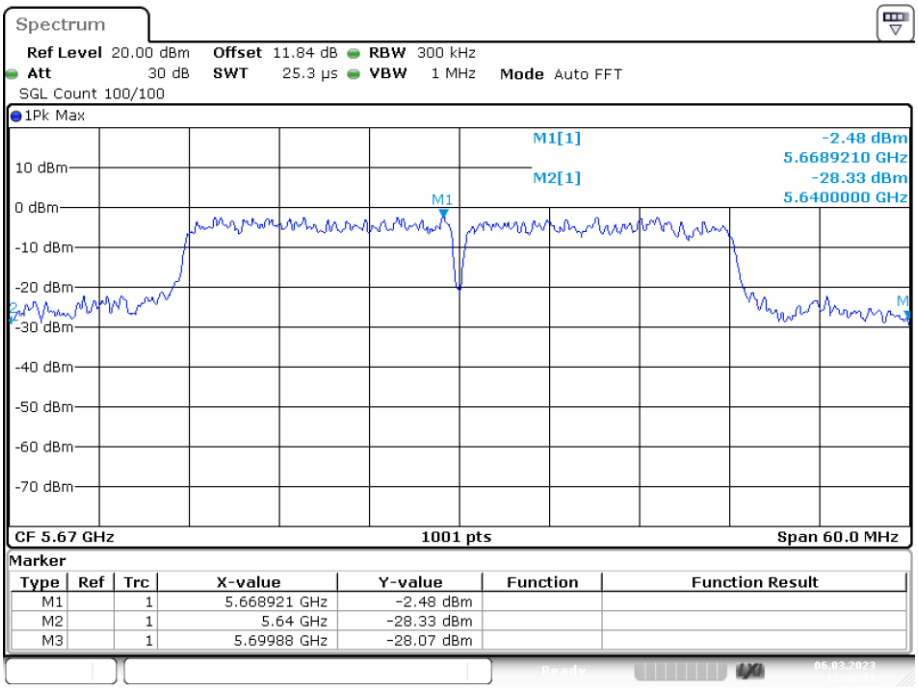
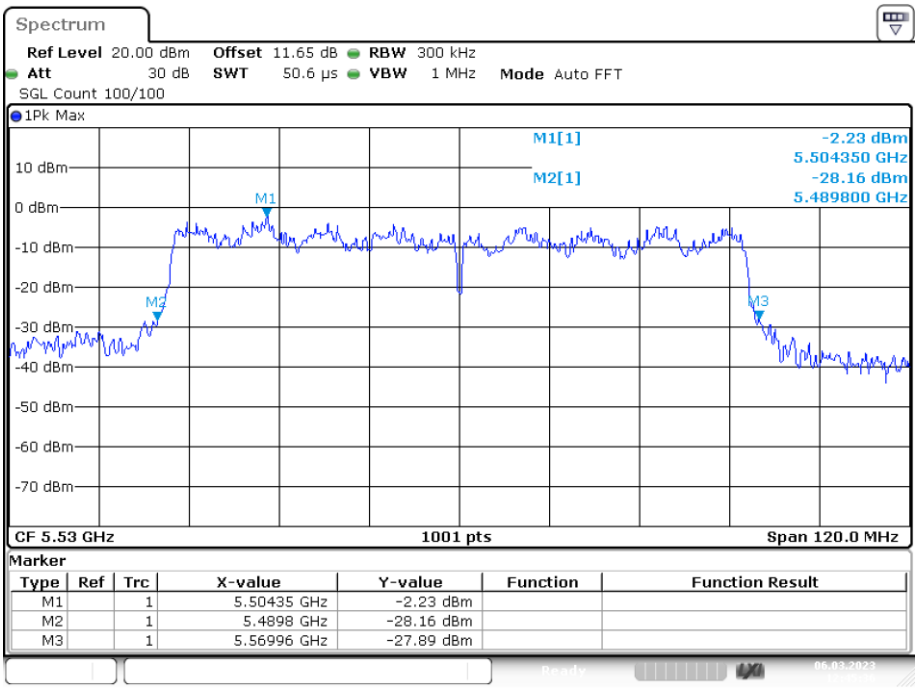
-26dB Bandwidth NVNT ac40 5670MHz Ant1



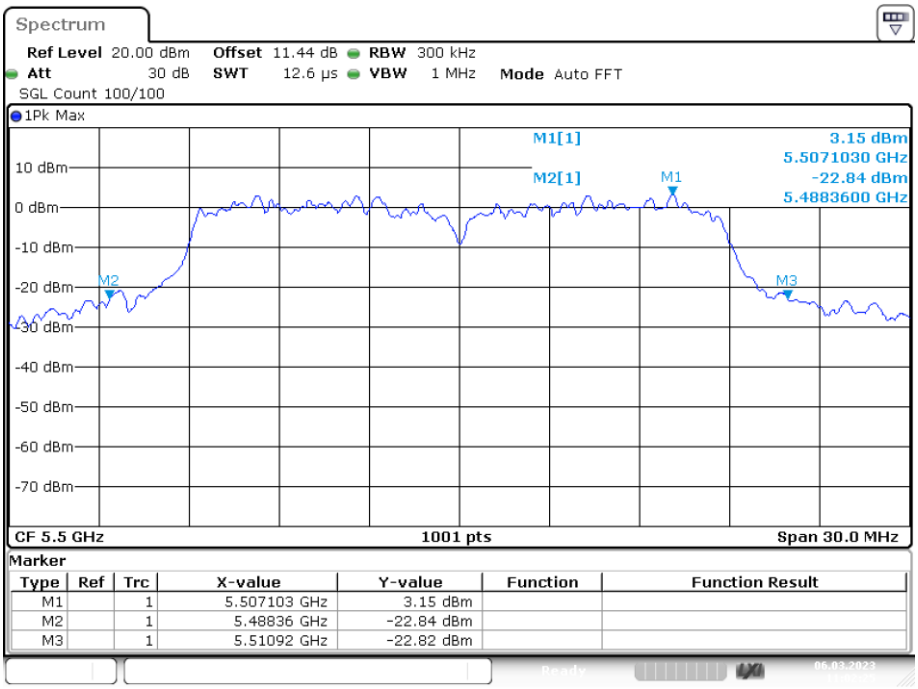
Date: 6.MAR.2023 12:40:50

-26dB Bandwidth NVNT ac80 5530MHz Ant1



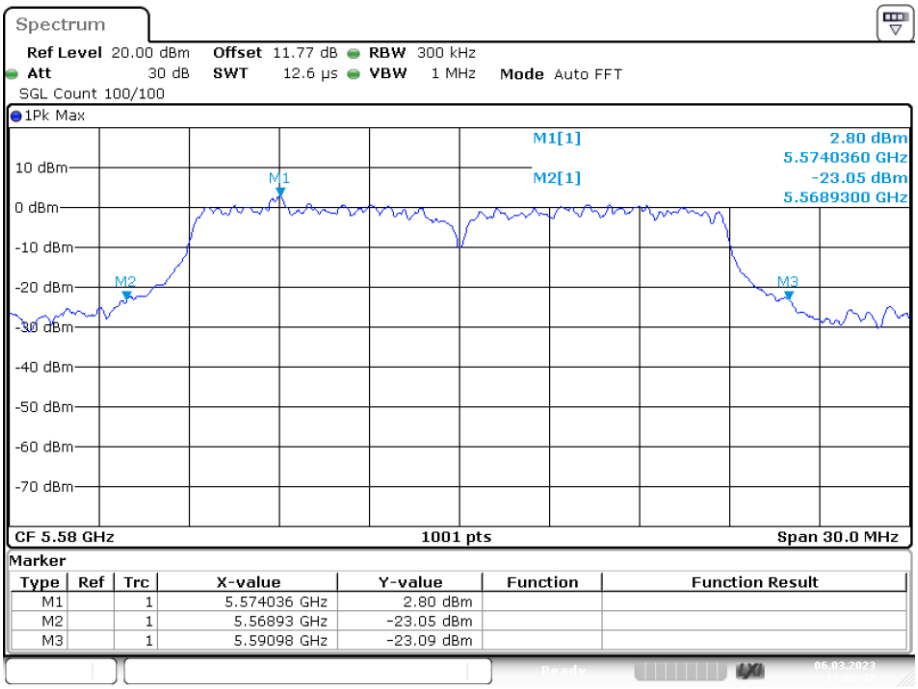
Date: 6.MAR.2023 12:45:35

-26dB Bandwidth NVNT n20 5500MHz Ant1



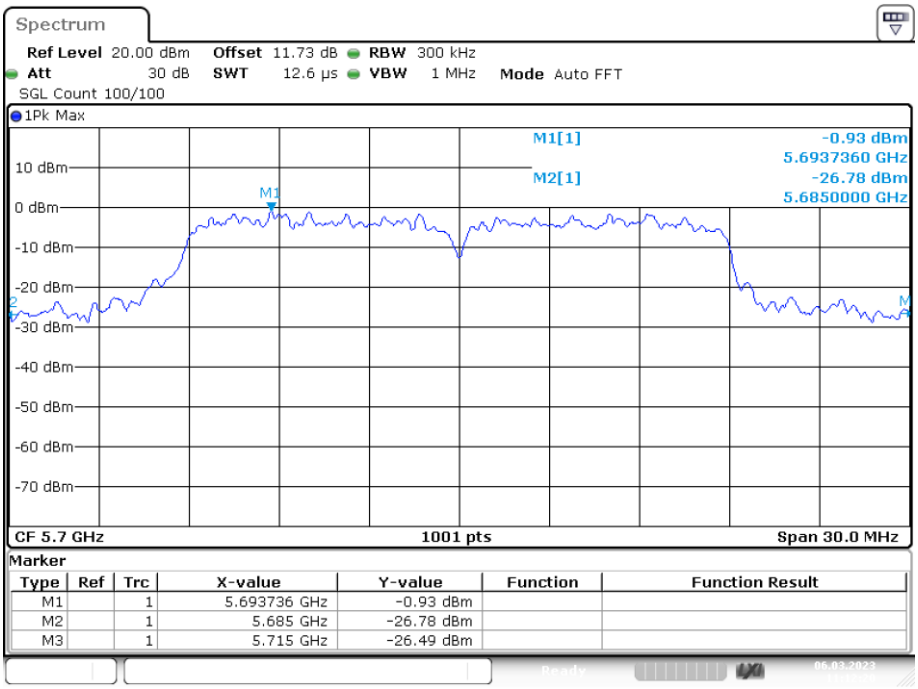
Date: 6.MAR.2023 11:02:24

-26dB Bandwidth NVNT n20 5580MHz Ant1



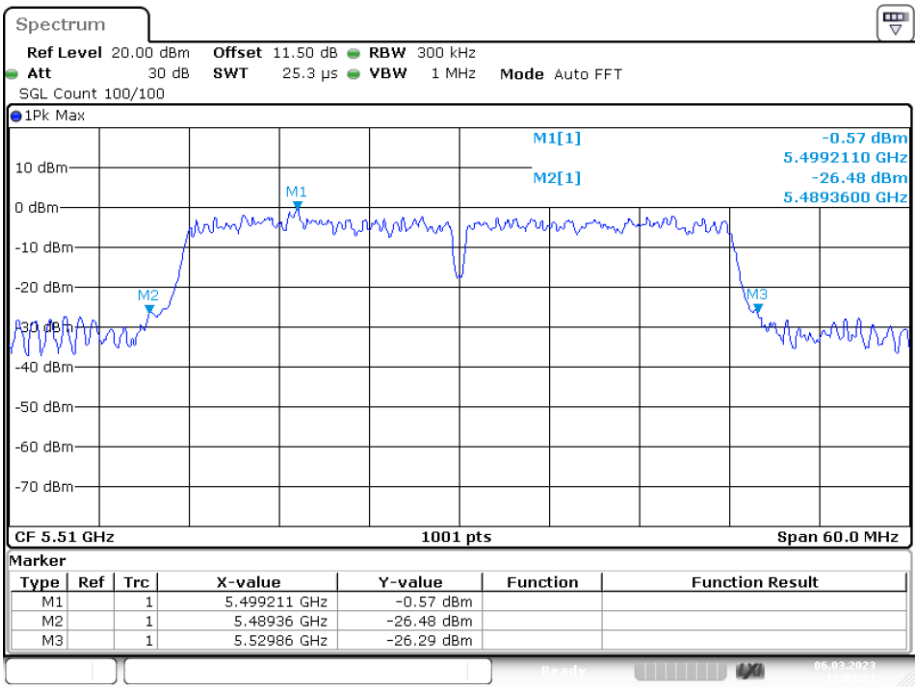
Date: 6.MAR.2023 11:05:47

-26dB Bandwidth NVNT n20 5700MHz Ant1



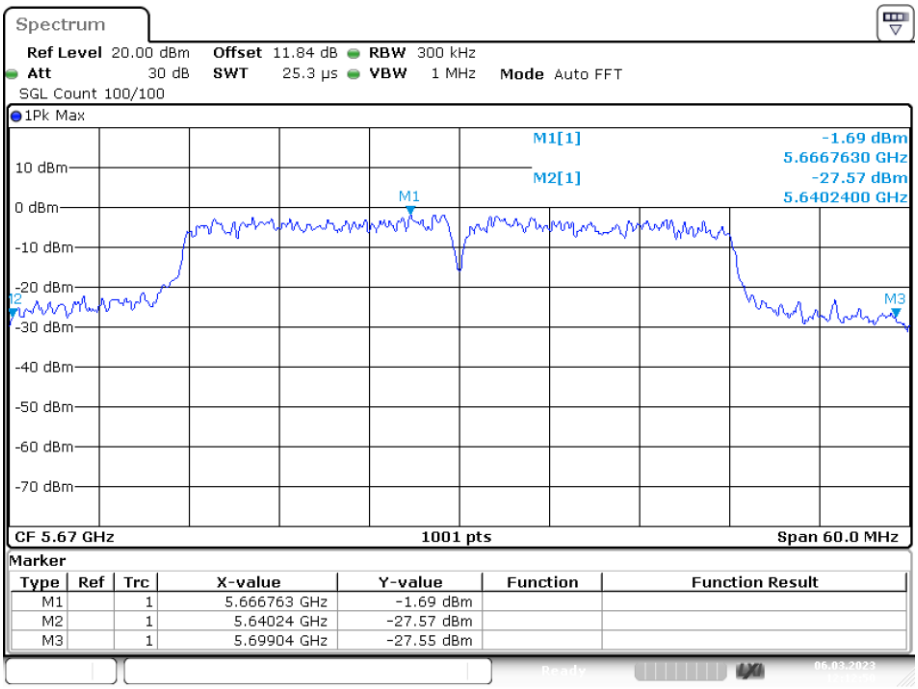
Date: 6.MAR.2023 11:12:19

-26dB Bandwidth NVNT n40 5510MHz Ant1



Date: 6.MAR.2023 12:04:21

-26dB Bandwidth NVNT n40 5670MHz Ant1



Marker

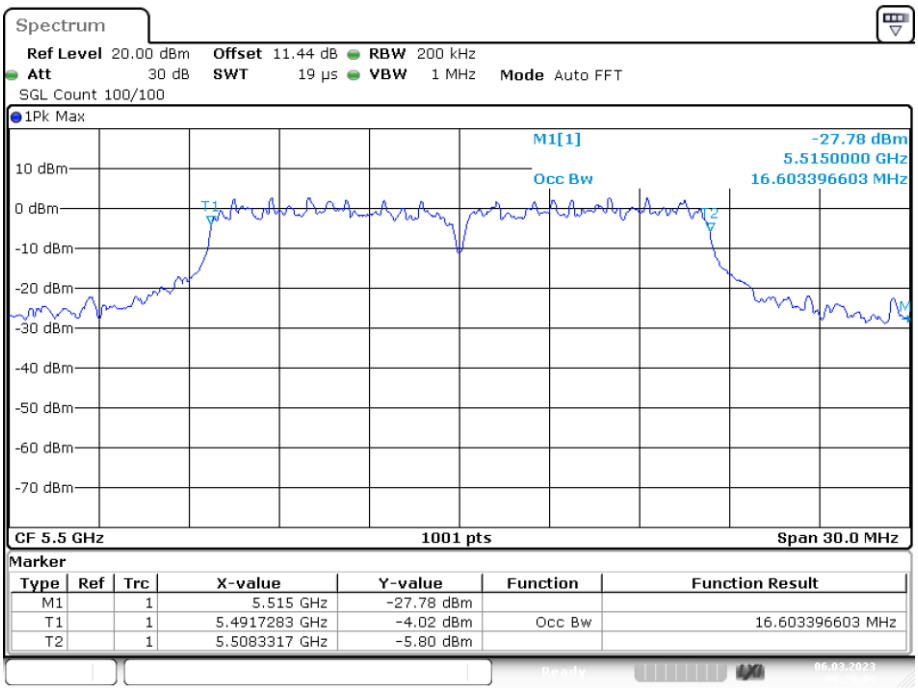
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.666763 GHz	-1.69 dBm		
M2		1	5.64024 GHz	-27.57 dBm		
M3		1	5.69904 GHz	-27.55 dBm		

Date: 6.MAR.2023 12:12:49

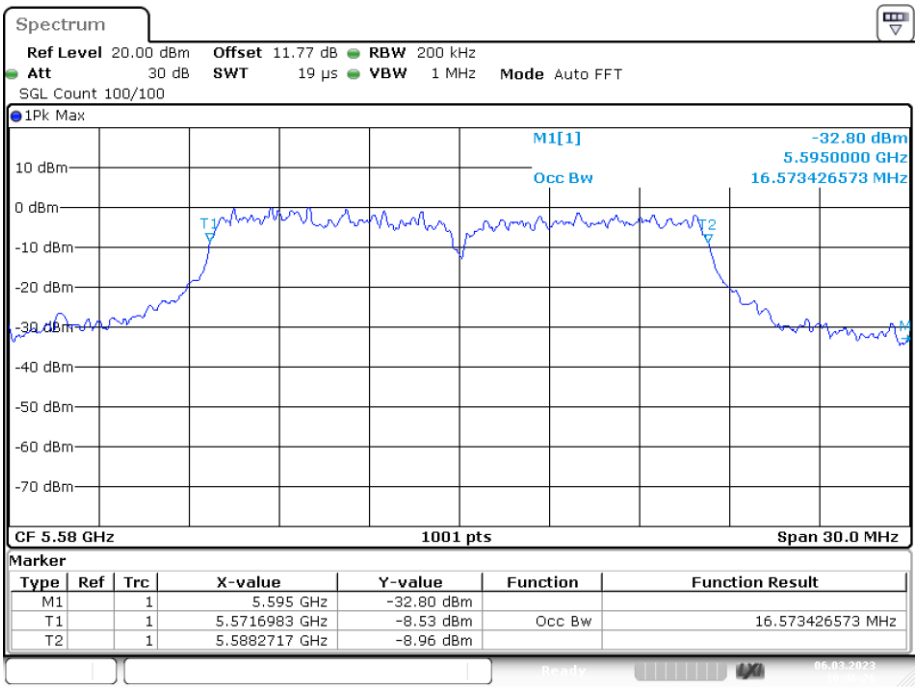
Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5500	Ant1	16.603
NVNT	a	5580	Ant1	16.573
NVNT	a	5700	Ant1	16.663
NVNT	ac20	5500	Ant1	17.742
NVNT	ac20	5580	Ant1	17.652
NVNT	ac20	5700	Ant1	17.832
NVNT	ac40	5510	Ant1	36.444
NVNT	ac40	5670	Ant1	36.503
NVNT	ac80	5530	Ant1	75.884
NVNT	n20	5500	Ant1	17.712
NVNT	n20	5580	Ant1	17.772
NVNT	n20	5700	Ant1	17.952
NVNT	n40	5510	Ant1	36.264
NVNT	n40	5670	Ant1	36.803

