

TEST REPORT

Report No.: BCTC2507232567-4E

Applicant: EXPRESS LUCK INDUSTRIAL (SHENZHEN) LIMITED

Product Name: Wifi Module

Test Model: EL.RTL8733BU-CWFT

Tested Date: 2025-07-11 to 2025-08-18

Issued Date: 2025-08-18

Shenzhen BCTC Testing Co., Ltd.



FCC ID: 2AWY6-ERT8733BUCT

Product Name: Wifi Module

Trademark: N/A

Model/Type reference: EL.RTL8733BU-CWFT

Prepared For: EXPRESS LUCK INDUSTRIAL (SHENZHEN) LIMITED

Address: Floor1, Workshop1, NO.88, SOUTH BAOTONG ROAD, XIKENG COMMUNITY, YUANSAN STREET, LONGGANG DISTRICT, Shenzhen, China

Manufacturer: EXPRESS LUCK INDUSTRIAL (SHENZHEN) LIMITED

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Prepared By: Shenzhen BCTC Testing Co., Ltd.

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Sample Received Date: 2025-07-11

Sample tested Date: 2025-07-11 to 2025-08-18

Issue Date: 2025-08-18

Report No.: BCTC2507232567-4E

Test Standards: CFR 47 FCC Part 15.407
ANSI C63.10:2013

Reference KDB: KDB 789033 D02 v02r01

Test Results: PASS

Tested by:



Lei Chen/Project Handler

Approved by:



Zero Zhou/Reviewer

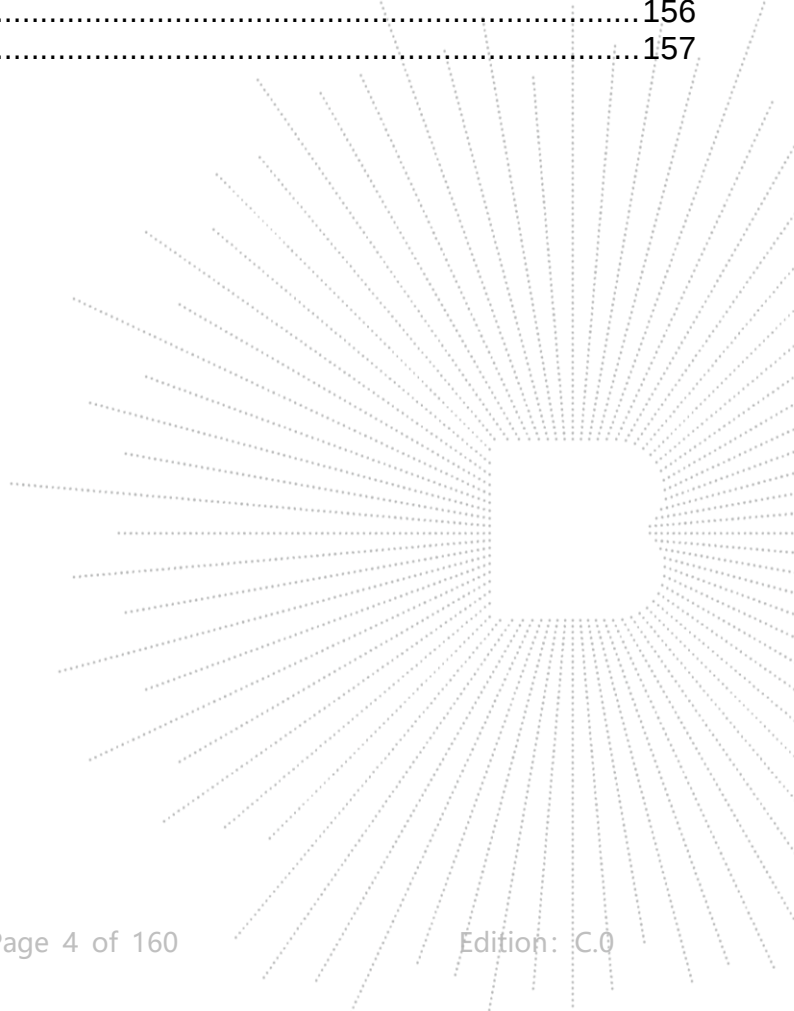
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(Note: N/A Means Not Applicable)



1. Version

Report No.	Issue Date	Description	Approved
BCTC2507232567-4E	2025-08-18	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	PASS
3	26 dB and 99% Emission Bandwidth	15.407 a 15.1049	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

Note: The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure.

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

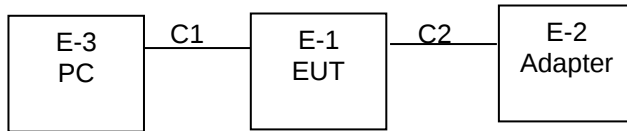
4.1 Product Information

Model/Type reference:	EL.RTL8733BU-CWFT
Model differences:	N/A
Hardware Version:	EL.RTL8733BU_HW_V1.0
Software Version:	EL.RTL8733BU_EFUSE_V1.0
IEEE 802.11 WLAN Mode Supported	802.11a/n(20MHz channel bandwidth) 802.11n(40MHz channel bandwidth) 5180-5240MHz for 802.11a/n(HT20); 5190-5230MHz for 802.11n(HT40); 5260-5320MHz for 802.11a/n(HT20); 5270-5310MHz for 802.11n (HT40); 5500-5700MHz for 802.11a/n(HT20); 5510-5670MHz for 802.11n (HT40); 5745-5825 MHz for 802.11a/n(HT20); 5755-5795 MHz for 802.11n(HT40);
Operation Frequency:	802.11a: 6,9,12,18,24,36,48,54Mbps; 802.11n(HT20/HT40):MCS0-MCS15;
Data Rate	OFDM
Type of Modulation:	PCB antenna
Antenna installation:	WIFI 5.1G: 0.97dBi WIFI 5.3G: 0.97dBi WIFI 5.6G: 1.89dBi WIFI 5.8G: 3.17dBi
Antenna Gain:	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.

Conducted Emission & Radiated Spurious Emission:



4.3 Support Equipment

No.	Device Type	Brand	Model	Series No.	Note
E-1	Wifi Module	N/A	EL.RTL8733BU-CWFT	N/A	EUT
E-2	Adapter	N/A	CD289	N/A	Auxiliary
E-3	PC	N/A	CDW-20800D4	N/A	Auxiliary

Item	Shielded Type	Ferrite Core	Length	Note
C-1	N/A	N/A	0.5M	USB cable unshielded
C-2	N/A	N/A	0.3M	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

(U-NII-1) 5180MHz-5240MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency
20MHz	36	5180	40	5200
	44	5220	48	5240
40MHz	38	5190	46	5230
(U-NII-2A) 5260MHz-5320MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency
20MHz	52	5260	56	5280
	60	5300	64	5320
40MHz	54	5270	62	5310
(U-NII-2C) 5500MHz-5700MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency
20MHz	100	5500	104	5520
	108	5540	112	5560
	116	5580	132	5660
	136	5680	140	5700
40MHz	102	5510	110	5550
	134	5670		
(U-NII-3) 5745MHz-5825MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency
20MHz	149	5745	153	5765
	157	5785	161	5805
	165	5825		
40MHz	151	5775	159	5795

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 20 CH36/ CH40/ CH 48 802.11a / n 20 CH52/ CH56/ CH 64 802.11a / n 20 CH100/ CH116/ CH 140 802.11a / n 20 CH149/ CH157/ CH 165
Mode 2	802.11n 40 CH38/ CH 46 802.11n 40 CH54/ CH 62 802.11n 40 CH102/ CH 110/CH134 802.11n 40 CH 151 / CH 159
Mode 3	WIFI Linking (Conducted emission & Radiated emission)

Note:

(1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.

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	Win7_MP_Kit_RTL11n_8733BU_USB_v0.45_20231127		
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 08, 2025	May 07, 2026
LISN	R&S	ENV216	101375	May 14, 2025	May 13, 2026
Software	Frad	EZ-EMC	EMC-CON 3A1	\	\
Pulse limiter	Schwarzbeck	VTSD9561-F	01323	May 14, 2025	May 13, 2026

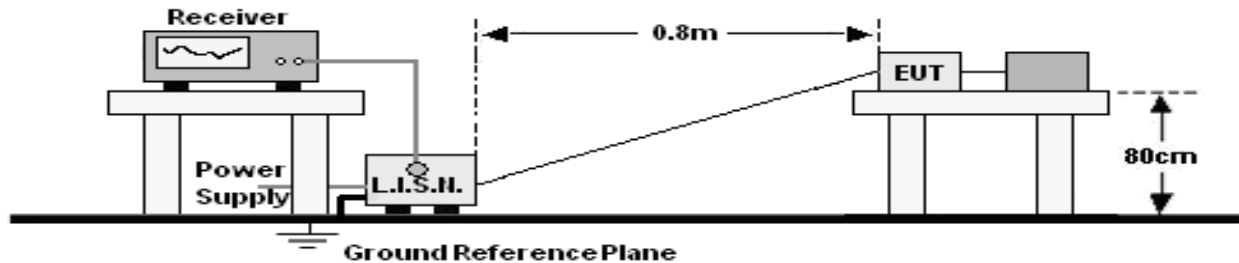
RF Conducted Test					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Power meter	Keysight	E4419	\	May 14, 2025	May 13, 2026
Power Sensor (AV)	Keysight	E9300A	\	May 14, 2025	May 13, 2026
Signal Analyzer20kHz-26.5GHz	Keysight	N9020A	MY49100060	May 14, 2025	May 13, 2026
Spectrum Analyzer9kHz-40GHz	R&S	FSP40	100363	May 14, 2025	May 13, 2026
Radio frequency control box	MAIWEI	MW100-RFC B	\	\	\
Software	MAIWEI	MTS 8310	\	\	\

Radiated Emissions Test (966 Chamber01)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
966 chamber	ChengYu	966 Room	966	May 15, 2023	May 14, 2026
Receiver	R&S	ESR3	102075	May 08, 2025	May 07, 2026
Receiver	R&S	ESR3P	101154	May 14, 2025	May 13, 2026
Amplifier	Schwarzbeck	BBV9744	9744-0037	May 14, 2025	May 13, 2026
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	942	May 24, 2025	May 23, 2026
Loop Antenna(9KHz -30MHz)	Schwarzbeck	FMZB1519B	00014	May 24, 2025	May 23, 2026
Amplifier	SKET	LAPA_01G18 G-45dB	SK2021040901	May 14, 2025	May 13, 2026
Horn Antenna	Schwarzbeck	BBHA9120D	1541	May 24, 2025	May 23, 2026
Amplifier(18G Hz-40GHz)	MITEQ	TTA1840-35-HG	2034381	May 24, 2025	May 23, 2026
Horn Antenna(18G Hz-40GHz)	Schwarzbeck	BBHA9170	00822	May 24, 2025	May 23, 2026
Spectrum Analyzer9kHz-40GHz	R&S	FSP40	100363	May 14, 2025	May 13, 2026
Software	Frad	EZ-EMC	FA-03A2 RE	\	\

Radiated Emissions Test (966 Chamber02)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
966 chamber	SKET	966 Room	966	Oct. 31. 2024	Oct. 30. 2027
Receiver	R&S	ESR3	102075	May 08, 2025	May 07, 2026
Receiver	R&S	ESR3I7	100010	Oct. 31. 2024	Oct. 30. 2025
Amplifier	SKET	LNPA-30M01 G-30	SK2021082004	Oct. 31. 2024	Oct. 30. 2025
TRILOG Broadband Antenna	Schwarzbeck	VULB9168	1323	May 24, 2025	May 23, 2026
Loop Antenna(9KHz -30MHz)	Schwarzbeck	FMZB1519B	00014	May 24, 2025	May 23, 2026
Amplifier	SKET	LAPA_01G18 G-45dB	SK2021040901	May 14, 2025	May 13, 2026
Horn Antenna	Schwarzbeck	BBHA9120D	1541	May 24, 2025	May 23, 2026
Amplifier(18G Hz-40GHz)	MITEQ	TTA1840-35-HG	2034381	May 14, 2025	May 13, 2026
Horn Antenna(18G Hz-40GHz)	Schwarzbeck	BBHA9170	00822	May 24, 2025	May 23, 2026
Spectrum Analyzer9kHz-40GHz	R&S	FSP40	100363	May 14, 2025	May 13, 2026
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

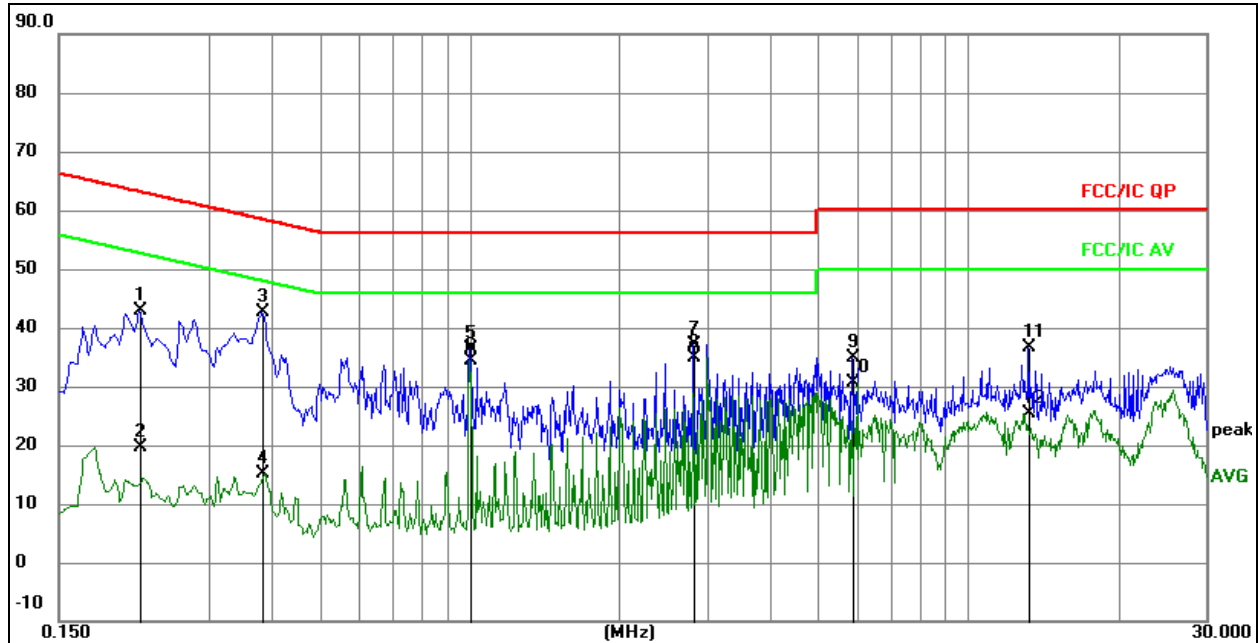
- The Product was placed on a nonconductive table 0.8 m above the horizontal ground reference plane, and 0.4 m from the vertical ground reference plane, and connected to the main through Line Impedance Stability Network (L.I.S.N).
- The RBW of the receiver was set at 9 kHz in 150 kHz ~ 30MHz with Peak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

Temperature:	24.2 °C	Relative Humidity:	52 %
Pressure:	101KPa	Phase :	L
Test Mode:	Mode 3	Test Voltage :	AC 120V/60Hz

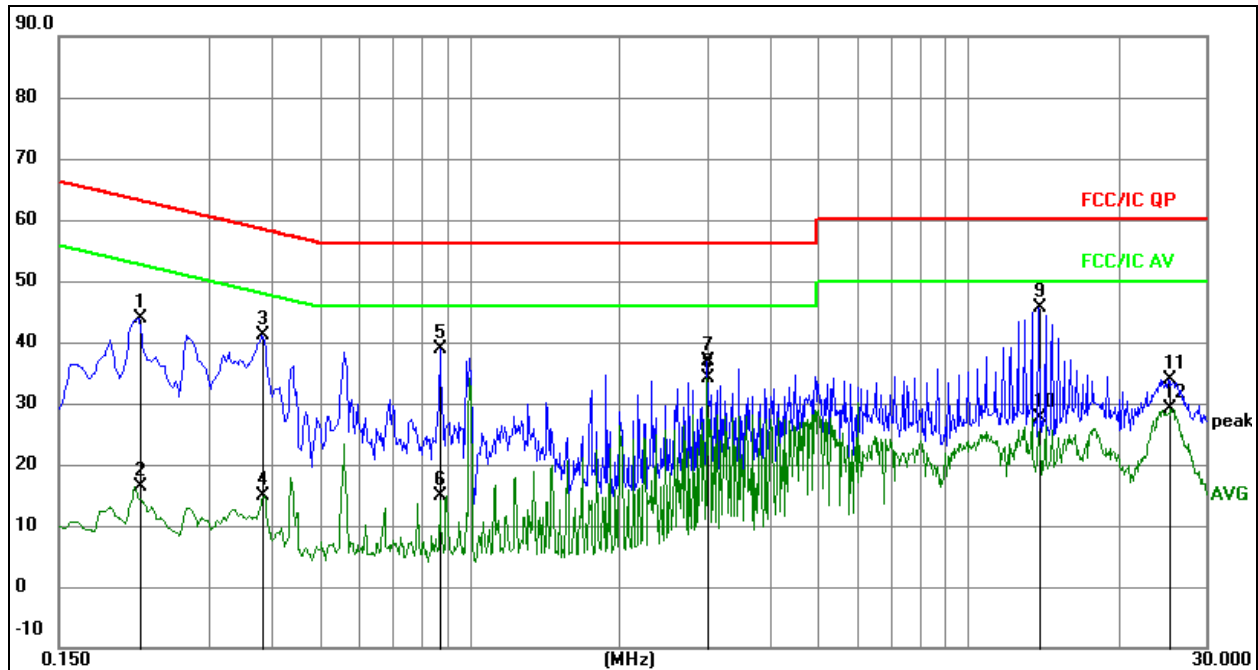


Remark:

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. MHz	Reading Level dB	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.2175	22.90	20.04	42.94	62.91	-19.97	QP
2		0.2175	-0.46	20.04	19.58	52.91	-33.33	AVG
3		0.3840	22.54	20.05	42.59	58.19	-15.60	QP
4		0.3840	-4.90	20.05	15.15	48.19	-33.04	AVG
5		1.0004	16.00	20.27	36.27	56.00	-19.73	QP
6		1.0004	14.09	20.27	34.36	46.00	-11.64	AVG
7		2.8095	16.79	20.35	37.14	56.00	-18.86	QP
8	*	2.8095	14.42	20.35	34.77	46.00	-11.23	AVG
9		5.8470	14.03	20.81	34.84	60.00	-25.16	QP
10		5.8470	9.74	20.81	30.55	50.00	-19.45	AVG
11		13.2360	14.53	22.08	36.61	60.00	-23.39	QP
12		13.2360	3.24	22.08	25.32	50.00	-24.68	AVG

