TEST REPORT

Report No.:	BCTC2412119291-4E
Applicant:	EXPRESS LUCK INDUSTRIAL (SHENZHEN) LIMITED
Product Name:	WLAN 11a/b/g/n 1T1R + BT5.2 module
Test Model:	EL.RT8733BU-WFT
Tested Date:	2024-12-05 to 2024-12-27
Issued Date:	2024-12-27

Shenzhen BCTC Testing Co., Ltd.

FCC ID: 2AWY6-ELRT8733BUT

Product Name:	WLAN 11a/b/g/n 1T1R + BT5.2 module
Trademark:	N/A
Model/Type reference:	EL.RT8733BU-WFT
Prepared For:	EXPRESS LUCK INDUSTRIAL (SHENZHEN) LIMITED
Address:	Floor1, Workshop1, NO.88, SOUTH BAOTONG ROAD, XIKENG COMMUNITY, YUANSHAN STREET, LONGGANG DISTRICT, Shenzhen, 518115, China
Manufacturer:	EXPRESS LUCK INDUSTRIAL (SHENZHEN) LIMITED
Address:	Floor1, Workshop1, NO.88, SOUTH BAOTONG ROAD, XIKENG COMMUNITY, YUANSHAN STREET, LONGGANG DISTRICT, Shenzhen, 518115, China
Prepared By:	Shenzhen BCTC Testing Co., Ltd.
Address:	1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Sample Received Date:	2024-12-05
Sample tested Date:	2024-12-05 to 2024-12-27
Issue Date:	2024-12-27
Report No.:	BCTC2412119291-4E
Test Standards:	FCC Part15 15.407 ANSI C63.10-2013 KDB 662911 D01 v02r01 KDB 789033 D02 v02r01
Test Results:	PASS

Tested by:

Lei Chen

Lei Chen/Project Handler

Approved by:

Zero Zhou/Reviewer

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Table Of Content

(Note: N/A Means Not Applicable)

1. Version

Report No.	Issue Date	Description	Approved
BCTC2412119291-4E	2024-12-27	Original	Valid

2. Test Summary

The Product has been tested according to the following specifications:

No.	Test Parameter	Clause No.	Results
1	Spurious Radiated Emissions	15.209(a) 15.407 (b)	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℃

4. Product Information And Test Setup

4.1 Product Information

Model/Type reference:	EL.RT8733BU-WFT
Model differences:	N/A
Hardware Version:	131.F9733BU-00
Software Version:	Win7_MP_Kit_RTL11n_8733BU_USB_v0.45_20231127(135824)
IEEE 802.11 WLAN Mode Supported	802.11a/n (20MHz channel bandwidth) 802.11n (40MHz channel bandwidth)
Operation Frequency:	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);
Data Rate	802.11a: 6,9,12,18,24,36,48,54Mbps; 802.11n(HT20/HT40):MCS0-MCS15;
Type of Modulation:	OFDM with BPSK/QPSK/16QAM/64QAM/256QAM for 802.11a/n;
Antenna installation:	Shrapnel antenna
Antenna Gain:	3.55 dBi Remark: ☒ The antenna gain of the product comes from the antenna report provided by the customer, and the test data is affected by the customer information. ☐ The antenna gain of the product is provided by the customer, and the test data is affected by the customer information.
Ratings:	DC 3.3V

4.2 Test Setup Configuration

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

4.3 Support Equipment

No.	Device Type	Brand	Model	Series No.	Note
E-1	WLAN 11a/b/g/n 1T1R + BT5.2 module	N/A	EL.RT8733BU-WFT	N/A	EUT
E-2	PC	N/A	N/A	N/A	Auxiliary

Item	Shielded Type	Ferrite Core	Length	Note
C-1	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	105	5520
	108	5540	112	5560
	116	5580	132	5660
	136	5680	140	5700
40MHz	102	5510	110	5550
	134	5670	142	5710
(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 / n20 CH36/ CH40/ CH 48 802.11a / n20 CH52/ CH56/ CH 64 802.11a / n20 CH100/ CH116/ CH 140 802.11a / n20 CH149/ CH157/ CH 165
Mode 2	802.11n40 CH38/ CH 46 802.11n40 CH54/ CH 62 802.11n40 CH102/ CH 110/CH134 802.11n40 CH 151 / CH 159
Mode 3	Link Mode

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	RTL8733BU MP		
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

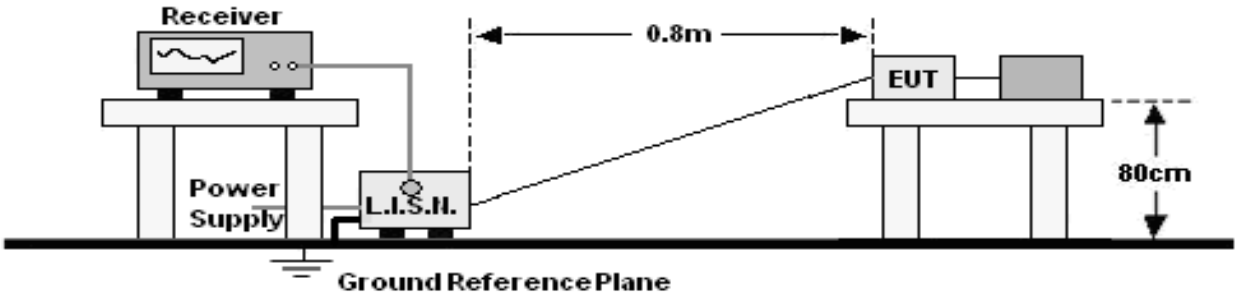
Conducted Emissions Test					
Equipment	**Manufacturer**	**Model#**	**Serial#**	**Last Cal.**	**Next Cal.**
Receiver	R&S	ESR3	102075	May 16, 2024	May 15, 2025
LISN	R&S	ENV216	101375	May 16, 2024	May 15, 2025
Software	Frad	EZ-EMC	EMC-CON 3A1	\	\
Pulse limiter	Schwarzbeck	VTSD9561-F	01323	May 16, 2024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

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

Radiated Emissions Test (966 Chamber01)					
Equipment	**Manufacturer**	**Model#**	**Serial#**	**Last Cal.**	**Next Cal.**
966 chamber	ChengYu	966 Room	966	May 16, 2024	May 15, 2025
Receiver	R&S	ESR3	102075	May 16, 2024	May 15, 2025
Receiver	R&S	ESRP	101154	May 16, 2024	May 15, 2025
Amplifier	Schwarzbeck	BBV9744	9744-0037	May 16, 2024	May 15, 2025
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	942	May 21, 2024	May 20, 2025
Loop Antenna(9KHz -30MHz)	Schwarzbeck	FMZB1519B	00014	May 21, 2024	May 20, 2025
Amplifier	SKET	LAPA_01G18G-45dB	SK2021040901	May 16, 2024	May 15, 2025
Horn Antenna	Schwarzbeck	BBHA9120D	1541	May 21, 2024	May 20, 2025
Amplifier(18GHz-40GHz)	MITEQ	TTA1840-35-HG	2034381	May 16, 2024	May 15, 2025
Horn Antenna(18GHz-40GHz)	Schwarzbeck	BBHA9170	00822	May 21, 2024	May 20, 2025
Spectrum Analyzer9kHz-40GHz	R&S	FSP40	100363	May 16, 2024	May 15, 2025
Software	Frad	EZ-EMC	FA-03A2 RE	\	\

6. Conducted Emissions

6.1 Block Diagram Of Test Setup



6.2 Limit

Frequency (MHz)	Limit (dBuV)	
	Quas-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00
Notes: 1. *Decreasing linearly with logarithm of frequency. 2. The lower limit shall apply at the transition frequencies.		

6.3 Test Procedure

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

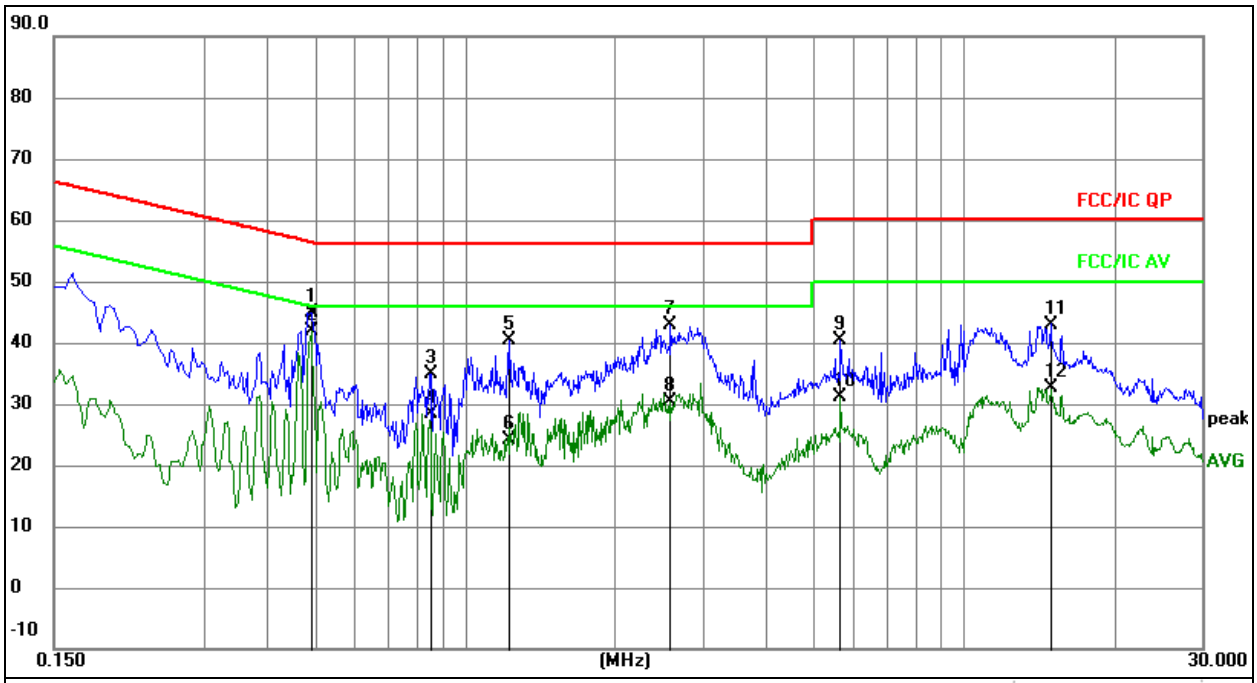
a. The Product was placed on a nonconductive table 0.8 m above the horizontal ground reference plane, and 0.4 m from the vertical ground reference plane, and connected to the main through Line Impedance Stability Network (L.I.S.N).
b. The RBW of the receiver was set at 9 kHz in 150 kHz ~ 30MHz with Peak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

6.4 EUT Operating Conditions

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

6.5 Test Result

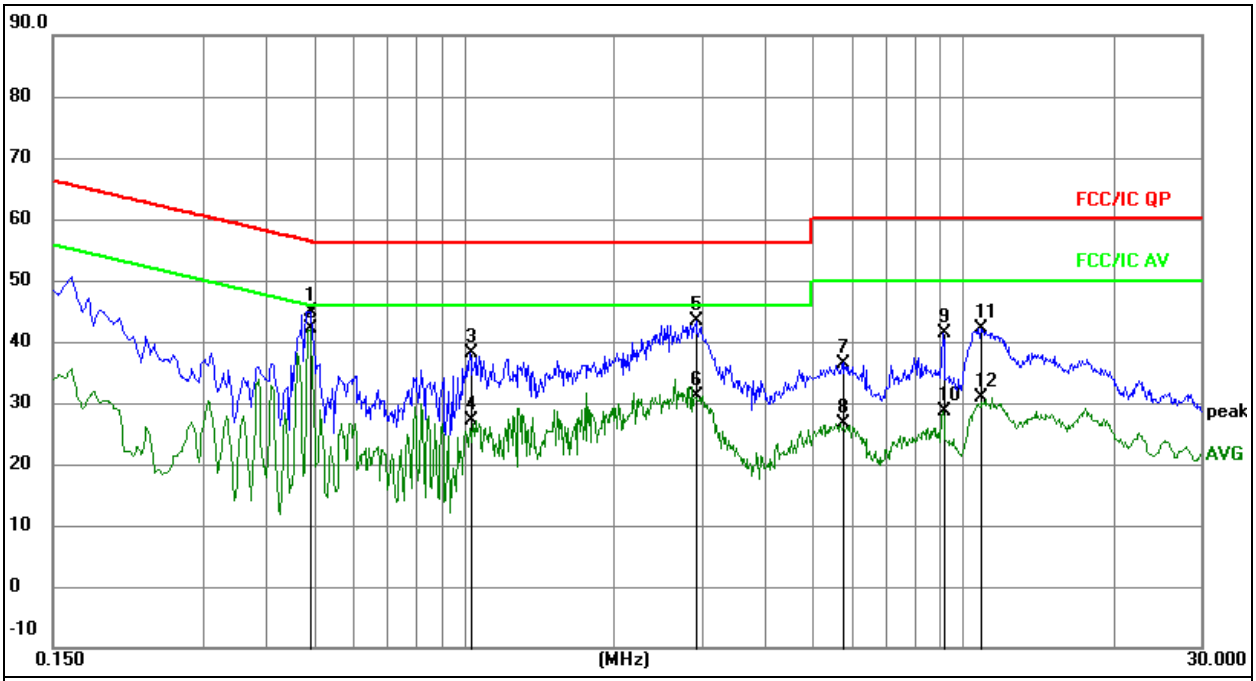
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	L
Test Mode:	Mode 3	Test Voltage :	AC120V/60Hz



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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz		dB	dBuV	dBuV	dB	Detector
1		0.4915	24.75	20.08	44.83	56.14	-11.31	QP
2	*	0.4915	21.92	20.08	42.00	46.14	-4.14	AVG
3		0.8483	14.81	20.09	34.90	56.00	-21.10	QP
4		0.8483	8.39	20.09	28.48	46.00	-17.52	AVG
5		1.2291	20.28	20.09	40.37	56.00	-15.63	QP
6		1.2291	4.12	20.09	24.21	46.00	-21.79	AVG
7		2.5807	22.65	20.11	42.76	56.00	-13.24	QP
8		2.5807	10.23	20.11	30.34	46.00	-15.66	AVG
9		5.6531	20.23	20.15	40.38	60.00	-19.62	QP
10		5.6531	11.03	20.15	31.18	50.00	-18.82	AVG
11		14.9068	22.69	20.31	43.00	60.00	-17.00	QP
12		14.9068	12.21	20.31	32.52	50.00	-17.48	AVG

Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	N
Test Mode:	Mode 3	Test Voltage :	AC120V/60Hz



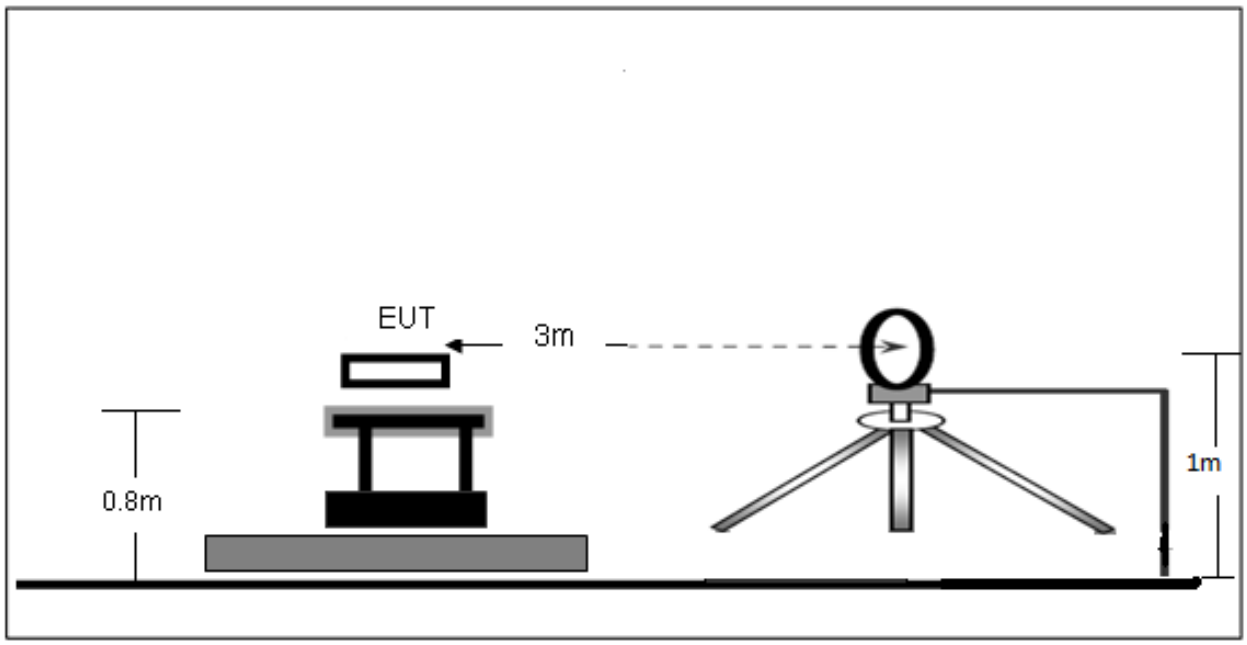
Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement = Reading Level + Correct Factor
4. Over = Measurement - Limit

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz		dB	dBuV	dBuV	dB	Detector
1		0.4920	24.90	20.08	44.98	56.13	-11.15	QP
2	*	0.4920	22.01	20.08	42.09	46.13	-4.04	AVG
3		1.0275	18.14	20.09	38.23	56.00	-17.77	QP
4		1.0275	7.05	20.09	27.14	46.00	-18.86	AVG
5		2.9175	23.27	20.12	43.39	56.00	-12.61	QP
6		2.9175	10.99	20.12	31.11	46.00	-14.89	AVG
7		5.7525	16.35	20.15	36.50	60.00	-23.50	QP
8		5.7525	6.40	20.15	26.55	50.00	-23.45	AVG
9		9.1545	21.28	20.17	41.45	60.00	-18.55	QP
10		9.1545	8.51	20.17	28.68	50.00	-21.32	AVG
11		10.9005	21.96	20.20	42.16	60.00	-17.84	QP
12		10.9005	10.75	20.20	30.95	50.00	-19.05	AVG

