TEST REPORT

Report No.:	BCTC2503843931-4E
Applicant:	Anhui Hikeen Technology Co.,LTD.
Product Name:	WiFi/BT Module
Test Model:	SH-RT8822CU-01
Tested Date:	2025-03-12 to 2025-03-27
Issued Date:	2025-03-27

Shenzhen BCTC Testing Co., Ltd.

FCC ID: 2BOB7-SHRTL8822

Product Name:	WiFi/BT Module
Trademark:	Hikeen
Model/Type reference:	SH-RT8822CU-01 SH-RT8822EU-01
Prepared For:	Anhui Hikeen Technology Co.,LTD.
Address:	1#3# Workshop Of Jiangqiao Road Intelligent Industrial Park, Bengshan District, Bengbu City, Anhui Province, China
Manufacturer:	Anhui Hikeen Technology Co.,LTD.
Address:	1#3# Workshop Of Jiangqiao Road Intelligent Industrial Park, Bengshan District, Bengbu City, Anhui Province, China
Prepared By:	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
Sample Received Date:	2025-03-12
Sample tested Date:	2025-03-12 to 2025-03-27
Issue Date:	2025-03-27
Report No.:	BCTC2503843931-4E
Test Standards:	FCC Part15 15.407 ANSI C63.10-2013 KDB 662911 D01 v02r01 KDB 789033 D02 v02r01
Test Results:	PASS

Tested by:

Lei Chen

Lei Chen/Project Handler

Approved by:

Zero Zhou/Reviewer

The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen BCTC Testing Co., Ltd, this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client.

Table Of Content

(Note: N/A Means Not Applicable)

1. Version

Report No.	Issue Date	Description	Approved
BCTC2503843931-4E	2025-03-27	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)(1) 15.407 (b)(4) 15.407 (b)(8)	PASS
2	Conducted Emission	15.207	PASS
3	26 dB and 99% Emission Bandwidth	15.407 (a)(12) 15.1049	PASS
4	Minimum 6 dB bandwidth	15.407(e)	PASS
5	Maximum Conducted Output Power	15.407 (a)(1) 15.407 (a)(3)	PASS
6	Band Edge	2.1051, 15.407(b)(1) 15.407(b)(4)	PASS
7	Power Spectral Density	15.407 (a)(1) 15.407 (a)(3)	PASS
8	Spurious Emissions at Antenna Terminals	2.1051, 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 reference:	SH-RT8822CU-01 SH-RT8822EU-01
Model differences:	All the model are the same circuit and RF module, except model names.
Hardware Version:	N/A
Software Version:	N/A
IEEE 802.11 WLAN Mode Supported	802.11a/n/ac(20MHz channel bandwidth) 802.11n/ac(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 ac(HT80); 5745-5825 MHz for 802.11a/n/ac(HT20); 5755-5795 MHz for 802.11n/ac(HT40); 5775MHz for 802.11 ac(HT80);
Data Rate	802.11a: 6,9,12,18,24,36,48,54Mbps; 802.11n(HT20/HT40):MCS0-MCS15; 802.11ac (VHT20): NSS1, MCS0-MCS8 802.11ac (VHT40/VHT80):NSS1, MCS0-MCS9
Type of Modulation:	OFDM with BPSK/QPSK/16QAM/64QAM/256QAM for 802.11a/n/ac;
Number Of Channel	4 channels for 802.11a/n20/ac20 in the 5180-5240MHz band ; 2 channels for 802.11 n40/ac40 in the 5190-5230MHz band ; 1 channels for 802.11 ac80 in the 5210MHz band ; 5 channels for 802.11a/n20/ac20 in the 5745-5825MHz band ; 2 channels for 802.11 n40/ac40 in the 5755-5795MHz band ; 1 channels for 802.11 ac80 in the 5775MHz band
Antenna installation:	Metal antenna*2
Antenna Gain:	Antenna A: 5.1G: 2.93 dBi, 5.8G: 3.25 dBi Antenna B: 5.1G: 3.01 dBi, 5.8G: 3.21 dBi Remark: ☒ The antenna gain of the product comes from the antenna report provided by the customer, and the test data is affected by the customer information. ☐ The antenna gain of the product is provided by the customer, and the test data is affected by the customer information.
Ratings:	DC 3.3V

4.2 Test Setup Configuration

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

4.3 Support Equipment

No.	Device Type	Brand	Model	Series No.	Note
E-1	WiFi/BT Module	Hikeen	SH-RT8822CU-01	N/A	EUT
E-2	Adapter	N/A	CD289	N/A	Auxiliary
E-3	PC	N/A	ThinkPad E15 Gen2	N/A	Auxiliary

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	0.5M	USB cable unshielded
C-2	NO	NO	0.5M	DC cable unshielded

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

5.1G

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

5.8G

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	Linking Mode

Note:
(1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.
(2) We're testing antenna A data.

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	MP_Kit_RTL11ac_8822CU_USB_v13.00		
Parameters	DEF	DEF	DEF

4.7 Antenna

5.1G

Antenna	Brand	Model Name	Antenna Type	Gain (dBi)	NOTE
A	N/A	N/A	Metal antenna	2.93	N/A
B	N/A	N/A	Metal antenna	3.01	N/A

Directional gain may be calculated by using the formulas applicable to equal gain antennas with GANT set equal to the gain of the antenna having the highest gain.

1)For power spectral density(PSD) measurements,
Array Gain=10log(NANT/NSS)dB=10log(2/1)=3.01dB,
So the directional gain for PSD is 6.02 dBi
2)For power measurements,
The Array gain=0 dB for NANT≤4,
So the directional gain for Power measurements is 3.01 dBi

5.8G

Antenna	Brand	Model Name	Antenna Type	Gain (dBi)	NOTE
A	N/A	N/A	Metal antenna	3.25	N/A
B	N/A	N/A	Metal antenna	3.21	N/A

Directional gain may be calculated by using the formulas applicable to equal gain antennas with GANT set equal to the gain of the antenna having the highest gain.

1)For power spectral density(PSD) measurements,
Array Gain=10log(NANT/NSS)dB=10log(2/1)=3.01dB,
So the directional gain for PSD is 6.26 dBi
2)For power measurements,
The Array gain=0 dB for NANT≤4,
So the directional gain for Power measurements is 3.25 dBi

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

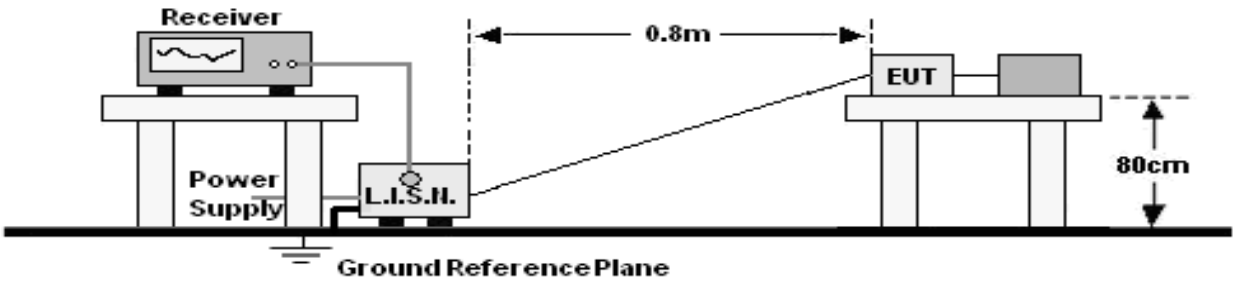
Conducted Emissions Test					
Equipment	**Manufacturer**	**Model#**	**Serial#**	**Last Cal.**	**Next Cal.**
Receiver	R&S	ESR3	102075	May 16, 2024	May 15, 2025
LISN	R&S	ENV216	101375	May 16, 2024	May 15, 2025
Software	Frad	EZ-EMC	EMC-CON 3A1	\	\
Pulse limiter	Schwarzbeck	VTSD9561-F	01323	May 16, 2024	May 15, 2025

RF Conducted Test					
Equipment	**Manufacturer**	**Model#**	**Serial#**	**Last Cal.**	**Next Cal.**
Power meter	Keysight	E4419	\	May 16, 2024	May 15, 2025
Power Sensor (AV)	Keysight	E9300A	\	May 16, 2024	May 15, 2025
Signal Analyzer20kHz-26.5GHz	Keysight	N9020A	MY49100060	May 16, 2024	May 15, 2025
Spectrum Analyzer9kHz-40GHz	R&S	FSP40	100363	May 16, 2024	May 15, 2025
Radio frequency control box	MAIWEI	MW100-RFCB	\	\	\
Software	MAIWEI	MTS 8310	\	\	\

Radiated Emissions Test (966 Chamber01)					
Equipment	**Manufacturer**	**Model#**	**Serial#**	**Last Cal.**	**Next Cal.**
966 chamber	ChengYu	966 Room	966	May 16, 2024	May 15, 2025
Receiver	R&S	ESR3	102075	May 16, 2024	May 15, 2025
Receiver	R&S	ESRP	101154	May 16, 2024	May 15, 2025
Amplifier	Schwarzbeck	BBV9744	9744-0037	May 16, 2024	May 15, 2025
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	942	May 21, 2024	May 20, 2025
Loop Antenna(9KHz -30MHz)	Schwarzbeck	FMZB1519B	00014	May 21, 2024	May 20, 2025
Amplifier	SKET	LAPA_01G18G-45dB	SK2021040901	May 16, 2024	May 15, 2025
Horn Antenna	Schwarzbeck	BBHA9120D	1541	May 21, 2024	May 20, 2025
Amplifier(18GHz-40GHz)	MITEQ	TTA1840-35-HG	2034381	May 16, 2024	May 15, 2025
Horn Antenna(18GHz-40GHz)	Schwarzbeck	BBHA9170	00822	May 21, 2024	May 20, 2025
Spectrum Analyzer9kHz-40GHz	R&S	FSP40	100363	May 16, 2024	May 15, 2025
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

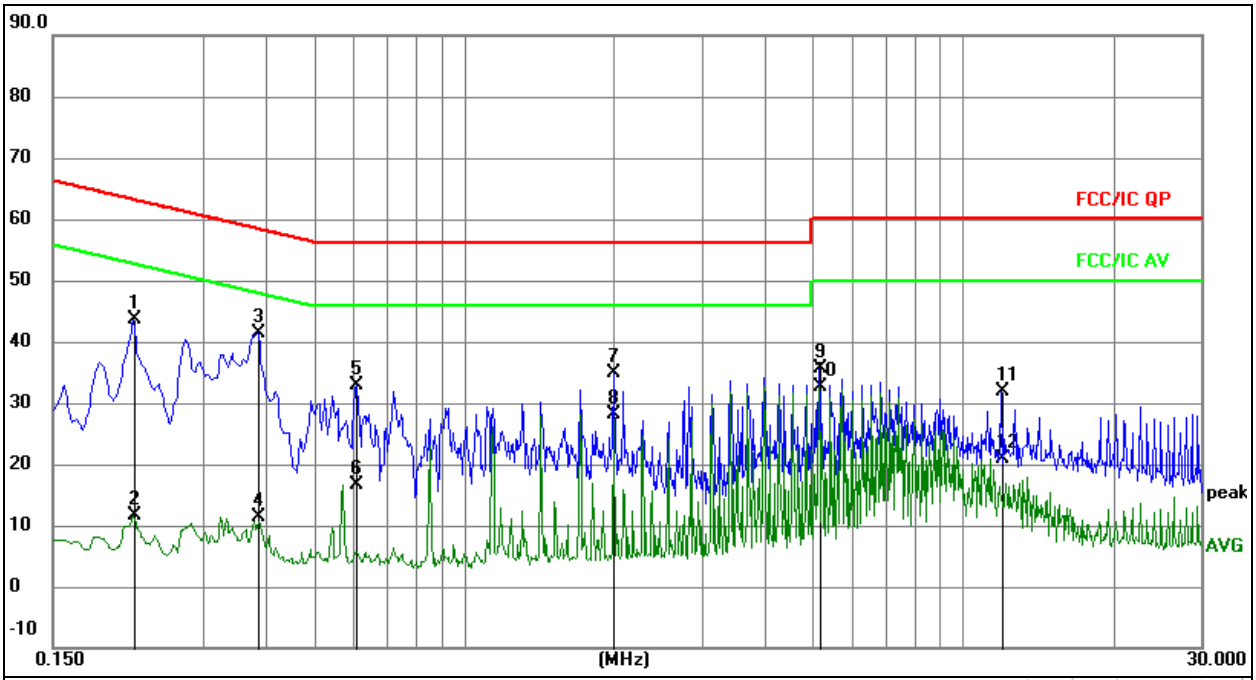
a. The Product was placed on a nonconductive table 0.8 m above the horizontal ground reference plane, and 0.4 m from the vertical ground reference plane, and connected to the main through Line Impedance Stability Network (L.I.S.N).
b. The RBW of the receiver was set at 9 kHz in 150 kHz ~ 30MHz with Peak 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

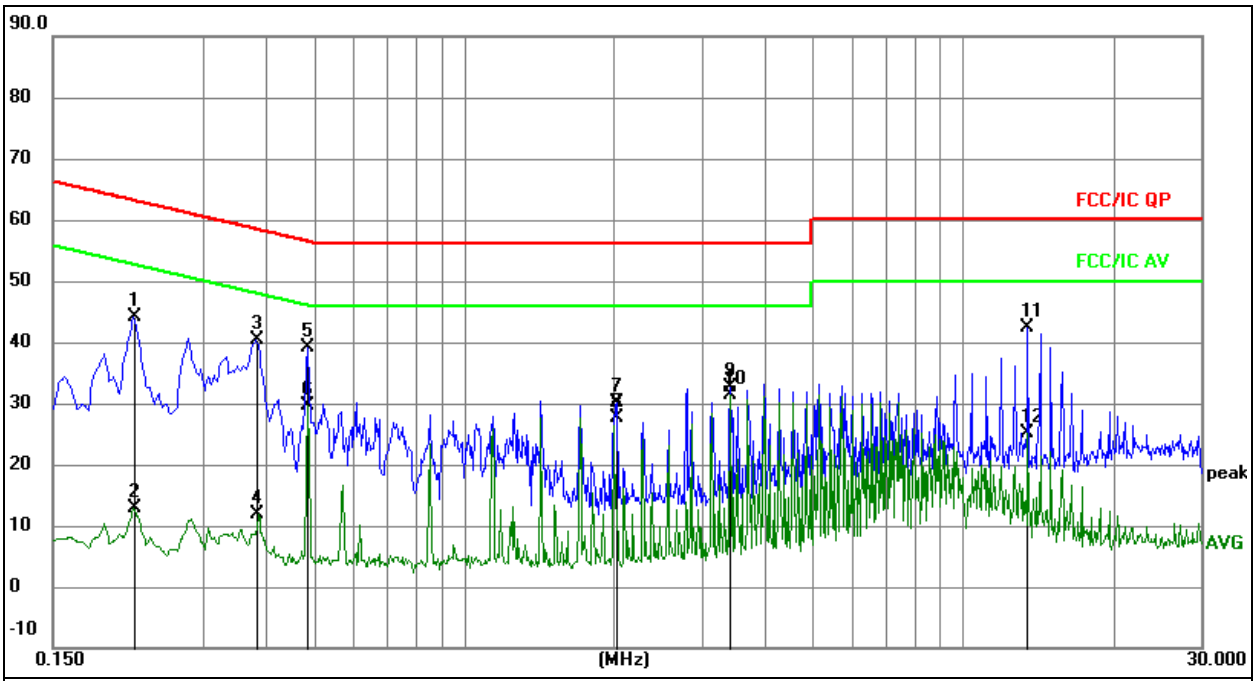
Temperature:	24.3 ℃	Relative Humidity:	52%
Pressure:	101KPa	Phase :	L
Test Mode:	Mode 4	Test Voltage :	AC 120V/60Hz



Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement = Reading Level + Correct Factor
4. Over = Measurement - Limit

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz		dB	dBuV	dBuV	dB	Detector
1		0.2174	23.44	20.07	43.51	62.92	-19.41	QP
2		0.2174	-8.37	20.07	11.70	52.92	-41.22	AVG
3	*	0.3871	21.33	20.08	41.41	58.13	-16.72	QP
4		0.3871	-8.63	20.08	11.45	48.13	-36.68	AVG
5		0.6075	12.89	20.09	32.98	56.00	-23.02	QP
6		0.6075	-3.53	20.09	16.56	46.00	-29.44	AVG
7		1.9906	14.68	20.10	34.78	56.00	-21.22	QP
8		1.9906	8.08	20.10	28.18	46.00	-17.82	AVG
9		5.1390	15.46	20.15	35.61	60.00	-24.39	QP
10		5.1390	12.53	20.15	32.68	50.00	-17.32	AVG
11		11.9328	11.64	20.22	31.86	60.00	-28.14	QP
12		11.9328	0.66	20.22	20.88	50.00	-29.12	AVG

Temperature:	24.3 ℃	Relative Humidity:	52%
Pressure:	101KPa	Phase :	N
Test Mode:	Mode 4	Test Voltage :	AC 120V/60Hz



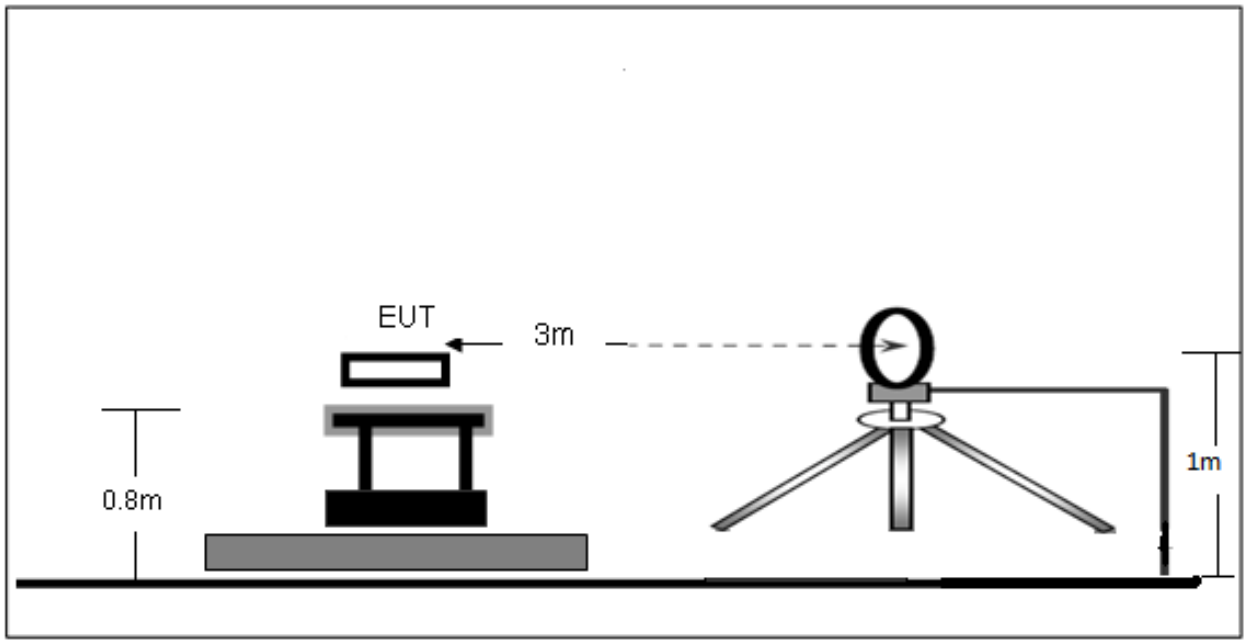
Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement = Reading Level + Correct Factor
4. Over = Measurement - Limit

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz		dB	dBuV	dBuV	dB	Detector
1		0.2174	23.98	20.07	44.05	62.92	-18.87	QP
2		0.2174	-7.22	20.07	12.85	52.92	-40.07	AVG
3		0.3832	20.29	20.08	40.37	58.21	-17.84	QP
4		0.3832	-8.32	20.08	11.76	48.21	-36.45	AVG
5		0.4863	19.03	20.08	39.11	56.23	-17.12	QP
6		0.4863	9.61	20.08	29.69	46.23	-16.54	AVG
7		2.0225	9.95	20.10	30.05	56.00	-25.95	QP
8		2.0225	7.55	20.10	27.65	46.00	-18.35	AVG
9		3.4174	12.55	20.13	32.68	56.00	-23.32	QP
10	*	3.4174	11.22	20.13	31.35	46.00	-14.65	AVG
11		13.4792	22.01	20.27	42.28	60.00	-17.72	QP
12		13.4792	4.76	20.27	25.03	50.00	-24.97	AVG

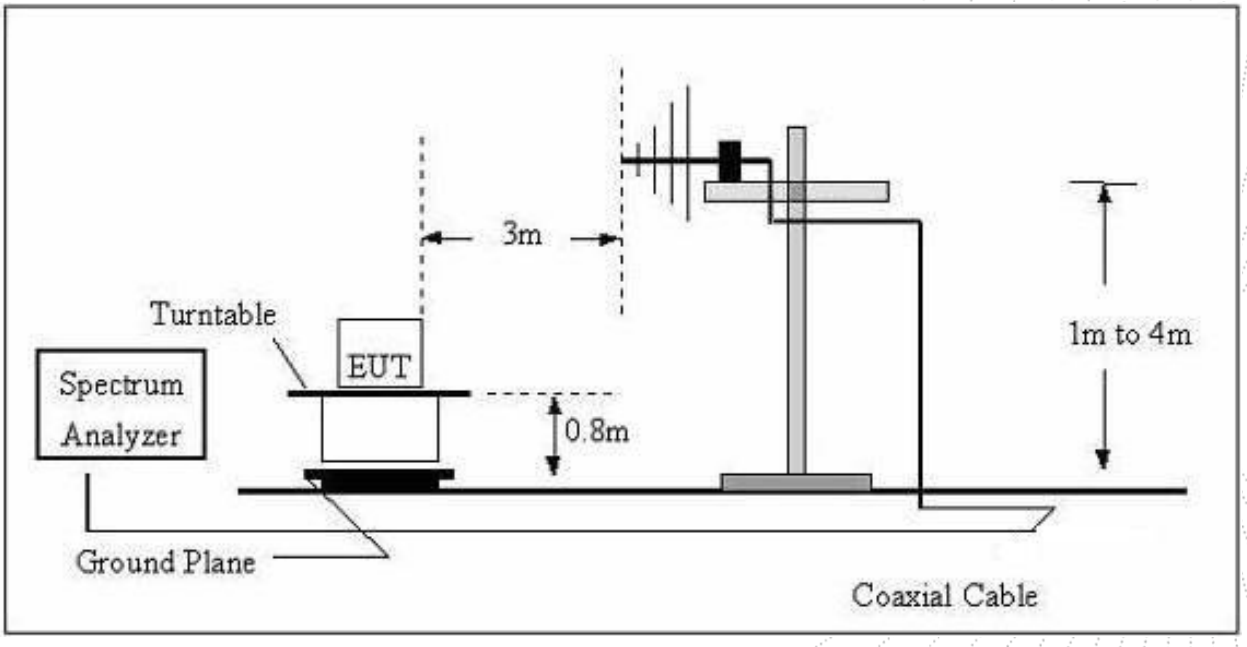
7. Radiated Emissions

7.1 Block Diagram Of Test Setup

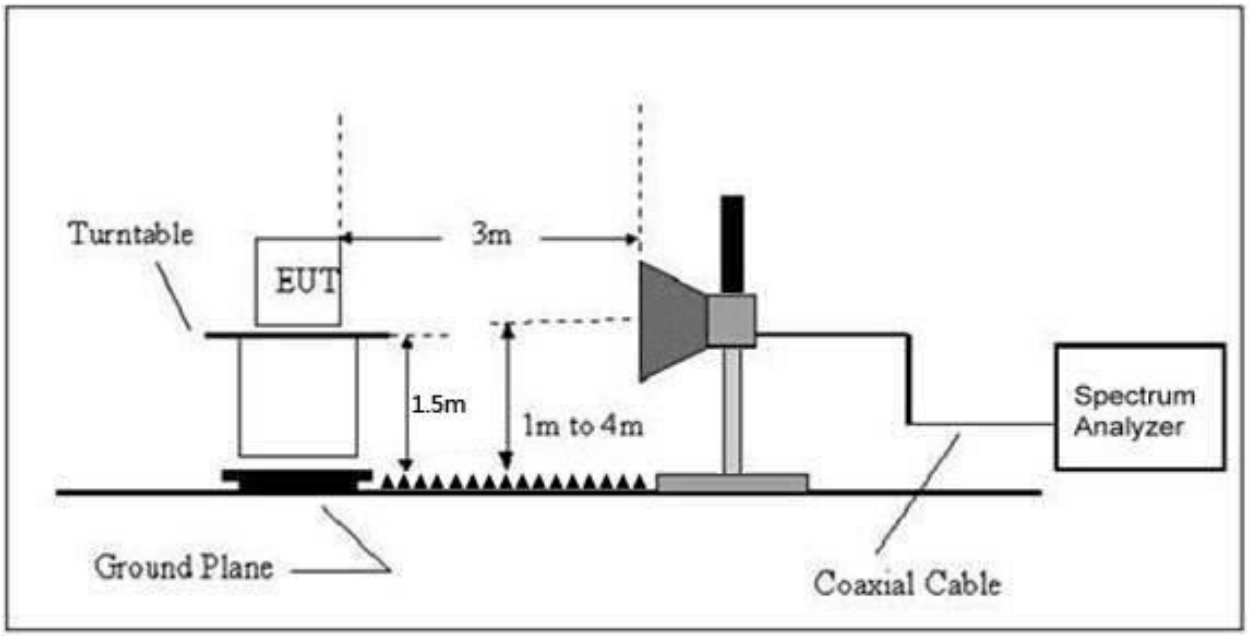
（A）Radiated Emission Test-Up Frequency Below 30MHz



