TEST REPORT

Applicant:	Acer India Pvt Ltd.
Address of Applicant:	Embassy Heights 6th Floor, No.13,Magrath Road, (Next to Hosmat Hospital), Bangalore, India
Manufacturer:	Acer India Pvt Ltd.
Address of Manufacturer:	Embassy Heights 6th Floor, No.13,Magrath Road, (Next to Hosmat Hospital), Bangalore, India

Equipment Under Test (EUT)

Product Name:	Tablet
Model No.:	Acer One 10 T9-1212L
Trade Mark:	ACER
FCC ID:	2AMY3ONE10T9-1212L
Applicable standards:	FCC CFR Title 47 Part 15 Subpart E Section 15.407
Date of sample receipt:	November 8, 2022
Date of Test:	November 8, 2022~February 10, 2023
Date of report issued:	February 10, 2023
Test Result :	PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Robinson Luo
Laboratory Manager

2 Version

Version No.	Date	Description
00	*2023.2.10*	*Original*

Prepared By: ***Date:*** ***2023.1.10***

Project Engineer

Check By: ***Date:*** ***2023.1.10***

Reviewer

3 Contents

4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
AC Power Line Conducted Emission	15.207	Pass
Conducted Average Output Power	15.407(a)(3)	Pass
Channel Bandwidth	15.407(e)	Pass
Power Spectral Density	15.407(a)(3)	Pass
Band Edge	15.407(b)(4)	Pass
Spurious Emission	15.205/15.209/15.407(b)(4)	Pass
Frequency Stability	15.407(g)	Pass

Remarks：

1. Pass: The EUT complies with the essential requirements in the standard.

2. Test according to ANSI C63.10:2013.

4.1 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	1×10^{-7}
2	Duty cycle	0.37%
3	Occupied Bandwidth	3%
4	RF conducted power	0.75dB
5	RF power density	3dB
6	Conducted Spurious emissions	2.58dB
7	AC Power Line Conducted Emission	3.44dB (0.15MHz ~ 30MHz)
8	Radiated Spurious emission test	3.1dB (9kHz-30MHz)
		3.8039dB (30MHz-200MHz)
		3.9679dB (200MHz-1GHz)
		4.29dB (1GHz-18GHz)
		3.30dB (18GHz-40GHz)
Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.		

5 General Information

5.1 General Description of EUT

Product Name:	Tablet
Model No.:	Acer One 10 T9-1212L
Serial No.:	N/A
Hardware Version:	R200
Software Version:	M300Y.WH.211.S0..G.2022120521.C951232A9AD.USERDEBUG
Test sample(s) ID:	GTS2023010007-1
Sample(s) Status:	Engineer sample
Operation Frequency:	802.11a/802.11n(HT20)/802.11ac(HT20): 5745MHz ~ 5825MHz 802.11n(HT40)/ 802.11ac(HT40): 5755MHz ~ 5795MHz 802.11ac(HT80): 5775MHz
Channel numbers:	802.11a/802.11n(HT20)/802.11ac(HT20): 5 802.11n(HT40)/ 802.11ac(HT40): 2 802.11ac(HT80): 1
Channel bandwidth:	802.11a/802.11n(HT20)/802.11ac(HT20) : 20MHz 802.11n(HT40)/802.11ac(HT40) : 40MHz 802.11ac(HT80): 80MHz
Modulation technology:	802.11a/802.11n(H20)/802.11n(H40)/802.11ac(HT20)/802.11ac(HT40) /802.11ac(HT80): Orthogonal Frequency Division Multiplexing (OFDM)
Antenna Type:	FPC antenna
Antenna gain:	0.56dBi
Power supply:	DC 9V, 2A
Adapter Information	Model: BPS-PN18A Input: AC 100-240V~, 50/60Hz, 800mA (Max) Output: USB-A: 5V 3A, 9V 2A, 12V 1.5A

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
149	5745MHz	151	5755MHz	153	5765MHz	155	5775MHz
157	5785MHz	159	5795MHz	161	5805MHz	163	5815MHz
165	5825MHz						

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Test channel	Frequency (MHz)		
	802.11 a/n/ac(HT20)	802.11 n/ac(HT40)	802.11ac(HT80)
Lowest channel	5745	5755	
Middle channel	5785		5775
Highest channel	5825	5795	

5.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode

Remark: During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Per-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.

Mode	Data rate
802.11a	6Mbps
802.11n(HT20)	6.5Mbps
802.11n(HT40)	13Mbps
802.11ac(HT20)	6.5Mbps
802.11ac(HT40)	13.5Mbps
802.11ac(HT80)	29.3Mbps

5.3 Description of Support Units

None.

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

● **FCC—Registration No.: 381383**

Designation Number: CN5029

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files.

● **IC —Registration No.: 9079A**

CAB identifier: CN0091

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing

● **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

5.7 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone,

Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Tel: 0755-27798480

Fax: 0755-27798960

5.8 Additional Instructions

Test Software	Testing tools provided by the manufacturer
Power level setup	16

6 Test Instruments list

Radiated Emission:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	July 02, 2020	July 01, 2025
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	April 22, 2022	April 21, 2023
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9168	GTS640	March 21, 2022	March 20, 2023
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	June 12, 2022	June 11, 2023
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June 23, 2022	June 22, 2023
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	April 22, 2022	April 21, 2023
9	Coaxial Cable	GTS	N/A	GTS211	April 22, 2022	April 21, 2023
10	Coaxial cable	GTS	N/A	GTS210	April 22, 2022	April 21, 2023
11	Coaxial Cable	GTS	N/A	GTS212	April 22, 2022	April 21, 2023
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	April 22, 2022	April 21, 2023
13	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June 23, 2022	June 22, 2023
14	Band filter	Amindeon	82346	GTS219	June 23, 2022	June 22, 2023
15	Power Meter	Anritsu	ML2495A	GTS540	June 23, 2022	June 22, 2023
16	Power Sensor	Anritsu	MA2411B	GTS541	June 23, 2022	June 22, 2023
17	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	April 22, 2022	April 21, 2023
18	Splitter	Agilent	11636B	GTS237	June 23, 2022	June 22, 2023
19	Loop Antenna	ZHINAN	ZN30900A	GTS534	Nov. 29, 2022	Nov. 28, 2023
20	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	April 22, 2022	April 21, 2023
21	Breitband hornantenna	SCHWARZBECK	BBHA 9170	GTS579	Oct. 16, 2022	Oct. 15, 2023
22	Amplifier	TDK	PA-02-02	GTS574	Oct. 16, 2022	Oct. 15, 2023
23	Amplifier	TDK	PA-02-03	GTS576	Oct. 16, 2022	Oct. 15, 2023
24	PSA Series Spectrum Analyzer	Rohde & Schwarz	FSP	GTS578	June 23, 2022	June 22, 2023
25	Amplifier(1GHz-26.5GHz)	HP	8449B	GTS601	April 22, 2022	April 21, 2023

Conducted Emission						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	May 14, 2022	May 13, 2025
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 24, 2022	April 23, 2023
3	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June 23, 2022	June 22, 2023
4	ENV216 2-L-V-NETZNACHB.DE	ROHDE&SCHWARZ	ENV216	GTS226	April 22, 2022	April 21, 2023
5	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Thermo meter	JINCHUANG	GSP-8A	GTS639	April 28, 2022	April 27, 2023
8	Absorbing clamp	Elektronik-Feinmechanik	MDS21	GTS229	April 15, 2022	April 14, 2023
9	ISN	SCHWARZBECK	NTFM 8158	GTS565	April 22, 2022	April 21, 2023
10	High voltage probe	SCHWARZBECK	TK9420	GTS537	April 22, 2022	April 21, 2023

RF Conducted Test:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	MXA Signal Analyzer	Agilent	N9020A	GTS566	April 22, 2022	April 21, 2023
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 22, 2022	April 21, 2023
3	Spectrum Analyzer	Agilent	E4440A	GTS536	April 22, 2022	April 21, 2023
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	April 22, 2022	April 21, 2023
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	April 22, 2022	April 21, 2023
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	April 22, 2022	April 21, 2023
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	April 22, 2022	April 21, 2023
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	April 22, 2022	April 21, 2023

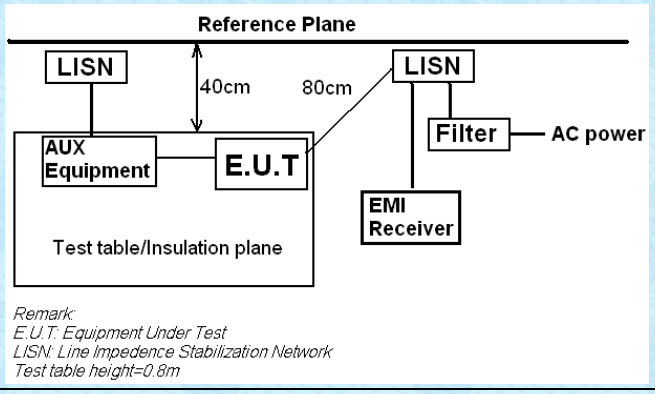
General used equipment:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Humidity/ Temperature Indicator	KTJ	TA328	GTS243	April 25, 2022	April 24, 2023
2	Barometer	KUMAO	SF132	GTS647	July 26, 2022	July 25, 2023

7 Test results and Measurement Data

7.1 Antenna requirement

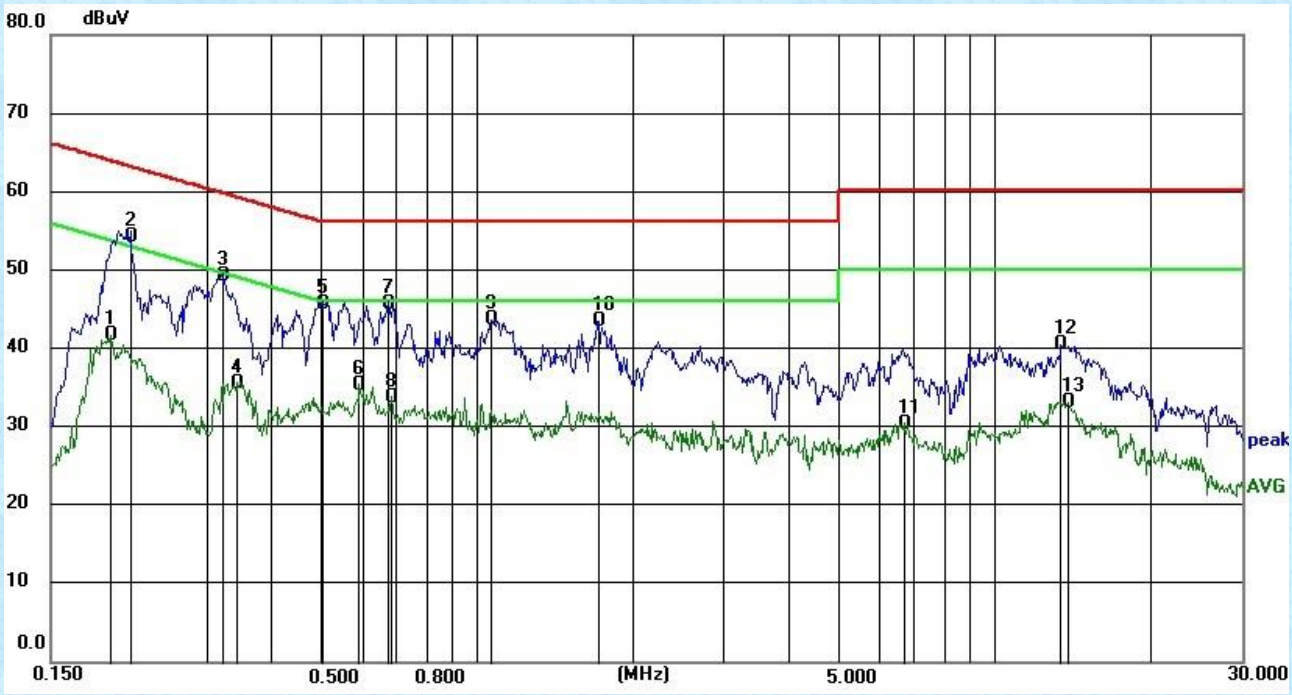
Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: *An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.*	
E.U.T Antenna:	
The antennas are FPC antenna, the best case gain of the antennas are 0.56dBi, reference to the appendix II for details	

