FCC TEST REPORT

FCC ID: 2A936-FUS80

On Behalf of

Nutrits Ltd.

Baby Monitor

Model No.: FUS8010110, FUS8090110

Prepared for	:	Nutrits Ltd.
Address	:	Derech Begin st. 125, Tel-Aviv, Israel 6107121

Prepared By	:	Shenzhen Alpha Product Testing Co., Ltd.
Address	:	Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

Report Number	:	A2209204-C01-R05
Date of Receipt	:	November 10, 2022
Date of Test	:	November 11, 2022-December 26, 2022
Date of Report	:	December 27, 2022
Version Number	:	V0

ALPHA's reports is using a digital certificate that is trusted on Adobe's official server. If there is no digital certificate or the digital certificate shows damaged in your report. Please do not accept the report.

E-mail: service@a-lab.cn Tel: 4008300895 Website: http://www.a-lab.cn/certificate

TABLE OF CONTENTS

Description	Page
1 TEST SUMMARY	**5**
1.1 MEASUREMENT UNCERTAINTY	5
2 GENERAL INFORMATION	**6**
2.1 GENERAL DESCRIPTION OF EUT	6
2.2 TEST MODE	7
2.3 TEST FACILITY	7
2.4 DESCRIPTION OF SUPPORT UNITS	7
2.5 DEVIATION FROM STANDARDS	7
2.6 ABNORMALITIES FROM STANDARD CONDITIONS	7
2.7 OTHER INFORMATION REQUESTED BY THE CUSTOMER	7
2.8 ADDITIONAL INSTRUCTIONS	7
3 TEST INSTRUMENTS LIST	**8**
4 TEST RESULTS AND MEASUREMENT DATA	**9**
4.1 ANTENNA REQUIREMENT:	9
4.2 CONDUCTED EMISSIONS	10
4.3 EMISSION BANDWIDTH AND 99% OCCUPIED BANDWIDTH	13
4.4 PEAK TRANSMIT POWER	74
4.5 POWER SPECTRAL DENSITY	77
4.6 BAND EDGE	110
4.7 RADIATED EMISSION	132
4.8 FREQUENCY STABILITY	139

TEST REPORT DECLARATION

Applicant	:	Nutrits Ltd.
Address	:	Derech Begin st. 125, Tel-Aviv, Israel 6107121
Manufacturer	:	Nutrits Ltd.
Address	:	Derech Begin st. 125, Tel-Aviv, Israel 6107121
EUT Description	:	Baby Monitor
		(A) Model No. : FUS8010110, FUS8090110
		(B) Trademark : N/A

Measurement Standard Used:

FCC Rules and Regulations Part 15 Subpart E

ANSI C63.4:2014, ANSI C63.10:2013

The device described above is tested by Shenzhen Alpha Product Testing Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart E limits both conducted and radiated emissions. The test results are contained in this test report and Shenzhen Alpha Product Testing Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

After the test, our opinion is that EUT compliance with the requirement of the above standards.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen Alpha Product Testing Co., Ltd.

Tested by (name + signature).....:	Lucas Pang Project Engineer	Lucas Pang
Approved by (name + signature)…....:	Jack Xu Project Manager	Jack Xu
Date of issue……..:	December 27, 2022	

Revision History

Revision	Issue Date	Revisions	Revised By
V0	December 27, 2022	Initial released Issue	Lucas Pang

1 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	Section 15.203 Section 7.1.4 RSS-Gen Issue 5	PASS
AC Power Line Conducted Emission	Section 15.207 Section 7.2.4 RSS-GEN(8.8), ANSI C63.10	PASS
Peak Transmit Power	Section 15.407(a), RSS-247 5.4(2)	PASS
Power Spectral Density	Section 15.407(a), RSS-247 5.2(2)	PASS
Undesirable Emission	Section 15.407(b), RSS-247 5.5	PASS
Radiated Emission	Section 15.407(b)&15.209 Section 5.5 RSS-Gen(8.9), RSS-247(5.5), ANSI C63.10	PASS
Band Edge	15.205, RSS-247 Issue 2, ANSI C63.10	PASS
Frequency Stability	15.407(f), RSS-GEN(6.11)	PASS

Remark:

1. Pass: The EUT complies with the essential requirements in the standard.
2. Frequency Stability: The manufacturer stated in the user's manual.
3. The conclusion of this test report is judged by actual test data without considering measurement uncertainty.

1.1 Measurement Uncertainty

Item	Uncertainty
Uncertainty for Power point Conducted Emissions Test	1.63dB
Uncertainty for Radiation Emission test in 3m chamber (below 30MHz)	3.5dB
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	3.74dB(Polarize: V)
	3.76dB(Polarize: H)
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz)	3.77dB(Polarize: V)
	3.80dB(Polarize: H)
Uncertainty for radio frequency	5.06×10^{-8}GHz
Uncertainty for conducted RF Power	0.40dB
Uncertainty for temperature	0.2℃
Uncertainty for humidity	1%
Uncertainty for DC and low frequency voltages	0.06%

2 General Information

2.1 General Description of EUT

EUT Name	:	Baby Monitor
Trademark	:	N/A
Model No.	:	FUS8010110, FUS8090110
DIFF.	:	Both FUS8010110 and FUS8090110 are identical except FUS8010110 with metal support frame.
Power supply	:	DC 5.4V from adapter with AC 120V/60Hz

Radio Technology	:	5G WIFI
Operation Frequency	:	802.11a/n(HT20)/ac(HT20): 5180~5240MHz; 5260-5320MHz; 5500-5700MHz; 5745~5825MHz 802.11n(HT40)/ac(HT40): 5190~5230MHz; 5260-5320MHz; 5510-5670MHz; 5755~5795MHz 802.11ac(HT80): 5210MHz, 5290MHz, 5530MHz, 5775MHz
Channel separation	:	20MHz for 802.11a/ 802.11ac20/ 802.11n(HT20) 40MHz for 802.11ac40/ 802.11n(HT40) 80MHz for 802.11ac80
Modulation technology:	:	IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (64QAM, 16QAM, QPSK, BPSK)
Antenna Type	:	Internal antenna, Maximum Gain is 3.01dBi. Antenna information is provided by applicant.

Software version	:	Android 7.1.2
Hardware version	:	V1.0
Intend use environment	:	Residential, commercial and light industrial environment

2.2 Test mode

Transmitting mode Keep the EUT in transmitting with modulation.
EUT was test with 99% duty cycle at its maximum power control level.

Remark: During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.

2.3 Test Facility

Shenzhen Alpha Product Testing Co., Ltd
Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

June 21, 2018 File on Federal Communication Commission
Registration Number: 293961

July 25, 2017 Certificated by IC
Registration Number: CN0085

2.4 Description of Support Units

Accessories	:	Power Adapter
Manufacturer	:	Shanghai Nanqion Electronics Co., Ltd.
Model	:	H-45
Ratings	:	Input: 100~240V 50/60Hz 0.8A Output: 5.4V⎓3000mA

2.5 Deviation from Standards

None.

2.6 Abnormalities from Standard Conditions

None.

2.7 Other Information Requested by the Customer

None.

2.8 Additional instructions

Software (Used for test) from client

Channel	Power level
Lowest	Default
Middle	Default
Highest	Default

3 Test Instruments list

Equipment	Manufacture	Model No.	Firmware version	Serial No.	Last cal.	Cal Interval
9*6*6 anechoic chamber	CHENYU	9*6*6	/	N/A	2022.05.17	3Year
Spectrum analyzer	ROHDE&SCHWARZ	FSV40-N	2.3	102137	2022.08.22	1Year
Spectrum analyzer	Agilent	N9020A	A.14.16	MY499100060	2022.08.22	1Year
Receiver	ROHDE&SCHWARZ	ESR	2.28 SP1	1316.3003K03-102082-Wa	2022.08.22	1Year
Receiver	R&S	ESCI	4.42 SP1	101165	2022.08.22	1Year
Bilog Antenna	Schwarzbeck	VULB 9168	/	VULB 9168#627	2021.08.30	2Year
Horn Antenna	SCHWARZBECK	BBHA 9120 D	/	2106	2021.08.30	2Year
Active Loop Antenna	SCHWARZBECK	FMZB 1519B	/	00059	2021.08.30	2Year
RF Cable	Resenberger	Cable 1	/	RE1	2022.08.22	1Year
RF Cable	Resenberger	Cable 2	/	RE2	2022.08.22	1Year
RF Cable	Resenberger	Cable 3	/	CE1	2022.08.22	1Year
Pre-amplifier	HP	HP8347A	/	2834A00455	2022.08.22	1Year
Pre-amplifier	Agilent	8449B	/	3008A02664	2022.08.22	1Year
L.I.S.N.#1	Schwarzbeck	NSLK8126	/	8126-466	2022.08.22	1Year
L.I.S.N.#2	ROHDE&SCHWARZ	ENV216	/	101043	2022.08.23	1 Year
Horn Antenna	SCHWARZBECK	BBHA9170	/	00946	2021.08.30	2 Year
Preamplifier	SKET	LNPA_1840-50	/	SK2018101801	2022.08.22	1 Year
Power Meter	Agilent	E9300A	/	MY41496628	2022.08.22	1 Year
Power Sensor	DARE	RPR3006W	/	15100041SNO91	2022.08.22	1 Year
Temp. & Humid. Chamber	Weihuang	WHTH-1000-40-880	/	100631	2022.08.22	1 Year
Switching Mode Power Supply	JUNKE	JK12010S	/	20140927-6	2022.08.22	1 Year
Adjustable attenuator	MWRFtest	N/A	/	N/A	N/A	N/A
10dB Attenuator	Mini-Circuits	DC-6G	/	N/A	N/A	N/A

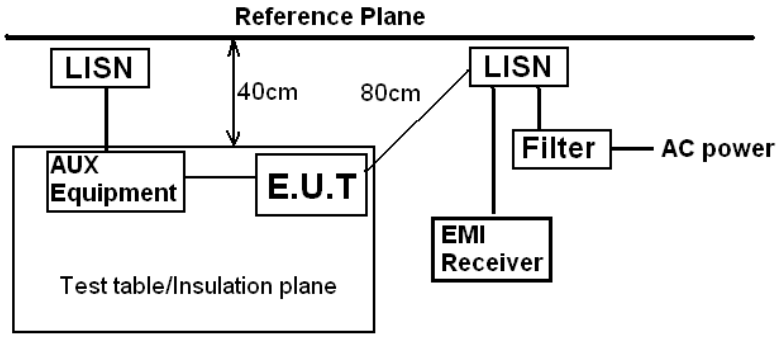
Software Information			
Test Item	Software Name	Manufacturer	Version
RE	EZ-EMC	EZ	Alpha-3A1
CE	EZ-EMC	EZ	Alpha-3A1
RF-CE	MTS 8310	MW	V2.0.0.0

4 Test results and Measurement Data

4.1 Antenna requirement:

Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
E.U.T Antenna:	
The antenna is internal antenna. The best case gain of the antenna is 1.2dBi for 5.15~5.25GHz, 5.25~5.35GHz , 5.5~5.7GHz, 5.725~5.85GHz	

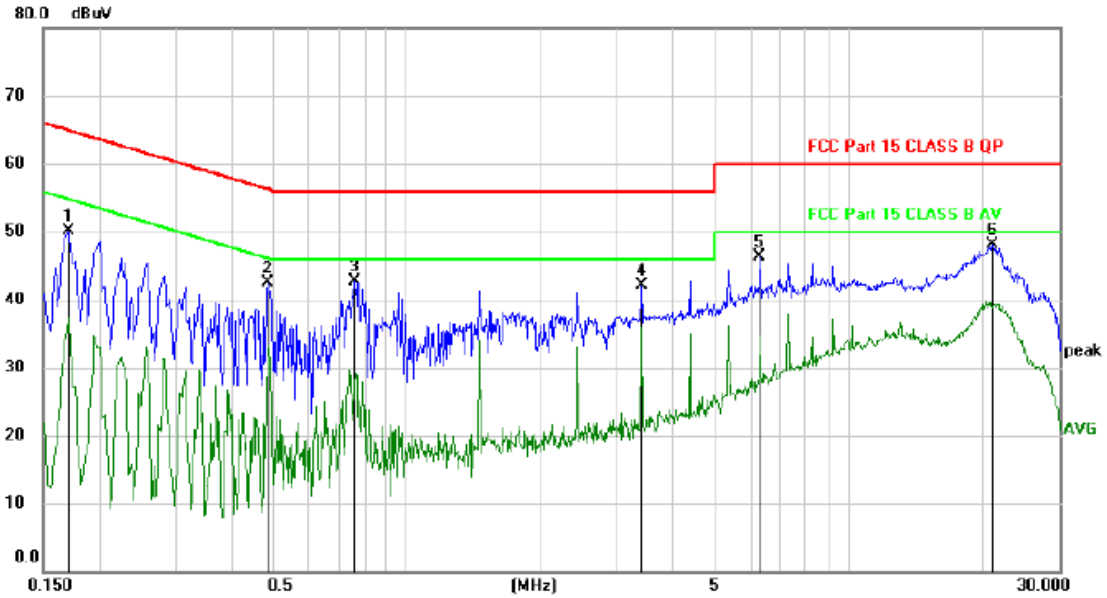
4.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
Test Frequency Range:	150KHz to 30MHz
Class / Severity:	Class B
Receiver setup:	RBW=9KHz, VBW=30KHz
Limit:	Frequency range (MHz) / Limit (dBuV): Quasi-peak / Average 0.15-0.5: 66 to 56* / 56 to 46* 0.5-5: 56 / 46 5-30: 60 / 50 * Decreases with the logarithm of the frequency.
Test procedure	The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs). Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.
Test setup:	 *Remark:* *E.U.T: Equipment Under Test* *LISN: Line Impedence Stabilization Network* *Test table height=0.8m*
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

Measurement Data

An initial pre-scan was performed on the line and neutral lines with peak detector. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Line:

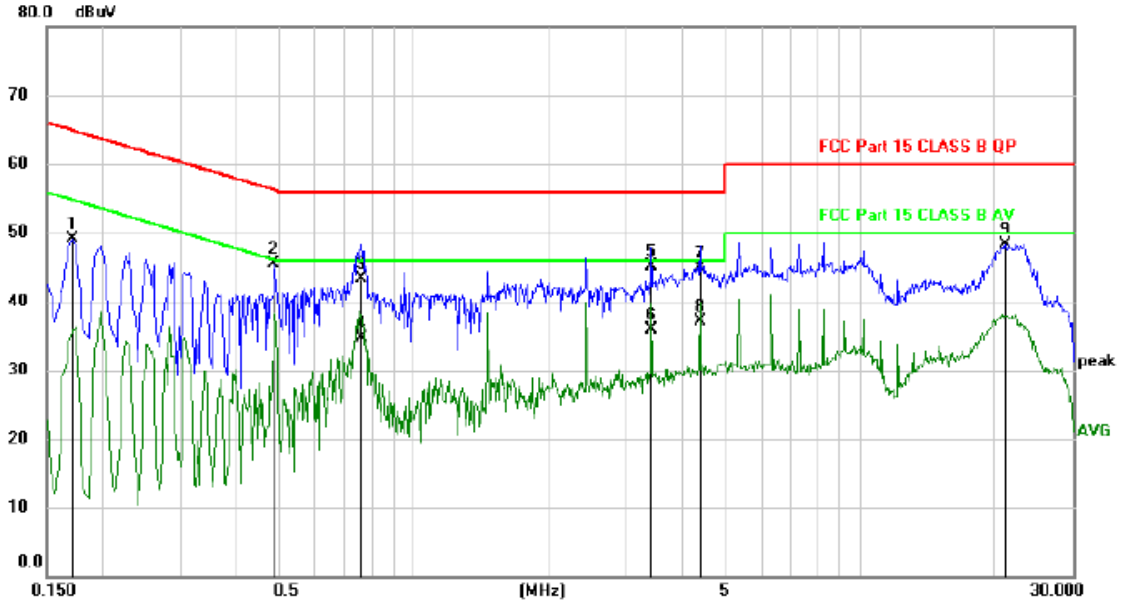


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1710	40.27	9.93	50.20	64.91	-14.71	peak	
2		0.4829	32.52	9.96	42.48	56.29	-13.81	peak	
3		0.7590	32.81	9.94	42.75	56.00	-13.25	peak	
4		3.4020	32.20	9.96	42.16	56.00	-13.84	peak	
5		6.3120	36.14	10.09	46.23	60.00	-13.77	peak	
6	*	21.1858	37.55	10.47	48.02	60.00	-11.98	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

Neutral:



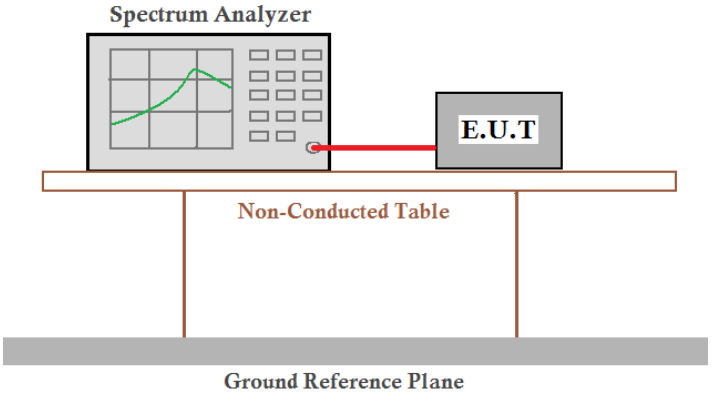
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1710	39.24	9.93	49.17	64.91	-15.74	peak	
2		0.4859	35.64	9.96	45.60	56.24	-10.64	peak	
3		0.7590	33.45	9.94	43.39	56.00	-12.61	QP	
4		0.7590	24.67	9.94	34.61	46.00	-11.39	AVG	
5		3.4079	35.20	9.96	45.16	56.00	-10.84	QP	
6		3.4079	26.01	9.96	35.97	46.00	-10.03	AVG	
7		4.3739	34.87	9.99	44.86	56.00	-11.14	QP	
8	*	4.3739	27.03	9.99	37.02	46.00	-8.98	AVG	
9		21.1800	37.91	10.47	48.38	60.00	-11.62	peak	

*:Maximum data x:Over limit !:over margin 〈Reference Only

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

Note: All modes and channels have been tested and only the A 5180MHz mode with the worst data is listed.

4.3 Emission Bandwidth and 99% Occupied Bandwidth

Test Requirement:	FCC Part15 E Section 15.407
Test Method:	KDB 789033 D02 General UNII Test Procedures New Rules v02r01
Limit:	N/A
Test setup:	
Test procedure:	According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

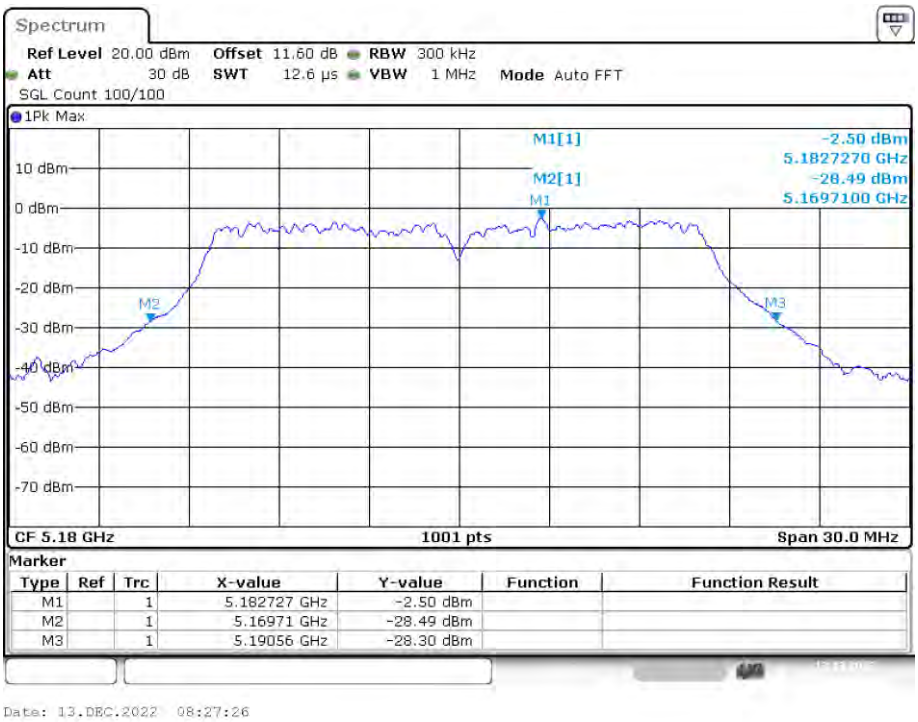
Measurement Data:

Band 1 (5150-5250 MHz):

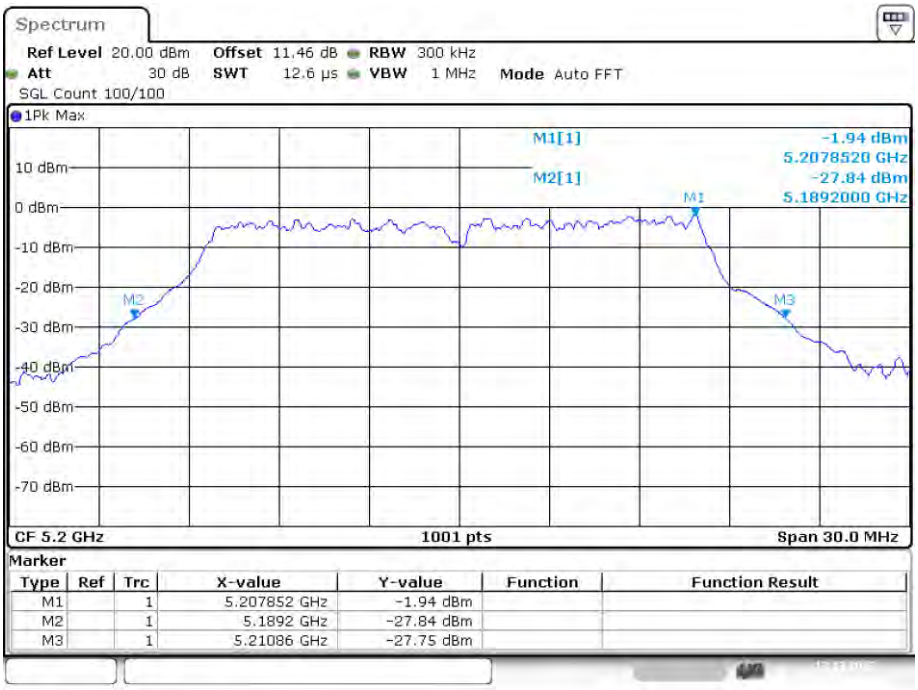
-26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	20.85	0.5	Pass
NVNT	a	5200	Ant1	21.66	0.5	Pass
NVNT	a	5240	Ant1	20.82	0.5	Pass
NVNT	ac20	5180	Ant1	21.42	0.5	Pass
NVNT	ac20	5200	Ant1	21.39	0.5	Pass
NVNT	ac20	5240	Ant1	20.91	0.5	Pass
NVNT	ac40	5190	Ant1	40.74	0.5	Pass
NVNT	ac40	5230	Ant1	41.28	0.5	Pass
NVNT	ac80	5210	Ant1	82.08	0.5	Pass
NVNT	n20	5180	Ant1	22.23	0.5	Pass
NVNT	n20	5200	Ant1	21.81	0.5	Pass
NVNT	n20	5240	Ant1	21.51	0.5	Pass
NVNT	n40	5190	Ant1	41.04	0.5	Pass
NVNT	n40	5230	Ant1	40.5	0.5	Pass

