

TEST REPORT

Report No.: BCTC2202016090-3E

Applicant: Summit Electronics LLC

Product Name: Carplay

Model/Type
reference: CAD-DU1000

Tested Date: 2022-02-16 to 2022-03-09

Issued Date: 2022-03-21

Shenzhen BCTC Testing Co., Ltd.



FCC ID: 2AMSOCAD-DU2000

Product Name: Carplay

Trademark: **CAR AND DRIVER**

Model/Type reference: CAD-DU1000
CAD-DU900, CAD-DU950S, CAD-DU1000, CAD-DU2000, CAD-DU2000S,
CAD-DU2222, CAD-DU3000, CAD-DU3333, CAD-DU4000, CAD-DU4444

Prepared For: Summit Electronics LLC

Address: 1 Rewe Street, Brooklyn, NY 11211, USA

Manufacturer: Summit Electronics LLC

Address: 1 Rewe Street, Brooklyn, NY 11211, USA

Prepared By: Shenzhen BCTC Testing Co., Ltd.

Address: 1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Tangwei,
Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China

Sample Received Date: 2022-02-16

Sample tested Date: 2022-02-16 to 2022-03-09

Issue Date: 2022-03-21

Report No.: BCTC2202016090-3E

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

Test Results: PASS

Remark: This is WIFI-5GHz band radio test report.

Tested by:



Eric Yang/Project Handler

Approved by:



Zero Zhou/Reviewer

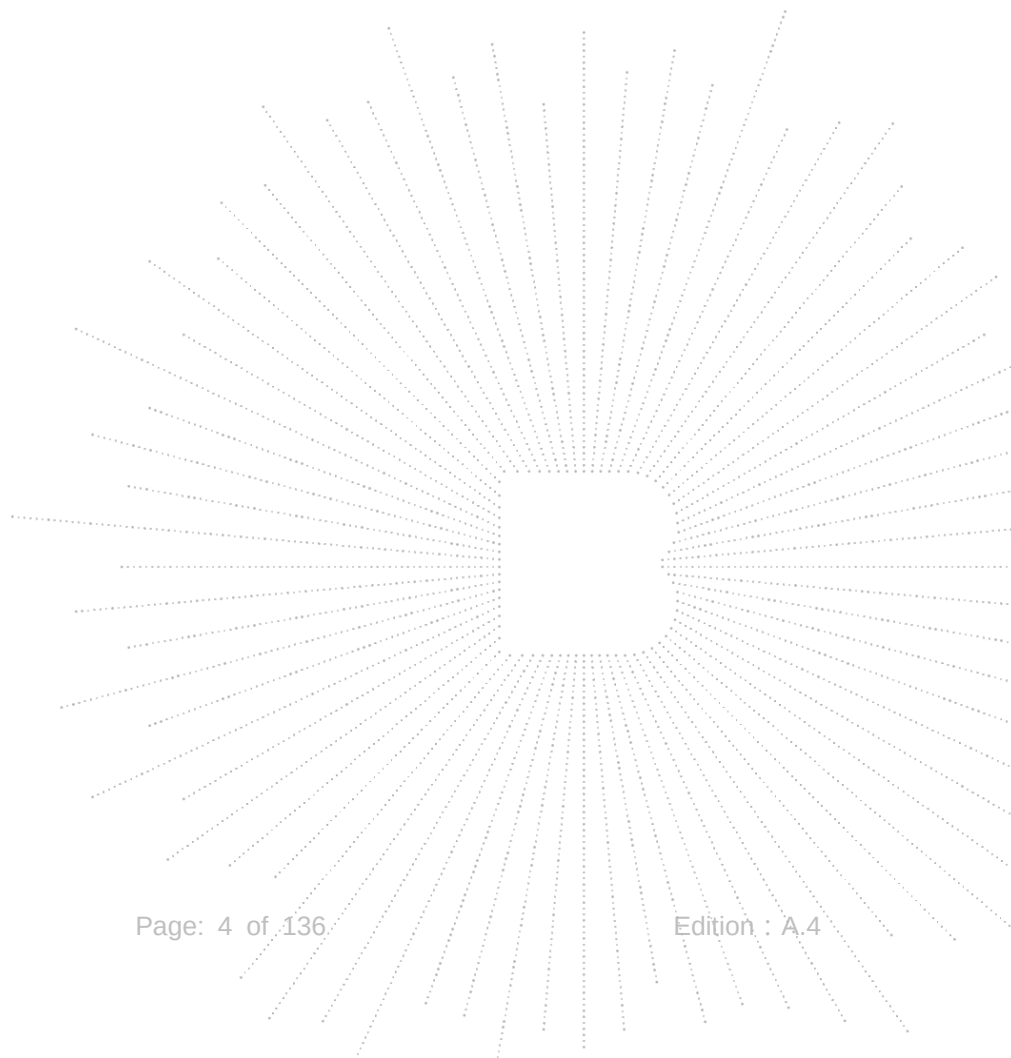
The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen BCTC Testing Co., Ltd, this report can't be reproduced except in full. The tested sample(s) and the sample information 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
4.6 Table Of Parameters Of Text Software Setting	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	14
7. Radiated Emissions	15
7.1 Block Diagram Of Test Setup	15
7.2 Limit	16
7.3 Test procedure	17
7.4 EUT operating Conditions	18
7.5 Test Result	18
8. Power Spectral Density Test	33
8.1 Block Diagram Of Test Setup	33
8.2 Limit	33
8.3 Test procedure	34
8.4 EUT operating Conditions	34
8.5 Test Result	35
9. 26dB & 6dB & 99% Emission Bandwidth	50
9.1 Block Diagram Of Test Setup	50
9.2 Limit	50
9.3 Test procedure	50
9.4 EUT operating Conditions	51
9.5 Test Result	51
10. Maximum Conducted Output Power	81
10.1 Block Diagram Of Test Setup	81
10.2 Limit	81
10.3 Test procedure	81
10.4 EUT operating Conditions	82
10.5 Test Result	83
11. Out Of Band Emissions	98
11.1 Block Diagram Of Test Setup	98

11.2	Limit	98
11.3	Test procedure	98
11.4	EUT operating Conditions	98
11.5	Test Result.....	99
12.	Spurious RF Conducted Emissions.....	111
12.1	Block Diagram Of Test Setup.....	111
12.2	Limit	111
12.3	Test procedure	111
12.4	Test Result.....	111
13.	Frequency Stability Measurement	126
13.1	Block Diagram Of Test Setup.....	126
13.2	Limit	126
13.3	Test procedure	126
13.4	Test Result.....	127
14.	Antenna Requirement	133
14.1	Limit	133
14.2	Test Antenna.....	133
15.	EUT Photographs.....	134
16.	EUT Test Setup Photographs.....	135

(Note: N/A Means Not Applicable)



1. Version

Report No.	Issue Date	Description	Approved
BCTC2202016090-3E	2022-03-21	Original	Valid

2. Test Summary

The Product has been tested according to the following specifications:

1	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	N/A
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(30MHz-1GHz)	U=4.3dB
2	3m chamber Radiated spurious emission(9KHz-30MHz)	U=3.7dB
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

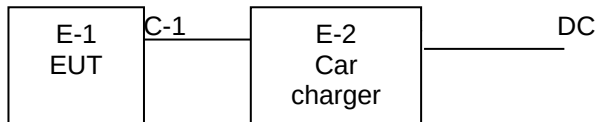
4.1 Product Information

Model/Type reference:	CAD-DU1000 CAD-DU900, CAD-DU950S, CAD-DU1000, CAD-DU2000, CAD-DU2000S, CAD-DU2222, CAD-DU3000, CAD-DU3333, CAD-DU4000, CAD-DU4444
Model differences:	All the model are the same circuit and RF module, except model names.
IEEE 802.11 WLAN Mode Supported:	802.11a/n/ac(20MHz channel bandwidth) 802.11n/ac(40MHz channel bandwidth) 802.11ac(80MHz channel bandwidth)
Operation Frequency:	5180-5240MHz for 802.11a/n(HT20)/ac20; 5190-5230MHz for 802.11n(HT40)/ac40; 5210MHz for 802.11 ac80; 5745-5825 MHz for 802.11a/n(HT20)/ac20; 5755-5795 MHz for 802.11a/n(HT40)/ac40; 5775MHz for 802.11 ac80;
Data Rate:	802.11a: 6,9,12,18,24,36,48,54Mbps; 802.11n(HT20/HT40):MCS0-MCS15; 802.11ac(VHT20): NSS1, MCS0-MCS8 802.11ac(VHT40/VHT80):NSS1, MCS0-MCS
Type of Modulation:	OFDM with BPSK/QPSK/16QAM/64QAM/256QAM for 802.11a/n/ac;
Number Of Channel:	4 channels for 802.11a/n20 in the 5180-5240MHz band ; 2 channels for 802.11 n40 in the 5190-5230MHz band ; 1 channels for 802.11 ac80 in the 5210MHz band ; 5 channels for 802.11a/n20 in the 5745-5825MHz band ; 2 channels for 802.11 n40 in the 5755-5795MHz band ; 1 channels for 802.11 ac80 in the 5775MHz band ;
Antenna installation:	PCB antenna
Antenna Gain:	1 dBi
Ratings:	DC12 From Car charger(DC12-24V)

4.2 Test Setup Configuration

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

Radiated Spurious Emission



4.3 Support Equipment

No.	Device Type	Brand	Model	Series No.	Note
E-2	Car charger	N/A	CAD-DU1000	N/A	Auxiliary

Item	Shielded Type	Ferrite Core	Length	Note
C-1	N/A	N/A	2M	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

Frequency and Channel list for 802.11a/n /ac (5180-5240MHz):

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

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

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

Frequency and Channel list for 802.11a/n /ac (5745-5825MHz):

802.11a/n/ac(20MHz) 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(40MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	159	5795	-	-	-	-

802.11ac (80MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	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 CH36/ CH40/ CH 48 802.11a /n/ ac 20 CH149/ CH157/ CH 165
Mode 2	802.11n/ ac40 CH38/ CH 46 802.11n/ ac40 CH 151 / CH 159
Mode 3	802.11 ac80 CH 42/CH 155
Mode 4	Link Mode

Conducted Emission	
Final Test Mode	Description
Mode 4	Link Mode

For Radiated Emission	
Final Test Mode	Description
Mode 1	802.11a / n/ ac 20 CH36/ CH40/ CH 48 802.11a /n/ ac 20 CH149/ CH157/ CH 165
Mode 2	802.11n/ ac40 CH38/ CH 46 802.11n/ ac40 CH 151 / CH 159
Mode 3	802.11 ac80 CH 42/CH 155

Note: The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.

4.6 Table Of Parameters Of Text Software Setting

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

Test software Version	CMD		
Parameters	DEF	DEF	DEF

5. Test Facility And Test Instrument Used

5.1 Test Facility

All measurement facilities used to collect the measurement data are located at Shenzhen BCTC Testing Co., Ltd. Address:1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Tangwei, 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

IC Registered No.: 23583

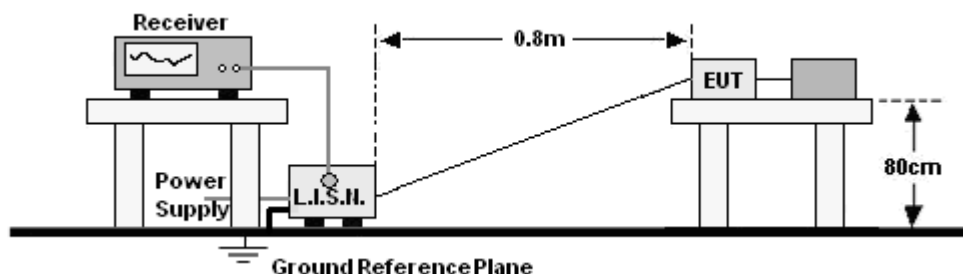
5.2 Test Instrument Used

RF Conducted Test					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Power Meter	Keysight	E4419	\	May 28, 2021	May 27, 2022
Power Sensor (AV)	Keysight	E9300A	\	May 28, 2021	May 27, 2022
Signal Analyzer 20kHz-26.5G Hz	Keysight	N9020A	MY49100060	May 28, 2021	May 27, 2022
Spectrum Analyzer 9kHz-40GHz	R&S	FSP 40	\	May 28, 2021	May 27, 2022

Radiated Emissions Test (966 Chamber)					
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 28, 2021	May 27, 2022
Receiver	R&S	ESRP	101154	May 28, 2021	May 27, 2022
Amplifier	SKET	LAPA_01G18 G-45dB	\	May 28, 2021	May 27, 2022
Amplifier	Schwarzbeck	BBV9744	9744-0037	May 28, 2021	May 27, 2022
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	942	Jun. 01, 2021	May 31, 2022
Horn Antenna	Schwarzbeck	BBHA9120D	1541	Jun. 02, 2021	Jun. 01, 2022
Horn Antenn (18GHz-40GHz)	Schwarzbeck	BBHA9170	00822	Jun. 15, 2021	Jun. 14, 2022
Amplifier (18GHz-40GHz)	MITEQ	TTA1840-35- HG	2034381	May 28, 2021	May 27, 2022
Loop Antenna (9kHz-30MHz)	Schwarzbeck	FMZB1519B	00014	Jun. 02, 2021	Jun. 01, 2022
RF cables1 (9kHz-30MHz)	Huber+Suhnar	9kHz-30MHz	B1702988-000 8	May 28, 2021	May 27, 2022
RF cables2 (30MHz-1GHz)	Huber+Suhnar	30MHz-1GHz	1486150	May 28, 2021	May 27, 2022
RF cables3 (1GHz-40GHz)	Huber+Suhnar	1GHz-40GHz	1607106	May 28, 2021	May 27, 2022
Power Metter	Keysight	E4419	\	May 28, 2021	May 27, 2022
Power Sensor (AV)	Keysight	E9300A	\	May 28, 2021	May 27, 2022
Signal Analyzer 20kHz-26.5G Hz	Keysight	N9020A	MY49100060	May 28, 2021	May 27, 2022
Spectrum Analyzer 9kHz-40GHz	R&S	FSP 40	\	May 28, 2021	May 27, 2022
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.

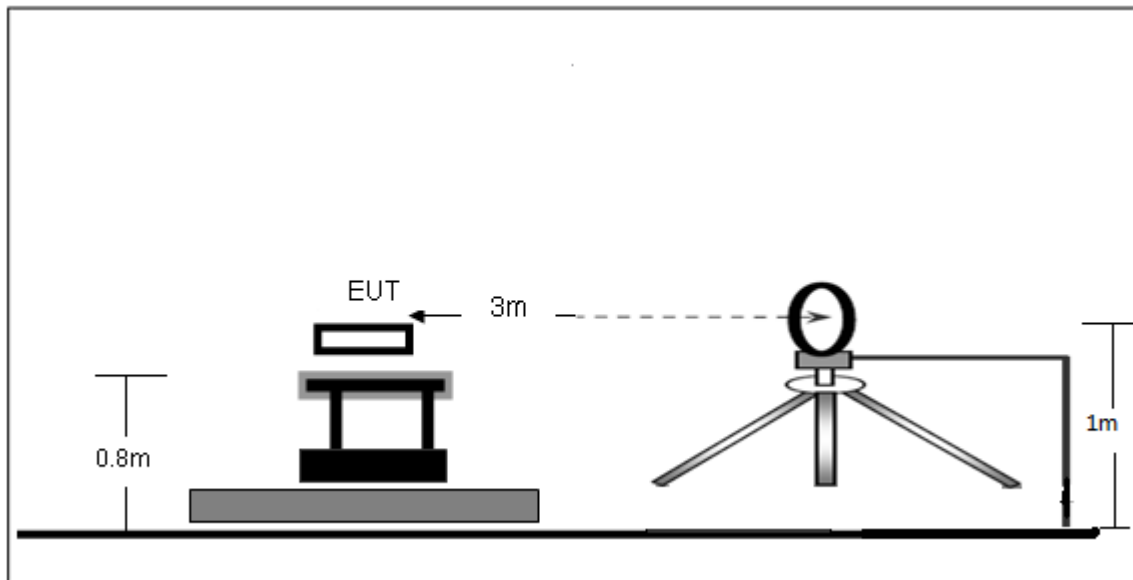
6.5 Test Result

The EUT is powered by the DC only, the test item is not applicable.