7.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
Test Frequency Range:	150KHz to 30MHz
Class / Severity:	Class B
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto
Limit:	Frequency range (MHz) / Limit (dBuV): Quasi-peak / Average 0.15-0.5: 66 to 56* / 56 to 46* 0.5-5: 56 / 46 5-30: 60 / 50 * Decreases with the logarithm of the frequency.
Test setup:	 *Remark:* *E.U.T: Equipment Under Test* *LISN: Line Impedence Stabilization Network* *Test table height=0.8m*
Test procedure:	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test environment:	Temp.: 25 °C / Humid.: 52% / Press.: 1012mbar
Test voltage:	AC 120V, 60Hz
Test results:	Pass

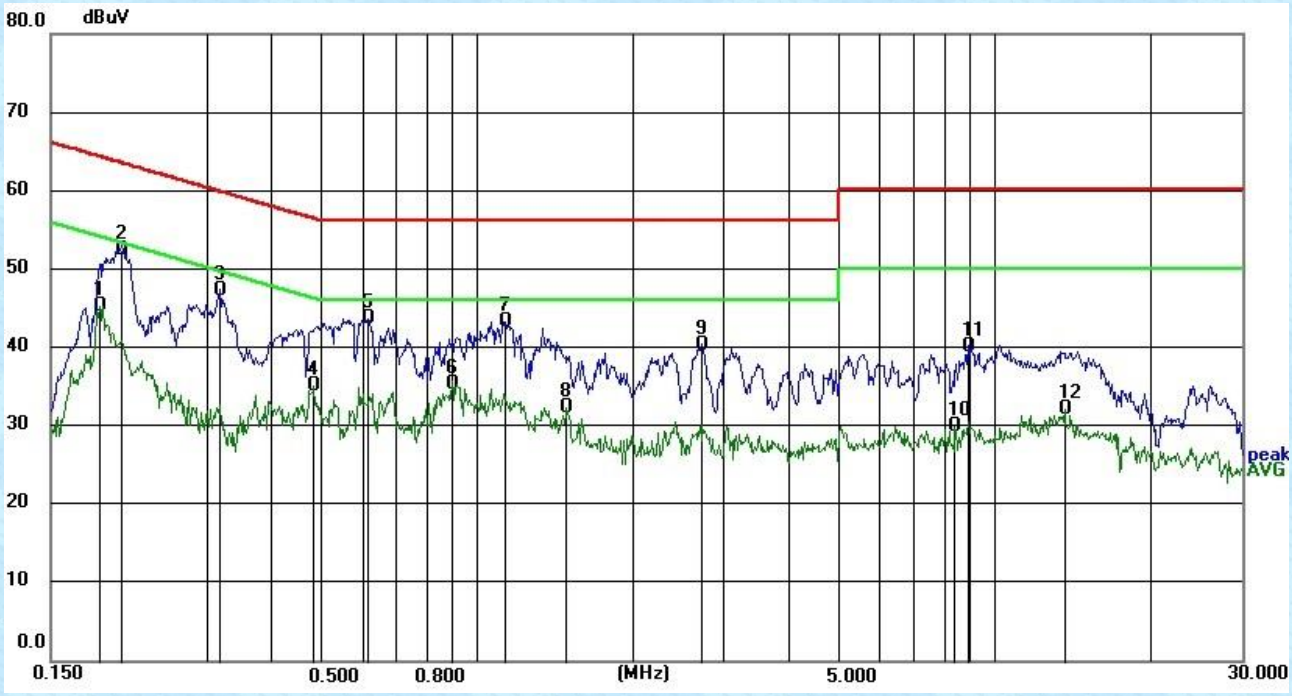
Measurement data

Line:



Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Remark
0.1966	31.63	10.02	41.65	53.75	12.1	AVG
0.2139	44.12	10.02	54.14	63.05	8.91	QP
0.3229	39.25	10.03	49.28	59.63	10.35	QP
0.3457	25.53	10.03	35.56	49.07	13.51	AVG
0.505	35.58	10.05	45.63	56	10.37	QP
0.5947	25.28	10.06	35.34	46	10.66	AVG
0.6743	35.6	10.07	45.67	56	10.33	QP
0.6875	23.71	10.07	33.78	46	12.22	AVG
1.0665	33.51	10.11	43.62	56	12.38	QP
1.7157	33.22	10.17	43.39	56	12.61	QP
6.7153	19.59	10.67	30.26	50	19.74	AVG
13.4611	29.41	11.03	40.44	60	19.56	QP
13.9512	22.08	11.04	33.12	50	16.88	AVG

Neutral:

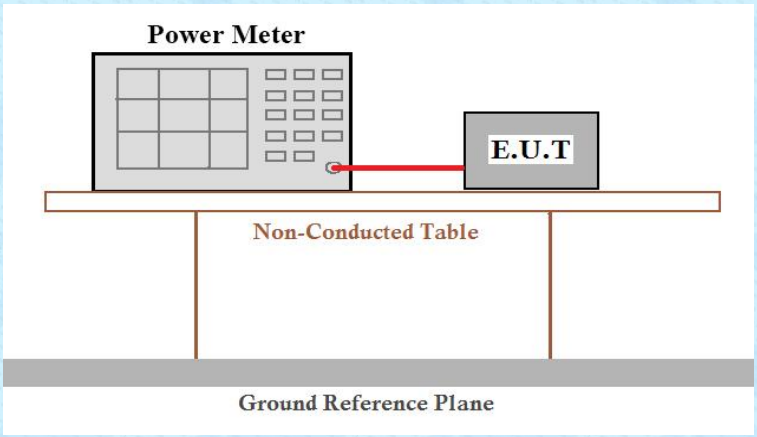


Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Remark
0.1872	35.24	10.02	45.26	54.16	8.9	AVG
0.2066	42.38	10.02	52.4	63.34	10.94	QP
0.3185	37.31	10.03	47.34	59.75	12.41	QP
0.4868	25.07	10.05	35.12	46.22	11.1	AVG
0.6139	33.62	10.06	43.68	56	12.32	QP
0.9002	25.31	10.09	35.4	46	10.6	AVG
1.1367	33.14	10.11	43.25	56	12.75	QP
1.4933	22.11	10.15	32.26	46	13.74	AVG
2.7174	30.12	10.27	40.39	56	15.61	QP
8.4222	19.03	10.84	29.87	50	20.13	AVG
8.8925	29.15	10.89	40.04	60	19.96	QP
13.7315	21.01	11.03	32.04	50	17.96	AVG

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level =Receiver Read level + LISN Factor + Cable Loss
4. If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both *limits and measurement with the average detector receiver is unnecessary.*

7.3 Conducted Average Output Power

Test Requirement:	FCC Part15 E Section 15.407(a)(3)
Test Method:	ANSI C63.10:2013 and KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Limit:	30dBm
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Duty Cycle

Test CH	Duty Factor					
	802.11a	802.11n (HT20)	802.11ac (HT20)	802.11n (HT40)	802.11ac (HT40)	802.11ac (HT80)
Lowest	0.1	0.11	0.11	0.21	0.21	0.4
Middle	0.1	0.11	0.11	---	---	---
Highest	0.1	0.11	0.11	0.21	0.21	---

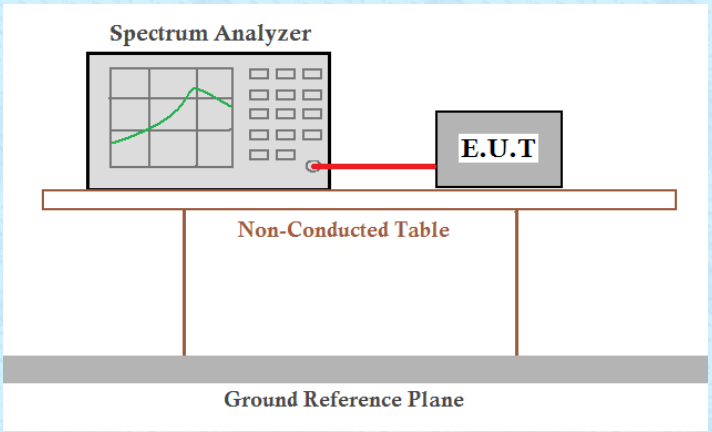
Measurement Data

Test CH	Average Output Power (dBm)						Limit(dBm)	Result
	802.11a	802.11n (HT20)	802.11ac (HT20)	802.11n (HT40)	802.11ac (HT40)	802.11ac (HT80)		
Lowest	9.171	9.053	8.744	8.437	8.966	9.277	30.00	Pass
Middle	9.93	9.288	9.751	---	---	---		
Highest	8.8	8.947	9.391	9.921	9.389	---		

Remark: "---"is not applicable

The duty cycle factor has been added to the power value

7.4 Channel Bandwidth

Test Requirement:	FCC Part15 E Section 15.407(e)
Test Method:	ANSI C63.10:2013 and KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Limit:	>500KHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

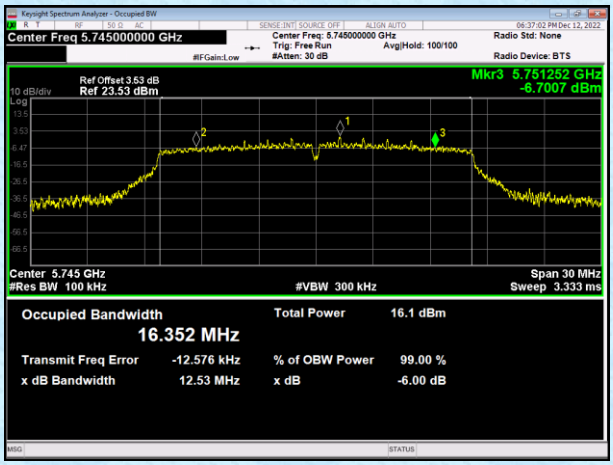
Measurement Data

Test CH	Channel Bandwidth (MHz)						Limit (KHz)	Result
	802.11a	802.11n (HT20)	802.11ac (HT20)	802.11n (HT40)	802.11ac (HT40)	802.11ac (HT80)		
Lowest	12.53	15.03	11.94	33.78	33.85	75.07	>500	Pass
Middle	14.81	13.55	12	---	---	---		
Highest	15.67	17.14	13.57	32.63	35.08	---		

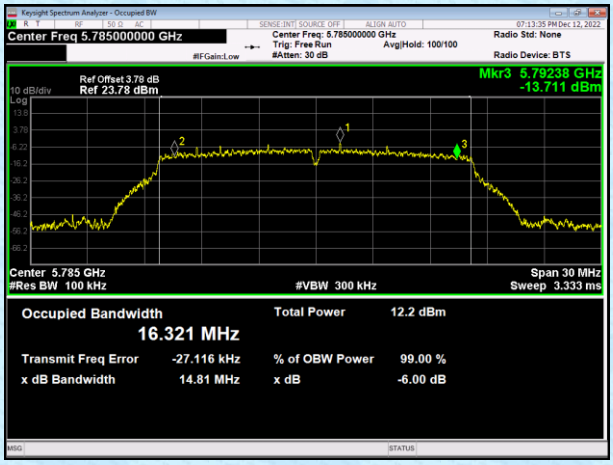
Remark: “---“is not applicable

Test plot as follows:

Test mode: 802.11a



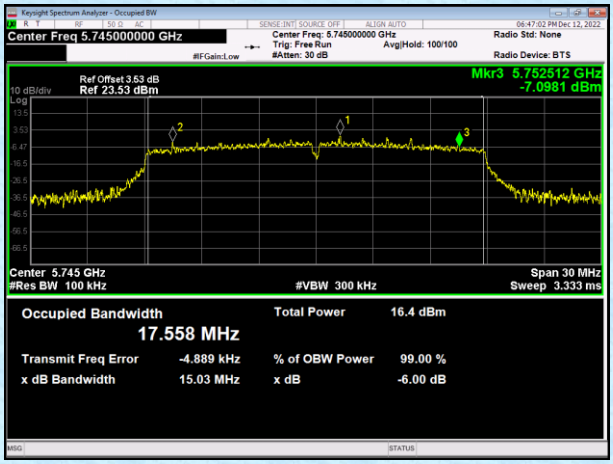
Lowest channel



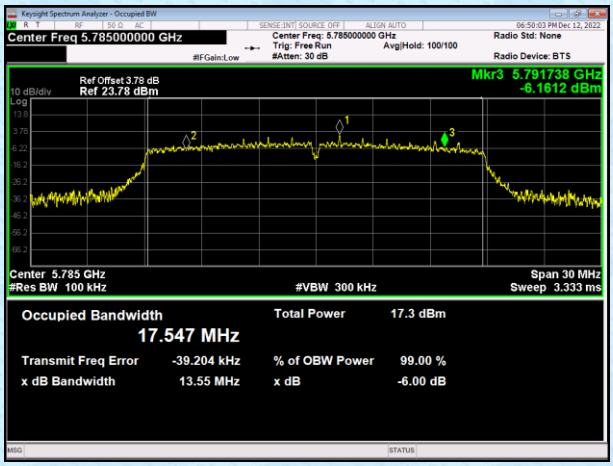
Middle channel

Highest channel

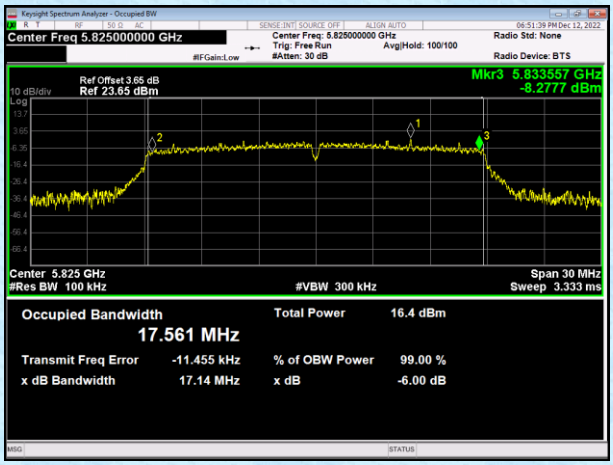
Test mode: 802.11n(HT20)



Lowest channel

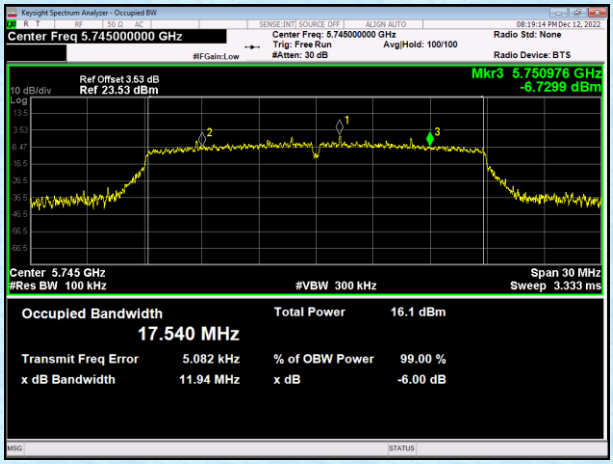


Middle channel

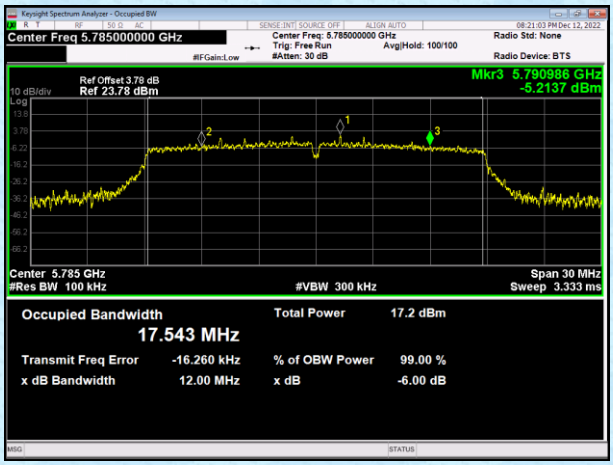


Highest channel

Test mode: 802.11ac(HT20)



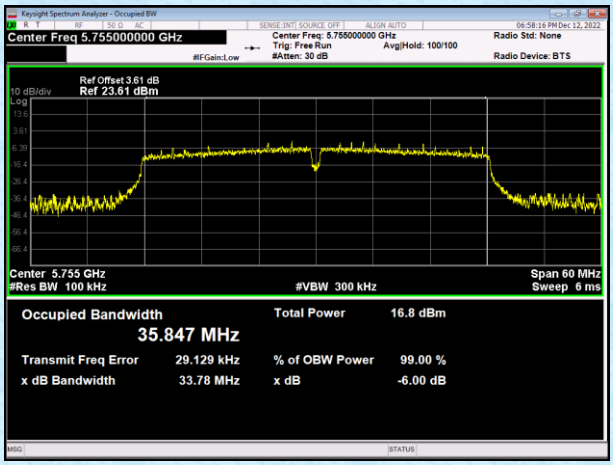
Lowest channel



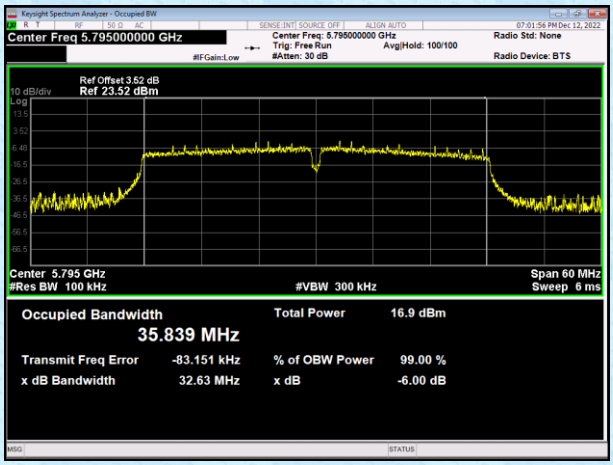
Middle channel

Highest channel

Test mode: 802.11n(HT40)

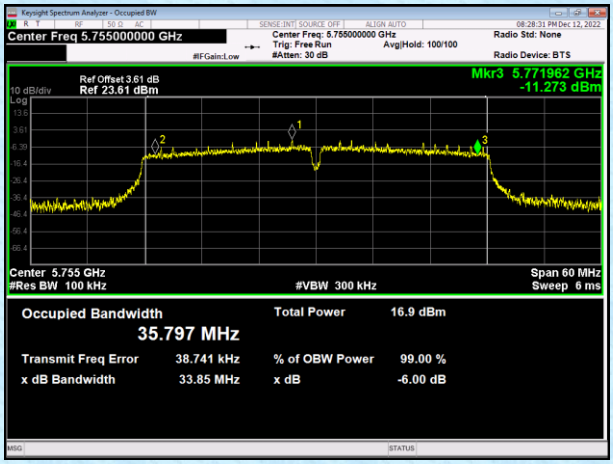


Lowest channel

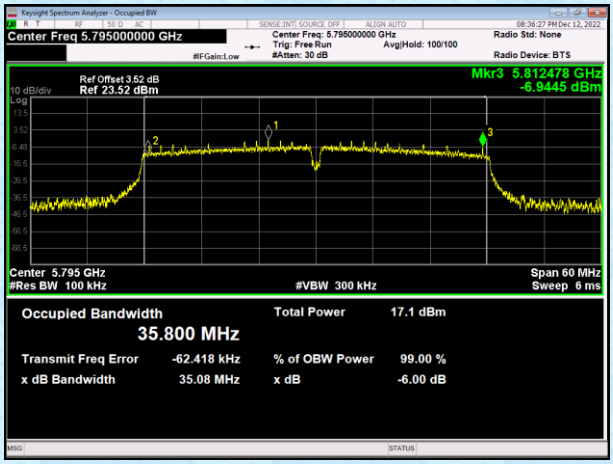


Highest channel

Test mode: 802.11ac(HT40)

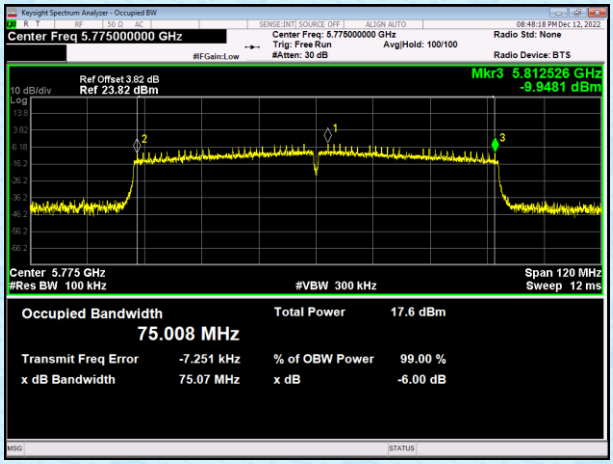


Lowest channel

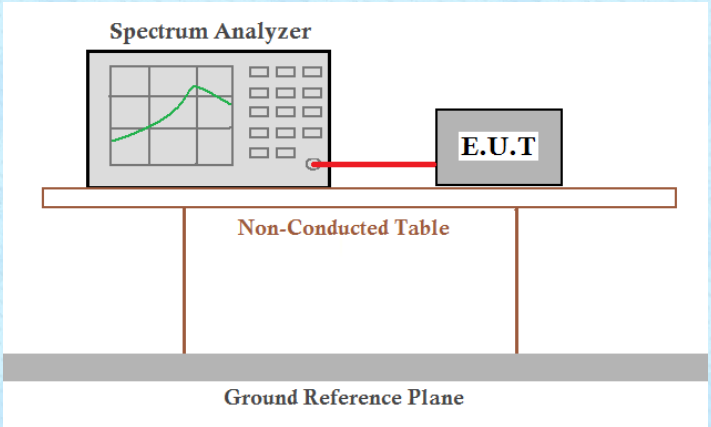


Highest channel

Test mode: 802.11ac(HT80)



7.5 Power Spectral Density

Test Requirement:	FCC Part15 E Section 15.407(a)(3)
Test Method:	ANSI C63.10:2013 and KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Limit:	30dBm/500kHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

Duty Cycle

Test CH	Duty Factor					
	802.11a	802.11n (HT20)	802.11ac (HT20)	802.11n (HT40)	802.11ac (HT40)	802.11ac (HT80)
Lowest	0.1	0.11	0.11	0.21	0.21	0.4
Middle	0.1	0.11	0.11	---	---	---
Highest	0.1	0.11	0.11	0.21	0.21	---

Test CH	Measured PSD (dBm/MHz)						Limit (dBm/500kHz)	Result
	802.11a	802.11n (HT20)	802.11ac (HT20)	802.11n (HT40)	802.11ac (HT40)	802.11ac (HT80)		
Lowest	-2.779	-4.618	-3.752	-7.471	-6.96	-9.562	30.00	Pass
Middle	-3.394	-3.62	-2.936	---	---	---		
Highest	-2.049	-3.994	-3.79	-6.115	-6.261	---		