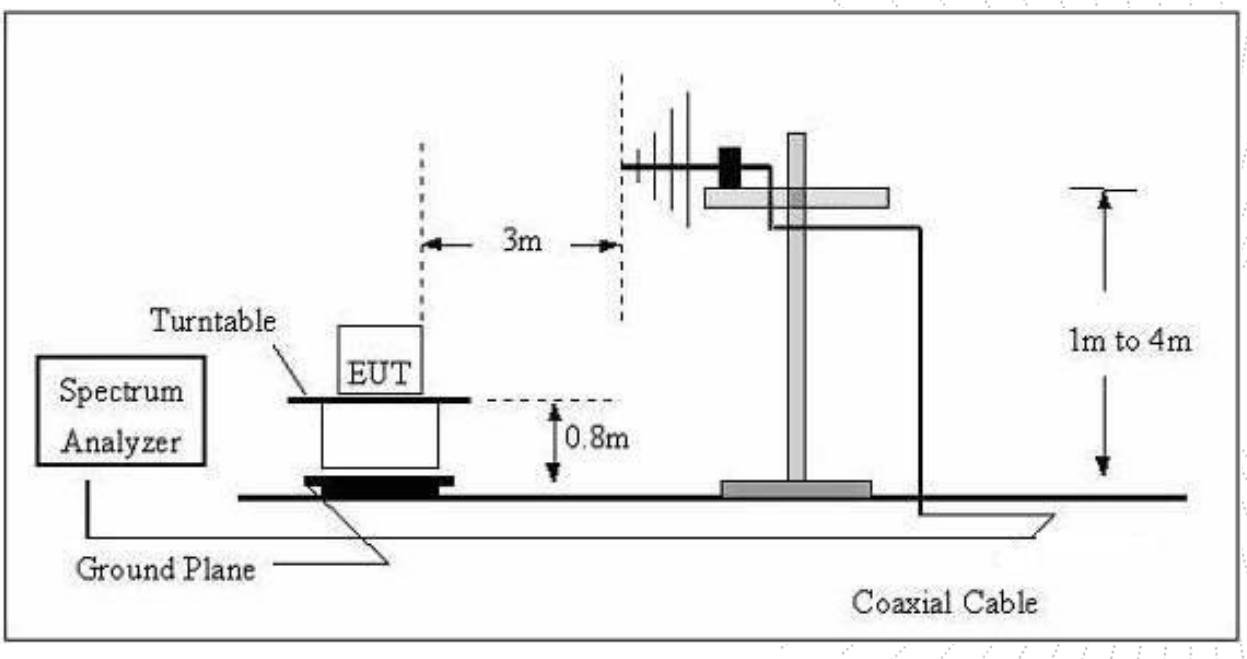
7. Radiated Emissions

7.1 Block Diagram Of Test Setup

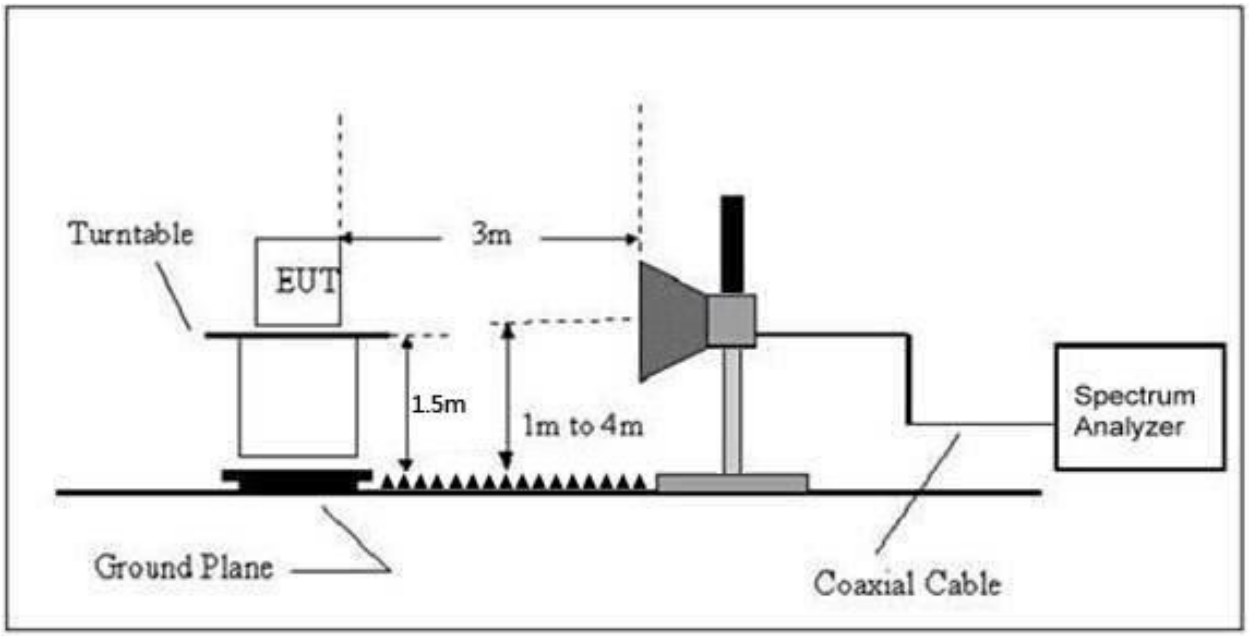
（A）Radiated Emission Test-Up Frequency Below 30MHz



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



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



7.2 Limit

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

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

Limits Of Radiated Emission Measurement (Above 1000MHz)

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

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

7.3 Test Procedure

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

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

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

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

Note:

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

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

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

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

7.4 EUT Operating Conditions

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

7.5 Test Result

Below 30MHz

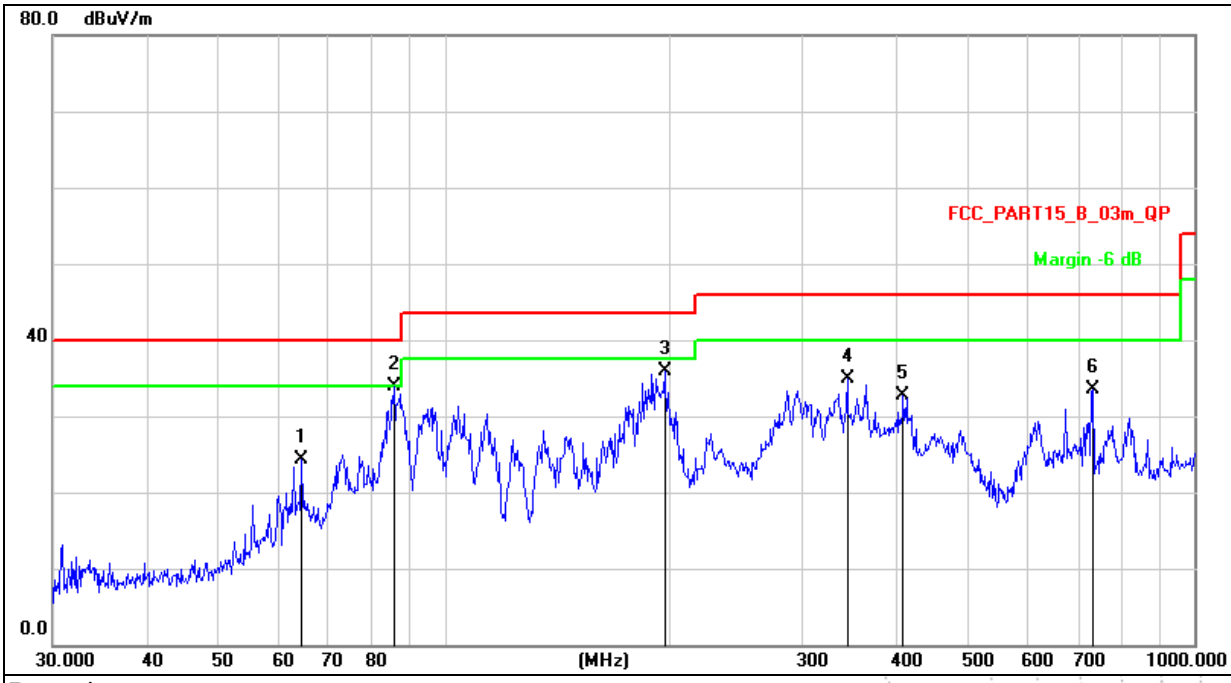
Temperature:	26℃	Relative Humidity:	24%
Pressure:	101 kPa	Test Voltage :	AC 120V/60Hz
Test Mode:	Mode 3	Polarization:	--

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

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

Between 30MHz – 1GHz

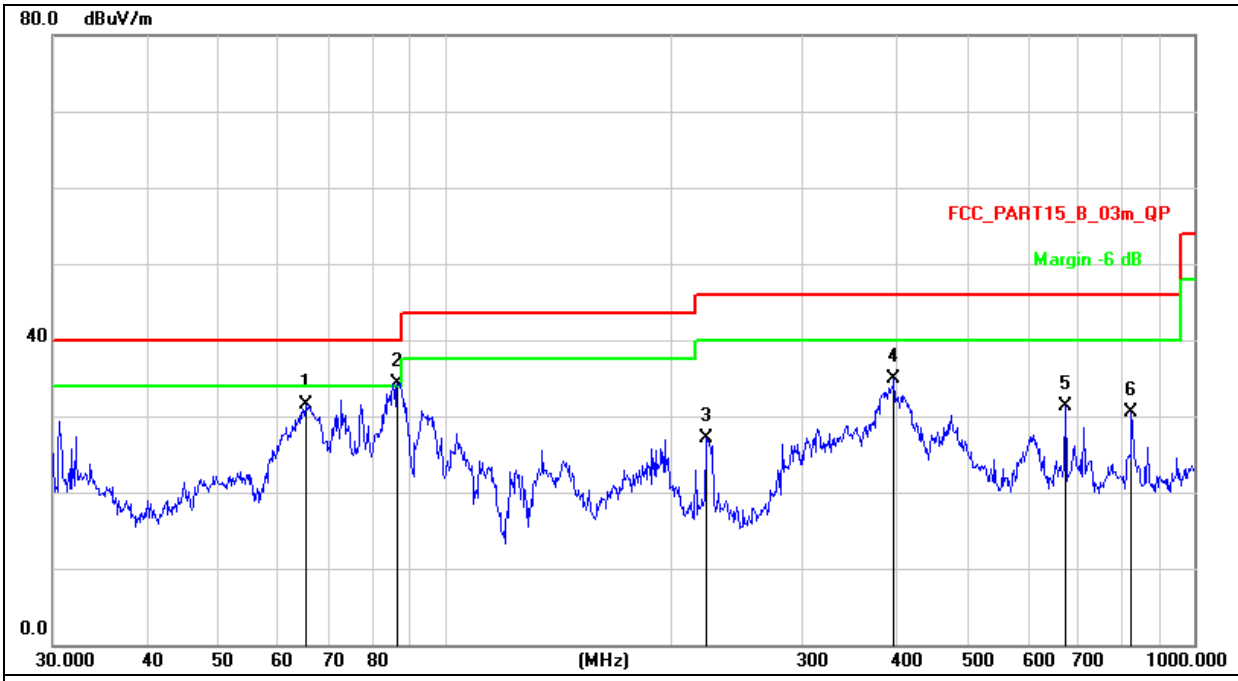
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	Horizontal
Test Mode:	Mode 3	Test Voltage :	AC120V/60Hz



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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		64.4331	40.86	-16.47	24.39	40.00	-15.61	QP
2	*	85.5977	52.31	-18.43	33.88	40.00	-6.12	QP
3		196.5098	51.86	-15.98	35.88	43.50	-7.62	QP
4		344.3855	46.56	-11.68	34.88	46.00	-11.12	QP
5		408.9460	43.32	-10.66	32.66	46.00	-13.34	QP
6		731.9203	38.81	-5.25	33.56	46.00	-12.44	QP

Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	Vertical
Test Mode:	Mode 3	Test Voltage :	AC120V/60Hz



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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		65.3432	48.17	-16.72	31.45	40.00	-8.55	QP
2	*	86.5029	52.59	-18.22	34.37	40.00	-5.63	QP
3		223.7334	42.21	-15.04	27.17	46.00	-18.83	QP
4		397.6334	45.81	-10.87	34.94	46.00	-11.06	QP
5		672.8444	37.26	-5.95	31.31	46.00	-14.69	QP
6		824.5968	34.72	-4.19	30.53	46.00	-15.47	QP

Between 1GHz – 40GHz

Test Mode:	TX(5.1G) - 802.11a

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G							
Vertical	4434.199	70.19	-20.73	49.46	68.2	-18.74	PK
Vertical	4434.199	59.66	-20.73	38.93	54	-15.07	AV
Vertical	10360.064	61.89	-9.36	52.53	68.2	-15.67	PK
Vertical	10360.064	49.86	-9.36	40.50	54	-13.50	AV
Vertical	15540.028	61.88	-7.84	54.04	74	-19.96	PK
Vertical	15540.028	49.23	-7.84	41.39	54	-12.61	AV
Horizontal	4434.167	70.65	-20.73	49.92	68.2	-18.28	PK
Horizontal	4434.167	59.27	-20.73	38.54	54	-15.46	AV
Horizontal	10360.091	63.68	-9.36	54.32	68.2	-13.88	PK
Horizontal	10360.091	49.51	-9.36	40.15	54	-13.85	AV
Horizontal	15540.066	64.38	-7.84	56.54	74	-17.46	PK
Horizontal	15540.066	49.68	-7.84	41.84	54	-12.16	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.079	72.28	-20.42	51.86	74	-22.14	PK
Vertical	4592.079	59.60	-20.42	39.18	54	-14.82	AV
Vertical	10400.064	61.15	-9.30	51.85	68.2	-16.35	PK
Vertical	10400.064	49.11	-9.30	39.81	54	-14.19	AV
Vertical	15600.076	64.80	-7.82	56.98	74	-17.02	PK
Vertical	15600.076	49.89	-7.82	42.07	54	-11.93	AV
Horizontal	4592.155	74.80	-20.42	54.38	74	-19.62	PK
Horizontal	4592.155	60.00	-20.42	39.58	54	-14.42	AV
Horizontal	10400.077	61.20	-9.30	51.90	68.2	-16.30	PK
Horizontal	10400.077	49.50	-9.30	40.20	54	-13.80	AV
Horizontal	15600.095	63.09	-7.82	55.27	74	-18.73	PK
Horizontal	15600.095	49.47	-7.82	41.65	54	-12.35	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.162	73.32	-20.12	53.20	74	-20.80	PK
Vertical	4739.162	59.46	-20.12	39.34	54	-14.66	AV
Vertical	10480.065	62.36	-9.18	53.18	68.2	-15.02	PK
Vertical	10480.065	49.18	-9.18	40.00	54	-14.00	AV
Vertical	15720.174	60.52	-7.78	52.74	74	-21.26	PK
Vertical	15720.174	49.74	-7.78	41.96	54	-12.04	AV
Horizontal	4739.165	72.19	-20.12	52.07	74	-21.93	PK
Horizontal	4739.165	59.36	-20.12	39.24	54	-14.76	AV
Horizontal	10480.197	62.98	-9.18	53.80	68.2	-14.40	PK
Horizontal	10480.197	49.06	-9.18	39.88	54	-14.12	AV
Horizontal	15720.016	62.03	-7.78	54.25	74	-19.75	PK
Horizontal	15720.016	49.28	-7.78	41.50	54	-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(5.1G) - 802.11n-HT20

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G							
Vertical	4434.198	74.85	-20.73	54.12	68.2	-14.08	PK
Vertical	4434.198	59.31	-20.73	38.57	54	-15.43	AV
Vertical	10360.001	62.84	-9.36	53.48	68.2	-14.72	PK
Vertical	10360.001	49.13	-9.36	39.77	54	-14.23	AV
Vertical	15540.127	61.33	-7.84	53.49	74	-20.51	PK
Vertical	15540.127	49.21	-7.84	41.37	54	-12.63	AV
Horizontal	4434.016	73.96	-20.73	53.23	68.2	-14.97	PK
Horizontal	4434.016	59.86	-20.73	39.13	54	-14.87	AV
Horizontal	10360.127	61.29	-9.36	51.93	68.2	-16.27	PK
Horizontal	10360.127	49.75	-9.36	40.39	54	-13.61	AV
Horizontal	15540.028	63.83	-7.84	55.99	74	-18.01	PK
Horizontal	15540.028	49.11	-7.84	41.27	54	-12.73	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.075	74.40	-20.42	53.98	74	-20.02	PK
Vertical	4592.075	59.16	-20.42	38.75	54	-15.25	AV
Vertical	10400.162	61.75	-9.30	52.45	68.2	-15.75	PK
Vertical	10400.162	49.85	-9.30	40.55	54	-13.45	AV
Vertical	15600.005	60.86	-7.82	53.04	74	-20.96	PK
Vertical	15600.005	49.32	-7.82	41.50	54	-12.50	AV
Horizontal	4592.098	74.80	-20.42	54.38	74	-19.62	PK
Horizontal	4592.098	59.42	-20.42	39.00	54	-15.00	AV
Horizontal	10400.164	62.62	-9.30	53.32	68.2	-14.88	PK
Horizontal	10400.164	49.11	-9.30	39.81	54	-14.19	AV
Horizontal	15600.026	63.99	-7.82	56.17	74	-17.83	PK
Horizontal	15600.026	49.81	-7.82	41.99	54	-12.01	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.119	73.36	-20.12	53.24	74	-20.76	PK
Vertical	4739.119	59.64	-20.12	39.52	54	-14.48	AV
Vertical	10480.038	62.09	-9.18	52.91	68.2	-15.29	PK
Vertical	10480.038	49.12	-9.18	39.94	54	-14.06	AV
Vertical	15720.082	62.00	-7.78	54.22	74	-19.78	PK
Vertical	15720.082	49.61	-7.78	41.83	54	-12.17	AV
Horizontal	4739.058	71.46	-20.12	51.33	74	-22.67	PK
Horizontal	4739.058	59.55	-20.12	39.43	54	-14.57	AV
Horizontal	10480.016	60.62	-9.18	51.44	68.2	-16.76	PK
Horizontal	10480.016	49.35	-9.18	40.17	54	-13.83	AV
Horizontal	15720.014	61.38	-7.78	53.60	74	-20.40	PK
Horizontal	15720.014	49.45	-7.78	41.67	54	-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(5.1G) - 802.11n-HT40

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5190 MHz)-Above 1G							
Vertical	4434.141	70.53	-20.73	49.80	68.2	-18.40	PK
Vertical	4434.141	59.83	-20.73	39.09	54	-14.91	AV
Vertical	10380.088	60.93	-9.33	51.60	68.2	-16.60	PK
Vertical	10380.088	49.70	-9.33	40.37	54	-13.63	AV
Vertical	15570.007	62.90	-7.83	55.07	74	-18.93	PK
Vertical	15570.007	49.87	-7.83	42.04	54	-11.96	AV
Horizontal	4434.134	74.39	-20.73	53.66	74	-20.34	PK
Horizontal	4434.134	59.50	-20.73	38.77	54	-15.23	AV
Horizontal	10380.035	60.32	-9.33	50.99	68.2	-17.21	PK
Horizontal	10380.035	49.15	-9.33	39.82	54	-14.18	AV
Horizontal	15570.008	64.85	-7.83	57.02	74	-16.98	PK
Horizontal	15570.008	49.22	-7.83	41.39	54	-12.61	AV
Middle Channel (5230 MHz)-Above 1G							
Vertical	4739.112	73.87	-20.12	53.74	68.2	-14.46	PK
Vertical	4739.112	59.68	-20.12	39.56	54	-14.44	AV
Vertical	10460.015	63.55	-9.21	54.34	68.2	-13.86	PK
Vertical	10460.015	49.48	-9.21	40.27	54	-13.73	AV
Vertical	15690.131	62.10	-7.79	54.31	74	-19.69	PK
Vertical	15690.131	49.67	-7.79	41.88	54	-12.12	AV
Horizontal	4739.127	70.45	-20.12	50.33	68.2	-17.87	PK
Horizontal	4739.127	59.40	-20.12	39.28	54	-14.72	AV
Horizontal	10460.094	64.83	-9.21	55.62	68.2	-12.58	PK
Horizontal	10460.094	49.44	-9.21	40.23	54	-13.77	AV
Horizontal	15690.023	63.54	-7.79	55.75	74	-18.25	PK
Horizontal	15690.023	49.56	-7.79	41.77	54	-12.23	AV

