FCC&IC TEST REPORT

FCC ID: 2AYG9-TR08D

IC: 26800-TR08D

On Behalf of

SHENZHEN YECON TECHNOLOGY CO., LTD

Face recognition intelligent terminal

Model No.: TR08D

Prepared for	:	SHENZHEN YECON TECHNOLOGY CO., LTD
Address	:	6 floor, East Second, Cuigang Industrial Park, Huai de community, Fuyong street, Baoan District, Shenzhen

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	:	A2011230-C01-R20
Date of Receipt	:	December 15, 2020
Date of Test	:	December 15, 2020-January 28, 2021
Date of Report	:	January 28, 2021
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TEST REPORT DECLARATION

Applicant	:	SHENZHEN YECON TECHNOLOGY CO., LTD
Address	:	6 floor, East Second, Cuigang Industrial Park, Huai de community, Fuyong street, Baoan District, Shenzhen
Manufacturer	:	SHENZHEN YECON TECHNOLOGY CO., LTD
Address	:	6 floor, East Second, Cuigang Industrial Park, Huai de community, Fuyong street, Baoan District, Shenzhen
EUT Description	:	Face recognition intelligent terminal
		(A) Model No. : TR08D
		(B) Trademark : /

Measurement Standard Used:

FCC Rules and Regulations Part 15 Subpart C

RSS-247 Issue 2, 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 C 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)…....:	Simple Guan Project Manager	
Date of issue…… ……..:	January 28, 2021	

Revision History

Revision	Issue Date	Revisions	Revised By
V0	January 28, 2021	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: Pass: The EUT complies with the essential requirements in the standard.

Frequency Stability: The manufacturer stated in the user's manual.

1.1 Measurement Uncertainty

Item	Uncertainty
Uncertainty for Power point Conducted Emissions Test	2.74dB
Uncertainty for Radiation Emission test in 3m chamber (below 30MHz)	2.13 dB(Polarize: V)
	2.57dB(Polarize: H)
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	3.77dB(Polarize: V)
	3.80dB(Polarize: H)
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz)	4.16dB(Polarize: H)
	4.13dB(Polarize: V)
Uncertainty for radio frequency	5.4×10-8
Uncertainty for conducted RF Power	0.37dB
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	:	Face recognition intelligent terminal
Trademark	:	/
Model No.	:	TR08D
DIFF.	:	/
Power supply	:	DC 12V from adapter
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, max gain 2.58dBi
Software version	:	V1.0
Hardware version	:	YT-23-MB-V2.3
Intend use environment	:	Residential, commercial and light industrial environment

Note: In this report, the main test model is TR08D, and the main test model serial number is YGKJ20208110041.

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

Accessories1	:	AC/DC ADAPTER
Manufacturer	:	Shenzhen Jiuzhou Power Technology Co., LTD
Model	:	JZB024-120180D
Ratings	:	Input: 100-240V~ 50/60Hz 0.7A Output: 12.0V⎓1.8A

Accessories2	:	AC ADAPTER
Manufacturer	:	Dongguan Guanjin Electronics Technology Co., Ltd
Model	:	K25V120180E2
Ratings	:	Input: 100-240V~50/60Hz 0.6A Output: 12.0V⎓1.8A 21.6W

Note: The two power adapters of the product have been tested. This report only reflects the data of the worst power supply (JZB024-120180D).

2.5 Deviation from Standards

None.

2.6 Abnormalities from Standard Conditions

None.

2.7 Other Information Requested by the Customer

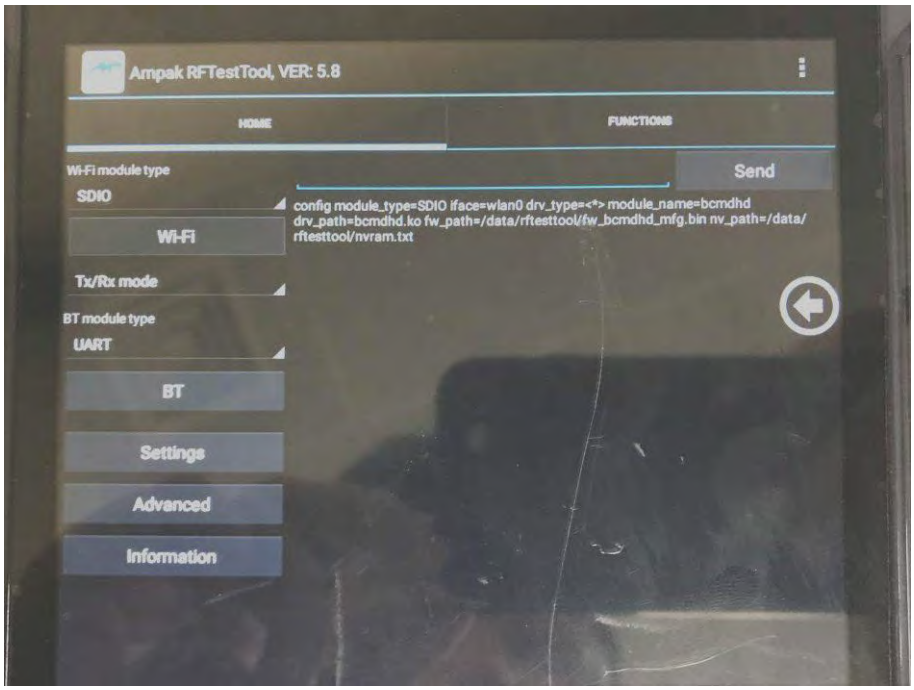
None.

2.8 Additional instructions

Software (Used for test) from client

Channel	Power level
Lowest	Default
Middle	Default
Highest	Default

Test software set:



3 Test Instruments list

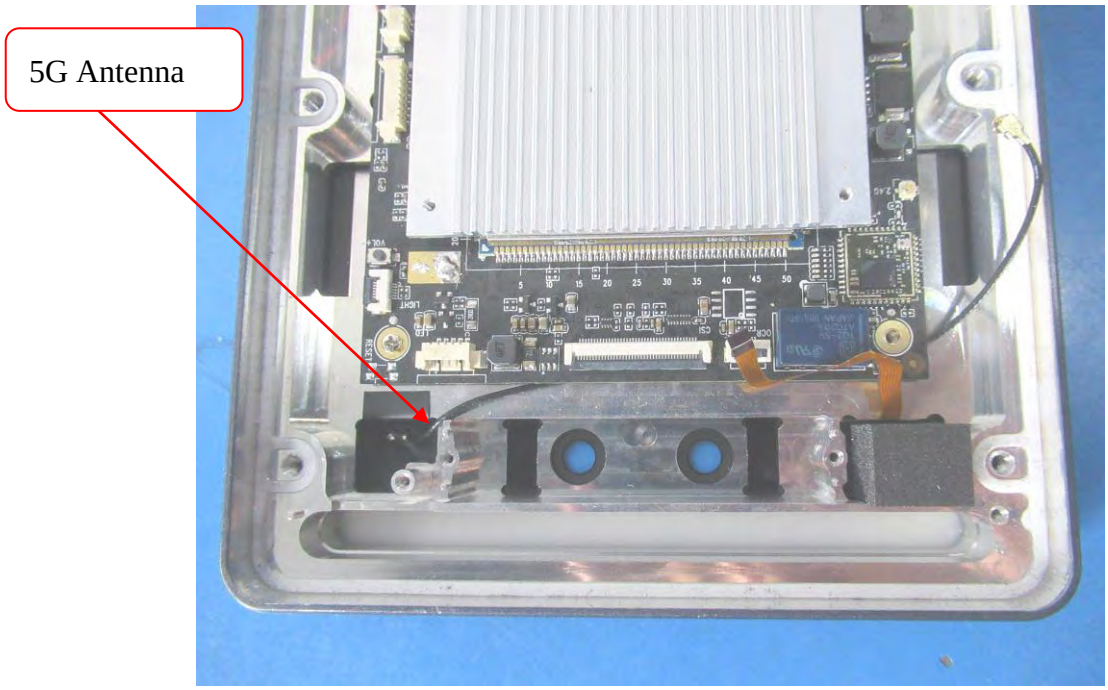
Equipment	Manufacture	Model No.	Serial No.	Last cal.	Cal Interval
9*6*6 anechoic chamber	CHENYU	9*6*6	N/A	2019.09.06	3Year
Spectrum analyzer	ROHDE&SCHWARZ	FSV40-N	102137	2020.09.02	1Year
Spectrum analyzer	Agilent	N9020A	MY499100060	2020.09.02	1Year
Receiver	ROHDE&SCHWARZ	ESR	1316.3003K03-102082-Wa	2020.09.02	1Year
Receiver	R&S	ESCI	101165	2020.09.02	1Year
Bilog Antenna	Schwarzbeck	VULB 9168	VULB9168-438	2020.04.12	2Year
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D(1201)	2020.04.12	2Year
Active Loop Antenna	SCHWARZBECK	FMZB 1519B	00059	2019.09.07	2Year
Cable	Resenberger	N/A	No.1	2020.09.02	1Year
Cable	Resenberger	N/A	No.2	2020.09.02	1Year
Cable	Resenberger	N/A	No.3	2020.09.02	1Year
Pre-amplifier	HP	HP8347A	2834A00455	2020.09.02	1Year
Pre-amplifier	Agilent	8449B	3008A02664	2020.09.02	1Year
L.I.S.N.#1	Schwarzbeck	NSLK8126	8126466	2020.09.02	1Year
L.I.S.N.#2	ROHDE&SCHWARZ	ENV216	101043	2020.09.02	1 Year
20db Attenuator	ICPROBING	IATS1	82347	2020.09.02	1 Year
Horn Antenna	SCHWARZBECK	BBHA9170	00946	2019.09.07	2 Year
Preamplifier	SKET	LNPA_1840-50	SK2018101801	2020.09.02	1 Year
Power Meter	Agilent	E9300A	MY41496625	2020.09.02	1 Year
Temp. &Humid. Chamber	Weihuang	WHTH-1000-40-880	100631	2020.09.02	1 Year
Switching Mode Power Supply	JUNKE	JK12010S	20140927-6	2020.09.02	1 Year

4 Test results and Measurement Data

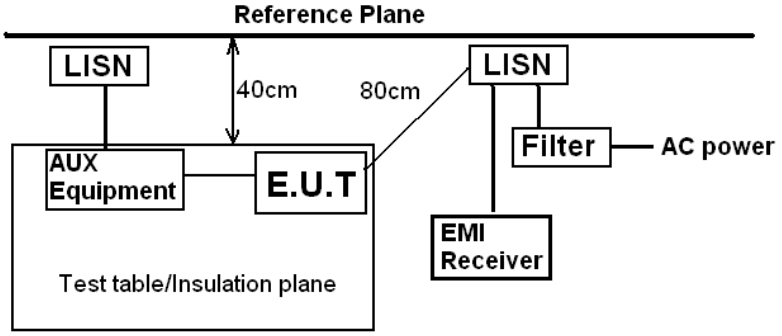
4.1 Antenna requirement:

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 2.58dBi for 5.15~5.25GHz, 5.25~5.35GHz , 5.47~5.725GHz, 5.725~5.85GHz



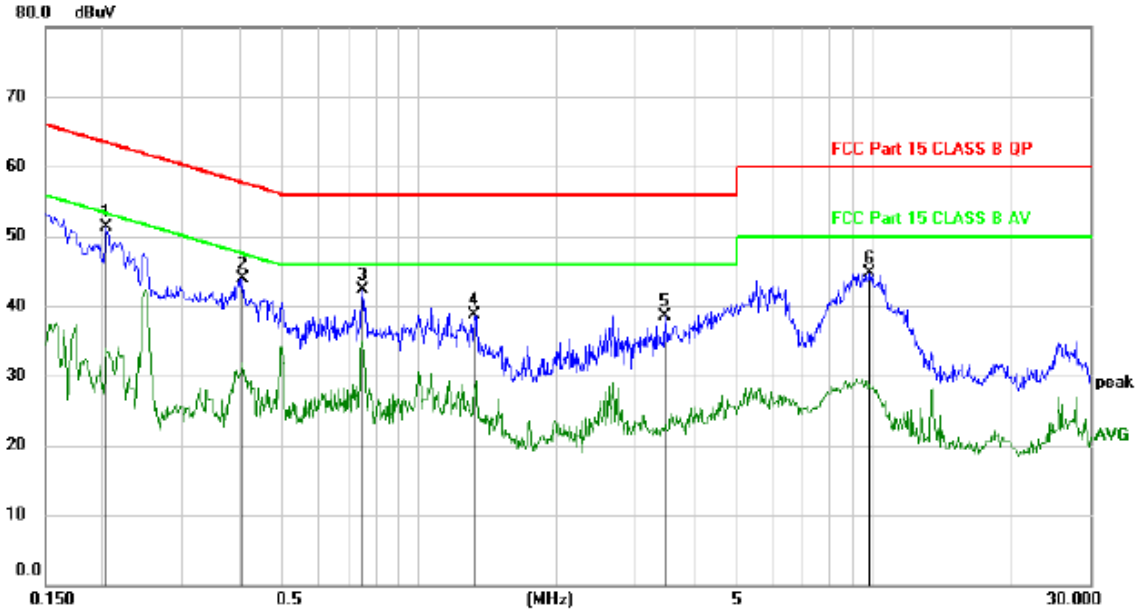
4.2 Conducted Emissions

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.

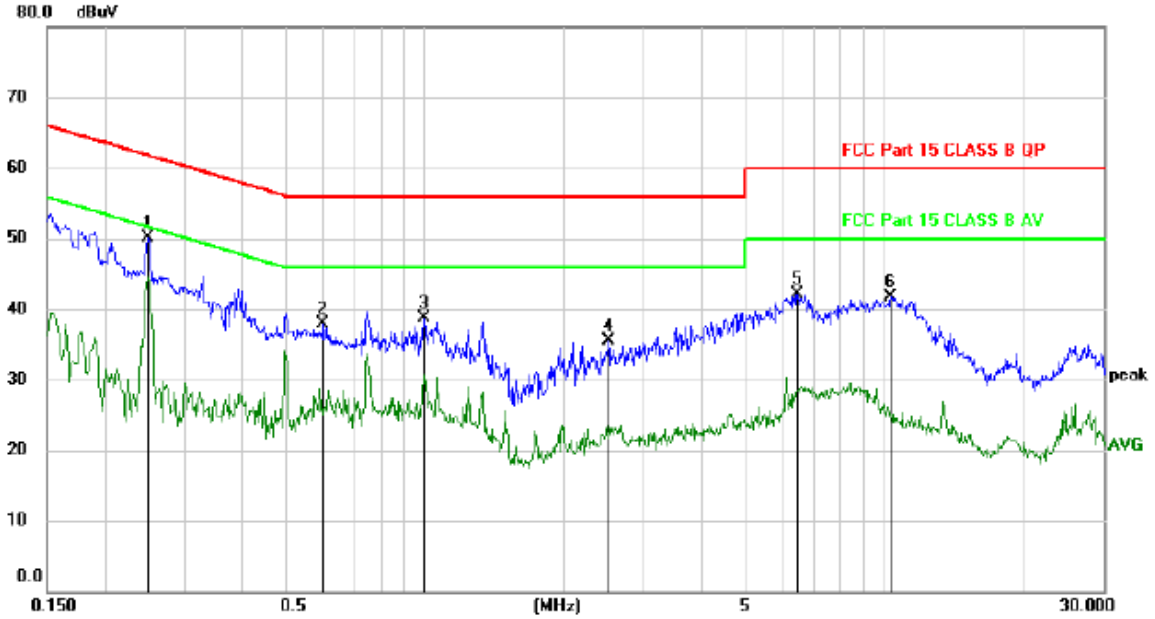
Line:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.2039	41.31	9.92	51.23	63.45	-12.22	peak	
2		0.4079	33.92	9.94	43.86	57.69	-13.83	peak	
3		0.7500	32.41	9.94	42.35	56.00	-13.65	peak	
4		1.3200	28.81	9.90	38.71	56.00	-17.29	peak	
5		3.4590	28.64	9.96	38.60	56.00	-17.40	peak	
6		9.8460	34.48	10.21	44.69	60.00	-15.31	peak	

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

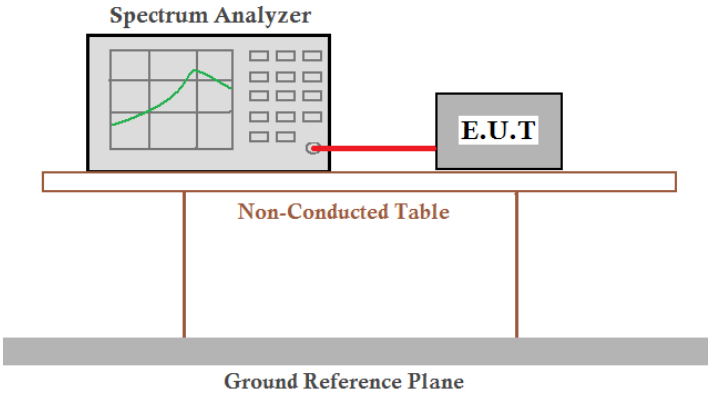
Neutral:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.2489	40.12	9.97	50.09	61.79	-11.70	peak	
2		0.6000	28.02	9.92	37.94	56.00	-18.06	peak	
3		0.9989	28.84	9.92	38.76	56.00	-17.24	peak	
4		2.5019	25.65	9.91	35.56	56.00	-20.44	peak	
5		6.4800	31.95	10.10	42.05	60.00	-17.95	peak	
6		10.2929	31.50	10.22	41.72	60.00	-18.28	peak	

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

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

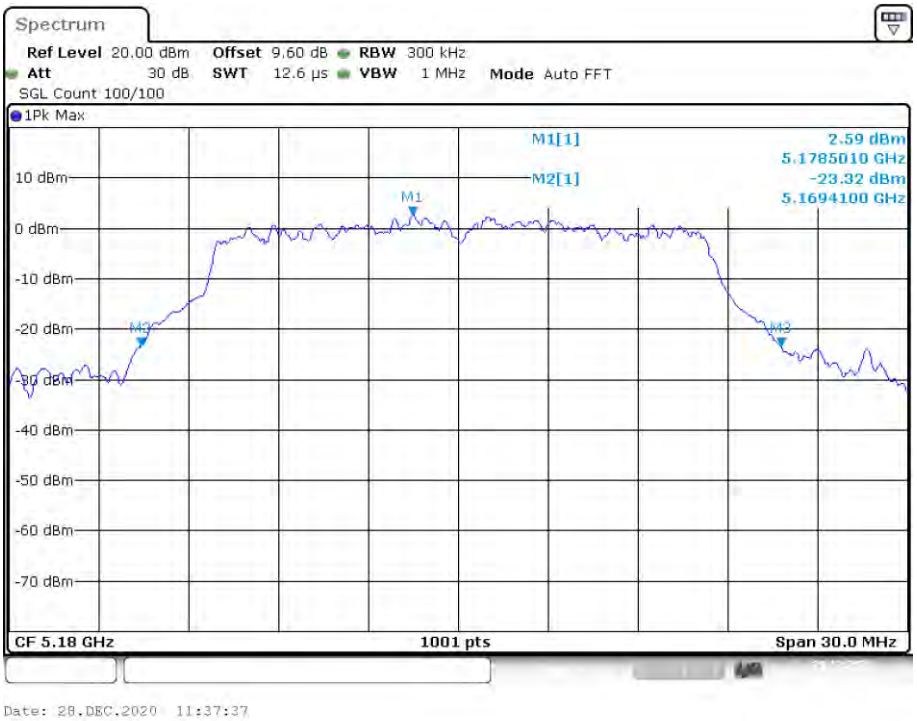
Measurement Data:

Band 1 (5150-5250 MHz):

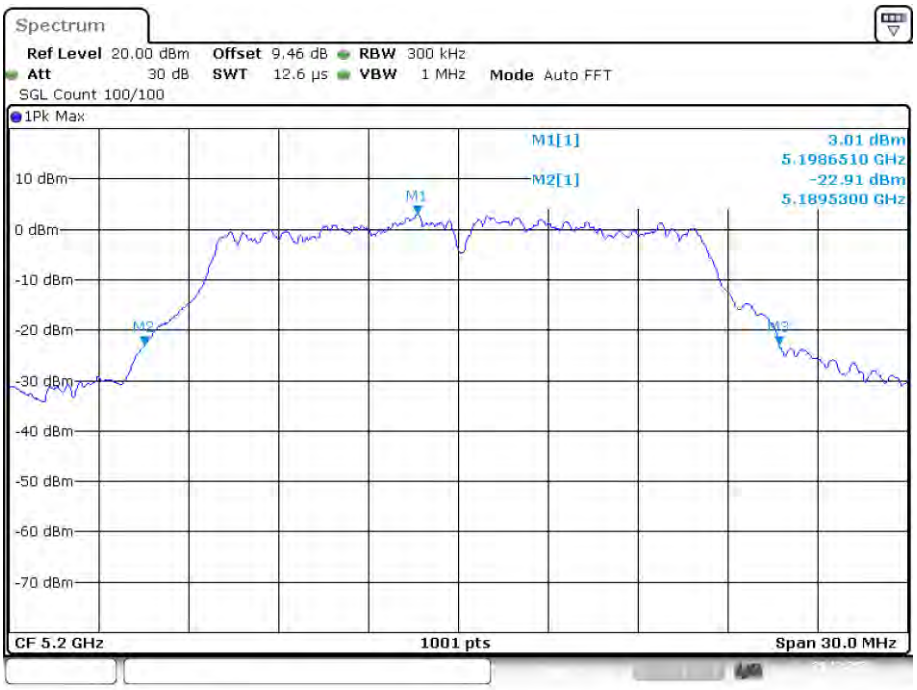
-26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	21.36	0.5	Pass
NVNT	a	5200	Ant1	21.18	0.5	Pass
NVNT	a	5240	Ant1	21.3	0.5	Pass
NVNT	ac20	5180	Ant1	21.78	0.5	Pass
NVNT	ac20	5200	Ant1	21.33	0.5	Pass
NVNT	ac20	5240	Ant1	21.69	0.5	Pass
NVNT	ac40	5190	Ant1	42.3	0.5	Pass
NVNT	ac40	5230	Ant1	42.6	0.5	Pass
NVNT	ac80	5210	Ant1	91.68	0.5	Pass
NVNT	n20	5180	Ant1	22.2	0.5	Pass
NVNT	n20	5200	Ant1	21.63	0.5	Pass
NVNT	n20	5240	Ant1	21.96	0.5	Pass
NVNT	n40	5190	Ant1	46.92	0.5	Pass
NVNT	n40	5230	Ant1	39.3	0.5	Pass

-26dB Bandwidth NVNT a 5180MHz Ant1



-26dB Bandwidth NVNT a 5200MHz Ant1



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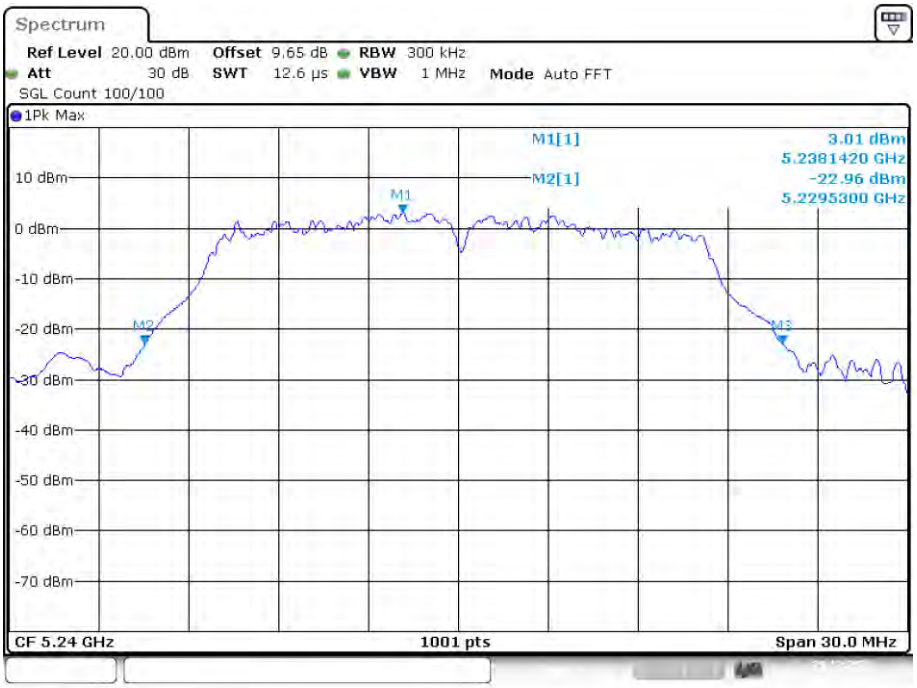
-26dB Bandwidth NVNT a 5240MHz Ant1



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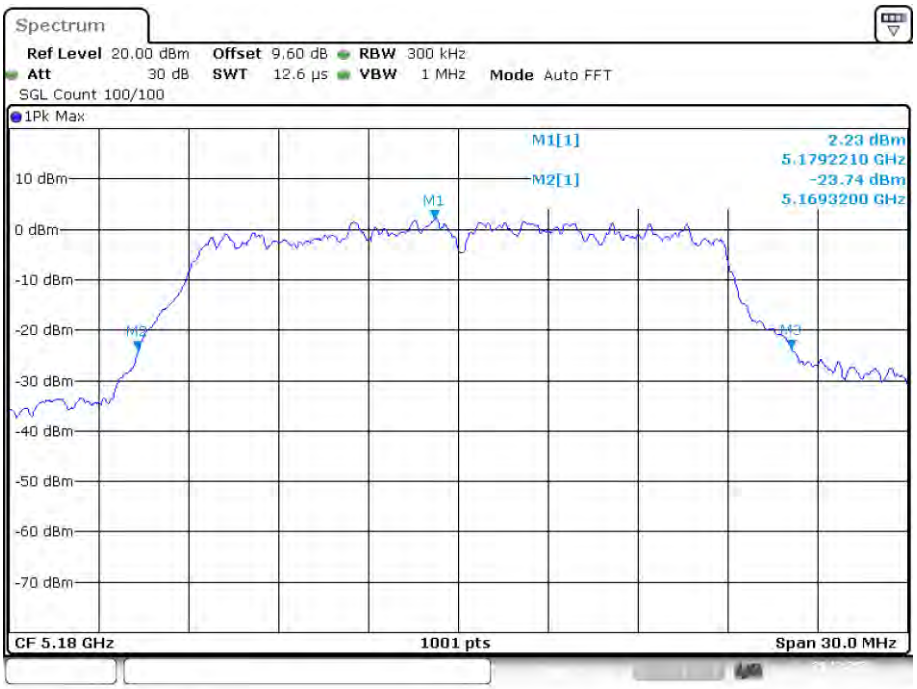
-26dB Bandwidth NVNT ac20 5180MHz Ant1



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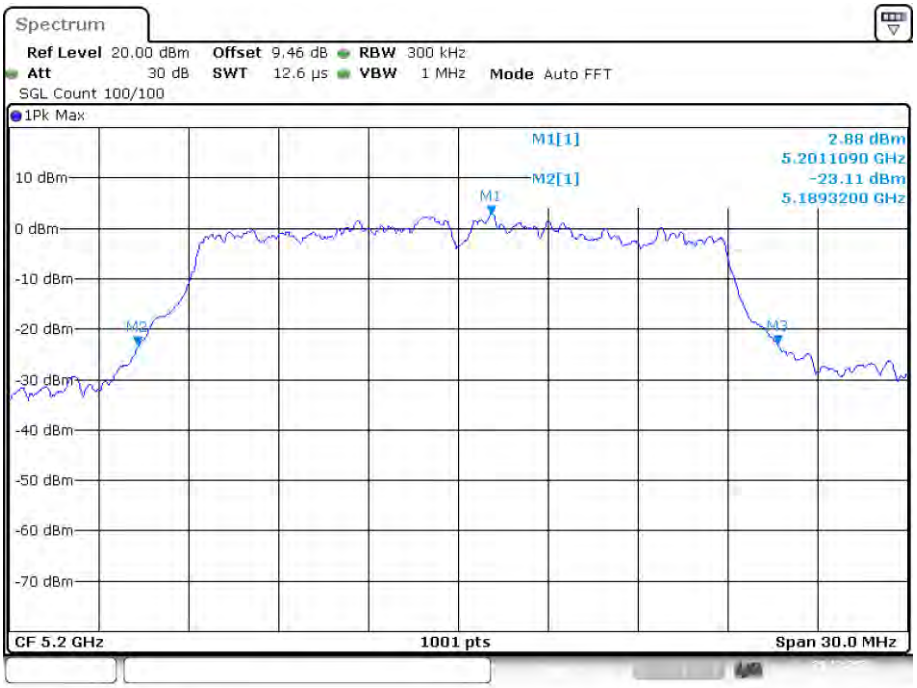
-26dB Bandwidth NVNT ac20 5200MHz Ant1



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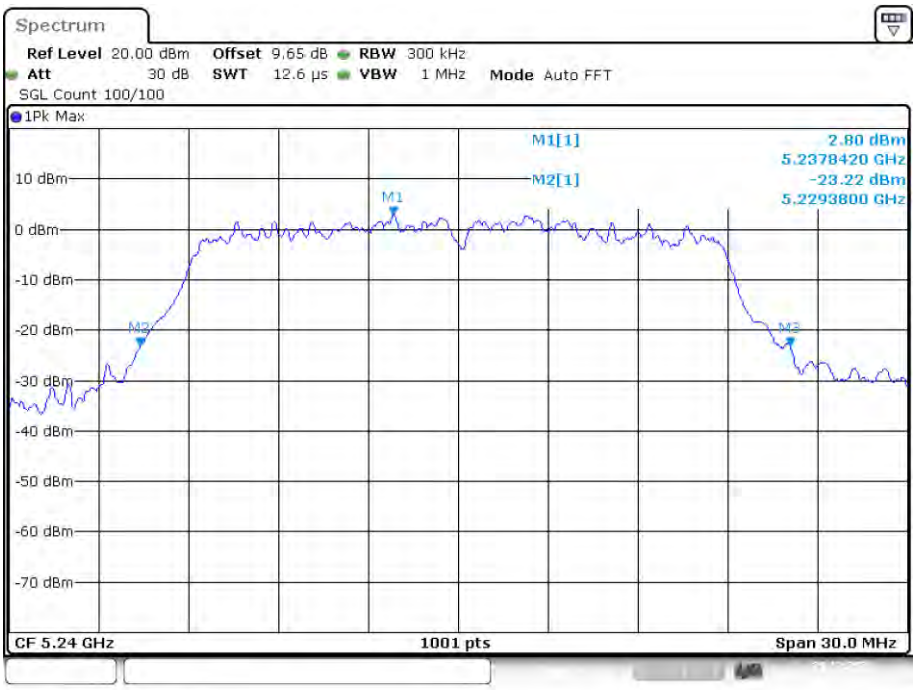
-26dB Bandwidth NVNT ac20 5240MHz Ant1



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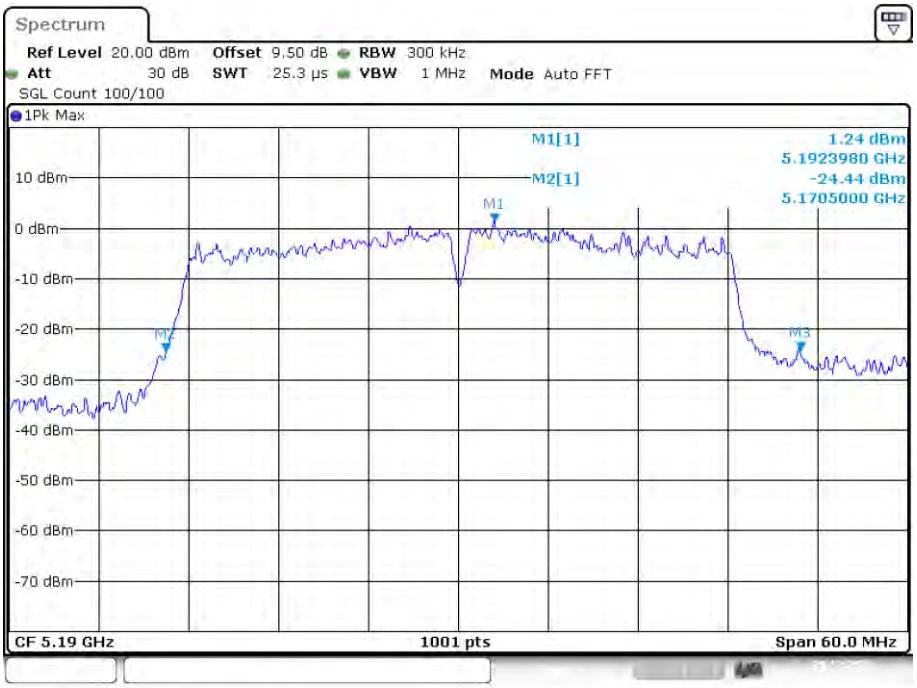
-26dB Bandwidth NVNT ac40 5190MHz Ant1



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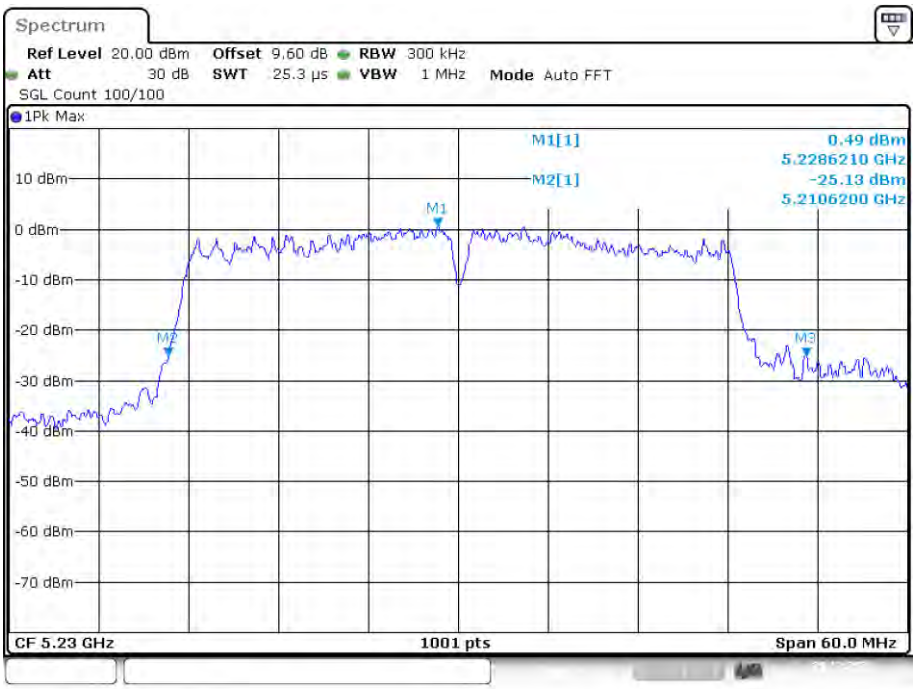
-26dB Bandwidth NVNT ac40 5230MHz Ant1



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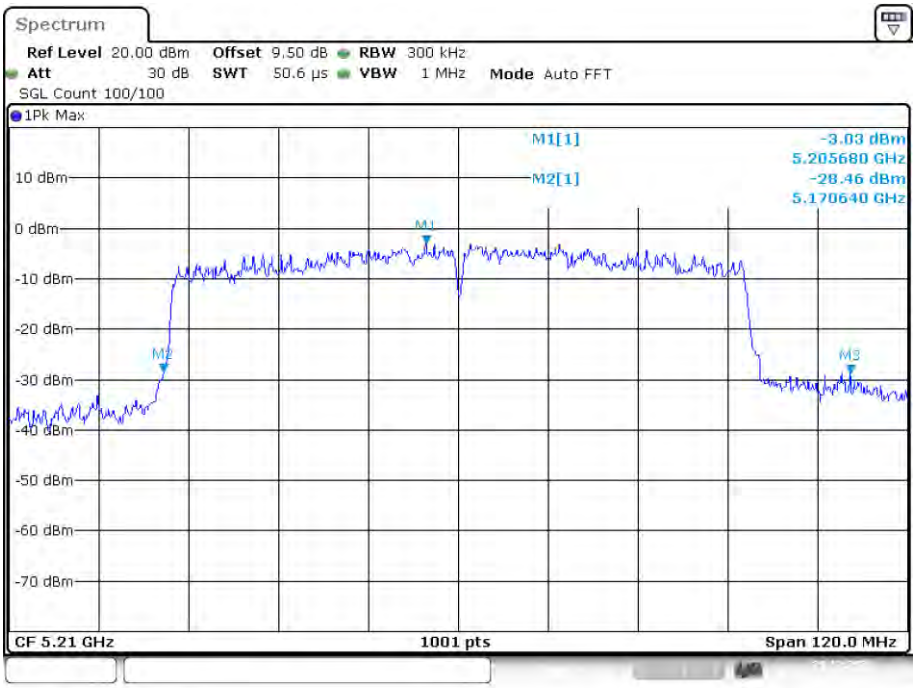
-26dB Bandwidth NVNT ac80 5210MHz Ant1



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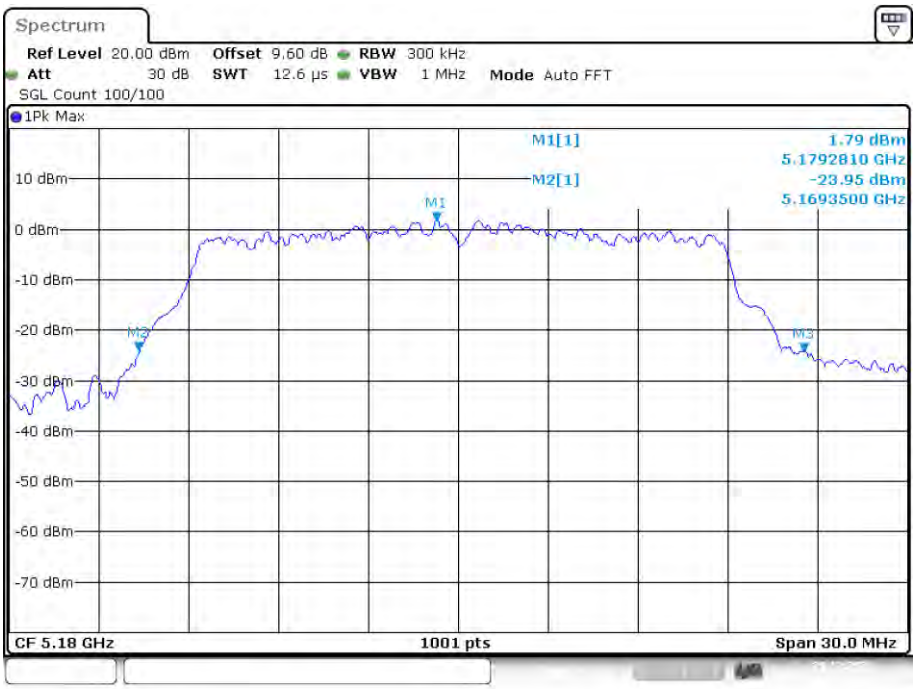
-26dB Bandwidth NVNT n20 5180MHz Ant1