（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

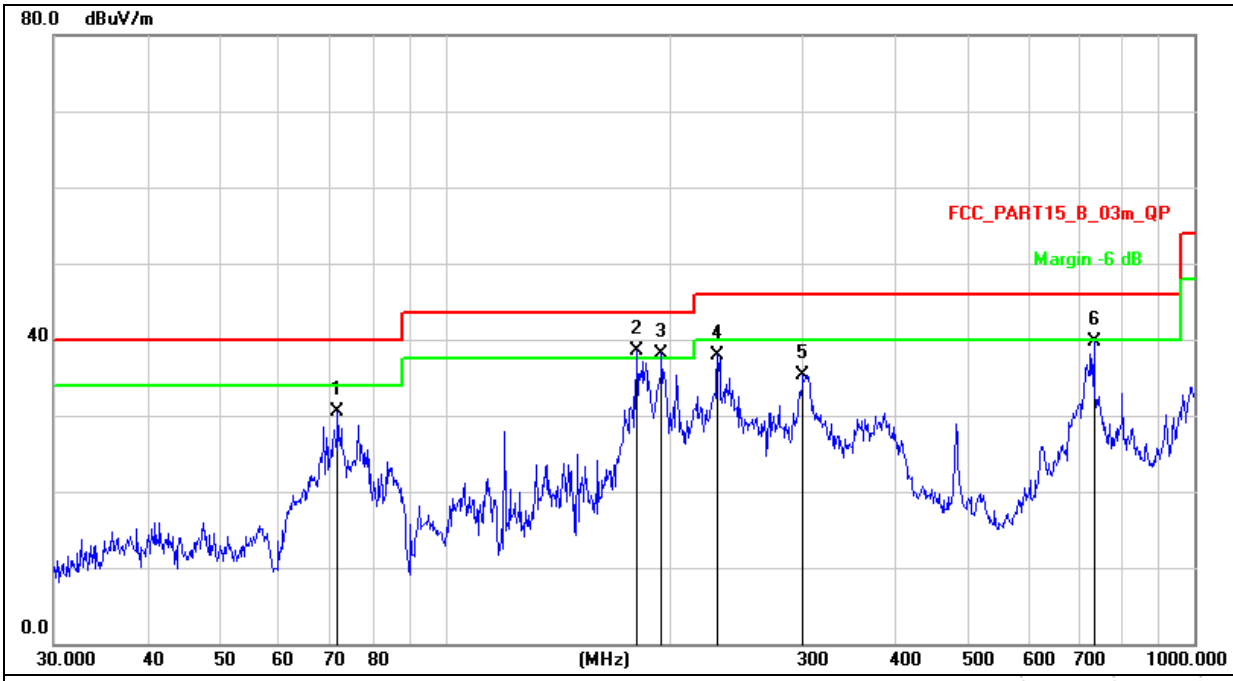
Temperature:	25.8℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage :	AC 120V/60Hz
Test Mode:	Mode 4	Polarization :	--

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

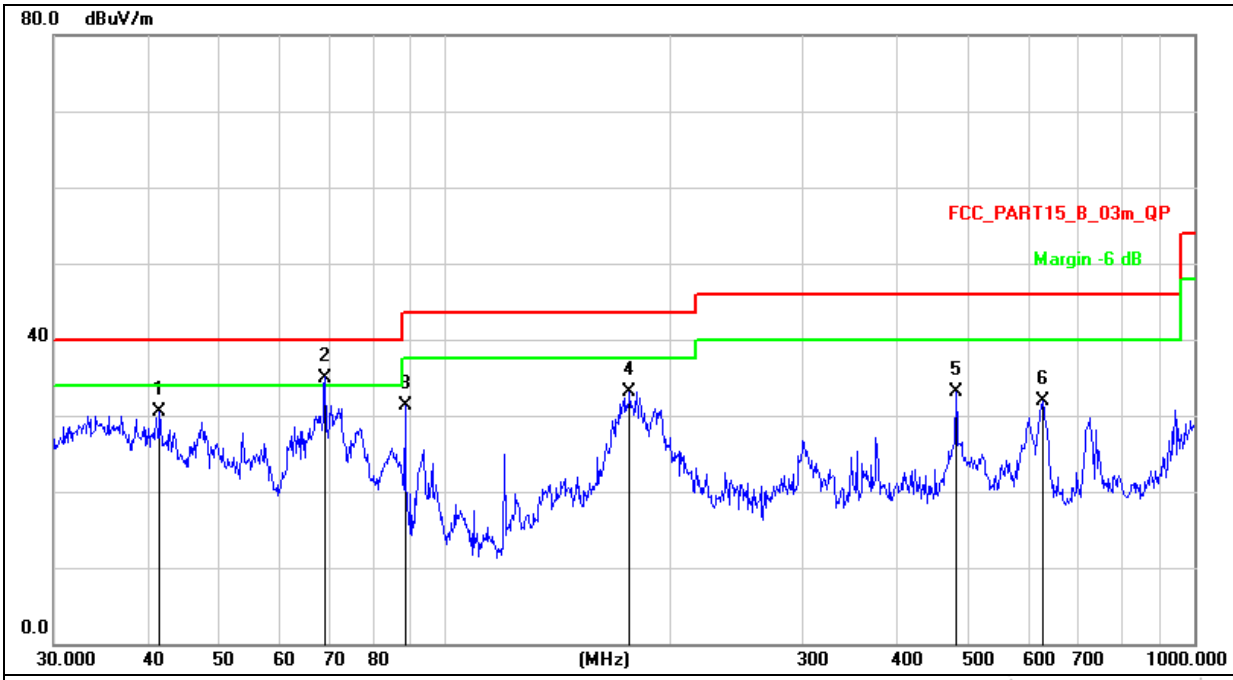
Temperature:	25.8℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	Horizontal
Test Mode:	Mode 4	Test Voltage :	AC 120V/60Hz



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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		71.8320	48.78	-18.32	30.46	40.00	-9.54	QP
2	*	180.0165	55.74	-17.20	38.54	43.50	-4.96	QP
3	!	194.4534	54.33	-16.13	38.20	43.50	-5.30	QP
4		230.9068	52.84	-14.84	38.00	46.00	-8.00	QP
5		300.3672	48.61	-13.23	35.38	46.00	-10.62	QP
6		734.4913	44.96	-5.21	39.75	46.00	-6.25	QP

Temperature:	25.8℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	Vertical
Test Mode:	Mode 4	Test Voltage :	AC 120V/60Hz



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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		41.5670	45.14	-14.59	30.55	40.00	-9.45	QP
2	*	69.1141	52.76	-17.76	35.00	40.00	-5.00	QP
3		88.3421	49.18	-17.79	31.39	43.50	-12.11	QP
4		176.2686	50.56	-17.48	33.08	43.50	-10.42	QP
5		480.5276	42.15	-9.10	33.05	46.00	-12.95	QP
6		627.2738	38.53	-6.55	31.98	46.00	-14.02	QP

Between 1GHz – 40GHz

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

Test mode: 802.11a (antenna a) Frequency(MHz): 5180

Frequency (MHz)	Polarity	PK(dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	AV(dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)
5150.12	H	59.37	74	46.31	54
5149.73	V	56.24	74	42.82	54

Test mode: 802.11a (antenna a) Frequency(MHz): 5240

Frequency (MHz)	Polarity	PK(dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	AV(dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)
5303.58	H	45.62	74	32.05	54
5302.69	V	44.14	74	29.37	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

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	4434.138	73.00	-20.73	52.27	68.2	-15.93	PK
Vertical	4434.138	59.63	-20.73	38.90	54	-15.10	AV
Vertical	10360.091	61.16	-9.36	51.80	68.2	-16.40	PK
Vertical	10360.091	49.46	-9.36	40.10	54	-13.90	AV
Vertical	15540.046	63.20	-7.84	55.36	74	-18.64	PK
Vertical	15540.046	49.13	-7.84	41.29	54	-12.71	AV
Horizontal	4434.034	74.27	-20.73	53.54	68.2	-14.66	PK
Horizontal	4434.034	59.36	-20.73	38.63	54	-15.37	AV
Horizontal	10360.151	64.55	-9.36	55.19	68.2	-13.01	PK
Horizontal	10360.151	49.04	-9.36	39.68	54	-14.32	AV
Horizontal	15540.060	64.64	-7.84	56.80	74	-17.20	PK
Horizontal	15540.060	49.50	-7.84	41.66	54	-12.34	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.109	70.15	-20.42	49.74	74	-24.26	PK
Vertical	4592.109	59.60	-20.42	39.18	54	-14.82	AV
Vertical	10400.079	61.65	-9.30	52.35	68.2	-15.85	PK
Vertical	10400.079	49.27	-9.30	39.97	54	-14.03	AV
Vertical	15600.197	63.99	-7.82	56.17	74	-17.83	PK
Vertical	15600.197	49.01	-7.82	41.19	54	-12.81	AV
Horizontal	4592.130	71.62	-20.42	51.21	74	-22.79	PK
Horizontal	4592.130	59.83	-20.42	39.42	54	-14.58	AV
Horizontal	10400.162	60.57	-9.30	51.27	68.2	-16.93	PK
Horizontal	10400.162	49.07	-9.30	39.77	54	-14.23	AV
Horizontal	15600.018	61.03	-7.82	53.21	74	-20.79	PK
Horizontal	15600.018	49.49	-7.82	41.67	54	-12.33	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.010	71.73	-20.12	51.61	74	-22.39	PK
Vertical	4739.010	59.27	-20.12	39.15	54	-14.85	AV
Vertical	10480.044	61.74	-9.18	52.56	68.2	-15.64	PK
Vertical	10480.044	49.09	-9.18	39.91	54	-14.09	AV
Vertical	15720.017	62.67	-7.78	54.89	74	-19.11	PK
Vertical	15720.017	49.32	-7.78	41.54	54	-12.46	AV
Horizontal	4739.161	74.51	-20.12	54.39	74	-19.61	PK
Horizontal	4739.161	59.14	-20.12	39.02	54	-14.98	AV
Horizontal	10480.157	63.86	-9.18	54.68	68.2	-13.52	PK
Horizontal	10480.157	49.97	-9.18	40.79	54	-13.21	AV
Horizontal	15720.083	61.83	-7.78	54.05	74	-19.95	PK
Horizontal	15720.083	49.31	-7.78	41.53	54	-12.47	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.
The worst case is Antenna A

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	4434.171	72.99	-20.73	52.26	68.2	-15.94	PK
Vertical	4434.171	59.11	-20.73	38.37	54	-15.63	AV
Vertical	10360.117	60.65	-9.36	51.29	68.2	-16.91	PK
Vertical	10360.117	49.12	-9.36	39.76	54	-14.24	AV
Vertical	15540.007	60.59	-7.84	52.75	74	-21.25	PK
Vertical	15540.007	49.82	-7.84	41.98	54	-12.02	AV
Horizontal	4434.179	70.25	-20.73	49.52	68.2	-18.68	PK
Horizontal	4434.179	59.46	-20.73	38.73	54	-15.27	AV
Horizontal	10360.093	61.34	-9.36	51.98	68.2	-16.22	PK
Horizontal	10360.093	49.91	-9.36	40.55	54	-13.45	AV
Horizontal	15540.044	63.66	-7.84	55.82	74	-18.18	PK
Horizontal	15540.044	49.96	-7.84	42.12	54	-11.88	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.107	71.28	-20.42	50.86	74	-23.14	PK
Vertical	4592.107	59.93	-20.42	39.52	54	-14.48	AV
Vertical	10400.118	63.62	-9.30	54.32	68.2	-13.88	PK
Vertical	10400.118	49.05	-9.30	39.75	54	-14.25	AV
Vertical	15600.192	60.57	-7.82	52.75	74	-21.25	PK
Vertical	15600.192	49.78	-7.82	41.96	54	-12.04	AV
Horizontal	4592.061	73.69	-20.42	53.27	74	-20.73	PK
Horizontal	4592.061	59.52	-20.42	39.11	54	-14.89	AV
Horizontal	10400.030	61.65	-9.30	52.35	68.2	-15.85	PK
Horizontal	10400.030	49.15	-9.30	39.85	54	-14.15	AV
Horizontal	15600.079	64.92	-7.82	57.10	74	-16.90	PK
Horizontal	15600.079	49.79	-7.82	41.97	54	-12.03	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.011	70.75	-20.12	50.63	74	-23.37	PK
Vertical	4739.011	59.62	-20.12	39.49	54	-14.51	AV
Vertical	10480.081	60.64	-9.18	51.46	68.2	-16.74	PK
Vertical	10480.081	49.60	-9.18	40.42	54	-13.58	AV
Vertical	15720.152	60.88	-7.78	53.10	74	-20.90	PK
Vertical	15720.152	49.40	-7.78	41.62	54	-12.38	AV
Horizontal	4739.097	70.31	-20.12	50.19	74	-23.81	PK
Horizontal	4739.097	59.36	-20.12	39.24	54	-14.76	AV
Horizontal	10480.111	60.54	-9.18	51.36	68.2	-16.84	PK
Horizontal	10480.111	49.97	-9.18	40.79	54	-13.21	AV
Horizontal	15720.081	61.20	-7.78	53.42	74	-20.58	PK
Horizontal	15720.081	49.92	-7.78	42.14	54	-11.86	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 is MIMO Mode.

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	4434.024	73.53	-20.73	52.80	68.2	-15.40	PK
Vertical	4434.024	59.90	-20.73	39.17	54	-14.83	AV
Vertical	10380.156	62.02	-9.33	52.69	68.2	-15.51	PK
Vertical	10380.156	49.91	-9.33	40.58	54	-13.42	AV
Vertical	15570.004	63.20	-7.83	55.37	74	-18.63	PK
Vertical	15570.004	49.91	-7.83	42.08	54	-11.92	AV
Horizontal	4434.132	72.00	-20.73	51.26	74	-22.74	PK
Horizontal	4434.132	59.06	-20.73	38.33	54	-15.67	AV
Horizontal	10380.196	63.97	-9.33	54.64	68.2	-13.56	PK
Horizontal	10380.196	49.98	-9.33	40.65	54	-13.35	AV
Horizontal	15570.158	63.42	-7.83	55.59	74	-18.41	PK
Horizontal	15570.158	49.16	-7.83	41.33	54	-12.67	AV
Middle Channel (5230 MHz)-Above 1G							
Vertical	4739.013	72.57	-20.12	52.45	68.2	-15.75	PK
Vertical	4739.013	59.29	-20.12	39.17	54	-14.83	AV
Vertical	10460.178	64.65	-9.21	55.44	68.2	-12.76	PK
Vertical	10460.178	49.62	-9.21	40.41	54	-13.59	AV
Vertical	15690.074	61.20	-7.79	53.41	74	-20.59	PK
Vertical	15690.074	49.03	-7.79	41.24	54	-12.76	AV
Horizontal	4739.133	72.77	-20.12	52.65	68.2	-15.55	PK
Horizontal	4739.133	59.40	-20.12	39.28	54	-14.72	AV
Horizontal	10460.117	61.77	-9.21	52.56	68.2	-15.64	PK
Horizontal	10460.117	49.08	-9.21	39.87	54	-14.13	AV
Horizontal	15690.074	62.93	-7.79	55.14	74	-18.86	PK
Horizontal	15690.074	49.33	-7.79	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 is MIMO Mode.

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	4434.054	72.39	-20.73	51.66	68.2	-16.54	PK
Vertical	4434.054	59.23	-20.73	38.50	54	-15.50	AV
Vertical	10360.169	60.57	-9.36	51.21	68.2	-16.99	PK
Vertical	10360.169	49.07	-9.36	39.71	54	-14.29	AV
Vertical	15540.090	60.84	-7.84	53.00	74	-21.00	PK
Vertical	15540.090	49.91	-7.84	42.07	54	-11.93	AV
Horizontal	4434.169	70.44	-20.73	49.71	68.2	-18.49	PK
Horizontal	4434.169	59.38	-20.73	38.65	54	-15.35	AV
Horizontal	10360.125	64.28	-9.36	54.92	68.2	-13.28	PK
Horizontal	10360.125	49.89	-9.36	40.53	54	-13.47	AV
Horizontal	15540.175	60.18	-7.84	52.34	74	-21.66	PK
Horizontal	15540.175	49.86	-7.84	42.02	54	-11.98	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.060	72.14	-20.42	51.72	74	-22.28	PK
Vertical	4592.060	59.90	-20.42	39.48	54	-14.52	AV
Vertical	10400.109	64.03	-9.30	54.73	68.2	-13.47	PK
Vertical	10400.109	49.27	-9.30	39.97	54	-14.03	AV
Vertical	15600.087	64.85	-7.82	57.03	74	-16.97	PK
Vertical	15600.087	49.93	-7.82	42.11	54	-11.89	AV
Horizontal	4592.053	71.66	-20.42	51.24	74	-22.76	PK
Horizontal	4592.053	59.28	-20.42	38.87	54	-15.13	AV
Horizontal	10400.159	64.67	-9.30	55.37	68.2	-12.83	PK
Horizontal	10400.159	49.13	-9.30	39.83	54	-14.17	AV
Horizontal	15600.092	63.43	-7.82	55.61	74	-18.39	PK
Horizontal	15600.092	49.53	-7.82	41.71	54	-12.29	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.009	70.40	-20.12	50.28	74	-23.72	PK
Vertical	4739.009	59.41	-20.12	39.29	54	-14.71	AV
Vertical	10480.143	62.79	-9.18	53.61	68.2	-14.59	PK
Vertical	10480.143	49.19	-9.18	40.01	54	-13.99	AV
Vertical	15720.131	62.76	-7.78	54.98	74	-19.02	PK
Vertical	15720.131	49.70	-7.78	41.92	54	-12.08	AV
Horizontal	4739.068	73.05	-20.12	52.93	74	-21.07	PK
Horizontal	4739.068	59.88	-20.12	39.76	54	-14.24	AV
Horizontal	10480.171	62.25	-9.18	53.07	68.2	-15.13	PK
Horizontal	10480.171	49.35	-9.18	40.17	54	-13.83	AV
Horizontal	15720.117	64.65	-7.78	56.87	74	-17.13	PK
Horizontal	15720.117	49.58	-7.78	41.80	54	-12.20	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 is MIMO Mode.

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	4434.015	72.30	-20.73	51.57	68.2	-16.63	PK
Vertical	4434.015	59.04	-20.73	38.31	54	-15.69	AV
Vertical	10380.183	62.28	-9.33	52.95	68.2	-15.25	PK
Vertical	10380.183	49.67	-9.33	40.34	54	-13.66	AV
Vertical	15570.134	61.22	-7.83	53.39	74	-20.61	PK
Vertical	15570.134	49.34	-7.83	41.51	54	-12.49	AV
Horizontal	4434.022	74.55	-20.73	53.82	74	-20.18	PK
Horizontal	4434.022	59.31	-20.73	38.58	54	-15.42	AV
Horizontal	10380.181	62.30	-9.33	52.97	68.2	-15.23	PK
Horizontal	10380.181	49.55	-9.33	40.22	54	-13.78	AV
Horizontal	15570.109	60.15	-7.83	52.32	74	-21.68	PK
Horizontal	15570.109	49.11	-7.83	41.28	54	-12.72	AV
Middle Channel (5230 MHz)-Above 1G							
Vertical	4739.135	73.19	-20.12	53.07	68.2	-15.13	PK
Vertical	4739.135	59.80	-20.12	39.68	54	-14.32	AV
Vertical	10460.015	62.77	-9.21	53.56	68.2	-14.64	PK
Vertical	10460.015	49.80	-9.21	40.59	54	-13.41	AV
Vertical	15690.076	64.09	-7.79	56.30	74	-17.70	PK
Vertical	15690.076	49.13	-7.79	41.34	54	-12.66	AV
Horizontal	4739.001	71.99	-20.12	51.87	68.2	-16.33	PK
Horizontal	4739.001	59.62	-20.12	39.50	54	-14.50	AV
Horizontal	10460.193	62.63	-9.21	53.42	68.2	-14.78	PK
Horizontal	10460.193	49.78	-9.21	40.57	54	-13.43	AV
Horizontal	15690.014	63.58	-7.79	55.79	74	-18.21	PK
Horizontal	15690.014	49.39	-7.79	41.60	54	-12.40	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 is MIMO Mode.

Test Mode:	TX(5.1G) - 802.11ac 80

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 (5210 MHz)-Above 1G							
Vertical	4434.108	74.49	-20.73	53.76	68.2	-14.44	PK
Vertical	4434.108	59.18	-20.73	38.45	54	-15.55	AV
Vertical	10420.025	60.38	-9.27	51.11	68.2	-17.09	PK
Vertical	10420.025	49.61	-9.27	40.34	54	-13.66	AV
Vertical	15630.031	64.66	-7.81	56.85	74	-17.15	PK
Vertical	15630.031	49.41	-7.81	41.60	54	-12.40	AV
Horizontal	4434.056	73.52	-20.73	52.78	68.2	-15.42	PK
Horizontal	4434.056	59.04	-20.73	38.31	54	-15.69	AV
Horizontal	10420.191	41.25	9.27	50.52	68.2	-17.68	PK
Horizontal	10420.191	29.09	9.27	38.36	54	-15.64	AV
Horizontal	15630.075	64.78	-7.81	56.97	74	-17.03	PK
Horizontal	15630.075	49.67	-7.81	41.86	54	-12.14	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 is MIMO Mode.