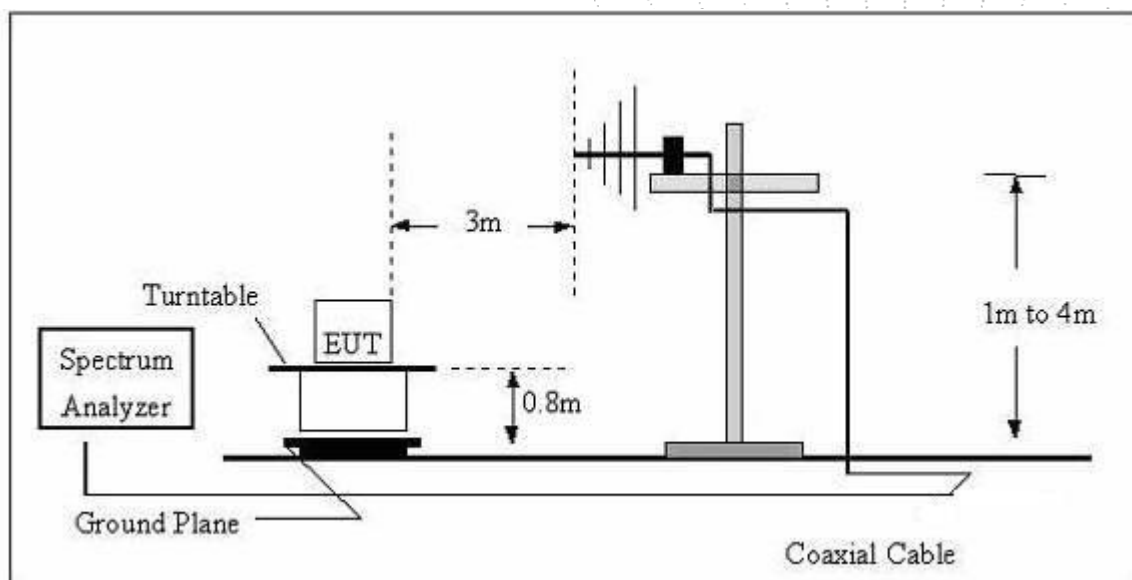
7. Radiated Emissions

7.1 Block Diagram Of Test Setup

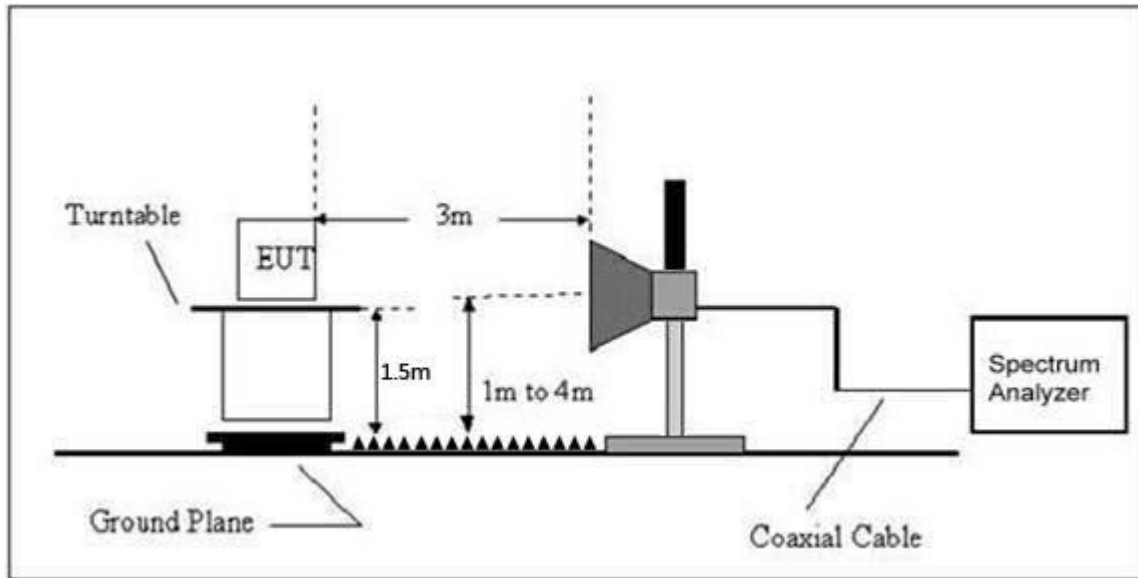
(A) Radiated Emission Test-Up Frequency Below 30MHz



(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	$10000 * 2400/F(\text{kHz})$	$20\log^{(2400/F(\text{kHz}))} + 80$
0.490 ~ 1.705	24000/F(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 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 12V
Test Mode:	Mode 4	Polarization:	---

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

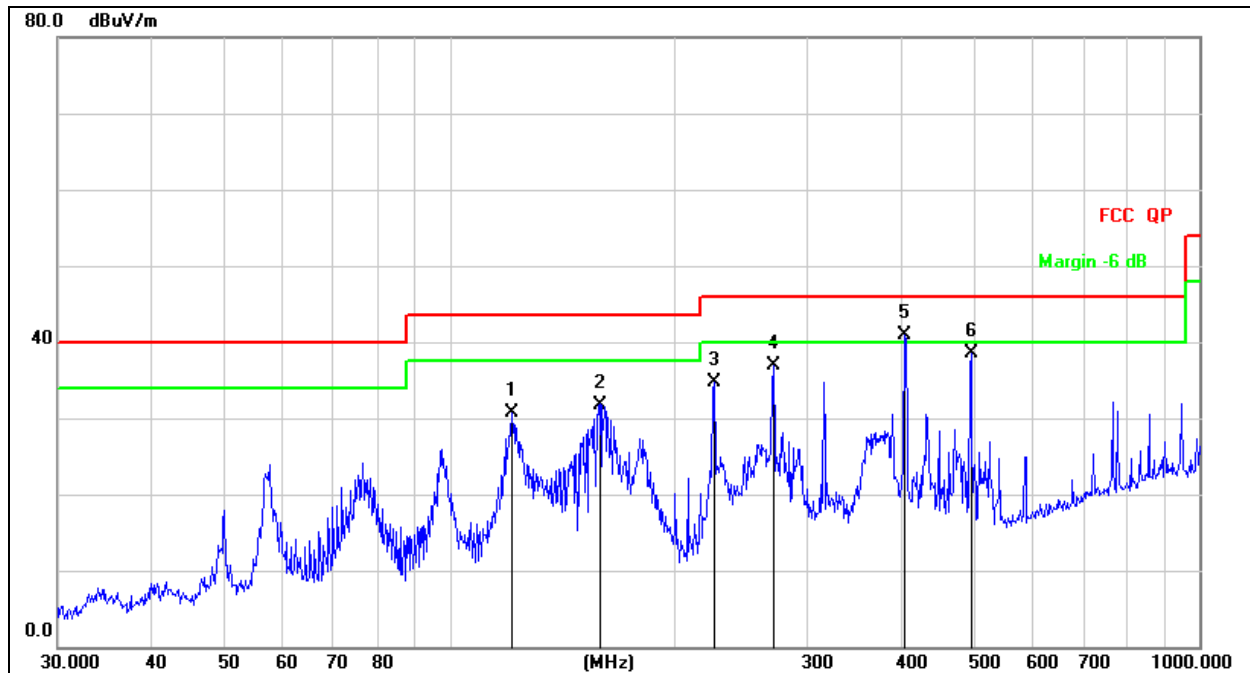
Note:

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

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

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

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage :	DC 12V
Test Mode:	Mode 4	Polarization :	Horizontal

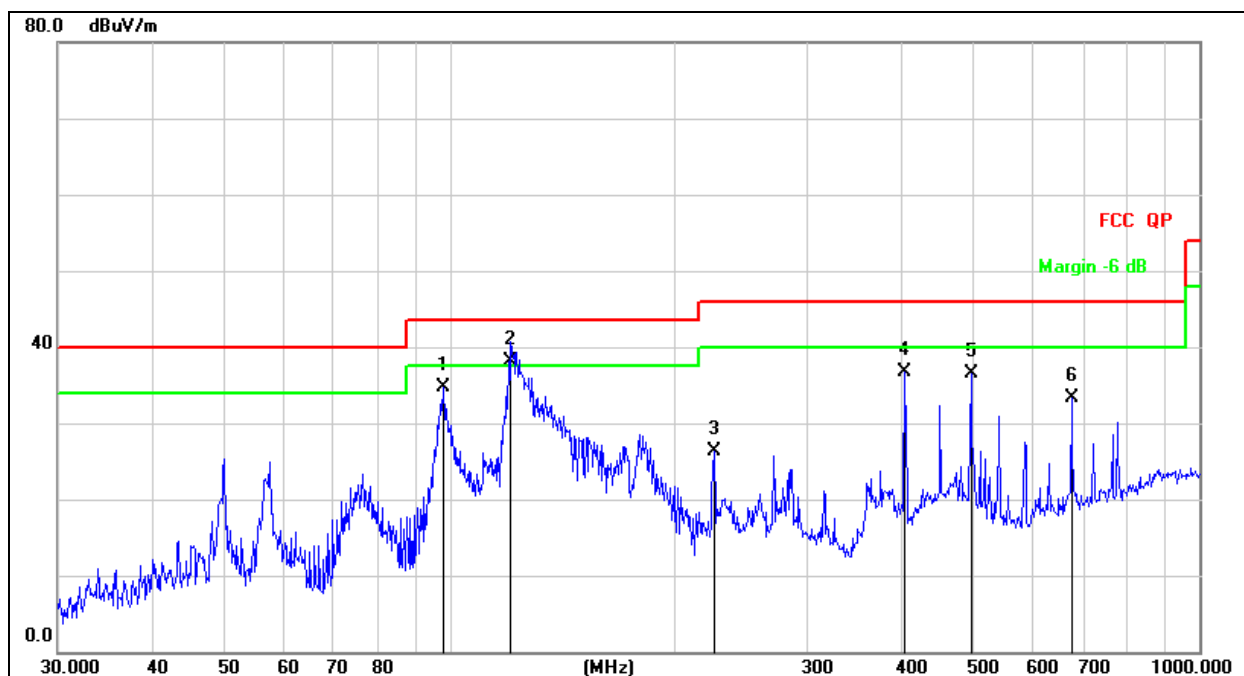


Remark:

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	Detector
		MHz	dBuV	dB	dBuV/m	dB/m	dB	
1		121.1231	48.22	-17.55	30.67	43.50	-12.83	QP
2		158.6677	50.59	-18.79	31.80	43.50	-11.70	QP
3		225.3080	49.76	-15.05	34.71	46.00	-11.29	QP
4		270.3748	51.20	-14.29	36.91	46.00	-9.09	QP
5	*	404.6665	51.60	-10.73	40.87	46.00	-5.13	QP
6		495.9344	46.92	-8.41	38.51	46.00	-7.49	QP

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage :	DC 12V
Test Mode:	Mode 4	Polarization :	Vertical



Remark:

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

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Over dB	Detector
1		98.1419	51.39	-16.61	34.78	43.50	-8.72	QP
2	*	120.9591	55.66	-17.54	38.12	43.50	-5.38	QP
3		225.3080	41.43	-15.05	26.38	46.00	-19.62	QP
4		404.6665	47.41	-10.73	36.68	46.00	-9.32	QP
5		495.9344	44.98	-8.41	36.57	46.00	-9.43	QP
6		675.2080	37.46	-4.23	33.23	46.00	-12.77	QP

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

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor dB/m	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5180 MHz)-Above 1G									
V	4434.022	64.65	5.94	35.40	44.00	61.99	68.2	-6.21	PK
V	4434.022	43.87	5.94	35.40	44.00	41.21	54	-12.79	AV
V	10360.004	61.69	8.46	39.75	44.50	65.40	68.2	-2.80	PK
V	10360.004	43.82	8.46	39.75	44.50	47.53	54	-6.47	AV
V	15540.190	64.04	10.12	38.80	44.10	68.86	74	-5.14	PK
V	15540.190	43.22	10.12	38.80	42.70	49.44	54	-4.56	AV
H	4434.126	64.32	5.94	35.18	44.00	61.44	68.2	-6.76	PK
H	4434.126	43.08	5.94	35.18	44.00	40.20	54	-13.80	AV
H	10360.013	53.55	8.46	38.71	44.50	56.22	68.2	-11.98	PK
H	10360.013	43.02	8.46	38.71	44.50	45.69	54	-8.31	AV
H	15540.003	53.78	10.12	38.38	44.10	58.18	74	-15.82	PK
H	15540.003	42.65	10.12	38.38	44.10	47.05	54	-6.95	AV
Middle Channel (5200 MHz)-Above 1G									
V	4592.105	60.69	6.48	36.35	44.05	59.47	74	-14.53	PK
V	4592.105	43.84	6.48	36.35	44.05	42.62	54	-11.38	AV
V	10400.119	62.52	8.47	37.88	44.51	64.36	68.2	-3.84	PK
V	10400.119	43.39	8.47	37.88	44.51	45.23	54	-8.77	AV
V	15600.140	61.08	10.12	38.80	44.10	65.90	74	-8.10	PK
V	15600.140	43.93	10.12	38.80	42.70	50.15	54	-3.85	AV
H	4592.131	60.15	6.48	36.37	44.05	58.95	74	-15.05	PK
H	4592.131	43.50	6.48	36.37	44.05	42.30	54	-11.70	AV
H	10400.103	50.19	8.47	38.64	44.50	52.80	68.2	-15.40	PK
H	10400.103	44.80	8.47	38.64	44.50	47.41	54	-6.59	AV
H	15600.194	54.74	10.12	38.38	44.10	59.14	74	-14.86	PK
H	15600.194	43.56	10.12	38.38	44.10	47.96	54	-6.04	AV
High Channel (5240 MHz)-Above 1G									
V	4739.150	61.14	7.10	37.24	43.50	61.98	74	-12.02	PK
V	4739.150	43.14	7.10	37.24	43.50	43.98	54	-10.02	AV
V	10480.005	62.47	8.46	37.68	44.50	64.11	68.2	-4.09	PK
V	10480.005	43.91	8.46	37.68	44.50	45.55	54	-8.45	AV
V	15720.084	64.75	10.12	38.80	44.10	69.57	74	-4.43	PK
V	15720.084	43.29	10.12	38.80	42.70	49.51	54	-4.49	AV
H	4739.195	60.05	7.10	37.24	43.50	60.89	74	-13.11	PK
H	4739.195	43.35	7.10	37.24	43.50	44.19	54	-9.81	AV
H	10480.156	53.78	8.46	38.57	44.50	56.31	68.2	-11.89	PK
H	10480.156	44.16	8.46	38.57	44.50	46.69	54	-7.31	AV
H	15720.129	53.25	10.12	38.38	44.10	57.65	74	-16.35	PK
H	15720.129	43.70	10.12	38.38	44.10	48.10	54	-5.90	AV

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

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

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

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

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

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5180 MHz)-Above 1G									
V	4434.141	62.11	5.94	35.40	44.00	59.45	68.2	-8.75	PK
V	4434.141	43.82	5.94	35.40	44.00	41.16	54	-12.84	AV
V	10360.083	62.64	8.46	39.75	44.50	66.35	68.2	-1.85	PK
V	10360.083	43.66	8.46	39.75	44.50	47.37	54	-6.63	AV
V	15540.097	63.56	10.12	38.80	44.10	68.38	74	-5.62	PK
V	15540.097	43.45	10.12	38.80	42.70	49.67	54	-4.33	AV
H	4434.171	63.26	5.94	35.18	44.00	60.38	68.2	-7.82	PK
H	4434.171	43.07	5.94	35.18	44.00	40.19	54	-13.81	AV
H	10360.108	50.90	8.46	38.71	44.50	53.57	68.2	-14.63	PK
H	10360.108	40.90	8.46	38.71	44.50	43.57	54	-10.43	AV
H	15540.181	51.90	10.12	38.38	44.10	56.30	74	-17.70	PK
H	15540.181	40.10	10.12	38.38	44.10	44.50	54	-9.50	AV
Middle Channel (5200 MHz)-Above 1G									
V	4592.139	63.70	6.48	36.35	44.05	62.48	74	-11.52	PK
V	4592.139	43.45	6.48	36.35	44.05	42.23	54	-11.77	AV
V	10400.034	61.56	8.47	37.88	44.51	63.40	68.2	-4.80	PK
V	10400.034	43.82	8.47	37.88	44.51	45.66	54	-8.34	AV
V	15600.078	61.20	10.12	38.80	44.10	66.02	74	-7.98	PK
V	15600.078	43.38	10.12	38.80	42.70	49.60	54	-4.40	AV
H	4592.046	61.18	6.48	36.37	44.05	59.98	74	-14.02	PK
H	4592.046	43.55	6.48	36.37	44.05	42.35	54	-11.65	AV
H	10400.146	52.29	8.47	38.64	44.50	54.90	68.2	-13.30	PK
H	10400.146	42.26	8.47	38.64	44.50	44.87	54	-9.13	AV
H	15600.014	51.53	10.12	38.38	44.10	55.93	74	-18.07	PK
H	15600.014	41.28	10.12	38.38	44.10	45.68	54	-8.32	AV
High Channel (5240 MHz)-Above 1G									
V	4739.001	60.67	7.10	37.24	43.50	61.51	74	-12.49	PK
V	4739.001	43.88	7.10	37.24	43.50	44.72	54	-9.28	AV
V	10480.140	64.57	8.46	37.68	44.50	66.21	68.2	-1.99	PK
V	10480.140	43.04	8.46	37.68	44.50	44.68	54	-9.32	AV
V	15720.191	63.01	10.12	38.80	44.10	67.83	74	-6.17	PK
V	15720.191	43.97	10.12	38.80	42.70	50.19	54	-3.81	AV
H	4739.175	62.42	7.10	37.24	43.50	63.26	74	-10.74	PK
H	4739.175	43.19	7.10	37.24	43.50	44.03	54	-9.97	AV
H	10480.046	50.54	8.46	38.57	44.50	53.07	68.2	-15.13	PK
H	10480.046	41.25	8.46	38.57	44.50	43.78	54	-10.22	AV
H	15720.095	51.65	10.12	38.38	44.10	56.05	74	-17.95	PK
H	15720.095	41.84	10.12	38.38	44.10	46.24	54	-7.76	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:	TX(5.1G) - 802.11n-HT40
------------	-------------------------