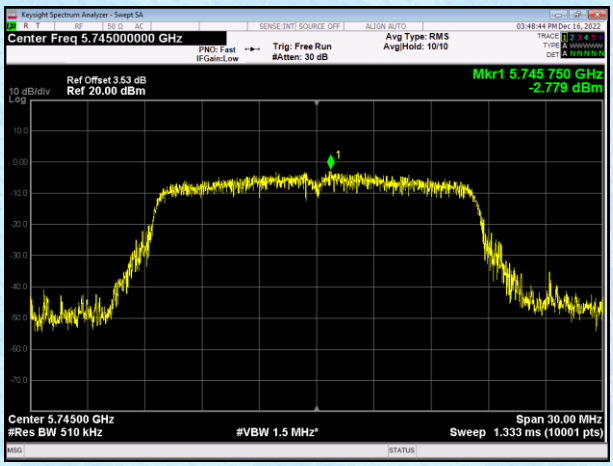
Test CH	Power Spectral Density (dBm)						Limit (dBm/500kHz)	Result
	802.11a	802.11n (HT20)	802.11ac (HT20)	802.11n (HT40)	802.11ac (HT40)	802.11ac (HT80)		
Lowest	-2.679	-4.508	-3.642	-7.261	-6.75	-9.162	30.00	Pass
Middle	-3.294	-3.51	-2.826	---	---	---		
Highest	-1.949	-3.884	-3.68	-5.905	-6.051	---		

Remark: “---“is not applicable

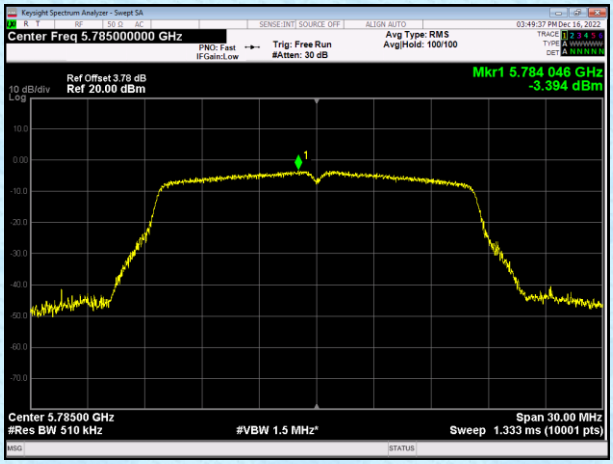
Power Spectral Density (dBm)= Measured PSD (dBm/MHz)+ Duty Factor

Test plot as follows:

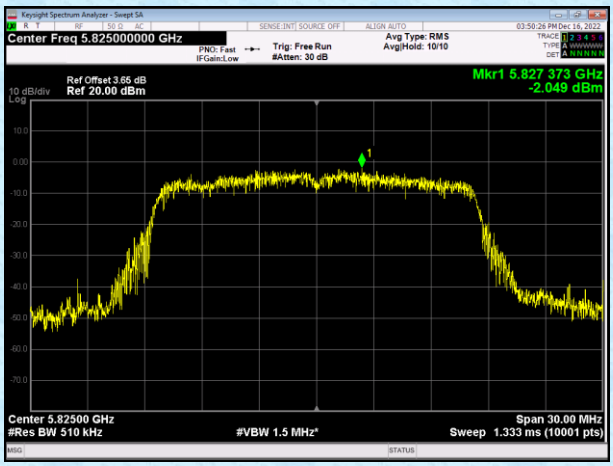
Test mode: 802.11a



Lowest channel

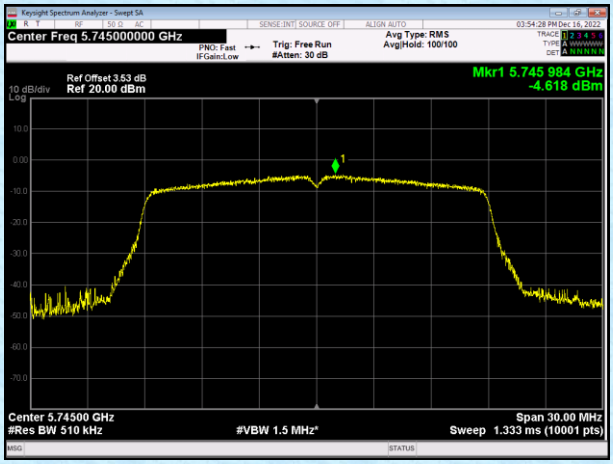


Middle channel

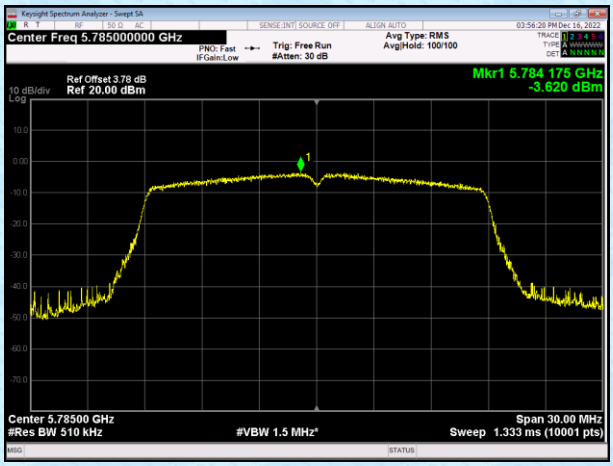


Highest channel

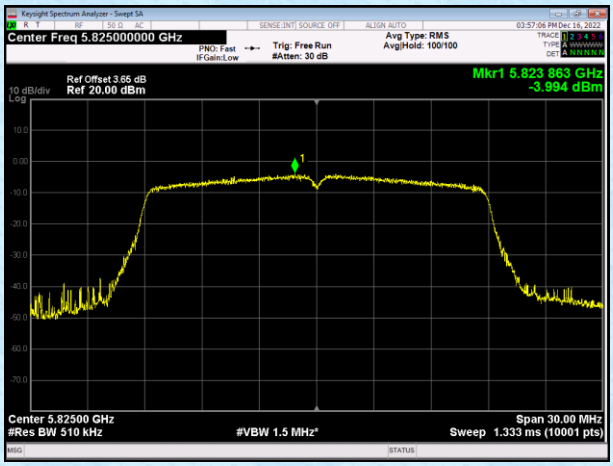
Test mode: 802.11n(HT20)



Lowest channel

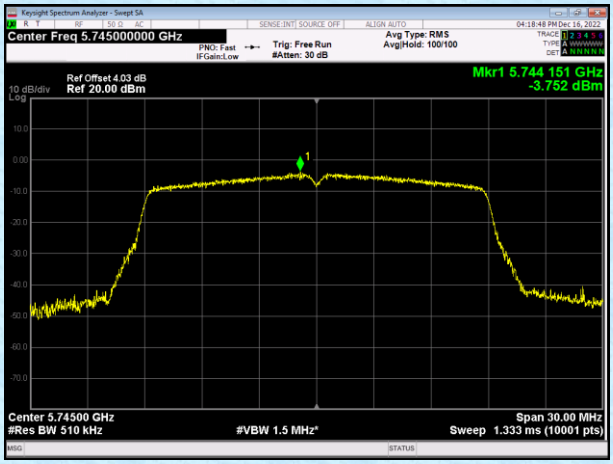


Middle channel

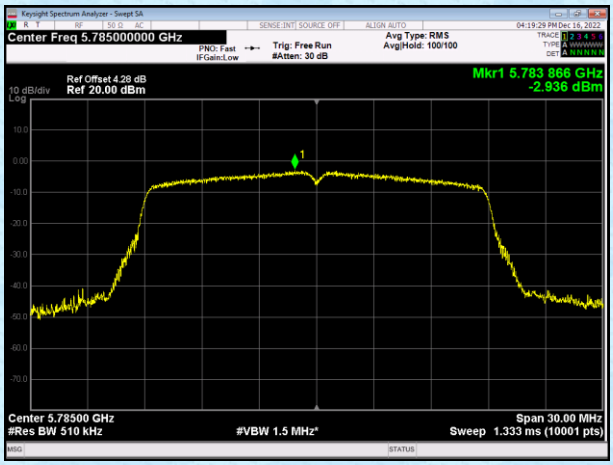


Highest channel

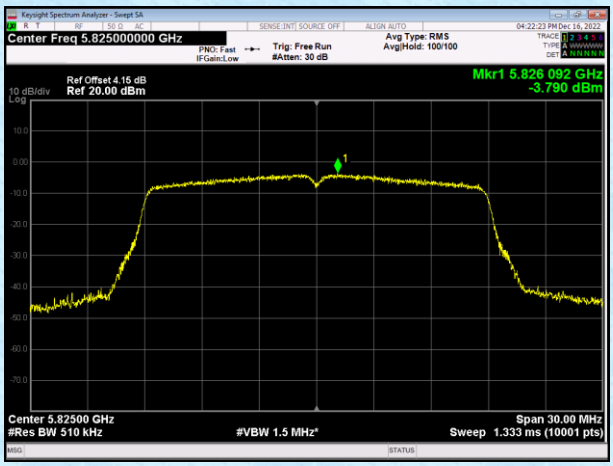
Test mode: 802.11ac(HT20)



Lowest channel

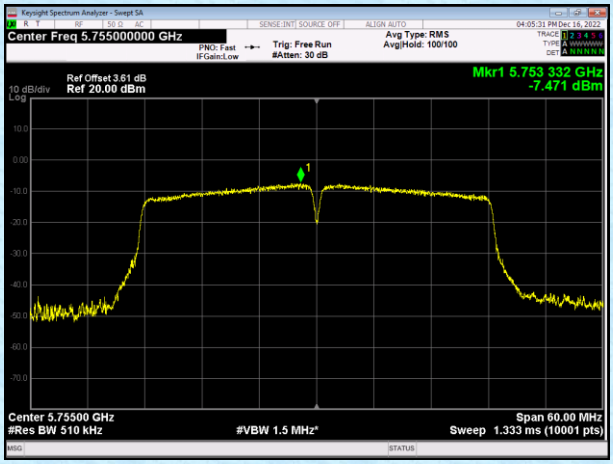


Middle channel

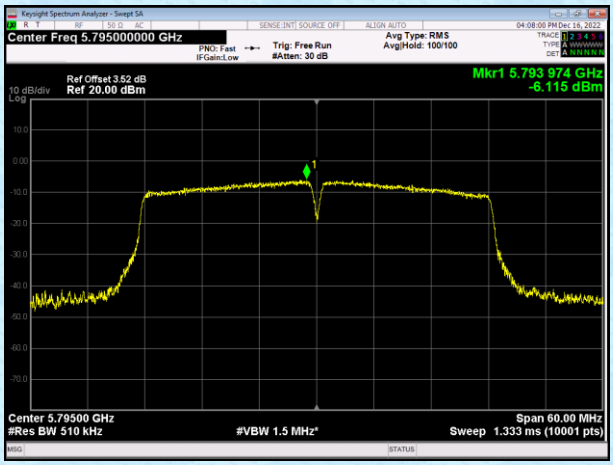


Highest channel

Test mode: 802.11n(HT40)