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	4679.150	73.60	-20.24	53.36	74	-20.64	PK
Vertical	4679.150	59.97	-20.24	39.73	54	-14.27	AV
Vertical	11490.055	62.46	-8.79	53.67	68.2	-14.53	PK
Vertical	11490.055	49.74	-8.79	40.95	54	-13.05	AV
Vertical	17235.006	58.38	-3.18	55.20	68.2	-13.00	PK
Vertical	17235.006	44.36	-3.18	41.18	54	-12.82	AV
Horizontal	4679.114	71.22	-20.73	50.49	74	-23.51	PK
Horizontal	4679.114	59.66	-20.73	38.93	54	-15.07	AV
Horizontal	11490.009	60.57	-8.79	51.78	68.2	-16.42	PK
Horizontal	11490.009	49.96	-8.79	41.17	54	-12.83	AV
Horizontal	17235.152	57.82	-3.18	54.64	68.2	-13.56	PK
Horizontal	17235.152	44.78	-3.18	41.60	54	-12.40	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.105	73.90	-20.42	53.48	74	-20.52	PK
Vertical	4592.105	59.03	-20.42	38.62	54	-15.38	AV
Vertical	11570.068	64.10	-8.86	55.24	68.2	-12.96	PK
Vertical	11570.068	49.14	-8.86	40.28	54	-13.72	AV
Vertical	17355.062	59.51	-2.52	56.99	68.2	-11.21	PK
Vertical	17355.062	44.20	-2.52	41.68	54	-12.32	AV
Horizontal	4592.121	70.57	-20.42	50.16	74	-23.84	PK
Horizontal	4592.121	59.56	-20.42	39.14	54	-14.86	AV
Horizontal	11570.020	61.62	-8.86	52.76	68.2	-15.44	PK
Horizontal	11570.020	49.47	-8.86	40.61	54	-13.39	AV
Horizontal	17355.157	56.67	-2.52	54.15	68.2	-14.05	PK
Horizontal	17355.157	44.76	-2.52	42.24	54	-11.76	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.036	73.33	-18.93	54.40	68.2	-13.80	PK
Vertical	6039.036	59.99	-18.93	41.06	54	-12.94	AV
Vertical	11650.024	64.35	-8.92	55.43	74	-18.57	PK
Vertical	11650.024	49.54	-8.92	40.62	54	-13.38	AV
Vertical	17475.074	56.28	-1.86	54.42	68.2	-13.78	PK
Vertical	17475.074	44.23	-1.86	42.37	54	-11.63	AV
Horizontal	6039.094	72.34	-18.93	53.41	68.2	-14.79	PK
Horizontal	6039.094	59.20	-18.93	40.27	54	-13.73	AV
Horizontal	11650.016	62.97	-8.92	54.05	74	-19.95	PK
Horizontal	11650.016	49.03	-8.92	40.11	54	-13.89	AV
Horizontal	17475.010	56.33	-1.86	54.47	68.2	-13.73	PK
Horizontal	17475.010	44.55	-1.86	42.69	54	-11.31	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.
The worst case is Antenna A

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	4679.085	72.67	-20.24	52.43	74	-21.57	PK
Vertical	4679.085	59.80	-20.24	39.56	54	-14.44	AV
Vertical	11490.104	61.30	-8.79	52.51	68.2	-15.69	PK
Vertical	11490.104	49.31	-8.79	40.52	54	-13.48	AV
Vertical	17235.167	55.21	-3.18	52.03	68.2	-16.17	PK
Vertical	17235.167	44.29	-3.18	41.11	54	-12.89	AV
Horizontal	4679.124	74.94	-20.24	54.69	74	-19.31	PK
Horizontal	4679.124	59.47	-20.24	39.23	54	-14.77	AV
Horizontal	11490.074	60.61	-8.79	51.82	68.2	-16.38	PK
Horizontal	11490.074	49.04	-8.79	40.25	54	-13.75	AV
Horizontal	17235.196	57.32	-3.18	54.14	68.2	-14.06	PK
Horizontal	17235.196	44.10	-3.18	40.92	54	-13.08	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.136	70.41	-20.42	49.99	74	-24.01	PK
Vertical	4592.136	59.52	-20.42	39.11	54	-14.89	AV
Vertical	11570.178	64.91	-8.86	56.05	68.2	-12.15	PK
Vertical	11570.178	49.19	-8.86	40.33	54	-13.67	AV
Vertical	17355.019	59.49	-2.52	56.97	68.2	-11.23	PK
Vertical	17355.019	44.41	-2.52	41.89	54	-12.11	AV
Horizontal	4592.116	71.61	-20.42	51.20	74	-22.80	PK
Horizontal	4592.116	59.81	-20.42	39.39	54	-14.61	AV
Horizontal	11570.071	61.21	-8.86	52.35	68.2	-15.85	PK
Horizontal	11570.071	49.81	-8.86	40.95	54	-13.05	AV
Horizontal	17355.147	56.23	-2.52	53.71	68.2	-14.49	PK
Horizontal	17355.147	44.48	-2.52	41.96	54	-12.04	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.153	73.37	-18.93	54.43	68.2	-13.77	PK
Vertical	6039.153	59.60	-18.93	40.67	54	-13.33	AV
Vertical	11650.175	61.18	-8.92	52.26	74	-21.74	PK
Vertical	11650.175	49.95	-8.92	41.03	54	-12.97	AV
Vertical	17475.173	58.37	-1.86	56.51	68.2	-11.69	PK
Vertical	17475.173	44.28	-1.86	42.42	54	-11.58	AV
Horizontal	6039.192	71.22	-18.93	52.29	68.2	-15.91	PK
Horizontal	6039.192	59.31	-18.93	40.38	54	-13.62	AV
Horizontal	11650.044	61.15	-8.92	52.23	74	-21.77	PK
Horizontal	11650.044	49.17	-8.92	40.25	54	-13.75	AV
Horizontal	17475.126	57.79	-1.86	55.93	68.2	-12.27	PK
Horizontal	17475.126	44.63	-1.86	42.77	54	-11.23	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 is MIMO Mode.

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	4679.156	73.95	-20.24	53.70	74	-20.30	PK
Vertical	4679.156	59.66	-20.24	39.42	54	-14.58	AV
Vertical	11510.030	60.01	-8.81	51.20	74	-22.80	PK
Vertical	11510.030	49.46	-8.81	40.65	54	-13.35	AV
Vertical	17265.059	56.93	-3.01	53.92	68.2	-14.28	PK
Vertical	17265.059	44.73	-3.01	41.72	54	-12.28	AV
Horizontal	4679.021	72.12	-20.24	51.88	74	-22.12	PK
Horizontal	4679.021	59.10	-20.24	38.85	54	-15.15	AV
Horizontal	11510.115	60.12	-8.81	51.31	74	-22.69	PK
Horizontal	11510.115	49.80	-8.81	40.99	54	-13.01	AV
Horizontal	17265.044	57.04	-3.01	54.03	68.2	-14.17	PK
Horizontal	17265.044	44.79	-3.01	41.78	54	-12.22	AV
Middle Channel (5795 MHz)-Above 1G							
Vertical	6039.073	71.80	-18.93	52.87	68.2	-15.33	PK
Vertical	6039.073	59.13	-18.93	40.20	54	-13.80	AV
Vertical	11590.193	63.85	-8.87	54.98	74	-19.02	PK
Vertical	11590.193	49.30	-8.87	40.43	54	-13.57	AV
Vertical	17385.041	57.80	-2.35	55.45	68.2	-12.75	PK
Vertical	17385.041	44.72	-2.35	42.37	54	-11.63	AV
Horizontal	6039.117	72.81	-18.93	53.88	68.2	-14.32	PK
Horizontal	6039.117	59.63	-18.93	40.70	54	-13.30	AV
Horizontal	11590.115	60.24	-8.87	51.37	74	-22.63	PK
Horizontal	11590.115	49.69	-8.87	40.82	54	-13.18	AV
Horizontal	17385.005	55.78	-2.35	53.43	68.2	-14.77	PK
Horizontal	17385.005	44.10	-2.35	41.75	54	-12.25	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 is MIMO Mode.

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	4679.003	73.91	-20.24	53.67	74	-20.33	PK
Vertical	4679.003	59.29	-20.24	39.05	54	-14.95	AV
Vertical	11490.121	61.41	-8.79	52.62	68.2	-15.58	PK
Vertical	11490.121	49.11	-8.79	40.32	54	-13.68	AV
Vertical	17235.019	57.53	-3.18	54.35	68.2	-13.85	PK
Vertical	17235.019	44.91	-3.18	41.73	54	-12.27	AV
Horizontal	4679.153	70.58	-20.24	50.33	74	-23.67	PK
Horizontal	4679.153	59.65	-20.24	39.41	54	-14.59	AV
Horizontal	11490.178	63.69	-8.79	54.90	68.2	-13.30	PK
Horizontal	11490.178	49.70	-8.79	40.91	54	-13.09	AV
Horizontal	17235.156	55.68	-3.18	52.50	68.2	-15.70	PK
Horizontal	17235.156	44.83	-3.18	41.65	54	-12.35	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.173	74.43	-20.42	54.01	74	-19.99	PK
Vertical	4592.173	59.31	-20.42	38.89	54	-15.11	AV
Vertical	11570.023	64.77	-8.86	55.91	68.2	-12.29	PK
Vertical	11570.023	49.72	-8.86	40.86	54	-13.14	AV
Vertical	17355.099	58.63	-2.52	56.11	68.2	-12.09	PK
Vertical	17355.099	44.34	-2.52	41.82	54	-12.18	AV
Horizontal	4592.039	74.97	-20.42	54.55	74	-19.45	PK
Horizontal	4592.039	59.71	-20.42	39.29	54	-14.71	AV
Horizontal	11570.105	65.00	-8.86	56.14	68.2	-12.06	PK
Horizontal	11570.105	49.30	-8.86	40.44	54	-13.56	AV
Horizontal	17355.062	58.57	-2.52	56.05	68.2	-12.15	PK
Horizontal	17355.062	44.60	-2.52	42.08	54	-11.92	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.167	71.08	-18.93	52.14	68.2	-16.06	PK
Vertical	6039.167	59.55	-18.93	40.62	54	-13.38	AV
Vertical	11650.135	60.46	-8.92	51.54	74	-22.46	PK
Vertical	11650.135	49.10	-8.92	40.18	54	-13.82	AV
Vertical	17475.028	55.41	-1.86	53.55	68.2	-14.65	PK
Vertical	17475.028	44.99	-1.86	43.13	54	-10.87	AV
Horizontal	6039.163	72.63	-18.93	53.70	68.2	-14.50	PK
Horizontal	6039.163	59.44	-18.93	40.51	54	-13.49	AV
Horizontal	11650.140	64.82	-8.92	55.90	74	-18.10	PK
Horizontal	11650.140	49.81	-8.92	40.89	54	-13.11	AV
Horizontal	17475.117	57.15	-1.86	55.29	68.2	-12.91	PK
Horizontal	17475.117	44.80	-1.86	42.94	54	-11.06	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 is MIMO Mode.

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	4679.035	70.77	-20.24	50.53	74	-23.47	PK
Vertical	4679.035	59.17	-20.24	38.93	54	-15.07	AV
Vertical	11510.094	64.08	-8.81	55.27	74	-18.73	PK
Vertical	11510.094	49.05	-8.81	40.24	54	-13.76	AV
Vertical	17265.130	58.35	-3.01	55.34	68.2	-12.86	PK
Vertical	17265.130	44.73	-3.01	41.72	54	-12.28	AV
Horizontal	4679.028	71.69	-20.24	51.45	74	-22.55	PK
Horizontal	4679.028	59.42	-20.24	39.18	54	-14.82	AV
Horizontal	11510.032	60.19	-8.81	51.38	74	-22.62	PK
Horizontal	11510.032	49.80	-8.81	40.99	54	-13.01	AV
Horizontal	17265.023	56.35	-3.01	53.34	68.2	-14.86	PK
Horizontal	17265.023	44.67	-3.01	41.66	54	-12.34	AV
Middle Channel (5795 MHz)-Above 1G							
Vertical	6039.047	70.30	-18.93	51.37	68.2	-16.83	PK
Vertical	6039.047	59.04	-18.93	40.10	54	-13.90	AV
Vertical	11590.064	63.04	-8.87	54.17	74	-19.83	PK
Vertical	11590.064	49.42	-8.87	40.55	54	-13.45	AV
Vertical	17385.082	55.73	-2.35	53.38	68.2	-14.82	PK
Vertical	17385.082	44.08	-2.35	41.73	54	-12.27	AV
Horizontal	6039.066	70.68	-18.93	51.75	68.2	-16.45	PK
Horizontal	6039.066	59.73	-18.93	40.80	54	-13.20	AV
Horizontal	11590.006	63.26	-8.87	54.39	74	-19.61	PK
Horizontal	11590.006	49.24	-8.87	40.37	54	-13.63	AV
Horizontal	17385.096	56.75	-2.35	54.40	68.2	-13.80	PK
Horizontal	17385.096	44.53	-2.35	42.18	54	-11.82	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 is MIMO Mode.

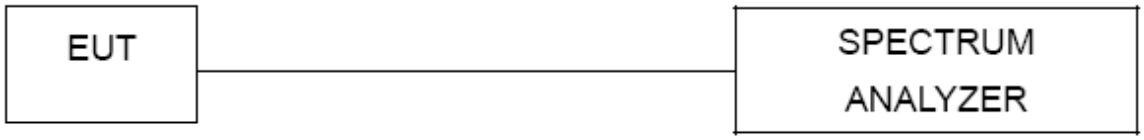
Test Mode :	TX (5.8G) -- 802.11ac 80

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 (5775 MHz)-Above 1G							
Vertical	4679.097	70.53	-20.24	50.29	74	-23.71	PK
Vertical	4679.097	59.83	-20.24	39.58	54	-14.42	AV
Vertical	11550.056	60.54	-8.84	51.70	74	-22.30	PK
Vertical	11550.056	49.76	-8.84	40.92	54	-13.08	AV
Vertical	17325.198	55.31	-2.68	52.63	68.2	-15.57	PK
Vertical	17325.198	44.57	-2.68	41.89	54	-12.11	AV
Horizontal	4679.022	73.71	-20.24	53.47	74	-20.53	PK
Horizontal	4679.022	59.21	-20.24	38.97	54	-15.03	AV
Horizontal	11550.110	61.99	-8.84	53.15	74	-20.85	PK
Horizontal	11550.110	49.85	-8.84	41.01	54	-12.99	AV
Horizontal	17325.124	55.37	-2.68	52.69	68.2	-15.51	PK
Horizontal	17325.124	44.04	-2.68	41.36	54	-12.64	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 is MIMO Mode.

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

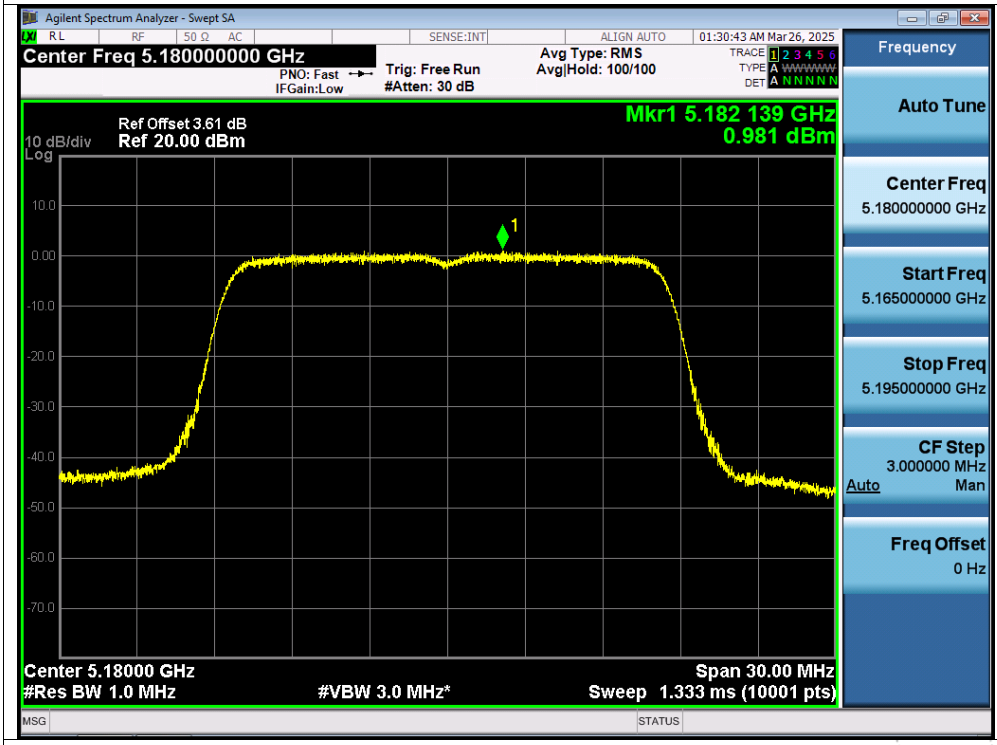
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 3.3V
Test Mode:	TX Frequency U-NII-1 (5180-5240MHz)		

Condition	Mode	Frequency (MHz)	Measured Power Density (dBm/MHz)			Limit (dBm/MHz)	Result
			ANT A	ANT B	Total		
NVNT	a	5180	**0.98**	0.29	/	11	PASS
NVNT	a	5200	0.58	-0.23	/	11	PASS
NVNT	a	5240	0.59	-0.56	/	11	PASS
NVNT	n20	5180	-1.84	-2.05	1.07	10.98	PASS
NVNT	n20	5200	-1.95	-2.55	0.77	10.98	PASS
NVNT	n20	5240	-2.14	-2.85	0.53	10.98	PASS
NVNT	n40	5190	-5.01	-5.28	-2.13	10.98	PASS
NVNT	n40	5230	-5.7	-6.48	-3.06	10.98	PASS
NVNT	ac20	5180	-1.91	-2.19	0.96	10.98	PASS
NVNT	ac20	5200	-2.09	-2.6	0.67	10.98	PASS
NVNT	ac20	5240	-2.45	-3.21	0.20	10.98	PASS
NVNT	ac40	5190	-5.28	-5.22	-2.24	10.98	PASS
NVNT	ac40	5230	-5.64	-6.56	-3.07	10.98	PASS
NVNT	ac80	5210	-9.23	-9.98	-6.58	10.98	PASS

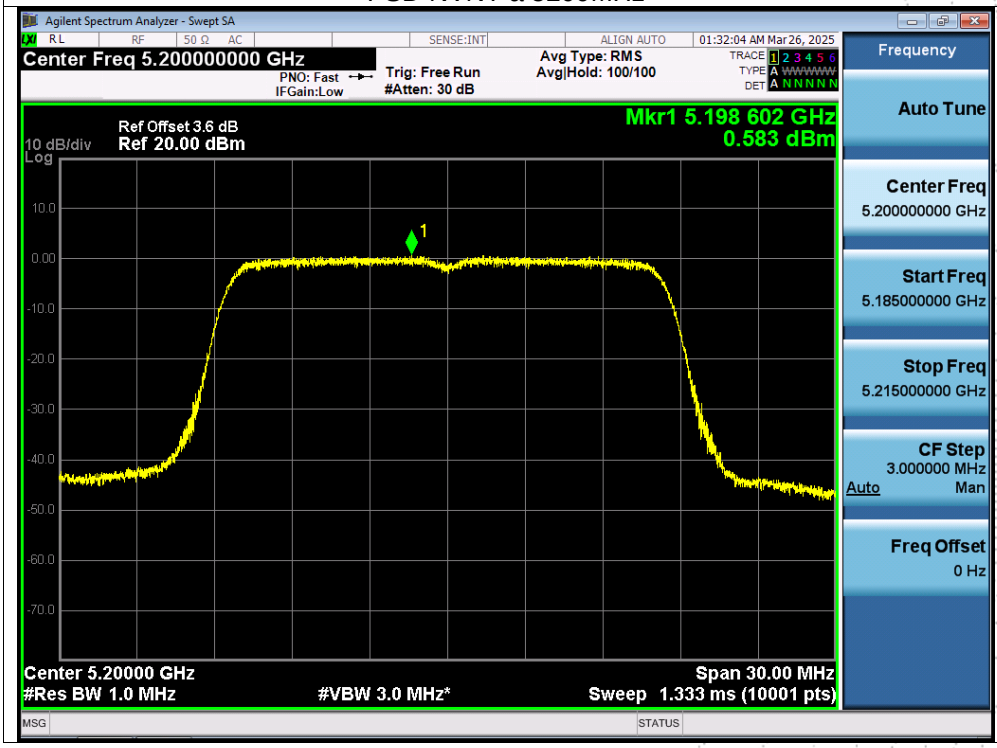
Note:
Antenna A gain: 2.93 dBi, Antenna B gain: 3.01 dBi, Directional gain=[GainANT + 10 log(NANT) dBi] =6.02 dbi>6dbi
Limit=11-(6.02-6)=10.98 dbi

Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.