-26dB Bandwidth NVNT a 5180MHz Ant1

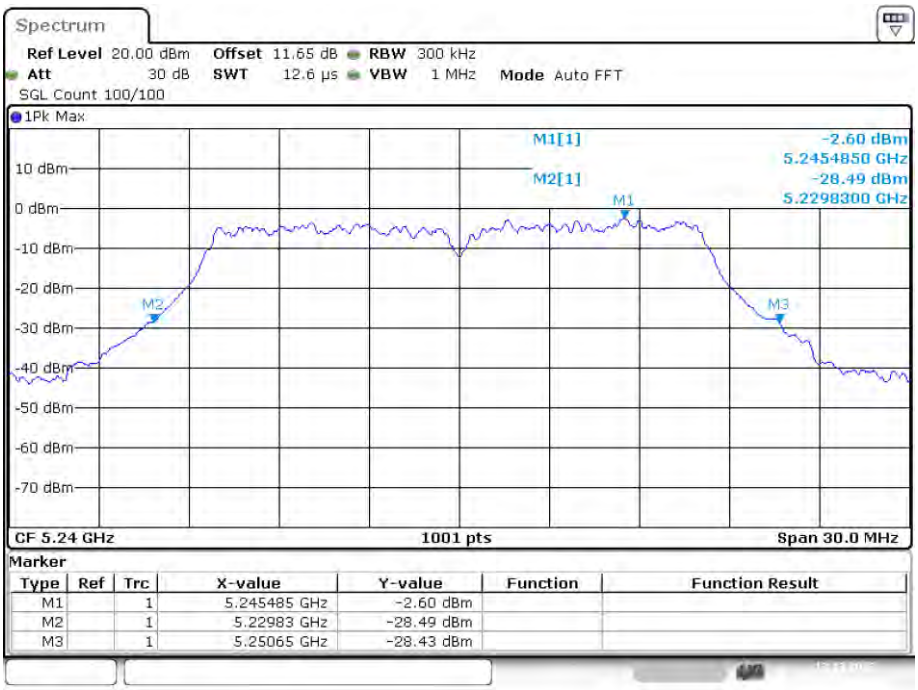


-26dB Bandwidth NVNT a 5200MHz Ant1



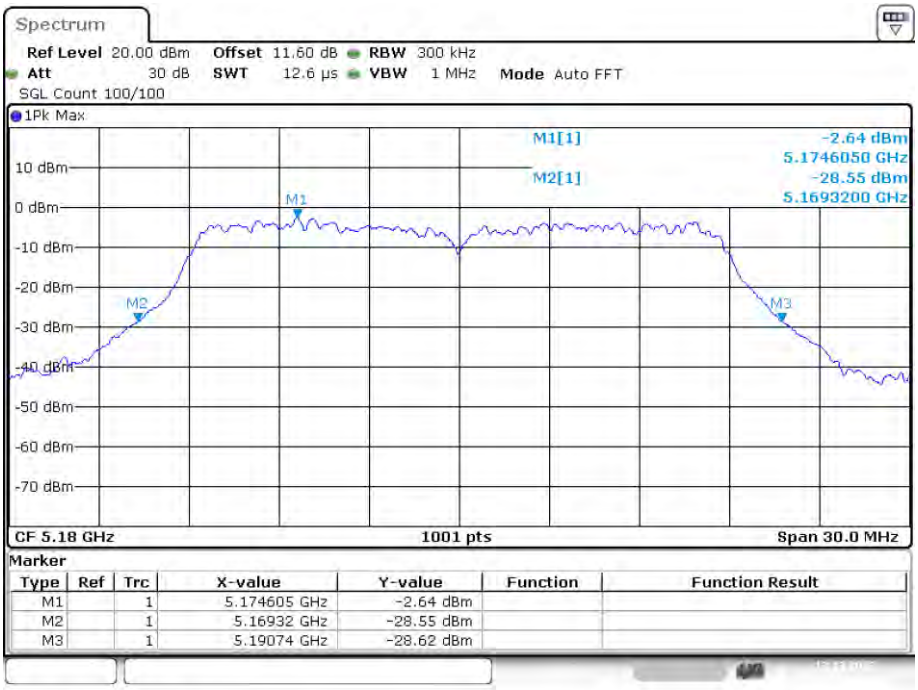
Date: 13.DEC.2022 08:38:25

-26dB Bandwidth NVNT a 5240MHz Ant1



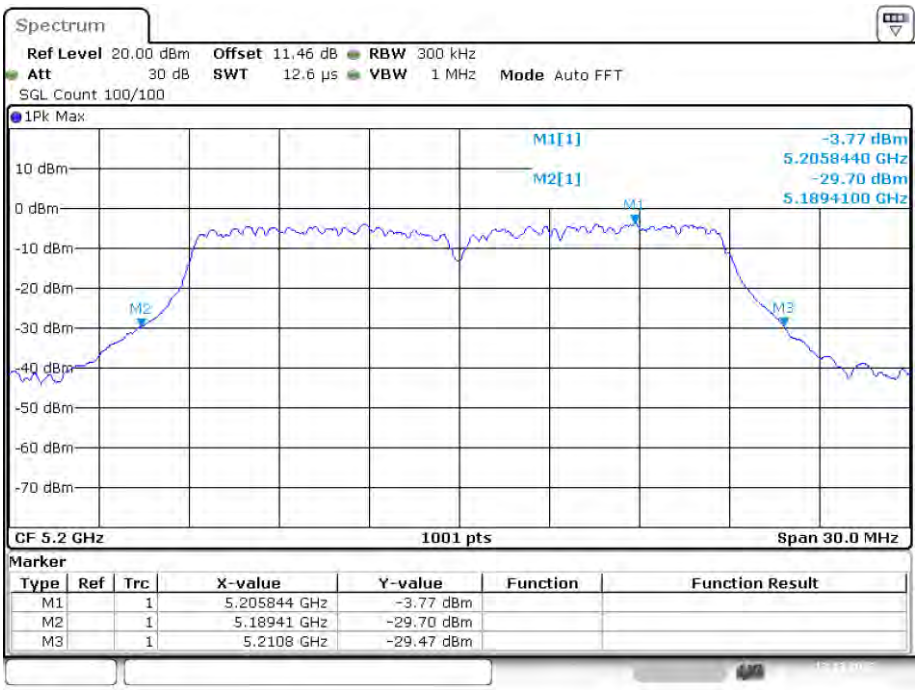
Date: 13.DEC.2022 08:46:15

-26dB Bandwidth NVNT ac20 5180MHz Ant1



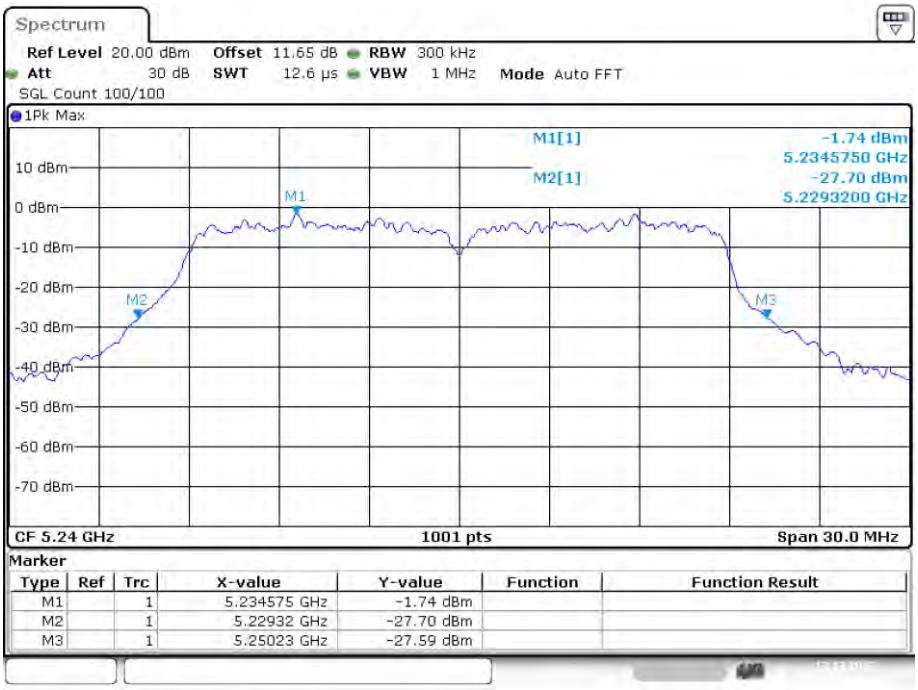
Date: 13.DEC.2022 09:24:16

-26dB Bandwidth NVNT ac20 5200MHz Ant1



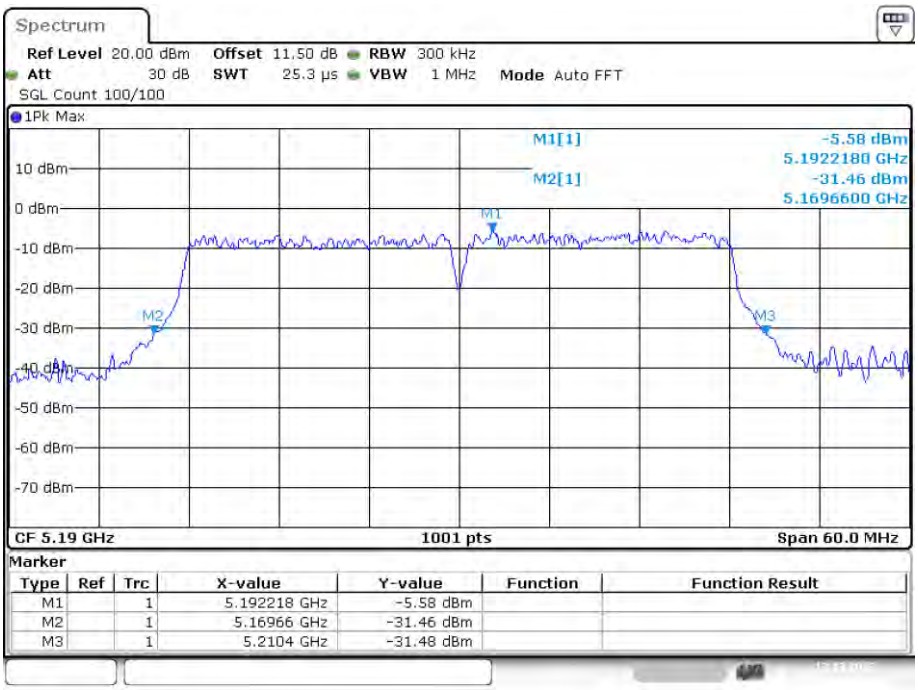
Date: 13.DEC.2022 09:28:32

-26dB Bandwidth NVNT ac20 5240MHz Ant1



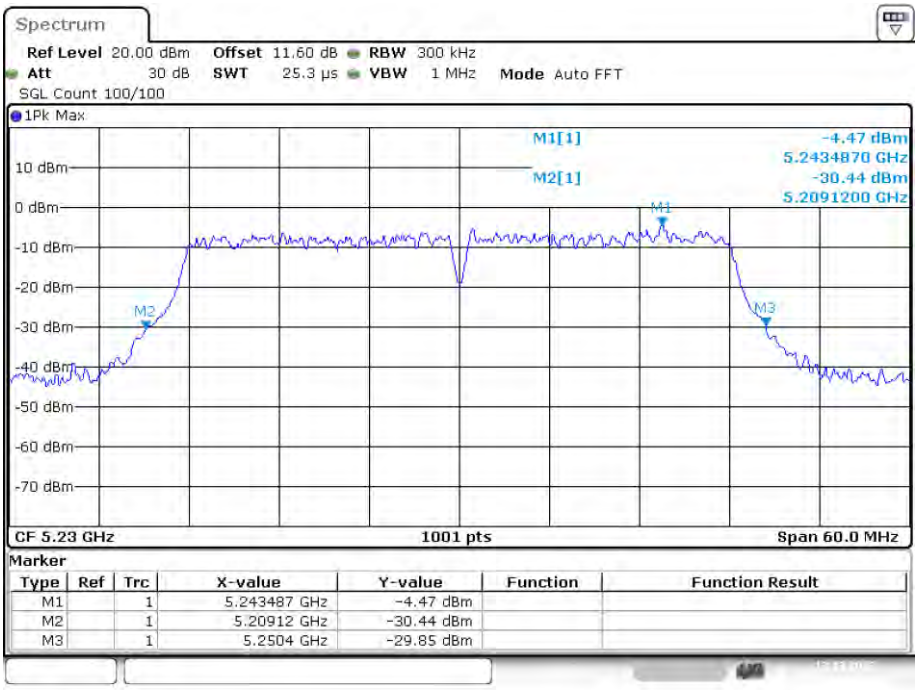
Date: 13.DEC.2022 09:40:10

-26dB Bandwidth NVNT ac40 5190MHz Ant1



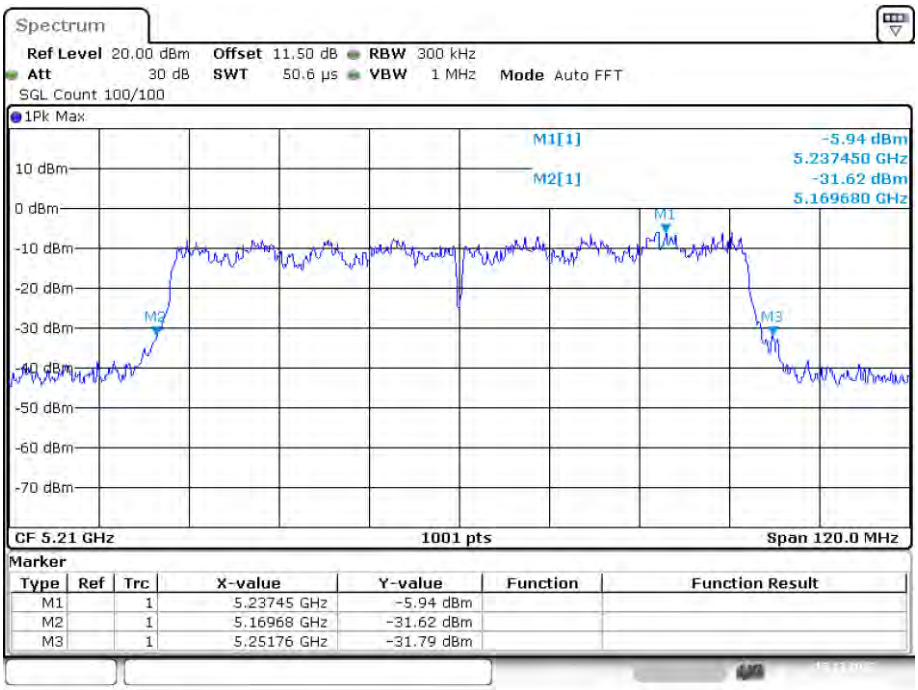
Date: 13.DEC.2022 10:05:09

-26dB Bandwidth NVNT ac40 5230MHz Ant1



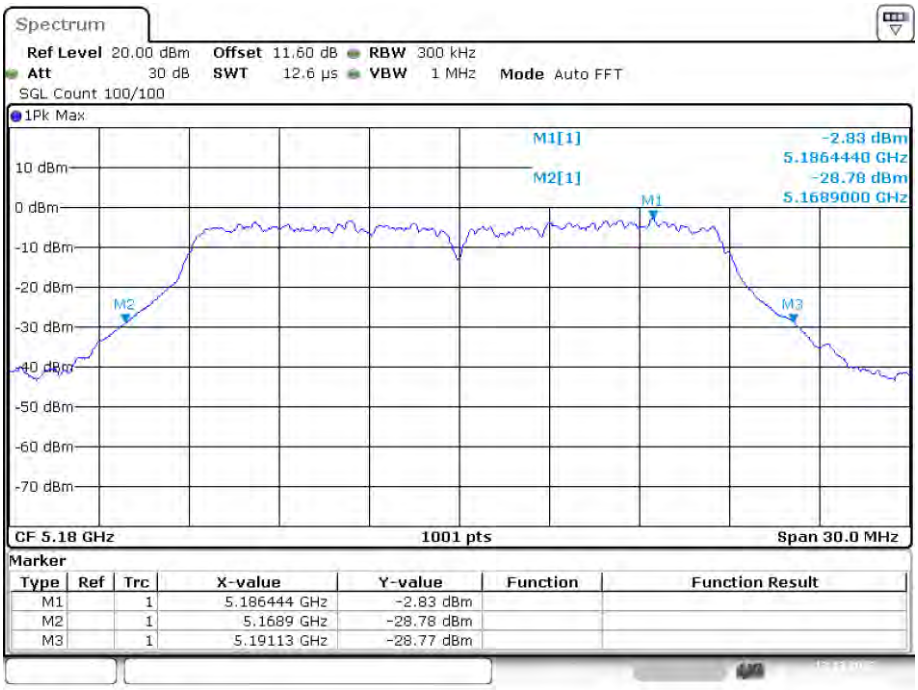
Date: 13.DEC.2022 10:12:56

-26dB Bandwidth NVNT ac80 5210MHz Ant1



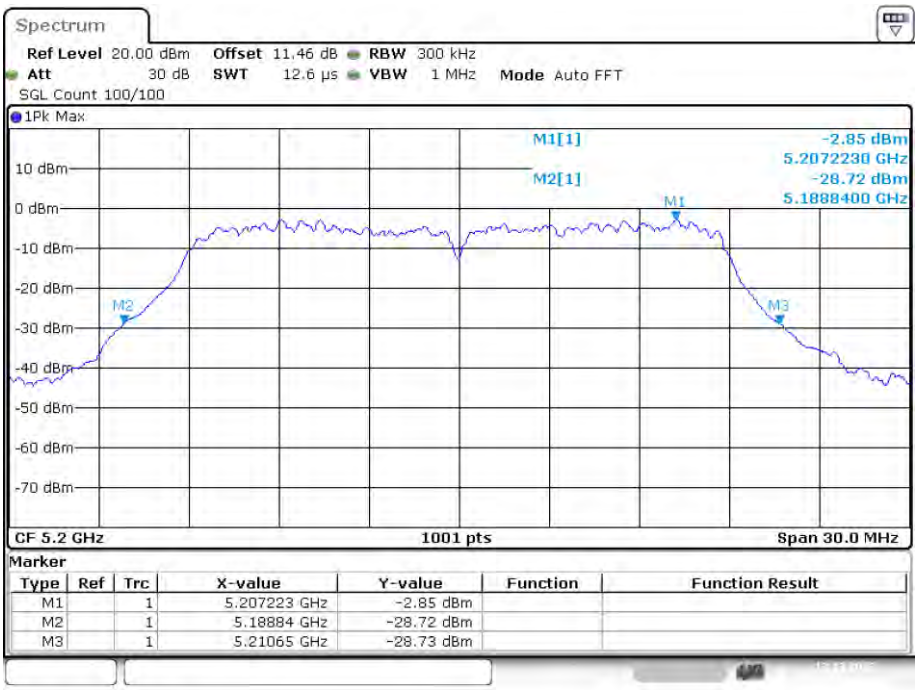
Date: 15.DEC.2022 05:28:18

-26dB Bandwidth NVNT n20 5180MHz Ant1



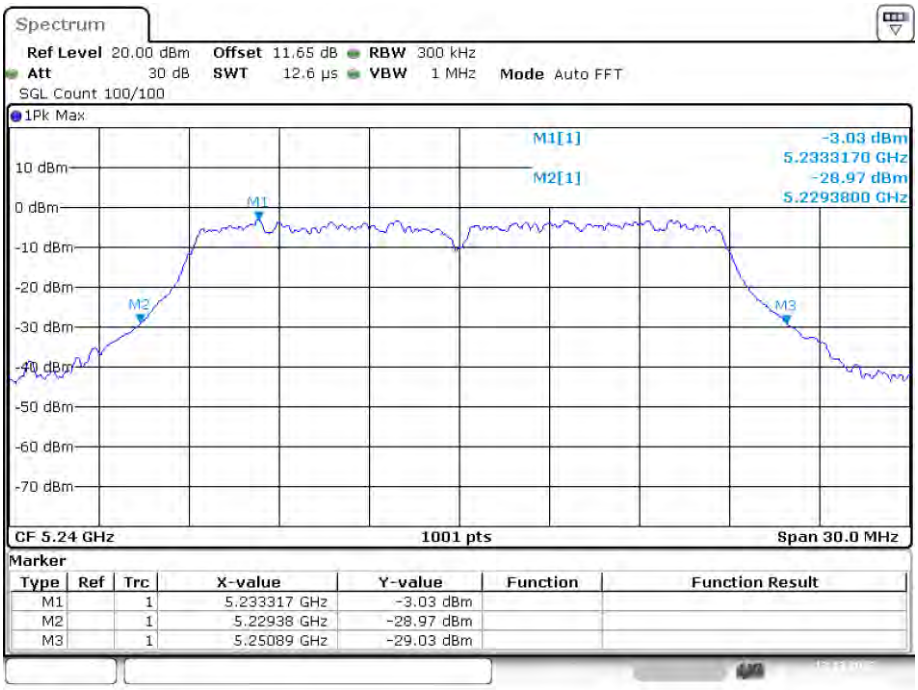
Date: 13.DEC.2022 08:57:48

-26dB Bandwidth NVNT n20 5200MHz Ant1



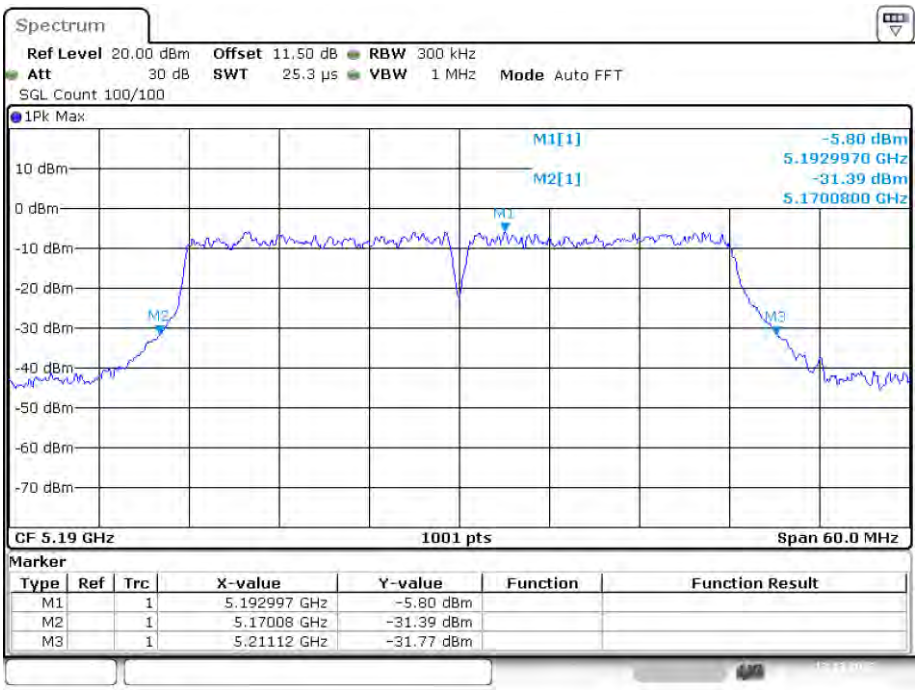
Date: 13.DEC.2022 09:04:56

-26dB Bandwidth NVNT n20 5240MHz Ant1



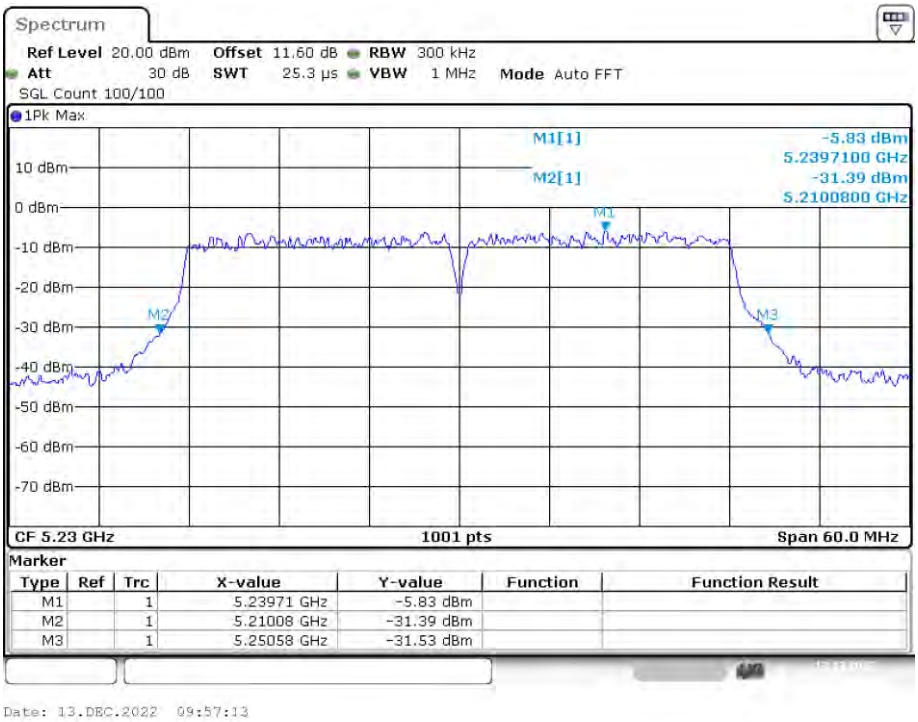
Date: 13.DEC.2022 09:15:54

-26dB Bandwidth NVNT n40 5190MHz Ant1



Date: 13.DEC.2022 09:49:43

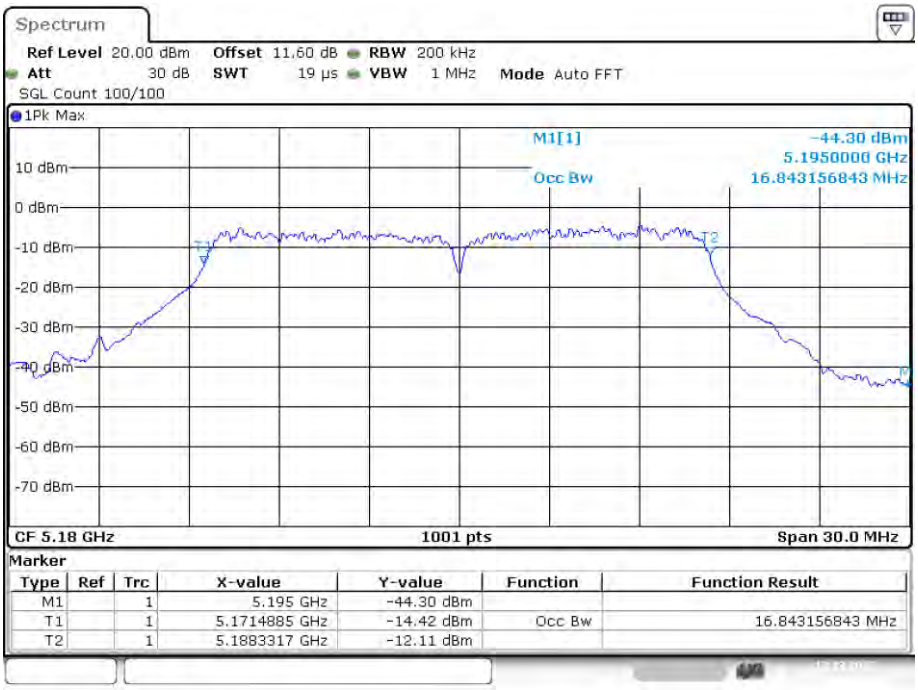
-26dB Bandwidth NVNT n40 5230MHz Ant1



Occupied Channel Bandwidth

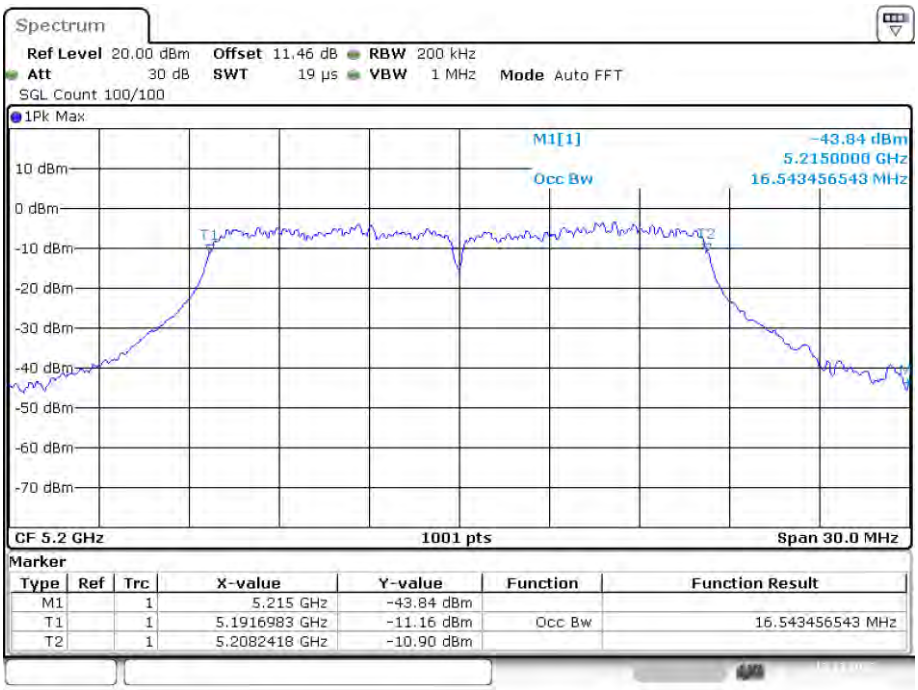
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant1	16.843
NVNT	a	5200	Ant1	16.543
NVNT	a	5240	Ant1	16.573
NVNT	ac20	5180	Ant1	17.742
NVNT	ac20	5200	Ant1	17.712
NVNT	ac20	5240	Ant1	17.592
NVNT	ac40	5190	Ant1	36.563
NVNT	ac40	5230	Ant1	36.444
NVNT	ac80	5210	Ant1	76.124
NVNT	n20	5180	Ant1	17.802
NVNT	n20	5200	Ant1	17.712
NVNT	n20	5240	Ant1	17.682
NVNT	n40	5190	Ant1	36.324
NVNT	n40	5230	Ant1	36.324

