB
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Test Procedure:

The measurement method SA-2 is made according to KDB 789033 E

Method SA-2 (trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

1. Measure the duty cycle, x , of the transmitter output signal as described in II.B.
2. Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
3. Set RBW = 1 MHz. (iv) Set VBW \geq 3 MHz.
4. Number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$. (This ensures that bin-to-bin spacing is $\leq \text{RBW}/2$, so that narrowband signals are not lost between frequency bins.)
5. Sweep time = auto.
6. Detector = power averaging (rms), if available. Otherwise, use sample detector mode.
7. Do not use sweep triggering. Allow the sweep to “free run.”
8. Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter.

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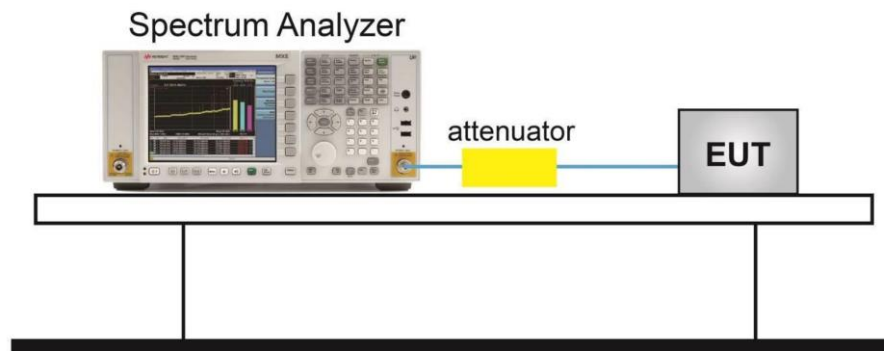
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9. Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.

Add $10 \log (1/x)$, where x is the duty cycle, to the measured power to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add $10 \log (1/0.25) = 6$ dB if the duty cycle is 25%

Test setup



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Measurement Results:

Test Mode	Antenna	Frequency [MHz]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	82.85	0.82	12.26	≤3.98	PASS
	Ant2	5180	82.85	0.82	11.49	≤3.98	PASS
	Ant1	5200	82.85	0.82	11.53	≤3.98	PASS
	Ant2	5200	82.85	0.82	10.61	≤3.98	PASS
	Ant1	5240	82.85	0.82	11.12	≤3.98	PASS
	Ant2	5240	82.85	0.82	10.26	≤3.98	PASS
	Ant1	5260	82.85	0.82	15.71	≤3.98	PASS
	Ant2	5260	82.85	0.82	15.49	≤3.98	PASS
	Ant1	5280	82.85	0.82	16	≤3.98	PASS
	Ant2	5280	82.85	0.82	16.52	≤3.98	PASS
	Ant1	5320	82.85	0.82	15.85	≤3.98	PASS
	Ant2	5320	82.85	0.82	16.7	≤3.98	PASS
	Ant1	5500	82.85	0.82	16.39	≤3.98	PASS
	Ant2	5500	82.85	0.82	15.57	≤3.98	PASS
	Ant1	5580	82.85	0.82	16.78	≤3.84	PASS
	Ant2	5580	82.85	0.82	15.77	≤3.88	PASS
	Ant1	5700	82.85	0.82	17.29	≤3.84	PASS
	Ant2	5700	82.85	0.82	16.13	≤3.82	PASS
11N20SISO	Ant1	5180	92.91	0.32	8.89	≤3.98	PASS
	Ant2	5180	92.91	0.32	9.64	≤3.98	PASS
	Ant1	5200	92.91	0.32	8.23	≤3.98	PASS
	Ant2	5200	92.91	0.32	8.63	≤3.98	PASS
	Ant1	5240	92.91	0.32	7.67	≤3.98	PASS
	Ant2	5240	92.91	0.32	7.98	≤3.98	PASS
	Ant1	5260	92.91	0.32	12.84	≤3.98	PASS
	Ant2	5260	92.91	0.32	12	≤3.98	PASS
	Ant1	5280	92.91	0.32	15.85	≤3.98	PASS
	Ant2	5280	92.91	0.32	16.46	≤3.98	PASS
	Ant1	5320	92.91	0.32	13.2	≤3.98	PASS
	Ant2	5320	92.91	0.32	13.19	≤3.98	PASS
	Ant1	5500	92.91	0.32	13.06	≤3.98	PASS
	Ant2	5500	92.91	0.32	12.46	≤3.98	PASS
	Ant1	5580	92.91	0.32	13.37	≤3.98	PASS
	Ant2	5580	92.91	0.32	12.27	≤3.98	PASS
	Ant1	5700	92.91	0.32	17.04	≤3.98	PASS
	Ant2	5700	92.91	0.32	16.34	≤3.98	PASS
11N40SISO	Ant1	5190	92.62	0.33	13.79	≤3.98	PASS
	Ant2	5190	92.62	0.33	13.27	≤3.98	PASS

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	Ant1	5230	92.62	0.33	7.7	≤23.98	PASS
	Ant2	5230	92.62	0.33	7.82	≤23.98	PASS
	Ant1	5270	92.62	0.33	13.07	≤23.98	PASS
	Ant2	5270	92.62	0.33	12.29	≤23.98	PASS
	Ant1	5310	92.62	0.33	13.8	≤23.98	PASS
	Ant2	5310	92.62	0.33	13.17	≤23.98	PASS
	Ant1	5510	92.62	0.33	13.31	≤23.98	PASS
	Ant2	5510	92.62	0.33	12.1	≤23.98	PASS
	Ant1	5550	92.62	0.33	13.34	≤23.98	PASS
	Ant2	5550	92.62	0.33	12.08	≤23.98	PASS
	Ant1	5670	92.62	0.33	14.45	≤23.98	PASS
	Ant2	5670	92.62	0.33	12.89	≤23.98	PASS
11AC20SISO	Ant1	5180	92.75	0.33	8.88	≤23.98	PASS
	Ant2	5180	92.75	0.33	8.61	≤23.98	PASS
	Ant1	5200	92.75	0.33	8.13	≤23.98	PASS
	Ant2	5200	92.75	0.33	7.7	≤23.98	PASS
	Ant1	5240	92.75	0.33	7.56	≤23.98	PASS
	Ant2	5240	92.75	0.33	7.31	≤23.98	PASS
	Ant1	5260	92.75	0.33	12.83	≤23.98	PASS
	Ant2	5260	92.75	0.33	7.02	≤23.98	PASS
	Ant1	5280	92.75	0.33	13.01	≤23.98	PASS
	Ant2	5280	92.75	0.33	12.47	≤23.98	PASS
	Ant1	5320	92.75	0.33	13.22	≤23.98	PASS
	Ant2	5320	92.75	0.33	12.89	≤23.98	PASS
	Ant1	5500	92.75	0.33	13.06	≤23.98	PASS
	Ant2	5500	92.75	0.33	11.94	≤23.98	PASS
	Ant1	5580	92.75	0.33	13.34	≤23.98	PASS
	Ant2	5580	92.75	0.33	12.03	≤23.98	PASS
	Ant1	5700	92.75	0.33	13.97	≤23.98	PASS
	Ant2	5700	92.75	0.33	12.43	≤23.98	PASS
11AC40SISO	Ant1	5190	93.55	0.29	8.63	≤23.98	PASS
	Ant2	5190	93.55	0.29	8.16	≤23.98	PASS
	Ant1	5230	93.55	0.29	7.69	≤23.98	PASS
	Ant2	5230	93.55	0.29	7.72	≤23.98	PASS
	Ant1	5270	93.55	0.29	13.05	≤23.98	PASS
	Ant2	5270	93.55	0.29	12.18	≤23.98	PASS
	Ant1	5310	93.55	0.29	13.78	≤23.98	PASS
	Ant2	5310	93.55	0.29	13.1	≤23.98	PASS
	Ant1	5510	93.55	0.29	13.31	≤23.98	PASS
	Ant2	5510	93.55	0.29	11.98	≤23.98	PASS
	Ant1	5550	93.55	0.29	13.34	≤23.98	PASS
	Ant2	5550	93.55	0.29	12.01	≤23.98	PASS
Ant1	5670	93.55	0.29	14.44	≤23.98	PASS	

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	Ant2	5670	93.55	0.29	12.91	≤23.98	PASS
11AC80SISO	Ant1	5210	87.39	0.59	11.35	≤23.98	PASS
	Ant2	5210	87.39	0.59	11.16	≤23.98	PASS
	Ant1	5290	87.39	0.59	11.35	≤23.98	PASS
	Ant2	5290	87.39	0.59	11.44	≤23.98	PASS
	Ant1	5530	87.39	0.59	14.83	≤23.98	PASS
	Ant2	5530	87.39	0.59	13.62	≤23.98	PASS
	Ant1	5610	87.39	0.59	13.67	≤23.98	PASS
	Ant2	5610	87.39	0.59	12.41	≤23.98	PASS
11AC160SISO	Ant1	5250	85.94	0.66	9.08	--	PASS
	Ant2	5250	85.94	0.66	9.50	--	PASS
	Ant1	5250_UNII-1	85.94	0.66	6.04	≤23.98	PASS
	Ant2	5250_UNII-1	85.94	0.66	5.9	≤23.98	PASS
	Ant1	5250_UNII-2A	85.94	0.66	6.1	≤23.98	PASS
	Ant2	5250_UNII-2A	85.94	0.66	7	≤23.98	PASS
	Ant1	5570	85.94	0.66	11	≤23.98	PASS
	Ant2	5570	85.94	0.66	8.97	≤23.98	PASS
11AX20SISO	Ant1	5180	93.54	0.29	8.83	≤23.98	PASS
	Ant2	5180	93.54	0.29	8.51	≤23.98	PASS
	Ant1	5200	93.54	0.29	10.79	≤23.98	PASS
	Ant2	5200	93.54	0.29	7.72	≤23.98	PASS
	Ant1	5240	93.54	0.29	10.39	≤23.98	PASS
	Ant2	5240	93.54	0.29	7.43	≤23.98	PASS
	Ant1	5260	93.54	0.29	10.45	≤23.98	PASS
	Ant2	5260	93.54	0.29	9.62	≤23.98	PASS
	Ant1	5280	93.54	0.29	10.63	≤23.98	PASS
	Ant2	5280	93.54	0.29	10.54	≤23.98	PASS
	Ant1	5320	93.54	0.29	10.79	≤23.98	PASS
	Ant2	5320	93.54	0.29	10.9	≤23.98	PASS
	Ant1	5500	93.54	0.29	10.67	≤23.98	PASS
	Ant2	5500	93.54	0.29	9.79	≤23.98	PASS
	Ant1	5580	93.54	0.29	11	≤23.98	PASS
	Ant2	5580	93.54	0.29	9.89	≤23.98	PASS
	Ant1	5700	93.54	0.29	11.54	≤23.98	PASS
	Ant2	5700	93.54	0.29	10.15	≤23.98	PASS
11AX40SISO	Ant1	5190	92.69	0.33	11.13	≤23.98	PASS
	Ant2	5190	92.69	0.33	10.79	≤23.98	PASS
	Ant1	5230	92.69	0.33	10.42	≤23.98	PASS
	Ant2	5230	92.69	0.33	10.3	≤23.98	PASS
	Ant1	5270	92.69	0.33	10.61	≤23.98	PASS
	Ant2	5270	92.69	0.33	10.16	≤23.98	PASS
	Ant1	5310	92.69	0.33	11.17	≤23.98	PASS
	Ant2	5310	92.69	0.33	10.93	≤23.98	PASS

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	Ant1	5510	92.69	0.33	10.73	≤23.98	PASS
	Ant2	5510	92.69	0.33	9.77	≤23.98	PASS
	Ant1	5550	92.69	0.33	10.86	≤23.98	PASS
	Ant2	5550	92.69	0.33	9.92	≤23.98	PASS
	Ant1	5670	92.69	0.33	11.64	≤23.98	PASS
	Ant2	5670	92.69	0.33	10.32	≤23.98	PASS
11AX80SISO	Ant1	5210	85.33	0.69	10.88	≤23.98	PASS
	Ant2	5210	85.33	0.69	10.67	≤23.98	PASS
	Ant1	5290	85.33	0.69	10.91	≤23.98	PASS
	Ant2	5290	85.33	0.69	10.61	≤23.98	PASS
	Ant1	5530	85.33	0.69	10.84	≤23.98	PASS
	Ant2	5530	85.33	0.69	9.77	≤23.98	PASS
	Ant1	5610	85.33	0.69	11.29	≤23.98	PASS
11AX160SISO	Ant2	5610	85.33	0.69	10.21	≤23.98	PASS
	Ant1	5250	84.35	0.74	10.41	--	PASS
	Ant2	5250	84.35	0.74	10.28	--	PASS
	Ant1	5250_UNII-1	84.35	0.74	7.33	≤23.98	PASS
	Ant2	5250_UNII-1	84.35	0.74	6.85	≤23.98	PASS
	Ant1	5250_UNII-2A	84.35	0.74	7.47	≤23.98	PASS
	Ant2	5250_UNII-2A	84.35	0.74	7.66	≤23.98	PASS
	Ant1	5570	84.35	0.74	11.45	≤23.98	PASS
11A-CDD	Ant2	5570	84.35	0.74	10.34	≤23.98	PASS
	Ant1	5180	82.85	0.82	11.29	≤23.98	PASS
	Ant2	5180	82.85	0.82	10.48	≤23.98	PASS
	total	5180	82.85	0.82	13.91	≤23.98	PASS
	Ant1	5200	82.85	0.82	10.54	≤23.98	PASS
	Ant2	5200	82.85	0.82	9.4	≤23.98	PASS
	total	5200	82.85	0.82	13.02	≤23.98	PASS
	Ant1	5240	82.85	0.82	10	≤23.98	PASS
	Ant2	5240	82.85	0.82	9.03	≤23.98	PASS
	total	5240	82.85	0.82	12.55	≤23.98	PASS
	Ant1	5260	82.85	0.82	14.45	≤23.98	PASS
	Ant2	5260	82.85	0.82	15.16	≤23.98	PASS
	total	5260	82.85	0.82	17.83	≤23.98	PASS
	Ant1	5280	82.85	0.82	15.75	≤23.98	PASS
	Ant2	5280	82.85	0.82	16.13	≤23.98	PASS
	total	5280	82.85	0.82	18.95	≤23.98	PASS
	Ant1	5320	82.85	0.82	15.74	≤23.98	PASS
	Ant2	5320	82.85	0.82	16.38	≤23.98	PASS
	total	5320	82.85	0.82	19.08	≤23.98	PASS
	Ant1	5500	82.85	0.82	16.15	≤23.98	PASS
Ant2	5500	82.85	0.82	15.39	≤23.98	PASS	
total	5500	82.85	0.82	18.8	≤23.98	PASS	

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	Ant1	5580	82.85	0.82	16.27	≤23.98	PASS
	Ant2	5580	82.85	0.82	15.57	≤23.98	PASS
	total	5580	82.85	0.82	18.94	≤23.98	PASS
	Ant1	5700	82.85	0.82	17.18	≤23.98	PASS
	Ant2	5700	82.85	0.82	16.26	≤23.98	PASS
	total	5700	82.85	0.82	19.75	≤23.98	PASS
11N20MIMO	Ant1	5180	92.91	0.32	8.84	≤23.98	PASS
	Ant2	5180	92.91	0.32	8.38	≤23.98	PASS
	total	5180	92.91	0.32	11.63	≤23.98	PASS
	Ant1	5200	92.91	0.32	8.14	≤23.98	PASS
	Ant2	5200	92.91	0.32	7.52	≤23.98	PASS
	total	5200	92.91	0.32	10.85	≤23.98	PASS
	Ant1	5240	92.91	0.32	7.52	≤23.98	PASS
	Ant2	5240	92.91	0.32	7.12	≤23.98	PASS
	total	5240	92.91	0.32	10.33	≤23.98	PASS
	Ant1	5260	92.91	0.32	14.44	≤23.98	PASS
	Ant2	5260	92.91	0.32	13.55	≤23.98	PASS
	total	5260	92.91	0.32	17.03	≤23.98	PASS
	Ant1	5280	92.91	0.32	15.58	≤23.98	PASS
	Ant2	5280	92.91	0.32	15.7	≤23.98	PASS
	total	5280	92.91	0.32	18.65	≤23.98	PASS
	Ant1	5320	92.91	0.32	13.01	≤23.98	PASS
	Ant2	5320	92.91	0.32	12.56	≤23.98	PASS
	total	5320	92.91	0.32	15.8	≤23.98	PASS
	Ant1	5500	92.91	0.32	13.07	≤23.98	PASS
	Ant2	5500	92.91	0.32	11.69	≤23.98	PASS
	total	5500	92.91	0.32	15.44	≤23.98	PASS
	Ant1	5580	92.91	0.32	13.17	≤23.98	PASS
	Ant2	5580	92.91	0.32	11.89	≤23.98	PASS
	total	5580	92.91	0.32	15.59	≤23.98	PASS
Ant1	5700	92.91	0.32	16.8	≤23.98	PASS	
Ant2	5700	92.91	0.32	15.7	≤23.98	PASS	
total	5700	92.91	0.32	19.3	≤23.98	PASS	
11N40MIMO	Ant1	5190	92.62	0.33	8.33	≤23.98	PASS
	Ant2	5190	92.62	0.33	7.78	≤23.98	PASS
	total	5190	92.62	0.33	11.07	≤23.98	PASS
	Ant1	5230	92.62	0.33	7.04	≤23.98	PASS
	Ant2	5230	92.62	0.33	8.55	≤23.98	PASS
	total	5230	92.62	0.33	10.87	≤23.98	PASS
	Ant1	5270	92.62	0.33	12.21	≤23.98	PASS
	Ant2	5270	92.62	0.33	11.95	≤23.98	PASS
	total	5270	92.62	0.33	15.51	≤23.98	PASS
Ant1	5310	92.62	0.33	14.85	≤23.98	PASS	

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	Ant2	5310	92.62	0.33	13.82	≤23.98	PASS
	total	5310	92.62	0.33	17.38	≤23.98	PASS
	Ant1	5510	92.62	0.33	13.18	≤23.98	PASS
	Ant2	5510	92.62	0.33	11.81	≤23.98	PASS
	total	5510	92.62	0.33	15.56	≤23.98	PASS
	Ant1	5550	92.62	0.33	13.27	≤23.98	PASS
	Ant2	5550	92.62	0.33	11.84	≤23.98	PASS
	total	5550	92.62	0.33	15.62	≤23.98	PASS
	Ant1	5670	92.62	0.33	14.24	≤23.98	PASS
	Ant2	5670	92.62	0.33	12.65	≤23.98	PASS
total	5670	92.62	0.33	16.53	≤23.98	PASS	
11AC20MIMO	Ant1	5180	92.75	0.33	10	≤23.98	PASS
	Ant2	5180	92.75	0.33	9.76	≤23.98	PASS
	total	5180	92.75	0.33	12.89	≤23.98	PASS
	Ant1	5200	92.75	0.33	9.04	≤23.98	PASS
	Ant2	5200	92.75	0.33	8.54	≤23.98	PASS
	total	5200	92.75	0.33	11.81	≤23.98	PASS
	Ant1	5240	92.75	0.33	8.33	≤23.98	PASS
	Ant2	5240	92.75	0.33	8.12	≤23.98	PASS
	total	5240	92.75	0.33	11.24	≤23.98	PASS
	Ant1	5260	92.75	0.33	12.67	≤23.98	PASS
	Ant2	5260	92.75	0.33	11.33	≤23.98	PASS
	total	5260	92.75	0.33	15.06	≤23.98	PASS
	Ant1	5280	92.75	0.33	12.82	≤23.98	PASS
	Ant2	5280	92.75	0.33	12.13	≤23.98	PASS
	total	5280	92.75	0.33	15.5	≤23.98	PASS
	Ant1	5320	92.75	0.33	13	≤23.98	PASS
	Ant2	5320	92.75	0.33	12.54	≤23.98	PASS
	total	5320	92.75	0.33	15.79	≤23.98	PASS
	Ant1	5500	92.75	0.33	13.05	≤23.98	PASS
	Ant2	5500	92.75	0.33	11.64	≤23.98	PASS
	total	5500	92.75	0.33	15.41	≤23.98	PASS
	Ant1	5580	92.75	0.33	13.15	≤23.98	PASS
	Ant2	5580	92.75	0.33	11.86	≤23.98	PASS
	total	5580	92.75	0.33	15.56	≤23.98	PASS
Ant1	5700	92.75	0.33	13.79	≤23.98	PASS	
Ant2	5700	92.75	0.33	12.21	≤23.98	PASS	
total	5700	92.75	0.33	16.08	≤23.98	PASS	
11AC40MIMO	Ant1	5190	93.55	0.29	9.34	≤23.98	PASS
	Ant2	5190	93.55	0.29	8.75	≤23.98	PASS
	total	5190	93.55	0.29	12.07	≤23.98	PASS
	Ant1	5230	93.55	0.29	7.04	≤23.98	PASS
	Ant2	5230	93.55	0.29	8.54	≤23.98	PASS

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Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

**Report No.: I23W00036-WIFI 5G RF-FCC**

	total	5230	93.55	0.29	10.86	≤23.98	PASS
	Ant1	5270	93.55	0.29	12.21	≤23.98	PASS
	Ant2	5270	93.55	0.29	13.17	≤23.98	PASS
	total	5270	93.55	0.29	16.71	≤23.98	PASS
	Ant1	5310	93.55	0.29	14.63	≤23.98	PASS
	Ant2	5310	93.55	0.29	13.82	≤23.98	PASS
	total	5310	93.55	0.29	17.25	≤23.98	PASS
	Ant1	5510	93.55	0.29	14.26	≤23.98	PASS
	Ant2	5510	93.55	0.29	12.9	≤23.98	PASS
	total	5510	93.55	0.29	16.64	≤23.98	PASS
	Ant1	5550	93.55	0.29	14.41	≤23.98	PASS
	Ant2	5550	93.55	0.29	12.98	≤23.98	PASS
	total	5550	93.55	0.29	16.76	≤23.98	PASS
	Ant1	5670	93.55	0.29	15.37	≤23.98	PASS
	Ant2	5670	93.55	0.29	13.79	≤23.98	PASS
total	5670	93.55	0.29	17.66	≤23.98	PASS	
11AC80MIMO	Ant1	5210	87.39	0.59	14.27	≤23.98	PASS
	Ant2	5210	87.39	0.59	13.48	≤23.98	PASS
	total	5210	87.39	0.59	16.9	≤23.98	PASS
	Ant1	5290	87.39	0.59	11.59	≤23.98	PASS
	Ant2	5290	87.39	0.59	11.26	≤23.98	PASS
	total	5290	87.39	0.59	14.44	≤23.98	PASS
	Ant1	5530	87.39	0.59	14.6	≤23.98	PASS
	Ant2	5530	87.39	0.59	13.34	≤23.98	PASS
	total	5530	87.39	0.59	17.03	≤23.98	PASS
	Ant1	5610	87.39	0.59	14.76	≤23.98	PASS
	Ant2	5610	87.39	0.59	13.35	≤23.98	PASS
	total	5610	87.39	0.59	17.12	≤23.98	PASS
11AC160MIMO	Ant1	5250	85.94	0.66	10.91	--	PASS
	Ant2	5250	85.94	0.66	10.41	--	PASS
	total	5250	85.94	0.66	13.68	--	PASS
	Ant1	5250_UNII-1	85.94	0.66	7.82	≤23.98	PASS
	Ant2	5250_UNII-1	85.94	0.66	7.01	≤23.98	PASS
	total	5250_UNII-1	85.94	0.66	10.44	≤23.98	PASS
	Ant1	5250_UNII-2A	85.94	0.66	7.97	≤23.98	PASS
	Ant2	5250_UNII-2A	85.94	0.66	7.76	≤23.98	PASS
	total	5250_UNII-2A	85.94	0.66	10.88	≤23.98	PASS
	Ant1	5570	85.94	0.66	9.41	≤23.98	PASS
	Ant2	5570	85.94	0.66	10.32	≤23.98	PASS
	total	5570	85.94	0.66	12.90	≤23.98	PASS
11AX20MIMO	Ant1	5180	93.54	0.29	10.88	≤23.98	PASS
	Ant2	5180	93.54	0.29	10.32	≤23.98	PASS
	total	5180	93.54	0.29	13.62	≤23.98	PASS

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 Tel: 0086-23-88069965 FAX: 0086-23-88608777



Report No.: I23W00036-WIFI 5G RF-FCC

	Ant1	5200	93.54	0.29	9.87	≤23.98	PASS
	Ant2	5200	93.54	0.29	9.24	≤23.98	PASS
	total	5200	93.54	0.29	12.58	≤23.98	PASS
	Ant1	5240	93.54	0.29	8.92	≤23.98	PASS
	Ant2	5240	93.54	0.29	8.64	≤23.98	PASS
	total	5240	93.54	0.29	11.79	≤23.98	PASS
	Ant1	5260	93.54	0.29	11.69	≤23.98	PASS
	Ant2	5260	93.54	0.29	10.67	≤23.98	PASS
	total	5260	93.54	0.29	14.22	≤23.98	PASS
	Ant1	5280	93.54	0.29	11.83	≤23.98	PASS
	Ant2	5280	93.54	0.29	11.49	≤23.98	PASS
	total	5280	93.54	0.29	14.67	≤23.98	PASS
	Ant1	5320	93.54	0.29	11.72	≤23.98	PASS
	Ant2	5320	93.54	0.29	11.68	≤23.98	PASS
	total	5320	93.54	0.29	14.71	≤23.98	PASS
	Ant1	5500	93.54	0.29	11.76	≤23.98	PASS
	Ant2	5500	93.54	0.29	10.62	≤23.98	PASS
	total	5500	93.54	0.29	14.24	≤23.98	PASS
	Ant1	5580	93.54	0.29	11.84	≤23.98	PASS
	Ant2	5580	93.54	0.29	10.8	≤23.98	PASS
	total	5580	93.54	0.29	14.36	≤23.98	PASS
Ant1	5700	93.54	0.29	12.43	≤23.98	PASS	
Ant2	5700	93.54	0.29	10.84	≤23.98	PASS	
total	5700	93.54	0.29	14.72	≤23.98	PASS	
11AX40MIMO	Ant1	5190	92.69	0.33	12.29	≤23.98	PASS
	Ant2	5190	92.69	0.33	11.47	≤23.98	PASS
	total	5190	92.69	0.33	14.91	≤23.98	PASS
	Ant1	5230	92.69	0.33	11.51	≤23.98	PASS
	Ant2	5230	92.69	0.33	11.03	≤23.98	PASS
	total	5230	92.69	0.33	14.29	≤23.98	PASS
	Ant1	5270	92.69	0.33	11.67	≤23.98	PASS
	Ant2	5270	92.69	0.33	11.11	≤23.98	PASS
	total	5270	92.69	0.33	14.41	≤23.98	PASS
	Ant1	5310	92.69	0.33	12.04	≤23.98	PASS
	Ant2	5310	92.69	0.33	11.86	≤23.98	PASS
	total	5310	92.69	0.33	14.96	≤23.98	PASS
	Ant1	5510	92.69	0.33	11.69	≤23.98	PASS
	Ant2	5510	92.69	0.33	10.62	≤23.98	PASS
	total	5510	92.69	0.33	14.2	≤23.98	PASS
	Ant1	5550	92.69	0.33	11.74	≤23.98	PASS
	Ant2	5550	92.69	0.33	10.77	≤23.98	PASS
	total	5550	92.69	0.33	14.29	≤23.98	PASS
Ant1	5670	92.69	0.33	12.65	≤23.98	PASS	

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Tel: 0086-23-88069965 FAX:0086-23-88608777

Report No.: I23W00036-WIFI 5G RF-FCC

	Ant2	5670	92.69	0.33	11.19	≤ 23.98	PASS
	total	5670	92.69	0.33	14.99	≤ 23.98	PASS
11AX80MIMO	Ant1	5210	87.39	0.59	12.08	≤ 23.98	PASS
	Ant2	5210	87.39	0.59	11.5	≤ 23.98	PASS
	total	5210	87.39	0.59	14.81	≤ 23.98	PASS
	Ant1	5290	87.39	0.59	11.84	≤ 23.98	PASS
	Ant2	5290	87.39	0.59	11.61	≤ 23.98	PASS
	total	5290	87.39	0.59	14.74	≤ 23.98	PASS
	Ant1	5530	87.39	0.59	11.85	≤ 23.98	PASS
	Ant2	5530	87.39	0.59	10.82	≤ 23.98	PASS
	total	5530	87.39	0.59	14.38	≤ 23.98	PASS
	Ant1	5610	87.39	0.59	12.35	≤ 23.98	PASS
	Ant2	5610	87.39	0.59	11.04	≤ 23.98	PASS
	total	5610	87.39	0.59	14.75	≤ 23.98	PASS
11AX160MIMO	Ant1	5250	84.35	0.74	11.51	--	PASS
	Ant2	5250	84.35	0.74	11.06	--	PASS
	total	5250	84.35	0.74	14.30	--	PASS
	Ant1	5250_UNII-1	84.35	0.74	8.5	≤ 23.98	PASS
	Ant2	5250_UNII-1	84.35	0.74	7.66	≤ 23.98	PASS
	total	5250_UNII-1	84.35	0.74	11.11	≤ 23.98	PASS
	Ant1	5250_UNII-2A	84.35	0.74	8.5	≤ 23.98	PASS
	Ant2	5250_UNII-2A	84.35	0.74	8.41	≤ 23.98	PASS
	total	5250_UNII-2A	84.35	0.74	11.47	≤ 23.98	PASS
	Ant1	5570	84.35	0.74	12.3	≤ 23.98	PASS
	Ant2	5570	84.35	0.74	11.17	≤ 23.98	PASS
	total	5570	84.35	0.74	14.78	≤ 23.98	PASS

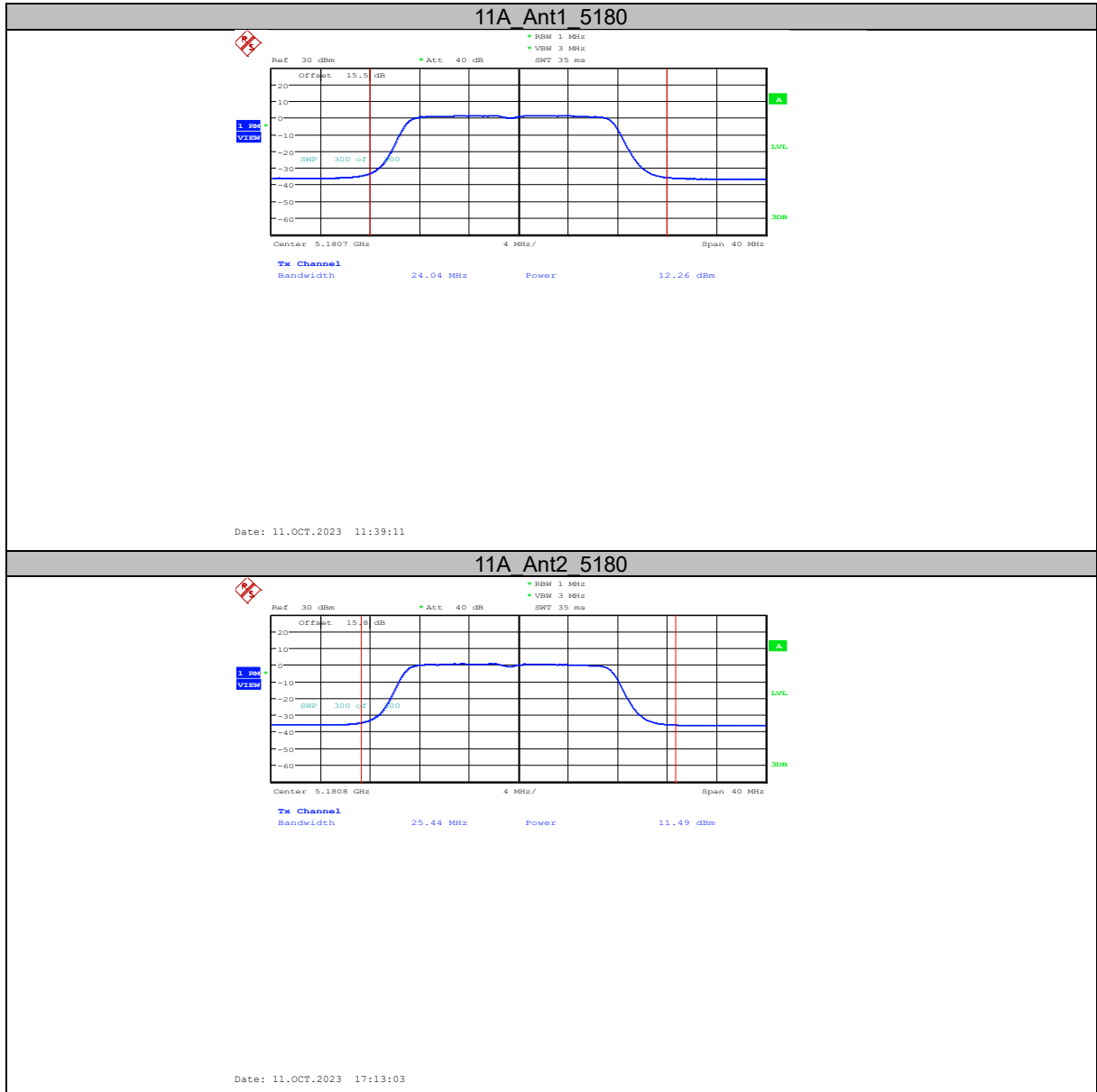
Note:

- 1.The Duty Cycle Factor is compensated in the graph.
2. In the graph, the Center frequency = (Low frequency of 26dB OBW + High frequency of 26dB OBW) /2.
- 3.The 11a data rate 6Mbps is selected as worse condition, 11n/11ac/11ax data rate MCS0 is selected as worse condition, and the following cases are performed with this condition.
4. For client devices in the 5.15–5.25 GHz band, Limit =250mW; For the 5.25–5.35 GHz and 5.47–5.725 GHz bands: Limit = Min (250mW, 11dBm+10log B), B is the 26 dB emission bandwidth in megahertz.

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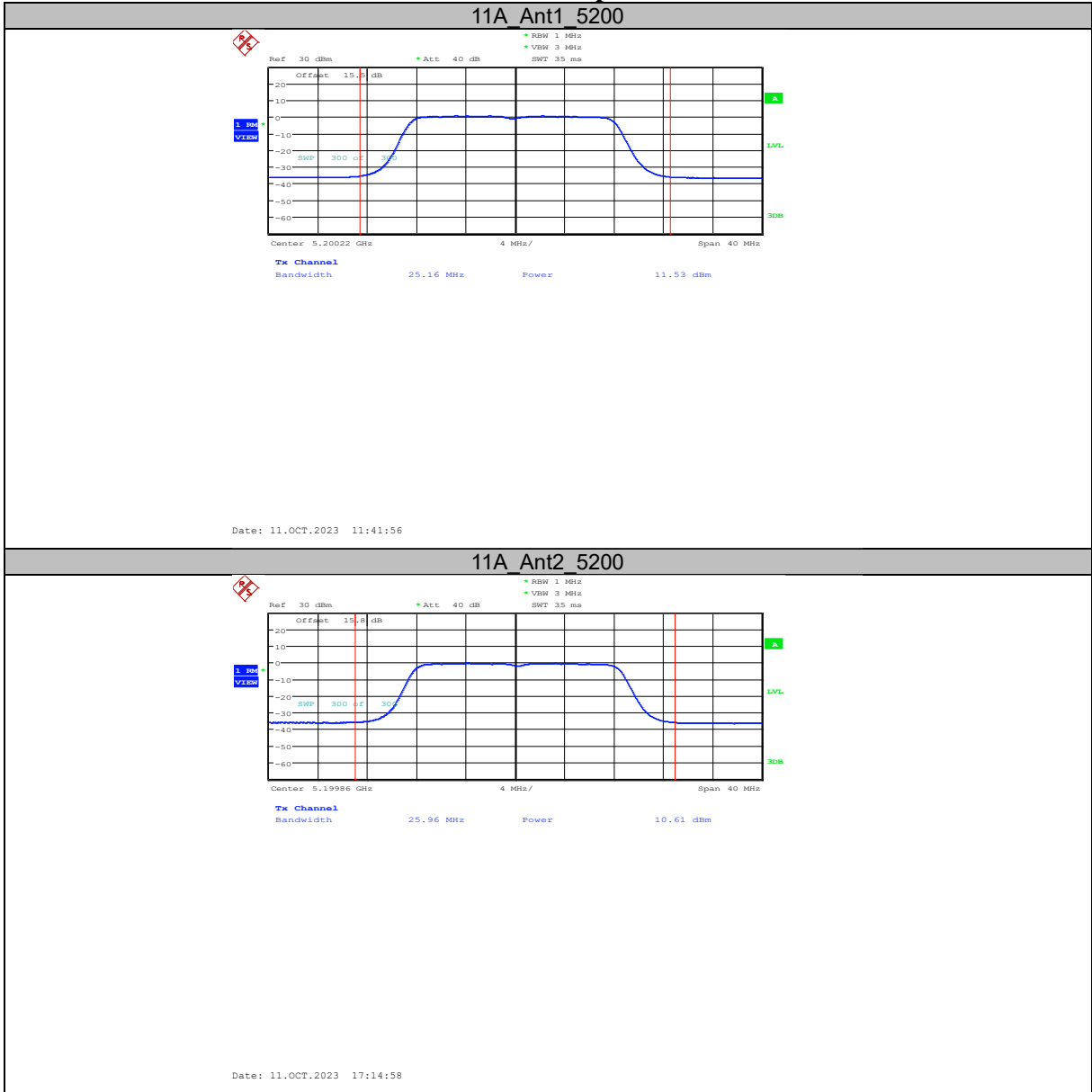
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Test graphs



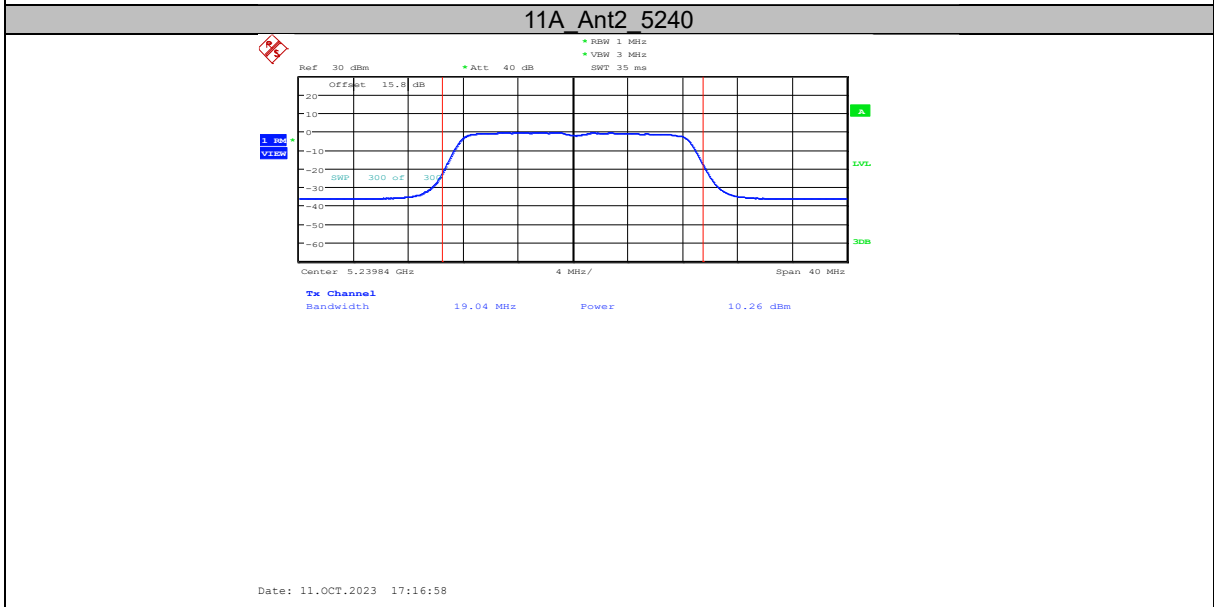
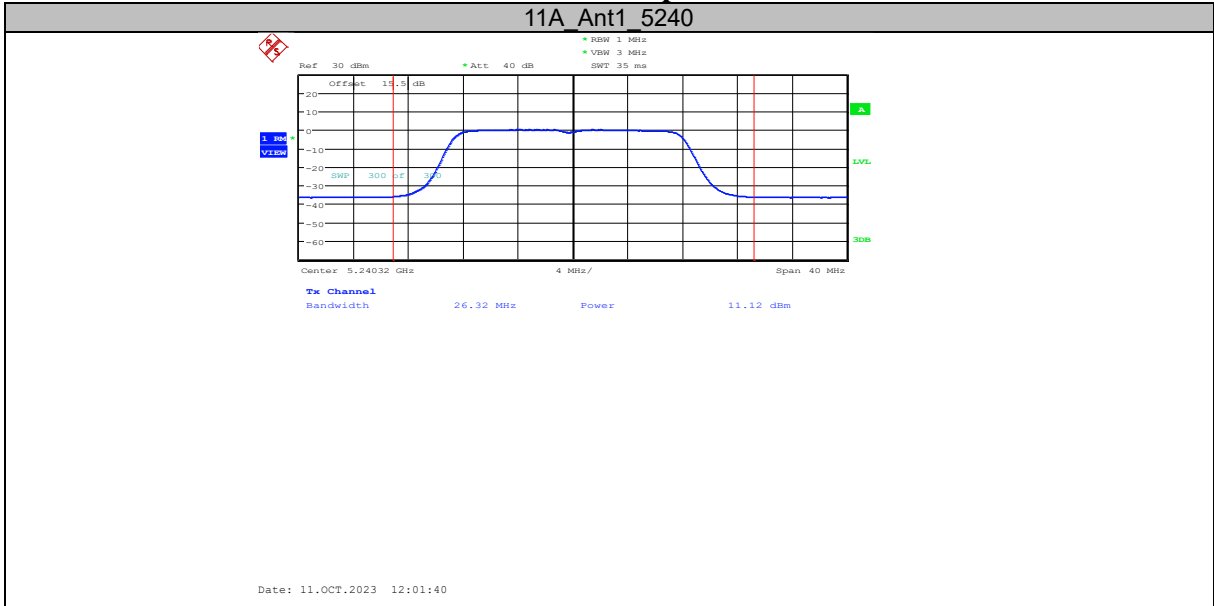
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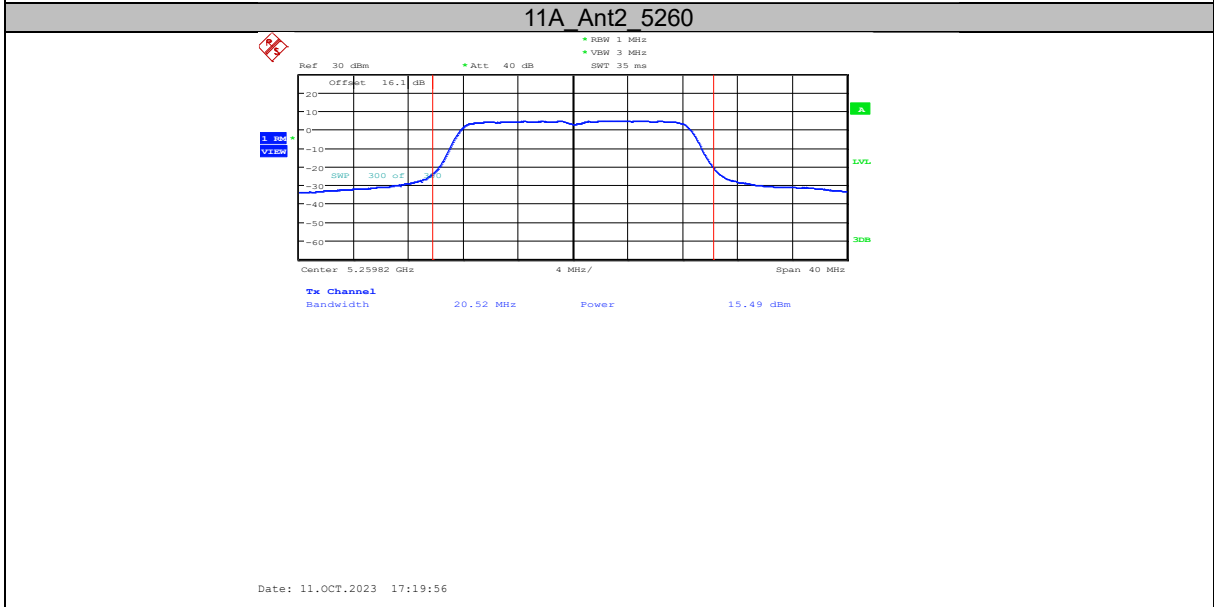
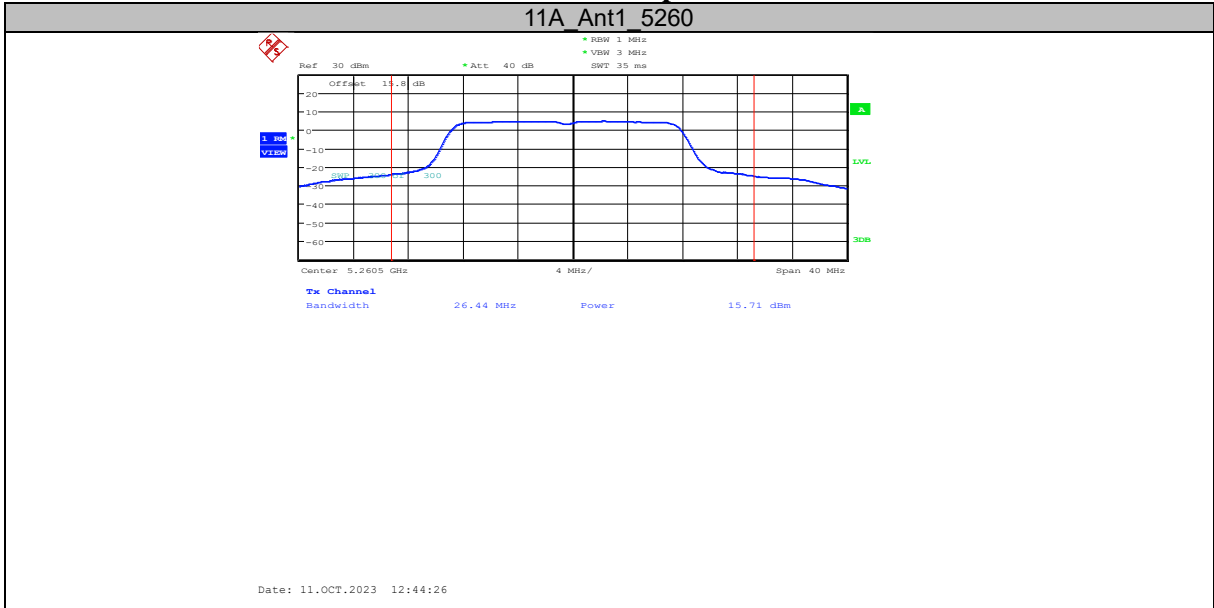
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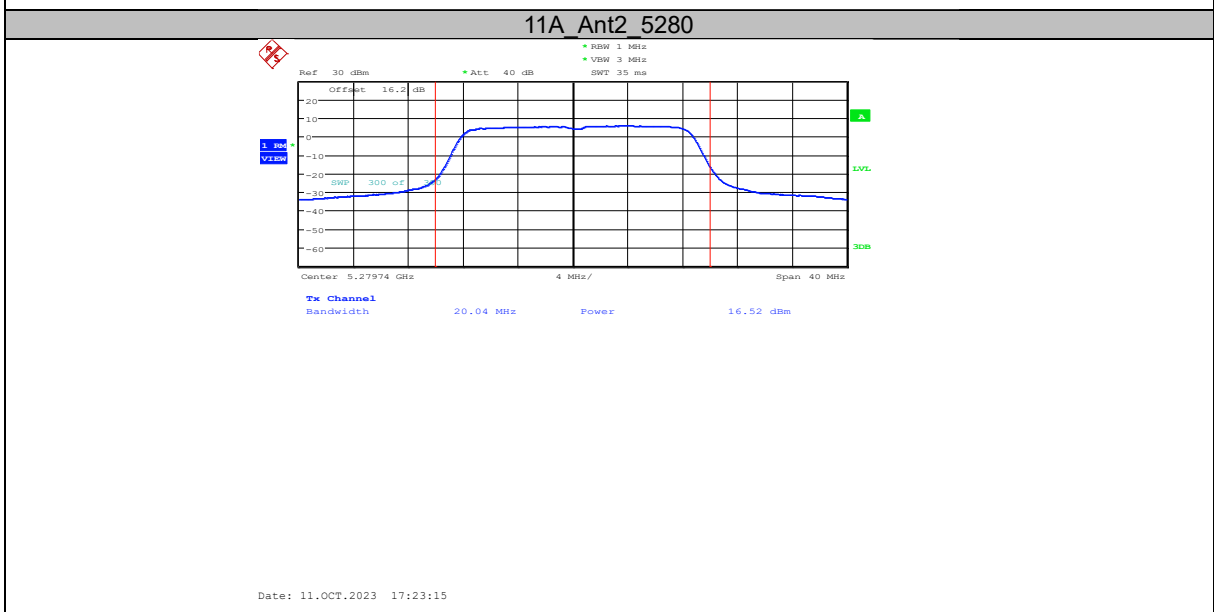
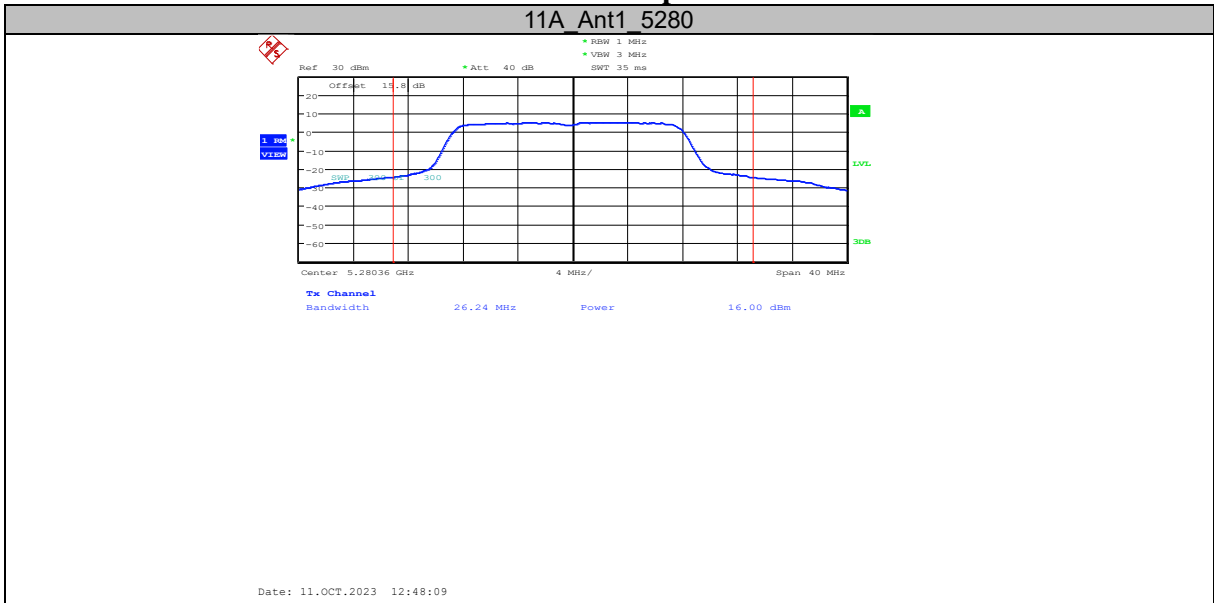


