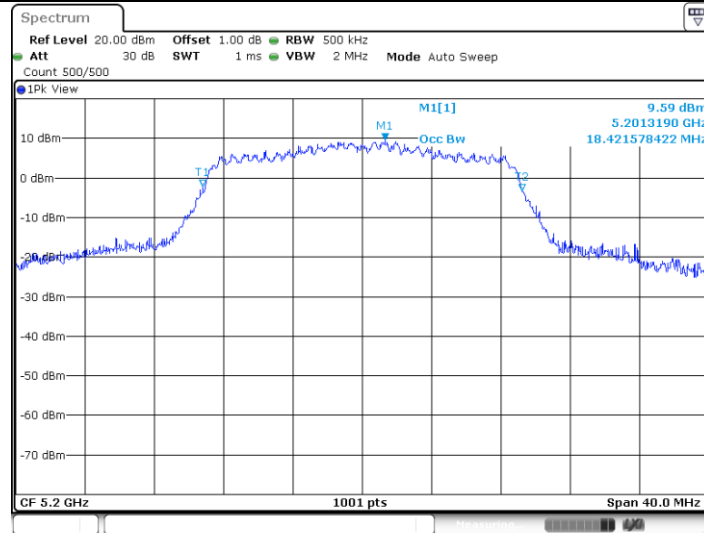
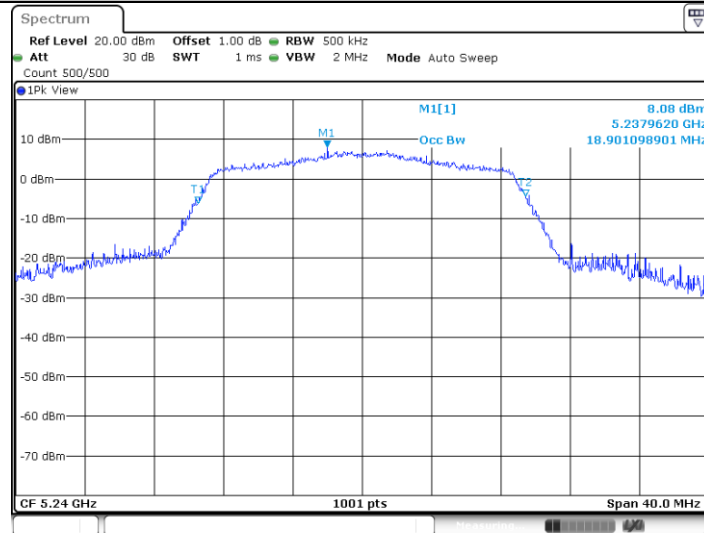




