

TEST REPORT

Report No.: BCTC2411918682-4E

Applicant: RockTek Co., Ltd.

Product Name: UHD Streamer

Test Model: RT-GX1

Tested Date: 2024-11-11 to 2024-12-05

Issued Date: 2024-12-05

Shenzhen BCTC Testing Co., Ltd.



FCC ID: 2AFIV-RT-GX1

Product Name: UHD Streamer

Trademark: RockTek

Model/Type reference: RT-GX1
RT-GX1 Elite, RT-GT1, RT-GT1s, HPR312

Prepared For: RockTek Co., Ltd.

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Manufacturer: Shenzhen Skyworth Digital Technology Co., LTD.

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Prepared By: Shenzhen BCTC Testing Co., Ltd.

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Sample Received Date: 2024-11-11

Sample tested Date: 2024-11-11 to 2024-12-05

Issue Date: 2024-12-05

Report No.: BCTC2411918682-4E

Test Standards: FCC Part15 15.407
ANSI C63.10-2013
KDB 662911 D01 v02r01
KDB 789033 D02 v02r01

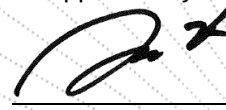
Test Results: PASS

Tested by:



Lei Chen/Project Handler

Approved by:



Zero Zhou/Reviewer

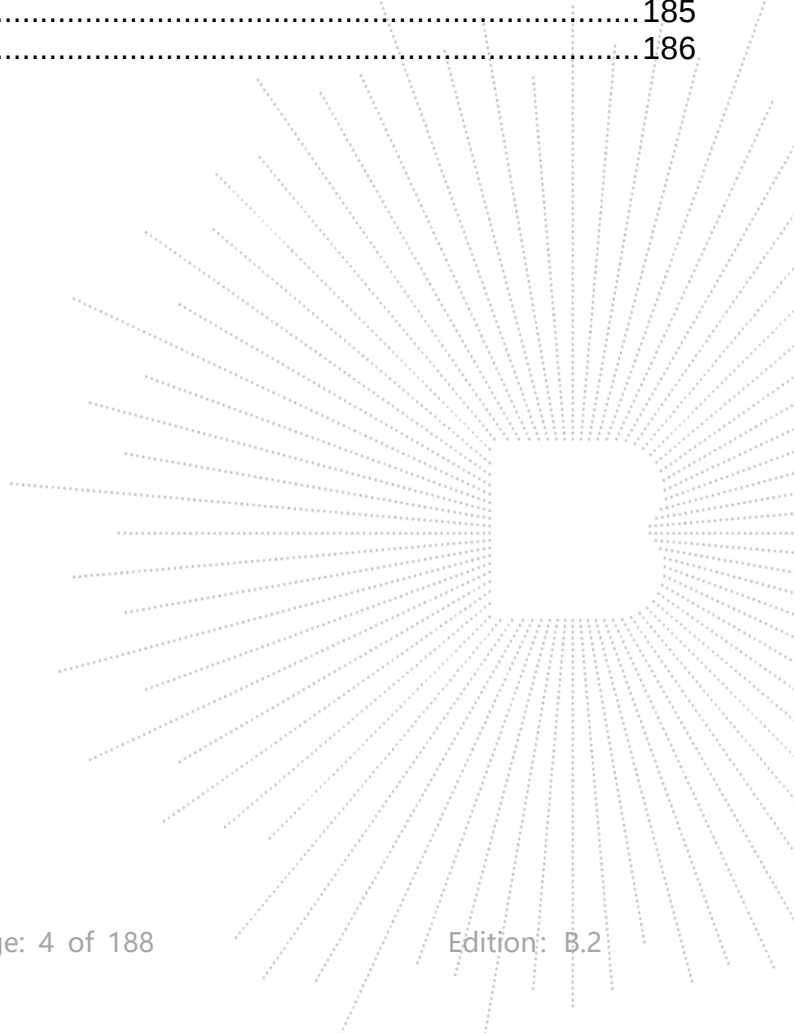
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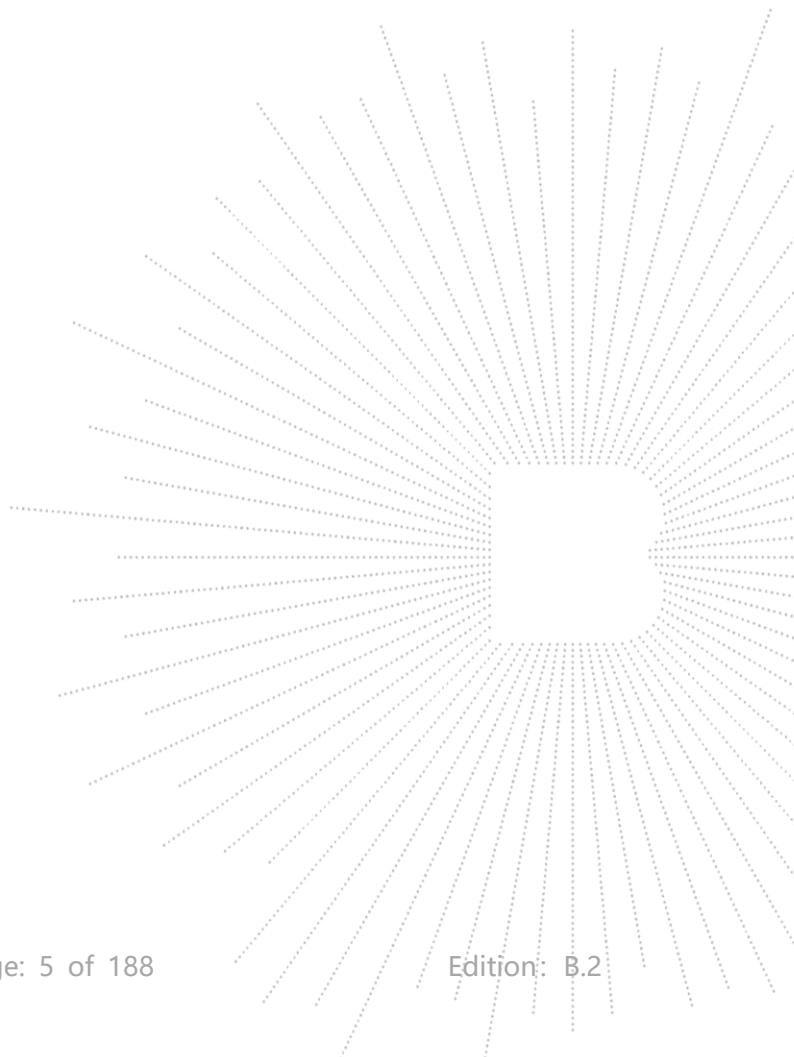
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(Note: N/A Means Not Applicable)



1. Version

Report No.	Issue Date	Description	Approved
BCTC2411918682-4E	2024-12-05	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°C

4. Product Information And Test Setup

4.1 Product Information

Model/Type reference:	RT-GX1 RT-GX1 Elite, RT-GT1, RT-GT1s, HPR312
Model differences:	All the model are the same circuit and RF module, except model names and appearance of the color.
Hardware Version:	N/A
Software Version:	N/A
IEEE 802.11 WLAN Mode Supported	802.11a/n/ac/ax(20MHz channel bandwidth) 802.11n/ac/ax(40MHz channel bandwidth) 802.11ac/ax(80MHz channel bandwidth)
Operation Frequency:	5180-5240MHz for 802.11a/n/ax(HT20); 5190-5230MHz for 802.11n/ax(HT40); 5210MHz for 802.11 ac/ax80; 5745-5825 MHz for 802.11a/n/ax(HT20); 5755-5795 MHz for 802.11n/ax(HT40); 5775MHz for 802.11 ac/ax80;
Data Rate	802.11a: 6,9,12,18,24,36,48,54Mbps; 802.11n(HT20/HT40):MCS0-MCS15; 802.11ac/ax(VHT20): NSS1, MCS0-MCS8 802.11ac/ax(VHT40/VHT80):NSS1, MCS0-MCS
Type of Modulation:	OFDM with BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM for 802.11a/n/ac/ax;
Number Of Channel	4 channels for 802.11a/n20/ax20 in the 5180-5240MHz band ; 2 channels for 802.11 n40/ax40 in the 5190-5230MHz band ; 1 channels for 802.11 ac80/ax80 in the 5210MHz band ; 5 channels for 802.11a/n20/ax20 in the 5745-5825MHz band ; 2 channels for 802.11 n40/ax40 in the 5755-5795MHz band ; 1 channels for 802.11 ac80/ax80 in the 5775MHz band
Antenna installation:	PCB antenna*2
Antenna Gain:	5.1G: Antenna A: 0.54 dBi, Antenna B: 0.54 dBi 5.8G: Antenna A: 2.71 dBi, Antenna B: 2.71 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
Adapter Information:	Model No.: RJ-SKY120100U60S Input: AC 100-240V 50/60Hz 0.5A Output: DC 12V 1A

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	UHD Streamer	RockTek	RT-GX1	N/A	EUT
E-2	Adapter	/	RJ-SKY120100 U60S	N/A	Auxiliary

Item	Shielded Type	Ferrite Core	Length	Note
C-1	N/A	N/A	1M	DC cable unshielded

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4.4 Channel List

5.1G

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

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

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

5.8G

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

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

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

4.5 Test Mode

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

Pretest Mode	Description
Mode 1	802.11a / n/ ac 20/ ax 20 CH36/ CH40/ CH 48 802.11a /n/ ac 20/ ax 20 CH149/ CH157/ CH 165
Mode 2	802.11n/ ac40/ ax 40 CH38/ CH 46 802.11n/ ac40/ ax 40 CH 151 / CH 159
Mode 3	802.11 ac80/ ax80 CH 42/CH 155
Mode 4	WiFi Linking (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.
- (3) This product does not support RU mode.

4.6 Table Of Parameters Of Text Software Setting

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

Test software Version	SecureCRT		
Parameters	DEF	DEF	DEF

4.7 Antenna

5.1G

1)For power spectral density(PSD) measurements,
Array Gain= $10\log(\text{NANT}/\text{NSS})\text{dB}=10\log(2/1)=3.01\text{dB}$,

So the directional gain for PSD is 3.55 dBi

2)For power measurements,

The Array gain=0 dB for $\text{NANT} \leq 4$,

So the directional gain for Power measurements is 0.54 dBi

Antenna	Brand	Model Name	Antenna Type	Gain (dBi)	NOTE
A	N/A	N/A	PCB antenna	0.54	N/A
B	N/A	N/A	PCB antenna	0.54	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.

5.8G

1)For power spectral density(PSD) measurements,
Array Gain= $10\log(\text{NANT}/\text{NSS})\text{dB}=10\log(2/1)=3.01\text{dB}$,

So the directional gain for PSD is 5.72 dBi

2)For power measurements,

The Array gain=0 dB for $\text{NANT} \leq 4$,

So the directional gain for Power measurements is 2.71 dBi

Antenna	Brand	Model Name	Antenna Type	Gain (dBi)	NOTE
A	N/A	N/A	PCB antenna	2.71	N/A
B	N/A	N/A	PCB antenna	2.71	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

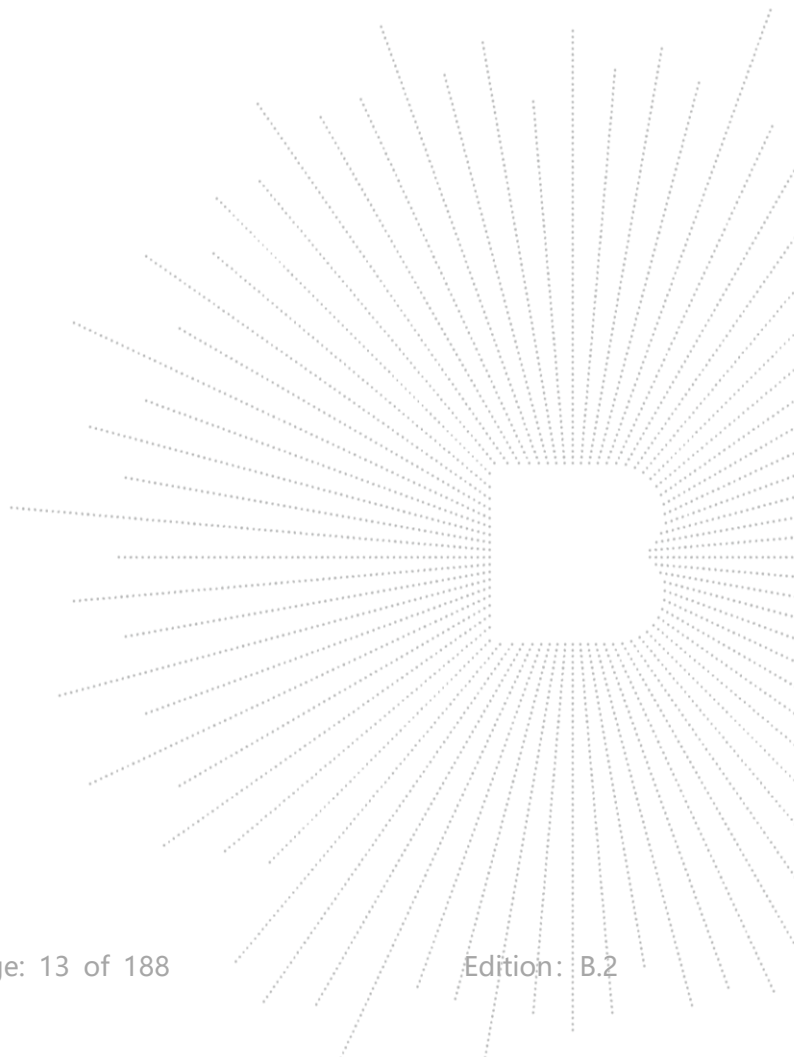
ISED CAB identifier: CN0017

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

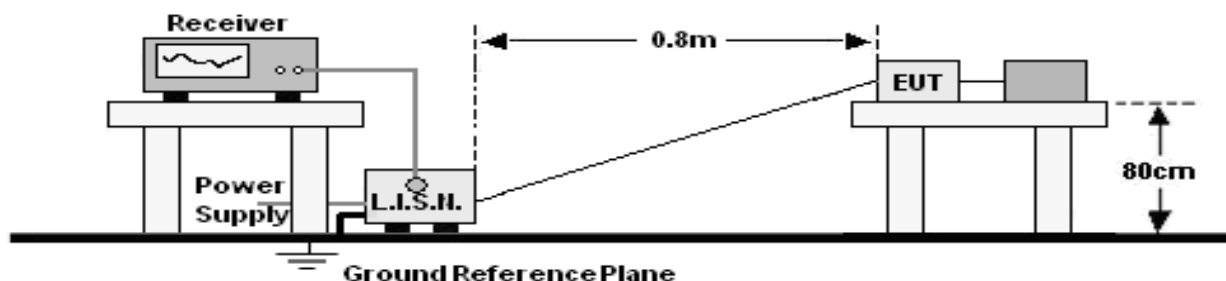
RF Conducted Test					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Power meter	Keysight	E4419	\	May 16, 2024	May 15, 2025
Power Sensor (AV)	Keysight	E9300A	\	May 16, 2024	May 15, 2025
Signal Analyzer20kHz-26.5GHz	Keysight	N9020A	MY49100060	May 16, 2024	May 15, 2025
Spectrum Analyzer9kHz-40GHz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

Radiated Emissions Test (966 Chamber01)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
966 chamber	ChengYu	966 Room	966	May 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_01G18 G-45dB	SK2021040901	May 16, 2024	May 15, 2025
Horn Antenna	Schwarzbeck	BBHA9120D	1541	May 21, 2024	May 20, 2025
Amplifier(18G Hz-40GHz)	MITEQ	TTA1840-35-HG	2034381	May 16, 2024	May 15, 2025
Horn Antenna(18G Hz-40GHz)	Schwarzbeck	BBHA9170	00822	May 21, 2024	May 20, 2025
Spectrum Analyzer9kHz-40GHz	R&S	FSP40	100363	May 16, 2024	May 15, 2025
Software	Frad	EZ-EMC	FA-03A2 RE	\	\



6. Conducted Emissions

6.1 Block Diagram Of Test Setup



6.2 Limit

Frequency (MHz)	Limit (dBuV)	
	Quas-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Notes:

- *Decreasing linearly with logarithm of frequency.
- The lower limit shall apply at the transition frequencies.