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

Test Mode:	TX(5.3G) - 802.11a

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5260 MHz)-Above 1G							
Vertical	4434.167	71.10	-20.73	50.37	68.2	-17.83	PK
Vertical	4434.167	59.61	-20.73	38.87	54	-15.13	AV
Vertical	10520.099	63.10	-9.12	53.98	68.2	-14.22	PK
Vertical	10520.099	49.44	-9.12	40.32	54	-13.68	AV
Vertical	15780.052	63.16	-7.77	55.39	74	-18.61	PK
Vertical	15780.052	49.16	-7.77	41.39	54	-12.61	AV
Horizontal	4434.043	73.68	-20.73	52.95	68.2	-15.25	PK
Horizontal	4434.043	59.62	-20.73	38.89	54	-15.11	AV
Horizontal	10520.008	61.13	-9.12	52.01	68.2	-16.19	PK
Horizontal	10520.008	49.47	-9.12	40.35	54	-13.65	AV
Horizontal	15780.021	60.10	-7.77	52.33	74	-21.67	PK
Horizontal	15780.021	49.70	-7.77	41.93	54	-12.07	AV
Middle Channel (5280 MHz)-Above 1G							
Vertical	4592.163	74.79	-20.42	54.37	74	-19.63	PK
Vertical	4592.163	59.75	-20.42	39.34	54	-14.66	AV
Vertical	10560.094	60.98	-9.06	51.92	68.2	-16.28	PK
Vertical	10560.094	49.84	-9.06	40.78	54	-13.22	AV
Vertical	15840.035	63.67	-7.75	55.92	74	-18.08	PK
Vertical	15840.035	49.68	-7.75	41.93	54	-12.07	AV
Horizontal	4592.079	74.60	-20.42	54.19	74	-19.81	PK
Horizontal	4592.079	59.45	-20.42	39.03	54	-14.97	AV
Horizontal	10560.064	62.18	-9.06	53.12	68.2	-15.08	PK
Horizontal	10560.064	49.35	-9.06	40.29	54	-13.71	AV
Horizontal	15840.121	63.19	-7.75	55.44	74	-18.56	PK
Horizontal	15840.121	49.36	-7.75	41.61	54	-12.39	AV
High Channel (5320 MHz)-Above 1G							
Vertical	4739.103	71.97	-20.12	51.85	74	-22.15	PK
Vertical	4739.103	59.13	-20.12	39.01	54	-14.99	AV
Vertical	10640.182	63.51	-8.94	54.57	68.2	-13.63	PK
Vertical	10640.182	49.51	-8.94	40.57	54	-13.43	AV
Vertical	15960.048	62.62	-7.71	54.91	74	-19.09	PK
Vertical	15960.048	49.95	-7.71	42.24	54	-11.76	AV
Horizontal	4739.032	71.93	-20.12	51.81	74	-22.19	PK
Horizontal	4739.032	59.03	-20.12	38.91	54	-15.09	AV
Horizontal	10640.181	64.69	-8.94	55.75	68.2	-12.45	PK
Horizontal	10640.181	49.15	-8.94	40.21	54	-13.79	AV
Horizontal	15960.089	60.99	-7.71	53.28	74	-20.72	PK
Horizontal	15960.089	49.23	-7.71	41.52	54	-12.48	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

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5260 MHz)-Above 1G							
Vertical	4434.111	72.09	-20.73	51.36	68.2	-16.84	PK
Vertical	4434.111	59.48	-20.73	38.75	54	-15.25	AV
Vertical	10520.169	64.48	-9.12	55.36	68.2	-12.84	PK
Vertical	10520.169	49.21	-9.12	40.09	54	-13.91	AV
Vertical	15780.161	62.15	-7.77	54.38	74	-19.62	PK
Vertical	15780.161	49.80	-7.77	42.03	54	-11.97	AV
Horizontal	4434.097	71.12	-20.73	50.39	68.2	-17.81	PK
Horizontal	4434.097	59.45	-20.73	38.72	54	-15.28	AV
Horizontal	10520.184	63.90	-9.12	54.78	68.2	-13.42	PK
Horizontal	10520.184	49.31	-9.12	40.19	54	-13.81	AV
Horizontal	15780.002	62.97	-7.77	55.20	74	-18.80	PK
Horizontal	15780.002	49.82	-7.77	42.05	54	-11.95	AV
Middle Channel (5280 MHz)-Above 1G							
Vertical	4592.025	74.91	-20.42	54.50	74	-19.50	PK
Vertical	4592.025	59.32	-20.42	38.90	54	-15.10	AV
Vertical	10560.173	62.52	-9.06	53.46	68.2	-14.74	PK
Vertical	10560.173	49.54	-9.06	40.48	54	-13.52	AV
Vertical	15840.182	62.76	-7.75	55.01	74	-18.99	PK
Vertical	15840.182	49.40	-7.75	41.65	54	-12.35	AV
Horizontal	4592.196	71.51	-20.42	51.10	74	-22.90	PK
Horizontal	4592.196	59.14	-20.42	38.72	54	-15.28	AV
Horizontal	10560.079	63.56	-9.06	54.50	68.2	-13.70	PK
Horizontal	10560.079	49.10	-9.06	40.04	54	-13.96	AV
Horizontal	15840.063	63.40	-7.75	55.65	74	-18.35	PK
Horizontal	15840.063	49.86	-7.75	42.11	54	-11.89	AV
High Channel (5320 MHz)-Above 1G							
Vertical	4739.168	71.80	-20.12	51.68	74	-22.32	PK
Vertical	4739.168	59.25	-20.12	39.12	54	-14.88	AV
Vertical	10640.075	63.13	-8.94	54.19	68.2	-14.01	PK
Vertical	10640.075	49.59	-8.94	40.65	54	-13.35	AV
Vertical	15960.082	61.06	-7.71	53.35	74	-20.65	PK
Vertical	15960.082	49.37	-7.71	41.66	54	-12.34	AV
Horizontal	4739.055	70.01	-20.12	49.88	74	-24.12	PK
Horizontal	4739.055	59.57	-20.12	39.45	54	-14.55	AV
Horizontal	10640.139	62.90	-8.94	53.96	68.2	-14.24	PK
Horizontal	10640.139	49.63	-8.94	40.69	54	-13.31	AV
Horizontal	15960.136	61.45	-7.71	53.74	74	-20.26	PK
Horizontal	15960.136	49.98	-7.71	42.27	54	-11.73	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

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5270 MHz)-Above 1G							
Vertical	4434.148	74.51	-20.73	53.78	68.2	-14.42	PK
Vertical	4434.148	59.06	-20.73	38.33	54	-15.67	AV
Vertical	10540.064	63.47	-9.09	54.38	68.2	-13.82	PK
Vertical	10540.064	49.32	-9.09	40.23	54	-13.77	AV
Vertical	15810.014	61.98	-7.76	54.22	74	-19.78	PK
Vertical	15810.014	49.06	-7.76	41.30	54	-12.70	AV
Horizontal	4434.064	70.57	-20.73	49.84	74	-24.16	PK
Horizontal	4434.064	59.03	-20.73	38.29	54	-15.71	AV
Horizontal	10540.061	63.08	-9.09	53.99	68.2	-14.21	PK
Horizontal	10540.061	49.12	-9.09	40.03	54	-13.97	AV
Horizontal	15810.036	62.86	-7.76	55.10	74	-18.90	PK
Horizontal	15810.036	49.32	-7.76	41.56	54	-12.44	AV
Middle Channel (5310 MHz)-Above 1G							
Vertical	4739.002	72.48	-20.12	52.36	68.2	-15.84	PK
Vertical	4739.002	59.89	-20.12	39.77	54	-14.23	AV
Vertical	10620.118	62.20	-8.97	53.23	68.2	-14.97	PK
Vertical	10620.118	49.97	-8.97	41.00	54	-13.00	AV
Vertical	15930.117	60.94	-7.72	53.22	74	-20.78	PK
Vertical	15930.117	49.88	-7.72	42.16	54	-11.84	AV
Horizontal	4739.138	73.99	-20.12	53.87	68.2	-14.33	PK
Horizontal	4739.138	59.73	-20.12	39.61	54	-14.39	AV
Horizontal	10620.076	62.81	-8.97	53.84	68.2	-14.36	PK
Horizontal	10620.076	49.50	-8.97	40.53	54	-13.47	AV
Horizontal	15930.171	61.06	-7.72	53.34	74	-20.66	PK
Horizontal	15930.171	49.97	-7.72	42.25	54	-11.75	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(5.6G) - 802.11a

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	4434.047	74.76	-20.73	54.03	68.2	-14.17	PK
Vertical	4434.047	59.45	-20.73	38.71	54	-15.29	AV
Vertical	11000.076	64.51	-8.40	56.11	68.2	-12.09	PK
Vertical	11000.076	49.65	-8.40	41.25	54	-12.75	AV
Vertical	16500.068	63.41	-6.09	57.32	74	-16.68	PK
Vertical	16500.068	49.41	-6.09	43.32	54	-10.68	AV
Horizontal	4434.166	74.13	-20.73	53.40	68.2	-14.80	PK
Horizontal	4434.166	59.24	-20.73	38.51	54	-15.49	AV
Horizontal	11000.194	61.78	-8.40	53.38	68.2	-14.82	PK
Horizontal	11000.194	49.24	-8.40	40.84	54	-13.16	AV
Horizontal	16500.011	62.43	-6.09	56.34	74	-17.66	PK
Horizontal	16500.011	49.23	-6.09	43.14	54	-10.86	AV
middle Channel (5580 MHz)-Above 1G							
Vertical	4592.081	70.11	-20.42	49.69	74	-24.31	PK
Vertical	4592.081	59.89	-20.42	39.48	54	-14.52	AV
Vertical	11160.055	61.78	-8.53	53.25	68.2	-14.95	PK
Vertical	11160.055	49.97	-8.53	41.44	54	-12.56	AV
Vertical	16740.147	61.61	-5.31	56.30	74	-17.70	PK
Vertical	16740.147	49.53	-5.31	44.22	54	-9.78	AV
Horizontal	4592.199	70.08	-20.42	49.66	74	-24.34	PK
Horizontal	4592.199	59.02	-20.42	38.60	54	-15.40	AV
Horizontal	11160.003	64.57	-8.53	56.04	68.2	-12.16	PK
Horizontal	11160.003	49.16	-8.53	40.63	54	-13.37	AV
Horizontal	16740.139	61.18	-5.31	55.87	74	-18.13	PK
Horizontal	16740.139	49.02	-5.31	43.71	54	-10.29	AV
High Channel (5700 MHz)-Above 1G							
Vertical	4739.119	74.62	-20.12	54.50	74	-19.50	PK
Vertical	4739.119	59.57	-20.12	39.45	54	-14.55	AV
Vertical	11400.154	60.00	-8.72	51.28	68.2	-16.92	PK
Vertical	11400.154	49.32	-8.72	40.60	54	-13.40	AV
Vertical	17100.188	60.77	-3.92	56.85	74	-17.15	PK
Vertical	17100.188	49.53	-3.92	45.61	54	-8.39	AV
Horizontal	4739.045	70.21	-20.12	50.09	74	-23.91	PK
Horizontal	4739.045	59.95	-20.12	39.83	54	-14.17	AV
Horizontal	11400.143	63.02	-8.72	54.30	68.2	-13.90	PK
Horizontal	11400.143	49.59	-8.72	40.87	54	-13.13	AV
Horizontal	17100.020	61.57	-3.92	57.65	74	-16.35	PK
Horizontal	17100.020	49.03	-3.92	45.11	54	-8.89	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

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	4434.193	71.24	-20.73	50.51	68.2	-17.69	PK
Vertical	4434.193	59.21	-20.73	38.48	54	-15.52	AV
Vertical	11000.143	60.73	-8.40	52.33	68.2	-15.87	PK
Vertical	11000.143	49.68	-8.40	41.28	54	-12.72	AV
Vertical	16500.180	64.34	-6.09	58.25	74	-15.75	PK
Vertical	16500.180	49.08	-6.09	42.99	54	-11.01	AV
Horizontal	4434.106	70.22	-20.73	49.49	68.2	-18.71	PK
Horizontal	4434.106	59.32	-20.73	38.59	54	-15.41	AV
Horizontal	11000.144	60.72	-8.40	52.32	68.2	-15.88	PK
Horizontal	11000.144	49.29	-8.40	40.89	54	-13.11	AV
Horizontal	16500.094	62.36	-6.09	56.27	74	-17.73	PK
Horizontal	16500.094	49.72	-6.09	43.63	54	-10.37	AV
middle Channel (5580 MHz)-Above 1G							
Vertical	4592.128	74.43	-20.42	54.02	74	-19.98	PK
Vertical	4592.128	59.11	-20.42	38.69	54	-15.31	AV
Vertical	11160.166	63.07	-8.53	54.54	68.2	-13.66	PK
Vertical	11160.166	49.43	-8.53	40.90	54	-13.10	AV
Vertical	16740.087	64.78	-5.31	59.47	74	-14.53	PK
Vertical	16740.087	49.85	-5.31	44.54	54	-9.46	AV
Horizontal	4592.123	73.09	-20.42	52.68	74	-21.32	PK
Horizontal	4592.123	59.49	-20.42	39.07	54	-14.93	AV
Horizontal	11160.120	62.01	-8.53	53.48	68.2	-14.72	PK
Horizontal	11160.120	49.93	-8.53	41.40	54	-12.60	AV
Horizontal	16740.060	60.89	-5.31	55.58	74	-18.42	PK
Horizontal	16740.060	49.59	-5.31	44.28	54	-9.72	AV
High Channel (5700 MHz)-Above 1G							
Vertical	4739.077	72.69	-20.12	52.57	74	-21.43	PK
Vertical	4739.077	59.28	-20.12	39.16	54	-14.84	AV
Vertical	11400.059	64.69	-8.72	55.97	68.2	-12.23	PK
Vertical	11400.059	49.19	-8.72	40.47	54	-13.53	AV
Vertical	17100.100	63.06	-3.92	59.14	74	-14.86	PK
Vertical	17100.100	49.43	-3.92	45.51	54	-8.49	AV
Horizontal	4739.038	71.08	-20.12	50.96	74	-23.04	PK
Horizontal	4739.038	59.77	-20.12	39.65	54	-14.35	AV
Horizontal	11400.002	62.60	-8.72	53.88	68.2	-14.32	PK
Horizontal	11400.002	49.07	-8.72	40.35	54	-13.65	AV
Horizontal	17100.142	61.31	-3.92	57.39	74	-16.61	PK
Horizontal	17100.142	49.27	-3.92	45.35	54	-8.65	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

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	4434.152	60.97	-20.73	40.24	68.2	-27.96	PK
Vertical	4434.152	43.72	-20.73	22.99	54	-31.01	AV
Vertical	11020.104	61.17	-8.42	52.75	68.2	-15.45	PK
Vertical	11020.104	43.39	-8.42	34.97	54	-19.03	AV
Vertical	16530.120	64.24	-5.99	58.25	74	-15.75	PK
Vertical	16530.120	43.81	-5.99	37.82	54	-16.18	AV
Horizontal	4434.064	63.74	-20.73	43.01	74	-30.99	PK
Horizontal	4434.064	43.92	-20.73	23.19	54	-30.81	AV
Horizontal	11020.146	52.17	-8.42	43.75	68.2	-24.45	PK
Horizontal	11020.146	44.24	-8.42	35.82	54	-18.18	AV
Horizontal	16530.036	50.76	-5.99	44.77	74	-29.23	PK
Horizontal	16530.036	44.25	-5.99	38.26	54	-15.74	AV
middle Channel (5550 MHz)-Above 1G							
Vertical	4592.175	63.56	-20.42	43.14	74	-30.86	PK
Vertical	4592.175	43.04	-20.42	22.62	54	-31.38	AV
Vertical	11100.011	61.57	-8.40	53.17	68.2	-15.03	PK
Vertical	11100.011	43.73	-8.40	35.33	54	-18.67	AV
Vertical	16650.098	63.61	-5.60	58.01	74	-15.99	PK
Vertical	16650.098	43.58	-5.60	37.98	54	-16.02	AV
Horizontal	4592.009	64.50	-20.42	44.08	74	-29.92	PK
Horizontal	4592.009	43.44	-20.42	23.02	54	-30.98	AV
Horizontal	11100.176	50.85	-8.40	42.45	68.2	-25.75	PK
Horizontal	11100.176	43.91	-8.40	35.51	54	-18.49	AV
Horizontal	16650.003	50.63	-5.60	45.03	74	-28.97	PK
Horizontal	16650.003	41.73	-5.60	36.13	54	-17.87	AV
High Channel (5670 MHz)-Above 1G							
Vertical	4739.059	63.18	-20.12	43.06	68.2	-25.14	PK
Vertical	4739.059	43.12	-20.12	23.00	54	-31.00	AV
Vertical	11340.162	64.91	-8.67	56.24	68.2	-11.96	PK
Vertical	11340.162	43.09	-8.67	34.42	54	-19.58	AV
Vertical	17010.027	64.92	-4.41	60.51	74	-13.49	PK
Vertical	17010.027	43.47	-4.41	39.06	54	-14.94	AV
Horizontal	4739.035	62.27	-20.12	42.15	68.2	-26.05	PK
Horizontal	4739.035	43.58	-20.12	23.46	54	-30.54	AV
Horizontal	11340.077	54.45	-8.67	45.78	68.2	-22.42	PK
Horizontal	11340.077	40.24	-8.67	31.57	54	-22.43	AV
Horizontal	17010.056	50.53	-4.41	46.12	74	-27.88	PK
Horizontal	17010.056	44.75	-4.41	40.34	54	-13.66	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

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
Vertical	4679.085	72.14	-20.24	51.90	74	-22.10	PK
Vertical	4679.085	59.82	-20.24	39.58	54	-14.42	AV
Vertical	11490.106	63.68	-8.79	54.89	68.2	-13.31	PK
Vertical	11490.106	49.36	-8.79	40.57	54	-13.43	AV
Vertical	17235.047	58.20	-3.18	55.02	68.2	-13.18	PK
Vertical	17235.047	44.98	-3.18	41.80	54	-12.20	AV
Horizontal	4679.032	74.38	-20.73	53.65	74	-20.35	PK
Horizontal	4679.032	59.07	-20.73	38.34	54	-15.66	AV
Horizontal	11490.106	61.60	-8.79	52.81	68.2	-15.39	PK
Horizontal	11490.106	49.24	-8.79	40.45	54	-13.55	AV
Horizontal	17235.009	56.67	-3.18	53.49	68.2	-14.71	PK
Horizontal	17235.009	44.74	-3.18	41.56	54	-12.44	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.024	71.23	-20.42	50.81	74	-23.19	PK
Vertical	4592.024	59.19	-20.42	38.77	54	-15.23	AV
Vertical	11570.097	62.98	-8.86	54.12	68.2	-14.08	PK
Vertical	11570.097	49.15	-8.86	40.29	54	-13.71	AV
Vertical	17355.034	57.77	-2.52	55.25	68.2	-12.95	PK
Vertical	17355.034	44.98	-2.52	42.46	54	-11.54	AV
Horizontal	4592.036	73.24	-20.42	52.83	74	-21.17	PK
Horizontal	4592.036	59.93	-20.42	39.52	54	-14.48	AV
Horizontal	11570.084	61.66	-8.86	52.80	68.2	-15.40	PK
Horizontal	11570.084	49.21	-8.86	40.35	54	-13.65	AV
Horizontal	17355.023	57.08	-2.52	54.56	68.2	-13.64	PK
Horizontal	17355.023	44.42	-2.52	41.90	54	-12.10	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.134	74.92	-18.93	55.99	68.2	-12.21	PK
Vertical	6039.134	59.68	-18.93	40.75	54	-13.25	AV
Vertical	11650.127	60.99	-8.92	52.07	74	-21.93	PK
Vertical	11650.127	49.47	-8.92	40.55	54	-13.45	AV
Vertical	17475.147	56.39	-1.86	54.53	68.2	-13.67	PK
Vertical	17475.147	44.97	-1.86	43.11	54	-10.89	AV
Horizontal	6039.053	71.78	-18.93	52.85	68.2	-15.35	PK
Horizontal	6039.053	59.02	-18.93	40.09	54	-13.91	AV
Horizontal	11650.025	62.54	-8.92	53.62	74	-20.38	PK
Horizontal	11650.025	49.08	-8.92	40.16	54	-13.84	AV
Horizontal	17475.183	57.03	-1.86	55.17	68.2	-13.03	PK
Horizontal	17475.183	44.52	-1.86	42.66	54	-11.34	AV

