

TEST REPORT

Report No.: **BCTC2304636256-2E**

Applicant: **HF.Radio Communication Technology Co.,Ltd**

Product Name: **DOCSIS3.1 Residential Gateway**

Test Model: **RTCD907H2W6**

Tested Date: **2023-04-17 to 2023-04-26**

Issued Date: **2025-03-17**

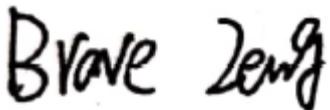
Shenzhen BCTC Testing Co., Ltd.



FCC ID: 2A6PE-RTCD907H2W6

Product Name: DOCSIS3.1 Residential Gateway
Trademark: Radio
Model/Type reference: RTCD907H2W6
Prepared For: HF.Radio Communication Technology Co.,Ltd
Address: No.108, YinXing Road, High-tech Development Zone, Hefei, Anhui Province, China
Manufacturer: HF.Radio Communication Technology Co.,Ltd
Address: No.108, YinXing Road, High-tech Development Zone, Hefei, Anhui Province, China
Prepared By: Shenzhen BCTC Testing Co., Ltd.
Address: 1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Sample Received Date: 2023-04-17
Sample tested Date: 2023-04-17 to 2023-04-26
Issue Date: 2025-03-17
Report No.: BCTC2304636256-2E
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

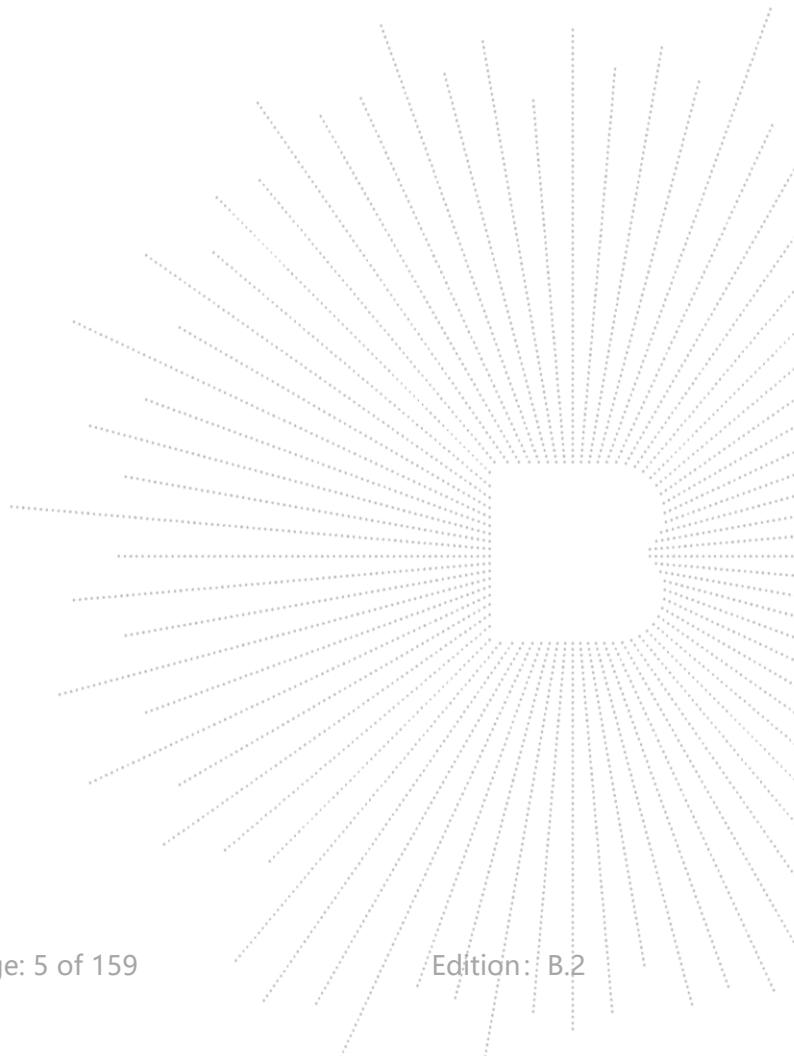
Test Report Declaration	Page
1. Version	5
2. Test Summary	6
3. Measurement Uncertainty	7
4. Product Information And Test Setup	8
4.1 Product Information.....	8
4.2 Test Setup Configuration	9
4.3 Support Equipment	9
4.4 Channel List	10
4.5 Test Mode	11
4.7 Antenna.....	11
5. Test Facility And Test Instrument Used.....	12
5.1 Test Facility.....	12
5.2 Test Instrument Used.....	12
6. Conducted Emissions.....	14
6.1 Block Diagram Of Test Setup.....	14
6.2 Limit	14
6.3 Test Procedure	14
6.4 EUT Operating Conditions	14
6.5 Test Result.....	15
7. Radiated Emissions.....	17
7.1 Block Diagram Of Test Setup.....	17
7.2 Limit	18
7.3 Test Procedure	19
7.4 EUT Operating Conditions	20
7.5 Test Result.....	20
8. Power Spectral Density Test	35
8.1 Block Diagram Of Test Setup.....	35
8.2 Limit	35
8.3 Test Procedure	36
8.4 EUT Operating Conditions	36
8.5 Test Result.....	37
9. 26dB & 6dB & 99% Emission Bandwidth	53
9.1 Block Diagram Of Test Setup.....	53
9.2 Limit	53
9.3 Test Procedure	53
9.4 EUT Operating Conditions	54
9.5 Test Result.....	54
10. Maximum Conducted Output Power.....	84
10.1 Block Diagram Of Test Setup.....	84
10.2 Limit	84
10.3 Test Procedure	84
10.4 EUT Operating Conditions	85
10.5 Test Result.....	86

11.	Out Of Band Emissions	88
11.1	Block Diagram Of Test Setup.....	88
11.2	Limit	88
11.3	Test Procedure	88
11.4	EUT Operating Conditions	88
11.5	Test Result.....	88
12.	Spurious RF Conducted Emissions.....	101
12.1	Block Diagram Of Test Setup.....	101
12.2	Limit	101
12.3	Test Procedure	101
12.4	Test Result.....	101
13.	Frequency Stability Measurement	116
13.1	Block Diagram Of Test Setup.....	116
13.2	Limit	116
13.3	Test Procedure	116
13.4	Test Result.....	117
14.	Duty Cycle Of Test Signal	123
14.1	Standard Requirement.....	123
14.2	Formula.....	123
14.3	Test Procedure	123
14.4	Test Result.....	123
15.	Antenna Requirement	155
15.1	Limit	155
15.2	Test Result.....	155
16.	EUT Photographs.....	156
17.	EUT Test Setup Photographs.....	157

(Note: N/A Means Not Applicable)

1. Version

Report No.	Issue Date	Description	Approved
BCTC2304636256-2E	2025-03-13	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:	RTCD907H2W6
Model differences:	N/A
Hardware Version:	N/A
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) 5180-5240MHz for 802.11a/n(HT20)/ac(HT20); 5190-5230MHz for 802.11n(HT40)/ac(HT40); 5210MHz for 802.11 ac80;
Operation Frequency:	5745-5825 MHz for 802.11a/n(HT20)/ac(HT20); 5755-5795 MHz for 802.11n(HT40)/ac(HT40); 5775MHz for 802.11 ac80; 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; 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
Number Of Channel	
Antenna installation:	Internal antenna*2 Antenna A: 3.05 dBi, Antenna B: 2.59 dBi
Antenna Gain:	Remark: <input checked="" type="checkbox"/> 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. <input type="checkbox"/> 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: GS-P120300E454 INPUT: 100-240V~50/60Hz 1.25A OUTPUT: DC 12V 3.0A

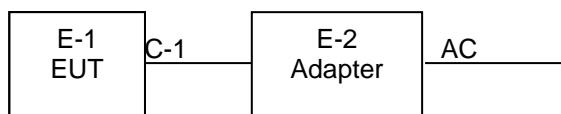
4.2 Test Setup Configuration

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

Conducted Emission:



Radiated Spurious Emission



4.3 Support Equipment

No.	Device Type	Brand	Model	Series No.	Note
E-1	DOCSIS3.1 Residential Gateway	Radio	RTCD907H2W6	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note
C-1	N/A	N/A	0M	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)						
36	5180	44	5220	-	-	-	-
40	5200	48	5240	-	-	-	-

802.11n(40MHz) /ac(40MHz) Carrier Frequency Channel

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)						
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	WIFI Link (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 6.06 dBi
- 2)For power measurements,
The Array gain=0 dB for NANT≤4,
So the directional gain for Power measurements is 3.05 dBi

Antenna	Brand	Model Name	Antenna Type	Gain (dBi)	NOTE
A	N/A	N/A	Internal antenna	3.05	N/A
B	N/A	N/A	Internal antenna	2.59	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

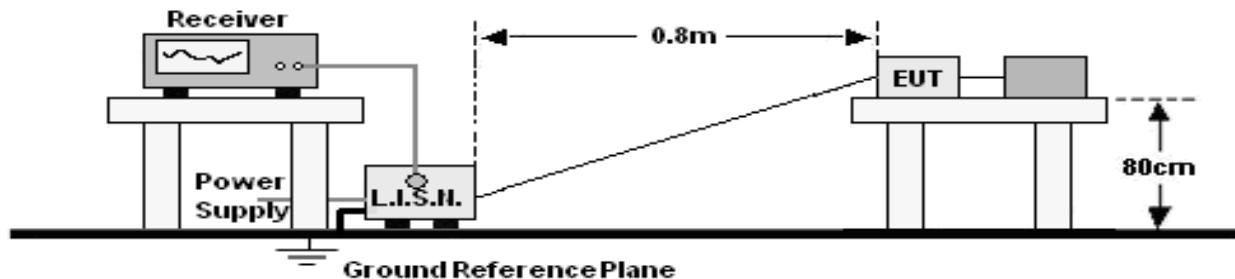
Conducted Emissions Test					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Receiver	R&S	ESR3	102075	May 24, 2022	May 23, 2023
LISN	R&S	ENV216	101375	May 24, 2022	May 23, 2023
Software	Frad	EZ-EMC	EMC-CON 3A1	\	\
Attenuator	\	10dB DC-6GHz	1650	May 24, 2022	May 23, 2023

RF Conducted Test					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Power Metter	Keysight	E4419	\	May 24, 2022	May 23, 2023
Power Sensor (AV)	Keysight	E9300A	\	May 24, 2022	May 23, 2023
Signal Analyzer20kHz z-26.5GHz	Keysight	N9020A	MY49100060	May 24, 2022	May 23, 2023
Spectrum Analyzer9kHz-40GHz	R&S	FSP40	100363	May 24, 2022	May 23, 2023
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	Jun. 06. 2020	Jun. 05, 2023
Receiver	R&S	ESR3	102075	May 24, 2022	May 23, 2023
Receiver	R&S	ESRP	101154	May 24, 2022	May 23, 2023
Amplifier	Schwarzbeck	BBV9744	9744-0037	May 24, 2022	May 23, 2023
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	942	May 26, 2022	May 25, 2023
Loop Antenna(9KHz -30MHz)	Schwarzbeck	FMZB1519B	00014	May 26, 2022	May 25, 2023
Amplifier	SKET	LAPA_01G18 G-45dB	\	May 24, 2022	May 23, 2023
Horn Antenna	Schwarzbeck	BBHA9120D	1541	Jun. 06, 2022	Jun. 05, 2023
Amplifier(18GHz-40GHz)	MITEQ	TTA1840-35-HG	2034381	May 26, 2022	May 25, 2023
Horn Antenna(18GHz-40GHz)	Schwarzbeck	BBHA9170	00822	Jun. 06, 2022	Jun. 05, 2023
Spectrum Analyzer9kHz-40GHz	R&S	FSP40	100363	May 24, 2022	May 23, 2023
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

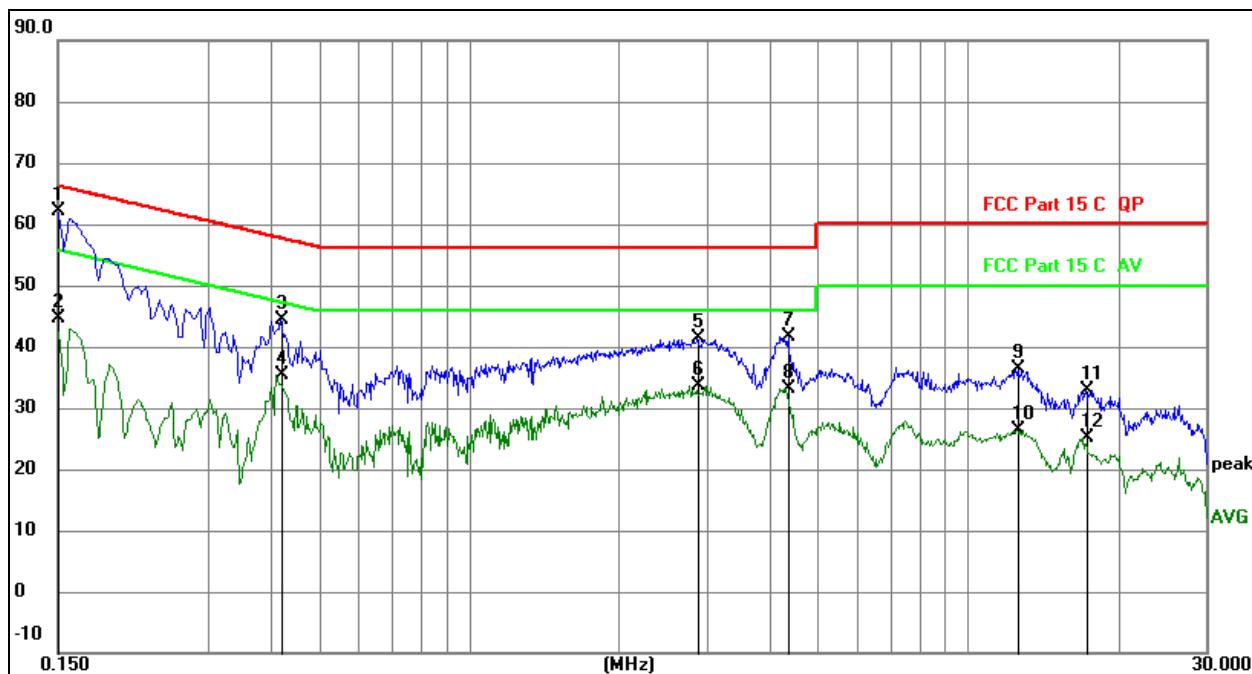
- a. The Product was placed on a nonconductive table 0.8 m above the horizontal ground reference plane, and 0.4 m from the vertical ground reference plane, and connected to the main through Line Impedance Stability Network (L.I.S.N.).
- b. The RBW of the receiver was set at 9 kHz in 150 kHz ~ 30MHz with 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:	23.8 °C	Relative Humidity:	51%
Pressure:	101KPa	Phase :	L
Test Mode:	Mode 4	Test Voltage :	AC 120V/60Hz