OBW NVNT a 5180MHz Ant1



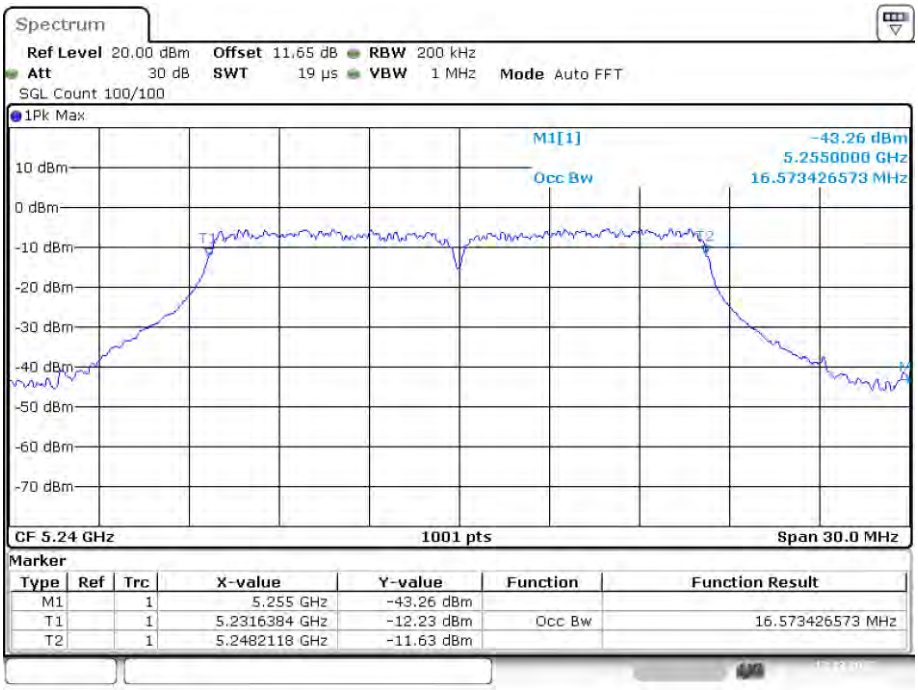
Date: 13.DEC.2022 08:27:18

OBW NVNT a 5200MHz Ant1



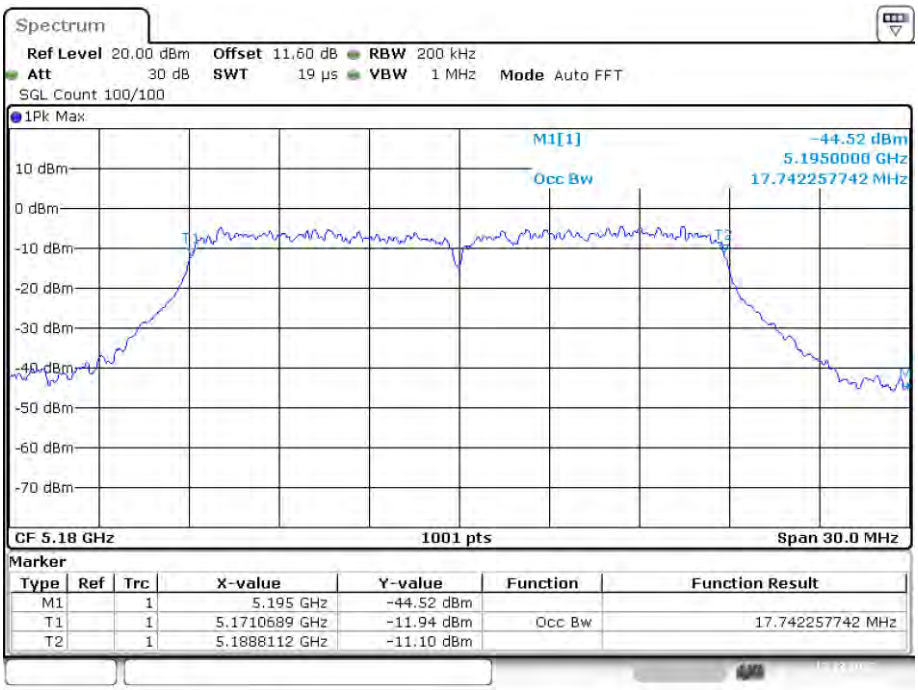
Date: 13.DEC.2022 08:38:15

OBW NVNT a 5240MHz Ant1



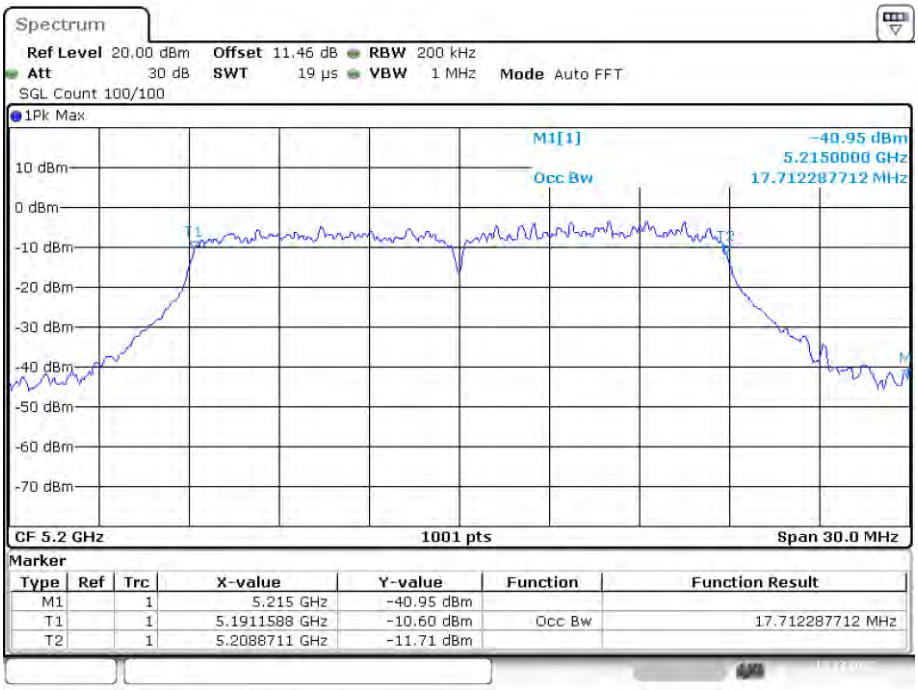
Date: 13.DEC.2022 08:46:05

OBW NVNT ac20 5180MHz Ant1



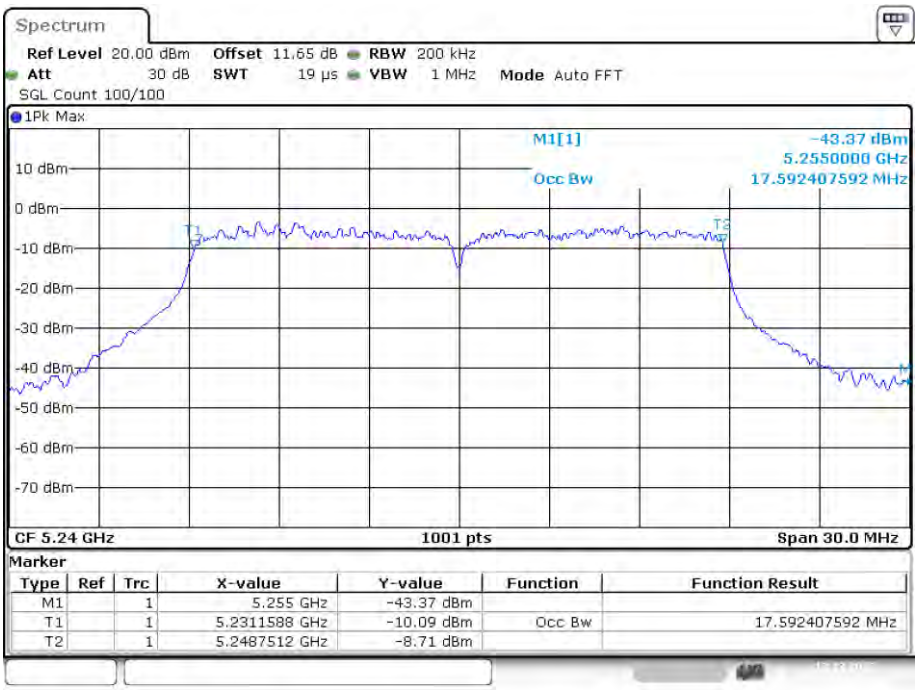
Date: 13.DEC.2022 09:24:02

OBW NVNT ac20 5200MHz Ant1



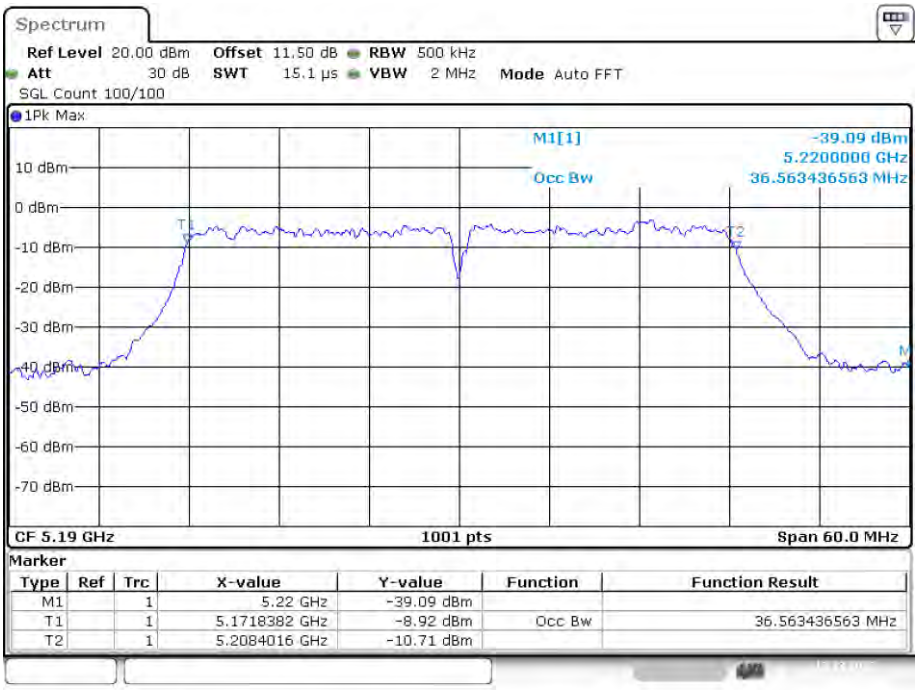
Date: 13.DEC.2022 09:28:18

OBW NVNT ac20 5240MHz Ant1



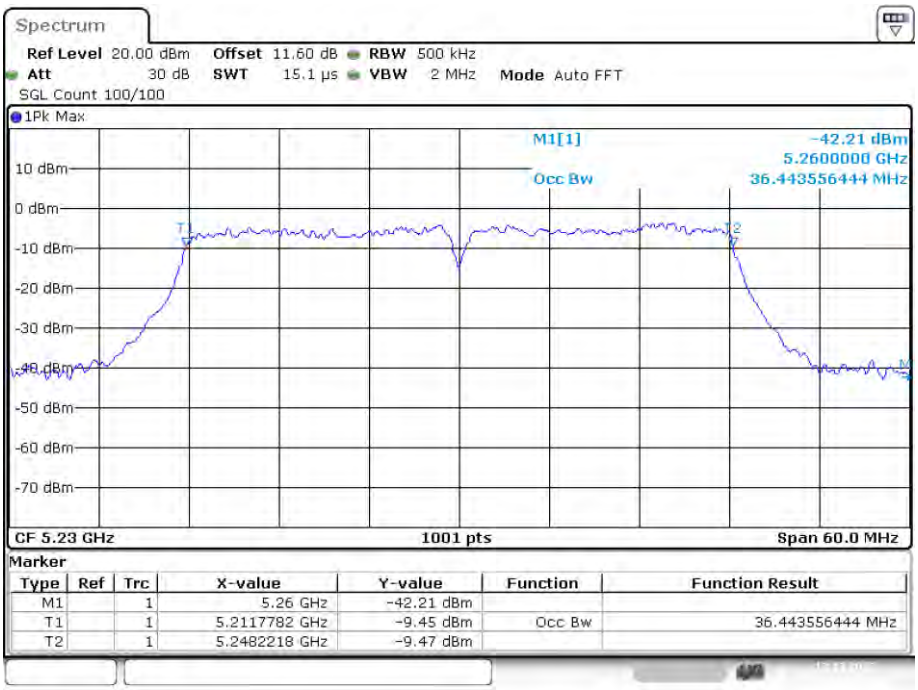
Date: 13.DEC.2022 09:39:54

OBW NVNT ac40 5190MHz Ant1



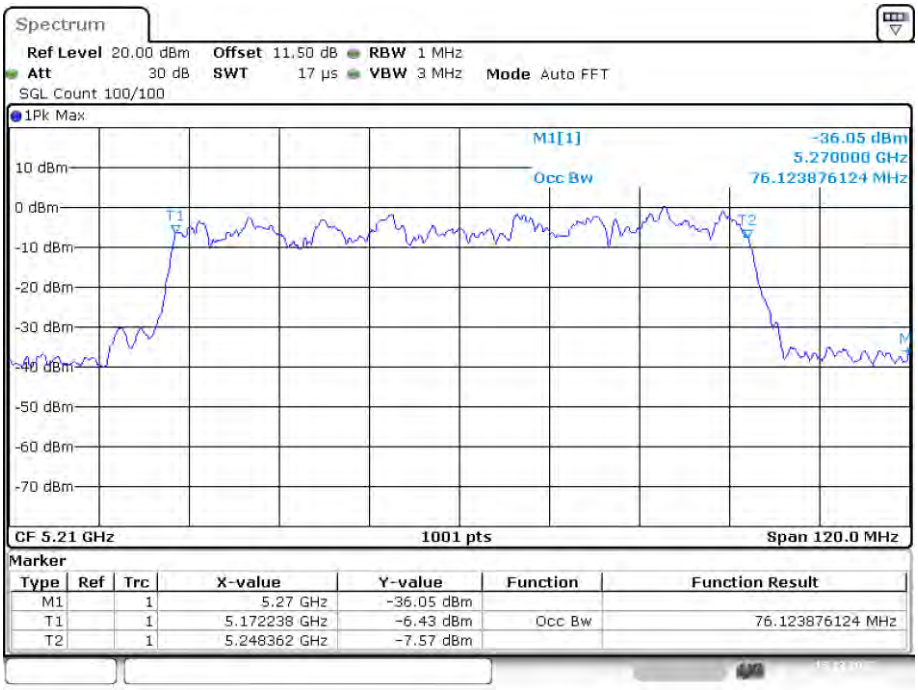
Date: 13.DEC.2022 10:04:50

OBW NVNT ac40 5230MHz Ant1

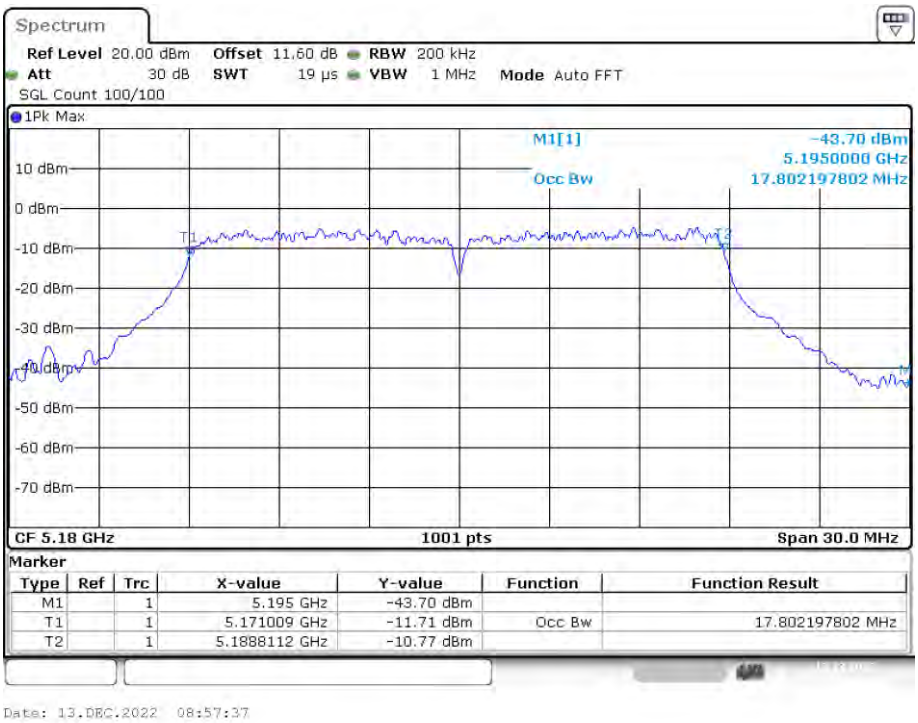


Date: 13.DEC.2022 10:12:36

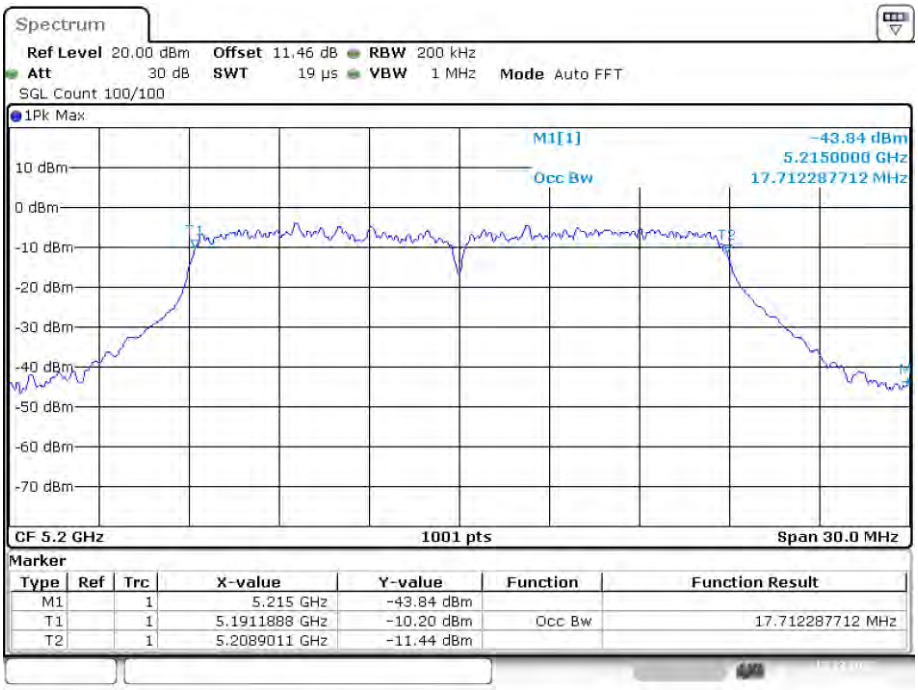
OBW NVNT ac80 5210MHz Ant1



OBW NVNT n20 5180MHz Ant1

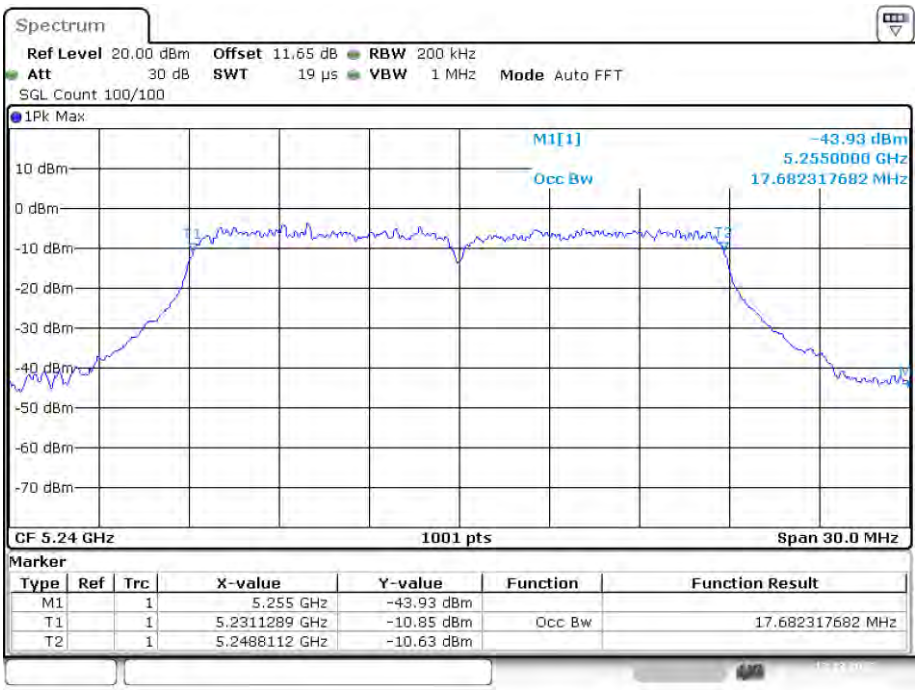


OBW NVNT n20 5200MHz Ant1



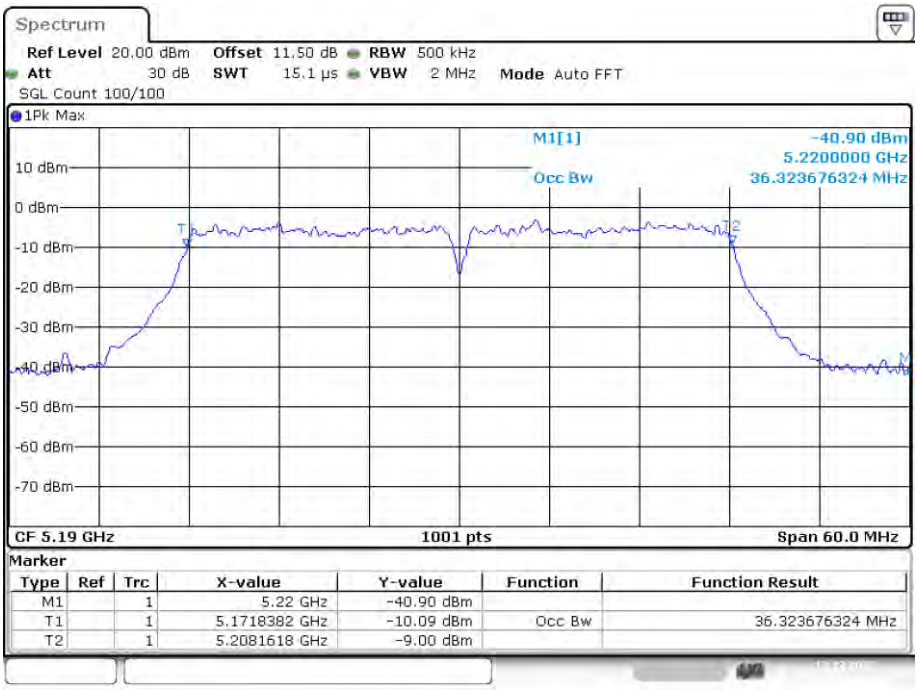
Date: 13.DEC.2022 09:04:44

OBW NVNT n20 5240MHz Ant1



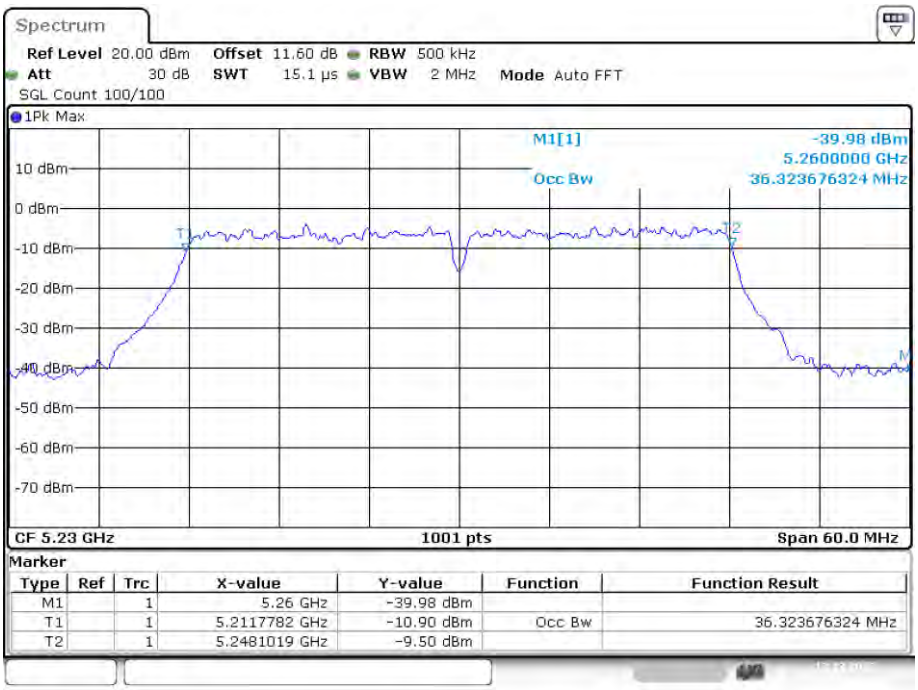
Date: 13.DEC.2022 09:15:41

OBW NVNT n40 5190MHz Ant1



Date: 13.DEC.2022 09:49:26

OBW NVNT n40 5230MHz Ant1



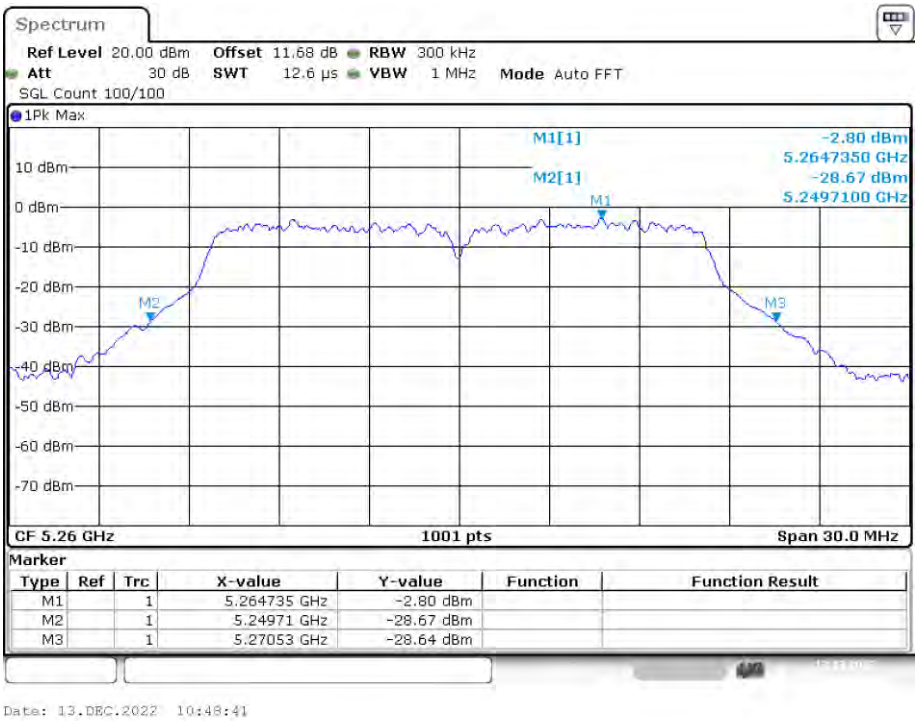
Date: 13.DEC.2022 09:56:55

Band 2 (5250-5350 MHz):

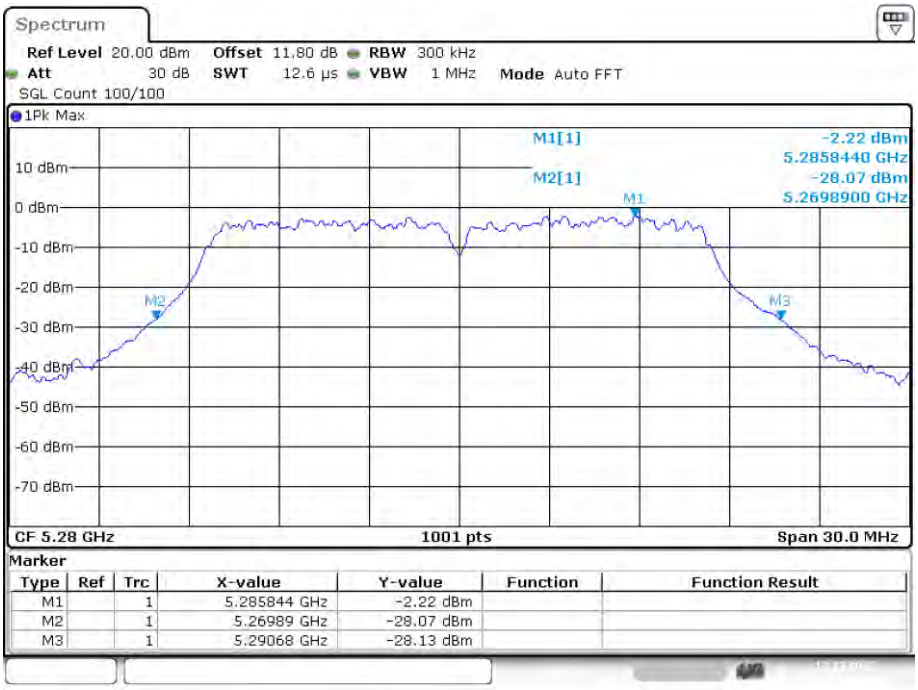
-26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5260	Ant1	20.82	0.5	Pass
NVNT	a	5280	Ant1	20.79	0.5	Pass
NVNT	a	5320	Ant1	21.27	0.5	Pass
NVNT	ac20	5260	Ant1	21.69	0.5	Pass
NVNT	ac20	5280	Ant1	22.08	0.5	Pass
NVNT	ac20	5320	Ant1	21.21	0.5	Pass
NVNT	ac40	5270	Ant1	40.44	0.5	Pass
NVNT	ac40	5310	Ant1	40.38	0.5	Pass
NVNT	ac80	5290	Ant1	80.64	0.5	Pass
NVNT	n20	5260	Ant1	21.66	0.5	Pass
NVNT	n20	5280	Ant1	21.48	0.5	Pass
NVNT	n20	5320	Ant1	21.42	0.5	Pass
NVNT	n40	5270	Ant1	40.98	0.5	Pass
NVNT	n40	5310	Ant1	40.62	0.5	Pass