OBW NVNT a 5500MHz Ant1

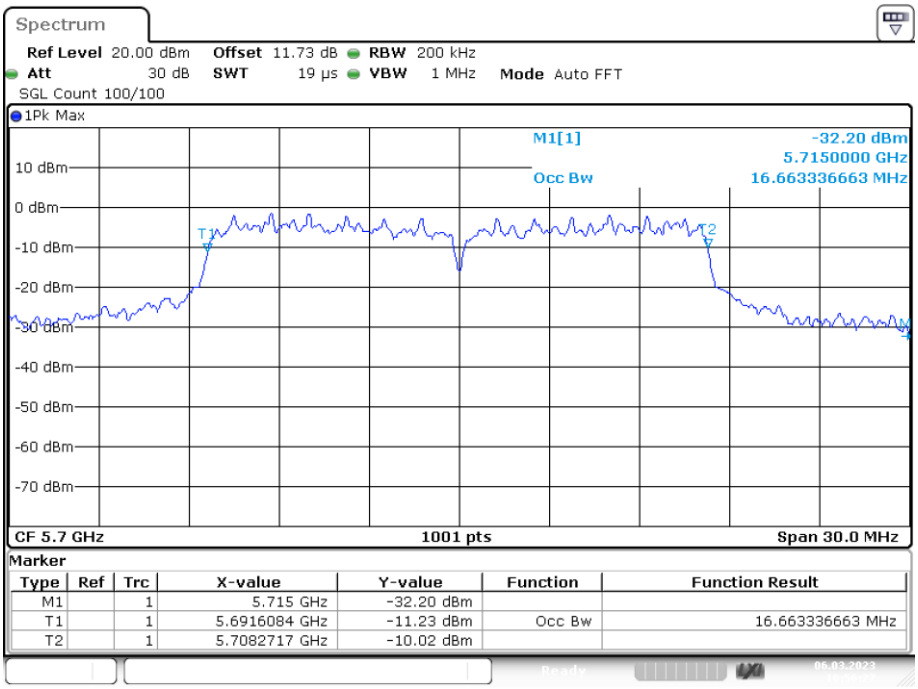


OBW NVNT a 5580MHz Ant1



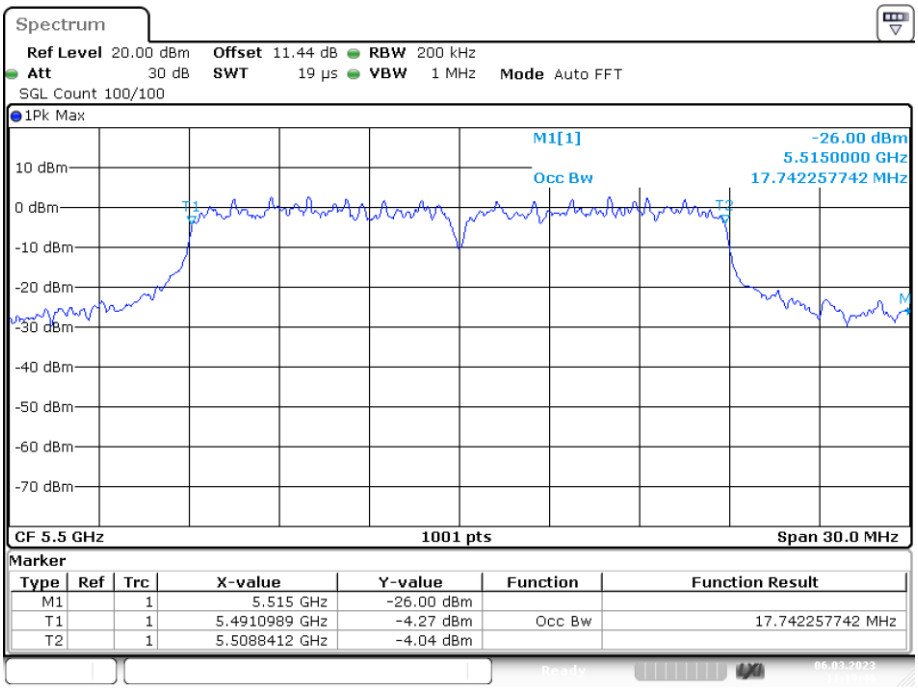
Date: 6.MAR.2023 10:46:26

OBW NVNT a 5700MHz Ant1



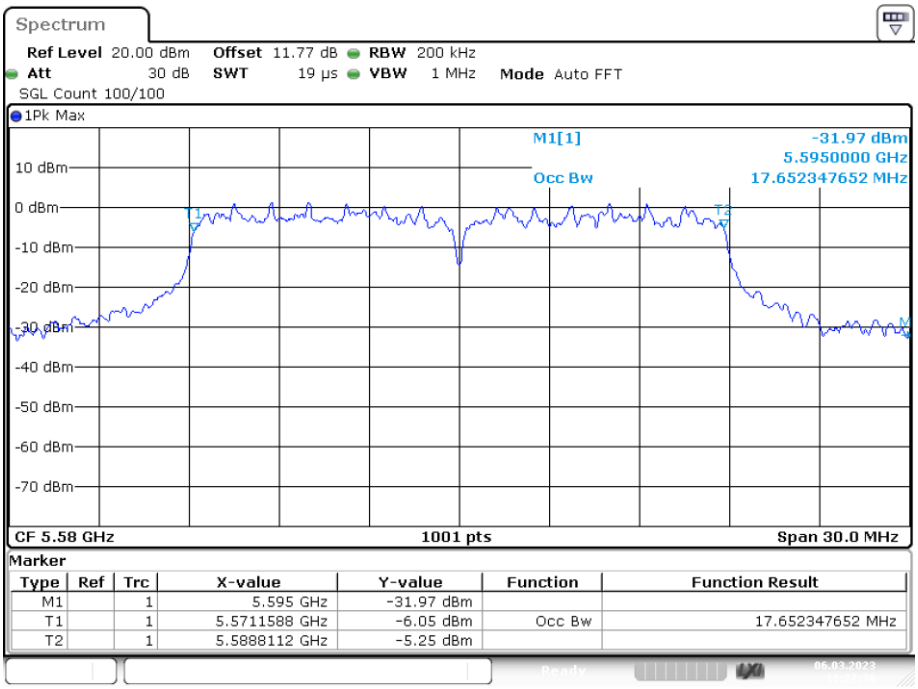
Date: 6.MAR.2023 10:56:28

OBW NVNT ac20 5500MHz Ant1



Date: 6.MAR.2023 11:19:46

OBW NVNT ac20 5580MHz Ant1



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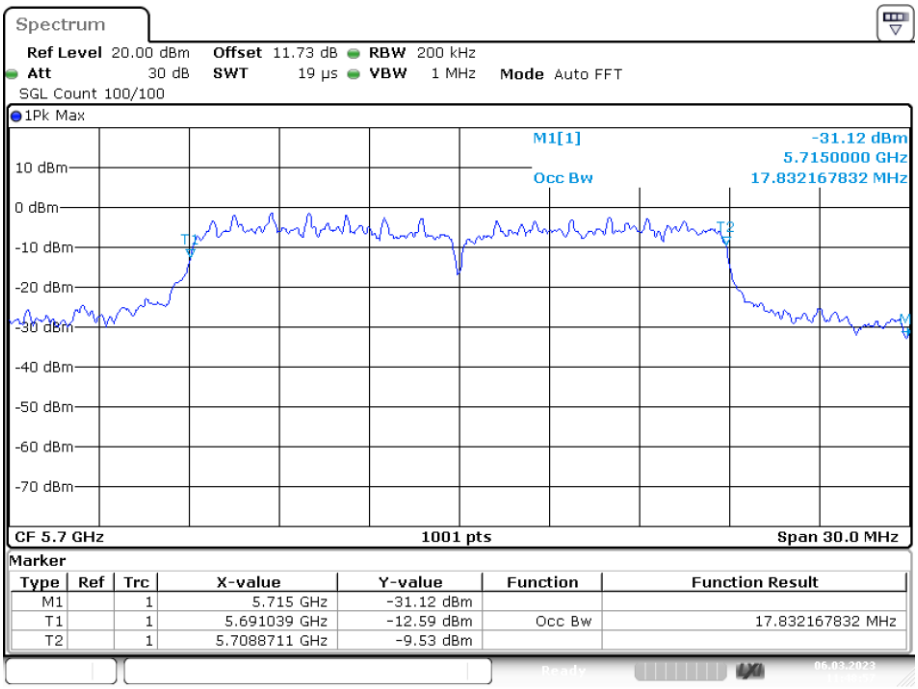
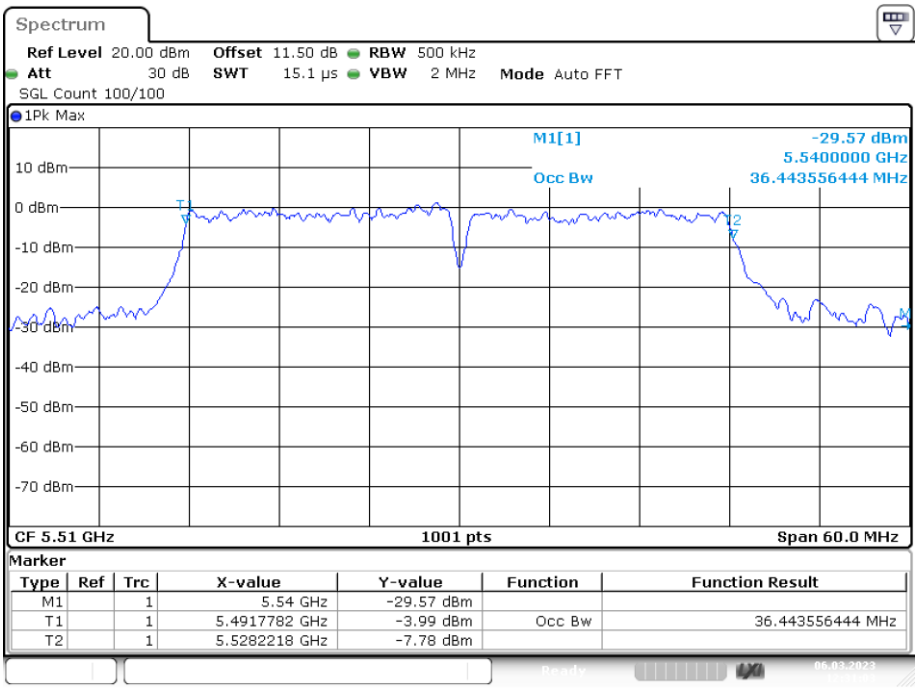
OBW NVNT ac20 5700MHz Ant1



