

TEST REPORT

FCC UNII Test for SM-A376B/DS
Certification

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-RF-2512-FC061

DATE OF ISSUE
December 17, 2025

Tested by
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TEST REPORT

REPORT NO.

HCT-RF-2512-FC061

DATE OF ISSUE

December 17, 2025

Additional Model

SM-A376B

Applicant

SAMSUNG Electronics Co., Ltd.
129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea

Product Name

Mobile Phone

Model Name

SM-A376B/DS

FCC ID

A3LSMA376B

Date of Test

November 04, 2025 ~ December 16, 2025

FCC Classification

Unlicensed National Information Infrastructure(NII)

Test Standard Used

FCC Rule Part(s): Part 15.407

Test Results

PASS

Location of Test

☒ Permanent Testing Lab ☐ On Site Testing Lab

(Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	December 17, 2025	Initial Release

Notice

Content

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.

The laboratory is not accredited for the test results marked *.

Information provided by the applicant is marked **.

Test results provided by external providers are marked ***.

The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated.

The test results have only been applied with the test methods required by the standard(s).

When confirmation of authenticity of this test report is required, please contact www.hct.co.kr

The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

Data referencing : UNII Report (FCC ID: A3LSMA376U, Report No. HCT-RF-2512-FC040)

Full test: UNII 3~4.

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1. GENERAL INFORMATION

EUT DESCRIPTION

Model	SM-A376B/DS	
Additional Model	SM-A376B	
EUT Type	Mobile Phone	
Power Supply	DC 3.90 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	
Antenna Information	Please refer to the Antenna Specification document.	
Serial number (Data referencing)	Conducted : R3CY90Z7ZCZ Radiated : R3CY90Z80FT	
Serial number (Full Test, UNII3~4)	Conducted : R37YA004DGR Radiatd : R37YA004D1A	

ANTENNA CONFIGURATIONS

1. Antenna configuration

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

Simultaneous transmission Scenario	5 GHz WiFi Ant.1	5 GHz WiFi Ant.2	BT Ant.1	BT Ant.2	Test Case
BT ANT.1 + 5 GHz WiFi MIMO	on	on	on	-	Scenario 1
BT ANT.1 + 5 GHz WiFi ANT.1	on	-	on	-	Scenario 2

3. Directional Gain Calculation

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

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

$$\text{Directional gain(SDM)} = G_{\max} + 10 \cdot \text{LOG}(N_{ANT}/N_{SS})$$

Band	Ant Gain (dBi)		N _{ANT} / N _{SS}	Directional Gain (dBi)	
	ANT1	ANT2		CDD	SDM
UNII 1	-2.80	-5.00	2 / 2	-0.82	-2.80
UNII 2A	-2.80	-5.50		-1.04	-2.80
UNII 2C	-2.20	-4.70		-0.35	-2.20
UNII 3	-2.90	-3.80		-0.33	-2.90
UNII 4	-3.90	-3.90		-0.89	-3.90

Note

According to Ansi C63.10-2020 section 14.6.3, the directional gain is calculated using the formula, where GN is the gain of the nth antenna and NANT is the total number of antennas used.

$$\text{Directional gain(CDD)} = 10 \cdot \log \left(\left(10^{(\text{ANT1 Gain}/20)} + 10^{(\text{ANT2 Gain}/20)} \right)^2 / 2 \right) \text{ dBi}$$

$$\text{Directional gain(SDM)} = G_{\max} + 10 \cdot \text{LOG}(N_{ANT}/N_{SS})$$

Sample Calculation (Conducted Power, MIMO):

Ex) Ant 1 : 11.58 dBm Ant 2 : 12.08 dBm

$$\text{Ant1} + \text{Ant 2} = \text{MIMO}$$

$$(11.58 \text{ dBm} + 12.08 \text{ dBm}) = (14.387 \text{ mW} + 16.143 \text{ mW}) = 30.53 \text{ mW} = 14.88 \text{ dBm}$$

Sample Calculation (E.I.R.P & E.I.R.P Spectral Density, MIMO):

Ex) ANT1 : 15.35 dBm , ANT2 : 15.12 dBm, Directional Gain : 3 dBi

$$\text{Conducted Power} = (15.35 \text{ dBm} + 15.12 \text{ dBm}) = (34.276 \text{ mW} + 32.508 \text{ mW}) = 66.784 \text{ mW} = 18.25 \text{ dBm}$$

$$\text{E.I.R.P} = 18.25 \text{ dBm} + 3 \text{ dBi} = 21.25 \text{ dBm}$$

2. MAXIMUM OUTPUT POWER

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

Band	Mode	MIMO (Ant.1+ Ant.2)					
		Ant.1 Power		Ant.2 Power		Ant.1 + Ant.2 Power	
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)
UNII1	802.11a	15.36	0.034	15.43	0.035	18.40	0.069
	802.11n (HT20)	14.84	0.030	14.87	0.031	17.86	0.061
	802.11n (HT40)	13.97	0.025	14.00	0.025	17.00	0.050
	802.11ac (VHT20)	14.77	0.030	14.83	0.030	17.82	0.060
	802.11ac (VHT40)	13.69	0.023	13.97	0.025	16.84	0.048
	802.11ac (VHT80)	11.22	0.013	10.86	0.012	14.05	0.025
UNII2A	802.11a	15.22	0.033	15.51	0.036	18.38	0.069
	802.11n (HT20)	14.80	0.030	15.05	0.032	17.94	0.062
	802.11n (HT40)	14.17	0.026	14.23	0.027	17.21	0.053
	802.11ac (VHT20)	14.76	0.030	15.06	0.032	17.93	0.062
	802.11ac (VHT40)	14.02	0.025	14.31	0.027	17.18	0.052
	802.11ac (VHT80)	10.09	0.010	9.64	0.009	12.88	0.019
UNII2C	802.11a	15.13	0.033	15.76	0.038	18.47	0.070
	802.11n (HT20)	13.85	0.024	15.78	0.038	17.93	0.062
	802.11n (HT40)	13.17	0.021	14.51	0.028	16.90	0.049
	802.11ac (VHT20)	13.98	0.025	15.83	0.038	18.01	0.063
	802.11ac (VHT40)	13.12	0.021	14.51	0.028	16.88	0.049
	802.11ac (VHT80)	13.08	0.020	13.58	0.023	16.35	0.043
UNII3	802.11a	11.70	0.015	11.11	0.013	14.43	0.028
	802.11n (HT20)	11.32	0.014	10.67	0.012	14.02	0.025
	802.11n (HT40)	10.65	0.012	10.45	0.011	13.56	0.023
	802.11ac (VHT20)	11.40	0.014	11.43	0.014	14.42	0.028
	802.11ac (VHT40)	10.53	0.011	11.30	0.013	13.94	0.025
	802.11ac (VHT80)	11.76	0.015	11.57	0.014	14.68	0.029
UNII4 (Conducted For inf.)	802.11a	11.07	0.013	11.83	0.015	14.48	0.028
	802.11n (HT20)	10.30	0.011	11.27	0.013	13.82	0.024
	802.11n (HT40)	9.66	0.009	11.64	0.015	13.77	0.024
	802.11ac (VHT20)	10.79	0.012	11.49	0.014	14.16	0.026
	802.11ac (VHT40)	10.09	0.010	11.54	0.014	13.89	0.024
	802.11ac (VHT80)	10.97	0.013	11.54	0.014	14.27	0.027

Band	Mode	MIMO (Ant.1+ Ant.2) (EIRP)											
		Ant.1 Power				Ant.2 Power				(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 (EIRP)	802.11a	11.07	-3.90	7.17	0.01	11.83	-3.90	7.93	0.01	14.48	-0.89	13.59	0.02
	802.11n (HT20)	10.30	-3.90	6.40	0.00	11.27	-3.90	7.37	0.01	13.82	-3.90	9.92	0.01
	802.11n (HT40)	9.66	-3.90	5.76	0.00	11.64	-3.90	7.74	0.01	13.77	-3.90	9.87	0.01
	802.11ac (VHT20)	10.79	-3.90	6.89	0.00	11.49	-3.90	7.59	0.01	14.16	-3.90	10.26	0.01
	802.11ac (VHT40)	10.09	-3.90	6.19	0.00	11.54	-3.90	7.64	0.01	13.89	-3.90	9.99	0.01
	802.11ac (VHT80)	10.97	-3.90	7.07	0.01	11.54	-3.90	7.64	0.01	14.27	-3.90	10.37	0.01

3. TEST METHODOLOGY

Unlicensed wireless device were tested using the following measurement procedure.

- [1] KDB 789033 D02 15.407 Meas Guidance v02r01.
- [2] KDB 291074 D02 U-NII-4 band EMC Meas Guidance v01.
- [3] ANSI C63.10-2020.

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 C63.10-2020 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-peak and average Measurement Typeor modes.

Radiated Emissions

According to the requirements in Section 6.3 ~ Section 6.6 of ANSI C63.10-2020

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.

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 ANSI C63.5-2017.

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, Republic of Korea. The site is constructed in conformance with the requirements of ANSI C63.4-2014 and CISPR Publication 22.

Detailed description of test facility was submitted to the Commission and accepted dated March 11, 2024 (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 ANSI/USEMCSC C63.2-2023, "American National Standard for Specifications of Electromagnetic Interference and Field Strength Measuring Instrumentation in the Frequency Range 9 kHz to 40 GHz".

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 C63.10-2020.

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 ($\pm$ kHz)
X dB, 99% Bandwidth	95 (Confidence level about 95 %, $k=2$)
Frequency stability	28 (Confidence level about 95 %, $k=2$)

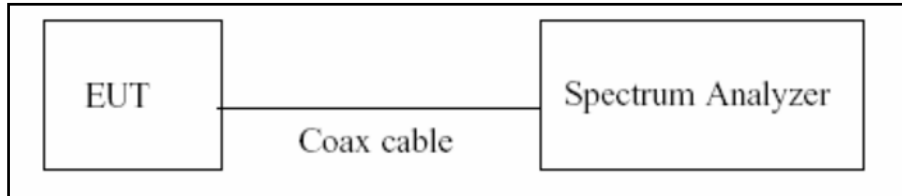
Parameter	Expanded Uncertainty ($\pm$ dB)
Conducted Disturbance (150 kHz ~ 30 MHz)	1.54 (Confidence level about 95 %, $k=2$)
Conducted Output Power(Power Meter)	0.54 (Confidence level about 95 %, $k=2$)
Conducted Output Power(Signal Analyzer)	0.68 (Confidence level about 95 %, $k=2$)
Power Spectral Density	1.03 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (9 kHz ~ 30 MHz)	4.36 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (30 MHz ~ 1 GHz)	5.68 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.75 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.82 (Confidence level about 95 %, $k=2$)

8. DESCRIPTION OF TESTS

Test Item	Test Procedure
Duty Cycle	- KDB 789033 D02 – Section B.2
6 dB Bandwidth & 26dB Bandwidth	- KDB 789033 D02 - Section C - KDB 291074 D02 – Section 2.11
Output Power	- KDB 789033 D02 - Section E
Power Spectral Density	- KDB 789033 D02 - Section F
Frequency Stability	- ANSI C63.10-2020 - Section 6.8
AC Power line Conducted Emissions	- ANSI C63.10-2020– Section 6.2
Radiated Test	- KDB 789033 D02 – Section II.G - KDB 291074 D02 – Section 2.10 - ANSI C63.10-2020 – Section 6.5 (Below 1 GHz) - ANSI C63.10-2020 – Section 6.6 (Above 1 GHz)

8.1. Duty Cycle

Test Configuration



Test Procedure

The transmitter output is connected to the Spectrum Analyzer.

The Spectrum Analyzer is set to

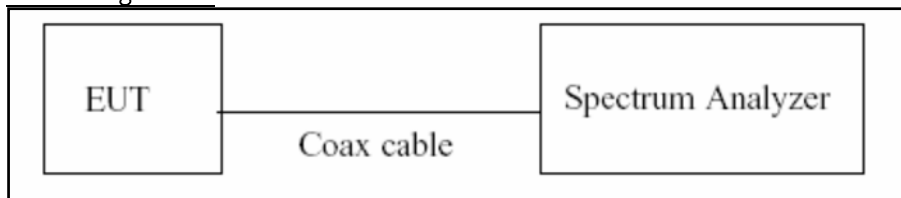
1. RBW = 8 MHz (the largest available value)
2. VBW = 8 MHz ($\geq$ RBW)
3. SPAN = 0 Hz
4. Detector = Average
5. Number of points in sweep > 100
6. Trace mode = Clear write
7. Measure T_{total} and T_{on}
8. Calculate Duty Cycle = $T_{\text{on}} / T_{\text{total}}$ and Duty Cycle Factor = $10\log(1/\text{Duty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

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.

The Spectrum Analyzer is set to

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.

The Spectrum Analyzer is set to

1. RBW = 100 kHz
2. $VBW \geq 3 \times RBW$
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 level 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.

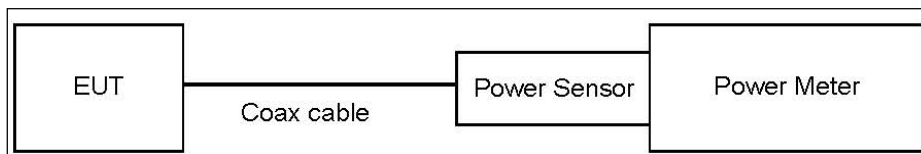
8.3. Output Power Measurement

Limit

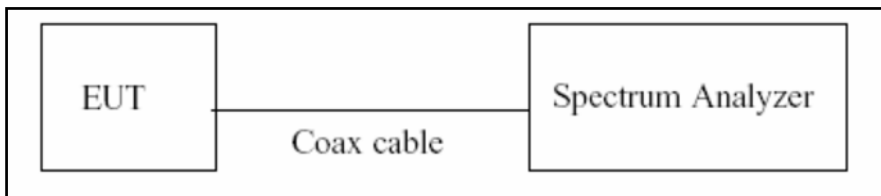
Band	Limit
UNII 1	- Master : Not exceed 1 W(=30 dBm) - Slave : Not exceed 250 mW(=23.98 dBm)
UNII 2A, 2C	Not exceed the lesser of 250 mW or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.)
UNII 3	Not exceed 1 W(=30 dBm)
UNII 4	EIRP 30 dBm

Test Configuration

Power Meter



Spectrum Analyzer(Only Straddle Channel)



Test Procedure(Power Meter)

The transmitter output is connected to the Power Meter.

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)

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

The transmitter output is connected to the Spectrum Analyzer.

The Spectrum Analyzer is set to

1. Measure the duty cycle.
2. Set span to encompass the 26 dB EBW of the signal.
3. RBW = 1 MHz.
4. VBW $\geq$ 3 MHz.
5. Number of points in sweep $\geq 2 \times \text{span/RBW}$.
6. Sweep time = auto.
7. Measurement Type or = 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 $10\log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Sample Calculation

Total Power(dBm) = Measured Value(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. Actual value of loss for the attenuator and cable combination is below table.

Band	Loss(dB)
UNII 1	11.10
UNII 2A	11.10
UNII 2C	11.10
UNII 3&4	11.10

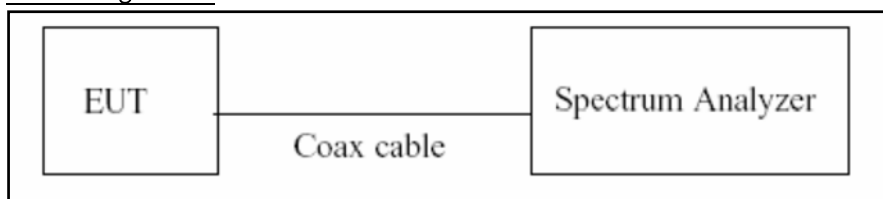
(Actual value of loss for the attenuator and cable combination)

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

The transmitter output is connected to the Spectrum Analyzer.

The Spectrum Analyzer is set to

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
3. VBW $\geq$ 3 MHz
4. Number of points in sweep $\geq$ 2 x span/RBW.
5. Sweep time = auto.
6. Measurement Typeor = RMS(i.e., power averaging), if available. Otherwise, use sample Measurement Typeor 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 Value(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. Actual value of loss for the attenuator and cable combination is below table.

Band	Loss(dB)
UNII 1	11.10
UNII 2A	11.10
UNII 2C	11.10
UNII 3&4	11.10

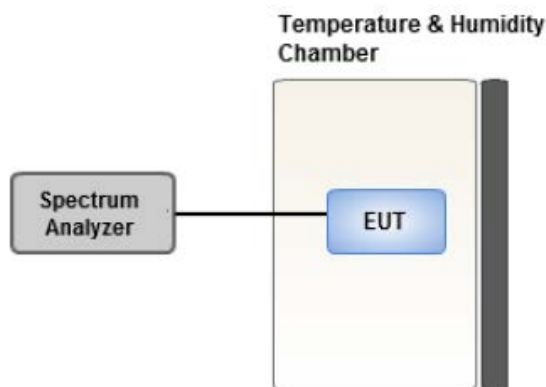
(Actual value of loss for the attenuator and cable combination)

8.5. Frequency Stability

Limit

Maintained within the band

Test Configuration



Test Procedure

1. The EUT was placed inside an environmental chamber as the temperature in the chamber was varied between -30 °C and 50 °C.
2. The temperature was incremented by 10 °C intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded.
3. The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.
4. While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made.

8.6. 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 μ H/50 ohms line impedance stabilization network (LISN).

Frequency Range (MHz)	Limits (dB μ V)	
	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 Value + Correction Factor

8.7. 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 a 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 a 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.

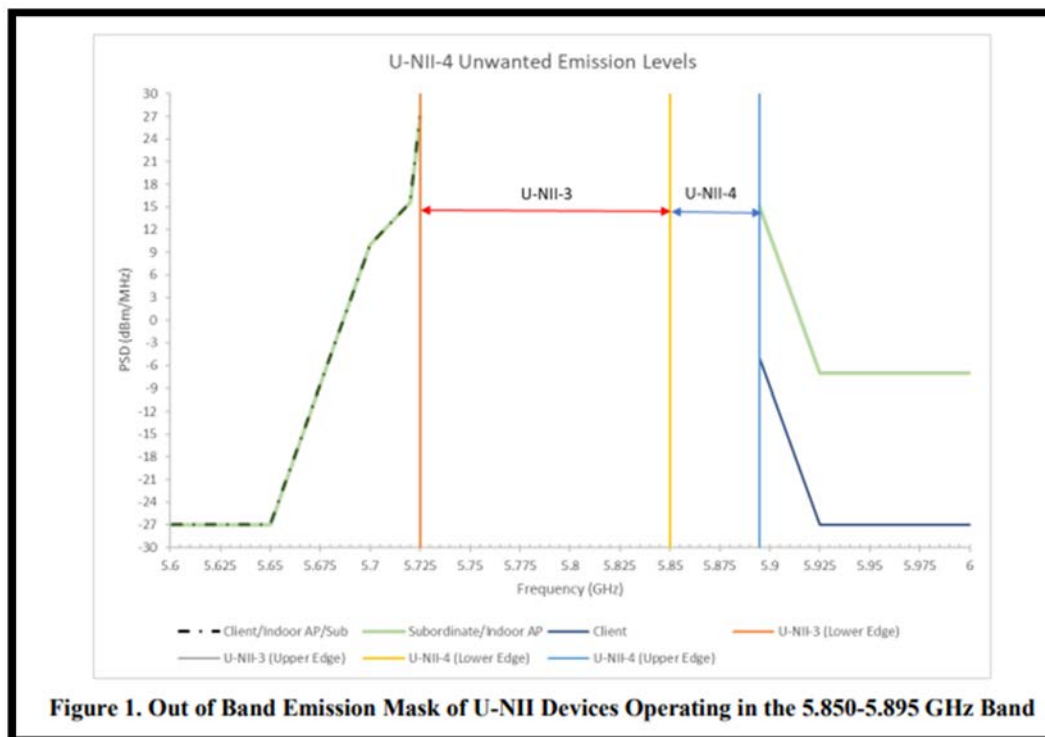


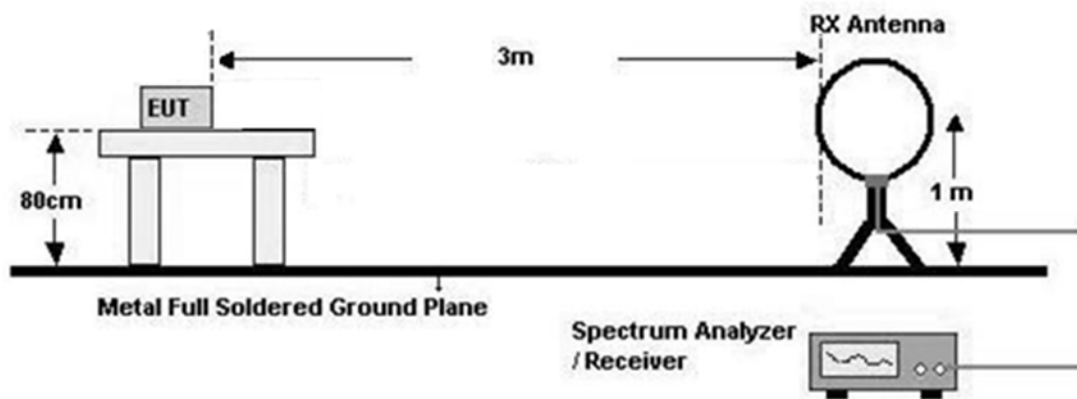
Figure 1. Out of Band Emission Mask of U-NII Devices Operating in the 5.850-5.895 GHz Band

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.