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5190 MHz)-Above 1G									
V	4434.189	62.57	5.94	35.40	44.00	59.91	68.2	-8.29	PK
V	4434.189	43.58	5.94	35.40	44.00	40.92	54	-13.08	AV
V	10380.069	63.26	8.46	39.75	44.50	66.97	68.2	-1.23	PK
V	10380.069	43.30	8.46	39.75	44.50	47.01	54	-6.99	AV
V	15570.053	62.18	10.12	38.80	44.10	67.00	74	-7.00	PK
V	15570.053	43.65	10.12	38.80	42.70	49.87	54	-4.13	AV
H	4434.040	62.30	5.94	35.18	44.00	59.42	74	-14.58	PK
H	4434.040	43.88	5.94	35.18	44.00	41.00	54	-13.00	AV
H	10380.051	53.98	8.46	38.71	44.50	56.65	68.2	-11.55	PK
H	10380.051	42.89	8.46	38.71	44.50	45.56	54	-8.44	AV
H	15570.182	53.30	10.12	38.38	44.10	57.70	74	-16.30	PK
H	15570.182	44.59	10.12	38.38	44.10	48.99	54	-5.01	AV
High Channel (5230 MHz)-Above 1G									
V	4739.066	64.36	6.48	36.35	44.05	63.14	68.2	-5.06	PK
V	4739.066	43.91	6.48	36.35	44.05	42.69	54	-11.31	AV
V	10460.133	64.09	8.47	37.88	44.51	65.93	68.2	-2.27	PK
V	10460.133	43.24	8.47	37.88	44.51	45.08	54	-8.92	AV
V	15690.136	64.50	10.12	38.80	44.10	69.32	74	-4.68	PK
V	15690.136	43.61	10.12	38.80	42.70	49.83	54	-4.17	AV
H	4739.060	64.98	6.48	36.37	44.05	63.78	68.2	-4.42	PK
H	4739.060	43.90	6.48	36.37	44.05	42.70	54	-11.30	AV
H	10460.068	54.01	8.47	38.64	44.50	56.62	68.2	-11.58	PK
H	10460.068	42.55	8.47	38.64	44.50	45.16	54	-8.84	AV
H	15690.120	50.14	10.12	38.38	44.10	54.54	74	-19.46	PK
H	15690.120	40.35	10.12	38.38	44.10	44.75	54	-9.25	AV

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

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

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

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

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

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5180 MHz)-Above 1G									
V	4434.005	63.37	5.94	35.40	44.00	60.71	68.2	-7.49	PK
V	4434.005	43.05	5.94	35.40	44.00	40.39	54	-13.61	AV
V	10360.019	61.70	8.46	39.75	44.50	65.41	68.2	-2.79	PK
V	10360.019	43.23	8.46	39.75	44.50	46.94	54	-7.06	AV
V	15540.028	63.01	10.12	38.80	44.10	67.83	74	-6.17	PK
V	15540.028	43.82	10.12	38.80	42.70	50.04	54	-3.96	AV
H	4434.197	62.33	5.94	35.18	44.00	59.45	68.2	-8.75	PK
H	4434.197	43.73	5.94	35.18	44.00	40.85	54	-13.15	AV
H	10360.056	54.86	8.46	38.71	44.50	57.53	68.2	-10.67	PK
H	10360.056	44.62	8.46	38.71	44.50	47.29	54	-6.71	AV
H	15540.050	52.31	10.12	38.38	44.10	56.71	74	-17.29	PK
H	15540.050	42.64	10.12	38.38	44.10	47.04	54	-6.96	AV
Middle Channel (5200 MHz)-Above 1G									
V	4592.075	64.52	6.48	36.35	44.05	63.30	74	-10.70	PK
V	4592.075	43.16	6.48	36.35	44.05	41.94	54	-12.06	AV
V	10400.086	60.03	8.47	37.88	44.51	61.87	68.2	-6.33	PK
V	10400.086	43.49	8.47	37.88	44.51	45.33	54	-8.67	AV
V	15600.005	61.24	10.12	38.80	44.10	66.06	74	-7.94	PK
V	15600.005	43.90	10.12	38.80	42.70	50.12	54	-3.88	AV
H	4592.060	60.68	6.48	36.37	44.05	59.48	74	-14.52	PK
H	4592.060	43.90	6.48	36.37	44.05	42.70	54	-11.30	AV
H	10400.079	52.96	8.47	38.64	44.50	55.57	68.2	-12.63	PK
H	10400.079	43.69	8.47	38.64	44.50	46.30	54	-7.70	AV
H	15600.107	52.72	10.12	38.38	44.10	57.12	74	-16.88	PK
H	15600.107	41.09	10.12	38.38	44.10	45.49	54	-8.51	AV
High Channel (5240 MHz)-Above 1G									
V	4739.190	64.76	7.10	37.24	43.50	65.60	74	-8.40	PK
V	4739.190	43.06	7.10	37.24	43.50	43.90	54	-10.10	AV
V	10480.045	62.03	8.46	37.68	44.50	63.67	68.2	-4.53	PK
V	10480.045	43.43	8.46	37.68	44.50	45.07	54	-8.93	AV
V	15720.059	63.60	10.12	38.80	44.10	68.42	74	-5.58	PK
V	15720.059	43.02	10.12	38.80	42.70	49.24	54	-4.76	AV
H	4739.126	62.50	7.10	37.24	43.50	63.34	74	-10.66	PK
H	4739.126	43.56	7.10	37.24	43.50	44.40	54	-9.60	AV
H	10480.136	51.09	8.46	38.57	44.50	53.62	68.2	-14.58	PK
H	10480.136	43.26	8.46	38.57	44.50	45.79	54	-8.21	AV
H	15720.191	53.58	10.12	38.38	44.10	57.98	74	-16.02	PK
H	15720.191	43.51	10.12	38.38	44.10	47.91	54	-6.09	AV

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

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

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

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

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

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5190 MHz)-Above 1G									
V	4434.153	60.35	5.94	35.40	44.00	57.69	68.2	-10.51	PK
V	4434.153	43.49	5.94	35.40	44.00	40.83	54	-13.17	AV
V	10380.068	63.10	8.46	39.75	44.50	66.81	68.2	-1.39	PK
V	10380.068	43.68	8.46	39.75	44.50	47.39	54	-6.61	AV
V	15570.190	61.44	10.12	38.80	44.10	66.26	74	-7.74	PK
V	15570.190	43.45	10.12	38.80	42.70	49.67	54	-4.33	AV
H	4434.090	60.98	5.94	35.18	44.00	58.10	74	-15.90	PK
H	4434.090	43.54	5.94	35.18	44.00	40.66	54	-13.34	AV
H	10380.095	51.62	8.46	38.71	44.50	54.29	68.2	-13.91	PK
H	10380.095	40.42	8.46	38.71	44.50	43.09	54	-10.91	AV
H	15570.002	50.21	10.12	38.38	44.10	54.61	74	-19.39	PK
H	15570.002	41.33	10.12	38.38	44.10	45.73	54	-8.27	AV
High Channel (5230 MHz)-Above 1G									
V	4739.158	64.09	6.48	36.35	44.05	62.87	68.2	-5.33	PK
V	4739.158	43.66	6.48	36.35	44.05	42.44	54	-11.56	AV
V	10460.105	61.35	8.47	37.88	44.51	63.19	68.2	-5.01	PK
V	10460.105	43.07	8.47	37.88	44.51	44.91	54	-9.09	AV
V	15690.040	61.97	10.12	38.80	44.10	66.79	74	-7.21	PK
V	15690.040	43.84	10.12	38.80	42.70	50.06	54	-3.94	AV
H	4739.002	64.19	6.48	36.37	44.05	62.99	68.2	-5.21	PK
H	4739.002	43.98	6.48	36.37	44.05	42.78	54	-11.22	AV
H	10460.098	54.29	8.47	38.64	44.50	56.90	68.2	-11.30	PK
H	10460.098	43.24	8.47	38.64	44.50	45.85	54	-8.15	AV
H	15690.007	52.58	10.12	38.38	44.10	56.98	74	-17.02	PK
H	15690.007	42.30	10.12	38.38	44.10	46.70	54	-7.30	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:	TX(5.1G) - 802.11ac-HT80
------------	--------------------------

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor dB/m	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
(5210 MHz)-Above 1G									
V	4434.014	60.63	5.94	35.40	44.00	57.97	68.2	-10.23	PK
V	4434.014	43.49	5.94	35.40	44.00	40.83	54	-13.17	AV
V	10420.038	61.10	8.46	39.75	44.50	64.81	68.2	-3.39	PK
V	10420.038	43.41	8.46	39.75	44.50	47.12	54	-6.88	AV
V	15630.011	61.64	10.12	38.80	44.10	66.46	74	-7.54	PK
V	15630.011	43.96	10.12	38.80	42.70	50.18	54	-3.82	AV
H	4434.071	62.74	5.94	35.18	44.00	59.86	68.2	-8.34	PK
H	4434.071	43.19	5.94	35.18	44.00	40.31	54	-13.69	AV
H	10420.173	50.18	8.46	38.71	44.50	52.85	68.2	-15.35	PK
H	10420.173	40.75	8.46	38.71	44.50	43.42	54	-10.58	AV
H	15630.063	54.96	10.12	38.38	44.10	59.36	74	-14.64	PK
H	15630.063	41.63	10.12	38.38	44.10	46.03	54	-7.97	AV

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

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

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

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

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

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5745 MHz)-Above 1G									
V	4679.161	58.76	5.94	35.40	44.00	56.10	74	-17.90	PK
V	4679.161	43.43	5.94	35.40	44.00	40.77	54	-13.23	AV
V	11490.055	57.09	8.46	39.75	44.50	60.80	68.2	-7.40	PK
V	11490.055	43.87	8.46	39.75	44.50	47.58	54	-6.42	AV
V	17235.140	56.76	10.12	38.80	44.10	61.58	68.2	-6.62	PK
V	17235.140	43.81	10.12	38.80	42.70	50.03	54	-3.97	AV
H	4679.044	57.35	5.94	35.18	44.00	54.47	74	-19.53	PK
H	4679.044	43.50	5.94	35.18	44.00	40.62	54	-13.38	AV
H	11490.187	52.80	8.46	38.71	44.50	55.47	68.2	-12.73	PK
H	11490.187	40.54	8.46	38.71	44.50	43.21	54	-10.79	AV
H	17235.172	51.44	10.12	38.38	44.10	55.84	68.2	-12.36	PK
H	17235.172	41.27	10.12	38.38	44.10	45.67	54	-8.33	AV
Middle Channel (5785 MHz)-Above 1G									
V	4592.138	58.79	6.48	36.35	44.05	57.57	74	-16.43	PK
V	4592.138	43.31	6.48	36.35	44.05	42.09	54	-11.91	AV
V	11570.100	55.66	8.47	37.88	44.51	57.50	68.2	-10.70	PK
V	11570.100	43.34	8.47	37.88	44.51	45.18	54	-8.82	AV
V	17355.170	59.93	10.12	38.80	44.10	64.75	68.2	-3.45	PK
V	17355.170	39.53	10.12	38.80	42.70	45.75	54	-8.25	AV
H	4592.176	56.63	6.48	36.37	44.05	55.43	74	-18.57	PK
H	4592.176	43.63	6.48	36.37	44.05	42.43	54	-11.57	AV
H	11570.197	54.79	8.47	38.64	44.50	57.40	68.2	-10.80	PK
H	11570.197	43.10	8.47	38.64	44.50	45.71	54	-8.29	AV
H	17355.094	51.12	10.12	38.38	44.10	55.52	68.2	-12.68	PK
H	17355.094	40.16	10.12	38.38	44.10	44.56	54	-9.44	AV
High Channel (5825 MHz)-Above 1G									
V	6039.079	58.53	7.10	37.24	43.50	59.37	68.2	-8.83	PK
V	6039.079	43.41	7.10	37.24	43.50	44.25	54	-9.75	AV
V	11650.111	61.65	8.46	37.68	44.50	63.29	74	-10.71	PK
V	11650.111	43.30	8.46	37.68	44.50	44.94	54	-9.06	AV
V	17475.068	57.50	10.12	38.80	44.10	62.32	68.2	-5.88	PK
V	17475.068	43.78	10.12	38.80	42.70	50.00	54	-4.00	AV
H	6039.179	57.22	7.10	37.24	43.50	58.06	68.2	-10.14	PK
H	6039.179	43.81	7.10	37.24	43.50	44.65	54	-9.35	AV
H	11650.124	51.96	8.46	38.57	44.50	54.49	74	-19.51	PK
H	11650.124	43.70	8.46	38.57	44.50	46.23	54	-7.77	AV
H	17475.057	51.74	10.12	38.38	44.10	56.14	68.2	-12.06	PK
H	17475.057	43.10	10.12	38.38	44.10	47.50	54	-6.50	AV

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

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

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

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

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

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5745 MHz)-Above 1G									
V	4679.040	57.74	5.94	35.40	44.00	55.08	74	-18.92	PK
V	4679.040	43.89	5.94	35.40	44.00	41.23	54	-12.77	AV
V	11490.185	54.01	8.46	39.75	44.50	57.72	68.2	-10.48	PK
V	11490.185	43.88	8.46	39.75	44.50	47.59	54	-6.41	AV
V	17235.171	60.07	10.12	38.80	44.10	64.89	68.2	-3.31	PK
V	17235.171	43.66	10.12	38.80	42.70	49.88	54	-4.12	AV
H	4679.058	56.86	5.94	35.18	44.00	53.98	74	-20.02	PK
H	4679.058	43.49	5.94	35.18	44.00	40.61	54	-13.39	AV
H	11490.177	49.15	8.46	38.71	44.50	51.82	68.2	-16.38	PK
H	11490.177	43.13	8.46	38.71	44.50	45.80	54	-8.20	AV
H	17235.094	52.28	10.12	38.38	44.10	56.68	68.2	-11.52	PK
H	17235.094	40.04	10.12	38.38	44.10	44.44	54	-9.56	AV
Middle Channel (5785 MHz)-Above 1G									
V	4592.092	60.07	6.48	36.35	44.05	58.85	74	-15.15	PK
V	4592.092	43.96	6.48	36.35	44.05	42.74	54	-11.26	AV
V	11570.033	58.37	8.47	37.88	44.51	60.21	68.2	-7.99	PK
V	11570.033	43.19	8.47	37.88	44.51	45.03	54	-8.97	AV
V	17355.033	59.42	10.12	38.80	44.10	64.24	68.2	-3.96	PK
V	17355.033	43.82	10.12	38.80	42.70	50.04	54	-3.96	AV
H	4592.027	59.72	6.48	36.37	44.05	58.52	74	-15.48	PK
H	4592.027	43.20	6.48	36.37	44.05	42.00	54	-12.00	AV
H	11570.182	51.40	8.47	38.64	44.50	54.01	68.2	-14.19	PK
H	11570.182	42.02	8.47	38.64	44.50	44.63	54	-9.37	AV
H	17355.094	54.75	10.12	38.38	44.10	59.15	68.2	-9.05	PK
H	17355.094	44.15	10.12	38.38	44.10	48.55	54	-5.45	AV
High Channel (5825 MHz)-Above 1G									
V	6039.162	58.56	7.10	37.24	43.50	59.40	68.2	-8.80	PK
V	6039.162	43.08	7.10	37.24	43.50	43.92	54	-10.08	AV
V	11650.183	57.67	8.46	37.68	44.50	59.31	74	-14.69	PK
V	11650.183	43.34	8.46	37.68	44.50	44.98	54	-9.02	AV
V	17475.081	57.44	10.12	38.80	44.10	62.26	68.2	-5.94	PK
V	17475.081	43.15	10.12	38.80	42.70	49.37	54	-4.63	AV
H	6039.057	58.75	7.10	37.24	43.50	59.59	68.2	-8.61	PK
H	6039.057	43.31	7.10	37.24	43.50	44.15	54	-9.85	AV
H	11650.020	53.45	8.46	38.57	44.50	55.98	74	-18.02	PK
H	11650.020	42.41	8.46	38.57	44.50	44.94	54	-9.06	AV
H	17475.039	54.52	10.12	38.38	44.10	58.92	68.2	-9.28	PK
H	17475.039	43.53	10.12	38.38	44.10	47.93	54	-6.07	AV

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

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

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

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

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

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor dB/m	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/ m)	Margin (dB)	Detector Type
Low Channel (5755 MHz)-Above 1G									
V	4679.160	57.83	5.94	35.40	44.00	55.17	74	-18.83	PK
V	4679.160	43.93	5.94	35.40	44.00	41.27	54	-12.73	AV
V	11510.195	55.30	8.46	39.75	44.50	59.01	74	-14.99	PK
V	11510.195	43.56	8.46	39.75	44.50	47.27	54	-6.73	AV
V	17265.119	57.44	10.12	38.80	44.10	62.26	68.2	-5.94	PK
V	17265.119	2.00	10.12	38.80	42.70	8.22	54	-45.78	AV
H	4679.036	58.25	5.94	35.18	44.00	55.37	74	-18.63	PK
H	4679.036	43.82	5.94	35.18	44.00	40.94	54	-13.06	AV
H	11510.066	52.11	8.46	38.71	44.50	54.78	74	-19.22	PK
H	11510.066	44.93	8.46	38.71	44.50	47.60	54	-6.40	AV
H	17265.029	54.68	10.12	38.38	44.10	59.08	68.2	-9.12	PK
H	17265.029	44.37	10.12	38.38	44.10	48.77	54	-5.23	AV
High Channel (5795 MHz)-Above 1G									
V	6039.043	58.06	6.48	36.35	44.05	56.84	68.2	-11.36	PK
V	6039.043	43.83	6.48	36.35	44.05	42.61	54	-11.39	AV
V	11590.021	55.10	8.47	37.88	44.51	56.94	74	-17.06	PK
V	11590.021	43.85	8.47	37.88	44.51	45.69	54	-8.31	AV
V	17385.132	55.66	10.12	38.80	44.10	60.48	68.2	-7.72	PK
V	17385.132	41.58	10.12	38.80	42.70	47.80	54	-6.20	AV
H	6039.012	57.56	6.48	36.37	44.05	56.36	68.2	-11.84	PK
H	6039.012	43.71	6.48	36.37	44.05	42.51	54	-11.49	AV
H	11590.175	54.02	8.47	38.64	44.50	56.63	74	-17.37	PK
H	11590.175	44.52	8.47	38.64	44.50	47.13	54	-6.87	AV
H	17385.190	52.66	10.12	38.38	44.10	57.06	68.2	-11.14	PK
H	17385.190	42.73	10.12	38.38	44.10	47.13	54	-6.87	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.

