TEST REPORT

Report No.:	BCTC2408834386-4E
Applicant:	Shenzhen One-Netbook Project Technology Co., Ltd
Product Name:	Portable computer
Test Model:	ONE XPLAYER
Tested Date:	2024-08-08 to 2024-08-27
Issued Date:	2024-09-19

Shenzhen BCTC Testing Co., Ltd.

FCC ID:2BKG2-ONEXPLAYER

Product Name:	Portable computer
Trademark:	ONE XPLAYER
Model/Type Ref.:	ONE XPLAYER,X1 Mini,X1Mini,X1Pro,X1 Pro,One Xplayer,One xPlayer,OnexPlayer, OneXplayer,OneGx,One-Netbook,T1,T2,T3,X1,X2,X3,PL1,PL2,PL3,P1,P2,P3,L1,L2,L3,G1,G2,G3,M1,M2,M3,F1,F2,F3,A1,A2,A3,i1,i3,i5
Prepared For:	Shenzhen One-Netbook Project Technology Co., Ltd
Address:	3F, Building C, NO.9 of garden New village Road, Xiangjiaotang Community, Bantian Street,Longgang District, Shenzhen, China
Manufacturer:	Shenzhen One-Netbook Project Technology Co., Ltd
Address:	3F, Building C, NO.9 of garden New village Road, Xiangjiaotang Community, Bantian Street,Longgang District, Shenzhen, China
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:	2024-08-08
Sample tested Date:	2024-08-08 to 2024-08-27
Report No.:	BCTC2408834386-4E
Test Standards:	FCC Part15 15.407 ANSI C63.10-2013 KDB 662911 D01 v02r01 KDB 789033 D02 v02r01
Test Results:	PASS

Tested by:

Brave Zeng/ Project Handler

Approved by:

Zero Zhou/Reviewer

Table of Content

1. Version

Report No.	Issue Date	Description	Approved
BCTC2403534674-2E	2024-09-19	Original	Valid

2. Test Summary

The Product has been tested according to the following specifications:

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

3. Measurement Uncertainty

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

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

4. Product Information and Test Setup

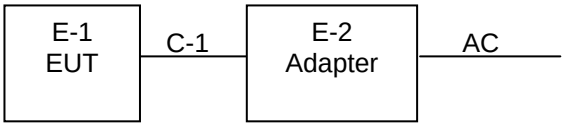
4.1 Product Information

Model/Type Ref.:	ONE XPLAYER,X1 Mini,X1Mini,X1Pro,X1 Pro,One Xplayer,One xPlayer,OnexPlayer, OneXplayer,OneGx,One-Netbook,T1,T2,T3,X1,X2,X3,PL1,PL2,PL3,P1,P2,P3,L1,L2,L3,G1,G2,G3,M1,M2,M3,F1,F2,F3,A1,A2,A3,i1,i3,i5
Model differences:	The following models of units we produce are identical in electrical, mechanical and physical structure; The difference is only in the model name and color, we finally have ONE XPLAYER as test model.
Hardware Version:	N/A
Software Version:	N/A
IEEE 802.11 WLAN Mode Supported	☒802.11a ☒802.11n(20MHz channel bandwidth) ☒802.11n(40MHz channel bandwidth) ☒802.11ac(20MHz channel bandwidth) ☒802.11ac(40MHz channel bandwidth) ☒802.11ac(80MHz channel bandwidth) ☒802.11ax(20MHz channel bandwidth) ☒802.11ax(40MHz channel bandwidth) ☒802.11ax(80MHz channel bandwidth)
Operation Frequency:	5745-5825 MHz for 802.11a/n/ac(HT20)/ax(HE20); 5755-5795 MHz for 802.11n/ac(HT40)/ax(HE40); 5775MHz for 802.11 ac/ax80
Data Rate	☒802.11a:54/48/36/24/18/12/9/6Mbps ☒802.11n:up to 300 Mbps ☒802.11ac:up to 867 Mbps ☒802.11ax:up to 1201 Mbps
Type of Modulation:	☒OFDM with BPSK/QPSK/16QAM/64QAM for 802.11a/n ☒OFDM with BPSK/QPSK/16QAM/64QAM/256QAM for 802.11ac ☒OFDMA with 1024QAM for 802.11AX HE
Number Of Channel	5 channels for 802.11a/ ac/ax/n20 in the 5745-5825MHz band ; 2 channels for 802.11 ac/ax/n40 in the 5755-5795MHz band ; 1 channels for 802.11 ac/ax80 in the 5775MHz band
Antenna installation:	Internal antenna*2
Antenna Gain:	Antenna A:1.87dBi Antenna B:2.27dBi
Remark:	The antenna gain of the product comes from the antenna report provided by the customer, and the test data is affected by the customer information.
Adapter:	Input:100-240V～,50/60Hz, 2A Max; Output : 5Vdc/ 3A, 9Vdc/ 3A, 12Vdc/ 3A,15Vdc /3A, 20Vdc/ 5A Max. PPS:3.3-20Vdc /3.25A
Battery:	DC 13.2V, 5630mAh

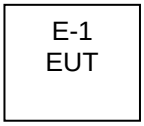
4.2 Test Setup Configuration

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	Portable computer	N/A	ONE XPLAYER	N/A	EUT
E-2	Adapter	N/A	N/A	N/A	EUT

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

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 (5745-5825MHz):

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

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

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

4.5 Test Mode

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

Pretest Mode	Description
Mode 1	802.11a /n/ ac/ax 20 CH149/ CH157/ CH 165
Mode 2	802.11n/ ac/ax40 CH 151 / CH 159
Mode 3	802.11 ac/ax80 CH 155
Mode 4	Link Mode

4.6 Table Of Parameters Of Text Software Setting

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

Test software Version	**CMD**		
Parameters	DEF	DEF	DEF

4.7 Antenna

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For power measurements on IEEE 802.11 devices,

Directional gain = GANT + Array Gain, where Array Gain is as follows:

Array Gain = 0 dB (i.e., no array gain) for NANT $\leqslant$ 4.

GANT is set equal to the gain of the antenna having the highest gain.

For PSD measurements, the directional gain calculation follows F)2)f)ii) of KDB 662911 D01 v02r01.

- $$Directional Gain = 10 \cdot \log\left[\frac{\sum_{j=1}^{N_{SS}}\left\{\sum_{k=1}^{N_{ANT}} g_{j,k}\right\}^2}{N_{ANT}}\right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k/20}$ if the kth antenna is being fed by spatial stream j, or zero if it is not;

G_k is the gain in dBi of the kth antenna.

As minimum NSS=1 is supported by EUT, the formula can be simplified as:

Directional gain = $10*\log[(10^{G1/20} + 10^{G2/20} + \cdots + 10^{GN/20})^2 / N_{ANT}]$ dBi

Where G1, G2….GN denotes single antenna gain.

If a device has two antenna, GANT A= 1.87dBi; GANT B=2.27dBi;

Directional gain of power measurement = max (1.87, 2.27) + 0 = 2.27 dBi

Directional gain of PSD measurement = $10 * \log [(10^{1.87/20} + 10^{2.27/20})^2 / 2]$ =5.08dBi

	Antenna A (dBi)	Antenna B (dBi)	Directional gain for Power (dBi)	Directional gain for PSD (dBi)
5745-5825MHz	1.87	2.27	2.27	5.08

5. Test Facility And Test Instrument Used

5.1 Test Facility

All measurement facilities used to collect the measurement data are located at Shenzhen BCTC Testing Co., Ltd. Address:1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards.
FCC Test Firm Registration Number: 712850
A2LA certificate registration number is: CN1212
ISED Registered No.: 23583
ISED CAB identifier: CN0017

5.2 Test Instrument Used

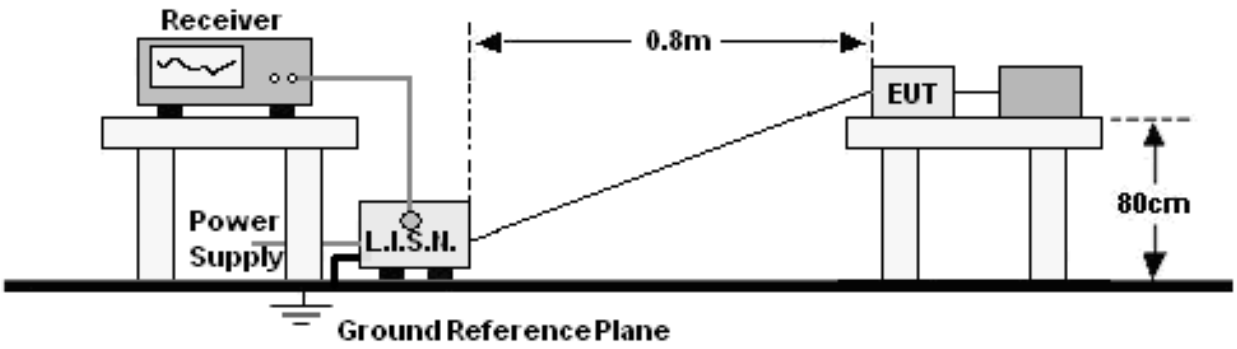
Conducted Emissions Test					
Equipment	**Manufacturer**	**Model#**	**Serial#**	**Last Cal.**	**Next Cal.**
Receiver	R&S	ESR3	102075	May 16, 2024	May 15, 2025
LISN	R&S	ENV216	101375	May 16, 2024	May 15, 2025
Software	Frad	EZ-EMC	EMC-CON 3A1	\	\
Pulse limiter	Schwarzbeck	VTSD 9561-F	01323	May 16, 2024	May 15, 2025