Temperature:	24.2 °C	Relative Humidity:	52 %
Pressure:	101KPa	Phase :	N
Test Mode:	Mode 3	Test Voltage :	AC 120V/60Hz


Remark:

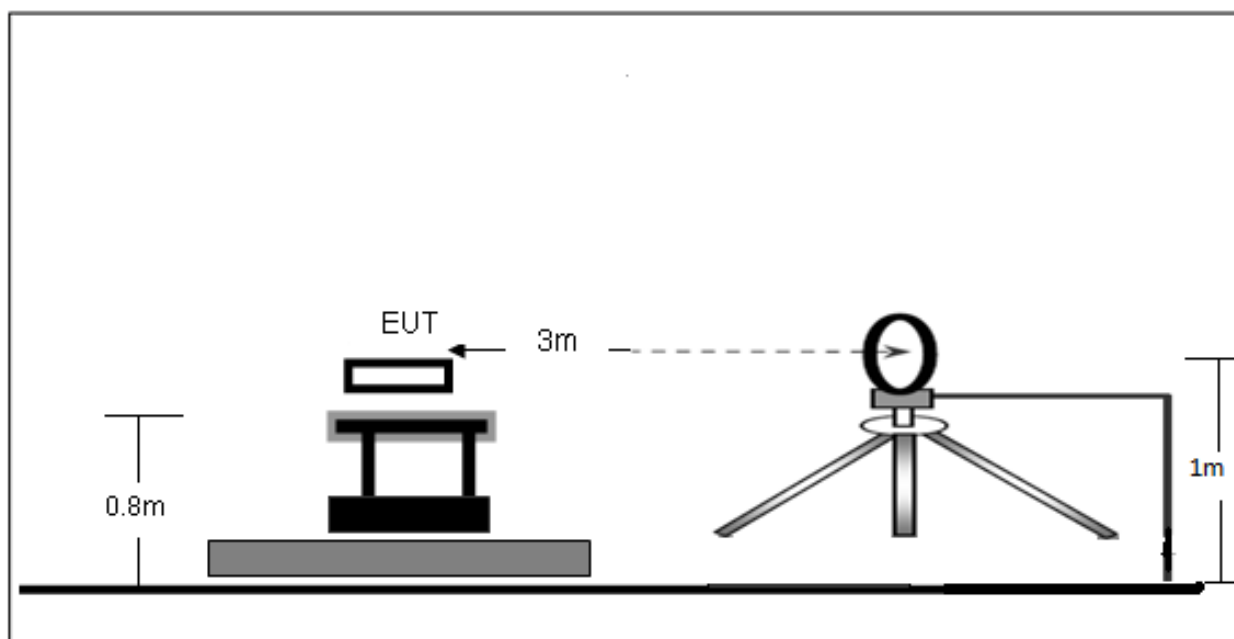
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement=Reading Level+ Correct Factor
4. Over=Measurement-Limit

No.	Mk.	Freq. MHz	Reading Level dB	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.2175	23.95	20.04	43.99	62.91	-18.92	QP
2		0.2175	-3.75	20.04	16.29	52.91	-36.62	AVG
3		0.3840	21.09	20.05	41.14	58.19	-17.05	QP
4		0.3840	-5.18	20.05	14.87	48.19	-33.32	AVG
5		0.8745	18.60	20.27	38.87	56.00	-17.13	QP
6		0.8745	-5.28	20.27	14.99	46.00	-31.01	AVG
7		3.0075	16.39	20.40	36.79	56.00	-19.21	QP
8	*	3.0075	13.77	20.40	34.17	46.00	-11.83	AVG
9		13.9065	23.50	22.23	45.73	60.00	-14.27	QP
10		13.9065	5.33	22.23	27.56	50.00	-22.44	AVG
11		25.2375	9.78	24.22	34.00	60.00	-26.00	QP
12		25.2375	4.94	24.22	29.16	50.00	-20.84	AVG

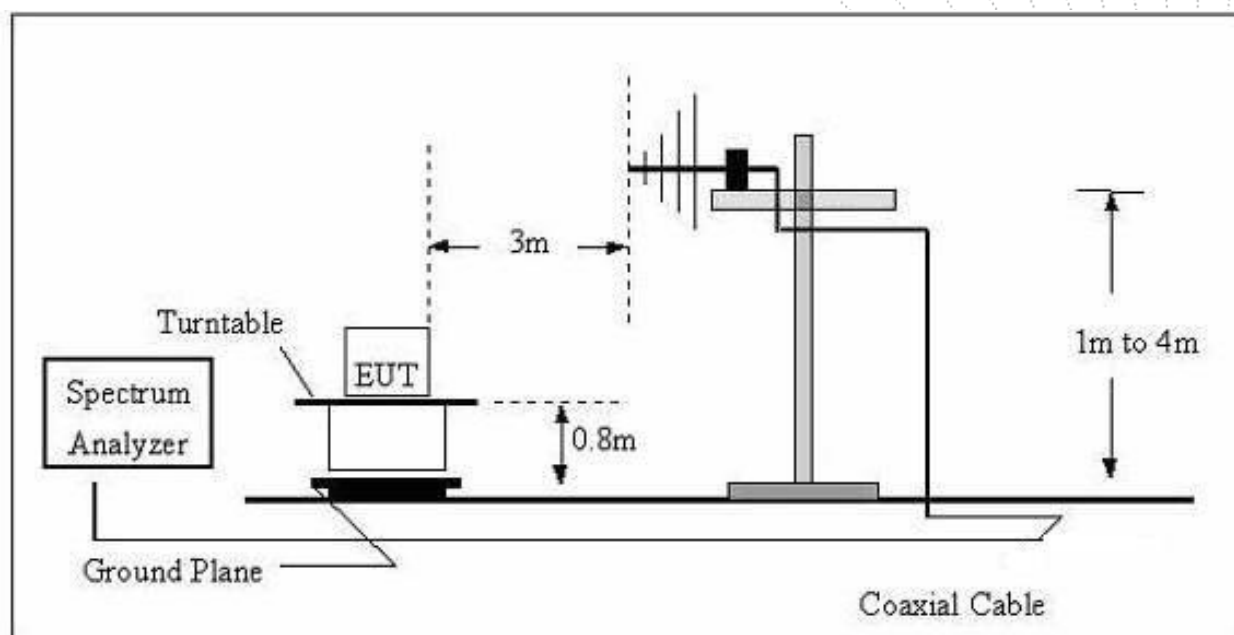
7. Radiated Emissions

7.1 Block Diagram Of Test Setup

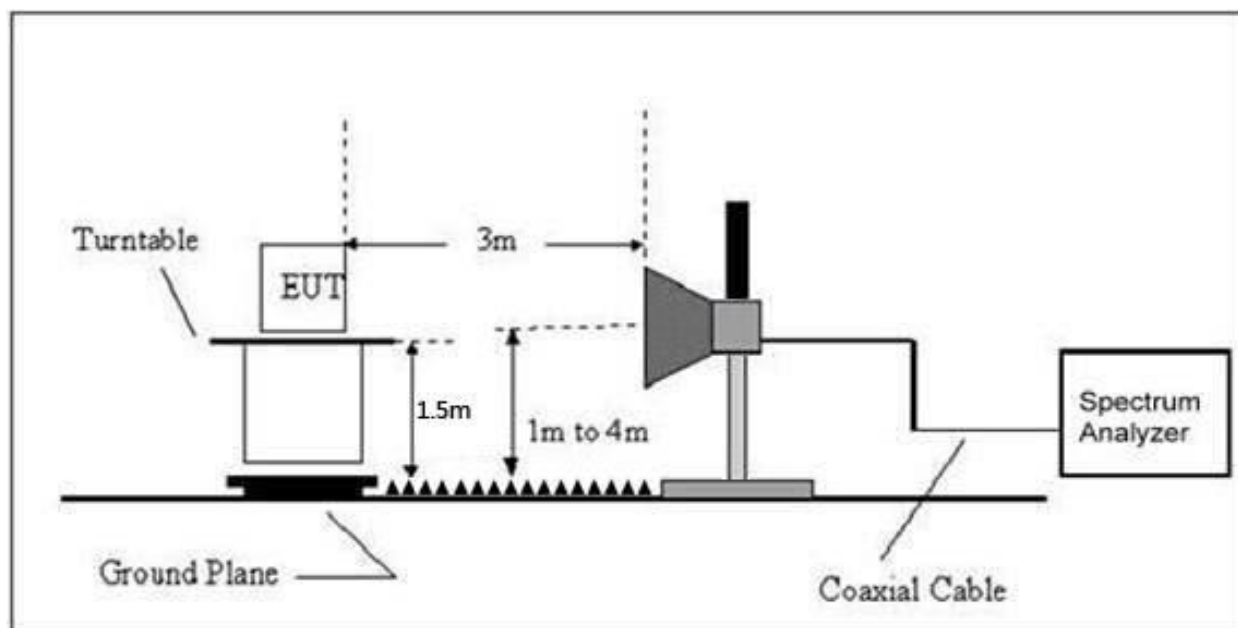
(A) Radiated Emission Test-Up Frequency Below 30MHz



(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 (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

- 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.
- 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.
- 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.
- 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.
- 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.
- 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:	24.6°C	Relative Humidity:	53%
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	Mode 3	Polarization :	--

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

Note:

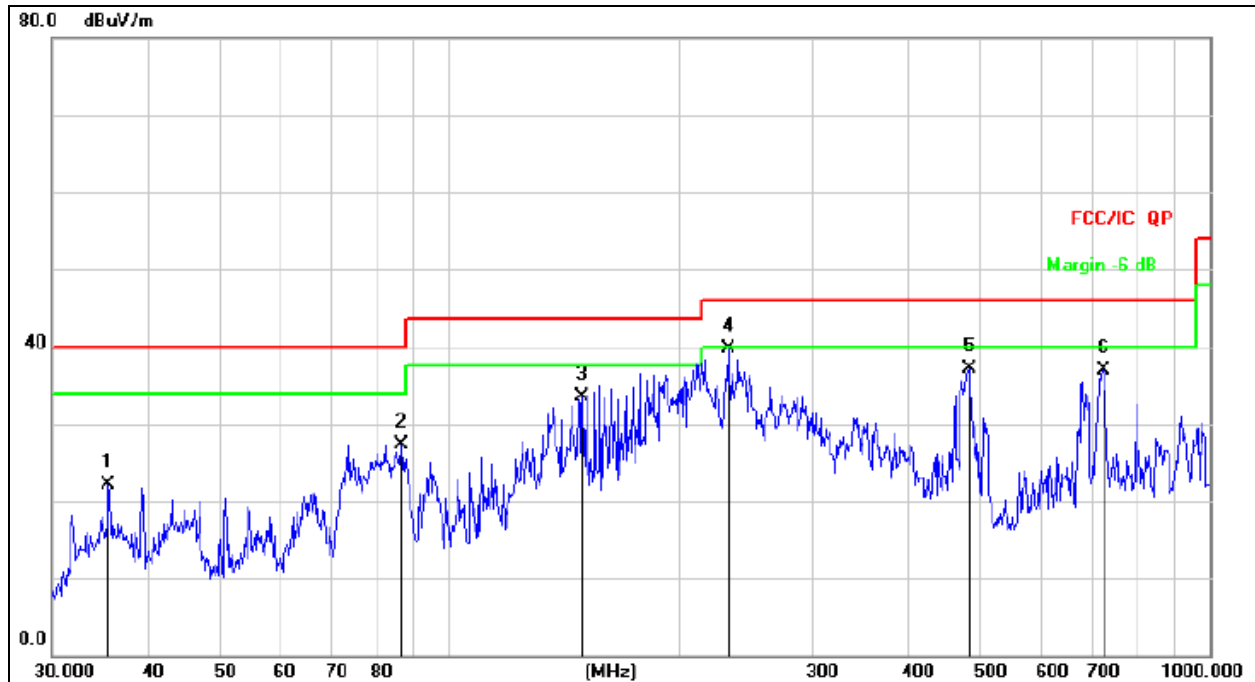
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

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

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

Between 30MHz – 1GHz

Temperature:	24.6°C	Relative Humidity:	53%
Pressure:	101KPa	Phase :	Horizontal
Test Mode:	Mode 3	Test Voltage:	AC 120V/60Hz

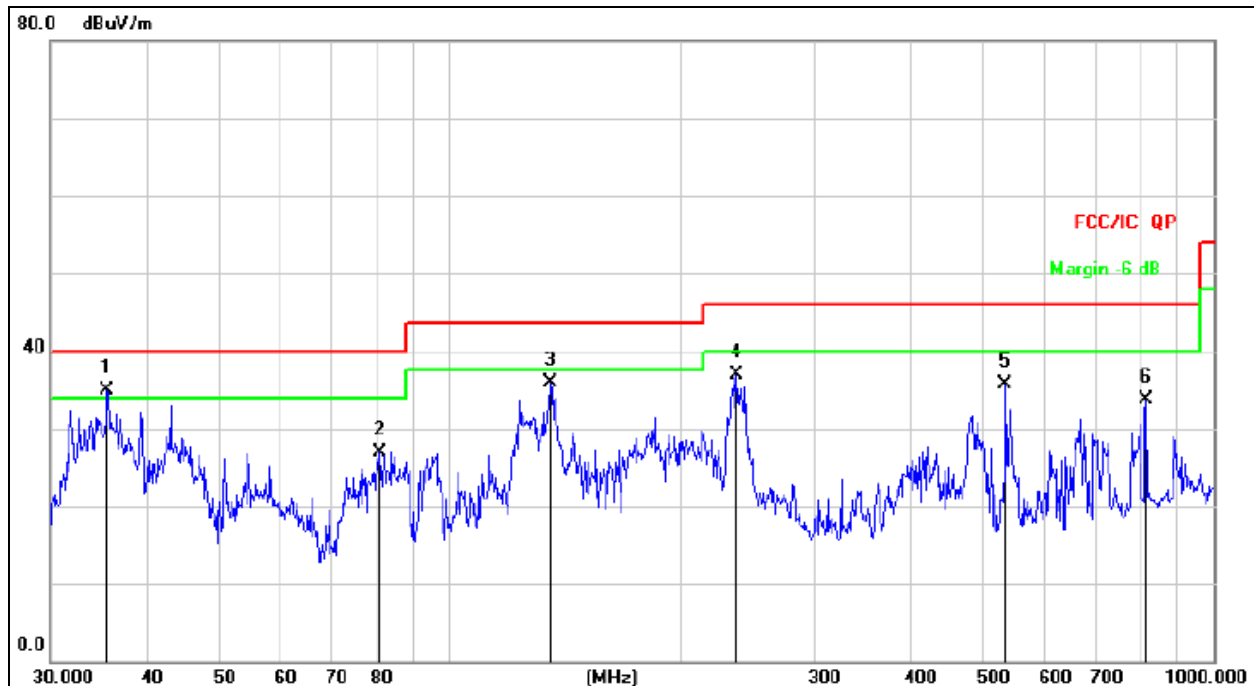


Remark:

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

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Over dB	Detector
1		35.6240	36.58	-14.55	22.03	40.00	-17.97	QP
2		86.5029	42.89	-15.51	27.38	40.00	-12.62	QP
3		149.4857	51.06	-17.57	33.49	43.50	-10.01	QP
4	*	232.5318	53.39	-13.62	39.77	46.00	-6.23	QP
5		482.2156	44.81	-7.76	37.05	46.00	-8.95	QP
6		726.8052	41.20	-4.28	36.92	46.00	-9.08	QP

Temperature:	24.6°C	Relative Humidity:	53%
Pressure:	101KPa	Phase :	Vertical
Test Mode:	Mode 3	Test Voltage:	AC 120V/60Hz



Remark:

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector
		MHz	dBuV	dB	dBuV/m	dB/m	dB	
1	*	35.6240	49.50	-14.55	34.95	40.00	-5.05	QP
2		80.9275	42.75	-15.84	26.91	40.00	-13.09	QP
3		135.5062	52.61	-16.78	35.83	43.50	-7.67	QP
4		237.4760	50.38	-13.50	36.88	46.00	-9.12	QP
5		533.8321	42.45	-6.72	35.73	46.00	-10.27	QP
6		815.9678	36.06	-2.39	33.67	46.00	-12.33	QP

