TEST REPORT

Report No.:	BCTC2412870425-4E
Applicant:	Acer India PVT Limited
Product Name:	Notebook
Test Model:	Aspire 3 A311-45
Tested Date:	2024-12-12 to 2025-01-06
Issued Date:	2025-01-06

Shenzhen BCTC Testing Co., Ltd.

FCC ID: 2A94K-A311-45

Product Name:	Notebook
Trademark:	acer
Model/Type reference:	Aspire 3 A311-45
Prepared For:	Acer India PVT Limited
Address:	Acer India PVT Limited, 6th Floor, Embassy Heights, No.13, Magrath Road, Bangalore, 560025, India
Manufacturer:	Acer India PVT Limited
Address:	Acer India PVT Limited, 6th Floor, Embassy Heights, No.13, Magrath Road, Bangalore, 560025, India
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:	2024-12-12
Sample tested Date:	2024-12-12 to 2025-01-06
Issue Date:	2025-01-06
Report No.:	BCTC2412870425-4E
Test Standards:	FCC Part15 15.407 ANSI C63.10-2013 KDB 662911 D01 v02r01 KDB 789033 D02 v02r01
Test Results:	PASS

Tested by:

Brave Zeng/ Project Handler

Approved by:

Zero Zhou/Reviewer

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

Table Of Content

(Note: N/A Means Not Applicable)

1. Version

Report No.	Issue Date	Description	Approved
BCTC2412870425-4E	2025-01-06	Original	Valid

2. Test Summary

The Product has been tested according to the following specifications:

No.	Test Parameter	Clause No.	Results
1	Spurious Radiated Emissions	15.209(a), 15.407 (b)(1) 15.407 (b)(4) 15.407 (b)(8)	PASS
2	Conducted Emission	15.207	PASS
3	26 dB and 99% Emission Bandwidth	15.407 (a)(12) 15.1049	PASS
4	Minimum 6 dB bandwidth	15.407(e)	PASS
5	Maximum Conducted Output Power	15.407 (a)(1) 15.407 (a)(3)	PASS
6	Band Edge	2.1051, 15.407(b)(1) 15.407(b)(4)	PASS
7	Power Spectral Density	15.407 (a)(1) 15.407 (a)(3)	PASS
8	Spurious Emissions at Antenna Terminals	2.1051, 15.407(b)	PASS
9	Antenna Requirement	15.203	PASS

3. Measurement Uncertainty

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

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

4. Product Information And Test Setup

4.1 Product Information

Model/Type reference:	Aspire 3 A311-45
Model differences:	N/A
Hardware Version:	T140J REV:3.4
Software Version:	N/A
IEEE 802.11 WLAN Mode Supported	802.11a/n/ac(20MHz channel bandwidth) 802.11n/ac(40MHz channel bandwidth) 802.11ac(80MHz channel bandwidth)
Operation Frequency:	5180-5240MHz for 802.11a/n(HT20)/ac(HT20); 5190-5230MHz for 802.11n(HT40)/ac(HT40); 5210MHz for 802.11 ac80; 5745-5825 MHz for 802.11a/n(HT20)/ac(HT20); 5755-5795 MHz for 802.11n(HT40)/ac(HT40); 5775MHz for 802.11 ac80;
Data Rate	802.11a: 6,9,12,18,24,36,48,54Mbps; 802.11n(HT20/HT40): MCS0-MCS15; 802.11ac(VHT20): MCS0-MCS8 802.11ac(VHT40/VHT80): MCS0-MCS9
Type of Modulation:	OFDM with BPSK/QPSK/16QAM/64QAM/256QAM for 802.11a/n/ac;
Number Of Channel	4 channels for 802.11a/n20/ac20 in the 5180-5240MHz band ; 2 channels for 802.11 n40/ac40 in the 5190-5230MHz band ; 1 channels for 802.11 ac80 in the 5210MHz band ; 5 channels for 802.11a/n20/ac20 in the 5745-5825MHz band ; 2 channels for 802.11 n40/ac40 in the 5755-5795MHz band ; 1 channels for 802.11 ac80 in the 5775MHz band
Antenna installation:	Internal antenna*2
Antenna Gain:	Antenna A: 2.78 dBi, Antenna B: 3.22 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 12V from adapter/DC 7.6V from battery
Adapter Information:	MODEL: SOY-1200300US-540 INPUT: 100-240V~ 50/60Hz 0.9A Max. OUTPUT: DC 12.0V 3.0A

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	Notebook	acer	Aspire 3 A311-45	N/A	EUT
E-2	Adapter	---	SOY-1200300 US-540	---	Auxiliary
E-3	HDMI Cable	Belkin	HDMI2.0	---	Auxiliary
E-4	TF card	SanDisk	128G	---	Auxiliary
E-5	U disk	SanDisk	32G	---	Auxiliary
E-6	Earphone	SONY	IER-M7	---	Auxiliary
E-7	Display	ChangHong	55DBK	---	Auxiliary

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

5.1G

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

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

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

5.8G

802.11a/n(20MHz)/ac(20 MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	153	5765	157	5785	161	5805
165	5825	-	-	-	-	-	-

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

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

4.5 Test Mode

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

Pretest Mode	Description
Mode 1	802.11a / n 20/ ac 20 CH36/ CH40/ CH 48 802.11a /n 20/ ac 20 CH149/ CH157/ CH 165
Mode 2	802.11n 40/ ac40 CH38/ CH 46 802.11n 40/ ac40 CH 151 / CH 159
Mode 3	802.11 ac80 CH 42/CH 155
Mode 4	Link mode (Conducted emission & Radiated emission)

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

4.6 Table Of Parameters Of Text Software Setting

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

Test software Version	phwfw02372_22.10.0.7tools		
Parameters	DEF	DEF	DEF

4.7 Antenna

5G
1)For power spectral density(PSD) measurements,
Array Gain=10log(NANT/NSS)dB=10log(2/1)=3.01dB,
So the directional gain for PSD is 6.23 dBi
2)For power measurements,
The Array gain=0 dB for NANT≤4,
So the directional gain for Power measurements is 3.22 dBi

Antenna	Brand	Model Name	Antenna Type	Gain (dBi)	NOTE
A	N/A	N/A	Internal antenna	2.78	N/A
B	N/A	N/A	Internal antenna	3.22	N/A

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

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

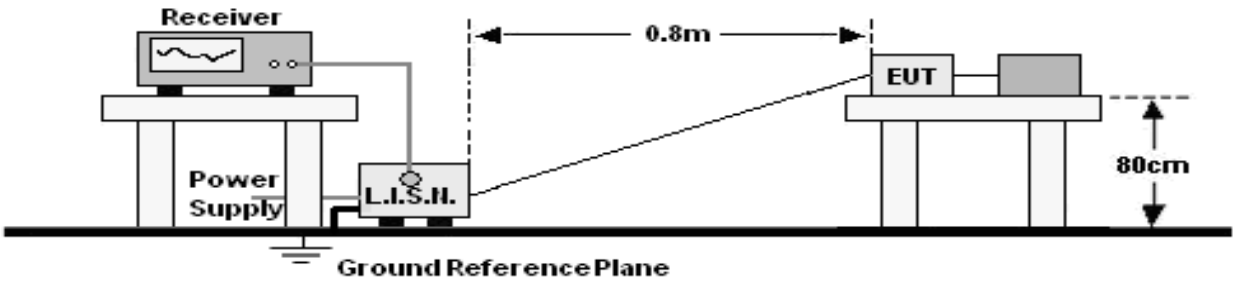
Conducted Emissions Test					
Equipment	**Manufacturer**	**Model#**	**Serial#**	**Last Cal.**	**Next Cal.**
Receiver	R&S	ESR3	102075	May 16, 2024	May 15, 2025
LISN	R&S	ENV216	101375	May 16, 2024	May 15, 2025
Software	Frad	EZ-EMC	EMC-CON 3A1	\	\
Pulse limiter	Schwarzbeck	VTSD9561-F	01323	May 16, 2024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

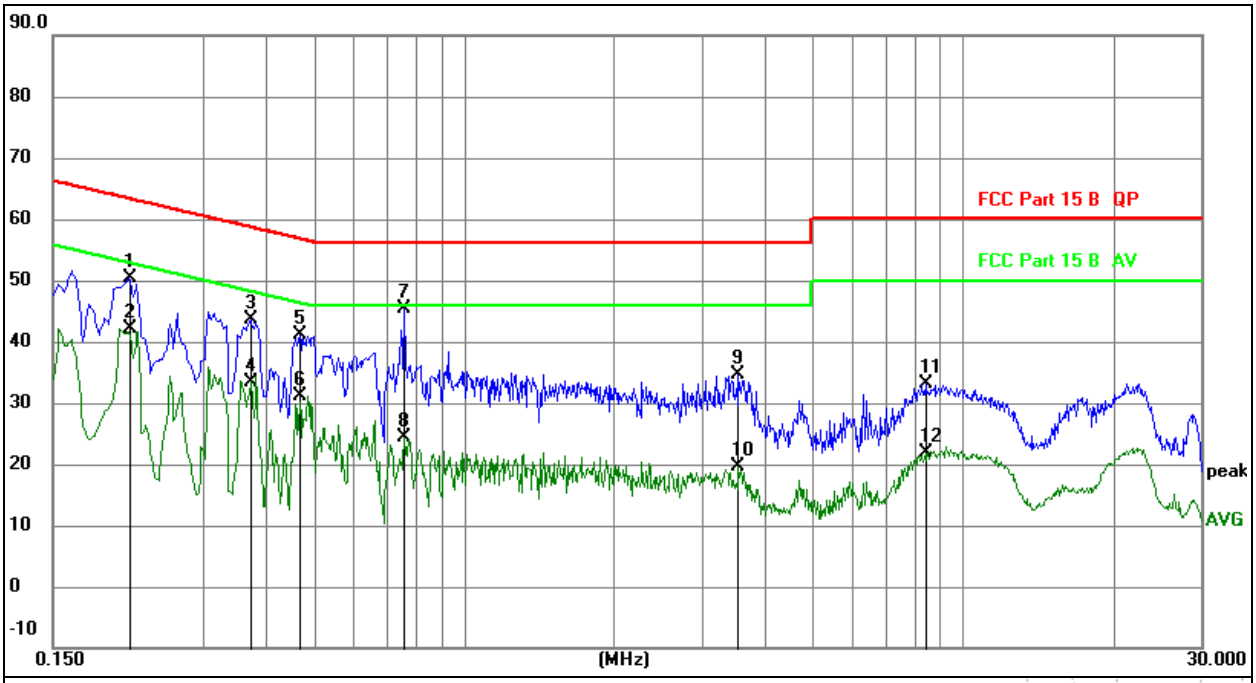
a. The Product was placed on a nonconductive table 0.8 m above the horizontal ground reference plane, and 0.4 m from the vertical ground reference plane, and connected to the main through Line Impedance Stability Network (L.I.S.N).
b. The RBW of the receiver was set at 9 kHz in 150 kHz ~ 30MHz with Peak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

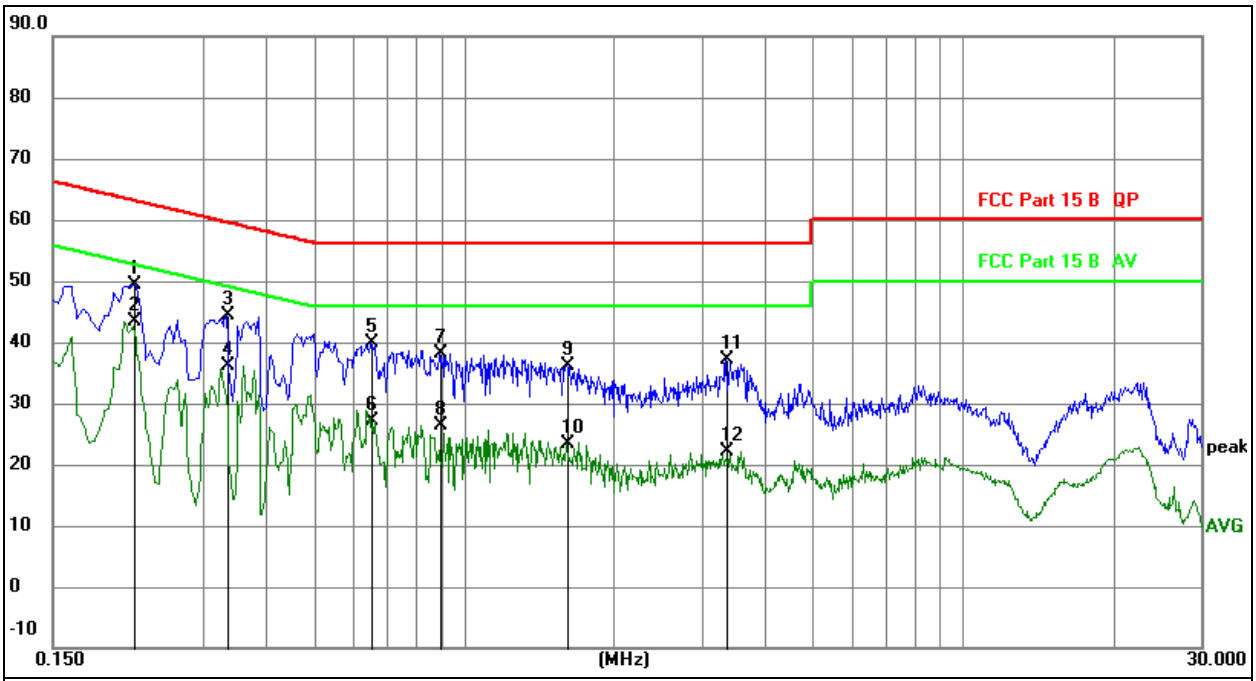
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	L
Test Mode:	Mode 4	Test Voltage :	AC 120V/60Hz



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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz		dB	dBuV	dBuV	dB	Detector
1		0.2128	30.25	20.07	50.32	63.10	-12.78	QP
2		0.2128	21.98	20.07	42.05	53.10	-11.05	AVG
3		0.3731	23.50	20.08	43.58	58.43	-14.85	QP
4		0.3731	13.35	20.08	33.43	48.43	-15.00	AVG
5		0.4686	20.96	20.08	41.04	56.54	-15.50	QP
6		0.4686	11.05	20.08	31.13	46.54	-15.41	AVG
7	*	0.7589	25.36	20.09	45.45	56.00	-10.55	QP
8		0.7589	4.19	20.09	24.28	46.00	-21.72	AVG
9		3.5465	14.60	20.13	34.73	56.00	-21.27	QP
10		3.5465	-0.39	20.13	19.74	46.00	-26.26	AVG
11		8.4115	13.03	20.16	33.19	60.00	-26.81	QP
12		8.4115	1.63	20.16	21.79	50.00	-28.21	AVG

Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	N
Test Mode:	Mode 4	Test Voltage :	AC 120V/60Hz



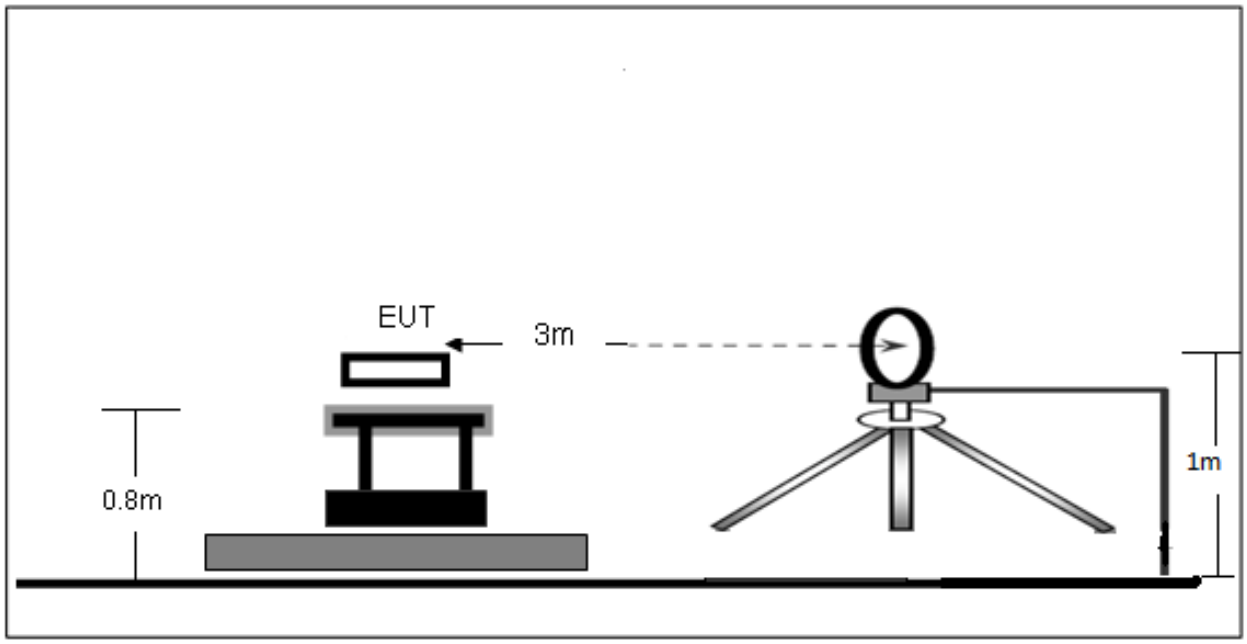
Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement = Reading Level + Correct Factor
4. Over = Measurement - Limit

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz		dB	dBuV	dBuV	dB	Detector
1		0.2175	29.38	20.07	49.45	62.91	-13.46	QP
2	*	0.2175	23.28	20.07	43.35	52.91	-9.56	AVG
3		0.3345	24.38	20.07	44.45	59.34	-14.89	QP
4		0.3345	16.09	20.07	36.16	49.34	-13.18	AVG
5		0.6539	19.76	20.09	39.85	56.00	-16.15	QP
6		0.6539	6.99	20.09	27.08	46.00	-18.92	AVG
7		0.8970	17.96	20.09	38.05	56.00	-17.95	QP
8		0.8970	6.28	20.09	26.37	46.00	-19.63	AVG
9		1.6034	16.06	20.10	36.16	56.00	-19.84	QP
10		1.6034	3.31	20.10	23.41	46.00	-22.59	AVG
11		3.3540	17.10	20.13	37.23	56.00	-18.77	QP
12		3.3540	1.92	20.13	22.05	46.00	-23.95	AVG

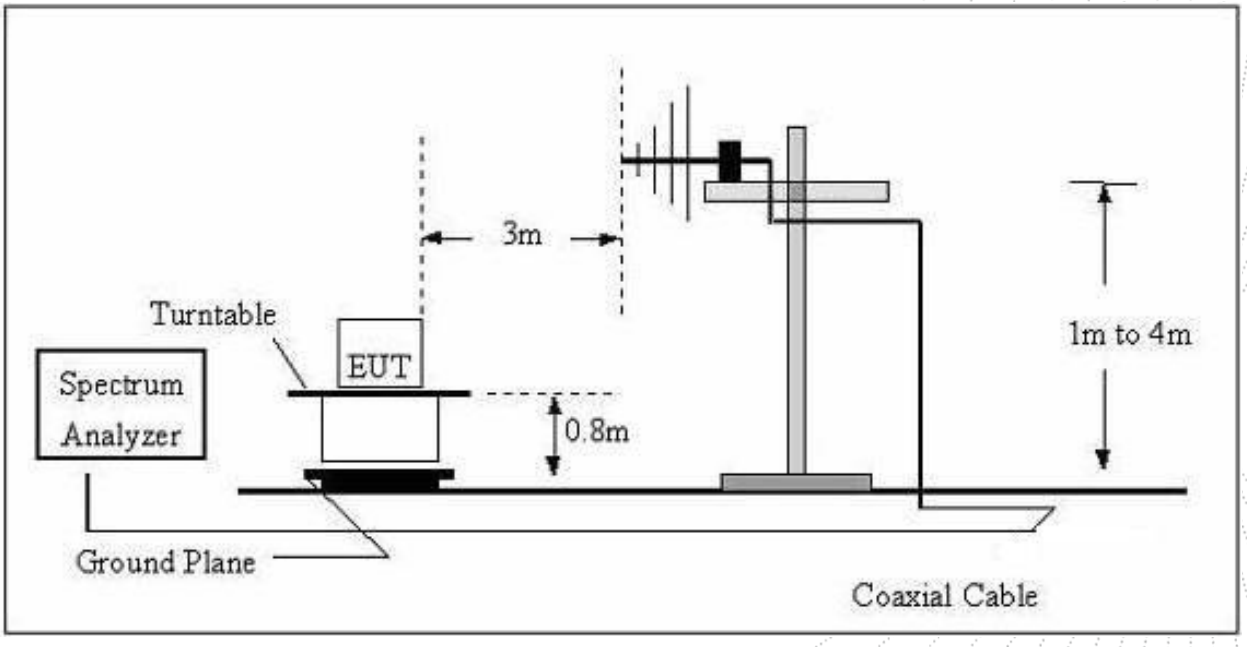
7. Radiated Emissions

7.1 Block Diagram Of Test Setup

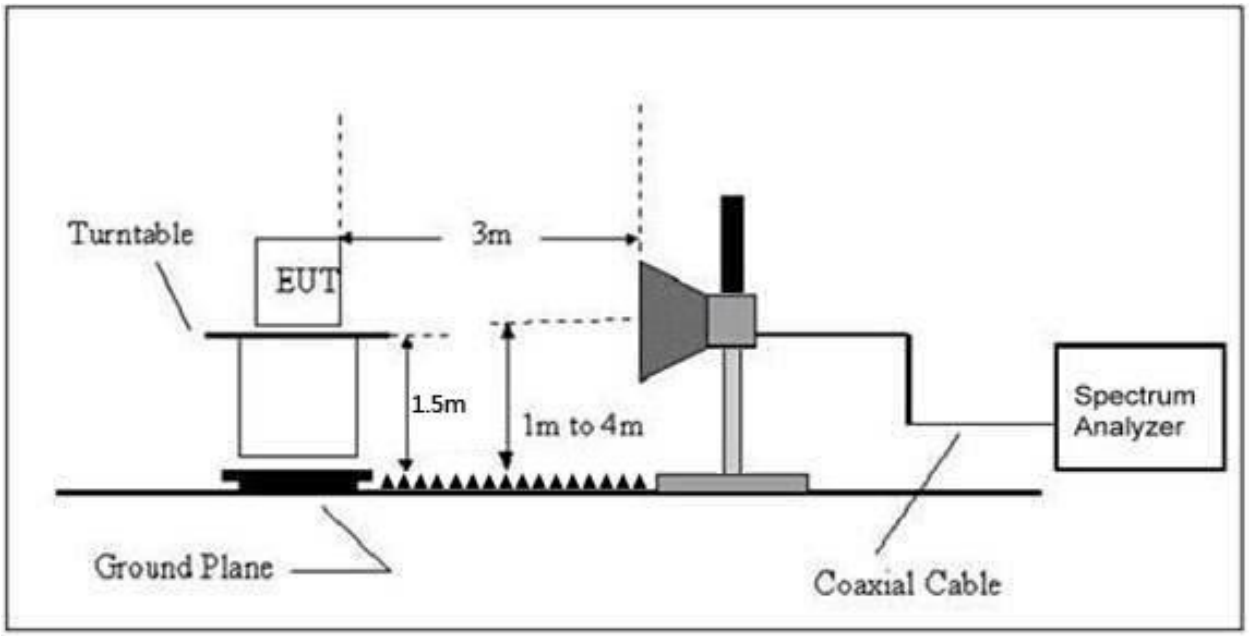
（A）Radiated Emission Test-Up Frequency Below 30MHz



（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

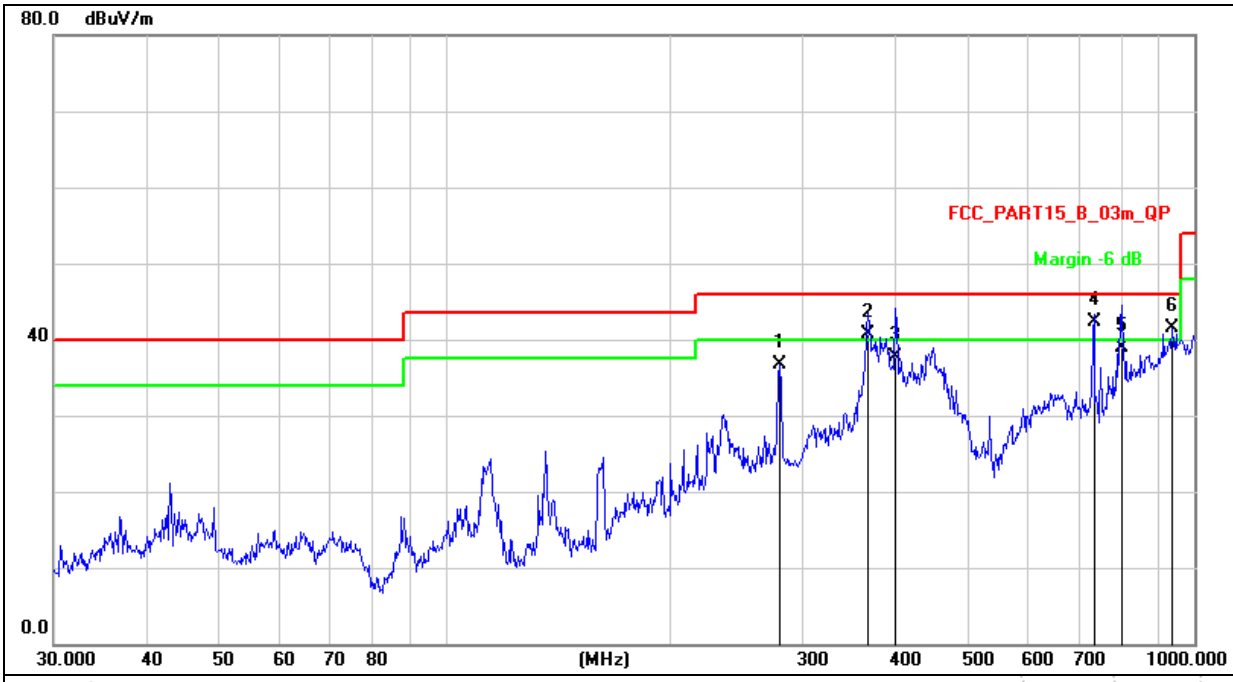
Temperature:	26℃	Relative Humidity:	24%
Pressure:	101KPa	Test Voltage :	AC 120V/60Hz
Test Mode:	Mode 4	Polarization :	--

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

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

Between 30MHz – 1GHz

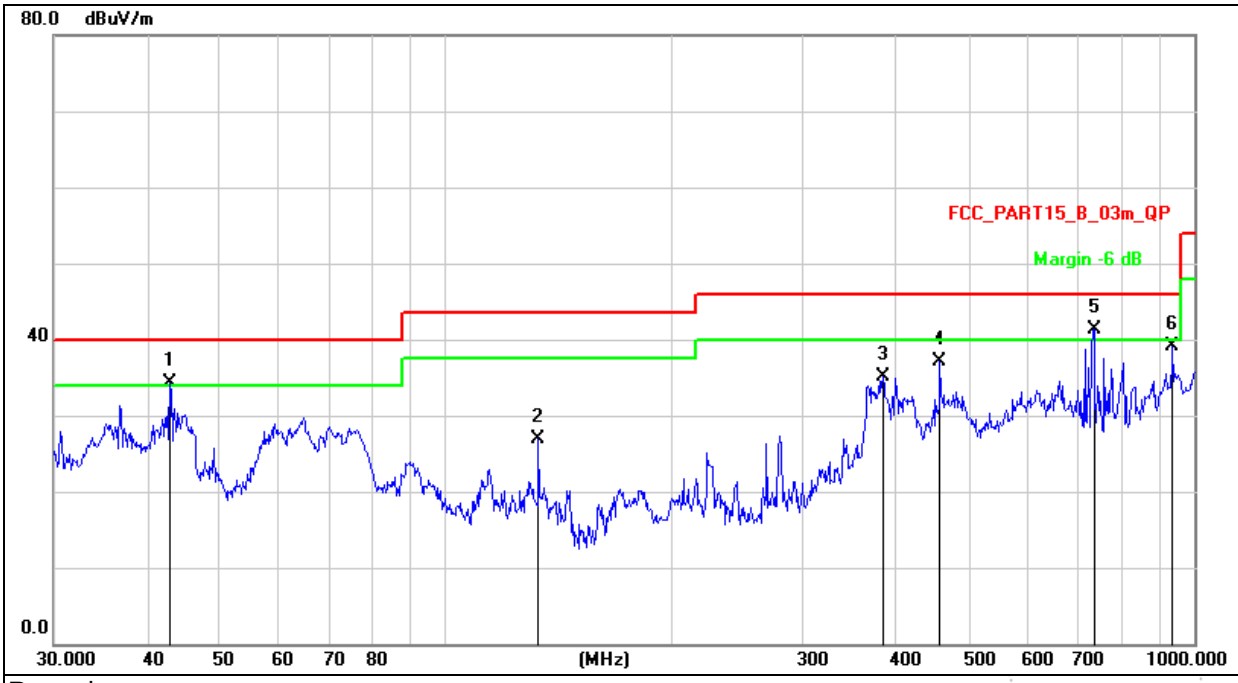
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	Horizontal
Test Mode:	Mode 4	Test Voltage :	AC 120V/60Hz