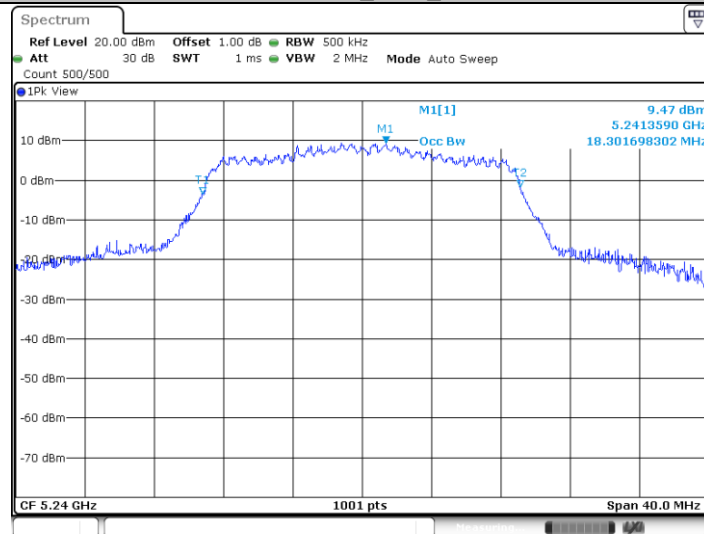
Date: 24 JUN 2021 19:03:31

11N20SISO_Ant1_5240



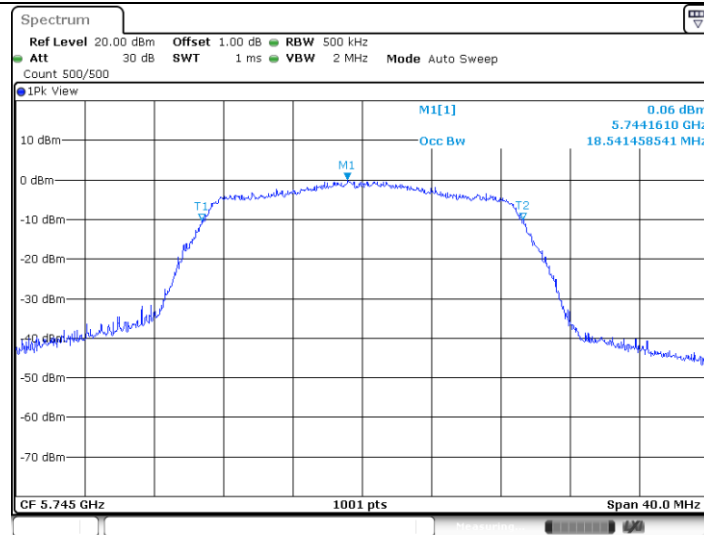
Date: 24 JUN 2021 17:39:13

11N20SISO_Ant2_5240



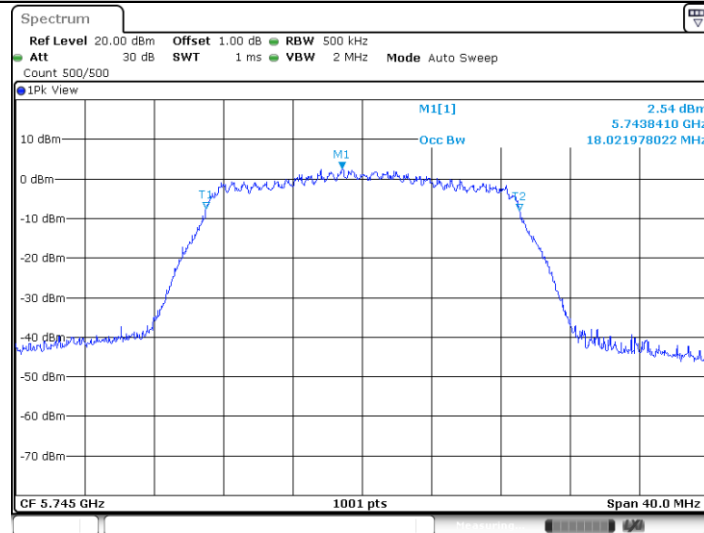
Date: 24 JUN 2021 19:05:02

11N20SISO_Ant1_5745



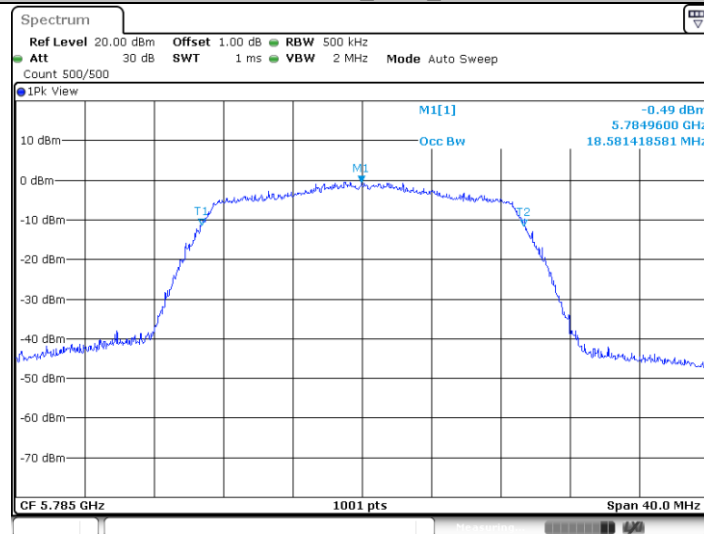
Date: 28 JUN 2021 16:15:48

11N20SISO_Ant2_5745



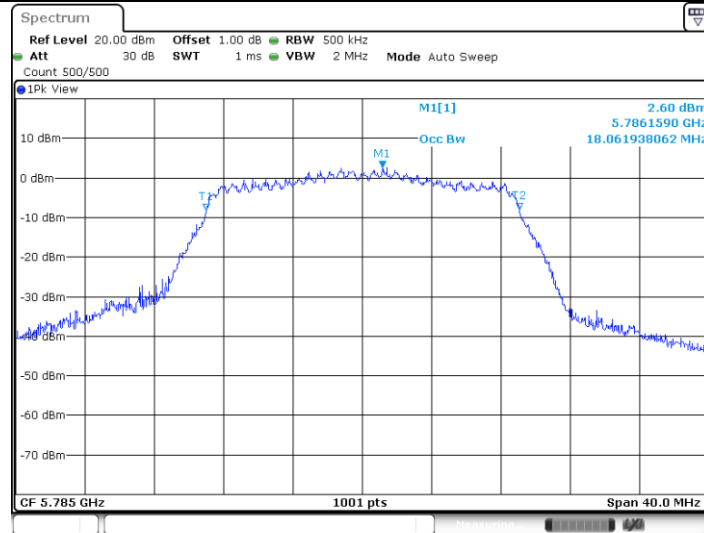
Date: 28 JUN 2021 16:43:43

11N20SISO_Ant1_5785



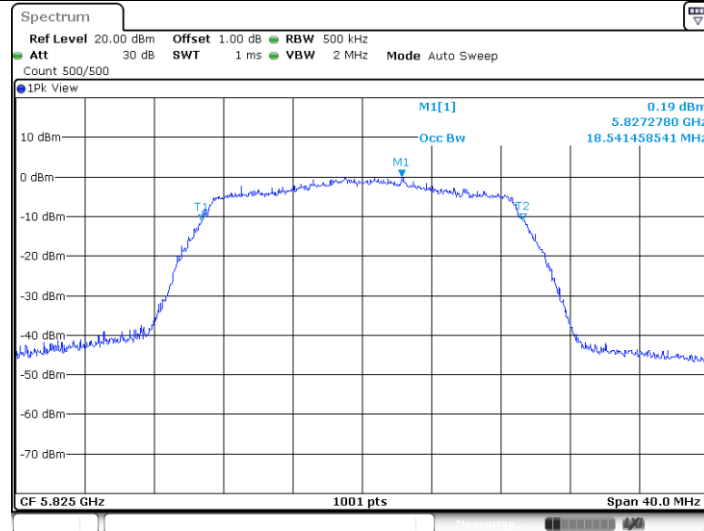
Date: 28 JUN 2021 16:17:58

11N20SISO_Ant2_5785



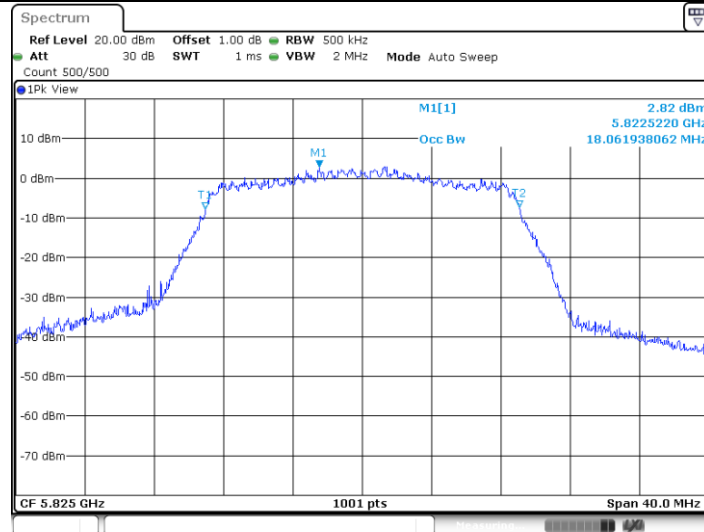
Date: 28 JUN 2021 16:45:49

11N20SISO_Ant1_5825



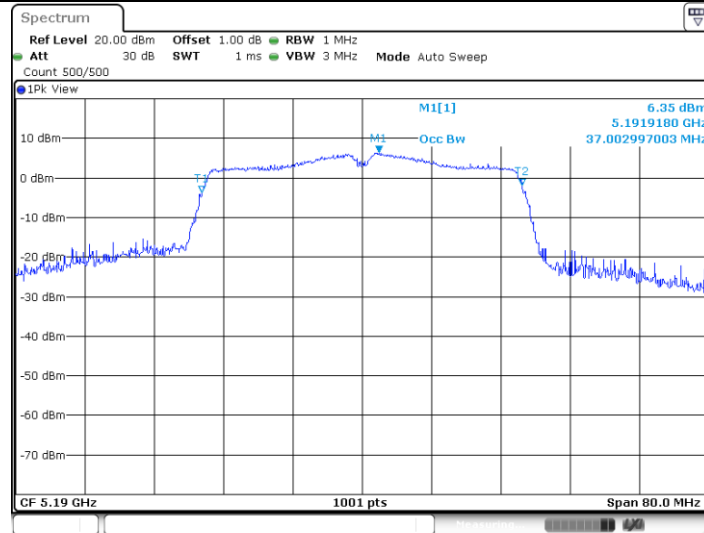
Date: 28 JUN 2021 16:20:45

11N20SISO_Ant2_5825



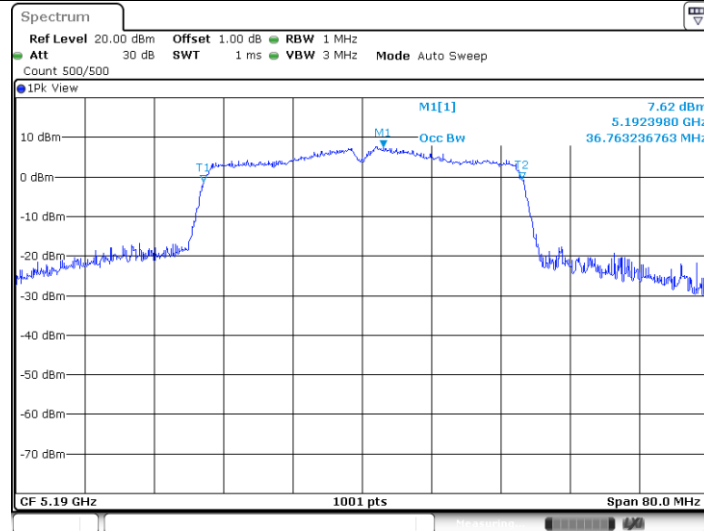
Date: 28 JUN 2021 16:48:08

11N40SISO_Ant1_5190



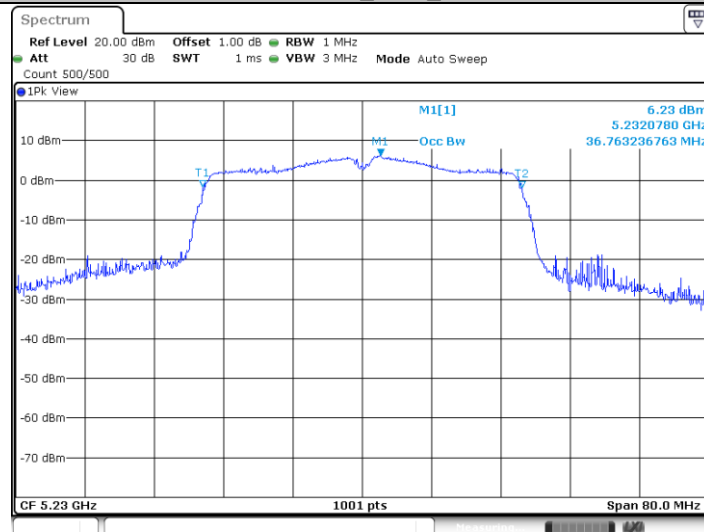
Date: 24 JUN 2021 18:02:53

11N40SISO_Ant2_5190



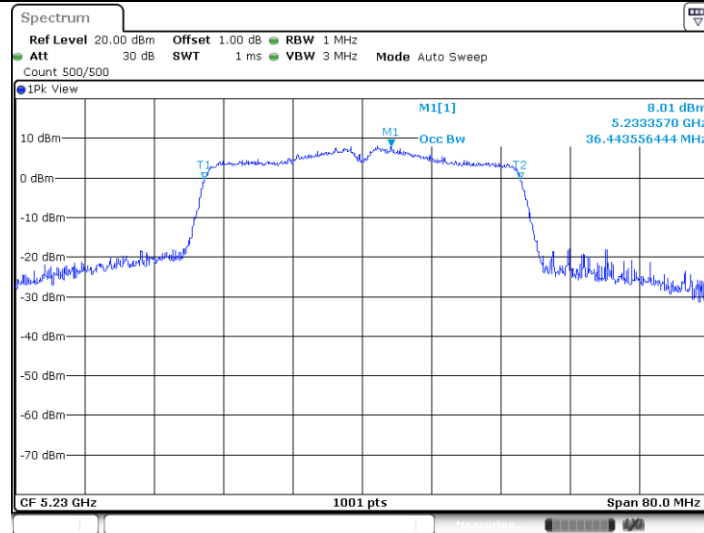
Date: 24 JUN 2021 19:14:14

11N40SISO_Ant1_5230



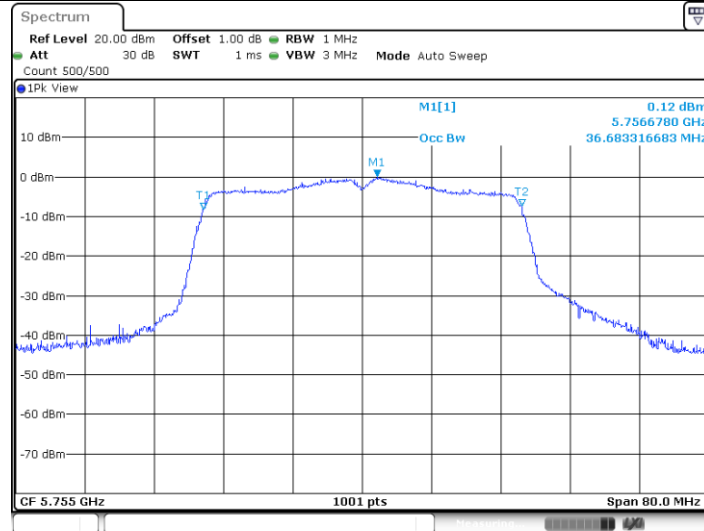
Date: 24 JUN 2021 18:05:07

11N40SISO_Ant2_5230



Date: 24 JUN 2021 19:16:30

11N40SISO_Ant1_5755



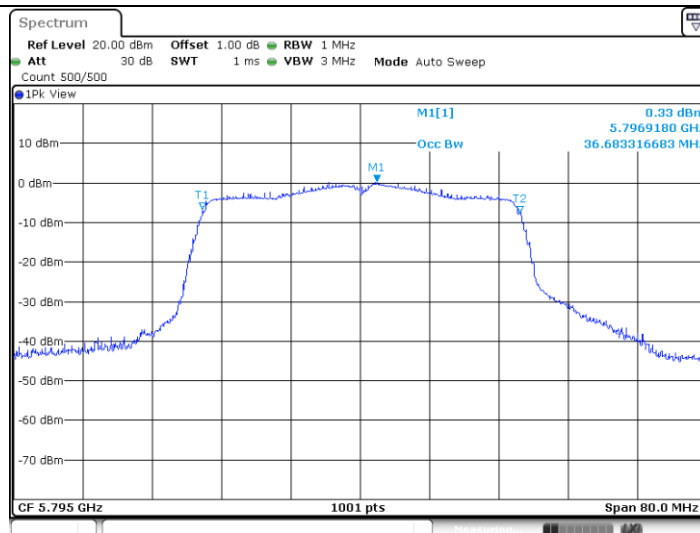
Date: 28 JUN 2021 16:23:45

11N40SISO_Ant2_5755



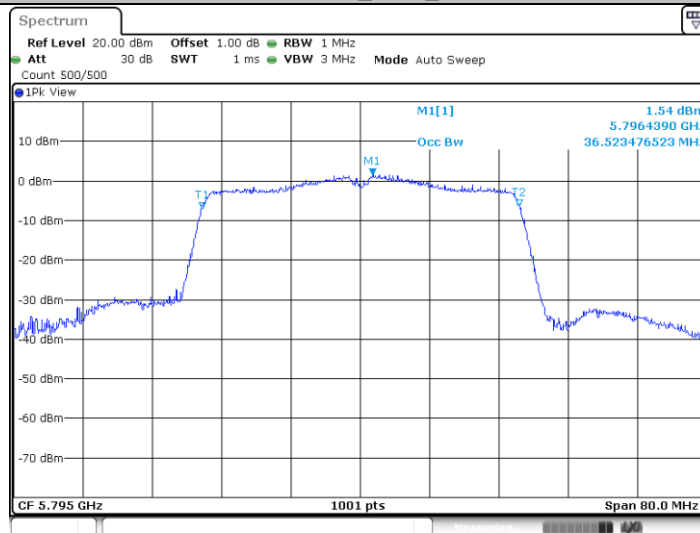
Date: 28 JUN 2021 16:50:37

11N40SISO_Ant1_5795



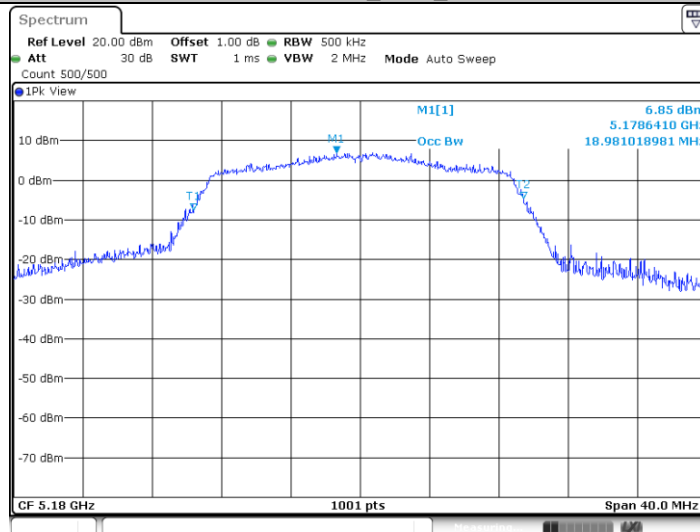
Date: 28 JUN 2021 16:26:11

11N40SISO_Ant2_5795



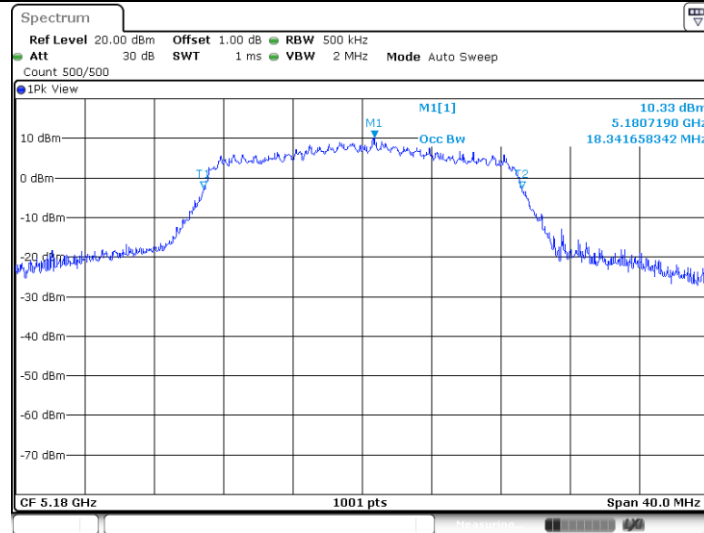
Date: 28 JUN 2021 16:53:59

11AC20SISO_Ant1_5180



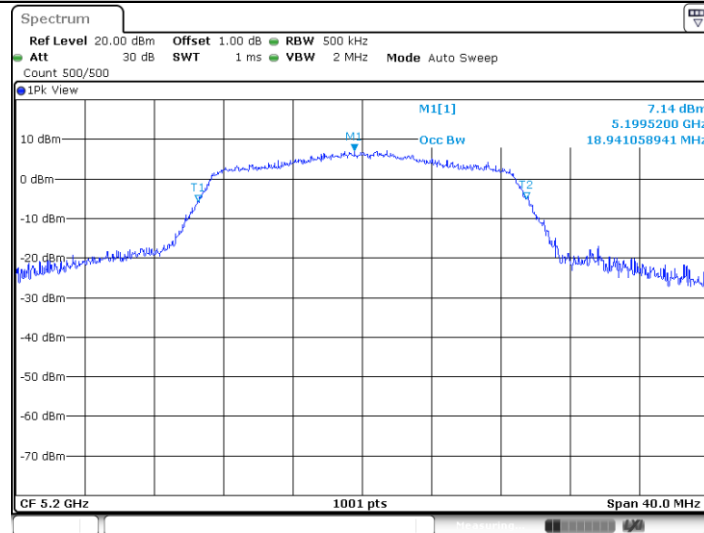
Date: 24 JUN 2021 18:18:27

11AC20SISO_Ant2_5180



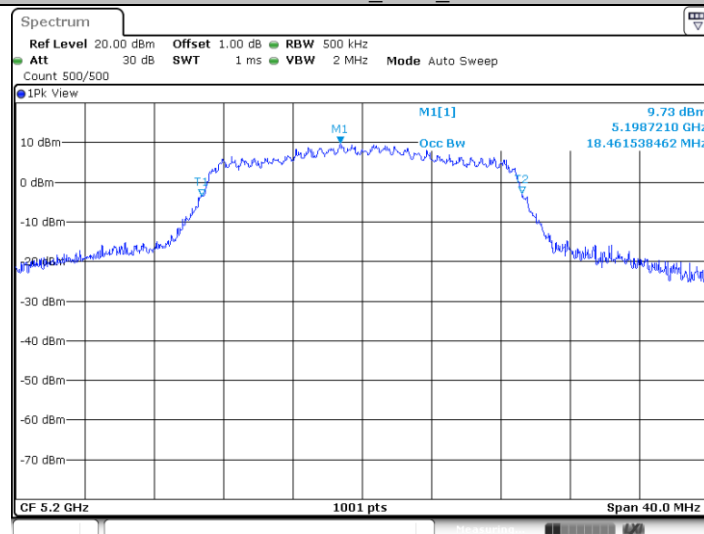
Date: 24 JUN 2021 19:25:07

