TEST REPORT

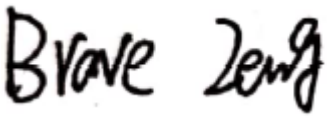
Report No.:	BCTC2308662750-2E
Applicant:	Shenzhen Viofo Technology Co.,Ltd
Product Name:	Car Dash Camera
Model/Type reference:	VS1
Tested Date:	2023-08-16 to 2023-09-06
Issued Date:	2023-09-20

Shenzhen BCTC Testing Co., Ltd.

FCC ID: 2AMBW-VS1

Product Name:	Car Dash Camera
Trademark:	VIOFO
Model/Type Ref.:	VS1,VS2,VS3,VS1 Plus,VS1 Pro
Prepared For:	Shenzhen Viofo Technology Co.,Ltd
Address:	Room201,Second Floor,Factory Building NO.1,Guanghui Science and Technology Park,Minqing Rd,Longhua Street,Longhua.District,Shenzhen,China
Manufacturer:	Shenzhen Viofo Technology Co.,Ltd
Address:	Room201,Second Floor,Factory Building NO.1,Guanghui Science and Technology Park,Minqing Rd,Longhua Street,Longhua.District,Shenzhen,China
Prepared By:	Shenzhen BCTC Testing Co., Ltd.
Address:	1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Tangwei, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Sample Received Date:	2023-08-16
Sample tested Date:	2023-08-16 to 2023-09-06
Report No.:	BCTC2308662750-2E
Test Standards:	FCC Part15 15.407 ANSI C63.10-2013 KDB 662911 D01 v02r01 KDB 789033 D02 v02r01
Test Results:	PASS

Tested by:



Brave Zeng/ Project Handler

Approved by:

Zero Zhou/Reviewer

Table of Content

1. Version

Report No.	Issue Date	Description	Approved
BCTC2308662750-2E	2023-09-20	Original	Valid

2. Test Summary

The Product has been tested according to the following specifications:

No.	Test Parameter	Clause No.	Results
1	Spurious Radiated Emissions	15.209(a), 15.407 (b)	PASS
2	Conducted Emission	15.207	N/A
3	26 dB and 99% Emission Bandwidth	15.407 (a)	PASS
4	Minimum 6 dB bandwidth	15.407(e)	PASS
5	Maximum Conducted Output Power	15.407 (a)	PASS
6	Band Edge	15.407(b)	PASS
7	Power Spectral Density	15.407 (a)	PASS
8	Spurious Emissions at Antenna Terminals	15.407(b)	PASS
9	Antenna Requirement	15.203	PASS

3. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

No.	Item	Uncertainty
1	3m chamber Radiated spurious emission(9kHz-30MHz)	U=3.7dB
2	3m chamber Radiated spurious emission(30MHz-1GHz)	U=4.3dB
3	3m chamber Radiated spurious emission(1GHz-18GHz)	U=4.5dB
4	3m chamber Radiated spurious emission(18GHz-40GHz)	U=3.34dB
5	Conducted Emission(150kHz-30MHz)	U=3.20dB
6	Conducted Adjacent channel power	U=1.38dB
7	Conducted output power uncertainty Above 1G	U=1.576dB
8	Conducted output power uncertainty below 1G	U=1.28dB
9	humidity uncertainty	U=5.3%
10	Temperature uncertainty	U=0.59℃

4. Product Information and Test Setup

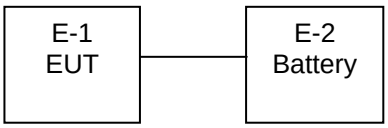
4.1 Product Information

Model/Type Ref.:	VS1,VS2,VS3,VS1 Plus,VS1 Pro
Model differences:	The following models of units we produce are identical in electrical, mechanical and physical structure; The difference is only in the model name, we finally have VS1 as test model.
Hardware Version:	N/A
Software Version:	N/A
IEEE 802.11 WLAN Mode Supported	☒802.11a ☒802.11n(20MHz channel bandwidth) ☒802.11n(40MHz channel bandwidth) ☒802.11ac(20MHz channel bandwidth) ☒802.11ac(40MHz channel bandwidth) ☒802.11ac(80MHz channel bandwidth)
Operation Frequency:	5180-5240MHz for 802.11a/n/ac(HT20) 5190-5230MHz for 802.11n/ac(HT40) 5210MHz for 802.11 ac80; 5745-5825 MHz for 802.11a/n/ac(HT20) 5755-5795 MHz for 802.11n/ac(HT40) 5775MHz for 802.11 ac80
Type of Modulation:	☒OFDM with BPSK/QPSK/16QAM/64QAM for 802.11a/n ☒OFDM with BPSK/QPSK/16QAM/64QAM/256QAM for 802.11ac
Number Of Channel	4 channels for 802.11a/n20 in the 5180-5240MHz band ; 2 channels for 802.11 n40 in the 5190-5230MHz band ; 1 channels for 802.11 ac80 in the 5210MHz band ; 5 channels for 802.11a/n20 in the 5745-5825MHz band ; 2 channels for 802.11 n40 in the 5755-5795MHz band ; 1 channels for 802.11 ac80 in the 5775MHz band
Antenna installation:	Internal antenna
Antenna Gain:	2.49dBi
Ratings:	DC 12V/24V

4.2 Test Setup Configuration

See test photographs attached in *EUT TEST SETUP PHOTOGRAPHS* for the actual connections between Product and support equipment.

Radiated Spurious Emission:



4.3 Support Equipment

No.	Device Type	Brand	Model	Series No.	Note
E-1	Car Dash Camera	VIOFO	VS1	N/A	EUT
E-2	Battery	N/A	N/A	N/A	Auxiliary

Item	Shielded Type	Ferrite Core	Length	Note
C-1	N/A	N/A	N/A	N/A

Notes:
1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4.4 Channel List

Frequency and Channel list for 802.11a/n/ac (20 MHz) band I (5180-5240MHz):

802.11a/n/ac (20MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220	-	-	-	-
40	5200	48	5240	-	-	-	-

802.11n /ac (40MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	-	-	-	-	-	-
46	5230	-	-	-	-	-	-

802.11ac (80MHz) Carrier Frequency Channel	
Channel	Frequency (MHz)
42	5210

Frequency and Channel list for 802.11a/n/ac(20 MHz) band IV (5745-5825MHz):

802.11a/n/ac (20 MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	153	5765	157	5785	161	5805

165	5825	-	-	-	-	-	-

802.11n/ac 40MHz Carrier Frequency Channel					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	159	5795	-	-

802.11ac 80MHz Carrier Frequency Channel	
Channel	Frequency (MHz)
155	5775

4.5 Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	802.11a / n/ ac 20 CH36/ CH40/ CH 48 802.11a /n/ ac 20 CH149/ CH157/ CH 165
Mode 2	802.11n/ ac40 CH38/ CH 46 802.11n/ ac40 CH 151 / CH 159
Mode 3	802.11 ac80 CH 42/CH 155
Mode 4	Transmitting (Conducted emission & Radiated emission)

4.6 Table Of Parameters Of Text Software Setting

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters

Test software Version	**CMD**		
Parameters	DEF	DEF	DEF

5. Test Facility And Test Instrument Used

5.1 Test Facility

All measurement facilities used to collect the measurement data are located at Shenzhen BCTC Testing Co., Ltd. Address:1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards.
FCC Test Firm Registration Number: 712850
A2LA certificate registration number is: CN1212
ISED Registered No.: 23583
ISED CAB identifier: CN0017

5.2 Test Instrument Used

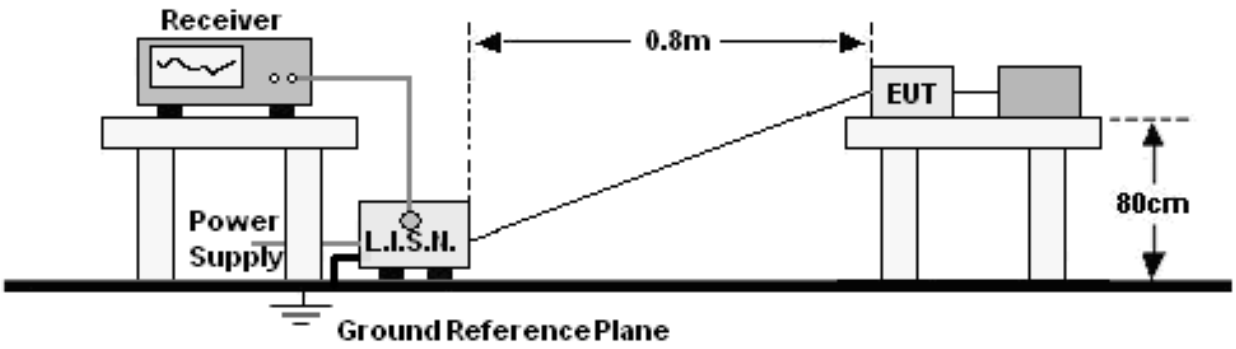
Conducted Emissions Test					
Equipment	**Manufacturer**	**Model#**	**Serial#**	**Last Cal.**	**Next Cal.**
Receiver	R&S	ESR3	102075	May 15, 2023	May 14, 2024
LISN	R&S	ENV216	101375	May 15, 2023	May 14, 2024
Software	Frad	EZ-EMC	EMC-CON 3A1	\	\
Attenuator	\	10dB DC-6GHz	1650	May 15, 2023	May 14, 2024

RF Conducted Test					
Equipment	**Manufacturer**	**Model#**	**Serial#**	**Last Cal.**	**Next Cal.**
Power Metter	Keysight	E4419	\	May 15, 2023	May 14, 2024
Power Sensor (AV)	Keysight	E9300A	\	May 15, 2023	May 14, 2024
Signal Analyzer20kHz-26.5GHz	Keysight	N9020A	MY49100060	May 15, 2023	May 14, 2024
Spectrum Analyzer9kHz-40GHz	R&S	FSP40	\	May 15, 2023	May 14, 2024

Radiated Emissions Test (966 Chamber)					
Equipment	**Manufacturer**	**Model#**	**Serial#**	**Last Cal.**	**Next Cal.**
966 chamber	ChengYu	966 Room	966	May 15, 2023	May 14, 2026
Receiver	R&S	ESR3	102075	May 15, 2023	May 14, 2024
Receiver	R&S	ESRP	101154	May 15, 2023	May 14, 2024
Amplifier	SKET	LAPA_01G18G-45dB	\	May 15, 2023	May 14, 2024
Amplifier	Schwarzbeck	BBV9744	9744-0037	May 15, 2023	May 14, 2024
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	942	May 15, 2023	May 14, 2024
Horn Antenna	Schwarzbeck	BBHA9120D	1541	May 15, 2023	May 14, 2024
Horn Antenn(18GHz-40GHz)	Schwarzbeck	BBHA9170	00822	May 15, 2023	May 14, 2024
Amplifier(18GHz-40GHz)	MITEQ	TTA1840-35-HG	2034381	May 15, 2023	May 14, 2024
Loop Antenna(9KHz-30MHz)	Schwarzbeck	FMZB1519B	00014	May 15, 2023	May 14, 2024
RF cables1(9kHz-30MHz)	Huber+Suhnar	9kHz-30MHz	B1702988-0008	May 15, 2023	May 14, 2024
RF cables2(30MHz-1GHz)	Huber+Suhnar	30MHz-1GHz	1486150	May 15, 2023	May 14, 2024
RF cables3(1GHz-40GHz)	Huber+Suhnar	1GHz-40GHz	1607106	May 15, 2023	May 14, 2024
Power Metter	Keysight	E4419	\	May 15, 2023	May 14, 2024
Power Sensor (AV)	Keysight	E9300A	\	May 15, 2023	May 14, 2024
Signal Analyzer20kHz-26.5GHz	Keysight	N9020A	MY49100060	May 15, 2023	May 14, 2024
Spectrum Analyzer9kHz-40GHz	R&S	FSP40	\	May 15, 2023	May 14, 2024
Software	Frad	EZ-EMC	FA-03A2 RE	\	\

6. Conducted Emissions

6.1 Block Diagram Of Test Setup



6.2 Limit

Frequency (MHz)	Limit (dBuV)	
	Quas-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Notes:
1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

6.3 Test Procedure

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

a. The Product was placed on a nonconductive table 0.8 m above the horizontal ground reference plane, and 0.4 m from the vertical ground reference plane, and connected to the main through Line Impedance Stability Network (L.I.S.N).
b. The RBW of the receiver was set at 9 kHz in 150 kHz ~ 30MHz with Peak and AVG detector in Max Hold mode. Run the receiver's pre-scan to record the maximum disturbance generated from Product in all power lines in the full band.
c. For each frequency whose maximum record was higher or close to limit, measure its QP and AVG values and record.

6.4 EUT Operating Conditions

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

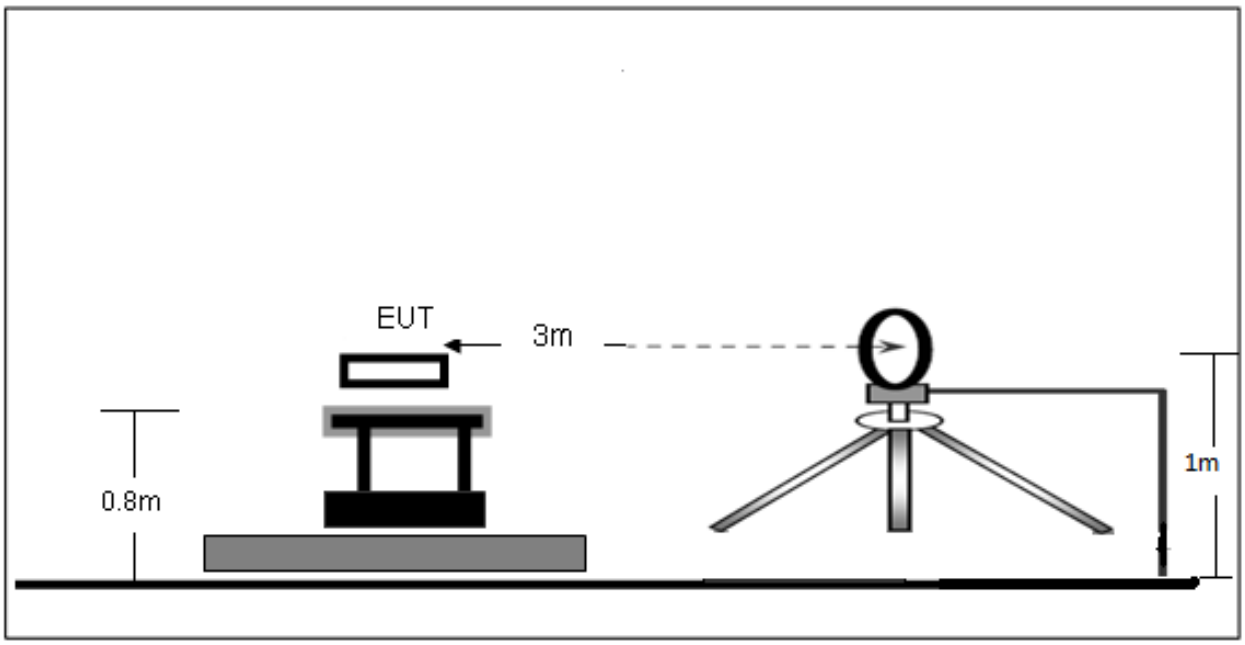
6.5 Test Result

This product is a DC power supply and is not suitable for this test

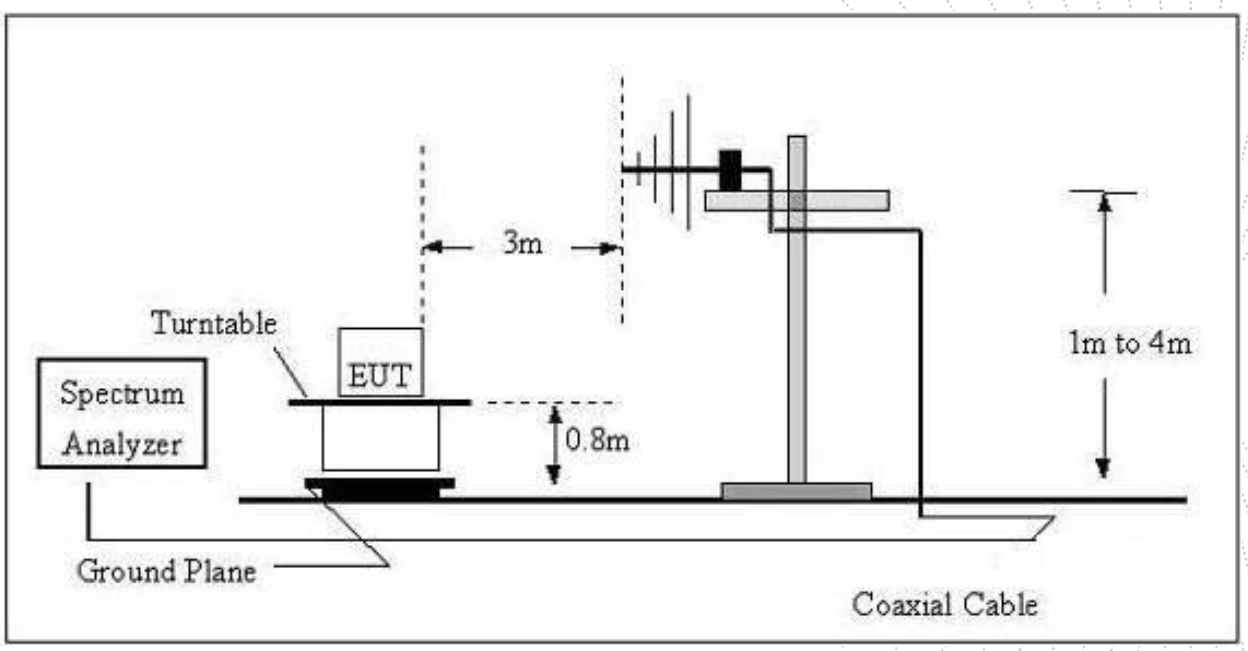
7. Radiated Emissions

7.1 Block Diagram Of Test Setup

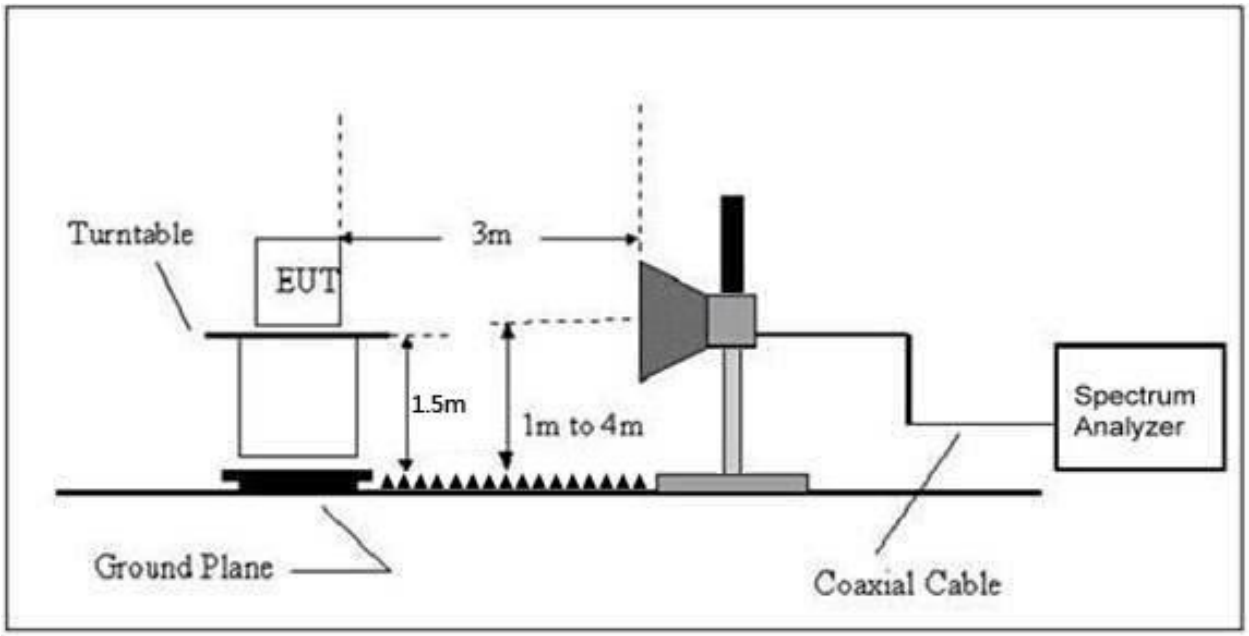
（A）Radiated Emission Test-Up Frequency Below 30MHz



（B）Radiated Emission Test-Up Frequency 30MHz~1GHz



（C）Radiated Emission Test-Up Frequency Above 1GHz



7.2 Limit

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequency	Field Strength	Distance	Field Strength Limit at 3m Distance	
(MHz)	uV/m	(m)	uV/m	dBuV/m
0.009 ~ 0.490	2400/F(kHz)	300	10000 * 2400/F(kHz)	$20\log^{(2400/F(kHz))}$ + 80
0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	$20\log^{(24000/F(kHz))}$ + 40
1.705 ~ 30	30	30	100 * 30	$20\log^{(30)}$ + 40
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

Limits Of Radiated Emission Measurement (Above 1000MHz)

Frequency (MHz)	Limit (dBuV/m) (at 3M)	
	Peak	Average
Above 1000	74	54

Notes:
(1)The limit for radiated test was performed according to FCC PART 15C.
(2)The tighter limit applies at the band edges.
(3) Emission level (dBuV/m)=20log Emission level (uV/m).

7.3 Test Procedure

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10-2013. The test distance is 3m.The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 and CAN/CSA-CEI/IEC CISPR 22.
This test is required for any spurious emission that falls in a Restricted Band, as defined in Section 15.205.
It must be performed with the highest gain of each type of antenna proposed for use with the EUT.
Use the following spectrum analyzer settings:

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 m for below 1GHz and 1.5m for above 1GHz the ground at a 3 meter. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The height of the equipment or of the substitution antenna shall be 0.8 m for below 1GHz and 1.5m for above 1GHz; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

Both horizontal and vertical antenna polarities were tested
and performed pretest to three orthogonal axis. The worst case emissions were reported

During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
Above 1000	Peak	1 MHz	1 MHz
	Average	1 MHz	10 Hz

Note: for the frequency ranges below 30 MHz, a narrower RBW is used for these ranges but the measured value should add a RBW correction factor (RBWCF) where RBWCF [dB] =10*lg(100 [kHz]/narrower RBW [kHz]). , the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the
narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

7.4 EUT Operating Conditions

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

7.5 Test Result

Below 30MHz

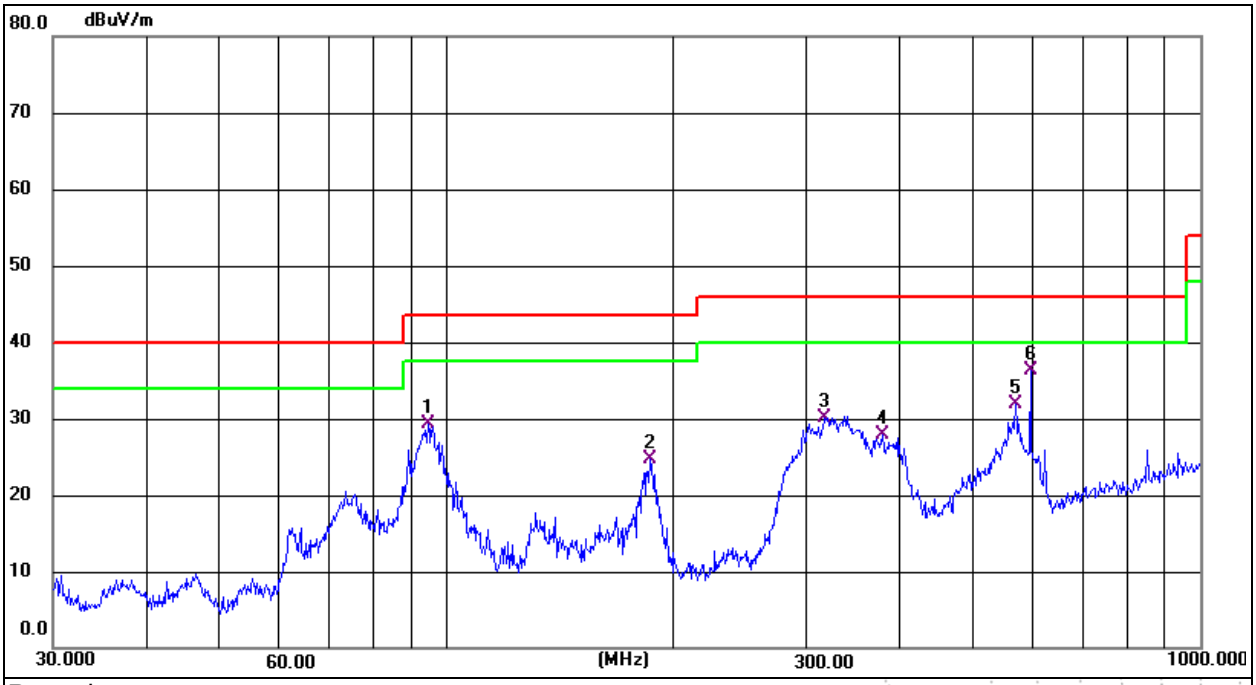
Temperature:	26℃	Relative Humidity:	24%
Pressure:	101 kPa	Test Voltage:	DC 12V
Test Mode:	Mode 4	Polarization:	--

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

Note:
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
Distance extrapolation factor =40 log (specific distance/test distance)(dB);
Limit line = specific limits(dBuv) + distance extrapolation factor.

