74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA
TEL: +82-31-645-6300 FAX: +82-31-645-6401

FCC UNII REPORT

Certification

Applicant Name:
SAMSUNG Electronics Co., Ltd.

Address:
129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea

Date of Issue:
November 11, 2021

Test Site/Location:
74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA

Report No.: HCT-RF-2110-FC023-R3

FCC ID:	**A3LSMS901B**
APPLICANT:	**SAMSUNG Electronics Co., Ltd.**

Model:	SM-S901B/DS
EUT Type:	Mobile Phone
Modulation type	OFDM
FCC Classification:	Unlicensed National Information Infrastructure(NII)
FCC Rule Part(s):	Part 15.407

Engineering Statement:

The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of the FCC Rules under normal use and maintenance.

REVIEWED BY

Report prepared by : Jeong Ho Kim
Engineer of Telecommunication Testing Center

Report approved by : Jong Seok Lee
Manager of Telecommunication Testing Center

This test results were applied only to the test methods required by the standard.

This laboratory is not accredited for the test results marked *.
The above Test Report is the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS(Korea Laboratory Accreditation Scheme), which signed the ILAC-MRA. (HCT Accreditation No.: KT197)

Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-2110-FC023	October 28, 2021	- First Approval Report
HCT-RF-2110-FC023-R1	October 29, 2021	- Page.8~9 : U-NII -4 Power Table Revised. - Content 10.4 Power table revised - Content 10.5 PSD revised - Content 10.7 Straddle add the NII-4 result
HCT-RF-2110-FC023-R2	November 05, 2021	- Page.10 Typo correction - Additional Model delete
HCT-RF-2110-FC023-R3	November 11, 2021	- Revised on Page 148,150 - Page(240~242) U-NII-4 O.O.B.E(upper) Peak result added

Table of Contents

1. GENERAL INFORMATION

EUT DESCRIPTION

Model	SM-S901B/DS	
Additional Model	-	
EUT Type	Mobile Phone	
Power Supply	DC 3.88 V	
Modulation Type	OFDM : 802.11a, 802.11n, 802.11ac	
Frequency Range (MHz)	U-NII-1	20 MHz BW : 5180 - 5240 40 MHz BW : 5190 - 5230 80 MHz BW : 5210
	U-NII-2A	20 MHz BW : 5260 - 5320 40 MHz BW : 5270 - 5310 80 MHz BW : 5290
	U-NII-2C	20 MHz BW : 5500 - 5720 40 MHz BW : 5510 - 5710 80 MHz BW : 5530 – 5690
	U-NII-3	20 MHz BW : 5745 - 5825 40 MHz BW : 5755 - 5795 80 MHz BW : 5775
	U-NII-4	20 MHz BW : 5845 - 5885 40 MHz BW : 5835 - 5875 80 MHz BW : 5855
Straddle channel	Supported	
TDWR Band	Supported	
Dynamic Frequency Selection	Slave without radar detection	
Date(s) of Tests	September 24, 2021 ~ November 11, 2021	
Serial number	Radiated: R3CR90EYFYM Conducted: 572b4e7d6c3f7ece	

ANTENNA CONFIGURATIONS

1. The device employs MIMO technology. Below are the possible configurations

Configurations	SISO		SDM	CDD
	Ant.1	Ant.2	Ant.1 + Ant.2	Ant.1 + Ant.2
802.11a	O	O	X	O
802.11n	O	O	O	O
802.11ac	O	O	O	O

Note:

(1) O = Support, X = Not Support

(2) SISO = Single Input Single Output

(3) SDM = Spatial Diversity Multiplexing

(4) CDD = Cyclic Delay Diversity

2.This device supports simultaneous transmission operation, which allows for two channels to operate independent of one another in the 2.4 GHz and 5 GHz bands simultaneously on each antenna.

RSDB Scenario	2.4 GHz WiFi Ant.1	2.4 GHz WiFi Ant.2	5GHz WiFi Ant.1	5GHz WiFi Ant.2	Bluetooth Ant.1	Bluetooth Ant.2
2.4 GHz WiFi MIMO + 5GHz WiFi	On	On	On			-
2.4 GHz WiFi MIMO + 5GHz WiFi MIMO	On	On	On	On		-
2.4 GHz WiFi + 5GHz WiFi + Bluetooth		On	On		On	-
2.4 GHz WiFi + 5GHz WiFi MIMO + Bluetooth		On	On	On	On	-

Non-DBS	2.4 GHz WiFi Ant.1	2.4 GHz WiFi Ant.2	5GHz WiFi Ant.1	5GHz WiFi Ant.2	Bluetooth Ant.1	Bluetooth Ant.2
5GHz WiFi MIMO + Bluetooth			On	On	On	-
			On	On		-

3. Directional Gain Calculation

According to KDB 662911 D01 Multiple Transmitter Output v02r01 F) 2) f) (ii)

Directional gain =

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

Band	Ant Gain (dBi)		N_{ANT}/ N_{ss}	Directional Gain (dBi)
UNII 1	ANT1	-5.86	2 / 2	CDD : -2.76 SDM : -5.69
	ANT2	-5.69		
UNII 2A	ANT1	-5.78	2 / 2	CDD : -2.37 SDM : -5.01
	ANT2	-5.01		
UNII 2C	ANT1	-5.08	2 / 2	CDD : -2.38 SDM : -5.08
	ANT2	-5.72		
UNII 3	ANT1	-5.62	2 / 2	CDD : -2.51 SDM : -5.44
	ANT2	-5.44		
UNII 4	ANT1	-5.62	2 / 2	CDD : -1.88 SDM : -4.23
	ANT2	-4.23		

Band	Ant Gain (dBi)		N_{ANT}/ N_{ss}	Directional Gain (dBi)
U-NII	ANT1	-5.08	2 / 2	CDD : -1.63 SDM : -4.23
	ANT2	-4.23		

2. MAXIMUM OUTPUT POWER

The transmitter has a maximum total conducted average output power as follows:

Band	Mode	Ant.1 Power		Ant.2 Power		MIMO Ant.1 + Ant.2 Power	
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)
UNII1	802.11a	14.23	0.026	14.27	0.027	17.26	0.053
	802.11n (HT20)	14.15	0.026	14.31	0.027	17.24	0.053
	802.11n (HT40)	14.53	0.028	15.86	0.039	18.19	0.066
	802.11ac (VHT20)	14.15	0.026	14.29	0.027	17.23	0.053
	802.11ac (VHT40)	14.59	0.029	15.73	0.037	18.19	0.066
	802.11ac (VHT80)	14.51	0.028	14.74	0.030	17.64	0.058
UNII2A	802.11a	14.08	0.026	15.31	0.034	17.75	0.060
	802.11n (HT20)	13.99	0.025	15.30	0.034	17.71	0.059
	802.11n (HT40)	14.57	0.029	15.88	0.039	18.28	0.067
	802.11ac (VHT20)	13.96	0.025	15.21	0.033	17.62	0.058
	802.11ac (VHT40)	14.58	0.029	15.87	0.039	18.28	0.067
	802.11ac (VHT80)	14.50	0.028	14.56	0.029	17.54	0.057
UNII2C	802.11a	13.90	0.025	14.53	0.028	16.92	0.049
	802.11n (HT20)	13.97	0.025	14.69	0.029	17.02	0.050
	802.11n (HT40)	13.98	0.025	14.19	0.026	17.09	0.051
	802.11ac (VHT20)	13.90	0.025	14.67	0.029	17.04	0.051
	802.11ac (VHT40)	14.52	0.028	14.90	0.031	17.72	0.059
	802.11ac (VHT80)	14.33	0.027	14.94	0.031	17.37	0.055
UNII3	802.11a	16.26	0.042	16.23	0.042	19.25	0.084
	802.11n (HT20)	16.12	0.041	16.24	0.042	19.19	0.083
	802.11n (HT40)	14.57	0.029	15.14	0.033	17.88	0.061
	802.11ac (VHT20)	16.15	0.041	16.31	0.043	19.13	0.082
	802.11ac (VHT40)	14.62	0.029	15.62	0.036	18.08	0.064
	802.11ac (VHT80)	13.16	0.021	14.26	0.027	16.76	0.047
UNII4 Conducted For inf.	802.11a	16.88	0.049	16.66	0.046	19.78	0.095
	802.11n (HT20)	16.74	0.047	16.37	0.043	19.57	0.091
	802.11n (HT40)	14.83	0.030	14.93	0.031	17.89	0.061
	802.11ac (VHT20)	16.61	0.046	16.32	0.043	19.46	0.088
	802.11ac (VHT40)	15.34	0.034	14.90	0.031	18.14	0.065
	802.11ac (VHT80)	13.40	0.022	14.53	0.028	17.01	0.050

Band	Mode	Ant.1 Power				Ant.2 Power				MIMO Ant.1 + Ant.2 Power			
		(dBm)	ANT Gain(dBi)	EIRP (dBm)	(W)	(dBm)	ANT Gain(dBi)	EIRP (dBm)	(W)	(dBm)	ANT Gain(dBi)	EIRP (dBm)	(W)
UNII4 (E.I.R.P)	802.11a	16.88	-5.62	11.26	0.013	16.66	-4.23	12.43	0.018	19.78	-1.63	18.15	0.065
	802.11n (HT20)	16.74	-5.62	11.12	0.013	16.37	-4.23	12.14	0.016	19.57	-1.63	17.94	0.062
	802.11n (HT40)	14.83	-5.62	9.21	0.008	14.93	-4.23	10.70	0.012	17.89	-1.63	16.26	0.042
	802.11ac (VHT20)	16.61	-5.62	10.99	0.013	16.32	-4.23	12.09	0.016	19.46	-1.63	17.83	0.061
	802.11ac (VHT40)	15.34	-5.62	9.72	0.009	14.90	-4.23	10.67	0.012	18.14	-1.63	16.51	0.045
	802.11ac (VHT80)	13.40	-5.62	7.78	0.006	14.53	-4.23	10.30	0.011	17.01	-1.63	15.38	0.035

3. TEST METHODOLOGY

The measurement procedure described in FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01 dated December 14, 2017 entitled “Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part15, Subpart E” and ANSI C63.10(Version : 2013) ‘the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices’ were used in the measurement. Additionally, for U-NII-4 band, use the following measurement procedure KDB 291074 U-NII-4 5.9 Band DR01-44460

EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

EUT EXERCISE

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.407 under the FCC Rules Part 15 Subpart E.

GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 6.2 of ANSI C63.10. (Version :2013) Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane below 1 GHz. Above 1 GHz with 1.5 m using absorbers between the EUT and receive antenna. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3 m away from the receiving antenna, which varied from 1 m to 4 m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes according to the requirements in Section 6.6.5 of ANSI C63.10. (Version: 2013)

DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition. Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

4. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment's, which is traceable to recognized national standards.
Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5 (Version : 2017).

5. FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

The SAC(Semi-Anechoic Chamber) and conducted measurement facility used to collect the radiated data are located at the 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA. The site is constructed in conformance with the requirements of ANSI C63.4. (Version :2014) and CISPR Publication 22.
Detailed description of test facility was submitted to the Commission and accepted dated April 02, 2018 (Registration Number: KR0032).

5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.
Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers. Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.
All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

6. ANTENNA REQUIREMENTS

According to FCC 47 CFR §15.203, §15.407:

"An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can 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 shall be considered sufficient to comply with the provisions of this section."

(1) The antennas of this E.U.T are permanently attached.

(2) The E.U.T Complies with the requirement of §15.203, §15.407

7. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2013.

All measurement uncertainty values are shown with a coverage factor of k = 2 to indicate a 95 % level of confidence.

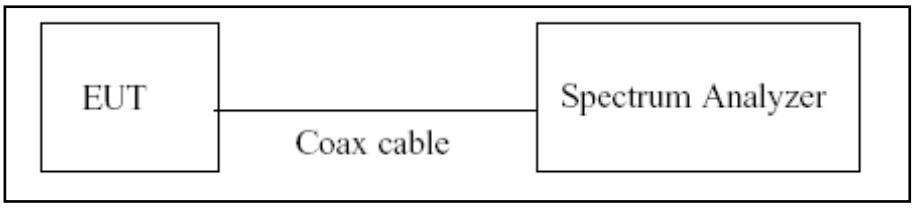
The measurement data shown herein meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded Uncertainty (dB)
Conducted Disturbance (150 kHz ~ 30 MHz)	1.82 (Confidence level about 95 %, k=2)
Radiated Disturbance (9 kHz ~ 30 MHz)	3.40 (Confidence level about 95 %, k=2)
Radiated Disturbance (30 MHz ~ 1 GHz)	4.80 (Confidence level about 95 %, k=2)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.70 (Confidence level about 95 %, k=2)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.05 (Confidence level about 95 %, k=2)

8. DESCRIPTION OF TESTS

8.1. Duty Cycle

Test Configuration



Test Procedure

The transmitter output is connected to the Spectrum Analyzer.

We tested according to Procedure B.2 in KDB 789033 D02 v02r01.

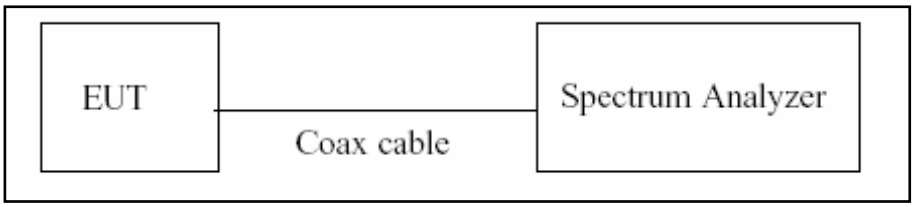
1. RBW = 8 MHz (the largest availble value)
2. VBW = 8 MHz (≥ RBW)
3. SPAN = 0 Hz
4. Detector = Peak
5. Number of points in sweep > 100
6. Trace mode = Clear write
7. Measure T_{total} and T_{on}
8. Calculate Duty Cycle = T_{on}/ T_{total} and Duty Cycle Factor = 10log(1/Duty Cycle)

8.2. 6 dB Bandwidth & 26 dB Bandwidth

Limit

Within the 5.725-5.85 GHz(NII-3) &5.85-5.925 GHz(NII-4) band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Test Configuration



Test Procedure(26 dB Bandwidth)

The transmitter output is connected to the Spectrum Analyzer.

We tested according to Procedure C.1 in KDB 789033 D02 v02r01.

1. RBW = approximately 1 % of the emission bandwidth
2. VBW > RBW
3. Detector = Peak
4. Trace mode = max hold
5. 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 %.

Test Procedure (6 dB Bandwidth)

The transmitter output is connected to the Spectrum Analyzer.

We tested according to Procedure C.2 in KDB 789033 D02 v02r01.

1. RBW = 100 kHz
2. VBW ≥ 3 x RBW
3. Detector = Peak
4. Trace mode = max hold
5. Allow the trace to stabilize
6. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points(upper and lower frequencies) that are attenuated by 6 dB relative to the maximum lever measured in the fundamental emission.

Note:

1. We tested X dB bandwidth using the automatic bandwidth measurement capability of a spectrum analyzer.
2. DFS test channels should be defined. So, We performed the OBW test to prove that no part of the fundamental emissions of any channels belong to UNII1 and UNII3 band for DFS.
3. The 26 dB bandwidth is used to determine the conducted power limits.

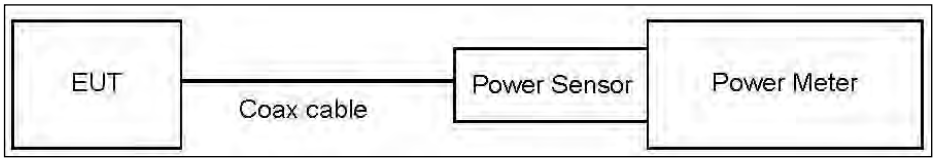
8.3. Output Power Measurement

Limit

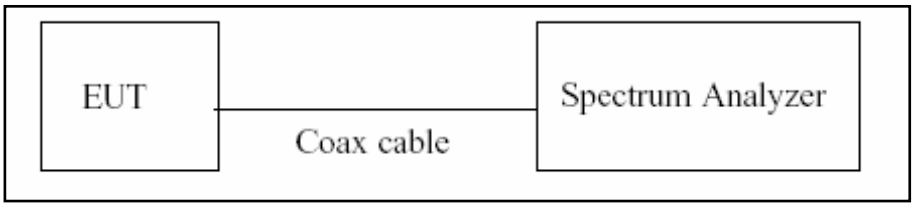
Band	Limit
UNII 1	- Master : Not exceed 1 W(=30 dBm) - Slave : Not exceed 250 mW(=23.98 dBm)
UNII 2A, 2C	Not exceed the lesser of 250 mW or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.)
UNII 3	Not exceed 1 W(=30 dBm)
UNII 4	EIRP 30 dBm

Test Configuration

Power Meter



Spectrum Analyzer(Only Straddle Channel)



Test Procedure(Power Meter)

We tested according to Procedure E.3.a in KDB 789033 D02 v02r01.

1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Test Procedure(Spectrum Analyzer)

The transmitter output is connected to the Spectrum Analyzer.

We use the spectrum analyzer's integrated band power measurement function.

We tested according to Procedure E.2.d) in KDB 789033 D02 v02r01.

1. Measure the duty cycle.
2. Set span to encompass the 26 dB EBW of the signal.
3. RBW = 1 MHz.
4. VBW ≥ 3 MHz.
5. Number of points in sweep ≥ 2 x span/RBW.
6. Sweep time = auto.
7. Detector = RMS.
8. Do not use sweep triggering. Allow the sweep to "free run".
9. Trace average at least 100 traces in power averaging(RMS) mode
10. Integrated bandwidth = OBW
11. Add 10log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Sample Calculation

Total Power(dBm) = Measured Level(dBm) + ATT loss(dB) + Cable loss(dB) + Duty Cycle Factor(dB)

Note

1. Spectrum Measured Levels are not plot data.
   The power results in plot is already including the actual values of loss for the attenuator and cable combination.
2. Spectrum offset
   Loss = Attenuator loss(20 dB) + Cable loss + EUT Cable loss
3. Actual value of loss for the attenuator and cable combination is below table.

Band	Loss(dB)
UNII 1	20.82
UNII 2A	20.82
UNII 2C	20.82
UNII 3&4	20.82

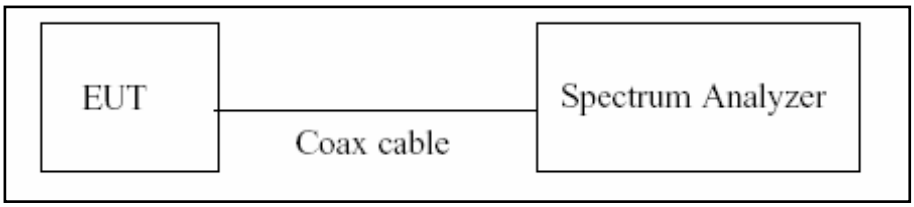
(Actual value of loss for the attenuator and cable combination)

8.4. Power Spectral Density

Limit

Band	Limit
UNII 1	11 dBm/MHz
UNII 2A, 2C	11 dBm/MHz
UNII 3	30 dBm/500 kHz
UNII 4	EIRP 14 dBm/MHz

Test Configuration



Test Procedure

We tested according to Procedure F in KDB 789033 D02 v02r01.

1. Set span to encompass the entire emission bandwidth(EBW) of the signal.
2. RBW = 1 MHz(510 kHz for UNII 3)
   ➔For portion within the NII-3 be used RBW 510kHz, for portion within the NII-4 be used RBW 1MHz
3. VBW ≥ 3 MHz
4. Number of points in sweep ≥ 2 x span/RBW.
5. Sweep time = auto.
6. Detector = RMS(i.e., power averaging), if available. Otherwise, use sample detector mode.
7. Do not use sweep triggering. Allow the sweep to “free run”.
8. Trace average at least 100 traces in power averaging(RMS) mode
9. Use the peak search function on the spectrum analyzer to find the peak of the spectrum.
10. If Method SA-2 was used, add 10 log(1/x), where x is the duty cycle, to the peak of the spectrum.

Sample Calculation

Total PSD(dBm) = Measured Level(dBm) + ATT loss(dB) + Cable loss(dB) + Duty Cycle Factor(dB)

Note

1. Spectrum Measured Levels are not plot data.
   The PSD results in plot is already including the actual values of loss for the attenuator and cable combination.
2. Spectrum offset
   Loss = Attenuator loss(20 dB) + Cable loss
3. Actual value of loss for the attenuator and cable combination is below table.

Band	Loss(dB)
UNII 1	20.82
UNII 2A	20.82
UNII 2C	20.82
UNII 3&4	20.82

(Actual value of loss for the attenuator and cable combination)

8.5. AC Power line Conducted Emissions

Limit

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN).

Frequency Range (MHz)	Limits (dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56[a]	56 to 46[a]
0.50 to 5	56	46
5 to 30	60	50

[a]Decreases with the logarithm of the frequency.

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

Test Configuration

See test photographs attached in Annex A for the actual connections between EUT and support equipment.

Test Procedure

1. The EUT is placed on a wooden table 80 cm above the reference ground plane.
2. The EUT is connected via LISN to a test power supply.
3. The measurement results are obtained as described below:
4. Detectors : Quasi Peak and Average Detector.

Sample Calculation

Quasi-peak(Final Result) = Measured Level + Correction Factor

8.6. Radiated Test

Limit

1. UNII 1: All emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of −27 dBm/MHz.
2. UNII 2A, 2C: All emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of −27 dBm/MHz.
3. UNII 3: 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.
4. UNII 4: [Low Channel O.O.B.E] measured with an Peak detector

   For a client device or indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of −27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.

   [High Channel O.O.B.E] measured with an RMS detector

   For a client device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of −5 dBm/MHz and shall decrease linearly to an e.i.r.p. of −27 dBm/MHz at or above 5.925 GHz.