Between 1GHz – 40GHz

Test Mode:	TX(5.1G) - 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 (5180 MHz)-Above 1G							
Vertical	4434.162	70.21	-20.73	49.48	68.20	-18.72	PK
Vertical	4434.162	59.96	-20.73	39.23	54.00	-14.77	AV
Vertical	10360.149	64.83	-9.36	55.47	68.20	-12.73	PK
Vertical	10360.149	49.81	-9.36	40.45	54.00	-13.55	AV
Vertical	15540.070	60.55	-7.84	52.71	74.00	-21.29	PK
Vertical	15540.070	49.29	-7.84	41.45	54.00	-12.55	AV
Horizontal	4434.110	71.96	-20.73	51.23	68.20	-16.97	PK
Horizontal	4434.110	59.97	-20.73	39.24	54.00	-14.76	AV
Horizontal	10360.001	62.13	-9.36	52.77	68.20	-15.43	PK
Horizontal	10360.001	49.07	-9.36	39.71	54.00	-14.29	AV
Horizontal	15540.038	60.82	-7.84	52.98	74.00	-21.02	PK
Horizontal	15540.038	49.78	-7.84	41.94	54.00	-12.06	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.082	74.45	-20.42	54.04	74.00	-19.96	PK
Vertical	4592.082	59.99	-20.42	39.58	54.00	-14.42	AV
Vertical	10400.198	64.25	-9.30	54.95	68.20	-13.25	PK
Vertical	10400.198	49.98	-9.30	40.68	54.00	-13.32	AV
Vertical	15600.133	62.23	-7.82	54.41	74.00	-19.59	PK
Vertical	15600.133	49.50	-7.82	41.68	54.00	-12.32	AV
Horizontal	4592.050	70.87	-20.42	50.45	74.00	-23.55	PK
Horizontal	4592.050	59.81	-20.42	39.40	54.00	-14.60	AV
Horizontal	10400.149	61.78	-9.30	52.48	68.20	-15.72	PK
Horizontal	10400.149	49.53	-9.30	40.23	54.00	-13.77	AV
Horizontal	15600.164	64.63	-7.82	56.81	74.00	-17.19	PK
Horizontal	15600.164	49.56	-7.82	41.74	54.00	-12.26	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.194	73.90	-20.12	53.77	74.00	-20.23	PK
Vertical	4739.194	59.87	-20.12	39.75	54.00	-14.25	AV
Vertical	10480.162	64.99	-9.18	55.81	68.20	-12.39	PK
Vertical	10480.162	49.14	-9.18	39.96	54.00	-14.04	AV
Vertical	15720.041	63.91	-7.78	56.13	74.00	-17.87	PK
Vertical	15720.041	49.68	-7.78	41.90	54.00	-12.10	AV
Horizontal	4739.023	70.80	-20.12	50.68	74.00	-23.32	PK
Horizontal	4739.023	59.82	-20.12	39.70	54.00	-14.30	AV
Horizontal	10480.163	62.40	-9.18	53.22	68.20	-14.98	PK
Horizontal	10480.163	49.49	-9.18	40.31	54.00	-13.69	AV
Horizontal	15720.098	62.68	-7.78	54.90	74.00	-19.10	PK
Horizontal	15720.098	49.94	-7.78	42.16	54.00	-11.84	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	72.48	-20.73	51.75	68.20	-16.45	PK
Vertical	4434.095	59.51	-20.73	38.77	54.00	-15.23	AV
Vertical	10360.186	64.92	-9.36	55.56	68.20	-12.64	PK
Vertical	10360.186	49.81	-9.36	40.45	54.00	-13.55	AV
Vertical	15540.011	63.18	-7.84	55.34	74.00	-18.66	PK
Vertical	15540.011	49.06	-7.84	41.22	54.00	-12.78	AV
Horizontal	4434.074	72.57	-20.73	51.84	68.20	-16.36	PK
Horizontal	4434.074	59.78	-20.73	39.05	54.00	-14.95	AV
Horizontal	10360.090	61.93	-9.36	52.57	68.20	-15.63	PK
Horizontal	10360.090	49.47	-9.36	40.11	54.00	-13.89	AV
Horizontal	15540.074	64.56	-7.84	56.72	74.00	-17.28	PK
Horizontal	15540.074	49.48	-7.84	41.64	54.00	-12.36	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.127	73.04	-20.42	52.62	74.00	-21.38	PK
Vertical	4592.127	59.02	-20.42	38.60	54.00	-15.40	AV
Vertical	10400.092	64.16	-9.30	54.86	68.20	-13.34	PK
Vertical	10400.092	49.67	-9.30	40.37	54.00	-13.63	AV
Vertical	15600.074	62.49	-7.82	54.67	74.00	-19.33	PK
Vertical	15600.074	49.96	-7.82	42.14	54.00	-11.86	AV
Horizontal	4592.029	74.57	-20.42	54.15	74.00	-19.85	PK
Horizontal	4592.029	59.24	-20.42	38.82	54.00	-15.18	AV
Horizontal	10400.069	63.61	-9.30	54.31	68.20	-13.89	PK
Horizontal	10400.069	49.55	-9.30	40.25	54.00	-13.75	AV
Horizontal	15600.098	60.85	-7.82	53.03	74.00	-20.97	PK
Horizontal	15600.098	49.80	-7.82	41.98	54.00	-12.02	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.097	73.51	-20.12	53.39	74.00	-20.61	PK
Vertical	4739.097	59.23	-20.12	39.11	54.00	-14.89	AV
Vertical	10480.084	64.99	-9.18	55.81	68.20	-12.39	PK
Vertical	10480.084	49.58	-9.18	40.40	54.00	-13.60	AV
Vertical	15720.073	61.62	-7.78	53.84	74.00	-20.16	PK
Vertical	15720.073	49.76	-7.78	41.98	54.00	-12.02	AV
Horizontal	4739.180	71.77	-20.12	51.65	74.00	-22.35	PK
Horizontal	4739.180	59.34	-20.12	39.22	54.00	-14.78	AV
Horizontal	10480.152	61.49	-9.18	52.31	68.20	-15.89	PK
Horizontal	10480.152	49.53	-9.18	40.35	54.00	-13.65	AV
Horizontal	15720.104	63.30	-7.78	55.52	74.00	-18.48	PK
Horizontal	15720.104	49.31	-7.78	41.53	54.00	-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.

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	4434.112	73.44	-20.73	52.71	68.20	-15.49	PK
Vertical	4434.112	59.35	-20.73	38.62	54.00	-15.38	AV
Vertical	10380.111	60.65	-9.33	51.32	68.20	-16.88	PK
Vertical	10380.111	49.62	-9.33	40.29	54.00	-13.71	AV
Vertical	15570.065	63.48	-7.83	55.65	74.00	-18.35	PK
Vertical	15570.065	49.53	-7.83	41.70	54.00	-12.30	AV
Horizontal	4434.134	74.95	-20.73	54.22	74.00	-19.78	PK
Horizontal	4434.134	59.42	-20.73	38.68	54.00	-15.32	AV
Horizontal	10380.073	61.05	-9.33	51.72	68.20	-16.48	PK
Horizontal	10380.073	49.39	-9.33	40.06	54.00	-13.94	AV
Horizontal	15570.094	64.10	-7.83	56.27	74.00	-17.73	PK
Horizontal	15570.094	49.96	-7.83	42.13	54.00	-11.87	AV
Middle Channel (5230 MHz)-Above 1G							
Vertical	4739.175	72.99	-20.12	52.87	68.20	-15.33	PK
Vertical	4739.175	59.93	-20.12	39.81	54.00	-14.19	AV
Vertical	10460.002	60.92	-9.21	51.71	68.20	-16.49	PK
Vertical	10460.002	49.43	-9.21	40.22	54.00	-13.78	AV
Vertical	15690.117	63.83	-7.79	56.04	74.00	-17.96	PK
Vertical	15690.117	49.63	-7.79	41.84	54.00	-12.16	AV
Horizontal	4739.034	73.45	-20.12	53.33	68.20	-14.87	PK
Horizontal	4739.034	59.73	-20.12	39.61	54.00	-14.39	AV
Horizontal	10460.055	60.66	-9.21	51.45	68.20	-16.75	PK
Horizontal	10460.055	49.91	-9.21	40.70	54.00	-13.30	AV
Horizontal	15690.183	61.66	-7.79	53.87	74.00	-20.13	PK
Horizontal	15690.183	49.29	-7.79	41.50	54.00	-12.50	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(5.3G) - 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 (5260 MHz)-Above 1G							
Vertical	4434.104	70.87	-20.73	50.14	68.20	-18.06	PK
Vertical	4434.104	59.77	-20.73	39.04	54.00	-14.96	AV
Vertical	10520.050	60.59	-9.12	51.47	68.20	-16.73	PK
Vertical	10520.050	49.00	-9.12	39.88	54.00	-14.12	AV
Vertical	15780.192	61.19	-7.77	53.42	74.00	-20.58	PK
Vertical	15780.192	49.40	-7.77	41.63	54.00	-12.37	AV
Horizontal	4434.046	70.07	-20.73	49.34	68.20	-18.86	PK
Horizontal	4434.046	59.83	-20.73	39.10	54.00	-14.90	AV
Horizontal	10520.149	64.43	-9.12	55.31	68.20	-12.89	PK
Horizontal	10520.149	49.93	-9.12	40.81	54.00	-13.19	AV
Horizontal	15780.099	62.60	-7.77	54.83	74.00	-19.17	PK
Horizontal	15780.099	49.60	-7.77	41.83	54.00	-12.17	AV
Middle Channel (5280 MHz)-Above 1G							
Vertical	4592.150	70.43	-20.42	50.01	74.00	-23.99	PK
Vertical	4592.150	59.32	-20.42	38.91	54.00	-15.09	AV
Vertical	10560.111	60.08	-9.06	51.02	68.20	-17.18	PK
Vertical	10560.111	49.89	-9.06	40.83	54.00	-13.17	AV
Vertical	15840.075	61.21	-7.75	53.46	74.00	-20.54	PK
Vertical	15840.075	49.51	-7.75	41.76	54.00	-12.24	AV
Horizontal	4592.185	71.34	-20.42	50.93	74.00	-23.07	PK
Horizontal	4592.185	59.02	-20.42	38.61	54.00	-15.39	AV
Horizontal	10560.001	60.96	-9.06	51.90	68.20	-16.30	PK
Horizontal	10560.001	49.66	-9.06	40.60	54.00	-13.40	AV
Horizontal	15840.068	61.34	-7.75	53.59	74.00	-20.41	PK
Horizontal	15840.068	49.51	-7.75	41.76	54.00	-12.24	AV
High Channel (5320 MHz)-Above 1G							
Vertical	4739.119	72.05	-20.12	51.93	74.00	-22.07	PK
Vertical	4739.119	59.68	-20.12	39.55	54.00	-14.45	AV
Vertical	10640.191	60.69	-8.94	51.75	68.20	-16.45	PK
Vertical	10640.191	49.97	-8.94	41.03	54.00	-12.97	AV
Vertical	15960.199	62.14	-7.71	54.43	74.00	-19.57	PK
Vertical	15960.199	49.47	-7.71	41.76	54.00	-12.24	AV
Horizontal	4739.101	72.88	-20.12	52.76	74.00	-21.24	PK
Horizontal	4739.101	59.03	-20.12	38.91	54.00	-15.09	AV
Horizontal	10640.009	62.24	-8.94	53.30	68.20	-14.90	PK
Horizontal	10640.009	49.99	-8.94	41.05	54.00	-12.95	AV
Horizontal	15960.109	62.14	-7.71	54.43	74.00	-19.57	PK
Horizontal	15960.109	49.52	-7.71	41.81	54.00	-12.19	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(5.3G) - 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 (5260 MHz)-Above 1G							
Vertical	4434.125	74.10	-20.73	53.37	68.20	-14.83	PK
Vertical	4434.125	59.89	-20.73	39.16	54.00	-14.84	AV
Vertical	10520.016	60.82	-9.12	51.70	68.20	-16.50	PK
Vertical	10520.016	49.41	-9.12	40.29	54.00	-13.71	AV
Vertical	15780.053	64.76	-7.77	56.99	74.00	-17.01	PK
Vertical	15780.053	49.02	-7.77	41.25	54.00	-12.75	AV
Horizontal	4434.035	72.78	-20.73	52.05	68.20	-16.15	PK
Horizontal	4434.035	59.64	-20.73	38.90	54.00	-15.10	AV
Horizontal	10520.133	63.69	-9.12	54.57	68.20	-13.63	PK
Horizontal	10520.133	49.02	-9.12	39.90	54.00	-14.10	AV
Horizontal	15780.151	62.16	-7.77	54.39	74.00	-19.61	PK
Horizontal	15780.151	49.25	-7.77	41.48	54.00	-12.52	AV
Middle Channel (5280 MHz)-Above 1G							
Vertical	4592.117	74.95	-20.42	54.54	74.00	-19.46	PK
Vertical	4592.117	59.67	-20.42	39.25	54.00	-14.75	AV
Vertical	10560.137	63.12	-9.06	54.06	68.20	-14.14	PK
Vertical	10560.137	49.26	-9.06	40.20	54.00	-13.80	AV
Vertical	15840.171	60.26	-7.75	52.51	74.00	-21.49	PK
Vertical	15840.171	49.61	-7.75	41.86	54.00	-12.14	AV
Horizontal	4592.196	74.29	-20.42	53.88	74.00	-20.12	PK
Horizontal	4592.196	59.60	-20.42	39.18	54.00	-14.82	AV
Horizontal	10560.029	64.14	-9.06	55.08	68.20	-13.12	PK
Horizontal	10560.029	49.09	-9.06	40.03	54.00	-13.97	AV
Horizontal	15840.012	64.62	-7.75	56.87	74.00	-17.13	PK
Horizontal	15840.012	49.78	-7.75	42.03	54.00	-11.97	AV
High Channel (5320 MHz)-Above 1G							
Vertical	4739.073	74.72	-20.12	54.60	74.00	-19.40	PK
Vertical	4739.073	59.21	-20.12	39.09	54.00	-14.91	AV
Vertical	10640.170	60.03	-8.94	51.09	68.20	-17.11	PK
Vertical	10640.170	49.63	-8.94	40.69	54.00	-13.31	AV
Vertical	15960.002	63.03	-7.71	55.32	74.00	-18.68	PK
Vertical	15960.002	49.09	-7.71	41.38	54.00	-12.62	AV
Horizontal	4739.119	74.59	-20.12	54.47	74.00	-19.53	PK
Horizontal	4739.119	59.70	-20.12	39.58	54.00	-14.42	AV
Horizontal	10640.098	62.72	-8.94	53.78	68.20	-14.42	PK
Horizontal	10640.098	49.99	-8.94	41.05	54.00	-12.95	AV
Horizontal	15960.119	64.66	-7.71	56.95	74.00	-17.05	PK
Horizontal	15960.119	49.31	-7.71	41.60	54.00	-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:	TX(5.3G) - 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 (5270 MHz)-Above 1G							
Vertical	4434.031	70.13	-20.73	49.40	68.20	-18.80	PK
Vertical	4434.031	59.70	-20.73	38.96	54.00	-15.04	AV
Vertical	10540.184	63.36	-9.09	54.27	68.20	-13.93	PK
Vertical	10540.184	49.28	-9.09	40.19	54.00	-13.81	AV
Vertical	15810.092	61.97	-7.76	54.21	74.00	-19.79	PK
Vertical	15810.092	49.18	-7.76	41.42	54.00	-12.58	AV
Horizontal	4434.158	72.53	-20.73	51.80	74.00	-22.20	PK
Horizontal	4434.158	59.65	-20.73	38.92	54.00	-15.08	AV
Horizontal	10540.114	62.81	-9.09	53.72	68.20	-14.48	PK
Horizontal	10540.114	49.81	-9.09	40.72	54.00	-13.28	AV
Horizontal	15810.058	61.02	-7.76	53.26	74.00	-20.74	PK
Horizontal	15810.058	49.68	-7.76	41.92	54.00	-12.08	AV
Middle Channel (5310 MHz)-Above 1G							
Vertical	4739.051	72.56	-20.12	52.44	68.20	-15.76	PK
Vertical	4739.051	59.39	-20.12	39.26	54.00	-14.74	AV
Vertical	10620.138	63.21	-8.97	54.24	68.20	-13.96	PK
Vertical	10620.138	49.51	-8.97	40.54	54.00	-13.46	AV
Vertical	15930.051	60.20	-7.72	52.48	74.00	-21.52	PK
Vertical	15930.051	49.87	-7.72	42.15	54.00	-11.85	AV
Horizontal	4739.019	74.40	-20.12	54.28	68.20	-13.92	PK
Horizontal	4739.019	59.68	-20.12	39.56	54.00	-14.44	AV
Horizontal	10620.052	60.84	-8.97	51.87	68.20	-16.33	PK
Horizontal	10620.052	49.81	-8.97	40.84	54.00	-13.16	AV
Horizontal	15930.033	64.44	-7.72	56.72	74.00	-17.28	PK
Horizontal	15930.033	49.39	-7.72	41.67	54.00	-12.33	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(5.6G) - 802.11a
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Polar	Fre- quency	Reading Level	Correct Factor	Measure- ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5500 MHz)-Above 1G							
Vertical	4434.046	73.75	-20.73	53.01	68.20	-15.19	PK
Vertical	4434.046	59.61	-20.73	38.87	54.00	-15.13	AV
Vertical	11000.168	60.03	-8.40	51.63	68.20	-16.57	PK
Vertical	11000.168	49.54	-8.40	41.14	54.00	-12.86	AV
Vertical	16500.075	63.24	-6.09	57.15	74.00	-16.85	PK
Vertical	16500.075	49.17	-6.09	43.08	54.00	-10.92	AV
Horizontal	4434.097	70.12	-20.73	49.39	68.20	-18.81	PK
Horizontal	4434.097	59.57	-20.73	38.83	54.00	-15.17	AV
Horizontal	11000.019	64.88	-8.40	56.48	68.20	-11.72	PK
Horizontal	11000.019	49.87	-8.40	41.47	54.00	-12.53	AV
Horizontal	16500.183	61.88	-6.09	55.79	74.00	-18.21	PK
Horizontal	16500.183	49.54	-6.09	43.45	54.00	-10.55	AV
middle Channel (5580 MHz)-Above 1G							
Vertical	4592.089	73.22	-20.42	52.81	74.00	-21.19	PK
Vertical	4592.089	59.14	-20.42	38.72	54.00	-15.28	AV
Vertical	11160.186	63.83	-8.53	55.30	68.20	-12.90	PK
Vertical	11160.186	49.39	-8.53	40.86	54.00	-13.14	AV
Vertical	16740.024	63.69	-5.31	58.38	74.00	-15.62	PK
Vertical	16740.024	49.96	-5.31	44.65	54.00	-9.35	AV
Horizontal	4592.073	72.68	-20.42	52.26	74.00	-21.74	PK
Horizontal	4592.073	59.70	-20.42	39.28	54.00	-14.72	AV
Horizontal	11160.138	61.38	-8.53	52.85	68.20	-15.35	PK
Horizontal	11160.138	49.12	-8.53	40.59	54.00	-13.41	AV
Horizontal	16740.056	63.56	-5.31	58.25	74.00	-15.75	PK
Horizontal	16740.056	49.10	-5.31	43.79	54.00	-10.21	AV
High Channel (5700 MHz)-Above 1G							
Vertical	4739.100	74.82	-20.12	54.70	74.00	-19.30	PK
Vertical	4739.100	59.17	-20.12	39.05	54.00	-14.95	AV
Vertical	11400.127	63.37	-8.72	54.65	68.20	-13.55	PK
Vertical	11400.127	49.86	-8.72	41.14	54.00	-12.86	AV
Vertical	17100.107	60.69	-3.92	56.77	74.00	-17.23	PK
Vertical	17100.107	49.64	-3.92	45.72	54.00	-8.28	AV
Horizontal	4739.054	70.36	-20.12	50.24	74.00	-23.76	PK
Horizontal	4739.054	59.62	-20.12	39.50	54.00	-14.50	AV
Horizontal	11400.114	63.02	-8.72	54.30	68.20	-13.90	PK
Horizontal	11400.114	49.70	-8.72	40.98	54.00	-13.02	AV
Horizontal	17100.138	64.40	-3.92	60.48	74.00	-13.52	PK
Horizontal	17100.138	49.91	-3.92	45.99	54.00	-8.01	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(5.6G) - 802.11n-HT20
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Polar	Fre- quency	Reading Level	Correct Factor	Measure- ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5500 MHz)-Above 1G							
Vertical	4434.068	74.48	-20.73	53.75	68.20	-14.45	PK
Vertical	4434.068	59.45	-20.73	38.71	54.00	-15.29	AV
Vertical	11000.053	62.24	-8.40	53.84	68.20	-14.36	PK
Vertical	11000.053	49.94	-8.40	41.54	54.00	-12.46	AV
Vertical	16500.041	63.70	-6.09	57.61	74.00	-16.39	PK
Vertical	16500.041	49.59	-6.09	43.50	54.00	-10.50	AV
Horizontal	4434.181	70.70	-20.73	49.97	68.20	-18.23	PK
Horizontal	4434.181	59.99	-20.73	39.26	54.00	-14.74	AV
Horizontal	11000.160	63.75	-8.40	55.35	68.20	-12.85	PK
Horizontal	11000.160	49.86	-8.40	41.46	54.00	-12.54	AV
Horizontal	16500.196	64.68	-6.09	58.59	74.00	-15.41	PK
Horizontal	16500.196	49.68	-6.09	43.59	54.00	-10.41	AV
middle Channel (5580 MHz)-Above 1G							
Vertical	4592.17	73.79	-20.42	53.38	74.00	-20.62	PK
Vertical	4592.17	59.46	-20.42	39.04	54.00	-14.96	AV
Vertical	11160.19	63.80	-8.53	55.27	68.20	-12.93	PK
Vertical	11160.19	49.10	-8.53	40.57	54.00	-13.43	AV
Vertical	16740.06	63.16	-5.31	57.85	74.00	-16.15	PK
Vertical	16740.06	49.92	-5.31	44.61	54.00	-9.39	AV
Horizontal	4592.09	71.01	-20.42	50.59	74.00	-23.41	PK
Horizontal	4592.09	59.20	-20.42	38.79	54.00	-15.21	AV
Horizontal	11160.06	64.47	-8.53	55.94	68.20	-12.26	PK
Horizontal	11160.06	49.15	-8.53	40.62	54.00	-13.38	AV
Horizontal	16740.12	61.86	-5.31	56.55	74.00	-17.45	PK
Horizontal	16740.12	49.23	-5.31	43.92	54.00	-10.08	AV
High Channel (5700 MHz)-Above 1G							
Vertical	4739.137	72.09	-20.12	51.97	74.00	-22.03	PK
Vertical	4739.137	59.23	-20.12	39.11	54.00	-14.89	AV
Vertical	11400.172	64.29	-8.72	55.57	68.20	-12.63	PK
Vertical	11400.172	49.72	-8.72	41.00	54.00	-13.00	AV
Vertical	17100.052	64.93	-3.92	61.01	74.00	-12.99	PK
Vertical	17100.052	49.41	-3.92	45.49	54.00	-8.51	AV
Horizontal	4739.077	70.74	-20.12	50.62	74.00	-23.38	PK
Horizontal	4739.077	59.65	-20.12	39.53	54.00	-14.47	AV
Horizontal	11400.091	63.98	-8.72	55.26	68.20	-12.94	PK
Horizontal	11400.091	49.81	-8.72	41.09	54.00	-12.91	AV
Horizontal	17100.104	64.74	-3.92	60.82	74.00	-13.18	PK
Horizontal	17100.104	49.01	-3.92	45.09	54.00	-8.91	AV