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

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

6. Conducted Emissions

6.1 Block Diagram Of Test Setup



6.2 Limit

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

6.3 Test Procedure

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

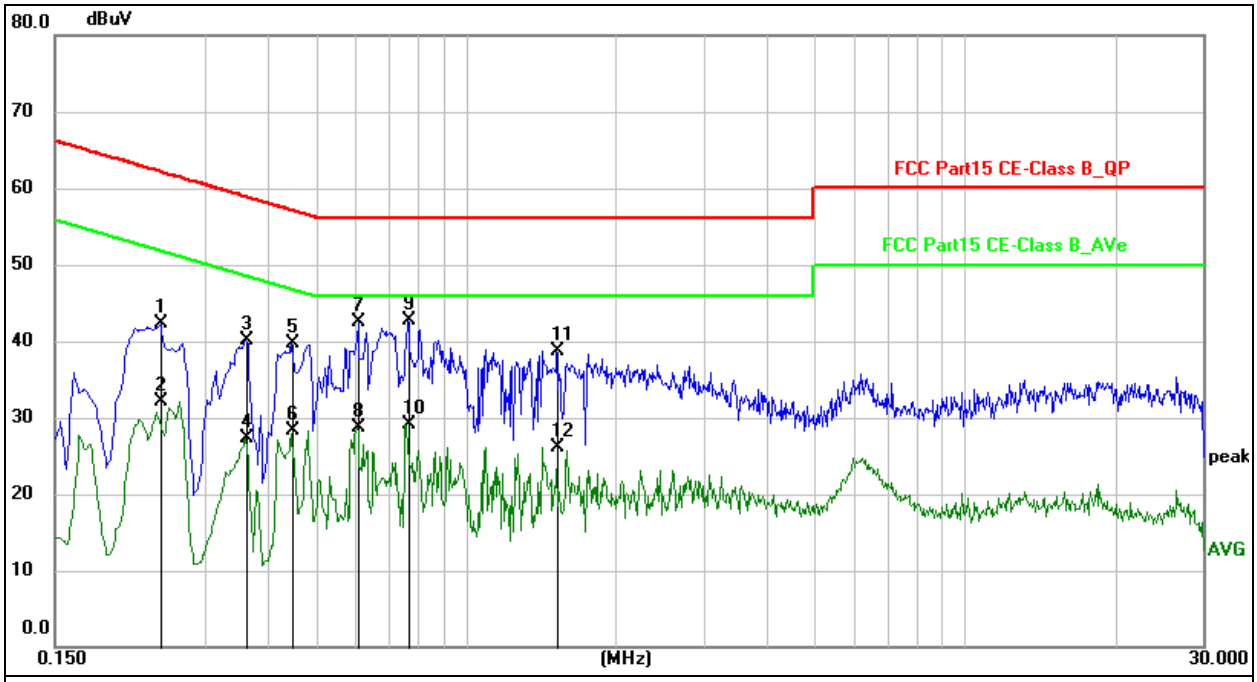
a. The Product was placed on a nonconductive table 0.8 m above the horizontal ground reference plane, and 0.4 m from the vertical ground reference plane, and connected to the main through Line Impedance Stability Network (L.I.S.N).
b. The RBW of the receiver was set at 9 kHz in 150 kHz ~ 30MHz with Peak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

6.4 EUT Operating Conditions

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

6.5 Test Result

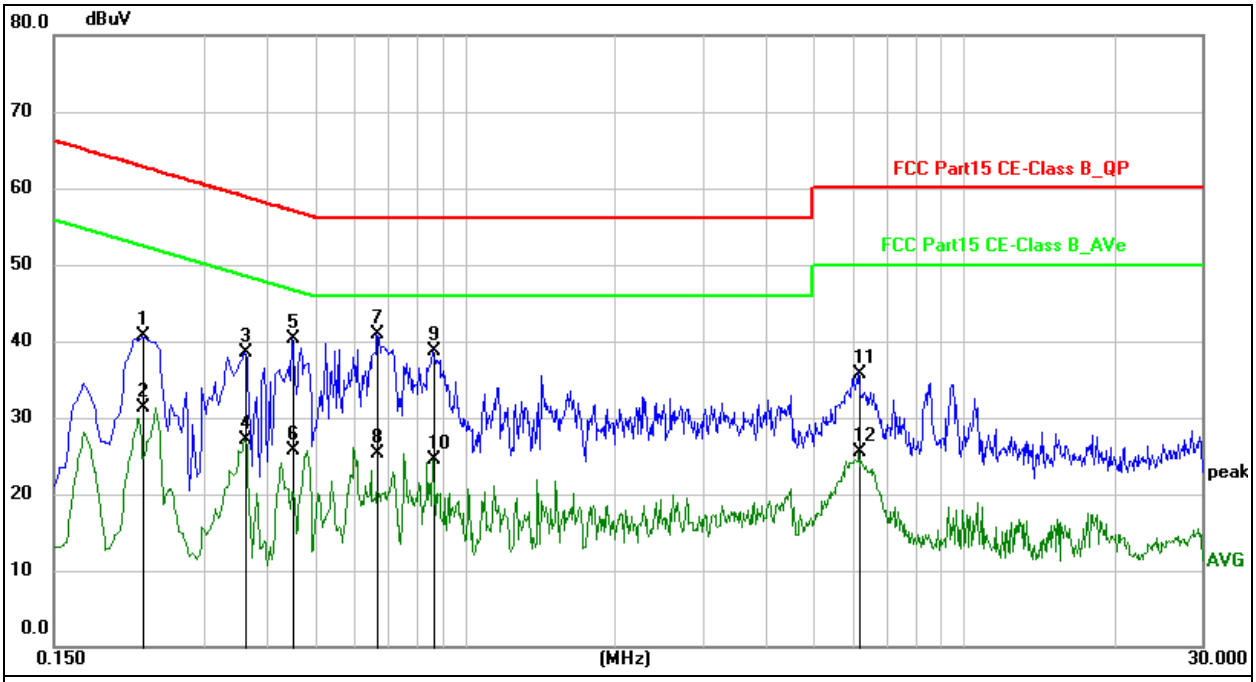
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage ：	AC120/60Hz
Test Mode:	Mode 4	Polarization :	L



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.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P
1	0.2445	31.95	10.27	42.22	61.94	-19.72	QP	
2	0.2445	21.77	10.27	32.04	51.94	-19.90	AVG	
3	0.3615	29.84	10.29	40.13	58.69	-18.56	QP	
4	0.3615	17.04	10.29	27.33	48.69	-21.36	AVG	
5	0.4470	29.36	10.30	39.66	56.93	-17.27	QP	
6	0.4470	18.08	10.30	28.38	46.93	-18.55	AVG	
7	0.6090	32.21	10.34	42.55	56.00	-13.45	QP	
8	0.6090	18.43	10.34	28.77	46.00	-17.23	AVG	
9 *	0.7665	32.41	10.32	42.73	56.00	-13.27	QP	
10	0.7665	18.88	10.32	29.20	46.00	-16.80	AVG	
11	1.5225	28.42	10.32	38.74	56.00	-17.26	QP	
12	1.5225	15.75	10.32	26.07	46.00	-19.93	AVG	

Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage ：	AC120/60Hz
Test Mode:	Mode 4	Polarization :	N



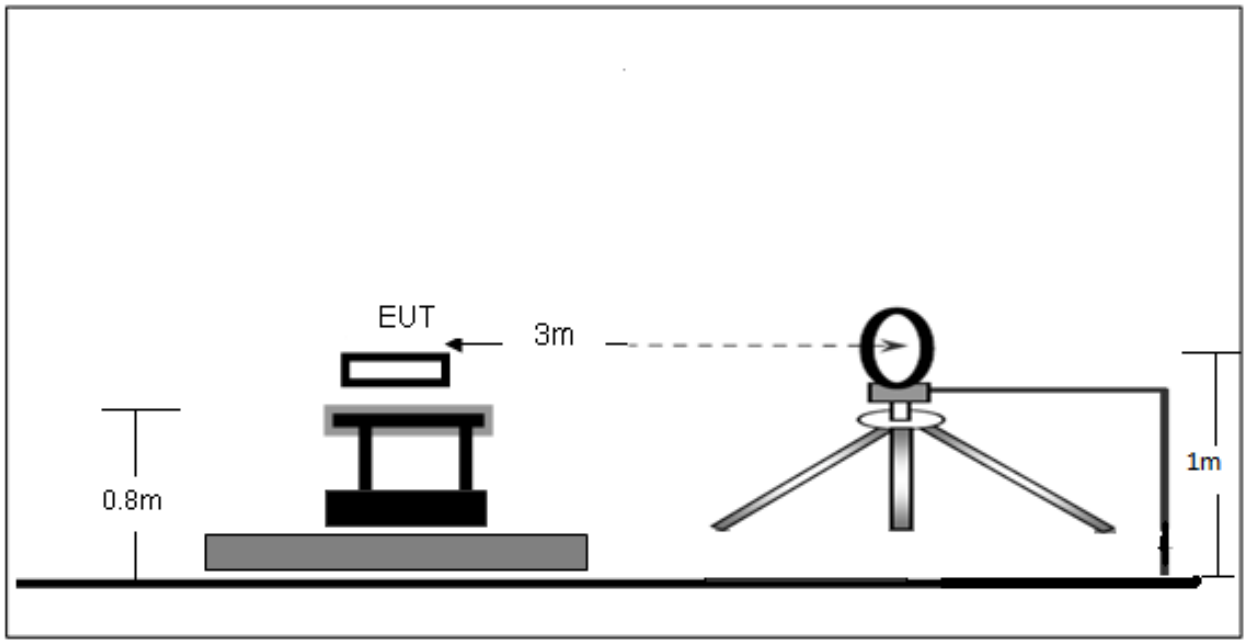
Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement=Reading Level+ Correct Factor
4. Over= Measurement-Limit