Between 30MHz – 1GHz

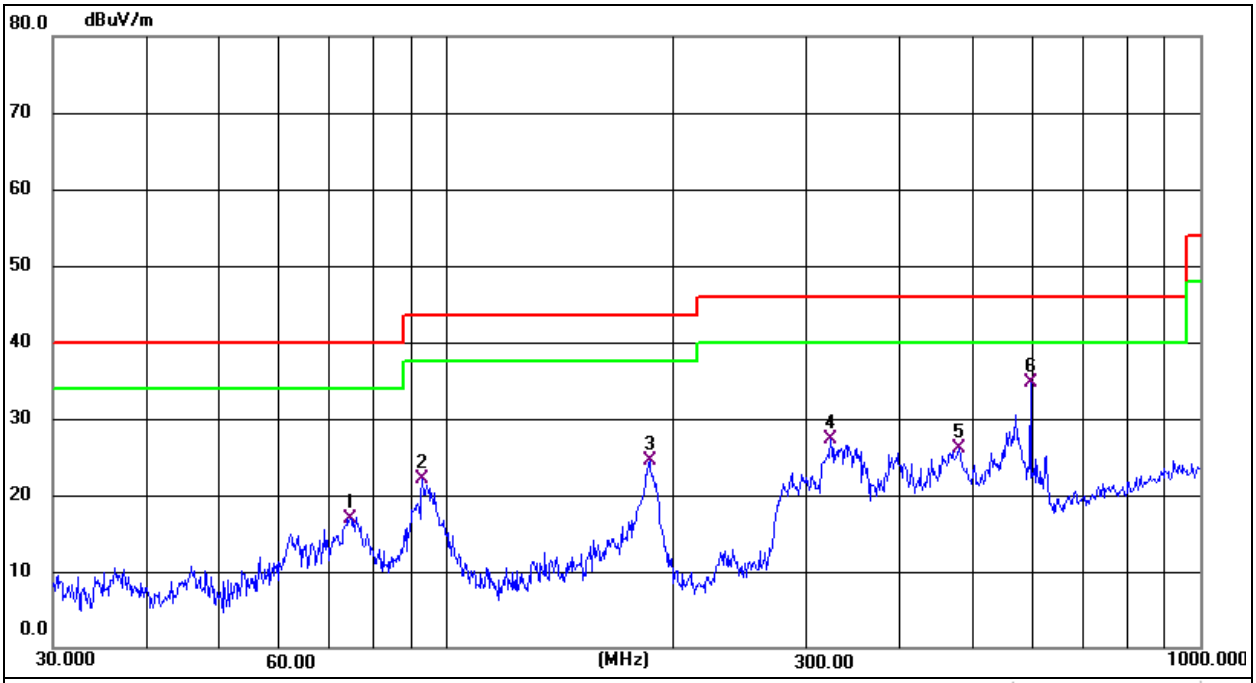
Temperature：	26℃	Relative Humidity：	54%
Pressure：	101 kPa	Test Voltage ：	DC 12V
Test Mode ：	Mode 4	Polarization :	Horizontal



Remark:
1.Factor = Antenna Factor + Cable Loss – Pre-amplifier.
2. Measurement=Reading Level+ Correct Factor
3. Over= Measurement-Limit

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	94.4284	52.67	-23.34	29.33	43.50	-14.17	QP
2	185.7882	45.53	-20.84	24.69	43.50	-18.81	QP
3	317.7011	46.72	-16.62	30.10	46.00	-15.90	QP
4	378.5843	42.26	-14.42	27.84	46.00	-18.16	QP
5	568.6127	41.26	-9.45	31.81	46.00	-14.19	QP
6	595.1329	45.21	-8.86	36.35	46.00	-9.65	QP

Temperature：	26℃	Relative Humidity：	54%
Pressure：	101 kPa	Test Voltage ：	DC 12V
Test Mode ：	Mode 4	Polarization :	Vertical



Remark:
1.Factor = Antenna Factor + Cable Loss – Pre-amplifier.
2. Measurement=Reading Level+ Correct Factor
3. Over= Measurement-Limit

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	74.3955	40.35	-23.42	16.93	40.00	-23.07	QP
2	92.7871	45.60	-23.55	22.05	43.50	-21.45	QP
3	185.7882	45.35	-20.84	24.51	43.50	-18.99	QP
4	323.3204	43.74	-16.45	27.29	46.00	-18.71	QP
5	478.8456	37.74	-11.69	26.05	46.00	-19.95	QP
6	595.1329	43.66	-8.86	34.80	46.00	-11.20	QP

Between 1GHz – 40GHz

Test Mode :	TX(5.1G) - 802.11a

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G							
Vertical	4434.155	75.00	-20.73	54.27	68.2	-13.93	Pk
Vertical	4434.155	59.10	-20.73	38.37	54	-15.63	AV
Vertical	10360.033	63.61	-9.36	54.25	68.2	-13.95	Pk
Vertical	10360.033	49.21	-9.36	39.85	54	-14.15	AV
Vertical	15540.055	61.95	-7.84	54.11	74	-19.89	Pk
Vertical	15540.055	49.31	-7.84	41.47	54	-12.53	AV
Horizontal	4434.023	73.56	-20.73	52.83	68.2	-15.37	Pk
Horizontal	4434.023	59.13	-20.73	38.40	54	-15.60	AV
Horizontal	10360.101	64.74	-9.36	55.38	68.2	-12.82	Pk
Horizontal	10360.101	49.86	-9.36	40.50	54	-13.50	AV
Horizontal	15540.177	62.10	-7.84	54.26	74	-19.74	Pk
Horizontal	15540.177	49.53	-7.84	41.69	54	-12.31	AV
middle Channel (5200 MHz)-Above 1G							
Vertical	4592.029	73.46	-20.42	53.05	74	-20.95	Pk
Vertical	4592.029	59.07	-20.42	38.66	54	-15.34	AV
Vertical	10400.077	62.54	-9.30	53.24	68.2	-14.96	Pk
Vertical	10400.077	49.55	-9.30	40.25	54	-13.75	AV
Vertical	15600.082	64.11	-7.82	56.29	74	-17.71	Pk
Vertical	15600.082	49.94	-7.82	42.12	54	-11.88	AV
Horizontal	4592.012	70.05	-20.42	49.63	74	-24.37	Pk
Horizontal	4592.012	59.59	-20.42	39.17	54	-14.83	AV
Horizontal	10400.141	61.11	-9.30	51.81	68.2	-16.39	Pk
Horizontal	10400.141	49.42	-9.30	40.12	54	-13.88	AV
Horizontal	15600.126	62.94	-7.82	55.12	74	-18.88	Pk
Horizontal	15600.126	49.86	-7.82	42.04	54	-11.96	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.143	72.74	-20.12	52.62	74	-21.38	Pk
Vertical	4739.143	59.82	-20.12	39.69	54	-14.31	AV
Vertical	10480.033	63.40	-9.18	54.22	68.2	-13.98	Pk
Vertical	10480.033	49.45	-9.18	40.27	54	-13.73	AV
Vertical	15720.171	64.22	-7.78	56.44	74	-17.56	Pk
Vertical	15720.171	49.37	-7.78	41.59	54	-12.41	AV
Horizontal	4739.035	71.11	-20.12	50.99	74	-23.01	Pk
Horizontal	4739.035	59.81	-20.12	39.69	54	-14.31	AV
Horizontal	10480.159	62.25	-9.18	53.07	68.2	-15.13	Pk
Horizontal	10480.159	49.31	-9.18	40.13	54	-13.87	AV
Horizontal	15720.021	60.11	-7.78	52.33	74	-21.67	Pk
Horizontal	15720.021	49.32	-7.78	41.54	54	-12.46	AV

Note: PK value is lower than the Average value limit, So average didn't record.
The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.
Emission level (dBuV/m) = 20 log Emission level (uV/m).
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode :	TX(5.1G) - 802.11n-HT20

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G							
Vertical	4434.161	71.88	-20.73	51.15	68.2	-17.05	Pk
Vertical	4434.161	59.25	-20.73	38.52	54	-15.48	AV
Vertical	10360.137	62.17	-9.36	52.81	68.2	-15.39	Pk
Vertical	10360.137	49.31	-9.36	39.95	54	-14.05	AV
Vertical	15540.177	61.29	-7.84	53.45	74	-20.55	Pk
Vertical	15540.177	49.82	-7.84	41.98	54	-12.02	AV
Horizontal	4434.098	70.40	-20.73	49.67	68.2	-18.53	Pk
Horizontal	4434.098	59.79	-20.73	39.06	54	-14.94	AV
Horizontal	10360.115	61.69	-9.36	52.33	68.2	-15.87	Pk
Horizontal	10360.115	49.52	-9.36	40.16	54	-13.84	AV
Horizontal	15540.153	63.88	-7.84	56.04	74	-17.96	Pk
Horizontal	15540.153	49.88	-7.84	42.04	54	-11.96	AV
middle Channel (5200 MHz)-Above 1G							
Vertical	4592.074	70.77	-20.42	50.35	74	-23.65	Pk
Vertical	4592.074	59.51	-20.42	39.09	54	-14.91	AV
Vertical	10400.118	62.93	-9.30	53.63	68.2	-14.57	Pk
Vertical	10400.118	49.20	-9.30	39.90	54	-14.10	AV
Vertical	15600.004	64.74	-7.82	56.92	74	-17.08	Pk
Vertical	15600.004	49.64	-7.82	41.82	54	-12.18	AV
Horizontal	4592.113	72.47	-20.42	52.05	74	-21.95	Pk
Horizontal	4592.113	59.24	-20.42	38.82	54	-15.18	AV
Horizontal	10400.029	63.79	-9.30	54.49	68.2	-13.71	Pk
Horizontal	10400.029	49.55	-9.30	40.25	54	-13.75	AV
Horizontal	15600.164	61.48	-7.82	53.66	74	-20.34	Pk
Horizontal	15600.164	49.94	-7.82	42.12	54	-11.88	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.166	70.97	-20.12	50.84	74	-23.16	Pk
Vertical	4739.166	59.33	-20.12	39.21	54	-14.79	AV
Vertical	10480.156	64.85	-9.18	55.67	68.2	-12.53	Pk
Vertical	10480.156	49.48	-9.18	40.30	54	-13.70	AV
Vertical	15720.090	63.11	-7.78	55.33	74	-18.67	Pk
Vertical	15720.090	49.98	-7.78	42.20	54	-11.80	AV
Horizontal	4739.106	71.51	-20.12	51.38	74	-22.62	Pk
Horizontal	4739.106	59.31	-20.12	39.19	54	-14.81	AV
Horizontal	10480.045	62.81	-9.18	53.63	68.2	-14.57	Pk
Horizontal	10480.045	49.70	-9.18	40.52	54	-13.48	AV
Horizontal	15720.034	60.10	-7.78	52.32	74	-21.68	Pk
Horizontal	15720.034	49.97	-7.78	42.19	54	-11.81	AV

Note: PK value is lower than the Average value limit, So average didn't record.
The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.
Emission level (dBuV/m) = 20 log Emission level (uV/m).
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode :	TX(5.1G) - 802.11n-HT40

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5190 MHz)-Above 1G							
Vertical	4434.062	72.50	-20.73	51.76	68.2	-16.44	Pk
Vertical	4434.062	59.64	-20.73	38.91	54	-15.09	AV
Vertical	10380.181	64.71	-9.33	55.38	68.2	-12.82	Pk
Vertical	10380.181	49.24	-9.33	39.91	54	-14.09	AV
Vertical	15570.037	64.87	-7.83	57.04	74	-16.96	Pk
Vertical	15570.037	49.44	-7.83	41.61	54	-12.39	AV
Horizontal	4434.014	71.90	-20.73	51.17	74	-22.83	Pk
Horizontal	4434.014	59.17	-20.73	38.44	54	-15.56	AV
Horizontal	10380.120	63.58	-9.33	54.25	68.2	-13.95	Pk
Horizontal	10380.120	49.98	-9.33	40.65	54	-13.35	AV
Horizontal	15570.135	63.44	-7.83	55.61	74	-18.39	Pk
Horizontal	15570.135	49.28	-7.83	41.45	54	-12.55	AV
middle Channel (5230 MHz)-Above 1G							
Vertical	4739.194	71.81	-20.12	51.69	68.2	-16.51	Pk
Vertical	4739.194	59.05	-20.12	38.92	54	-15.08	AV
Vertical	10460.041	62.61	-9.21	53.40	68.2	-14.80	Pk
Vertical	10460.041	49.38	-9.21	40.17	54	-13.83	AV
Vertical	15690.200	62.28	-7.79	54.49	74	-19.51	Pk
Vertical	15690.200	49.62	-7.79	41.83	54	-12.17	AV
Horizontal	4739.062	74.42	-20.12	54.30	68.2	-13.90	Pk
Horizontal	4739.062	59.34	-20.12	39.21	54	-14.79	AV
Horizontal	10460.022	61.69	-9.21	52.48	68.2	-15.72	Pk
Horizontal	10460.022	49.75	-9.21	40.54	54	-13.46	AV
Horizontal	15690.167	63.17	-7.79	55.38	74	-18.62	Pk
Horizontal	15690.167	49.88	-7.79	42.09	54	-11.91	AV

Note: PK value is lower than the Average value limit, So average didn't record.
The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.
Emission level (dBuV/m) = 20 log Emission level (uV/m).
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode:	TX(5.1G) - 802.11ac-HT20

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G							
Vertical	4434.082	74.44	-20.73	53.70	68.2	-14.50	Pk
Vertical	4434.082	59.94	-20.73	39.21	54	-14.79	AV
Vertical	10360.027	64.68	-9.36	55.32	68.2	-12.88	Pk
Vertical	10360.027	49.72	-9.36	40.36	54	-13.64	AV
Vertical	15540.074	63.52	-7.84	55.68	74	-18.32	Pk
Vertical	15540.074	49.31	-7.84	41.47	54	-12.53	AV
Horizontal	4434.109	73.27	-20.73	52.54	68.2	-15.66	Pk
Horizontal	4434.109	59.32	-20.73	38.59	54	-15.41	AV
Horizontal	10360.045	64.08	-9.36	54.72	68.2	-13.48	Pk
Horizontal	10360.045	49.62	-9.36	40.26	54	-13.74	AV
Horizontal	15540.003	62.60	-7.84	54.76	74	-19.24	Pk
Horizontal	15540.003	49.57	-7.84	41.73	54	-12.27	AV
middle Channel (5200 MHz)-Above 1G							
Vertical	4592.051	70.40	-20.42	49.98	74	-24.02	Pk
Vertical	4592.051	59.40	-20.42	38.98	54	-15.02	AV
Vertical	10400.096	63.88	-9.30	54.58	68.2	-13.62	Pk
Vertical	10400.096	49.70	-9.30	40.40	54	-13.60	AV
Vertical	15600.183	61.32	-7.82	53.50	74	-20.50	Pk
Vertical	15600.183	49.07	-7.82	41.25	54	-12.75	AV
Horizontal	4592.049	71.37	-20.42	50.95	74	-23.05	Pk
Horizontal	4592.049	59.36	-20.42	38.94	54	-15.06	AV
Horizontal	10400.033	63.13	-9.30	53.83	68.2	-14.37	Pk
Horizontal	10400.033	49.72	-9.30	40.42	54	-13.58	AV
Horizontal	15600.152	63.01	-7.82	55.19	74	-18.81	Pk
Horizontal	15600.152	49.60	-7.82	41.78	54	-12.22	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.127	72.30	-20.12	52.18	74	-21.82	Pk
Vertical	4739.127	59.93	-20.12	39.81	54	-14.19	AV
Vertical	10480.125	64.20	-9.18	55.02	68.2	-13.18	Pk
Vertical	10480.125	49.13	-9.18	39.95	54	-14.05	AV
Vertical	15720.102	64.38	-7.78	56.60	74	-17.40	Pk
Vertical	15720.102	49.94	-7.78	42.16	54	-11.84	AV
Horizontal	4739.051	72.98	-20.12	52.86	74	-21.14	Pk
Horizontal	4739.051	59.03	-20.12	38.91	54	-15.09	AV
Horizontal	10480.148	64.03	-9.18	54.85	68.2	-13.35	Pk
Horizontal	10480.148	49.04	-9.18	39.86	54	-14.14	AV
Horizontal	15720.053	61.54	-7.78	53.76	74	-20.24	Pk
Horizontal	15720.053	49.08	-7.78	41.30	54	-12.70	AV

Note: PK value is lower than the Average value limit, So average didn't record.
The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.
Emission level (dBuV/m) = 20 log Emission level (uV/m).
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode:	TX(5.1G) - 802.11ac-HT40

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5190 MHz)-Above 1G							
Vertical	4434.004	72.33	-20.73	51.60	68.2	-16.60	Pk
Vertical	4434.004	59.09	-20.73	38.35	54	-15.65	AV
Vertical	10380.044	60.11	-9.33	50.78	68.2	-17.42	Pk
Vertical	10380.044	49.72	-9.33	40.39	54	-13.61	AV
Vertical	15570.027	60.63	-7.83	52.80	74	-21.20	Pk
Vertical	15570.027	49.80	-7.83	41.97	54	-12.03	AV
Horizontal	4434.051	70.31	-20.73	49.57	74	-24.43	Pk
Horizontal	4434.051	59.97	-20.73	39.24	54	-14.76	AV
Horizontal	10380.033	64.92	-9.33	55.59	68.2	-12.61	Pk
Horizontal	10380.033	49.62	-9.33	40.29	54	-13.71	AV
Horizontal	15570.008	63.30	-7.83	55.47	74	-18.53	Pk
Horizontal	15570.008	49.33	-7.83	41.50	54	-12.50	AV
middle Channel (5230 MHz)-Above 1G							
Vertical	4739.057	71.54	-20.12	51.42	68.2	-16.78	Pk
Vertical	4739.057	59.27	-20.12	39.15	54	-14.85	AV
Vertical	10460.126	63.75	-9.21	54.54	68.2	-13.66	Pk
Vertical	10460.126	49.03	-9.21	39.82	54	-14.18	AV
Vertical	15690.125	62.79	-7.79	55.00	74	-19.00	Pk
Vertical	15690.125	49.50	-7.79	41.71	54	-12.29	AV
Horizontal	4739.056	74.13	-20.12	54.00	68.2	-14.20	Pk
Horizontal	4739.056	59.74	-20.12	39.62	54	-14.38	AV
Horizontal	10460.058	63.86	-9.21	54.65	68.2	-13.55	Pk
Horizontal	10460.058	49.73	-9.21	40.52	54	-13.48	AV
Horizontal	15690.152	61.09	-7.79	53.30	74	-20.70	Pk
Horizontal	15690.152	49.94	-7.79	42.15	54	-11.85	AV

Note: PK value is lower than the Average value limit, So average didn't record.
The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.
Emission level (dBuV/m) = 20 log Emission level (uV/m).
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode:	TX(5.1G) - 802.11ac-HT80

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
(5210 MHz)-Above 1G							
Vertical	4434.169	70.07	-20.73	49.34	68.2	-18.86	Pk
Vertical	4434.169	59.45	-20.73	38.72	54	-15.28	AV
Vertical	10420.128	60.48	-9.27	51.21	68.2	-16.99	Pk
Vertical	10420.128	49.85	-9.27	40.58	54	-13.42	AV
Vertical	15630.144	64.70	-7.81	56.89	74	-17.11	Pk
Vertical	15630.144	49.54	-7.81	41.73	54	-12.27	AV
Horizontal	4434.062	74.35	-20.73	53.62	68.2	-14.58	Pk
Horizontal	4434.062	59.69	-20.73	38.96	54	-15.04	AV
Horizontal	10420.172	60.82	-9.27	51.55	68.2	-16.65	Pk
Horizontal	10420.172	49.36	-9.27	40.09	54	-13.91	AV
Horizontal	15630.064	61.24	-7.81	53.43	74	-20.57	Pk
Horizontal	15630.064	49.86	-7.81	42.05	54	-11.95	AV

Note: PK value is lower than the Average value limit, So average didn't record.
The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.
Emission level (dBuV/m) = 20 log Emission level (uV/m).
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

- ☒Undesirable radiated Undesirable radiated Spurious Emission in Band Edge
- All the modes 802.11a/n/ac has been tested and the worst result 802.11ac recorded as below:

Test mode: 802.11ac Frequency(MHz): 5180

Frequency (MHz)	Polarity	PK(dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	AV(dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)
5149.68	H	67.41	74	50.63	54
5149.84	V	58.08	74	45.93	54

Test mode: 802.11ac Frequency(MHz): 5240

Frequency (MHz)	Polarity	PK(dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	AV(dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)
5372.31	H	57.04	74	45.36	54
5356.29	V	55.02	74	43.29	54

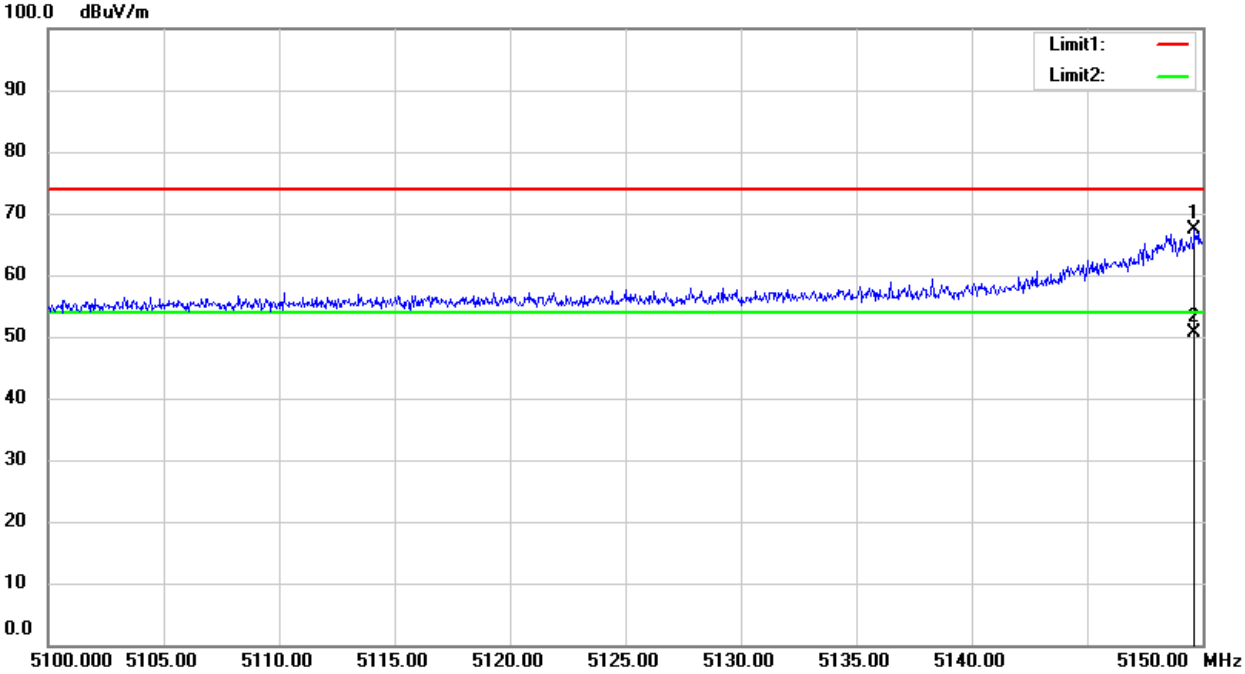
Note: (1) All Readings are Peak Value (VBW=3MHz) and Average Value (VBW=10Hz).
(2) Emission Level= Reading Level+Correct Factor.
(3) Correct Factor= Ant_F + Cab_L - Preamp

U-NII - 1

Test Model Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)

☒802.11ac ☐802.11n(HT20) ☐802.11n(HT40)

☒5180 ☐5200 ☐5240 Ant.Pol H

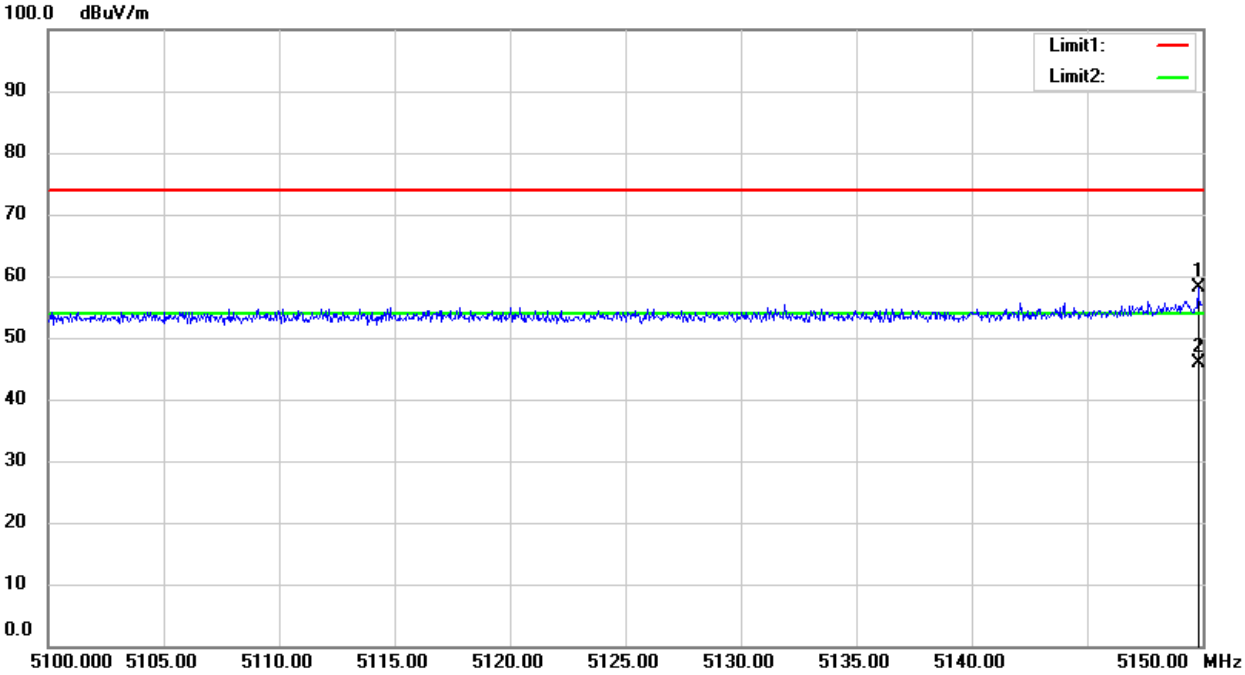


U-NII - 1

Test Model Undesirable radiated Spurious Emission in Restricted Band (5100-5150MHz)

☒802.11ac ☐802.11n(HT20) ☐802.11n(HT40)