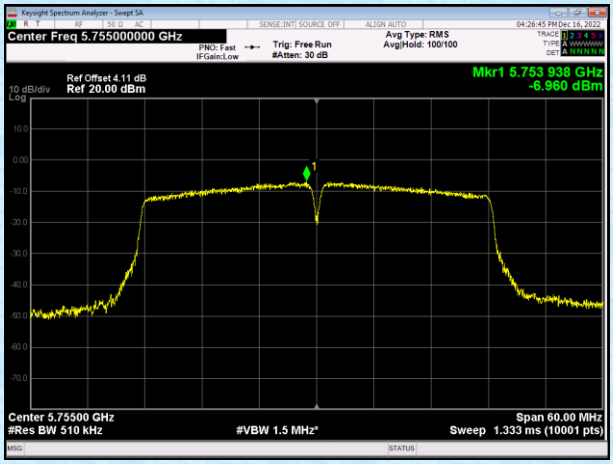


Lowest channel

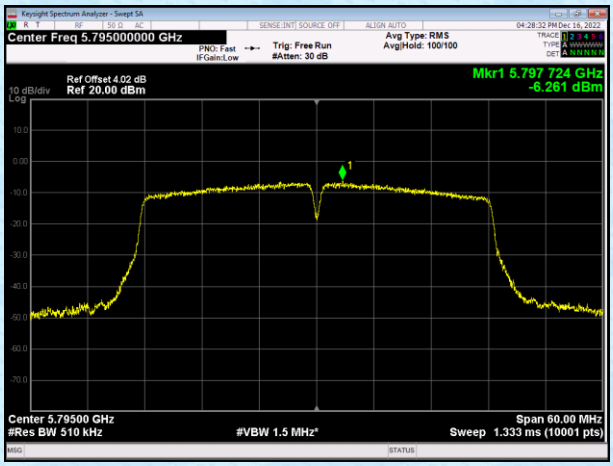


Highest channel

Test mode: 802.11ac(HT40)

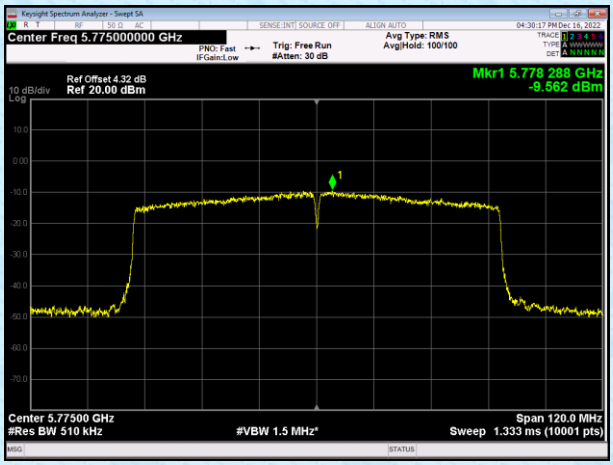


Lowest channel



Highest channel

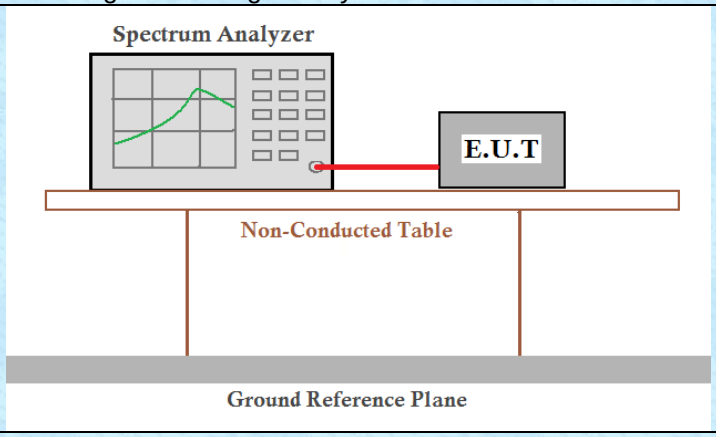
Test mode: 802.11ac(HT80)



Middle channel

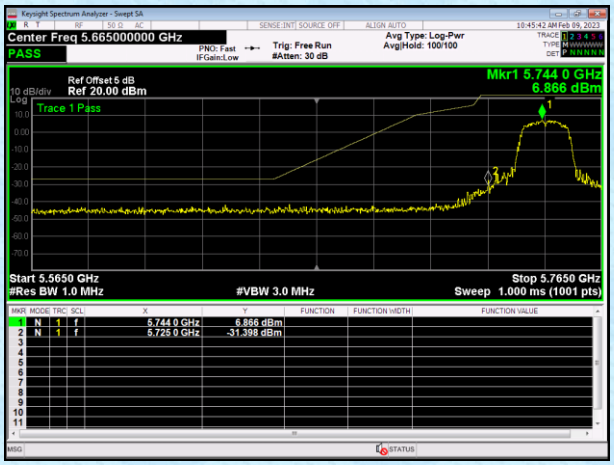
7.6 Band edge

7.6.1 Conducted Emission Method

Test Requirement:	FCC Part15 C Section 15.209 / 15.205/ 15.407(b)
Test Method:	ANSI C63.10: 2013
Limit:	All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
Test setup:	
Test Procedure:	1. Measure the conducted output power (in dBm) using the detector specified by the appropriate regulatory agency (see 11.12.2.3 through 11.12.2.5 for guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively). 2. Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the EIRP (see 11.12.2.6 for guidance on determining the applicable antenna gain). 3. Add the appropriate maximum ground reflection factor to the EIRP (6 dB for frequencies ≤30 MHz; 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive; and 0 dB for frequencies > 1000 MHz). 4. For MIMO devices, measure the power of each chain and sum the EIRP of all chains in linear terms (i.e., watts and mW). 5. Convert the resultant EIRP to an equivalent electric field strength using the following relationship: E = EIRP-20 log d +104.8 Where E is the electric field strength in dBuV/m EIRP is the equivalent isotropically radiated power in dBm d is the specified measurement distance in m
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Test plot as follows:

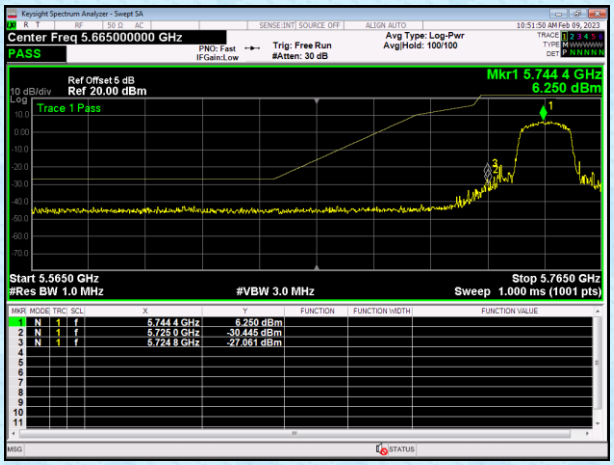
Test mode: 802.11a



Lowest channel

Highest channel

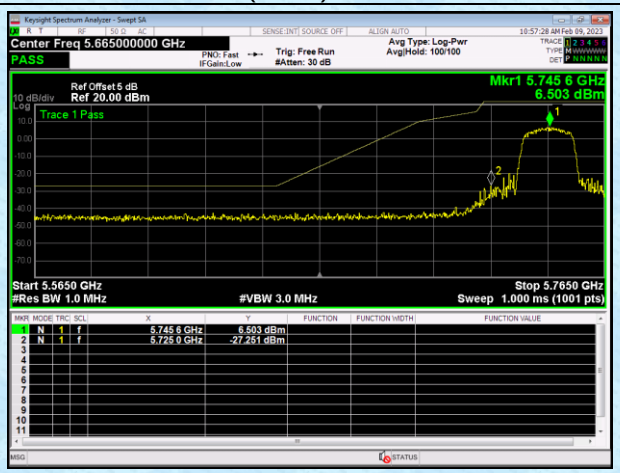
Test mode: 802.11n(HT20)



Lowest channel

Highest channel

Test mode: 802.11ac(HT20)



Lowest channel

Highest channel

Test mode: 802.11n(HT40)

Lowest channel

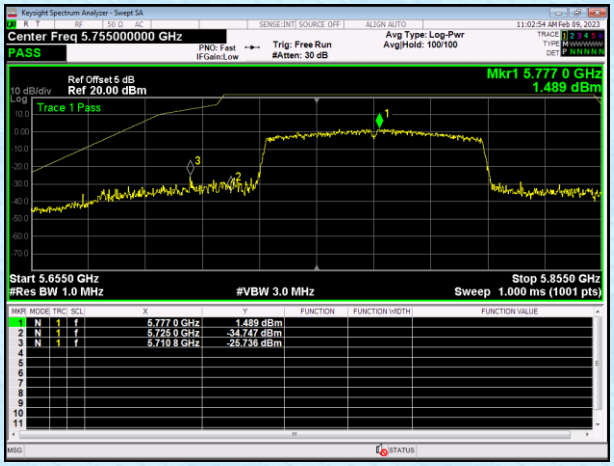
Highest channel

Test mode: 802.11ac(HT40)

Lowest channel

Highest channel

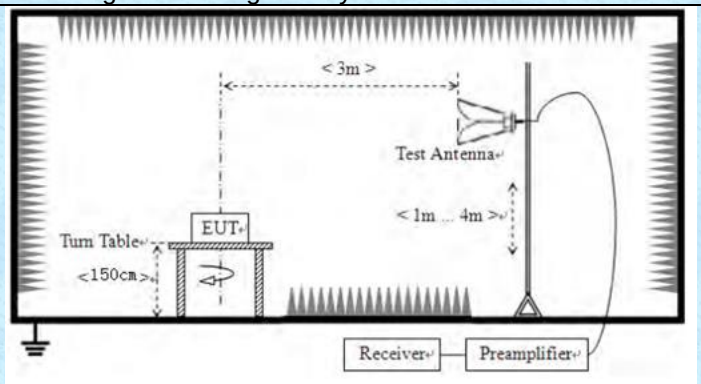
Test mode: 802.11ac(HT80)



Lowest channel

Lowest channel

7.6.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 and 15.205
Test Method:	ANSI C63.10: 2013
Test Frequency Range:	9kHz to 40GHz, only worse case is reported
Test site:	Measurement Distance: 3m
Receiver setup:	<table><tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Value</th></tr><tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak</td></tr><tr><td>RMS</td><td>1MHz</td><td>3MHz</td><td>RMS</td></tr></table>
Limit:	All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
Test setup:	
Test Procedure:	6. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 7. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 8. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 9. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 10. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 11. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. 12. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.
Test Instruments:	Refer to section 6.0 for details

Test mode:	Refer to section 5.2 for details
Test results:	Pass

Remarks:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*
3. *The pre-test were performed on lowest, middle and highest frequencies, only the worst case's (lowest and highest frequencies) data was showed.*
4. *According to KDB 789033 D02v02r01 section G) 1) d),for measurements above 1000 MHz @3m distance, the limit of field strength is computed as follows:*

   E[dBuV/m] = EIRP[dBm] + 95.2;

   E[dBuV/m] = -27 + 95.2 = 68.2dBuV/m.

   E[dBuV/m] = 10 + 95.2 = 105.2dBuV/m.

   E[dBuV/m] = 15.6 + 95.2 = 110.8dBuV/m.