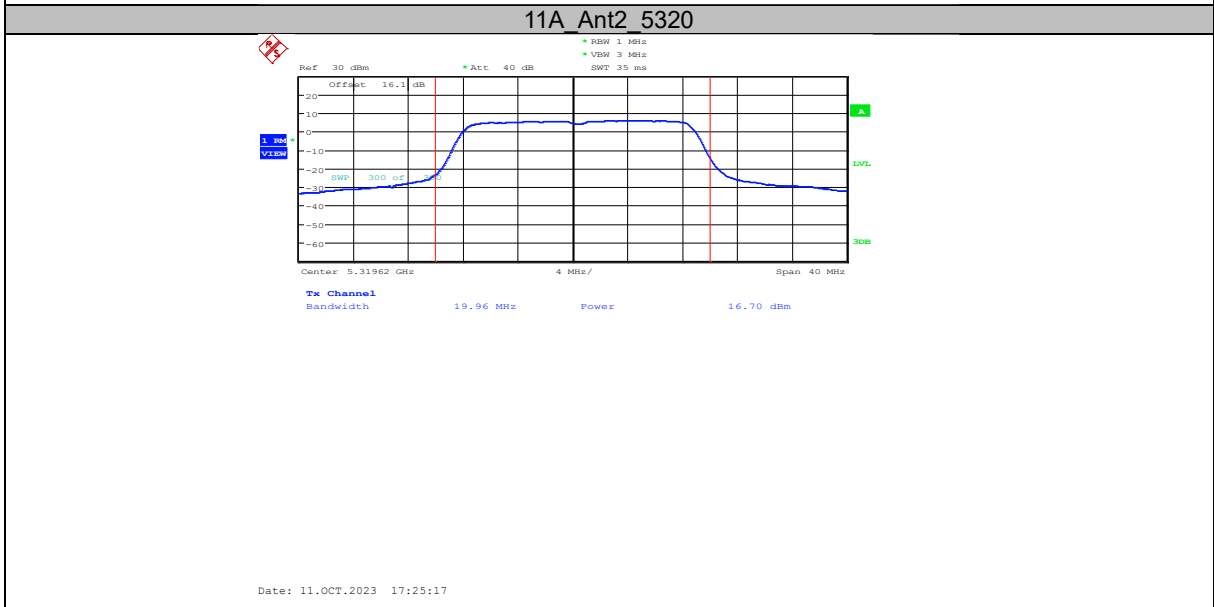
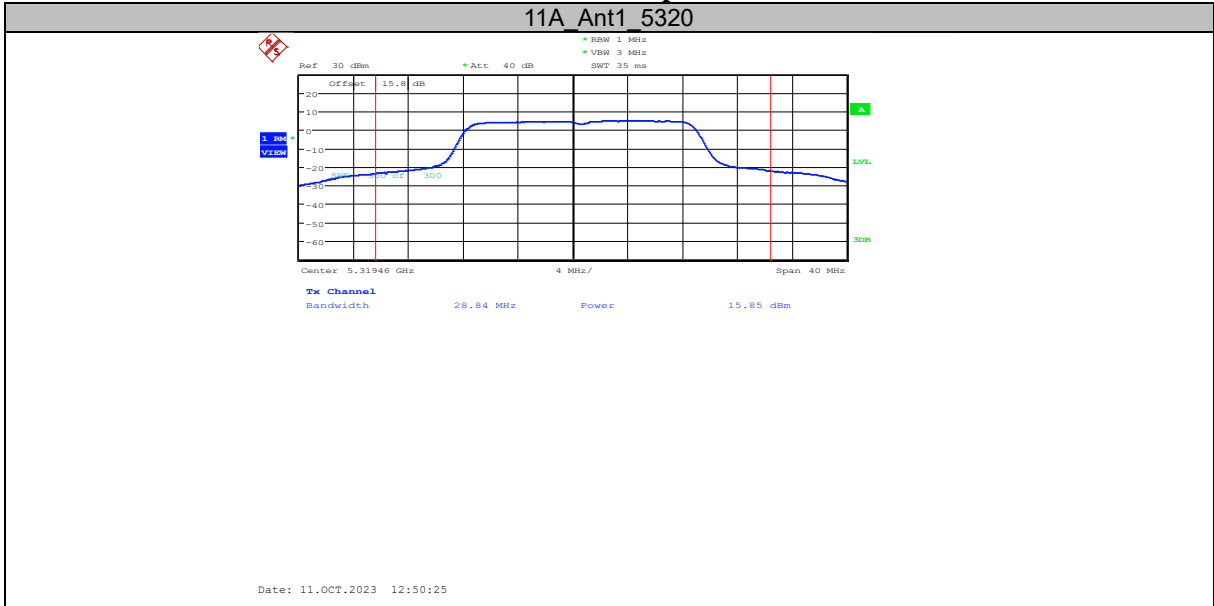
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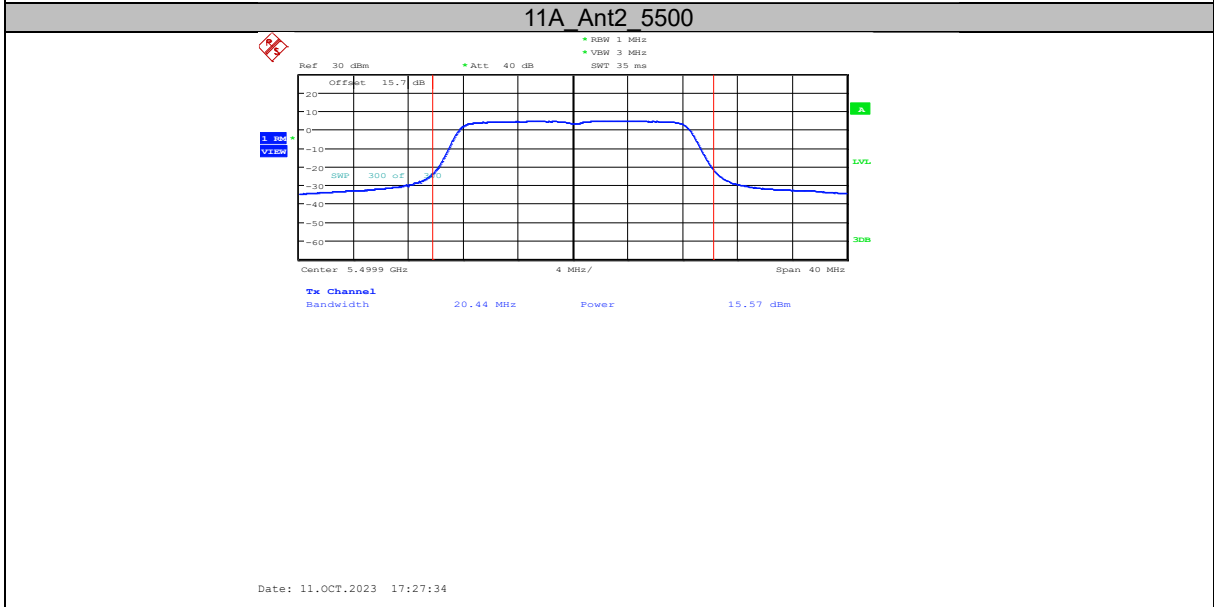
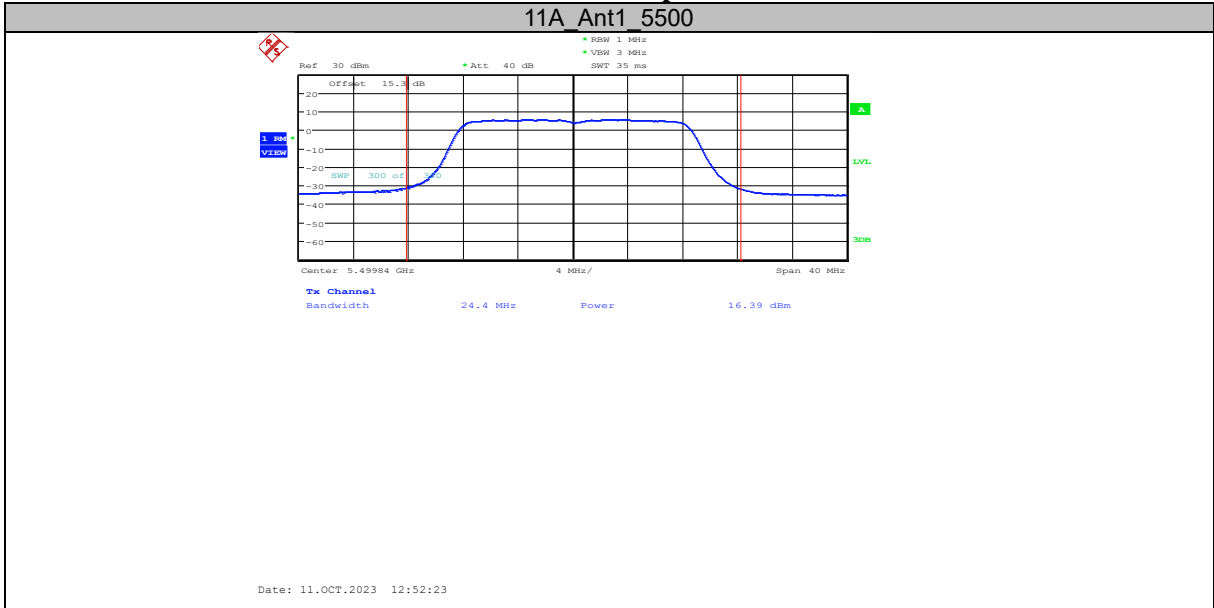
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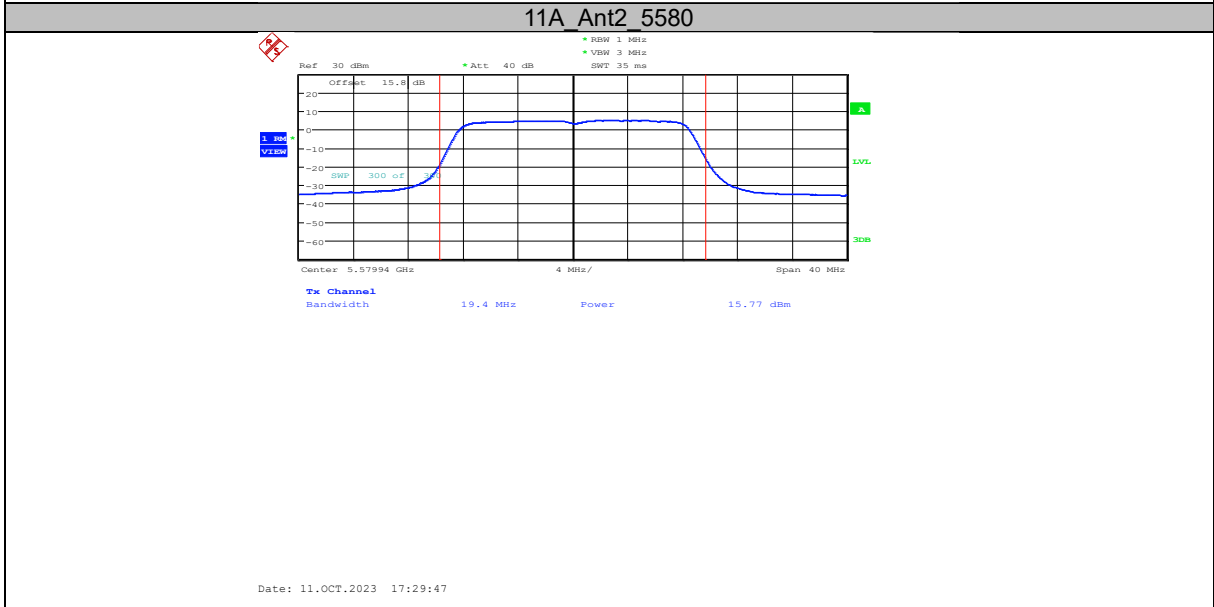
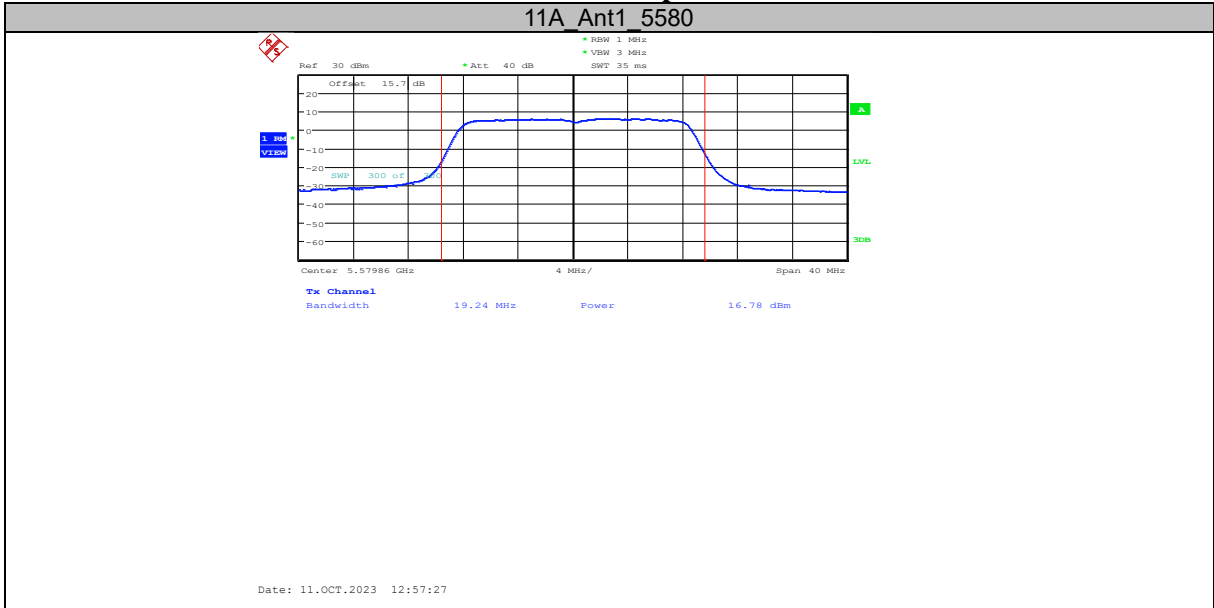






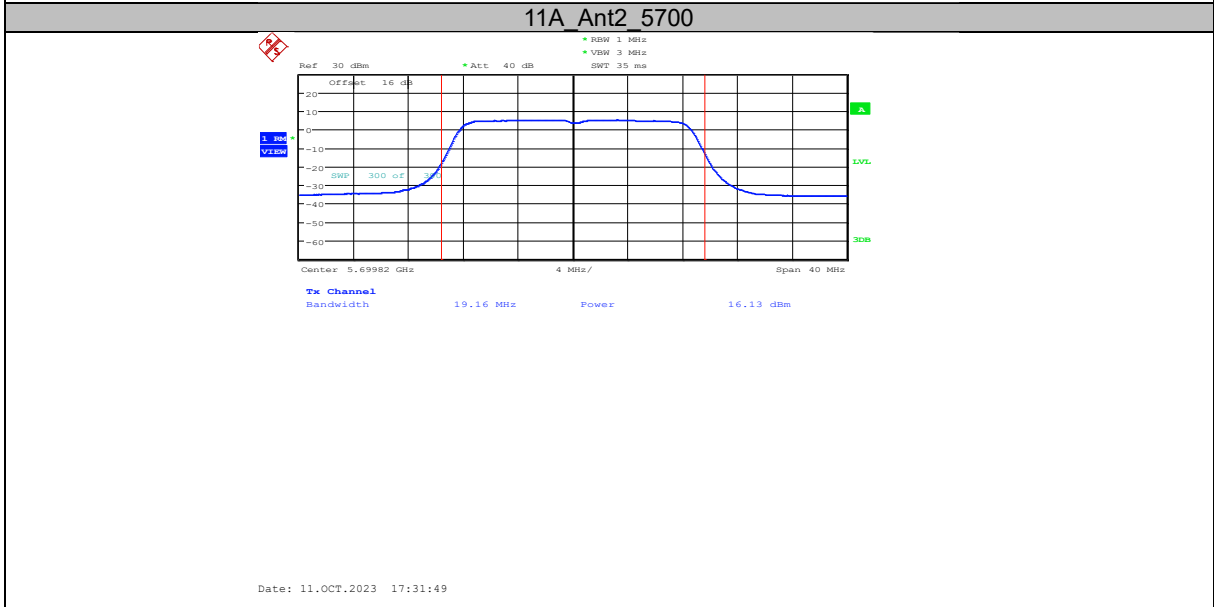
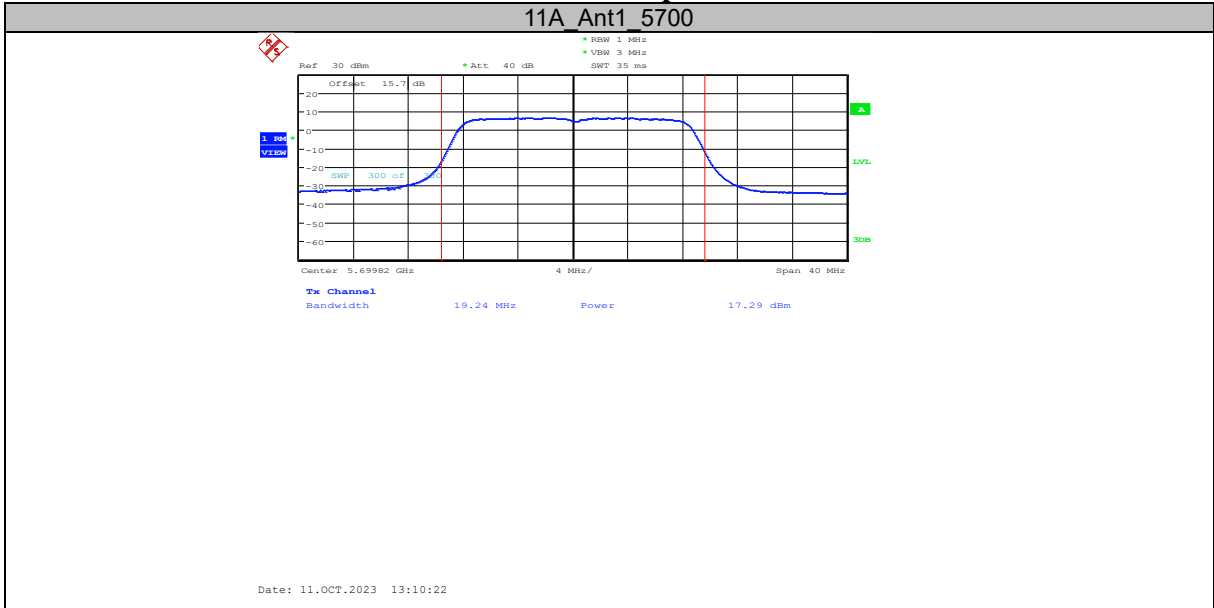


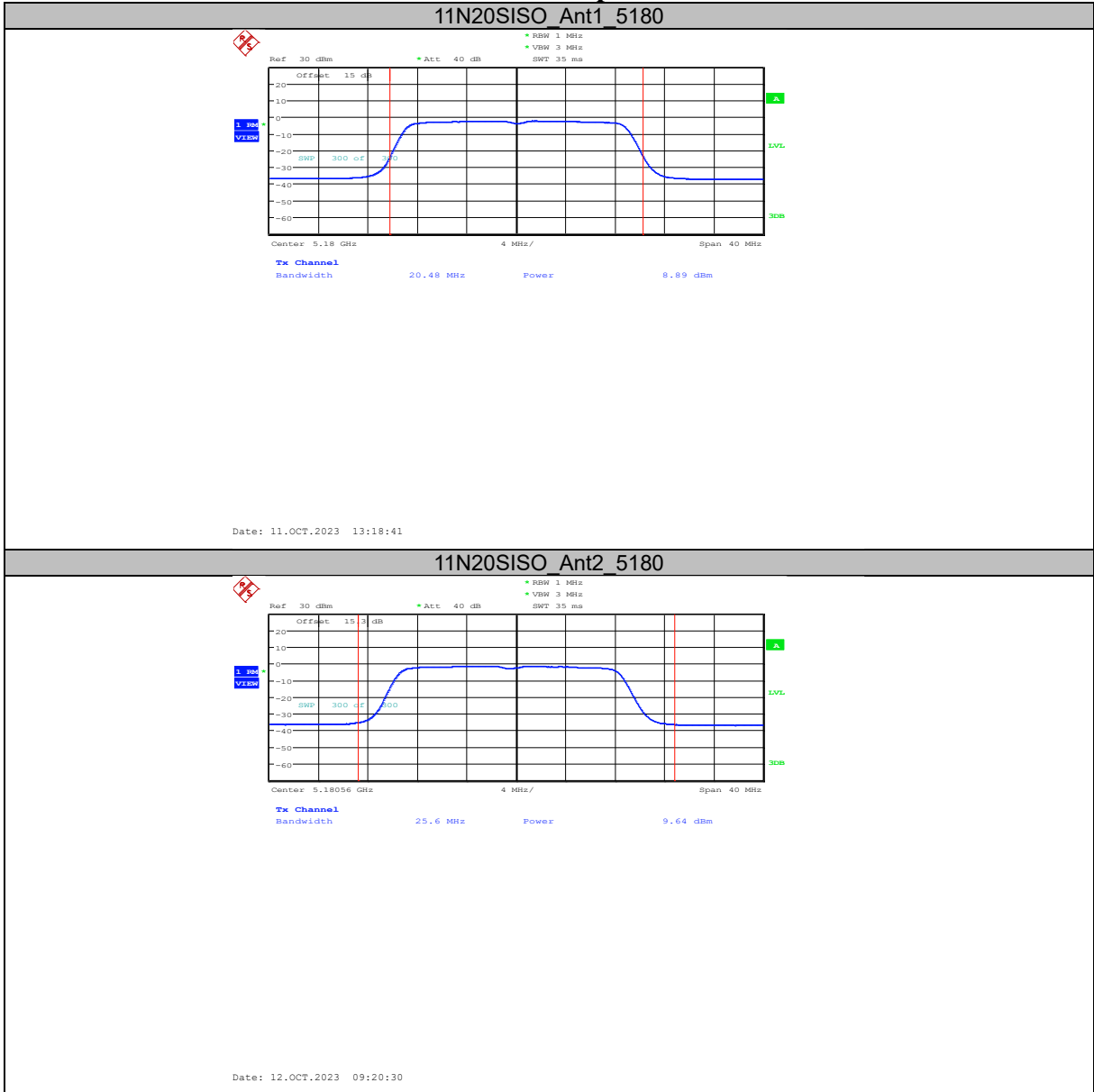


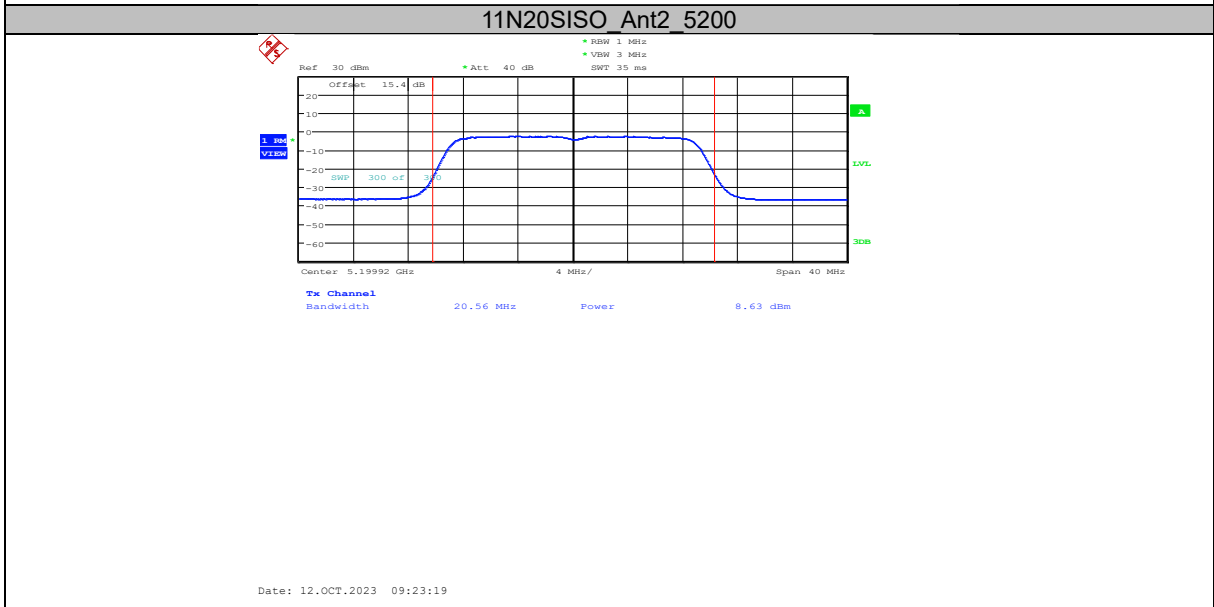
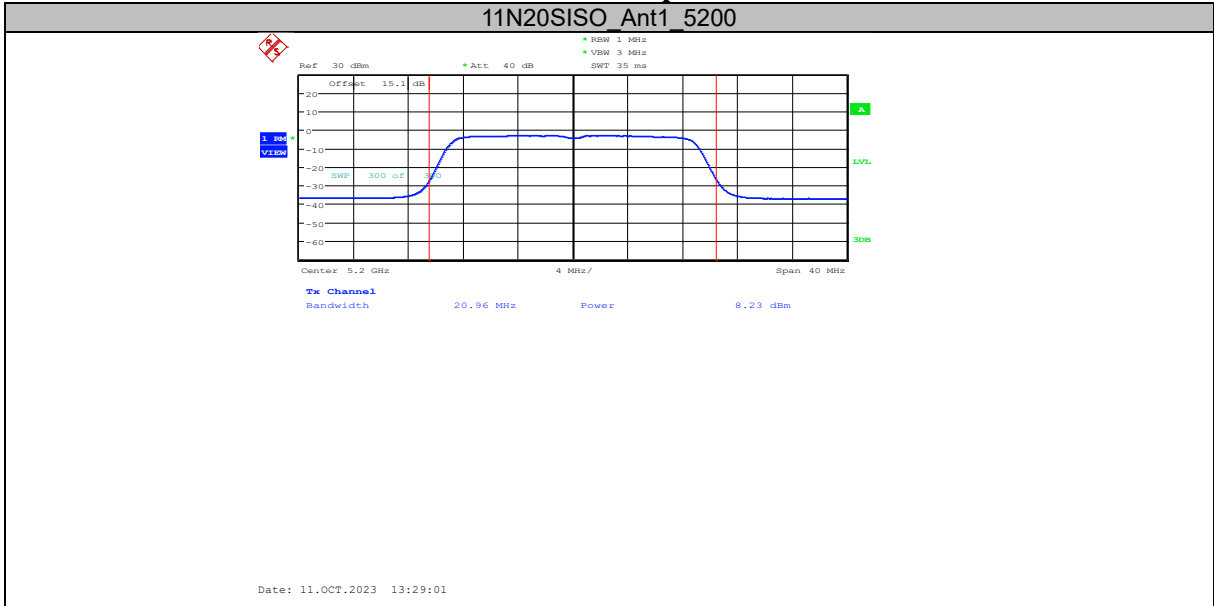


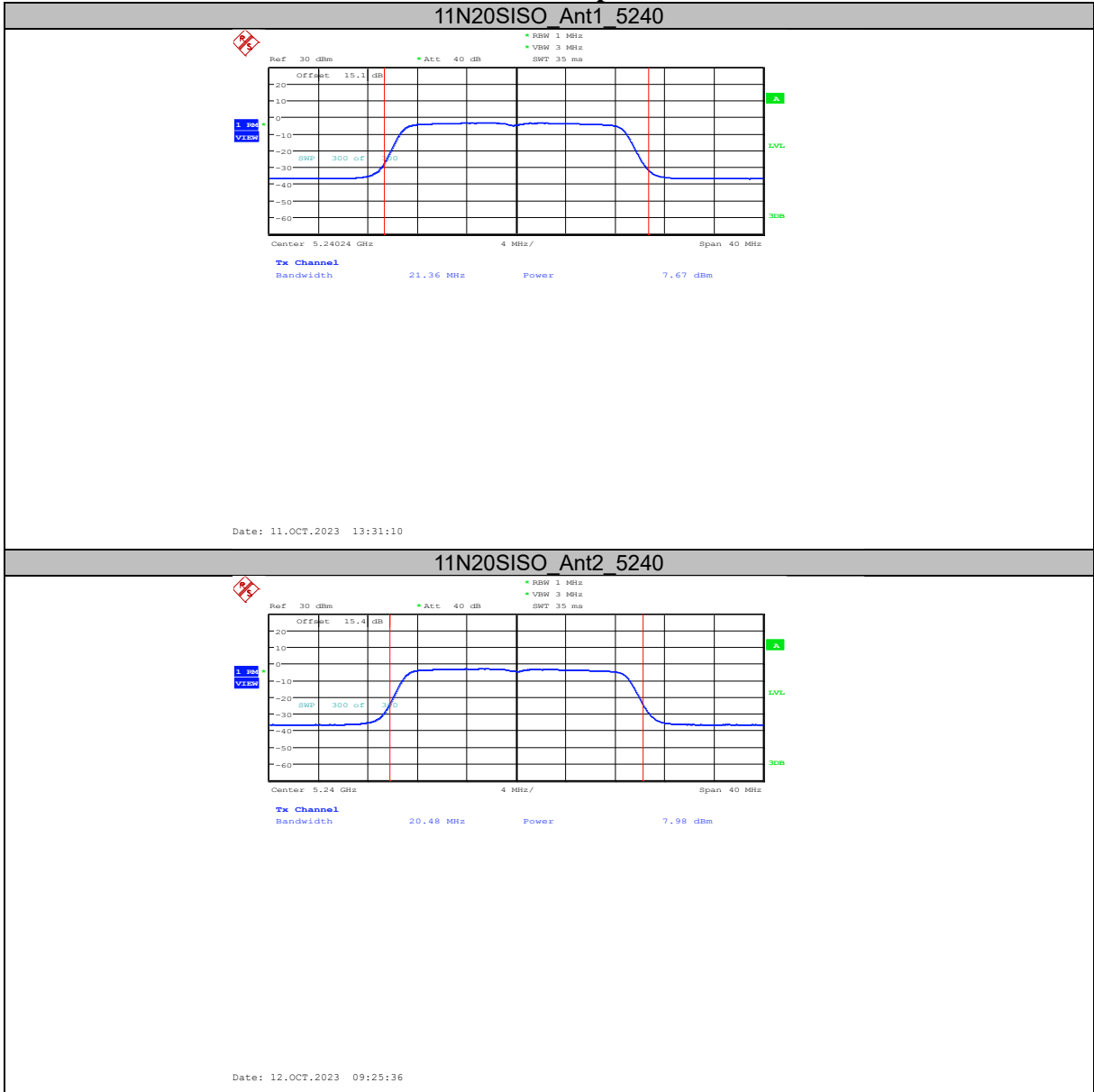
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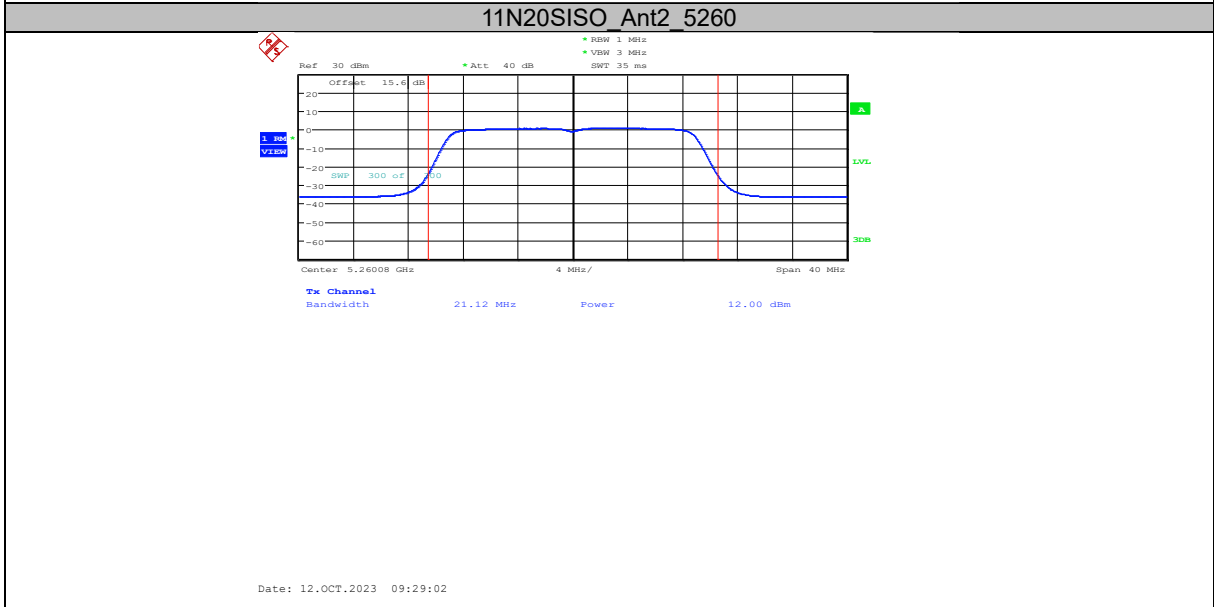
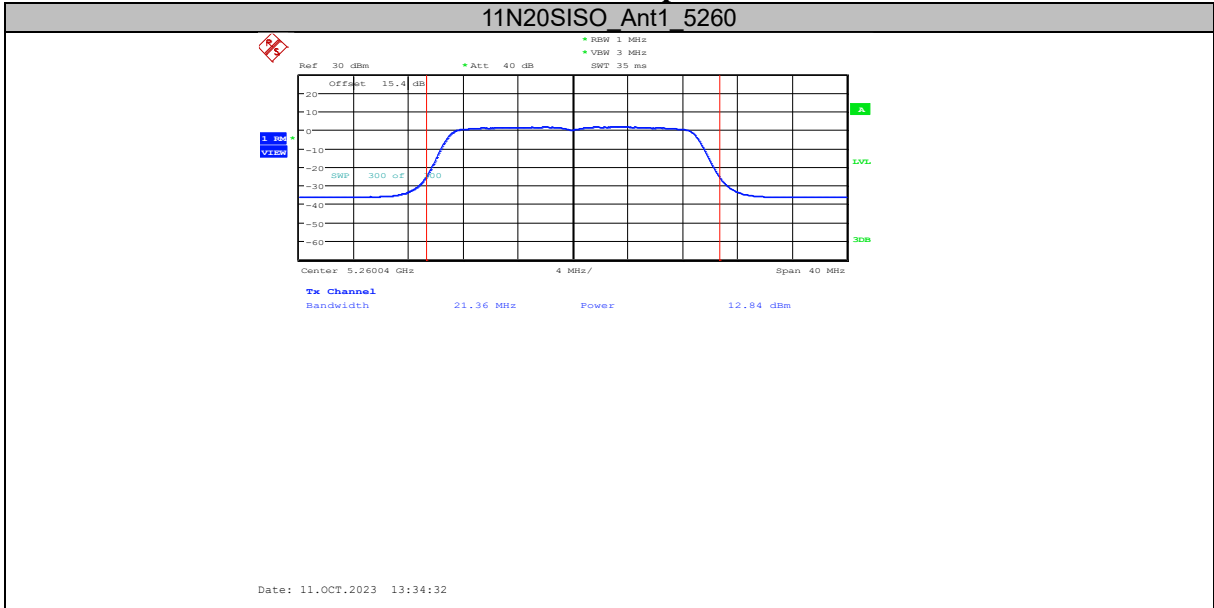


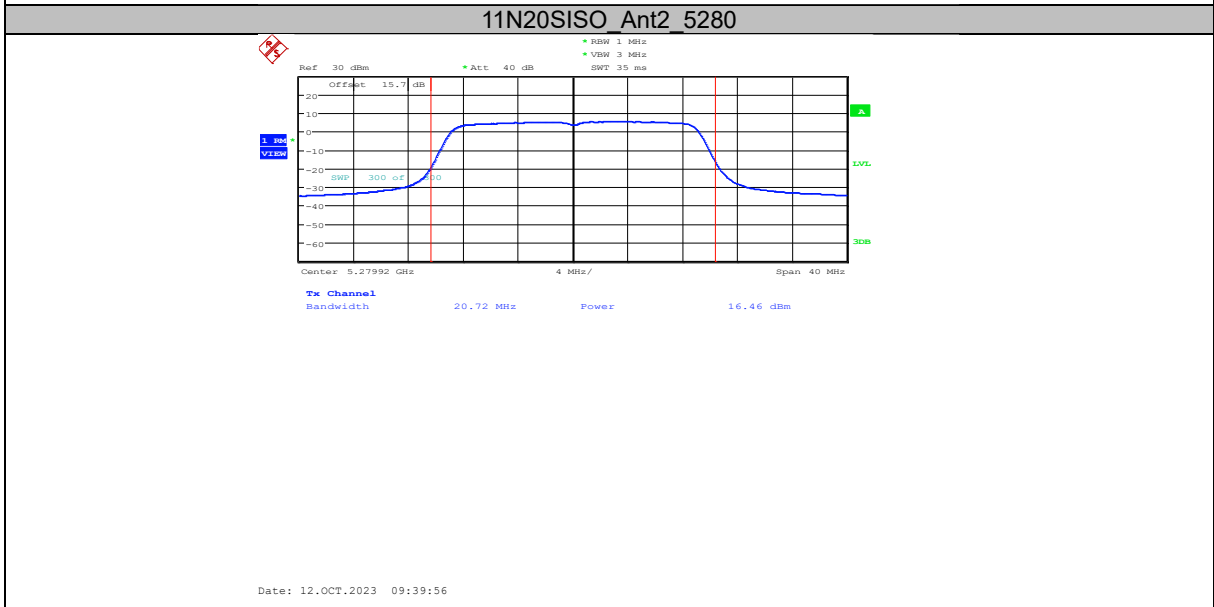
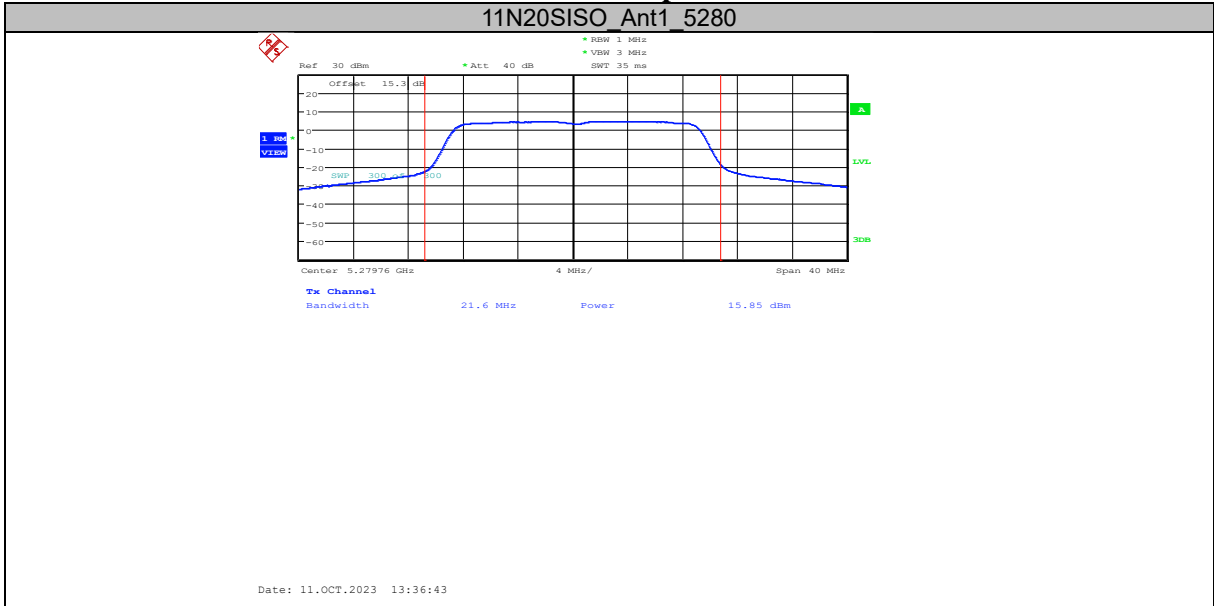


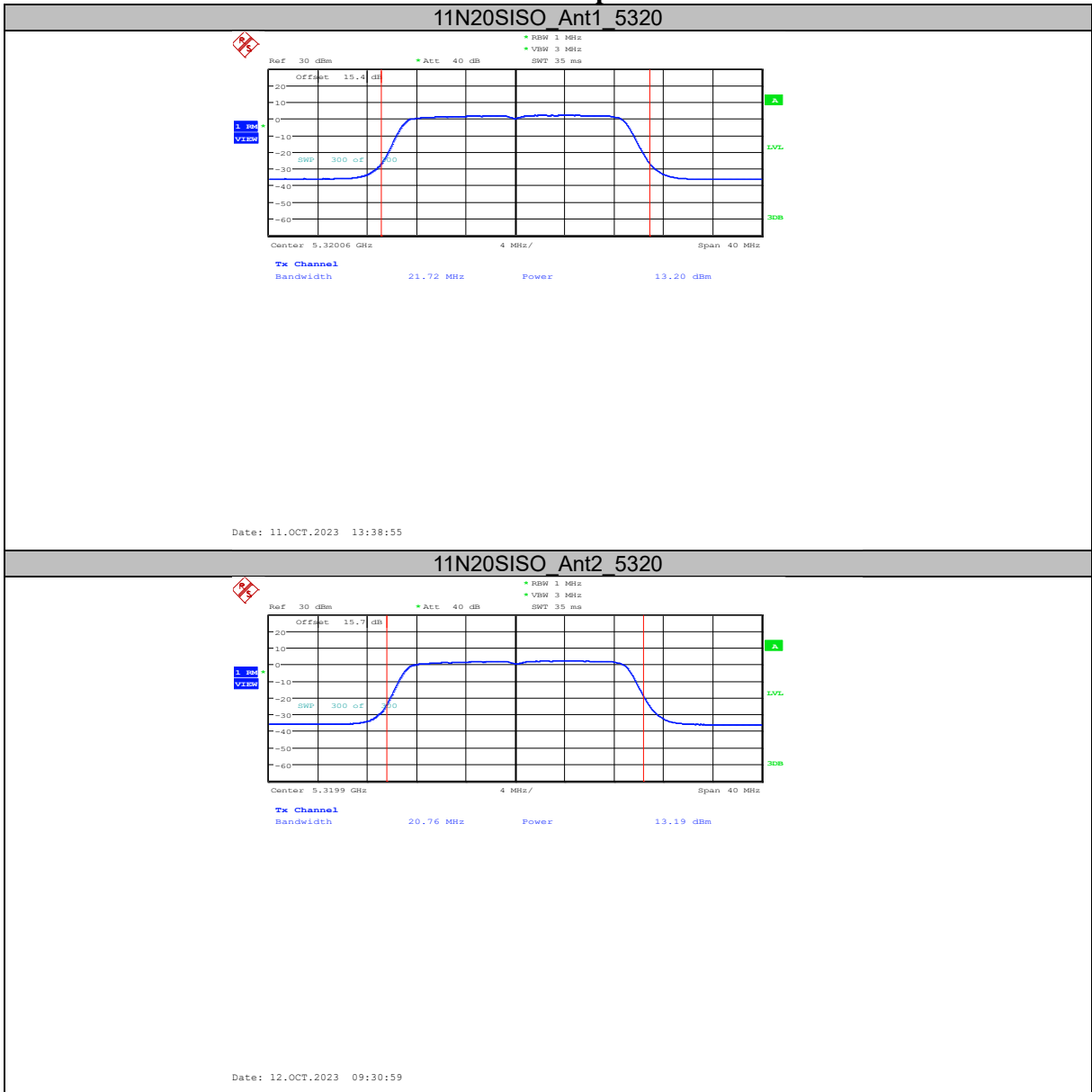


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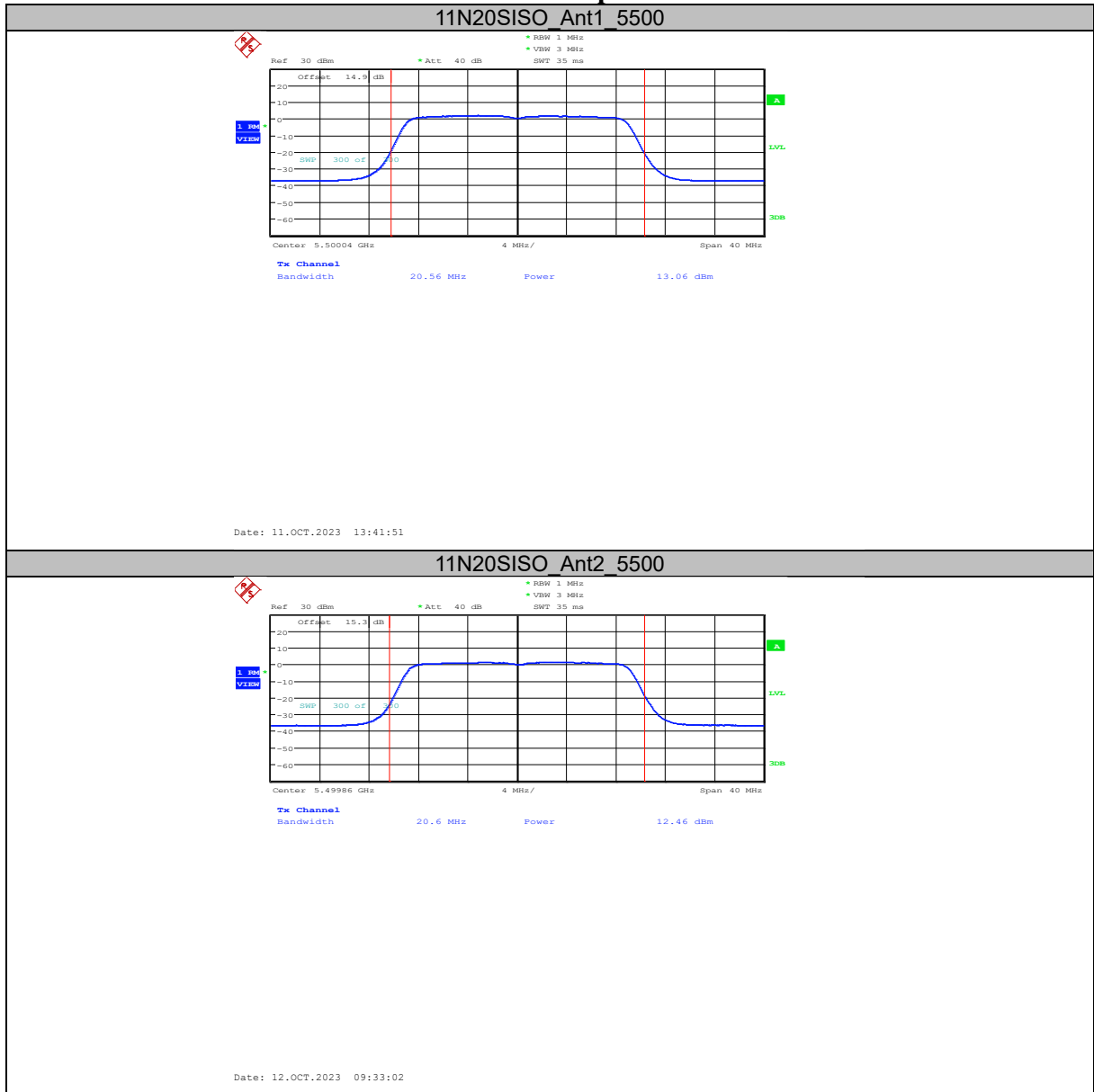






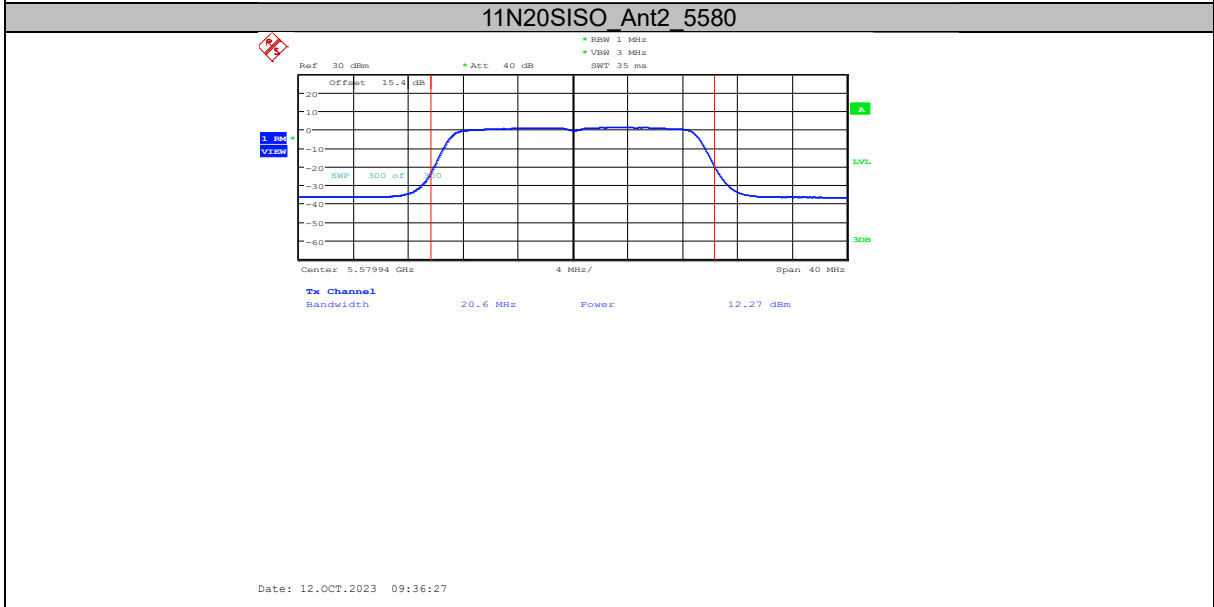
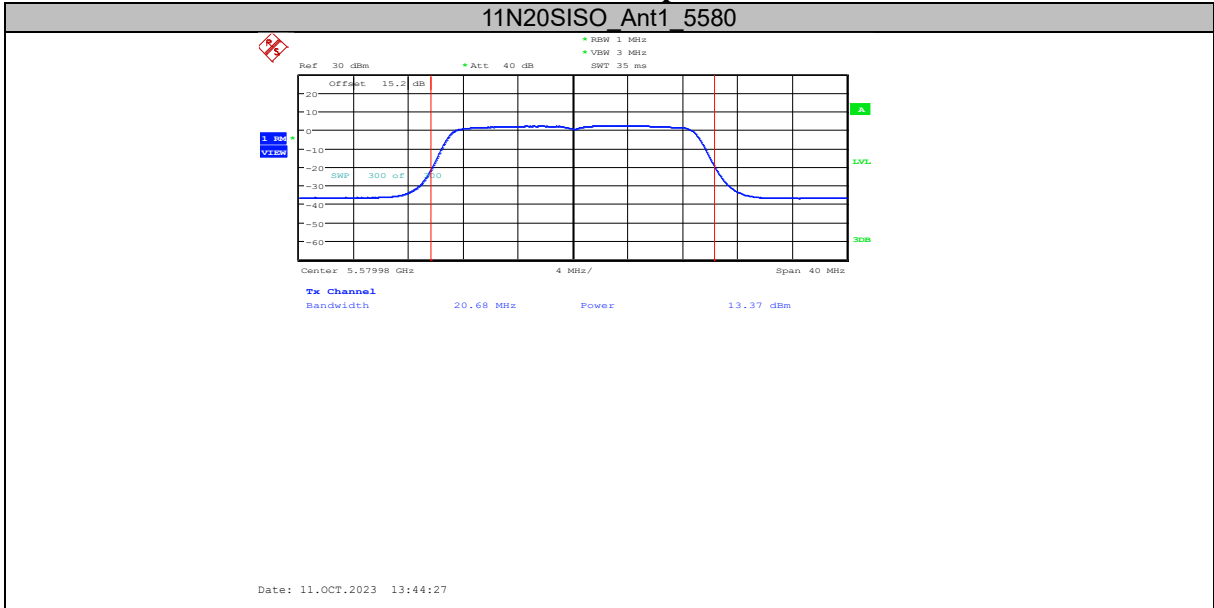
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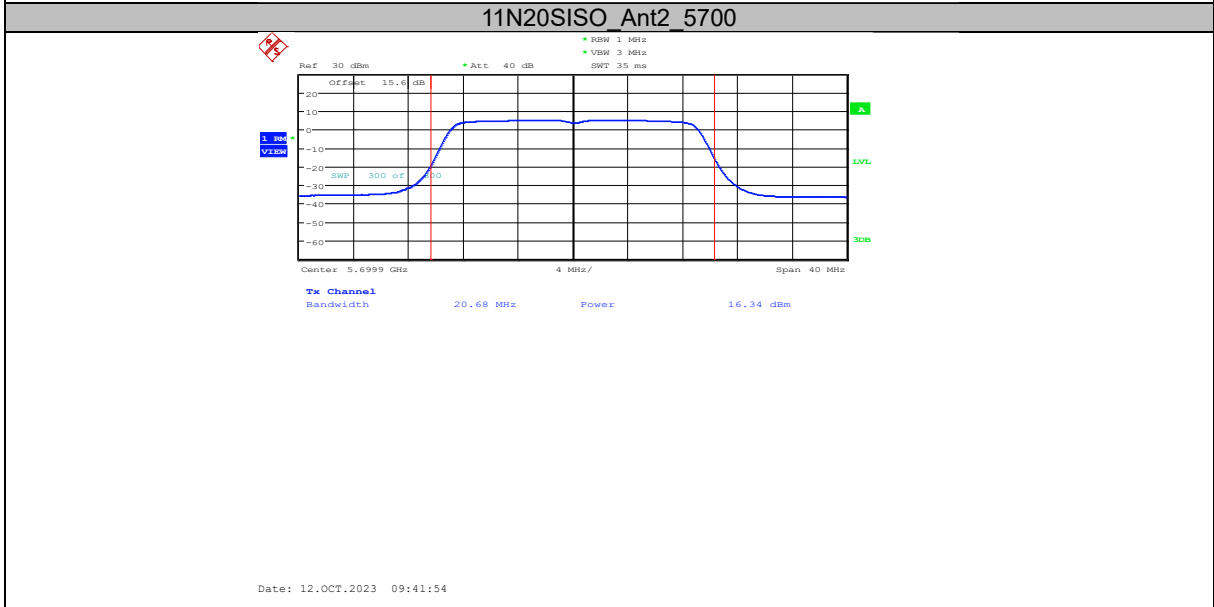
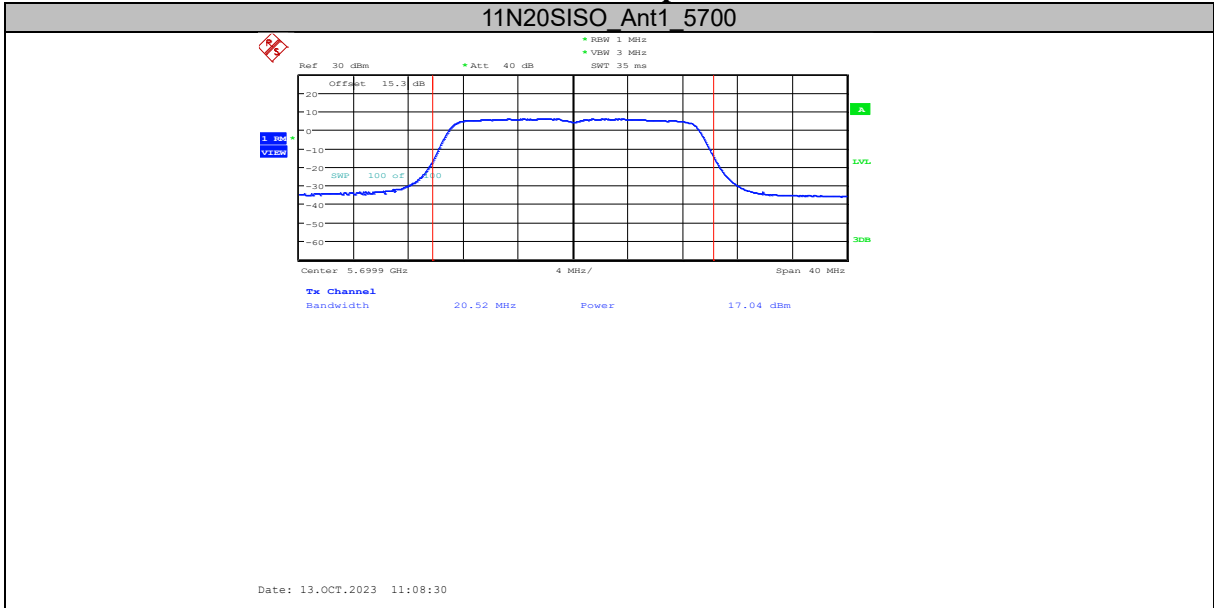
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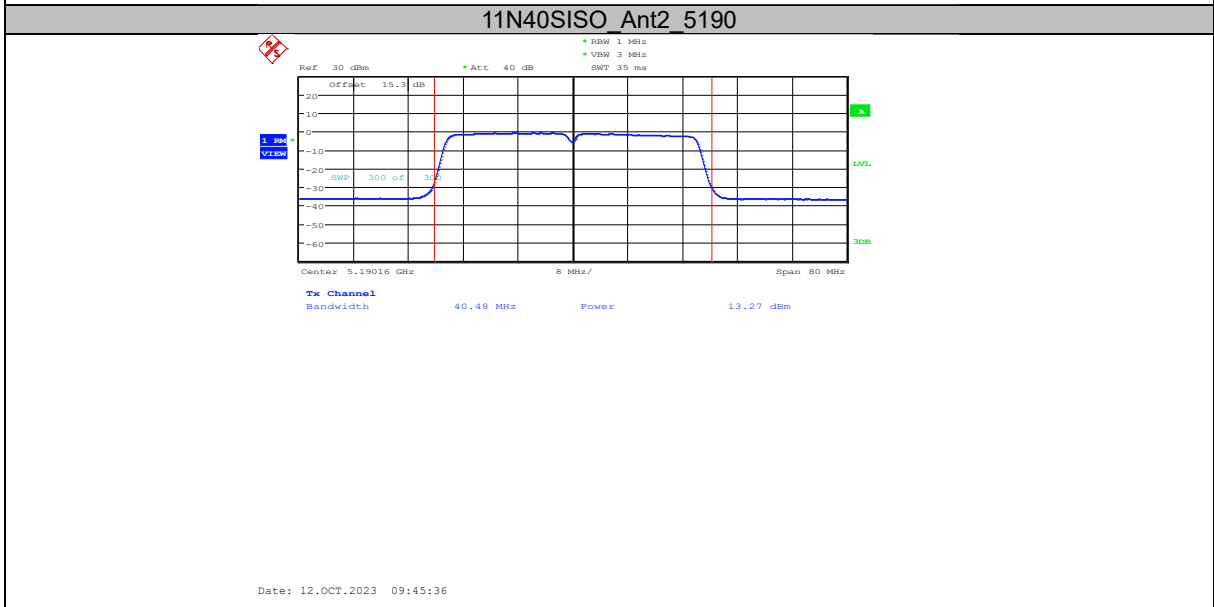
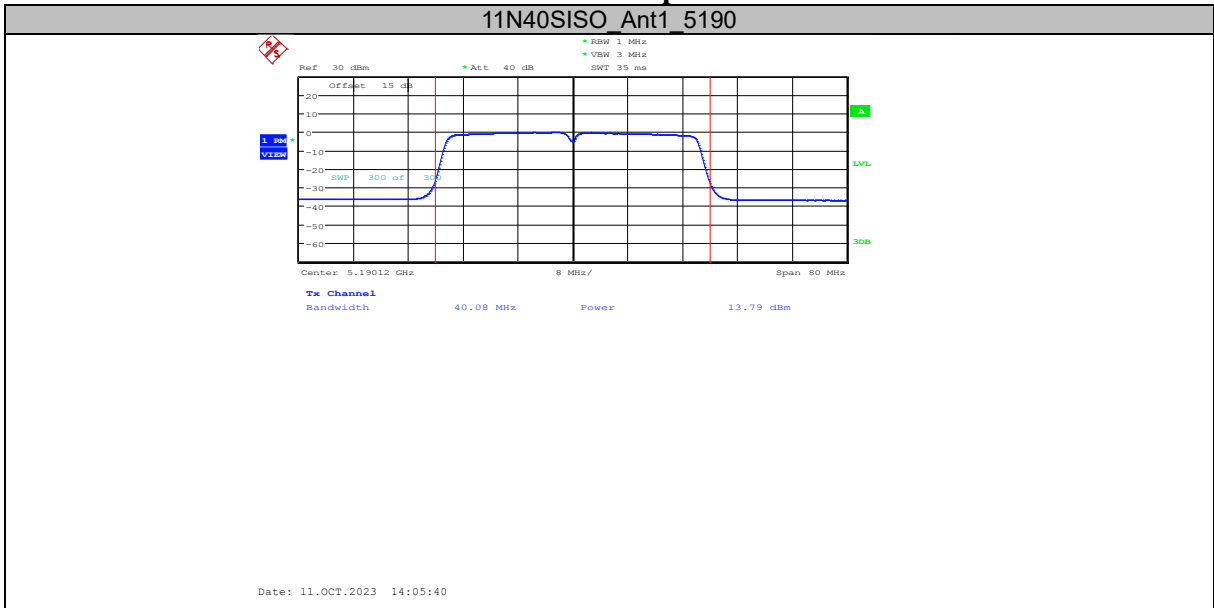
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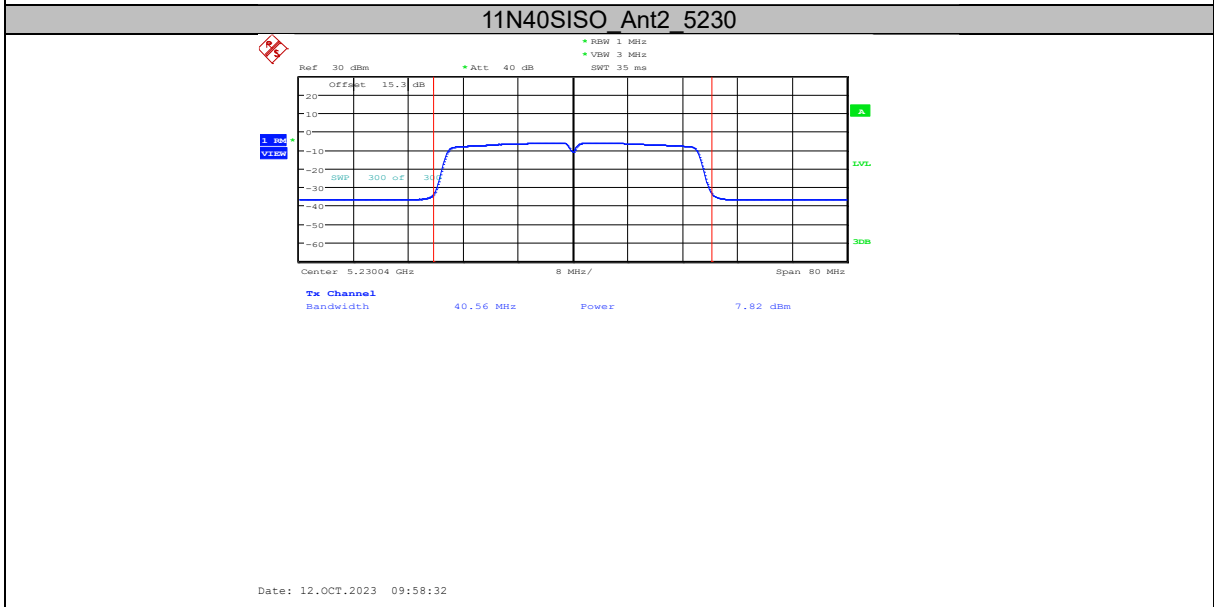
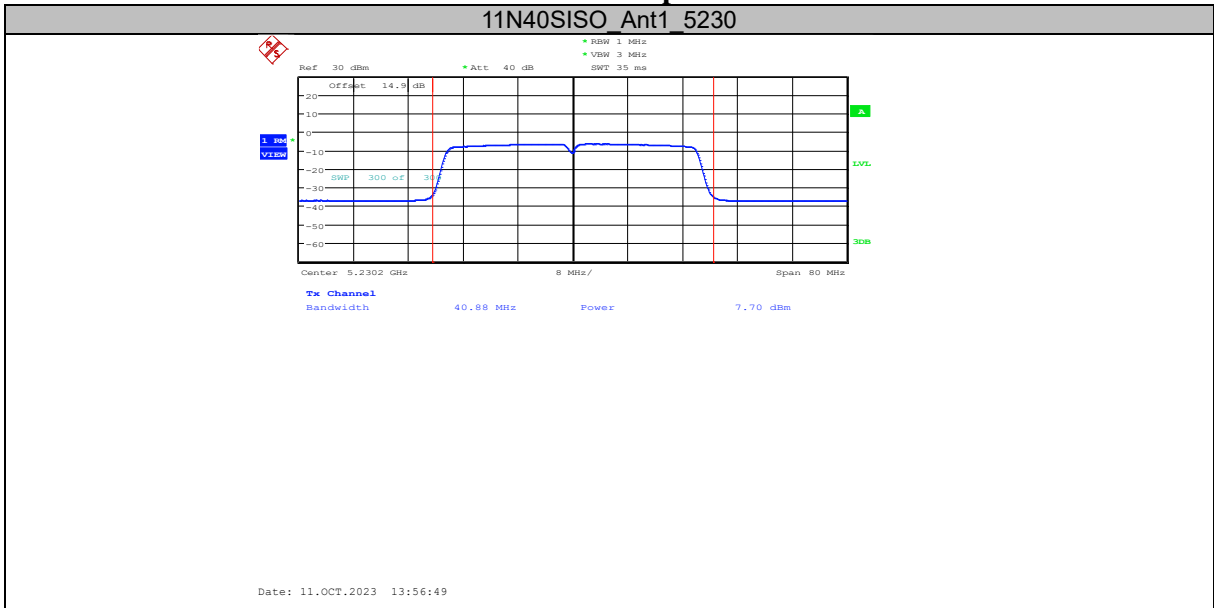