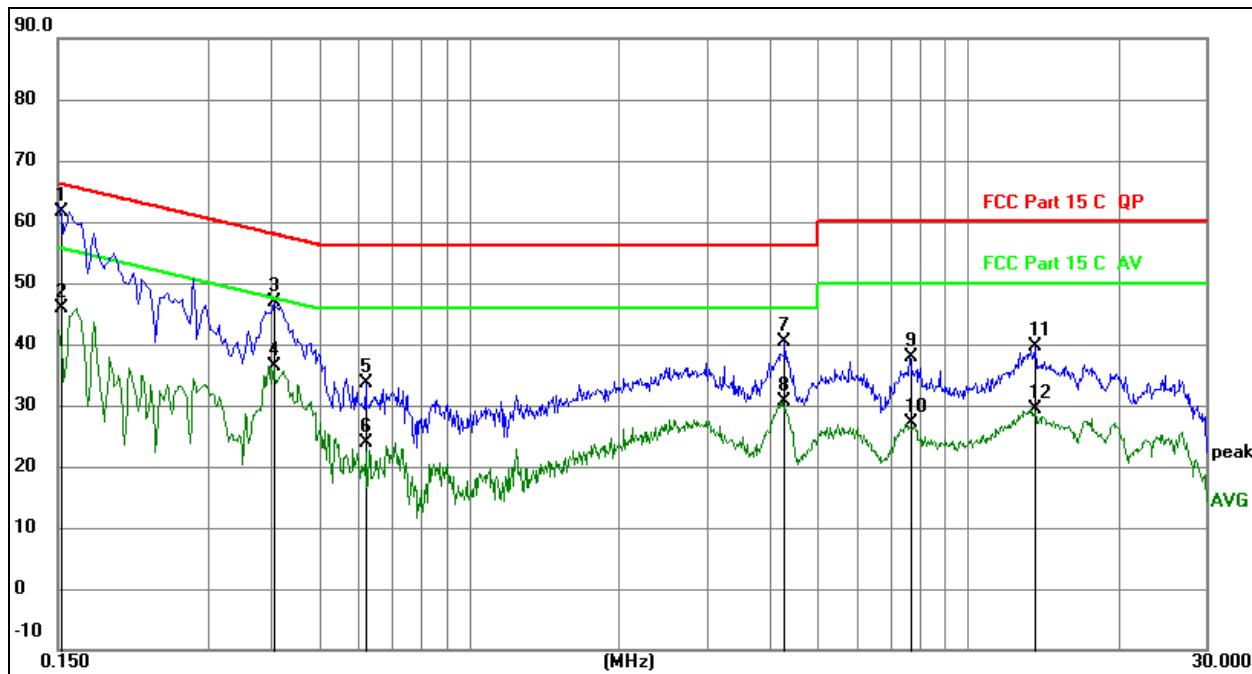


Remark:

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	Correct	Measure-	Limit	Over	Detector
			Level	Factor	ment			
1	*	0.1500	42.03	20.07	62.10	66.00	-3.90	QP
2		0.1500	24.46	20.07	44.53	56.00	-11.47	AVG
3		0.4200	24.25	20.08	44.33	57.45	-13.12	QP
4		0.4200	15.18	20.08	35.26	47.45	-12.19	AVG
5		2.8770	21.26	20.12	41.38	56.00	-14.62	QP
6		2.8770	13.63	20.12	33.75	46.00	-12.25	AVG
7		4.3620	21.59	20.14	41.73	56.00	-14.27	QP
8		4.3620	13.06	20.14	33.20	46.00	-12.80	AVG
9		12.6240	16.25	20.24	36.49	60.00	-23.51	QP
10		12.6240	6.21	20.24	26.45	50.00	-23.55	AVG
11		17.2635	12.67	20.32	32.99	60.00	-27.01	QP
12		17.2635	4.70	20.32	25.02	50.00	-24.98	AVG

Temperature:	23.8 °C	Relative Humidity:	51%
Pressure:	101KPa	Phase :	N
Test Mode:	Mode 4	Test Voltage :	AC 120V/60Hz

**Remark:**

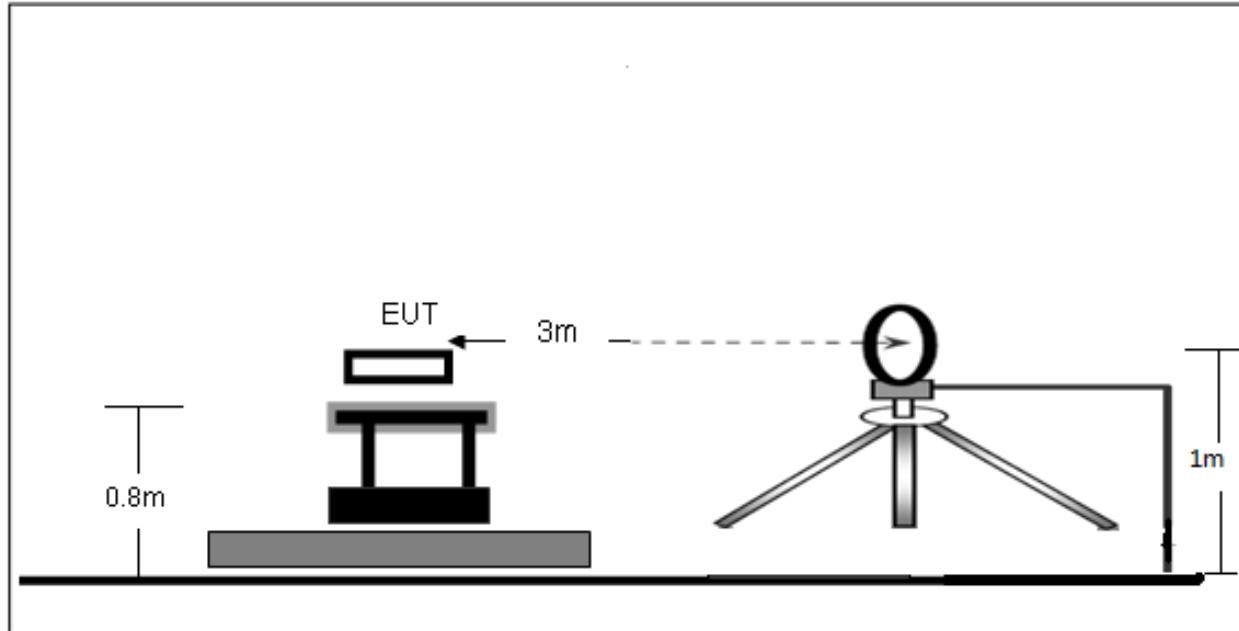
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement = Reading Level + Correct Factor
4. Over = Measurement - Limit

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector
			Level	Factor	ment			
		MHz		dB	dBuV			
1	*	0.1516	41.53	20.07	61.60	65.91	-4.31	QP
2		0.1516	25.79	20.07	45.86	55.91	-10.05	AVG
3		0.4061	26.76	20.08	46.84	57.73	-10.89	QP
4		0.4061	16.39	20.08	36.47	47.73	-11.26	AVG
5		0.6205	13.65	20.09	33.74	56.00	-22.26	QP
6		0.6205	3.74	20.09	23.83	46.00	-22.17	AVG
7		4.2918	20.35	20.14	40.49	56.00	-15.51	QP
8		4.2918	10.53	20.14	30.67	46.00	-15.33	AVG
9		7.6464	17.72	20.16	37.88	60.00	-22.12	QP
10		7.6464	6.89	20.16	27.05	50.00	-22.95	AVG
11		13.6228	19.35	20.27	39.62	60.00	-20.38	QP
12		13.6228	9.23	20.27	29.50	50.00	-20.50	AVG

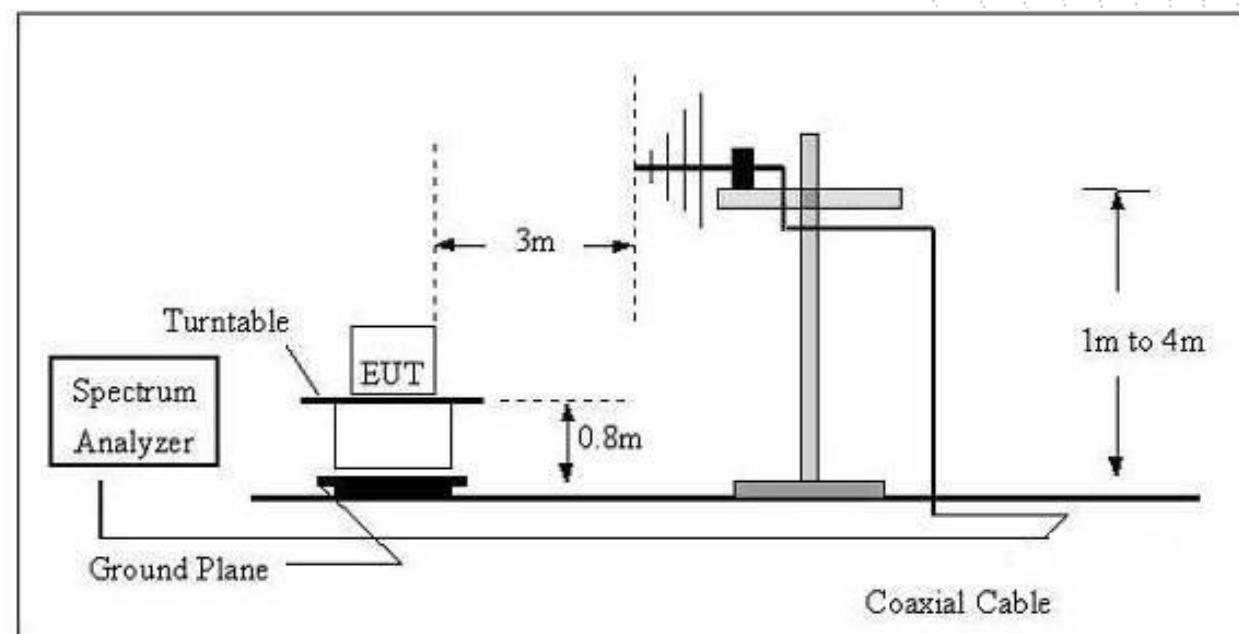
7. Radiated Emissions

7.1 Block Diagram Of Test Setup

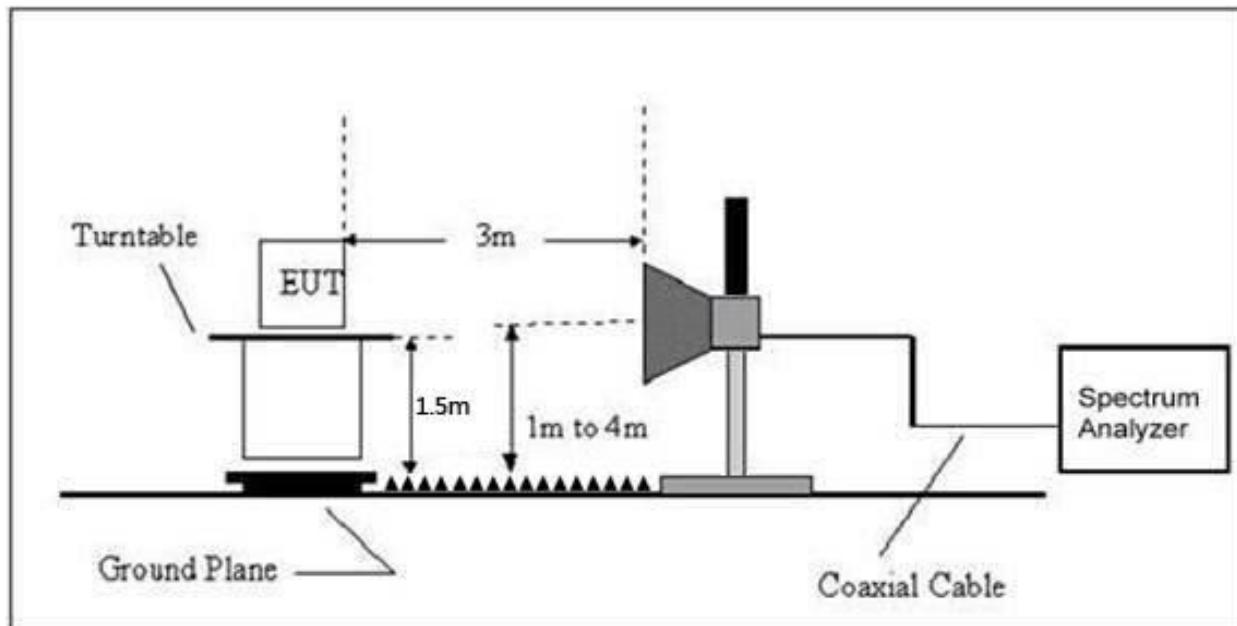
(A) Radiated Emission Test-Up Frequency Below 30MHz



(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(kHz)	300	10000 * 2400/F(kHz)	20log ^{(2400/F(kHz))} + 80
0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	20log ^{(24000/F(kHz))} + 40
1.705 ~ 30	30	30	100 * .30	20log ⁽³⁰⁾ + 40
30 ~ 88	100	3	100	20log ⁽¹⁰⁰⁾
88 ~ 216	150	3	150	20log ⁽¹⁵⁰⁾
216 ~ 960	200	3	200	20log ⁽²⁰⁰⁾
Above 960	500	3	500	20log ⁽⁵⁰⁰⁾

Limits Of Radiated Emission Measurement (Above 1000MHz)

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

Notes:

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

7.3 Test Procedure

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

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

Use the following spectrum analyzer settings:

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

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

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

Note:

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

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

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

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

7.4 EUT Operating Conditions

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

7.5 Test Result

Below 30MHz

Temperature:	24°C	Relative Humidity:	44%
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

Note:

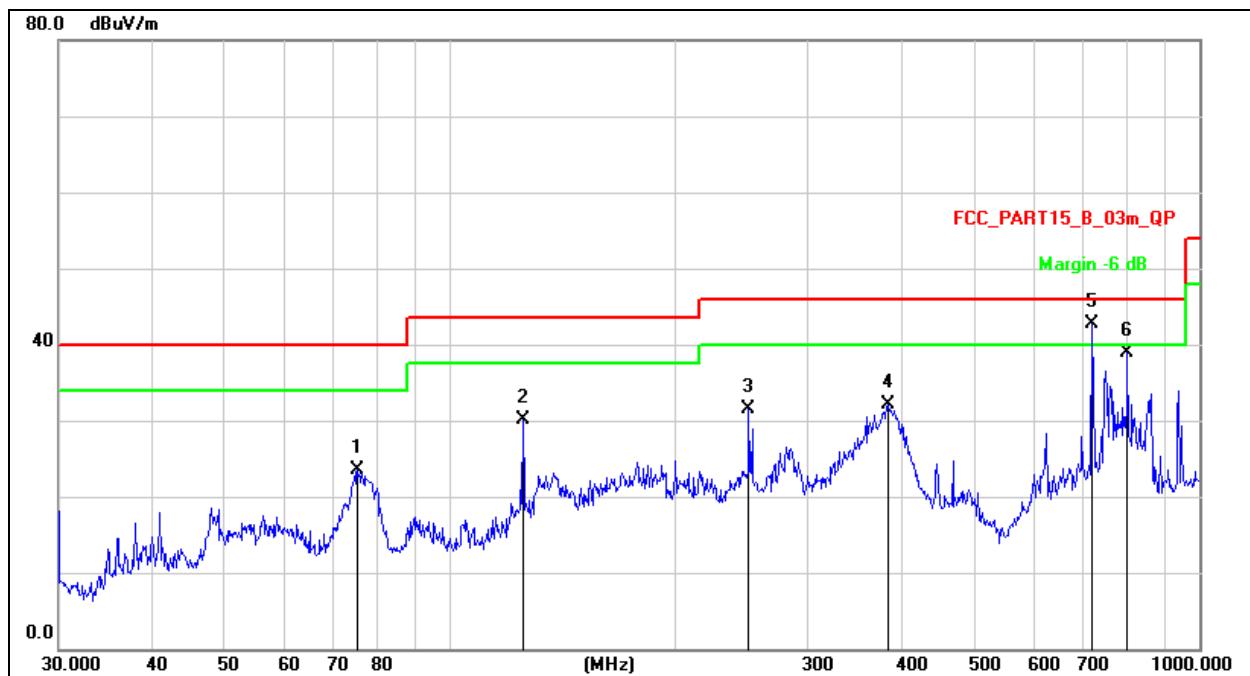
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

