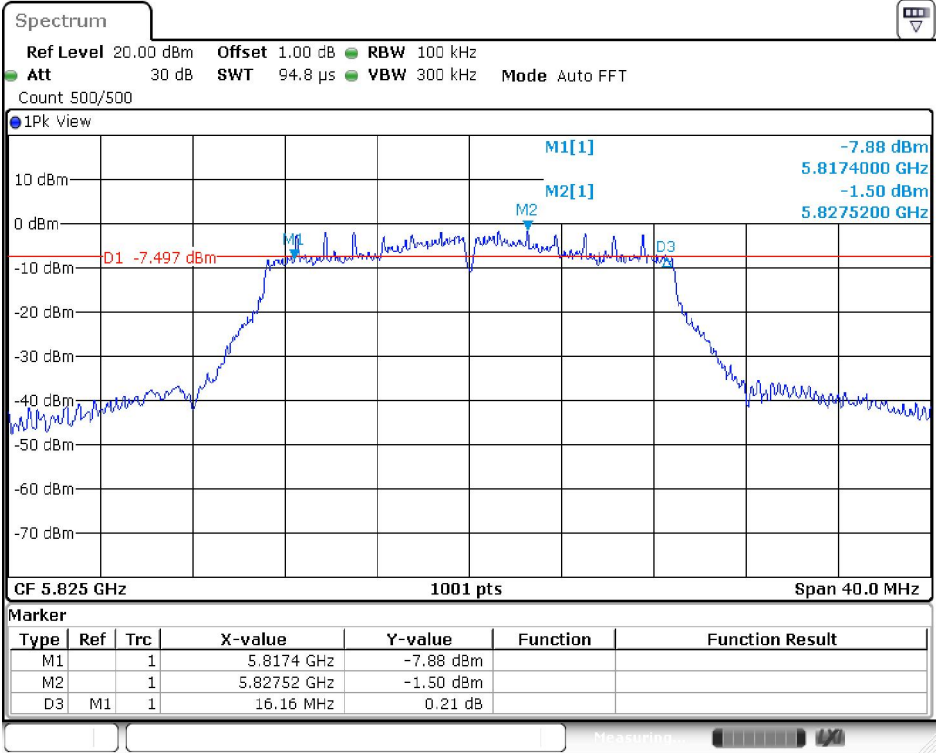
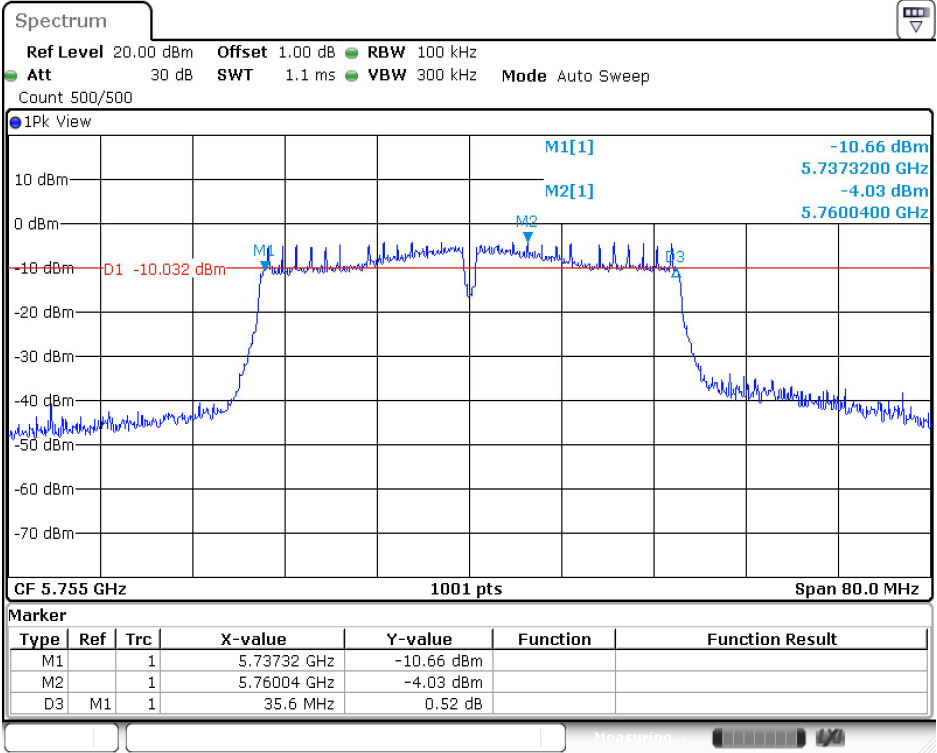




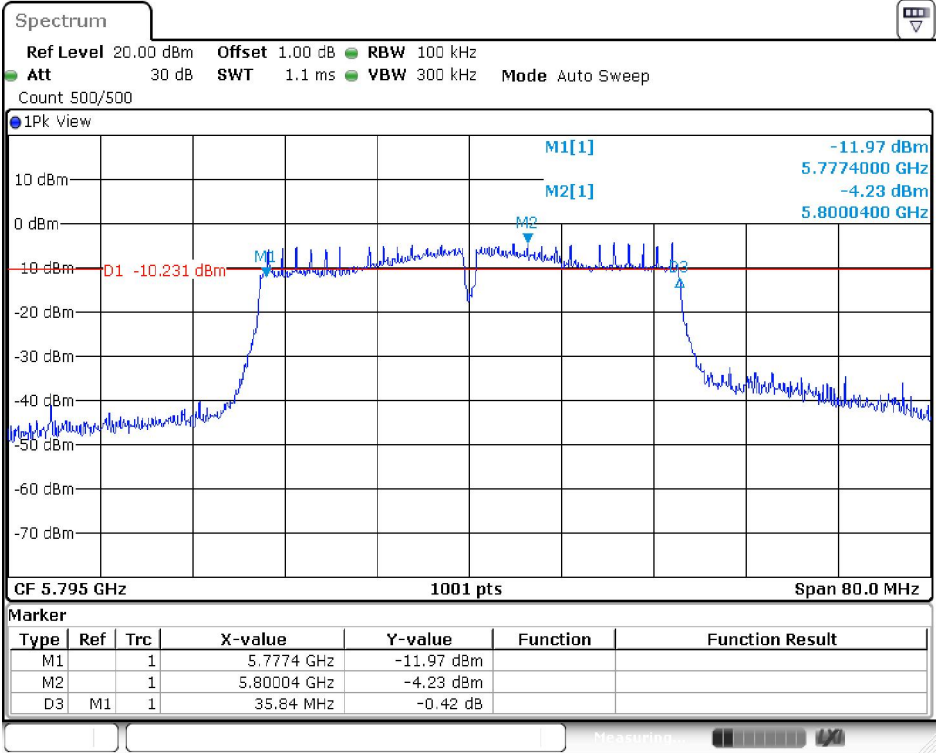
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11AC40SISO_Ant1_5755



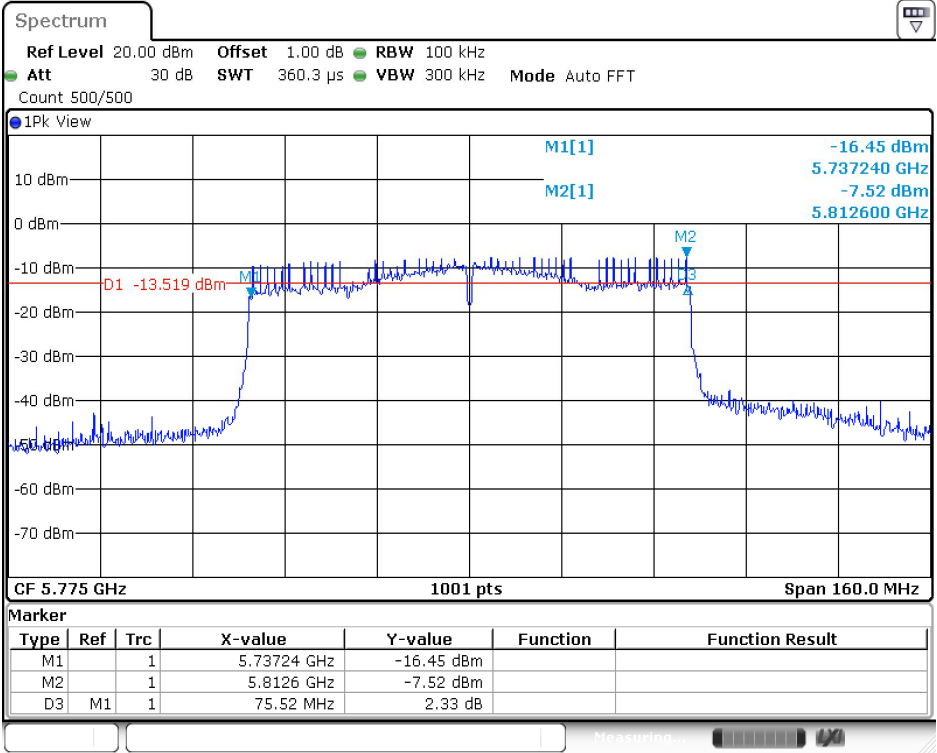
Date: 17.OCT.2023 15:15:57

11AC40SISO_Ant1_5795



Date: 17.OCT.2023 15:17:10

11AC80SISO_Ant1_5775



Date: 17.OCT.2023 15:17:58

9.3 Maximum Conducted Output Power

Test Method

According to C63.10, the EUT was placed on 0.8m height table, the RF output of EUT was connected to the test power meter by RF cable. The path loss was compensated to the results for each measurement.

1. Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the following conditions are satisfied:
The EUT is configured to transmit continuously or to transmit with a consistent duty cycle. At all times when the EUT is transmitting, it must be transmitting at its maximum power control level. The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
2. If the transmitter does not transmit continuously, measure the duty cycle, x , of the transmitter output signal as described in 12.2 in C63.10-2020.
3. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
4. Adjust the measurement in dBm by adding $10 \log (1/x)$ where x is the duty cycle (e.g., $10 \log (1/0.25)$ if the duty cycle is 25%).

Limits: 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.

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 $11 \text{ dBm} + 10 \log B$, where B is the 26dB emission bandwidth in megahertz.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

Test result as below table

IEEE 802.11a modulation Test Result

Band	Channel	Channel Frequency (MHz)	Maximum Conducted Output Power (dBm)	Power Limit (dBm)
U-NII-1	Low	5180	12.9	24.00
	Middle	5200	13.0	24.00
	High	5240	13.9	24.00
U-NII-3	Low	5745	13.8	30.00
	Middle	5785	14.2	30.00
	High	5825	13.4	30.00

IEEE 802.11n-HT20 modulation Test Result

Band	Channel	Channel Frequency (MHz)	Maximum Conducted Output Power (dBm)	Power Limit (dBm)
U-NII-1	Low	5180	12.6	24.00
	Middle	5200	12.4	24.00
	High	5240	13.7	24.00
U-NII-3	Low	5745	13.5	30.00
	Middle	5785	13.7	30.00
	High	5825	12.9	30.00

IEEE 802.11n-HT40 modulation Test Result

Band	Channel	Channel Frequency (MHz)	Maximum Conducted Output Power (dBm)	Power Limit (dBm)
U-NII-1	Low	5190	12.1	24.00
	High	5230	12.4	24.00
U-NII-3	Low	5755	12.7	30.00
	High	5795	13.0	30.00

IEEE 802.11ac-VHT20 modulation Test Result

Band	Channel	Channel Frequency (MHz)	Maximum Conducted Output Power (dBm)	Power Limit (dBm)
U-NII-1	Low	5180	12.4	24.00
	Middle	5200	12.5	24.00
	High	5240	13.5	24.00
U-NII-3	Low	5745	13.6	30.00
	Middle	5785	13.9	30.00
	High	5825	13.3	30.00

IEEE 802.11ac-VHT40 modulation Test Result

Band	Channel	Channel Frequency (MHz)	Maximum Conducted Output Power (dBm)	Power Limit (dBm)
U-NII-1	Low	5190	12.0	24.00
	High	5230	13.0	24.00
U-NII-3	Low	5755	13.6	30.00
	High	5795	13.5	30.00

IEEE 802.11ac-VHT80 modulation Test Result

Band	Channel	Channel Frequency (MHz)	Maximum Conducted Output Power (dBm)	Power Limit (dBm)
U-NII-1	42	5210	12.4	24.00
U-NII-3	155	5755	13.3	30.00

9.4 Maximum Power Spectral Density

Test Method

The EUT was placed on 0.8m height table, the RF output of EUT was connected to the test receiver by RF cable. The path loss was compensated to the results for each measurement. (trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

1. Measure the duty cycle.
2. Set span to encompass the entire emission bandwidth (EBW) of the signal.
3. Set RBW = 1 MHz.
4. Set VBW $\geq$ 3 MHz.
5. Number of points in sweep $\geq$ 2 Span / RBW.
6. Sweep time = auto.
7. Detector = RMS
8. Trace average at least 100 traces in power averaging mode.
9. Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add $10 \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.

Limit:

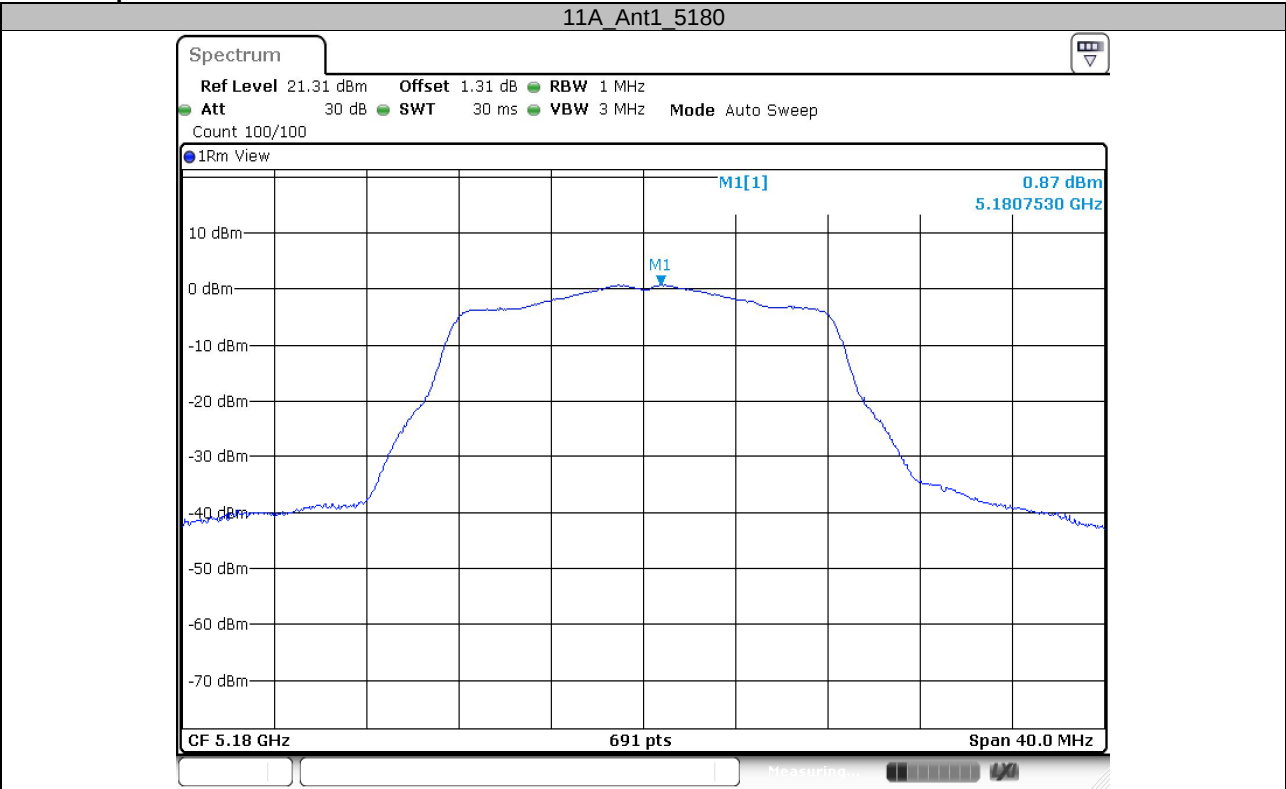
The maximum power spectral density shall not exceed 11dBm for the 5.15-5.25GHz, 5.25-5.35GHz, 5.47-5.725 GHz Band in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500kHz band.

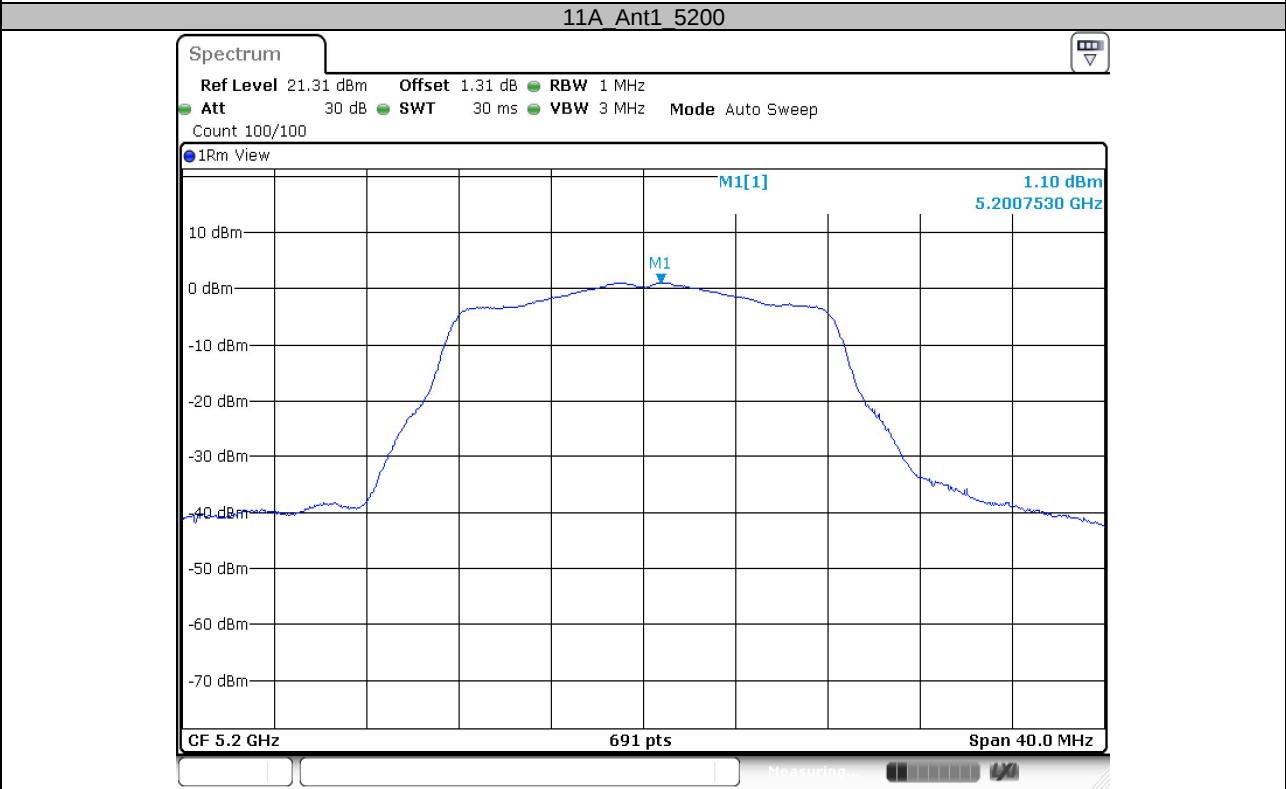
TestMode	Antenna	Channel(MHz)	Result(dBm/MHz)	Limit(dBm/MHz)	Verdict
11A	Ant1	5180	0.87	<=11	PASS
		5200	1.1	<=11	PASS
		5240	1.97	<=11	PASS
		5745	-0.78	<=30	PASS
		5785	-1.29	<=30	PASS
		5825	-1.2	<=30	PASS
11N20SISO	Ant1	5180	0.28	<=11	PASS
		5200	0.66	<=11	PASS
		5240	0.9	<=11	PASS
		5745	-0.98	<=30	PASS
		5785	-1.13	<=30	PASS
		5825	-1.48	<=30	PASS
11N40SISO	Ant1	5190	-2.7	<=11	PASS
		5230	-1.97	<=11	PASS
		5755	-4.21	<=30	PASS
		5795	-4.78	<=30	PASS
11AC20SISO	Ant1	5180	0.02	<=11	PASS
		5200	0.37	<=11	PASS
		5240	0.73	<=11	PASS
		5745	-0.95	<=30	PASS
		5785	-1.42	<=30	PASS
		5825	-1.81	<=30	PASS
11AC40SISO	Ant1	5190	-2.55	<=11	PASS
		5230	-2.01	<=11	PASS
		5755	-4.34	<=30	PASS
		5795	-4.82	<=30	PASS
11AC80SISO	Ant1	5210	-4.99	<=11	PASS
		5775	-7.66	<=30	PASS



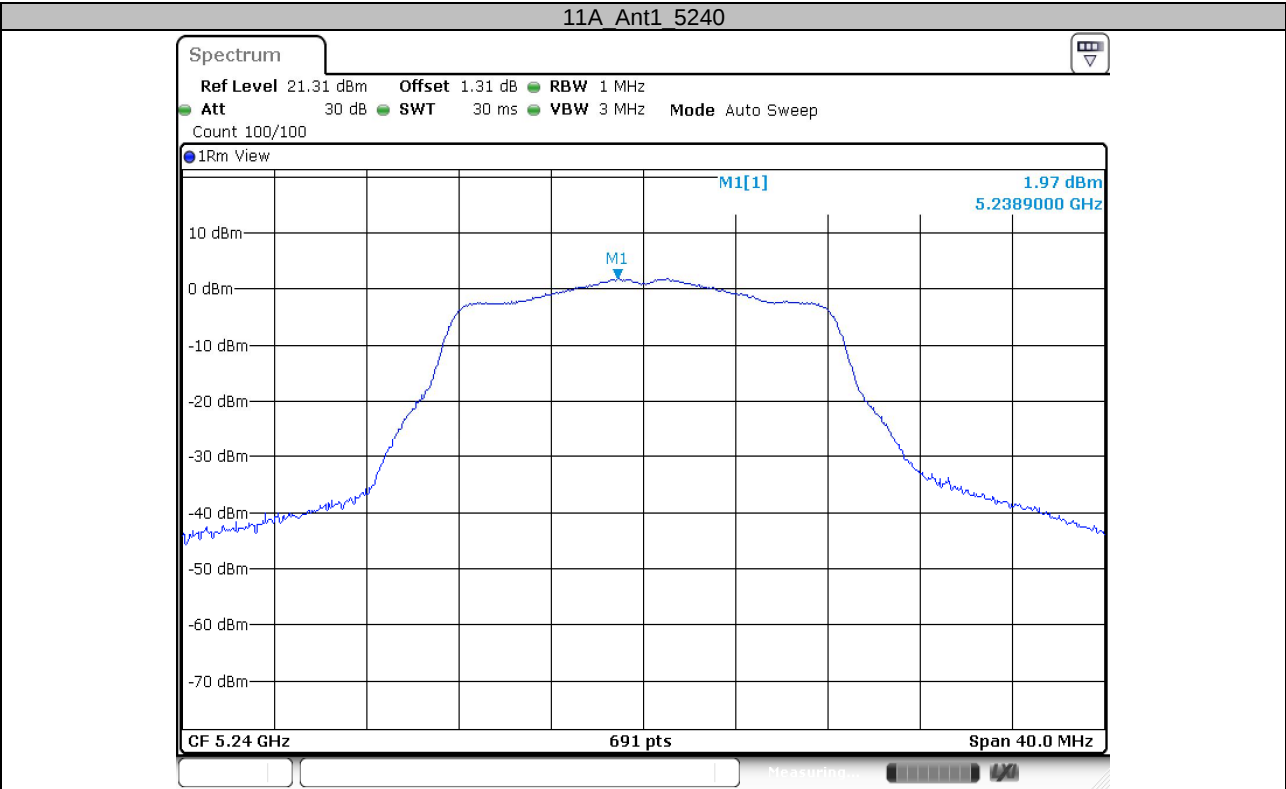
Test Graphs:



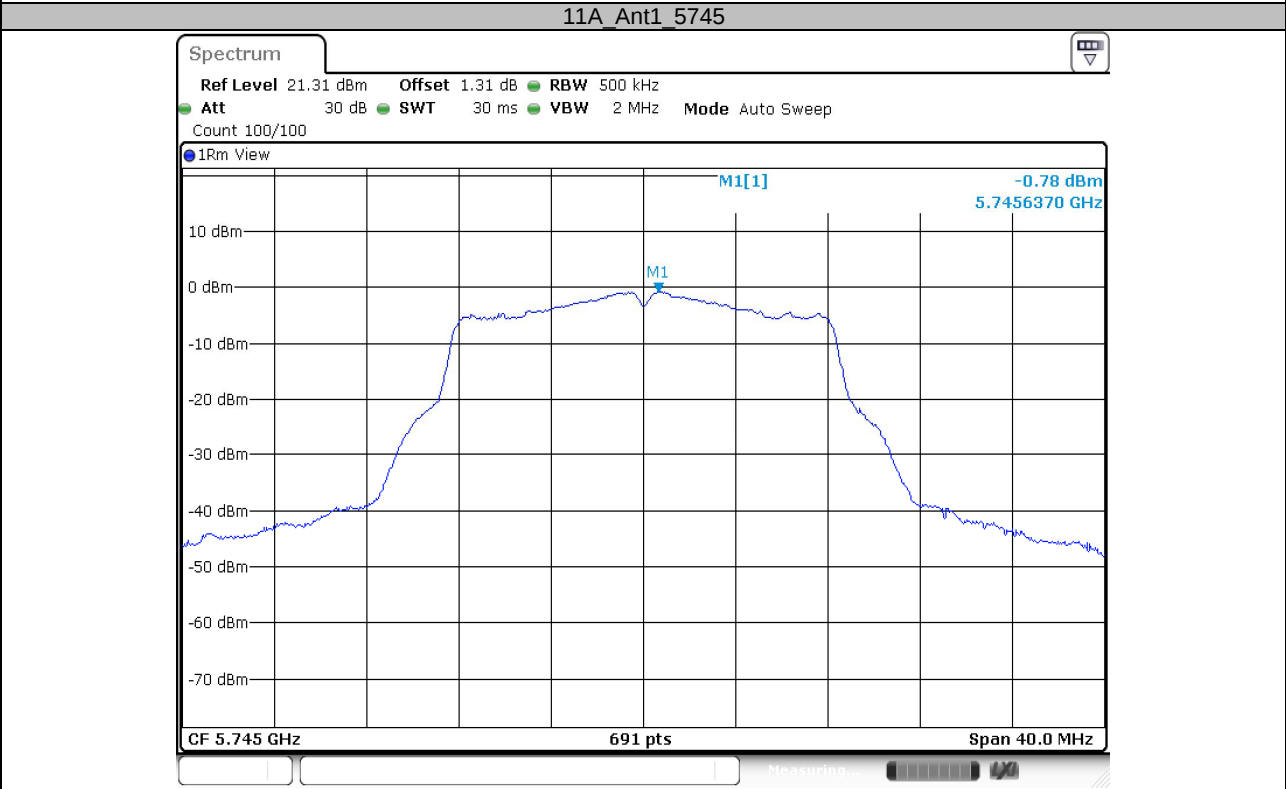
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Date: 17.OCT.2023 11:16:14