-26dB Bandwidth NVNT a 5260MHz Ant1

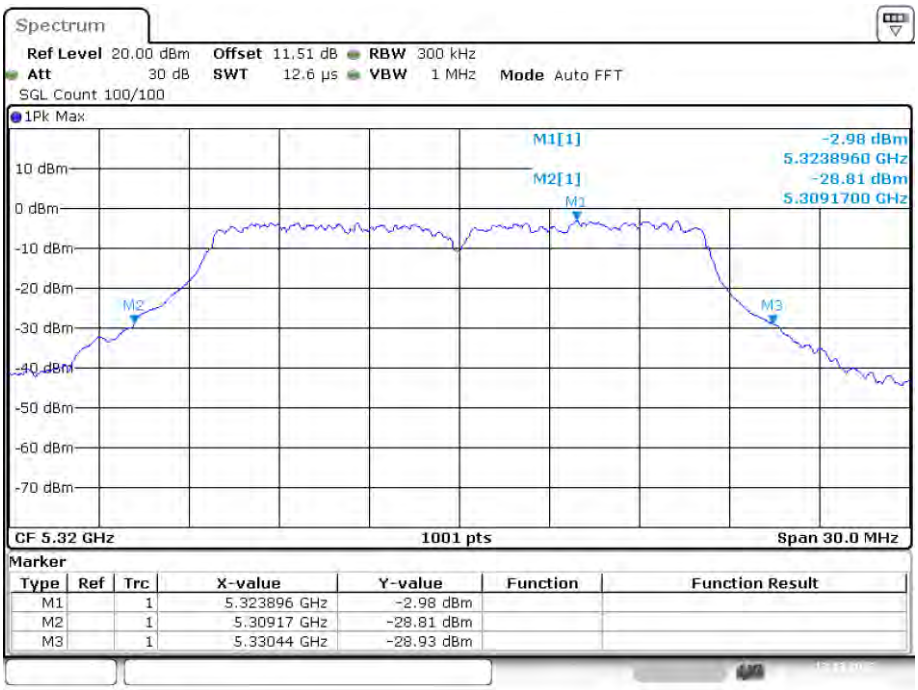


-26dB Bandwidth NVNT a 5280MHz Ant1



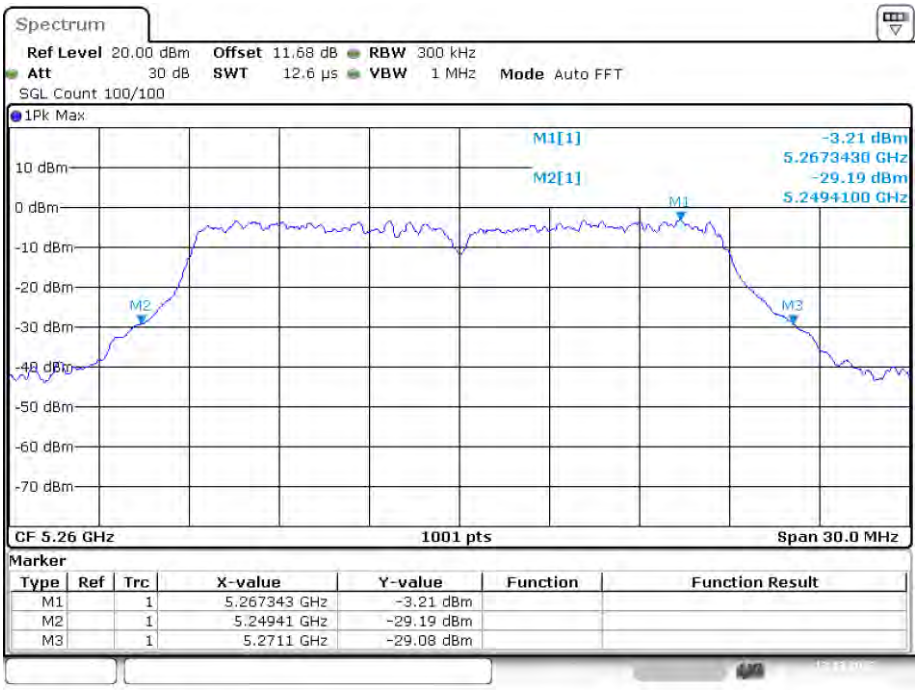
Date: 13.DEC.2022 10:58:44

-26dB Bandwidth NVNT a 5320MHz Ant1



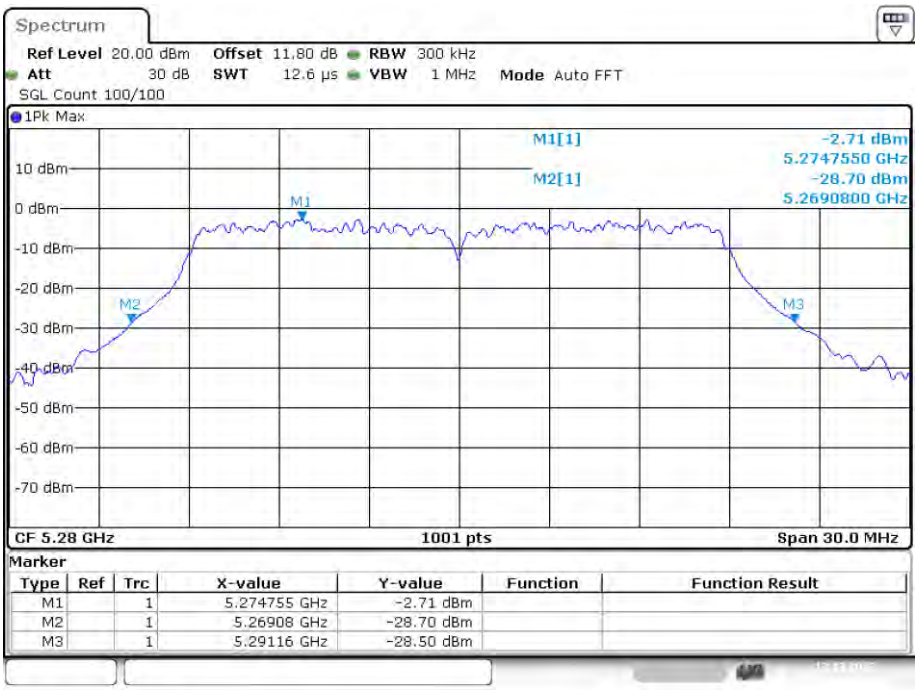
Date: 13.DEC.2022 11:06:27

-26dB Bandwidth NVNT ac20 5260MHz Ant1



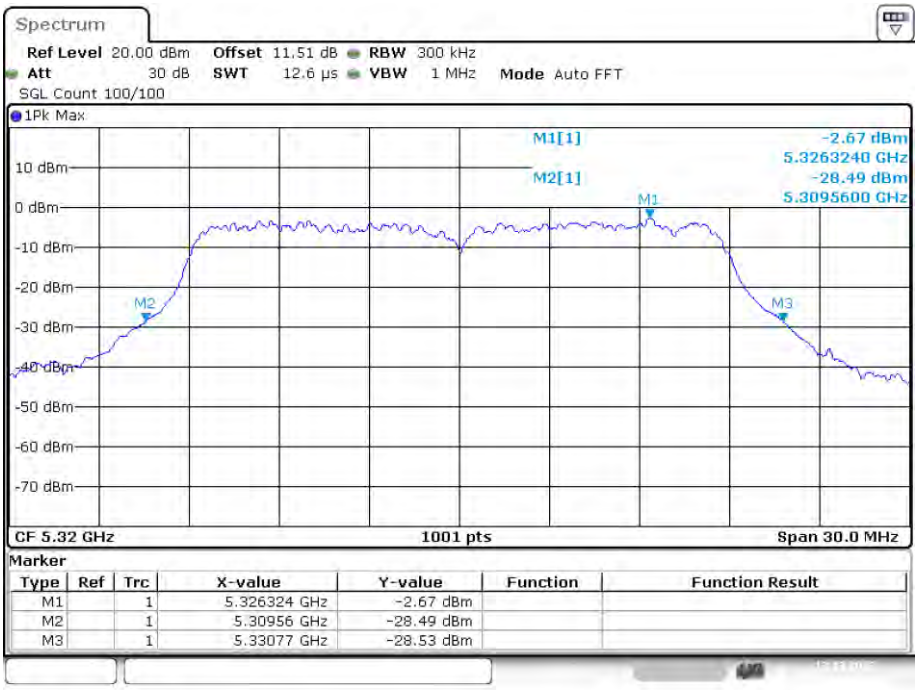
Date: 13.DEC.2022 11:47:08

-26dB Bandwidth NVNT ac20 5280MHz Ant1



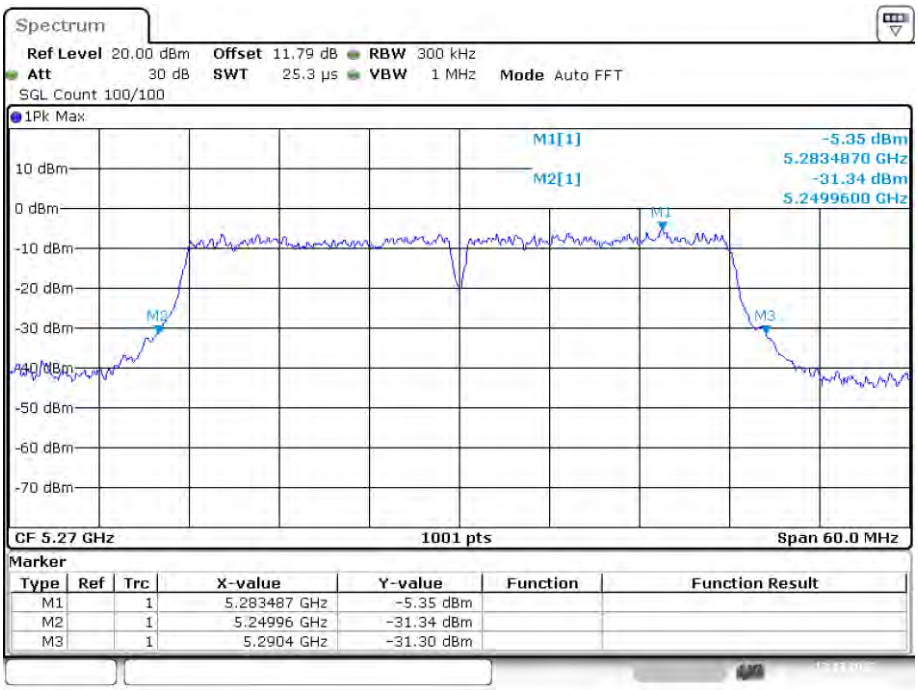
Date: 13.DEC.2022 12:03:11

-26dB Bandwidth NVNT ac20 5320MHz Ant1



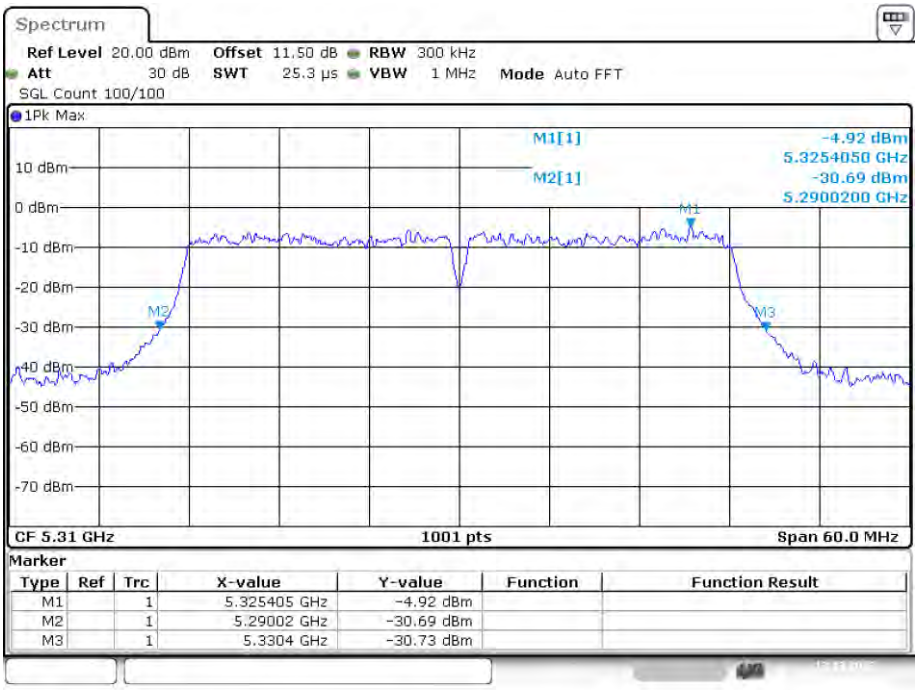
Date: 13.DEC.2022 12:12:58

-26dB Bandwidth NVNT ac40 5270MHz Ant1



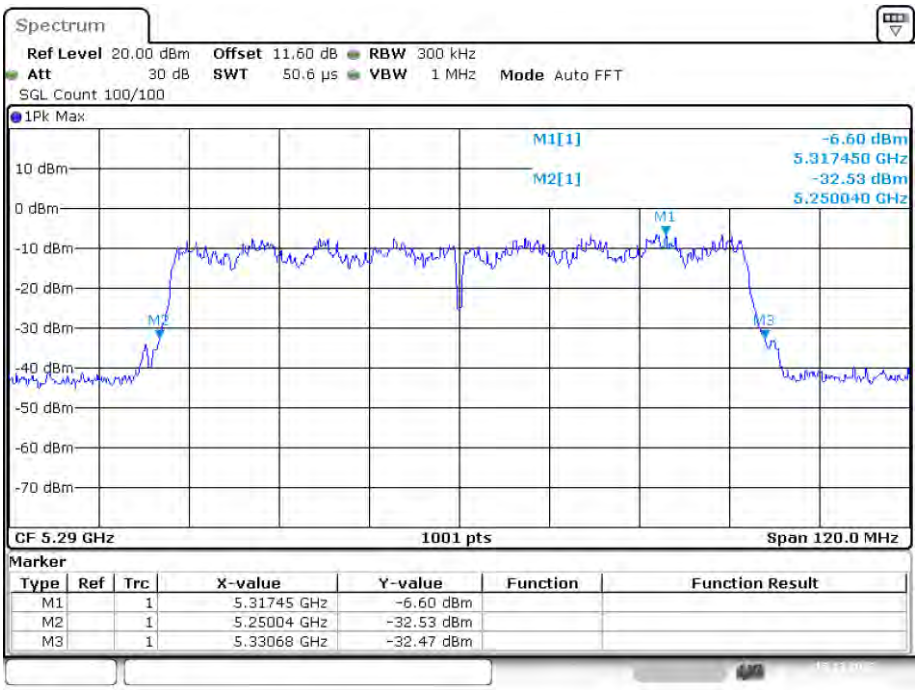
Date: 13.DEC.2022 13:47:22

-26dB Bandwidth NVNT ac40 5310MHz Ant1



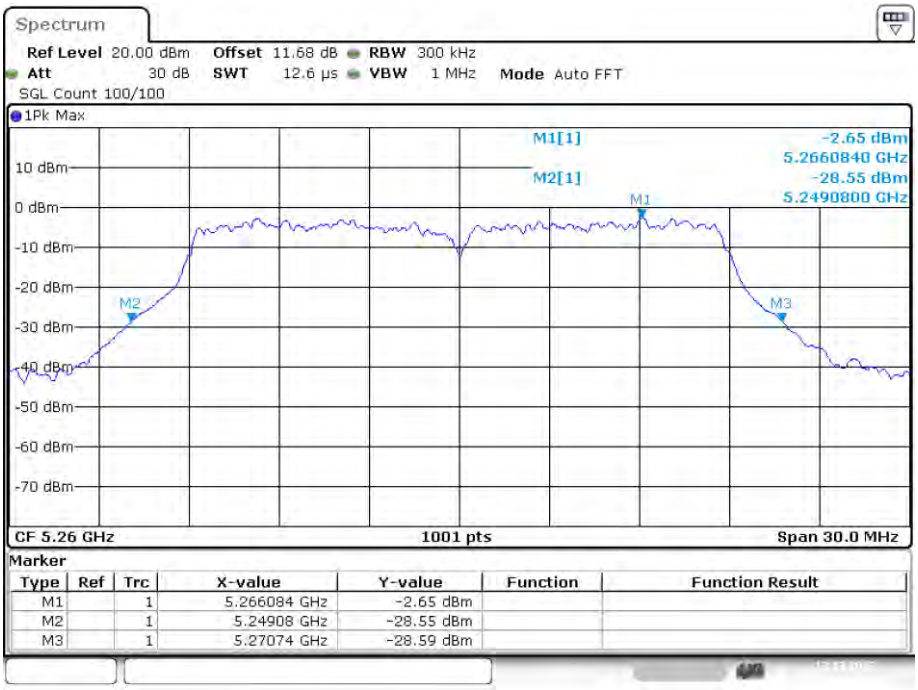
Date: 13.DEC.2022 14:01:27

-26dB Bandwidth NVNT ac80 5290MHz Ant1



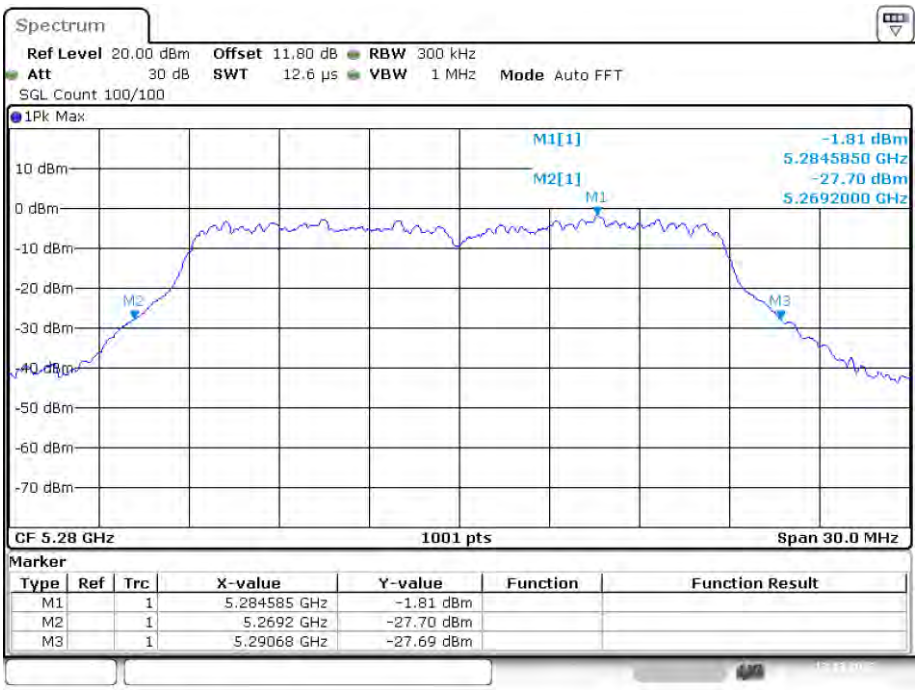
Date: 15.DEC.2022 04:23:19

-26dB Bandwidth NVNT n20 5260MHz Ant1



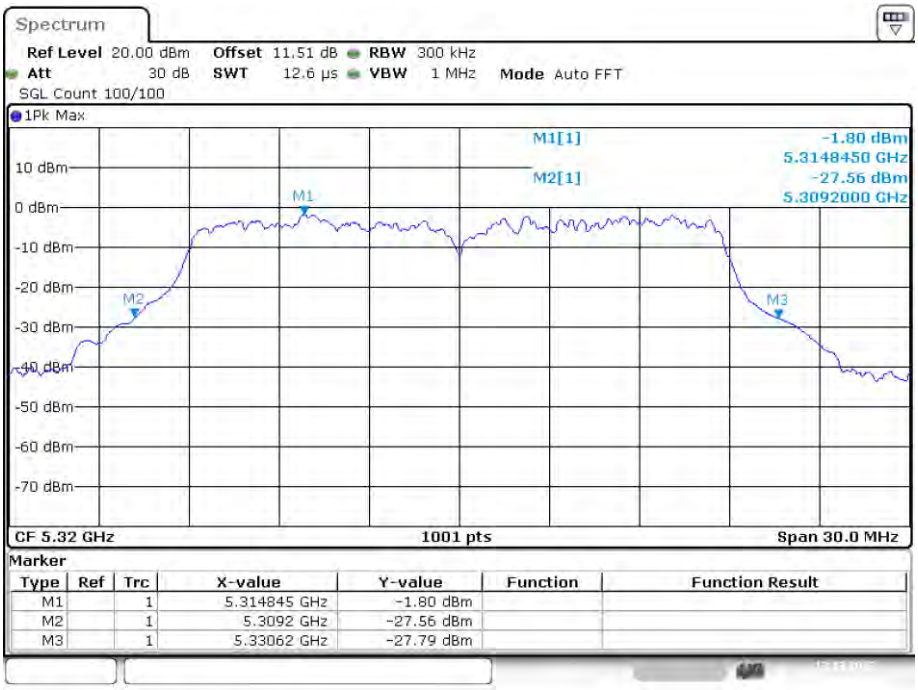
Date: 13.DEC.2022 11:16:24

-26dB Bandwidth NVNT n20 5280MHz Ant1



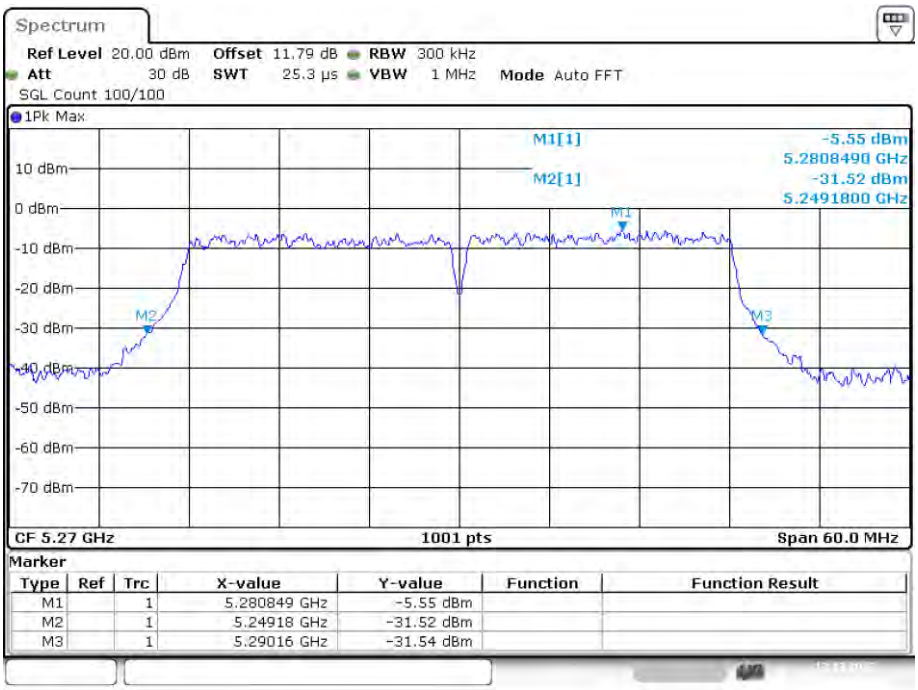
Date: 13.DEC.2022 11:29:44

-26dB Bandwidth NVNT n20 5320MHz Ant1



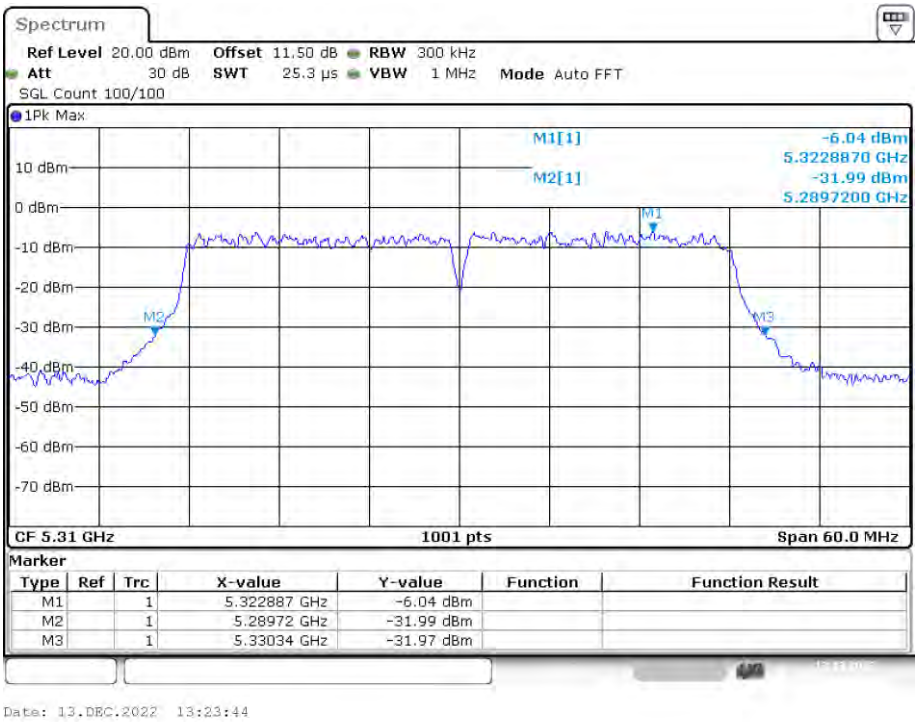
Date: 13.DEC.2022 11:34:05

-26dB Bandwidth NVNT n40 5270MHz Ant1



Date: 13.DEC.2022 12:38:22

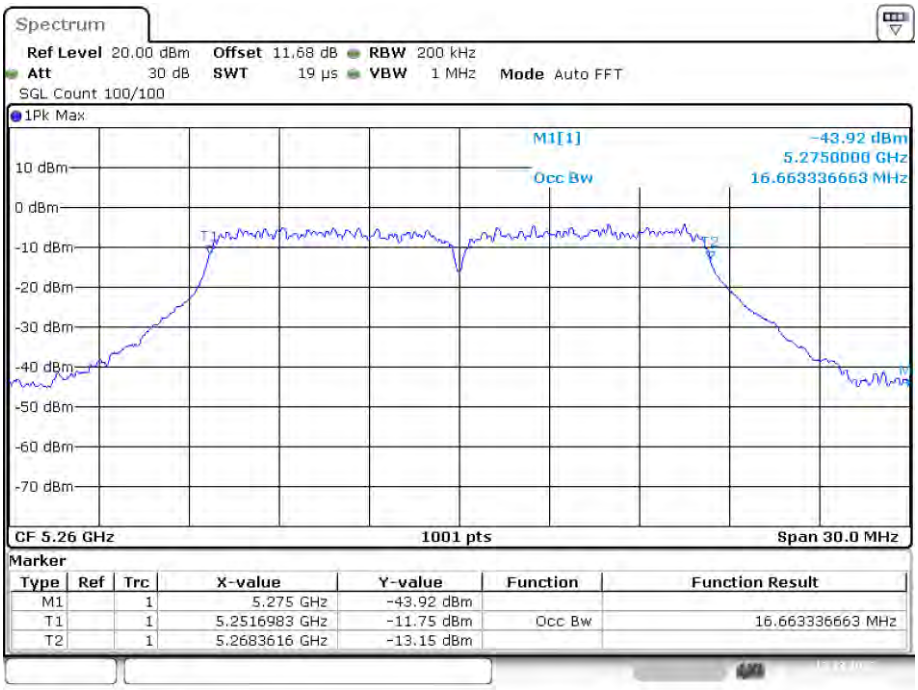
-26dB Bandwidth NVNT n40 5310MHz Ant1



Occupied Channel Bandwidth

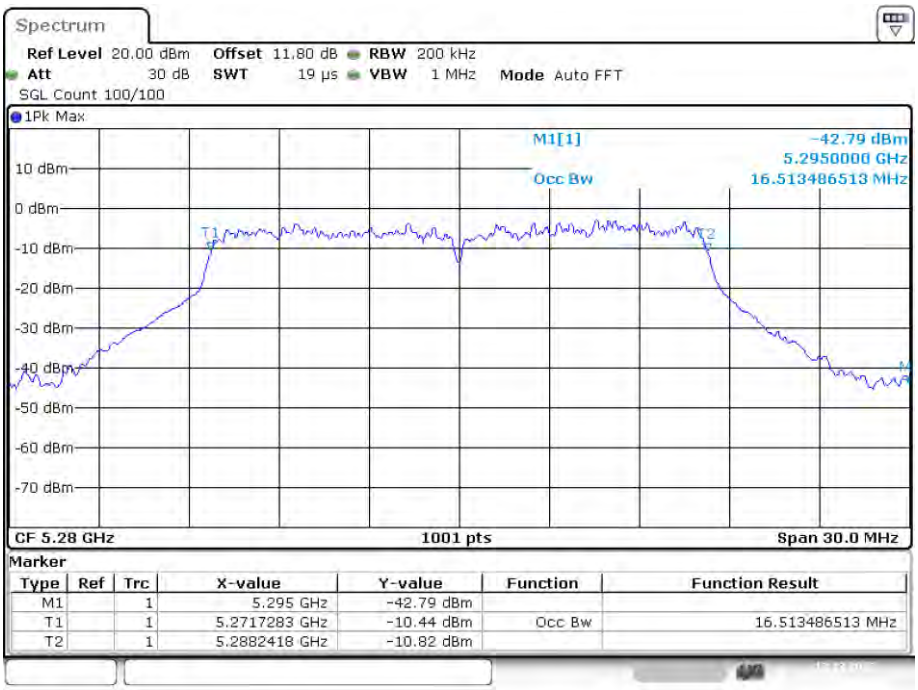
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5260	Ant1	16.663
NVNT	a	5280	Ant1	16.513
NVNT	a	5320	Ant1	16.603
NVNT	ac20	5260	Ant1	17.592
NVNT	ac20	5280	Ant1	17.712
NVNT	ac20	5320	Ant1	17.622
NVNT	ac40	5270	Ant1	36.503
NVNT	ac40	5310	Ant1	36.264
NVNT	ac80	5290	Ant1	75.764
NVNT	n20	5260	Ant1	17.742
NVNT	n20	5280	Ant1	17.772
NVNT	n20	5320	Ant1	17.652
NVNT	n40	5270	Ant1	36.623
NVNT	n40	5310	Ant1	36.384