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

Test Mode:	TX(5.6G) - 802.11n-HT40
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Polar	Fre- quency	Reading Level	Correct Factor	Measure- ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5510 MHz)-Above 1G							
Vertical	4434.179	73.53	-20.73	52.80	68.20	-15.40	PK
Vertical	4434.179	63.29	-20.73	42.56	54.00	-11.44	AV
Vertical	11020.019	60.31	-8.42	51.89	68.20	-16.31	PK
Vertical	11020.019	43.71	-8.42	35.29	54.00	-18.71	AV
Vertical	16530.018	64.20	-5.99	58.21	74.00	-15.79	PK
Vertical	16530.018	43.13	-5.99	37.14	54.00	-16.86	AV
Horizontal	4434.199	72.56	-20.73	51.83	74.00	-22.17	PK
Horizontal	4434.199	63.65	-20.73	42.92	54.00	-11.08	AV
Horizontal	11020.147	51.96	-8.42	43.54	68.20	-24.66	PK
Horizontal	11020.147	44.70	-8.42	36.28	54.00	-17.72	AV
Horizontal	16530.149	63.29	-5.99	57.30	74.00	-16.70	PK
Horizontal	16530.149	43.87	-5.99	37.88	54.00	-16.12	AV
middle Channel (5550 MHz)-Above 1G							
Vertical	4592.099	74.47	-20.42	54.05	74.00	-19.95	PK
Vertical	4592.099	63.17	-20.42	42.75	54.00	-11.25	AV
Vertical	11100.087	60.80	-8.40	52.40	68.20	-15.80	PK
Vertical	11100.087	43.64	-8.40	35.24	54.00	-18.76	AV
Vertical	16650.096	61.89	-5.60	56.29	74.00	-17.71	PK
Vertical	16650.096	43.22	-5.60	37.62	54.00	-16.38	AV
Horizontal	4592.013	72.48	-20.42	52.07	74.00	-21.93	PK
Horizontal	4592.013	63.45	-20.42	43.04	54.00	-10.96	AV
Horizontal	11100.127	54.69	-8.40	46.29	68.20	-21.91	PK
Horizontal	11100.127	42.86	-8.40	34.46	54.00	-19.54	AV
Horizontal	16650.038	64.57	-5.60	58.97	74.00	-15.03	PK
Horizontal	16650.038	40.70	-5.60	35.10	54.00	-18.90	AV
High Channel (5670 MHz)-Above 1G							
Vertical	4739.177	73.25	-20.12	53.12	68.20	-15.08	PK
Vertical	4739.177	63.30	-20.12	43.18	54.00	-10.82	AV
Vertical	11340.013	61.78	-8.67	53.11	68.20	-15.09	PK
Vertical	11340.013	43.74	-8.67	35.07	54.00	-18.93	AV
Vertical	17010.101	60.37	-4.41	55.96	74.00	-18.04	PK
Vertical	17010.101	43.79	-4.41	39.38	54.00	-14.62	AV
Horizontal	4739.054	72.38	-20.12	52.26	68.20	-15.94	PK
Horizontal	4739.054	63.57	-20.12	43.45	54.00	-10.55	AV
Horizontal	11340.138	50.15	-8.67	41.48	68.20	-26.72	PK
Horizontal	11340.138	43.24	-8.67	34.57	54.00	-19.43	AV
Horizontal	17010.070	60.50	-4.41	56.09	74.00	-17.91	PK
Horizontal	17010.070	43.08	-4.41	38.67	54.00	-15.33	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) -- 802.11a
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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	4679.065	74.38	-20.24	54.14	74.00	-19.86	PK
Vertical	4679.065	59.47	-20.24	39.23	54.00	-14.77	AV
Vertical	11490.163	61.14	-8.79	52.35	68.20	-15.85	PK
Vertical	11490.163	49.15	-8.79	40.36	54.00	-13.64	AV
Vertical	17235.103	56.56	-3.18	53.38	68.20	-14.82	PK
Vertical	17235.103	44.99	-3.18	41.81	54.00	-12.19	AV
Horizontal	4679.092	70.53	-20.73	49.80	74.00	-24.20	PK
Horizontal	4679.092	59.10	-20.73	38.37	54.00	-15.63	AV
Horizontal	11490.069	62.19	-8.79	53.40	68.20	-14.80	PK
Horizontal	11490.069	49.69	-8.79	40.90	54.00	-13.10	AV
Horizontal	17235.013	56.21	-3.18	53.03	68.20	-15.17	PK
Horizontal	17235.013	44.43	-3.18	41.25	54.00	-12.75	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.177	70.04	-20.42	49.63	74.00	-24.37	PK
Vertical	4592.177	59.14	-20.42	38.73	54.00	-15.27	AV
Vertical	11570.109	62.00	-8.86	53.14	68.20	-15.06	PK
Vertical	11570.109	49.40	-8.86	40.54	54.00	-13.46	AV
Vertical	17355.038	59.83	-2.52	57.31	68.20	-10.89	PK
Vertical	17355.038	44.29	-2.52	41.77	54.00	-12.23	AV
Horizontal	4592.062	73.75	-20.42	53.34	74.00	-20.66	PK
Horizontal	4592.062	59.56	-20.42	39.14	54.00	-14.86	AV
Horizontal	11570.014	60.58	-8.86	51.72	68.20	-16.48	PK
Horizontal	11570.014	49.32	-8.86	40.46	54.00	-13.54	AV
Horizontal	17355.177	58.34	-2.52	55.82	68.20	-12.38	PK
Horizontal	17355.177	44.05	-2.52	41.53	54.00	-12.47	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.033	70.93	-18.93	51.99	68.20	-16.21	PK
Vertical	6039.033	59.39	-18.93	40.46	54.00	-13.54	AV
Vertical	11650.166	60.07	-8.92	51.15	74.00	-22.85	PK
Vertical	11650.166	49.82	-8.92	40.90	54.00	-13.10	AV
Vertical	17475.102	58.47	-1.86	56.61	68.20	-11.59	PK
Vertical	17475.102	44.07	-1.86	42.21	54.00	-11.79	AV
Horizontal	6039.023	74.29	-18.93	55.36	68.20	-12.84	PK
Horizontal	6039.023	59.51	-18.93	40.57	54.00	-13.43	AV
Horizontal	11650.197	60.77	-8.92	51.85	74.00	-22.15	PK
Horizontal	11650.197	49.76	-8.92	40.84	54.00	-13.16	AV
Horizontal	17475.139	58.12	-1.86	56.26	68.20	-11.94	PK
Horizontal	17475.139	44.34	-1.86	42.48	54.00	-11.52	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	4679.108	74.00	-20.24	53.76	74.00	-20.24	PK
Vertical	4679.108	59.46	-20.24	39.22	54.00	-14.78	AV
Vertical	11490.116	62.35	-8.79	53.56	68.20	-14.64	PK
Vertical	11490.116	49.47	-8.79	40.68	54.00	-13.32	AV
Vertical	17235.088	58.95	-3.18	55.77	68.20	-12.43	PK
Vertical	17235.088	44.32	-3.18	41.14	54.00	-12.86	AV
Horizontal	4679.004	74.50	-20.24	54.25	74.00	-19.75	PK
Horizontal	4679.004	59.62	-20.24	39.37	54.00	-14.63	AV
Horizontal	11490.171	64.72	-8.79	55.93	68.20	-12.27	PK
Horizontal	11490.171	49.46	-8.79	40.67	54.00	-13.33	AV
Horizontal	17235.134	58.14	-3.18	54.96	68.20	-13.24	PK
Horizontal	17235.134	44.28	-3.18	41.10	54.00	-12.90	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.036	72.06	-20.42	51.64	74.00	-22.36	PK
Vertical	4592.036	59.13	-20.42	38.72	54.00	-15.28	AV
Vertical	11570.033	60.83	-8.86	51.97	68.20	-16.23	PK
Vertical	11570.033	49.13	-8.86	40.27	54.00	-13.73	AV
Vertical	17355.063	56.09	-2.52	53.57	68.20	-14.63	PK
Vertical	17355.063	44.20	-2.52	41.68	54.00	-12.32	AV
Horizontal	4592.027	72.03	-20.42	51.61	74.00	-22.39	PK
Horizontal	4592.027	59.28	-20.42	38.87	54.00	-15.13	AV
Horizontal	11570.171	63.01	-8.86	54.15	68.20	-14.05	PK
Horizontal	11570.171	49.89	-8.86	41.03	54.00	-12.97	AV
Horizontal	17355.085	58.88	-2.52	56.36	68.20	-11.84	PK
Horizontal	17355.085	44.68	-2.52	42.16	54.00	-11.84	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.174	70.45	-18.93	51.52	68.20	-16.68	PK
Vertical	6039.174	59.24	-18.93	40.31	54.00	-13.69	AV
Vertical	11650.017	63.21	-8.92	54.29	74.00	-19.71	PK
Vertical	11650.017	49.75	-8.92	40.83	54.00	-13.17	AV
Vertical	17475.107	57.10	-1.86	55.24	68.20	-12.96	PK
Vertical	17475.107	44.97	-1.86	43.11	54.00	-10.89	AV
Horizontal	6039.183	71.65	-18.93	52.72	68.20	-15.48	PK
Horizontal	6039.183	59.51	-18.93	40.58	54.00	-13.42	AV
Horizontal	11650.022	64.19	-8.92	55.27	74.00	-18.73	PK
Horizontal	11650.022	49.55	-8.92	40.63	54.00	-13.37	AV
Horizontal	17475.104	56.59	-1.86	54.73	68.20	-13.47	PK
Horizontal	17475.104	44.85	-1.86	42.99	54.00	-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) -- 802.11n-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 (5755 MHz)-Above 1G							
Vertical	4679.138	72.57	-20.24	52.33	74.00	-21.67	PK
Vertical	4679.138	59.36	-20.24	39.12	54.00	-14.88	AV
Vertical	11510.048	60.24	-8.81	51.43	74.00	-22.57	PK
Vertical	11510.048	49.15	-8.81	40.34	54.00	-13.66	AV
Vertical	17265.148	57.10	-3.01	54.09	68.20	-14.11	PK
Vertical	17265.148	44.58	-3.01	41.57	54.00	-12.43	AV
Horizontal	4679.158	74.75	-20.24	54.51	74.00	-19.49	PK
Horizontal	4679.158	59.40	-20.24	39.16	54.00	-14.84	AV
Horizontal	11510.156	60.24	-8.81	51.43	74.00	-22.57	PK
Horizontal	11510.156	49.04	-8.81	40.23	54.00	-13.77	AV
Horizontal	17265.160	59.43	-3.01	56.42	68.20	-11.78	PK
Horizontal	17265.160	44.61	-3.01	41.60	54.00	-12.40	AV
Middle Channel (5795 MHz)-Above 1G							
Vertical	6039.164	73.11	-18.93	54.18	68.20	-14.02	PK
Vertical	6039.164	59.41	-18.93	40.48	54.00	-13.52	AV
Vertical	11590.122	64.11	-8.87	55.24	74.00	-18.76	PK
Vertical	11590.122	49.76	-8.87	40.89	54.00	-13.11	AV
Vertical	17385.019	59.30	-2.35	56.95	68.20	-11.25	PK
Vertical	17385.019	44.60	-2.35	42.25	54.00	-11.75	AV
Horizontal	6039.073	71.00	-18.93	52.07	68.20	-16.13	PK
Horizontal	6039.073	59.76	-18.93	40.82	54.00	-13.18	AV
Horizontal	11590.017	63.42	-8.87	54.55	74.00	-19.45	PK
Horizontal	11590.017	49.16	-8.87	40.29	54.00	-13.71	AV
Horizontal	17385.117	58.44	-2.35	56.09	68.20	-12.11	PK
Horizontal	17385.117	44.27	-2.35	41.92	54.00	-12.08	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

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands

(b) (2) The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, 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.

(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 3.3V
Test Mode:	(U-NII-1) 5180MHz-5240MHz, (U-NII-2A) 5260MHz-5320MHz (U-NII-2C) 5500MHz-5700MHz, (U-NII-3) 5745MHz-5825MHz		

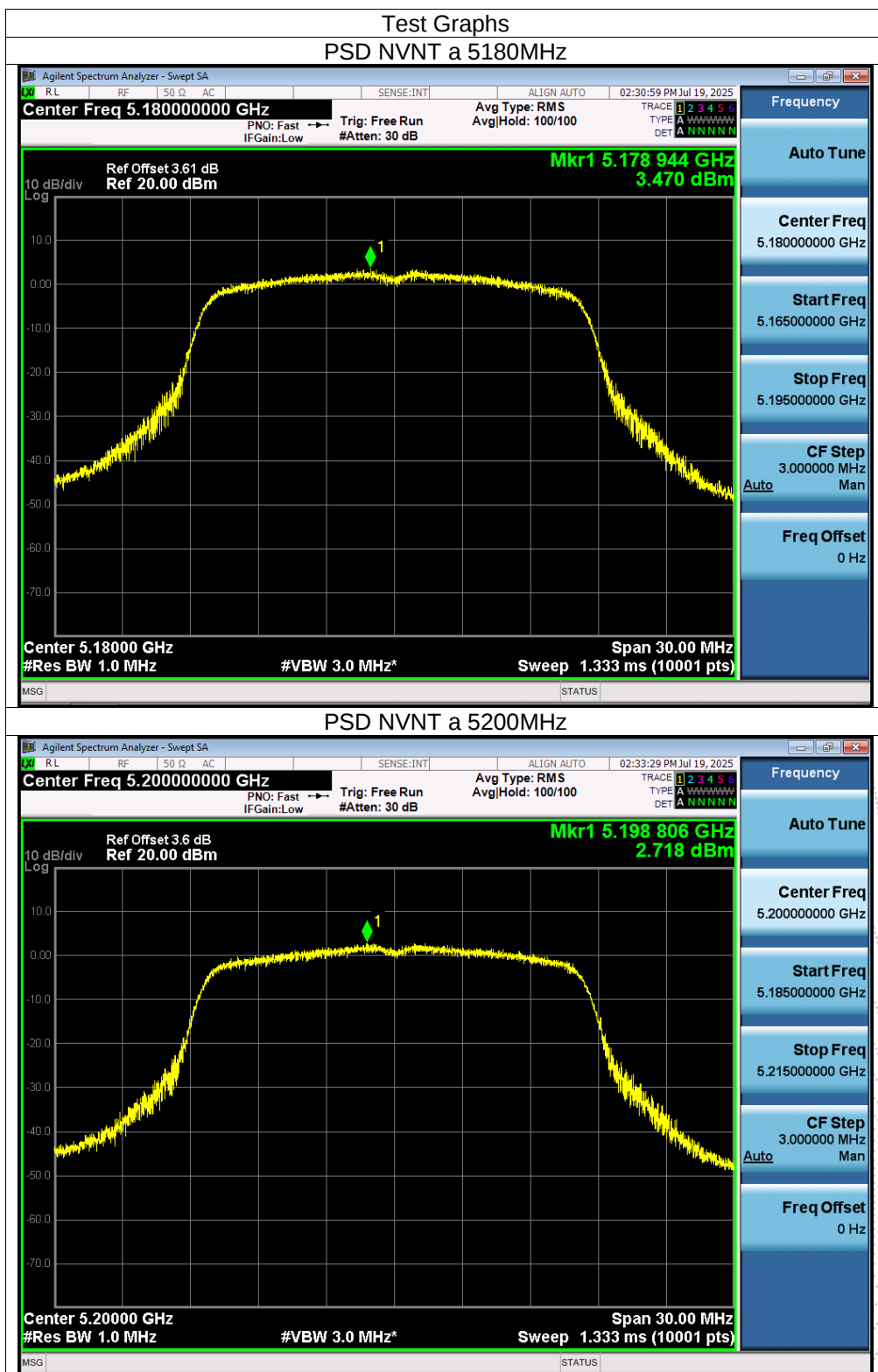
Condition	Mode	Frequency (MHz)	Conducted PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	3.47	11	Pass
NVNT	a	5200	2.72	11	Pass
NVNT	a	5240	1.5	11	Pass
NVNT	n20	5180	1.72	11	Pass
NVNT	n20	5200	0.89	11	Pass
NVNT	n20	5240	0.69	11	Pass
NVNT	n40	5190	-2.56	11	Pass
NVNT	n40	5230	-3.64	11	Pass