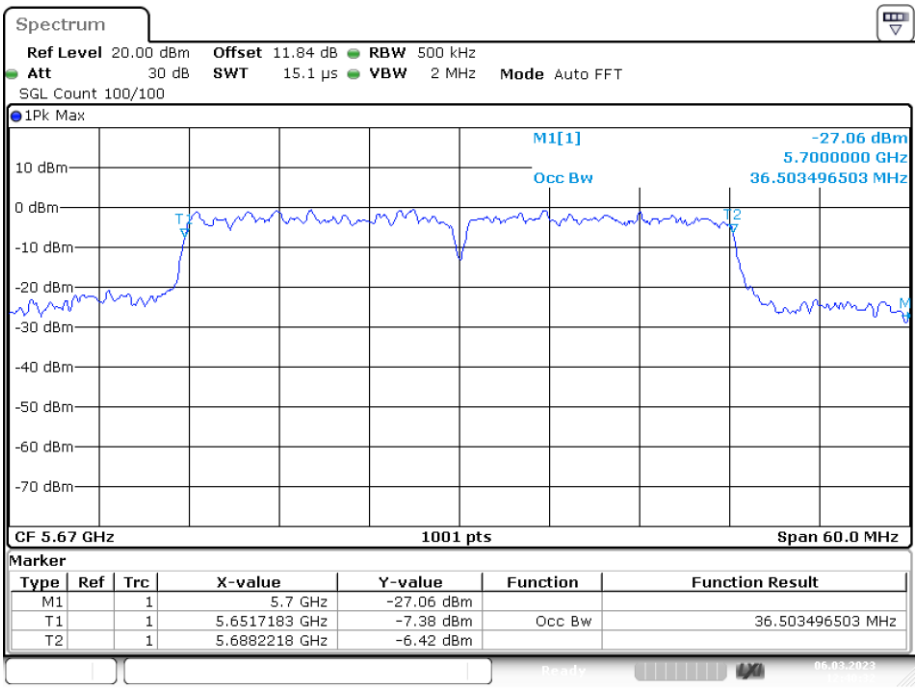
Date: 6.MAR.2023 11:48:57

OBW NVNT ac40 5510MHz Ant1



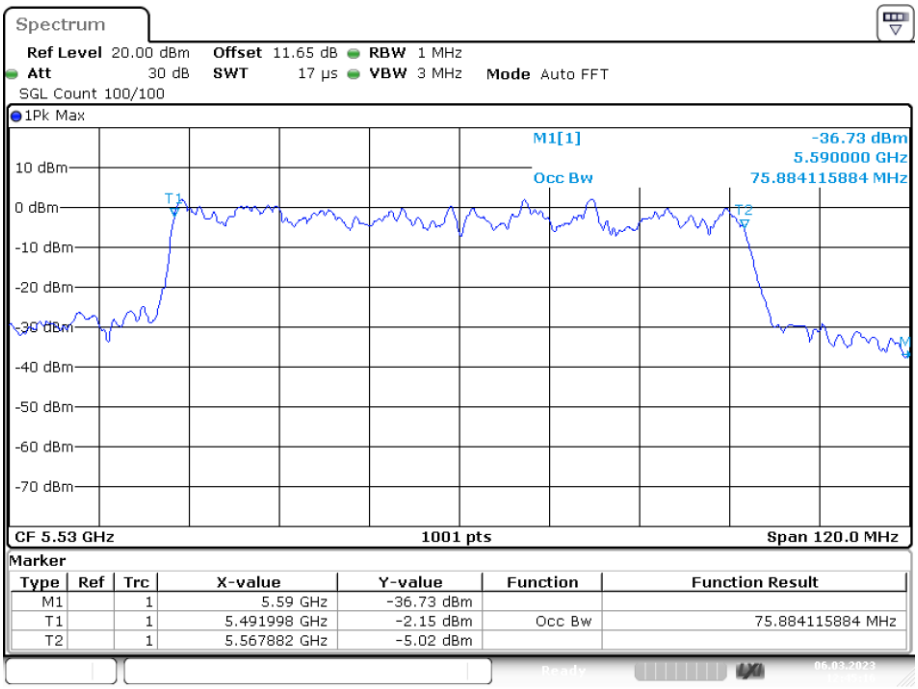
Date: 6.MAR.2023 12:31:03

OBW NVNT ac40 5670MHz Ant1



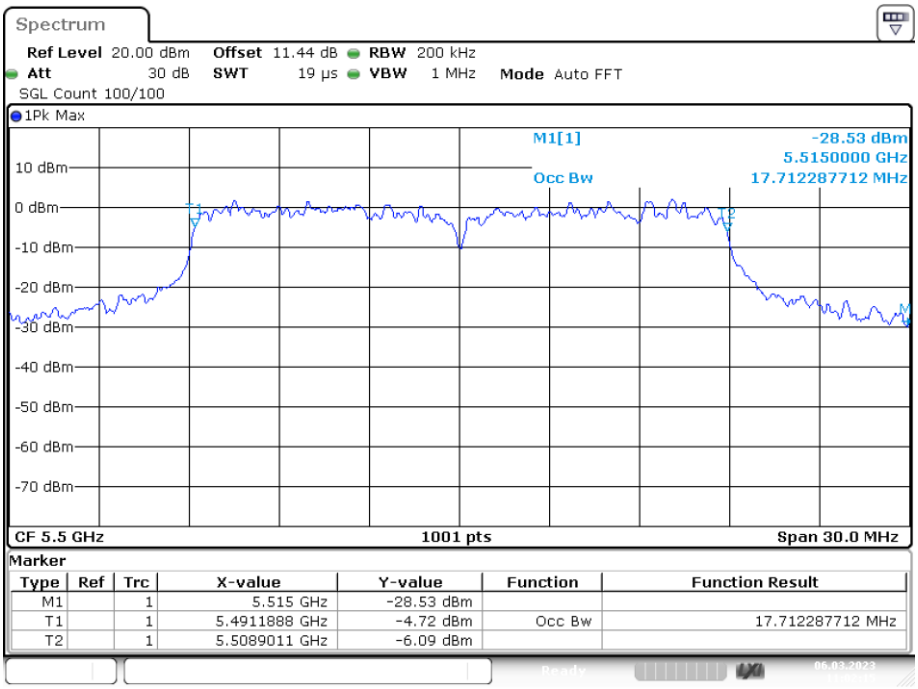
Date: 6.MAR.2023 12:40:32

OBW NVNT ac80 5530MHz Ant1



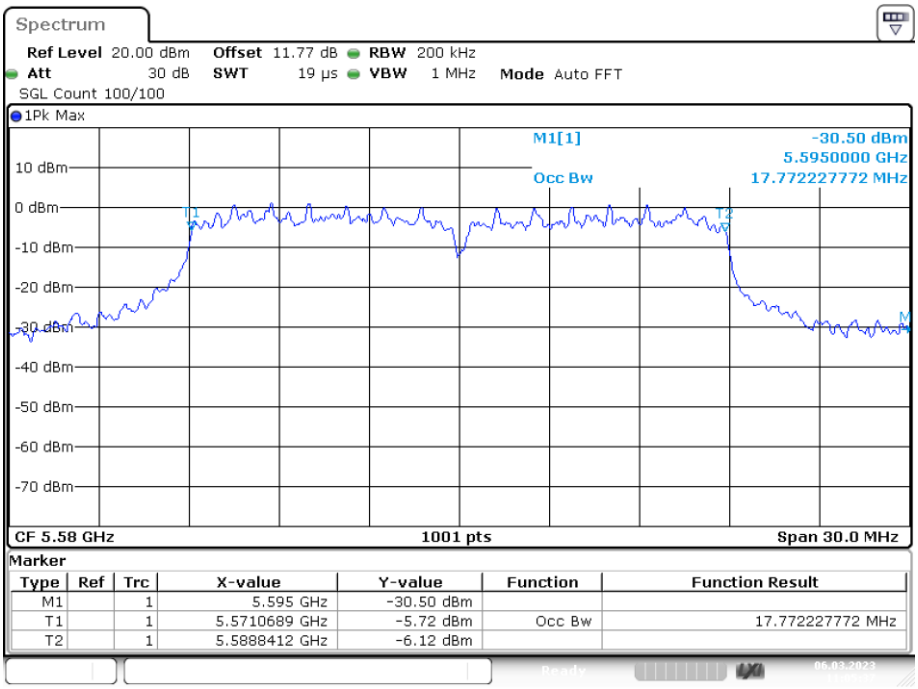
Date: 6.MAR.2023 12:45:15

OBW NVNT n20 5500MHz Ant1



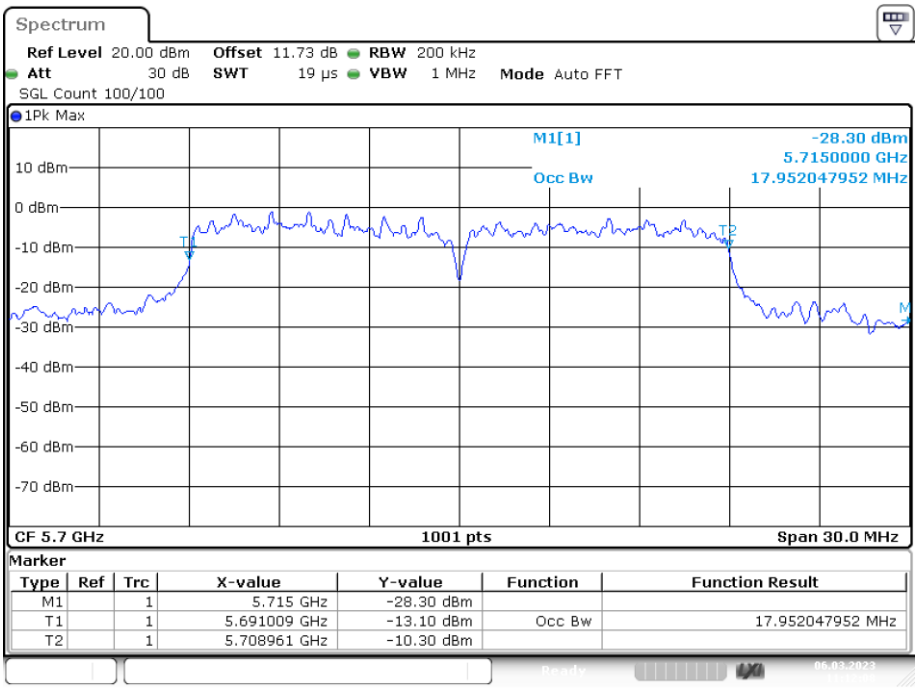
Date: 6.MAR.2023 11:02:14

OBW NVNT n20 5580MHz Ant1



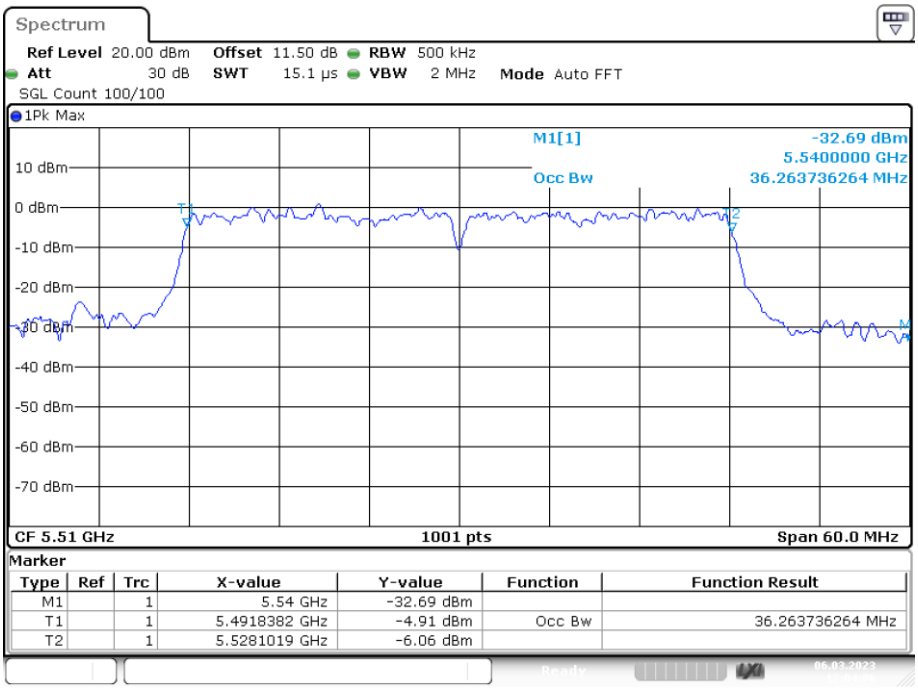
Date: 6.MAR.2023 11:05:37

OBW NVNT n20 5700MHz Ant1



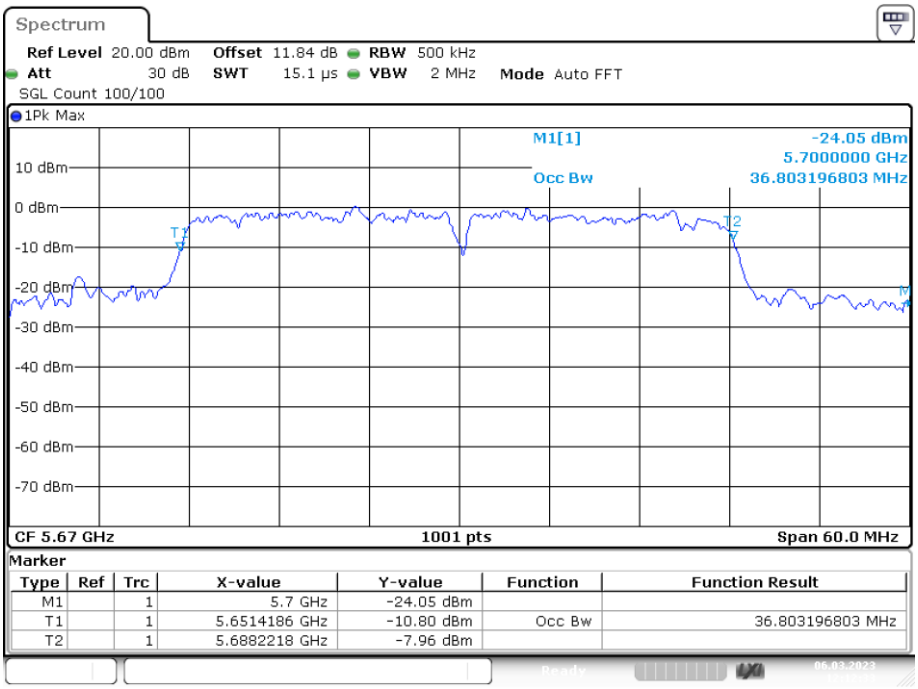
Date: 6.MAR.2023 11:12:08

OBW NVNT n40 5510MHz Ant1



Date: 6.MAR.2023 12:04:05

OBW NVNT n40 5670MHz Ant1



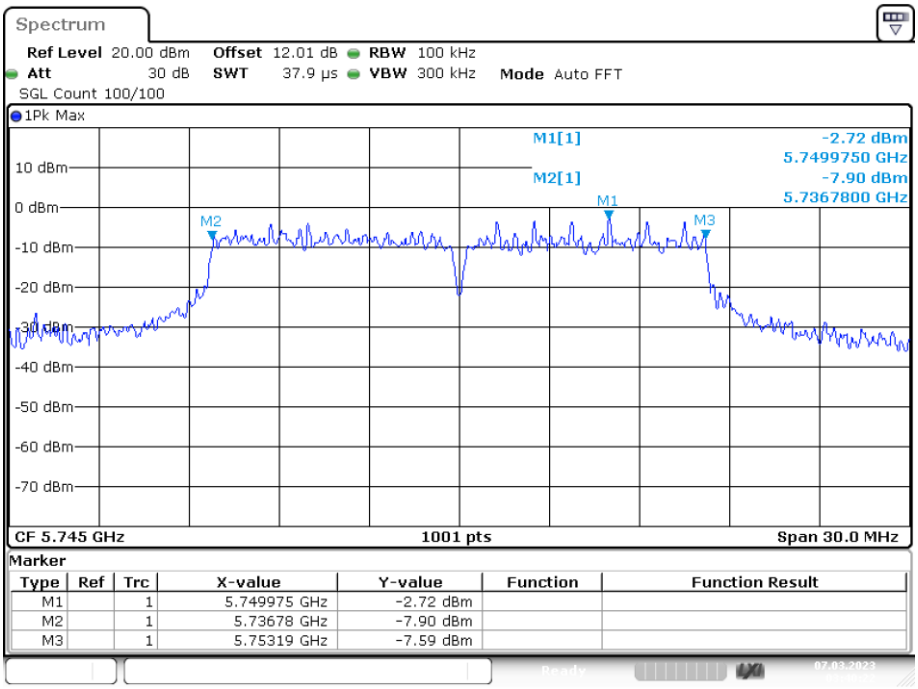
Date: 6.MAR.2023 12:12:33

Band 4 (5725-5850 MHz):

-6dB Bandwidth

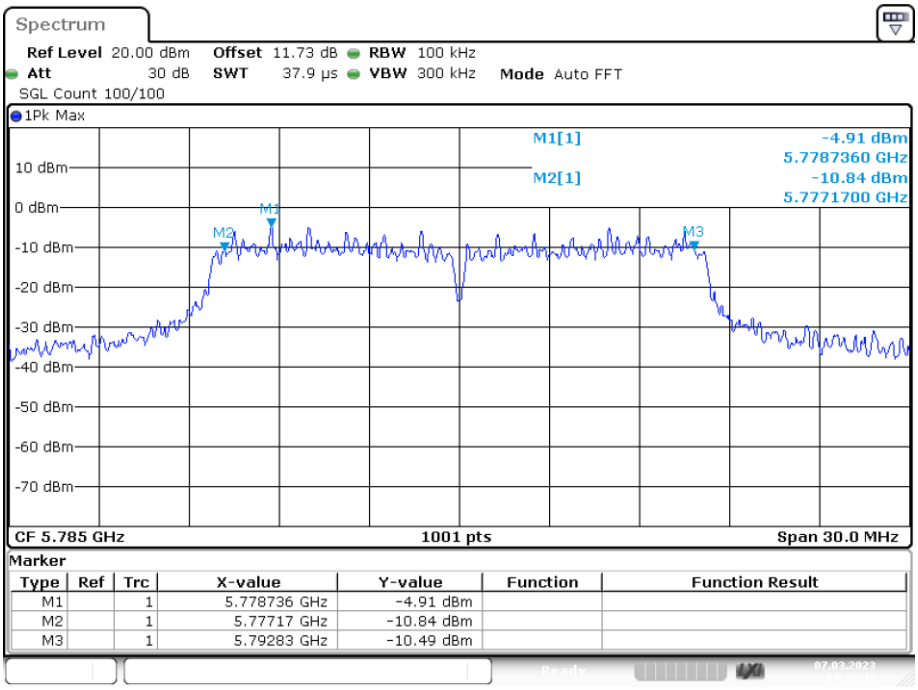
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	Ant1	16.41	0.5	Pass
NVNT	a	5785	Ant1	15.66	0.5	Pass
NVNT	a	5825	Ant1	16.44	0.5	Pass
NVNT	ac20	5745	Ant1	17.25	0.5	Pass
NVNT	ac20	5785	Ant1	16.92	0.5	Pass
NVNT	ac20	5825	Ant1	17.19	0.5	Pass
NVNT	ac40	5755	Ant1	36.36	0.5	Pass
NVNT	ac40	5795	Ant1	36	0.5	Pass
NVNT	ac80	5775	Ant1	75.12	0.5	Pass
NVNT	n20	5745	Ant1	16.41	0.5	Pass
NVNT	n20	5785	Ant1	17.25	0.5	Pass
NVNT	n20	5825	Ant1	16.95	0.5	Pass
NVNT	n40	5755	Ant1	35.82	0.5	Pass
NVNT	n40	5795	Ant1	35.7	0.5	Pass