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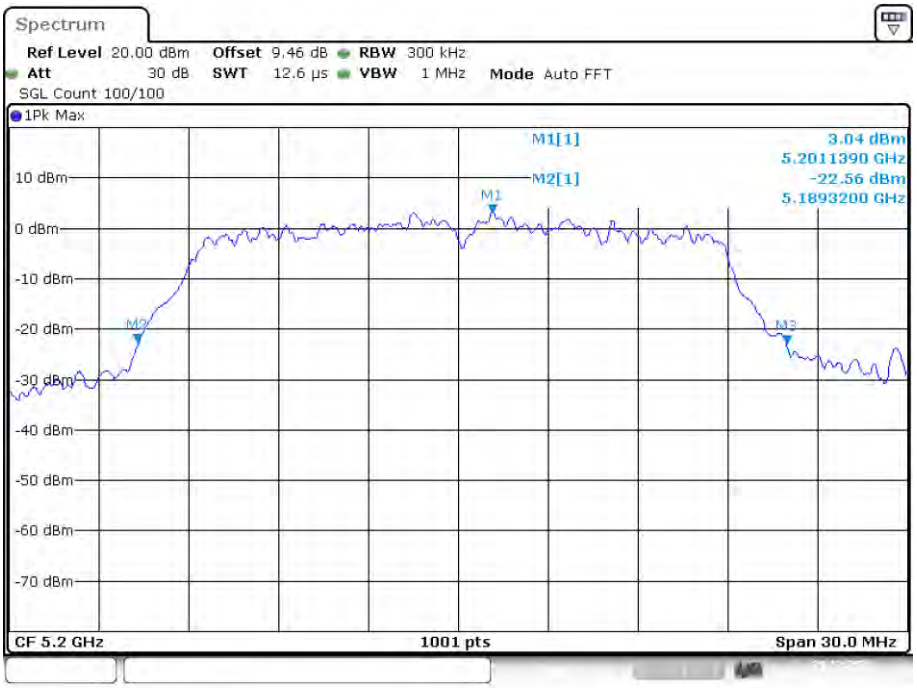
-26dB Bandwidth NVNT n20 5200MHz Ant1



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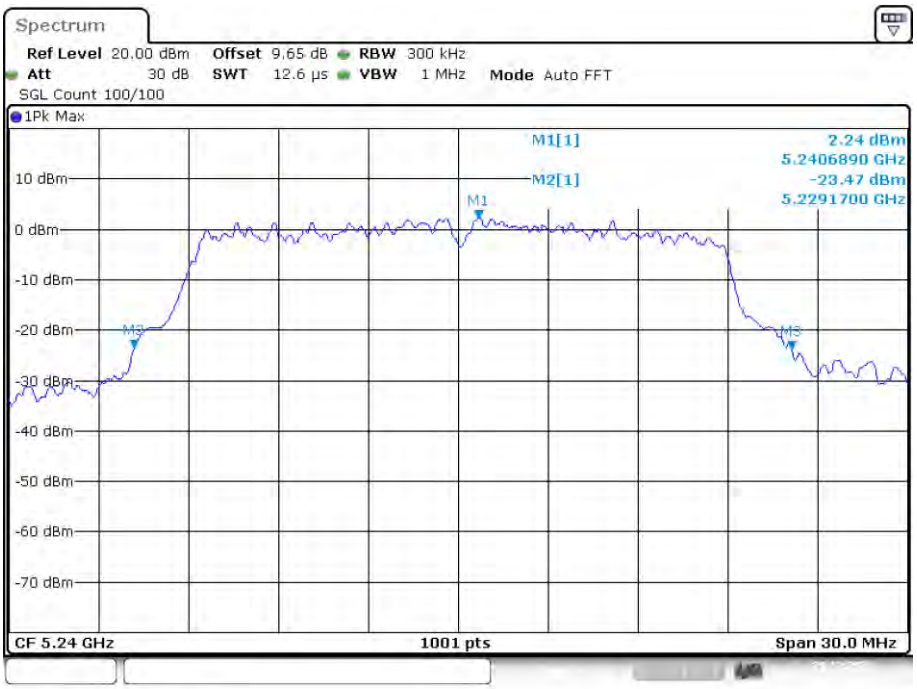
-26dB Bandwidth NVNT n20 5240MHz Ant1



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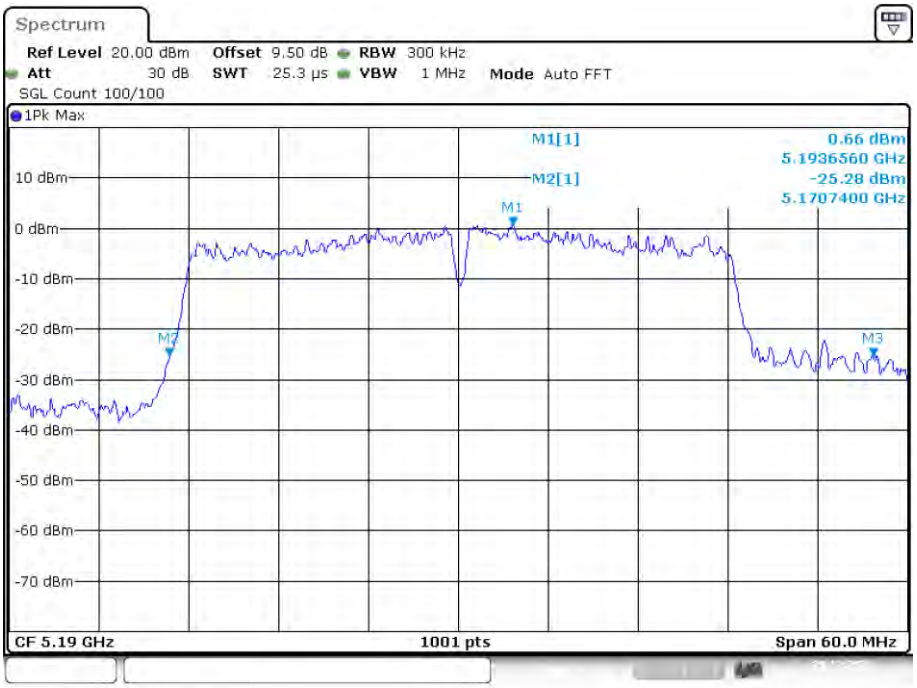
-26dB Bandwidth NVNT n40 5190MHz Ant1



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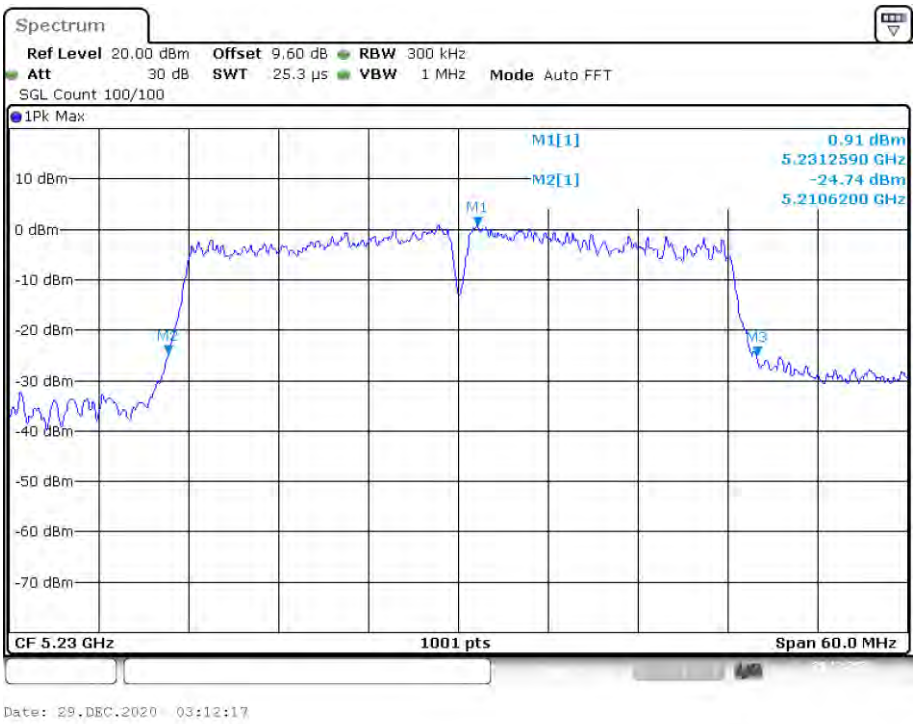
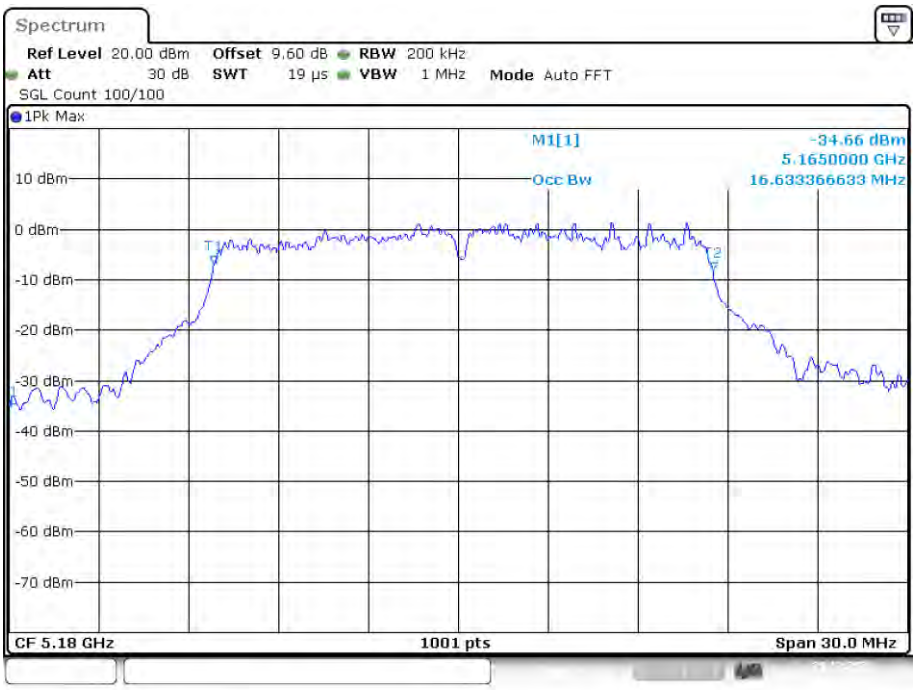
-26dB Bandwidth NVNT n40 5230MHz Ant1



Occupied Channel Bandwidth

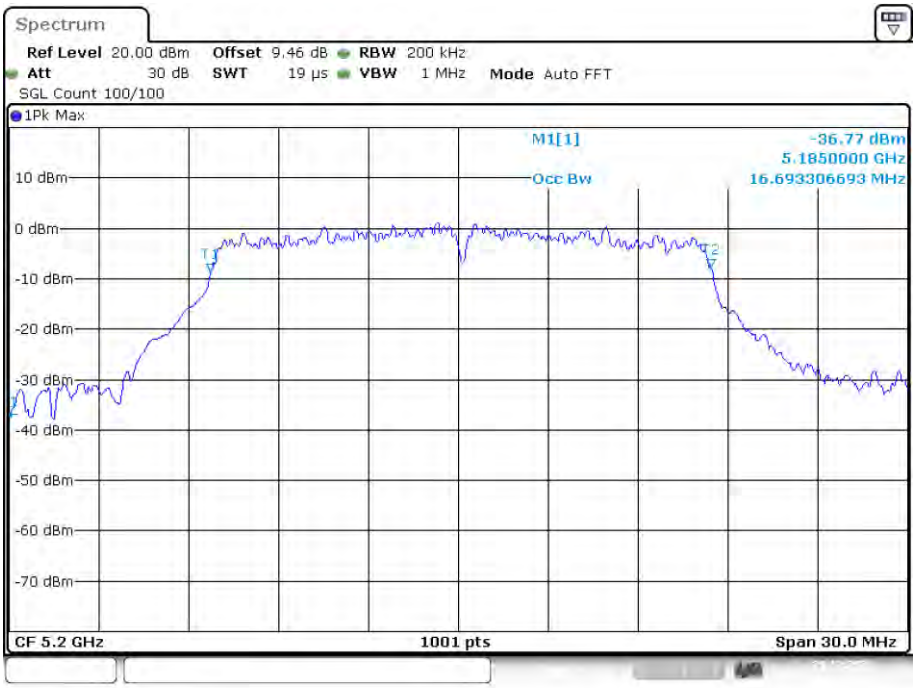
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant1	16.633
NVNT	a	5200	Ant1	16.693
NVNT	a	5240	Ant1	16.603
NVNT	ac20	5180	Ant1	17.742
NVNT	ac20	5200	Ant1	17.772
NVNT	ac20	5240	Ant1	17.682
NVNT	ac40	5190	Ant1	36.384
NVNT	ac40	5230	Ant1	36.264
NVNT	ac80	5210	Ant1	75.884
NVNT	n20	5180	Ant1	17.892
NVNT	n20	5200	Ant1	17.652
NVNT	n20	5240	Ant1	17.742
NVNT	n40	5190	Ant1	36.144
NVNT	n40	5230	Ant1	36.144

OBW NVNT a 5180MHz Ant1



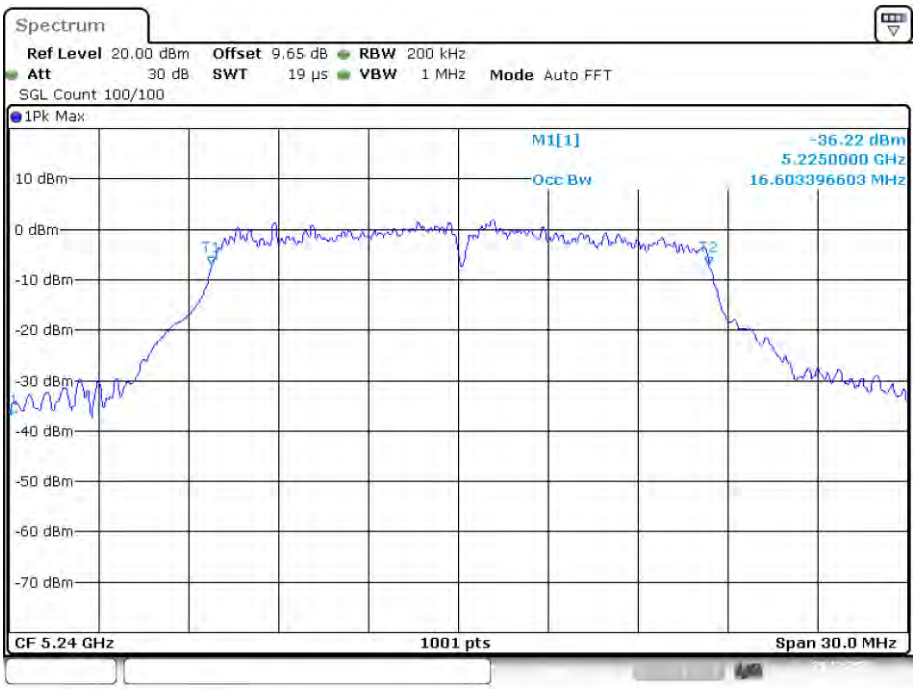
Date: 28.DEC.2020 11:37:29

OBW NVNT a 5200MHz Ant1



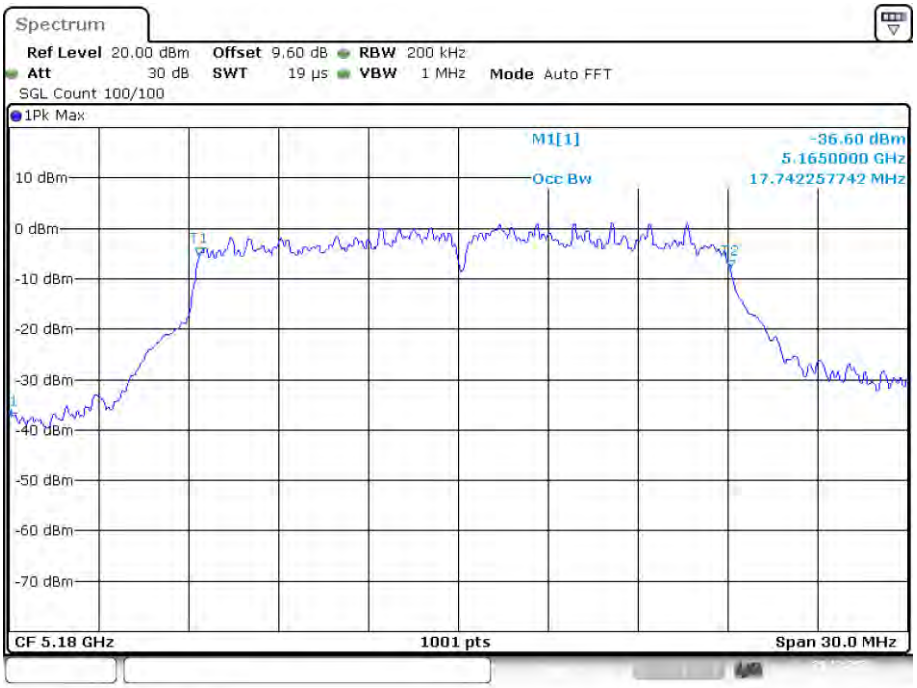
Date: 28.DEC.2020 11:46:59

OBW NVNT a 5240MHz Ant1



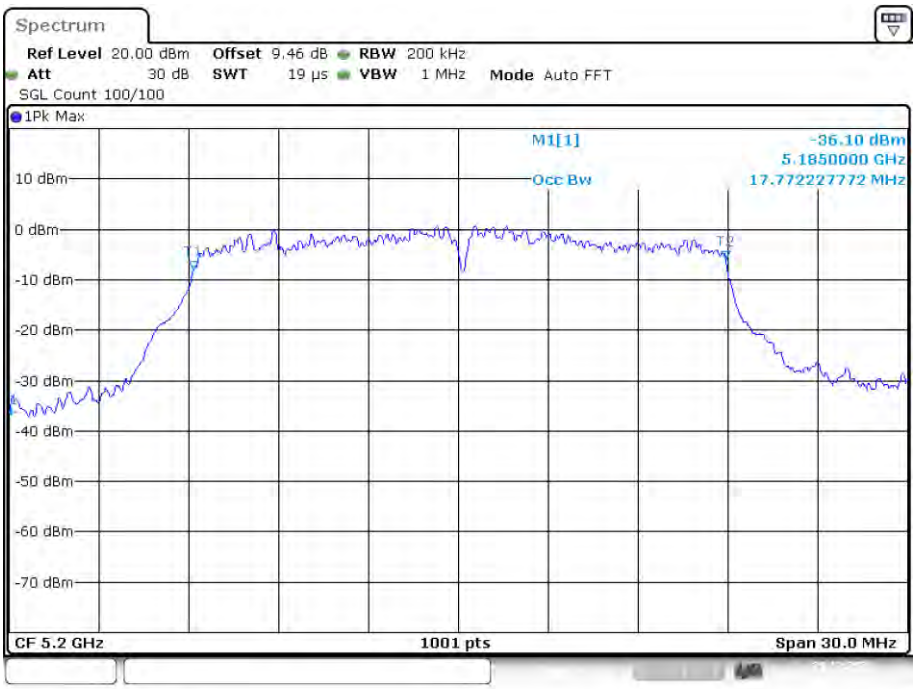
Date: 28.DEC.2020 11:49:38

OBW NVNT ac20 5180MHz Ant1



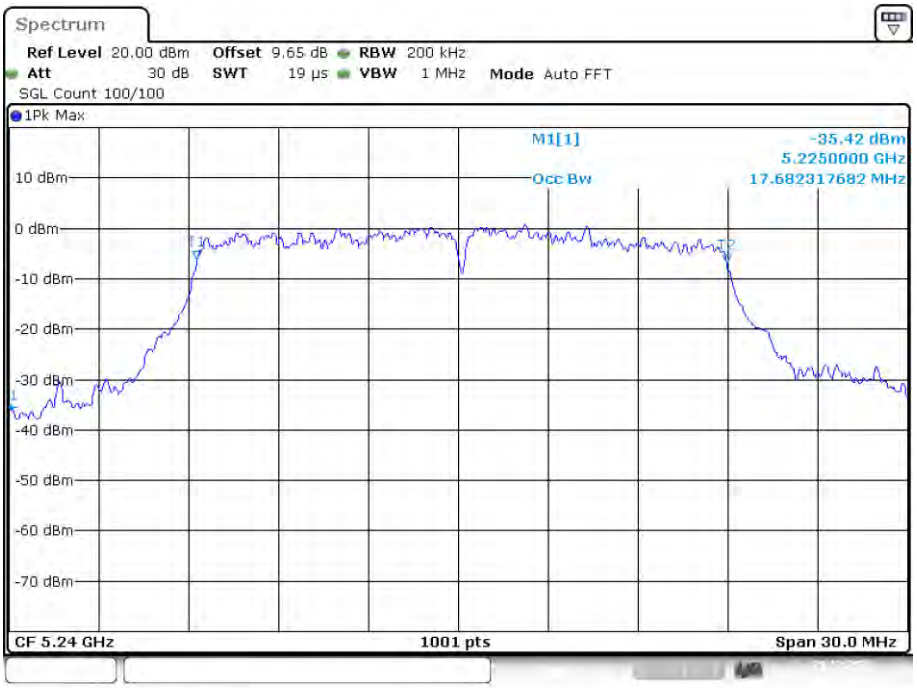
Date: 28.DEC.2020 12:08:16

OBW NVNT ac20 5200MHz Ant1



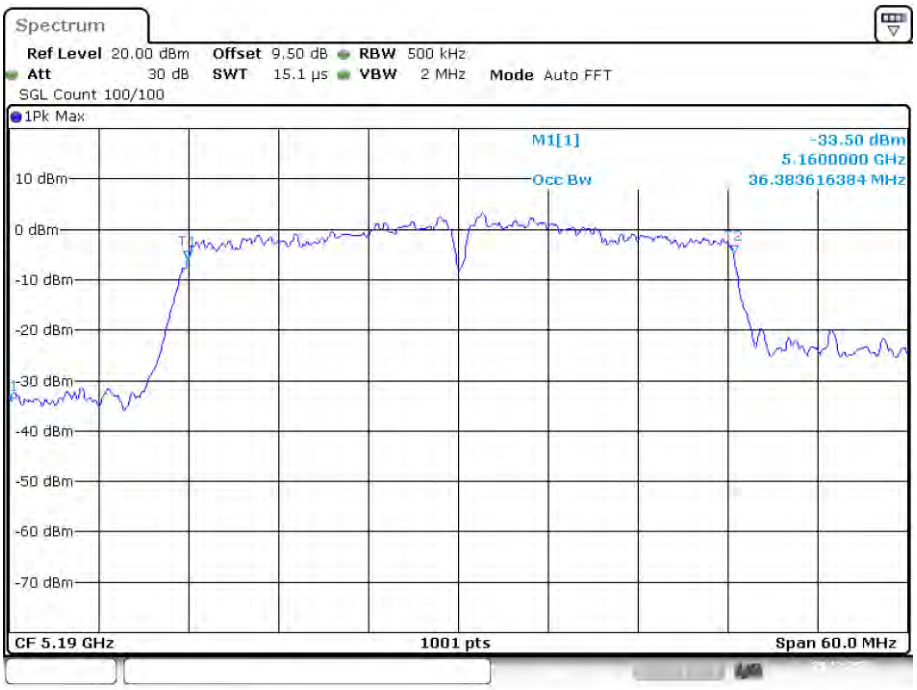
Date: 28.DEC.2020 12:11:03

OBW NVNT ac20 5240MHz Ant1



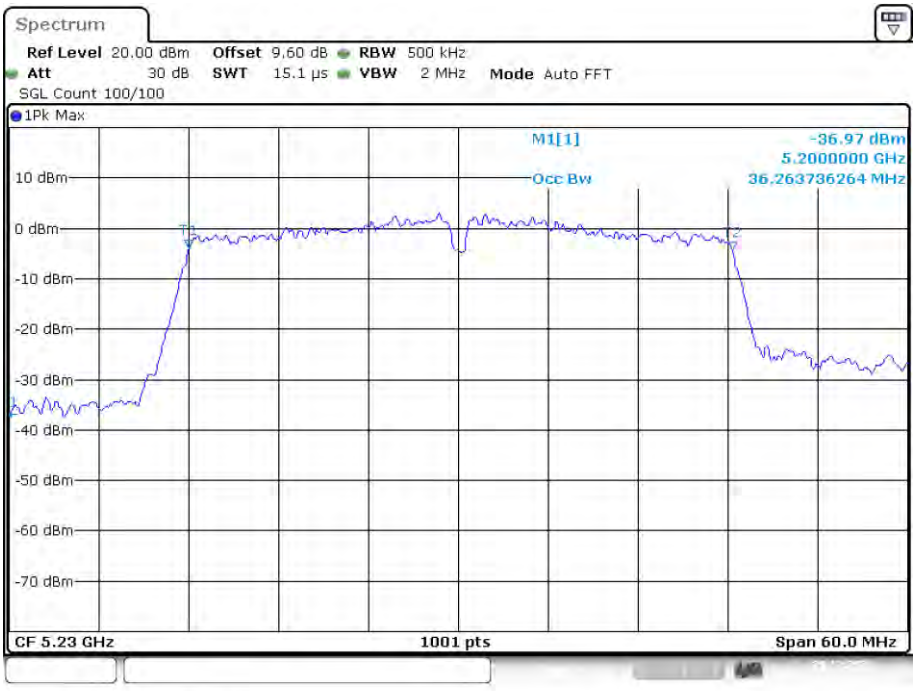
Date: 28.DEC.2020 12:13:59

OBW NVNT ac40 5190MHz Ant1



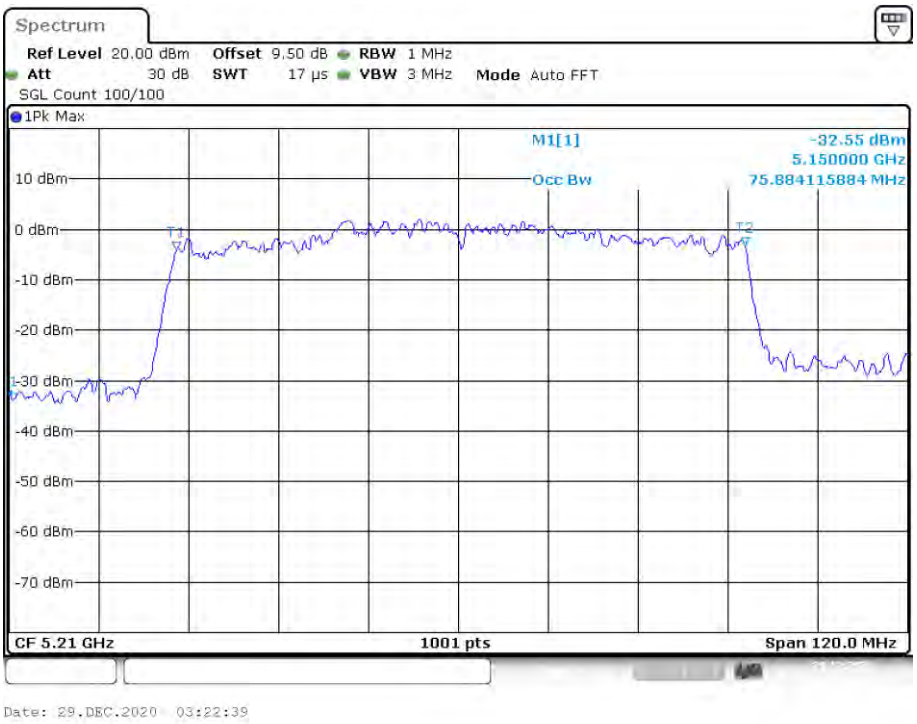
Date: 29.DEC.2020 03:15:20

OBW NVNT ac40 5230MHz Ant1



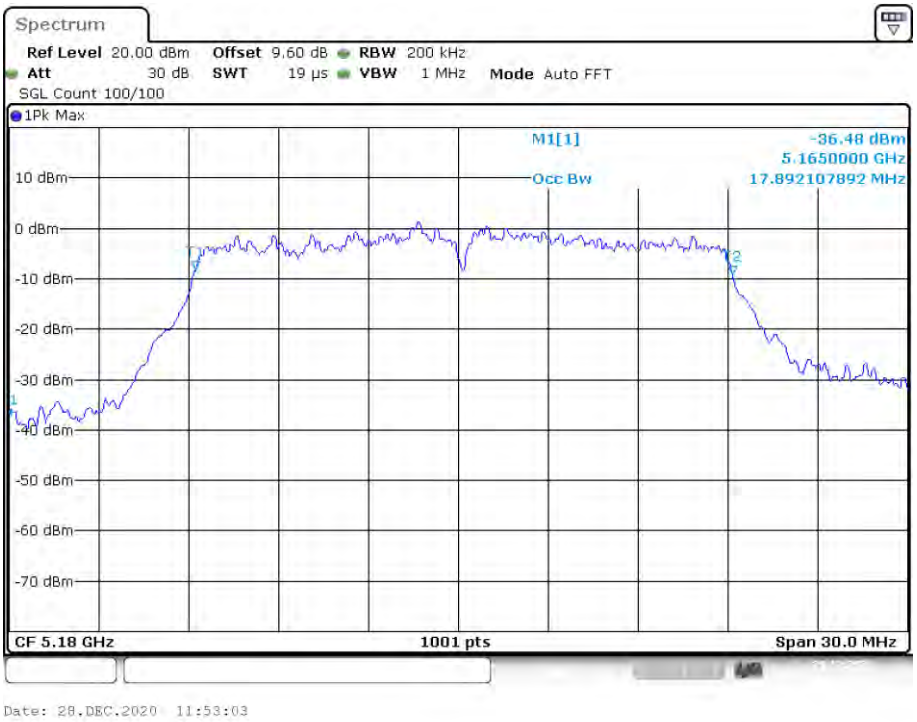
Date: 29.DEC.2020 03:19:42

OBW NVNT ac80 5210MHz Ant1



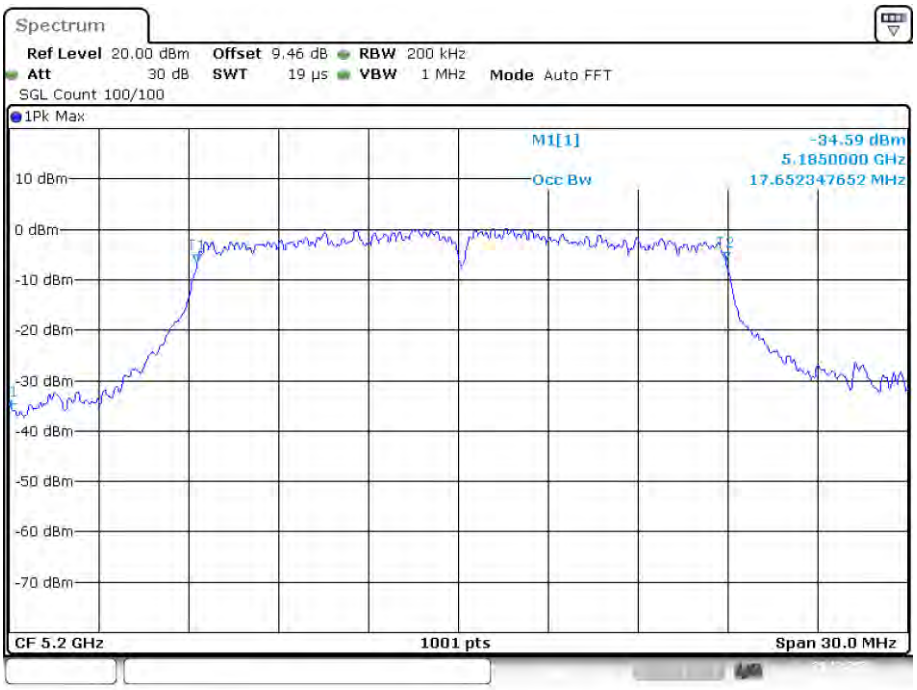
Date: 29.DEC.2020 03:22:39

OBW NVNT n20 5180MHz Ant1



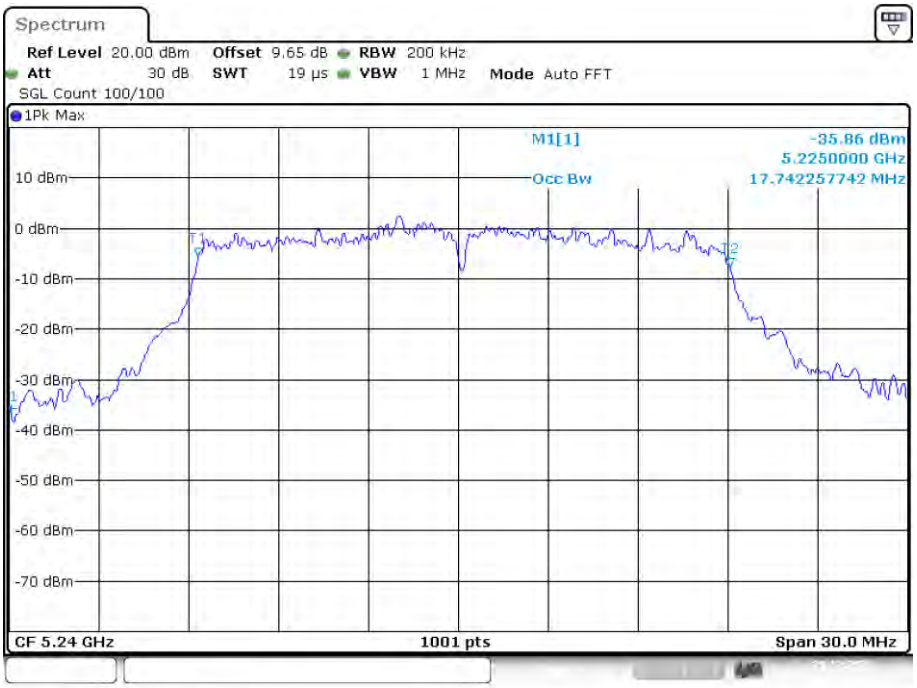
Date: 28.DEC.2020 11:53:03

OBW NVNT n20 5200MHz Ant1



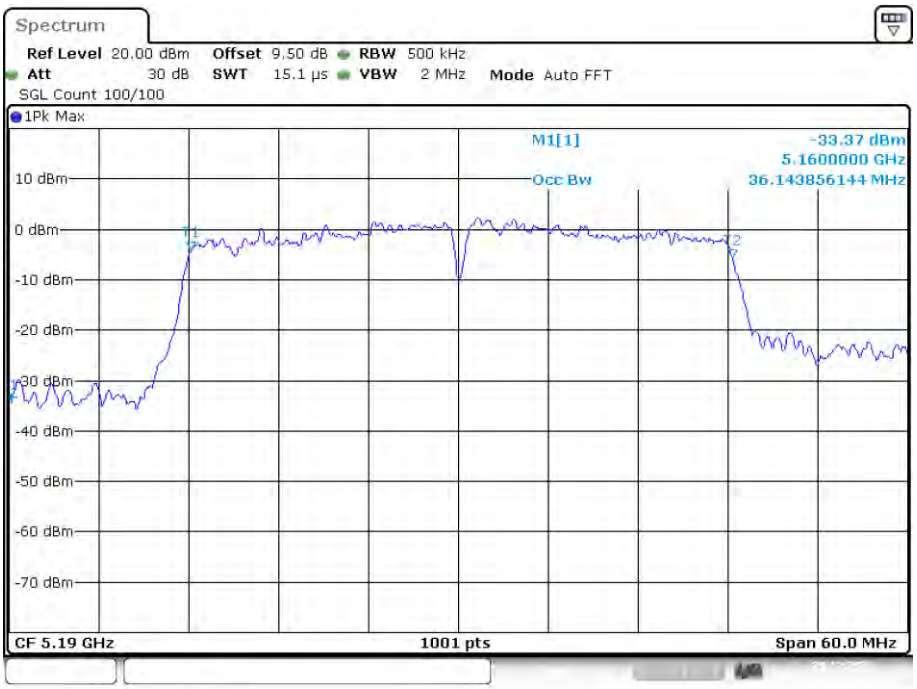
Date: 28.DEC.2020 11:56:06

OBW NVNT n20 5240MHz Ant1



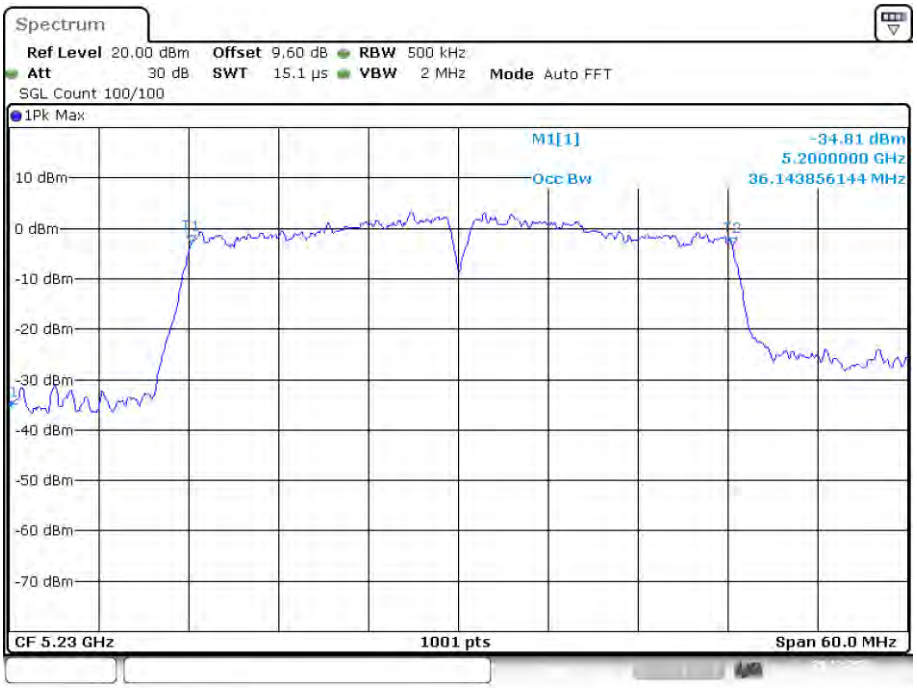
Date: 28.DEC.2020 12:00:04

OBW NVNT n40 5190MHz Ant1



Date: 29.DEC.2020 03:09:10

OBW NVNT n40 5230MHz Ant1



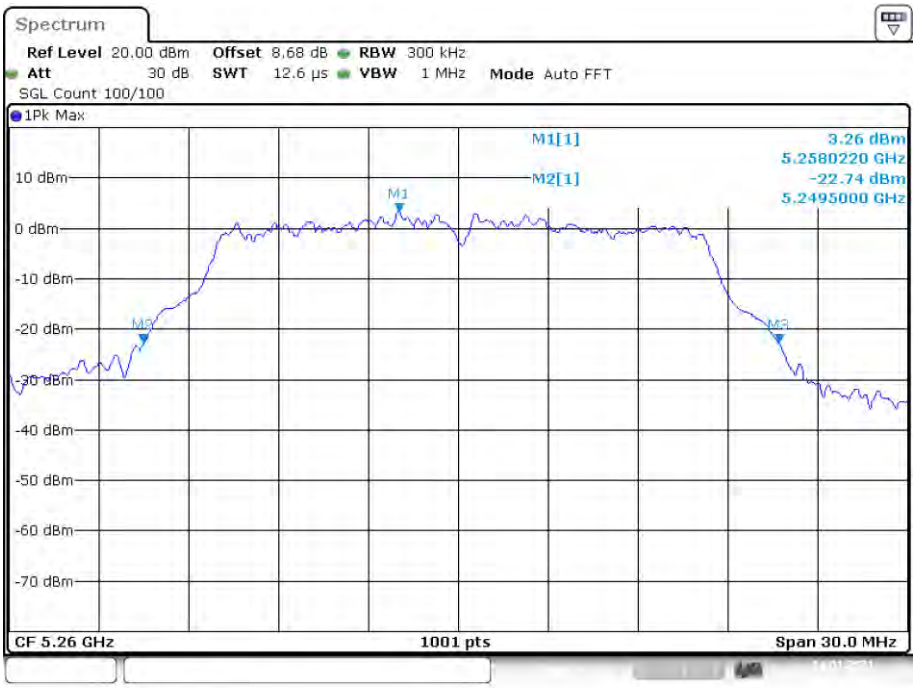
Date: 29.DEC.2020 03:12:08

Band 2 (5250-5350 MHz):