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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		280.0237	50.43	-13.66	36.77	46.00	-9.23	QP
2	!	365.9641	52.03	-11.28	40.75	46.00	-5.25	QP
3		399.2902	48.49	-10.85	37.64	46.00	-8.36	QP
4	*	733.1723	47.49	-5.23	42.26	46.00	-3.74	QP
5		797.4617	43.41	-4.43	38.98	46.00	-7.02	QP
6	!	935.5463	44.46	-2.99	41.47	46.00	-4.53	QP

Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	Vertical
Test Mode:	Mode 4	Test Voltage :	AC 120V/60Hz



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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1	!	42.8998	48.80	-14.48	34.32	40.00	-5.68	QP
2		133.1511	45.15	-18.25	26.90	43.50	-16.60	QP
3		383.9318	46.12	-11.05	35.07	46.00	-10.93	QP
4		457.5073	46.72	-9.67	37.05	46.00	-8.95	QP
5	*	734.4913	46.55	-5.21	41.34	46.00	-4.66	QP
6		935.5463	42.08	-2.99	39.09	46.00	-6.91	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	4434.195	73.93	-20.73	53.20	68.2	-15.00	PK
Vertical	4434.195	59.84	-20.73	39.11	54	-14.89	AV
Vertical	10360.107	60.33	-9.36	50.97	68.2	-17.23	PK
Vertical	10360.107	49.58	-9.36	40.22	54	-13.78	AV
Vertical	15540.127	62.17	-7.84	54.33	74	-19.67	PK
Vertical	15540.127	49.14	-7.84	41.30	54	-12.70	AV
Horizontal	4434.139	73.35	-20.73	52.62	68.2	-15.58	PK
Horizontal	4434.139	59.39	-20.73	38.66	54	-15.34	AV
Horizontal	10360.139	63.82	-9.36	54.46	68.2	-13.74	PK
Horizontal	10360.139	49.78	-9.36	40.42	54	-13.58	AV
Horizontal	15540.099	62.54	-7.84	54.70	74	-19.30	PK
Horizontal	15540.099	49.13	-7.84	41.29	54	-12.71	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.073	72.24	-20.42	51.83	74	-22.17	PK
Vertical	4592.073	59.76	-20.42	39.35	54	-14.65	AV
Vertical	10400.104	61.57	-9.30	52.27	68.2	-15.93	PK
Vertical	10400.104	49.30	-9.30	40.00	54	-14.00	AV
Vertical	15600.017	62.86	-7.82	55.04	74	-18.96	PK
Vertical	15600.017	49.78	-7.82	41.96	54	-12.04	AV
Horizontal	4592.103	74.02	-20.42	53.61	74	-20.39	PK
Horizontal	4592.103	59.84	-20.42	39.42	54	-14.58	AV
Horizontal	10400.076	64.57	-9.30	55.27	68.2	-12.93	PK
Horizontal	10400.076	49.75	-9.30	40.45	54	-13.55	AV
Horizontal	15600.035	60.06	-7.82	52.24	74	-21.76	PK
Horizontal	15600.035	49.66	-7.82	41.84	54	-12.16	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.127	74.81	-20.12	54.68	74	-19.32	PK
Vertical	4739.127	59.63	-20.12	39.51	54	-14.49	AV
Vertical	10480.031	63.69	-9.18	54.51	68.2	-13.69	PK
Vertical	10480.031	49.36	-9.18	40.18	54	-13.82	AV
Vertical	15720.032	61.15	-7.78	53.37	74	-20.63	PK
Vertical	15720.032	49.16	-7.78	41.38	54	-12.62	AV
Horizontal	4739.087	72.66	-20.12	52.53	74	-21.47	PK
Horizontal	4739.087	59.67	-20.12	39.55	54	-14.45	AV
Horizontal	10480.077	63.18	-9.18	54.00	68.2	-14.20	PK
Horizontal	10480.077	49.95	-9.18	40.77	54	-13.23	AV
Horizontal	15720.096	61.06	-7.78	53.28	74	-20.72	PK
Horizontal	15720.096	49.49	-7.78	41.71	54	-12.29	AV

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

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

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G							
Vertical	4434.001	73.68	-20.73	52.95	68.2	-15.25	PK
Vertical	4434.001	59.93	-20.73	39.20	54	-14.80	AV
Vertical	10360.042	60.00	-9.36	50.64	68.2	-17.56	PK
Vertical	10360.042	49.68	-9.36	40.32	54	-13.68	AV
Vertical	15540.182	61.93	-7.84	54.09	74	-19.91	PK
Vertical	15540.182	49.56	-7.84	41.72	54	-12.28	AV
Horizontal	4434.048	73.03	-20.73	52.30	68.2	-15.90	PK
Horizontal	4434.048	59.31	-20.73	38.58	54	-15.42	AV
Horizontal	10360.020	62.24	-9.36	52.88	68.2	-15.32	PK
Horizontal	10360.020	49.15	-9.36	39.79	54	-14.21	AV
Horizontal	15540.181	63.12	-7.84	55.28	74	-18.72	PK
Horizontal	15540.181	49.48	-7.84	41.64	54	-12.36	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.021	72.19	-20.42	51.78	74	-22.22	PK
Vertical	4592.021	59.28	-20.42	38.87	54	-15.13	AV
Vertical	10400.156	62.90	-9.30	53.60	68.2	-14.60	PK
Vertical	10400.156	49.20	-9.30	39.90	54	-14.10	AV
Vertical	15600.076	60.67	-7.82	52.85	74	-21.15	PK
Vertical	15600.076	49.60	-7.82	41.78	54	-12.22	AV
Horizontal	4592.000	71.87	-20.42	51.45	74	-22.55	PK
Horizontal	4592.000	59.28	-20.42	38.87	54	-15.13	AV
Horizontal	10400.129	61.03	-9.30	51.73	68.2	-16.47	PK
Horizontal	10400.129	49.31	-9.30	40.01	54	-13.99	AV
Horizontal	15600.020	63.39	-7.82	55.57	74	-18.43	PK
Horizontal	15600.020	49.44	-7.82	41.62	54	-12.38	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.021	70.77	-20.12	50.65	74	-23.35	PK
Vertical	4739.021	59.68	-20.12	39.56	54	-14.44	AV
Vertical	10480.036	61.10	-9.18	51.92	68.2	-16.28	PK
Vertical	10480.036	49.75	-9.18	40.57	54	-13.43	AV
Vertical	15720.052	60.92	-7.78	53.14	74	-20.86	PK
Vertical	15720.052	49.50	-7.78	41.72	54	-12.28	AV
Horizontal	4739.086	71.72	-20.12	51.60	74	-22.40	PK
Horizontal	4739.086	59.25	-20.12	39.13	54	-14.87	AV
Horizontal	10480.036	60.47	-9.18	51.29	68.2	-16.91	PK
Horizontal	10480.036	49.49	-9.18	40.31	54	-13.69	AV
Horizontal	15720.101	63.31	-7.78	55.53	74	-18.47	PK
Horizontal	15720.101	49.65	-7.78	41.87	54	-12.13	AV

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

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

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5190 MHz)-Above 1G							
Vertical	4434.101	72.43	-20.73	51.69	68.2	-16.51	PK
Vertical	4434.101	59.33	-20.73	38.60	54	-15.40	AV
Vertical	10380.007	61.16	-9.33	51.83	68.2	-16.37	PK
Vertical	10380.007	49.80	-9.33	40.47	54	-13.53	AV
Vertical	15570.041	60.51	-7.83	52.68	74	-21.32	PK
Vertical	15570.041	49.53	-7.83	41.70	54	-12.30	AV
Horizontal	4434.111	74.14	-20.73	53.41	74	-20.59	PK
Horizontal	4434.111	59.27	-20.73	38.54	54	-15.46	AV
Horizontal	10380.032	60.31	-9.33	50.98	68.2	-17.22	PK
Horizontal	10380.032	49.69	-9.33	40.36	54	-13.64	AV
Horizontal	15570.025	61.95	-7.83	54.12	74	-19.88	PK
Horizontal	15570.025	49.51	-7.83	41.68	54	-12.32	AV
Middle Channel (5230 MHz)-Above 1G							
Vertical	4739.034	71.92	-20.12	51.80	68.2	-16.40	PK
Vertical	4739.034	59.37	-20.12	39.24	54	-14.76	AV
Vertical	10460.197	61.71	-9.21	52.50	68.2	-15.70	PK
Vertical	10460.197	49.39	-9.21	40.18	54	-13.82	AV
Vertical	15690.033	63.39	-7.79	55.60	74	-18.40	PK
Vertical	15690.033	49.31	-7.79	41.52	54	-12.48	AV
Horizontal	4739.133	70.73	-20.12	50.61	68.2	-17.59	PK
Horizontal	4739.133	59.83	-20.12	39.71	54	-14.29	AV
Horizontal	10460.137	63.10	-9.21	53.89	68.2	-14.31	PK
Horizontal	10460.137	49.54	-9.21	40.33	54	-13.67	AV
Horizontal	15690.008	63.28	-7.79	55.49	74	-18.51	PK
Horizontal	15690.008	49.59	-7.79	41.80	54	-12.20	AV

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

Test Mode:	TX(5.1G) - 802.11ac-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	4434.127	70.34	-20.73	49.60	68.2	-18.60	PK
Vertical	4434.127	59.89	-20.73	39.16	54	-14.84	AV
Vertical	10360.192	61.81	-9.36	52.45	68.2	-15.75	PK
Vertical	10360.192	49.36	-9.36	40.00	54	-14.00	AV
Vertical	15540.173	62.53	-7.84	54.69	74	-19.31	PK
Vertical	15540.173	49.99	-7.84	42.15	54	-11.85	AV
Horizontal	4434.191	73.93	-20.73	53.20	68.2	-15.00	PK
Horizontal	4434.191	59.20	-20.73	38.47	54	-15.53	AV
Horizontal	10360.103	60.28	-9.36	50.92	68.2	-17.28	PK
Horizontal	10360.103	49.21	-9.36	39.85	54	-14.15	AV
Horizontal	15540.198	64.77	-7.84	56.93	74	-17.07	PK
Horizontal	15540.198	49.13	-7.84	41.29	54	-12.71	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.158	74.56	-20.42	54.14	74	-19.86	PK
Vertical	4592.158	59.65	-20.42	39.24	54	-14.76	AV
Vertical	10400.132	60.28	-9.30	50.98	68.2	-17.22	PK
Vertical	10400.132	49.68	-9.30	40.38	54	-13.62	AV
Vertical	15600.161	60.67	-7.82	52.85	74	-21.15	PK
Vertical	15600.161	49.86	-7.82	42.04	54	-11.96	AV
Horizontal	4592.041	74.43	-20.42	54.01	74	-19.99	PK
Horizontal	4592.041	59.51	-20.42	39.09	54	-14.91	AV
Horizontal	10400.047	62.15	-9.30	52.85	68.2	-15.35	PK
Horizontal	10400.047	49.23	-9.30	39.93	54	-14.07	AV
Horizontal	15600.181	64.98	-7.82	57.16	74	-16.84	PK
Horizontal	15600.181	49.88	-7.82	42.06	54	-11.94	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.072	73.97	-20.12	53.85	74	-20.15	PK
Vertical	4739.072	59.62	-20.12	39.49	54	-14.51	AV
Vertical	10480.152	62.29	-9.18	53.11	68.2	-15.09	PK
Vertical	10480.152	49.10	-9.18	39.92	54	-14.08	AV
Vertical	15720.044	63.74	-7.78	55.96	74	-18.04	PK
Vertical	15720.044	49.47	-7.78	41.69	54	-12.31	AV
Horizontal	4739.046	73.00	-20.12	52.88	74	-21.12	PK
Horizontal	4739.046	59.63	-20.12	39.51	54	-14.49	AV
Horizontal	10480.069	61.66	-9.18	52.48	68.2	-15.72	PK
Horizontal	10480.069	49.87	-9.18	40.69	54	-13.31	AV
Horizontal	15720.036	62.03	-7.78	54.25	74	-19.75	PK
Horizontal	15720.036	49.02	-7.78	41.24	54	-12.76	AV

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

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

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5190 MHz)-Above 1G							
Vertical	4434.000	73.54	-20.73	52.81	68.2	-15.39	PK
Vertical	4434.000	59.30	-20.73	38.57	54	-15.43	AV
Vertical	10380.121	63.81	-9.33	54.48	68.2	-13.72	PK
Vertical	10380.121	49.91	-9.33	40.58	54	-13.42	AV
Vertical	15570.139	63.20	-7.83	55.37	74	-18.63	PK
Vertical	15570.139	49.91	-7.83	42.08	54	-11.92	AV
Horizontal	4434.119	70.26	-20.73	49.53	74	-24.47	PK
Horizontal	4434.119	59.88	-20.73	39.14	54	-14.86	AV
Horizontal	10380.110	64.67	-9.33	55.34	68.2	-12.86	PK
Horizontal	10380.110	49.47	-9.33	40.14	54	-13.86	AV
Horizontal	15570.068	61.14	-7.83	53.31	74	-20.69	PK
Horizontal	15570.068	49.56	-7.83	41.73	54	-12.27	AV
Middle Channel (5230 MHz)-Above 1G							
Vertical	4739.022	74.30	-20.12	54.18	68.2	-14.02	PK
Vertical	4739.022	59.13	-20.12	39.01	54	-14.99	AV
Vertical	10460.188	60.22	-9.21	51.01	68.2	-17.19	PK
Vertical	10460.188	49.78	-9.21	40.57	54	-13.43	AV
Vertical	15690.009	63.44	-7.79	55.65	74	-18.35	PK
Vertical	15690.009	49.06	-7.79	41.27	54	-12.73	AV
Horizontal	4739.028	71.51	-20.12	51.39	68.2	-16.81	PK
Horizontal	4739.028	59.11	-20.12	38.99	54	-15.01	AV
Horizontal	10460.194	62.05	-9.21	52.84	68.2	-15.36	PK
Horizontal	10460.194	49.88	-9.21	40.67	54	-13.33	AV
Horizontal	15690.064	62.97	-7.79	55.18	74	-18.82	PK
Horizontal	15690.064	49.27	-7.79	41.48	54	-12.52	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 is MIMO Mode.