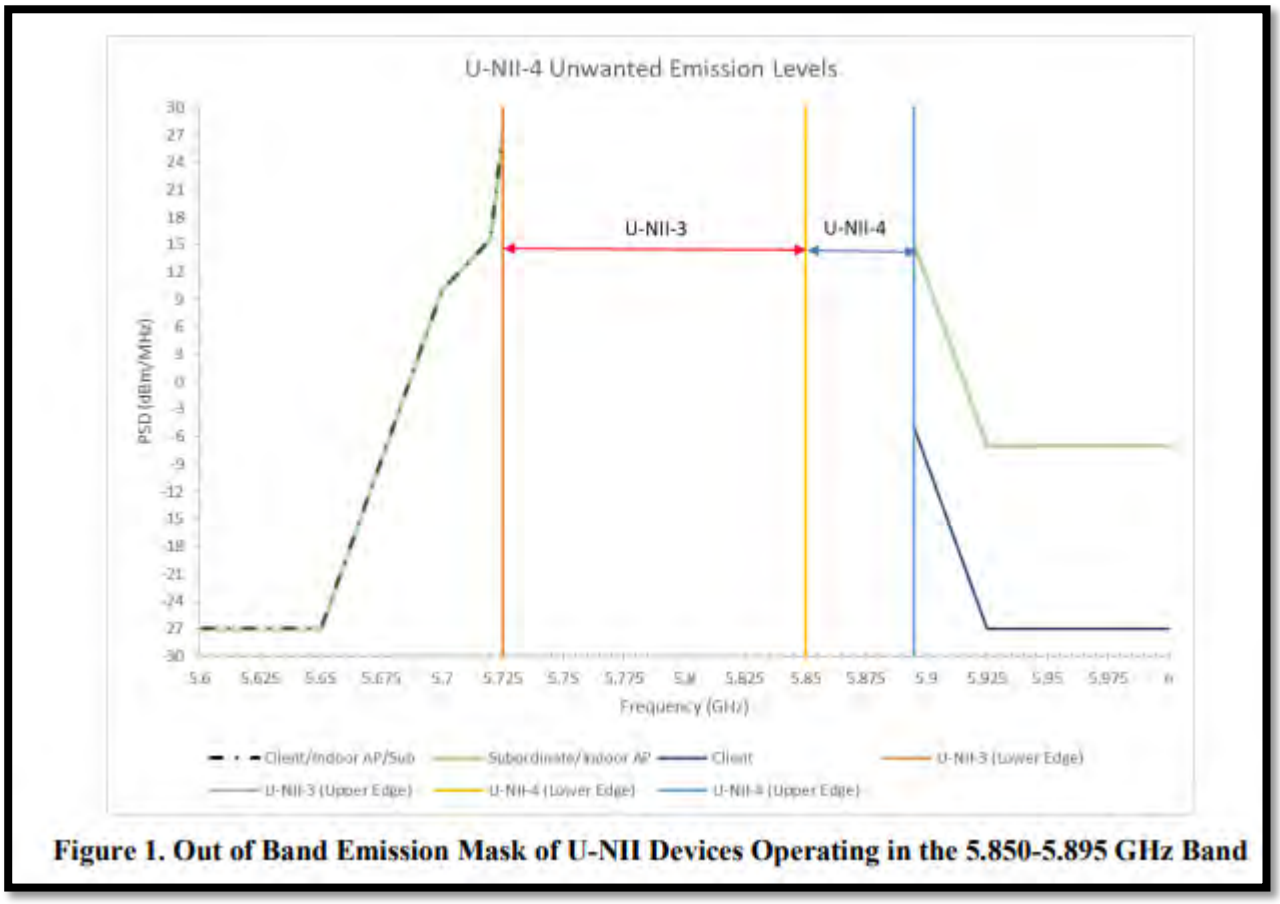


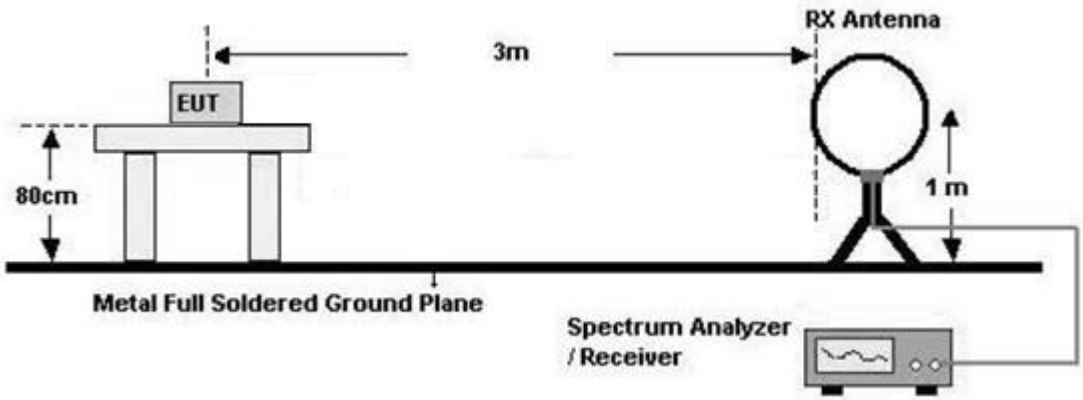
Figure 1. Out of Band Emission Mask of U-NII Devices Operating in the 5.850-5.895 GHz Band

5. All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Section 15.209.

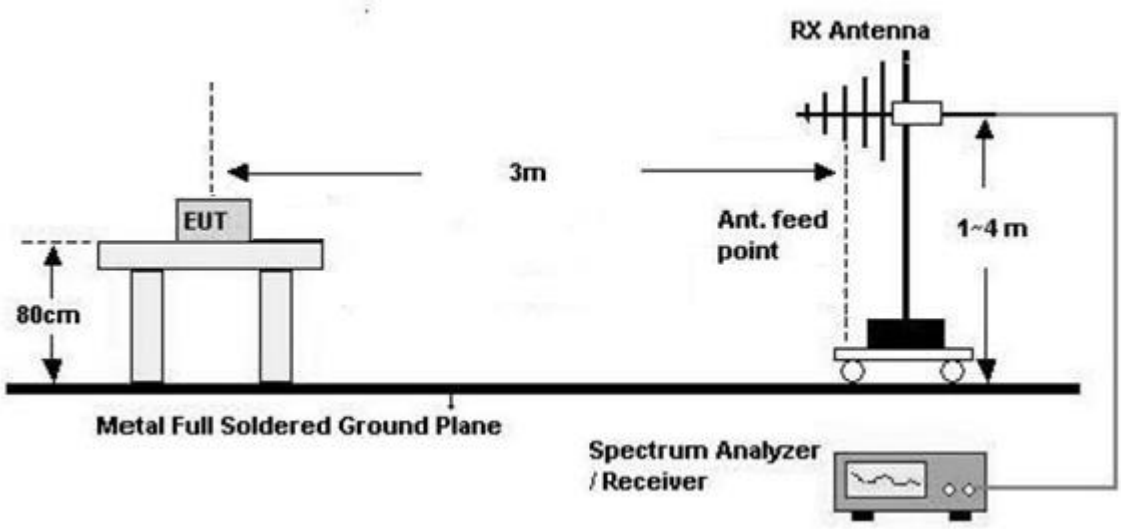
Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Test Configuration

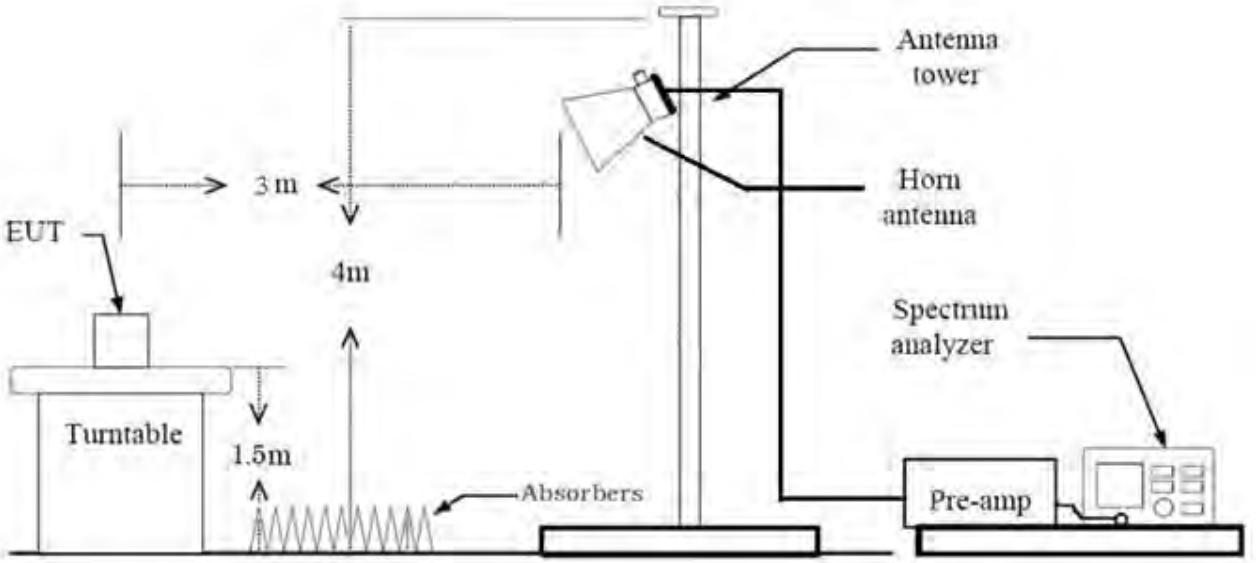
Below 30 MHz



30 MHz - 1 GHz



Above 1 GHz



Test Procedure of Radiated spurious emissions(Below 30 MHz)

1. The EUT was placed on a non-conductive table located on semi-anechoic chamber.
2. The loop antenna was placed at a location 3 m from the EUT
3. The EUT is placed on a turntable, which is 0.8 m above ground plane.
4. .We have done x, y, z planes in EUT and horizontal and vertical polarization and Parallel to the ground plane in detecting antenna.
5. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
6. Distance Correction Factor(0.009 MHz – 0.490 MHz) = 40log(3 m/300 m) = - 80 dB
   Measurement Distance : 3 m
7. Distance Correction Factor(0.490 MHz – 30 MHz) = 40log(3 m/30 m) = - 40 dB
   Measurement Distance : 3 m
8. Spectrum Setting
   - Frequency Range = 9 kHz ~ 30 MHz
   - Detector = Peak
   - Trace = Maxhold
   - RBW = 9 kHz
   - VBW ≥ 3 x RBW
9. Total = Measured Level + Antenna Factor(A.F) + Cable Loss(C.L) + Distance Factor(D.F)
10. Measurement value only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.

KDB 414788 OFS and Chamber Correlation Justification

Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

OFS and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

Test Procedure of Radiated spurious emissions(Below 1 GHz)

1. The EUT was placed on a non-conductive table located on semi-anechoic chamber.
2. The EUT is placed on a turntable, which is 0.8 m above ground plane.
3. The Hybrid antenna was placed at a location 3 m from the EUT, which is varied from 1 m to 4 m to find out the highest emissions.
4. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
5. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
6. Spectrum Setting
   (1) Measurement Type(Peak):
      - Measured Frequency Range : 30 MHz – 1 GHz
      - Detector = Peak
      - Trace = Maxhold
      - RBW = 100 kHz
      - VBW ≥ 3 x RBW
   (2) Measurement Type(Quasi-peak):
      - Measured Frequency Range : 30 MHz – 1 GHz
      - Detector = Quasi-Peak
      - RBW = 120 kHz

   ※ In general, (1) is used mainly
7. Total = Measured Level + Antenna Factor(A.F) + Cable Loss(C.L)
8. Measurement value only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.

Test Procedure of Radiated spurious emissions (Above 1 GHz)

1. The EUT is placed on a turntable, which is 1.5 m above ground plane.
2. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
3. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
4. EUT is set 3 m away from the receiving antenna, which is varied from 1 m to 4 m to find out the highest emissions.
5. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
6. Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
7. The unit was tested with its standard battery.
8. Spectrum Setting

(1) Measurement Type (Peak, G.5 in KDB 789033 v02r01):

- RBW = 1 MHz
- VBW ≥ 3 MHz
- Detector = Peak
- Sweep Time = auto
- Trace mode = max hold
- Allow sweeps to continue until the trace stabilizes.

Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately 1/x, where x is the duty cycle.

(2) Measurement Type (Average, G.6.d in KDB 789033 v02r01):

- RBW = 1 MHz
- VBW(Duty cycle ≥ 98 %) = VBW ≤ RBW/100(i.e., 10 kHz) but not less than 10 Hz.
- VBW(Duty cycle is < 98 %) = VBW ≥ 1/T, where T is the minimum transmission duration.
- The analyzer is set to linear detector mode.
- Detector = Peak.
- Sweep time = auto.
- Trace mode = max hold.
- Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98 % duty cycle. For lower duty cycles, increase the minimym number of traces by a factor of 1/x, where x is the duty cycle.

9. Measurement value only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor
10. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency
11. Distance extrapolation factor = 20log (test distance / specific distance) (dB)
12. Total = Measured Level + Antenna Factor(A.F) + Cable Loss(C.L) - Amp Gain(A.G) + Distance Factor(D.F)

Test Procedure of Radiated Restricted Band Edge

1. The EUT is placed on a turntable, which is 1.5 m above ground plane.
2. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
3. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
4. EUT is set 3 m away from the receiving antenna, which is varied from 1 m to 4 m to find out the highest emissions.
5. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
6. Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
7. The unit was tested with its standard battery.
8. Spectrum Setting

(1) Measurement Type(Peak, G.5 in KDB 789033 v02r01):

- RBW = 1 MHz
- VBW ≥ 3 MHz
- Detector = Peak
- Sweep Time = auto
- Trace mode = max hold
- Allow sweeps to continue until the trace stabilizes.

Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately 1/x, where x is the duty cycle.

(2) Measurement Type(Average, G.6.d in KDB 789033 v02r01):

- RBW = 1 MHz
- VBW(Duty cycle ≥ 98 %) = VBW ≤ RBW/100(i.e., 10 kHz) but not less than 10 Hz.
- VBW(Duty cycle is < 98 %) = VBW ≥ 1/T, where T is the minimum transmission duration.
- The analyzer is set to linear detector mode.
- Detector = Peak.
- Sweep time = auto.
- Trace mode = max hold.
- Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98 % duty cycle. For lower duty cycles, increase the minimym number of traces by a factor of 1/x, where x is the duty cycle.

9. Measured Frequency Range :
   - 4 500 MHz ~ 5 150 MHz
   - 5 350 MHz ~ 5 460 MHz
   - 5 460 MHz ~ 5 470 MHz
   - (75 MHz or more below the 5 725 MHz) ~ 5 725 MHz
   - 5 850 MHz ~ (75 MHz or more above the 5 850 MHz)
10. Distance extrapolation factor = 20log (test distance / specific distance) (dB)
11. Total = Measured Level + Antenna Factor(A.F) + Cable Loss(C.L) - Amp Gain(A.G) + Attenuator(ATT) + Distance Factor(D.F)

The actual setting value of VBW

Mode	Worst Data rate (Mbps)	Duty Cycle	Duty Cycle Factor (dB)	The actual setting value of VBW (Hz)
802.11a	6	0.937	0.282	1000
802.11n(HT20)	MCS0	0.927	0.329	1000
802.11n(HT40)	MCS0	0.865	0.630	3000
802.11ac(VHT20)	MCS0	0.927	0.329	1000
802.11ac(VHT40)	MCS0	0.866	0.626	3000
802.11ac(VHT80)	MCS0	0.764	1.167	5000

8.7. Worst case configuration and mode

Radiated test

1. All modes of operation were investigated and the worst case configuration results are reported.
   - Mode : Stand alone, Stand alone + External accessories(Earphone, etc)
   - Worstcase : Stand alone
2. EUT Axis
   - Radiated Spurious Emissions : Y
   - Radiated Restricted Band Edge : Z
3. All datarate of operation were investigated and the worst case datarate results are reported.
   - Mode : Ant.1(SISO), Ant.2(SISO), Ant.1+Ant.2(SDM), Ant.1+Ant.2(CDD)
   - Worstcase : Ant.1+Ant.2(CDD)
   - 802.11a : 6 Mbps
   - 802.11n_HT20 : MCS0
   - 802.11n_HT40 : MCS0
   - 802.11ac_VHT20 : MCS0
   - 802.11ac_VHT40 : MCS0
   - 802.11ac_VHT80 : MCS0
4. Radiated Spurious Emission
   - All modulation of operation were investigated and the worst case modulation results are reported.
     (Worstcase : 802.11n(HT20)_MCS0)
5. All position of loop antenna were investigated and the test result is a no critical peak found at all positions.
   - Position : Horizontal, Vertical, Parallel to the ground plane

Radiated test(DBS)

1. All modes of operation were investigated and the worst case configuration results are reported.
   - Mode : Stand alone, Stand alone + External accessories(Earphone, etc)
   - Worstcase : Stand alone
2. EUT Axis
   - Radiated Spurious Emissions : Y, Z
3. Test case

RSDB Scenario	2.4 GHz WiFi Ant.1	2.4 GHz WiFi Ant.2	5GHz WiFi Ant.1	5GHz WiFi Ant.2	Bluetooth Ant.1	Bluetooth Ant.2 (N/A)
2.4 GHz WiFi MIMO + 5GHz WiFi	On	On	On			-
2.4 GHz WiFi MIMO + 5GHz WiFi MIMO	On	On	On	On		-
2.4 GHz WiFi + 5GHz WiFi + Bluetooth		On	On		On	-
2.4 GHz WiFi + 5GHz WiFi MIMO + Bluetooth		On	On	On	On	-

Non-DBS	2.4 GHz WiFi Ant.1	2.4 GHz WiFi Ant.2	5GHz WiFi Ant.1	5GHz WiFi Ant.2	Bluetooth Ant.1	Bluetooth Ant.2 (N/A)
5GHz WiFi MIMO + Bluetooth			On	On	On	-
			On	On		-

4. The following tables show the worst case configurations determined during testing.
   (Worst case: The lowest margin condition the channels and modes were selected for test.)
   (Test case 1,2,3,4 Result : Please refer to the SM-S901B/DS [BT, UNII, UNII ax, DTS ax] Test Report.)

Case	Description	Bluetooth Emission	5 GHz Emission
1 (DBS mode)	Antenna	Ant 1	Ant All
	Channel	78	52
	Data Rate	1 Mbps	MCS 0
	Mode	GFSK : DH5	802.11n(HT20)
Case	**Description**	**Bluetooth Emission**	**5 GHz Emission**
2 (DBS mode)	Antenna	Ant 1	Ant All
	Channel	0	36
	Data Rate	1 Mbps	6 Mbps
	Mode	GFSK : DH5	802.11a
Case	**Description**	**2.4 GHz Emission**	**5 GHz Emission**
3 (RSDB mode)	Antenna	Ant All	Ant All
	Channel	6	36
	Data Rate	MCS 0	MCS 0
	Mode	802.11ax(HE20)	802.11ax(HE20)
	Tone / RU	SU	SU

Case	Description	2.4 GHz Emission	5 GHz Emission
4 (RSDB mode)	Antenna	Ant All	Ant All
	Channel	1	36
	Data Rate	MCS 0	MCS 0
	Mode	802.11ax(HE20)	802.11ax(HE20)
	Tone / RU	26 / 4	36 / 4
Case	**Description**	**2.4 GHz Emission**	**5 GHz Emission**
5 (RSDB mode)	Antenna	Ant All	Ant All
	Channel	6	36
	Data Rate	1 Mbps	6 Mbps
	Mode	802.11b	802.11a
Case	**Description**	**2.4 GHz Emission**	**5 GHz Emission**
6 (RSDB mode)	Antenna	Ant All	Ant All
	Channel	1	36
	Data Rate	1 Mbps	MCS 0
	Mode	802.11b	802.11n(HT20)

AC Power line Conducted Emissions

1. All modes of operation were investigated and the worst case configuration results are reported.
   - Mode : Stand alone + External accessories(Earphone, etc) + Travel Adapter, Stand alone + Travel Adapter
   - Worstcase : Stand alone + Travel Adapter

Conducted test

1. All datarate of operation were investigated and the worst case datarate results are reported.

9. SUMMARY OF TEST RESULTS

Test Description	FCC Part Section(s)	Test Limit	Test Condition	Test Result
26 dB Bandwidth	§15.407 (for Power Measurement)	N/A	Conducted	PASS
6 dB Bandwidth	§15.407(e)	>500 kHz (5725-5850 MHz)(UNII-3) (5850-5895 MHz)(UNII-4)		PASS
Maximum Conducted Output Power	§15.407(a)(1),(2),(3)	< 250 mW(5150-5250 MHz) < 250 mW or 11+10log$_{10}$ (BW) dBm (5250-5350 MHz) < 250 mW or 11+10log$_{10}$ (BW) dBm (5470-5725 MHz) <1 W (5725-5850 MHz)		PASS
Maximum EIRP Output Power	§15.407(a)(1)(3)(iii)	< EIRP 30dBm (5850-5925 MHz)		
Maximum Power Spectral Density	§15.407(a)(1),(2),(3)	<11 dBm/ MHz (5150-5250 MHz) <11 dBm/ MHz (5250-5350 MHz) <11 dBm/ MHz (5470-5725 MHz) <30 dBm/500 kHz(5725-5850 MHz) < EIRP 14 dBm/MHz(5850-5925 MHz)		PASS
AC Conducted Emissions 150 kHz-30 MHz	15.207 15.407(b)(8)	<FCC 15.207 limits		PASS
Undesirable Emissions	§15.407(b) (1),(2),(3),(4) §15.407(b)(5)(ii),(iii)	<-27 dBm/MHz EIRP (UNII1, 2A, 2C) cf. Section 8.6 (UNII 3&4)	Radiated	PASS
General Field Strength Limits(Restricted Bands and Radiated Emission Limits)	15.205, 15.407(b)(9),(10)	Emissions in restricted bands must meet the radiated limits detailed in 15.209		PASS

10. TEST RESULT

10.1 DUTY CYCLE

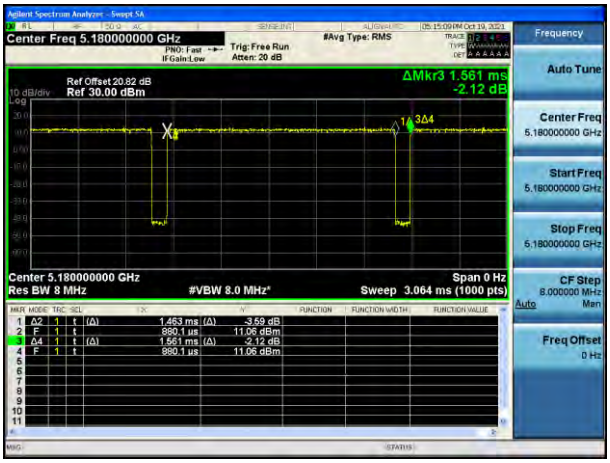
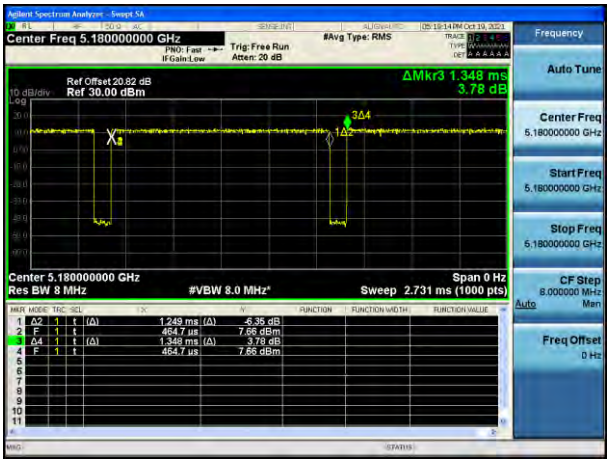
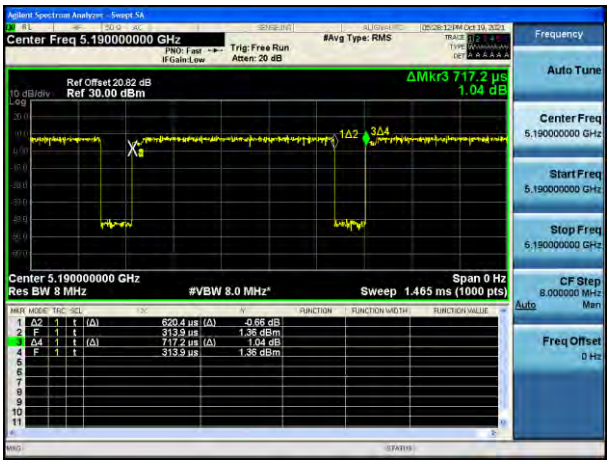
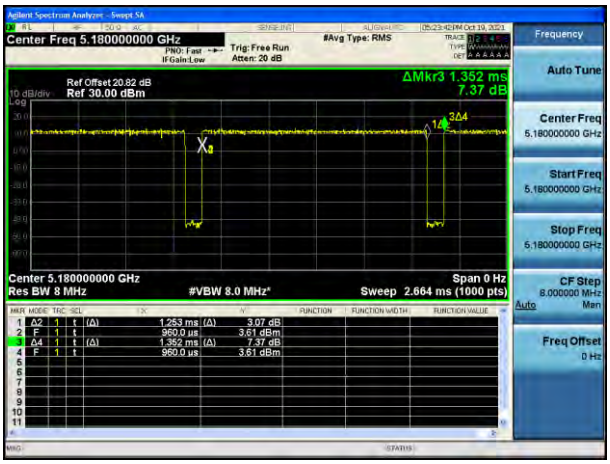
Mode	Data Rate (Mbps)	T_{on} (ms)	T_{total} (ms)	Duty Cycle	Duty Cycle Factor(dB)
802.11a	6	1.463	1.561	0.937	0.282
	9	0.984	1.083	0.909	0.413
	12	0.744	0.843	0.882	0.544
	18	0.503	0.602	0.837	0.773
	24	0.384	0.481	0.798	0.979
	36	0.263	0.361	0.730	1.369
	48	0.203	0.301	0.675	1.704
	54	0.184	0.317	0.581	2.358