   E[dBuV/m] = 27 + 95.2 = 122.2dBuV/m

Measurement data:

IEEE 802.11a								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650	17.56	32.36	9.72	23.83	35.81	68.2	-32.39	Horizontal
5700	18.9	32.5	9.79	23.84	37.35	105.2	-67.85	Horizontal
5720	26.08	32.53	9.81	23.85	44.57	110.8	-66.23	Horizontal
5725	35.39	32.53	9.83	23.86	53.89	122.2	-68.31	Horizontal
5850	28.44	32.7	9.99	23.87	47.26	122.2	-74.94	Horizontal
5855	26.85	32.72	9.99	23.88	45.68	110.8	-65.12	Horizontal
5875	17.4	32.74	10.04	23.89	36.29	105.2	-68.91	Horizontal
5925	17.03	32.8	10.11	23.9	36.04	68.2	-32.16	Horizontal
5650	17.92	32.36	9.72	23.83	36.17	68.2	-32.03	Vertical
5700	19.24	32.5	9.79	23.84	37.69	105.2	-67.51	Vertical
5720	28.63	32.53	9.81	23.85	47.12	110.8	-63.68	Vertical
5725	35.21	32.53	9.83	23.86	53.71	122.2	-68.49	Vertical
5850	28.43	32.7	9.99	23.87	47.25	122.2	-74.95	Vertical
5855	27.21	32.72	9.99	23.88	46.04	110.8	-64.76	Vertical
5875	18.16	32.74	10.04	23.89	37.05	105.2	-68.15	Vertical
5925	16.47	32.8	10.11	23.9	35.48	68.2	-32.72	Vertical

IEEE 802.11n HT20								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650	17.01	32.36	9.72	23.83	35.26	68.2	-32.94	Horizontal
5700	17.9	32.5	9.79	23.84	36.35	105.2	-68.85	Horizontal
5720	25.85	32.53	9.81	23.85	44.34	110.8	-66.46	Horizontal
5725	35.2	32.53	9.83	23.86	53.7	122.2	-68.5	Horizontal
5850	28.22	32.7	9.99	23.87	47.04	122.2	-75.16	Horizontal
5855	25.99	32.72	9.99	23.88	44.82	110.8	-65.98	Horizontal
5875	16.43	32.74	10.04	23.89	35.32	105.2	-69.88	Horizontal
5925	16.78	32.8	10.11	23.9	35.79	68.2	-32.41	Horizontal
5650	17.65	32.36	9.72	23.83	35.9	68.2	-32.3	Vertical
5700	18.63	32.5	9.79	23.84	37.08	105.2	-68.12	Vertical
5720	27.7	32.53	9.81	23.85	46.19	110.8	-64.61	Vertical
5725	35.1	32.53	9.83	23.86	53.6	122.2	-68.6	Vertical
5850	28.22	32.7	9.99	23.87	47.04	122.2	-75.16	Vertical
5855	26.66	32.72	9.99	23.88	45.49	110.8	-65.31	Vertical
5875	18.07	32.74	10.04	23.89	36.96	105.2	-68.24	Vertical
5925	15.51	32.8	10.11	23.9	34.52	68.2	-33.68	Vertical

IEEE 802.11n HT40								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650	16.01	32.36	9.72	23.83	34.26	68.2	-33.94	Horizontal
5700	17.32	32.5	9.79	23.84	35.77	105.2	-69.43	Horizontal
5720	24.91	32.53	9.81	23.85	43.4	110.8	-67.4	Horizontal
5725	35.05	32.53	9.83	23.86	53.55	122.2	-68.65	Horizontal
5850	28.15	32.7	9.99	23.87	46.97	122.2	-75.23	Horizontal
5855	25.96	32.72	9.99	23.88	44.79	110.8	-66.01	Horizontal
5875	15.92	32.74	10.04	23.89	34.81	105.2	-70.39	Horizontal
5925	16.29	32.8	10.11	23.9	35.3	68.2	-32.9	Horizontal
5650	16.66	32.36	9.72	23.83	34.91	68.2	-33.29	Vertical
5700	18.17	32.5	9.79	23.84	36.62	105.2	-68.58	Vertical
5720	26.71	32.53	9.81	23.85	45.2	110.8	-65.6	Vertical
5725	34.2	32.53	9.83	23.86	52.7	122.2	-69.5	Vertical
5850	28	32.7	9.99	23.87	46.82	122.2	-75.38	Vertical
5855	26.18	32.72	9.99	23.88	45.01	110.8	-65.79	Vertical
5875	17.41	32.74	10.04	23.89	36.3	105.2	-68.9	Vertical
5925	14.95	32.8	10.11	23.9	33.96	68.2	-34.24	Vertical

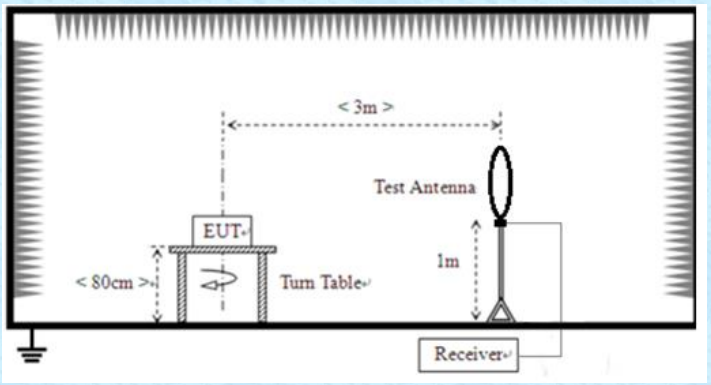
IEEE 802.11ac HT20								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650	17.13	32.36	9.72	23.83	35.38	68.2	-32.82	Horizontal
5700	18.71	32.5	9.79	23.84	37.16	105.2	-68.04	Horizontal
5720	25.88	32.53	9.81	23.85	44.37	110.8	-66.43	Horizontal
5725	35.31	32.53	9.83	23.86	53.81	122.2	-68.39	Horizontal
5850	27.66	32.7	9.99	23.87	46.48	122.2	-75.72	Horizontal
5855	26.77	32.72	9.99	23.88	45.6	110.8	-65.2	Horizontal
5875	17.21	32.74	10.04	23.89	36.1	105.2	-69.1	Horizontal
5925	16.42	32.8	10.11	23.9	35.43	68.2	-32.77	Horizontal
5650	17.64	32.36	9.72	23.83	35.89	68.2	-32.31	Vertical
5700	18.9	32.5	9.79	23.84	37.35	105.2	-67.85	Vertical
5720	28.21	32.53	9.81	23.85	46.7	110.8	-64.1	Vertical
5725	34.56	32.53	9.83	23.86	53.06	122.2	-69.14	Vertical
5850	27.85	32.7	9.99	23.87	46.67	122.2	-75.53	Vertical
5855	27.21	32.72	9.99	23.88	46.04	110.8	-64.76	Vertical
5875	17.8	32.74	10.04	23.89	36.69	105.2	-68.51	Vertical
5925	15.67	32.8	10.11	23.9	34.68	68.2	-33.52	Vertical

IEEE 802.11ac HT40								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650	15.58	32.36	9.72	23.83	33.83	68.2	-34.37	Horizontal
5700	17.27	32.5	9.79	23.84	35.72	105.2	-69.48	Horizontal
5720	24.72	32.53	9.81	23.85	43.21	110.8	-67.59	Horizontal
5725	34.35	32.53	9.83	23.86	52.85	122.2	-69.35	Horizontal
5850	28.14	32.7	9.99	23.87	46.96	122.2	-75.24	Horizontal
5855	25.22	32.72	9.99	23.88	44.05	110.8	-66.75	Horizontal
5875	15.2	32.74	10.04	23.89	34.09	105.2	-71.11	Horizontal
5925	16	32.8	10.11	23.9	35.01	68.2	-33.19	Horizontal
5650	16.11	32.36	9.72	23.83	34.36	68.2	-33.84	Vertical
5700	17.34	32.5	9.79	23.84	35.79	105.2	-69.41	Vertical
5720	25.9	32.53	9.81	23.85	44.39	110.8	-66.41	Vertical
5725	33.36	32.53	9.83	23.86	51.86	122.2	-70.34	Vertical
5850	27.64	32.7	9.99	23.87	46.46	122.2	-75.74	Vertical
5855	25.72	32.72	9.99	23.88	44.55	110.8	-66.25	Vertical
5875	16.49	32.74	10.04	23.89	35.38	105.2	-69.82	Vertical
5925	14.66	32.8	10.11	23.9	33.67	68.2	-34.53	Vertical

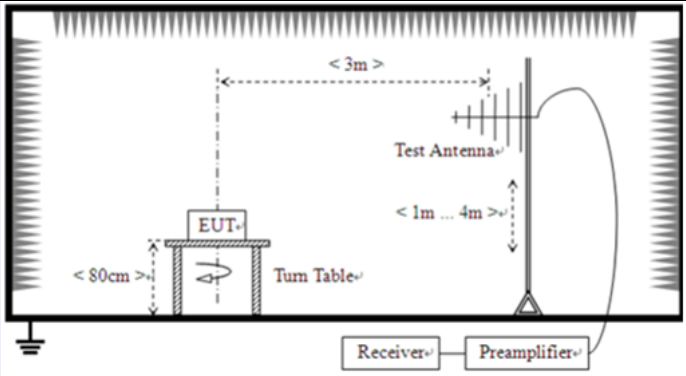
IEEE 802.11ac HT80								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650	15.42	32.36	9.72	23.83	33.67	68.2	-34.53	Horizontal
5700	16.91	32.5	9.79	23.84	35.36	105.2	-69.84	Horizontal
5720	24.04	32.53	9.81	23.85	42.53	110.8	-68.27	Horizontal
5725	33.85	32.53	9.83	23.86	52.35	122.2	-69.85	Horizontal
5850	28	32.7	9.99	23.87	46.82	122.2	-75.38	Horizontal
5855	24.71	32.72	9.99	23.88	43.54	110.8	-67.26	Horizontal
5875	14.41	32.74	10.04	23.89	33.3	105.2	-71.9	Horizontal
5925	15.16	32.8	10.11	23.9	34.17	68.2	-34.03	Horizontal
5650	15.2	32.36	9.72	23.83	33.45	68.2	-34.75	Vertical
5700	17.08	32.5	9.79	23.84	35.53	105.2	-69.67	Vertical
5720	25.25	32.53	9.81	23.85	43.74	110.8	-67.06	Vertical
5725	33.31	32.53	9.83	23.86	51.81	122.2	-70.39	Vertical
5850	27.15	32.7	9.99	23.87	45.97	122.2	-76.23	Vertical
5855	24.93	32.72	9.99	23.88	43.76	110.8	-67.04	Vertical
5875	15.63	32.74	10.04	23.89	34.52	105.2	-70.68	Vertical
5925	14.01	32.8	10.11	23.9	33.02	68.2	-35.18	Vertical

7.7 Spurious Emission

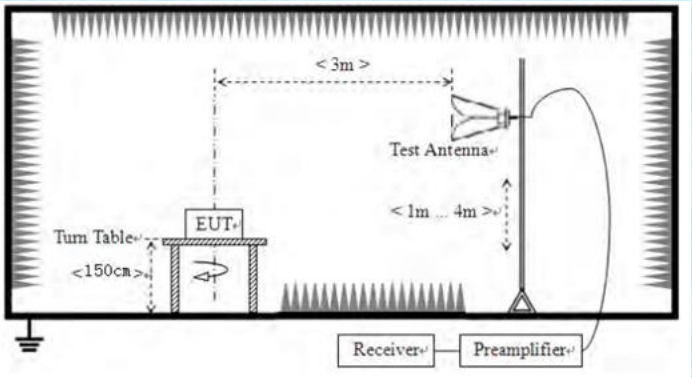
7.7.1 Radiated Emission Method

<table>
<tr><td>Test Requirement:</td><td>FCC Part15 C Section 15.209, Part 15E Section 15.407(b)(4)</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10:2013</td></tr>
<tr><td>Test Frequency Range:</td><td>9kHz to 40GHz</td></tr>
<tr><td>Test site:</td><td>Measurement Distance: 3m</td></tr>
<tr><td>Receiver setup:</td><td>
<table>
<tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Value</th></tr>
<tr><td>9kHz-150KHz</td><td>Quasi-peak</td><td>200Hz</td><td>1kHz</td><td>Quasi-peak Value</td></tr>
<tr><td>150kHz-30MHz</td><td>Quasi-peak</td><td>9kHz</td><td>30kHz</td><td>Quasi-peak Value</td></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr>
<tr><td>AV</td><td>1MHz</td><td>3MHz</td><td>Average Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><th>Frequency</th><th>Limit (uV/m)</th><th>Value</th><th>Measurement Distance</th></tr>
<tr><td>0.009MHz-0.490MHz</td><td>2400/F(KHz)</td><td>QP</td><td>300m</td></tr>
<tr><td>0.490MHz-1.705MHz</td><td>24000/F(KHz)</td><td>QP</td><td>300m</td></tr>
<tr><td>1.705MHz-30MHz</td><td>30</td><td>QP</td><td>30m</td></tr>
<tr><td>30MHz-88MHz</td><td>100</td><td>QP</td><td rowspan="4">3m</td></tr>
<tr><td>88MHz-216MHz</td><td>150</td><td>QP</td></tr>
<tr><td>216MHz-960MHz</td><td>200</td><td>QP</td></tr>
<tr><td>960MHz-1GHz</td><td>500</td><td>QP</td></tr>
</table>
<table>
<tr><th>Frequency</th><th>Limit (dBm/MHz)</th><th>Remark</th></tr>
<tr><td>Above 1GHz</td><td>-27.0</td><td>Peak Value</td></tr>
</table>
</td></tr>
<tr><td>Test setup:</td><td>For radiated emissions from 9kHz to 30MHz
 

For radiated emissions from 30MHz to1GHz</td></tr>
</table>



For radiated emissions above 1GHz



Test Procedure:

1. The EUT was placed on the top of a rotating table (0.8m for below 1GHz and 1.5 meters for above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
7. The radiation measurements are performed in X, Y, Z axis positioning.