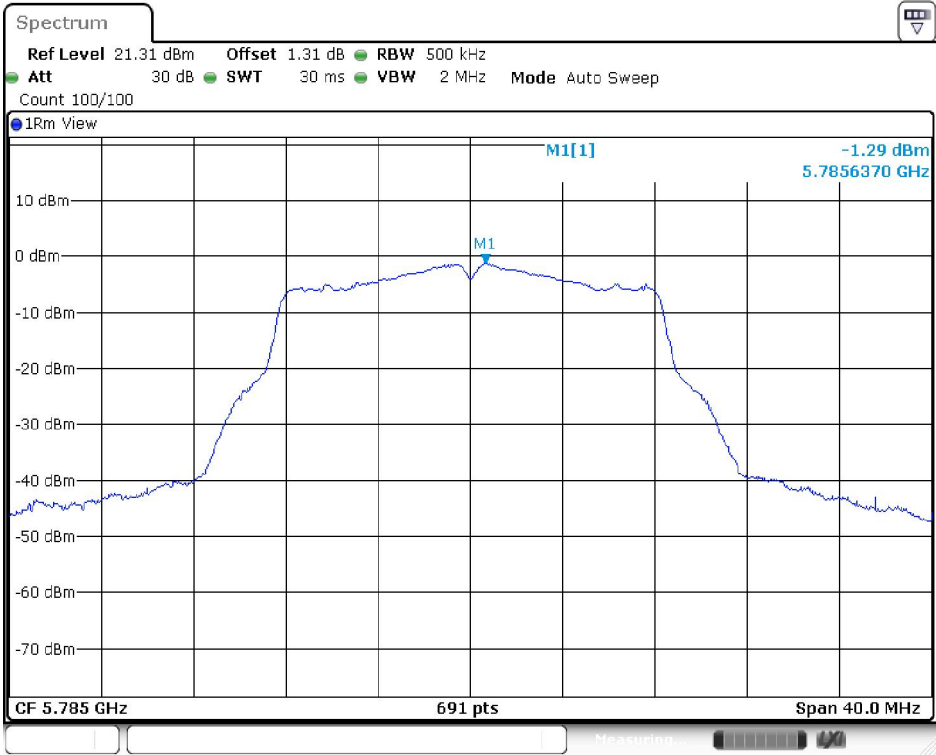


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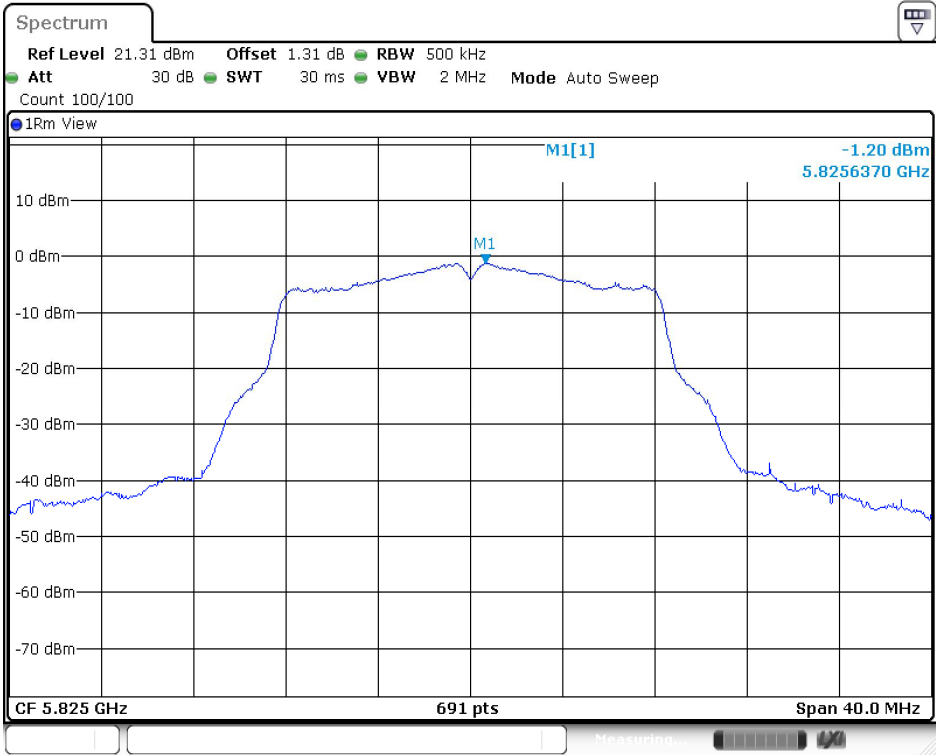
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11A_Ant1_5785



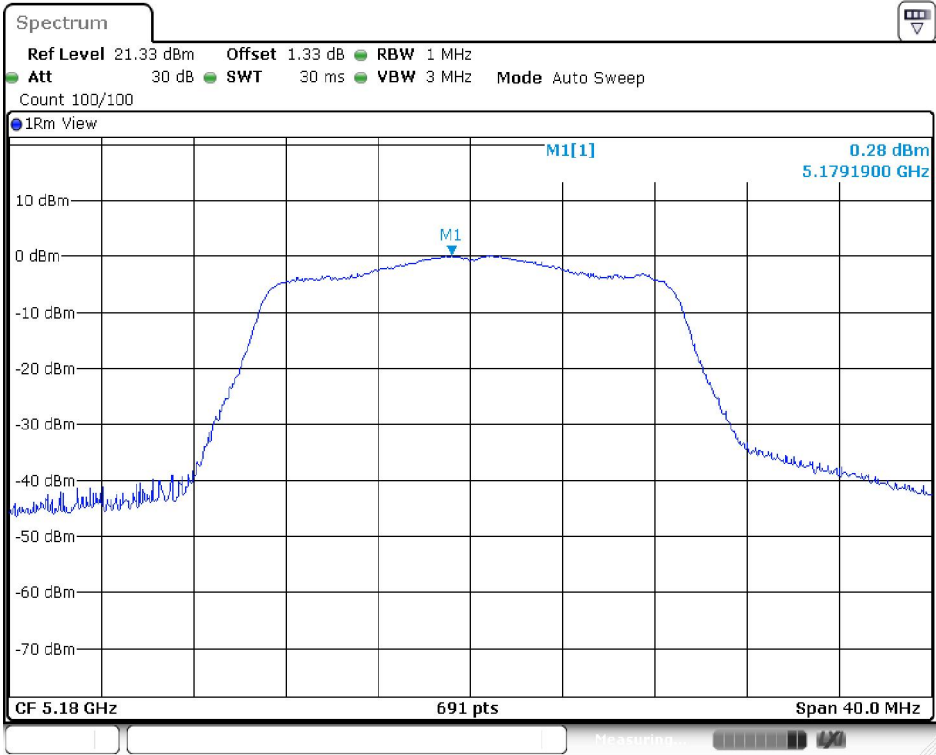
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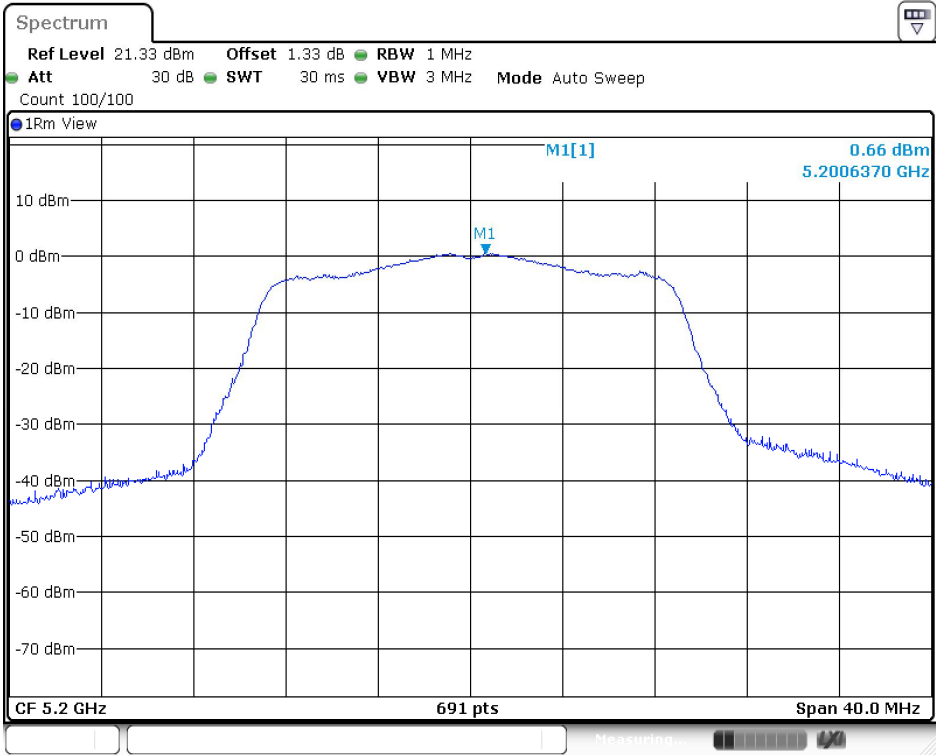
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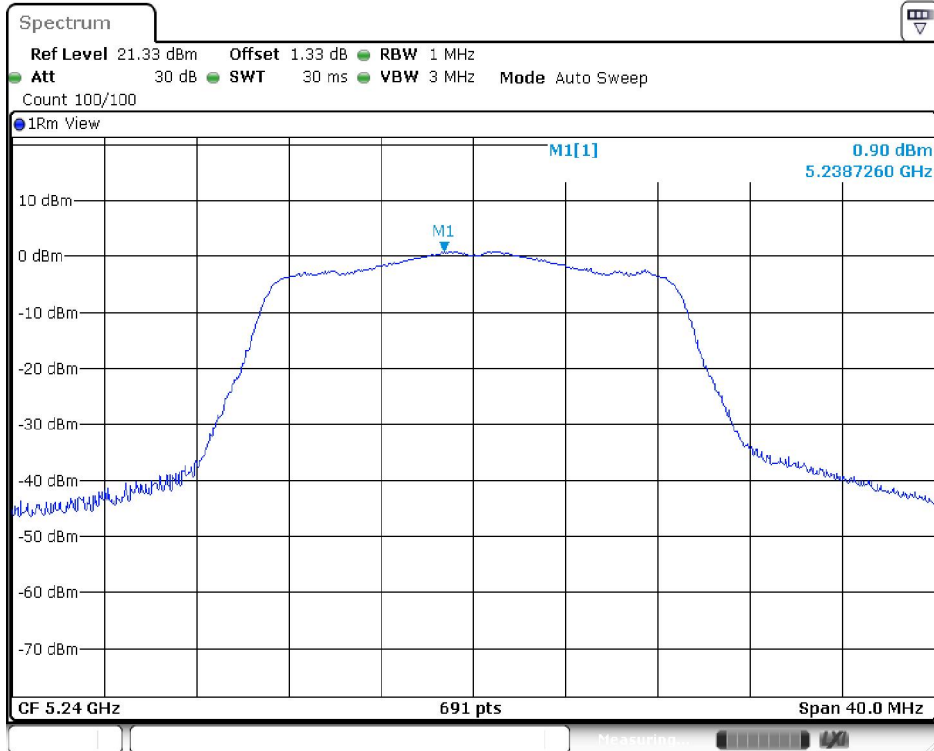
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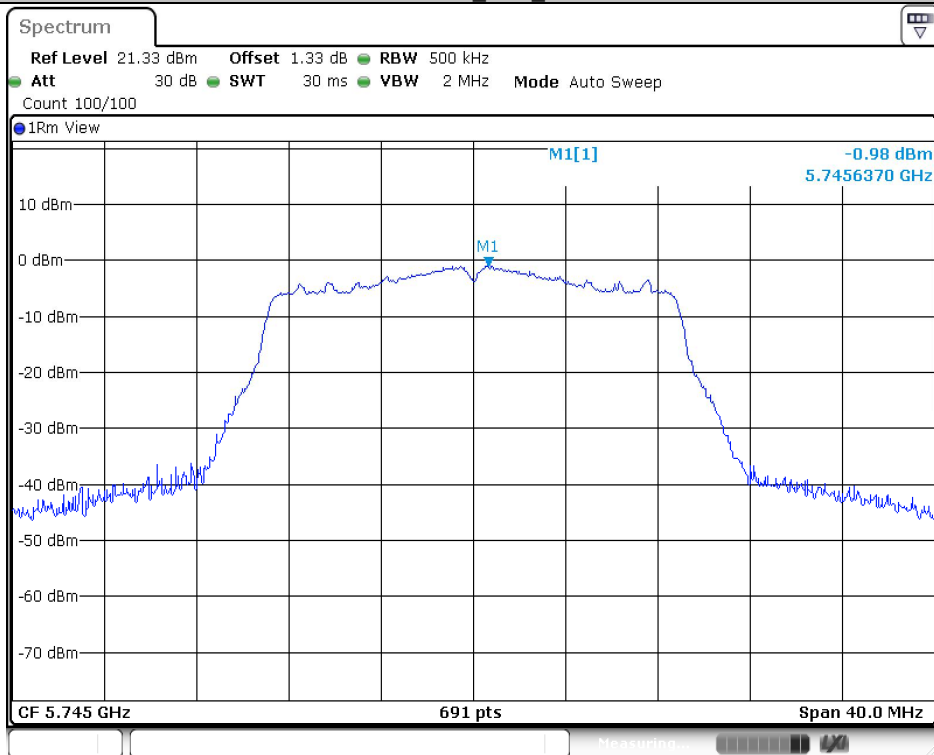
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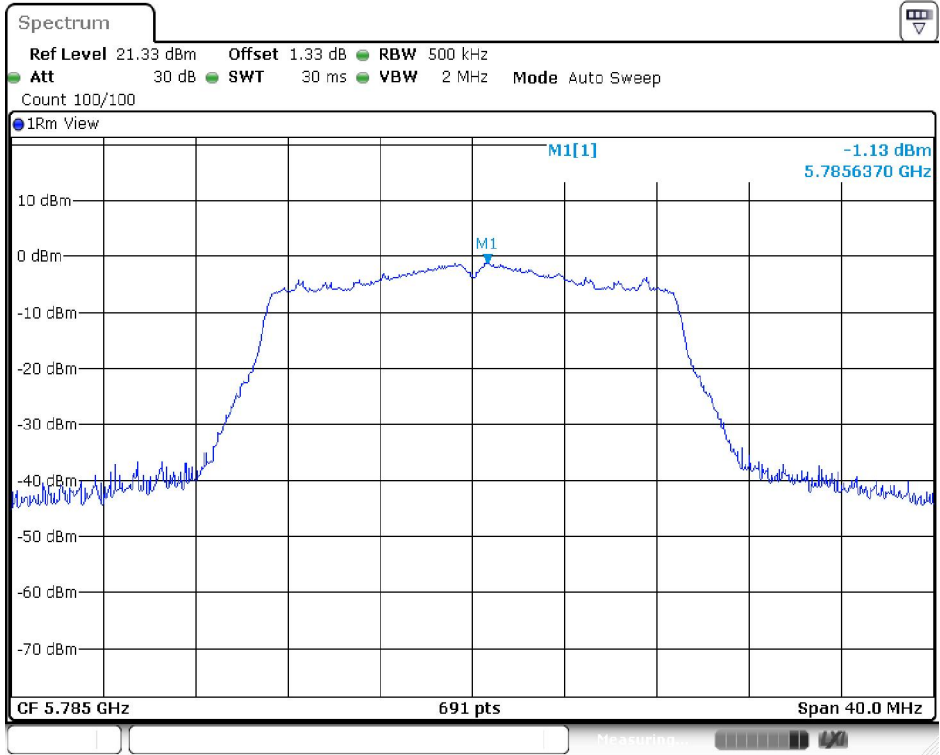
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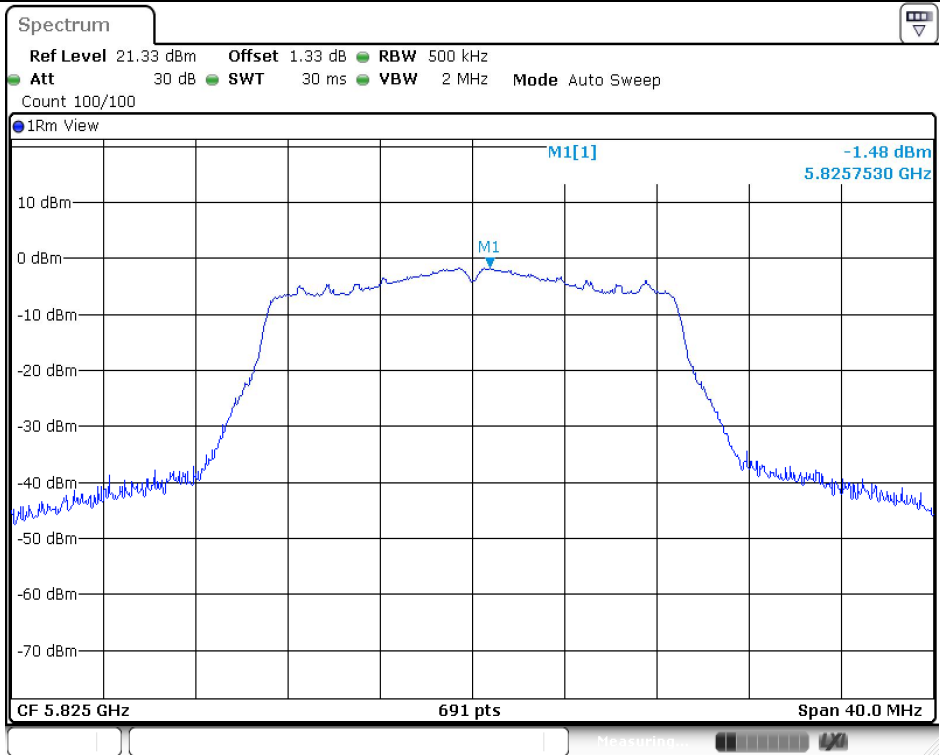
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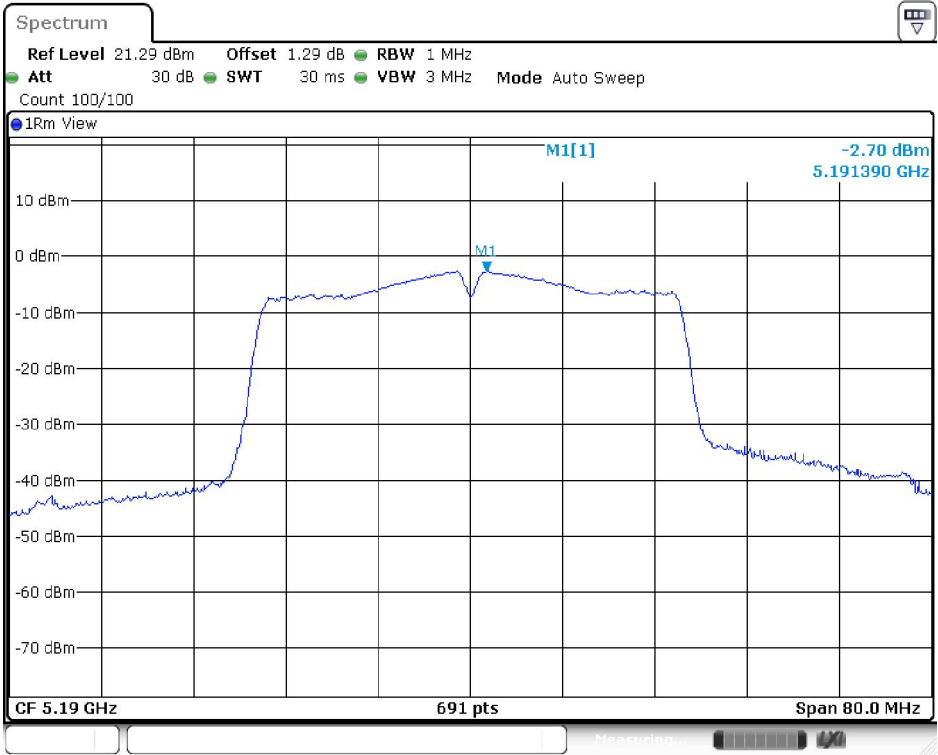
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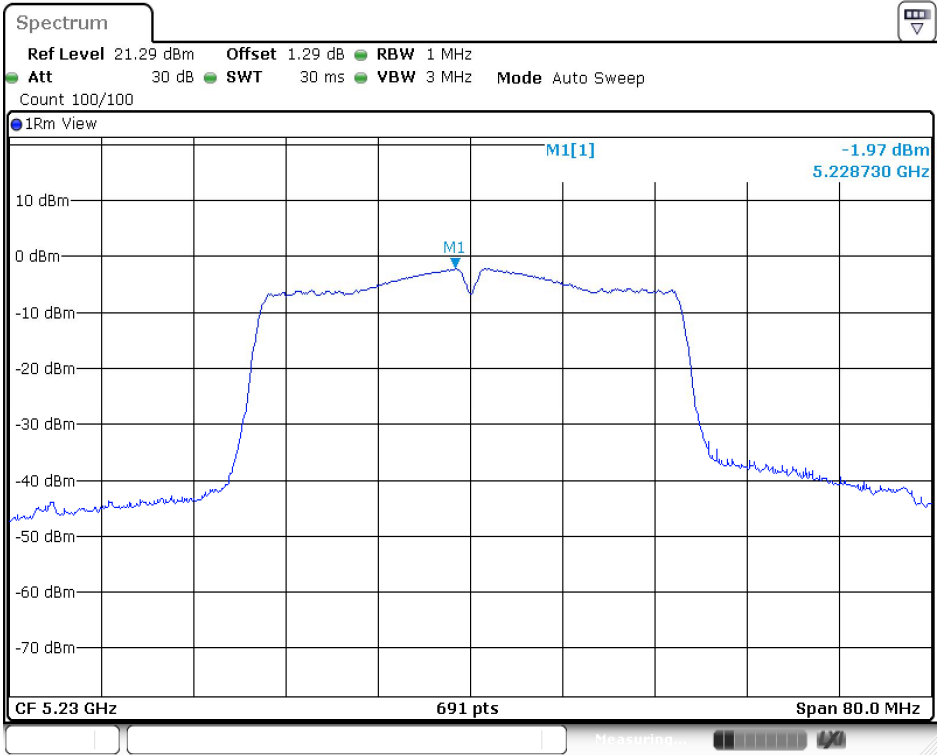
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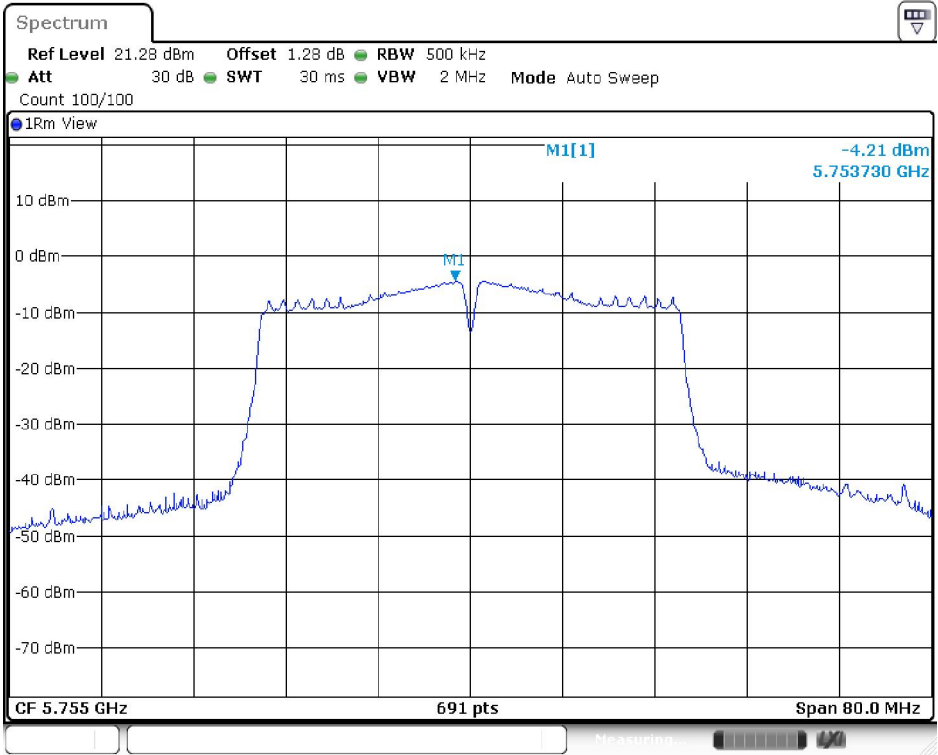
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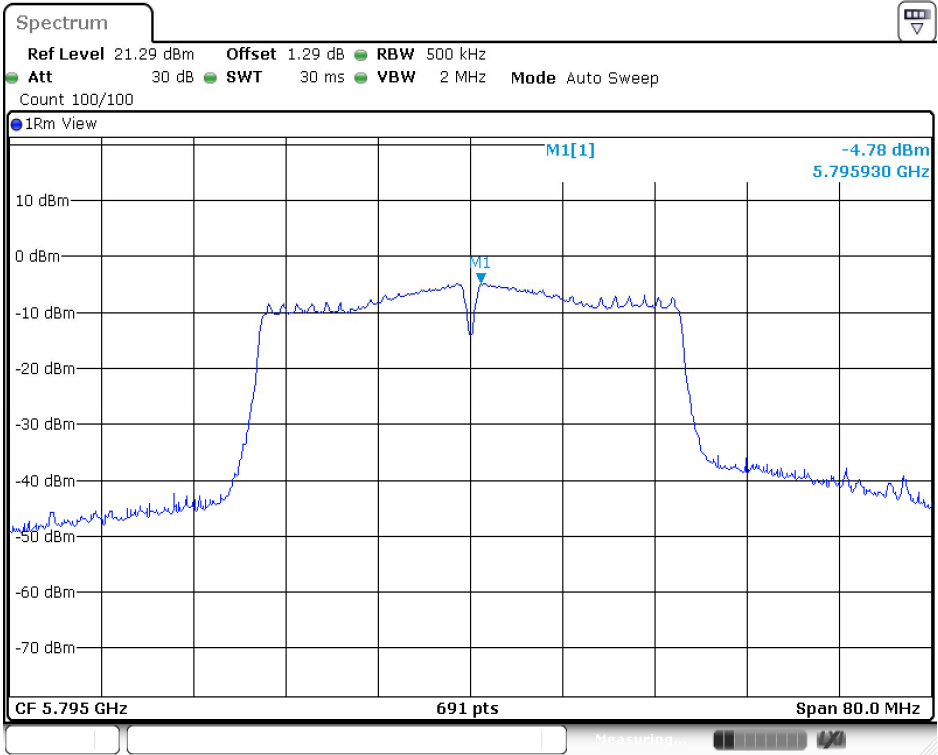
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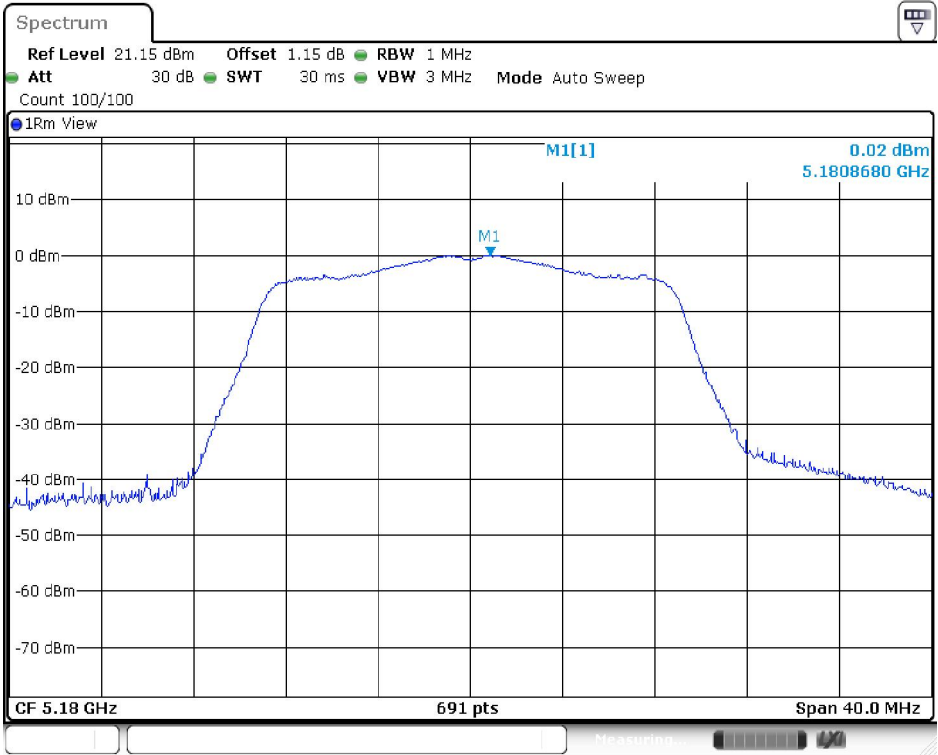
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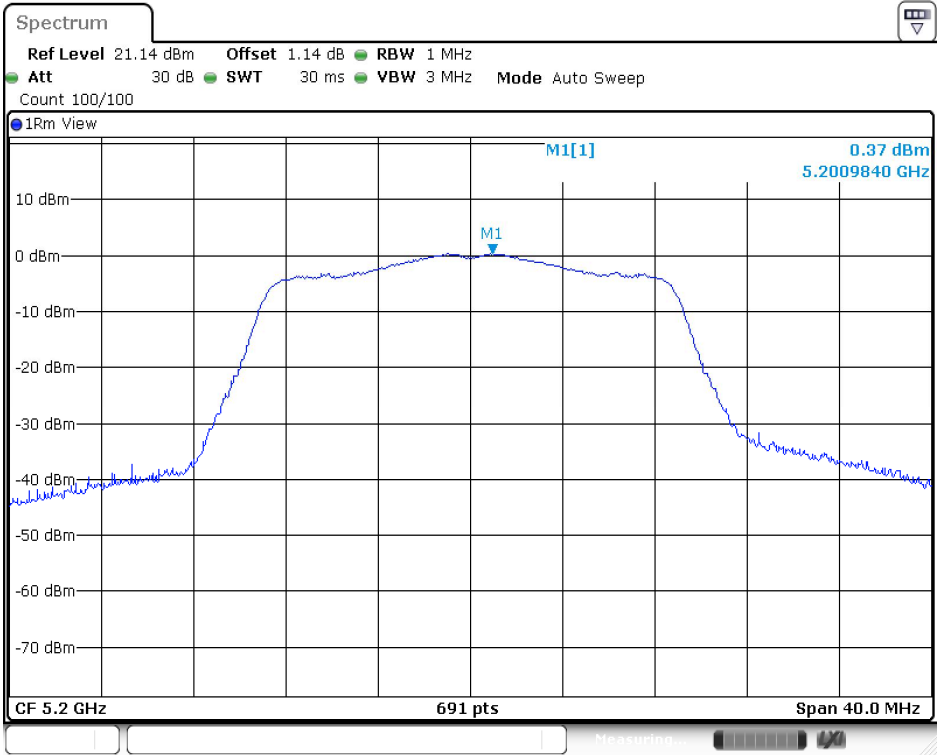
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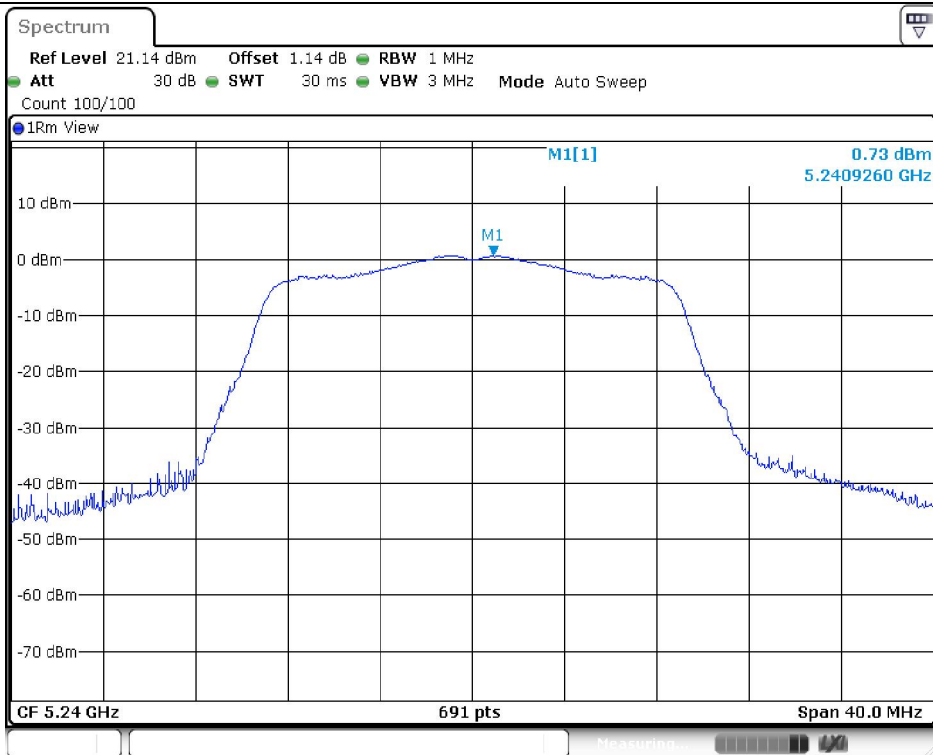
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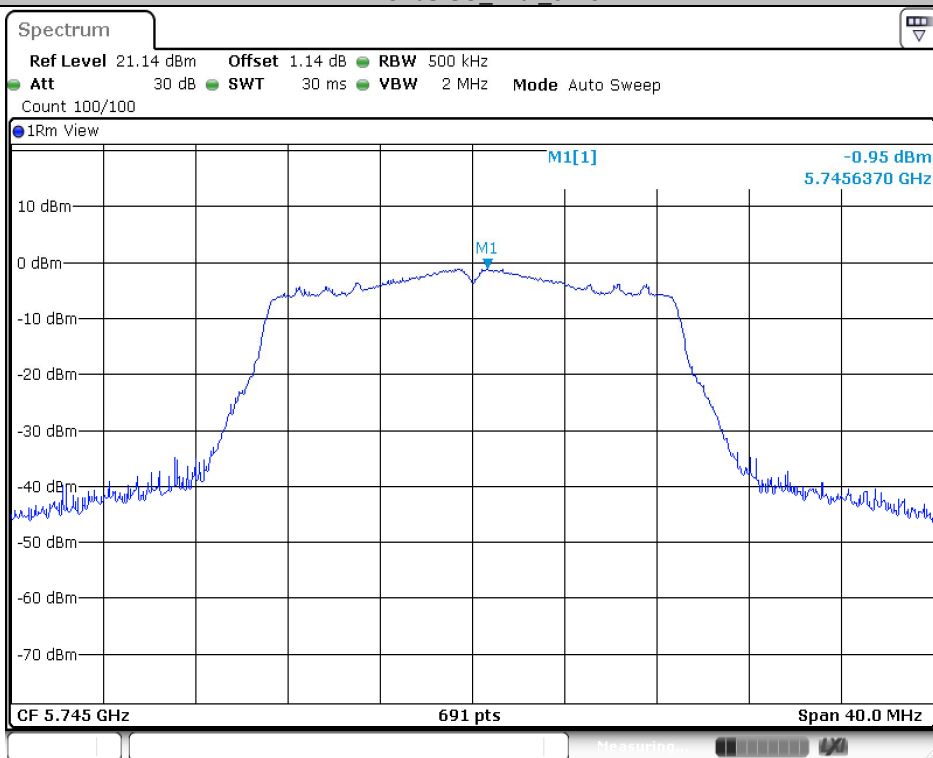
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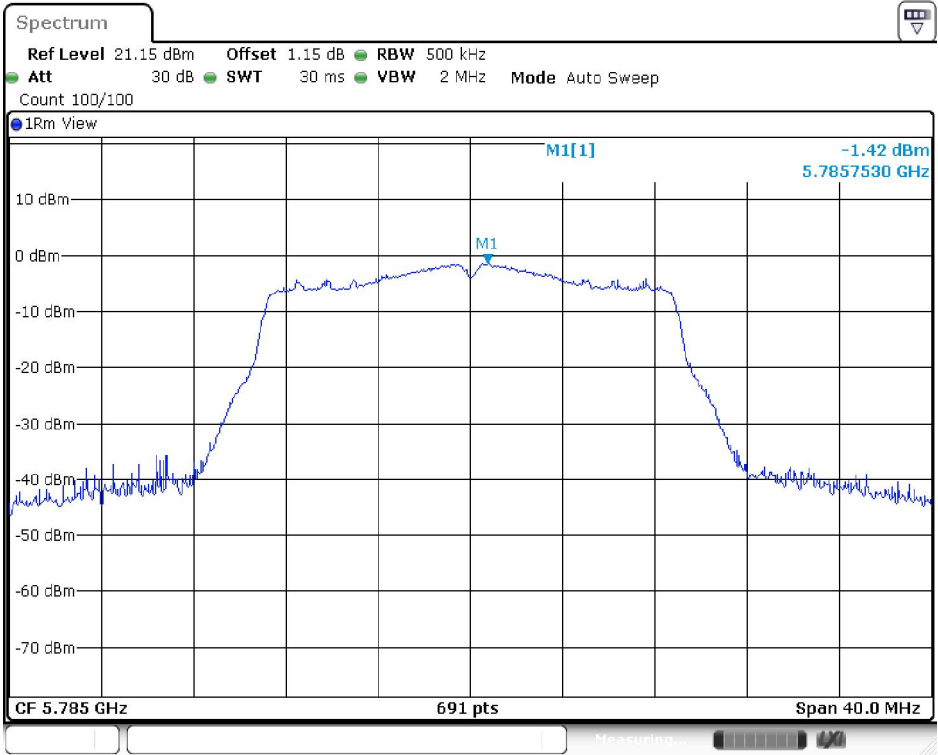
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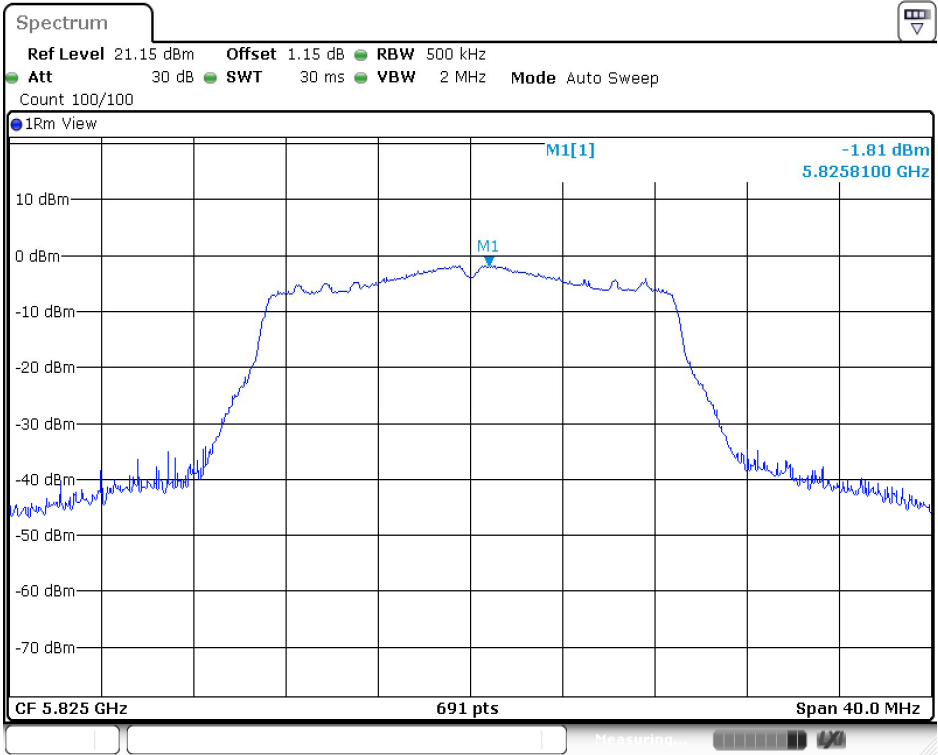
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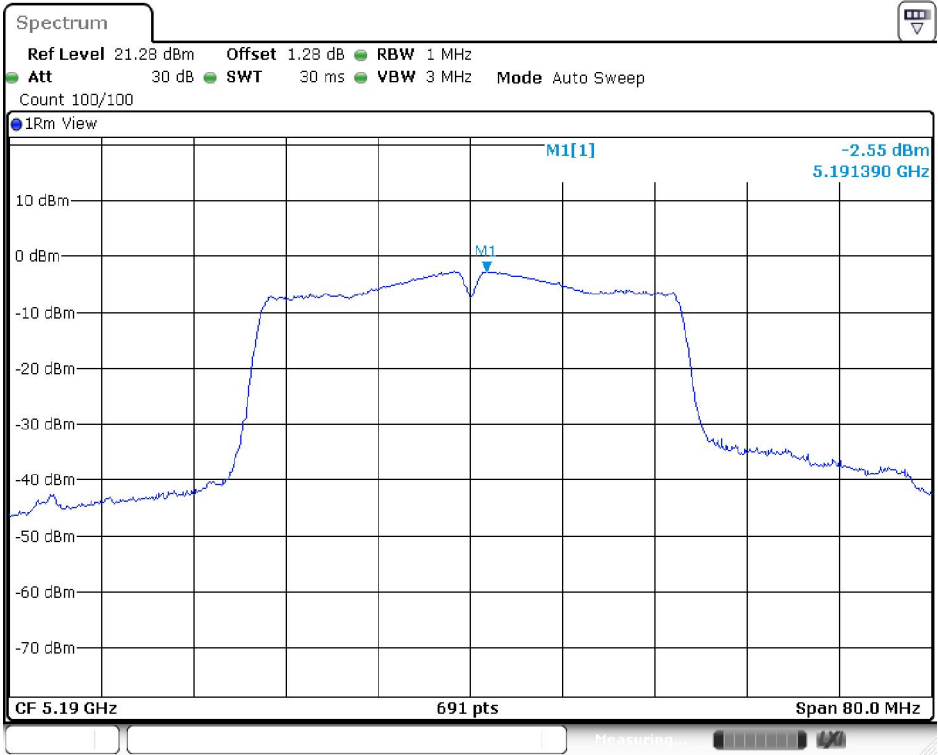
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11AC20SISO_Ant1_5825