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

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

Between 30MHz – 1GHz

Temperature:	24°C	Relative Humidity:	44%
Pressure:	101KPa	Phase :	Horizontal
Test Mode:	Mode 4	Test Voltage :	AC 120V/60Hz

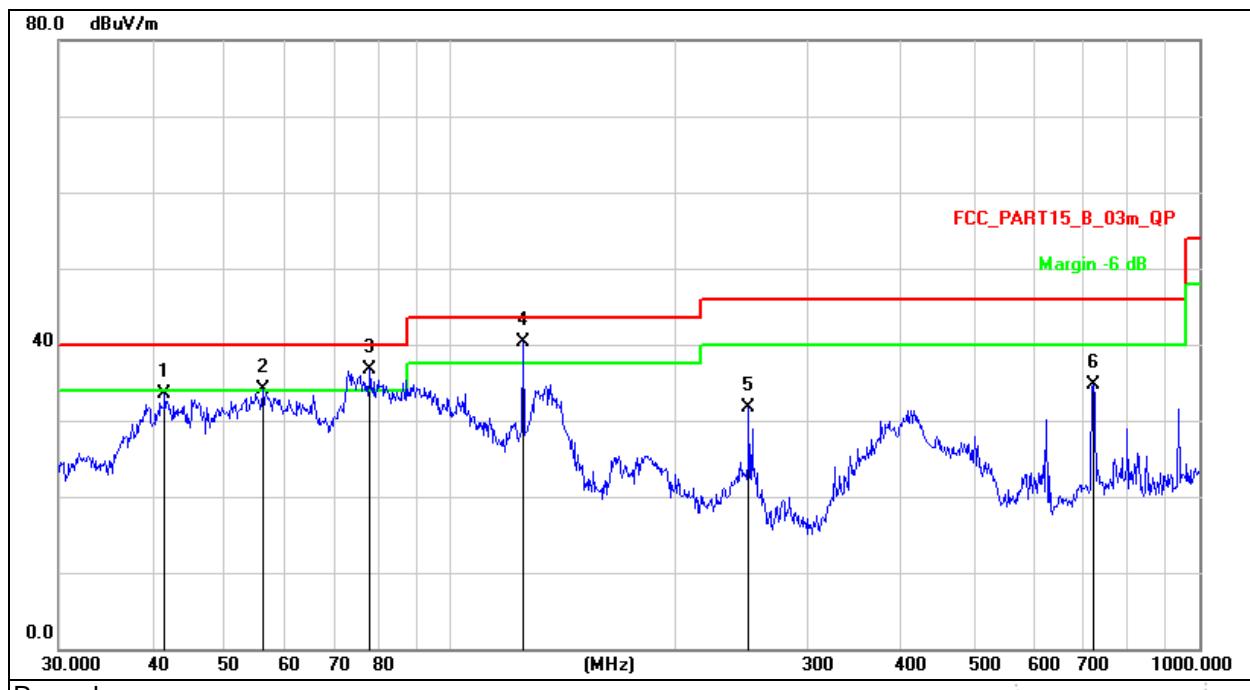


Remark:

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		75.1821	42.34	-18.91	23.43	40.00	-16.57	QP
2		125.0066	47.84	-17.68	30.16	43.50	-13.34	QP
3		250.3010	45.81	-14.28	31.53	46.00	-14.47	QP
4		383.9318	43.13	-11.05	32.08	46.00	-13.92	QP
5 *		719.1992	48.19	-5.43	42.76	46.00	-3.24	QP
6		801.7862	43.27	-4.38	38.89	46.00	-7.11	QP

Temperature:	24°C	Relative Humidity:	44%
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		41.5670	48.01	-14.59	33.42	40.00	-6.58	QP
2	!	56.1974	48.91	-14.74	34.17	40.00	-5.83	QP
3	!	78.1389	56.04	-19.42	36.62	40.00	-3.38	QP
4	*	125.0066	57.95	-17.68	40.27	43.50	-3.23	QP
5		250.3010	45.93	-14.28	31.65	46.00	-14.35	QP
6		721.7259	40.01	-5.40	34.61	46.00	-11.39	QP

Between 1GHz – 40GHz

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

Polar (H/V)	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Measure- ment (dBuV/m)	Limits (dBuV/m)	Over (dB)	Detector Type
Low Channel (5180 MHz)-Above 1G							
Vertical	4434.029	73.16	-20.73	52.43	68.2	-15.77	PK
Vertical	4434.029	59.41	-20.73	38.68	54	-15.32	AV
Vertical	10360.065	60.86	-9.36	51.50	68.2	-16.70	PK
Vertical	10360.065	49.80	-9.36	40.44	54	-13.56	AV
Vertical	15540.188	60.75	-7.84	52.91	74	-21.09	PK
Vertical	15540.188	49.26	-7.84	41.42	54	-12.58	AV
Horizontal	4434.177	70.76	-20.73	50.03	68.2	-18.17	PK
Horizontal	4434.177	59.04	-20.73	38.31	54	-15.69	AV
Horizontal	10360.094	60.92	-9.36	51.56	68.2	-16.64	PK
Horizontal	10360.094	49.92	-9.36	40.56	54	-13.44	AV
Horizontal	15540.071	61.91	-7.84	54.07	74	-19.93	PK
Horizontal	15540.071	49.87	-7.84	42.03	54	-11.97	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.098	71.44	-20.42	51.02	74	-22.98	PK
Vertical	4592.098	59.48	-20.42	39.07	54	-14.93	AV
Vertical	10400.067	64.54	-9.30	55.24	68.2	-12.96	PK
Vertical	10400.067	49.15	-9.30	39.85	54	-14.15	AV
Vertical	15600.172	63.97	-7.82	56.15	74	-17.85	PK
Vertical	15600.172	49.09	-7.82	41.27	54	-12.73	AV
Horizontal	4592.179	74.91	-20.42	54.50	74	-19.50	PK
Horizontal	4592.179	59.98	-20.42	39.56	54	-14.44	AV
Horizontal	10400.098	61.14	-9.30	51.84	68.2	-16.36	PK
Horizontal	10400.098	49.28	-9.30	39.98	54	-14.02	AV
Horizontal	15600.170	63.38	-7.82	55.56	74	-18.44	PK
Horizontal	15600.170	49.91	-7.82	42.09	54	-11.91	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.074	73.00	-20.12	52.88	74	-21.12	PK
Vertical	4739.074	59.31	-20.12	39.19	54	-14.81	AV
Vertical	10480.022	63.59	-9.18	54.41	68.2	-13.79	PK
Vertical	10480.022	49.54	-9.18	40.36	54	-13.64	AV
Vertical	15720.156	63.33	-7.78	55.55	74	-18.45	PK
Vertical	15720.156	49.77	-7.78	41.99	54	-12.01	AV
Horizontal	4739.102	74.16	-20.12	54.03	74	-19.97	PK
Horizontal	4739.102	59.87	-20.12	39.75	54	-14.25	AV
Horizontal	10480.111	62.81	-9.18	53.63	68.2	-14.57	PK
Horizontal	10480.111	49.58	-9.18	40.40	54	-13.60	AV
Horizontal	15720.147	60.83	-7.78	53.05	74	-20.95	PK
Horizontal	15720.147	49.79	-7.78	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.

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	4434.153	70.75	-20.73	50.02	68.2	-18.18	PK
Vertical	4434.153	59.80	-20.73	39.07	54	-14.93	AV
Vertical	10360.053	64.90	-9.36	55.54	68.2	-12.66	PK
Vertical	10360.053	49.98	-9.36	40.62	54	-13.38	AV
Vertical	15540.137	63.04	-7.84	55.20	74	-18.80	PK
Vertical	15540.137	49.33	-7.84	41.49	54	-12.51	AV
Horizontal	4434.145	70.89	-20.73	50.16	68.2	-18.04	PK
Horizontal	4434.145	59.66	-20.73	38.93	54	-15.07	AV
Horizontal	10360.057	60.63	-9.36	51.27	68.2	-16.93	PK
Horizontal	10360.057	49.68	-9.36	40.32	54	-13.68	AV
Horizontal	15540.167	60.75	-7.84	52.91	74	-21.09	PK
Horizontal	15540.167	49.03	-7.84	41.19	54	-12.81	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.114	70.82	-20.42	50.41	74	-23.59	PK
Vertical	4592.114	59.94	-20.42	39.52	54	-14.48	AV
Vertical	10400.069	64.12	-9.30	54.82	68.2	-13.38	PK
Vertical	10400.069	49.44	-9.30	40.14	54	-13.86	AV
Vertical	15600.029	60.20	-7.82	52.38	74	-21.62	PK
Vertical	15600.029	49.49	-7.82	41.67	54	-12.33	AV
Horizontal	4592.014	72.11	-20.42	51.69	74	-22.31	PK
Horizontal	4592.014	59.41	-20.42	39.00	54	-15.00	AV
Horizontal	10400.135	64.46	-9.30	55.16	68.2	-13.04	PK
Horizontal	10400.135	49.19	-9.30	39.89	54	-14.11	AV
Horizontal	15600.135	64.83	-7.82	57.01	74	-16.99	PK
Horizontal	15600.135	49.86	-7.82	42.04	54	-11.96	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.011	70.79	-20.12	50.67	74	-23.33	PK
Vertical	4739.011	59.84	-20.12	39.71	54	-14.29	AV
Vertical	10480.148	63.66	-9.18	54.48	68.2	-13.72	PK
Vertical	10480.148	49.06	-9.18	39.88	54	-14.12	AV
Vertical	15720.102	61.65	-7.78	53.87	74	-20.13	PK
Vertical	15720.102	49.93	-7.78	42.15	54	-11.85	AV
Horizontal	4739.191	72.16	-20.12	52.04	74	-21.96	PK
Horizontal	4739.191	59.87	-20.12	39.74	54	-14.26	AV
Horizontal	10480.082	60.95	-9.18	51.77	68.2	-16.43	PK
Horizontal	10480.082	49.58	-9.18	40.40	54	-13.60	AV
Horizontal	15720.076	61.84	-7.78	54.06	74	-19.94	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) - 802.11n-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	4434.063	72.57	-20.73	51.84	68.2	-16.36	PK
Vertical	4434.063	59.78	-20.73	39.05	54	-14.95	AV
Vertical	10380.034	60.65	-9.33	51.32	68.2	-16.88	PK
Vertical	10380.034	49.70	-9.33	40.37	54	-13.63	AV
Vertical	15570.147	60.76	-7.83	52.93	74	-21.07	PK
Vertical	15570.147	49.11	-7.83	41.28	54	-12.72	AV
Horizontal	4434.083	70.07	-20.73	49.34	74	-24.66	PK
Horizontal	4434.083	59.35	-20.73	38.62	54	-15.38	AV
Horizontal	10380.003	63.82	-9.33	54.49	68.2	-13.71	PK
Horizontal	10380.003	49.94	-9.33	40.61	54	-13.39	AV
Horizontal	15570.006	62.13	-7.83	54.30	74	-19.70	PK
Horizontal	15570.006	49.13	-7.83	41.30	54	-12.70	AV
Middle Channel (5230 MHz)-Above 1G							
Vertical	4739.179	74.04	-20.12	53.91	68.2	-14.29	PK
Vertical	4739.179	59.79	-20.12	39.67	54	-14.33	AV
Vertical	10460.018	60.37	-9.21	51.16	68.2	-17.04	PK
Vertical	10460.018	49.76	-9.21	40.55	54	-13.45	AV
Vertical	15690.107	60.39	-7.79	52.60	74	-21.40	PK
Vertical	15690.107	49.44	-7.79	41.65	54	-12.35	AV
Horizontal	4739.090	74.43	-20.12	54.31	68.2	-13.89	PK
Horizontal	4739.090	59.64	-20.12	39.52	54	-14.48	AV
Horizontal	10460.040	61.42	-9.21	52.21	68.2	-15.99	PK
Horizontal	10460.040	49.61	-9.21	40.40	54	-13.60	AV
Horizontal	15690.163	64.11	-7.79	56.32	74	-17.68	PK
Horizontal	15690.163	49.31	-7.79	41.52	54	-12.48	AV

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

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

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

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

Test Mode 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	4434.150	70.67	-20.73	49.94	68.2	-18.26	PK
Vertical	4434.150	59.47	-20.73	38.73	54	-15.27	AV
Vertical	10360.161	62.95	-9.36	53.59	68.2	-14.61	PK
Vertical	10360.161	49.49	-9.36	40.13	54	-13.87	AV
Vertical	15540.024	60.89	-7.84	53.05	74	-20.95	PK
Vertical	15540.024	49.98	-7.84	42.14	54	-11.86	AV
Horizontal	4434.166	72.98	-20.73	52.25	68.2	-15.95	PK
Horizontal	4434.166	59.63	-20.73	38.90	54	-15.10	AV
Horizontal	10360.018	64.16	-9.36	54.80	68.2	-13.40	PK
Horizontal	10360.018	49.34	-9.36	39.98	54	-14.02	AV
Horizontal	15540.108	63.15	-7.84	55.31	74	-18.69	PK
Horizontal	15540.108	49.22	-7.84	41.38	54	-12.62	AV
Middle Channel (5200 MHz)-Above 1G							
Vertical	4592.057	71.10	-20.42	50.68	74	-23.32	PK
Vertical	4592.057	59.24	-20.42	38.82	54	-15.18	AV
Vertical	10400.155	63.73	-9.30	54.43	68.2	-13.77	PK
Vertical	10400.155	49.39	-9.30	40.09	54	-13.91	AV
Vertical	15600.088	62.13	-7.82	54.31	74	-19.69	PK
Vertical	15600.088	49.14	-7.82	41.32	54	-12.68	AV
Horizontal	4592.158	71.74	-20.42	51.32	74	-22.68	PK
Horizontal	4592.158	59.91	-20.42	39.50	54	-14.50	AV
Horizontal	10400.175	63.69	-9.30	54.39	68.2	-13.81	PK
Horizontal	10400.175	49.35	-9.30	40.05	54	-13.95	AV
Horizontal	15600.073	64.69	-7.82	56.87	74	-17.13	PK
Horizontal	15600.073	49.03	-7.82	41.21	54	-12.79	AV
High Channel (5240 MHz)-Above 1G							
Vertical	4739.134	71.34	-20.12	51.22	74	-22.78	PK
Vertical	4739.134	59.71	-20.12	39.59	54	-14.41	AV
Vertical	10480.031	62.33	-9.18	53.15	68.2	-15.05	PK
Vertical	10480.031	49.66	-9.18	40.48	54	-13.52	AV
Vertical	15720.117	61.75	-7.78	53.97	74	-20.03	PK
Vertical	15720.117	49.88	-7.78	42.10	54	-11.90	AV
Horizontal	4739.072	72.66	-20.12	52.53	74	-21.47	PK
Horizontal	4739.072	59.43	-20.12	39.31	54	-14.69	AV
Horizontal	10480.102	63.95	-9.18	54.77	68.2	-13.43	PK
Horizontal	10480.102	49.54	-9.18	40.36	54	-13.64	AV
Horizontal	15720.021	61.21	-7.78	53.43	74	-20.57	PK
Horizontal	15720.021	50.00	-7.78	42.22	54	-11.78	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	4434.085	71.58	-20.73	50.85	68.2	-17.35	PK
Vertical	4434.085	59.16	-20.73	38.43	54	-15.57	AV
Vertical	10380.181	61.71	-9.33	52.38	68.2	-15.82	PK
Vertical	10380.181	49.13	-9.33	39.80	54	-14.20	AV
Vertical	15570.085	61.31	-7.83	53.48	74	-20.52	PK
Vertical	15570.085	49.80	-7.83	41.97	54	-12.03	AV
Horizontal	4434.110	72.85	-20.73	52.12	74	-21.88	PK
Horizontal	4434.110	59.93	-20.73	39.20	54	-14.80	AV
Horizontal	10380.167	62.93	-9.33	53.60	68.2	-14.60	PK
Horizontal	10380.167	49.19	-9.33	39.86	54	-14.14	AV
Horizontal	15570.111	63.88	-7.83	56.05	74	-17.95	PK
Horizontal	15570.111	49.17	-7.83	41.34	54	-12.66	AV
Middle Channel (5230 MHz)-Above 1G							
Vertical	4739.131	73.08	-20.12	52.96	68.2	-15.24	PK
Vertical	4739.131	59.63	-20.12	39.51	54	-14.49	AV
Vertical	10460.199	62.19	-9.21	52.98	68.2	-15.22	PK
Vertical	10460.199	49.44	-9.21	40.23	54	-13.77	AV
Vertical	15690.007	62.21	-7.79	54.42	74	-19.58	PK
Vertical	15690.007	49.72	-7.79	41.93	54	-12.07	AV
Horizontal	4739.087	71.68	-20.12	51.56	68.2	-16.64	PK
Horizontal	4739.087	59.68	-20.12	39.56	54	-14.44	AV
Horizontal	10460.122	62.68	-9.21	53.47	68.2	-14.73	PK
Horizontal	10460.122	49.03	-9.21	39.82	54	-14.18	AV
Horizontal	15690.087	60.48	-7.79	52.69	74	-21.31	PK
Horizontal	15690.087	49.90	-7.79	42.11	54	-11.89	AV