☒5180 ☐5200 ☐5240 Ant.Pol V

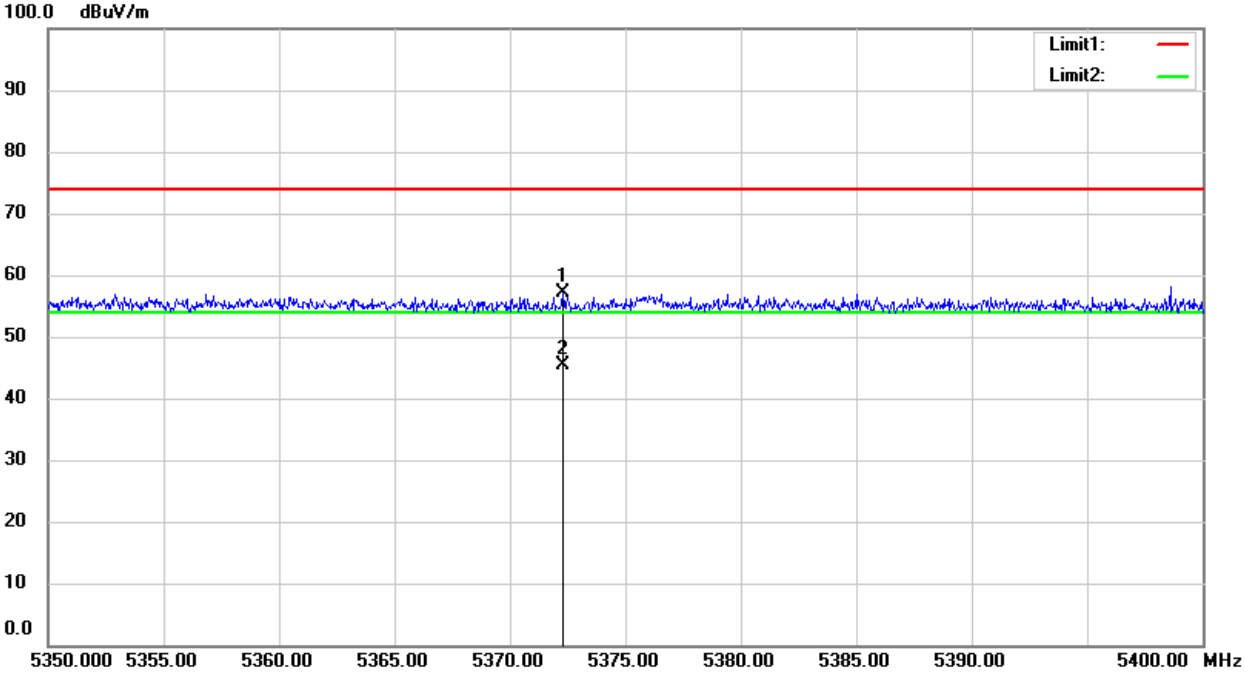


U-NII - 1

Test Model Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)

☒802.11ac ☐802.11n(HT20) ☐802.11n(HT40)

☐5180 ☐5200 ☒5240 Ant.Pol H

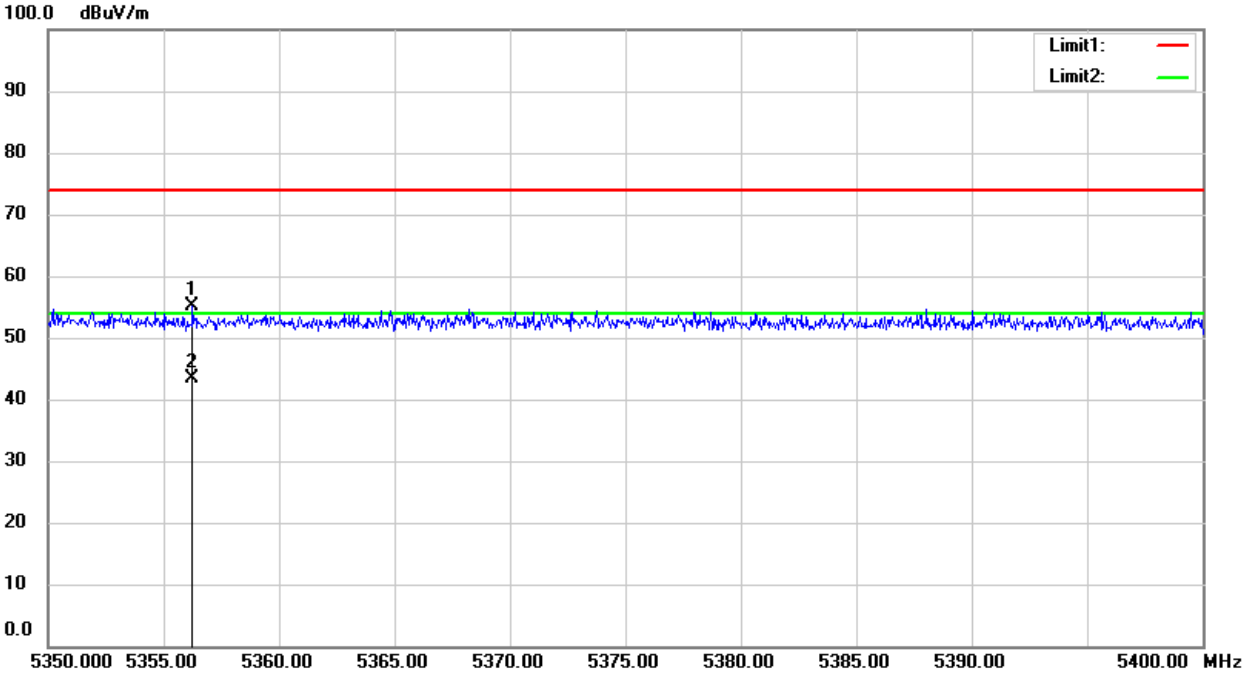


U-NII - 1

Test Model Undesirable radiated Spurious Emission in Restricted Band (5350-5400MHz)

☒802.11ac ☐802.11n(HT20) ☐802.11n(HT40)

☐5180 ☐5200 ☒5240 Ant.Pol V



Test Mode:	TX(5.8G) - 802.11a

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
Vertical	4679.013	71.37	-20.24	51.13	74	-22.87	Pk
Vertical	4679.013	59.59	-20.24	39.35	54	-14.65	AV
Vertical	11490.174	63.46	-8.79	54.67	68.2	-13.53	Pk
Vertical	11490.174	49.19	-8.79	40.40	54	-13.60	AV
Vertical	17235.159	57.46	-3.18	54.28	68.2	-13.92	Pk
Vertical	17235.159	44.90	-3.18	41.72	54	-12.28	AV
Horizontal	4679.042	72.51	-20.73	51.78	74	-22.22	Pk
Horizontal	4679.042	59.70	-20.73	38.97	54	-15.03	AV
Horizontal	11490.117	63.26	-8.79	54.47	68.2	-13.73	Pk
Horizontal	11490.117	49.94	-8.79	41.15	54	-12.85	AV
Horizontal	17235.175	55.80	-3.18	52.62	68.2	-15.58	Pk
Horizontal	17235.175	44.11	-3.18	40.93	54	-13.07	AV
middle Channel (5785 MHz)-Above 1G							
Vertical	4592.133	74.05	-20.42	53.64	74	-20.36	Pk
Vertical	4592.133	59.47	-20.42	39.06	54	-14.94	AV
Vertical	11570.151	64.13	-8.86	55.27	68.2	-12.93	Pk
Vertical	11570.151	49.64	-8.86	40.78	54	-13.22	AV
Vertical	17355.123	58.92	-2.52	56.40	68.2	-11.80	Pk
Vertical	17355.123	44.81	-2.52	42.29	54	-11.71	AV
Horizontal	4592.045	74.55	-20.42	54.14	74	-19.86	Pk
Horizontal	4592.045	59.16	-20.42	38.75	54	-15.25	AV
Horizontal	11570.118	64.35	-8.86	55.49	68.2	-12.71	Pk
Horizontal	11570.118	49.63	-8.86	40.77	54	-13.23	AV
Horizontal	17355.112	59.95	-2.52	57.43	68.2	-10.77	Pk
Horizontal	17355.112	44.56	-2.52	42.04	54	-11.96	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.157	71.81	-18.93	52.87	68.2	-15.33	Pk
Vertical	6039.157	59.22	-18.93	40.29	54	-13.71	AV
Vertical	11650.015	62.58	-8.92	53.66	74	-20.34	Pk
Vertical	11650.015	49.51	-8.92	40.59	54	-13.41	AV
Vertical	17475.029	59.51	-1.86	57.65	68.2	-10.55	Pk
Vertical	17475.029	44.53	-1.86	42.67	54	-11.33	AV
Horizontal	6039.136	74.46	-18.93	55.53	68.2	-12.67	Pk
Horizontal	6039.136	59.81	-18.93	40.88	54	-13.12	AV
Horizontal	11650.112	64.21	-8.92	55.29	74	-18.71	Pk
Horizontal	11650.112	49.86	-8.92	40.94	54	-13.06	AV
Horizontal	17475.061	55.88	-1.86	54.02	68.2	-14.18	Pk
Horizontal	17475.061	44.26	-1.86	42.40	54	-11.60	AV

Note: PK value is lower than the Average value limit, So average didn't record.
The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.
Emission level (dBuV/m) = 20 log Emission level (uV/m).
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode:	TX(5.8G) - 802.11n-HT20

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
Vertical	4679.108	73.37	-20.24	53.13	74	-20.87	Pk
Vertical	4679.108	59.20	-20.24	38.96	54	-15.04	AV
Vertical	11490.164	62.19	-8.79	53.40	68.2	-14.80	Pk
Vertical	11490.164	49.69	-8.79	40.90	54	-13.10	AV
Vertical	17235.112	57.68	-3.18	54.50	68.2	-13.70	Pk
Vertical	17235.112	44.91	-3.18	41.73	54	-12.27	AV
Horizontal	4679.194	72.93	-20.73	52.20	74	-21.80	Pk
Horizontal	4679.194	59.89	-20.73	39.16	54	-14.84	AV
Horizontal	11490.040	60.54	-8.79	51.75	68.2	-16.45	Pk
Horizontal	11490.040	49.91	-8.79	41.12	54	-12.88	AV
Horizontal	17235.148	57.60	-3.18	54.42	68.2	-13.78	Pk
Horizontal	17235.148	44.28	-3.18	41.10	54	-12.90	AV
middle Channel (5785 MHz)-Above 1G							
Vertical	4592.121	70.53	-20.42	50.12	74	-23.88	Pk
Vertical	4592.121	59.88	-20.42	39.47	54	-14.53	AV
Vertical	11570.130	60.10	-8.86	51.24	68.2	-16.96	Pk
Vertical	11570.130	49.63	-8.86	40.77	54	-13.23	AV
Vertical	17355.056	59.04	-2.52	56.52	68.2	-11.68	Pk
Vertical	17355.056	44.50	-2.52	41.98	54	-12.02	AV
Horizontal	4592.146	70.81	-20.42	50.40	74	-23.60	Pk
Horizontal	4592.146	59.07	-20.42	38.66	54	-15.34	AV
Horizontal	11570.153	61.95	-8.86	53.09	68.2	-15.11	Pk
Horizontal	11570.153	49.53	-8.86	40.67	54	-13.33	AV
Horizontal	17355.179	57.13	-2.52	54.61	68.2	-13.59	Pk
Horizontal	17355.179	44.68	-2.52	42.16	54	-11.84	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.031	70.53	-18.93	51.60	68.2	-16.60	Pk
Vertical	6039.031	59.32	-18.93	40.39	54	-13.61	AV
Vertical	11650.057	63.96	-8.92	55.04	74	-18.96	Pk
Vertical	11650.057	49.11	-8.92	40.19	54	-13.81	AV
Vertical	17475.040	58.44	-1.86	56.58	68.2	-11.62	Pk
Vertical	17475.040	44.42	-1.86	42.56	54	-11.44	AV
Horizontal	6039.188	72.62	-18.93	53.69	68.2	-14.51	Pk
Horizontal	6039.188	59.11	-18.93	40.17	54	-13.83	AV
Horizontal	11650.198	60.29	-8.92	51.37	74	-22.63	Pk
Horizontal	11650.198	49.86	-8.92	40.94	54	-13.06	AV
Horizontal	17475.098	59.72	-1.86	57.86	68.2	-10.34	Pk
Horizontal	17475.098	44.44	-1.86	42.58	54	-11.42	AV

Note: PK value is lower than the Average value limit, So average didn't record.
The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.
Emission level (dBuV/m) = 20 log Emission level (uV/m).
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode:	TX(5.8G) - 802.11n-HT40

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5755 MHz)-Above 1G							
Vertical	4679.036	74.41	-20.24	54.17	74	-19.83	Pk
Vertical	4679.036	59.77	-20.24	39.53	54	-14.47	AV
Vertical	11510.115	60.80	-8.81	51.99	74	-22.01	Pk
Vertical	11510.115	49.61	-8.81	40.80	54	-13.20	AV
Vertical	17265.014	56.63	-3.01	53.62	68.2	-14.58	Pk
Vertical	17265.014	44.48	-3.01	41.47	54	-12.53	AV
Horizontal	4679.141	73.00	-20.24	52.76	74	-21.24	Pk
Horizontal	4679.141	59.04	-20.24	38.79	54	-15.21	AV
Horizontal	11510.047	64.08	-8.81	55.27	74	-18.73	Pk
Horizontal	11510.047	49.74	-8.81	40.93	54	-13.07	AV
Horizontal	17265.050	57.25	-3.01	54.24	68.2	-13.96	Pk
Horizontal	17265.050	44.93	-3.01	41.92	54	-12.08	AV
middle Channel (5795 MHz)-Above 1G							
Vertical	6039.163	72.87	-18.93	53.94	68.2	-14.26	Pk
Vertical	6039.163	59.02	-18.93	40.09	54	-13.91	AV
Vertical	11590.178	62.20	-8.87	53.33	74	-20.67	Pk
Vertical	11590.178	49.55	-8.87	40.68	54	-13.32	AV
Vertical	17385.056	56.66	-2.35	54.31	68.2	-13.89	Pk
Vertical	17385.056	44.54	-2.35	42.19	54	-11.81	AV
Horizontal	6039.127	73.72	-18.93	54.79	68.2	-13.41	Pk
Horizontal	6039.127	59.46	-18.93	40.53	54	-13.47	AV
Horizontal	11590.013	63.73	-8.87	54.86	74	-19.14	Pk
Horizontal	11590.013	49.80	-8.87	40.93	54	-13.07	AV
Horizontal	17385.128	56.64	-2.35	54.29	68.2	-13.91	Pk
Horizontal	17385.128	44.18	-2.35	41.83	54	-12.17	AV

Note: PK value is lower than the Average value limit, So average didn't record.
The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.
Emission level (dBuV/m) = 20 log Emission level (uV/m).
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode:	TX(5.8G) - 802.11ac-HT20

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
Vertical	4679.046	74.37	-20.24	54.13	74	-19.87	Pk
Vertical	4679.046	59.47	-20.24	39.23	54	-14.77	AV
Vertical	11490.124	64.58	-8.79	55.79	68.2	-12.41	Pk
Vertical	11490.124	49.95	-8.79	41.16	54	-12.84	AV
Vertical	17235.199	59.06	-3.18	55.88	68.2	-12.32	Pk
Vertical	17235.199	44.26	-3.18	41.08	54	-12.92	AV
Horizontal	4679.124	71.33	-20.73	50.60	74	-23.40	Pk
Horizontal	4679.124	59.93	-20.73	39.20	54	-14.80	AV
Horizontal	11490.112	61.56	-8.79	52.77	68.2	-15.43	Pk
Horizontal	11490.112	49.43	-8.79	40.64	54	-13.36	AV
Horizontal	17235.188	57.97	-3.18	54.79	68.2	-13.41	Pk
Horizontal	17235.188	44.60	-3.18	41.42	54	-12.58	AV
middle Channel (5785 MHz)-Above 1G							
Vertical	4592.171	72.50	-20.42	52.08	74	-21.92	Pk
Vertical	4592.171	59.83	-20.42	39.41	54	-14.59	AV
Vertical	11570.080	64.78	-8.86	55.92	68.2	-12.28	Pk
Vertical	11570.080	49.85	-8.86	40.99	54	-13.01	AV
Vertical	17355.020	59.42	-2.52	56.90	68.2	-11.30	Pk
Vertical	17355.020	44.88	-2.52	42.36	54	-11.64	AV
Horizontal	4592.007	71.69	-20.42	51.27	74	-22.73	Pk
Horizontal	4592.007	59.61	-20.42	39.20	54	-14.80	AV
Horizontal	11570.147	60.79	-8.86	51.93	68.2	-16.27	Pk
Horizontal	11570.147	49.93	-8.86	41.07	54	-12.93	AV
Horizontal	17355.107	59.10	-2.52	56.58	68.2	-11.62	Pk
Horizontal	17355.107	44.38	-2.52	41.86	54	-12.14	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.044	73.38	-18.93	54.45	68.2	-13.75	Pk
Vertical	6039.044	59.65	-18.93	40.72	54	-13.28	AV
Vertical	11650.043	60.10	-8.92	51.18	74	-22.82	Pk
Vertical	11650.043	49.77	-8.92	40.85	54	-13.15	AV
Vertical	17475.035	57.95	-1.86	56.09	68.2	-12.11	Pk
Vertical	17475.035	44.39	-1.86	42.53	54	-11.47	AV
Horizontal	6039.013	70.76	-18.93	51.83	68.2	-16.37	Pk
Horizontal	6039.013	59.99	-18.93	41.06	54	-12.94	AV
Horizontal	11650.029	63.21	-8.92	54.29	74	-19.71	Pk
Horizontal	11650.029	49.50	-8.92	40.58	54	-13.42	AV
Horizontal	17475.197	57.59	-1.86	55.73	68.2	-12.47	Pk
Horizontal	17475.197	44.42	-1.86	42.56	54	-11.44	AV

Note: PK value is lower than the Average value limit, So average didn't record.
The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.
Emission level (dBuV/m) = 20 log Emission level (uV/m).
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode:	TX(5.8G) - 802.11ac-HT40

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5755 MHz)-Above 1G							
Vertical	4679.001	70.85	-20.24	50.60	74	-23.40	Pk
Vertical	4679.001	59.48	-20.24	39.24	54	-14.76	AV
Vertical	11510.073	64.26	-8.81	55.45	74	-18.55	Pk
Vertical	11510.073	49.46	-8.81	40.65	54	-13.35	AV
Vertical	17265.060	59.98	-3.01	56.97	68.2	-11.23	Pk
Vertical	17265.060	44.71	-3.01	41.70	54	-12.30	AV
Horizontal	4679.104	72.46	-20.24	52.22	74	-21.78	Pk
Horizontal	4679.104	59.21	-20.24	38.97	54	-15.03	AV
Horizontal	11510.032	61.18	-8.81	52.37	74	-21.63	Pk
Horizontal	11510.032	49.61	-8.81	40.80	54	-13.20	AV
Horizontal	17265.026	55.27	-3.01	52.26	68.2	-15.94	Pk
Horizontal	17265.026	44.10	-3.01	41.09	54	-12.91	AV
middle Channel (5795 MHz)-Above 1G							
Vertical	6039.143	72.67	-18.93	53.73	68.2	-14.47	Pk
Vertical	6039.143	59.20	-18.93	40.26	54	-13.74	AV
Vertical	11590.166	60.75	-8.87	51.88	74	-22.12	Pk
Vertical	11590.166	49.43	-8.87	40.56	54	-13.44	AV
Vertical	17385.175	56.58	-2.35	54.23	68.2	-13.97	Pk
Vertical	17385.175	44.35	-2.35	42.00	54	-12.00	AV
Horizontal	6039.057	73.76	-18.93	54.82	68.2	-13.38	Pk
Horizontal	6039.057	59.61	-18.93	40.68	54	-13.32	AV
Horizontal	11590.106	64.51	-8.87	55.64	74	-18.36	Pk
Horizontal	11590.106	49.61	-8.87	40.74	54	-13.26	AV
Horizontal	17385.029	56.15	-2.35	53.80	68.2	-14.40	Pk
Horizontal	17385.029	44.39	-2.35	42.04	54	-11.96	AV

Note: PK value is lower than the Average value limit, So average didn't record.
The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.
Emission level (dBuV/m) = 20 log Emission level (uV/m).
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

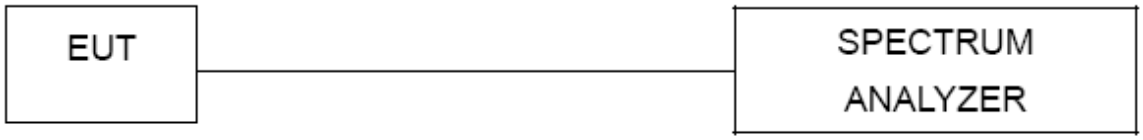
Test Mode:	TX(5.8G) - 802.11ac-HT80

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
(5775 MHz)-Above 1G							
Vertical	4679.074	71.87	-20.24	51.63	74	-22.37	Pk
Vertical	4679.074	59.02	-20.24	38.78	54	-15.22	AV
Vertical	11550.179	62.15	-8.84	53.31	74	-20.69	Pk
Vertical	11550.179	49.92	-8.84	41.08	54	-12.92	AV
Vertical	17325.084	56.85	-2.68	54.17	68.2	-14.03	Pk
Vertical	17325.084	44.87	-2.68	42.19	54	-11.81	AV
Horizontal	4679.079	71.93	-20.24	51.69	74	-22.31	Pk
Horizontal	4679.079	59.82	-20.24	39.58	54	-14.42	AV
Horizontal	11550.189	64.32	-8.84	55.48	74	-18.52	Pk
Horizontal	11550.189	49.11	-8.84	40.27	54	-13.73	AV
Horizontal	17325.002	55.30	-2.68	52.62	68.2	-15.58	Pk
Horizontal	17325.002	44.09	-2.68	41.41	54	-12.59	AV

Note: PK value is lower than the Average value limit, So average didn't record.
The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.
Emission level (dBuV/m) = 20 log Emission level (uV/m).
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

8. Power Spectral Density Test

8.1 Block Diagram Of Test Setup



8.2 Limit

For the band 5.15-5.25 GHz,
(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).
(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz

(3)For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

8.3 Test Procedure

For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 KHz bandwidth, the following adjustments to the procedures apply:
a) Set RBW ≥ 1/T, where T is defined in section II.B.I.a).
b) Set VBW ≥ 3 RBW.
c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10log(500kHz/RBW) to the measured result, whereas RBW (< 500 KHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add 10log(1MHz/RBW) to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.
e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

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

8.4 EUT Operating Conditions

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

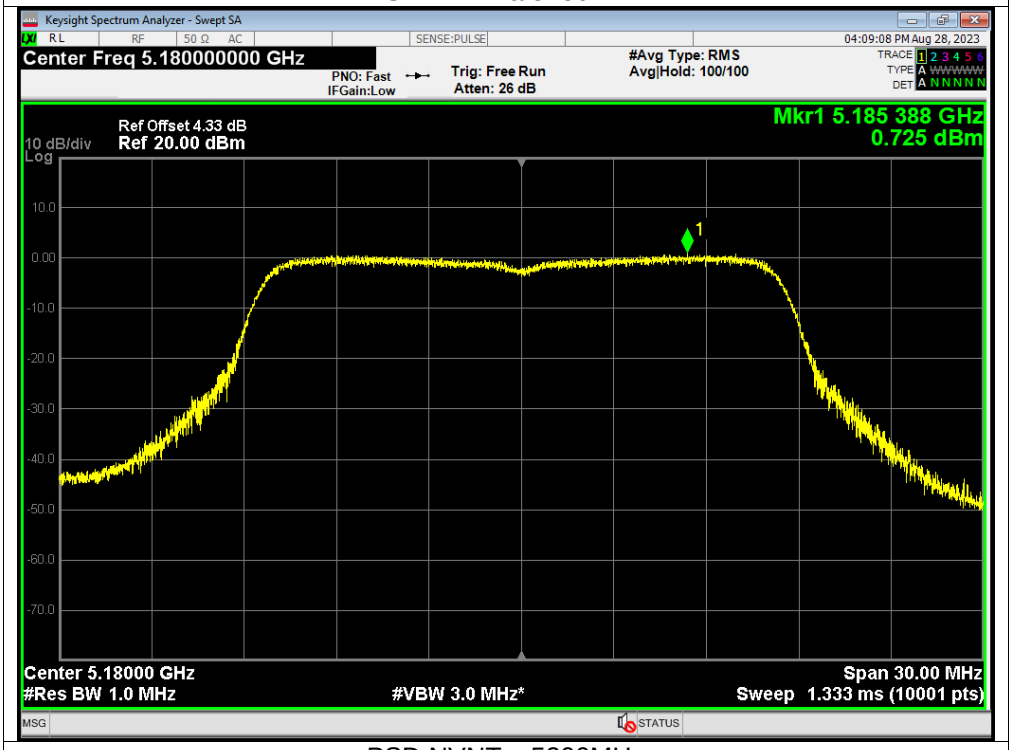
8.5 Test Result

Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 12V
Test Mode:	(5180-5240MHz)		