Date: 17.OCT.2023 13:15:25

11AC40SISO_Ant1_5190



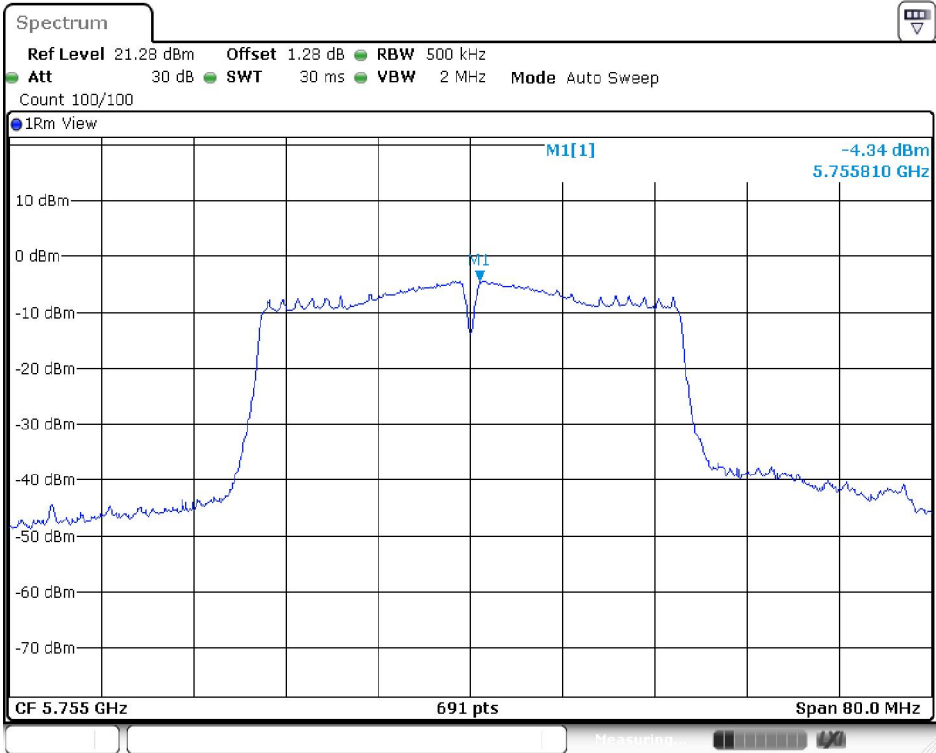
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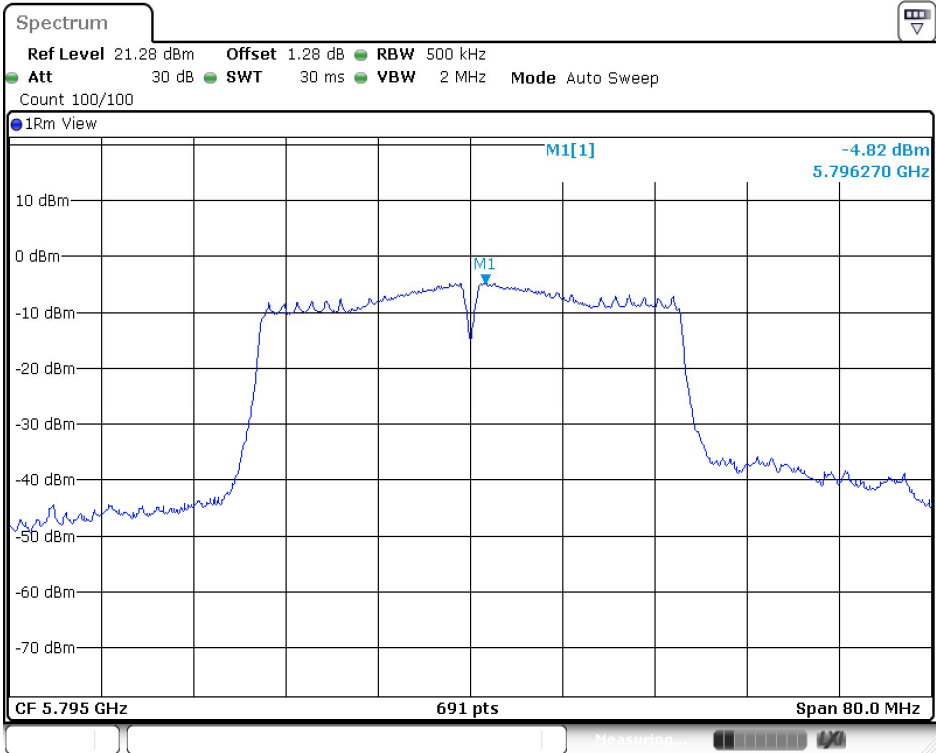
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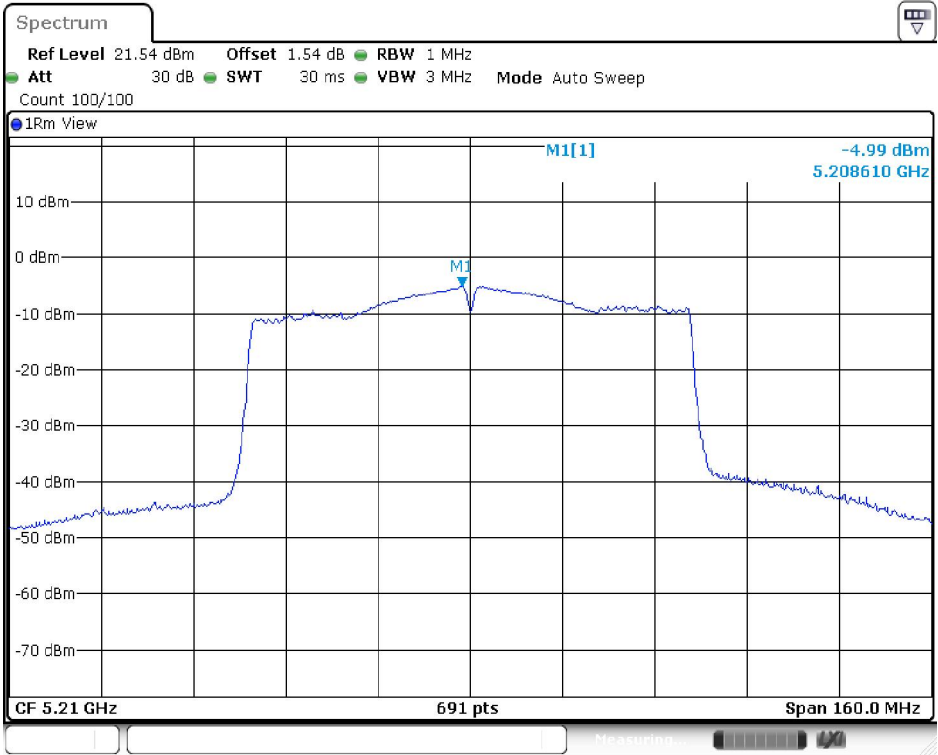
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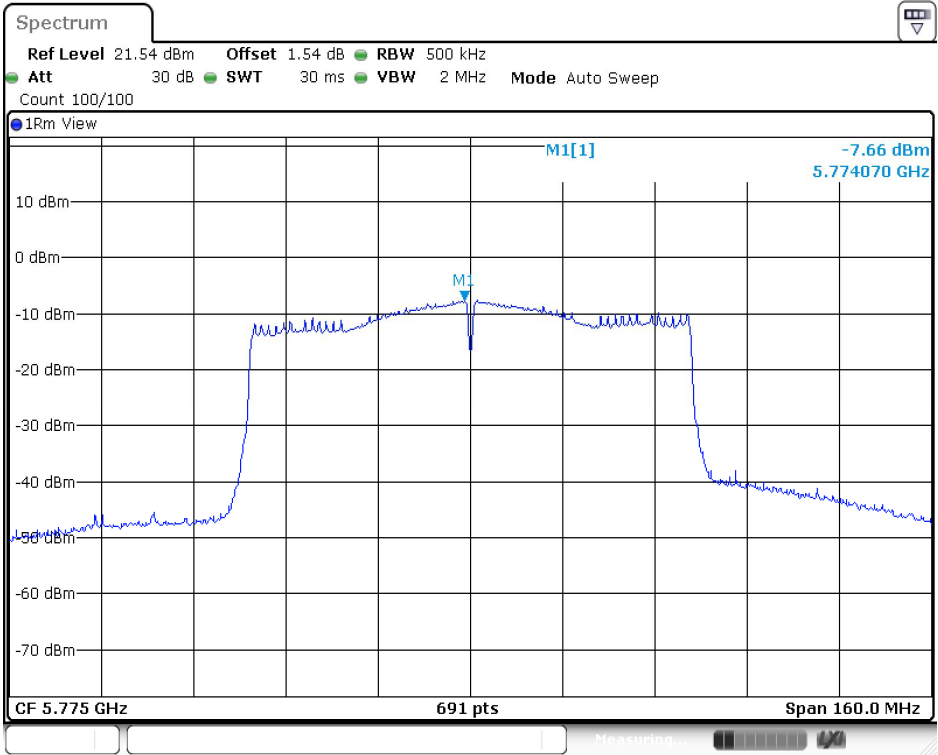
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11AC80SISO_Ant1_5210



Date: 17.OCT.2023 13:37:21

11AC80SISO_Ant1_5775



Date: 17.OCT.2023 15:03:14

9.5 Unwanted Emissions

Conducted Spurious Emission Test Method:

According to KBD789033 D02

1. The EUT was placed on 0.8m height table, the RF output of EUT was connected to the test receiver by RF cable. The path loss was compensated to the results for each measurement.