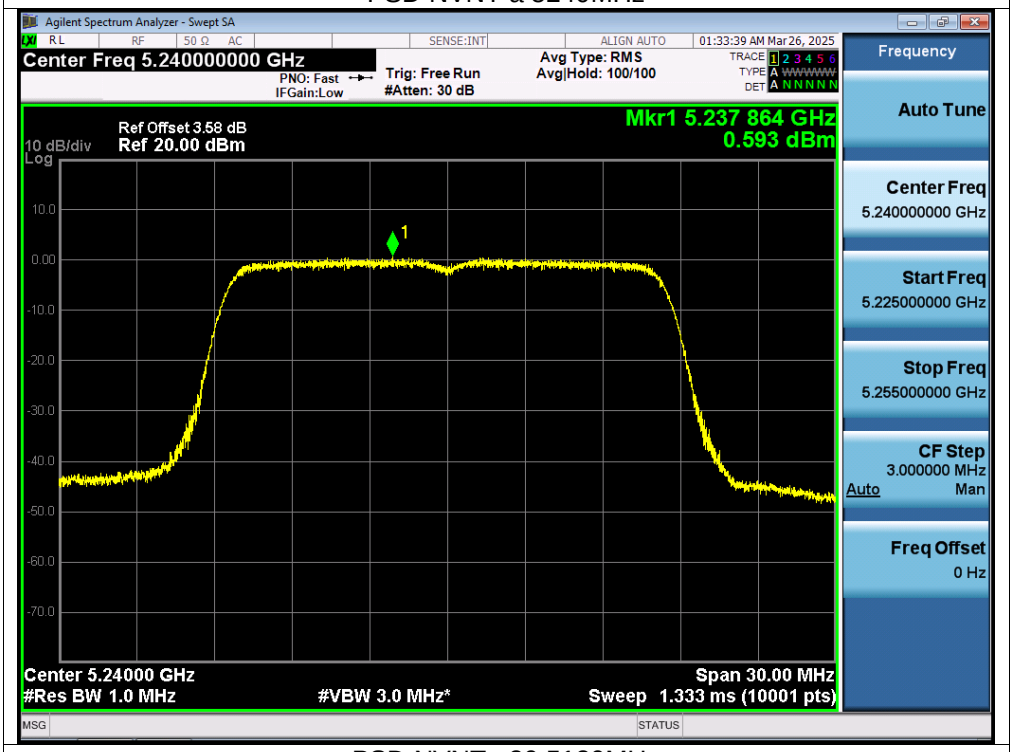
Test Graphs
PSD NVNT a 5180MHz



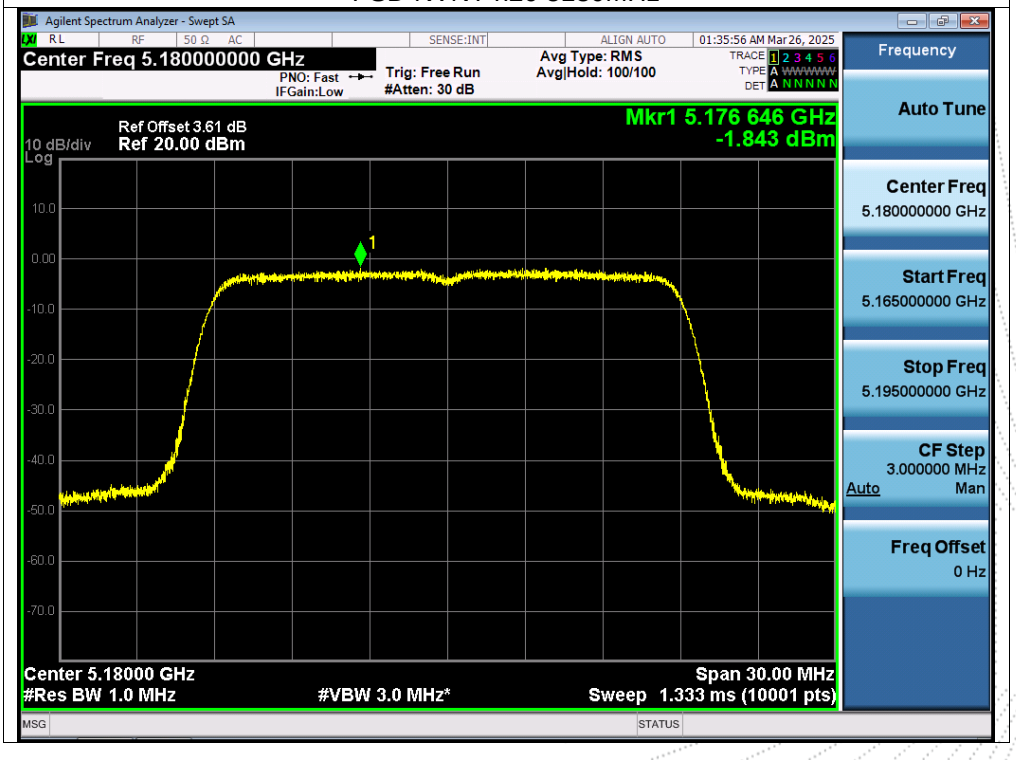
PSD NVNT a 5200MHz



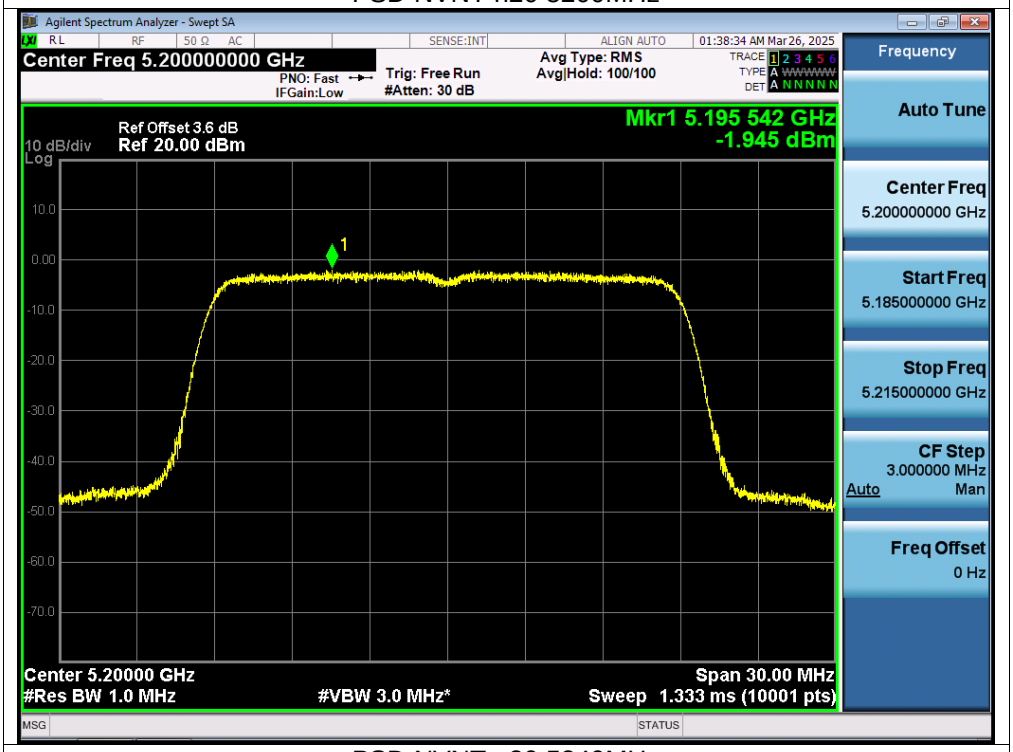
PSD NVNT a 5240MHz



PSD NVNT n20 5180MHz

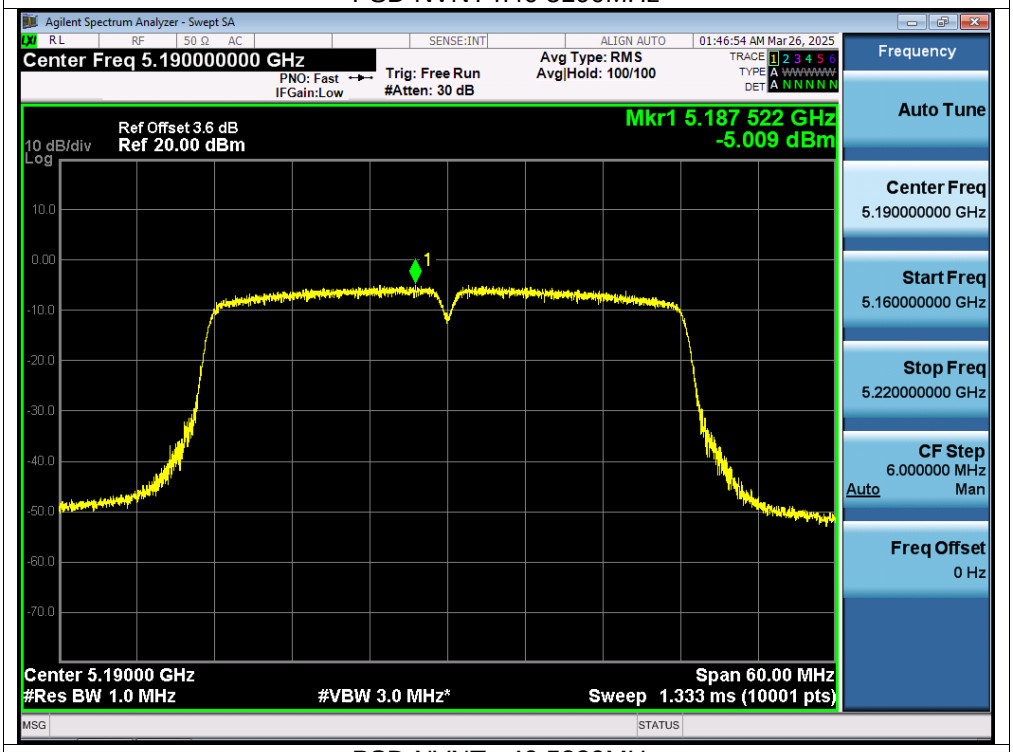


PSD NVNT n20 5200MHz

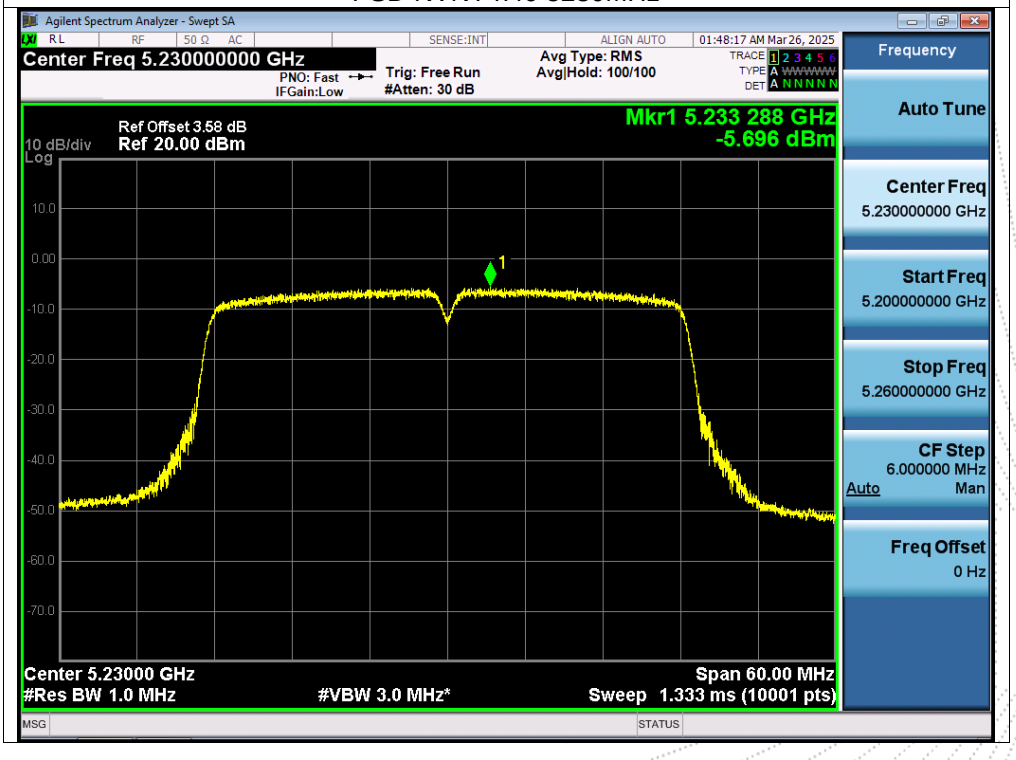


PSD NVNT n20 5240MHz

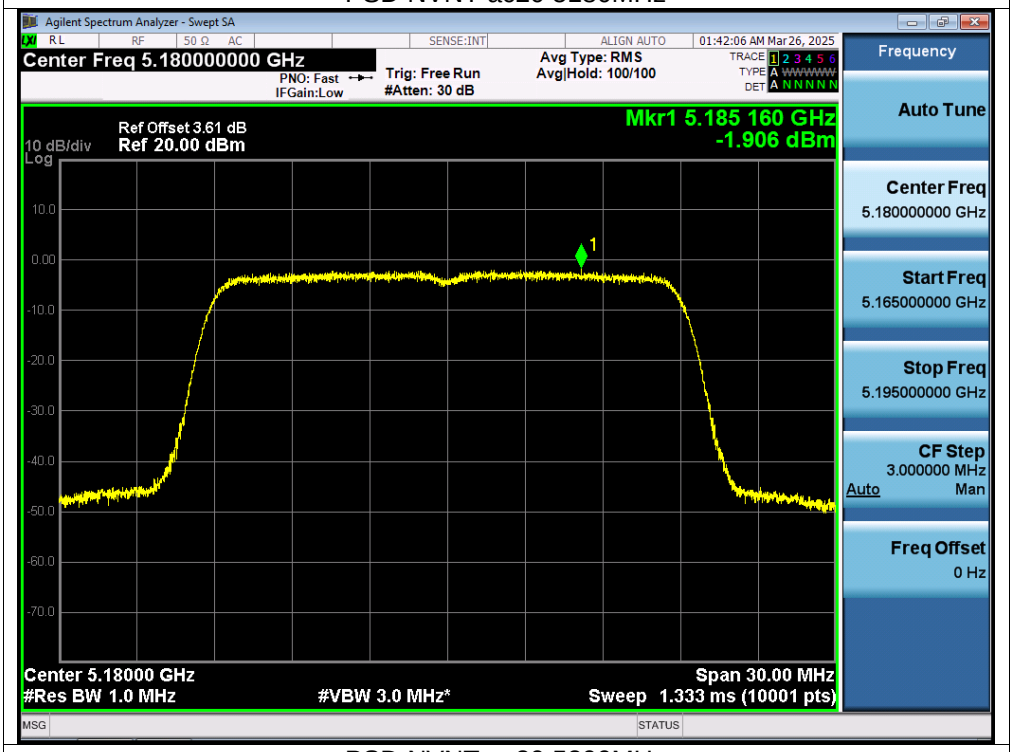
PSD NVNT n40 5190MHz



PSD NVNT n40 5230MHz



PSD NVNT ac20 5180MHz



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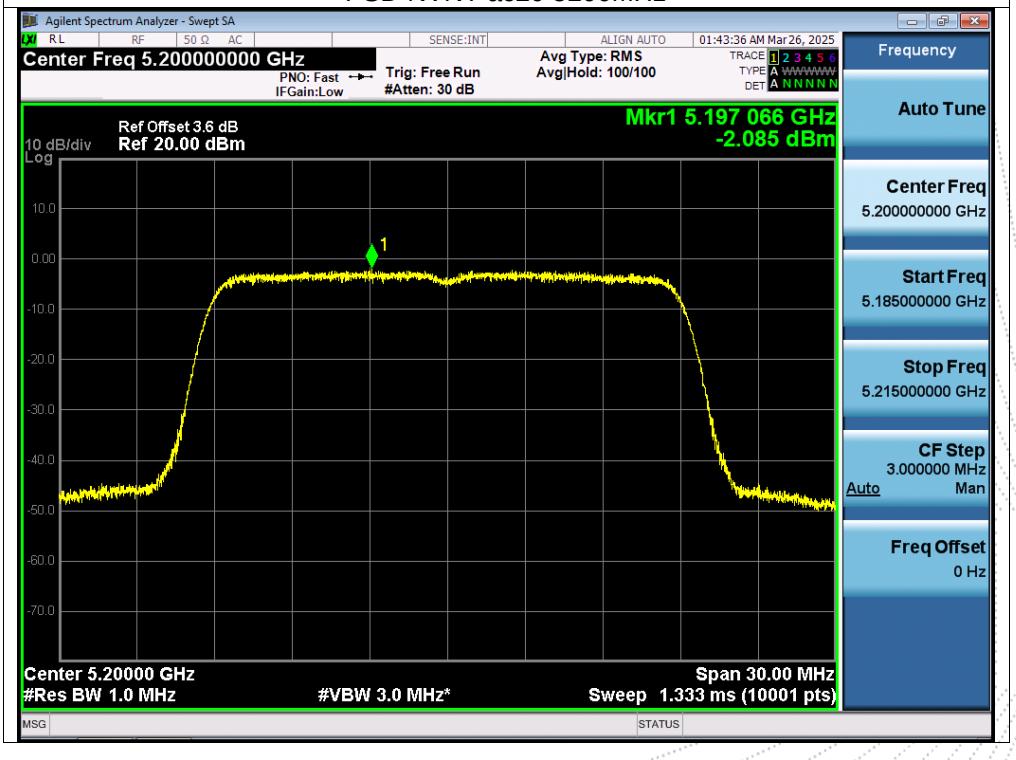
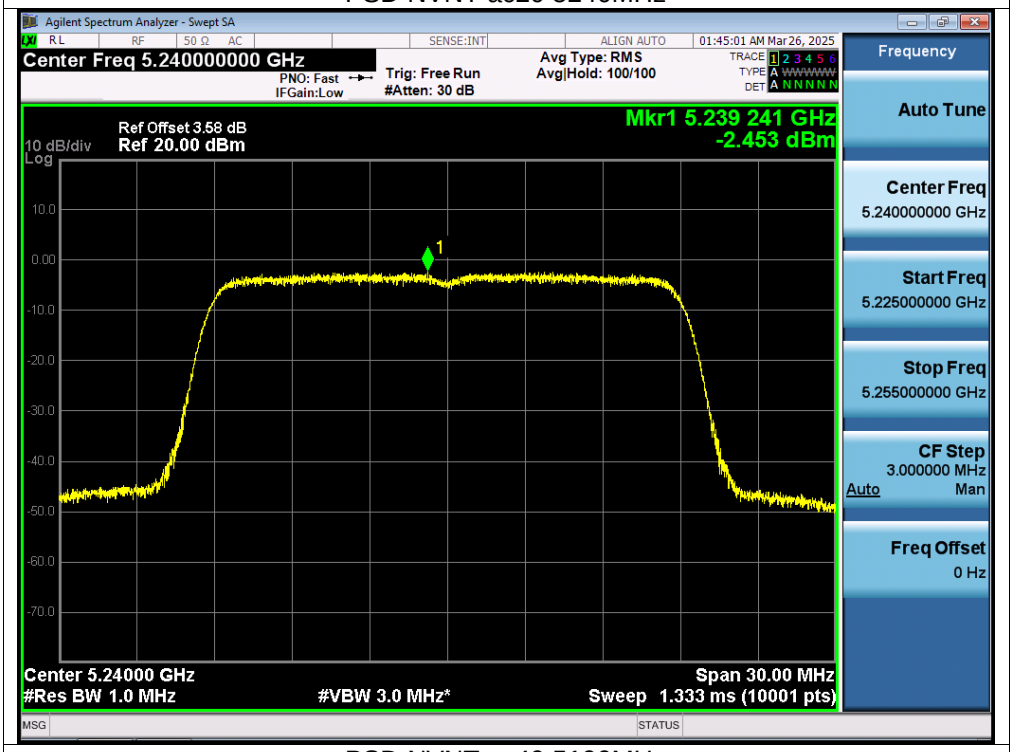
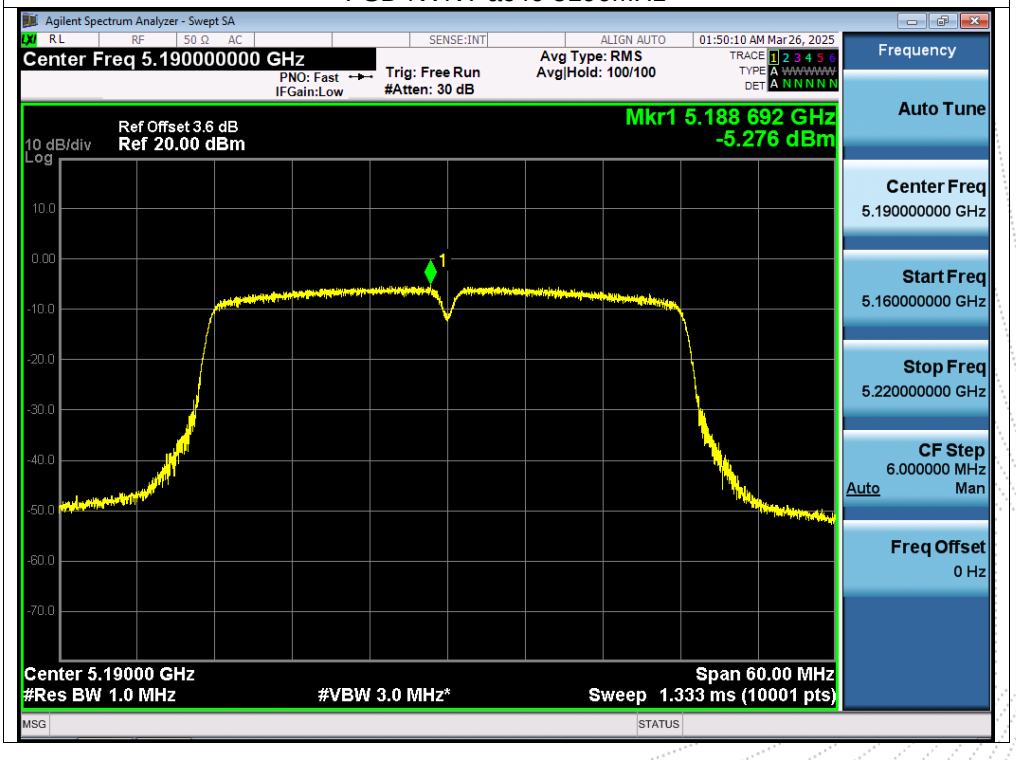


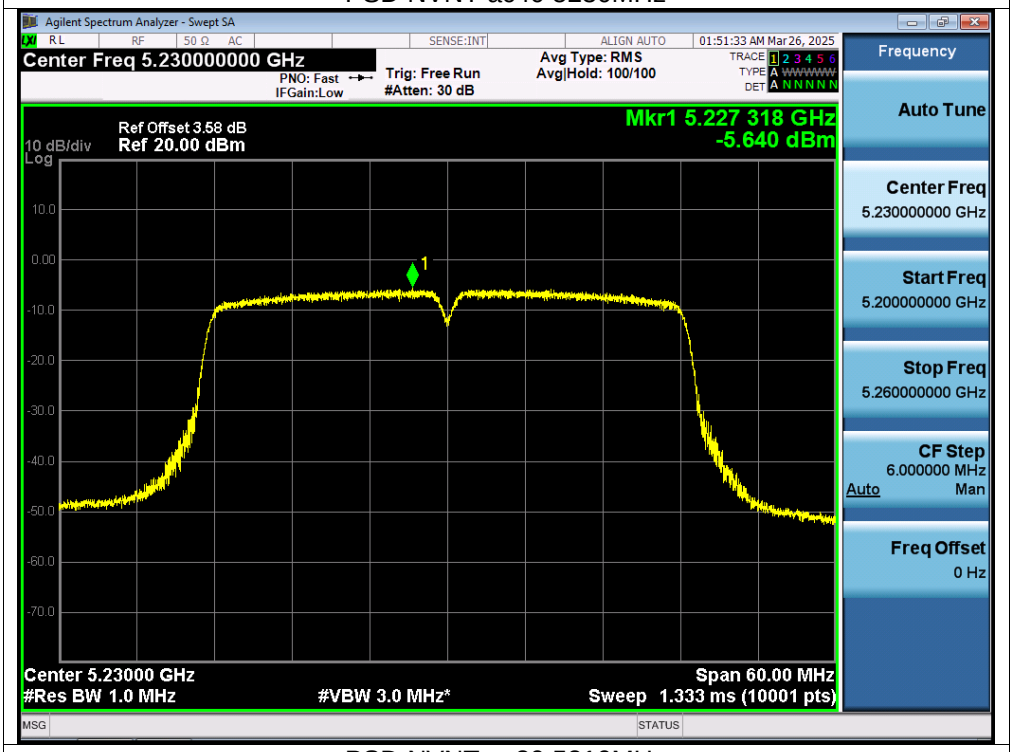
PSD NVNT ac20 5240MHz



PSD NVNT ac40 5190MHz



PSD NVNT ac40 5230MHz



PSD NVNT ac80 5210MHz

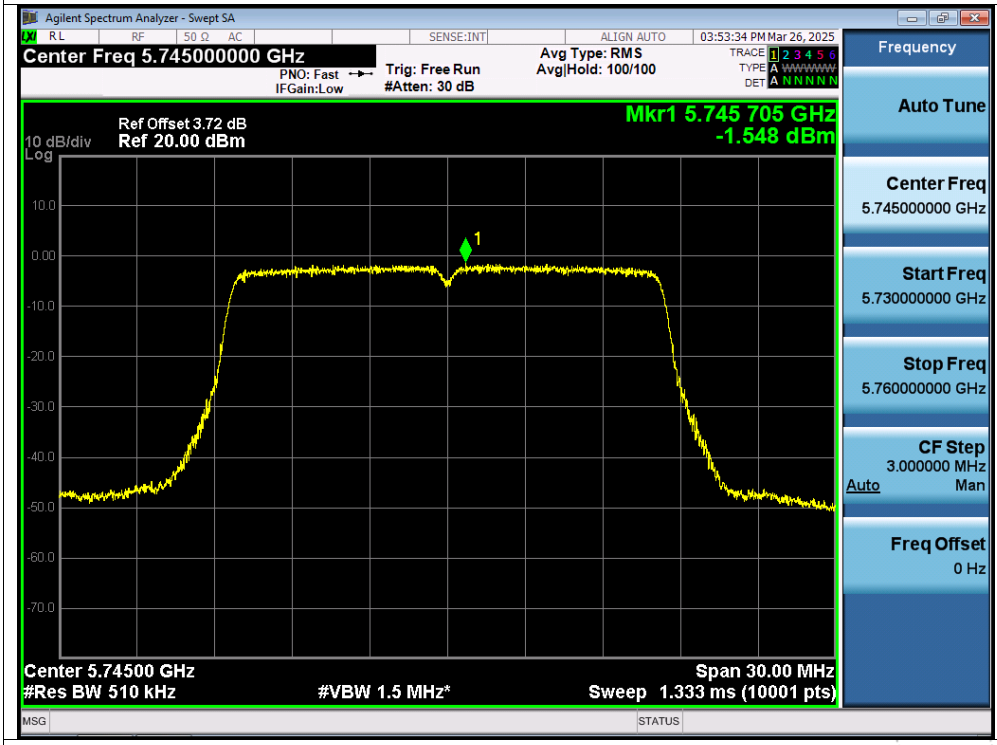
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 3.3V
Test Mode:	TX Frequency U-NII-3 (5745-5825MHz)		

Condition	Mode	Frequency (MHz)	Conducted PSD (dBm/510KHz)		Conducted PSD (dBm/500KHz)				Verdict
			ANT A	ANT B	ANT A	ANT B	Total	Limit	
NVNT	a	5745	**-1.55**	-1.94	-1.636	-2.026	/	30	Pass
NVNT	a	5785	-1.63	-2.06	-1.716	-2.146	/	30	Pass
NVNT	a	5825	-2.63	-2.43	-2.716	-2.516	/	30	Pass
NVNT	n20	5745	-2.85	-3.17	-2.936	-3.256	1.79	29.74	Pass
NVNT	n20	5785	-3.08	-2.97	-3.166	-3.056	1.71	29.74	Pass
NVNT	n20	5825	-3.86	-3.46	-3.946	-3.546	1.47	29.74	Pass
NVNT	n40	5755	-6.84	-7.31	-6.926	-7.396	0.80	29.74	Pass
NVNT	n40	5795	-7.15	-7.56	-7.236	-7.646	0.75	29.74	Pass
NVNT	ac20	5745	-3.1	-3.27	-3.186	-3.356	1.70	29.74	Pass
NVNT	ac20	5785	-3.1	-3.28	-3.186	-3.366	1.70	29.74	Pass
NVNT	ac20	5825	-3.77	-3.58	-3.856	-3.666	1.50	29.74	Pass
NVNT	ac40	5755	-6.86	-7.22	-6.946	-7.306	0.80	29.74	Pass
NVNT	ac40	5795	-6.96	-7.54	-7.046	-7.626	0.78	29.74	Pass
NVNT	ac80	5775	-11.22	-11.59	-11.306	-11.676	0.31	29.74	Pass
Note: Correction Factor = 10log(500KHz/RBW in measurement) =-0.086									

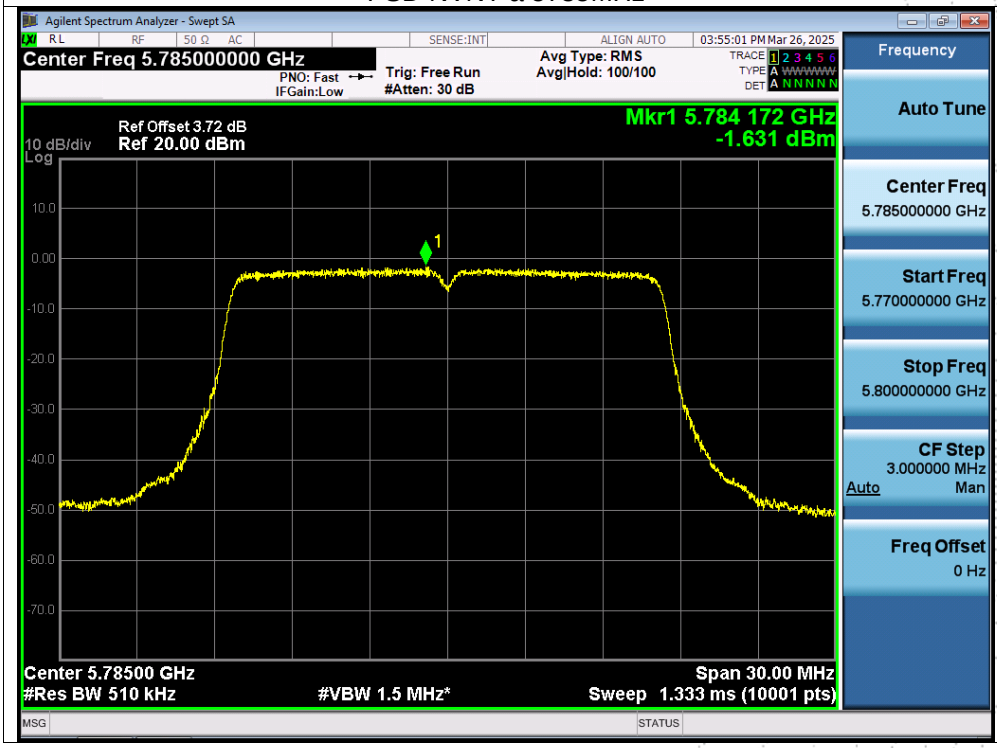
Note:
Antenna A gain: 3.25 dBi, Antenna B gain: 3.21 dBi, Directional gain=[GainANT + 10 log(NANT) dBi] =6.26 dbi>6dbi
Limit=30-(6.26-6)=29.74 dbi

Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.