11AC20SISO_Ant1_5200



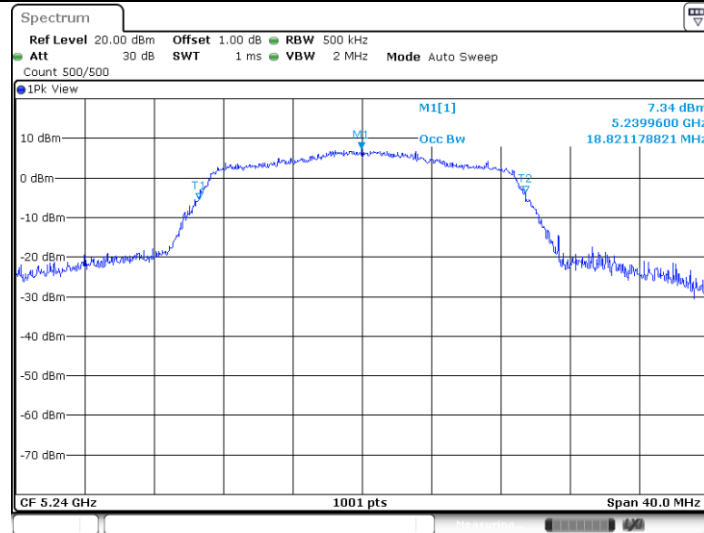
Date: 24 JUN 2021 18:21:18

11AC20SISO_Ant2_5200



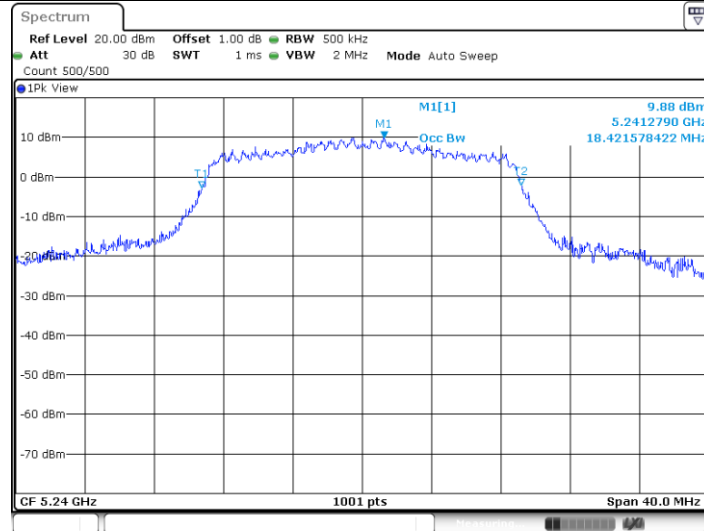
Date: 24 JUN 2021 19:27:20

11AC20SISO_Ant1_5240



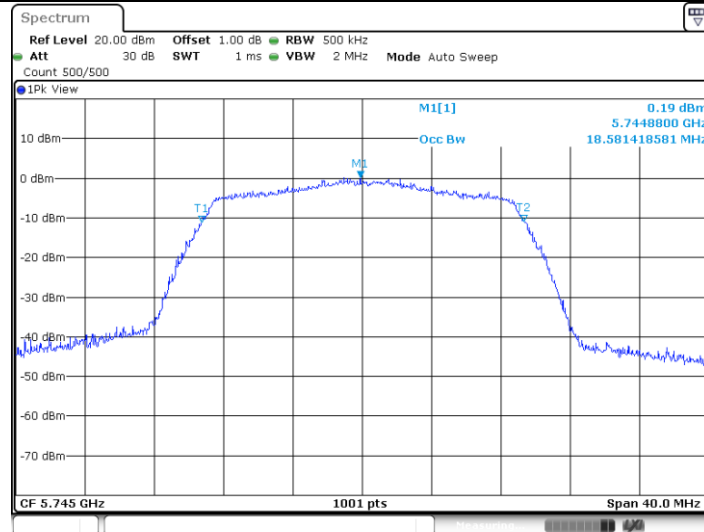
Date: 24 JUN 2021 18:22:51

11AC20SISO_Ant2_5240



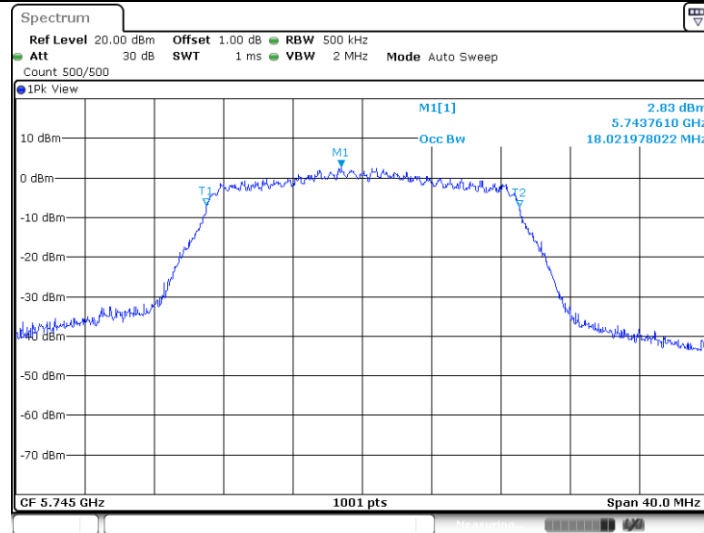
Date: 24 JUN 2021 19:28:54

11AC20SISO_Ant1_5745



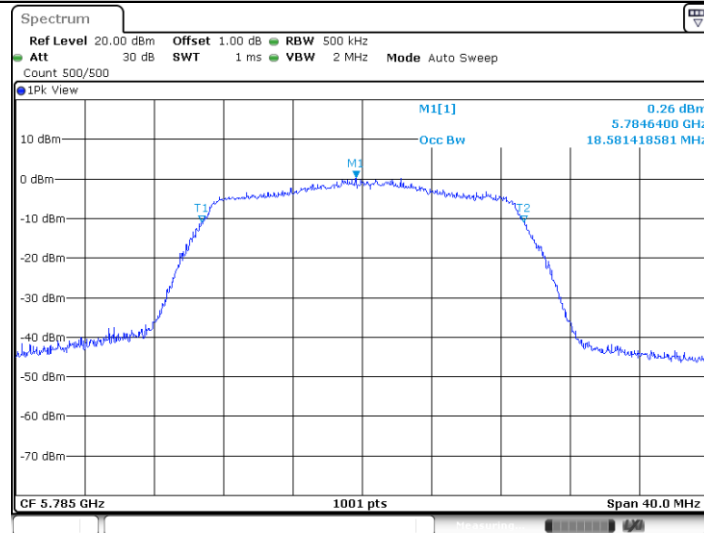
Date: 28 JUN 2021 16:29:18

11AC20SISO_Ant2_5745



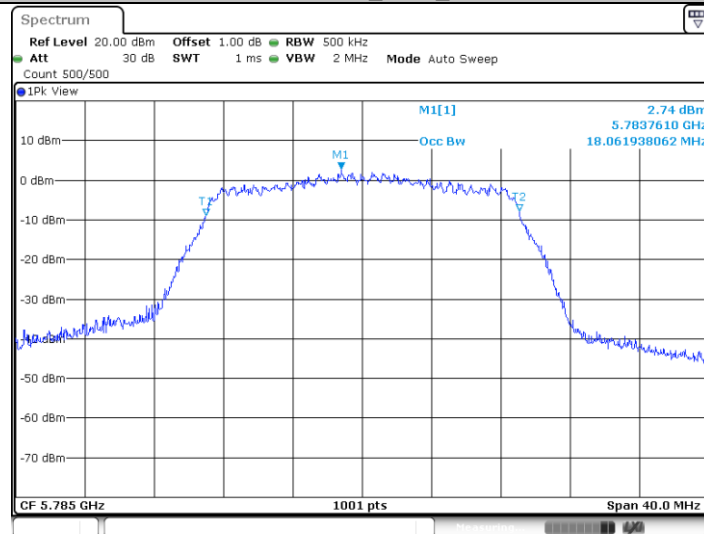
Date: 28 JUN 2021 16:56:44

11AC20SISO_Ant1_5785



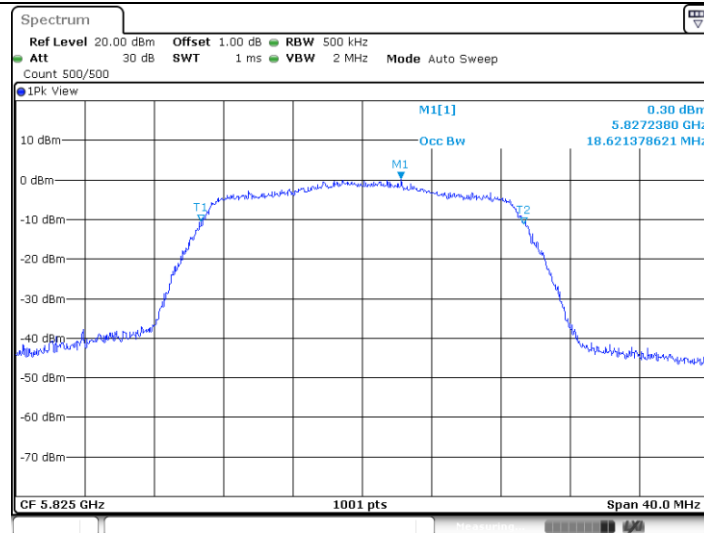
Date: 28 JUN 2021 16:31:23

11AC20SISO_Ant2_5785



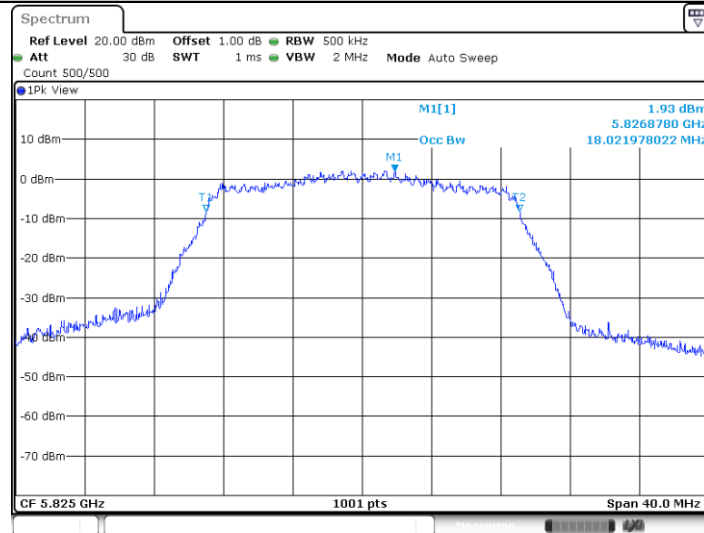
Date: 28 JUN 2021 16:58:47

11AC20SISO_Ant1_5825



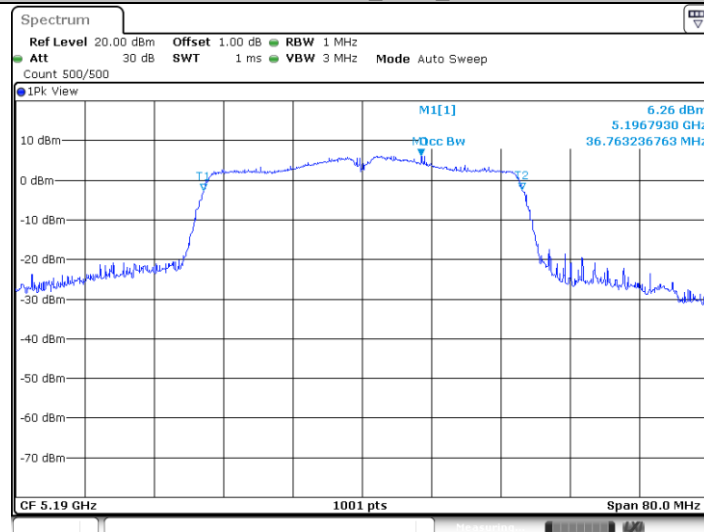
Date: 28 JUN 2021 16:33:36

11AC20SISO_Ant2_5825



Date: 28 JUN 2021 17:01:39

11AC40SISO_Ant1_5190



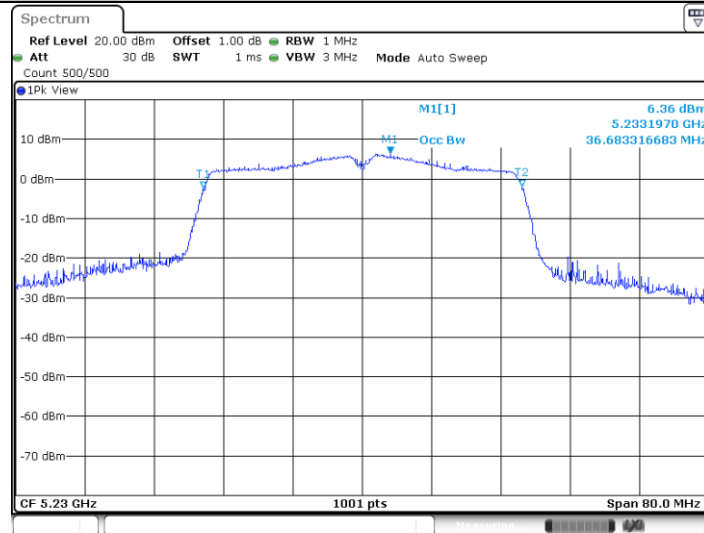
Date: 24 JUN 2021 18:40:56

11AC40SISO_Ant2_5190



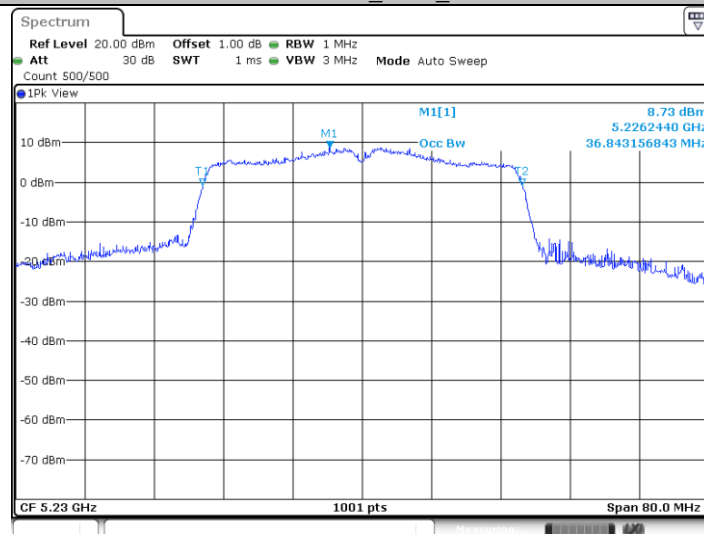
Date: 24 JUN 2021 19:38:16

11AC40SISO_Ant1_5230



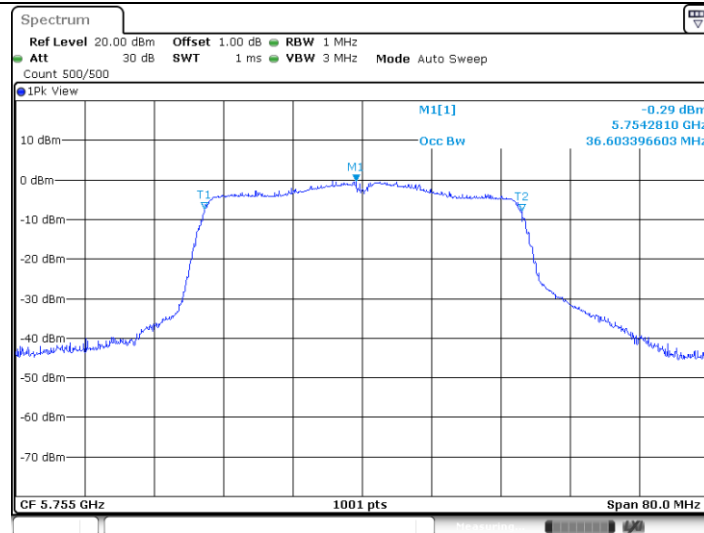
Date: 24 JUN 2021 18:43:36

11AC40SISO_Ant2_5230



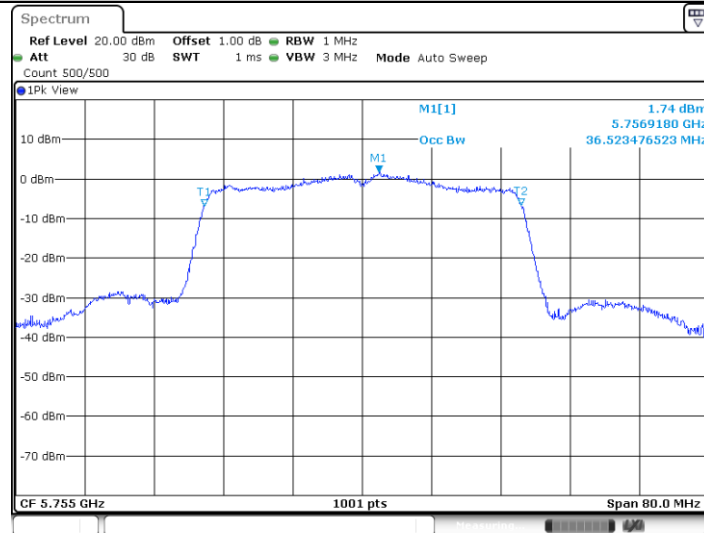
Date: 24 JUN 2021 19:41:07

11AC40SISO_Ant1_5755



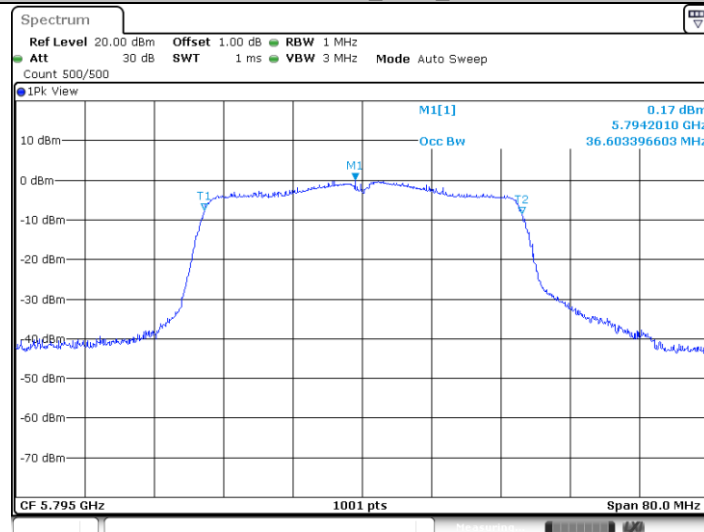
Date: 28 JUN 2021 16:35:54

11AC40SISO_Ant2_5755



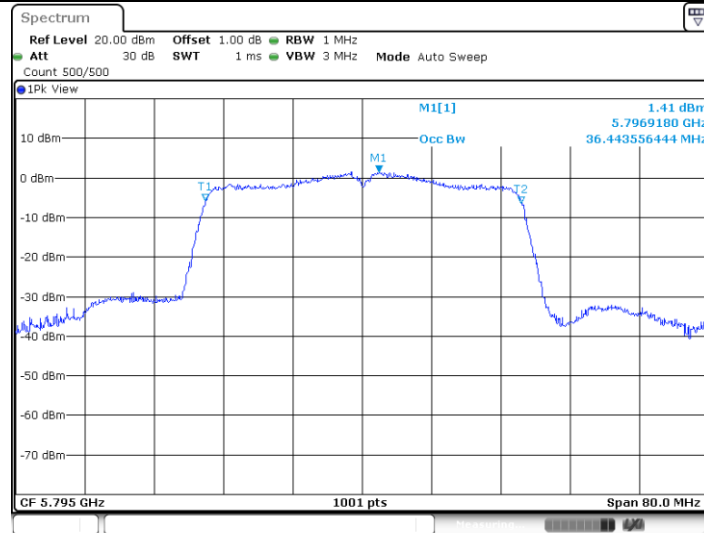
Date: 28 JUN 2021 17:03:50

11AC40SISO_Ant1_5795



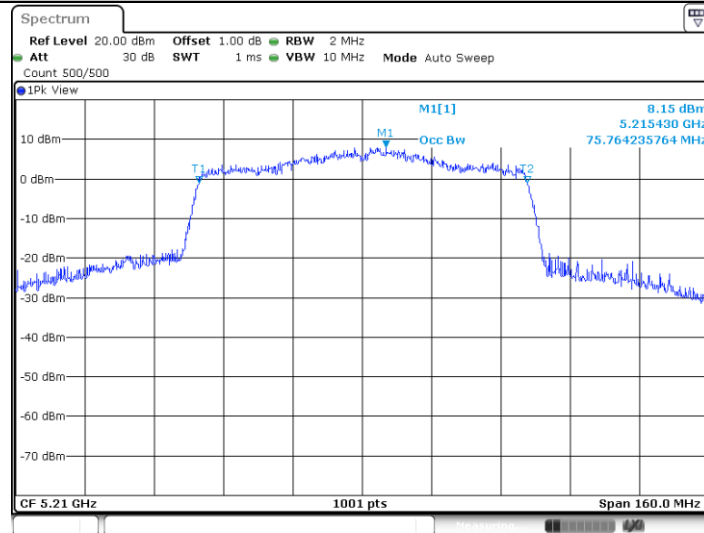
Date: 28 JUN 2021 16:38:23

11AC40SISO_Ant2_5795



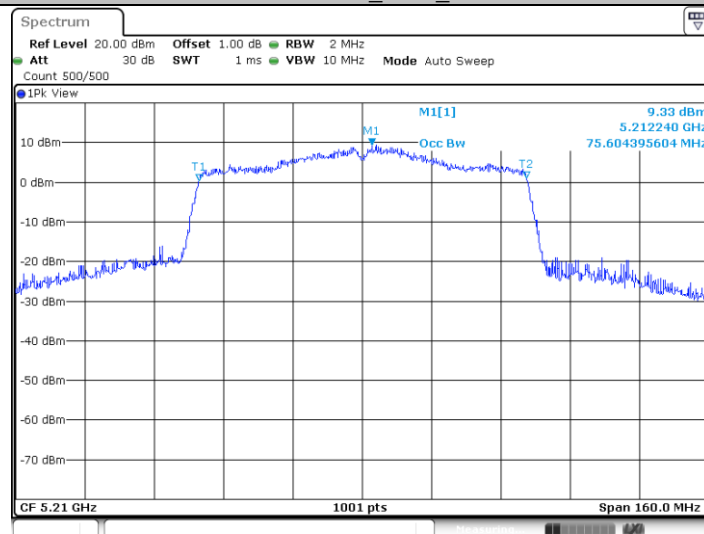
Date: 28 JUN 2021 17:06:25

11AC80SISO_Ant1_5210



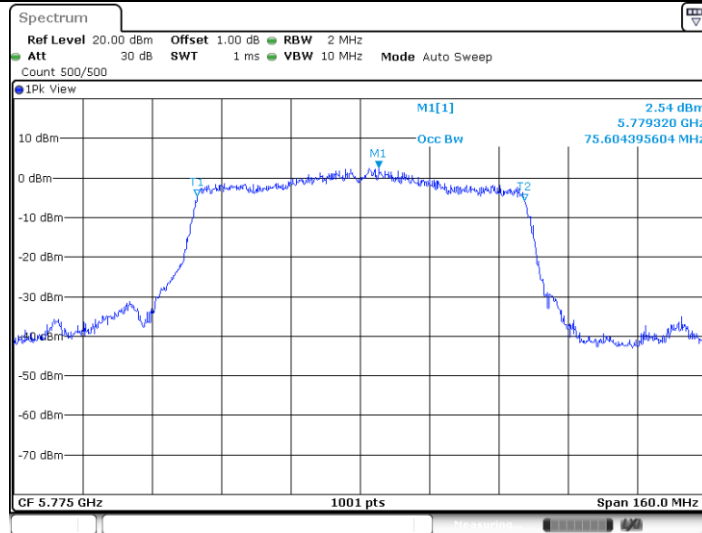