2. For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB, when measured using a

resolution bandwidth between 1 and 5% of the occupied bandwidth (i.e. 99% bandwidth), above 5250 MHz. The 26 dB bandwidth may fall into the 5250-5350 MHz band; however, if the occupied bandwidth also falls within the 5250-5350 MHz band, the transmission is considered as intentional and the devices shall comply with all requirements in the band 5250-5350 MHz including implementing dynamic frequency selection (DFS) and TPC, on the portion of the emission that resides in the 5250-5350 MHz band.

a) Set RBW $\geq$ between 1 and 5% of the occupied bandwidth (i.e. 99% bandwidth)

b) Set VBW $\geq$ 3 RBW.

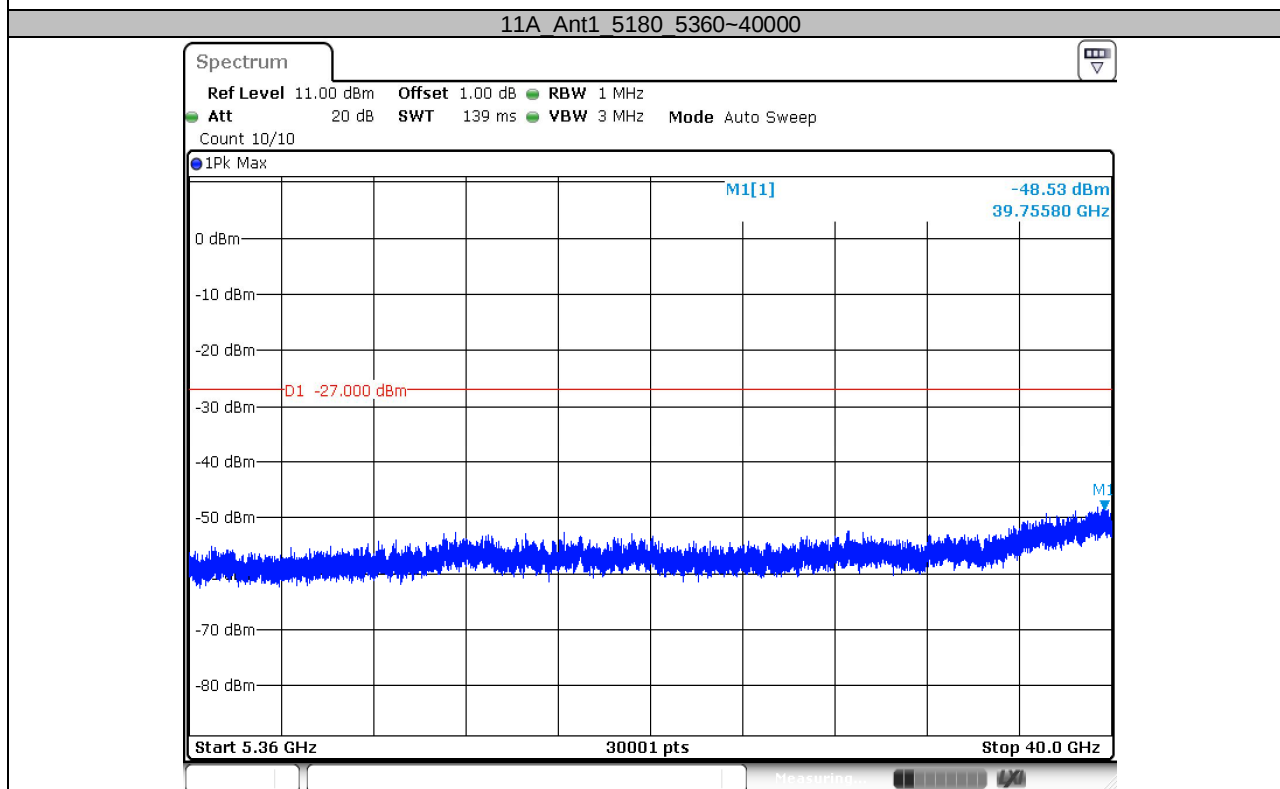
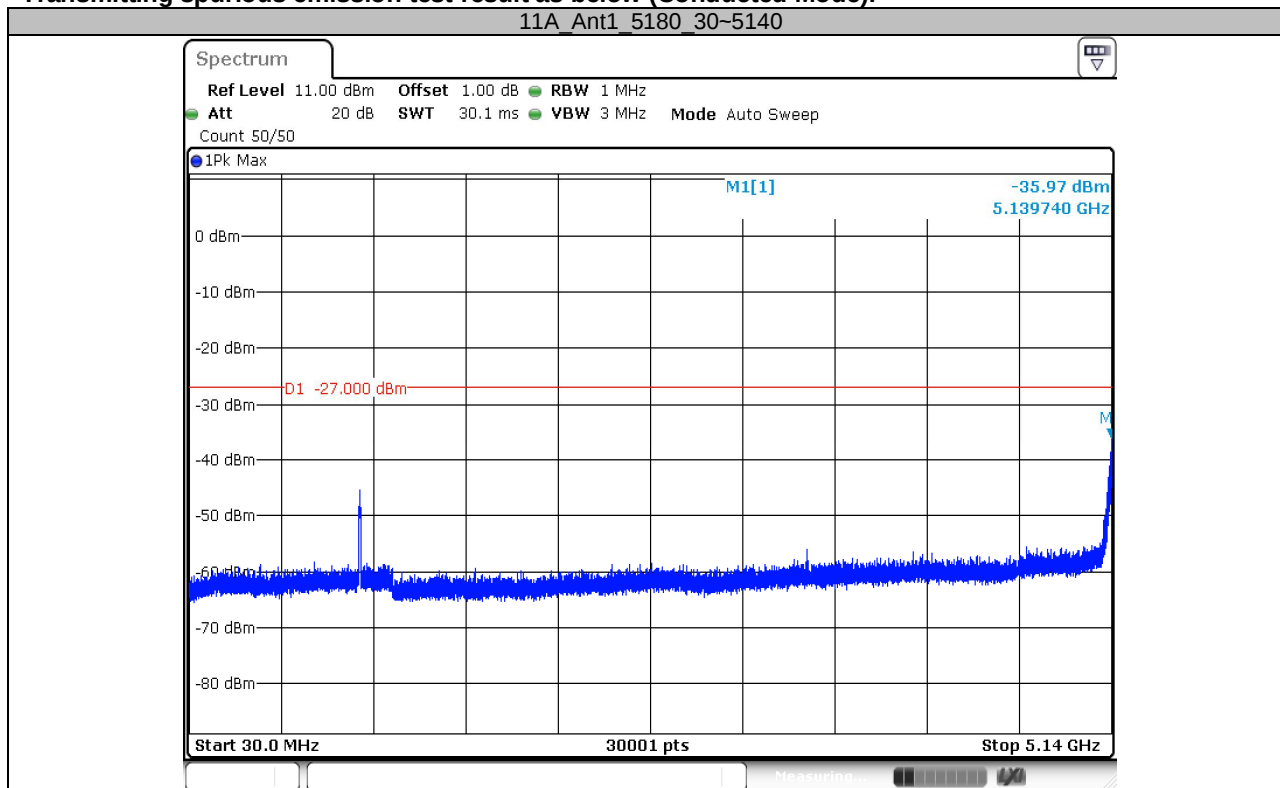
Limits:

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

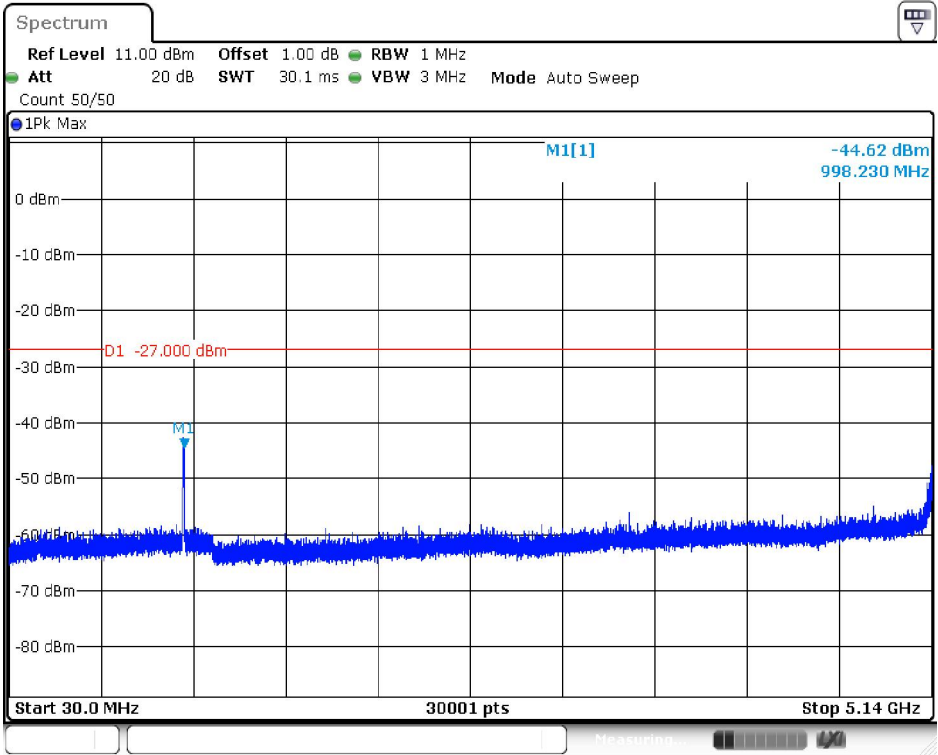
For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

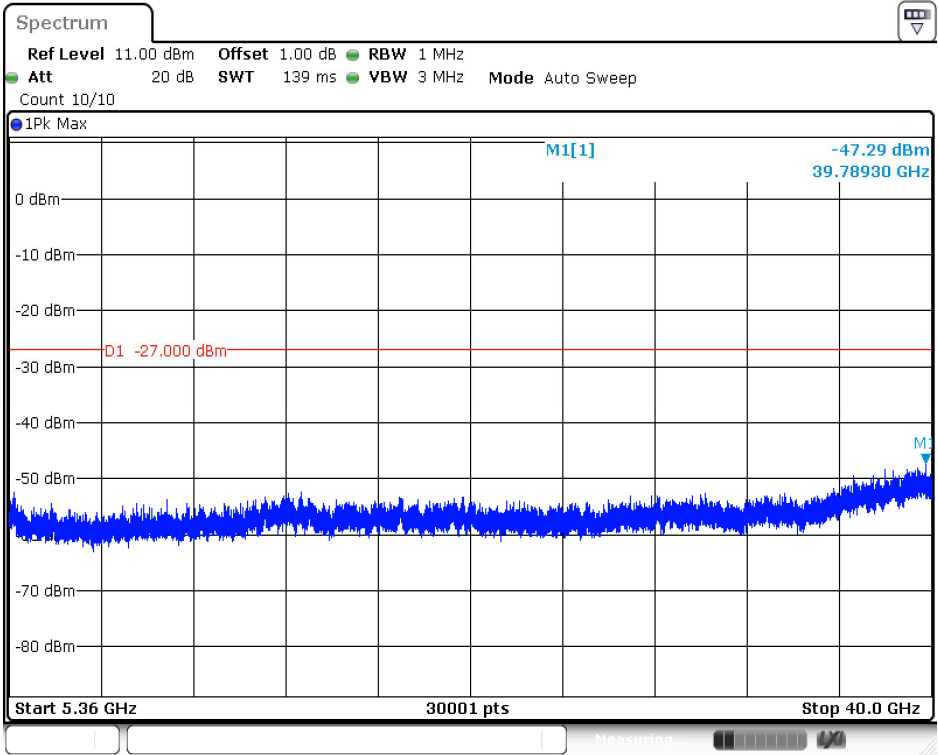
Transmitting spurious emission test result as below (Conducted Mode):

11A Ant1 5200 30~5140



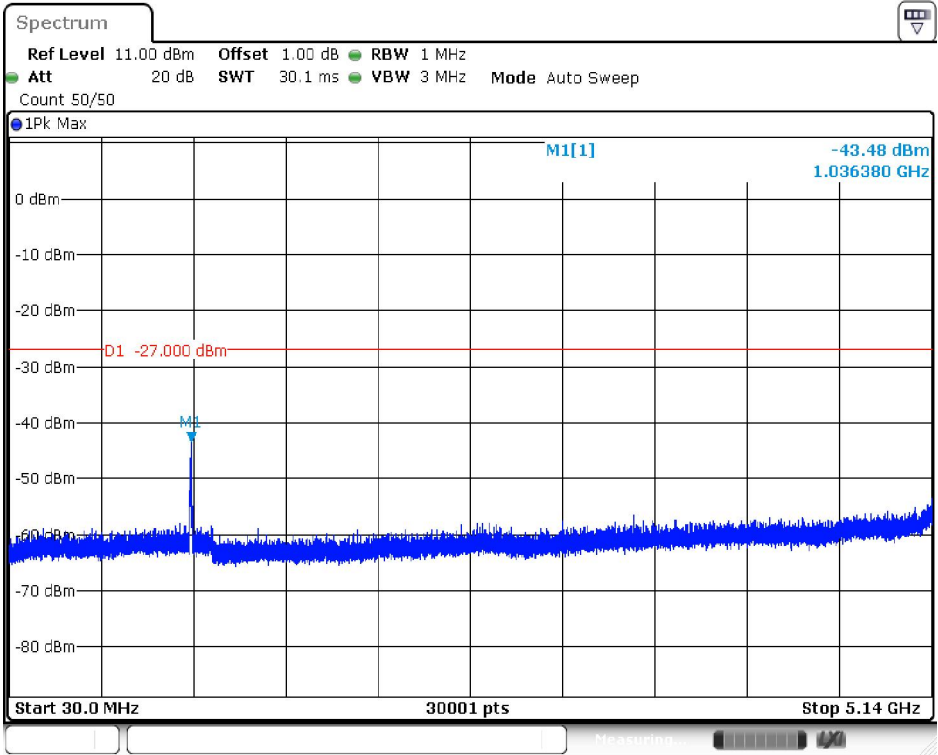
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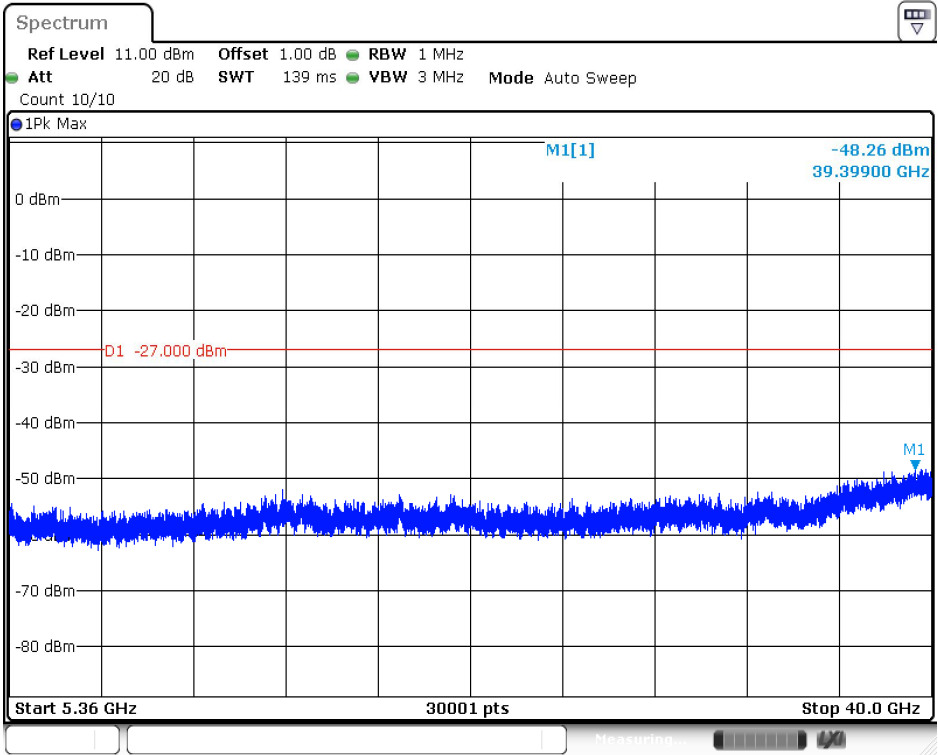
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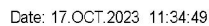
Date: 17.OCT.2023 11:17:41

11A_Ant1_5240_5360-40000



Date: 17.OCT.2023 11:17:46

11A_Ant1_5745_30-5650



Spectrum

Ref Level 11.00 dBm Offset 1.00 dB RBW 1 MHz
Att 20 dB SWT 137 ms VBW 3 MHz Mode Auto Sweep
Count 10/10

• IPk Max

M1[1] -47.08 dBm
39.32360 GHz

0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm

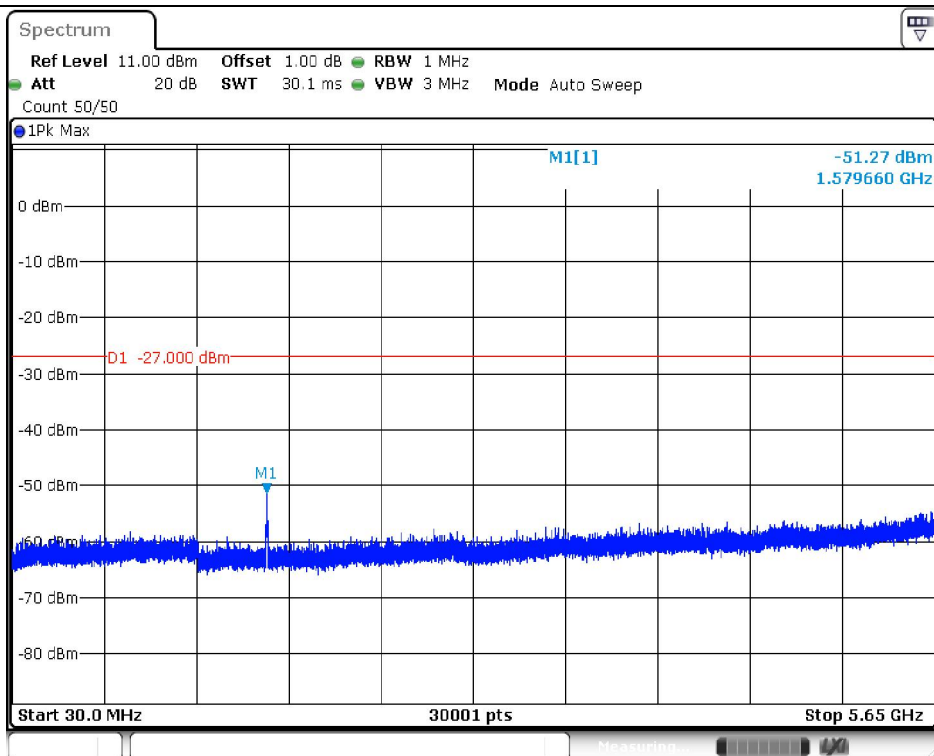
O1 -27.000 dBm

Start 5.925 GHz 30001 pts Stop 40.0 GHz

A spectrum plot with a vertical axis from 0 dBm to -80 dBm in 10 dB increments. The horizontal axis represents frequency from 5.925 GHz to 40.0 GHz. A blue trace shows a noisy baseline around -60 dBm. A red horizontal line is drawn at -27.000 dBm, labeled 'O1 -27.000 dBm'. A blue peak is labeled 'M1[1] -47.08 dBm 39.32360 GHz'. The plot is titled 'Spectrum' and includes settings: Ref Level 11.00 dBm, Offset 1.00 dB, RBW 1 MHz, Att 20 dB, SWT 137 ms, VBW 3 MHz, Mode Auto Sweep, and Count 10/10. The bottom status bar shows 'Start 5.925 GHz', '30001 pts', and 'Stop 40.0 GHz'.