6.3 Test Procedure

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

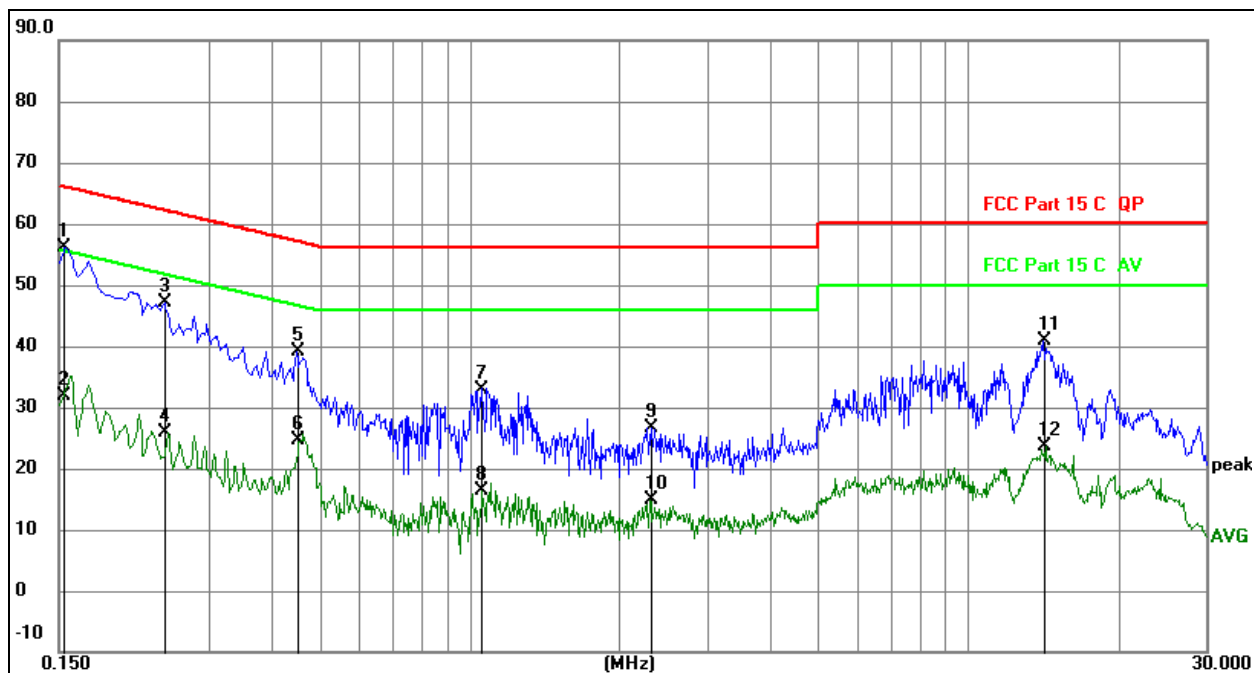
- The Product was placed on a nonconductive table 0.8 m above the horizontal ground reference plane, and 0.4 m from the vertical ground reference plane, and connected to the main through Line Impedance Stability Network (L.I.S.N).
- The RBW of the receiver was set at 9 kHz in 150 kHz ~ 30MHz with Peak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

6.4 EUT Operating Conditions

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

6.5 Test Result

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

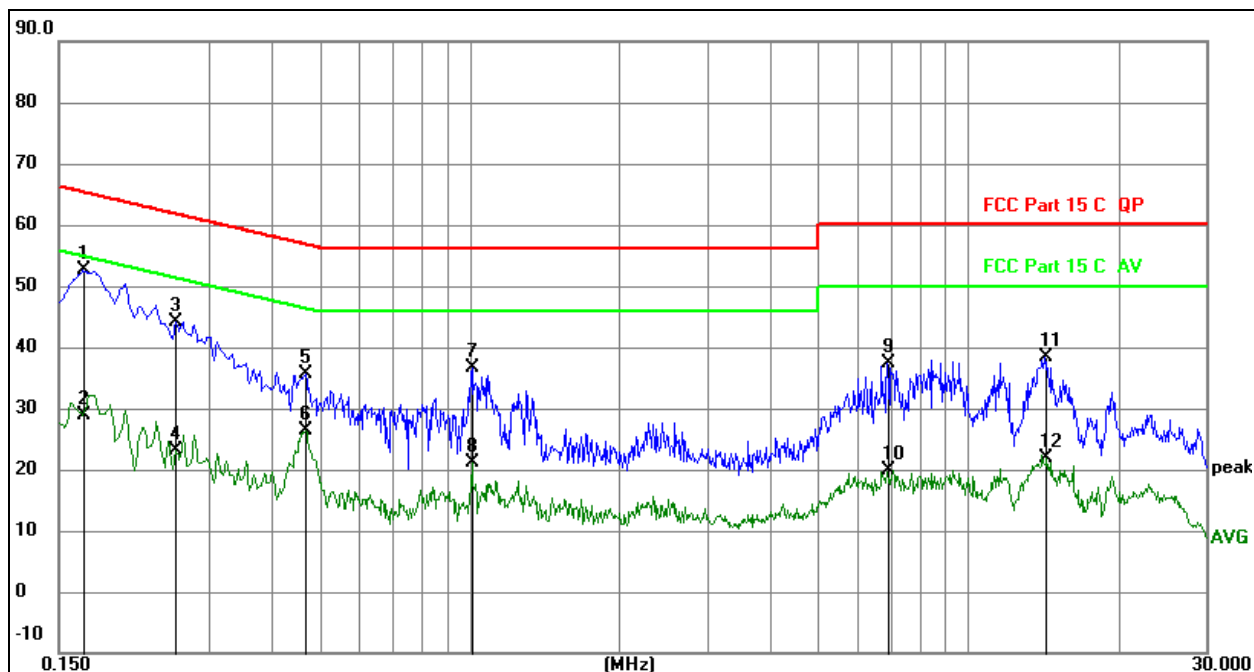


Remark:

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. MHz	Reading Level	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1	*	0.1539	36.17	20.07	56.24	65.79	-9.55	QP
2		0.1539	11.75	20.07	31.82	55.79	-23.97	AVG
3		0.2442	27.09	20.07	47.16	61.95	-14.79	QP
4		0.2442	5.81	20.07	25.88	51.95	-26.07	AVG
5		0.4492	19.15	20.08	39.23	56.89	-17.66	QP
6		0.4492	4.65	20.08	24.73	46.89	-22.16	AVG
7		1.0541	12.91	20.09	33.00	56.00	-23.00	QP
8		1.0541	-3.70	20.09	16.39	46.00	-29.61	AVG
9		2.3090	6.59	20.11	26.70	56.00	-29.30	QP
10		2.3090	-5.13	20.11	14.98	46.00	-31.02	AVG
11		14.1376	20.65	20.29	40.94	60.00	-19.06	QP
12		14.1376	3.43	20.29	23.72	50.00	-26.28	AVG

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



Remark:

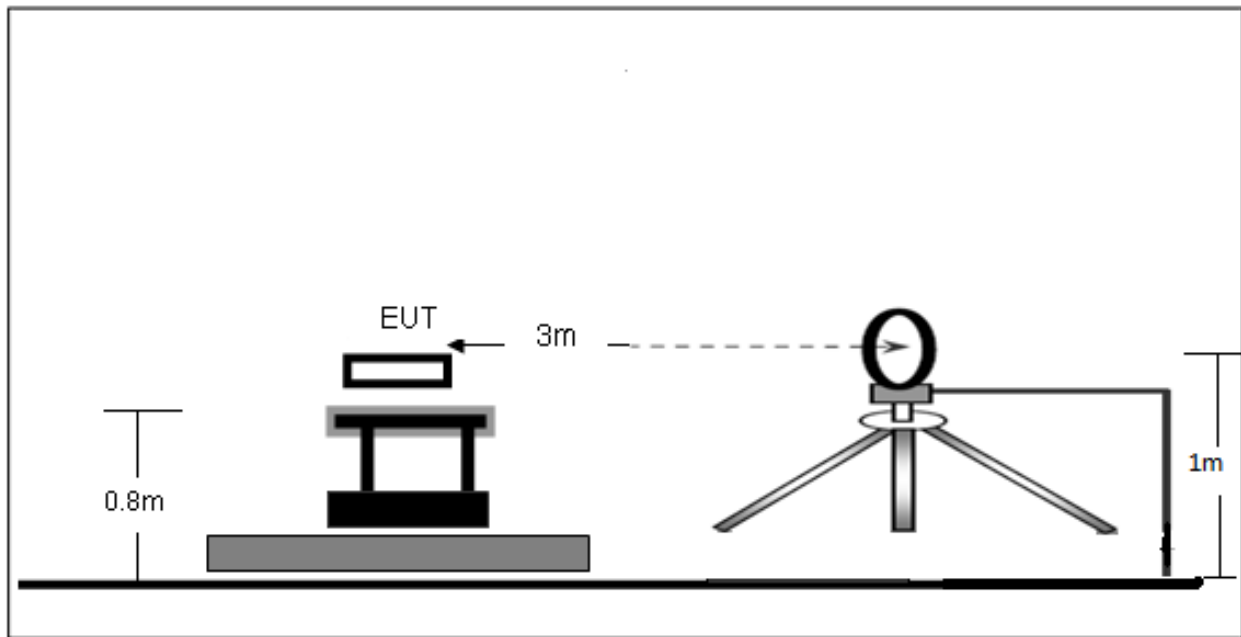
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement=Reading Level+ Correct Factor
4. Over=Measurement-Limit

No.	Mk.	Freq. MHz	Reading Level dB	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1	*	0.1677	32.47	20.07	52.54	65.07	-12.53	QP
2		0.1677	8.84	20.07	28.91	55.07	-26.16	AVG
3		0.2575	24.08	20.07	44.15	61.51	-17.36	QP
4		0.2575	2.94	20.07	23.01	51.51	-28.50	AVG
5		0.4686	15.63	20.08	35.71	56.54	-20.83	QP
6		0.4686	6.42	20.08	26.50	46.54	-20.04	AVG
7		1.0103	16.46	20.09	36.55	56.00	-19.45	QP
8		1.0103	1.09	20.09	21.18	46.00	-24.82	AVG
9		6.8776	17.17	20.16	37.33	60.00	-22.67	QP
10		6.8776	-0.24	20.16	19.92	50.00	-30.08	AVG
11		14.2127	18.05	20.29	38.34	60.00	-21.66	QP
12		14.2127	1.64	20.29	21.93	50.00	-28.07	AVG

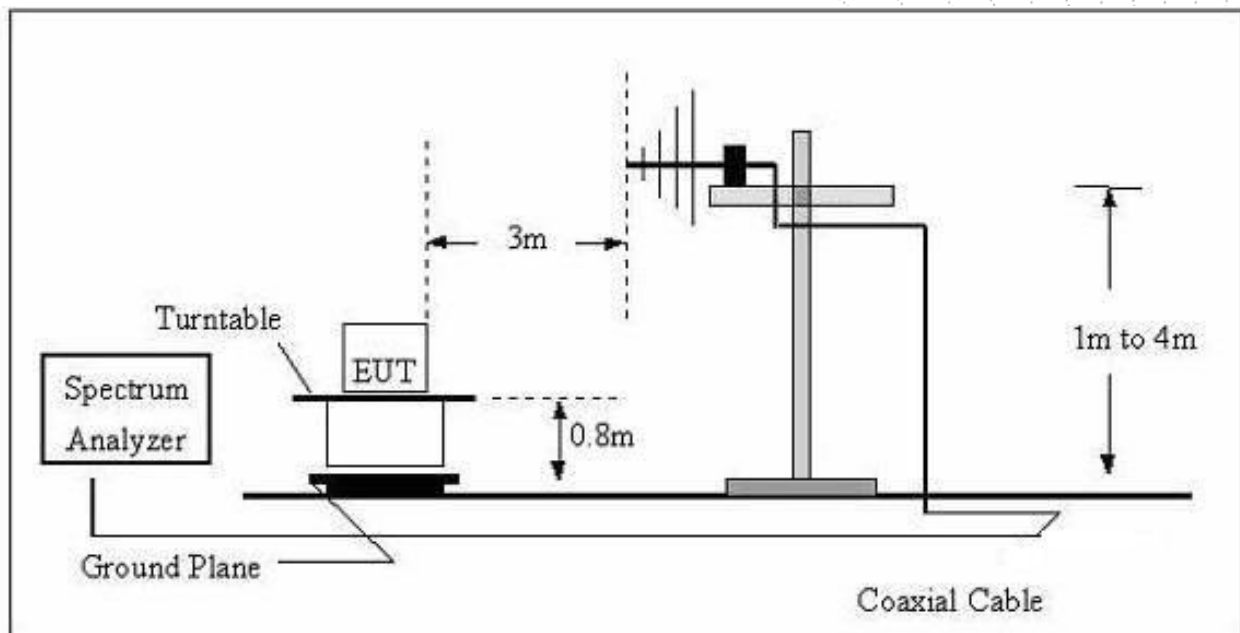
7. Radiated Emissions

7.1 Block Diagram Of Test Setup

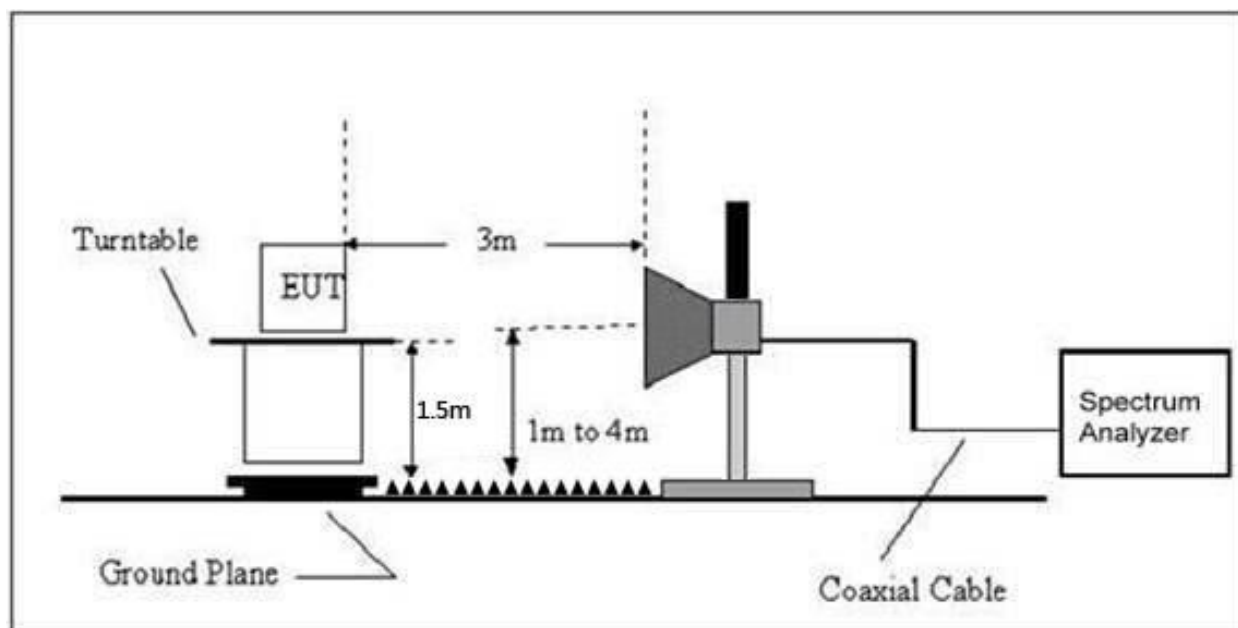
(A) Radiated Emission Test-Up Frequency Below 30MHz



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



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



7.2 Limit

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

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

Limits Of Radiated Emission Measurement (Above 1000MHz)

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

Notes:

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

7.3 Test Procedure

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10-2013. The test distance is 3m. The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 and CAN/CSA-CEI/IEC CISPR 22.

This test is required for any spurious emission that falls in a Restricted Band, as defined in Section 15.205. It must be performed with the highest gain of each type of antenna proposed for use with the EUT.