Test Graphs
PSD NVNT a 5745MHz

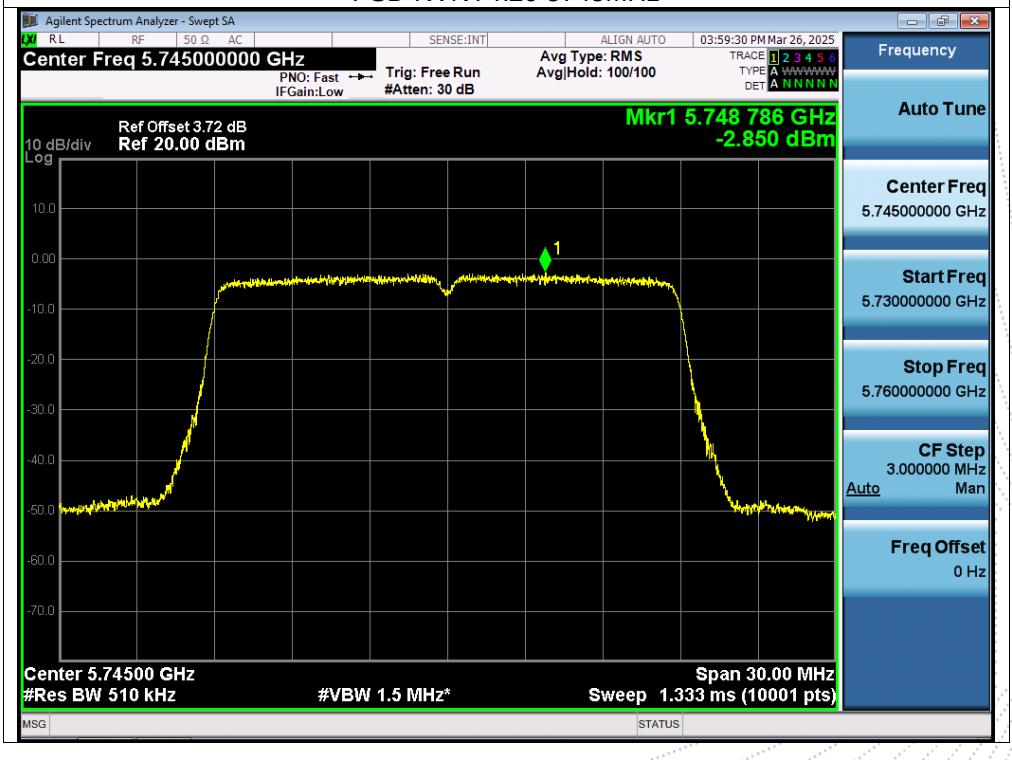


PSD NVNT a 5785MHz

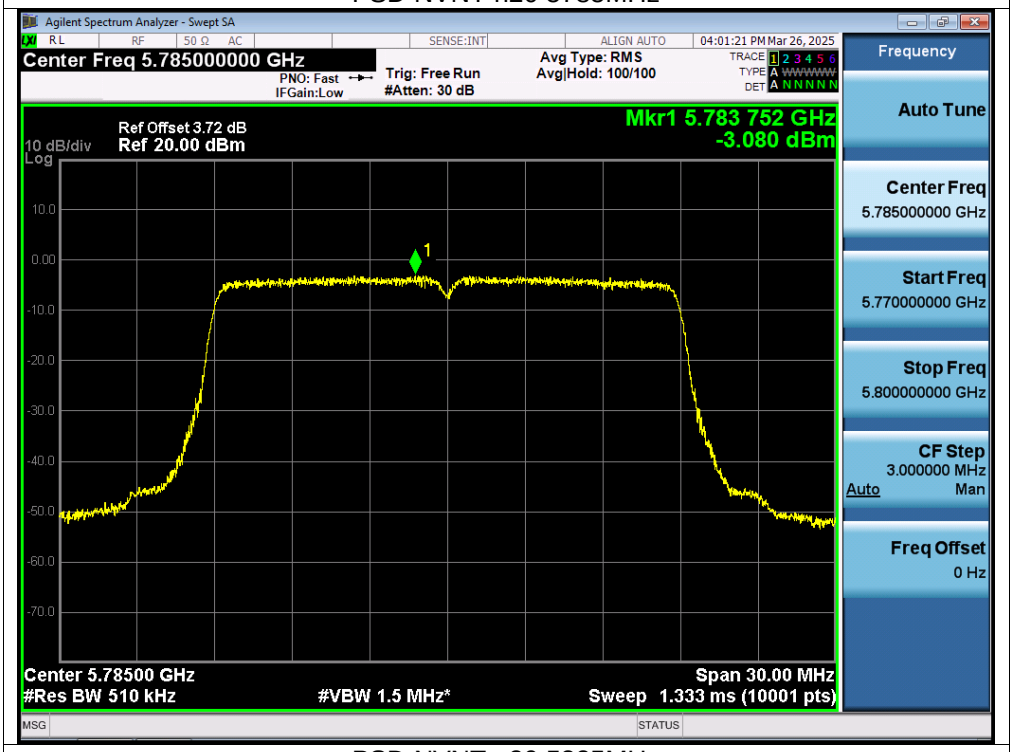


PSD NVNT a 5825MHz

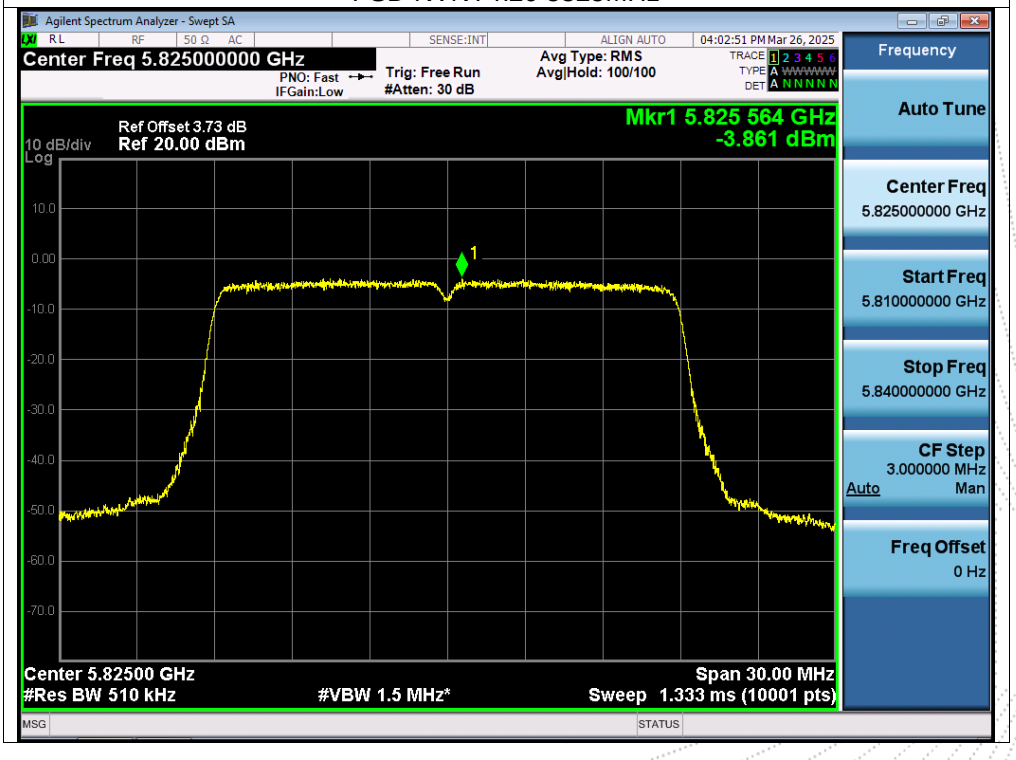
PSD NVNT n20 5745MHz



PSD NVNT n20 5785MHz

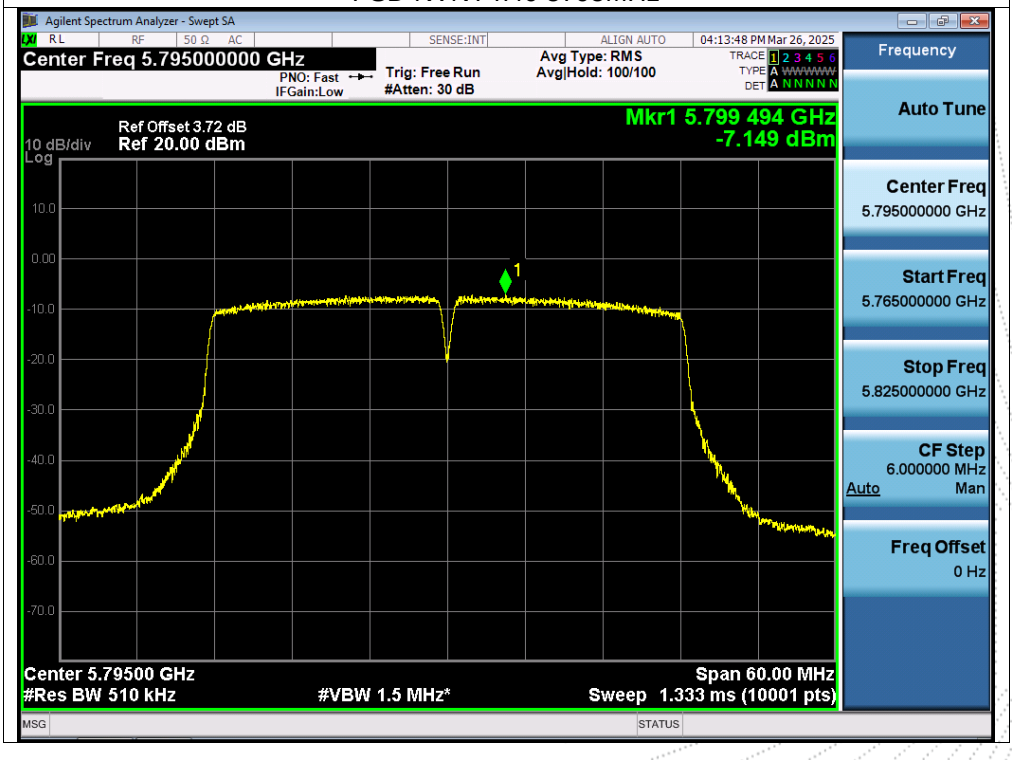


PSD NVNT n20 5825MHz

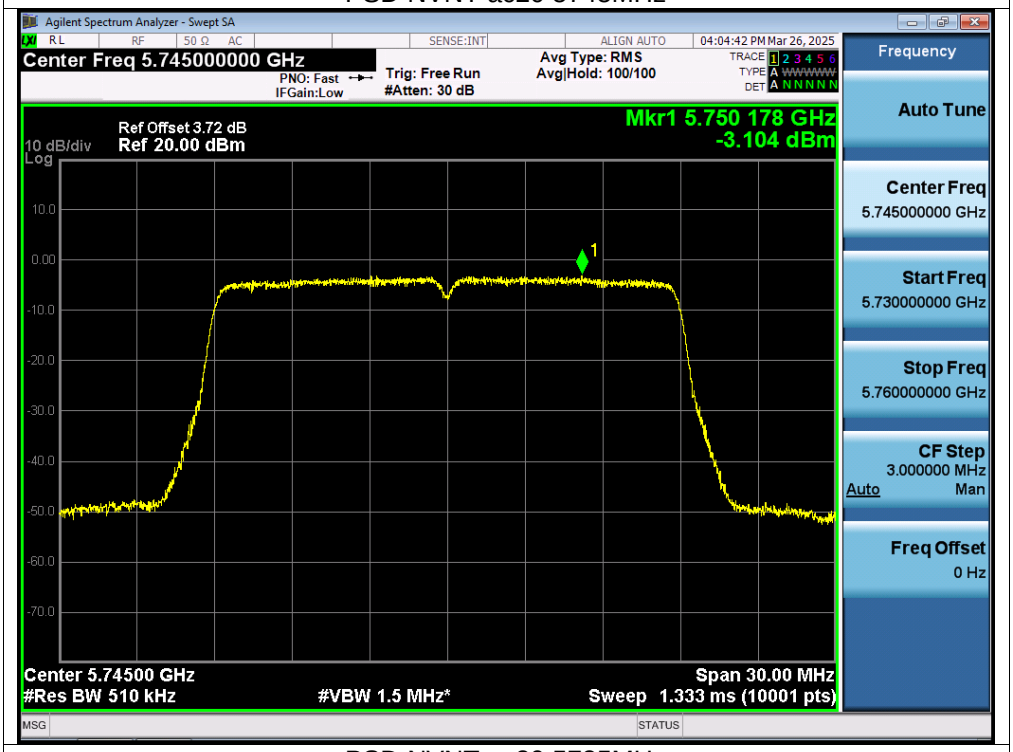


PSD NVNT n40 5755MHz

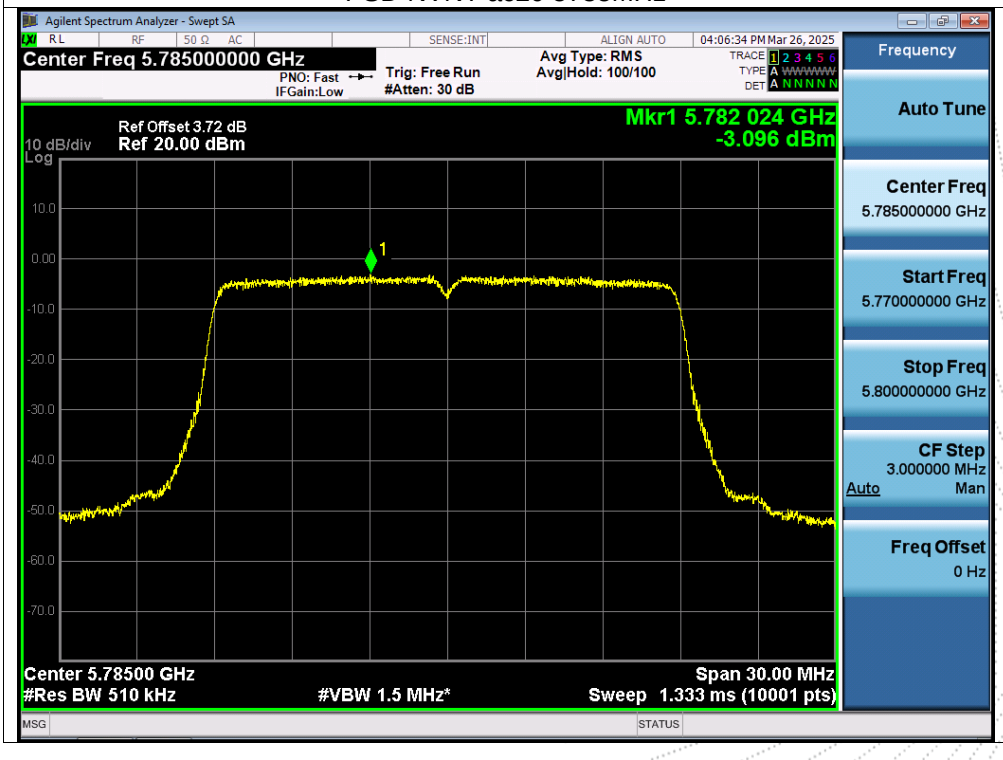
PSD NVNT n40 5795MHz



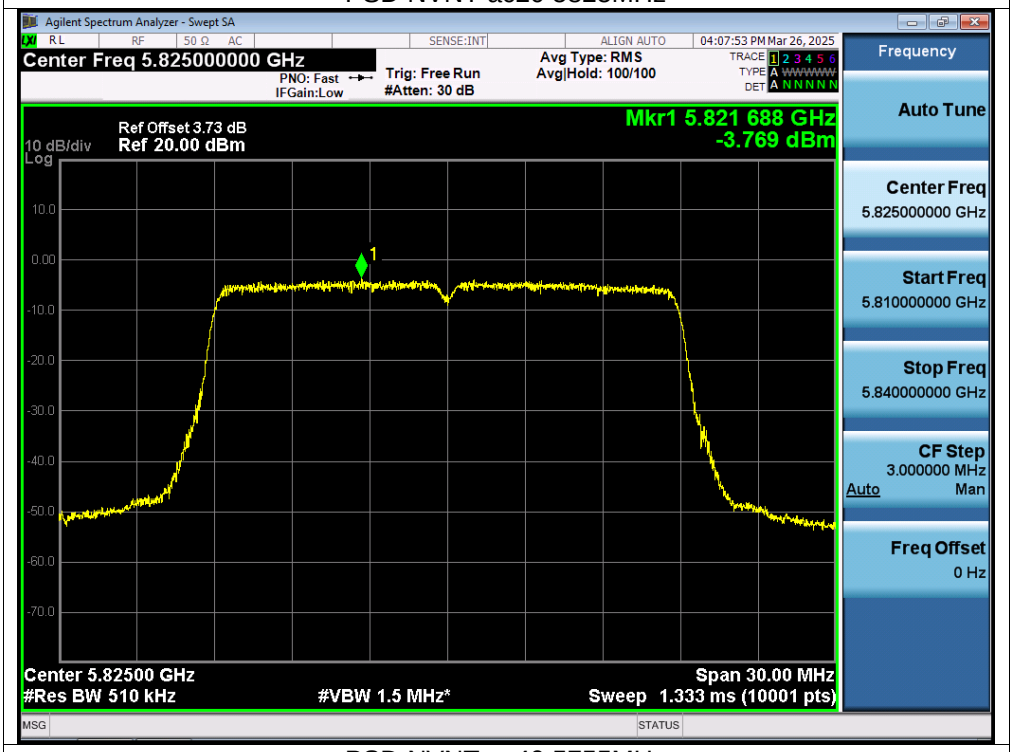
PSD NVNT ac20 5745MHz



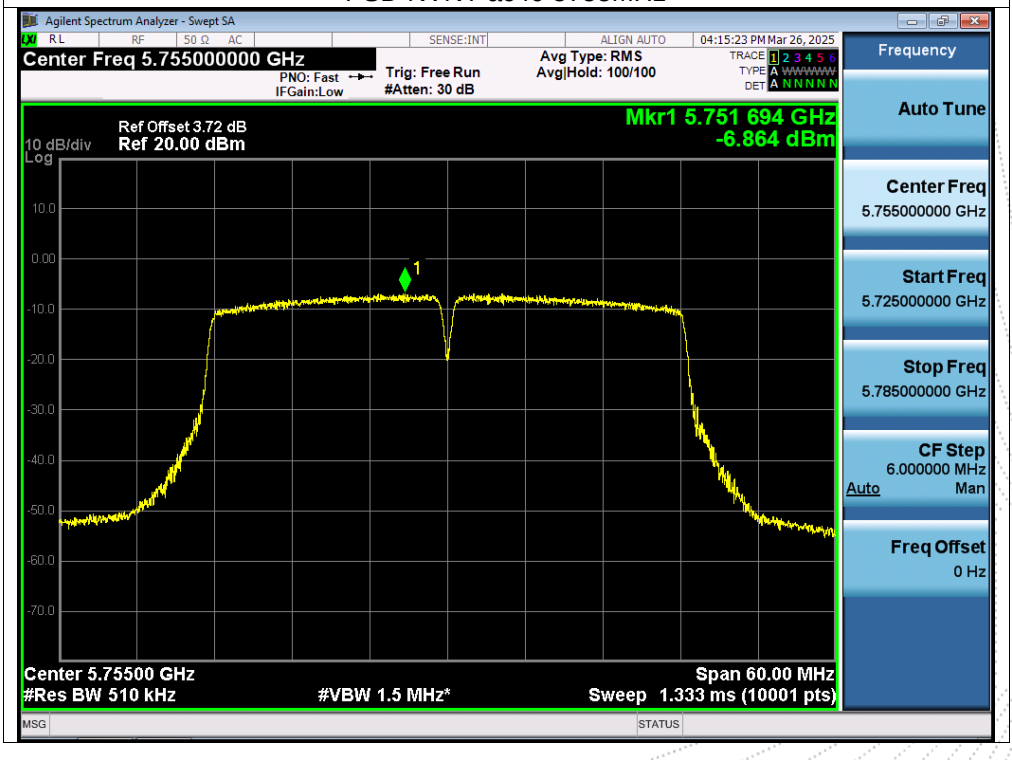
PSD NVNT ac20 5785MHz



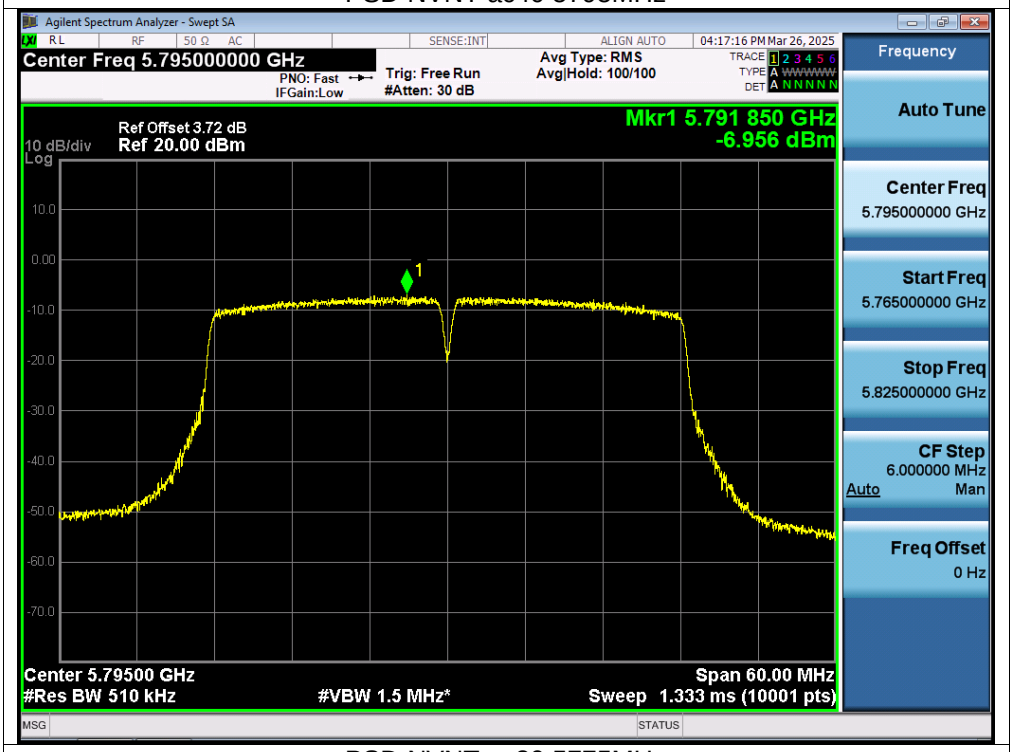
PSD NVNT ac20 5825MHz



PSD NVNT ac40 5755MHz



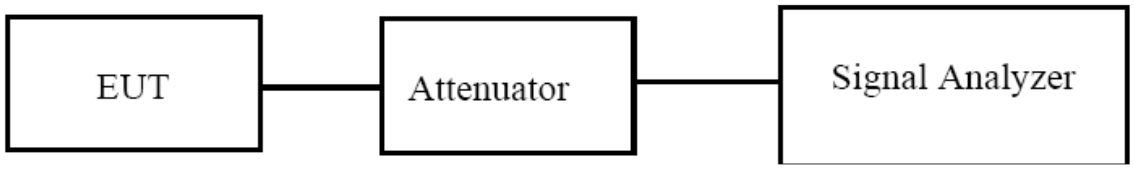
PSD NVNT ac40 5795MHz



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.
(6dB bandwidth)>500kHz

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.

6dB
1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.