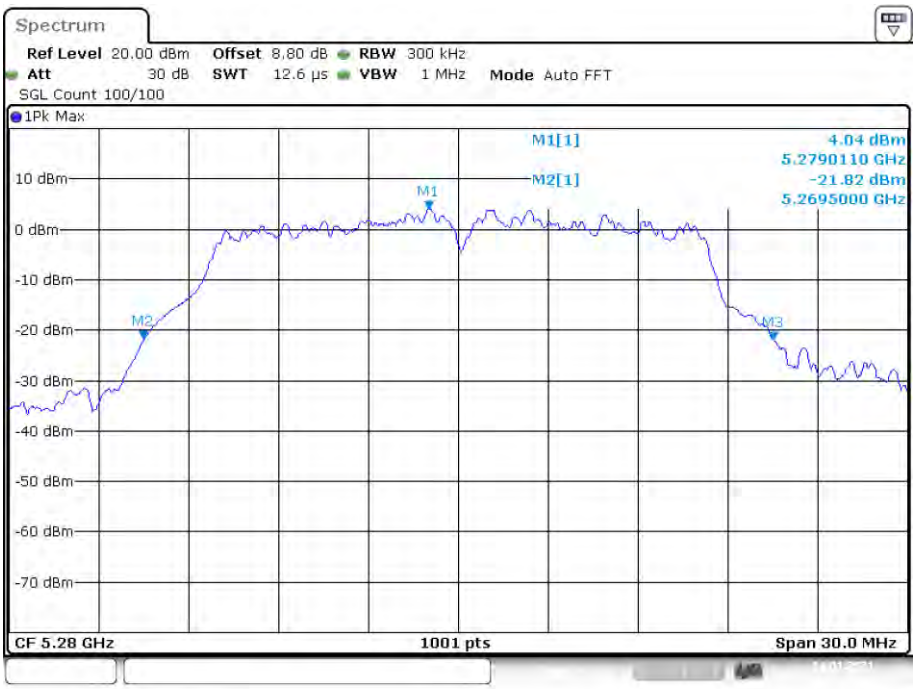
-26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5260	Ant1	21.18	0.5	Pass
NVNT	a	5280	Ant1	21	0.5	Pass
NVNT	a	5320	Ant1	21.36	0.5	Pass
NVNT	ac20	5260	Ant1	25.38	0.5	Pass
NVNT	ac20	5280	Ant1	23.04	0.5	Pass
NVNT	ac20	5320	Ant1	21.48	0.5	Pass
NVNT	ac40	5270	Ant1	39.3	0.5	Pass
NVNT	ac40	5310	Ant1	46.92	0.5	Pass
NVNT	ac80	5290	Ant1	79.2	0.5	Pass
NVNT	n20	5260	Ant1	21.42	0.5	Pass
NVNT	n20	5280	Ant1	21.66	0.5	Pass
NVNT	n20	5320	Ant1	21.42	0.5	Pass
NVNT	n40	5270	Ant1	39.42	0.5	Pass
NVNT	n40	5310	Ant1	40.32	0.5	Pass

-26dB Bandwidth NVNT a 5260MHz Ant1

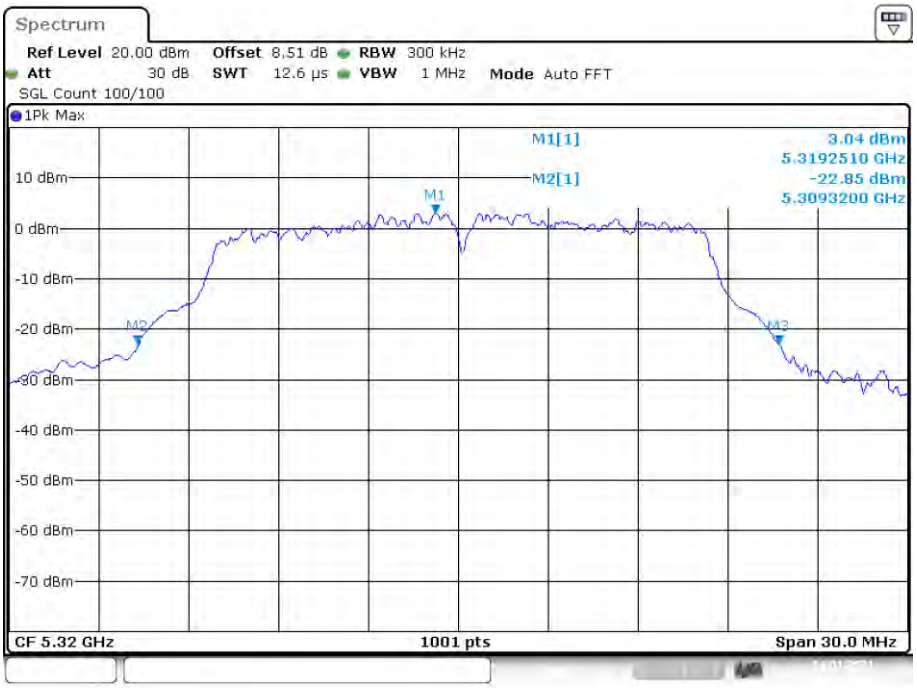


-26dB Bandwidth NVNT a 5280MHz Ant1



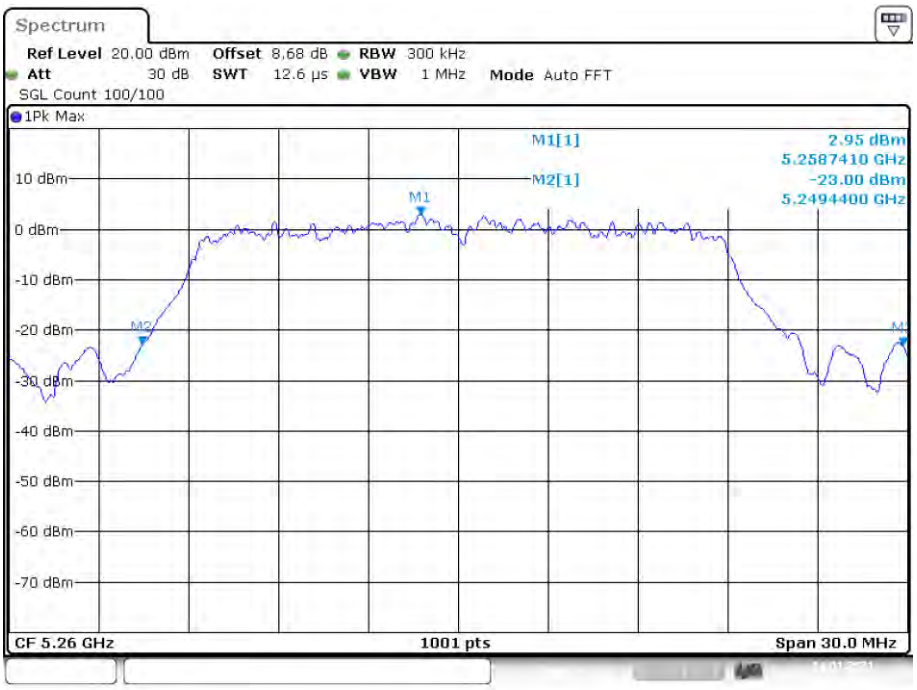
Date: 14.JAN.2021 10:37:55

-26dB Bandwidth NVNT a 5320MHz Ant1



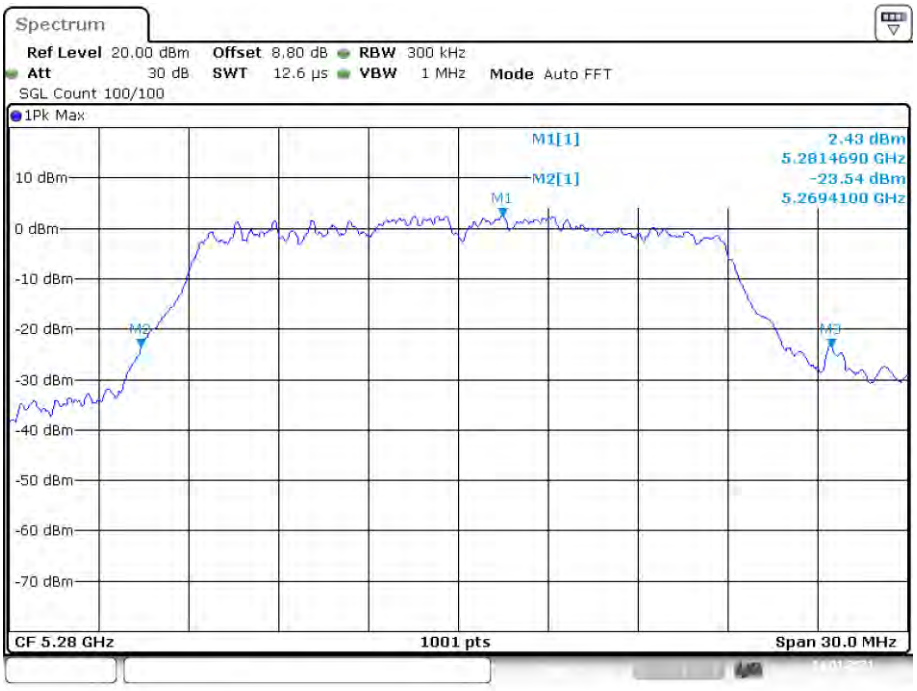
Date: 14.JAN.2021 10:40:48

-26dB Bandwidth NVNT ac20 5260MHz Ant1



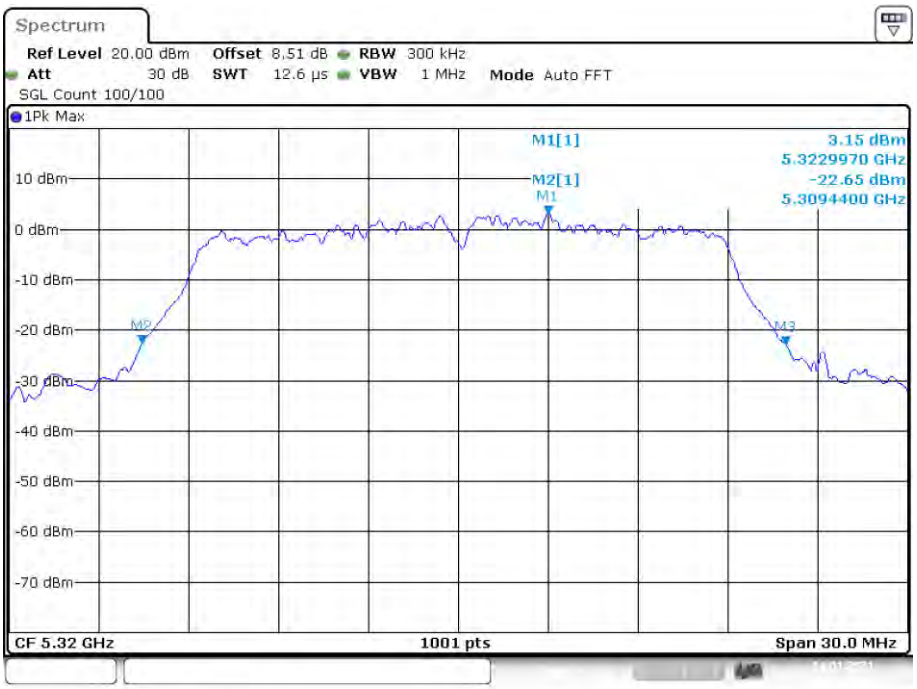
Date: 14.JAN.2021 10:53:31

-26dB Bandwidth NVNT ac20 5280MHz Ant1



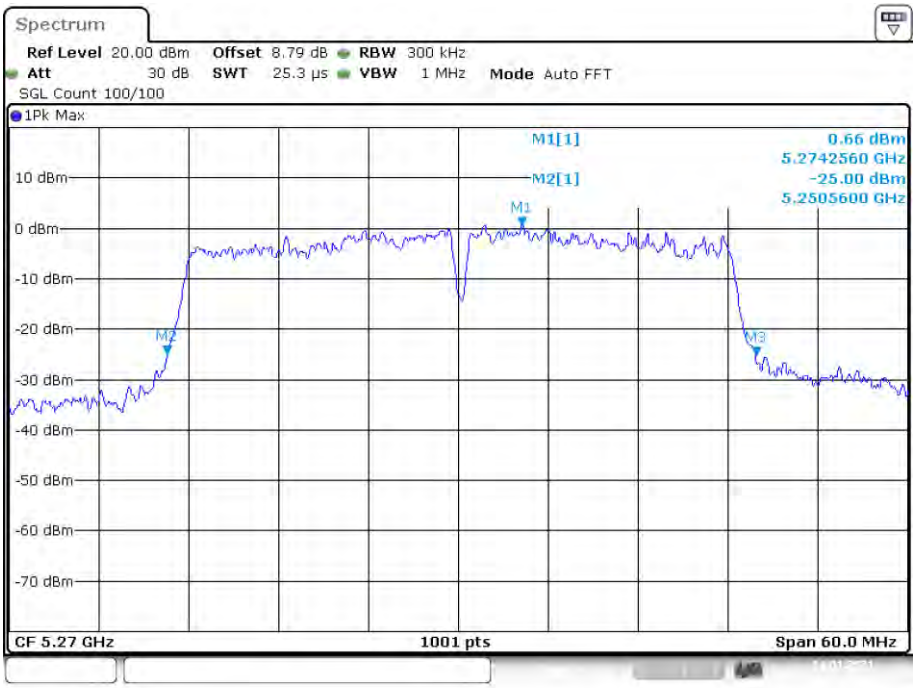
Date: 14.JAN.2021 10:57:01

-26dB Bandwidth NVNT ac20 5320MHz Ant1



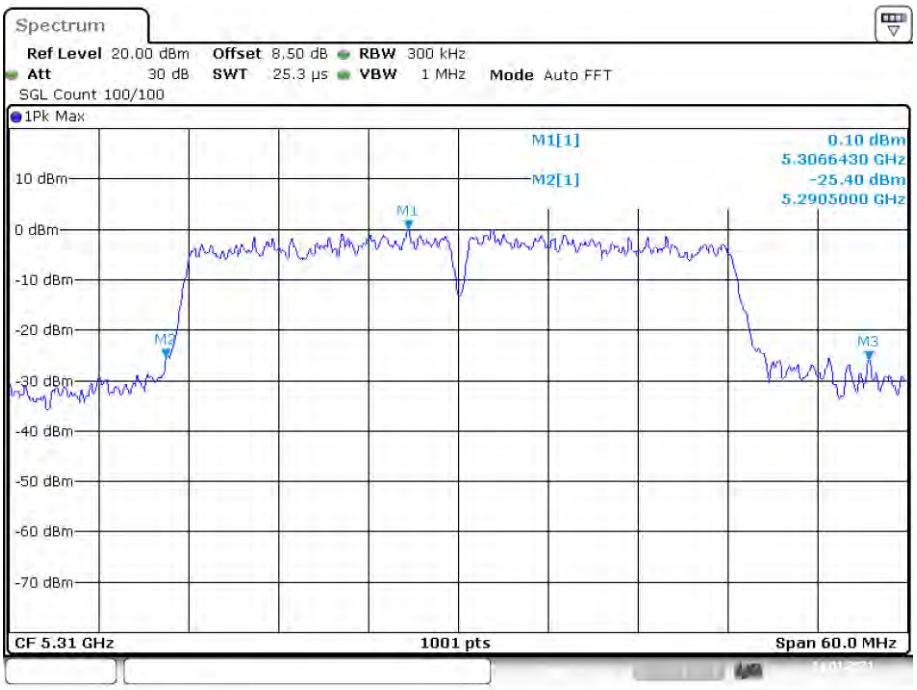
Date: 14.JAN.2021 10:59:47

-26dB Bandwidth NVNT ac40 5270MHz Ant1



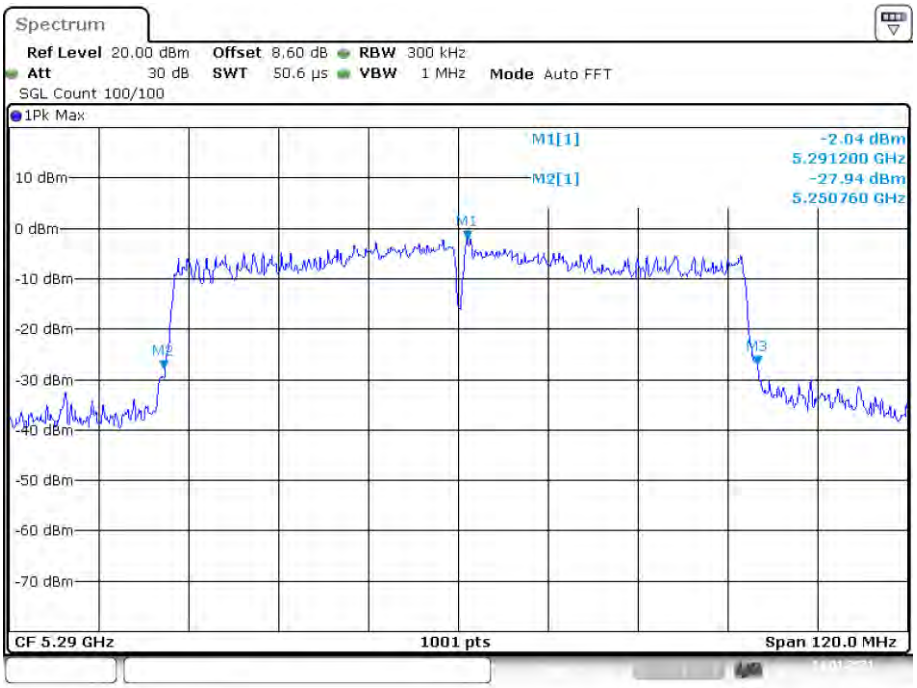
Date: 14.JAN.2021 11:12:17

-26dB Bandwidth NVNT ac40 5310MHz Ant1



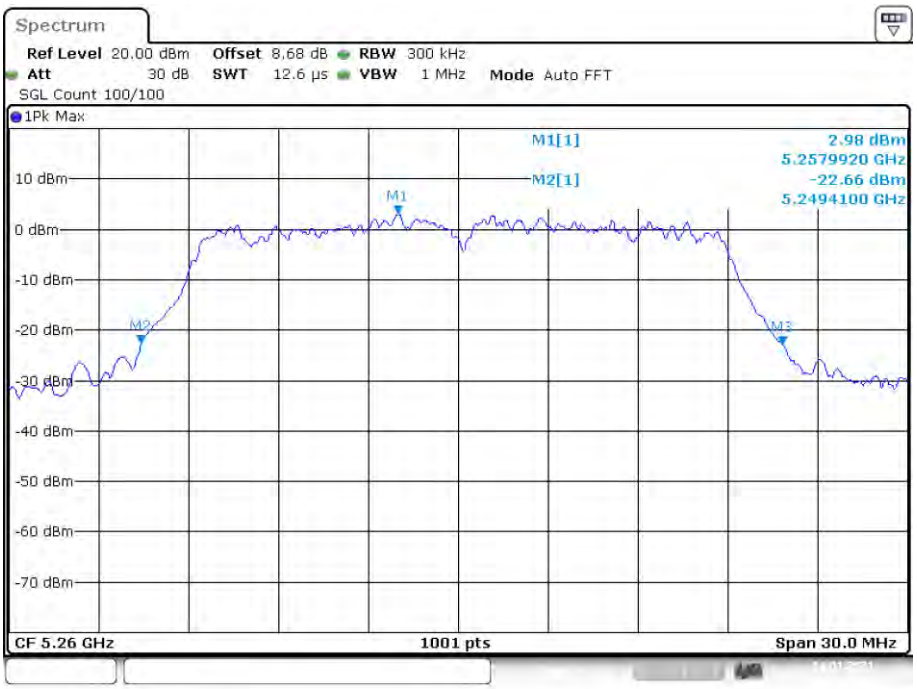
Date: 14.JAN.2021 11:16:01

-26dB Bandwidth NVNT ac80 5290MHz Ant1



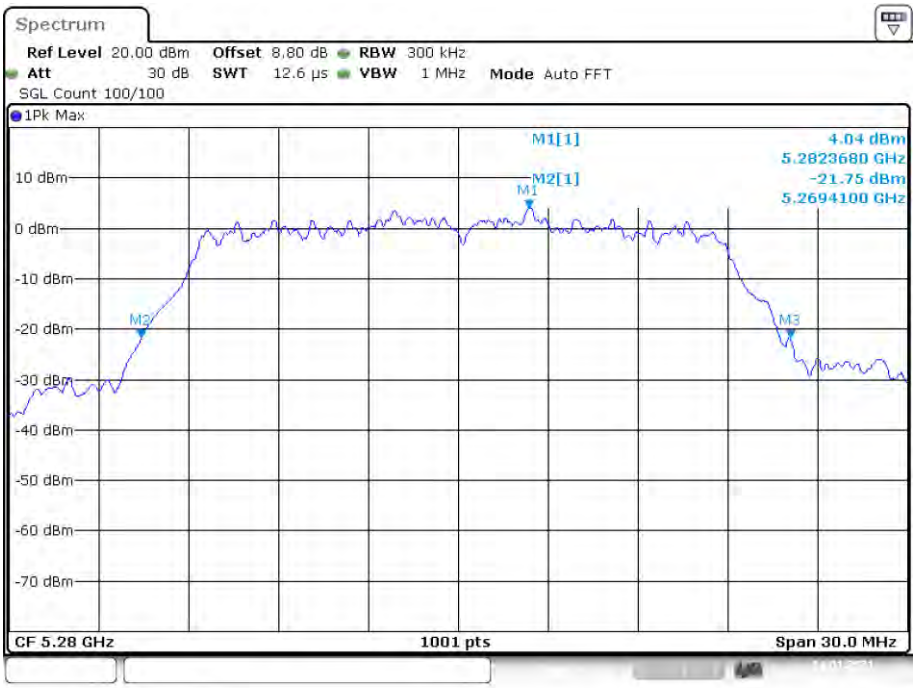
Date: 14.JAN.2021 11:23:45

-26dB Bandwidth NVNT n20 5260MHz Ant1



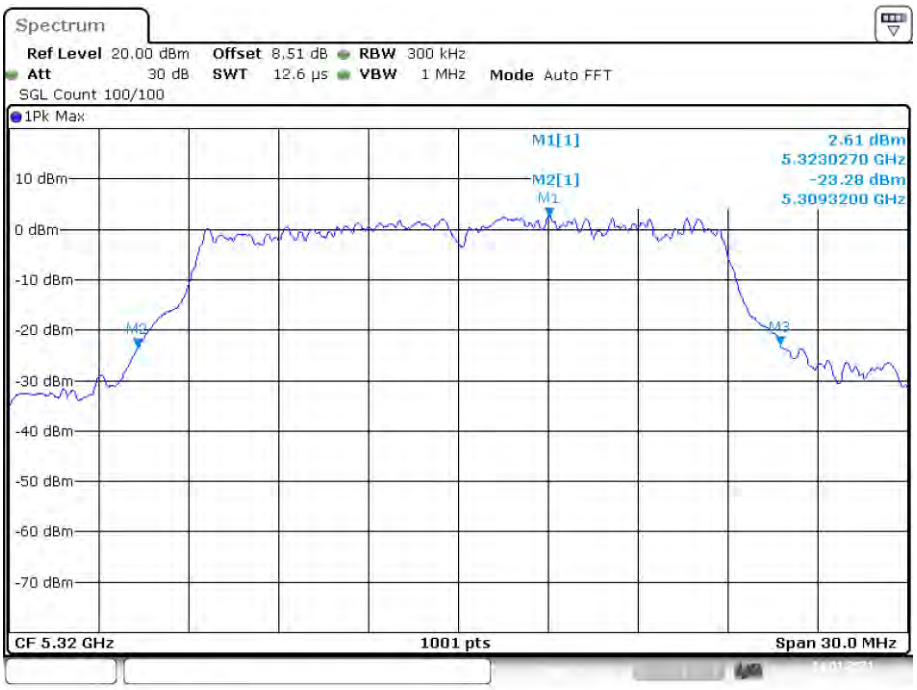
Date: 14.JAN.2021 10:44:42

-26dB Bandwidth NVNT n20 5280MHz Ant1



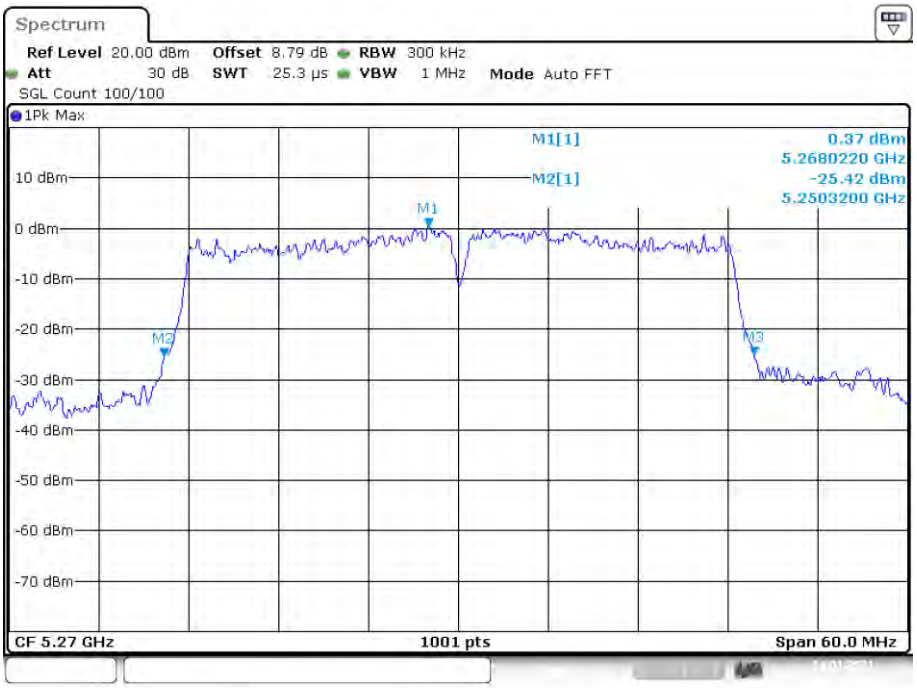
Date: 14.JAN.2021 10:47:34

-26dB Bandwidth NVNT n20 5320MHz Ant1



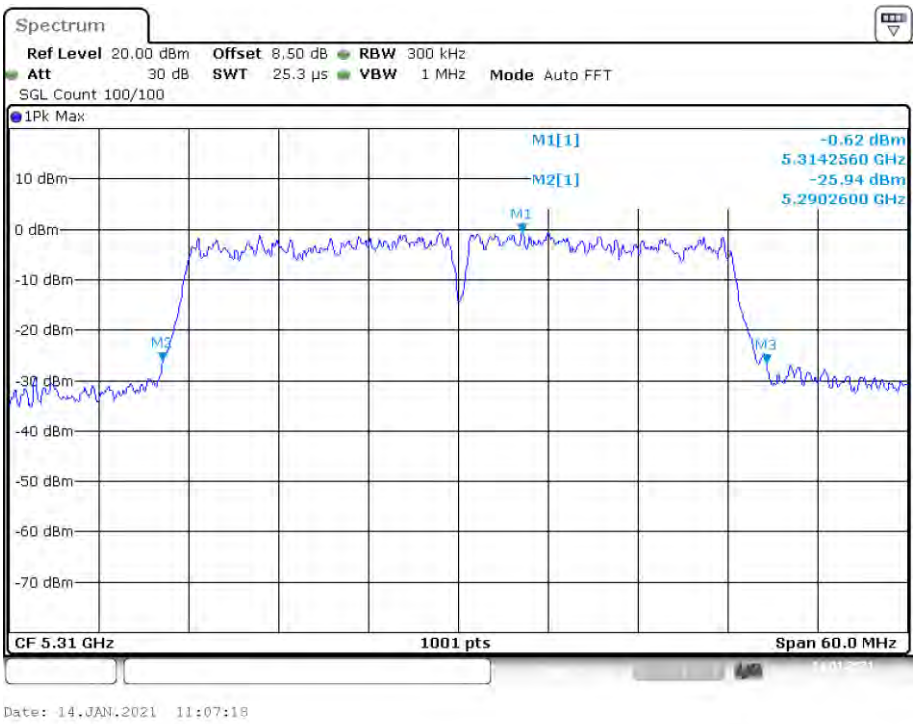
Date: 14.JAN.2021 10:50:07

-26dB Bandwidth NVNT n40 5270MHz Ant1



Date: 14.JAN.2021 11:03:28

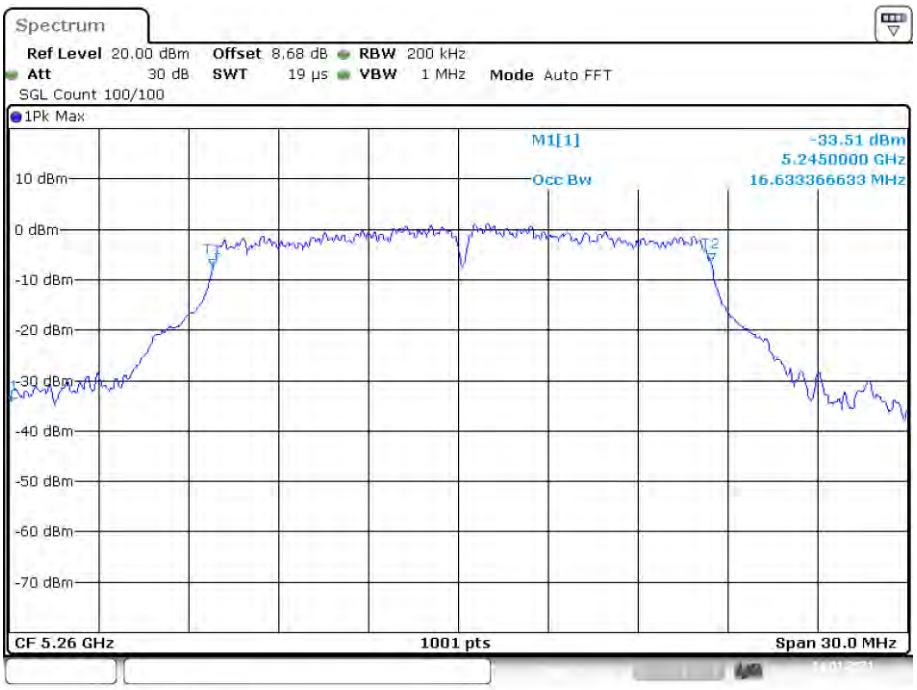
-26dB Bandwidth NVNT n40 5310MHz Ant1



Occupied Channel Bandwidth

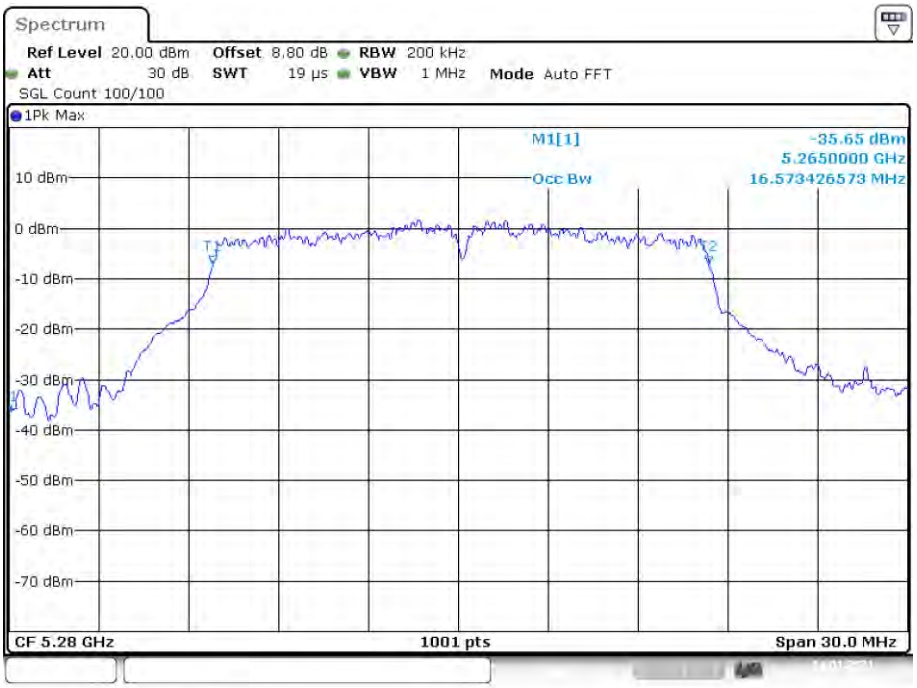
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5260	Ant1	16.633
NVNT	a	5280	Ant1	16.573
NVNT	a	5320	Ant1	16.543
NVNT	ac20	5260	Ant1	17.712
NVNT	ac20	5280	Ant1	17.772
NVNT	ac20	5320	Ant1	17.772
NVNT	ac40	5270	Ant1	36.264
NVNT	ac40	5310	Ant1	36.444
NVNT	ac80	5290	Ant1	75.524
NVNT	n20	5260	Ant1	17.712
NVNT	n20	5280	Ant1	17.862
NVNT	n20	5320	Ant1	17.772
NVNT	n40	5270	Ant1	36.264
NVNT	n40	5310	Ant1	36.324

OBW NVNT a 5260MHz Ant1



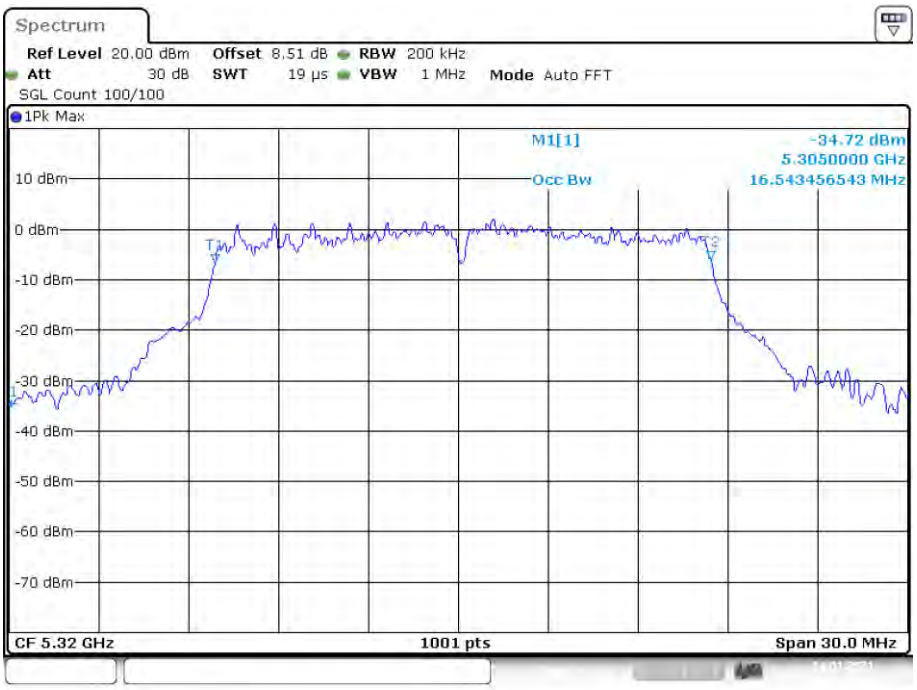
Date: 14.JAN.2021 10:34:43

OBW NVNT a 5280MHz Ant1



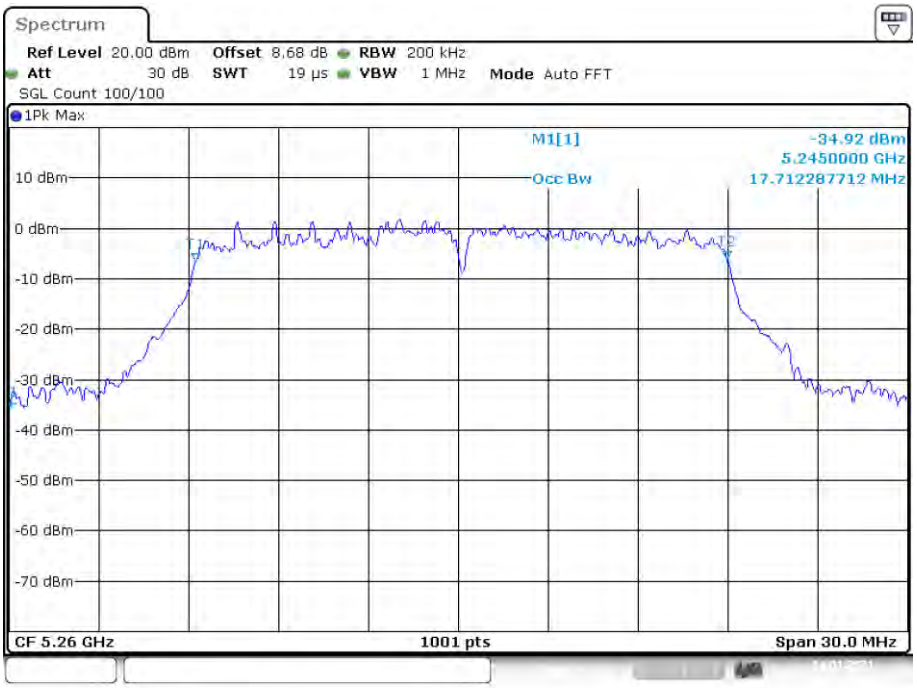
Date: 14.JAN.2021 10:37:46

OBW NVNT a 5320MHz Ant1



Date: 14.JAN.2021 10:40:39

OBW NVNT ac20 5260MHz Ant1



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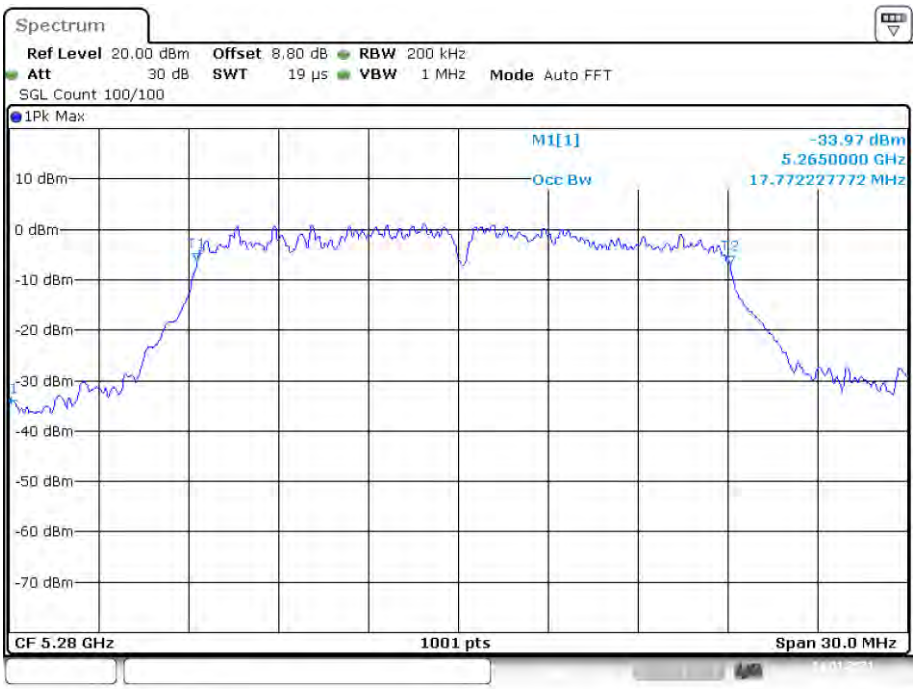
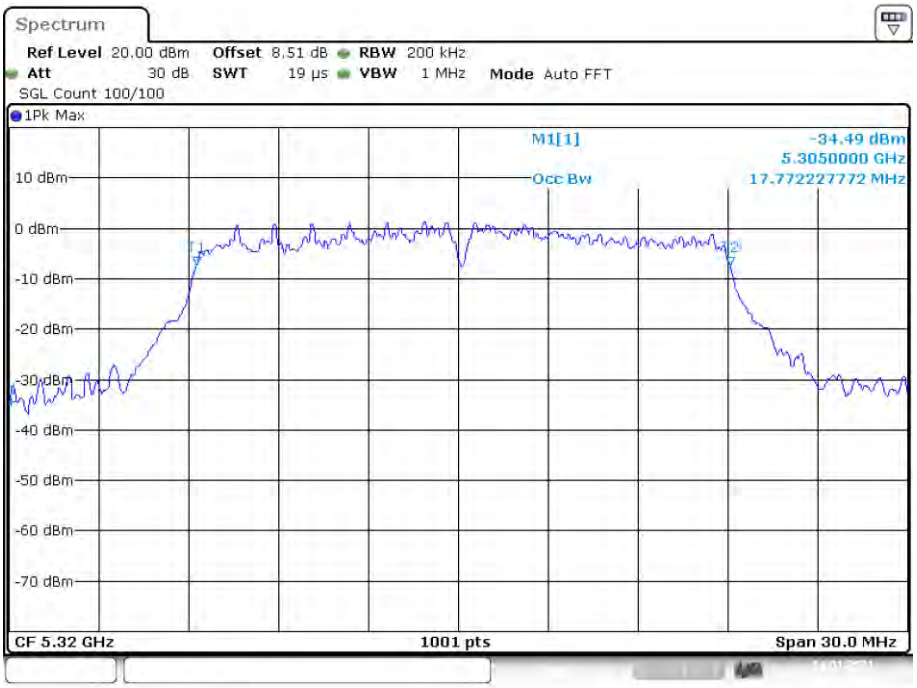
OBW NVNT ac20 5280MHz Ant1