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

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5210 MHz)-Above 1G							
Vertical	4434.190	71.88	-20.73	51.14	68.2	-17.06	PK
Vertical	4434.190	59.12	-20.73	38.39	54	-15.61	AV
Vertical	10420.192	63.74	-9.27	54.47	68.2	-13.73	PK
Vertical	10420.192	49.93	-9.27	40.66	54	-13.34	AV
Vertical	15630.088	62.95	-7.81	55.14	74	-18.86	PK
Vertical	15630.088	49.67	-7.81	41.86	54	-12.14	AV
Horizontal	4434.088	73.10	-20.73	52.37	68.2	-15.83	PK
Horizontal	4434.088	59.89	-20.73	39.16	54	-14.84	AV
Horizontal	10420.127	44.03	9.27	53.30	68.2	-14.90	PK
Horizontal	10420.127	29.24	9.27	38.51	54	-15.49	AV
Horizontal	15630.047	64.13	-7.81	56.32	74	-17.68	PK
Horizontal	15630.047	49.34	-7.81	41.53	54	-12.47	AV

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

Test Mode:	TX (5.8G) -- 802.11a

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
Vertical	4679.073	70.49	-20.24	50.25	74	-23.75	PK
Vertical	4679.073	59.17	-20.24	38.93	54	-15.07	AV
Vertical	11490.055	64.56	-8.79	55.77	68.2	-12.43	PK
Vertical	11490.055	49.09	-8.79	40.30	54	-13.70	AV
Vertical	17235.191	57.44	-3.18	54.26	68.2	-13.94	PK
Vertical	17235.191	44.57	-3.18	41.39	54	-12.61	AV
Horizontal	4679.002	71.48	-20.73	50.75	74	-23.25	PK
Horizontal	4679.002	59.02	-20.73	38.29	54	-15.71	AV
Horizontal	11490.068	62.76	-8.79	53.97	68.2	-14.23	PK
Horizontal	11490.068	49.49	-8.79	40.70	54	-13.30	AV
Horizontal	17235.053	59.16	-3.18	55.98	68.2	-12.22	PK
Horizontal	17235.053	44.41	-3.18	41.23	54	-12.77	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.184	70.10	-20.42	49.68	74	-24.32	PK
Vertical	4592.184	59.55	-20.42	39.14	54	-14.86	AV
Vertical	11570.146	63.96	-8.86	55.10	68.2	-13.10	PK
Vertical	11570.146	49.90	-8.86	41.04	54	-12.96	AV
Vertical	17355.014	58.90	-2.52	56.38	68.2	-11.82	PK
Vertical	17355.014	44.21	-2.52	41.69	54	-12.31	AV
Horizontal	4592.088	74.83	-20.42	54.41	74	-19.59	PK
Horizontal	4592.088	59.05	-20.42	38.63	54	-15.37	AV
Horizontal	11570.198	64.81	-8.86	55.95	68.2	-12.25	PK
Horizontal	11570.198	49.37	-8.86	40.51	54	-13.49	AV
Horizontal	17355.181	59.63	-2.52	57.11	68.2	-11.09	PK
Horizontal	17355.181	44.01	-2.52	41.49	54	-12.51	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.035	74.05	-18.93	55.11	68.2	-13.09	PK
Vertical	6039.035	59.47	-18.93	40.54	54	-13.46	AV
Vertical	11650.189	63.87	-8.92	54.95	74	-19.05	PK
Vertical	11650.189	49.26	-8.92	40.34	54	-13.66	AV
Vertical	17475.117	56.53	-1.86	54.67	68.2	-13.53	PK
Vertical	17475.117	44.07	-1.86	42.21	54	-11.79	AV
Horizontal	6039.079	74.27	-18.93	55.33	68.2	-12.87	PK
Horizontal	6039.079	59.98	-18.93	41.05	54	-12.95	AV
Horizontal	11650.083	63.35	-8.92	54.43	74	-19.57	PK
Horizontal	11650.083	49.60	-8.92	40.68	54	-13.32	AV
Horizontal	17475.038	58.04	-1.86	56.18	68.2	-12.02	PK
Horizontal	17475.038	44.84	-1.86	42.98	54	-11.02	AV

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

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

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
Vertical	4679.045	71.53	-20.24	51.29	74	-22.71	PK
Vertical	4679.045	59.16	-20.24	38.92	54	-15.08	AV
Vertical	11490.167	63.69	-8.79	54.90	68.2	-13.30	PK
Vertical	11490.167	49.70	-8.79	40.91	54	-13.09	AV
Vertical	17235.155	59.50	-3.18	56.32	68.2	-11.88	PK
Vertical	17235.155	44.11	-3.18	40.93	54	-13.07	AV
Horizontal	4679.159	74.08	-20.24	53.84	74	-20.16	PK
Horizontal	4679.159	59.13	-20.24	38.89	54	-15.11	AV
Horizontal	11490.155	63.17	-8.79	54.38	68.2	-13.82	PK
Horizontal	11490.155	49.14	-8.79	40.35	54	-13.65	AV
Horizontal	17235.096	59.70	-3.18	56.52	68.2	-11.68	PK
Horizontal	17235.096	44.06	-3.18	40.88	54	-13.12	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.142	74.52	-20.42	54.11	74	-19.89	PK
Vertical	4592.142	59.63	-20.42	39.22	54	-14.78	AV
Vertical	11570.196	60.70	-8.86	51.84	68.2	-16.36	PK
Vertical	11570.196	49.39	-8.86	40.53	54	-13.47	AV
Vertical	17355.097	59.10	-2.52	56.58	68.2	-11.62	PK
Vertical	17355.097	44.73	-2.52	42.21	54	-11.79	AV
Horizontal	4592.125	74.32	-20.42	53.91	74	-20.09	PK
Horizontal	4592.125	59.19	-20.42	38.77	54	-15.23	AV
Horizontal	11570.193	62.86	-8.86	54.00	68.2	-14.20	PK
Horizontal	11570.193	49.51	-8.86	40.65	54	-13.35	AV
Horizontal	17355.133	57.84	-2.52	55.32	68.2	-12.88	PK
Horizontal	17355.133	44.83	-2.52	42.31	54	-11.69	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.071	74.71	-18.93	55.78	68.2	-12.42	PK
Vertical	6039.071	59.95	-18.93	41.02	54	-12.98	AV
Vertical	11650.198	62.75	-8.92	53.83	74	-20.17	PK
Vertical	11650.198	49.04	-8.92	40.12	54	-13.88	AV
Vertical	17475.087	55.00	-1.86	53.14	68.2	-15.06	PK
Vertical	17475.087	44.07	-1.86	42.21	54	-11.79	AV
Horizontal	6039.099	70.15	-18.93	51.21	68.2	-16.99	PK
Horizontal	6039.099	59.75	-18.93	40.82	54	-13.18	AV
Horizontal	11650.156	61.94	-8.92	53.02	74	-20.98	PK
Horizontal	11650.156	49.04	-8.92	40.12	54	-13.88	AV
Horizontal	17475.166	59.64	-1.86	57.78	68.2	-10.42	PK
Horizontal	17475.166	44.84	-1.86	42.98	54	-11.02	AV

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

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

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5755 MHz)-Above 1G							
Vertical	4679.034	74.01	-20.24	53.77	74	-20.23	PK
Vertical	4679.034	59.65	-20.24	39.41	54	-14.59	AV
Vertical	11510.092	63.84	-8.81	55.03	74	-18.97	PK
Vertical	11510.092	49.93	-8.81	41.12	54	-12.88	AV
Vertical	17265.166	57.06	-3.01	54.05	68.2	-14.15	PK
Vertical	17265.166	44.32	-3.01	41.31	54	-12.69	AV
Horizontal	4679.170	73.99	-20.24	53.75	74	-20.25	PK
Horizontal	4679.170	59.09	-20.24	38.85	54	-15.15	AV
Horizontal	11510.135	62.87	-8.81	54.06	74	-19.94	PK
Horizontal	11510.135	49.29	-8.81	40.48	54	-13.52	AV
Horizontal	17265.151	57.54	-3.01	54.53	68.2	-13.67	PK
Horizontal	17265.151	44.29	-3.01	41.28	54	-12.72	AV
Middle Channel (5795 MHz)-Above 1G							
Vertical	6039.021	71.57	-18.93	52.64	68.2	-15.56	PK
Vertical	6039.021	59.58	-18.93	40.65	54	-13.35	AV
Vertical	11590.064	61.97	-8.87	53.10	74	-20.90	PK
Vertical	11590.064	49.68	-8.87	40.81	54	-13.19	AV
Vertical	17385.085	58.26	-2.35	55.91	68.2	-12.29	PK
Vertical	17385.085	44.44	-2.35	42.09	54	-11.91	AV
Horizontal	6039.190	70.53	-18.93	51.60	68.2	-16.60	PK
Horizontal	6039.190	59.36	-18.93	40.42	54	-13.58	AV
Horizontal	11590.086	64.99	-8.87	56.12	74	-17.88	PK
Horizontal	11590.086	49.23	-8.87	40.36	54	-13.64	AV
Horizontal	17385.087	57.90	-2.35	55.55	68.2	-12.65	PK
Horizontal	17385.087	44.90	-2.35	42.55	54	-11.45	AV

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

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

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
Vertical	4679.020	70.22	-20.24	49.98	74	-24.02	PK
Vertical	4679.020	59.71	-20.24	39.47	54	-14.53	AV
Vertical	11490.010	63.97	-8.79	55.18	68.2	-13.02	PK
Vertical	11490.010	49.78	-8.79	40.99	54	-13.01	AV
Vertical	17235.158	55.66	-3.18	52.48	68.2	-15.72	PK
Vertical	17235.158	44.44	-3.18	41.26	54	-12.74	AV
Horizontal	4679.193	72.30	-20.24	52.06	74	-21.94	PK
Horizontal	4679.193	59.76	-20.24	39.51	54	-14.49	AV
Horizontal	11490.189	62.81	-8.79	54.02	68.2	-14.18	PK
Horizontal	11490.189	49.04	-8.79	40.25	54	-13.75	AV
Horizontal	17235.062	59.49	-3.18	56.31	68.2	-11.89	PK
Horizontal	17235.062	44.44	-3.18	41.26	54	-12.74	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.162	70.99	-20.42	50.58	74	-23.42	PK
Vertical	4592.162	59.87	-20.42	39.45	54	-14.55	AV
Vertical	11570.087	60.56	-8.86	51.70	68.2	-16.50	PK
Vertical	11570.087	49.08	-8.86	40.22	54	-13.78	AV
Vertical	17355.127	59.87	-2.52	57.35	68.2	-10.85	PK
Vertical	17355.127	44.24	-2.52	41.72	54	-12.28	AV
Horizontal	4592.042	70.46	-20.42	50.05	74	-23.95	PK
Horizontal	4592.042	59.81	-20.42	39.40	54	-14.60	AV
Horizontal	11570.018	60.44	-8.86	51.58	68.2	-16.62	PK
Horizontal	11570.018	49.82	-8.86	40.96	54	-13.04	AV
Horizontal	17355.017	59.67	-2.52	57.15	68.2	-11.05	PK
Horizontal	17355.017	44.90	-2.52	42.38	54	-11.62	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.054	71.36	-18.93	52.43	68.2	-15.77	PK
Vertical	6039.054	59.19	-18.93	40.26	54	-13.74	AV
Vertical	11650.093	63.46	-8.92	54.54	74	-19.46	PK
Vertical	11650.093	49.71	-8.92	40.79	54	-13.21	AV
Vertical	17475.074	58.55	-1.86	56.69	68.2	-11.51	PK
Vertical	17475.074	44.37	-1.86	42.51	54	-11.49	AV
Horizontal	6039.116	73.57	-18.93	54.64	68.2	-13.56	PK
Horizontal	6039.116	59.54	-18.93	40.61	54	-13.39	AV
Horizontal	11650.018	61.44	-8.92	52.52	74	-21.48	PK
Horizontal	11650.018	49.39	-8.92	40.47	54	-13.53	AV
Horizontal	17475.018	56.30	-1.86	54.44	68.2	-13.76	PK
Horizontal	17475.018	44.40	-1.86	42.54	54	-11.46	AV

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

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

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5755 MHz)-Above 1G							
Vertical	4679.004	70.56	-20.24	50.32	74	-23.68	PK
Vertical	4679.004	59.36	-20.24	39.12	54	-14.88	AV
Vertical	11510.044	62.75	-8.81	53.94	74	-20.06	PK
Vertical	11510.044	49.29	-8.81	40.48	54	-13.52	AV
Vertical	17265.169	58.52	-3.01	55.51	68.2	-12.69	PK
Vertical	17265.169	44.55	-3.01	41.54	54	-12.46	AV
Horizontal	4679.181	74.02	-20.24	53.78	74	-20.22	PK
Horizontal	4679.181	59.52	-20.24	39.28	54	-14.72	AV
Horizontal	11510.150	62.86	-8.81	54.05	74	-19.95	PK
Horizontal	11510.150	49.97	-8.81	41.16	54	-12.84	AV
Horizontal	17265.188	56.05	-3.01	53.04	68.2	-15.16	PK
Horizontal	17265.188	44.47	-3.01	41.46	54	-12.54	AV
Middle Channel (5795 MHz)-Above 1G							
Vertical	6039.170	73.42	-18.93	54.49	68.2	-13.71	PK
Vertical	6039.170	59.91	-18.93	40.97	54	-13.03	AV
Vertical	11590.125	64.20	-8.87	55.33	74	-18.67	PK
Vertical	11590.125	49.83	-8.87	40.96	54	-13.04	AV
Vertical	17385.013	57.96	-2.35	55.61	68.2	-12.59	PK
Vertical	17385.013	44.46	-2.35	42.11	54	-11.89	AV
Horizontal	6039.070	74.53	-18.93	55.59	68.2	-12.61	PK
Horizontal	6039.070	59.81	-18.93	40.88	54	-13.12	AV
Horizontal	11590.157	64.07	-8.87	55.20	74	-18.80	PK
Horizontal	11590.157	49.06	-8.87	40.19	54	-13.81	AV
Horizontal	17385.149	58.10	-2.35	55.75	68.2	-12.45	PK
Horizontal	17385.149	44.36	-2.35	42.01	54	-11.99	AV