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

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

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

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

Test Mode 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	4434.001	74.66	-20.73	53.93	68.2	-14.27	PK
Vertical	4434.001	59.57	-20.73	38.84	54	-15.16	AV
Vertical	10420.034	63.36	-9.27	54.09	68.2	-14.11	PK
Vertical	10420.034	49.25	-9.27	39.98	54	-14.02	AV
Vertical	15630.027	63.84	-7.81	56.03	74	-17.97	PK
Vertical	15630.027	49.48	-7.81	41.67	54	-12.33	AV
Horizontal	4434.077	71.50	-20.73	50.77	68.2	-17.43	PK
Horizontal	4434.077	59.27	-20.73	38.54	54	-15.46	AV
Horizontal	10420.058	44.08	9.27	53.35	68.2	-14.85	PK
Horizontal	10420.058	29.80	9.27	39.07	54	-14.93	AV
Horizontal	15630.092	64.58	-7.81	56.77	74	-17.23	PK
Horizontal	15630.092	49.70	-7.81	41.89	54	-12.11	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	4679.024	71.97	-20.24	51.73	74	-22.27	PK
Vertical	4679.024	59.05	-20.24	38.81	54	-15.19	AV
Vertical	11490.073	60.36	-8.79	51.57	68.2	-16.63	PK
Vertical	11490.073	49.43	-8.79	40.64	54	-13.36	AV
Vertical	17235.022	55.15	-3.18	51.97	68.2	-16.23	PK
Vertical	17235.022	44.00	-3.18	40.82	54	-13.18	AV
Horizontal	4679.168	72.69	-20.73	51.96	74	-22.04	PK
Horizontal	4679.168	59.45	-20.73	38.72	54	-15.28	AV
Horizontal	11490.025	62.37	-8.79	53.58	68.2	-14.62	PK
Horizontal	11490.025	49.10	-8.79	40.31	54	-13.69	AV
Horizontal	17235.085	57.50	-3.18	54.32	68.2	-13.88	PK
Horizontal	17235.085	44.48	-3.18	41.30	54	-12.70	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.039	72.75	-20.42	52.34	74	-21.66	PK
Vertical	4592.039	59.62	-20.42	39.21	54	-14.79	AV
Vertical	11570.099	60.72	-8.86	51.86	68.2	-16.34	PK
Vertical	11570.099	49.17	-8.86	40.31	54	-13.69	AV
Vertical	17355.006	56.29	-2.52	53.77	68.2	-14.43	PK
Vertical	17355.006	44.48	-2.52	41.96	54	-12.04	AV
Horizontal	4592.026	73.91	-20.42	53.50	74	-20.50	PK
Horizontal	4592.026	59.52	-20.42	39.10	54	-14.90	AV
Horizontal	11570.163	63.31	-8.86	54.45	68.2	-13.75	PK
Horizontal	11570.163	49.47	-8.86	40.61	54	-13.39	AV
Horizontal	17355.130	55.12	-2.52	52.60	68.2	-15.60	PK
Horizontal	17355.130	44.04	-2.52	41.52	54	-12.48	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.192	74.44	-18.93	55.51	68.2	-12.69	PK
Vertical	6039.192	59.41	-18.93	40.48	54	-13.52	AV
Vertical	11650.020	61.15	-8.92	52.23	74	-21.77	PK
Vertical	11650.020	49.79	-8.92	40.87	54	-13.13	AV
Vertical	17475.038	56.33	-1.86	54.47	68.2	-13.73	PK
Vertical	17475.038	44.21	-1.86	42.35	54	-11.65	AV
Horizontal	6039.076	73.40	-18.93	54.47	68.2	-13.73	PK
Horizontal	6039.076	59.41	-18.93	40.48	54	-13.52	AV
Horizontal	11650.039	63.03	-8.92	54.11	74	-19.89	PK
Horizontal	11650.039	49.01	-8.92	40.09	54	-13.91	AV
Horizontal	17475.119	55.61	-1.86	53.75	68.2	-14.45	PK
Horizontal	17475.119	44.50	-1.86	42.64	54	-11.36	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	4679.020	71.73	-20.24	51.49	74	-22.51	PK
Vertical	4679.020	59.79	-20.24	39.55	54	-14.45	AV
Vertical	11490.059	64.13	-8.79	55.34	68.2	-12.86	PK
Vertical	11490.059	49.38	-8.79	40.59	54	-13.41	AV
Vertical	17235.187	58.41	-3.18	55.23	68.2	-12.97	PK
Vertical	17235.187	44.39	-3.18	41.21	54	-12.79	AV
Horizontal	4679.023	72.89	-20.24	52.65	74	-21.35	PK
Horizontal	4679.023	59.55	-20.24	39.30	54	-14.70	AV
Horizontal	11490.081	62.31	-8.79	53.52	68.2	-14.68	PK
Horizontal	11490.081	49.11	-8.79	40.32	54	-13.68	AV
Horizontal	17235.021	56.62	-3.18	53.44	68.2	-14.76	PK
Horizontal	17235.021	44.11	-3.18	40.93	54	-13.07	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.074	72.92	-20.42	52.51	74	-21.49	PK
Vertical	4592.074	59.09	-20.42	38.67	54	-15.33	AV
Vertical	11570.074	61.05	-8.86	52.19	68.2	-16.01	PK
Vertical	11570.074	49.46	-8.86	40.60	54	-13.40	AV
Vertical	17355.117	57.59	-2.52	55.07	68.2	-13.13	PK
Vertical	17355.117	44.64	-2.52	42.12	54	-11.88	AV
Horizontal	4592.017	70.94	-20.42	50.52	74	-23.48	PK
Horizontal	4592.017	59.16	-20.42	38.74	54	-15.26	AV
Horizontal	11570.161	62.37	-8.86	53.51	68.2	-14.69	PK
Horizontal	11570.161	49.49	-8.86	40.63	54	-13.37	AV
Horizontal	17355.082	59.53	-2.52	57.01	68.2	-11.19	PK
Horizontal	17355.082	44.45	-2.52	41.93	54	-12.07	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.043	74.95	-18.93	56.02	68.2	-12.18	PK
Vertical	6039.043	59.40	-18.93	40.47	54	-13.53	AV
Vertical	11650.074	61.33	-8.92	52.41	74	-21.59	PK
Vertical	11650.074	49.75	-8.92	40.83	54	-13.17	AV
Vertical	17475.192	59.75	-1.86	57.89	68.2	-10.31	PK
Vertical	17475.192	44.98	-1.86	43.12	54	-10.88	AV
Horizontal	6039.078	74.57	-18.93	55.63	68.2	-12.57	PK
Horizontal	6039.078	59.02	-18.93	40.09	54	-13.91	AV
Horizontal	11650.086	62.01	-8.92	53.09	74	-20.91	PK
Horizontal	11650.086	49.46	-8.92	40.54	54	-13.46	AV
Horizontal	17475.026	56.85	-1.86	54.99	68.2	-13.21	PK
Horizontal	17475.026	44.34	-1.86	42.48	54	-11.52	AV

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

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

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

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

Test Mode 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	4679.075	72.06	-20.24	51.82	74	-22.18	PK
Vertical	4679.075	59.91	-20.24	39.67	54	-14.33	AV
Vertical	11510.144	61.56	-8.81	52.75	74	-21.25	PK
Vertical	11510.144	49.67	-8.81	40.86	54	-13.14	AV
Vertical	17265.177	59.50	-3.01	56.49	68.2	-11.71	PK
Vertical	17265.177	44.22	-3.01	41.21	54	-12.79	AV
Horizontal	4679.008	73.30	-20.24	53.06	74	-20.94	PK
Horizontal	4679.008	59.85	-20.24	39.61	54	-14.39	AV
Horizontal	11510.149	63.59	-8.81	54.78	74	-19.22	PK
Horizontal	11510.149	49.37	-8.81	40.56	54	-13.44	AV
Horizontal	17265.122	58.58	-3.01	55.57	68.2	-12.63	PK
Horizontal	17265.122	44.92	-3.01	41.91	54	-12.09	AV
Middle Channel (5795 MHz)-Above 1G							
Vertical	6039.175	72.81	-18.93	53.88	68.2	-14.32	PK
Vertical	6039.175	59.98	-18.93	41.05	54	-12.95	AV
Vertical	11590.037	60.48	-8.87	51.61	74	-22.39	PK
Vertical	11590.037	49.19	-8.87	40.32	54	-13.68	AV
Vertical	17385.049	58.76	-2.35	56.41	68.2	-11.79	PK
Vertical	17385.049	44.58	-2.35	42.23	54	-11.77	AV
Horizontal	6039.137	72.81	-18.93	53.88	68.2	-14.32	PK
Horizontal	6039.137	59.83	-18.93	40.90	54	-13.10	AV
Horizontal	11590.092	61.13	-8.87	52.26	74	-21.74	PK
Horizontal	11590.092	49.62	-8.87	40.75	54	-13.25	AV
Horizontal	17385.034	56.89	-2.35	54.54	68.2	-13.66	PK
Horizontal	17385.034	44.11	-2.35	41.76	54	-12.24	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	4679.150	70.57	-20.24	50.33	74	-23.67	PK
Vertical	4679.150	59.78	-20.24	39.54	54	-14.46	AV
Vertical	11490.156	64.39	-8.79	55.60	68.2	-12.60	PK
Vertical	11490.156	49.48	-8.79	40.69	54	-13.31	AV
Vertical	17235.127	55.84	-3.18	52.66	68.2	-15.54	PK
Vertical	17235.127	44.61	-3.18	41.43	54	-12.57	AV
Horizontal	4679.003	72.20	-20.24	51.95	74	-22.05	PK
Horizontal	4679.003	59.52	-20.24	39.28	54	-14.72	AV
Horizontal	11490.043	60.01	-8.79	51.22	68.2	-16.98	PK
Horizontal	11490.043	49.83	-8.79	41.04	54	-12.96	AV
Horizontal	17235.176	57.14	-3.18	53.96	68.2	-14.24	PK
Horizontal	17235.176	44.46	-3.18	41.28	54	-12.72	AV
Middle Channel (5785 MHz)-Above 1G							
Vertical	4592.182	73.17	-20.42	52.75	74	-21.25	PK
Vertical	4592.182	59.44	-20.42	39.02	54	-14.98	AV
Vertical	11570.010	64.53	-8.86	55.67	68.2	-12.53	PK
Vertical	11570.010	49.32	-8.86	40.46	54	-13.54	AV
Vertical	17355.029	55.03	-2.52	52.51	68.2	-15.69	PK
Vertical	17355.029	44.64	-2.52	42.12	54	-11.88	AV
Horizontal	4592.000	70.50	-20.42	50.08	74	-23.92	PK
Horizontal	4592.000	59.52	-20.42	39.10	54	-14.90	AV
Horizontal	11570.127	60.24	-8.86	51.38	68.2	-16.82	PK
Horizontal	11570.127	49.70	-8.86	40.84	54	-13.16	AV
Horizontal	17355.098	58.74	-2.52	56.22	68.2	-11.98	PK
Horizontal	17355.098	44.15	-2.52	41.63	54	-12.37	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.101	71.10	-18.93	52.17	68.2	-16.03	PK
Vertical	6039.101	59.71	-18.93	40.77	54	-13.23	AV
Vertical	11650.106	60.30	-8.92	51.38	74	-22.62	PK
Vertical	11650.106	49.39	-8.92	40.47	54	-13.53	AV
Vertical	17475.134	58.45	-1.86	56.59	68.2	-11.61	PK
Vertical	17475.134	44.18	-1.86	42.32	54	-11.68	AV
Horizontal	6039.019	72.21	-18.93	53.28	68.2	-14.92	PK
Horizontal	6039.019	59.86	-18.93	40.93	54	-13.07	AV
Horizontal	11650.187	62.72	-8.92	53.80	74	-20.20	PK
Horizontal	11650.187	49.35	-8.92	40.43	54	-13.57	AV
Horizontal	17475.119	55.79	-1.86	53.93	68.2	-14.27	PK
Horizontal	17475.119	44.53	-1.86	42.67	54	-11.33	AV

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

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

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

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

Test Mode 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	4679.038	74.35	-20.24	54.11	74	-19.89	PK
Vertical	4679.038	59.97	-20.24	39.73	54	-14.27	AV
Vertical	11510.119	64.33	-8.81	55.52	74	-18.48	PK
Vertical	11510.119	49.03	-8.81	40.22	54	-13.78	AV
Vertical	17265.011	57.53	-3.01	54.52	68.2	-13.68	PK
Vertical	17265.011	44.74	-3.01	41.73	54	-12.27	AV
Horizontal	4679.056	71.42	-20.24	51.17	74	-22.83	PK
Horizontal	4679.056	59.16	-20.24	38.92	54	-15.08	AV
Horizontal	11510.128	64.22	-8.81	55.41	74	-18.59	PK
Horizontal	11510.128	49.78	-8.81	40.97	54	-13.03	AV
Horizontal	17265.056	56.68	-3.01	53.67	68.2	-14.53	PK
Horizontal	17265.056	44.52	-3.01	41.51	54	-12.49	AV
Middle Channel (5795 MHz)-Above 1G							
Vertical	6039.162	71.39	-18.93	52.46	68.2	-15.74	PK
Vertical	6039.162	59.99	-18.93	41.06	54	-12.94	AV
Vertical	11590.182	64.07	-8.87	55.20	74	-18.80	PK
Vertical	11590.182	49.20	-8.87	40.33	54	-13.67	AV
Vertical	17385.016	59.29	-2.35	56.94	68.2	-11.26	PK
Vertical	17385.016	44.98	-2.35	42.63	54	-11.37	AV
Horizontal	6039.132	72.26	-18.93	53.33	68.2	-14.87	PK
Horizontal	6039.132	59.28	-18.93	40.35	54	-13.65	AV
Horizontal	11590.071	61.17	-8.87	52.30	74	-21.70	PK
Horizontal	11590.071	49.05	-8.87	40.18	54	-13.82	AV
Horizontal	17385.185	59.57	-2.35	57.22	68.2	-10.98	PK
Horizontal	17385.185	44.96	-2.35	42.61	54	-11.39	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	4679.066	73.25	-20.24	53.01	74	-20.99	PK
Vertical	4679.066	59.88	-20.24	39.64	54	-14.36	AV
Vertical	11550.062	62.02	-8.84	53.18	74	-20.82	PK
Vertical	11550.062	49.95	-8.84	41.11	54	-12.89	AV
Vertical	17325.044	57.57	-2.68	54.89	68.2	-13.31	PK
Vertical	17325.044	44.36	-2.68	41.68	54	-12.32	AV
Horizontal	4679.014	73.46	-20.24	53.22	74	-20.78	PK
Horizontal	4679.014	59.48	-20.24	39.24	54	-14.76	AV
Horizontal	11550.030	60.63	-8.84	51.79	74	-22.21	PK
Horizontal	11550.030	49.69	-8.84	40.85	54	-13.15	AV
Horizontal	17325.187	55.96	-2.68	53.28	68.2	-14.92	PK
Horizontal	17325.187	44.55	-2.68	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.