	And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.					
Test Instruments:	Refer to section 6.0 for details					
Test mode:	Refer to section 5.2 for details					
Test environment:	Temp.:	25 °C	Humid.:	52%	Press.:	1012mbar
Test voltage:	AC 120V, 60Hz					
Test results:	Pass					

Remarks:

1. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.

Measurement Data:

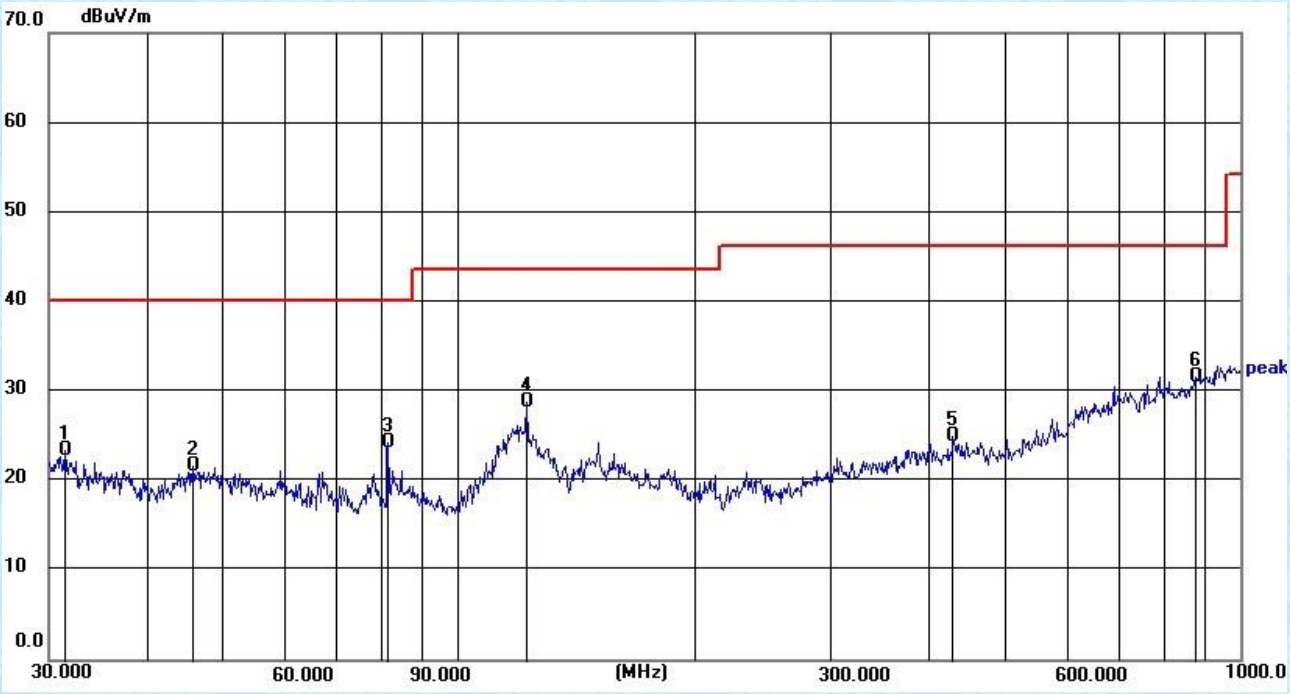
9 kHz ~ 30 MHz

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

Below 1GHz

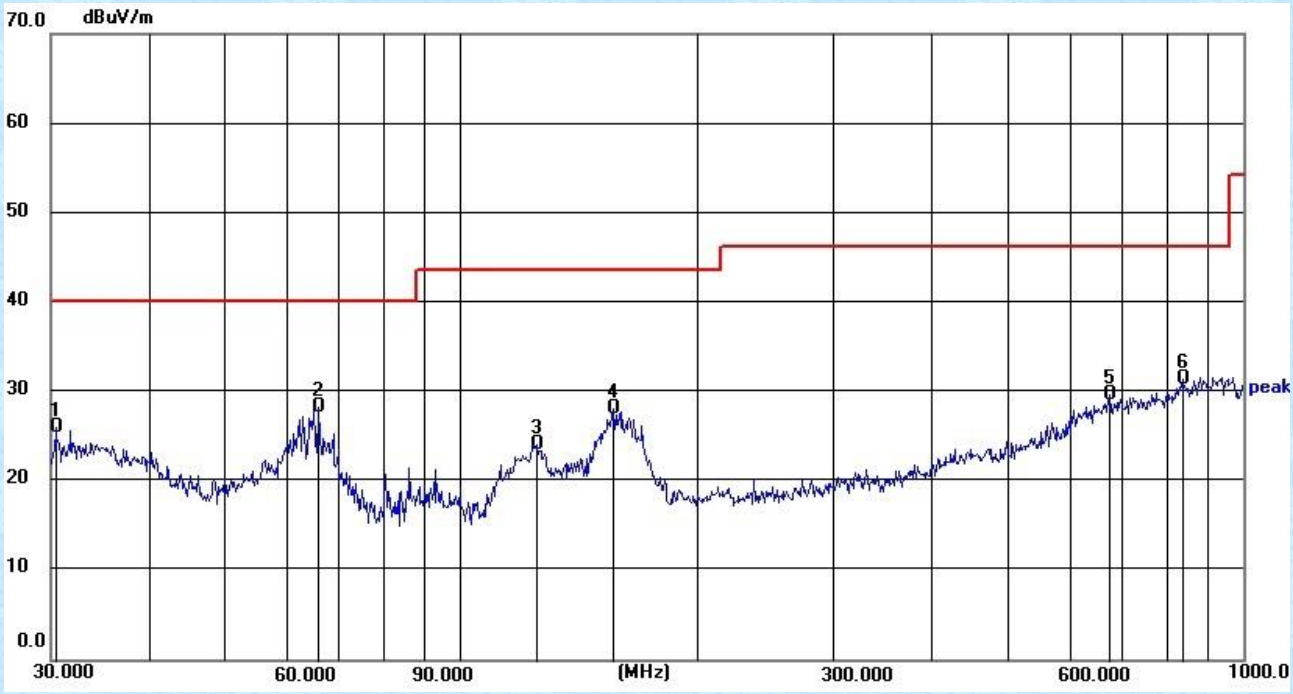
Pre-scan all test modes, found worst case at 802.11ac(HT80), and so only show the test result of 802.11ac(HT80)

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	31.5091	9.52	13.95	23.47	40.00	16.53	QP
2	45.8551	7.09	14.56	21.65	40.00	18.35	QP
3	81.4967	13.50	10.81	24.31	40.00	15.69	QP
4	122.4038	14.56	14.19	28.75	43.50	14.75	QP
5	429.5228	7.38	17.55	24.93	46.00	21.07	QP
6	878.3214	7.85	23.79	31.64	46.00	14.36	QP

Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.4237	13.12	12.89	26.01	40.00	13.99	QP
2	66.0340	15.37	12.85	28.22	40.00	11.78	QP
3	125.4457	9.71	14.36	24.07	43.50	19.43	QP
4	157.0072	12.09	15.99	28.08	43.50	15.42	QP
5	675.2078	7.91	21.77	29.68	46.00	16.32	QP
6	836.2441	8.19	23.32	31.51	46.00	14.49	QP

Above 1GHz:

802.11a,11n(HT20),11ac(HT20),11n(HT40),11ac(HT40),11ac(HT80) all have been tested,
Only the data of worst case at each channel plan (nominal bandwidth =20MHz, 40MHz, 80MHz) is reported.

Test mode:		802.11a		Test channel:		lowest	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11490	33.08	11.83	44.91	68.2	-23.29	PK
V	17235	26.81	16.09	42.9	68.2	-25.3	PK
H	11490	33.55	11.83	45.38	68.2	-22.82	PK
H	17235	30.97	16.09	47.06	68.2	-21.14	PK

Test mode:		802.11a		Test channel:		Middle	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11570	33.34	11.76	45.1	68.2	-23.1	PK
V	17355	26.82	16.74	43.56	68.2	-24.64	PK
H	11570	33.8	11.76	45.56	68.2	-22.64	PK
H	17355	31.03	16.74	47.77	68.2	-20.43	PK

Test mode:		802.11a		Test channel:		Highest	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11650	34.12	11.68	45.8	68.2	-22.4	PK
V	17475	26.45	17.63	44.08	68.2	-24.12	PK
H	11650	34.34	11.68	46.02	68.2	-22.18	PK
H	17475	30.27	17.63	47.9	68.2	-20.3	PK

Test mode:		802.11ac(HT40)		Test channel:		Lowest	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11510	32.63	11.84	44.47	68.2	-23.73	PK
V	17265	25.56	16.39	41.95	68.2	-26.25	PK
H	11510	32.95	11.84	44.79	68.2	-23.41	PK
H	17265	29.8	16.39	46.19	68.2	-22.01	PK

Test mode:		802.11ac(HT40)		Test channel:		Highest	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11590	33.37	11.71	45.08	68.2	-23.12	PK
V	17385	25.58	17.03	42.61	68.2	-25.59	PK
H	11590	33.42	11.71	45.13	68.2	-23.07	PK
H	17385	29.93	17.03	46.96	68.2	-21.24	PK

Test mode:		802.11ac(HT80)		Test channel:		Middle	
Antenna Pol.	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dBuV/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector
V	11550	32.13	11.81	43.94	68.2	-24.26	PK
V	17325	24.96	16.71	41.67	68.2	-26.53	PK
H	11550	32.13	11.81	43.94	68.2	-24.26	PK
H	17325	28.67	16.71	45.38	68.2	-22.82	PK

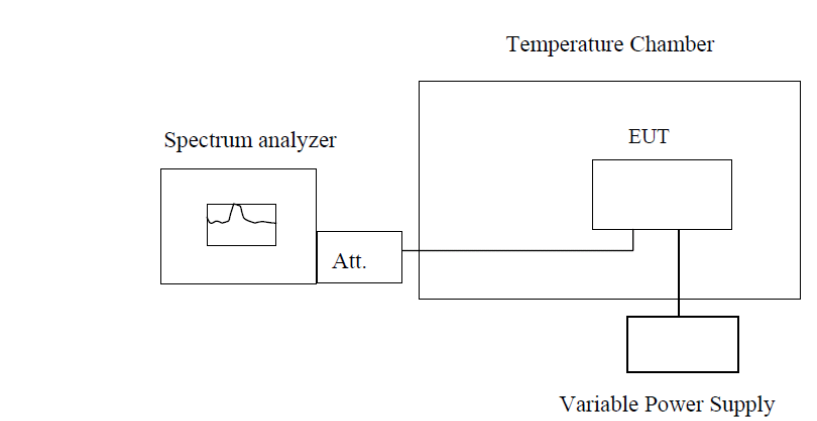
Notes:

1. Measure Level = Reading Level + Factor.

2. The test trace is same as the ambient noise (the test frequency range: 18GHz~40GHz), therefore no data appear in the report.