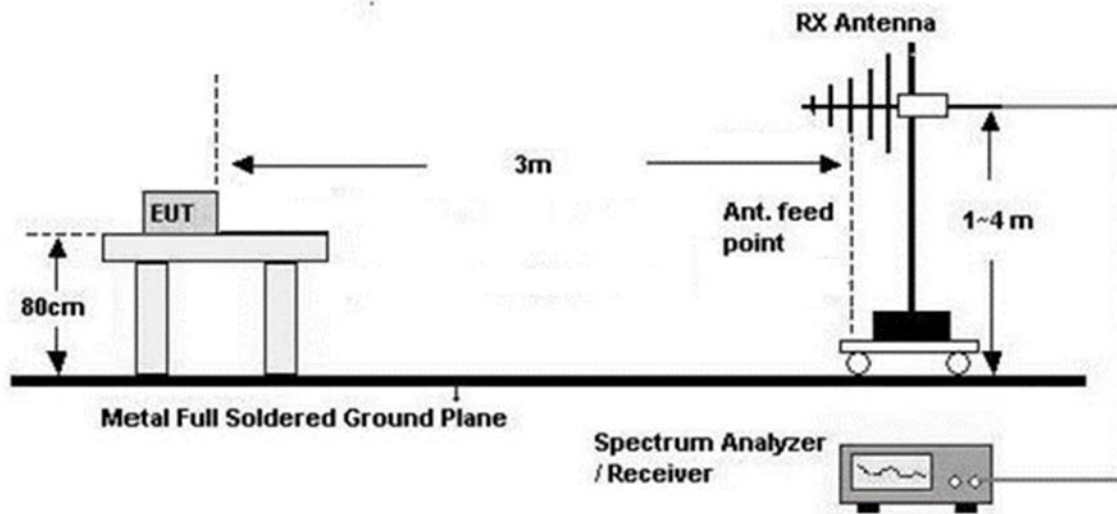
Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
0.009 – 0.490	$2400/F(\text{kHz})$	300
0.490 – 1.705	$24000/F(\text{kHz})$	30
1.705 – 30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Test Configuration

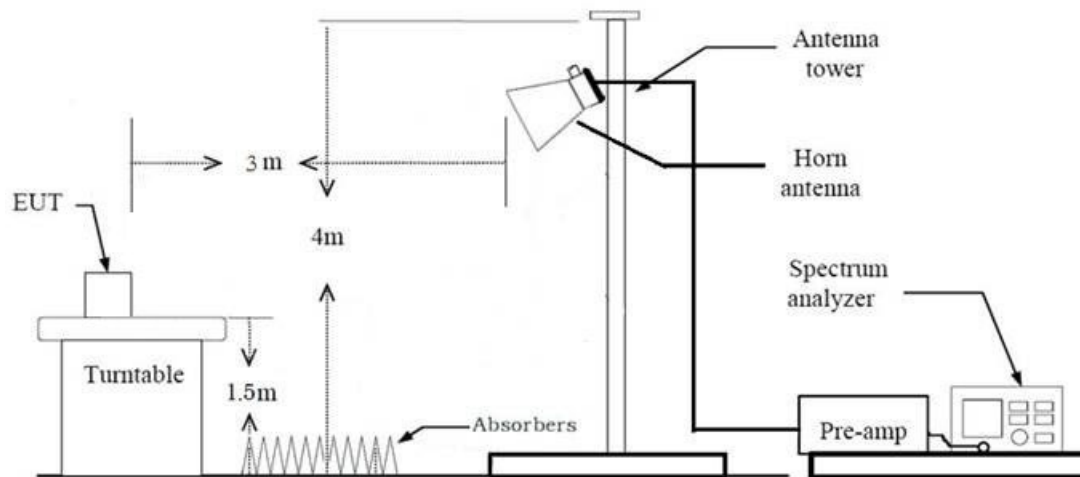
Below 30 MHz



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 0.8m 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) = $40\log(3\text{ m}/300\text{ m}) = -80\text{ dB}$
Measurement Distance : 3 m
7. Distance Correction Factor(0.490 MHz – 30 MHz) = $40\log(3\text{ m}/30\text{ m}) = -40\text{ dB}$
Measurement Distance : 3 m
8. Spectrum Analyzer Setting
Measurement Type(Peak) :
 - Frequency Range = 9 kHz ~ 30 MHz
 - Detector = Peak
 - Trace = Max Hold
 - RBW = 9 kHz
 - VBW $\geq 3 \times$ RBW
9. Total = Measured Value + 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 0.8m 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 Analyzer Setting**(1) Measurement Type(Peak) :**

- Measured Frequency Range : 30 MHz – 1 GHz
- Detector = Peak
- Trace = Max Hold
- RBW = 100 kHz
- VBW $\geq$ 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 Value + 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. Spectrum Analyzer Setting

(1) Measurement Type (Peak) :

- RBW = 1 MHz
- VBW $\geq$ 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) :

- RBW = 1 MHz
- VBW(Duty cycle $\geq$ 98 percent) = VBW $\leq$ RBW/100(i.e., 10 kHz) but not less than 10 Hz.
- VBW(Duty cycle $<$ 98 percent) = VBW $\geq$ $1/T$, 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 percent duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of $1/x$, where x is the duty cycle.

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
9. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency
10. Distance extrapolation factor = $20\log(\text{test distance} / \text{specific distance})$ (dB)
11. Total = Measured Value + 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. Spectrum Analyzer Setting

(1) Measurement Type (Peak) :

- RBW = 1 MHz
 - VBW $\geq$ 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 (Peak, Integration Method) :

- RBW = 100 KHz
- VBW $\geq$ 3 x RBW
- Detector = Peak
- Sweep Time = auto
- Trace mode = Max Hold
- Allow sweeps to continue until the trace stabilizes.
- Perform a band-power integration across the 1 MHz bandwidth in which the bandedge emission level is to be measured.

(3) Measurement Type (Average) :

- RBW = 1 MHz
- VBW(Duty cycle $\geq$ 98 percent) = VBW $\leq$ RBW/100(i.e., 10 kHz) but not less than 10 Hz.
- VBW(Duty cycle $<$ 98 percent) = VBW $\geq$ $1/T$, 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 percent duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of $1/x$, where x is the duty cycle.

8. 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)

9. Distance extrapolation factor = 20log (test distance / specific distance) (dB)

10. Total

(1) Measurement(Peak)

= Measured Value(Peak)

(2) Measurement(Avg)

= Measured Value (Avg)

- We apply to the offset in the range 1 GHz - 18 GHz.

- The offset = Antenna Factor(A.F) + Cable Loss(C.L) + Distance Factor(D.F) – Amp. Gain(A.G) + Attenuator (ATT)

The actual setting value of VBW(SISO)

Mode	Worst Data rate (Mbps)	Duty Cycle	Duty Cycle Factor (dB)	The actual setting value of VBW (Hz)
802.11a	6	0.919	0.367	1 000
802.11n(HT20)	MCS0	0.925	0.338	1 000
802.11n(HT40)	MCS0	0.860	0.654	3 000
802.11ac(VHT20)	MCS0	0.920	0.364	1 000
802.11ac(VHT40)	MCS0	0.841	0.750	3 000
802.11ac(VHT80)	MCS0	0.755	1.222	5 000

The actual setting value of VBW(MIMO)

Mode	Worst Data rate (Mbps)	Duty Cycle	Duty Cycle Factor (dB)	The actual setting value of VBW (Hz)
802.11a	6	0.919	0.367	1 000
802.11n(HT20)	MCS8	0.855	0.678	3 000
802.11n(HT40)	MCS8	0.753	1.234	3 000
802.11ac(VHT20)	MCS0	0.865	0.628	3 000
802.11ac(VHT40)	MCS0	0.756	1.216	3 000
802.11ac(VHT80)	MCS0	0.623	2.053	10 000

8.8. Worst case configuration and mode

Conducted test

1. All datarate of operation were investigated and the worst case datarate results are reported.
2. SM-A376B/DS, Additional Models were tested and the worst case results are reported.
(Worst case: SM-A376B/DS)

Radiated test

1. All modes of operation were investigated and the worst case configuration results are reported.
 - Mode : Stand alone, Stand alone + External accessories
 - Worstcase : Stand alone
2. All Antennas of operation were investigated and the worst case results are reported
 - Antenna Operation Type : SISO, MIMO_CDD(Ant.1+Ant.2), MIMO_SDM(Ant.1+Ant.2)
 - Worstcase :
 - Band Edge : MIMO_CDD(Ant.1+Ant.2), MIMO_SDM(Ant.1+Ant.2)
 - R.S.E : MIMO_CDD(Ant.1+Ant.2),
3. EUT Axis
 - Radiated Spurious Emissions : Z
 - Radiated Restricted Band Edge : X
4. All datarate of operation were investigated and the worst case datarate results are reported.
 - 802.11a : 6 Mbps
 - 802.11n_HT20 : MCS8
 - 802.11n_HT40 : MCS8
 - 802.11ac_VHT20 : MCS0
 - 802.11ac_VHT40 : MCS0
 - 802.11ac_VHT80 : MCS0
5. Radiated Spurious Emission
 - All modulations of operation were investigated and the worst case modulation results are reported.
 - Worst-case : 802.11a_6 Mbps
6. 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
7. SM-A376B/DS, Additional Models were tested and the worst case results are reported.
(Worst case: SM-A376B/DS)

Radiated test(Simultaneous transmission Scenario)

1. Please refer to the [BT LE], [UNII ax] Test Report.

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 + Travel Adapter,

Stand alone + Travel Adapter

- Worstcase : Stand alone + Travel Adapter

2. SM-A376B/DS, Additional Models were tested and the worst case results are reported.

(Worst case: SM-A376B/DS)

9. SUMMARY OF TEST RESULTS & DATA REFERENCING

9.1. Test result

Test Item	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 $11+10\log_{10}$ (BW) dBm (5250-5350 MHz) < 250 mW or $11+10\log_{10}$ (BW) dBm (5470-5725 MHz) <1 W (5725-5850 MHz)		PASS
Maximum EIRP Output Power	§ 15.407(a)(3)(iii)	< EIRP 30dBm (5850-5895 MHz)		PASS
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(5850-5895 MHz)		PASS
Frequency Stability	§ 15.407(g) § 2.1055	Maintained within the band		PASS
AC Conducted Emissions 150 kHz-30 MHz	15.207 15.407(b)(9)	<FCC 15.207 limits		PASS
Undesirable Emissions	§ 15.407(b) (1),(2),(3),(4) § 15.407(b)(5)(ii),(iii) § 15.35(b)	<-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

Note:

- UNII 2A, 2C: TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.
- The decision rule applies 'simple acceptance'

9.2. Data Referencing

Equipment Class	Rule Part	Test item	Data Referencing	Comments
UNII (WLAN 5GHz)	§ 15.407 (for Power)	26 dB Bandwidth	Y	-
	15.407(e)	6 dB Bandwidth	Y	-
	§ 15.407(a)(1),(2),(3)	Maximum Conducted output power	Y	Spot-check
	§ 15.407(a)(3)(iii)	Maximum EIRP Output Power	Y	-
	§ 15.407(a)(1),(2),(3)	Maximum Power Spectral Density	Y	-
	15.207 15.407(b)(8)	AC conducted Emission	Y	-
	§ 15.407(g) § 2.1055	Frequency Stability	Y	-
	§ 15.407(b) (1),(2),(3),(4) § 15.407(b)(5)(ii),(iii) § 15.35(b)	Undesirable Emissions	Y	Spot-check
	15.205, 15.407(b)(9),(10)	General Field Strength (Restricted bands and Radiated emission)	Y	Spot-check
	15.407(h)	DFS	Y	-

Spot-Check Result

1. Data was leveraged from [FCC ID: A3LSMA376U] for the certification of [FCC ID: A3LSMA376B].
2. Please refer to the [FCC Evaluation] Report.

10. TEST RESULT

10.1 DUTY CYCLE

[SISO(Ant.1)]

Mode	Data Rate (Mbps)	T _{on} (ms)	T _{total} (ms)	Duty Cycle	Duty Cycle Factor(dB)
802.11a	6M	1.428	1.554	0.919	0.367
802.11n(HT20)	MCS0	1.337	1.445	0.925	0.338
802.11n(HT40)	MCS0	0.664	0.772	0.860	0.654
802.11ac(VHT20)	MCS0	1.344	1.462	0.920	0.364
802.11ac(VHT40)	MCS0	0.668	0.794	0.841	0.750
802.11ac(VHT80)	MCS0	0.333	0.441	0.755	1.222

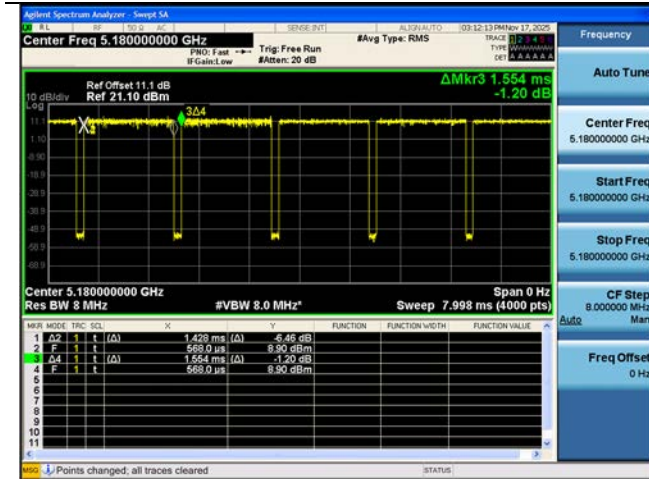
[MIMO(Ant.1+ Ant.2)]

Mode	Data Rate (Mbps)	T _{on} (ms)	T _{total} (ms)	Duty Cycle	Duty Cycle Factor(dB)
802.11a	6M	1.428	1.554	0.919	0.367
802.11n(HT20)	MCS8	0.692	0.809	0.855	0.678
802.11n(HT40)	MCS8	0.356	0.474	0.753	1.234
802.11ac(VHT20)	MCS0	0.696	0.805	0.865	0.628
802.11ac(VHT40)	MCS0	0.361	0.478	0.756	1.216
802.11ac(VHT80)	MCS0	0.193	0.309	0.623	2.053

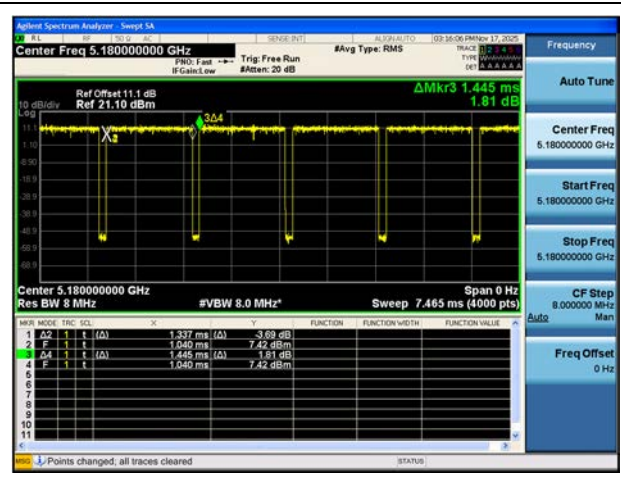
Test Plots_

[SISO(Ant.1)]

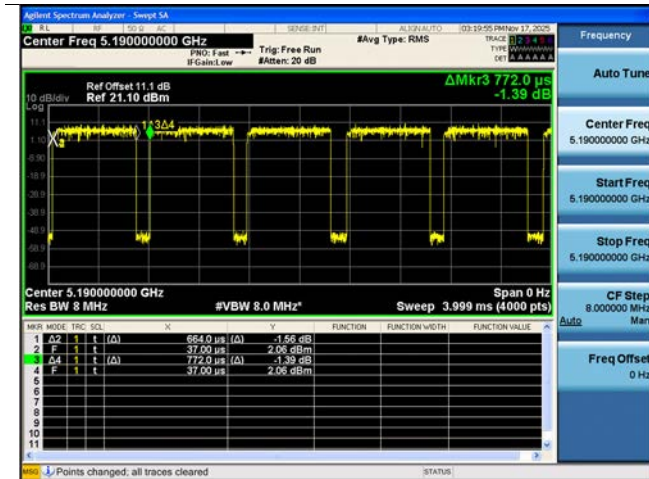
802.11a



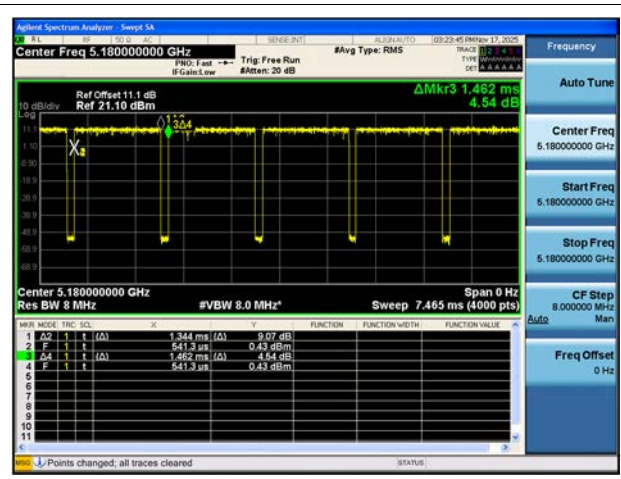
802.11n(HT20)



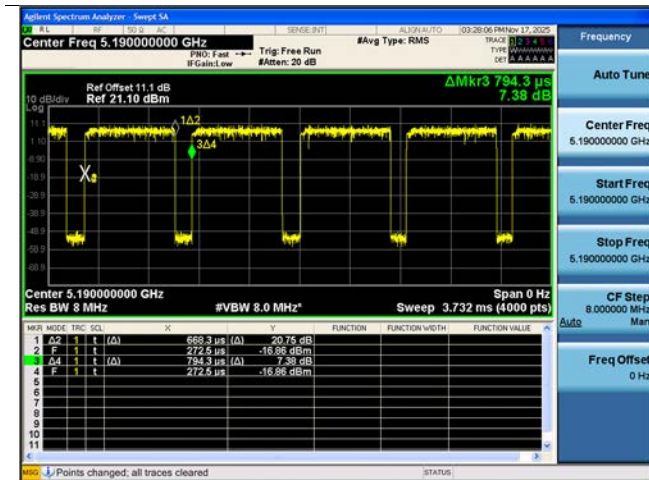
802.11n(HT40)



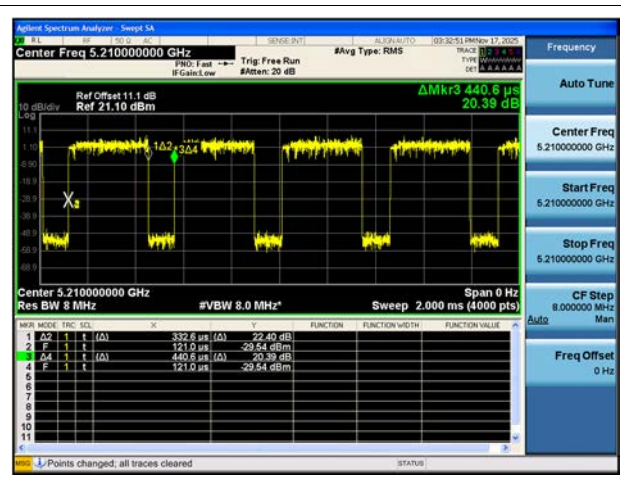
802.11ac(VHT20)



802.11ac(VHT40)

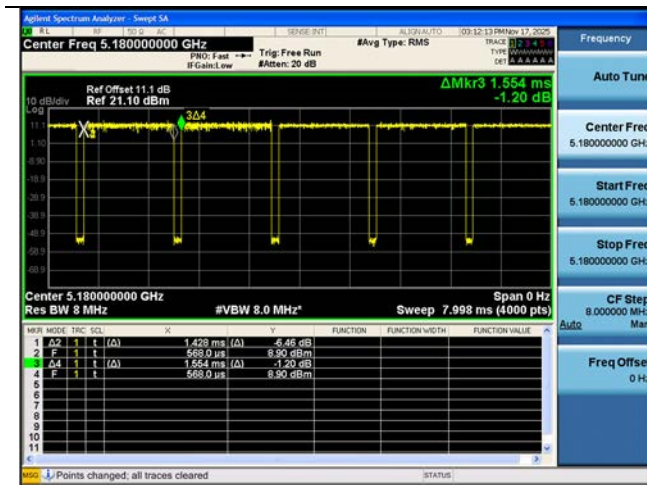


802.11ac(VHT80)

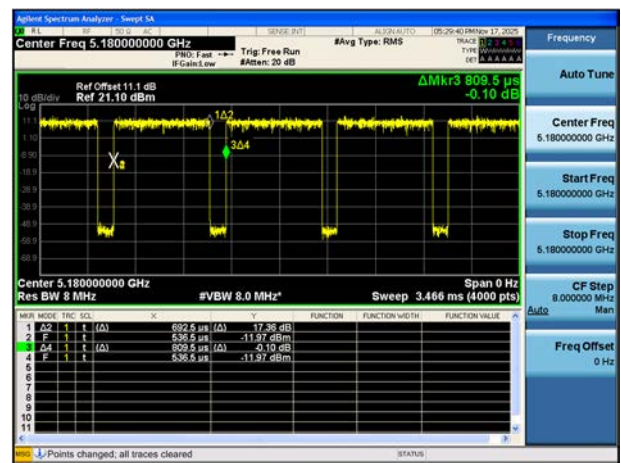


[MIMO(Ant.1+ Ant.2)]

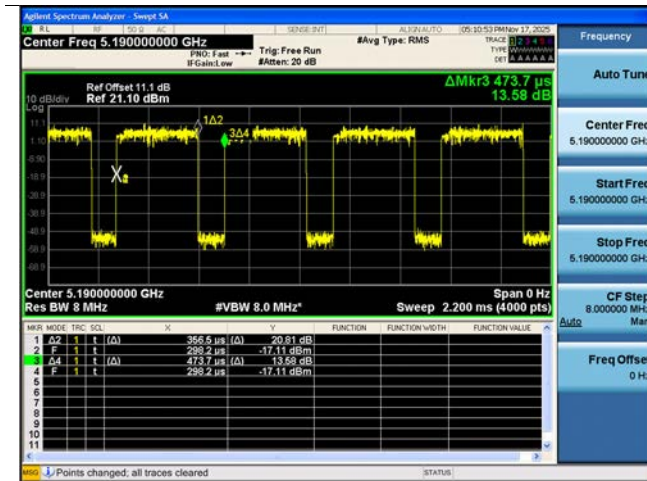
802.11a



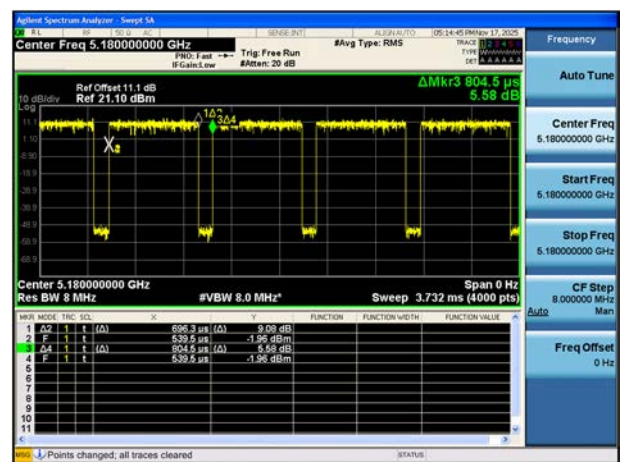
802.11n(HT20)



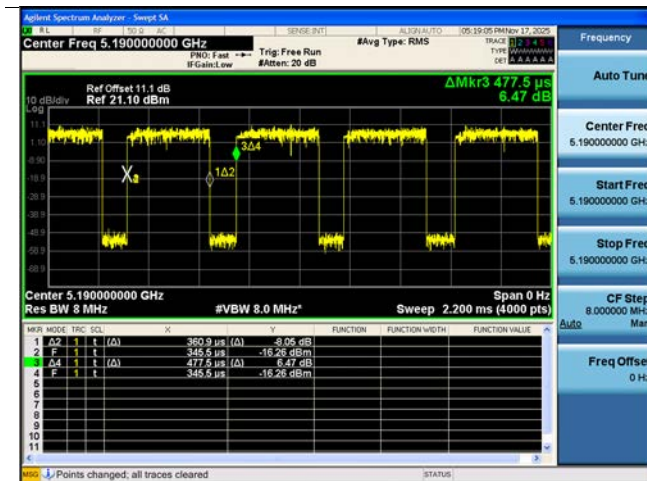
802.11n(HT40)



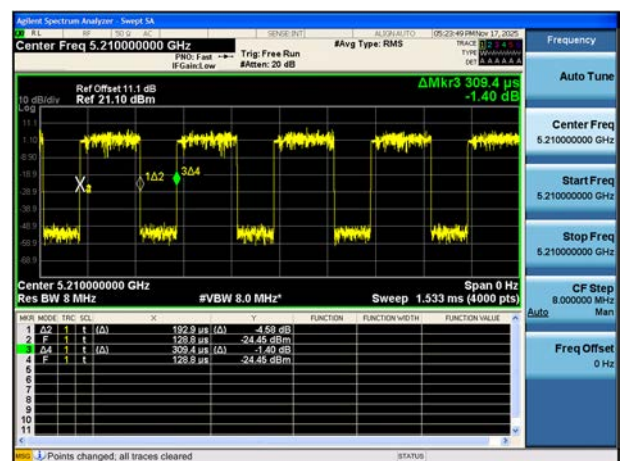
802.11ac(VHT20)



802.11ac(VHT40)



802.11ac(VHT80)



10.2 26 dB Bandwidth

Note:

Straddle channel data in the table below are for reporting purposes only. Straddle channel data were added in section 10.7.1.