Use the following spectrum analyzer settings:

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

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

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

Note:

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

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

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

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

7.4 EUT Operating Conditions

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

7.5 Test Result

Below 30MHz

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

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

Note:

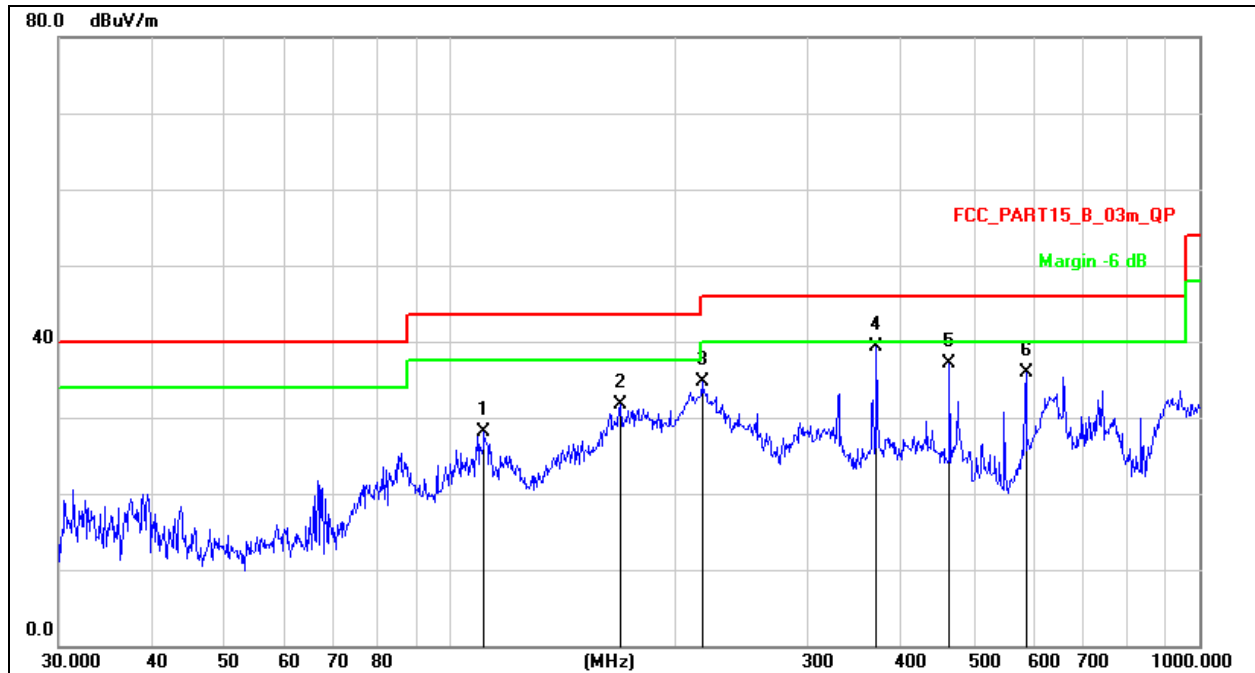
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

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

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

Between 30MHz – 1GHz

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

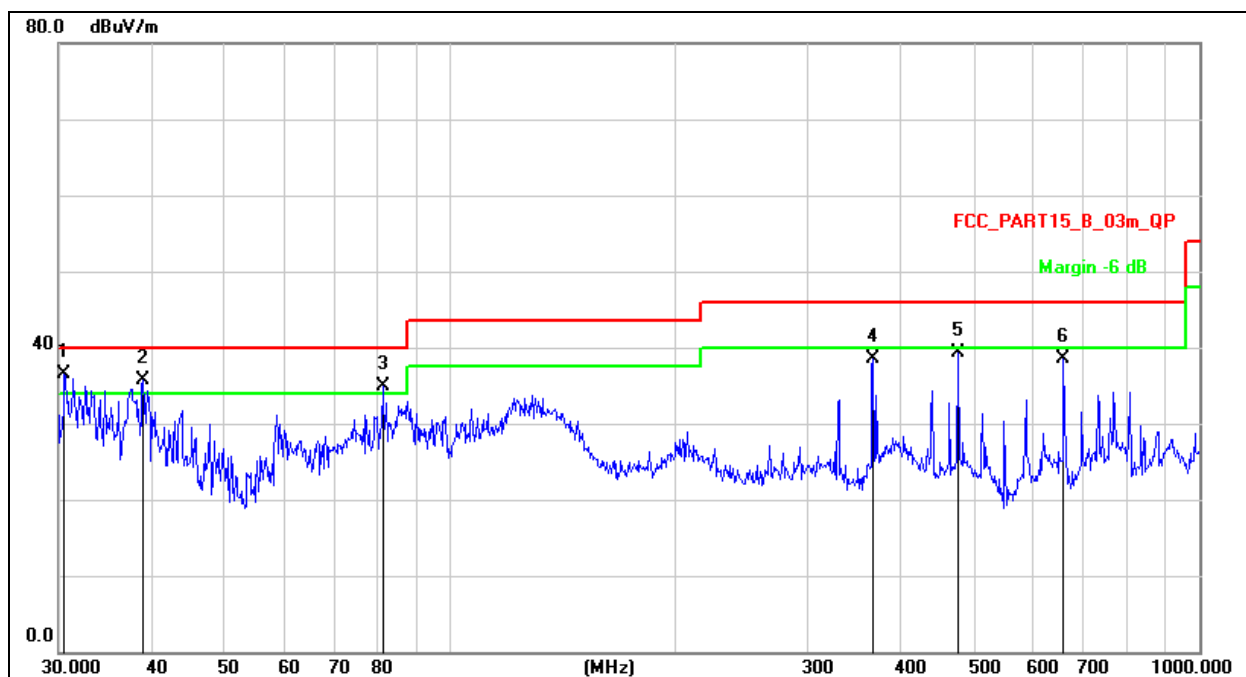


Remark:

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	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		110.9571	44.84	-16.70	28.14	43.50	-15.36	QP
2		169.0054	49.65	-18.02	31.63	43.50	-11.87	QP
3		216.7828	49.96	-15.24	34.72	46.00	-11.28	QP
4	*	370.7023	50.56	-11.21	39.35	46.00	-6.65	QP
5		463.9696	46.58	-9.51	37.07	46.00	-8.93	QP
6		586.8437	43.73	-7.90	35.83	46.00	-10.17	QP

Temperature:	26 °C	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	*	30.5306	53.00	-16.55	36.45	40.00	-3.55	QP
2	!	38.8878	50.69	-14.93	35.76	40.00	-4.24	QP
3	!	81.2117	54.35	-19.47	34.88	40.00	-5.12	QP
4		366.8231	49.79	-11.26	38.53	46.00	-7.47	QP
5		475.4991	48.51	-9.22	39.29	46.00	-6.71	QP
6		658.8362	44.56	-6.08	38.48	46.00	-7.52	QP

Between 1GHz – 40GHz

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

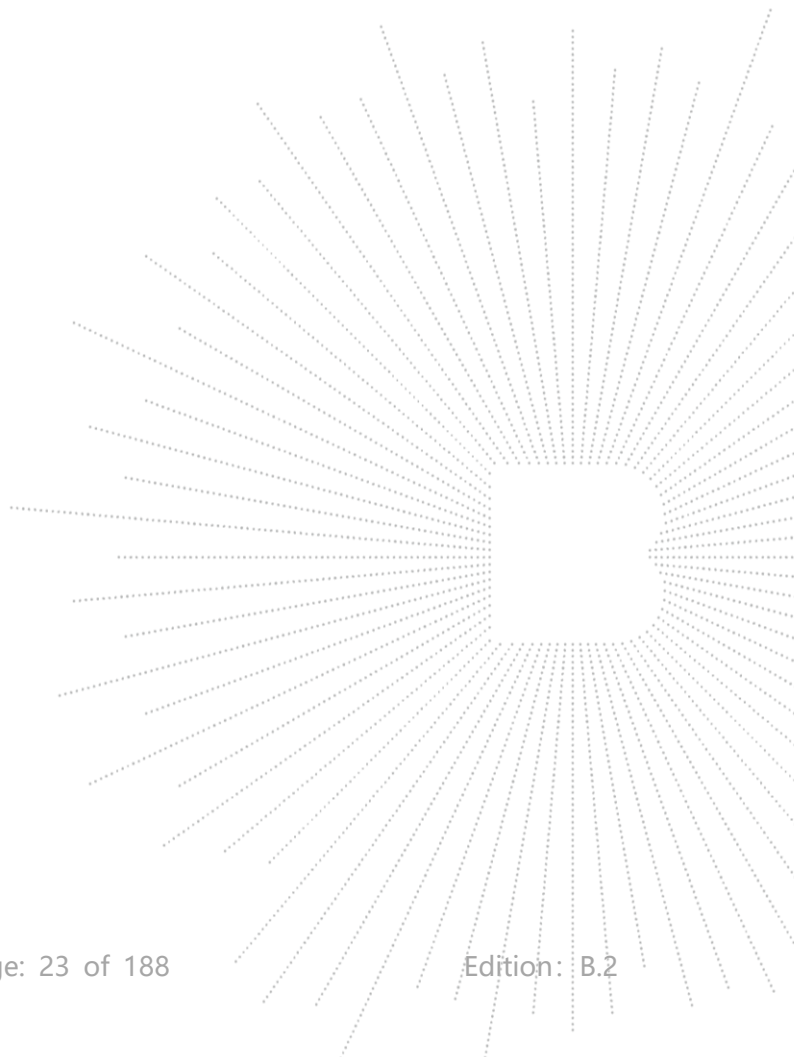
Test mode: 802.11a (antenna a) Frequency(MHz): 5180

Frequency (MHz)	Polarity	PK(dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	AV(dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)
5149.06	H	58.03	74	44.82	54
5148.82	V	54.79	74	40.41	54

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

Frequency (MHz)	Polarity	PK(dBuV/m) (VBW=3MHz)	Limit 3m (dBuV/m)	AV(dBuV/m) (VBW=10Hz)	Limit 3m (dBuV/m)
5301.42	H	43.88	74	31.74	54
5301.39	V	40.25	74	28.51	54

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



Test Mode:	TX(5.1G) - 802.11a
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G							
Vertical	4434.113	73.51	-20.73	52.78	68.2	-15.42	PK
Vertical	4434.113	59.20	-20.73	38.47	54	-15.53	AV
Vertical	10360.152	62.04	-9.36	52.68	68.2	-15.52	PK
Vertical	10360.152	49.22	-9.36	39.86	54	-14.14	AV
Vertical	15540.185	61.50	-7.84	53.66	74	-20.34	PK
Vertical	15540.185	49.18	-7.84	41.34	54	-12.66	AV
Horizontal	4434.157	71.81	-20.73	51.08	68.2	-17.12	PK
Horizontal	4434.157	59.21	-20.73	38.48	54	-15.52	AV
Horizontal	10360.074	60.90	-9.36	51.54	68.2	-16.66	PK
Horizontal	10360.074	49.39	-9.36	40.03	54	-13.97	AV
Horizontal	15540.046	61.68	-7.84	53.84	74	-20.16	PK
Horizontal	15540.046	49.98	-7.84	42.14	54	-11.86	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.155	74.02	-20.42	53.61	74	-20.39	PK
Vertical	4592.155	59.24	-20.42	38.82	54	-15.18	AV
Vertical	10400.157	60.14	-9.30	50.84	68.2	-17.36	PK
Vertical	10400.157	49.75	-9.30	40.45	54	-13.55	AV
Vertical	15600.152	60.37	-7.82	52.55	74	-21.45	PK
Vertical	15600.152	49.55	-7.82	41.73	54	-12.27	AV
Horizontal	4592.188	71.92	-20.42	51.51	74	-22.49	PK
Horizontal	4592.188	59.49	-20.42	39.07	54	-14.93	AV
Horizontal	10400.100	62.07	-9.30	52.77	68.2	-15.43	PK
Horizontal	10400.100	49.25	-9.30	39.95	54	-14.05	AV
Horizontal	15600.080	61.50	-7.82	53.68	74	-20.32	PK
Horizontal	15600.080	49.27	-7.82	41.45	54	-12.55	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.122	72.61	-20.12	52.48	74	-21.52	PK
Vertical	4739.122	59.19	-20.12	39.07	54	-14.93	AV
Vertical	10480.009	61.22	-9.18	52.04	68.2	-16.16	PK
Vertical	10480.009	49.79	-9.18	40.61	54	-13.39	AV
Vertical	15720.184	60.54	-7.78	52.76	74	-21.24	PK
Vertical	15720.184	49.14	-7.78	41.36	54	-12.64	AV
Horizontal	4739.150	70.07	-20.12	49.95	74	-24.05	PK
Horizontal	4739.150	59.82	-20.12	39.70	54	-14.30	AV
Horizontal	10480.107	64.48	-9.18	55.30	68.2	-12.90	PK
Horizontal	10480.107	49.74	-9.18	40.56	54	-13.44	AV
Horizontal	15720.082	62.99	-7.78	55.21	74	-18.79	PK
Horizontal	15720.082	49.52	-7.78	41.74	54	-12.26	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
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G							
Vertical	4434.177	71.51	-20.73	50.78	68.2	-17.42	PK
Vertical	4434.177	59.86	-20.73	39.13	54	-14.87	AV
Vertical	10360.186	60.77	-9.36	51.41	68.2	-16.79	PK
Vertical	10360.186	49.82	-9.36	40.46	54	-13.54	AV
Vertical	15540.073	60.84	-7.84	53.00	74	-21.00	PK
Vertical	15540.073	49.04	-7.84	41.20	54	-12.80	AV
Horizontal	4434.121	72.63	-20.73	51.90	68.2	-16.30	PK
Horizontal	4434.121	59.42	-20.73	38.69	54	-15.31	AV
Horizontal	10360.194	64.46	-9.36	55.10	68.2	-13.10	PK
Horizontal	10360.194	49.14	-9.36	39.78	54	-14.22	AV
Horizontal	15540.013	63.47	-7.84	55.63	74	-18.37	PK
Horizontal	15540.013	49.86	-7.84	42.02	54	-11.98	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.039	73.99	-20.42	53.57	74	-20.43	PK
Vertical	4592.039	59.02	-20.42	38.60	54	-15.40	AV
Vertical	10400.010	64.95	-9.30	55.65	68.2	-12.55	PK
Vertical	10400.010	49.66	-9.30	40.36	54	-13.64	AV
Vertical	15600.082	62.98	-7.82	55.16	74	-18.84	PK
Vertical	15600.082	49.82	-7.82	42.00	54	-12.00	AV
Horizontal	4592.125	73.50	-20.42	53.09	74	-20.91	PK
Horizontal	4592.125	59.32	-20.42	38.90	54	-15.10	AV
Horizontal	10400.170	60.42	-9.30	51.12	68.2	-17.08	PK
Horizontal	10400.170	49.47	-9.30	40.17	54	-13.83	AV
Horizontal	15600.151	64.20	-7.82	56.38	74	-17.62	PK
Horizontal	15600.151	49.28	-7.82	41.46	54	-12.54	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.053	70.53	-20.12	50.41	74	-23.59	PK
Vertical	4739.053	59.34	-20.12	39.22	54	-14.78	AV
Vertical	10480.024	61.98	-9.18	52.80	68.2	-15.40	PK
Vertical	10480.024	49.38	-9.18	40.20	54	-13.80	AV
Vertical	15720.174	64.71	-7.78	56.93	74	-17.07	PK
Vertical	15720.174	49.47	-7.78	41.69	54	-12.31	AV
Horizontal	4739.170	73.09	-20.12	52.97	74	-21.03	PK
Horizontal	4739.170	59.93	-20.12	39.81	54	-14.19	AV
Horizontal	10480.112	64.53	-9.18	55.35	68.2	-12.85	PK
Horizontal	10480.112	49.53	-9.18	40.35	54	-13.65	AV
Horizontal	15720.143	63.99	-7.78	56.21	74	-17.79	PK
Horizontal	15720.143	49.18	-7.78	41.40	54	-12.60	AV

Note: PK value is lower than the Average value limit, So average didn't record.

The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode is MIMO Mode.