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

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5745 MHz)-Above 1G									
V	4679.036	56.50	5.94	35.40	44.00	53.84	74	-20.16	PK
V	4679.036	43.99	5.94	35.40	44.00	41.33	54	-12.67	AV
V	11490.190	55.20	8.46	39.75	44.50	58.91	68.2	-9.29	PK
V	11490.190	43.84	8.46	39.75	44.50	47.55	54	-6.45	AV
V	17235.031	58.97	10.12	38.80	44.10	63.79	68.2	-4.41	PK
V	17235.031	43.69	10.12	38.80	42.70	49.91	54	-4.09	AV
H	4679.053	59.05	5.94	35.18	44.00	56.17	74	-17.83	PK
H	4679.053	43.80	5.94	35.18	44.00	40.92	54	-13.08	AV
H	11490.119	49.48	8.46	38.71	44.50	52.15	68.2	-16.05	PK
H	11490.119	44.63	8.46	38.71	44.50	47.30	54	-6.70	AV
H	17235.122	52.59	10.12	38.38	44.10	56.99	68.2	-11.21	PK
H	17235.122	44.37	10.12	38.38	44.10	48.77	54	-5.23	AV
Middle Channel (5785 MHz)-Above 1G									
V	4592.037	58.48	6.48	36.35	44.05	57.26	74	-16.74	PK
V	4592.037	43.59	6.48	36.35	44.05	42.37	54	-11.63	AV
V	11570.002	54.88	8.47	37.88	44.51	56.72	68.2	-11.48	PK
V	11570.002	43.85	8.47	37.88	44.51	45.69	54	-8.31	AV
V	17355.165	61.87	10.12	38.80	44.10	66.69	68.2	-1.51	PK
V	17355.165	43.68	10.12	38.80	42.70	49.90	54	-4.10	AV
H	4592.004	59.03	6.48	36.37	44.05	57.83	74	-16.17	PK
H	4592.004	43.05	6.48	36.37	44.05	41.85	54	-12.15	AV
H	11570.107	54.60	8.47	38.64	44.50	57.21	68.2	-10.99	PK
H	11570.107	41.30	8.47	38.64	44.50	43.91	54	-10.09	AV
H	17355.025	53.09	10.12	38.38	44.10	57.49	68.2	-10.71	PK
H	17355.025	43.41	10.12	38.38	44.10	47.81	54	-6.19	AV
High Channel (5825 MHz)-Above 1G									
V	6039.146	57.60	7.10	37.24	43.50	58.44	68.2	-9.76	PK
V	6039.146	43.22	7.10	37.24	43.50	44.06	54	-9.94	AV
V	11650.116	58.87	8.46	37.68	44.50	60.51	74	-13.49	PK
V	11650.116	43.09	8.46	37.68	44.50	44.73	54	-9.27	AV
V	17475.153	55.62	10.12	38.80	44.10	60.44	68.2	-7.76	PK
V	17475.153	43.70	10.12	38.80	42.70	49.92	54	-4.08	AV
H	6039.173	55.49	7.10	37.24	43.50	56.33	68.2	-11.87	PK
H	6039.173	43.40	7.10	37.24	43.50	44.24	54	-9.76	AV
H	11650.094	51.54	8.46	38.57	44.50	54.07	74	-19.93	PK
H	11650.094	44.84	8.46	38.57	44.50	47.37	54	-6.63	AV
H	17475.014	53.67	10.12	38.38	44.10	58.07	68.2	-10.13	PK
H	17475.014	44.45	10.12	38.38	44.10	48.85	54	-5.15	AV

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

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

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

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

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

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5755 MHz)-Above 1G									
V	4679.037	58.87	5.94	35.40	44.00	56.21	74	-17.79	PK
V	4679.037	43.06	5.94	35.40	44.00	40.40	54	-13.60	AV
V	11510.081	55.78	8.46	39.75	44.50	59.49	74	-14.51	PK
V	11510.081	43.43	8.46	39.75	44.50	47.14	54	-6.86	AV
V	17265.199	55.03	10.12	38.80	44.10	59.85	68.2	-8.35	PK
V	17265.199	2.00	10.12	38.80	42.70	8.22	54	-45.78	AV
H	4679.101	59.93	5.94	35.18	44.00	57.05	74	-16.95	PK
H	4679.101	43.63	5.94	35.18	44.00	40.75	54	-13.25	AV
H	11510.043	53.31	8.46	38.71	44.50	55.98	74	-18.02	PK
H	11510.043	42.69	8.46	38.71	44.50	45.36	54	-8.64	AV
H	17265.020	52.36	10.12	38.38	44.10	56.76	68.2	-11.44	PK
H	17265.020	40.93	10.12	38.38	44.10	45.33	54	-8.67	AV
High Channel (5795 MHz)-Above 1G									
V	6039.089	57.74	6.48	36.35	44.05	56.52	68.2	-11.68	PK
V	6039.089	43.54	6.48	36.35	44.05	42.32	54	-11.68	AV
V	11590.187	57.82	8.47	37.88	44.51	59.66	74	-14.34	PK
V	11590.187	43.70	8.47	37.88	44.51	45.54	54	-8.46	AV
V	17385.036	55.14	10.12	38.80	44.10	59.96	68.2	-8.24	PK
V	17385.036	41.84	10.12	38.80	42.70	48.06	54	-5.94	AV
H	6039.193	60.73	6.48	36.37	44.05	59.53	68.2	-8.67	PK
H	6039.193	43.27	6.48	36.37	44.05	42.07	54	-11.93	AV
H	11590.141	53.53	8.47	38.64	44.50	56.14	74	-17.86	PK
H	11590.141	43.34	8.47	38.64	44.50	45.95	54	-8.05	AV
H	17385.177	53.39	10.12	38.38	44.10	57.79	68.2	-10.41	PK
H	17385.177	44.45	10.12	38.38	44.10	48.85	54	-5.15	AV

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

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

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

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

Test Mode:	TX(5.8G) - 802.11ac-HT80
------------	--------------------------

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor dB/m	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
(5775 MHz)-Above 1G									
V	4679.008	56.54	5.94	35.40	44.00	53.88	74	-20.12	PK
V	4679.008	43.16	5.94	35.40	44.00	40.50	54	-13.50	AV
V	11550.094	57.50	8.46	39.75	44.50	61.21	74	-12.79	PK
V	11550.094	43.16	8.46	39.75	44.50	46.87	54	-7.13	AV
V	17325.034	59.09	10.12	38.80	44.10	63.91	68.2	-4.29	PK
V	17325.034	41.66	10.12	38.80	42.70	47.88	54	-6.12	AV
H	4679.151	56.85	5.94	35.18	44.00	53.97	74	-20.03	PK
H	4679.151	43.71	5.94	35.18	44.00	40.83	54	-13.17	AV
H	11550.162	54.02	8.46	38.71	44.50	56.69	74	-17.31	PK
H	11550.162	40.98	8.46	38.71	44.50	43.65	54	-10.35	AV
H	17325.142	51.10	10.12	38.38	44.10	55.50	68.2	-12.70	PK
H	17325.142	42.54	10.12	38.38	44.10	46.94	54	-7.06	AV

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

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

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

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

8. Power Spectral Density Test

8.1 Block Diagram Of Test Setup



8.2 Limit

For the band 5.15-5.25 GHz,

(i) For an outdoor Wifi Repeater 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 Wifi Repeater 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 Wifi Repeaters 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

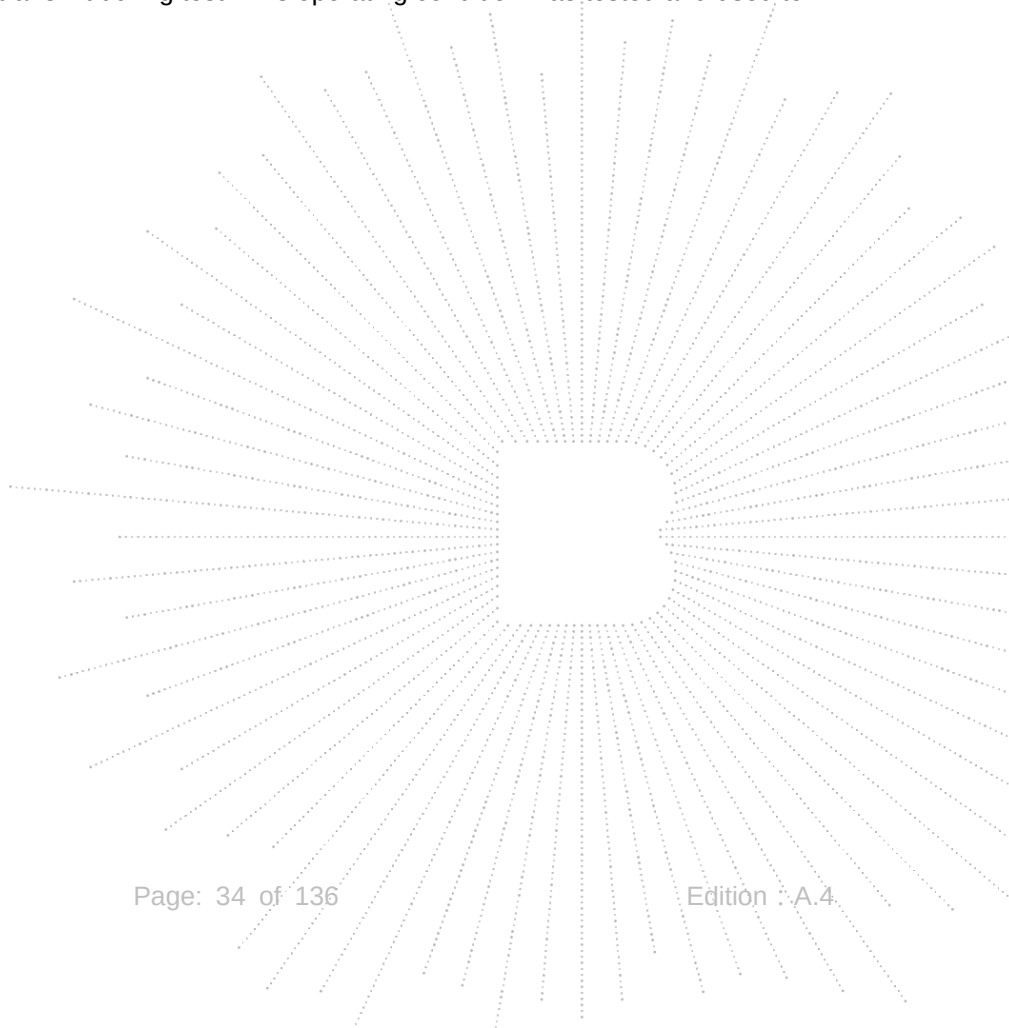
For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 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 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 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.