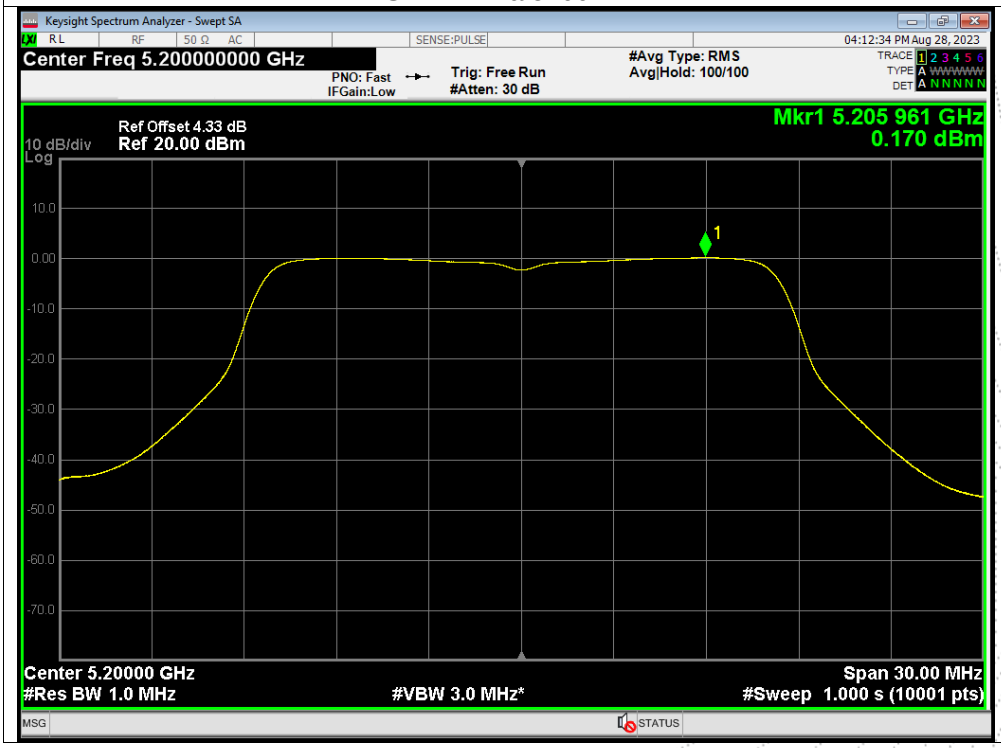
Condition	Mode	Frequency (MHz)	Conducted PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5180	0.73	11	Pass
NVNT	a	5200	0.17	11	Pass
NVNT	a	5240	0.14	11	Pass
NVNT	n20	5180	0.44	11	Pass
NVNT	n20	5200	0.38	11	Pass
NVNT	n20	5240	-0.3	11	Pass
NVNT	n40	5190	-5.48	11	Pass
NVNT	n40	5230	-2.66	11	Pass
NVNT	ac20	5180	-0.6	11	Pass
NVNT	ac20	5200	1.33	11	Pass
NVNT	ac20	5240	-0.15	11	Pass
NVNT	ac40	5190	-6.33	11	Pass
NVNT	ac40	5230	-2.92	11	Pass
NVNT	ac80	5210	-10.53	11	Pass

Test Graphs

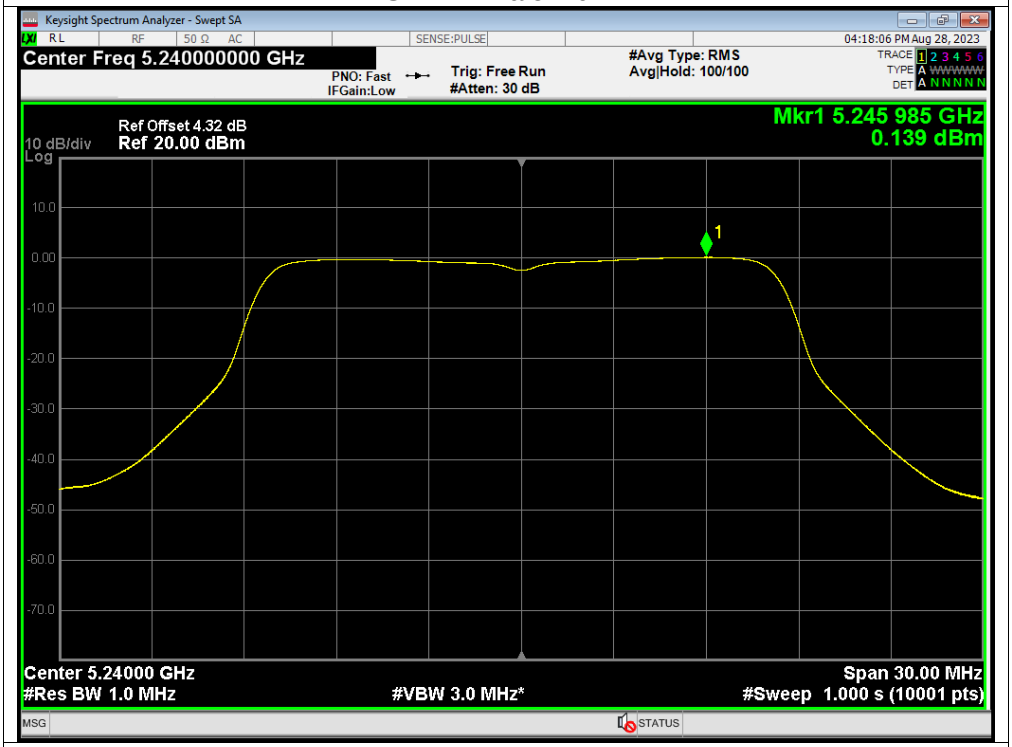
PSD NVNT a 5180MHz



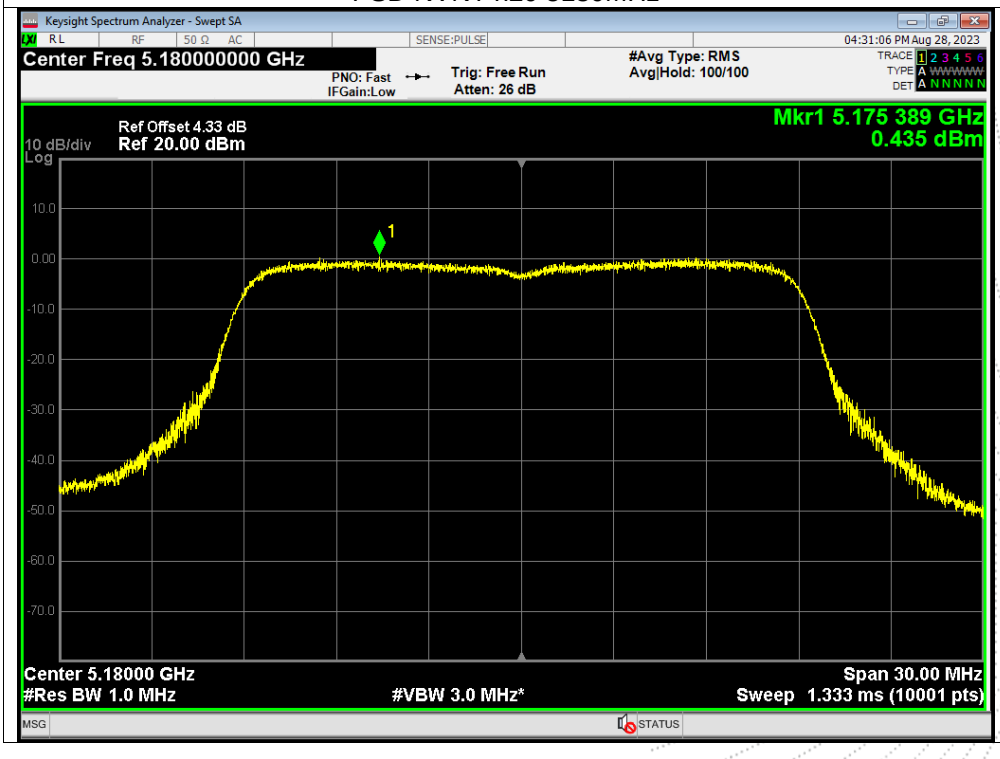
PSD NVNT a 5200MHz



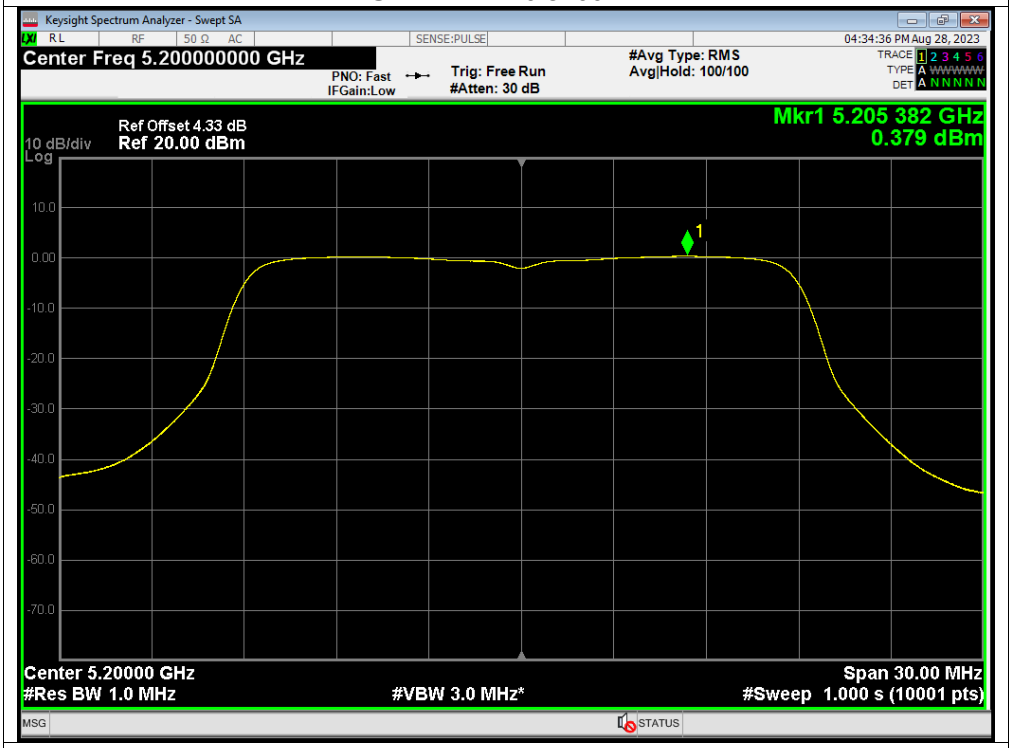
PSD NVNT a 5240MHz



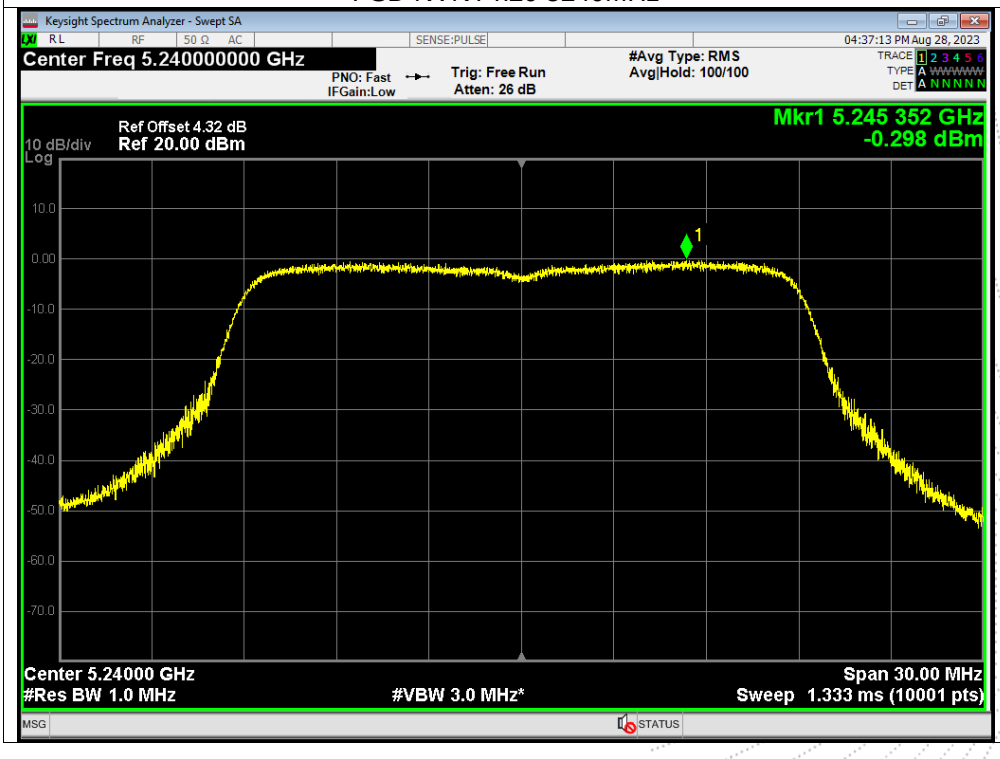
PSD NVNT n20 5180MHz



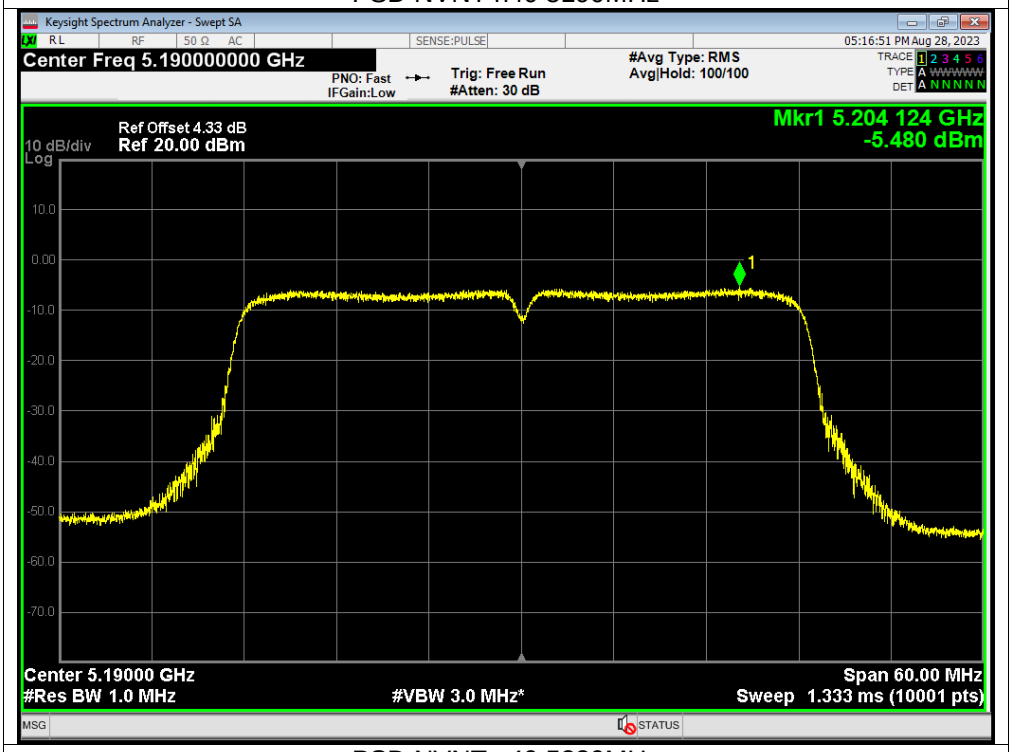
PSD NVNT n20 5200MHz



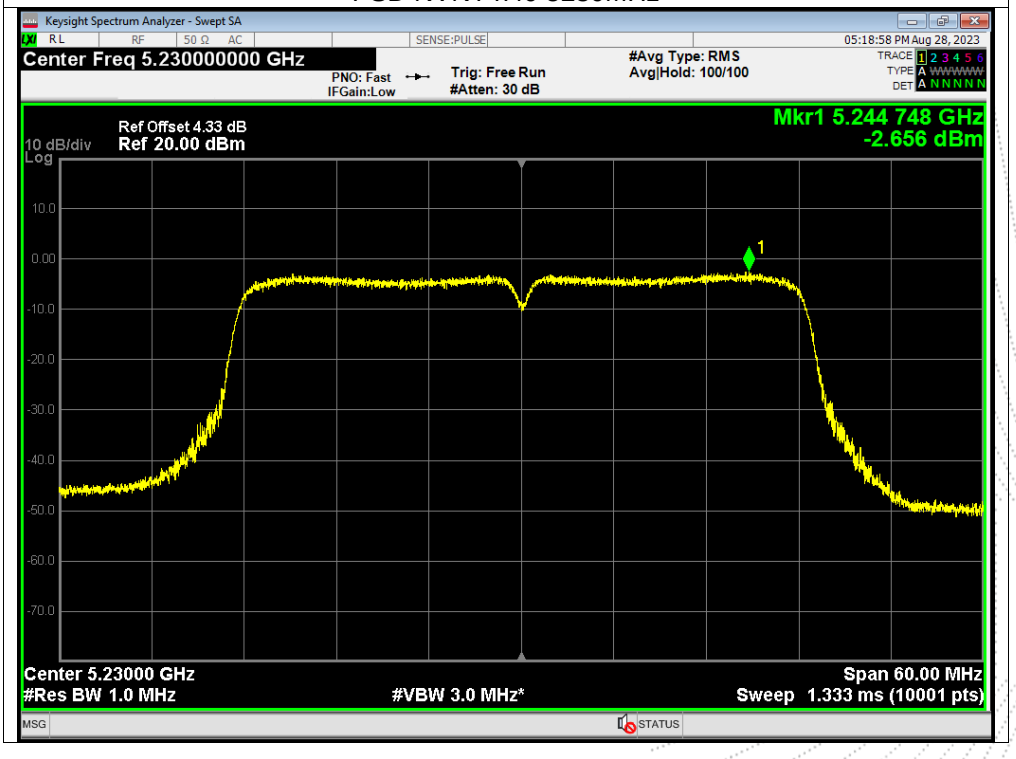
PSD NVNT n20 5240MHz



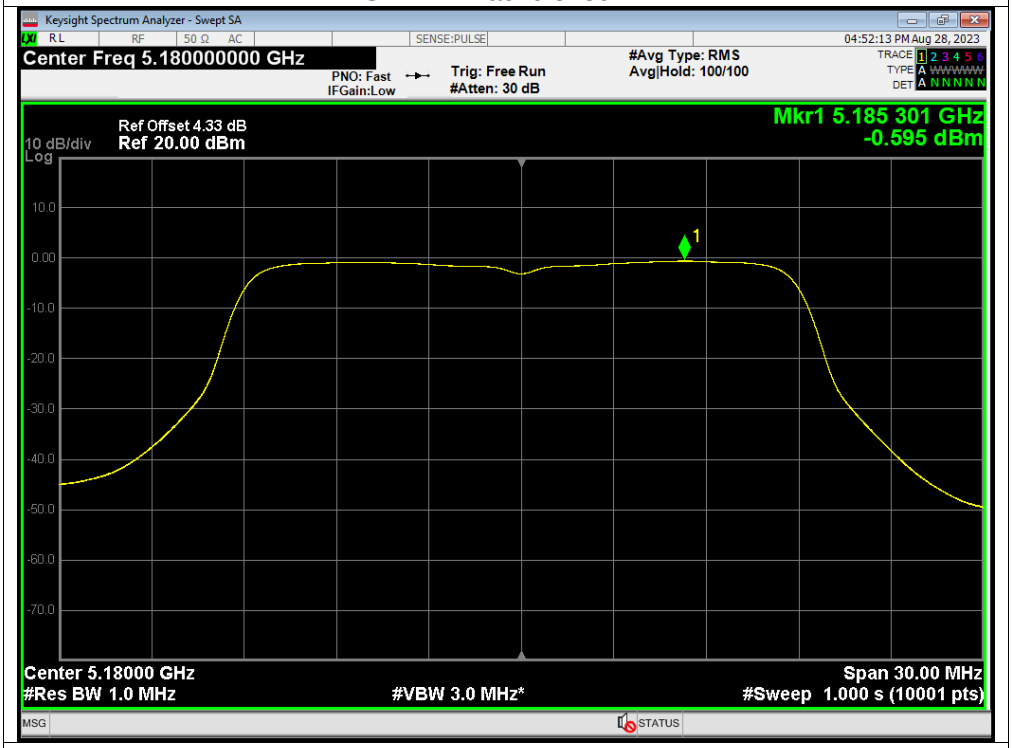
PSD NVNT n40 5190MHz



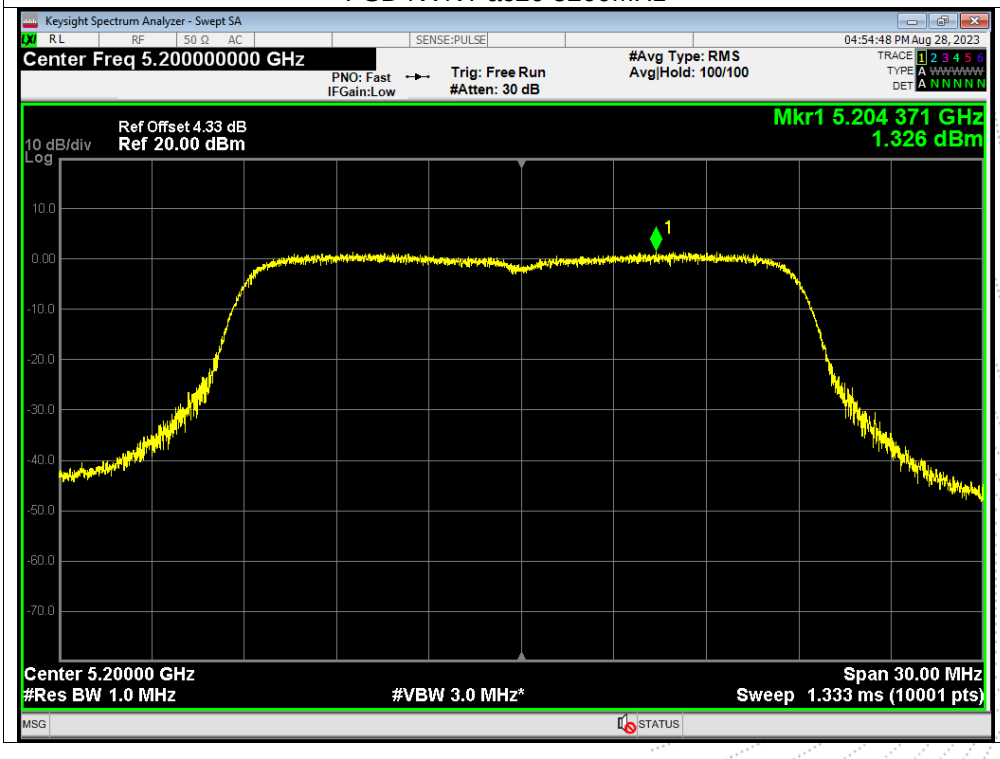
PSD NVNT n40 5230MHz



PSD NVNT ac20 5180MHz



PSD NVNT ac20 5200MHz



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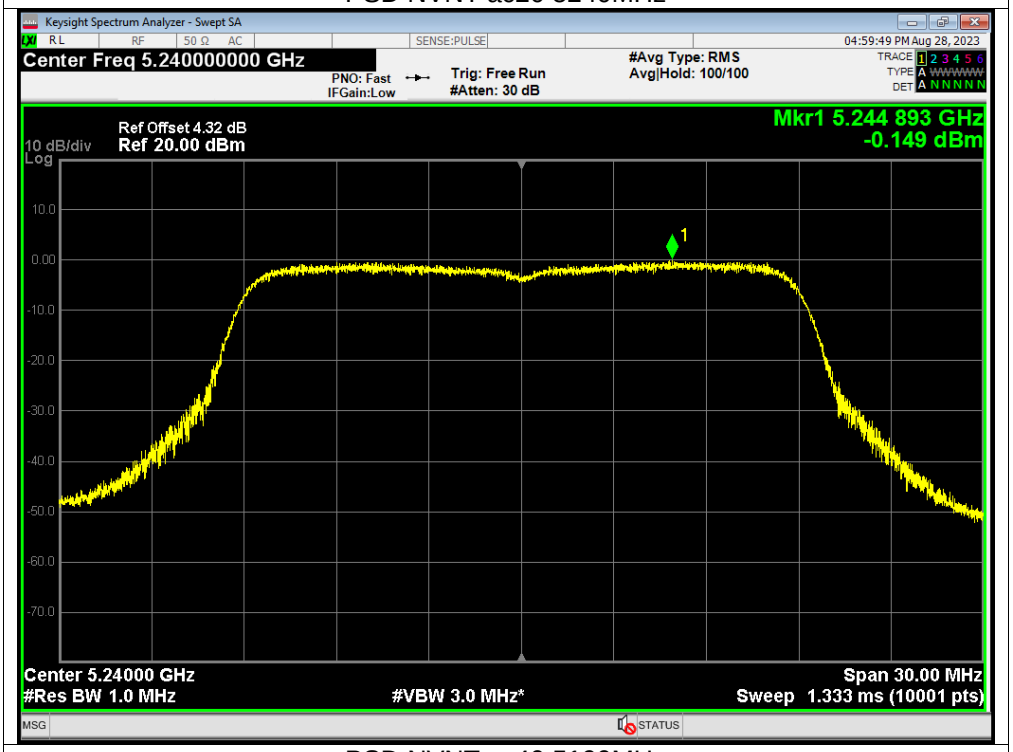
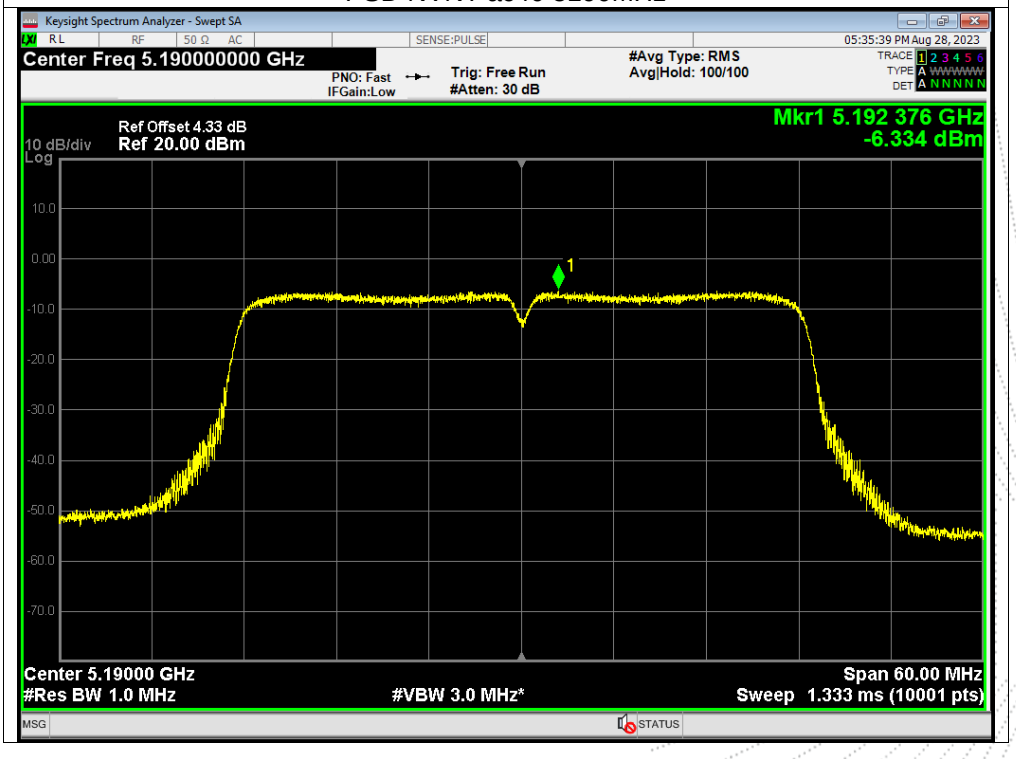
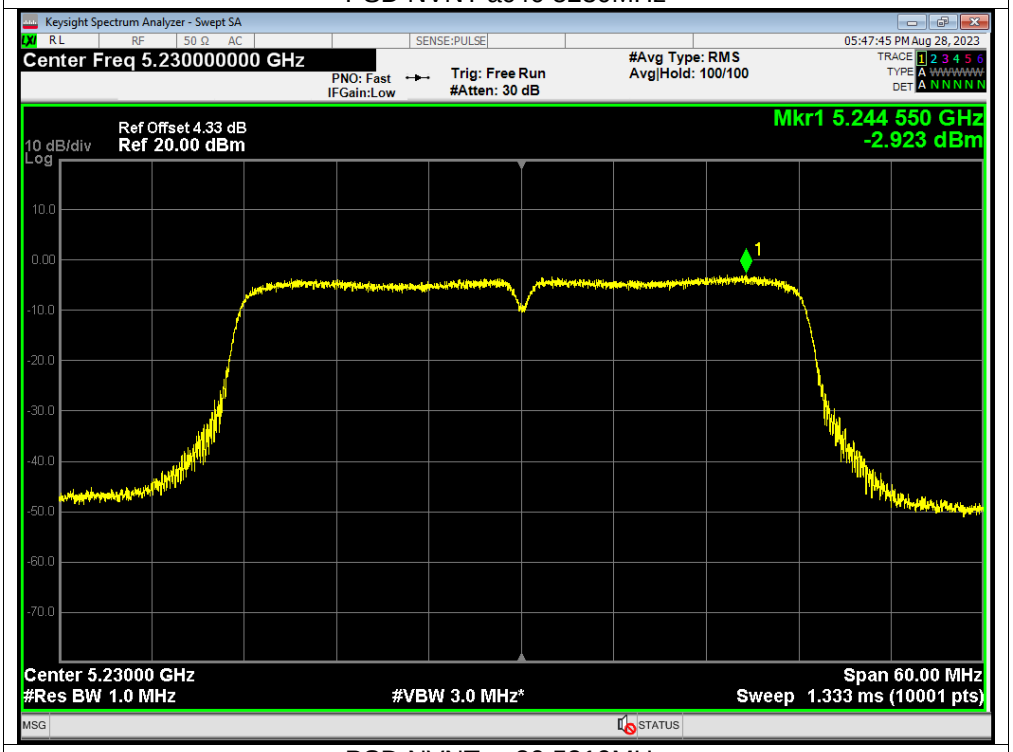