6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

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

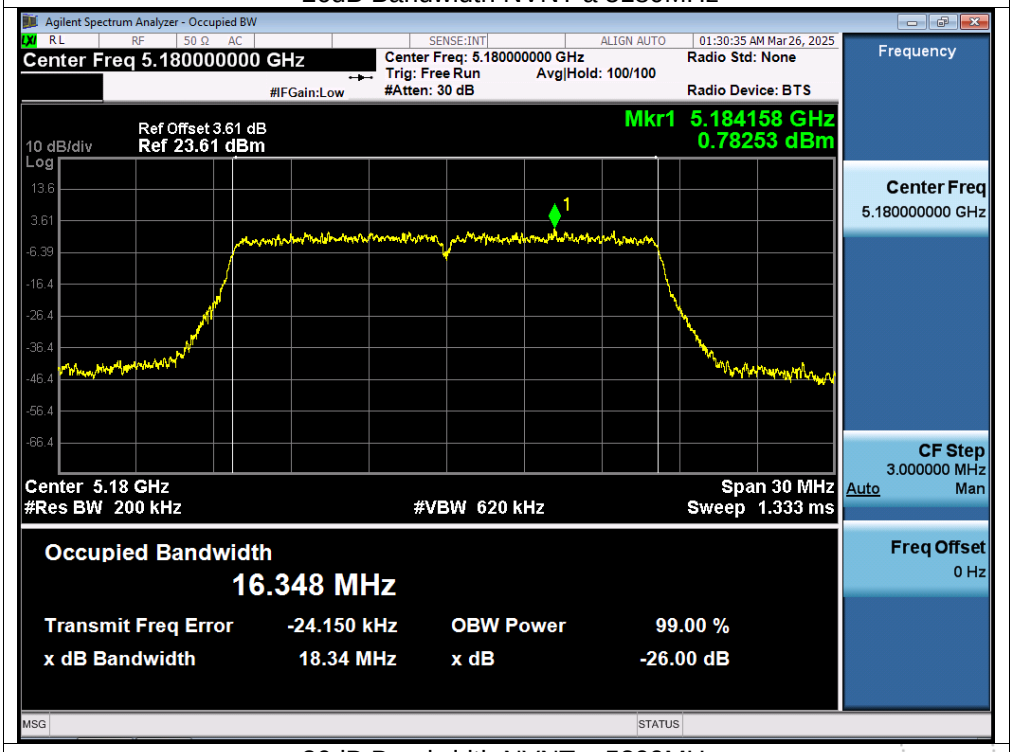
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 3.3V
Test Mode:	TX Frequency U-NII-1 (5180-5240MHz)		

Condition	Mode	Frequency (MHz)	99% bandwidth (MHz)		-26dB bandwidth (MHz)		Result
			ANT A	ANT B	ANT A	ANT B	
NVNT	a	5180	16.331	16.339	18.337	18.279	Pass
NVNT	a	5200	16.346	16.332	18.308	18.441	Pass
NVNT	a	5240	16.347	16.338	18.482	18.387	Pass
NVNT	n20	5180	17.545	17.537	19.263	19.317	Pass
NVNT	n20	5200	17.552	17.538	19.351	19.36	Pass
NVNT	n20	5240	17.55	17.549	19.281	19.388	Pass
NVNT	n40	5190	36.006	35.98	40.965	40.907	Pass
NVNT	n40	5230	36.057	36.054	40.686	40.868	Pass
NVNT	ac20	5180	17.54	17.536	19.474	19.379	Pass
NVNT	ac20	5200	17.543	17.536	19.483	19.39	Pass
NVNT	ac20	5240	17.55	17.545	19.355	19.353	Pass
NVNT	ac40	5190	35.967	35.962	40.833	40.874	Pass
NVNT	ac40	5230	36.007	36.026	40.902	40.764	Pass
NVNT	ac80	5210	**74.919**	74.816	**80.951**	80.618	Pass

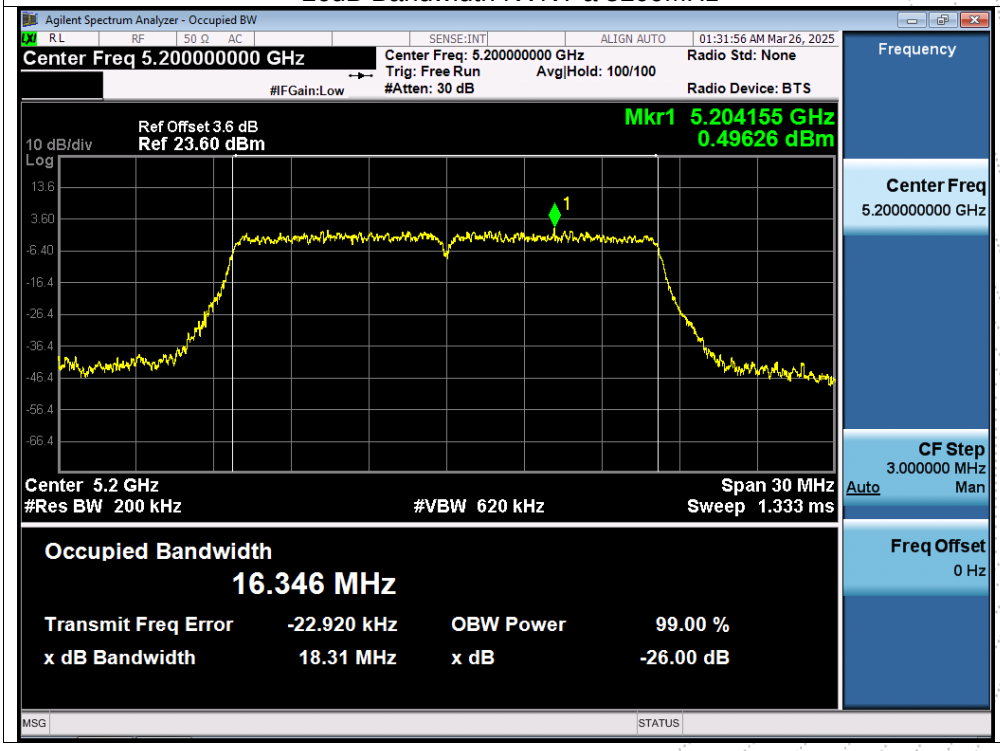
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.