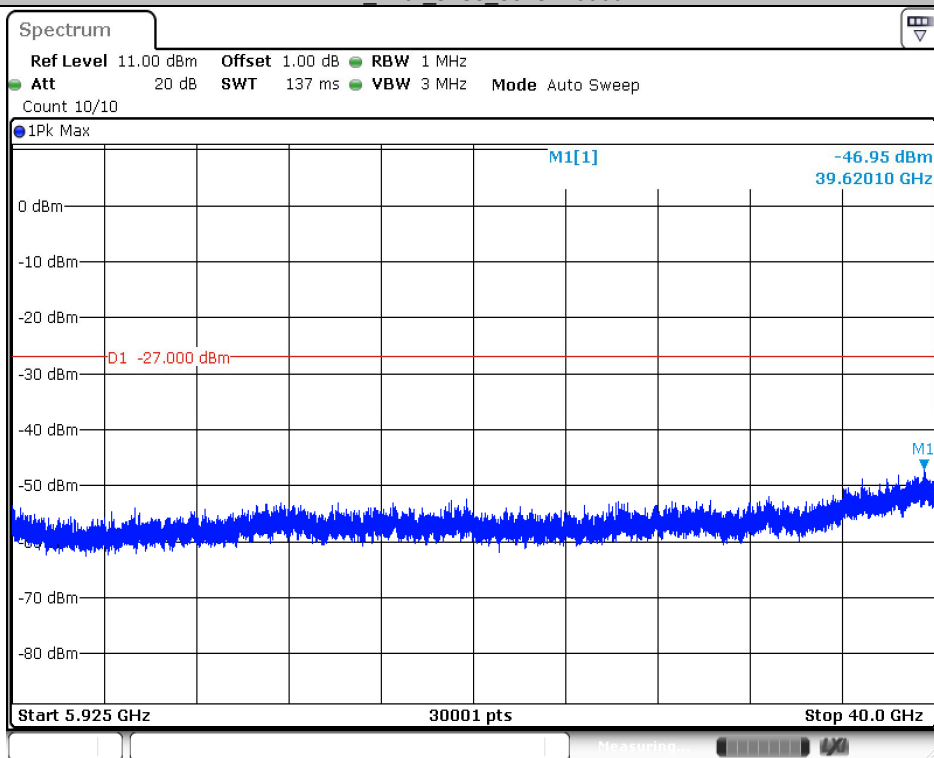
Date: 17.OCT.2023 11:34:54

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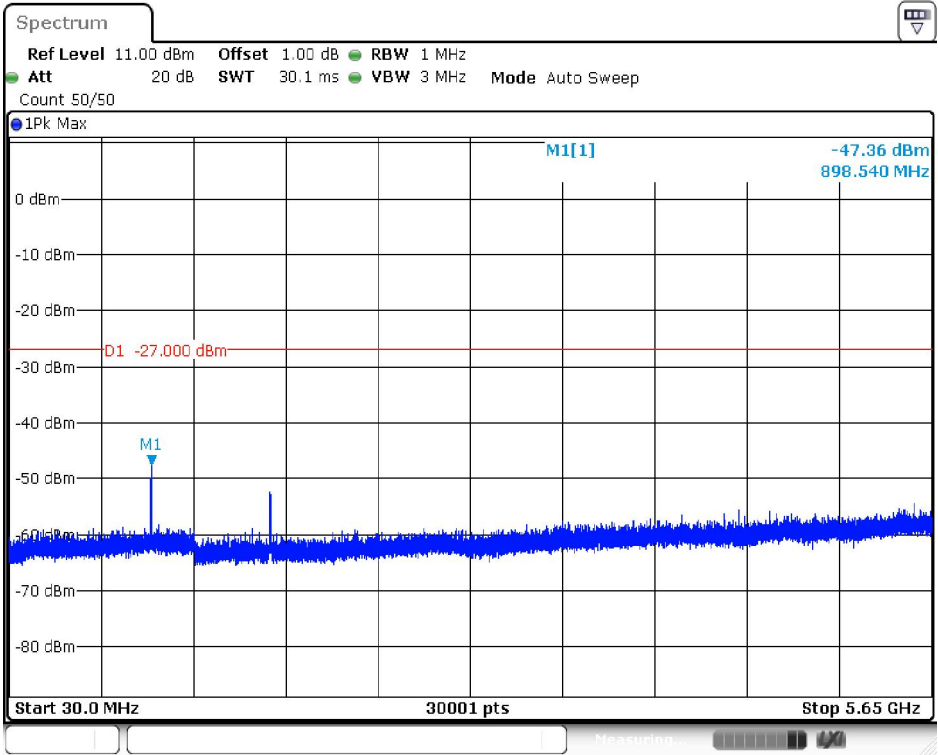
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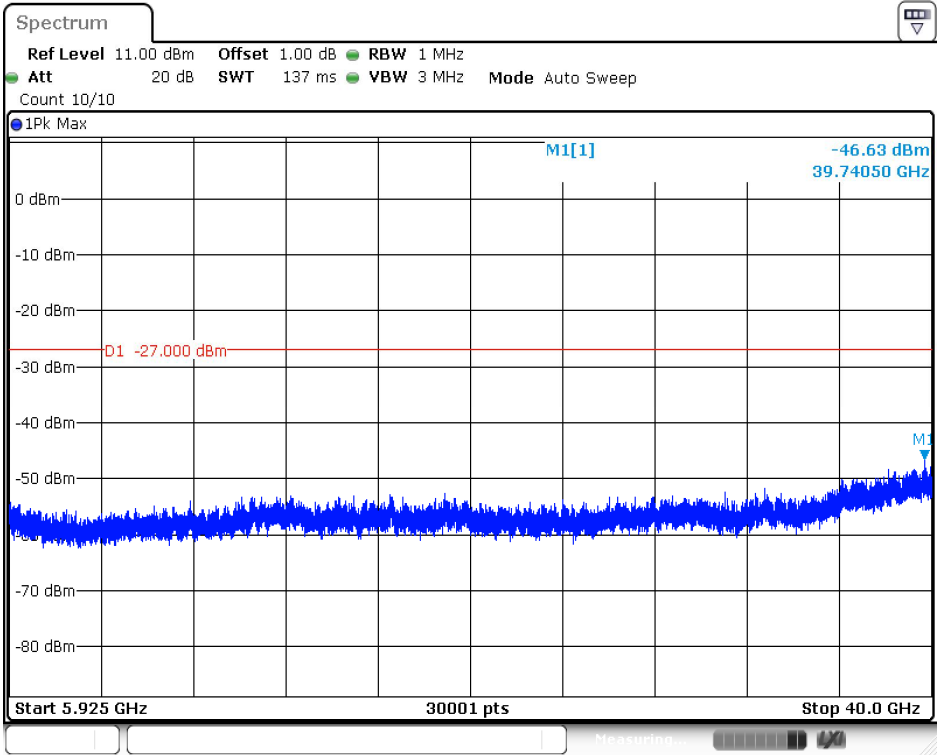
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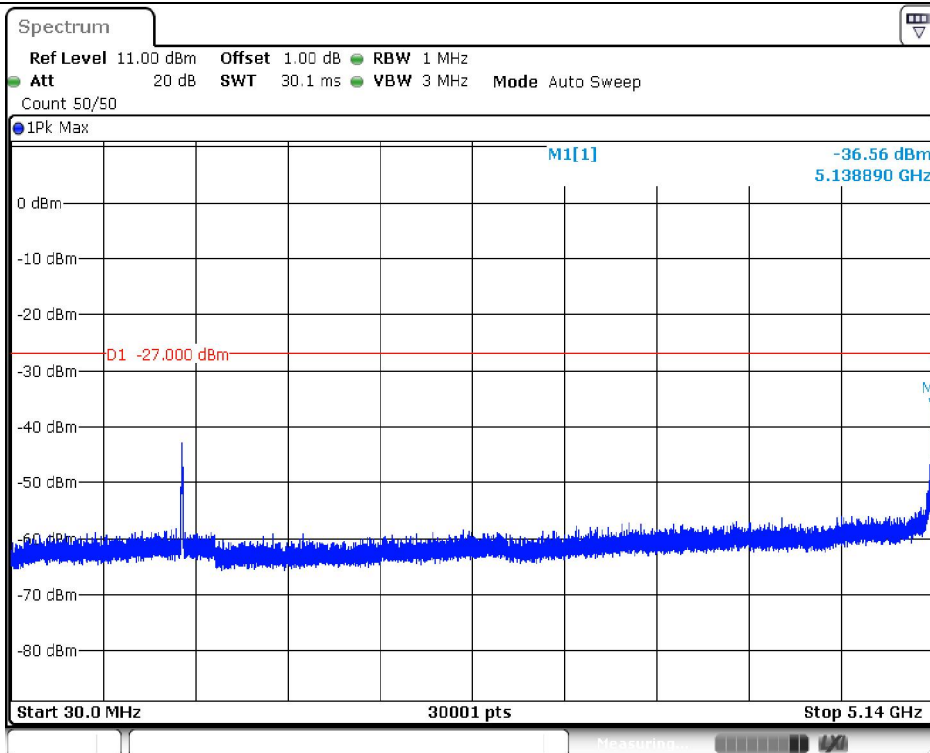
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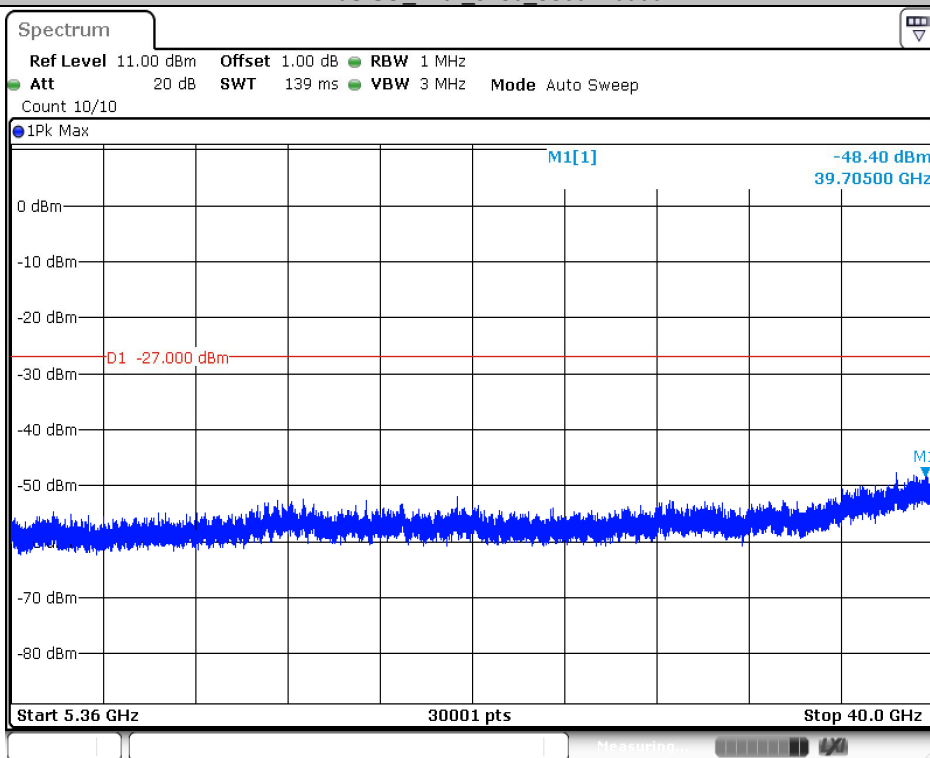
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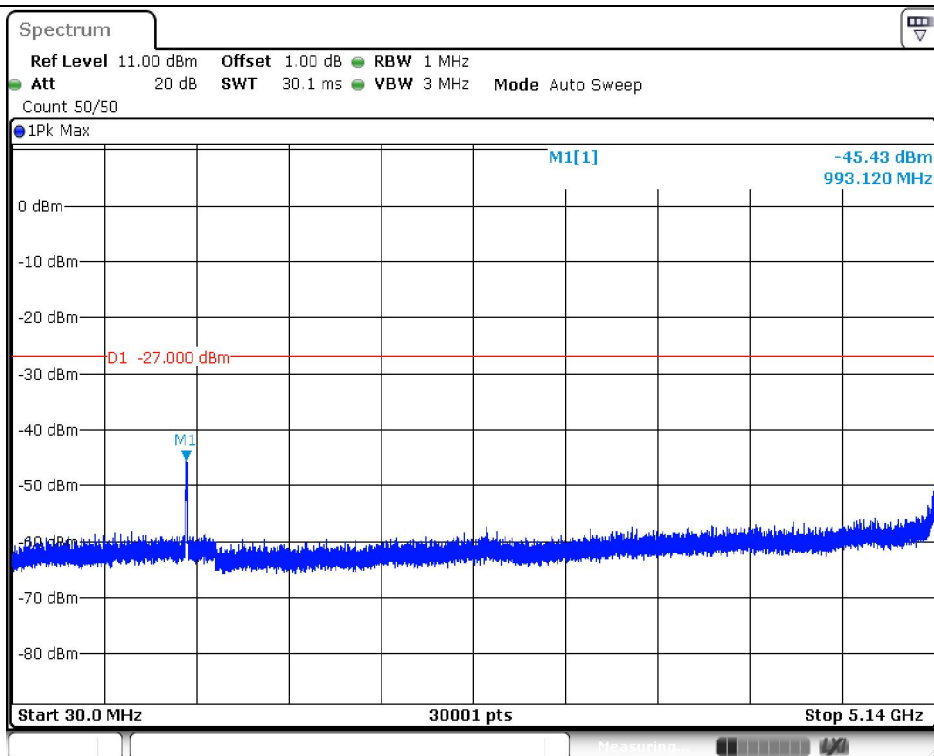
Date: 17.OCT.2023 11:41:04