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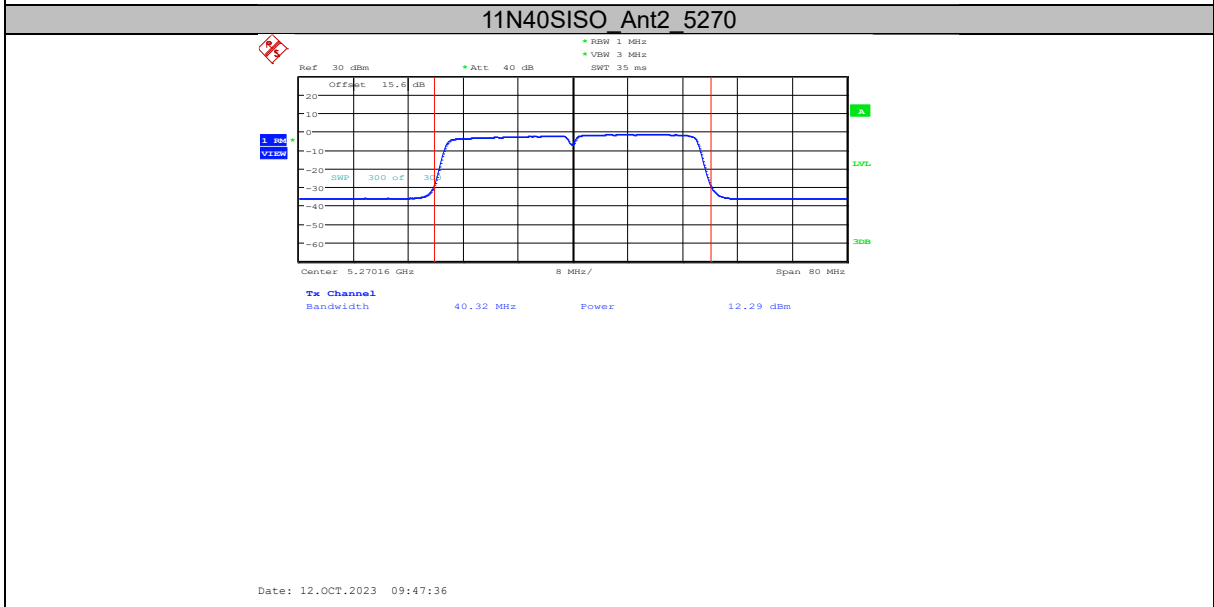
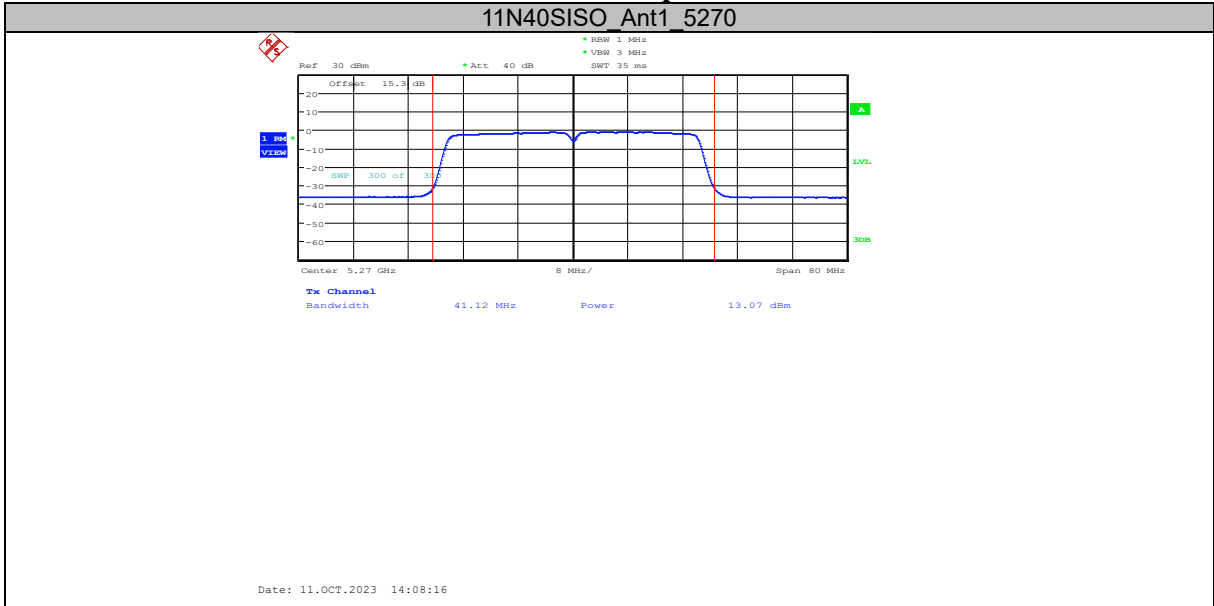


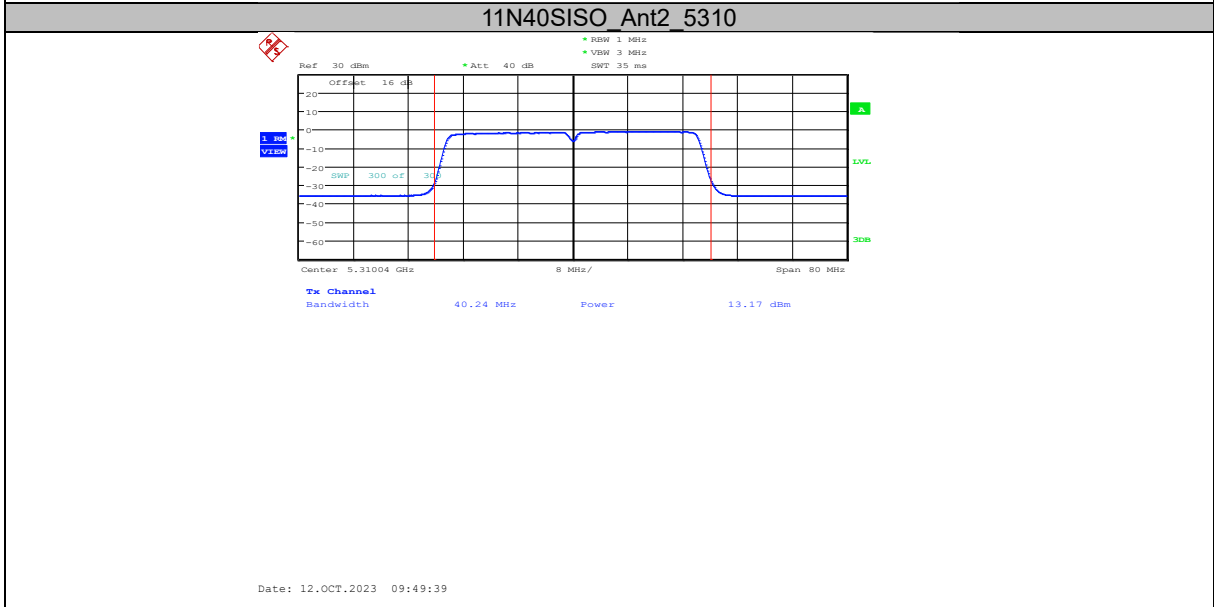
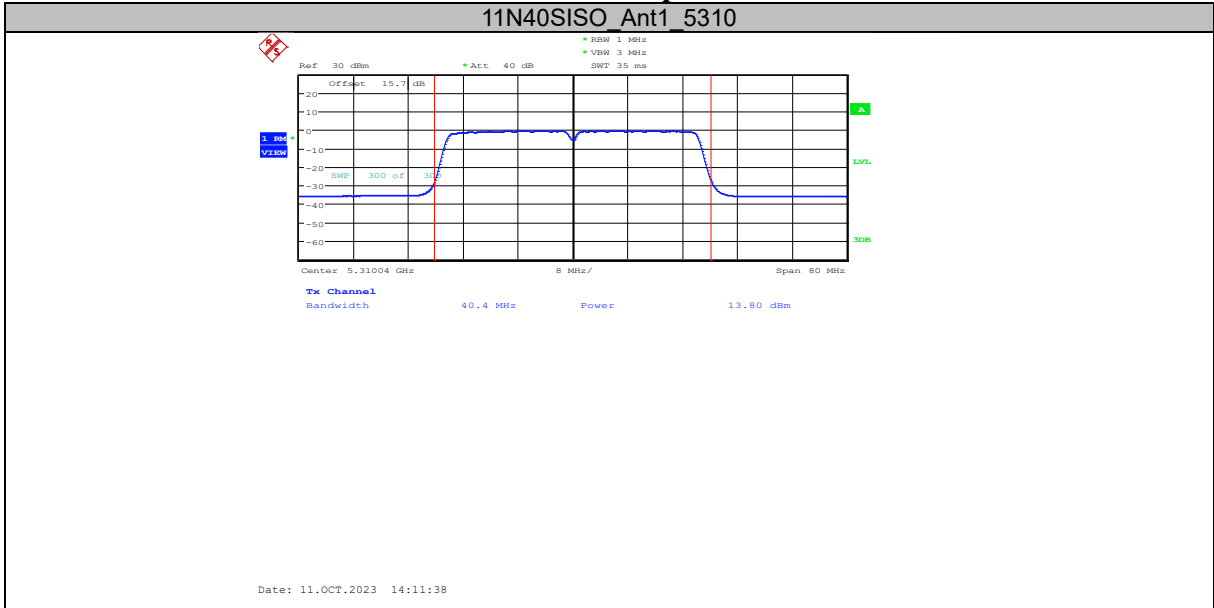


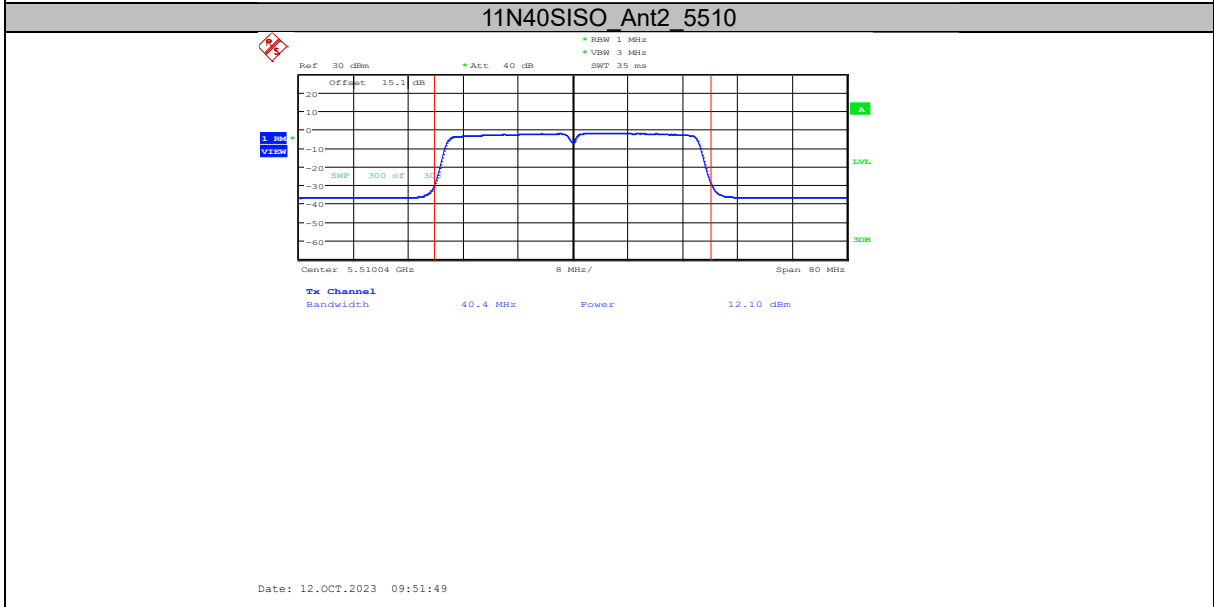
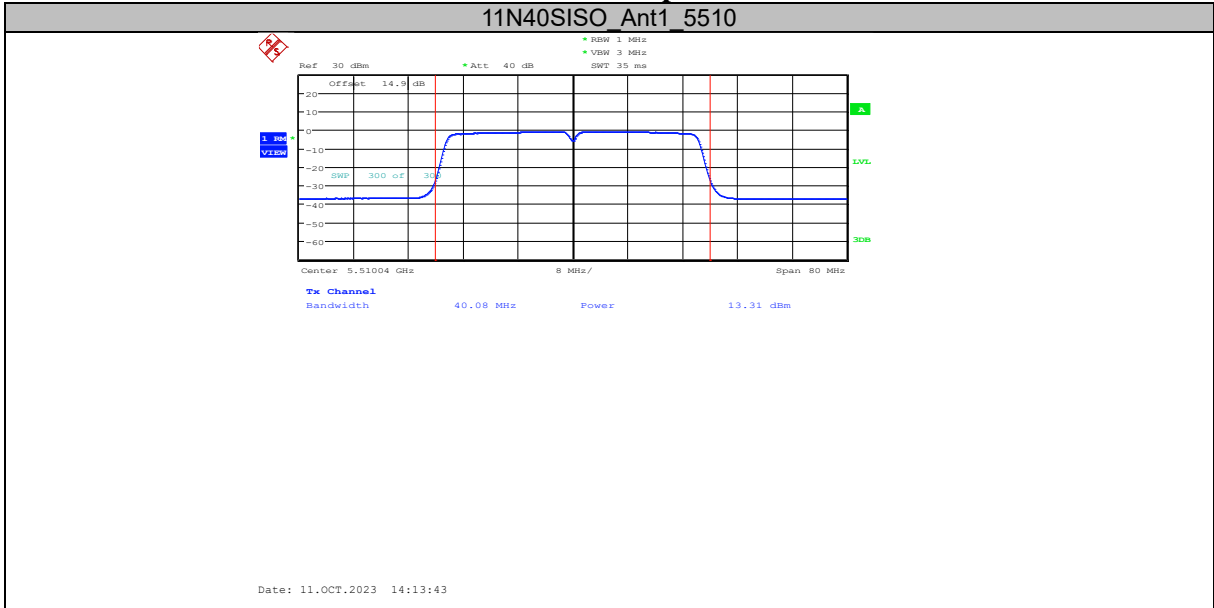


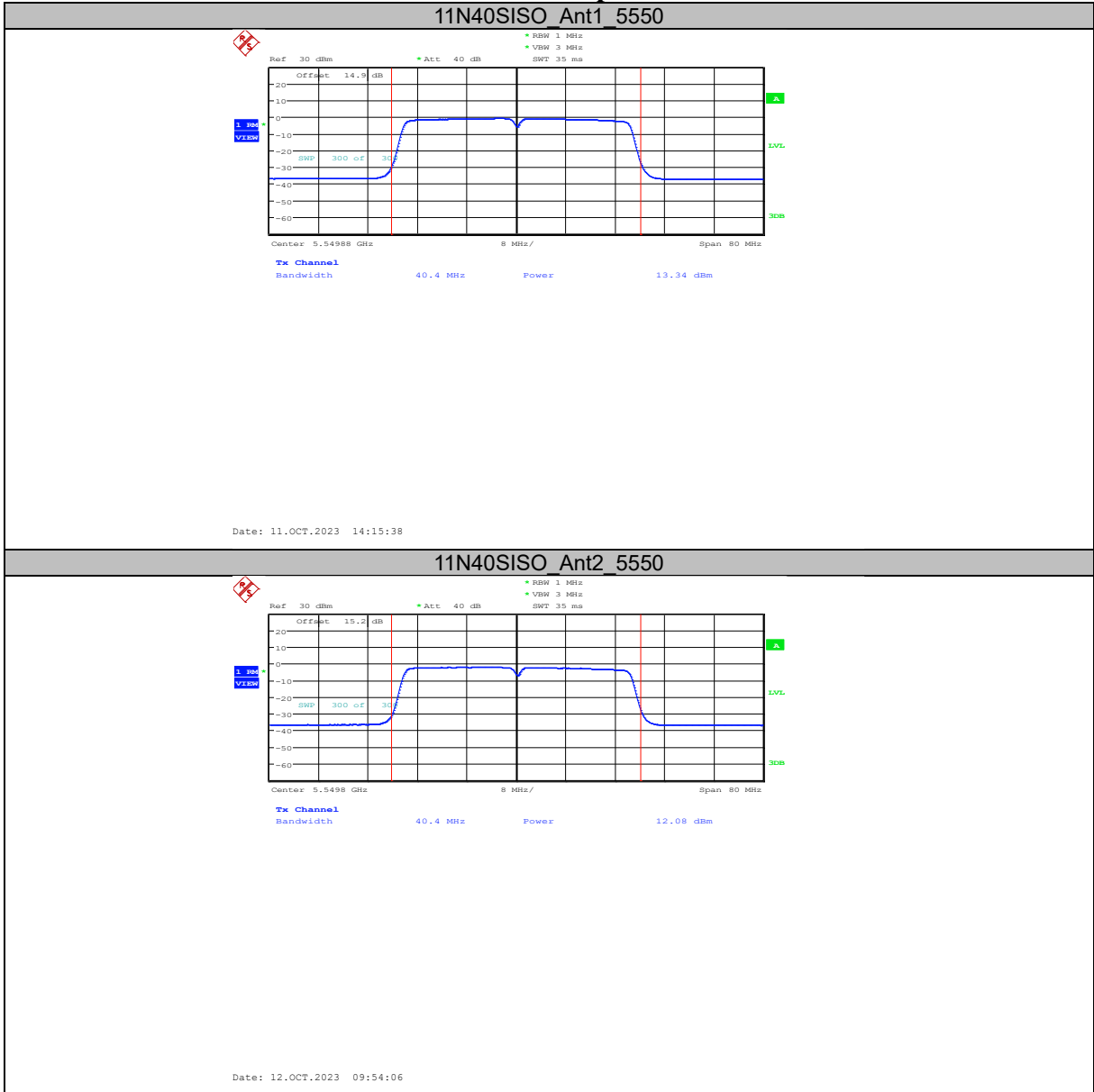
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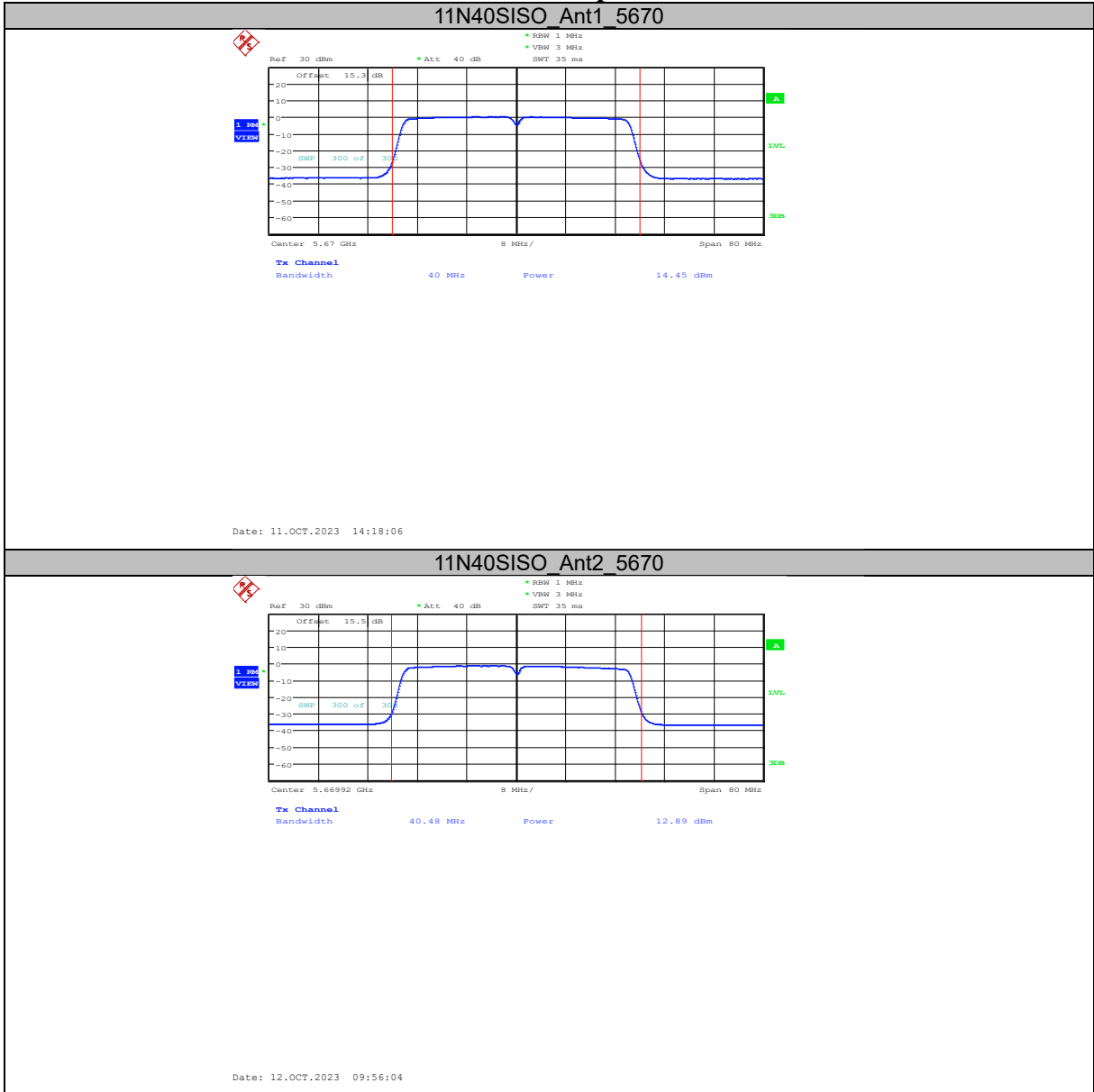






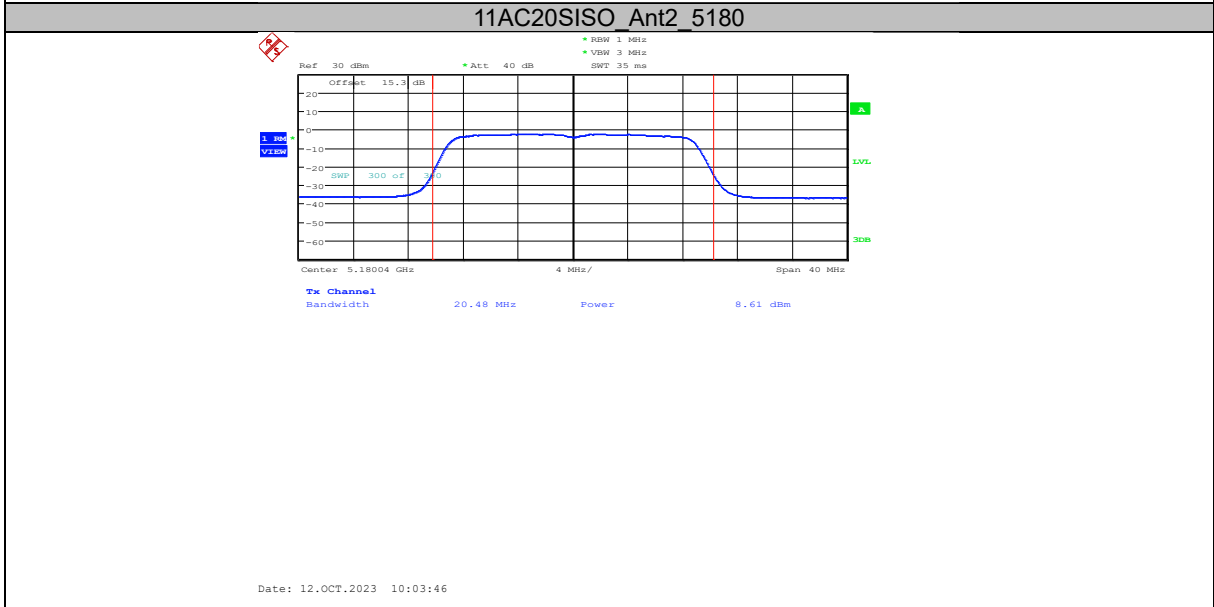
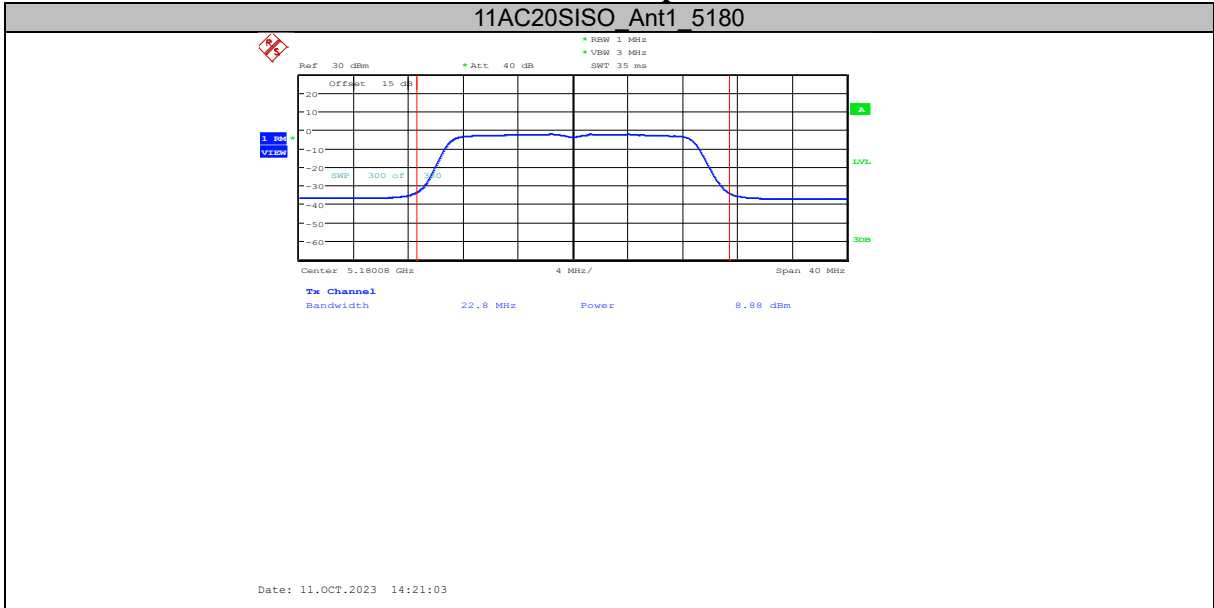
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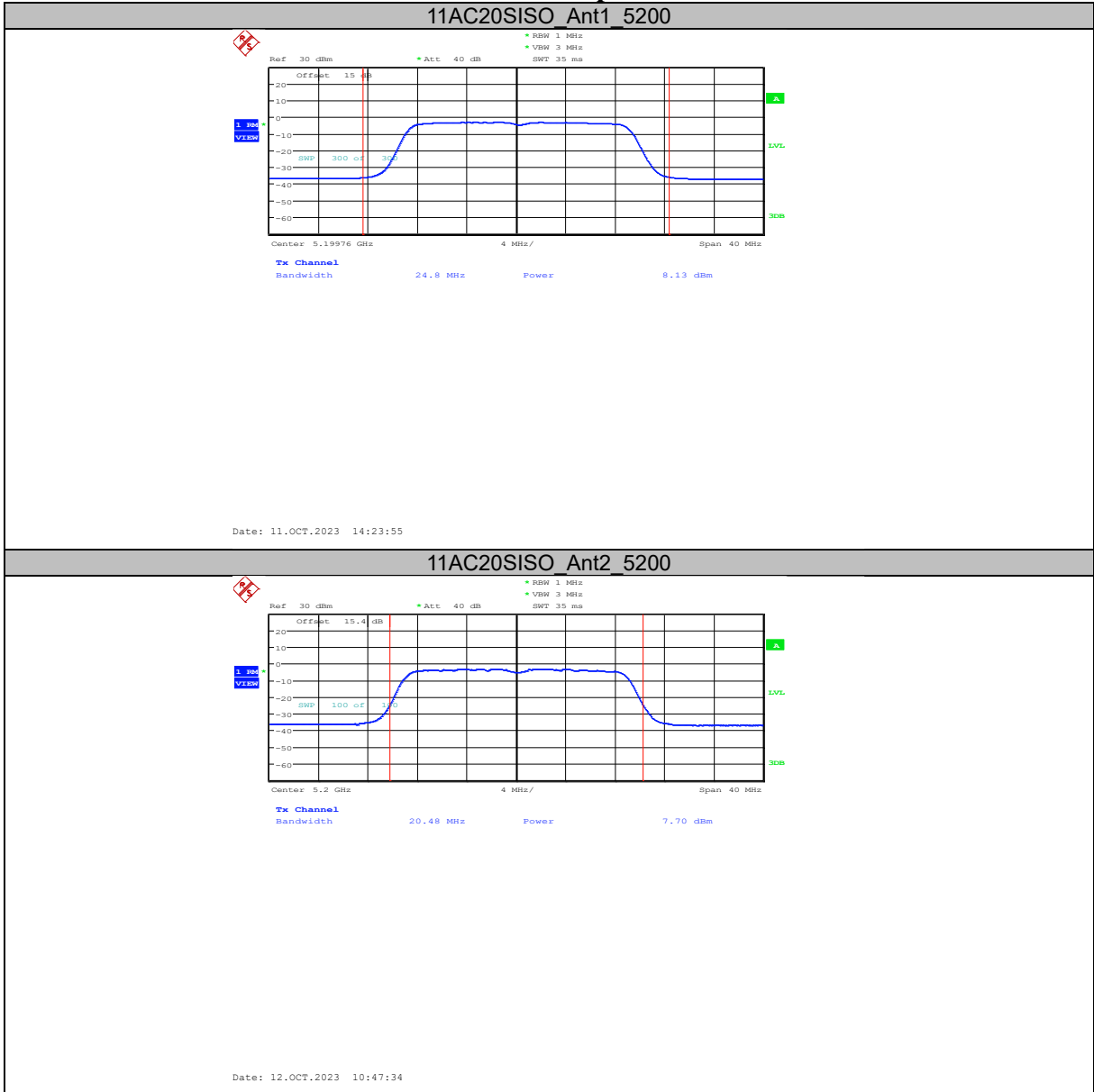
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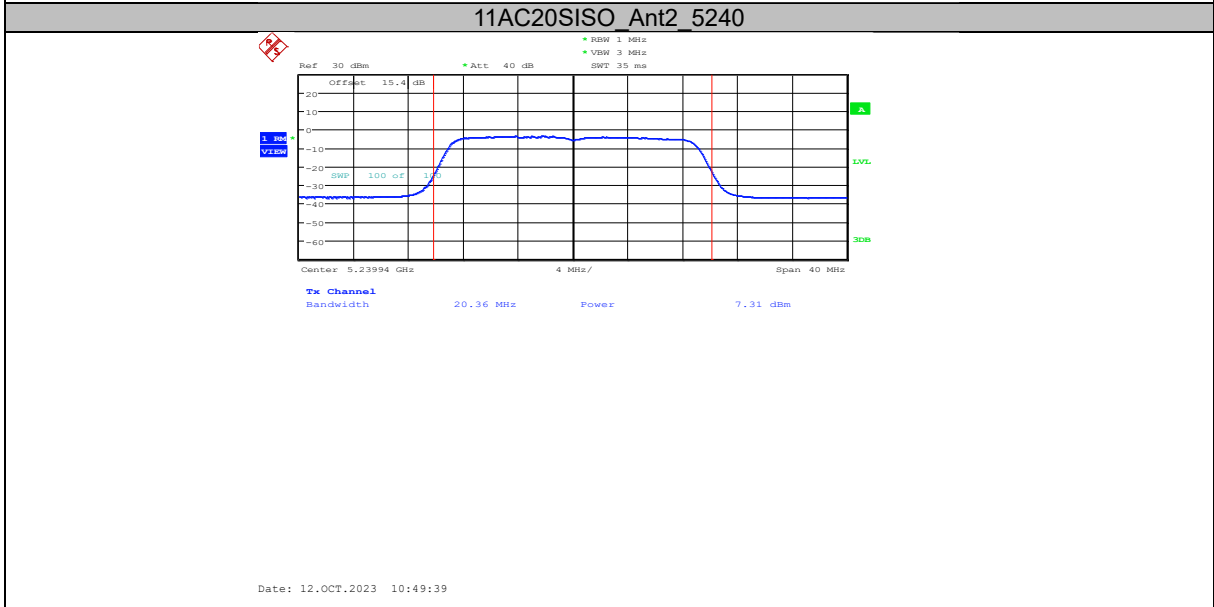
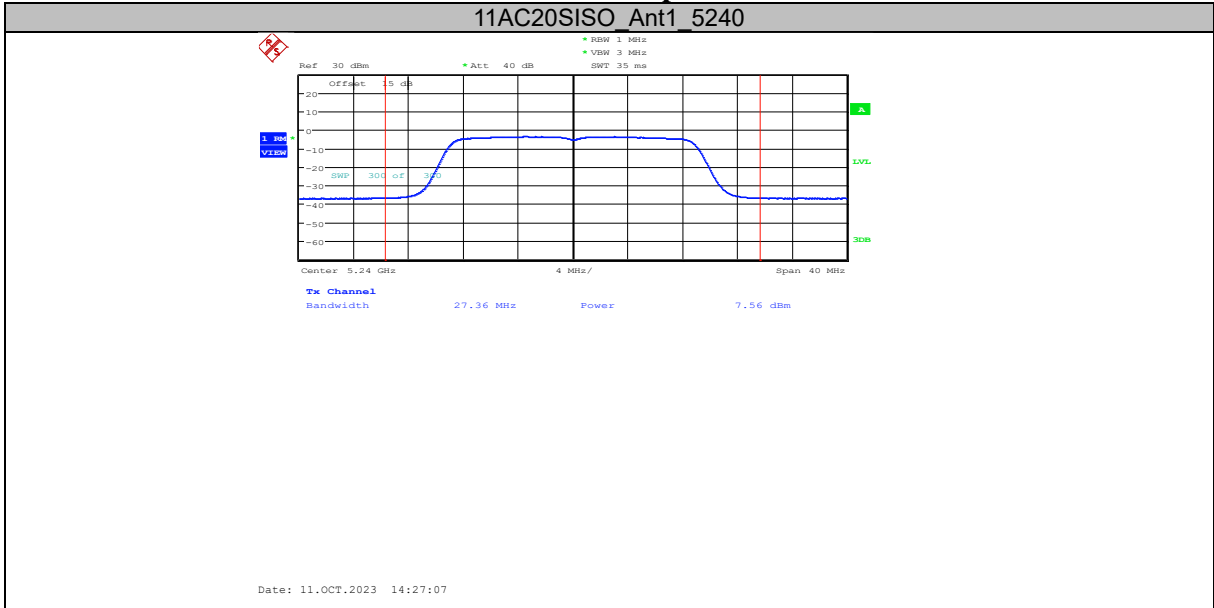


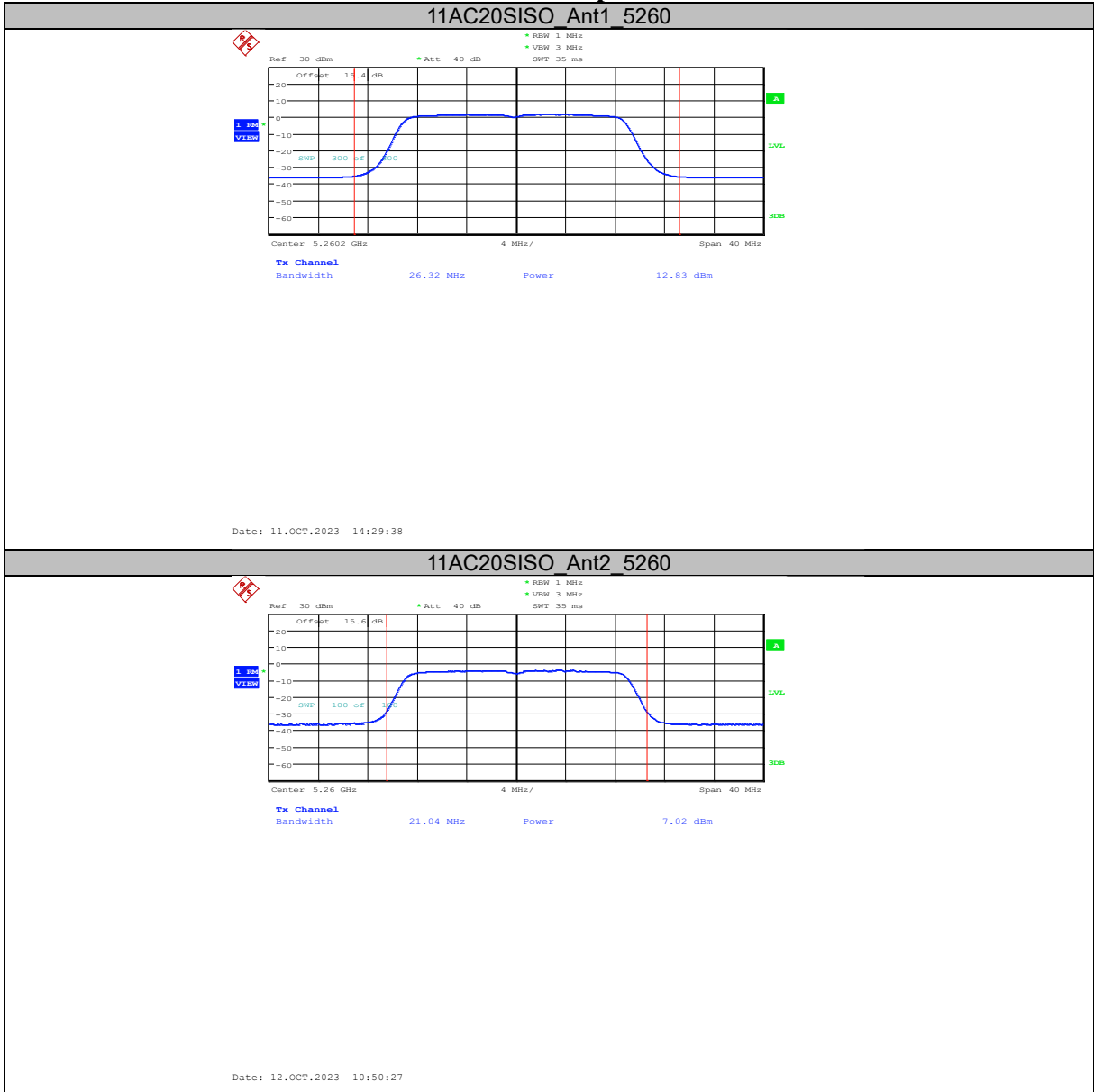
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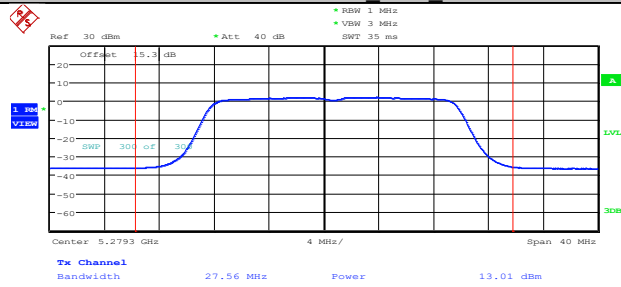




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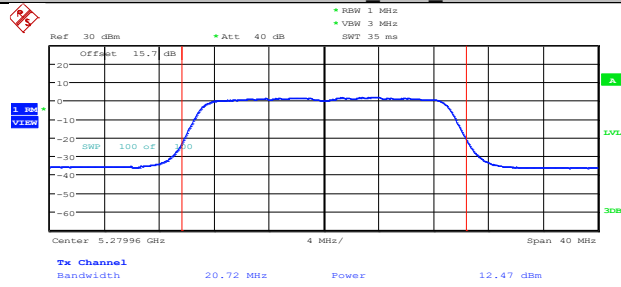
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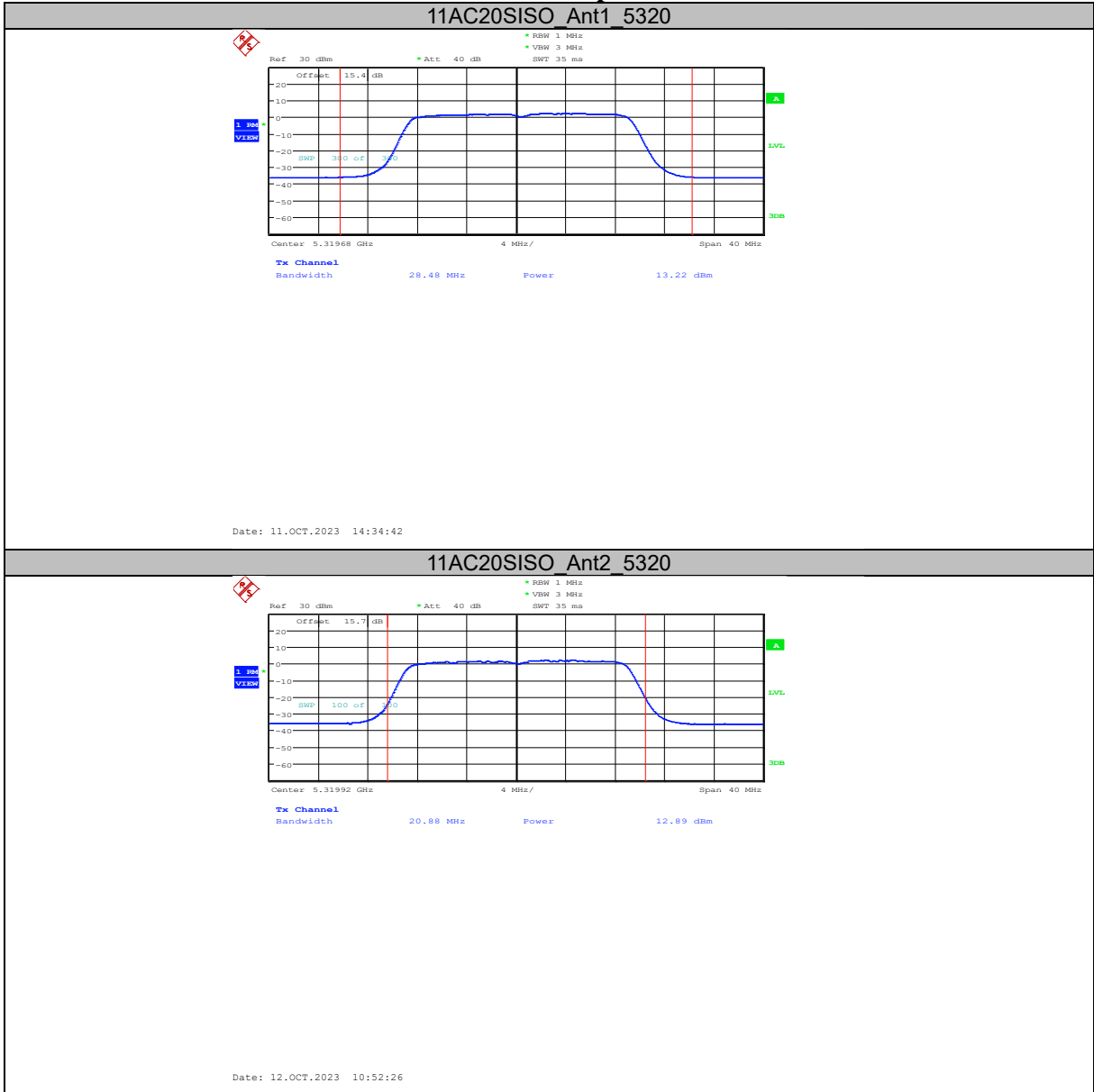