Test Graphs

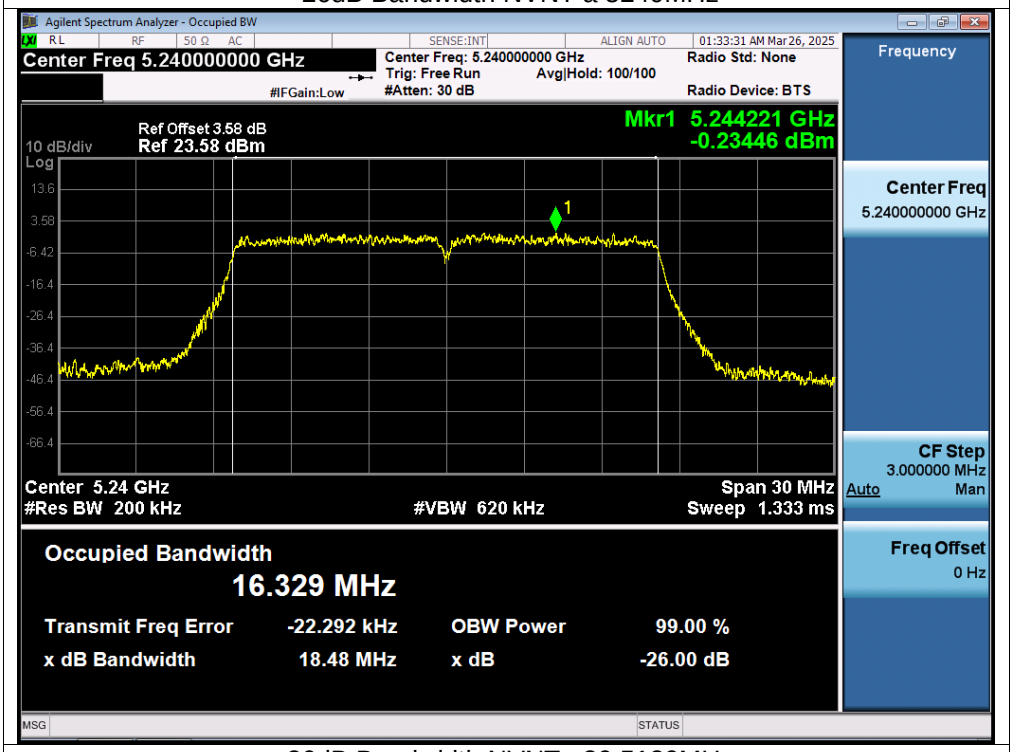
-26dB Bandwidth NVNT a 5180MHz



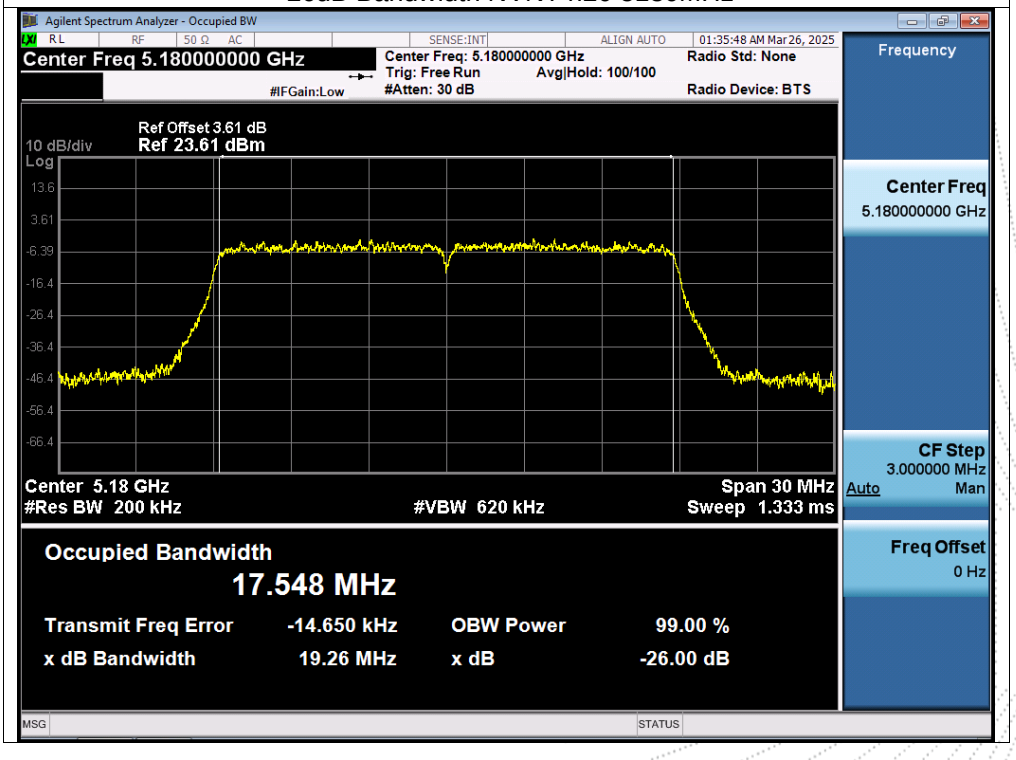
-26dB Bandwidth NVNT a 5200MHz



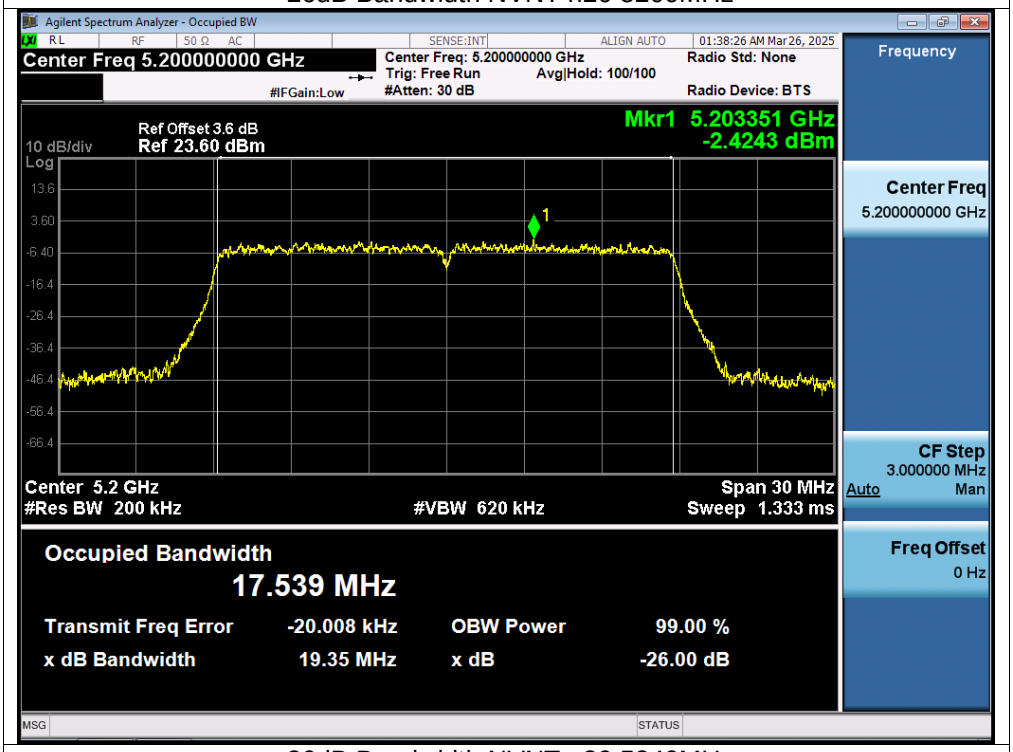
-26dB Bandwidth NVNT a 5240MHz



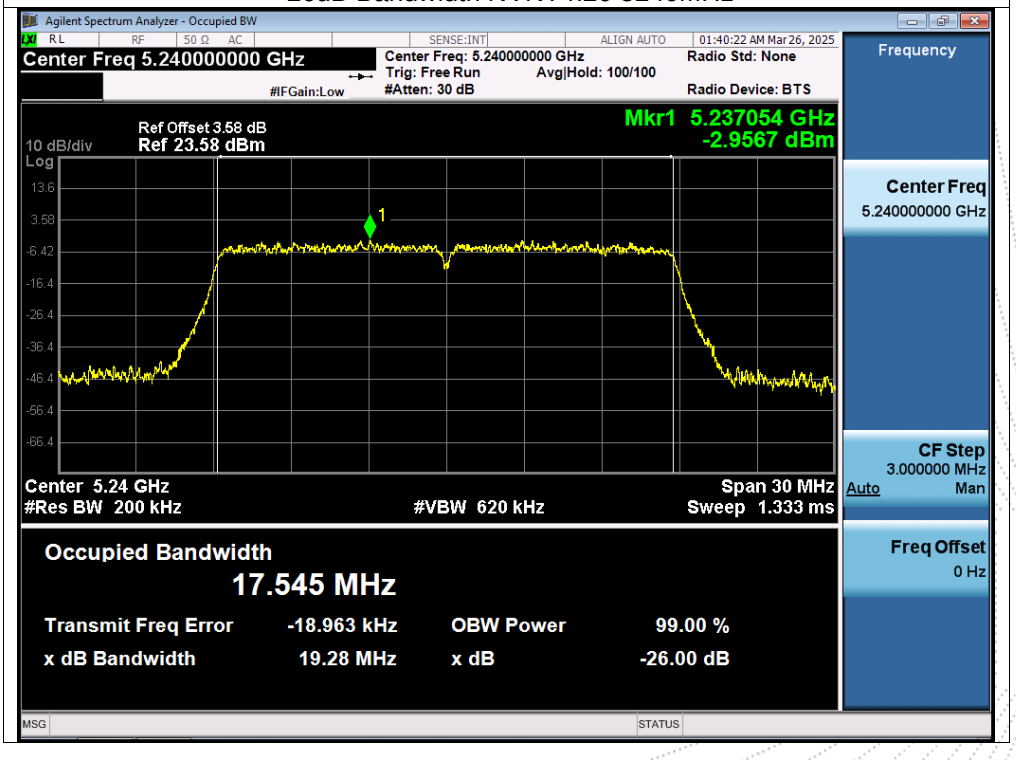
-26dB Bandwidth NVNT n20 5180MHz



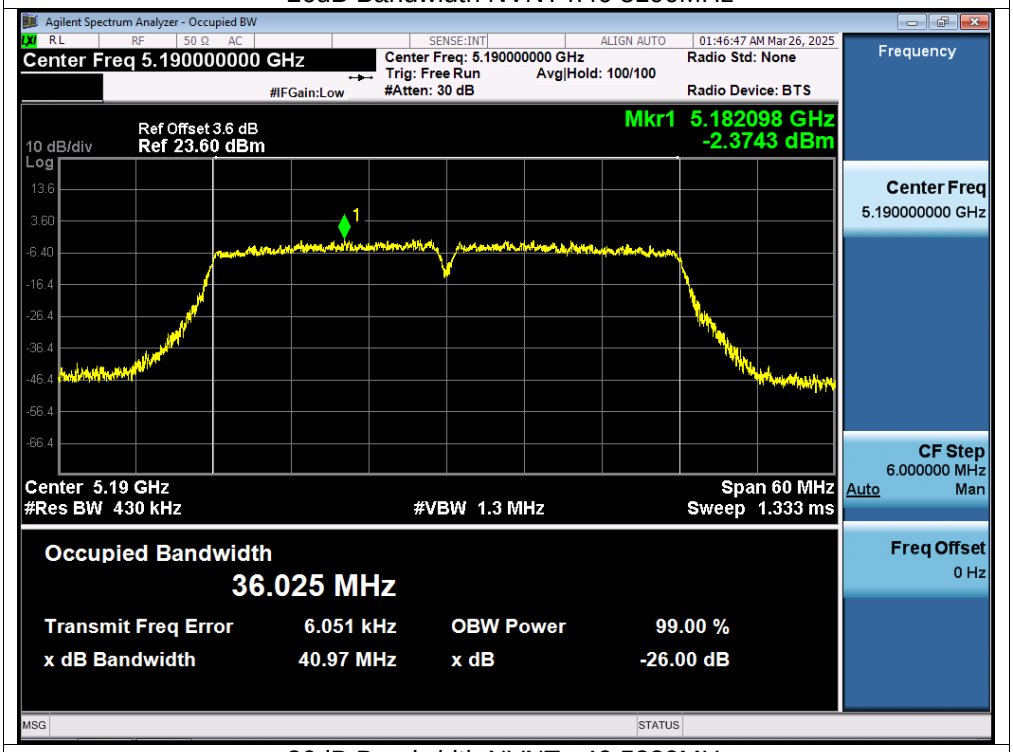
-26dB Bandwidth NVNT n20 5200MHz



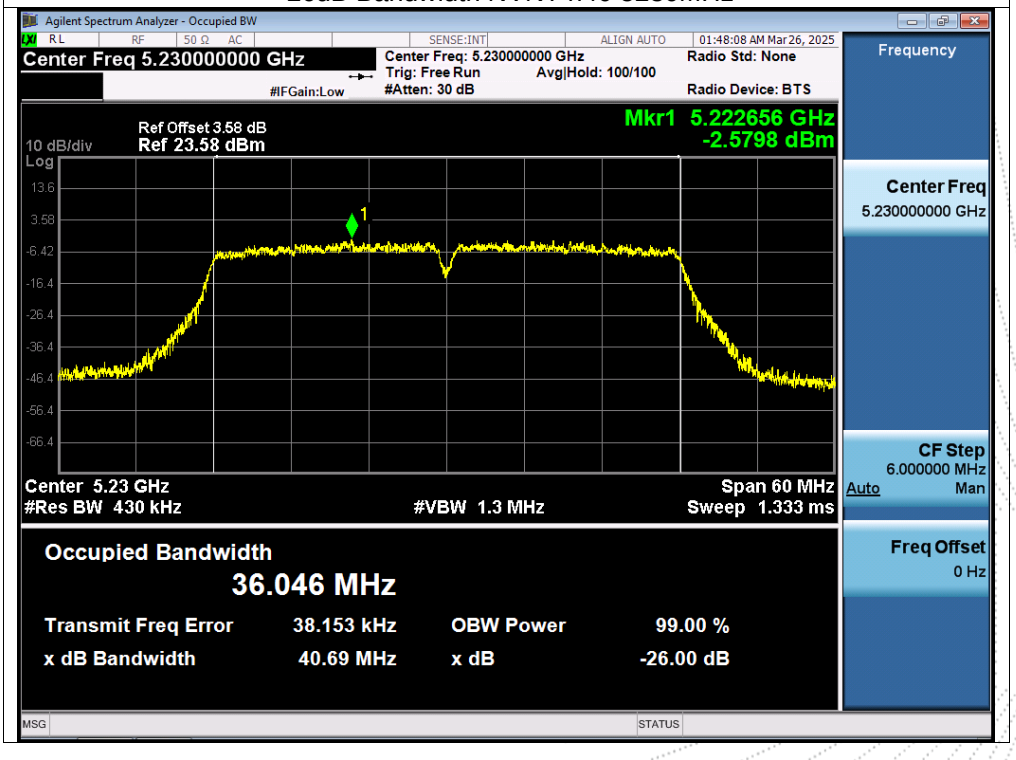
-26dB Bandwidth NVNT n20 5240MHz



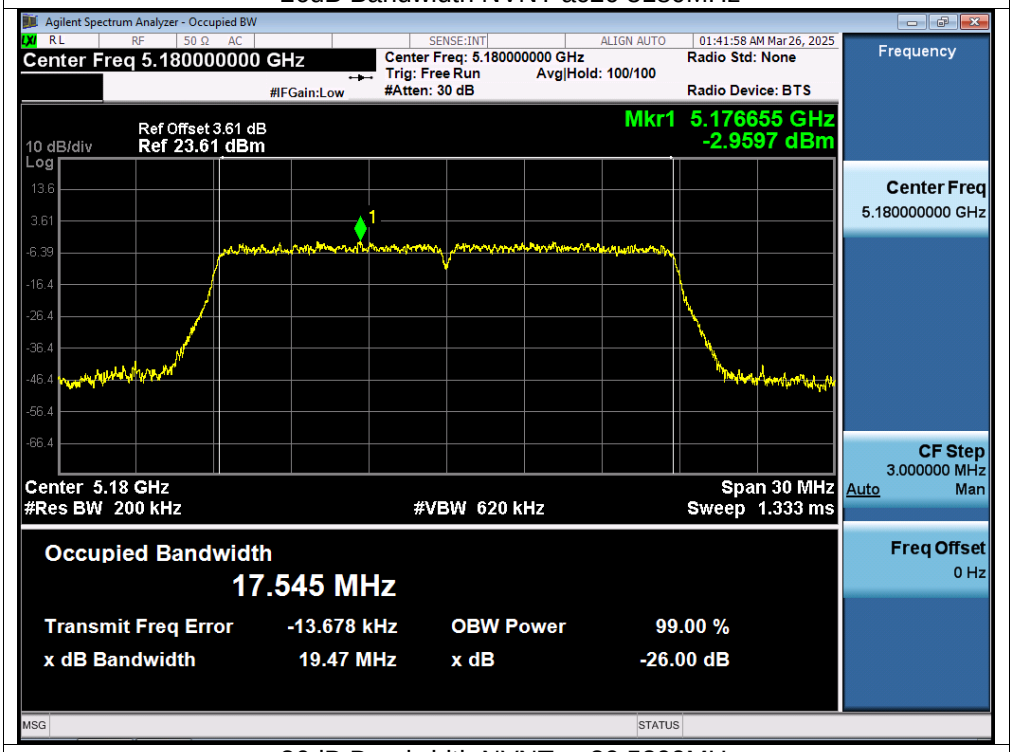
-26dB Bandwidth NVNT n40 5190MHz



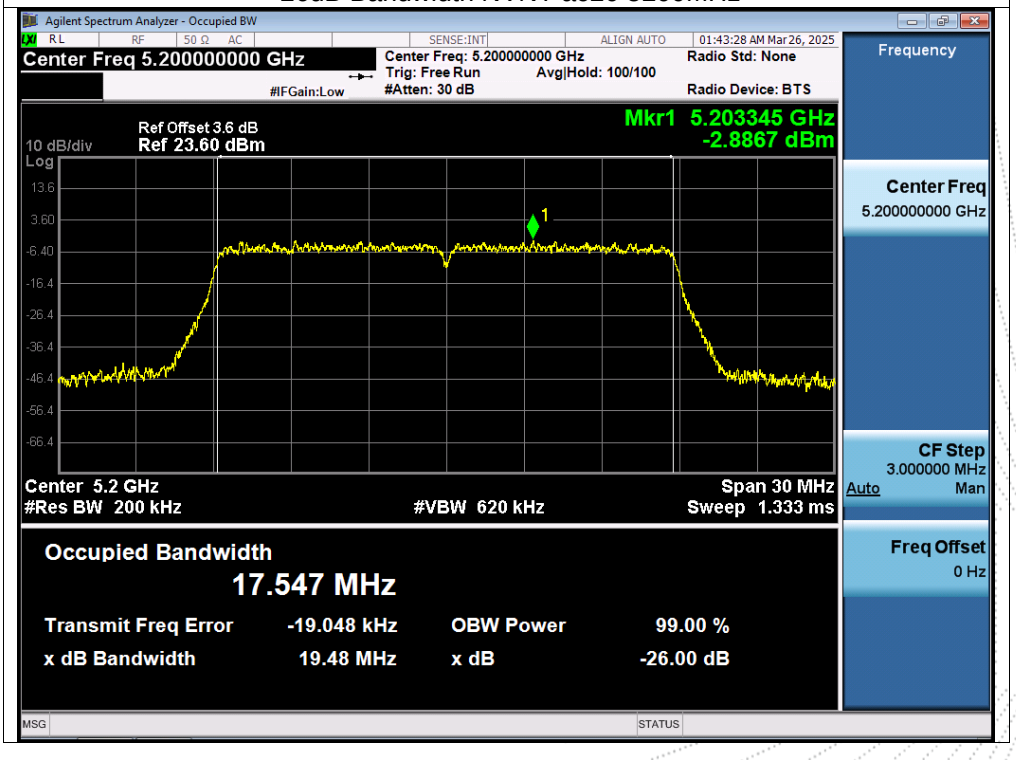
-26dB Bandwidth NVNT n40 5230MHz



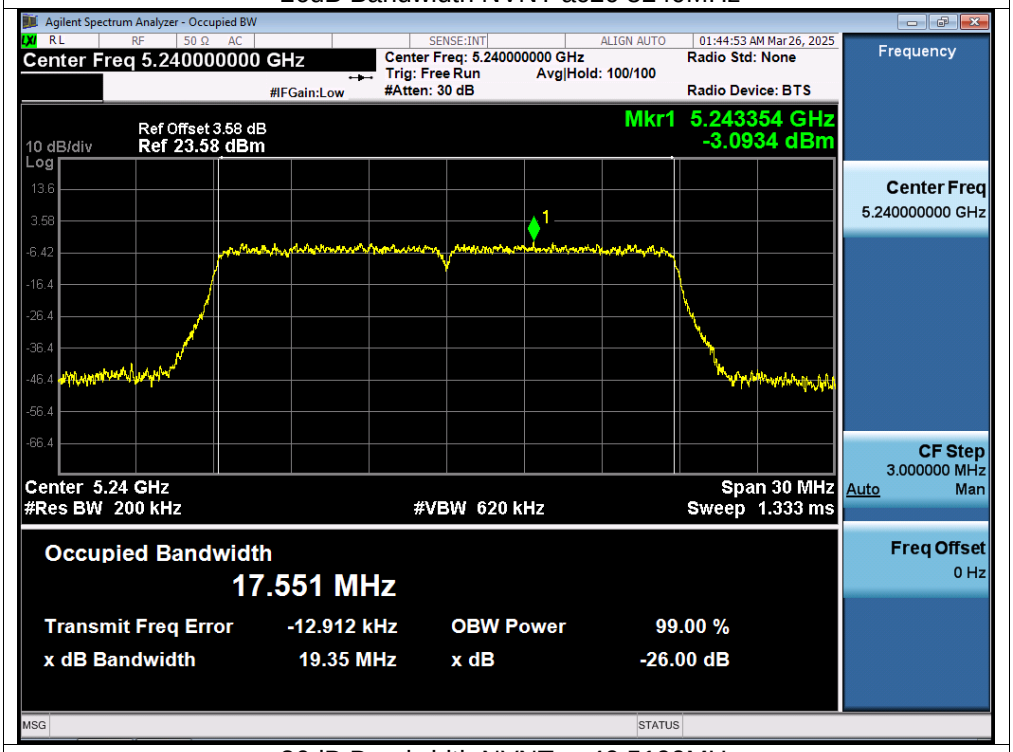
-26dB Bandwidth NVNT ac20 5180MHz



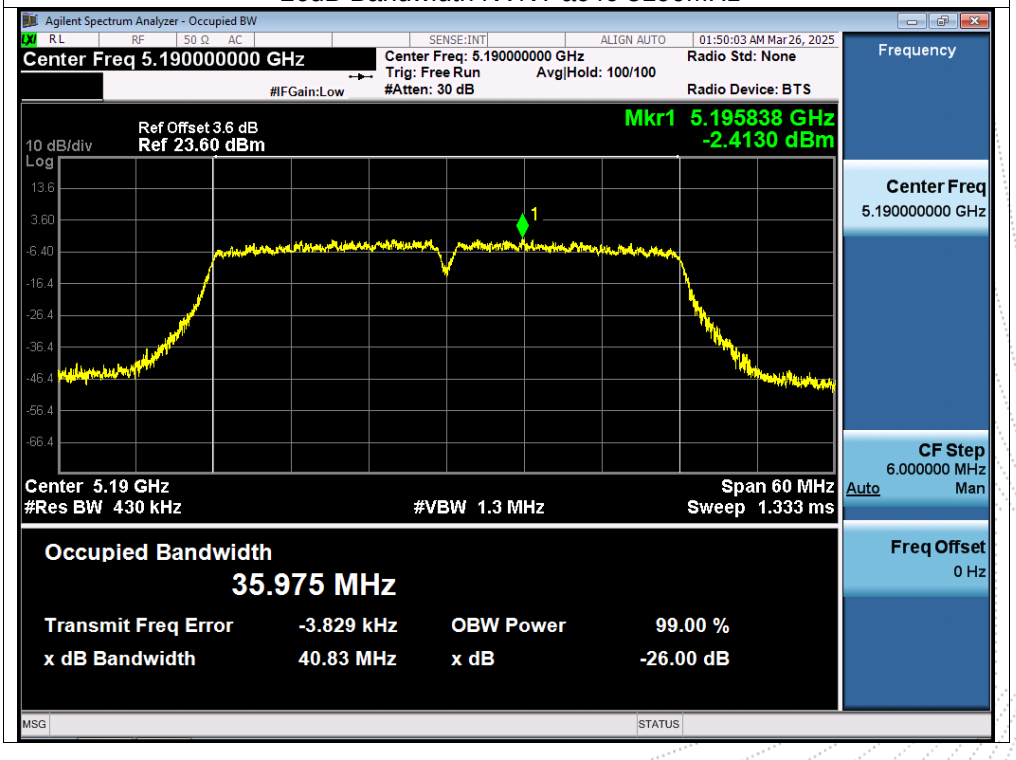
-26dB Bandwidth NVNT ac20 5200MHz



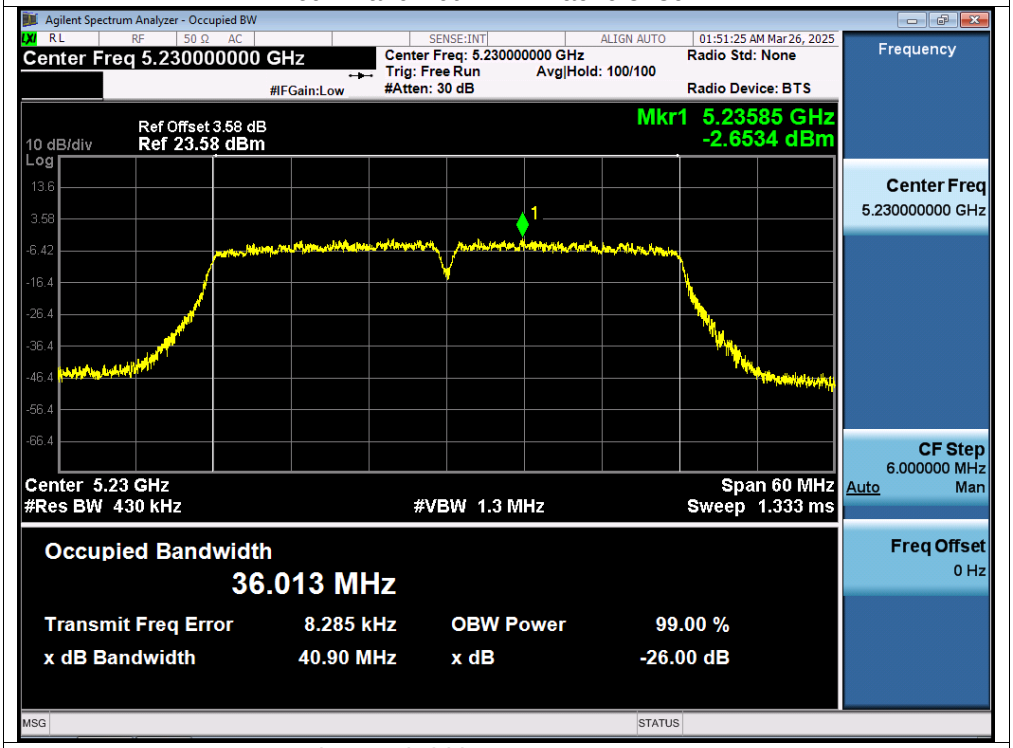
-26dB Bandwidth NVNT ac20 5240MHz



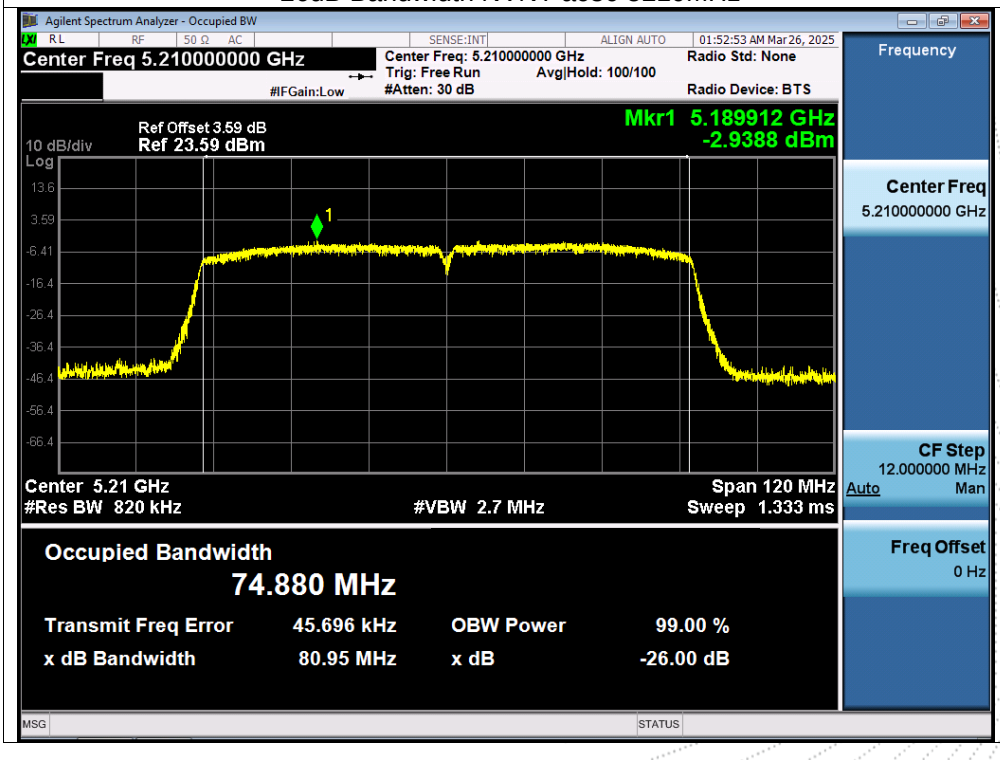
-26dB Bandwidth NVNT ac40 5190MHz



-26dB Bandwidth NVNT ac40 5230MHz



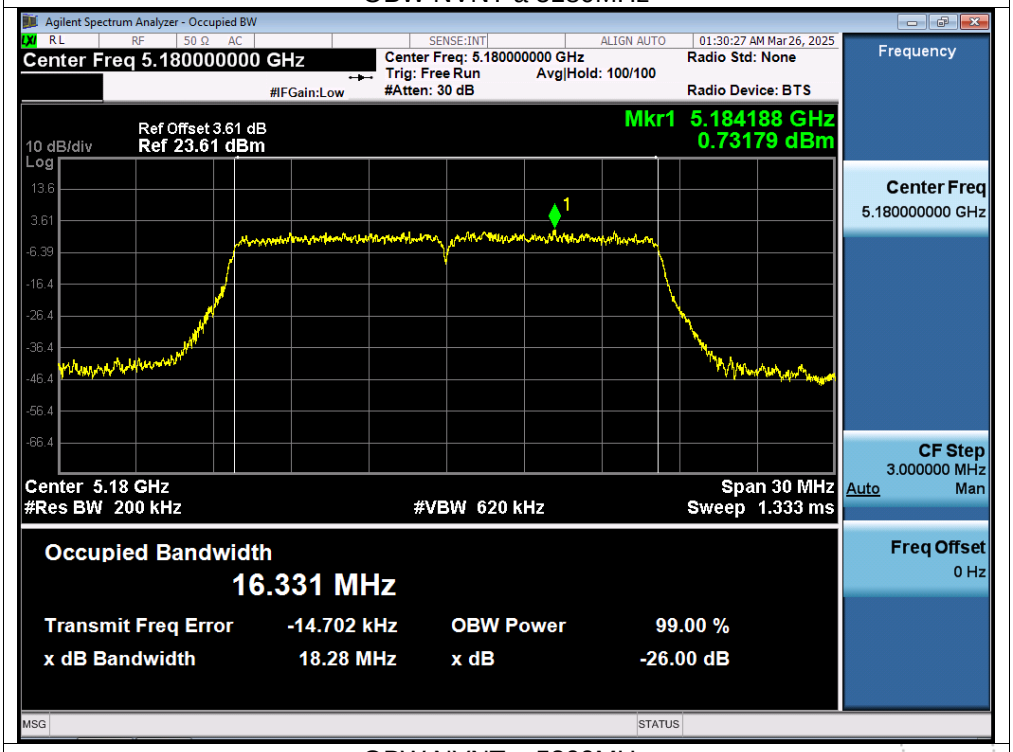
-26dB Bandwidth NVNT ac80 5210MHz



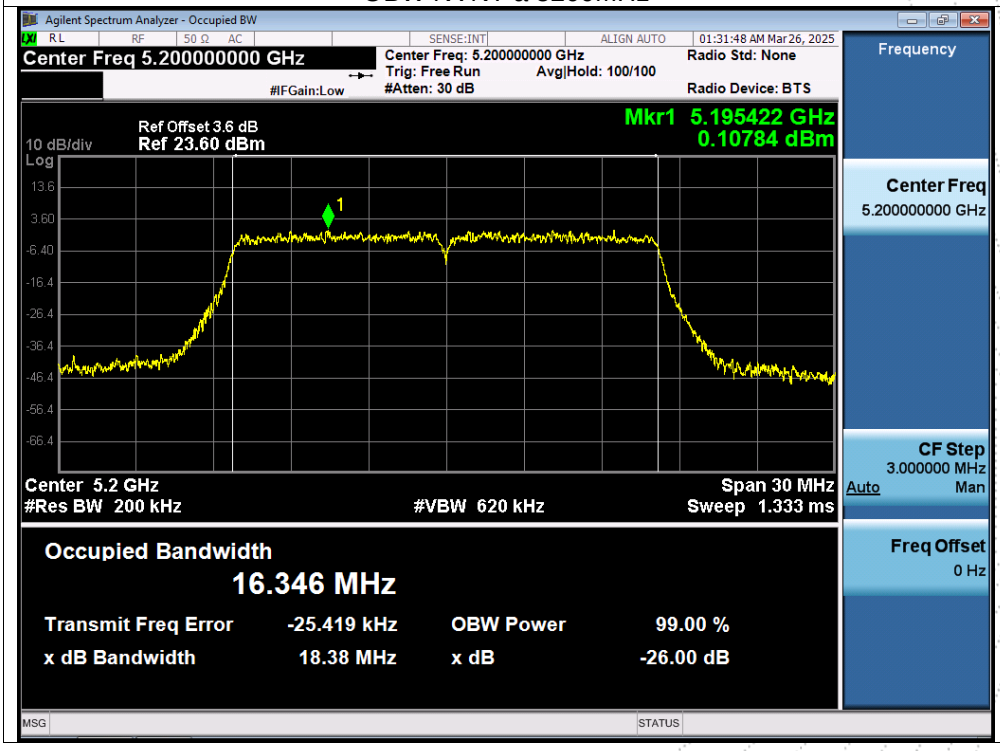
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.