[Ant.1]

Mode : 802.11a				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5180	36	21.34	16.585
	5200	40	21.66	16.608
	5240	48	21.21	16.597
UNII2A	5260	52	21.00	16.608
	5300	60	21.07	16.586
	5320	64	20.75	16.615
UNII2C	5500	100	21.22	16.616
	5600	120	21.01	16.600
	5720	144	21.30	16.590
UNII3	5745	149	22.31	17.176
	5785	157	21.77	17.160
	5825	165	21.72	17.260
UNII4	5845	169	21.94	17.273
	5865	173	21.98	17.277
	5885	177	21.72	17.256

Mode : 802.11n(HT20)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5180	36	22.46	17.758
	5200	40	22.13	17.759
	5240	48	22.41	17.754
UNII2A	5260	52	22.22	17.768
	5300	60	22.37	17.770
	5320	64	21.72	17.745
UNII2C	5500	100	22.10	17.771
	5600	120	22.08	17.770
	5720	144	22.36	17.790
UNII3	5745	149	25.51	18.922
	5785	157	24.64	18.656
	5825	165	26.19	18.609
UNII4	5845	169	24.70	18.848
	5865	173	24.35	18.895
	5885	177	24.62	18.700

Mode : 802.11ac(VHT20)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5180	36	21.85	17.752
	5200	40	21.91	17.742
	5240	48	22.20	17.773
UNII2A	5260	52	22.37	17.764
	5300	60	21.64	17.780
	5320	64	22.22	17.735
UNII2C	5500	100	22.06	17.766
	5600	120	22.23	17.758
	5720	144	22.26	17.753
UNII3	5745	149	26.04	18.947
	5785	157	25.52	18.745
	5825	165	25.96	18.880
UNII4	5845	169	24.77	18.873
	5865	173	24.23	18.687
	5885	177	25.97	18.951

Mode : 802.11n(HT40)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5190	38	44.03	36.603
	5230	46	42.92	36.443
UNII2A	5270	54	44.90	36.570
	5310	62	44.92	36.561
UNII2C	5510	102	44.43	36.599
	5590	118	45.20	36.604
	5710	142	44.54	36.658
UNII3	5755	151	42.87	38.159
	5795	159	43.14	38.226
UNII4	5835	167	44.05	38.020
	5875	175	44.23	38.063

Mode : 802.11ac(VHT40)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5190	38	45.29	36.627
	5230	46	44.72	36.601
UNII2A	5270	54	44.34	36.599
	5310	62	44.60	36.585
UNII2C	5510	102	45.12	36.561
	5590	118	44.84	36.561
	5710	142	45.08	36.594
UNII3	5755	151	43.92	38.034
	5795	159	44.20	37.854
UNII4	5835	167	43.24	37.870
	5875	175	43.79	37.920

Mode : 802.11ac(VHT80)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5210	42	86.65	76.256
UNII2A	5290	58	86.28	76.210
UNII2C	5530	106	84.57	76.184
	5610	122	85.04	76.091
	5690	138	85.69	76.139
UNII3	5775	155	84.85	77.964
UNII4	5855	171	84.57	77.812

[Ant.2]

Mode : 802.11a				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5180	36	21.21	16.652
	5200	40	21.69	16.641
	5240	48	21.93	16.629
UNII2A	5260	52	21.85	16.599
	5300	60	21.03	16.613
	5320	64	21.07	16.594
UNII2C	5500	100	20.91	16.603
	5600	120	22.09	16.624
	5720	144	22.35	16.661
UNII3	5745	149	21.86	17.091
	5785	157	22.56	17.263
	5825	165	22.35	17.334
UNII4	5845	169	22.19	17.334
	5865	173	22.12	17.376
	5885	177	21.97	17.375

Mode : 802.11n(HT20)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5180	36	23.32	17.776
	5200	40	23.60	17.817
	5240	48	22.62	17.790
UNII2A	5260	52	22.30	17.797
	5300	60	22.38	17.797
	5320	64	21.90	17.726
UNII2C	5500	100	22.14	17.741
	5600	120	23.78	17.846
	5720	144	23.10	17.817
UNII3	5745	149	23.58	18.411
	5785	157	23.27	18.386
	5825	165	23.30	18.391
UNII4	5845	169	24.20	18.446
	5865	173	24.09	18.624
	5885	177	24.12	18.425

Mode : 802.11ac(VHT20)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5180	36	22.24	17.777
	5200	40	22.46	17.796
	5240	48	23.37	17.768
UNII2A	5260	52	22.16	17.760
	5300	60	22.42	17.775
	5320	64	21.80	17.743
UNII2C	5500	100	22.07	17.741
	5600	120	23.61	17.824
	5720	144	23.51	17.830
UNII3	5745	149	24.89	18.616
	5785	157	25.01	18.593
	5825	165	24.70	18.576
UNII4	5845	169	24.91	18.564
	5865	173	24.99	18.522
	5885	177	24.92	18.601

Mode : 802.11n(HT40)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5190	38	45.61	36.594
	5230	46	45.70	36.609
UNII2A	5270	54	44.56	36.704
	5310	62	45.15	36.660
UNII2C	5510	102	57.38	36.755
	5590	118	46.44	36.614
	5710	142	45.35	36.675
UNII3	5755	151	42.68	37.322
	5795	159	42.53	37.432
UNII4	5835	167	42.60	37.261
	5875	175	42.68	37.232

Mode : 802.11ac(VHT40)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5190	38	44.44	36.606
	5230	46	44.09	36.600
UNII2A	5270	54	45.94	36.664
	5310	62	45.26	36.653
UNII2C	5510	102	43.96	36.697
	5590	118	45.65	36.631
	5710	142	46.40	36.590
UNII3	5755	151	43.12	37.028
	5795	159	42.75	37.221
UNII4	5835	167	43.27	37.282
	5875	175	42.62	37.012

Mode : 802.11ac(VHT80)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5210	42	85.72	76.164
UNII2A	5290	58	85.72	76.277
UNII2C	5530	106	86.13	76.292
	5610	122	86.08	76.148
	5690	138	92.13	76.154
UNII3	5775	155	82.62	76.799
UNII4	5855	171	83.69	77.071

[ANT. 1]

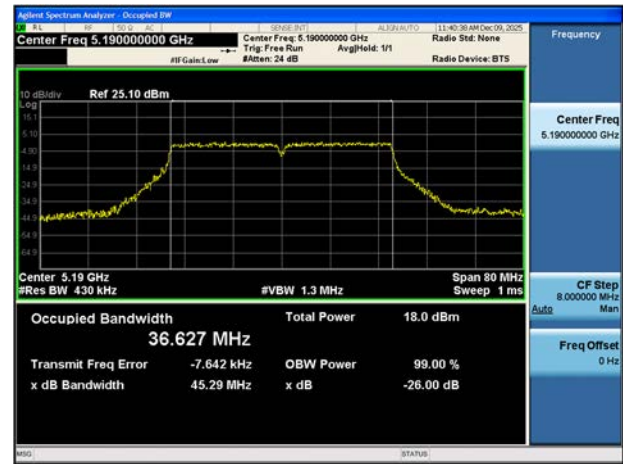
Test Plots

Note: In order to simplify the report, attached plots were only the widest channel per channel bandwidth.

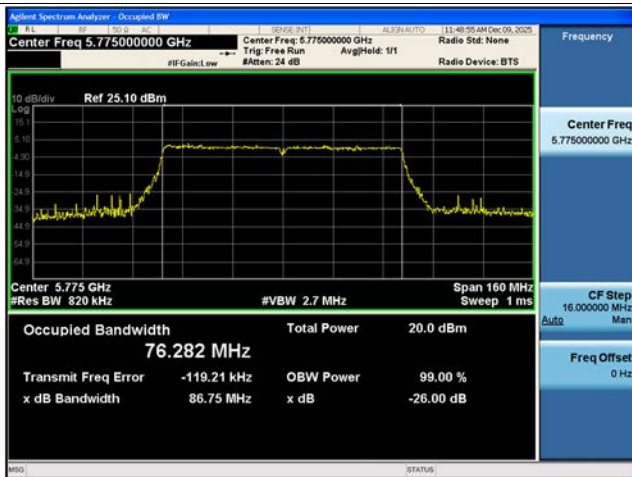
Bandwidth 20M, 802.11n(HT20) Ch.165



Bandwidth 40M, 802.11ac(VHT40) Ch.38



Bandwidth 80M, 802.11ac(VHT80) Ch.155



[ANT. 2]

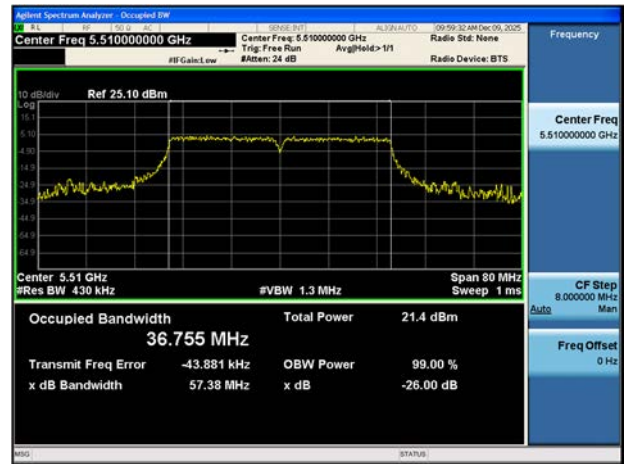
Test Plots

Note: In order to simplify the report, attached plots were only the widest channel per channel bandwidth.

Bandwidth 20M, 802.11ac(VHT20) Ch.157



Bandwidth 40M, 802.11n(HT40) Ch.102



Bandwidth 80M, 802.11ac(VHT80) Ch.138



10.3 6 dB BANDWIDTH

[Ant.1]

Mode : 802.11a				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5745	149	16.37	> 0.5
	5785	157	16.37	> 0.5
	5825	165	16.37	> 0.5
UNII4	5845	169	16.36	> 0.5
	5865	173	16.37	> 0.5
	5885	177	16.37	> 0.5

Mode : 802.11n(HT20)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5745	149	17.60	> 0.5
	5785	157	17.61	> 0.5
	5825	165	17.61	> 0.5
UNII4	5845	169	17.59	> 0.5
	5865	173	17.60	> 0.5
	5885	177	17.60	> 0.5

Mode : 802.11ac(VHT20)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5745	149	17.61	> 0.5
	5785	157	17.60	> 0.5
	5825	165	17.60	> 0.5
UNII4	5845	169	17.60	> 0.5
	5865	173	17.60	> 0.5
	5885	177	17.59	> 0.5

Mode : 802.11n(HT40)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5755	151	36.35	> 0.5
	5795	159	36.67	> 0.5
UNII4	5835	167	36.38	> 0.5
	5875	175	36.35	> 0.5

Mode : 802.11ac(VHT40)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5755	151	36.38	> 0.5
	5795	159	36.37	> 0.5
UNII4	5835	167	36.36	> 0.5
	5875	175	36.11	> 0.5

Mode : 802.11ac(VHT80)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5775	155	77.32	> 0.5
UNII4	5855	171	75.91	> 0.5

[Ant.2]

Mode : 802.11a				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5745	149	16.36	> 0.5
	5785	157	16.36	> 0.5
	5825	165	16.36	> 0.5
UNII4	5845	169	16.36	> 0.5
	5865	173	16.36	> 0.5
	5885	177	16.37	> 0.5

Mode : 802.11n(HT20)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5745	149	17.60	> 0.5
	5785	157	17.60	> 0.5
	5825	165	17.59	> 0.5
UNII4	5845	169	17.60	> 0.5
	5865	173	17.59	> 0.5
	5885	177	17.60	> 0.5

Mode : 802.11ac(VHT20)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5745	149	17.60	> 0.5
	5785	157	17.60	> 0.5
	5825	165	17.59	> 0.5
UNII4	5845	169	17.59	> 0.5
	5865	173	17.59	> 0.5
	5885	177	17.59	> 0.5

Mode : 802.11n(HT40)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5755	151	36.37	> 0.5
	5795	159	36.37	> 0.5
UNII4	5835	167	36.37	> 0.5
	5875	175	36.36	> 0.5

Mode : 802.11ac(VHT40)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5755	151	36.37	> 0.5
	5795	159	36.32	> 0.5
UNII4	5835	167	36.36	> 0.5
	5875	175	36.12	> 0.5

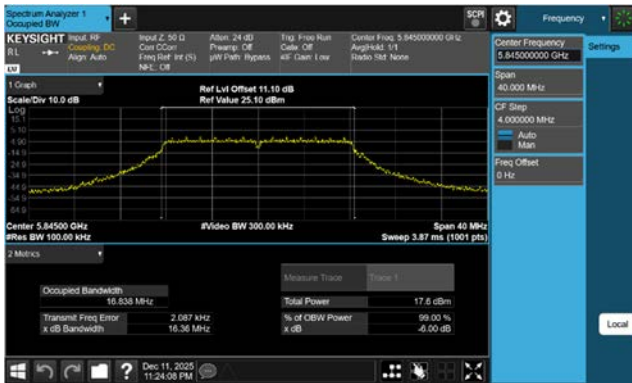
Mode : 802.11ac(VHT80)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5775	155	75.88	> 0.5
UNII4	5855	171	75.81	> 0.5

[ANT. 1]

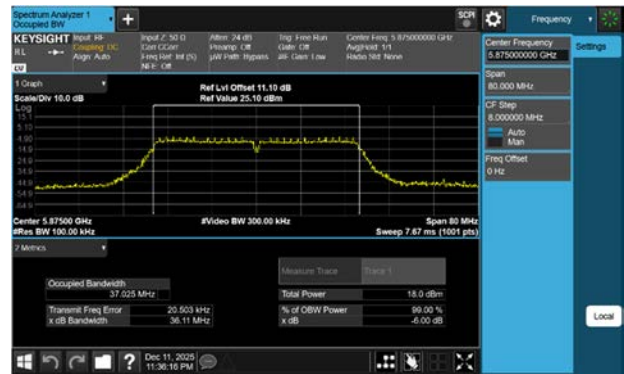
Test Plots

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

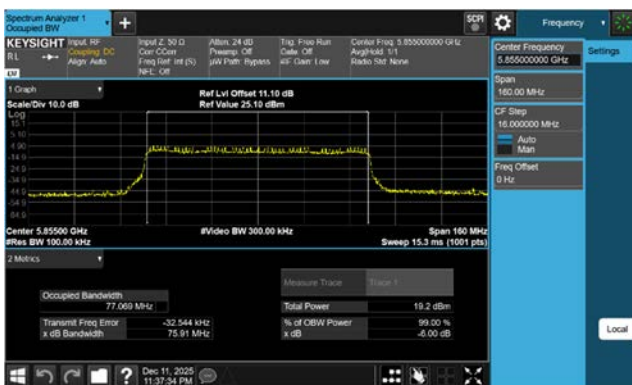
Bandwidth 20M, 802.11a Ch.169



Bandwidth 40M, 802.11ac(VHT40) Ch.175



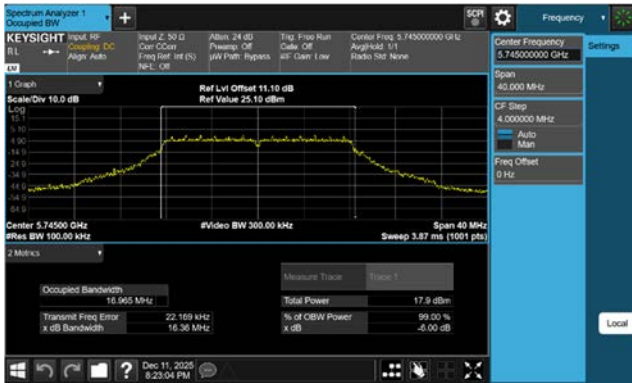
Bandwidth 80M, 802.11ac(VHT80) Ch.171



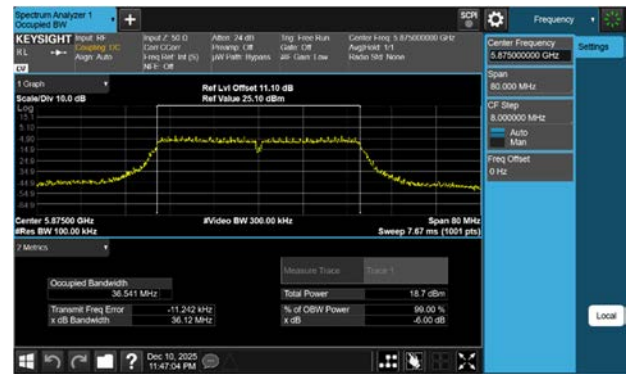
[ANT. 2]

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

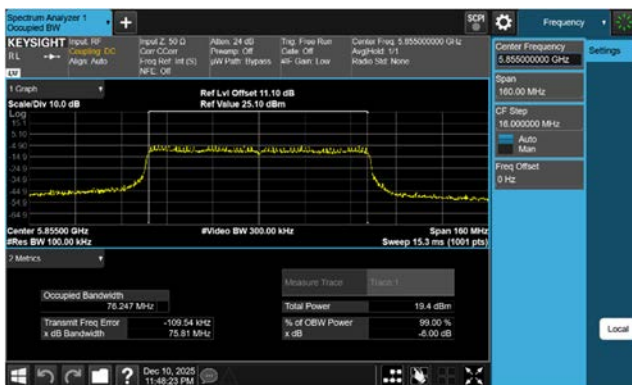
Bandwidth 20M, 802.11a Ch.149



Bandwidth 40M, 802.11ac(VHT40) Ch.175



Bandwidth 80M, 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

[SISO(Ant.1)]

Ant Total Power [dBm] = Measured Power [dBm] + Duty Cycle Factor [dB]

EIRP = Total Power [dBm] + Antenna Gain [dBi]

Mode : 802.11a									
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Antenna Gain [dBi]	EIRP [dBm]	Limit [dBm]
UNII1	5180	36	6M	14.25	0.37	14.62	-	-	23.98
	5200	40	6M	15.21	0.37	15.58	-	-	23.98
	5240	48	6M	14.99	0.37	15.36	-	-	23.98
UNII2A	5260	52	6M	14.85	0.37	15.22	-	-	23.98
	5300	60	6M	14.19	0.37	14.56	-	-	23.98
	5320	64	6M	11.91	0.37	12.28	-	-	23.98
UNII2C	5500	100	6M	9.25	0.37	9.62	-	-	23.98
	5600	120	6M	13.96	0.37	14.32	-	-	23.98
	5720	144	6M	14.77	0.37	15.13	-	-	23.98
UNII3	5745	149	6M	11.33	0.37	11.70	-	-	30.00
	5785	157	6M	10.98	0.37	11.34	-	-	30.00
	5825	165	6M	10.89	0.37	11.25	-	-	30.00
UNII4	5825	169	6M	10.95	0.37	11.32	-3.90	7.42	30dBm/EIRP
	5825	173	6M	10.70	0.37	11.07	-3.90	7.17	30dBm/EIRP
	5825	177	6M	9.67	0.37	10.04	-3.90	6.14	30dBm/EIRP