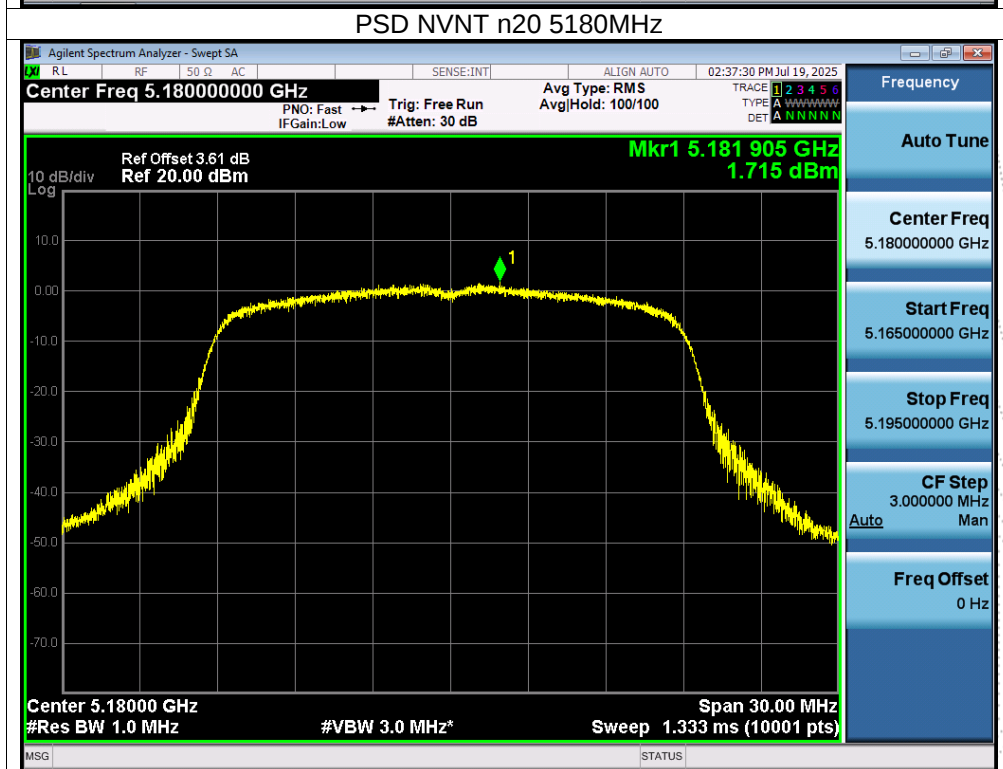
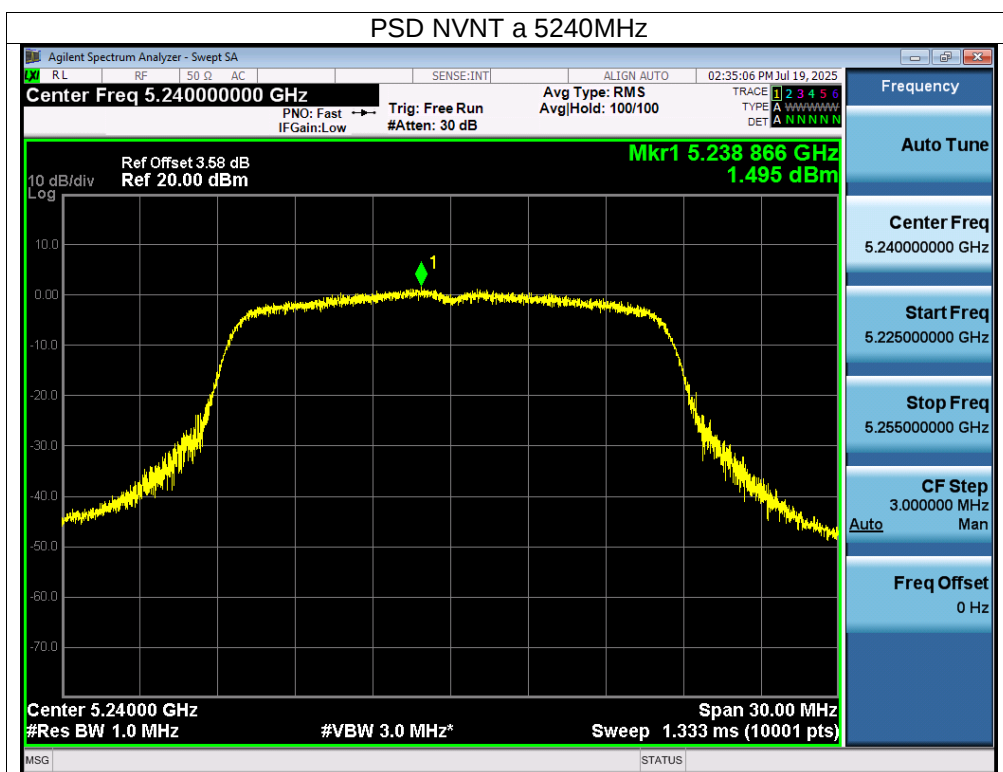
Condition	Mode	Frequency (MHz)	Conducted PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5260	1.3	11	Pass
NVNT	a	5280	2.09	11	Pass
NVNT	a	5320	3.07	11	Pass
NVNT	n20	5260	0.11	11	Pass
NVNT	n20	5280	0.96	11	Pass
NVNT	n20	5320	1.69	11	Pass
NVNT	n40	5270	-3.47	11	Pass
NVNT	n40	5310	-2.13	11	Pass

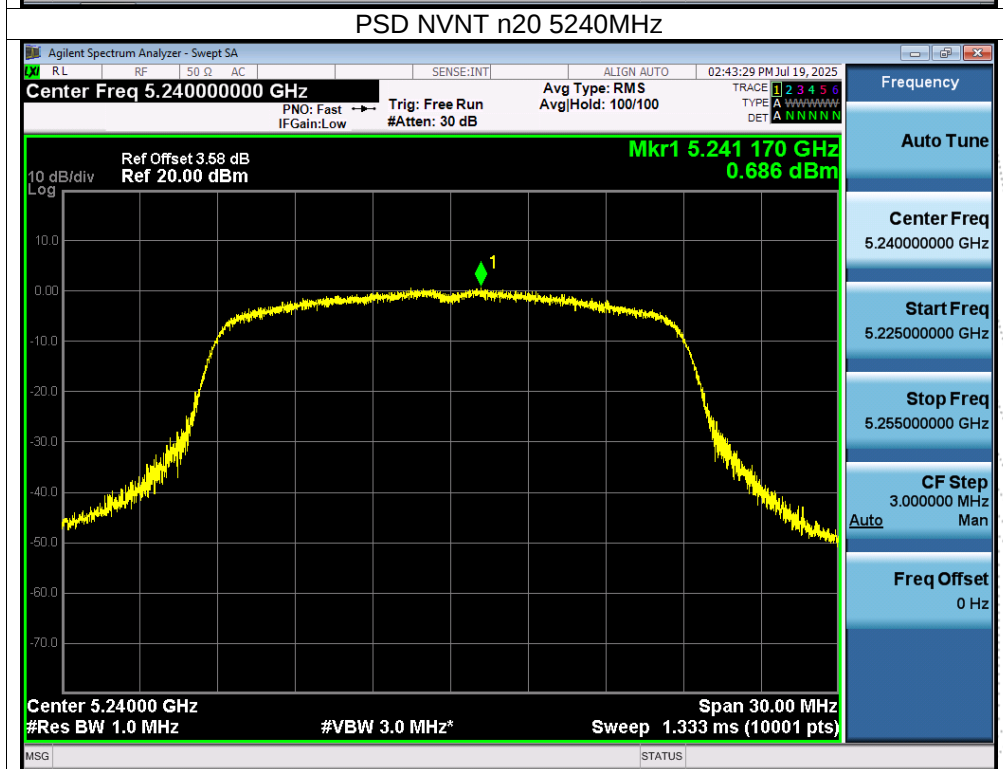
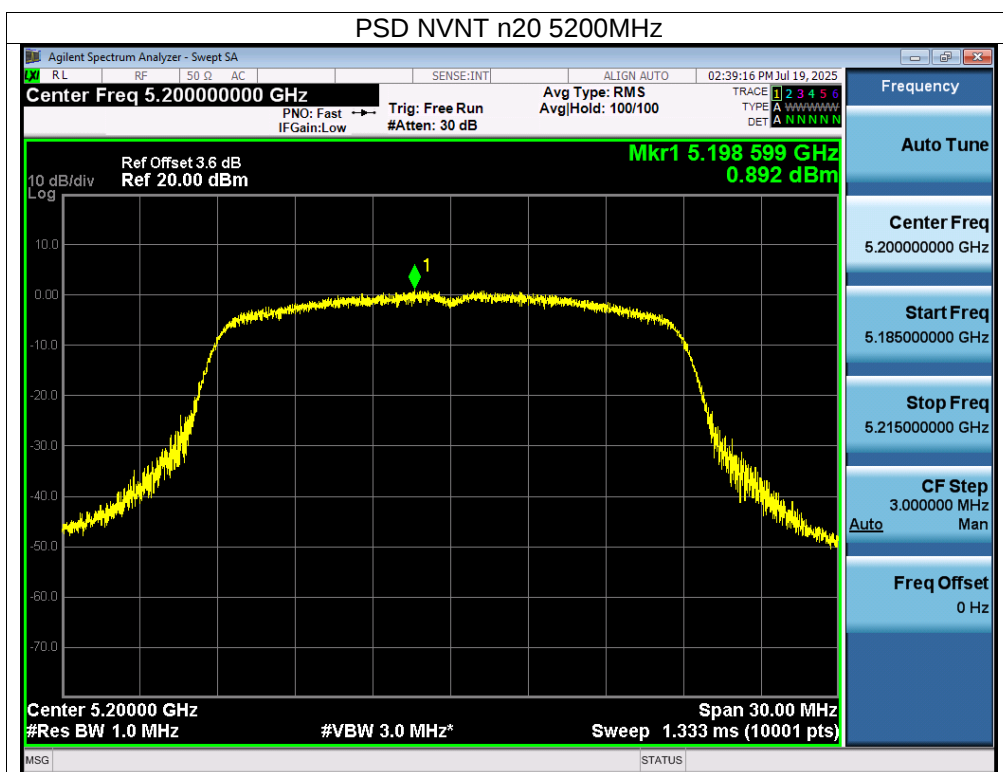
Condition	Mode	Frequency (MHz)	Conducted PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5500	-0.75	11	Pass
NVNT	a	5580	-0.66	11	Pass
NVNT	a	5700	2.97	11	Pass
NVNT	n20	5500	-2.33	11	Pass
NVNT	n20	5580	-2.22	11	Pass
NVNT	n20	5700	1.46	11	Pass
NVNT	n40	5510	-6.14	11	Pass
NVNT	n40	5550	-6.11	11	Pass
NVNT	n40	5670	-2.62	11	Pass

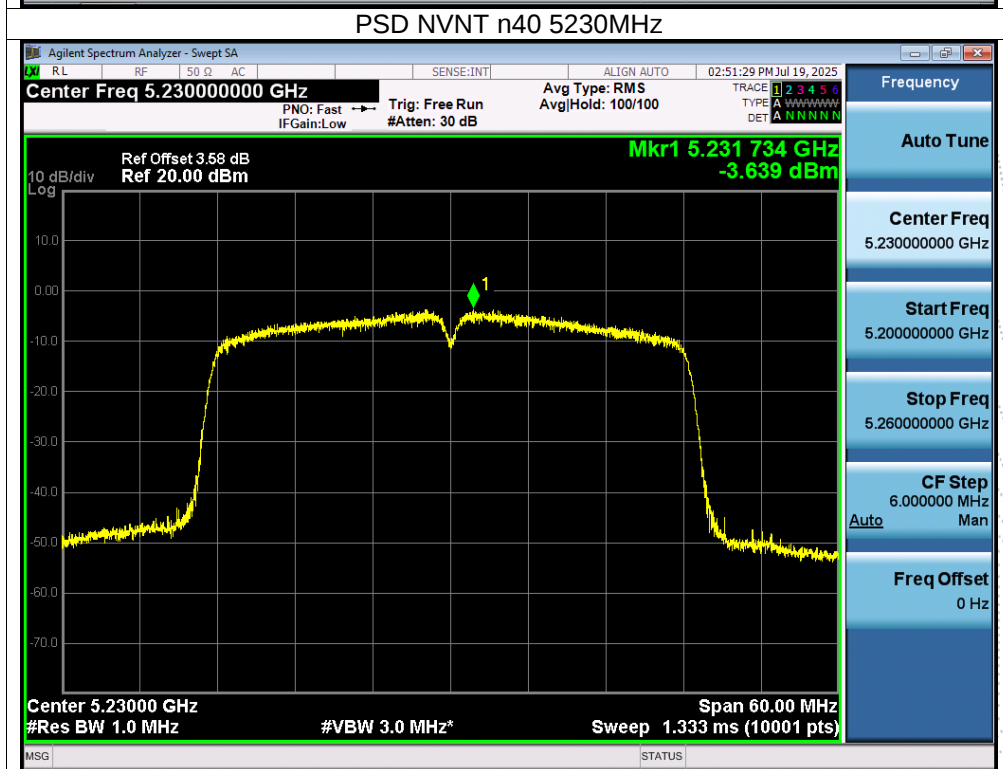
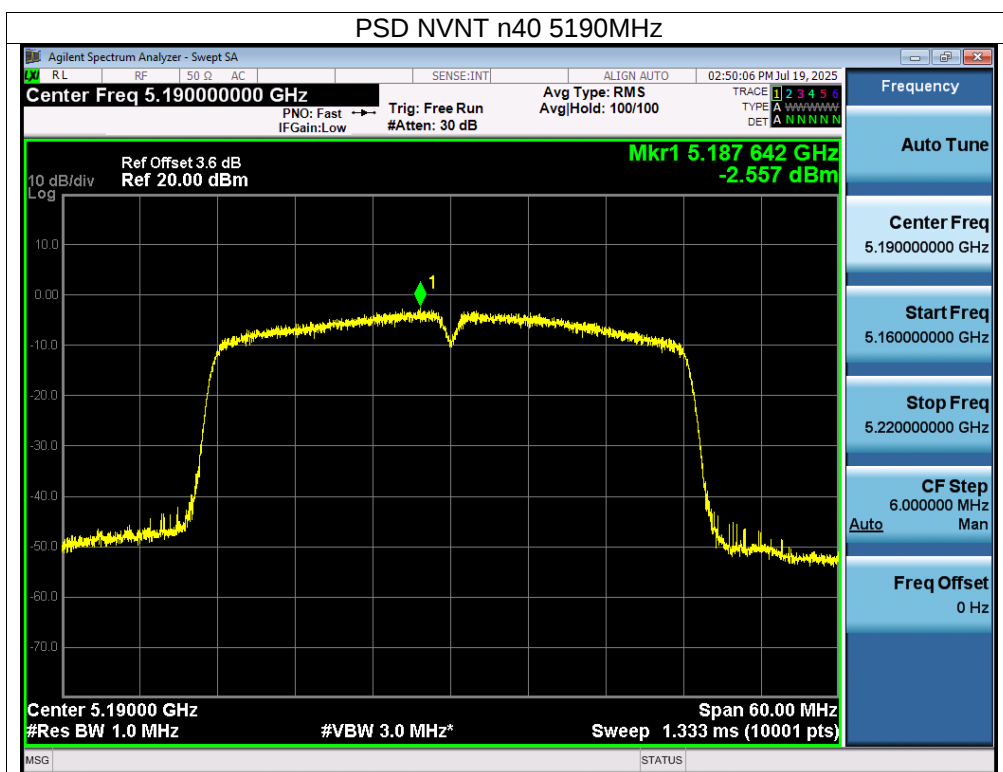
Condition	Mode	Frequency (MHz)	Conducted PSD (dBm/510K Hz)	Conducted PSD (dBm/500K Hz)	Limit (dBm/500K Hz)	Verdict
NVNT	a	5745	-5.36	-5.446	30	Pass
NVNT	a	5785	-6.19	-6.276	30	Pass
NVNT	a	5825	-6.63	-6.716	30	Pass
NVNT	n20	5745	-7.31	-7.396	30	Pass
NVNT	n20	5785	-8.18	-8.266	30	Pass
NVNT	n20	5825	-8.83	-8.916	30	Pass
NVNT	n40	5755	-11.28	-11.366	30	Pass
NVNT	n40	5795	-11.79	-11.876	30	Pass

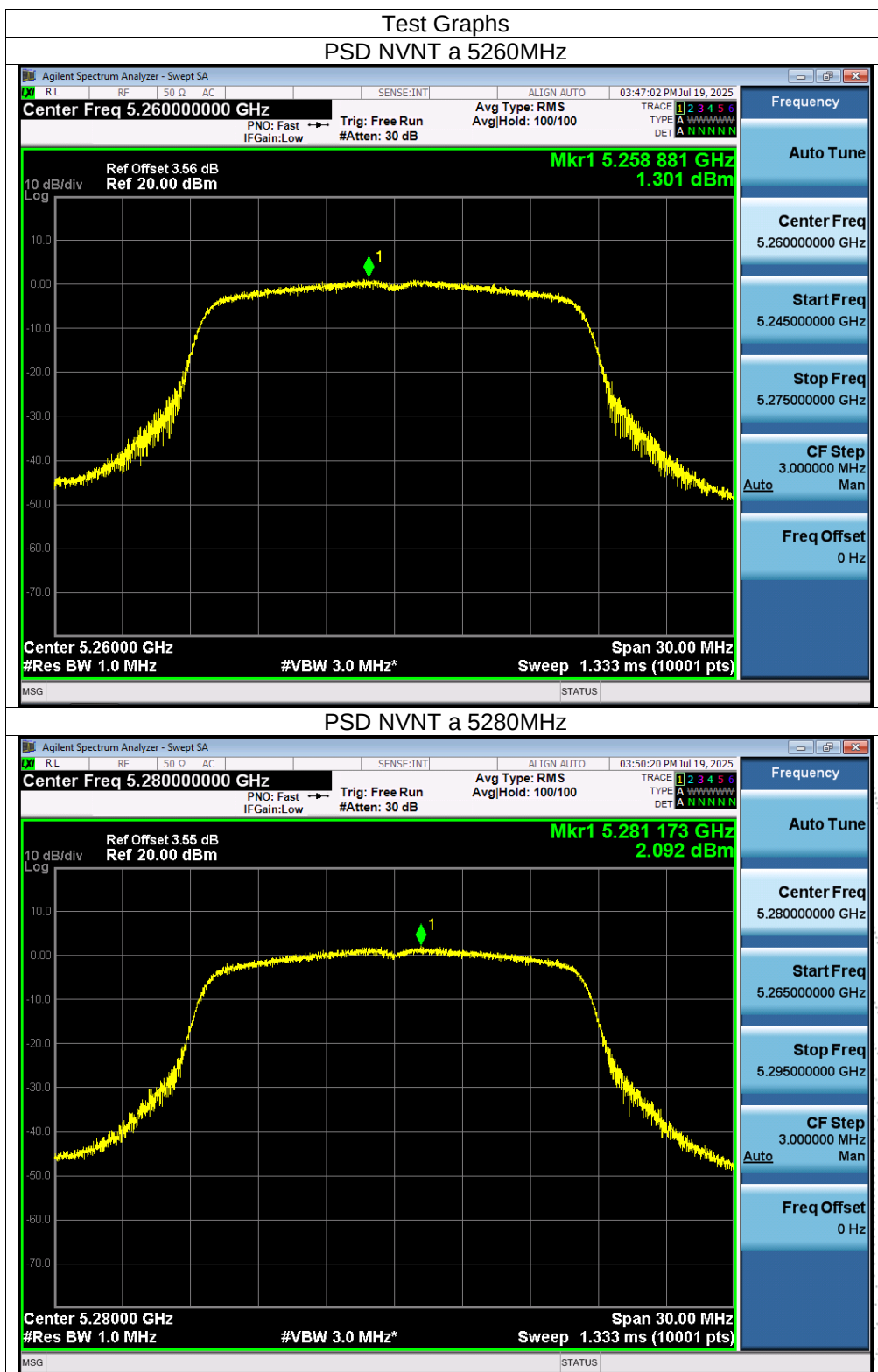
Note: Correction Factor = $10\log(500\text{KHz}/\text{RBW in measurement}) = -0.086$

