

TEST REPORT

Report No.: BCTC2408640838-3E

Applicant: Shenzhen Viofo Technology Co.,Ltd

Product Name: Car Dash Camera

Test Model: A329

Tested Date: 2024-08-06 to 2024-08-14

Issued Date: 2024-09-11

Shenzhen BCTC Testing Co., Ltd.

FCC ID:2AMBWA329

Product Name: Car Dash Camera

Trademark: VIOFO

Model/Type Ref.: A329

Prepared For: Shenzhen Viofo Technology Co.,Ltd

Address: East of 3rd Floor, Factory Building No.1, Huihuayuan, NO. 69 of Donghuan 2nd Road, Longhua Street, Longhua District, Shenzhen, China

Manufacturer: Shenzhen Viofo Technology Co.,Ltd

Address: East of 3rd Floor, Factory Building No.1, Huihuayuan, NO. 69 of Donghuan 2nd Road, 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: 2024-08-06

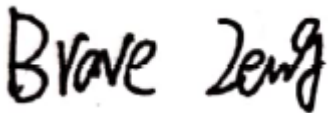
Sample tested Date: 2024-08-06 to 2024-08-14

Report No.: BCTC2408640838-3E

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:



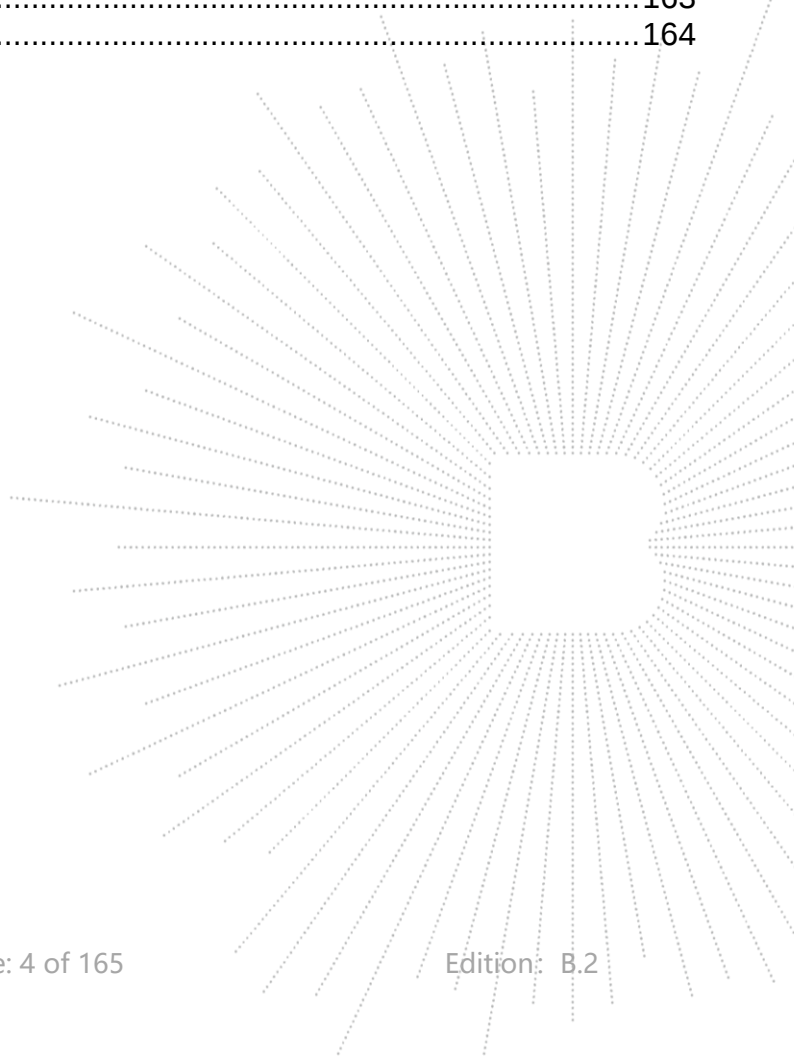
Zero Zhou/Reviewer

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1. Version

Report No.	Issue Date	Description	Approved
BCTC2408640838-3E	2024-09-11	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

Remark*: The equipment is DC vehicle product, not applicable to this test.

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°C

4. Product Information and Test Setup

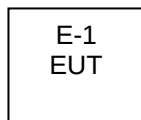
4.1 Product Information

Model/Type Ref.:	A329
Model differences:	N/A
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) ☒ 802.11ax(20MHz channel bandwidth) ☒ 802.11ax(40MHz channel bandwidth) ☒ 802.11ax(80MHz channel bandwidth)
Operation Frequency:	5180-5240MHz for 802.11a/n/ac(HT20)/ax(HE20); 5190-5230MHz for 802.11n/ac(HT40)/ax(HE40); 5210MHz for 802.11 ac/ax80; 5745-5825 MHz for 802.11a/n/ac(HT20)/ax(HE20); 5755-5795 MHz for 802.11n/ac(HT40)/ax(HE40); 5775MHz for 802.11 ac/ax80
Data Rate	☒ 802.11a:54/48/36/24/18/12/9/6Mbps ☒ 802.11n:up to 300 Mbps ☒ 802.11ac:up to 867 Mbps ☒ 802.11ax:up to 1201 Mbps
Type of Modulation:	☒ OFDM with BPSK/QPSK/16QAM/64QAM for 802.11a/n ☒ OFDM with BPSK/QPSK/16QAM/64QAM/256QAM for 802.11ac ☒ OFDMA with 1024QAM for 802.11AX HE
Transmit Power:	WIFI5.1G:13.68dBm WIFI5.8G: 12.43dBm
Antenna installation:	Internal antenna
Antenna Gain:	2.2dBi
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.
Power supply:	DC 5V/2A

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	N/A	A329	N/A	EUT

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/ax(20 MHz) (5180-5240MHz):

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

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

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

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

802.11ac/ax 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/ ax 20 CH36/ CH40/ CH 48 802.11a /n/ ac/ax 20 CH149/ CH157/ CH 165
Mode 2	802.11n/ ac/ ax40 CH38/ CH 46 802.11n/ ac/ax40 CH 151 / CH 159
Mode 3	802.11 ac/ax80 CH 42/CH 155
Mode 4	Link Mode

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 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	VTSD 9561-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 Analyzer 20kHz-26.5GHz	Keysight	N9020A	MY49100060	May 16, 2024	May 15, 2025
Spectrum Analyzer 9kHz-40GHz	R&S	FSP40	100363	May 16, 2024	May 15, 2025

Radiated Emissions Test (966 Chamber)					
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_01G1 8G-45dB	SK2021040901	May 16, 2024	May 15, 2025
Horn Antenna	Schwarzbeck	BBHA9120D	1541	May 21, 2024	May 20, 2025
Amplifier(18G Hz-40GHz)	MITEQ	TTA1840-35-HG	2034381	May 16, 2024	May 15, 2025
Horn Antenn(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:

- *Decreasing linearly with logarithm of frequency.
- 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

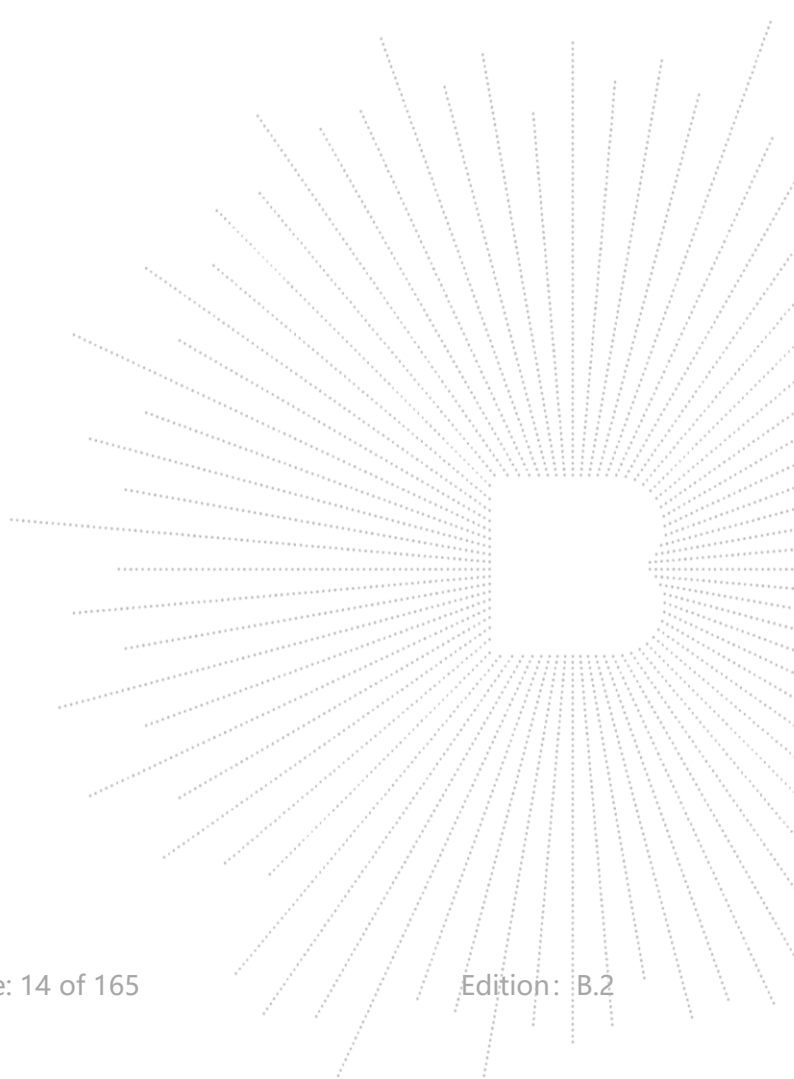
- The Product was placed on a nonconductive table 0.8 m above the horizontal ground reference plane, and 0.4 m from the vertical ground reference plane, and connected to the main through Line Impedance Stability Network (L.I.S.N).
- The RBW of the receiver was set at 9 kHz in 150 kHz ~ 30MHz with Peak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

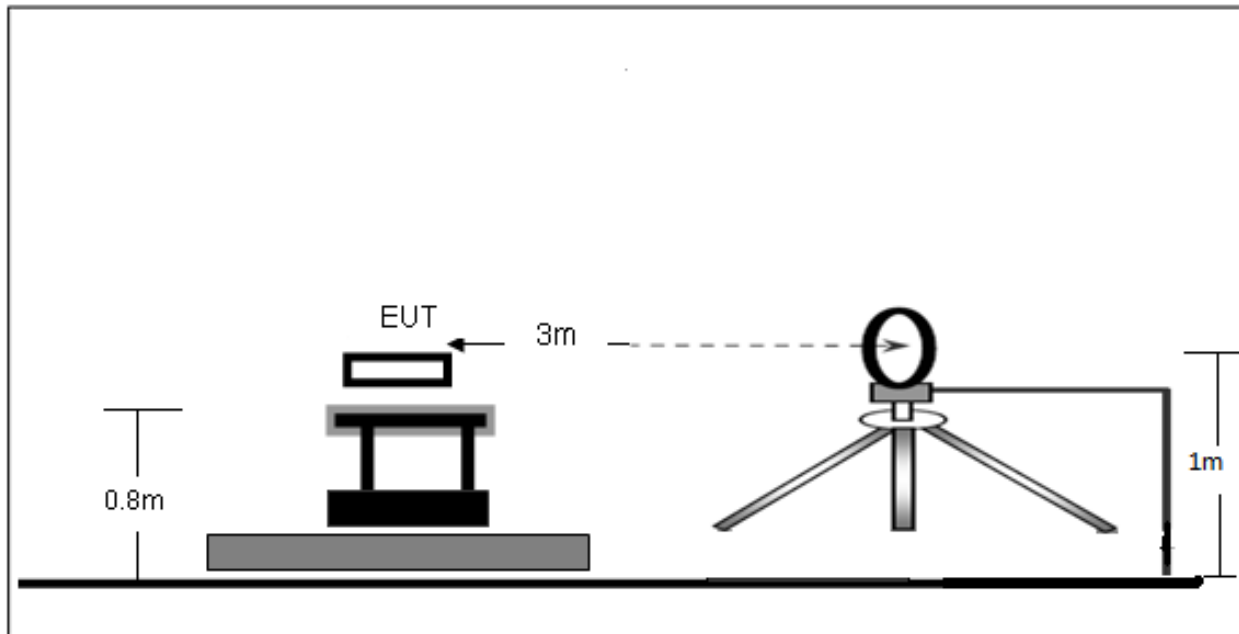
Remark: The equipment is DC vehicle product, not applicable to this test.



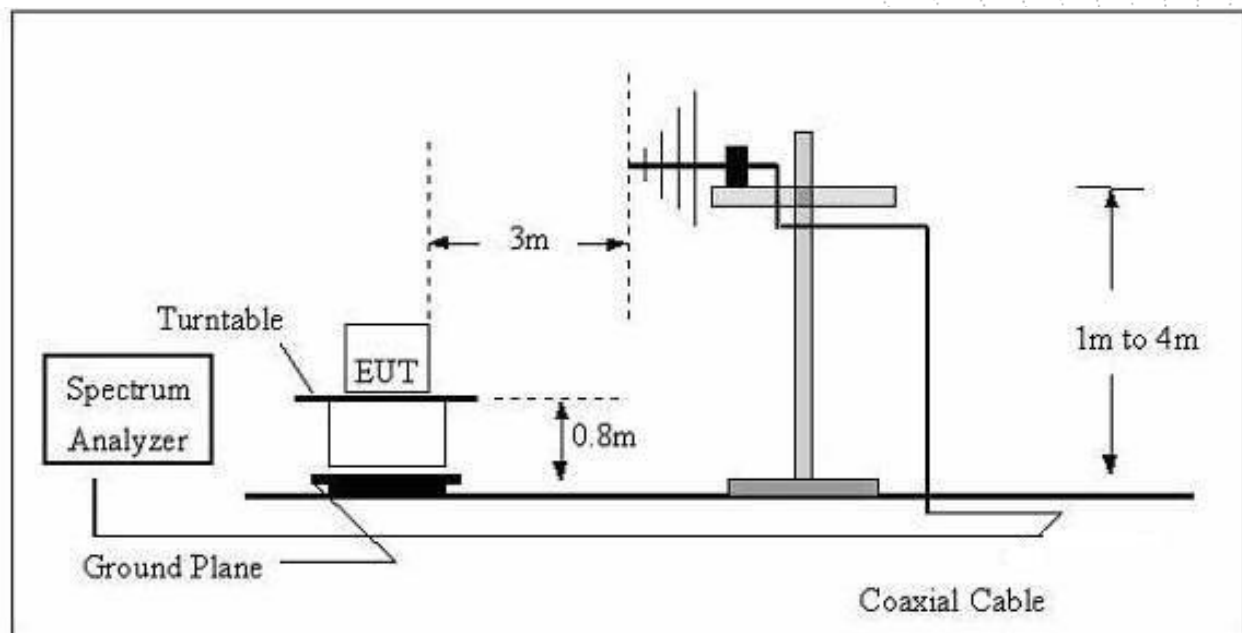
7. Radiated Emissions

7.1 Block Diagram Of Test Setup

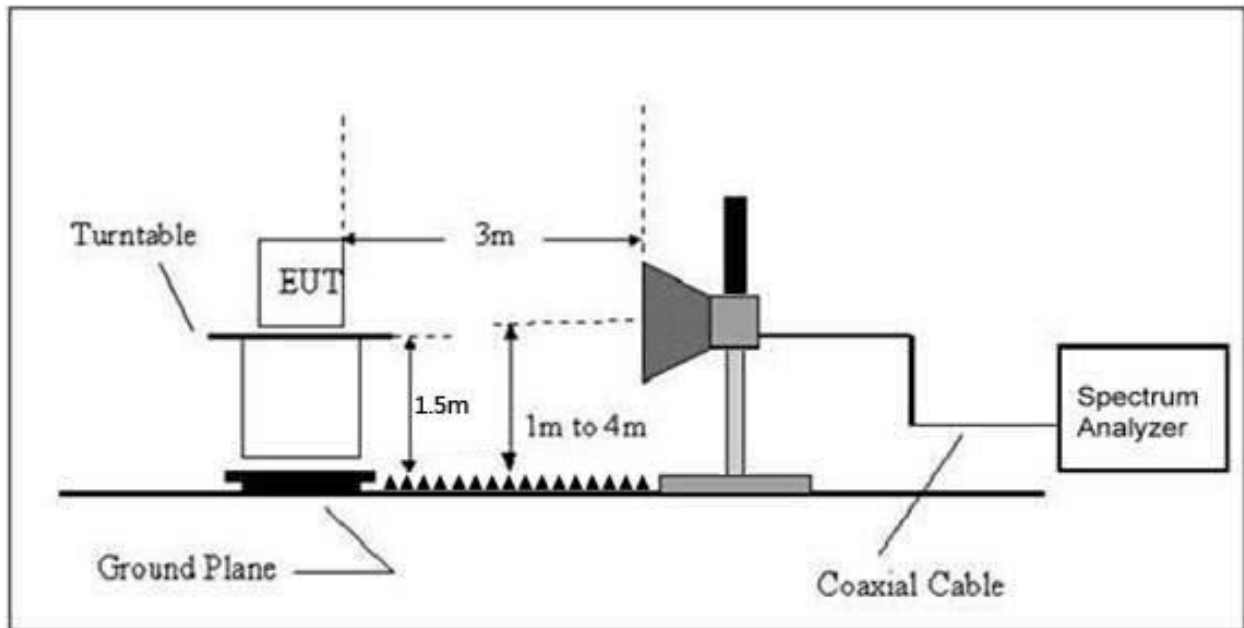
(A) Radiated Emission Test-Up Frequency Below 30MHz



(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 (MHz)	Field Strength uV/m	Distance (m)	Field Strength Limit at 3m Distance	
			uV/m	dBuV/m
0.009 ~ 0.490	$2400/F(\text{kHz})$	300	$10000 * 2400/F(\text{kHz})$	$20\log^{(2400/F(\text{kHz}))} + 80$
0.490 ~ 1.705	$24000/F(\text{kHz})$	30	$100 * 24000/F(\text{kHz})$	$20\log^{(24000/F(\text{kHz}))} + 40$
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 $RBWCF [dB] = 10 \cdot \lg(100 [kHz] / \text{narrower RBW} [kHz])$. , 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°C	Relative Humidity:	24%
Pressure:	101 kPa	Test Voltage:	DC 24V
Test Mode:	Mode 4	Polarization:	--

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

Note:

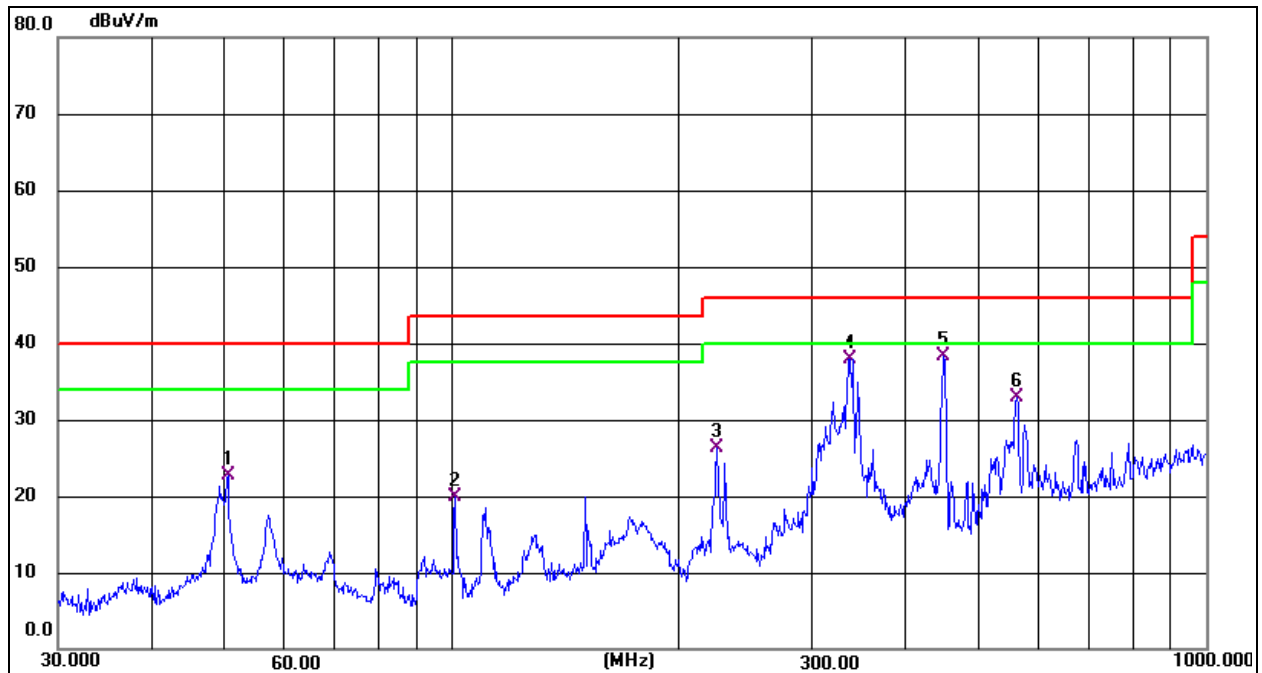
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance}) (dB)$;

Limit line = specific limits(dBuV) + distance extrapolation factor.