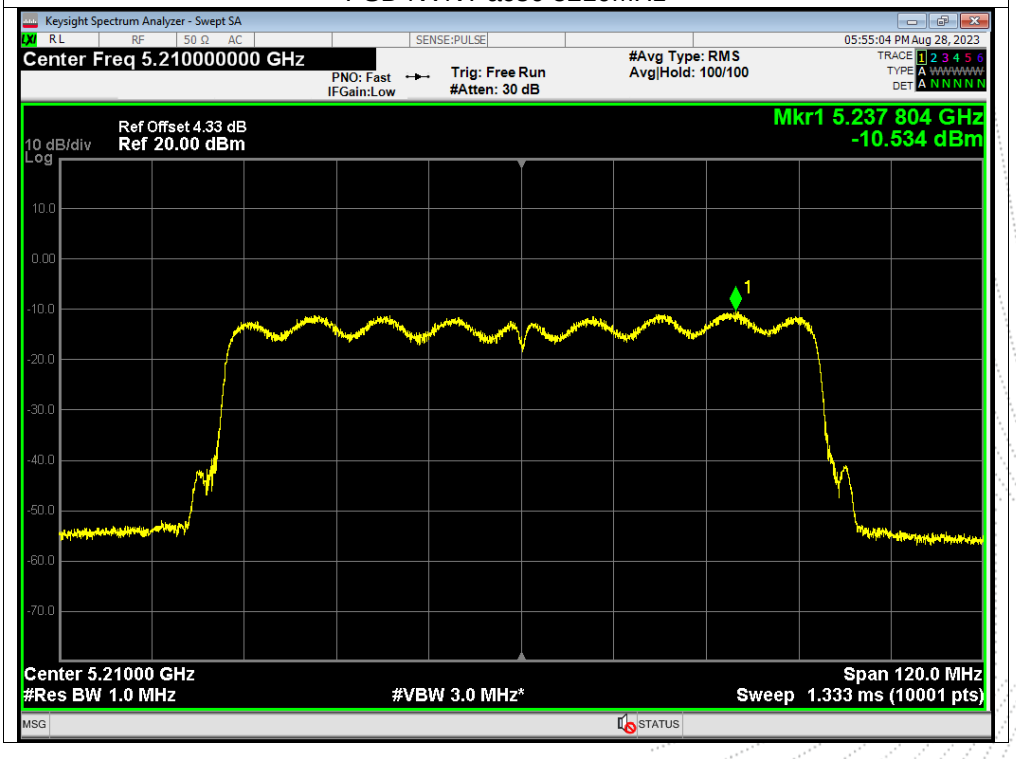
PSD NVNT ac40 5190MHz



PSD NVNT ac40 5230MHz



PSD NVNT ac80 5210MHz

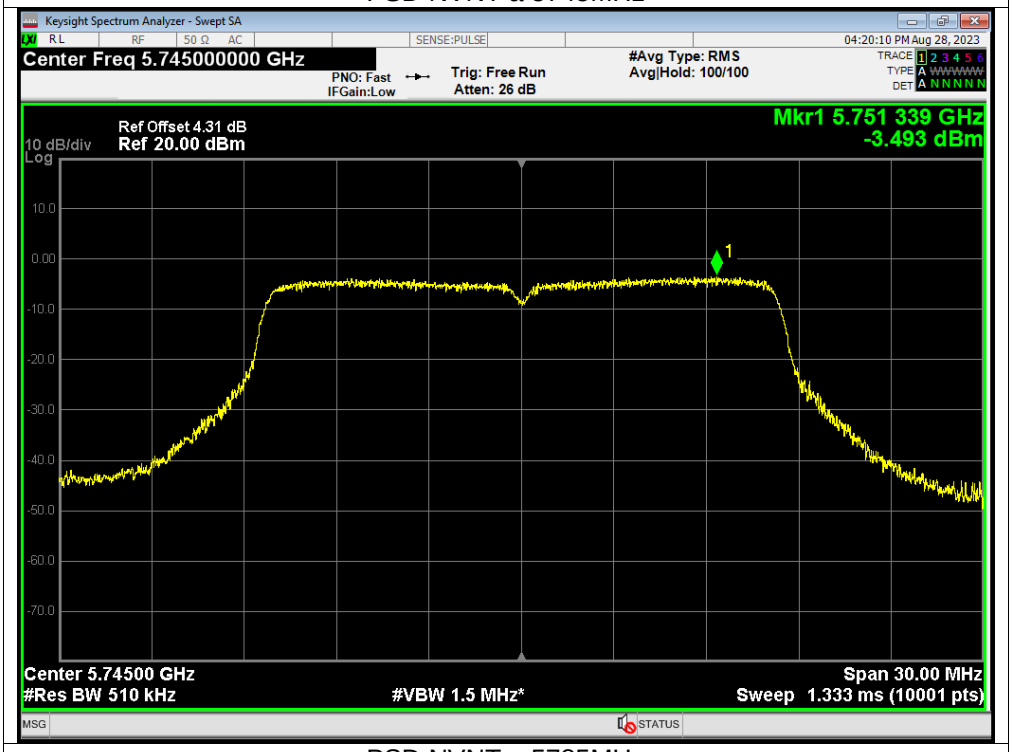


Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 12V
Test Mode:	(5745-5825MHz)		

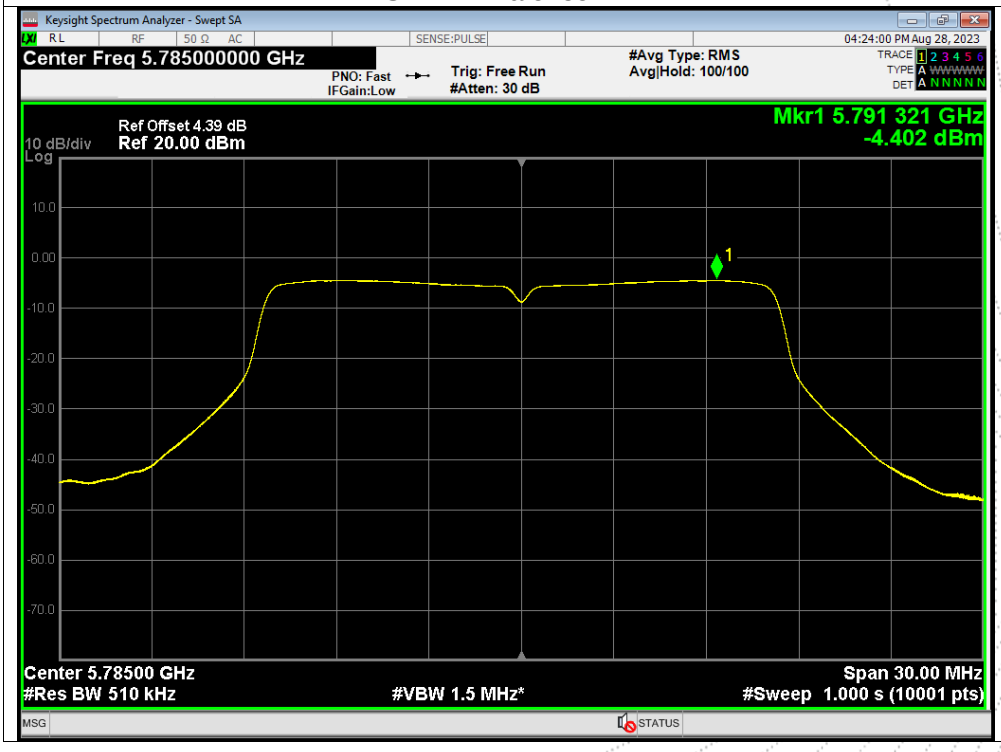
Condition	Mode	Frequency (MHz)	Power Spectral Density (dBm/500kHz)	Limit(dBm/500kHz)	Verdict
NVNT	a	5745	-3.49	30	Pass
NVNT	a	5785	-4.4	30	Pass
NVNT	a	5825	-4.85	30	Pass
NVNT	n20	5745	-1.47	30	Pass
NVNT	n20	5785	-1.81	30	Pass
NVNT	n20	5825	-2.9	30	Pass
NVNT	n40	5755	-7.44	30	Pass
NVNT	n40	5795	-8.14	30	Pass
NVNT	ac20	5745	-1.53	30	Pass
NVNT	ac20	5785	-2.51	30	Pass
NVNT	ac20	5825	-2.28	30	Pass
NVNT	ac40	5755	-6.99	30	Pass
NVNT	ac40	5795	-7.93	30	Pass
NVNT	ac80	5775	-9.96	30	Pass