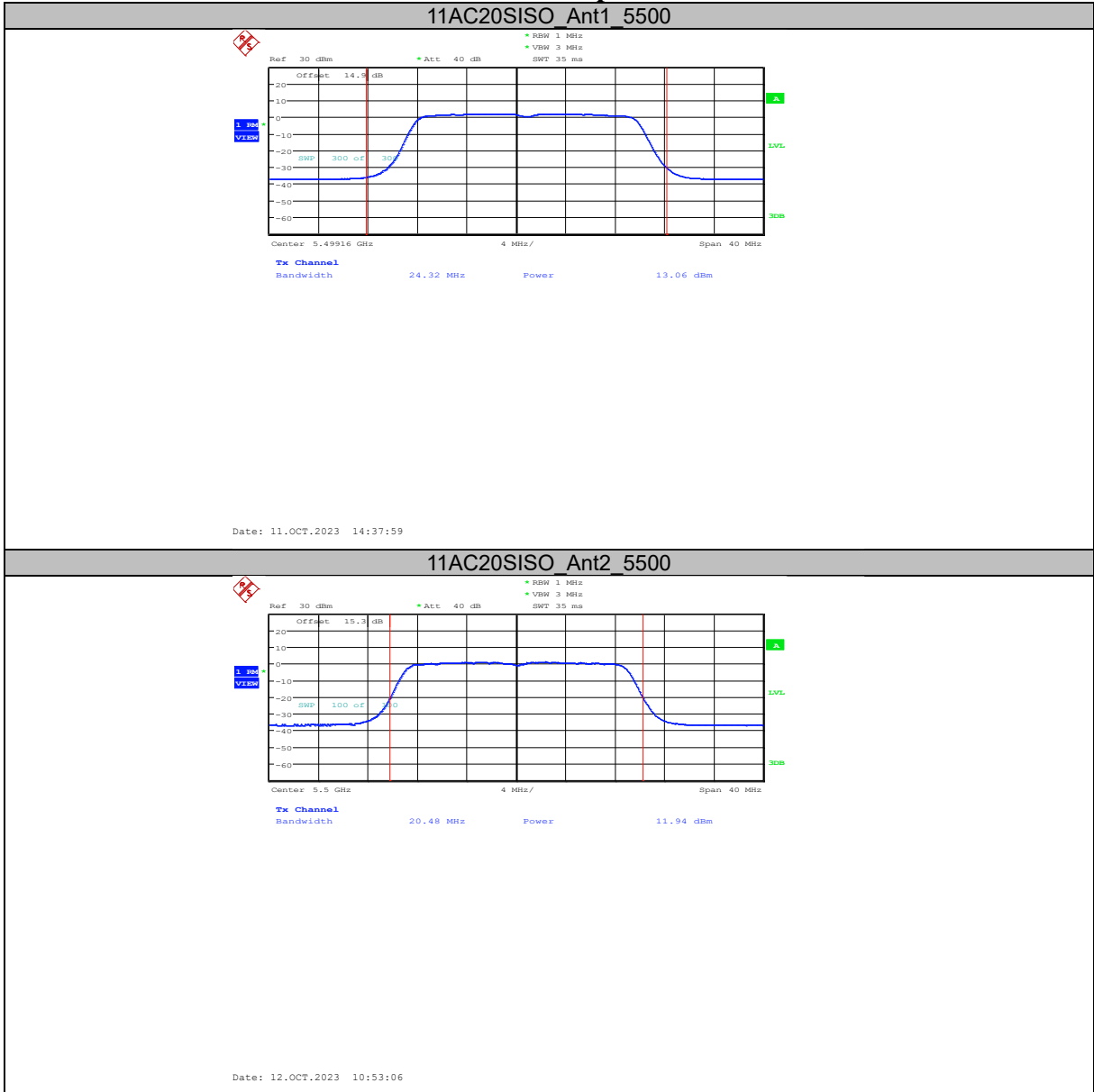
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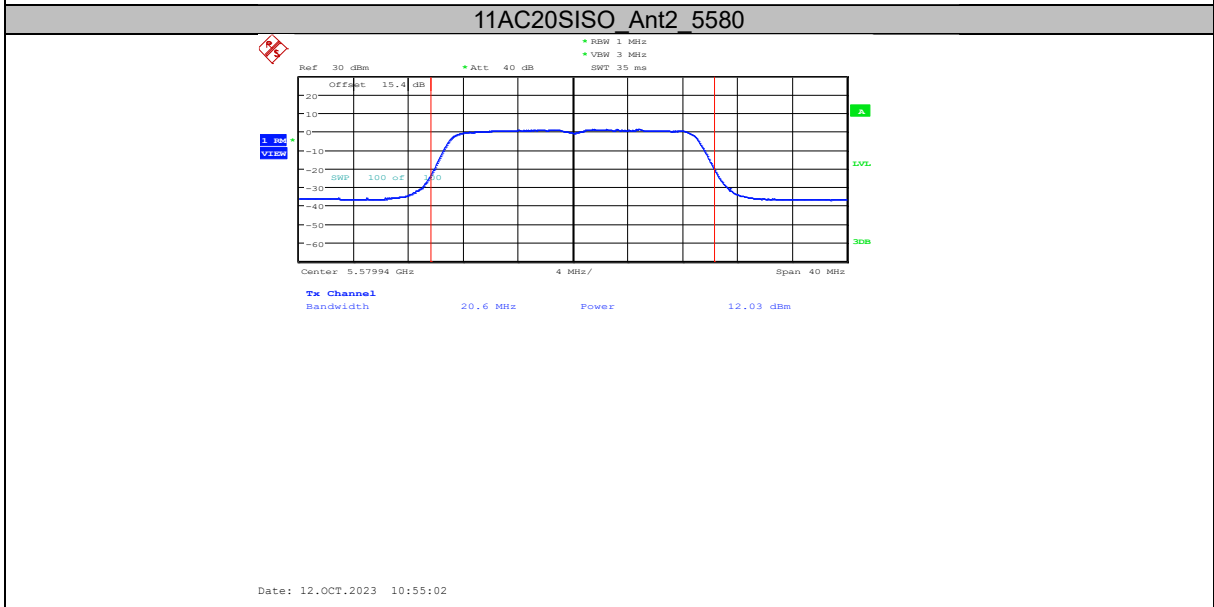
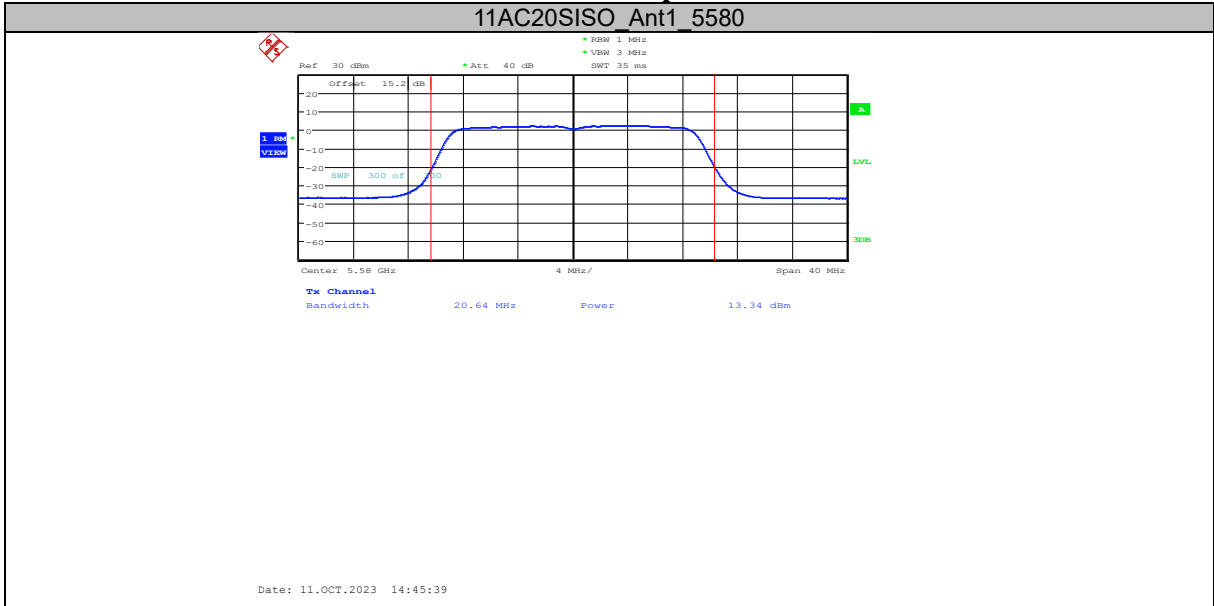
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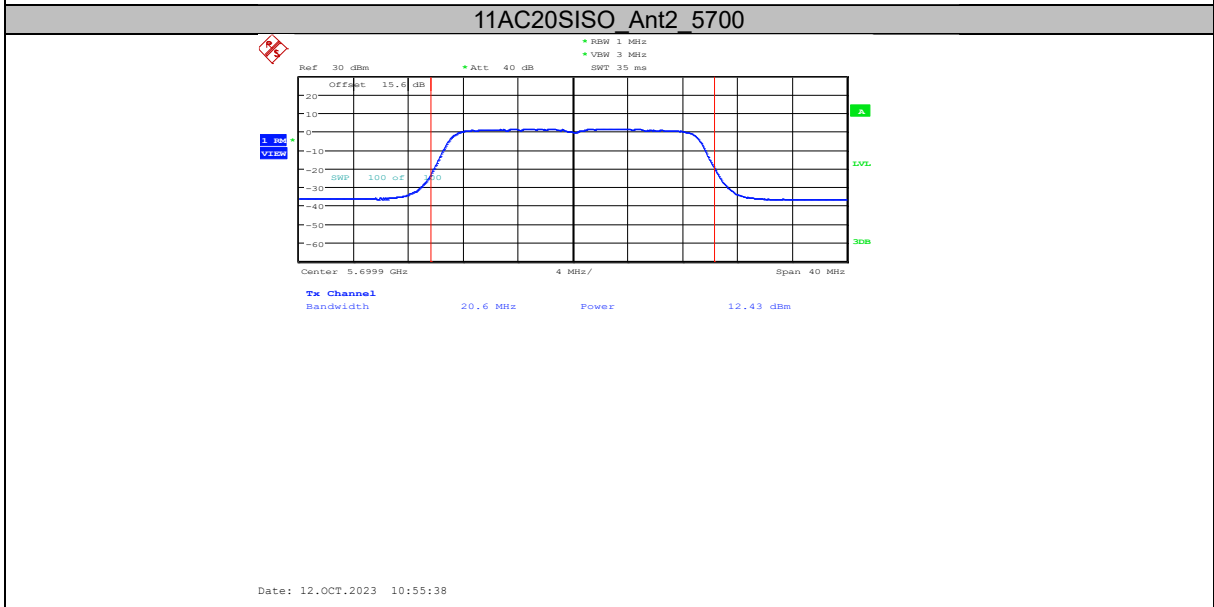
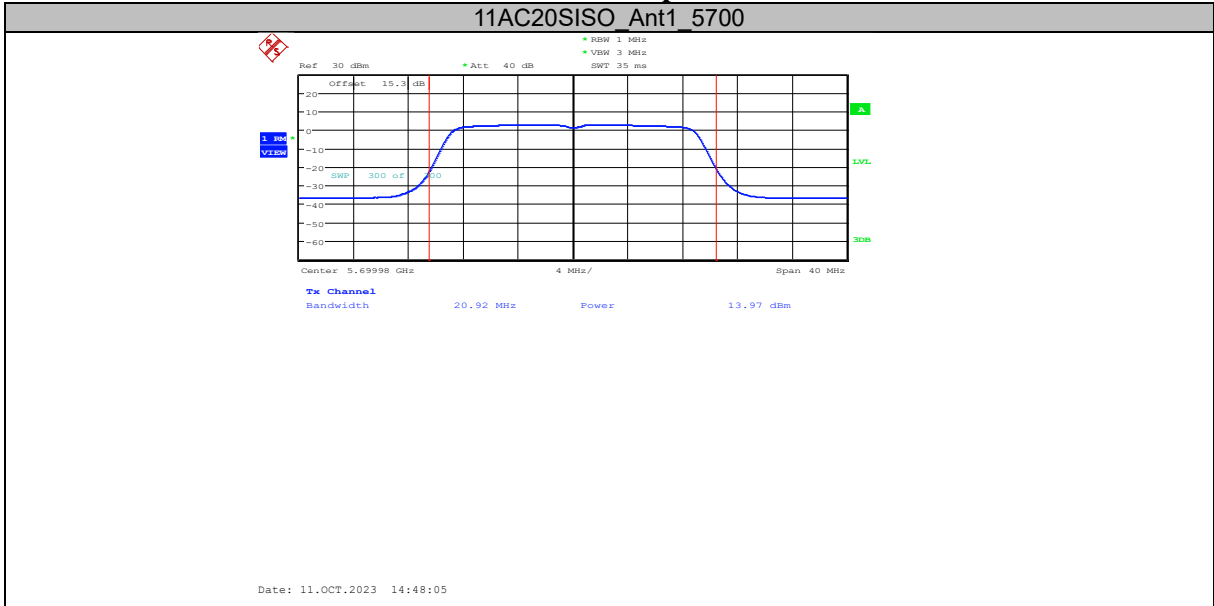


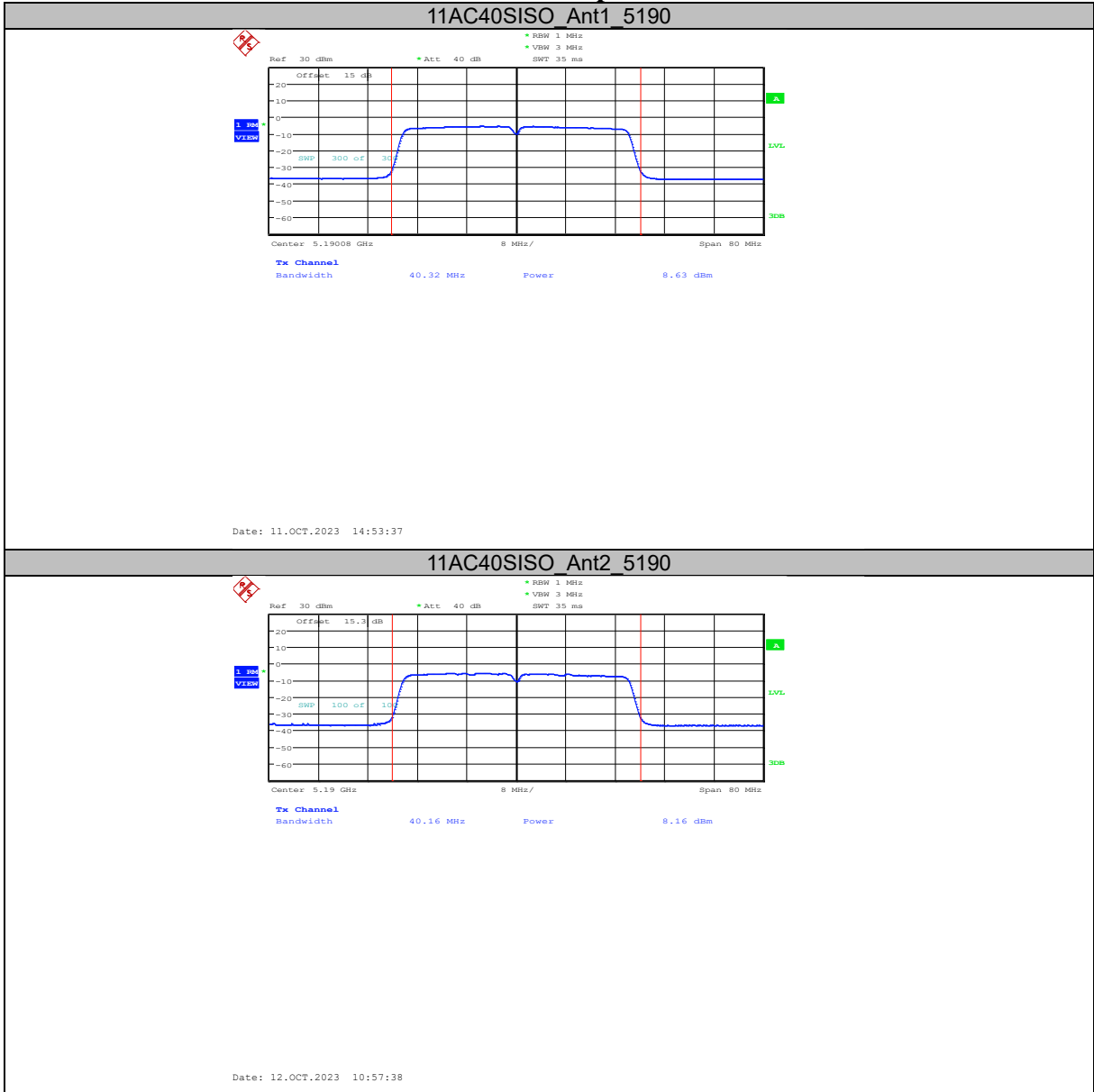


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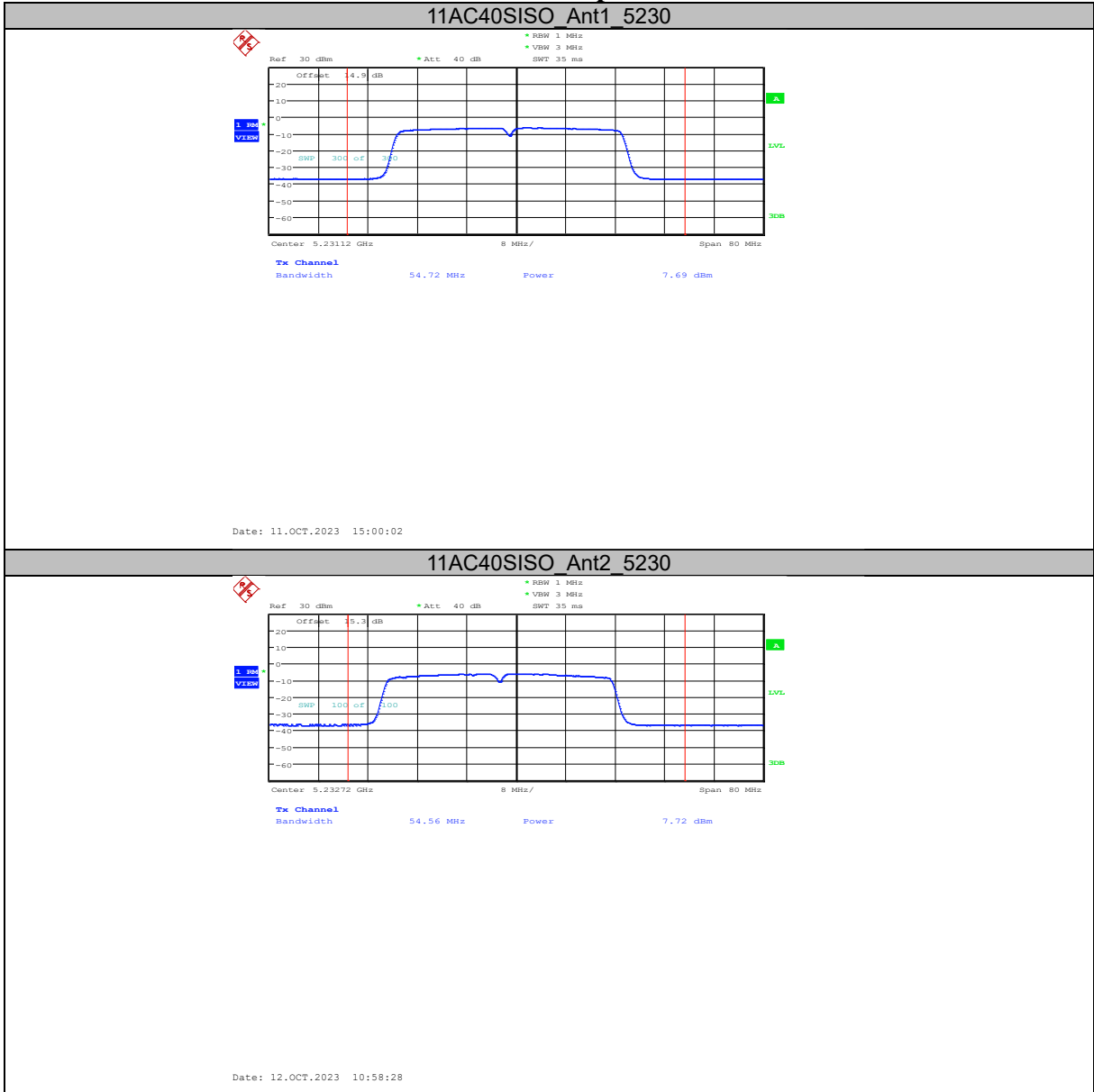


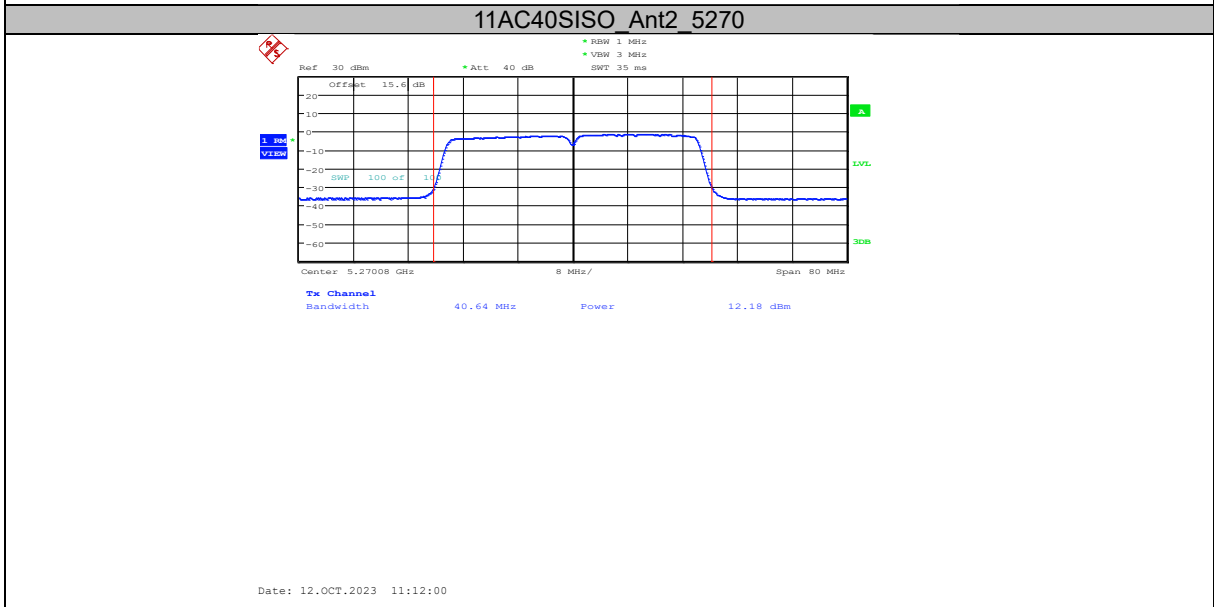
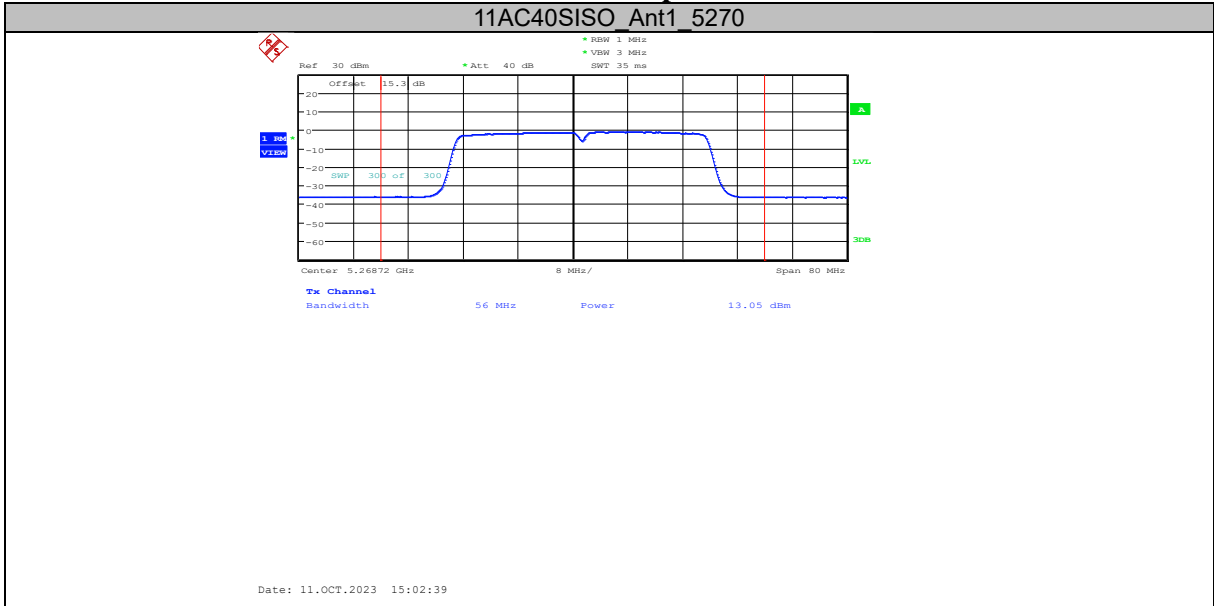


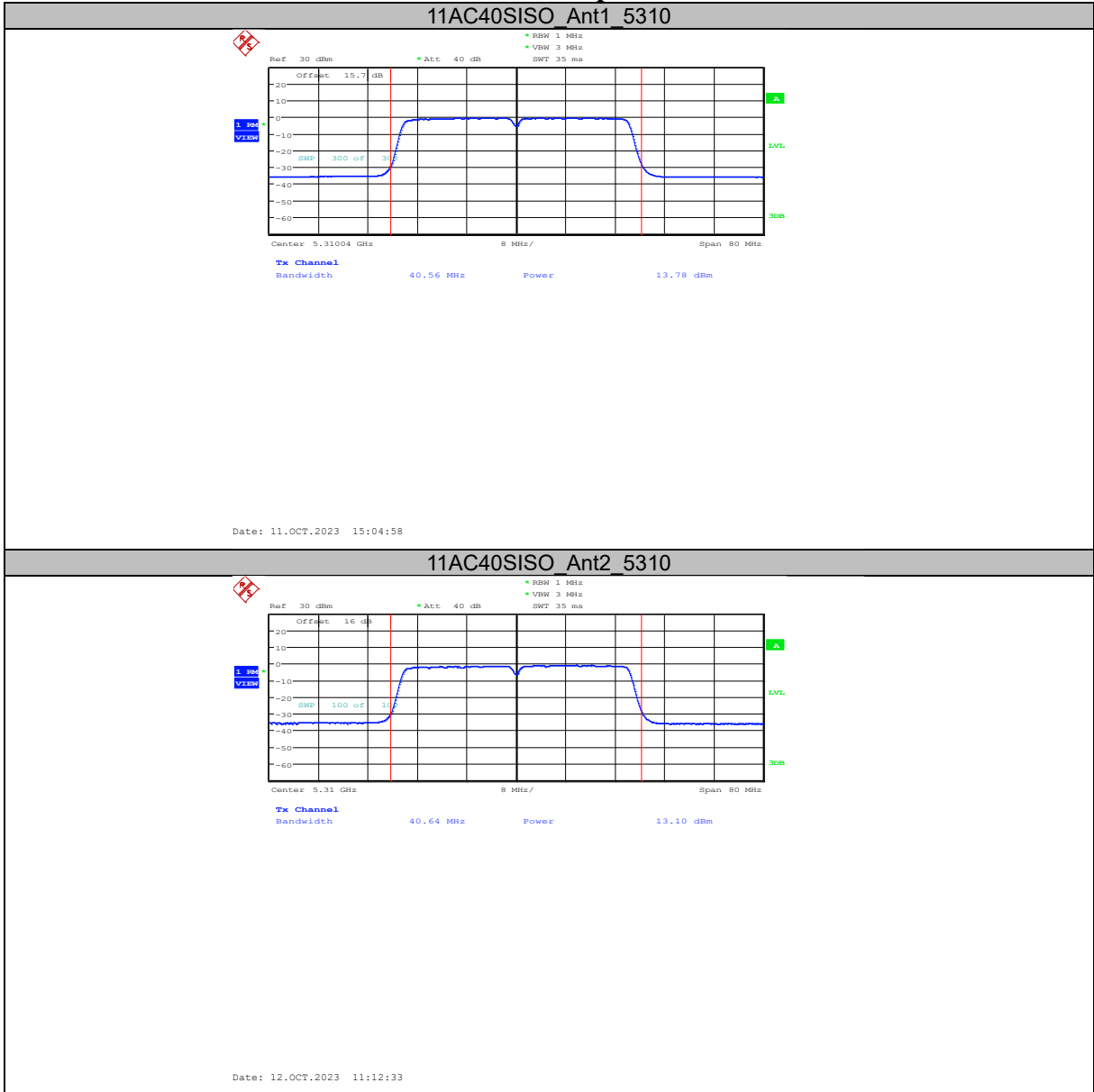


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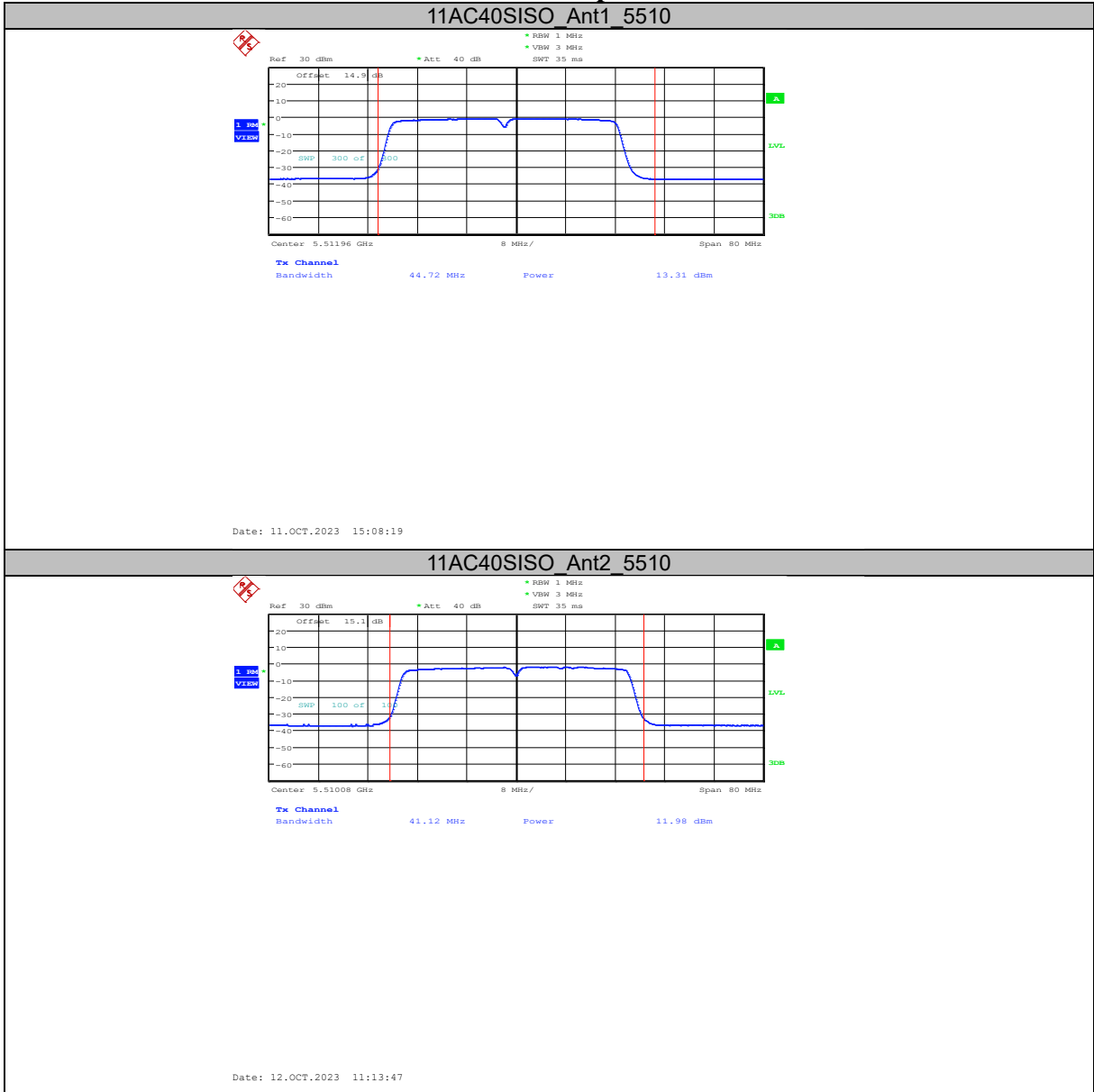






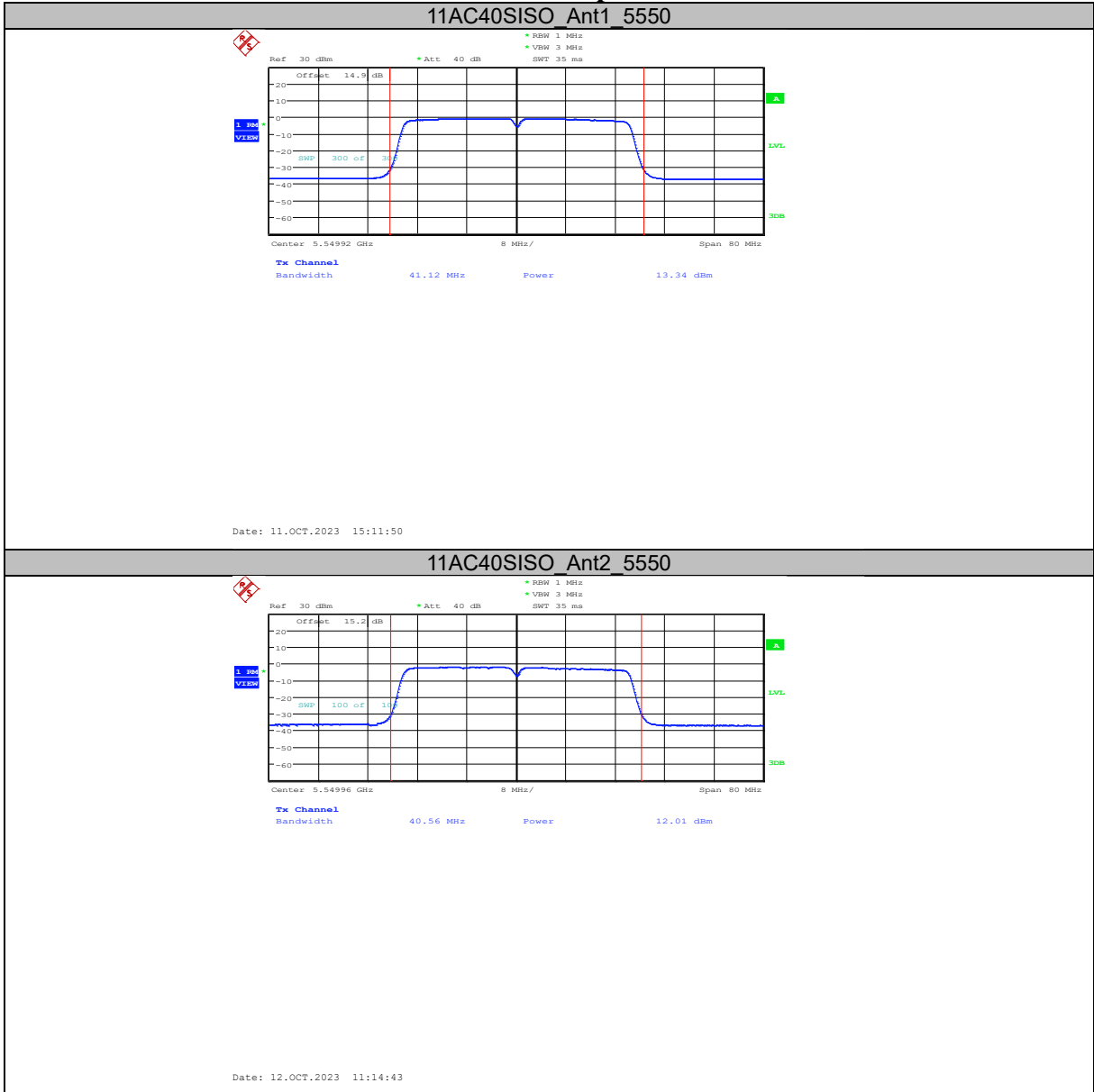
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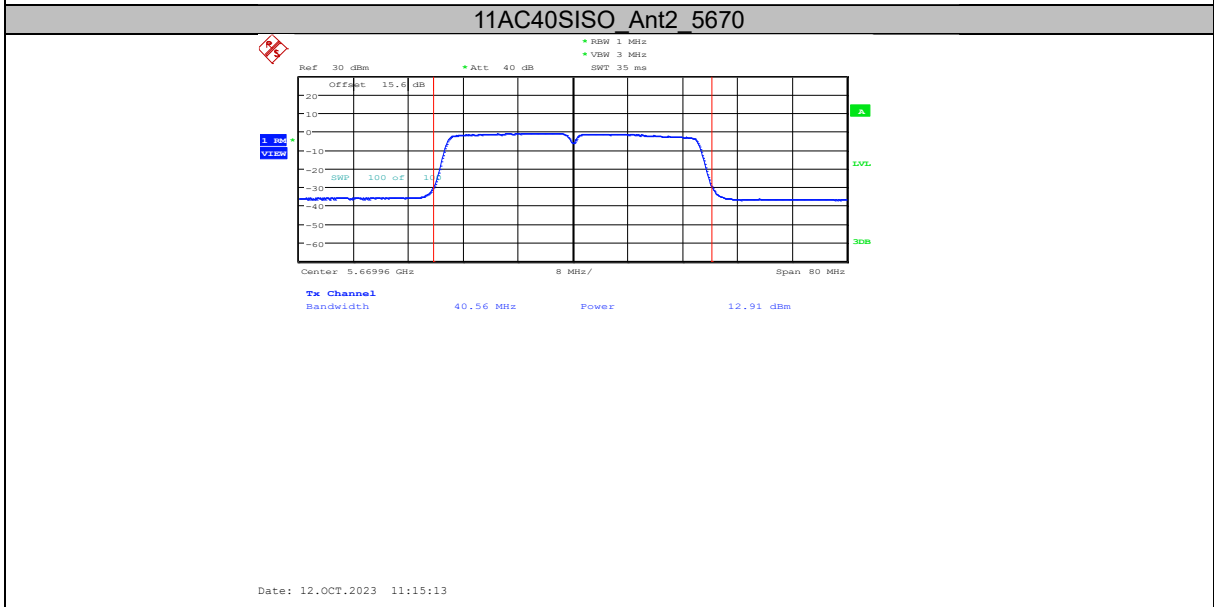
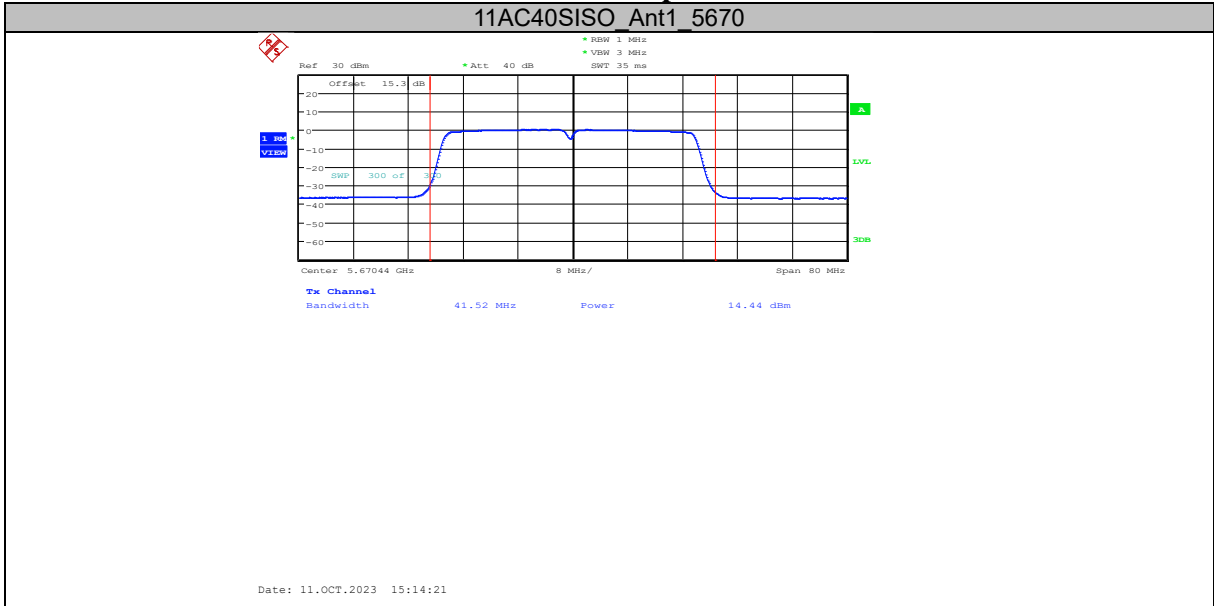
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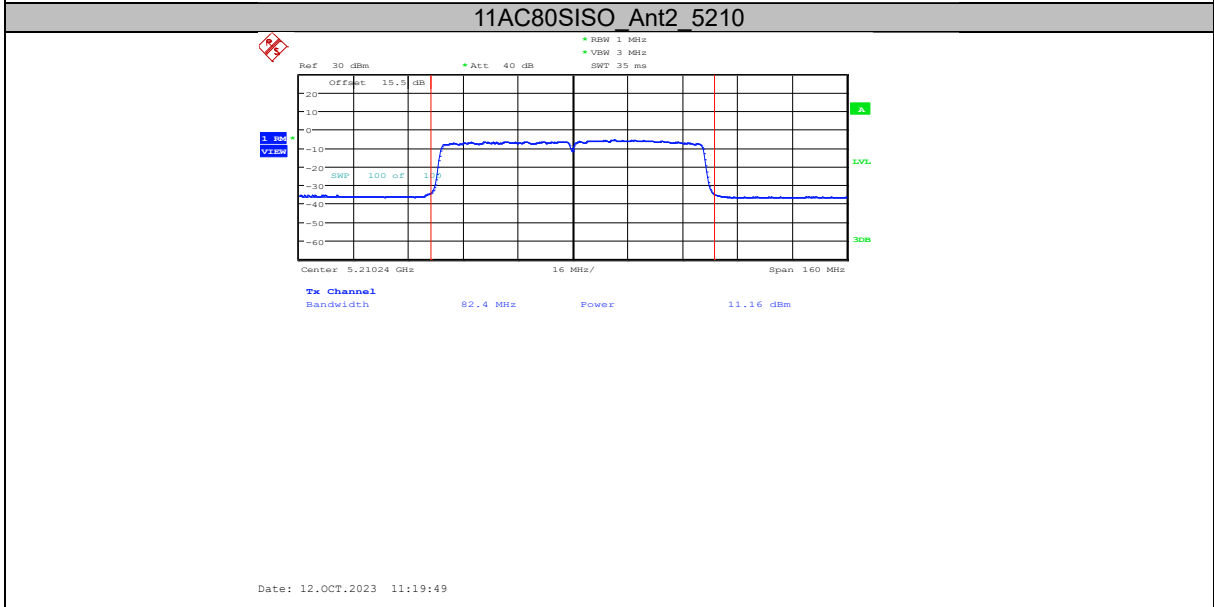
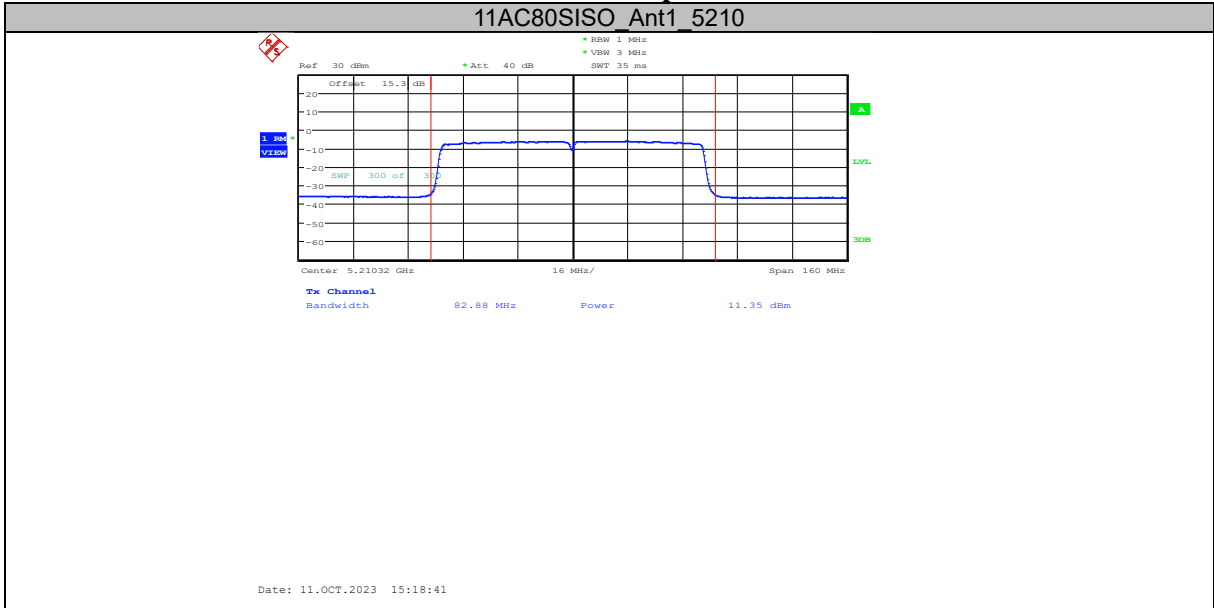
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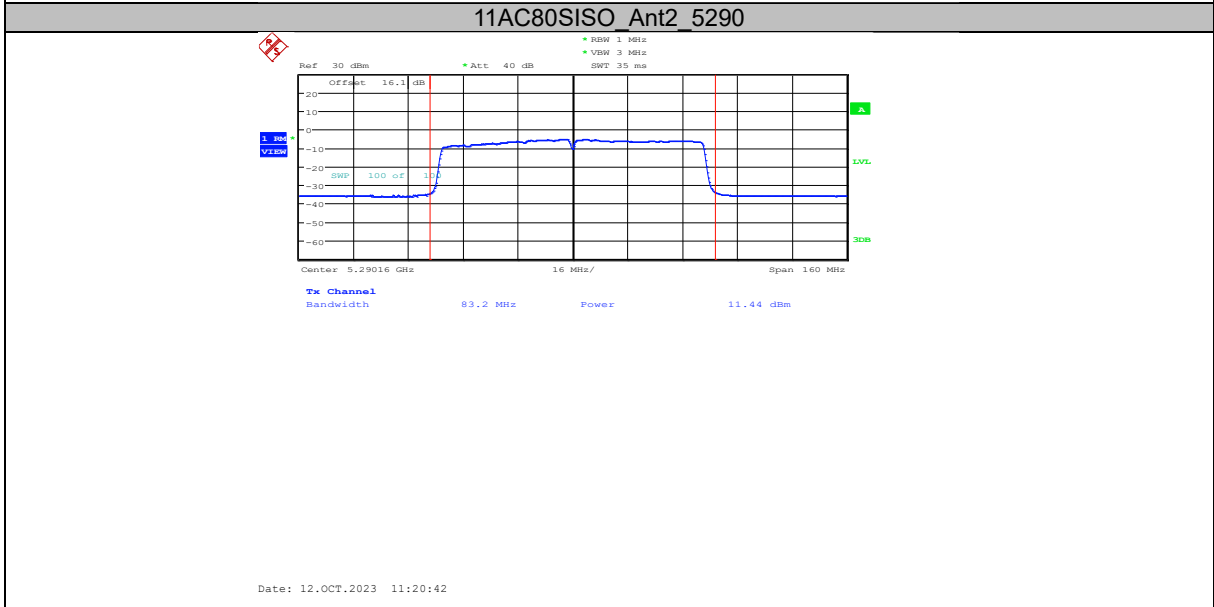
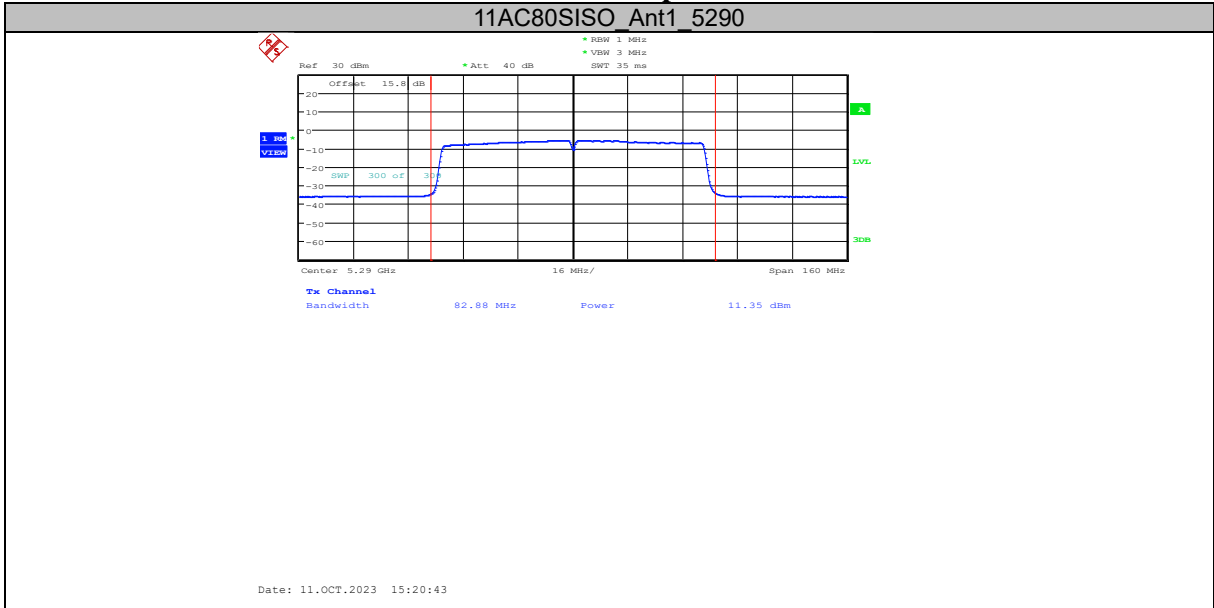


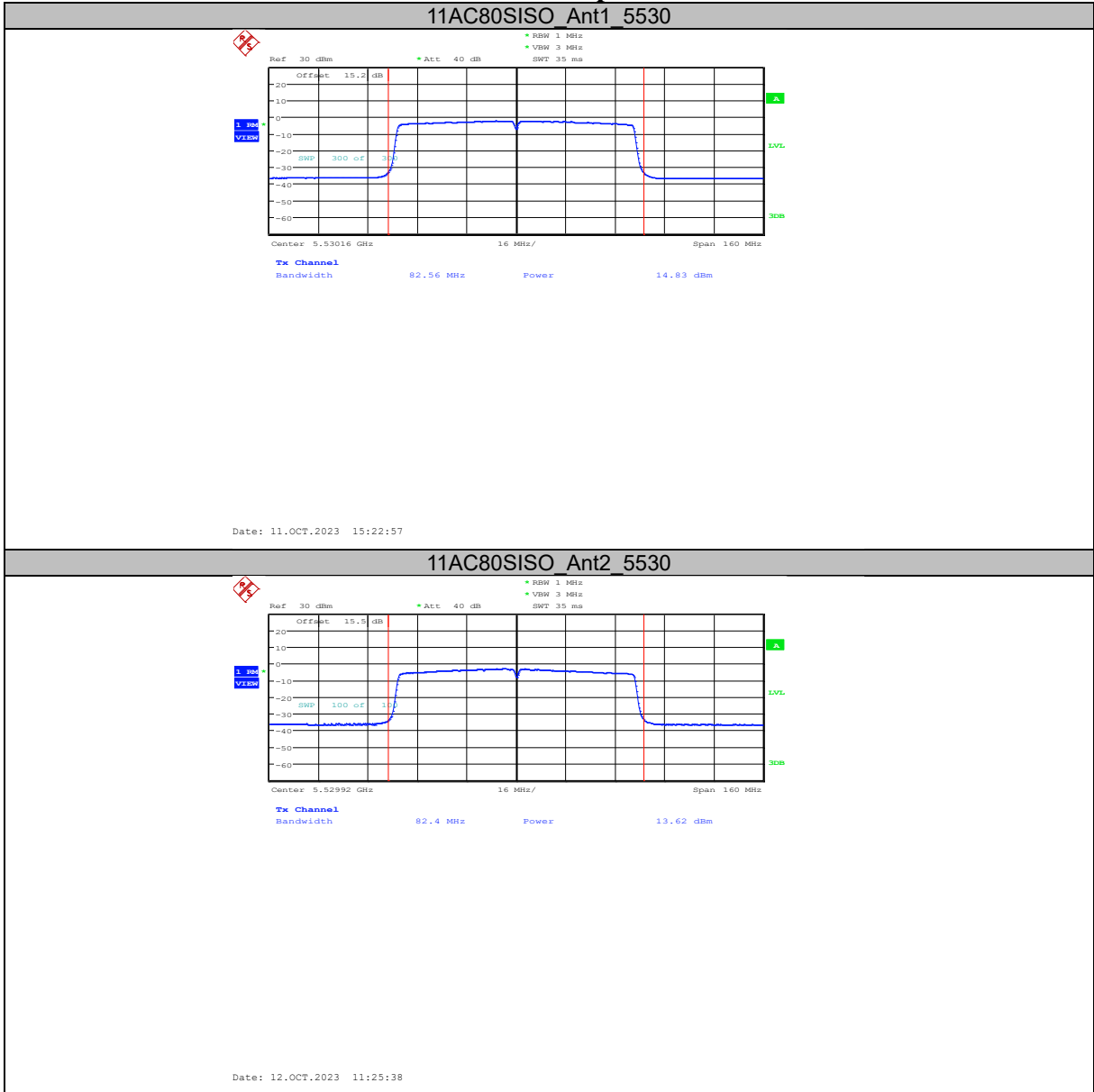
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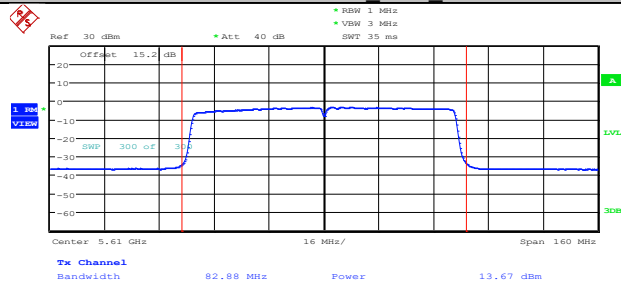




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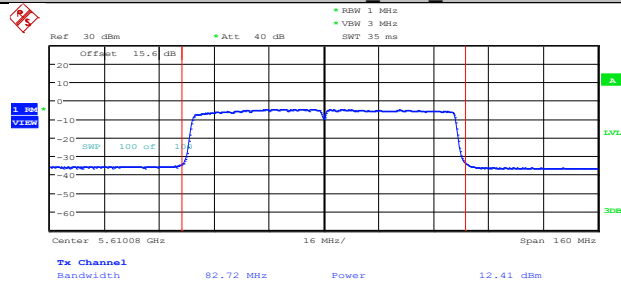
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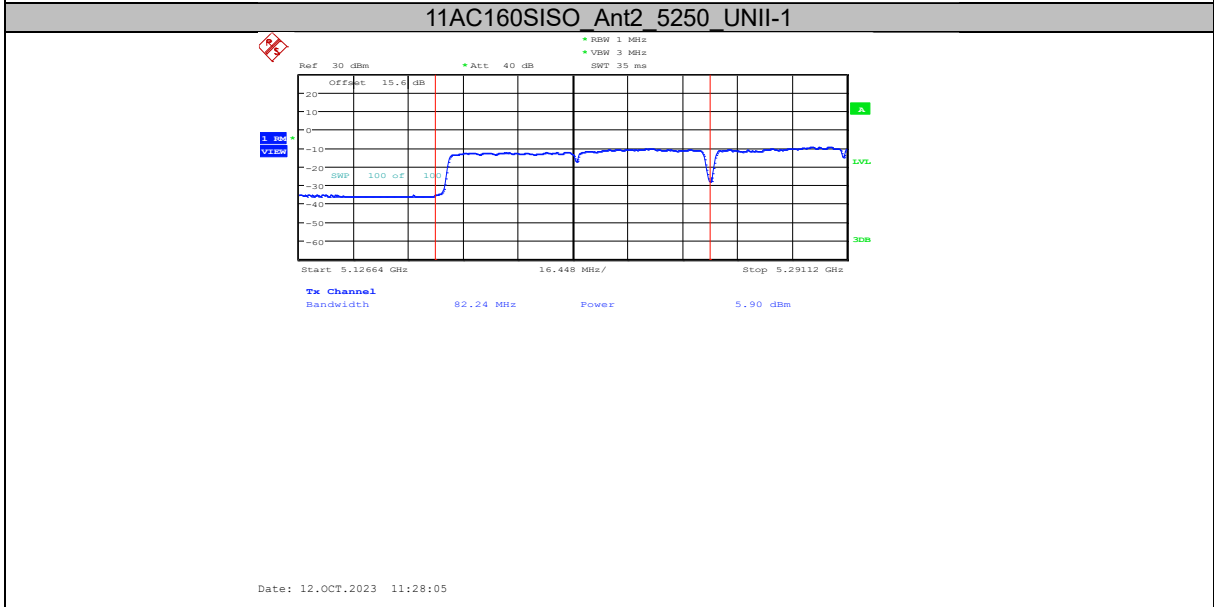
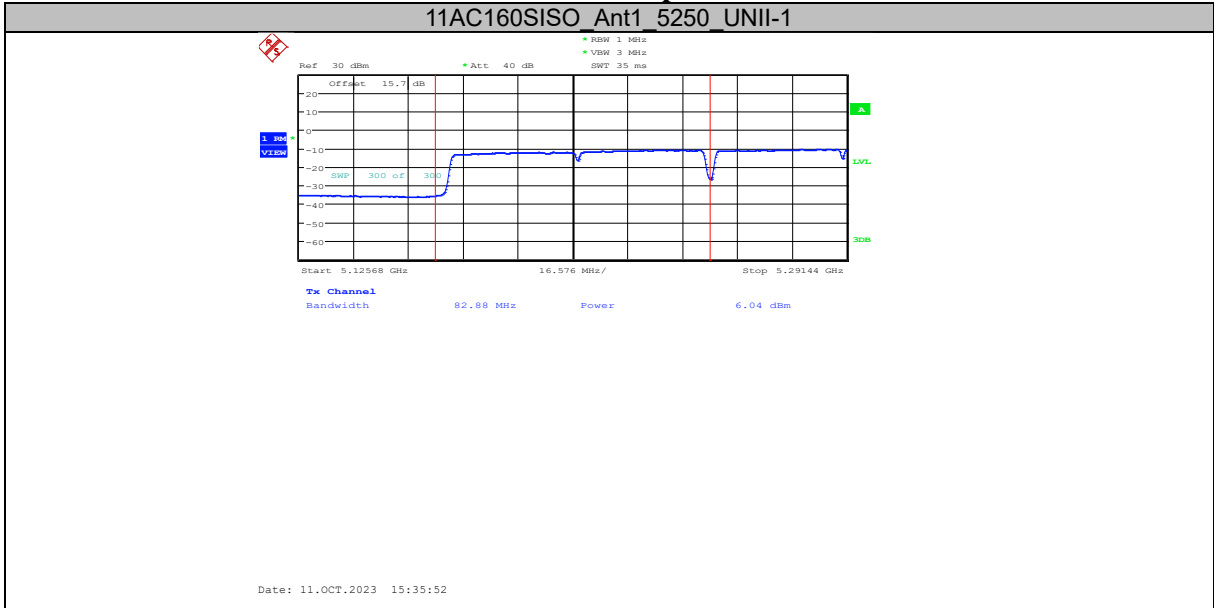