Mode	MCS Index	T_{on} (ms)	T_{total} (ms)	Duty Cycle	Duty Cycle Factor(dB)
802.11n (HT20)	0	1.249	1.348	0.927	0.329
	1	0.644	0.742	0.868	0.615
	2	0.440	0.538	0.818	0.874
	3	0.340	0.438	0.776	1.101
	4	0.240	0.337	0.712	1.476
	5	0.188	0.311	0.605	2.179
	6	0.172	0.306	0.563	2.491
	7	0.160	0.302	0.530	2.756
802.11n (HT40)	0	0.620	0.717	0.865	0.630
	1	0.328	0.426	0.772	1.124
	2	0.232	0.329	0.705	1.516
	3	0.184	0.344	0.534	2.725
	4	0.136	0.341	0.399	3.985
	5	0.113	0.354	0.319	4.967
	6	0.103	0.335	0.307	5.122
	7	0.096	0.328	0.293	5.333

Mode	MCS Index	T_{on} (ms)	T_{total} (ms)	Duty Cycle	Duty Cycle Factor(dB)
802.11ac (VHT20)	0	1.253	1.352	0.927	0.329
	1	0.648	0.747	0.868	0.616
	2	0.444	0.542	0.819	0.866
	3	0.344	0.442	0.778	1.088
	4	0.244	0.342	0.715	1.458
	5	0.192	0.315	0.610	2.150
	6	0.176	0.309	0.570	2.439
	7	0.164	0.315	0.521	2.830
	8	0.144	0.304	0.473	3.249
802.11ac (VHT40)	0	0.625	0.722	0.866	0.626
	1	0.332	0.429	0.774	1.113
	2	0.236	0.334	0.709	1.496
	3	0.188	0.412	0.457	3.403
	4	0.140	0.336	0.416	3.810
	5	0.116	0.330	0.352	4.536
	6	0.108	0.332	0.326	4.872
	7	0.100	0.332	0.301	5.218
	8	0.092	0.324	0.284	5.462
	9	0.084	0.325	0.258	5.887
802.11ac (VHT80)	0	0.312	0.408	0.764	1.167
	1	0.252	0.348	0.724	1.403
	2	0.252	0.348	0.724	1.403
	3	0.237	0.345	0.686	1.637
	4	0.192	0.333	0.576	2.399
	5	0.167	0.345	0.485	3.143
	6	0.159	0.337	0.473	3.251
	7	0.156	0.333	0.469	3.291
	8	0.144	0.331	0.435	3.620
	9	0.140	0.335	0.416	3.809

Note:

In order to simplify the report, attached plots were only lowest datarate.

802.11a	802.11n(HT20)
	
802.11n(HT40)	**802.11ac(VHT20)**
	
802.11ac(VHT40)	**802.11ac(VHT80)**
	

10.2 26 dB Bandwidth

Straddle channel data in the table below are for reporting purposes only.

Straddle channel data were added in section 10.7.1.

[Ant.1]

802.11a Mode		26 dB Bandwidth [MHz]	99 % bandwidth [MHz]
Frequency [MHz]	Channel No.		
5180	36	19.14	16.387
5200	40	19.11	16.390
5240	48	19.27	16.381
5260	52	19.38	16.382
5300	60	19.28	16.409
5320	64	19.40	16.405
5500	100	19.28	16.390
5600	120	19.16	16.399
5720	144	19.08	16.394
5745	149	19.10	16.397
5785	157	19.26	16.404
5825	165	19.16	16.404
5845	169	18.85	16.355
5865	173	18.70	16.356
5885	177	18.98	16.344

802.11n(HT20) Mode		26 dB Bandwidth [MHz]	99 % bandwidth [MHz]
Frequency [MHz]	Channel No.		
5180	36	19.96	17.524
5200	40	19.98	17.524
5240	48	19.76	17.533
5260	52	19.81	17.516
5300	60	19.92	17.526
5320	64	19.86	17.537
5500	100	19.91	17.543
5600	120	19.88	17.539
5720	144	19.74	17.535
5745	149	19.86	17.530
5785	157	19.75	17.535
5825	165	20.07	17.534
5845	169	20.15	17.538
5865	173	19.98	17.537
5885	177	19.88	17.532

802.11n(HT40) Mode		26 dB Bandwidth [MHz]	99 % bandwidth [MHz]
Frequency [MHz]	Channel No.		
5190	38	39.23	35.927
5230	46	39.22	35.939
5270	54	39.35	35.936
5310	62	39.43	35.902
5510	102	39.59	35.962
5590	118	39.25	35.948
5710	142	39.51	35.897
5755	151	39.65	35.914
5795	159	39.25	35.935
5835	167	39.35	35.969
5875	175	39.53	35.925

802.11ac(VHT20) Mode		26 dB Bandwidth [MHz]	99 % bandwidth [MHz]
Frequency [MHz]	Channel No.		
5180	36	19.95	17.527
5200	40	19.83	17.528
5240	48	20.01	17.548
5260	52	19.80	17.529
5300	60	20.01	17.543
5320	64	19.83	17.534
5500	100	19.89	17.547
5600	120	19.76	17.548
5720	144	19.92	17.523
5745	149	19.73	17.547
5785	157	19.88	17.531
5825	165	20.04	17.532
5845	169	20.03	17.548
5865	173	19.73	17.533
5885	177	20.21	17.557

802.11ac(VHT40) Mode		26 dB Bandwidth [MHz]	99 % bandwidth [MHz]
Frequency [MHz]	Channel No.		
5190	38	39.29	35.950
5230	46	39.22	35.894
5270	54	39.37	35.926
5310	62	39.57	35.931
5510	102	39.23	35.951
5590	118	39.52	35.935
5710	142	39.06	35.963
5755	151	39.30	35.960
5795	159	39.20	35.898
5835	167	39.18	35.916
5875	175	39.39	35.947

802.11ac(VHT80) Mode		26 dB Bandwidth [MHz]	99 % bandwidth [MHz]
Frequency [MHz]	Channel No.		
5210	42	81.26	75.349
5290	58	80.59	75.380
5530	106	81.05	75.368
5610	122	81.11	75.357
5690	138	81.26	75.384
5775	155	81.44	75.388
5855	171	81.37	75.343

Note:

For channels 169/167/171 included in U-NII3&4, please refer to the table below.

[Ant.2]

802.11a Mode		26 dB Bandwidth [MHz]	99 % bandwidth [MHz]
Frequency [MHz]	Channel No.		
5180	36	18.75	16.360
5200	40	18.83	16.352
5240	48	18.84	16.348
5260	52	18.85	16.343
5300	60	18.90	16.335
5320	64	18.76	16.341
5500	100	18.85	16.359
5600	120	18.88	16.348
5720	144	18.89	16.369
5745	149	18.64	16.344
5785	157	18.82	16.332
5825	165	18.77	16.376
5845	169	18.85	16.355
5865	173	18.83	16.343
5885	177	18.81	16.369

802.11n(HT20) Mode		26 dB Bandwidth [MHz]	99 % bandwidth [MHz]
Frequency [MHz]	Channel No.		
5180	36	19.87	17.543
5200	40	19.75	17.536
5240	48	19.82	17.536
5260	52	19.85	17.541
5300	60	19.91	17.536
5320	64	19.84	17.537
5500	100	20.04	17.526
5600	120	19.93	17.531
5720	144	20.15	17.541
5745	149	19.61	17.524
5785	157	19.68	17.527
5825	165	20.12	17.545
5845	169	169	20.15
5865	173	20.12	17.556
5885	177	19.94	17.555

802.11n(HT40) Mode		26 dB Bandwidth [MHz]	99 % bandwidth [MHz]
Frequency [MHz]	Channel No.		
5190	38	39.56	35.955
5230	46	39.30	35.952
5270	54	39.47	35.937
5310	62	39.50	35.941
5510	102	39.33	35.950
5590	118	39.39	35.992
5710	142	39.12	35.956
5755	151	39.37	35.950
5795	159	39.66	35.940
5835	167	39.35	35.969
5875	175	39.59	35.945

802.11ac(VHT20) Mode		26 dB Bandwidth [MHz]	99 % bandwidth [MHz]
Frequency [MHz]	Channel No.		
5180	36	19.86	17.538
5200	40	19.82	17.535
5240	48	19.70	17.528
5260	52	20.07	17.535
5300	60	19.88	17.533
5320	64	19.90	17.534
5500	100	19.92	17.543
5600	120	19.85	17.545
5720	144	19.76	17.543
5745	149	19.75	17.518
5785	157	19.86	17.526
5825	165	20.14	17.551
5845	169	20.03	17.548
5865	173	20.15	17.563
5885	177	20.06	17.553

802.11ac(VHT40) Mode		26 dB Bandwidth [MHz]	99 % bandwidth [MHz]
Frequency [MHz]	Channel No.		
5190	38	39.29	35.922
5230	46	39.42	35.952
5270	54	39.52	35.938
5310	62	39.56	35.938
5510	102	39.15	35.906
5590	118	39.44	35.911
5710	142	39.36	35.943
5755	151	39.45	35.907
5795	159	39.29	35.950
5835	167	39.18	35.916
5875	175	39.33	35.962

802.11ac(VHT80) Mode		26 dB Bandwidth [MHz]	99 % bandwidth [MHz]
Frequency [MHz]	Channel No.		
5210	42	81.09	75.358
5290	58	80.99	75.366
5530	106	81.12	75.349
5610	122	80.92	75.333
5690	138	81.26	75.337
5775	155	81.46	75.360
5855	171	81.37	75.343

Note:

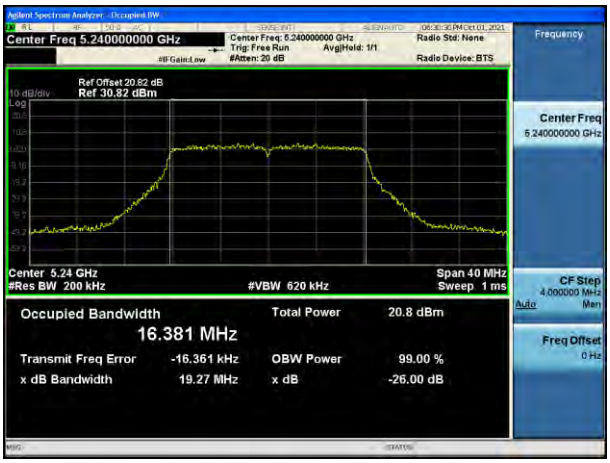
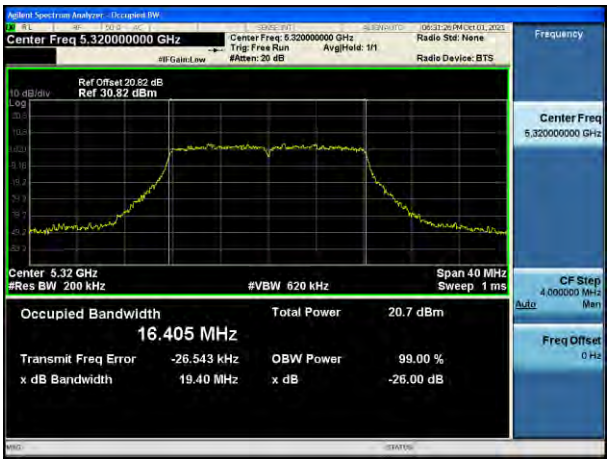
For channels 169/167/171 included in U-NII3&4, please refer to the table below.

[Ant.1]

▣ Test Plots(802.11a)

Note:

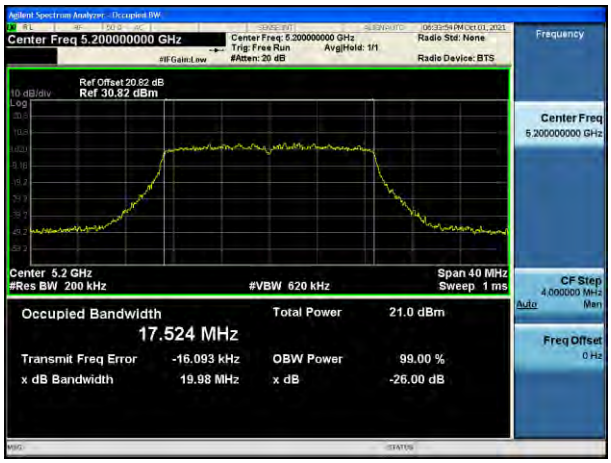
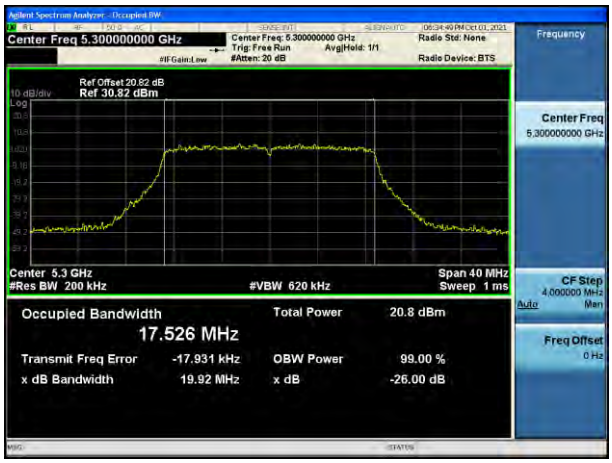
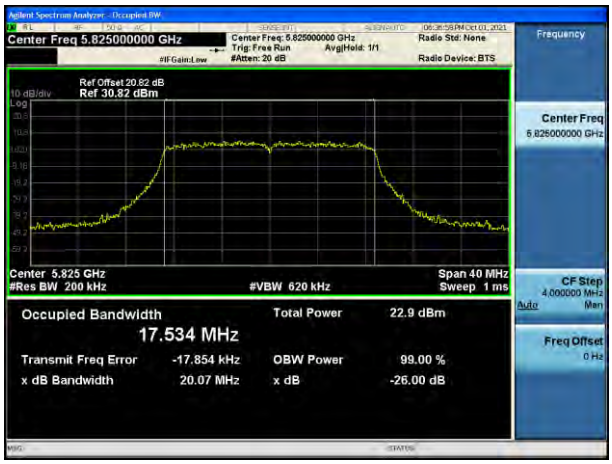
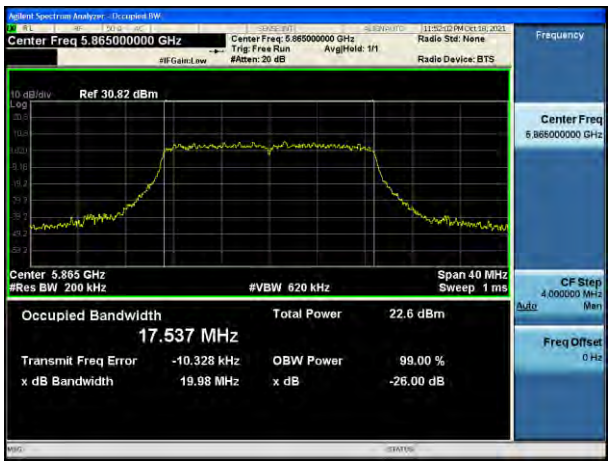
In order to simplify the report, attached plots were only the most wide channel.

802.11a UNII 1 BAND 26 dB Bandwidth (CH 48)	802.11a UNII 2A BAND 26 dB Bandwidth (CH 64)
	
802.11a UNII 2C BAND 26 dB Bandwidth (CH 100)	**802.11a UNII 3 BAND 26 dB Bandwidth (CH 157)**
	
802.11a UNII 4 BAND 26 dB Bandwidth (CH 169)	
	

▣ Test Plots(802.11n(HT20))

Note:

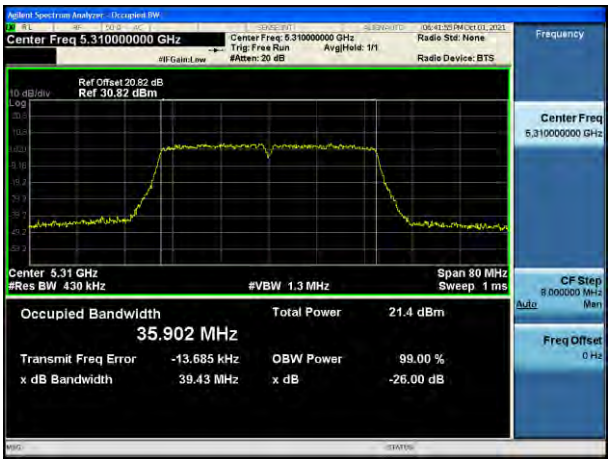
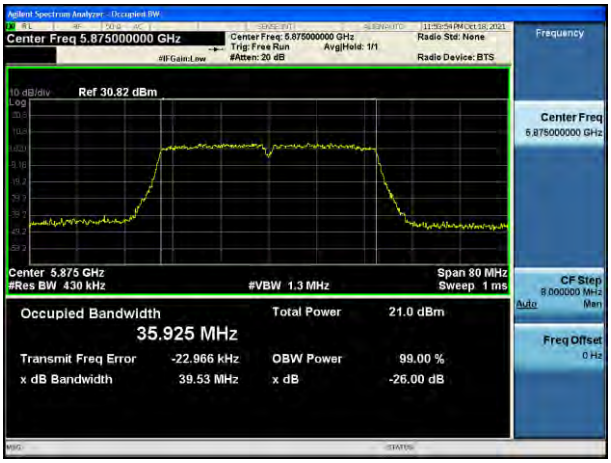
In order to simplify the report, attached plots were only the most wide channel.

802.11n_HT20 UNII 1 BAND 26 dB Bandwidth(CH 40)	802.11n_HT20 UNII 2A BAND 26 dB Bandwidth(CH 60)
	
802.11n_HT20 UNII 2C BAND 26 dB Bandwidth(CH 100)	**802.11n_HT20 UNII 3 BAND 26 dB Bandwidth(CH 165)**
	
802.11n_HT20 UNII 4 BAND 26 dB Bandwidth(CH 173)	
	

▣ Test Plots(802.11n(HT40))

Note:

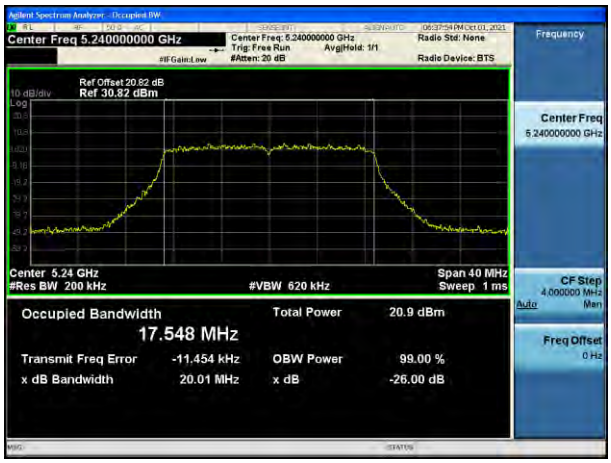
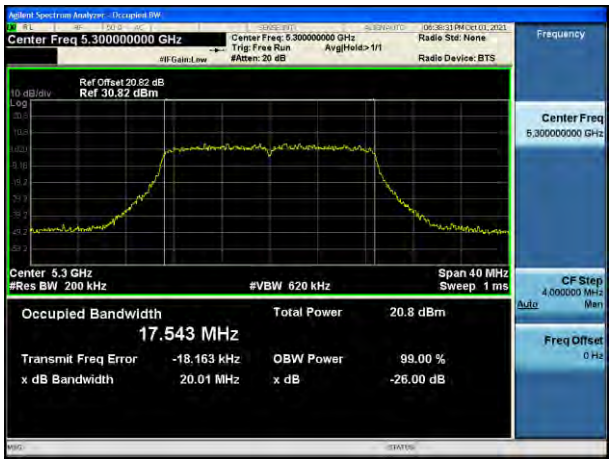
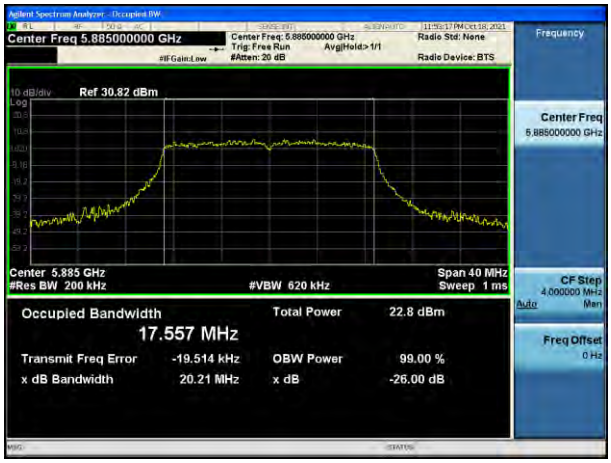
In order to simplify the report, attached plots were only the most wide channel.

802.11n_HT40 UNII 1 BAND 26 dB Bandwidth(CH 38)	802.11n_HT40 UNII 2A BAND 26 dB Bandwidth (CH 62)
	
802.11n_HT40 UNII 2C BAND 26 dB Bandwidth(CH 102)	**802.11n_HT40 UNII 3 BAND 26 dB Bandwidth (CH 151)**
	
802.11n_HT40 UNII 4 BAND 26 dB Bandwidth (CH 175)	
	

▣ Test Plots(802.11ac(VHT20))

Note:

In order to simplify the report, attached plots were only the most wide channel.