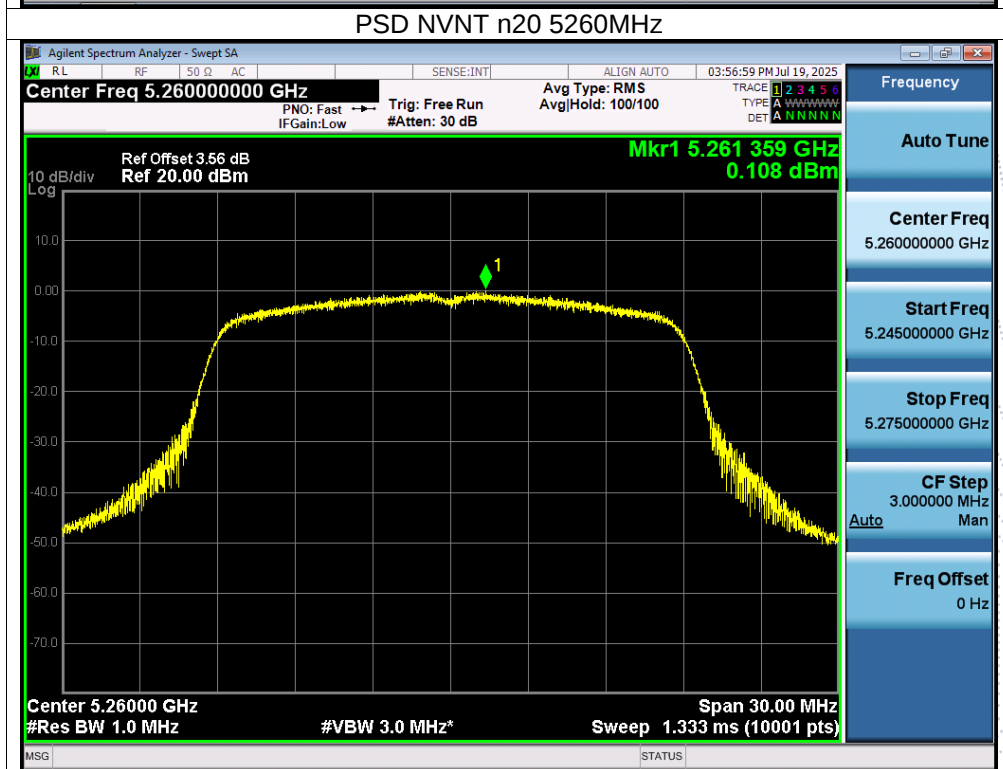
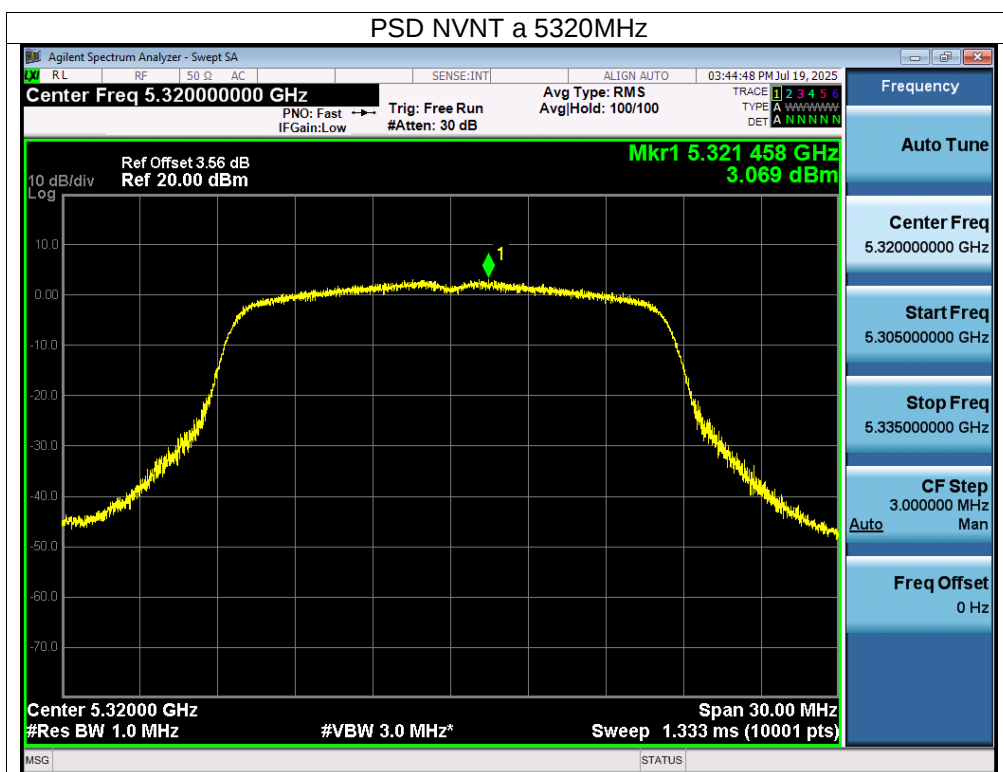


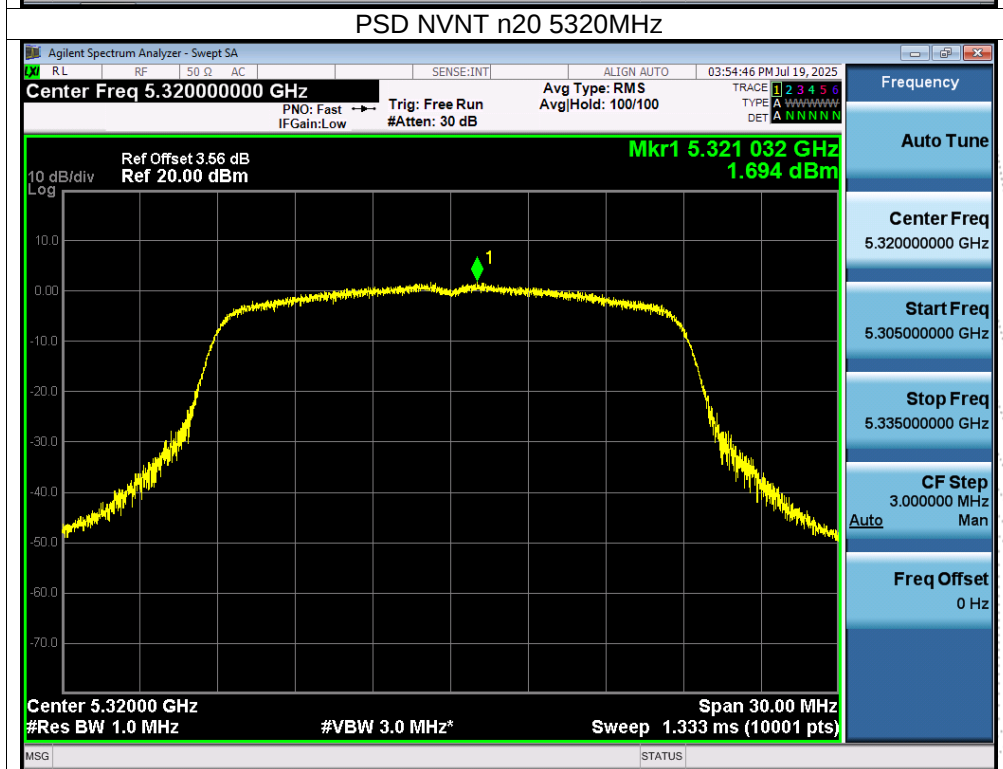
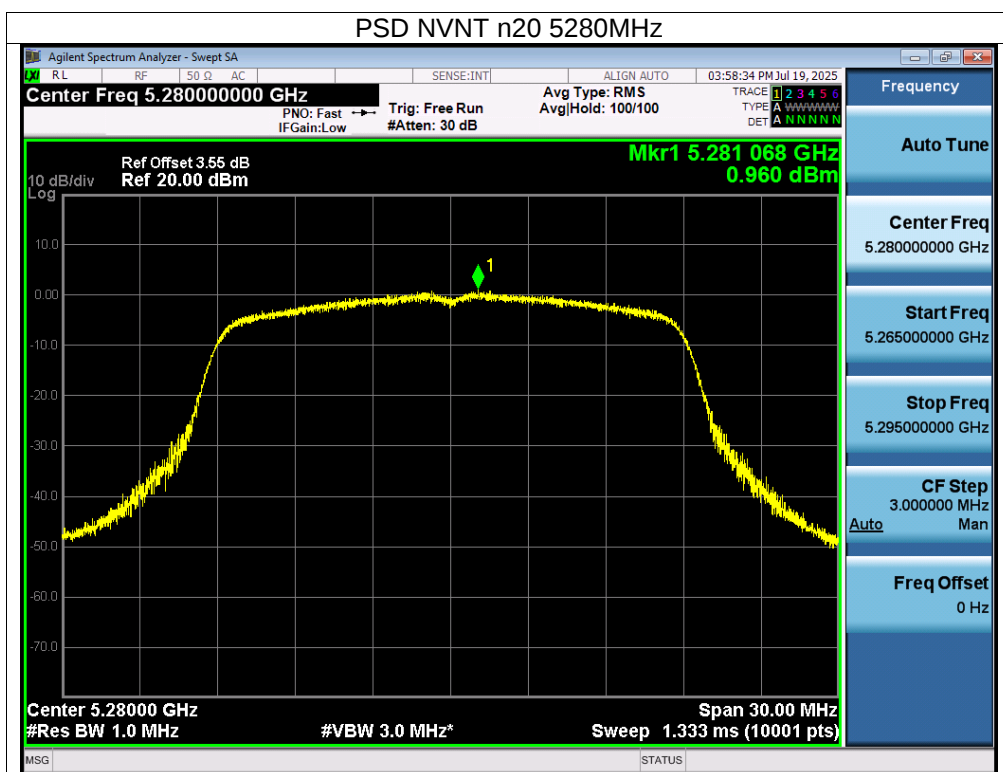


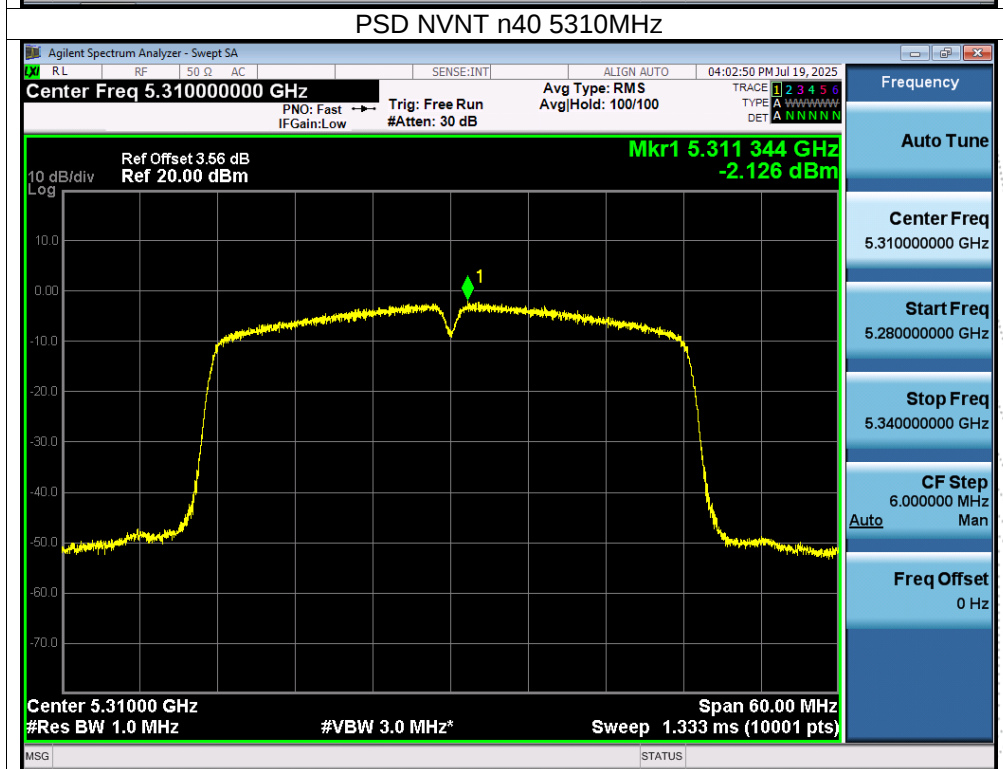
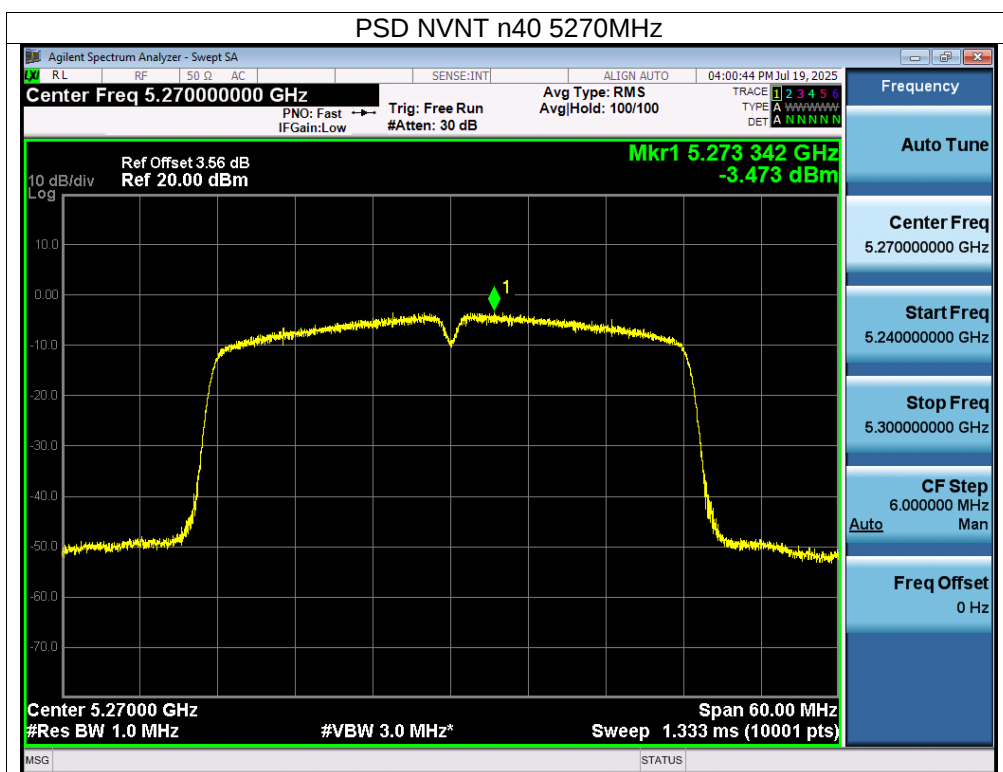