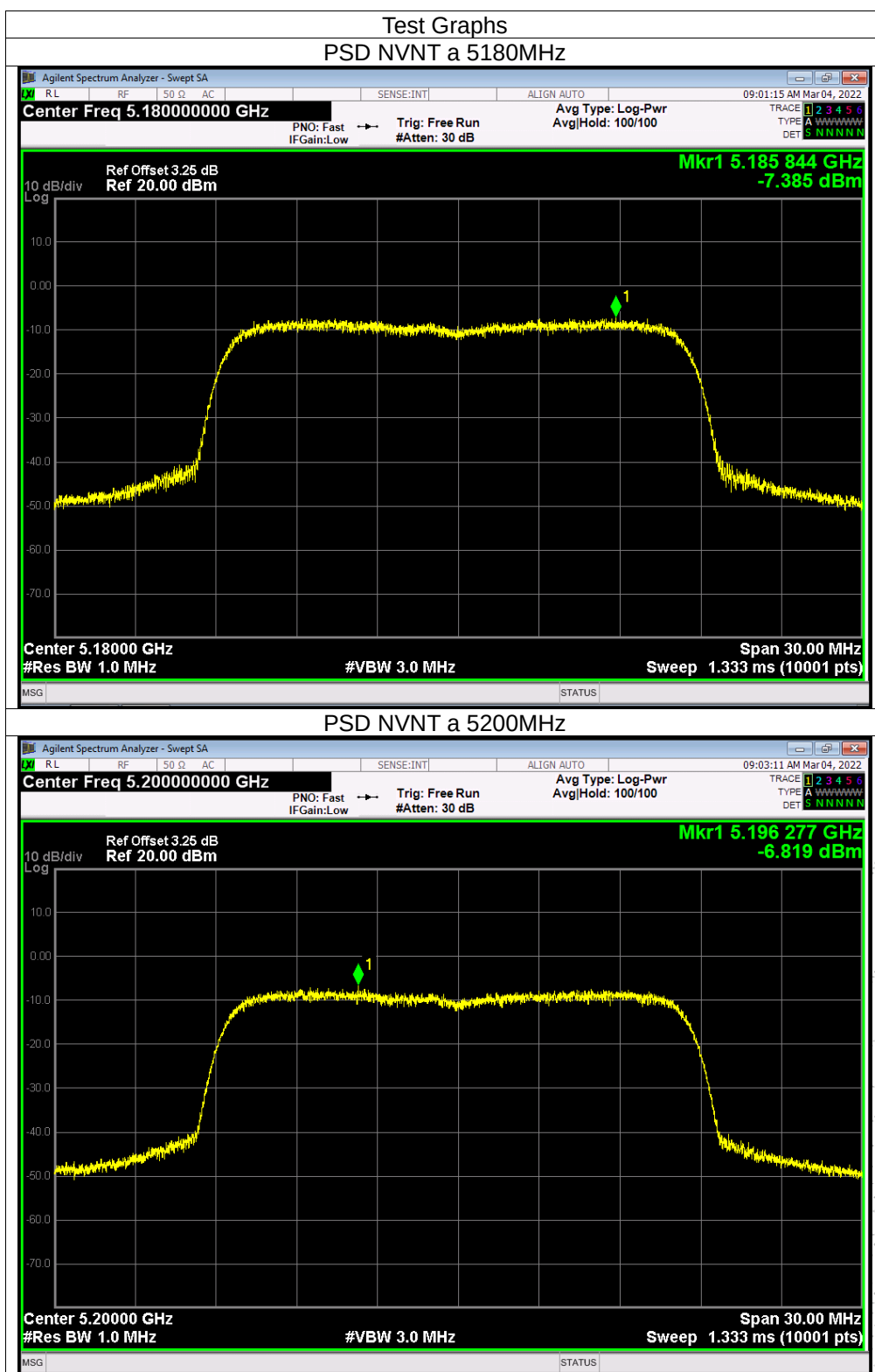


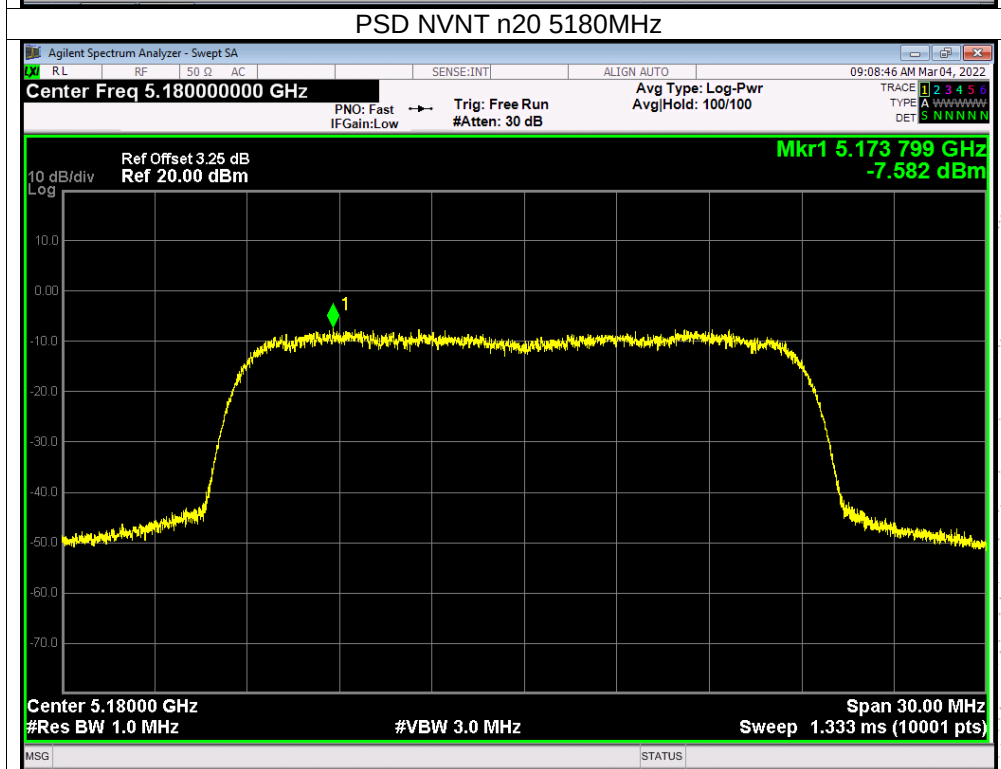
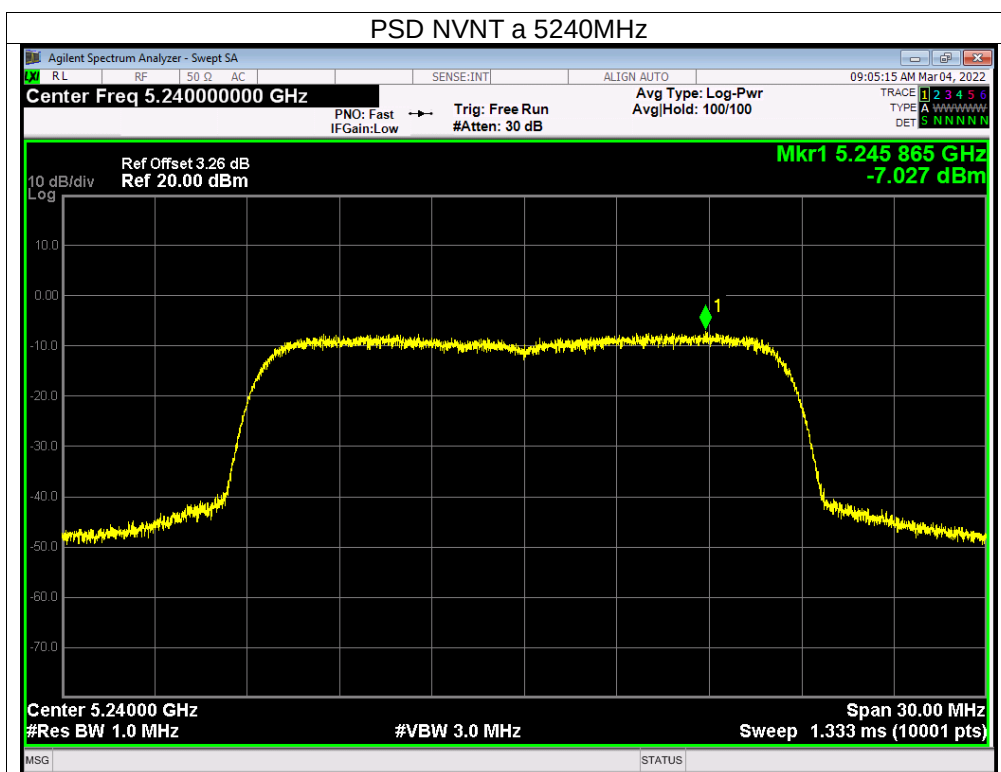
8.5 Test Result

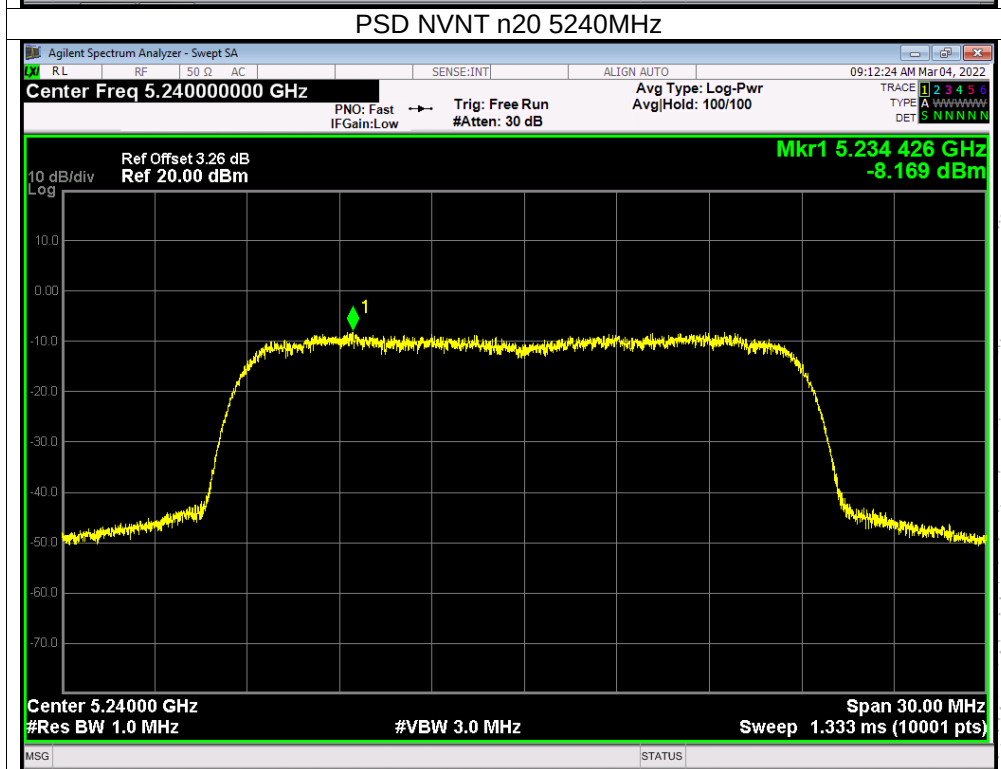
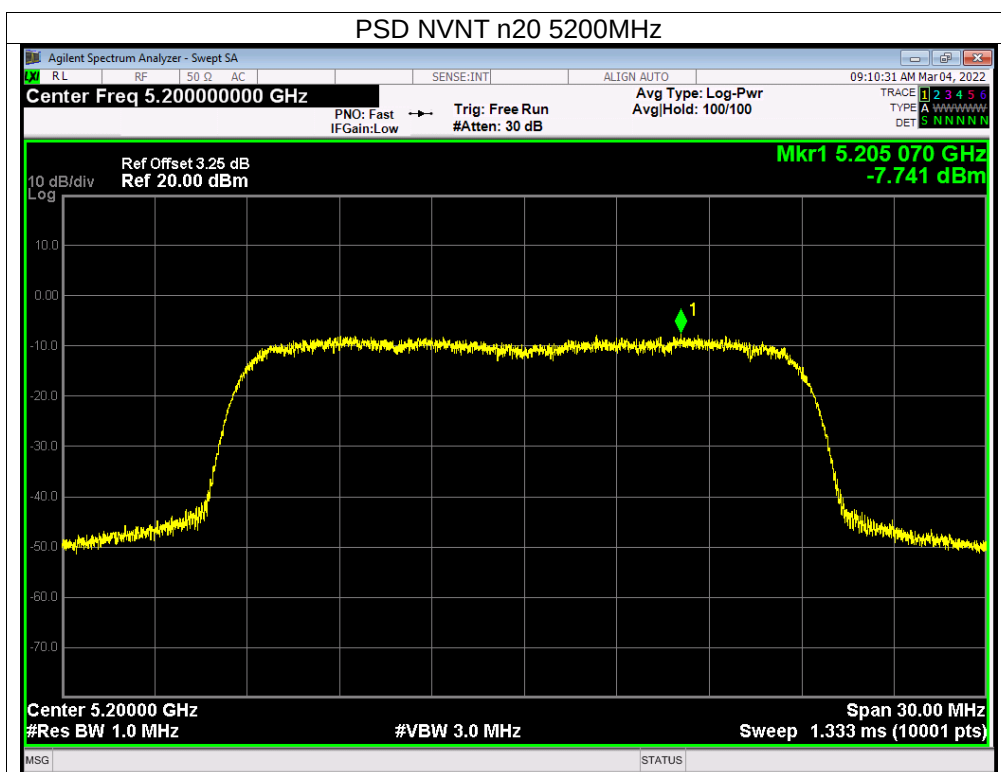
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 12V
Test Mode:	(5180-5240MHz); (5745-5825MHz)		

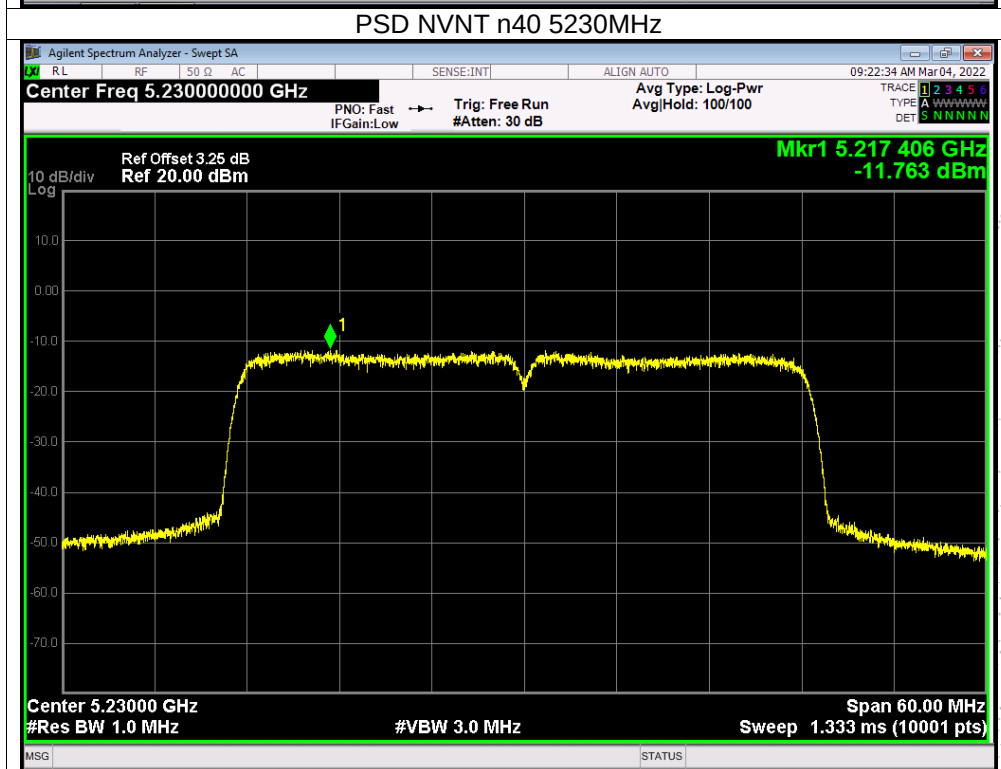
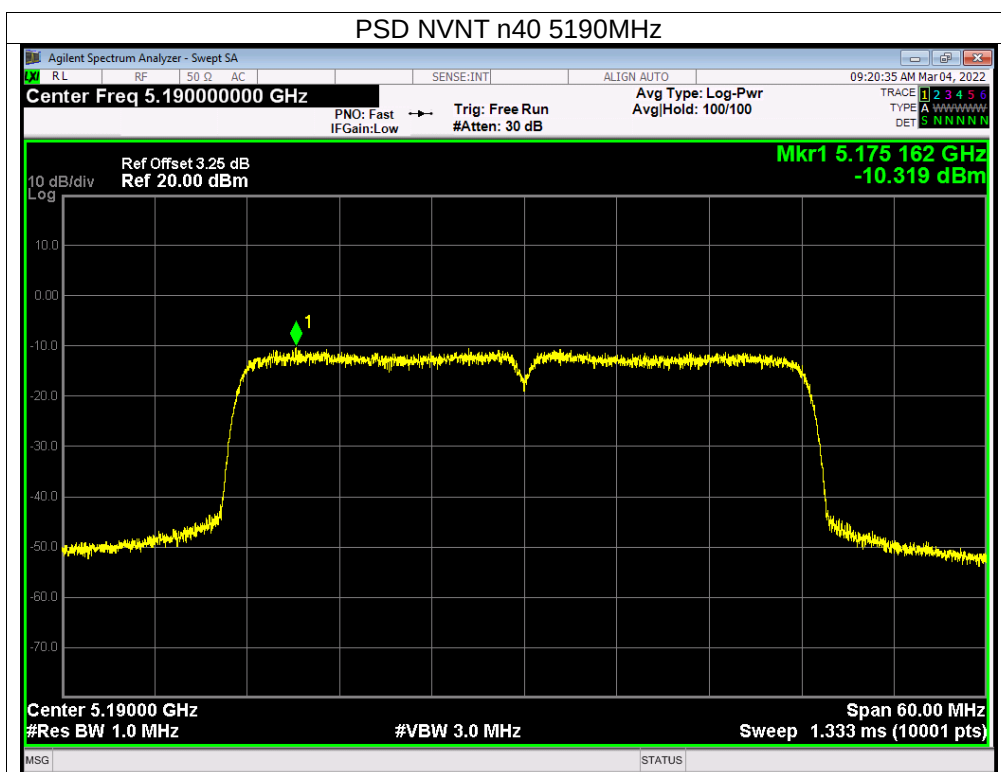
Condition	Mode	Frequency (MHz)	Conducted PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	-7.39	11	Pass
NVNT	a	5200	-6.82	11	Pass
NVNT	a	5240	-7.03	11	Pass
NVNT	n20	5180	-7.58	11	Pass
NVNT	n20	5200	-7.74	11	Pass
NVNT	n20	5240	-8.17	11	Pass
NVNT	n40	5190	-10.32	11	Pass
NVNT	n40	5230	-11.76	11	Pass
NVNT	ac20	5180	-7.31	11	Pass
NVNT	ac20	5200	-7.78	11	Pass
NVNT	ac20	5240	-8.89	11	Pass
NVNT	ac40	5190	-10.73	11	Pass
NVNT	ac40	5230	-12.12	11	Pass
NVNT	ac80	5210	-14.09	11	Pass