Date: 24 JUN 2021 18:50:15

11AC80SISO_Ant2_5210



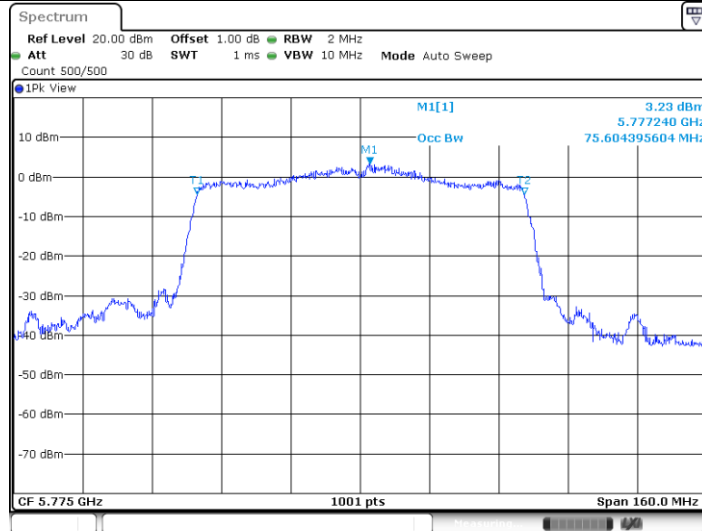
Date: 24 JUN 2021 19:47:56

11AC80SISO_Ant1_5775



Date: 28 JUN 2021 16:40:38

11AC80SISO_Ant2_5775

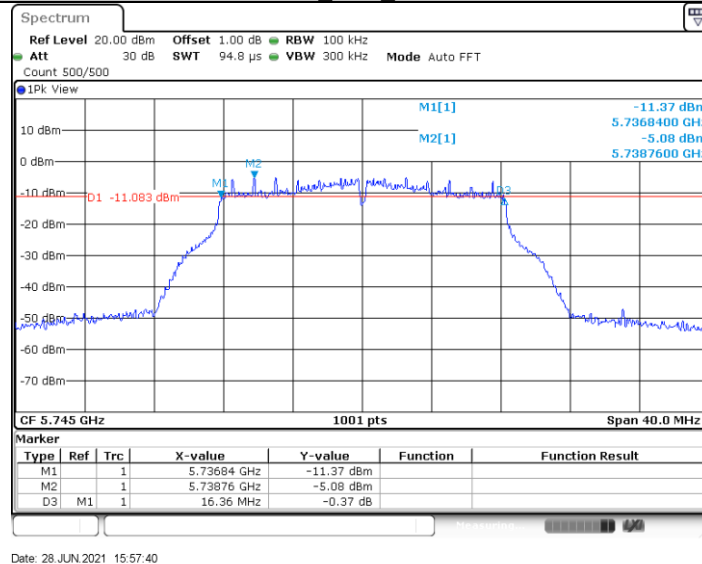


Date: 28 JUN 2021 17:08:52

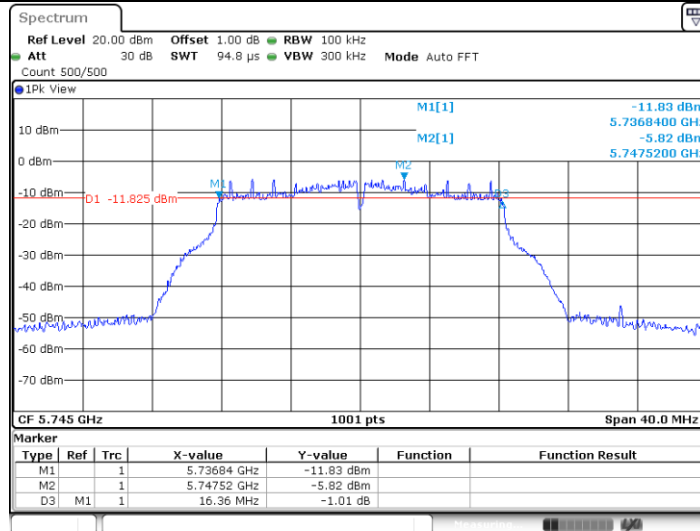
6dB Bandwidth Test Result

TestMode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.360	5736.840	5753.200	0.5	PASS
	Ant2	5745	16.360	5736.840	5753.200	0.5	PASS
	Ant1	5785	16.360	5776.840	5793.200	0.5	PASS
	Ant2	5785	16.360	5776.840	5793.200	0.5	PASS
	Ant1	5825	16.400	5816.800	5833.200	0.5	PASS
	Ant2	5825	16.400	5816.800	5833.200	0.5	PASS
11N20SISO	Ant1	5745	17.360	5736.200	5753.560	0.5	PASS
	Ant2	5745	17.640	5736.200	5753.840	0.5	PASS
	Ant1	5785	17.640	5776.200	5793.840	0.5	PASS
	Ant2	5785	17.640	5776.200	5793.840	0.5	PASS
	Ant1	5825	17.600	5816.200	5833.800	0.5	PASS
	Ant2	5825	17.640	5816.200	5833.840	0.5	PASS
11N40SISO	Ant1	5755	35.600	5737.080	5772.680	0.5	PASS
	Ant2	5755	36.480	5736.760	5773.240	0.5	PASS
	Ant1	5795	36.240	5777.000	5813.240	0.5	PASS
	Ant2	5795	36.480	5776.760	5813.240	0.5	PASS
11AC20SISO	Ant1	5745	17.600	5736.200	5753.800	0.5	PASS
	Ant2	5745	17.640	5736.200	5753.840	0.5	PASS
	Ant1	5785	17.640	5776.200	5793.840	0.5	PASS
	Ant2	5785	17.640	5776.200	5793.840	0.5	PASS
	Ant1	5825	17.640	5816.200	5833.840	0.5	PASS
	Ant2	5825	17.640	5816.200	5833.840	0.5	PASS
11AC40SISO	Ant1	5755	36.160	5736.840	5773.000	0.5	PASS
	Ant2	5755	35.920	5736.760	5772.680	0.5	PASS
	Ant1	5795	36.240	5776.840	5813.080	0.5	PASS
	Ant2	5795	36.480	5776.760	5813.240	0.5	PASS
11AC80SISO	Ant1	5775	75.520	5737.240	5812.760	0.5	PASS
	Ant2	5775	75.520	5737.240	5812.760	0.5	PASS