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2265	30.35	10.27	40.62	62.58	-21.96	QP
2	0.2265	21.12	10.27	31.39	52.58	-21.19	AVG
3	0.3615	28.14	10.29	38.43	58.69	-20.26	QP
4	0.3615	16.90	10.29	27.19	48.69	-21.50	AVG
5	0.4515	29.99	10.30	40.29	56.85	-16.56	QP
6	0.4515	15.45	10.30	25.75	46.85	-21.10	AVG
7 *	0.6675	30.61	10.33	40.94	56.00	-15.06	QP
8	0.6675	15.05	10.33	25.38	46.00	-20.62	AVG
9	0.8655	28.35	10.30	38.65	56.00	-17.35	QP
10	0.8655	14.13	10.30	24.43	46.00	-21.57	AVG
11	6.1665	25.07	10.73	35.80	60.00	-24.20	QP
12	6.1665	14.78	10.73	25.51	50.00	-24.49	AVG

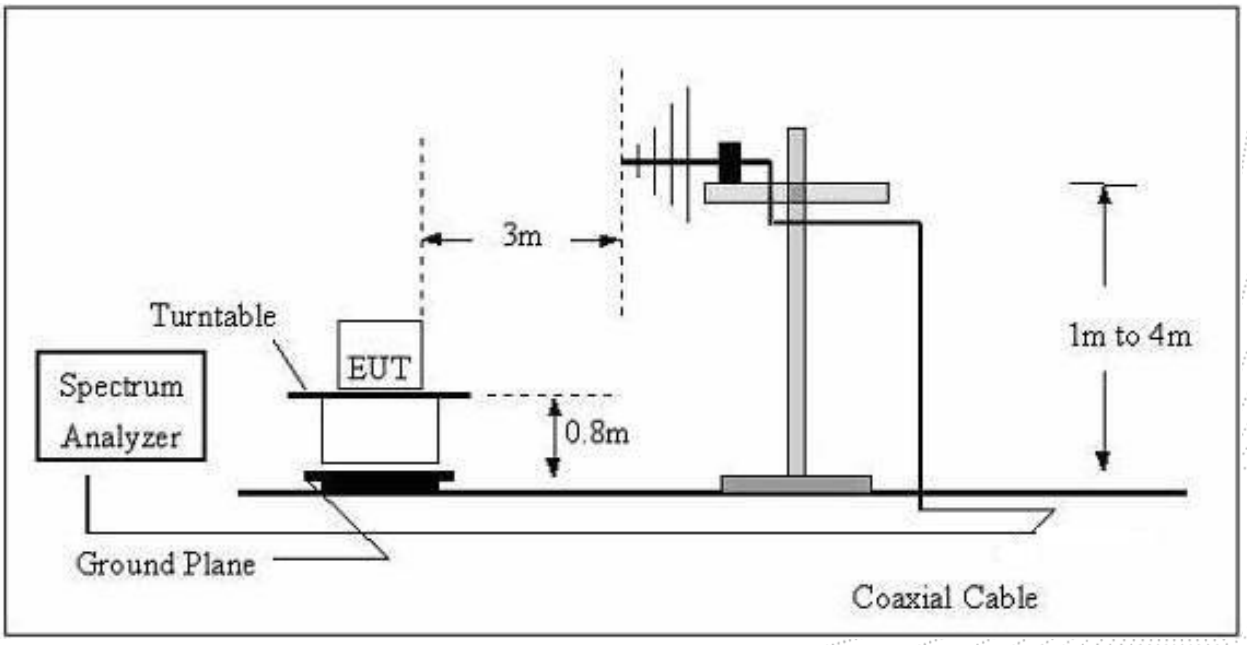
7. Radiated Emissions

7.1 Block Diagram Of Test Setup

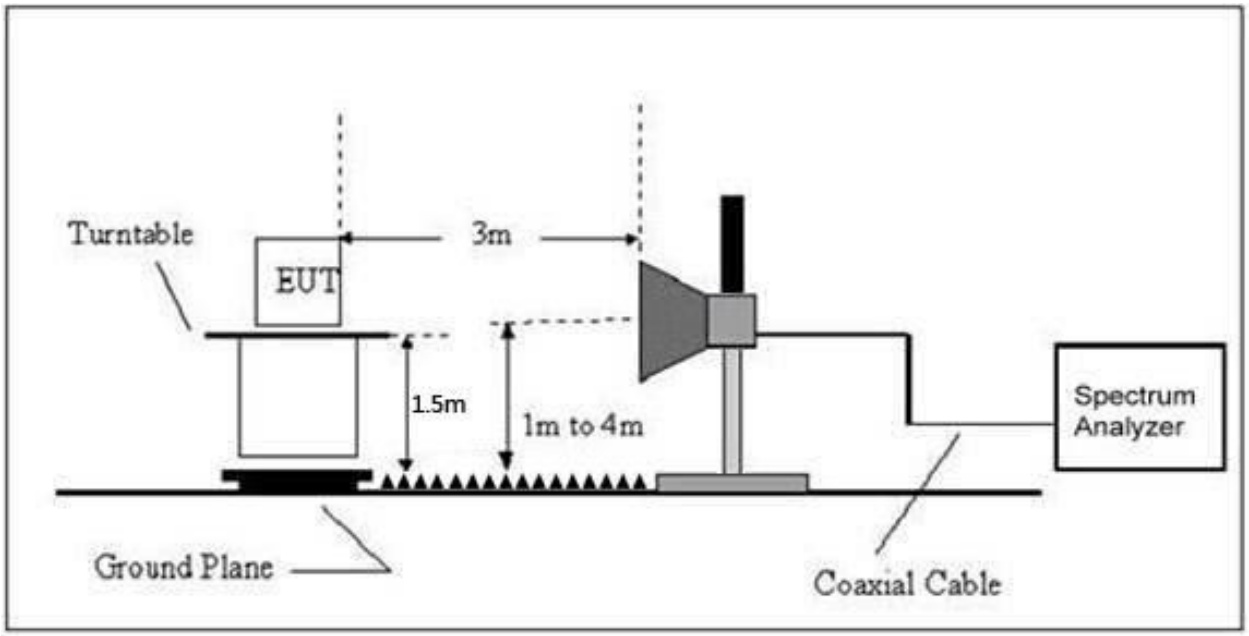
（A）Radiated Emission Test-Up Frequency Below 30MHz



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



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



7.2 Limit

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

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

Limits Of Radiated Emission Measurement (Above 1000MHz)

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

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

7.3 Test Procedure

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

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

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

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

Note:

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

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

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

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

7.4 EUT Operating Conditions

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

7.5 Test Result

Below 30MHz

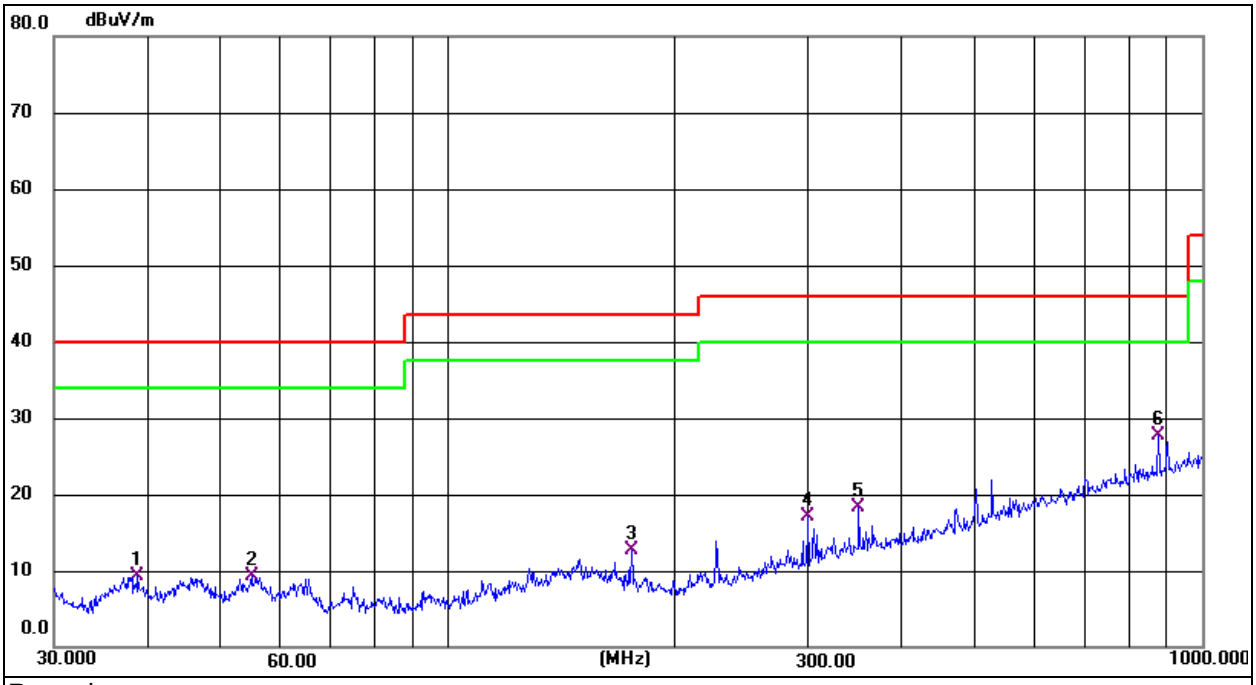
Temperature:	26℃	Relative Humidity:	24%
Pressure:	101 kPa	Test Voltage:	DC 13.2V
Test Mode:	Mode 4	Polarization:	--