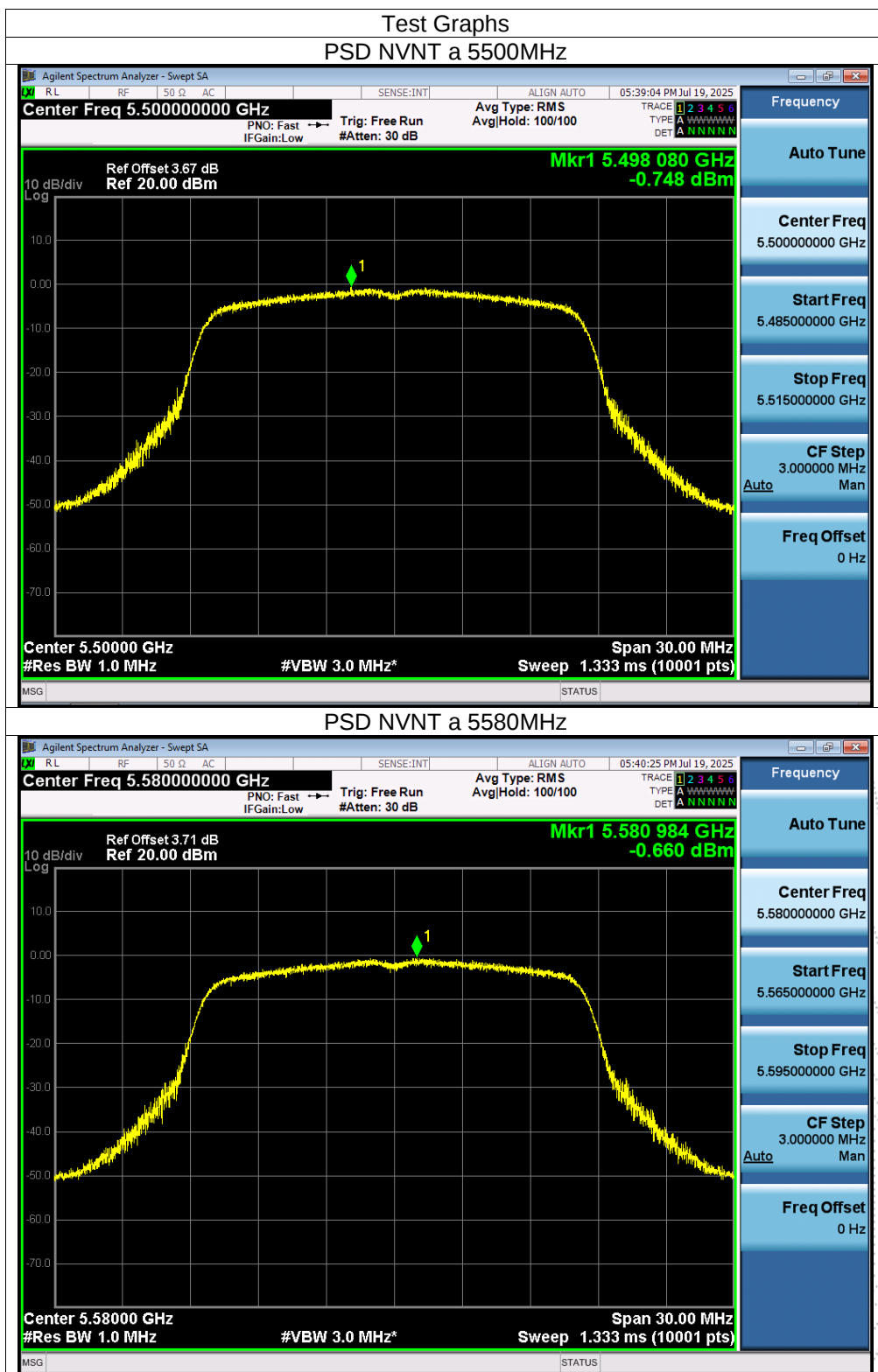


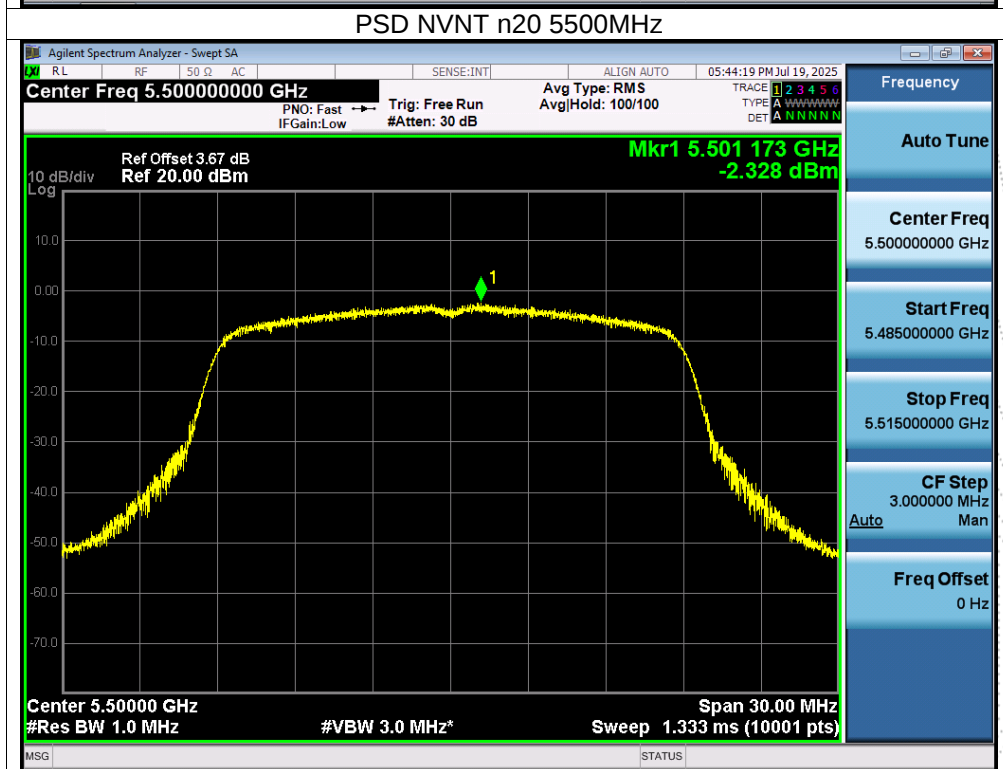
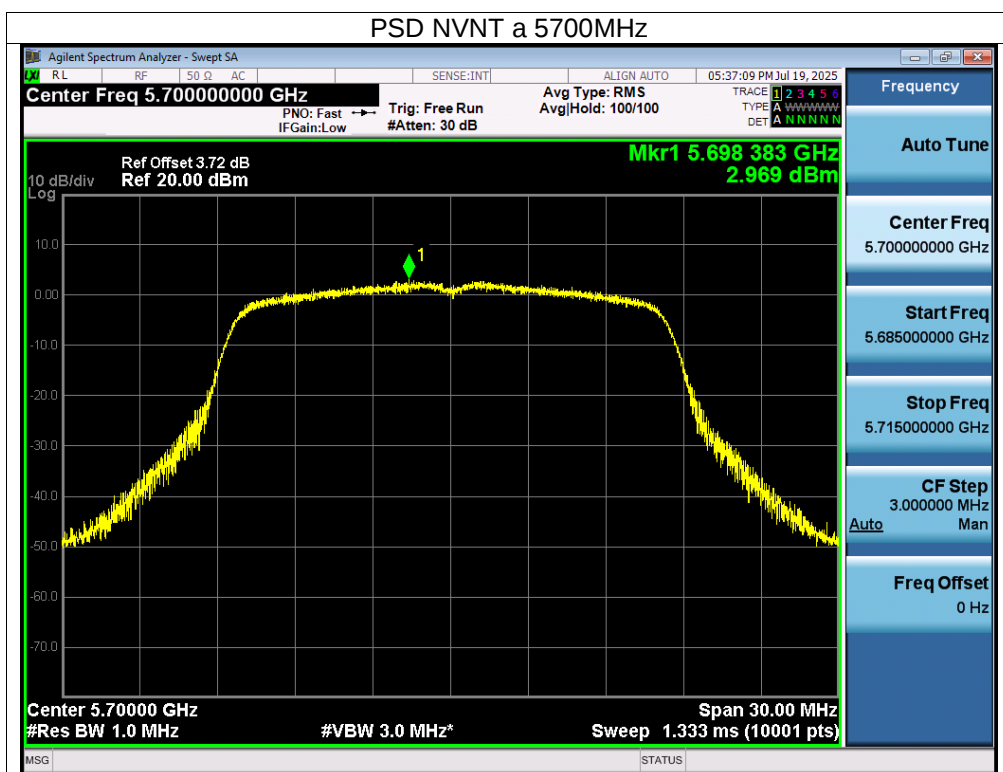


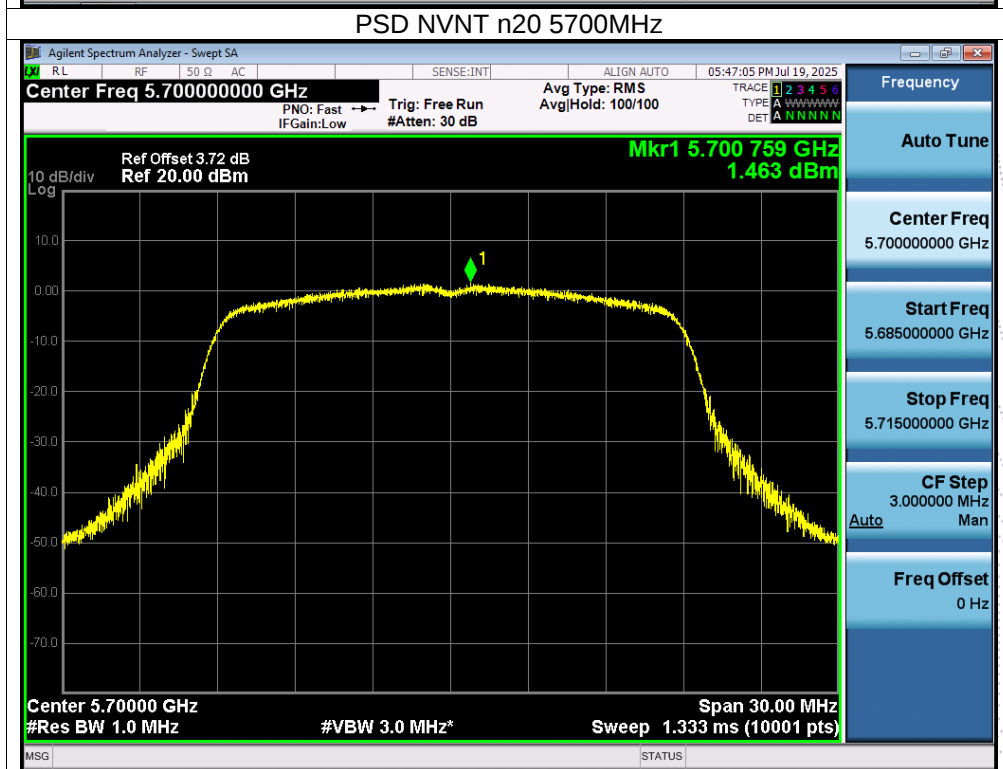
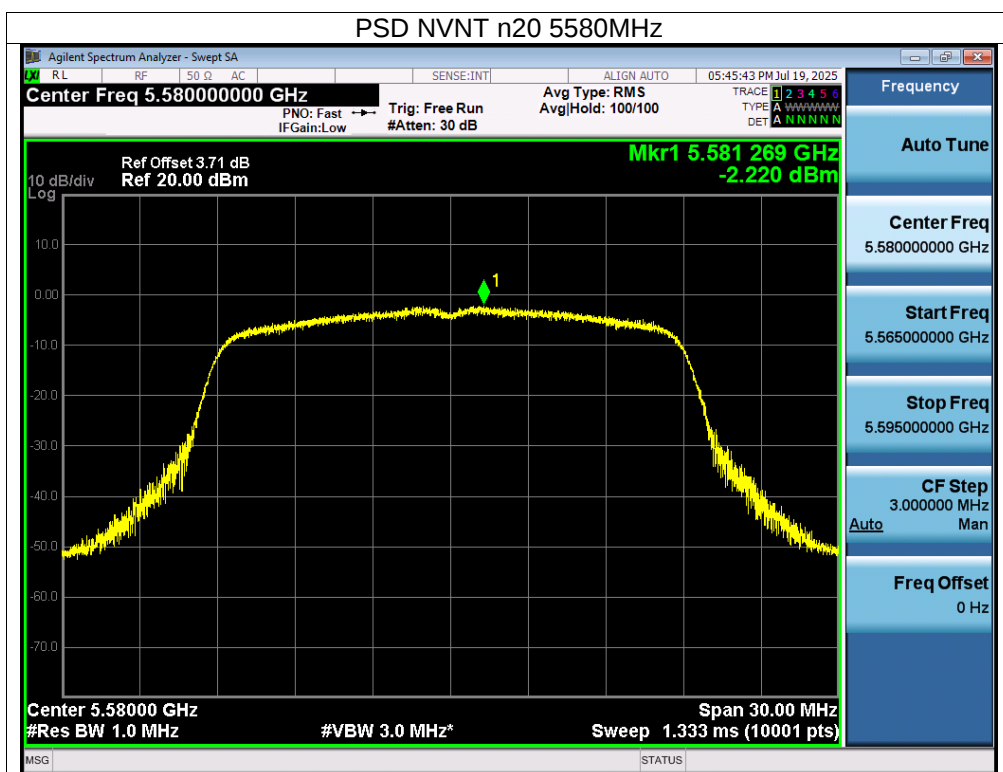


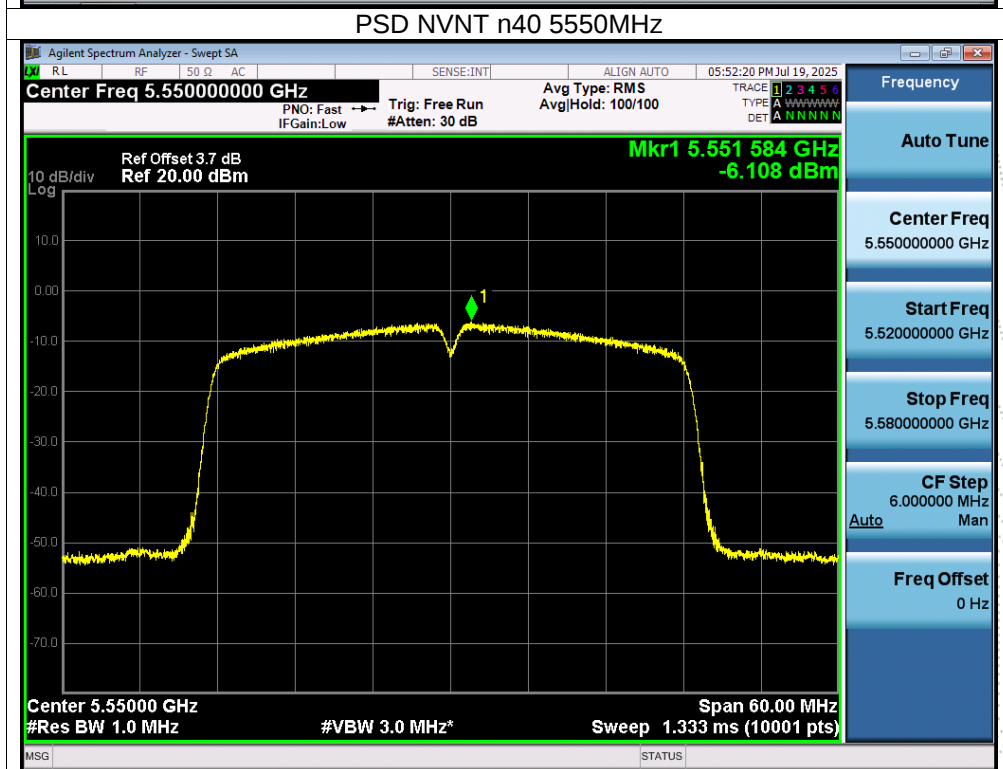
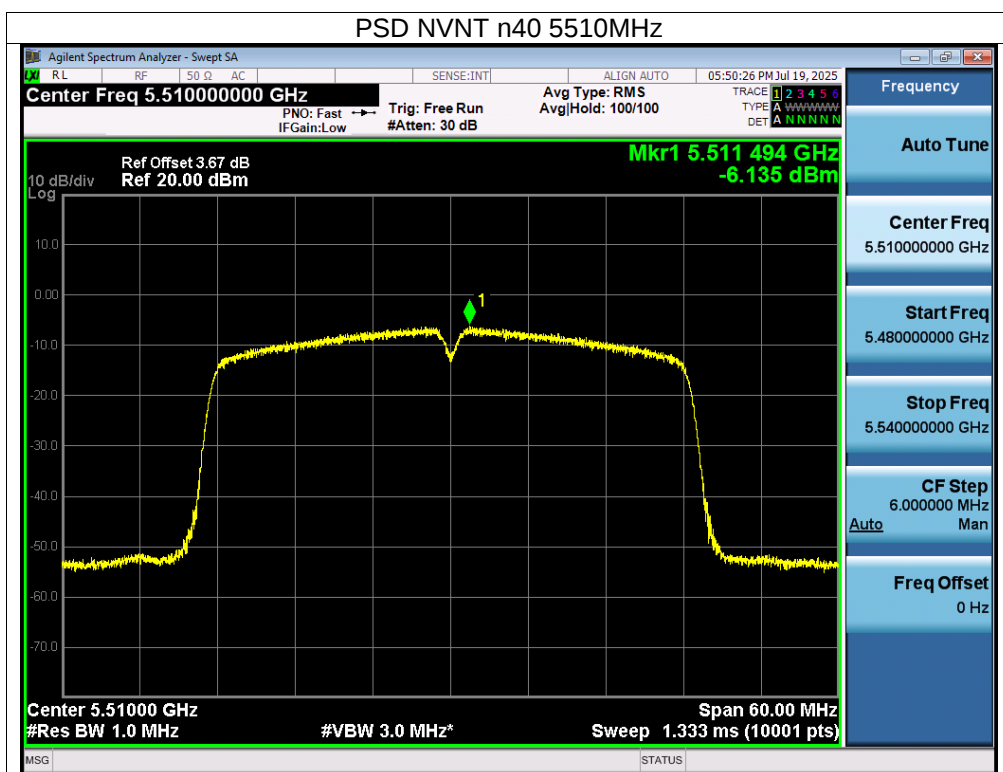