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

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

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
Vertical	4679.131	74.64	-20.24	54.40	74	-19.60	PK
Vertical	4679.131	59.52	-20.24	39.28	54	-14.72	AV
Vertical	11490.118	61.14	-8.79	52.35	68.2	-15.85	PK
Vertical	11490.118	49.53	-8.79	40.74	54	-13.26	AV
Vertical	17235.013	57.46	-3.18	54.28	68.2	-13.92	PK
Vertical	17235.013	44.04	-3.18	40.86	54	-13.14	AV
Horizontal	4679.048	73.76	-20.24	53.52	74	-20.48	PK
Horizontal	4679.048	59.29	-20.24	39.05	54	-14.95	AV
Horizontal	11490.020	64.91	-8.79	56.12	68.2	-12.08	PK
Horizontal	11490.020	49.66	-8.79	40.87	54	-13.13	AV
Horizontal	17235.013	55.83	-3.18	52.65	68.2	-15.55	PK
Horizontal	17235.013	44.61	-3.18	41.43	54	-12.57	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.196	73.81	-20.42	53.39	74	-20.61	PK
Vertical	4592.196	59.83	-20.42	39.41	54	-14.59	AV
Vertical	11570.077	63.59	-8.86	54.73	68.2	-13.47	PK
Vertical	11570.077	49.42	-8.86	40.56	54	-13.44	AV
Vertical	17355.145	57.75	-2.52	55.23	68.2	-12.97	PK
Vertical	17355.145	44.34	-2.52	41.82	54	-12.18	AV
Horizontal	4592.055	73.79	-20.42	53.37	74	-20.63	PK
Horizontal	4592.055	60.00	-20.42	39.58	54	-14.42	AV
Horizontal	11570.119	63.53	-8.86	54.67	68.2	-13.53	PK
Horizontal	11570.119	49.52	-8.86	40.66	54	-13.34	AV
Horizontal	17355.140	57.15	-2.52	54.63	68.2	-13.57	PK
Horizontal	17355.140	44.12	-2.52	41.60	54	-12.40	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.147	70.59	-18.93	51.66	68.2	-16.54	PK
Vertical	6039.147	59.19	-18.93	40.26	54	-13.74	AV
Vertical	11650.007	60.33	-8.92	51.41	74	-22.59	PK
Vertical	11650.007	49.03	-8.92	40.11	54	-13.89	AV
Vertical	17475.085	55.10	-1.86	53.24	68.2	-14.96	PK
Vertical	17475.085	44.55	-1.86	42.69	54	-11.31	AV
Horizontal	6039.091	71.75	-18.93	52.82	68.2	-15.38	PK
Horizontal	6039.091	59.71	-18.93	40.77	54	-13.23	AV
Horizontal	11650.129	63.78	-8.92	54.86	74	-19.14	PK
Horizontal	11650.129	49.93	-8.92	41.01	54	-12.99	AV
Horizontal	17475.158	56.38	-1.86	54.52	68.2	-13.68	PK
Horizontal	17475.158	44.93	-1.86	43.07	54	-10.93	AV

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

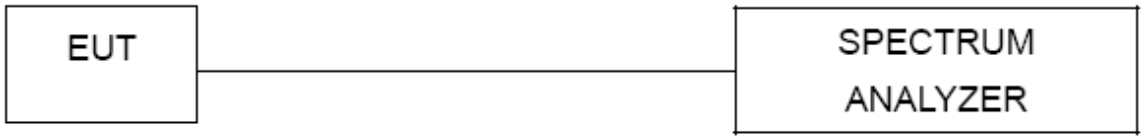
Test Mode:	TX (5.8G) -- 802.11n-HT40

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5755 MHz)-Above 1G							
Vertical	4679.198	73.98	-20.24	53.74	74	-20.26	PK
Vertical	4679.198	59.33	-20.24	39.09	54	-14.91	AV
Vertical	11510.041	63.73	-8.81	54.92	74	-19.08	PK
Vertical	11510.041	49.50	-8.81	40.69	54	-13.31	AV
Vertical	17265.193	57.25	-3.01	54.24	68.2	-13.96	PK
Vertical	17265.193	44.75	-3.01	41.74	54	-12.26	AV
Horizontal	4679.140	72.48	-20.24	52.24	74	-21.76	PK
Horizontal	4679.140	59.29	-20.24	39.04	54	-14.96	AV
Horizontal	11510.102	63.01	-8.81	54.20	74	-19.80	PK
Horizontal	11510.102	49.02	-8.81	40.21	54	-13.79	AV
Horizontal	17265.080	57.18	-3.01	54.17	68.2	-14.03	PK
Horizontal	17265.080	44.64	-3.01	41.63	54	-12.37	AV
Middle Channel (5795 MHz)-Above 1G							
Vertical	6039.177	73.19	-18.93	54.26	68.2	-13.94	PK
Vertical	6039.177	59.79	-18.93	40.86	54	-13.14	AV
Vertical	11590.082	64.02	-8.87	55.15	74	-18.85	PK
Vertical	11590.082	49.23	-8.87	40.36	54	-13.64	AV
Vertical	17385.188	58.44	-2.35	56.09	68.2	-12.11	PK
Vertical	17385.188	44.82	-2.35	42.47	54	-11.53	AV
Horizontal	6039.090	72.44	-18.93	53.51	68.2	-14.69	PK
Horizontal	6039.090	59.32	-18.93	40.39	54	-13.61	AV
Horizontal	11590.100	60.19	-8.87	51.32	74	-22.68	PK
Horizontal	11590.100	49.01	-8.87	40.14	54	-13.86	AV
Horizontal	17385.070	58.94	-2.35	56.59	68.2	-11.61	PK
Horizontal	17385.070	44.31	-2.35	41.96	54	-12.04	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 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 ≥ 1/T, where T is defined in section II.B.I.a).
b) Set VBW ≥ 3 RBW.
c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10log(500kHz/RBW) to the measured result, whereas RBW (< 500 KHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add 10log(1MHz/RBW) to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.
e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

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

8.4 EUT Operating Conditions

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

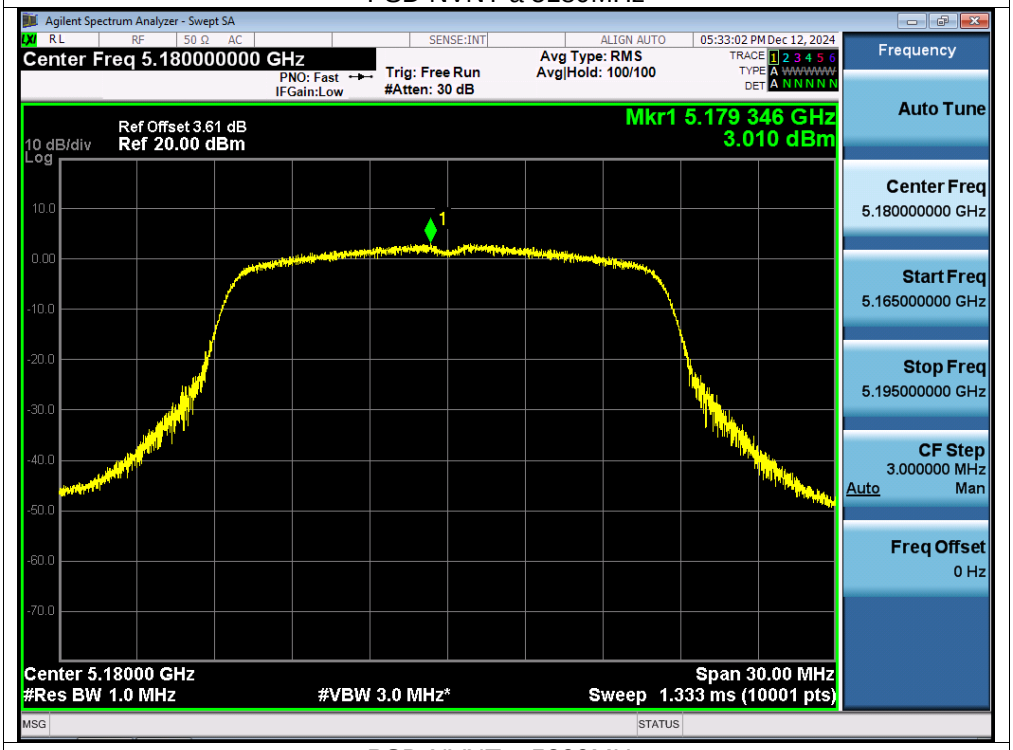
8.5 Test Result

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

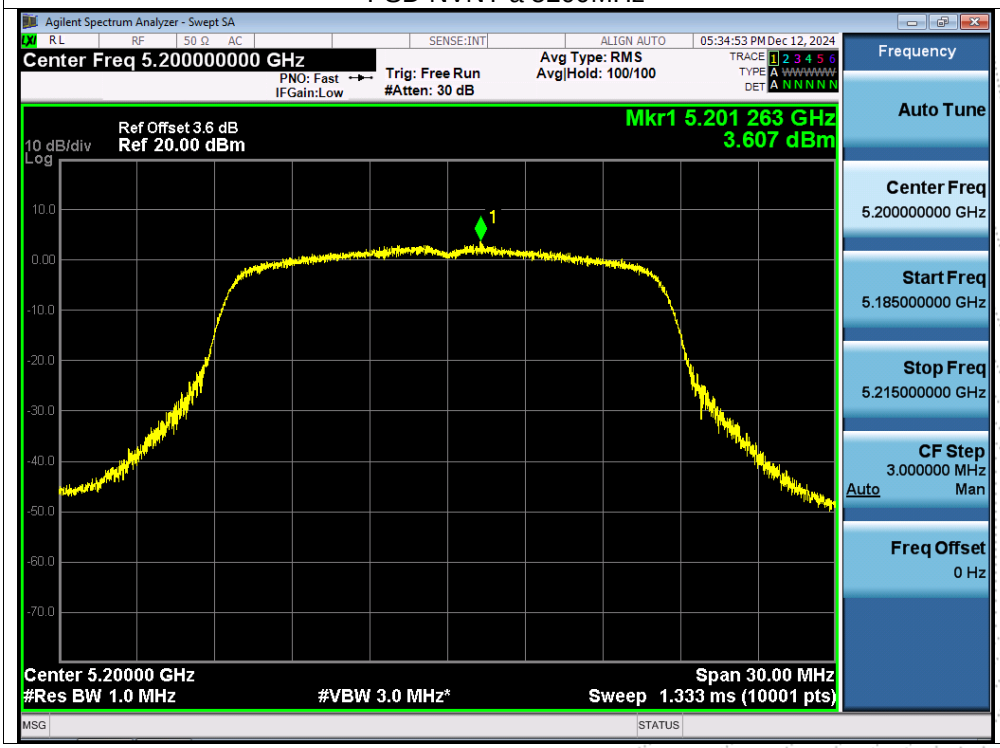
Condition	Mode	Frequency (MHz)	Conducted PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	3.01	11	Pass
NVNT	a	5200	3.61	11	Pass
NVNT	a	5240	2.56	11	Pass
NVNT	n20	5180	1.74	11	Pass
NVNT	n20	5200	1.84	11	Pass
NVNT	n20	5240	0.66	11	Pass
NVNT	n40	5190	-1.02	11	Pass
NVNT	n40	5230	-0.86	11	Pass