-6dB Bandwidth NVNT a 5745MHz Ant1



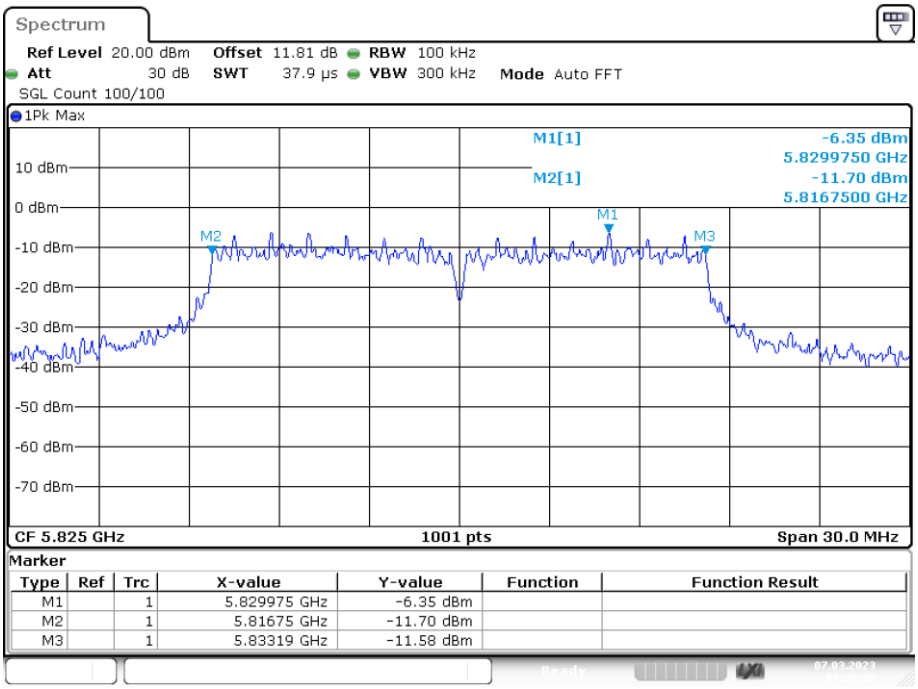
Date: 7.MAR.2023 03:40:22

-6dB Bandwidth NVNT a 5785MHz Ant1



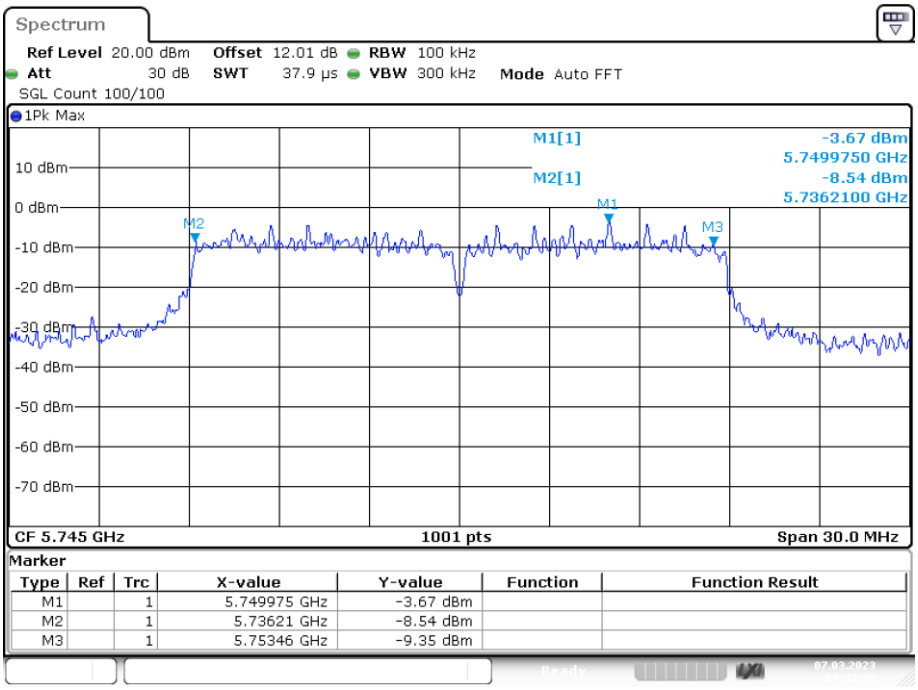
Date: 7.MAR.2023 04:10:43

-6dB Bandwidth NVNT a 5825MHz Ant1



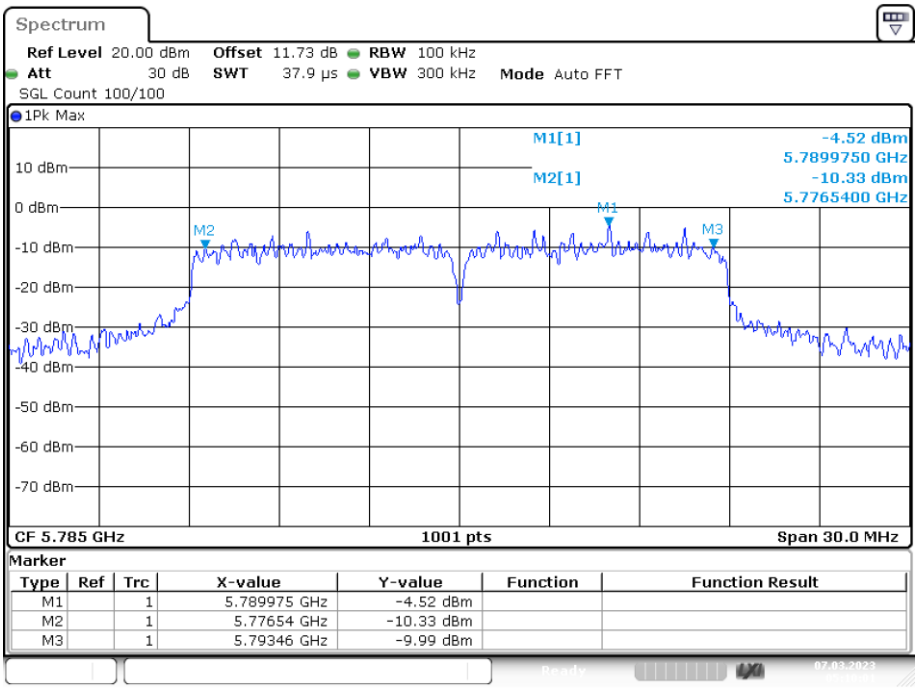
Date: 7.MAR.2023 04:25:06

-6dB Bandwidth NVNT ac20 5745MHz Ant1



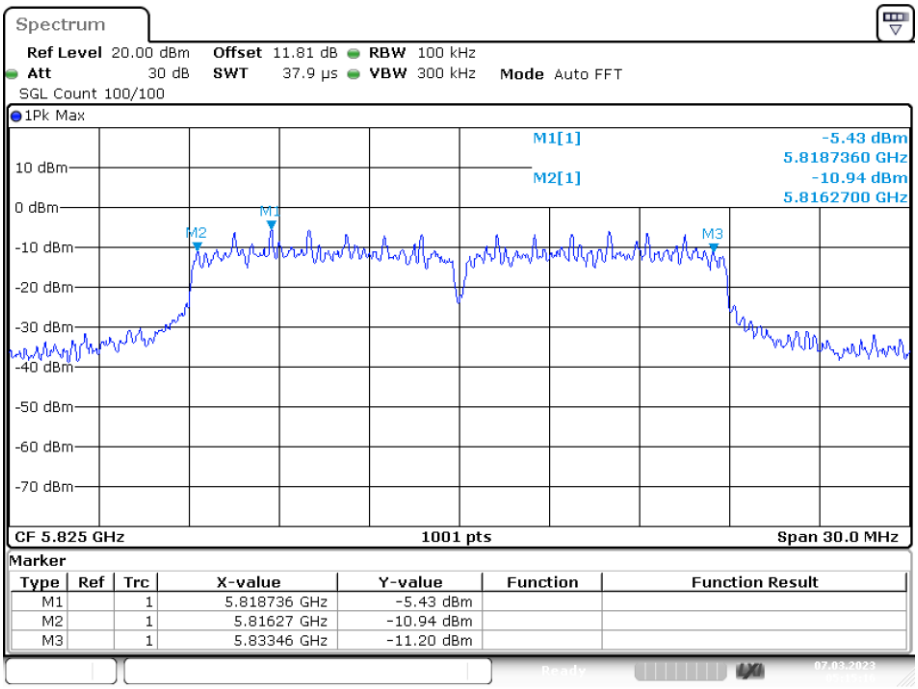
Date: 7.MAR.2023 04:47:34

-6dB Bandwidth NVNT ac20 5785MHz Ant1



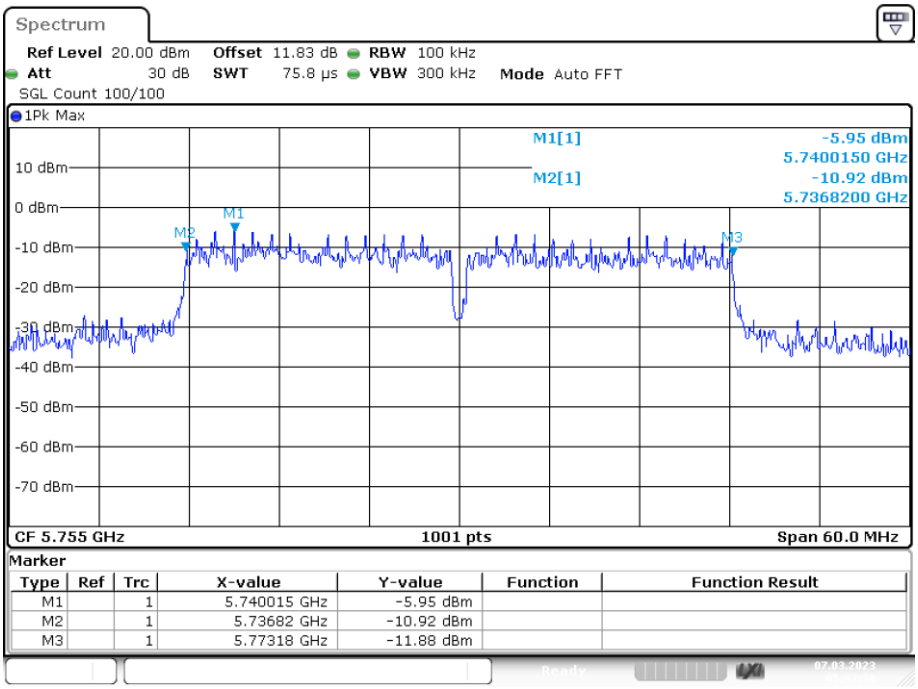
Date: 7.MAR.2023 05:10:01

-6dB Bandwidth NVNT ac20 5825MHz Ant1



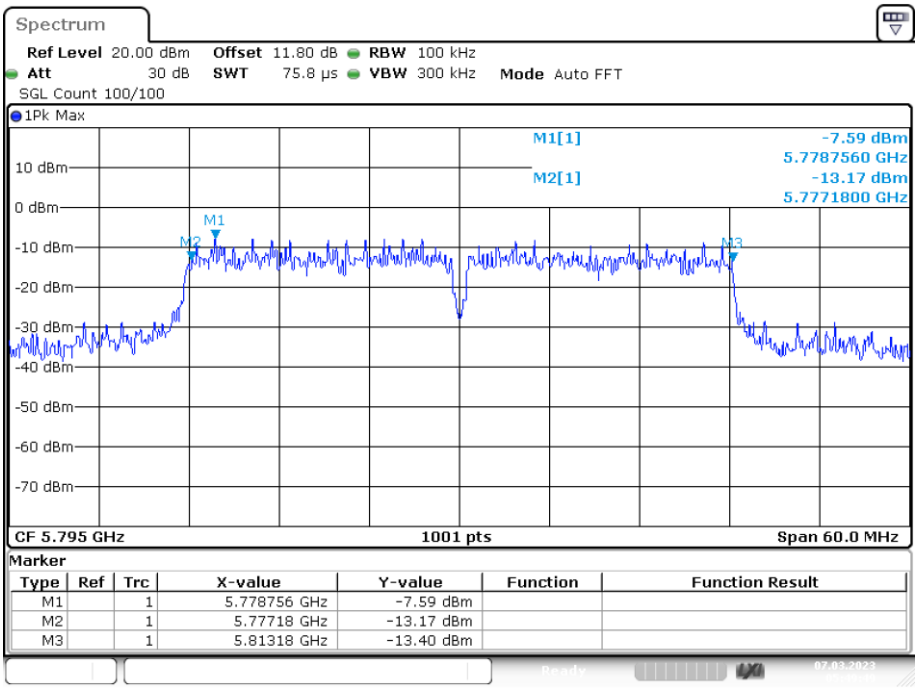
Date: 7.MAR.2023 05:15:16

-6dB Bandwidth NVNT ac40 5755MHz Ant1



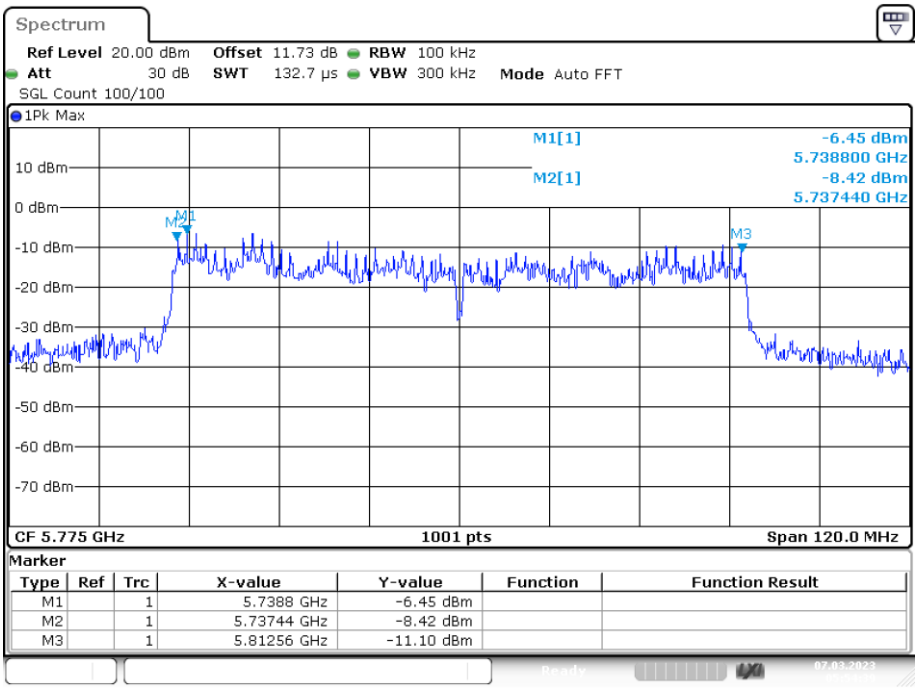
Date: 7.MAR.2023 05:43:29

-6dB Bandwidth NVNT ac40 5795MHz Ant1



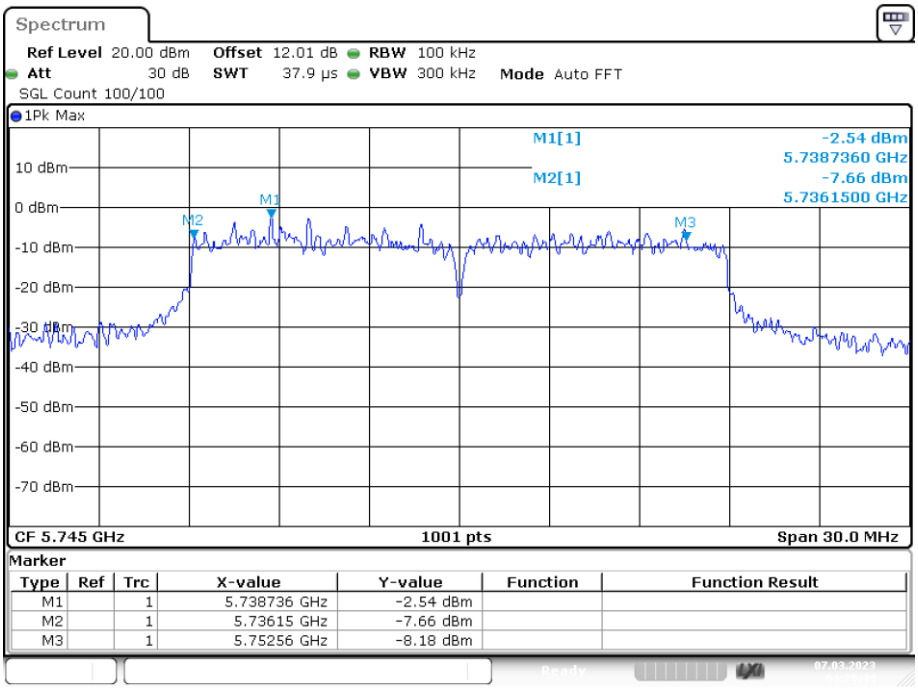
Date: 7.MAR.2023 05:49:49

-6dB Bandwidth NVNT ac80 5775MHz Ant1



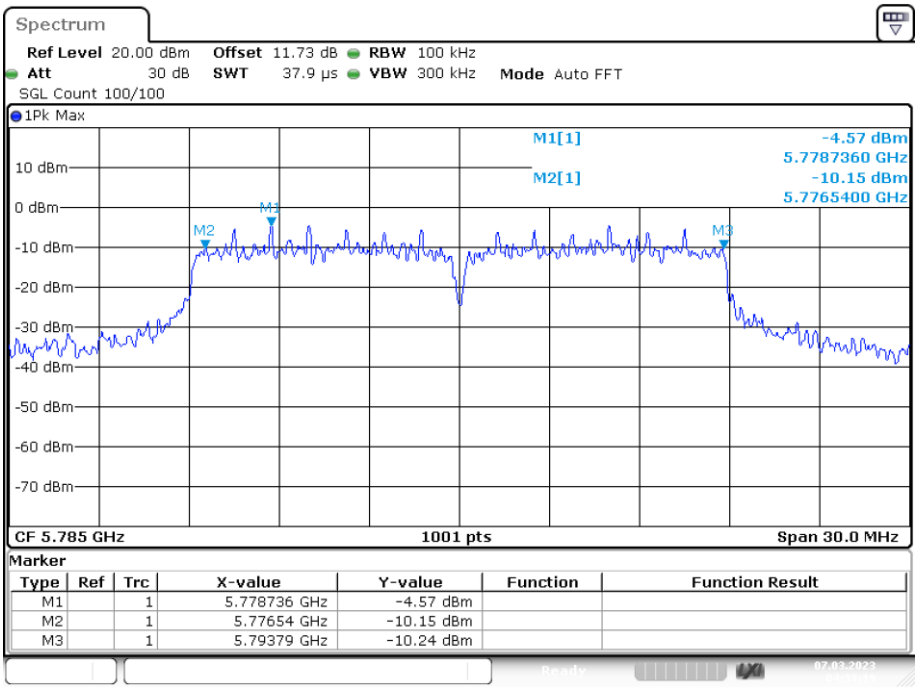
Date: 7.MAR.2023 05:54:39

-6dB Bandwidth NVNT n20 5745MHz Ant1



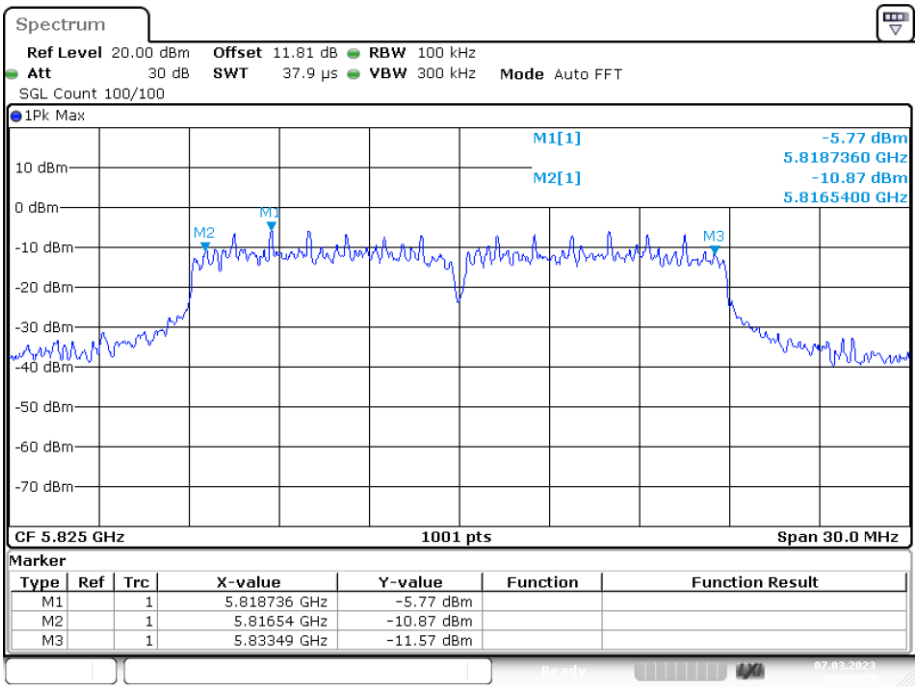
Date: 7.MAR.2023 04:29:43

-6dB Bandwidth NVNT n20 5785MHz Ant1



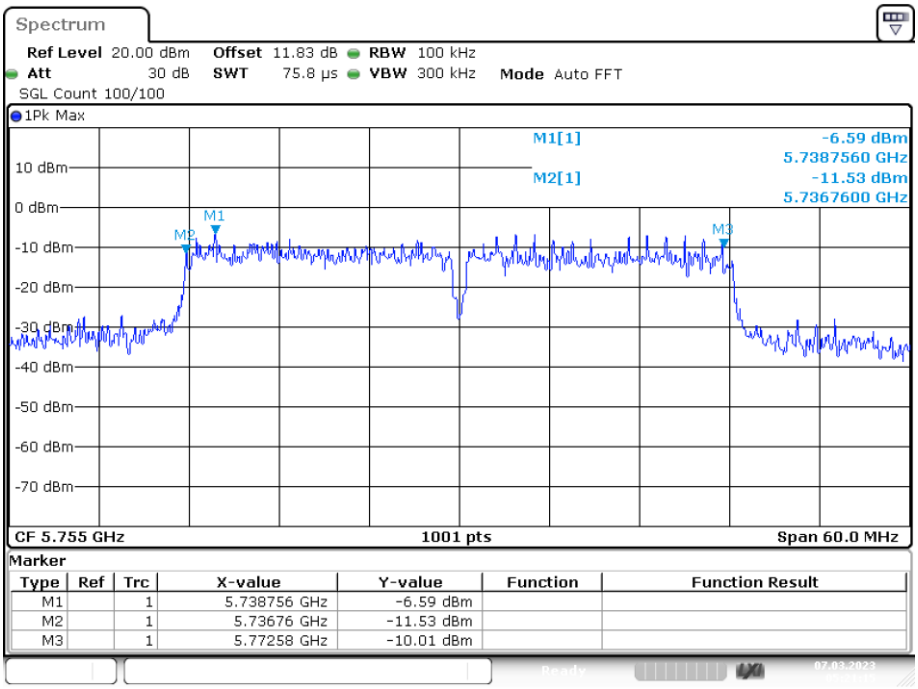
Date: 7.MAR.2023 04:33:19

-6dB Bandwidth NVNT n20 5825MHz Ant1



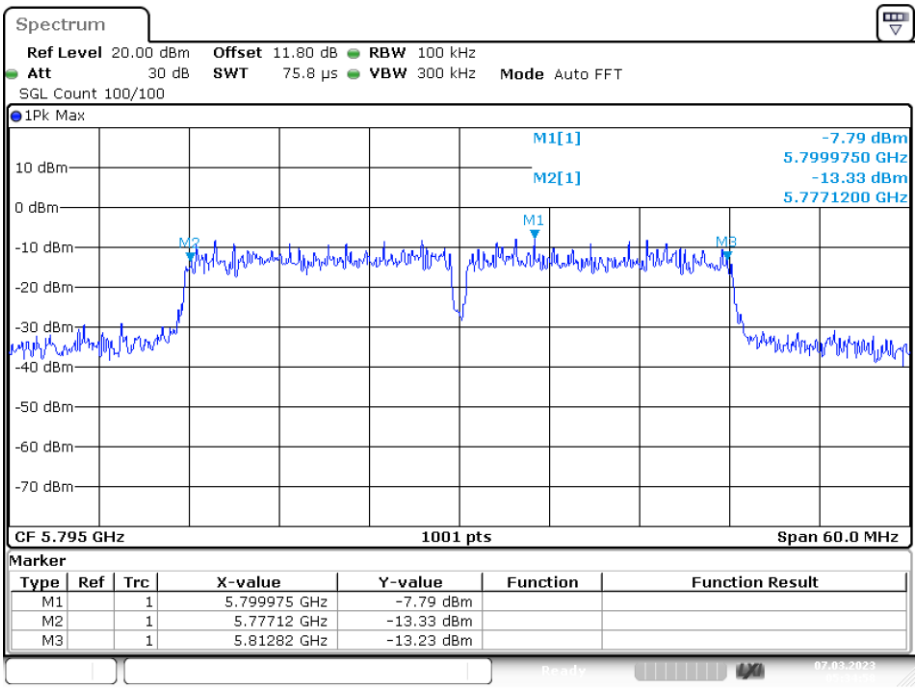
Date: 7.MAR.2023 04:38:52

-6dB Bandwidth NVNT n40 5755MHz Ant1



Date: 7.MAR.2023 05:21:14

-6dB Bandwidth NVNT n40 5795MHz Ant1

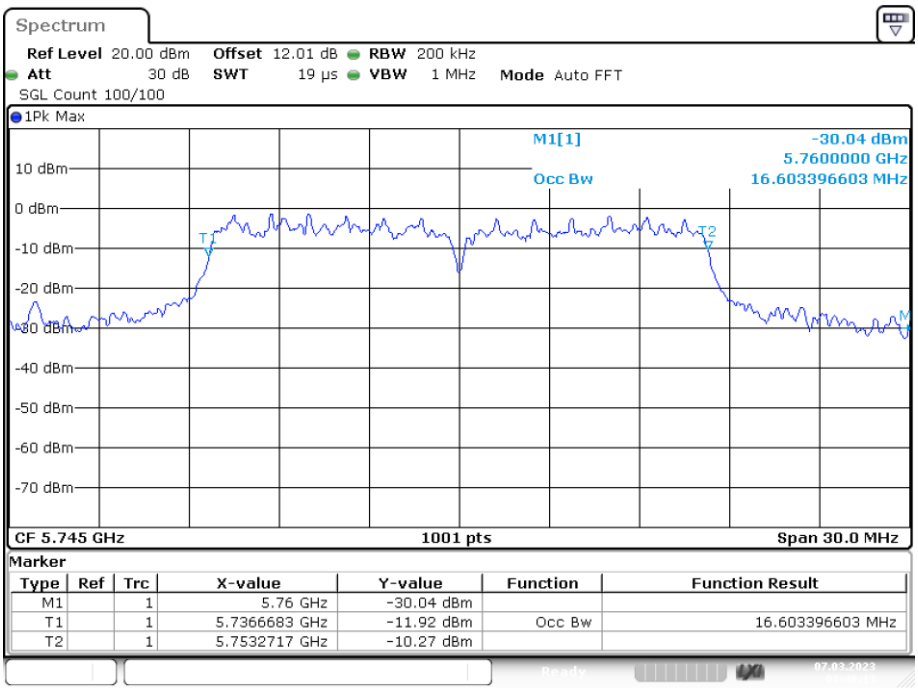


Date: 7.MAR.2023 05:34:57

Occupied Channel Bandwidth

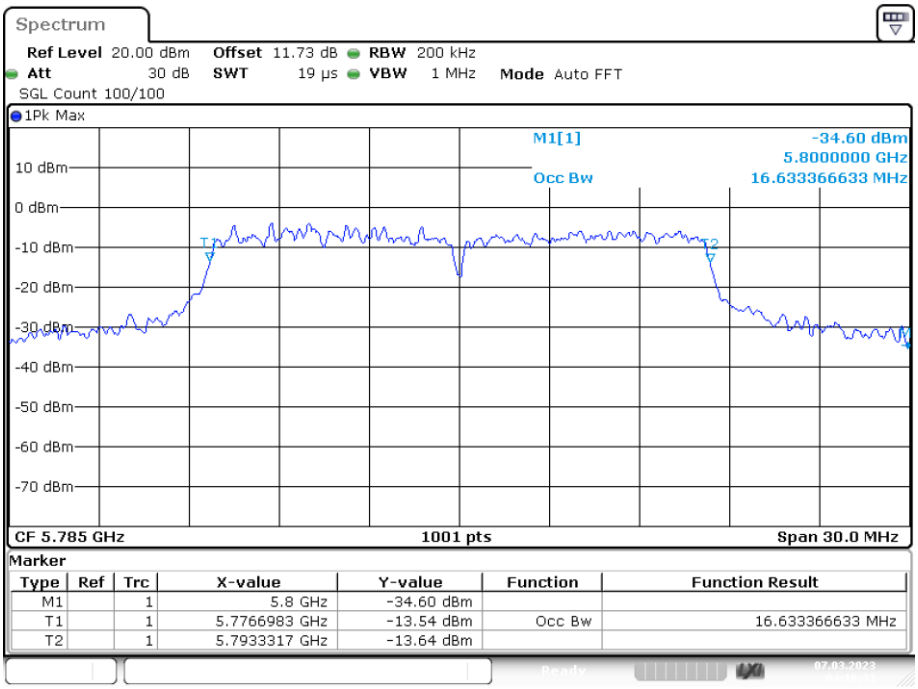
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5745	Ant1	16.603
NVNT	a	5785	Ant1	16.633
NVNT	a	5825	Ant1	16.633
NVNT	ac20	5745	Ant1	17.862
NVNT	ac20	5785	Ant1	17.802
NVNT	ac20	5825	Ant1	17.802
NVNT	ac40	5755	Ant1	36.683
NVNT	ac40	5795	Ant1	36.803
NVNT	ac80	5775	Ant1	77.562
NVNT	n20	5745	Ant1	17.772
NVNT	n20	5785	Ant1	17.772
NVNT	n20	5825	Ant1	17.742
NVNT	n40	5755	Ant1	36.563
NVNT	n40	5795	Ant1	36.743