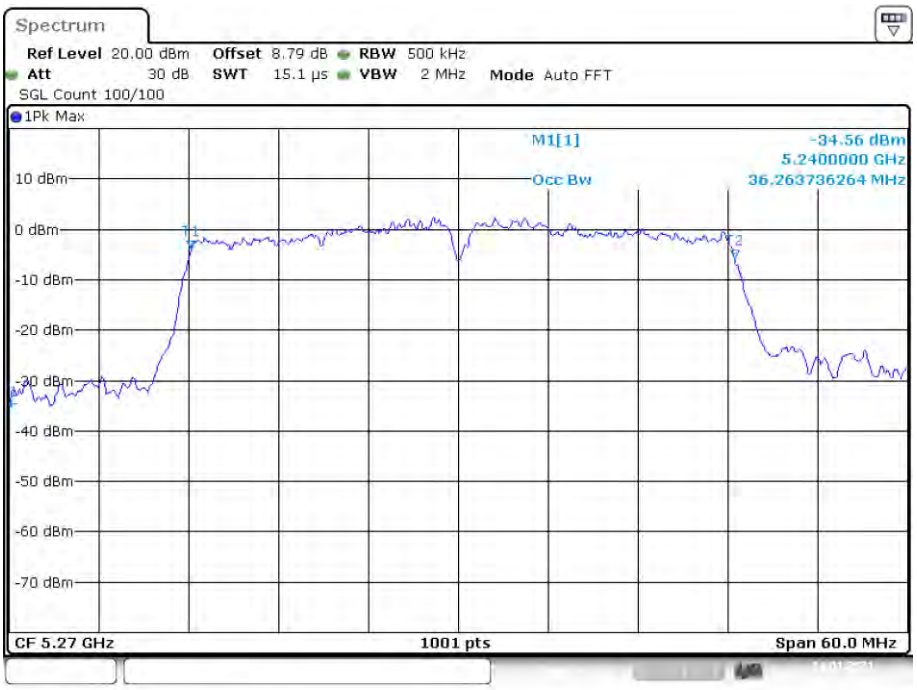
Date: 14.JAN.2021 10:56:48

OBW NVNT ac20 5320MHz Ant1



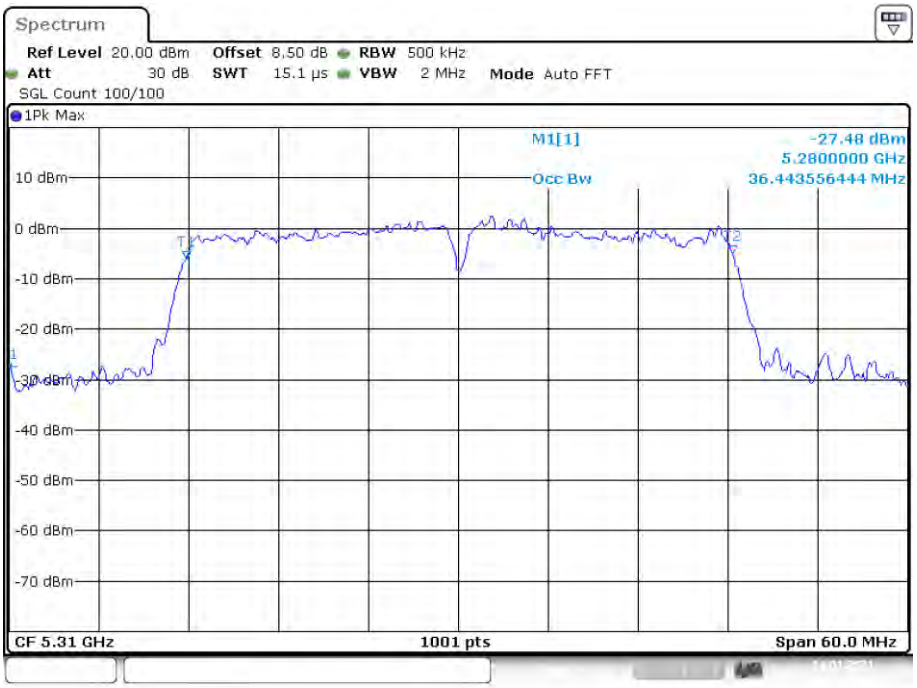
Date: 14.JAN.2021 10:59:34

OBW NVNT ac40 5270MHz Ant1



Date: 14.JAN.2021 11:12:00

OBW NVNT ac40 5310MHz Ant1



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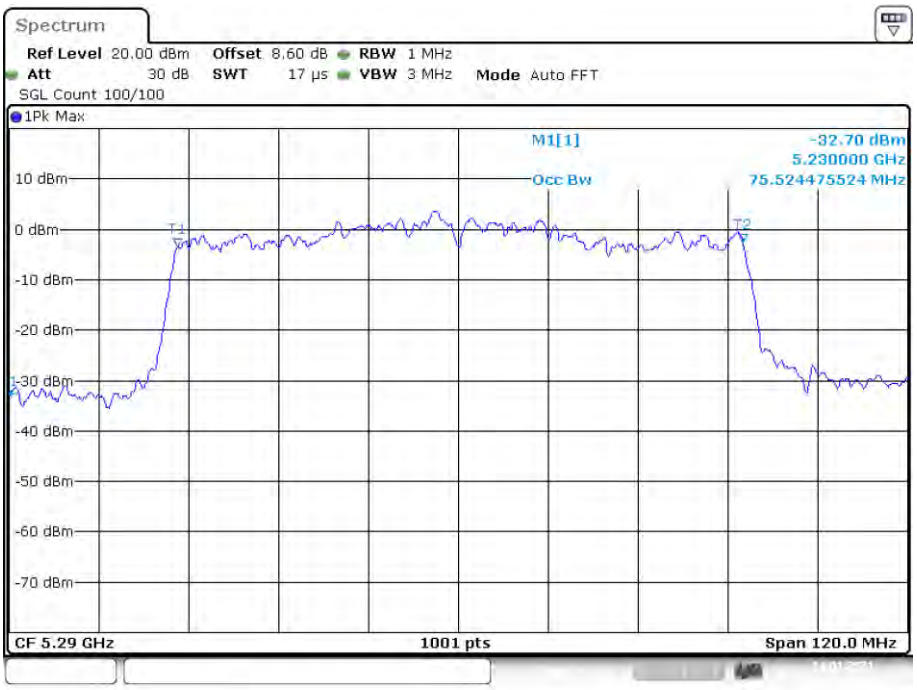
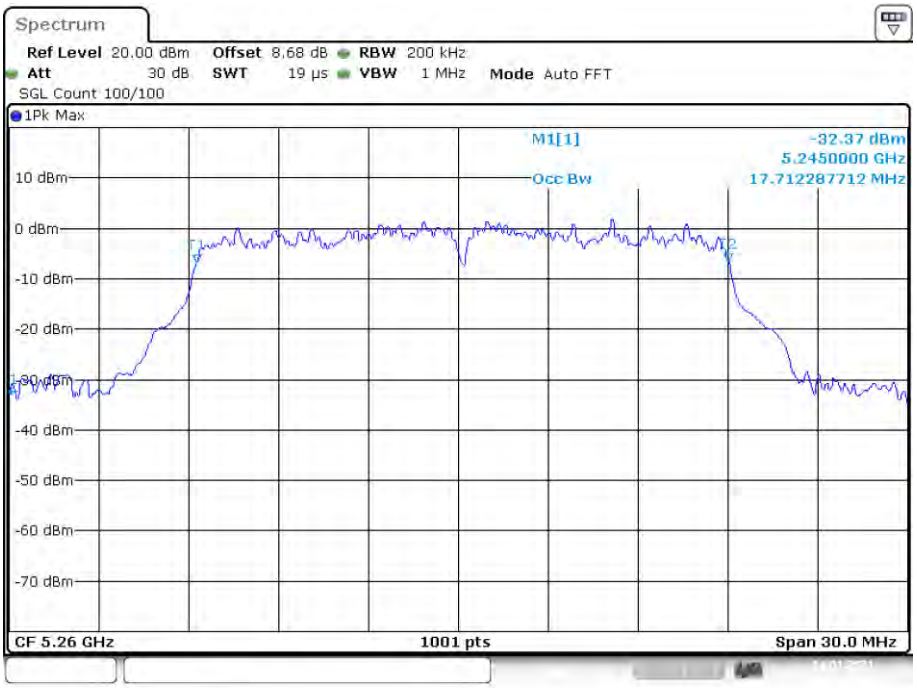
OBW NVNT ac80 5290MHz Ant1



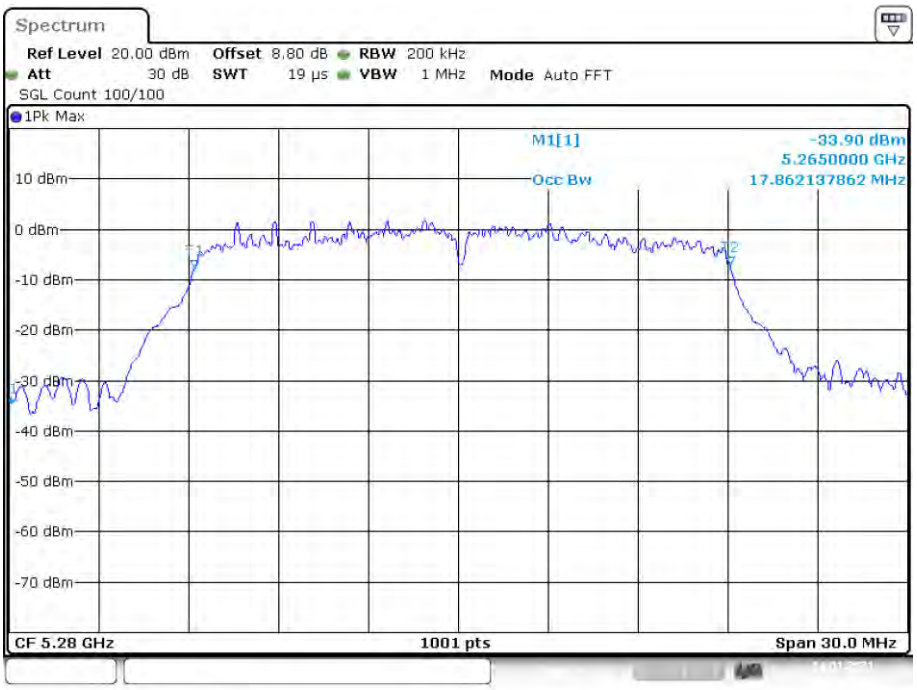
Date: 14.JAN.2021 11:23:24

OBW NVNT n20 5260MHz Ant1



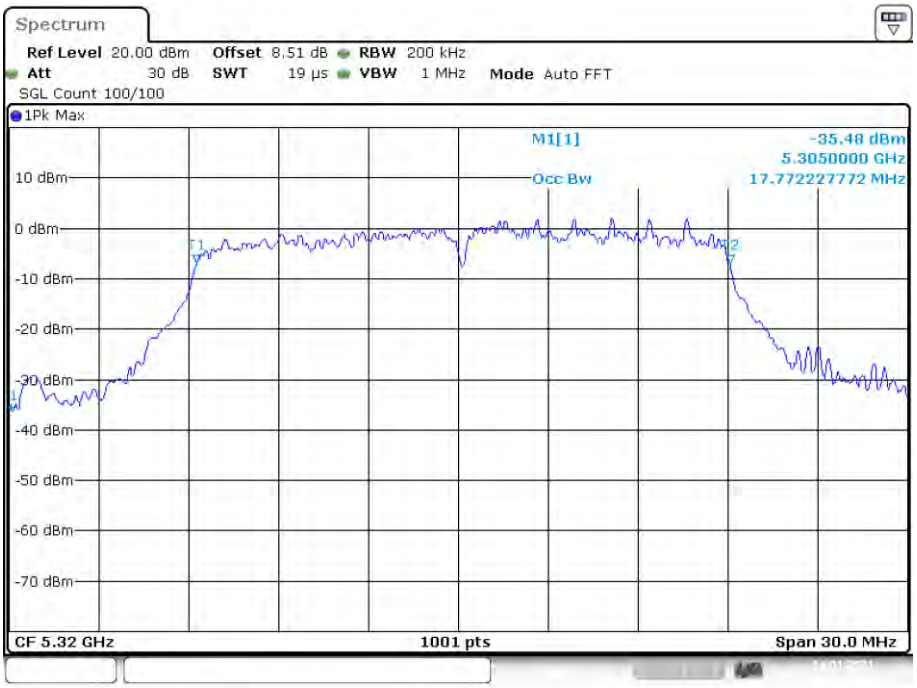
Date: 14.JAN.2021 10:44:31

OBW NVNT n20 5280MHz Ant1



Date: 14.JAN.2021 10:47:23

OBW NVNT n20 5320MHz Ant1



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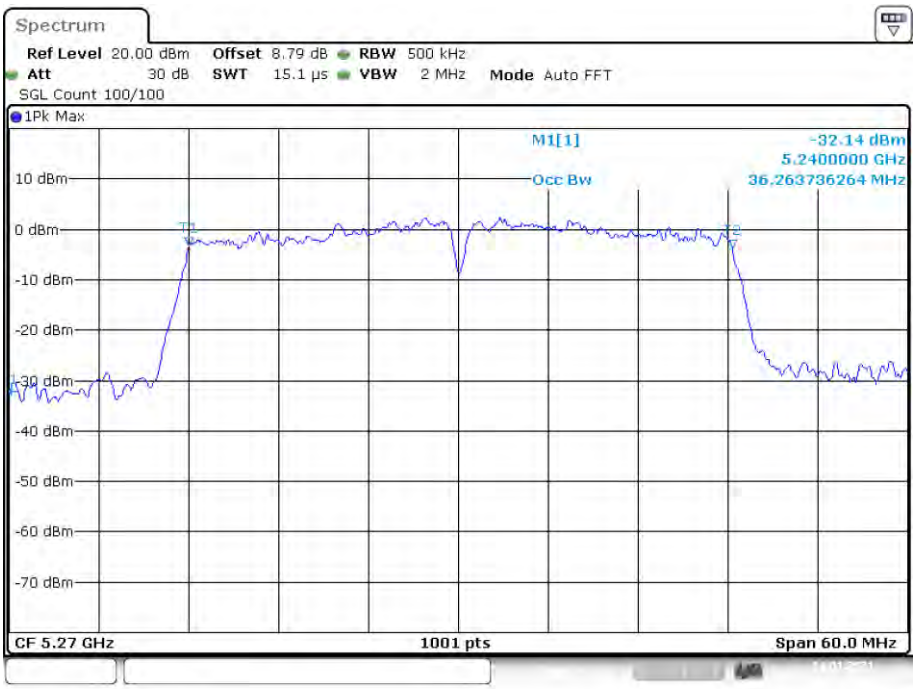
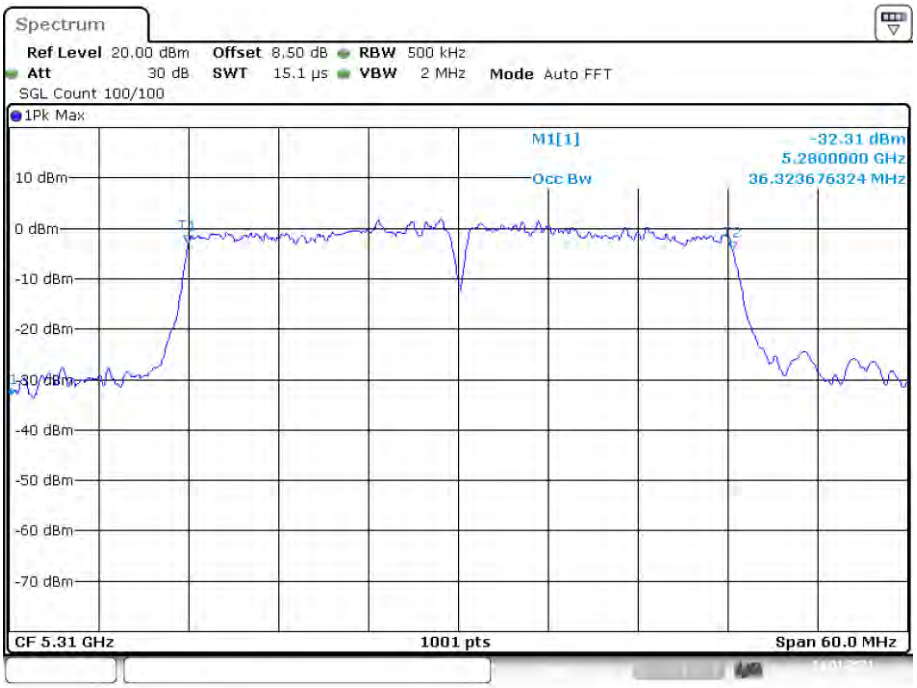
OBW NVNT n40 5270MHz Ant1



Date: 14.JAN.2021 11:03:12

OBW NVNT n40 5310MHz Ant1



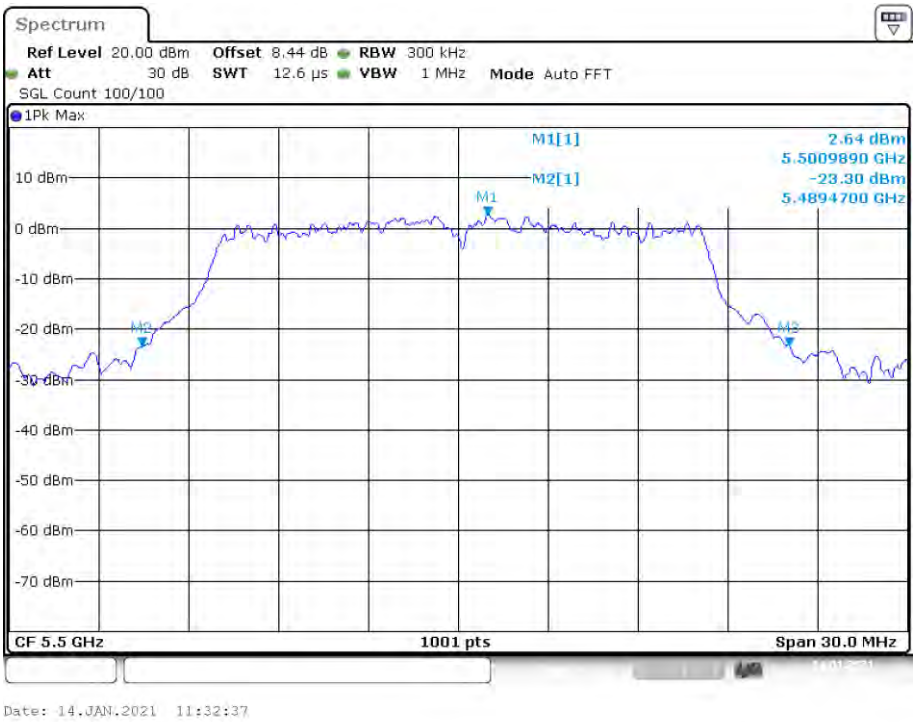
Date: 14.JAN.2021 11:07:02

Band 3 (5470-5725 MHz):

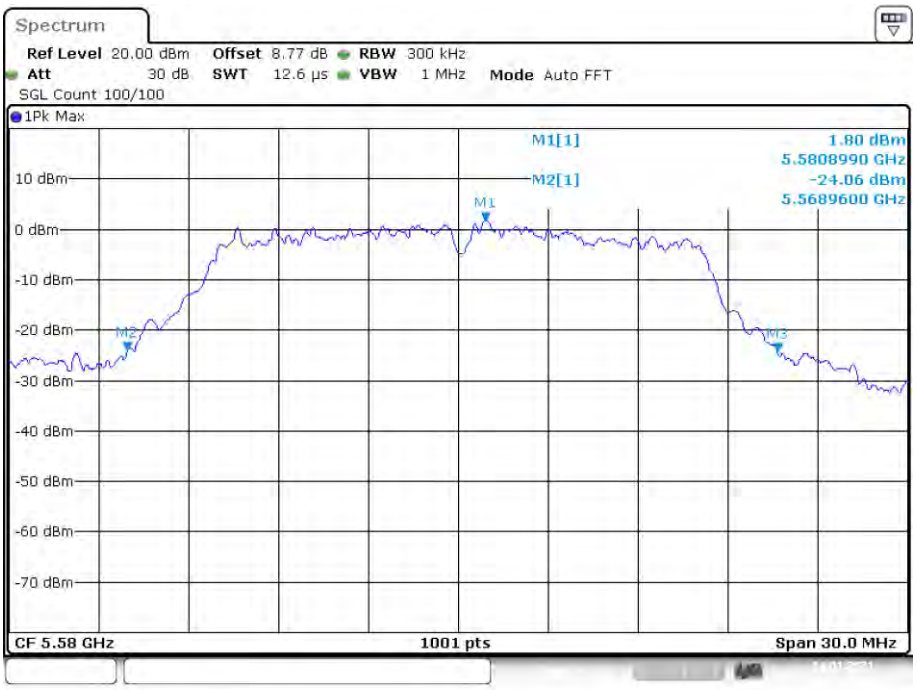
-26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5500	Ant1	21.57	0.5	Pass
NVNT	a	5580	Ant1	21.69	0.5	Pass
NVNT	a	5700	Ant1	25.86	0.5	Pass
NVNT	ac20	5500	Ant1	21.84	0.5	Pass
NVNT	ac20	5580	Ant1	28.02	0.5	Pass
NVNT	ac20	5700	Ant1	30	0.5	Pass
NVNT	ac40	5510	Ant1	50.76	0.5	Pass
NVNT	ac40	5670	Ant1	50.28	0.5	Pass
NVNT	ac80	5530	Ant1	100.08	0.5	Pass
NVNT	n20	5500	Ant1	22.23	0.5	Pass
NVNT	n20	5580	Ant1	25.26	0.5	Pass
NVNT	n20	5700	Ant1	30	0.5	Pass
NVNT	n40	5510	Ant1	52.62	0.5	Pass
NVNT	n40	5670	Ant1	50.46	0.5	Pass