OBW NVNT a 5260MHz Ant1



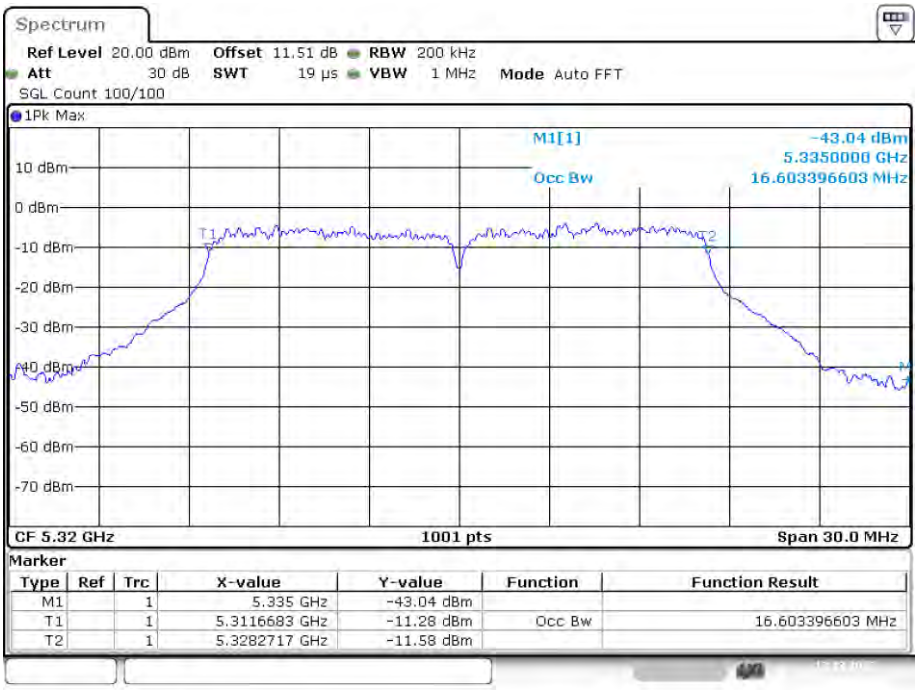
Date: 13.DEC.2022 10:48:33

OBW NVNT a 5280MHz Ant1



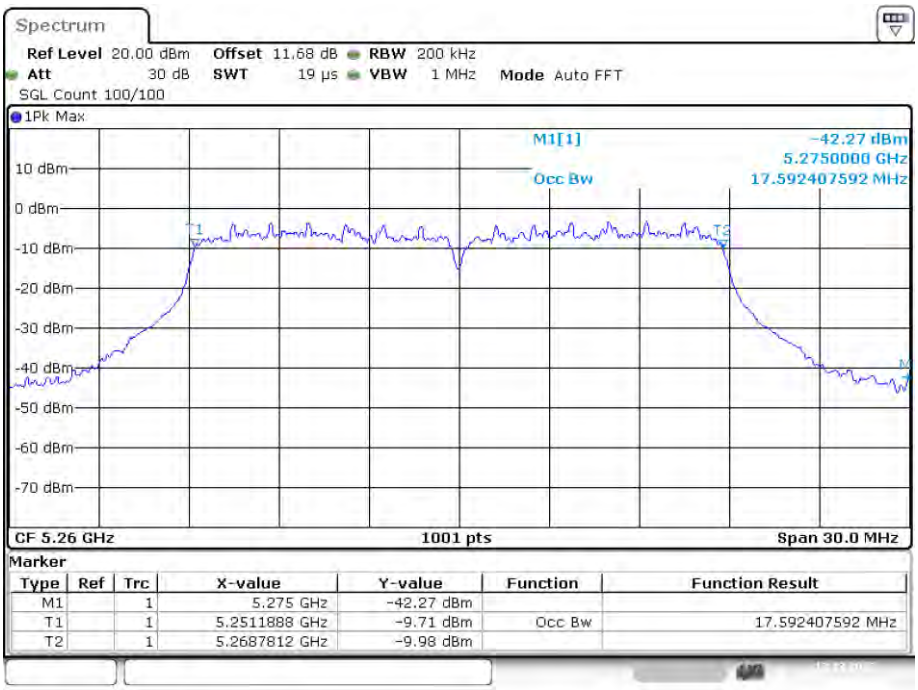
Date: 13.DEC.2022 10:58:34

OBW NVNT a 5320MHz Ant1



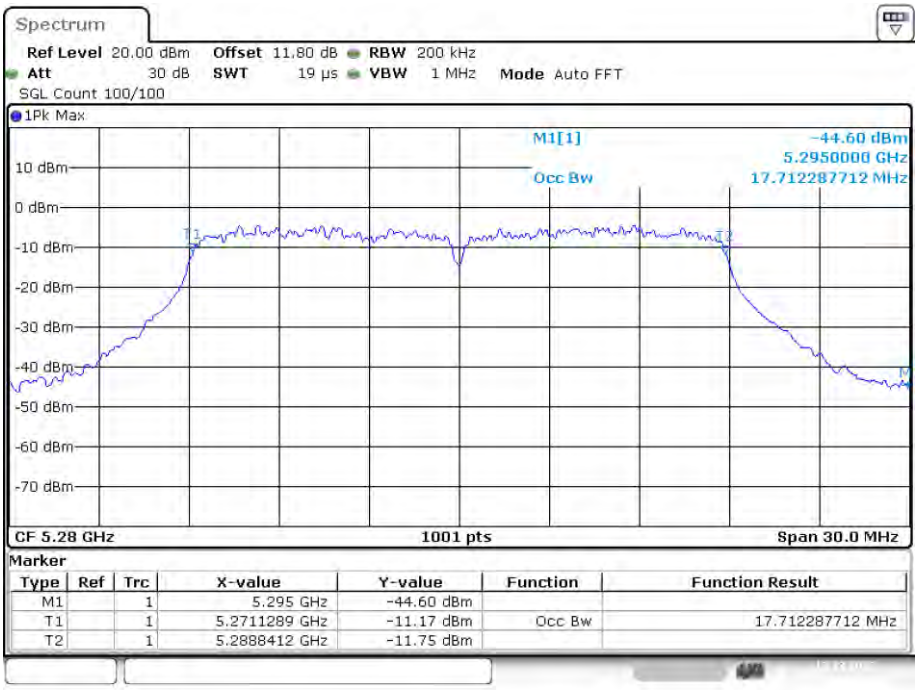
Date: 13.DEC.2022 11:06:17

OBW NVNT ac20 5260MHz Ant1



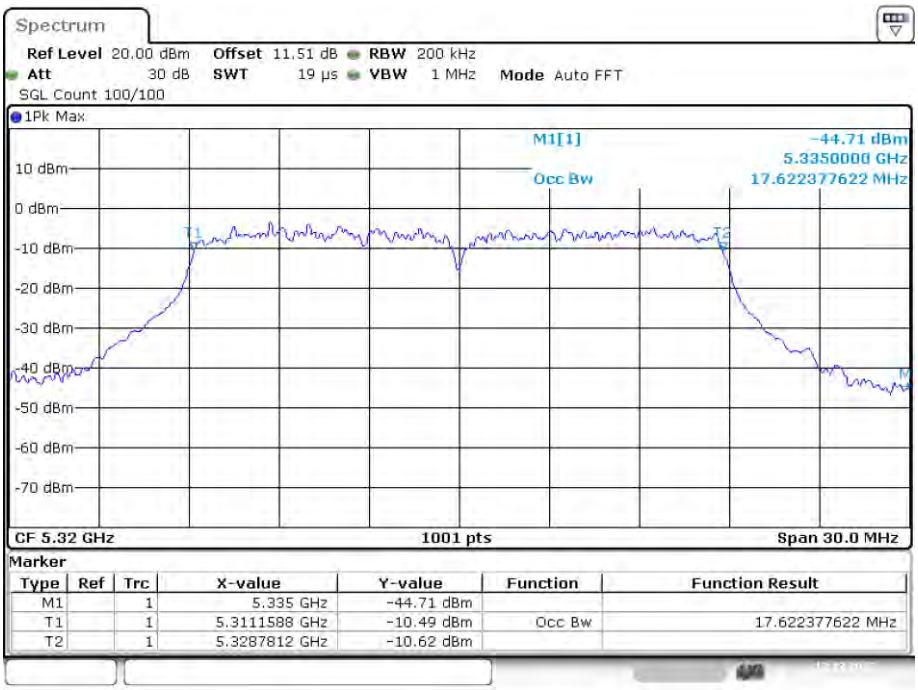
Date: 13.DEC.2022 11:46:49

OBW NVNT ac20 5280MHz Ant1



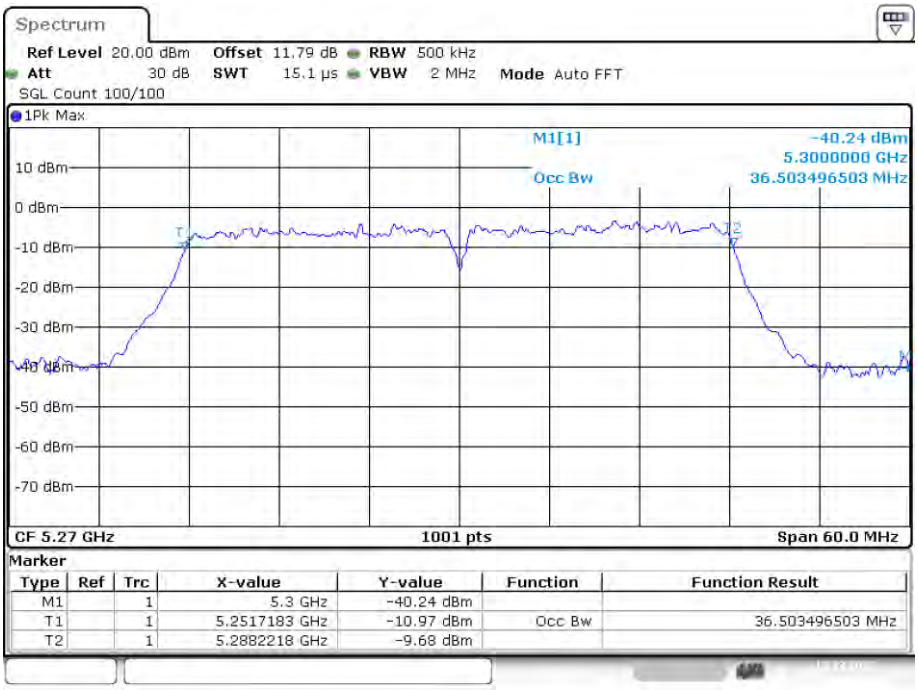
Date: 13.DEC.2022 12:02:49

OBW NVNT ac20 5320MHz Ant1



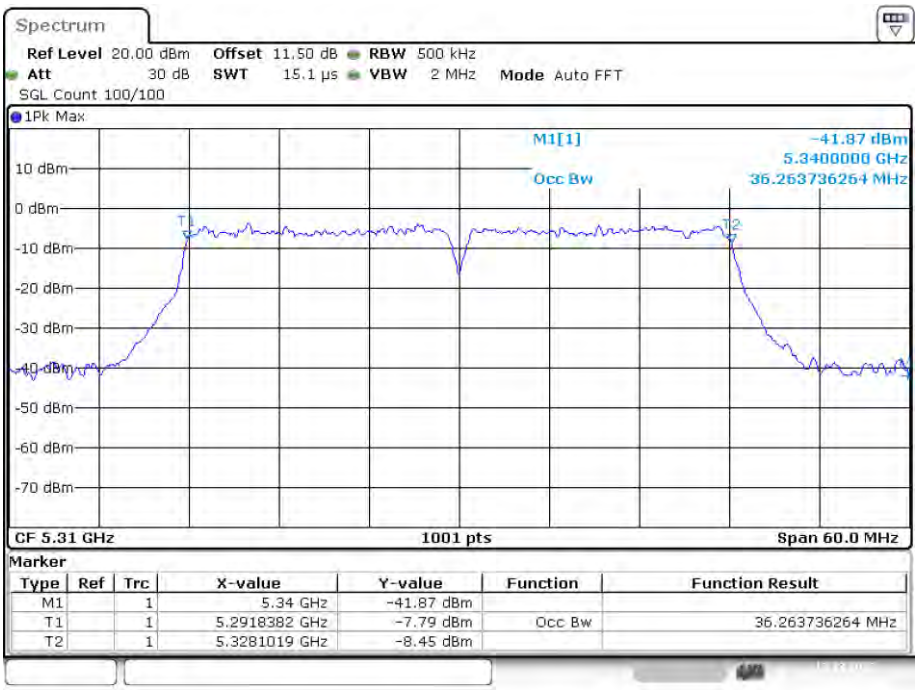
Date: 13.DEC.2022 12:12:32

OBW NVNT ac40 5270MHz Ant1



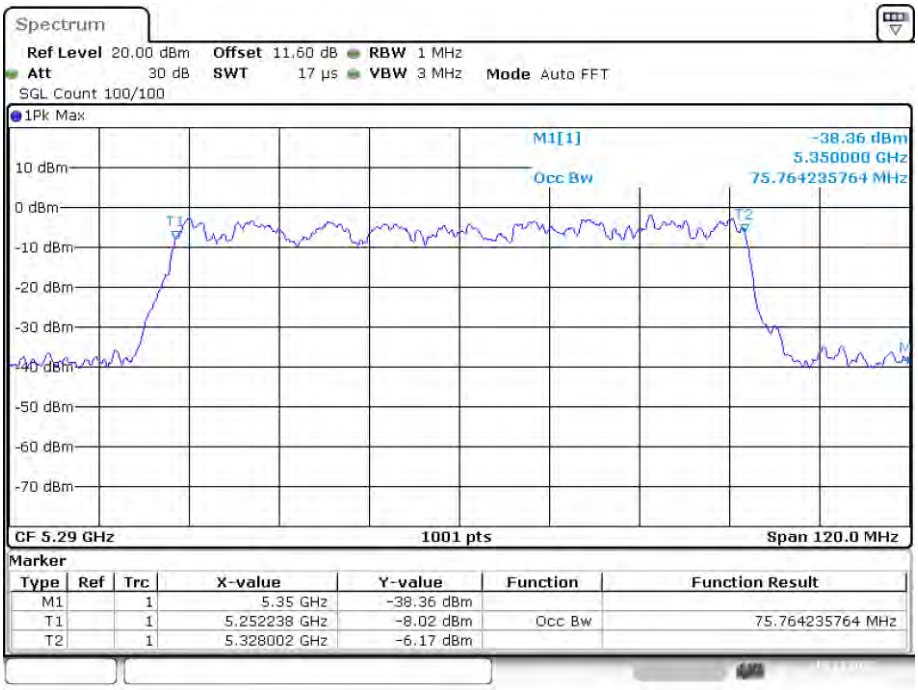
Date: 13.DEC.2022 13:47:04

OBW NVNT ac40 5310MHz Ant1

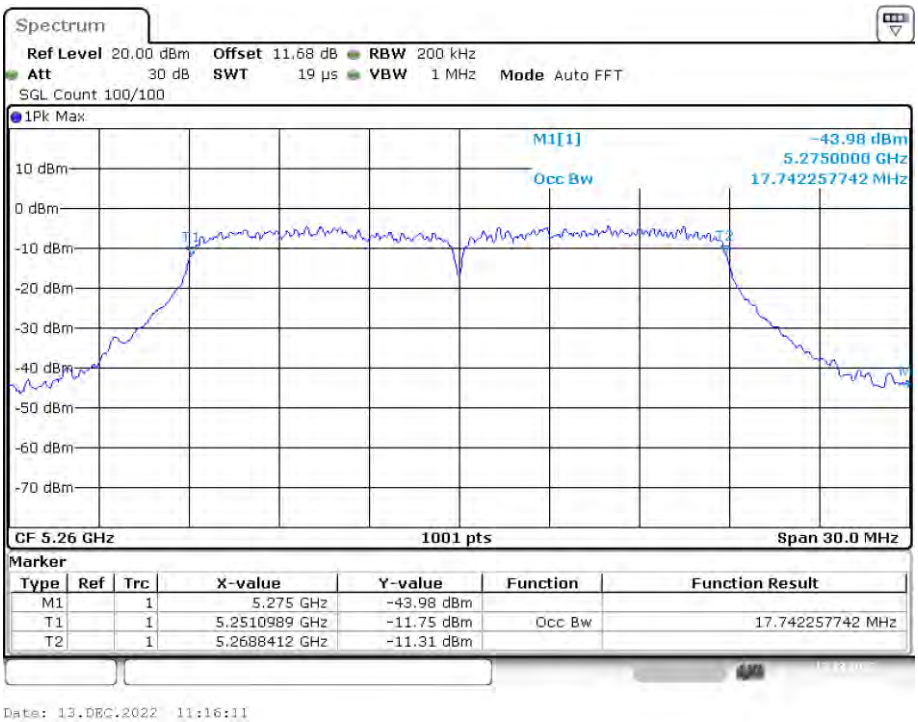


Date: 13.DEC.2022 14:01:08

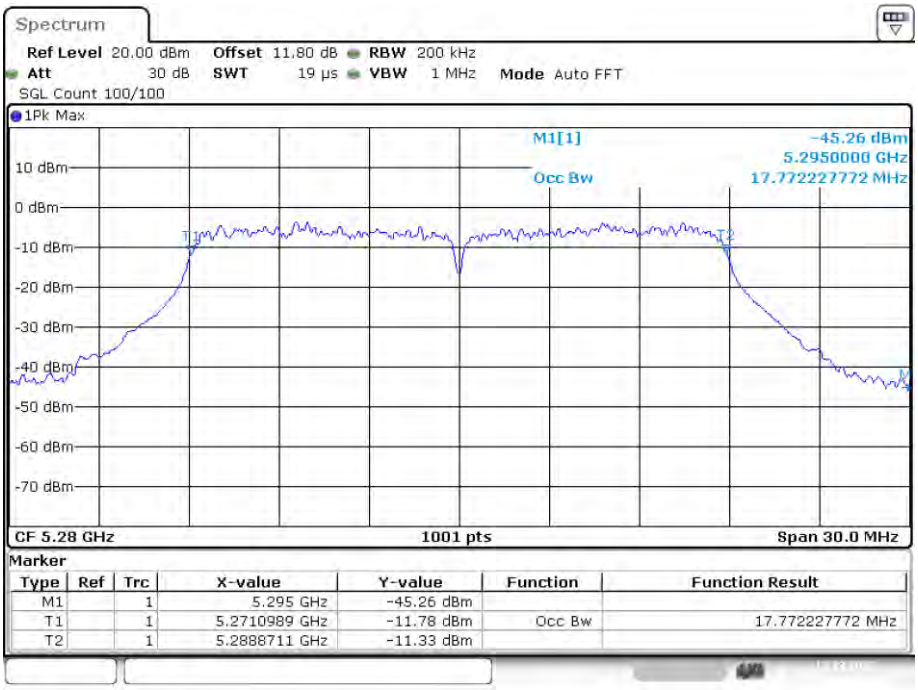
OBW NVNT ac80 5290MHz Ant1



OBW NVNT n20 5260MHz Ant1

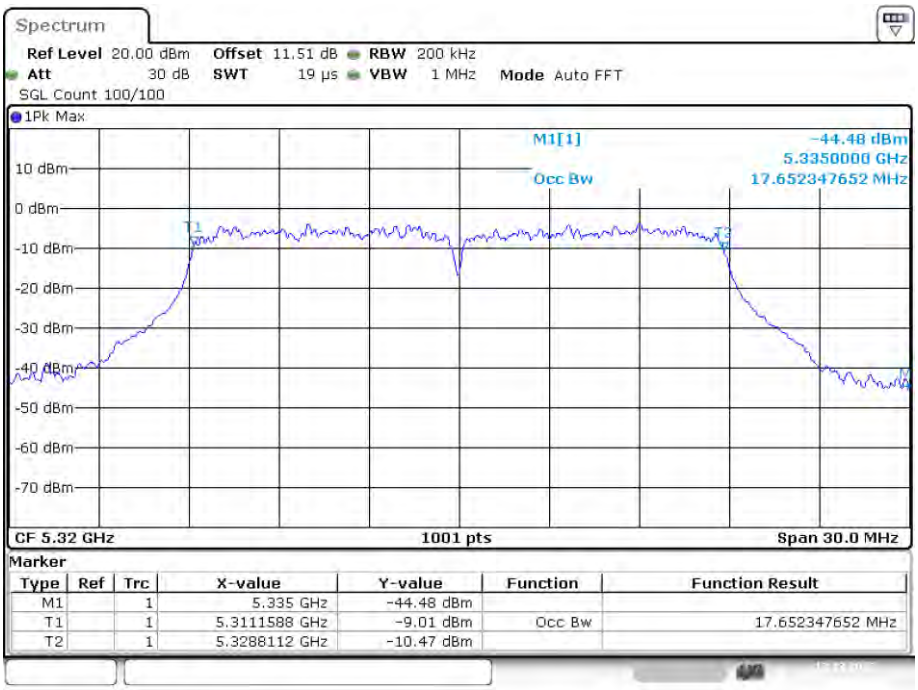


OBW NVNT n20 5280MHz Ant1



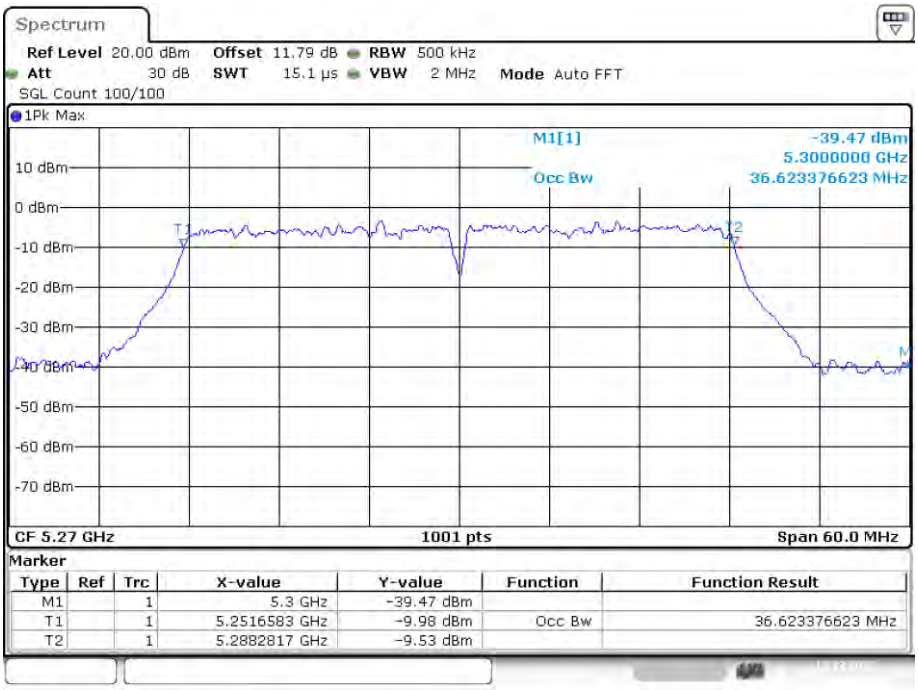
Date: 13.DEC.2022 11:29:30

OBW NVNT n20 5320MHz Ant1



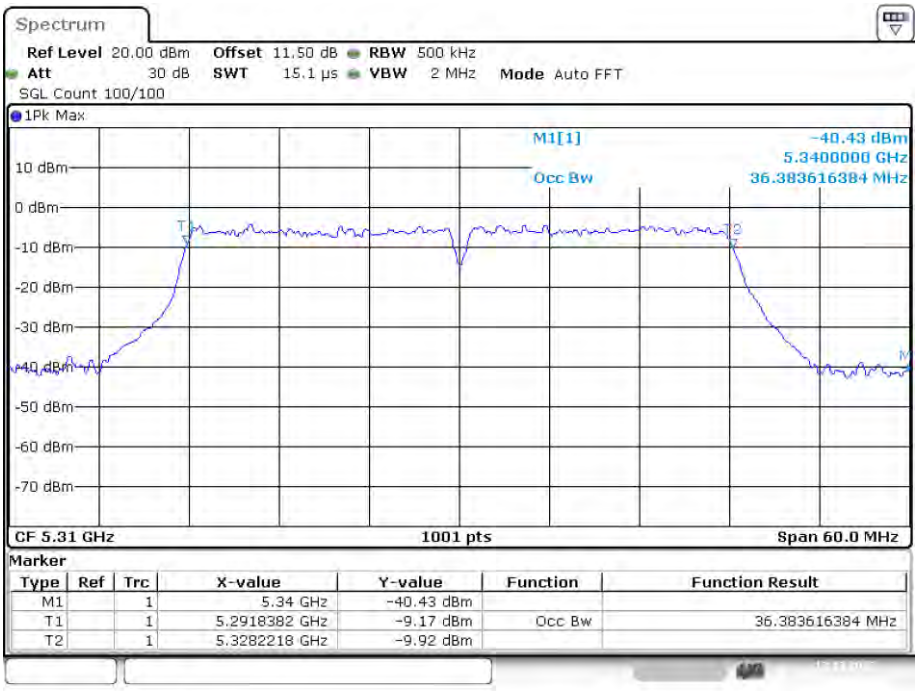
Date: 13.DEC.2022 11:33:49

OBW NVNT n40 5270MHz Ant1



Date: 13.DEC.2022 12:38:00

OBW NVNT n40 5310MHz Ant1



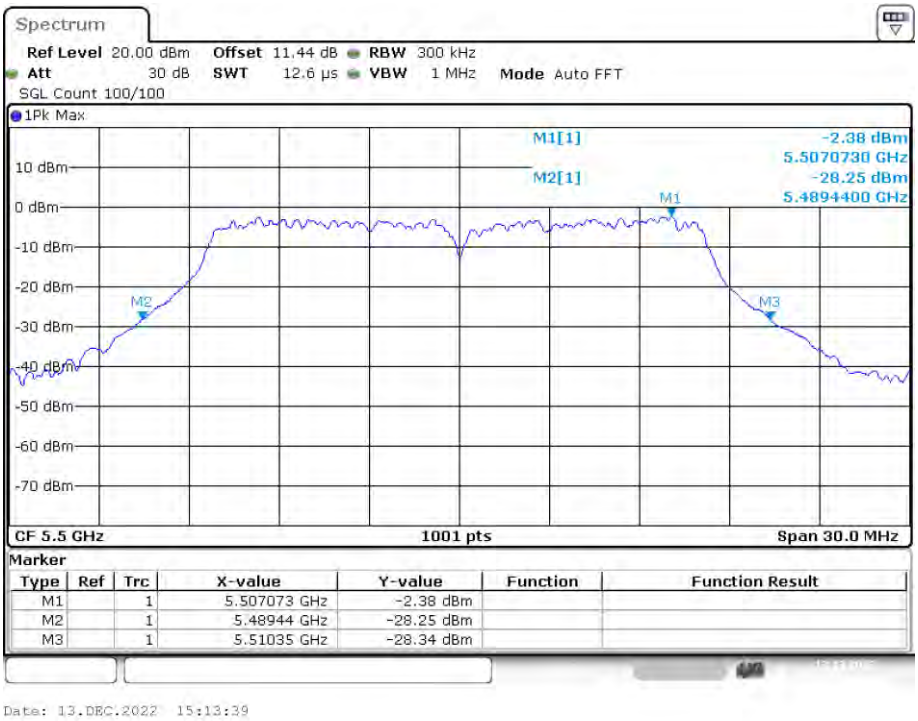
Date: 13.DEC.2022 13:23:27

Band 3 (5470-5725 MHz):

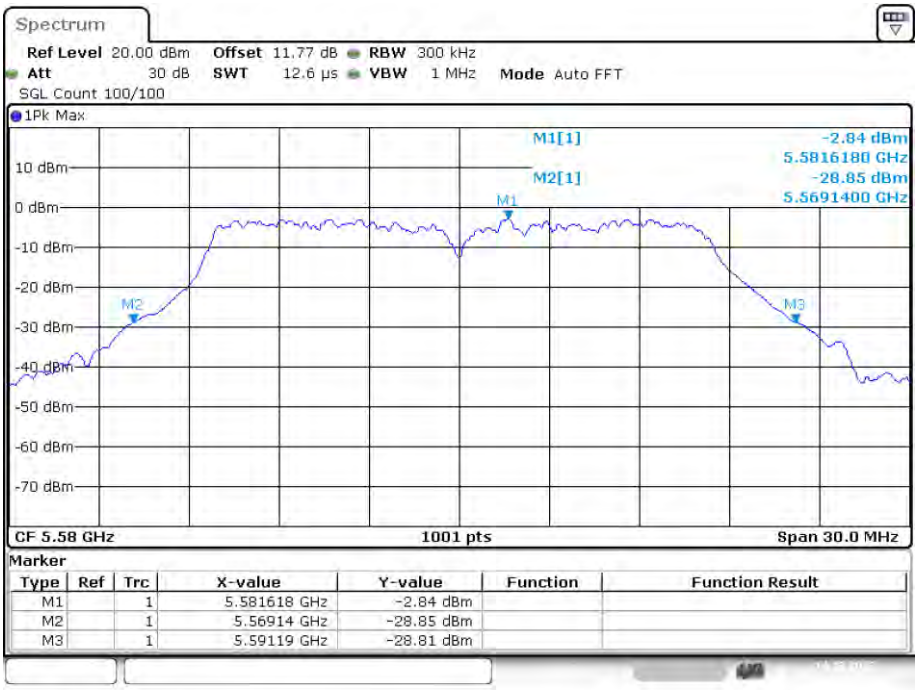
-26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5500	Ant1	20.91	0.5	Pass
NVNT	a	5580	Ant1	22.05	0.5	Pass
NVNT	a	5700	Ant1	21.45	0.5	Pass
NVNT	ac20	5500	Ant1	21.15	0.5	Pass
NVNT	ac20	5580	Ant1	21.66	0.5	Pass
NVNT	ac20	5700	Ant1	21.66	0.5	Pass
NVNT	ac40	5510	Ant1	41.04	0.5	Pass
NVNT	ac40	5670	Ant1	40.86	0.5	Pass
NVNT	ac80	5530	Ant1	79.92	0.5	Pass
NVNT	n20	5500	Ant1	21.6	0.5	Pass
NVNT	n20	5580	Ant1	21.9	0.5	Pass
NVNT	n20	5700	Ant1	21.81	0.5	Pass
NVNT	n40	5510	Ant1	41.04	0.5	Pass
NVNT	n40	5670	Ant1	40.92	0.5	Pass