11A_Ant1_5745

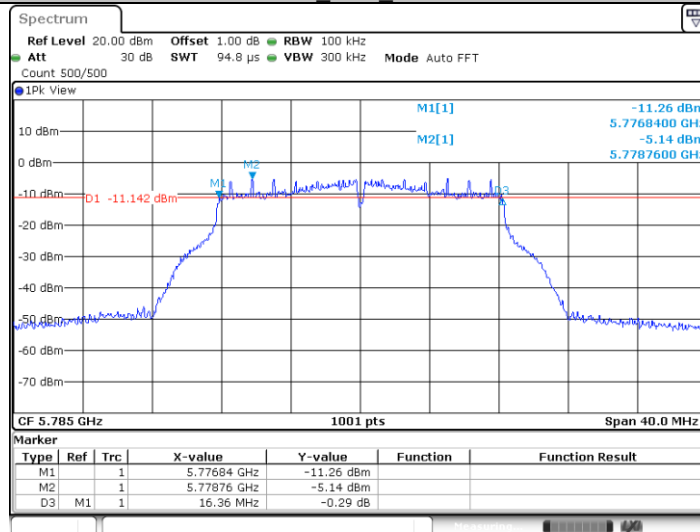


11A_Ant2_5745



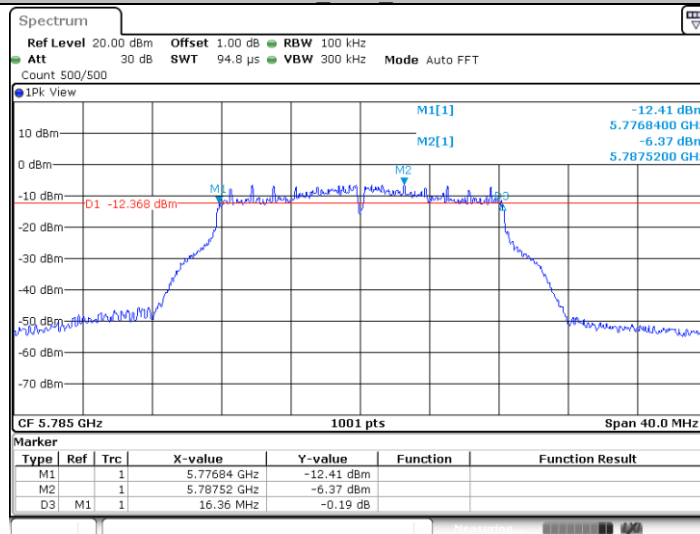
Date: 28 JUN 2021 16:03:55

11A Ant1 5785



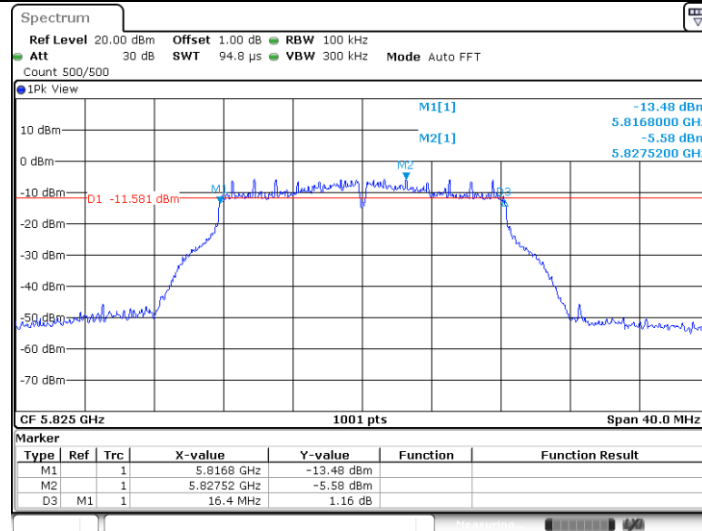
Date: 28 JUN 2021 15:59:43

11A Ant2 5785



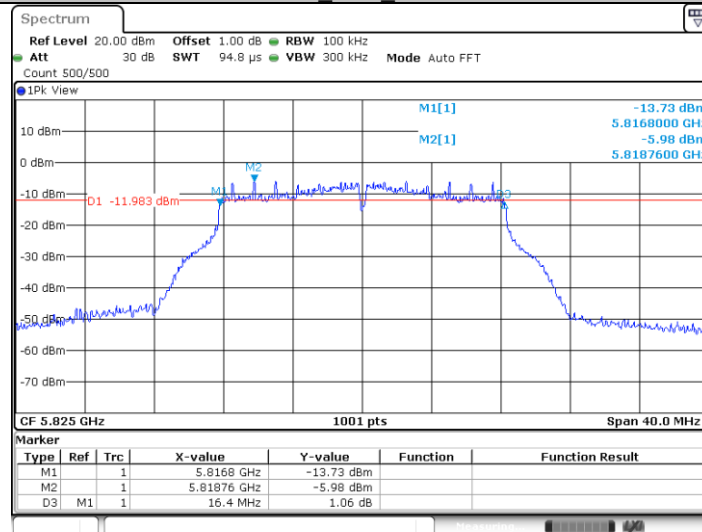
Date: 28 JUN 2021 16:05:50

11A Ant1 5825



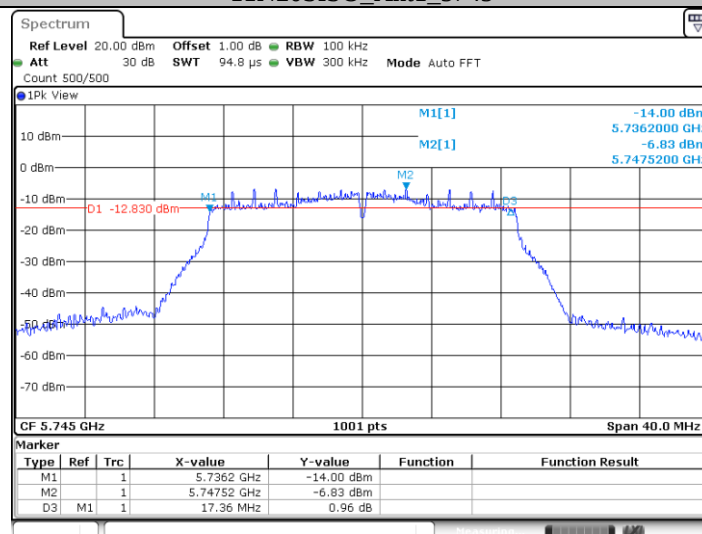
Date: 28 JUN 2021 16:01:44

11A_Ant2_5825



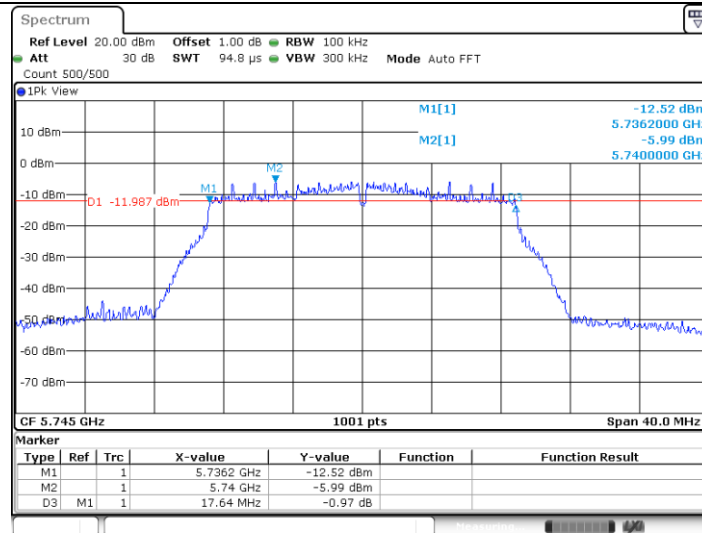
Date: 28 JUN 2021 16:08:05

11N20SISO_Ant1_5745



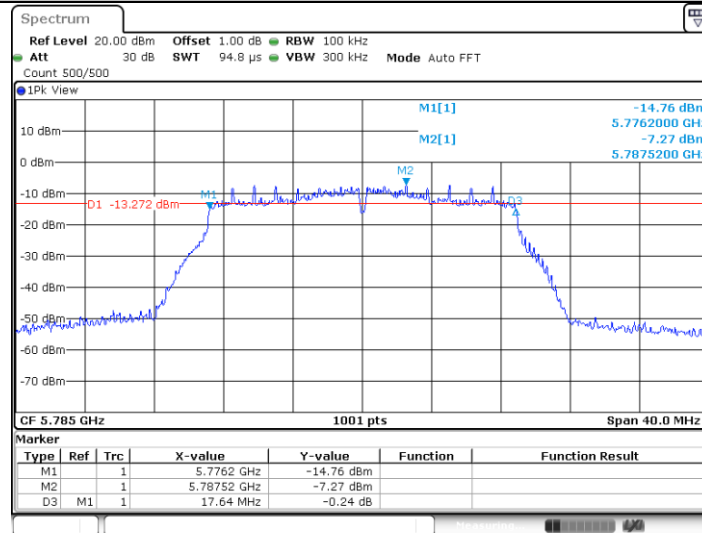
Date: 28 JUN 2021 16:15:37

11N20SISO_Ant2_5745



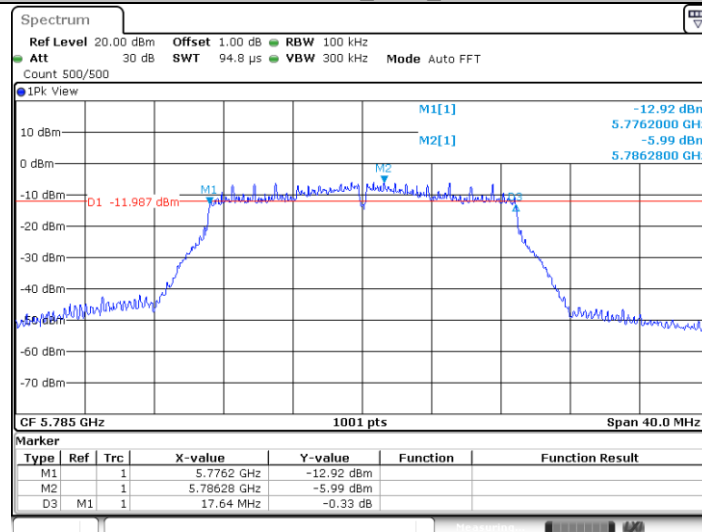
Date: 28 JUN 2021 16:43:31

11N20SISO_Ant1_5785



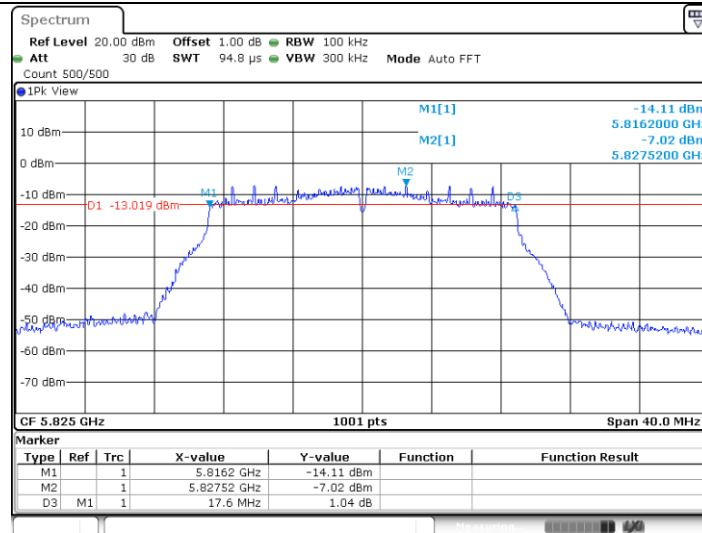
Date: 28 JUN 2021 16:17:46

11N20SISO_Ant2_5785



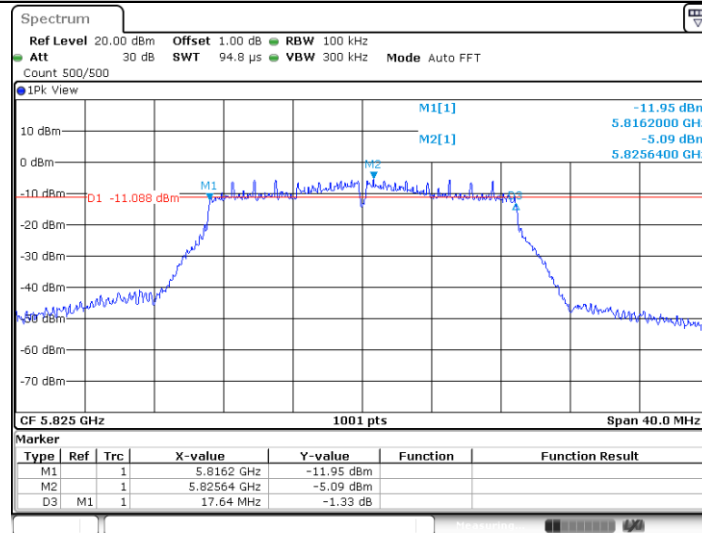
Date: 28 JUN 2021 16:45:38

11N20SISO_Ant1_5825



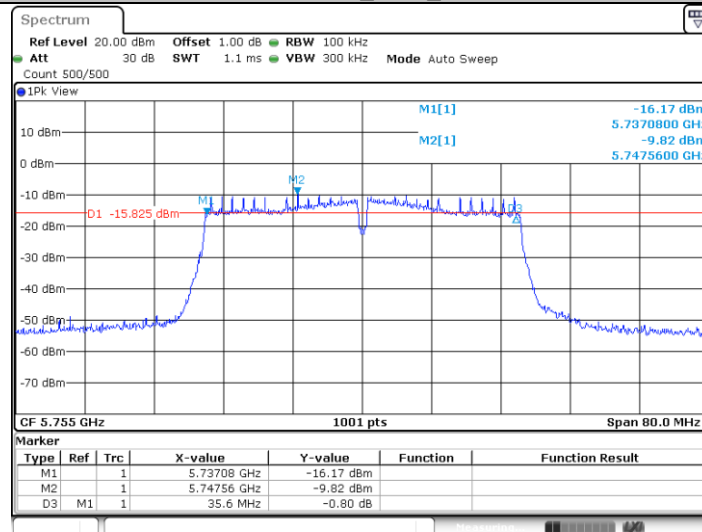
Date: 28 JUN 2021 16:20:33

11N20SISO_Ant2_5825



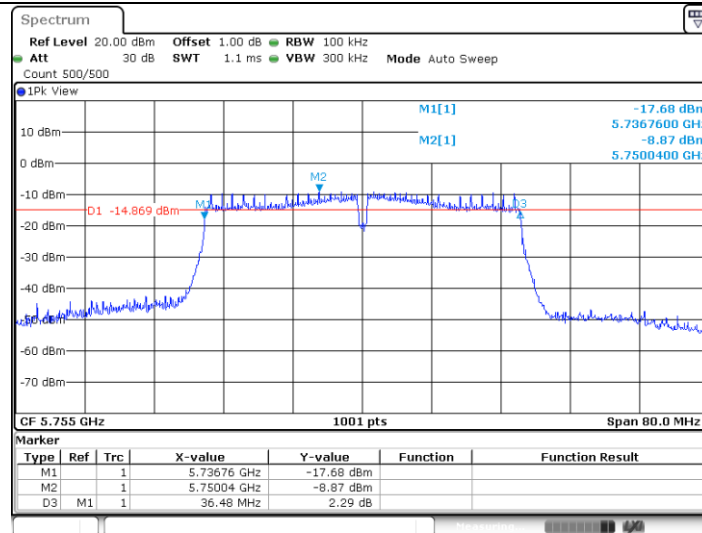
Date: 28 JUN 2021 16:47:57

11N40SISO_Ant1_5755



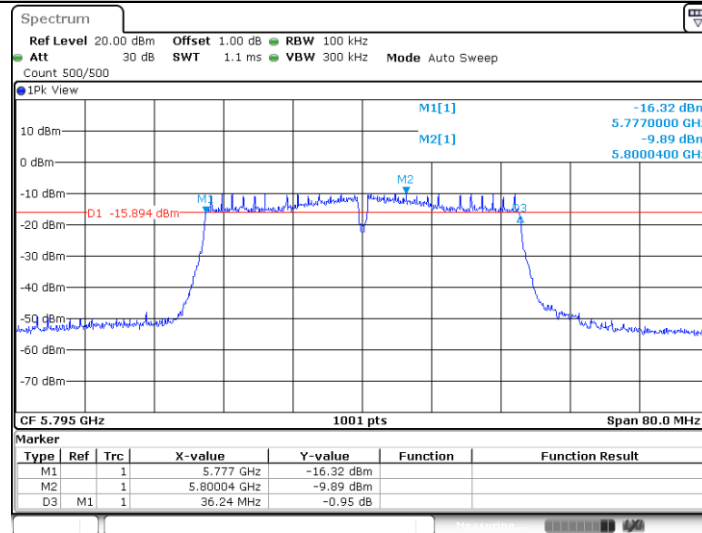
Date: 28 JUN 2021 16:23:34

11N40SISO_Ant2_5755



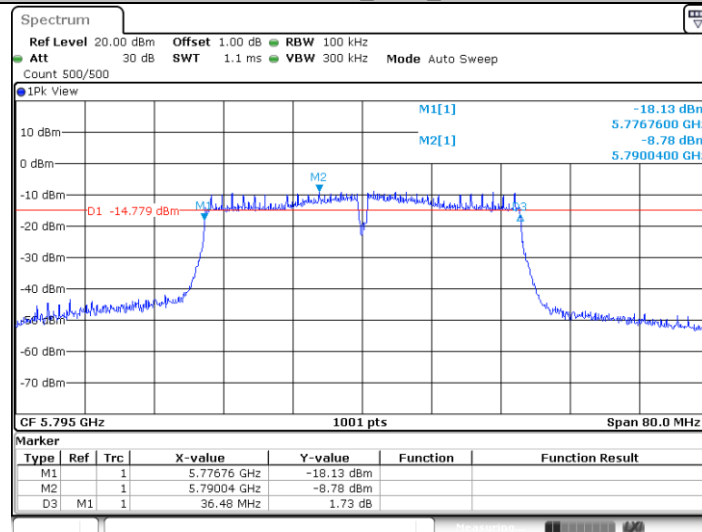
Date: 28 JUN 2021 16:50:25

11N40SISO_Ant1_5795



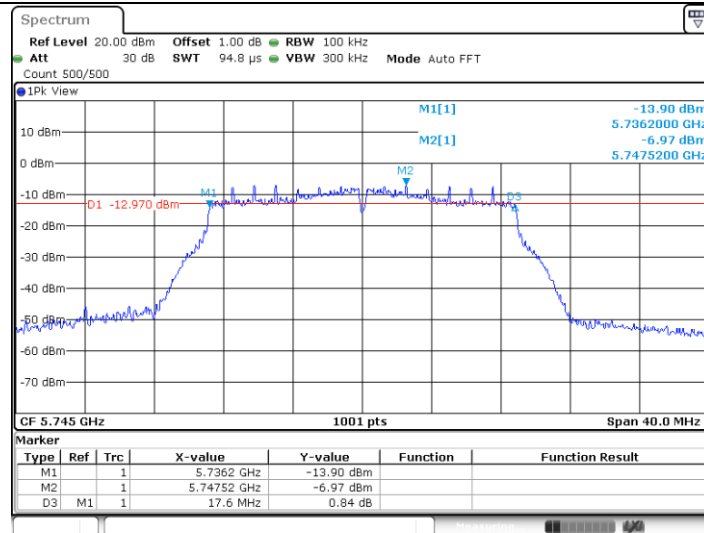
Date: 28 JUN 2021 16:25:59

11N40SISO_Ant2_5795



Date: 28 JUN 2021 16:53:48

11AC20SISO_Ant1_5745



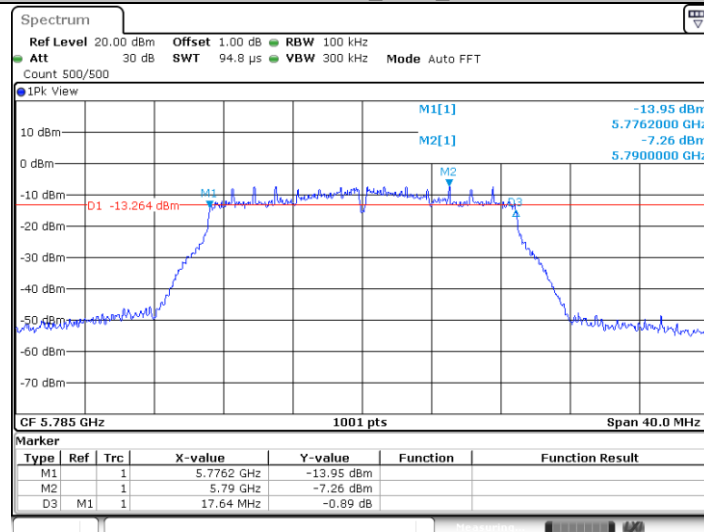
Date: 28 JUN 2021 16:29:07

11AC20SISO_Ant2_5745



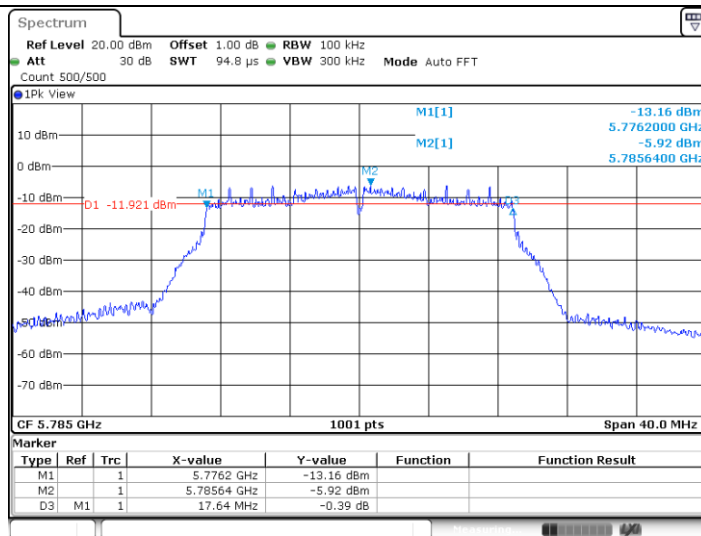
Date: 28 JUN 2021 16:56:33

11AC20SISO_Ant1_5785



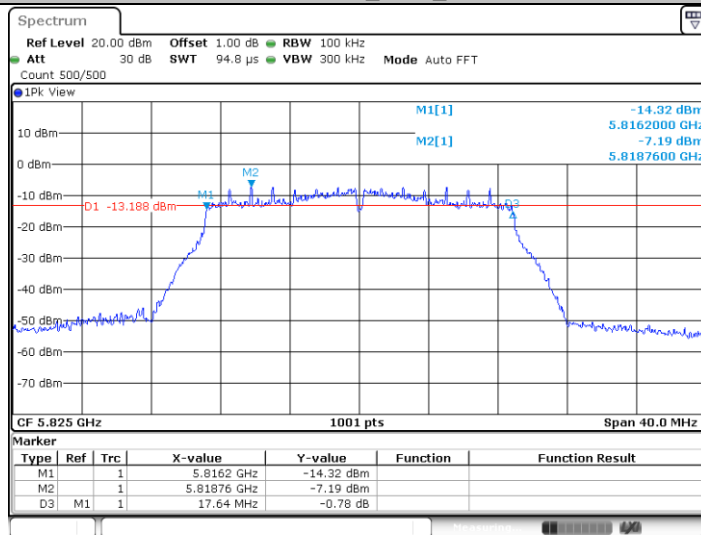
Date: 28 JUN 2021 16:31:11

11AC20SISO_Ant2_5785



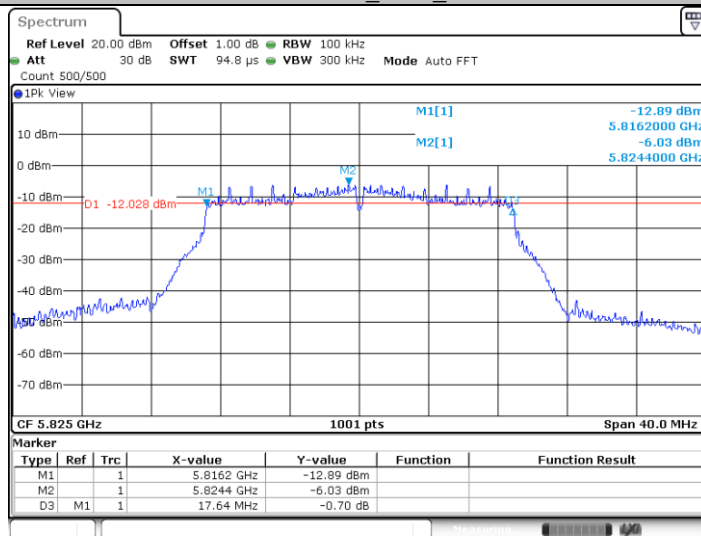
Date: 28 JUN 2021 16:58:36

11AC20SISO_Ant1_5825



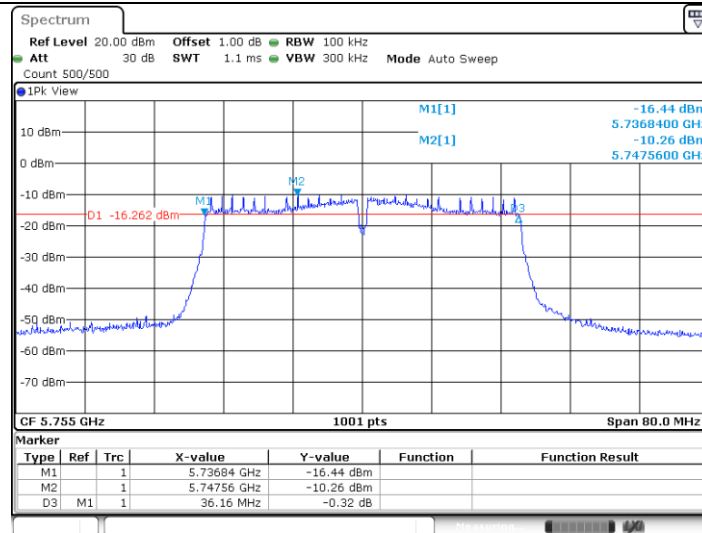
Date: 28 JUN 2021 16:33:25

11AC20SISO_Ant2_5825



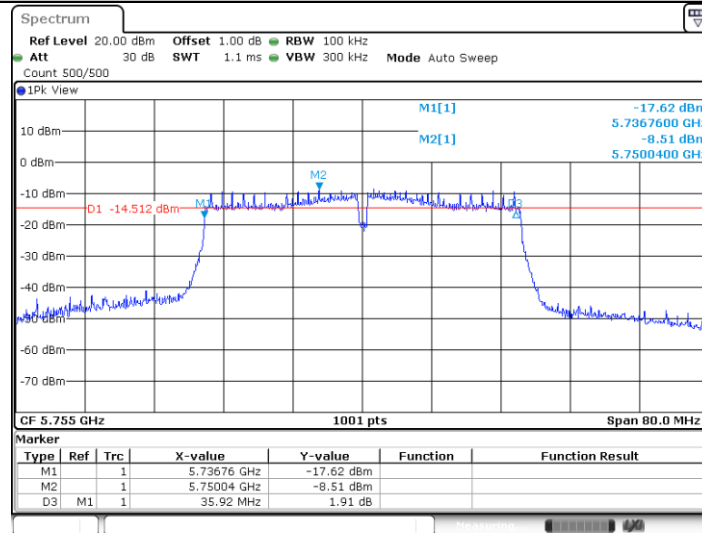
Date: 28 JUN 2021 17:01:28

11AC40SISO_Ant1_5755



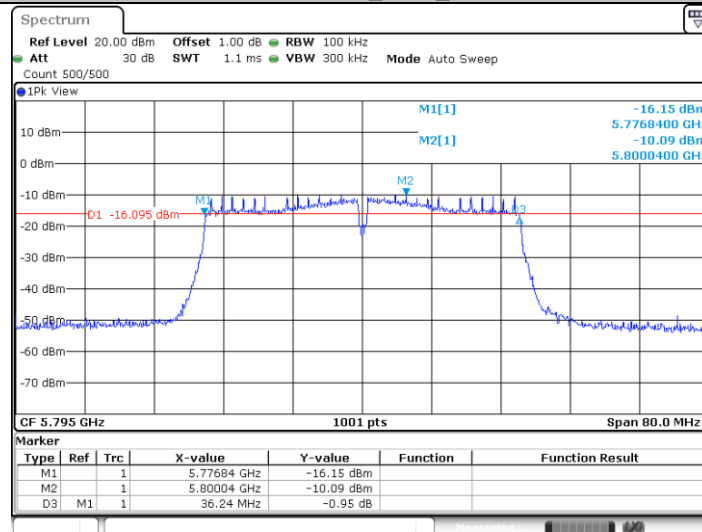
Date: 28 JUN 2021 16:35:43

11AC40SISO_Ant2_5755



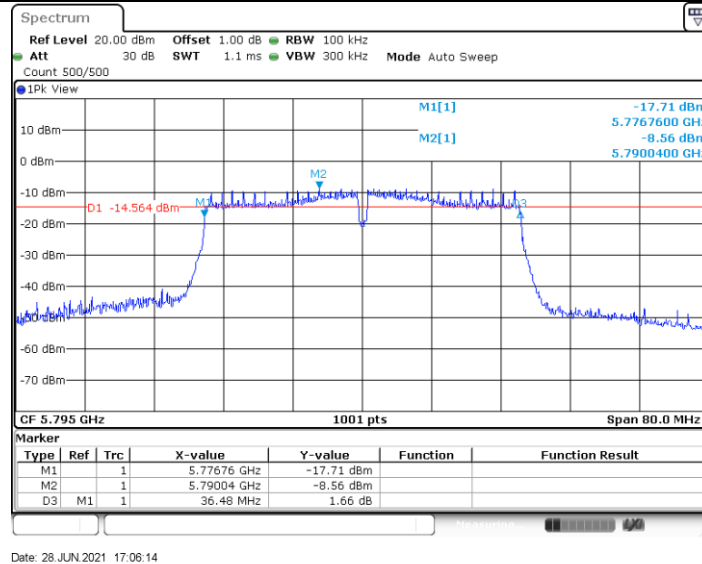
Date: 28 JUN 2021 17:03:39

11AC40SISO_Ant1_5795

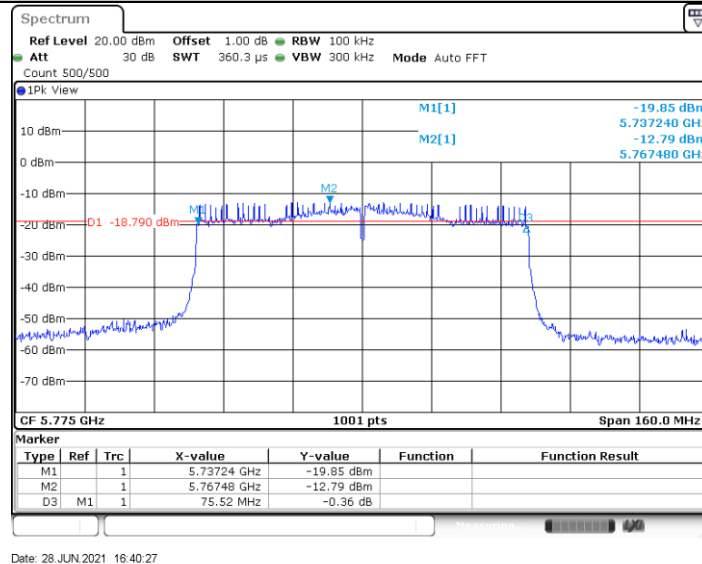


Date: 28 JUN 2021 16:38:11

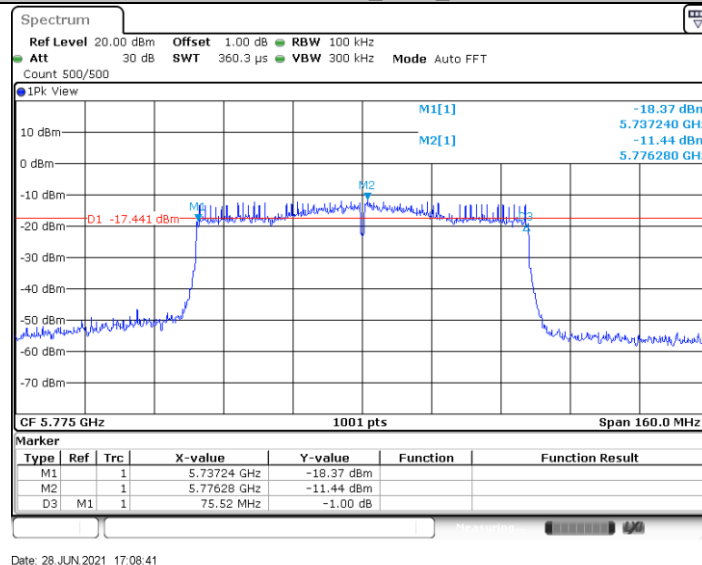
11AC40SISO_Ant2_5795



11AC80SISO_Ant1_5775



11AC80SISO_Ant2_5775



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 II.B.

(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_SISO modulation Test Result

Band	Channel	Channel Frequency (MHz)	Maximum Conducted Output Power (dBm)		Power Limit (dBm)
			Ant0	Ant1	
U-NII-1	Low	5180	14.5	15.0	24.00
	Middle	5220	14.6	14.7	24.00
	High	5240	14.5	14.6	24.00
U-NII-3	Low	5745	9.4	8.2	30.00
	Middle	5785	9.2	8.5	30.00
	High	5825	9.0	8.3	30.00

IEEE 802.11n-HT20_MIMO modulation Test Result

Band	Channel	Channel Frequency (MHz)	Maximum Conducted Output Power (dBm)			Power Limit (dBm)
			Ant0	Ant1	SUM	
U-NII-1	Low	5180	13.3	13.2	17.42	24.00
	Middle	5220	13.0	13.7	17.37	24.00
	High	5240	13.1	13.0	17.58	24.00
U-NII-3	Low	5745	7.8	7.4	10.61	30.00
	Middle	5785	7.8	7.8	10.81	30.00
	High	5825	7.7	7.6	10.66	30.00

IEEE 802.11n-HT40_MIMO modulation Test Result

Band	Channel	Channel Frequency (MHz)	Maximum Conducted Output Power (dBm)			Power Limit (dBm)
			Ant0	Ant1	SUM	
U-NII-1	Low	5190	13.8	14.4	17.12	24.00
	High	5230	13.6	13.9	16.76	24.00
U-NII-3	Low	5755	7.4	7.9	10.67	30.00
	High	5795	7.4	8.9	11.22	30.00

IEEE 802.11ac-VHT20_MIMO modulation Test Result

Band	Channel	Channel Frequency (MHz)	Maximum Conducted Output Power (dBm)			Power Limit (dBm)
			Ant0	Ant1	SUM	
U-NII-1	Low	5180	14.3	15.1	17.73	24.00
	Middle	5220	14.3	14.9	17.62	24.00
	High	5240	14.0	14.7	17.37	24.00
U-NII-3	Low	5745	7.4	7.7	10.56	30.00
	Middle	5785	7.4	8.0	10.72	30.00
	High	5825	7.8	7.6	10.71	30.00

IEEE 802.11ac-VHT40_MIMO modulation Test Result

Band	Channel	Channel Frequency (MHz)	Maximum Conducted Output Power (dBm)			Power Limit (dBm)
			Ant0	Ant1	SUM	
U-NII-1	Low	5190	13.9	13.8	16.86	24.00
	High	5230	13.6	14.3	16.97	24.00
U-NII-3	Low	5755	7.5	7.5	10.51	30.00
	High	5795	7.7	7.9	10.81	30.00