-26dB Bandwidth NVNT a 5500MHz Ant1

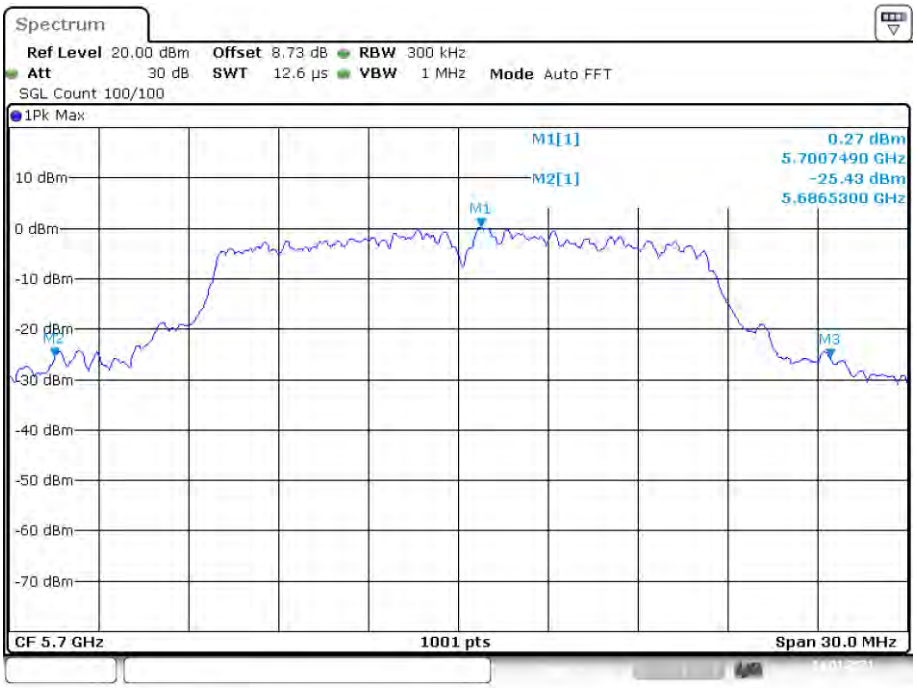


-26dB Bandwidth NVNT a 5580MHz Ant1



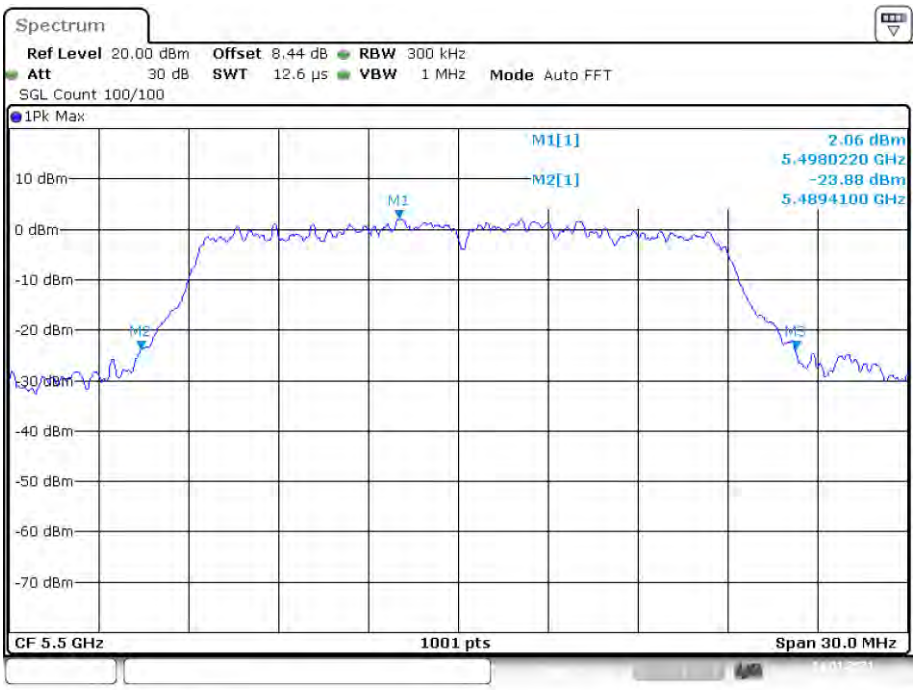
Date: 14.JAN.2021 11:36:31

-26dB Bandwidth NVNT a 5700MHz Ant1



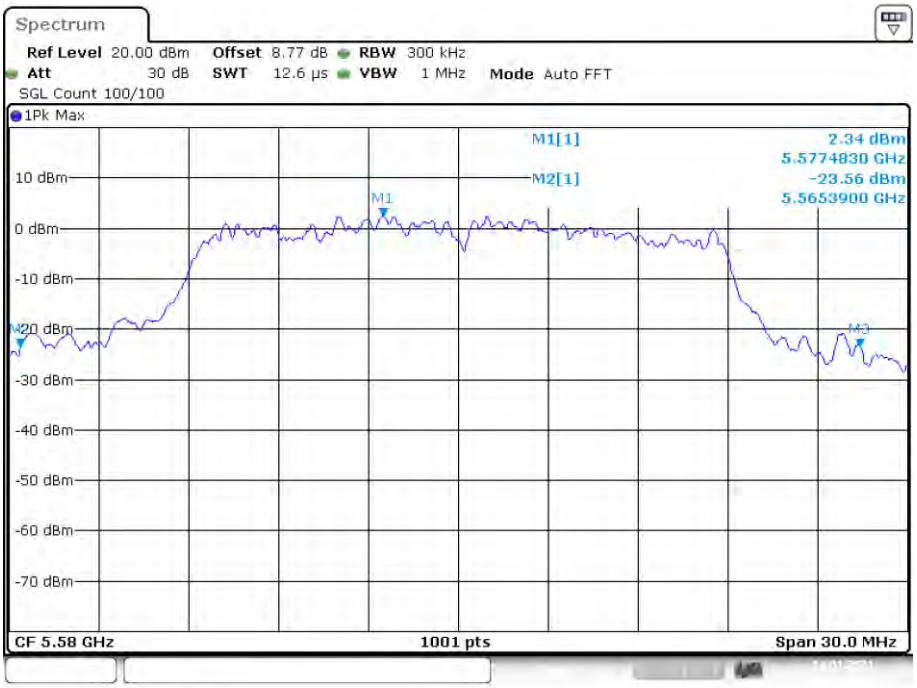
Date: 14.JAN.2021 11:40:59

-26dB Bandwidth NVNT ac20 5500MHz Ant1



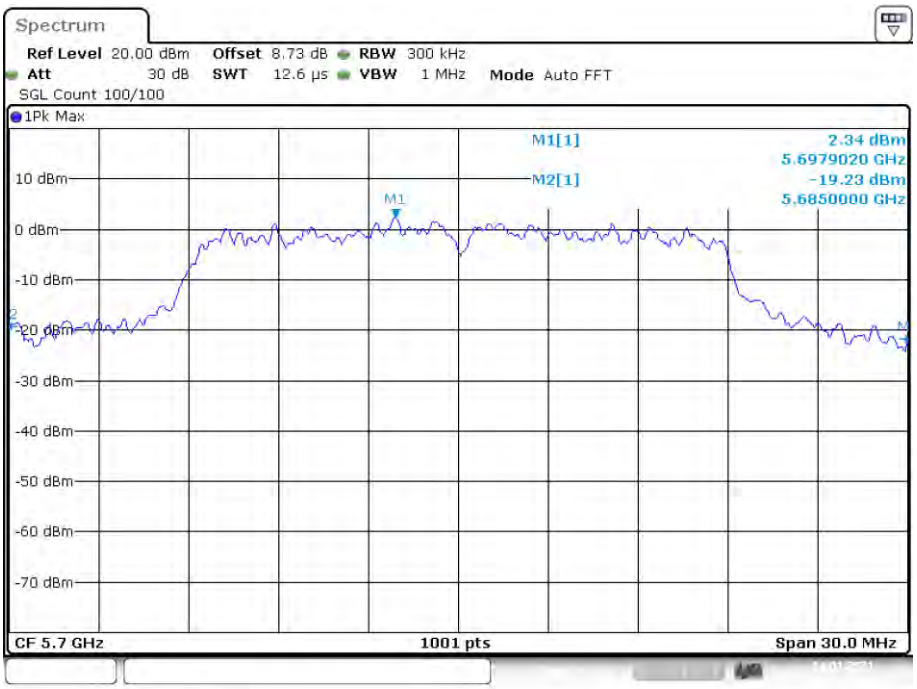
Date: 14.JAN.2021 12:00:06

-26dB Bandwidth NVNT ac20 5580MHz Ant1



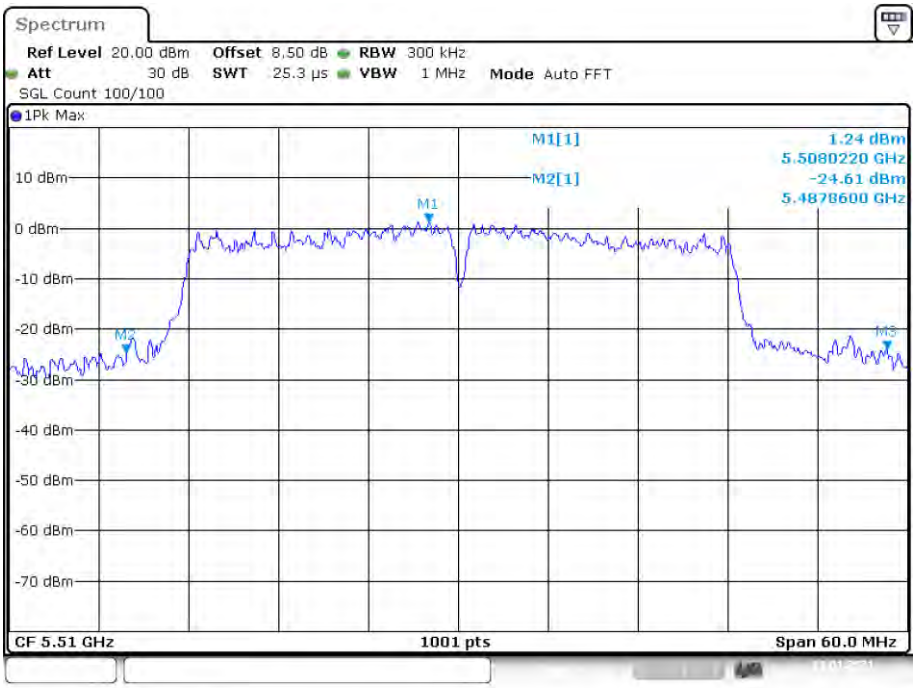
Date: 14.JAN.2021 12:04:14

-26dB Bandwidth NVNT ac20 5700MHz Ant1



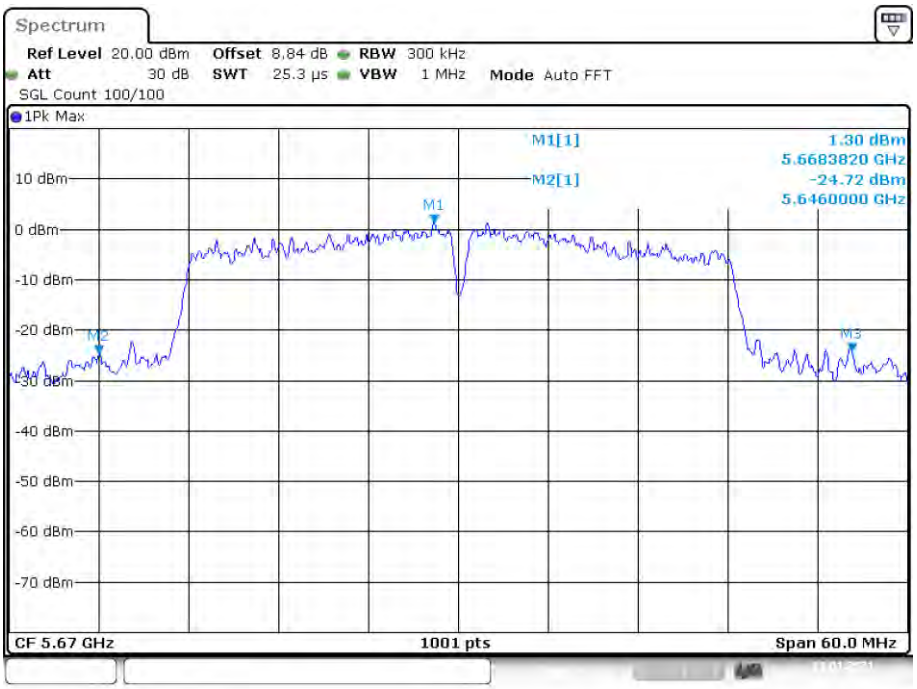
Date: 14.JAN.2021 12:07:29

-26dB Bandwidth NVNT ac40 5510MHz Ant1



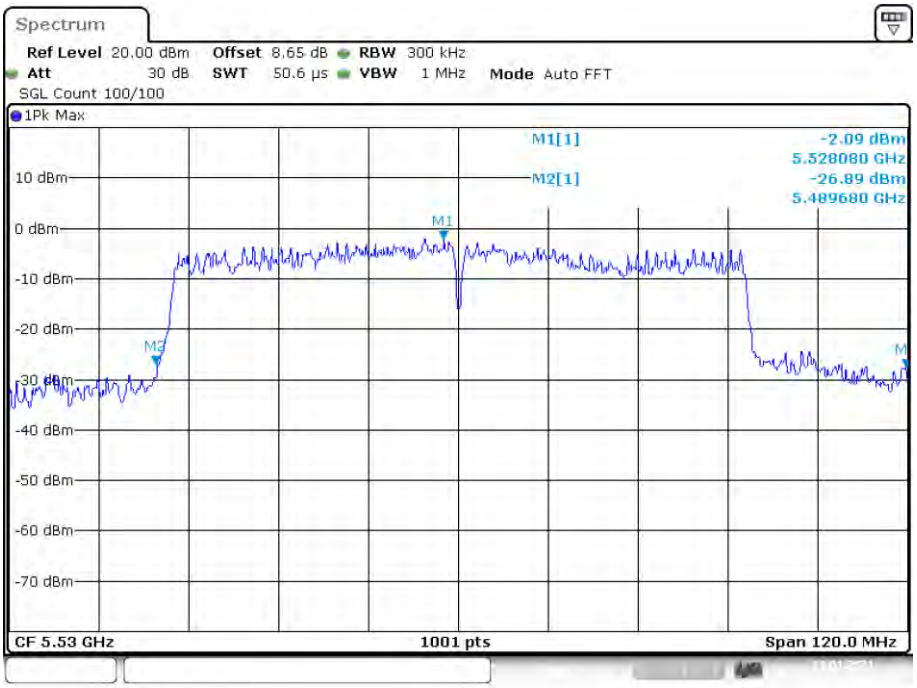
Date: 18.JAN.2021 08:04:07

-26dB Bandwidth NVNT ac40 5670MHz Ant1



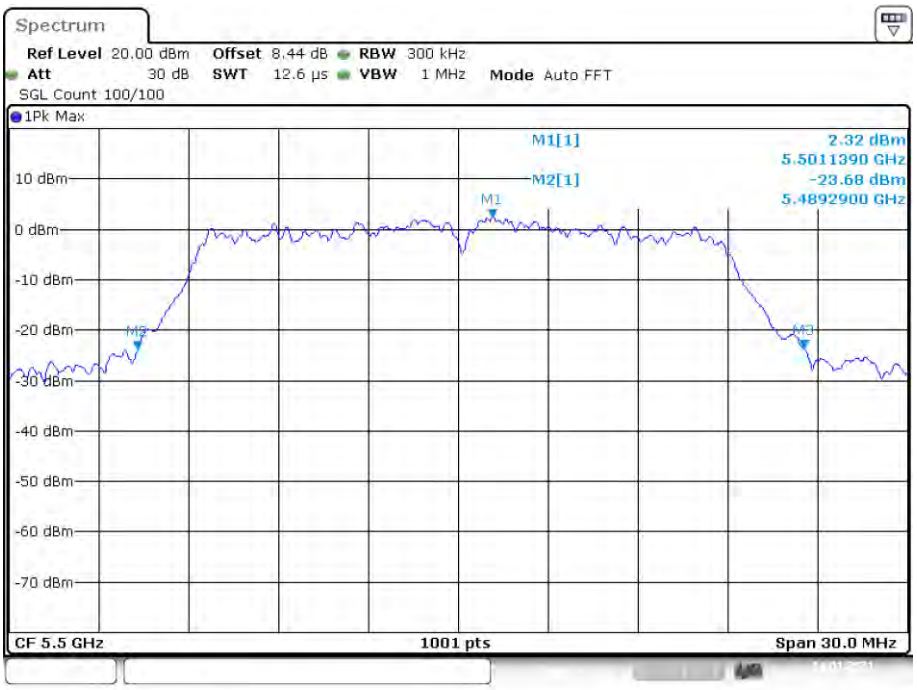
Date: 18.JAN.2021 08:10:49

-26dB Bandwidth NVNT ac80 5530MHz Ant1



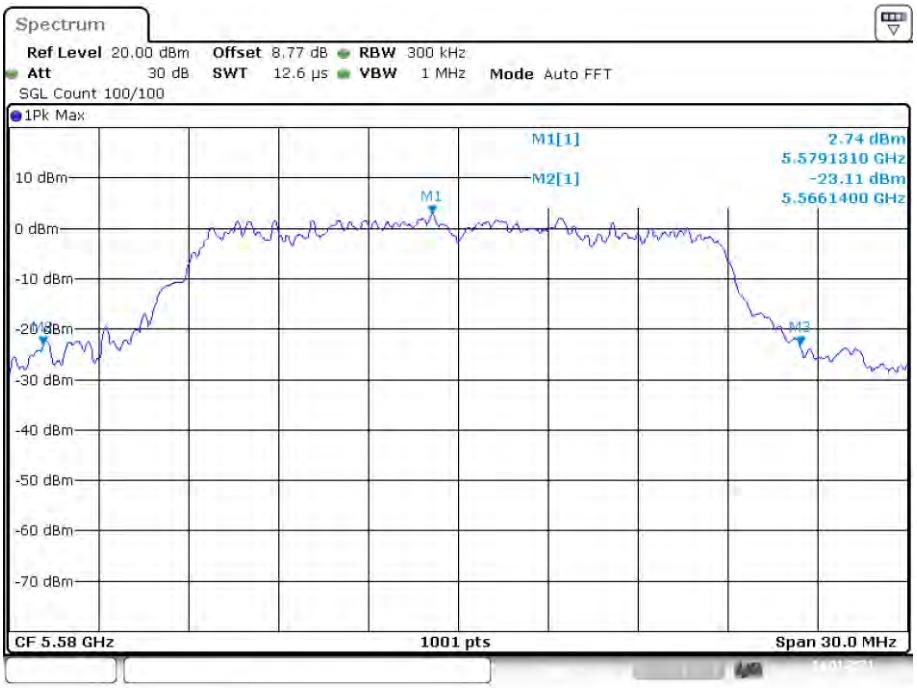
Date: 18.JAN.2021 08:14:12

-26dB Bandwidth NVNT n20 5500MHz Ant1



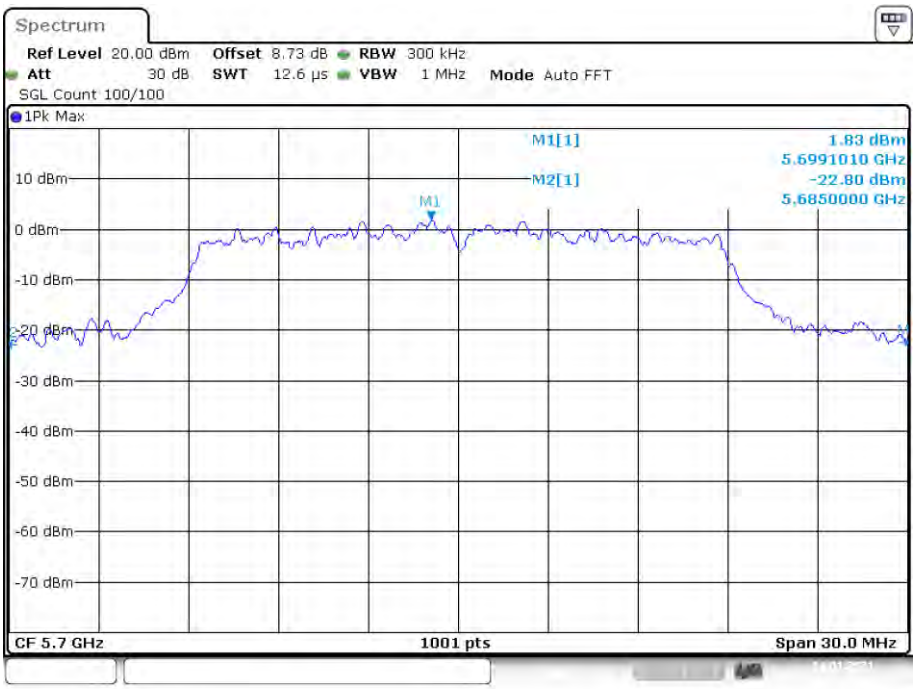
Date: 14.JAN.2021 11:47:37

-26dB Bandwidth NVNT n20 5580MHz Ant1



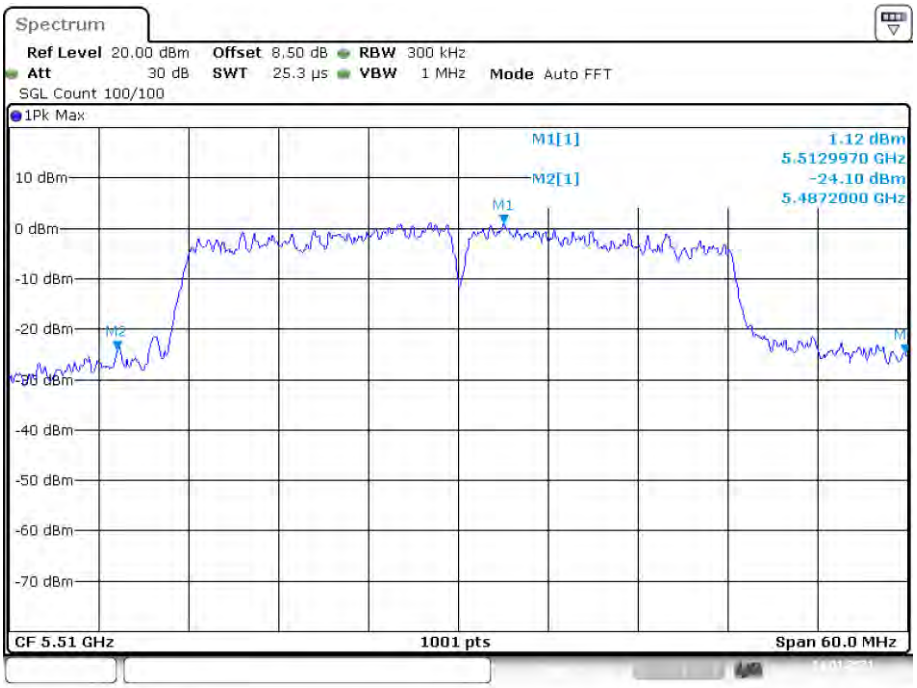
Date: 14.JAN.2021 11:51:04

-26dB Bandwidth NVNT n20 5700MHz Ant1



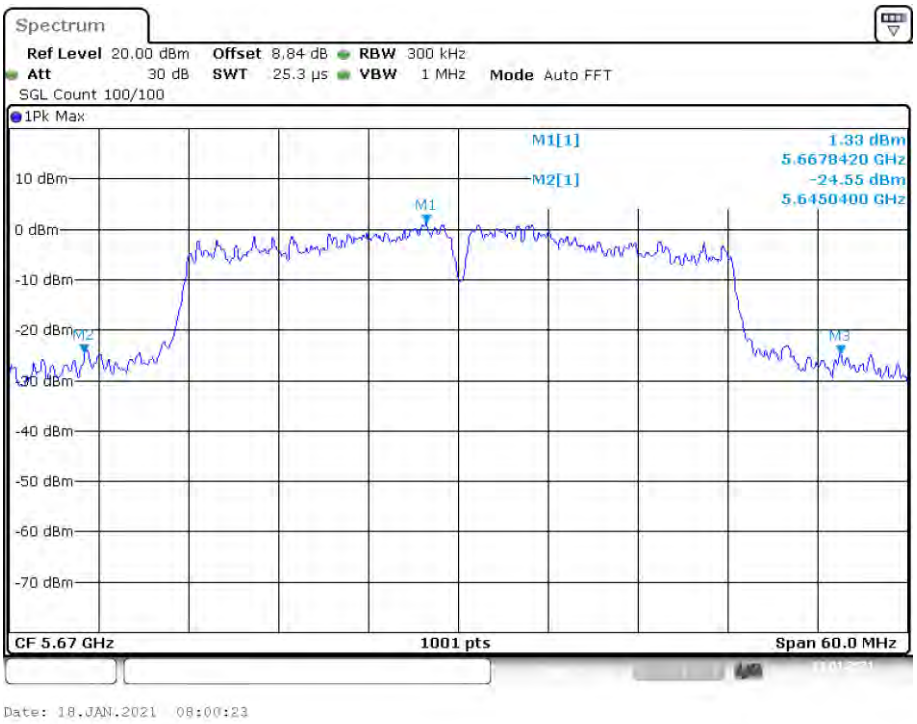
Date: 14.JAN.2021 11:55:02

-26dB Bandwidth NVNT n40 5510MHz Ant1



Date: 14.JAN.2021 12:12:31

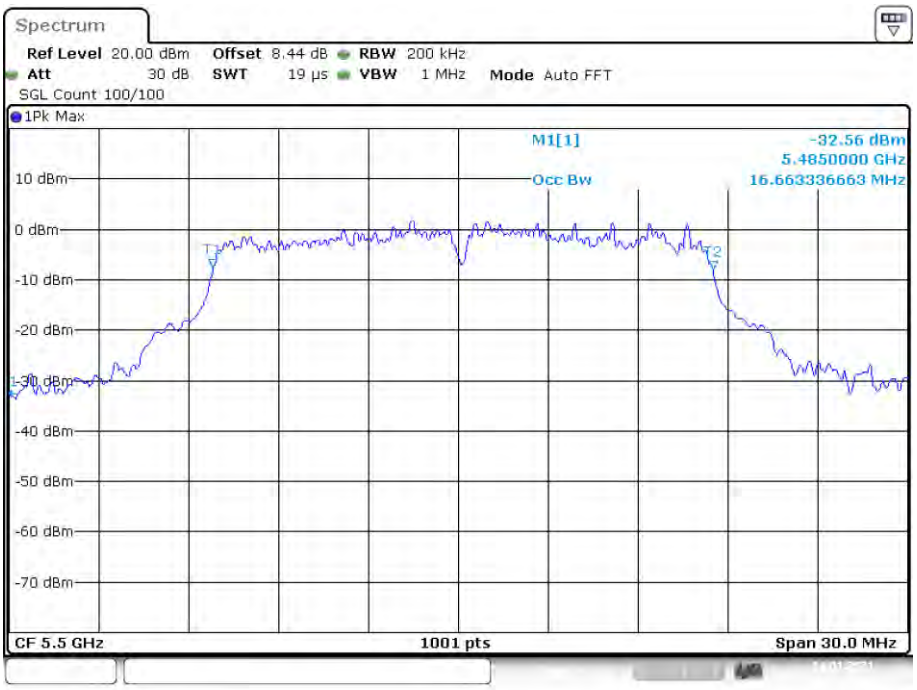
-26dB Bandwidth NVNT n40 5670MHz Ant1



Occupied Channel Bandwidth

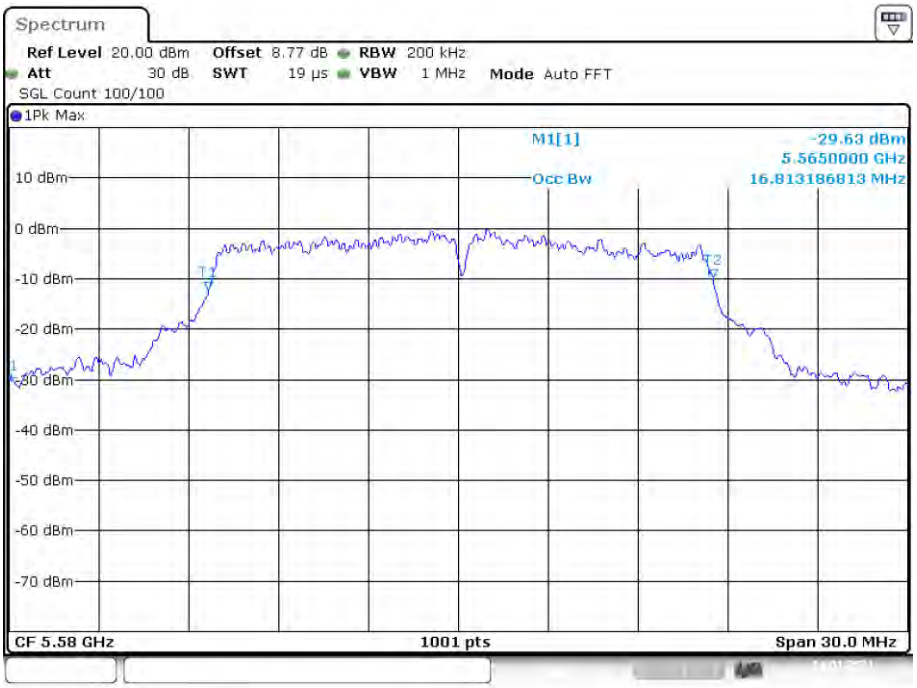
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5500	Ant1	16.663
NVNT	a	5580	Ant1	16.813
NVNT	a	5700	Ant1	17.053
NVNT	ac20	5500	Ant1	17.862
NVNT	ac20	5580	Ant1	18.012
NVNT	ac20	5700	Ant1	19.421
NVNT	ac40	5510	Ant1	36.444
NVNT	ac40	5670	Ant1	36.204
NVNT	ac80	5530	Ant1	75.644
NVNT	n20	5500	Ant1	17.802
NVNT	n20	5580	Ant1	17.802
NVNT	n20	5700	Ant1	18.941
NVNT	n40	5510	Ant1	36.264
NVNT	n40	5670	Ant1	36.264

OBW NVNT a 5500MHz Ant1



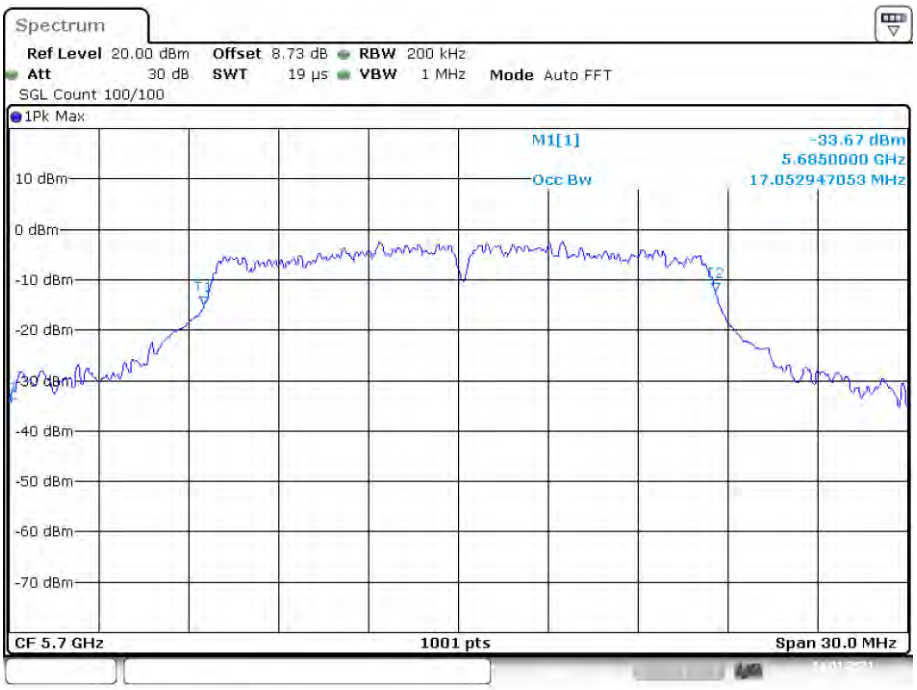
Date: 14.JAN.2021 11:32:29

OBW NVNT a 5580MHz Ant1



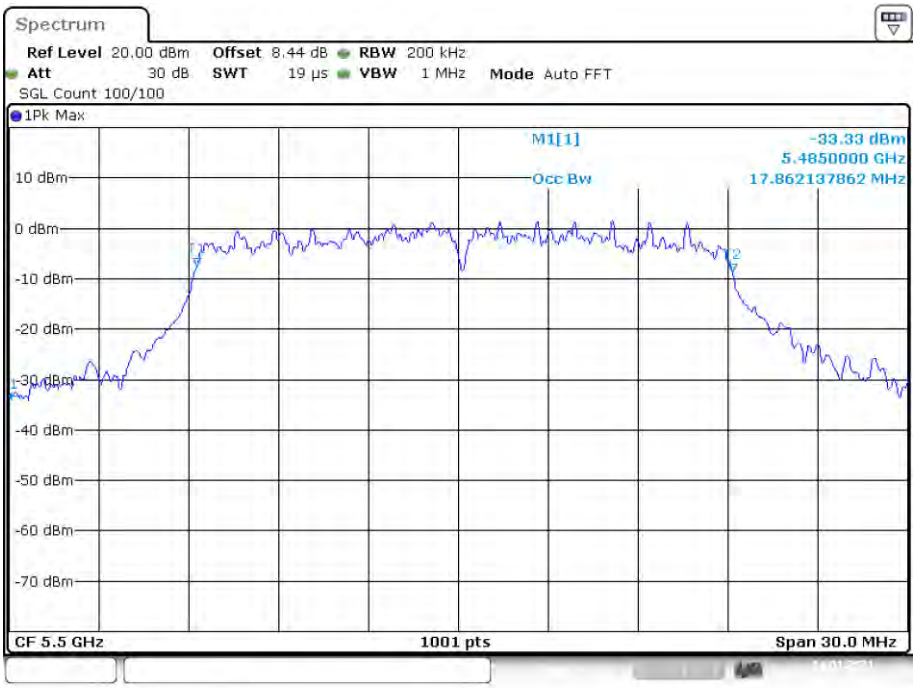
Date: 14.JAN.2021 11:36:22

OBW NVNT a 5700MHz Ant1



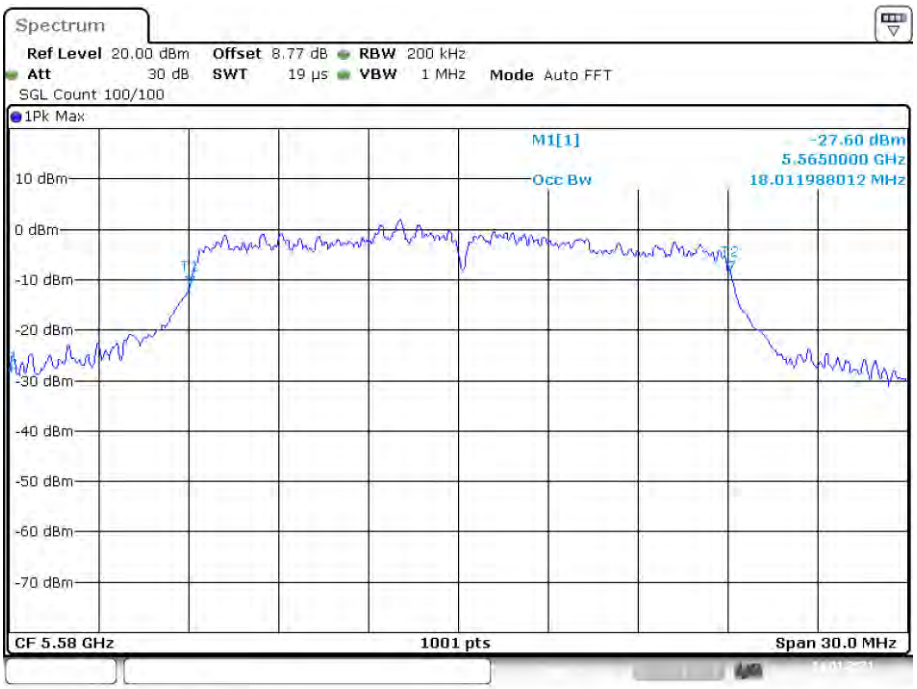
Date: 14.JAN.2021 11:40:50

OBW NVNT ac20 5500MHz Ant1



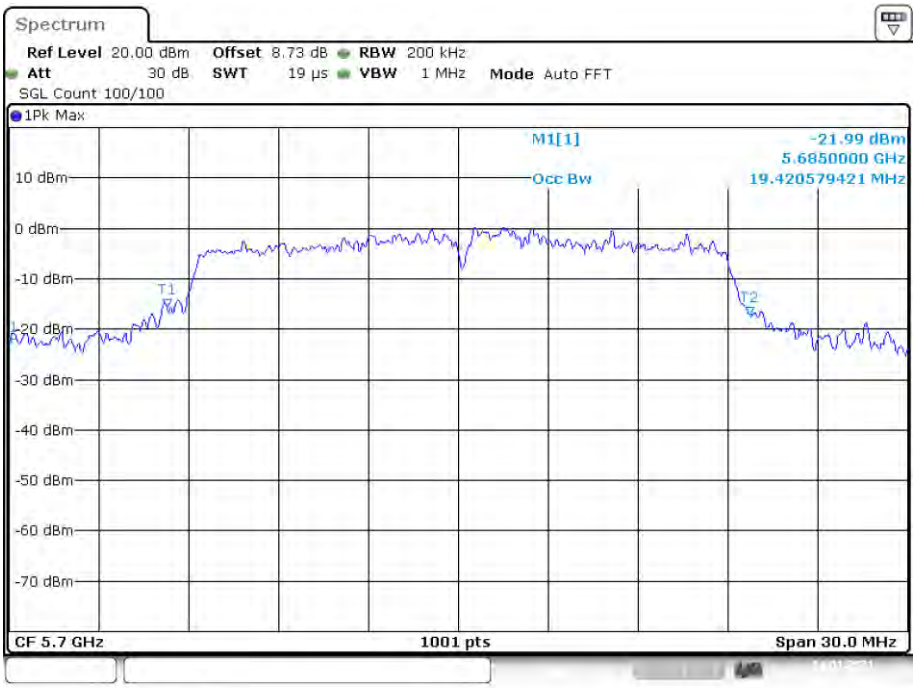
Date: 14.JAN.2021 11:59:50

OBW NVNT ac20 5580MHz Ant1



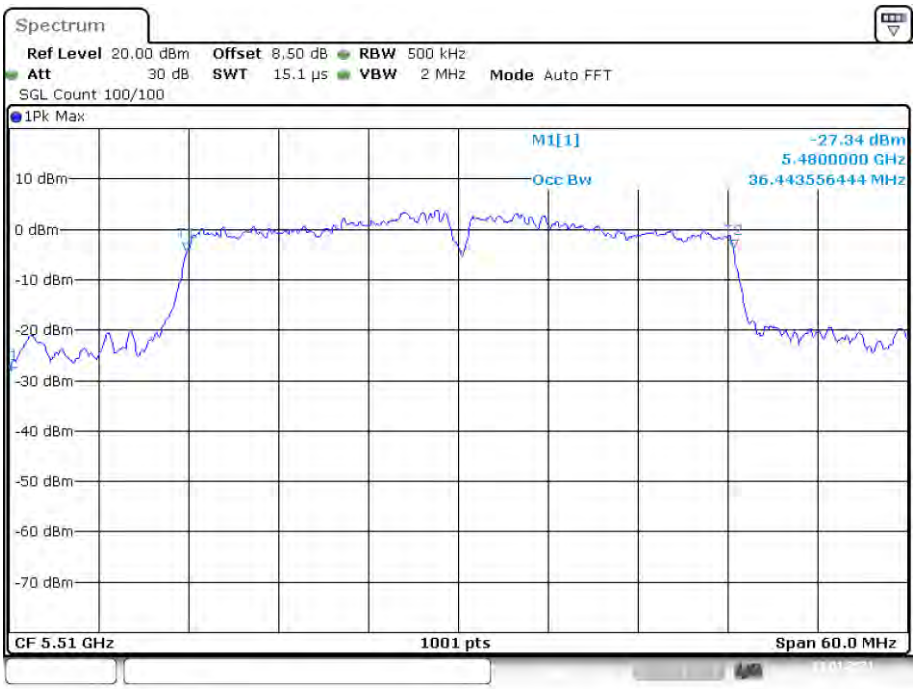
Date: 14.JAN.2021 12:03:58

OBW NVNT ac20 5700MHz Ant1



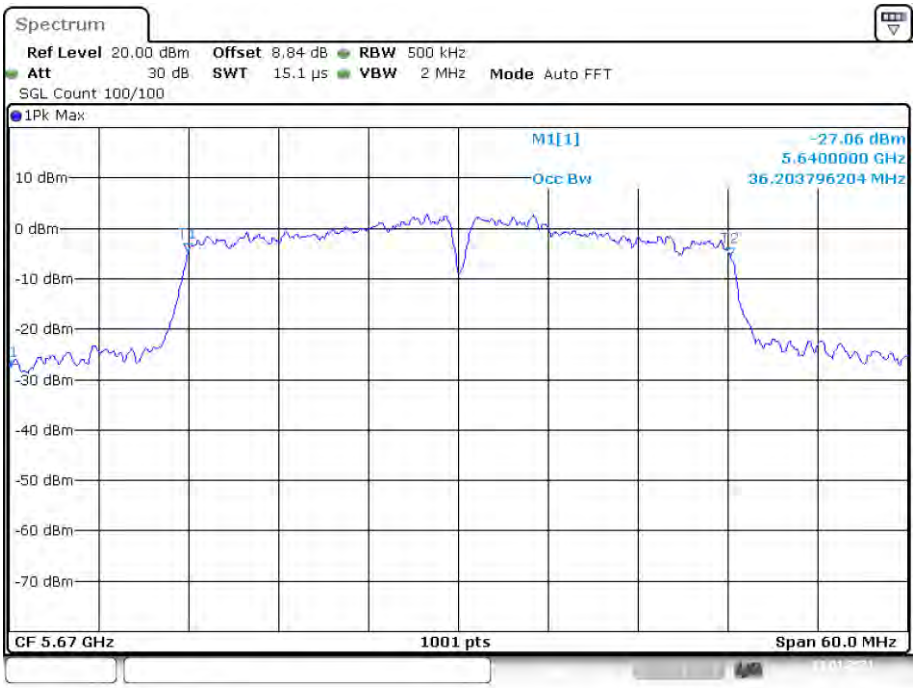
Date: 14.JAN.2021 12:07:09

OBW NVNT ac40 5510MHz Ant1



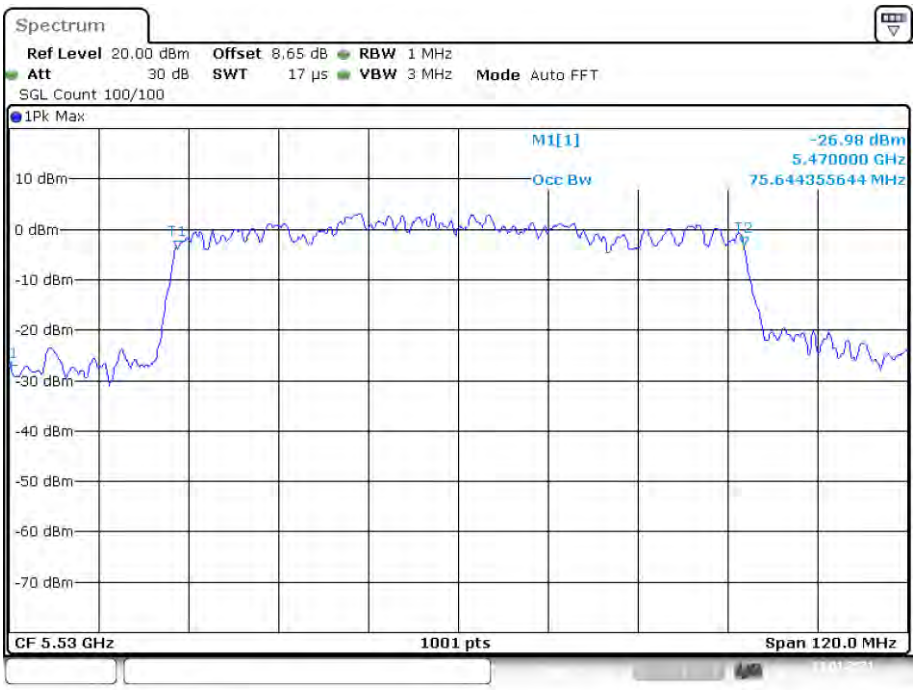
Date: 18.JAN.2021 08:03:57

OBW NVNT ac40 5670MHz Ant1



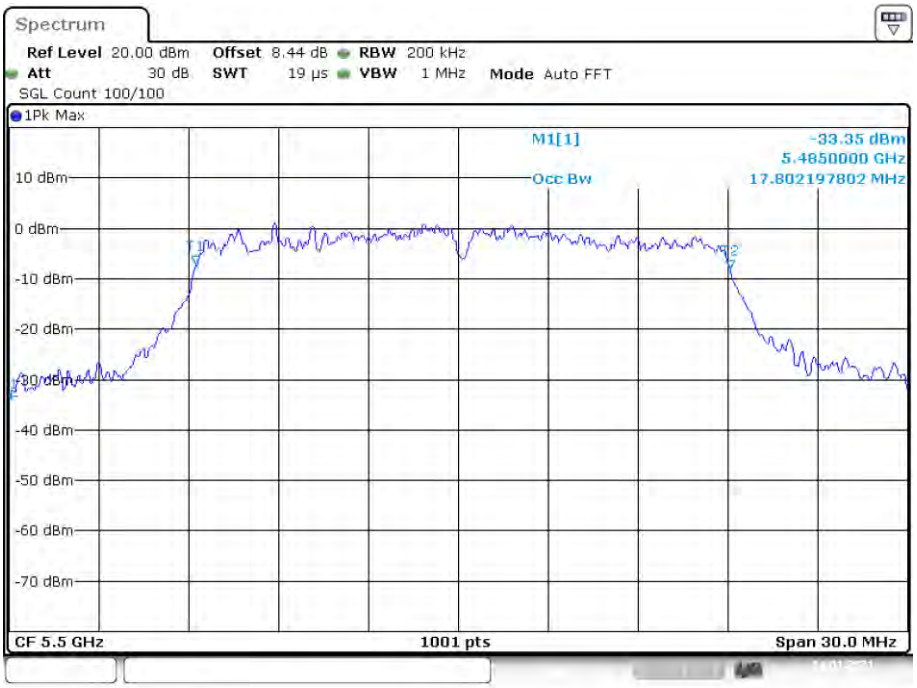
Date: 18.JAN.2021 08:10:39

OBW NVNT ac80 5530MHz Ant1



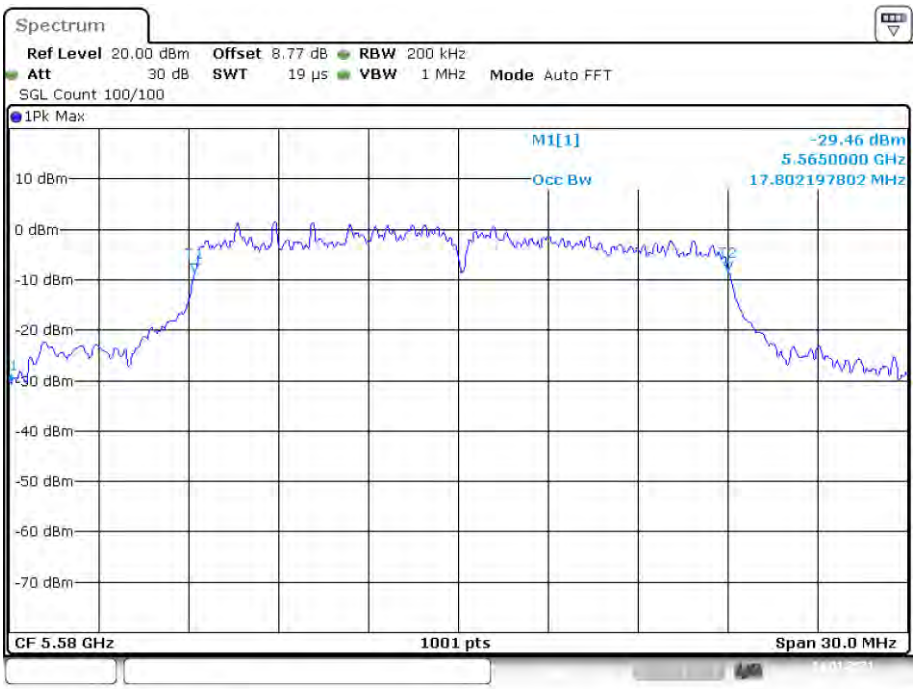
Date: 18.JAN.2021 08:13:59

OBW NVNT n20 5500MHz Ant1



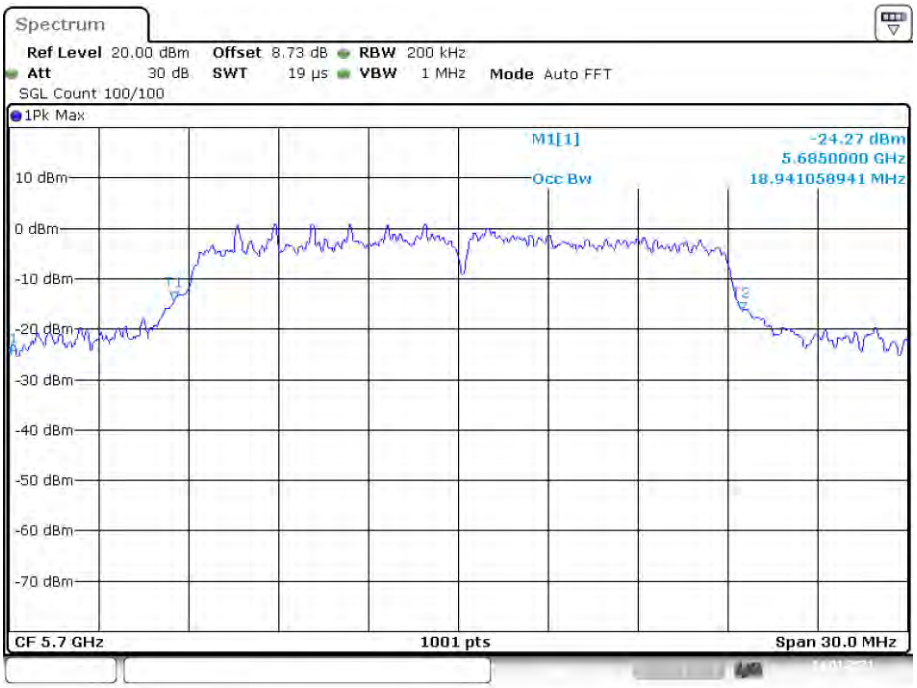
Date: 14.JAN.2021 11:47:27

OBW NVNT n20 5580MHz Ant1



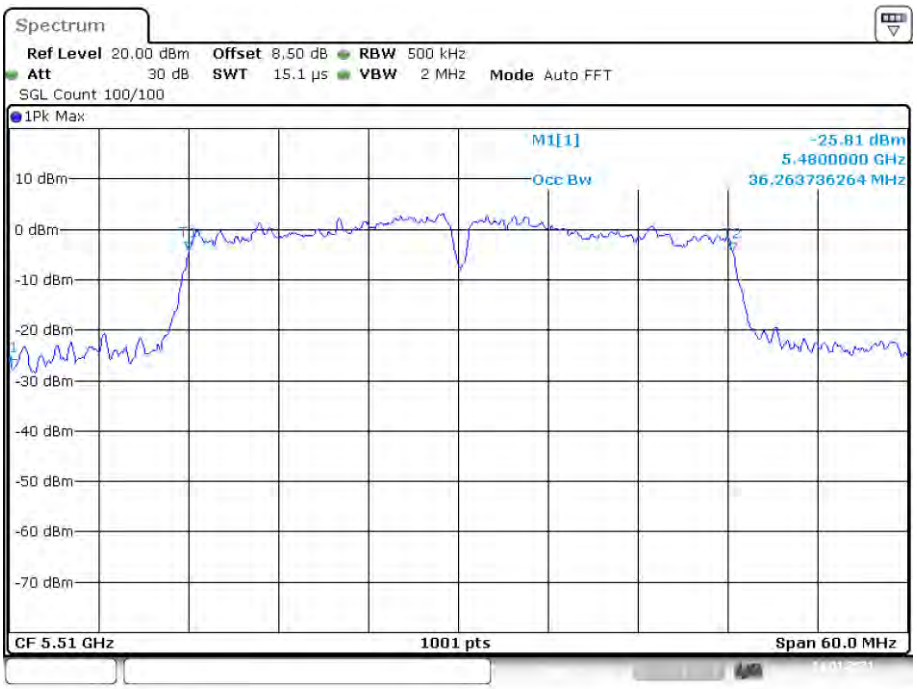
Date: 14.JAN.2021 11:50:50

OBW NVNT n20 5700MHz Ant1



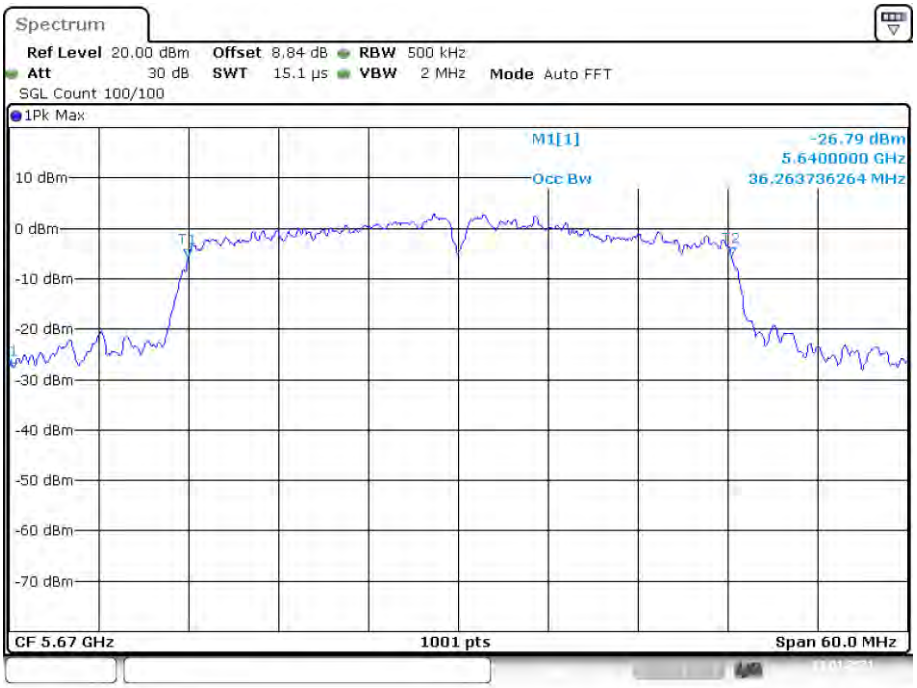
Date: 14.JAN.2021 11:54:47

OBW NVNT n40 5510MHz Ant1



Date: 14.JAN.2021 12:12:10

OBW NVNT n40 5670MHz Ant1



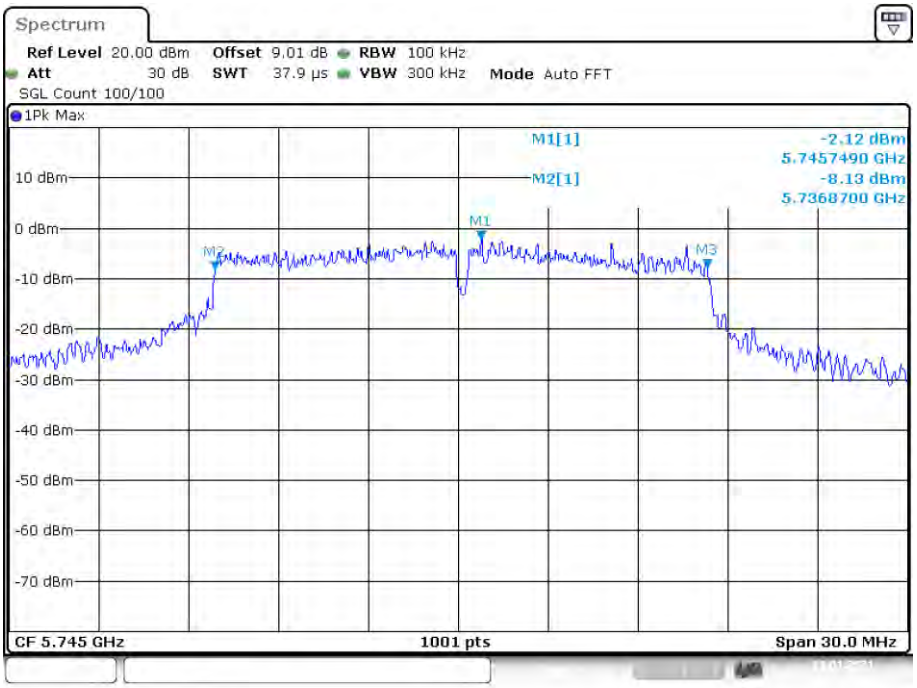
Date: 18.JAN.2021 08:00:14

Band 4 (5725-5850 MHz):