802.11ac_VHT20 UNII 1 BAND 26 dB Bandwidth(CH 48)	802.11ac_VHT20 UNII 2A BAND 26 dB Bandwidth(CH 60)
	
802.11ac_VHT20 UNII 2C BAND 26 dB Bandwidth(CH 144)	**802.11ac_VHT20 UNII 3 BAND 26 dB Bandwidth(CH 165)**
	
802.11ac_VHT20 UNII 4 BAND 26 dB Bandwidth(CH 177)	
	

▣ Test Plots(802.11ac(VHT40))

Note:

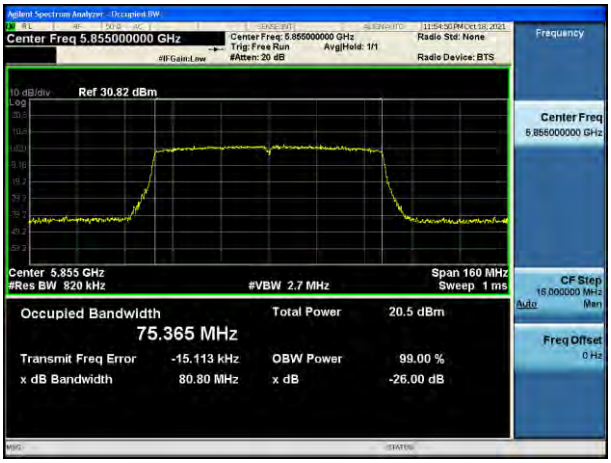
In order to simplify the report, attached plots were only the most wide channel.

802.11ac_VHT40 UNII 1 BAND 26 dB Bandwidth(CH 38)	802.11ac_VHT40 UNII 2A BAND 26 dB Bandwidth (CH 62)
	
802.11ac_VHT40 UNII 2C BAND 26 dB Bandwidth(CH 118)	**802.11ac_VHT40 UNII 3 BAND 26 dB Bandwidth (CH 151)**
	
802.11ac_VHT40 UNII 4 BAND 26 dB Bandwidth (CH 175)	
	

▣ Test Plots(802.11ac(VHT80))

Note:

In order to simplify the report, attached plots were only the most wide channel.

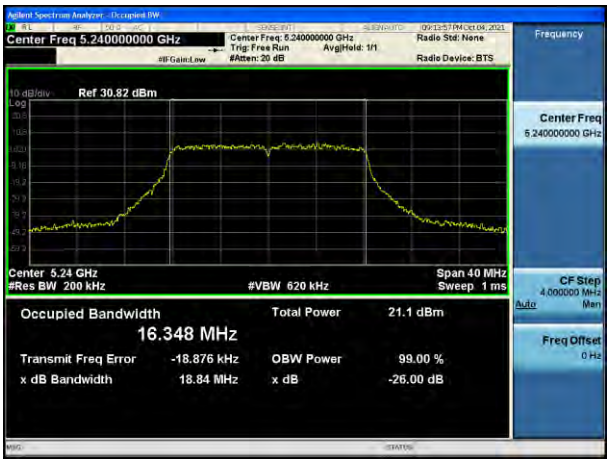
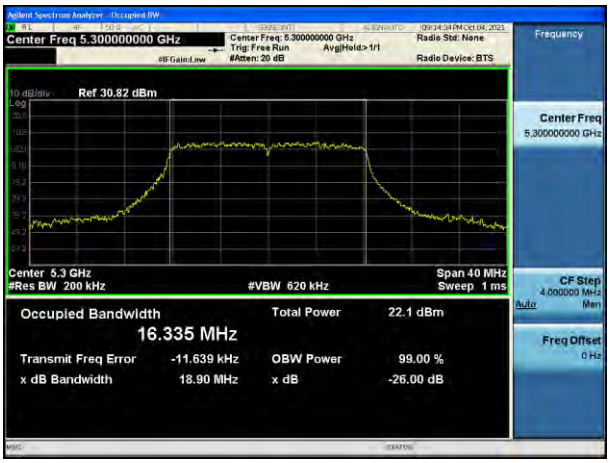
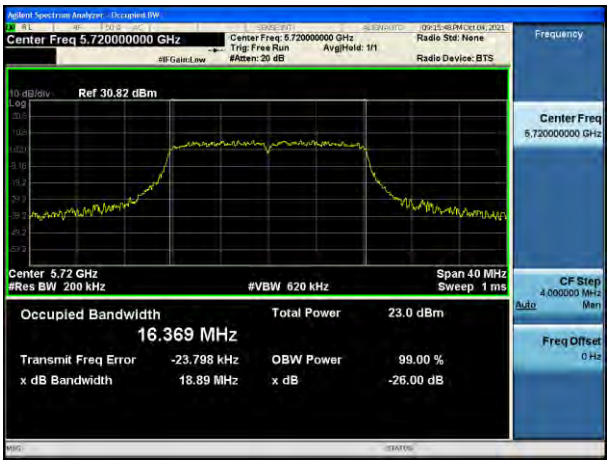
802.11ac_VHT80 UNII 1 BAND 26 dB Bandwidth(CH 42)	802.11ac_VHT80 UNII 2A BAND 26 dB Bandwidth (CH 58)
	
802.11ac_VHT80 UNII 2C BAND 26 dB Bandwidth(CH 138)	**802.11ac_VHT80 UNII 3 BAND 26 dB Bandwidth (CH 155)**
	
802.11ac_VHT80 UNII 4 BAND 26 dB Bandwidth (CH 171)	
	

[Ant.2]

▣ Test Plots(802.11a)

Note:

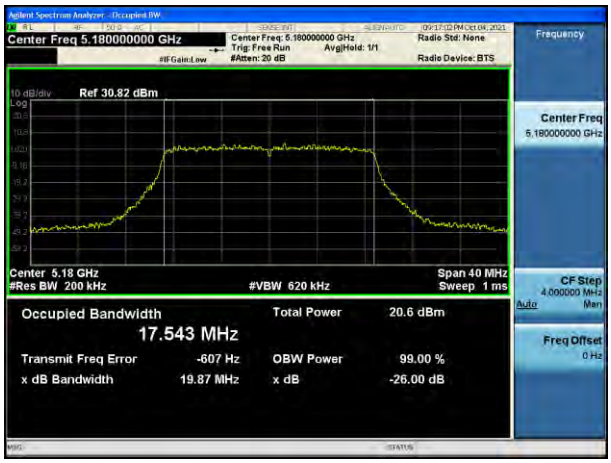
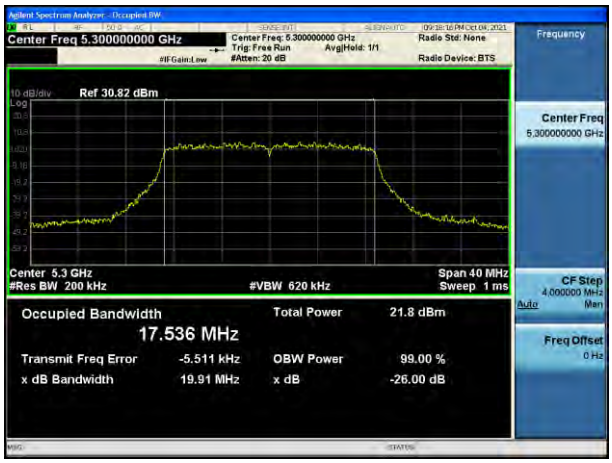
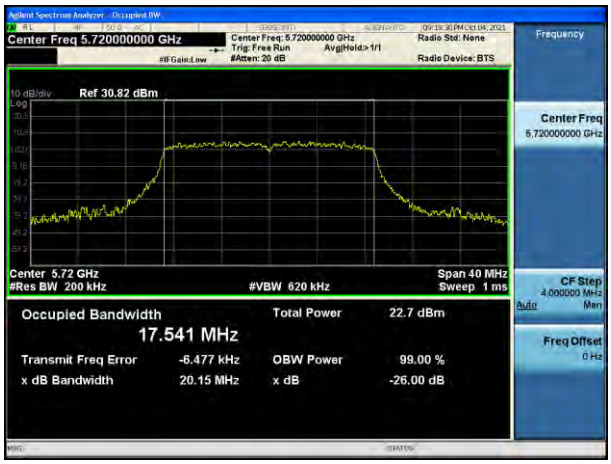
In order to simplify the report, attached plots were only the most wide channel.

802.11a UNII 1 BAND 26 dB Bandwidth (CH 48)	802.11a UNII 2A BAND 26 dB Bandwidth (CH 60)
	
802.11a UNII 2C BAND 26 dB Bandwidth (CH 144)	**802.11a UNII 3 BAND 26 dB Bandwidth (CH 157)**
	
802.11a UNII 4 BAND 26 dB Bandwidth (CH 169)	
	

▣ Test Plots(802.11n(HT20))

Note:

In order to simplify the report, attached plots were only the most wide channel.

802.11n_HT20 UNII 1 BAND 26 dB Bandwidth(CH 36)	802.11n_HT20 UNII 2A BAND 26 dB Bandwidth(CH 60)
	
802.11n_HT20 UNII 2C BAND 26 dB Bandwidth(CH 144)	**802.11n_HT20 UNII 3 BAND 26 dB Bandwidth(CH 165)**
	
802.11n_HT20 UNII 4 BAND 26 dB Bandwidth(CH 169)	
	

▣ Test Plots(802.11n(HT40))

Note:

In order to simplify the report, attached plots were only the most wide channel.

802.11n_HT40 UNII 1 BAND 26 dB Bandwidth(CH 38)	802.11n_HT40 UNII 2A BAND 26 dB Bandwidth (CH 62)
	
802.11n_HT40 UNII 2C BAND 26 dB Bandwidth(CH 118)	**802.11n_HT40 UNII 3 BAND 26 dB Bandwidth (CH 159)**
	
802.11n_HT40 UNII 4 BAND 26 dB Bandwidth (CH 175)	
	

▣ Test Plots(802.11ac(VHT20))

Note:

In order to simplify the report, attached plots were only the most wide channel.

802.11ac_VHT20 UNII 1 BAND 26 dB Bandwidth(CH 36)

802.11ac_VHT20 UNII 2A BAND 26 dB Bandwidth(CH 52)

802.11ac_VHT20 UNII 2C BAND 26 dB Bandwidth(CH 100)

802.11ac_VHT20 UNII 3 BAND 26 dB Bandwidth(CH 165)

802.11ac_VHT20 UNII 4 BAND 26 dB Bandwidth(CH 173)

▣ Test Plots(802.11ac(VHT40))

Note:

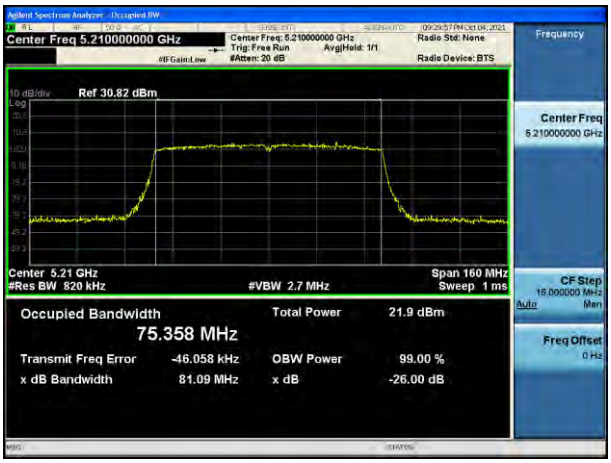
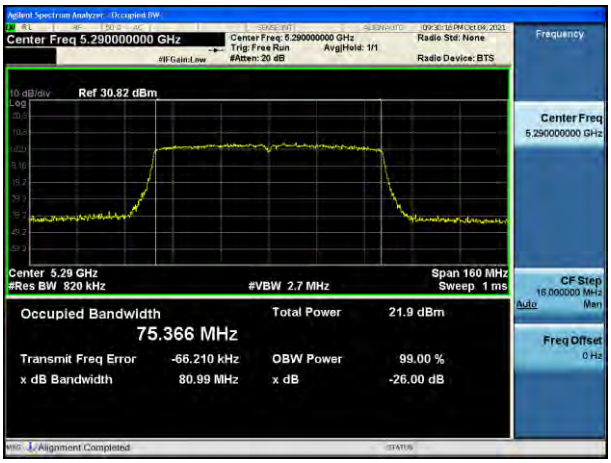
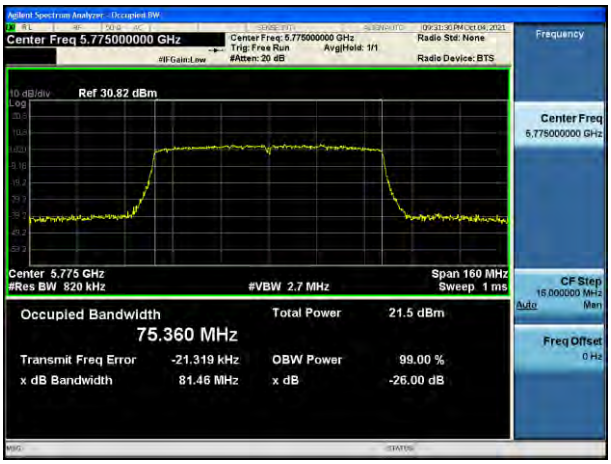
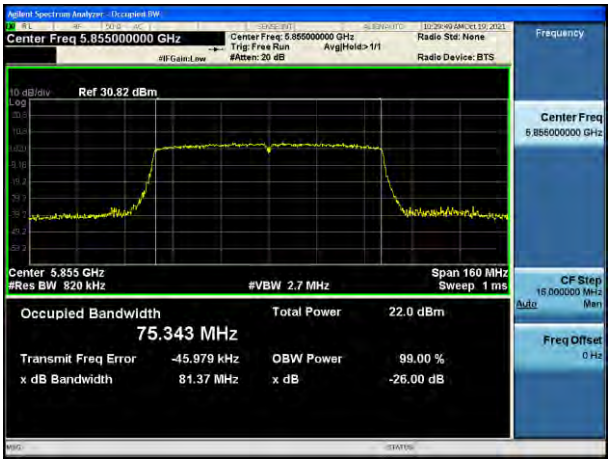
In order to simplify the report, attached plots were only the most wide channel.

802.11ac_VHT40 UNII 1 BAND 26 dB Bandwidth(CH 46)	802.11ac_VHT40 UNII 2A BAND 26 dB Bandwidth (CH 62)
	
802.11ac_VHT40 UNII 2C BAND 26 dB Bandwidth(CH 118)	**802.11ac_VHT40 UNII 3 BAND 26 dB Bandwidth (CH 151)**
	
802.11ac_VHT40 UNII 4 BAND 26 dB Bandwidth (CH 175)	
	

▣ Test Plots(802.11ac(VHT80))

Note:

In order to simplify the report, attached plots were only the most wide channel.

802.11ac_VHT80 UNII 1 BAND 26 dB Bandwidth(CH 42)	802.11ac_VHT80 UNII 2A BAND 26 dB Bandwidth (CH 58)
	
802.11ac_VHT80 UNII 2C BAND 26 dB Bandwidth(CH 138)	**802.11ac_VHT80 UNII 3 BAND 26 dB Bandwidth (CH 155)**
	
802.11ac_VHT80 UNII 4 BAND 26 dB Bandwidth (CH 171)	
	

10.3 6 dB BANDWIDTH

[Ant.1]

802.11a Mode		Measured Bandwidth [MHz]	Limit [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5745	149	16.35	> 0.5	Pass
5785	157	16.28	> 0.5	Pass
5825	165	16.34	> 0.5	Pass
5845	169	16.35	> 0.5	Pass
5865	173	16.35	> 0.5	Pass
5885	177	16.32	> 0.5	Pass

802.11n(HT20) Mode		Measured Bandwidth [MHz]	Limit [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5745	149	17.01	> 0.5	Pass
5785	157	16.82	> 0.5	Pass
5825	165	16.59	> 0.5	Pass
5845	169	16.92	> 0.5	Pass
5865	173	16.83	> 0.5	Pass
5885	177	16.96	> 0.5	Pass

802.11n(HT40) Mode		Measured Bandwidth [MHz]	Limit [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5755	151	35.23	> 0.5	Pass
5795	159	35.26	> 0.5	Pass
5835	167	35.40	> 0.5	Pass
5875	175	35.21	> 0.5	Pass

802.11ac(VHT20) Mode		Measured Bandwidth [MHz]	Limit [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5745	149	16.83	> 0.5	Pass
5785	157	16.99	> 0.5	Pass
5825	165	16.49	> 0.5	Pass
5845	169	16.84	> 0.5	Pass
5865	173	16.98	> 0.5	Pass
5885	177	16.84	> 0.5	Pass

802.11ac(VHT40) Mode		Measured Bandwidth [MHz]	Limit [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5755	151	35.28	> 0.5	Pass
5795	159	35.25	> 0.5	Pass
5835	167	35.29	> 0.5	Pass
5875	175	35.29	> 0.5	Pass

802.11ac(VHT80) Mode		Measured Bandwidth [MHz]	Limit [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5775	155	75.19	> 0.5	Pass
5855	171	75.45	> 0.5	Pass

[Ant.2]

802.11a Mode		Measured Bandwidth [MHz]	Limit [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5745	149	16.33	> 0.5	Pass
5785	157	16.36	> 0.5	Pass
5825	165	16.36	> 0.5	Pass
5845	169	16.32	> 0.5	Pass
5865	173	16.29	> 0.5	Pass
5885	177	16.34	> 0.5	Pass

802.11n(HT20) Mode		Measured Bandwidth [MHz]	Limit [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5745	149	16.80	> 0.5	Pass
5785	157	16.84	> 0.5	Pass
5825	165	17.33	> 0.5	Pass
5845	169	16.84	> 0.5	Pass
5865	173	16.81	> 0.5	Pass
5885	177	16.58	> 0.5	Pass

802.11n(HT40) Mode		Measured Bandwidth [MHz]	Limit [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5755	151	35.26	> 0.5	Pass
5795	159	35.25	> 0.5	Pass
5835	167	35.23	> 0.5	Pass
5875	175	35.41	> 0.5	Pass

802.11ac(VHT20) Mode		Measured Bandwidth [MHz]	Limit [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5745	149	16.98	> 0.5	Pass
5785	157	16.84	> 0.5	Pass
5825	165	16.81	> 0.5	Pass
5845	169	16.83	> 0.5	Pass
5865	173	16.84	> 0.5	Pass
5885	177	16.85	> 0.5	Pass

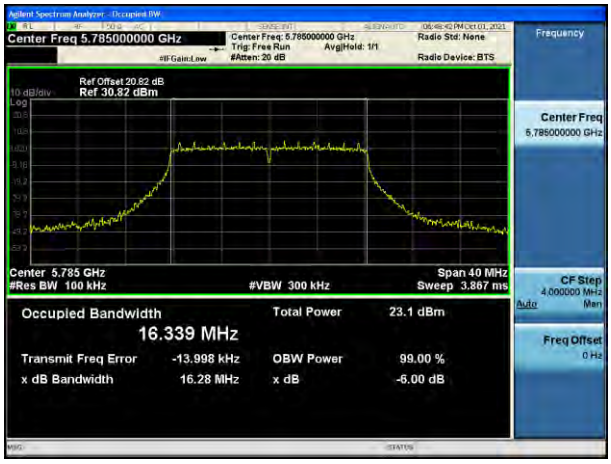
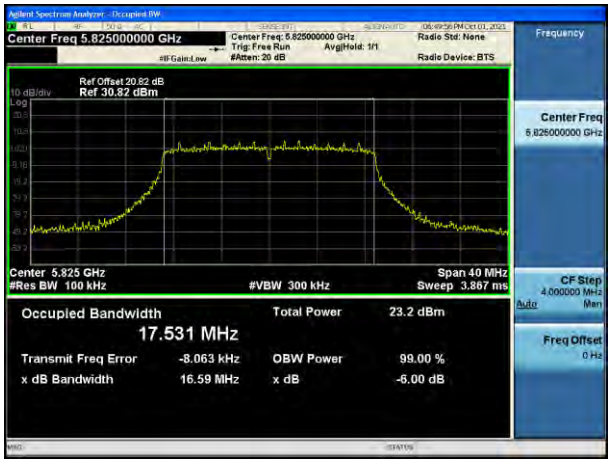
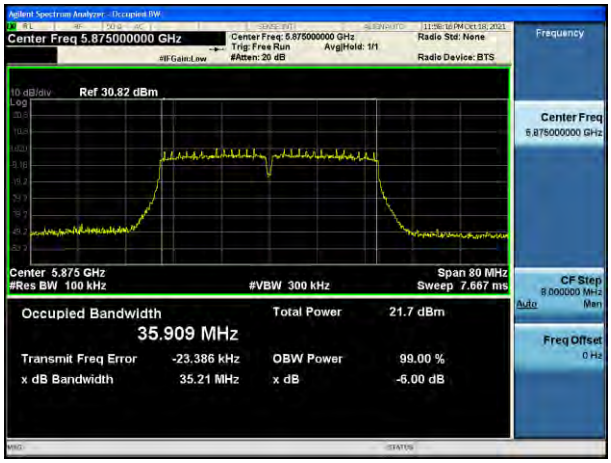
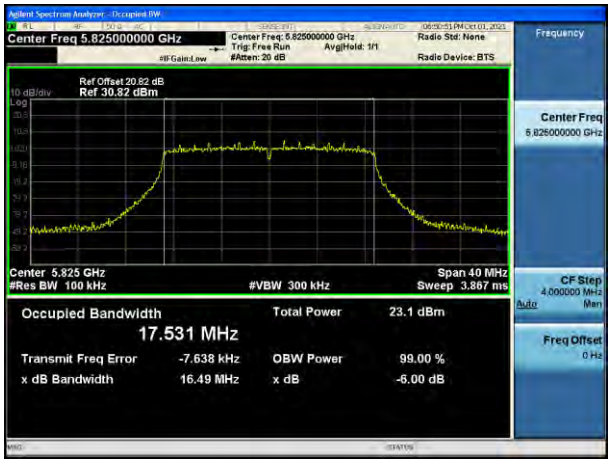
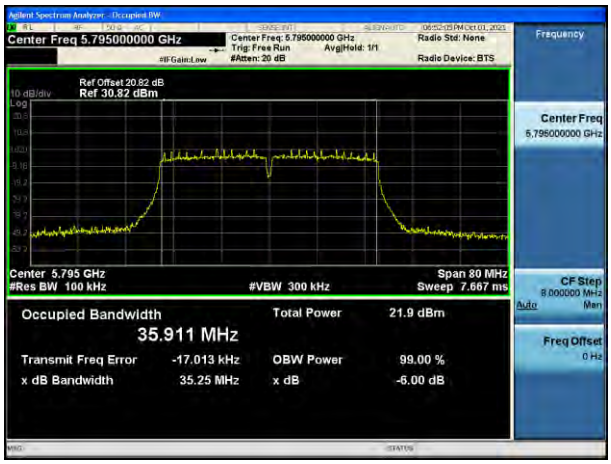
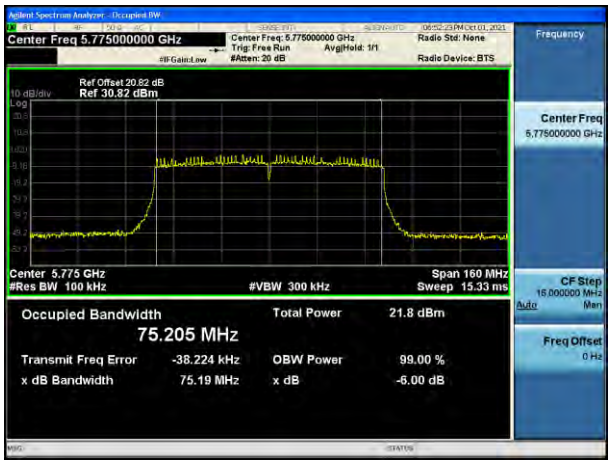
802.11ac(VHT40) Mode		Measured Bandwidth [MHz]	Limit [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5755	151	35.25	> 0.5	Pass
5795	159	35.25	> 0.5	Pass
5835	167	35.27	> 0.5	Pass
5875	175	35.46	> 0.5	Pass