OBW NVNT a 5745MHz Ant1



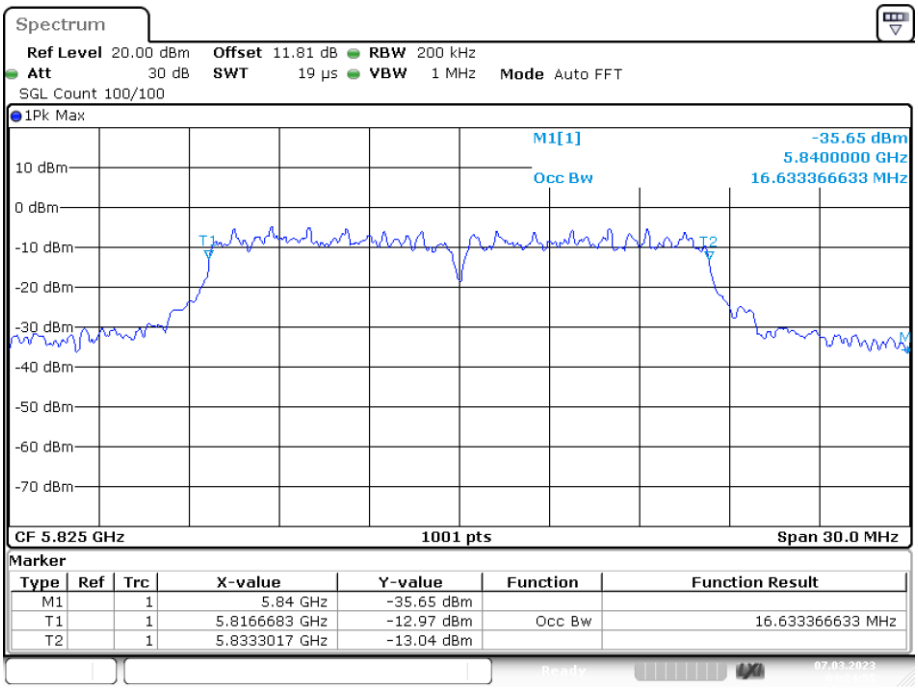
Date: 7.MAR.2023 03:40:13

OBW NVNT a 5785MHz Ant1



Date: 7.MAR.2023 04:10:33

OBW NVNT a 5825MHz Ant1



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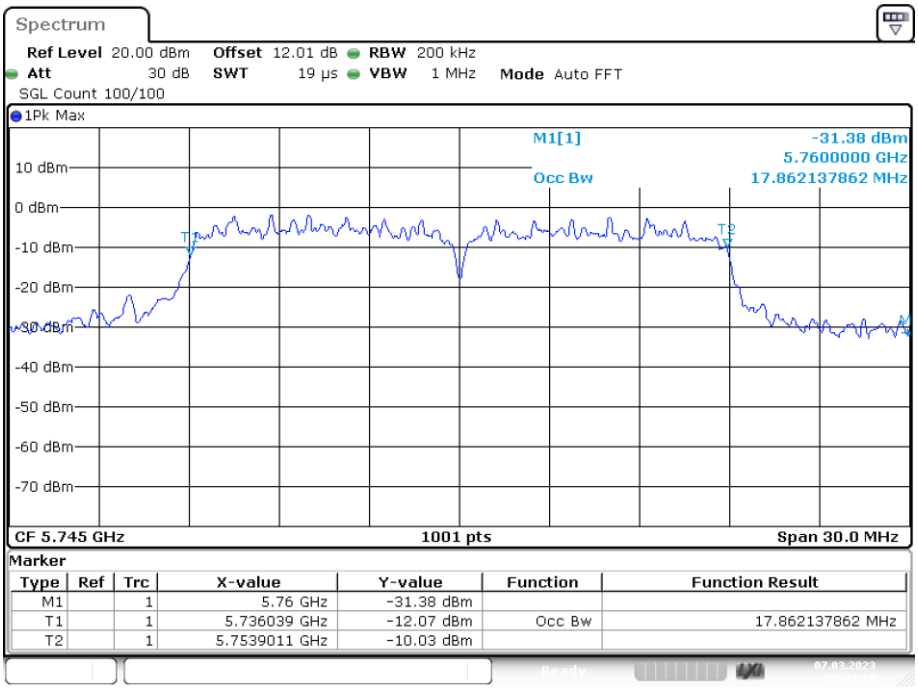
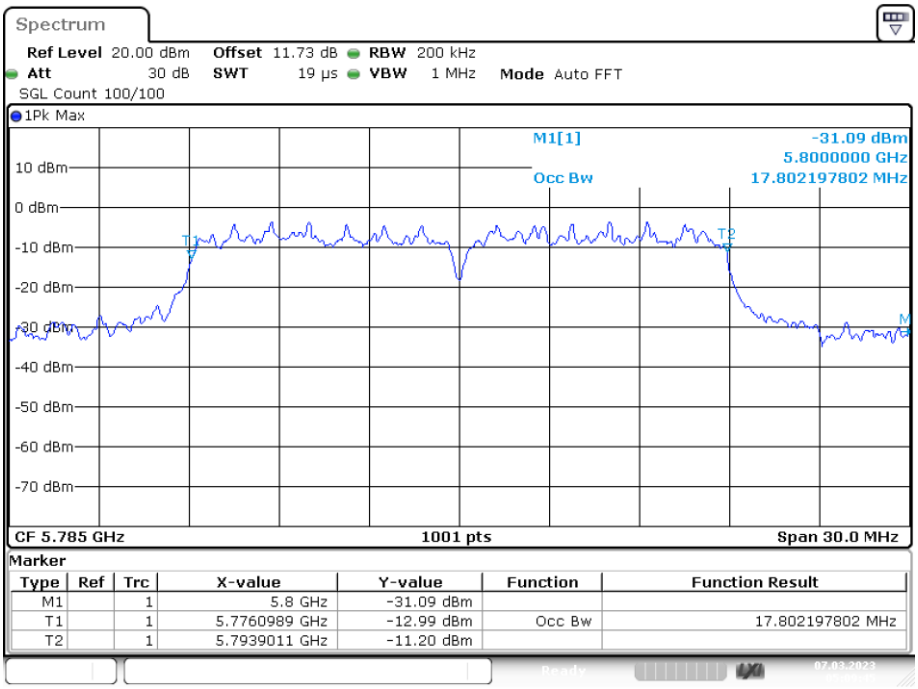
OBW NVNT ac20 5745MHz Ant1



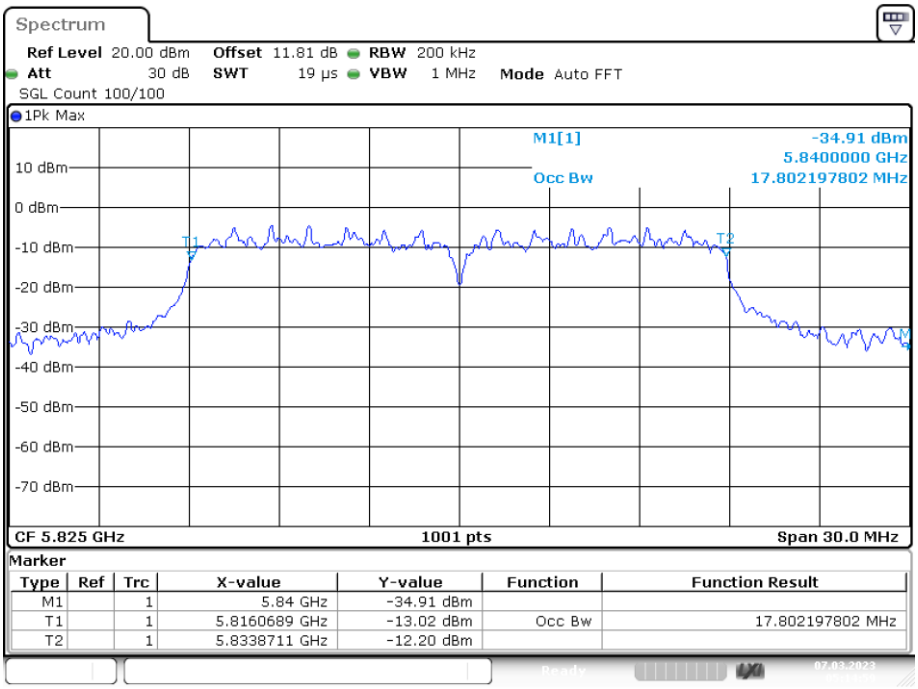
Date: 7.MAR.2023 04:47:18

OBW NVNT ac20 5785MHz Ant1



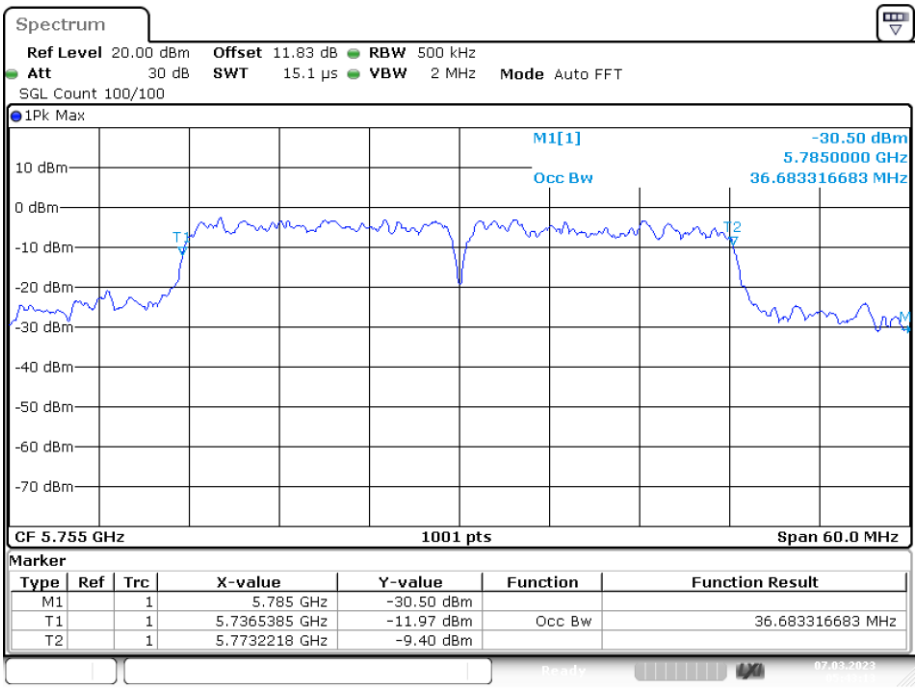
Date: 7.MAR.2023 05:09:44

OBW NVNT ac20 5825MHz Ant1



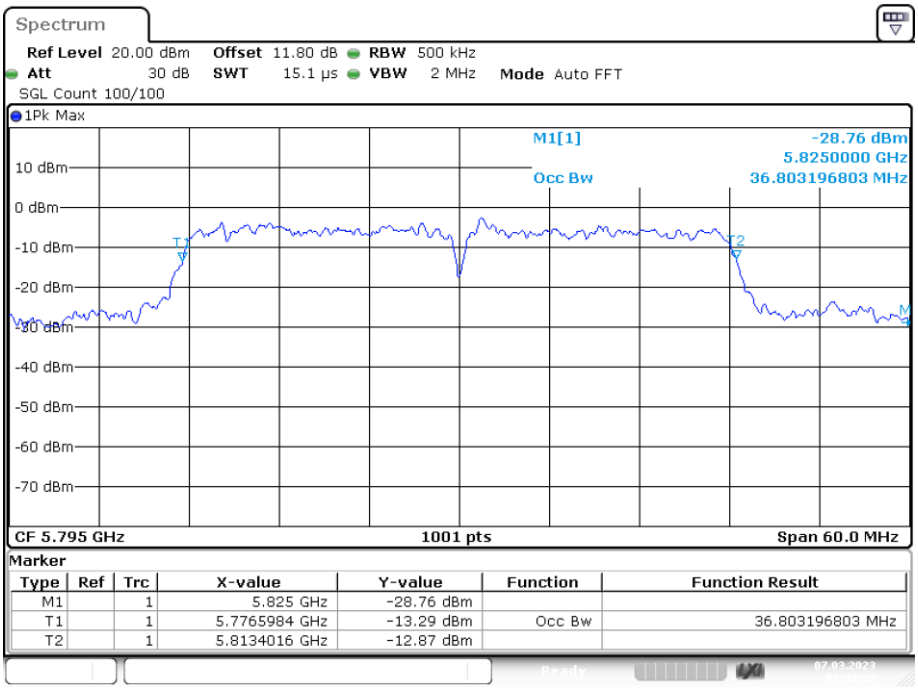
Date: 7.MAR.2023 05:14:58

OBW NVNT ac40 5755MHz Ant1



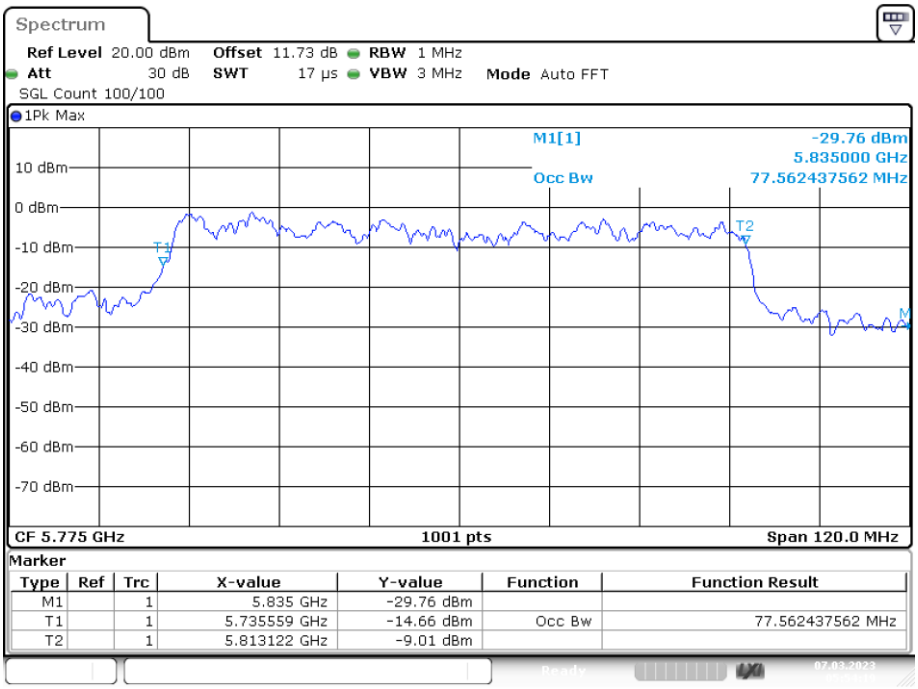
Date: 7.MAR.2023 05:43:13

OBW NVNT ac40 5795MHz Ant1



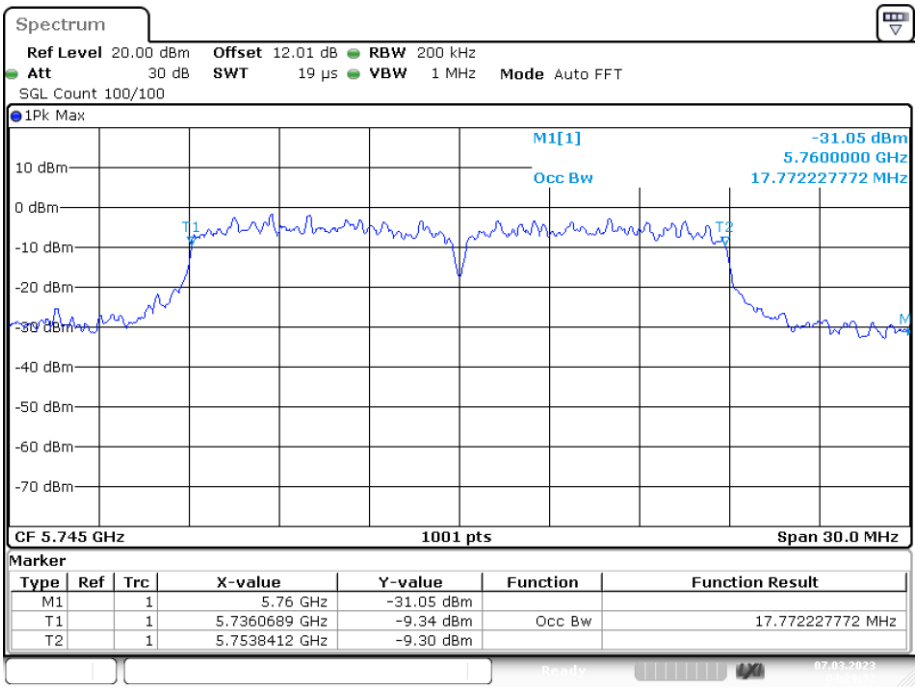
Date: 7.MAR.2023 05:49:32

OBW NVNT ac80 5775MHz Ant1



Date: 7.MAR.2023 05:54:19

OBW NVNT n20 5745MHz Ant1

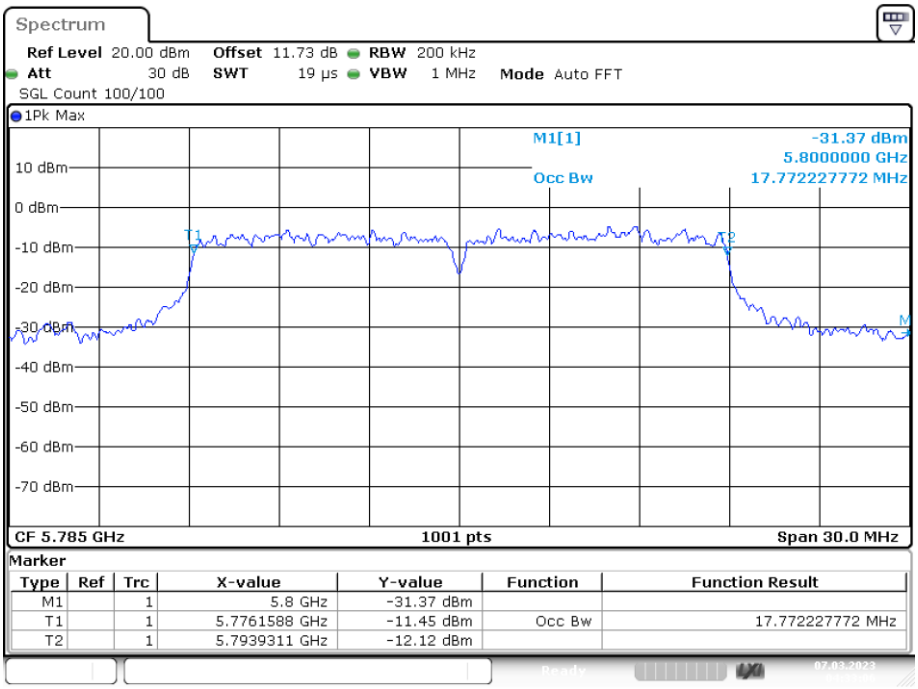


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.76 GHz	-31.05 dBm		
T1		1	5.7360689 GHz	-9.34 dBm	Occ Bw	17.772227772 MHz
T2		1	5.7538412 GHz	-9.30 dBm		