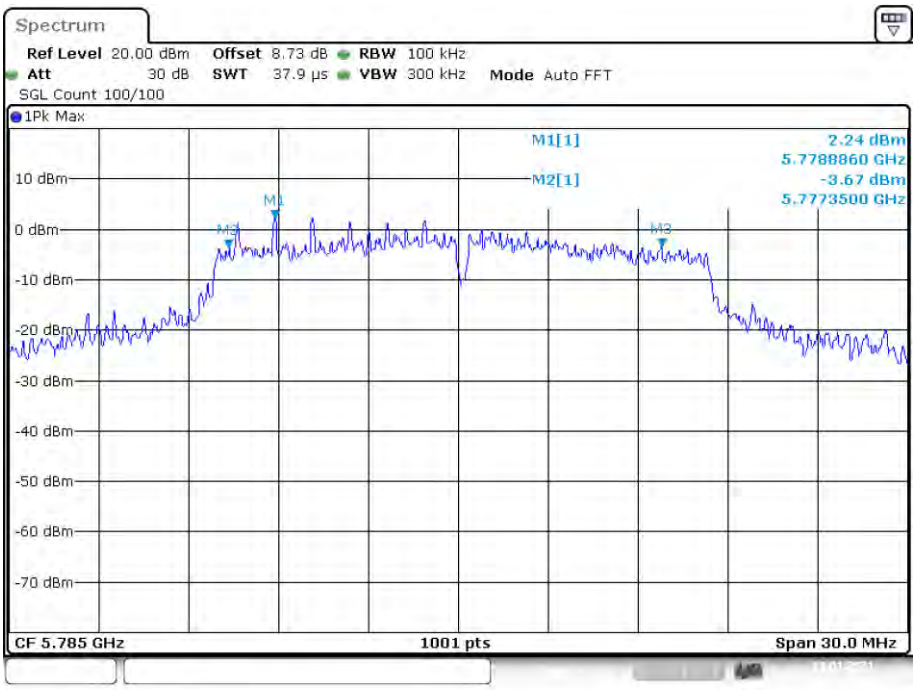
-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	Ant1	16.44	0.5	Pass
NVNT	a	5785	Ant1	14.43	0.5	Pass
NVNT	a	5825	Ant1	14.04	0.5	Pass
NVNT	ac20	5745	Ant1	16.35	0.5	Pass
NVNT	ac20	5785	Ant1	17.55	0.5	Pass
NVNT	ac20	5825	Ant1	17.58	0.5	Pass
NVNT	ac40	5755	Ant1	35.88	0.5	Pass
NVNT	ac40	5795	Ant1	35.7	0.5	Pass
NVNT	ac80	5775	Ant1	72.6	0.5	Pass
NVNT	n20	5745	Ant1	17.34	0.5	Pass
NVNT	n20	5785	Ant1	15.45	0.5	Pass
NVNT	n20	5825	Ant1	16.53	0.5	Pass
NVNT	n40	5755	Ant1	36.36	0.5	Pass
NVNT	n40	5795	Ant1	35.7	0.5	Pass

-6dB Bandwidth NVNT a 5745MHz Ant1

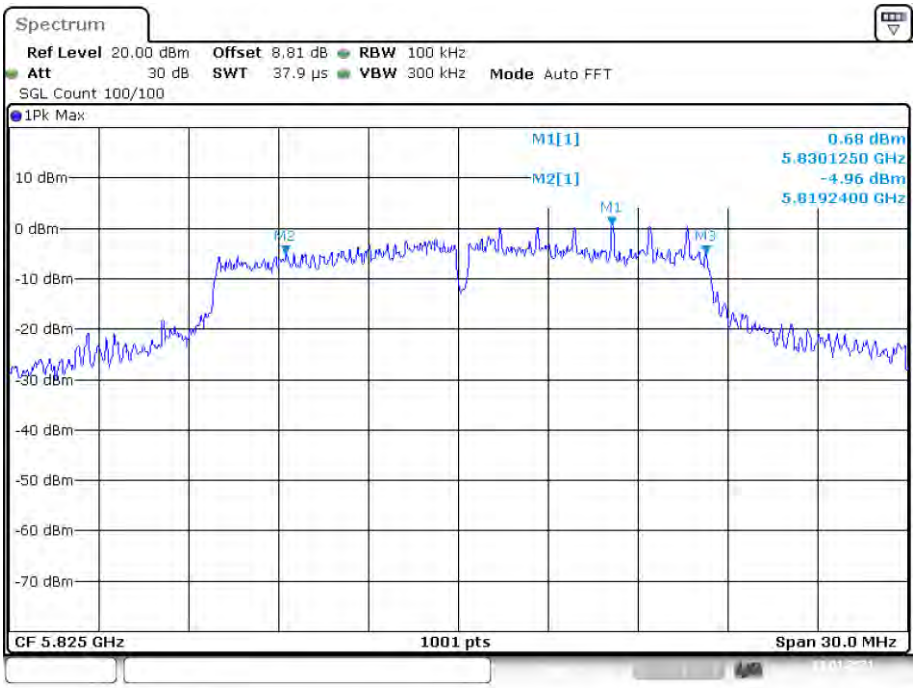


-6dB Bandwidth NVNT a 5785MHz Ant1



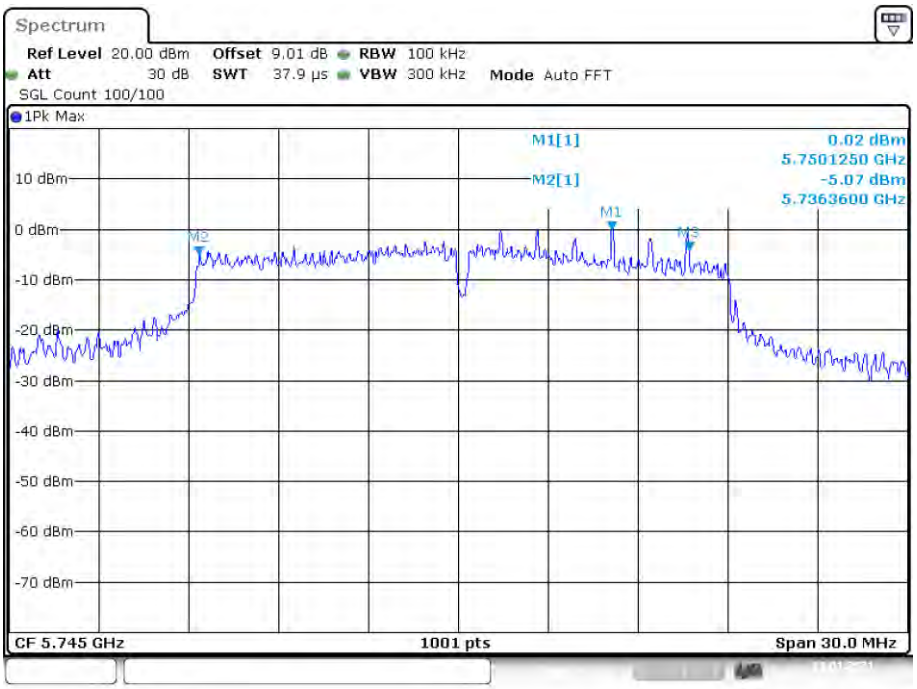
Date: 18.JAN.2021 08:33:15

-6dB Bandwidth NVNT a 5825MHz Ant1



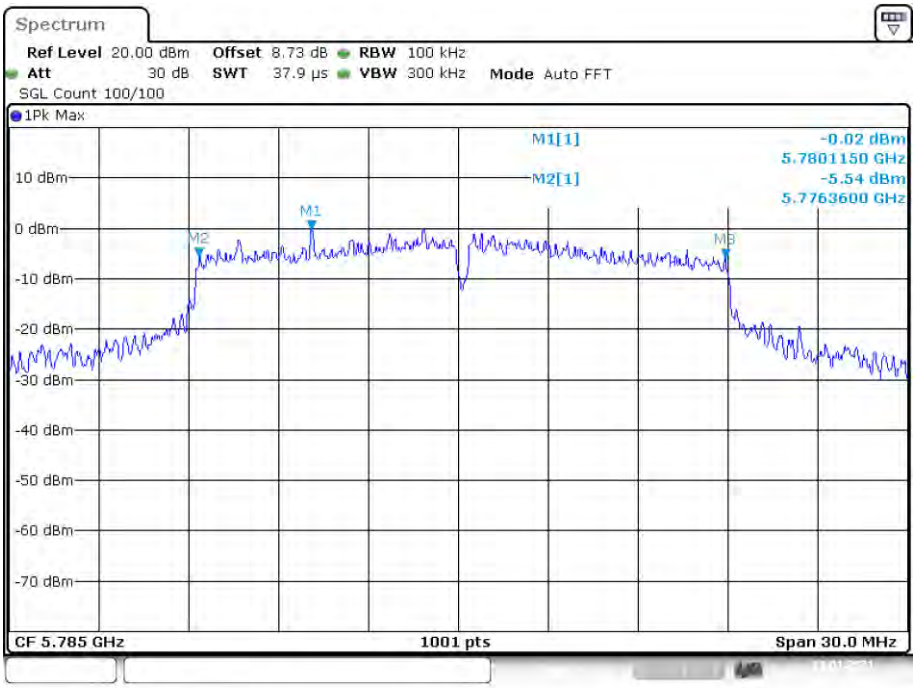
Date: 18.JAN.2021 08:36:08

-6dB Bandwidth NVNT ac20 5745MHz Ant1



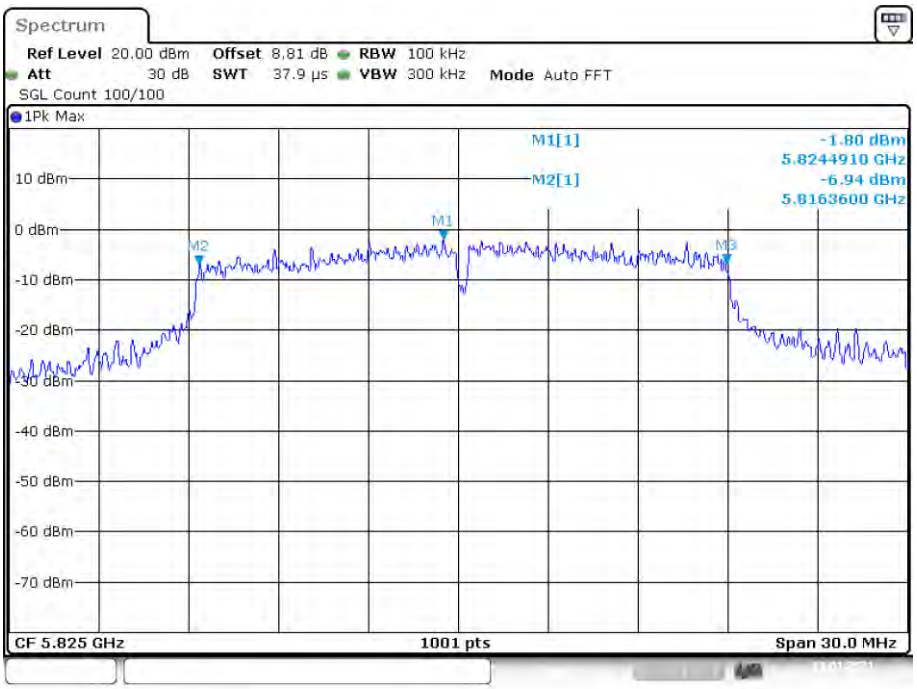
Date: 18.JAN.2021 08:52:01

-6dB Bandwidth NVNT ac20 5785MHz Ant1



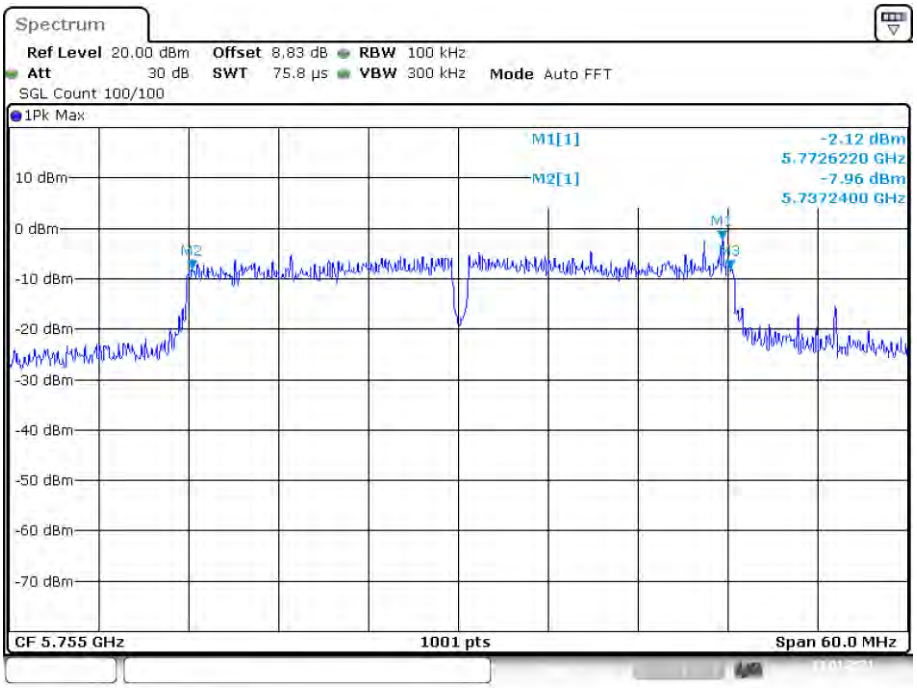
Date: 18.JAN.2021 08:55:09

-6dB Bandwidth NVNT ac20 5825MHz Ant1



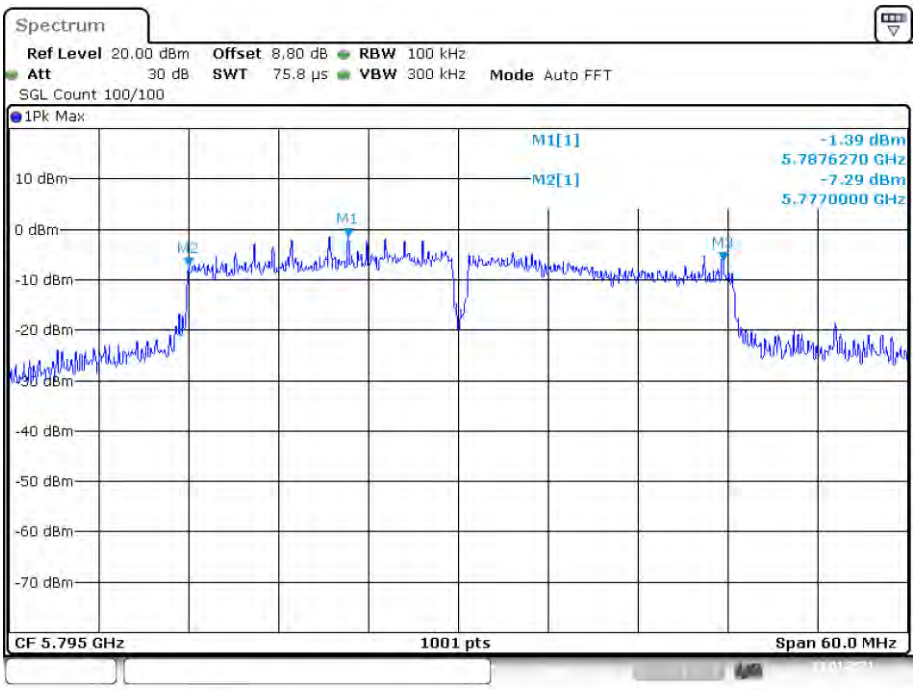
Date: 18.JAN.2021 08:58:28

-6dB Bandwidth NVNT ac40 5755MHz Ant1



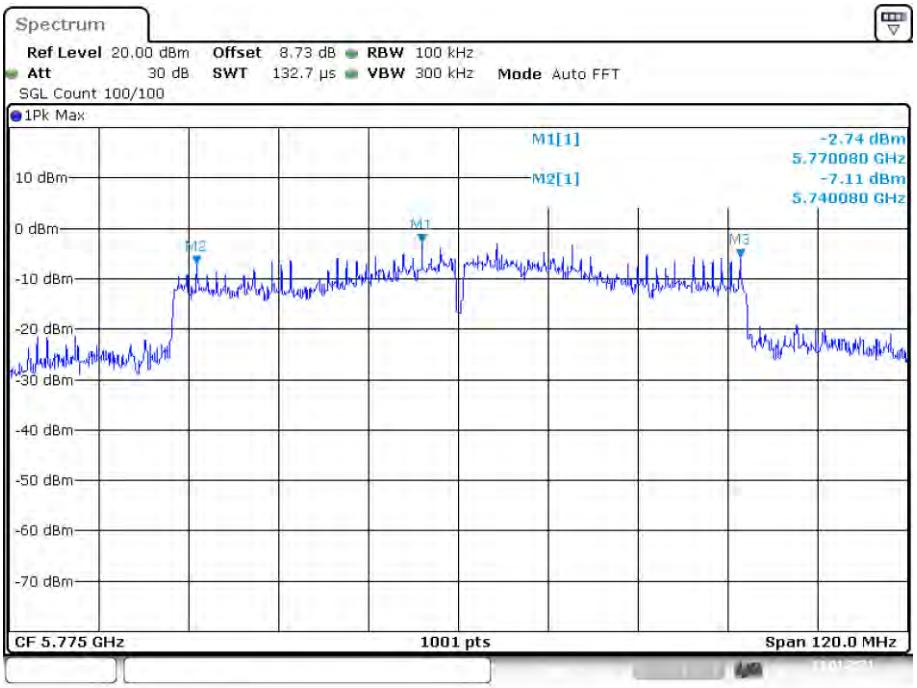
Date: 18.JAN.2021 09:09:46

-6dB Bandwidth NVNT ac40 5795MHz Ant1



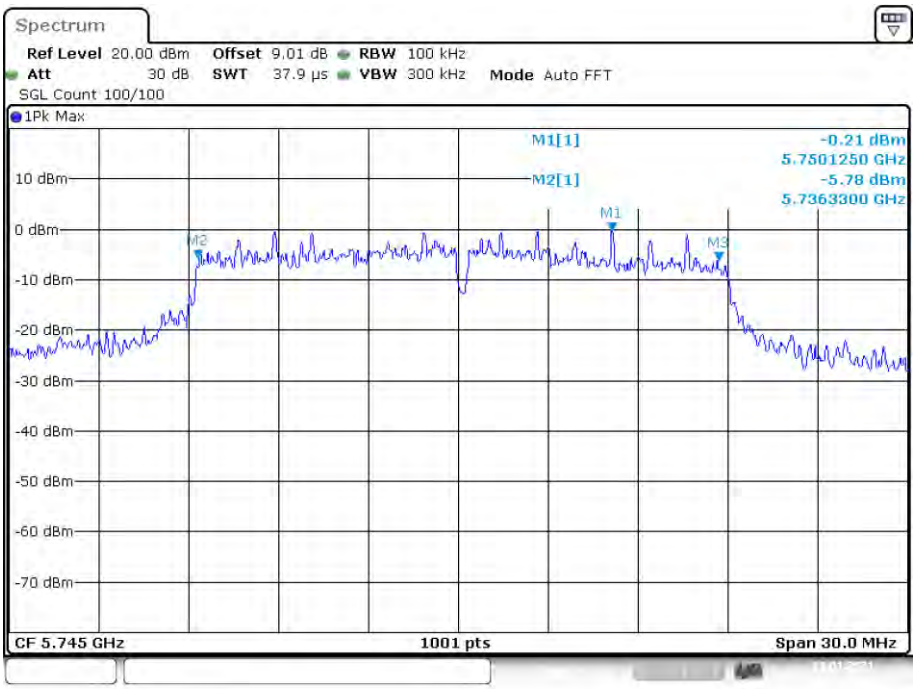
Date: 18.JAN.2021 09:14:23

-6dB Bandwidth NVNT ac80 5775MHz Ant1



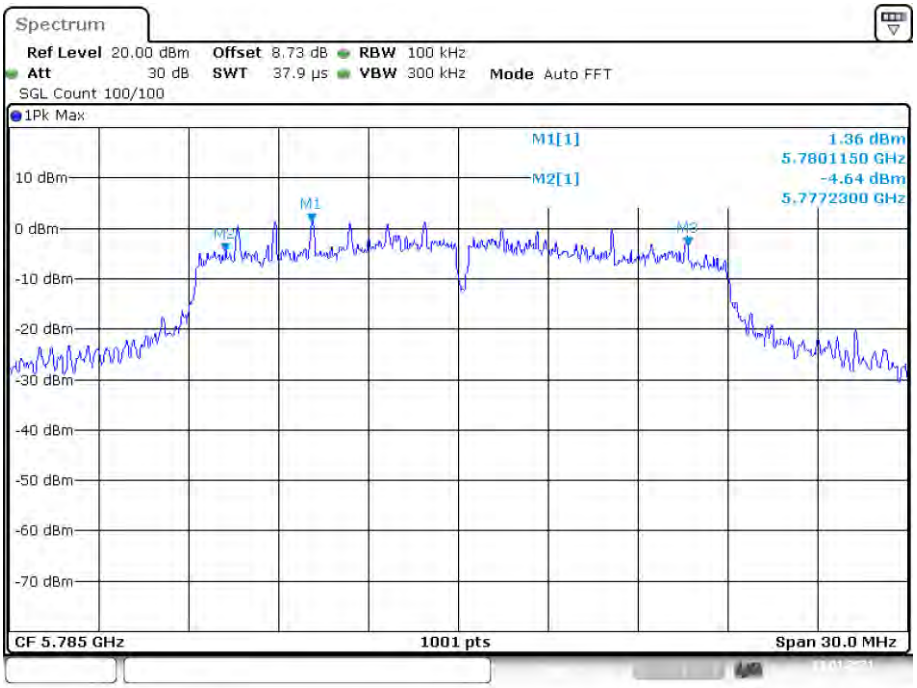
Date: 18.JAN.2021 09:18:01

-6dB Bandwidth NVNT n20 5745MHz Ant1



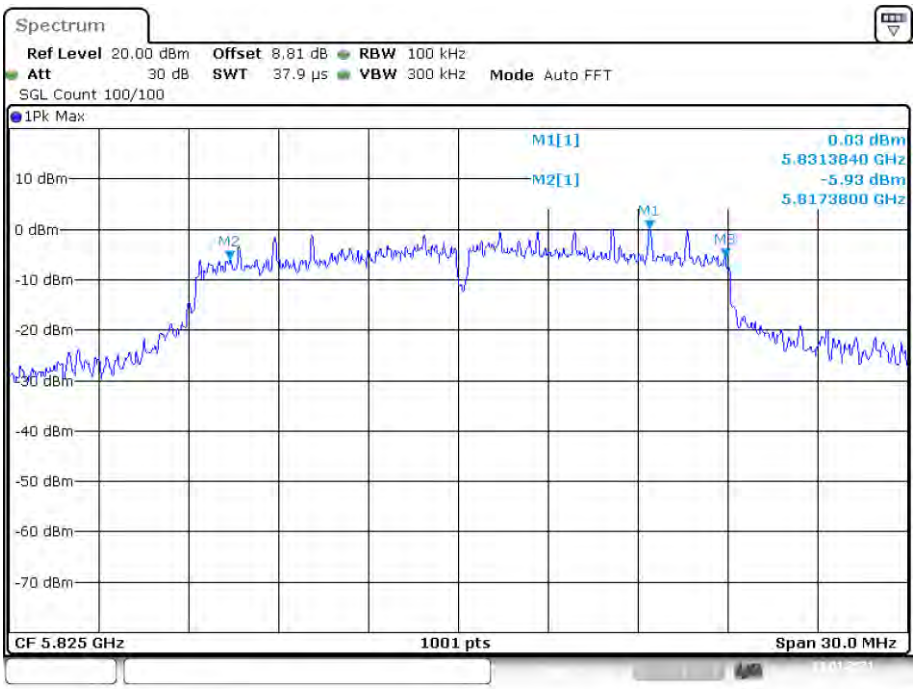
Date: 18.JAN.2021 08:40:35

-6dB Bandwidth NVNT n20 5785MHz Ant1



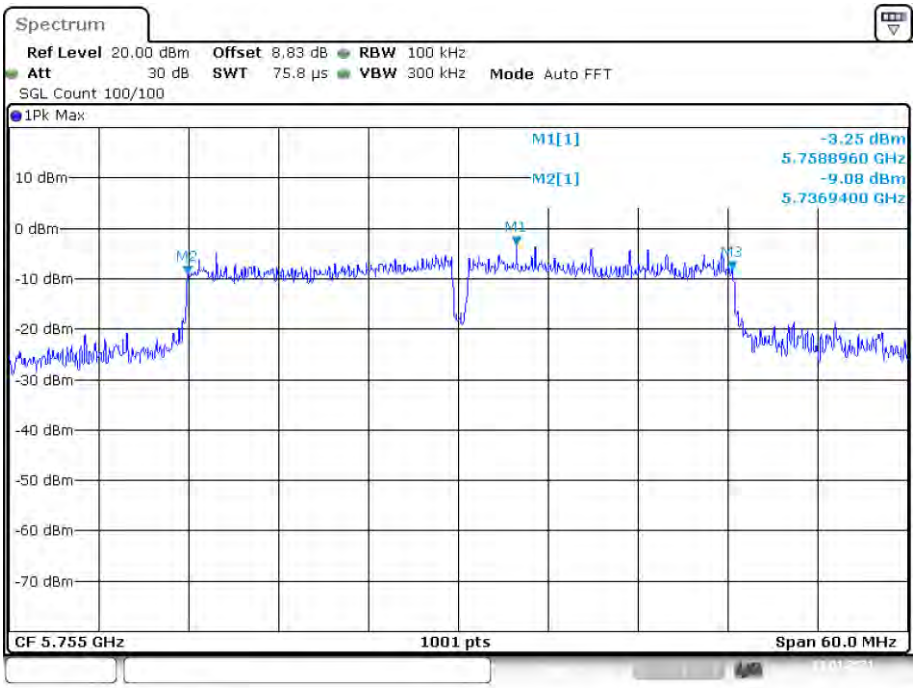
Date: 18.JAN.2021 08:45:09

-6dB Bandwidth NVNT n20 5825MHz Ant1



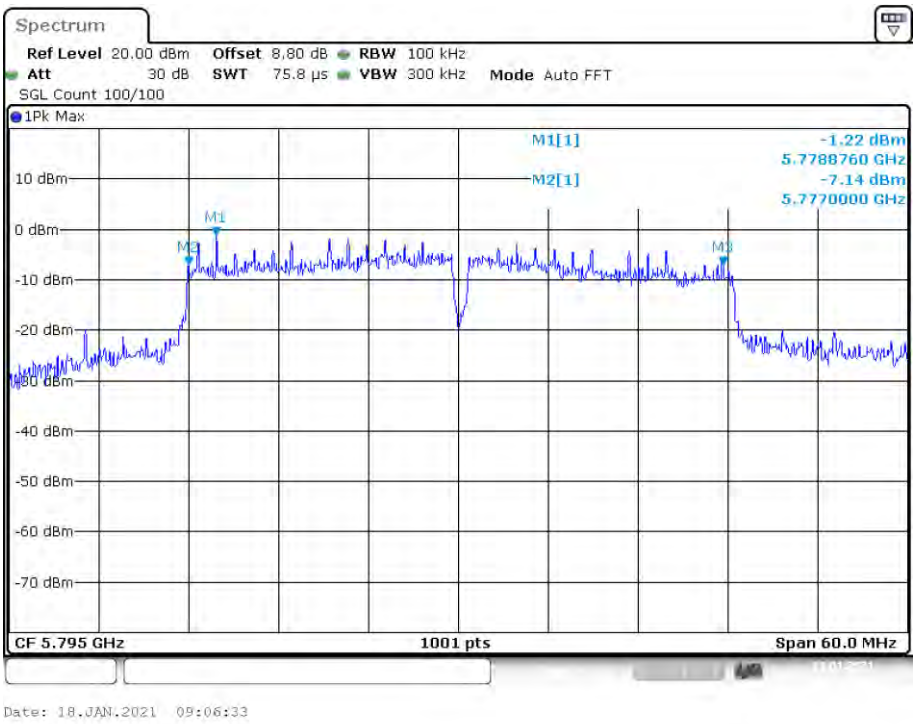
Date: 18.JAN.2021 08:48:21

-6dB Bandwidth NVNT n40 5755MHz Ant1



Date: 18.JAN.2021 09:02:55

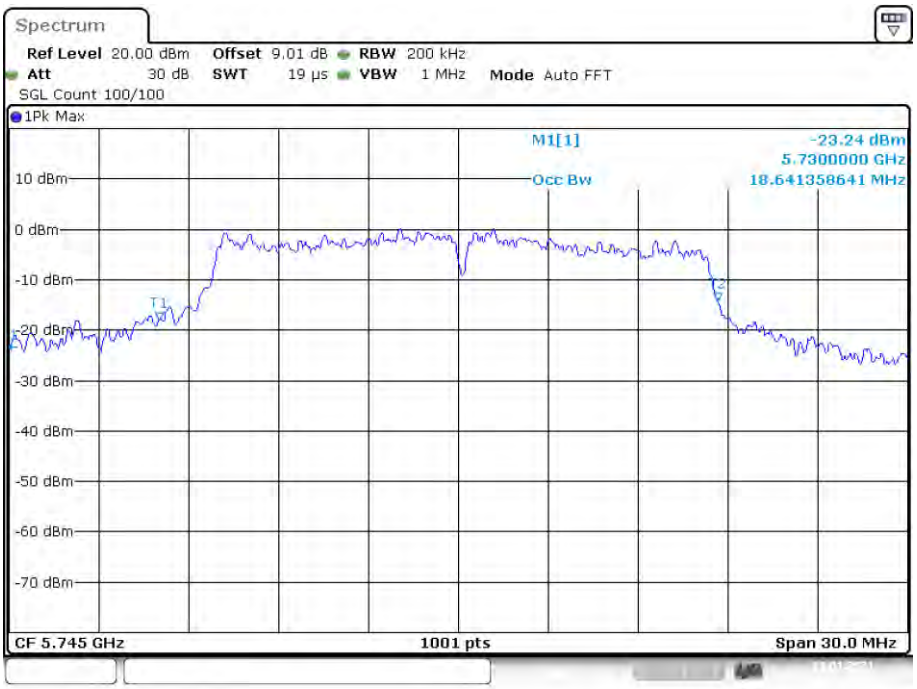
-6dB Bandwidth NVNT n40 5795MHz Ant1



Occupied Channel Bandwidth

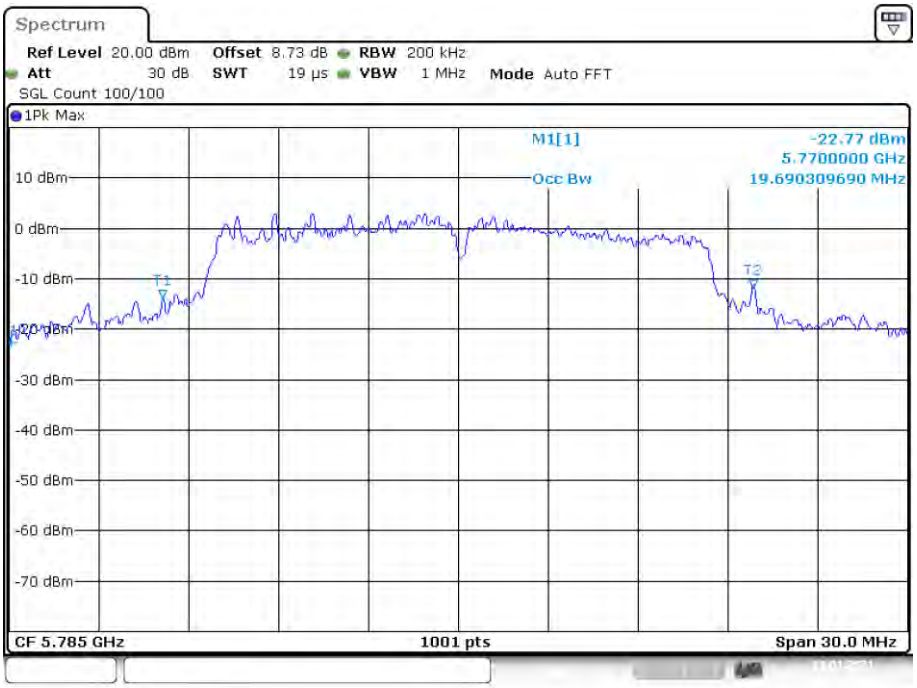
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5745	Ant1	18.641
NVNT	a	5785	Ant1	19.69
NVNT	a	5825	Ant1	18.791
NVNT	ac20	5745	Ant1	19.001
NVNT	ac20	5785	Ant1	18.222
NVNT	ac20	5825	Ant1	18.731
NVNT	ac40	5755	Ant1	45.015
NVNT	ac40	5795	Ant1	39.56
NVNT	ac80	5775	Ant1	86.074
NVNT	n20	5745	Ant1	19.66
NVNT	n20	5785	Ant1	18.072
NVNT	n20	5825	Ant1	19.391
NVNT	n40	5755	Ant1	44.895
NVNT	n40	5795	Ant1	40.16