IEEE 802.11ac-VHT80_MIMO modulation Test Result

Band	Channel	Channel Frequency (MHz)	Maximum Conducted Output Power (dBm)			Power Limit (dBm)
			Ant0	Ant1	SUM	
U-NII-1	42	5210	11.8	12.2	15.01	24.00
U-NII-3	155	5775	7.4	7.8	10.61	30.00

9.4 Maximum power spectral density

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 receiver by RF cable. The path loss was compensated to the results for each measurement.

1. Create an average power spectrum for the EUT operating mode being tested by following the instructions in II.E.2. for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the Masterappropriate test method (SA-1, SA-2, SA-3, or alternatives to each) and Masterply it up to, but not including, the step labeled, "Compute power...." (This procedure is required even if the maximum conducted output power measurement was performed using a power meter, method PM.)
2. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
3. Make the following adjustments to the peak value of the spectrum, if Masterplicable:
 - a) If Method SA-2 or SA-2 Alternative was used, add $10 \log (1/x)$, where x is the duty cycle, to the peak of the spectrum.
 - b) If Method SA-3 Alternative was used and the linear mode was used in II.E.2.g) (viii), add 1 dB to the final result to compensate for the difference between linear averaging and power averaging.
4. The result is the Maximum PSD over 1 MHz reference bandwidth.
5. For devices operating in the bands 5.15–5.25 GHz, 5.25–5.35 GHz, and 5.47–5.725 GHz, the preceding procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in Section 15.407(a)(5). For devices operating in the band 5.725–5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of RBWs less than 1 MHz, or 500 kHz, "provided that the measured power is integrated over the full reference bandwidth" to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures Masterply:
 - a) Set $RBW \geq 1/T$, where T is defined in II.B.I.a).
 - b) Set $VBW \geq 3$ RBW.
 - c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10 \log (500 \text{ kHz}/RBW)$ to the measured result, whereas RBW (< 500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
 - d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add $10 \log (1 \text{ MHz}/RBW)$ to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.
 - e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 kHz for the II.F.5.c) and II.F.5.d), since RBW=100 kHz is available on nearly all spectrum analyzers.

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 1megahertz band.

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

IEEE 802.11a_SISO modulation Test Result

Band	Channel	Channel Frequency (MHz)	Maximum PSD (dBm/MHz)		PSD Limit (dBm/MHz)
			Ant0	Ant1	
U-NII-1	Low	5180	8.92	9.32	11.00
	Middle	5220	8.81	9.13	11.00
	High	5240	8.63	9.17	11.00
U-NII-3	Low	5745	0.64	0.07	30.00
	Middle	5785	0.92	-0.65	30.00
	High	5825	0.32	-0.34	30.00

IEEE 802.11n-HT20_MIMO modulation Test Result

Band	Channel	Frequency (MHz)	Maximum PSD (dBm/MHz)		Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)
			Ant0	Ant1		
U-NII-1	Low	5180	6.17	7.93	10.15	11.00
	Middle	5220	6.47	7.97	10.29	11.00
	High	5240	6.77	8.05	10.47	11.00
U-NII-3	Low	5745	-1.63	0.8	2.76	30.00
	Middle	5785	-1.77	0.51	2.53	30.00
	High	5825	-1.13	0.84	2.98	30.00

IEEE 802.11n-HT40_MIMO modulation Test Result

Band	Channel	Frequency (MHz)	Maximum PSD (dBm/MHz)		Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)
			Ant0	Ant1		
U-NII-1	Low	5190	2.72	5.54	7.37	11.00
	High	5230	2.67	5.63	7.41	11.00
U-NII-3	Low	5755	-4.63	-2.45	-0.39	30.00
	High	5795	-4.14	-1.81	0.19	30.00

IEEE 802.11ac-VHT20_MIMO modulation Test Result

Band	Channel	Frequency (MHz)	Maximum PSD (dBm/MHz)		Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)
			Ant0	Ant1		
U-NII-1	Low	5180	6.07	7.80	10.03	11.00
	Middle	5220	6.44	8.00	10.30	11.00
	High	5240	6.58	8.31	10.54	11.00
U-NII-3	Low	5745	-1.64	1.15	2.99	30.00
	Middle	5785	-1.34	0.79	2.86	30.00
	High	5825	-1.61	0.65	2.68	30.00

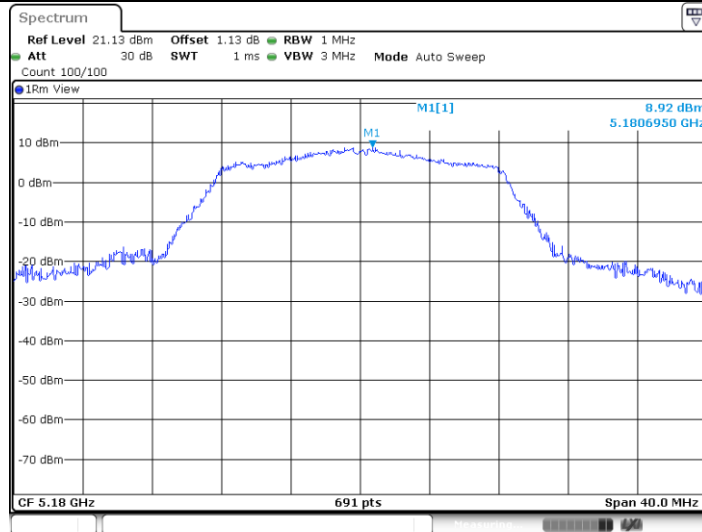
IEEE 802.11ac-VHT40_MIMO modulation Test Result