Test Graphs

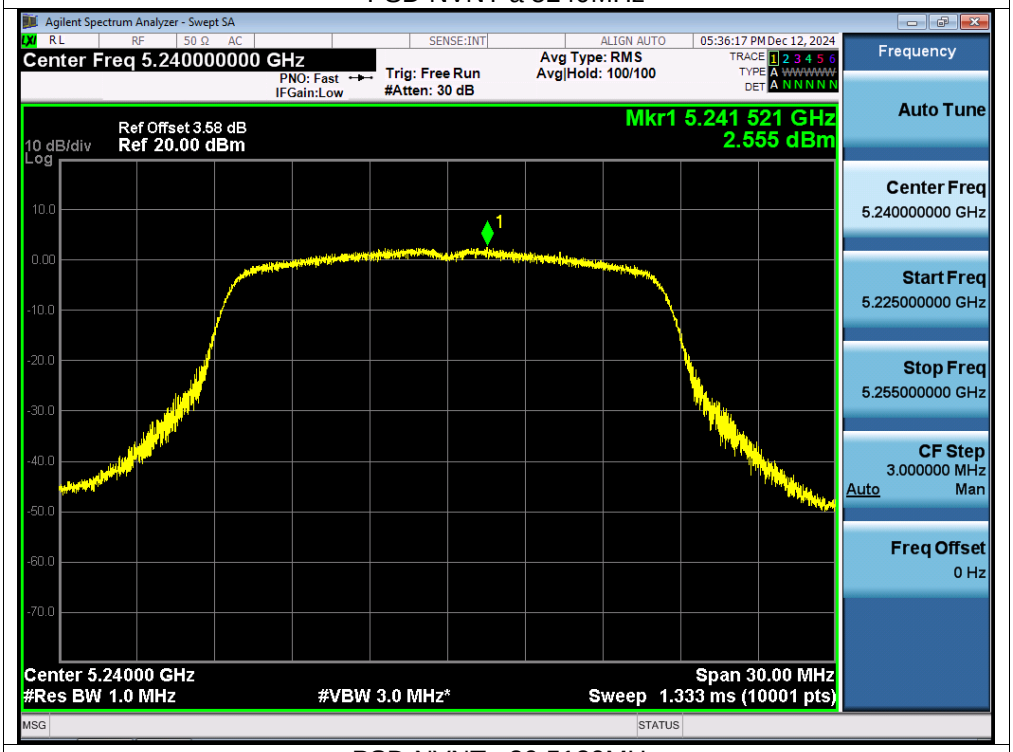
PSD NVNT a 5180MHz



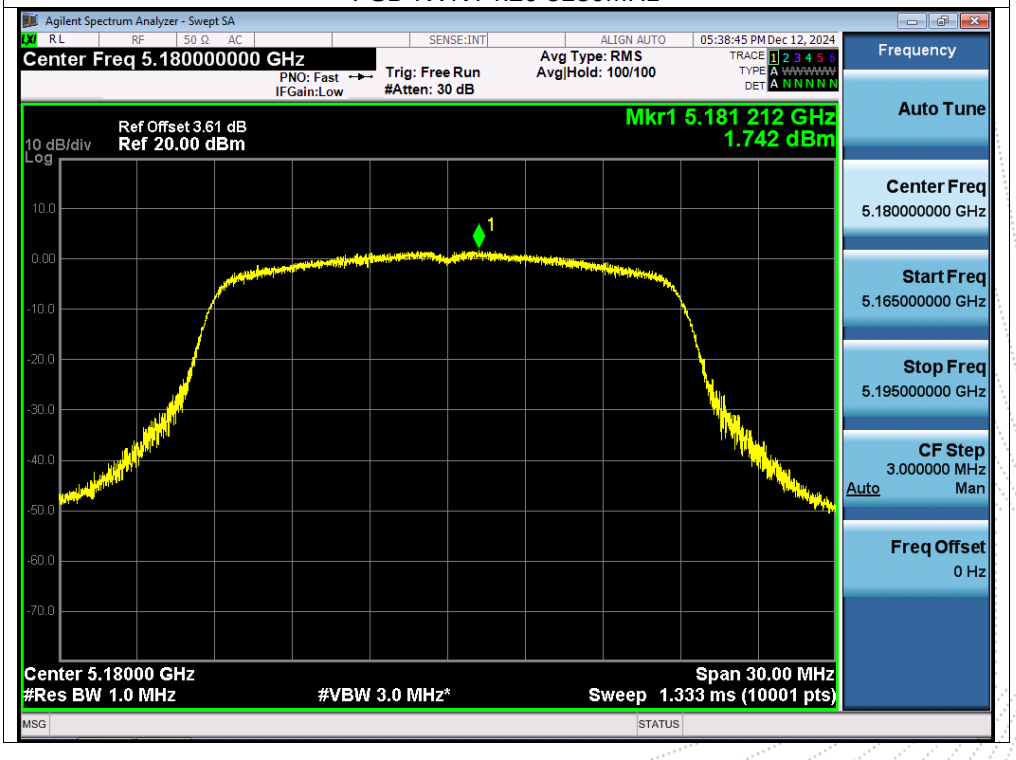
PSD NVNT a 5200MHz



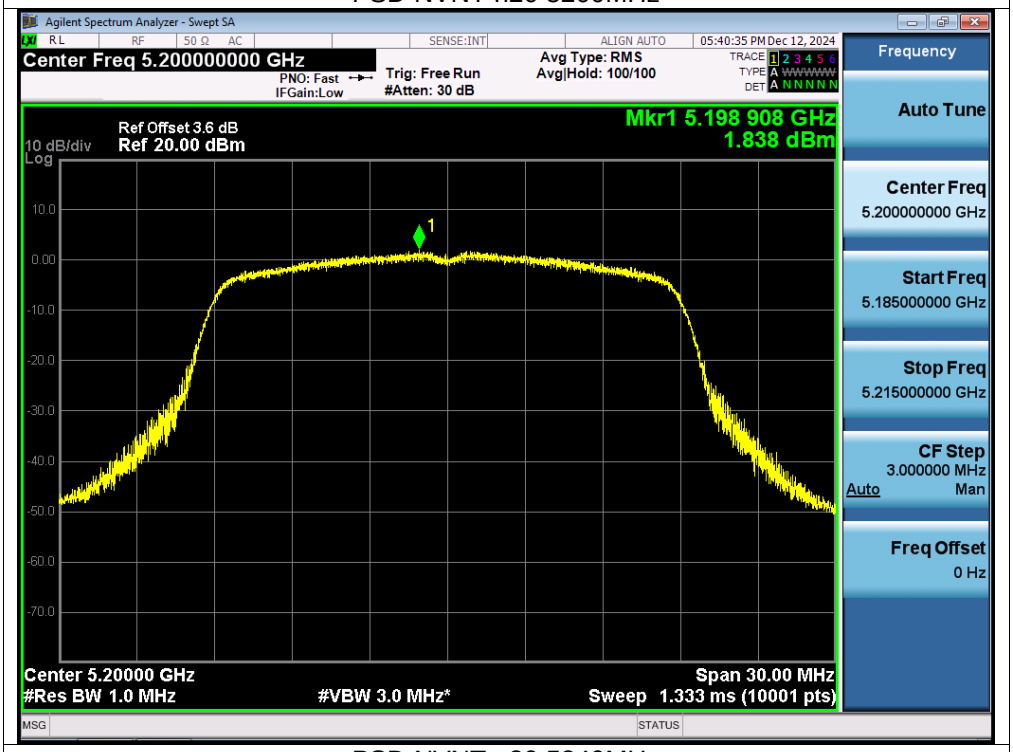
PSD NVNT a 5240MHz



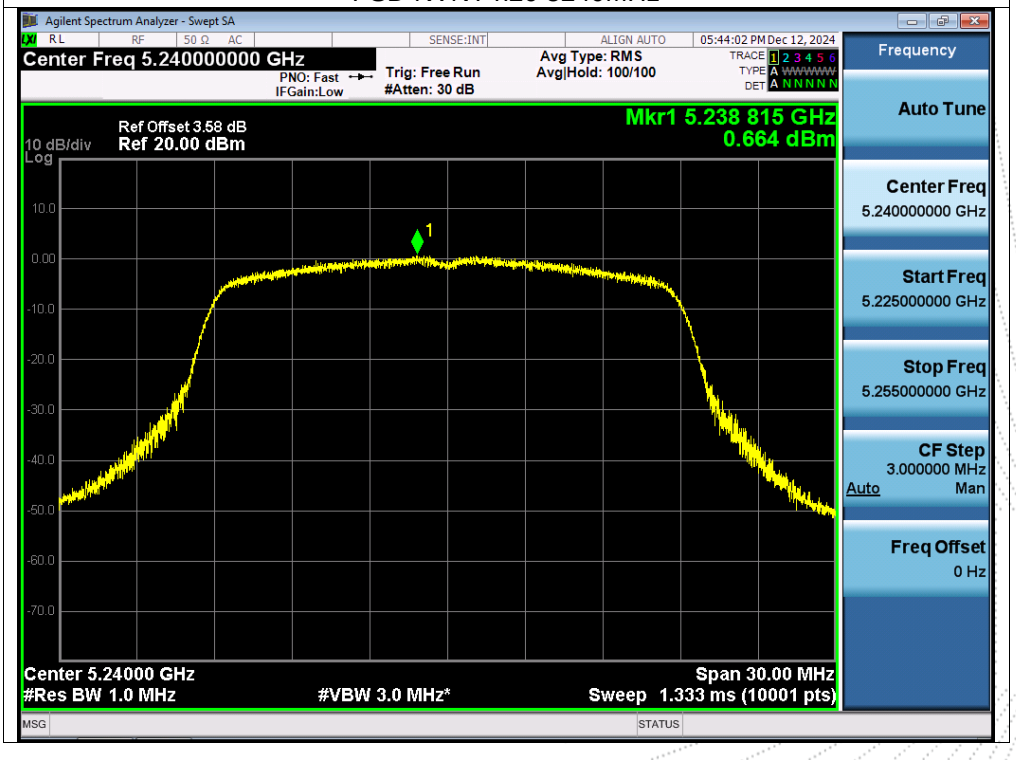
PSD NVNT n20 5180MHz



PSD NVNT n20 5200MHz

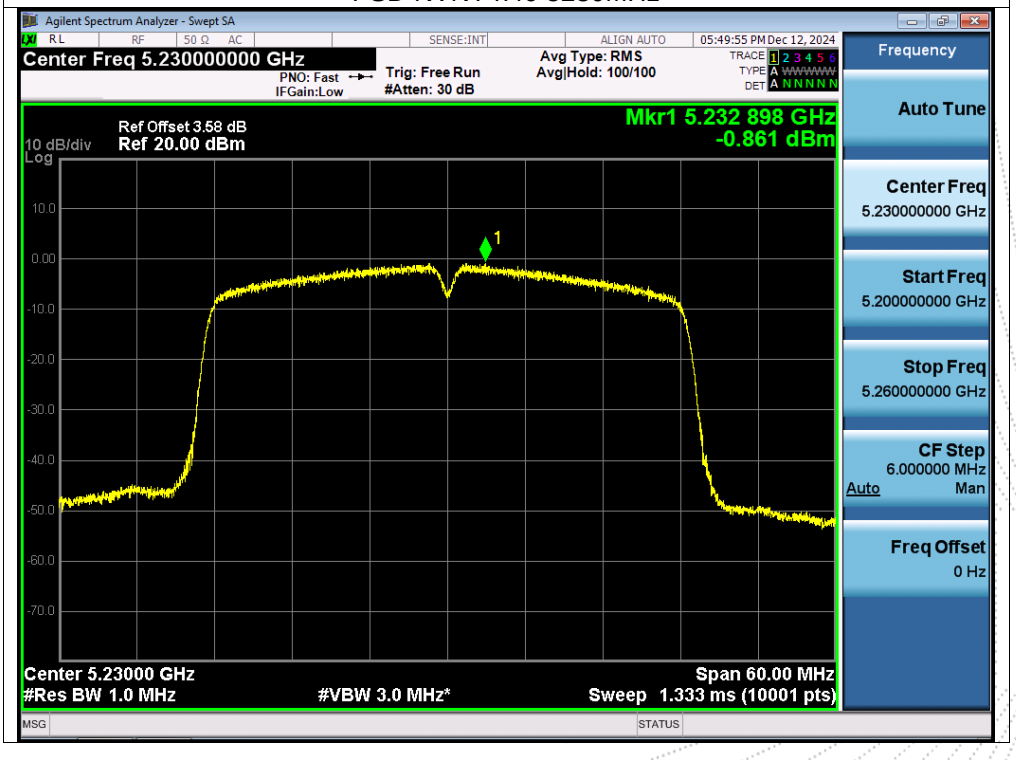


PSD NVNT n20 5240MHz



PSD NVNT n40 5190MHz

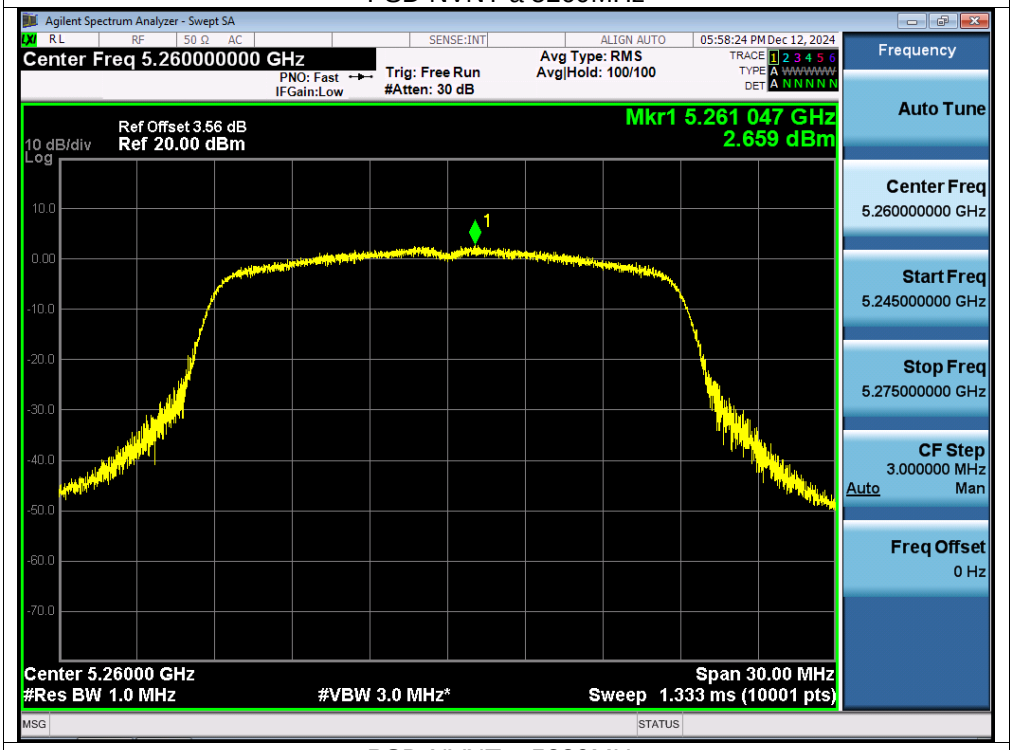
PSD NVNT n40 5230MHz



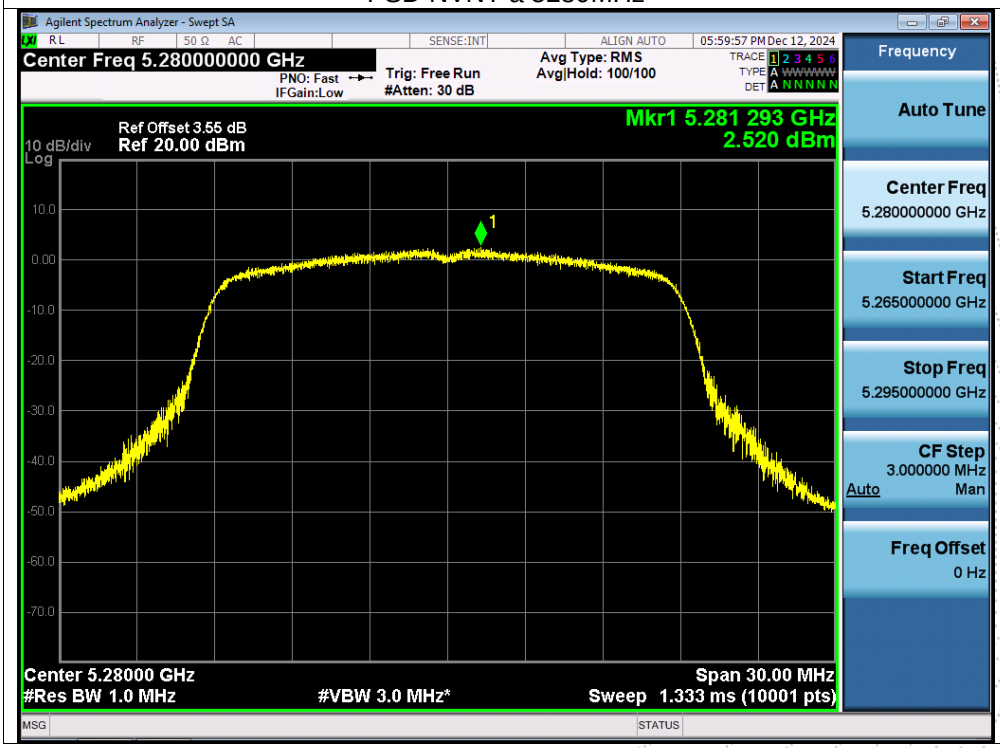
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 3.3V
Test Mode:	(5260-5320MHz)		

Condition	Mode	Frequency (MHz)	Conducted PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5260	2.66	11	Pass
NVNT	a	5280	2.52	11	Pass
NVNT	a	5320	3.49	11	Pass
NVNT	n20	5260	2.17	11	Pass
NVNT	n20	5280	2.61	11	Pass
NVNT	n20	5320	1.01	11	Pass
NVNT	n40	5270	-1.92	11	Pass
NVNT	n40	5310	-1.06	11	Pass