Mode : 802.11n(HT20)									
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Antenna Gain [dBi]	EIRP [dBm]	Limit [dBm]
UNII1	5180	36	MCS0	14.48	0.34	14.82	-	-	23.98
	5200	40	MCS0	14.70	0.34	15.04	-	-	23.98
	5240	48	MCS0	14.55	0.34	14.89	-	-	23.98
UNII2A	5260	52	MCS0	14.72	0.34	15.05	-	-	23.98
	5300	60	MCS0	14.19	0.34	14.53	-	-	23.98
	5320	64	MCS0	11.99	0.34	12.33	-	-	23.98
UNII2C	5500	100	MCS0	9.96	0.34	10.30	-	-	23.98
	5600	120	MCS0	14.15	0.34	14.49	-	-	23.98
	5720	144	MCS0	14.56	0.34	14.89	-	-	23.98
UNII3	5745	149	MCS0	11.41	0.34	11.75	-	-	30.00
	5785	157	MCS0	10.36	0.34	10.69	-	-	30.00
	5825	165	MCS0	11.02	0.34	11.36	-	-	30.00
UNII4	5825	169	MCS0	10.66	0.34	10.99	-3.90	7.09	30dBm/EIRP
	5825	173	MCS0	10.66	0.34	11.00	-3.90	7.10	30dBm/EIRP
	5825	177	MCS0	9.54	0.34	9.88	-3.90	5.98	30dBm/EIRP

Mode : 802.11ac(VHT20)									
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Antenna Gain [dBi]	EIRP [dBm]	Limit [dBm]
UNII1	5180	36	MCS0	14.36	0.36	14.73	-	-	23.98
	5200	40	MCS0	14.93	0.36	15.29	-	-	23.98
	5240	48	MCS0	14.60	0.36	14.97	-	-	23.98
UNII2A	5260	52	MCS0	14.88	0.36	15.25	-	-	23.98
	5300	60	MCS0	14.29	0.36	14.65	-	-	23.98
	5320	64	MCS0	11.94	0.36	12.30	-	-	23.98
UNII2C	5500	100	MCS0	9.70	0.36	10.06	-	-	23.98
	5600	120	MCS0	14.14	0.36	14.51	-	-	23.98
	5720	144	MCS0	14.46	0.36	14.83	-	-	23.98
UNII3	5745	149	MCS0	11.38	0.36	11.74	-	-	30.00
	5785	157	MCS0	11.33	0.36	11.69	-	-	30.00
	5825	165	MCS0	11.20	0.36	11.57	-	-	30.00
UNII4	5825	169	MCS0	11.22	0.36	11.59	-3.90	7.69	30dBm/EIRP
	5825	173	MCS0	10.65	0.36	11.01	-3.90	7.11	30dBm/EIRP
	5825	177	MCS0	10.13	0.36	10.49	-3.90	6.59	30dBm/EIRP

Mode : 802.11n(HT40)									
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Antenna Gain [dBi]	EIRP [dBm]	Limit [dBm]
UNII1	5190	38	MCS0	10.70	0.65	11.35	-	-	23.98
	5230	46	MCS0	13.58	0.65	14.23	-	-	23.98
UNII2A	5270	54	MCS0	13.66	0.65	14.31	-	-	23.98
	5310	62	MCS0	10.07	0.65	10.73	-	-	23.98
UNII2C	5510	102	MCS0	11.54	0.65	12.19	-	-	23.98
	5590	118	MCS0	12.95	0.65	13.60	-	-	23.98
	5710	142	MCS0	13.30	0.65	13.96	-	-	23.98
UNII3	5755	151	MCS0	10.90	0.65	11.55	-	-	30.00
	5795	159	MCS0	9.83	0.65	10.49	-	-	30.00
UNII4	5755	167	MCS0	10.44	0.65	11.09	-3.90	7.19	30dBm/EIRP
	5795	175	MCS0	10.15	0.65	10.80	-3.90	6.90	30dBm/EIRP

Mode : 802.11ac(VHT40)									
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Antenna Gain [dBi]	EIRP [dBm]	Limit [dBm]
UNII1	5190	38	MCS0	10.71	0.75	11.46	-	-	23.98
	5230	46	MCS0	13.64	0.75	14.39	-	-	23.98
UNII2A	5270	54	MCS0	13.80	0.75	14.55	-	-	23.98
	5310	62	MCS0	10.02	0.75	10.77	-	-	23.98
UNII2C	5510	102	MCS0	11.38	0.75	12.13	-	-	23.98
	5590	118	MCS0	13.16	0.75	13.91	-	-	23.98
	5710	142	MCS0	13.44	0.75	14.19	-	-	23.98
UNII3	5755	151	MCS0	10.65	0.75	11.40	-	-	30.00
	5795	159	MCS0	10.73	0.75	11.48	-	-	30.00
UNII4	5755	167	MCS0	10.57	0.75	11.32	-3.90	7.42	30dBm/EIRP
	5795	175	MCS0	10.23	0.75	10.99	-3.90	7.09	30dBm/EIRP

Mode : 802.11ac(VHT80)									
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Antenna Gain [dBi]	EIRP [dBm]	Limit [dBm]
UNII1	5210	42	MCS0	10.23	1.222	11.45	-	-	23.98
UNII2A	5290	58	MCS0	9.08	1.222	10.30	-	-	23.98
UNII2C	5530	106	MCS0	9.76	1.222	10.98	-	-	23.98
	5610	122	MCS0	11.16	1.222	12.38	-	-	23.98
	5690	138	MCS0	11.79	1.222	13.01	-	-	23.98
UNII3	5775	155	MCS0	10.18	1.222	11.40	-	-	30.00
UNII4	5775	171	MCS0	10.33	1.222	11.55	-3.90	7.65	30dBm/EIRP

[MIMO (Ant.1+ Ant.2)]

Ant Total Power [dBm] = Measured Power [dBm] + Duty Cycle Factor [dB]

MIMO Total Power [dBm] = Ant.1 Total Power [dBm] + Ant.2 Total Power [dBm]

EIRP = MIMO Total Power [dBm] + Directional Gain [dBi]

Mode : 802.11a											
BAND	Freq. [MHz]	CH.	Datarate	Total Average Power [dBm]			Ant1 Gain	Ant2 Gain	Directional Gain	EIRP	Limit
				ANT1	ANT2	MIMO	[dBi]	[dBi]	[dBi]	[dBm]	[dBm]
UNII1	5180	36	6M	14.62	15.00	17.82	-	-	-	-	23.98
	5200	40	6M	15.58	15.16	18.39	-	-	-	-	23.98
	5240	48	6M	15.36	15.43	18.40	-	-	-	-	23.98
UNII2A	5260	52	6M	15.22	15.51	18.38	-	-	-	-	23.98
	5300	60	6M	14.56	14.69	17.63	-	-	-	-	23.98
	5320	64	6M	12.28	11.92	15.11	-	-	-	-	23.98
UNII2C	5500	100	6M	9.62	10.48	13.08	-	-	-	-	23.98
	5600	120	6M	14.32	15.80	18.14	-	-	-	-	23.98
	5720	144	6M	15.13	15.76	18.47	-	-	-	-	23.98
UNII3	5745	149	6M	11.70	11.11	14.43	-	-	-	-	30.00
	5785	157	6M	11.34	11.48	14.42	-	-	-	-	30.00
	5825	165	6M	11.25	11.25	14.26	-	-	-	-	30.00
UNII4	5845	169	6M	11.32	11.56	14.45	-3.90	-3.90	-0.89	13.56	30 dBm/EIRP
	5865	173	6M	11.07	11.83	14.48	-3.90	-3.90	-0.89	13.59	30 dBm/EIRP
	5885	177	6M	10.04	11.60	13.90	-3.90	-3.90	-0.89	13.01	30 dBm/EIRP

Mode : 802.11n(HT20)											
BAND	Freq. [MHz]	CH.	Datarate	Total Average Power [dBm]			Ant1 Gain	Ant2 Gain	Directional Gain	EIRP	Limit
				ANT1	ANT2	MIMO	[dBi]	[dBi]	[dBi]	[dBm]	[dBm]
UNII1	5180	36	MCS8	14.72	14.24	17.50	-	-	-	-	23.98
	5200	40	MCS8	14.72	14.69	17.72	-	-	-	-	23.98
	5240	48	MCS8	14.84	14.87	17.86	-	-	-	-	23.98
UNII2A	5260	52	MCS8	14.80	15.05	17.94	-	-	-	-	23.98
	5300	60	MCS8	14.52	14.24	17.39	-	-	-	-	23.98
	5320	64	MCS8	12.16	11.72	14.96	-	-	-	-	23.98
UNII2C	5500	100	MCS8	9.54	10.49	13.05	-	-	-	-	23.98
	5600	120	MCS8	13.85	15.78	17.93	-	-	-	-	23.98
	5720	144	MCS8	13.74	15.07	17.46	-	-	-	-	23.98
UNII3	5745	149	MCS8	11.32	10.67	14.02	-	-	-	-	30.00
	5785	157	MCS8	10.05	10.51	13.30	-	-	-	-	30.00
	5825	165	MCS8	10.77	10.93	13.86	-	-	-	-	30.00
UNII4	5845	169	MCS8	10.49	11.05	13.79	-3.90	-3.90	-3.90	9.89	30 dBm/EIRP
	5865	173	MCS8	10.30	11.27	13.82	-3.90	-3.90	-3.90	9.92	30 dBm/EIRP
	5885	177	MCS8	9.51	11.02	13.34	-3.90	-3.90	-3.90	9.44	30 dBm/EIRP

Mode : 802.11ac(VHT20)											
BAND	Freq. [MHz]	CH.	Datarate	Total Average Power [dBm]			Ant1 Gain	Ant2 Gain	Directional Gain	EIRP	Limit
				ANT1	ANT2	MIMO	[dBi]	[dBi]	[dBi]	[dBm]	[dBm]
UNII1	5180	36	MCS0	14.57	14.39	17.49	-	-	-	-	23.98
	5200	40	MCS0	14.75	14.71	17.74	-	-	-	-	23.98
	5240	48	MCS0	14.77	14.83	17.82	-	-	-	-	23.98
UNII2A	5260	52	MCS0	14.76	15.06	17.93	-	-	-	-	23.98
	5300	60	MCS0	14.45	14.16	17.32	-	-	-	-	23.98
	5320	64	MCS0	11.98	11.40	14.71	-	-	-	-	23.98
UNII2C	5500	100	MCS0	9.50	10.67	13.14	-	-	-	-	23.98
	5600	120	MCS0	13.98	15.83	18.01	-	-	-	-	23.98
	5720	144	MCS0	13.73	15.20	17.54	-	-	-	-	23.98
UNII3	5745	149	MCS0	11.16	10.50	13.85	-	-	-	-	30.00
	5785	157	MCS0	11.18	11.27	14.24	-	-	-	-	30.00
	5825	165	MCS0	11.40	11.43	14.42	-	-	-	-	30.00
UNII4	5845	169	MCS0	10.79	11.49	14.16	-3.90	-3.90	-3.90	10.26	30 dBm/EIRP
	5865	173	MCS0	10.32	11.12	13.75	-3.90	-3.90	-3.90	9.85	30 dBm/EIRP
	5885	177	MCS0	10.14	11.73	14.02	-3.90	-3.90	-3.90	10.12	30 dBm/EIRP

Mode : 802.11n(HT40)											
BAND	Freq. [MHz]	CH.	Datarate	Total Average Power [dBm]			Ant1 Gain	Ant2 Gain	Directional Gain	EIRP	Limit
				ANT1	ANT2	MIMO	[dBi]	[dBi]	[dBi]	[dBm]	[dBm]
UNII1	5190	38	MCS8	11.04	11.11	14.08	-	-	-	-	23.98
	5230	46	MCS8	13.97	14.00	17.00	-	-	-	-	23.98
UNII2A	5270	54	MCS8	14.17	14.23	17.21	-	-	-	-	23.98
	5310	62	MCS8	10.48	10.11	13.31	-	-	-	-	23.98
UNII2C	5510	102	MCS8	11.75	12.42	15.11	-	-	-	-	23.98
	5590	118	MCS8	13.17	14.51	16.90	-	-	-	-	23.98
	5710	142	MCS8	12.91	14.42	16.74	-	-	-	-	23.98
UNII3	5755	151	MCS8	10.65	10.45	13.56	-	-	-	-	30.00
	5795	159	MCS8	9.53	10.84	13.24	-	-	-	-	30.00
UNII4	5835	167	MCS8	10.23	10.96	13.62	-3.90	-3.90	-3.90	9.72	30 dBm/EIRP
	5875	175	MCS8	9.66	11.64	13.77	-3.90	-3.90	-3.90	9.87	30 dBm/EIRP

Mode : 802.11ac(VHT40)											
BAND	Freq. [MHz]	CH.	Datarate	Total Average Power [dBm]			Ant1 Gain	Ant2 Gain	Directional Gain	EIRP	Limit
				ANT1	ANT2	MIMO	[dBi]	[dBi]	[dBi]	[dBm]	[dBm]
UNII1	5190	38	MCS0	10.77	11.07	13.94	-	-	-	-	23.98
	5230	46	MCS0	13.69	13.97	16.84	-	-	-	-	23.98
UNII2A	5270	54	MCS0	14.02	14.31	17.18	-	-	-	-	23.98
	5310	62	MCS0	10.57	10.18	13.39	-	-	-	-	23.98
UNII2C	5510	102	MCS0	11.63	12.70	15.21	-	-	-	-	23.98
	5590	118	MCS0	13.12	14.51	16.88	-	-	-	-	23.98
	5710	142	MCS0	12.97	14.23	16.66	-	-	-	-	23.98
UNII3	5755	151	MCS0	10.64	10.03	13.35	-	-	-	-	30.00
	5795	159	MCS0	10.53	11.30	13.94	-	-	-	-	30.00
UNII4	5835	167	MCS0	10.68	10.97	13.84	-3.90	-3.90	-3.90	9.94	30 dBm/EIRP
	5875	175	MCS0	10.09	11.54	13.89	-3.90	-3.90	-3.90	9.99	30 dBm/EIRP

Mode : 802.11ac(VHT80)											
BAND	Freq. [MHz]	CH.	Datarate	Total Average Power [dBm]			Ant1 Gain	Ant2 Gain	Directional Gain	EIRP	Limit
				ANT1	ANT2	MIMO	[dBi]	[dBi]	[dBi]	[dBm]	[dBm]
UNII1	5210	42	MCS0	11.22	10.86	14.05	-	-	-	-	23.98
UNII2A	5290	58	MCS0	10.09	9.64	12.88	-	-	-	-	23.98
UNII2C	5530	106	MCS0	10.67	10.98	13.84	-	-	-	-	23.98
	5610	122	MCS0	12.26	13.98	16.22	-	-	-	-	23.98
	5690	138	MCS0	13.08	13.58	16.35	-	-	-	-	23.98
UNII3	5775	155	MCS0	11.76	11.57	14.68	-	-	-	-	30.00
UNII4	5855	171	MCS0	10.97	11.54	14.27	-3.90	-3.90	-3.90	10.37	30 dBm/EIRP

10.5 POWER SPECTRAL DENSITY

Note :

1. UNII3 Measured PSD, Total PSD Unit : [dBm/500kHz]

[SISO(Ant.1)]

Ant Total PSD [dBm/MHz] = Measured PSD [dBm/MHz] + Duty Cycle Factor [dB]

EIRP = Total PSD [dBm/MHz] + Antenna Gain [dBi]

Mode : 802.11a									
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz] Note.1	Duty cycle Factor [dB]	Total PSD [dBm/MHz] Note.1	Antenna Gain [dBi]	EIRP [dBm/MHz]	Limit [dBm/MHz]
UNII1	5180	36	6M	3.418	0.367	3.785	-	-	11
	5200	40	6M	3.706	0.367	4.073	-	-	11
	5240	48	6M	3.835	0.367	4.202	-	-	11
UNII2A	5260	52	6M	3.700	0.367	4.067	-	-	11
	5300	60	6M	2.965	0.367	3.332	-	-	11
	5320	64	6M	0.771	0.367	1.138	-	-	11
UNII2C	5500	100	6M	-2.299	0.367	-1.932	-	-	11
	5600	120	6M	2.525	0.367	2.892	-	-	11
	5720	144	6M	3.373	0.367	3.740	-	-	11
UNII3	5745	149	6M	-2.365	0.367	-1.998	-	-	30 dBm/500kHz
	5785	157	6M	-3.096	0.367	-2.729	-	-	30 dBm/500kHz
	5825	165	6M	-3.284	0.367	-2.917	-	-	30 dBm/500kHz
UNII4	5845	169	6M	-0.301	0.367	0.066	-3.90	-3.834	14 dBm/EIRP
	5865	173	6M	-0.327	0.367	0.040	-3.90	-3.860	14 dBm/EIRP
	5885	177	6M	-1.324	0.367	-0.957	-3.90	-4.857	14 dBm/EIRP

Mode : 802.11n(HT20)									
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz] Note.1	Duty cycle Factor [dB]	Total PSD [dBm/MHz] Note.1	Antenna Gain [dBi]	EIRP [dBm/MHz]	Limit [dBm/MHz]
UNII1	5180	36	MCS0	2.886	0.338	3.224	-	-	11
	5200	40	MCS0	3.480	0.338	3.818	-	-	11
	5240	48	MCS0	3.323	0.338	3.661	-	-	11
UNII2A	5260	52	MCS0	3.030	0.338	3.368	-	-	11
	5300	60	MCS0	2.807	0.338	3.145	-	-	11
	5320	64	MCS0	0.378	0.338	0.716	-	-	11
UNII2C	5500	100	MCS0	-2.416	0.338	-2.078	-	-	11
	5600	120	MCS0	2.464	0.338	2.802	-	-	11
	5720	144	MCS0	3.012	0.338	3.350	-	-	11
UNII3	5745	149	MCS0	-2.561	0.338	-2.223	-	-	30 dBm/500kHz
	5785	157	MCS0	-4.418	0.338	-4.080	-	-	30 dBm/500kHz
	5825	165	MCS0	-3.116	0.338	-2.778	-	-	30 dBm/500kHz
UNII4	5845	169	MCS0	-1.133	0.338	-0.795	-3.90	-4.695	14 dBm/EIRP
	5865	173	MCS0	-0.701	0.338	-0.363	-3.90	-4.263	14 dBm/EIRP
	5885	177	MCS0	-1.968	0.338	-1.630	-3.90	-5.530	14 dBm/EIRP

Mode : 802.11ac(VHT20)

Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz] Note.1	Duty cycle Factor [dB]	Total PSD [dBm/MHz] Note.1	Antenna Gain [dBi]	EIRP [dBm/MHz]	Limit [dBm/MHz]
UNII1	5180	36	MCS0	2.548	0.364	2.912	-	-	11
	5200	40	MCS0	2.963	0.364	3.327	-	-	11
	5240	48	MCS0	3.161	0.364	3.525	-	-	11
UNII2A	5260	52	MCS0	3.446	0.364	3.810	-	-	11
	5300	60	MCS0	2.794	0.364	3.158	-	-	11
	5320	64	MCS0	0.649	0.364	1.013	-	-	11
UNII2C	5500	100	MCS0	-1.868	0.364	-1.504	-	-	11
	5600	120	MCS0	2.775	0.364	3.139	-	-	11
	5720	144	MCS0	3.221	0.364	3.585	-	-	11
UNII3	5745	149	MCS0	-2.596	0.364	-2.232	-	-	30 dBm/500kHz
	5785	157	MCS0	-2.619	0.364	-2.255	-	-	30 dBm/500kHz
	5825	165	MCS0	-2.957	0.364	-2.593	-	-	30 dBm/500kHz
UNII4	5845	169	MCS0	-0.354	0.364	0.010	-3.90	-3.890	14 dBm/EIRP
	5865	173	MCS0	-0.958	0.364	-0.594	-3.90	-4.494	14 dBm/EIRP
	5885	177	MCS0	-1.486	0.364	-1.122	-3.90	-5.022	14 dBm/EIRP

Mode : 802.11n(HT40)

Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz] Note.1	Duty cycle Factor [dB]	Total PSD [dBm/MHz] Note.1	Antenna Gain [dBi]	EIRP [dBm/MHz]	Limit [dBm/MHz]
UNII1	5190	38	MCS0	-3.650	0.654	-2.996	-	-	11
	5230	46	MCS0	-1.089	0.654	-0.435	-	-	11
UNII2A	5270	54	MCS0	-0.614	0.654	0.040	-	-	11
	5310	62	MCS0	-4.227	0.654	-3.573	-	-	11
UNII2C	5510	102	MCS0	-3.522	0.654	-2.868	-	-	11
	5590	118	MCS0	-1.682	0.654	-1.028	-	-	11
	5710	142	MCS0	-1.044	0.654	-0.390	-	-	11
UNII3	5755	151	MCS0	-6.170	0.654	-5.516	-	-	30 dBm/500kHz
	5795	159	MCS0	-7.174	0.654	-6.520	-	-	30 dBm/500kHz
UNII4	5835	167	MCS0	-3.506	0.654	-2.852	-3.90	-6.752	14 dBm/EIRP
	5875	175	MCS0	-3.879	0.654	-3.225	-3.90	-7.125	14 dBm/EIRP

Mode : 802.11ac(VHT40)

Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz] Note.1	Duty cycle Factor [dB]	Total PSD [dBm/MHz] Note.1	Antenna Gain [dBi]	EIRP [dBm/MHz]	Limit [dBm/MHz]
UNII1	5190	38	MCS0	-4.002	0.750	-3.252	-	-	11
	5230	46	MCS0	-0.788	0.750	-0.038	-	-	11
UNII2A	5270	54	MCS0	-0.744	0.750	0.006	-	-	11
	5310	62	MCS0	-4.719	0.750	-3.969	-	-	11
UNII2C	5510	102	MCS0	-3.225	0.750	-2.475	-	-	11
	5590	118	MCS0	-1.433	0.750	-0.683	-	-	11
	5710	142	MCS0	-0.894	0.750	-0.144	-	-	11
UNII3	5755	151	MCS0	-6.529	0.750	-5.779	-	-	30 dBm/500kHz
	5795	159	MCS0	-6.399	0.750	-5.649	-	-	30 dBm/500kHz
UNII4	5835	167	MCS0	-3.530	0.750	-2.780	-3.90	-6.680	14 dBm/EIRP
	5875	175	MCS0	-3.679	0.750	-2.929	-3.90	-6.829	14 dBm/EIRP

Mode : 802.11ac(VHT80)

Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz] Note.1	Duty cycle Factor [dB]	Total PSD [dBm/MHz] Note.1	Antenna Gain [dBi]	EIRP [dBm/MHz]	Limit [dBm/MHz]
UNII1	5210	42	MCS0	-6.296	1.222	-5.074	-	-	11
UNII2A	5290	58	MCS0	-8.433	1.222	-7.211	-	-	11
UNII2C	5530	106	MCS0	-7.174	1.222	-5.952	-	-	11
	5610	122	MCS0	-5.559	1.222	-4.337	-	-	11
	5690	138	MCS0	-5.210	1.222	-3.988	-	-	11
UNII3	5775	155	MCS0	-9.424	1.222	-8.202	-	-	30 dBm/500kHz
UNII4	5855	171	MCS0	-6.523	1.222	-5.301	-3.90	-9.201	14 dBm/EIRP

[MIMO (Ant.1+ Ant.2)]

Ant Total PSD [dBm/MHz] = Measured PSD [dBm/MHz] + Duty Cycle Factor [dB]

MIMO Total PSD [dBm/MHz] = Ant.1 Total PSD [dBm/MHz] + Ant.2 Total PSD [dBm/MHz]

EIRP = MIMO Total PSD [dBm/MHz] + Directional Gain [dBi]

Mode : 802.11a											
BAND	Freq. [MHz]	CH.	Datarate	Total PSD [dBm/MHz] Note.1			Ant1 Gain [dBi]	Ant2 Gain [dBi]	Directional Gain [dBi]	EIRP [dBm/MHz]	Limit [dBm/MHz]
				ANT1	ANT2	MIMO					
UNII1	5180	36	6M	3.785	3.697	6.752	-	-	-	-	11.00
	5200	40	6M	4.073	3.973	7.034	-	-	-	-	11.00
	5240	48	6M	4.202	4.308	7.266	-	-	-	-	11.00
UNII2A	5260	52	6M	4.067	4.622	7.364	-	-	-	-	11.00
	5300	60	6M	3.332	3.772	6.568	-	-	-	-	11.00
	5320	64	6M	1.138	0.821	3.993	-	-	-	-	11.00
UNII2C	5500	100	6M	-1.932	-0.386	1.920	-	-	-	-	11.00
	5600	120	6M	2.892	4.701	6.901	-	-	-	-	11.00
	5720	144	6M	3.740	4.692	7.253	-	-	-	-	11.00
UNII3	5745	149	6M	-1.998	-2.913	0.579	-	-	-	-	30 dBm/500kHz
	5785	157	6M	-2.729	-2.573	0.360	-	-	-	-	30 dBm/500kHz
	5825	165	6M	-2.917	-2.732	0.187	-	-	-	-	30 dBm/500kHz
UNII4	5845	169	6M	0.066	0.512	3.305	-3.90	-3.90	-0.89	2.415	14 dBm/EIRP
	5865	173	6M	0.040	0.735	3.412	-3.90	-3.90	-0.89	2.522	14 dBm/EIRP
	5885	177	6M	-0.957	0.511	2.849	-3.90	-3.90	-0.89	1.959	14 dBm/EIRP

Mode : 802.11n(HT20)											
BAND	Freq. [MHz]	CH.	Datarate	Total PSD [dBm/MHz] Note.1			Ant1 Gain [dBi]	Ant2 Gain [dBi]	Directional Gain [dBi]	EIRP [dBm/MHz]	Limit [dBm/MHz]
				ANT1	ANT2	MIMO					
UNII1	5180	36	MCS8	2.872	2.743	5.818	-	-	-	-	11.00
	5200	40	MCS8	3.437	3.076	6.271	-	-	-	-	11.00
	5240	48	MCS8	3.361	3.269	6.326	-	-	-	-	11.00
UNII2A	5260	52	MCS8	3.453	3.425	6.449	-	-	-	-	11.00
	5300	60	MCS8	2.880	2.859	5.880	-	-	-	-	11.00
	5320	64	MCS8	0.501	-0.064	3.238	-	-	-	-	11.00
UNII2C	5500	100	MCS8	-2.247	-0.647	1.637	-	-	-	-	11.00
	5600	120	MCS8	1.911	3.738	5.930	-	-	-	-	11.00
	5720	144	MCS8	2.739	3.397	6.091	-	-	-	-	11.00
UNII3	5745	149	MCS8	-3.598	-4.115	-0.839	-	-	-	-	30 dBm/500kHz
	5785	157	MCS8	-4.582	-4.106	-1.327	-	-	-	-	30 dBm/500kHz
	5825	165	MCS8	-3.917	-3.590	-0.740	-	-	-	-	30 dBm/500kHz
UNII4	5845	169	MCS8	-1.255	-0.786	1.996	-3.90	-3.90	-3.90	-1.904	14 dBm/EIRP
	5865	173	MCS8	-1.122	-0.245	2.349	-3.90	-3.90	-3.90	-1.551	14 dBm/EIRP
	5885	177	MCS8	-2.205	-0.504	1.739	-3.90	-3.90	-3.90	-2.161	14 dBm/EIRP

Mode : 802.11ac(VHT20)											
BAND	Freq. [MHz]	CH.	Datarate	Total PSD [dBm/MHz] Note.1			Ant1 Gain	Ant2 Gain	Directional Gain	EIRP	Limit
				ANT1	ANT2	MIMO					
UNII1	5180	36	MCS0	2.697	2.763	5.740	-	-	-	-	11.00
	5200	40	MCS0	3.098	3.173	6.146	-	-	-	-	11.00
	5240	48	MCS0	3.248	3.152	6.210	-	-	-	-	11.00
UNII2A	5260	52	MCS0	3.327	3.569	6.460	-	-	-	-	11.00
	5300	60	MCS0	2.591	2.594	5.602	-	-	-	-	11.00
	5320	64	MCS0	0.378	-0.069	3.170	-	-	-	-	11.00
UNII2C	5500	100	MCS0	-2.054	-1.448	1.270	-	-	-	-	11.00
	5600	120	MCS0	1.991	4.032	6.140	-	-	-	-	11.00
	5720	144	MCS0	2.564	3.246	5.928	-	-	-	-	11.00
UNII3	5745	149	MCS0	-3.555	-4.091	-0.805	-	-	-	-	30 dBm/500kHz
	5785	157	MCS0	-3.429	-3.187	-0.296	-	-	-	-	30 dBm/500kHz
	5825	165	MCS0	-3.126	-3.310	-0.207	-	-	-	-	30 dBm/500kHz
UNII4	5845	169	MCS0	-0.884	-0.185	2.490	-3.90	-3.90	-3.90	-1.410	14 dBm/EIRP
	5865	173	MCS0	-1.287	-0.299	2.245	-3.90	-3.90	-3.90	-1.655	14 dBm/EIRP
	5885	177	MCS0	-2.022	-0.302	1.933	-3.90	-3.90	-3.90	-1.967	14 dBm/EIRP

Mode : 802.11n(HT40)											
BAND	Freq. [MHz]	CH.	Datarate	Total PSD [dBm/MHz] Note.1			Ant1 Gain	Ant2 Gain	Directional Gain	EIRP	Limit
				ANT1	ANT2	MIMO					
UNII1	5190	38	MCS8	-3.104	-3.885	-0.466	-	-	-	-	11.00
	5230	46	MCS8	-0.543	-0.934	2.276	-	-	-	-	11.00
UNII2A	5270	54	MCS8	0.111	-0.129	3.003	-	-	-	-	11.00
	5310	62	MCS8	-3.783	-3.906	-0.833	-	-	-	-	11.00
UNII2C	5510	102	MCS8	-2.752	-1.773	0.776	-	-	-	-	11.00
	5590	118	MCS8	-1.108	0.237	2.627	-	-	-	-	11.00
	5710	142	MCS8	-0.685	0.106	2.739	-	-	-	-	11.00
UNII3	5755	151	MCS8	-6.270	-6.661	-3.451	-	-	-	-	30 dBm/500kHz
	5795	159	MCS8	-6.967	-6.140	-3.523	-	-	-	-	30 dBm/500kHz
UNII4	5835	167	MCS8	-3.883	-3.386	-0.617	-3.90	-3.90	-3.90	-4.517	14 dBm/EIRP
	5875	175	MCS8	-4.298	-2.708	-0.420	-3.90	-3.90	-3.90	-4.320	14 dBm/EIRP

Mode : 802.11ac(VHT40)											
BAND	Freq. [MHz]	CH.	Datarate	Total PSD [dBm/MHz] Note.1			Ant1 Gain	Ant2 Gain	Directional Gain	EIRP	Limit
				ANT1	ANT2	MIMO					
UNII1	5190	38	MCS0	-2.860	-3.607	-0.207	-	-	-	-	11.00
	5230	46	MCS0	-0.040	-0.039	2.971	-	-	-	-	11.00
UNII2A	5270	54	MCS0	-0.125	-0.182	2.857	-	-	-	-	11.00
	5310	62	MCS0	-3.804	-4.538	-1.145	-	-	-	-	11.00
UNII2C	5510	102	MCS0	-3.009	-1.530	0.804	-	-	-	-	11.00
	5590	118	MCS0	-1.074	0.095	2.560	-	-	-	-	11.00
	5710	142	MCS0	-0.670	-0.022	2.677	-	-	-	-	11.00
UNII3	5755	151	MCS0	-6.493	-7.220	-3.831	-	-	-	-	30 dBm/500kHz
	5795	159	MCS0	-6.653	-5.788	-3.189	-	-	-	-	30 dBm/500kHz
UNII4	5835	167	MCS0	-3.493	-3.446	-0.459	-3.90	-3.90	-3.90	-4.359	14 dBm/EIRP
	5875	175	MCS0	-4.008	-2.838	-0.373	-3.90	-3.90	-3.90	-4.273	14 dBm/EIRP

Mode : 802.11ac(VHT80)											
BAND	Freq. [MHz]	CH.	Data rate	Total PSD [dBm/MHz] Note.1			Ant1 Gain	Ant2 Gain	Directional Gain	EIRP	Limit
				ANT1	ANT2	MIMO	[dBi]	[dBi]	[dBi]	[dBm/MHz]	[dBm/MHz]
UNII1	5210	42	MCS0	-5.467	-6.049	-2.738	-	-	-	-	11.00
UNII2A	5290	58	MCS0	-6.682	-6.809	-3.735	-	-	-	-	11.00
UNII2C	5530	106	MCS0	-6.408	-5.141	-2.718	-	-	-	-	11.00
	5610	122	MCS0	-5.183	-2.859	-0.857	-	-	-	-	11.00
	5690	138	MCS0	-3.636	-3.336	-0.473	-	-	-	-	11.00
UNII3	5775	155	MCS0	-9.622	-11.041	-7.263	-	-	-	-	30 dBm/500kHz
UNII4	5855	171	MCS0	-5.716	-4.882	-2.269	-3.90	-3.90	-3.90	-6.169	14 dBm/EIRP

[MIMO (Ant.1+ Ant.2)]

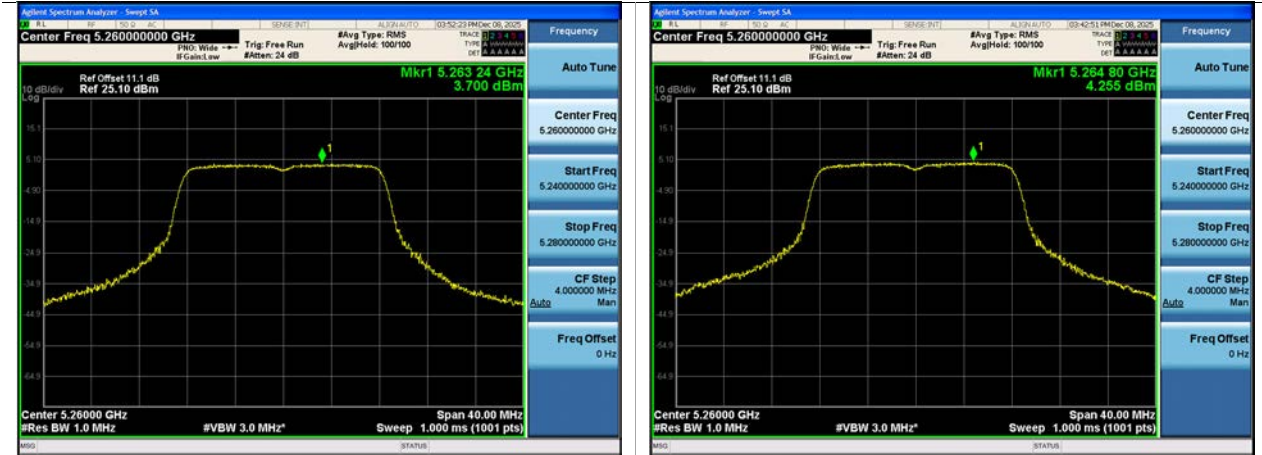
▣ Test Plots

Note: In order to simplify the report, attached plots were only channel of the highest PSD.

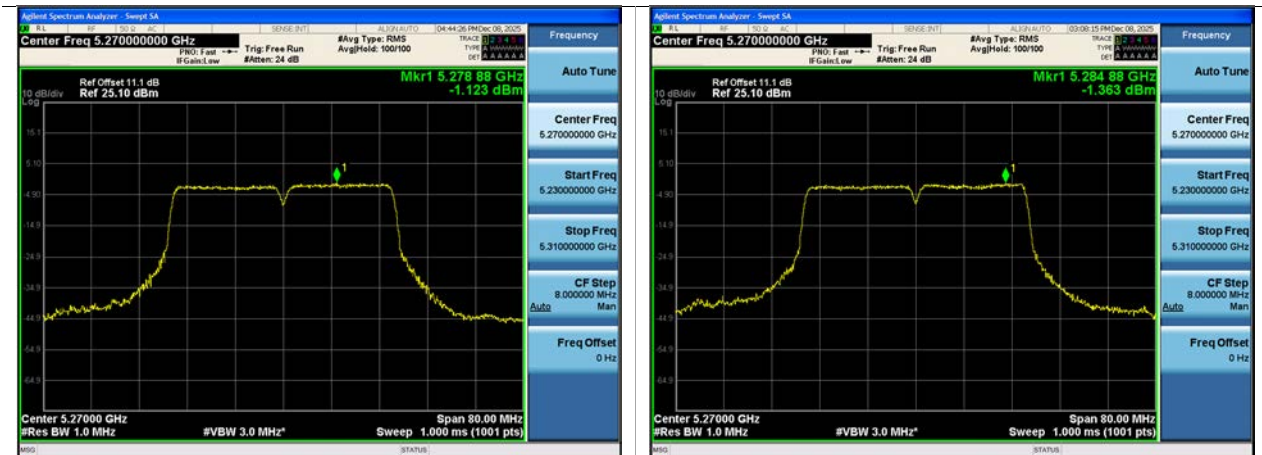
ANT. 1

ANT. 2

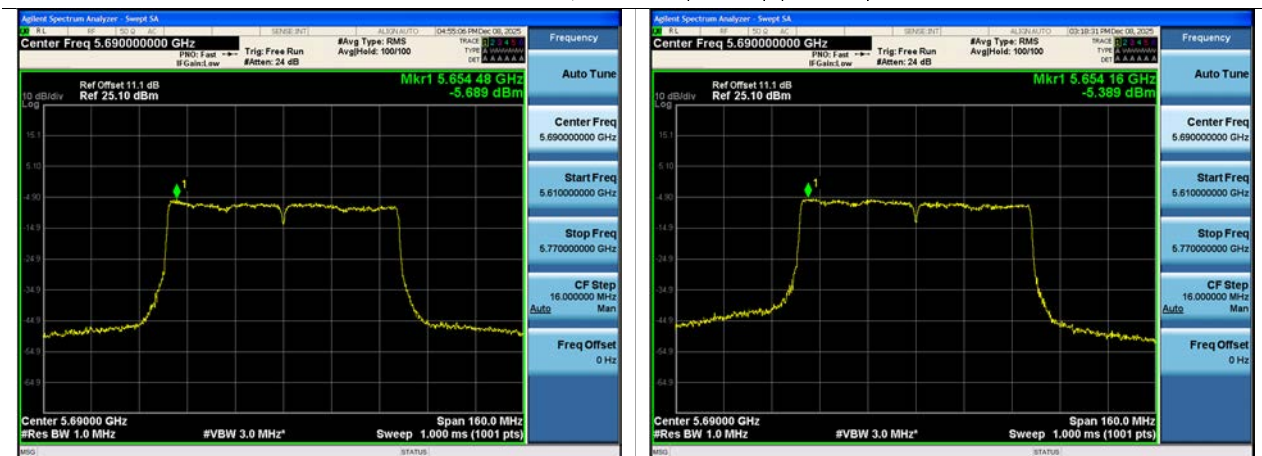
Bandwidth 20M, 802.11a(Ch. 52)



Bandwidth 40M, 802.11n(HT40) (Ch. 54)



Bandwidth 80M, 802.11ac(VHT80) (Ch. 138)



10.6 FREQUENCY STABILITY

Note:

1. All modes of operation were investigated and the worst case configuration results are reported.
2. 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.

10.6.1 802.11ac 80 MHz BW

[MIMO (Ant1+Ant2)]

REFERENCE VOLTAGE: 3.90 VDC

Startup after the EUT is energized

OPERATING BAND:			UNII Band 1		UNII Band 2A		UNII Band 2C	
OPERATING FREQUENCY:			5,210,000,000 Hz		5,290,000,000 Hz		5,530,000,000 Hz	
CHANNEL:			42		58		106	
Voltage	Power	Temp.	Frequency	Frequency Error	Frequency	Frequency Error	Frequency	Frequency Error
(%)	(VDC)	(°C)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)
100%	3.90	+20	5210035.46	35.46	5290035.42	35.42	5530031.44	31.44
100%		-30	5210007.29	7.29	5290005.87	5.87	5530007.51	7.51
100%		-20	5210012.50	12.50	5290015.54	15.54	5530012.98	12.98
100%		-10	5210017.05	17.05	5290020.06	20.06	5530019.69	19.69
100%		0	5210020.78	20.78	5290022.47	22.47	5530024.12	24.12
100%		+10	5210029.32	29.32	5290030.83	30.83	5530026.13	26.13
100%		+30	5210040.30	40.30	5290038.60	38.60	5530037.61	37.61
100%		+40	5210041.12	41.12	5290041.42	41.42	5530046.34	46.34
100%		+50	5210050.46	50.46	5290051.04	51.04	5530051.40	51.40
High	4.50	+20	5210033.80	33.80	5290034.87	34.87	5530035.56	35.56
End Point	3.40	+20	5210031.15	31.15	5290030.40	30.40	5530034.93	34.93

OPERATING BAND:			UNII Band 3		UNII Band 4	
OPERATING FREQUENCY:			5,775,000,000 Hz		5,855,000,000 Hz	
CHANNEL:			155		171	
Voltage	Power	Temp.	Frequency	Frequency Error	Frequency	Frequency Error
(%)	(VDC)	(°C)	(kHz)	(kHz)	(kHz)	(kHz)
100%	3.90	+20(Ref)	5775032.66	32.66	5855034.40	34.40
100%		-30	5775010.49	10.49	5855010.76	10.76
100%		-20	5775015.97	15.97	5855012.97	12.97
100%		-10	5775018.58	18.58	5855020.15	20.15
100%		0	5775022.48	22.48	5855021.65	21.65
100%		+10	5775027.53	27.53	5855027.39	27.39
100%		+30	5775037.47	37.47	5855036.41	36.41
100%		+40	5775049.67	49.67	5855047.22	47.22
100%		+50	5775056.02	56.02	5855052.86	52.86
High	4.50	+20	5775033.36	33.36	5855034.29	34.29
End Point	3.40	+20	5775033.92	33.92	5855035.57	35.57

2 minutes after the EUT is energized

OPERATING BAND:			UNII Band 1		UNII Band 2A		UNII Band 2C	
OPERATING FREQUENCY:			5,210,000,000 Hz		5,290,000,000 Hz		5,530,000,000 Hz	
CHANNEL:			42		58		106	
Voltage	Power	Temp.	Frequency	Frequency Error	Frequency	Frequency Error	Frequency	Frequency Error
(%)	(VDC)	(°C)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)
100%	3.90	+20	5210032.62	32.62	5290034.54	34.54	5530032.97	32.97
100%		-30	5210005.77	5.77	5290005.85	5.85	5530006.21	6.21
100%		-20	5210011.41	11.41	5290011.33	11.33	5530010.60	10.60
100%		-10	5210020.49	20.49	5290015.58	15.58	5530019.68	19.68
100%		0	5210021.36	21.36	5290024.76	24.76	5530023.31	23.31
100%		+10	5210030.44	30.44	5290025.81	25.81	5530029.55	29.55
100%		+30	5210036.56	36.56	5290035.82	35.82	5530036.22	36.22
100%		+40	5210049.32	49.32	5290050.09	50.09	5530045.85	45.85
100%		+50	5210054.70	54.70	5290057.59	57.59	5530058.06	58.06
High	4.50	+20	5210032.45	32.45	5290032.11	32.11	5530031.02	31.02
End Point	3.40	+20	5210033.47	33.47	5290031.68	31.68	5530033.65	33.65

OPERATING BAND:			UNII Band 3		UNII Band 4	
OPERATING FREQUENCY:			5,775,000,000 Hz		5,855,000,000 Hz	
CHANNEL:			155		171	
Voltage	Power	Temp.	Frequency	Frequency Error	Frequency	Frequency Error
(%)	(VDC)	(°C)	(kHz)	(kHz)	(kHz)	(kHz)
100%	3.90	+20(Ref)	5775034.79	34.79	5855030.18	30.18
100%		-30	5775010.58	10.58	5855009.64	9.64
100%		-20	5775015.67	15.67	5855015.58	15.58
100%		-10	5775018.78	18.78	5855015.26	15.26
100%		0	5775023.23	23.23	5855024.93	24.93
100%		+10	5775026.29	26.29	5855029.53	29.53
100%		+30	5775038.42	38.42	5855040.65	40.65
100%		+40	5775042.26	42.26	5855047.56	47.56
100%		+50	5775058.45	58.45	5855051.11	51.11
High	4.50	+20	5775034.82	34.82	5855031.58	31.58
End Point	3.40	+20	5775034.80	34.80	5855030.24	30.24