Band	Channel	Frequency (MHz)	Maximum PSD (dBm/MHz)		Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)
			Ant0	Ant1		
U-NII-1	Low	5190	3.15	5.66	7.59	11.00
	High	5230	3.04	6.47	8.10	11.00
U-NII-3	Low	5755	-4.77	-2.51	-0.48	30.00
	High	5795	-4.72	-1.5	0.19	30.00

IEEE 802.11ac-VHT80_MIMO modulation Test Result

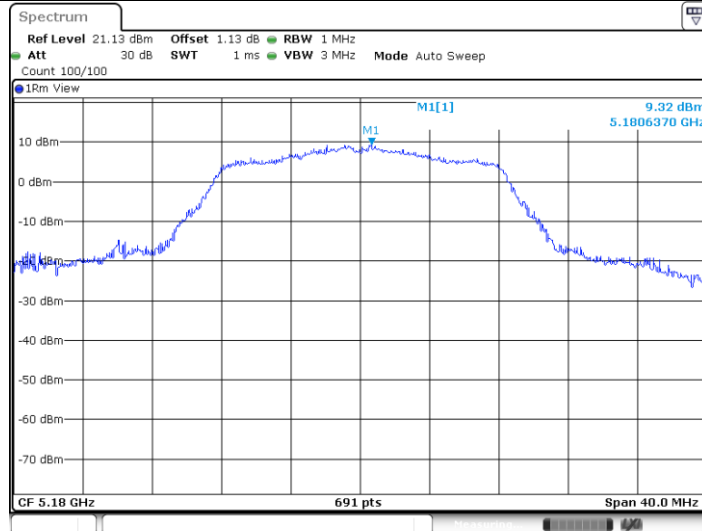
Band	Channel	Frequency (MHz)	Maximum PSD (dBm/MHz)		Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)
			Ant0	Ant1		
U-NII-1	42	5210	0.12	2.51	4.49	11.00
U-NII-3	155	5775	-7.42	-5.53	-3.36	30.00

11A_Ant1_5180



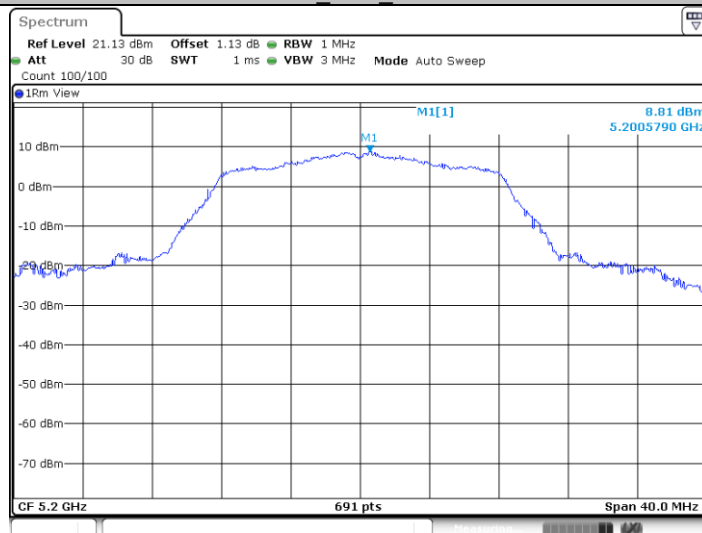
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11A_Ant1_5200



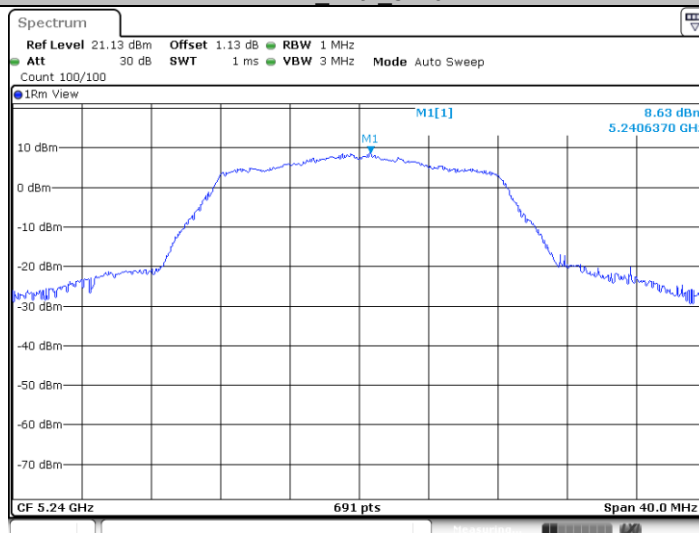
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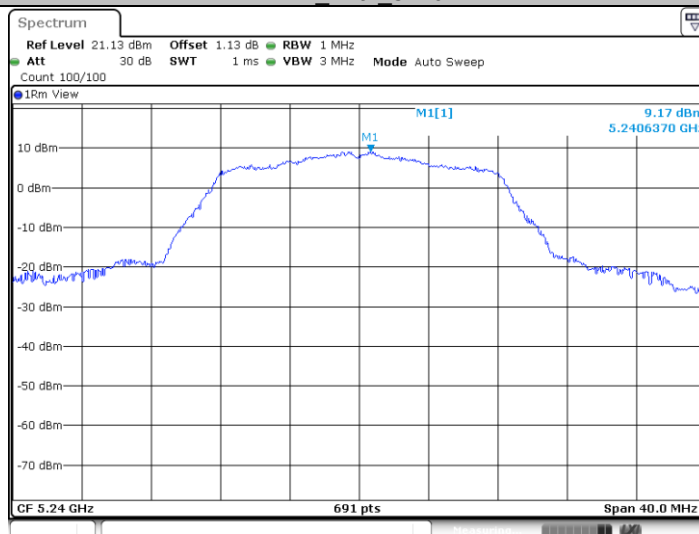
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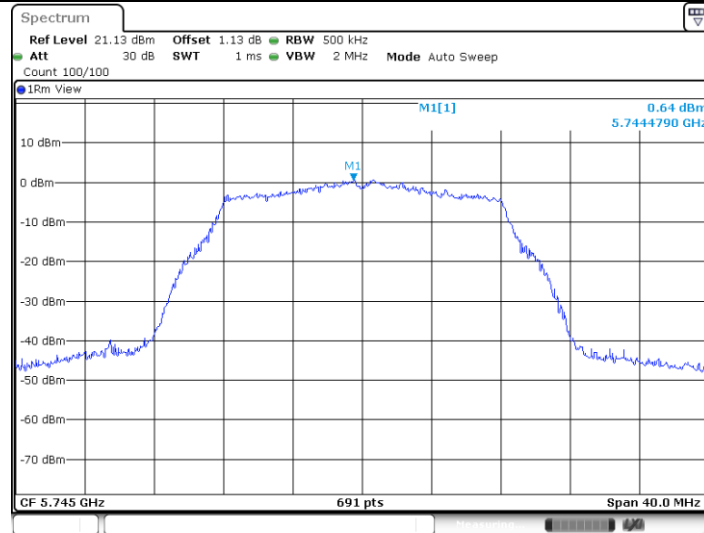
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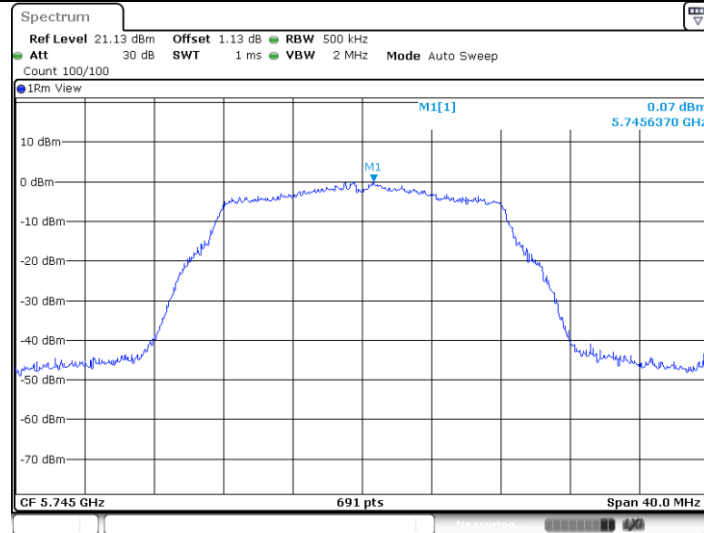
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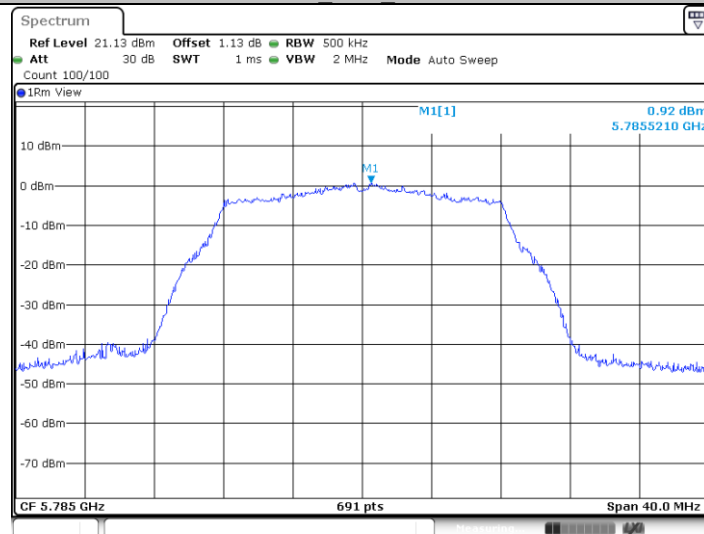
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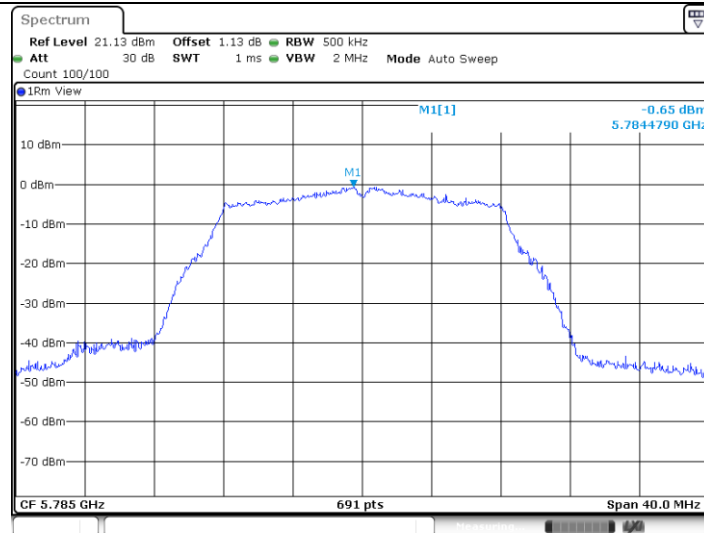
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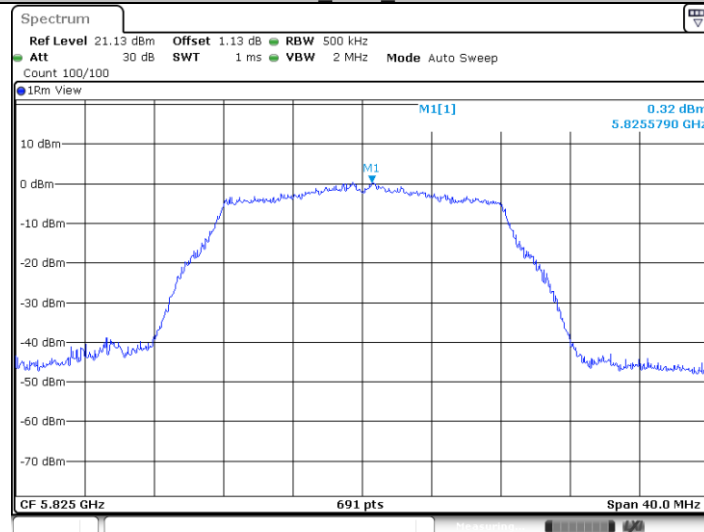
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11A Ant2 5785



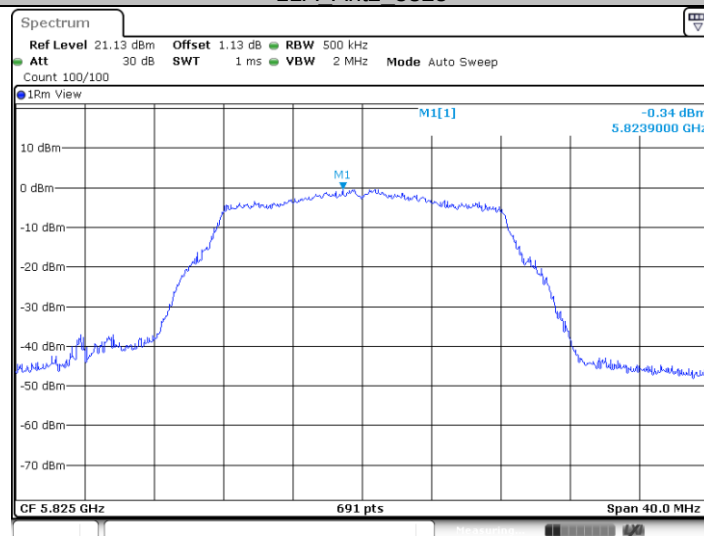
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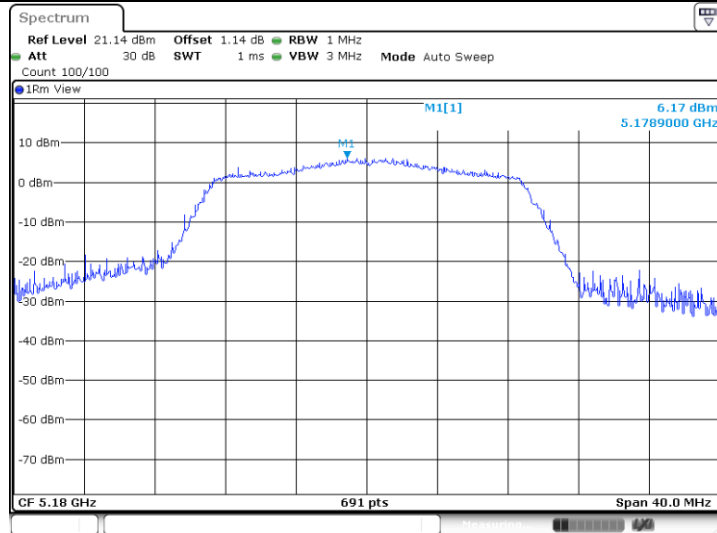
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11A Ant2 5825



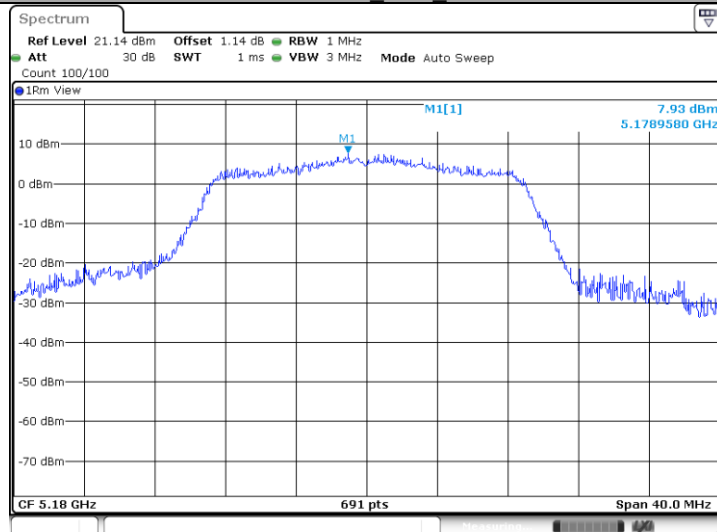
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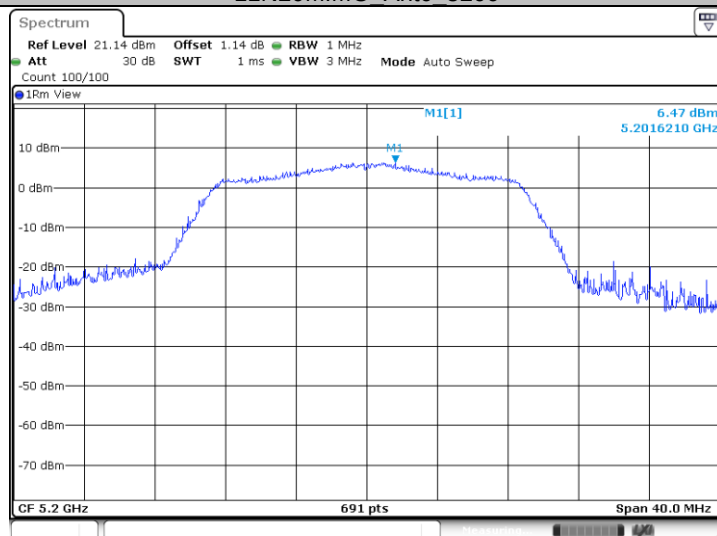
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11N20MIMO Ant1 5180