Between 30MHz – 1GHz

Temperature:	24 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage :	DC 24V
Test Mode:	Mode 4	Polarization :	Horizontal

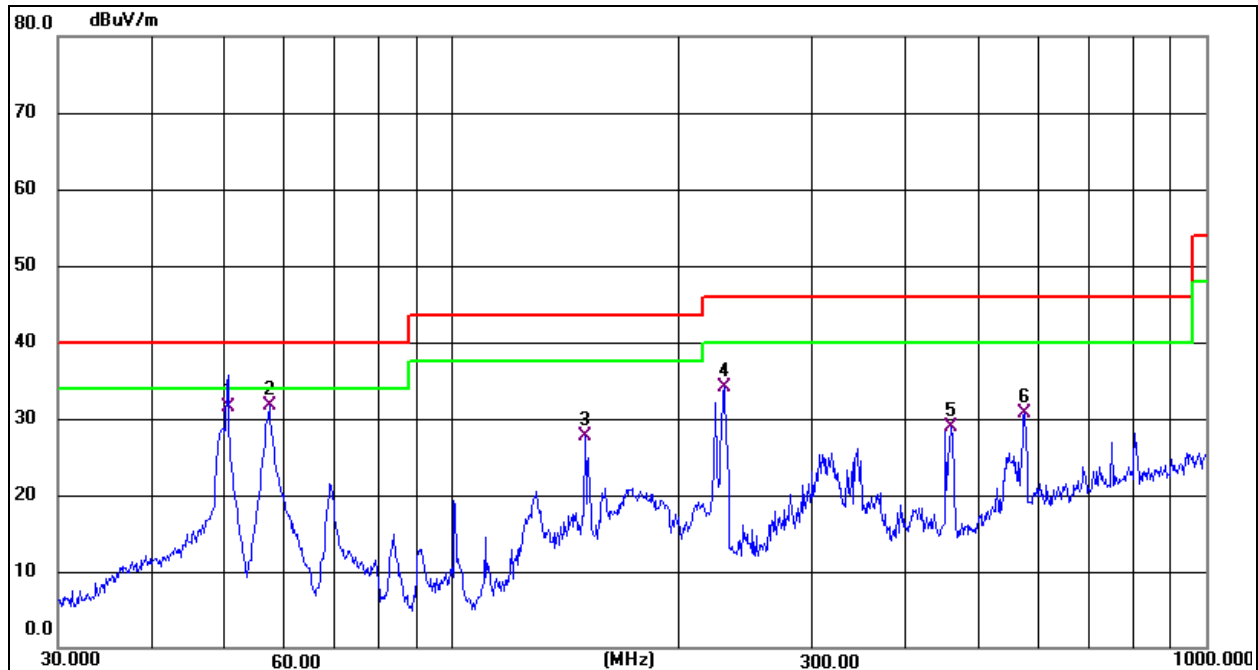


Remark:

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	50.4089	39.55	-16.83	22.72	40.00	-17.28	QP
2	100.9339	38.43	-18.57	19.86	43.50	-23.64	QP
3	224.5193	42.83	-16.62	26.21	46.00	-19.79	QP
4	337.2155	50.36	-12.37	37.99	46.00	-8.01	QP
5 *	447.9822	47.36	-8.97	38.39	46.00	-7.61	QP
6	560.6928	38.91	-6.02	32.89	46.00	-13.11	QP

Temperature:	24 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage :	DC 24V
Test Mode:	Mode 4	Polarization :	Vertical



Remark:

- Factor = Antenna Factor + Cable Loss – Pre-amplifier.
- Measurement = Reading Level + Correct Factor
- Over = Measurement - Limit

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	50.4089	48.43	-16.83	31.60	40.00	-8.40	QP
2 *	57.1914	48.78	-17.07	31.71	40.00	-8.29	QP
3	150.0108	42.00	-14.37	27.63	43.50	-15.87	QP
4	230.0985	50.49	-16.42	34.07	46.00	-11.93	QP
5	459.1144	37.49	-8.67	28.82	46.00	-17.18	QP
6	574.6258	36.33	-5.64	30.69	46.00	-15.31	QP

Test Mode :	TX(5.1G) - 802.11a
-------------	--------------------

Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G							
Vertical	4434.177	73.69	-20.73	52.96	68.2	-15.24	Pk
Vertical	4434.177	59.58	-20.73	38.85	54	-15.15	AV
Vertical	10360.126	63.93	-9.36	54.57	68.2	-13.63	Pk
Vertical	10360.126	49.23	-9.36	39.87	54	-14.13	AV
Vertical	15540.054	64.37	-7.84	56.53	74	-17.47	Pk
Vertical	15540.054	49.16	-7.84	41.32	54	-12.68	AV
Horizontal	4434.028	73.42	-20.73	52.69	68.2	-15.51	Pk
Horizontal	4434.028	59.98	-20.73	39.25	54	-14.75	AV
Horizontal	10360.187	60.92	-9.36	51.56	68.2	-16.64	Pk
Horizontal	10360.187	49.44	-9.36	40.08	54	-13.92	AV
Horizontal	15540.100	61.48	-7.84	53.64	74	-20.36	Pk
Horizontal	15540.100	49.92	-7.84	42.08	54	-11.92	AV
middle Channel (5200 MHz)-Above 1G							
Vertical	4592.092	71.11	-20.42	50.69	74	-23.31	Pk
Vertical	4592.092	59.32	-20.42	38.90	54	-15.10	AV
Vertical	10400.042	62.47	-9.30	53.17	68.2	-15.03	Pk
Vertical	10400.042	49.17	-9.30	39.87	54	-14.13	AV
Vertical	15600.009	63.37	-7.82	55.55	74	-18.45	Pk
Vertical	15600.009	49.32	-7.82	41.50	54	-12.50	AV
Horizontal	4592.192	73.80	-20.42	53.39	74	-20.61	Pk
Horizontal	4592.192	59.99	-20.42	39.58	54	-14.42	AV
Horizontal	10400.001	64.57	-9.30	55.27	68.2	-12.93	Pk
Horizontal	10400.001	49.47	-9.30	40.17	54	-13.83	AV
Horizontal	15600.008	60.15	-7.82	52.33	74	-21.67	Pk
Horizontal	15600.008	49.94	-7.82	42.12	54	-11.88	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.174	72.50	-20.12	52.38	74	-21.62	Pk
Vertical	4739.174	59.37	-20.12	39.25	54	-14.75	AV
Vertical	10480.124	63.58	-9.18	54.40	68.2	-13.80	Pk
Vertical	10480.124	49.58	-9.18	40.40	54	-13.60	AV
Vertical	15720.133	60.11	-7.78	52.33	74	-21.67	Pk
Vertical	15720.133	49.10	-7.78	41.32	54	-12.68	AV
Horizontal	4739.077	71.01	-20.12	50.89	74	-23.11	Pk
Horizontal	4739.077	59.58	-20.12	39.46	54	-14.54	AV
Horizontal	10480.180	60.68	-9.18	51.50	68.2	-16.70	Pk
Horizontal	10480.180	49.08	-9.18	39.90	54	-14.10	AV
Horizontal	15720.148	60.58	-7.78	52.80	74	-21.20	Pk
Horizontal	15720.148	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 :	TX(5.1G) - 802.11n-HT20
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G							
Vertical	4434.095	72.55	-20.73	51.82	68.2	-16.38	Pk
Vertical	4434.095	59.88	-20.73	39.15	54	-14.85	AV
Vertical	10360.198	61.81	-9.36	52.45	68.2	-15.75	Pk
Vertical	10360.198	49.87	-9.36	40.51	54	-13.49	AV
Vertical	15540.140	60.23	-7.84	52.39	74	-21.61	Pk
Vertical	15540.140	49.90	-7.84	42.06	54	-11.94	AV
Horizontal	4434.132	71.04	-20.73	50.31	68.2	-17.89	Pk
Horizontal	4434.132	59.44	-20.73	38.70	54	-15.30	AV
Horizontal	10360.007	60.72	-9.36	51.36	68.2	-16.84	Pk
Horizontal	10360.007	49.59	-9.36	40.23	54	-13.77	AV
Horizontal	15540.172	64.79	-7.84	56.95	74	-17.05	Pk
Horizontal	15540.172	49.58	-7.84	41.74	54	-12.26	AV
middle Channel (5200 MHz)-Above 1G							
Vertical	4592.134	72.32	-20.42	51.90	74	-22.10	Pk
Vertical	4592.134	59.73	-20.42	39.31	54	-14.69	AV
Vertical	10400.141	64.49	-9.30	55.19	68.2	-13.01	Pk
Vertical	10400.141	49.59	-9.30	40.29	54	-13.71	AV
Vertical	15600.140	60.03	-7.82	52.21	74	-21.79	Pk
Vertical	15600.140	49.10	-7.82	41.28	54	-12.72	AV
Horizontal	4592.084	74.12	-20.42	53.70	74	-20.30	Pk
Horizontal	4592.084	59.11	-20.42	38.70	54	-15.30	AV
Horizontal	10400.115	61.20	-9.30	51.90	68.2	-16.30	Pk
Horizontal	10400.115	49.70	-9.30	40.40	54	-13.60	AV
Horizontal	15600.009	64.26	-7.82	56.44	74	-17.56	Pk
Horizontal	15600.009	49.26	-7.82	41.44	54	-12.56	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.080	71.97	-20.12	51.85	74	-22.15	Pk
Vertical	4739.080	59.65	-20.12	39.53	54	-14.47	AV
Vertical	10480.049	60.15	-9.18	50.97	68.2	-17.23	Pk
Vertical	10480.049	49.02	-9.18	39.84	54	-14.16	AV
Vertical	15720.172	60.40	-7.78	52.62	74	-21.38	Pk
Vertical	15720.172	49.42	-7.78	41.64	54	-12.36	AV
Horizontal	4739.166	70.56	-20.12	50.44	74	-23.56	Pk
Horizontal	4739.166	59.82	-20.12	39.70	54	-14.30	AV
Horizontal	10480.039	63.09	-9.18	53.91	68.2	-14.29	Pk
Horizontal	10480.039	49.22	-9.18	40.04	54	-13.96	AV
Horizontal	15720.075	63.90	-7.78	56.12	74	-17.88	Pk
Horizontal	15720.075	49.99	-7.78	42.21	54	-11.79	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
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5190 MHz)-Above 1G							
Vertical	4434.013	73.47	-20.73	52.73	68.2	-15.47	Pk
Vertical	4434.013	59.58	-20.73	38.85	54	-15.15	AV
Vertical	10380.089	62.18	-9.33	52.85	68.2	-15.35	Pk
Vertical	10380.089	49.75	-9.33	40.42	54	-13.58	AV
Vertical	15570.111	62.69	-7.83	54.86	74	-19.14	Pk
Vertical	15570.111	49.55	-7.83	41.72	54	-12.28	AV
Horizontal	4434.046	72.18	-20.73	51.45	74	-22.55	Pk
Horizontal	4434.046	59.20	-20.73	38.47	54	-15.53	AV
Horizontal	10380.133	61.47	-9.33	52.14	68.2	-16.06	Pk
Horizontal	10380.133	49.96	-9.33	40.63	54	-13.37	AV
Horizontal	15570.045	64.48	-7.83	56.65	74	-17.35	Pk
Horizontal	15570.045	49.20	-7.83	41.37	54	-12.63	AV
High Channel (5230 MHz)-Above 1G							
Vertical	4739.030	71.02	-20.12	50.90	68.2	-17.30	Pk
Vertical	4739.030	59.25	-20.12	39.13	54	-14.87	AV
Vertical	10460.190	61.45	-9.21	52.24	68.2	-15.96	Pk
Vertical	10460.190	49.36	-9.21	40.15	54	-13.85	AV
Vertical	15690.191	64.76	-7.79	56.97	74	-17.03	Pk
Vertical	15690.191	49.36	-7.79	41.57	54	-12.43	AV
Horizontal	4739.200	71.18	-20.12	51.06	68.2	-17.14	Pk
Horizontal	4739.200	59.80	-20.12	39.68	54	-14.32	AV
Horizontal	10460.137	63.63	-9.21	54.42	68.2	-13.78	Pk
Horizontal	10460.137	49.27	-9.21	40.06	54	-13.94	AV
Horizontal	15690.152	62.36	-7.79	54.57	74	-19.43	Pk
Horizontal	15690.152	49.10	-7.79	41.31	54	-12.69	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
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G							
Vertical	4434.052	74.89	-20.73	54.16	68.2	-14.04	Pk
Vertical	4434.052	59.08	-20.73	38.35	54	-15.65	AV
Vertical	10360.044	63.45	-9.36	54.09	68.2	-14.11	Pk
Vertical	10360.044	49.47	-9.36	40.11	54	-13.89	AV
Vertical	15540.146	64.26	-7.84	56.42	74	-17.58	Pk
Vertical	15540.146	49.39	-7.84	41.55	54	-12.45	AV
Horizontal	4434.161	72.51	-20.73	51.77	68.2	-16.43	Pk
Horizontal	4434.161	59.92	-20.73	39.19	54	-14.81	AV
Horizontal	10360.043	63.00	-9.36	53.64	68.2	-14.56	Pk
Horizontal	10360.043	49.15	-9.36	39.79	54	-14.21	AV
Horizontal	15540.036	61.98	-7.84	54.14	74	-19.86	Pk
Horizontal	15540.036	49.35	-7.84	41.51	54	-12.49	AV
middle Channel (5200 MHz)-Above 1G							
Vertical	4592.171	74.80	-20.42	54.38	74	-19.62	Pk
Vertical	4592.171	59.83	-20.42	39.42	54	-14.58	AV
Vertical	10400.013	63.02	-9.30	53.72	68.2	-14.48	Pk
Vertical	10400.013	49.89	-9.30	40.59	54	-13.41	AV
Vertical	15600.120	61.05	-7.82	53.23	74	-20.77	Pk
Vertical	15600.120	49.74	-7.82	41.92	54	-12.08	AV
Horizontal	4592.167	73.08	-20.42	52.66	74	-21.34	Pk
Horizontal	4592.167	59.89	-20.42	39.48	54	-14.52	AV
Horizontal	10400.095	64.69	-9.30	55.39	68.2	-12.81	Pk
Horizontal	10400.095	49.71	-9.30	40.41	54	-13.59	AV
Horizontal	15600.046	60.11	-7.82	52.29	74	-21.71	Pk
Horizontal	15600.046	49.34	-7.82	41.52	54	-12.48	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.140	73.32	-20.12	53.20	74	-20.80	Pk
Vertical	4739.140	59.08	-20.12	38.96	54	-15.04	AV
Vertical	10480.011	60.98	-9.18	51.80	68.2	-16.40	Pk
Vertical	10480.011	49.19	-9.18	40.01	54	-13.99	AV
Vertical	15720.088	64.61	-7.78	56.83	74	-17.17	Pk
Vertical	15720.088	49.56	-7.78	41.78	54	-12.22	AV
Horizontal	4739.132	70.28	-20.12	50.16	74	-23.84	Pk
Horizontal	4739.132	59.50	-20.12	39.38	54	-14.62	AV
Horizontal	10480.159	63.06	-9.18	53.88	68.2	-14.32	Pk
Horizontal	10480.159	49.06	-9.18	39.88	54	-14.12	AV
Horizontal	15720.011	62.60	-7.78	54.82	74	-19.18	Pk
Horizontal	15720.011	49.19	-7.78	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.

Test Mode:	TX(5.1G) - 802.11ac-HT40
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5190 MHz)-Above 1G							
Vertical	4434.091	73.47	-20.73	52.73	68.2	-15.47	Pk
Vertical	4434.091	59.75	-20.73	39.02	54	-14.98	AV
Vertical	10380.008	64.40	-9.33	55.07	68.2	-13.13	Pk
Vertical	10380.008	49.28	-9.33	39.95	54	-14.05	AV
Vertical	15570.040	64.06	-7.83	56.23	74	-17.77	Pk
Vertical	15570.040	49.34	-7.83	41.51	54	-12.49	AV
Horizontal	4434.036	72.96	-20.73	52.23	74	-21.77	Pk
Horizontal	4434.036	59.56	-20.73	38.82	54	-15.18	AV
Horizontal	10380.196	60.31	-9.33	50.98	68.2	-17.22	Pk
Horizontal	10380.196	49.14	-9.33	39.81	54	-14.19	AV
Horizontal	15570.195	63.11	-7.83	55.28	74	-18.72	Pk
Horizontal	15570.195	49.99	-7.83	42.16	54	-11.84	AV
middle Channel (5230 MHz)-Above 1G							
Vertical	4739.160	71.10	-20.12	50.98	68.2	-17.22	Pk
Vertical	4739.160	59.99	-20.12	39.87	54	-14.13	AV
Vertical	10460.121	64.51	-9.21	55.30	68.2	-12.90	Pk
Vertical	10460.121	49.19	-9.21	39.98	54	-14.02	AV
Vertical	15690.086	61.23	-7.79	53.44	74	-20.56	Pk
Vertical	15690.086	49.45	-7.79	41.66	54	-12.34	AV
Horizontal	4739.137	70.23	-20.12	50.11	68.2	-18.09	Pk
Horizontal	4739.137	59.44	-20.12	39.31	54	-14.69	AV
Horizontal	10460.198	63.78	-9.21	54.57	68.2	-13.63	Pk
Horizontal	10460.198	49.89	-9.21	40.68	54	-13.32	AV
Horizontal	15690.001	60.85	-7.79	53.06	74	-20.94	Pk
Horizontal	15690.001	49.04	-7.79	41.25	54	-12.75	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
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
(5210 MHz)-Above 1G							
Vertical	4434.198	74.59	-20.73	53.86	68.2	-14.34	Pk
Vertical	4434.198	59.83	-20.73	39.10	54	-14.90	AV
Vertical	10420.088	64.44	-9.27	55.17	68.2	-13.03	Pk
Vertical	10420.088	49.97	-9.27	40.70	54	-13.30	AV
Vertical	15630.166	62.75	-7.81	54.94	74	-19.06	Pk
Vertical	15630.166	49.63	-7.81	41.82	54	-12.18	AV
Horizontal	4434.014	73.89	-20.73	53.16	68.2	-15.04	Pk
Horizontal	4434.014	59.86	-20.73	39.13	54	-14.87	AV
Horizontal	10420.071	61.88	-9.27	52.61	68.2	-15.59	Pk
Horizontal	10420.071	49.43	-9.27	40.16	54	-13.84	AV
Horizontal	15630.055	60.17	-7.81	52.36	74	-21.64	Pk
Horizontal	15630.055	49.36	-7.81	41.55	54	-12.45	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) - 802.11ax-HE20
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G							
Vertical	4434.063	72.02	-20.73	51.28	68.2	-16.92	Pk
Vertical	4434.063	59.82	-20.73	39.09	54	-14.91	AV
Vertical	10360.131	63.38	-9.36	54.02	68.2	-14.18	Pk
Vertical	10360.131	49.39	-9.36	40.03	54	-13.97	AV
Vertical	15540.027	61.44	-7.84	53.60	74	-20.40	Pk
Vertical	15540.027	49.63	-7.84	41.79	54	-12.21	AV
Horizontal	4434.076	71.56	-20.73	50.83	68.2	-17.37	Pk
Horizontal	4434.076	59.95	-20.73	39.22	54	-14.78	AV
Horizontal	10360.174	61.27	-9.36	51.91	68.2	-16.29	Pk
Horizontal	10360.174	49.35	-9.36	39.99	54	-14.01	AV
Horizontal	15540.130	63.30	-7.84	55.46	74	-18.54	Pk
Horizontal	15540.130	49.15	-7.84	41.31	54	-12.69	AV
middle Channel (5200 MHz)-Above 1G							
Vertical	4592.098	74.84	-20.42	54.43	74	-19.57	Pk
Vertical	4592.098	59.99	-20.42	39.57	54	-14.43	AV
Vertical	10400.155	60.38	-9.30	51.08	68.2	-17.12	Pk
Vertical	10400.155	49.53	-9.30	40.23	54	-13.77	AV
Vertical	15600.005	60.56	-7.82	52.74	74	-21.26	Pk
Vertical	15600.005	49.40	-7.82	41.58	54	-12.42	AV
Horizontal	4592.022	73.90	-20.42	53.48	74	-20.52	Pk
Horizontal	4592.022	59.22	-20.42	38.81	54	-15.19	AV
Horizontal	10400.130	60.35	-9.30	51.05	68.2	-17.15	Pk
Horizontal	10400.130	49.93	-9.30	40.63	54	-13.37	AV
Horizontal	15600.174	60.52	-7.82	52.70	74	-21.30	Pk
Horizontal	15600.174	49.67	-7.82	41.85	54	-12.15	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.049	70.91	-20.12	50.79	74	-23.21	Pk
Vertical	4739.049	59.85	-20.12	39.73	54	-14.27	AV
Vertical	10480.073	64.54	-9.18	55.36	68.2	-12.84	Pk
Vertical	10480.073	49.69	-9.18	40.51	54	-13.49	AV
Vertical	15720.090	60.76	-7.78	52.98	74	-21.02	Pk
Vertical	15720.090	49.19	-7.78	41.41	54	-12.59	AV
Horizontal	4739.171	74.11	-20.12	53.99	74	-20.01	Pk
Horizontal	4739.171	59.69	-20.12	39.56	54	-14.44	AV
Horizontal	10480.135	63.25	-9.18	54.07	68.2	-14.13	Pk
Horizontal	10480.135	49.80	-9.18	40.62	54	-13.38	AV
Horizontal	15720.094	62.94	-7.78	55.16	74	-18.84	Pk
Horizontal	15720.094	49.69	-7.78	41.91	54	-12.09	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) - 802.11ax-HE40
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5190 MHz)-Above 1G							
Vertical	4434.189	73.83	-20.73	53.10	68.2	-15.10	Pk
Vertical	4434.189	59.63	-20.73	38.90	54	-15.10	AV
Vertical	10380.194	63.48	-9.33	54.15	68.2	-14.05	Pk
Vertical	10380.194	49.60	-9.33	40.27	54	-13.73	AV
Vertical	15570.049	63.40	-7.83	55.57	74	-18.43	Pk
Vertical	15570.049	49.85	-7.83	42.02	54	-11.98	AV
Horizontal	4434.084	72.22	-20.73	51.49	74	-22.51	Pk
Horizontal	4434.084	59.72	-20.73	38.99	54	-15.01	AV
Horizontal	10380.079	62.39	-9.33	53.06	68.2	-15.14	Pk
Horizontal	10380.079	49.25	-9.33	39.92	54	-14.08	AV
Horizontal	15570.161	60.69	-7.83	52.86	74	-21.14	Pk
Horizontal	15570.161	49.80	-7.83	41.97	54	-12.03	AV
High Channel (5230 MHz)-Above 1G							
Vertical	4739.177	72.32	-20.12	52.20	68.2	-16.00	Pk
Vertical	4739.177	59.09	-20.12	38.97	54	-15.03	AV
Vertical	10460.051	60.61	-9.21	51.40	68.2	-16.80	Pk
Vertical	10460.051	49.50	-9.21	40.29	54	-13.71	AV
Vertical	15690.162	61.51	-7.79	53.72	74	-20.28	Pk
Vertical	15690.162	49.07	-7.79	41.28	54	-12.72	AV
Horizontal	4739.114	70.38	-20.12	50.26	68.2	-17.94	Pk
Horizontal	4739.114	59.53	-20.12	39.41	54	-14.59	AV
Horizontal	10460.076	60.68	-9.21	51.47	68.2	-16.73	Pk
Horizontal	10460.076	49.06	-9.21	39.85	54	-14.15	AV
Horizontal	15690.074	64.50	-7.79	56.71	74	-17.29	Pk
Horizontal	15690.074	49.11	-7.79	41.32	54	-12.68	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) - 802.11ax-HE80
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
(5210 MHz)-Above 1G							
Vertical	4434.021	70.59	-20.73	49.85	68.2	-18.35	Pk
Vertical	4434.021	59.28	-20.73	38.55	54	-15.45	AV
Vertical	10420.135	63.40	-9.27	54.13	68.2	-14.07	Pk
Vertical	10420.135	49.79	-9.27	40.52	54	-13.48	AV
Vertical	15630.106	61.18	-7.81	53.37	74	-20.63	Pk
Vertical	15630.106	49.22	-7.81	41.41	54	-12.59	AV
Horizontal	4434.037	73.93	-20.73	53.20	68.2	-15.00	Pk
Horizontal	4434.037	59.11	-20.73	38.37	54	-15.63	AV
Horizontal	10420.025	64.03	-9.27	54.76	68.2	-13.44	Pk
Horizontal	10420.025	49.81	-9.27	40.54	54	-13.46	AV
Horizontal	15630.146	60.89	-7.81	53.08	74	-20.92	Pk
Horizontal	15630.146	49.44	-7.81	41.63	54	-12.37	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 802.11n20 recorded as below:

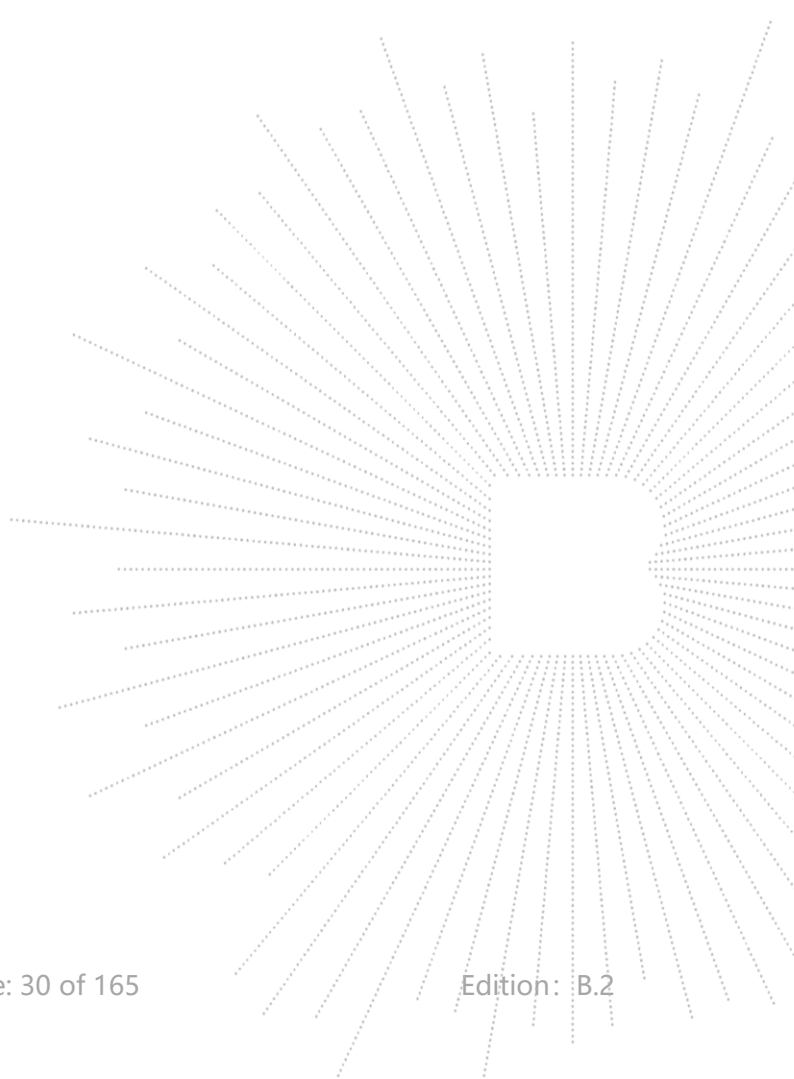
Test mode: 802.11n20 Frequency(MHz): 5180

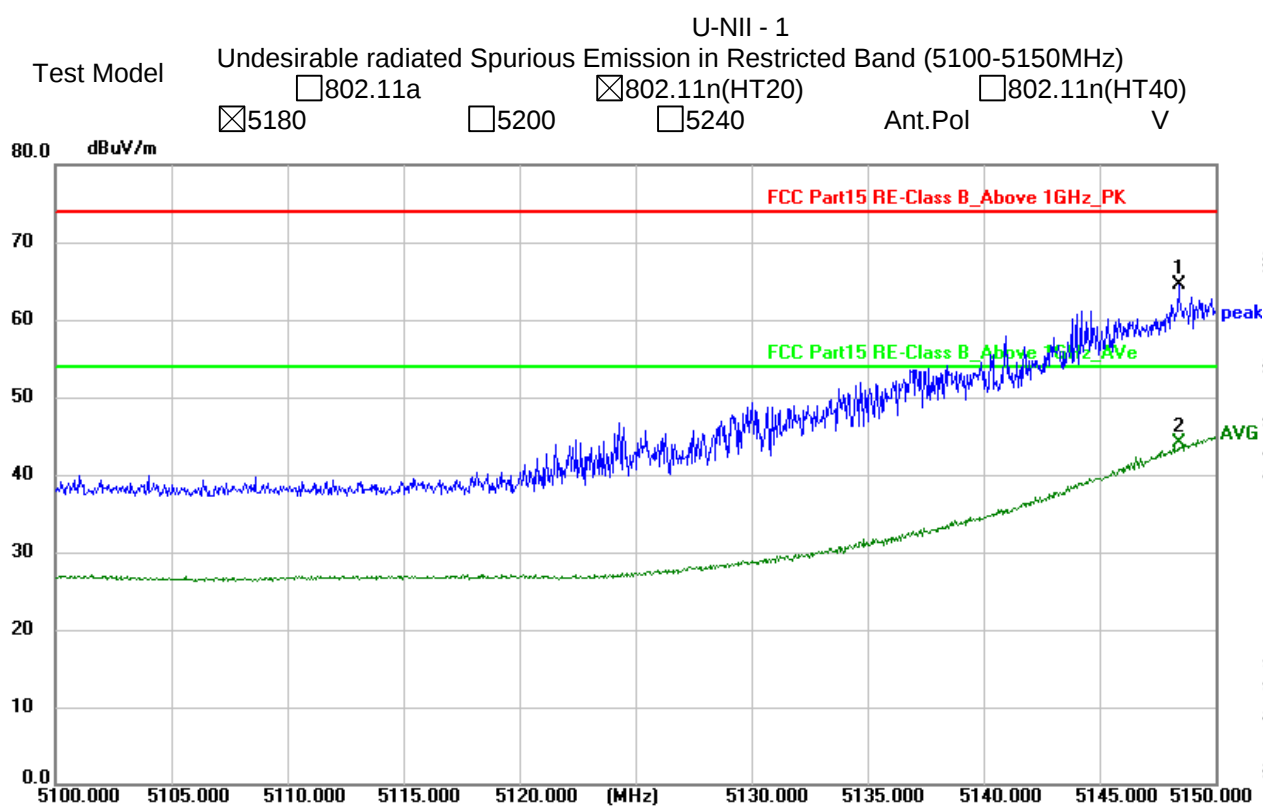
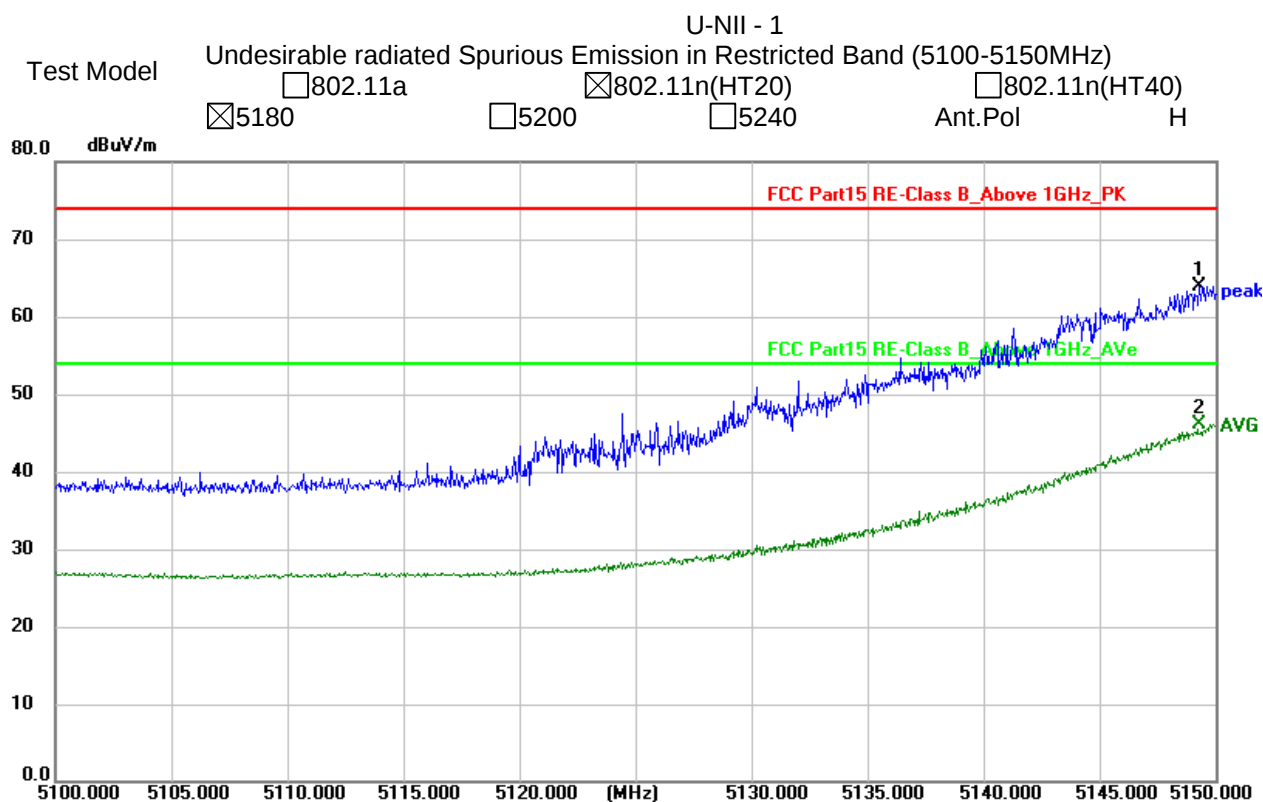
Frequency (MHz)	Polarity	PK(dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	AV(dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)
5149.300	H	63.93	74	46.05	54
5148.400	V	64.57	74	44.08	54

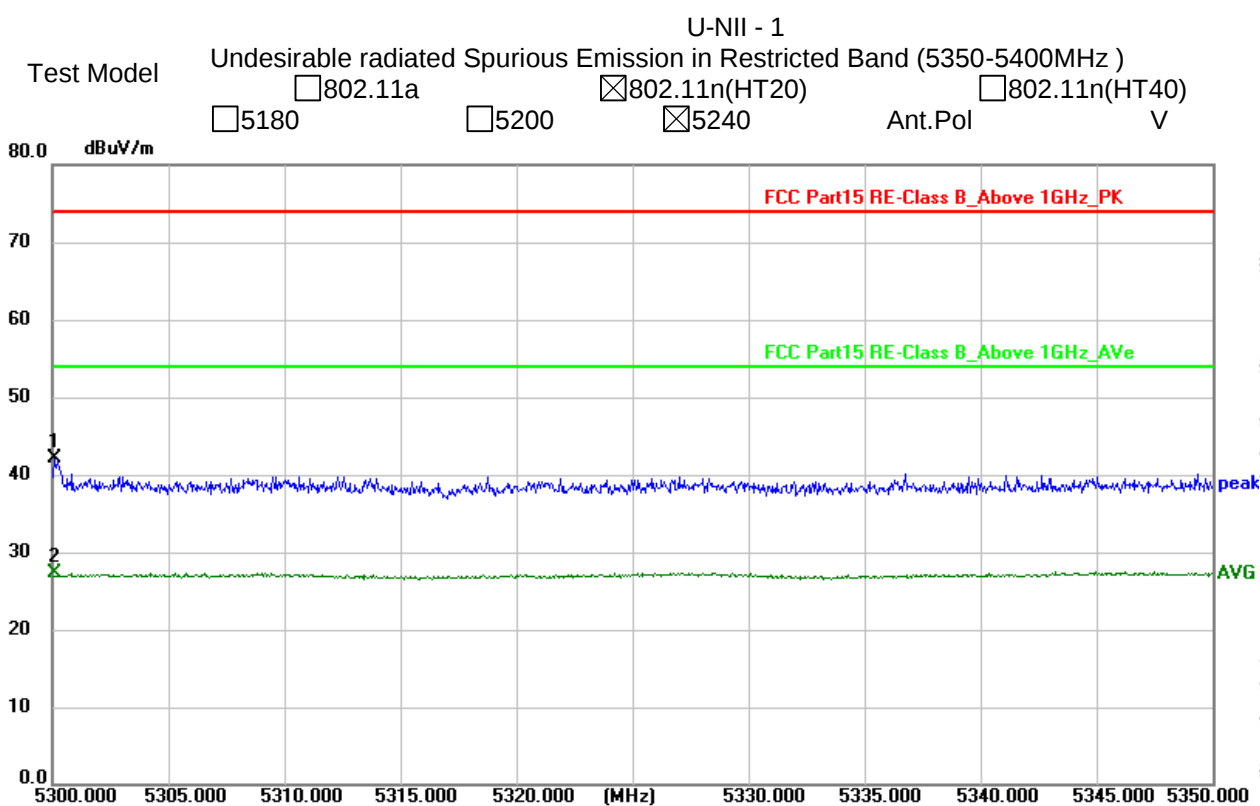
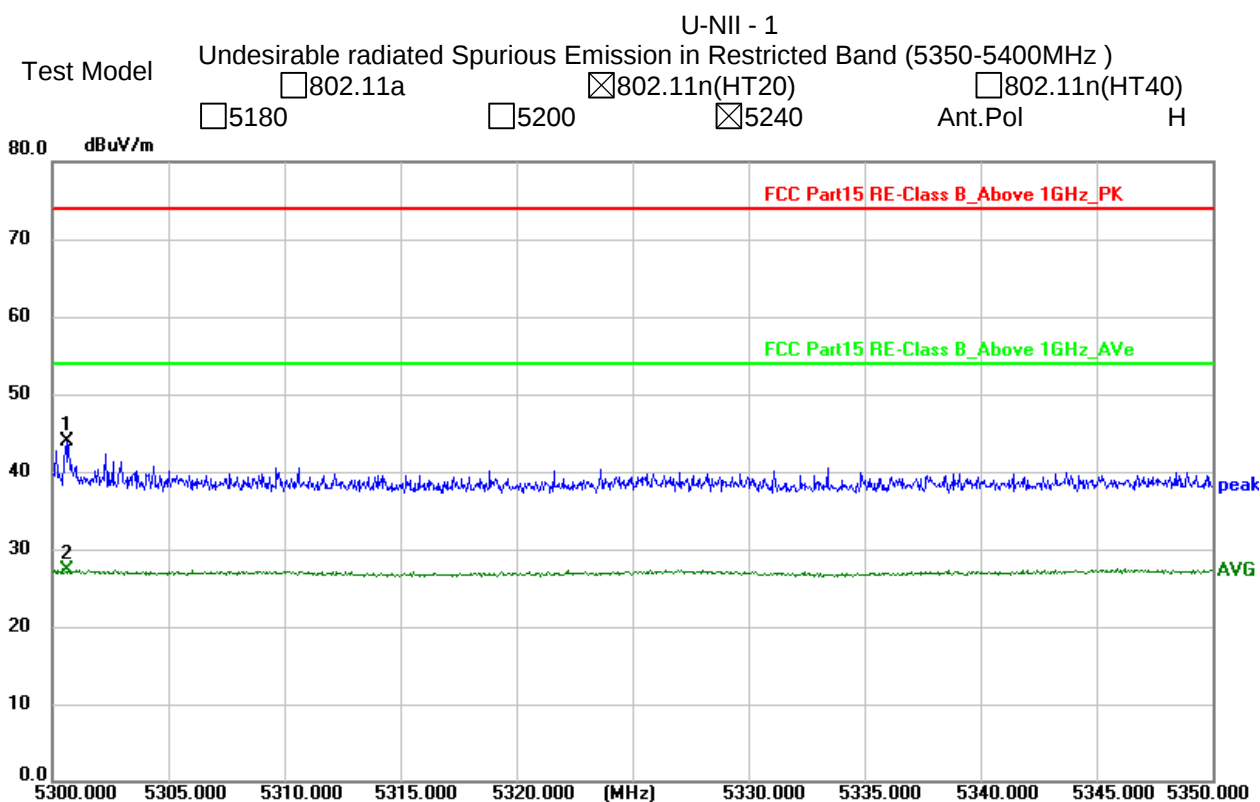
Test mode: 802.11n20 Frequency(MHz): 5240

Frequency (MHz)	Polarity	PK(dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	AV(dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)
5300.650	H	43.88	74	27.40	54
5300.100	V	42.01	74	27.26	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(5.8G) - 802.11a
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
Vertical	4679.071	72.19	-20.24	51.95	74	-22.05	Pk
Vertical	4679.071	59.22	-20.24	38.98	54	-15.02	AV
Vertical	11490.063	64.19	-8.79	55.40	68.2	-12.80	Pk
Vertical	11490.063	49.90	-8.79	41.11	54	-12.89	AV
Vertical	17235.186	56.88	-3.18	53.70	68.2	-14.50	Pk
Vertical	17235.186	44.68	-3.18	41.50	54	-12.50	AV
Horizontal	4679.132	73.67	-20.73	52.94	74	-21.06	Pk
Horizontal	4679.132	59.30	-20.73	38.57	54	-15.43	AV
Horizontal	11490.133	63.43	-8.79	54.64	68.2	-13.56	Pk
Horizontal	11490.133	49.70	-8.79	40.91	54	-13.09	AV
Horizontal	17235.172	59.09	-3.18	55.91	68.2	-12.29	Pk
Horizontal	17235.172	44.79	-3.18	41.61	54	-12.39	AV
middle Channel (5785 MHz)-Above 1G							
Vertical	4592.167	74.91	-20.42	54.49	74	-19.51	Pk
Vertical	4592.167	59.99	-20.42	39.57	54	-14.43	AV
Vertical	11570.179	64.22	-8.86	55.36	68.2	-12.84	Pk
Vertical	11570.179	49.29	-8.86	40.43	54	-13.57	AV
Vertical	17355.056	56.62	-2.52	54.10	68.2	-14.10	Pk
Vertical	17355.056	44.47	-2.52	41.95	54	-12.05	AV
Horizontal	4592.171	72.38	-20.42	51.96	74	-22.04	Pk
Horizontal	4592.171	59.86	-20.42	39.44	54	-14.56	AV
Horizontal	11570.085	63.78	-8.86	54.92	68.2	-13.28	Pk
Horizontal	11570.085	49.29	-8.86	40.43	54	-13.57	AV
Horizontal	17355.061	58.73	-2.52	56.21	68.2	-11.99	Pk
Horizontal	17355.061	44.74	-2.52	42.22	54	-11.78	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.154	72.63	-18.93	53.70	68.2	-14.50	Pk
Vertical	6039.154	59.86	-18.93	40.93	54	-13.07	AV
Vertical	11650.056	62.46	-8.92	53.54	74	-20.46	Pk
Vertical	11650.056	49.78	-8.92	40.86	54	-13.14	AV
Vertical	17475.196	57.96	-1.86	56.10	68.2	-12.10	Pk
Vertical	17475.196	44.82	-1.86	42.96	54	-11.04	AV
Horizontal	6039.180	70.60	-18.93	51.66	68.2	-16.54	Pk
Horizontal	6039.180	59.11	-18.93	40.17	54	-13.83	AV
Horizontal	11650.190	60.97	-8.92	52.05	74	-21.95	Pk
Horizontal	11650.190	49.71	-8.92	40.79	54	-13.21	AV
Horizontal	17475.044	58.95	-1.86	57.09	68.2	-11.11	Pk
Horizontal	17475.044	44.68	-1.86	42.82	54	-11.18	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	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
Vertical	4679.132	72.00	-20.24	51.76	74	-22.24	Pk
Vertical	4679.132	59.66	-20.24	39.42	54	-14.58	AV
Vertical	11490.134	62.73	-8.79	53.94	68.2	-14.26	Pk
Vertical	11490.134	49.31	-8.79	40.52	54	-13.48	AV
Vertical	17235.055	55.28	-3.18	52.10	68.2	-16.10	Pk
Vertical	17235.055	44.64	-3.18	41.46	54	-12.54	AV
Horizontal	4679.034	74.28	-20.24	54.03	74	-19.97	Pk
Horizontal	4679.034	59.55	-20.24	39.31	54	-14.69	AV
Horizontal	11490.187	63.00	-8.79	54.21	68.2	-13.99	Pk
Horizontal	11490.187	49.95	-8.79	41.16	54	-12.84	AV
Horizontal	17235.038	57.04	-3.18	53.86	68.2	-14.34	Pk
Horizontal	17235.038	44.19	-3.18	41.01	54	-12.99	AV
middle Channel (5785 MHz)-Above 1G							
Vertical	4592.027	73.15	-20.42	52.73	74	-21.27	Pk
Vertical	4592.027	59.57	-20.42	39.15	54	-14.85	AV
Vertical	11570.033	63.02	-8.86	54.16	68.2	-14.04	Pk
Vertical	11570.033	49.27	-8.86	40.41	54	-13.59	AV
Vertical	17355.123	55.00	-2.52	52.48	68.2	-15.72	Pk
Vertical	17355.123	44.91	-2.52	42.39	54	-11.61	AV
Horizontal	4592.041	71.67	-20.42	51.25	74	-22.75	Pk
Horizontal	4592.041	59.52	-20.42	39.11	54	-14.89	AV
Horizontal	11570.034	61.70	-8.86	52.84	68.2	-15.36	Pk
Horizontal	11570.034	49.72	-8.86	40.86	54	-13.14	AV
Horizontal	17355.045	55.70	-2.52	53.18	68.2	-15.02	Pk
Horizontal	17355.045	44.61	-2.52	42.09	54	-11.91	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.121	71.93	-18.93	53.00	68.2	-15.20	Pk
Vertical	6039.121	59.35	-18.93	40.42	54	-13.58	AV
Vertical	11650.193	60.32	-8.92	51.40	74	-22.60	Pk
Vertical	11650.193	49.12	-8.92	40.20	54	-13.80	AV
Vertical	17475.184	57.34	-1.86	55.48	68.2	-12.72	Pk
Vertical	17475.184	44.14	-1.86	42.28	54	-11.72	AV
Horizontal	6039.081	73.96	-18.93	55.03	68.2	-13.17	Pk
Horizontal	6039.081	59.58	-18.93	40.65	54	-13.35	AV
Horizontal	11650.042	63.98	-8.92	55.06	74	-18.94	Pk
Horizontal	11650.042	49.49	-8.92	40.57	54	-13.43	AV
Horizontal	17475.141	58.10	-1.86	56.24	68.2	-11.96	Pk
Horizontal	17475.141	44.01	-1.86	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(5.8G) - 802.11n-HT40

Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5755 MHz)-Above 1G							
Vertical	4679.095	74.26	-20.24	54.02	74	-19.98	AV
Vertical	4679.095	59.12	-20.24	38.88	54	-15.12	Pk
Vertical	11510.030	64.19	-8.81	55.38	74	-18.62	AV
Vertical	11510.030	49.73	-8.81	40.92	54	-13.08	Pk
Vertical	17265.186	58.42	-3.01	55.41	68.2	-12.79	AV
Vertical	17265.186	44.87	-3.01	41.86	54	-12.14	Pk
Horizontal	4679.061	72.43	-20.24	52.19	74	-21.81	AV
Horizontal	4679.061	59.41	-20.24	39.16	54	-14.84	Pk
Horizontal	11510.089	64.87	-8.81	56.06	74	-17.94	AV
Horizontal	11510.089	49.20	-8.81	40.39	54	-13.61	Pk
Horizontal	17265.168	56.64	-3.01	53.63	68.2	-14.57	AV
Horizontal	17265.168	44.20	-3.01	41.19	54	-12.81	AV
middle Channel (5795 MHz)-Above 1G							
Vertical	6039.189	74.09	-18.93	55.15	68.2	-13.05	Pk
Vertical	6039.189	59.47	-18.93	40.54	54	-13.46	AV
Vertical	11590.174	63.35	-8.87	54.48	74	-19.52	Pk
Vertical	11590.174	49.31	-8.87	40.44	54	-13.56	AV
Vertical	17385.046	57.64	-2.35	55.29	68.2	-12.91	Pk
Vertical	17385.046	44.52	-2.35	42.17	54	-11.83	AV
Horizontal	6039.021	71.26	-18.93	52.33	68.2	-15.87	Pk
Horizontal	6039.021	59.41	-18.93	40.48	54	-13.52	AV
Horizontal	11590.015	61.34	-8.87	52.47	74	-21.53	Pk
Horizontal	11590.015	49.26	-8.87	40.39	54	-13.61	AV
Horizontal	17385.057	59.63	-2.35	57.28	68.2	-10.92	Pk
Horizontal	17385.057	44.98	-2.35	42.63	54	-11.37	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	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
Vertical	4679.148	74.44	-20.24	54.20	74	-19.80	Pk
Vertical	4679.148	59.75	-20.24	39.51	54	-14.49	AV
Vertical	11490.169	61.38	-8.79	52.59	68.2	-15.61	Pk
Vertical	11490.169	49.17	-8.79	40.38	54	-13.62	AV
Vertical	17235.020	56.99	-3.18	53.81	68.2	-14.39	Pk
Vertical	17235.020	44.08	-3.18	40.90	54	-13.10	AV
Horizontal	4679.133	74.89	-20.24	54.64	74	-19.36	Pk
Horizontal	4679.133	59.66	-20.24	39.42	54	-14.58	AV
Horizontal	11490.157	62.53	-8.79	53.74	68.2	-14.46	Pk
Horizontal	11490.157	49.76	-8.79	40.97	54	-13.03	AV
Horizontal	17235.130	59.82	-3.18	56.64	68.2	-11.56	Pk
Horizontal	17235.130	44.75	-3.18	41.57	54	-12.43	AV
middle Channel (5785 MHz)-Above 1G							
Vertical	4592.145	74.21	-20.42	53.79	74	-20.21	Pk
Vertical	4592.145	59.68	-20.42	39.26	54	-14.74	AV
Vertical	11570.049	62.63	-8.86	53.77	68.2	-14.43	Pk
Vertical	11570.049	49.99	-8.86	41.13	54	-12.87	AV
Vertical	17355.115	58.73	-2.52	56.21	68.2	-11.99	Pk
Vertical	17355.115	44.32	-2.52	41.80	54	-12.20	AV
Horizontal	4592.054	73.79	-20.42	53.37	74	-20.63	Pk
Horizontal	4592.054	59.90	-20.42	39.49	54	-14.51	AV
Horizontal	11570.023	61.67	-8.86	52.81	68.2	-15.39	Pk
Horizontal	11570.023	49.52	-8.86	40.66	54	-13.34	AV
Horizontal	17355.007	59.67	-2.52	57.15	68.2	-11.05	Pk
Horizontal	17355.007	44.33	-2.52	41.81	54	-12.19	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.022	74.88	-18.93	55.95	68.2	-12.25	Pk
Vertical	6039.022	59.23	-18.93	40.29	54	-13.71	AV
Vertical	11650.187	60.15	-8.92	51.23	74	-22.77	Pk
Vertical	11650.187	49.85	-8.92	40.93	54	-13.07	AV
Vertical	17475.097	59.58	-1.86	57.72	68.2	-10.48	Pk
Vertical	17475.097	44.23	-1.86	42.37	54	-11.63	AV
Horizontal	6039.023	70.27	-18.93	51.34	68.2	-16.86	Pk
Horizontal	6039.023	59.36	-18.93	40.43	54	-13.57	AV
Horizontal	11650.081	60.44	-8.92	51.52	74	-22.48	Pk
Horizontal	11650.081	49.65	-8.92	40.73	54	-13.27	AV
Horizontal	17475.179	57.19	-1.86	55.33	68.2	-12.87	Pk
Horizontal	17475.179	44.85	-1.86	42.99	54	-11.01	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	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5755 MHz)-Above 1G							
Vertical	4679.138	72.62	-20.24	52.38	74	-21.62	AV
Vertical	4679.138	59.66	-20.24	39.42	54	-14.58	Pk
Vertical	11510.188	64.89	-8.81	56.08	74	-17.92	AV
Vertical	11510.188	49.05	-8.81	40.24	54	-13.76	Pk
Vertical	17265.033	56.91	-3.01	53.90	68.2	-14.30	AV
Vertical	17265.033	44.96	-3.01	41.95	54	-12.05	Pk
Horizontal	4679.042	72.93	-20.24	52.68	74	-21.32	AV
Horizontal	4679.042	59.72	-20.24	39.47	54	-14.53	Pk
Horizontal	11510.037	63.21	-8.81	54.40	74	-19.60	AV
Horizontal	11510.037	49.34	-8.81	40.53	54	-13.47	Pk
Horizontal	17265.003	56.23	-3.01	53.22	68.2	-14.98	AV
Horizontal	17265.003	44.29	-3.01	41.28	54	-12.72	AV
middle Channel (5795 MHz)-Above 1G							
Vertical	6039.062	72.68	-18.93	53.74	68.2	-14.46	Pk
Vertical	6039.062	59.27	-18.93	40.34	54	-13.66	AV
Vertical	11590.166	61.04	-8.87	52.17	74	-21.83	Pk
Vertical	11590.166	49.63	-8.87	40.76	54	-13.24	AV
Vertical	17385.141	56.54	-2.35	54.19	68.2	-14.01	Pk
Vertical	17385.141	44.08	-2.35	41.73	54	-12.27	AV
Horizontal	6039.183	71.83	-18.93	52.90	68.2	-15.30	Pk
Horizontal	6039.183	59.88	-18.93	40.95	54	-13.05	AV
Horizontal	11590.024	63.40	-8.87	54.53	74	-19.47	Pk
Horizontal	11590.024	49.03	-8.87	40.16	54	-13.84	AV
Horizontal	17385.116	57.10	-2.35	54.75	68.2	-13.45	Pk
Horizontal	17385.116	44.75	-2.35	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) - 802.11ac-HT80
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
(5775 MHz)-Above 1G							
Vertical	4679.148	71.82	-20.24	51.57	74	-22.43	Pk
Vertical	4679.148	59.44	-20.24	39.20	54	-14.80	AV
Vertical	11550.145	64.86	-8.84	56.02	74	-17.98	Pk
Vertical	11550.145	49.74	-8.84	40.90	54	-13.10	AV
Vertical	17325.140	59.07	-2.68	56.39	68.2	-11.81	Pk
Vertical	17325.140	44.10	-2.68	41.42	54	-12.58	AV
Horizontal	4679.083	74.28	-20.24	54.03	74	-19.97	Pk
Horizontal	4679.083	59.22	-20.24	38.98	54	-15.02	AV
Horizontal	11550.021	61.32	-8.84	52.48	74	-21.52	Pk
Horizontal	11550.021	49.45	-8.84	40.61	54	-13.39	AV
Horizontal	17325.178	56.07	-2.68	53.39	68.2	-14.81	Pk
Horizontal	17325.178	44.13	-2.68	41.45	54	-12.55	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) - 802.11ax-HE20

Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
Vertical	4679.156	70.53	-20.24	50.29	74	-23.71	Pk
Vertical	4679.156	59.59	-20.24	39.35	54	-14.65	AV
Vertical	11490.146	63.61	-8.79	54.82	68.2	-13.38	Pk
Vertical	11490.146	49.08	-8.79	40.29	54	-13.71	AV
Vertical	17235.179	59.29	-3.18	56.11	68.2	-12.09	Pk
Vertical	17235.179	44.82	-3.18	41.64	54	-12.36	AV
Horizontal	4679.121	71.02	-20.24	50.78	74	-23.22	Pk
Horizontal	4679.121	59.18	-20.24	38.94	54	-15.06	AV
Horizontal	11490.059	61.34	-8.79	52.55	68.2	-15.65	Pk
Horizontal	11490.059	49.97	-8.79	41.18	54	-12.82	AV
Horizontal	17235.163	59.47	-3.18	56.29	68.2	-11.91	Pk
Horizontal	17235.163	44.99	-3.18	41.81	54	-12.19	AV
middle Channel (5785 MHz)-Above 1G							
Vertical	4592.091	71.13	-20.42	50.72	74	-23.28	Pk
Vertical	4592.091	59.65	-20.42	39.23	54	-14.77	AV
Vertical	11570.001	60.07	-8.86	51.21	68.2	-16.99	Pk
Vertical	11570.001	49.96	-8.86	41.10	54	-12.90	AV
Vertical	17355.195	56.86	-2.52	54.34	68.2	-13.86	Pk
Vertical	17355.195	44.99	-2.52	42.47	54	-11.53	AV
Horizontal	4592.092	73.11	-20.42	52.69	74	-21.31	Pk
Horizontal	4592.092	59.94	-20.42	39.52	54	-14.48	AV
Horizontal	11570.171	62.83	-8.86	53.97	68.2	-14.23	Pk
Horizontal	11570.171	49.53	-8.86	40.67	54	-13.33	AV
Horizontal	17355.097	58.27	-2.52	55.75	68.2	-12.45	Pk
Horizontal	17355.097	44.58	-2.52	42.06	54	-11.94	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.053	70.28	-18.93	51.35	68.2	-16.85	Pk
Vertical	6039.053	59.19	-18.93	40.26	54	-13.74	AV
Vertical	11650.069	62.25	-8.92	53.33	74	-20.67	Pk
Vertical	11650.069	49.52	-8.92	40.60	54	-13.40	AV
Vertical	17475.026	57.28	-1.86	55.42	68.2	-12.78	Pk
Vertical	17475.026	44.43	-1.86	42.57	54	-11.43	AV
Horizontal	6039.081	73.60	-18.93	54.67	68.2	-13.53	Pk
Horizontal	6039.081	59.55	-18.93	40.62	54	-13.38	AV
Horizontal	11650.189	61.77	-8.92	52.85	74	-21.15	Pk
Horizontal	11650.189	49.28	-8.92	40.36	54	-13.64	AV
Horizontal	17475.031	57.86	-1.86	56.00	68.2	-12.20	Pk
Horizontal	17475.031	44.86	-1.86	43.00	54	-11.00	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) - 802.11ax-HE40

Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5755 MHz)-Above 1G							
Vertical	4679.153	73.06	-20.24	52.82	74	-21.18	AV
Vertical	4679.153	59.33	-20.24	39.09	54	-14.91	Pk
Vertical	11510.050	65.00	-8.81	56.19	74	-17.81	AV
Vertical	11510.050	49.99	-8.81	41.18	54	-12.82	Pk
Vertical	17265.147	59.00	-3.01	55.99	68.2	-12.21	AV
Vertical	17265.147	44.37	-3.01	41.36	54	-12.64	Pk
Horizontal	4679.105	72.79	-20.24	52.55	74	-21.45	AV
Horizontal	4679.105	59.79	-20.24	39.55	54	-14.45	Pk
Horizontal	11510.078	63.37	-8.81	54.56	74	-19.44	AV
Horizontal	11510.078	49.01	-8.81	40.20	54	-13.80	Pk
Horizontal	17265.154	56.16	-3.01	53.15	68.2	-15.05	AV
Horizontal	17265.154	44.58	-3.01	41.57	54	-12.43	AV
middle Channel (5795 MHz)-Above 1G							
Vertical	6039.026	70.67	-18.93	51.74	68.2	-16.46	Pk
Vertical	6039.026	59.48	-18.93	40.55	54	-13.45	AV
Vertical	11590.063	61.24	-8.87	52.37	74	-21.63	Pk
Vertical	11590.063	49.90	-8.87	41.03	54	-12.97	AV
Vertical	17385.032	55.55	-2.35	53.20	68.2	-15.00	Pk
Vertical	17385.032	44.43	-2.35	42.08	54	-11.92	AV
Horizontal	6039.030	74.73	-18.93	55.79	68.2	-12.41	Pk
Horizontal	6039.030	59.05	-18.93	40.12	54	-13.88	AV
Horizontal	11590.051	63.02	-8.87	54.15	74	-19.85	Pk
Horizontal	11590.051	49.06	-8.87	40.19	54	-13.81	AV
Horizontal	17385.105	58.07	-2.35	55.72	68.2	-12.48	Pk
Horizontal	17385.105	44.93	-2.35	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) - 802.11ax-HE80
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
(5775 MHz)-Above 1G							
Vertical	4679.001	73.73	-20.24	53.49	74	-20.51	Pk
Vertical	4679.001	59.76	-20.24	39.52	54	-14.48	AV
Vertical	11550.157	61.89	-8.84	53.05	74	-20.95	Pk
Vertical	11550.157	49.53	-8.84	40.69	54	-13.31	AV
Vertical	17325.112	56.25	-2.68	53.57	68.2	-14.63	Pk
Vertical	17325.112	44.95	-2.68	42.27	54	-11.73	AV
Horizontal	4679.115	72.27	-20.24	52.03	74	-21.97	Pk
Horizontal	4679.115	59.56	-20.24	39.32	54	-14.68	AV
Horizontal	11550.019	60.02	-8.84	51.18	74	-22.82	Pk
Horizontal	11550.019	49.75	-8.84	40.91	54	-13.09	AV
Horizontal	17325.033	58.15	-2.68	55.47	68.2	-12.73	Pk
Horizontal	17325.033	44.86	-2.68	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.

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

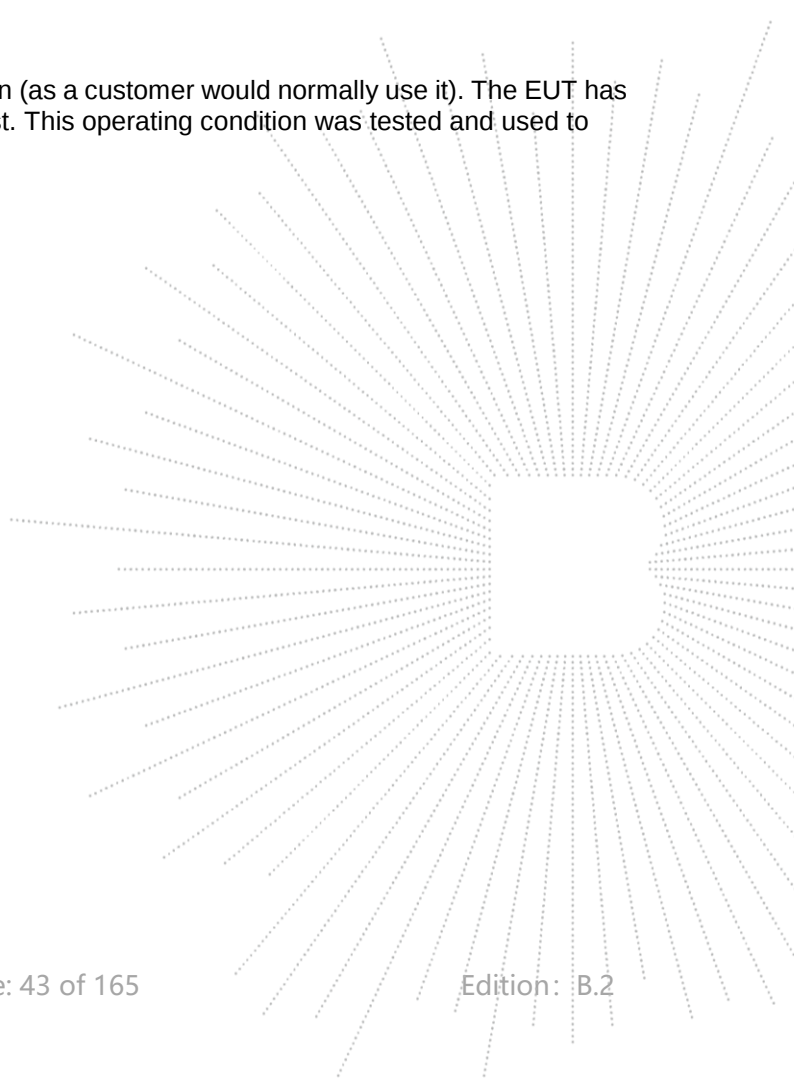
For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 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 $RBW \geq 1/T$, where T is defined in section II.B.I.a).
- b) Set $VBW \geq 3 RBW$.
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/RBW)$ to the measured result, whereas $RBW (< 500 \text{ KHz})$ 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 $10\log(1\text{MHz}/RBW)$ to the measured result, whereas $RBW (< 1 \text{ MHz})$ 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 $RBW=100 \text{ KHz}$ 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.



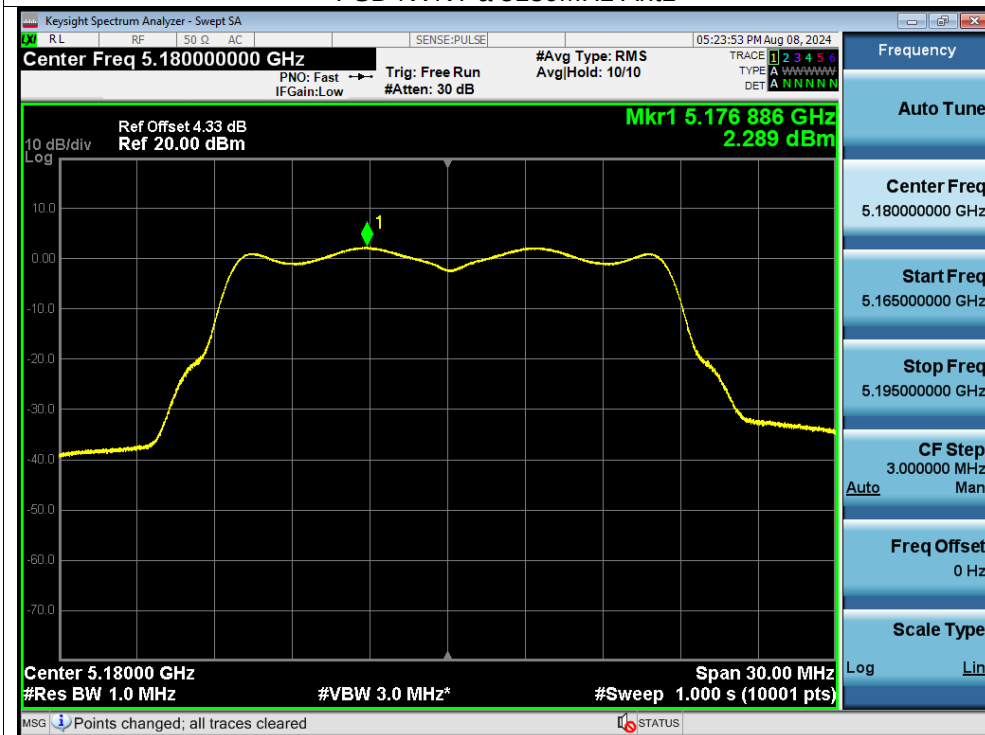
8.5 Test Result

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 24V
Test Mode:	(5180-5240MHz)		

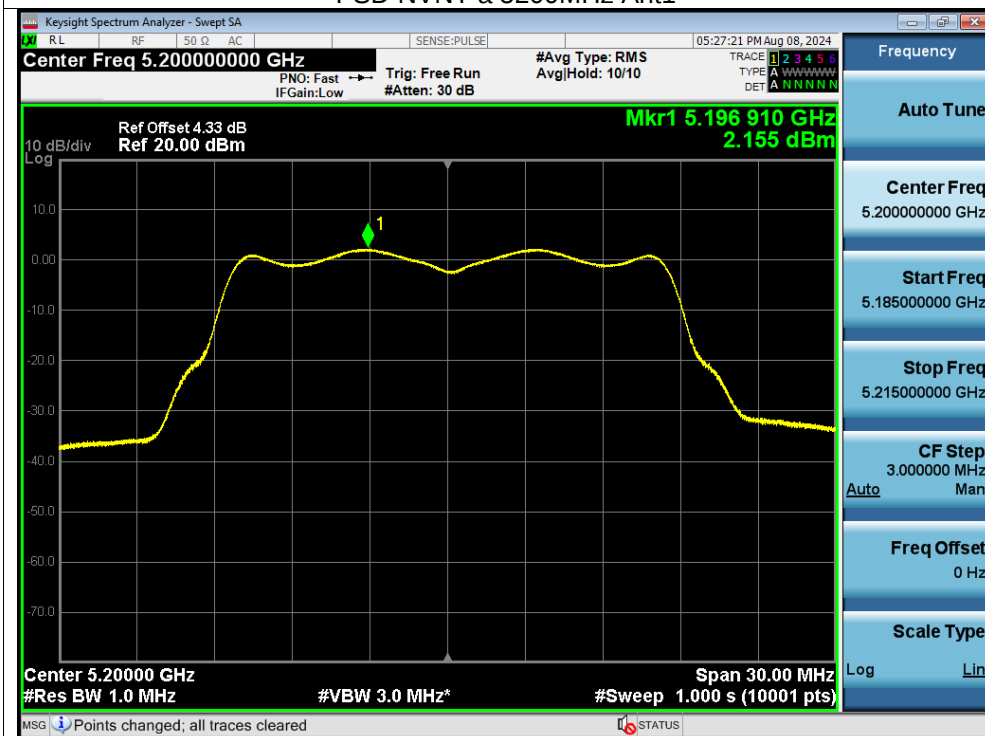
Condition	Mode	Frequency (MHz)	Conducted PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5180	2.29	11	Pass
NVNT	a	5200	2.15	11	Pass
NVNT	a	5240	1.75	11	Pass
NVNT	n20	5180	1.36	11	Pass
NVNT	n20	5200	1.11	11	Pass
NVNT	n20	5240	1.7	11	Pass
NVNT	n40	5190	-2.1	11	Pass
NVNT	n40	5230	0.06	11	Pass
NVNT	ac20	5180	1.39	11	Pass
NVNT	ac20	5200	1.06	11	Pass
NVNT	ac20	5240	0.71	11	Pass
NVNT	ac40	5190	-2.02	11	Pass
NVNT	ac40	5230	-1.65	11	Pass
NVNT	ac80	5210	-7.03	11	Pass
NVNT	ax20	5180	1.56	11	Pass
NVNT	ax20	5200	0.95	11	Pass
NVNT	ax20	5240	1.2	11	Pass
NVNT	ax40	5190	6.18	11	Pass
NVNT	ax40	5230	-1.75	11	Pass
NVNT	ax80	5210	1.56	11	Pass