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

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

Between 30MHz – 1GHz

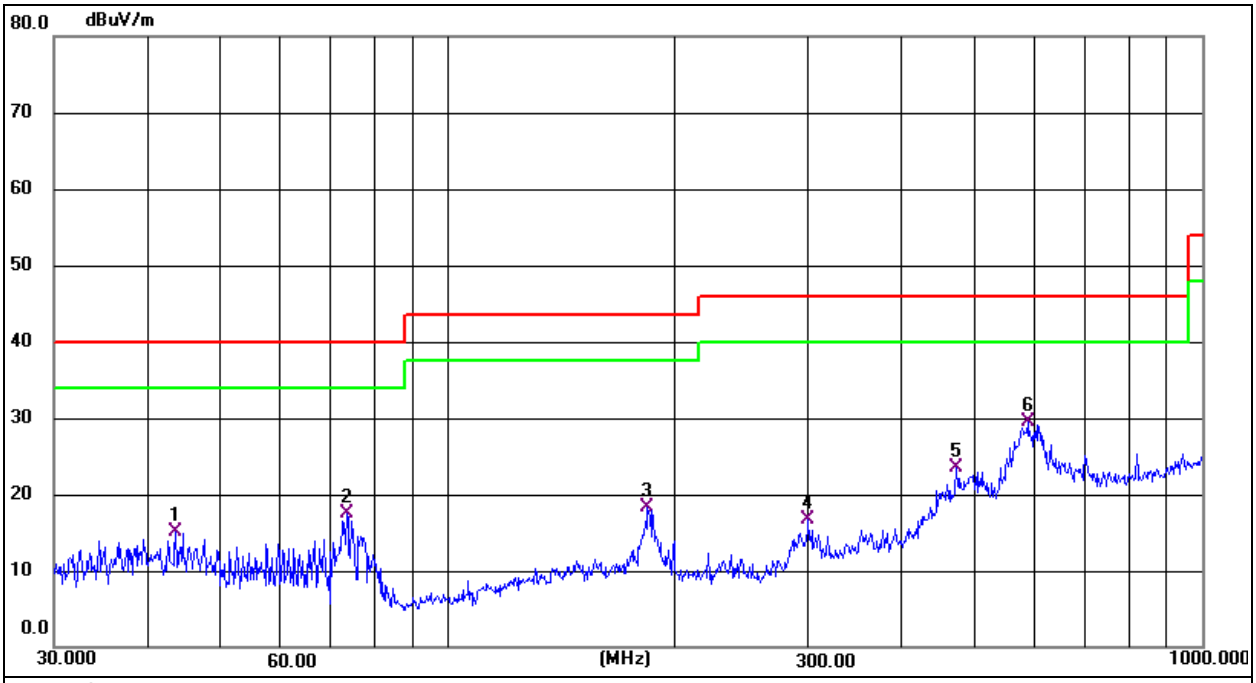
Temperature：	26℃	Relative Humidity：	54%
Pressure：	101 kPa	Test Voltage ：	DC 13.2V
Test Mode ：	Mode 4	Polarization :	Horizontal



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

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	38.7518	26.27	-17.05	9.22	40.00	-30.78	QP
2	54.8348	26.27	-16.98	9.29	40.00	-30.71	QP
3	175.0368	28.56	-15.95	12.61	43.50	-30.89	QP
4	300.3672	30.67	-13.63	17.04	46.00	-28.96	QP
5	350.4768	30.31	-11.91	18.40	46.00	-27.60	QP
6 *	875.2470	27.13	0.54	27.67	46.00	-18.33	QP

Temperature：	26℃	Relative Humidity：	54%
Pressure：	101 kPa	Test Voltage ：	DC 13.2V
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.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	43.5057	31.90	-16.88	15.02	40.00	-24.98	QP
2	73.3593	36.61	-19.12	17.49	40.00	-22.51	QP
3	183.8440	34.89	-16.51	18.38	43.50	-25.12	QP
4	300.3672	30.36	-13.63	16.73	46.00	-29.27	QP
5	472.1760	31.77	-8.36	23.41	46.00	-22.59	QP
6 *	586.8437	34.75	-5.31	29.44	46.00	-16.56	QP