11N20SISO_Ant1_5180_5360~40000



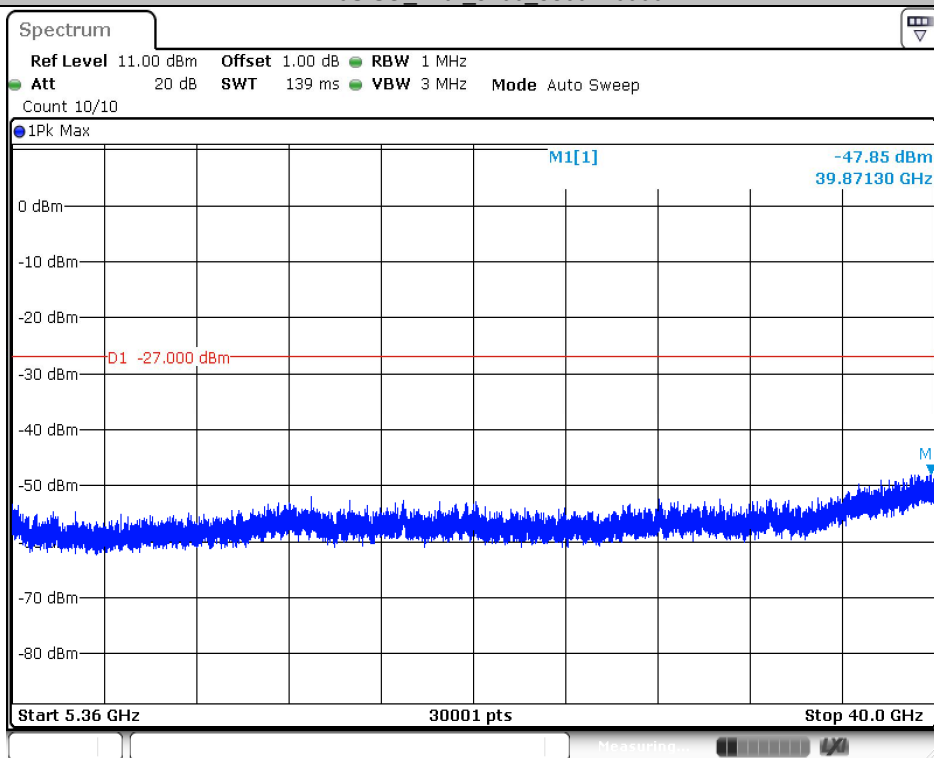
Date: 17.OCT.2023 11:41:09

11N20SISO_Ant1_5200_30~5140



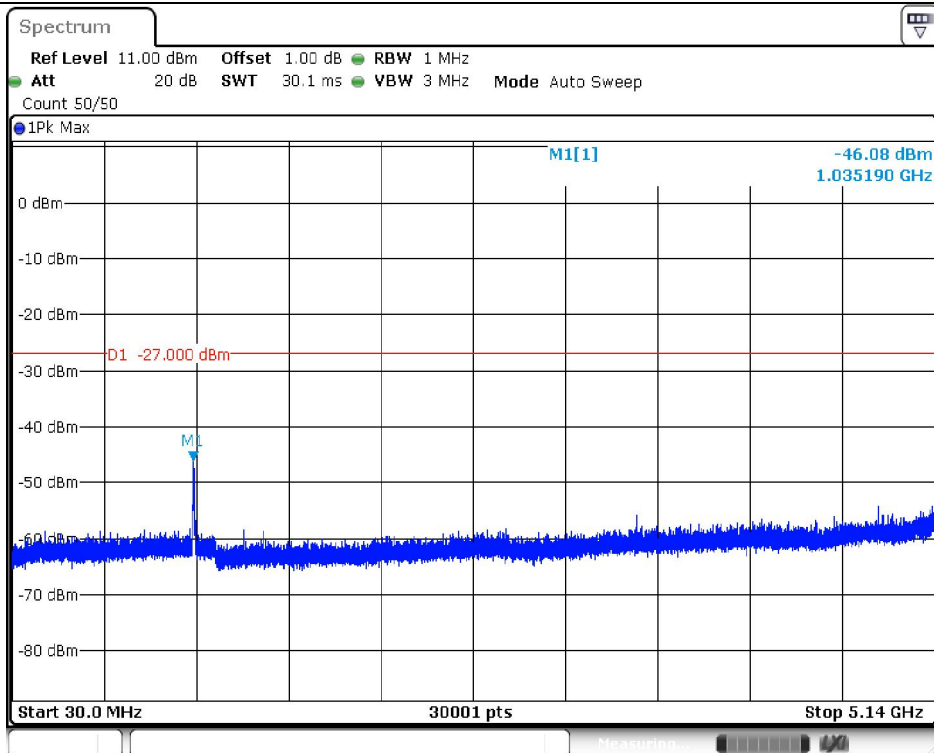
Date: 17.OCT.2023 11:42:31

11N20SISO_Ant1_5200_5360~40000



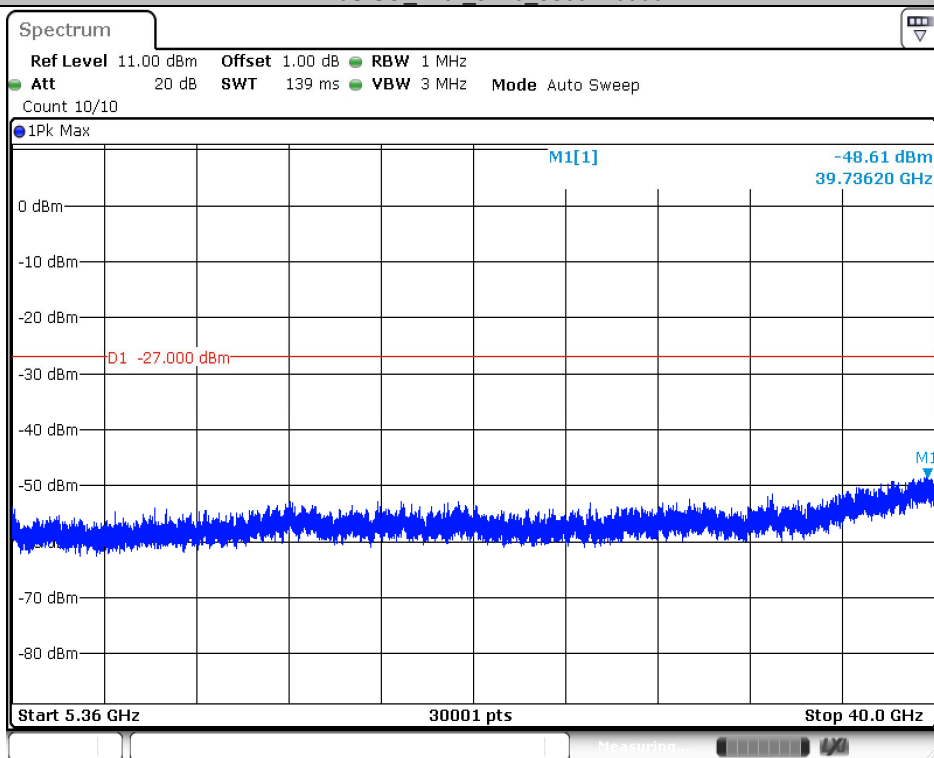
Date: 17.OCT.2023 11:42:37

11N20SISO_Ant1_5240_30~5140



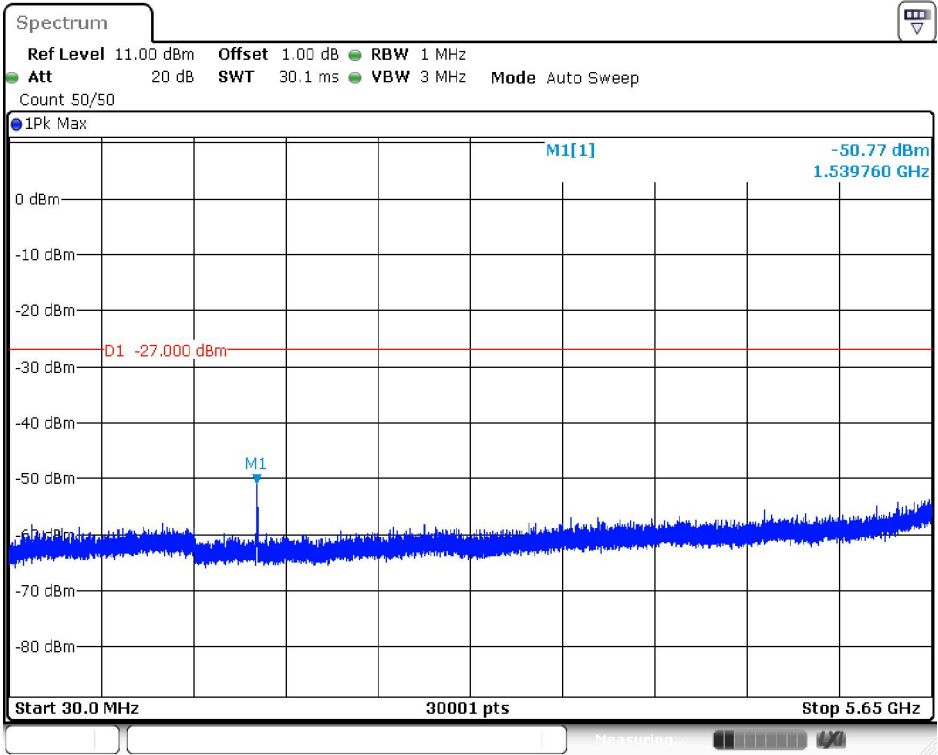
Date: 17.OCT.2023 11:44:00

11N20SISO_Ant1_5240_5360~40000



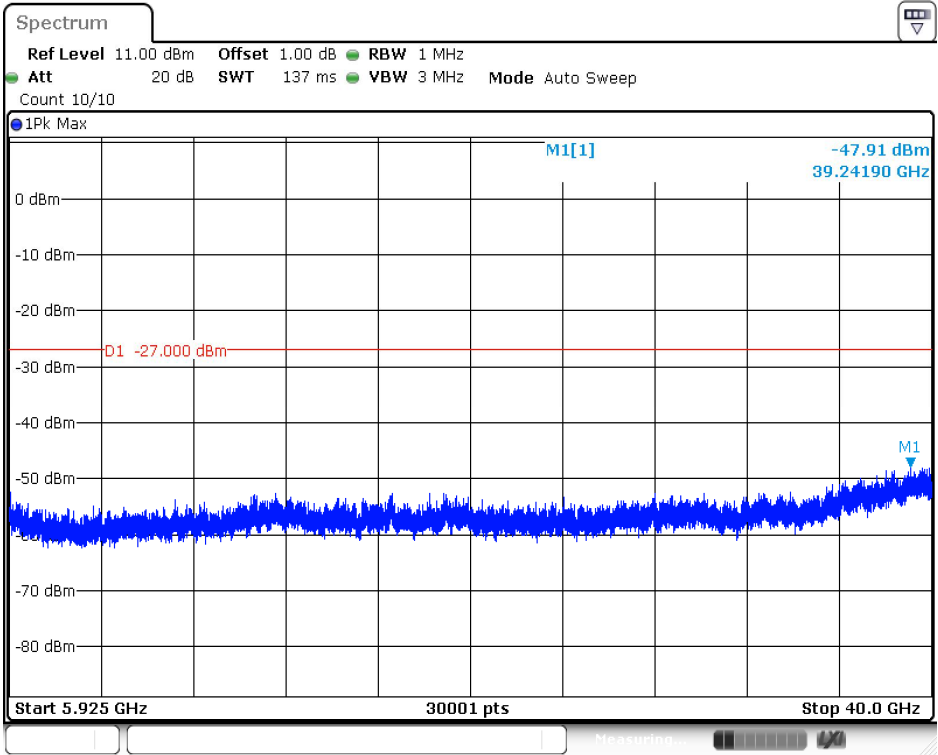
Date: 17.OCT.2023 11:44:05

11N20SISO_Ant1_5745_30~5650



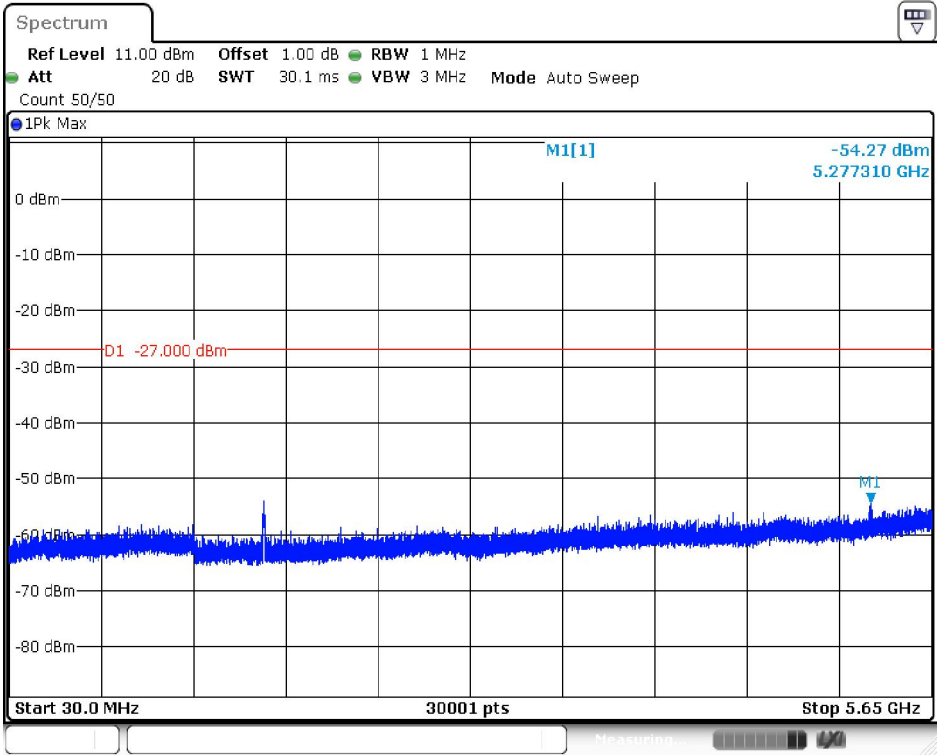
Date: 17.OCT.2023 12:00:10

11N20SISO_Ant1_5745_5925~40000



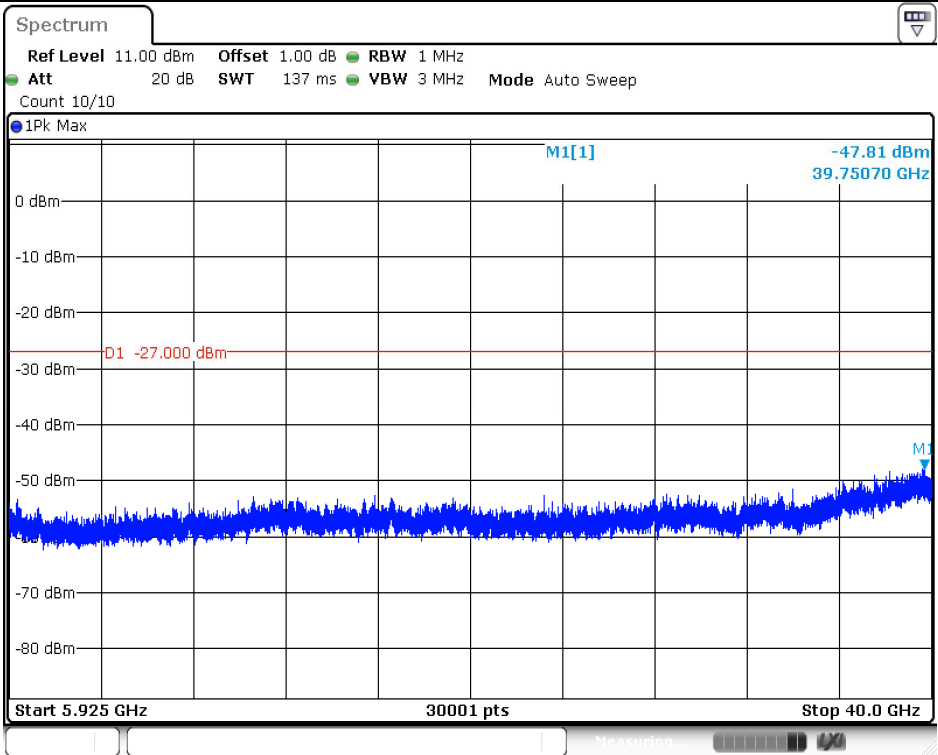
Date: 17.OCT.2023 12:00:15

11N20SISO_Ant1_5785_30~5650



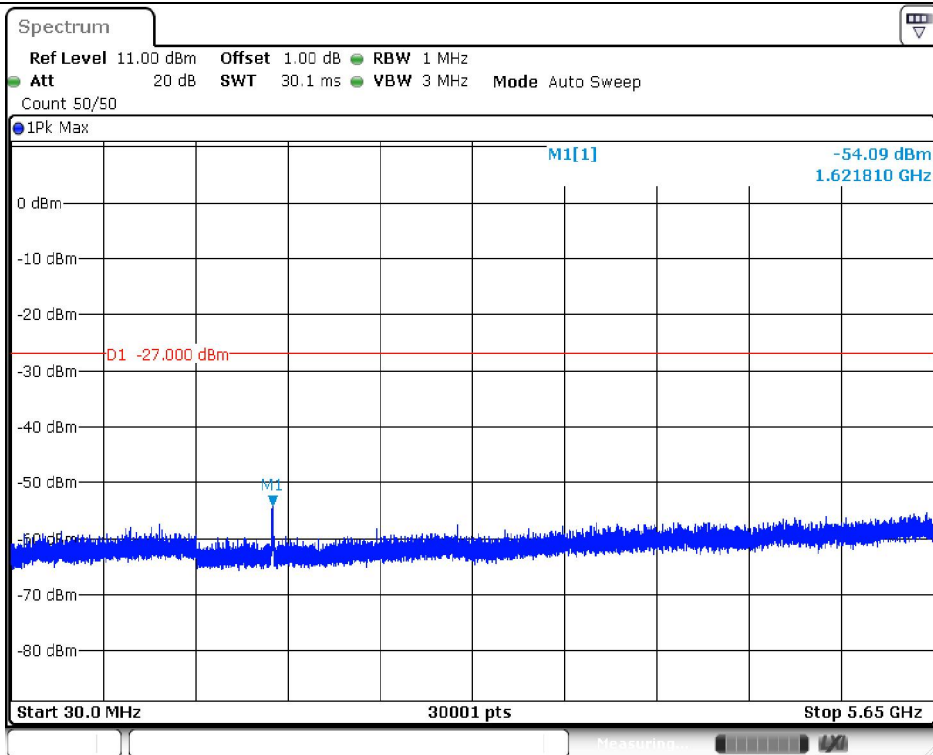
Date: 17.OCT.2023 12:01:41

11N20SISO_Ant1_5785_5925~40000



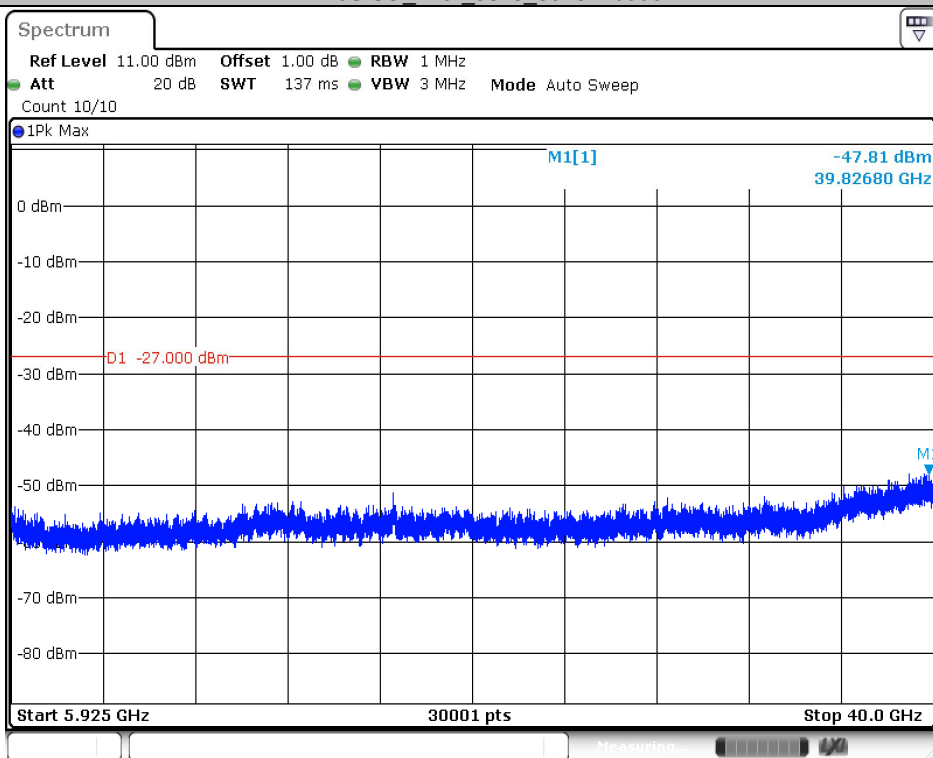
Date: 17.OCT.2023 12:01:46

11N20SISO_Ant1_5825_30~5650



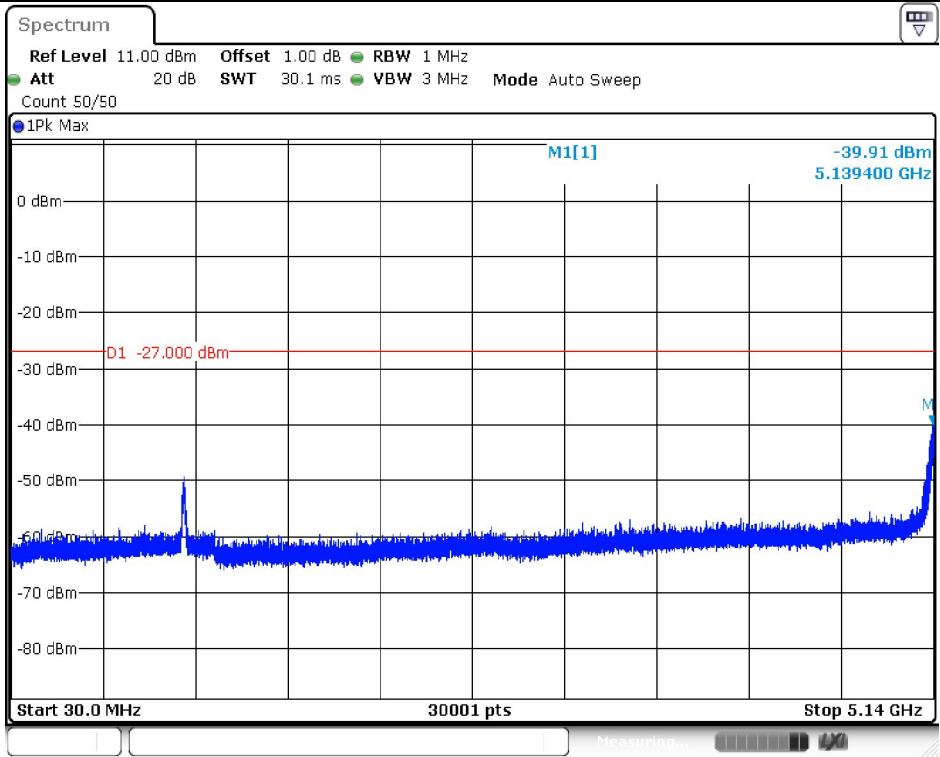
Date: 17.OCT.2023 12:03:51

11N20SISO_Ant1_5825_5925~40000



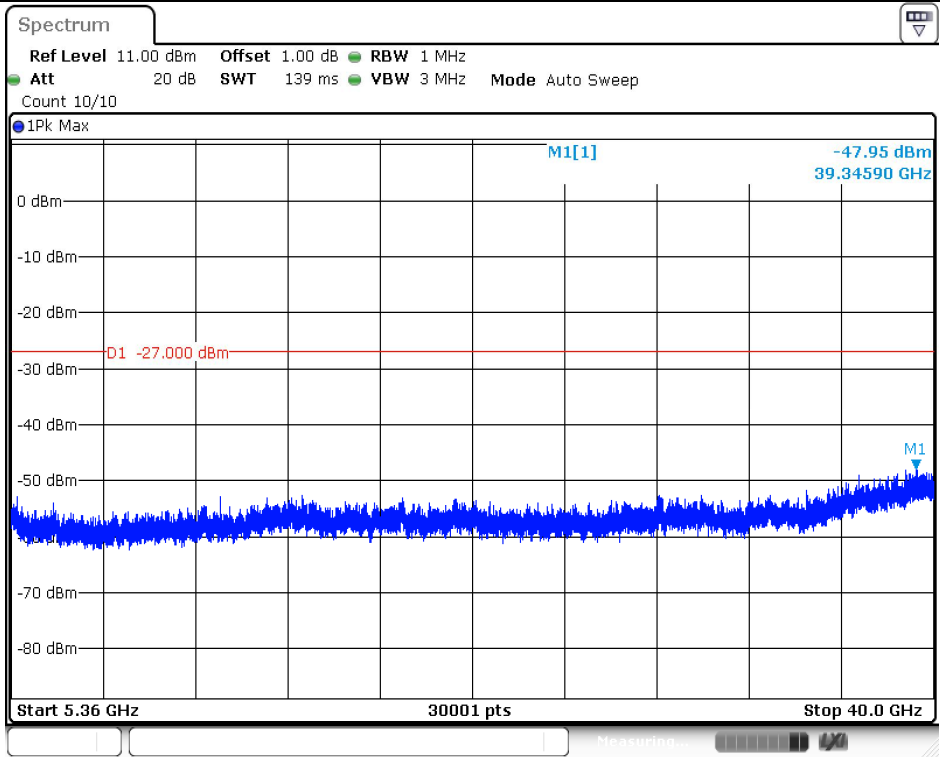
Date: 17.OCT.2023 12:03:56

11N40SISO_Ant1_5190_30~5140



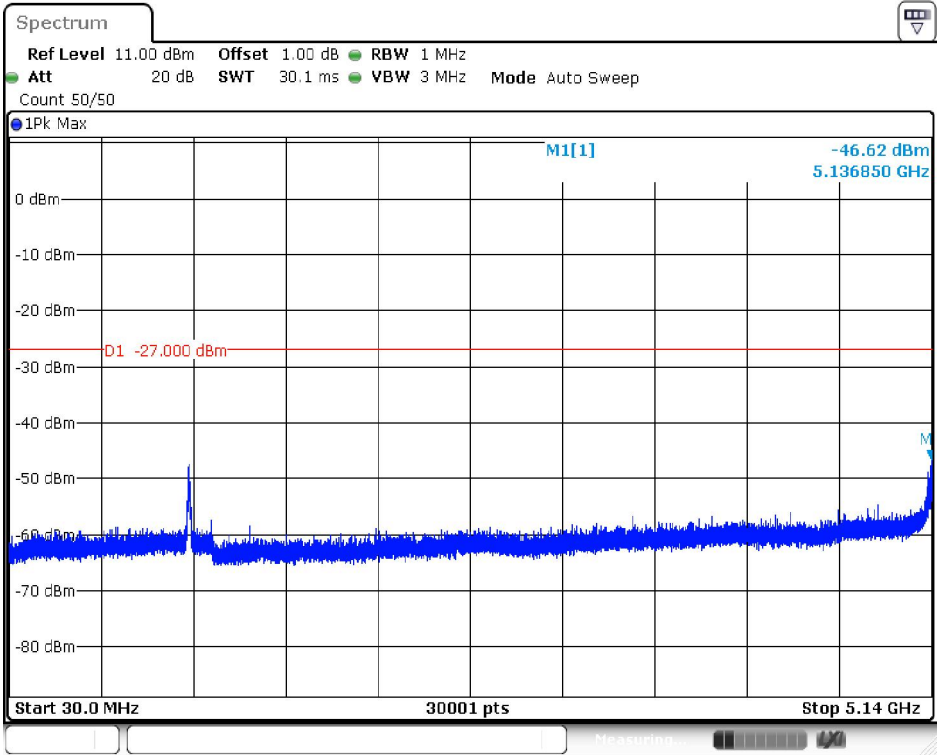
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11N40SISO_Ant1_5190_5360~40000



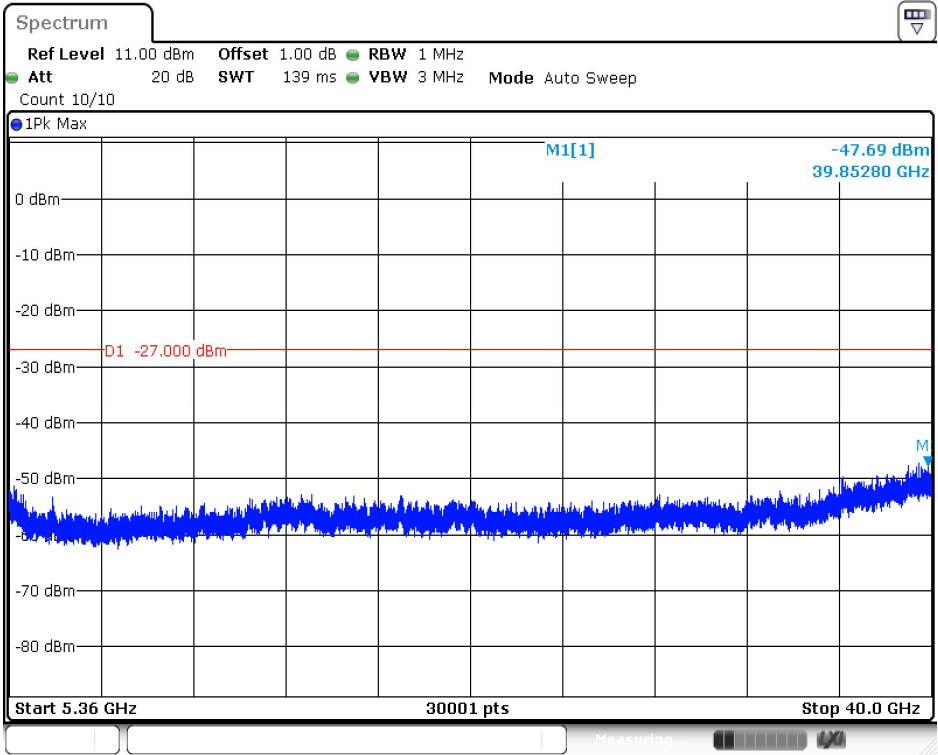
Date: 17.OCT.2023 12:05:40

11N40SISO_Ant1_5230_30~5140



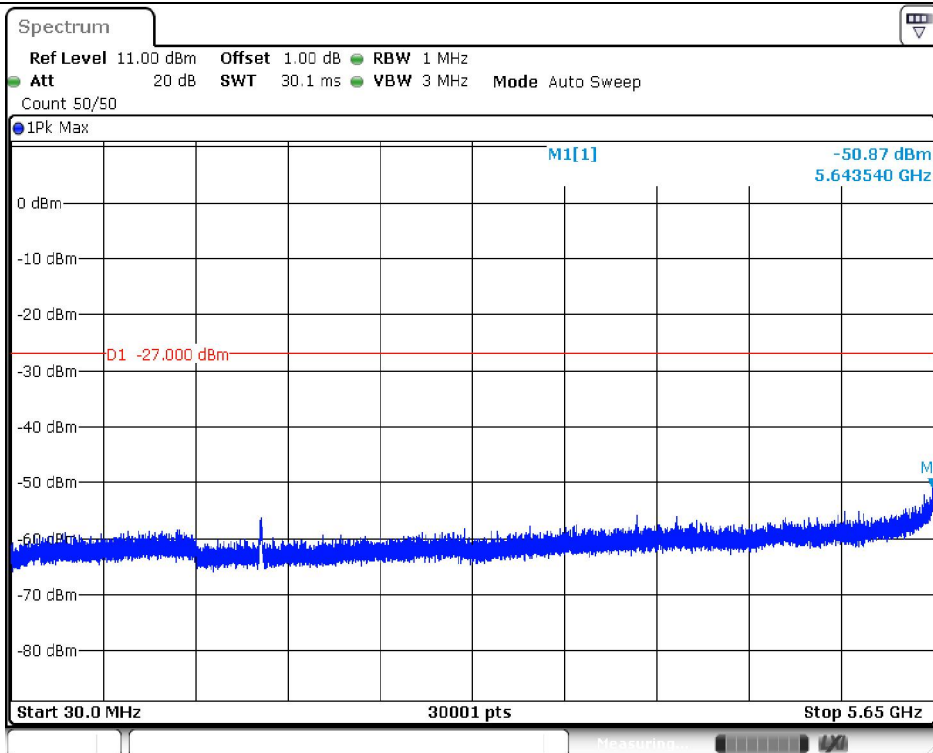
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11N40SISO_Ant1_5230_5360~40000



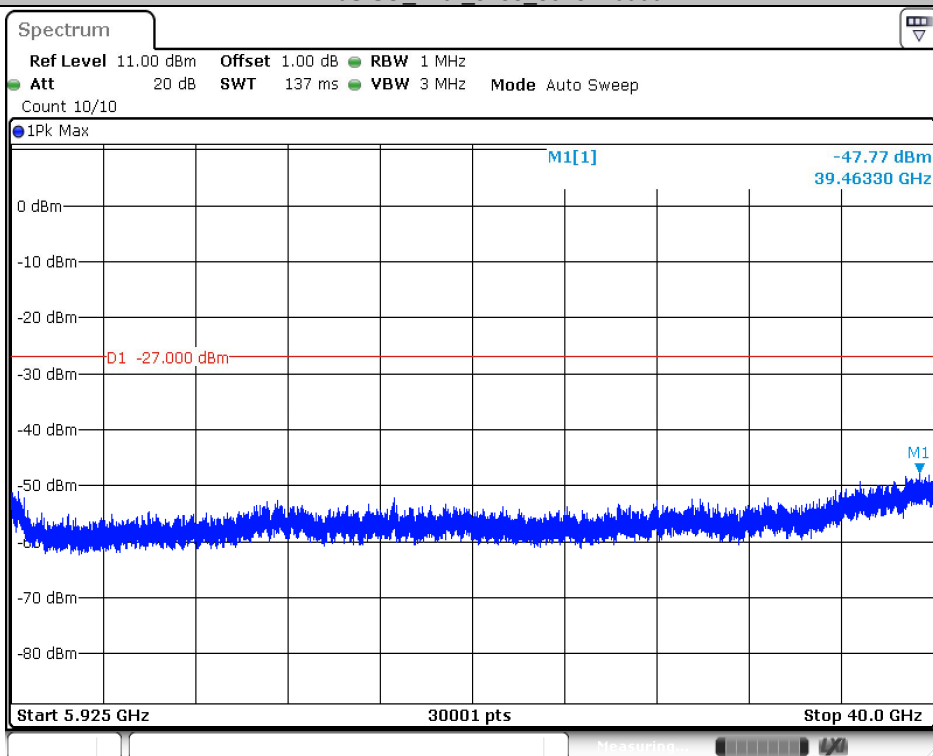
Date: 17.OCT.2023 12:07:22

11N40SISO_Ant1_5755_30~5650



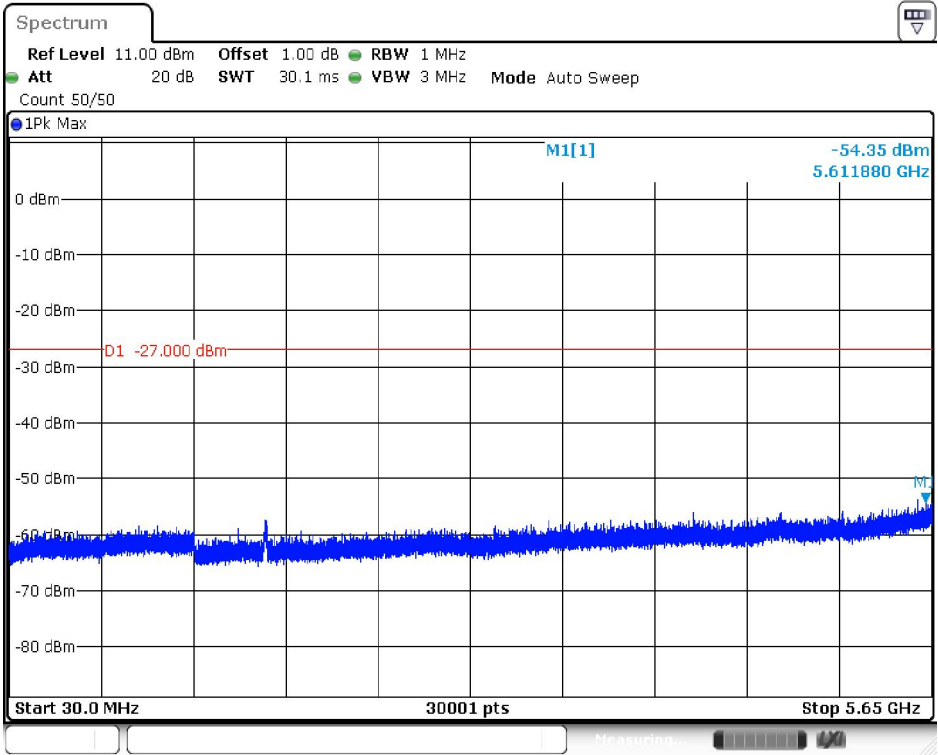
Date: 17.OCT.2023 12:21:30

11N40SISO_Ant1_5755_5925~40000



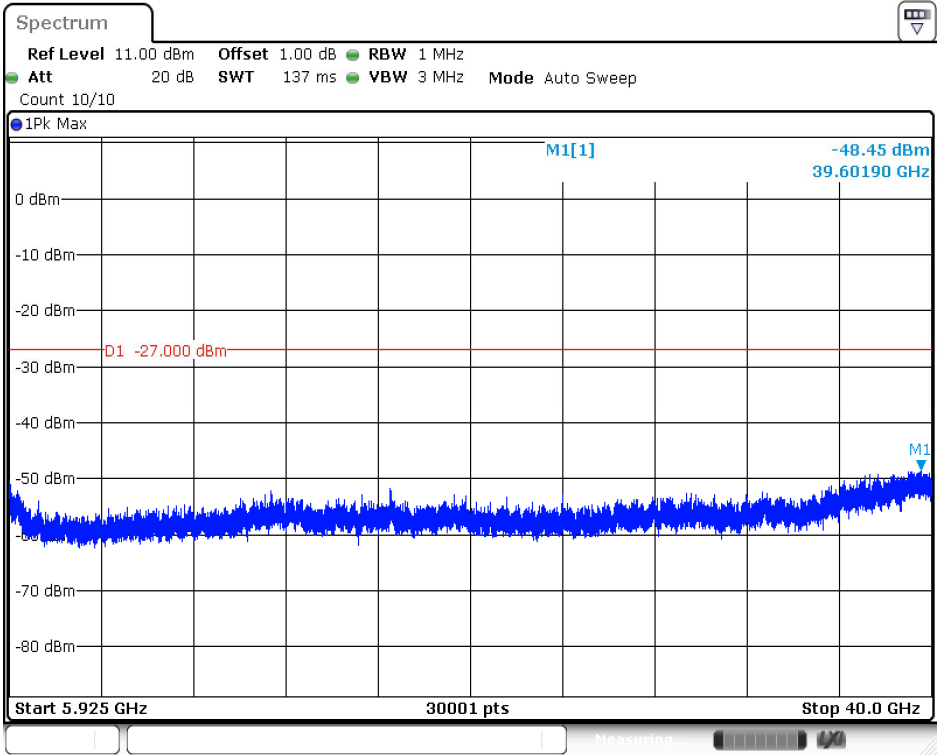
Date: 17.OCT.2023 12:21:35

11N40SISO_Ant1_5795_30~5650



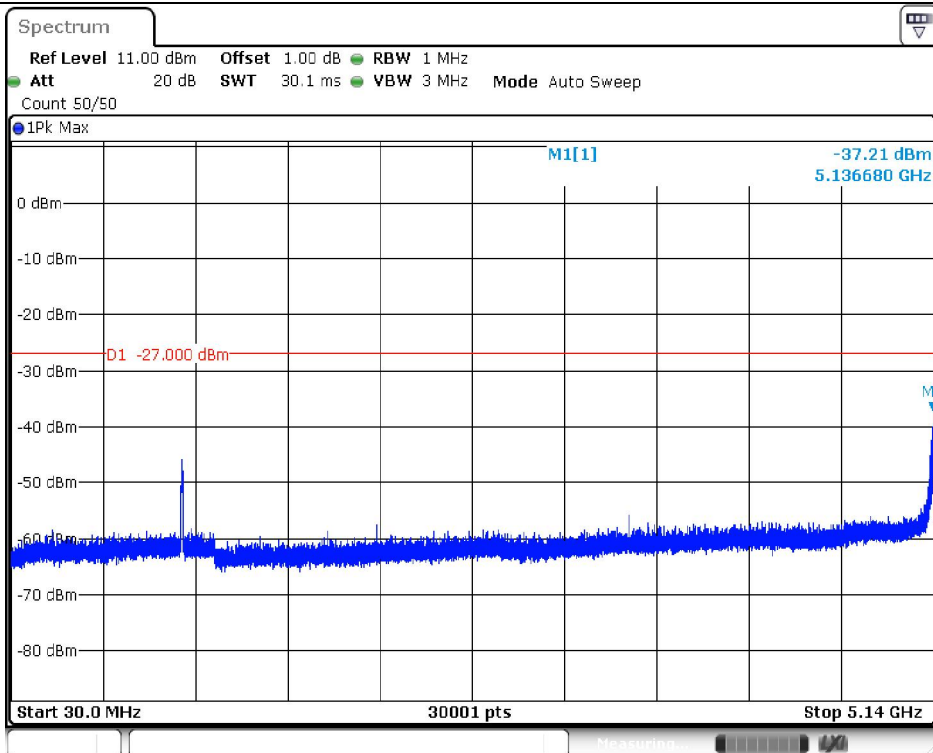
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11N40SISO_Ant1_5795_5925~40000