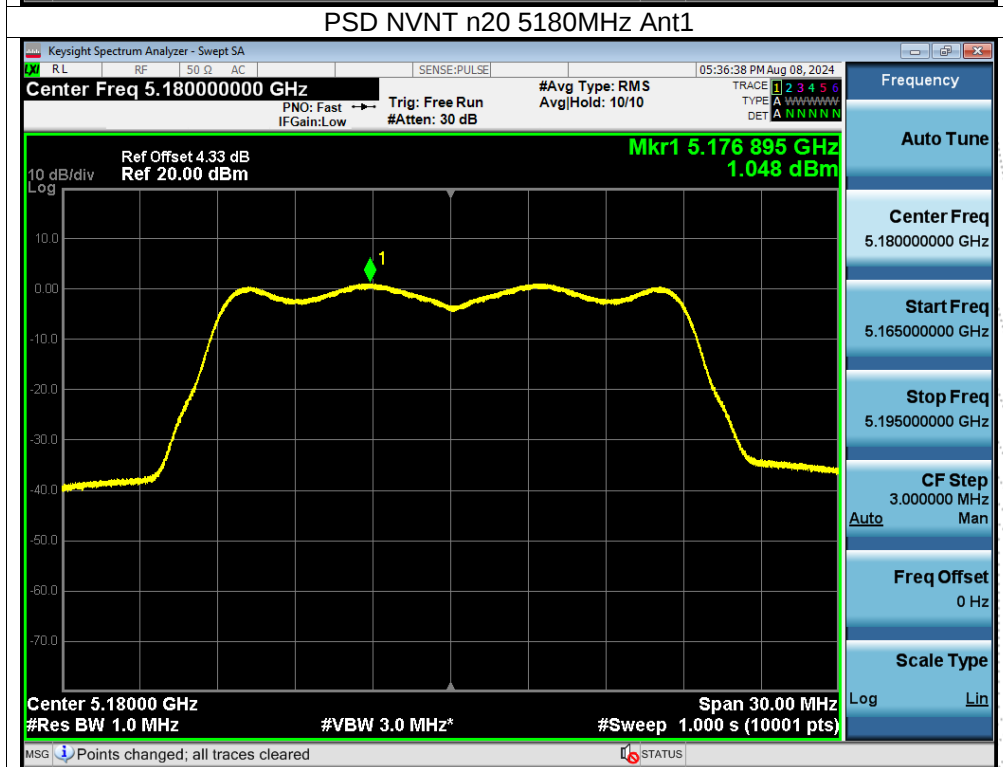
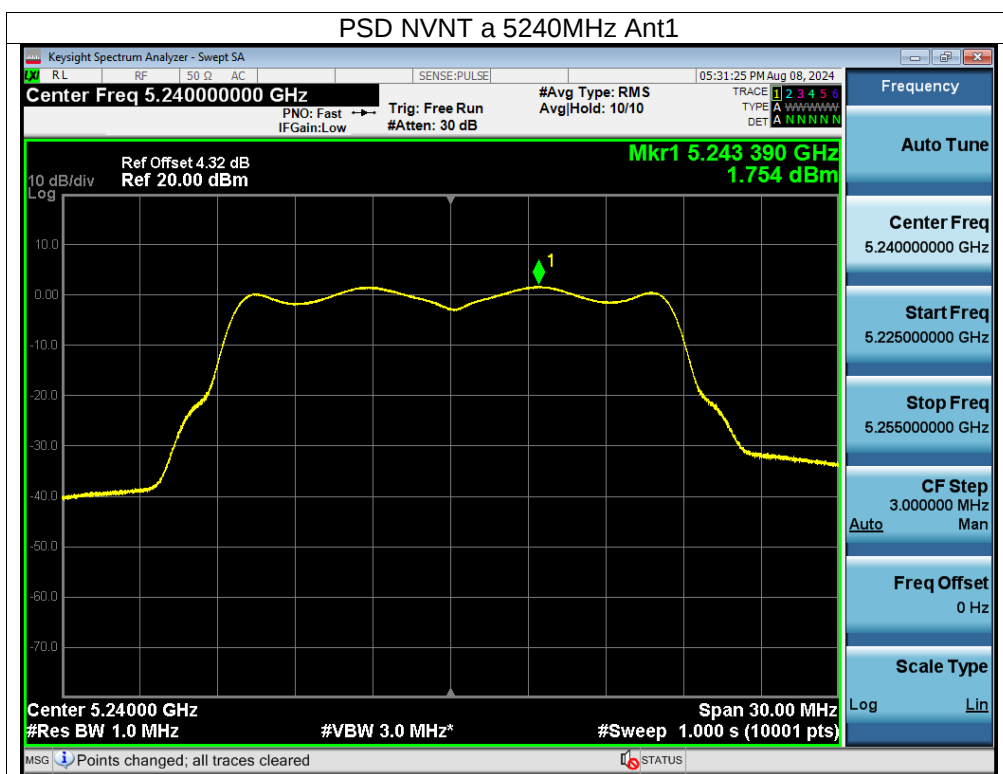
Test Graphs

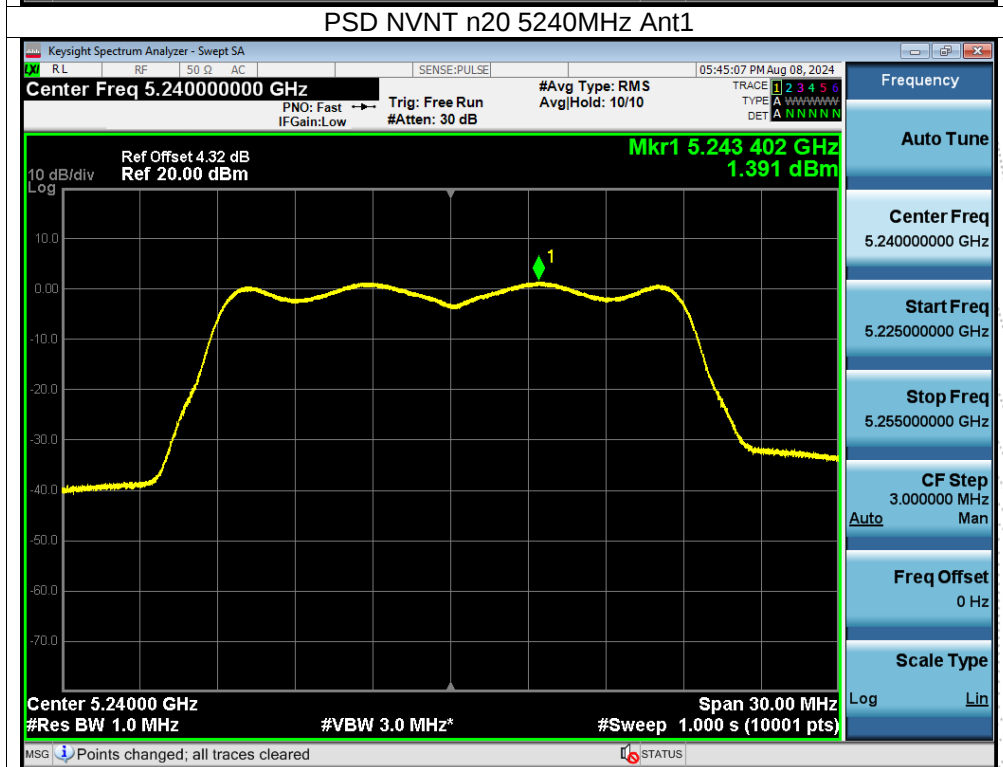
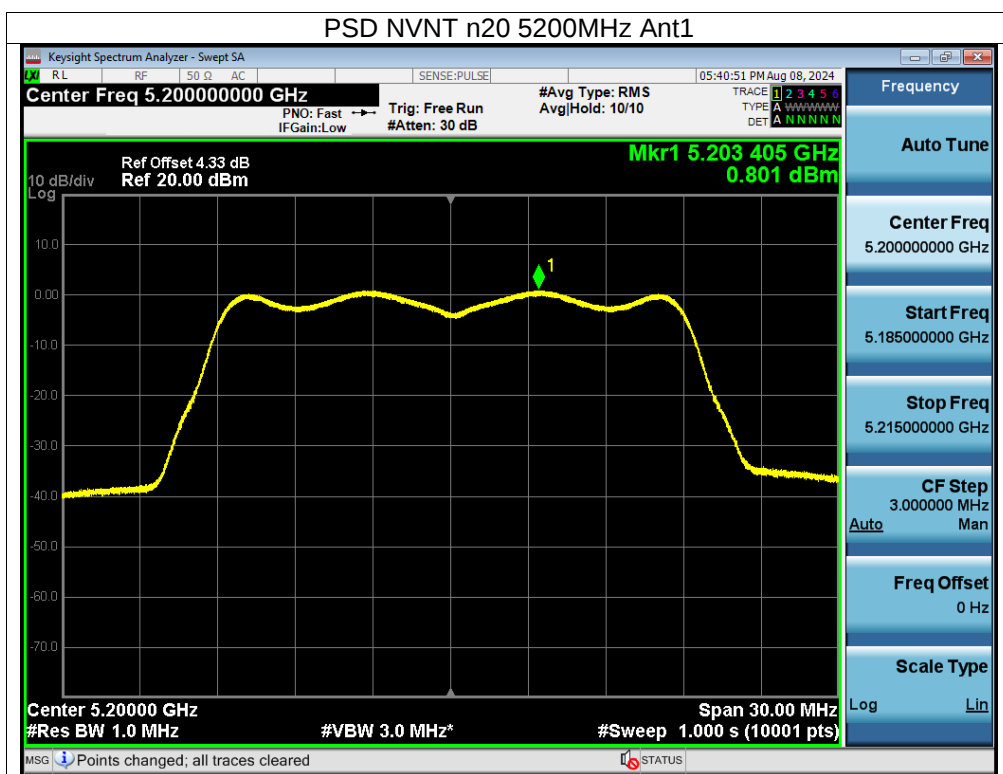
PSD NVNT a 5180MHz Ant1

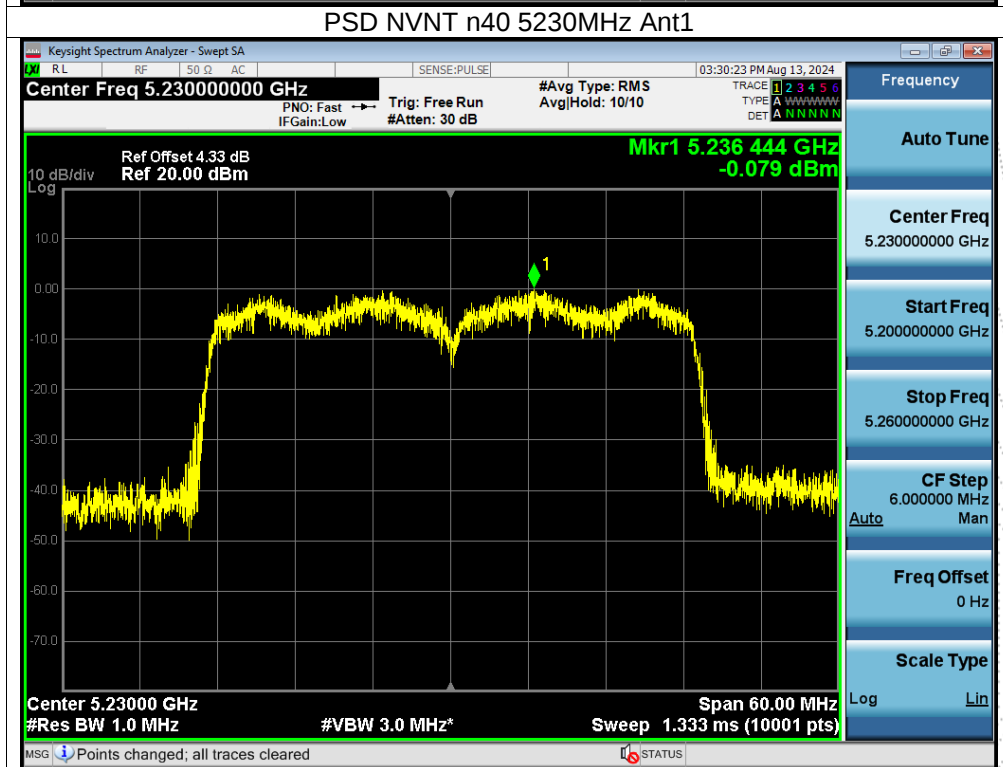
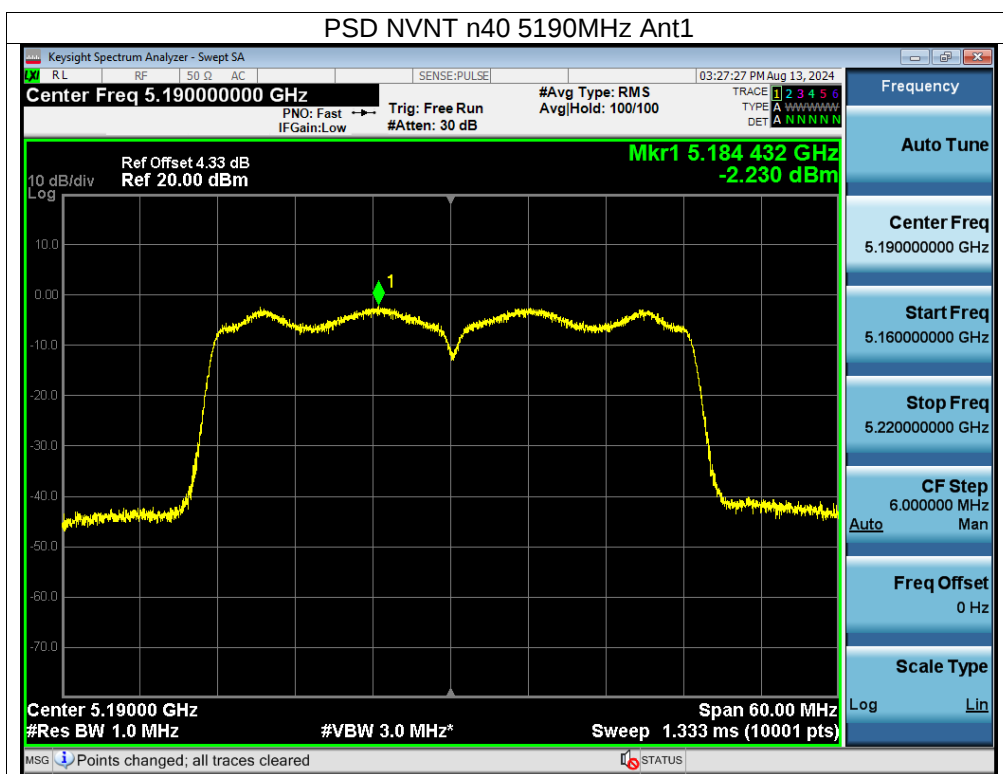


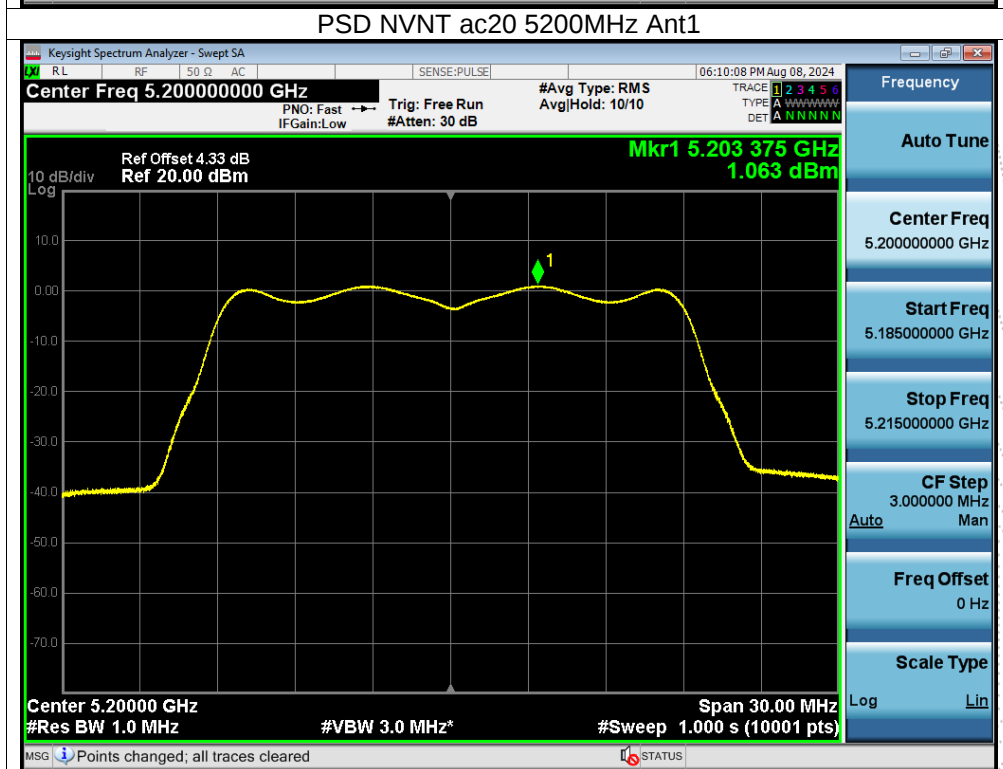
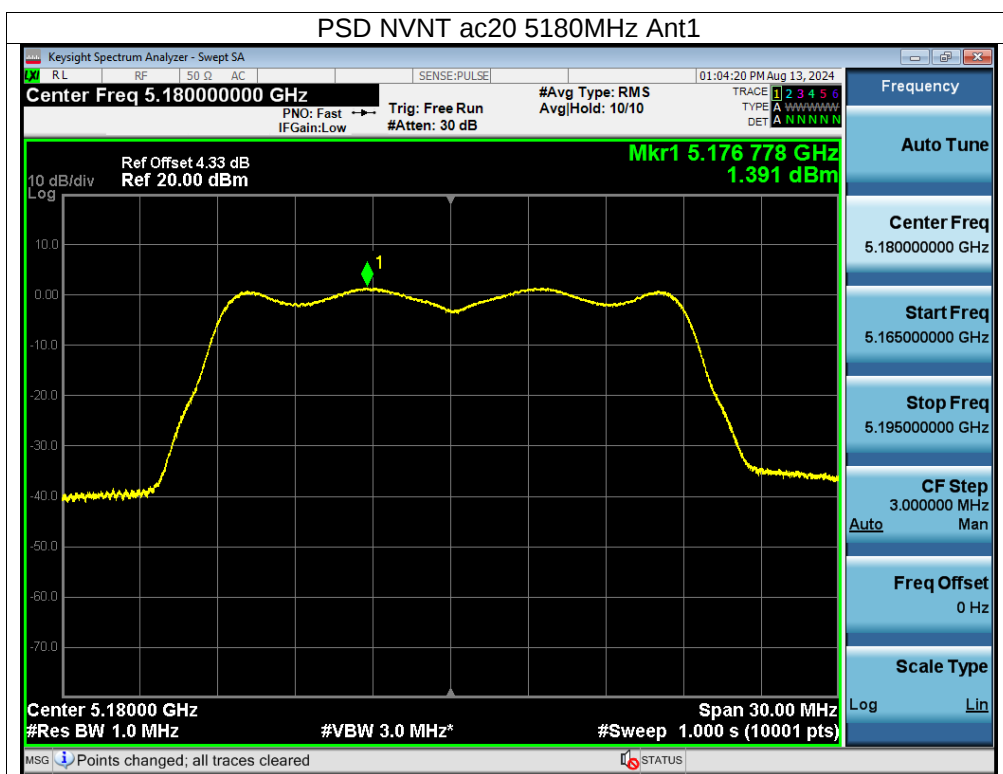
PSD NVNT a 5200MHz Ant1