Test Mode:	TX(5.1G) - 802.11n-HT40
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5190 MHz)-Above 1G							
Vertical	4434.168	71.25	-20.73	50.52	68.2	-17.68	PK
Vertical	4434.168	59.62	-20.73	38.89	54	-15.11	AV
Vertical	10380.058	61.62	-9.33	52.29	68.2	-15.91	PK
Vertical	10380.058	49.99	-9.33	40.66	54	-13.34	AV
Vertical	15570.139	61.31	-7.83	53.48	74	-20.52	PK
Vertical	15570.139	49.19	-7.83	41.36	54	-12.64	AV
Horizontal	4434.167	71.42	-20.73	50.69	74	-23.31	PK
Horizontal	4434.167	59.53	-20.73	38.79	54	-15.21	AV
Horizontal	10380.166	62.01	-9.33	52.68	68.2	-15.52	PK
Horizontal	10380.166	49.48	-9.33	40.15	54	-13.85	AV
Horizontal	15570.181	64.80	-7.83	56.97	74	-17.03	PK
Horizontal	15570.181	49.69	-7.83	41.86	54	-12.14	AV
Middle Channel (5230 MHz)-Above 1G							
Vertical	4739.031	73.43	-20.12	53.31	68.2	-14.89	PK
Vertical	4739.031	59.06	-20.12	38.94	54	-15.06	AV
Vertical	10460.110	61.49	-9.21	52.28	68.2	-15.92	PK
Vertical	10460.110	49.85	-9.21	40.64	54	-13.36	AV
Vertical	15690.100	61.05	-7.79	53.26	74	-20.74	PK
Vertical	15690.100	49.29	-7.79	41.50	54	-12.50	AV
Horizontal	4739.115	70.33	-20.12	50.21	68.2	-17.99	PK
Horizontal	4739.115	59.18	-20.12	39.06	54	-14.94	AV
Horizontal	10460.022	60.79	-9.21	51.58	68.2	-16.62	PK
Horizontal	10460.022	49.11	-9.21	39.90	54	-14.10	AV
Horizontal	15690.169	61.50	-7.79	53.71	74	-20.29	PK
Horizontal	15690.169	49.17	-7.79	41.38	54	-12.62	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
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G							
Vertical	4434.155	72.16	-20.73	51.43	68.2	-16.77	PK
Vertical	4434.155	59.43	-20.73	38.70	54	-15.30	AV
Vertical	10360.001	62.94	-9.36	53.58	68.2	-14.62	PK
Vertical	10360.001	49.77	-9.36	40.41	54	-13.59	AV
Vertical	15540.006	60.71	-7.84	52.87	74	-21.13	PK
Vertical	15540.006	49.22	-7.84	41.38	54	-12.62	AV
Horizontal	4434.090	72.99	-20.73	52.26	68.2	-15.94	PK
Horizontal	4434.090	59.49	-20.73	38.76	54	-15.24	AV
Horizontal	10360.156	60.71	-9.36	51.35	68.2	-16.85	PK
Horizontal	10360.156	49.49	-9.36	40.13	54	-13.87	AV
Horizontal	15540.079	64.65	-7.84	56.81	74	-17.19	PK
Horizontal	15540.079	49.95	-7.84	42.11	54	-11.89	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.104	74.78	-20.42	54.37	74	-19.63	PK
Vertical	4592.104	59.62	-20.42	39.21	54	-14.79	AV
Vertical	10400.165	62.92	-9.30	53.62	68.2	-14.58	PK
Vertical	10400.165	49.85	-9.30	40.55	54	-13.45	AV
Vertical	15600.123	61.42	-7.82	53.60	74	-20.40	PK
Vertical	15600.123	49.09	-7.82	41.27	54	-12.73	AV
Horizontal	4592.170	73.93	-20.42	53.51	74	-20.49	PK
Horizontal	4592.170	59.59	-20.42	39.17	54	-14.83	AV
Horizontal	10400.156	63.38	-9.30	54.08	68.2	-14.12	PK
Horizontal	10400.156	49.70	-9.30	40.40	54	-13.60	AV
Horizontal	15600.187	63.85	-7.82	56.03	74	-17.97	PK
Horizontal	15600.187	49.49	-7.82	41.67	54	-12.33	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.060	74.90	-20.12	54.78	74	-19.22	PK
Vertical	4739.060	59.83	-20.12	39.71	54	-14.29	AV
Vertical	10480.018	62.72	-9.18	53.54	68.2	-14.66	PK
Vertical	10480.018	49.58	-9.18	40.40	54	-13.60	AV
Vertical	15720.101	60.67	-7.78	52.89	74	-21.11	PK
Vertical	15720.101	49.86	-7.78	42.08	54	-11.92	AV
Horizontal	4739.018	70.01	-20.12	49.88	74	-24.12	PK
Horizontal	4739.018	59.00	-20.12	38.88	54	-15.12	AV
Horizontal	10480.135	61.26	-9.18	52.08	68.2	-16.12	PK
Horizontal	10480.135	49.39	-9.18	40.21	54	-13.79	AV
Horizontal	15720.076	62.04	-7.78	54.26	74	-19.74	PK
Horizontal	15720.076	49.37	-7.78	41.59	54	-12.41	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
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5190 MHz)-Above 1G							
Vertical	4434.145	71.07	-20.73	50.34	68.2	-17.86	PK
Vertical	4434.145	59.64	-20.73	38.91	54	-15.09	AV
Vertical	10380.135	64.48	-9.33	55.15	68.2	-13.05	PK
Vertical	10380.135	49.35	-9.33	40.02	54	-13.98	AV
Vertical	15570.019	64.62	-7.83	56.79	74	-17.21	PK
Vertical	15570.019	49.53	-7.83	41.70	54	-12.30	AV
Horizontal	4434.004	74.37	-20.73	53.63	74	-20.37	PK
Horizontal	4434.004	59.46	-20.73	38.73	54	-15.27	AV
Horizontal	10380.069	60.47	-9.33	51.14	68.2	-17.06	PK
Horizontal	10380.069	49.26	-9.33	39.93	54	-14.07	AV
Horizontal	15570.196	62.83	-7.83	55.00	74	-19.00	PK
Horizontal	15570.196	49.99	-7.83	42.16	54	-11.84	AV
Middle Channel (5230 MHz)-Above 1G							
Vertical	4739.172	70.84	-20.12	50.72	68.2	-17.48	PK
Vertical	4739.172	59.78	-20.12	39.66	54	-14.34	AV
Vertical	10460.072	60.77	-9.21	51.56	68.2	-16.64	PK
Vertical	10460.072	49.54	-9.21	40.33	54	-13.67	AV
Vertical	15690.085	63.17	-7.79	55.38	74	-18.62	PK
Vertical	15690.085	49.67	-7.79	41.88	54	-12.12	AV
Horizontal	4739.030	72.27	-20.12	52.14	68.2	-16.06	PK
Horizontal	4739.030	59.69	-20.12	39.57	54	-14.43	AV
Horizontal	10460.162	64.62	-9.21	55.41	68.2	-12.79	PK
Horizontal	10460.162	49.62	-9.21	40.41	54	-13.59	AV
Horizontal	15690.002	63.20	-7.79	55.41	74	-18.59	PK
Horizontal	15690.002	49.84	-7.79	42.05	54	-11.95	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
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5210 MHz)-Above 1G							
Vertical	4434.139	72.52	-20.73	51.79	68.2	-16.41	PK
Vertical	4434.139	59.98	-20.73	39.25	54	-14.75	AV
Vertical	10420.116	60.42	-9.27	51.15	68.2	-17.05	PK
Vertical	10420.116	49.02	-9.27	39.75	54	-14.25	AV
Vertical	15630.084	61.81	-7.81	54.00	74	-20.00	PK
Vertical	15630.084	49.96	-7.81	42.15	54	-11.85	AV
Horizontal	4434.006	71.76	-20.73	51.02	68.2	-17.18	PK
Horizontal	4434.006	59.73	-20.73	38.99	54	-15.01	AV
Horizontal	10420.147	43.99	9.27	53.26	68.2	-14.94	PK
Horizontal	10420.147	29.06	9.27	38.33	54	-15.67	AV
Horizontal	15630.128	63.93	-7.81	56.12	74	-17.88	PK
Horizontal	15630.128	49.53	-7.81	41.72	54	-12.28	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) - 802.11ax-HT20
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G							
Vertical	4434.115	71.74	-20.73	51.01	68.2	-17.19	PK
Vertical	4434.115	59.31	-20.73	38.58	54	-15.42	AV
Vertical	10360.154	64.34	-9.36	54.98	68.2	-13.22	PK
Vertical	10360.154	49.47	-9.36	40.11	54	-13.89	AV
Vertical	15540.172	63.07	-7.84	55.23	74	-18.77	PK
Vertical	15540.172	49.21	-7.84	41.37	54	-12.63	AV
Horizontal	4434.121	71.88	-20.73	51.15	68.2	-17.05	PK
Horizontal	4434.121	59.55	-20.73	38.82	54	-15.18	AV
Horizontal	10360.076	60.42	-9.36	51.06	68.2	-17.14	PK
Horizontal	10360.076	49.94	-9.36	40.58	54	-13.42	AV
Horizontal	15540.066	64.38	-7.84	56.54	74	-17.46	PK
Horizontal	15540.066	49.47	-7.84	41.63	54	-12.37	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.077	74.13	-20.42	53.72	74	-20.28	PK
Vertical	4592.077	59.24	-20.42	38.82	54	-15.18	AV
Vertical	10400.141	62.60	-9.30	53.30	68.2	-14.90	PK
Vertical	10400.141	49.04	-9.30	39.74	54	-14.26	AV
Vertical	15600.146	62.62	-7.82	54.80	74	-19.20	PK
Vertical	15600.146	49.16	-7.82	41.34	54	-12.66	AV
Horizontal	4592.184	70.62	-20.42	50.21	74	-23.79	PK
Horizontal	4592.184	59.68	-20.42	39.27	54	-14.73	AV
Horizontal	10400.135	63.82	-9.30	54.52	68.2	-13.68	PK
Horizontal	10400.135	49.22	-9.30	39.92	54	-14.08	AV
Horizontal	15600.082	60.13	-7.82	52.31	74	-21.69	PK
Horizontal	15600.082	49.39	-7.82	41.57	54	-12.43	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.030	73.91	-20.12	53.79	74	-20.21	PK
Vertical	4739.030	59.13	-20.12	39.00	54	-15.00	AV
Vertical	10480.028	64.51	-9.18	55.33	68.2	-12.87	PK
Vertical	10480.028	49.89	-9.18	40.71	54	-13.29	AV
Vertical	15720.026	61.54	-7.78	53.76	74	-20.24	PK
Vertical	15720.026	49.37	-7.78	41.59	54	-12.41	AV
Horizontal	4739.051	72.94	-20.12	52.82	74	-21.18	PK
Horizontal	4739.051	59.30	-20.12	39.18	54	-14.82	AV
Horizontal	10480.036	64.33	-9.18	55.15	68.2	-13.05	PK
Horizontal	10480.036	49.34	-9.18	40.16	54	-13.84	AV
Horizontal	15720.142	64.30	-7.78	56.52	74	-17.48	PK
Horizontal	15720.142	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) - 802.11ax-HT40
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5190 MHz)-Above 1G							
Vertical	4434.038	70.42	-20.73	49.69	68.2	-18.51	PK
Vertical	4434.038	59.13	-20.73	38.40	54	-15.60	AV
Vertical	10380.019	61.68	-9.33	52.35	68.2	-15.85	PK
Vertical	10380.019	49.22	-9.33	39.89	54	-14.11	AV
Vertical	15570.061	62.81	-7.83	54.98	74	-19.02	PK
Vertical	15570.061	49.64	-7.83	41.81	54	-12.19	AV
Horizontal	4434.174	70.50	-20.73	49.77	74	-24.23	PK
Horizontal	4434.174	59.58	-20.73	38.84	54	-15.16	AV
Horizontal	10380.182	61.05	-9.33	51.72	68.2	-16.48	PK
Horizontal	10380.182	49.22	-9.33	39.89	54	-14.11	AV
Horizontal	15570.056	64.09	-7.83	56.26	74	-17.74	PK
Horizontal	15570.056	49.88	-7.83	42.05	54	-11.95	AV
Middle Channel (5230 MHz)-Above 1G							
Vertical	4739.017	74.96	-20.12	54.84	68.2	-13.36	PK
Vertical	4739.017	59.89	-20.12	39.77	54	-14.23	AV
Vertical	10460.179	64.54	-9.21	55.33	68.2	-12.87	PK
Vertical	10460.179	49.83	-9.21	40.62	54	-13.38	AV
Vertical	15690.159	64.50	-7.79	56.71	74	-17.29	PK
Vertical	15690.159	49.33	-7.79	41.54	54	-12.46	AV
Horizontal	4739.053	72.21	-20.12	52.09	68.2	-16.11	PK
Horizontal	4739.053	59.04	-20.12	38.92	54	-15.08	AV
Horizontal	10460.074	64.48	-9.21	55.27	68.2	-12.93	PK
Horizontal	10460.074	49.83	-9.21	40.62	54	-13.38	AV
Horizontal	15690.083	60.29	-7.79	52.50	74	-21.50	PK
Horizontal	15690.083	49.67	-7.79	41.88	54	-12.12	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) - 802.11ax 80
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5210 MHz)-Above 1G							
Vertical	4434.037	74.92	-20.73	54.19	68.2	-14.01	PK
Vertical	4434.037	59.94	-20.73	39.21	54	-14.79	AV
Vertical	10420.136	61.43	-9.27	52.16	68.2	-16.04	PK
Vertical	10420.136	49.99	-9.27	40.72	54	-13.28	AV
Vertical	15630.041	62.13	-7.81	54.32	74	-19.68	PK
Vertical	15630.041	49.54	-7.81	41.73	54	-12.27	AV
Horizontal	4434.085	71.03	-20.73	50.30	68.2	-17.90	PK
Horizontal	4434.085	59.01	-20.73	38.27	54	-15.73	AV
Horizontal	10420.195	40.44	9.27	49.71	68.2	-18.49	PK
Horizontal	10420.195	29.65	9.27	38.92	54	-15.08	AV
Horizontal	15630.187	62.88	-7.81	55.07	74	-18.93	PK
Horizontal	15630.187	49.82	-7.81	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) -- 802.11a
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
Vertical	4679.052	72.87	-20.24	52.63	74	-21.37	PK
Vertical	4679.052	59.63	-20.24	39.39	54	-14.61	AV
Vertical	11490.053	61.93	-8.79	53.14	68.2	-15.06	PK
Vertical	11490.053	49.53	-8.79	40.74	54	-13.26	AV
Vertical	17235.093	59.94	-3.18	56.76	68.2	-11.44	PK
Vertical	17235.093	44.39	-3.18	41.21	54	-12.79	AV
Horizontal	4679.198	74.96	-20.73	54.23	74	-19.77	PK
Horizontal	4679.198	59.71	-20.73	38.98	54	-15.02	AV
Horizontal	11490.043	62.55	-8.79	53.76	68.2	-14.44	PK
Horizontal	11490.043	49.66	-8.79	40.87	54	-13.13	AV
Horizontal	17235.019	59.54	-3.18	56.36	68.2	-11.84	PK
Horizontal	17235.019	44.15	-3.18	40.97	54	-13.03	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.014	71.91	-20.42	51.50	74	-22.50	PK
Vertical	4592.014	59.60	-20.42	39.18	54	-14.82	AV
Vertical	11570.159	63.32	-8.86	54.46	68.2	-13.74	PK
Vertical	11570.159	49.07	-8.86	40.21	54	-13.79	AV
Vertical	17355.015	58.04	-2.52	55.52	68.2	-12.68	PK
Vertical	17355.015	44.72	-2.52	42.20	54	-11.80	AV
Horizontal	4592.160	74.99	-20.42	54.57	74	-19.43	PK
Horizontal	4592.160	59.35	-20.42	38.94	54	-15.06	AV
Horizontal	11570.174	60.07	-8.86	51.21	68.2	-16.99	PK
Horizontal	11570.174	49.30	-8.86	40.44	54	-13.56	AV
Horizontal	17355.139	59.60	-2.52	57.08	68.2	-11.12	PK
Horizontal	17355.139	44.01	-2.52	41.49	54	-12.51	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.062	74.79	-18.93	55.85	68.2	-12.35	PK
Vertical	6039.062	59.83	-18.93	40.90	54	-13.10	AV
Vertical	11650.089	64.65	-8.92	55.73	74	-18.27	PK
Vertical	11650.089	49.36	-8.92	40.44	54	-13.56	AV
Vertical	17475.166	56.73	-1.86	54.87	68.2	-13.33	PK
Vertical	17475.166	44.14	-1.86	42.28	54	-11.72	AV
Horizontal	6039.031	71.09	-18.93	52.16	68.2	-16.04	PK
Horizontal	6039.031	59.12	-18.93	40.19	54	-13.81	AV
Horizontal	11650.136	61.06	-8.92	52.14	74	-21.86	PK
Horizontal	11650.136	49.14	-8.92	40.22	54	-13.78	AV
Horizontal	17475.072	57.40	-1.86	55.54	68.2	-12.66	PK
Horizontal	17475.072	44.99	-1.86	43.13	54	-10.87	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	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
Vertical	4679.114	74.73	-20.24	54.49	74	-19.51	PK
Vertical	4679.114	59.60	-20.24	39.36	54	-14.64	AV
Vertical	11490.118	62.91	-8.79	54.12	68.2	-14.08	PK
Vertical	11490.118	49.77	-8.79	40.98	54	-13.02	AV
Vertical	17235.002	55.19	-3.18	52.01	68.2	-16.19	PK
Vertical	17235.002	44.48	-3.18	41.30	54	-12.70	AV
Horizontal	4679.117	73.54	-20.24	53.29	74	-20.71	PK
Horizontal	4679.117	59.82	-20.24	39.57	54	-14.43	AV
Horizontal	11490.156	60.88	-8.79	52.09	68.2	-16.11	PK
Horizontal	11490.156	49.20	-8.79	40.41	54	-13.59	AV
Horizontal	17235.083	57.58	-3.18	54.40	68.2	-13.80	PK
Horizontal	17235.083	44.26	-3.18	41.08	54	-12.92	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.188	72.36	-20.42	51.95	74	-22.05	PK
Vertical	4592.188	59.81	-20.42	39.40	54	-14.60	AV
Vertical	11570.109	64.13	-8.86	55.27	68.2	-12.93	PK
Vertical	11570.109	49.43	-8.86	40.57	54	-13.43	AV
Vertical	17355.191	55.42	-2.52	52.90	68.2	-15.30	PK
Vertical	17355.191	44.26	-2.52	41.74	54	-12.26	AV
Horizontal	4592.108	74.68	-20.42	54.26	74	-19.74	PK
Horizontal	4592.108	59.96	-20.42	39.55	54	-14.45	AV
Horizontal	11570.093	61.70	-8.86	52.84	68.2	-15.36	PK
Horizontal	11570.093	49.24	-8.86	40.38	54	-13.62	AV
Horizontal	17355.143	56.17	-2.52	53.65	68.2	-14.55	PK
Horizontal	17355.143	44.42	-2.52	41.90	54	-12.10	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.085	70.58	-18.93	51.65	68.2	-16.55	PK
Vertical	6039.085	59.06	-18.93	40.13	54	-13.87	AV
Vertical	11650.021	63.09	-8.92	54.17	74	-19.83	PK
Vertical	11650.021	49.64	-8.92	40.72	54	-13.28	AV
Vertical	17475.065	58.26	-1.86	56.40	68.2	-11.80	PK
Vertical	17475.065	44.08	-1.86	42.22	54	-11.78	AV
Horizontal	6039.191	70.19	-18.93	51.26	68.2	-16.94	PK
Horizontal	6039.191	59.13	-18.93	40.19	54	-13.81	AV
Horizontal	11650.005	63.38	-8.92	54.46	74	-19.54	PK
Horizontal	11650.005	49.88	-8.92	40.96	54	-13.04	AV
Horizontal	17475.065	55.04	-1.86	53.18	68.2	-15.02	PK
Horizontal	17475.065	44.83	-1.86	42.97	54	-11.03	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
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5755 MHz)-Above 1G							
Vertical	4679.181	70.97	-20.24	50.73	74	-23.27	PK
Vertical	4679.181	59.97	-20.24	39.72	54	-14.28	AV
Vertical	11510.058	61.82	-8.81	53.01	74	-20.99	PK
Vertical	11510.058	49.40	-8.81	40.59	54	-13.41	AV
Vertical	17265.102	59.07	-3.01	56.06	68.2	-12.14	PK
Vertical	17265.102	44.57	-3.01	41.56	54	-12.44	AV
Horizontal	4679.133	72.73	-20.24	52.49	74	-21.51	PK
Horizontal	4679.133	59.73	-20.24	39.48	54	-14.52	AV
Horizontal	11510.046	62.80	-8.81	53.99	74	-20.01	PK
Horizontal	11510.046	49.59	-8.81	40.78	54	-13.22	AV
Horizontal	17265.060	57.42	-3.01	54.41	68.2	-13.79	PK
Horizontal	17265.060	44.17	-3.01	41.16	54	-12.84	AV
Middle Channel (5795 MHz)-Above 1G							
Vertical	6039.008	70.56	-18.93	51.63	68.2	-16.57	PK
Vertical	6039.008	59.60	-18.93	40.67	54	-13.33	AV
Vertical	11590.156	62.23	-8.87	53.36	74	-20.64	PK
Vertical	11590.156	49.98	-8.87	41.11	54	-12.89	AV
Vertical	17385.190	57.64	-2.35	55.29	68.2	-12.91	PK
Vertical	17385.190	44.81	-2.35	42.46	54	-11.54	AV
Horizontal	6039.088	72.88	-18.93	53.95	68.2	-14.25	PK
Horizontal	6039.088	59.73	-18.93	40.80	54	-13.20	AV
Horizontal	11590.158	61.32	-8.87	52.45	74	-21.55	PK
Horizontal	11590.158	49.57	-8.87	40.70	54	-13.30	AV
Horizontal	17385.009	55.75	-2.35	53.40	68.2	-14.80	PK
Horizontal	17385.009	44.39	-2.35	42.04	54	-11.96	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	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
Vertical	4679.105	71.62	-20.24	51.38	74	-22.62	PK
Vertical	4679.105	59.21	-20.24	38.97	54	-15.03	AV
Vertical	11490.133	64.49	-8.79	55.70	68.2	-12.50	PK
Vertical	11490.133	49.99	-8.79	41.20	54	-12.80	AV
Vertical	17235.018	58.97	-3.18	55.79	68.2	-12.41	PK
Vertical	17235.018	44.35	-3.18	41.17	54	-12.83	AV
Horizontal	4679.029	71.69	-20.24	51.45	74	-22.55	PK
Horizontal	4679.029	59.29	-20.24	39.05	54	-14.95	AV
Horizontal	11490.097	63.59	-8.79	54.80	68.2	-13.40	PK
Horizontal	11490.097	49.30	-8.79	40.51	54	-13.49	AV
Horizontal	17235.040	57.81	-3.18	54.63	68.2	-13.57	PK
Horizontal	17235.040	44.06	-3.18	40.88	54	-13.12	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.126	72.19	-20.42	51.77	74	-22.23	PK
Vertical	4592.126	59.38	-20.42	38.97	54	-15.03	AV
Vertical	11570.098	62.14	-8.86	53.28	68.2	-14.92	PK
Vertical	11570.098	49.12	-8.86	40.26	54	-13.74	AV
Vertical	17355.058	58.72	-2.52	56.20	68.2	-12.00	PK
Vertical	17355.058	44.48	-2.52	41.96	54	-12.04	AV
Horizontal	4592.167	74.43	-20.42	54.02	74	-19.98	PK
Horizontal	4592.167	59.69	-20.42	39.27	54	-14.73	AV
Horizontal	11570.187	61.64	-8.86	52.78	68.2	-15.42	PK
Horizontal	11570.187	49.16	-8.86	40.30	54	-13.70	AV
Horizontal	17355.028	57.48	-2.52	54.96	68.2	-13.24	PK
Horizontal	17355.028	44.36	-2.52	41.84	54	-12.16	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.184	70.84	-18.93	51.90	68.2	-16.30	PK
Vertical	6039.184	59.38	-18.93	40.45	54	-13.55	AV
Vertical	11650.081	64.84	-8.92	55.92	74	-18.08	PK
Vertical	11650.081	49.81	-8.92	40.89	54	-13.11	AV
Vertical	17475.112	55.22	-1.86	53.36	68.2	-14.84	PK
Vertical	17475.112	44.54	-1.86	42.68	54	-11.32	AV
Horizontal	6039.062	70.14	-18.93	51.20	68.2	-17.00	PK
Horizontal	6039.062	59.44	-18.93	40.51	54	-13.49	AV
Horizontal	11650.106	63.15	-8.92	54.23	74	-19.77	PK
Horizontal	11650.106	49.54	-8.92	40.62	54	-13.38	AV
Horizontal	17475.050	59.25	-1.86	57.39	68.2	-10.81	PK
Horizontal	17475.050	44.31	-1.86	42.45	54	-11.55	AV