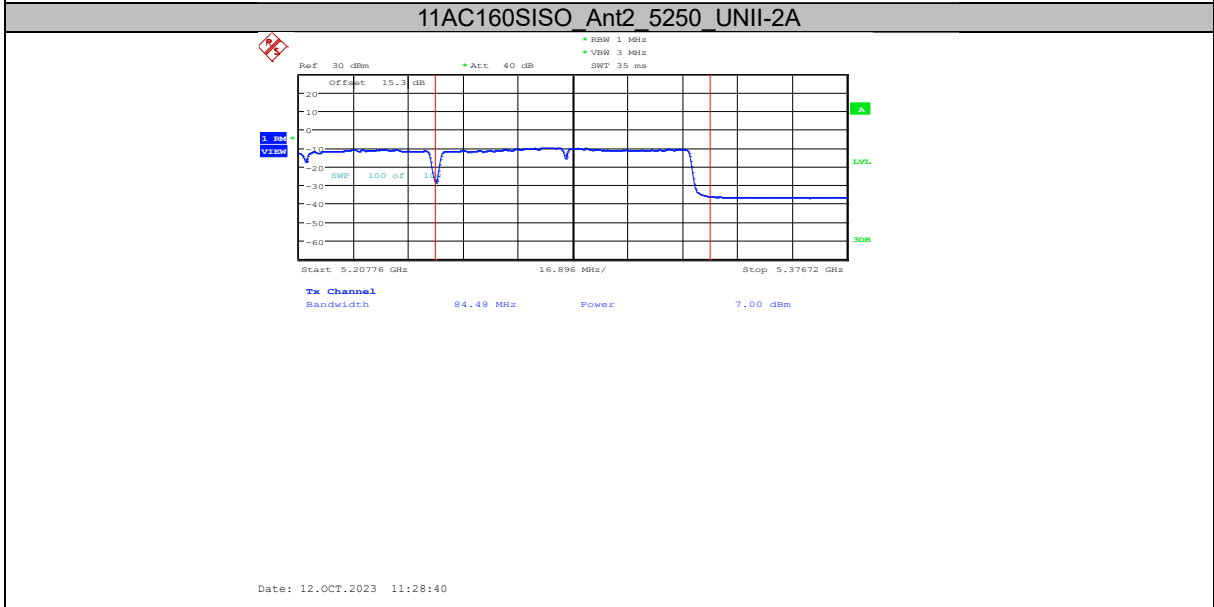
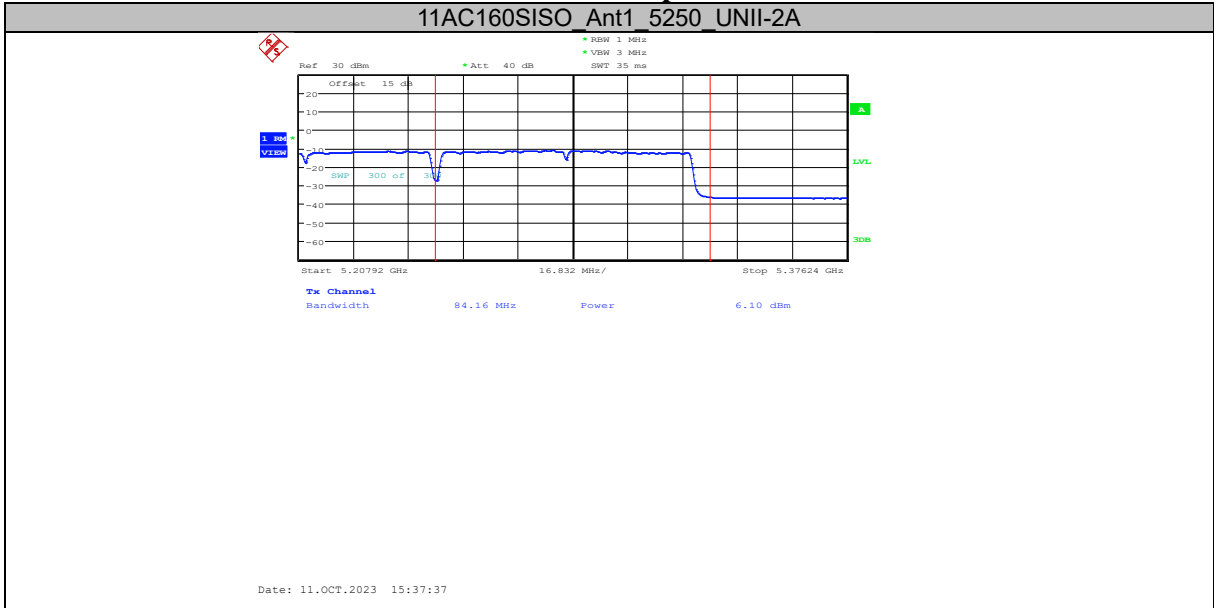
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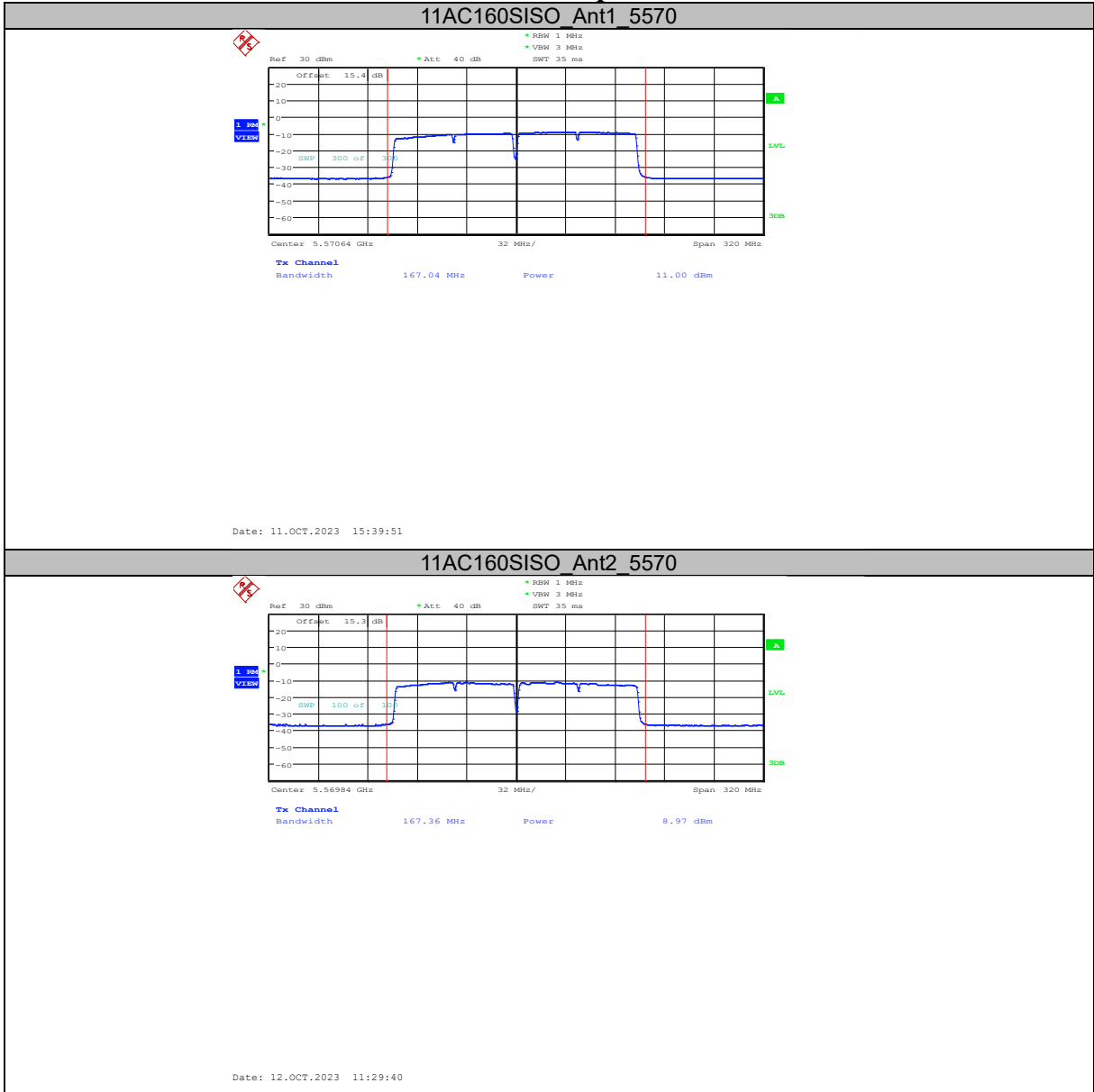
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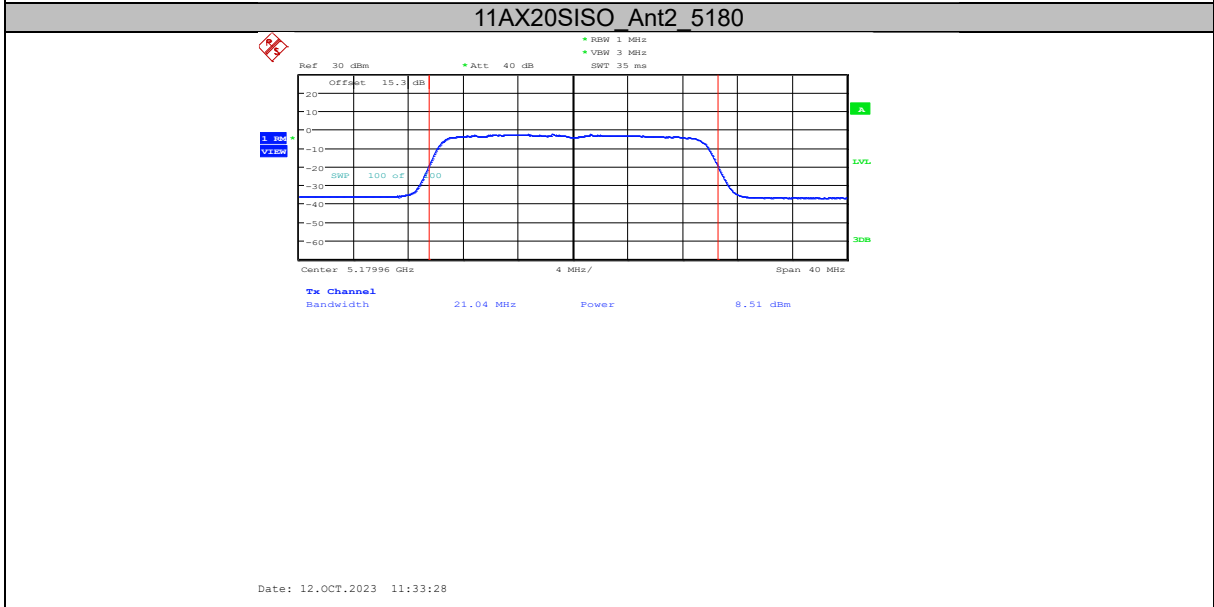
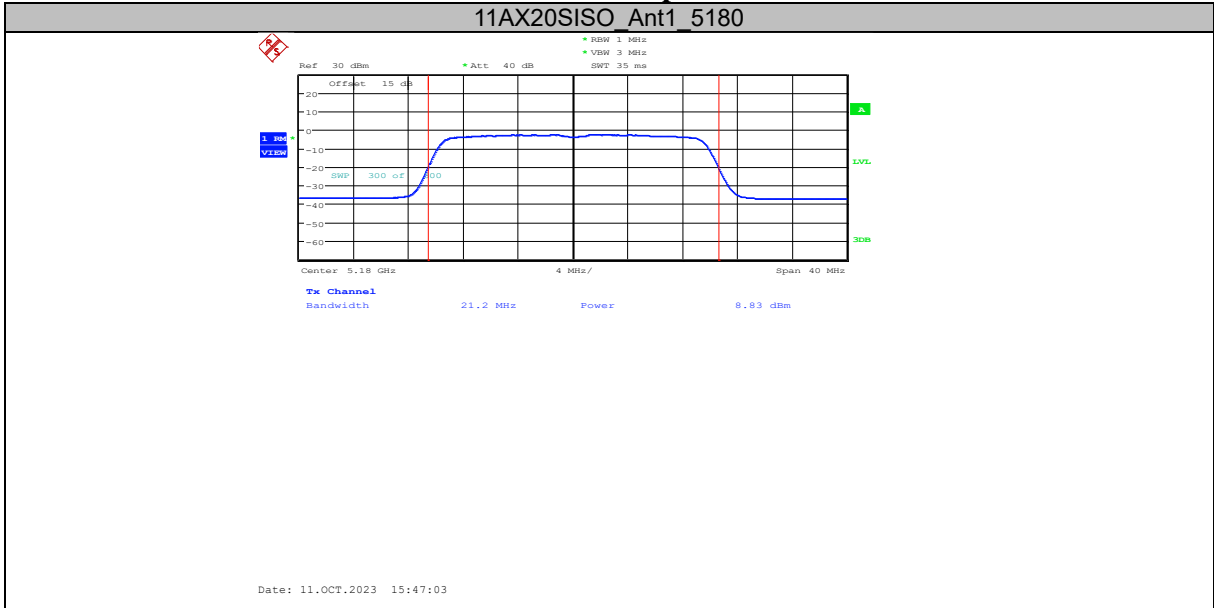


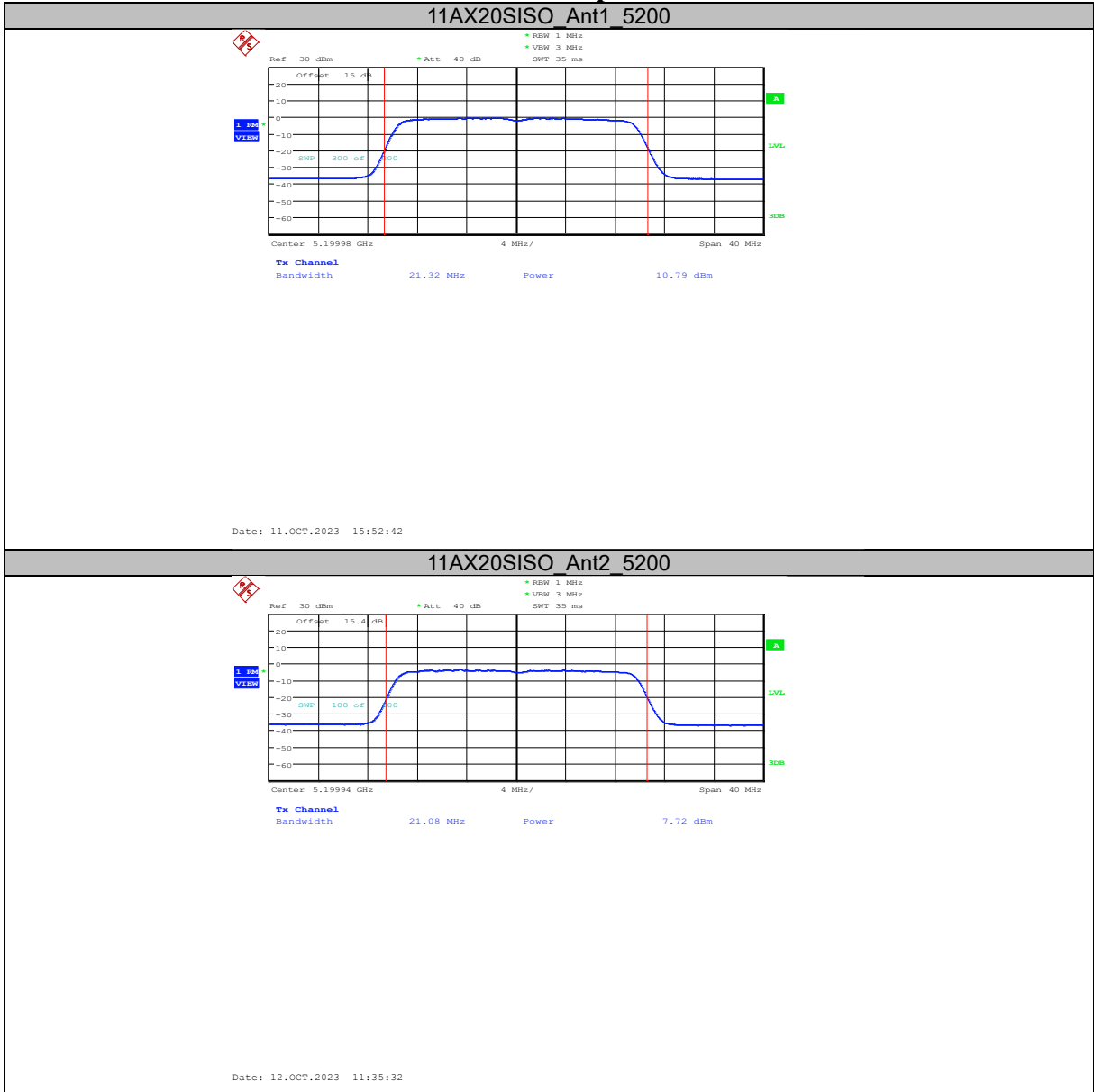




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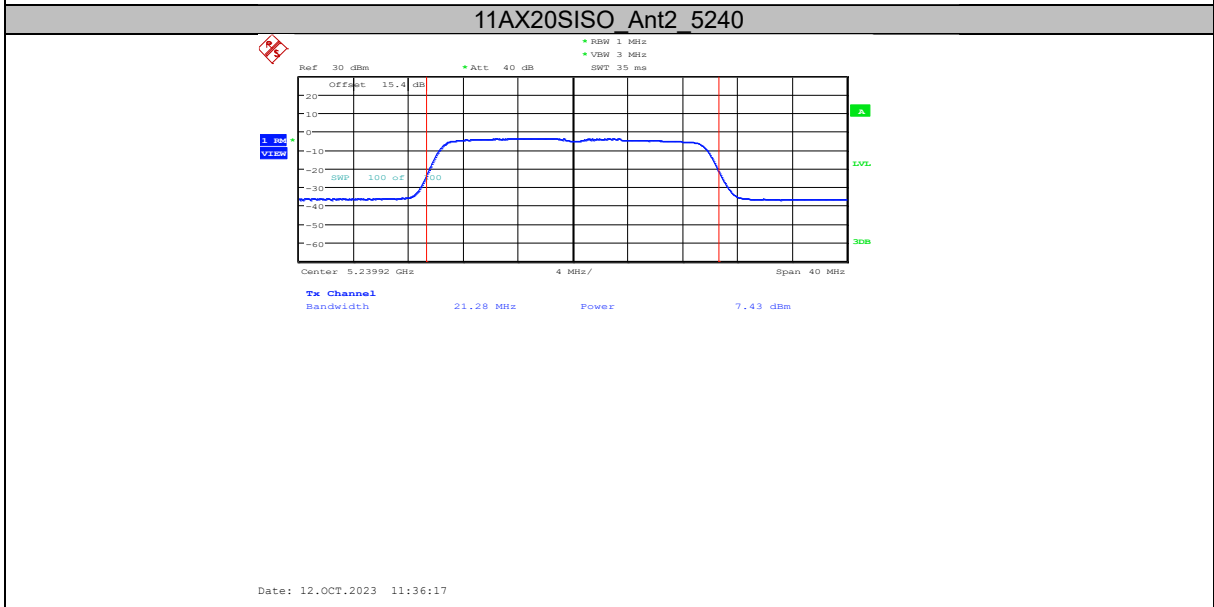
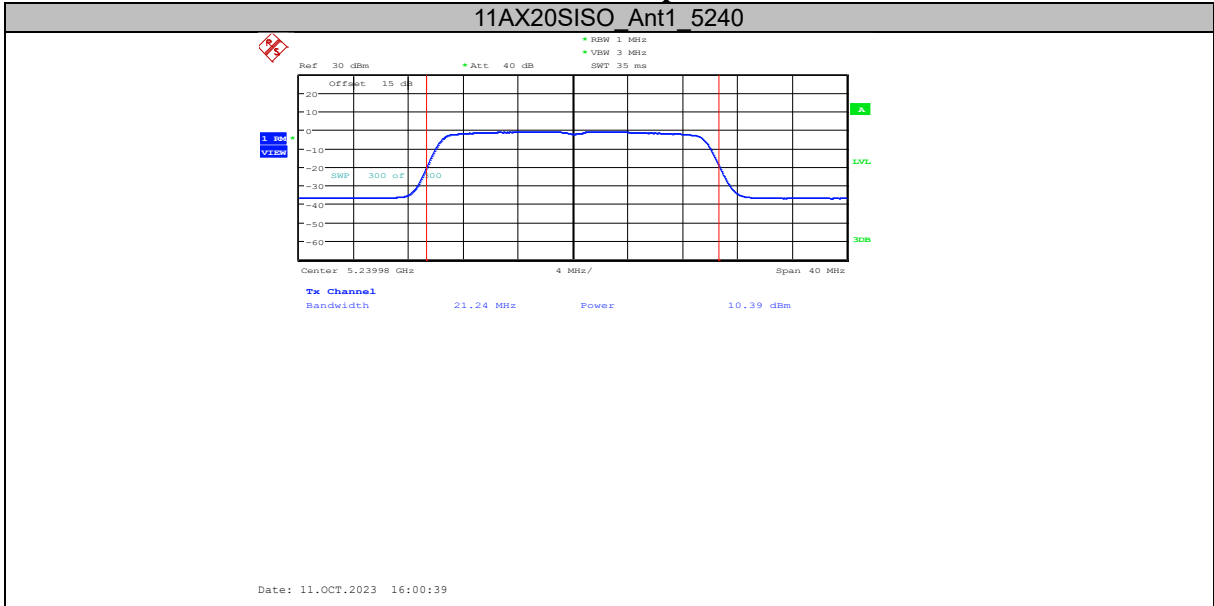
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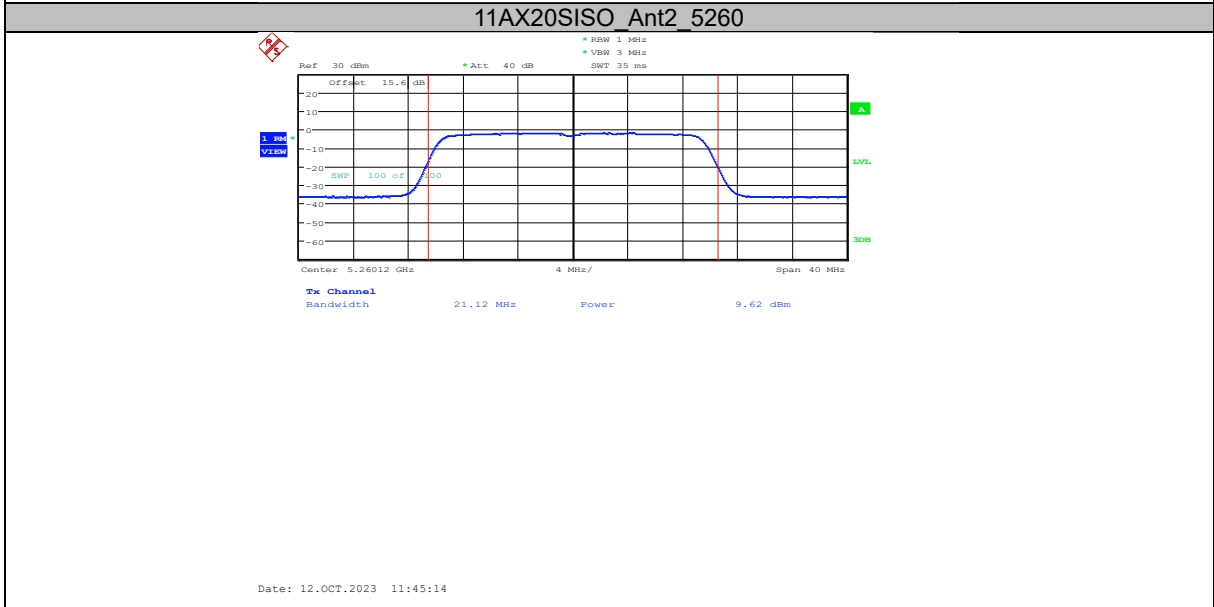
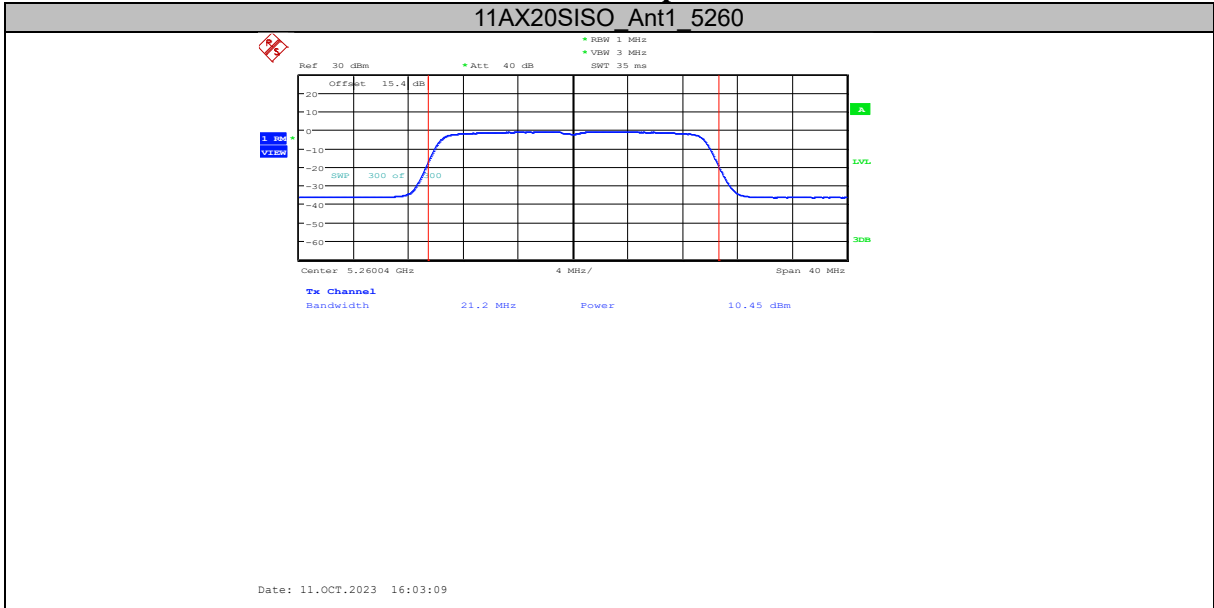


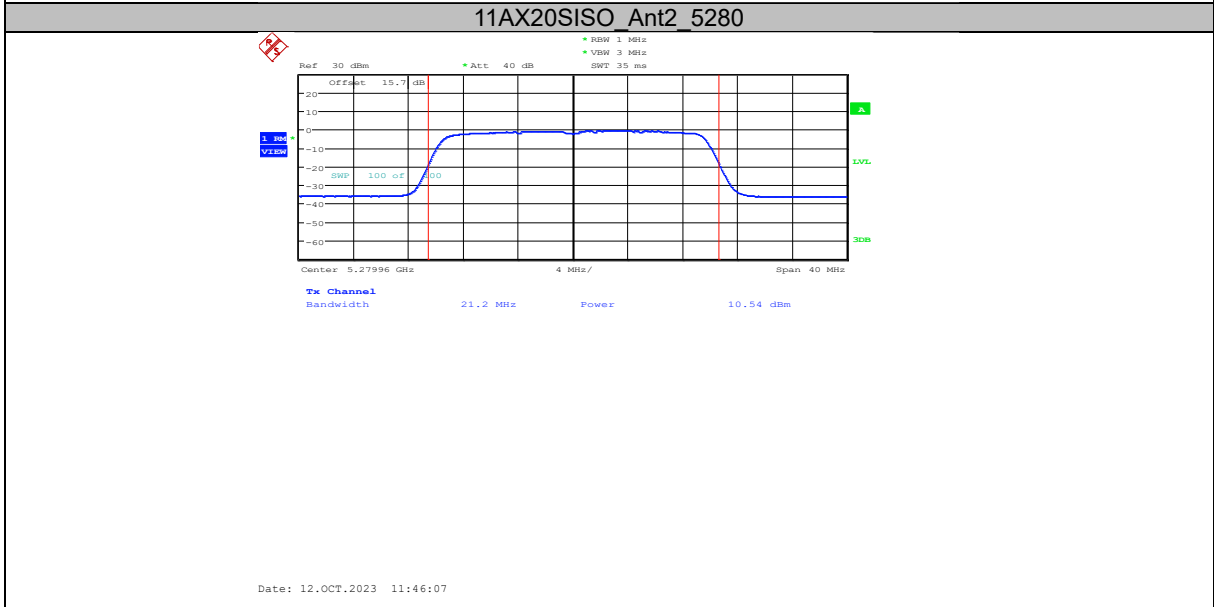
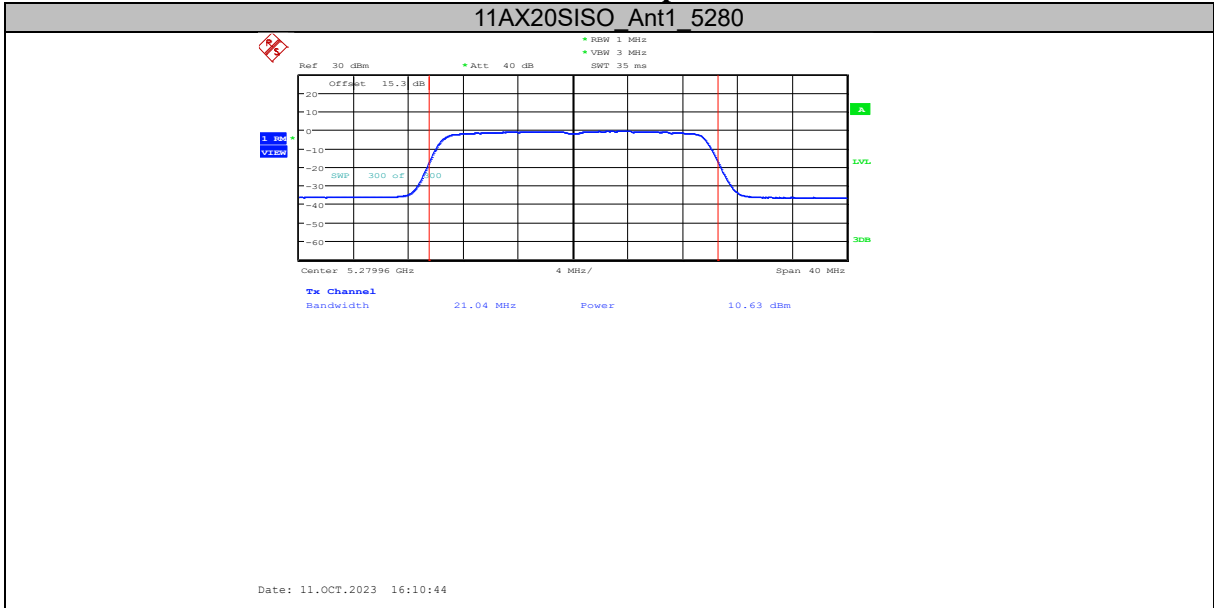


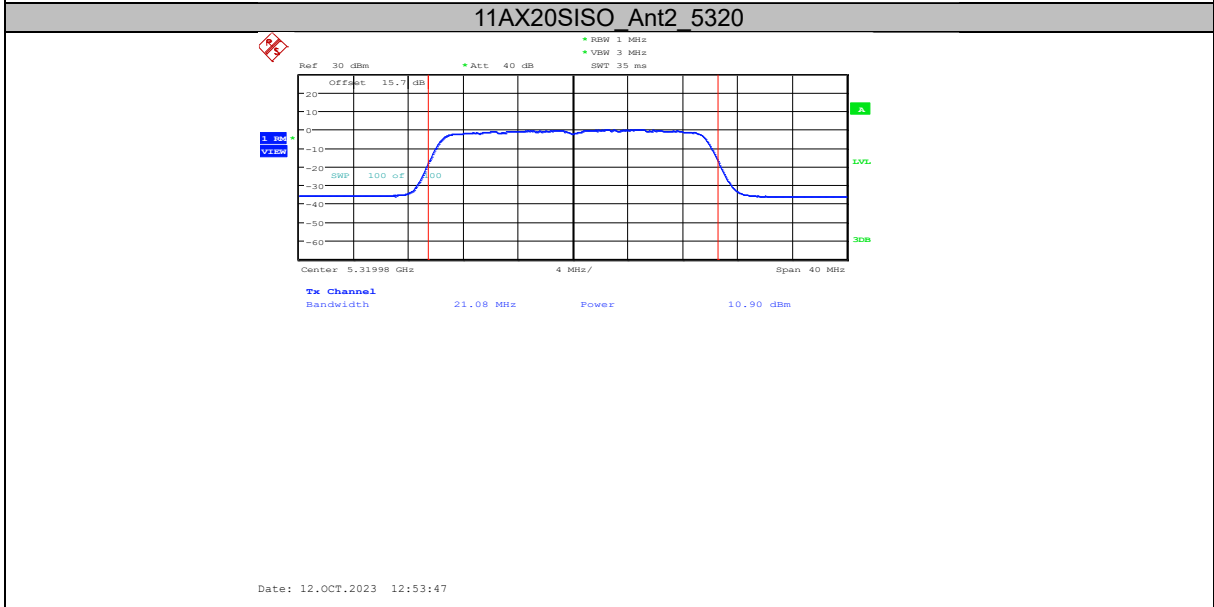
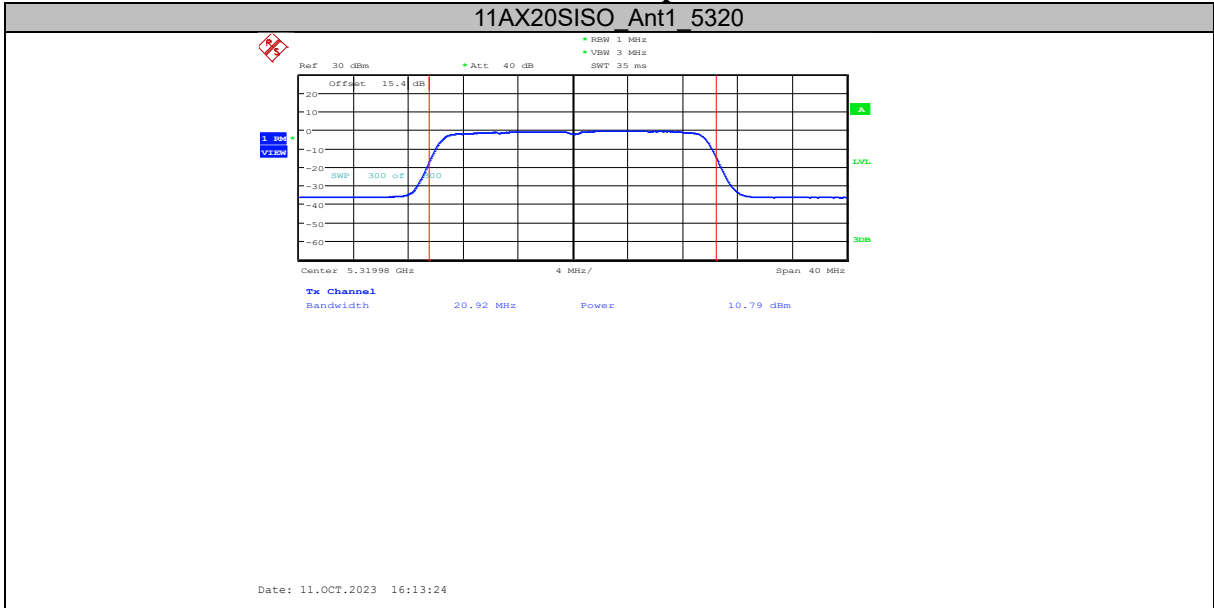
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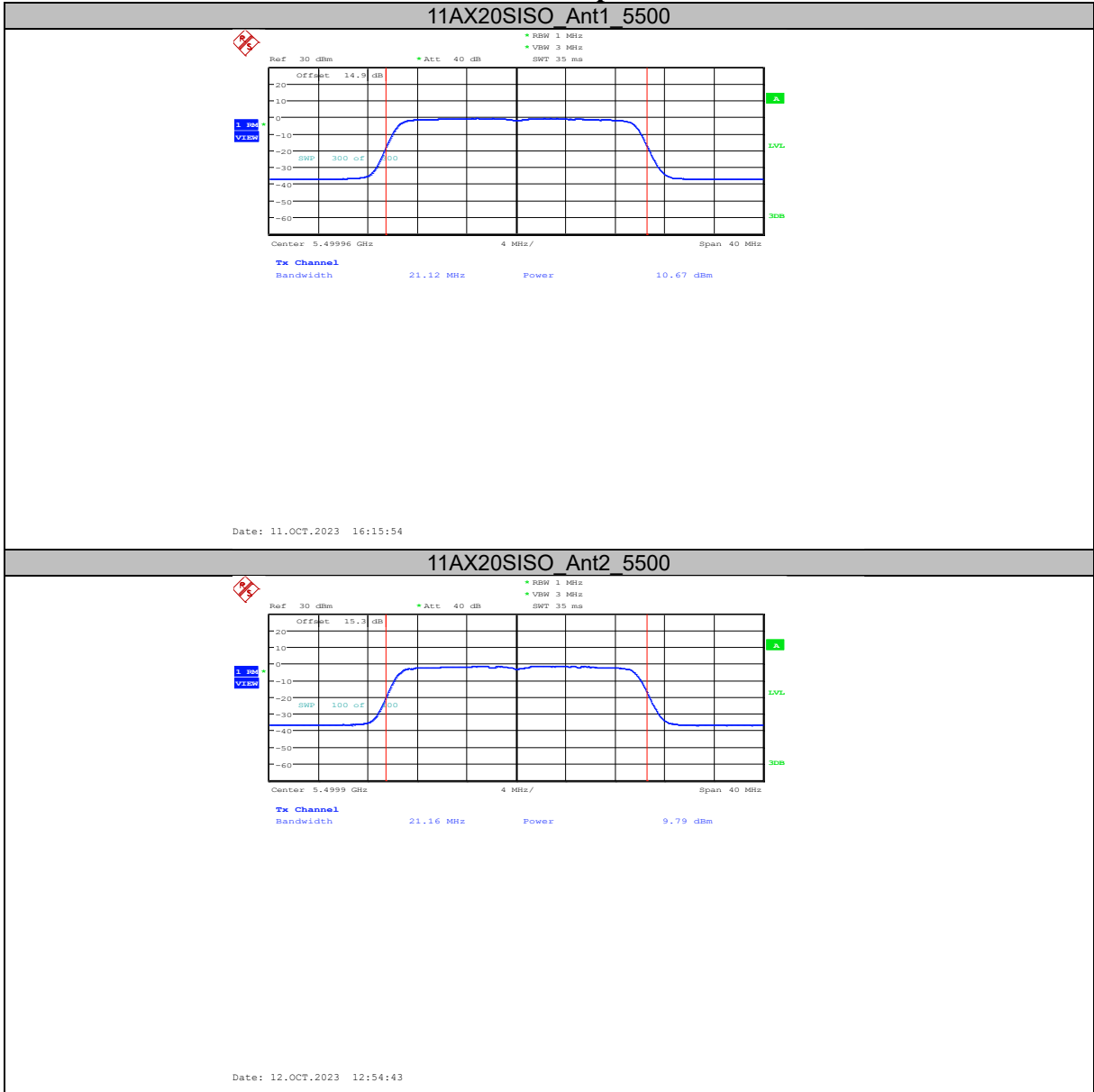
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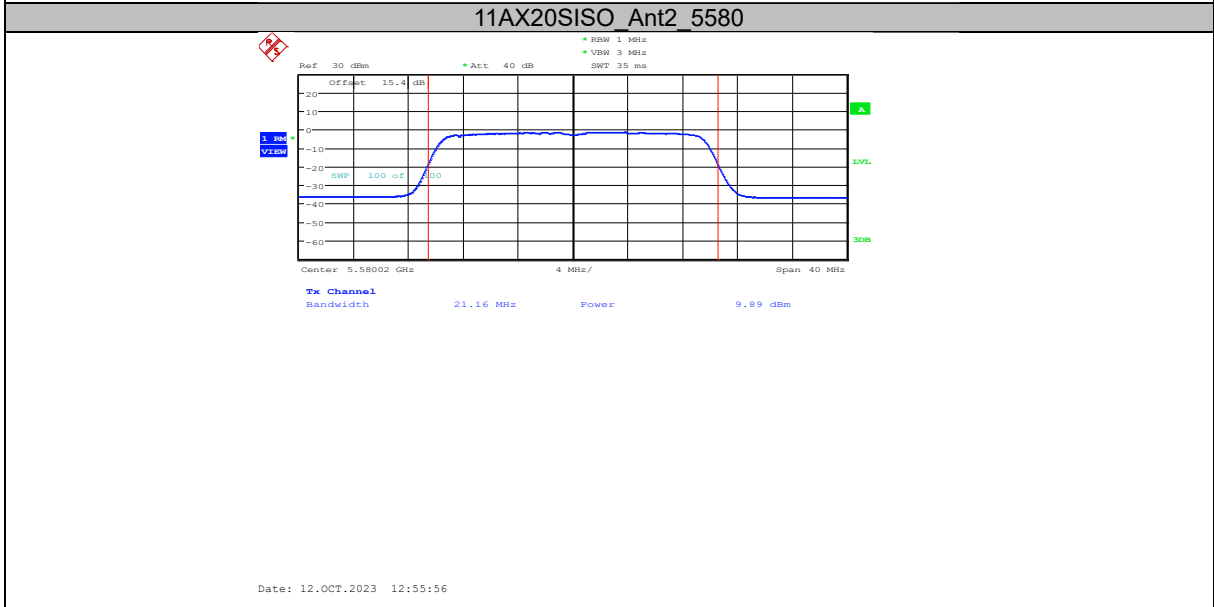
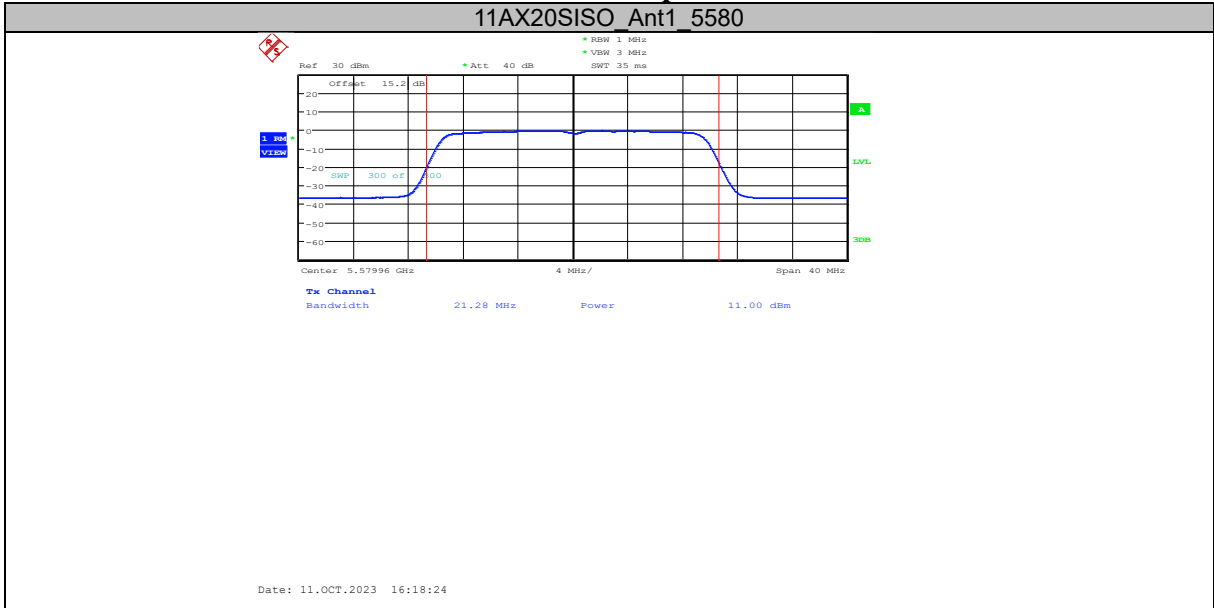


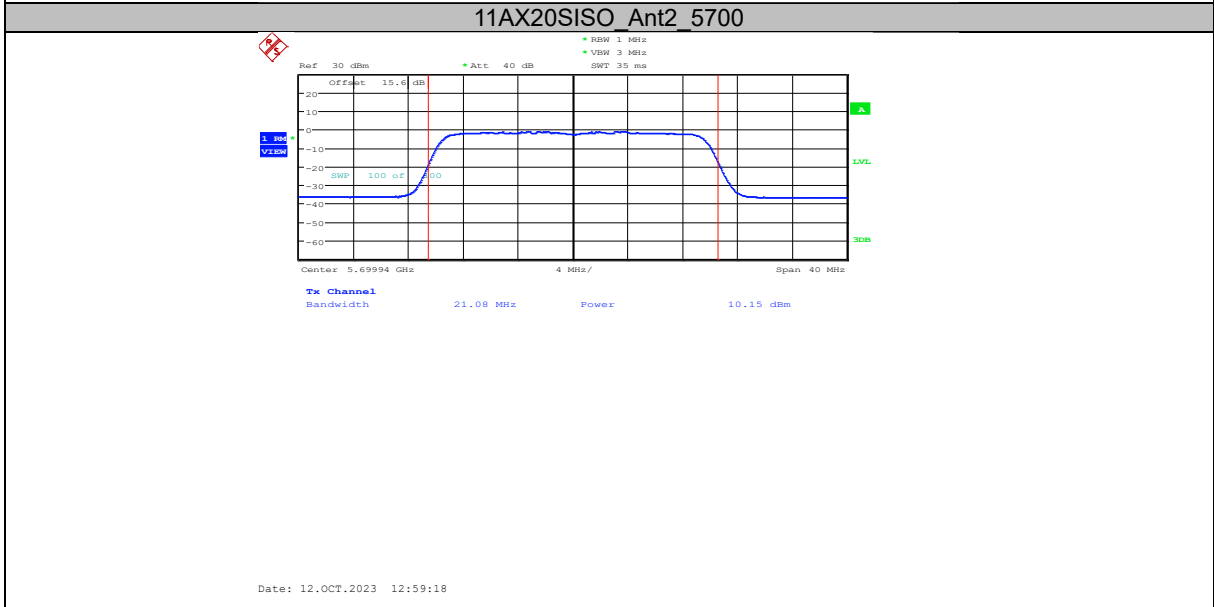
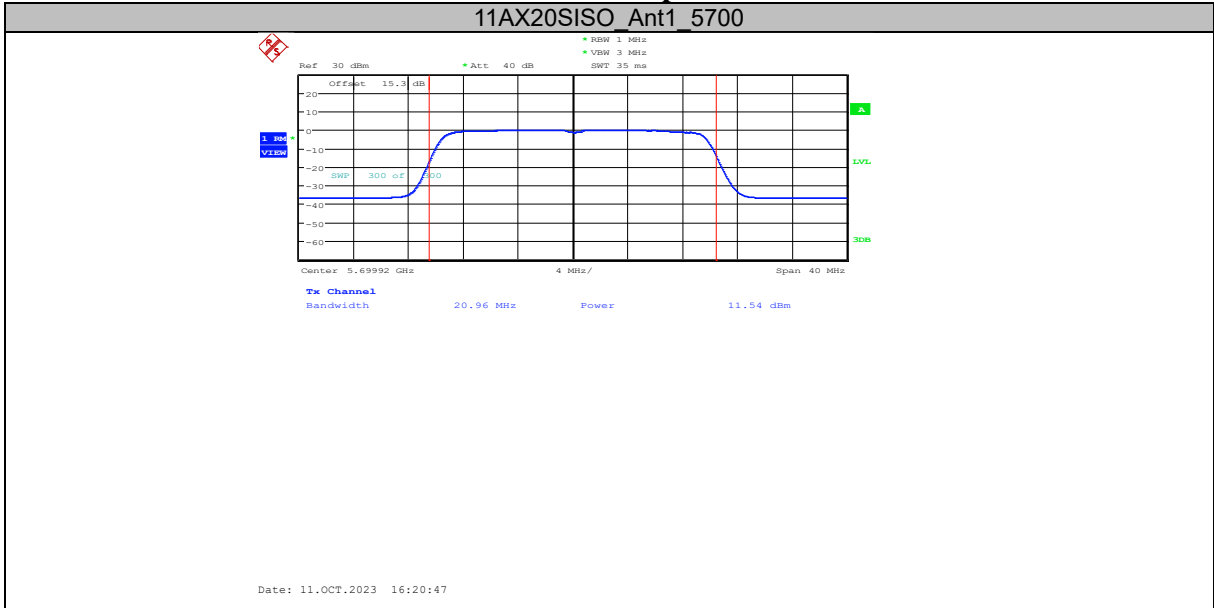


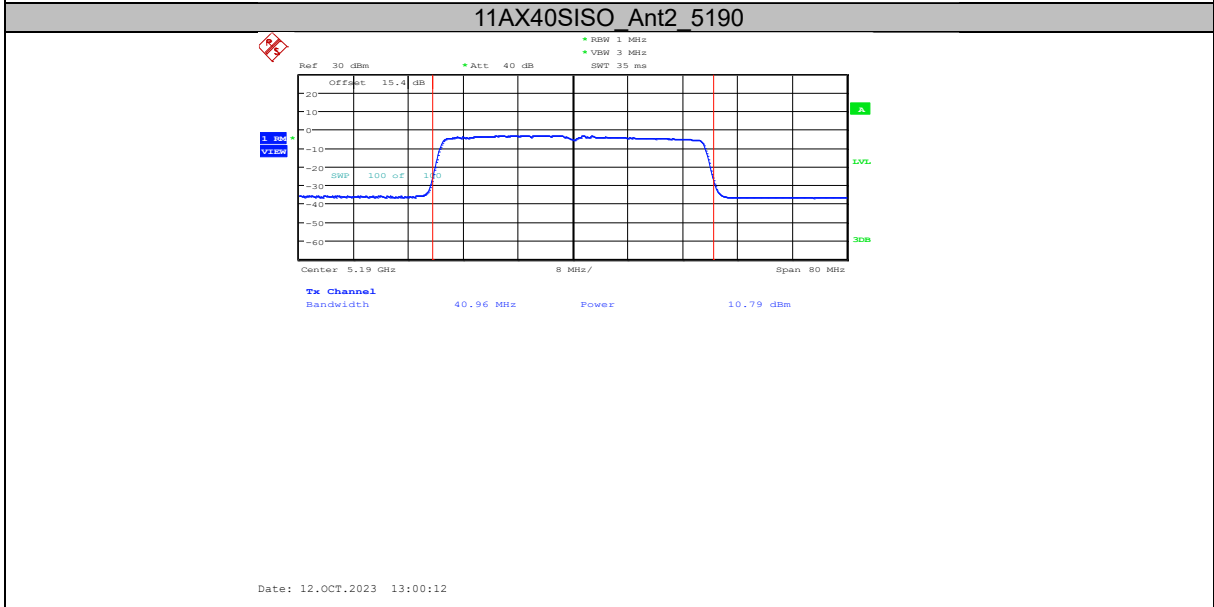
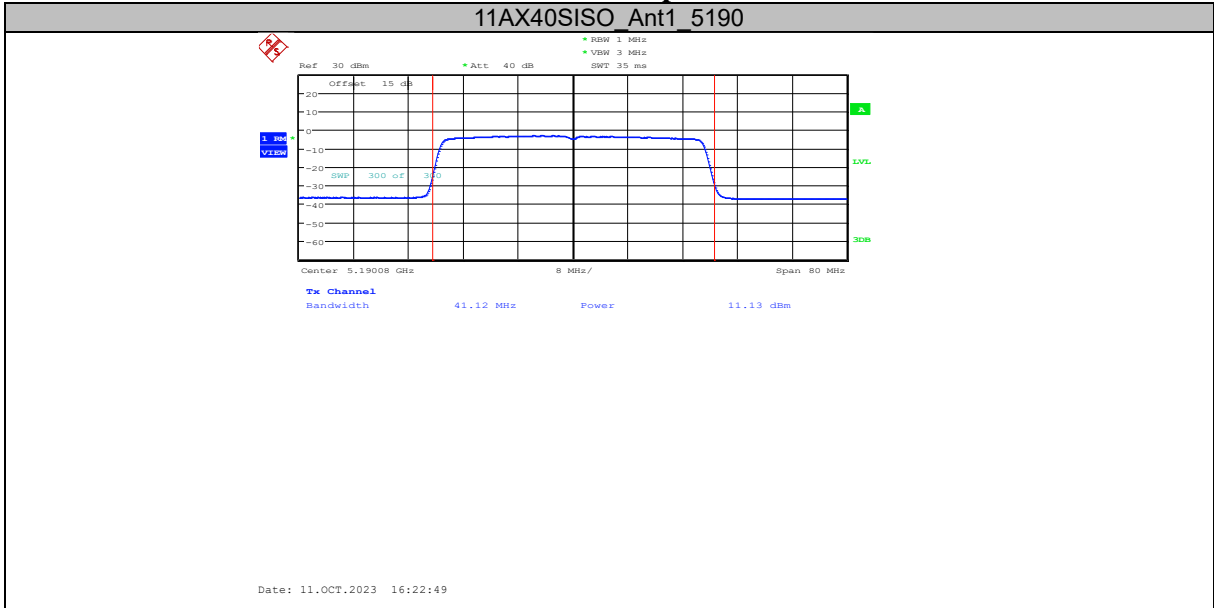