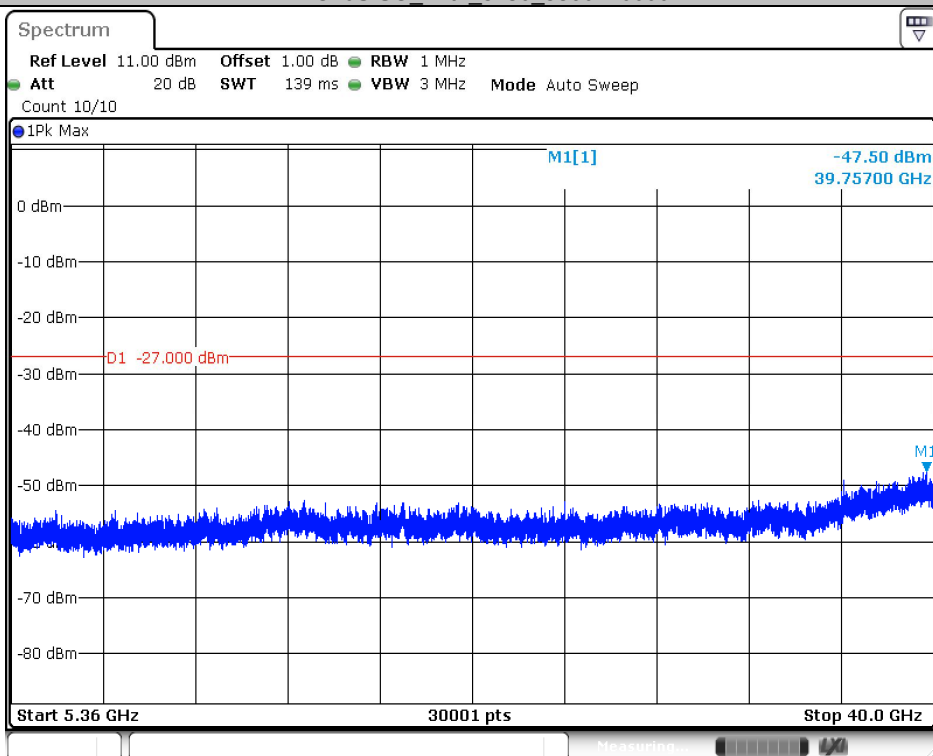
Date: 17.OCT.2023 12:23:47

11AC20SISO_Ant1_5180_30~5140



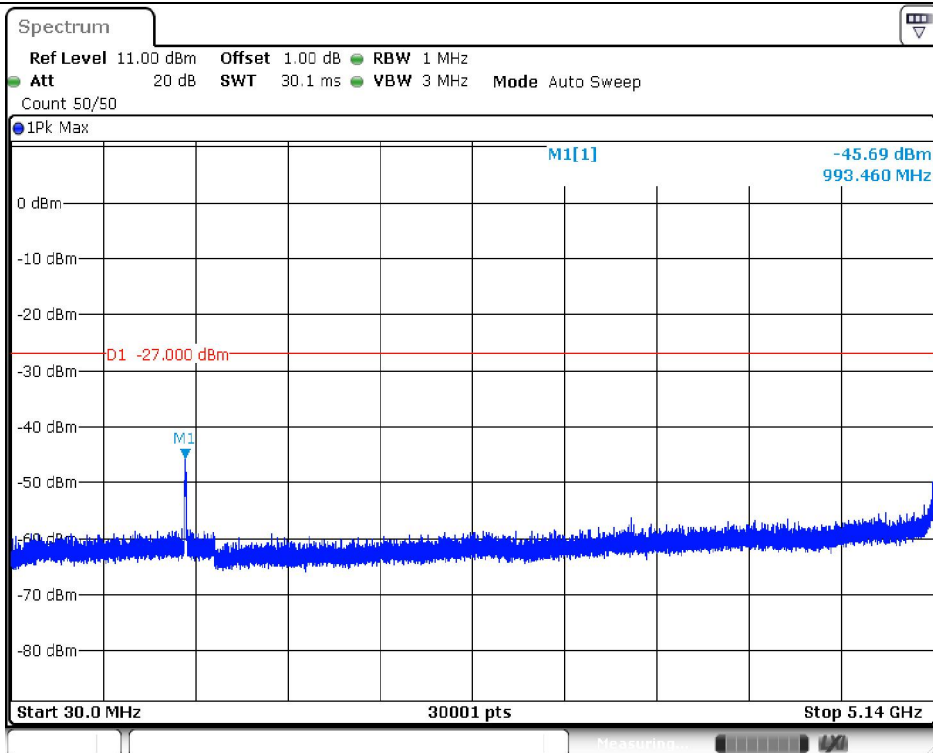
Date: 17.OCT.2023 12:26:14

11AC20SISO_Ant1_5180_5360-40000



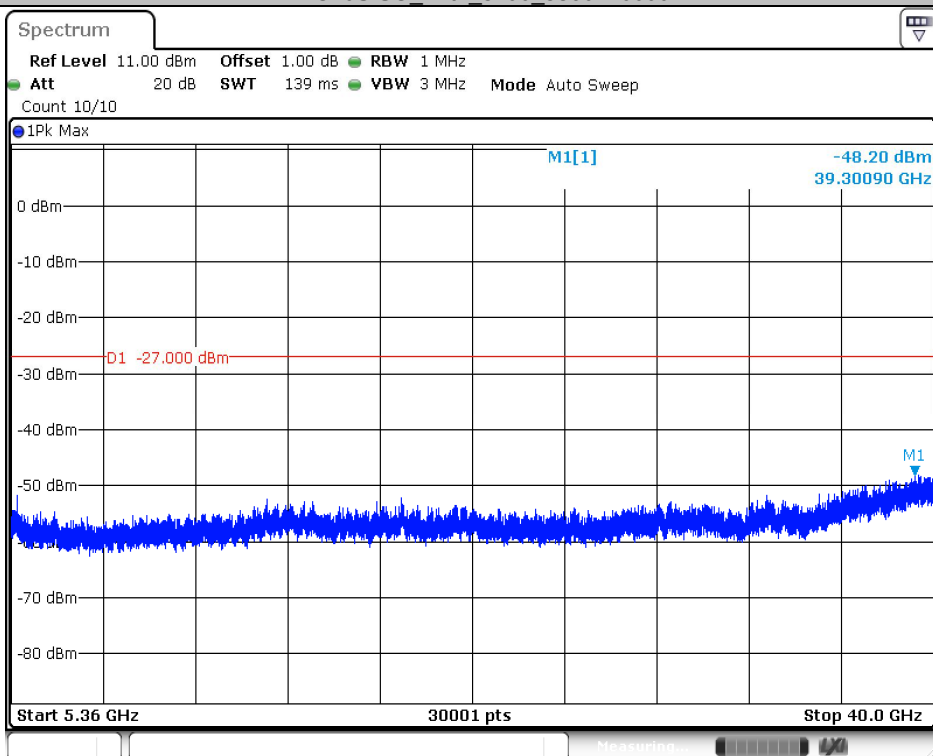
Date: 17.OCT.2023 12:26:19

11AC20SISO_Ant1_5200_30-5140



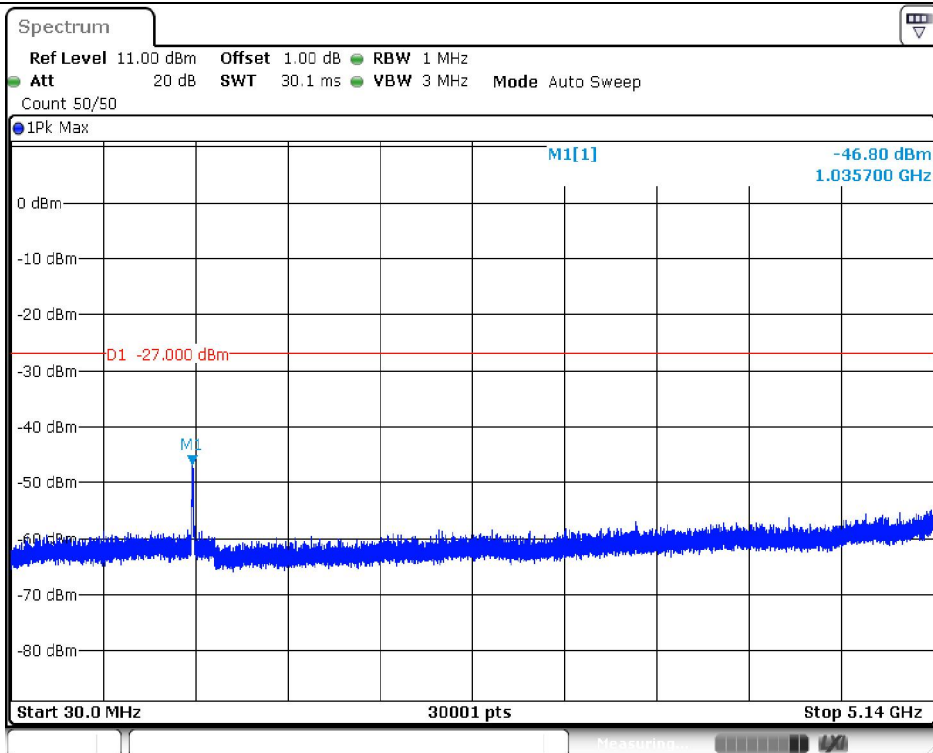
Date: 17.OCT.2023 12:27:59

11AC20SISO_Ant1_5200_5360-40000



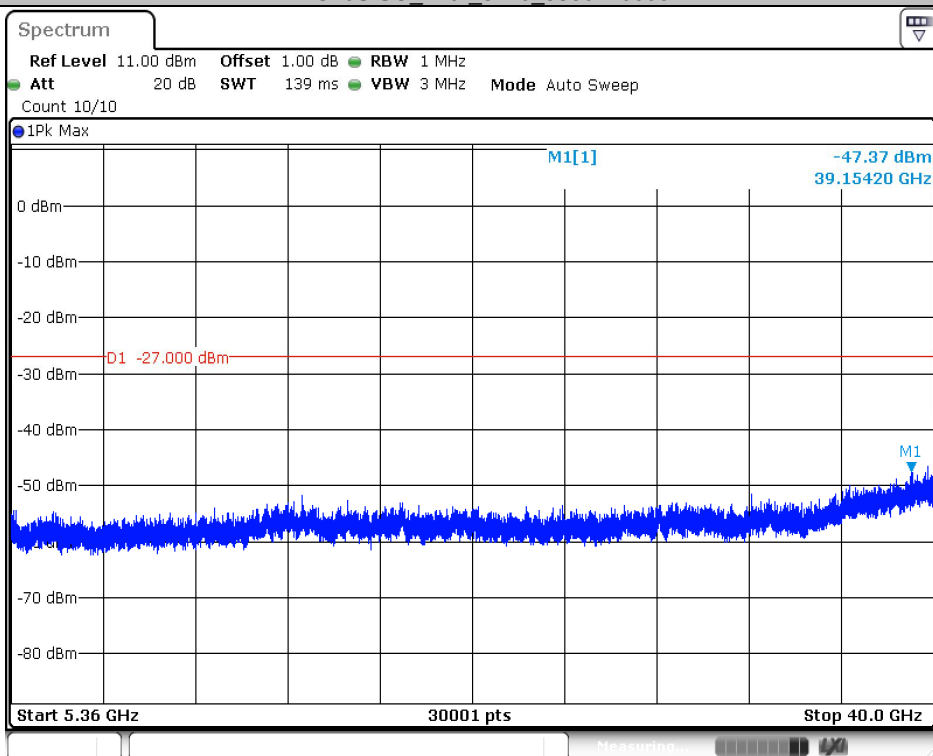
Date: 17.OCT.2023 12:28:04

11AC20SISO_Ant1_5240_30-5140



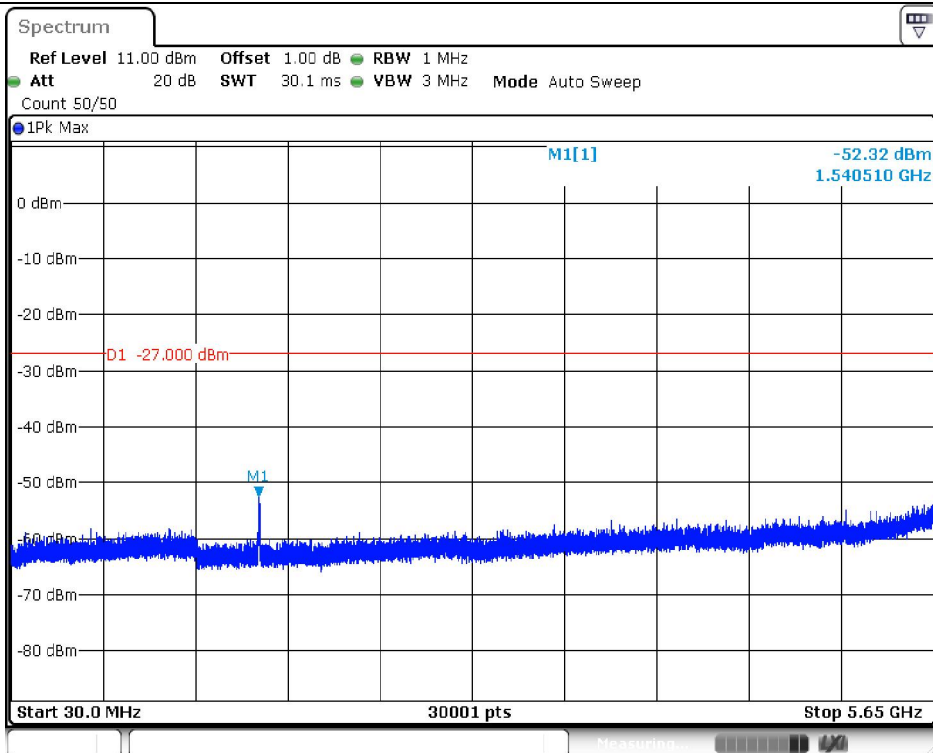
Date: 17.OCT.2023 12:30:43

11AC20SISO_Ant1_5240_5360-40000



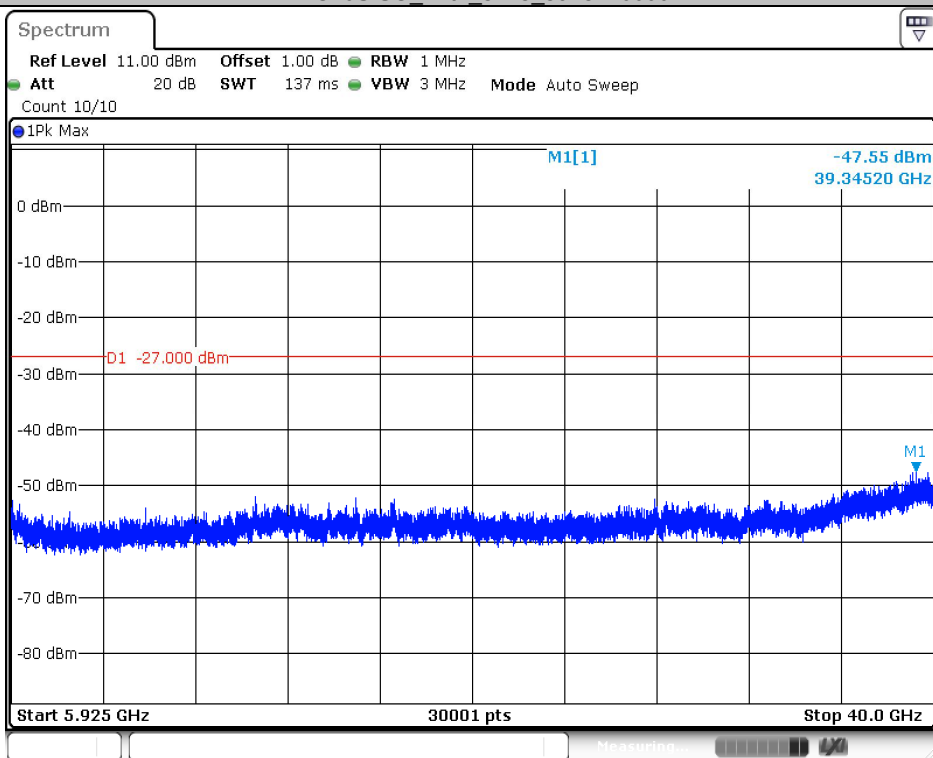
Date: 17.OCT.2023 12:30:48

11AC20SISO_Ant1_5745_30-5650



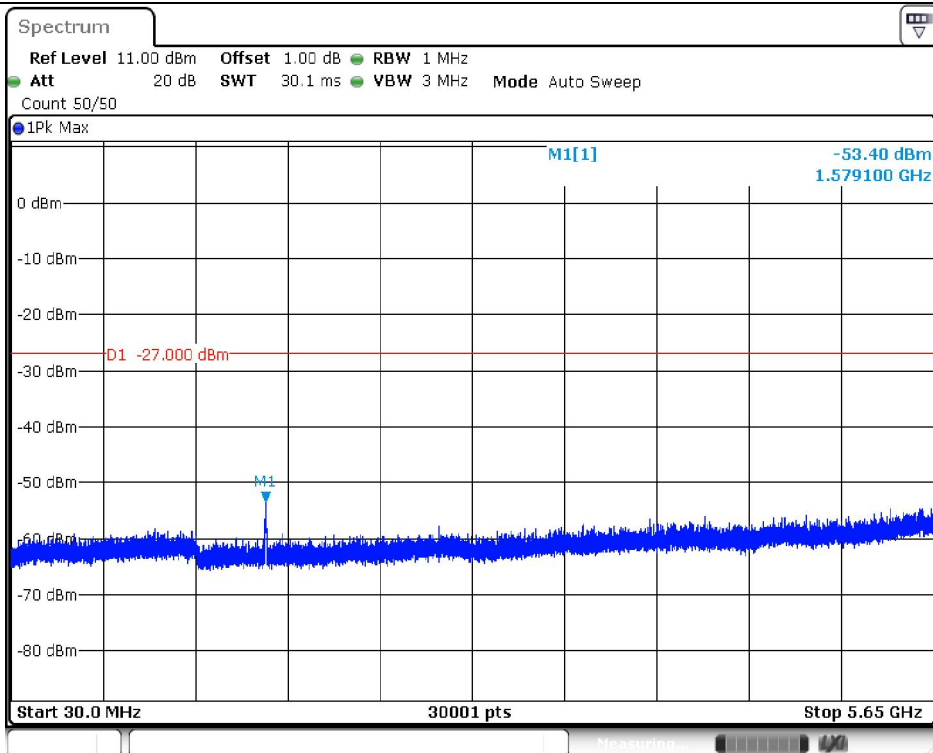
Date: 17.OCT.2023 13:09:45

11AC20SISO_Ant1_5745_5925-40000



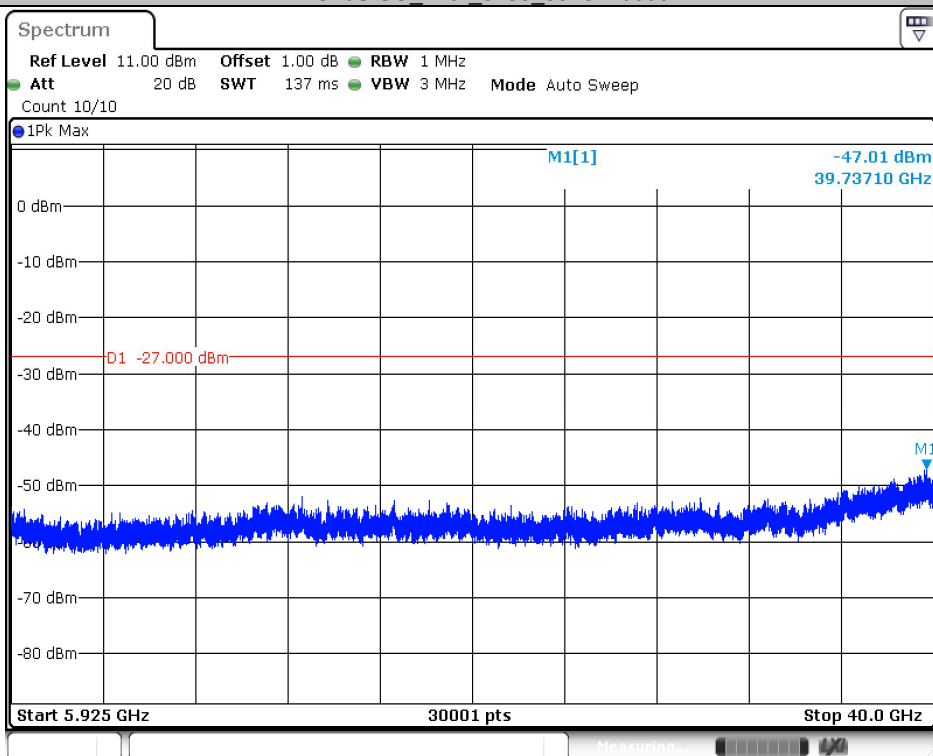
Date: 17.OCT.2023 13:09:50

11AC20SISO_Ant1_5785_30-5650



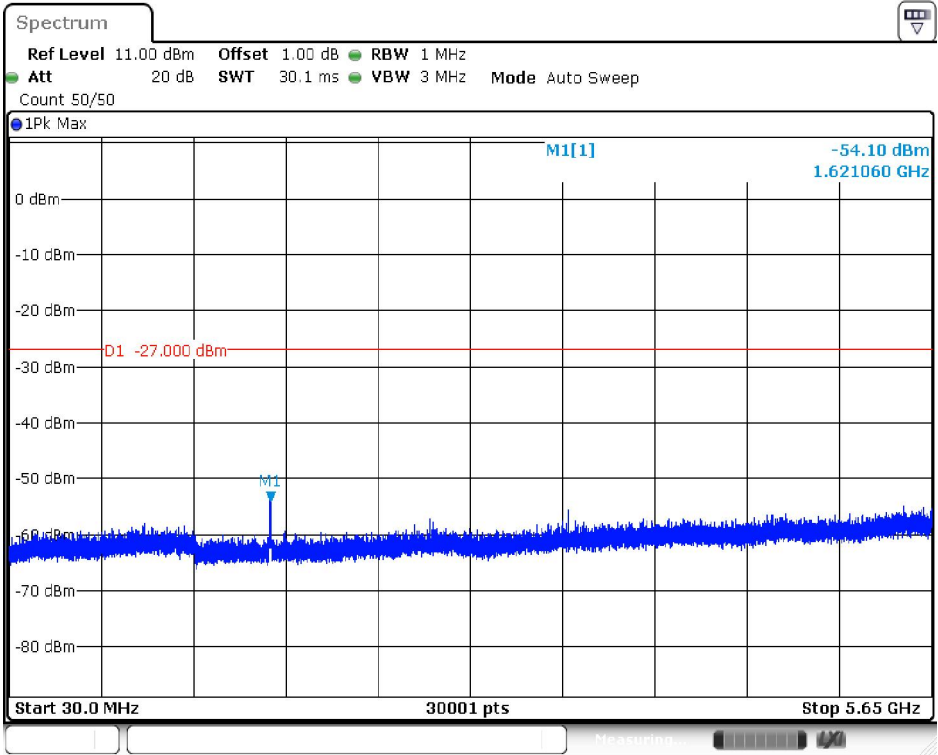
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11AC20SISO_Ant1_5785_5925-40000



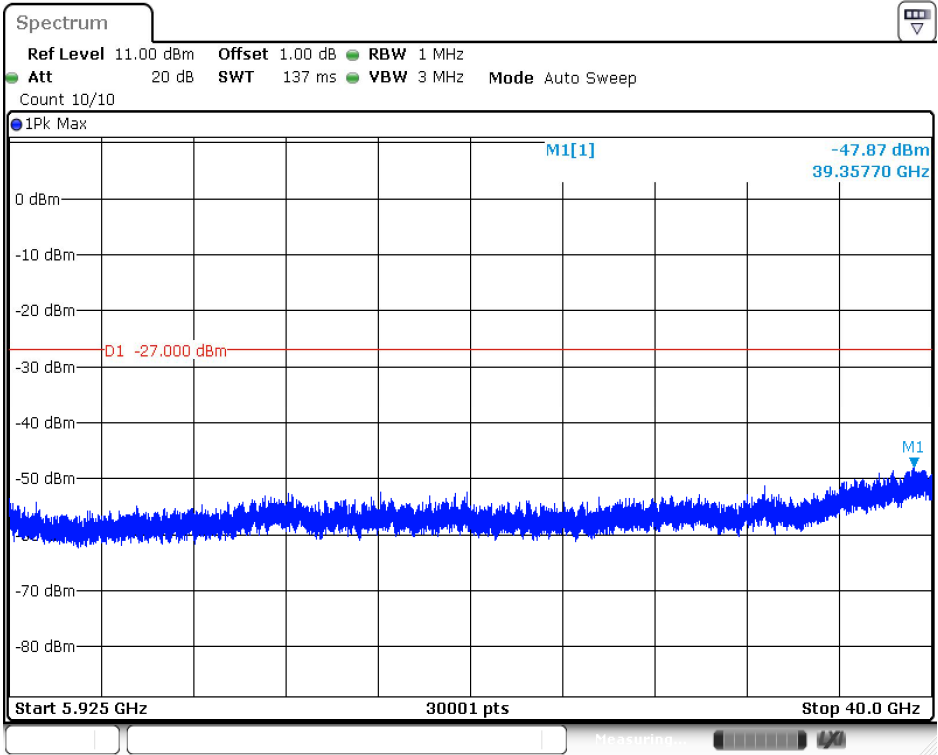
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11AC20SISO_Ant1_5825_30-5650