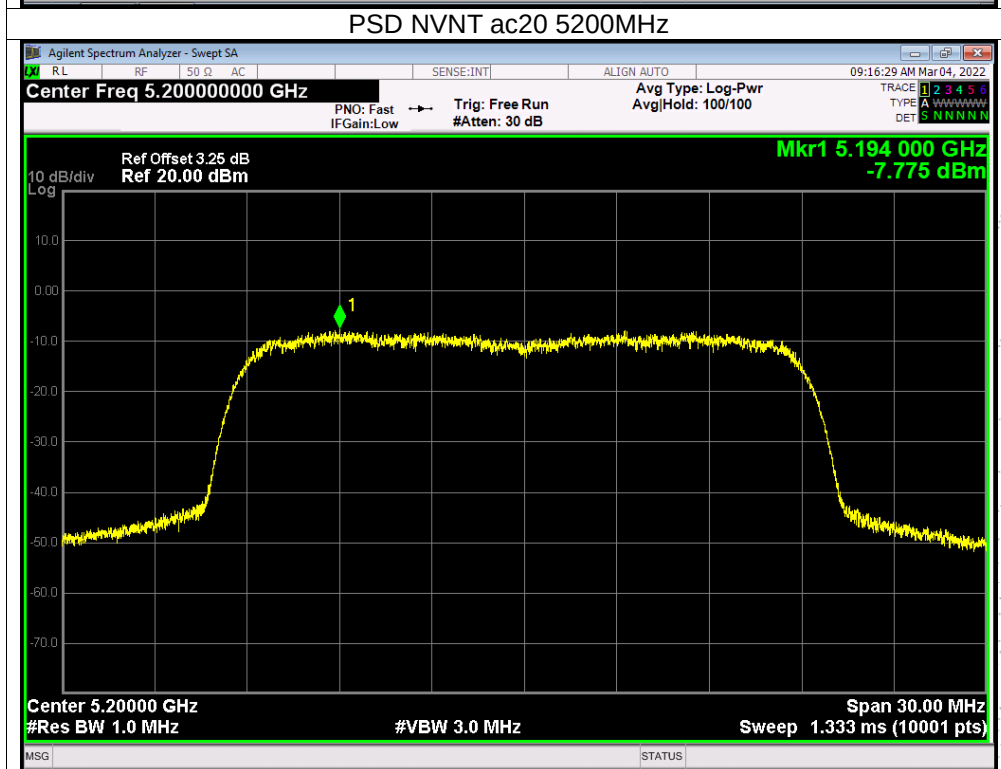
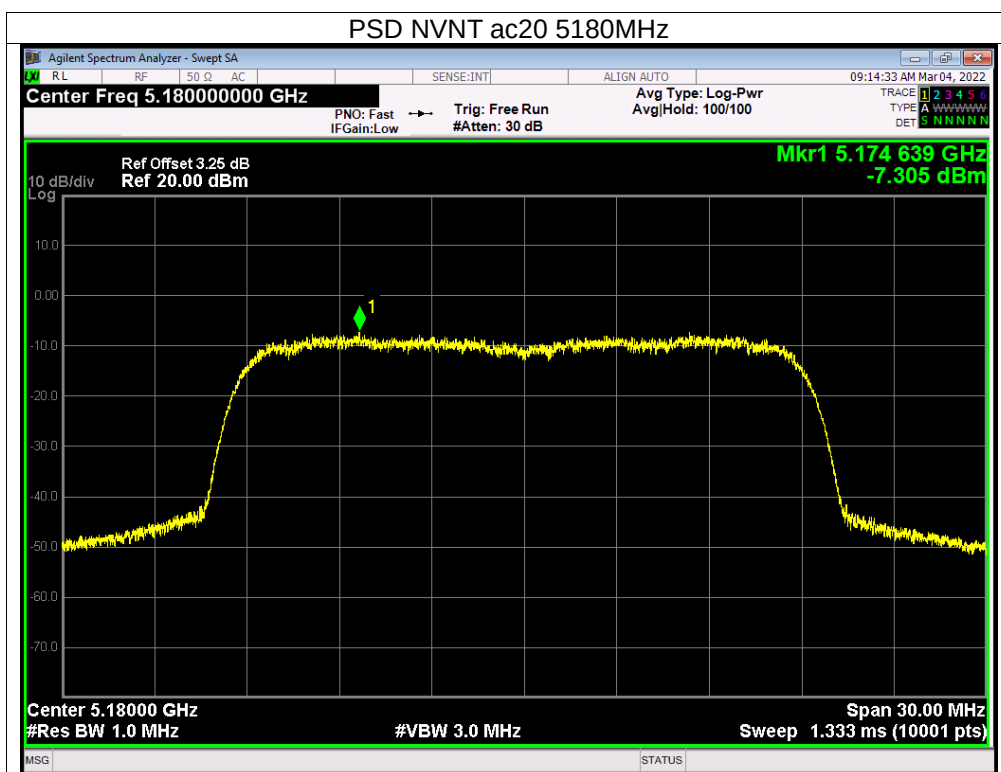
Condition	Mode	Frequency (MHz)	Conducted PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	-2.42	30	Pass
NVNT	a	5785	-2.73	30	Pass
NVNT	a	5825	-2.81	30	Pass
NVNT	n20	5745	-2.33	30	Pass
NVNT	n20	5785	-2.62	30	Pass
NVNT	n20	5825	-3.4	30	Pass
NVNT	n40	5755	-5.65	30	Pass
NVNT	n40	5795	-6.22	30	Pass
NVNT	ac20	5745	-2.47	30	Pass
NVNT	ac20	5785	-2.59	30	Pass
NVNT	ac20	5825	-2.81	30	Pass
NVNT	ac40	5755	-5.6	30	Pass
NVNT	ac40	5795	-6.05	30	Pass
NVNT	ac80	5775	-8.65	30	Pass

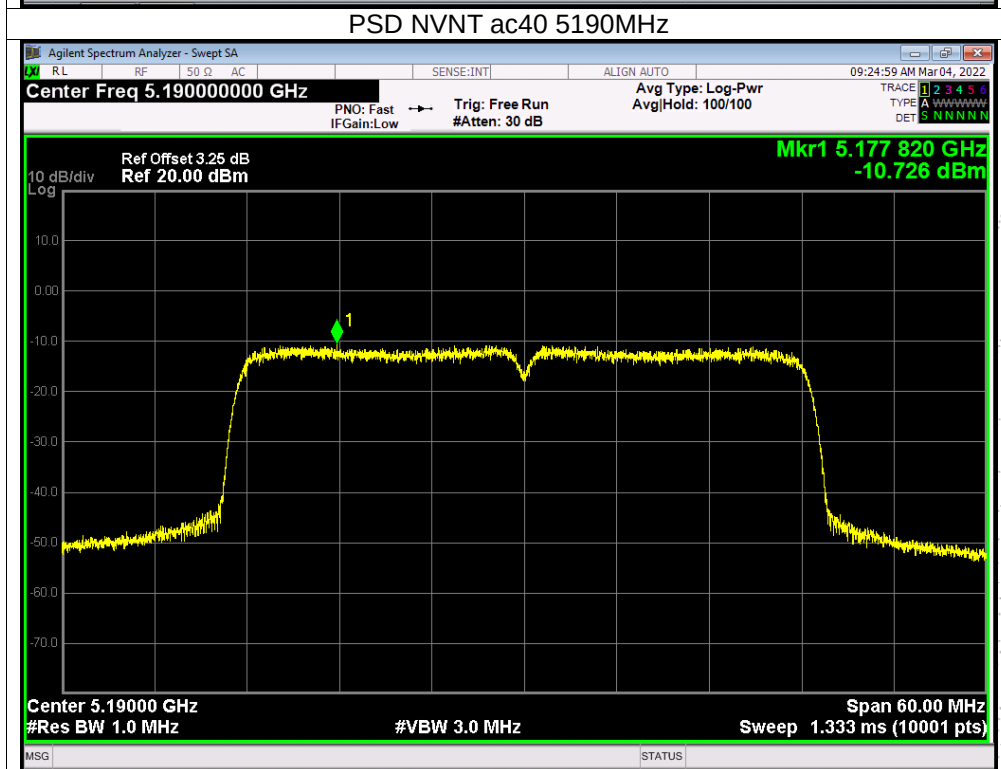
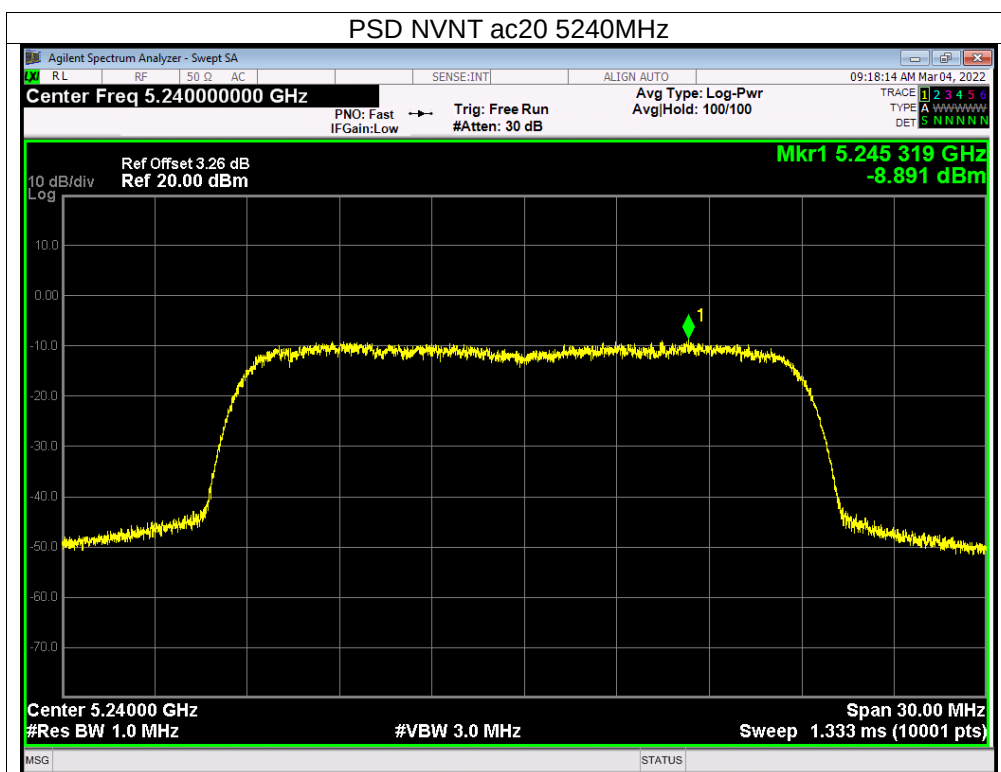


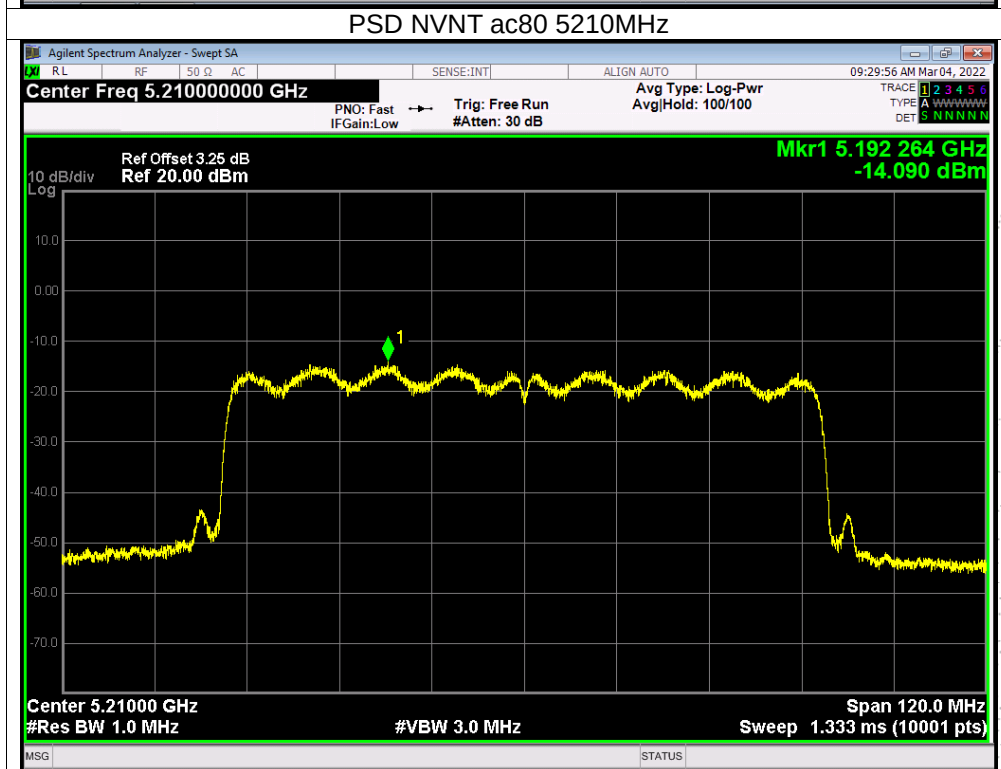
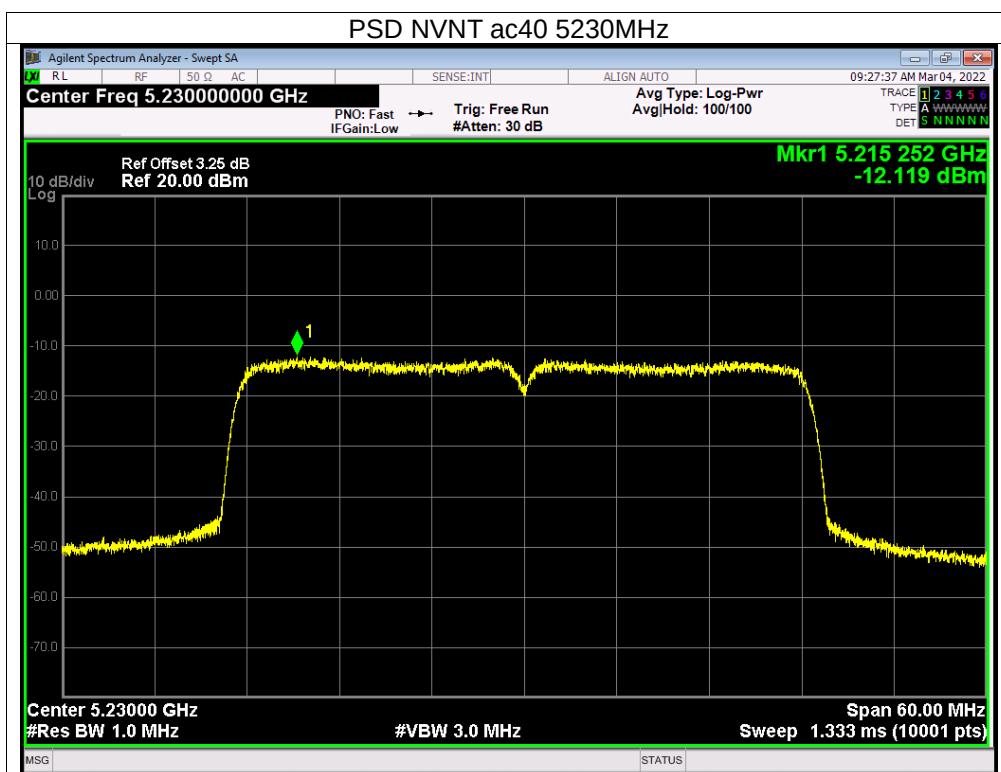