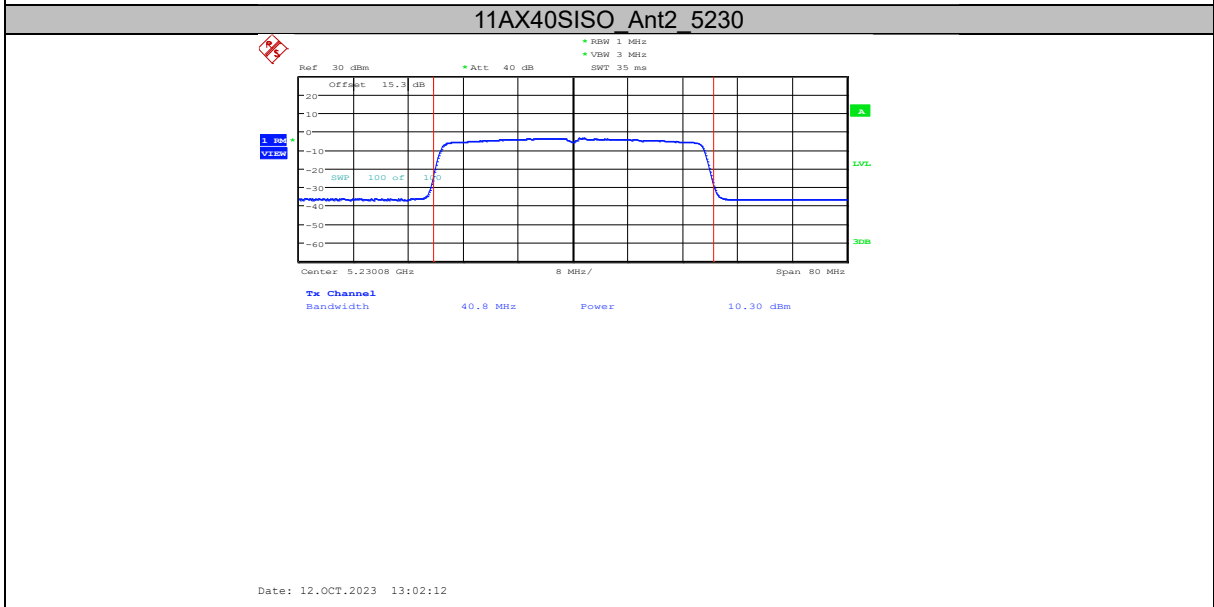
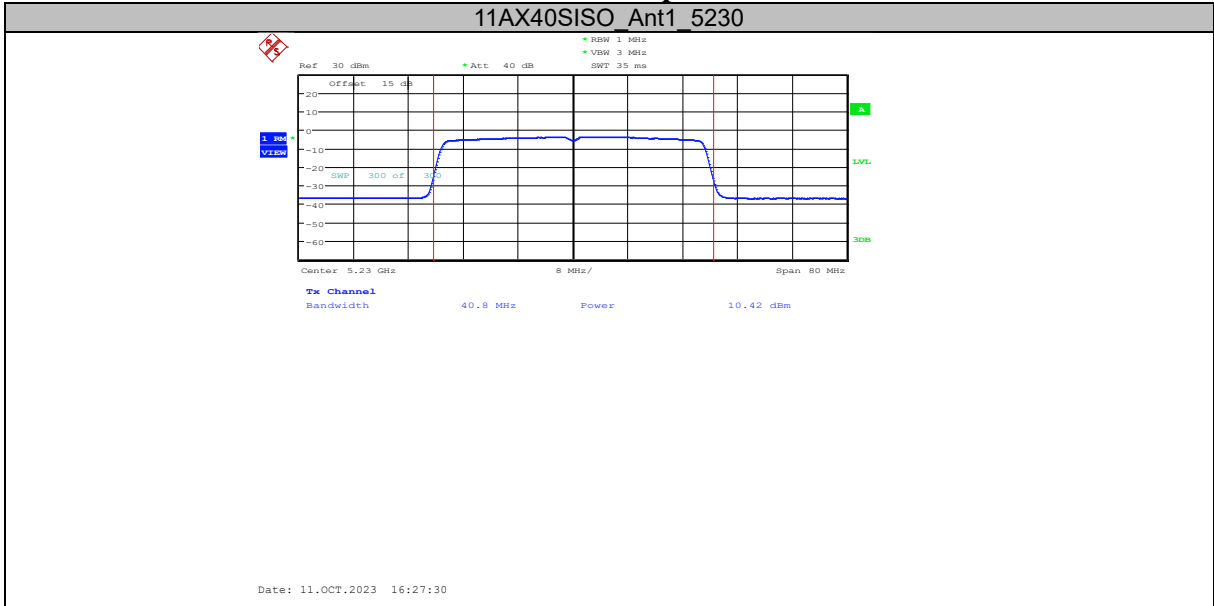
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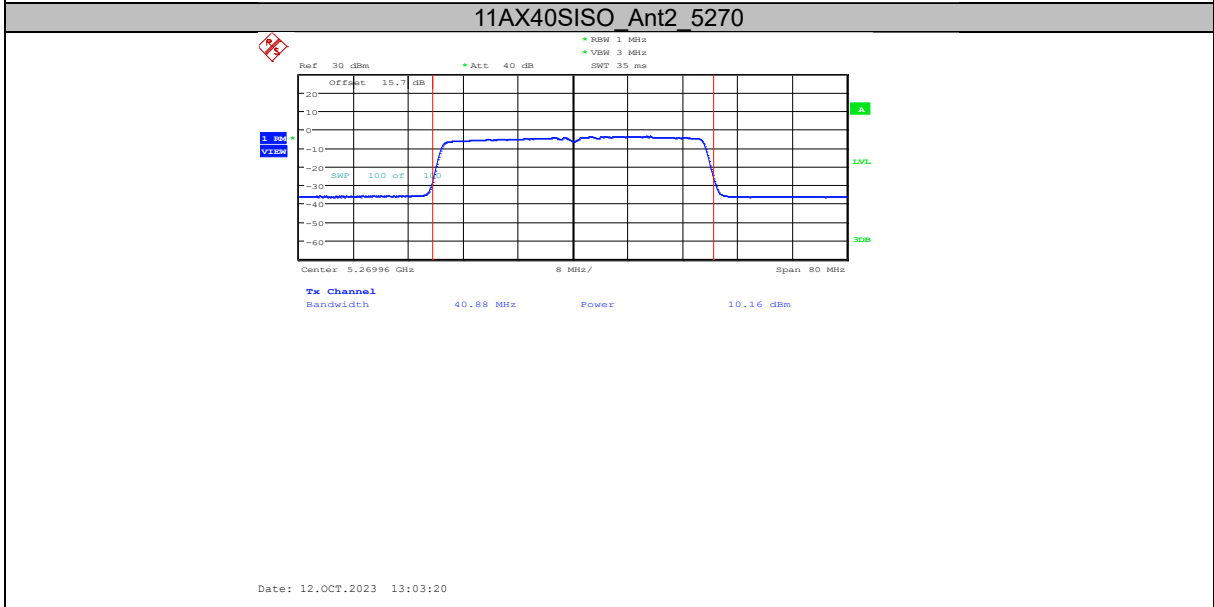
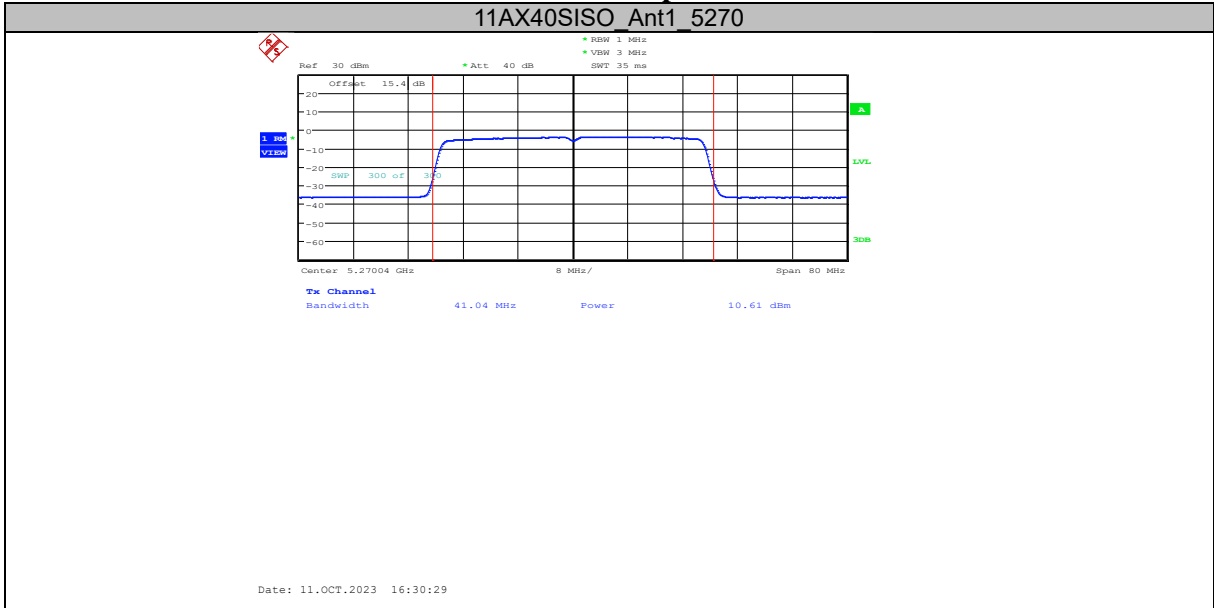
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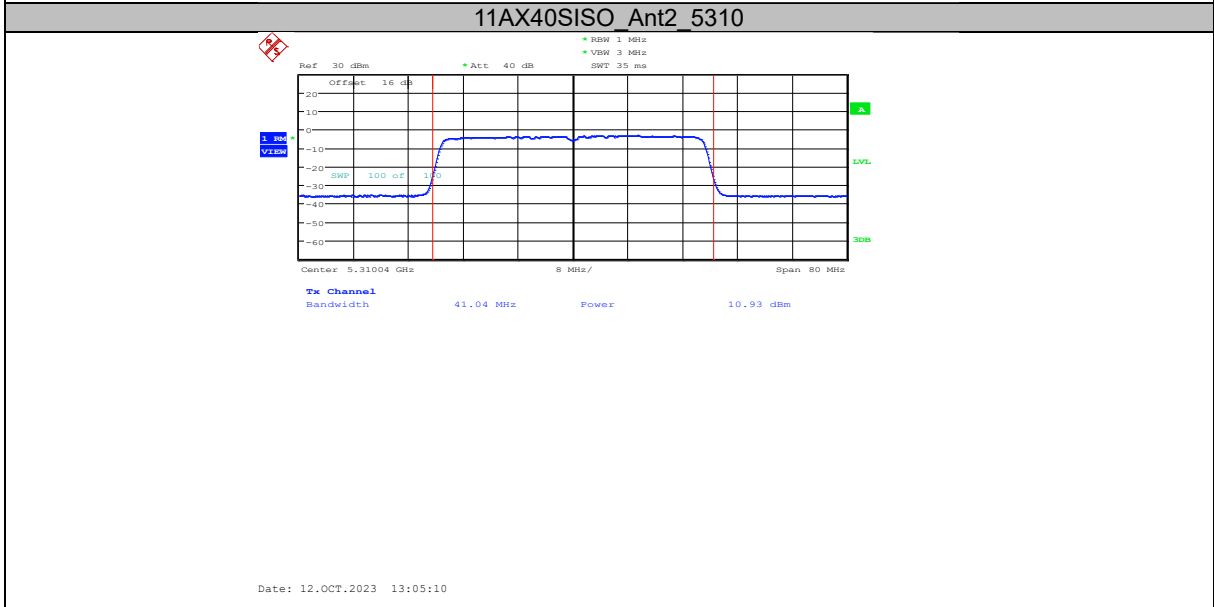
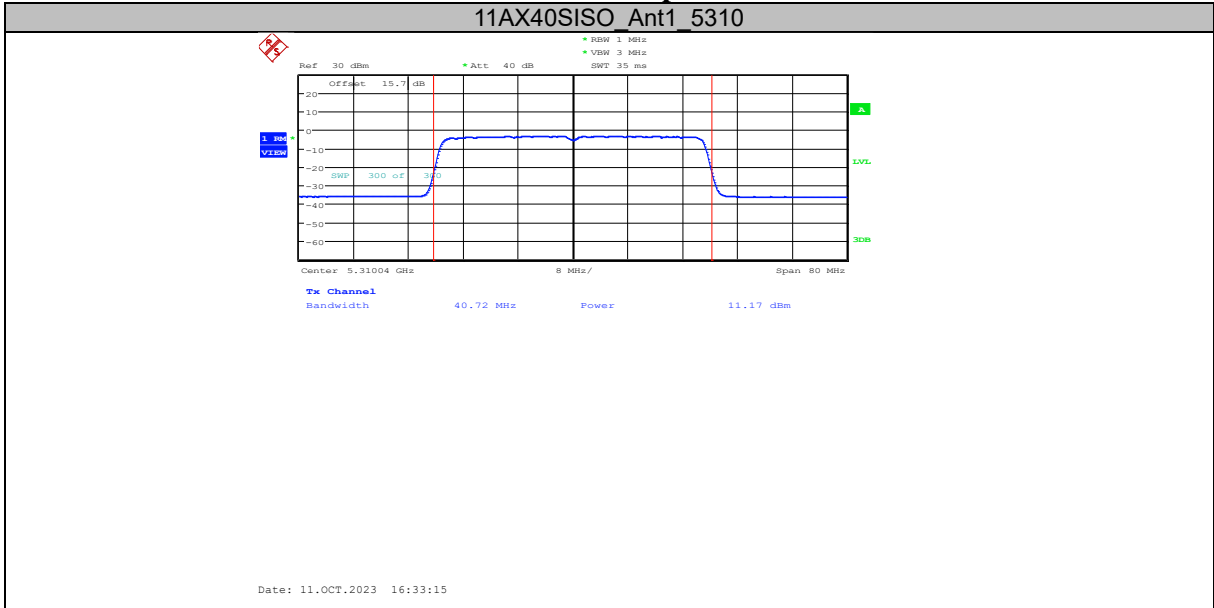


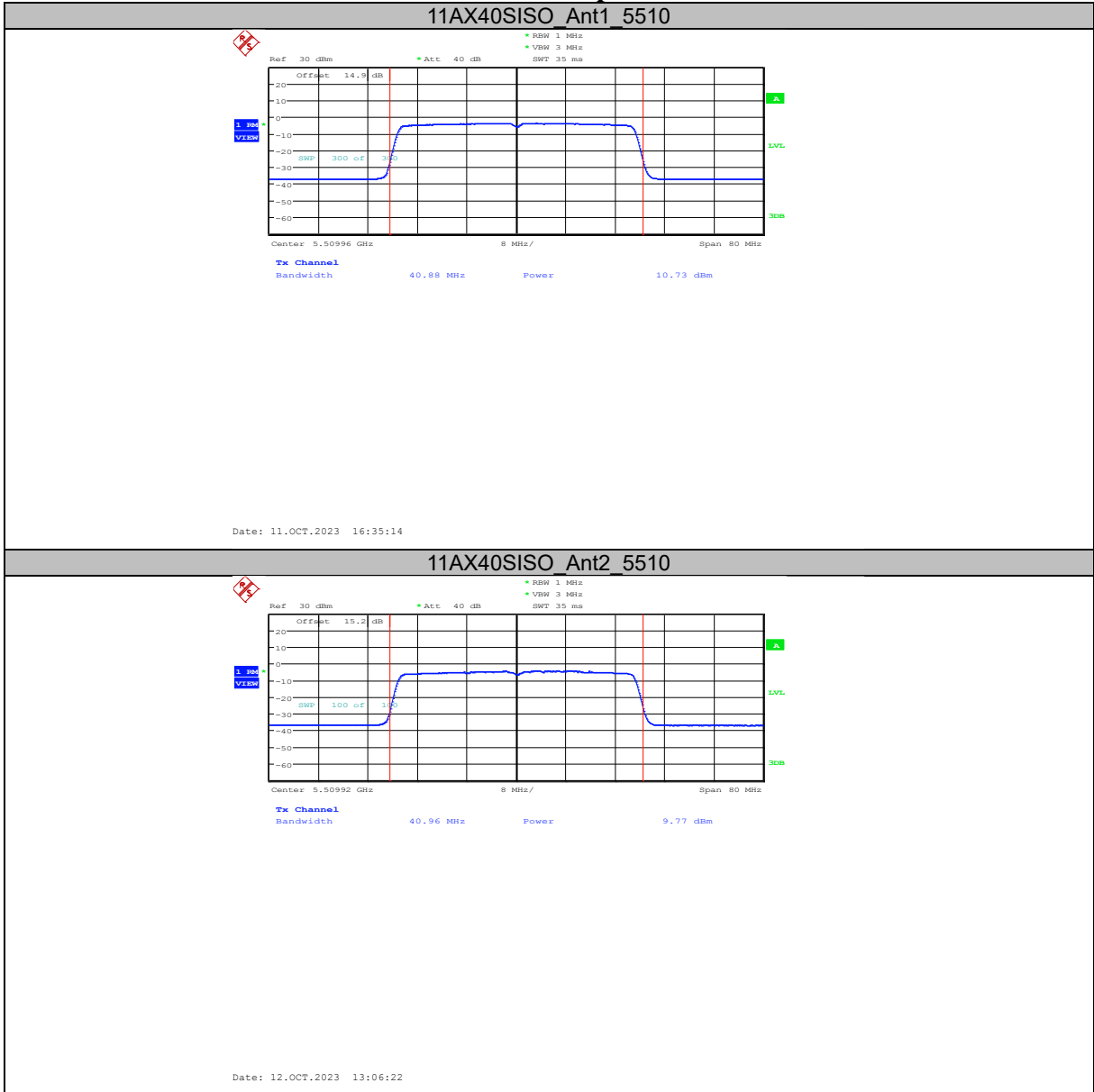






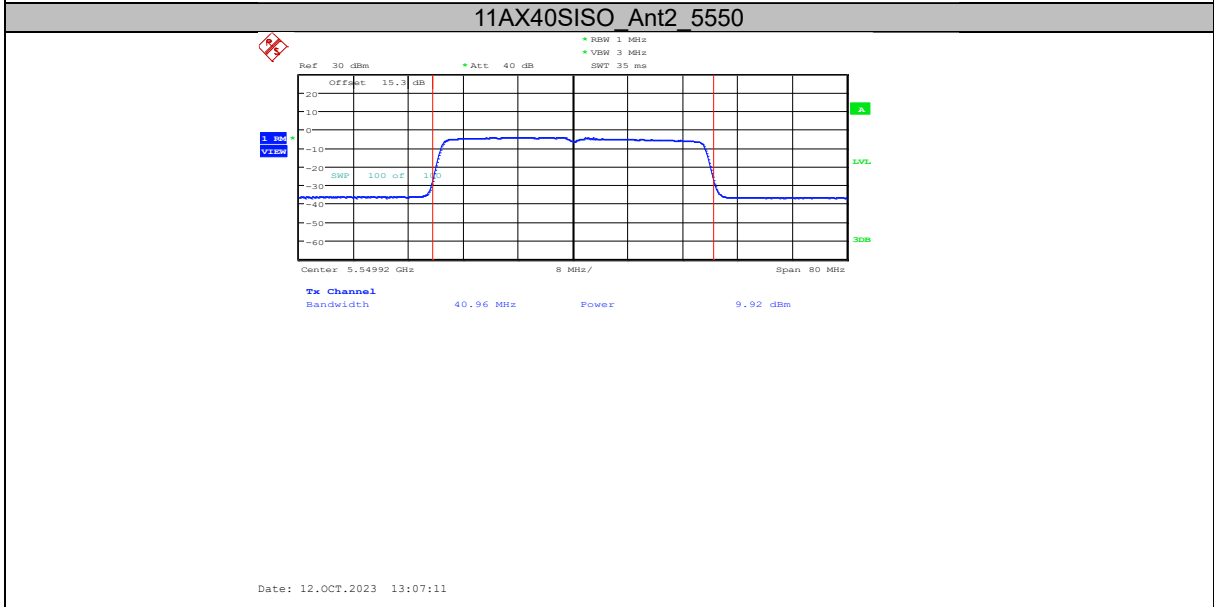
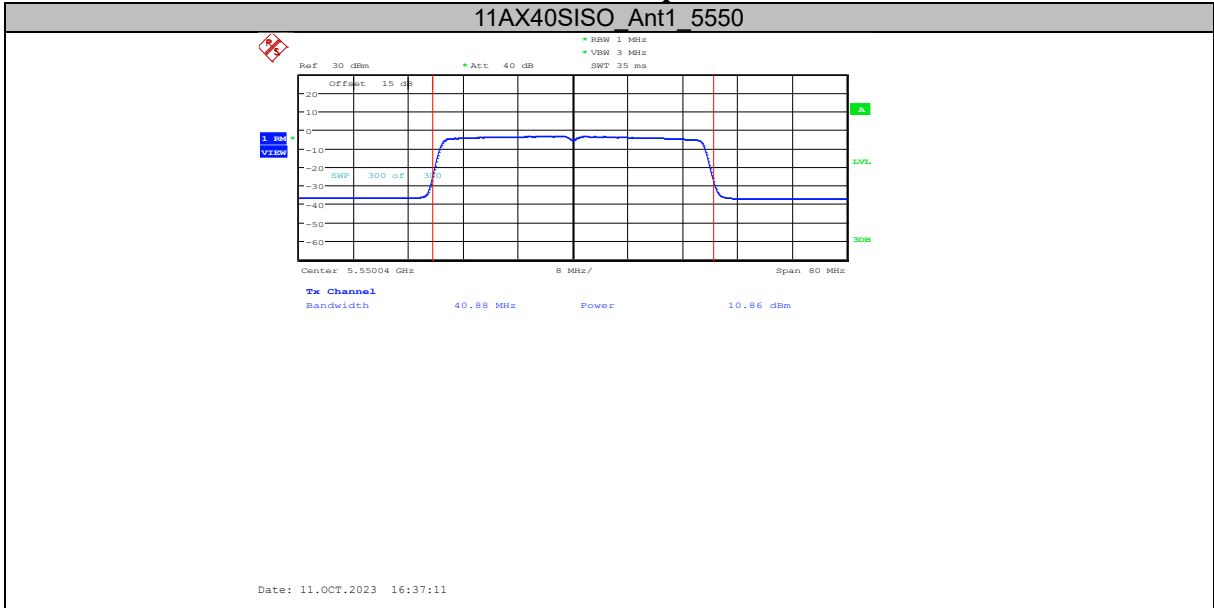


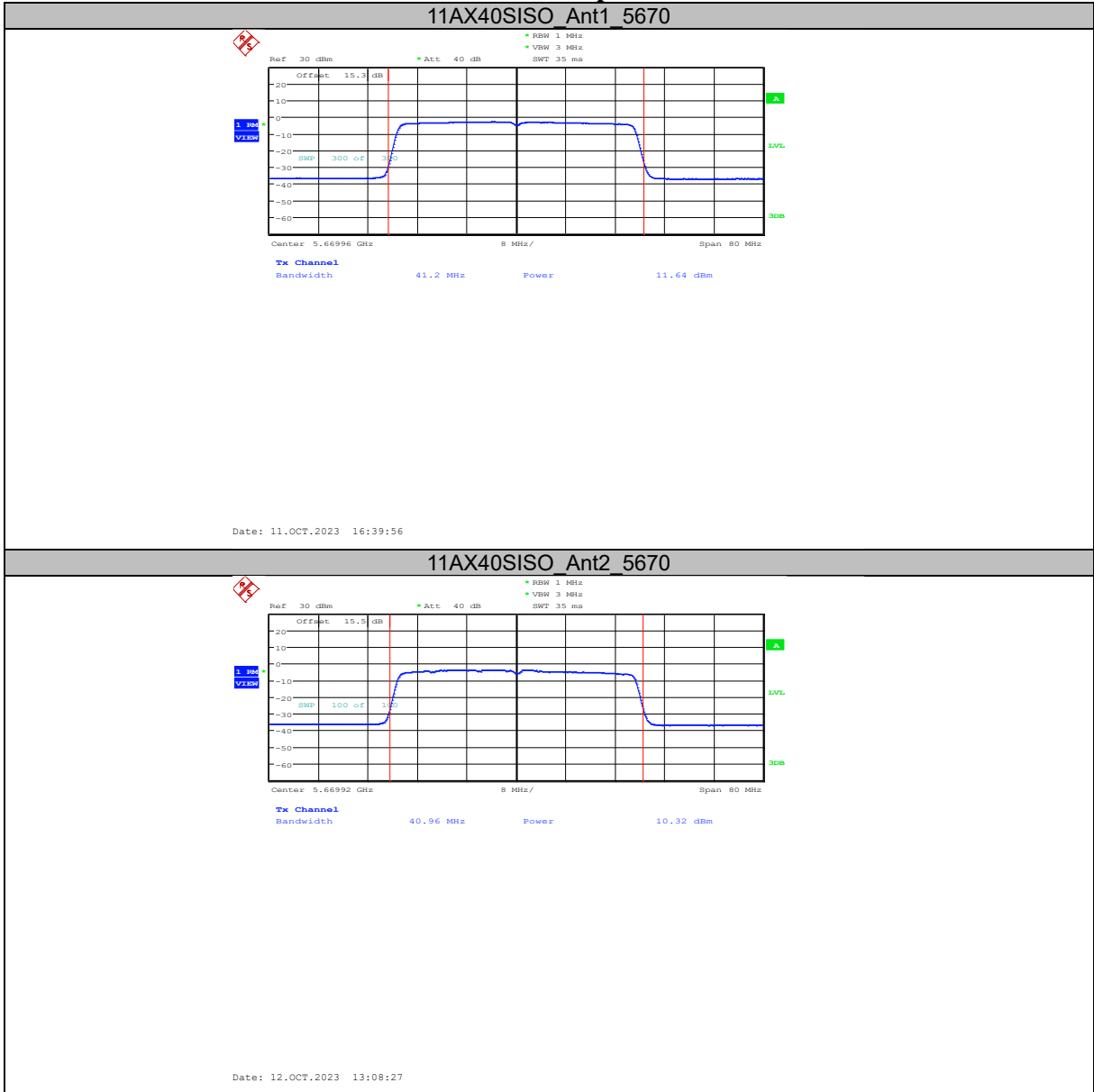




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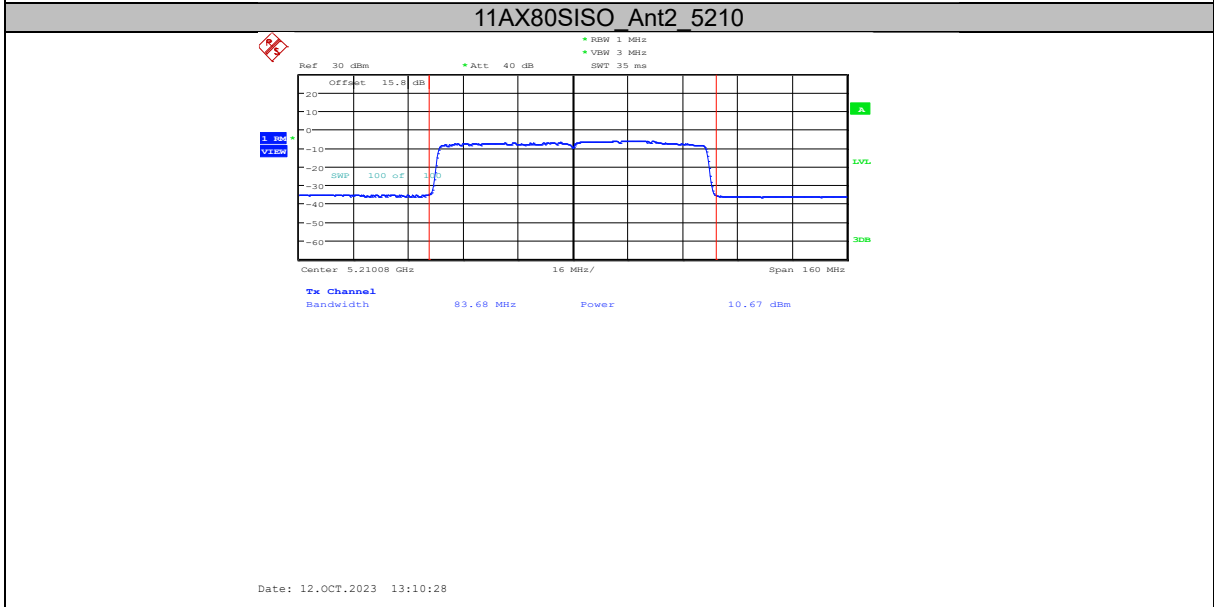
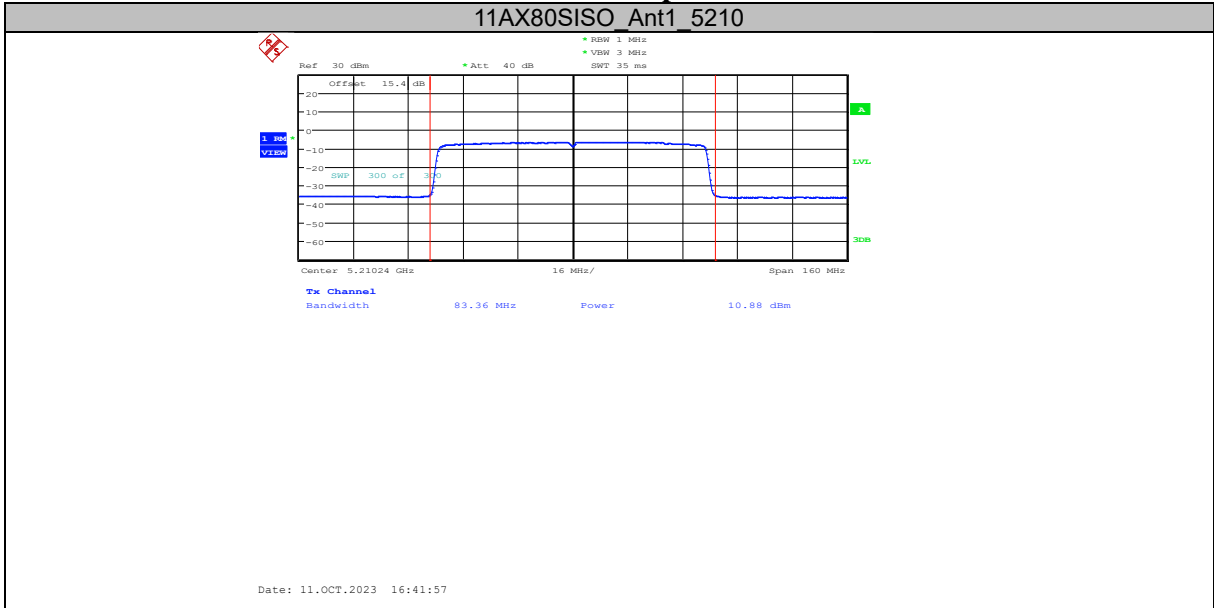
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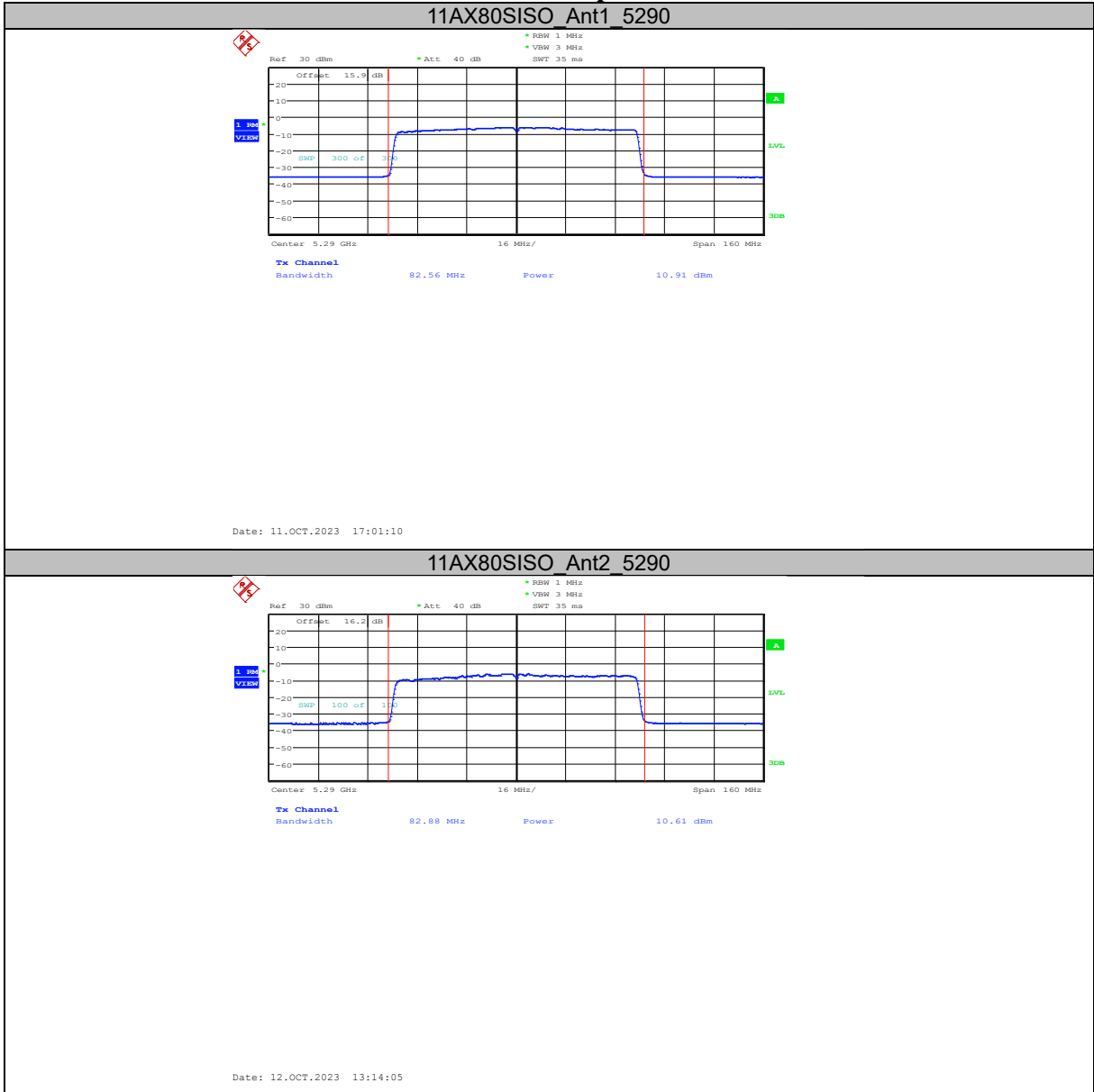




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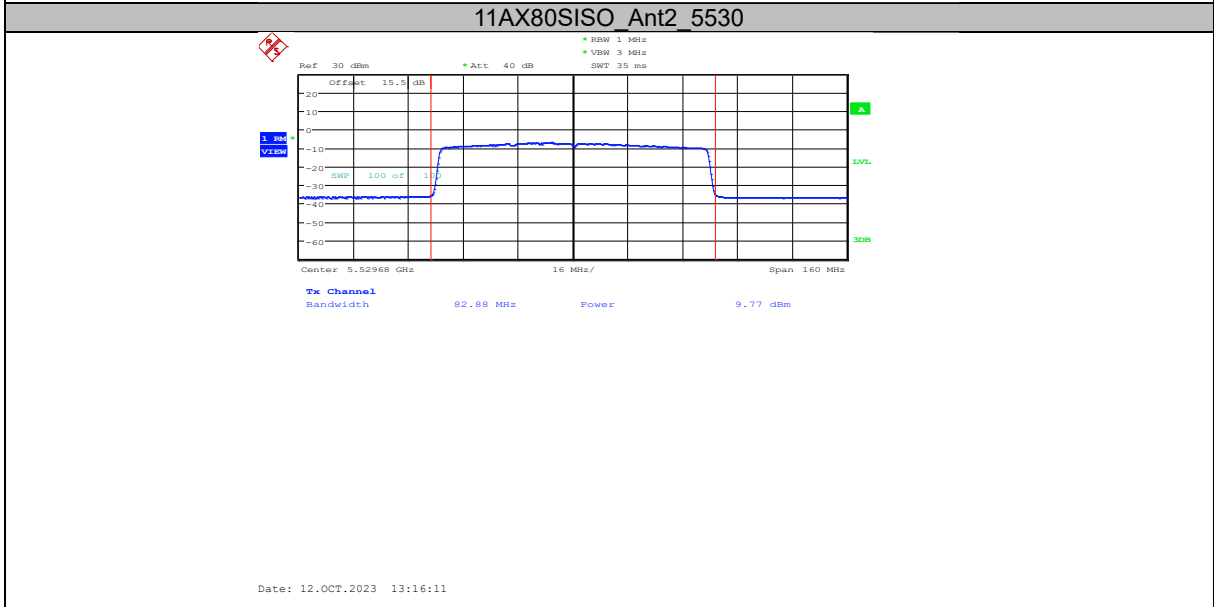
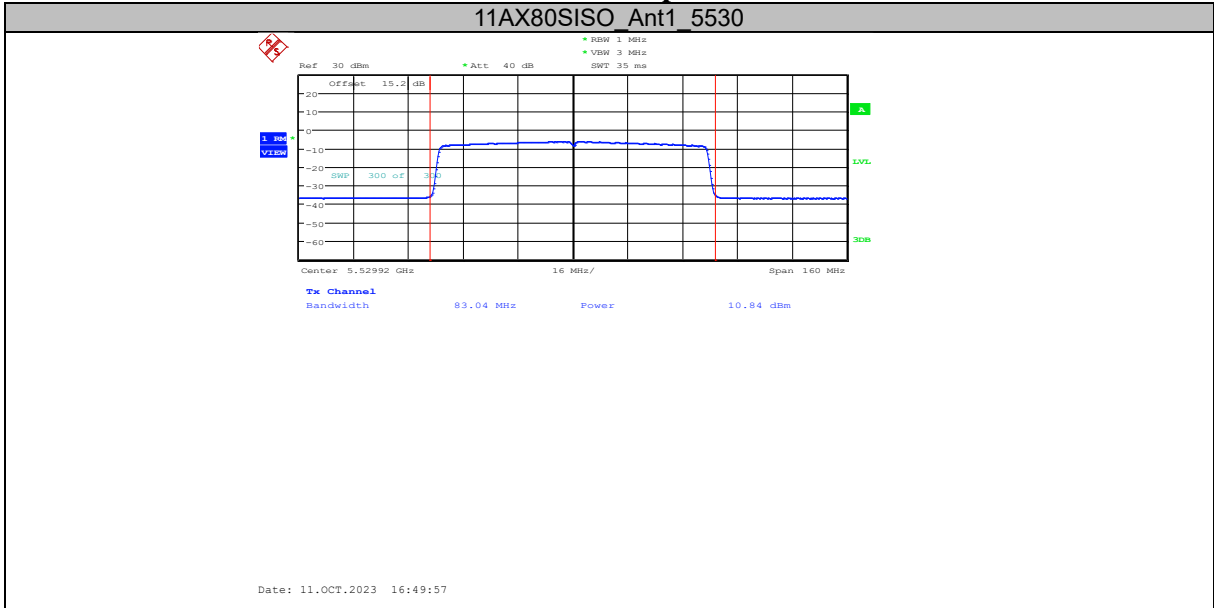
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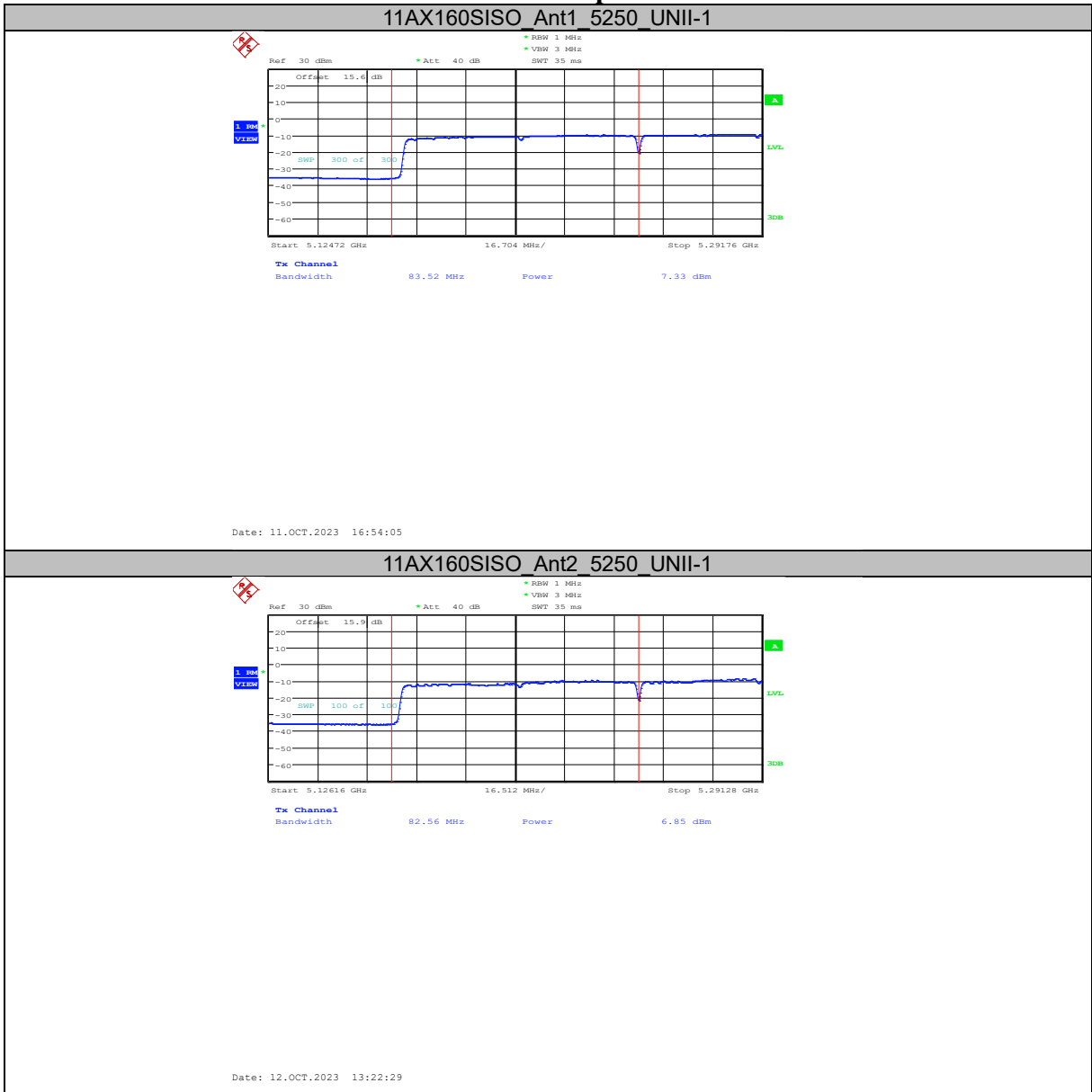
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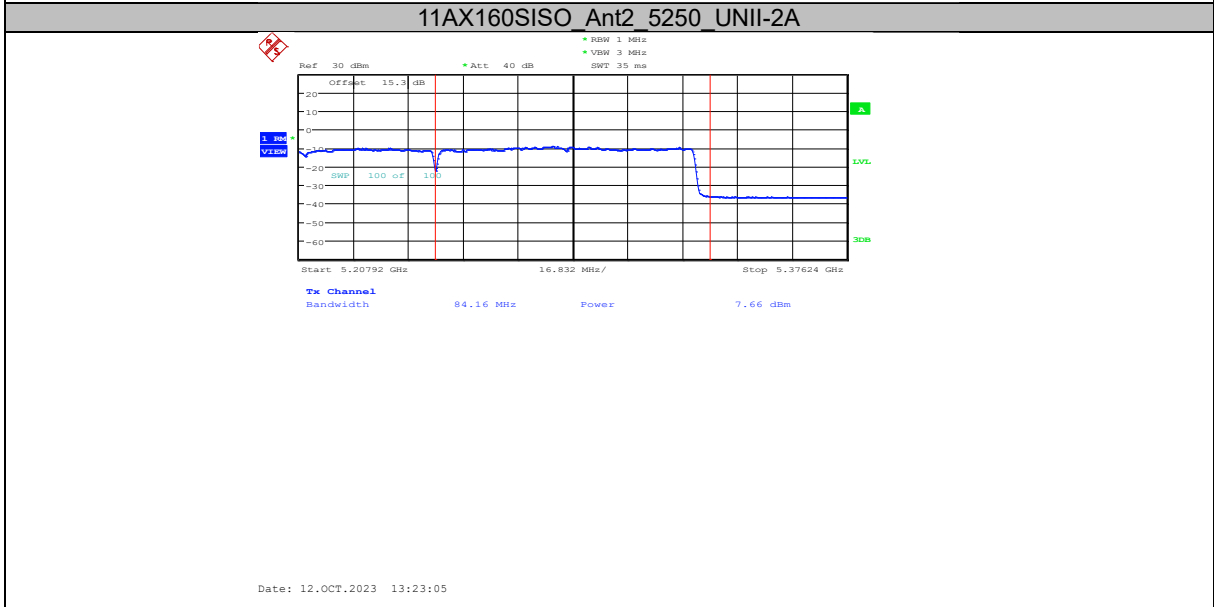
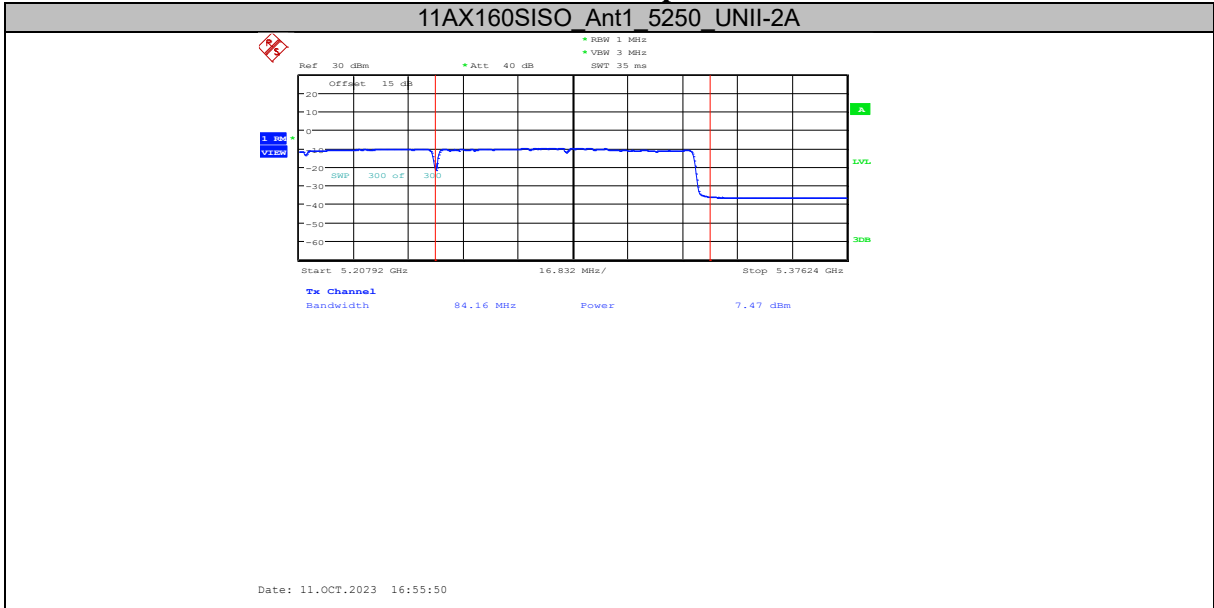
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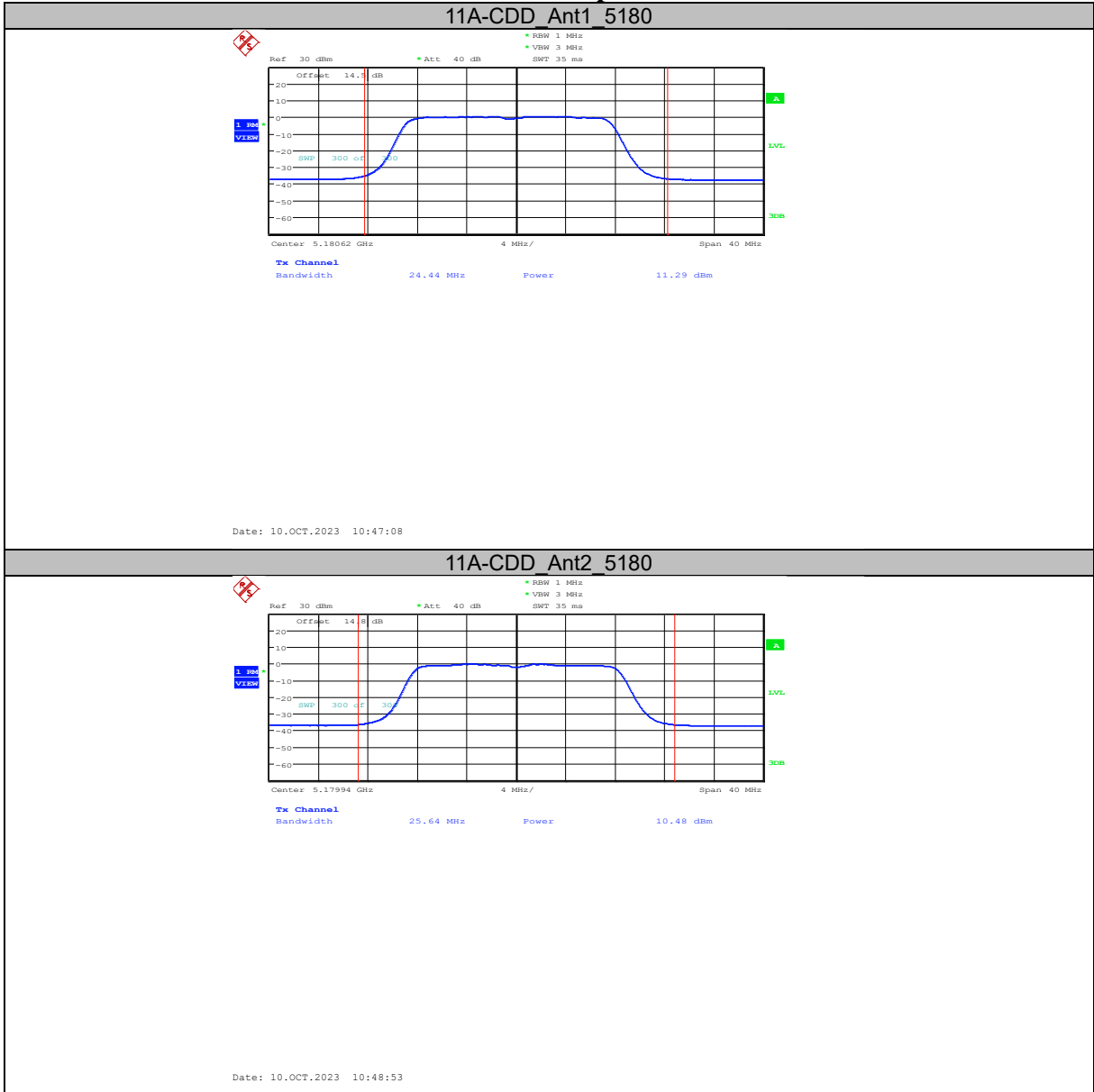
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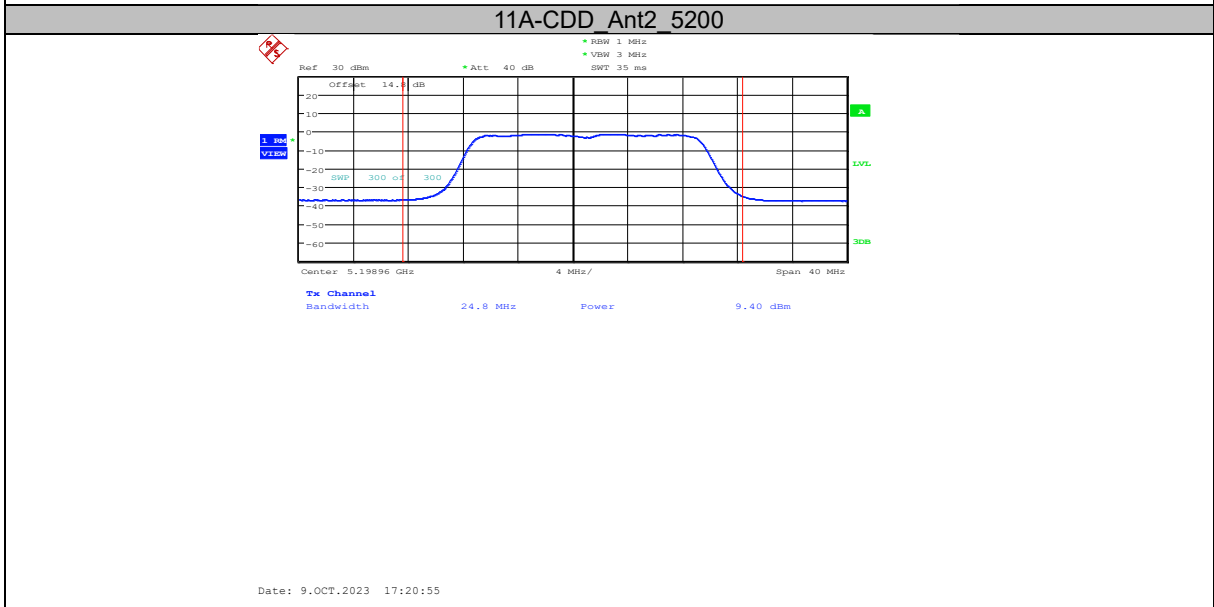
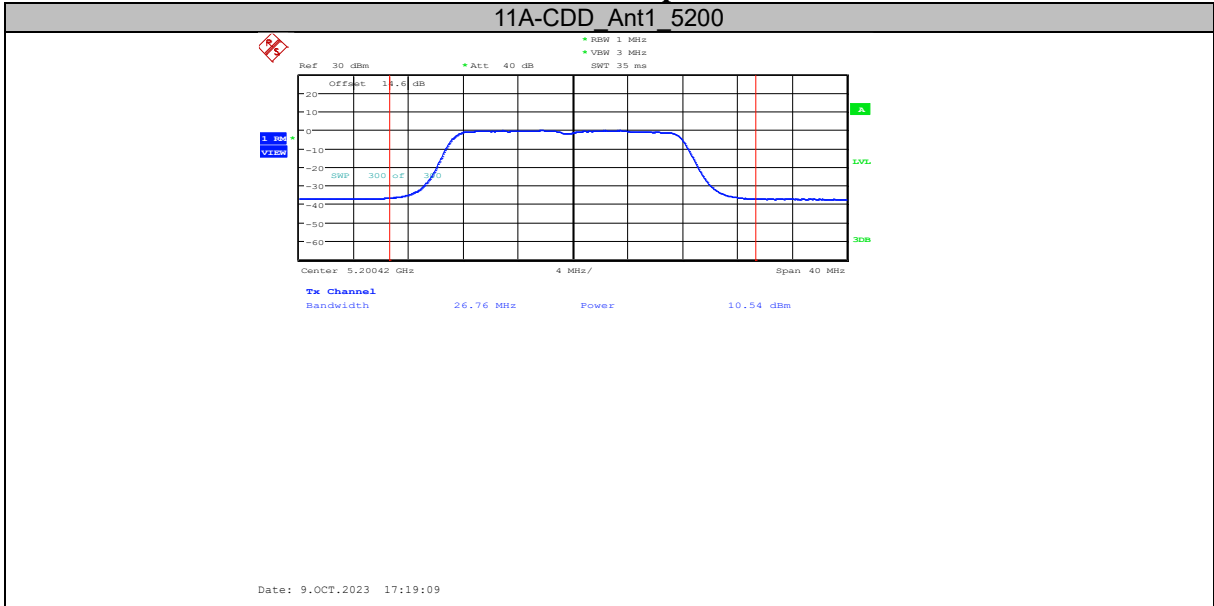
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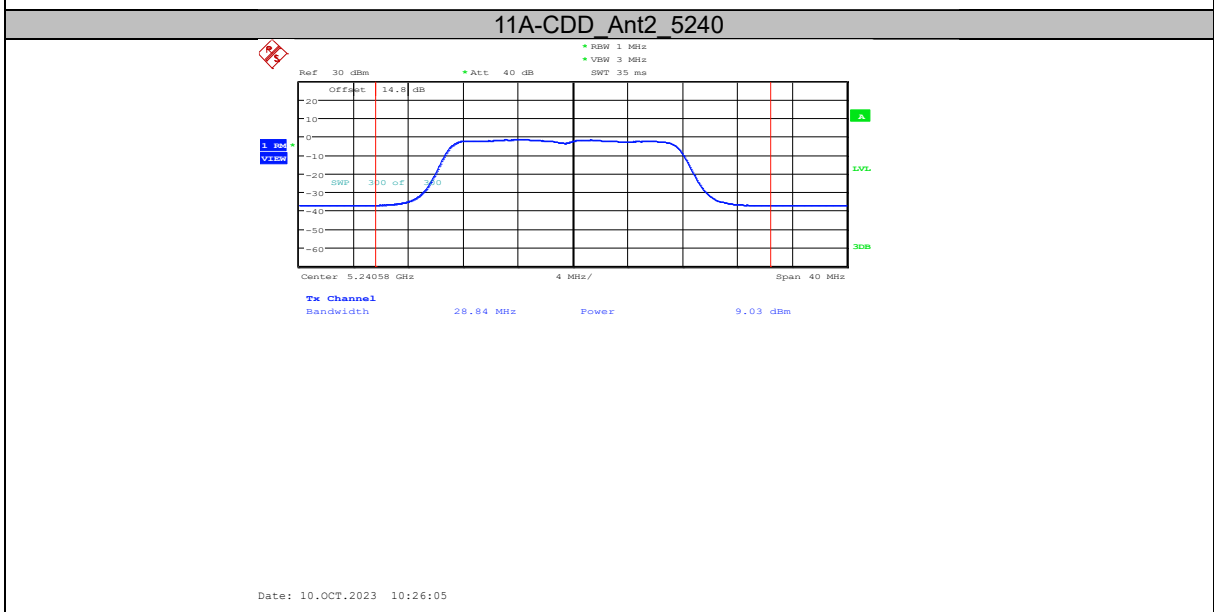
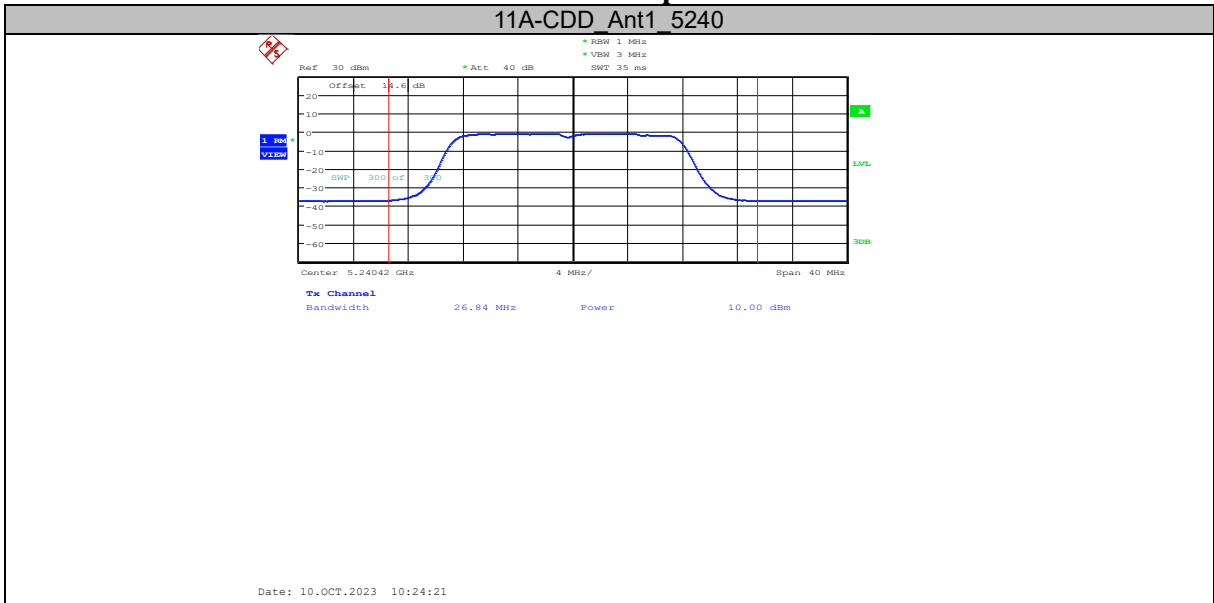