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	4679.071	72.02	-20.24	51.78	74	-22.22	Pk
Vertical	4679.071	59.28	-20.24	39.04	54	-14.96	AV
Vertical	11490.104	62.90	-8.79	54.11	68.2	-14.09	Pk
Vertical	11490.104	49.54	-8.79	40.75	54	-13.25	AV
Vertical	17235.052	57.11	-3.18	53.93	68.2	-14.27	Pk
Vertical	17235.052	44.08	-3.18	40.90	54	-13.10	AV
Horizontal	4679.054	74.04	-20.73	53.31	74	-20.69	Pk
Horizontal	4679.054	59.74	-20.73	39.01	54	-14.99	AV
Horizontal	11490.156	63.86	-8.79	55.07	68.2	-13.13	Pk
Horizontal	11490.156	49.60	-8.79	40.81	54	-13.19	AV
Horizontal	17235.098	57.37	-3.18	54.19	68.2	-14.01	Pk
Horizontal	17235.098	44.78	-3.18	41.60	54	-12.40	AV
middle Channel (5785 MHz)-Above 1G							
Vertical	4592.148	73.42	-20.42	53.01	74	-20.99	Pk
Vertical	4592.148	59.14	-20.42	38.73	54	-15.27	AV
Vertical	11570.151	64.27	-8.86	55.41	68.2	-12.79	Pk
Vertical	11570.151	49.57	-8.86	40.71	54	-13.29	AV
Vertical	17355.091	56.00	-2.52	53.48	68.2	-14.72	Pk
Vertical	17355.091	44.50	-2.52	41.98	54	-12.02	AV
Horizontal	4592.040	73.77	-20.42	53.36	74	-20.64	Pk
Horizontal	4592.040	59.81	-20.42	39.40	54	-14.60	AV
Horizontal	11570.079	64.48	-8.86	55.62	68.2	-12.58	Pk
Horizontal	11570.079	49.82	-8.86	40.96	54	-13.04	AV
Horizontal	17355.192	57.32	-2.52	54.80	68.2	-13.40	Pk
Horizontal	17355.192	44.65	-2.52	42.13	54	-11.87	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.058	73.13	-18.93	54.20	68.2	-14.00	Pk
Vertical	6039.058	59.35	-18.93	40.42	54	-13.58	AV
Vertical	11650.014	61.25	-8.92	52.33	74	-21.67	Pk
Vertical	11650.014	49.05	-8.92	40.13	54	-13.87	AV
Vertical	17475.197	56.23	-1.86	54.37	68.2	-13.83	Pk
Vertical	17475.197	44.71	-1.86	42.85	54	-11.15	AV
Horizontal	6039.081	71.83	-18.93	52.90	68.2	-15.30	Pk
Horizontal	6039.081	59.38	-18.93	40.45	54	-13.55	AV
Horizontal	11650.044	60.31	-8.92	51.39	74	-22.61	Pk
Horizontal	11650.044	49.89	-8.92	40.97	54	-13.03	AV
Horizontal	17475.141	55.94	-1.86	54.08	68.2	-14.12	Pk
Horizontal	17475.141	44.35	-1.86	42.49	54	-11.51	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	4679.061	71.84	-20.24	51.60	74	-22.40	Pk
Vertical	4679.061	59.97	-20.24	39.73	54	-14.27	AV
Vertical	11490.081	64.98	-8.79	56.19	68.2	-12.01	Pk
Vertical	11490.081	49.42	-8.79	40.63	54	-13.37	AV
Vertical	17235.194	58.36	-3.18	55.18	68.2	-13.02	Pk
Vertical	17235.194	44.47	-3.18	41.29	54	-12.71	AV
Horizontal	4679.027	71.09	-20.24	50.84	74	-23.16	Pk
Horizontal	4679.027	59.63	-20.24	39.38	54	-14.62	AV
Horizontal	11490.034	63.98	-8.79	55.19	68.2	-13.01	Pk
Horizontal	11490.034	49.03	-8.79	40.24	54	-13.76	AV
Horizontal	17235.009	59.36	-3.18	56.18	68.2	-12.02	Pk
Horizontal	17235.009	44.16	-3.18	40.98	54	-13.02	AV
middle Channel (5785 MHz)-Above 1G							
Vertical	4592.064	73.87	-20.42	53.46	74	-20.54	Pk
Vertical	4592.064	59.29	-20.42	38.88	54	-15.12	AV
Vertical	11570.084	62.47	-8.86	53.61	68.2	-14.59	Pk
Vertical	11570.084	49.80	-8.86	40.94	54	-13.06	AV
Vertical	17355.101	56.61	-2.52	54.09	68.2	-14.11	Pk
Vertical	17355.101	44.91	-2.52	42.39	54	-11.61	AV
Horizontal	4592.078	74.91	-20.42	54.50	74	-19.50	Pk
Horizontal	4592.078	59.06	-20.42	38.65	54	-15.35	AV
Horizontal	11570.123	64.32	-8.86	55.46	68.2	-12.74	Pk
Horizontal	11570.123	49.77	-8.86	40.91	54	-13.09	AV
Horizontal	17355.157	56.06	-2.52	53.54	68.2	-14.66	Pk
Horizontal	17355.157	44.06	-2.52	41.54	54	-12.46	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.122	71.46	-18.93	52.53	68.2	-15.67	Pk
Vertical	6039.122	59.35	-18.93	40.42	54	-13.58	AV
Vertical	11650.150	63.69	-8.92	54.77	74	-19.23	Pk
Vertical	11650.150	49.11	-8.92	40.19	54	-13.81	AV
Vertical	17475.076	56.53	-1.86	54.67	68.2	-13.53	Pk
Vertical	17475.076	44.34	-1.86	42.48	54	-11.52	AV
Horizontal	6039.165	72.83	-18.93	53.89	68.2	-14.31	Pk
Horizontal	6039.165	59.68	-18.93	40.75	54	-13.25	AV
Horizontal	11650.182	60.77	-8.92	51.85	74	-22.15	Pk
Horizontal	11650.182	49.94	-8.92	41.02	54	-12.98	AV
Horizontal	17475.124	57.72	-1.86	55.86	68.2	-12.34	Pk
Horizontal	17475.124	44.47	-1.86	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(antenna A+ antenna B) 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	4679.186	71.66	-20.24	51.42	74	-22.58	Pk
Vertical	4679.186	59.02	-20.24	38.78	54	-15.22	AV
Vertical	11510.139	61.82	-8.81	53.01	74	-20.99	Pk
Vertical	11510.139	49.42	-8.81	40.61	54	-13.39	AV
Vertical	17265.052	59.27	-3.01	56.26	68.2	-11.94	Pk
Vertical	17265.052	44.28	-3.01	41.27	54	-12.73	AV
Horizontal	4679.200	71.17	-20.24	50.93	74	-23.07	Pk
Horizontal	4679.200	59.42	-20.24	39.18	54	-14.82	AV
Horizontal	11510.200	63.77	-8.81	54.96	74	-19.04	Pk
Horizontal	11510.200	49.63	-8.81	40.82	54	-13.18	AV
Horizontal	17265.168	58.10	-3.01	55.09	68.2	-13.11	Pk
Horizontal	17265.168	44.84	-3.01	41.83	54	-12.17	AV
middle Channel (5795 MHz)-Above 1G							
Vertical	6039.137	72.05	-18.93	53.12	68.2	-15.08	Pk
Vertical	6039.137	59.08	-18.93	40.14	54	-13.86	AV
Vertical	11590.036	60.63	-8.87	51.76	74	-22.24	Pk
Vertical	11590.036	49.80	-8.87	40.93	54	-13.07	AV
Vertical	17385.070	57.80	-2.35	55.45	68.2	-12.75	Pk
Vertical	17385.070	44.04	-2.35	41.69	54	-12.31	AV
Horizontal	6039.020	71.57	-18.93	52.64	68.2	-15.56	Pk
Horizontal	6039.020	59.84	-18.93	40.91	54	-13.09	AV
Horizontal	11590.168	64.96	-8.87	56.09	74	-17.91	Pk
Horizontal	11590.168	49.08	-8.87	40.21	54	-13.79	AV
Horizontal	17385.186	55.54	-2.35	53.19	68.2	-15.01	Pk
Horizontal	17385.186	44.13	-2.35	41.78	54	-12.22	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(antenna A+ antenna B) 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	4679.126	72.79	-20.24	52.55	74	-21.45	Pk
Vertical	4679.126	59.50	-20.24	39.26	54	-14.74	AV
Vertical	11490.026	63.27	-8.79	54.48	68.2	-13.72	Pk
Vertical	11490.026	49.24	-8.79	40.45	54	-13.55	AV
Vertical	17235.029	55.17	-3.18	51.99	68.2	-16.21	Pk
Vertical	17235.029	44.73	-3.18	41.55	54	-12.45	AV
Horizontal	4679.175	72.15	-20.24	51.91	74	-22.09	Pk
Horizontal	4679.175	59.48	-20.24	39.24	54	-14.76	AV
Horizontal	11490.077	60.58	-8.79	51.79	68.2	-16.41	Pk
Horizontal	11490.077	49.12	-8.79	40.33	54	-13.67	AV
Horizontal	17235.182	57.76	-3.18	54.58	68.2	-13.62	Pk
Horizontal	17235.182	44.52	-3.18	41.34	54	-12.66	AV
middle Channel (5785 MHz)-Above 1G							
Vertical	4592.117	73.12	-20.42	52.71	74	-21.29	Pk
Vertical	4592.117	59.24	-20.42	38.82	54	-15.18	AV
Vertical	11570.026	62.20	-8.86	53.34	68.2	-14.86	Pk
Vertical	11570.026	49.54	-8.86	40.68	54	-13.32	AV
Vertical	17355.122	59.37	-2.52	56.85	68.2	-11.35	Pk
Vertical	17355.122	44.93	-2.52	42.41	54	-11.59	AV
Horizontal	4592.173	73.33	-20.42	52.91	74	-21.09	Pk
Horizontal	4592.173	59.18	-20.42	38.77	54	-15.23	AV
Horizontal	11570.030	62.97	-8.86	54.11	68.2	-14.09	Pk
Horizontal	11570.030	49.08	-8.86	40.22	54	-13.78	AV
Horizontal	17355.055	58.93	-2.52	56.41	68.2	-11.79	Pk
Horizontal	17355.055	44.29	-2.52	41.77	54	-12.23	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.123	70.36	-18.93	51.43	68.2	-16.77	Pk
Vertical	6039.123	59.85	-18.93	40.92	54	-13.08	AV
Vertical	11650.054	63.16	-8.92	54.24	74	-19.76	Pk
Vertical	11650.054	49.85	-8.92	40.93	54	-13.07	AV
Vertical	17475.128	55.63	-1.86	53.77	68.2	-14.43	Pk
Vertical	17475.128	44.31	-1.86	42.45	54	-11.55	AV
Horizontal	6039.010	74.26	-18.93	55.33	68.2	-12.87	Pk
Horizontal	6039.010	59.23	-18.93	40.29	54	-13.71	AV
Horizontal	11650.024	62.19	-8.92	53.27	74	-20.73	Pk
Horizontal	11650.024	49.28	-8.92	40.36	54	-13.64	AV
Horizontal	17475.035	56.88	-1.86	55.02	68.2	-13.18	Pk
Horizontal	17475.035	44.95	-1.86	43.09	54	-10.91	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(antenna A+ antenna B) 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	4679.024	73.39	-20.24	53.14	74	-20.86	Pk
Vertical	4679.024	59.04	-20.24	38.80	54	-15.20	AV
Vertical	11510.121	61.25	-8.81	52.44	74	-21.56	Pk
Vertical	11510.121	49.18	-8.81	40.37	54	-13.63	AV
Vertical	17265.139	56.51	-3.01	53.50	68.2	-14.70	Pk
Vertical	17265.139	44.42	-3.01	41.41	54	-12.59	AV
Horizontal	4679.079	74.34	-20.24	54.09	74	-19.91	Pk
Horizontal	4679.079	59.13	-20.24	38.89	54	-15.11	AV
Horizontal	11510.143	60.81	-8.81	52.00	74	-22.00	Pk
Horizontal	11510.143	49.83	-8.81	41.02	54	-12.98	AV
Horizontal	17265.018	57.93	-3.01	54.92	68.2	-13.28	Pk
Horizontal	17265.018	44.76	-3.01	41.75	54	-12.25	AV
middle Channel (5795 MHz)-Above 1G							
Vertical	6039.160	71.03	-18.93	52.10	68.2	-16.10	Pk
Vertical	6039.160	59.14	-18.93	40.21	54	-13.79	AV
Vertical	11590.183	60.33	-8.87	51.46	74	-22.54	Pk
Vertical	11590.183	49.42	-8.87	40.55	54	-13.45	AV
Vertical	17385.007	55.95	-2.35	53.60	68.2	-14.60	Pk
Vertical	17385.007	44.92	-2.35	42.57	54	-11.43	AV
Horizontal	6039.163	74.02	-18.93	55.09	68.2	-13.11	Pk
Horizontal	6039.163	59.52	-18.93	40.59	54	-13.41	AV
Horizontal	11590.012	62.88	-8.87	54.01	74	-19.99	Pk
Horizontal	11590.012	49.96	-8.87	41.09	54	-12.91	AV
Horizontal	17385.160	56.45	-2.35	54.10	68.2	-14.10	Pk
Horizontal	17385.160	44.86	-2.35	42.51	54	-11.49	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(antenna A+ antenna B) Mode.