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

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

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5775 MHz)-Above 1G							
Vertical	4679.149	73.80	-20.24	53.56	74	-20.44	PK
Vertical	4679.149	59.58	-20.24	39.34	54	-14.66	AV
Vertical	11550.071	61.89	-8.84	53.05	74	-20.95	PK
Vertical	11550.071	49.56	-8.84	40.72	54	-13.28	AV
Vertical	17325.132	56.05	-2.68	53.37	68.2	-14.83	PK
Vertical	17325.132	44.18	-2.68	41.50	54	-12.50	AV
Horizontal	4679.145	72.13	-20.24	51.89	74	-22.11	PK
Horizontal	4679.145	59.11	-20.24	38.87	54	-15.13	AV
Horizontal	11550.056	64.40	-8.84	55.56	74	-18.44	PK
Horizontal	11550.056	49.48	-8.84	40.64	54	-13.36	AV
Horizontal	17325.118	59.77	-2.68	57.09	68.2	-11.11	PK
Horizontal	17325.118	44.10	-2.68	41.42	54	-12.58	AV

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

- ☒Undesirable radiated Undesirable radiated Spurious Emission in Band Edge
- All the modes 802.11a/n/ac has been tested and the worst result 802.11ax20 recorded as below:

Test mode: 802.11ax20 Frequency(MHz): 5180

Frequency (MHz)	Polarity	PK(dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	AV(dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)
5150	H	65.23	74	46.32	54
5150	V	63.35	74	44.52	54

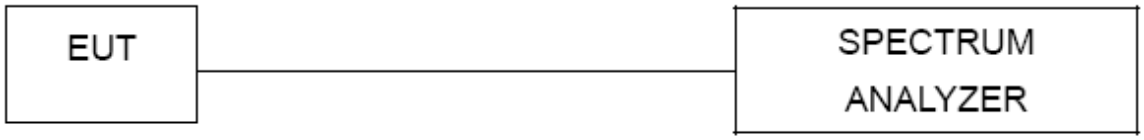
Test mode: 802.11ax20 Frequency(MHz): 5240

Frequency (MHz)	Polarity	PK(dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	AV(dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)
5350	H	46.32	74	31.25	54
5350	V	45.32	74	30.25	54

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

8. Power Spectral Density Test

8.1 Block Diagram Of Test Setup



8.2 Limit

For the band 5.15-5.25 GHz,
(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).
(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.
(iv) For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
For the band 5.725-5.85 GHz
(3)For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

8.3 Test Procedure

For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 KHz bandwidth, the following adjustments to the procedures apply:
a) Set RBW ≥ 1/T, where T is defined in section II.B.I.a).
b) Set VBW ≥ 3 RBW.
c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10log(500kHz/RBW) to the measured result, whereas RBW (< 500 KHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add 10log(1MHz/RBW) to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.
e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.
Note: As a practical matter, it is recommended to use reduced RBW of 100 kHz for the sections 5.c) and 5.d) above, since RBW=100 KHZ is available on nearly all spectrum analyzers.

8.4 EUT Operating Conditions

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

8.5 Test Result

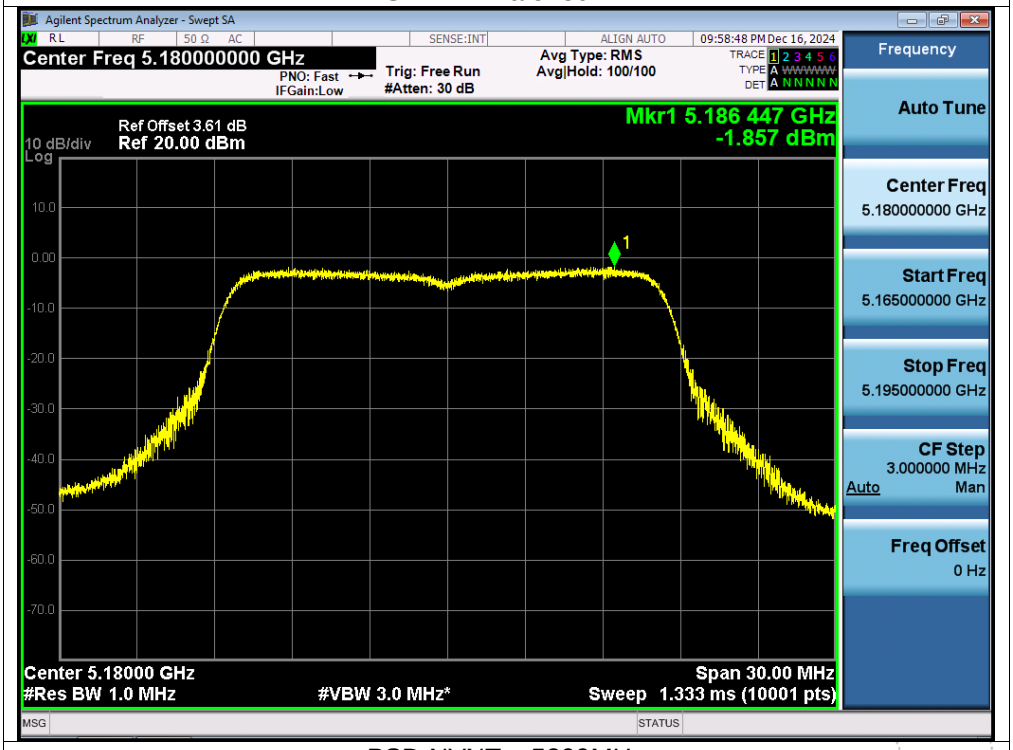
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage:	DC 7.6V
Test Mode:	TX Frequency U-NII-1 (5180-5240MHz)		

Condition	Mode	Frequency (MHz)	Measured Power Density (dBm/MHz)			Limit (dBm/MHz)	Result
			ANT A	ANT B	Total		
NVNT	a	5180	-1.86	-2.06	/	11	PASS
NVNT	a	5200	-1.46	-1.94	/	11	PASS
NVNT	a	5240	**-0.93**	-1.92	/	11	PASS
NVNT	n20	5180	-3.14	-3.7	-0.40	10.77	PASS
NVNT	n20	5200	-2.89	-3.21	-0.04	10.77	PASS
NVNT	n20	5240	-2.23	-3.15	0.34	10.77	PASS
NVNT	n40	5190	-6.71	-7.49	-4.07	10.77	PASS
NVNT	n40	5230	-6.52	-6.98	-3.73	10.77	PASS
NVNT	ac20	5180	-3.02	-3.78	-0.37	10.77	PASS
NVNT	ac20	5200	-2.62	-3.21	0.11	10.77	PASS
NVNT	ac20	5240	-2.27	-3.01	0.39	10.77	PASS
NVNT	ac40	5190	-7.18	-7.49	-4.32	10.77	PASS
NVNT	ac40	5230	-6.8	-6.92	-3.85	10.77	PASS
NVNT	ac80	5210	-10.39	-10.7	-7.53	10.77	PASS

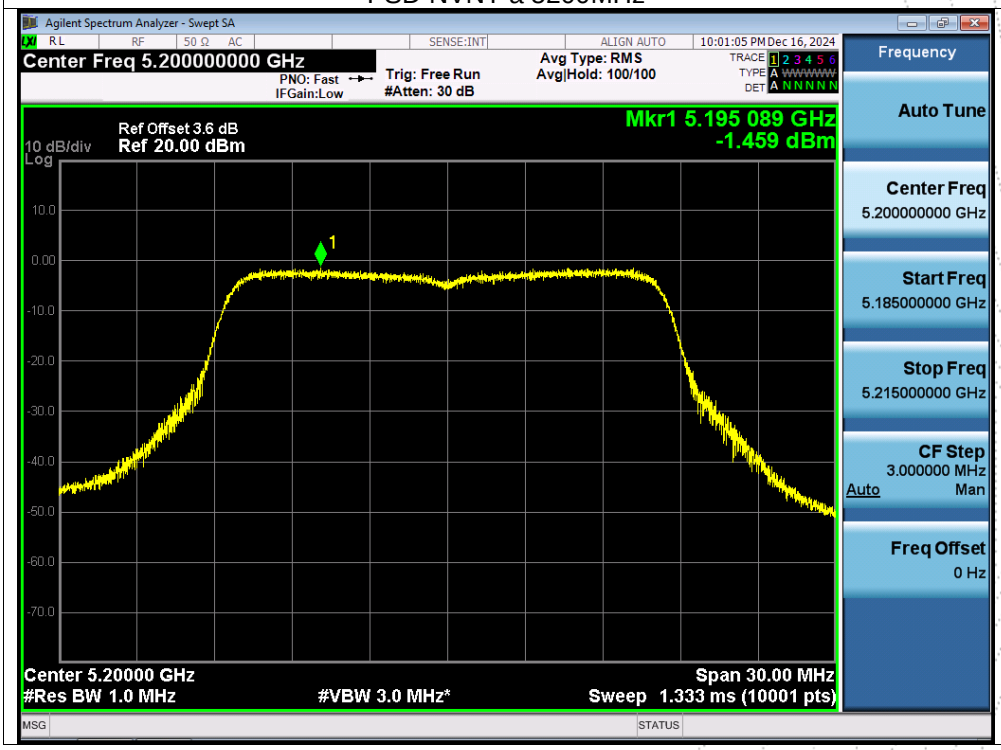
Note:
Antenna A gain: 2.78 dBi, Antenna B gain: 3.22 dBi, Directional gain=[GainANT + 10 log(NANT/NSS) dBi] =6.23 dbi>6dbi
Limit=11-(6.23-6)=10.77 dbm