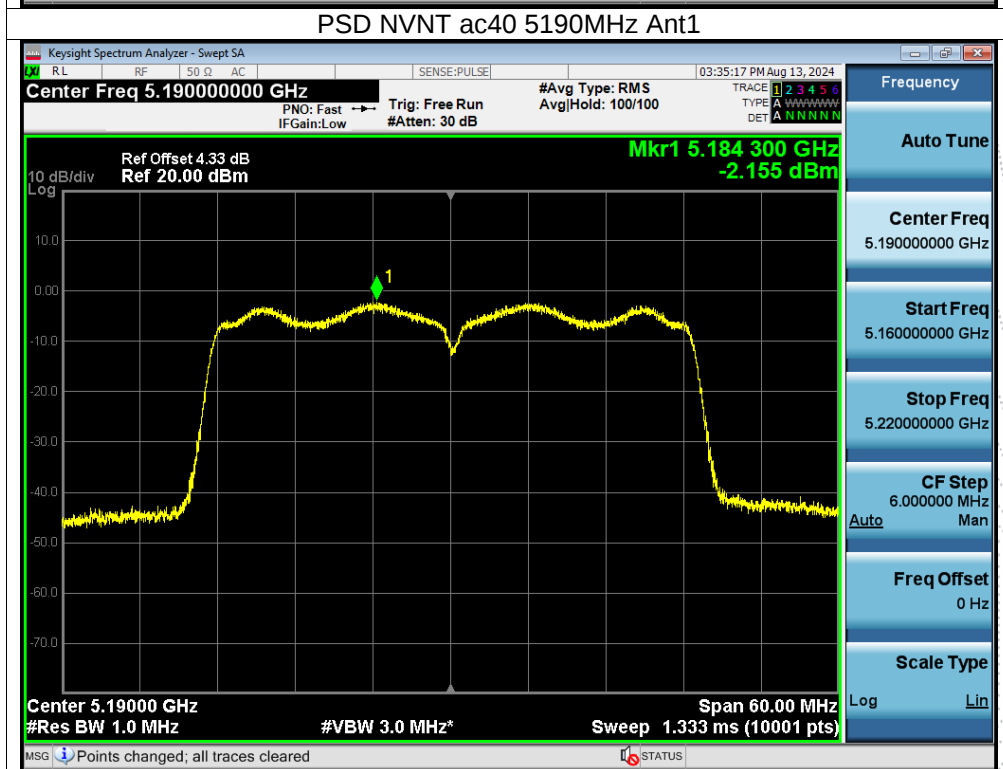
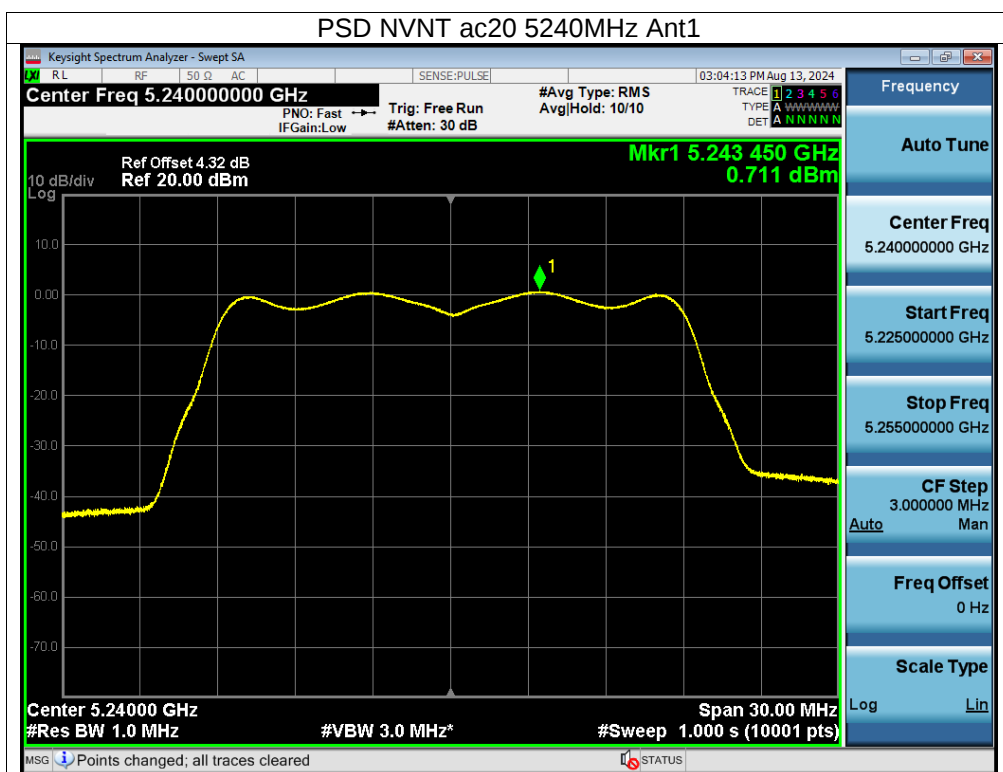


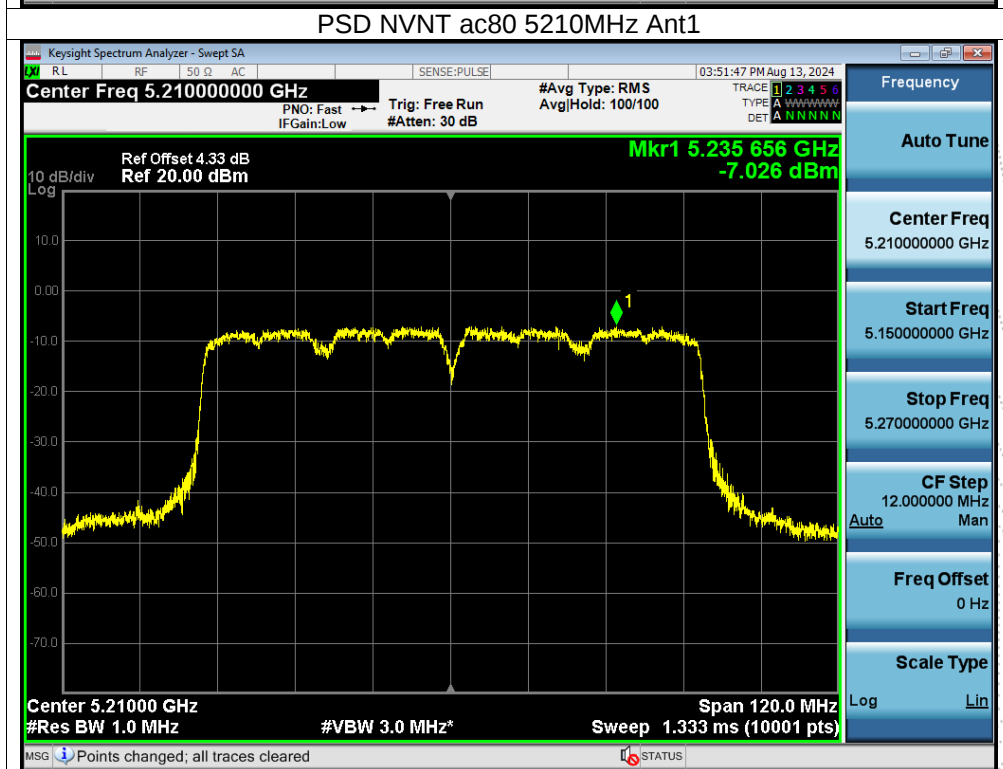
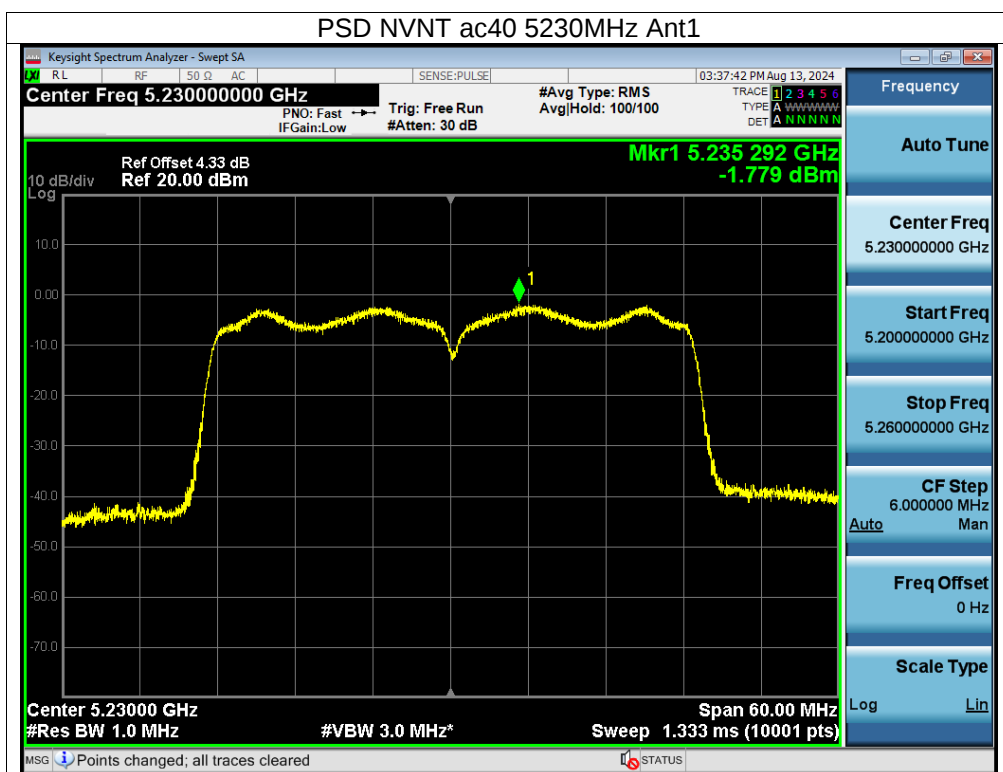


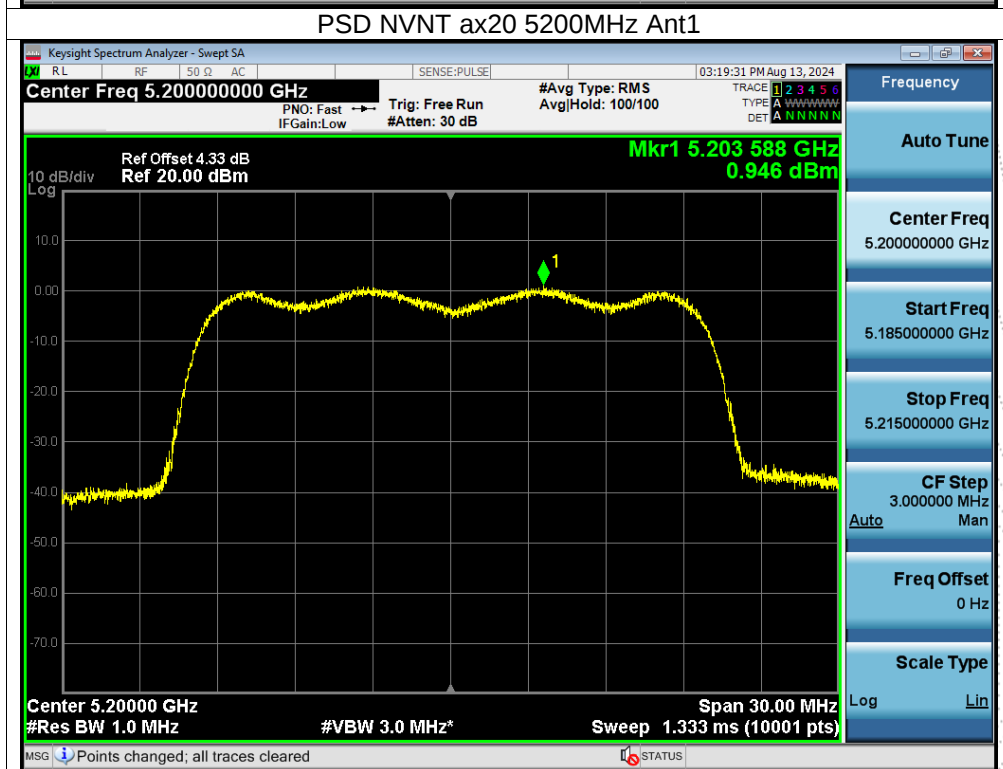
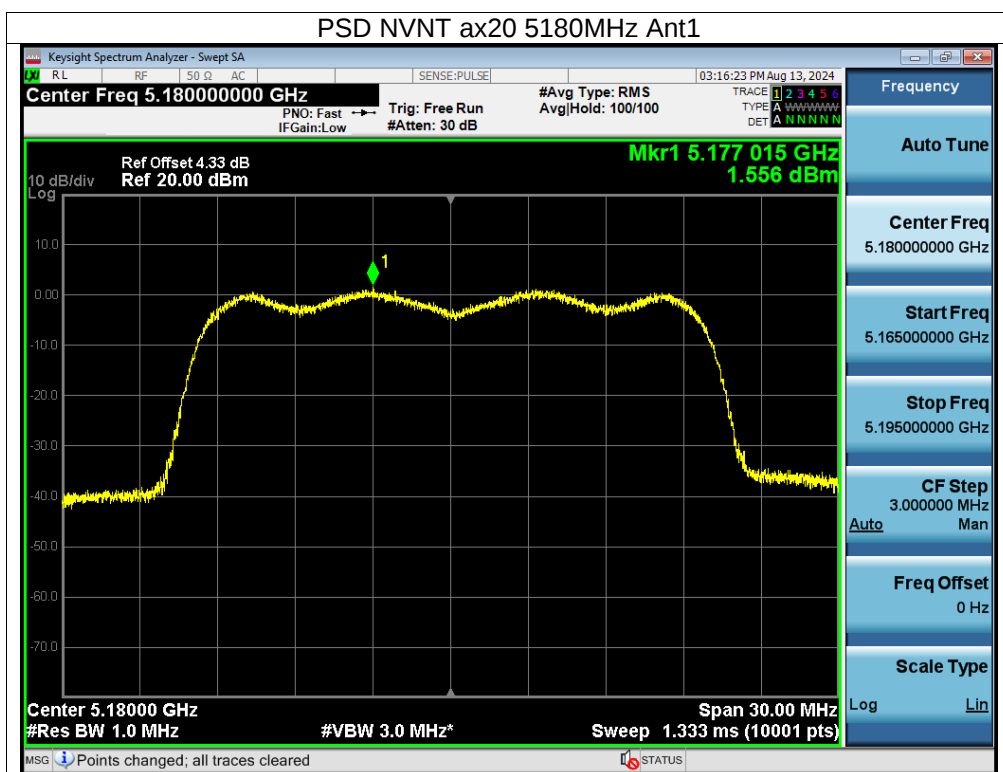


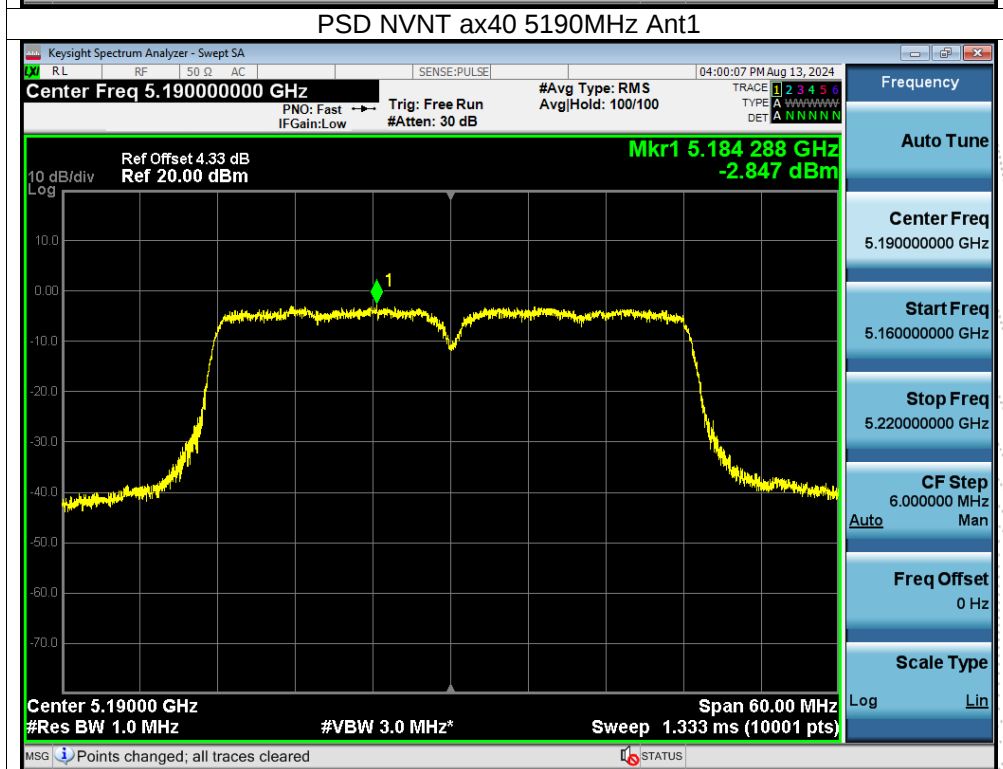
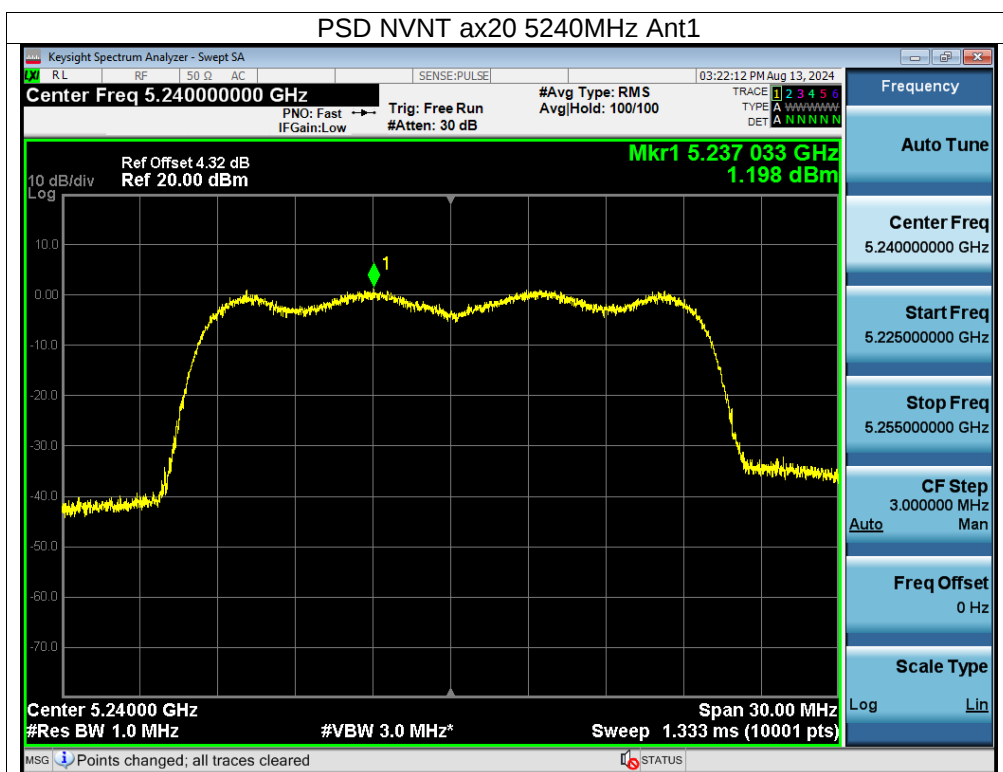


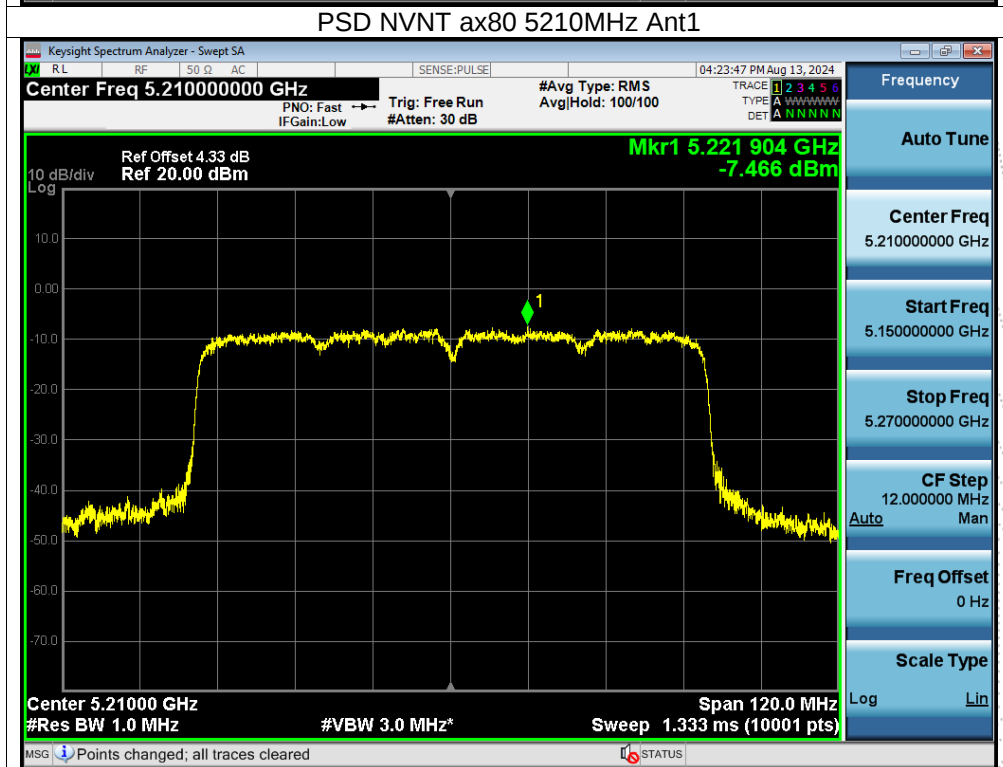
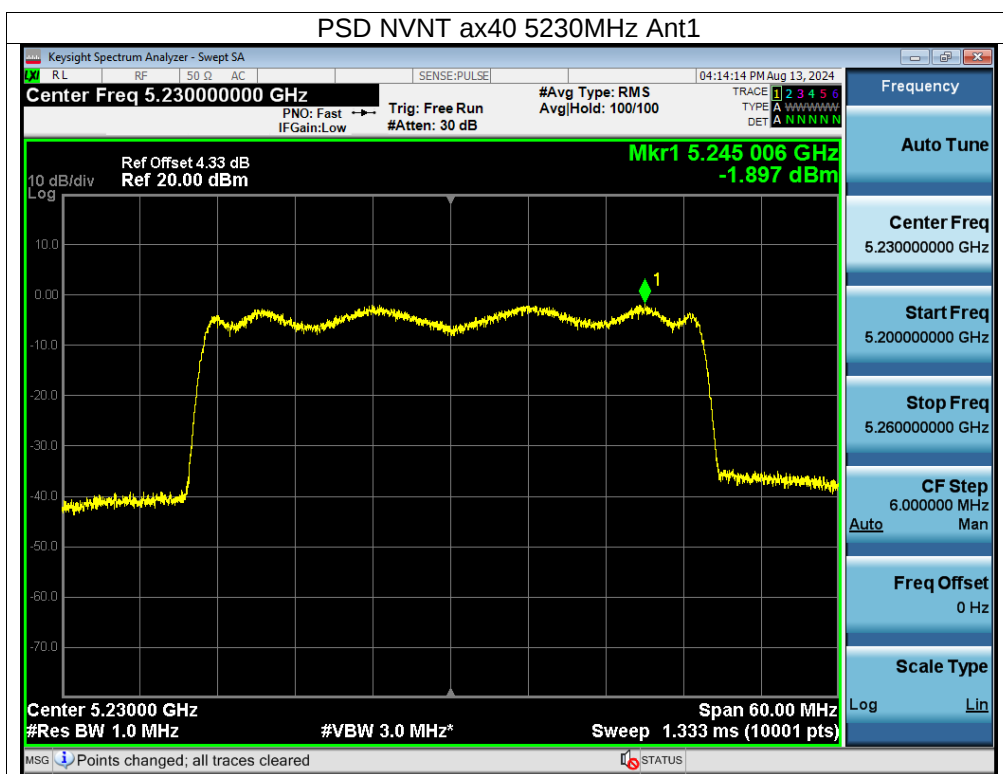