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

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
(5775 MHz)-Above 1G							
Vertical	4679.114	70.35	-20.24	50.11	74	-23.89	Pk
Vertical	4679.114	59.25	-20.24	39.01	54	-14.99	AV
Vertical	11550.164	62.17	-8.84	53.33	74	-20.67	Pk
Vertical	11550.164	49.45	-8.84	40.61	54	-13.39	AV
Vertical	17325.041	55.70	-2.68	53.02	68.2	-15.18	Pk
Vertical	17325.041	44.16	-2.68	41.48	54	-12.52	AV
Horizontal	4679.156	70.96	-20.24	50.72	74	-23.28	Pk
Horizontal	4679.156	59.19	-20.24	38.95	54	-15.05	AV
Horizontal	11550.061	62.76	-8.84	53.92	74	-20.08	Pk
Horizontal	11550.061	49.42	-8.84	40.58	54	-13.42	AV
Horizontal	17325.194	55.73	-2.68	53.05	68.2	-15.15	Pk
Horizontal	17325.194	44.79	-2.68	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(antenna A+ antenna B) Mode.

Test Mode:	TX(5.8G) - 802.11ax-HE20

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	74.66	-20.24	54.42	74	-19.58	Pk
Vertical	4679.024	59.60	-20.24	39.35	54	-14.65	AV
Vertical	11490.192	64.77	-8.79	55.98	68.2	-12.22	Pk
Vertical	11490.192	49.48	-8.79	40.69	54	-13.31	AV
Vertical	17235.039	57.94	-3.18	54.76	68.2	-13.44	Pk
Vertical	17235.039	44.12	-3.18	40.94	54	-13.06	AV
Horizontal	4679.026	74.11	-20.24	53.87	74	-20.13	Pk
Horizontal	4679.026	59.55	-20.24	39.31	54	-14.69	AV
Horizontal	11490.118	62.67	-8.79	53.88	68.2	-14.32	Pk
Horizontal	11490.118	49.84	-8.79	41.05	54	-12.95	AV
Horizontal	17235.015	57.47	-3.18	54.29	68.2	-13.91	Pk
Horizontal	17235.015	44.28	-3.18	41.10	54	-12.90	AV
middle Channel (5785 MHz)-Above 1G							
Vertical	4592.100	70.72	-20.42	50.30	74	-23.70	Pk
Vertical	4592.100	59.02	-20.42	38.60	54	-15.40	AV
Vertical	11570.159	63.83	-8.86	54.97	68.2	-13.23	Pk
Vertical	11570.159	49.28	-8.86	40.42	54	-13.58	AV
Vertical	17355.107	55.44	-2.52	52.92	68.2	-15.28	Pk
Vertical	17355.107	44.41	-2.52	41.89	54	-12.11	AV
Horizontal	4592.061	74.55	-20.42	54.13	74	-19.87	Pk
Horizontal	4592.061	59.83	-20.42	39.42	54	-14.58	AV
Horizontal	11570.120	64.76	-8.86	55.90	68.2	-12.30	Pk
Horizontal	11570.120	49.64	-8.86	40.78	54	-13.22	AV
Horizontal	17355.119	55.79	-2.52	53.27	68.2	-14.93	Pk
Horizontal	17355.119	44.34	-2.52	41.82	54	-12.18	AV
High Channel (5825 MHz)-Above 1G							
Vertical	6039.078	70.01	-18.93	51.08	68.2	-17.12	Pk
Vertical	6039.078	59.93	-18.93	40.99	54	-13.01	AV
Vertical	11650.053	62.38	-8.92	53.46	74	-20.54	Pk
Vertical	11650.053	49.10	-8.92	40.18	54	-13.82	AV
Vertical	17475.010	56.86	-1.86	55.00	68.2	-13.20	Pk
Vertical	17475.010	44.25	-1.86	42.39	54	-11.61	AV
Horizontal	6039.029	72.61	-18.93	53.68	68.2	-14.52	Pk
Horizontal	6039.029	59.78	-18.93	40.85	54	-13.15	AV
Horizontal	11650.003	60.19	-8.92	51.27	74	-22.73	Pk
Horizontal	11650.003	49.31	-8.92	40.39	54	-13.61	AV
Horizontal	17475.167	58.05	-1.86	56.19	68.2	-12.01	Pk
Horizontal	17475.167	44.37	-1.86	42.51	54	-11.49	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(antenna A+ antenna B) Mode.

Test Mode:	TX(5.8G) - 802.11ax-HE40

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	4679.006	74.26	-20.24	54.02	74	-19.98	Pk
Vertical	4679.006	59.95	-20.24	39.71	54	-14.29	AV
Vertical	11510.137	60.87	-8.81	52.06	74	-21.94	Pk
Vertical	11510.137	49.63	-8.81	40.82	54	-13.18	AV
Vertical	17265.014	58.37	-3.01	55.36	68.2	-12.84	Pk
Vertical	17265.014	44.44	-3.01	41.43	54	-12.57	AV
Horizontal	4679.031	74.47	-20.24	54.23	74	-19.77	Pk
Horizontal	4679.031	59.43	-20.24	39.19	54	-14.81	AV
Horizontal	11510.006	61.81	-8.81	53.00	74	-21.00	Pk
Horizontal	11510.006	49.03	-8.81	40.22	54	-13.78	AV
Horizontal	17265.094	55.32	-3.01	52.31	68.2	-15.89	Pk
Horizontal	17265.094	44.01	-3.01	41.00	54	-13.00	AV
middle Channel (5795 MHz)-Above 1G							
Vertical	6039.070	74.26	-18.93	55.32	68.2	-12.88	Pk
Vertical	6039.070	59.42	-18.93	40.48	54	-13.52	AV
Vertical	11590.089	62.05	-8.87	53.18	74	-20.82	Pk
Vertical	11590.089	49.29	-8.87	40.42	54	-13.58	AV
Vertical	17385.124	59.35	-2.35	57.00	68.2	-11.20	Pk
Vertical	17385.124	44.07	-2.35	41.72	54	-12.28	AV
Horizontal	6039.115	73.68	-18.93	54.74	68.2	-13.46	Pk
Horizontal	6039.115	59.35	-18.93	40.42	54	-13.58	AV
Horizontal	11590.008	64.77	-8.87	55.90	74	-18.10	Pk
Horizontal	11590.008	49.71	-8.87	40.84	54	-13.16	AV
Horizontal	17385.081	55.92	-2.35	53.57	68.2	-14.63	Pk
Horizontal	17385.081	44.04	-2.35	41.69	54	-12.31	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(antenna A+ antenna B) Mode.

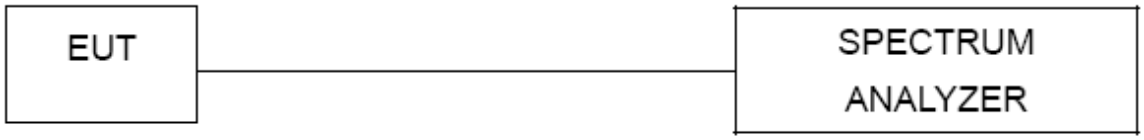
Test Mode:	TX(5.8G) - 802.11ax-HE80

Polar	Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Over	Detector Type
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
(5775 MHz)-Above 1G							
Vertical	4679.128	73.71	-20.24	53.47	74	-20.53	Pk
Vertical	4679.128	59.89	-20.24	39.65	54	-14.35	AV
Vertical	11550.006	60.48	-8.84	51.64	74	-22.36	Pk
Vertical	11550.006	49.65	-8.84	40.81	54	-13.19	AV
Vertical	17325.153	55.91	-2.68	53.23	68.2	-14.97	Pk
Vertical	17325.153	44.13	-2.68	41.45	54	-12.55	AV
Horizontal	4679.142	73.70	-20.24	53.46	74	-20.54	Pk
Horizontal	4679.142	59.37	-20.24	39.13	54	-14.87	AV
Horizontal	11550.171	63.85	-8.84	55.01	74	-18.99	Pk
Horizontal	11550.171	49.33	-8.84	40.49	54	-13.51	AV
Horizontal	17325.117	58.45	-2.68	55.77	68.2	-12.43	Pk
Horizontal	17325.117	44.82	-2.68	42.14	54	-11.86	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(antenna A+ antenna B) 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 ≥ 1/T, where T is defined in section II.B.I.a).
b) Set VBW ≥ 3 RBW.
c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10log(500kHz/RBW) to the measured result, whereas RBW (< 500 KHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add 10log(1MHz/RBW) to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.
e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

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

8.4 EUT Operating Conditions

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

8.5 Test Result

Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 13.2V
Test Mode:	(5745-5825MHz)		