Test Graphs

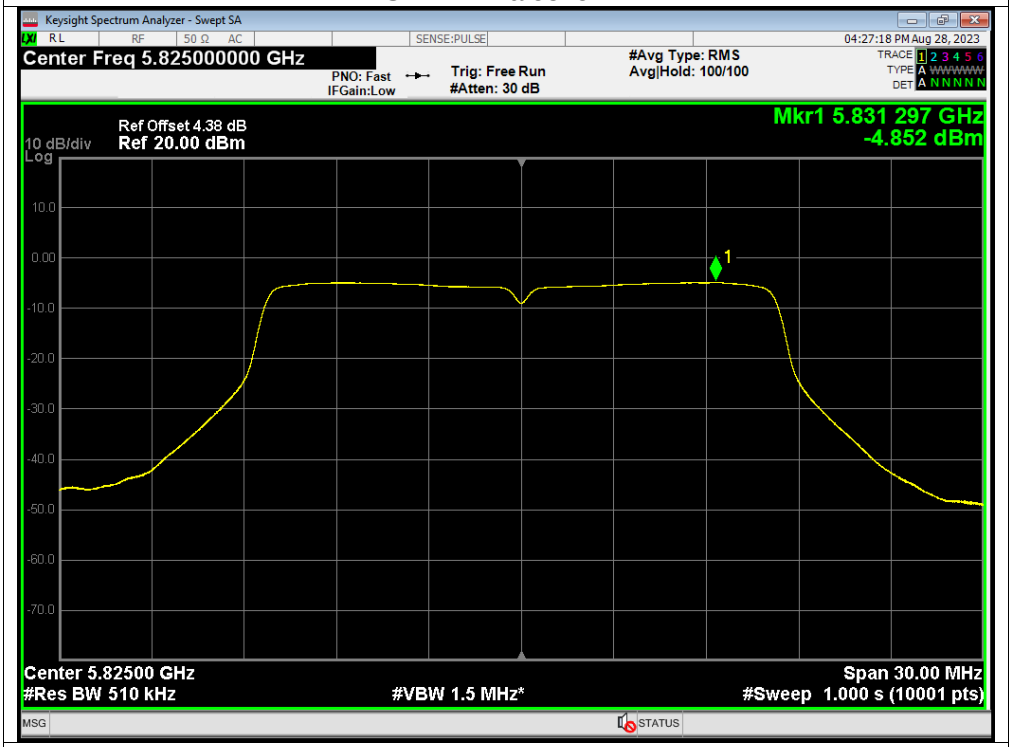
PSD NVNT a 5745MHz



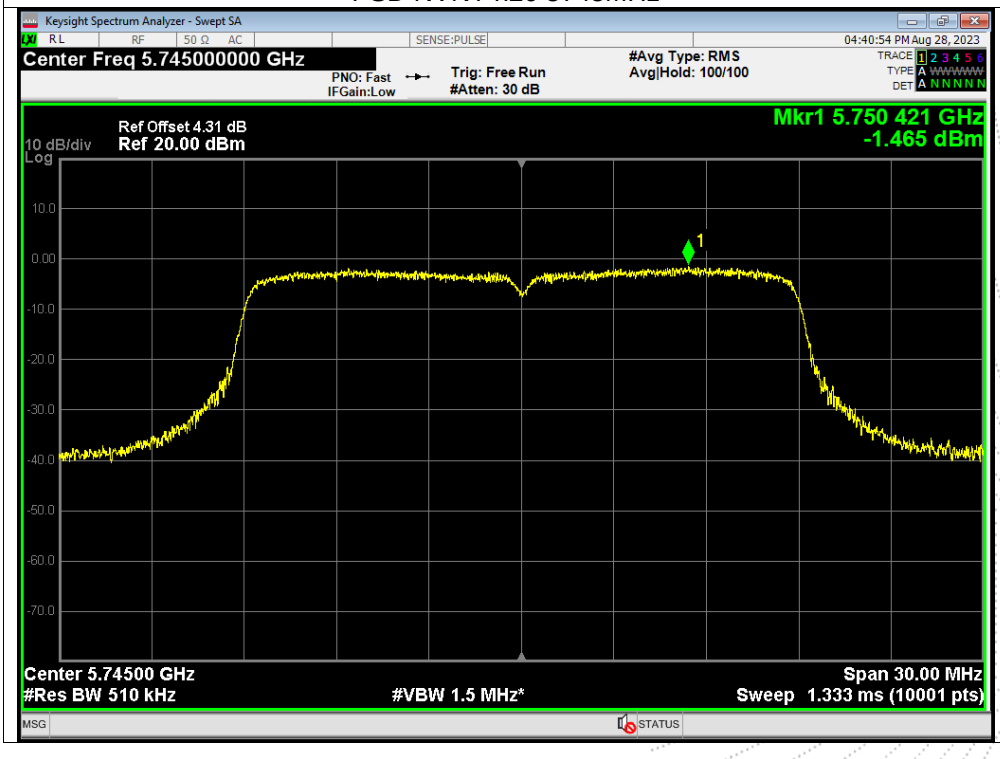
PSD NVNT a 5785MHz



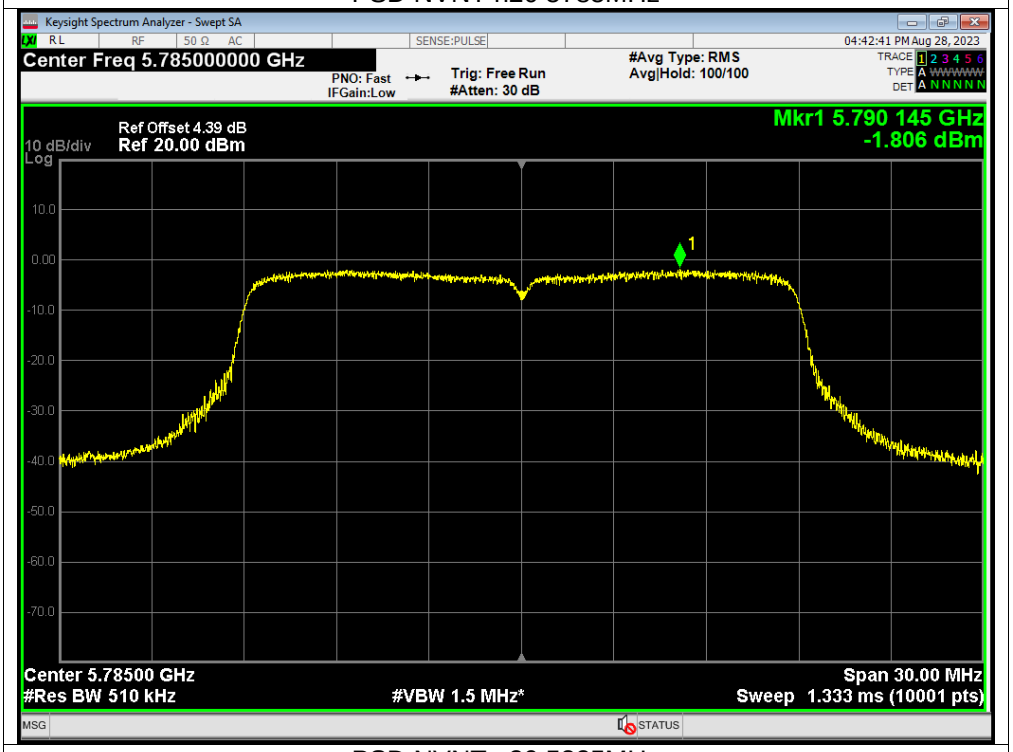
PSD NVNT a 5825MHz



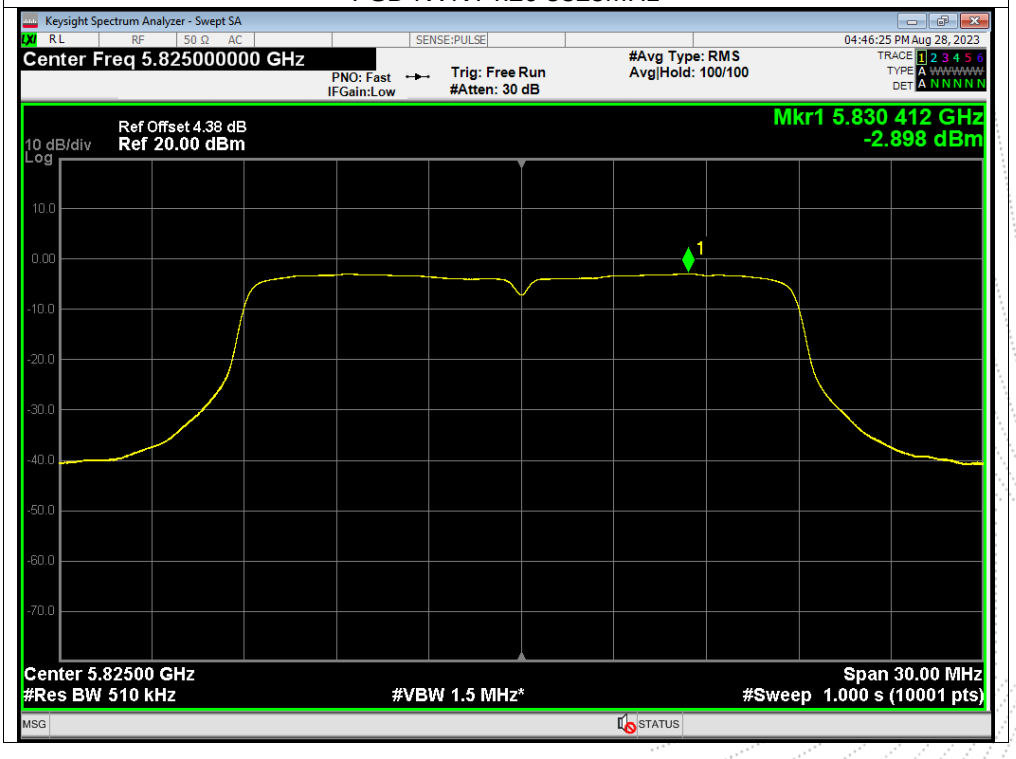
PSD NVNT n20 5745MHz



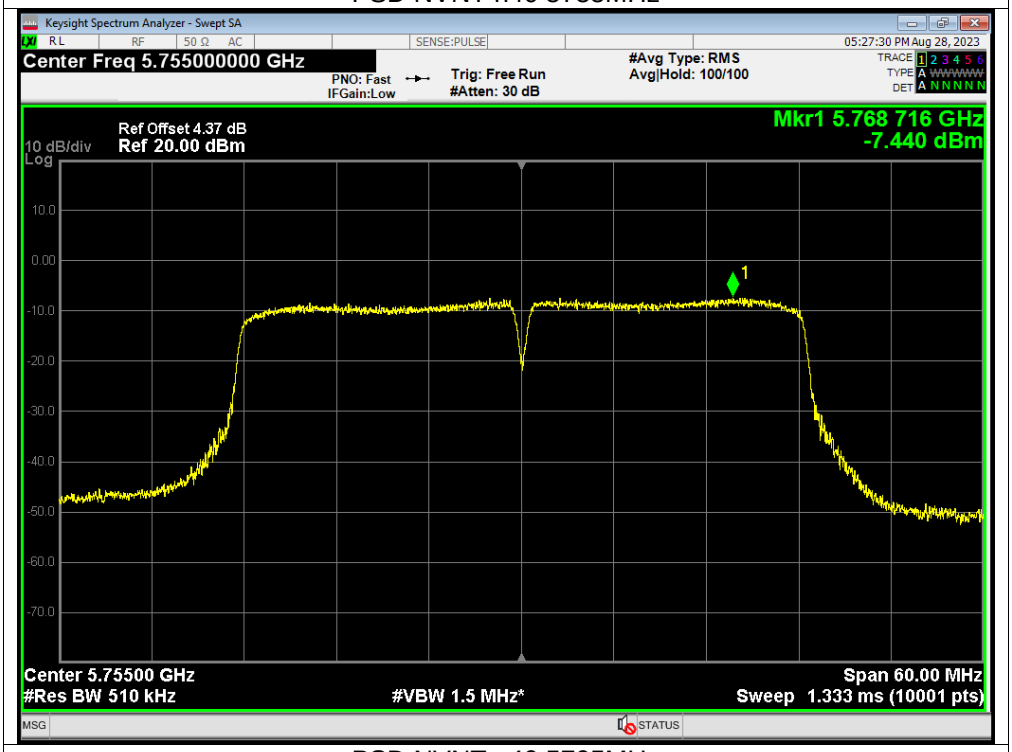
PSD NVNT n20 5785MHz



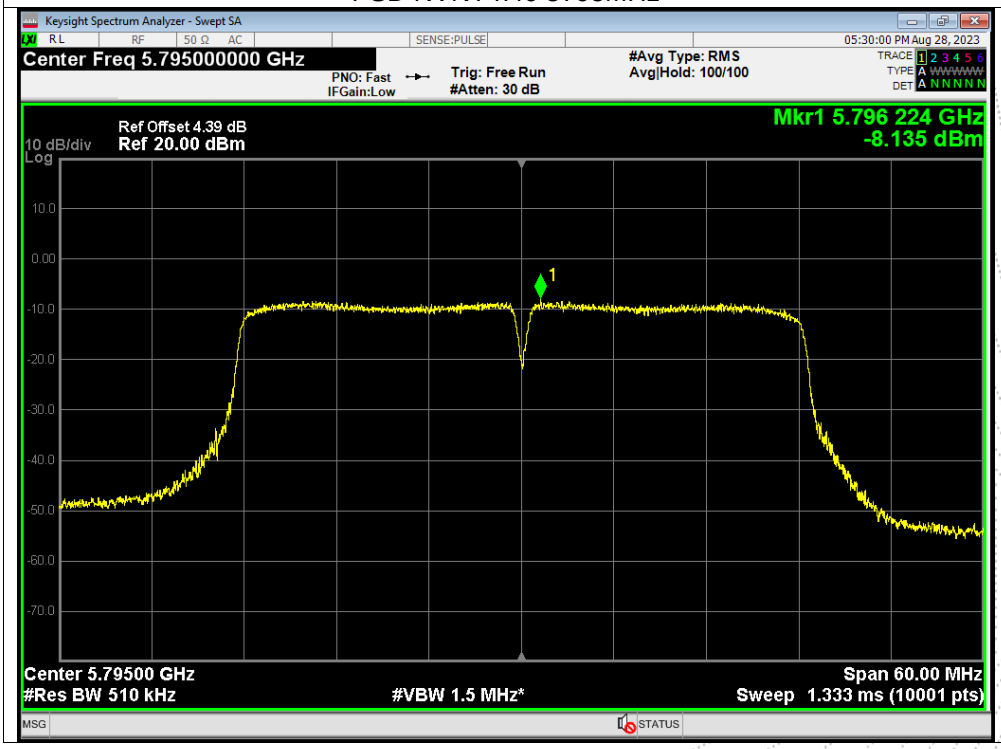
PSD NVNT n20 5825MHz



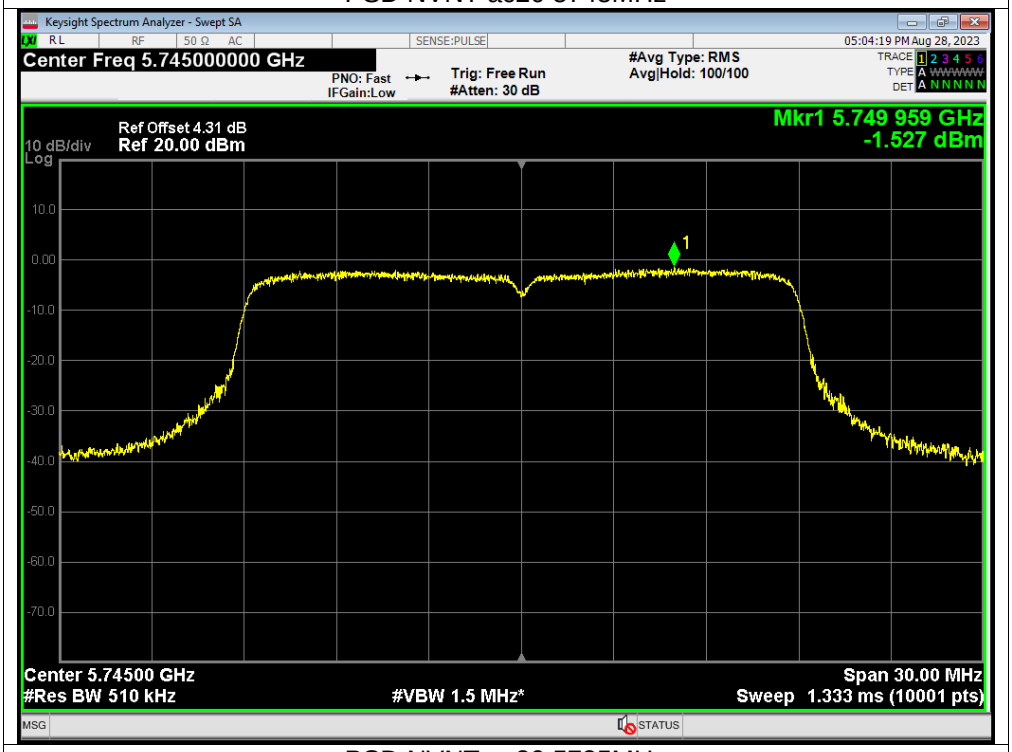
PSD NVNT n40 5755MHz



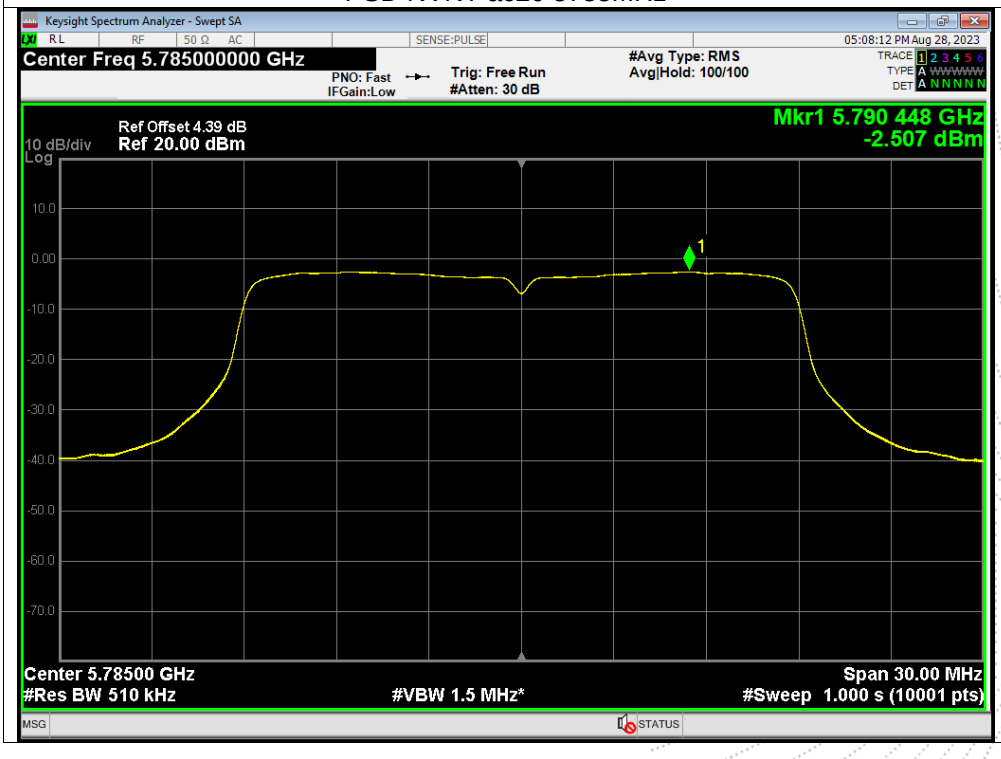
PSD NVNT n40 5795MHz



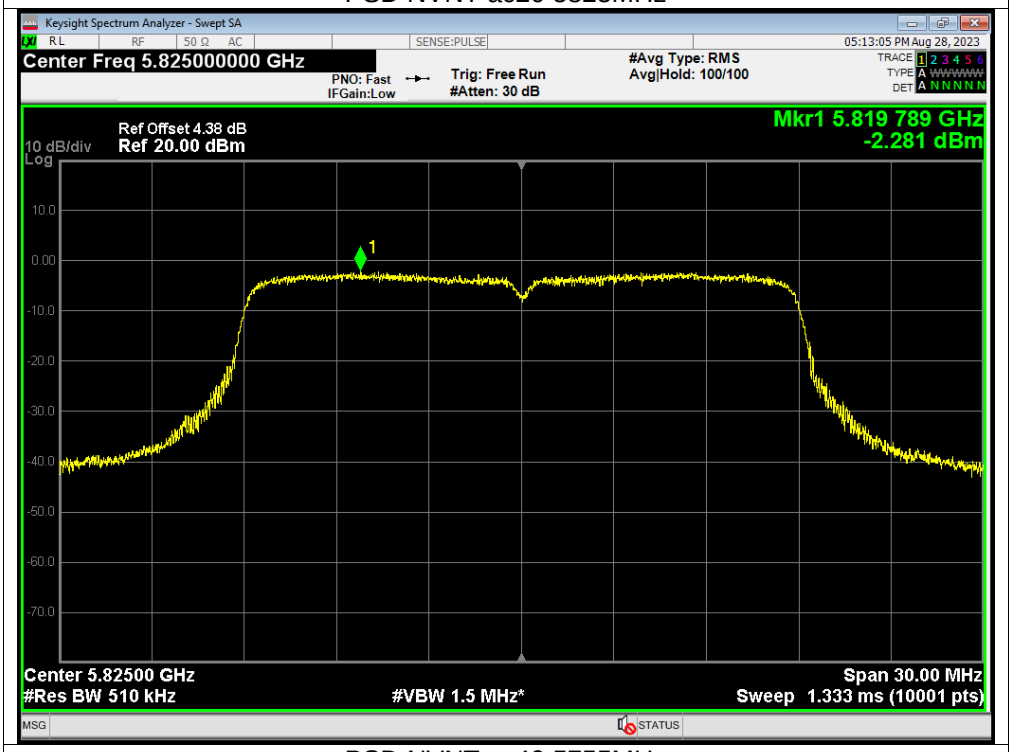
PSD NVNT ac20 5745MHz



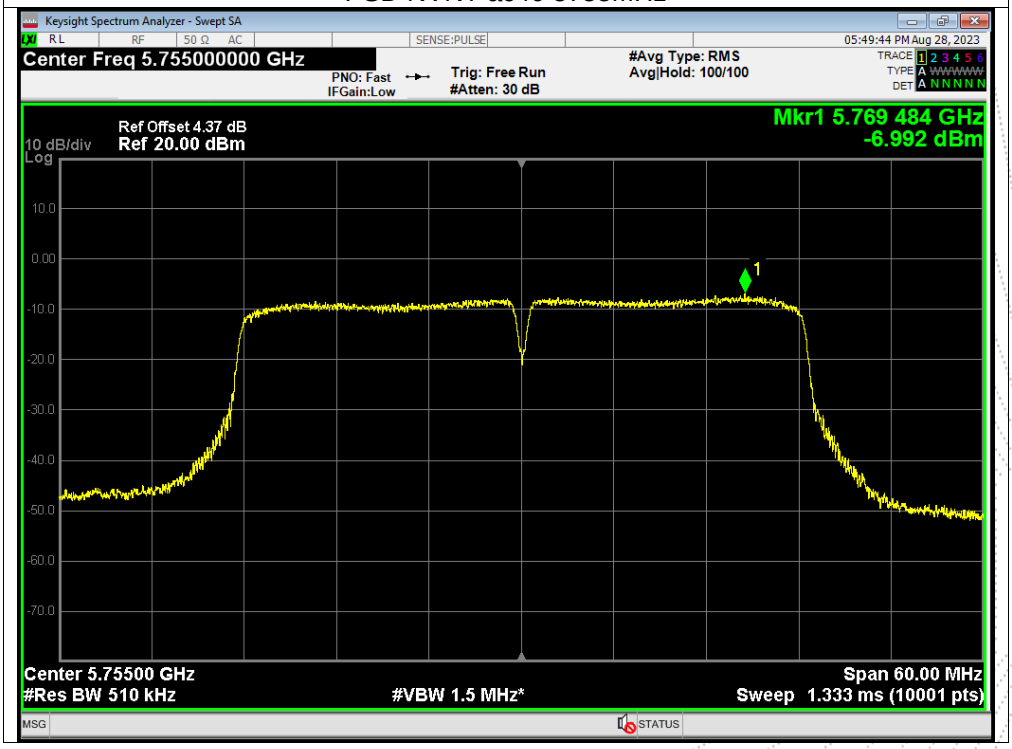
PSD NVNT ac20 5785MHz



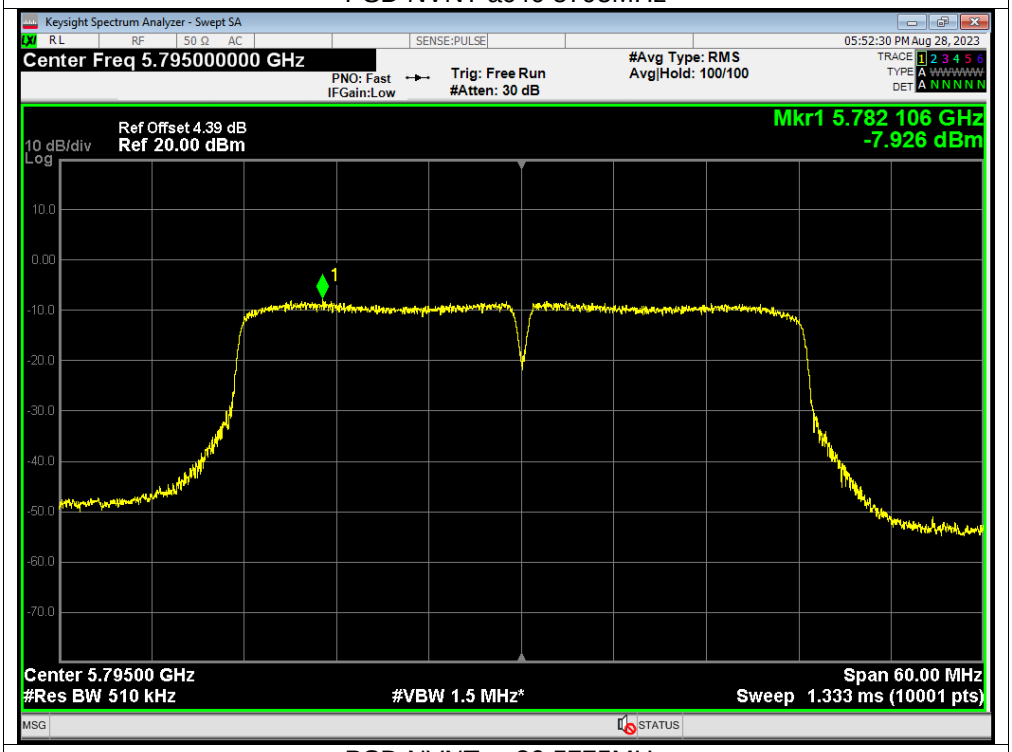
PSD NVNT ac20 5825MHz



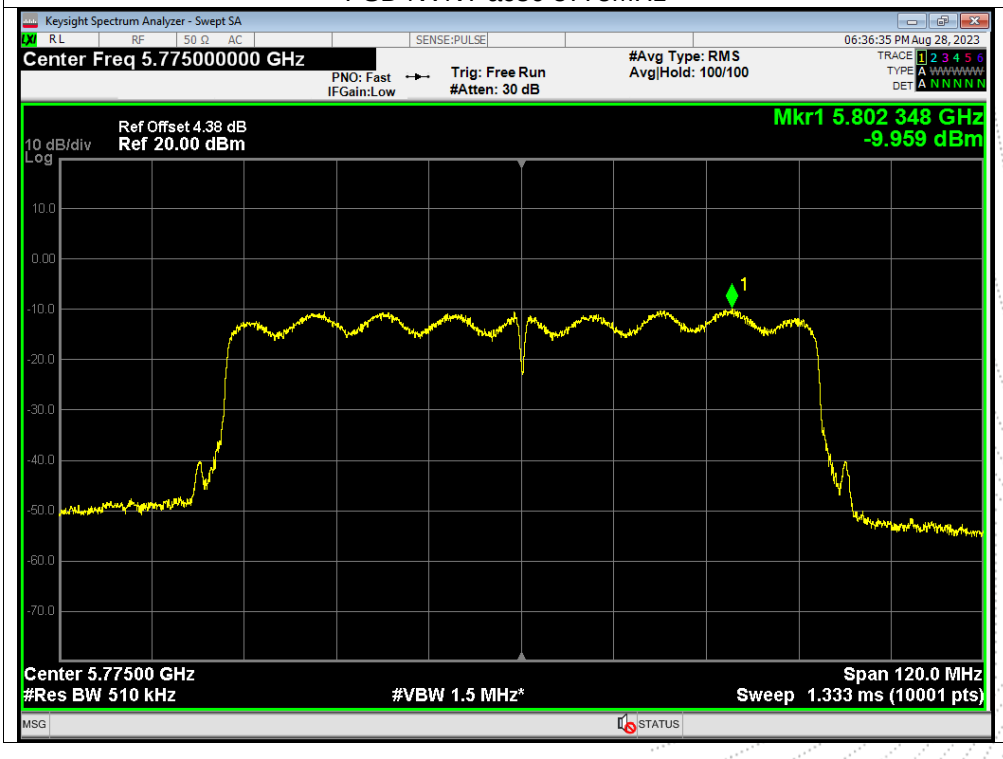
PSD NVNT ac40 5755MHz



PSD NVNT ac40 5795MHz

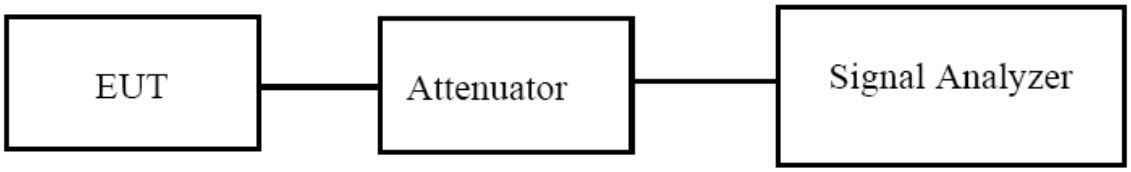


PSD NVNT ac80 5775MHz



9. 26dB & 6dB & 99% Emission Bandwidth

9.1 Block Diagram Of Test Setup



9.2 Limit

The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power
is integrated over the full reference bandwidth.

9.3 Test Procedure

a) Set RBW = approximately 1% of the emission bandwidth.
b) Set the VBW > RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
The following procedure shall be used for measuring (99 %) power bandwidth:
1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW ≥ 3 · RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

9.4 EUT Operating Conditions

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

9.5 Test Result

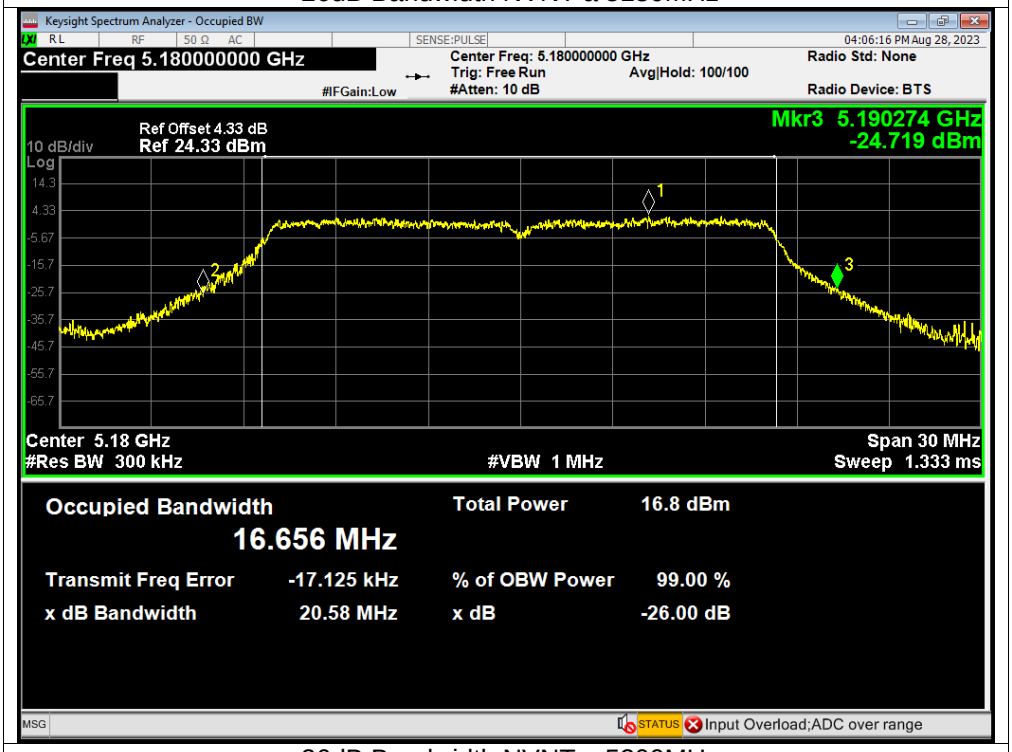
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 12V
Test Mode:	(5180-5240MHz)		

Condition	Mode	Frequency (MHz)	-26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	20.581	Pass
NVNT	a	5200	20.391	Pass
NVNT	a	5240	20.433	Pass
NVNT	n20	5180	20.969	Pass
NVNT	n20	5200	21.285	Pass
NVNT	n20	5240	21.25	Pass
NVNT	n40	5190	40.551	Pass
NVNT	n40	5230	40.853	Pass
NVNT	ac20	5180	21.14	Pass
NVNT	ac20	5200	21.376	Pass
NVNT	ac20	5240	21.109	Pass
NVNT	ac40	5190	40.797	Pass
NVNT	ac40	5230	40.303	Pass
NVNT	ac80	5210	79.833	Pass

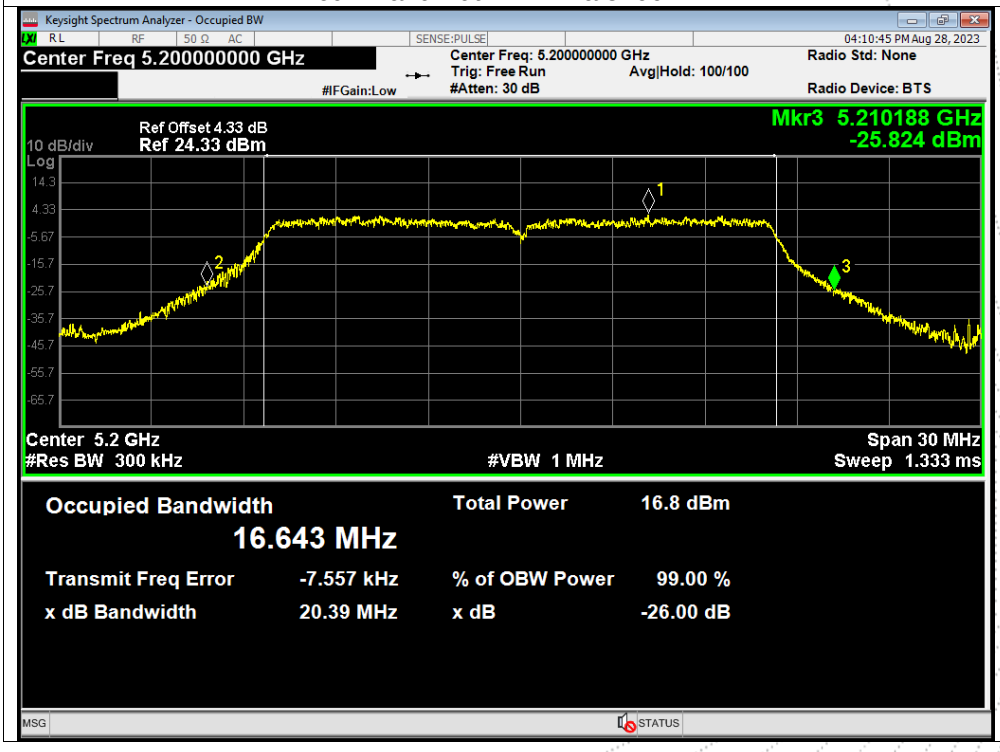
Condition	Mode	Frequency (MHz)	99% OBW (MHz)
NVNT	a	5180	16.512
NVNT	a	5200	16.481
NVNT	a	5240	16.495
NVNT	n20	5180	17.638
NVNT	n20	5200	17.613
NVNT	n20	5240	17.607
NVNT	n40	5190	36.049
NVNT	n40	5230	36.076
NVNT	ac20	5180	17.634
NVNT	ac20	5200	17.631
NVNT	ac20	5240	17.632
NVNT	ac40	5190	36.038
NVNT	ac40	5230	36.065
NVNT	ac80	5210	75.429