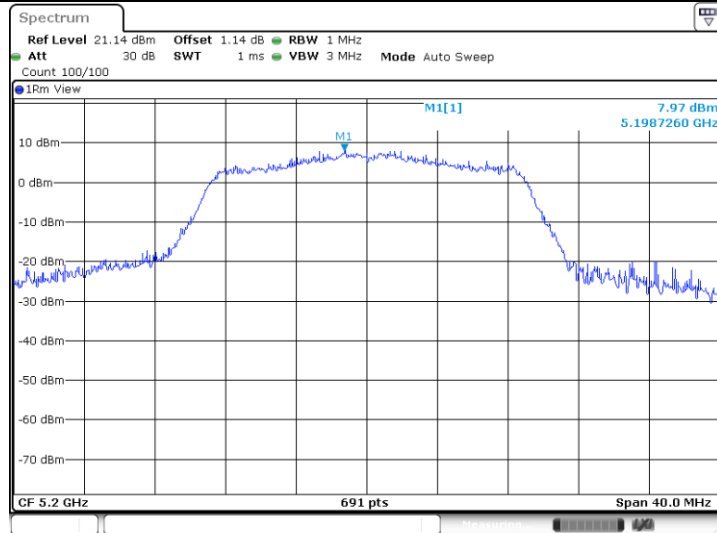
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11N20MIMO Ant0 5200



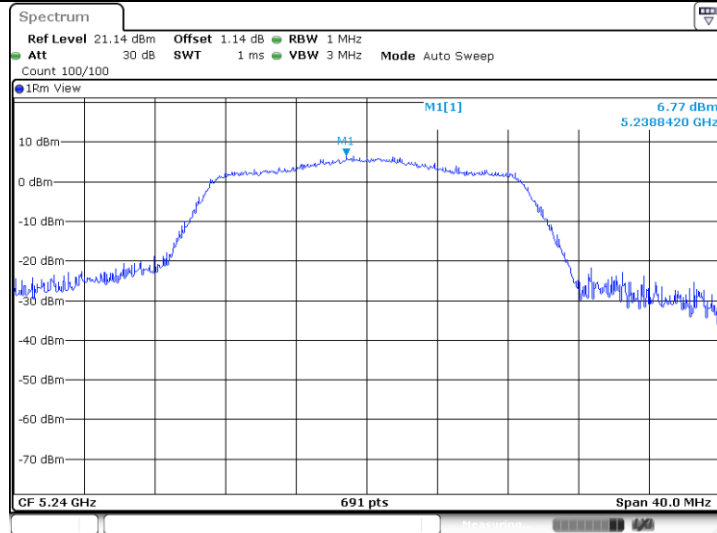
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11N20MIMO Ant1 5200



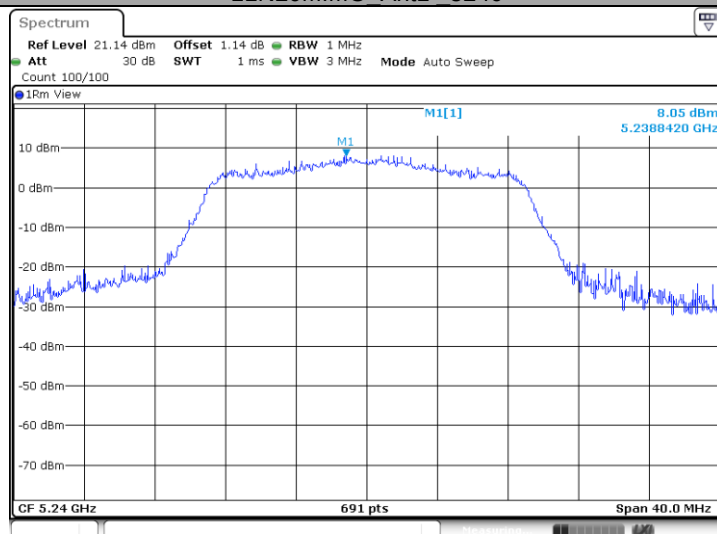
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11N20MIMO Ant0 5240



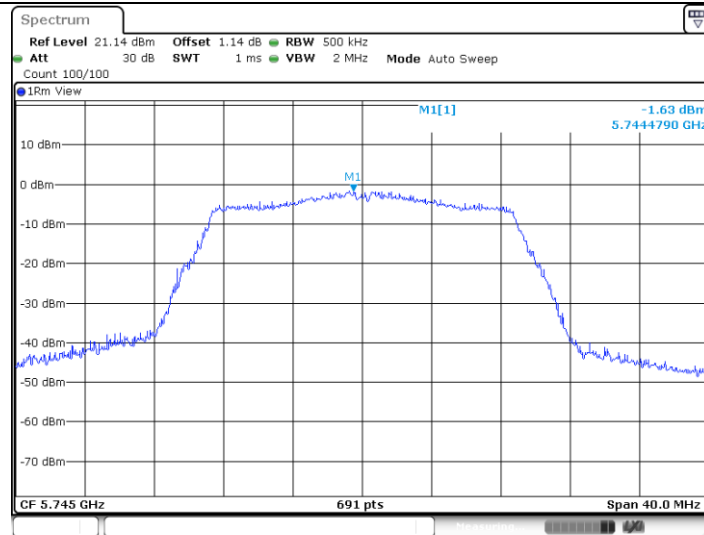
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11N20MIMO Ant1 5240



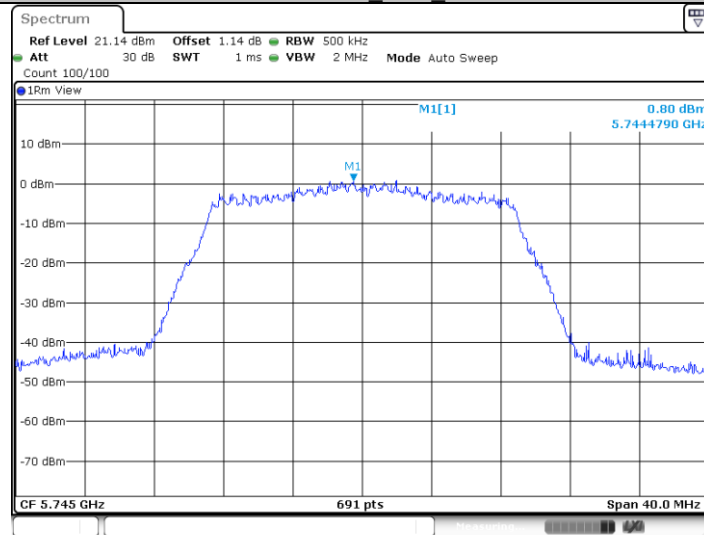
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11N20 MIMO Ant0 5745



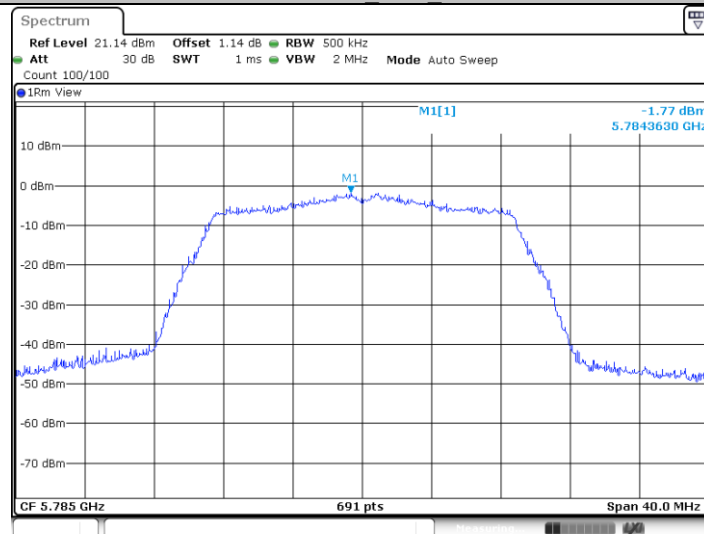
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11N20 MIMO_Ant1_5745



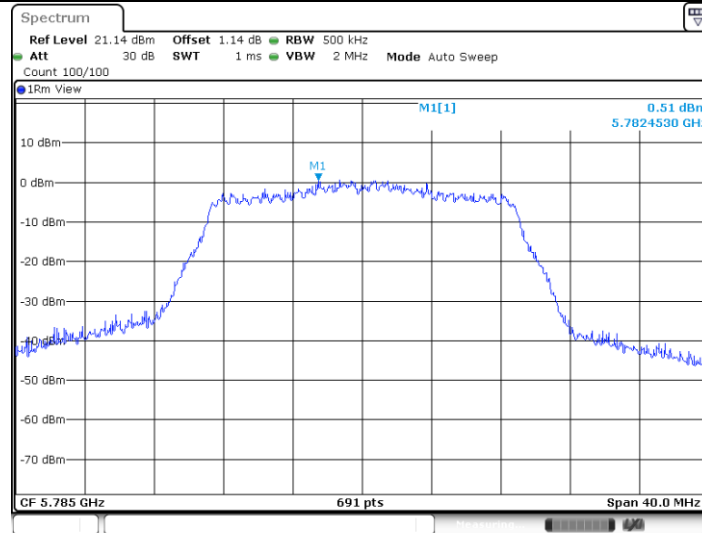
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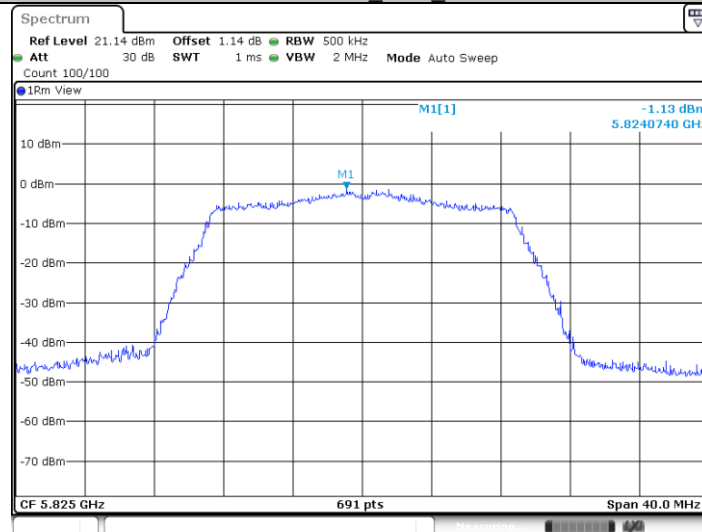
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11N20 MIMO_Ant1_5785



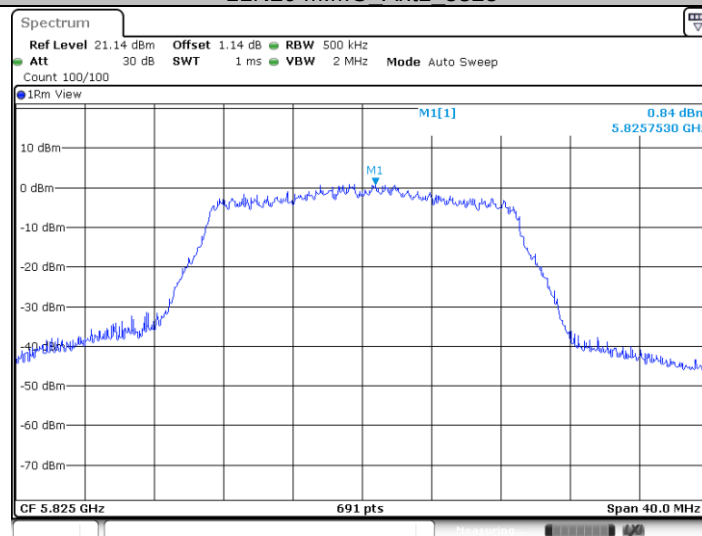
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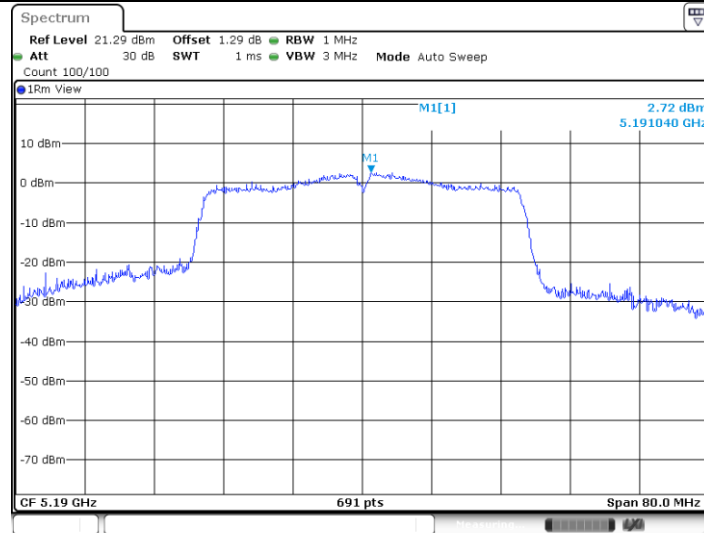
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11N20 MIMO_Ant1_5825



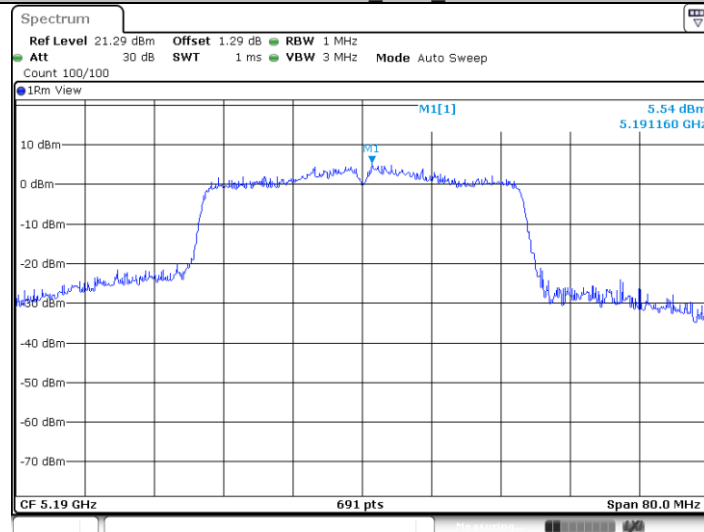
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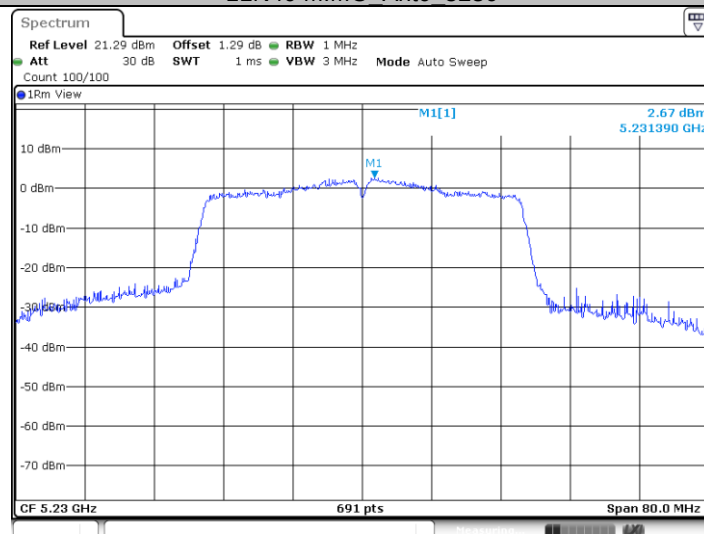
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11N40 MIMO_Ant0_5230



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11N40 MIMO_Ant1_5230