802.11ac(VHT80) Mode		Measured Bandwidth [MHz]	Limit [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5775	155	75.44	> 0.5	Pass
5855	171	75.43	> 0.5	Pass

[Ant.1]

▣ Test Plots

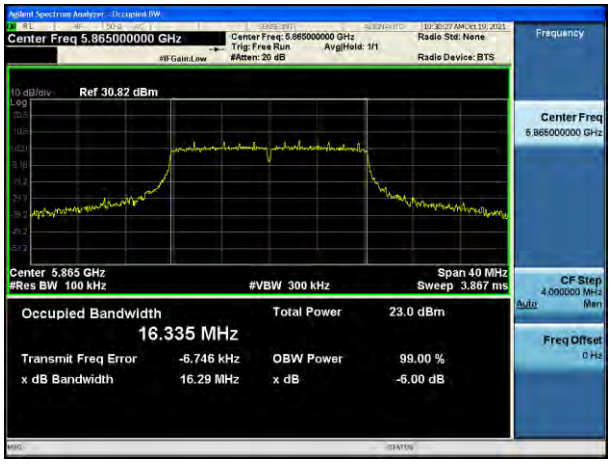
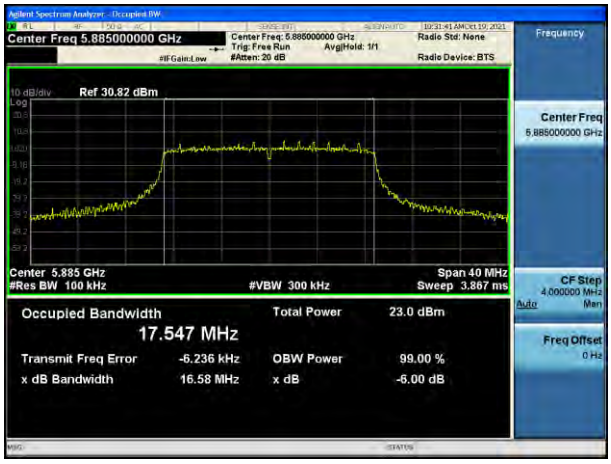
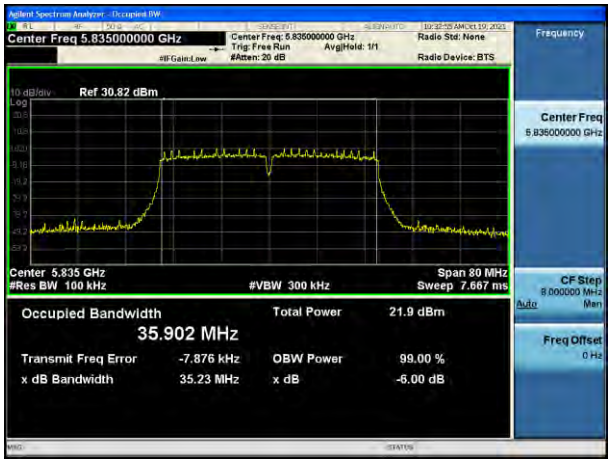
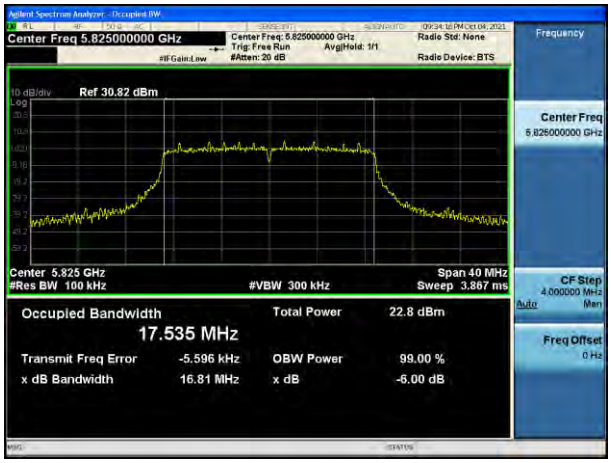
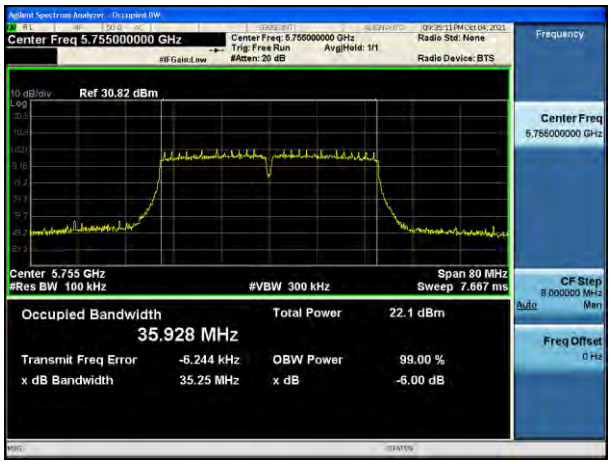
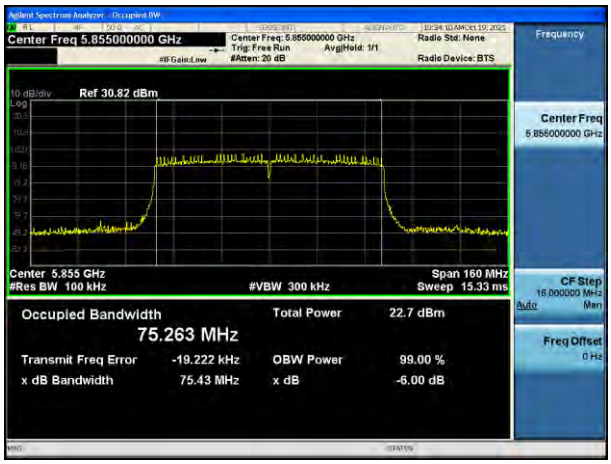
Note: In order to simplify the report, attached plots were only the most narrow channel.

802.11a (CH.157)	802.11n(HT20) (CH.165)
	
802.11n(HT40) (CH.175)	**802.11ac(VHT20) (CH.165)**
	
802.11ac(VHT40) (CH.159)	**802.11ac(VHT80) (CH.155)**
	

[Ant.2]

▣ Test Plots

Note: In order to simplify the report, attached plots were only the most narrow channel.

802.11a (CH.173)	802.11n(HT20) (CH.177)
	
802.11n(HT40) (CH.167)	**802.11ac(VHT20) (CH.165)**
	
802.11ac(VHT40) (CH.151)	**802.11ac(VHT80) (CH.171)**
	

10.4 OUTPUT POWER MEASUREMENT

Straddle channel data in the table below are for reporting purposes only.

Straddle channel data were added in section 10.7.3.

Limit

(UNII 1) : 23.98 dBm

(UNII 2A, 2C) : 23.98 dBm or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.)

(UNII 3) : 30.00 dBm

(UNII 4) : EIRP 30.0 dBm/MHz

(UNII 3&4) : Worst limit 30.00 dBm ➔UNII 4 Band Antenna Gain Negative

[Ant.1]

802.11a Mode		Power Level Setting	Measured Power [dBm]	Duty Cycle Factor (dB)	Total Power [dBm]	Limit (dBm)	Worstcase Datarate (Mbps)
Frequency [MHz]	Channel No.						
5180	36	14	13.77	0.282	14.05	23.98	6M
5200	40	14	13.77	0.282	14.05	23.98	6M
5240	48	14	13.95	0.282	14.23	23.98	6M
5260	52	15	13.75	0.282	14.04	23.85	6M
5300	60	15	13.73	0.282	14.01	23.85	6M
5320	64	14	13.80	0.282	14.08	23.85	6M
5500	100	14	13.62	0.282	13.90	23.81	6M
5600	120	14	12.99	0.282	13.27	23.81	6M
5720	144	17	12.92	0.282	13.20	23.81	6M
5745	149	17	15.97	0.282	16.26	30.00	6M
5785	157	17	15.53	0.282	15.82	30.00	6M
5825	165	17	15.45	0.282	15.73	30.00	6M
5845	169	17	16.19	0.282	16.47	30.00	6M
5865	173	17	16.26	0.282	16.54	30.00	6M
5885	177	17	16.60	0.282	16.88	30.00	6M

802.11n(20 MHz) Mode		Power Level Setting	Measured Power [dBm]	Duty Cycle Factor (dB)	Total Power [dBm]	Limit (dBm)	Worstcase MCS Index
Frequency [MHz]	Channel No.						
5180	36	14	13.51	0.329	13.84	23.98	MCS0
5200	40	14	13.45	0.329	13.78	23.98	MCS0
5240	48	14	13.82	0.329	14.15	23.98	MCS0
5260	52	15	13.63	0.329	13.96	23.97	MCS0
5300	60	15	13.52	0.329	13.85	23.97	MCS0
5320	64	15	13.66	0.329	13.99	23.97	MCS0
5500	100	14	13.64	0.329	13.97	23.95	MCS0
5600	120	14	12.98	0.329	13.31	23.95	MCS0
5720	144	14	12.86	0.329	13.19	23.95	MCS0
5745	149	17	15.79	0.329	16.12	30.00	MCS0
5785	157	17	15.60	0.329	15.93	30.00	MCS0
5825	165	17	15.68	0.329	16.01	30.00	MCS0
5845	169	17	16.27	0.329	16.60	30.00	MCS0
5865	173	17	15.88	0.329	16.21	30.00	MCS0
5885	177	17	16.41	0.329	16.74	30.00	MCS0

802.11n(40 MHz) Mode		Power Level Setting	Measured Power [dBm]	Duty Cycle Factor (dB)	Total Power [dBm]	Limit (dBm)	Worstcase MCS Index
Frequency [MHz]	Channel No.						
5190	38	15	13.90	0.630	14.53	23.98	MCS0
5230	46	15	13.76	0.630	14.39	23.98	MCS0
5270	54	15	13.89	0.630	14.52	23.98	MCS0
5310	62	15	13.94	0.630	14.57	23.98	MCS0
5510	102	13	12.79	0.630	13.42	23.98	MCS0
5590	118	13	12.94	0.630	13.57	23.98	MCS0
5710	142	13	13.35	0.630	13.98	23.98	MCS0
5755	151	15	13.94	0.630	14.57	30.00	MCS0
5795	159	15	13.54	0.630	14.17	30.00	MCS0
5835	167	15	14.00	0.630	14.63	30.00	MCS0
5875	175	15	14.20	0.630	14.83	30.00	MCS0

802.11ac(20 MHz) Mode		Power Level Setting	Measured Power [dBm]	Duty Cycle Factor (dB)	Total Power [dBm]	Limit (dBm)	Worstcase MCS Index
Frequency [MHz]	Channel No.						
5180	36	14	13.67	0.329	14.00	23.98	MCS0
5200	40	14	13.75	0.329	14.08	23.98	MCS0
5240	48	14	13.82	0.329	14.15	23.98	MCS0
5260	52	15	13.63	0.329	13.96	23.97	MCS0
5300	60	15	13.57	0.329	13.90	23.97	MCS0
5320	64	15	13.55	0.329	13.88	23.97	MCS0
5500	100	14	13.57	0.329	13.90	23.96	MCS0
5600	120	14	12.75	0.329	13.08	23.96	MCS0
5720	144	14	12.96	0.329	13.29	23.96	MCS0
5745	149	17	15.59	0.329	15.92	30.00	MCS0
5785	157	17	15.47	0.329	15.80	30.00	MCS0
5825	165	17	15.82	0.329	16.15	30.00	MCS0
5845	169	17	15.99	0.329	16.32	30.00	MCS0
5865	173	17	16.05	0.329	16.38	30.00	MCS0
5885	177	17	16.29	0.329	16.61	30.00	MCS0

802.11ac(40 MHz) Mode		Power Level Setting	Measured Power [dBm]	Duty Cycle Factor (dB)	Total Power [dBm]	Limit (dBm)	Worstcase MCS Index
Frequency [MHz]	Channel No.						
5190	38	15	13.97	0.626	14.59	23.98	MCS0
5230	46	15	13.92	0.626	14.55	23.98	MCS0
5270	54	15	13.92	0.626	14.55	23.98	MCS0
5310	62	15	13.96	0.626	14.58	23.98	MCS0
5510	102	14	13.90	0.626	14.52	23.98	MCS0
5590	118	14	12.89	0.626	13.51	23.98	MCS0
5710	142	14	12.91	0.626	13.53	23.98	MCS0
5755	151	15	13.81	0.626	14.43	30.00	MCS0
5795	159	15	13.99	0.626	14.62	30.00	MCS0
5835	167	15	10.18	0.626	10.81	30.00	MCS0
5875	175	15	10.18	0.626	10.81	30.00	MCS0

802.11ac(80 MHz) Mode		Power Level Setting	Measured Power [dBm]	Duty Cycle Factor (dB)	Total Power [dBm]	Limit (dBm)	Worstcase MCS Index
Frequency [MHz]	Channel No.						
5210	42	14	13.34	1.167	14.51	23.98	MCS0
5290	58	14	13.33	1.167	14.50	23.98	MCS0
5530	106	14	13.16	1.167	14.33	23.98	MCS0
5610	122	14	11.83	1.167	13.00	23.98	MCS0
5690	138	14	12.33	1.167	13.50	23.98	MCS0
5775	155	14	11.99	1.167	13.16	30.00	MCS0
5855	171	14	12.24	1.167	13.40	30.00	MCS0

Note:

For channels **169/167/171** included in U-NII3&4, please refer to the Straddle table.

U-NII-3 Portion for Conducted Power

U-NII-4 Portion for EIRP

[Ant.2]

802.11a Mode		Power Level Setting	Measured Power [dBm]	Duty Cycle Factor (dB)	Total Power [dBm]	Limit (dBm)	Worstcase Datarate (Mbps)
Frequency [MHz]	Channel No.						
5180	36	14	13.99	0.282	14.27	23.98	6M
5200	40	14	13.91	0.282	14.19	23.98	6M
5240	48	14	13.98	0.282	14.27	23.98	6M
5260	52	15	14.79	0.282	15.07	23.73	6M
5300	60	15	14.95	0.282	15.23	23.73	6M
5320	64	14	15.03	0.282	15.31	23.73	6M
5500	100	14	13.64	0.282	13.92	23.75	6M
5600	120	14	13.86	0.282	14.14	23.75	6M
5720	144	17	14.24	0.282	14.53	23.75	6M
5745	149	17	15.95	0.282	16.23	30.00	6M
5785	157	17	15.45	0.282	15.74	30.00	6M
5825	165	17	15.56	0.282	15.84	30.00	6M
5845	169	17	16.14	0.282	16.42	30.00	6M
5865	173	17	16.22	0.282	16.50	30.00	6M
5885	177	17	16.38	0.282	16.66	30.00	6M

802.11n(20 MHz) Mode		Power Level Setting	Measured Power [dBm]	Duty Cycle Factor (dB)	Total Power [dBm]	Limit (dBm)	Worstcase MCS Index
Frequency [MHz]	Channel No.						
5180	36	14	13.80	0.329	14.12	23.98	MCS0
5200	40	14	13.95	0.329	14.28	23.98	MCS0
5240	48	14	13.98	0.329	14.31	23.98	MCS0
5260	52	15	14.53	0.329	14.86	23.98	MCS0
5300	60	15	14.93	0.329	15.26	23.98	MCS0
5320	64	15	14.97	0.329	15.30	23.98	MCS0
5500	100	14	13.59	0.329	13.92	23.98	MCS0
5600	120	14	13.79	0.329	14.12	23.98	MCS0
5720	144	14	14.36	0.329	14.69	23.98	MCS0
5745	149	17	15.92	0.329	16.24	30.00	MCS0
5785	157	17	15.36	0.329	15.69	30.00	MCS0
5825	165	17	15.53	0.329	15.86	30.00	MCS0
5845	169	17	15.86	0.329	16.18	30.00	MCS0
5865	173	17	15.88	0.329	16.20	30.00	MCS0
5885	177	17	16.04	0.329	16.37	30.00	MCS0

802.11n(40 MHz) Mode		Power Level Setting	Measured Power [dBm]	Duty Cycle Factor (dB)	Total Power [dBm]	Limit (dBm)	Worstcase MCS Index
Frequency [MHz]	Channel No.						
5190	38	15	14.99	0.630	15.62	23.98	MCS0
5230	46	15	15.23	0.630	15.86	23.98	MCS0
5270	54	15	14.84	0.630	15.47	23.98	MCS0
5310	62	15	15.25	0.630	15.88	23.98	MCS0
5510	102	13	13.19	0.630	13.82	23.98	MCS0
5590	118	13	12.98	0.630	13.61	23.98	MCS0
5710	142	13	13.56	0.630	14.19	23.98	MCS0
5755	151	15	14.51	0.630	15.14	30.00	MCS0
5795	159	15	13.67	0.630	14.30	30.00	MCS0
5835	167	15	13.95	0.607	14.55	30.00	MCS0
5875	175	15	14.30	0.607	14.90	30.00	MCS0

802.11ac(20 MHz) Mode		Power Level Setting	Measured Power [dBm]	Duty Cycle Factor (dB)	Total Power [dBm]	Limit (dBm)	Worstcase MCS Index
Frequency [MHz]	Channel No.						
5180	36	14	13.76	0.329	14.09	23.98	MCS0
5200	40	14	13.92	0.329	14.25	23.98	MCS0
5240	48	14	13.96	0.329	14.29	23.98	MCS0
5260	52	15	14.53	0.329	14.86	23.98	MCS0
5300	60	15	14.89	0.329	15.21	23.98	MCS0
5320	64	15	14.83	0.329	15.16	23.98	MCS0
5500	100	14	13.65	0.329	13.98	23.96	MCS0
5600	120	14	13.89	0.329	14.22	23.96	MCS0
5720	144	14	14.34	0.329	14.67	23.96	MCS0
5745	149	17	15.99	0.329	16.31	30.00	MCS0
5785	157	17	15.52	0.329	15.85	30.00	MCS0
5825	165	17	15.58	0.329	15.91	30.00	MCS0
5845	169	17	15.99	0.329	16.32	30.00	MCS0
5865	173	17	15.87	0.329	16.20	30.00	MCS0
5885	177	17	15.95	0.329	16.27	30.00	MCS0

802.11ac(40 MHz) Mode		Power Level Setting	Measured Power [dBm]	Duty Cycle Factor (dB)	Total Power [dBm]	Limit (dBm)	Worstcase MCS Index
Frequency [MHz]	Channel No.						
5190	38	15	14.98	0.626	15.61	23.98	MCS0
5230	46	15	15.11	0.626	15.73	23.98	MCS0
5270	54	15	14.93	0.626	15.55	23.98	MCS0
5310	62	15	15.24	0.626	15.87	23.98	MCS0
5510	102	14	14.27	0.626	14.90	23.98	MCS0
5590	118	14	13.98	0.626	14.61	23.98	MCS0
5710	142	14	12.97	0.626	13.60	23.98	MCS0
5755	151	15	14.99	0.626	15.62	30.00	MCS0
5795	159	15	13.73	0.626	14.35	30.00	MCS0
5835	167	15	10.40	0.626	11.03	30.00	MCS0
5875	175	15	14.27	0.626	14.90	30.00	MCS0

802.11ac(80 MHz) Mode		Power Level Setting	Measured Power [dBm]	Duty Cycle Factor (dB)	Total Power [dBm]	Limit (dBm)	Worstcase MCS Index
Frequency [MHz]	Channel No.						
5210	42	14	13.57	1.167	14.74	23.98	MCS0
5290	58	14	13.40	1.167	14.56	23.98	MCS0
5530	106	14	13.23	1.167	14.40	23.98	MCS0
5610	122	14	13.51	1.167	14.68	23.98	MCS0
5690	138	14	13.78	1.167	14.94	23.98	MCS0
5775	155	14	13.10	1.167	14.26	30.00	MCS0
5855	171	14	13.36	1.167	14.53	30.00	MCS0

Note:

For channels **169/167/171** included in U-NII3&4, please refer to the Straddle table.