Date: 7.MAR.2023 04:29:31

OBW NVNT n20 5785MHz Ant1

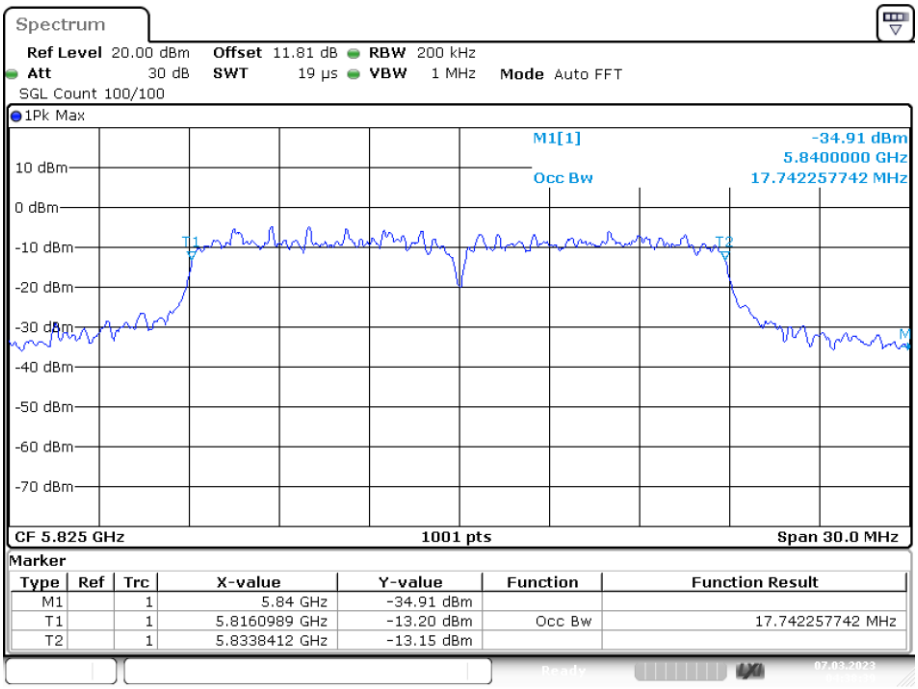


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.8 GHz	-31.37 dBm		
T1		1	5.7761588 GHz	-11.45 dBm	Occ Bw	17.772227772 MHz
T2		1	5.7939311 GHz	-12.12 dBm		

Date: 7.MAR.2023 04:33:05

OBW NVNT n20 5825MHz Ant1

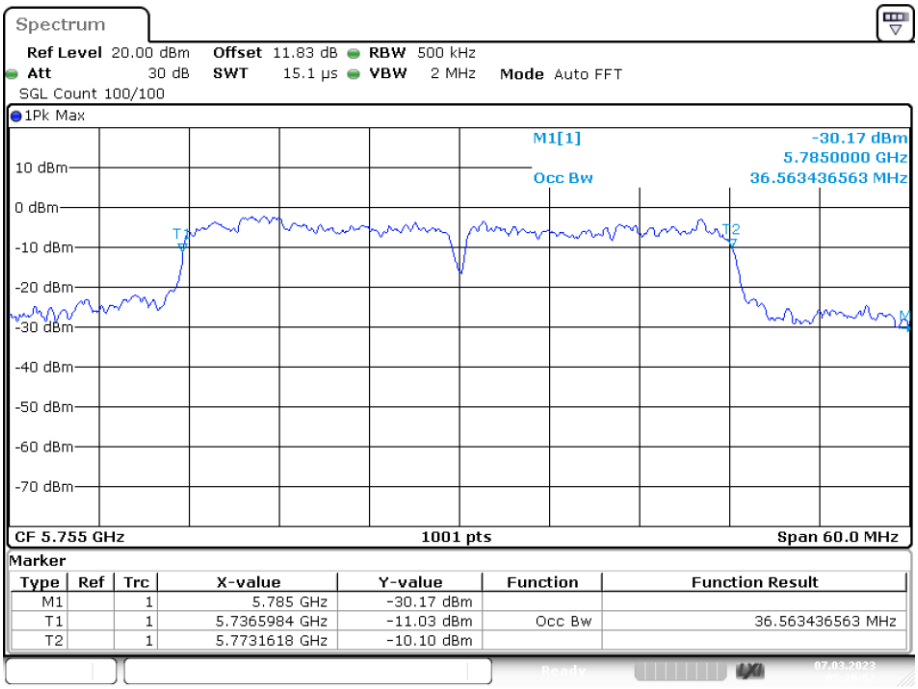


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.84 GHz	-34.91 dBm		
T1		1	5.8160989 GHz	-13.20 dBm	Occ Bw	17.742257742 MHz
T2		1	5.8338412 GHz	-13.15 dBm		

Date: 7.MAR.2023 04:38:39

OBW NVNT n40 5755MHz Ant1

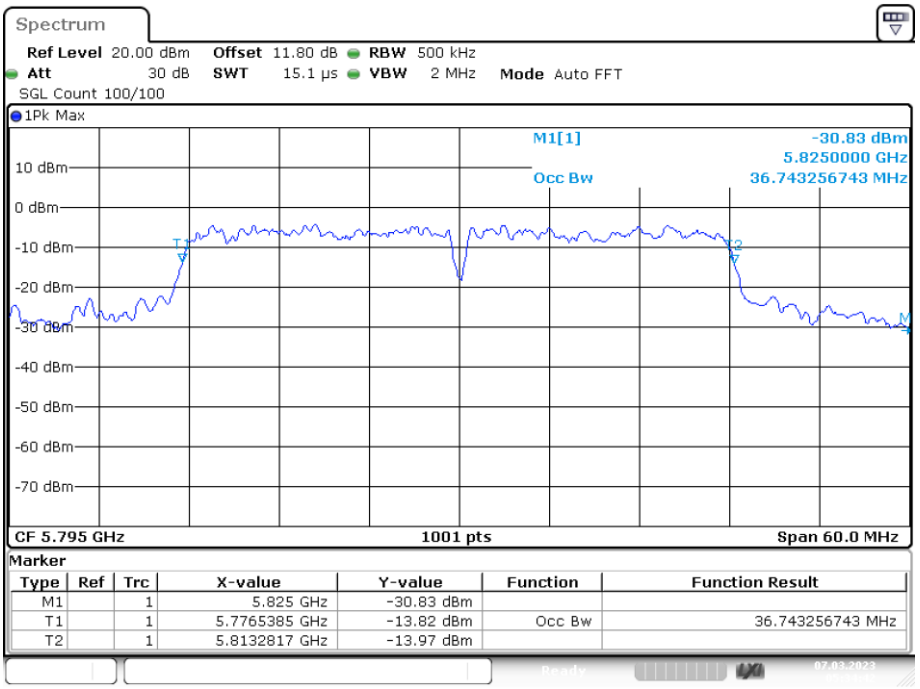


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.785 GHz	-30.17 dBm		
T1		1	5.7365984 GHz	-11.03 dBm	Occ Bw	36.563436563 MHz
T2		1	5.7731618 GHz	-10.10 dBm		

Date: 7.MAR.2023 05:20:52

OBW NVNT n40 5795MHz Ant1



Date: 7.MAR.2023 05:34:41

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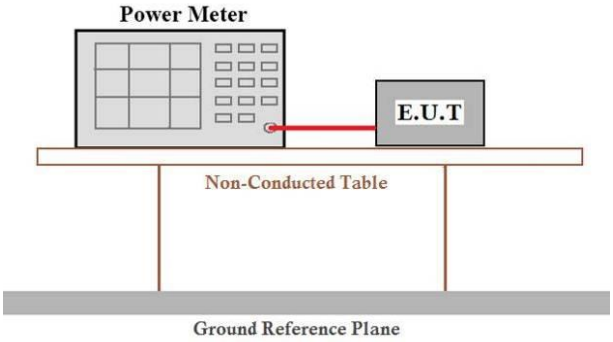
4.4 Peak Transmit Power

Test Requirement:	FCC Part15 E Section 15.407
Test Method:	KDB 789033 D02 General UNII Test Procedures New Rules v02r01
Limit:	For the band 5.15-5.25GHz, 5.25-5.35GHz, 5.47-5.725GHz, the maximum conducted output power over the frequency bands of operation shall not exceed 250mW. For the band 5.725-5.85GHz, the maximum conducted output power over the frequency bands of operation shall not exceed 1W.
Test setup:	
Test procedure:	**Measurement using an RF average power meter** (i) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied a) The EUT is configured to transmit continuously or to transmit with a constant duty cycle. b) At all times when the EUT is transmitting, it must be transmitting at its maximum power control level. c) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five. (ii) If the transmitter does not transmit continuously, measure the duty cycle, x, of the transmitter output signal as described in section B). (iii) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter. (iv) Adjust the measurement in dBm by adding 10 log(1/x) where x is the duty cycle (e.g., 10log(1/0.25) if the duty cycle is 25 percent).
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

Measurement Data

Band 1 (5150-5250 MHz)

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	16.134	0	16.134	24	Pass
NVNT	a	5200	Ant1	16.822	0	16.822	24	Pass
NVNT	a	5240	Ant1	16.254	0	16.254	24	Pass
NVNT	ac20	5180	Ant1	15.844	0	15.844	24	Pass
NVNT	ac20	5200	Ant1	16.070	0	16.070	24	Pass
NVNT	ac20	5240	Ant1	18.600	0	**18.600**	24	Pass
NVNT	ac40	5190	Ant1	16.699	0	16.699	24	Pass
NVNT	ac40	5230	Ant1	14.887	0	14.887	24	Pass
NVNT	ac80	5210	Ant1	12.691	0	12.691	24	Pass
NVNT	n20	5180	Ant1	15.659	0	15.659	24	Pass
NVNT	n20	5200	Ant1	16.351	0	16.351	24	Pass
NVNT	n20	5240	Ant1	18.294	0	18.294	24	Pass
NVNT	n40	5190	Ant1	13.376	0	13.376	24	Pass
NVNT	n40	5230	Ant1	15.096	0	15.096	24	Pass

Band 2 (5250 -5350 MHz)

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5260	Ant1	15.393	0	15.393	24	Pass
NVNT	a	5280	Ant1	16.152	0	16.152	24	Pass
NVNT	a	5320	Ant1	15.058	0	15.058	24	Pass
NVNT	ac20	5260	Ant1	15.619	0	15.619	24	Pass
NVNT	ac20	5280	Ant1	16.083	0	16.083	24	Pass
NVNT	ac20	5320	Ant1	14.858	0	14.858	24	Pass
NVNT	ac40	5270	Ant1	16.122	0	16.122	24	Pass
NVNT	ac40	5310	Ant1	12.624	0	12.624	24	Pass
NVNT	ac80	5290	Ant1	12.103	0	12.103	24	Pass
NVNT	n20	5260	Ant1	15.502	0	15.502	24	Pass
NVNT	n20	5280	Ant1	16.136	0	16.136	24	Pass
NVNT	n20	5320	Ant1	17.510	0	**17.510**	24	Pass
NVNT	n40	5270	Ant1	13.965	0	13.965	24	Pass
NVNT	n40	5310	Ant1	14.431	0	14.431	24	Pass

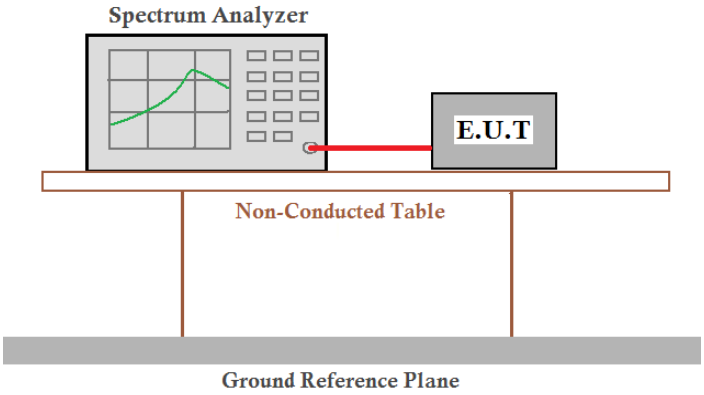
Band 3 (5740 -5725 MHz)

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5500	Ant1	18.041	0	18.041	24	Pass
NVNT	a	5580	Ant1	15.558	0	15.558	24	Pass
NVNT	a	5700	Ant1	13.679	0	13.679	24	Pass
NVNT	ac20	5500	Ant1	18.334	0	**18.334**	24	Pass
NVNT	ac20	5580	Ant1	17.321	0	17.321	24	Pass
NVNT	ac20	5700	Ant1	14.084	0	14.084	24	Pass
NVNT	ac40	5510	Ant1	16.778	0	16.778	24	Pass
NVNT	ac40	5670	Ant1	16.203	0	16.203	24	Pass
NVNT	ac80	5530	Ant1	16.746	0	16.746	24	Pass
NVNT	n20	5500	Ant1	18.229	0	18.229	24	Pass
NVNT	n20	5580	Ant1	16.483	0	16.483	24	Pass
NVNT	n20	5700	Ant1	14.009	0	14.009	24	Pass
NVNT	n40	5510	Ant1	16.630	0	16.630	24	Pass
NVNT	n40	5670	Ant1	16.349	0	16.349	24	Pass

Band 4 (5725 – 5850 MHz)

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	16.017	0	**16.017**	30	Pass
NVNT	a	5785	Ant1	13.856	0	13.856	30	Pass
NVNT	a	5825	Ant1	12.743	0	12.743	30	Pass
NVNT	ac20	5745	Ant1	15.380	0	15.380	30	Pass
NVNT	ac20	5785	Ant1	14.227	0	14.227	30	Pass
NVNT	ac20	5825	Ant1	12.698	0	12.698	30	Pass
NVNT	ac40	5755	Ant1	15.466	0	15.466	30	Pass
NVNT	ac40	5795	Ant1	14.747	0	14.747	30	Pass
NVNT	ac80	5775	Ant1	15.251	0	15.251	30	Pass
NVNT	n20	5745	Ant1	15.675	0	15.675	30	Pass
NVNT	n20	5785	Ant1	13.855	0	13.855	30	Pass
NVNT	n20	5825	Ant1	12.850	0	12.850	30	Pass
NVNT	n40	5755	Ant1	15.413	0	15.413	30	Pass
NVNT	n40	5795	Ant1	14.452	0	14.452	30	Pass

4.5 Power Spectral Density

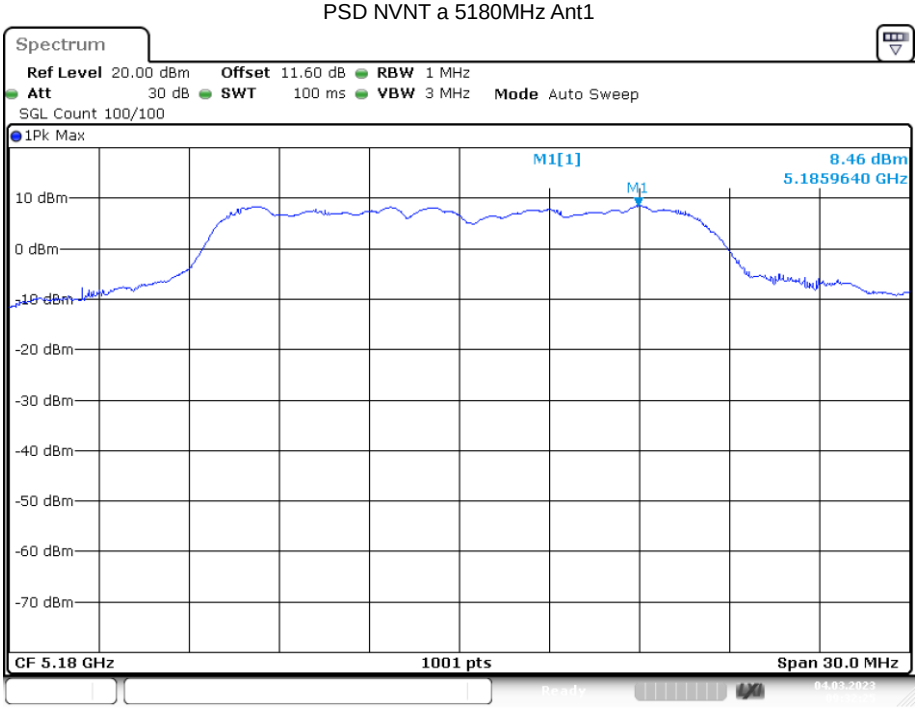
Test Requirement:	FCC Part15 E Section 15.407
Test Method:	KDB 789033 D02 General UNII Test Procedures New Rules v02r01
Limit:	≤11.00dBm/MHz for 5150MHz-5250MHz, 5250-5350MHz and 5470-5725 MHz ≤30.00dBm/500KHz for 5725MHz-5850MHz
Test setup:	
Test procedure:	1) Create an average power spectrum for the EUT operating mode being tested by following the instructions in section E)2) for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA-1, SA-2, SA-3, or alternatives to each) and apply it up to, but not including, the step labeled, “Compute power…”. 2) Use the peak search function on the instrument to find the peak of the spectrum. 3) Make the following adjustments to the peak value of the spectrum, if applicable: 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 step 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 PSD.
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

Measurement Data

Band 1 (5150-5250 MHz)

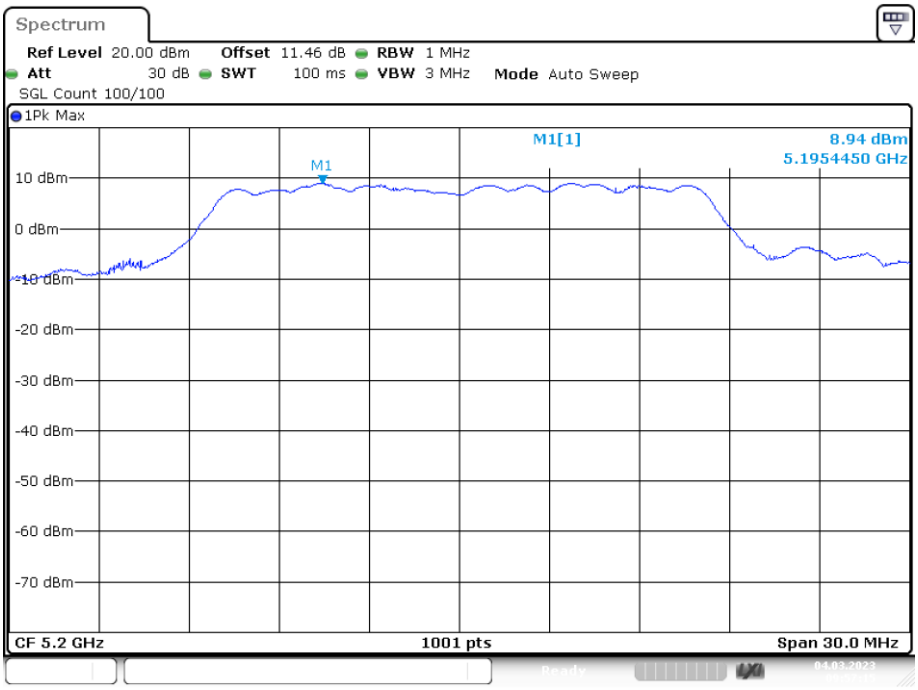
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	8.462	11	Pass
NVNT	a	5200	Ant1	8.945	11	Pass
NVNT	a	5240	Ant1	9.275	11	Pass
NVNT	ac20	5180	Ant1	8.906	11	Pass
NVNT	ac20	5200	Ant1	8.769	11	Pass
NVNT	ac20	5240	Ant1	10.997	11	Pass
NVNT	ac40	5190	Ant1	5.656	11	Pass
NVNT	ac40	5230	Ant1	4.594	11	Pass
NVNT	ac80	5210	Ant1	1.066	11	Pass
NVNT	n20	5180	Ant1	8.13	11	Pass
NVNT	n20	5200	Ant1	8.889	11	Pass
NVNT	n20	5240	Ant1	10.66	11	Pass
NVNT	n40	5190	Ant1	3.083	11	Pass
NVNT	n40	5230	Ant1	5.309	11	Pass