Note: PK value is lower than the Average value limit, So average didn't record.

The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode is MIMO Mode.

Test Mode :	TX (5.8G) -- 802.11ac-HT40
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5755 MHz)-Above 1G							
Vertical	4679.000	71.11	-20.24	50.86	74	-23.14	PK
Vertical	4679.000	59.53	-20.24	39.29	54	-14.71	AV
Vertical	11510.124	63.68	-8.81	54.87	74	-19.13	PK
Vertical	11510.124	49.97	-8.81	41.16	54	-12.84	AV
Vertical	17265.088	55.52	-3.01	52.51	68.2	-15.69	PK
Vertical	17265.088	44.73	-3.01	41.72	54	-12.28	AV
Horizontal	4679.047	70.79	-20.24	50.54	74	-23.46	PK
Horizontal	4679.047	59.27	-20.24	39.02	54	-14.98	AV
Horizontal	11510.041	63.52	-8.81	54.71	74	-19.29	PK
Horizontal	11510.041	49.72	-8.81	40.91	54	-13.09	AV
Horizontal	17265.158	56.28	-3.01	53.27	68.2	-14.93	PK
Horizontal	17265.158	44.48	-3.01	41.47	54	-12.53	AV
Middle Channel (5795 MHz)-Above 1G							
Vertical	6039.196	70.34	-18.93	51.40	68.2	-16.80	PK
Vertical	6039.196	59.75	-18.93	40.82	54	-13.18	AV
Vertical	11590.126	61.86	-8.87	52.99	74	-21.01	PK
Vertical	11590.126	49.05	-8.87	40.18	54	-13.82	AV
Vertical	17385.017	55.29	-2.35	52.94	68.2	-15.26	PK
Vertical	17385.017	44.11	-2.35	41.76	54	-12.24	AV
Horizontal	6039.157	70.61	-18.93	51.68	68.2	-16.52	PK
Horizontal	6039.157	59.33	-18.93	40.40	54	-13.60	AV
Horizontal	11590.121	61.77	-8.87	52.90	74	-21.10	PK
Horizontal	11590.121	49.67	-8.87	40.80	54	-13.20	AV
Horizontal	17385.099	57.73	-2.35	55.38	68.2	-12.82	PK
Horizontal	17385.099	44.55	-2.35	42.20	54	-11.80	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
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5775 MHz)-Above 1G							
Vertical	4679.108	73.92	-20.24	53.68	74	-20.32	PK
Vertical	4679.108	59.31	-20.24	39.06	54	-14.94	AV
Vertical	11550.046	63.96	-8.84	55.12	74	-18.88	PK
Vertical	11550.046	49.97	-8.84	41.13	54	-12.87	AV
Vertical	17325.120	56.57	-2.68	53.89	68.2	-14.31	PK
Vertical	17325.120	44.69	-2.68	42.01	54	-11.99	AV
Horizontal	4679.102	70.03	-20.24	49.79	74	-24.21	PK
Horizontal	4679.102	59.86	-20.24	39.61	54	-14.39	AV
Horizontal	11550.037	61.79	-8.84	52.95	74	-21.05	PK
Horizontal	11550.037	49.54	-8.84	40.70	54	-13.30	AV
Horizontal	17325.150	58.51	-2.68	55.83	68.2	-12.37	PK
Horizontal	17325.150	44.97	-2.68	42.29	54	-11.71	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) --802.11ax-HT20

Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
Vertical	4679.019	73.91	-20.24	53.67	74	-20.33	PK
Vertical	4679.019	59.27	-20.24	39.03	54	-14.97	AV
Vertical	11490.146	62.82	-8.79	54.03	68.2	-14.17	PK
Vertical	11490.146	49.23	-8.79	40.44	54	-13.56	AV
Vertical	17235.186	57.02	-3.18	53.84	68.2	-14.36	PK
Vertical	17235.186	44.50	-3.18	41.32	54	-12.68	AV
Horizontal	4679.031	72.17	-20.24	51.92	74	-22.08	PK
Horizontal	4679.031	59.63	-20.24	39.39	54	-14.61	AV
Horizontal	11490.173	64.33	-8.79	55.54	68.2	-12.66	PK
Horizontal	11490.173	49.41	-8.79	40.62	54	-13.38	AV
Horizontal	17235.094	57.19	-3.18	54.01	68.2	-14.19	PK
Horizontal	17235.094	44.28	-3.18	41.10	54	-12.90	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.127	72.90	-20.42	52.48	74	-21.52	PK
Vertical	4592.127	59.45	-20.42	39.03	54	-14.97	AV
Vertical	11570.180	64.11	-8.86	55.25	68.2	-12.95	PK
Vertical	11570.180	49.85	-8.86	40.99	54	-13.01	AV
Vertical	17355.059	57.52	-2.52	55.00	68.2	-13.20	PK
Vertical	17355.059	44.01	-2.52	41.49	54	-12.51	AV
Horizontal	4592.187	72.65	-20.42	52.24	74	-21.76	PK
Horizontal	4592.187	59.21	-20.42	38.79	54	-15.21	AV
Horizontal	11570.173	64.25	-8.86	55.39	68.2	-12.81	PK
Horizontal	11570.173	49.01	-8.86	40.15	54	-13.85	AV
Horizontal	17355.044	58.17	-2.52	55.65	68.2	-12.55	PK
Horizontal	17355.044	44.26	-2.52	41.74	54	-12.26	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.007	74.60	-18.93	55.66	68.2	-12.54	PK
Vertical	6039.007	59.94	-18.93	41.01	54	-12.99	AV
Vertical	11650.165	60.27	-8.92	51.35	74	-22.65	PK
Vertical	11650.165	49.50	-8.92	40.58	54	-13.42	AV
Vertical	17475.087	55.70	-1.86	53.84	68.2	-14.36	PK
Vertical	17475.087	44.53	-1.86	42.67	54	-11.33	AV
Horizontal	6039.162	71.34	-18.93	52.41	68.2	-15.79	PK
Horizontal	6039.162	59.96	-18.93	41.03	54	-12.97	AV
Horizontal	11650.167	60.84	-8.92	51.92	74	-22.08	PK
Horizontal	11650.167	49.77	-8.92	40.85	54	-13.15	AV
Horizontal	17475.034	57.85	-1.86	55.99	68.2	-12.21	PK
Horizontal	17475.034	44.56	-1.86	42.70	54	-11.30	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) -- 802.11ax-HT40
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5755 MHz)-Above 1G							
Vertical	4679.027	70.81	-20.24	50.56	74	-23.44	PK
Vertical	4679.027	59.42	-20.24	39.18	54	-14.82	AV
Vertical	11510.053	60.08	-8.81	51.27	74	-22.73	PK
Vertical	11510.053	49.33	-8.81	40.52	54	-13.48	AV
Vertical	17265.161	59.72	-3.01	56.71	68.2	-11.49	PK
Vertical	17265.161	44.44	-3.01	41.43	54	-12.57	AV
Horizontal	4679.000	72.62	-20.24	52.37	74	-21.63	PK
Horizontal	4679.000	59.06	-20.24	38.82	54	-15.18	AV
Horizontal	11510.190	63.28	-8.81	54.47	74	-19.53	PK
Horizontal	11510.190	49.97	-8.81	41.16	54	-12.84	AV
Horizontal	17265.025	59.12	-3.01	56.11	68.2	-12.09	PK
Horizontal	17265.025	44.23	-3.01	41.22	54	-12.78	AV
Middle Channel (5795 MHz)-Above 1G							
Vertical	6039.032	70.87	-18.93	51.94	68.2	-16.26	PK
Vertical	6039.032	59.23	-18.93	40.30	54	-13.70	AV
Vertical	11590.009	63.00	-8.87	54.13	74	-19.87	PK
Vertical	11590.009	49.04	-8.87	40.17	54	-13.83	AV
Vertical	17385.121	59.44	-2.35	57.09	68.2	-11.11	PK
Vertical	17385.121	44.69	-2.35	42.34	54	-11.66	AV
Horizontal	6039.116	74.48	-18.93	55.55	68.2	-12.65	PK
Horizontal	6039.116	59.42	-18.93	40.48	54	-13.52	AV
Horizontal	11590.108	63.26	-8.87	54.39	74	-19.61	PK
Horizontal	11590.108	49.39	-8.87	40.52	54	-13.48	AV
Horizontal	17385.023	57.70	-2.35	55.35	68.2	-12.85	PK
Horizontal	17385.023	44.77	-2.35	42.42	54	-11.58	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.

Test Mode :	TX (5.8G) -- 802.11ax 80
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Polar	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5775 MHz)-Above 1G							
Vertical	4679.079	72.81	-20.24	52.57	74	-21.43	PK
Vertical	4679.079	59.64	-20.24	39.40	54	-14.60	AV
Vertical	11550.033	61.47	-8.84	52.63	74	-21.37	PK
Vertical	11550.033	49.39	-8.84	40.55	54	-13.45	AV
Vertical	17325.069	56.56	-2.68	53.88	68.2	-14.32	PK
Vertical	17325.069	44.00	-2.68	41.32	54	-12.68	AV
Horizontal	4679.167	71.15	-20.24	50.91	74	-23.09	PK
Horizontal	4679.167	59.82	-20.24	39.57	54	-14.43	AV
Horizontal	11550.126	63.65	-8.84	54.81	74	-19.19	PK
Horizontal	11550.126	49.60	-8.84	40.76	54	-13.24	AV
Horizontal	17325.161	59.58	-2.68	56.90	68.2	-11.30	PK
Horizontal	17325.161	44.11	-2.68	41.43	54	-12.57	AV

Note: PK value is lower than the Average value limit, So average didn't record.

The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode is MIMO Mode.

8. Power Spectral Density Test

8.1 Block Diagram Of Test Setup



8.2 Limit

For the band 5.15-5.25 GHz,

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz

(3) For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

8.3 Test Procedure

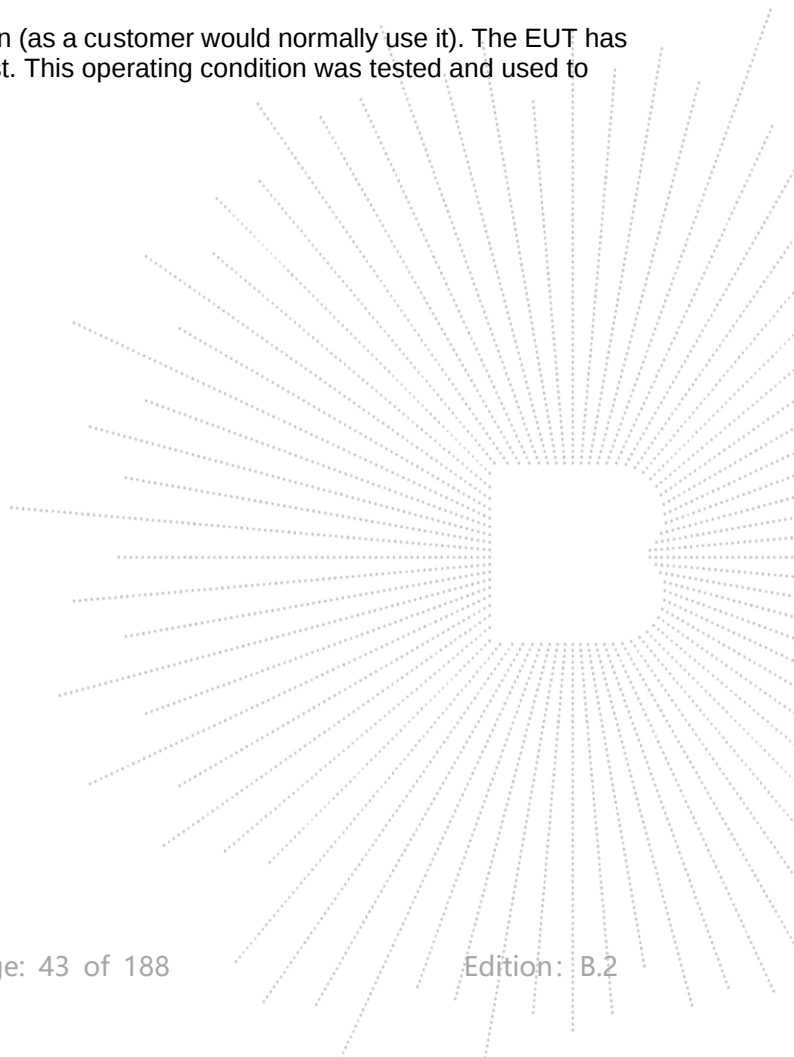
For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 KHz bandwidth, the following adjustments to the procedures apply:

- a) Set $RBW \geq 1/T$, where T is defined in section II.B.I.a).
- b) Set $VBW \geq 3 RBW$.
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/RBW)$ to the measured result, whereas $RBW (< 500 \text{ KHz})$ is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
- d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add $10\log(1\text{MHz}/RBW)$ to the measured result, whereas $RBW (< 1 \text{ MHz})$ is the reduced resolution bandwidth of spectrum analyzer set during measurement.
- e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

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

8.4 EUT Operating Conditions

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



8.5 Test Result

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage:	DC 12V
Test Mode:	TX Frequency U-NII-1 (5180-5240MHz)		