5 minutes after the EUT is energized

OPERATING BAND:			UNII Band 1		UNII Band 2A		UNII Band 2C	
OPERATING FREQUENCY:			5,210,000,000 Hz		5,290,000,000 Hz		5, 530,000,000 Hz	
CHANNEL:			42		58		106	
Voltage	Power	Temp.	Frequency	Frequency Error	Frequency	Frequency Error	Frequency	Frequency Error
(%)	(VDC)	(°C)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)
100%	3.90	+20	5210034.62	34.62	5290031.70	31.70	5530032.61	32.61
100%		-30	5210005.05	5.05	5290009.36	9.36	5530010.78	10.78
100%		-20	5210015.46	15.46	5290011.91	11.91	5530010.64	10.64
100%		-10	5210018.94	18.94	5290018.31	18.31	5530020.99	20.99
100%		0	5210025.57	25.57	5290020.20	20.20	5530023.24	23.24
100%		+10	5210030.20	30.20	5290025.03	25.03	5530028.86	28.86
100%		+30	5210039.97	39.97	5290040.31	40.31	5530040.22	40.22
100%		+40	5210046.46	46.46	5290045.72	45.72	5530047.96	47.96
100%		+50	5210055.39	55.39	5290058.78	58.78	5530060.13	60.13
High	4.50	+20	5210032.52	32.52	5290030.98	30.98	5530034.54	34.54
End Point	3.40	+20	5210032.72	32.72	5290034.30	34.30	5530030.86	30.86

OPERATING BAND:			UNII Band 3		UNII Band 4	
OPERATING FREQUENCY:			5,775,000,000 Hz		5,855,000,000 Hz	
CHANNEL:			155		171	
Voltage	Power	Temp.	Frequency	Frequency Error	Frequency	Frequency Error
(%)	(VDC)	(°C)	(kHz)	(kHz)	(kHz)	(kHz)
100%	3.90	+20(Ref)	5775035.68	35.68	5855034.61	34.61
100%		-30	5775007.53	7.53	5855007.55	7.55
100%		-20	5775012.36	12.36	5855015.82	15.82
100%		-10	5775017.19	17.19	5855019.06	19.06
100%		0	5775022.47	22.47	5855020.35	20.35
100%		+10	5775030.41	30.41	5855027.12	27.12
100%		+30	5775038.86	38.86	5855035.47	35.47
100%		+40	5775048.55	48.55	5855040.47	40.47
100%		+50	5775053.53	53.53	5855054.90	54.90
High	4.50	+20	5775033.83	33.83	5855033.78	33.78
End Point	3.40	+20	5775031.79	31.79	5855030.77	30.77

10 minutes after the EUT is energized

OPERATING BAND:			UNII Band 1		UNII Band 2A		UNII Band 2C	
OPERATING FREQUENCY:			5,210,000,000 Hz		5,290,000,000 Hz		5,530,000,000 Hz	
CHANNEL:			42		58		106	
Voltage	Power	Temp.	Frequency	Frequency Error	Frequency	Frequency Error	Frequency	Frequency Error
(%)	(VDC)	(°C)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)
100%	3.90	+20	5210031.97	31.97	5290034.38	34.38	5530035.83	35.83
100%		-30	5210005.40	5.40	5290008.06	8.06	5530009.68	9.68
100%		-20	5210012.74	12.74	5290012.99	12.99	5530012.99	12.99
100%		-10	5210018.04	18.04	5290019.71	19.71	5530017.93	17.93
100%		0	5210020.35	20.35	5290024.96	24.96	5530024.13	24.13
100%		+10	5210027.98	27.98	5290025.38	25.38	5530026.21	26.21
100%		+30	5210038.34	38.34	5290036.05	36.05	5530039.20	39.20
100%		+40	5210045.82	45.82	5290044.10	44.10	5530045.59	45.59
100%		+50	5210056.25	56.25	5290056.42	56.42	5530051.15	51.15
High	4.50	+20	5210035.24	35.24	5290034.62	34.62	5530033.42	33.42
End Point	3.40	+20	5210033.03	33.03	5290031.88	31.88	5530031.77	31.77

OPERATING BAND:			UNII Band 3		UNII Band 4	
OPERATING FREQUENCY:			5,775,000,000 Hz		5,855,000,000 Hz	
CHANNEL:			155		171	
Voltage	Power	Temp.	Frequency	Frequency Error	Frequency	Frequency Error
(%)	(VDC)	(°C)	(kHz)	(kHz)	(kHz)	(kHz)
100%	3.90	+20(Ref)	5775033.80	33.80	5855030.33	30.33
100%		-30	5775007.82	7.82	5855008.81	8.81
100%		-20	5775010.69	10.69	5855012.52	12.52
100%		-10	5775015.55	15.55	5855018.45	18.45
100%		0	5775022.21	22.21	5855020.21	20.21
100%		+10	5775029.57	29.57	5855030.34	30.34
100%		+30	5775036.86	36.86	5855036.26	36.26
100%		+40	5775046.77	46.77	5855048.58	48.58
100%		+50	5775056.05	56.05	5855056.22	56.22
High	4.50	+20	5775032.48	32.48	5855032.27	32.27
End Point	3.40	+20	5775032.26	32.26	5855033.12	33.12

10.7 STRADDLE CHANNEL

Test Description	Note
26 dB Bandwidth	[UNII 2C] 26 dB Bandwidth = 5725 MHz - Measured Frequency[MHz] [UNII 3] 26 dB Bandwidth = Measured Frequency[MHz] - 5725 MHz
6 dB Bandwidth	6 dB Bandwidth = Measured Frequency[MHz] – 5725 MHz - Limit : > 0.5 MHz
Output Power	- Limit(UNII2C) : 23.98 dBm or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.) - Limit(UNII 3) : 30.00 dBm - Total Power (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)
Power Spectral Density	- Limit(UNII 2C) : 11.0 dBm/MHz - Limit(UNII 3) : 30.0 dBm/500kHz - Total PSD (dBm/MHz) = Measured Value (dBm/MHz) + Duty Cycle Factor (dB)

[SISO(Ant.1)]

Mode	Band	Freq. [MHz]	CH.	26dB BW [MHz]	6dB BW [MHz]	Total Power [dBm]	Total PSD [dBm]
802.11a	UNII2C	5720	144	15.92	-	13.56	3.372
802.11n(HT20)				16.16	-	13.72	2.998
802.11ac(VHT20)				16.24	-	13.62	3.240
802.11a	UNII3	5720	144	5.44	3.20	7.29	0.266
802.11n(HT20)				6.36	3.84	7.93	0.186
802.11ac(VHT20)				5.96	3.84	7.78	0.243

Mode	Band	Freq. [MHz]	CH.	26dB BW [MHz]	6dB BW [MHz]	Total Power [dBm]	Total PSD [dBm]
802.11n(HT40)	UNII2C	5710	142	36.68	-	13.58	-0.354
802.11ac(VHT40)				37.72	-	13.63	-0.414
802.11n(HT40)	UNII3	5710	142	6.28	3.24	3.33	-3.802
802.11ac(VHT40)				7.16	3.24	3.43	-3.810

Mode	Band	Freq. [MHz]	CH.	26dB BW [MHz]	6dB BW [MHz]	Total Power [dBm]	Total PSD [dBm]
802.11ac(VHT80)	UNII2C	5690	138	77.88	-	13.00	-4.136
802.11ac(VHT80)	UNII3	5690	138	8.04	3.24	-0.97	-7.890

[MIMO (Ant.1)]

Mode	Band	Freq. [MHz]	CH.	26dB BW [MHz]	6dB BW [MHz]	Total Power [dBm]	Total PSD [dBm]
802.11a	UNII2C	5720	144	15.68	-	12.85	2.951
802.11n(HT20)				16.00	-	12.56	2.265
802.11ac(VHT20)				16.00	-	12.62	2.255
802.11a	UNII3	5720	144	5.60	3.20	6.78	-0.201
802.11n(HT20)				6.12	3.60	6.84	-0.958
802.11ac(VHT20)				6.24	3.60	6.78	-0.942

Mode	Band	Freq. [MHz]	CH.	26dB BW [MHz]	6dB BW [MHz]	Total Power [dBm]	Total PSD [dBm]
802.11n(HT40)	UNII2C	5710	142	37.32	-	12.71	-1.199
802.11ac(VHT40)				37.16	-	12.92	-1.195
802.11n(HT40)	UNII3	5710	142	6.92	3.24	2.46	-4.567
802.11ac(VHT40)				6.68	3.24	2.68	-4.229

Mode	Band	Freq. [MHz]	CH.	26dB BW [MHz]	6dB BW [MHz]	Total Power [dBm]	Total PSD [dBm]
802.11ac(VHT80)	UNII2C	5690	138	77.40	-	12.34	-4.897
802.11ac(VHT80)	UNII3	5690	138	7.88	3.24	-1.52	-8.540

[MIMO (Ant.2)]

Mode	Band	Freq. [MHz]	CH.	26dB BW [MHz]	6dB BW [MHz]	Total Power [dBm]	Total PSD [dBm]
802.11a	UNII2C	5720	144	15.52	-	13.73	3.643
802.11n(HT20)				16.28	-	13.88	3.453
802.11ac(VHT20)				16.52	-	13.76	3.301
802.11a	UNII3	5720	144	6.00	3.24	7.22	0.189
802.11n(HT20)				6.24	3.80	8.02	0.101
802.11ac(VHT20)				5.96	3.80	7.65	0.165

Mode	Band	Freq. [MHz]	CH.	26dB BW [MHz]	6dB BW [MHz]	Total Power [dBm]	Total PSD [dBm]
802.11n(HT40)	UNII2C	5710	142	36.60	-	13.60	-0.272
802.11ac(VHT40)				37.32	-	13.61	-0.313
802.11n(HT40)	UNII3	5710	142	6.84	3.24	3.24	-4.150
802.11ac(VHT40)				7.08	3.24	3.16	-4.072

Mode	Band	Freq. [MHz]	CH.	26dB BW [MHz]	6dB BW [MHz]	Total Power [dBm]	Total PSD [dBm]
802.11ac(VHT80)	UNII2C	5690	138	78.20	-	13.24	-3.453
802.11ac(VHT80)	UNII3	5690	138	7.08	3.24	-1.34	-7.851

□ Test Plots (26 dB Bandwidth)
[SISO(Ant.1)]

802.11a UNII Band



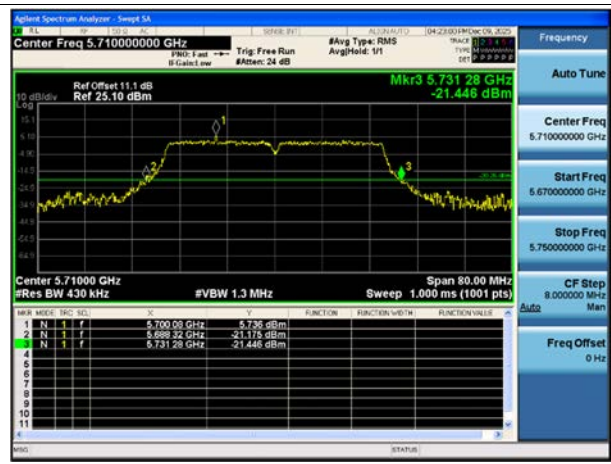
802.11n(HT20) UNII Band



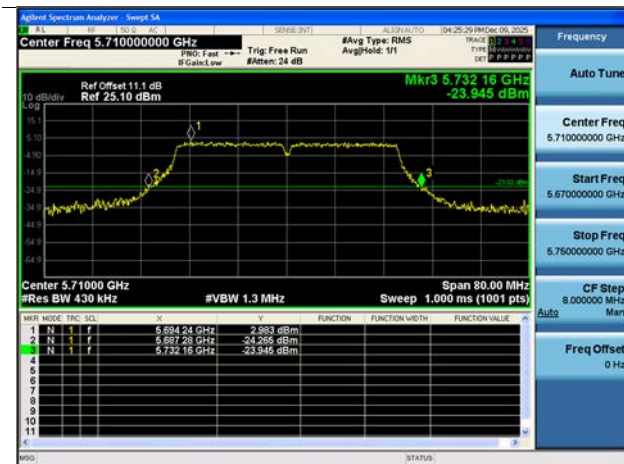
802.11ac(VHT20) UNII Band



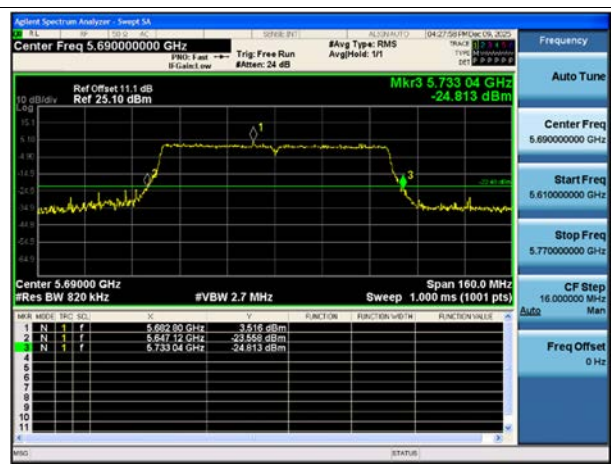
802.11n(HT40) UNII Band



802.11ac(VHT40) UNII Band

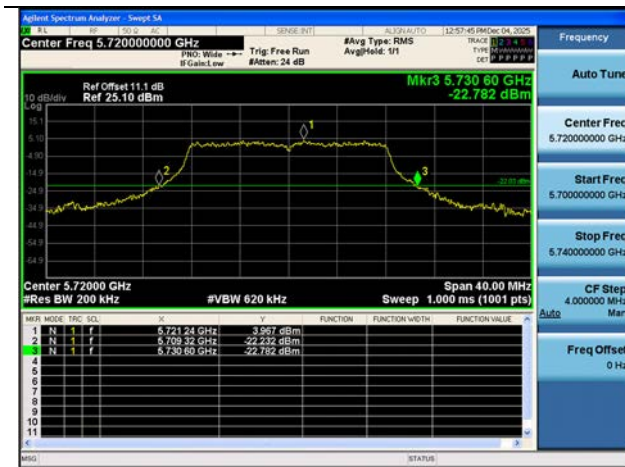


802.11ac(VHT80) UNII Band



[MIMO (Ant.1)]

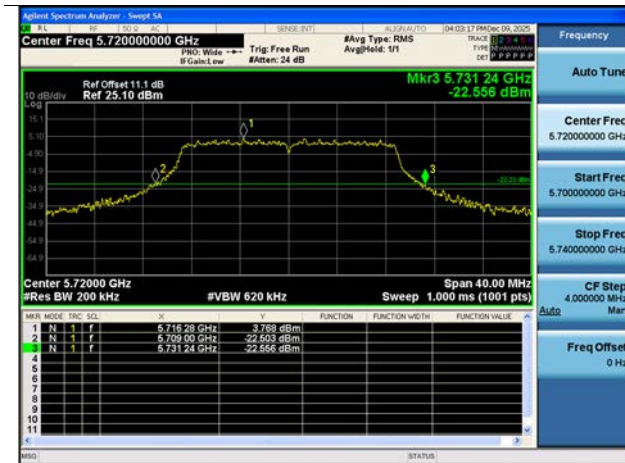
802.11a UNII Band



802.11n(HT20) UNII Band



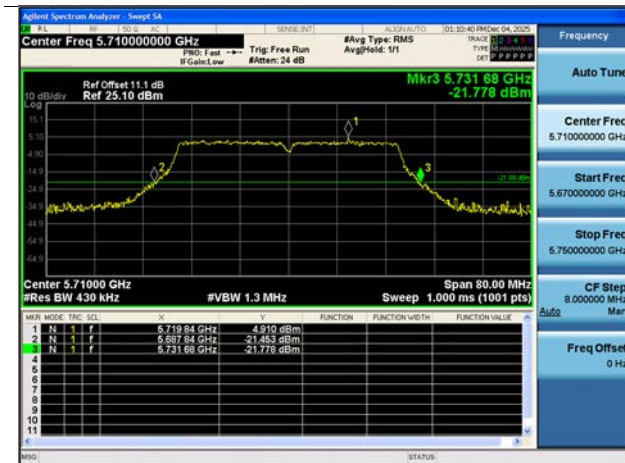
802.11ac(VHT20) UNII Band



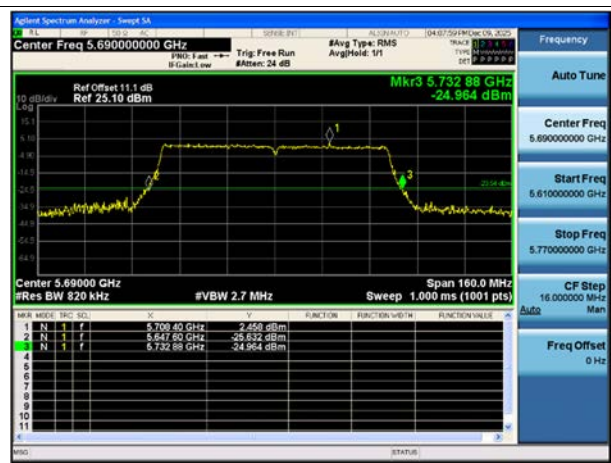
802.11n(HT40) UNII Band



802.11ac(VHT40) UNII Band

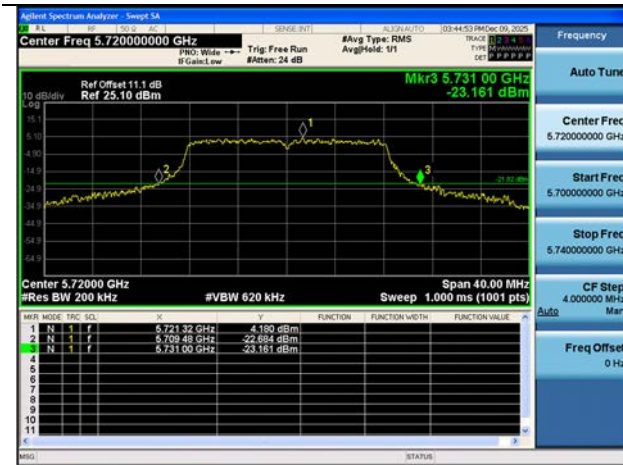


802.11ac(VHT80) UNII Band



[MIMO (Ant.2)]

802.11a UNII Band



802.11n(HT20) UNII Band



802.11ac(VHT20) UNII Band



802.11n(HT40) UNII Band



802.11ac(VHT40) UNII Band

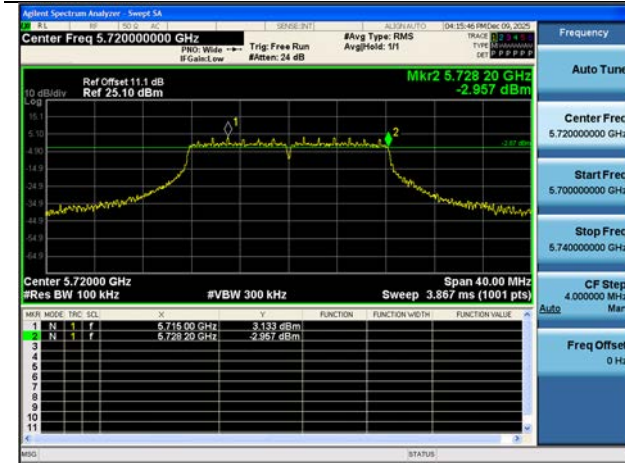


802.11ac(VHT80) UNII Band

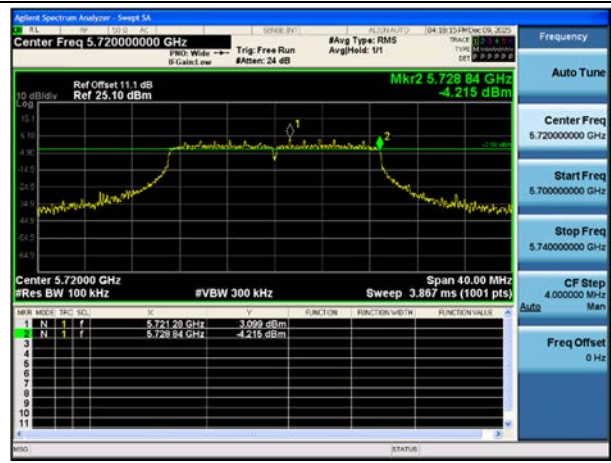


□ Test Plots(UNII 3 Band 6 dB Bandwidth)
[SISO(Ant.1)]