3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

7.8 Frequency stability

Test Requirement:	FCC Part15 C Section 15.407(g)
Test Method:	ANSI C63.10:2013, FCC Part 2.1055
Limit:	Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified
Test Procedure:	The EUT was setup to ANSI C63.4, 2003; tested to 2.1055 for compliance to FCC Part 15.407(g) requirements.
Test setup:	 **Note :** Measurement setup for testing on Antenna connector
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement data:

Frequency stability versus Temp.													
Worst Case Operating Frequency：5745MHz													
Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
-30	9	5745.0095	1.65	P	5745.0211	3.67	P	5745.0071	1.24	P	5745.0188	3.27	P
-20	9	5744.9879	-2.11	P	5744.9866	-2.33	P	5744.9887	-1.97	P	5744.9843	-2.73	P
-10	9	5744.9792	-3.62	P	5744.9756	-4.25	P	5744.9741	-4.51	P	5744.977	-4	P
0	9	5745.0274	4.77	P	5745.0226	3.93	P	5745.025	4.35	P	5745.0216	3.76	P
10	9	5744.9562	-7.62	P	5744.9593	-7.08	P	5744.9535	-8.09	P	5744.9562	-7.62	P
20	9	5744.945	-9.57	P	5744.9461	-9.38	P	5744.9462	-9.36	P	5744.9469	-9.24	P
30	9	5745.0283	4.93	P	5745.0173	3.01	P	5745.0201	3.5	P	5745.0234	4.07	P
40	9	5745.01	1.74	P	5744.9964	-0.63	P	5744.9998	-0.03	P	5744.9966	-0.59	P
50	9	5744.9721	-4.86	P	5744.9728	-4.73	P	5744.9756	-4.25	P	5744.9723	-4.82	P
Frequency stability versus Voltage.													
Worst Case Operating Frequency：5745MHz													
Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
25	7.65	5745.0199	3.46	P	5745.0152	2.65	P	5745.0226	3.93	P	5745.0117	2.04	P
25	9	5744.9899	-1.76	P	5744.9933	-1.17	P	5744.9929	-1.24	P	5744.9922	-1.36	P
25	10.35	5744.9736	-4.6	P	5744.9748	-4.39	P	5744.9736	-4.6	P	5744.9716	-4.94	P

Frequency stability versus Temp.													
Worst Case Operating Frequency：5785MHz													
Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
-30	9	5785.0149	2.58	P	5785.0168	2.9	P	5785.0105	1.82	P	5785.0089	1.54	P
-20	9	5784.9912	-1.52	P	5784.983	-2.94	P	5784.9828	-2.97	P	5784.9874	-2.18	P
-10	9	5784.9734	-4.6	P	5784.9821	-3.09	P	5784.9743	-4.44	P	5784.9729	-4.68	P
0	9	5785.0229	3.96	P	5785.0256	4.43	P	5785.0201	3.47	P	5785.0285	4.93	P
10	9	5784.9524	-8.23	P	5784.9508	-8.5	P	5784.9584	-7.19	P	5784.9566	-7.5	P
20	9	5784.9459	-9.35	P	5784.9468	-9.2	P	5784.9473	-9.11	P	5784.9436	-9.75	P
30	9	5785.0251	4.34	P	5785.0223	3.85	P	5785.0231	3.99	P	5785.0189	3.27	P
40	9	5785.0054	0.93	P	5785.0049	0.85	P	5785.0105	1.82	P	5785.0061	1.05	P
50	9	5784.9744	-4.43	P	5784.9822	-3.08	P	5784.9762	-4.11	P	5784.9768	-4.01	P
Frequency stability versus Voltage.													
Worst Case Operating Frequency：5785MHz													
Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
25	7.65	5784.9726	-4.74	P	5784.9759	-4.17	P	5784.9717	-4.89	P	5784.9739	-4.51	P
25	9	5785.0227	3.92	P	5785.0203	3.51	P	5785.0238	4.11	P	5785.0196	3.39	P
25	10.35	5784.9944	-0.97	P	5785.0106	1.83	P	5784.9972	-0.48	P	5784.9977	-0.4	P

Frequency stability versus Temp.													
Worst Case Operating Frequency：5825MHz													
Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
-30	9	5825.0181	3.11	P	5825.0184	3.16	P	5825.0215	3.69	P	5825.0156	2.68	P
-20	9	5824.9858	-2.44	P	5824.9902	-1.68	P	5824.9896	-1.79	P	5824.9903	-1.67	P
-10	9	5824.9797	-3.48	P	5824.9819	-3.11	P	5824.9754	-4.22	P	5824.9748	-4.33	P
0	9	5825.0204	3.5	P	5825.0273	4.69	P	5825.0248	4.26	P	5825.0283	4.86	P
10	9	5824.957	-7.38	P	5824.9575	-7.3	P	5824.9512	-8.38	P	5824.958	-7.21	P
20	9	5824.9454	-9.37	P	5824.9422	-9.92	P	5824.9429	-9.8	P	5824.9456	-9.34	P
30	9	5825.0206	3.54	P	5825.0207	3.55	P	5825.0261	4.48	P	5825.0179	3.07	P
40	9	5825.0103	1.77	P	5824.9942	-1	P	5825.0005	0.09	P	5824.9953	-0.81	P
50	9	5824.9766	-4.02	P	5824.9749	-4.31	P	5824.971	-4.98	P	5824.9817	-3.14	P
Frequency stability versus Voltage.													
Worst Case Operating Frequency：5825MHz													
Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
25	7.65	5824.9792	-3.57	P	5824.9848	-2.61	P	5824.9738	-4.5	P	5824.9846	-2.64	P
25	9	5825.0237	4.07	P	5825.0213	3.66	P	5825.0186	3.19	P	5825.0257	4.41	P
25	10.35	5825.002	0.34	P	5825.0037	0.64	P	5825.0115	1.97	P	5825.0111	1.91	P

Frequency stability versus Temp.													
Worst Case Operating Frequency：5755MHz													
Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
-30	9	5755.0122	2.12	P	5755.0249	4.33	P	5755.0146	2.54	P	5755.0246	4.27	P
-20	9	5754.985	-2.61	P	5754.9856	-2.5	P	5754.9871	-2.24	P	5754.9885	-2	P
-10	9	5754.9762	-4.14	P	5754.975	-4.34	P	5754.9771	-3.98	P	5754.9751	-4.33	P
0	9	5755.0232	4.03	P	5755.0283	4.92	P	5755.02	3.48	P	5755.0272	4.73	P
10	9	5754.9561	-7.63	P	5754.959	-7.12	P	5754.9498	-8.72	P	5754.9513	-8.46	P
20	9	5754.9456	-9.45	P	5754.9428	-9.94	P	5754.9458	-9.42	P	5754.9455	-9.47	P
30	9	5755.0241	4.19	P	5755.0199	3.46	P	5755.0257	4.47	P	5755.0216	3.75	P
40	9	5755.0036	0.63	P	5755.0105	1.82	P	5755.0087	1.51	P	5755.0113	1.96	P
50	9	5754.9726	-4.76	P	5754.9817	-3.18	P	5754.9741	-4.5	P	5754.977	-4	P
Frequency stability versus Voltage.													
Worst Case Operating Frequency：5755MHz													
Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
25	7.65	5754.9733	-4.64	P	5754.9838	-2.81	P	5754.9844	-2.71	P	5754.9738	-4.55	P
25	9	5755.0234	4.07	P	5755.0253	4.4	P	5755.0236	4.1	P	5755.0174	3.02	P
25	10.35	5754.9999	-0.02	P	5755.0084	1.46	P	5755.0014	0.24	P	5754.9944	-0.97	P

Frequency stability versus Temp.													
Worst Case Operating Frequency：5795MHz													
Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
-30	9	5795.0234	4.04	P	5795.0126	2.17	P	5795.0156	2.69	P	5795.0252	4.35	P
-20	9	5794.9835	-2.85	P	5794.991	-1.55	P	5794.9841	-2.74	P	5794.9873	-2.19	P
-10	9	5794.982	-3.11	P	5794.9781	-3.78	P	5794.9769	-3.99	P	5794.9809	-3.3	P
0	9	5795.0232	4	P	5795.0199	3.43	P	5795.0176	3.04	P	5795.0275	4.75	P
10	9	5794.9482	-8.94	P	5794.9506	-8.52	P	5794.9503	-8.58	P	5794.9488	-8.84	P
20	9	5794.9433	-9.78	P	5794.9426	-9.91	P	5794.9466	-9.21	P	5794.9431	-9.82	P
30	9	5795.0238	4.11	P	5795.0221	3.81	P	5795.0289	4.99	P	5795.0233	4.02	P
40	9	5794.9998	-0.03	P	5795.0094	1.62	P	5795.0024	0.41	P	5795.0064	1.1	P
50	9	5794.9718	-4.87	P	5794.9749	-4.33	P	5794.9728	-4.69	P	5794.9733	-4.61	P
Frequency stability versus Voltage.													
Worst Case Operating Frequency：5795MHz													
Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
25	7.65	5794.9765	-4.06	P	5794.9727	-4.71	P	5794.9859	-2.43	P	5794.9834	-2.86	P
25	9	5795.0198	3.42	P	5795.0181	3.12	P	5795.0271	4.68	P	5795.02	3.45	P
25	10.35	5795.0038	0.66	P	5795.0056	0.97	P	5795.0016	0.28	P	5795.0045	0.78	P

Frequency stability versus Temp.													
Worst Case Operating Frequency：5775MHz													
Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
-30	9	5775.02	3.46	P	5775.0179	3.1	P	5775.0173	3	P	5775.0185	3.2	P
-20	9	5774.9837	-2.82	P	5774.9832	-2.91	P	5774.9884	-2.01	P	5774.9897	-1.78	P
-10	9	5774.9719	-4.87	P	5774.9738	-4.54	P	5774.9794	-3.57	P	5774.98	-3.46	P
0	9	5775.0275	4.76	P	5775.0247	4.28	P	5775.0194	3.36	P	5775.0276	4.78	P
10	9	5774.956	-7.62	P	5774.9505	-8.57	P	5774.9539	-7.98	P	5774.9594	-7.03	P
20	9	5774.9448	-9.56	P	5774.9472	-9.14	P	5774.9434	-9.8	P	5774.9456	-9.42	P
30	9	5775.025	4.33	P	5775.0285	4.94	P	5775.0176	3.05	P	5775.0287	4.97	P
40	9	5775.0069	1.19	P	5775.0087	1.51	P	5775.0087	1.51	P	5775.0043	0.74	P
50	9	5774.9801	-3.45	P	5774.9755	-4.24	P	5774.9725	-4.76	P	5774.9779	-3.83	P
Frequency stability versus Voltage.													
Worst Case Operating Frequency：5775MHz													
Temp. (°C)	Power Supply(VDC)	0 minute			2 minute			5 minute			10 minute		
		Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F	Measured Frequency (MHz)	Frequency Error (ppm)	P/F
25	7.65	5774.9812	-3.26	P	5774.9756	-4.23	P	5774.9722	-4.81	P	5774.9829	-2.96	P
25	9	5775.0221	3.83	P	5775.0257	4.45	P	5775.0213	3.69	P	5775.018	3.12	P
25	10.35	5775.0034	0.59	P	5774.9947	-0.92	P	5774.9976	-0.42	P	5774.9986	-0.24	P

Note: P for PASS and F for Fail.

8 Test Setup Photo

Reference to the **appendix I** for details.

9 EUT Constructional Details

Reference to the **appendix II** for details.

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