PSD NVNT a 5180MHz Ant1



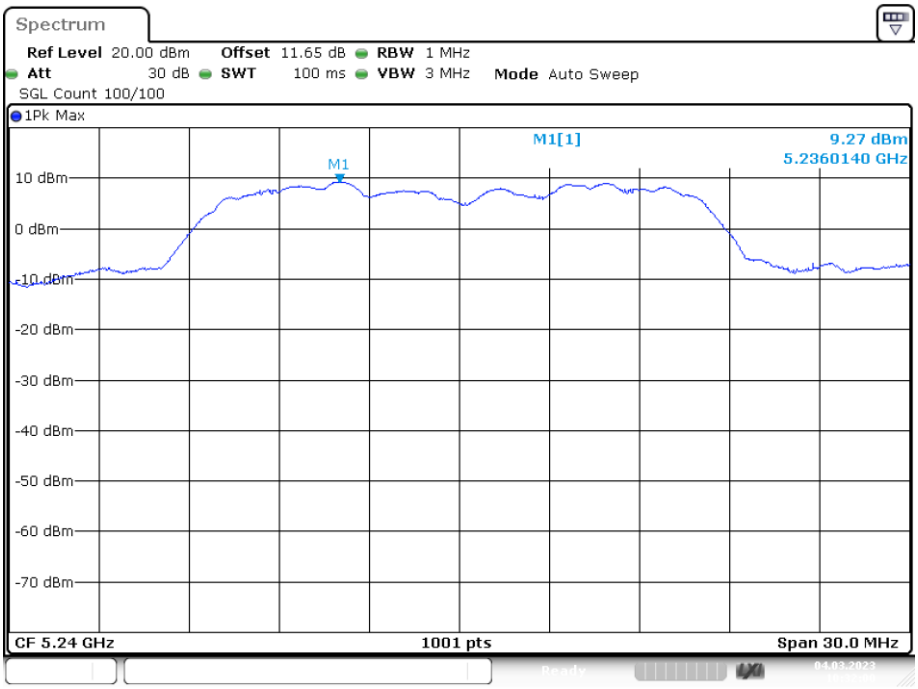
Date: 4.MAR.2023 09:32:25

PSD NVNT a 5200MHz Ant1



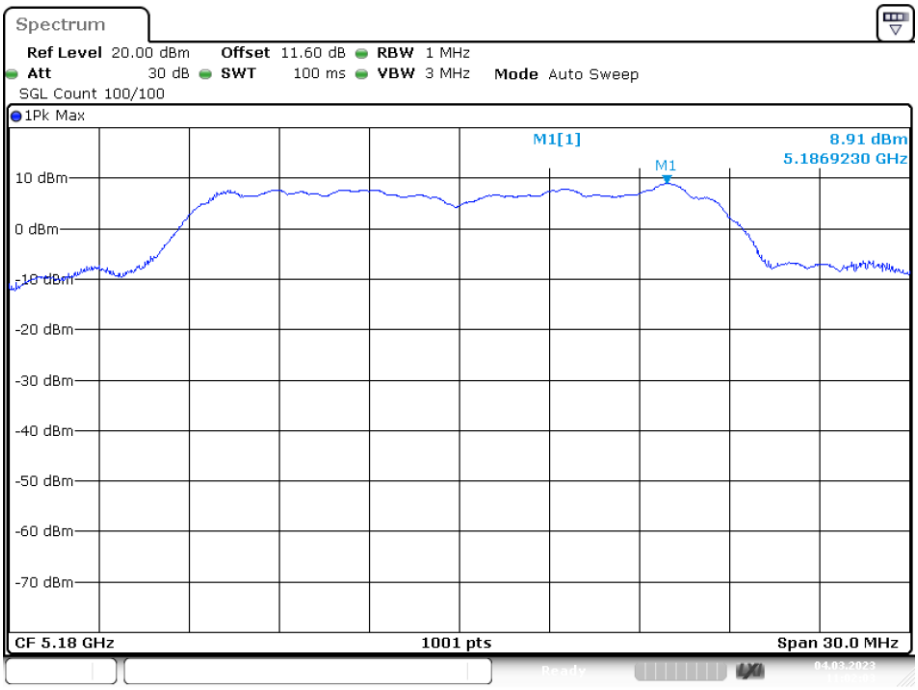
Date: 4.MAR.2023 09:57:15

PSD NVNT a 5240MHz Ant1



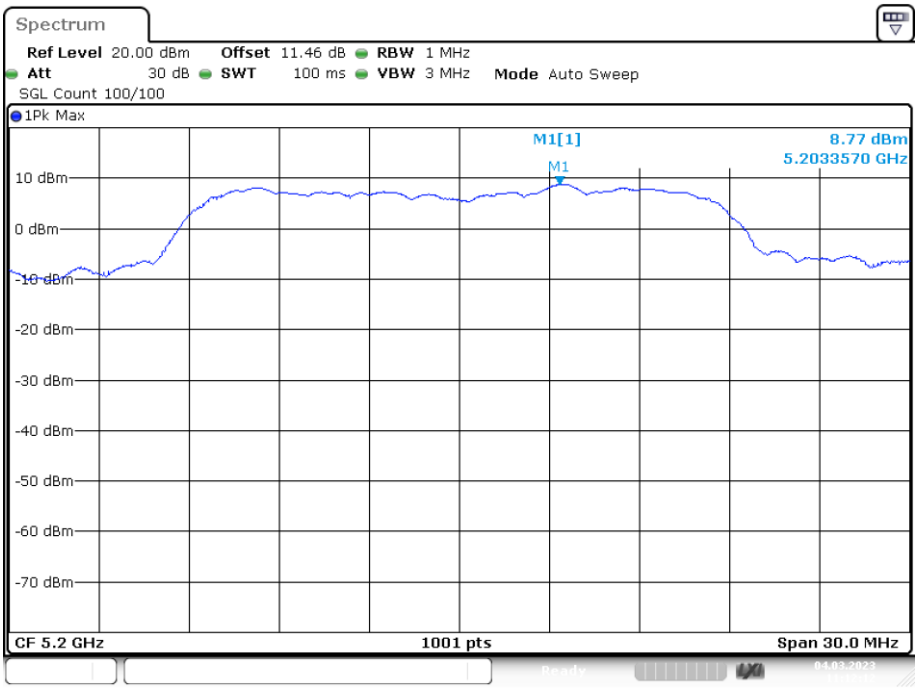
Date: 4.MAR.2023 10:31:59

PSD NVNT ac20 5180MHz Ant1



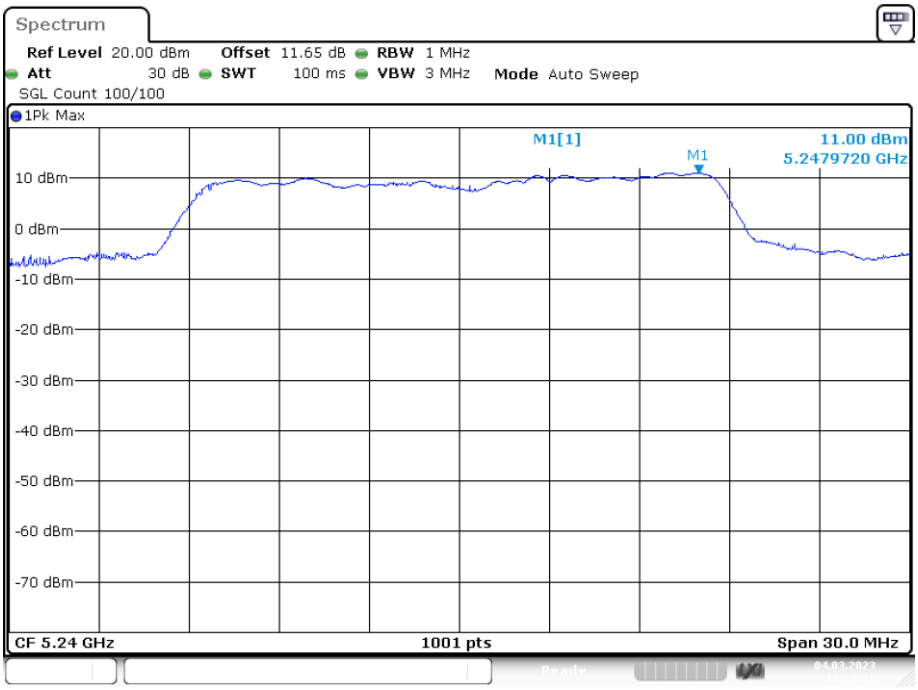
Date: 4.MAR.2023 11:02:03

PSD NVNT ac20 5200MHz Ant1



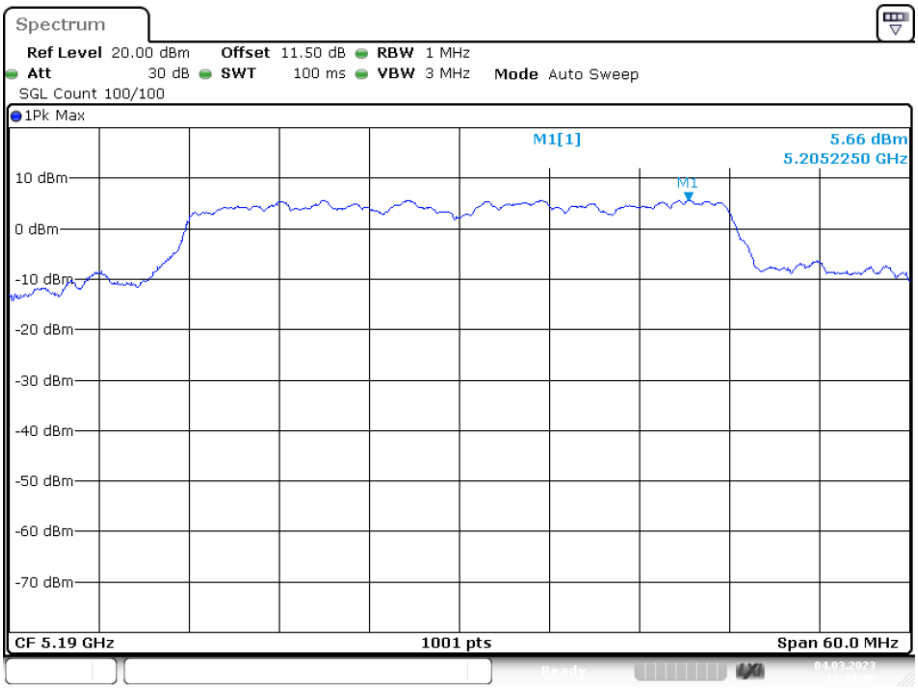
Date: 4.MAR.2023 11:12:11

PSD NVNT ac20 5240MHz Ant1



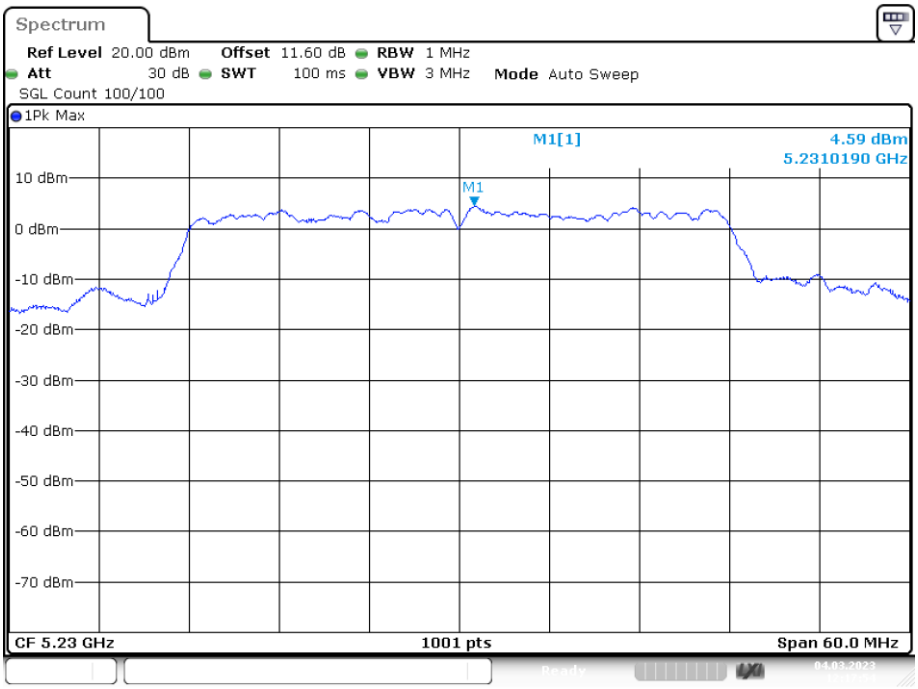
Date: 4.MAR.2023 11:25:19

PSD NVNT ac40 5190MHz Ant1



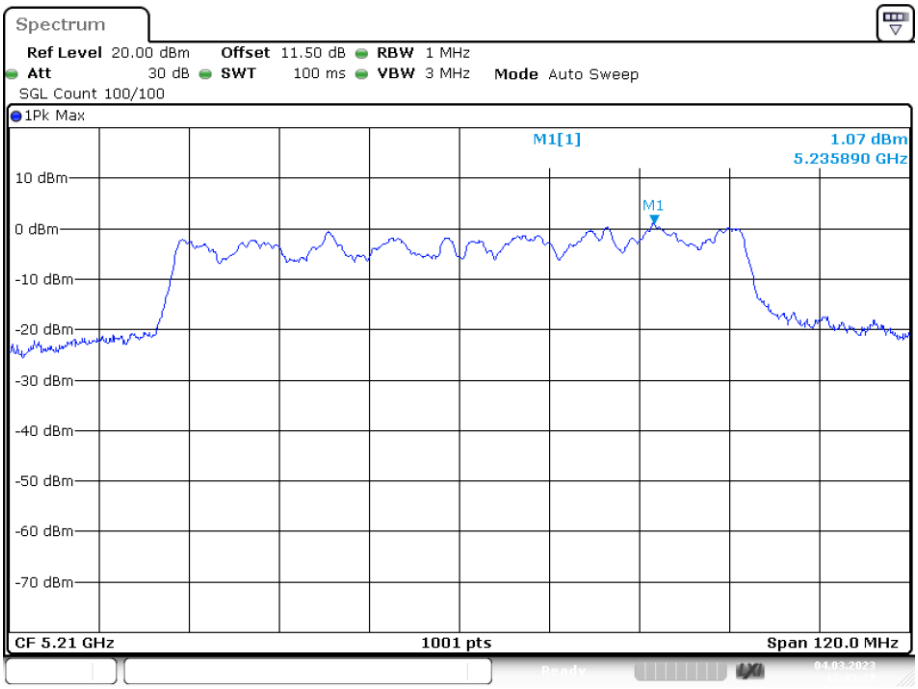
Date: 4.MAR.2023 12:11:40

PSD NVNT ac40 5230MHz Ant1



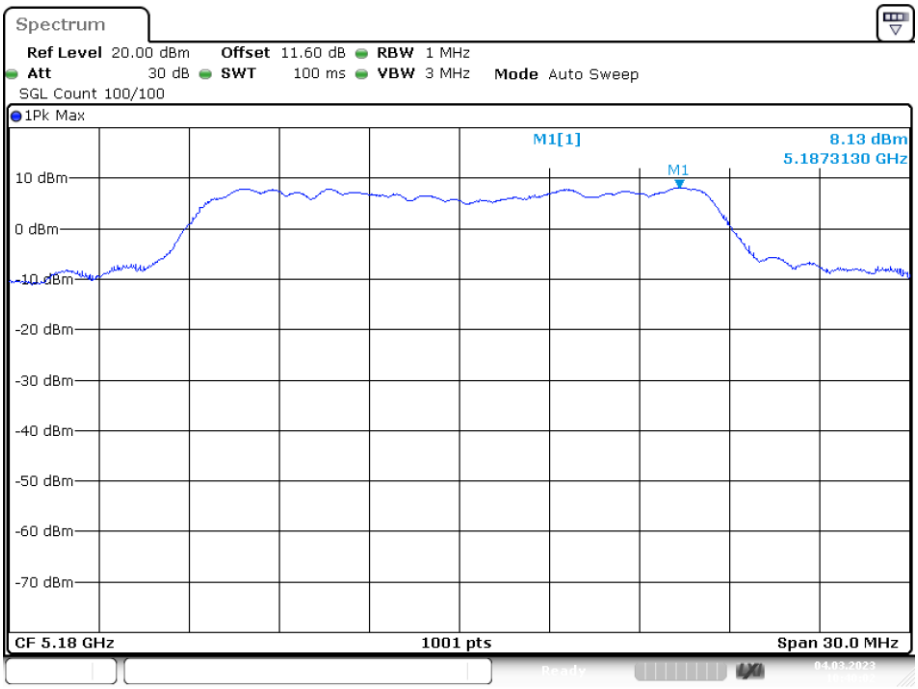
Date: 4.MAR.2023 12:17:55

PSD NVNT ac80 5210MHz Ant1



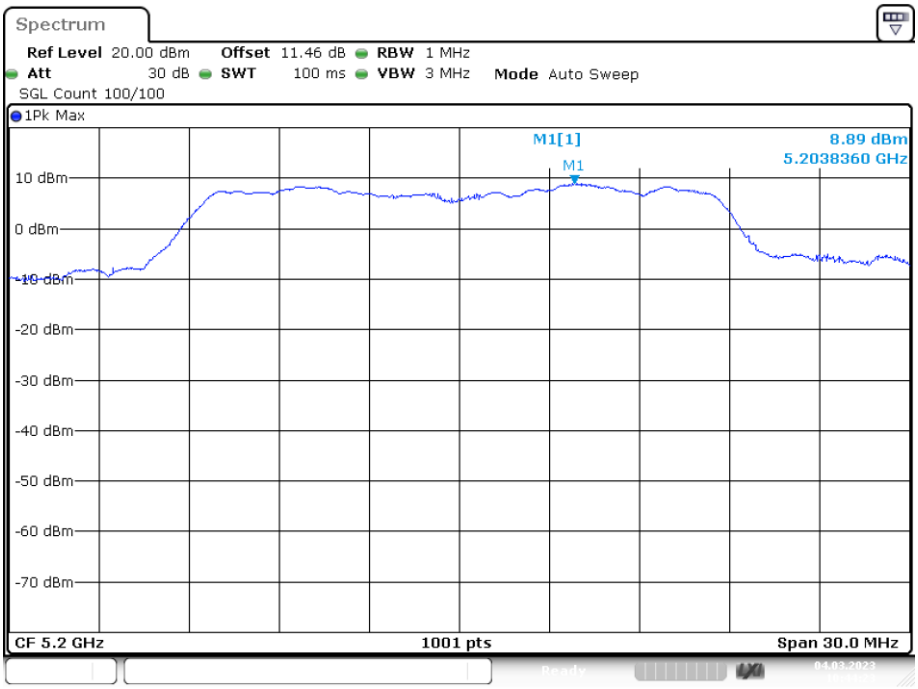
Date: 4.MAR.2023 12:33:26

PSD NVNT n20 5180MHz Ant1



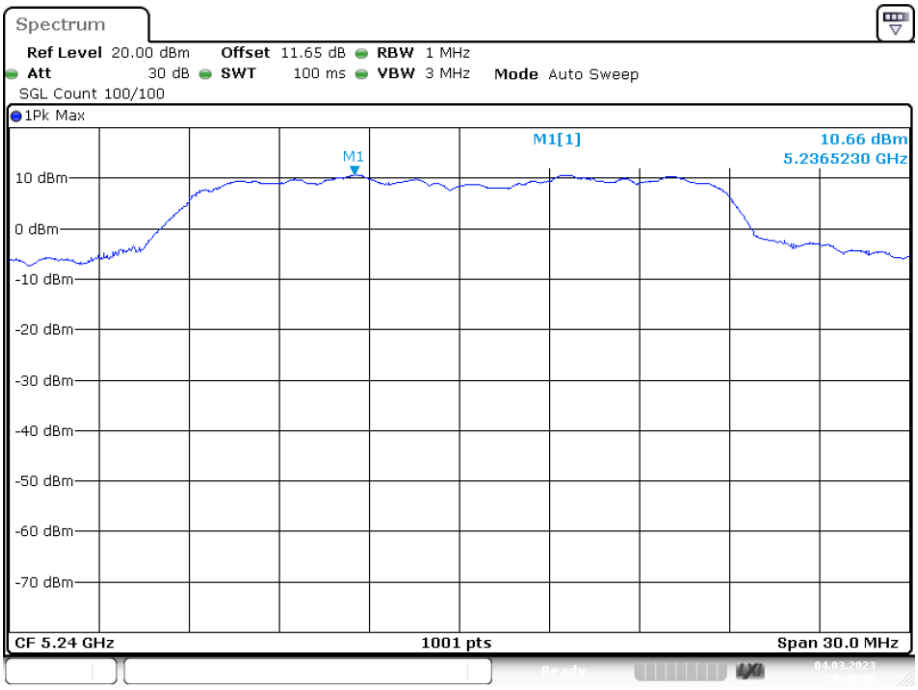
Date: 4.MAR.2023 10:40:02

PSD NVNT n20 5200MHz Ant1



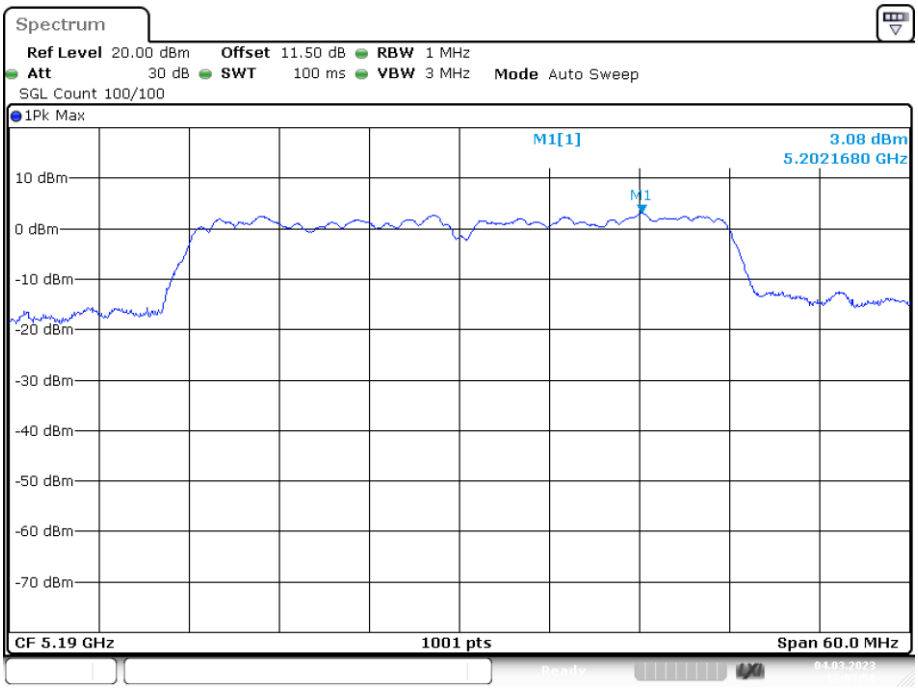
Date: 4.MAR.2023 10:44:23

PSD NVNT n20 5240MHz Ant1



Date: 4.MAR.2023 10:48:08

PSD NVNT n40 5190MHz Ant1



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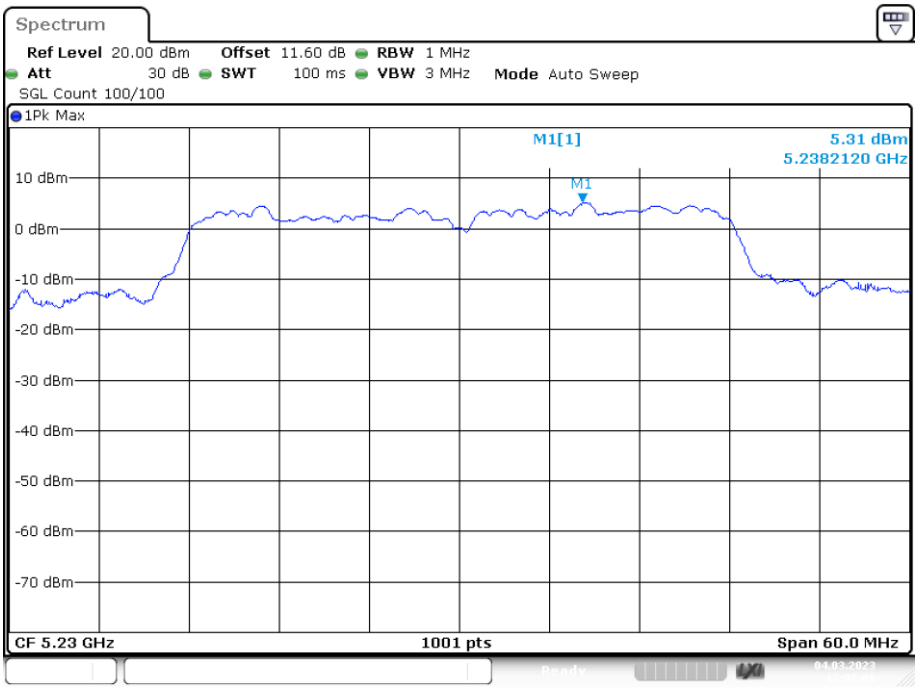
PSD NVNT n40 5230MHz Ant1