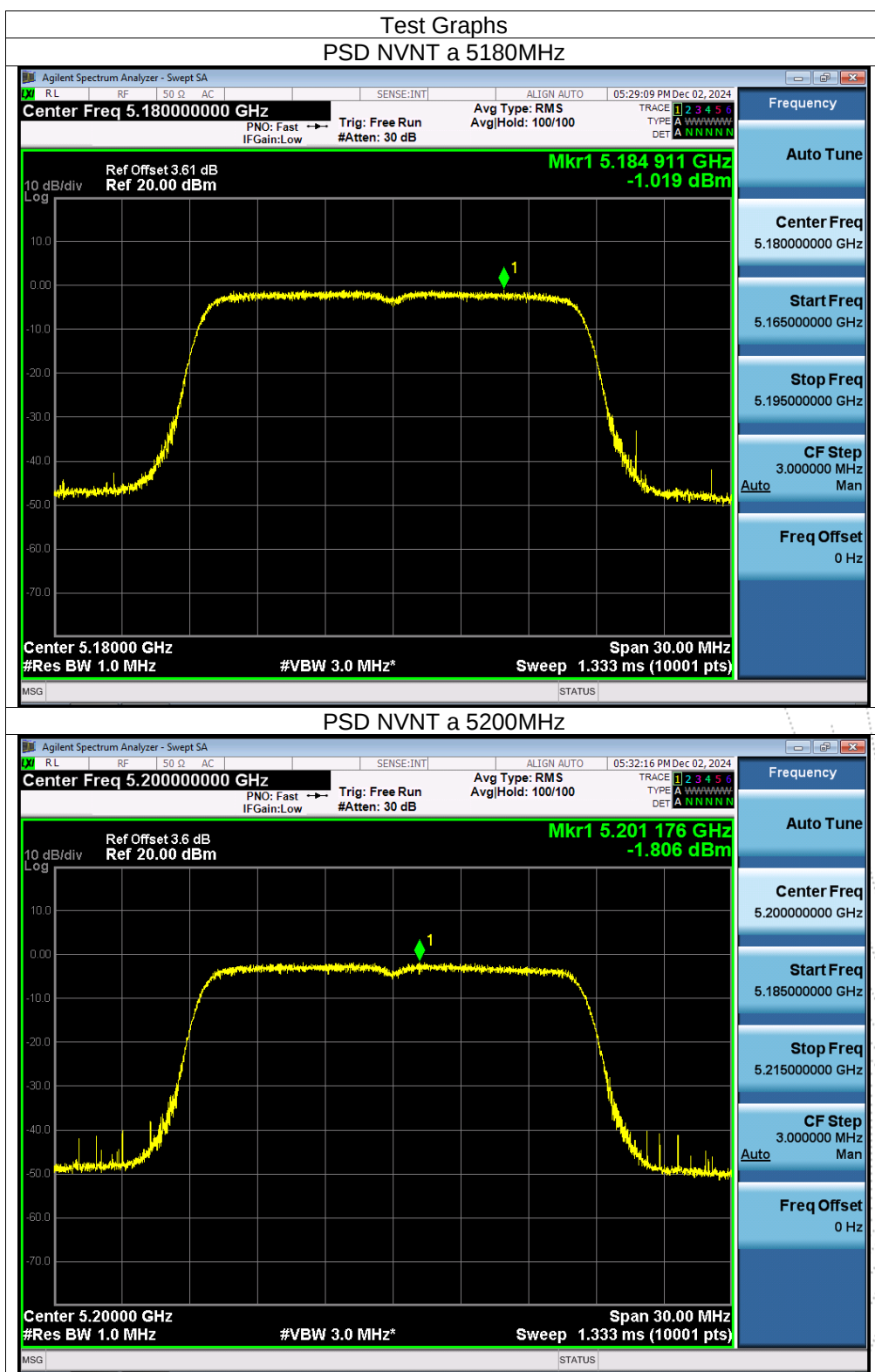
Condition	Mode	Frequency (MHz)	Measured Power Density (dBm/MHz)			Limit (dBm/MHz)	Result
			ANT A	ANT B	Total		
NVNT	a	5180	-1.02	-3.45	/	11	PASS
NVNT	a	5200	-1.81	-5.07	/	11	PASS
NVNT	a	5240	-2.82	-5.96	/	11	PASS
NVNT	n20	5180	-3.12	-5.74	-1.23	11	PASS
NVNT	n20	5200	-3.72	-6.63	-1.93	11	PASS
NVNT	n20	5240	-5.28	-8.07	-3.44	11	PASS
NVNT	n40	5190	-8.8	-10.73	-6.65	11	PASS
NVNT	n40	5230	-9.32	-13.26	-7.85	11	PASS
NVNT	ac20	5180	-3.48	-5.41	-1.33	11	PASS
NVNT	ac20	5200	-4.2	-6.43	-2.16	11	PASS
NVNT	ac20	5240	-5.33	-8.71	-3.69	11	PASS
NVNT	ac40	5190	-8.84	-10.8	-6.70	11	PASS
NVNT	ac40	5230	-9.65	-12.89	-7.96	11	PASS
NVNT	ac80	5210	-13.15	-16.46	-11.49	11	PASS
NVNT	ax20	5180	-3.45	-6.2	-1.60	11	PASS
NVNT	ax20	5200	-4.47	-6.42	-2.33	11	PASS
NVNT	ax20	5240	-4.74	-8.94	-3.34	11	PASS
NVNT	ax40	5190	-8.2	-10.53	-6.20	11	PASS
NVNT	ax40	5230	-9.32	-13.26	-7.85	11	PASS
NVNT	ax80	5210	-13.07	-16.41	-11.42	11	PASS

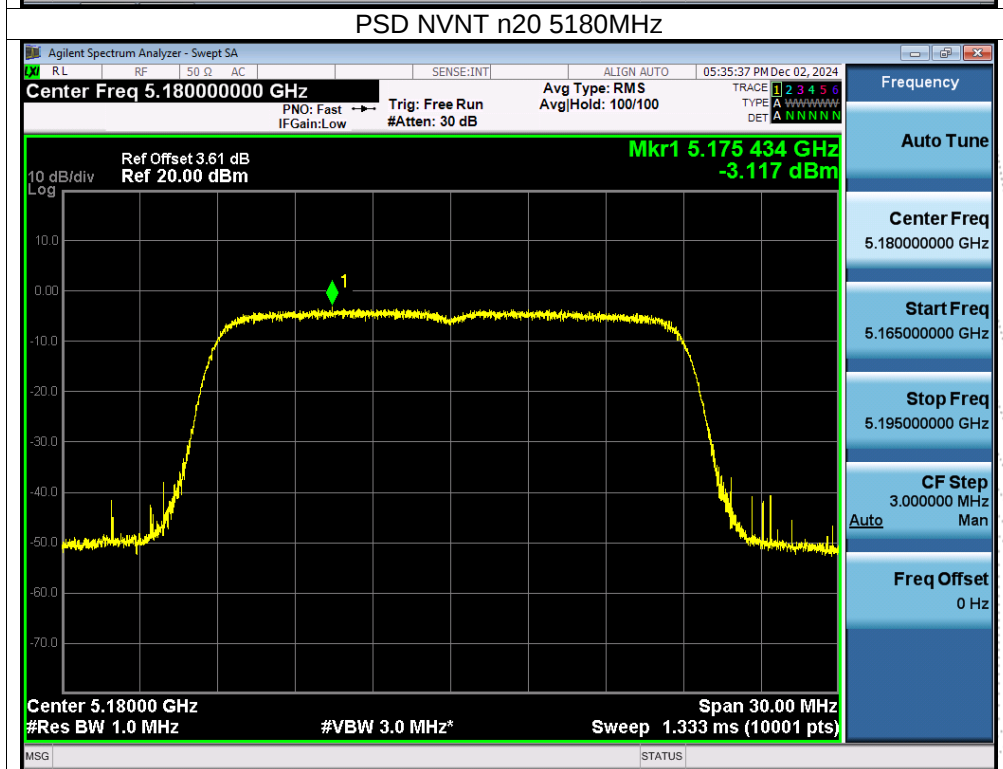
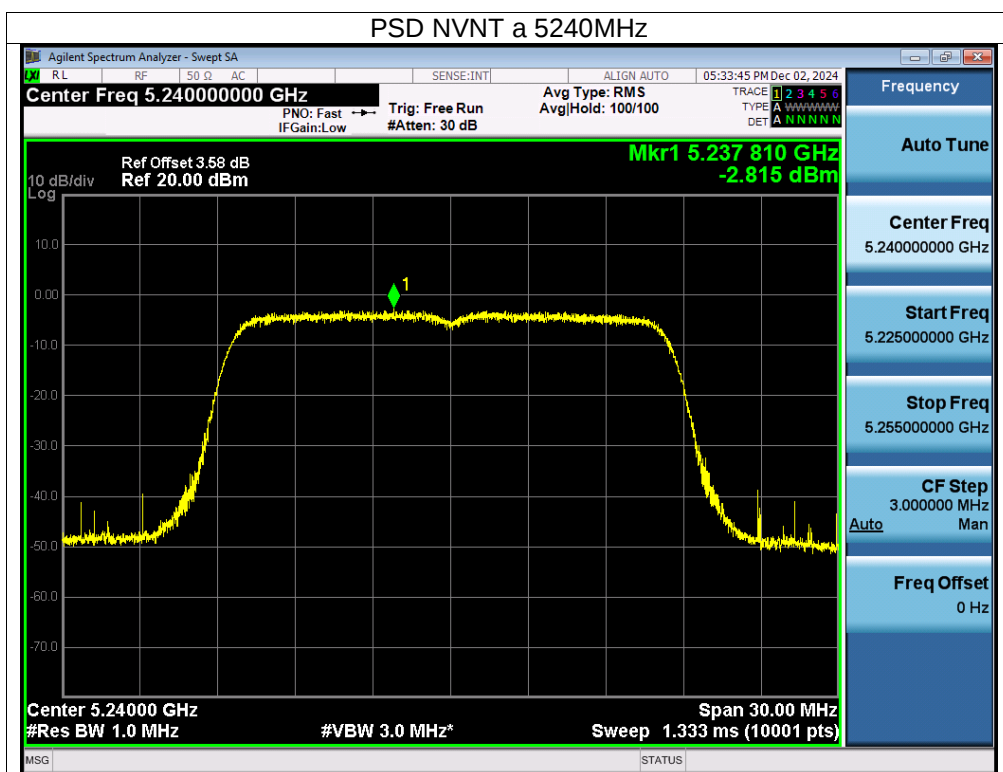
Note:

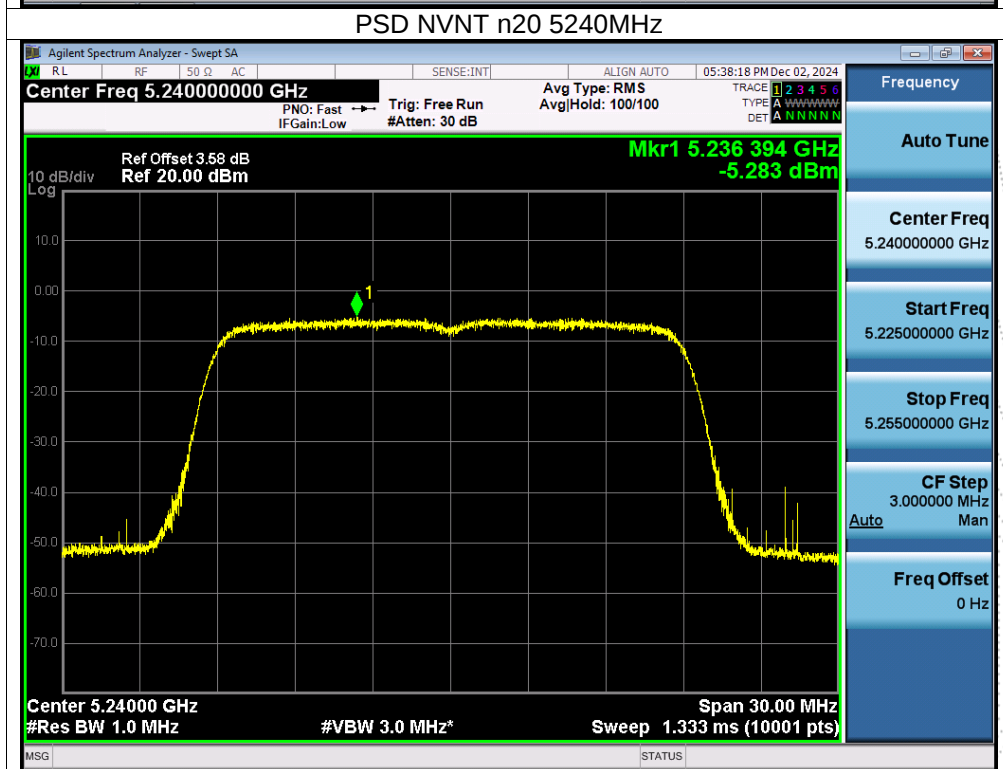
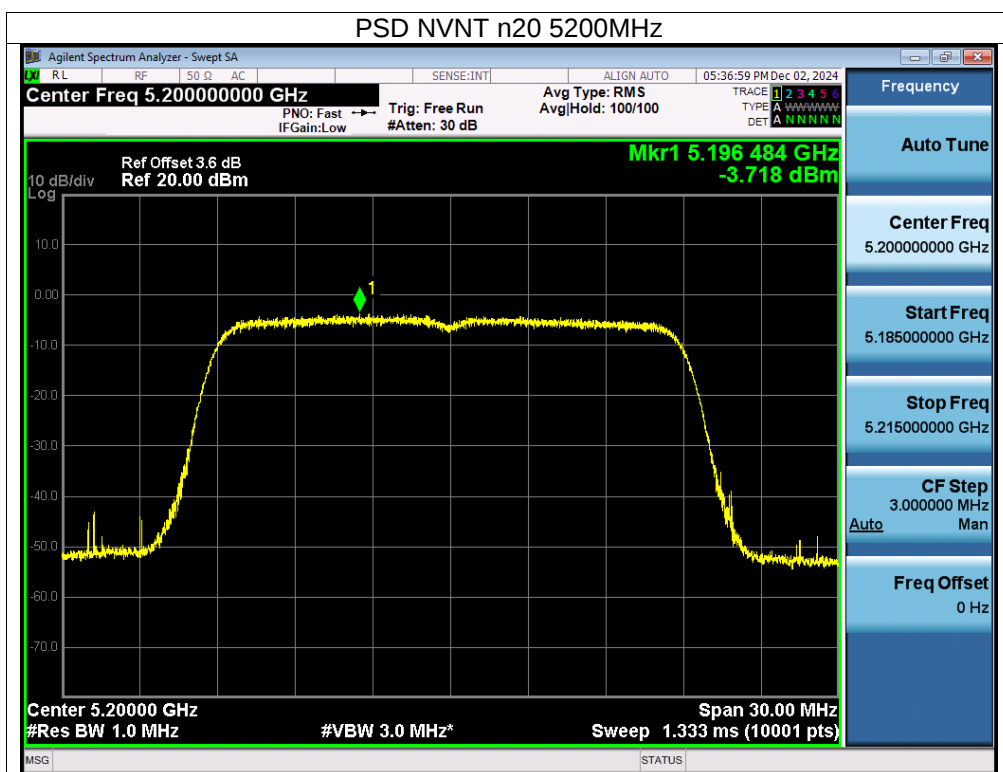
Antenna A gain: 0.54 dBi, Antenna B gain: 0.54 dBi, Directional gain=[GainANT + 10 log(NANT/NSS) dBi]
=3.55 dBi<6dBi