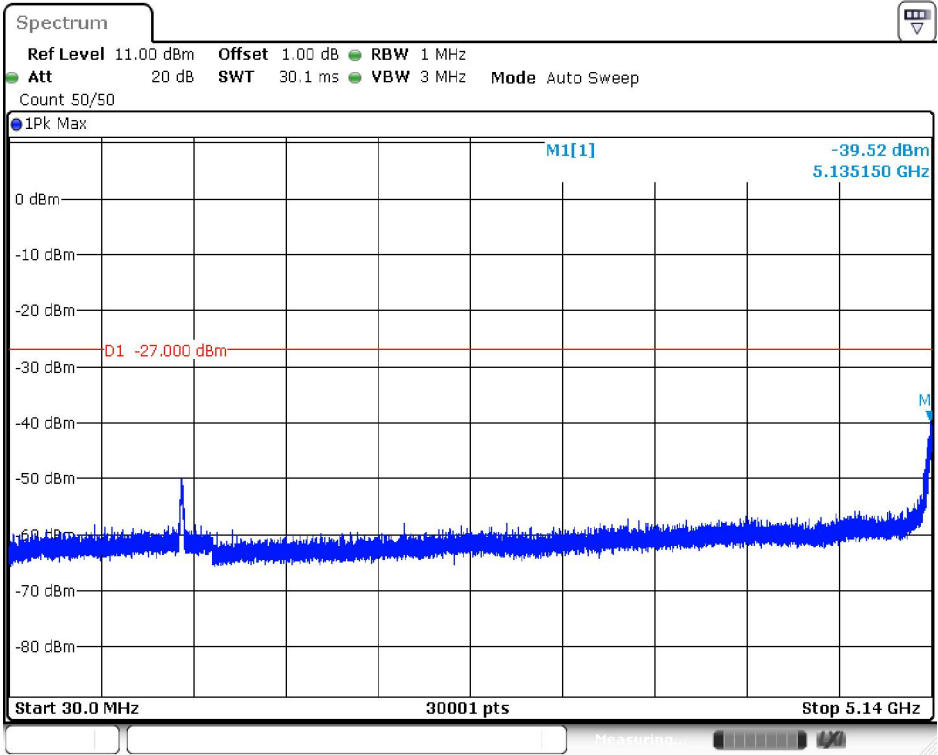
Date: 17.OCT.2023 13:15:47

11AC20SISO_Ant1_5825_5925-40000



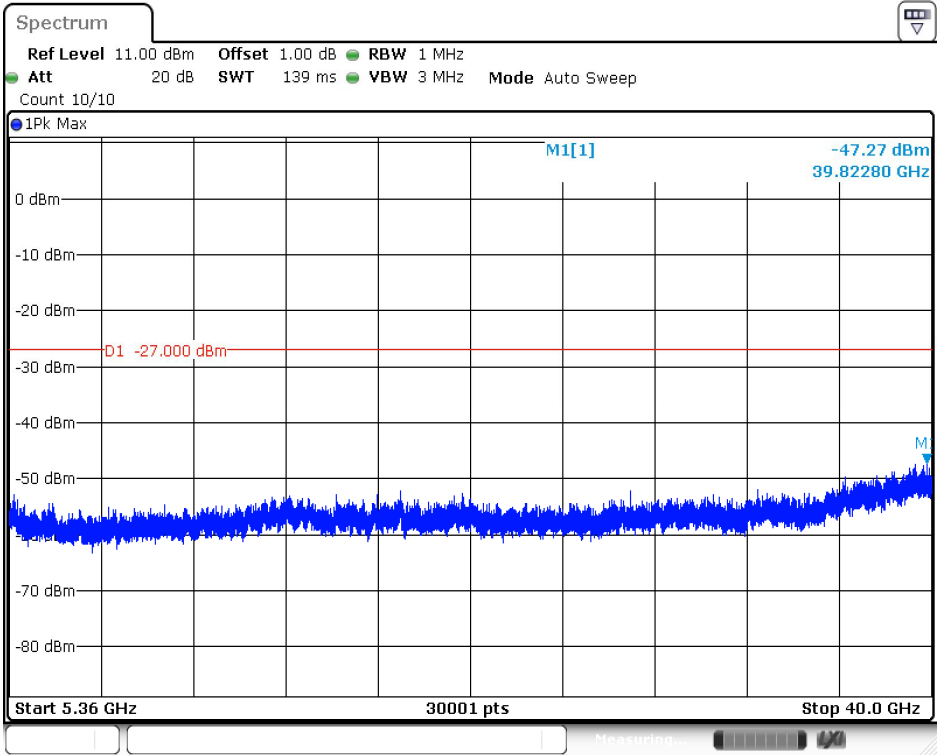
Date: 17.OCT.2023 13:15:52

11AC40SISO_Ant1_5190_30-5140



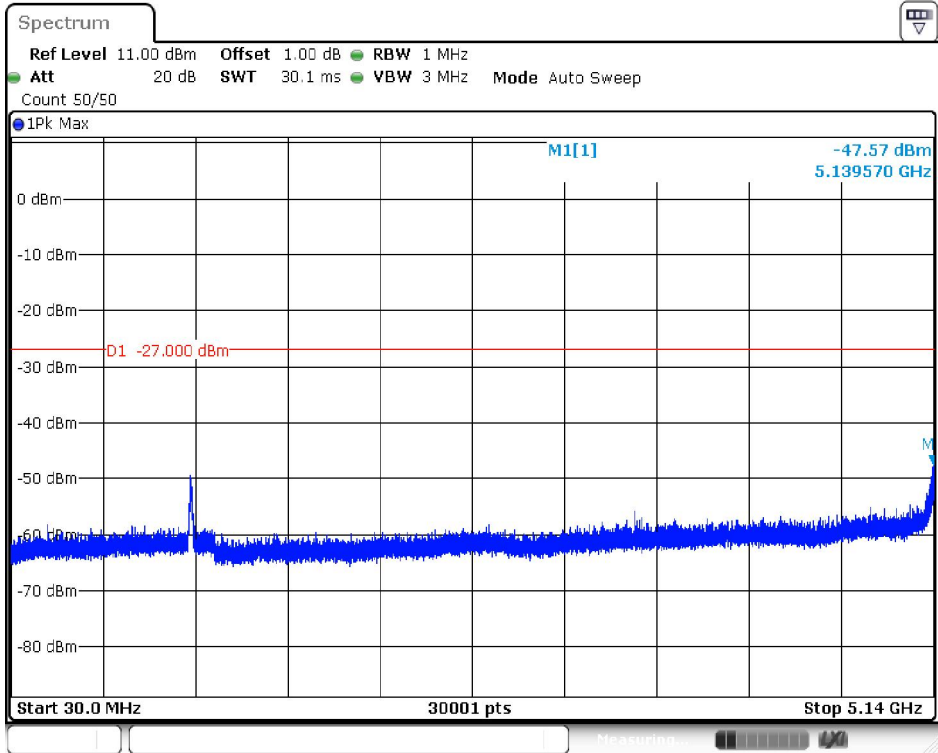
Date: 17.OCT.2023 13:17:36

11AC40SISO_Ant1_5190_5360-40000



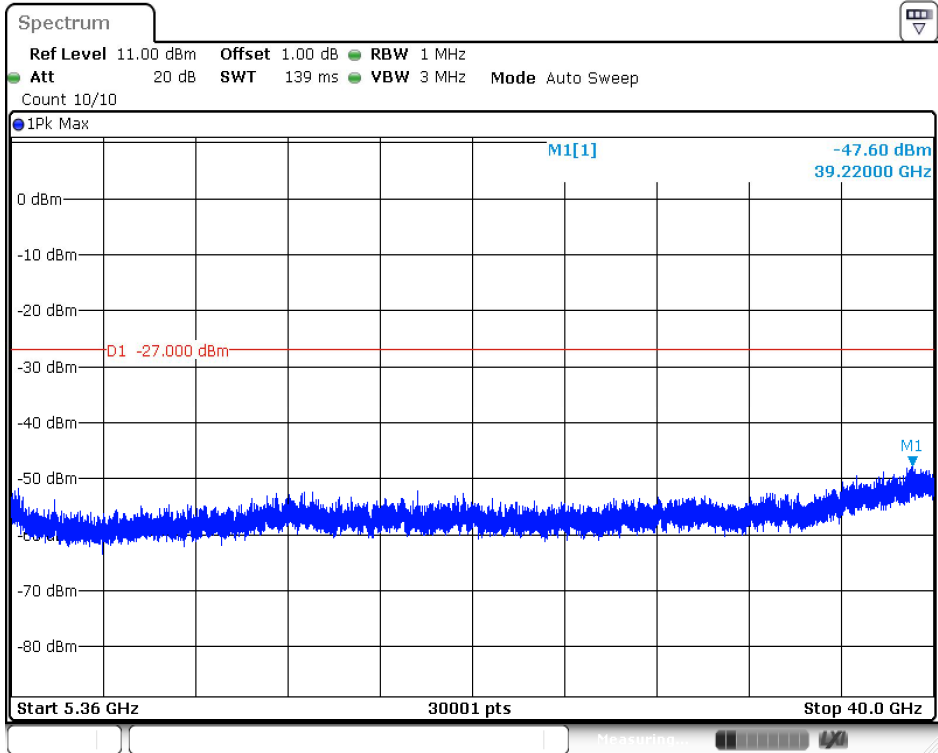
Date: 17.OCT.2023 13:17:41

11AC40SISO_Ant1_5230_30-5140



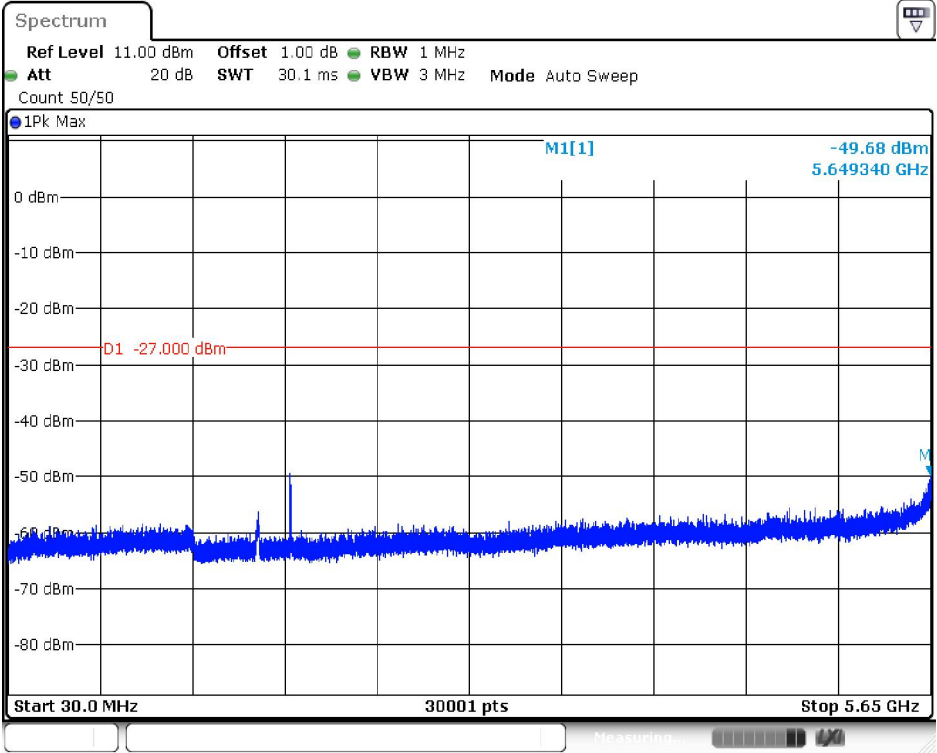
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11AC40SISO_Ant1_5230_5360-40000



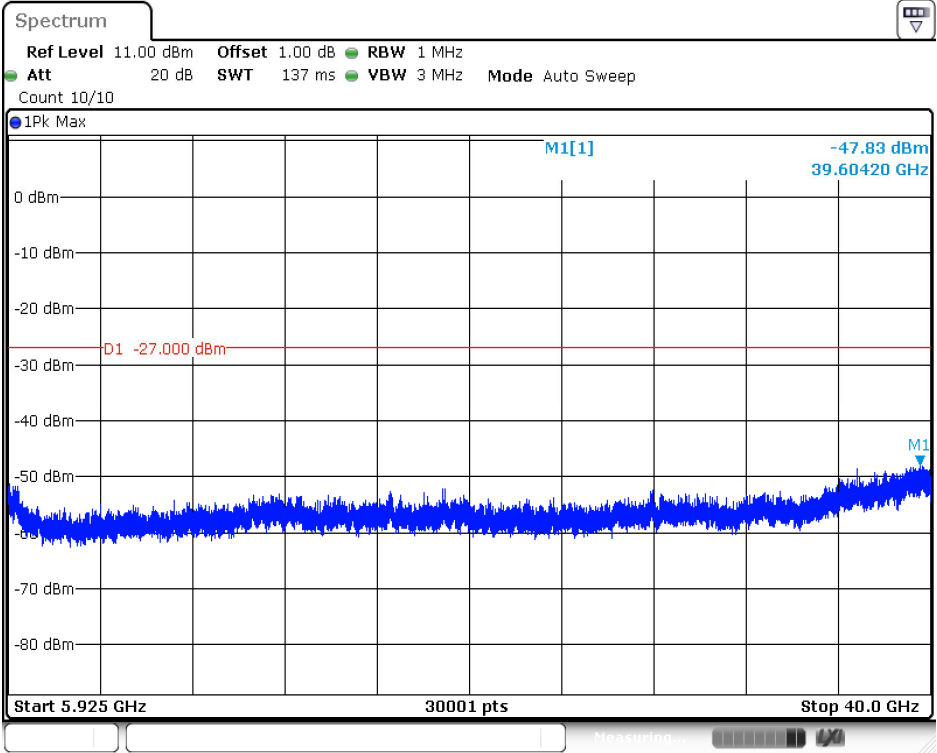
Date: 17.OCT.2023 13:19:40

11AC40SISO_Ant1_5755_30-5650



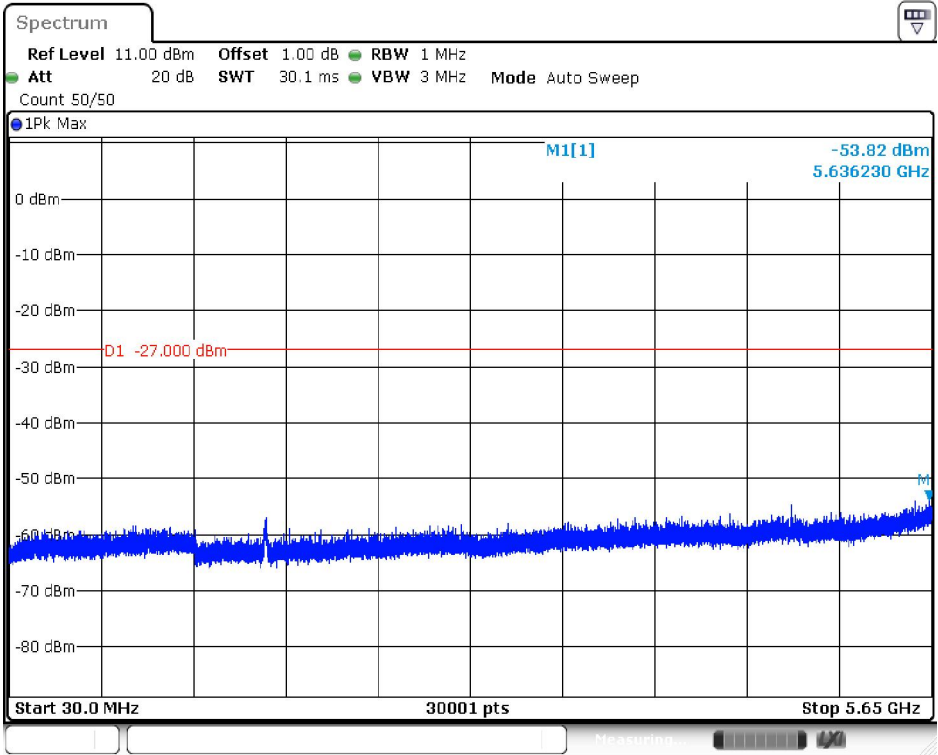
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11AC40SISO_Ant1_5755_5925-40000



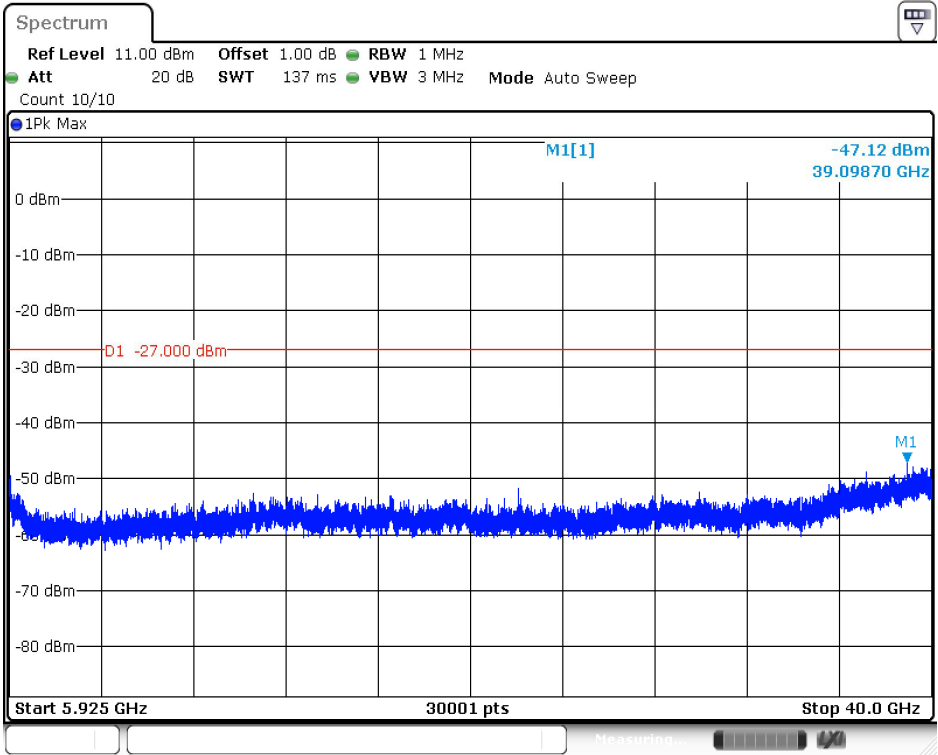
Date: 17.OCT.2023 13:34:01

11AC40SISO_Ant1_5795_30-5650



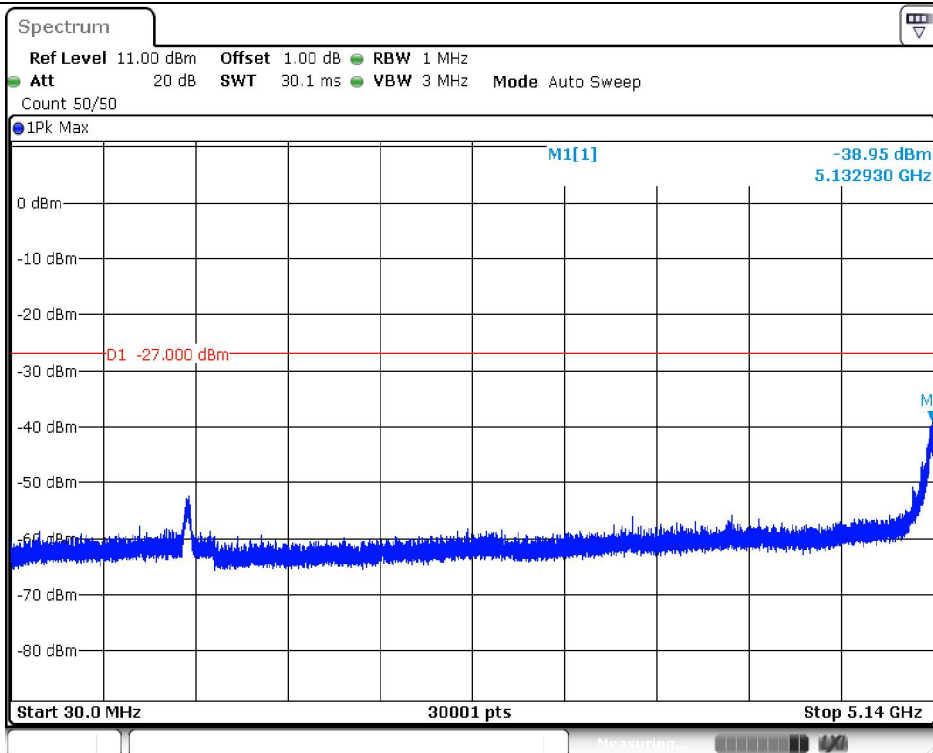
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11AC40SISO_Ant1_5795_5925-40000



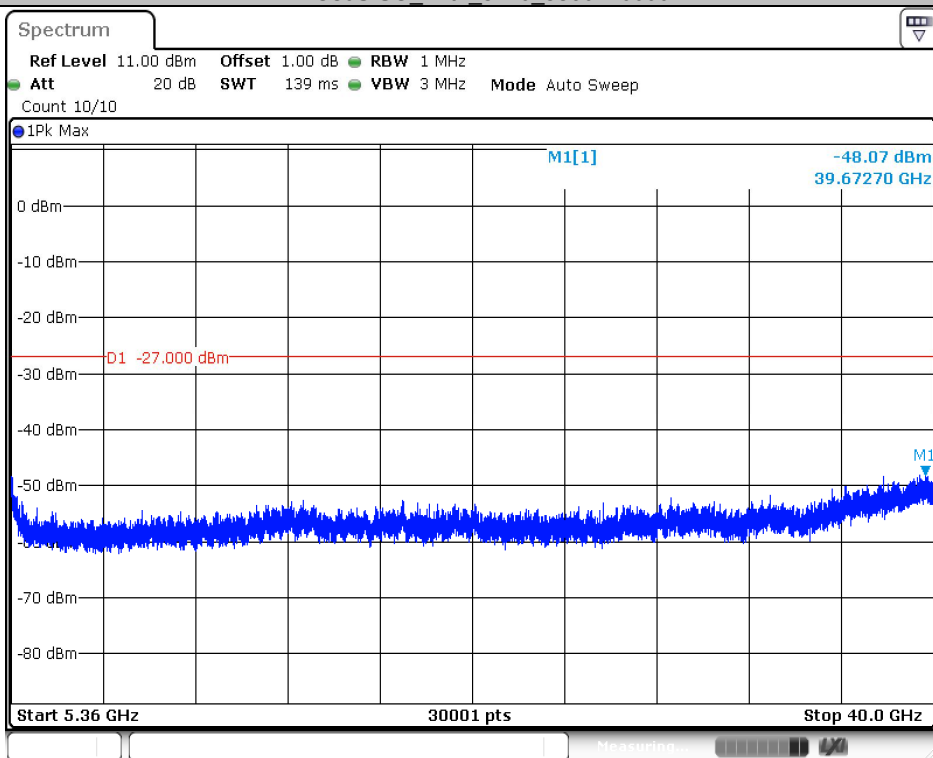
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11AC80SISO_Ant1_5210_30-5140



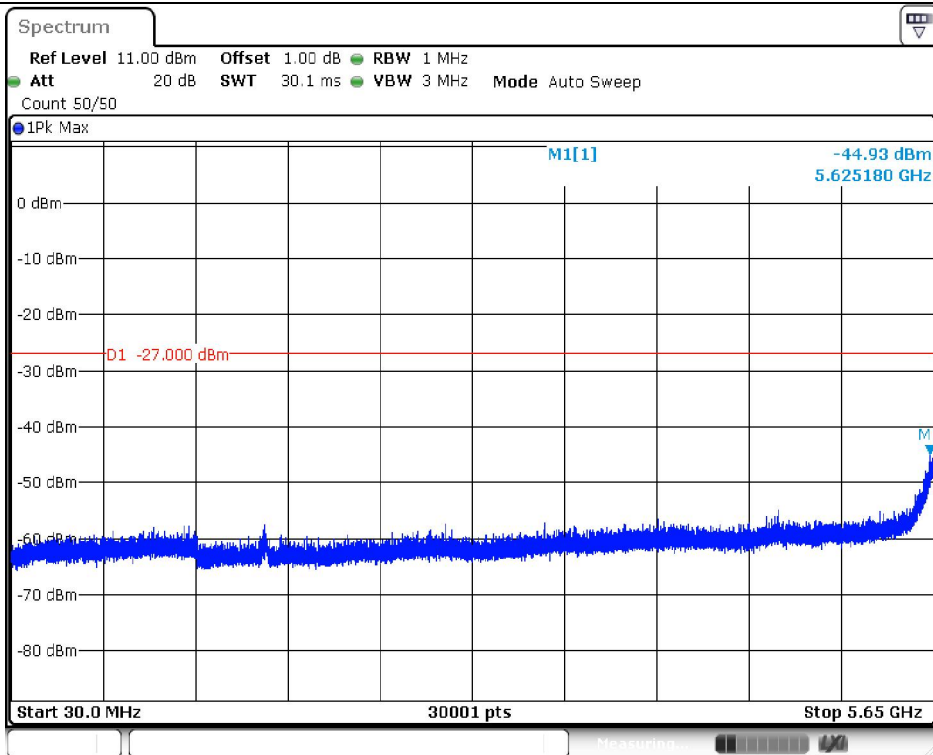
Date: 17.OCT.2023 13:37:41

11AC80SISO_Ant1_5210_5360-40000



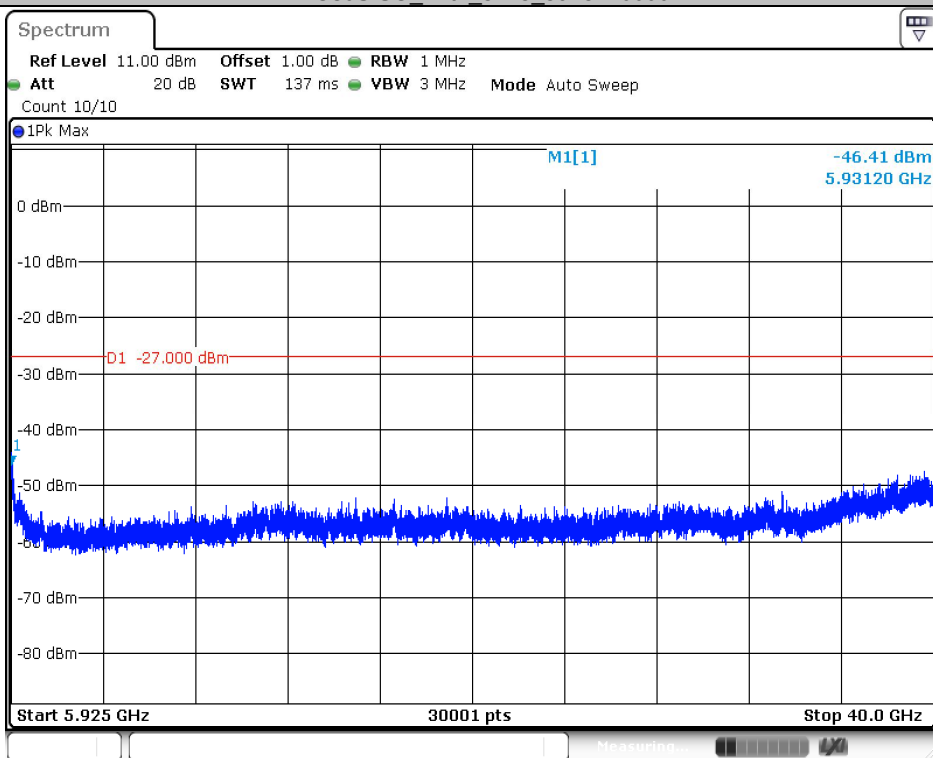
Date: 17.OCT.2023 13:37:46

11AC80SISO_Ant1_5775_30-5650



Date: 17.OCT.2023 15:03:50

11AC80SISO_Ant1_5775_5925-40000



Date: 17.OCT.2023 15:03:55



Transmitting spurious emission test result as below (Band edge measurements):