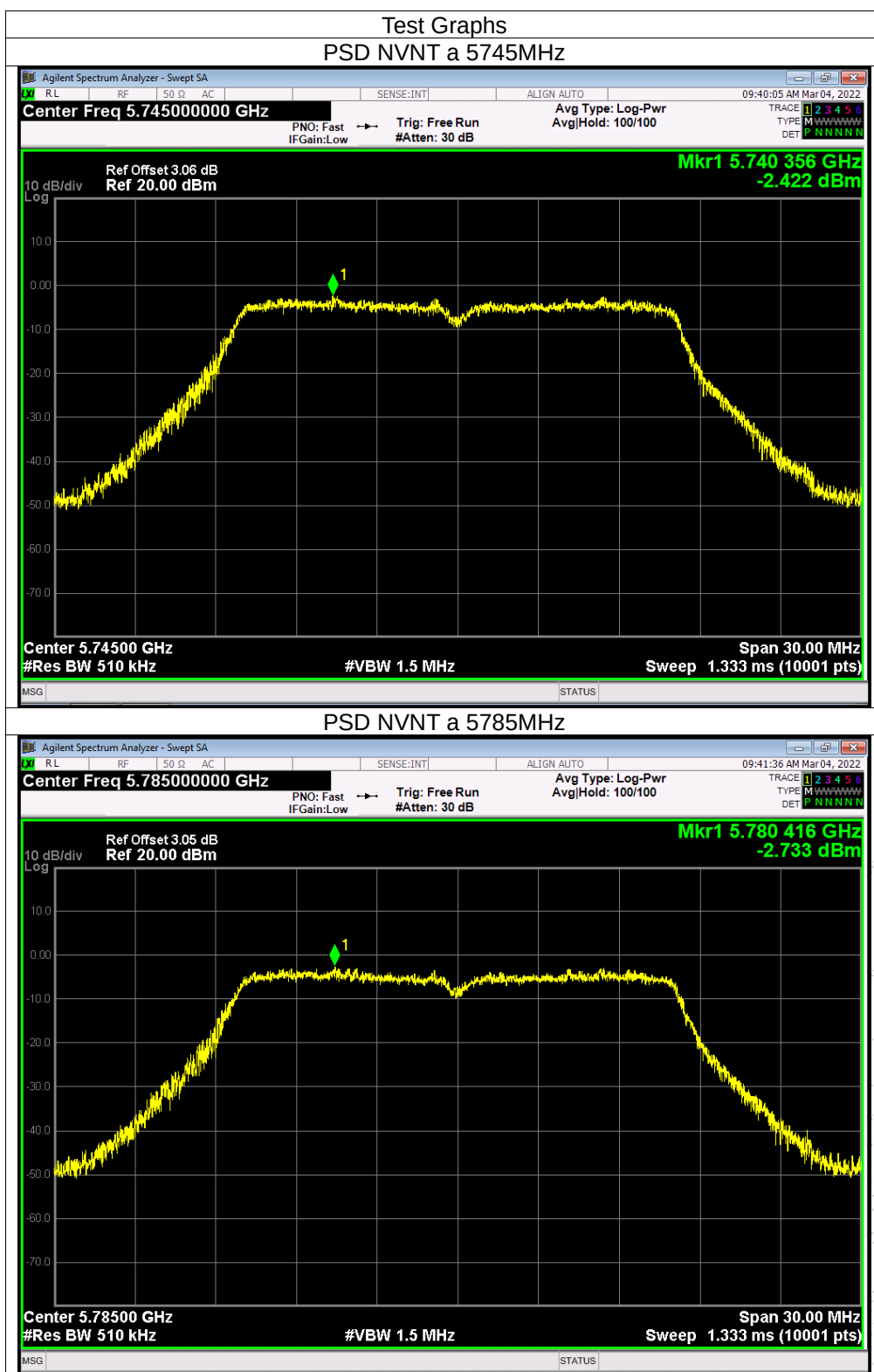


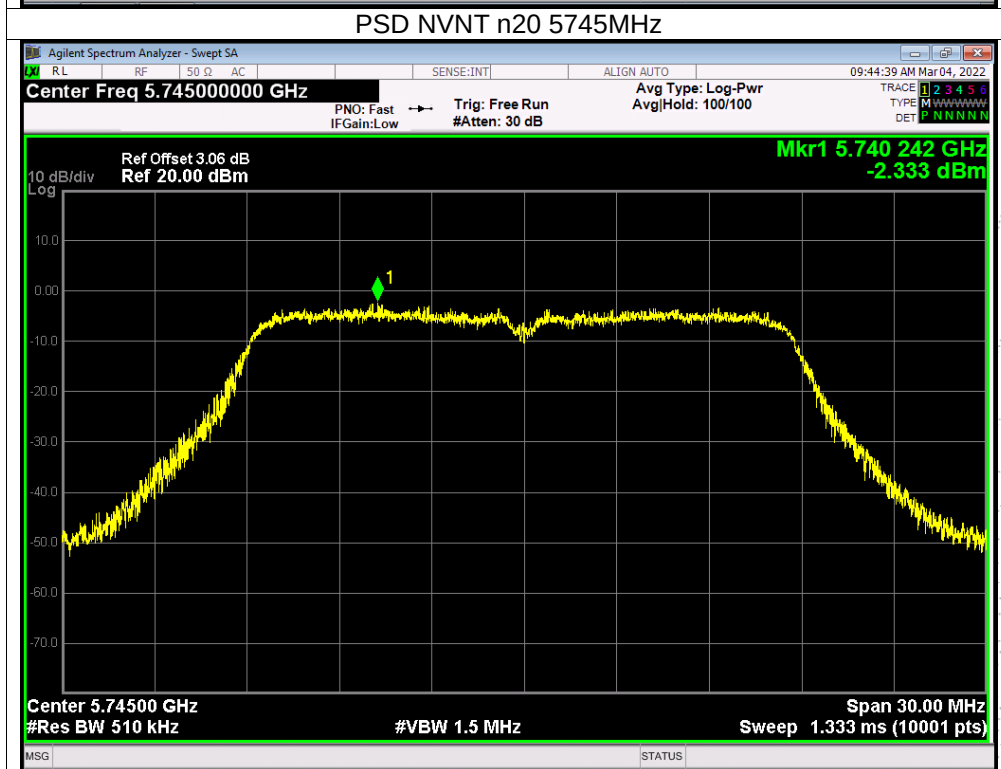
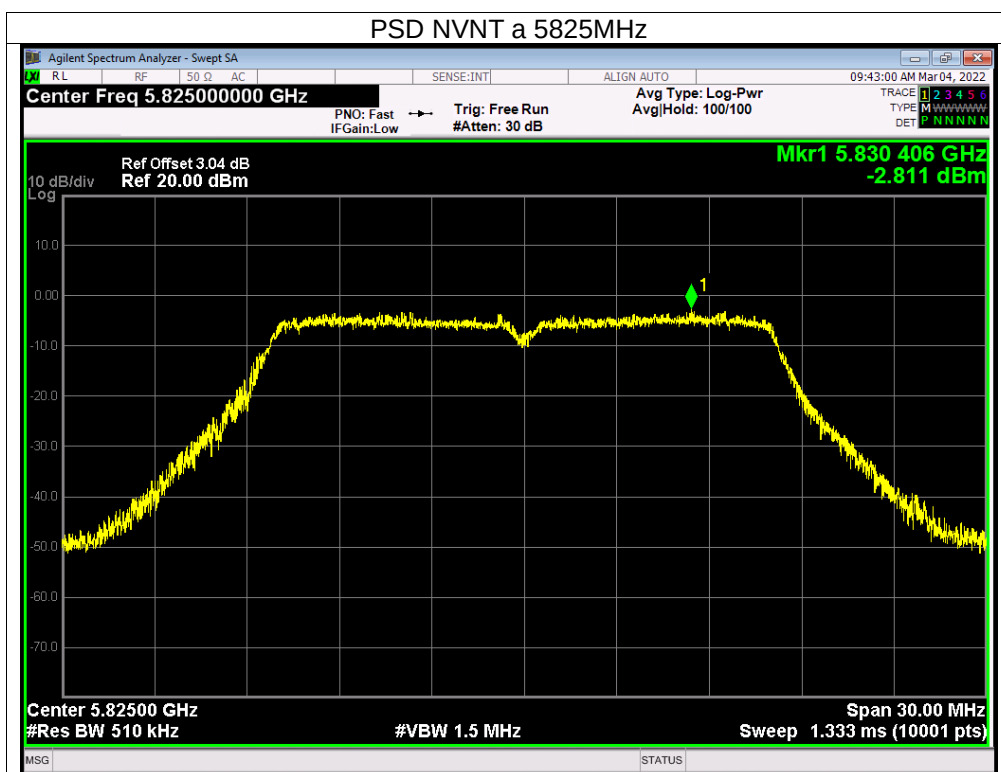


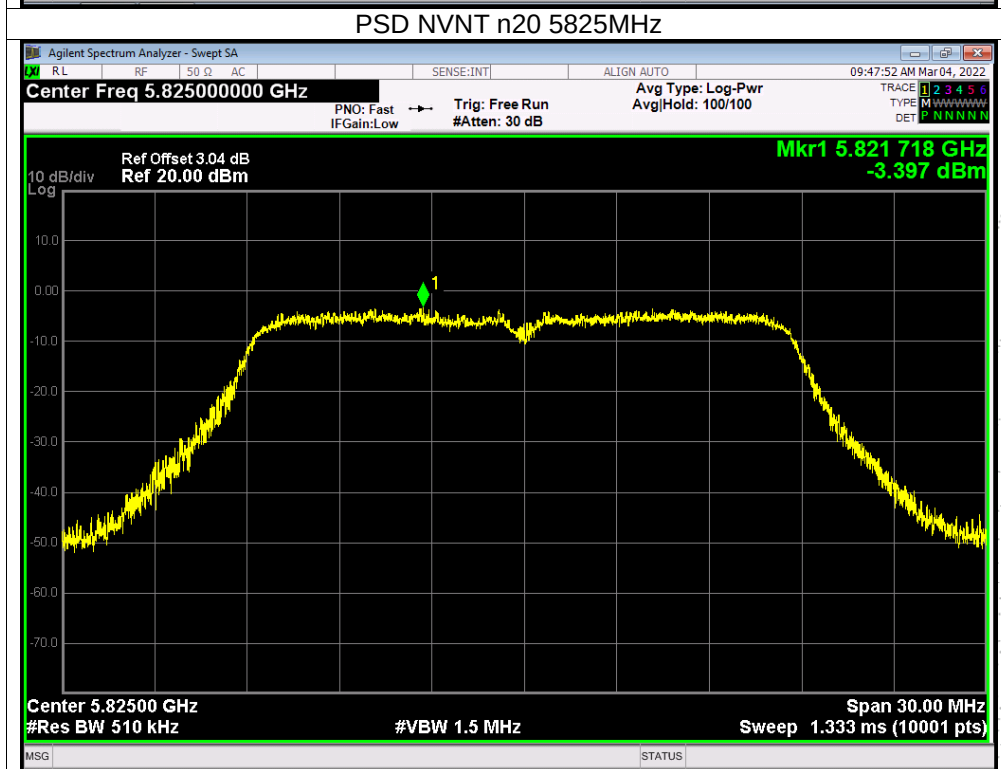
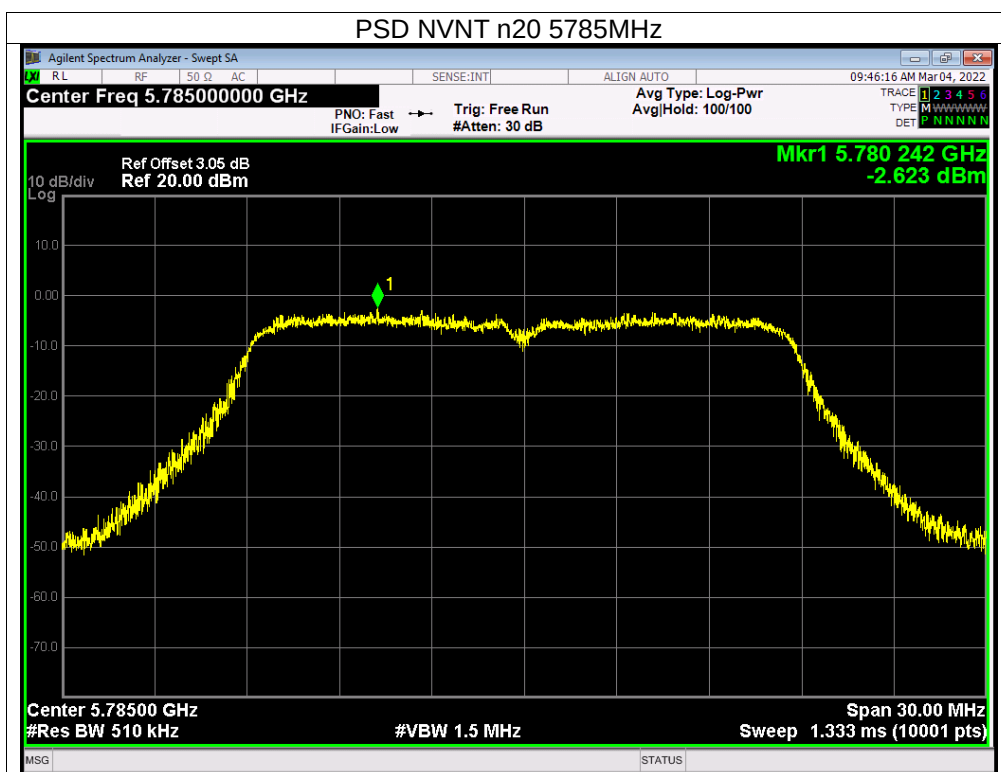


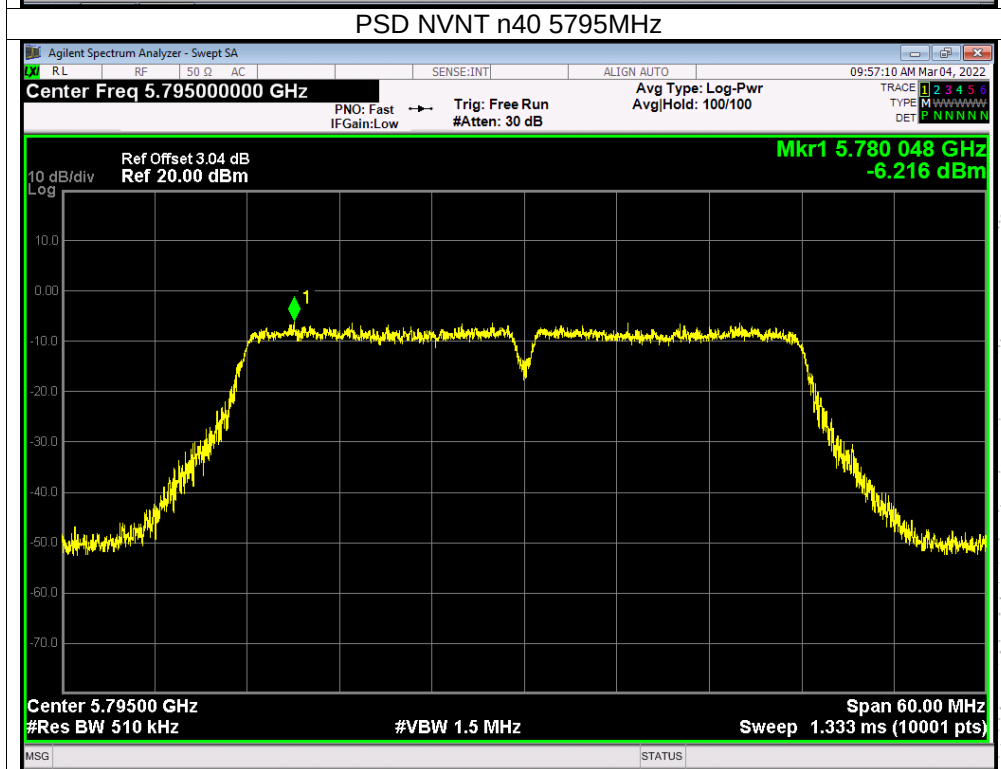
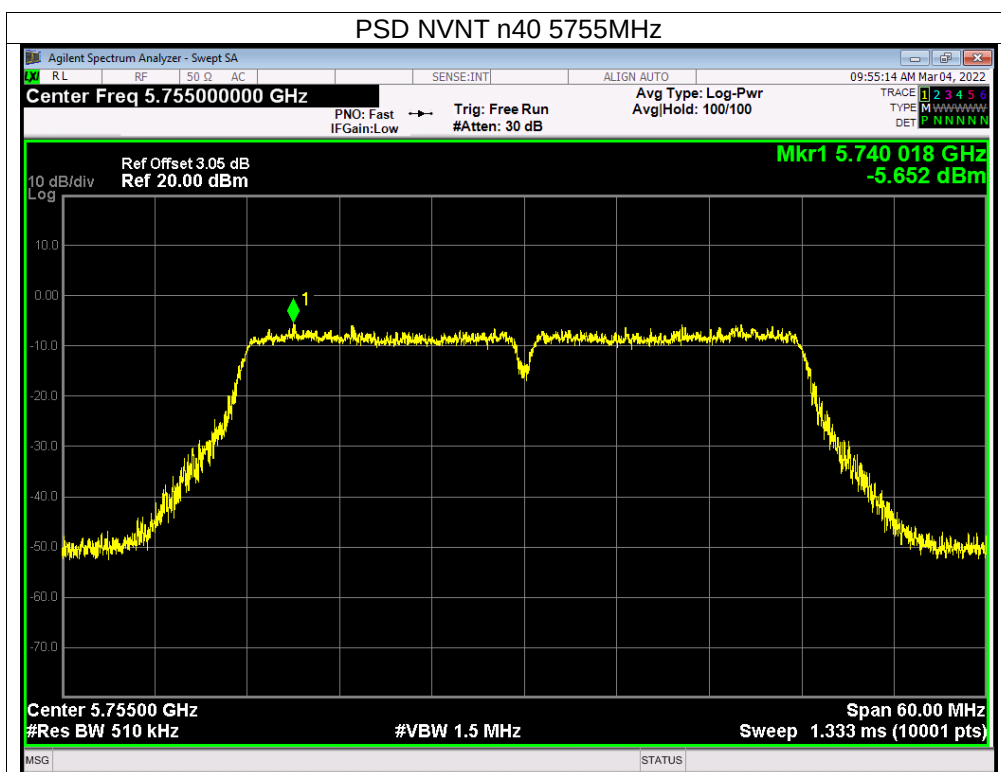