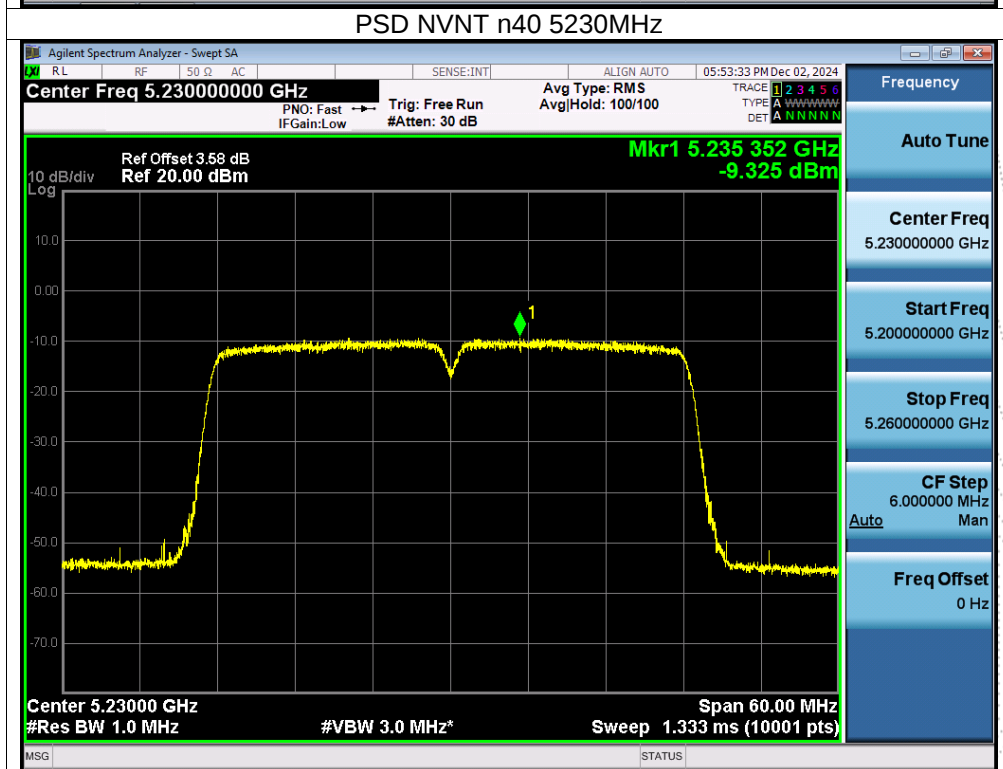
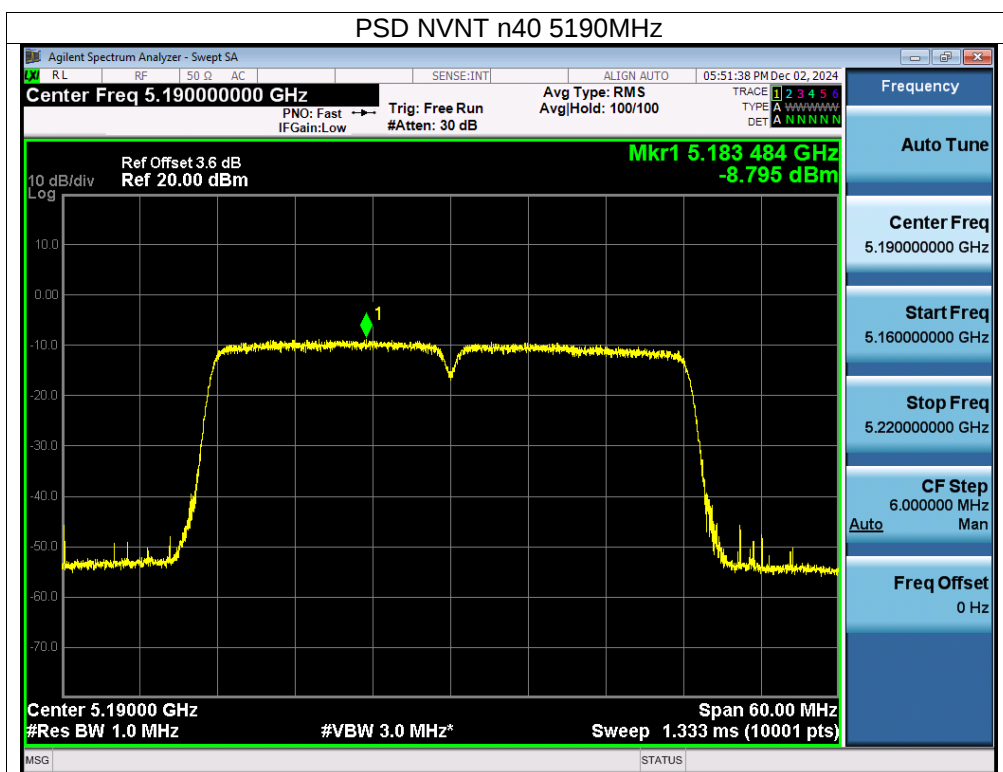
Limit=11 dBi

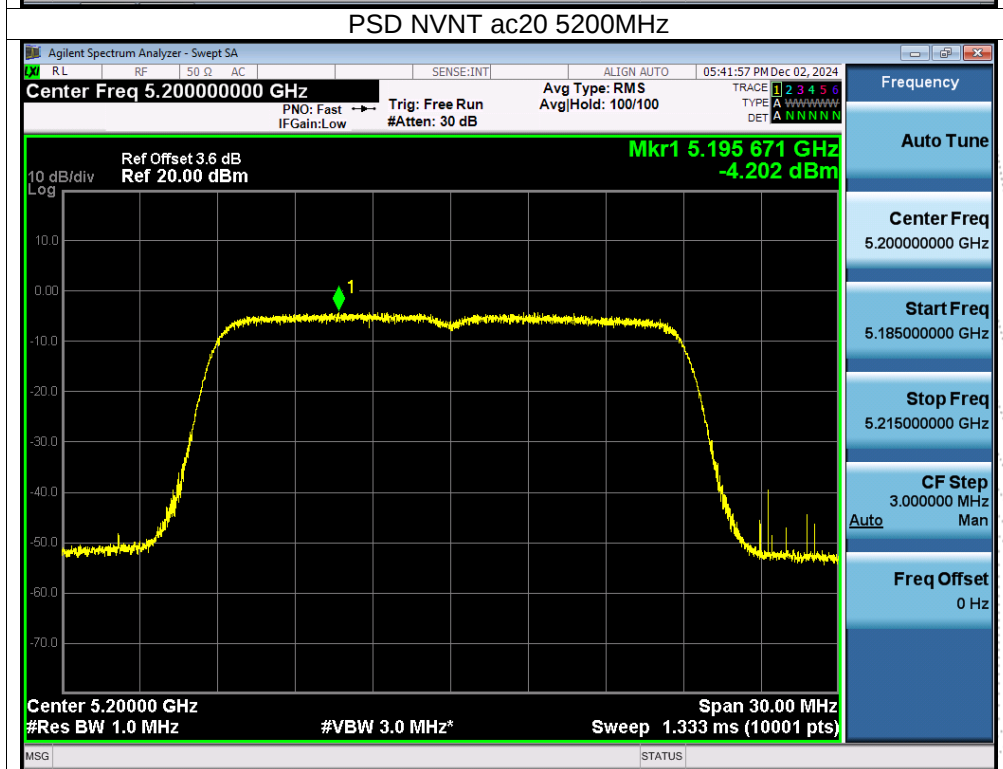
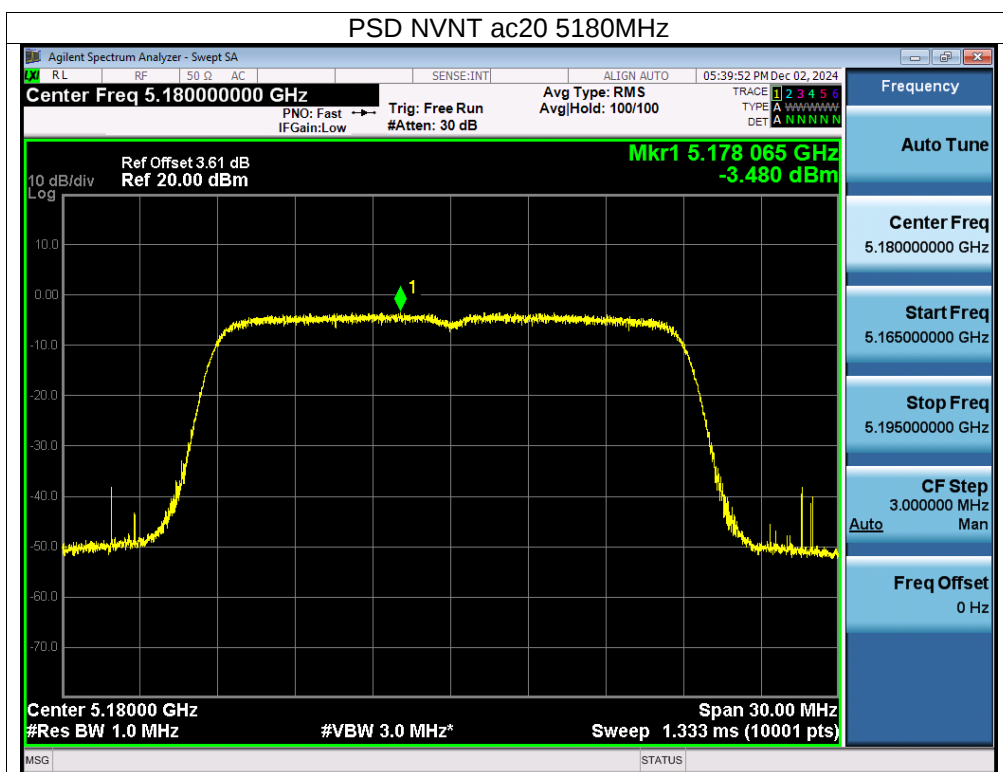
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.

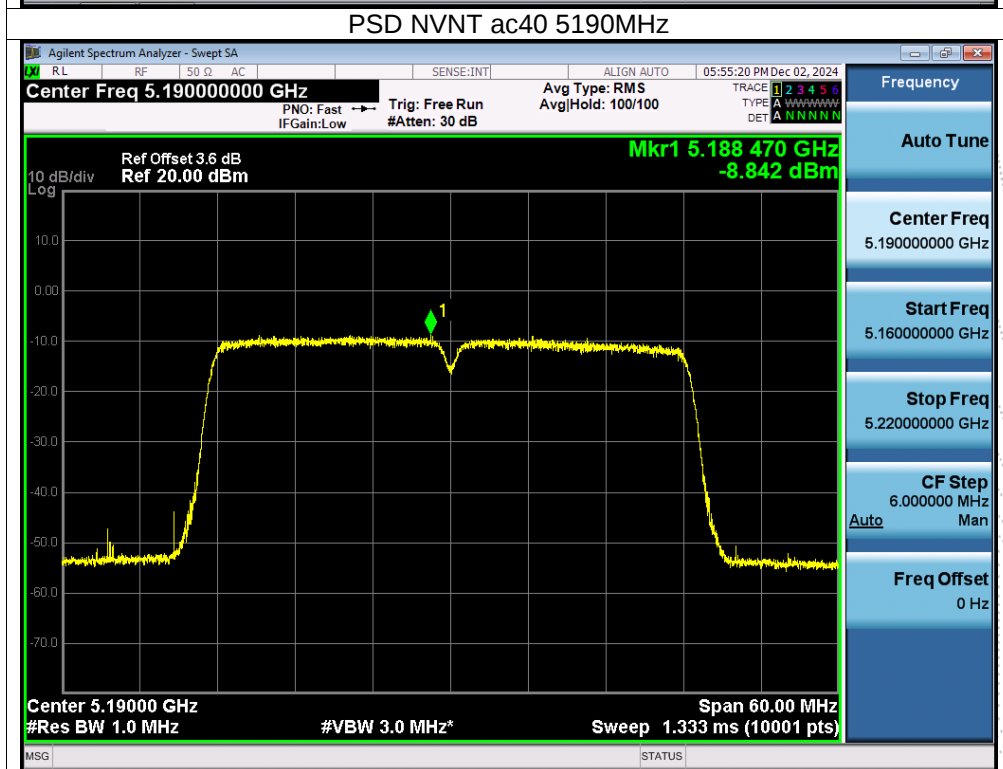
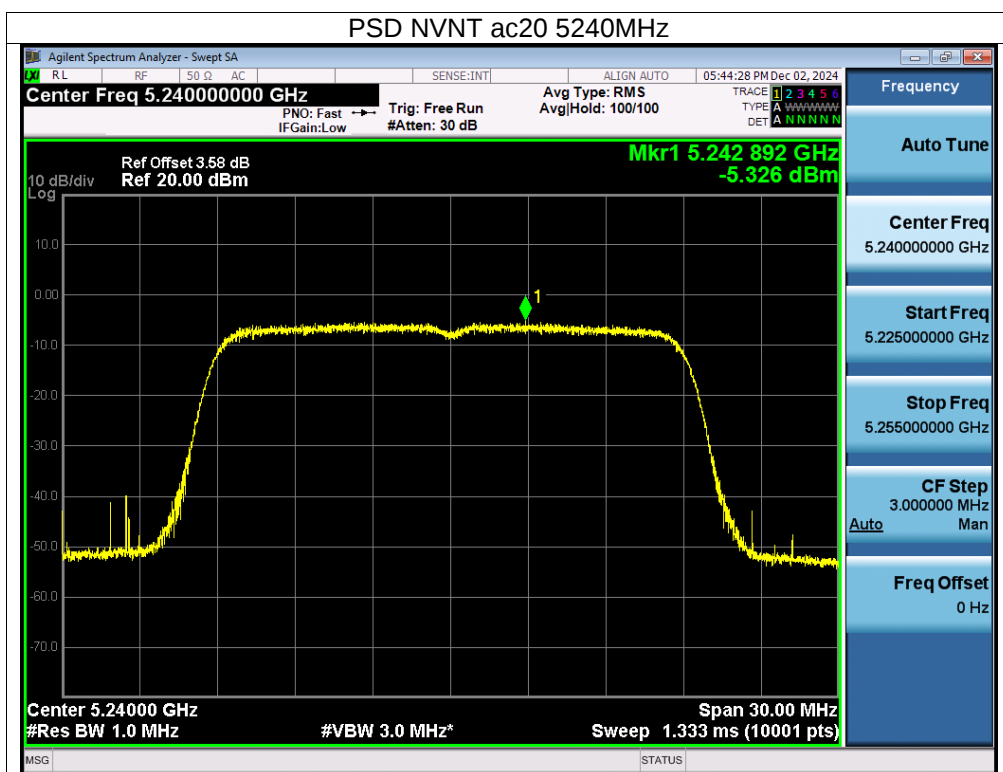


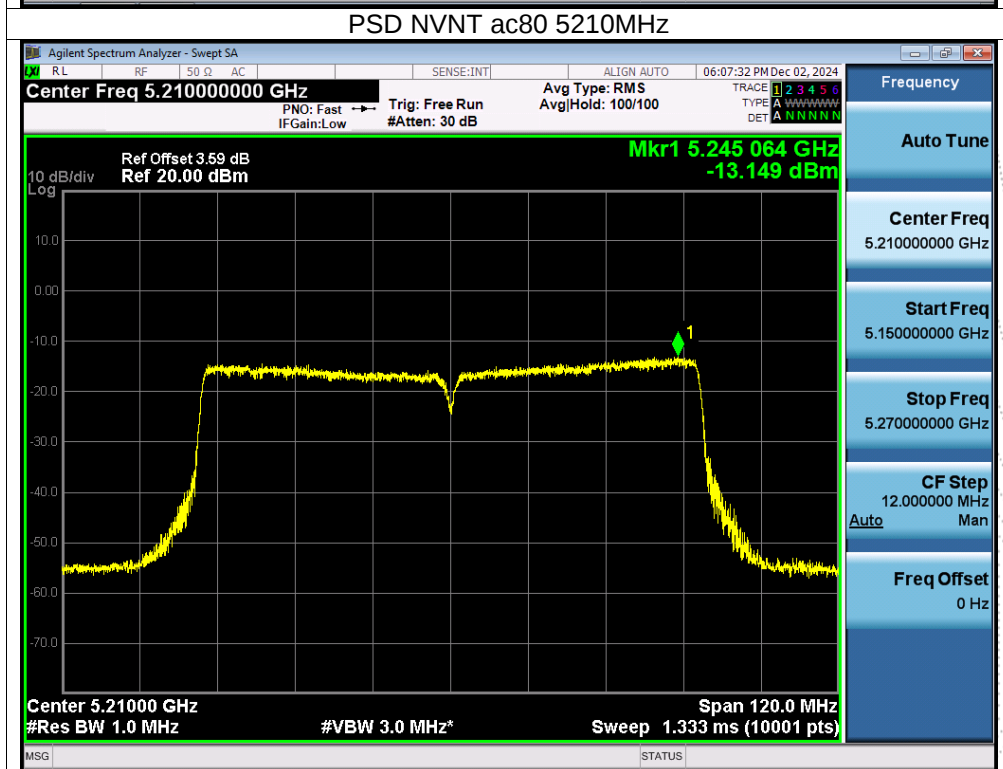
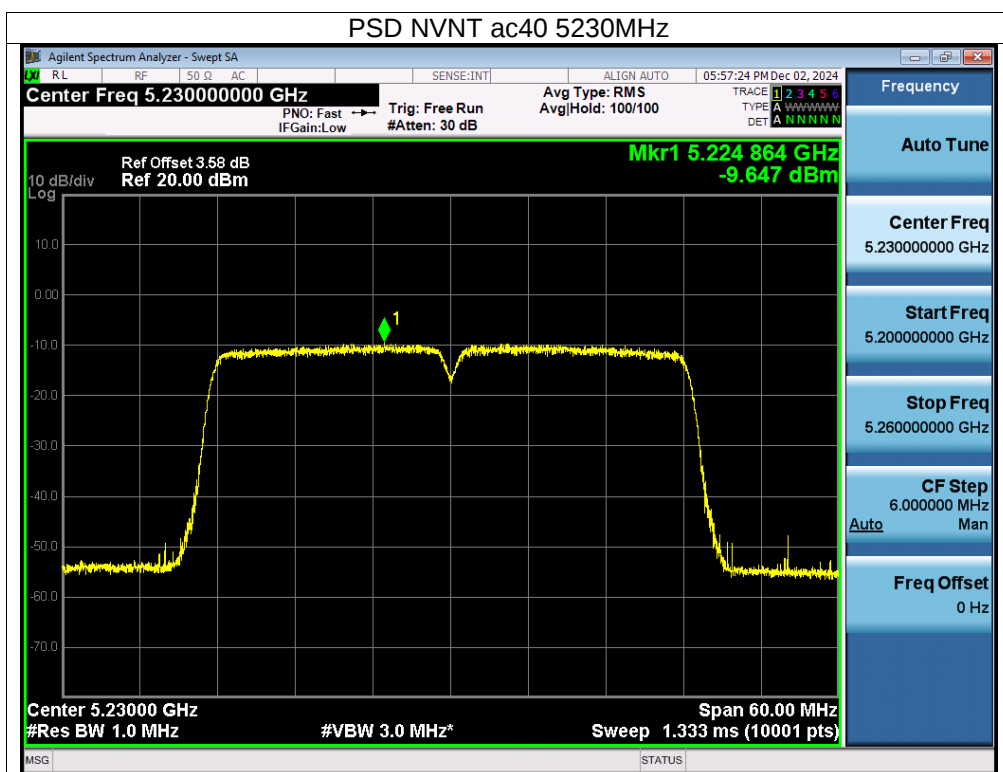