Test Graphs

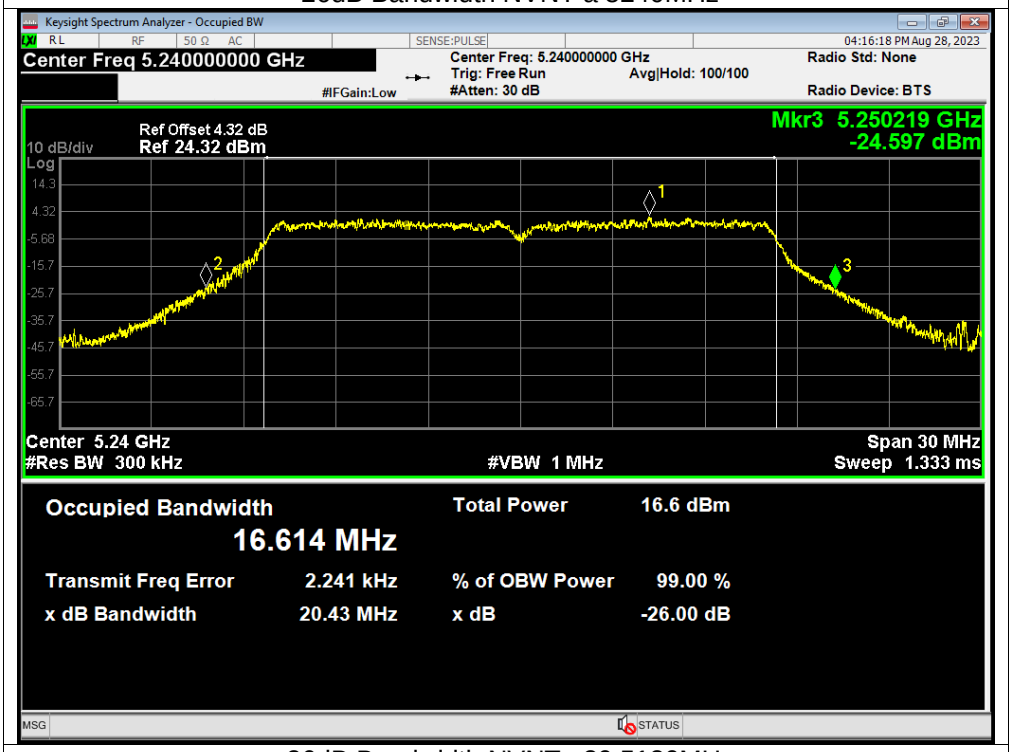
-26dB Bandwidth NVNT a 5180MHz



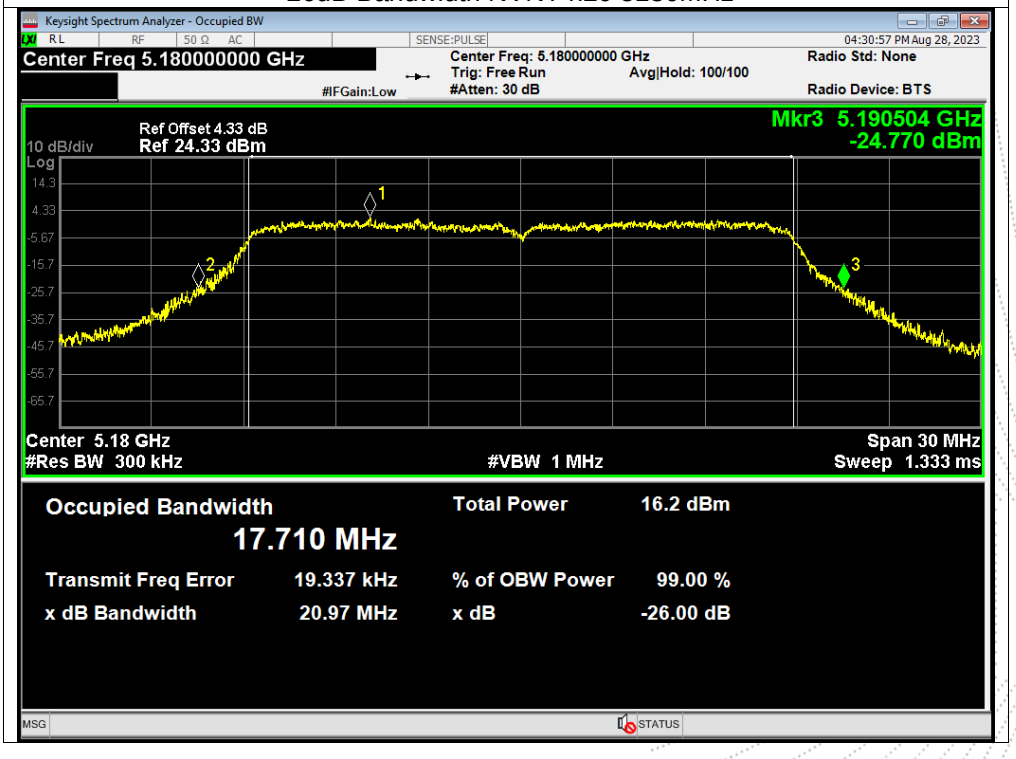
-26dB Bandwidth NVNT a 5200MHz



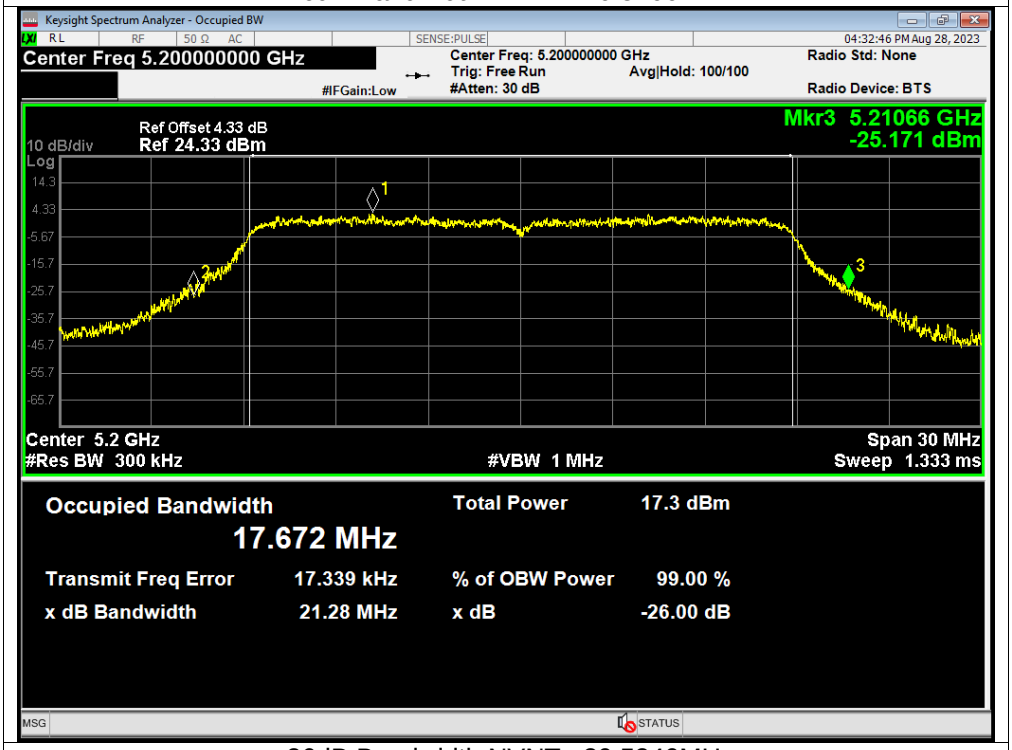
-26dB Bandwidth NVNT a 5240MHz



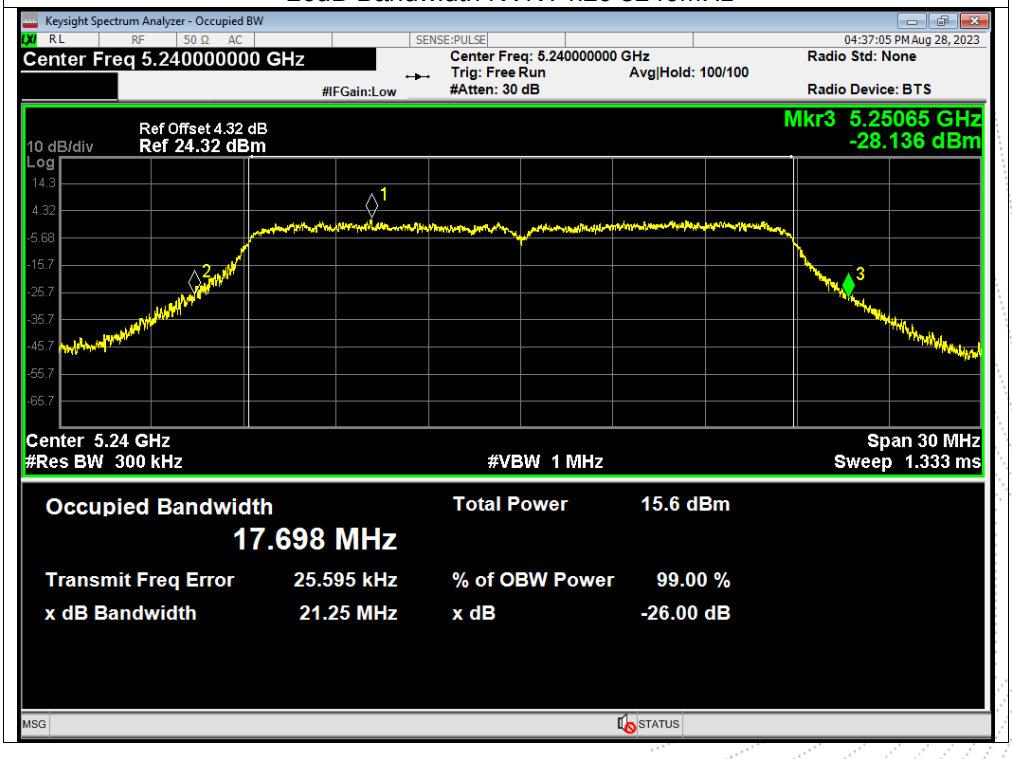
-26dB Bandwidth NVNT n20 5180MHz



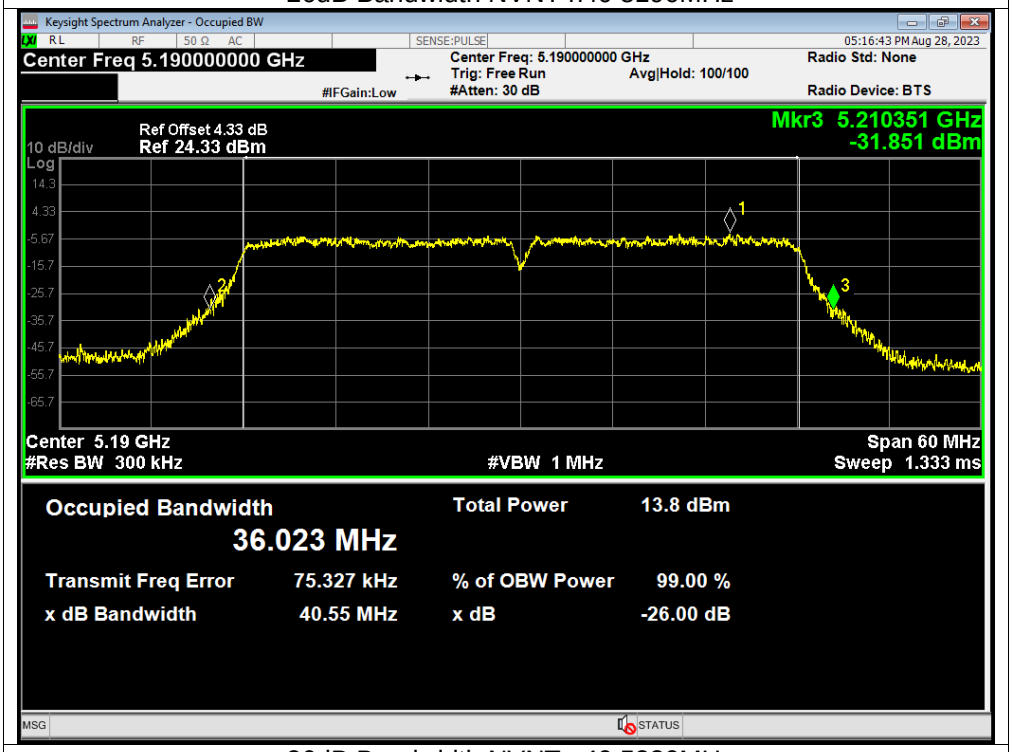
-26dB Bandwidth NVNT n20 5200MHz



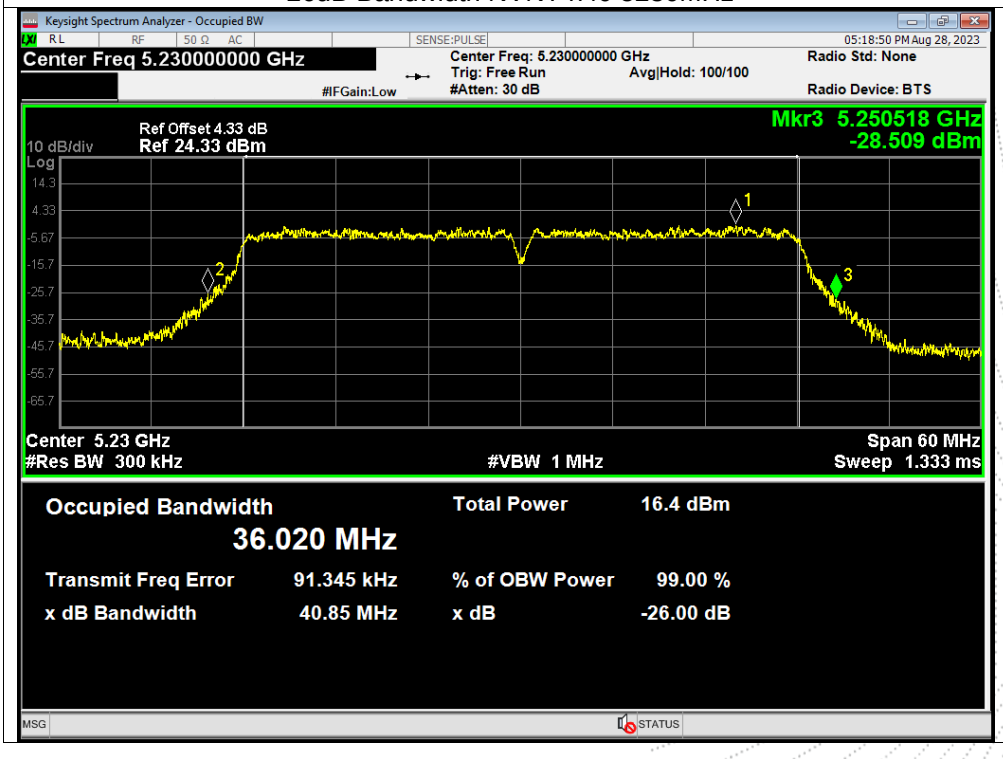
-26dB Bandwidth NVNT n20 5240MHz



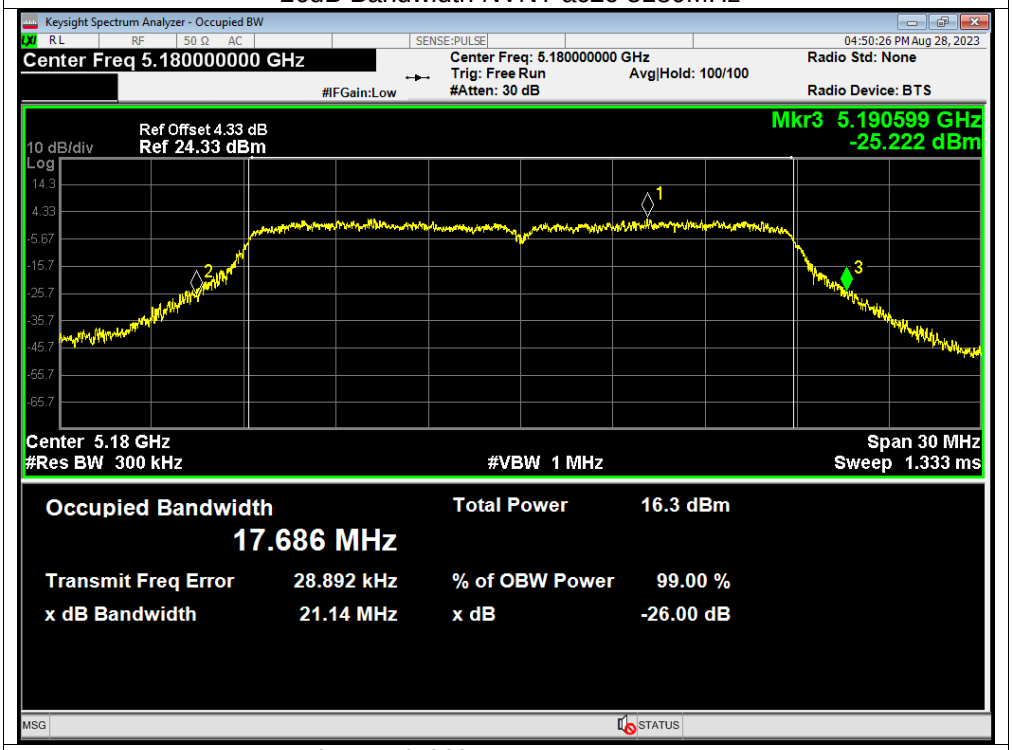
-26dB Bandwidth NVNT n40 5190MHz



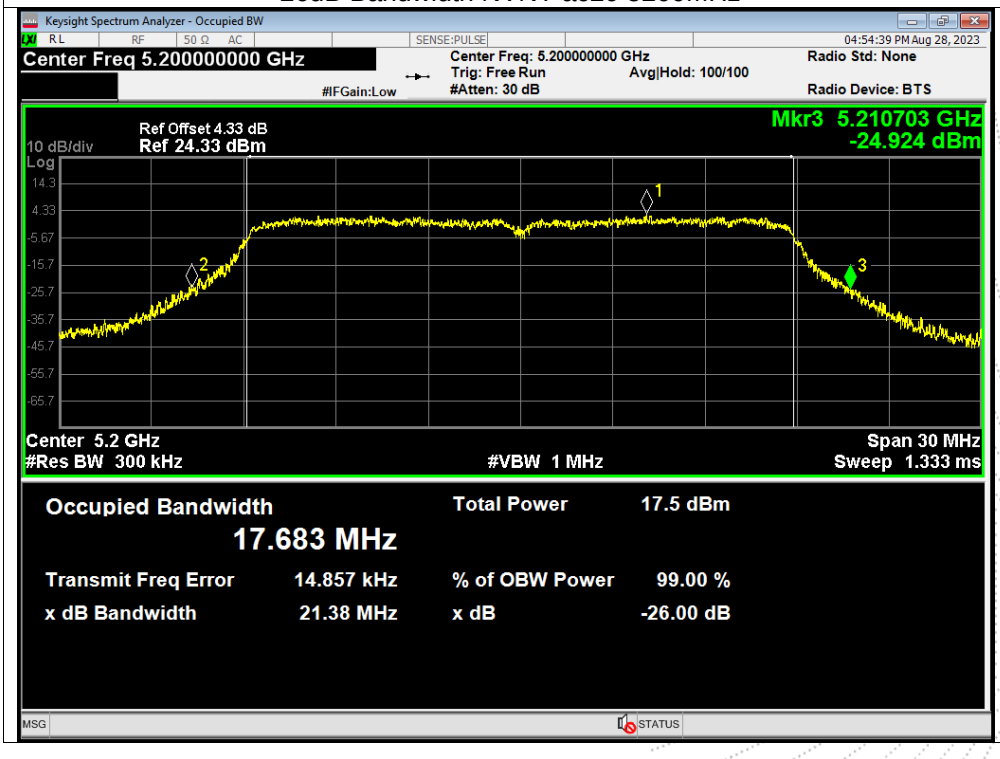
-26dB Bandwidth NVNT n40 5230MHz



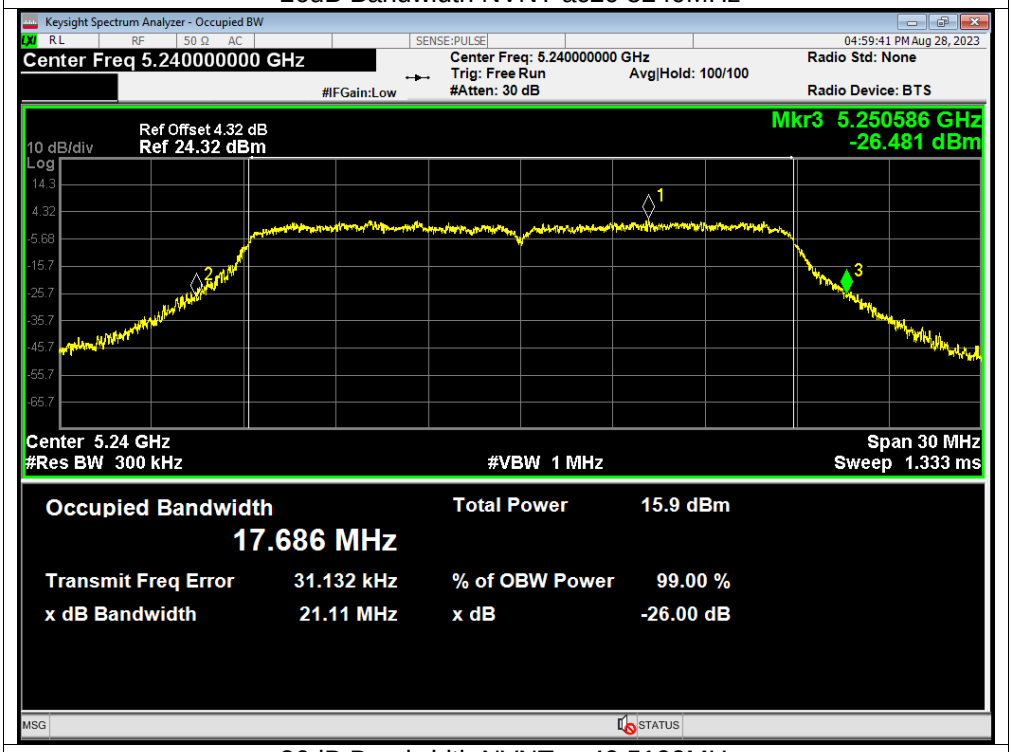
-26dB Bandwidth NVNT ac20 5180MHz



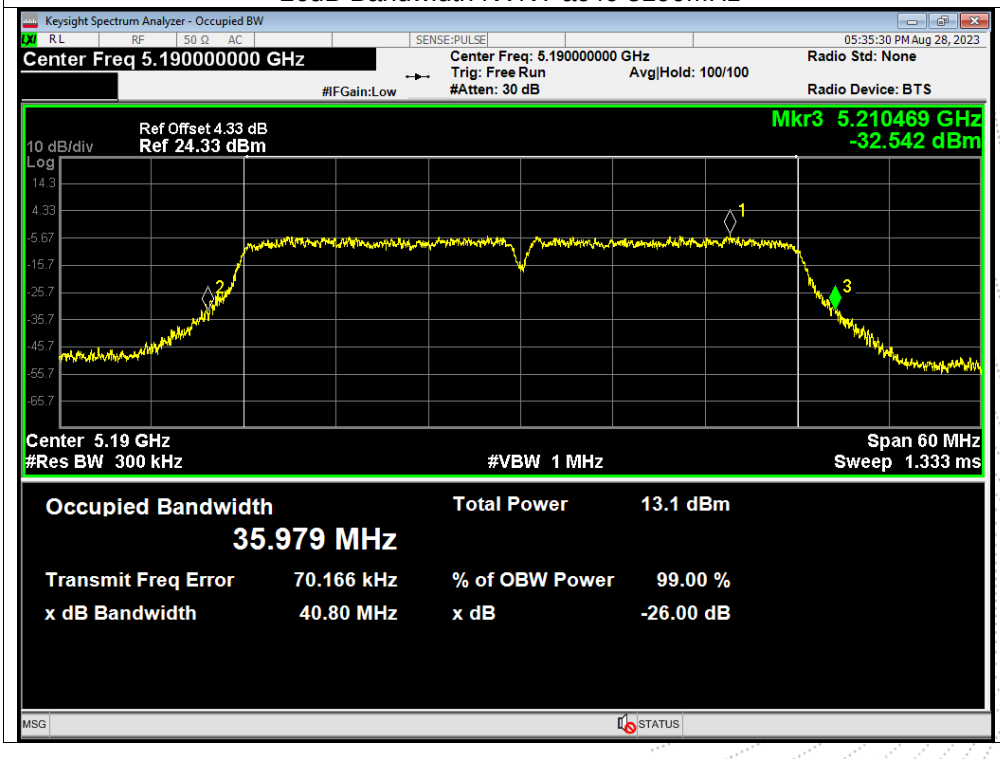
-26dB Bandwidth NVNT ac20 5200MHz



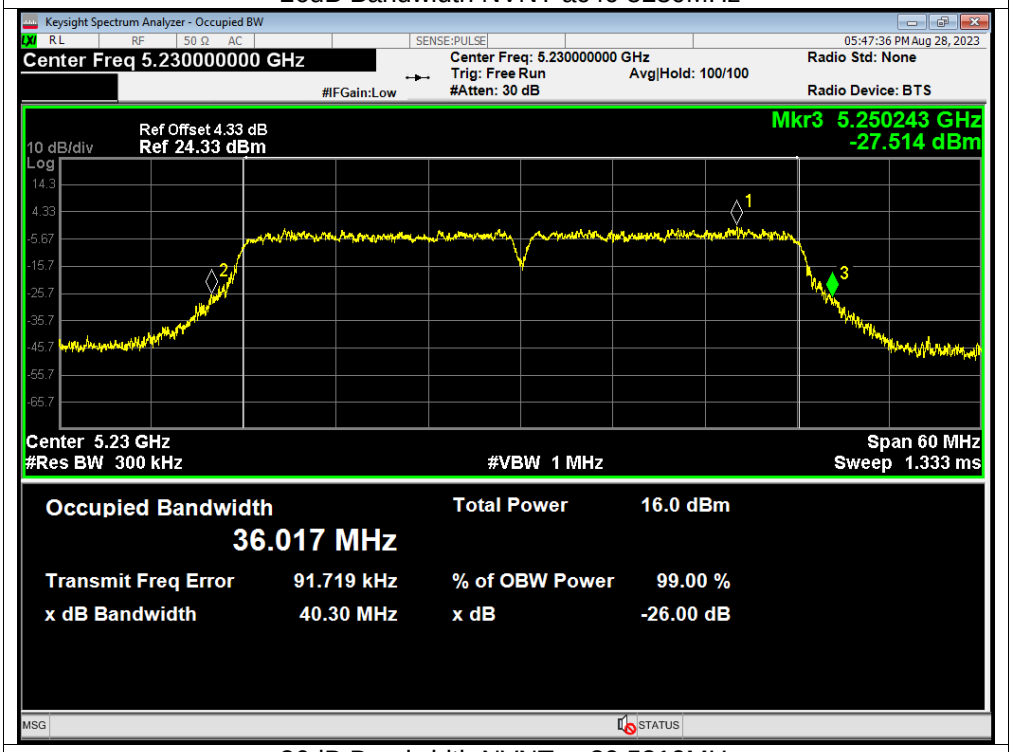
-26dB Bandwidth NVNT ac20 5240MHz



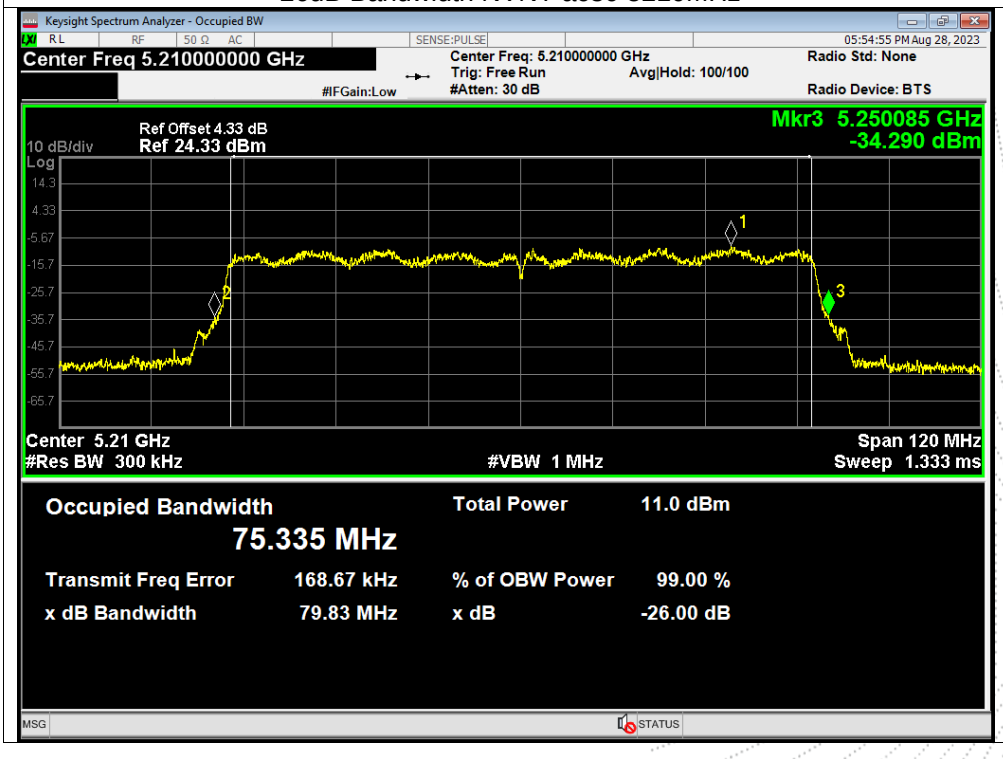
-26dB Bandwidth NVNT ac40 5190MHz