OBW NVNT a 5745MHz Ant1



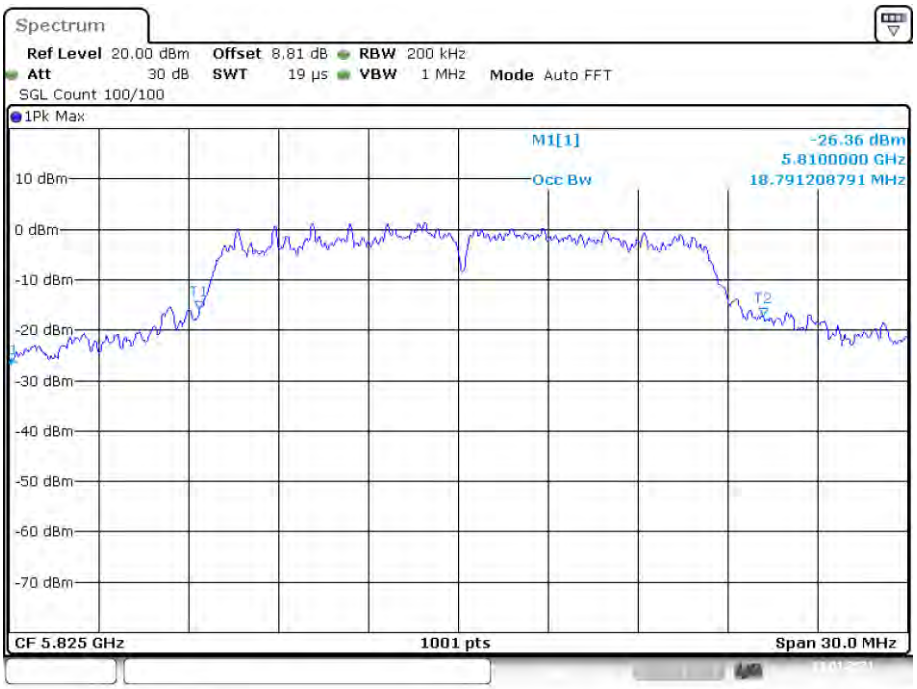
Date: 18.JAN.2021 08:29:55

OBW NVNT a 5785MHz Ant1



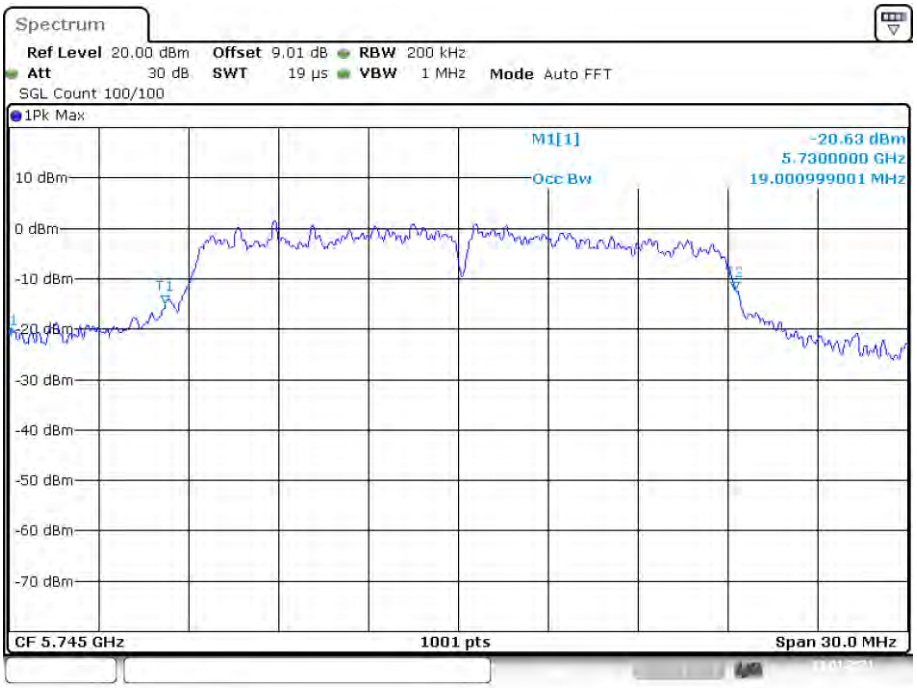
Date: 18.JAN.2021 08:33:06

OBW NVNT a 5825MHz Ant1



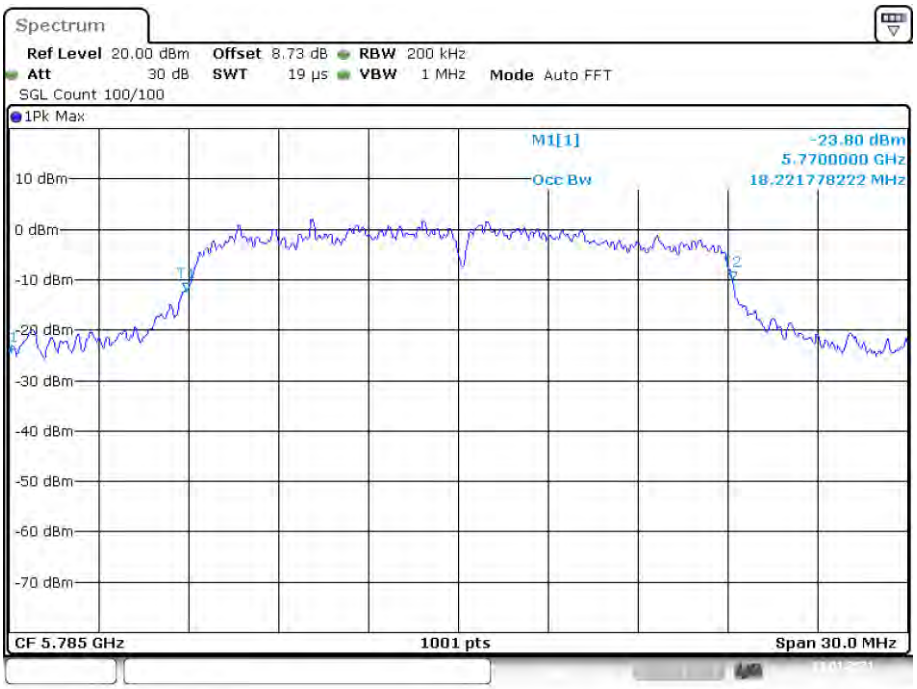
Date: 18.JAN.2021 08:35:59

OBW NVNT ac20 5745MHz Ant1



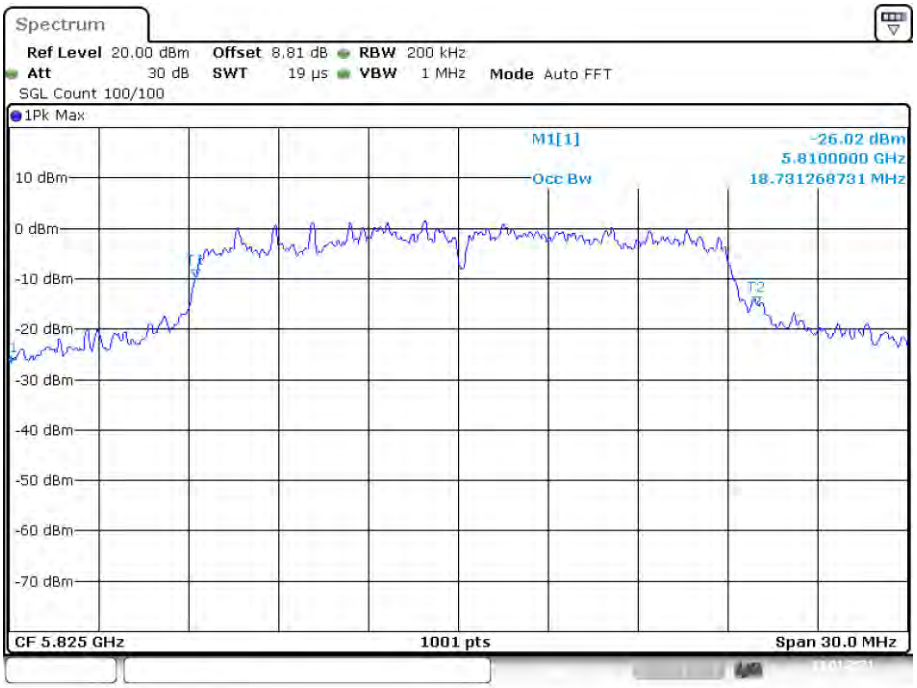
Date: 18.JAN.2021 08:51:45

OBW NVNT ac20 5785MHz Ant1



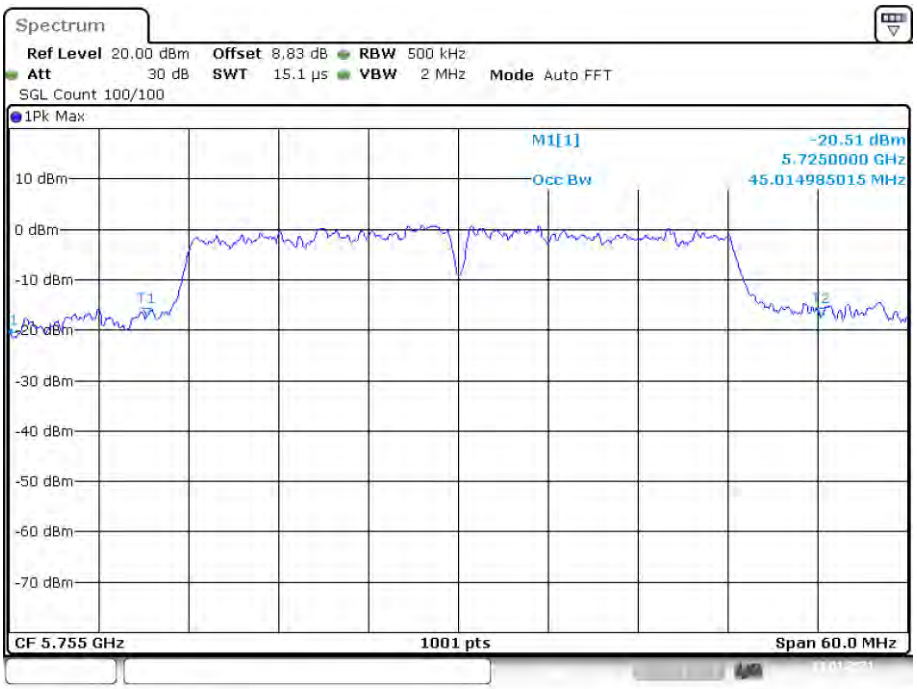
Date: 18.JAN.2021 08:54:53

OBW NVNT ac20 5825MHz Ant1



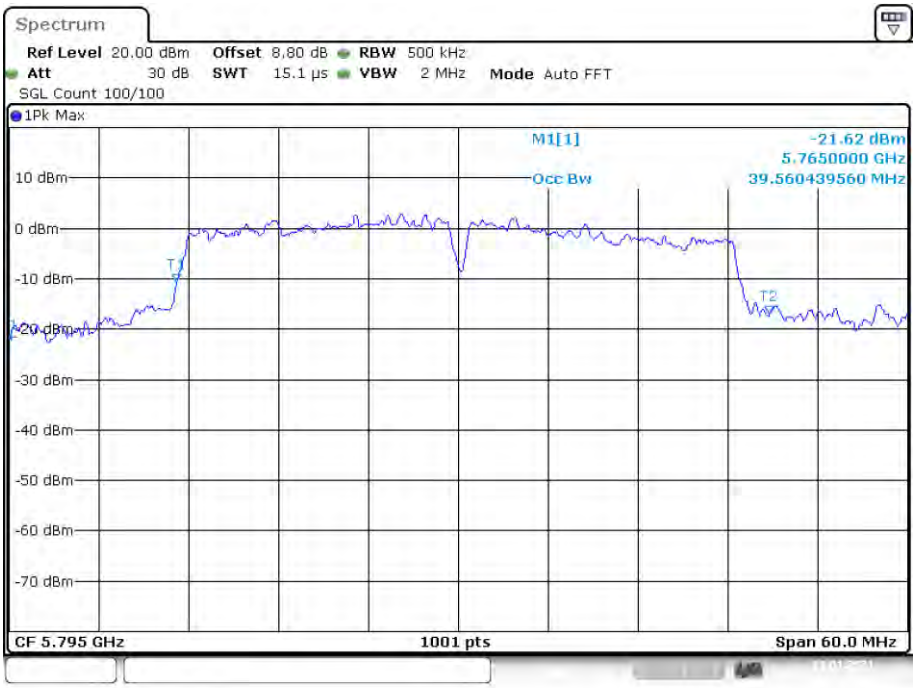
Date: 18.JAN.2021 08:58:05

OBW NVNT ac40 5755MHz Ant1



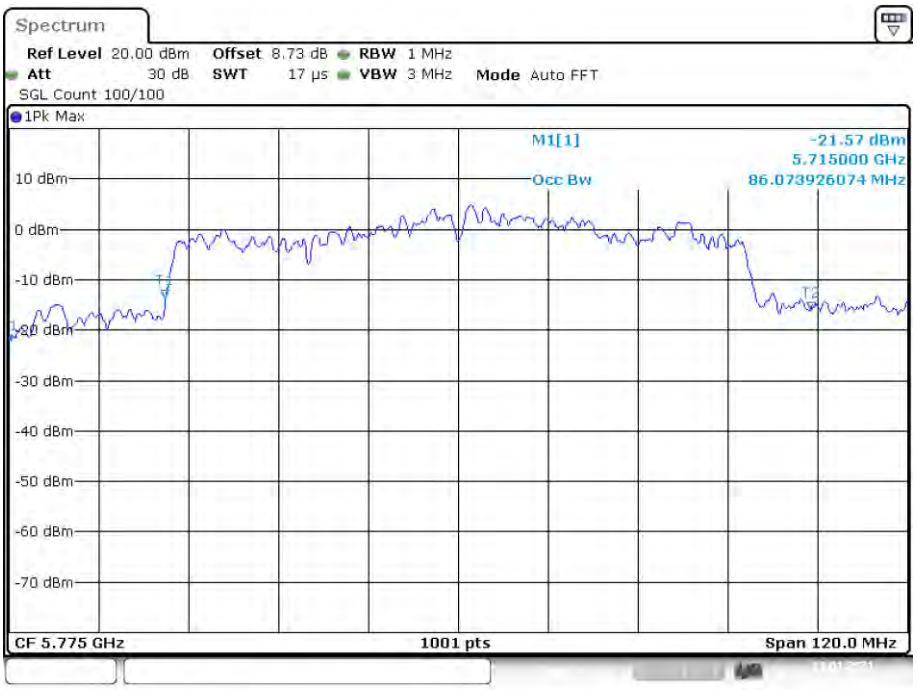
Date: 18.JAN.2021 09:09:29

OBW NVNT ac40 5795MHz Ant1



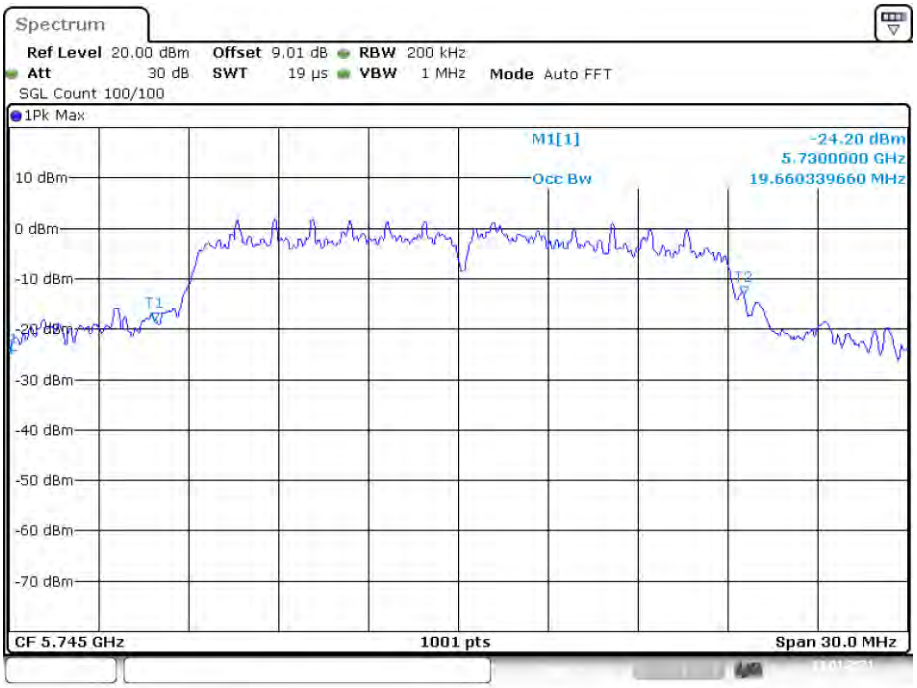
Date: 18.JAN.2021 09:14:05

OBW NVNT ac80 5775MHz Ant1



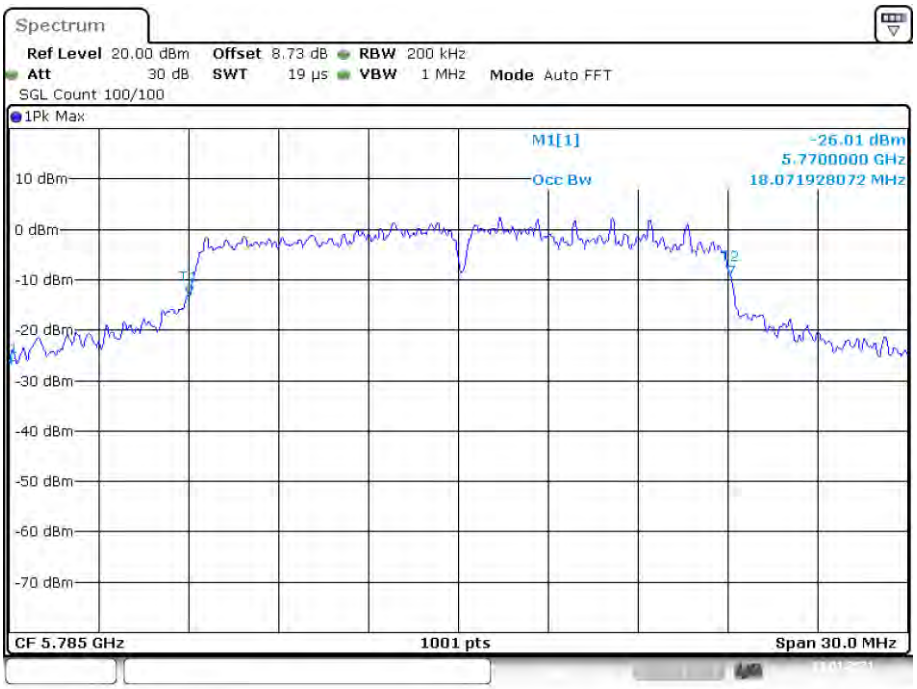
Date: 18.JAN.2021 09:17:42

OBW NVNT n20 5745MHz Ant1



Date: 18.JAN.2021 08:40:25

OBW NVNT n20 5785MHz Ant1



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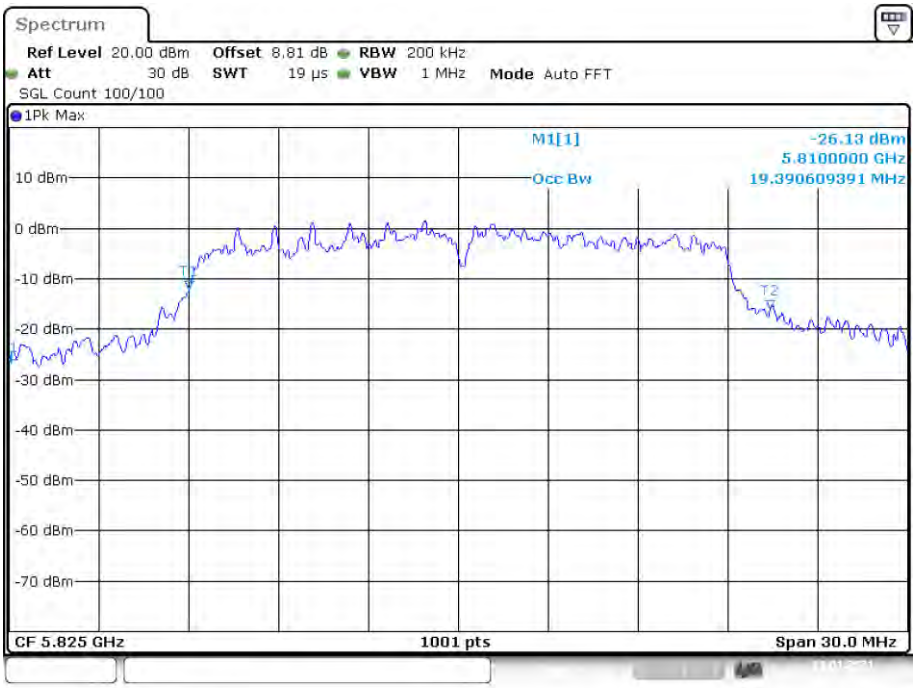
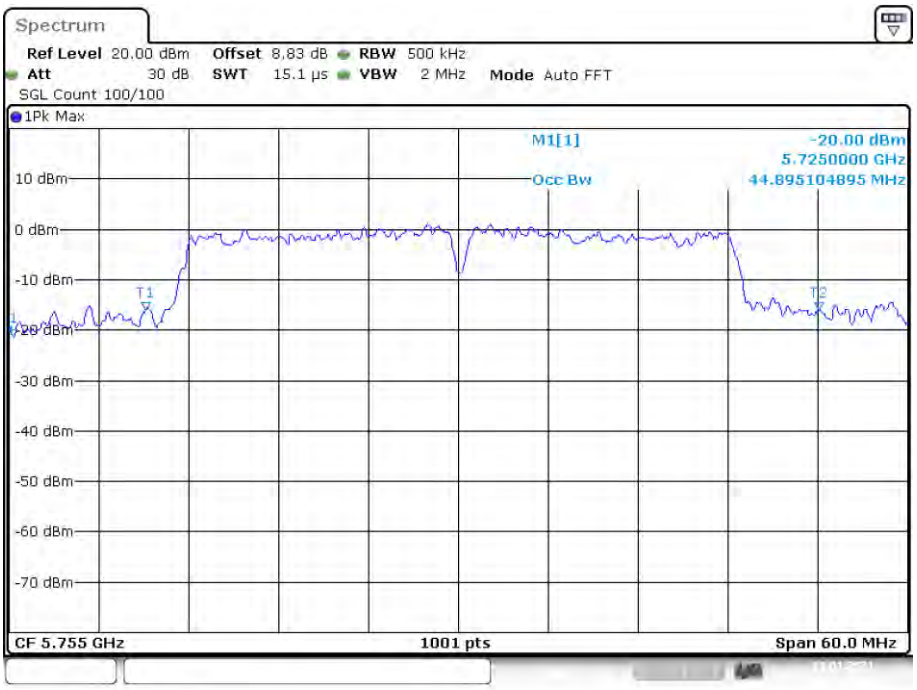
OBW NVNT n20 5825MHz Ant1



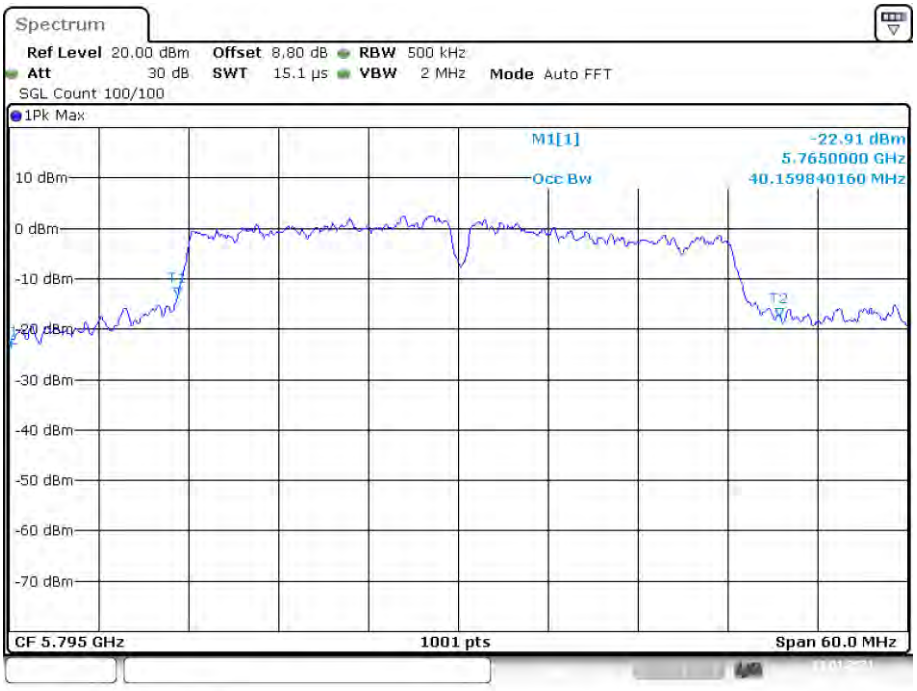
Date: 18.JAN.2021 08:48:04

OBW NVNT n40 5755MHz Ant1



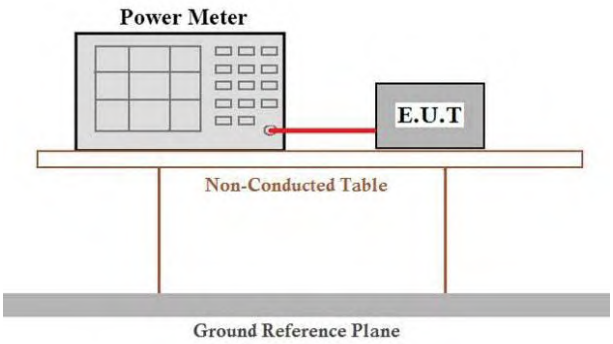
Date: 18.JAN.2021 09:02:32

OBW NVNT n40 5795MHz Ant1



Date: 18.JAN.2021 09:06:07

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	5.562	0.09	5.652	24	Pass
NVNT	a	5200	Ant1	5.694	0.09	5.784	24	Pass
NVNT	a	5240	Ant1	5.830	0.09	5.920	24	Pass
NVNT	ac20	5180	Ant1	4.971	0.09	5.061	24	Pass
NVNT	ac20	5200	Ant1	5.162	0.09	5.252	24	Pass
NVNT	ac20	5240	Ant1	5.471	0.09	5.561	24	Pass
NVNT	ac40	5190	Ant1	5.517	0.18	5.697	24	Pass
NVNT	ac40	5230	Ant1	6.003	0.17	6.173	24	Pass
NVNT	ac80	5210	Ant1	4.848	0.34	5.188	24	Pass
NVNT	n20	5180	Ant1	5.015	0.09	5.105	24	Pass
NVNT	n20	5200	Ant1	5.322	0.1	5.422	24	Pass
NVNT	n20	5240	Ant1	5.494	0.09	5.584	24	Pass
NVNT	n40	5190	Ant1	5.599	0.18	5.779	24	Pass
NVNT	n40	5230	Ant1	6.105	0.18	**6.285**	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	6.013	0.09	6.103	24	Pass
NVNT	a	5280	Ant1	6.221	0.09	**6.311**	24	Pass
NVNT	a	5320	Ant1	6.133	0.09	6.223	24	Pass
NVNT	ac20	5260	Ant1	5.705	0.09	5.795	24	Pass
NVNT	ac20	5280	Ant1	5.833	0.1	5.933	24	Pass
NVNT	ac20	5320	Ant1	5.749	0.09	5.839	24	Pass
NVNT	ac40	5270	Ant1	5.809	0.18	5.989	24	Pass
NVNT	ac40	5310	Ant1	5.374	0.18	5.554	24	Pass
NVNT	ac80	5290	Ant1	4.954	0.34	5.294	24	Pass
NVNT	n20	5260	Ant1	5.741	0.1	5.841	24	Pass
NVNT	n20	5280	Ant1	5.903	0.1	6.003	24	Pass
NVNT	n20	5320	Ant1	5.83	0.09	5.920	24	Pass
NVNT	n40	5270	Ant1	5.842	0.17	6.012	24	Pass
NVNT	n40	5310	Ant1	5.419	0.18	5.599	24	Pass

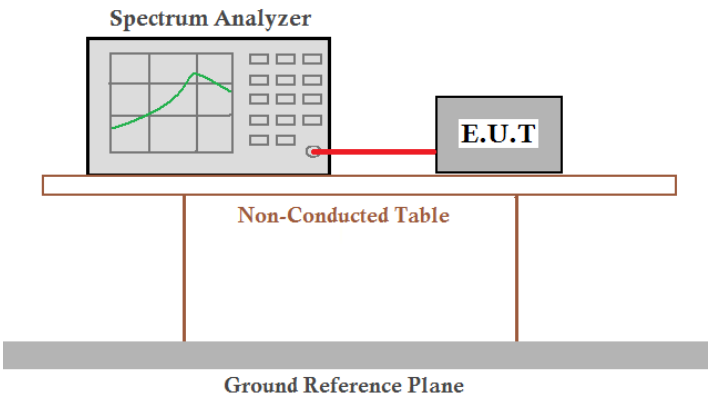
Band 3 (5470-5725 MHz)

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5500	Ant1	5.57	0.09	5.660	24	Pass
NVNT	a	5580	Ant1	4.309	0.09	4.399	24	Pass
NVNT	a	5700	Ant1	4.696	0.09	4.786	24	Pass
NVNT	ac20	5500	Ant1	5.284	0.09	5.374	24	Pass
NVNT	ac20	5580	Ant1	5.142	0.09	5.232	24	Pass
NVNT	ac20	5700	Ant1	4.582	0.09	4.672	24	Pass
NVNT	ac40	5510	Ant1	6.74	0.18	6.920	24	Pass
NVNT	ac40	5670	Ant1	5.775	0.18	5.955	24	Pass
NVNT	ac80	5530	Ant1	5.545	0.34	5.885	24	Pass
NVNT	n20	5500	Ant1	5.448	0.09	5.538	24	Pass
NVNT	n20	5580	Ant1	5.068	0.09	5.158	24	Pass
NVNT	n20	5700	Ant1	4.559	0.09	4.649	24	Pass
NVNT	n40	5510	Ant1	6.25	0.18	6.430	24	Pass
NVNT	n40	5670	Ant1	5.851	0.17	6.021	24	Pass

Band 4 (5725 - 5850)

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	4.52	0.09	4.610	30	Pass
NVNT	a	5785	Ant1	6.547	0.09	**6.637**	30	Pass
NVNT	a	5825	Ant1	5.188	0.09	5.278	30	Pass
NVNT	ac20	5745	Ant1	4.948	0.09	5.038	30	Pass
NVNT	ac20	5785	Ant1	5.759	0.09	5.849	30	Pass
NVNT	ac20	5825	Ant1	5.016	0.09	5.106	30	Pass
NVNT	ac40	5755	Ant1	5.039	0.17	5.209	30	Pass
NVNT	ac40	5795	Ant1	5.754	0.17	5.924	30	Pass
NVNT	ac80	5775	Ant1	5.614	0.34	5.954	30	Pass
NVNT	n20	5745	Ant1	4.902	0.09	4.992	30	Pass
NVNT	n20	5785	Ant1	5.802	0.09	5.892	30	Pass
NVNT	n20	5825	Ant1	5.086	0.09	5.176	30	Pass
NVNT	n40	5755	Ant1	4.94	0.18	5.120	30	Pass
NVNT	n40	5795	Ant1	5.602	0.17	5.772	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	-2.881	11	Pass
NVNT	a	5200	Ant1	-2.672	11	Pass
NVNT	a	5240	Ant1	-2.498	11	Pass
NVNT	ac20	5180	Ant1	-3.713	11	Pass
NVNT	ac20	5200	Ant1	-3.475	11	Pass
NVNT	ac20	5240	Ant1	-3.045	11	Pass
NVNT	ac40	5190	Ant1	-5.86	11	Pass
NVNT	ac40	5230	Ant1	-5.411	11	Pass
NVNT	ac80	5210	Ant1	-9.75	11	Pass
NVNT	n20	5180	Ant1	-3.648	11	Pass
NVNT	n20	5200	Ant1	-3.299	11	Pass
NVNT	n20	5240	Ant1	-3.063	11	Pass
NVNT	n40	5190	Ant1	-5.764	11	Pass
NVNT	n40	5230	Ant1	-5.178	11	Pass

Band 2 (5250 -5350 MHz)

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5260	Ant1	-2.492	11	Pass
NVNT	a	5280	Ant1	-2.125	11	Pass
NVNT	a	5320	Ant1	-2.34	11	Pass
NVNT	ac20	5260	Ant1	-3.049	11	Pass
NVNT	ac20	5280	Ant1	-2.766	11	Pass
NVNT	ac20	5320	Ant1	-2.898	11	Pass
NVNT	ac40	5270	Ant1	-5.544	11	Pass
NVNT	ac40	5310	Ant1	-6.685	11	Pass
NVNT	ac80	5290	Ant1	-9.082	11	Pass
NVNT	n20	5260	Ant1	-2.96	11	Pass
NVNT	n20	5280	Ant1	-2.69	11	Pass
NVNT	n20	5320	Ant1	-2.86	11	Pass
NVNT	n40	5270	Ant1	-5.642	11	Pass
NVNT	n40	5310	Ant1	-6.658	11	Pass

Band 3 (5470 - 5725 MHz)

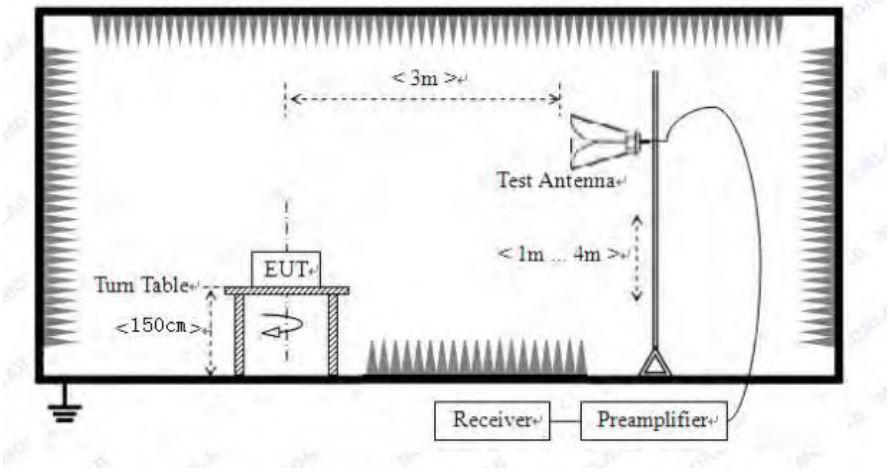
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5500	Ant1	1.139	11	Pass
NVNT	a	5580	Ant1	-0.048	11	Pass
NVNT	a	5700	Ant1	-1.988	11	Pass
NVNT	ac20	5500	Ant1	0.634	11	Pass
NVNT	ac20	5580	Ant1	0.483	11	Pass
NVNT	ac20	5700	Ant1	-0.244	11	Pass
NVNT	ac40	5510	Ant1	-0.785	11	Pass
NVNT	ac40	5670	Ant1	-1.114	11	Pass
NVNT	ac80	5530	Ant1	-5.018	11	Pass
NVNT	n20	5500	Ant1	0.785	11	Pass
NVNT	n20	5580	Ant1	0.425	11	Pass
NVNT	n20	5700	Ant1	-0.228	11	Pass
NVNT	n40	5510	Ant1	-1.2	11	Pass
NVNT	n40	5670	Ant1	-1.101	11	Pass

Band 4 (5725 - 5850 MHz)

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	-2.861	30	Pass
NVNT	a	5785	Ant1	-4.048	30	Pass
NVNT	a	5825	Ant1	-5.988	30	Pass
NVNT	ac20	5745	Ant1	-3.366	30	Pass
NVNT	ac20	5785	Ant1	-3.517	30	Pass
NVNT	ac20	5825	Ant1	-4.244	30	Pass
NVNT	ac40	5755	Ant1	-4.785	30	Pass
NVNT	ac40	5795	Ant1	-5.114	30	Pass
NVNT	ac80	5775	Ant1	-9.018	30	Pass
NVNT	n20	5745	Ant1	-3.215	30	Pass
NVNT	n20	5785	Ant1	-3.575	30	Pass
NVNT	n20	5825	Ant1	-4.228	30	Pass
NVNT	n40	5755	Ant1	-5.200	30	Pass
NVNT	n40	5795	Ant1	-5.101	30	Pass

4.6 Band Edge

<table>
<tr><td>Test Requirement:</td><td>FCC Part15 E Section 15.407 and 15.205</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10:2013</td></tr>
<tr><td>Test site:</td><td>Measurement Distance: 3m (Semi-Anechoic Chamber)</td></tr>
<tr><td>Receiver setup:</td><td>
<table>
<tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Remark</th></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>100KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr>
<tr><td>AV</td><td>1MHz</td><td>3MHz</td><td>Average Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><th>Frequency</th><th>Limit (dBuV/m @3m)</th><th>Remark</th></tr>
<tr><td>30MHz-88MHz</td><td>40.0</td><td>Quasi-peak Value</td></tr>
<tr><td>88MHz-216MHz</td><td>43.5</td><td>Quasi-peak Value</td></tr>
<tr><td>216MHz-960MHz</td><td>46.0</td><td>Quasi-peak Value</td></tr>
<tr><td>960MHz-1GHz</td><td>54.0</td><td>Quasi-peak Value</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>54.0</td><td>Average Value</td></tr>
<tr><td>68.2</td><td>Peak Value</td></tr>
</table>
Undesirable emission limits:
(1) For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.
(2) For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.
(3) For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of −27 dBm/MHz.
</td></tr>
<tr><td>Test Procedure:</td><td>
a. The EUT was placed on the top of a rotating table 1.5 m above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
</td></tr>
<tr><td>Test setup:</td><td>Above 1GHz</td></tr>
</table>

	
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

Remark:

According to KDB 789033 D02 v02r01 section G) 1) (d), for For measurements above 1000 MHz @ 3m distance, the limit of field strength is computed as follows:

E[dBuV/m] = EIRP[dBm] + 95.2;

For example, if EIRP = -27dBm

E[dBuV/m] = -27 + 95.2 = 68.2dBuV/m.