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

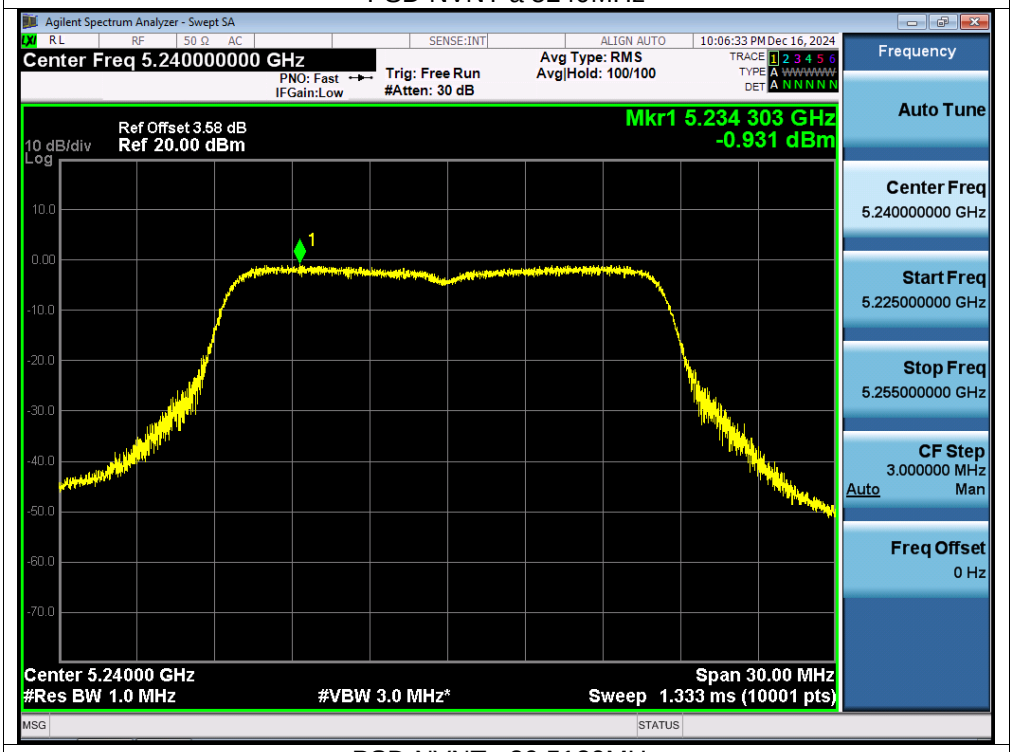
Test Graphs
PSD NVNT a 5180MHz



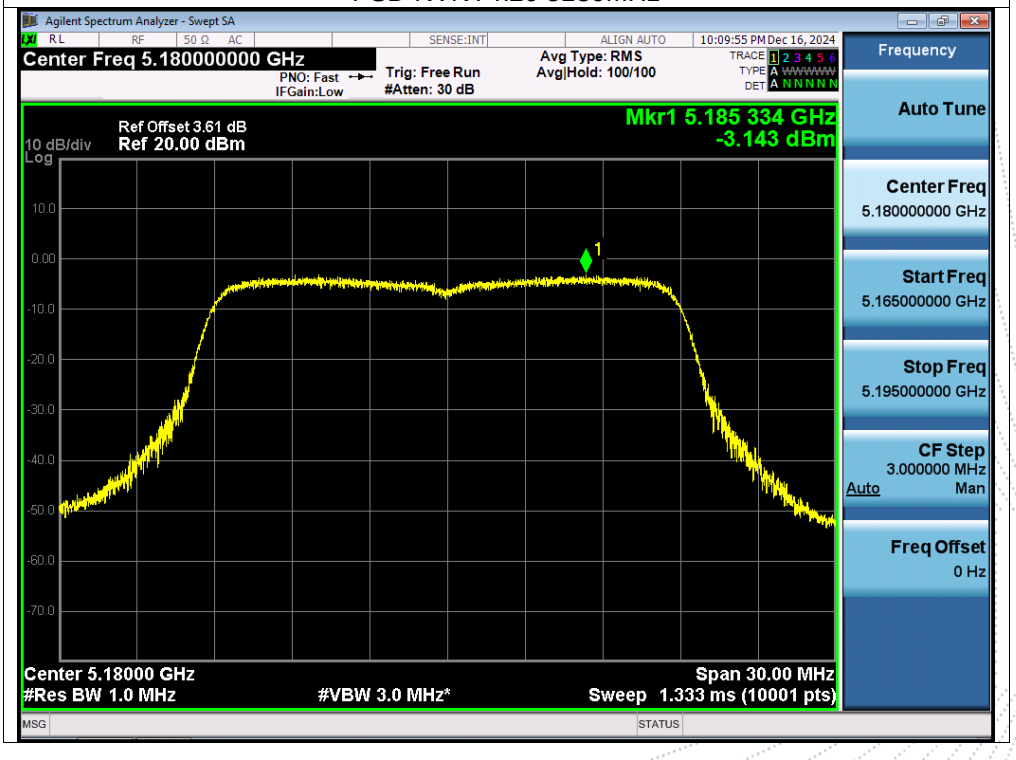
PSD NVNT a 5200MHz



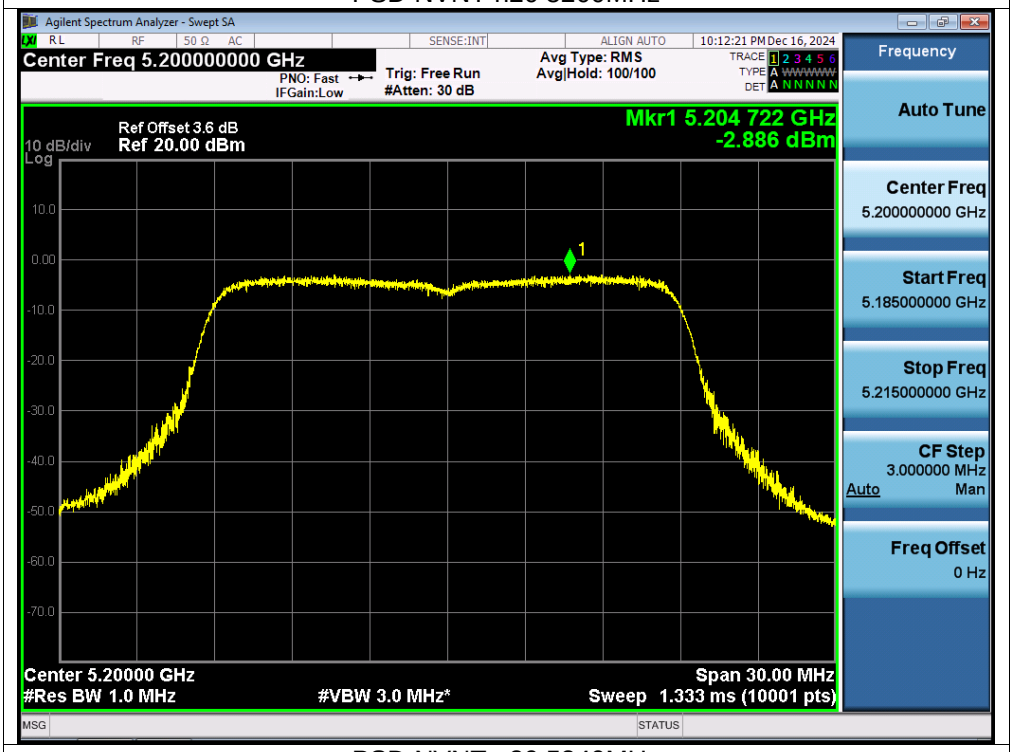
PSD NVNT a 5240MHz



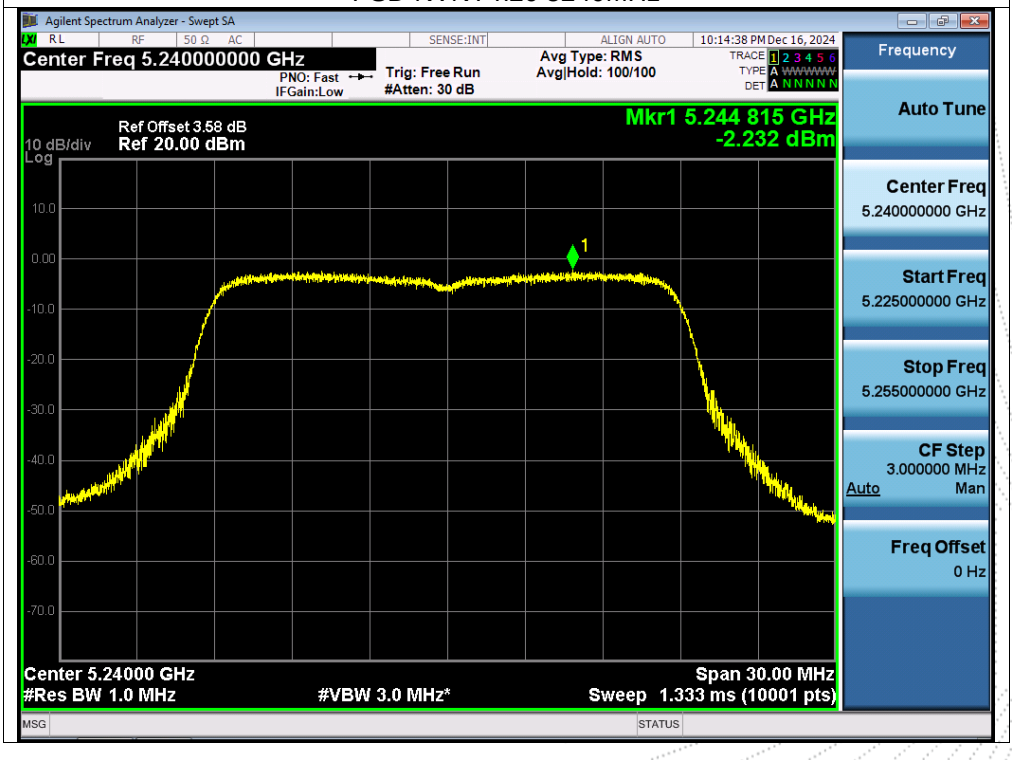
PSD NVNT n20 5180MHz



PSD NVNT n20 5200MHz

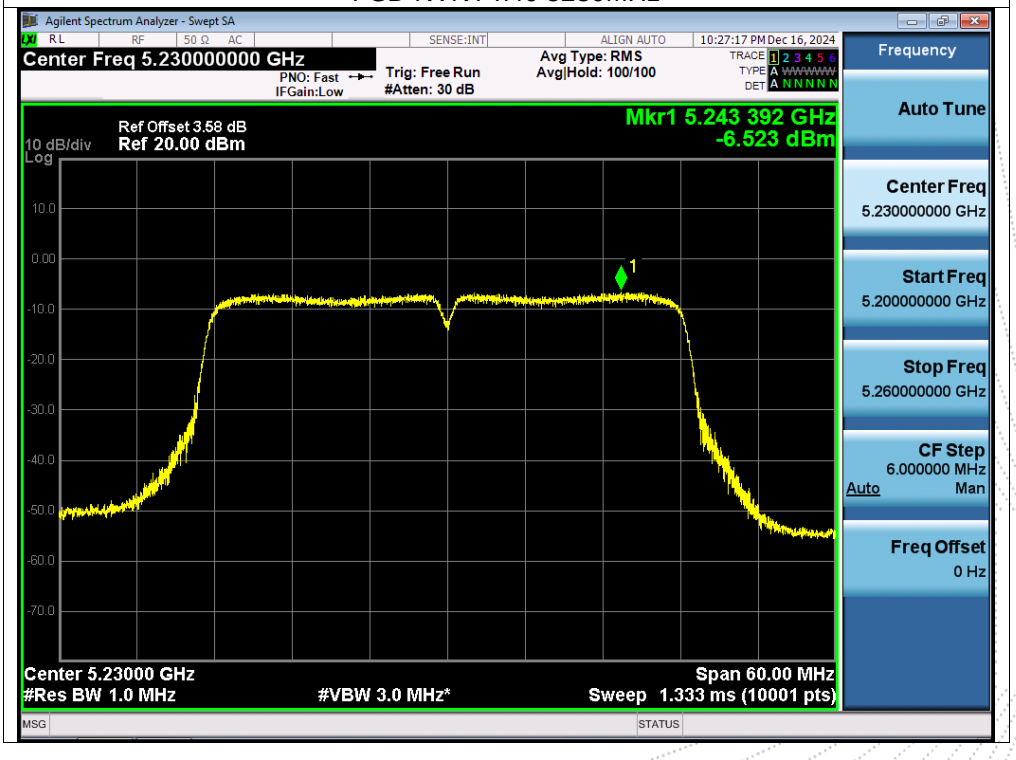


PSD NVNT n20 5240MHz

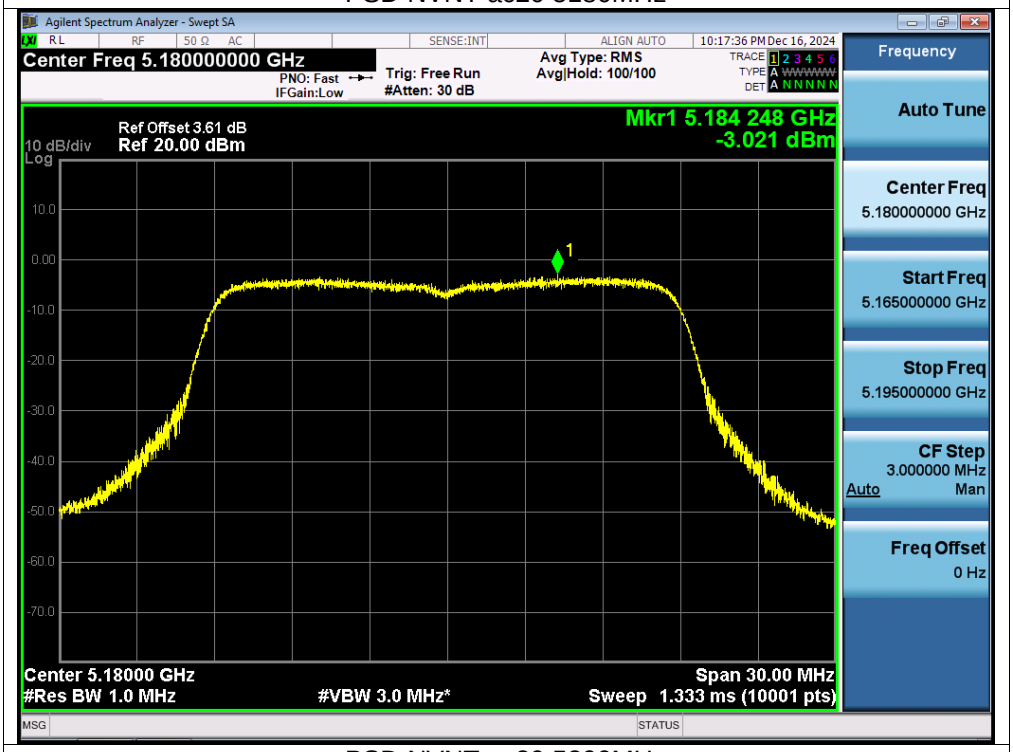


PSD NVNT n40 5190MHz

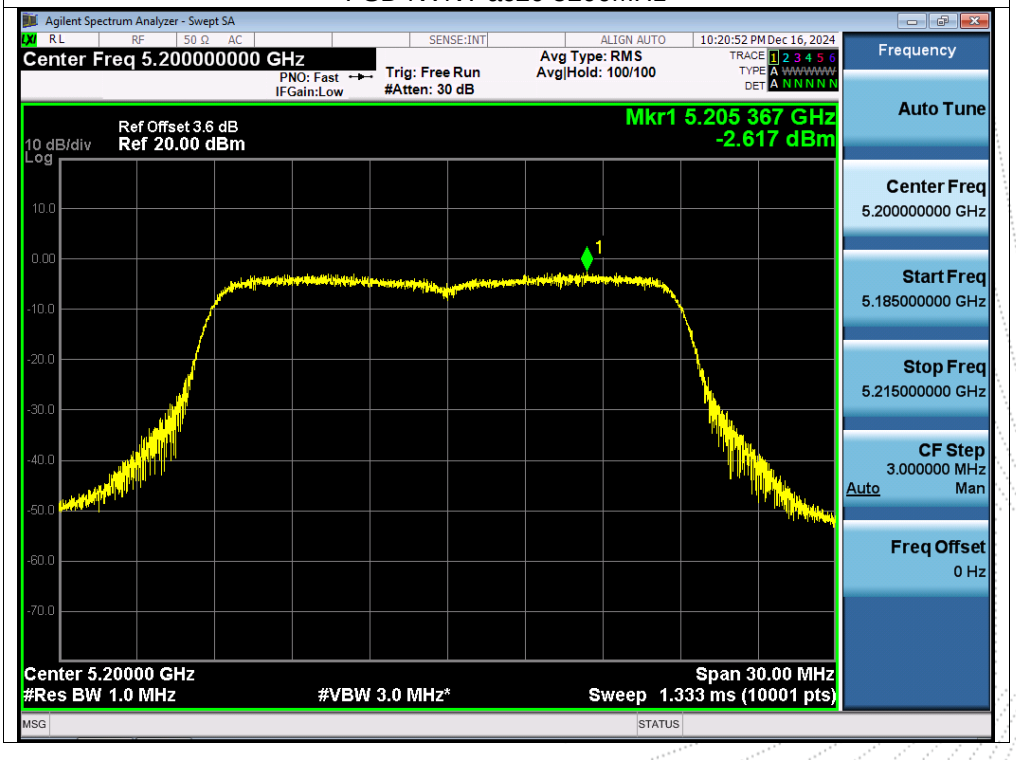
PSD NVNT n40 5230MHz



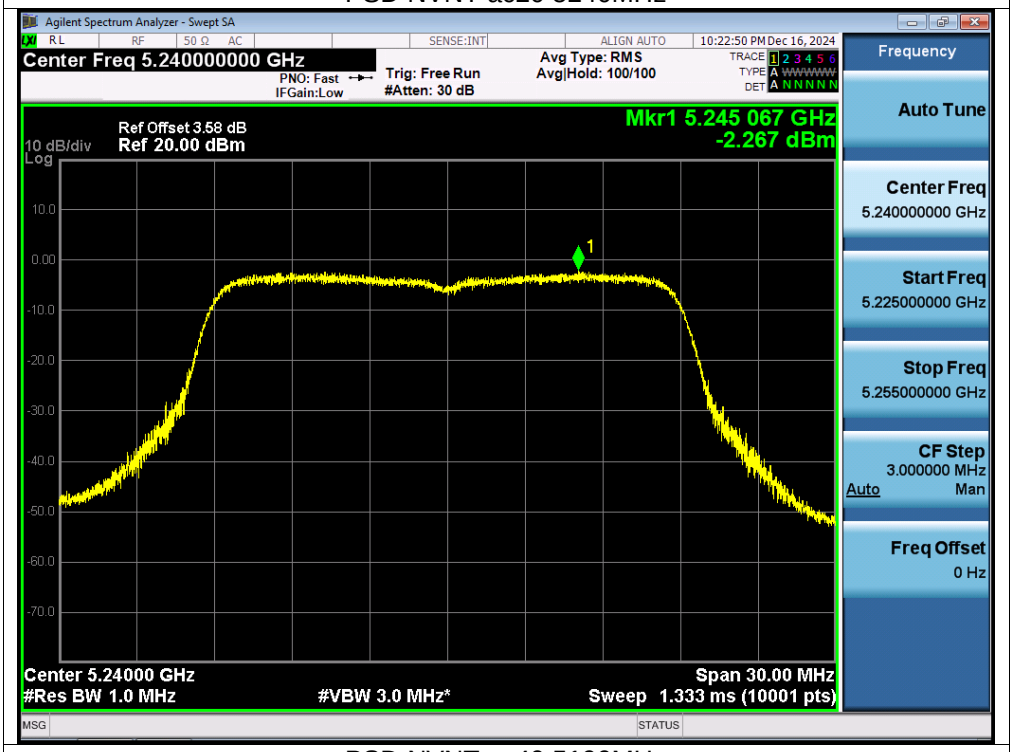
PSD NVNT ac20 5180MHz



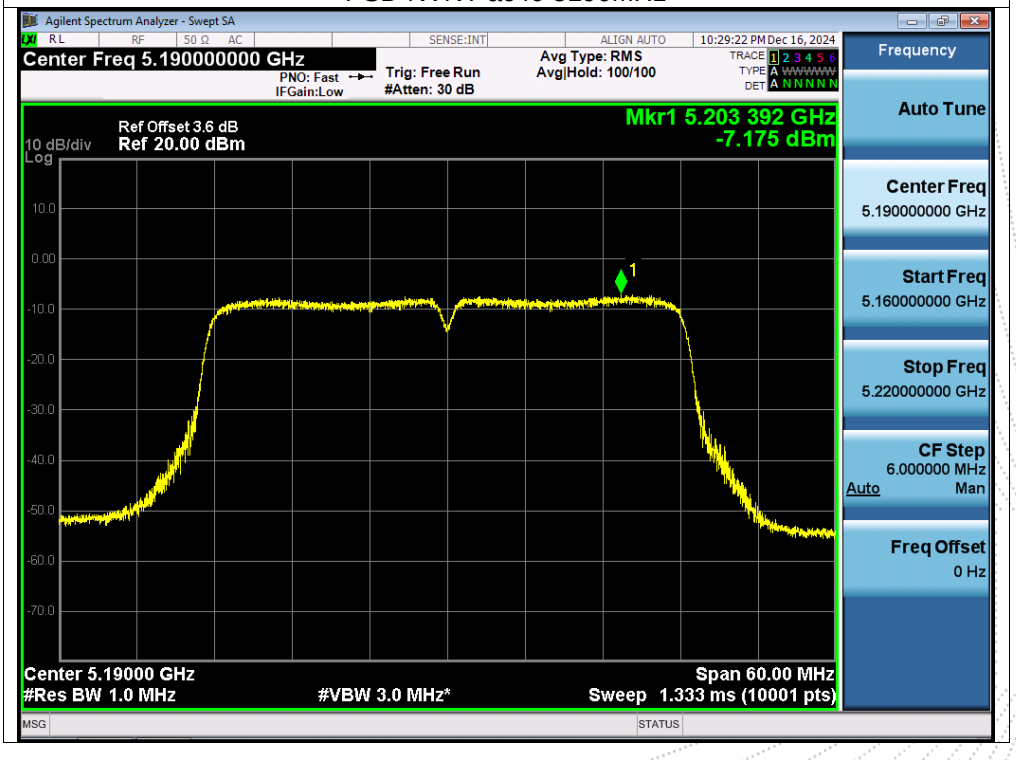
PSD NVNT ac20 5200MHz



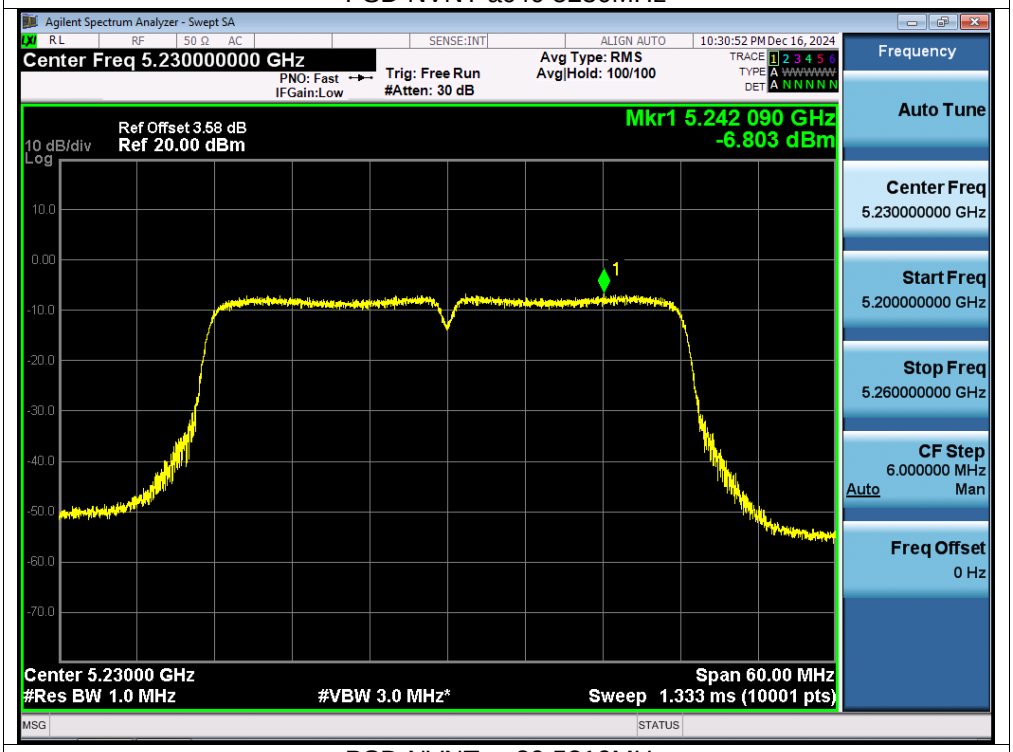
PSD NVNT ac20 5240MHz



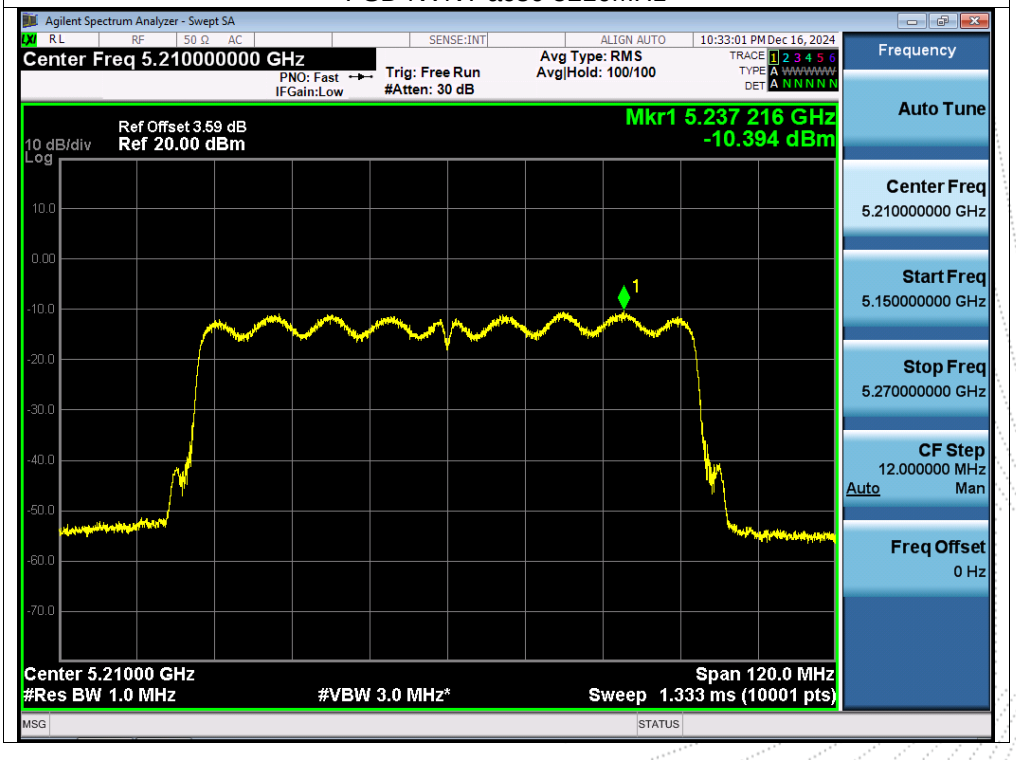
PSD NVNT ac40 5190MHz



PSD NVNT ac40 5230MHz



PSD NVNT ac80 5210MHz



Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage:	DC 7.6V
Test Mode:	TX Frequency U-NII-3 (5745-5825MHz)		