-26dB Bandwidth NVNT ac40 5230MHz

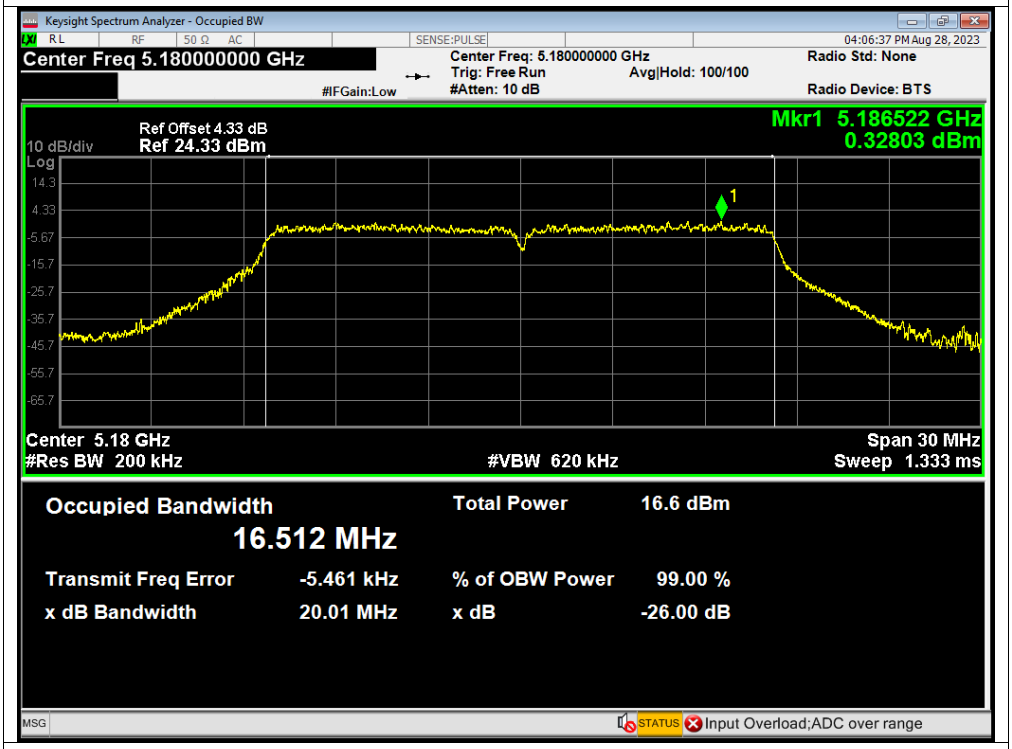


-26dB Bandwidth NVNT ac80 5210MHz

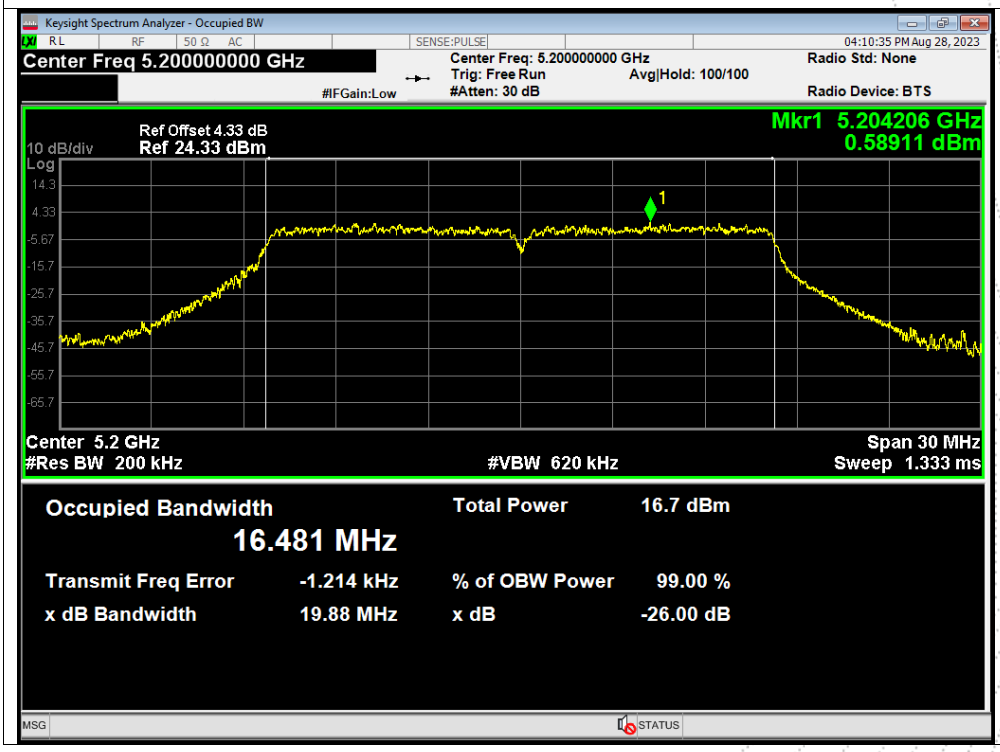


Test Graphs

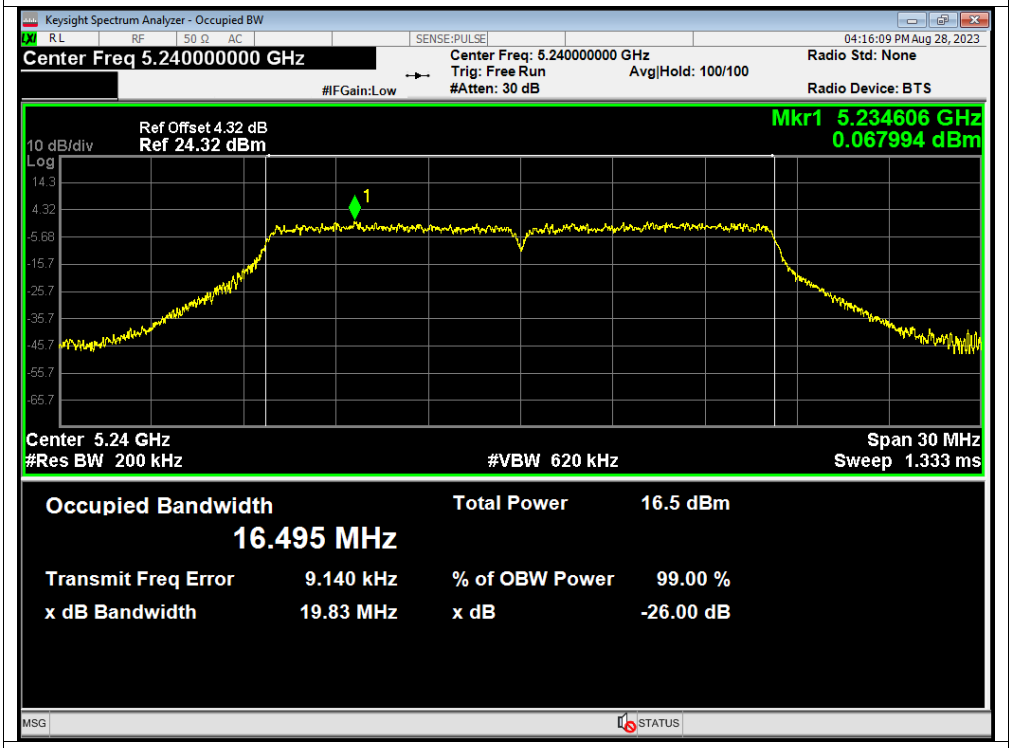
OBW NVNT a 5180MHz Ant1



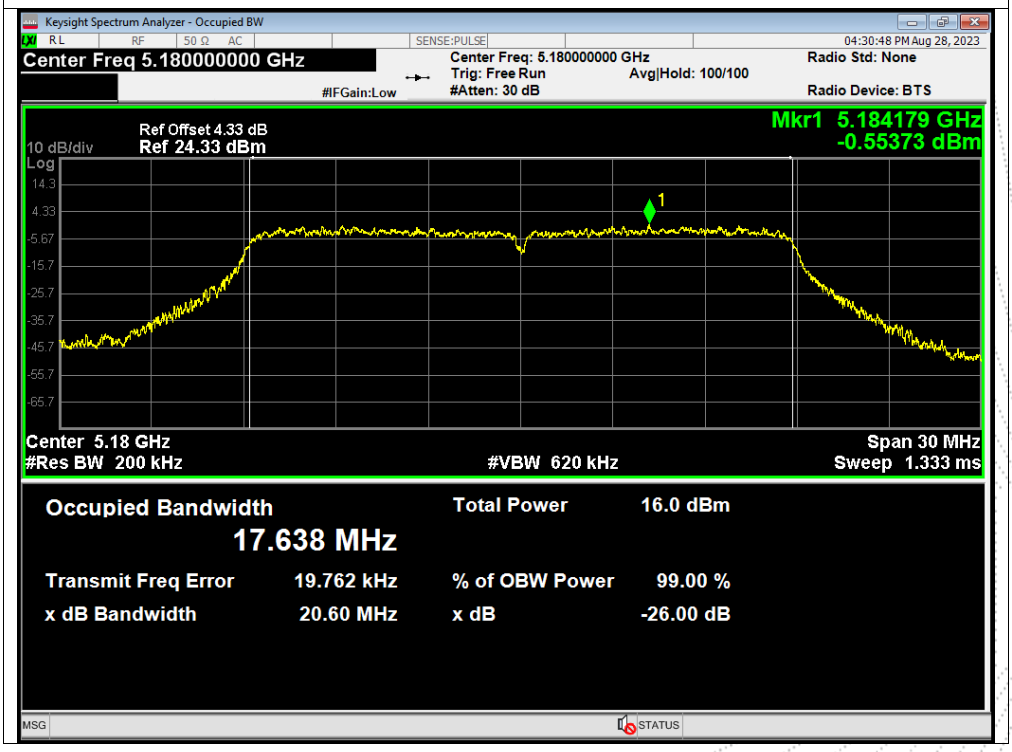
OBW NVNT a 5200MHz Ant1



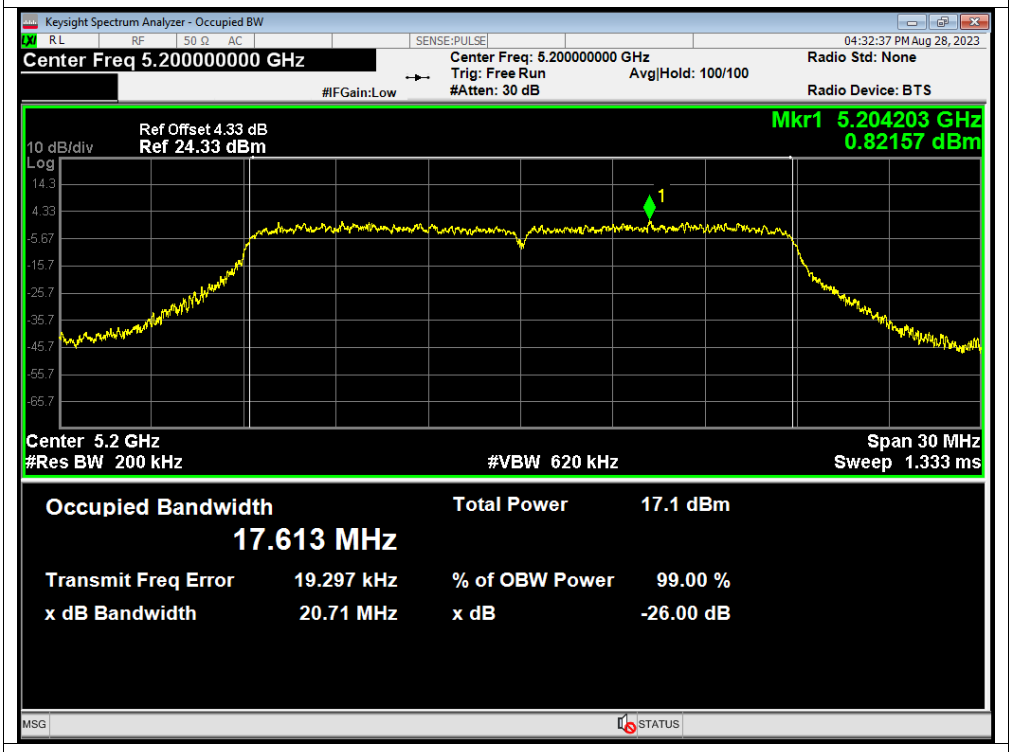
OBW NVNT a 5240MHz Ant1



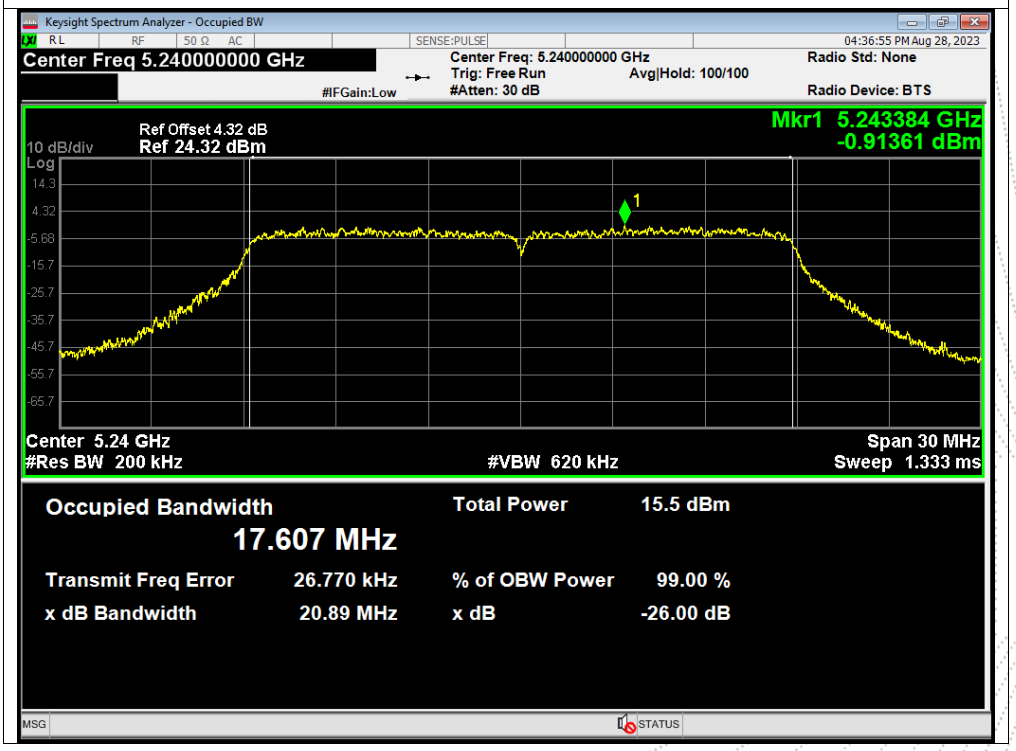
OBW NVNT n20 5180MHz Ant1



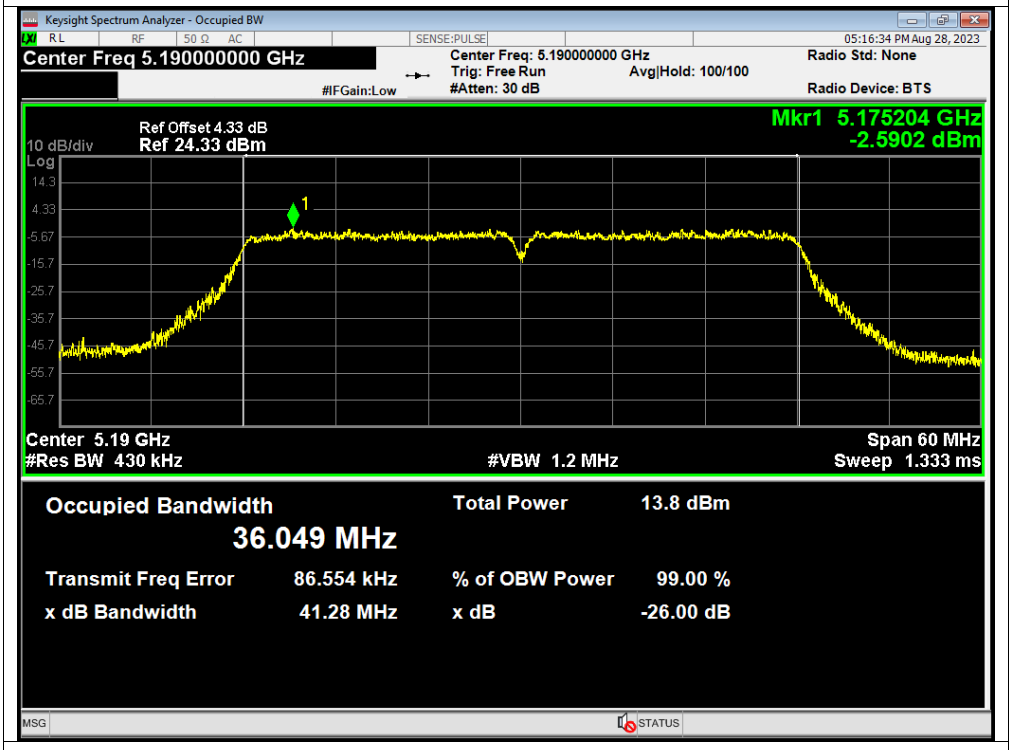
OBW NVNT n20 5200MHz Ant1



OBW NVNT n20 5240MHz Ant1



OBW NVNT n40 5190MHz Ant1



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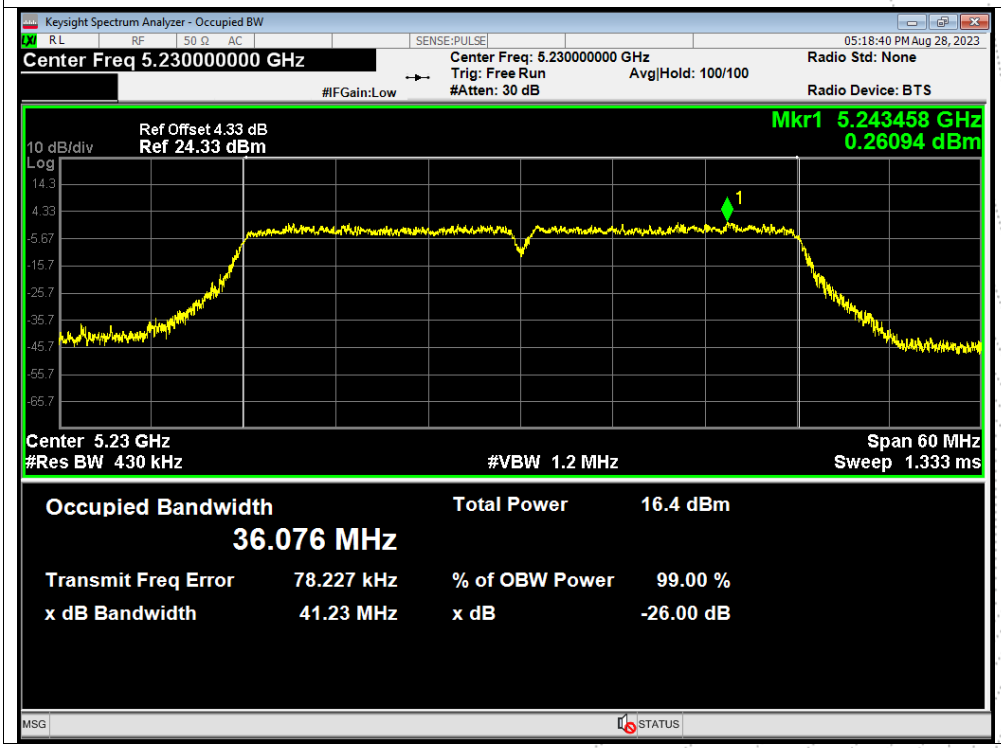
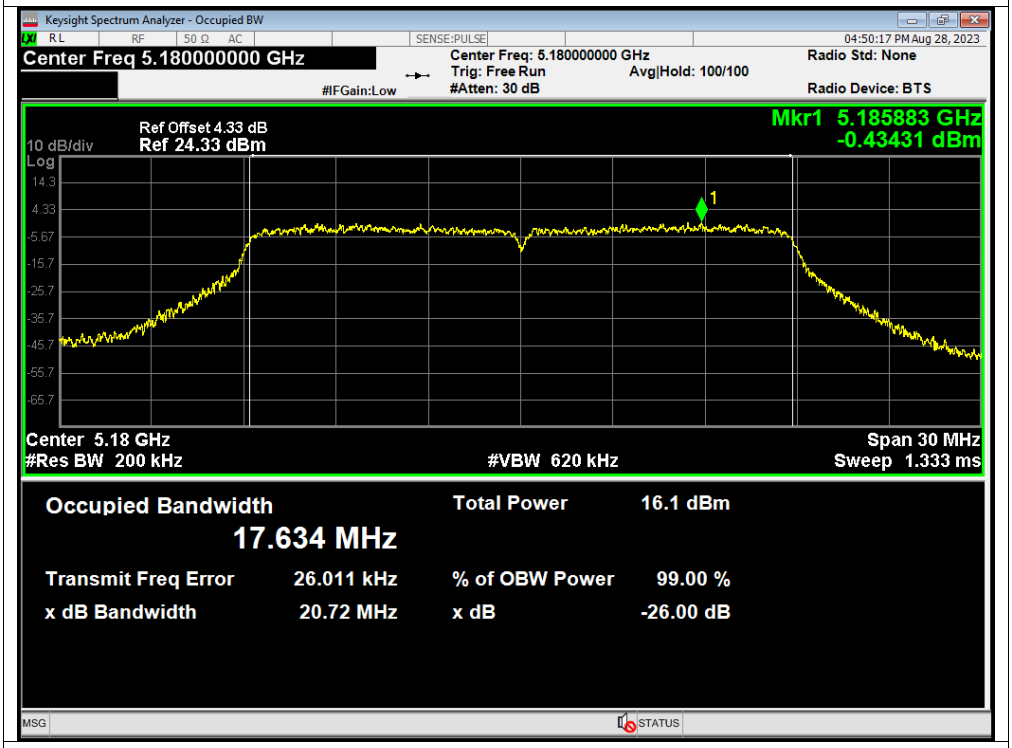
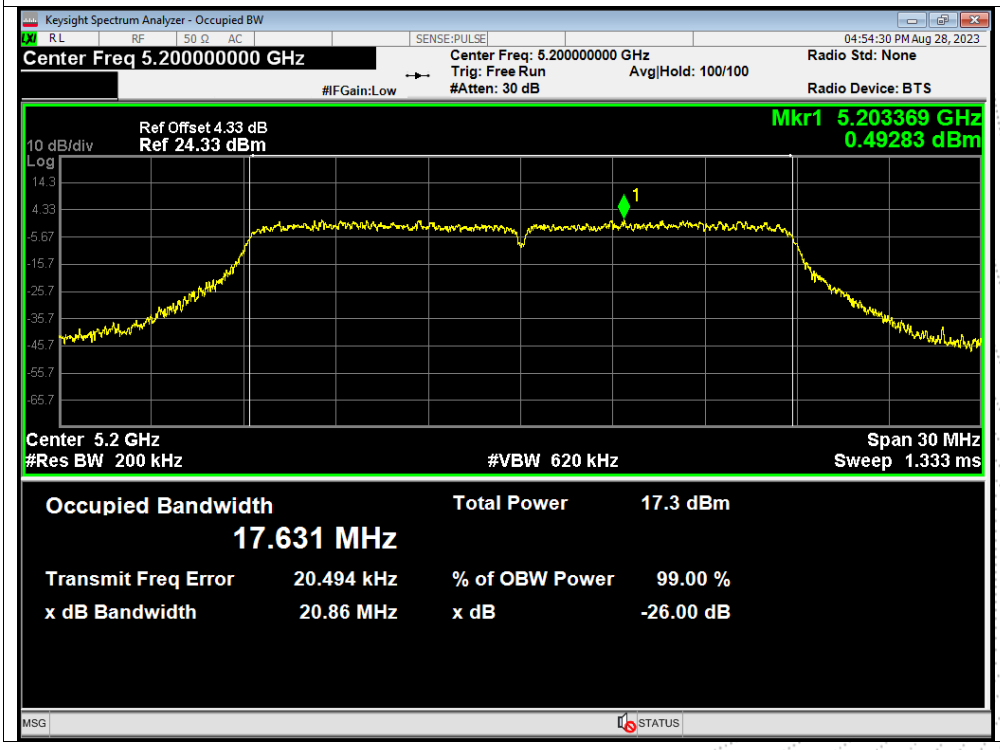


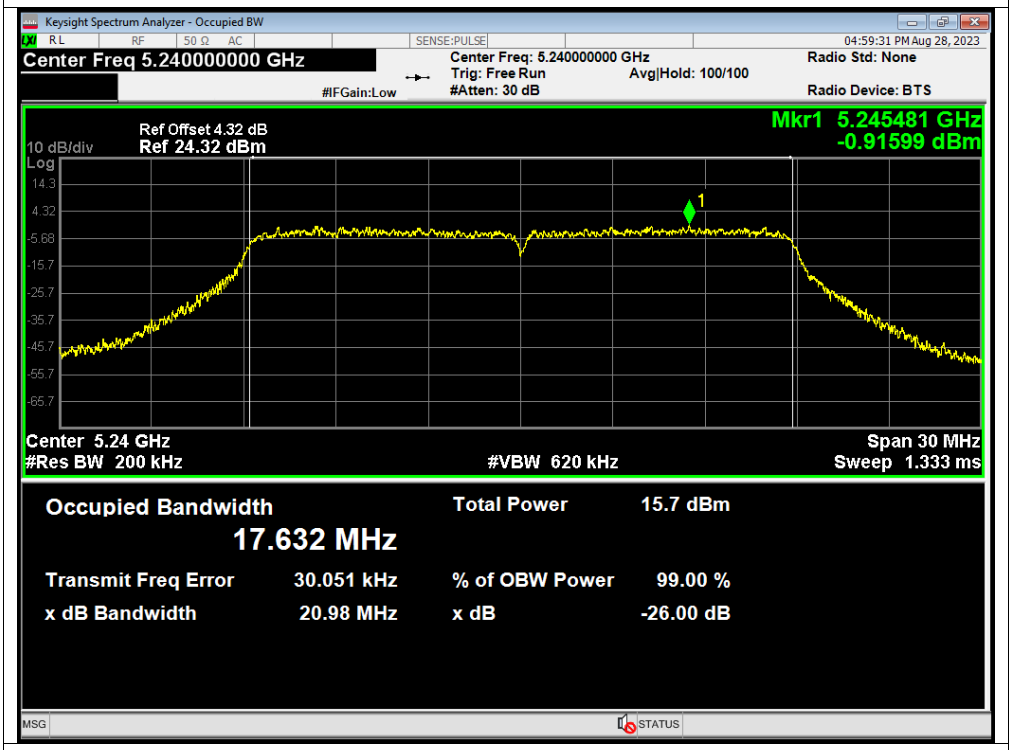
OBW NVNT ac20 5180MHz Ant1



OBW NVNT ac20 5200MHz Ant1



OBW NVNT ac20 5240MHz Ant1



OBW NVNT ac40 5190MHz Ant1