-26dB Bandwidth NVNT a 5500MHz Ant1

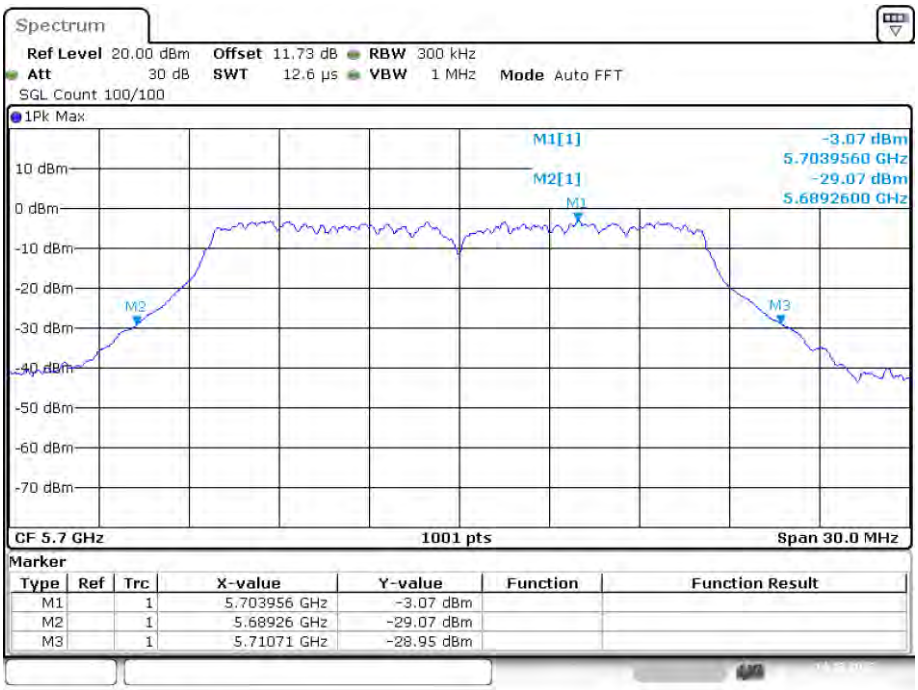


-26dB Bandwidth NVNT a 5580MHz Ant1



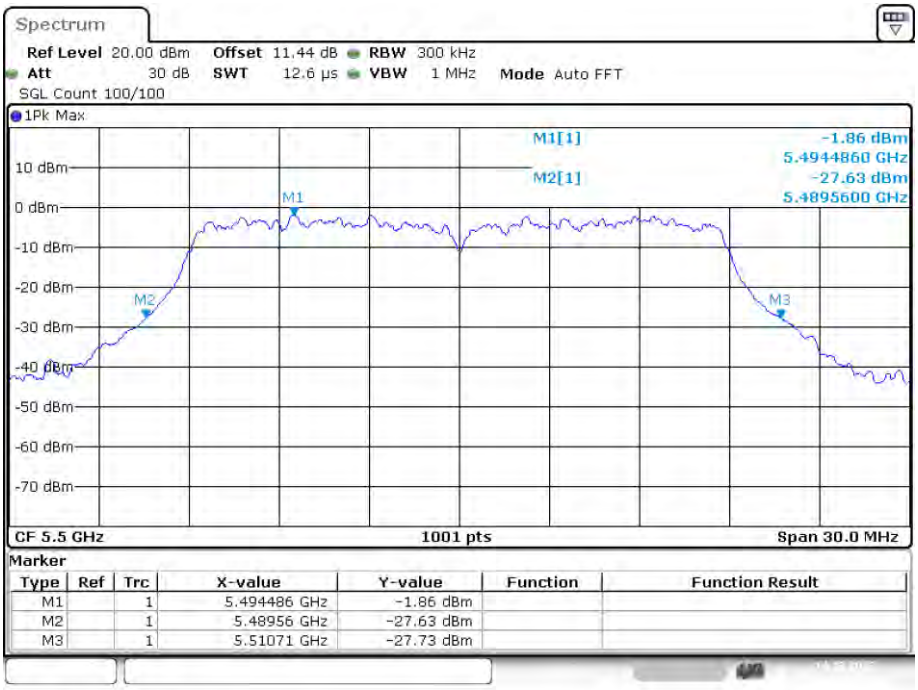
Date: 14.DEC.2022 03:22:15

-26dB Bandwidth NVNT a 5700MHz Ant1



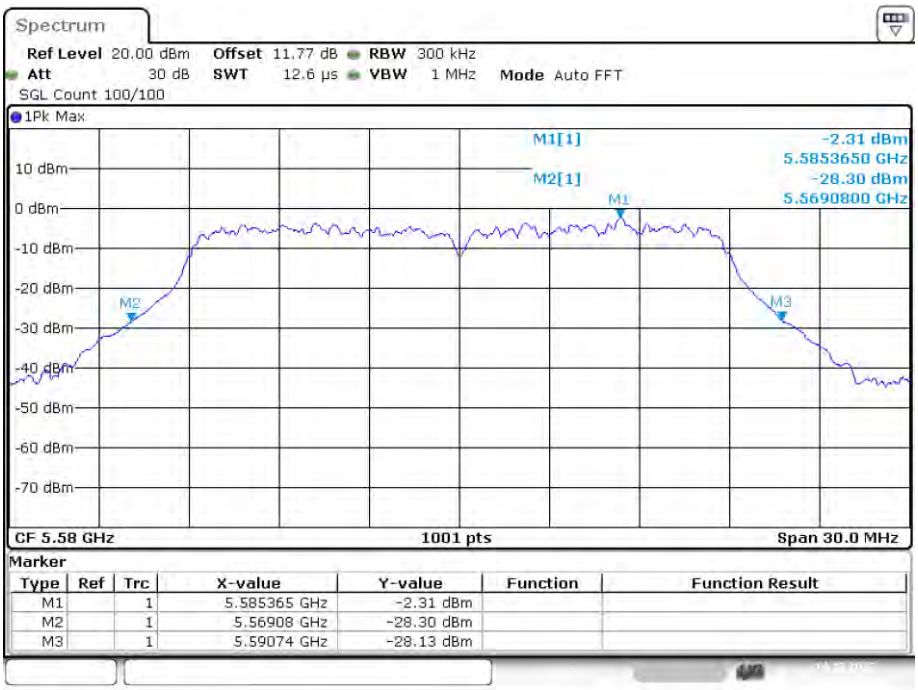
Date: 14.DEC.2022 03:34:57

-26dB Bandwidth NVNT ac20 5500MHz Ant1



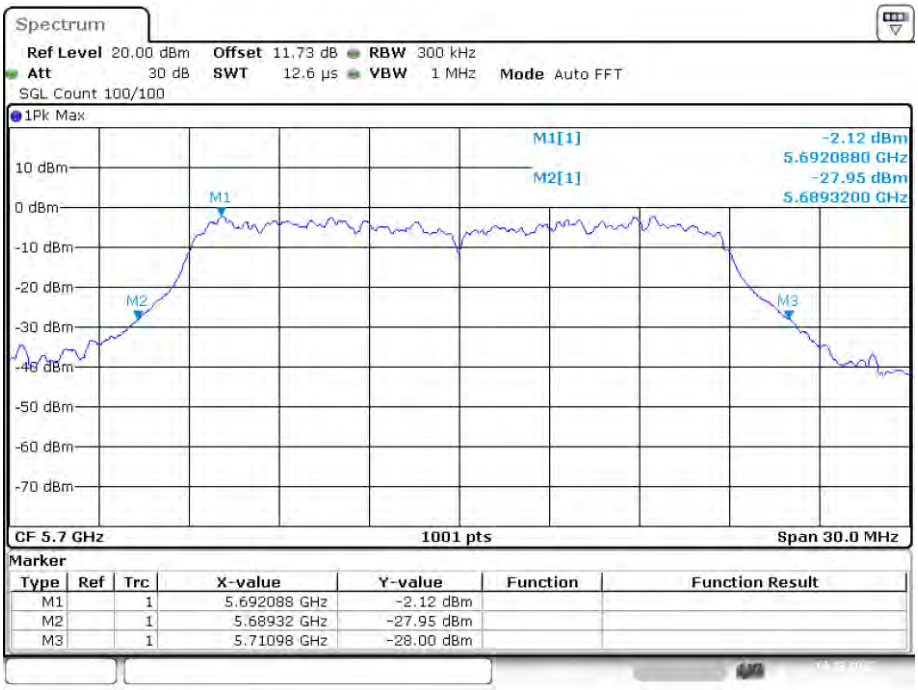
Date: 14.DEC.2022 04:48:49

-26dB Bandwidth NVNT ac20 5580MHz Ant1



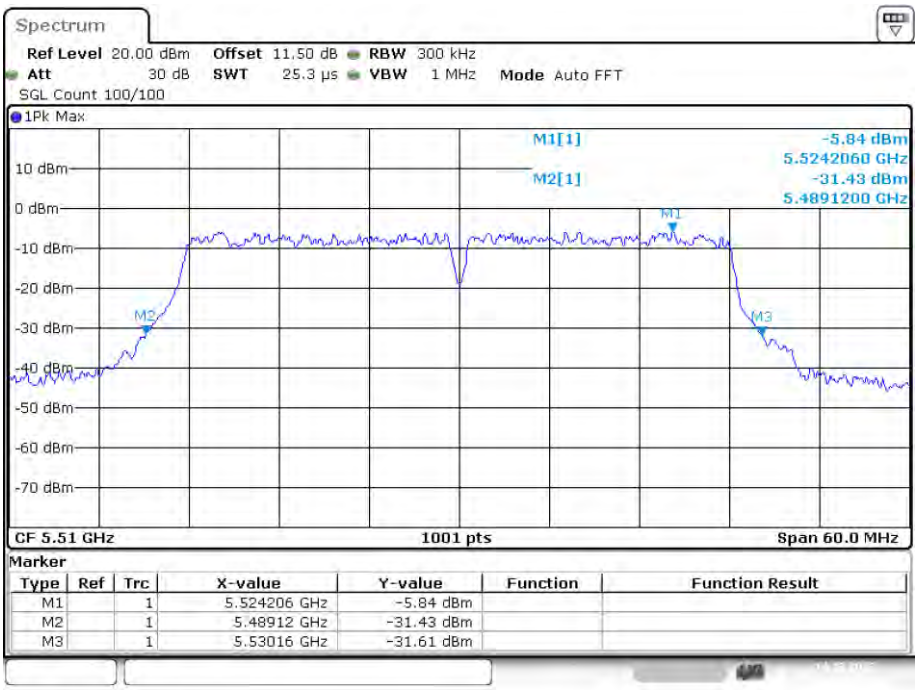
Date: 14.DEC.2022 09:23:53

-26dB Bandwidth NVNT ac20 5700MHz Ant1



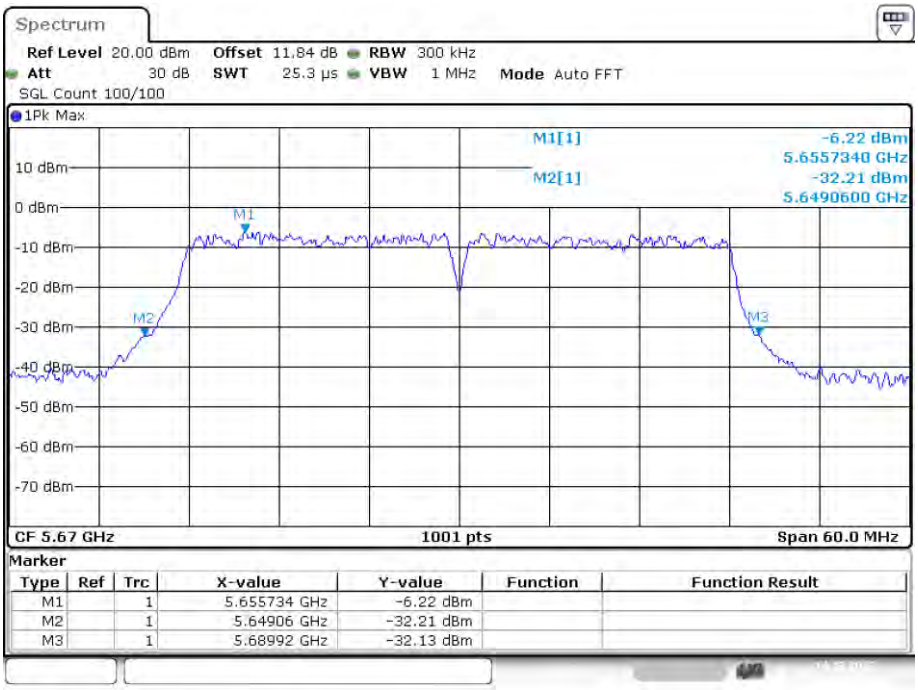
Date: 14.DEC.2022 12:15:22

-26dB Bandwidth NVNT ac40 5510MHz Ant1



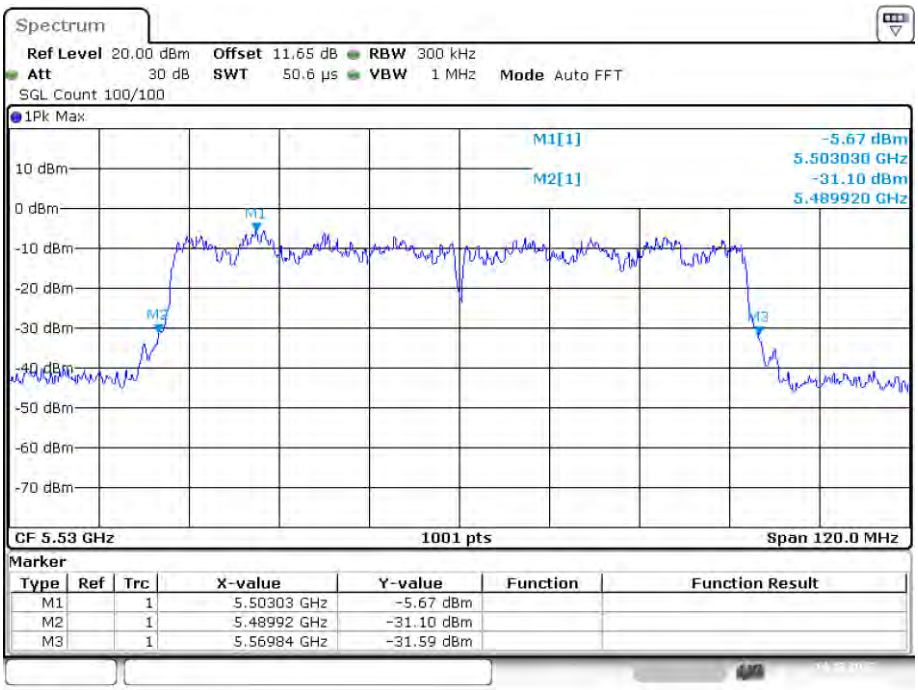
Date: 14.DEC.2022 13:39:50

-26dB Bandwidth NVNT ac40 5670MHz Ant1



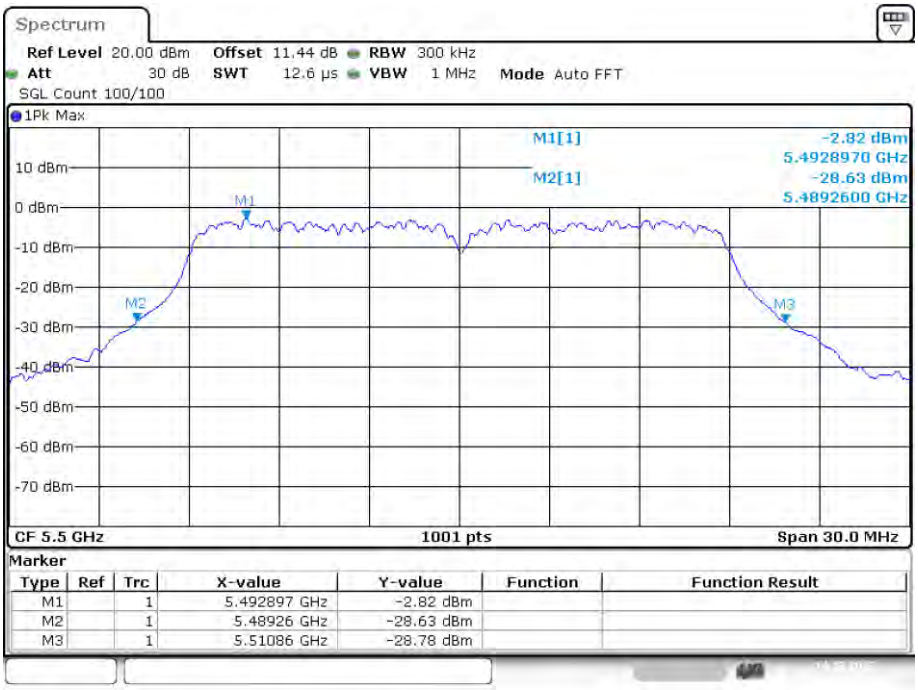
Date: 14.DEC.2022 13:53:51

-26dB Bandwidth NVNT ac80 5530MHz Ant1



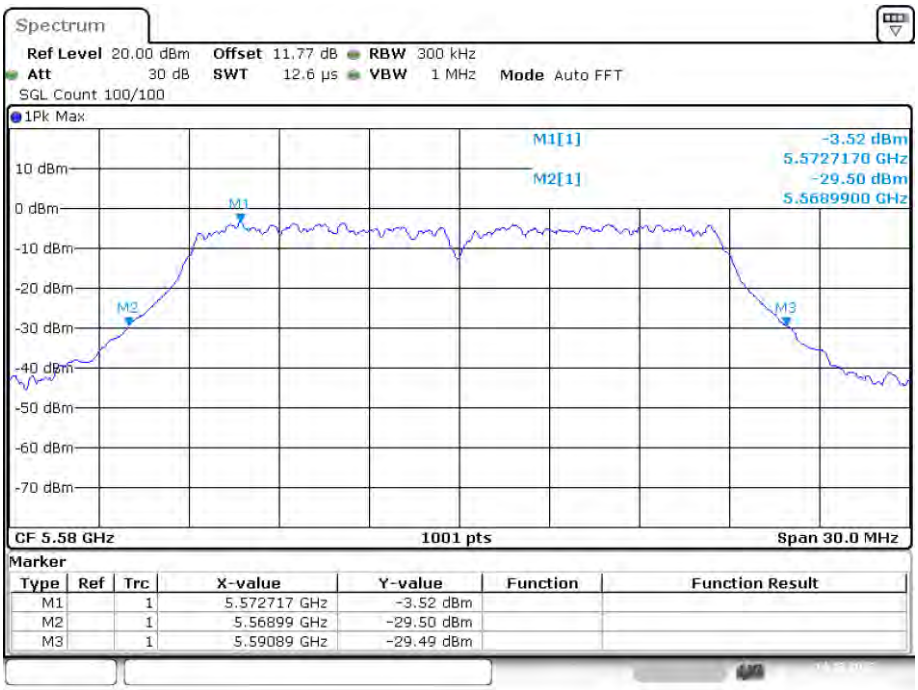
Date: 14.DEC.2022 14:01:52

-26dB Bandwidth NVNT n20 5500MHz Ant1



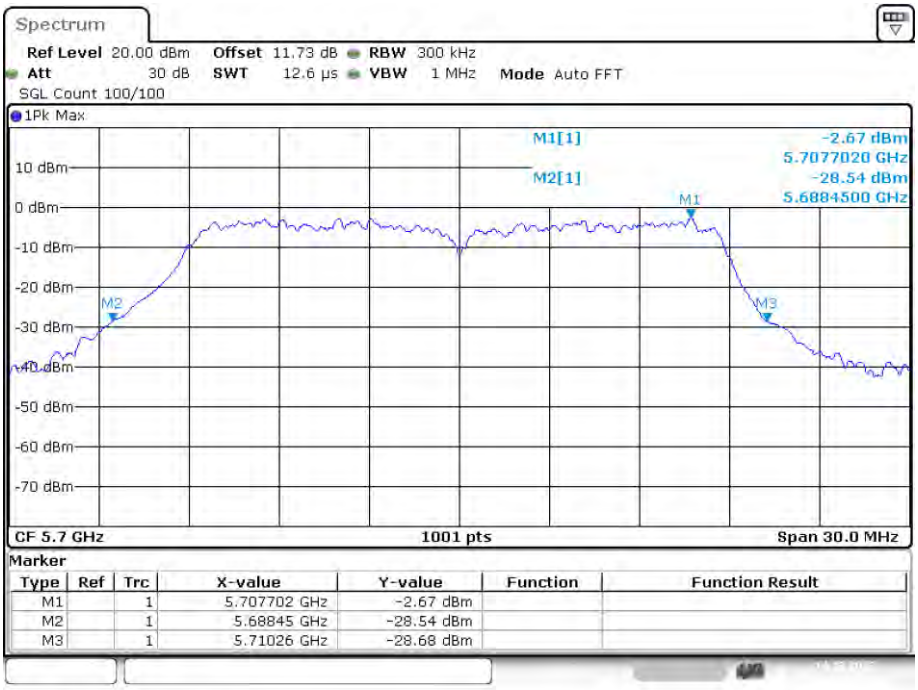
Date: 14.DEC.2022 03:50:47

-26dB Bandwidth NVNT n20 5580MHz Ant1



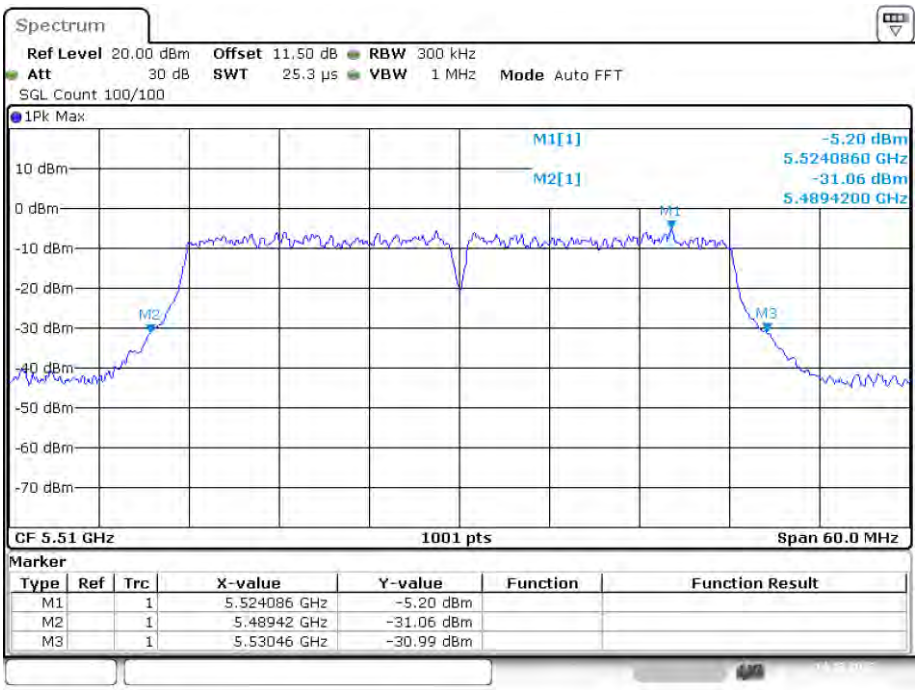
Date: 14.DEC.2022 03:59:36

-26dB Bandwidth NVNT n20 5700MHz Ant1



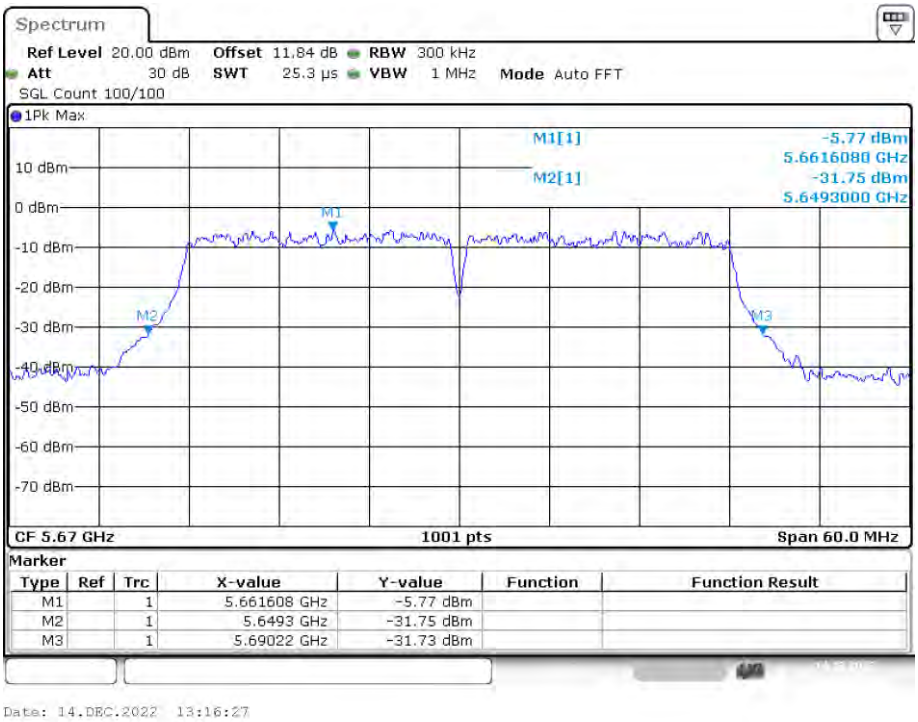
Date: 14.DEC.2022 04:39:40

-26dB Bandwidth NVNT n40 5510MHz Ant1



Date: 14.DEC.2022 12:26:00

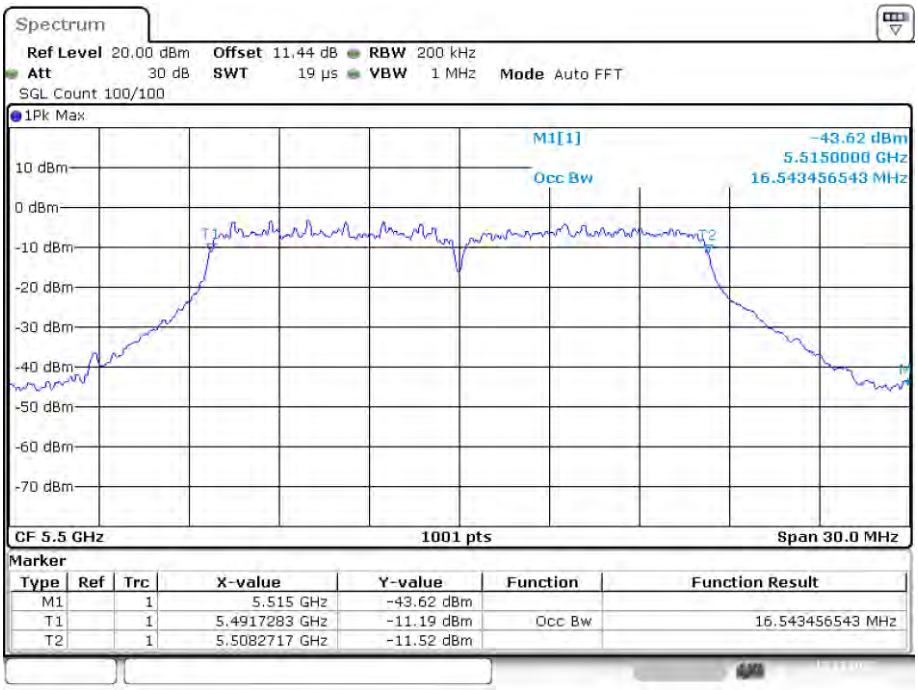
-26dB Bandwidth NVNT n40 5670MHz Ant1



Occupied Channel Bandwidth

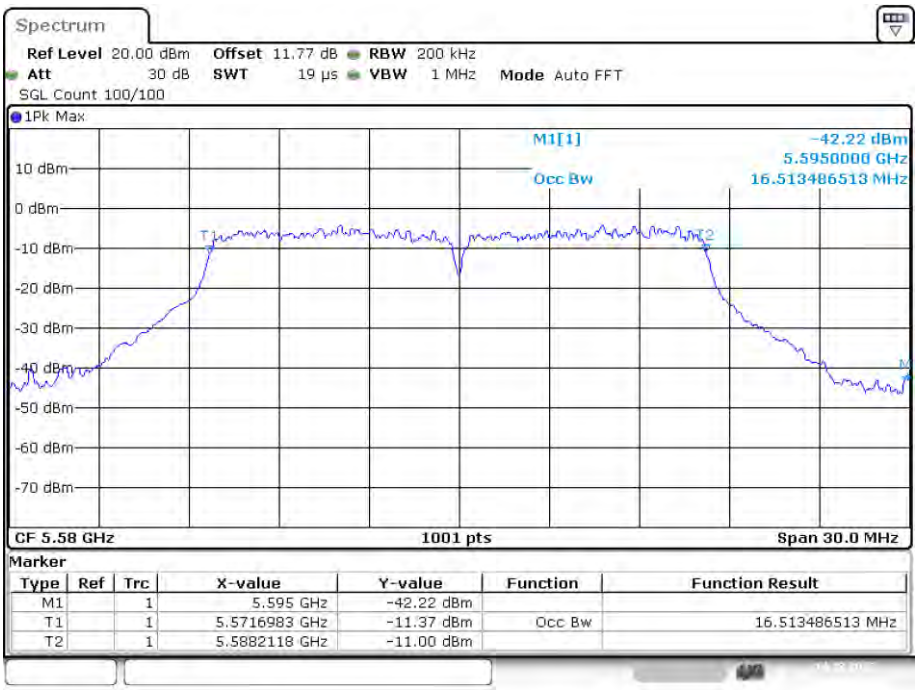
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5500	Ant1	16.543
NVNT	a	5580	Ant1	16.513
NVNT	a	5700	Ant1	16.633
NVNT	ac20	5500	Ant1	17.652
NVNT	ac20	5580	Ant1	17.622
NVNT	ac20	5700	Ant1	17.772
NVNT	ac40	5510	Ant1	36.384
NVNT	ac40	5670	Ant1	36.144
NVNT	ac80	5530	Ant1	75.644
NVNT	n20	5500	Ant1	17.802
NVNT	n20	5580	Ant1	17.652
NVNT	n20	5700	Ant1	17.652
NVNT	n40	5510	Ant1	36.264
NVNT	n40	5670	Ant1	36.144

OBW NVNT a 5500MHz Ant1



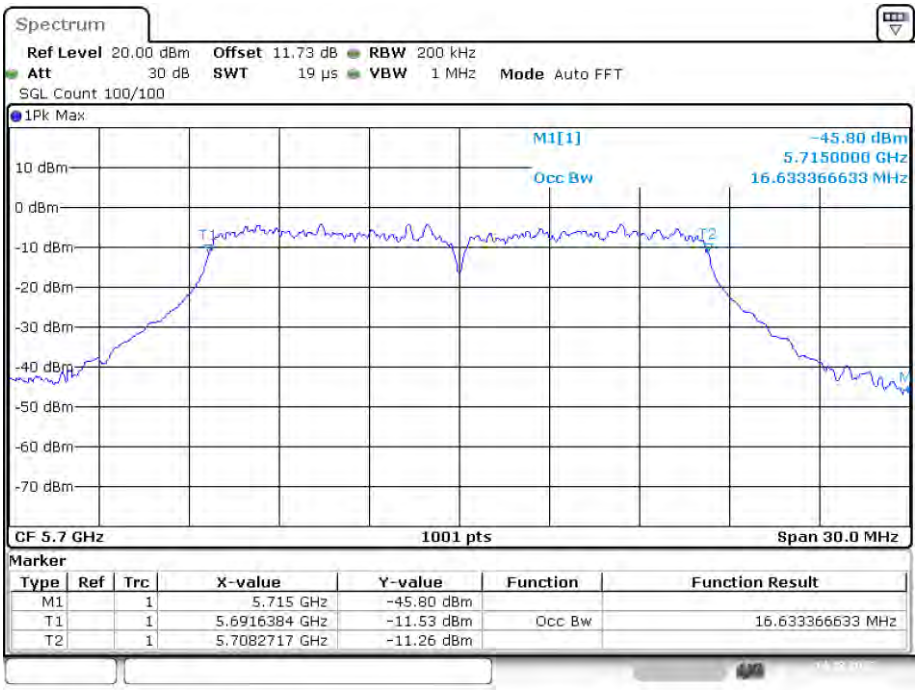
Date: 13.DEC.2022 15:13:30

OBW NVNT a 5580MHz Ant1



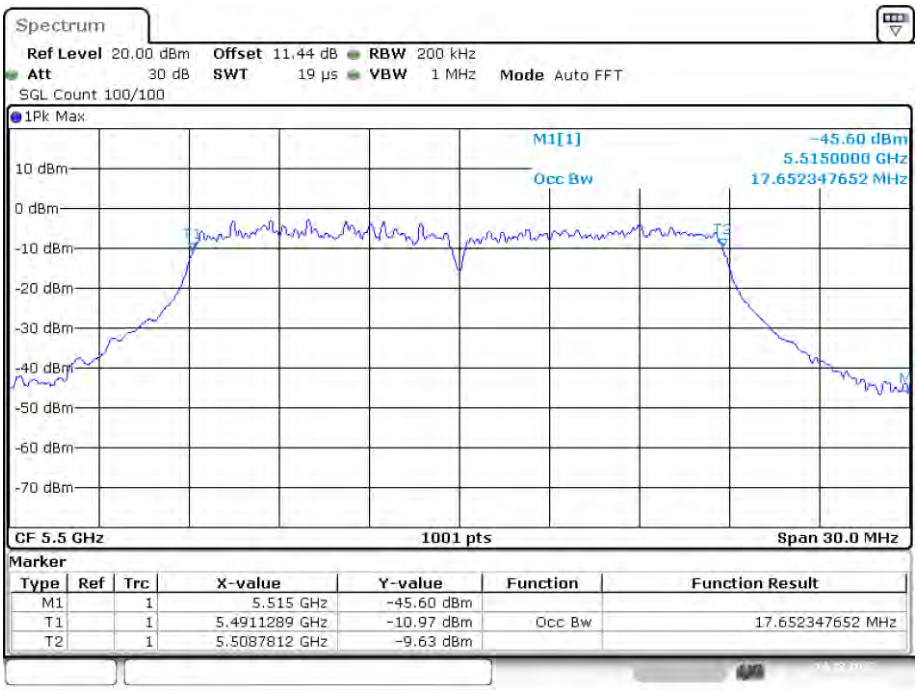
Date: 14.DEC.2022 03:22:06

OBW NVNT a 5700MHz Ant1



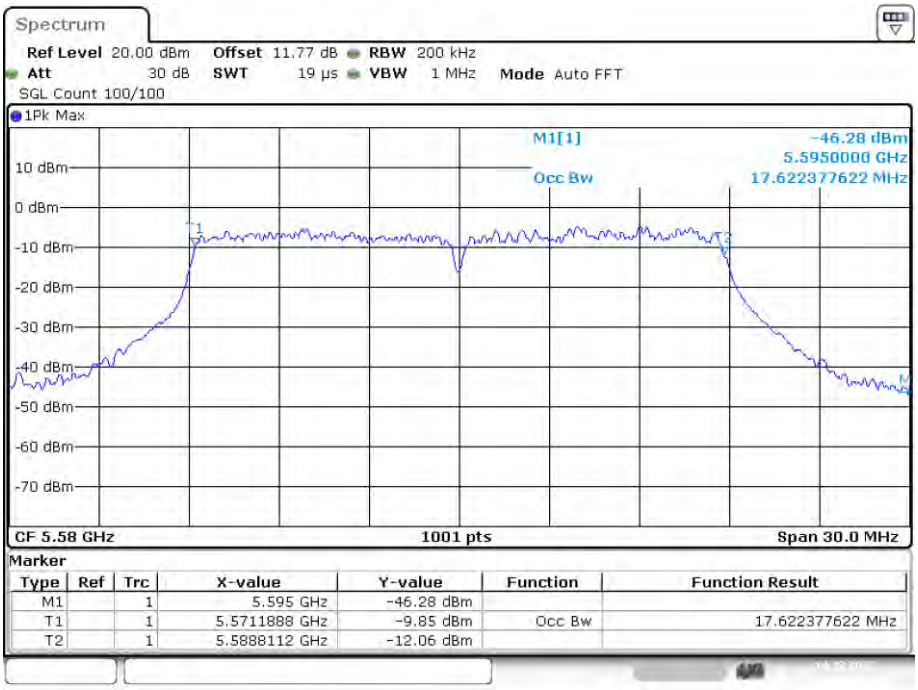
Date: 14.DEC.2022 03:34:47

OBW NVNT ac20 5500MHz Ant1



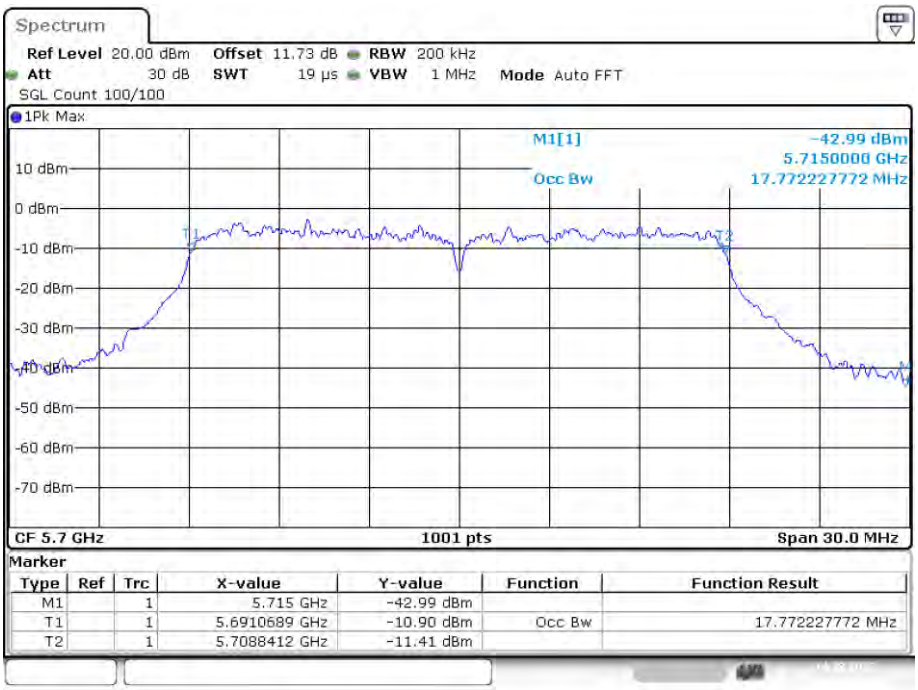
Date: 14.DEC.2022 04:48:37

OBW NVNT ac20 5580MHz Ant1



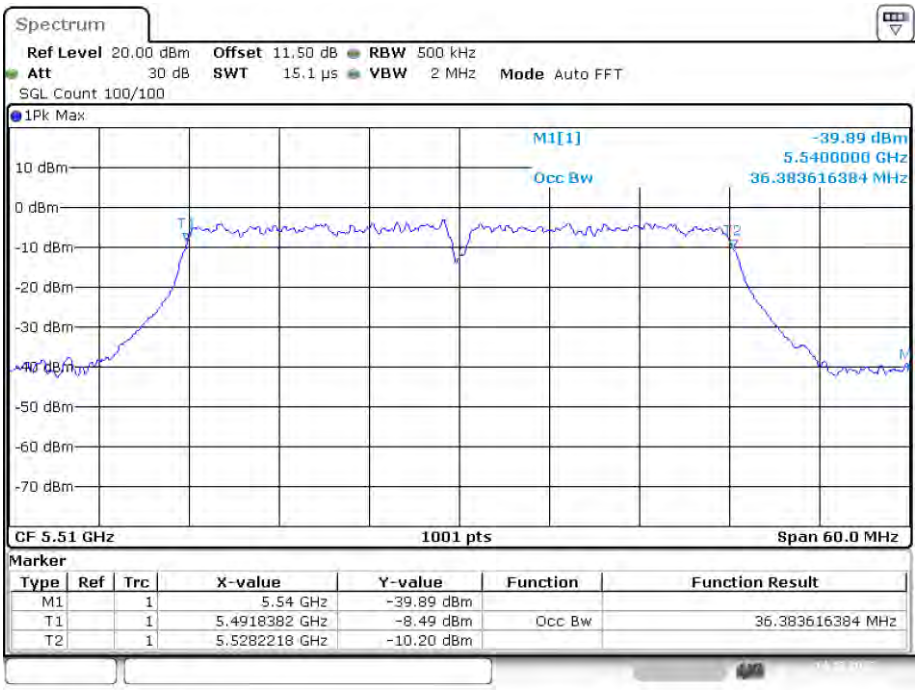
Date: 14.DEC.2022 09:23:44

OBW NVNT ac20 5700MHz Ant1



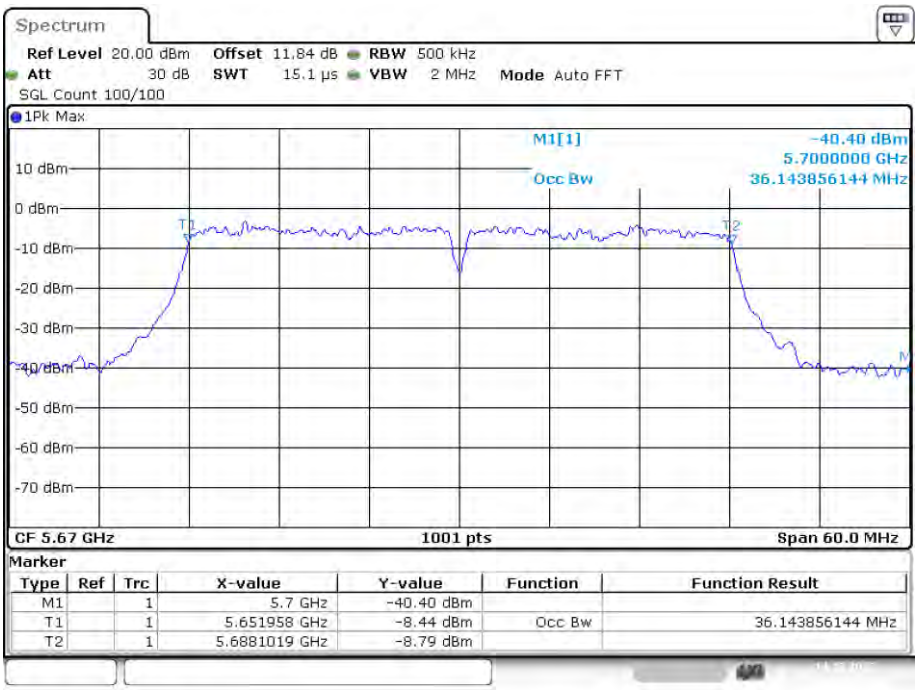
Date: 14.DEC.2022 12:15:13

OBW NVNT ac40 5510MHz Ant1



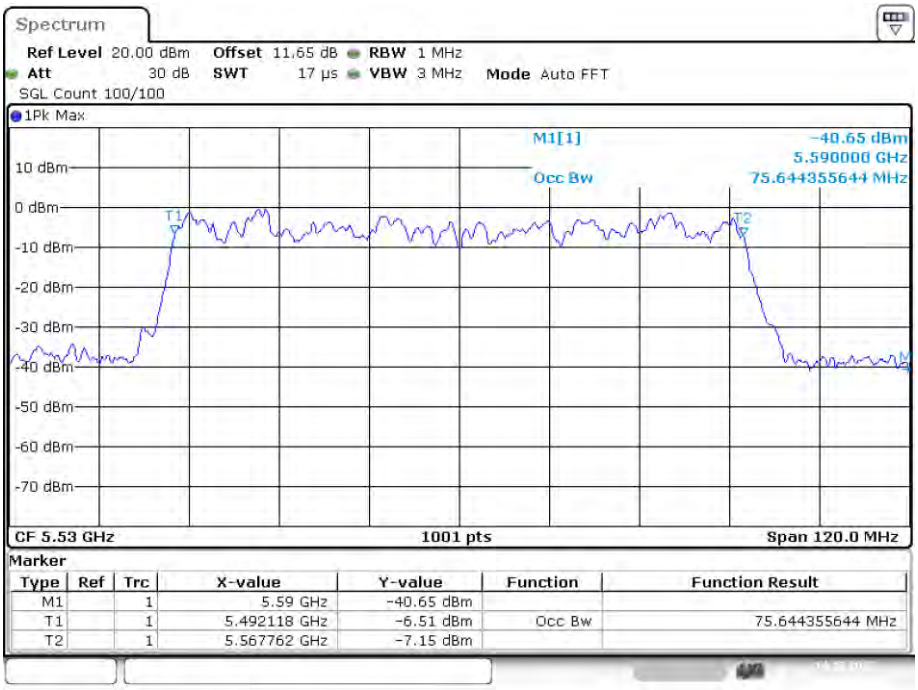
Date: 14.DEC.2022 13:39:36

OBW NVNT ac40 5670MHz Ant1

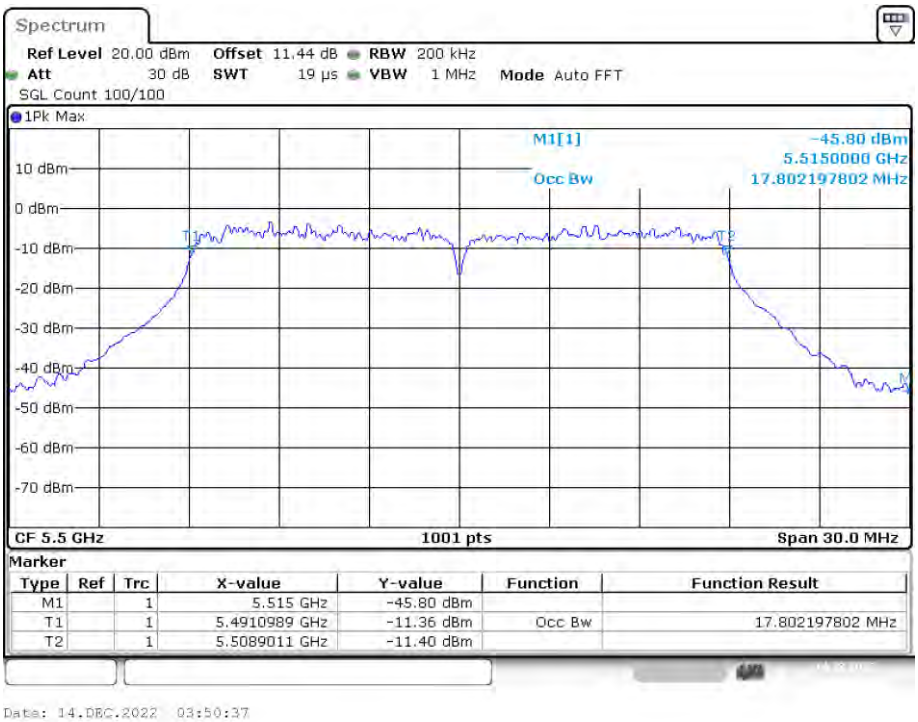


Date: 14.DEC.2022 13:53:32

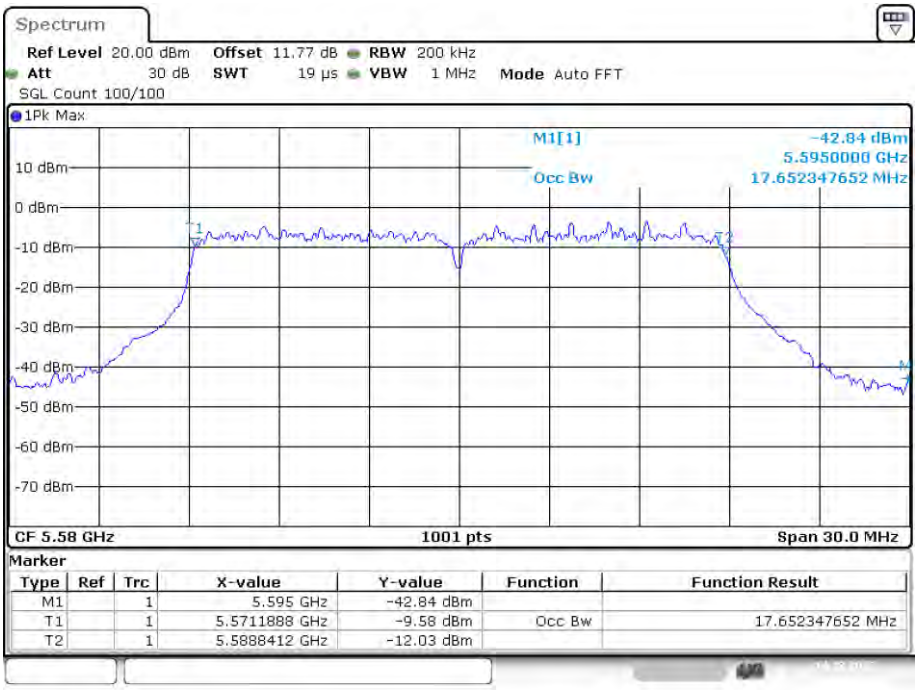
OBW NVNT ac80 5530MHz Ant1



OBW NVNT n20 5500MHz Ant1

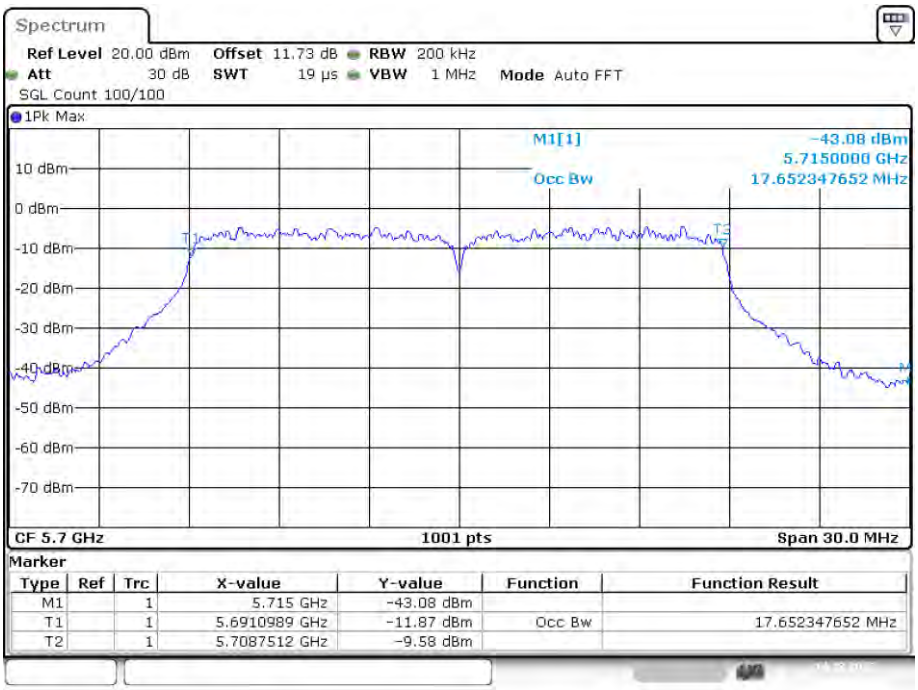


OBW NVNT n20 5580MHz Ant1



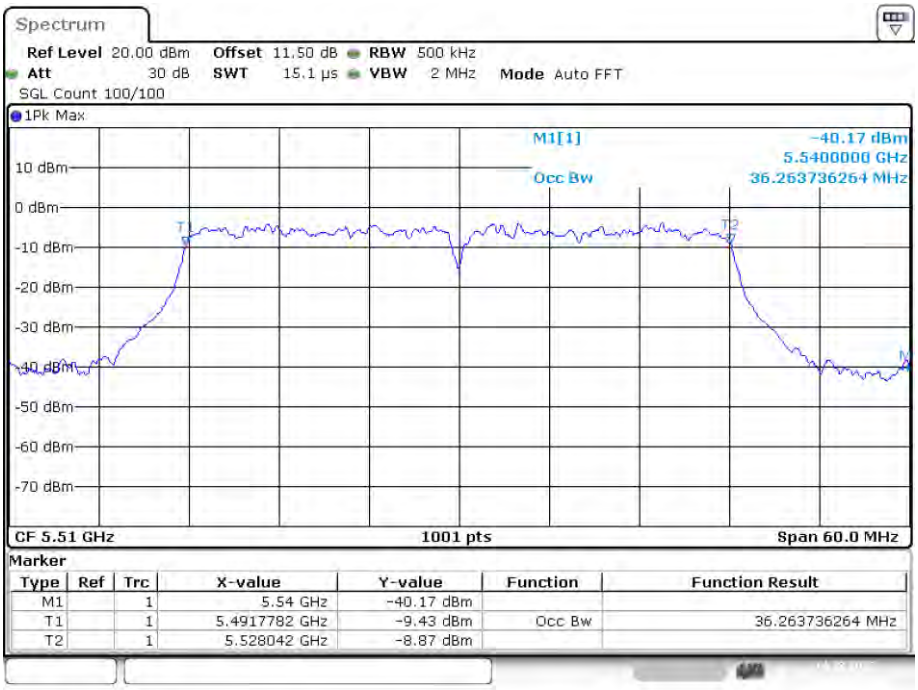
Date: 14.DEC.2022 03:59:24

OBW NVNT n20 5700MHz Ant1



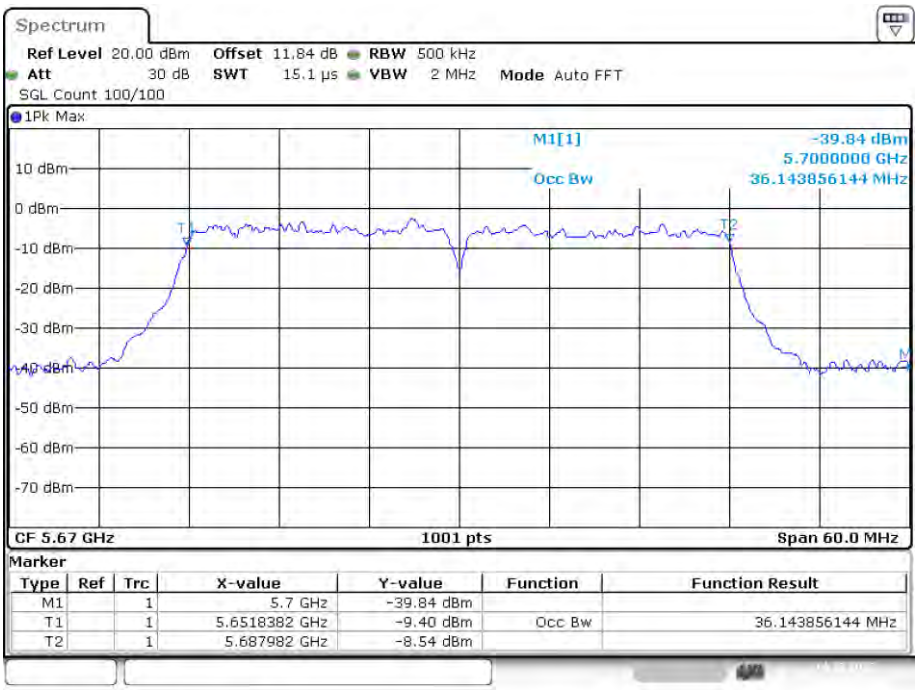
Date: 14.DEC.2022 04:39:28

OBW NVNT n40 5510MHz Ant1



Date: 14.DEC.2022 12:25:49

OBW NVNT n40 5670MHz Ant1



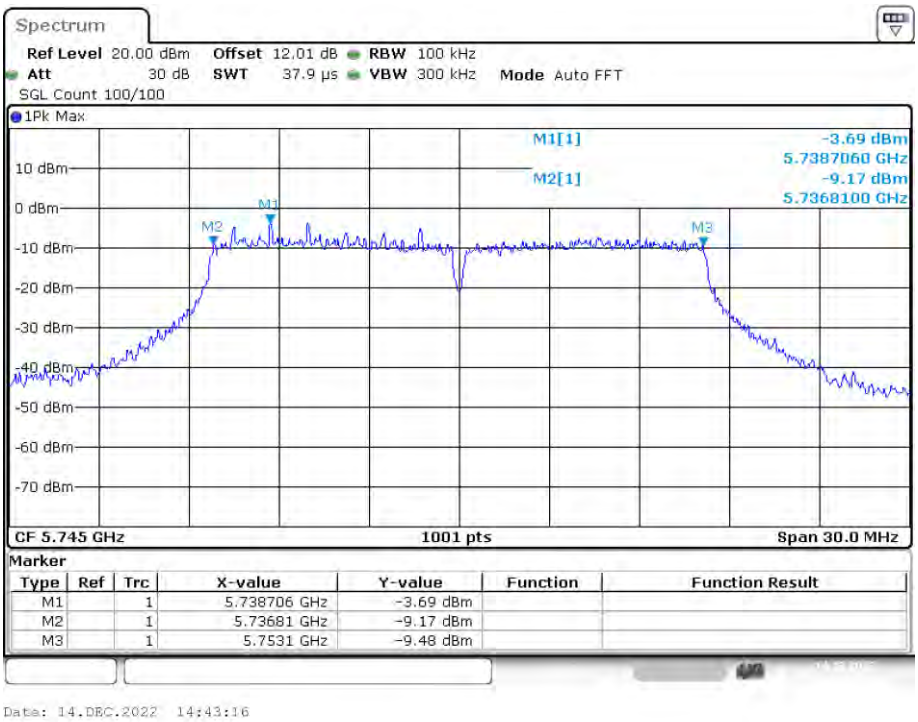
Date: 14.DEC.2022 13:16:15

Band 4 (5725-5850 MHz):