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 ≥ 3 RBW.
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/\text{RBW})$ 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 $10\log(1\text{MHz}/\text{RBW})$ 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 °C	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage:	AC 120V/60Hz
Test Mode:	TX Frequency U-NII-1 (5180-5240MHz)		

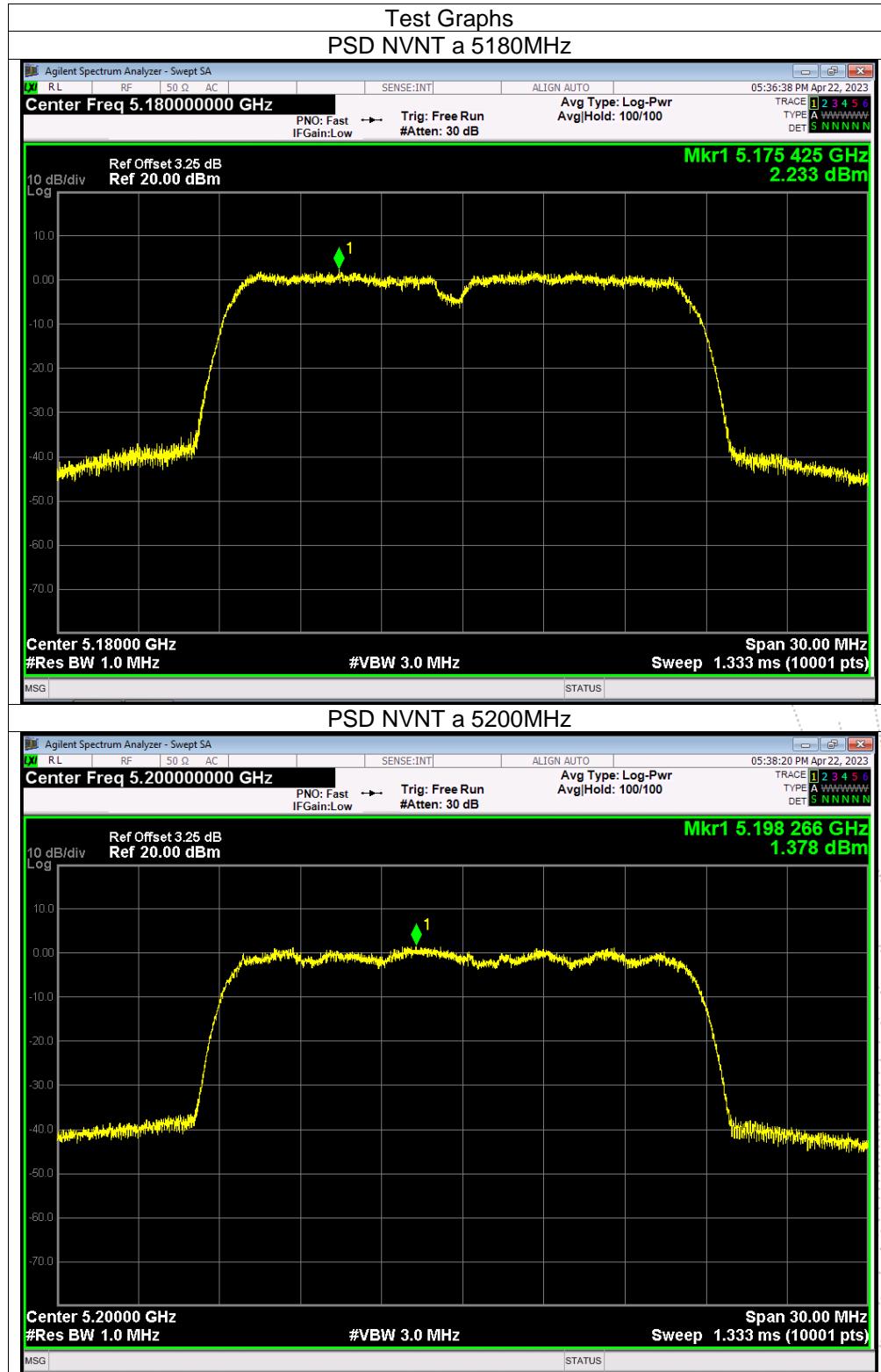
Condition	Mode	Frequency (MHz)	Measured Power Density (dBm/MHz)			Limit (dBm/MHz)	Result
			ANT A	ANT B	Total		
NVNT	a	5180	2.23	2.23	/	17	PASS
NVNT	a	5200	1.38	2	/	17	PASS
NVNT	a	5240	1.4	1.42	/	17	PASS
NVNT	n20	5180	-0.6	-0.53	2.45	16.94	PASS
NVNT	n20	5200	-1.04	-0.75	2.12	16.94	PASS
NVNT	n20	5240	-1.23	-1.93	1.44	16.94	PASS
NVNT	n40	5190	-3.09	-4.99	-0.93	16.94	PASS
NVNT	n40	5230	-5.51	-5.12	-2.30	16.94	PASS
NVNT	ac20	5180	0.08	-0.55	2.79	16.94	PASS
NVNT	ac20	5200	-0.76	-1.45	1.92	16.94	PASS
NVNT	ac20	5240	-1.78	-1.98	1.13	16.94	PASS
NVNT	ac40	5190	-3.66	-3.61	-0.62	16.94	PASS
NVNT	ac40	5230	-5.07	-3.91	-1.44	16.94	PASS
NVNT	ac80	5210	-8.68	-8.54	-5.60	16.94	PASS

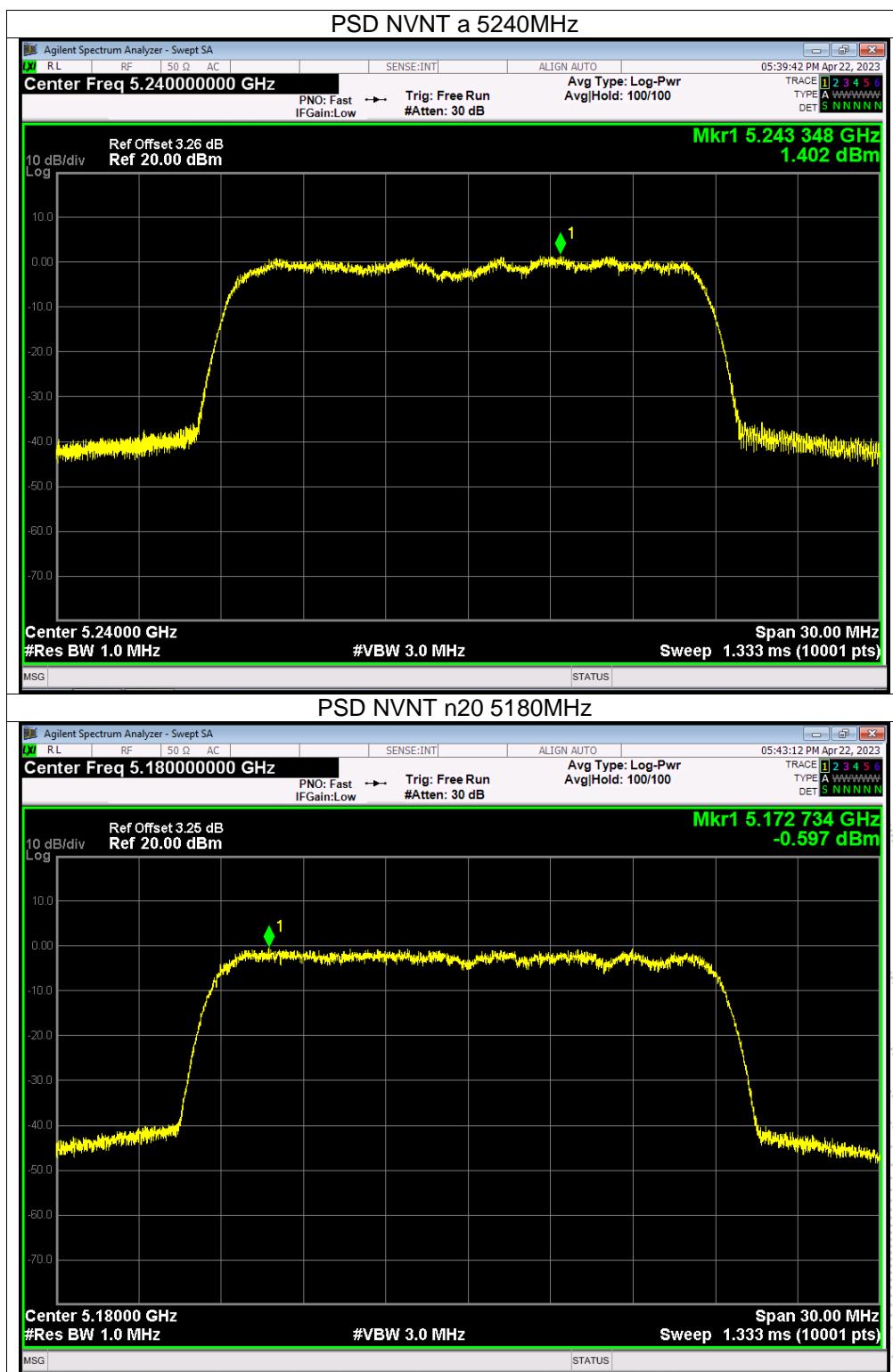
Note:

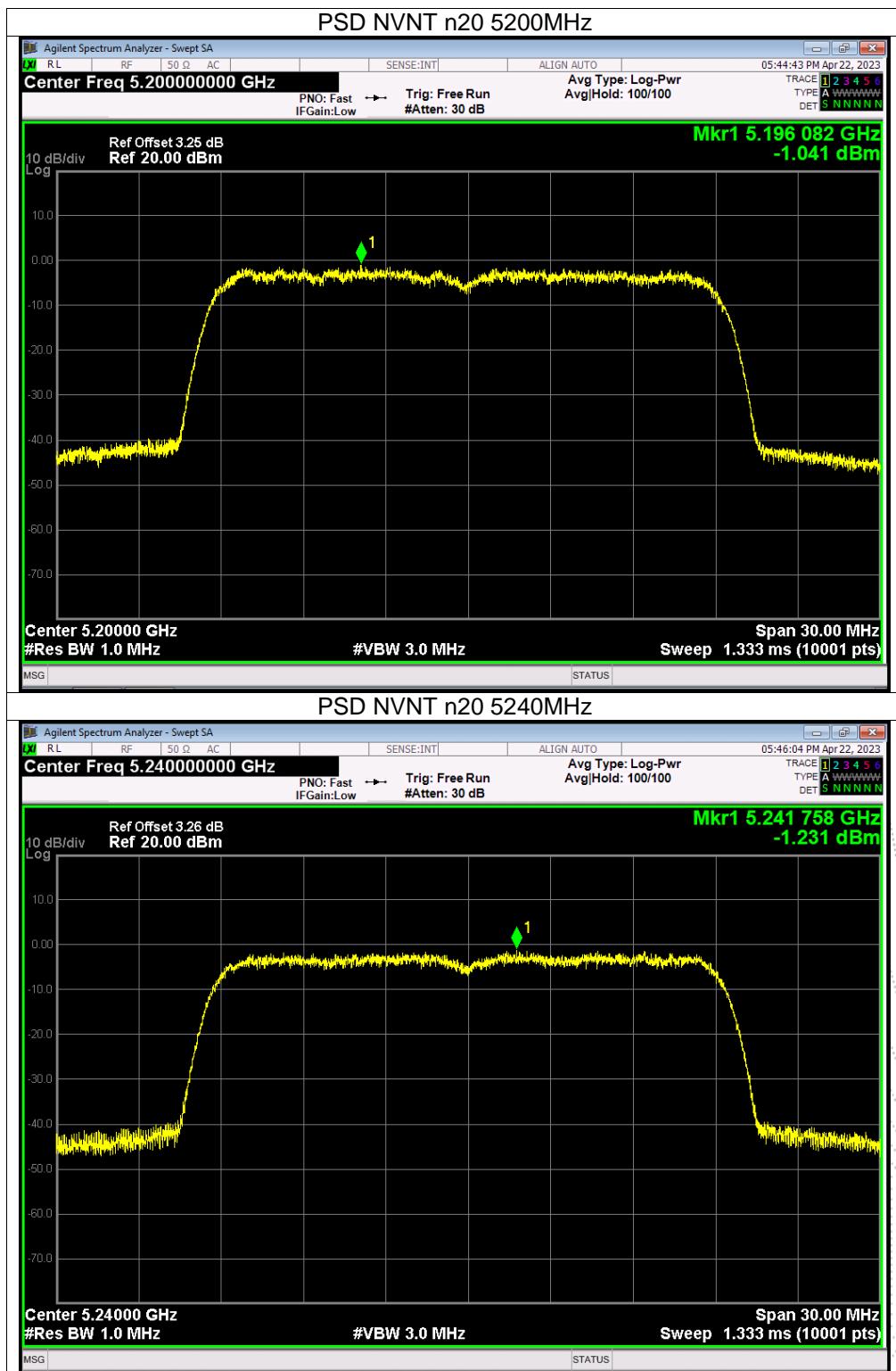
Antenna A gain: 3.05 dBi, Antenna B gain: 2.59 dBi, Directional gain=[GainANT + 10 log(NANT/NSS) dB] =6.06 dbi>6dbi