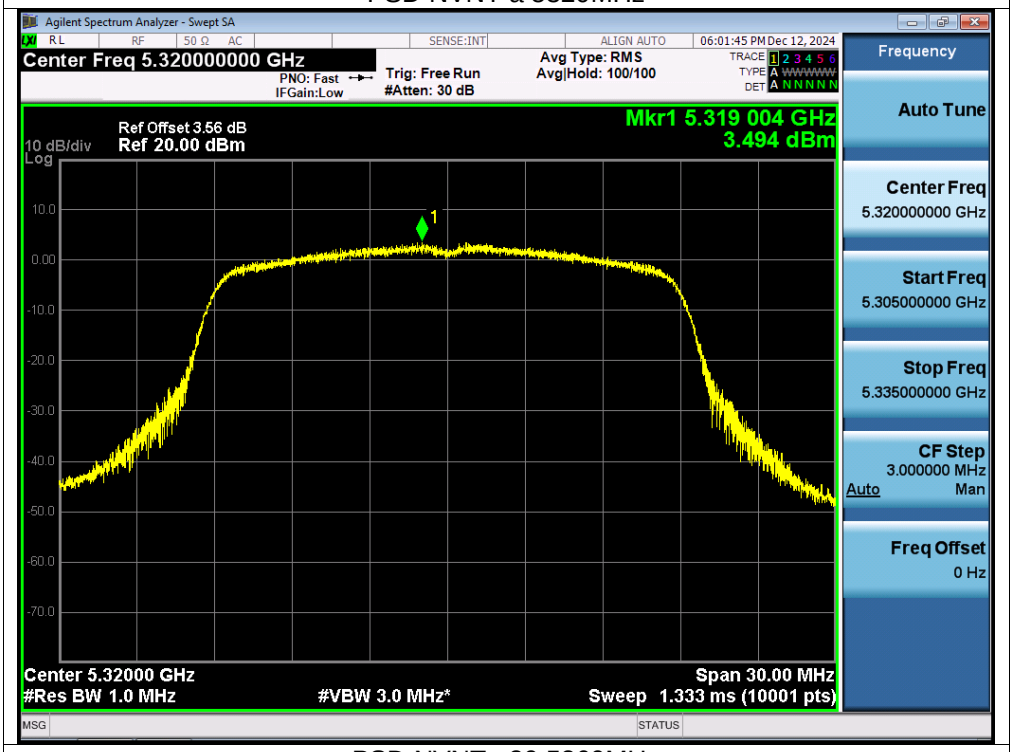
Test Graphs
PSD NVNT a 5260MHz



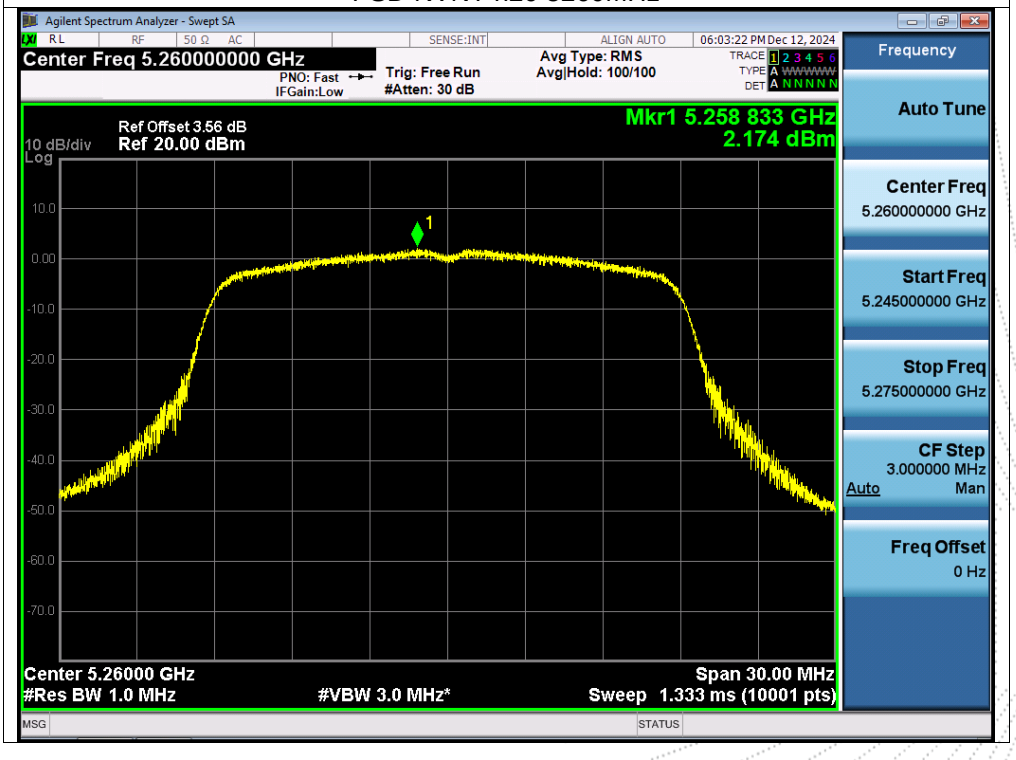
PSD NVNT a 5280MHz



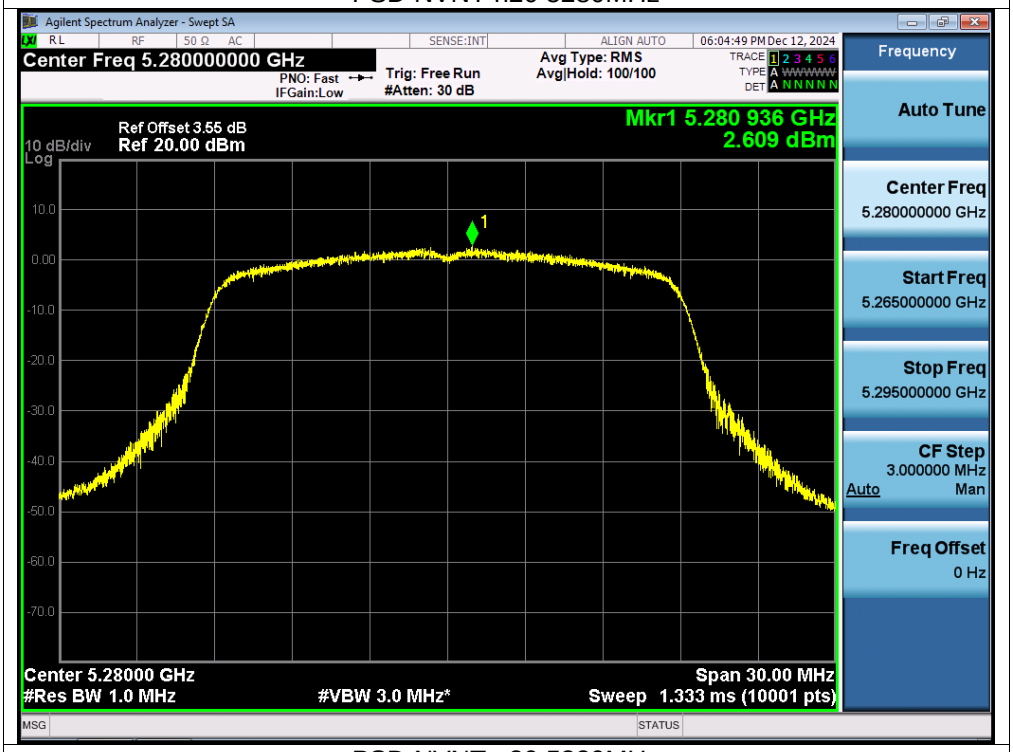
PSD NVNT a 5320MHz



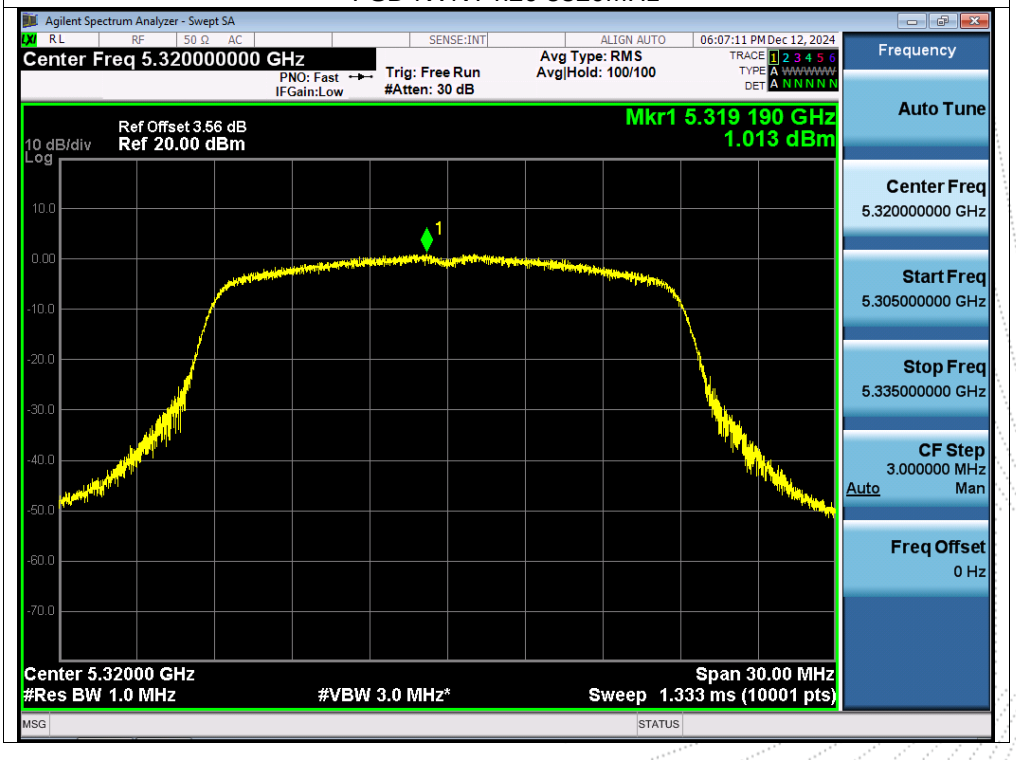
PSD NVNT n20 5260MHz



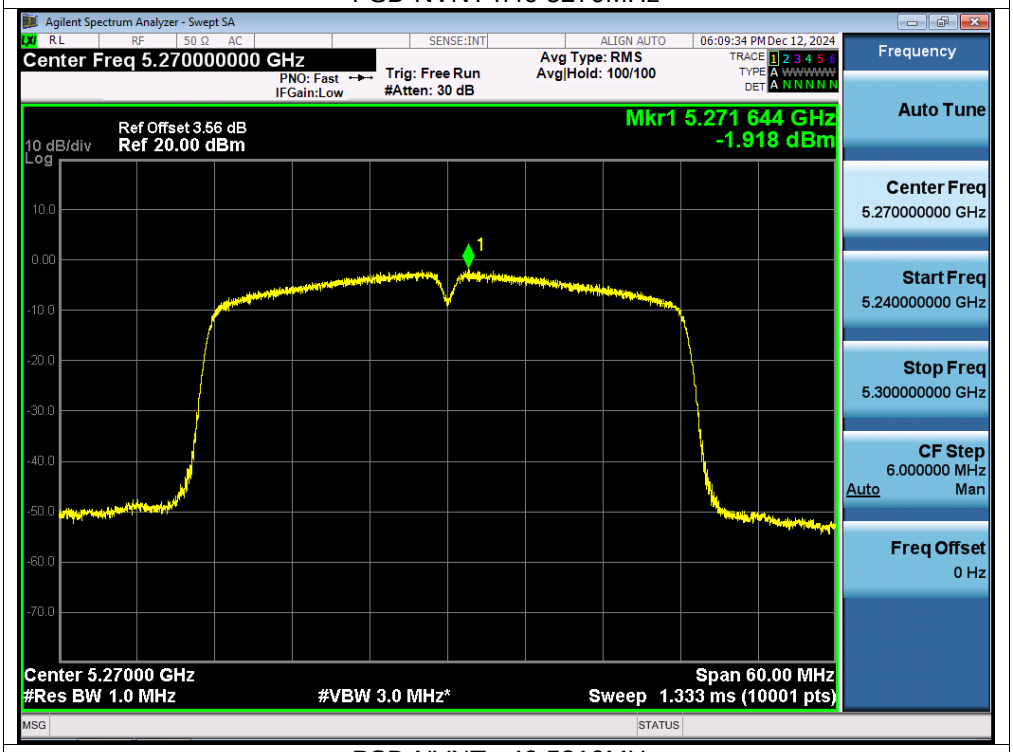
PSD NVNT n20 5280MHz



PSD NVNT n20 5320MHz



PSD NVNT n40 5270MHz

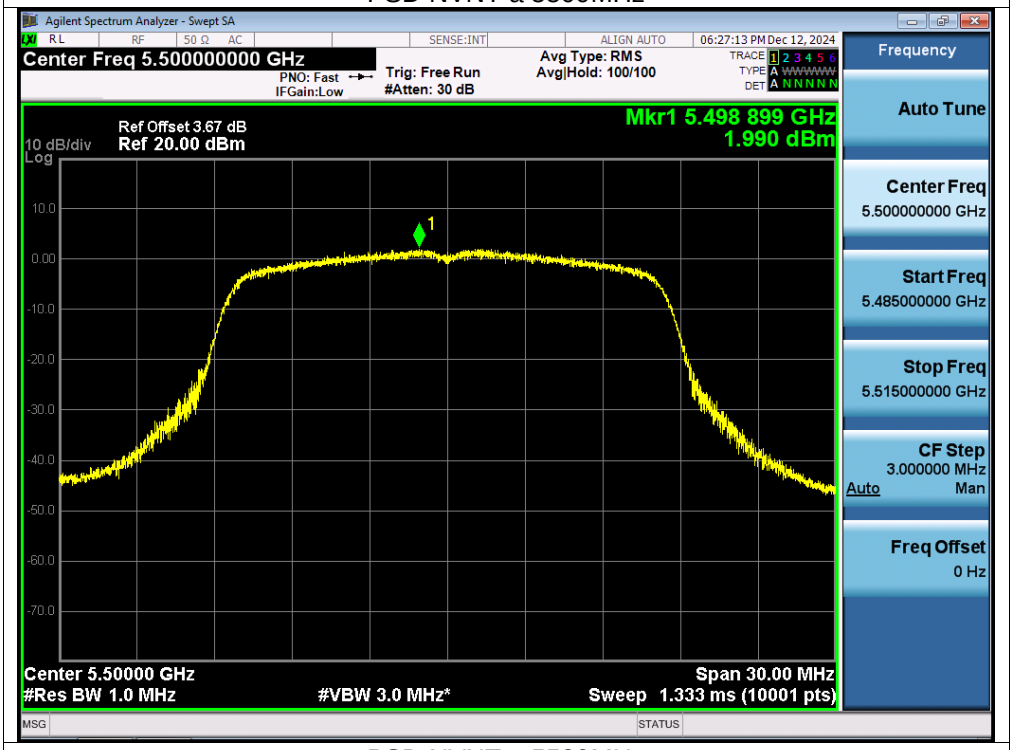


PSD NVNT n40 5310MHz

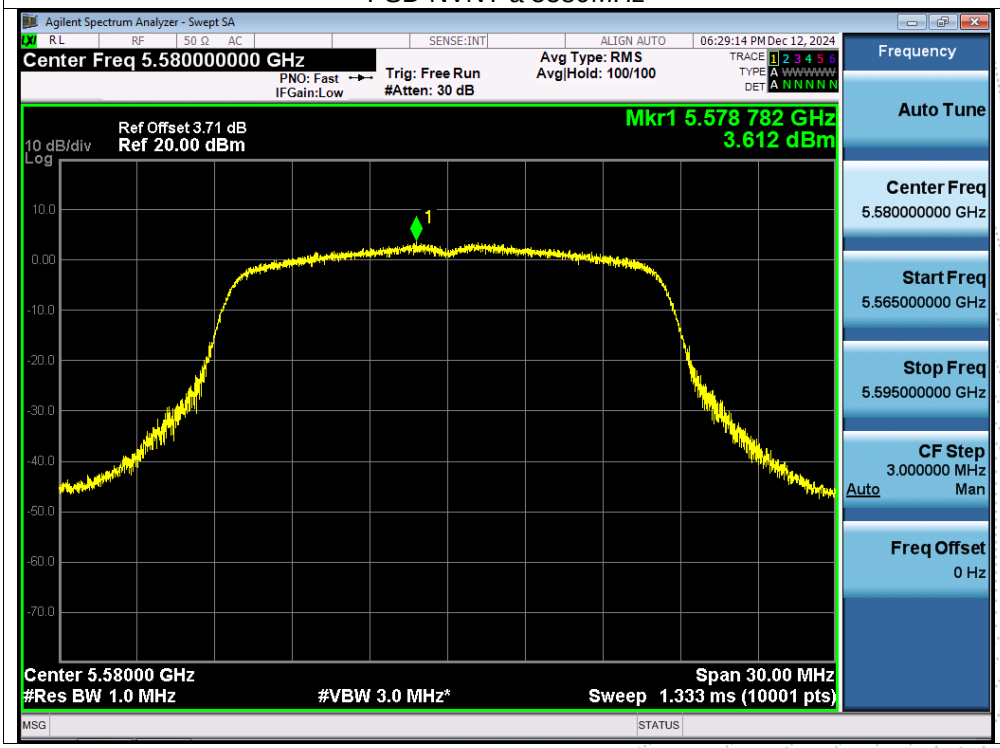
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 3.3V
Test Mode:	(5500-5700MHz)		

Condition	Mode	Frequency (MHz)	Conducted PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5500	1.99	11	Pass
NVNT	a	5580	3.61	11	Pass
NVNT	a	5700	2.18	11	Pass
NVNT	n20	5500	1.33	11	Pass
NVNT	n20	5580	2.69	11	Pass
NVNT	n20	5700	1.8	11	Pass
NVNT	n40	5510	-0.53	11	Pass
NVNT	n40	5550	-0.72	11	Pass
NVNT	n40	5670	-0.82	11	Pass

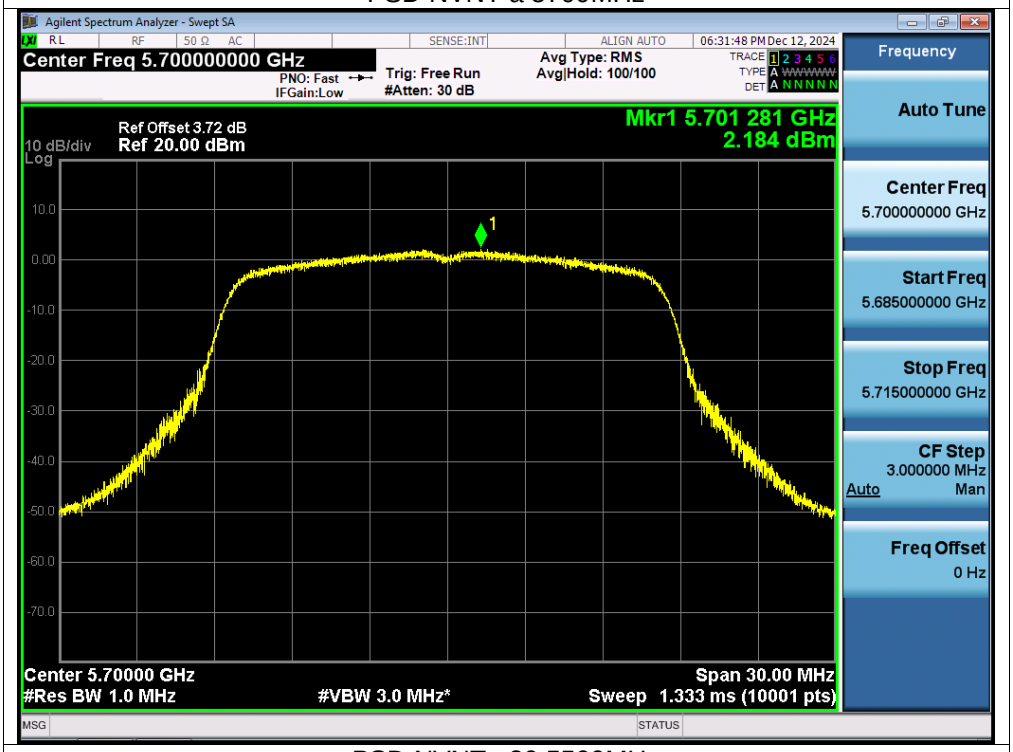
Test Graphs
PSD NVNT a 5500MHz



PSD NVNT a 5580MHz

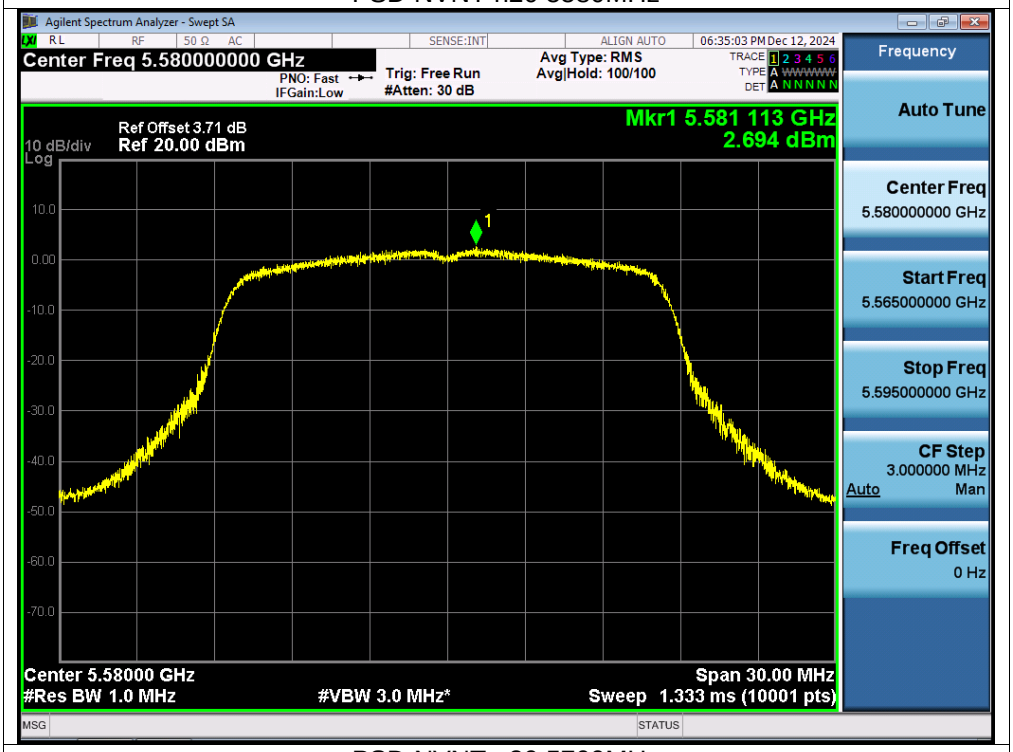


PSD NVNT a 5700MHz

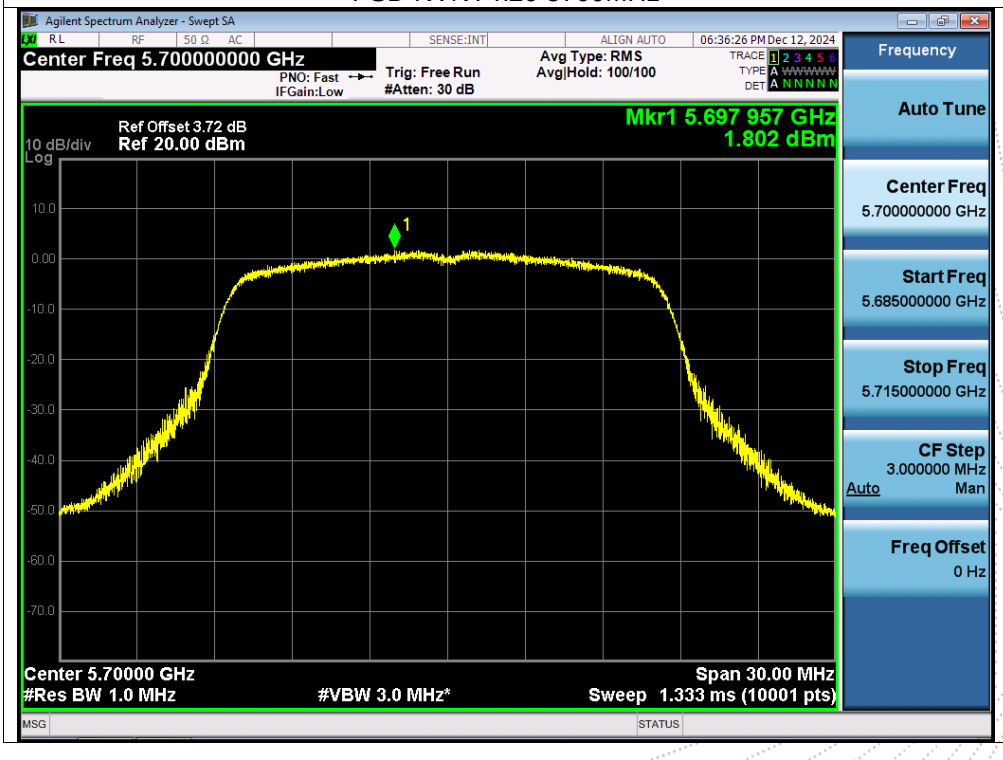


PSD NVNT n20 5500MHz

PSD NVNT n20 5580MHz



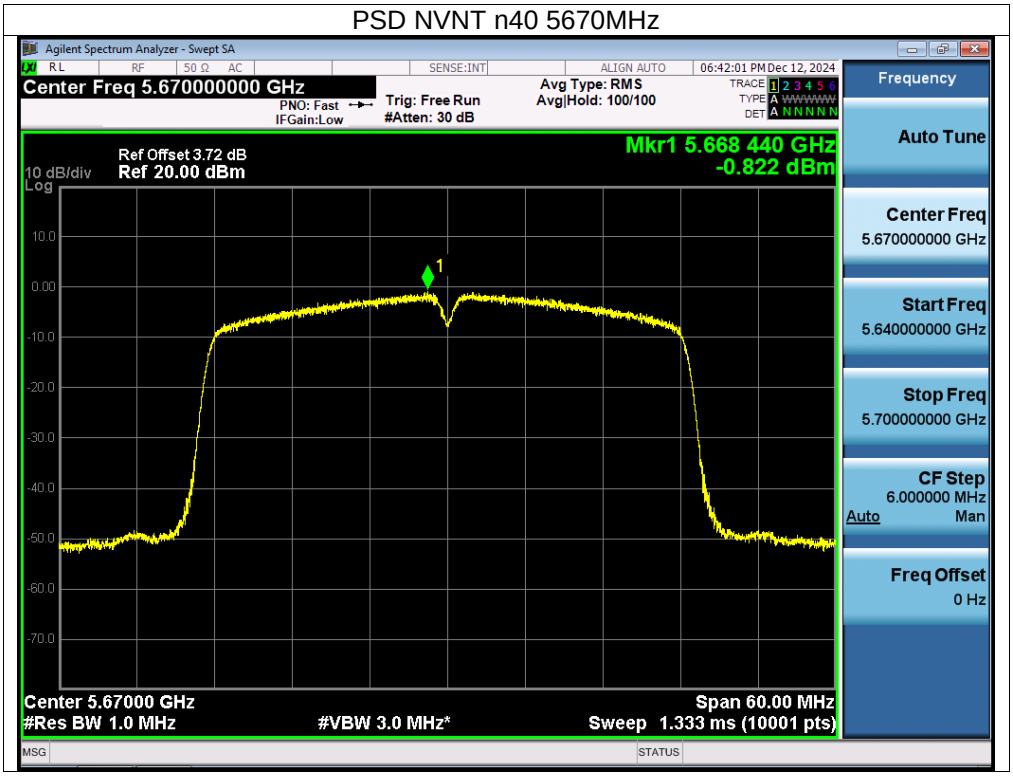
PSD NVNT n20 5700MHz



PSD NVNT n40 5510MHz

PSD NVNT n40 5550MHz

PSD NVNT n40 5670MHz



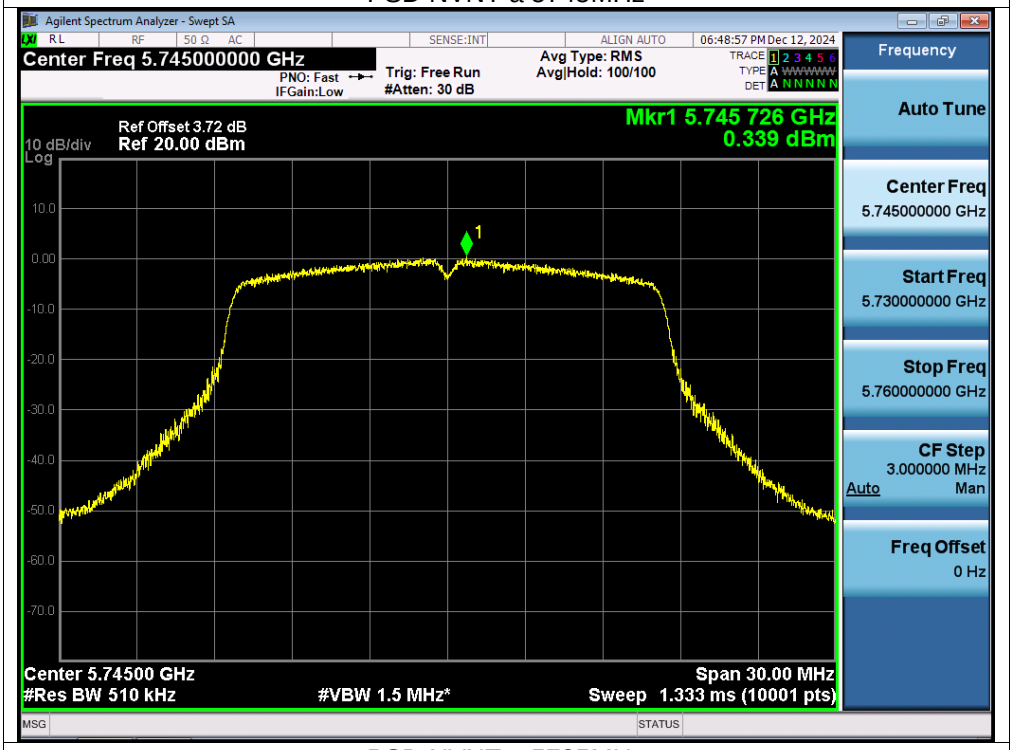
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 3.3V
Test Mode:	(5745-5825MHz)		