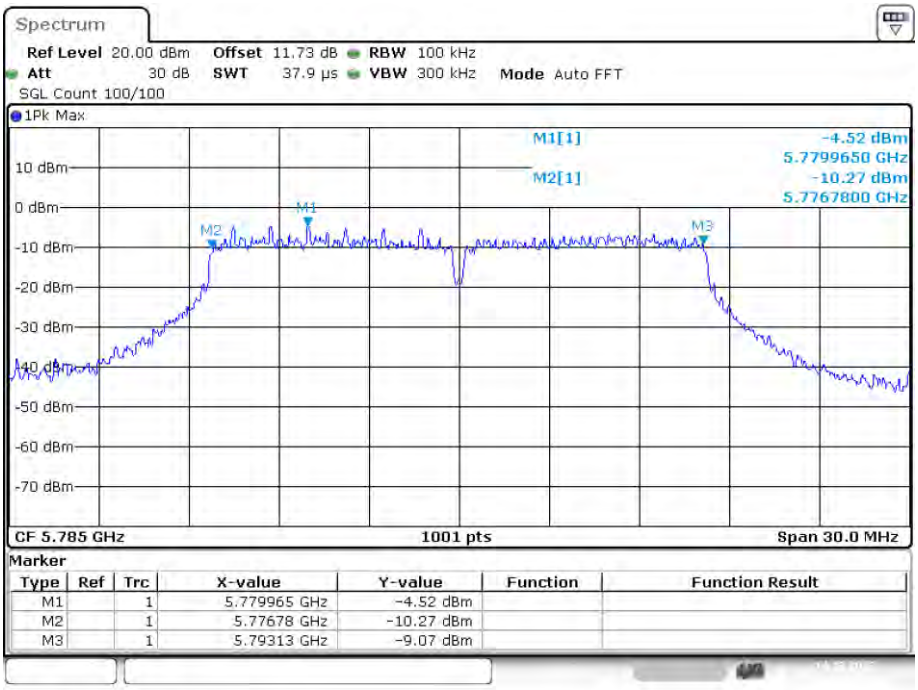
-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	Ant1	16.29	0.5	Pass
NVNT	a	5785	Ant1	16.35	0.5	Pass
NVNT	a	5825	Ant1	16.32	0.5	Pass
NVNT	ac20	5745	Ant1	17.31	0.5	Pass
NVNT	ac20	5785	Ant1	17.58	0.5	Pass
NVNT	ac20	5825	Ant1	17.79	0.5	Pass
NVNT	ac40	5755	Ant1	35.94	0.5	Pass
NVNT	ac40	5795	Ant1	36.3	0.5	Pass
NVNT	ac80	5775	Ant1	75.24	0.5	Pass
NVNT	n20	5745	Ant1	17.73	0.5	Pass
NVNT	n20	5785	Ant1	17.61	0.5	Pass
NVNT	n20	5825	Ant1	17.55	0.5	Pass
NVNT	n40	5755	Ant1	35.94	0.5	Pass
NVNT	n40	5795	Ant1	36.3	0.5	Pass

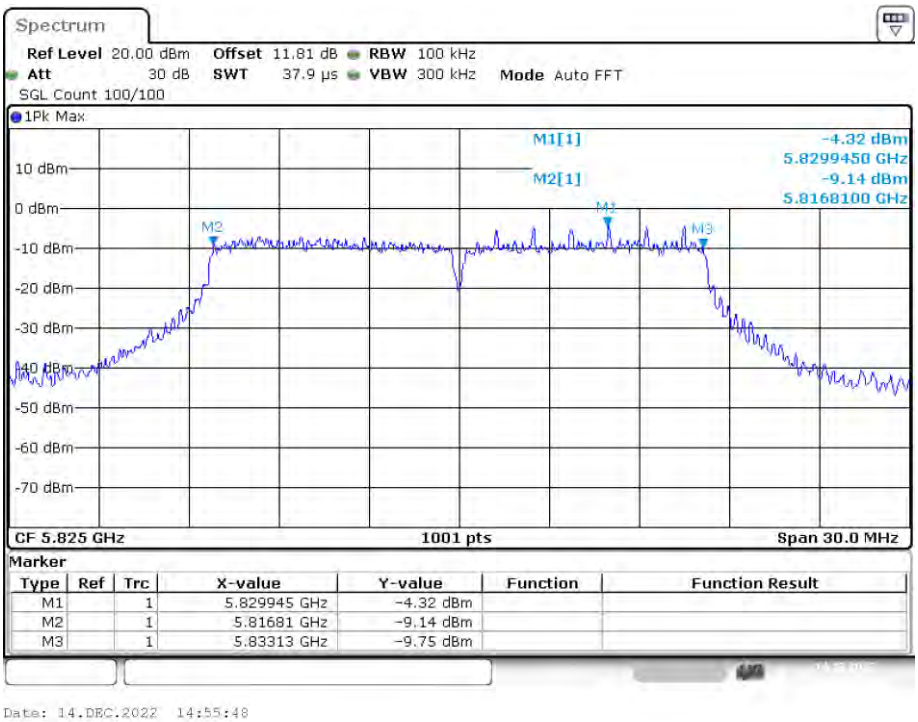
-6dB Bandwidth NVNT a 5745MHz Ant1



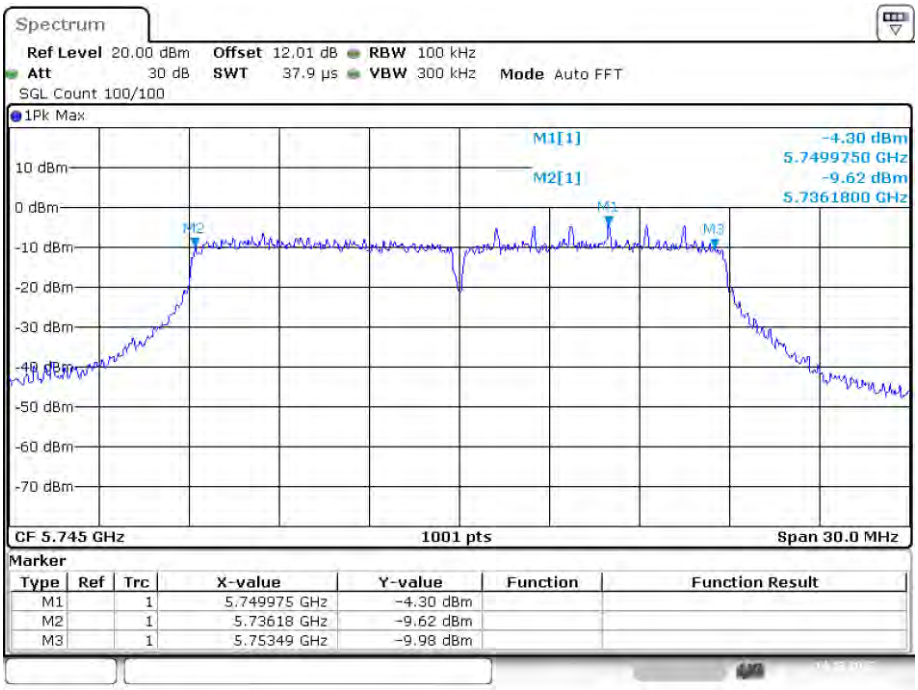
-6dB Bandwidth NVNT a 5785MHz Ant1



-6dB Bandwidth NVNT a 5825MHz Ant1

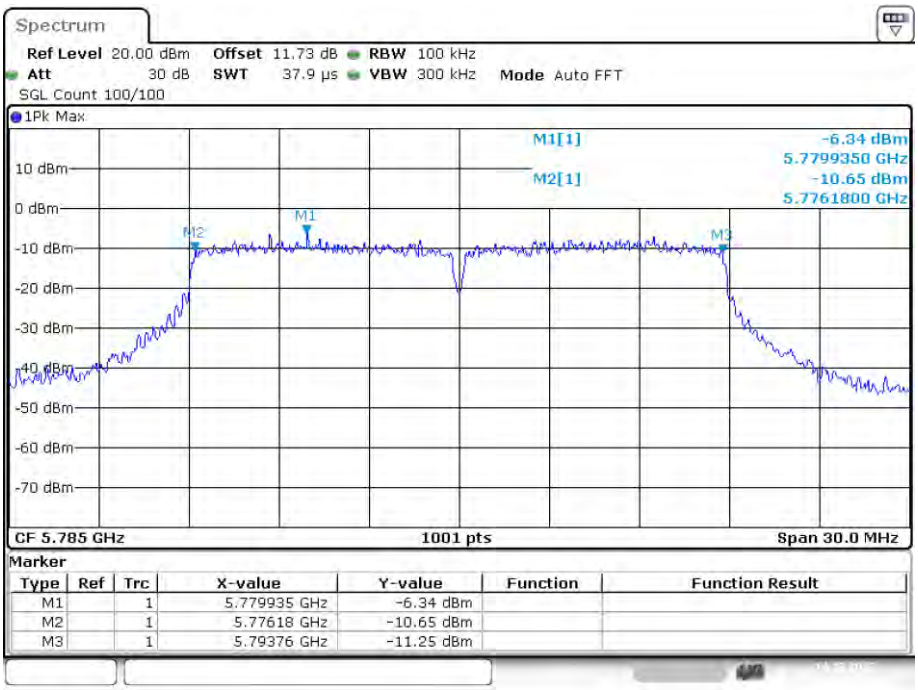


-6dB Bandwidth NVNT ac20 5745MHz Ant1



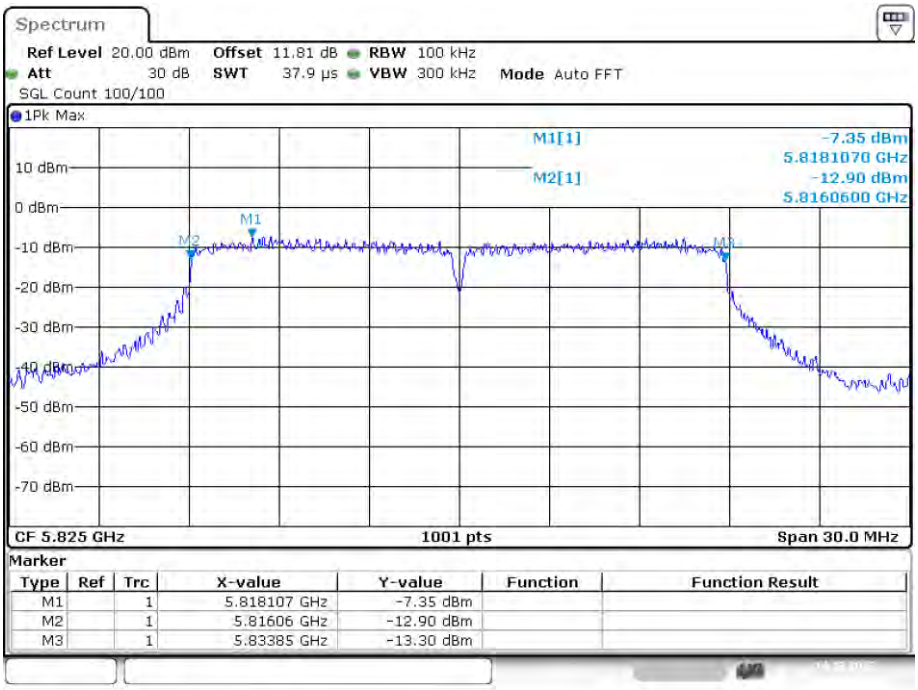
Date: 14.DEC.2022 15:43:57

-6dB Bandwidth NVNT ac20 5785MHz Ant1



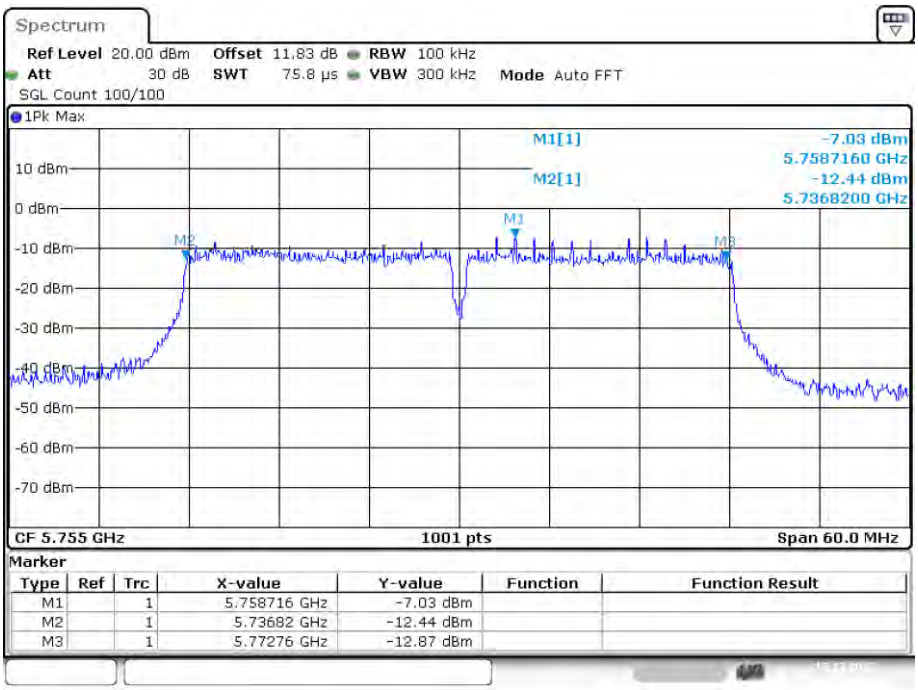
Date: 14.DEC.2022 15:54:04

-6dB Bandwidth NVNT ac20 5825MHz Ant1



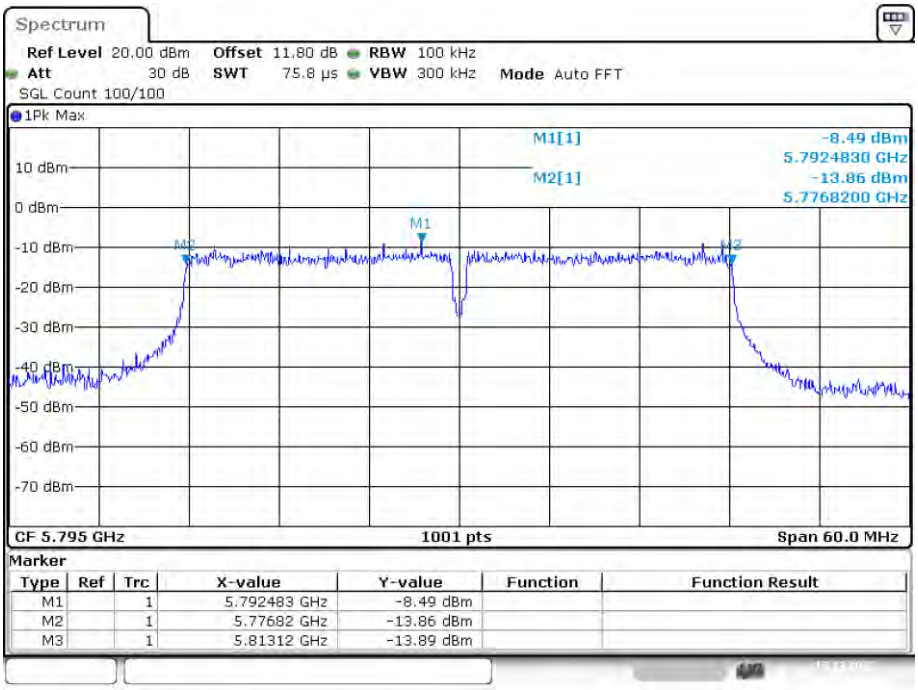
Date: 14.DEC.2022 16:01:01

-6dB Bandwidth NVNT ac40 5755MHz Ant1



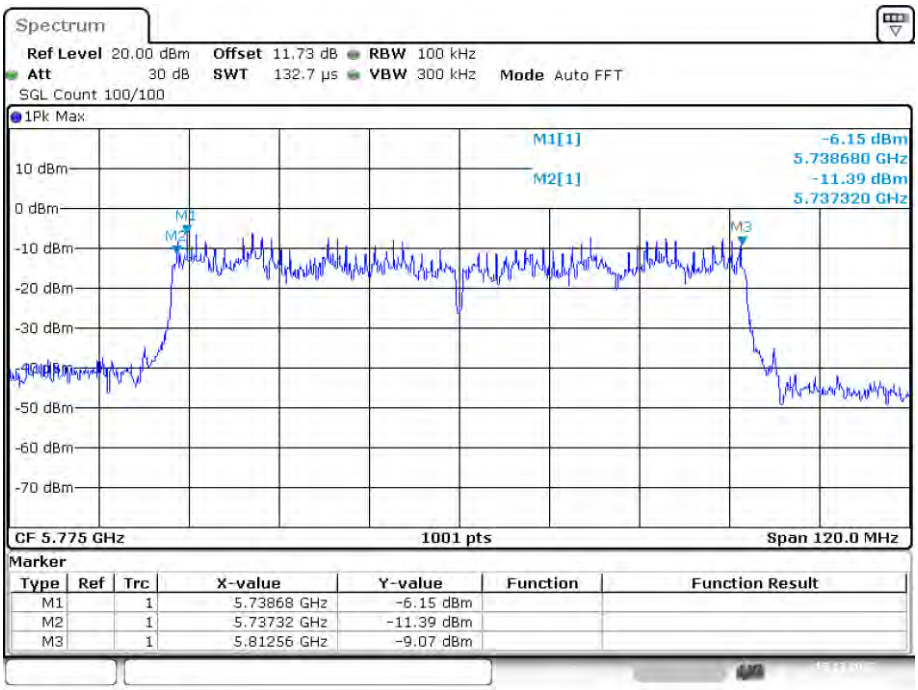
Date: 15.DEC.2022 04:07:12

-6dB Bandwidth NVNT ac40 5795MHz Ant1



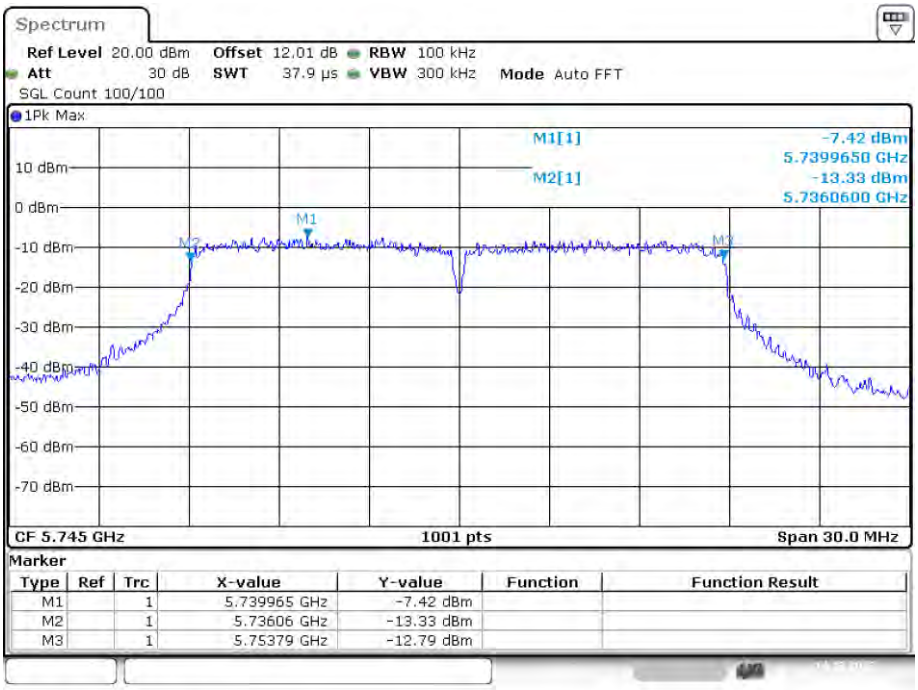
Date: 15.DEC.2022 04:12:07

-6dB Bandwidth NVNT ac80 5775MHz Ant1



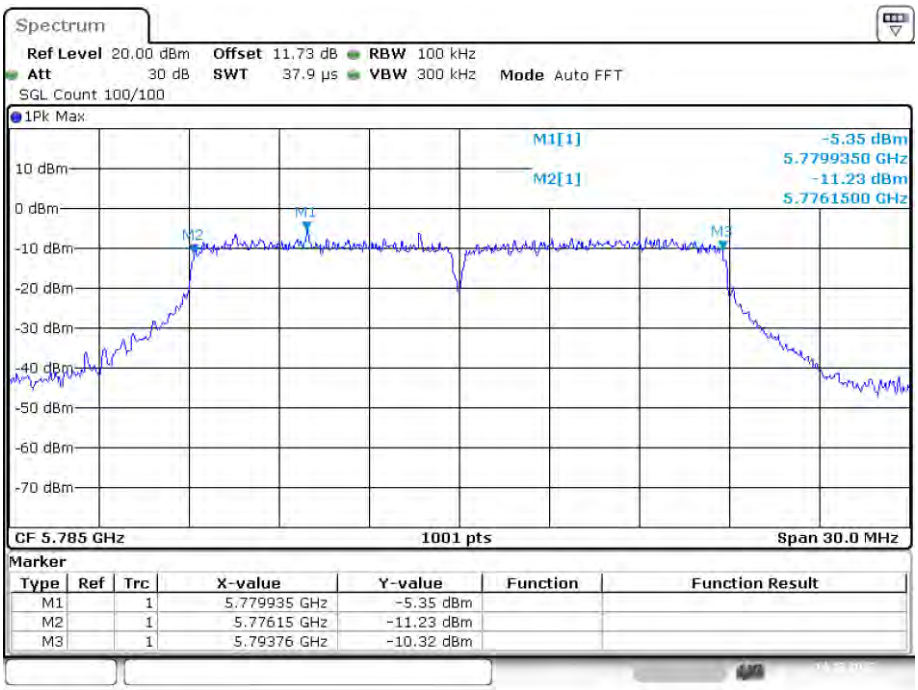
Date: 15.DEC.2022 04:17:36

-6dB Bandwidth NVNT n20 5745MHz Ant1



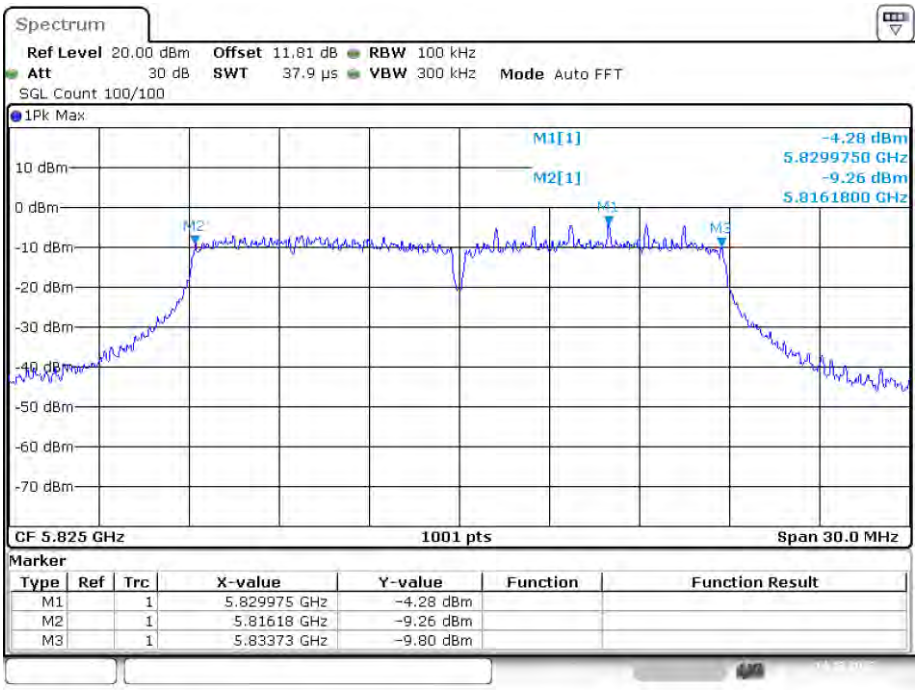
Date: 14.DEC.2022 15:06:51

-6dB Bandwidth NVNT n20 5785MHz Ant1

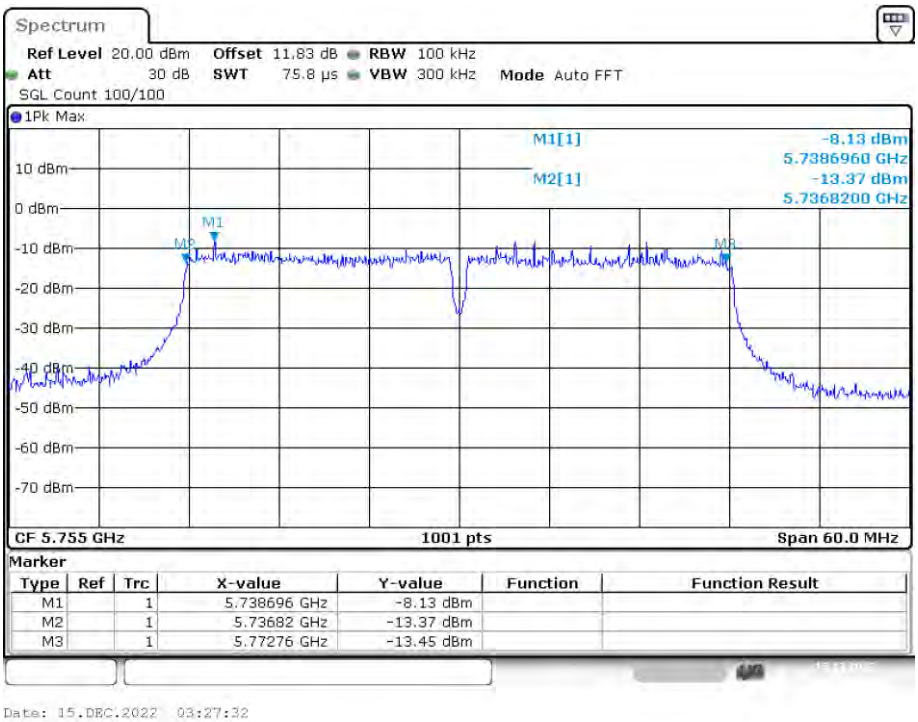


Date: 14.DEC.2022 15:22:12

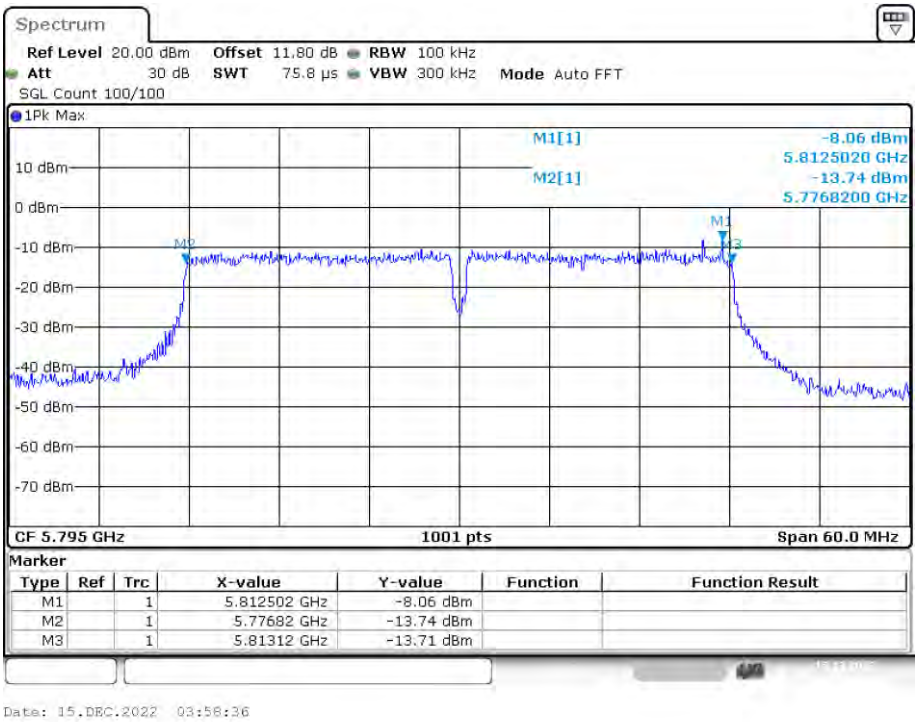
-6dB Bandwidth NVNT n20 5825MHz Ant1



-6dB Bandwidth NVNT n40 5755MHz Ant1



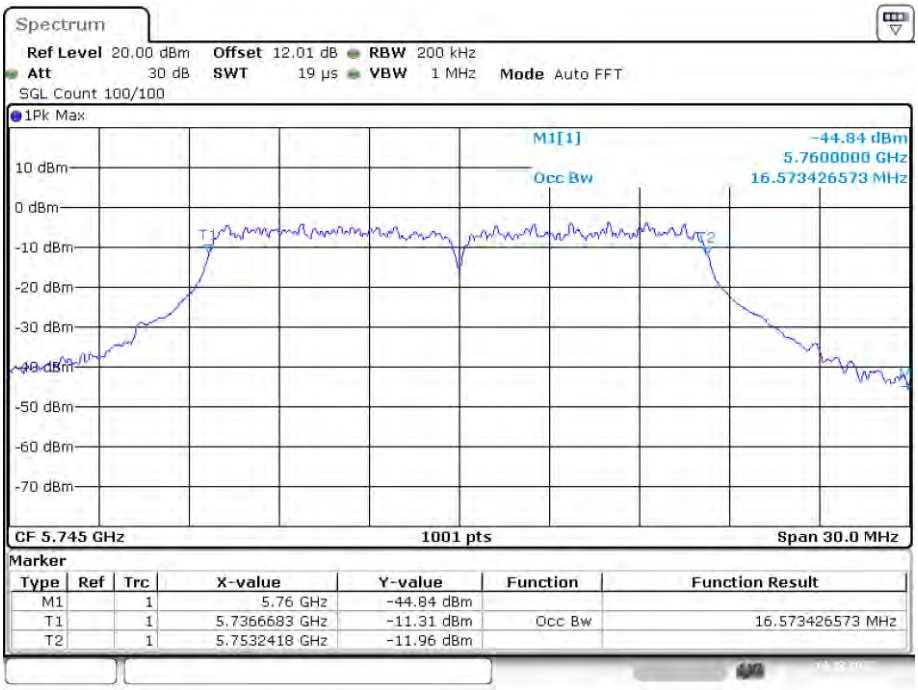
-6dB Bandwidth NVNT n40 5795MHz Ant1



Occupied Channel Bandwidth

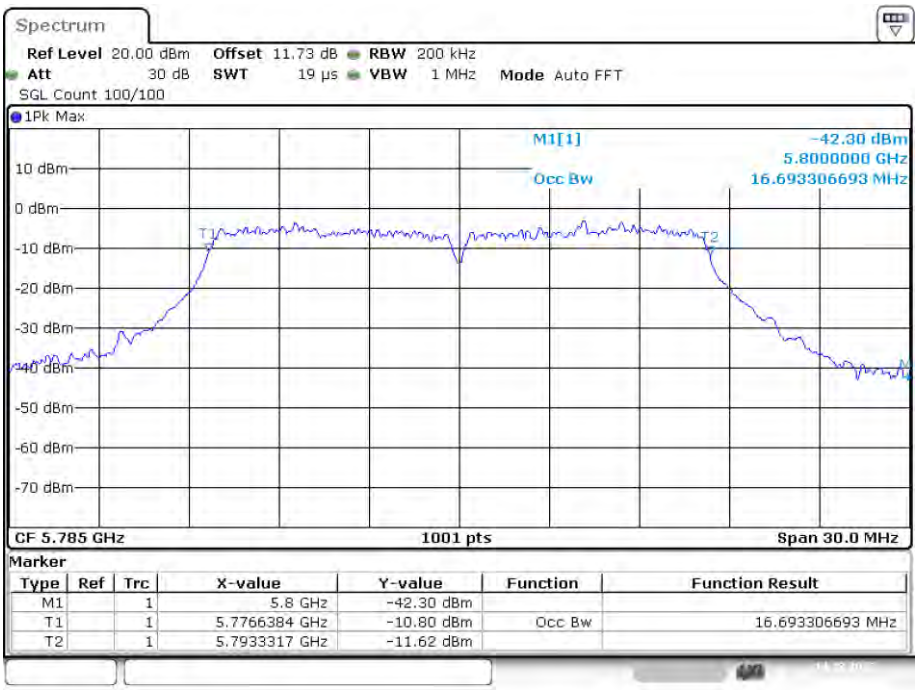
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5745	Ant1	16.573
NVNT	a	5785	Ant1	16.693
NVNT	a	5825	Ant1	16.633
NVNT	ac20	5745	Ant1	17.682
NVNT	ac20	5785	Ant1	17.682
NVNT	ac20	5825	Ant1	17.682
NVNT	ac40	5755	Ant1	36.743
NVNT	ac40	5795	Ant1	36.204
NVNT	ac80	5775	Ant1	76.124
NVNT	n20	5745	Ant1	17.712
NVNT	n20	5785	Ant1	17.832
NVNT	n20	5825	Ant1	17.742
NVNT	n40	5755	Ant1	36.384
NVNT	n40	5795	Ant1	36.444