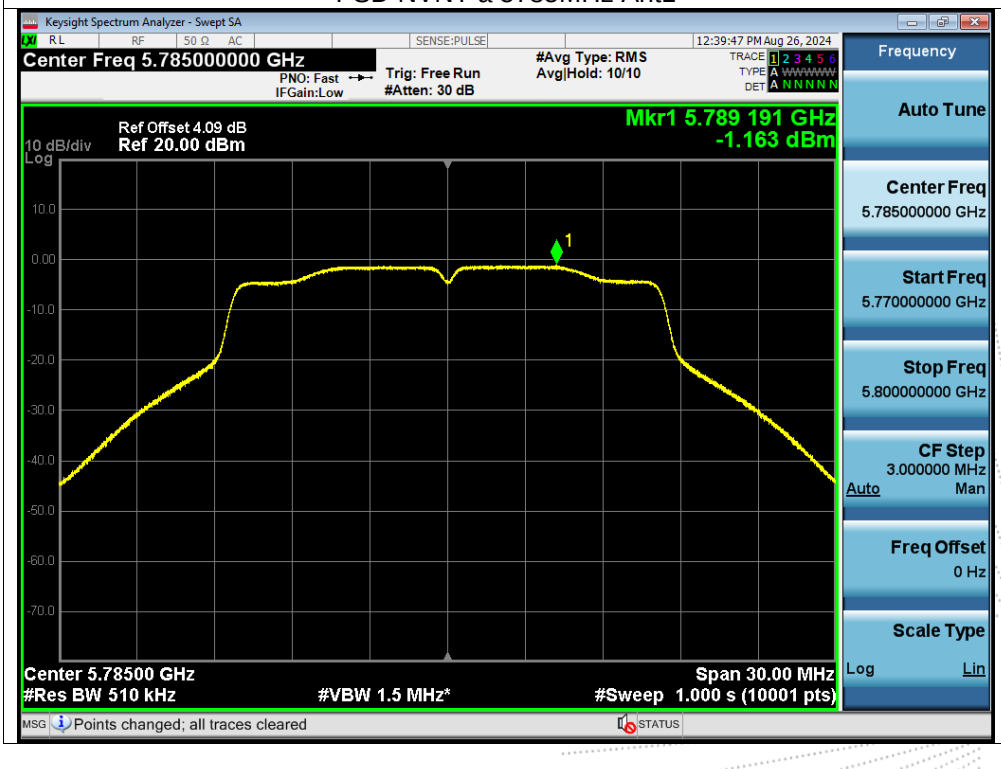
Condition	Mode	Frequency (MHz)	Conducted PSD (dBm/500KHz)		Total (dBm/500KH)	Limit (dBm/500KHz)	Verdict
			Ant A	Ant B			
NVNT	a	5745	-1.22	-1.06	/	30	Pass
NVNT	a	5785	-1.16	-0.68	/	30	Pass
NVNT	a	5825	-1.14	-0.87	/	30	Pass
NVNT	n20	5745	-1.85	-0.83	1.70	30	Pass
NVNT	n20	5785	-1.88	-0.88	1.66	30	Pass
NVNT	n20	5825	-1.85	-0.67	1.79	30	Pass
NVNT	n40	5755	-4.52	-4.53	-1.51	30	Pass
NVNT	n40	5795	-5.29	-5.13	-2.20	30	Pass
NVNT	ac20	5745	-1.17	-0.14	2.39	30	Pass
NVNT	ac20	5785	-2	-0.84	1.63	30	Pass
NVNT	ac20	5825	-0.94	-0.17	2.47	30	Pass
NVNT	ac40	5755	-3.37	-3.24	-0.29	30	Pass
NVNT	ac40	5795	-5.54	-4.86	-2.18	30	Pass
NVNT	ac80	5775	-9.6	-8.11	-5.78	30	Pass
NVNT	ax20	5745	-1.74	-0.5	1.93	30	Pass
NVNT	ax20	5785	-1.61	-0.09	2.23	30	Pass
NVNT	ax20	5825	-1.29	0.49	2.70	30	Pass
NVNT	ax40	5755	-5.45	-5.29	-2.36	30	Pass
NVNT	ax40	5795	-4.01	-5.07	-1.50	30	Pass
NVNT	ax80	5775	-9.64	-8.53	-6.04	30	Pass

Total：antenna A+ antenna B

Ant A:

Test Graphs
PSD NVNT a 5745MHz Ant1

PSD NVNT a 5785MHz Ant1



PSD NVNT a 5825MHz Ant1

PSD NVNT n20 5745MHz Ant1

PSD NVNT n20 5785MHz Ant1

PSD NVNT n20 5825MHz Ant1

PSD NVNT n40 5755MHz Ant1

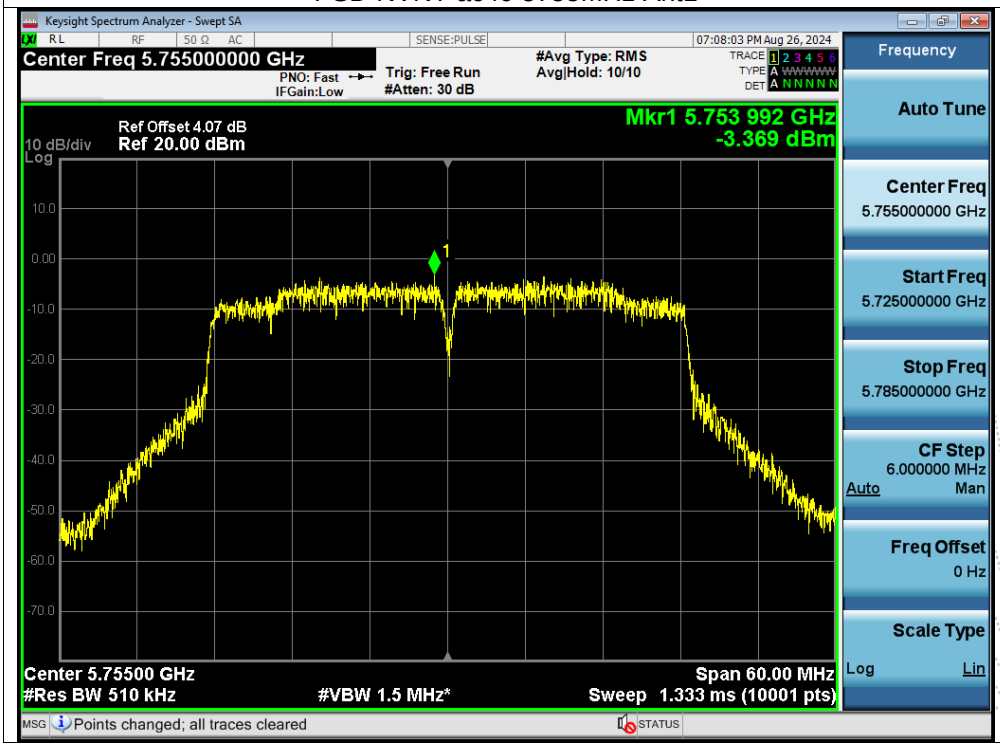
PSD NVNT n40 5795MHz Ant1

PSD NVNT ac20 5745MHz Ant1

PSD NVNT ac20 5785MHz Ant1

PSD NVNT ac20 5825MHz Ant1

PSD NVNT ac40 5755MHz Ant1



PSD NVNT ac40 5795MHz Ant1

PSD NVNT ac80 5775MHz Ant1

PSD NVNT ax20 5745MHz Ant1

PSD NVNT ax20 5785MHz Ant1

PSD NVNT ax20 5825MHz Ant1

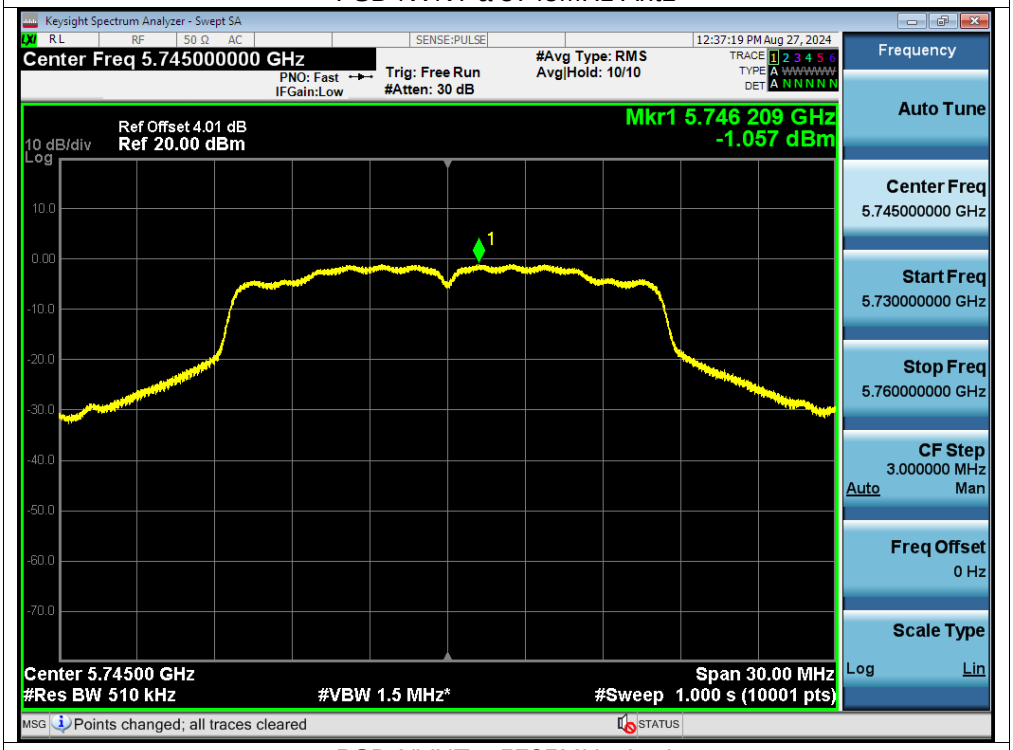
PSD NVNT ax40 5755MHz Ant1

PSD NVNT ax40 5795MHz Ant1

PSD NVNT ax80 5775MHz Ant1

Ant B:

Test Graphs
PSD NVNT a 5745MHz Ant1



PSD NVNT a 5785MHz Ant1

PSD NVNT a 5825MHz Ant1

PSD NVNT n20 5745MHz Ant1

PSD NVNT n20 5785MHz Ant1

PSD NVNT n20 5825MHz Ant1

PSD NVNT n40 5755MHz Ant1

PSD NVNT n40 5795MHz Ant1

PSD NVNT ac20 5745MHz Ant1

PSD NVNT ac20 5785MHz Ant1

PSD NVNT ac20 5825MHz Ant1

PSD NVNT ac40 5755MHz Ant1

PSD NVNT ac40 5795MHz Ant1

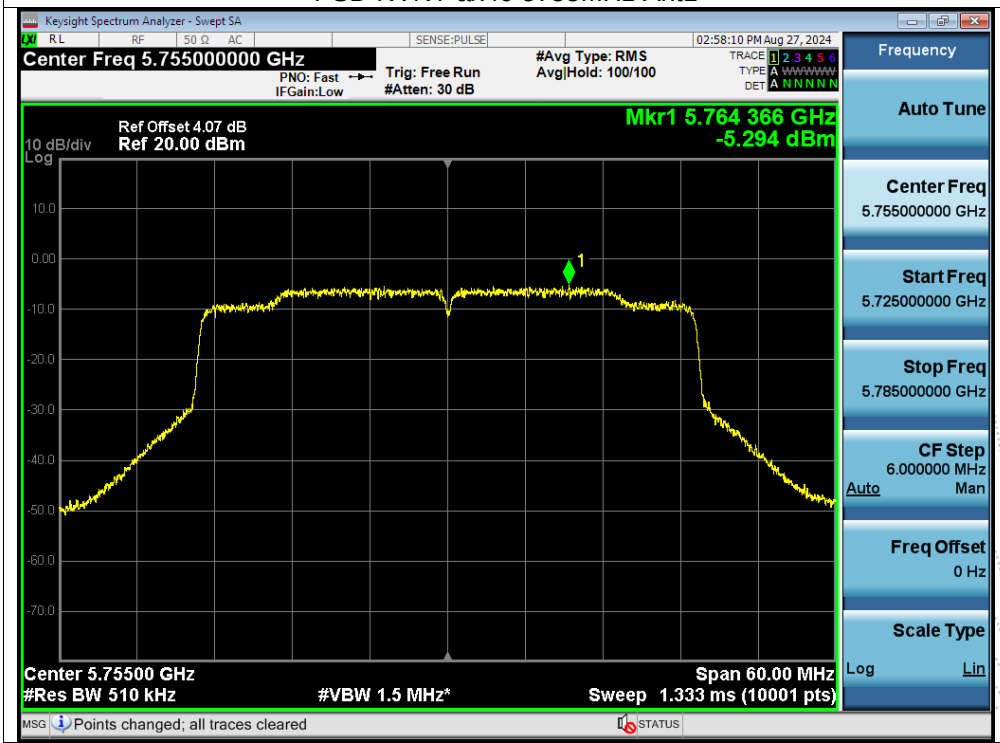
PSD NVNT ac80 5775MHz Ant1

PSD NVNT ax20 5745MHz Ant1

PSD NVNT ax20 5785MHz Ant1

PSD NVNT ax20 5825MHz Ant1

PSD NVNT ax40 5755MHz Ant1

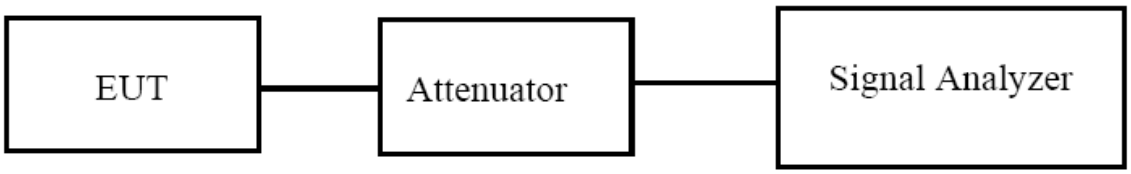


PSD NVNT ax40 5795MHz Ant1

PSD NVNT ax80 5775MHz Ant1

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

9.4 EUT Operating Conditions

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

9.5 Test Result

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

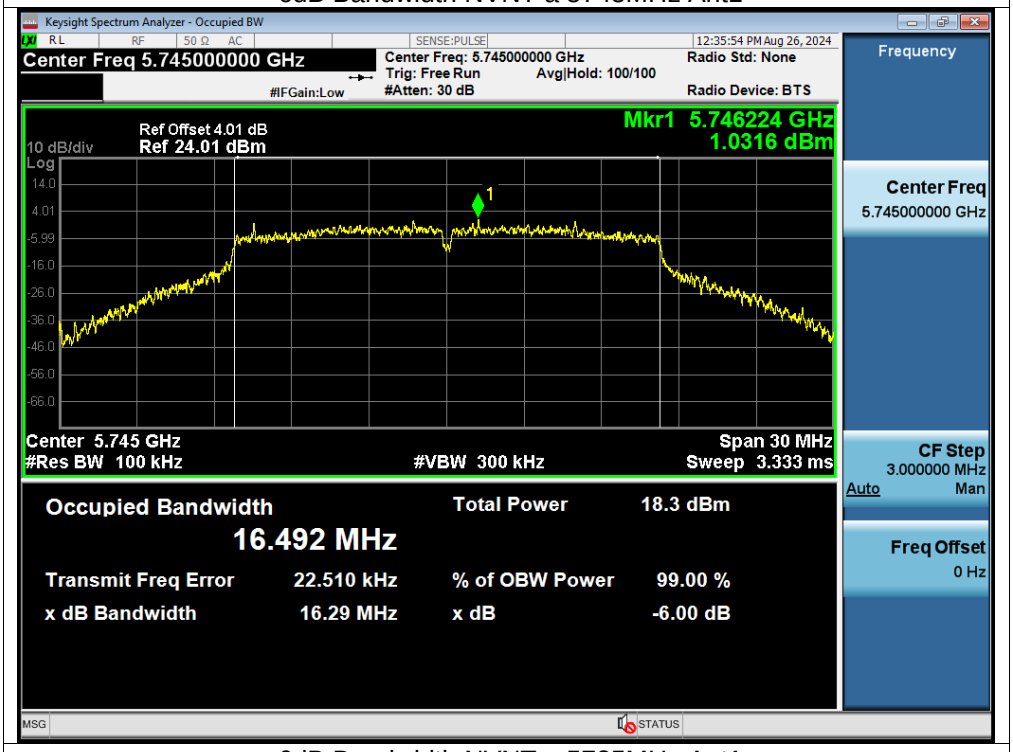
Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 13.2V
Test Mode:	(5745-5825MHz)		

Condition	Mode	Frequency (MHz)	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	16.29	0.5	Pass
NVNT	a	5785	15.105	0.5	Pass
NVNT	a	5825	14.986	0.5	Pass
NVNT	n20	5745	14.533	0.5	Pass
NVNT	n20	5785	15.671	0.5	Pass
NVNT	n20	5825	13.805	0.5	Pass
NVNT	n40	5755	29.657	0.5	Pass
NVNT	n40	5795	34.599	0.5	Pass
NVNT	ac20	5745	17.581	0.5	Pass
NVNT	ac20	5785	13.174	0.5	Pass
NVNT	ac20	5825	12.668	0.5	Pass
NVNT	ac40	5755	30.878	0.5	Pass
NVNT	ac40	5795	31.278	0.5	Pass
NVNT	ac80	5775	75.011	0.5	Pass
NVNT	ax20	5745	17.903	0.5	Pass
NVNT	ax20	5785	10.68	0.5	Pass
NVNT	ax20	5825	17.743	0.5	Pass
NVNT	ax40	5755	32.901	0.5	Pass
NVNT	ax40	5795	32.577	0.5	Pass
NVNT	ax80	5775	75.039	0.5	Pass

Condition	Mode	Frequency (MHz)	99% OBW (MHz)
NVNT	a	5745	16.636
NVNT	a	5785	16.62
NVNT	a	5825	16.558
NVNT	n20	5745	17.741
NVNT	n20	5785	17.704
NVNT	n20	5825	17.731
NVNT	n40	5755	36.02
NVNT	n40	5795	35.988
NVNT	ac20	5745	17.732
NVNT	ac20	5785	17.744
NVNT	ac20	5825	17.694
NVNT	ac40	5755	36.01
NVNT	ac40	5795	36.017
NVNT	ac80	5775	76.417
NVNT	ax20	5745	18.83
NVNT	ax20	5785	18.897
NVNT	ax20	5825	18.926
NVNT	ax40	5755	37.479
NVNT	ax40	5795	37.687
NVNT	ax80	5775	76.408

Test Graphs

-6dB Bandwidth NVNT a 5745MHz Ant1



-6dB Bandwidth NVNT a 5785MHz Ant1