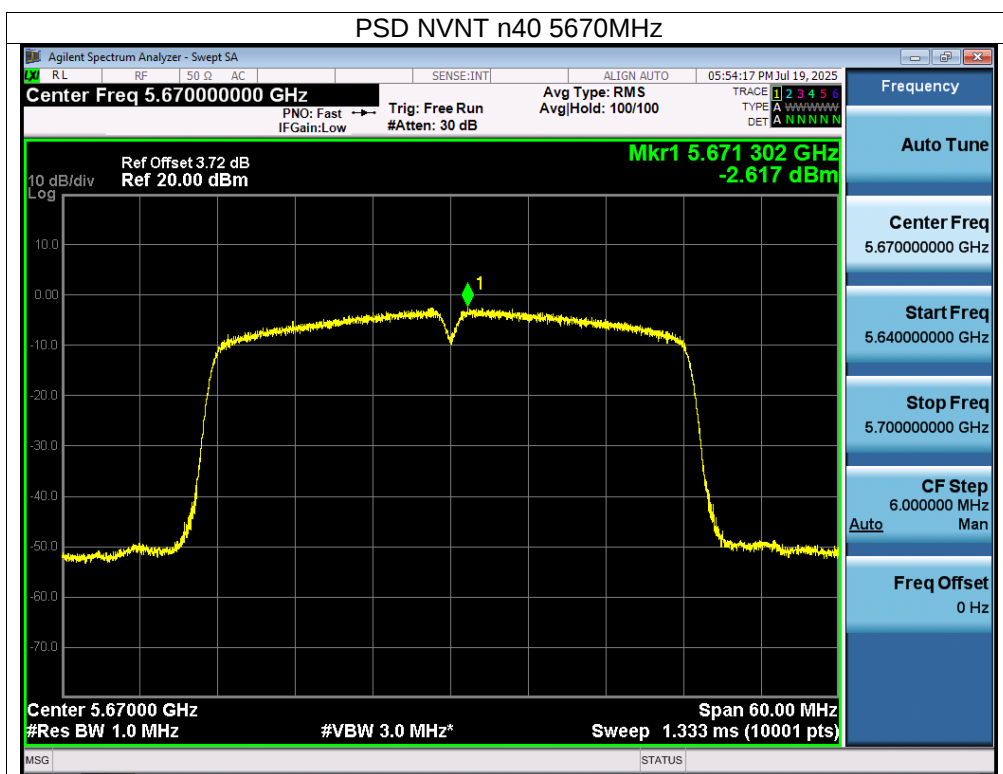


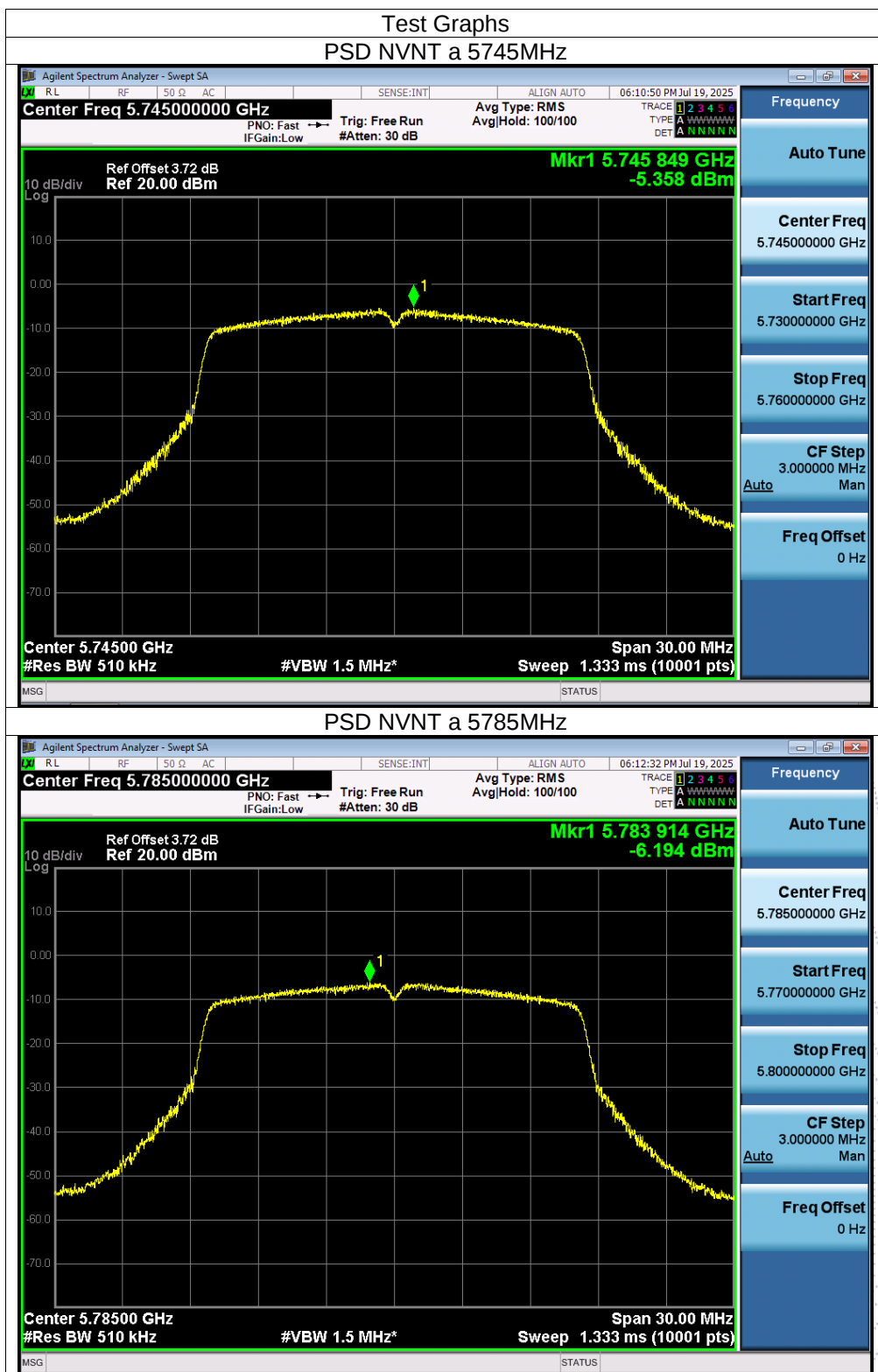


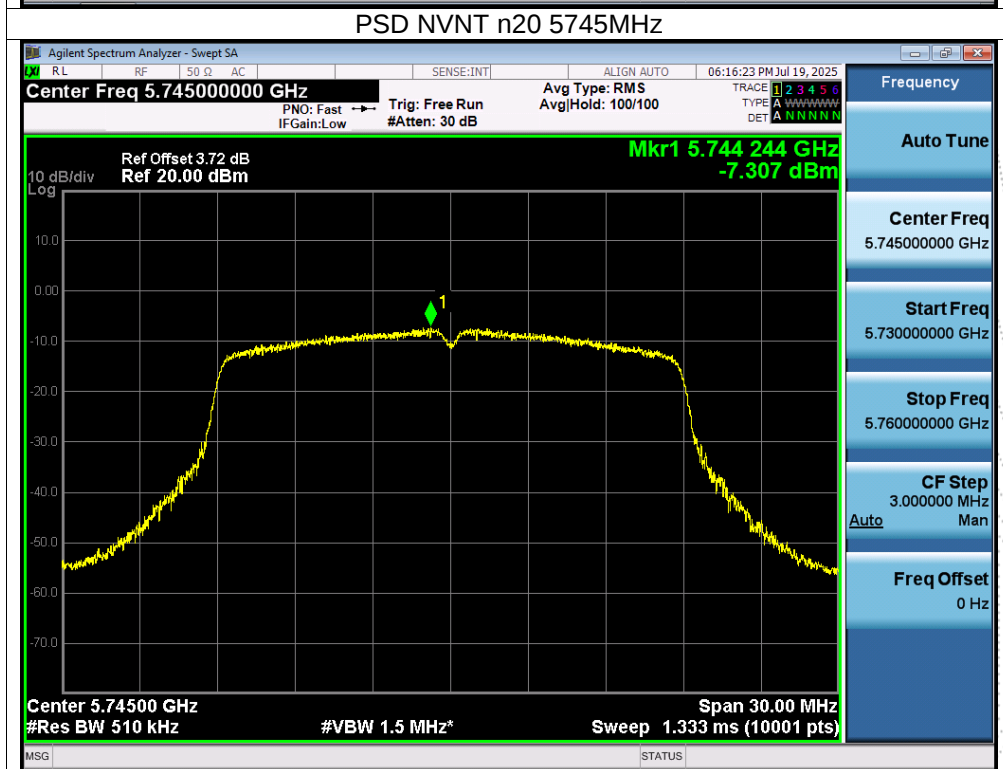
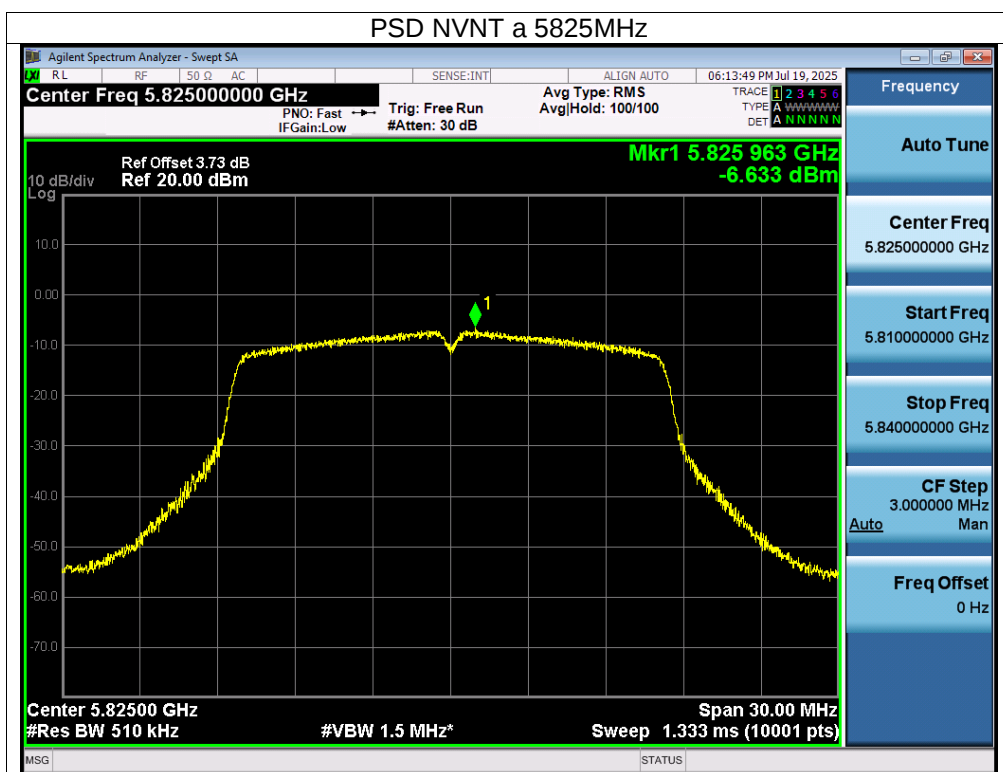


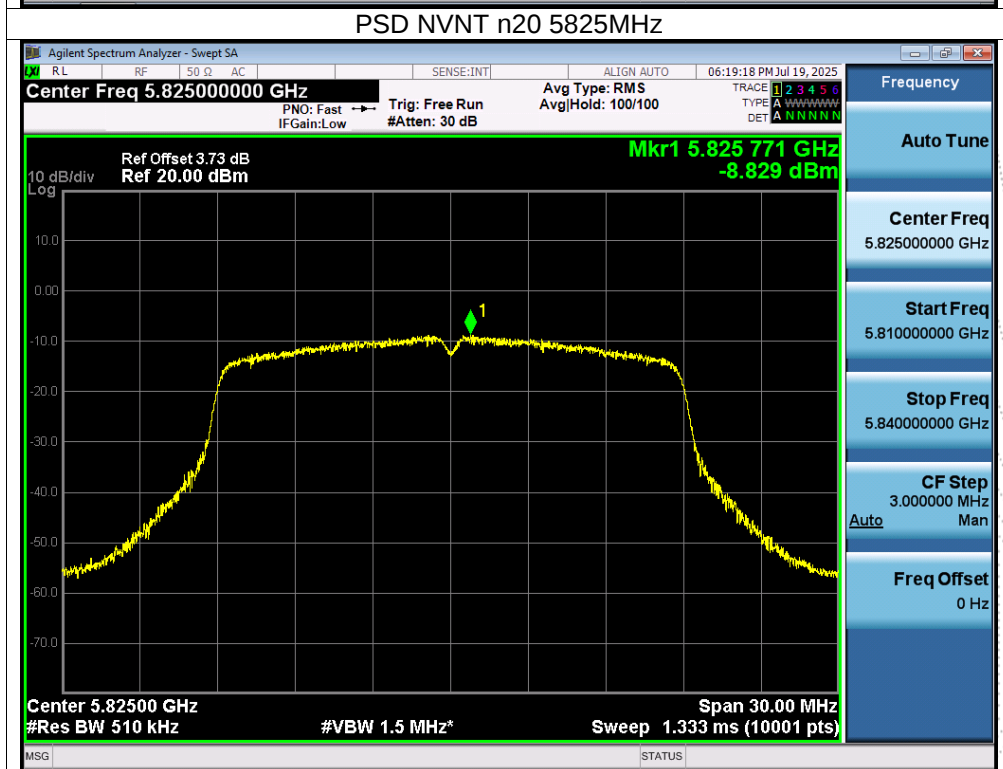
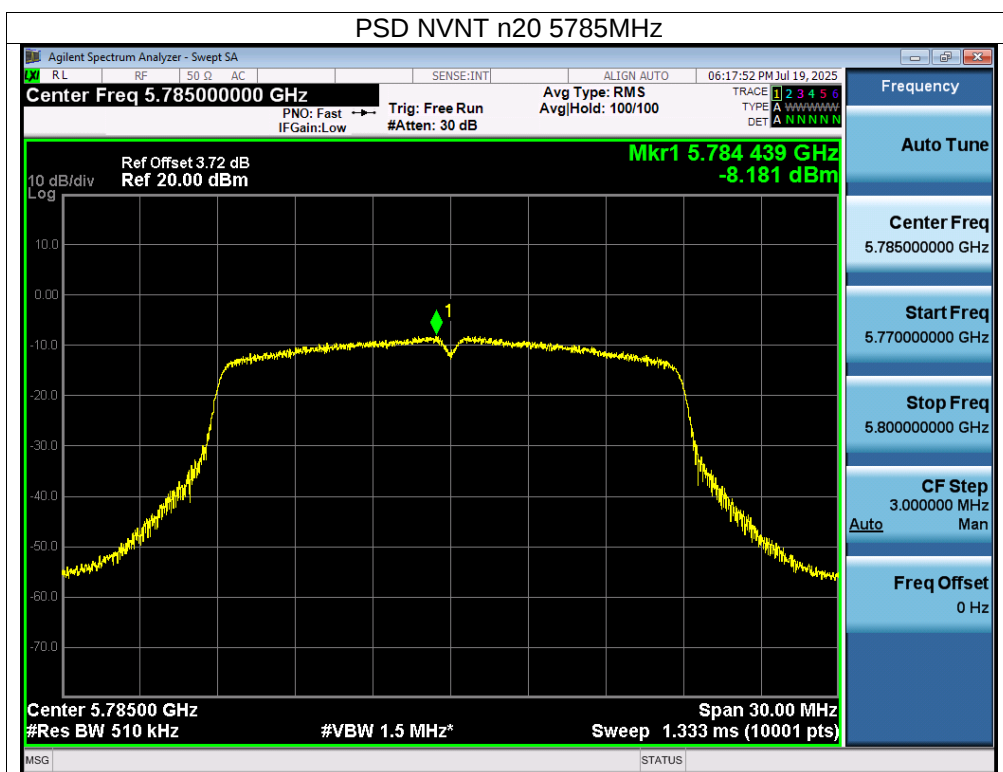


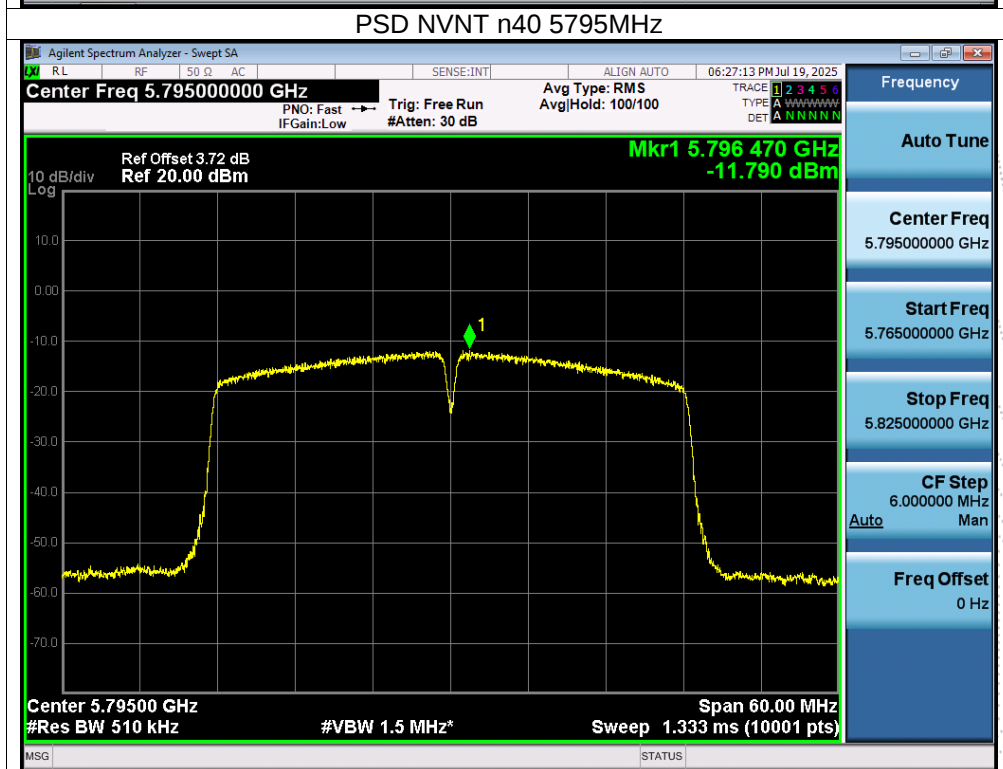
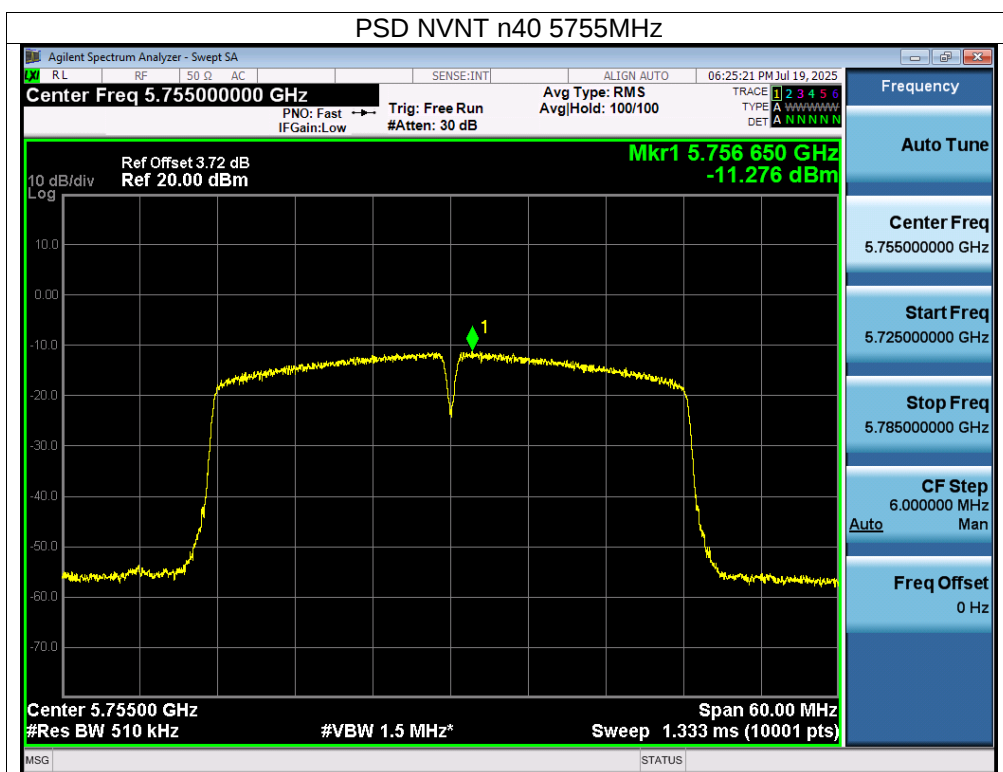






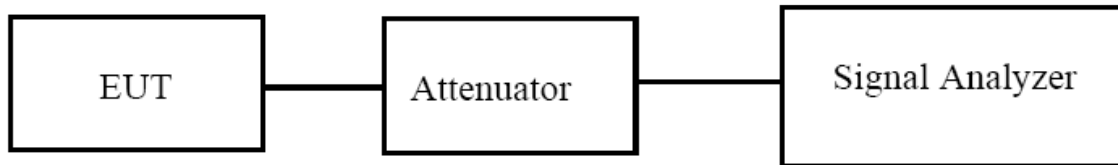






9. 26dB & 6dB & 99% Emission Bandwidth

9.1 Block Diagram Of Test Setup



9.2 Limit

(1) For the band 5.15-5.25 GHz.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, 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.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, 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.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, 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. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. 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.

9.3 Test Procedure

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- 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:

- Set center frequency to the nominal EUT channel center frequency.
- 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.

9.5 Test Result

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

Condition	Mode	Frequency (MHz)	99% Bandwidth (MHz)	-26dB Bandwidth (MHz)	Result
NVNT	a	5180	16.287	19.065	Pass
NVNT	a	5200	16.256	19.382	Pass
NVNT	a	5240	16.274	19.309	Pass
NVNT	n20	5180	17.401	20.377	Pass
NVNT	n20	5200	17.412	19.715	Pass
NVNT	n20	5240	17.423	20.228	Pass
NVNT	n40	5190	35.414	37.981	Pass
NVNT	n40	5230	35.474	37.81	Pass