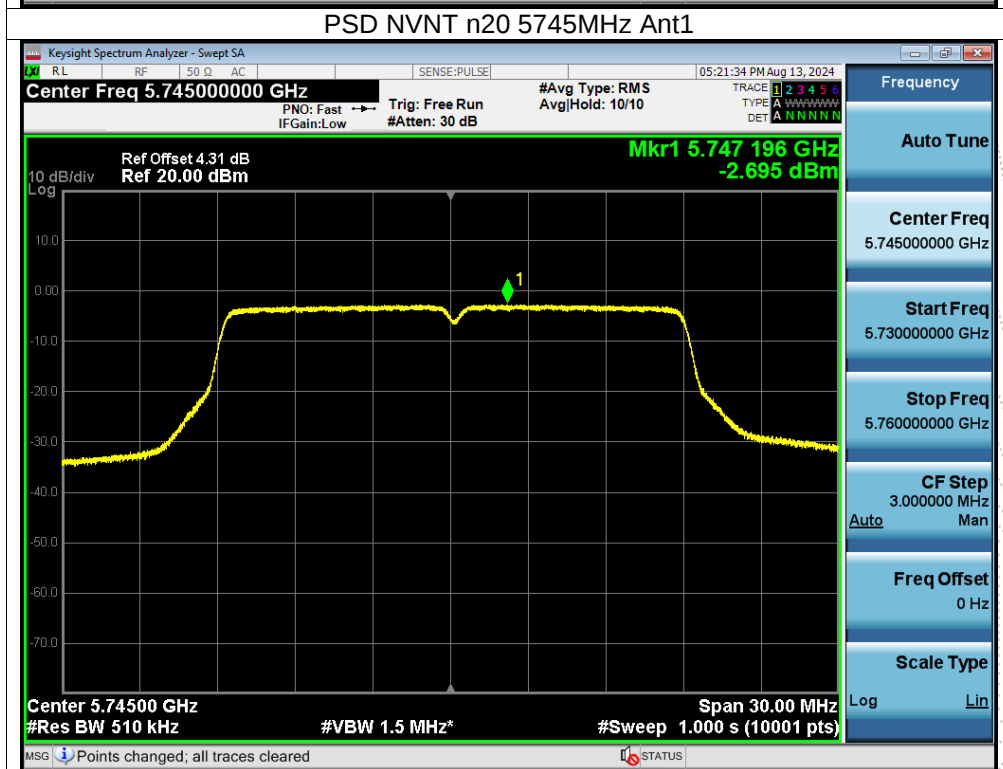
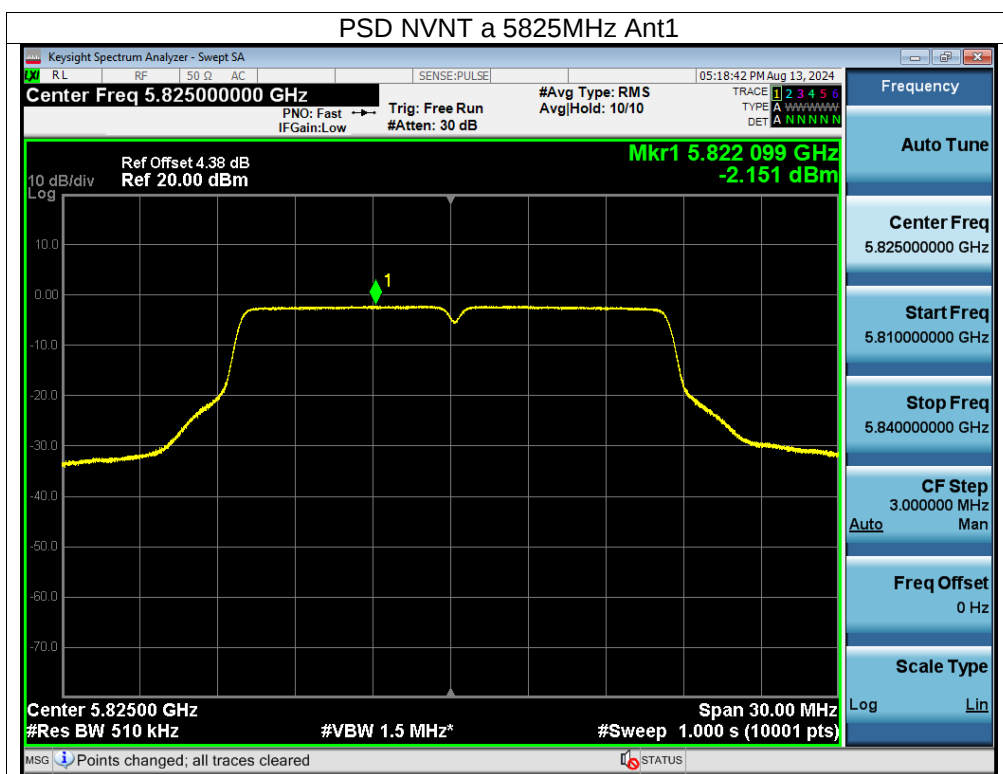


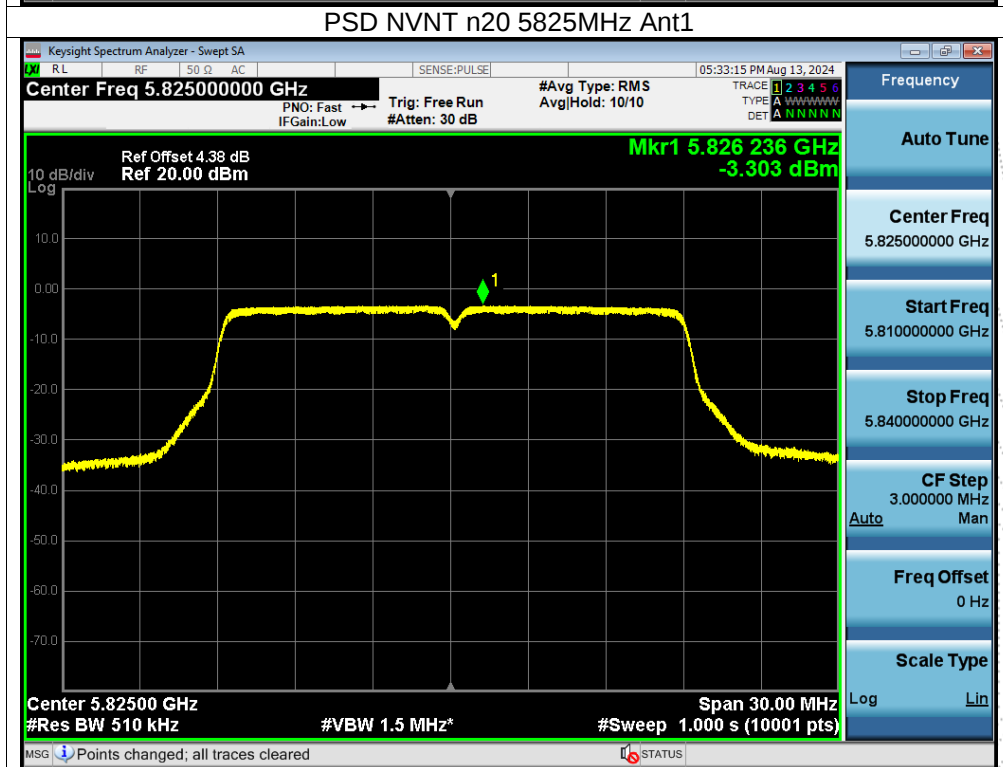
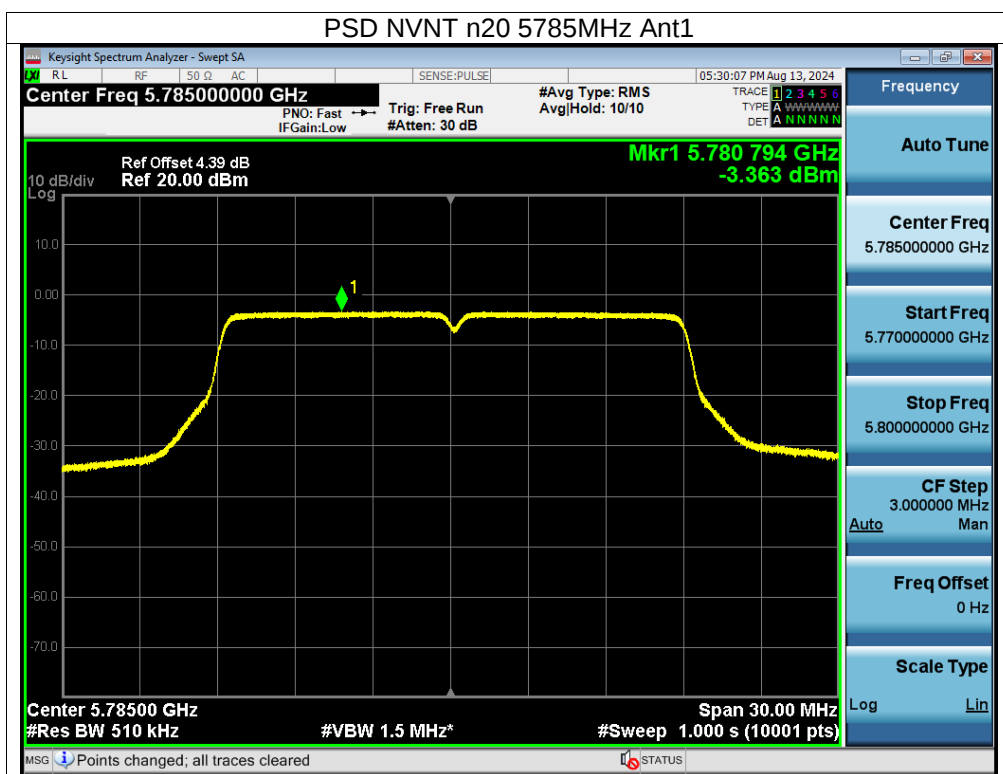


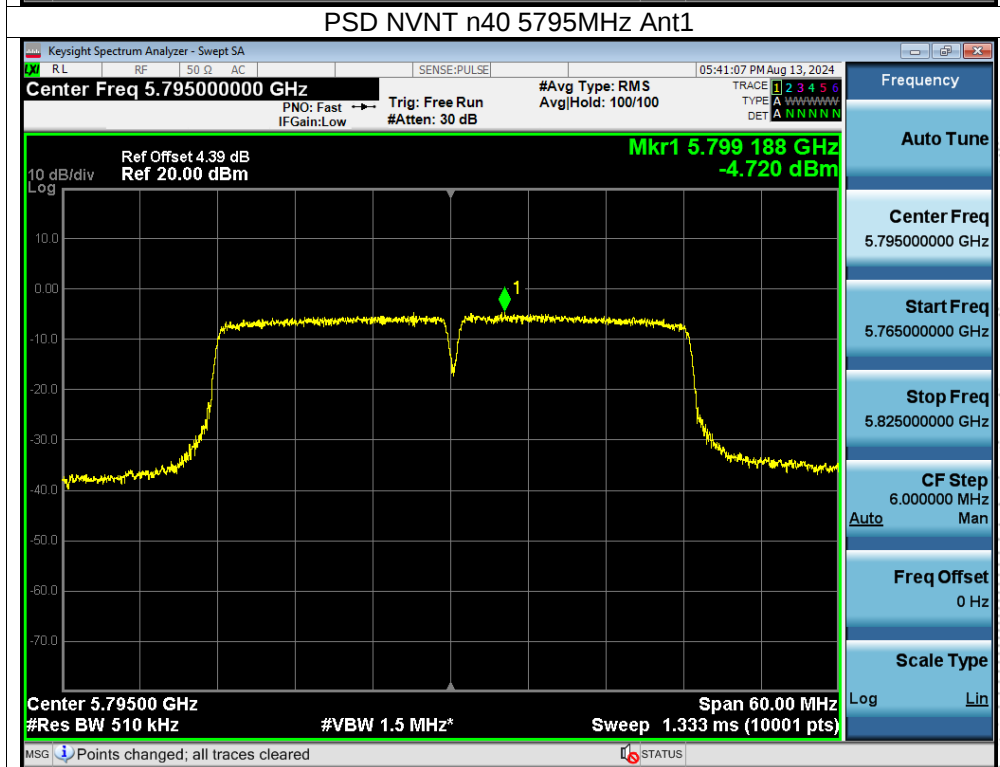
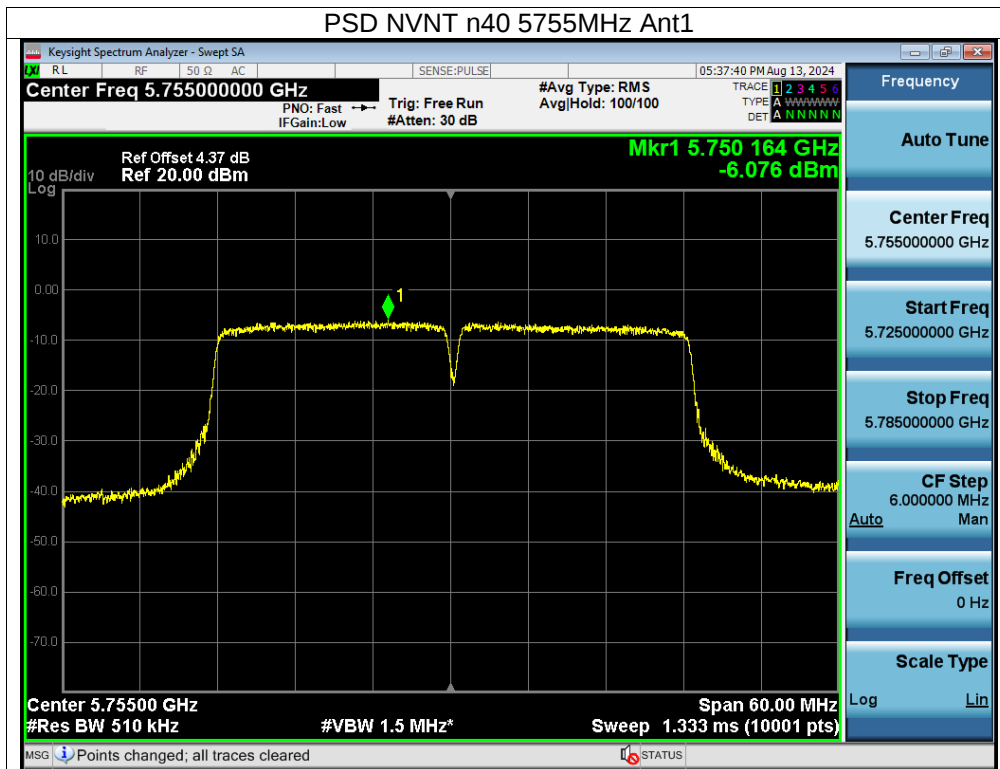
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 24V
Test Mode:	(5745-5825MHz)		

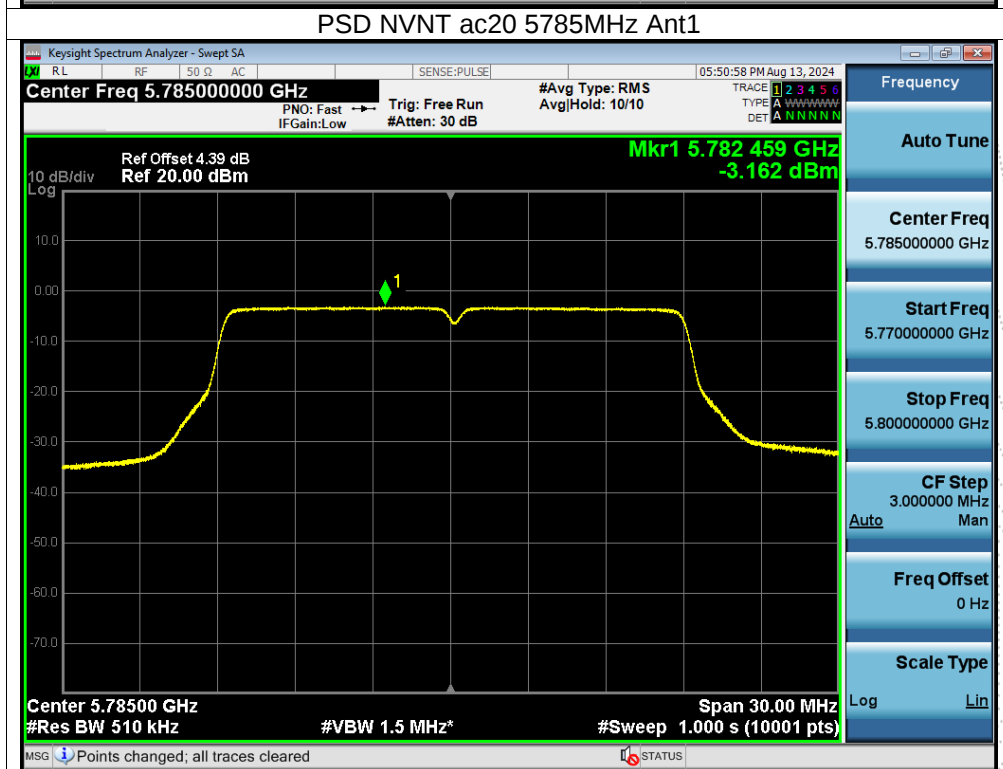
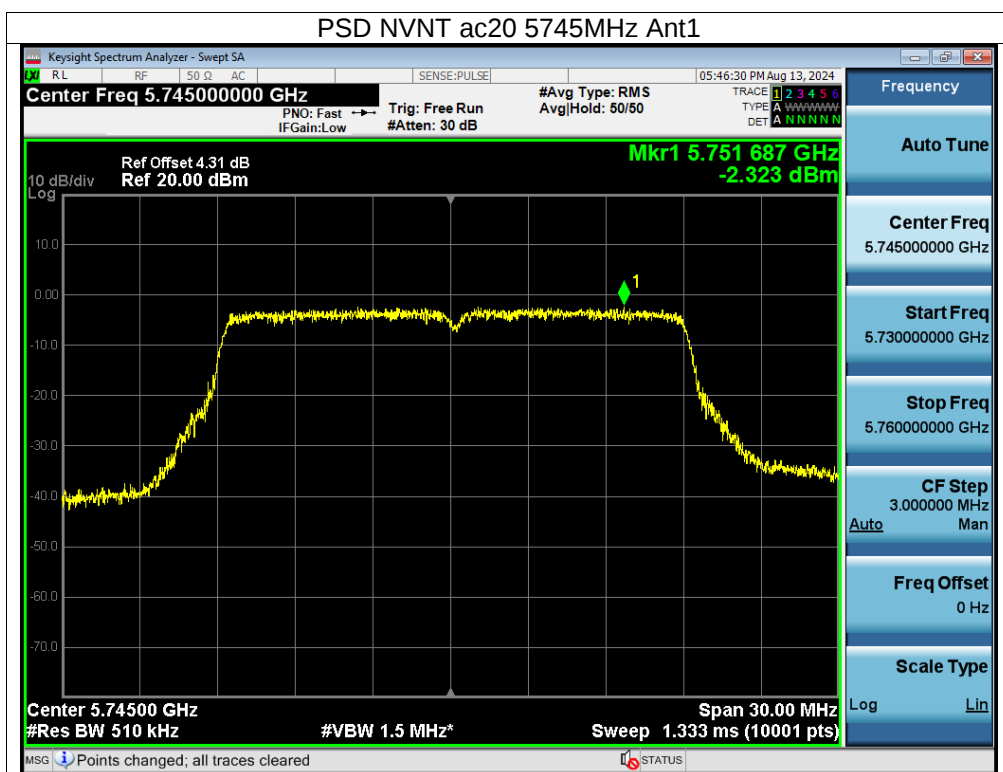
Condition	Mode	Frequency (MHz)	Conducted PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5745	-2.4	30	Pass
NVNT	a	5785	-2.02	30	Pass
NVNT	a	5825	-2.15	30	Pass
NVNT	n20	5745	-2.39	30	Pass
NVNT	n20	5785	-3.05	30	Pass
NVNT	n20	5825	-2.99	30	Pass
NVNT	n40	5755	-5.95	30	Pass
NVNT	n40	5795	-4.58	30	Pass
NVNT	ac20	5745	-2.32	30	Pass
NVNT	ac20	5785	-3.16	30	Pass
NVNT	ac20	5825	-2.36	30	Pass
NVNT	ac40	5755	-4.24	30	Pass
NVNT	ac40	5795	-6.56	30	Pass
NVNT	ac80	5775	-10.38	30	Pass
NVNT	ax20	5745	-2.61	30	Pass
NVNT	ax20	5785	-2.58	30	Pass
NVNT	ax20	5825	-2.19	30	Pass
NVNT	ax40	5755	-6.45	30	Pass
NVNT	ax40	5795	-6.69	30	Pass
NVNT	ax80	5775	-9.53	30	Pass