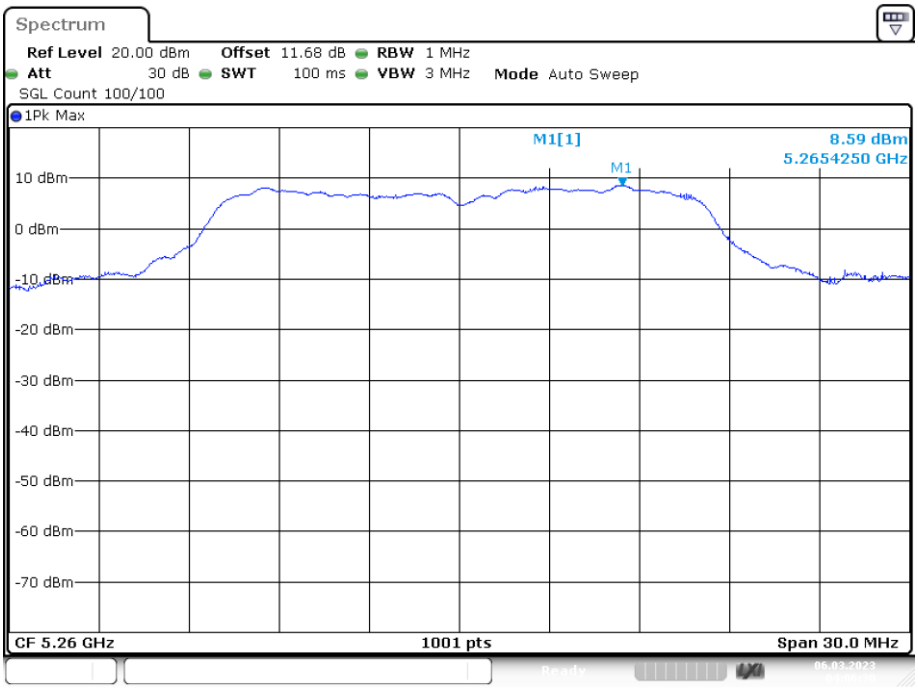


Date: 4.MAR.2023 12:07:09

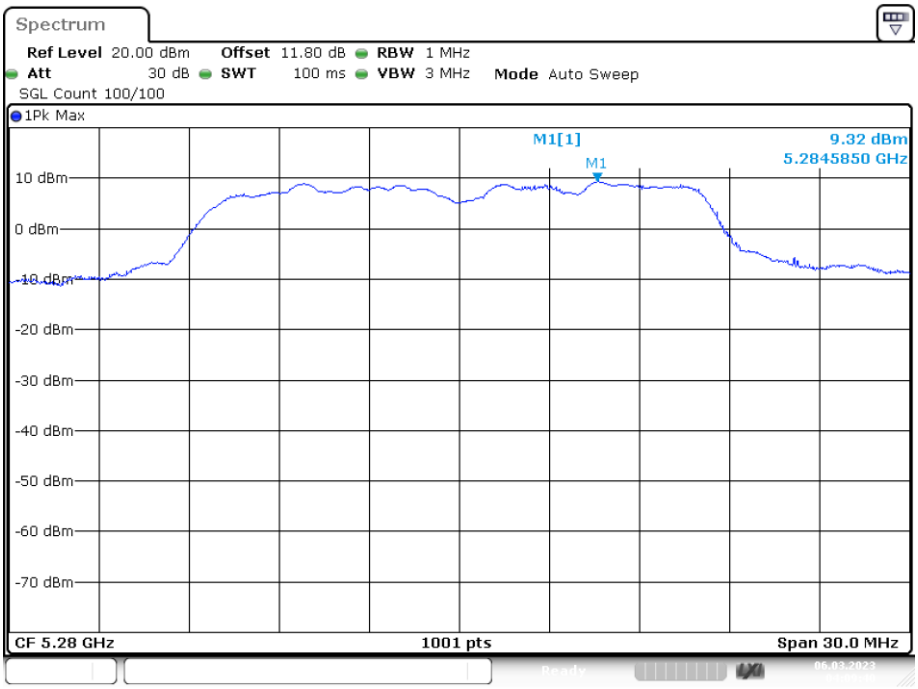
Band 2 (5250 -5350 MHz)

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5260	Ant1	8.593	11	Pass
NVNT	a	5280	Ant1	9.323	11	Pass
NVNT	a	5320	Ant1	7.325	11	Pass
NVNT	ac20	5260	Ant1	8.159	11	Pass
NVNT	ac20	5280	Ant1	8.227	11	Pass
NVNT	ac20	5320	Ant1	7.994	11	Pass
NVNT	ac40	5270	Ant1	6.141	11	Pass
NVNT	ac40	5310	Ant1	2.339	11	Pass
NVNT	ac80	5290	Ant1	0.128	11	Pass
NVNT	n20	5260	Ant1	7.468	11	Pass
NVNT	n20	5280	Ant1	8.253	11	Pass
NVNT	n20	5320	Ant1	10.72	11	Pass
NVNT	n40	5270	Ant1	2.897	11	Pass
NVNT	n40	5310	Ant1	4.868	11	Pass

PSD NVNT a 5260MHz Ant1

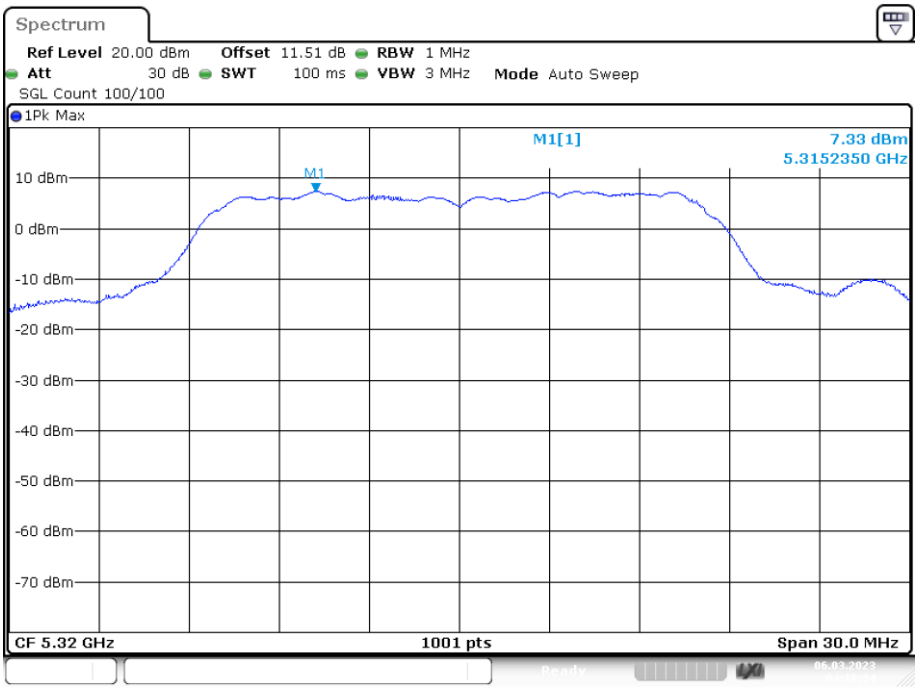


PSD NVNT a 5280MHz Ant1



Date: 6.MAR.2023 04:09:40

PSD NVNT a 5320MHz Ant1



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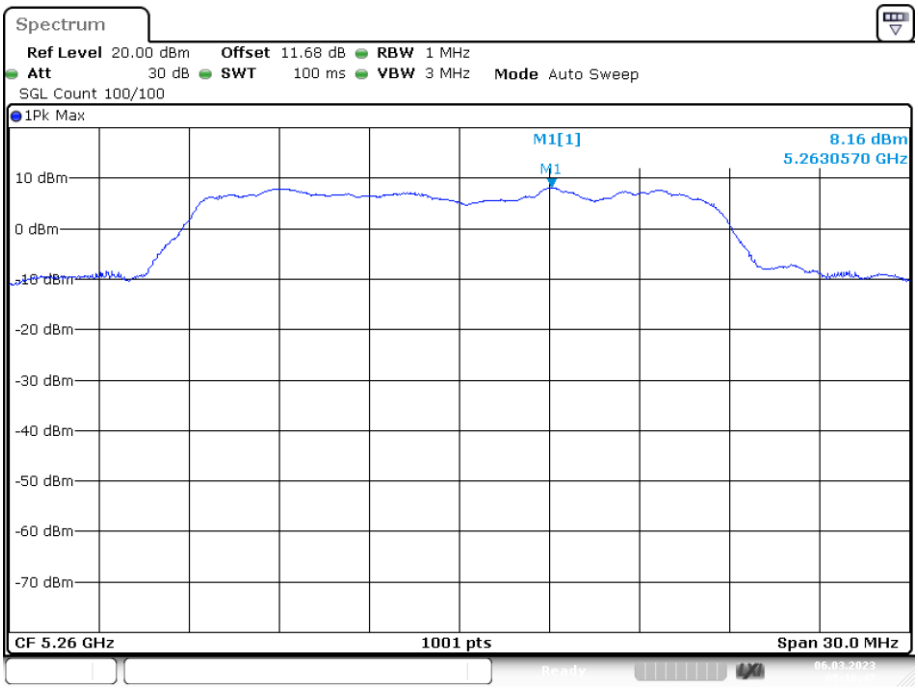
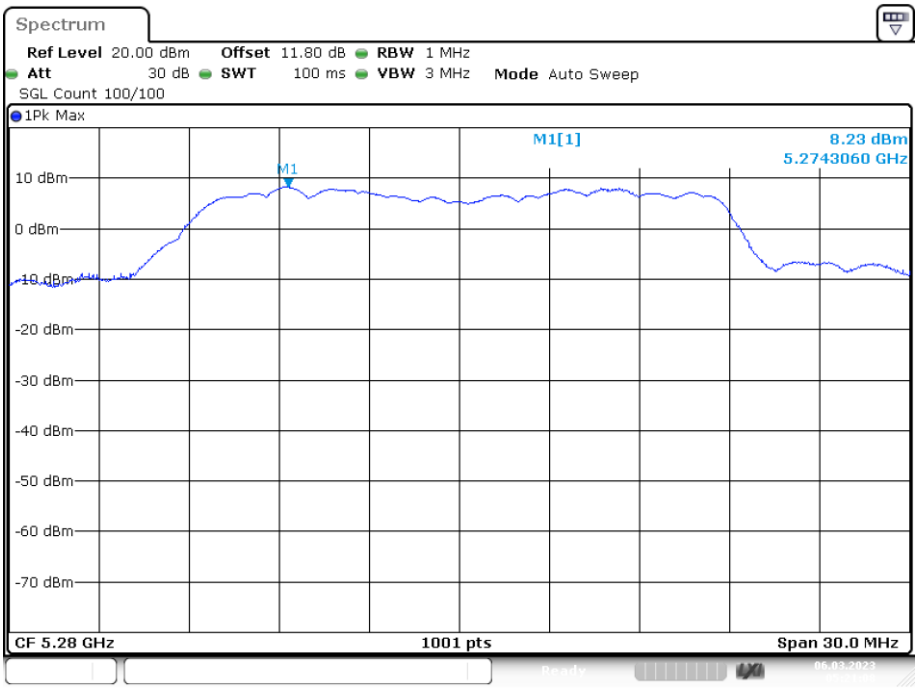
PSD NVNT ac20 5260MHz Ant1



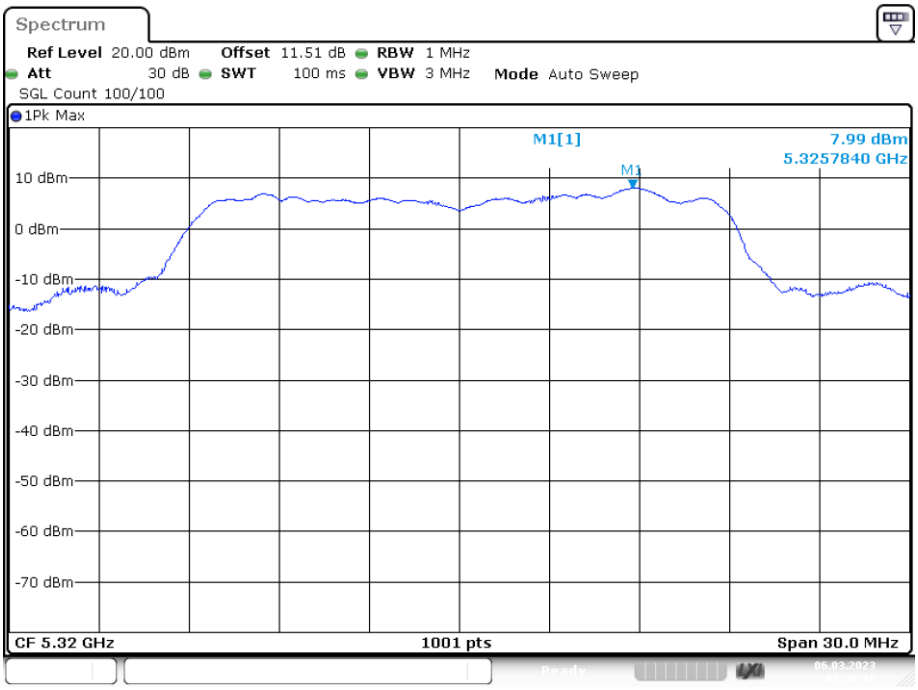
Date: 6.MAR.2023 05:16:47

PSD NVNT ac20 5280MHz Ant1



Date: 6.MAR.2023 05:21:08

PSD NVNT ac20 5320MHz Ant1



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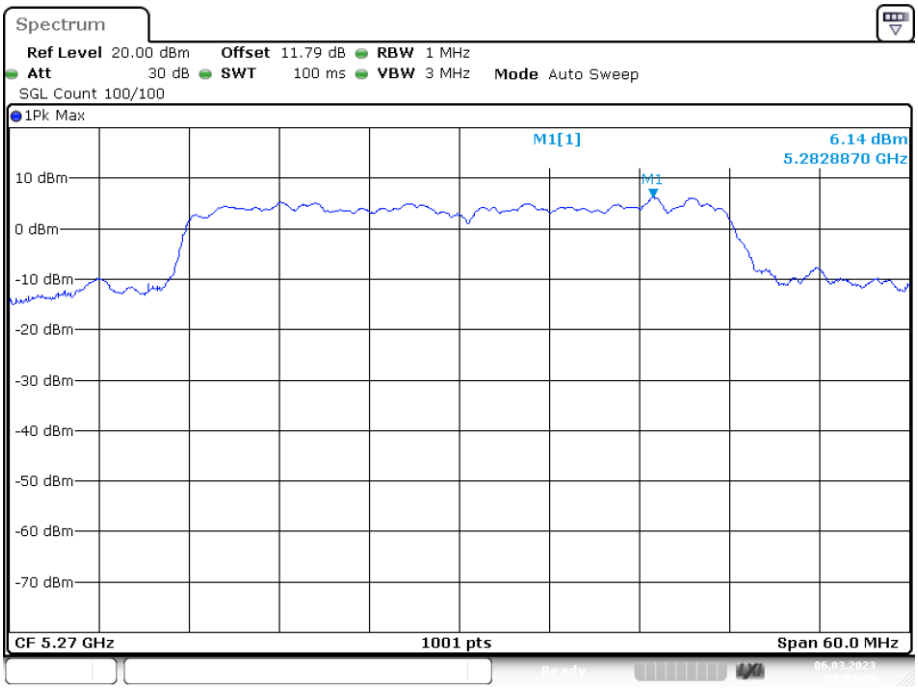
PSD NVNT ac40 5270MHz Ant1



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