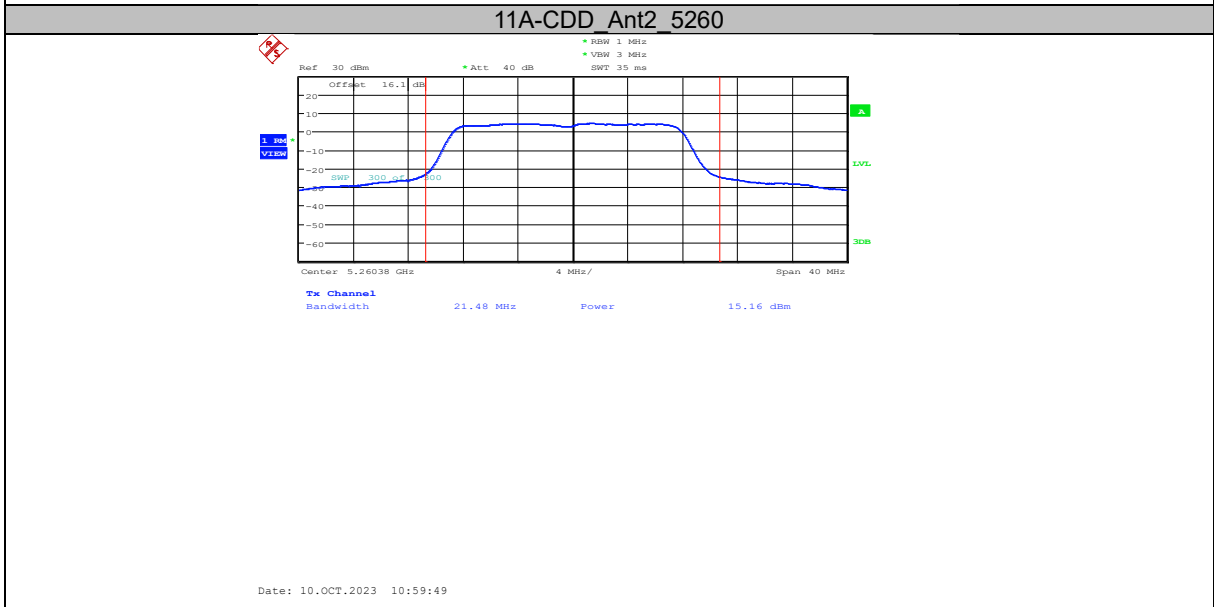
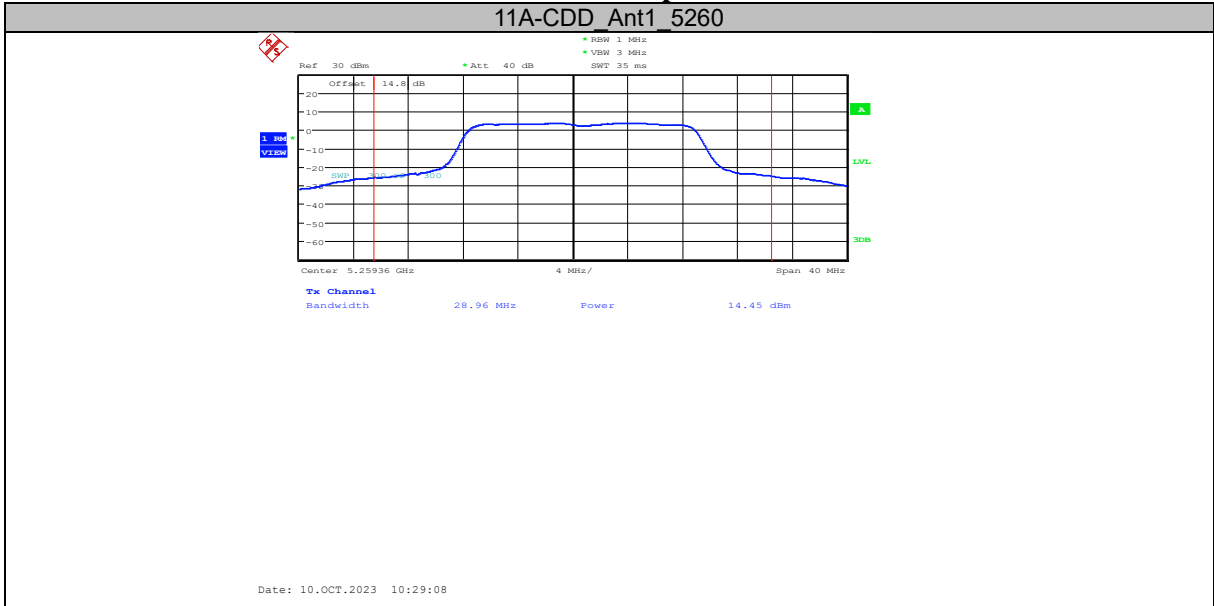
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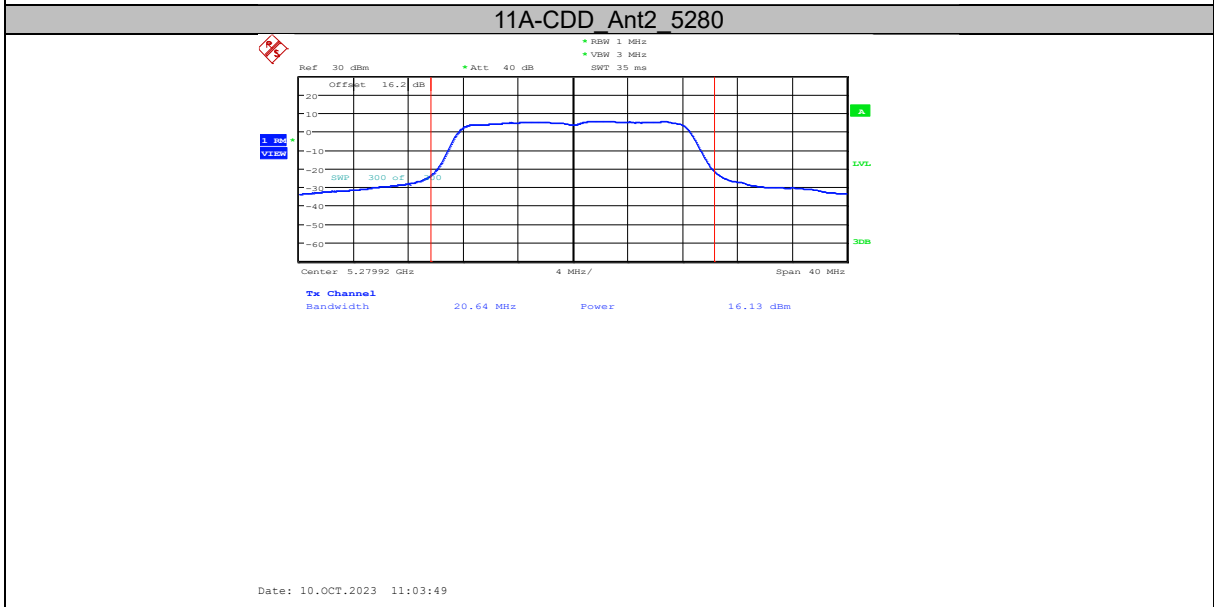
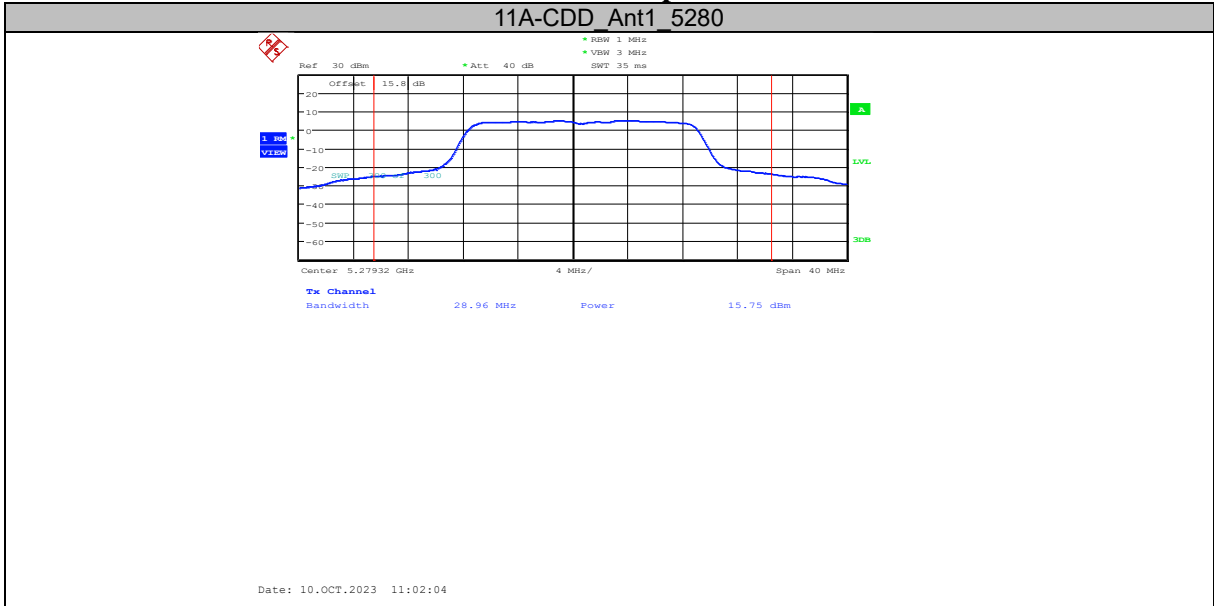
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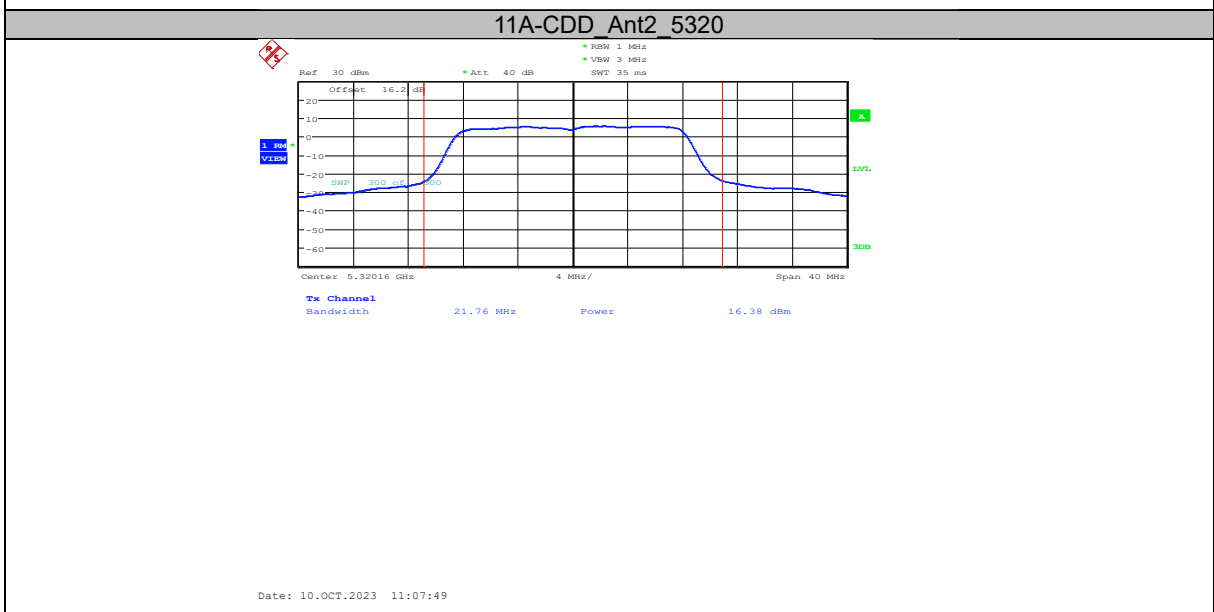
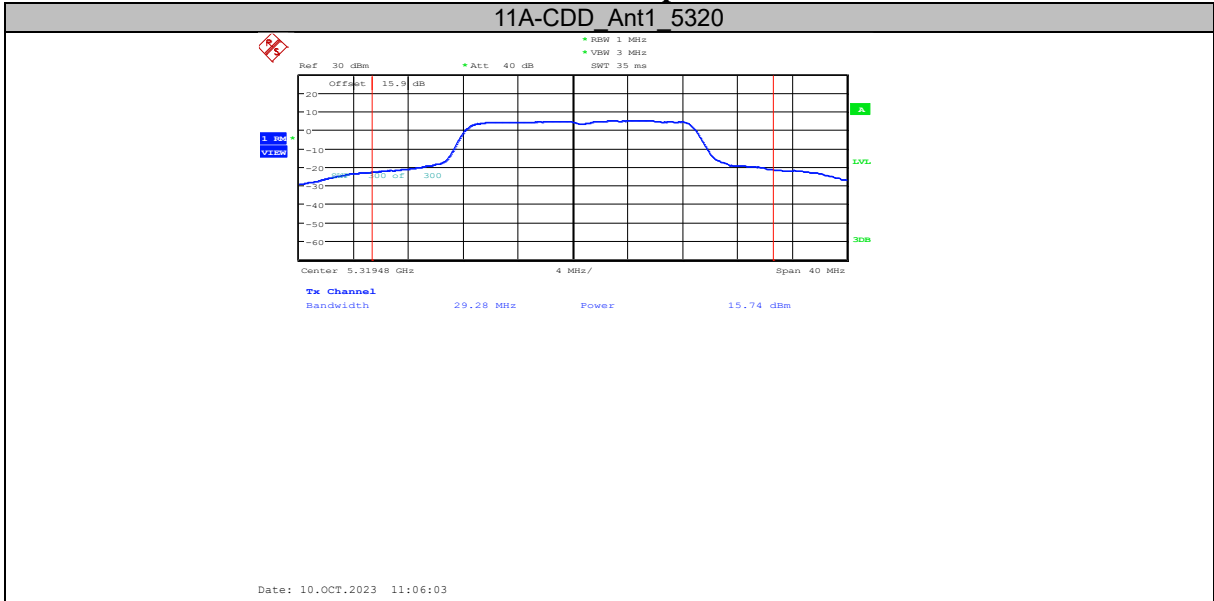


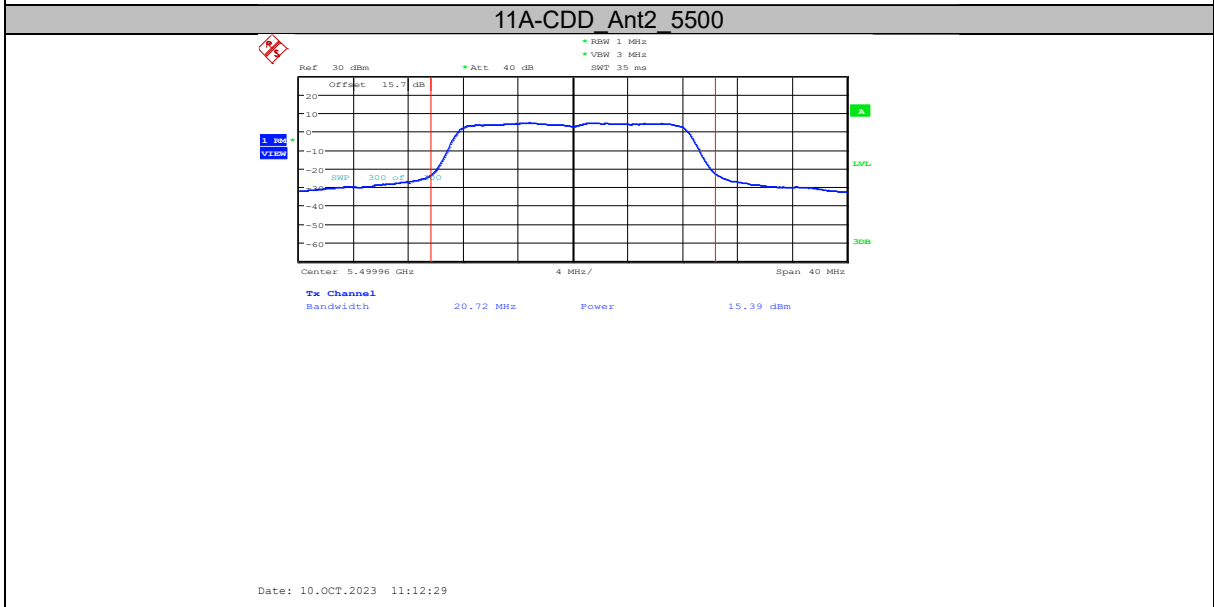
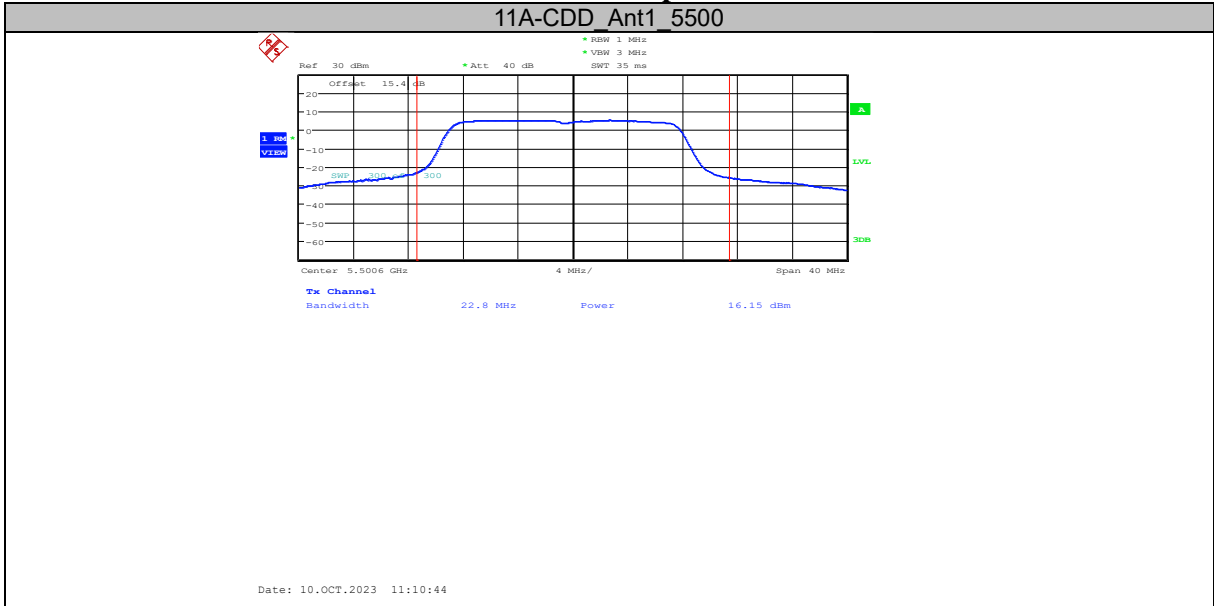


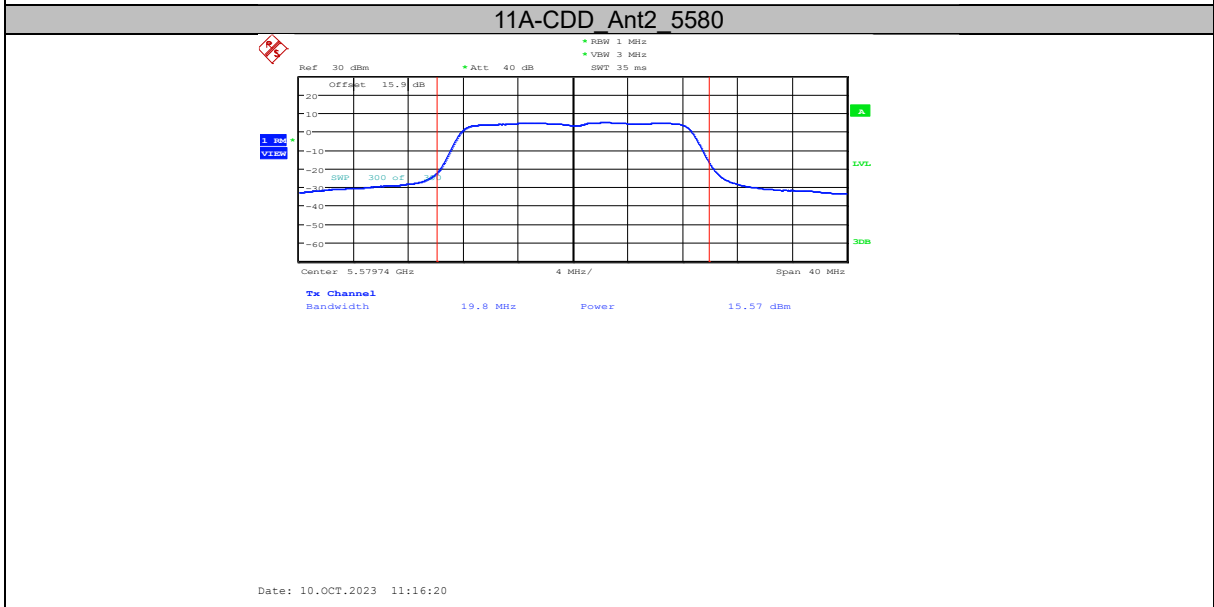
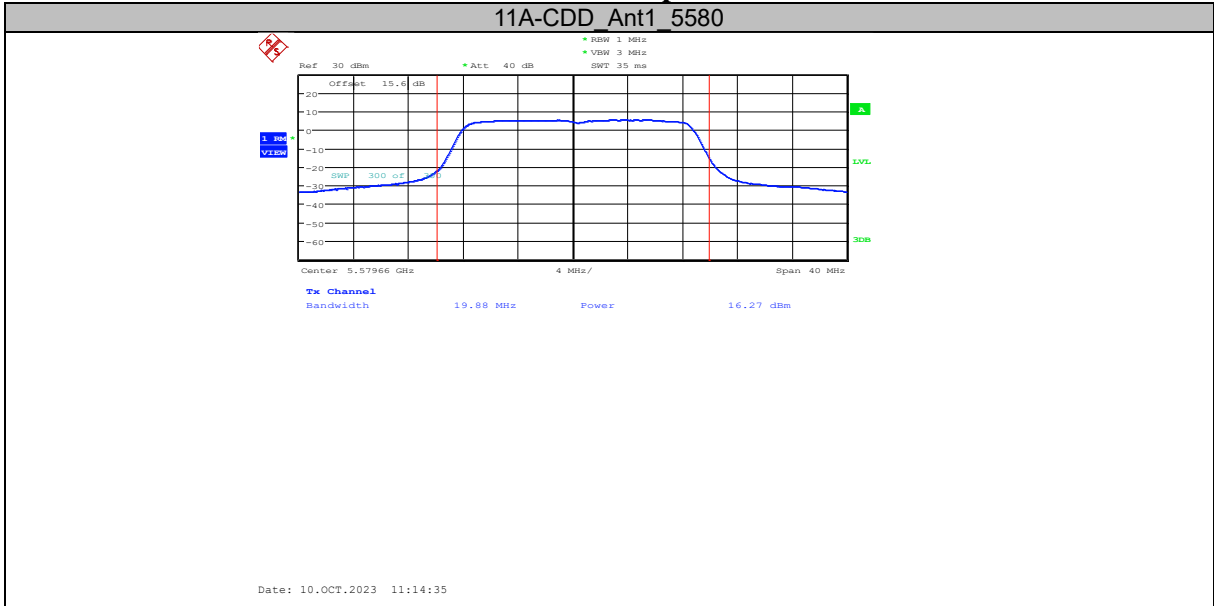


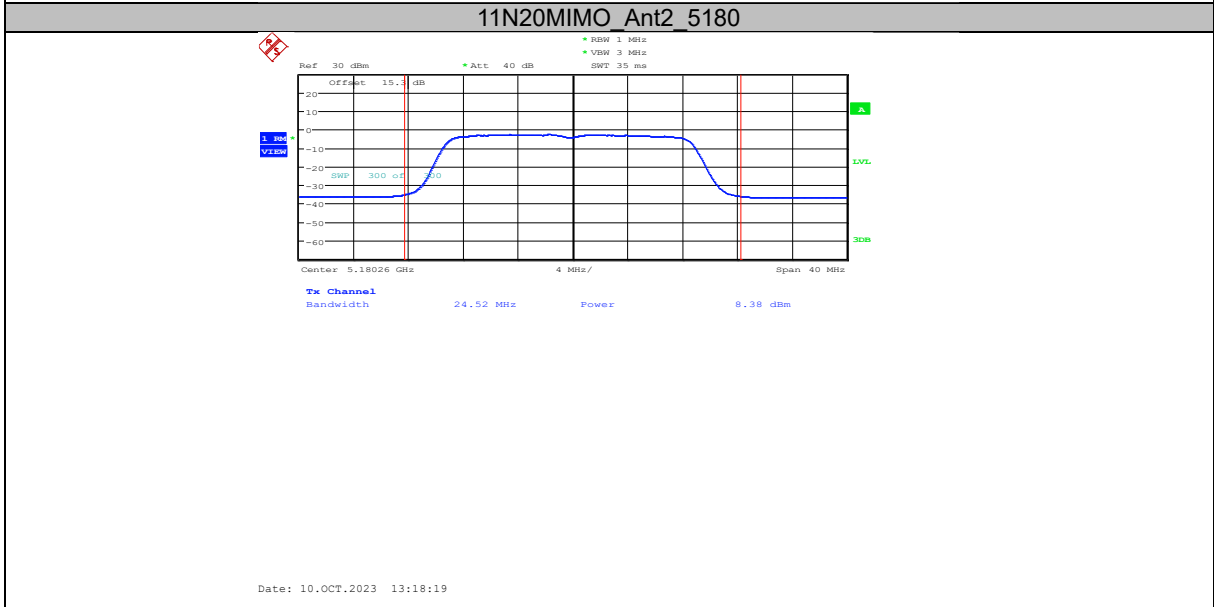
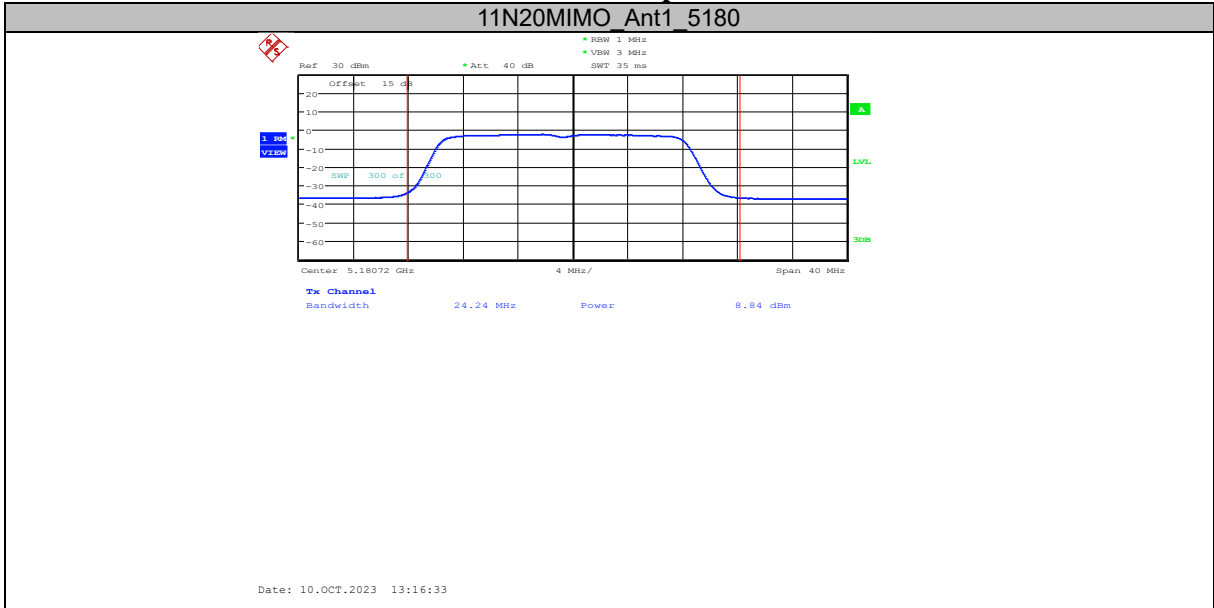
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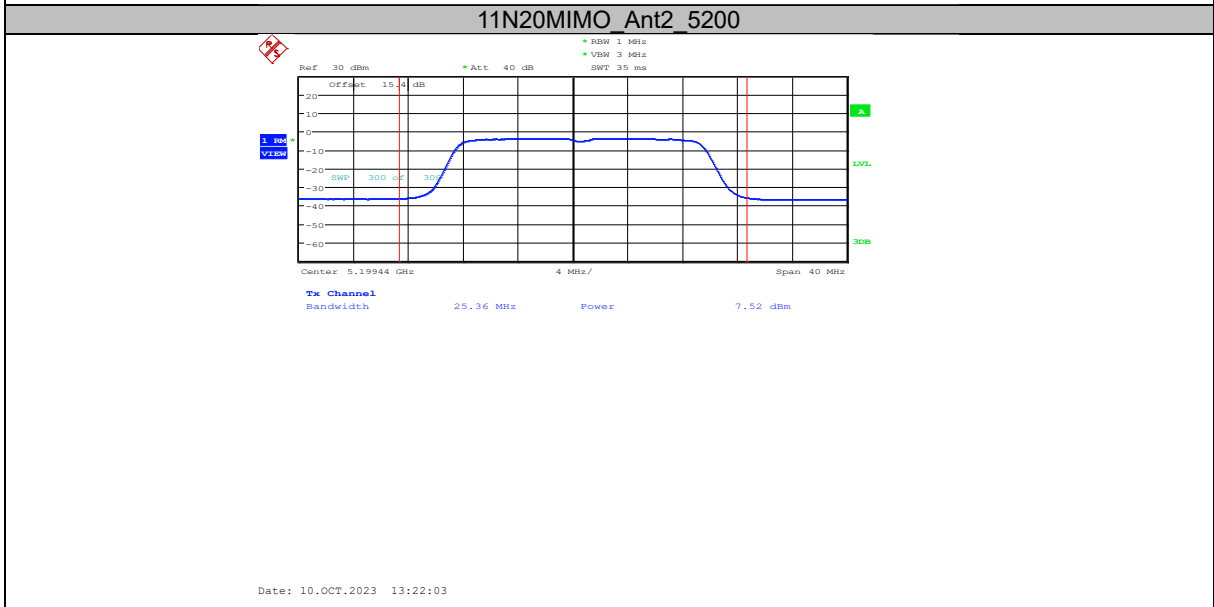
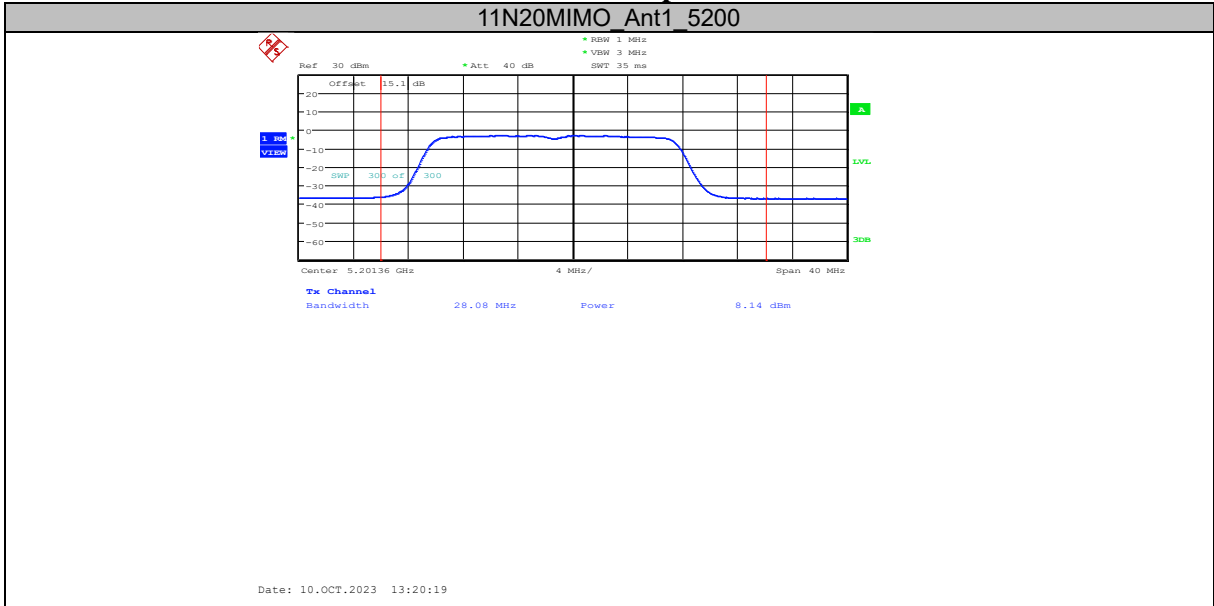
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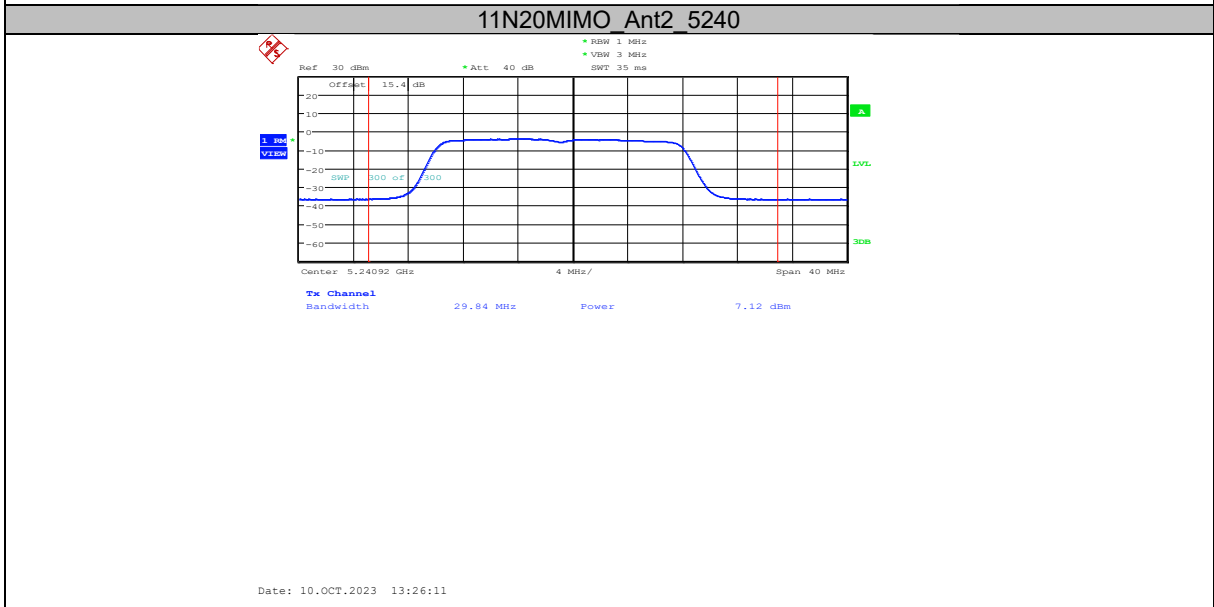
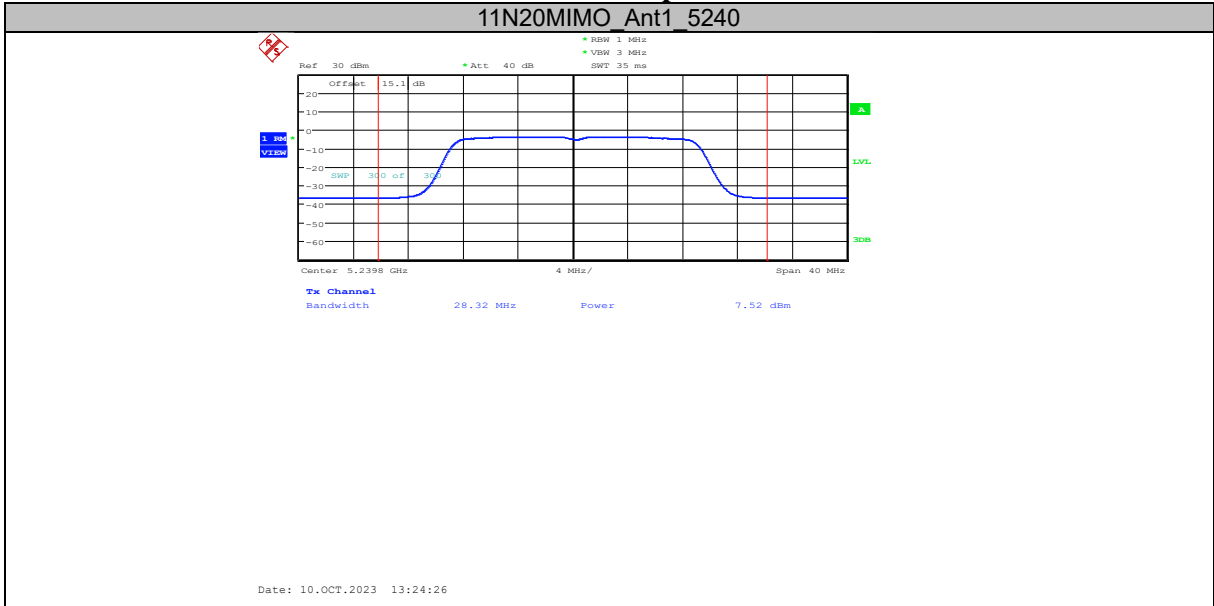


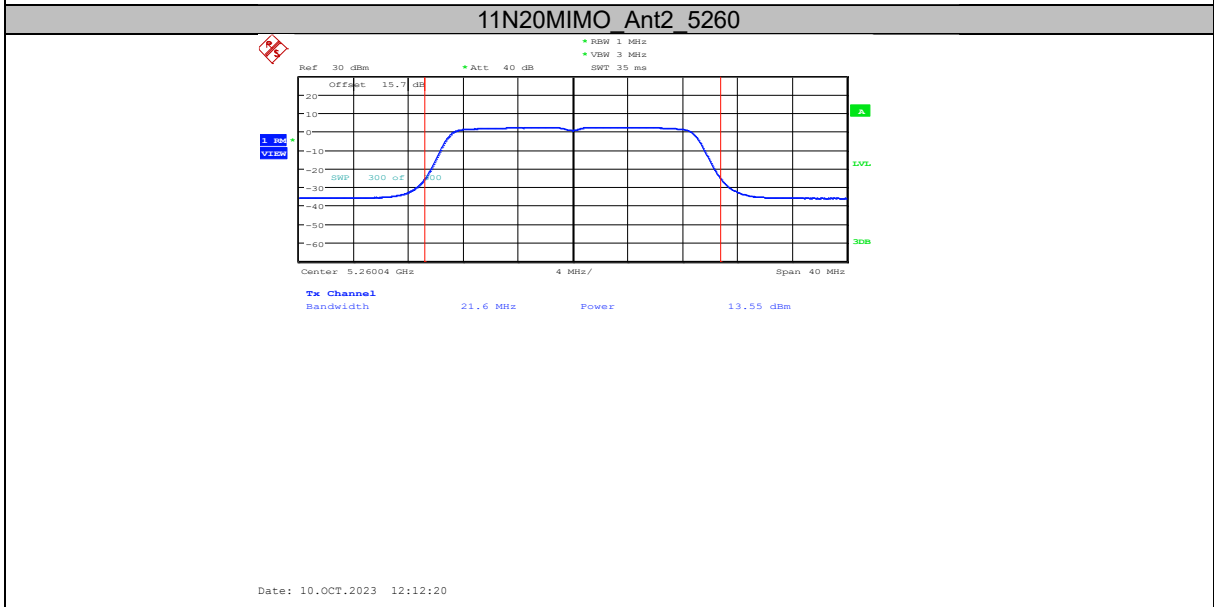
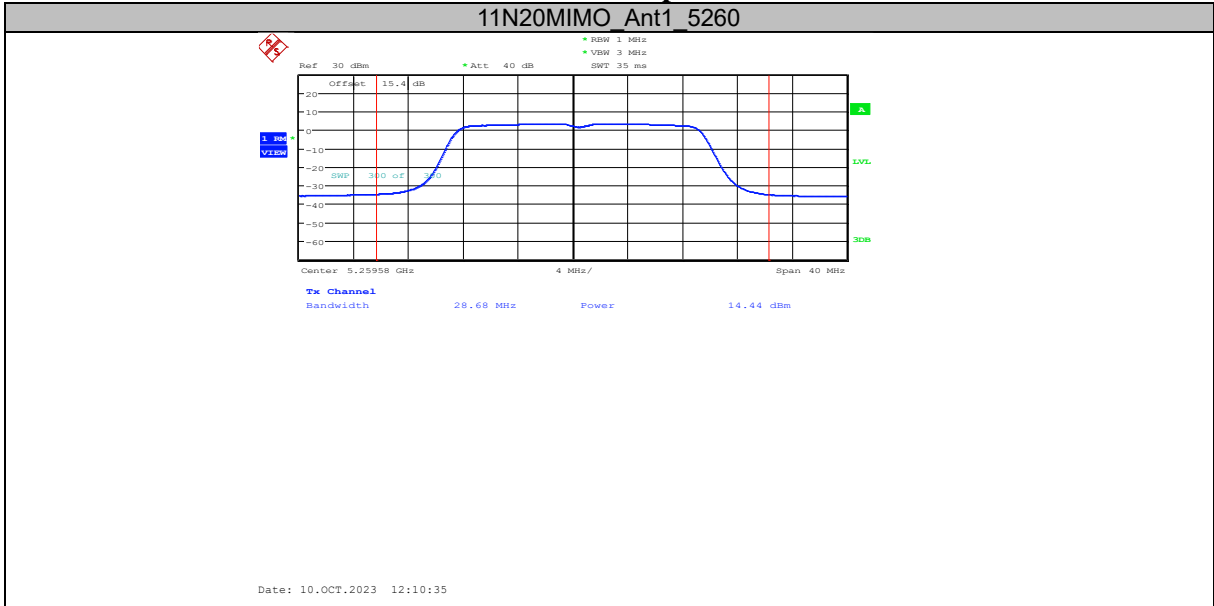