Limit=17-(6.06-6)=16.94 dbi

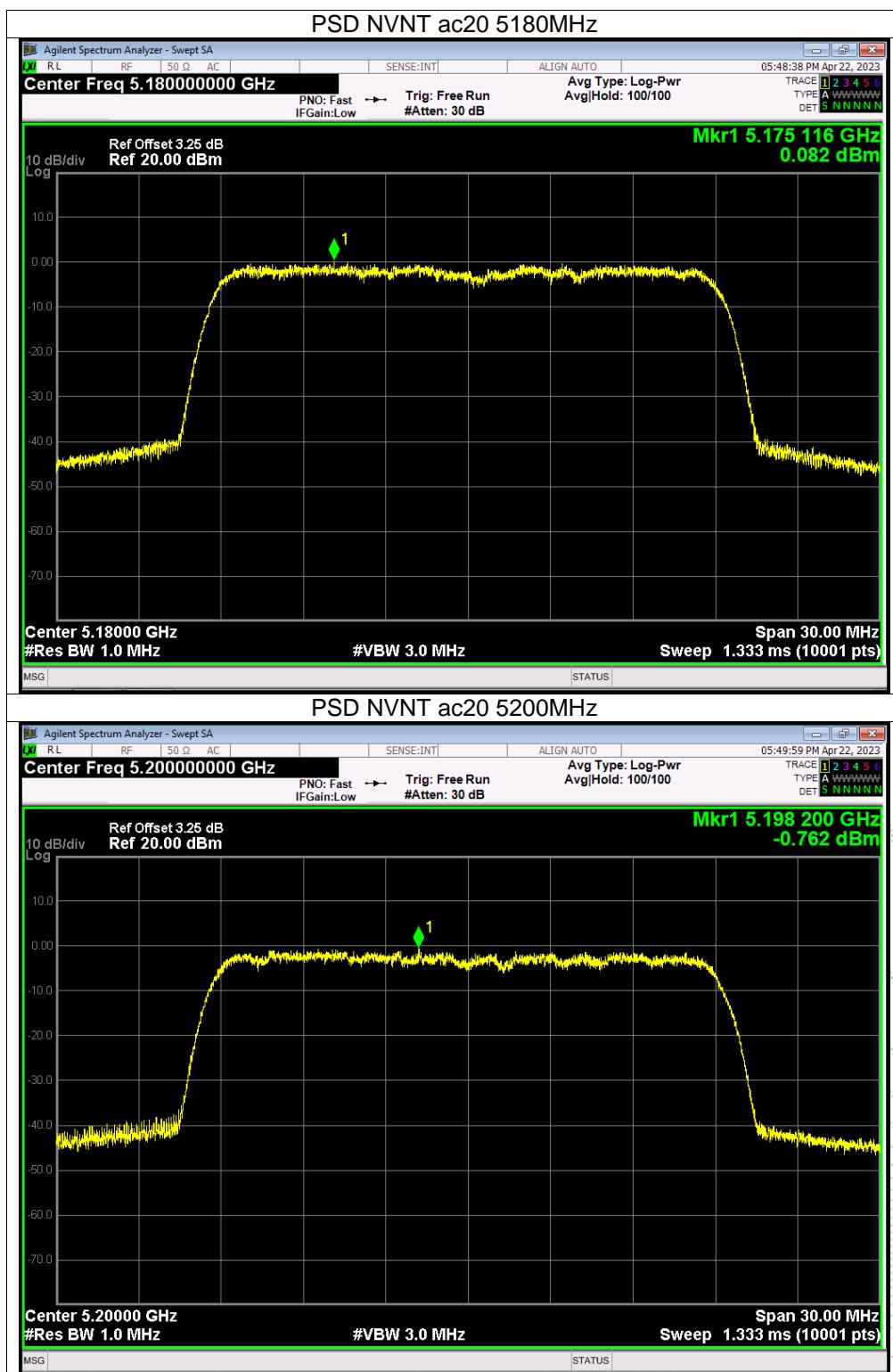
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.



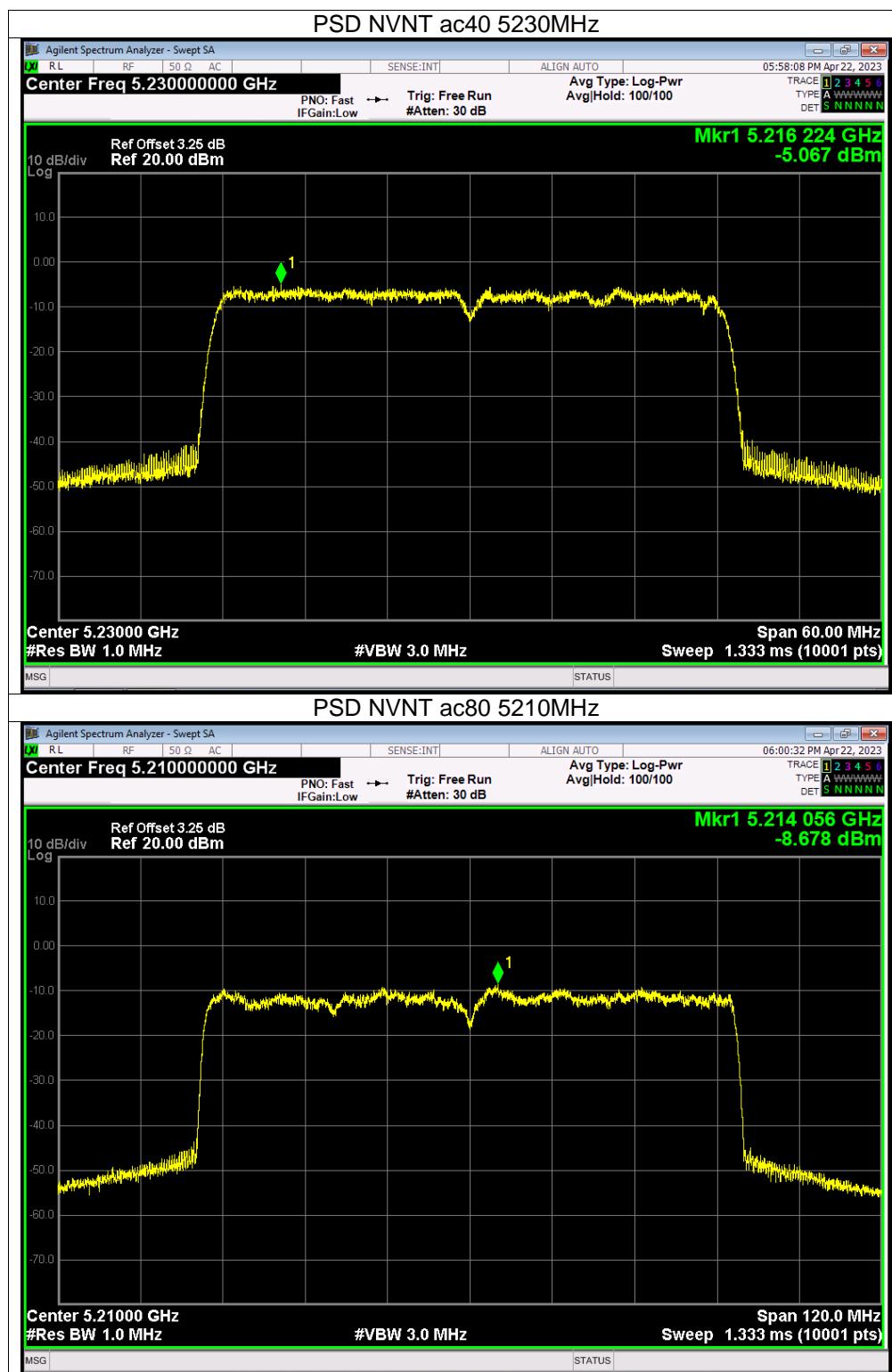












Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage:	AC 120V/60Hz
Test Mode:	TX Frequency U-NII-3 (5745-5825MHz)		

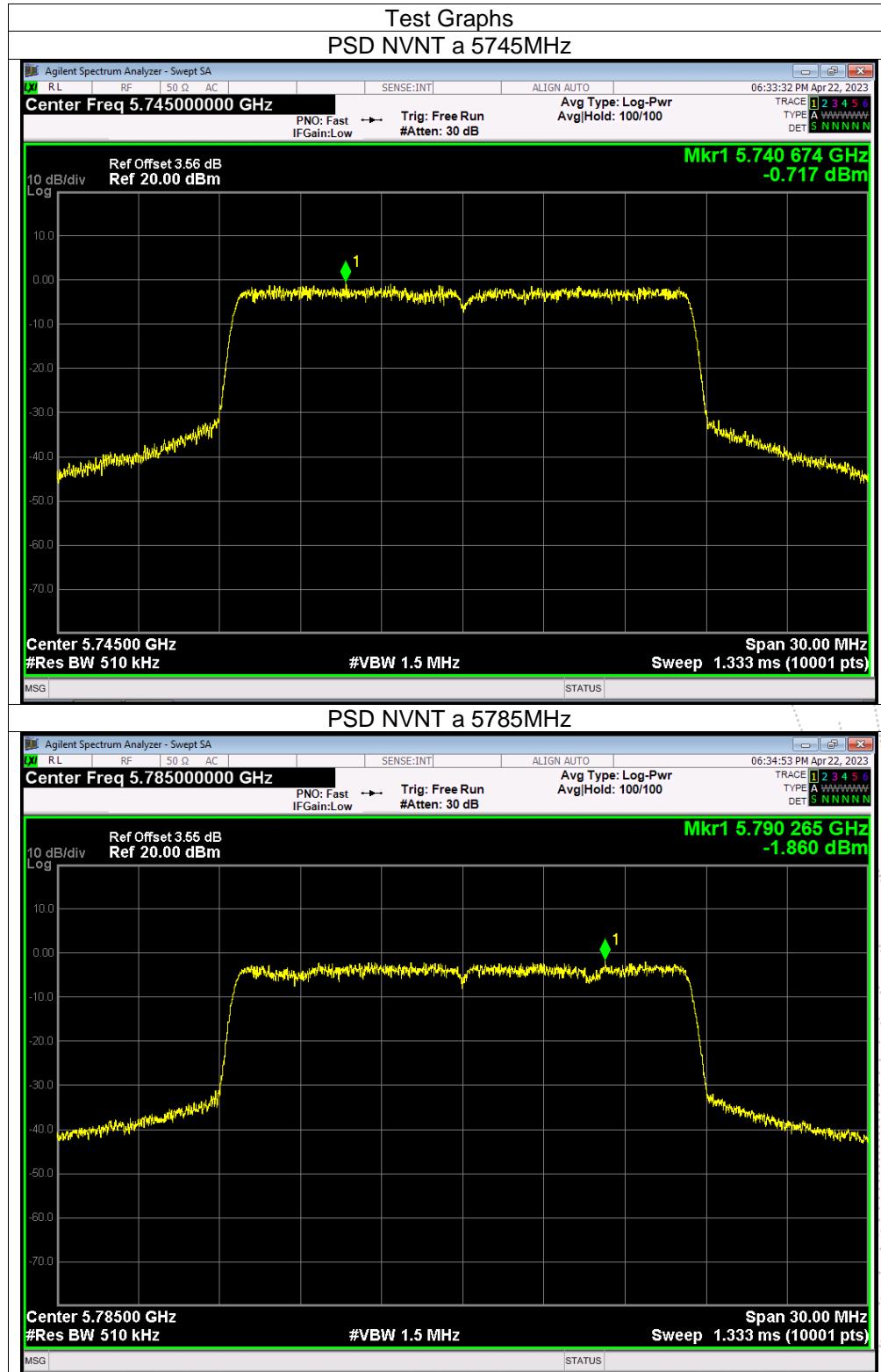
Condition	Mode	Frequency (MHz)	Measured Power Density (dBm/MHz)			Limit (dBm/MHz)	Result
			ANT A	ANT B	Total		
NVNT	a	5745	-1.83	-0.72	/	30	PASS
NVNT	a	5785	-1.95	-1.86	/	30	PASS
NVNT	a	5825	-2.6	-1.43	/	30	PASS
NVNT	n20	5745	-3.63	-3.38	-0.49	29.94	PASS
NVNT	n20	5785	-5.1	-3.82	-1.40	29.94	PASS
NVNT	n20	5825	-5.55	-3.24	-1.23	29.94	PASS
NVNT	n40	5755	-6.29	-7.83	-3.98	29.94	PASS
NVNT	n40	5795	-8.04	-7.93	-4.97	29.94	PASS
NVNT	ac20	5745	-4.16	-3.3	-0.70	29.94	PASS
NVNT	ac20	5785	-4.8	-3.8	-1.26	29.94	PASS
NVNT	ac20	5825	-5.37	-3.6	-1.39	29.94	PASS
NVNT	ac40	5755	-7.43	-7.28	-4.34	29.94	PASS
NVNT	ac40	5795	-8.03	-8.22	-5.11	29.94	PASS
NVNT	ac80	5775	-11.51	-11.47	-8.48	29.94	PASS

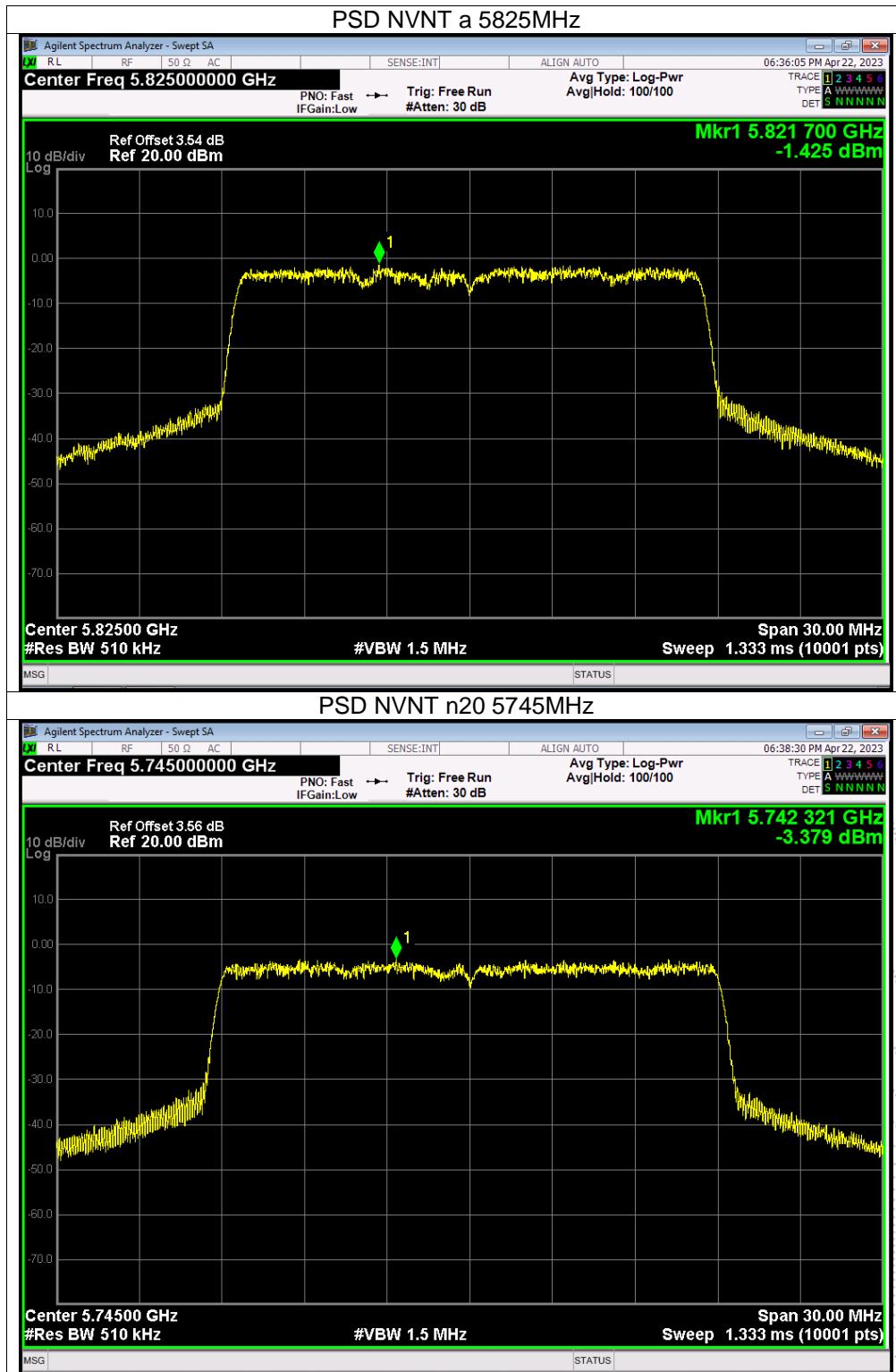
Note:

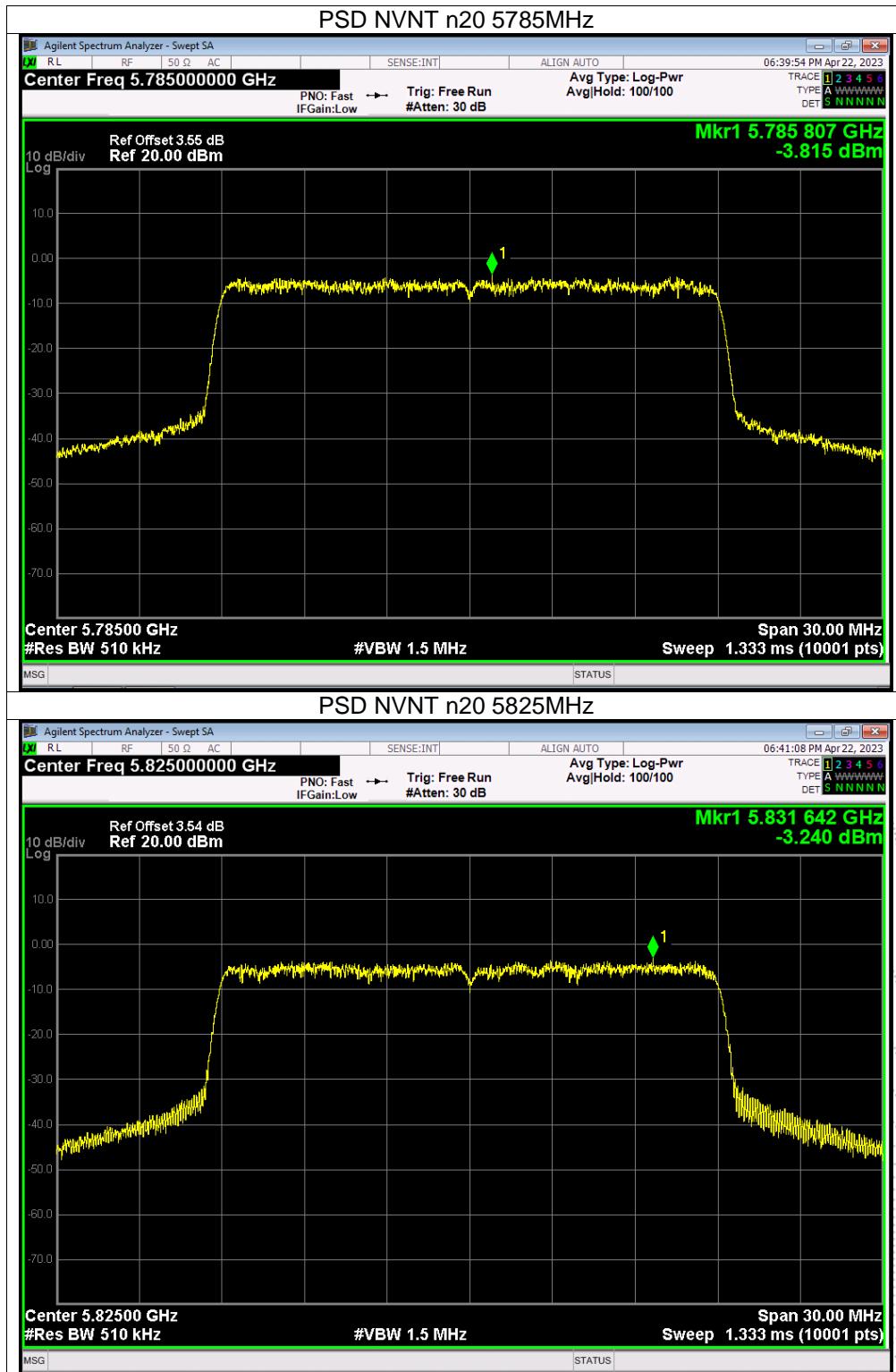
Antenna A gain: 3.05 dBi, Antenna B gain: 2.59 dBi, Directional gain=[GainANT + 10 log(NANT/NSS) dBi]
=6.06 dbi>6dbi

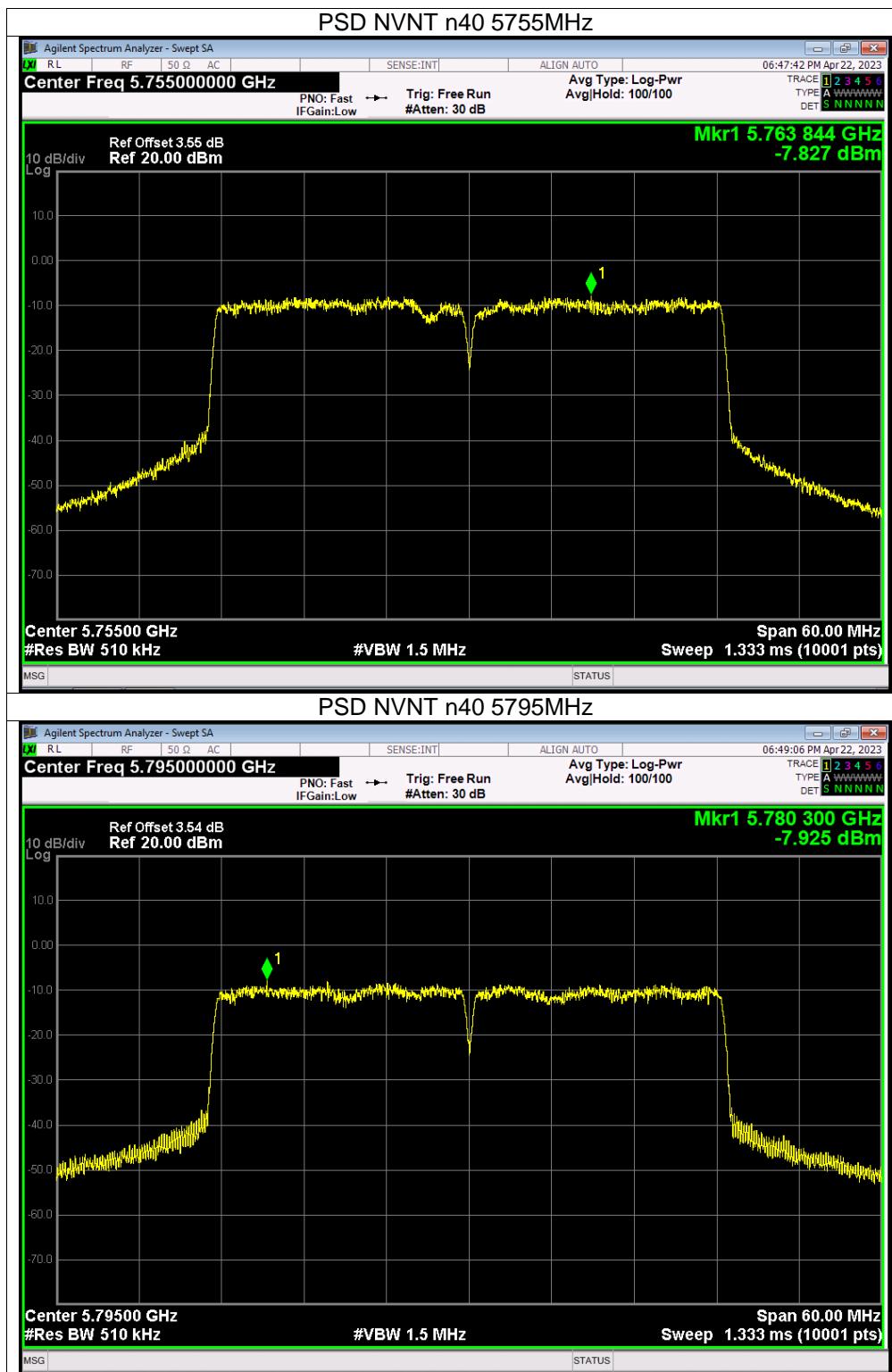
$$\text{Limit}=30-(6.06-6)=29.94 \text{ dbi}$$

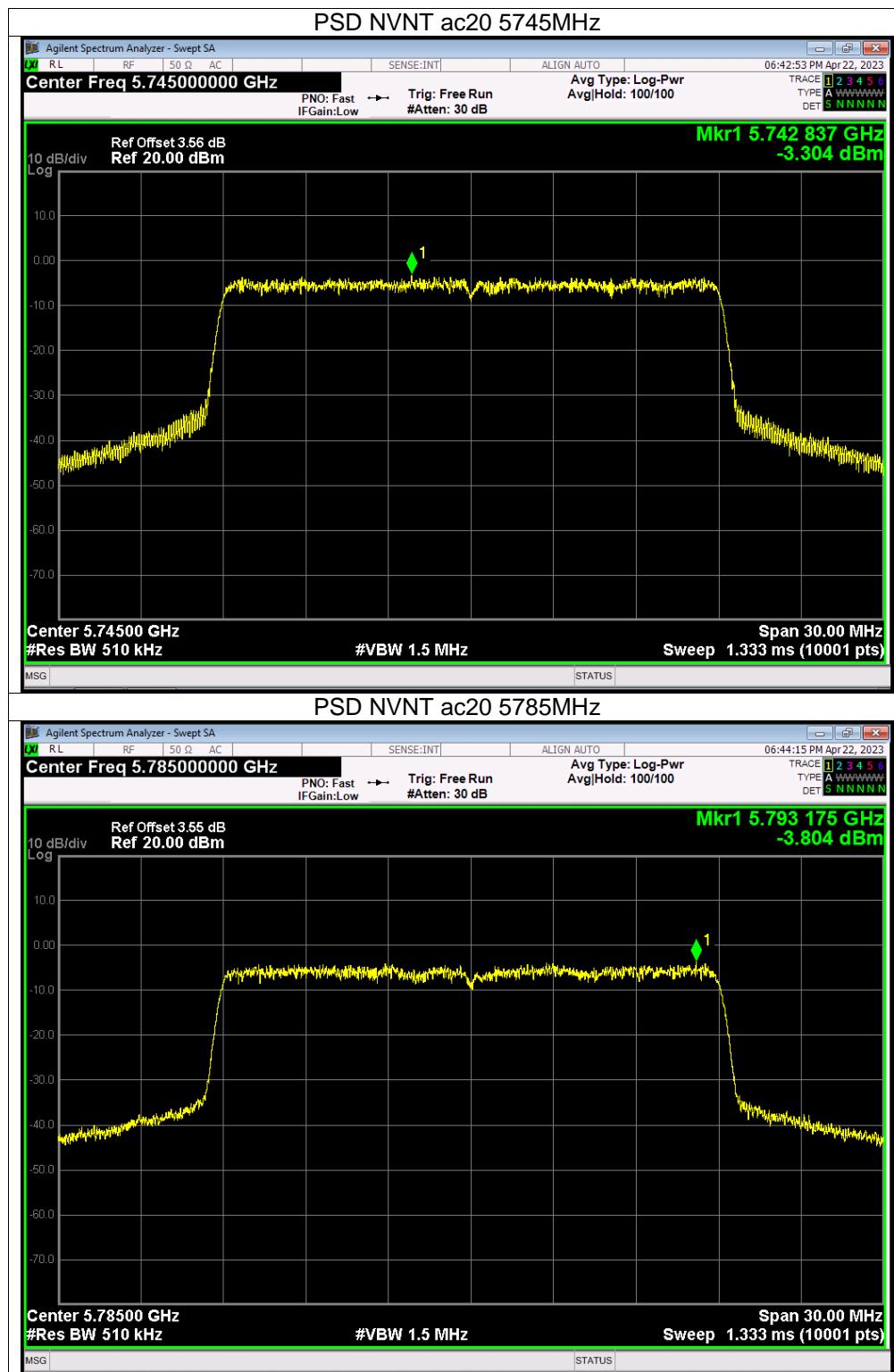
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna B, only shown Antenna B Plot.