U-NII-3 Portion for Conducted Power

U-NII-4 Portion for EIRP

[MIMO]

802.11a Mode		Power Level Setting	Ant.1 Measured Power (dBm) + Duty Cycle Factor	Ant.2 Measured Power (dBm) + Duty Cycle Factor	MIMO Total Power [dBm]	Limit (dBm)	Worstcase Datarate (Mbps)
Frequency [MHz]	Channel No.						
5180	36	14	14.05	14.27	17.18	23.98	6M
5200	40	14	14.05	14.19	17.13	23.98	6M
5240	48	14	14.23	14.27	17.26	23.98	6M
5260	52	15	14.04	15.07	17.59	23.73	6M
5300	60	15	14.01	15.23	17.67	23.73	6M
5320	64	14	14.08	15.31	17.75	23.73	6M
5500	100	14	13.90	13.92	16.92	23.75	6M
5600	120	14	13.27	14.14	16.74	23.75	6M
5720	144	17	13.20	14.53	16.92	23.75	6M
5745	149	17	16.26	16.23	19.25	30.00	6M
5785	157	17	15.82	15.74	18.79	30.00	6M
5825	165	17	15.73	15.84	18.80	30.00	6M
5845	169	17	16.47	16.42	19.46	30.00	6M
5865	173	17	16.54	16.50	19.53	30.00	6M
5885	177	17	16.88	16.66	19.78	30.00	6M

802.11n(20 MHz) Mode		Power Level Setting	Ant.1 Measured Power (dBm) + Duty Cycle Factor	Ant.2 Measured Power (dBm) + Duty Cycle Factor	MIMO Total Power [dBm]	Limit (dBm)	Worstcase Datarate (Mbps)
Frequency [MHz]	Channel No.						
5180	36	14	13.84	14.12	16.99	23.98	MCS0
5200	40	14	13.78	14.28	17.05	23.98	MCS0
5240	48	14	14.15	14.31	17.24	23.98	MCS0
5260	52	15	13.96	14.86	17.44	23.97	MCS0
5300	60	15	13.85	15.26	17.62	23.97	MCS0
5320	64	15	13.99	15.30	17.71	23.97	MCS0
5500	100	14	13.97	13.92	16.95	23.95	MCS0
5600	120	14	13.31	14.12	16.75	23.95	MCS0
5720	144	14	13.19	14.69	17.02	23.95	MCS0
5745	149	17	16.12	16.24	19.19	30.00	MCS0
5785	157	17	15.93	15.69	18.82	30.00	MCS0
5825	165	17	16.01	15.86	18.95	30.00	MCS0
5845	169	17	16.60	16.18	19.41	30.00	MCS0
5865	173	17	16.21	16.20	19.22	30.00	MCS0
5885	177	17	16.74	16.37	19.57	30.00	MCS0

802.11n(40 MHz) Mode		Power Level Setting	Ant.1 Measured Power (dBm) + Duty Cycle Factor	Ant.2 Measured Power (dBm) + Duty Cycle Factor	MIMO Total Power [dBm]	Limit (dBm)	Worstcase Datarate (Mbps)
Frequency [MHz]	Channel No.						
5190	38	15	14.53	15.62	18.12	23.98	MCS0
5230	46	15	14.39	15.86	18.19	23.98	MCS0
5270	54	15	14.52	15.47	18.03	23.98	MCS0
5310	62	15	14.57	15.88	18.28	23.98	MCS0
5510	102	13	13.42	13.82	16.64	23.98	MCS0
5590	118	13	13.57	13.61	16.60	23.98	MCS0
5710	142	13	13.98	14.19	17.10	23.98	MCS0
5755	151	15	14.57	15.14	17.88	30.00	MCS0
5795	159	15	14.17	14.30	17.24	30.00	MCS0
5835	167	15	14.63	14.55	17.60	30.00	MCS0
5875	175	15	14.83	14.90	17.88	30.00	MCS0

802.11ac(20 MHz) Mode		Power Level Setting	Ant.1 Measured Power (dBm) + Duty Cycle Factor	Ant.2 Measured Power (dBm) + Duty Cycle Factor	MIMO Total Power [dBm]	Limit (dBm)	Worstcase Datarate (Mbps)
Frequency [MHz]	Channel No.						
5180	36	14	14.00	14.09	17.05	23.98	MCS0
5200	40	14	14.08	14.25	17.18	23.98	MCS0
5240	48	14	14.15	14.29	17.23	23.98	MCS0
5260	52	15	13.96	14.86	17.44	23.97	MCS0
5300	60	15	13.90	15.21	17.62	23.97	MCS0
5320	64	15	13.88	15.16	17.58	23.97	MCS0
5500	100	14	13.90	13.98	16.95	23.96	MCS0
5600	120	14	13.08	14.22	16.70	23.96	MCS0
5720	144	14	13.29	14.67	17.04	23.96	MCS0
5745	149	17	15.92	16.31	19.13	30.00	MCS0
5785	157	17	15.80	15.85	18.84	30.00	MCS0
5825	165	17	16.15	15.91	19.04	30.00	MCS0
5845	169	17	16.32	16.32	19.33	30.00	MCS0
5865	173	17	16.38	16.20	19.30	30.00	MCS0
5885	177	17	16.61	16.27	19.46	30.00	MCS0

802.11ac(40 MHz) Mode		Power Level Setting	Ant.1 Measured Power (dBm) + Duty Cycle Factor	Ant.2 Measured Power (dBm) + Duty Cycle Factor	MIMO Total Power [dBm]	Limit (dBm)	Worstcase Datarate (Mbps)
Frequency [MHz]	Channel No.						
5190	38	15	14.59	15.61	18.14	23.98	MCS0
5230	46	15	14.55	15.73	18.19	23.98	MCS0
5270	54	15	14.55	15.55	18.09	23.98	MCS0
5310	62	15	14.58	15.87	18.28	23.98	MCS0
5510	102	14	14.52	14.90	17.72	23.98	MCS0
5590	118	14	13.51	14.61	17.10	23.98	MCS0
5710	142	14	13.53	13.60	16.58	23.98	MCS0
5755	151	15	14.43	15.62	18.08	30.00	MCS0
5795	159	15	14.62	14.35	17.50	30.00	MCS0
5835	167	15	10.81	11.03	13.93	30.00	MCS0
5875	175	15	10.81	14.90	16.33	30.00	MCS0

802.11ac(80 MHz) Mode		Power Level Setting	Ant.1 Measured Power (dBm) + Duty Cycle Factor	Ant.2 Measured Power (dBm) + Duty Cycle Factor	MIMO Total Power [dBm]	Limit (dBm)	Worstcase Datarate (Mbps)
Frequency [MHz]	Channel No.						
5210	42	14	14.51	14.74	17.64	23.98	MCS0
5290	58	14	14.50	14.56	17.54	23.98	MCS0
5530	106	14	14.33	14.40	17.37	23.98	MCS0
5610	122	14	13.00	14.68	16.93	23.98	MCS0
5690	138	14	13.50	14.94	17.29	23.98	MCS0
5775	155	14	13.16	14.26	16.76	30.00	MCS0
5855	171	14	13.40	14.53	17.01	30.00	MCS0

10.5 POWER SPECTRAL DENSITY

[Ant.1]

802.11a Mode		Measured PSD [dBm]	Duty Cycle Factor (dB)	Total PSD [dBm]	Worstcase Datarate (Mbps)	Limit
Frequency [MHz]	Channel No.					
5180	36	2.819	0.282	3.101	6M	11 dBm/MHz
5200	40	2.659	0.282	2.941	6M	
5240	48	2.670	0.282	2.952	6M	
5260	52	3.072	0.282	3.354	6M	
5300	60	2.986	0.282	3.268	6M	
5320	64	2.768	0.282	3.050	6M	
5500	100	4.548	0.282	4.830	6M	
5600	120	4.955	0.282	5.237	6M	
5720	144	5.324	0.282	5.606	6M	
5745	149	2.501	0.282	2.783	6M	30 dBm/500 kHz
5785	157	2.354	0.282	2.636	6M	
5825	165	2.610	0.282	2.892	6M	

802.11n(20 MHz) Mode		Measured PSD [dBm]	Duty Cycle Factor (dB)	Total PSD [dBm]	Worstcase MCS Index	Limit
Frequency [MHz]	Channel No.					
5180	36	2.007	0.329	2.336	MCS0	11 dBm/MHz
5200	40	2.081	0.329	2.410	MCS0	
5240	48	2.417	0.329	2.746	MCS0	
5260	52	2.203	0.329	2.532	MCS0	
5300	60	2.377	0.329	2.706	MCS0	
5320	64	2.349	0.329	2.678	MCS0	
5500	100	4.170	0.329	4.499	MCS0	
5600	120	4.617	0.329	4.946	MCS0	
5720	144	4.824	0.329	5.153	MCS0	
5745	149	2.301	0.329	2.630	MCS0	30 dBm/500 kHz
5785	157	1.870	0.329	2.199	MCS0	
5825	165	1.830	0.329	2.159	MCS0	

802.11n(40 MHz) Mode		Measured PSD [dBm]	Duty Cycle Factor (dB)	Total PSD [dBm]	Worstcase MCS Index	Limit
Frequency [MHz]	Channel No.					
5190	38	-0.575	0.630	0.055	MCS0	11 dBm/MHz
5230	46	-0.054	0.630	0.576	MCS0	
5270	54	-0.300	0.630	0.330	MCS0	
5310	62	-0.015	0.630	0.615	MCS0	
5510	102	-0.888	0.630	-0.258	MCS0	
5590	118	-0.363	0.630	0.267	MCS0	
5710	142	0.173	0.630	0.803	MCS0	
5755	151	-2.714	0.630	-2.084	MCS0	30 dBm /500 kHz
5795	159	-3.129	0.630	-2.499	MCS0	

802.11ac(20 MHz) Mode		Measured PSD [dBm]	Duty Cycle Factor (dB)	Total PSD [dBm]	Worstcase MCS Index	Limit
Frequency [MHz]	Channel No.					
5180	36	2.150	0.329	2.479	MCS0	11 dBm/MHz
5200	40	2.081	0.329	2.410	MCS0	
5240	48	2.322	0.329	2.651	MCS0	
5260	52	2.258	0.329	2.587	MCS0	
5300	60	2.322	0.329	2.651	MCS0	
5320	64	2.408	0.329	2.737	MCS0	
5500	100	4.202	0.329	4.531	MCS0	
5600	120	4.917	0.329	5.246	MCS0	
5720	144	4.677	0.329	5.006	MCS0	
5745	149	2.172	0.329	2.501	MCS0	30 dBm/500 kHz
5785	157	2.113	0.329	2.442	MCS0	
5825	165	1.745	0.329	2.074	MCS0	

802.11ac(40 MHz) Mode		Measured PSD [dBm]	Duty Cycle Factor (dB)	Total PSD [dBm]	Worstcase MCS Index	Limit
Frequency [MHz]	Channel No.					
5190	38	-0.780	0.626	-0.154	MCS0	11 dBm/MHz
5230	46	-0.126	0.626	0.500	MCS0	
5270	54	-0.213	0.626	0.413	MCS0	
5310	62	-0.225	0.626	0.401	MCS0	
5510	102	0.014	0.626	0.640	MCS0	
5590	118	-0.219	0.626	0.407	MCS0	
5710	142	0.470	0.626	1.096	MCS0	
5755	151	-2.406	0.626	-1.780	MCS0	30 dBm/500 kHz
5795	159	-2.751	0.626	-2.125	MCS0	

802.11ac(80 MHz) Mode		Measured PSD [dBm]	Duty Cycle Factor (dB)	Total PSD [dBm]	Worstcase MCS Index	Limit
Frequency [MHz]	Channel No.					
5210	42	-3.992	1.167	-2.825	MCS0	11 dBm/MHz
5290	58	-3.460	1.167	-2.293	MCS0	
5530	106	-3.292	1.167	-2.125	MCS0	
5610	122	-4.850	1.167	-3.683	MCS0	
5690	138	-4.038	1.167	-2.871	MCS0	
5775	155	-7.052	1.167	-5.885	MCS0	30 dBm/500 kHz

[Ant.2]

802.11a Mode		Measured PSD [dBm]	Duty Cycle Factor (dB)	Total PSD [dBm]	Worstcase Datarate (Mbps)	Limit
Frequency [MHz]	Channel No.					
5180	36	3.324	0.282	3.606	6M	11 dBm/MHz
5200	40	3.550	0.282	***3.832***	6M	
5240	48	3.203	0.282	3.485	6M	
5260	52	4.353	0.282	4.635	6M	
5300	60	4.581	0.282	4.863	6M	
5320	64	4.199	0.282	4.481	6M	
5500	100	5.213	0.282	5.495	6M	
5600	120	5.259	0.282	5.541	6M	
5720	144	5.381	0.282	5.663	6M	
5745	149	2.169	0.282	2.451	6M	30 dBm/500 kHz
5785	157	2.010	0.282	2.292	6M	
5825	165	2.548	0.282	2.830	6M	

802.11n(20 MHz) Mode		Measured PSD [dBm]	Duty Cycle Factor (dB)	Total PSD [dBm]	Worstcase MCS Index	Limit
Frequency [MHz]	Channel No.					
5180	36	2.891	0.329	3.220	MCS0	11 dBm/MHz
5200	40	3.029	0.329	3.358	MCS0	
5240	48	3.100	0.329	3.429	MCS0	
5260	52	3.631	0.329	3.960	MCS0	
5300	60	4.188	0.329	4.517	MCS0	
5320	64	4.145	0.329	4.474	MCS0	
5500	100	4.807	0.329	5.136	MCS0	
5600	120	4.651	0.329	4.980	MCS0	
5720	144	4.936	0.329	5.265	MCS0	
5745	149	2.116	0.329	2.445	MCS0	30 dBm/500 kHz
5785	157	1.813	0.329	2.142	MCS0	
5825	165	1.832	0.329	2.161	MCS0	

802.11n(40 MHz) Mode		Measured PSD [dBm]	Duty Cycle Factor (dB)	Total PSD [dBm]	Worstcase MCS Index	Limit
Frequency [MHz]	Channel No.					
5190	38	1.031	0.630	1.661	MCS0	11 dBm/MHz
5230	46	1.122	0.630	1.752	MCS0	
5270	54	1.242	0.630	1.872	MCS0	
5310	62	1.390	0.630	2.020	MCS0	
5510	102	-0.818	0.630	-0.188	MCS0	
5590	118	1.318	0.630	1.948	MCS0	
5710	142	0.808	4.967	5.775	MCS5	
5755	151	-2.306	0.630	-1.676	MCS0	30 dBm /500 kHz
5795	159	-2.997	0.630	-2.367	MCS0	

802.11ac(20 MHz) Mode		Measured PSD [dBm]	Duty Cycle Factor (dB)	Total PSD [dBm]	Worstcase MCS Index	Limit
Frequency [MHz]	Channel No.					
5180	36	2.839	0.329	3.168	MCS0	11 dBm/MHz
5200	40	3.108	0.329	3.437	MCS0	
5240	48	3.117	0.329	3.446	MCS0	
5260	52	3.886	0.329	4.215	MCS0	
5300	60	3.998	0.329	4.327	MCS0	
5320	64	4.287	0.329	4.616	MCS0	
5500	100	4.864	0.329	5.193	MCS0	
5600	120	4.900	0.329	5.229	MCS0	
5720	144	5.015	0.329	5.344	MCS0	
5745	149	2.042	0.329	2.371	MCS0	30 dBm/500 kHz
5785	157	1.796	0.329	2.125	MCS0	
5825	165	1.916	0.329	2.245	MCS0	

802.11ac(40 MHz) Mode		Measured PSD [dBm]	Duty Cycle Factor (dB)	Total PSD [dBm]	Worstcase MCS Index	Limit
Frequency [MHz]	Channel No.					
5190	38	1.016	0.626	1.642	MCS0	11 dBm/MHz
5230	46	1.293	0.626	1.919	MCS0	
5270	54	1.166	0.626	1.792	MCS0	
5310	62	1.763	0.626	2.389	MCS0	
5510	102	0.554	0.626	1.180	MCS0	
5590	118	1.347	0.626	1.973	MCS0	
5710	142	0.829	0.626	1.455	MCS0	
5755	151	-2.083	0.626	-1.457	MCS0	30 dBm/500 kHz
5795	159	-2.943	0.626	-2.317	MCS0	

802.11ac(80 MHz) Mode		Measured PSD [dBm]	Duty Cycle Factor (dB)	Total PSD [dBm]	Worstcase MCS Index	Limit
Frequency [MHz]	Channel No.					
5210	42	-3.252	1.167	-2.085	MCS0	11 dBm/MHz
5290	58	-3.572	1.167	-2.405	MCS0	
5530	106	-3.797	1.167	-2.630	MCS0	
5610	122	-3.638	1.167	-2.471	MCS0	
5690	138	-3.348	1.167	-2.181	MCS0	
5775	155	-6.525	1.167	-5.358	MCS0	30 dBm/500 kHz

[MIMO]

802.11a Mode		ANT.1 Measured Power(dBm) + Duty Cycle Factor (dB)	ANT.2 Measured Power(dBm) + Duty Cycle Factor (dB)	MIMO Result (dBm)	Worstcase Datarate (Mbps)	Limit
Frequency [MHz]	Channel No.					
5180	36	3.101	3.606	6.371	6M	11 dBm/MHz
5200	40	2.941	3.832	6.420	6M	
5240	48	2.952	3.485	6.237	6M	
5260	52	3.354	4.635	7.052	6M	
5300	60	3.268	4.863	7.149	6M	
5320	64	3.050	4.481	6.834	6M	
5500	100	4.830	5.495	8.186	6M	
5600	120	5.237	5.541	8.402	6M	
5720	144	5.606	5.663	8.645	6M	
5745	149	2.783	2.451	5.630	6M	30 dBm/500 kHz
5785	157	2.636	2.292	5.478	6M	
5825	165	2.892	2.830	5.871	6M	

802.11n(20 MHz) Mode		ANT.1 Measured Power(dBm) + Duty Cycle Factor (dB)	ANT.2 Measured Power(dBm) + Duty Cycle Factor (dB)	MIMO Result (dBm)	Worstcase MCS Index	Limit
Frequency [MHz]	Channel No.					
5180	36	2.336	3.220	5.811	MCS0	11 dBm/MHz
5200	40	2.410	3.358	5.920	MCS0	
5240	48	2.746	3.429	6.112	MCS0	
5260	52	2.532	3.960	6.315	MCS0	
5300	60	2.706	4.517	6.716	MCS0	
5320	64	2.678	4.474	6.679	MCS0	
5500	100	4.499	5.136	7.840	MCS0	
5600	120	4.946	4.980	7.974	MCS0	
5720	144	5.153	5.265	8.220	MCS0	
5745	149	2.630	2.445	5.549	MCS0	30 dBm/500 kHz
5785	157	2.199	2.142	5.181	MCS0	
5825	165	2.159	2.161	5.171	MCS0	

802.11n(40 MHz) Mode		ANT.1 Measured Power(dBm) + Duty Cycle Factor (dB)	ANT.2 Measured Power(dBm) + Duty Cycle Factor (dB)	MIMO Result (dBm)	Worstcase MCS Index	Limit
Frequency [MHz]	Channel No.					
5190	38	0.055	1.661	3.942	MCS0	11 dBm/MHz
5230	46	0.576	1.752	4.214	MCS0	
5270	54	0.330	1.872	4.179	MCS0	
5310	62	0.615	2.020	4.384	MCS0	
5510	102	-0.258	-0.188	2.787	MCS0	
5590	118	0.267	1.948	4.198	MCS0	
5710	142	0.803	5.775	6.975	MCS0	
5755	151	-2.084	-1.676	1.135	MCS0	30 dBm/500 kHz
5795	159	-2.499	-2.367	0.577	MCS0	

802.11ac(20 MHz) Mode		ANT.1 Measured Power(dBm) + Duty Cycle Factor (dB)	ANT.2 Measured Power(dBm) + Duty Cycle Factor (dB)	MIMO Result (dBm)	Worstcase MCS Index	Limit
Frequency [MHz]	Channel No.					
5180	36	2.479	3.168	5.848	MCS0	11 dBm/MHz
5200	40	2.410	3.437	5.964	MCS0	
5240	48	2.651	3.446	6.077	MCS0	
5260	52	2.587	4.215	6.487	MCS0	
5300	60	2.651	4.327	6.580	MCS0	
5320	64	2.737	4.616	6.788	MCS0	
5500	100	4.531	5.193	7.885	MCS0	
5600	120	5.246	5.229	8.248	MCS0	
5720	144	5.006	5.344	8.189	MCS0	
5745	149	2.501	2.371	5.447	MCS0	30 dBm/500 kHz
5785	157	2.442	2.125	5.297	MCS0	
5825	165	2.074	2.245	5.171	MCS0	

802.11ac(40 MHz) Mode		ANT.1 Measured Power(dBm) + Duty Cycle Factor (dB)	ANT.2 Measured Power(dBm) + Duty Cycle Factor (dB)	MIMO Result (dBm)	Worstcase MCS Index	Limit
Frequency [MHz]	Channel No.					
5190	38	-0.154	1.642	3.846	MCS0	11 dBm/MHz
5230	46	0.500	1.919	4.277	MCS0	
5270	54	0.413	1.792	4.167	MCS0	
5310	62	0.401	2.389	4.518	MCS0	
5510	102	0.640	1.180	3.928	MCS0	
5590	118	0.407	1.973	4.270	MCS0	
5710	142	1.096	1.455	4.289	MCS0	
5755	151	-1.780	-1.457	1.394	MCS0	30 dBm/500 kHz
5795	159	-2.125	-2.317	0.790	MCS0	

802.11ac(80 MHz) Mode		ANT.1 Measured Power(dBm) + Duty Cycle Factor (dB)	ANT.2 Measured Power(dBm) + Duty Cycle Factor (dB)	MIMO Result (dBm)	Worstcase MCS Index	Limit
Frequency [MHz]	Channel No.					
5210	42	-2.825	-2.085	0.571	MCS0	11 dBm/MHz
5290	58	-2.293	-2.405	0.662	MCS0	
5530	106	-2.125	-2.630	0.640	MCS0	
5610	122	-3.683	-2.471	-0.024	MCS0	
5690	138	-2.871	-2.181	0.498	MCS0	
5775	155	-5.885	-5.358	-2.603	MCS0	30 dBm/500 kHz

[Ant.1]

PSD U-NII-4 (Ch.173, 177, 175) for U-NII-4 EIRP PSD Result

802.11a Mode			Measured PSD (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Worstcase MCS Index	EIRP PSD Limit
Band	Frequency [MHz]	Channel No.					
UNII 4	5865	173	4.139	0.282	4.421	6M	14 dBm/MHz
	5885	177	4.374	0.282	***4.656***	6M	

802.11n(HT20) Mode			Measured PSD (dBm)	Duty Cycle Factor (dB)	Result (dBm)	Worstcase MCS Index	EIRP PSD Limit
Band	Frequency [MHz]	Channel No.					
UNII 4	5865	173	3.546	0.329	3.875	MCS0	14 dBm/MHz
	5885	177	3.656	0.329	***3.985***	MCS0	

802.11n(HT40) Mode			Measured PSD (dBm)	Duty Cycle Factor (dB)	Result (dBm)	Worstcase MCS Index	EIRP PSD Limit
Band	Frequency [MHz]	Channel No.					
UNII 4	5875	175	-0.637	0.630	***-0.007***	MCS0	14 dBm/MHz

802.11ac(VHT20) Mode			MeasuredPSD(dBm)	Duty Cycle Factor(dB)	Result(dBm)	WorstcaseMCS Index	EIRP PSDLimit
Band	Frequency [MHz]	Channel No.					
UNII 4	5865	173	3.579	0.329	3.908	MCS0	14 dBm/MHz
	5885	177	3.799	0.329	***4.128***	MCS0	

802.11ac(VHT40) Mode			Measured PSD (dBm)	Duty Cycle Factor (dB)	Result (dBm)	Worstcase MCS Index	EIRP PSD Limit
Band	Frequency [MHz]	Channel No.					
UNII 4	5875	175	-1.112	0.626	***-0.486***	MCS0	14 dBm/MHz

Note:

- Antenna gain negative, final result Pass
- U-NII-3 Portion for Conducted PSD
- U-NII-4 Portion for PSD EIRP

[Ant.2]

PSD U-NII-4 (Ch.173, 177, 175) for U-NII-4 EIRP PSD Result

802.11a Mode			Measured PSD (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)	Worstcase MCS Index	EIRP PSD Limit
Band	Frequency [MHz]	Channel No.					
UNII 4	5865	173	4.258	0.282	4.540	6M	14 dBm/MHz
	5885	177	4.807	0.282	***5.089***	6M	

802.11n(HT20) Mode			Measured PSD (dBm)	Duty Cycle Factor (dB)	Result (dBm)	Worstcase MCS Index	EIRP PSD Limit
Band	Frequency [MHz]	Channel No.					
UNII 4	5865	173	3.842	0.329	4.171	MCS0	14 dBm/MHz
	5885	177	4.456	0.329	***4.785***	MCS0	

802.11n(HT40) Mode			Measured PSD (dBm)	Duty Cycle Factor (dB)	Result (dBm)	Worstcase MCS Index	EIRP PSD Limit
Band	Frequency [MHz]	Channel No.					
UNII 4	5875	175	0.563	0.630	***1.193***	MCS0	14 dBm/MHz

802.11ac(VHT20) Mode			MeasuredPSD(dBm)	Duty Cycle Factor(dB)	Result(dBm)	WorstcaseMCS Index	EIRP PSDLimit
Band	Frequency [MHz]	Channel No.					
UNII 4	5865	173	3.851	0.329	4.180	MCS0	14 dBm/MHz
	5885	177	4.249	0.329	***4.578***	MCS0	

802.11ac(VHT40) Mode			Measured PSD (dBm)	Duty Cycle Factor (dB)	Result (dBm)	Worstcase MCS Index	EIRP PSD Limit
Band	Frequency [MHz]	Channel No.					
UNII 4	5875	175	0.549	0.626	***1.175***	MCS0	14 dBm/MHz

Note:

- Antenna gain negative, final result Pass
- U-NII-3 Portion for Conducted PSD
- U-NII-4 Portion for PSD EIRP

802.11a Mode			ANT.1 Measured Power(dBm) + Duty Cycle Factor (dB)	ANT.2 Measured Power(dBm) + Duty Cycle Factor (dB)	MIMO Result (dBm)	Worstcase MCS Index	EIRP PSD Limit
Band	Frequency [MHz]	Channel No.					
UNII 4	5865	173	4.421	4.540	7.49	6M	14 dBm/MHz
	5885	177	4.656	5.089	7.89	6M	

802.11n(HT20) Mode			ANT.1 Measured Power(dBm) + Duty Cycle Factor (dB)	ANT.2 Measured Power(dBm) + Duty Cycle Factor (dB)	MIMO Result (dBm)	Worstcase MCS Index	EIRP PSD Limit
Band	Frequency [MHz]	Channel No.					
UNII 4	5865	173	3.875	4.171	7.04	MCS0	14 dBm/MHz
	5885	177	3.985	4.785	7.41	MCS0	

802.11n(HT40) Mode			ANT.1 Measured Power(dBm) + Duty Cycle Factor (dB)	ANT.2 Measured Power(dBm) + Duty Cycle Factor (dB)	MIMO Result (dBm)	Worstcase MCS Index	EIRP PSD Limit
Band	Frequency [MHz]	Channel No.					
UNII 4	5875	175	-0.007	1.193	3.64	MCS0	14 dBm/MHz

802.11ac(VHT20) Mode			ANT.1 Measured Power(dBm) + Duty Cycle Factor (dB)	ANT.2 Measured Power(dBm) + Duty Cycle Factor (dB)	MIMO Result (dBm)	Worstcase MCS Index	EIRP PSD Limit
Band	Frequency [MHz]	Channel No.					
UNII 4	5865	173	3.908	4.180	7.06	MCS0	14 dBm/MHz
	5885	177	4.128	4.578	7.37	MCS0	

802.11ac(VHT40) Mode			ANT.1 Measured Power(dBm) + Duty Cycle Factor (dB)	ANT.2 Measured Power(dBm) + Duty Cycle Factor (dB)	MIMO Result (dBm)	Worstcase MCS Index	EIRP PSD Limit
Band	Frequency [MHz]	Channel No.					
UNII 4	5875	175	-0.486	1.175	3.43	MCS0	14 dBm/MHz

Note:

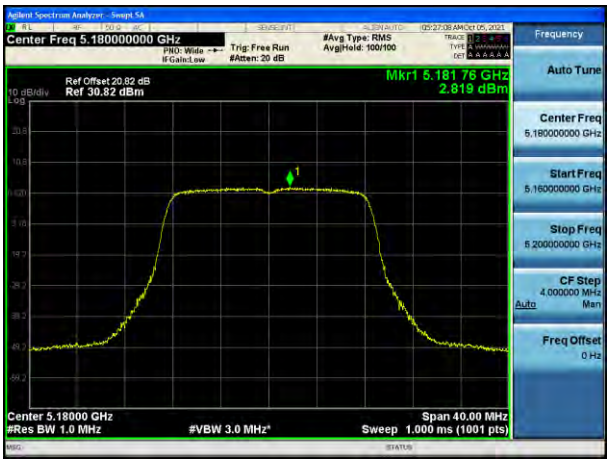
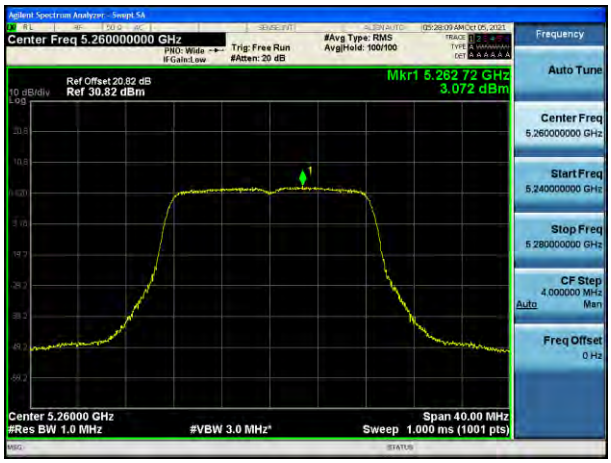
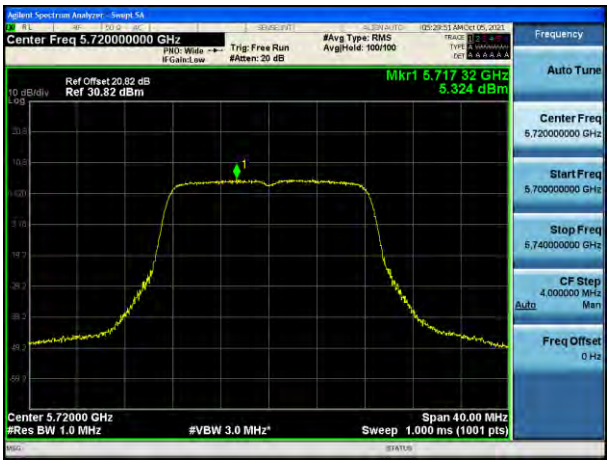
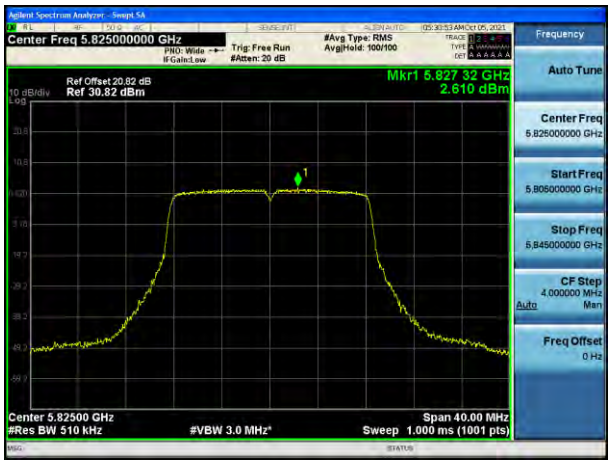
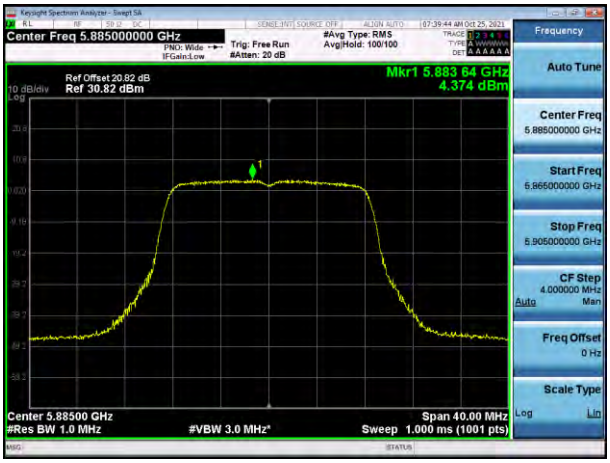
- Antenna gain negative, final result Pass
- U-NII-3 Portion for Conducted PSD
- U-NII-4 Portion for PSD EIRP

[Ant.1]

▣ Test Plots(802.11a)

Note:

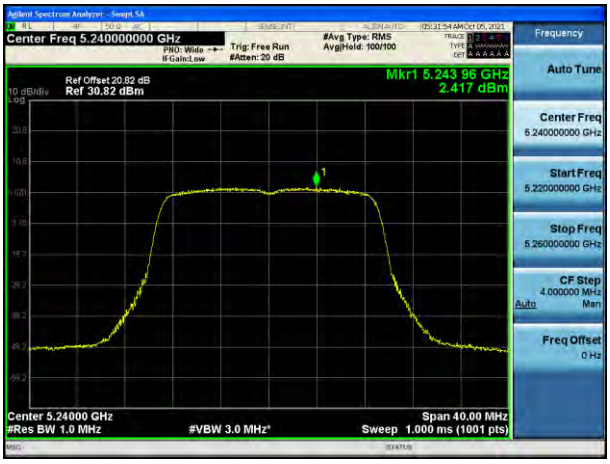
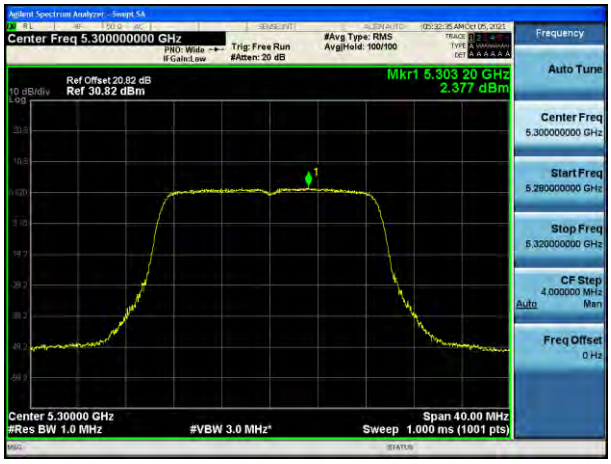
In order to simplify the report, attached plots were only channel of highest power.

UNII 1 (Ch. 52)	UNII 2A (Ch. 52)
	
UNII 2C (Ch. 144)	**UNII 3 (Ch. 165)**
	
UNII 4 (Ch. 177)	
	

▣ Test Plots(802.11n(HT20))

Note:

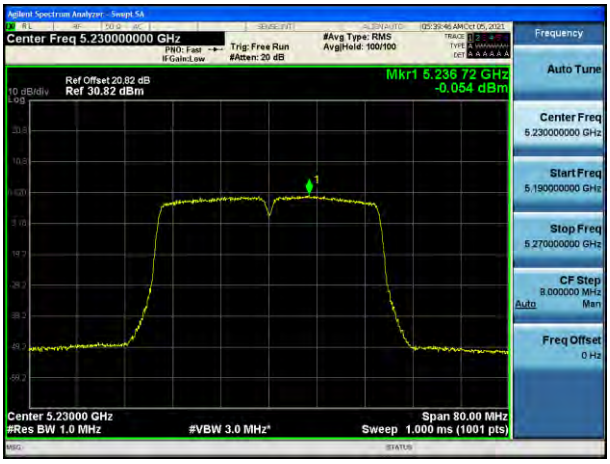
In order to simplify the report, attached plots were only channel of highest power.

UNII 1 (Ch. 48)	UNII 2A (Ch. 60)
	
UNII 2C (Ch. 144)	**UNII 3 (Ch. 149)**
	
UNII 4 (Ch. 177)	
	

▣ Test Plots(802.11n(HT40))

Note:

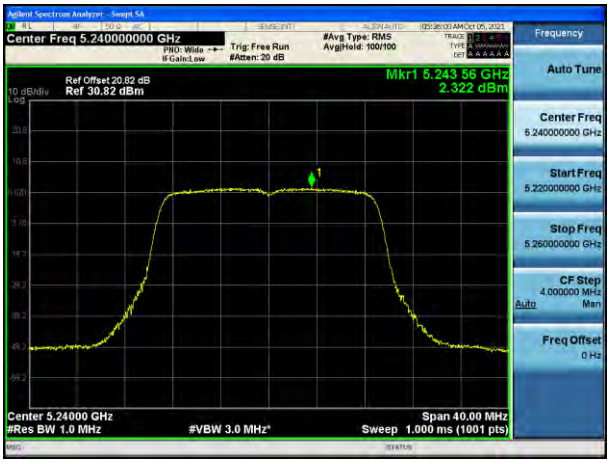
In order to simplify the report, attached plots were only channel of highest power.

UNII 1 (Ch. 46)	UNII 2A (Ch. 62)
	
UNII 2C (Ch. 142)	**UNII 3 (Ch. 151)**
	
UNII 4 (Ch. 175)	
	

▣ Test Plots(802.11ac(VHT20))

Note:

In order to simplify the report, attached plots were only channel of highest power.

UNII 1 (Ch. 48)	UNII 2A (Ch. 64)
	
UNII 2C (Ch. 120)	**UNII 3 (Ch. 149)**
	
UNII 4 (Ch. 177)	
	

▣ Test Plots(802.11ac(VHT40))

Note:

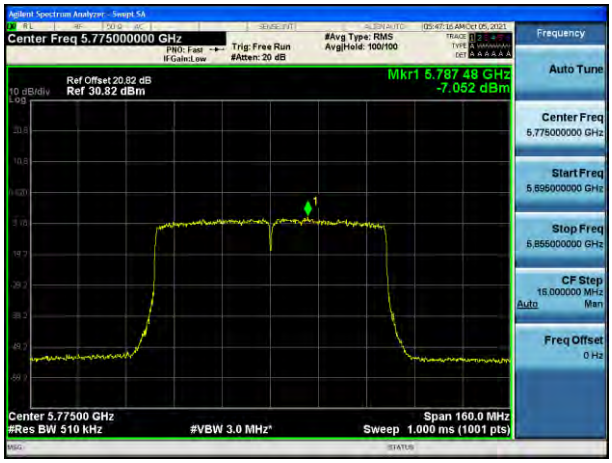
In order to simplify the report, attached plots were only channel of highest power.

UNII 1 (Ch. 46)	UNII 2A (Ch. 54)
	
UNII 2C (Ch. 142)	**UNII 3 (Ch. 151)**
	
UNII 4 (Ch. 175)	
	

▣ Test Plots(802.11ac(VHT80))

Note:

In order to simplify the report, attached plots were only channel of highest power.

UNII 1 (Ch. 42)	UNII 2A (Ch. 58)
	
UNII 2C (Ch. 106)	**UNII 3 (Ch. 155)**
	

[Ant.2]

▣ Test Plots(802.11a)

Note:

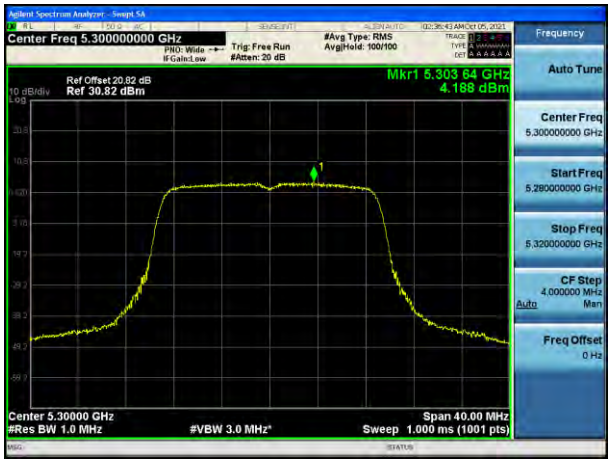
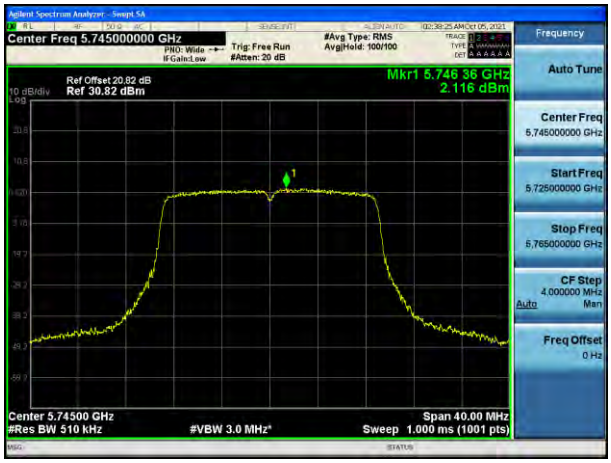
In order to simplify the report, attached plots were only channel of highest power.

UNII 1 (Ch. 40)	UNII 2A (Ch. 60)
	
UNII 2C (Ch. 144)	**UNII 3 (Ch. 165)**
	
UNII 4 (Ch. 177)	
	

▣ Test Plots(802.11n(HT20))

Note:

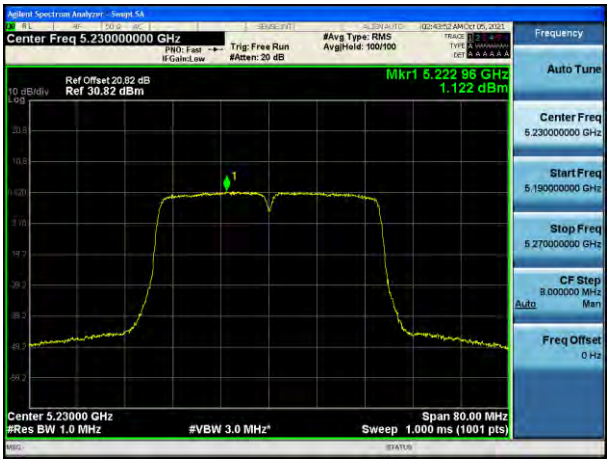
In order to simplify the report, attached plots were only channel of highest power.

UNII 1 (Ch. 48)	UNII 2A (Ch. 60)
	
UNII 2C (Ch. 144)	**UNII 3 (Ch. 149)**
	
UNII 4 (Ch. 177)	
	

▣ Test Plots(802.11n(HT40))

Note:

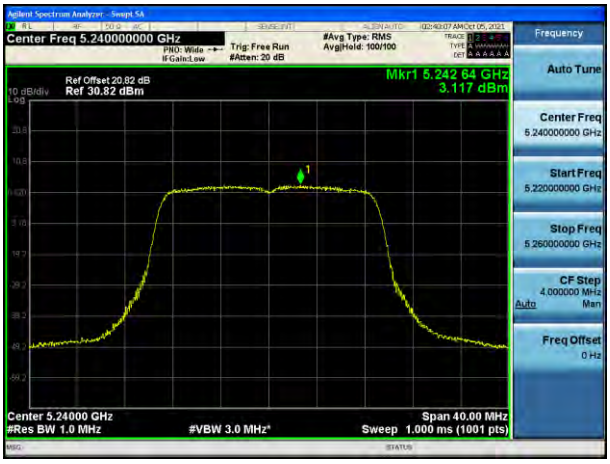
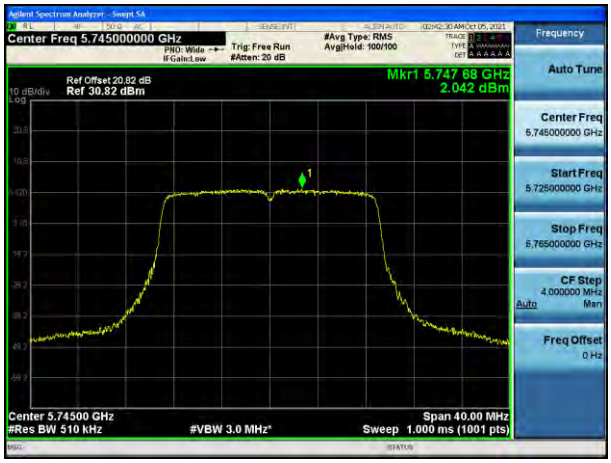
In order to simplify the report, attached plots were only channel of highest power.

UNII 1 (Ch. 46)	UNII 2A (Ch. 62)
	
UNII 2C (Ch. 142)	**UNII 3 (Ch. 151)**
	
UNII 4 (Ch. 175)	
	

▣ Test Plots(802.11ac(VHT20))

Note:

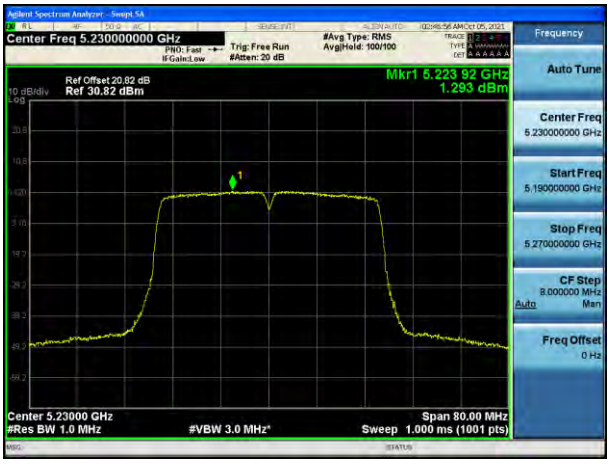
In order to simplify the report, attached plots were only channel of highest power.

UNII 1 (Ch. 48)	UNII 2A (Ch. 64)
	
UNII 2C (Ch. 144)	**UNII 3 (Ch. 149)**
	
UNII 4 (Ch. 177)	
	

▣ Test Plots(802.11ac(VHT40))

Note:

In order to simplify the report, attached plots were only channel of highest power.

UNII 1 (Ch. 46)	UNII 2A (Ch. 62)
	
UNII 2C (Ch. 118)	**UNII 3 (Ch. 151)**
	
UNII 4 (Ch. 175)	
	

▣ Test Plots(802.11ac(VHT80))

Note:

In order to simplify the report, attached plots were only channel of highest power.