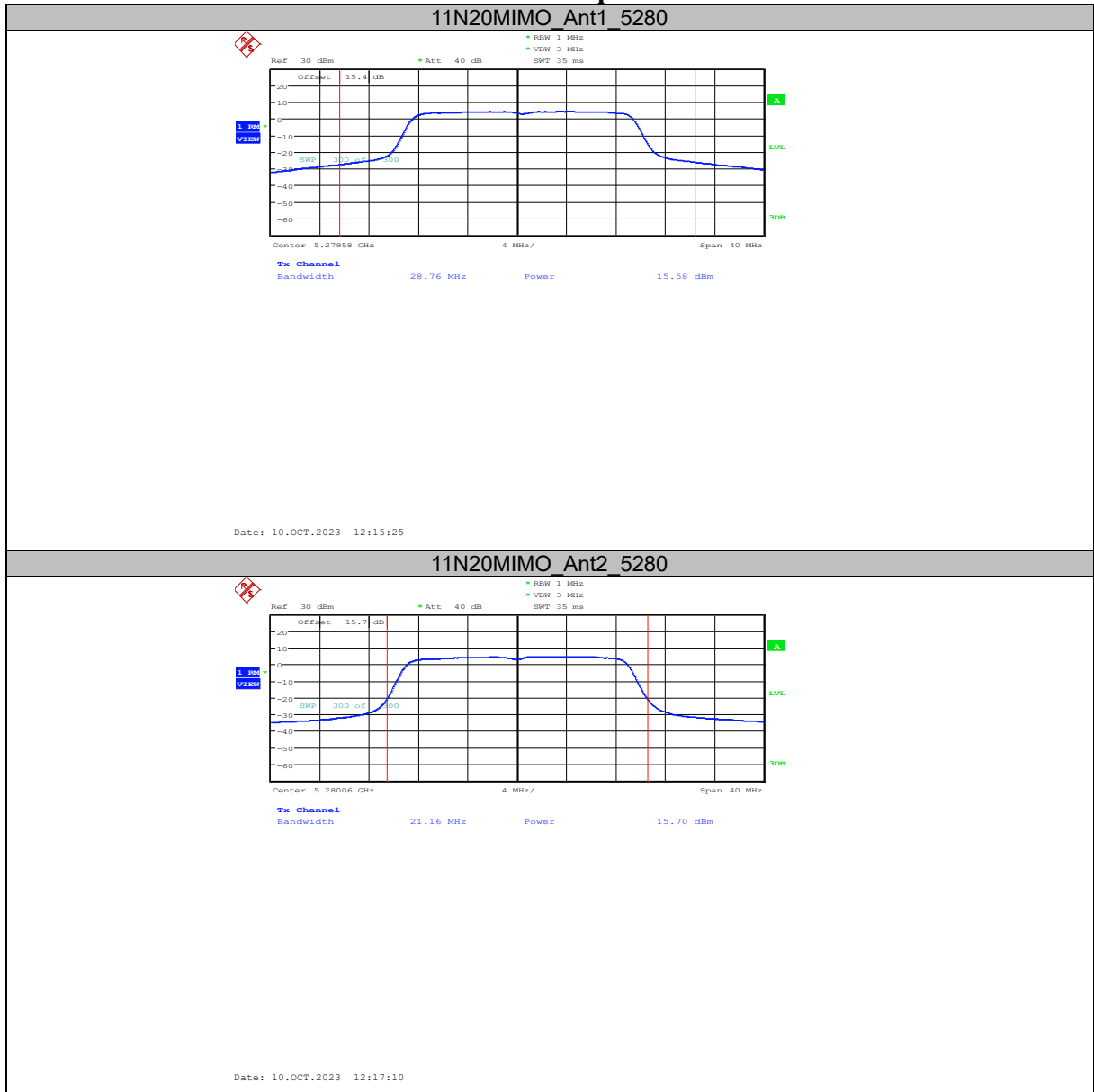






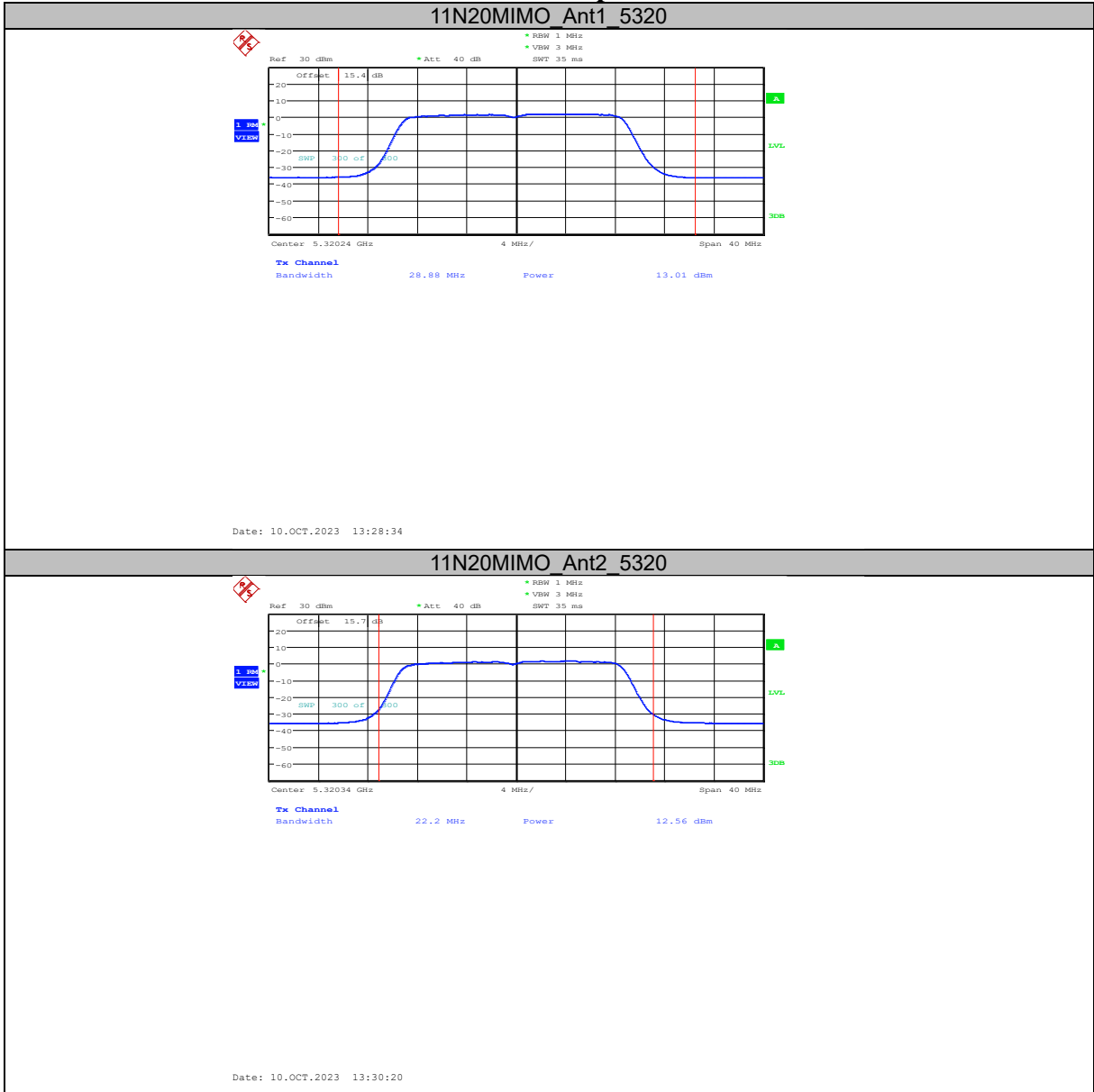






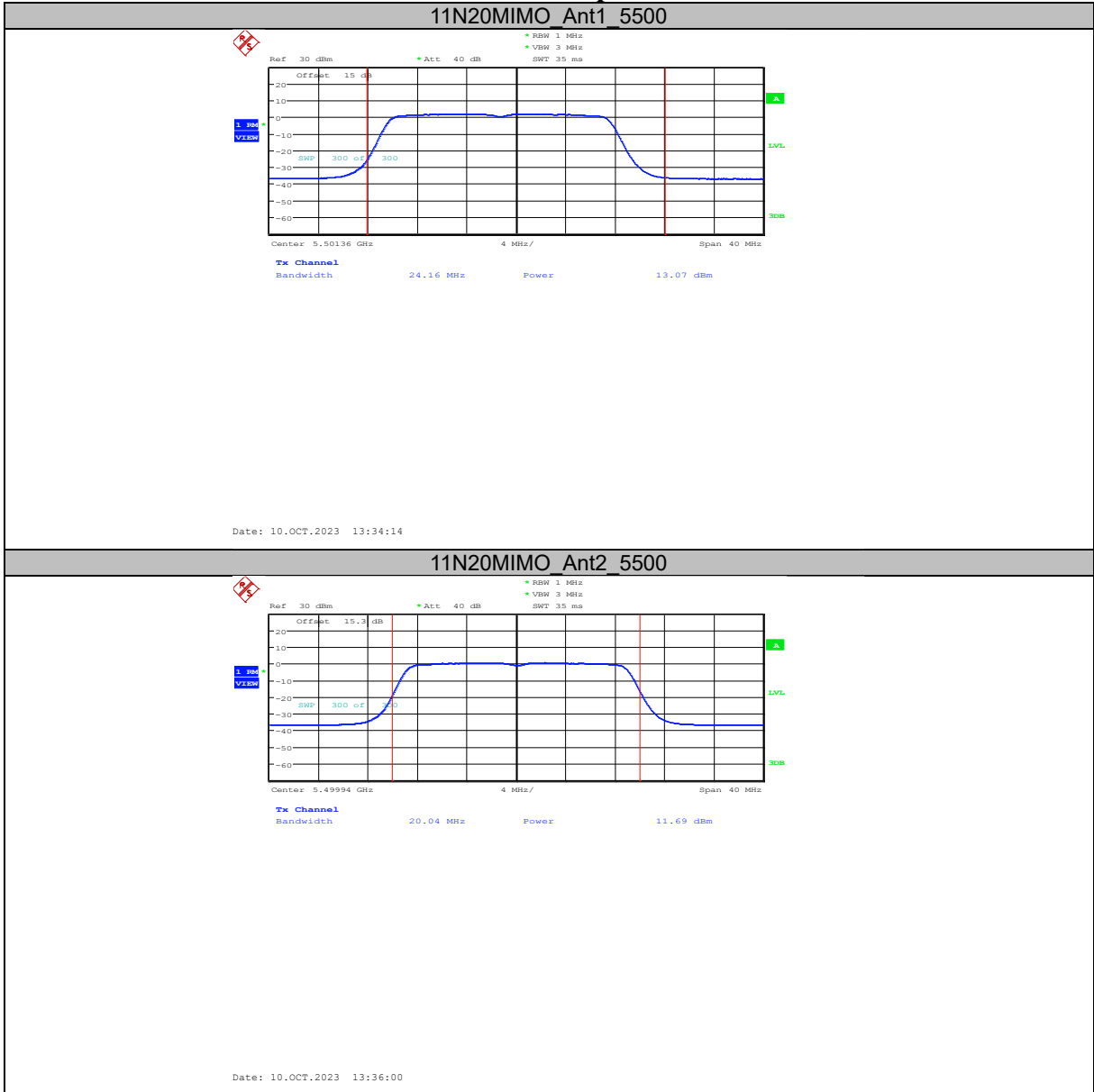
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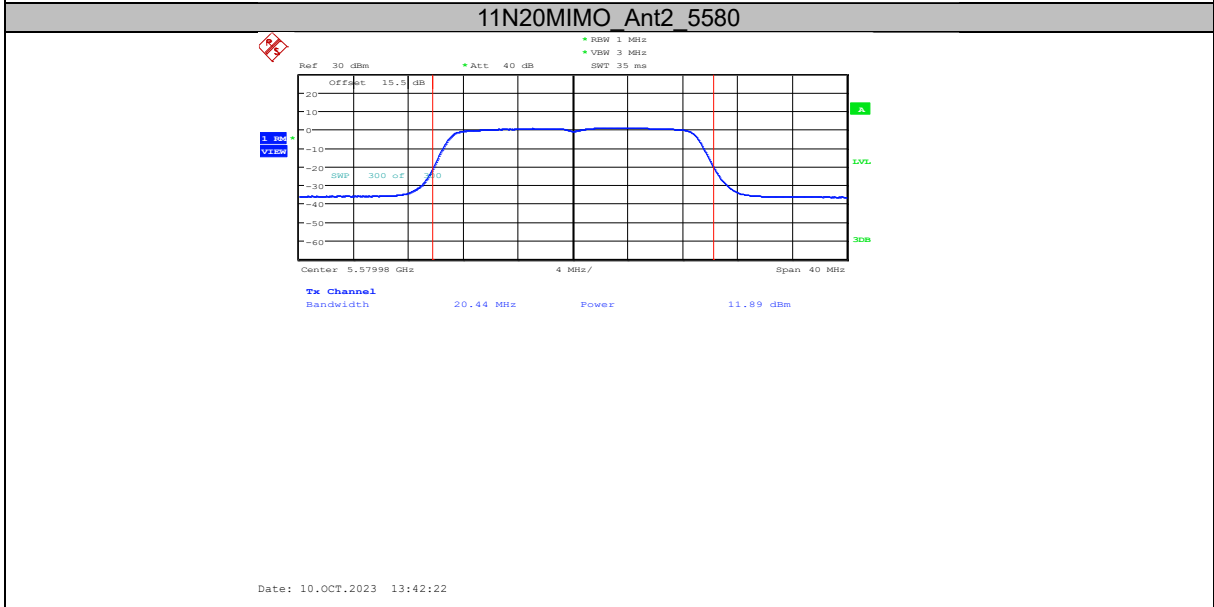
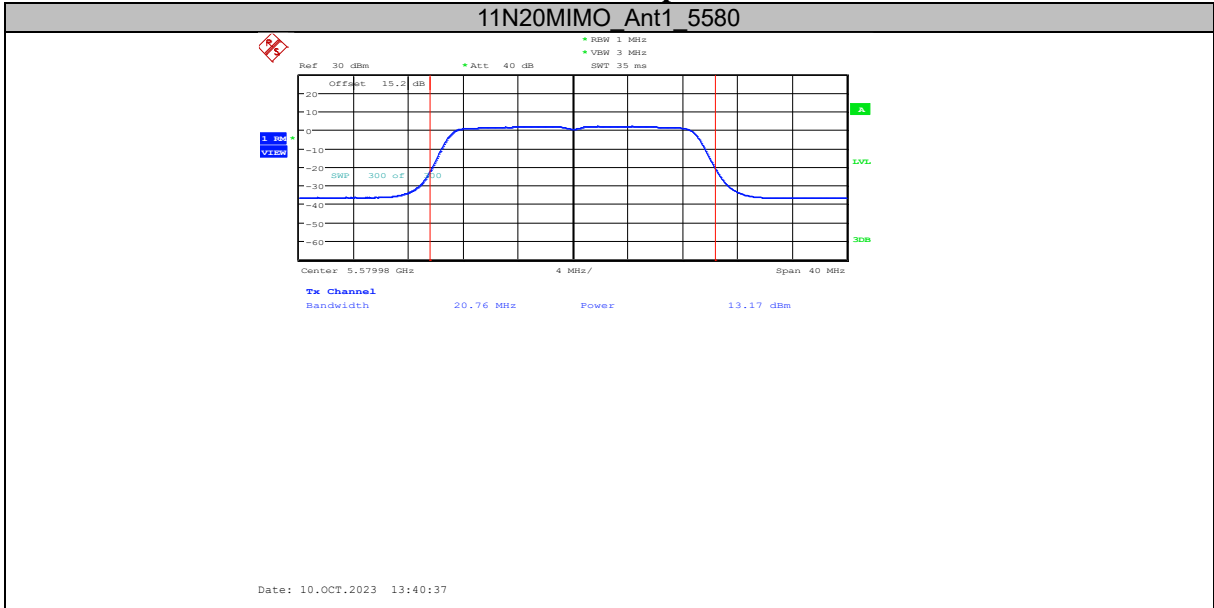
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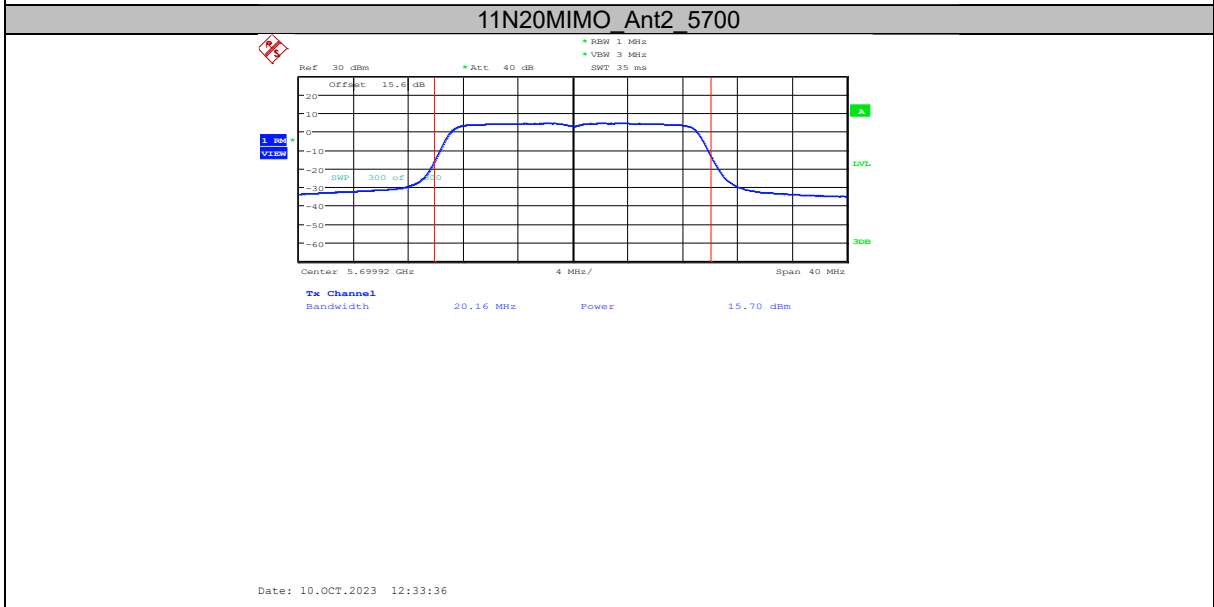
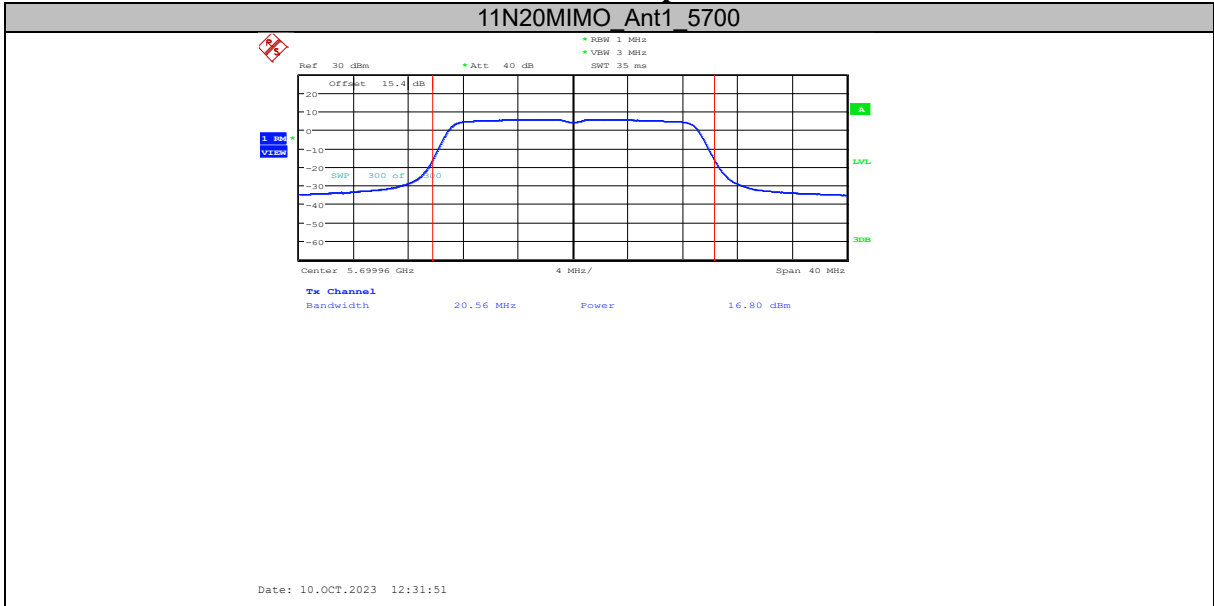
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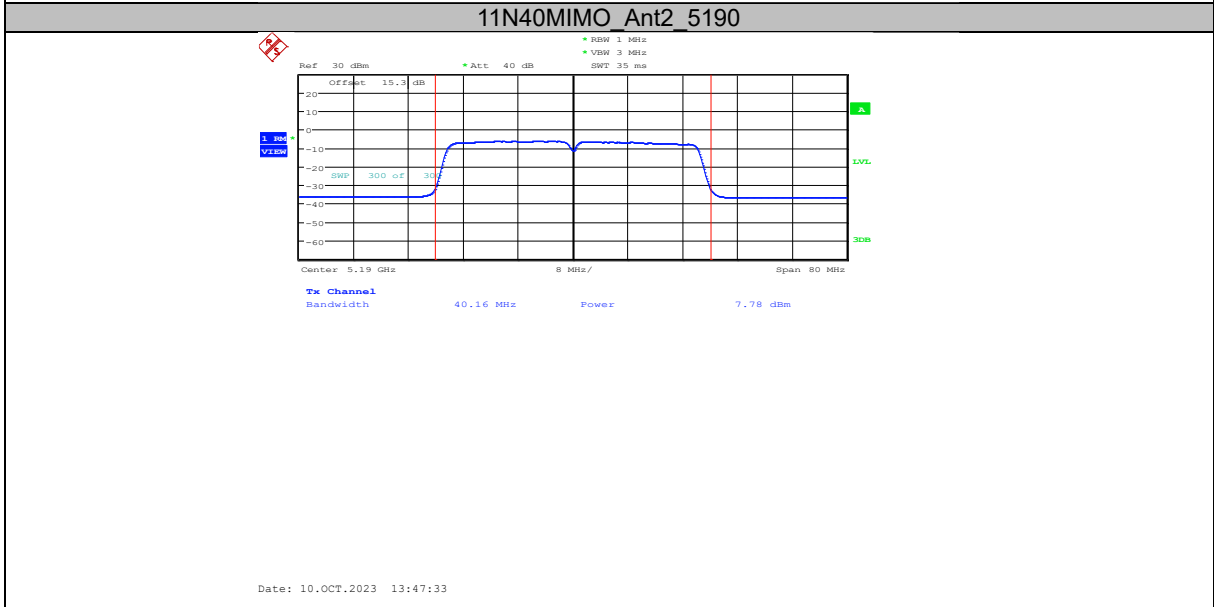
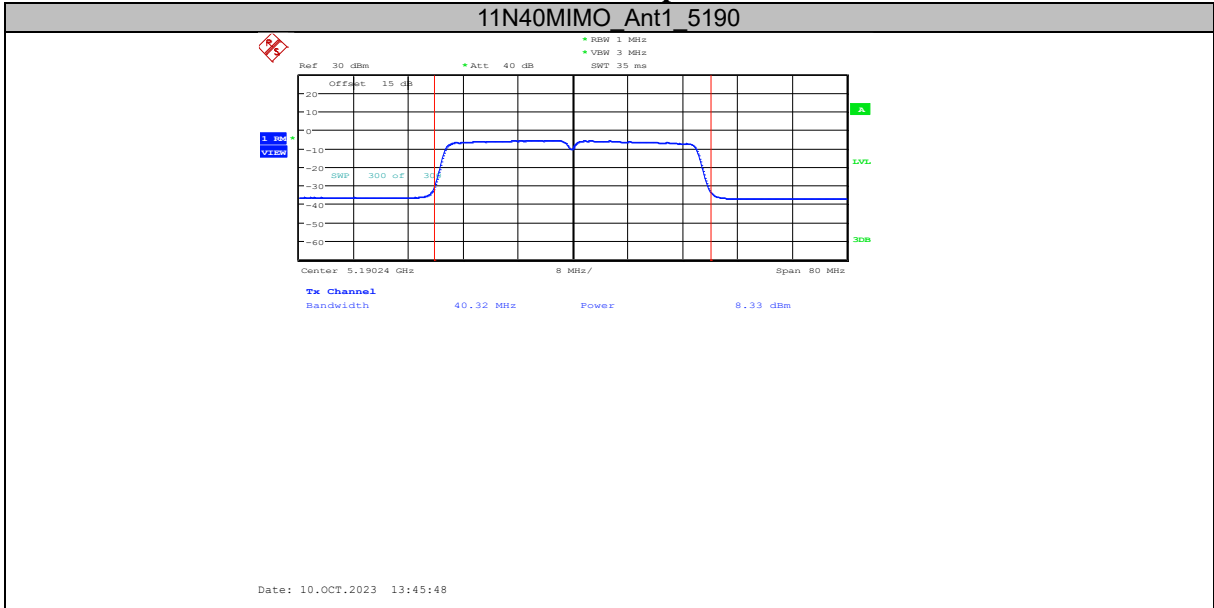


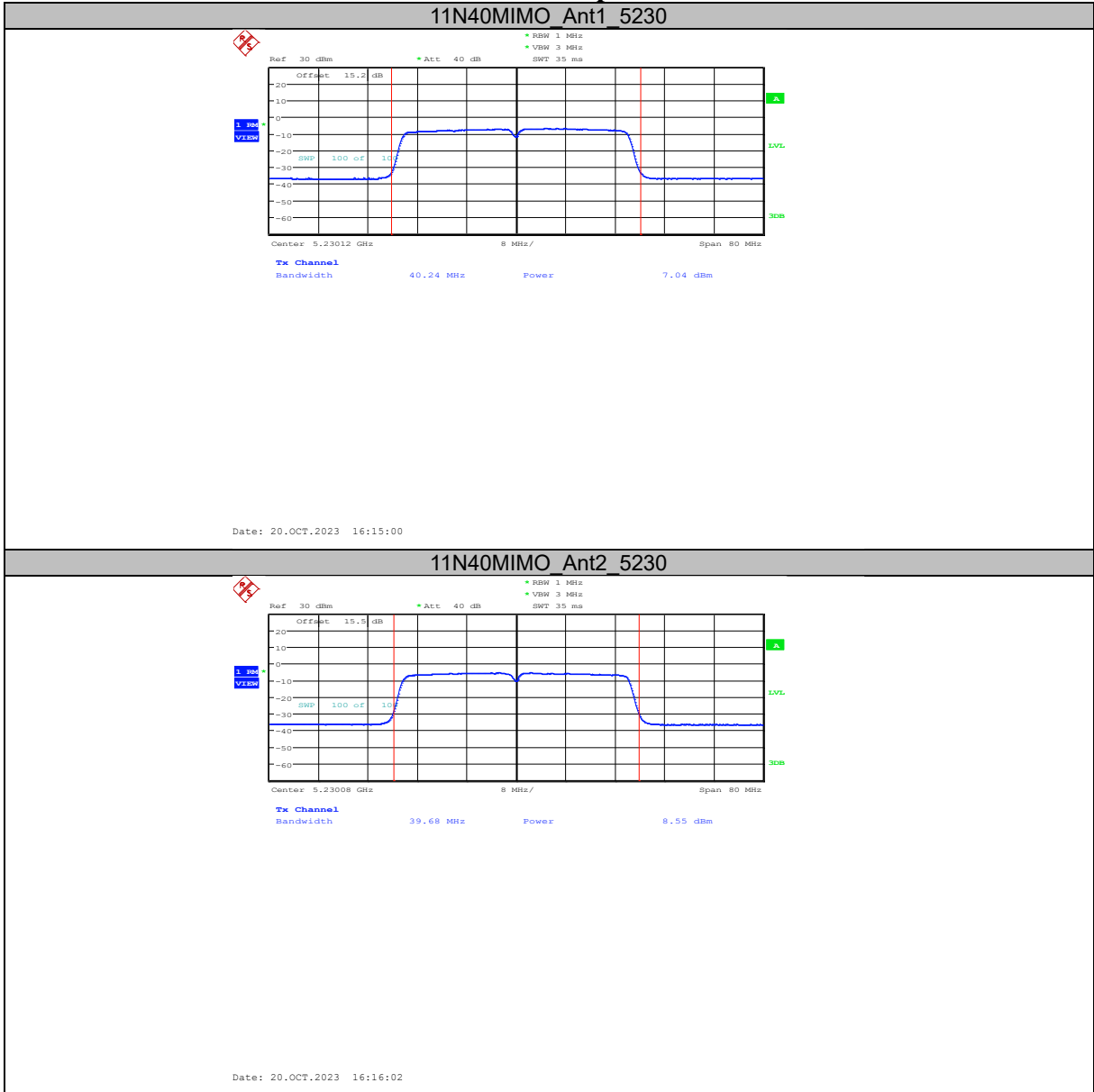
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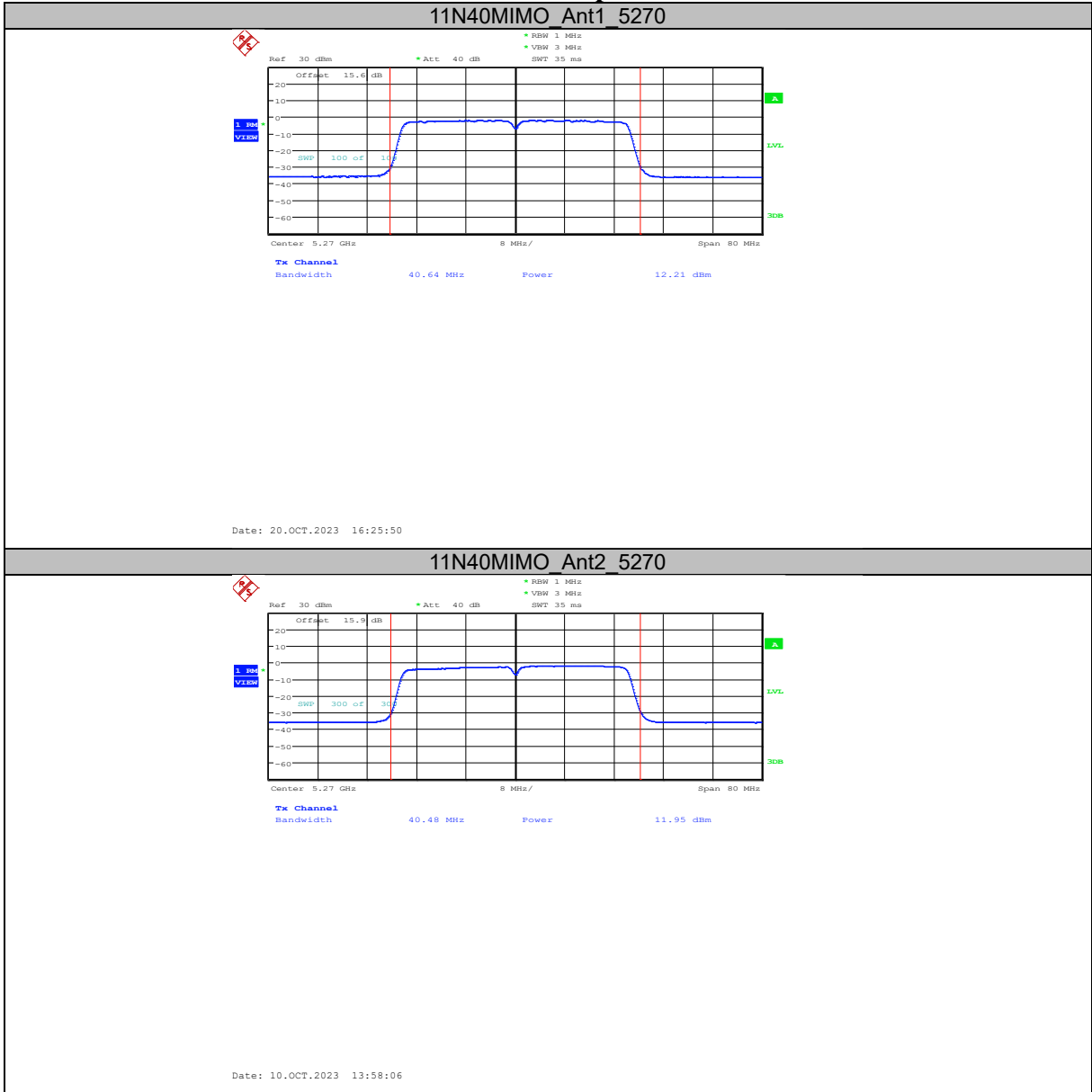






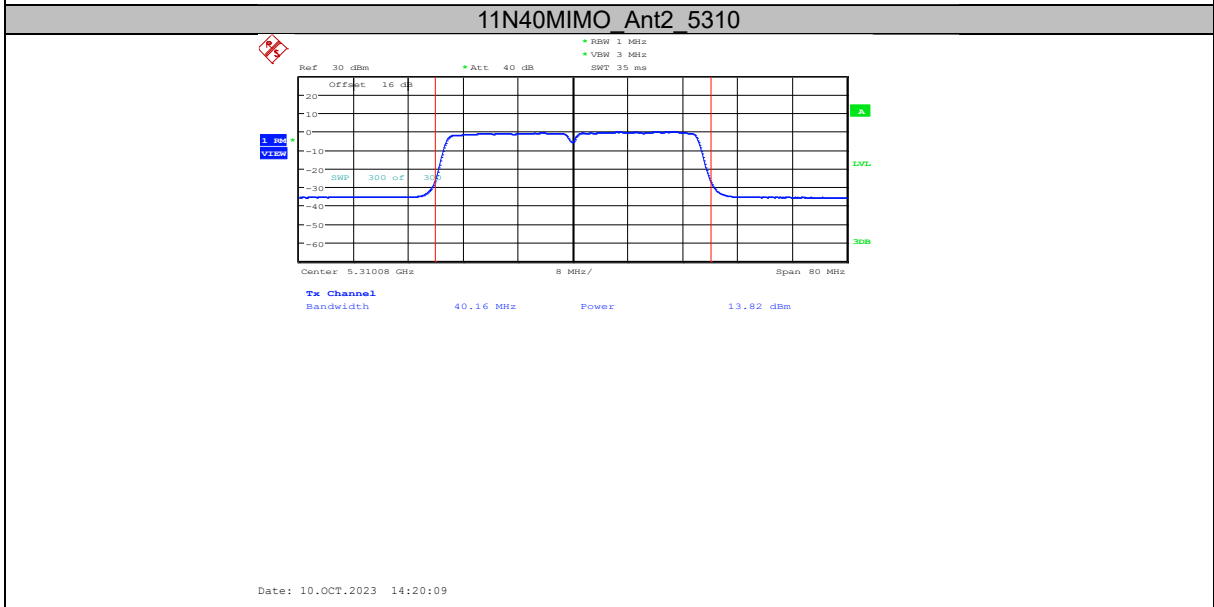
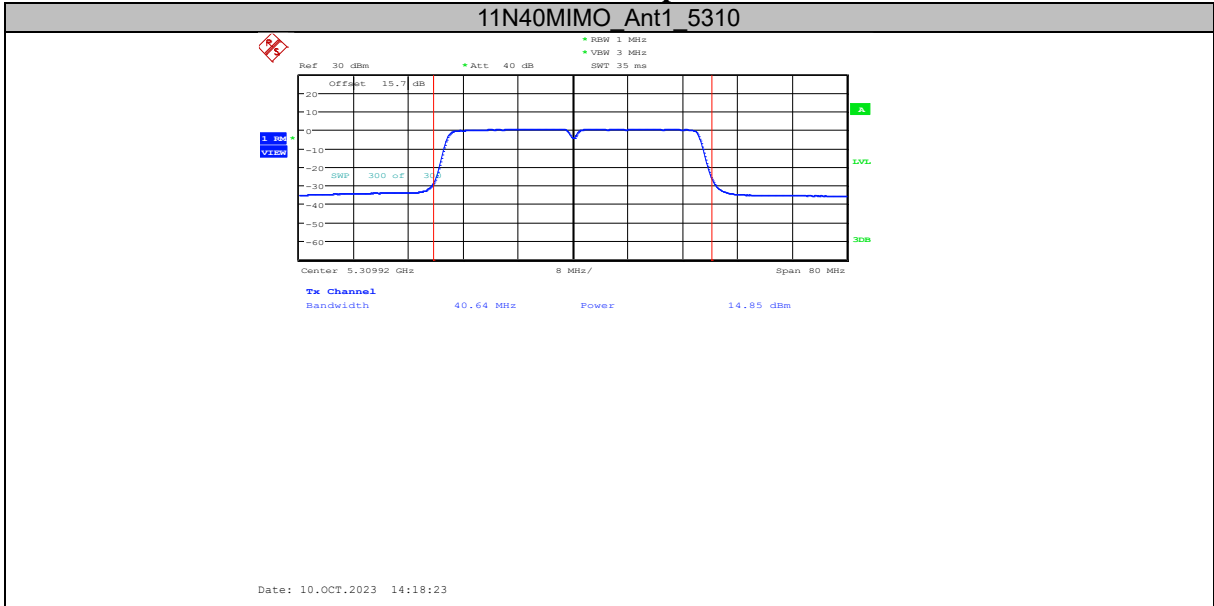
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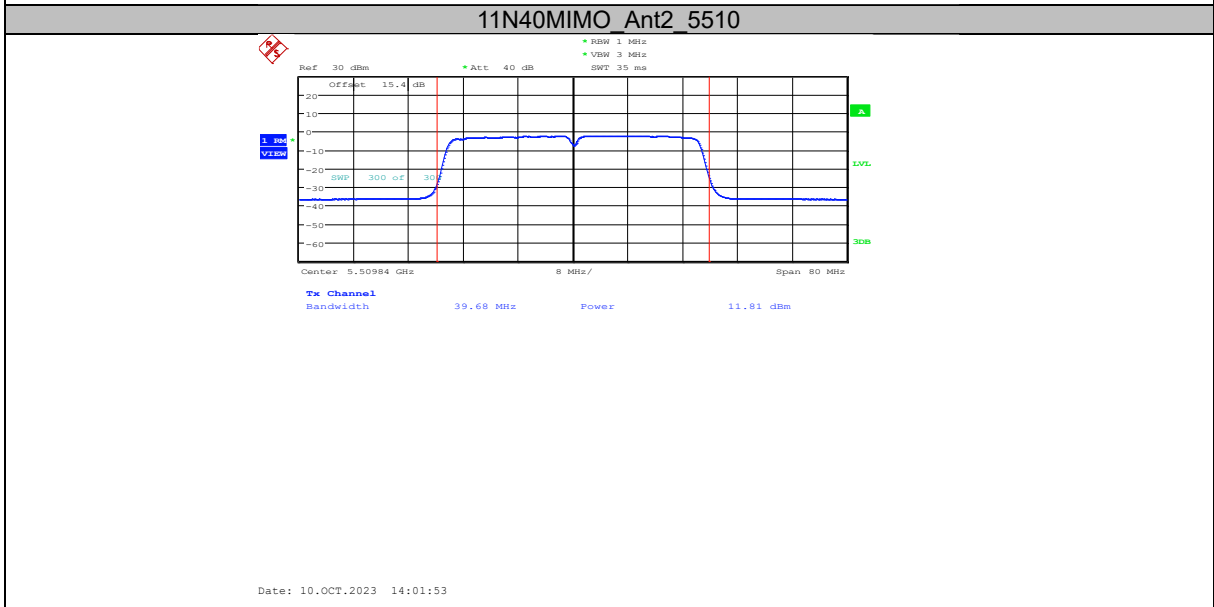
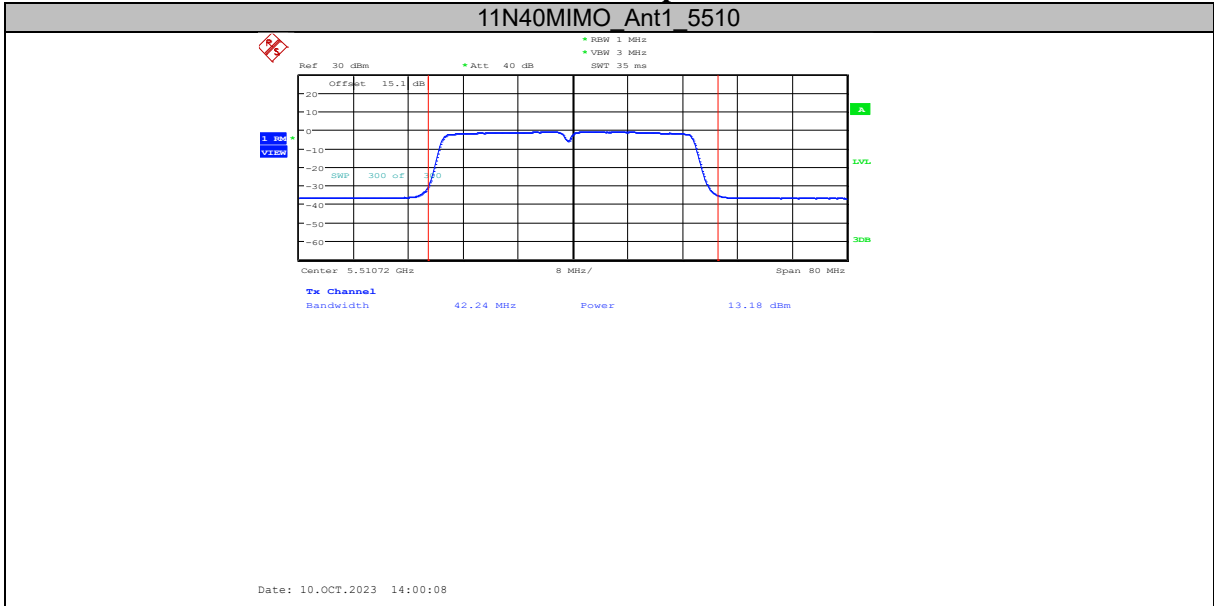
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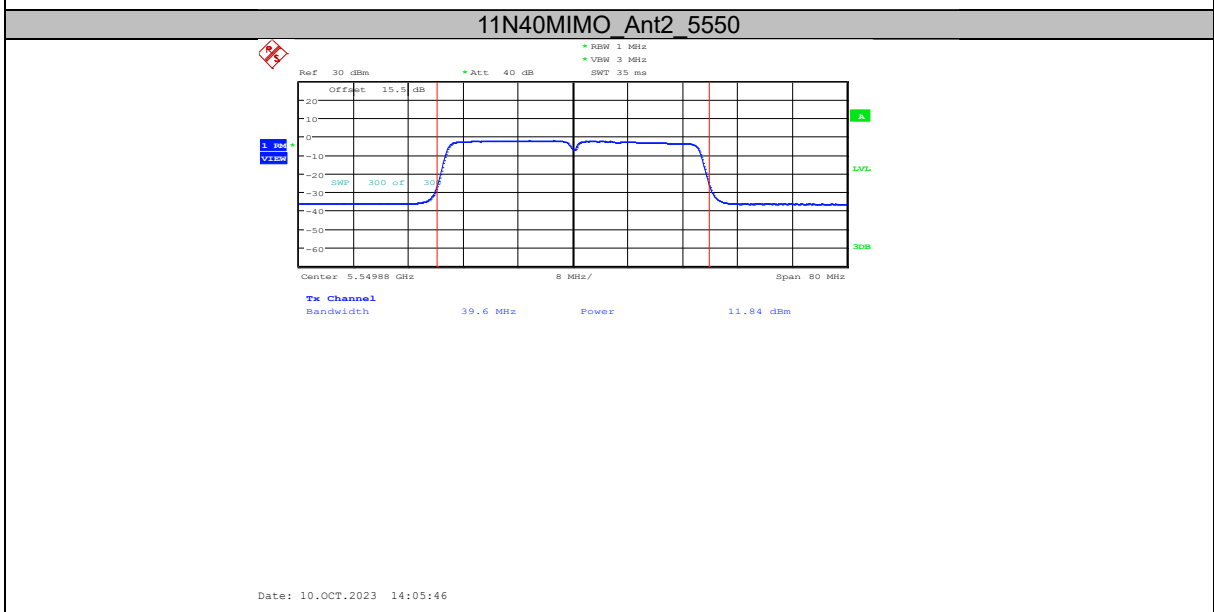
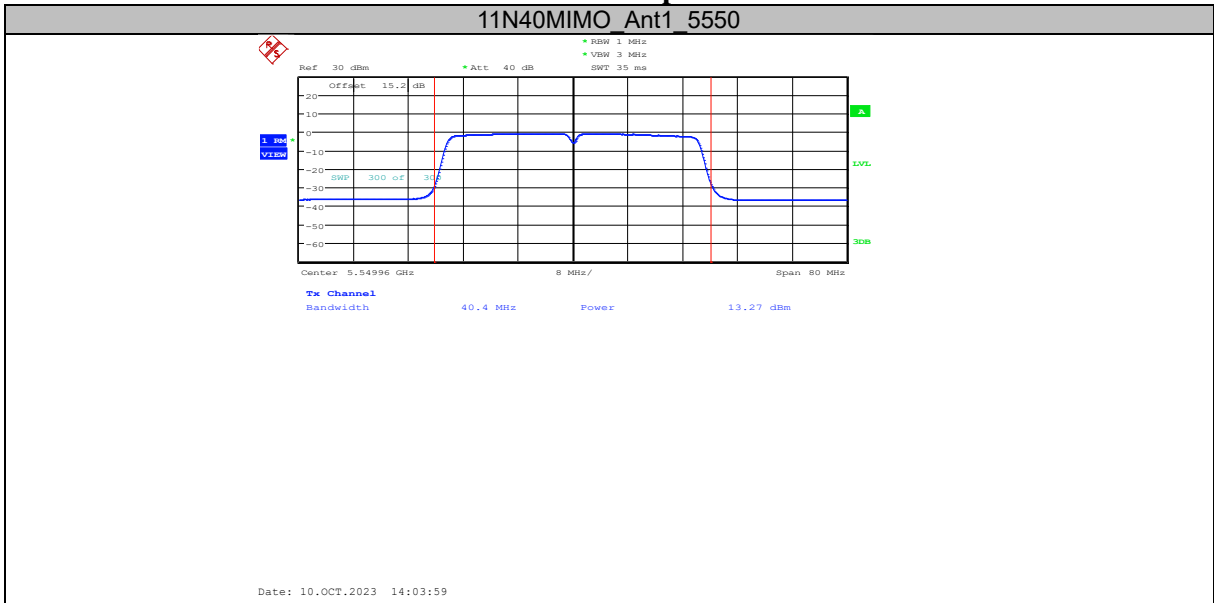


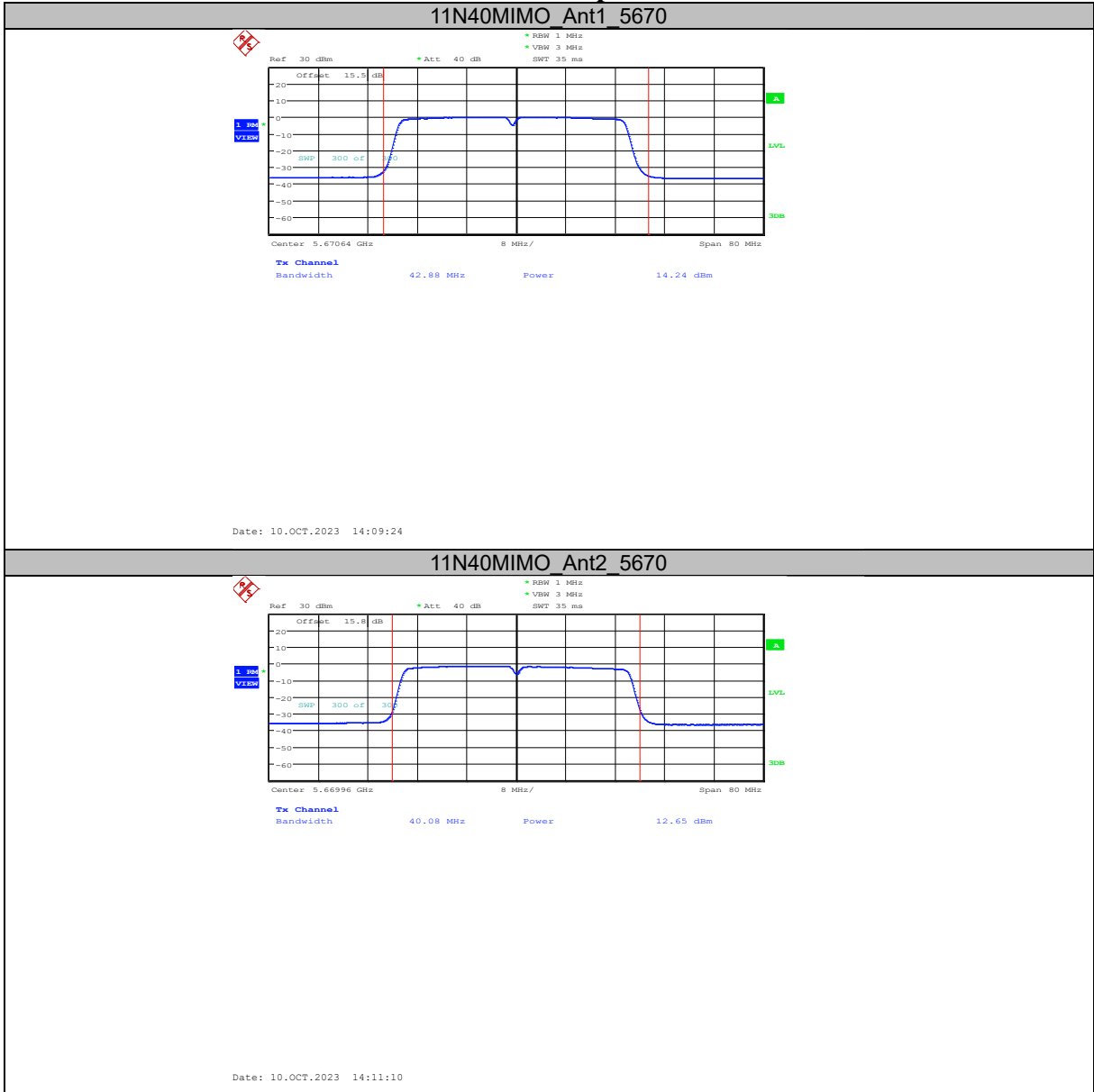
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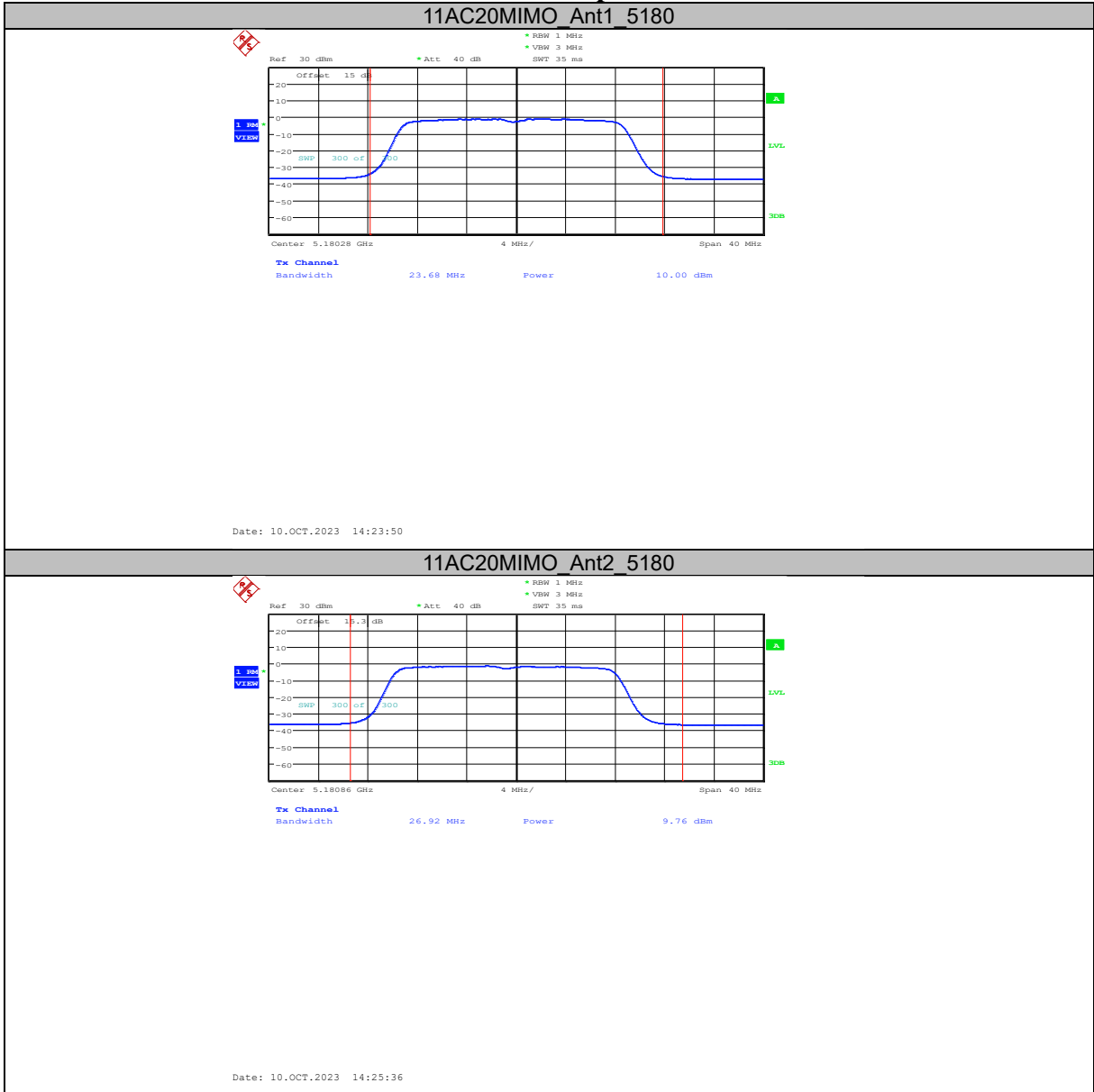






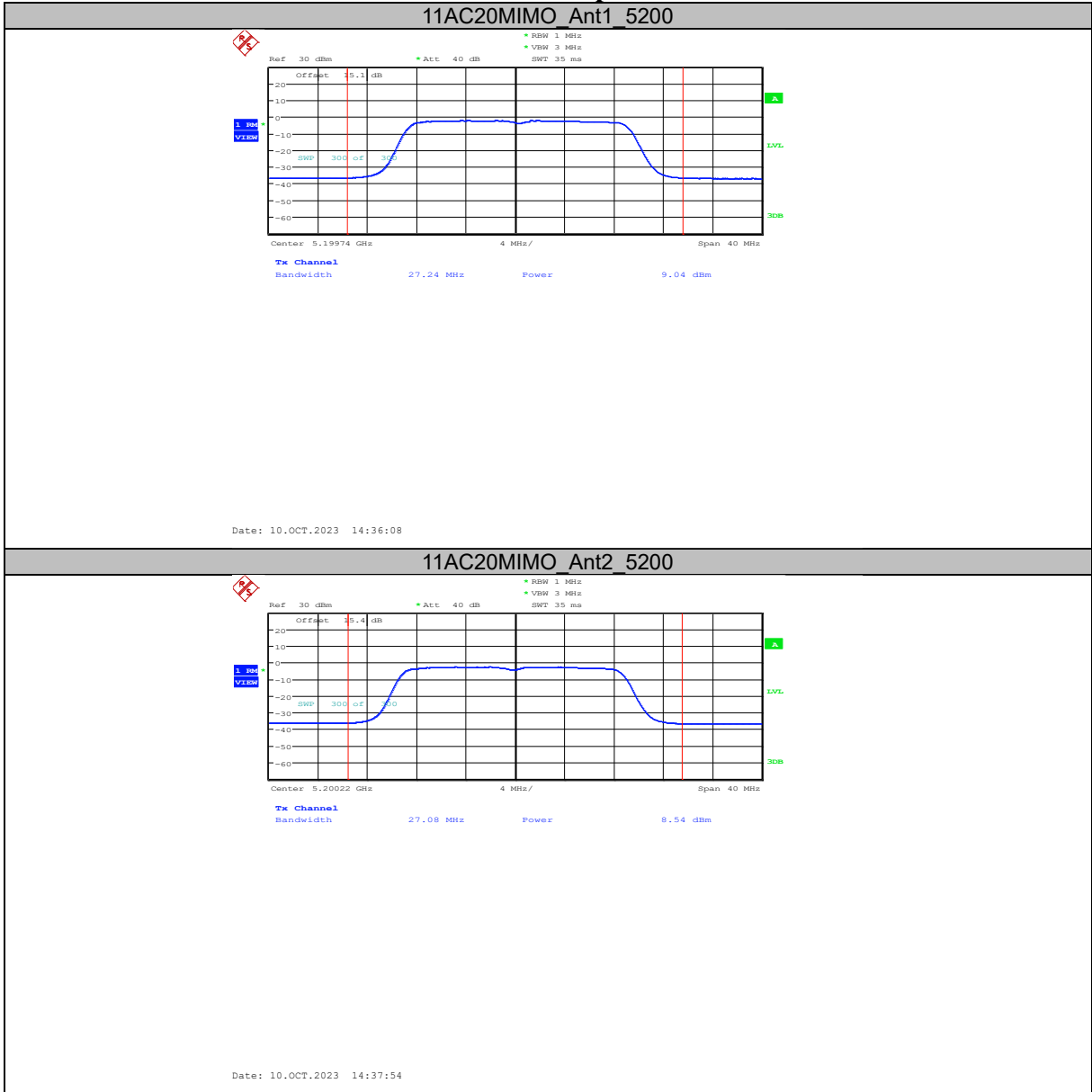
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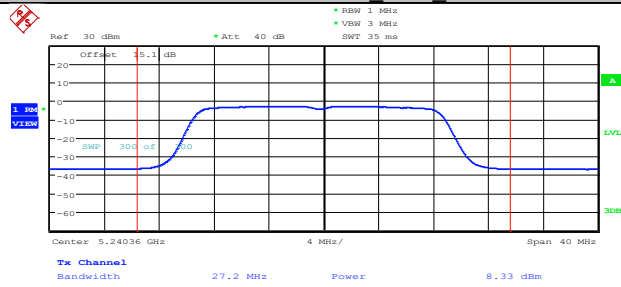
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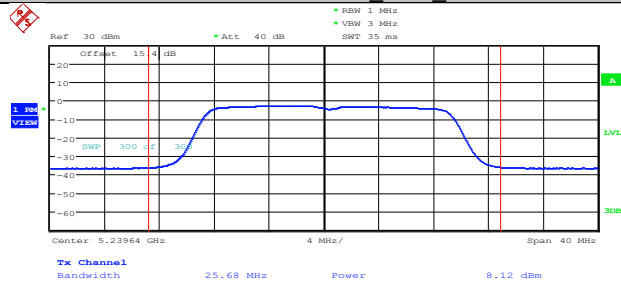
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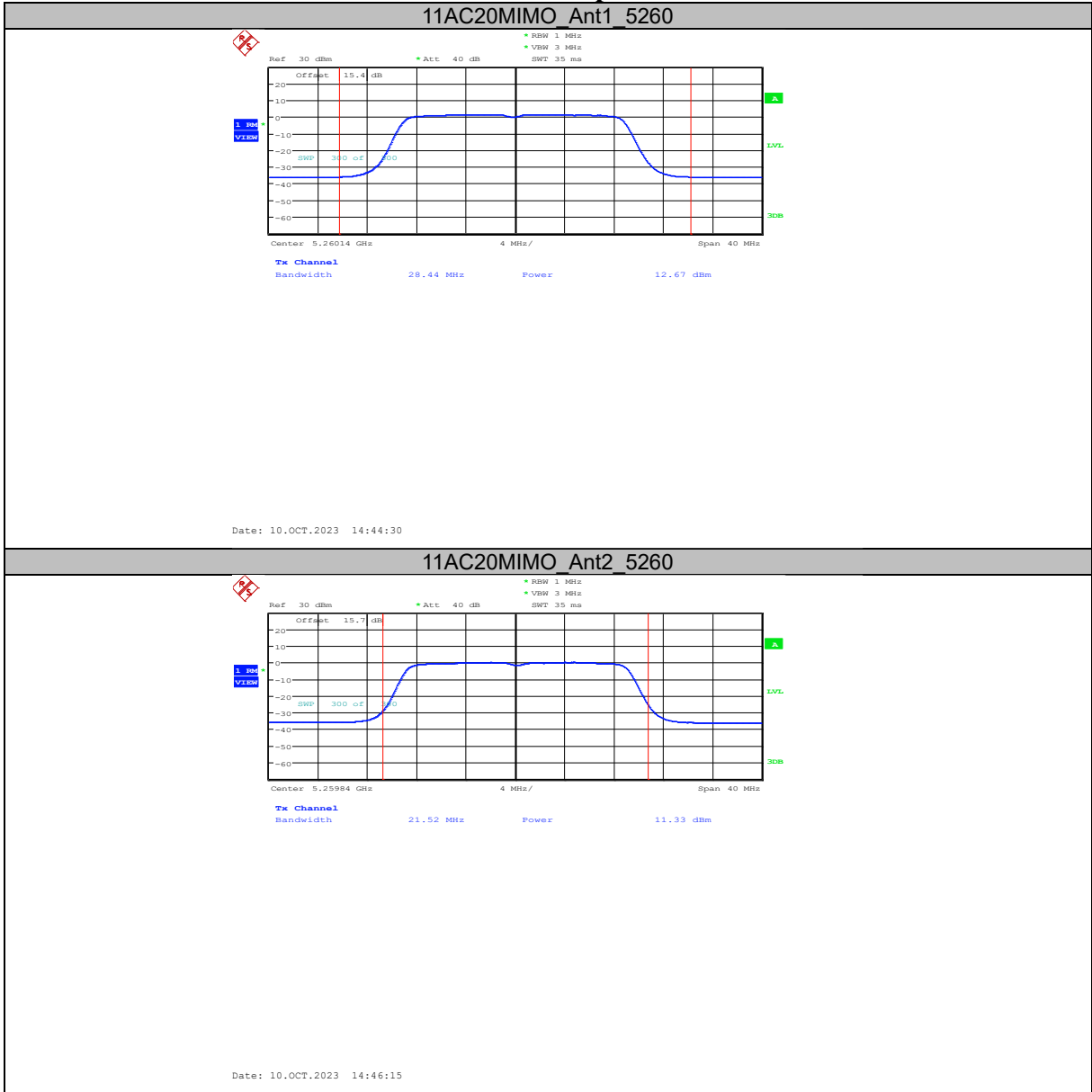


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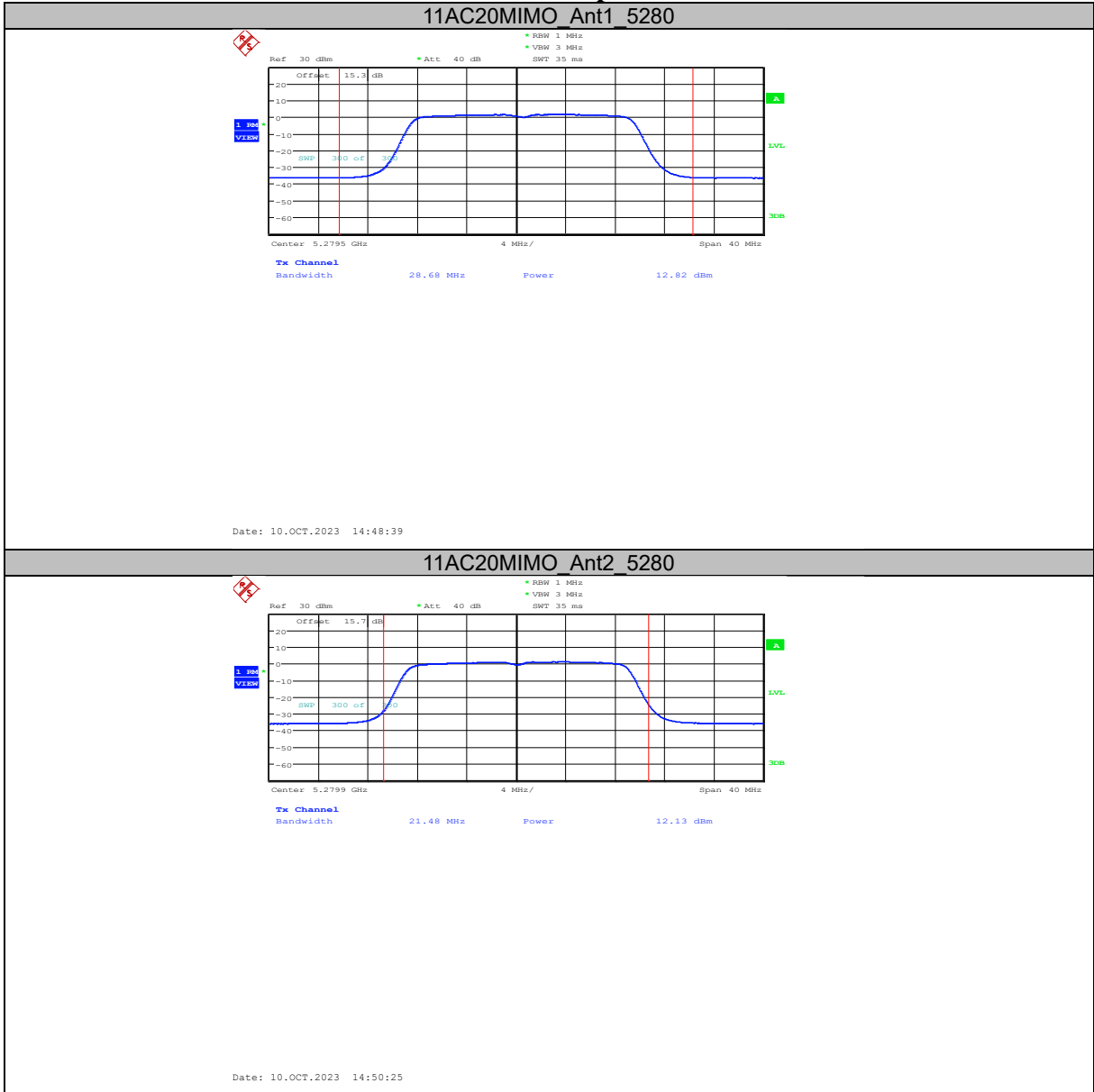


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