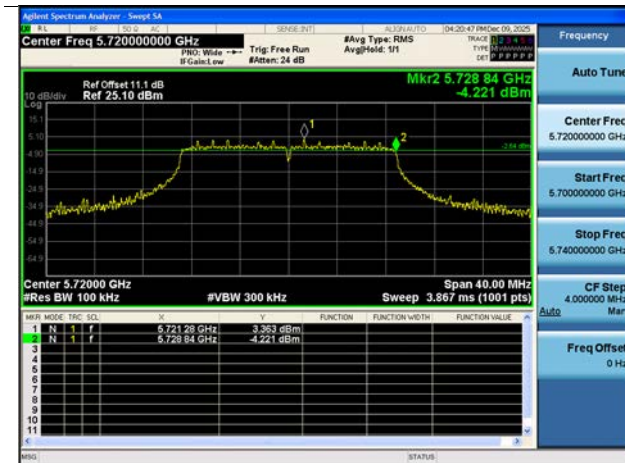
802.11a UNII Band



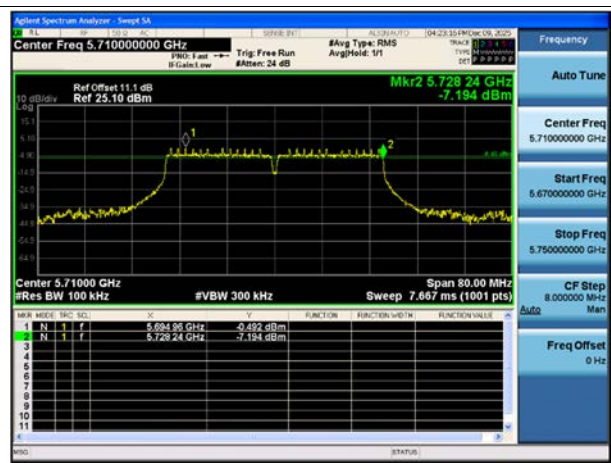
802.11n(HT20) UNII Band



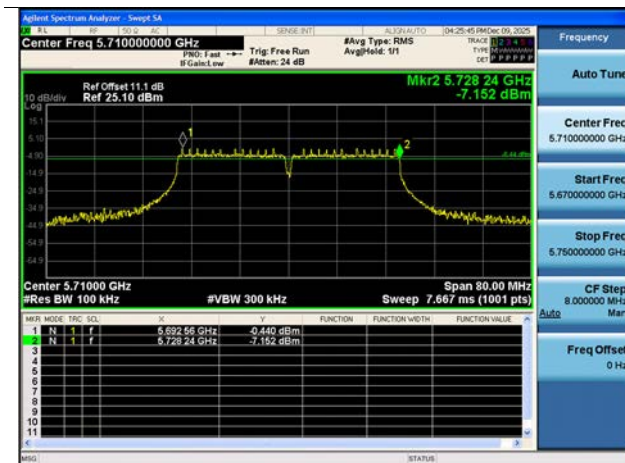
802.11ac(VHT20) UNII Band



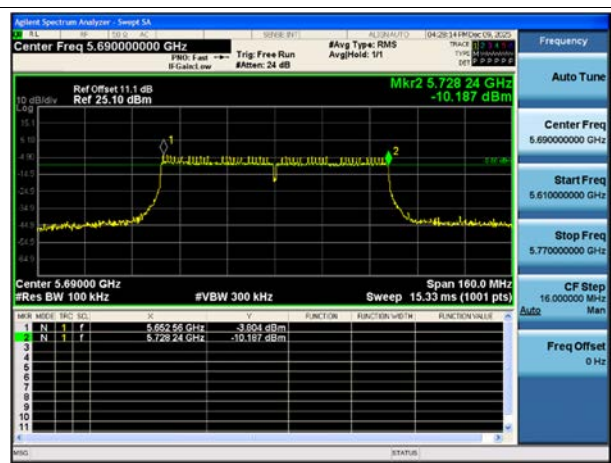
802.11n(HT40) UNII Band



802.11ac(VHT40) UNII Band

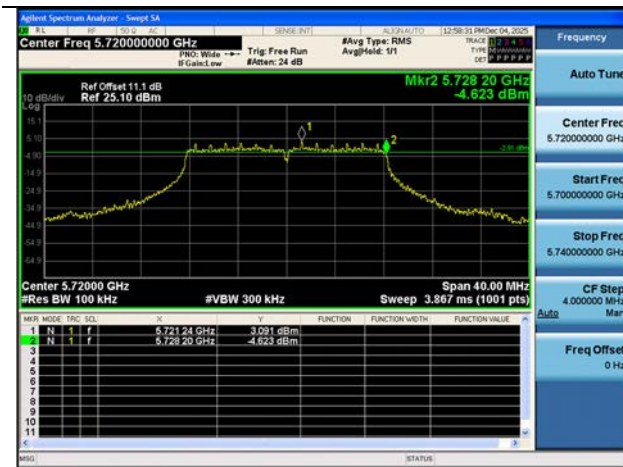


802.11ac(VHT80) UNII Band

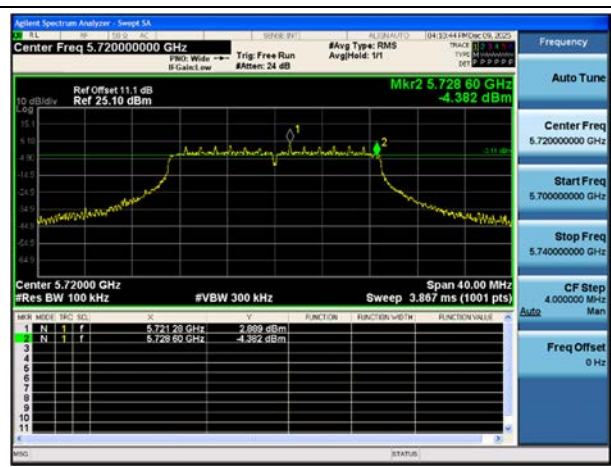


[MIMO (Ant.1)]

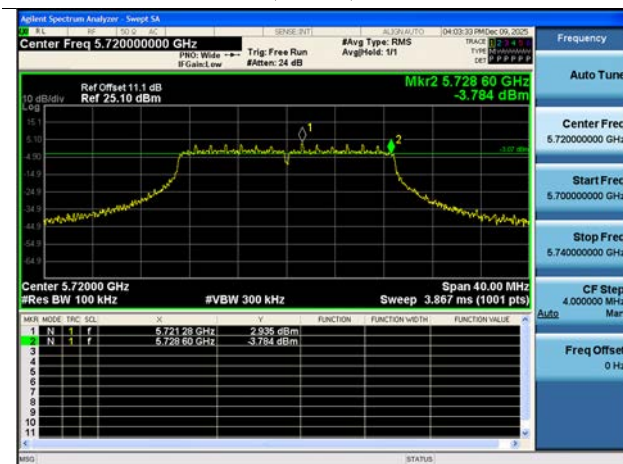
802.11a UNII Band



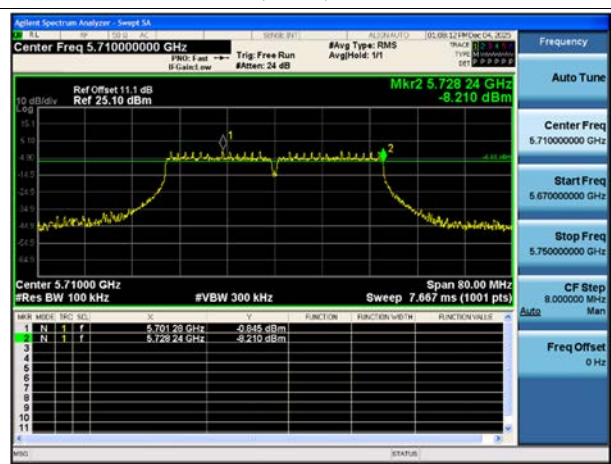
802.11n(HT20) UNII Band



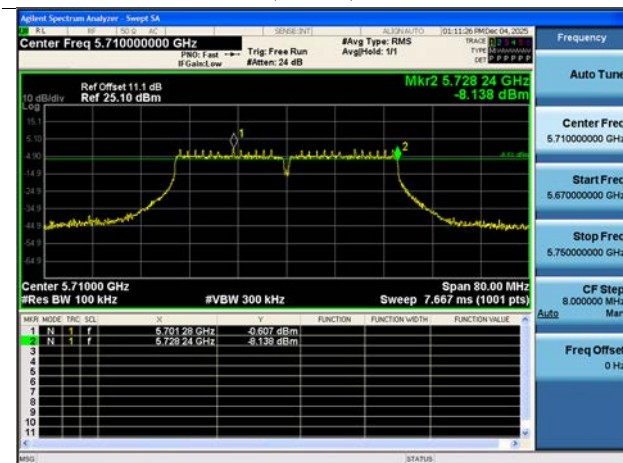
802.11ac(VHT20) UNII Band



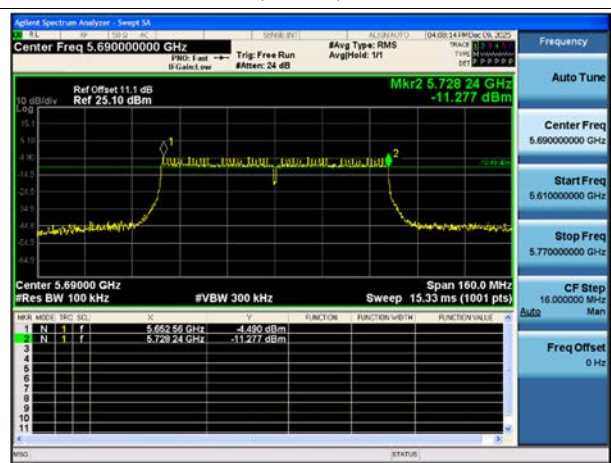
802.11n(HT40) UNII Band



802.11ac(VHT40) UNII Band

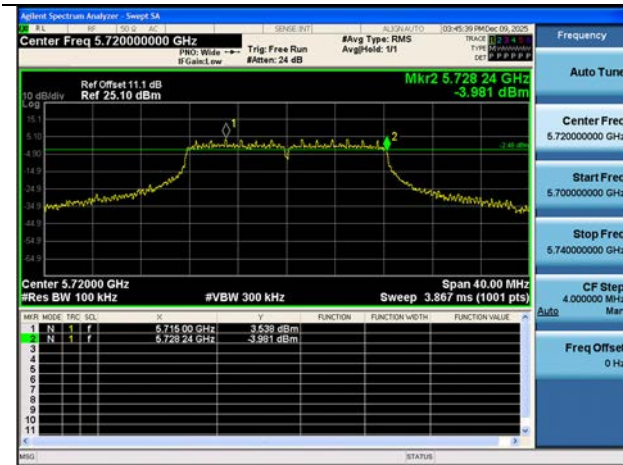


802.11ac(VHT80) UNII Band



[MIMO (Ant.2)]

802.11a UNII Band



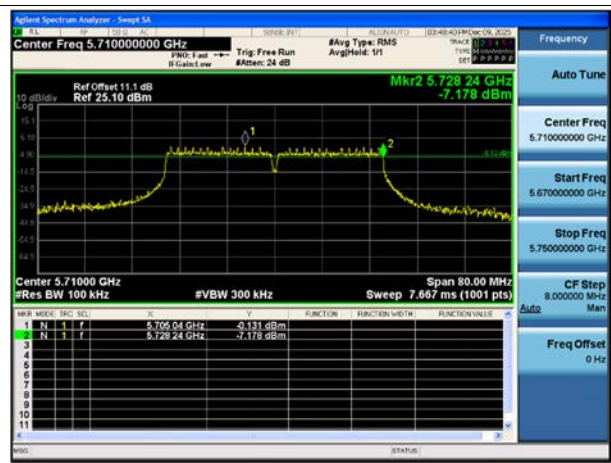
802.11n(HT20) UNII Band



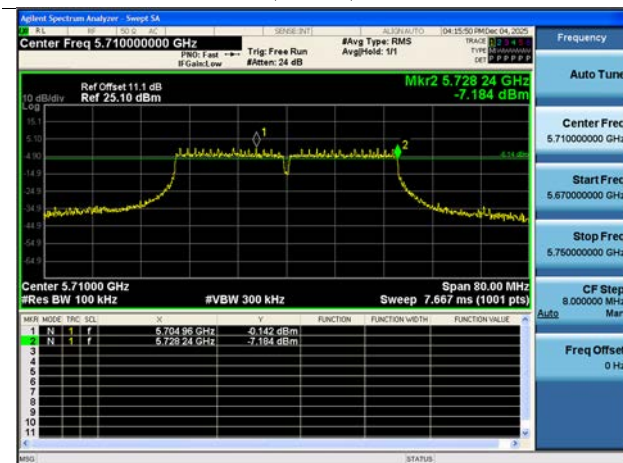
802.11ac(VHT20) UNII Band



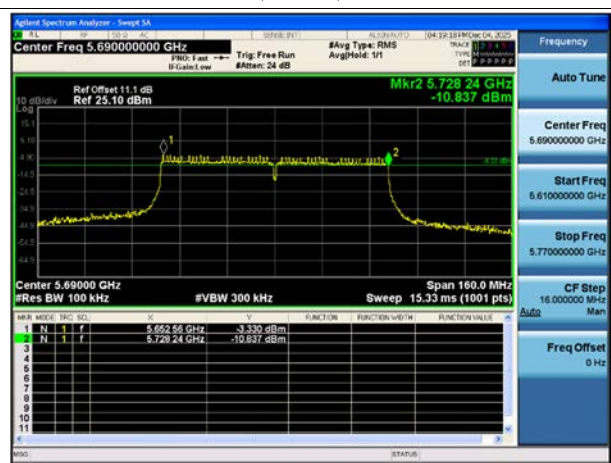
802.11n(HT40) UNII Band



802.11ac(VHT40) UNII Band

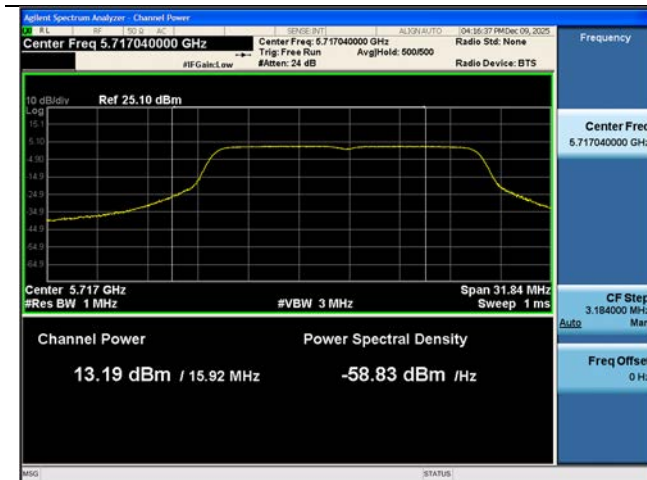


802.11ac(VHT80) UNII Band



Test Plots(Output Power)
[SISO(Ant.1)]

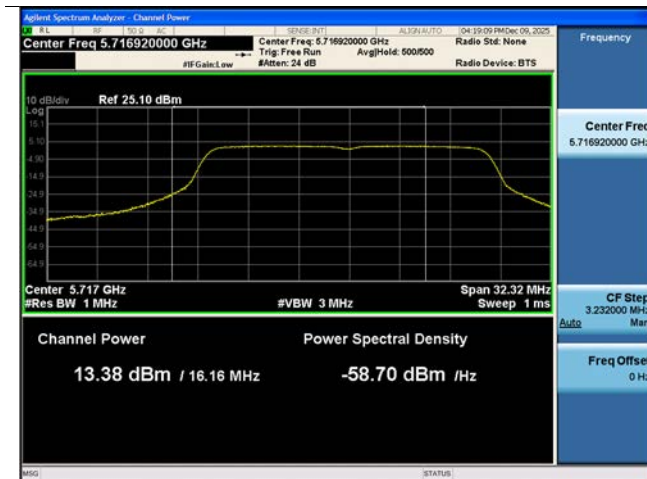
802.11a UNII 2C Band



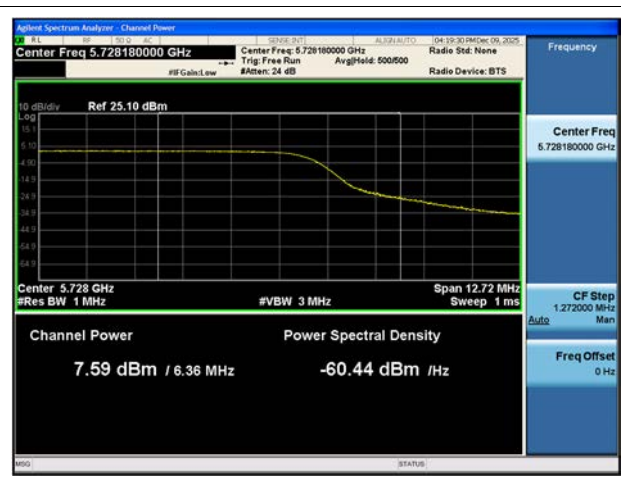
802.11a UNII 3 Band



802.11n(HT20) UNII 2C Band



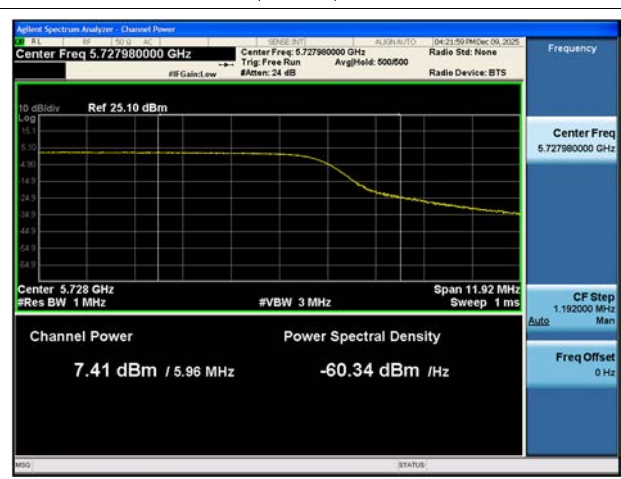
802.11n(HT20) UNII 3 Band



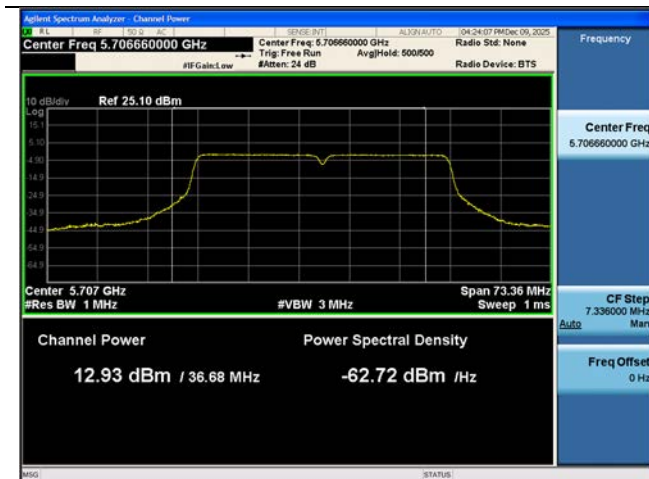
802.11ac(VHT20) UNII 2C Band



802.11ac(VHT20) UNII 3 Band



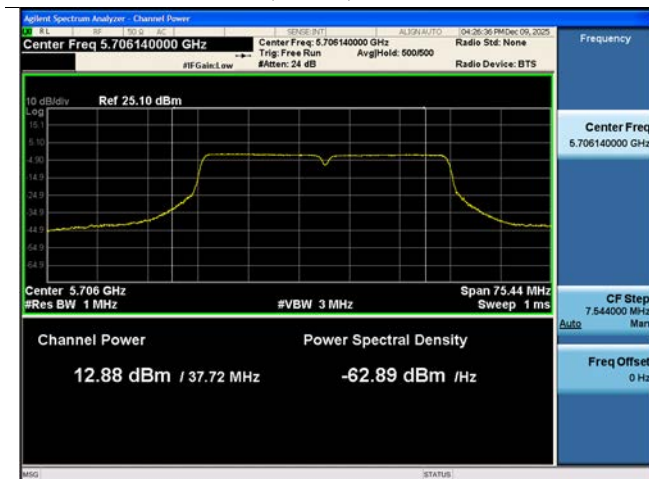
802.11n(HT40) UNII 2C Band



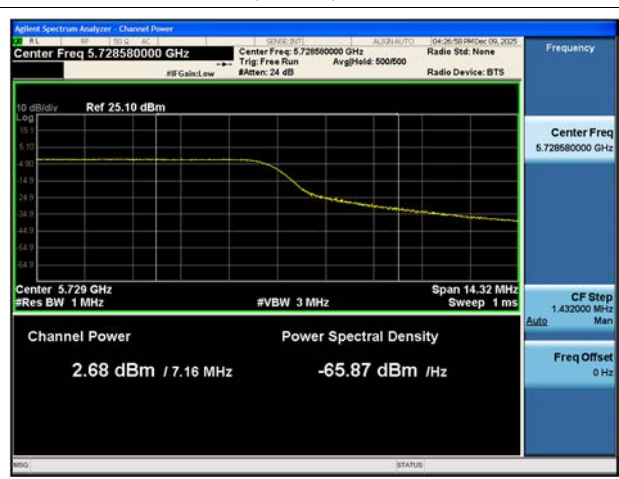
802.11n(HT40) UNII 3 Band



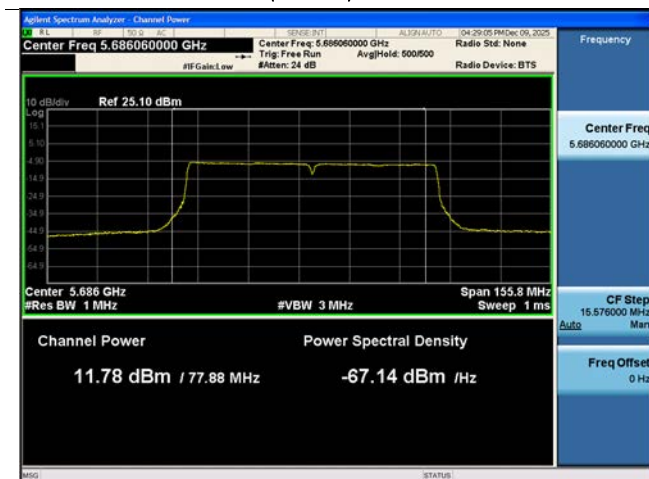
802.11ac(VHT40) UNII 2C Band



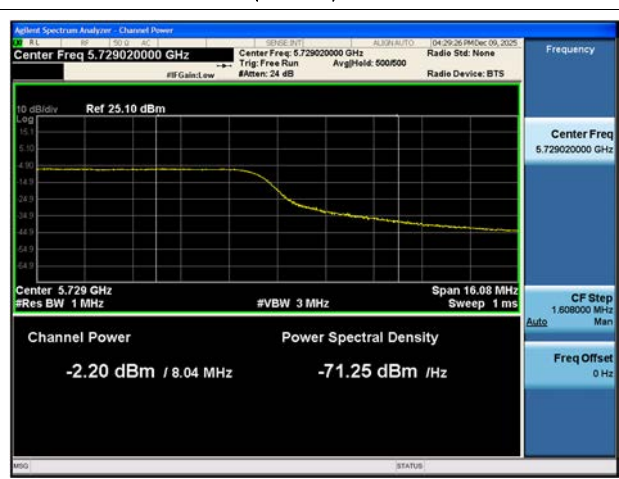
802.11ac(VHT40) UNII 3 Band



802.11ac(VHT80) UNII 2C Band

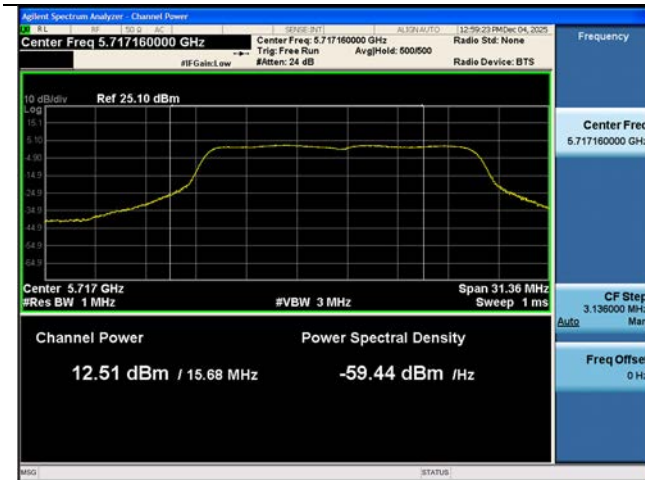


802.11ac(VHT80) UNII 3 Band



[MIMO (Ant.1)]