Condition	Mode	Frequency (MHz)	Conducted PSD (dBm/510KHz)	Conducted PSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
NVNT	a	5745	0.34	0.254	30	Pass
NVNT	a	5785	-0.45	-0.536	30	Pass
NVNT	a	5825	-1.11	-1.196	30	Pass
NVNT	n20	5745	-0.8	-0.886	30	Pass
NVNT	n20	5785	-0.75	-0.836	30	Pass
NVNT	n20	5825	-1.43	-1.516	30	Pass
NVNT	n40	5755	-5.26	-5.346	30	Pass
NVNT	n40	5795	-5.08	-5.166	30	Pass

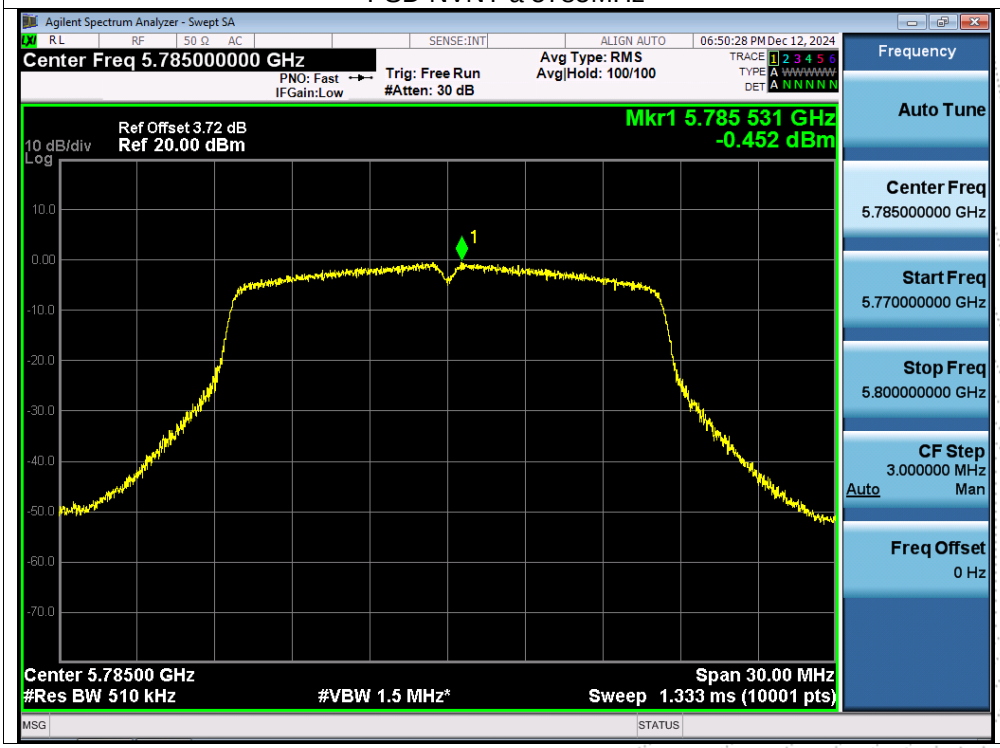
Note: Correction Factor = 10log(500KHz/RBW in measurement) =-0.086

Test Graphs

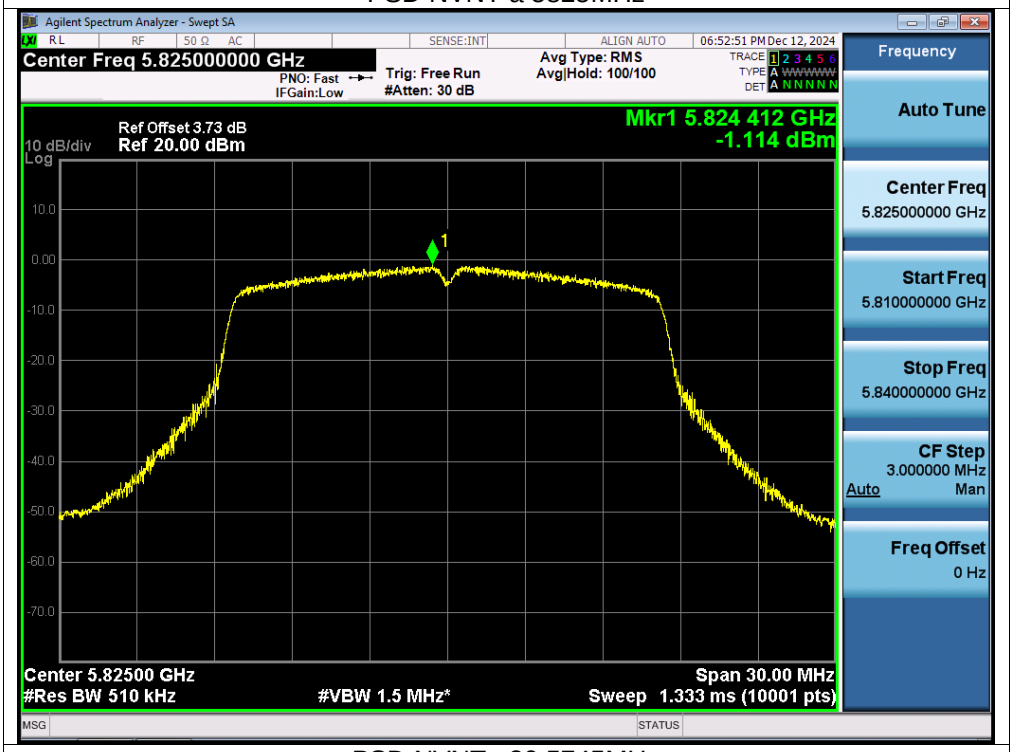
PSD NVNT a 5745MHz



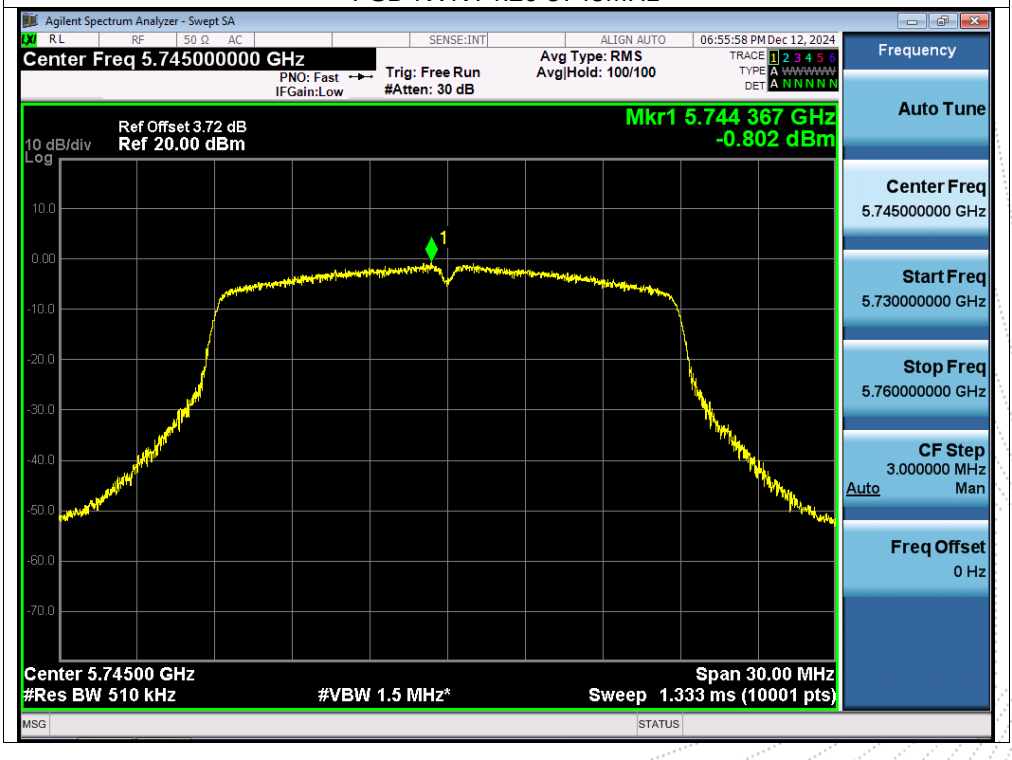
PSD NVNT a 5785MHz



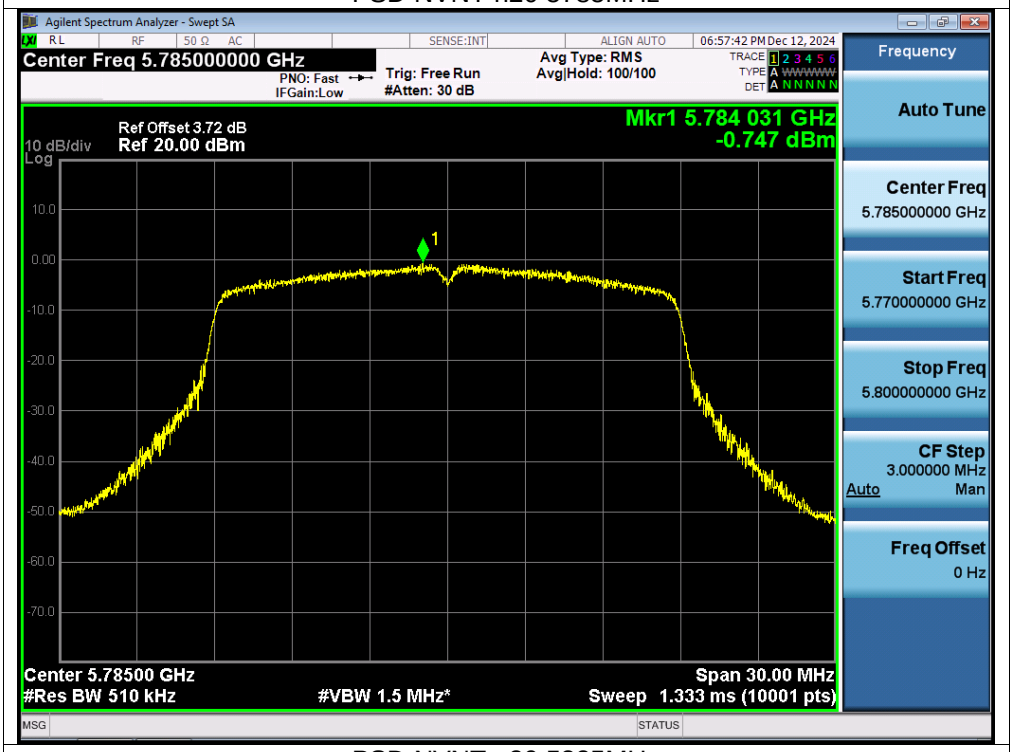
PSD NVNT a 5825MHz



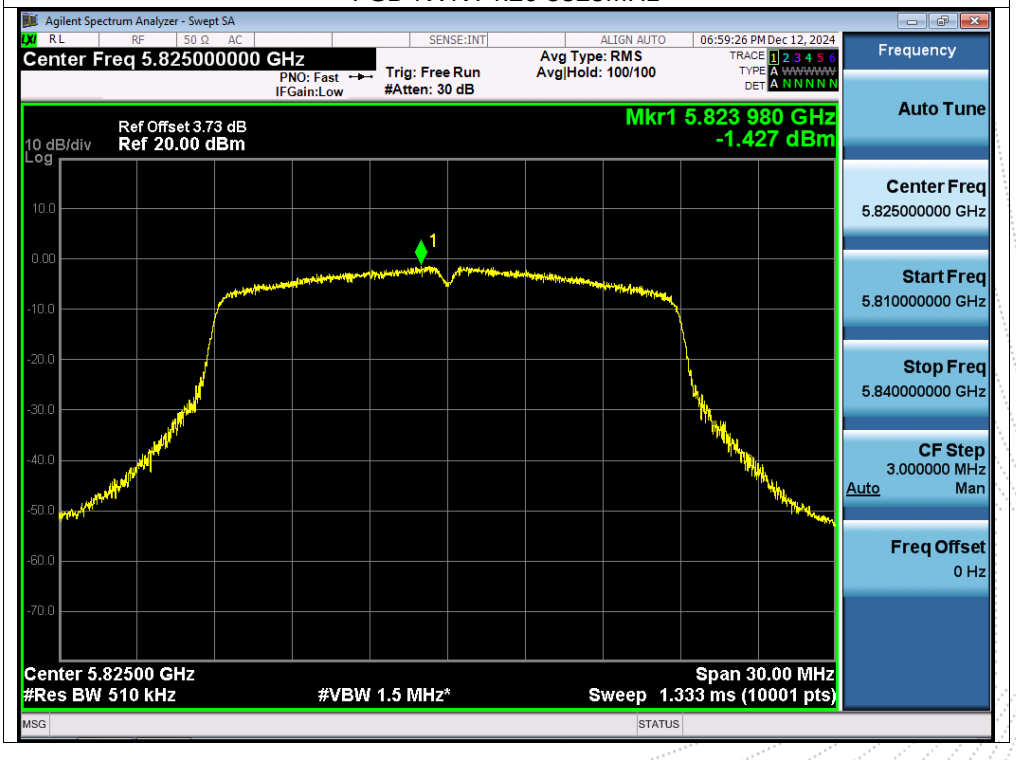
PSD NVNT n20 5745MHz



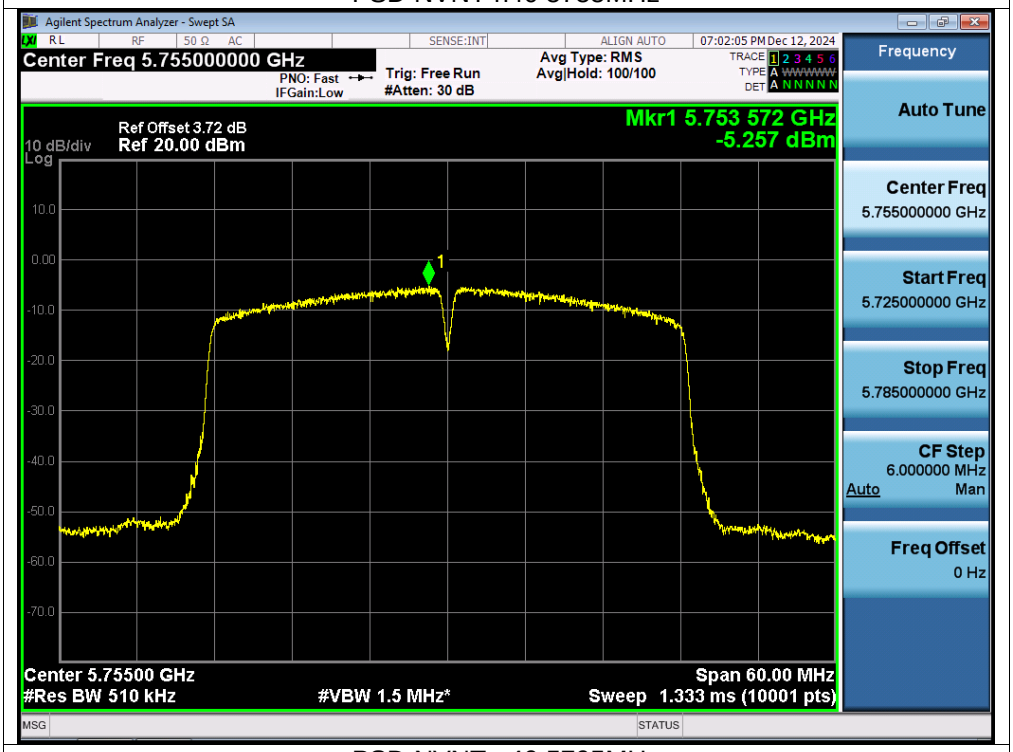
PSD NVNT n20 5785MHz



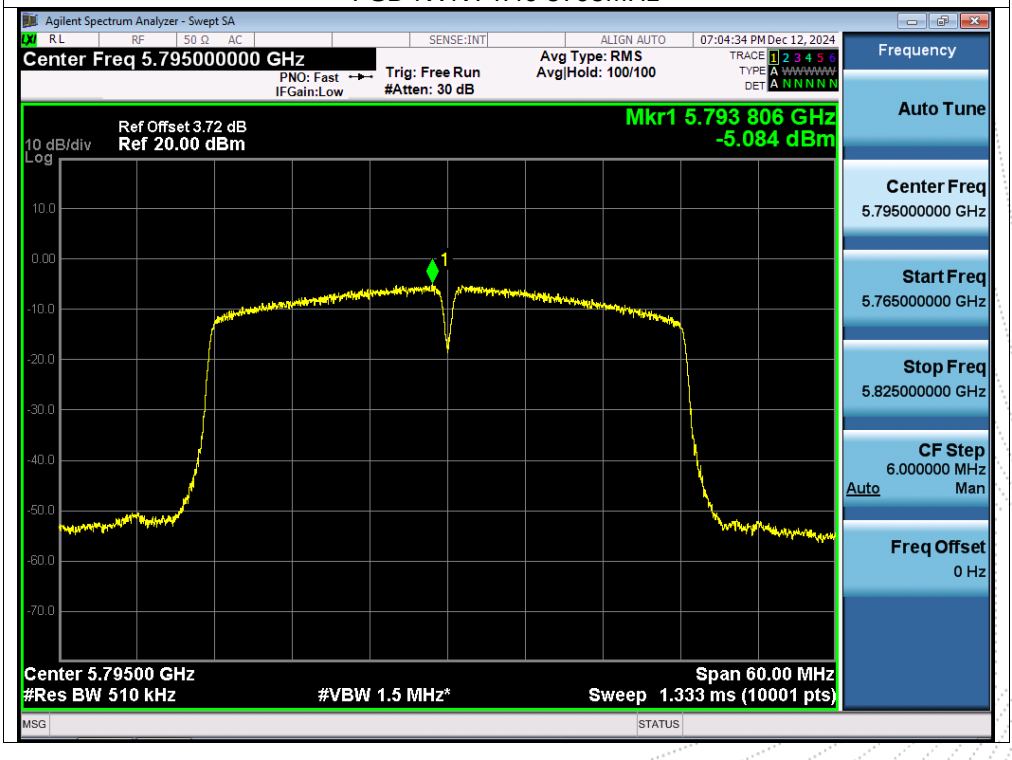
PSD NVNT n20 5825MHz



PSD NVNT n40 5755MHz

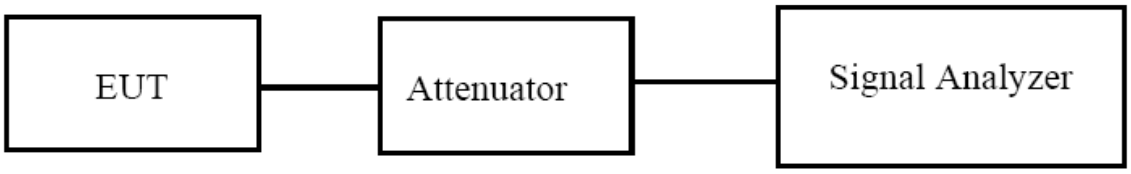


PSD NVNT n40 5795MHz



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 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

a) Set RBW = approximately 1% of the emission bandwidth.
b) Set the VBW > RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

The following procedure shall be used for measuring (99 %) power bandwidth:
1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.