OBW NVNT a 5745MHz Ant1



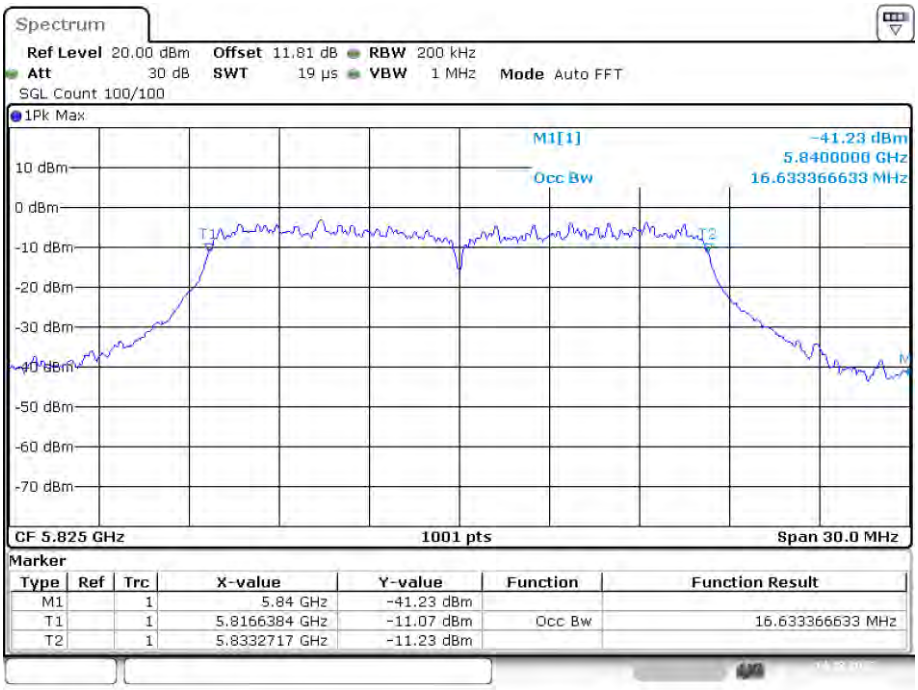
Date: 14.DEC.2022 14:43:08

OBW NVNT a 5785MHz Ant1



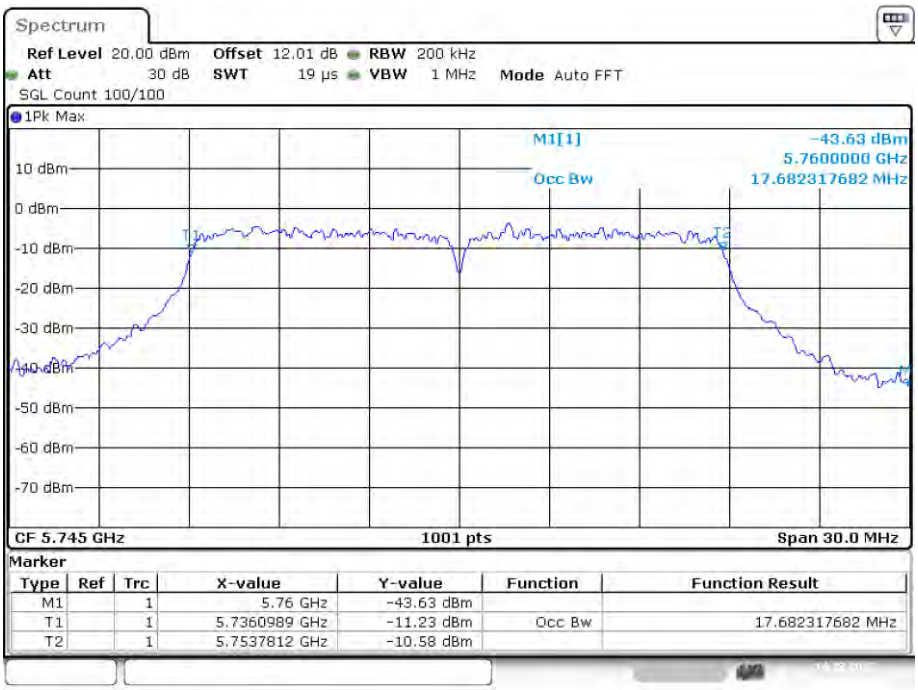
Date: 14.DEC.2022 14:49:48

OBW NVNT a 5825MHz Ant1



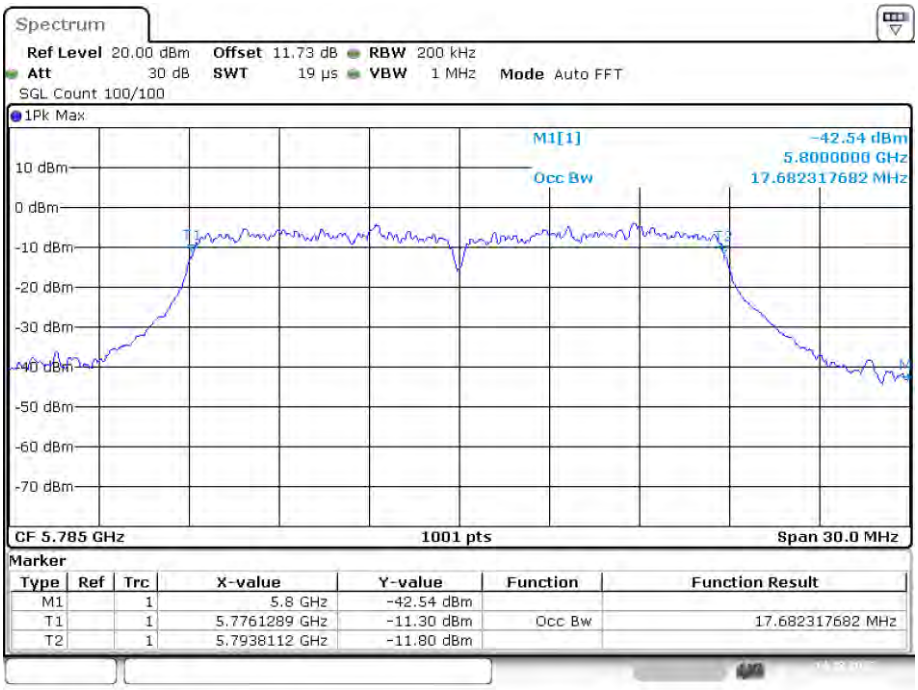
Date: 14.DEC.2022 14:55:36

OBW NVNT ac20 5745MHz Ant1



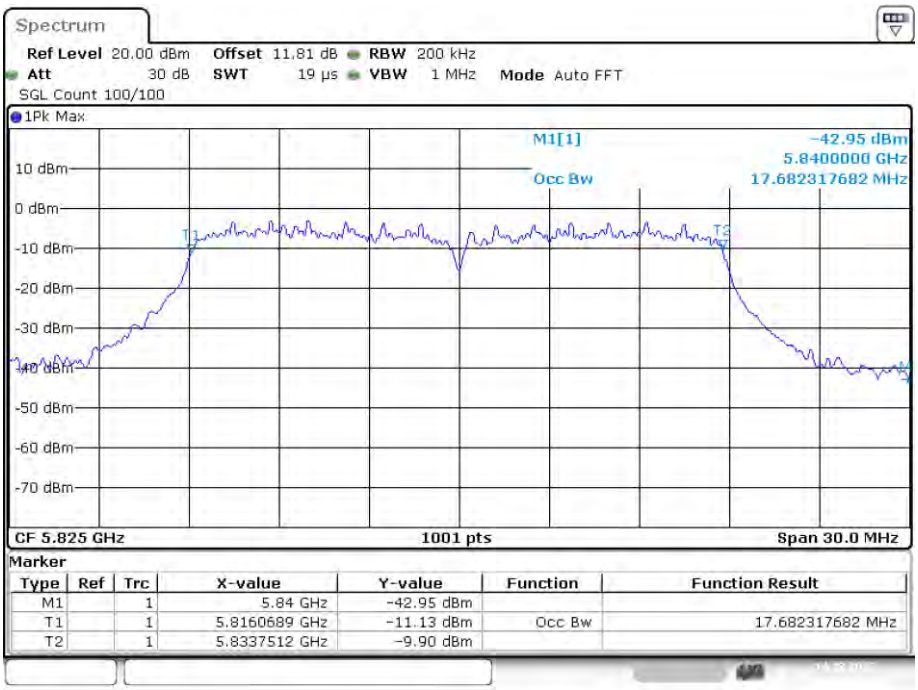
Date: 14.DEC.2022 15:43:40

OBW NVNT ac20 5785MHz Ant1



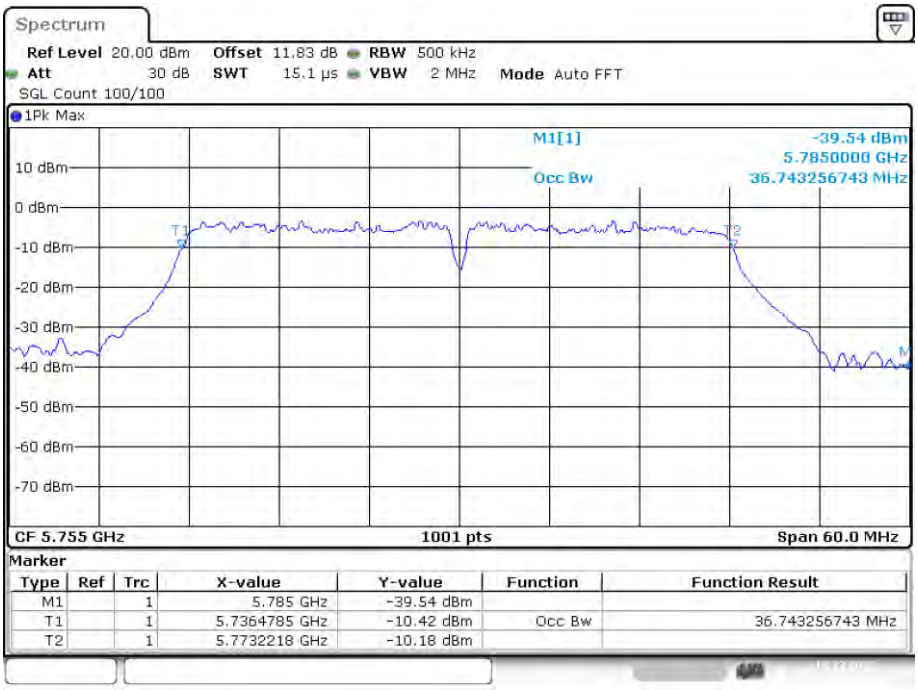
Date: 14.DEC.2022 15:53:39

OBW NVNT ac20 5825MHz Ant1



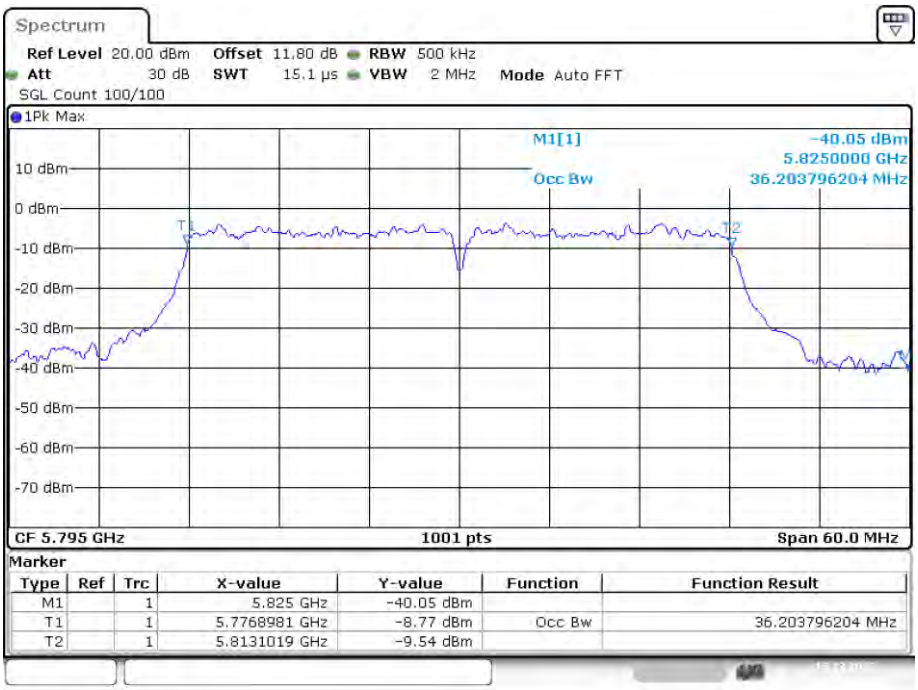
Date: 14.DEC.2022 16:00:45

OBW NVNT ac40 5755MHz Ant1



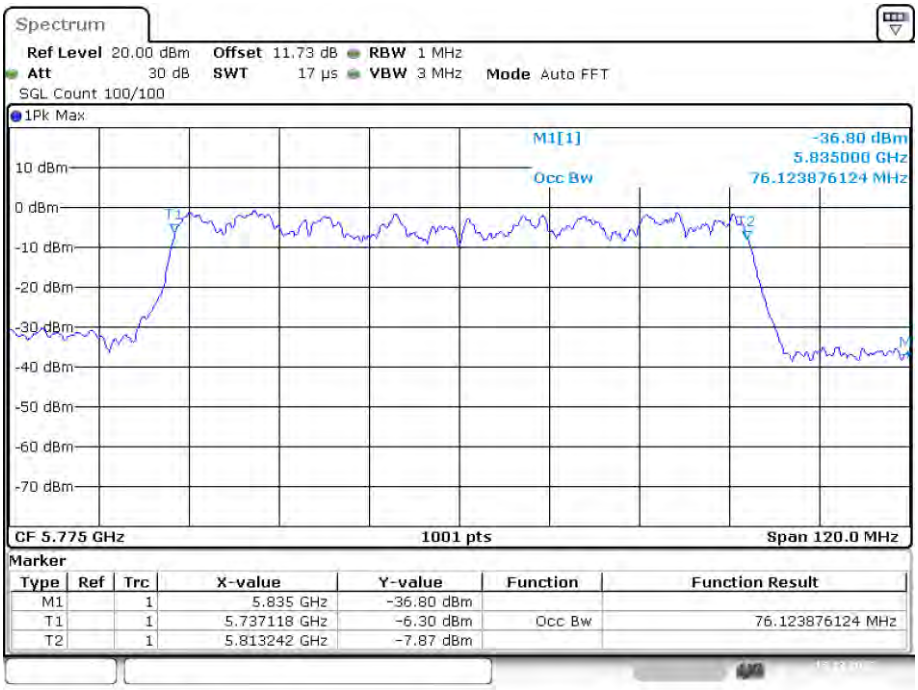
Date: 15.DEC.2022 04:07:01

OBW NVNT ac40 5795MHz Ant1



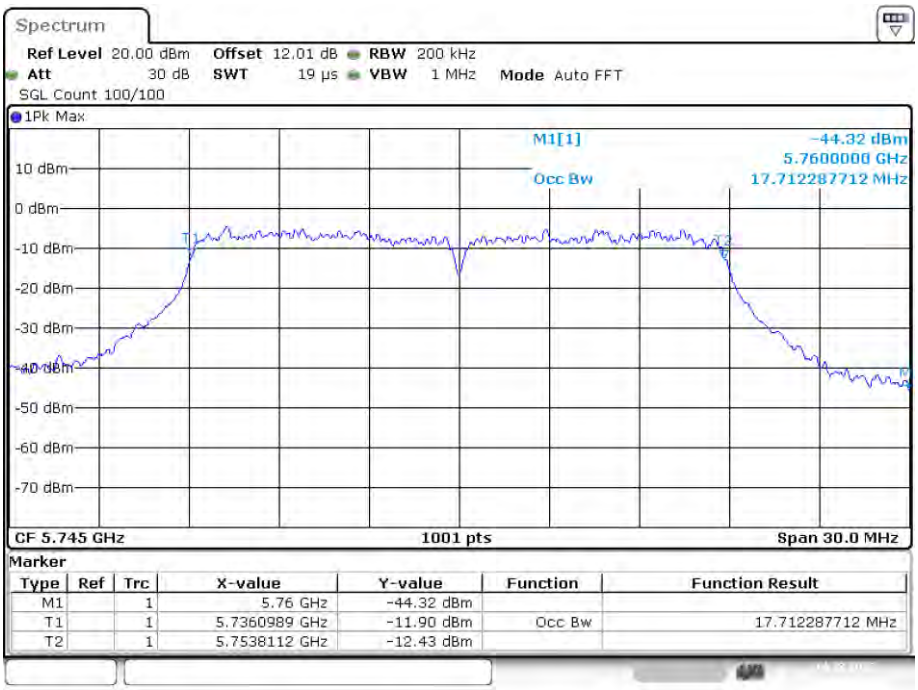
Date: 15.DEC.2022 04:11:55

OBW NVNT ac80 5775MHz Ant1



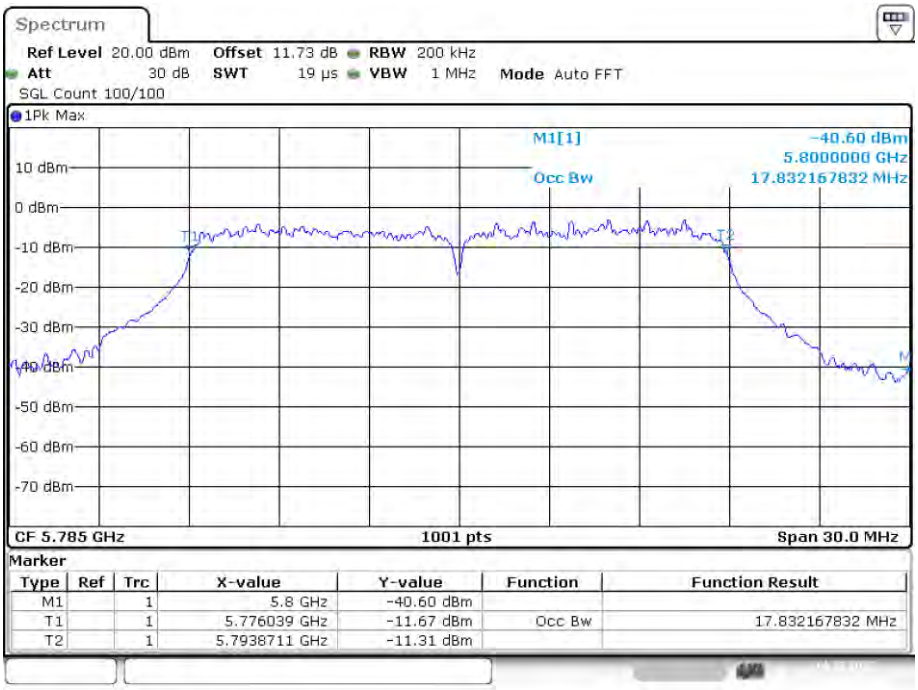
Date: 15.DEC.2022 04:17:21

OBW NVNT n20 5745MHz Ant1



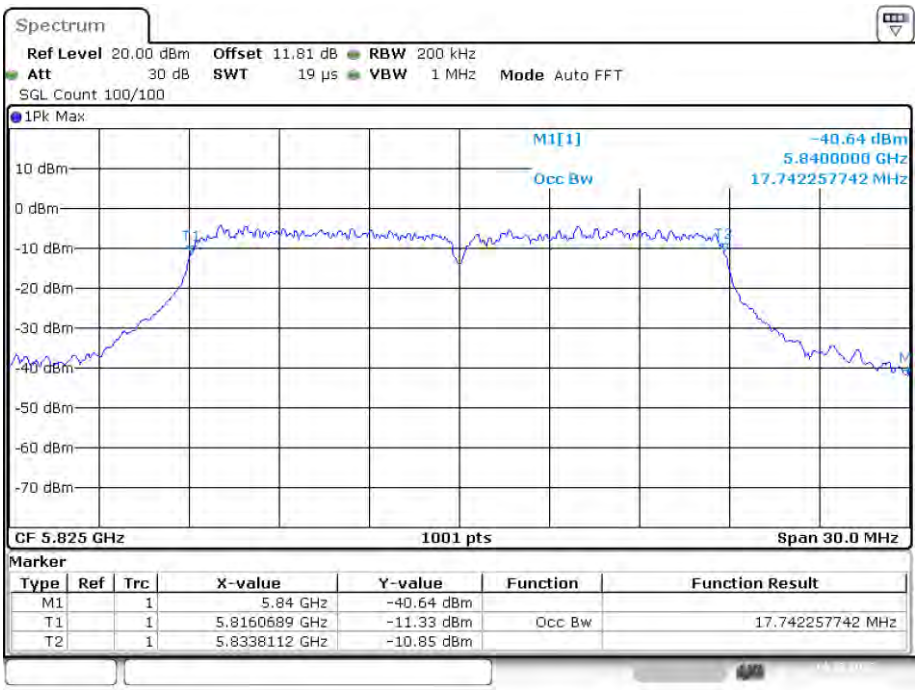
Date: 14.DEC.2022 15:06:38

OBW NVNT n20 5785MHz Ant1



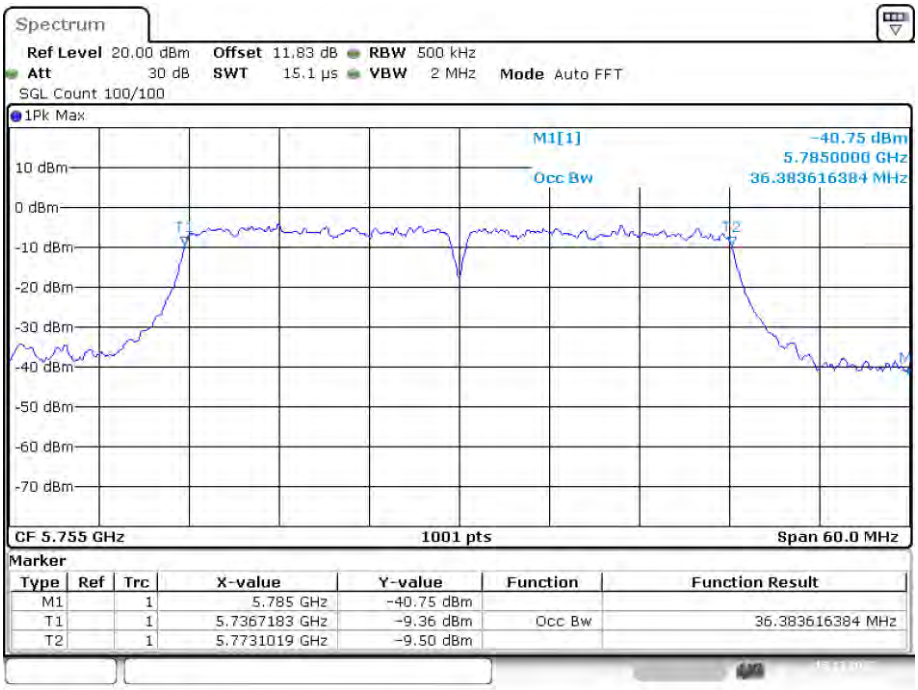
Date: 14.DEC.2022 15:21:57

OBW NVNT n20 5825MHz Ant1



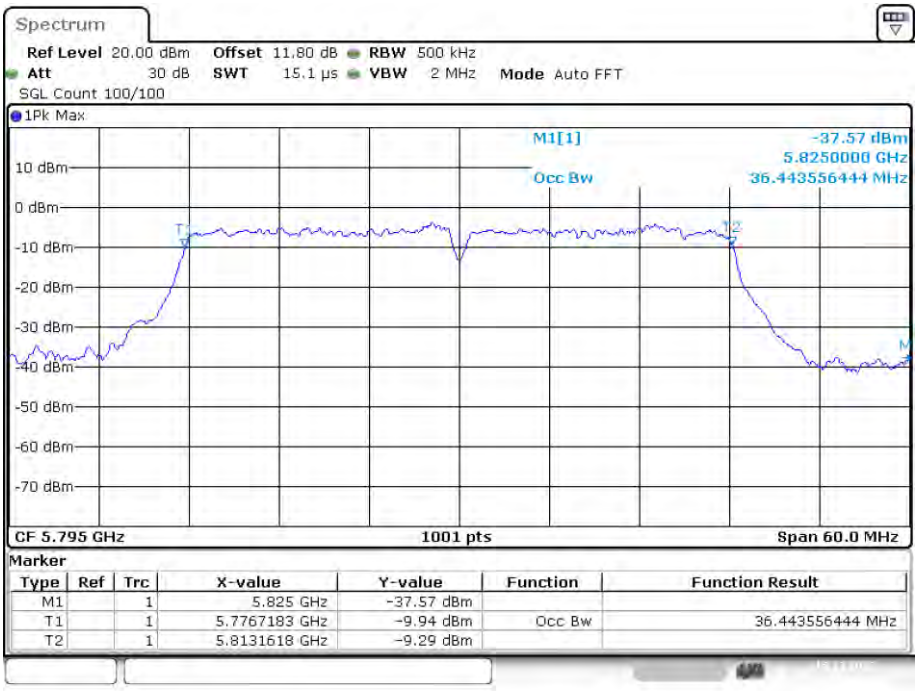
Date: 14.DEC.2022 15:29:15

OBW NVNT n40 5755MHz Ant1



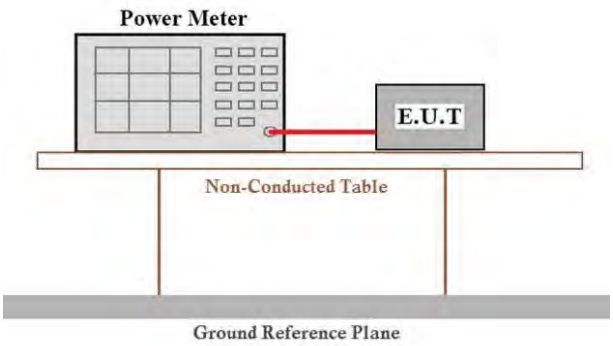
Date: 15.DEC.2022 03:27:22

OBW NVNT n40 5795MHz Ant1



Date: 15.DEC.2022 03:58:24

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	16.113	0	16.113	24	Pass
NVNT	a	5200	Ant1	16.831	0	**16.831**	24	Pass
NVNT	a	5240	Ant1	16.16	0	16.16	24	Pass
NVNT	ac20	5180	Ant1	16.344	0	16.344	24	Pass
NVNT	ac20	5200	Ant1	16.107	0	16.107	24	Pass
NVNT	ac20	5240	Ant1	16.662	0	16.662	24	Pass
NVNT	ac40	5190	Ant1	16.219	0	16.219	24	Pass
NVNT	ac40	5230	Ant1	16.361	0	16.361	24	Pass
NVNT	ac80	5210	Ant1	16.625	0	16.625	24	Pass
NVNT	n20	5180	Ant1	16.344	0	16.344	24	Pass
NVNT	n20	5200	Ant1	16.104	0	16.104	24	Pass
NVNT	n20	5240	Ant1	16.544	0	16.544	24	Pass
NVNT	n40	5190	Ant1	16.501	0	16.501	24	Pass
NVNT	n40	5230	Ant1	16.211	0	16.211	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	16.05	0	16.05	24	Pass
NVNT	a	5280	Ant1	16.723	0	16.723	24	Pass
NVNT	a	5320	Ant1	16.454	0	16.454	24	Pass
NVNT	ac20	5260	Ant1	16.338	0	16.338	24	Pass
NVNT	ac20	5280	Ant1	16.451	0	16.451	24	Pass
NVNT	ac20	5320	Ant1	16.205	0	16.205	24	Pass
NVNT	ac40	5270	Ant1	16.307	0	16.307	24	Pass
NVNT	ac40	5310	Ant1	16.372	0	16.372	24	Pass
NVNT	ac80	5290	Ant1	16.396	0	16.396	24	Pass
NVNT	n20	5260	Ant1	16.616	0	16.616	24	Pass
NVNT	n20	5280	Ant1	16.688	0	16.688	24	Pass
NVNT	n20	5320	Ant1	16.768	0	**16.768**	24	Pass
NVNT	n40	5270	Ant1	16.531	0	16.531	24	Pass
NVNT	n40	5310	Ant1	16.279	0	16.279	24	Pass

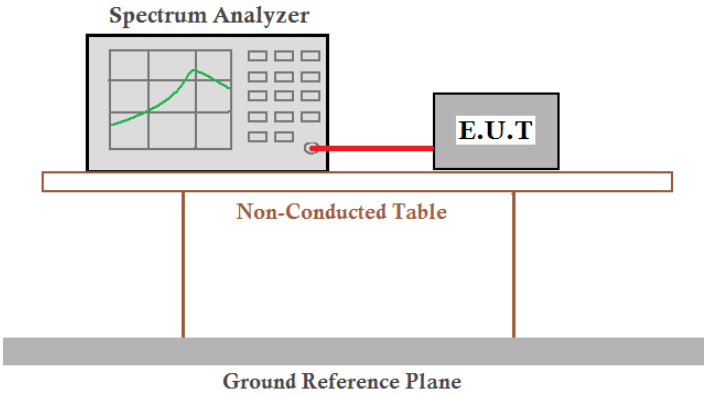
Band 3 (5500 -5700 MHz)

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5500	Ant1	16.402	0	16.402	24	Pass
NVNT	a	5580	Ant1	16.654	0	16.654	24	Pass
NVNT	a	5700	Ant1	16.17	0	16.17	24	Pass
NVNT	ac20	5500	Ant1	16.404	0	16.404	24	Pass
NVNT	ac20	5580	Ant1	15.736	0	15.736	24	Pass
NVNT	ac20	5700	Ant1	16.496	0	16.496	24	Pass
NVNT	ac40	5510	Ant1	16.836	0	**16.836**	24	Pass
NVNT	ac40	5670	Ant1	16.003	0	16.003	24	Pass
NVNT	ac80	5530	Ant1	16.665	0	16.665	24	Pass
NVNT	n20	5500	Ant1	16.485	0	16.485	24	Pass
NVNT	n20	5580	Ant1	16.02	0	16.02	24	Pass
NVNT	n20	5700	Ant1	16.52	0	16.52	24	Pass
NVNT	n40	5510	Ant1	16.164	0	16.164	24	Pass
NVNT	n40	5670	Ant1	16.333	0	16.333	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	16.733	0	16.733	30	Pass
NVNT	a	5785	Ant1	16.656	0	16.656	30	Pass
NVNT	a	5825	Ant1	16.259	0	16.259	30	Pass
NVNT	ac20	5745	Ant1	16.425	0	16.425	30	Pass
NVNT	ac20	5785	Ant1	16.071	0	16.071	30	Pass
NVNT	ac20	5825	Ant1	16.363	0	16.363	30	Pass
NVNT	ac40	5755	Ant1	16.734	0	16.734	30	Pass
NVNT	ac40	5795	Ant1	16.113	0	16.113	30	Pass
NVNT	ac80	5775	Ant1	17.322	0	**17.322**	30	Pass
NVNT	n20	5745	Ant1	16.354	0	16.354	30	Pass
NVNT	n20	5785	Ant1	16.686	0	16.686	30	Pass
NVNT	n20	5825	Ant1	16.491	0	16.491	30	Pass
NVNT	n40	5755	Ant1	16.063	0	16.063	30	Pass
NVNT	n40	5795	Ant1	16.063	0	16.063	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