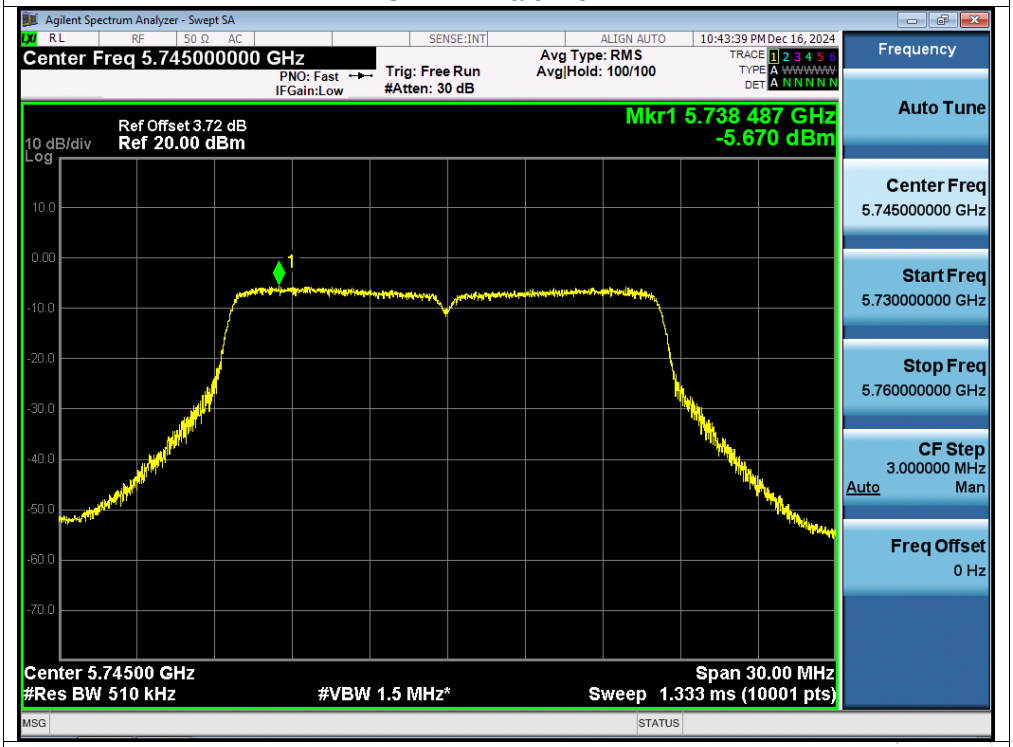
Condition	Mode	Frequency (MHz)	Measured Power Density (dBm/MHz)			Limit (dBm/MHz)	Result
			ANT A	ANT B	Total		
NVNT	a	5745	**-5.67**	-5.97	/	30	PASS
NVNT	a	5785	-6.55	-6.95	/	30	PASS
NVNT	a	5825	-7.37	-7.99	/	30	PASS
NVNT	n20	5745	-6.98	-7.4	-4.17	29.77	PASS
NVNT	n20	5785	-8.38	-8.87	-5.61	29.77	PASS
NVNT	n20	5825	-9.23	-9.62	-6.41	29.77	PASS
NVNT	n40	5755	-10.93	-11.66	-8.27	29.77	PASS
NVNT	n40	5795	-12.44	-12.79	-9.60	29.77	PASS
NVNT	ac20	5745	-7.32	-7.68	-4.49	29.77	PASS
NVNT	ac20	5785	-8.37	-8.68	-5.51	29.77	PASS
NVNT	ac20	5825	-9.01	-9.96	-6.45	29.77	PASS
NVNT	ac40	5755	-11.17	-11.69	-8.41	29.77	PASS
NVNT	ac40	5795	-12.45	-12.68	-9.55	29.77	PASS
NVNT	ac80	5775	-13.46	-13.59	-10.51	29.77	PASS

Note:
Antenna A gain: 2.78 dBi, Antenna B gain: 3.22 dBi, Directional gain=[GainANT + 10 log(NANT/NSS) dBi] =6.23 dbi>6dbi
Limit=30-(6.23-6)=29.77 dbm

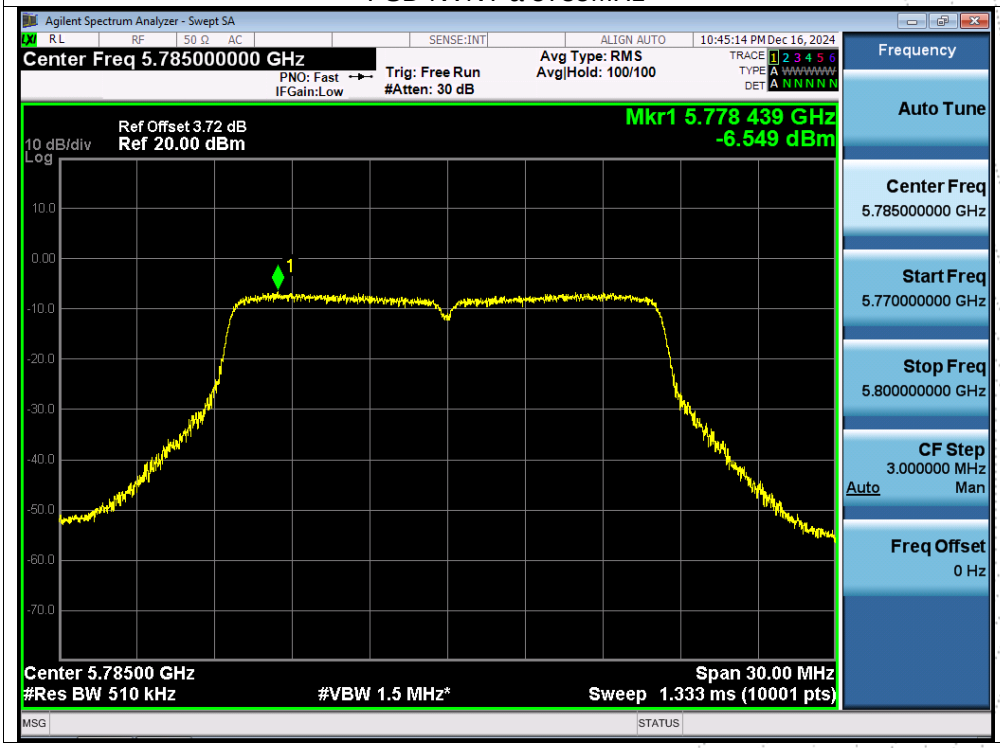
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.