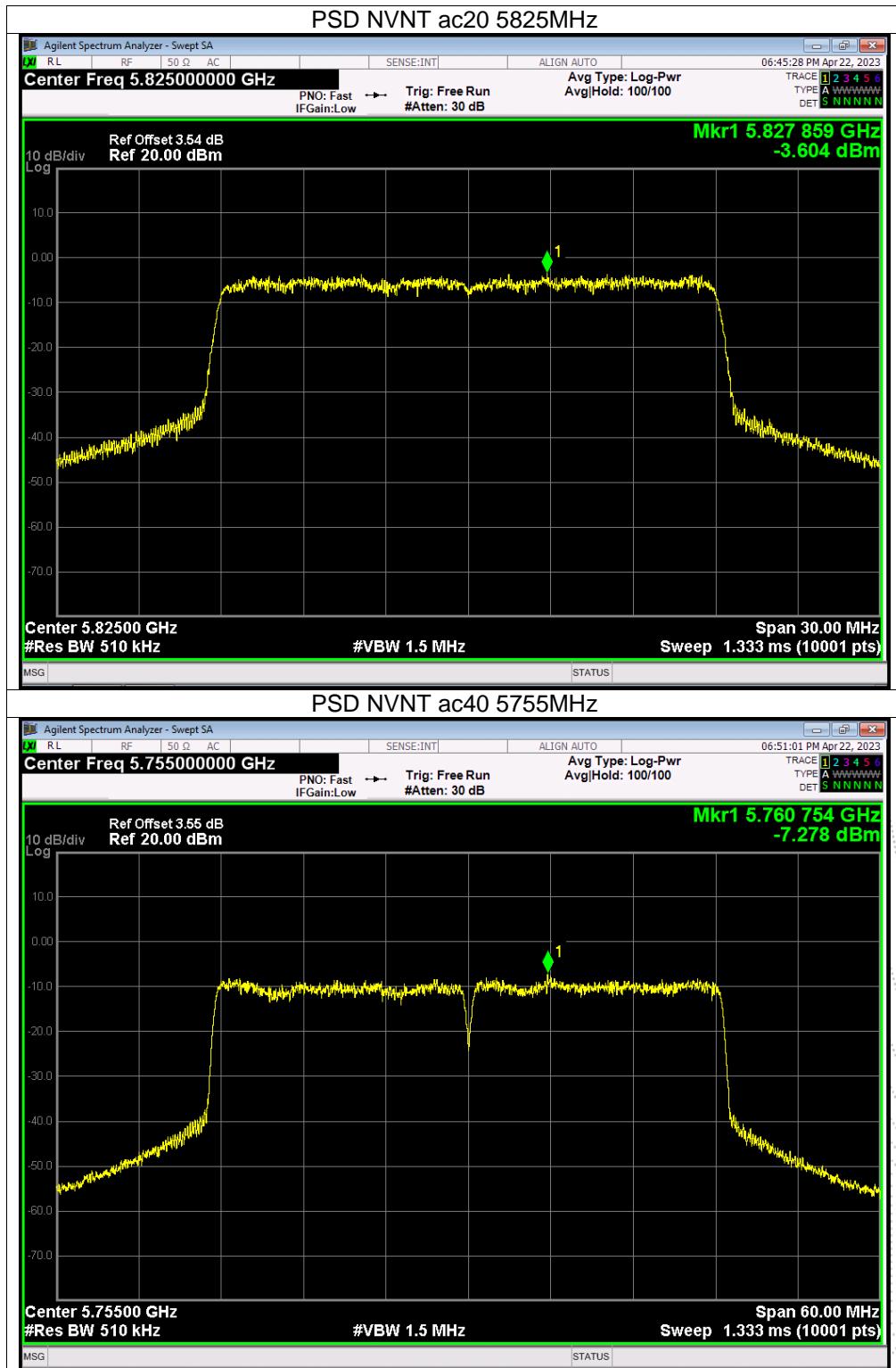


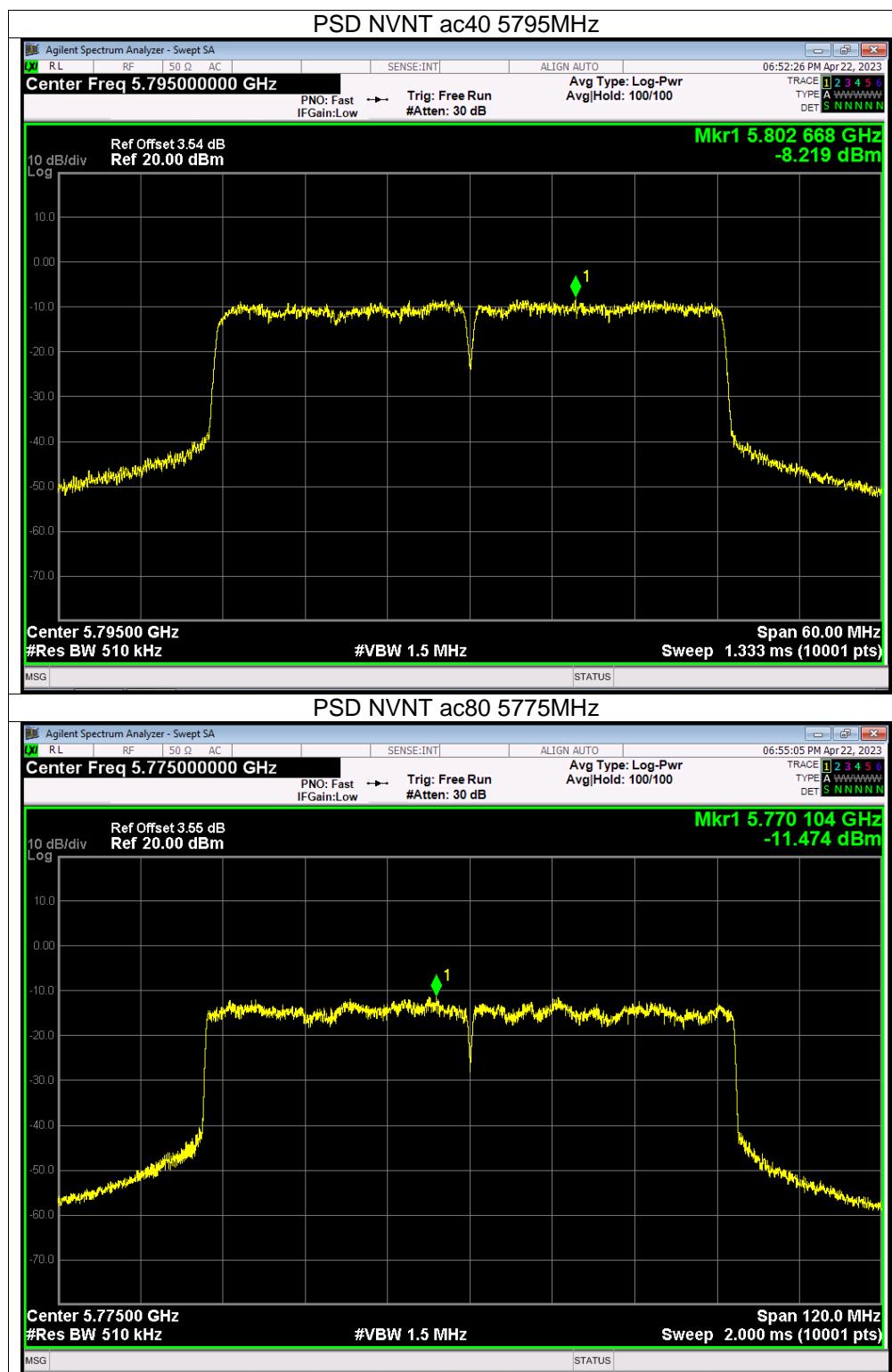






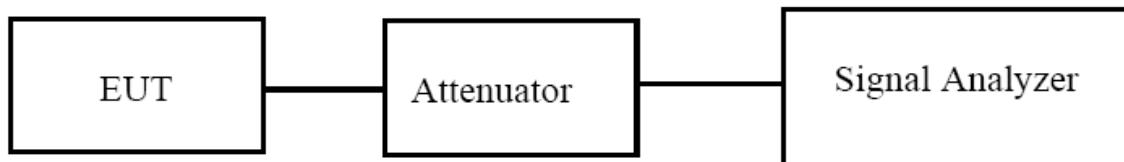






9. 26dB & 6dB & 99% Emission Bandwidth

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

6dB

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) $\geq 3 \times$ 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

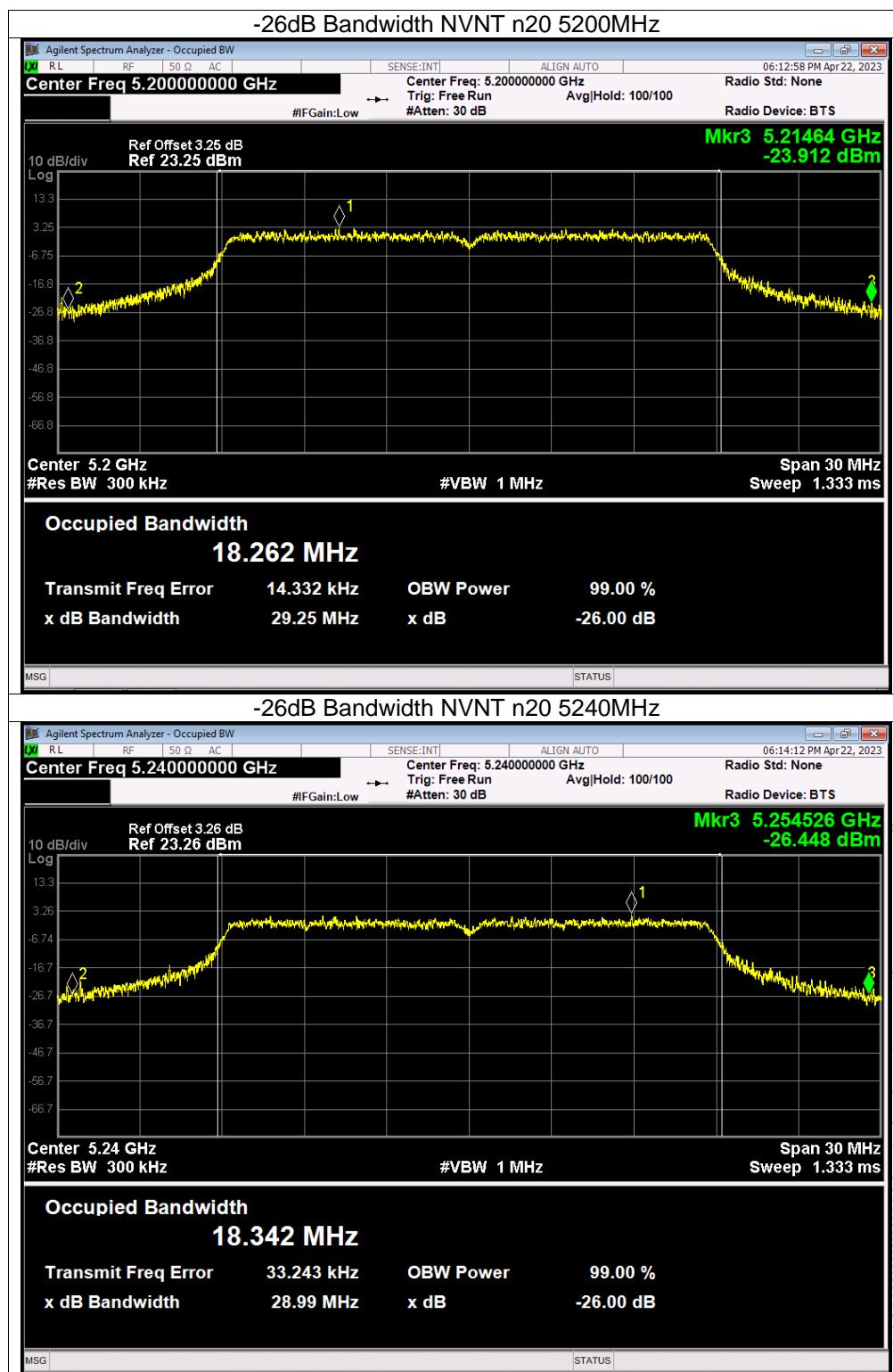
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101kPa	Test Voltage:	AC 120V/60Hz
Test Mode:	TX Frequency U-NII-1 (5180-5240MHz)		

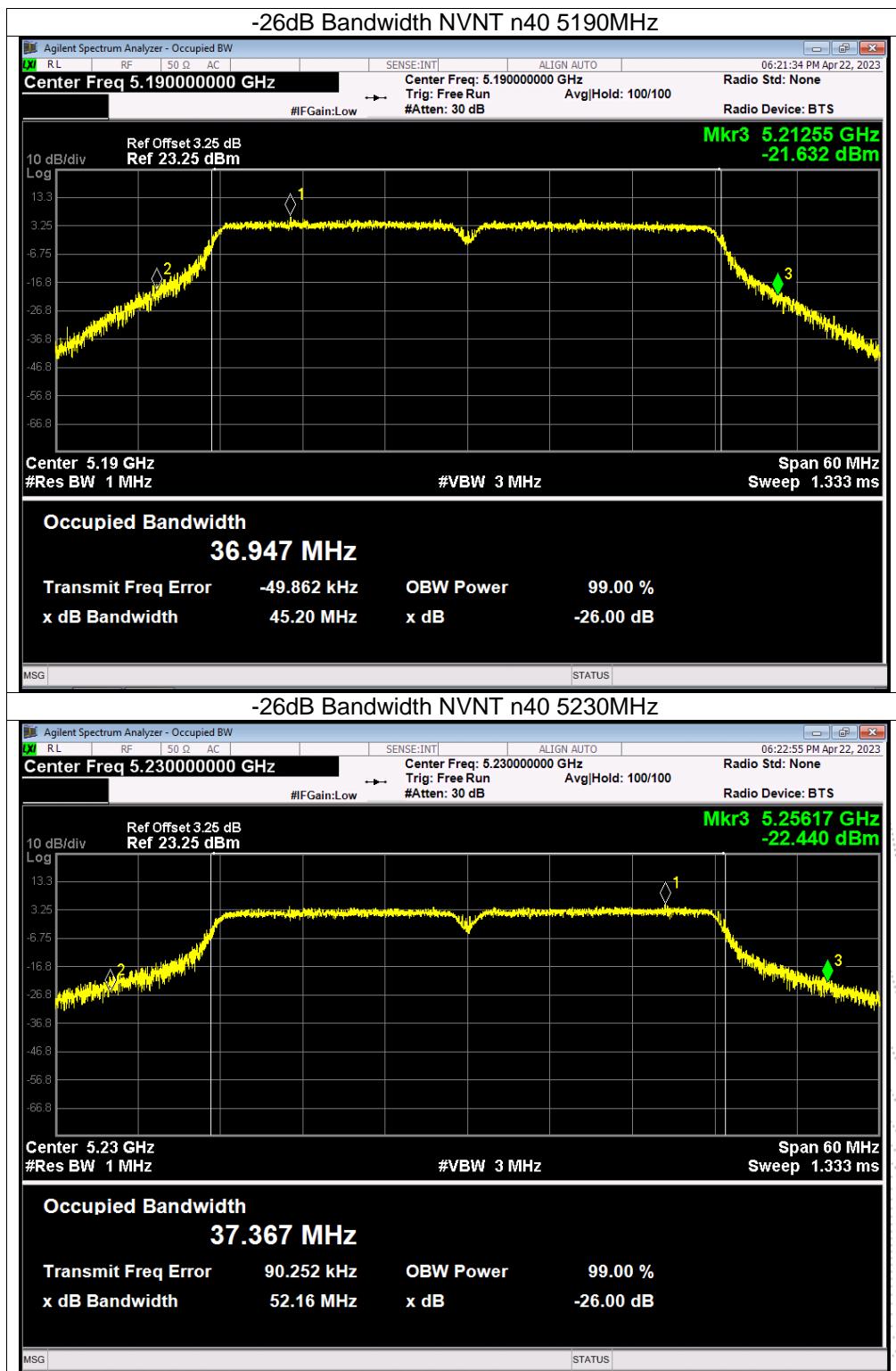
Mode	Channel	Frequency (MHz)	99% OBW (MHz)		26dB bandwidth (MHz)		Result
			ANT A	ANT B	ANT A	ANT B	
NVNT	a	5180	16.601	16.67	22.914	23.993	Pass
NVNT	a	5200	16.701	16.776	26.767	25.927	Pass
NVNT	a	5240	16.695	16.797	27.099	28.616	Pass
NVNT	n20	5180	17.913	17.897	26.163	24.868	Pass
NVNT	n20	5200	18.021	18.02	28.264	29.251	Pass
NVNT	n20	5240	17.994	18.027	27.893	28.987	Pass
NVNT	n40	5190	36.466	36.466	46.236	45.201	Pass
NVNT	n40	5230	36.657	36.575	55.628	52.16	Pass
NVNT	ac20	5180	17.893	17.904	26.017	24.951	Pass
NVNT	ac20	5200	18.02	18.007	27.627	28.702	Pass
NVNT	ac20	5240	18.007	18.016	28.811	28.587	Pass
NVNT	ac40	5190	36.445	36.471	47.16	47.398	Pass
NVNT	ac40	5230	36.712	36.776	54.566	54.494	Pass
NVNT	ac80	5210	76.323	76.132	93.867	94.384	Pass

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











BCTC

Report No.: BCTC2304636256-2E