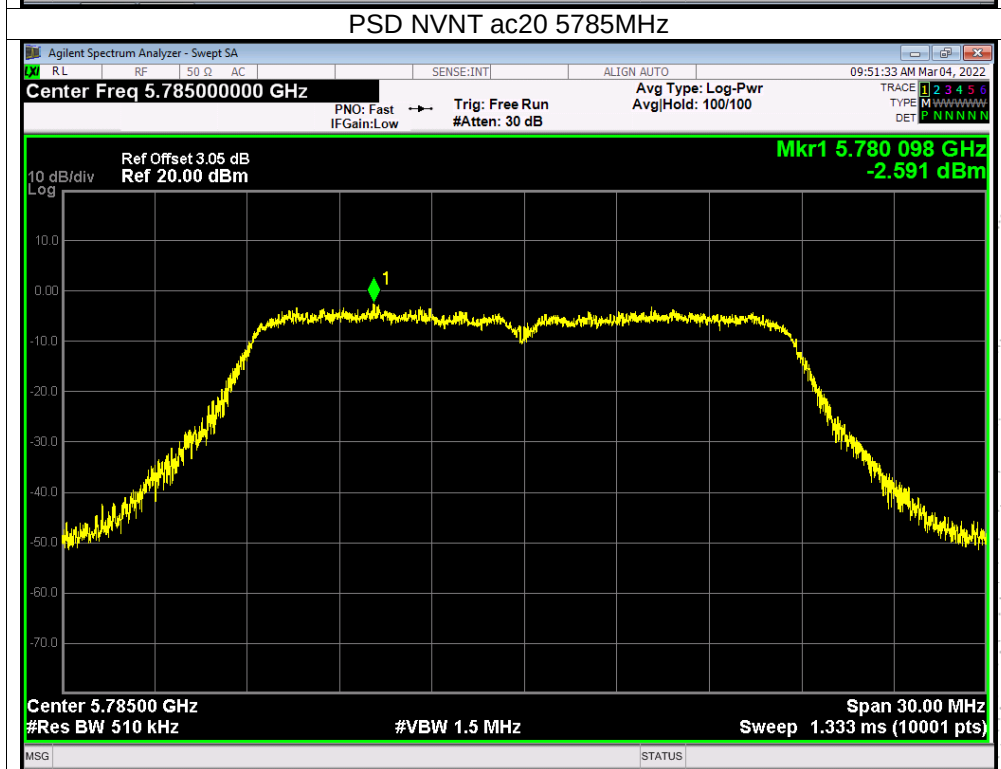
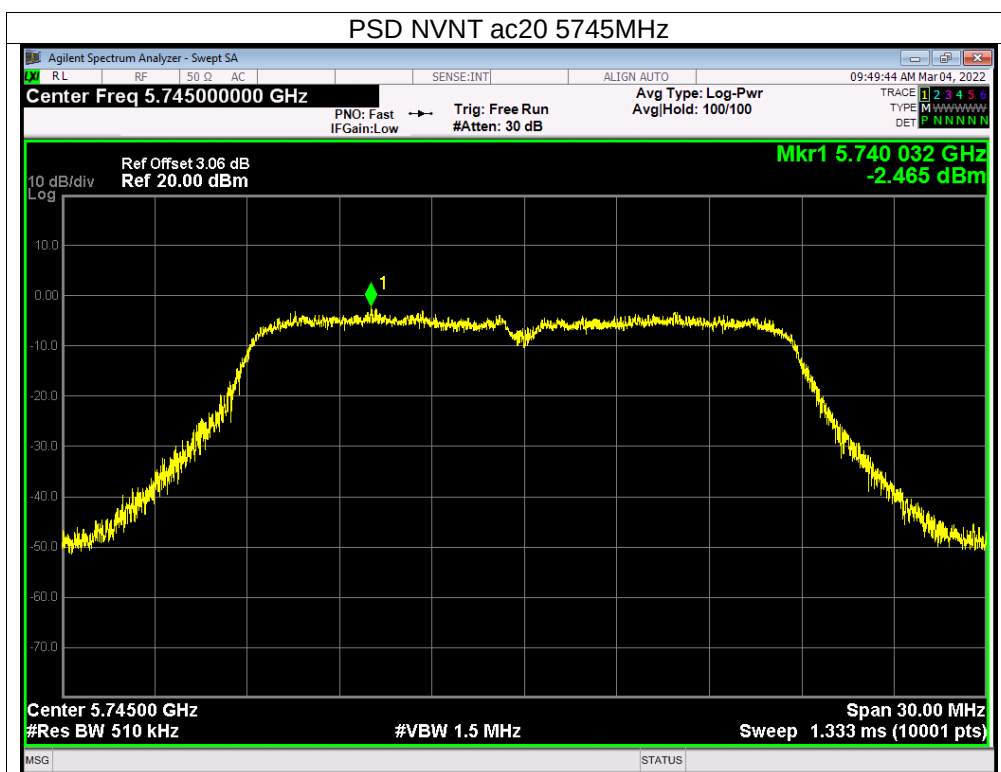


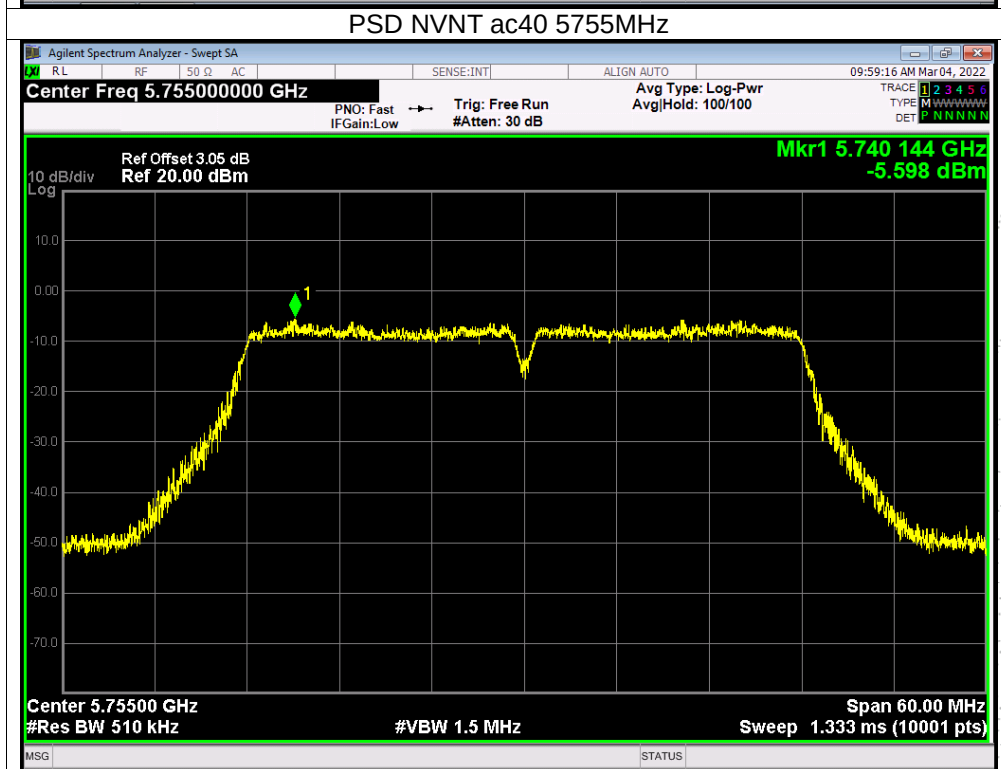
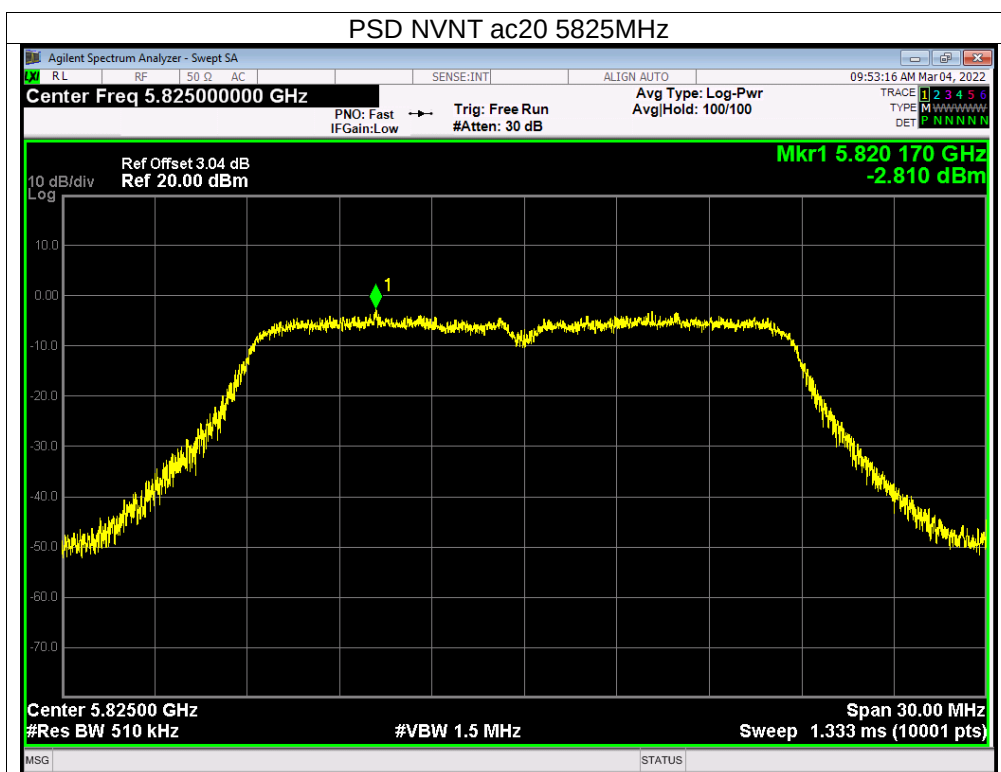


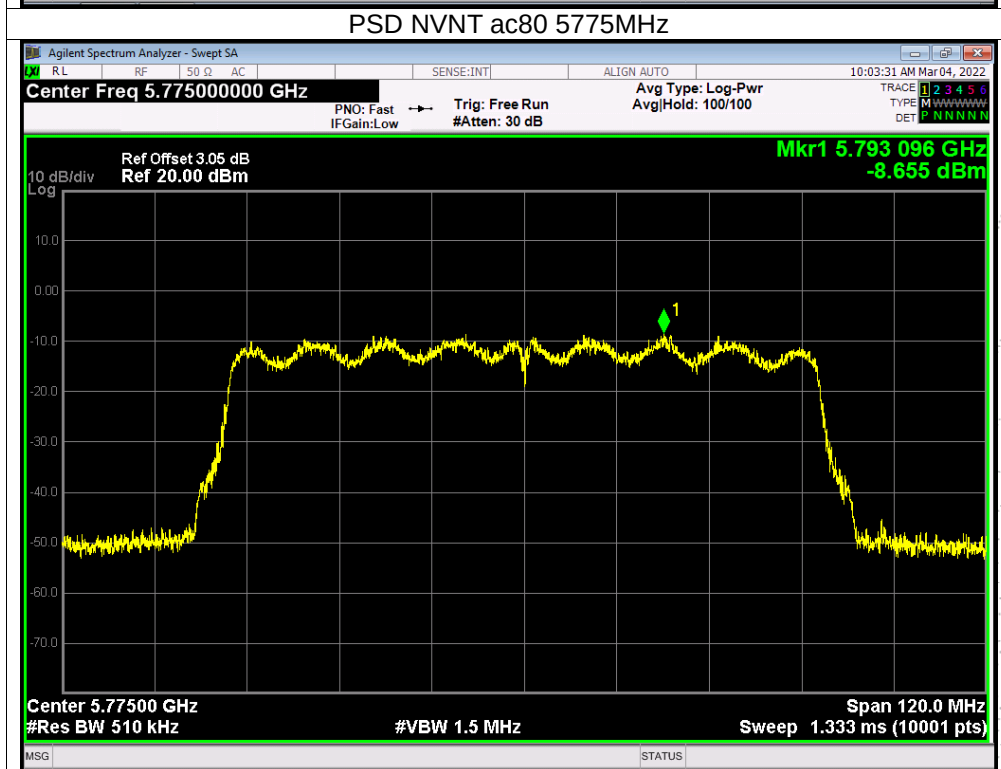
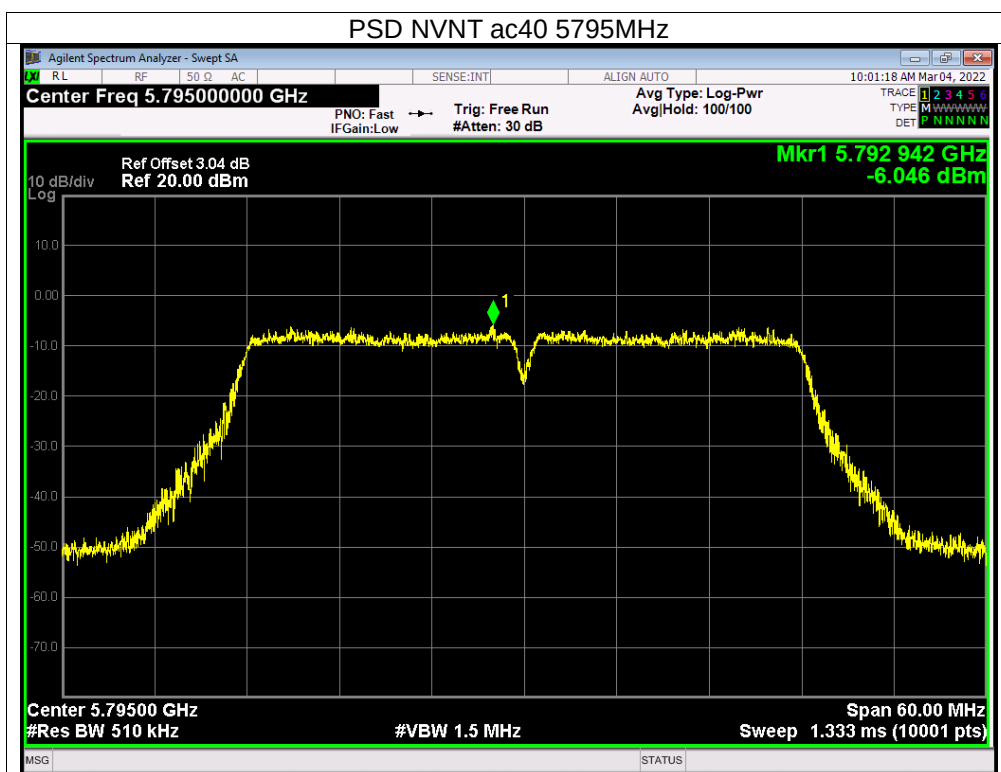






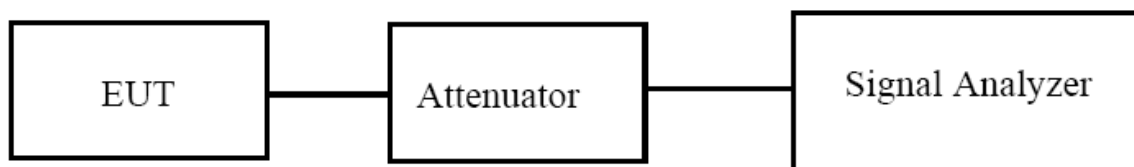






9. 26dB & 6dB & 99% Emission Bandwidth

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.

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.

9.4 EUT operating Conditions

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

9.5 Test Result

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 12V
Test Mode:	(5180-5240MHz)		

Condition	Mode	Frequency (MHz)	-26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	20.32	Pass
NVNT	a	5200	20.351	Pass
NVNT	a	5240	20.394	Pass
NVNT	n20	5180	21.157	Pass
NVNT	n20	5200	20.815	Pass
NVNT	n20	5240	20.888	Pass
NVNT	n40	5190	41.549	Pass
NVNT	n40	5230	41.67	Pass
NVNT	ac20	5180	21.022	Pass
NVNT	ac20	5200	20.856	Pass
NVNT	ac20	5240	21.143	Pass
NVNT	ac40	5190	41.32	Pass
NVNT	ac40	5230	41.663	Pass
NVNT	ac80	5210	79.93	Pass

Condition	Mode	Frequency (MHz)	99% OBW (MHz)
NVNT	a	5180	16.445
NVNT	a	5200	16.469
NVNT	a	5240	16.471
NVNT	n20	5180	17.584
NVNT	n20	5200	17.565
NVNT	n20	5240	17.567
NVNT	n40	5190	36.25
NVNT	n40	5230	36.284
NVNT	ac20	5180	17.594
NVNT	ac20	5200	17.571
NVNT	ac20	5240	17.575
NVNT	ac40	5190	36.234
NVNT	ac40	5230	36.31
NVNT	ac80	5210	75.436

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 12V
Test Mode:	(5745-5825MHz)		

Condition	Mode	Frequency (MHz)	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	16.444	0.5	Pass
NVNT	a	5785	16.511	0.5	Pass
NVNT	a	5825	16.463	0.5	Pass
NVNT	n20	5745	17.604	0.5	Pass
NVNT	n20	5785	17.63	0.5	Pass
NVNT	n20	5825	17.623	0.5	Pass
NVNT	n40	5755	36.411	0.5	Pass
NVNT	n40	5795	36.49	0.5	Pass
NVNT	ac20	5745	17.589	0.5	Pass
NVNT	ac20	5785	17.616	0.5	Pass
NVNT	ac20	5825	17.6	0.5	Pass
NVNT	ac40	5755	36.433	0.5	Pass
NVNT	ac40	5795	36.452	0.5	Pass
NVNT	ac80	5775	76.048	0.5	Pass

Condition	Mode	Frequency (MHz)	99% OBW (MHz)
NVNT	a	5745	16.473
NVNT	a	5785	16.468
NVNT	a	5825	16.46
NVNT	n20	5745	17.566
NVNT	n20	5785	17.58
NVNT	n20	5825	17.586
NVNT	n40	5755	36.275
NVNT	n40	5795	36.286
NVNT	ac20	5745	17.583
NVNT	ac20	5785	17.597
NVNT	ac20	5825	17.585
NVNT	ac40	5755	36.276
NVNT	ac40	5795	36.264
NVNT	ac80	5775	75.283