Test Graphs

PSD NVNT a 5745MHz

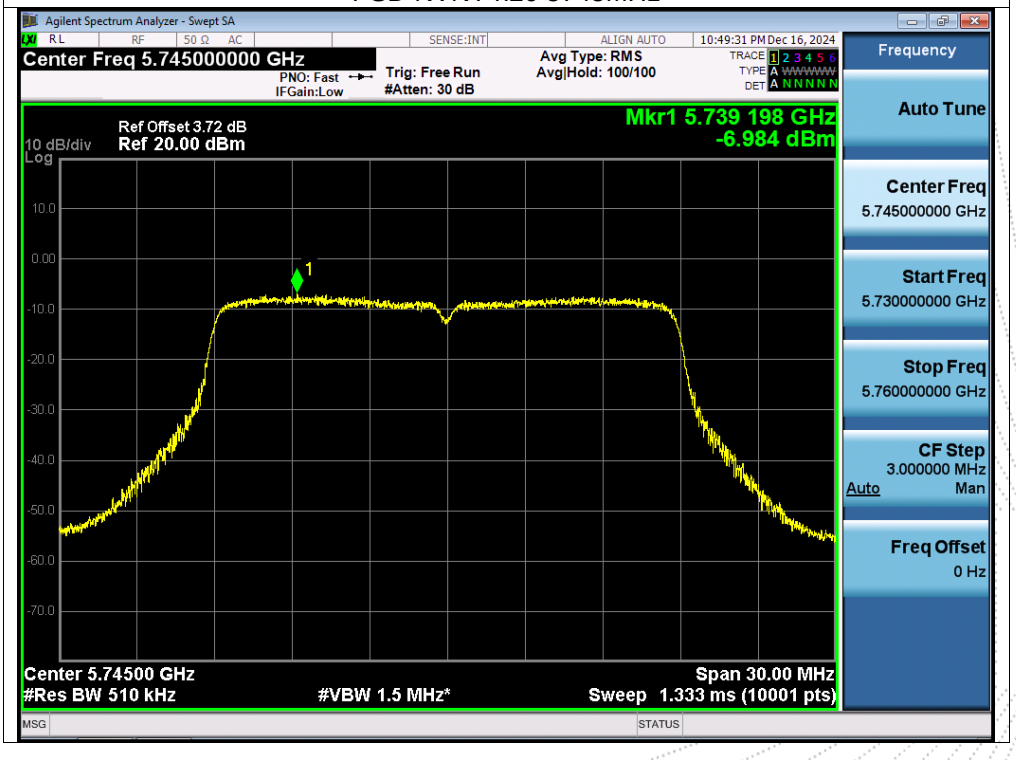


PSD NVNT a 5785MHz



PSD NVNT a 5825MHz

PSD NVNT n20 5745MHz



PSD NVNT n20 5785MHz

PSD NVNT n20 5825MHz

PSD NVNT n40 5755MHz

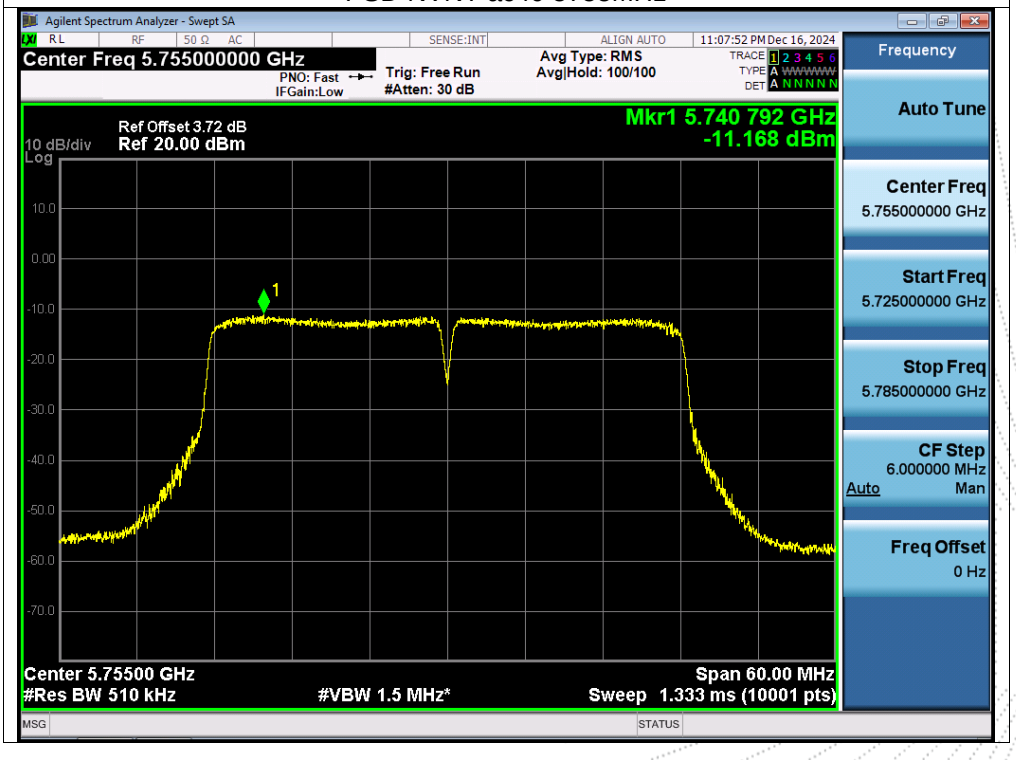
PSD NVNT n40 5795MHz

PSD NVNT ac20 5745MHz

PSD NVNT ac20 5785MHz

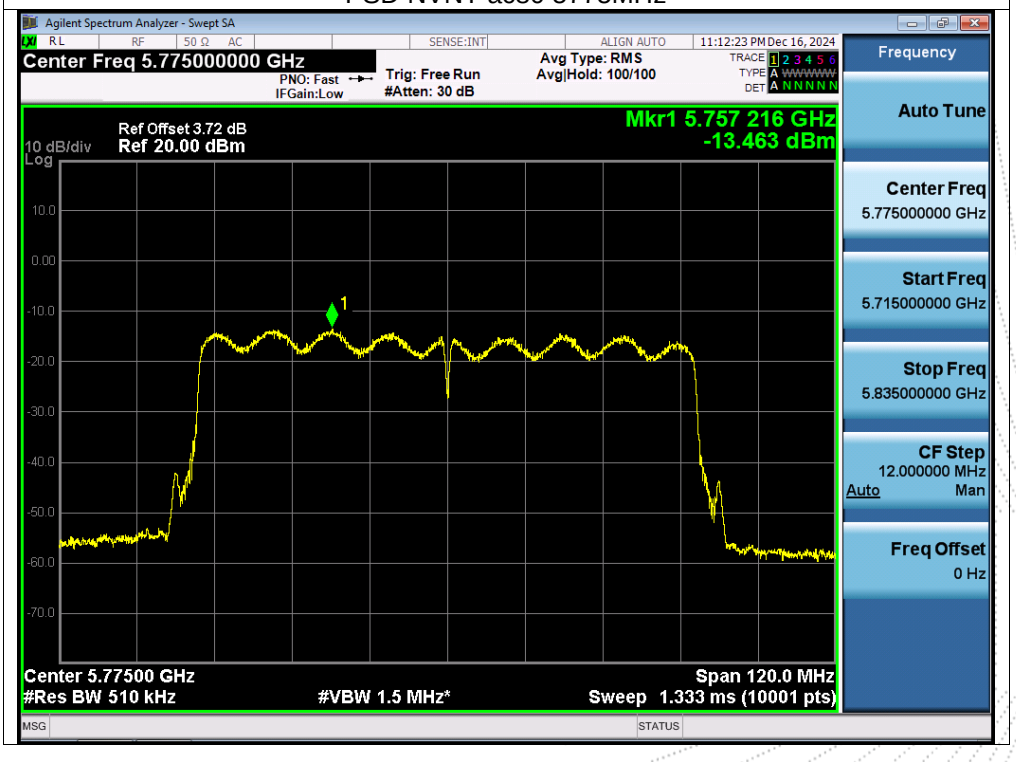
PSD NVNT ac20 5825MHz

PSD NVNT ac40 5755MHz



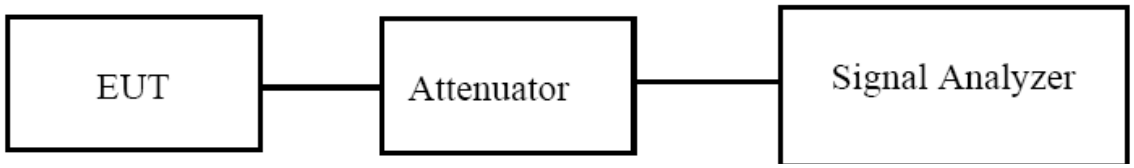
PSD NVNT ac40 5795MHz

PSD NVNT ac80 5775MHz



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

9.1 Block Diagram Of Test Setup



9.2 Limit

The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power
is integrated over the full reference bandwidth.
(6dB bandwidth)>500kHz

9.3 Test Procedure

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

The following procedure shall be used for measuring (99 %) power bandwidth:
1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW ≥ 3 · RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

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

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

9.4 EUT Operating Conditions

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

9.5 Test Result

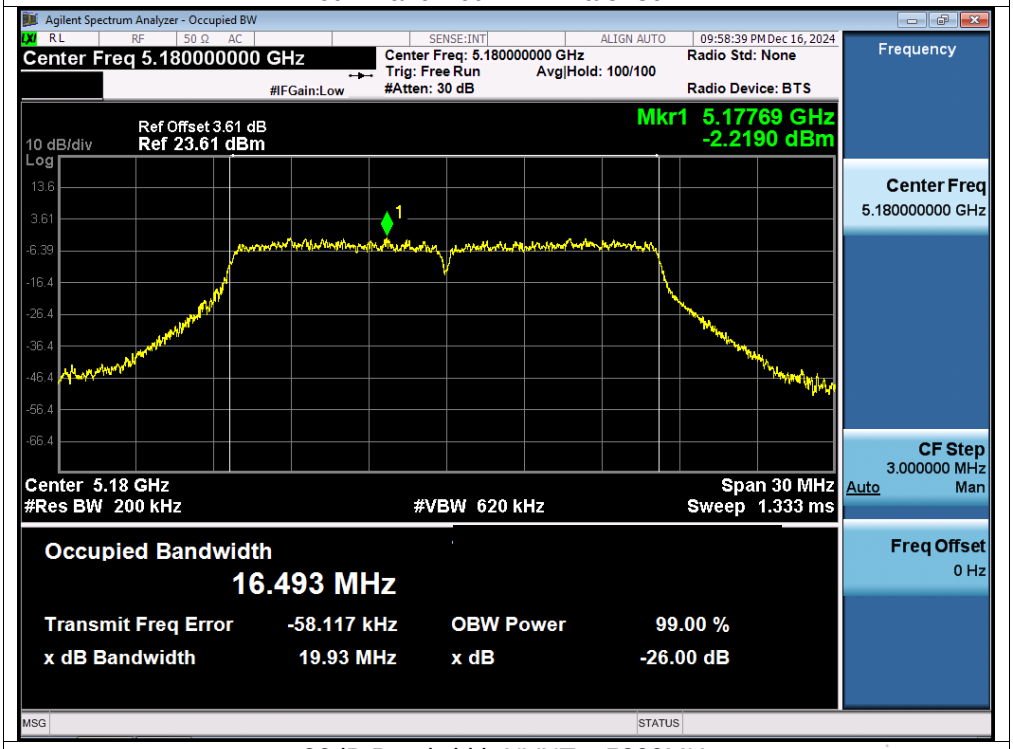
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage**:**	DC 7.6V
Test Mode:	TX Frequency U-NII-1 (5180-5240MHz)		

Mode	Channel	Frequency (MHz)	99% OBW (MHz)		26dB bandwidth (MHz)		Result
			ANT A	ANT B	ANT A	ANT B	
NVNT	a	5180	16.501	16.539	19.933	20.085	Pass
NVNT	a	5200	16.532	16.481	20.103	20.07	Pass
NVNT	a	5240	16.556	16.546	20.03	20.188	Pass
NVNT	n20	5180	17.646	17.654	20.979	20.901	Pass
NVNT	n20	5200	17.657	17.65	20.831	21.038	Pass
NVNT	n20	5240	17.656	17.644	20.787	20.866	Pass
NVNT	n40	5190	36.12	36.11	41.764	41.704	Pass
NVNT	n40	5230	36.158	36.114	41.916	41.276	Pass
NVNT	ac20	5180	17.671	17.658	20.884	21.125	Pass
NVNT	ac20	5200	17.675	17.64	20.993	20.894	Pass
NVNT	ac20	5240	17.667	17.649	20.792	20.958	Pass
NVNT	ac40	5190	36.12	36.123	41.238	41.738	Pass
NVNT	ac40	5230	36.121	36.146	41.539	41.519	Pass
NVNT	ac80	5210	**75.389**	75.376	**81.811**	81.671	Pass

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

Test Graphs

-26dB Bandwidth NVNT a 5180MHz



-26dB Bandwidth NVNT a 5200MHz