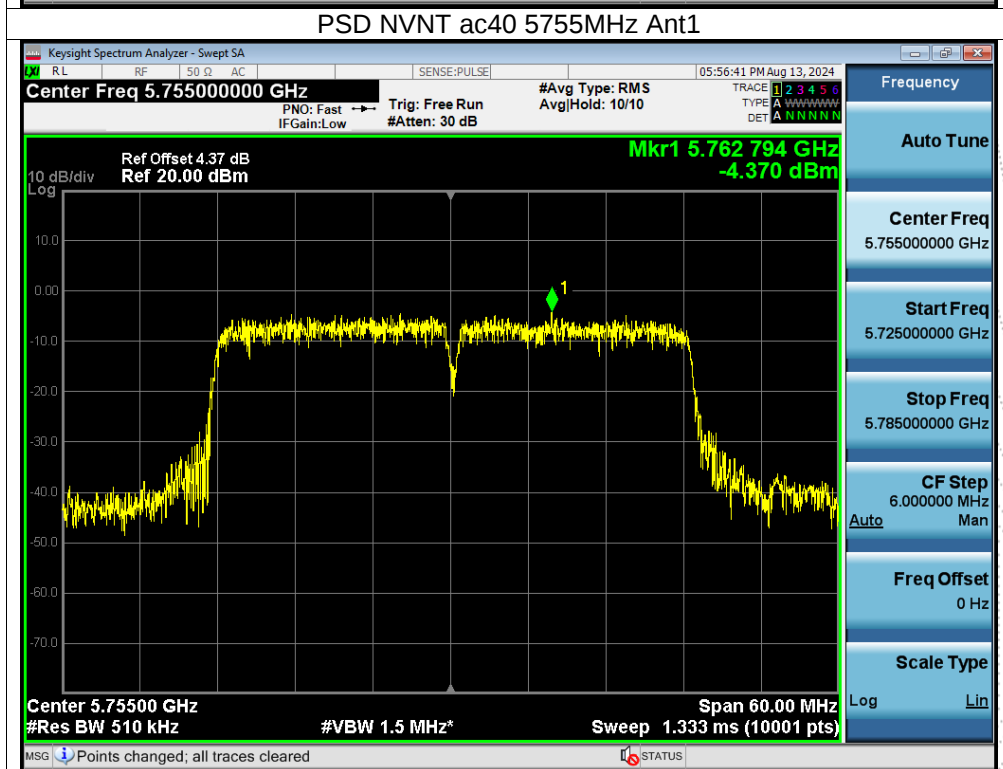
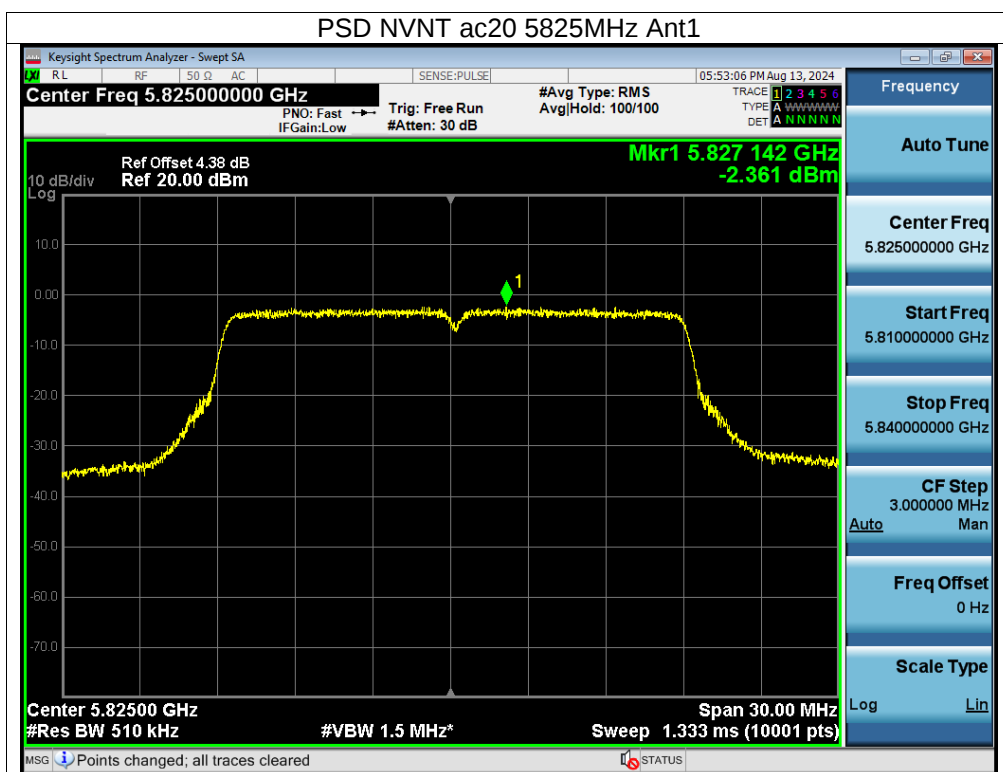


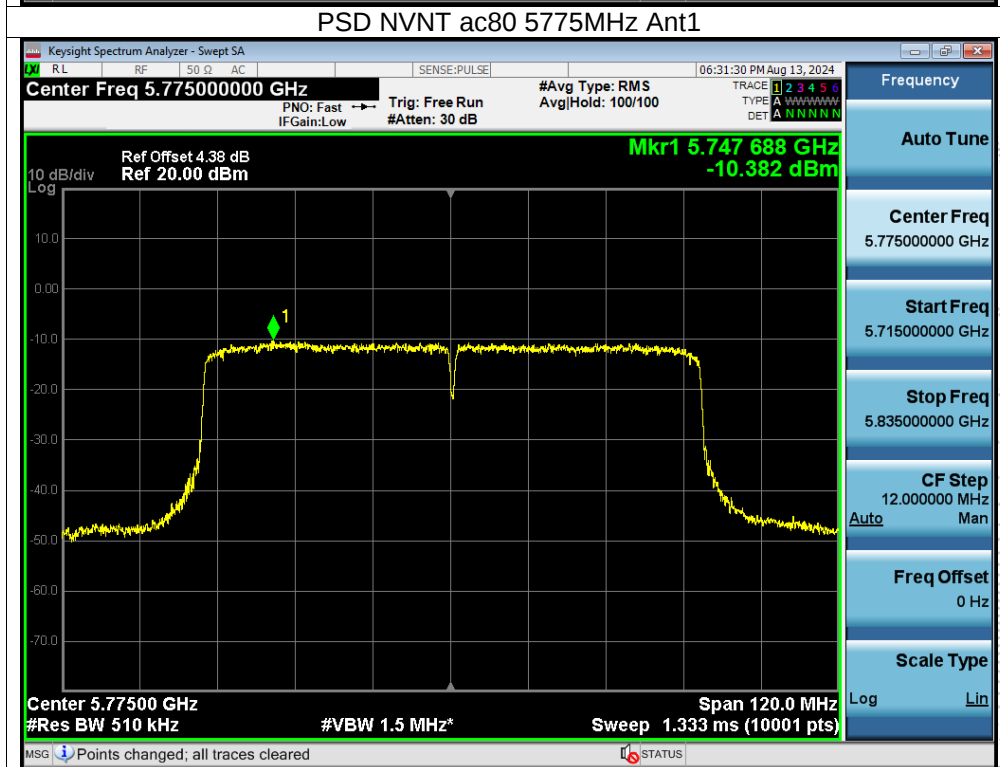
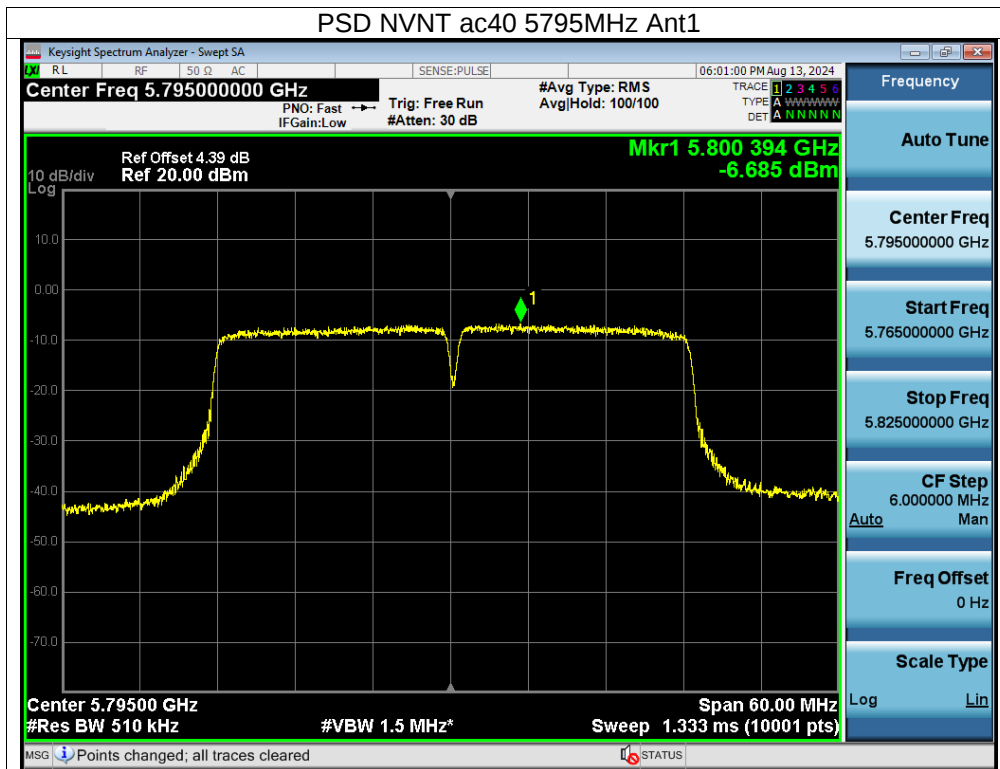


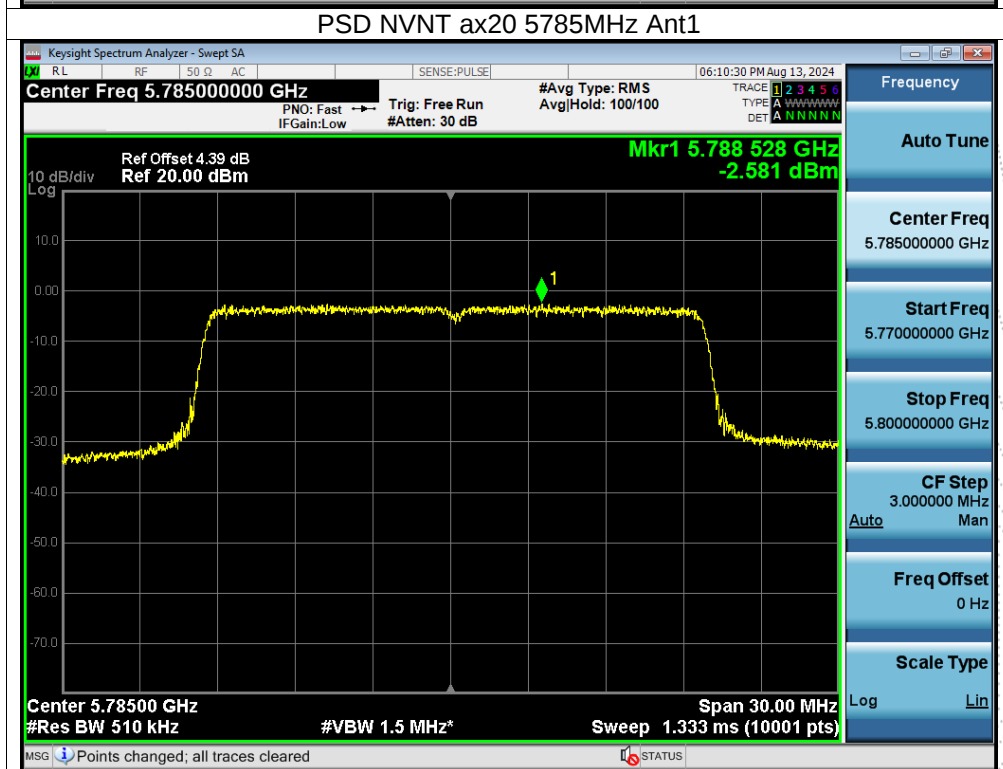
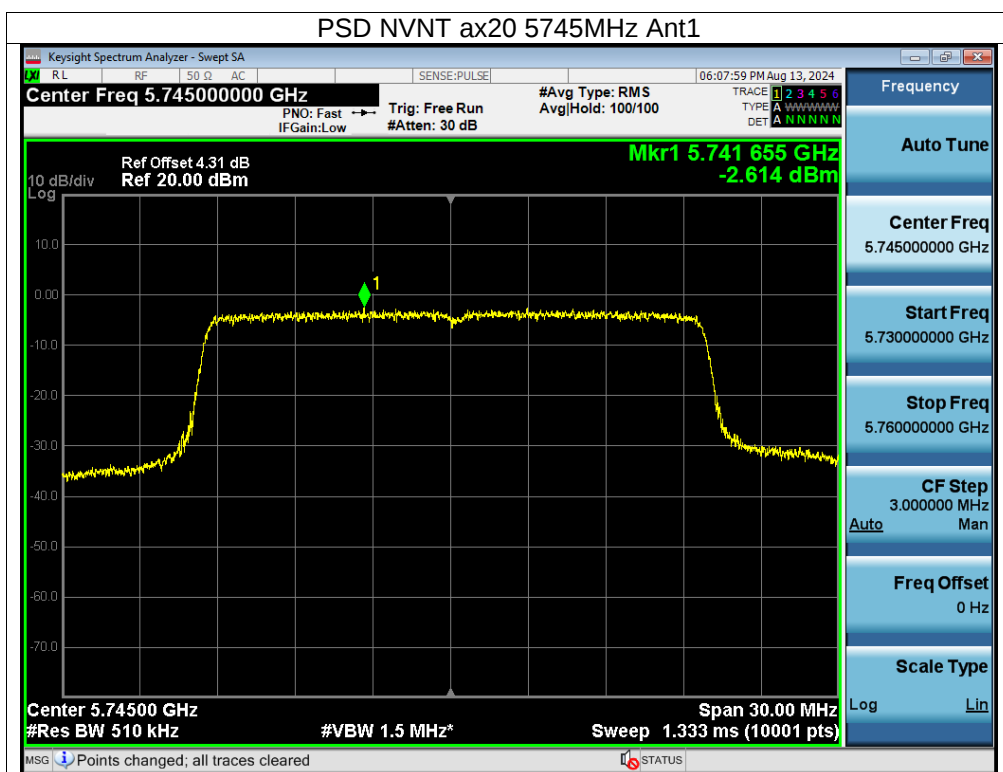


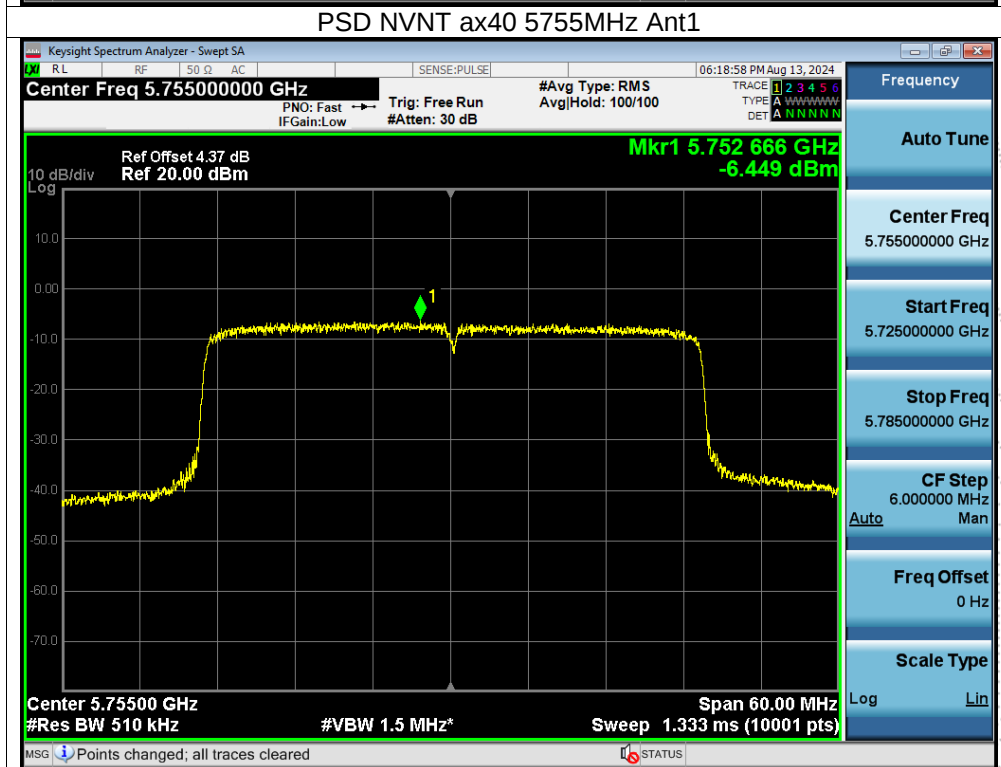
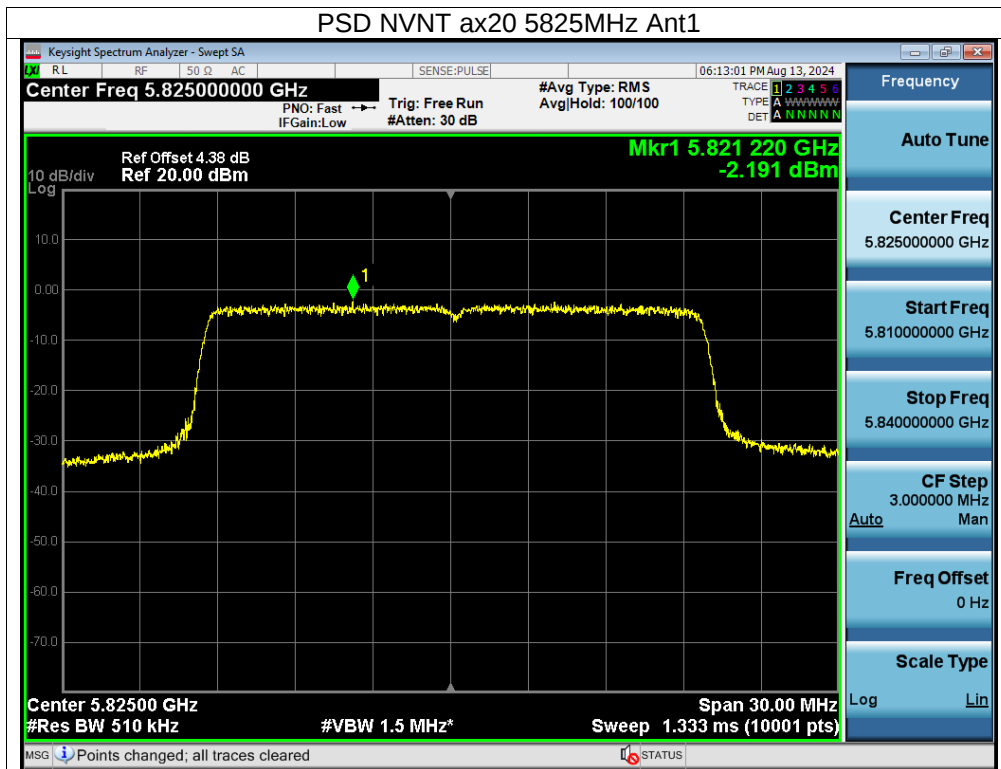


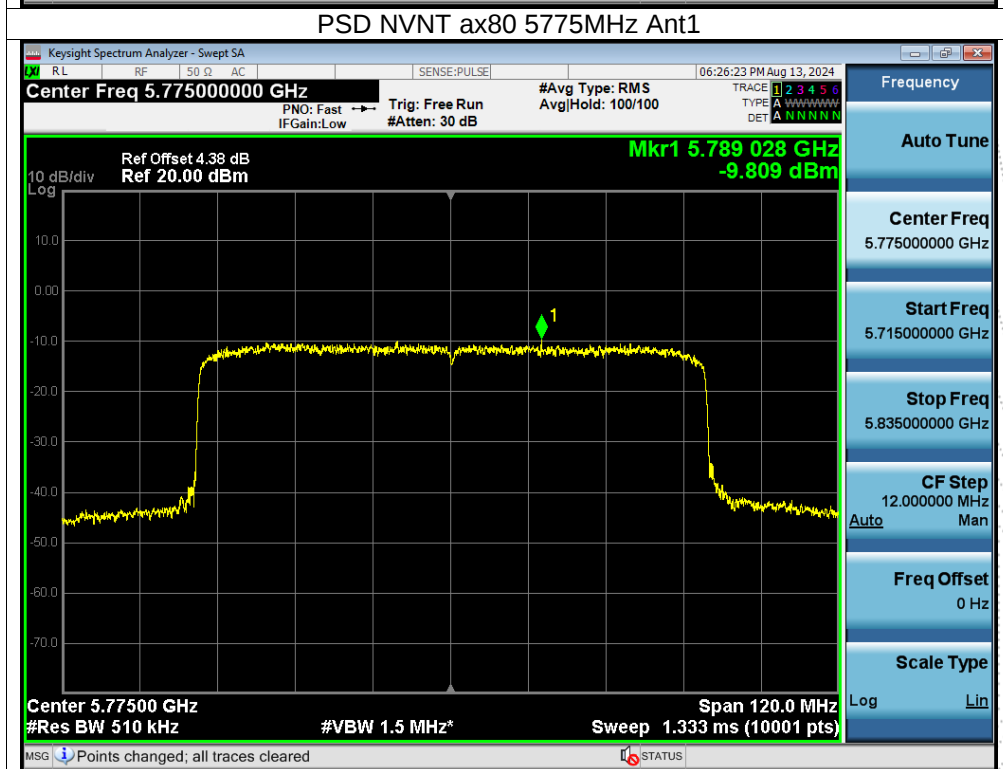
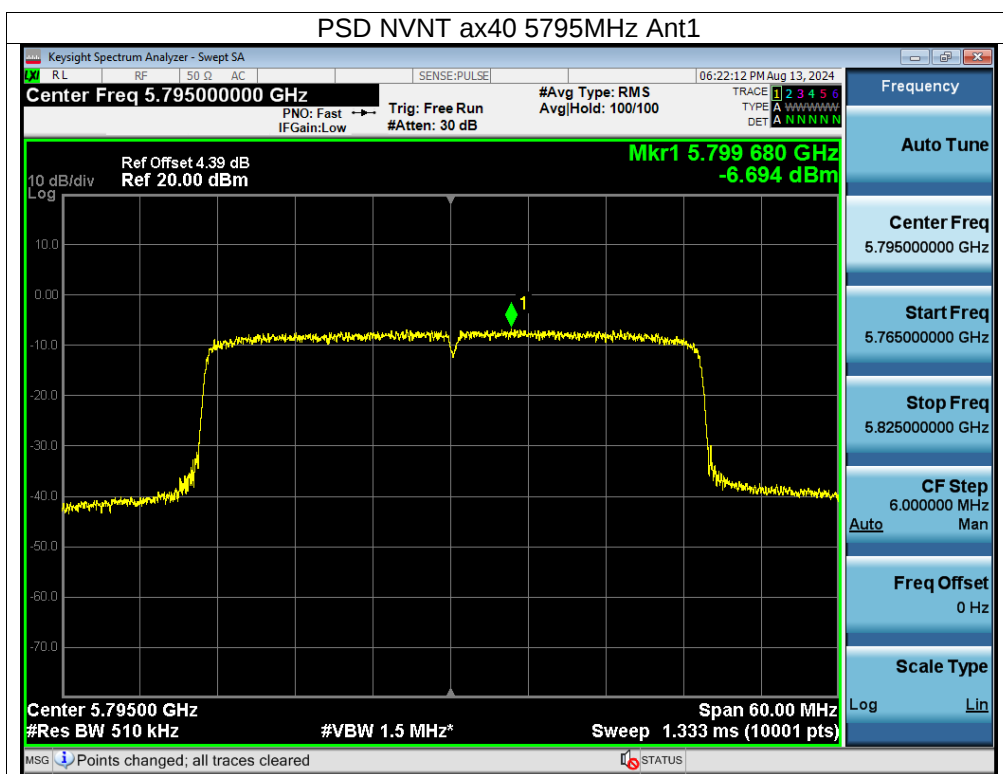






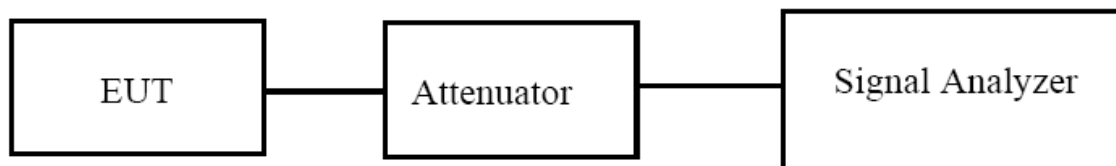






9. 26dB & 6dB & 99% Emission Bandwidth

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 $\geq 3 \cdot$ 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.