Measurement Data:

Band1

Mode:		802.11a		Frequency:		5180MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	31.68	17.18	48.86	68.20	-19.34	PK
V	5150.00	34.19	17.18	51.37	68.20	-16.83	PK
Mode:		802.11a		Frequency:		5180MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	24.70	17.18	41.88	54.00	-12.12	AV
V	5150.00	25.29	17.18	42.47	54.00	-11.53	AV
Mode:		802.11a		Frequency:		5240MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	34.90	17.20	52.10	68.20	-16.10	PK
V	5350.00	33.23	17.20	50.43	68.20	-17.77	PK
Mode:		802.11a		Frequency:		5240MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	27.29	17.20	44.49	54.00	-9.51	AV
V	5350.00	23.07	17.20	40.27	54.00	-13.73	AV

Mode:		802.11n(HT20)		Frequency:		5180MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	33.79	17.18	50.97	68.20	-17.23	PK
V	5150.00	34.21	17.18	51.39	68.20	-16.81	PK
Mode:		802.11n(HT20)		Frequency:		5180MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	23.30	17.18	40.48	54.00	-13.52	AV
V	5150.00	25.39	17.18	42.57	54.00	-11.43	AV
Mode:		802.11n(HT20)		Frequency:		5240MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	36.23	17.18	53.41	68.20	-14.79	PK
V	5350.00	32.61	17.18	49.79	68.20	-18.41	PK
Mode:		802.11n(HT20)		Frequency:		5240MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	28.31	17.18	45.49	54.00	-8.51	AV
V	5350.00	25.13	17.18	42.31	54.00	-11.69	AV

Mode:		802.11ac(HT20)		Frequency:		5180MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	32.96	17.18	50.14	68.20	-18.06	PK
V	5150.00	32.98	17.18	50.16	68.20	-18.04	PK
Mode:		802.11ac(HT20)		Frequency:		5180MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	23.84	17.18	41.02	54.00	-12.98	AV
V	5150.00	24.68	17.18	41.86	54.00	-12.14	AV
Mode:		802.11ac(HT20)		Frequency:		5240MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	32.99	17.18	50.17	68.20	-18.03	PK
V	5350.00	32.96	17.18	50.14	68.20	-18.06	PK
Mode:		802.11ac(HT20)		Frequency:		5240MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	25.64	17.18	42.82	54.00	-11.18	AV
V	5350.00	24.98	17.18	42.16	54.00	-11.84	AV

Mode:		802.11n(HT40)		Frequency:		5190MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	36.05	17.20	53.25	68.20	-14.95	PK
V	5150.00	31.52	17.20	48.72	68.20	-19.48	PK
Mode:		802.11n(HT40)		Frequency:		5190MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	31.44	17.20	48.64	54.00	-5.36	AV
V	5150.00	26.00	17.20	43.20	54.00	-10.80	AV
Mode:		802.11n(HT40)		Frequency:		5230MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	32.54	17.18	49.72	68.20	-18.48	PK
V	5350.00	35.02	17.18	52.20	68.20	-16.00	PK
Mode:		802.11n(HT40)		Frequency:		5230MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	25.18	17.18	42.36	54.00	-11.64	AV
V	5350.00	25.70	17.18	42.88	54.00	-11.12	AV

Mode:		802.11ac(HT40)		Frequency:		5190MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	34.37	17.18	51.55	68.20	-16.65	PK
V	5150.00	31.56	17.18	48.74	68.20	-19.46	PK
Mode:		802.11ac(HT40)		Frequency:		5190MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	27.78	17.18	44.96	54.00	-9.04	AV
V	5150.00	25.32	17.18	42.50	54.00	-11.50	AV
Mode:		802.11ac(HT40)		Frequency:		5230MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	34.36	17.20	51.56	68.20	-16.64	PK
V	5350.00	33.30	17.20	50.50	68.20	-17.70	PK
Mode:		802.11ac(HT40)		Frequency:		5230MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	30.43	17.20	47.63	54.00	-6.37	AV
V	5350.00	26.81	17.20	44.01	54.00	-9.99	AV

Mode:		802.11ac(HT80)		Frequency:		5210MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	35.03	17.18	52.21	68.20	-15.99	PK
V	5150.00	34.03	17.18	51.21	68.20	-16.99	PK
Mode:		802.11ac(HT80)		Frequency:		5210MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	24.98	17.18	42.16	54.00	-11.84	AV
V	5150.00	24.57	17.18	41.75	54.00	-12.25	AV
Mode:		802.11ac(HT80)		Frequency:		5210MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	33.78	17.18	50.96	68.20	-17.24	PK
V	5350.00	34.82	17.18	52.00	68.20	-16.20	PK
Mode:		802.11ac(HT80)		Frequency:		5210MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	28.20	17.18	45.38	54.00	-8.62	AV
V	5350.00	26.17	17.18	43.35	54.00	-10.65	AV

Band2

Mode:		802.11a		Frequency:		5260MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	34.29	17.20	51.49	68.20	-16.71	PK
V	5150.00	33.00	17.20	50.20	68.20	-18.00	PK

Mode:		802.11a		Frequency:		5260MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	28.49	17.20	45.69	54.00	-8.31	AV
V	5150.00	25.75	17.20	42.95	54.00	-11.05	AV

Mode:		802.11a		Frequency:		5320MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	35.23	17.18	52.41	68.20	-15.79	PK
V	5350.00	35.59	17.18	52.77	68.20	-15.43	PK

Mode:		802.11a		Frequency:		5320MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	24.34	17.18	41.52	54.00	-12.48	AV
V	5350.00	24.87	17.18	42.05	54.00	-11.95	AV

Mode:		802.11n(HT20)		Frequency:		5260MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	32.38	17.18	49.56	68.20	-18.64	PK
V	5150.00	33.11	17.18	50.29	68.20	-17.91	PK

Mode:		802.11n(HT20)		Frequency:		5260MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	26.09	17.18	43.27	54.00	-10.73	AV
V	5150.00	25.55	17.18	42.73	54.00	-11.27	AV

Mode:		802.11n(HT20)		Frequency:		5320MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	35.55	17.20	52.75	68.20	-15.45	PK
V	5350.00	34.26	17.20	51.46	68.20	-16.74	PK

Mode:		802.11n(HT20)		Frequency:		5320MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	29.69	17.20	46.89	54.00	-7.11	AV
V	5350.00	27.35	17.20	44.55	54.00	-9.45	AV

Mode:		802.11ac(HT20)		Frequency:		5260MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	35.54	17.18	52.72	68.20	-15.48	PK
V	5150.00	36.58	17.18	53.76	68.20	-14.44	PK
Mode:		802.11ac(HT20)		Frequency:		5260MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	24.16	17.18	41.34	54.00	-12.66	AV
V	5150.00	25.49	17.18	42.67	54.00	-11.33	AV
Mode:		802.11ac(HT20)		Frequency:		5320MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	32.59	17.18	49.77	68.20	-18.43	PK
V	5350.00	33.79	17.18	50.97	68.20	-17.23	PK
Mode:		802.11ac(HT20)		Frequency:		5320MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	24.33	17.18	41.51	54.00	-12.49	AV
V	5350.00	22.97	17.18	40.15	54.00	-13.85	AV

Mode:		802.11n(HT40)		Frequency:		5270MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	35.11	17.18	52.29	68.20	-15.91	PK
V	5150.00	33.38	17.18	50.56	68.20	-17.64	PK
Mode:		802.11n(HT40)		Frequency:		5270MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	26.68	17.18	43.86	54.00	-10.14	AV
V	5150.00	24.99	17.18	42.17	54.00	-11.83	AV
Mode:		802.11n(HT40)		Frequency:		5310MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	34.95	17.18	52.13	68.20	-16.07	PK
V	5350.00	33.96	17.18	51.14	68.20	-17.06	PK
Mode:		802.11n(HT40)		Frequency:		5310MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	25.95	17.18	43.13	54.00	-10.87	AV
V	5350.00	25.20	17.18	42.38	54.00	-11.62	AV

Mode:		802.11ac(HT40)		Frequency:		5270MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	34.81	17.18	51.99	68.20	-16.21	PK
V	5150.00	31.98	17.18	49.16	68.20	-19.04	PK
Mode:		802.11ac(HT40)		Frequency:		5270MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	24.84	17.18	42.02	54.00	-11.98	AV
V	5150.00	25.95	17.18	43.13	54.00	-10.87	AV
Mode:		802.11ac(HT40)		Frequency:		5310MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	34.97	17.20	52.17	68.20	-16.03	PK
V	5350.00	33.70	17.20	50.90	68.20	-17.30	PK
Mode:		802.11ac(HT40)		Frequency:		5310MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	29.43	17.20	46.63	54.00	-7.37	AV
V	5350.00	24.72	17.20	41.92	54.00	-12.08	AV

Mode:		802.11ac(HT80)		Frequency:		5290MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	32.98	17.18	50.16	68.20	-18.04	PK
V	5150.00	34.78	17.18	51.96	68.20	-16.24	PK

Mode:		802.11ac(HT80)		Frequency:		5290MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5150.00	26.37	17.18	43.55	54.00	-10.45	AV
V	5150.00	23.70	17.18	40.88	54.00	-13.12	AV

Mode:		802.11ac(HT80)		Frequency:		5290MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	32.46	17.18	49.64	68.20	-18.56	PK
V	5350.00	33.42	17.18	50.60	68.20	-17.60	PK

Mode:		802.11ac(HT80)		Frequency:		5290MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5350.00	26.21	17.18	43.39	54.00	-10.61	AV
V	5350.00	26.72	17.18	43.90	54.00	-10.10	AV

Band3

Mode:		802.11a		Frequency:		5500MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	35.57	17.18	52.75	68.20	-15.45	PK
V	5470.00	34.93	17.18	52.11	68.20	-16.09	PK
Mode:		802.11a		Frequency:		5500MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	26.91	17.18	44.09	54.00	-9.91	AV
V	5470.00	23.15	17.18	40.33	54.00	-13.67	AV
Mode:		802.11a		Frequency:		5700MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5850.00	33.21	17.18	50.39	68.20	-17.81	PK
V	5850.00	34.06	17.18	51.24	68.20	-16.96	PK
Mode:		802.11a		Frequency:		5700MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5850.00	28.23	17.18	45.41	54.00	-8.59	AV
V	5850.00	26.98	17.18	44.16	54.00	-9.84	AV

Mode:		802.11n(HT20)		Frequency:		5500MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	35.83	17.20	53.03	68.20	-15.17	PK
V	5470.00	34.17	17.20	51.37	68.20	-16.83	PK

Mode:		802.11n(HT20)		Frequency:		5500MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	29.20	17.20	46.40	54.00	-7.60	AV
V	5470.00	28.35	17.20	45.55	54.00	-8.45	AV

Mode:		802.11n(HT20)		Frequency:		5700MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5850.00	34.38	17.18	51.56	68.20	-16.64	PK
V	5850.00	35.64	17.18	52.82	68.20	-15.38	PK

Mode:		802.11n(HT20)		Frequency:		5700MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5850.00	23.37	17.18	40.55	54.00	-13.45	AV
V	5850.00	22.73	17.18	39.91	54.00	-14.09	AV

Mode:		802.11ac(HT20)		Frequency:		5500MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	35.93	17.18	53.11	68.20	-15.09	PK
V	5470.00	32.56	17.18	49.74	68.20	-18.46	PK
Mode:		802.11ac(HT20)		Frequency:		5500MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	26.25	17.18	43.43	54.00	-10.57	AV
V	5470.00	25.82	17.18	43.00	54.00	-11.00	AV
Mode:		802.11ac(HT20)		Frequency:		5700MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5850.00	34.06	17.20	51.26	68.20	-16.94	PK
V	5850.00	31.87	17.20	49.07	68.20	-19.13	PK
Mode:		802.11ac(HT20)		Frequency:		5700MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5850.00	28.26	17.20	45.46	54.00	-8.54	AV
V	5850.00	25.02	17.20	42.22	54.00	-11.78	AV

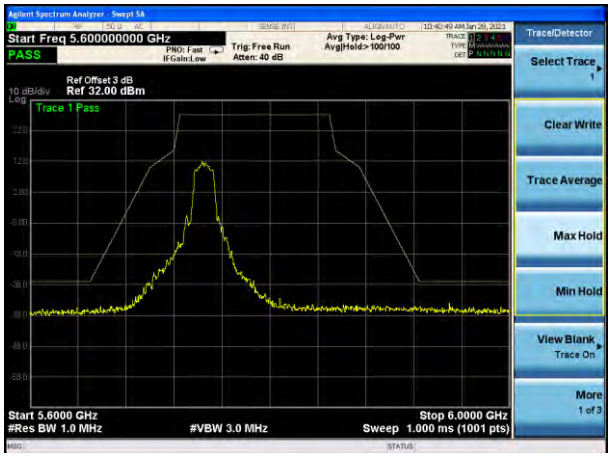
Mode:		802.11n(HT40)		Frequency:		5510MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	32.41	17.18	49.59	68.20	-18.61	PK
V	5470.00	34.24	17.18	51.42	68.20	-16.78	PK
Mode:		802.11n(HT40)		Frequency:		5510MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	23.37	17.18	40.55	54.00	-13.45	AV
V	5470.00	25.86	17.18	43.04	54.00	-10.96	AV
Mode:		802.11n(HT40)		Frequency:		5670MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5850.00	35.98	17.18	53.16	68.20	-15.04	PK
V	5850.00	34.95	17.18	52.13	68.20	-16.07	PK
Mode:		802.11n(HT40)		Frequency:		5670MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5850.00	27.83	17.18	45.01	54.00	-8.99	AV
V	5850.00	26.98	17.18	44.16	54.00	-9.84	AV

Mode:		802.11ac(HT40)		Frequency:		5510MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	37.20	17.20	54.40	68.20	-13.80	PK
V	5470.00	32.69	17.20	49.89	68.20	-18.31	PK
Mode:		802.11ac(HT40)		Frequency:		5510MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	27.66	17.20	44.86	54.00	-9.14	AV
V	5470.00	25.65	17.20	42.85	54.00	-11.15	AV
Mode:		802.11ac(HT40)		Frequency:		5670MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5850.00	31.69	17.18	48.87	68.20	-19.33	PK
V	5850.00	33.74	17.18	50.92	68.20	-17.28	PK
Mode:		802.11ac(HT40)		Frequency:		5670MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5850.00	24.49	17.18	41.67	54.00	-12.33	AV
V	5850.00	22.72	17.18	39.90	54.00	-14.10	AV

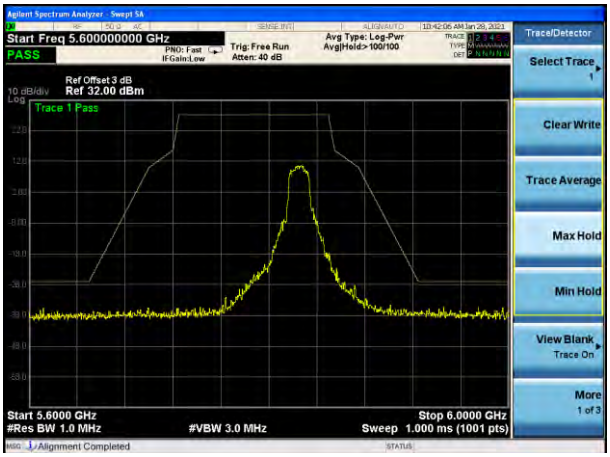
Mode:		802.11ac(HT80)		Frequency:		5530MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	35.45	17.18	52.63	68.20	-15.57	PK
V	5470.00	34.77	17.18	51.95	68.20	-16.25	PK
Mode:		802.11ac(HT80)		Frequency:		5530MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5470.00	26.97	17.18	44.15	54.00	-9.85	AV
V	5470.00	27.08	17.18	44.26	54.00	-9.74	AV
Mode:		802.11ac(HT80)		Frequency:		5530MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5850.00	37.20	17.20	54.40	68.20	-13.80	PK
V	5850.00	32.69	17.20	49.89	68.20	-18.31	PK
Mode:		802.11ac(HT80)		Frequency:		5530MHz	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
H	5850.00	28.50	17.20	45.70	54.00	-8.30	AV
V	5850.00	27.65	17.20	44.85	54.00	-9.15	AV

Band4

802.11a

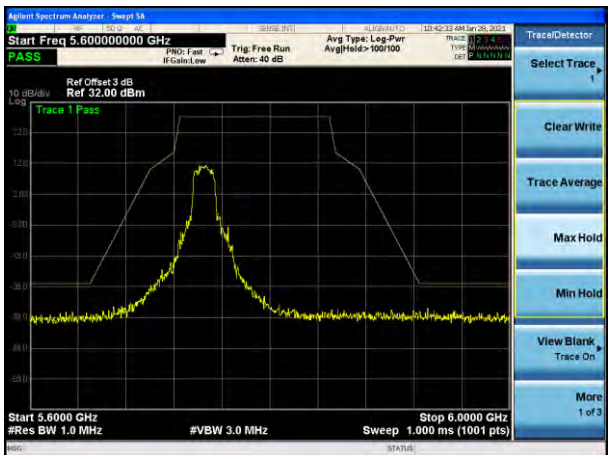


Low: 5745MHz

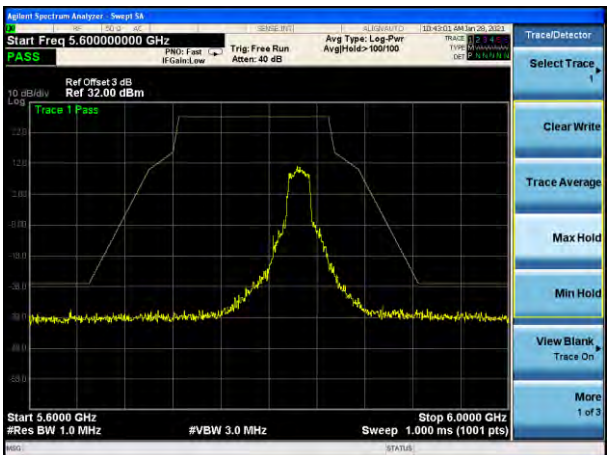


High: 5825MHz

802.11n(HT20)

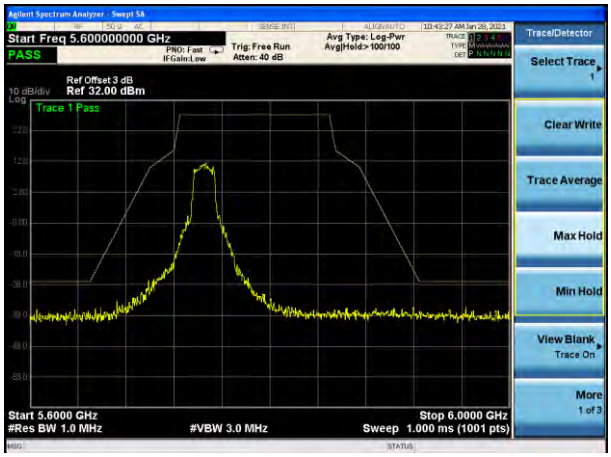


Low: 5745MHz

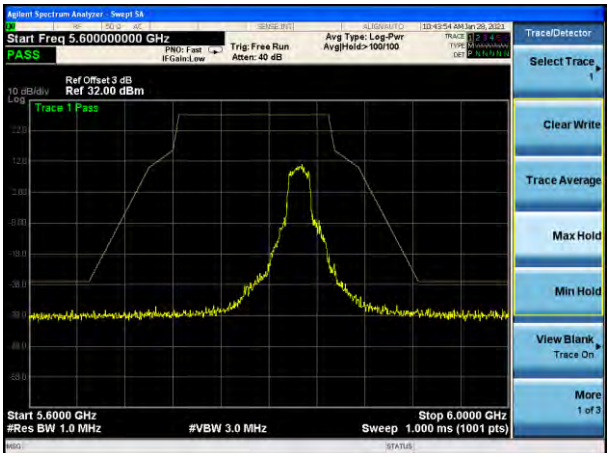


High: 5825MHz

802.11ac(HT20)

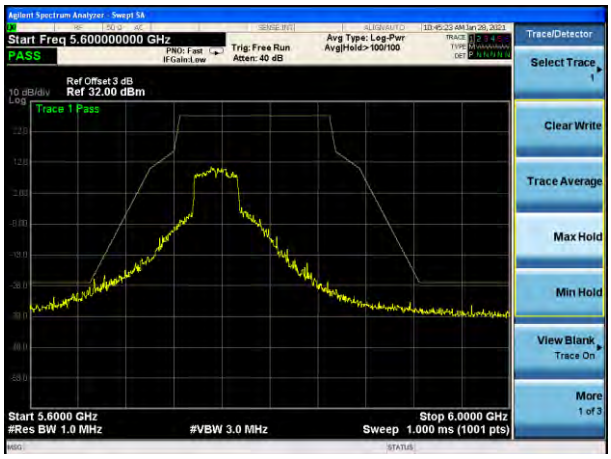


Low: 5745MHz

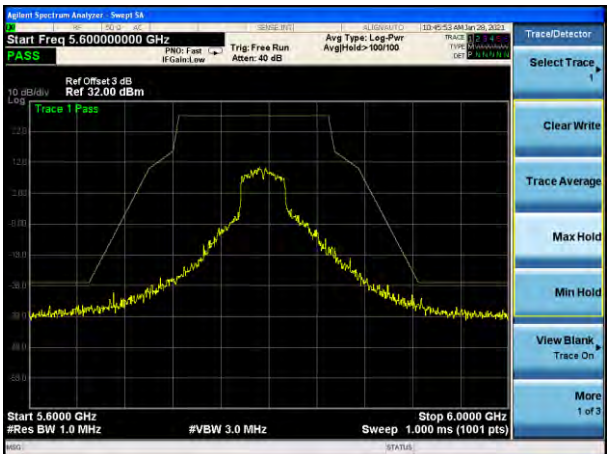


High: 5825MHz

802.11n(HT40)

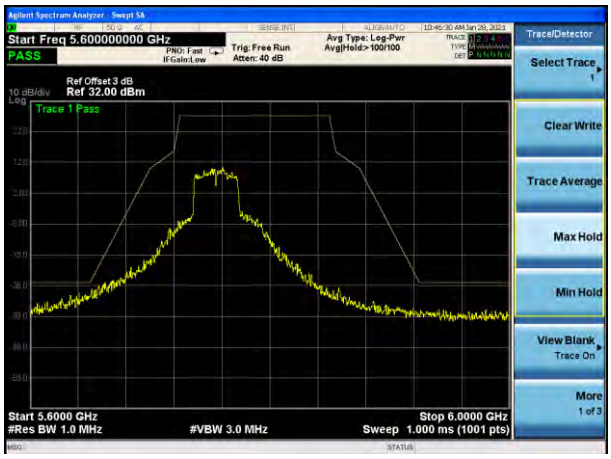


Low: 5755MHz

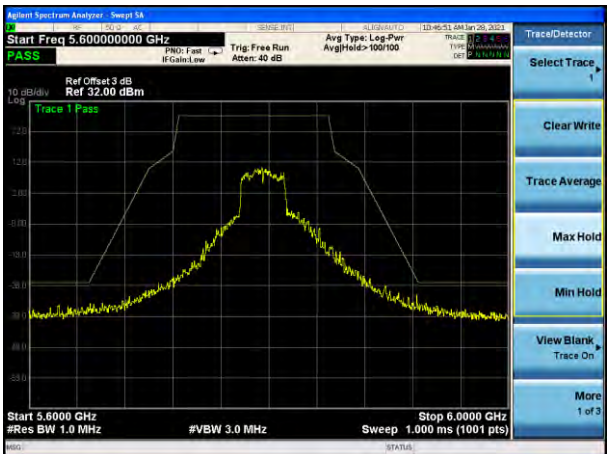


High: 5795MHz

802.11ac(HT40)

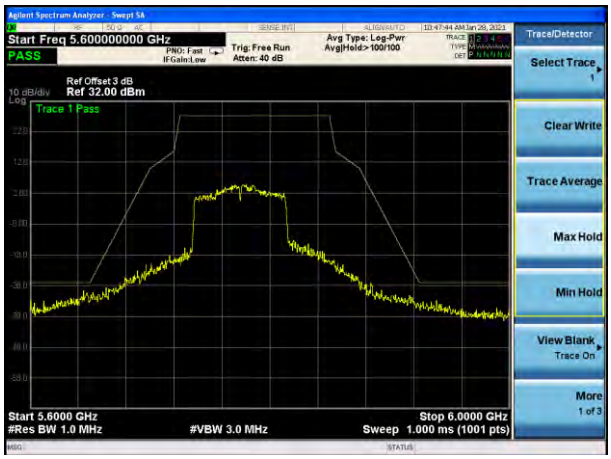


Low: 5755MHz



High: 5795MHz

802.11ac(HT80)



5775MHz

4.7 Radiated Emission

Test Requirement:	FCC Part15 C Section 15.209 and 15.205
Test Method:	ANSI C63.10:2013
Test Frequency Range:	30MHz to 40GHz
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)

Receiver setup:

Frequency	Detector	RBW	VBW	Value
30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak Value
Above 1GHz	Peak	1MHz	3MHz	Peak Value
	AV	1MHz	3MHz	Average Value

Limit:

Frequency	Limit (dBuV/m @3m)	Remark
30MHz-88MHz	40.0	Quasi-peak Value
88MHz-216MHz	43.5	Quasi-peak Value
216MHz-960MHz	46.0	Quasi-peak Value
960MHz-1GHz	54.0	Quasi-peak Value
Above 1GHz	74.0	Peak Value
	54.0	Average Value

Test Procedure:

Substitution method was performed to determine the actual ERP emission levels of the EUT.
The following test procedure as below:

1>.Below 1GHz test procedure:

1. The EUT was placed on the top of a rotating table (0.8m for below 1GHz and 1.5 meters for above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotable table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

2>.Above 1GHz test procedure:

1. On the test site as test setup graph above,the EUT shall be placed at the 1.5m support on the turntable and in the position closest to normal use as declared by the provider.
2. The test antenna shall be oriented initially for vertical polarization and shall be chosen to correspond to the frequency of the transmitter.The output of the test antenna shall be connected to the measuring receiver.
3. The transmitter shall be switched on, if possible, without modulation and the measuring receiver shall be tuned to the frequency of the transmitter under test.
4. The test antenna shall be raised and lowered from 1m to 4m until a maximum signal level is detected by the measuring receiver. Then the turntable should be rotated through 360 °in the horizontal plane, until the maximum signal level is

detected by the measuring receiver.

5. Repeat step 4 for test frequency with the test antenna polarized horizontally.
6. Remove the transmitter and replace it with a substitution antenna
7. Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a nonradiating cable. With the antennas at both ends vertically polarized, and with the signal generator tuned to a particular test frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output.
8. Repeat step 7 with both antennas horizontally polarized for each test frequency.
9. Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps 7 and 8 by the power loss in the cable between the generator and the antenna, and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna by the following formula:

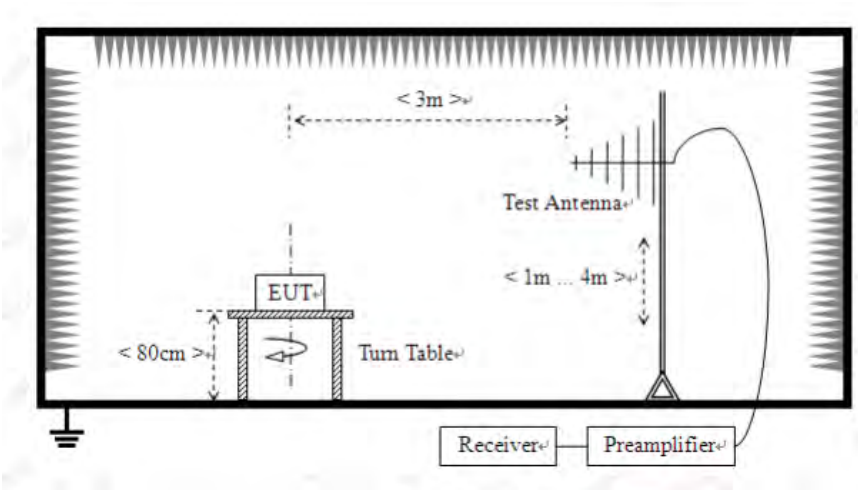
   EIRP(dBm) = Pg(dBm) – cable loss (dB) + antenna gain (dBi)

   where:

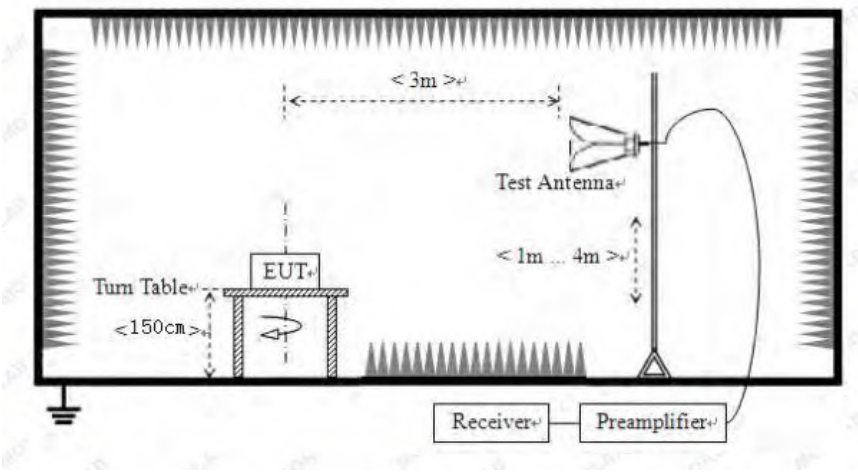
   Pg is the generator output power into the substitution antenna.

Test setup:

Below 1GHz



Above 1GHz



Test Instruments: Refer to section 5.10 for details

Test mode:	Refer to section 5.3 for details
Test results:	Pass

Measurement Data:

Below 1GHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
33.52	48.47	11.25	0.59	30.08	30.23	40	-9.77	Vertical
54.97	40.96	11.93	0.81	29.96	23.74	40	-16.26	Vertical
121.21	47.10	9.4	1.36	29.57	28.29	43.5	-15.21	Vertical
172.06	43.23	8.5	1.7	29.31	24.12	43.5	-19.38	Vertical
440.62	37.54	16.29	3.05	29.41	27.47	46	-18.53	Vertical
860.92	32.66	21.83	4.69	29.14	30.04	46	-15.96	Vertical
64.85	35.88	8.73	0.9	29.89	15.62	40	-24.38	Horizontal
99.84	33.75	11.73	1.19	29.7	16.97	43.5	-26.53	Horizontal
269.82	45.19	12.53	2.22	29.79	30.15	46	-15.85	Horizontal
350.93	37.03	14.5	2.62	29.73	24.42	46	-21.58	Horizontal
627.56	36.05	19.43	3.83	29.27	30.04	46	-15.96	Horizontal
955.76	41.40	22.54	5.06	29.1	39.90	46	-6.10	Horizontal

Above 1GHz:

802.11a(HT20) 5180MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360	28.23	11.25	14.62	32.65	21.45	74	-52.55	Vertical
15540	30.39	11.93	17.66	34.46	25.52	74	-48.48	Vertical
10360	32.29	9.4	14.62	32.65	23.66	74	-50.34	Horizontal
15540	31.72	8.5	17.66	34.46	23.42	74	-50.58	Horizontal

802.11a(HT20) 5200MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10400	28.95	16.29	14.62	32.65	27.21	74	-46.79	Vertical
15600	30.72	21.83	17.66	34.46	35.75	74	-38.25	Vertical
10400	32.17	8.73	14.62	32.65	22.87	74	-51.13	Horizontal
15600	31.65	11.73	17.66	34.46	26.58	74	-47.42	Horizontal

802.11a(HT20) 5240MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10480	28.53	11.25	14.62	32.65	21.75	74	-52.25	Vertical
15720	30.45	11.93	17.66	34.46	25.58	74	-48.42	Vertical
10480	32.25	9.4	14.62	32.65	23.62	74	-50.38	Horizontal
15720	32.06	8.5	17.66	34.46	23.76	74	-50.24	Horizontal

802.11n(HT20) 5180MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360	29.02	16.29	14.62	32.65	27.28	74	-46.72	Vertical
15540	30.37	21.83	17.66	34.46	35.40	74	-38.60	Vertical
10360	33.01	8.73	14.62	32.65	23.71	74	-50.29	Horizontal
15540	32.11	11.73	17.66	34.46	27.04	74	-46.96	Horizontal

802.11n(HT20) 5200MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10400	28.86	11.25	14.62	32.65	22.08	74	-51.92	Vertical
15600	30.28	11.93	17.66	34.46	25.41	74	-48.59	Vertical
10400	32.30	9.4	14.62	32.65	23.67	74	-50.33	Horizontal
15600	32.22	8.5	17.66	34.46	23.92	74	-50.08	Horizontal

802.11n(HT20) 5240MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10480	28.49	16.29	14.62	32.65	26.75	74	-47.25	Vertical
15720	30.22	21.83	17.66	34.46	35.25	74	-38.75	Vertical
10480	32.75	8.73	14.62	32.65	23.45	74	-50.55	Horizontal
15720	31.69	11.73	17.66	34.46	26.62	74	-47.38	Horizontal

802.11ac(HT20) 5180MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360	29.57	39.67	14.62	32.65	51.21	74.00	-22.79	Vertical
15540	30.09	38.6	17.66	34.46	51.89	74.00	-22.11	Vertical
10360	30.92	39.67	14.62	32.65	52.56	74.00	-21.44	Horizontal
15540	30.60	38.6	17.66	34.46	52.40	74.00	-21.60	Horizontal

802.11ac(HT20) 5200MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10400	28.65	39.67	14.62	32.65	50.29	74.00	-23.71	Vertical
15600	31.23	38.6	17.66	34.46	53.03	74.00	-20.97	Vertical
10400	31.90	39.67	14.62	32.65	53.54	74.00	-20.46	Horizontal
15600	30.13	38.6	17.66	34.46	51.93	74.00	-22.07	Horizontal

802.11ac(HT20) 5240MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10480	28.44	11.25	14.62	32.65	21.66	74	-52.34	Vertical
15720	30.86	11.93	17.66	34.46	25.99	74	-48.01	Vertical
10480	33.02	9.4	14.62	32.65	24.39	74	-49.61	Horizontal
15720	31.90	8.5	17.66	34.46	23.60	74	-50.40	Horizontal

802.11n(HT40) 5190MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10380	28.50	16.29	14.62	32.65	26.76	74	-47.24	Vertical
15570	30.64	21.83	17.66	34.46	35.67	74	-38.33	Vertical
10380	32.16	8.73	14.62	32.65	22.86	74	-51.14	Horizontal
15570	32.22	11.73	17.66	34.46	27.15	74	-46.85	Horizontal

802.11n(HT40) 5230MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10460	28.26	11.25	14.62	32.65	21.48	74	-52.52	Vertical
15690	30.24	11.93	17.66	34.46	25.37	74	-48.63	Vertical
10460	32.07	9.4	14.62	32.65	23.44	74	-50.56	Horizontal
15690	31.74	8.5	17.66	34.46	23.44	74	-50.56	Horizontal

802.11ac(HT40) 5190MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10380	28.28	16.29	14.62	32.65	26.54	74	-47.46	Vertical
15570	30.53	21.83	17.66	34.46	35.56	74	-38.44	Vertical
10380	32.25	8.73	14.62	32.65	22.95	74	-51.05	Horizontal
15570	31.65	11.73	17.66	34.46	26.58	74	-47.42	Horizontal

802.11ac(HT40) 5230MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10460	28.46	11.25	14.62	32.65	21.68	74	-52.32	Vertical
15690	30.58	11.93	17.66	34.46	25.71	74	-48.29	Vertical
10460	32.99	9.4	14.62	32.65	24.36	74	-49.64	Horizontal
15690	31.79	8.5	17.66	34.46	23.49	74	-50.51	Horizontal

802.11ac(HT80) 5210MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10420	28.67	16.29	14.62	32.65	26.93	74	-47.07	Vertical
15630	31.01	21.83	17.66	34.46	36.04	74	-37.96	Vertical
10420	32.69	8.73	14.62	32.65	23.39	74	-50.61	Horizontal
15630	31.93	11.73	17.66	34.46	26.86	74	-47.14	Horizontal

Note:

1. Level = Read Level + Antenna Factor+ Cable loss- Preamp Factor.

2. The test trace is same as the ambient noise (the test frequency range: 18GHz~40GHz), therefore no data appear in the report.

3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn’t be performed.

4. This Report only show the test plots of the worst case (U-NII-1).

4.8 Frequency stability

Test limit	Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.
Test results:	Pass

Measurement Data:

Mode	Voltage (V)	FHL (5180MHz)	Deviation (KHz)	FHH (5240MHz)	Deviation (KHz)
Band 1 (5150-5250 MHz)	DC 10.8V	5180.012	12	5240.011	11
	DC 12V	5180.012	12	5240.011	11
	DC 13.2V	5180.012	12	5240.011	11
Mode	Voltage (V)	FHL (5260MHz)	Deviation (KHz)	FHH (5320MHz)	Deviation (KHz)
Band 2 (5250-5350 MHz)	DC 10.8V	5260.008	8	5320.006	6
	DC 12V	5260.008	8	5320.006	6
	DC 13.2V	5260.008	8	5320.006	6
Mode	Voltage (V)	FHL (5500MHz)	Deviation (KHz)	FHH (5700MHz)	Deviation (KHz)
Band 3 (5470-5725 MHz)	DC 10.8V	5500.005	5	5700.003	3
	DC 12V	5500.005	5	5700.003	3
	DC 13.2V	5500.005	5	5700.003	3
Mode	Voltage (V)	FHL (5745MHz)	Deviation (KHz)	FHH (5825MHz)	Deviation (KHz)
Band 4 (5725-5850 MHz)	DC 10.8V	5745.004	4	5825.001	1
	DC 12V	5745.004	4	5825.001	1
	DC 13.2V	5745.004	4	5825.001	1

Mode	Voltage (V)	FHL (5180MHz)	Deviation (KHz)	FHH (5240MHz)	Deviation (KHz)
Band 1 (5150-5250 MHz)	-10℃	5179.969	31	5239.965	35
	-5℃	5179.972	28	5239.972	28
	0℃	5179.969	31	5239.968	32
	+10℃	5179.969	31	5239.969	31
	+20℃	5179.972	28	5239.970	30
	+30℃	5179.965	35	5239.968	32
	+40℃	5179.968	32	5239.970	30
	+50℃	5179.978	22	5239.980	20
	+60℃	5179.971	29	5239.975	25
Mode	Voltage (V)	FHL (5260MHz)	Deviation (KHz)	FHH (5320MHz)	Deviation (KHz)
Band 2 (5250-5350 MHz)	-10℃	5259.968	32	5319.965	35
	-5℃	5259.971	29	5319.973	27
	0℃	5259.968	32	5319.968	32
	+10℃	5259.968	32	5319.970	30
	+20℃	5259.969	31	5319.970	30
	+30℃	5259.970	30	5319.967	33
	+40℃	5259.970	30	5319.972	28
	+50℃	5259.980	20	5319.982	18
	+60℃	5259.970	30	5319.975	25

Mode	Voltage (V)	FHL (5500MHz)	Deviation (KHz)	FHH (5700MHz)	Deviation (KHz)
Band 3 (5470-5725 MHz)	-10℃	5499.965	35	5699.964	36
	-5℃	5499.972	28	5699.971	29
	0℃	5499.969	31	5699.969	31
	+10℃	5499.970	30	5699.973	27
	+20℃	5499.970	30	5699.970	30
	+30℃	5499.965	35	5699.969	31
	+40℃	5499.970	30	5699.973	27
	+50℃	5499.980	20	5699.983	17
	+60℃	5499.974	26	5699.971	29
Mode	Voltage (V)	FHL (5745MHz)	Deviation (KHz)	FHH (5825MHz)	Deviation (KHz)
Band 4 (5725-5850 MHz)	-10℃	5744.967	33	5824.964	36
	-5℃	5744.974	26	5824.971	29
	0℃	5744.967	33	5824.969	31
	+10℃	5744.969	31	5824.972	28
	+20℃	5744.968	32	5824.969	31
	+30℃	5744.967	33	5824.964	36
	+40℃	5744.973	27	5824.973	27
	+50℃	5744.983	17	5824.983	17
	+60℃	5744.974	26	5824.974	26

--------END OF THE REPORT-------