Test Graphs

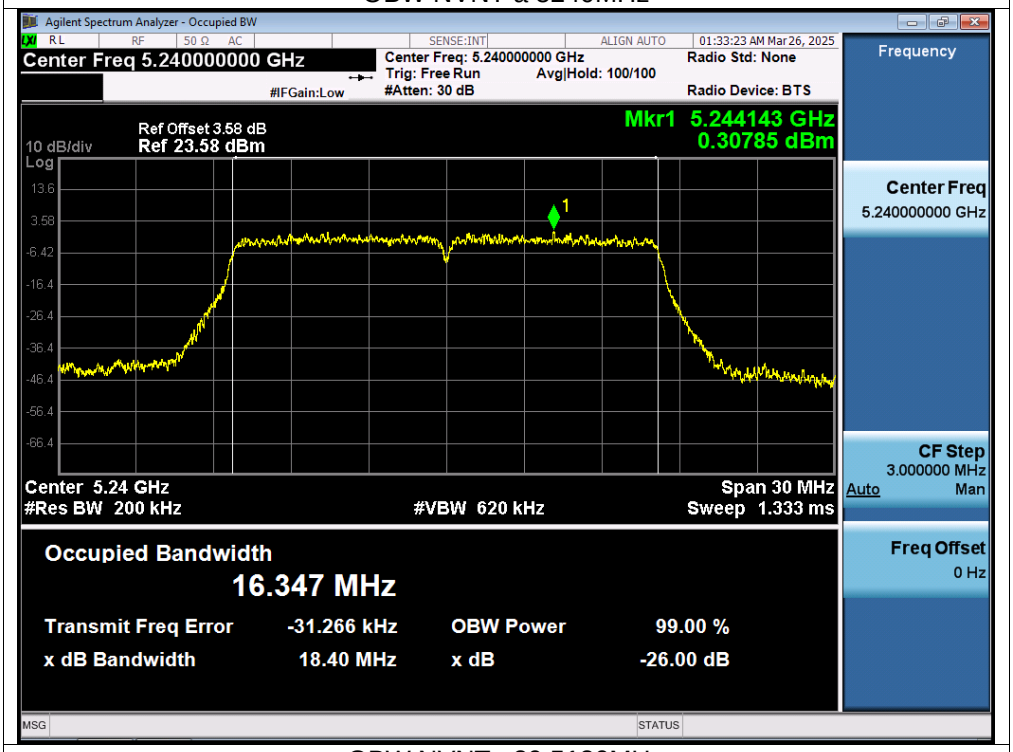
OBW NVNT a 5180MHz



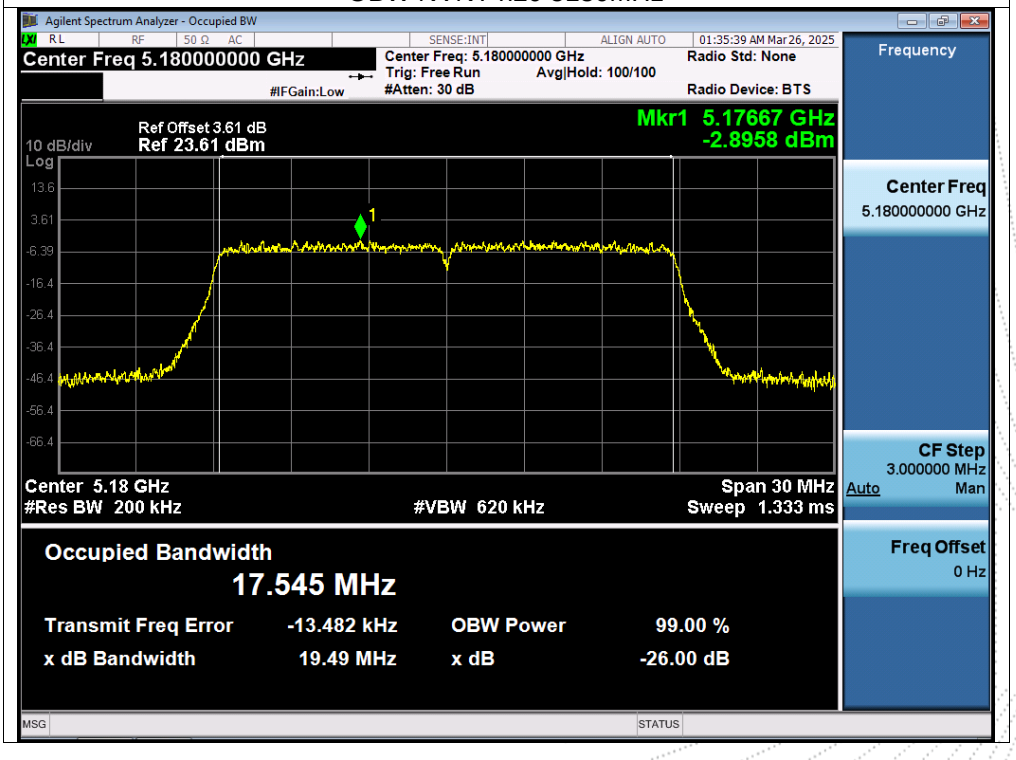
OBW NVNT a 5200MHz



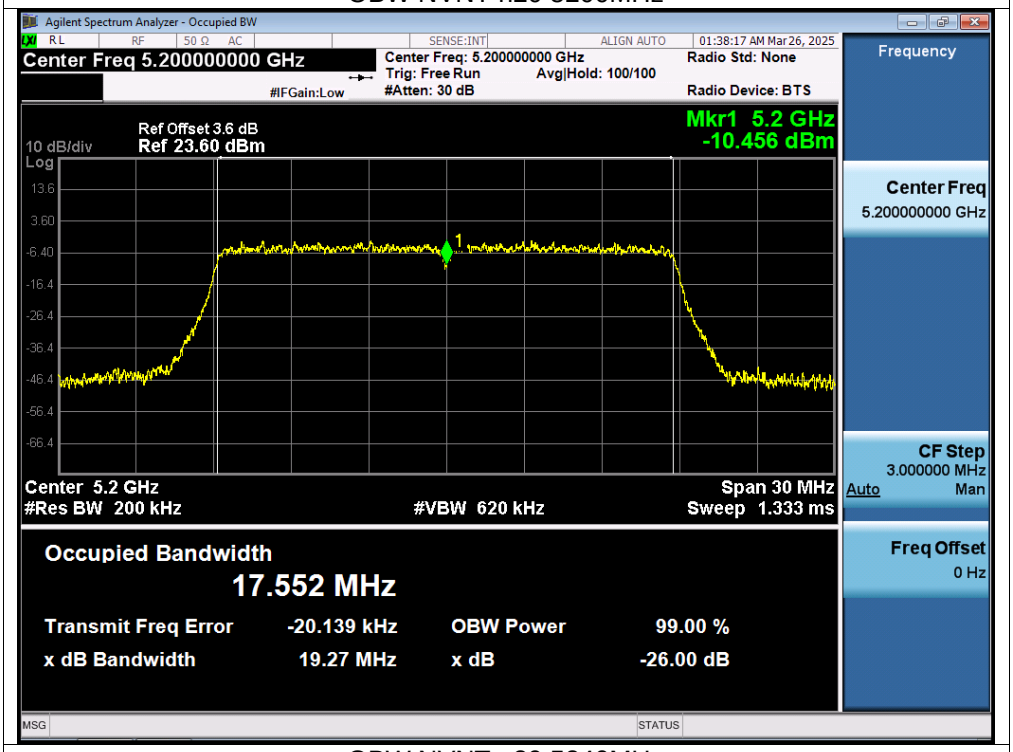
OBW NVNT a 5240MHz



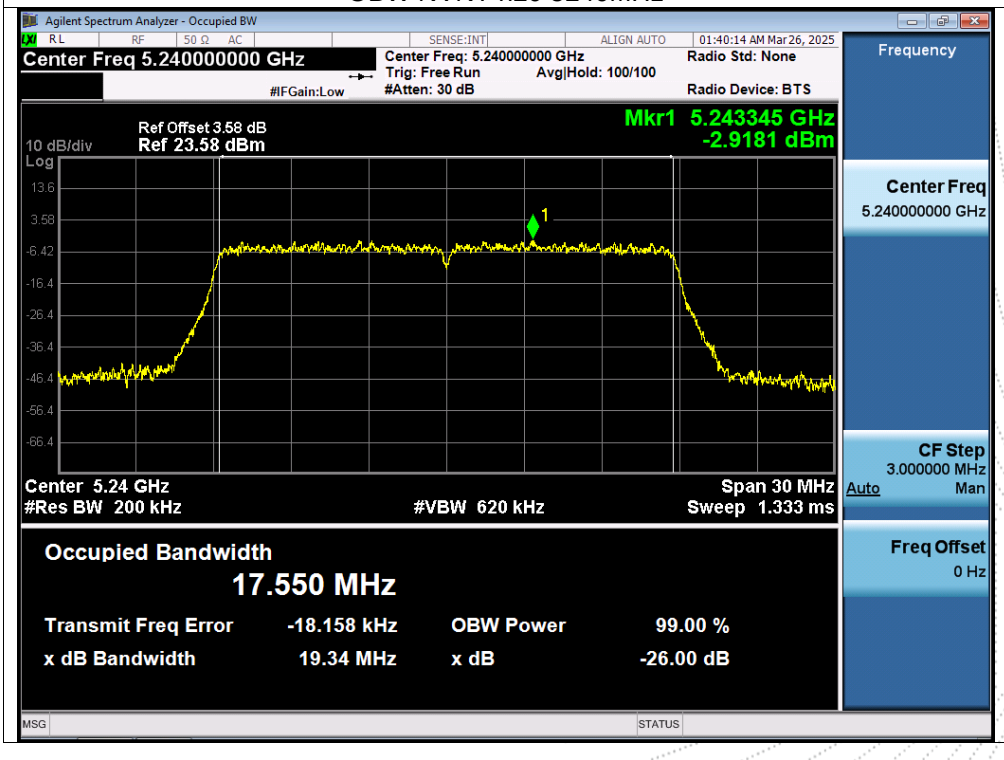
OBW NVNT n20 5180MHz



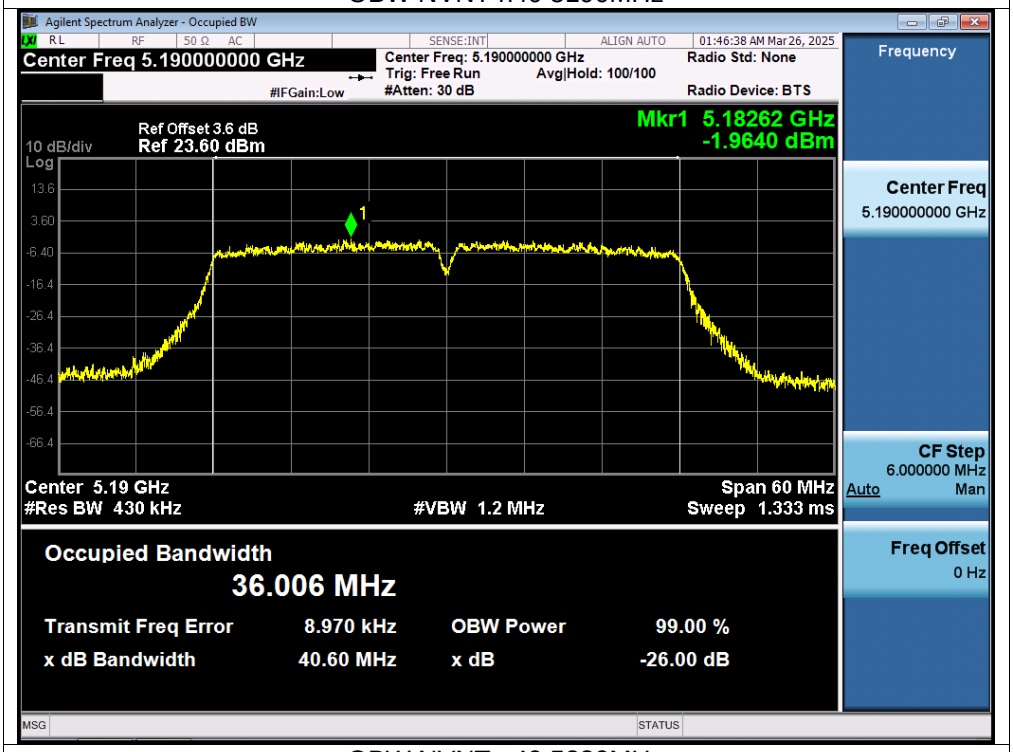
OBW NVNT n20 5200MHz



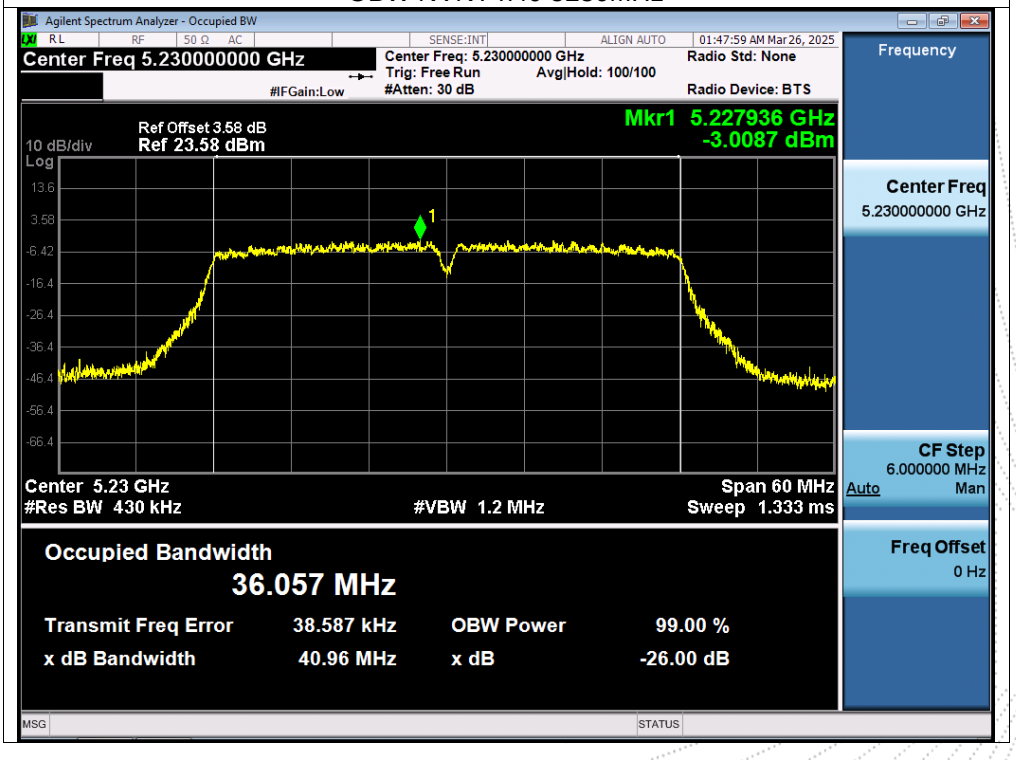
OBW NVNT n20 5240MHz



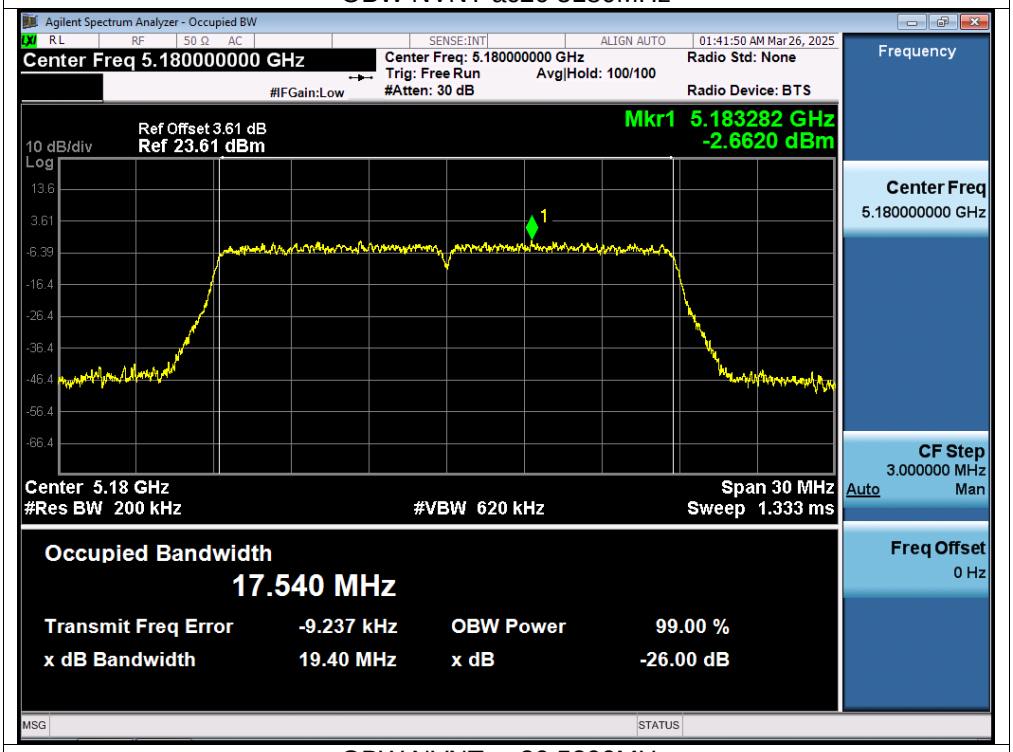
OBW NVNT n40 5190MHz



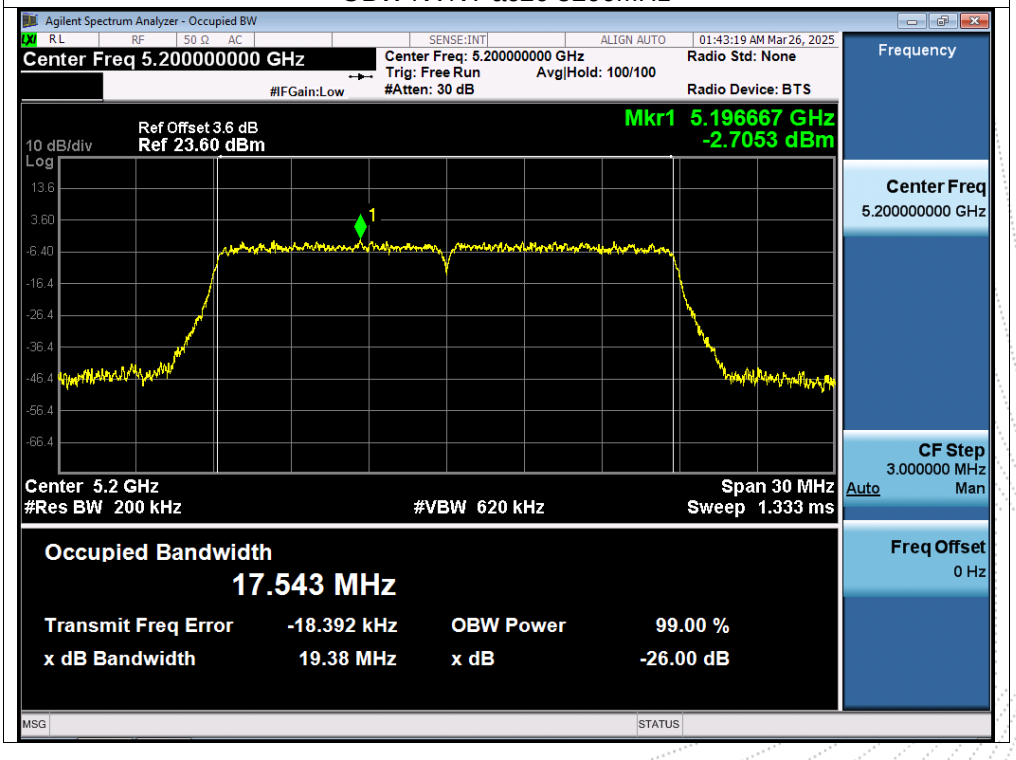
OBW NVNT n40 5230MHz



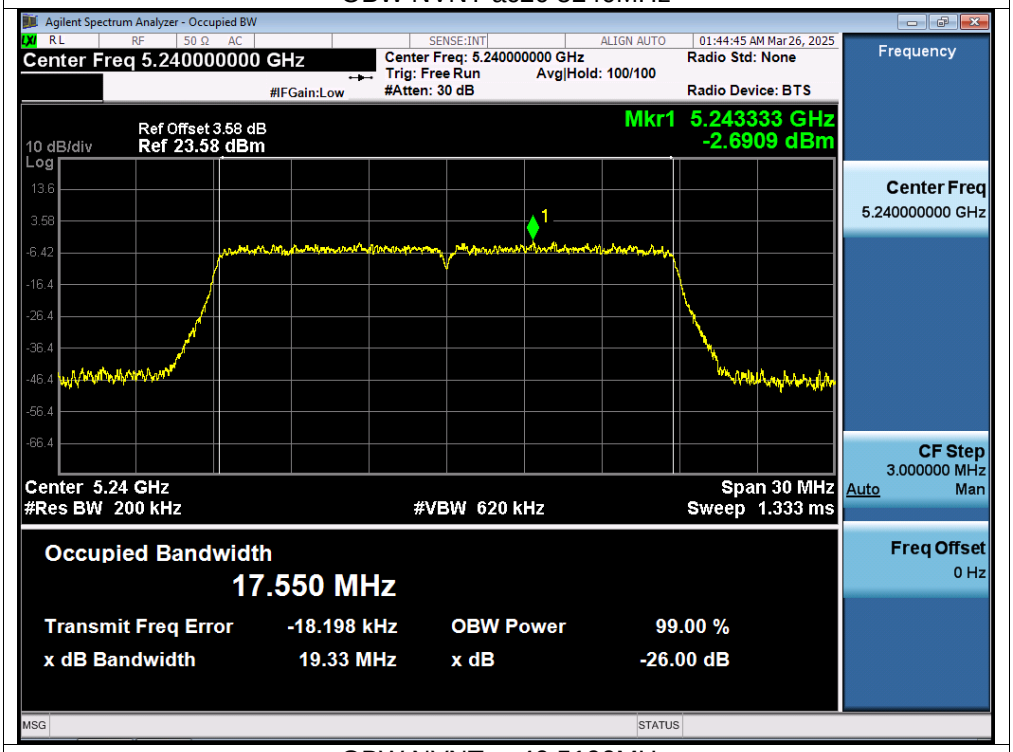
OBW NVNT ac20 5180MHz



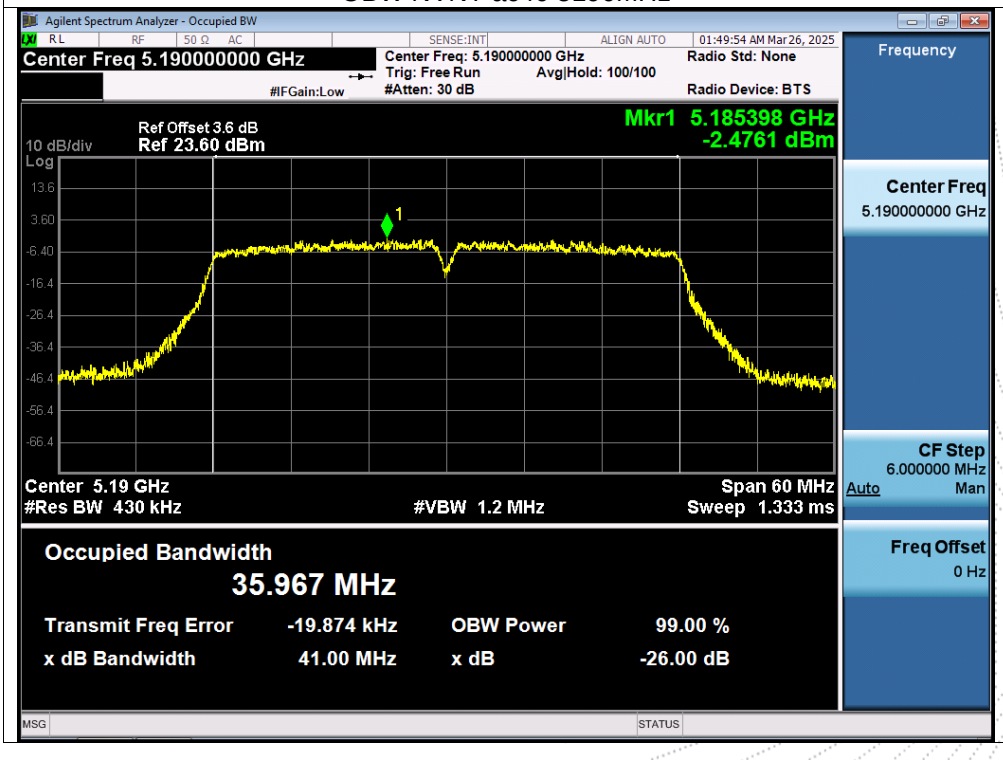
OBW NVNT ac20 5200MHz



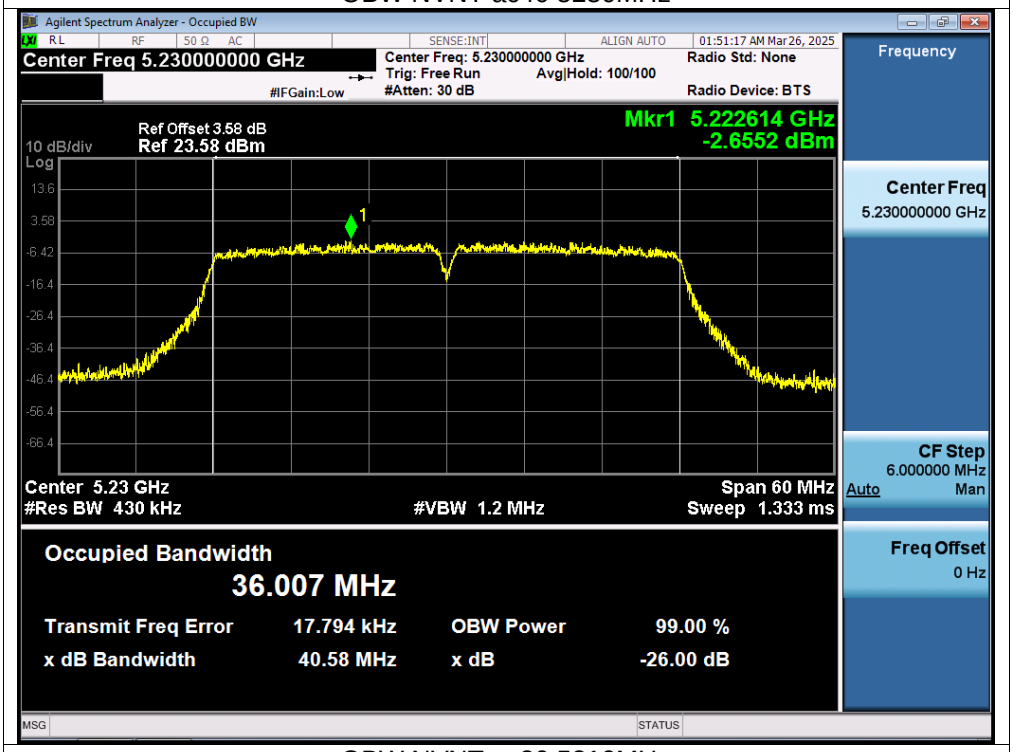
OBW NVNT ac20 5240MHz



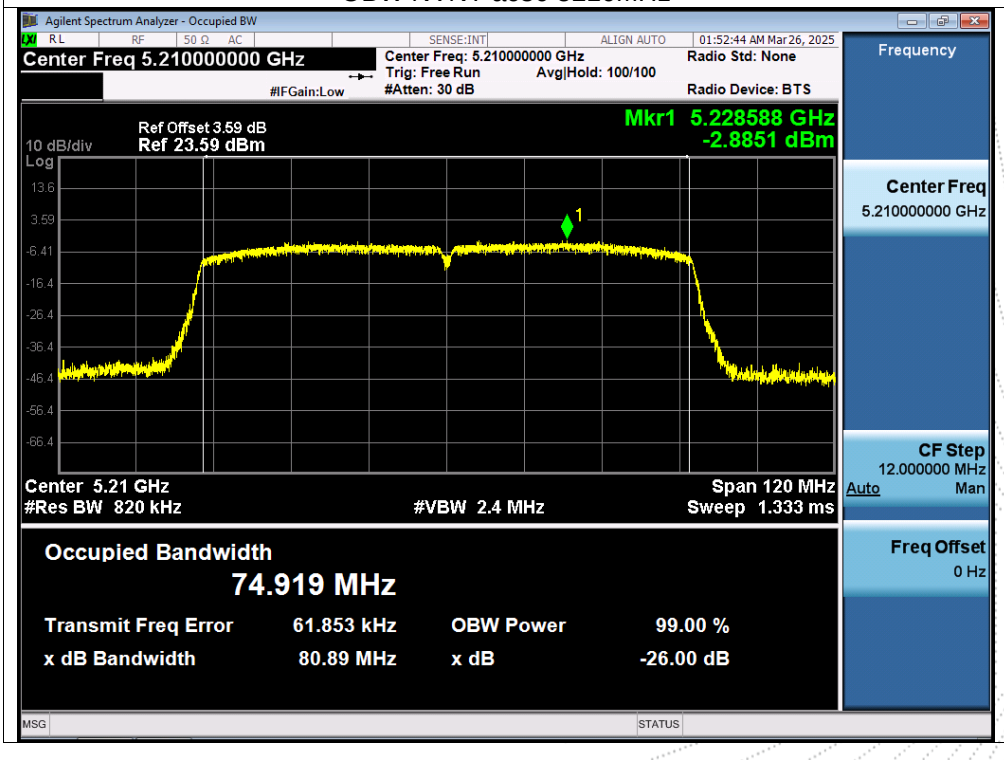
OBW NVNT ac40 5190MHz



OBW NVNT ac40 5230MHz



OBW NVNT ac80 5210MHz



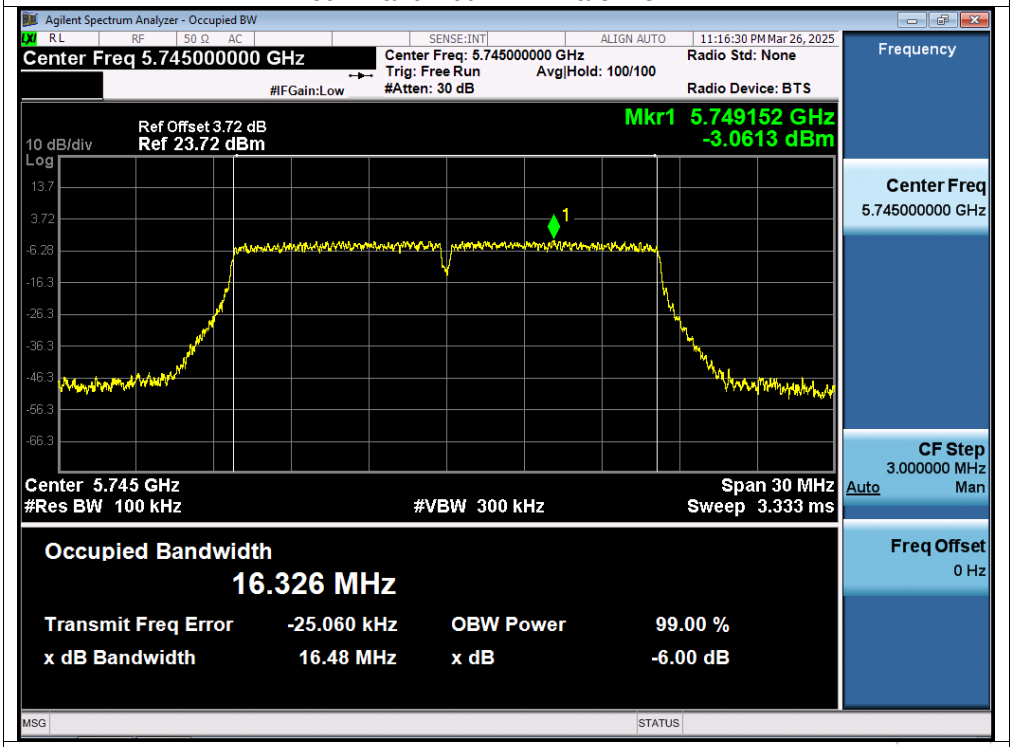
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 3.3V
Test Mode:	TX Frequency U-NII-3 (5745-5825MHz)		

Condition	Mode	Frequency (MHz)	99% bandwidth (MHz)		-6dB bandwidth (MHz)			Result
			ANT A	ANT B	ANT A	ANT B	Limit	
NVNT	a	5745	16.325	16.337	16.479	16.485	0.5	Pass
NVNT	a	5785	16.34	16.321	16.459	16.471	0.5	Pass
NVNT	a	5825	16.339	16.334	16.454	16.476	0.5	Pass
NVNT	n20	5745	17.532	17.546	17.665	17.673	0.5	Pass
NVNT	n20	5785	17.531	17.531	17.67	17.635	0.5	Pass
NVNT	n20	5825	17.533	17.537	17.659	17.64	0.5	Pass
NVNT	n40	5755	35.992	35.995	36.363	36.349	0.5	Pass
NVNT	n40	5795	36.012	35.959	36.337	36.359	0.5	Pass
NVNT	ac20	5745	17.541	17.539	17.67	17.629	0.5	Pass
NVNT	ac20	5785	17.537	17.534	17.624	17.618	0.5	Pass
NVNT	ac20	5825	17.55	17.541	17.661	17.649	0.5	Pass
NVNT	ac40	5755	36.004	35.969	36.37	36.354	0.5	Pass
NVNT	ac40	5795	35.978	36.009	36.353	36.35	0.5	Pass
NVNT	ac80	5775	74.548	**74.598**	74.377	**74.83**	0.5	Pass

Note: A(B) Represent the value of antenna A and B, The worst data is Antenna B, only shown Antenna B Plot.

Test Graphs

-6dB Bandwidth NVNT a 5745MHz



-6dB Bandwidth NVNT a 5785MHz