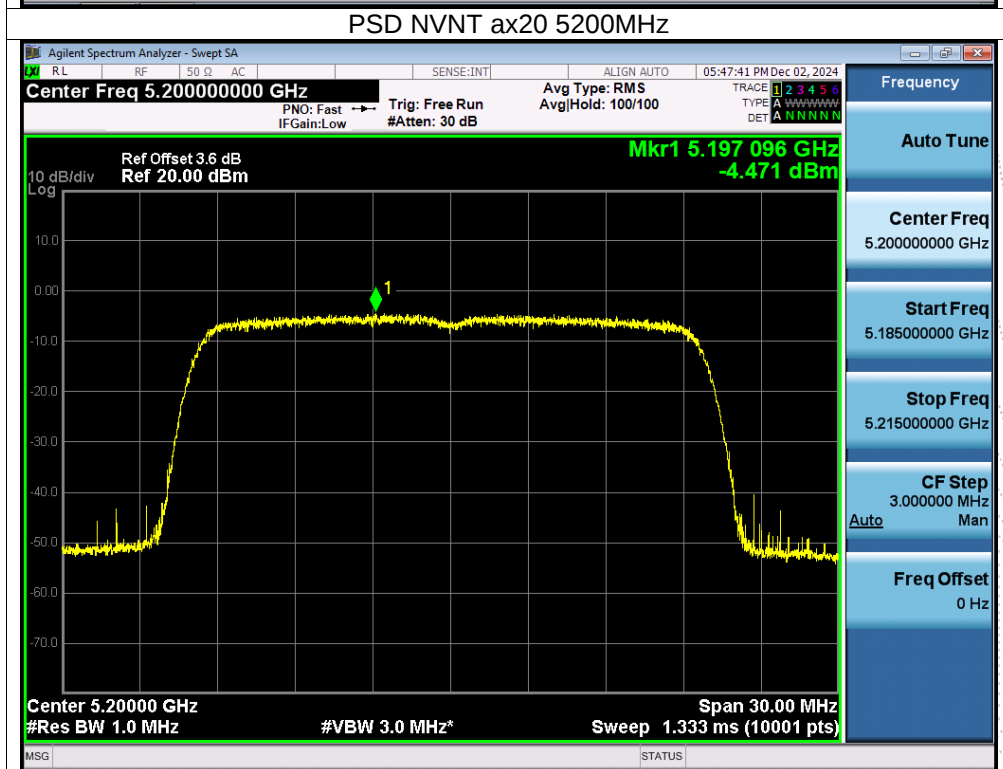
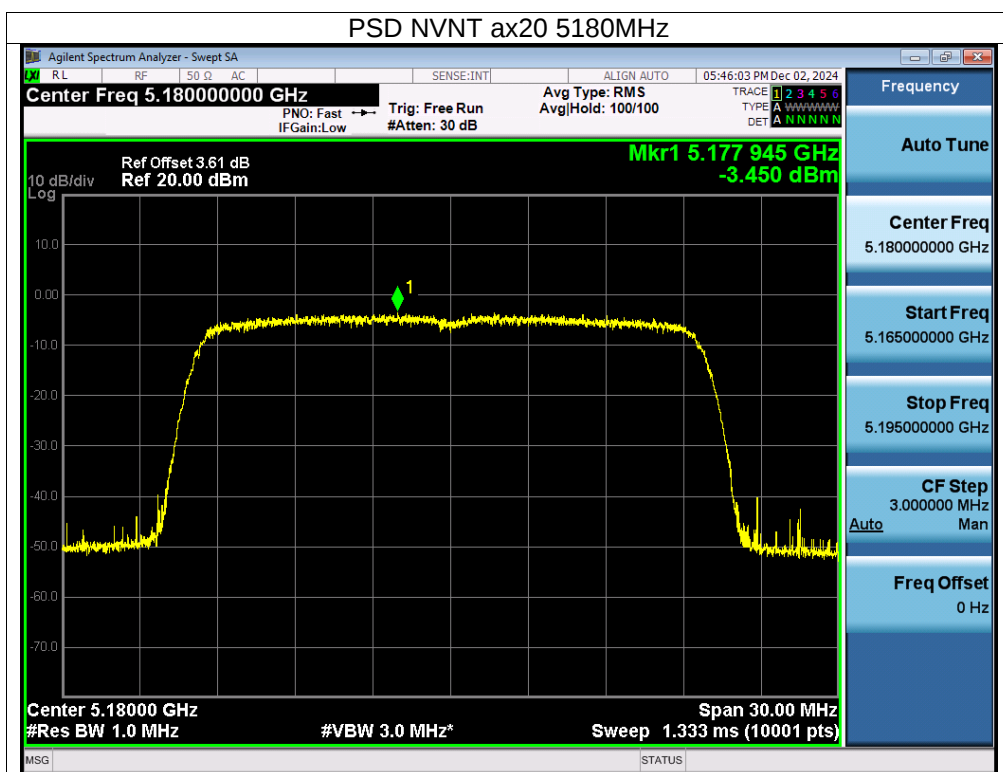


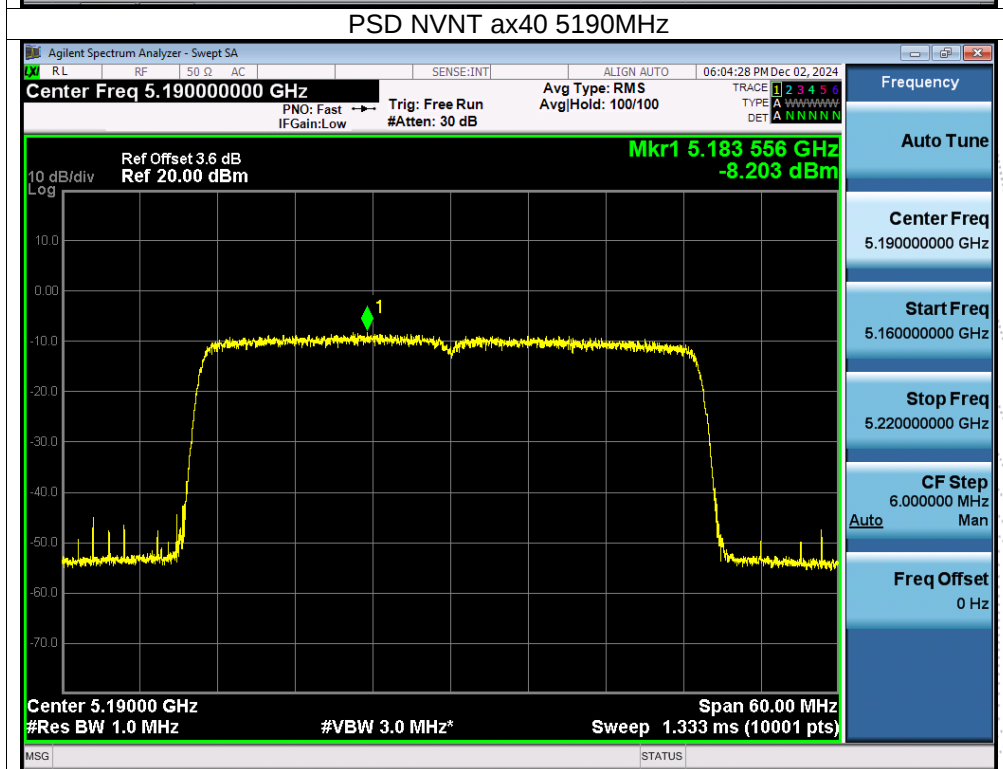
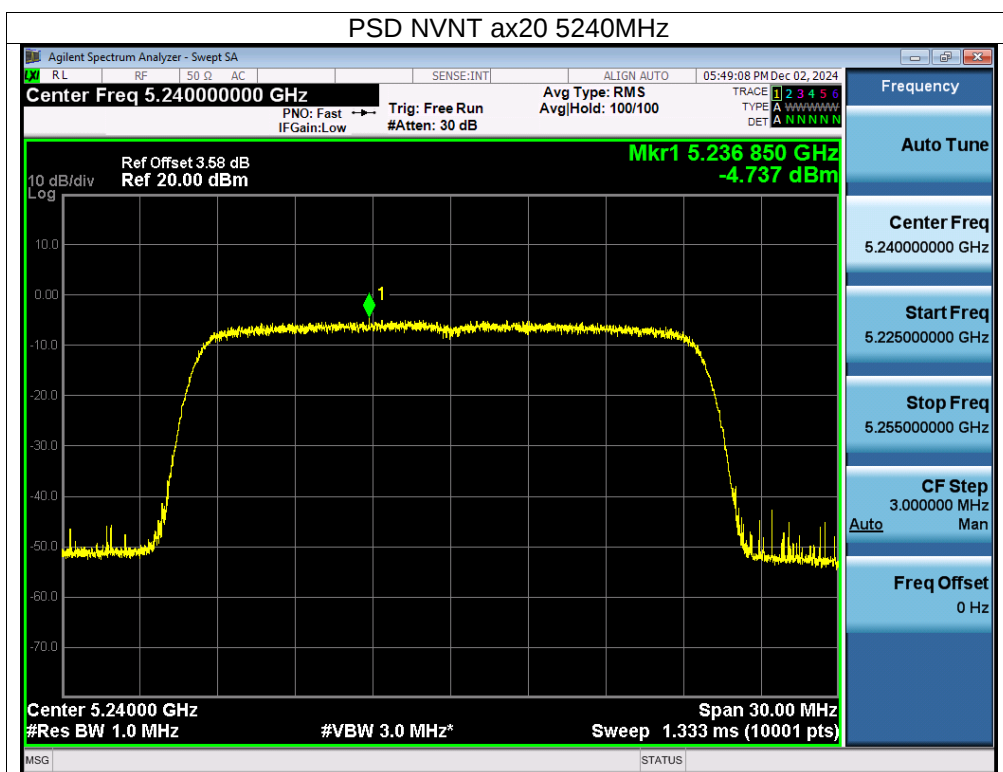


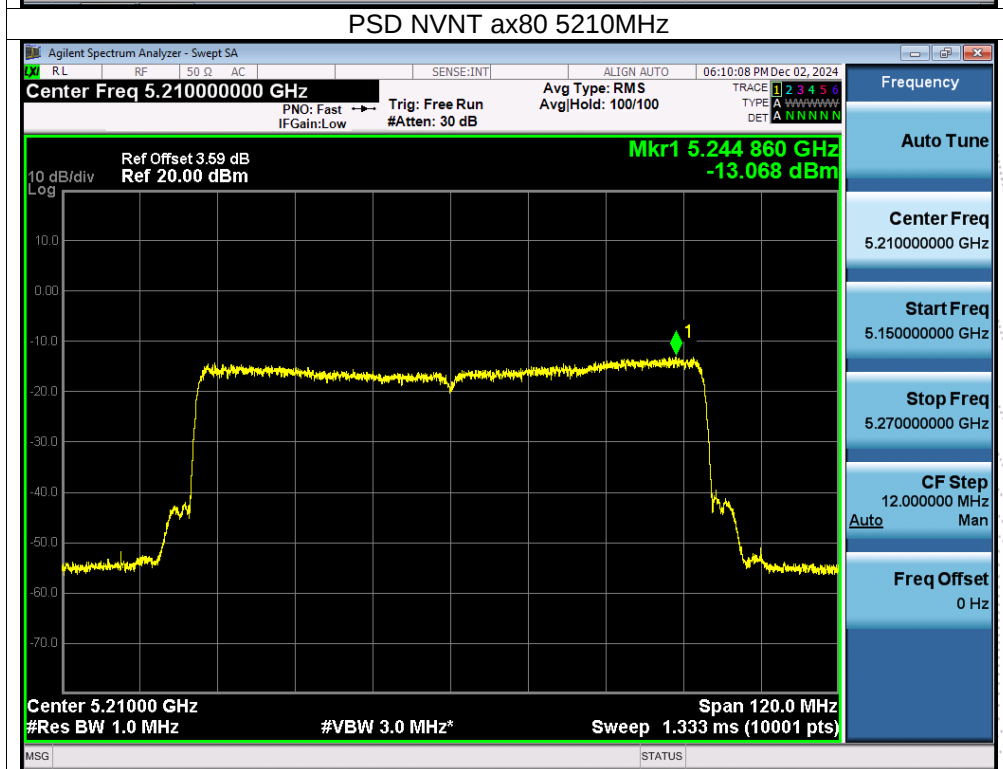
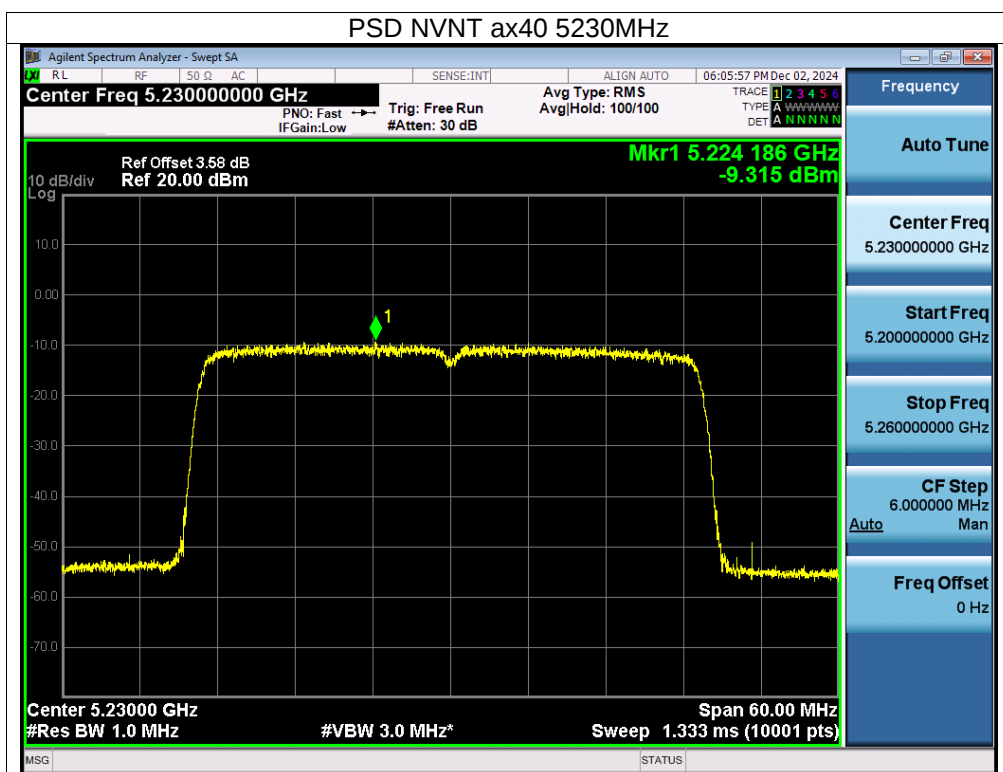












Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage:	DC 12V
Test Mode:	TX Frequency U-NII-3 (5745-5825MHz)		

Condition	Mode	Frequency (MHz)	Measured Power Density (dBm/500KHz)			Limit (dBm/500KHz)	Result
			ANT A	ANT B	Total		
NVNT	a	5745	-5.96	-7.1	/	30	PASS
NVNT	a	5785	-6.34	-7.28	/	30	PASS
NVNT	a	5825	-6.87	-7.35	/	30	PASS
NVNT	n20	5745	-7.69	-8.37	-5.01	30	PASS
NVNT	n20	5785	-7.96	-8.52	-5.22	30	PASS
NVNT	n20	5825	-7.99	-8.54	-5.25	30	PASS
NVNT	n40	5755	-11.7	-12.39	-9.02	30	PASS
NVNT	n40	5795	-11.53	-12.55	-9.00	30	PASS
NVNT	ac20	5745	-7.57	-8.57	-5.03	30	PASS
NVNT	ac20	5785	-7.5	-8.44	-4.93	30	PASS
NVNT	ac20	5825	-7.86	-8.78	-5.29	30	PASS
NVNT	ac40	5755	-11.38	-12.72	-8.99	30	PASS
NVNT	ac40	5795	-11.64	-12.39	-8.99	30	PASS
NVNT	ac80	5775	-15.81	-16.72	-13.23	30	PASS
NVNT	ax20	5745	-7.83	-8.61	-5.19	30	PASS
NVNT	ax20	5785	-7.5	-8.59	-5.00	30	PASS
NVNT	ax20	5825	-8.57	-8.9	-5.72	30	PASS
NVNT	ax40	5755	-11.4	-12.84	-9.05	30	PASS
NVNT	ax40	5795	-11.45	-12.56	-8.96	30	PASS
NVNT	ax80	5775	-15.83	-16.57	-13.17	30	PASS

Note:

Antenna A gain: 2.71 dBi, Antenna B gain: 2.71 dBi, Directional gain=[GainANT + 10 log(NANT) dBi] =5.72 dBi<6dBi
Limit=30 dBi

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