UNII 1 (Ch. 42)	UNII 2A (Ch. 58)
	
UNII 2C (Ch. 138)	**UNII 3 (Ch. 155)**
	

10.6 FREQUENCY STABILITY.

10.6.1 80 MHz BW

[Ant.1]

Startup after the EUT is energized

OPERATING BAND:	UNII Band 1
OPERATING FREQUENCY:	5,210,000,000 Hz
CHANNEL:	42
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5210038.72	38.72
100%		-30	5210053.21	53.21
100%		-20	5210045.18	45.18
100%		-10	5210038.71	38.71
100%		0	5210035.42	35.42
100%		+10	5210032.81	32.81
100%		+30	5210036.27	36.27
100%		+40	5210041.61	41.61
100%		+50	5210045.88	45.88
High	4.42	+20	5210044.44	44.44
Low	3.65	+20	5210046.55	46.55

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 2A
OPERATING FREQUENCY:	5,290,000,000 Hz
CHANNEL:	58
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5290039.56	39.56
100%		-30	5290052.60	52.60
100%		-20	5290045.53	45.53
100%		-10	5290040.42	40.42
100%		0	5290037.88	37.88
100%		+10	5290036.78	36.78
100%		+30	5290038.24	38.24
100%		+40	5290040.53	40.53
100%		+50	5290044.17	44.17
High	4.42	+20	5290043.81	43.81
Low	3.65	+20	5290046.86	46.86

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 2C
OPERATING FREQUENCY:	5,530,000,000 Hz
CHANNEL:	106
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5530040.78	40.78
100%		-30	5530052.87	52.87
100%		-20	5530046.73	46.73
100%		-10	5530040.53	40.53
100%		0	5530038.20	38.20
100%		+10	5530038.27	38.27
100%		+30	5530038.10	38.10
100%		+40	5530039.59	39.59
100%		+50	5530044.09	44.09
High	4.42	+20	5530044.67	44.67
Low	3.65	+20	5530045.90	45.90

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 3
OPERATING FREQUENCY:	5,775,000,000 Hz
CHANNEL:	155
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5775041.29	41.29
100%		-30	5775052.13	52.13
100%		-20	5775044.17	44.17
100%		-10	5775037.88	37.88
100%		0	5775035.06	35.06
100%		+10	5775038.26	38.26
100%		+30	5775035.95	35.95
100%		+40	5775040.43	40.43
100%		+50	5775043.99	43.99
High	4.42	+20	5775047.73	47.73
Low	3.65	+20	5775048.48	48.48

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

2 minutes after the EUT is energized

OPERATING BAND:	UNII Band 1
OPERATING FREQUENCY:	5,210,000,000 Hz
CHANNEL:	42
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5210040.18	40.18
100%		-30	5210052.41	52.41
100%		-20	5210044.63	44.63
100%		-10	5210037.54	37.54
100%		0	5210034.57	34.57
100%		+10	5210037.00	37.00
100%		+30	5210040.24	40.24
100%		+40	5210041.43	41.43
100%		+50	5210045.35	45.35
High	4.42	+20	5210048.09	48.09
Low	3.65	+20	5210045.67	45.67

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 2A
OPERATING FREQUENCY:	5,290,000,000 Hz
CHANNEL:	58
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5290042.57	42.57
100%		-30	5290052.59	52.59
100%		-20	5290044.82	44.82
100%		-10	5290038.12	38.12
100%		0	5290034.69	34.69
100%		+10	5290034.31	34.31
100%		+30	5290044.42	44.42
100%		+40	5290042.20	42.20
100%		+50	5290047.94	47.94
High	4.42	+20	5290049.91	49.91
Low	3.65	+20	5290046.74	46.74

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 2C
OPERATING FREQUENCY:	5,530,000,000 Hz
CHANNEL:	106
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5530044.60	44.60
100%		-30	5530053.48	53.48
100%		-20	5530045.85	45.85
100%		-10	5530040.06	40.06
100%		0	5530035.97	35.97
100%		+10	5530037.35	37.35
100%		+30	5530035.73	35.73
100%		+40	5530040.96	40.96
100%		+50	5530044.77	44.77
High	4.42	+20	5530047.98	47.98
Low	3.65	+20	5530046.52	46.52

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 3
OPERATING FREQUENCY:	5,775,000,000 Hz
CHANNEL:	155
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5775045.91	45.91
100%		-30	5775052.48	52.48
100%		-20	5775045.03	45.03
100%		-10	5775038.07	38.07
100%		0	5775035.34	35.34
100%		+10	5775036.07	36.07
100%		+30	5775039.87	39.87
100%		+40	5775042.00	42.00
100%		+50	5775046.68	46.68
High	4.42	+20	5775048.85	48.85
Low	3.65	+20	5775047.86	47.86

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

5 minutes after the EUT is energized

OPERATING BAND:	UNII Band 1
OPERATING FREQUENCY:	5,210,000,000 Hz
CHANNEL:	42
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5210042.24	42.24
100%		-30	5210053.16	53.16
100%		-20	5210045.76	45.76
100%		-10	5210040.52	40.52
100%		0	5210036.77	36.77
100%		+10	5210037.64	37.64
100%		+30	5210043.20	43.20
100%		+40	5210041.18	41.18
100%		+50	5210045.42	45.42
High	4.42	+20	5210048.41	48.41
Low	3.65	+20	5210048.39	48.39

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 2A
OPERATING FREQUENCY:	5,290,000,000 Hz
CHANNEL:	58
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5290044.61	44.61
100%		-30	5290052.58	52.58
100%		-20	5290046.08	46.08
100%		-10	5290039.29	39.29
100%		0	5290036.07	36.07
100%		+10	5290036.37	36.37
100%		+30	5290035.72	35.72
100%		+40	5290040.80	40.8
100%		+50	5290045.21	45.21
High	4.42	+20	5290048.58	48.58
Low	3.65	+20	5290047.01	47.01

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 2C
OPERATING FREQUENCY:	5,530,000,000 Hz
CHANNEL:	106
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5530045.87	45.87
100%		-30	5530053.32	53.32
100%		-20	5530046.91	46.91
100%		-10	5530040.34	40.34
100%		0	5530038.23	38.23
100%		+10	5530039.28	39.28
100%		+30	5530032.58	32.58
100%		+40	5530038.75	38.75
100%		+50	5530043.75	43.75
High	4.42	+20	5530049.17	49.17
Low	3.65	+20	5530048.17	48.17

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 3
OPERATING FREQUENCY:	5,775,000,000 Hz
CHANNEL:	155
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5775047.26	47.26
100%		-30	5775051.84	51.84
100%		-20	5775044.49	44.49
100%		-10	5775038.18	38.18
100%		0	5775034.92	34.92
100%		+10	5775038.18	38.18
100%		+30	5775042.06	42.06
100%		+40	5775040.79	40.79
100%		+50	5775043.94	43.94
High	4.42	+20	5775047.32	47.32
Low	3.65	+20	5775045.74	45.74

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

10 minutes after the EUT is energized

OPERATING BAND:	UNII Band 1
OPERATING FREQUENCY:	5,210,000,000 Hz
CHANNEL:	42
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5210045.69	45.69
100%		-30	5210052.52	52.52
100%		-20	5210045.99	45.99
100%		-10	5210039.11	39.11
100%		0	5210036.87	36.87
100%		+10	5210035.02	35.02
100%		+30	5210034.93	34.93
100%		+40	5210041.97	41.97
100%		+50	5210046.63	46.63
High	4.42	+20	5210048.83	48.83
Low	3.65	+20	5210046.96	46.96

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 2A
OPERATING FREQUENCY:	5,290,000,000 Hz
CHANNEL:	58
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5290046.92	46.92
100%		-30	5290053.20	53.20
100%		-20	5290045.99	45.99
100%		-10	5290040.85	40.85
100%		0	5290038.46	38.46
100%		+10	5290035.33	35.33
100%		+30	5290032.46	32.46
100%		+40	5290040.42	40.42
100%		+50	5290046.21	46.21
High	4.42	+20	5290049.96	49.96
Low	3.65	+20	5290047.54	47.54

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 2C
OPERATING FREQUENCY:	5,530,000,000 Hz
CHANNEL:	106
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5530047.03	47.03
100%		-30	5530053.50	53.50
100%		-20	5530045.71	45.71
100%		-10	5530039.48	39.48
100%		0	5530035.70	35.70
100%		+10	5530036.80	36.80
100%		+30	5530035.30	35.30
100%		+40	5530040.74	40.74
100%		+50	5530044.86	44.86
High	4.42	+20	5530048.29	48.29
Low	3.65	+20	5530046.67	46.67

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 3
OPERATING FREQUENCY:	5,775,000,000 Hz
CHANNEL:	155
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5775049.61	49.61
100%		-30	5775051.67	51.67
100%		-20	5775044.07	44.07
100%		-10	5775037.08	37.08
100%		0	5775033.17	33.17
100%		+10	5775036.51	36.51
100%		+30	5775041.61	41.61
100%		+40	5775040.35	40.35
100%		+50	5775045.67	45.67
High	4.42	+20	5775049.49	49.49
Low	3.65	+20	5775048.23	48.23

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

[Ant.2]

Startup after the EUT is energized

OPERATING BAND:	UNII Band 1
OPERATING FREQUENCY:	5,210,000,000 Hz
CHANNEL:	42
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5210040.28	40.28
100%		-30	5210052.13	52.13
100%		-20	5210045.23	45.23
100%		-10	5210038.87	38.87
100%		0	5210035.19	35.19
100%		+10	5210038.36	38.36
100%		+30	5210035.61	35.61
100%		+40	5210039.67	39.67
100%		+50	5210044.82	44.82
High	4.42	+20	5210049.32	49.32
Low	3.65	+20	5210047.66	47.66

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 2A
OPERATING FREQUENCY:	5,290,000,000 Hz
CHANNEL:	58
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5290042.55	42.55
100%		-30	5290053.18	53.18
100%		-20	5290046.85	46.85
100%		-10	5290040.12	40.12
100%		0	5290037.53	37.53
100%		+10	5290035.71	35.71
100%		+30	5290033.96	33.96
100%		+40	5290041.61	41.61
100%		+50	5290046.74	46.74
High	4.42	+20	5290049.30	49.30
Low	3.65	+20	5290048.22	48.22

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 2C
OPERATING FREQUENCY:	5,530,000,000 Hz
CHANNEL:	106
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5530044.19	44.19
100%		-30	5530052.15	52.15
100%		-20	5530044.14	44.14
100%		-10	5530037.55	37.55
100%		0	5530035.04	35.04
100%		+10	5530035.65	35.65
100%		+30	5530036.79	36.79
100%		+40	5530041.31	41.31
100%		+50	5530045.71	45.71
High	4.42	+20	5530048.57	48.57
Low	3.65	+20	5530045.62	45.62

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 3
OPERATING FREQUENCY:	5,775,000,000 Hz
CHANNEL:	155
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5775045.78	45.78
100%		-30	5775052.66	52.66
100%		-20	5775044.96	44.96
100%		-10	5775038.97	38.97
100%		0	5775035.00	35.00
100%		+10	5775037.66	37.66
100%		+30	5775044.70	44.70
100%		+40	5775040.84	40.84
100%		+50	5775044.50	44.50
High	4.42	+20	5775047.83	47.83
Low	3.65	+20	5775046.57	46.57

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

2 minutes after the EUT is energized

OPERATING BAND:	UNII Band 1
OPERATING FREQUENCY:	5,210,000,000 Hz
CHANNEL:	42
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5210042.73	42.73
100%		-30	5210052.68	52.68
100%		-20	5210045.62	45.62
100%		-10	5210039.38	39.38
100%		0	5210036.09	36.09
100%		+10	5210035.80	35.80
100%		+30	5210037.04	37.04
100%		+40	5210040.97	40.97
100%		+50	5210045.52	45.52
High	4.42	+20	5210048.72	48.72
Low	3.65	+20	5210047.77	47.77

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 2A
OPERATING FREQUENCY:	5,290,000,000 Hz
CHANNEL:	58
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5290044.65	44.65
100%		-30	5290053.12	53.12
100%		-20	5290045.90	45.90
100%		-10	5290040.11	40.11
100%		0	5290036.42	36.42
100%		+10	5290037.31	37.31
100%		+30	5290042.06	42.06
100%		+40	5290040.24	40.24
100%		+50	5290044.21	44.21
High	4.42	+20	5290048.14	48.14
Low	3.65	+20	5290046.45	46.45

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 2C
OPERATING FREQUENCY:	5,530,000,000 Hz
CHANNEL:	106
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5530045.27	45.27
100%		-30	5530051.68	51.68
100%		-20	5530043.93	43.93
100%		-10	5530037.84	37.84
100%		0	5530034.75	34.75
100%		+10	5530037.03	37.03
100%		+30	5530035.29	35.29
100%		+40	5530041.40	41.40
100%		+50	5530045.04	45.04
High	4.42	+20	5530047.81	47.81
Low	3.65	+20	5530046.31	46.31

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 3
OPERATING FREQUENCY:	5,775,000,000 Hz
CHANNEL:	155
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5775047.28	47.28
100%		-30	5775053.49	53.49
100%		-20	5775046.81	46.81
100%		-10	5775041.10	41.10
100%		0	5775038.54	38.54
100%		+10	5775037.93	37.93
100%		+30	5775037.03	37.03
100%		+40	5775040.51	40.51
100%		+50	5775044.84	44.84
High	4.42	+20	5775048.50	48.50
Low	3.65	+20	5775048.41	48.41

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

5 minutes after the EUT is energized

OPERATING BAND:	UNII Band 1
OPERATING FREQUENCY:	5,210,000,000 Hz
CHANNEL:	42
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5210044.40	44.40
100%		-30	5210051.88	51.88
100%		-20	5210045.31	45.31
100%		-10	5210039.37	39.37
100%		0	5210036.64	36.64
100%		+10	5210036.78	36.78
100%		+30	5210035.03	35.03
100%		+40	5210041.03	41.03
100%		+50	5210044.67	44.67
High	4.42	+20	5210047.81	47.81
Low	3.65	+20	5210048.37	48.37

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 2A
OPERATING FREQUENCY:	5,290,000,000 Hz
CHANNEL:	58
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5290045.36	45.36
100%		-30	5290053.22	53.22
100%		-20	5290045.63	45.63
100%		-10	5290039.55	39.55
100%		0	5290036.81	36.81
100%		+10	5290035.23	35.23
100%		+30	5290035.87	35.87
100%		+40	5290041.76	41.76
100%		+50	5290047.48	47.48
High	4.42	+20	5290049.89	49.89
Low	3.65	+20	5290048.51	48.51

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 2C
OPERATING FREQUENCY:	5,530,000,000 Hz
CHANNEL:	106
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5530047.81	47.81
100%		-30	5530052.44	52.44
100%		-20	5530045.25	45.25
100%		-10	5530038.25	38.25
100%		0	5530034.17	34.17
100%		+10	5530036.95	36.95
100%		+30	5530037.19	37.19
100%		+40	5530039.86	39.86
100%		+50	5530044.79	44.79
High	4.42	+20	5530049.10	49.10
Low	3.65	+20	5530046.31	46.31

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 3
OPERATING FREQUENCY:	5,775,000,000 Hz
CHANNEL:	155
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5775049.24	49.24
100%		-30	5775052.89	52.89
100%		-20	5775046.18	46.18
100%		-10	5775041.06	41.06
100%		0	5775037.98	37.98
100%		+10	5775037.23	37.23
100%		+30	5775041.26	41.26
100%		+40	5775042.18	42.18
100%		+50	5775045.46	45.46
High	4.42	+20	5775047.45	47.45
Low	3.65	+20	5775046.23	46.23

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

10 minutes after the EUT is energized

OPERATING BAND:	UNII Band 1
OPERATING FREQUENCY:	5,210,000,000 Hz
CHANNEL:	42
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5210045.12	45.12
100%		-30	5210052.72	52.72
100%		-20	5210045.71	45.71
100%		-10	5210040.53	40.53
100%		0	5210038.25	38.25
100%		+10	5210037.79	37.79
100%		+30	5210040.16	40.16
100%		+40	5210040.02	40.02
100%		+50	5210044.01	44.01
High	4.42	+20	5210048.16	48.16
Low	3.65	+20	5210048.54	48.54

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 2A
OPERATING FREQUENCY:	5,290,000,000 Hz
CHANNEL:	58
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5290046.28	46.28
100%		-30	5290052.32	52.32
100%		-20	5290045.96	45.96
100%		-10	5290040.26	40.26
100%		0	5290036.99	36.99
100%		+10	5290036.61	36.61
100%		+30	5290032.40	32.40
100%		+40	5290040.44	40.44
100%		+50	5290046.17	46.17
High	4.42	+20	5290049.90	49.90
Low	3.65	+20	5290047.42	47.42

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 2C
OPERATING FREQUENCY:	5,530,000,000 Hz
CHANNEL:	106
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5530048.15	48.15
100%		-30	5530051.59	51.59
100%		-20	5530044.03	44.03
100%		-10	5530037.75	37.75
100%		0	5530034.47	34.47
100%		+10	5530036.61	36.61
100%		+30	5530034.43	34.43
100%		+40	5530040.60	40.6
100%		+50	5530045.96	45.96
High	4.42	+20	5530049.53	49.53
Low	3.65	+20	5530046.32	46.32

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

OPERATING BAND:	UNII Band 3
OPERATING FREQUENCY:	5,775,000,000 Hz
CHANNEL:	155
REFERENCE VOLTAGE:	3.88 VDC

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (kHz)	Frequency Error (kHz)
100%	3.88	+20(Ref)	5775050.32	50.32
100%		-30	5775052.08	52.08
100%		-20	5775044.28	44.28
100%		-10	5775037.83	37.83
100%		0	5775034.70	34.70
100%		+10	5775035.67	35.67
100%		+30	5775039.88	39.88
100%		+40	5775041.12	41.12
100%		+50	5775046.15	46.15
High	4.42	+20	5775049.20	49.20
Low	3.65	+20	5775047.27	47.27

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

10.7 STRADDLE CHANNEL

10.7.1 26 dB Bandwidth

[U-NII 2C & 3]

[Ant.1]

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	26 dB Bandwidth [MHz]
802.11a	UNII 2C	5720	144	5710.44	14.56
802.11n(HT20)				5709.88	15.12
802.11ac(VHT20)				5709.96	15.04
802.11a	UNII 3	5720	144	5729.36	4.36
802.11n(HT20)				5730.00	5.00
802.11ac(VHT20)				5729.80	4.80

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	26 dB Bandwidth [MHz]
802.11n(HT40)	UNII 2C	5710	142	5690.32	34.68
802.11ac(VHT40)				5690.40	34.60
802.11n(HT40)	UNII 3	5710	142	5729.76	4.76
802.11ac(VHT40)				5729.84	4.84

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	26 dB Bandwidth [MHz]
802.11ac(VHT80)	UNII 2C	5690	138	5649.52	75.48
	UNII 3	5690	138	5730.48	5.48

Note:

[UNII 2C] 26 dB Bandwidth = 5 725 MHz - Measured Frequency[MHz]

[UNII 3C] 26 dB Bandwidth = Measured Frequency[MHz] – 5 725 MHz

[Ant.2]

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	26 dB Bandwidth [MHz]
802.11a	UNII 2C	5720	144	5710.36	14.64
802.11n(HT20)				5710.04	14.96
802.11ac(VHT20)				5710.04	14.96
802.11a	UNII 3	5720	144	5729.36	4.36
802.11n(HT20)				5730.00	5.00
802.11ac(VHT20)				5729.84	4.84

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	26 dB Bandwidth [MHz]
802.11n(HT40)	UNII 2C	5710	142	5690.24	34.76
802.11ac(VHT40)				5690.72	34.28
802.11n(HT40)	UNII 3	5710	142	5729.84	4.84
802.11ac(VHT40)				5729.68	4.68

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	26 dB Bandwidth [MHz]
802.11ac(VHT80)	UNII 2C	5690	138	5649.36	75.64
	UNII 3	5690	138	5730.64	5.64

Note:

[UNII 2C] 26 dB Bandwidth = 5 725 MHz **-** Measured Frequency[MHz]

[UNII 3C] 26 dB Bandwidth = Measured Frequency[MHz] – 5 725 MHz

[Ant.1]

▣ Test Plots (26 dB Bandwidth)

802.11a UNII Band	802.11n(HT20) UNII Band
	

802.11ac(VHT20) UNII Band


▣ Test Plots (26 dB Bandwidth)

802.11n(HT40) UNII Band	802.11ac(VHT40) UNII Band
	

802.11ac(VHT80) UNII Band


[Ant.2]

▣ Test Plots (26 dB Bandwidth)

802.11a UNII Band	802.11n(HT20) UNII Band
	

802.11ac(VHT20) UNII Band


▣ Test Plots (26 dB Bandwidth)

802.11n(HT40) UNII Band	802.11ac(VHT40) UNII Band
	

802.11ac(VHT80) UNII Band


[U-NII 3 & 4]

U-NII3&4 (Ch.169 /167 /171)

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	26dB Bandwidth [MHz]
802.11a	UNII 3	5845	169	5834.64	15.36
802.11n(HT20)				5834.52	15.48
802.11ac(VHT20)				5834.40	15.60
802.11a	UNII 4	5845	169	5854.92	4.92
802.11n(HT20)				5855.56	5.56
802.11ac(VHT20)				5855.28	5.28

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	26dB Bandwidth [MHz]
802.11n(HT40)	UNII 3	5835	167	5812.04	37.96
802.11ac(VHT40)				5813.40	36.60
802.11n(HT40)	UNII 4	5835	167	5858.44	8.44
802.11ac(VHT40)				5856.52	6.52

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	26dB Bandwidth [MHz]
802.11ac(VHT80)	UNII 3	5855	171	5814.52	35.48
	UNII 4	5855	171	5895.46	45.46

Note:

[UNII 3] 26 dB Bandwidth = 5 850 MHz **-** Measured Frequency[MHz]

[UNII 4] 26 dB Bandwidth = Measured Frequency[MHz] – 5 850 MHz

U-NII3&4 (Ch.169 /167 /171)

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	26dB Bandwidth [MHz]
802.11a	UNII 3	5845	169	5834.96	15.04
802.11n(HT20)				5834.72	15.28
802.11ac(VHT20)				5834.16	15.84
802.11a	UNII 4	5845	169	5855.04	5.04
802.11n(HT20)				5855.32	5.32
802.11ac(VHT20)				5855.60	5.60

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	26dB Bandwidth [MHz]
802.11n(HT40)	UNII 3	5835	167	5812.04	37.96
802.11ac(VHT40)				5812.84	37.16
802.11n(HT40)	UNII 4	5835	167	5858.28	8.28
802.11ac(VHT40)				5856.84	6.84

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	26dB Bandwidth [MHz]
802.11ac(VHT80)	UNII 3	5855	171	5813.88	36.12
	UNII 4	5855	171	5895.48	45.48

Note:

[UNII 3] 26 dB Bandwidth = 5 850 MHz **-** Measured Frequency[MHz]

[UNII 4] 26 dB Bandwidth = Measured Frequency[MHz] – 5 850 MHz

10.7.2 6 dB Bandwidth

[Ant.1]

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
802.11a	UNII 3	5720	144	5728.24	3.24	> 0.5
802.11n(HT20)				5728.84	3.84	> 0.5
802.11ac(VHT20)				5727.80	2.80	> 0.5

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
802.11n(HT40)	UNII 3	5710	142	5727.60	2.60	> 0.5
802.11ac(VHT40)				5727.68	2.68	> 0.5

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
802.11ac(VHT80)	UNII 3	5690	138	5727.76	2.76	> 0.5

Note:

6 dB Bandwidth = Measured Frequency[MHz] – 5 725MHz

[Ant.2]

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
802.11a	UNII 3	5720	144	5728.00	3.00	> 0.5
802.11n(HT20)				5728.20	3.20	> 0.5
802.11ac(VHT20)				5728.88	3.88	> 0.5

Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
802.11n(HT40)	UNII 3	5710	142	5727.60	2.60	> 0.5
802.11ac(VHT40)				5727.60	2.60	> 0.5

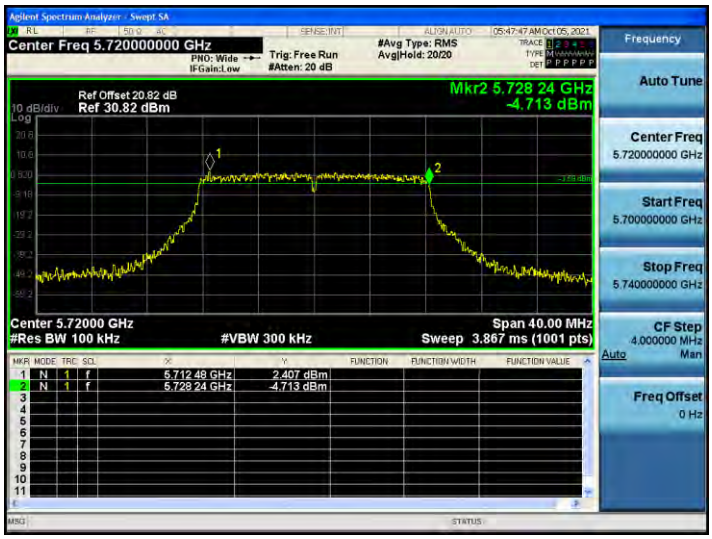
Mode	Band	Frequency [MHz]	Channel	Measured Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [MHz]
802.11ac(VHT80)	UNII 3	5690	138	5727.76	2.76	> 0.5

Note:

6 dB Bandwidth = Measured Frequency[MHz] – 5725MHz

[Ant.1]

▣ Test Plots(UNII 3 Band 6 dB Bandwidth)

802.11a CH.144	802.11n_HT20 CH.144
	

802.11ac_VHT20 CH.144