3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW ≥ 3 · RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

9.4 EUT Operating Conditions

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

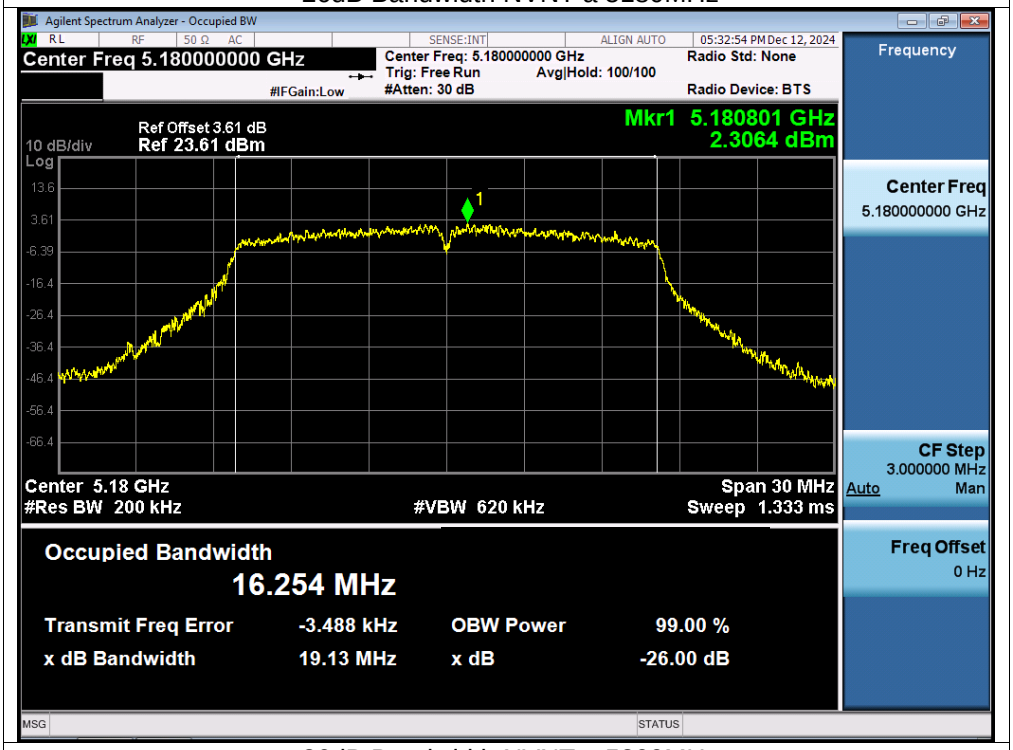
9.5 Test Result

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

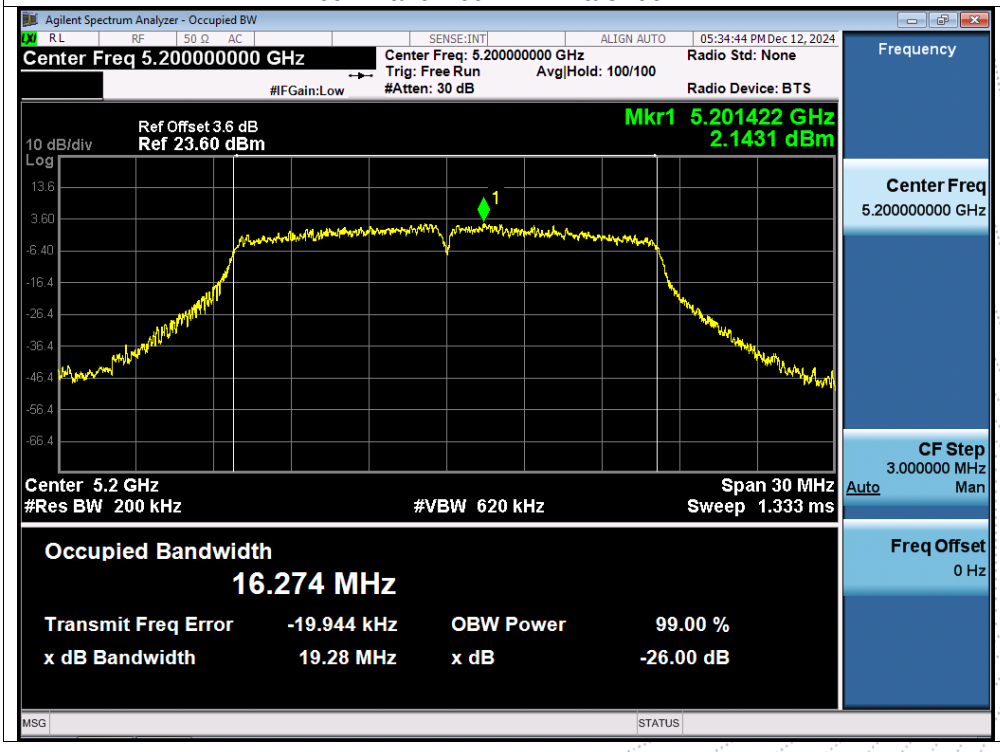
Condition	Mode	Frequency (MHz)	99% bandwidth (MHz)	-26dB bandwidth (MHz)	Result
NVNT	a	5180	16.271	19.133	Pass
NVNT	a	5200	16.267	19.279	Pass
NVNT	a	5240	16.26	19.343	Pass
NVNT	n20	5180	17.409	20.018	Pass
NVNT	n20	5200	17.416	20.313	Pass
NVNT	n20	5240	17.44	20.133	Pass
NVNT	n40	5190	35.373	37.924	Pass
NVNT	n40	5230	35.369	37.946	Pass

Test Graphs

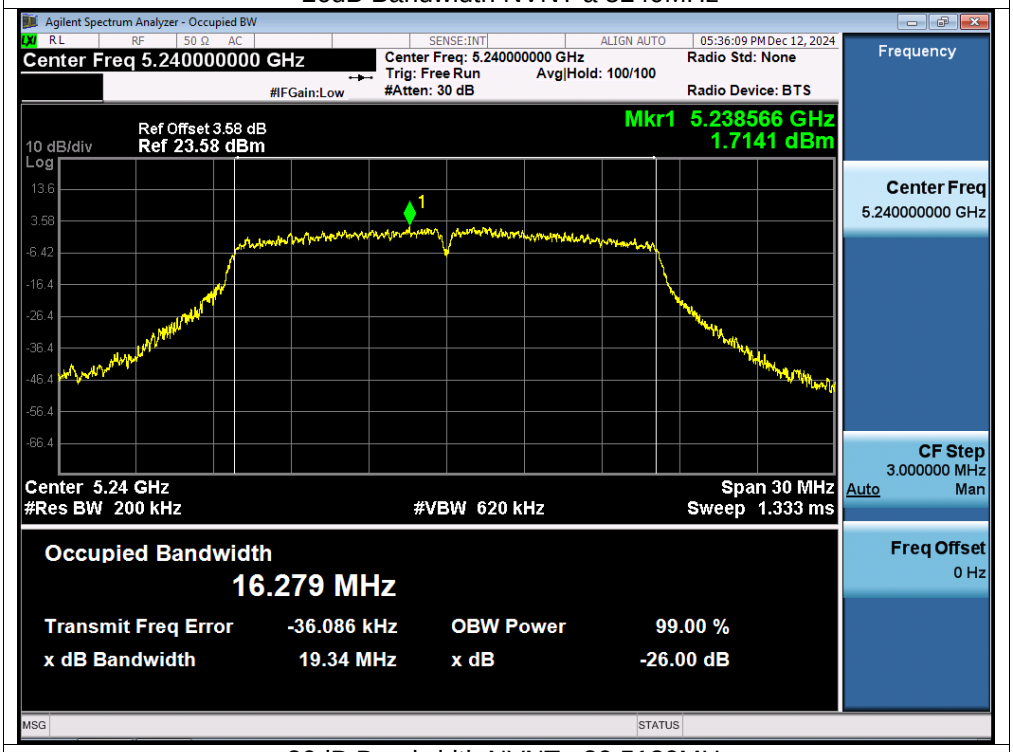
-26dB Bandwidth NVNT a 5180MHz



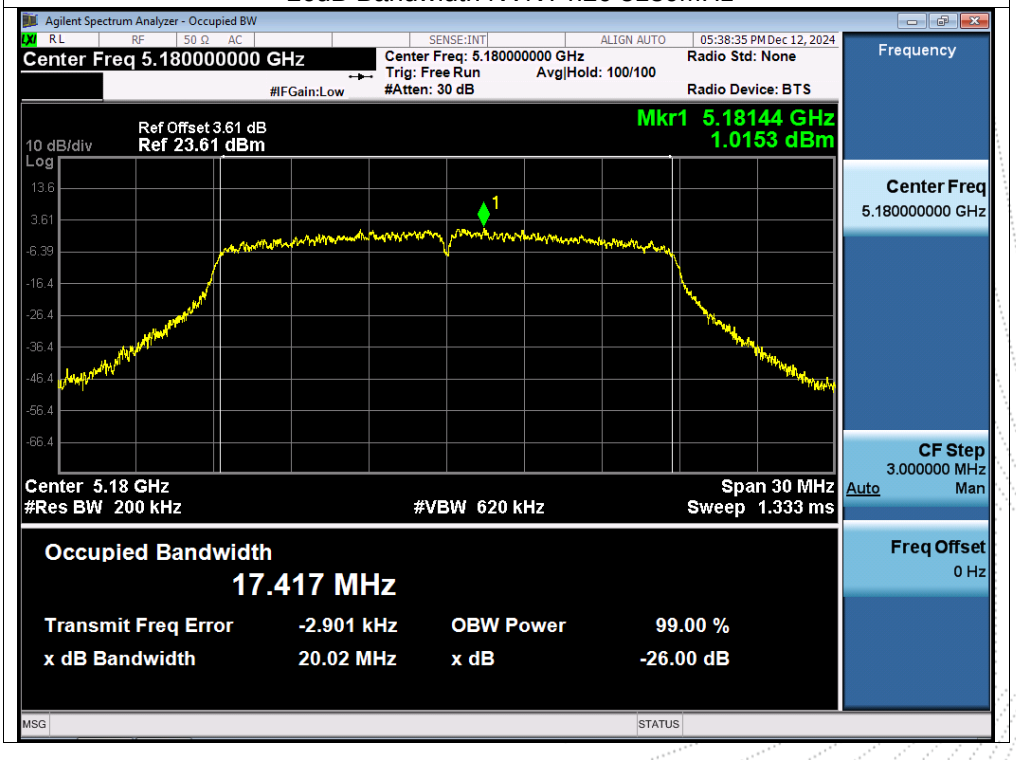
-26dB Bandwidth NVNT a 5200MHz



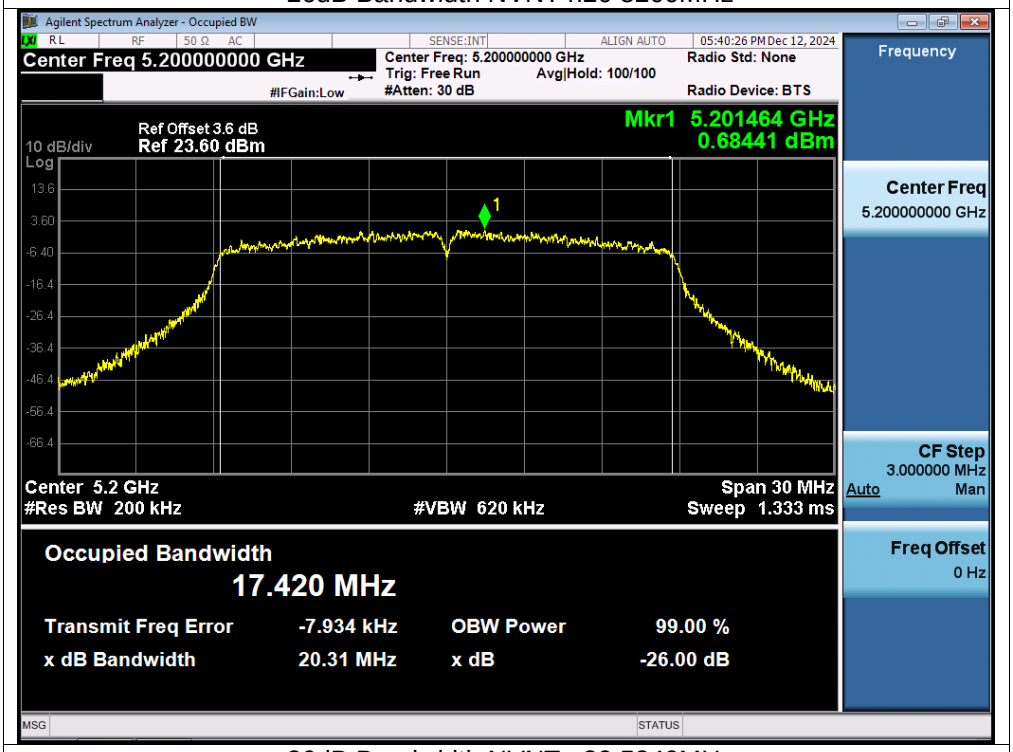
-26dB Bandwidth NVNT a 5240MHz



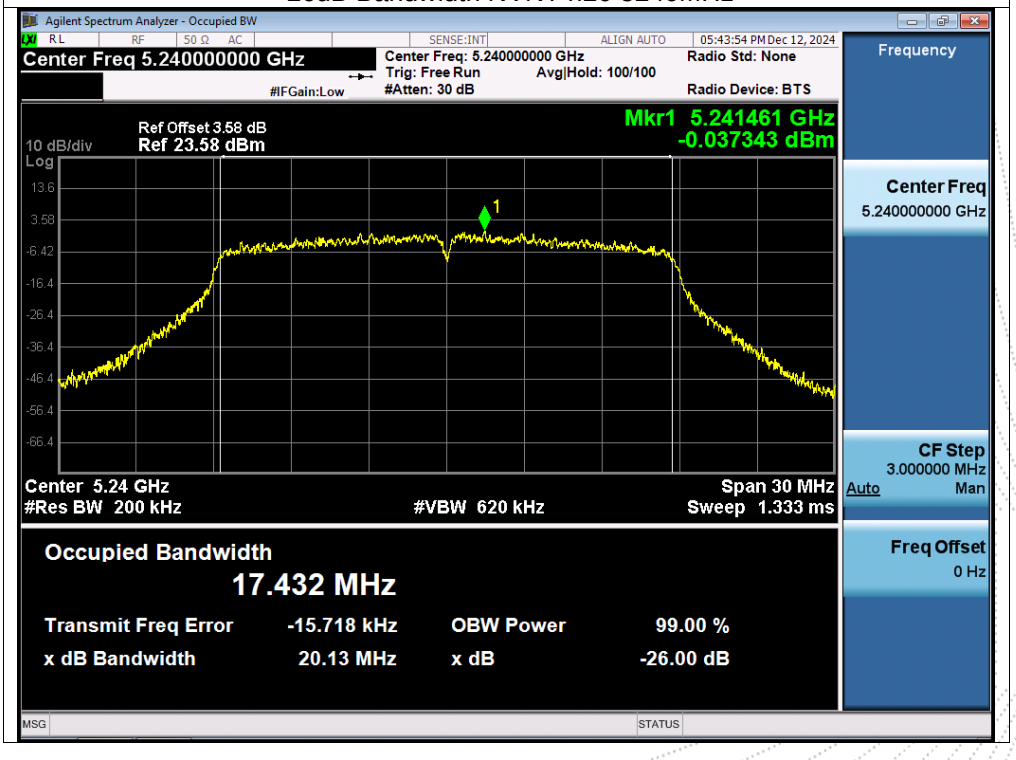
-26dB Bandwidth NVNT n20 5180MHz



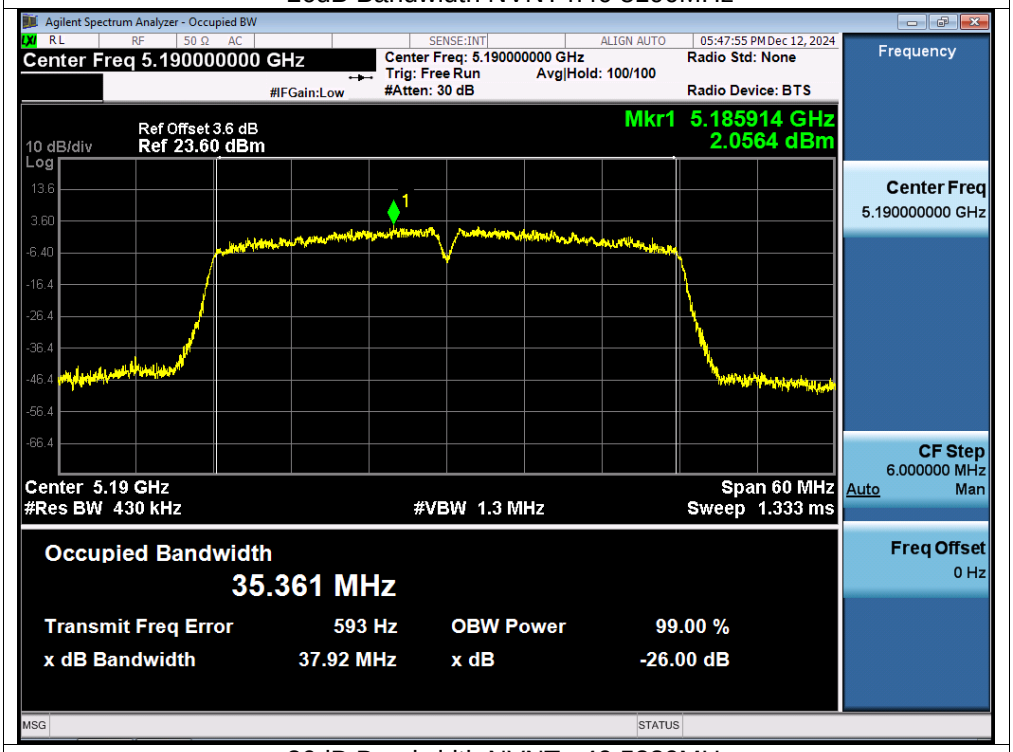
-26dB Bandwidth NVNT n20 5200MHz



-26dB Bandwidth NVNT n20 5240MHz



-26dB Bandwidth NVNT n40 5190MHz



-26dB Bandwidth NVNT n40 5230MHz