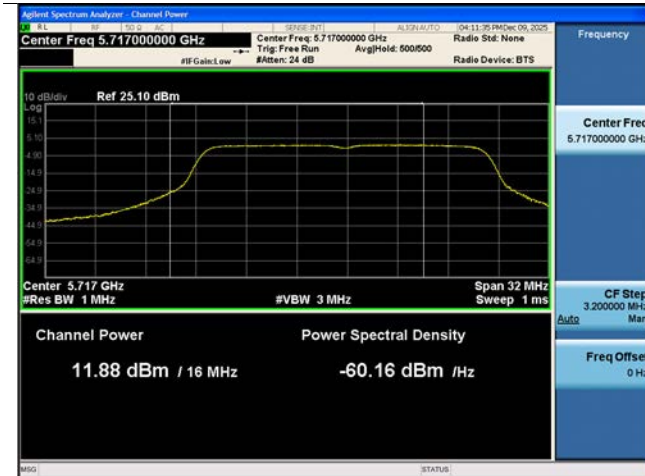
802.11a UNII 2C Band



802.11a UNII 3 Band



802.11n(HT20) UNII 2C Band



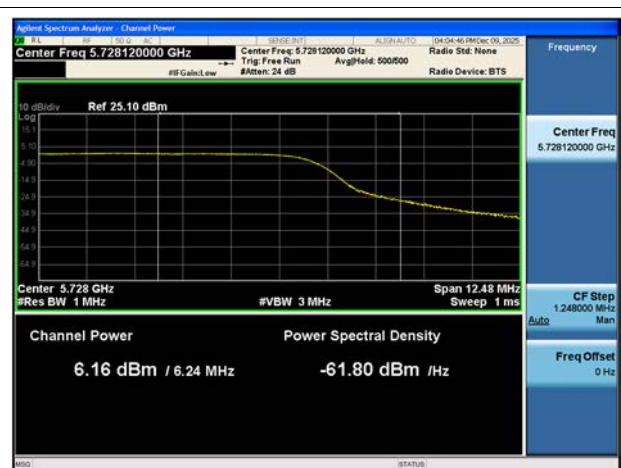
802.11n(HT20) UNII 3 Band



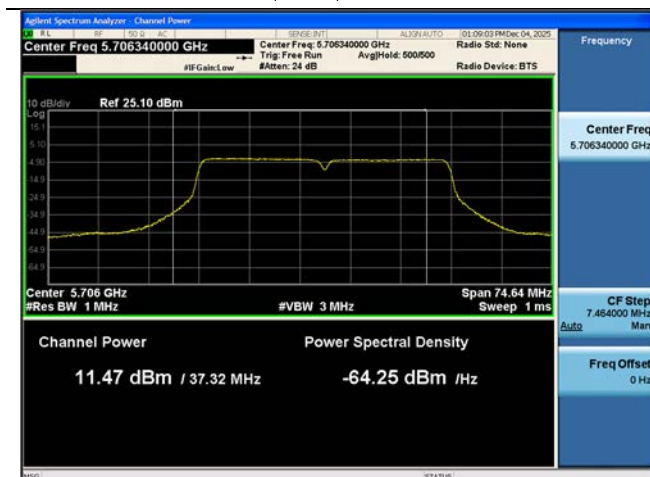
802.11ac(VHT20) UNII 2C Band



802.11ac(VHT20) UNII 3 Band



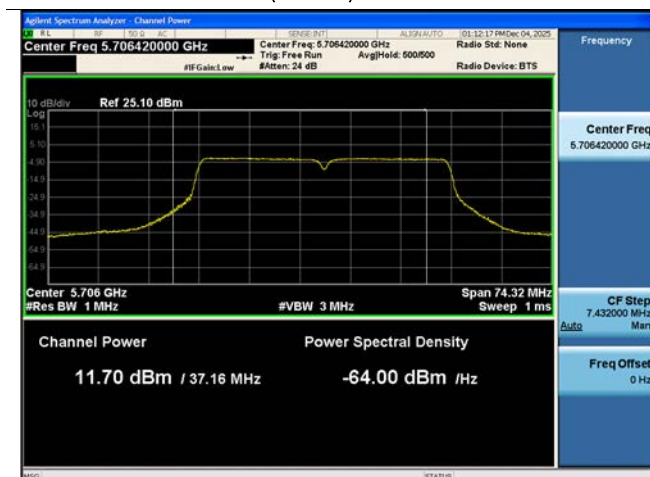
802.11n(HT40) UNII 2C Band



802.11n(HT40) UNII 3 Band



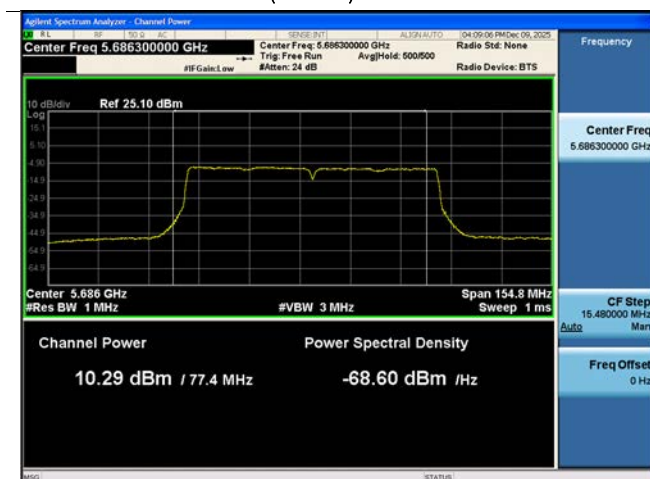
802.11ac(VHT40) UNII 2C Band



802.11ac(VHT40) UNII 3 Band



802.11ac(VHT80) UNII 2C Band

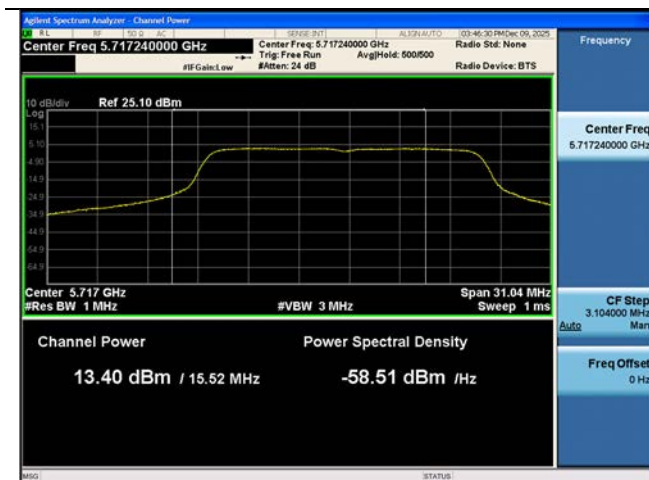


802.11ac(VHT80) UNII 3 Band

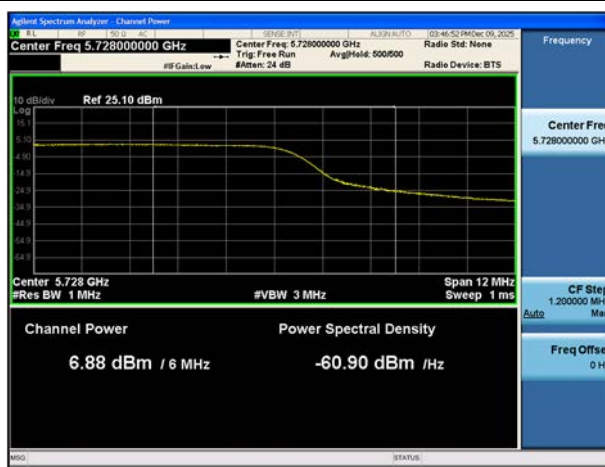


[MIMO (Ant.2)]

802.11a UNII 2C Band



802.11a UNII 3 Band



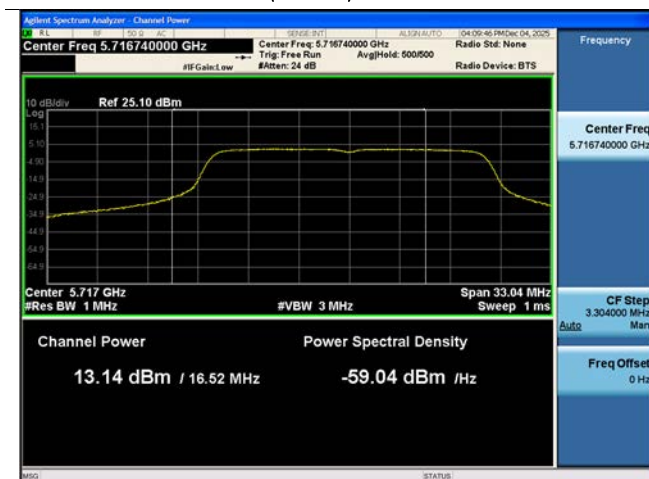
802.11n(HT20) UNII 2C Band



802.11n(HT20) UNII 3 Band



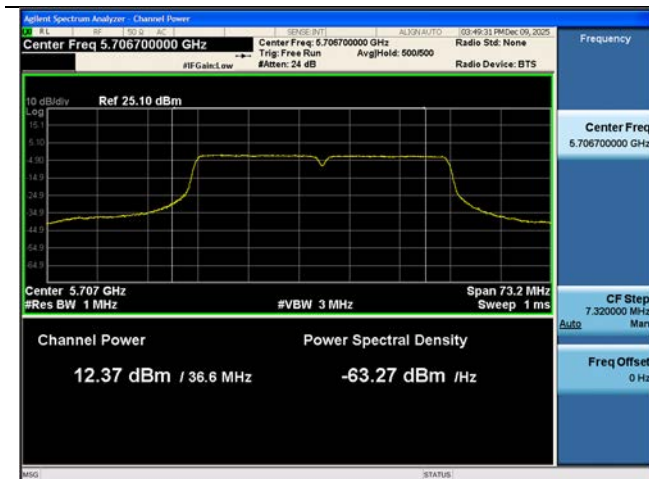
802.11ac(VHT20) UNII 2C Band



802.11ac(VHT20) UNII 3 Band



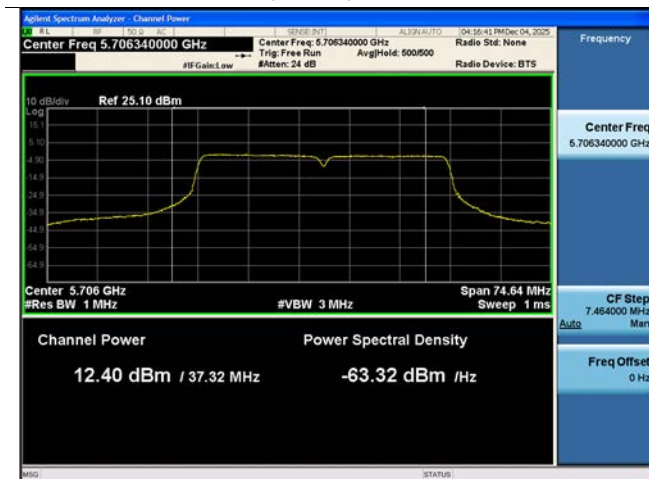
802.11n(HT40) UNII 2C Band



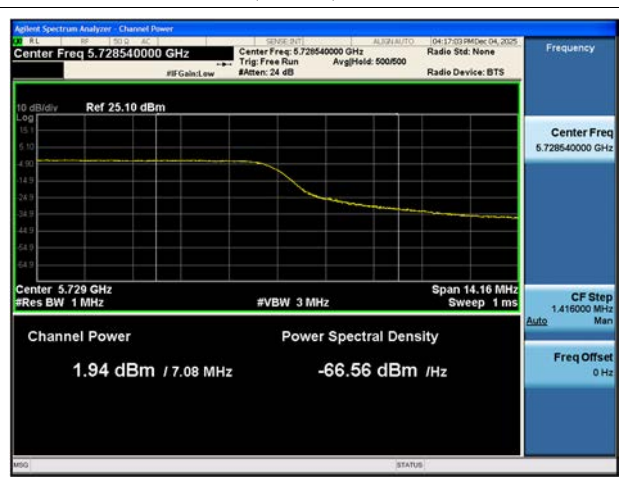
802.11n(HT40) UNII 3 Band



802.11ac(VHT40) UNII 2C Band



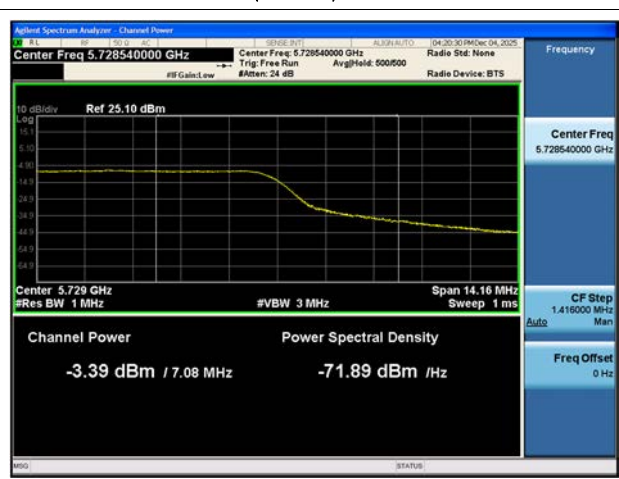
802.11ac(VHT40) UNII 3 Band



802.11ac(VHT80) UNII 2C Band

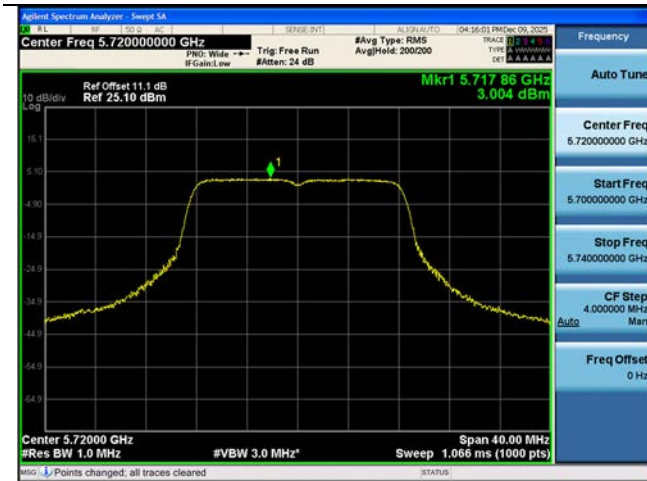


802.11ac(VHT80) UNII 3 Band



Test Plots(Power Spectral Density)
[SISO(Ant.1)]

802.11a UNII 2C Band



802.11a UNII 3 Band



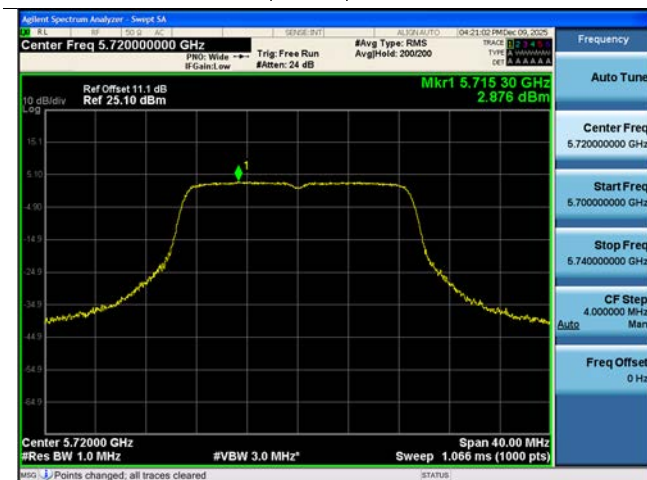
802.11n(HT20) UNII 2C Band



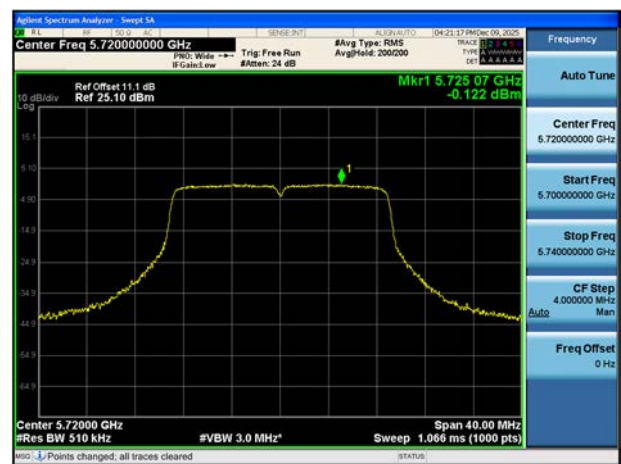
802.11n(HT20) UNII 3 Band



802.11ac(VHT20) UNII 2C Band



802.11ac(VHT20) UNII 3 Band



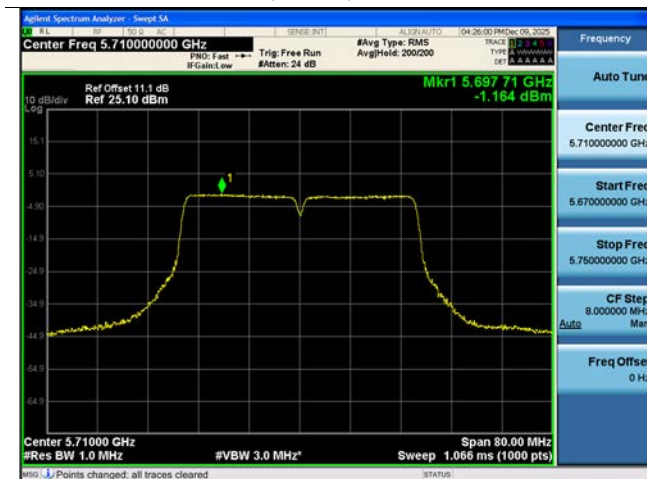
802.11n(HT40) UNII 2C Band



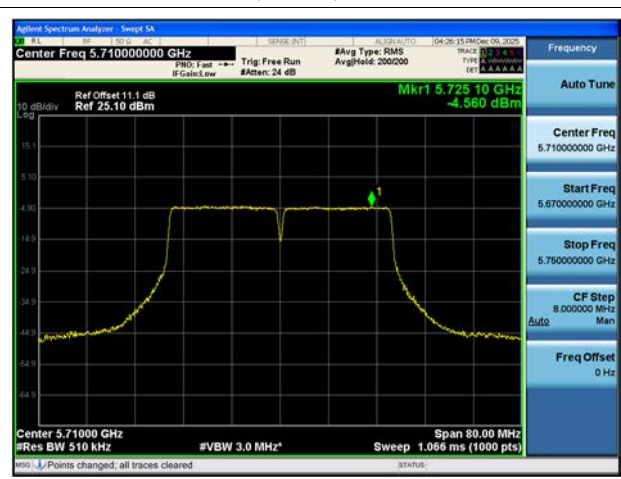
802.11n(HT40) UNII 3 Band



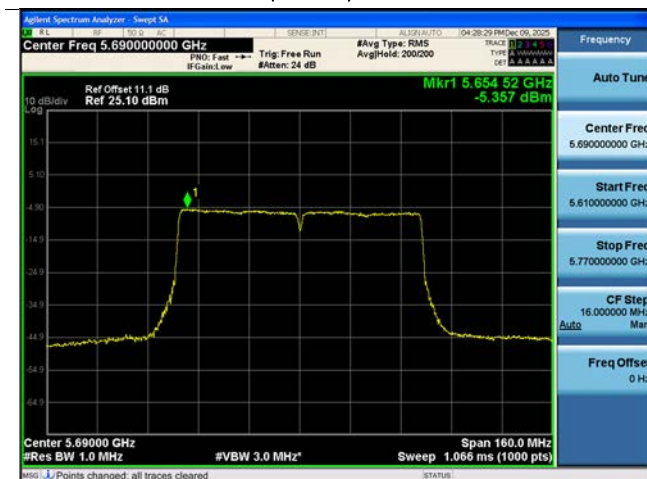
802.11ac(VHT40) UNII 2C Band



802.11ac(VHT40) UNII 3 Band



802.11ac(VHT80) UNII 2C Band



802.11ac(VHT80) UNII 3 Band



[MIMO (Ant.1)]

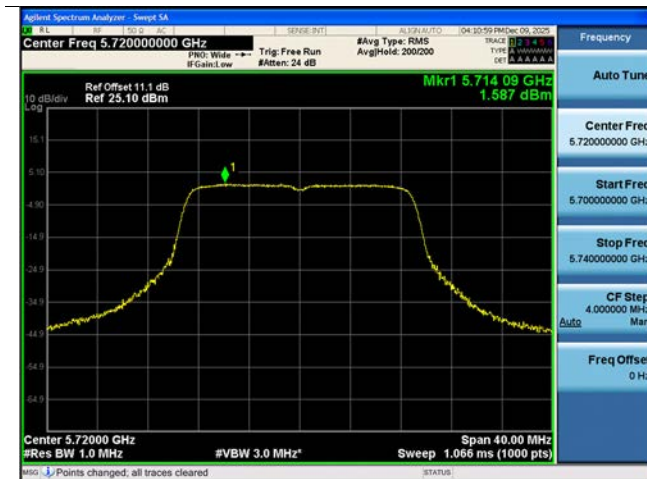
802.11a UNII 2C Band



802.11a UNII 3 Band



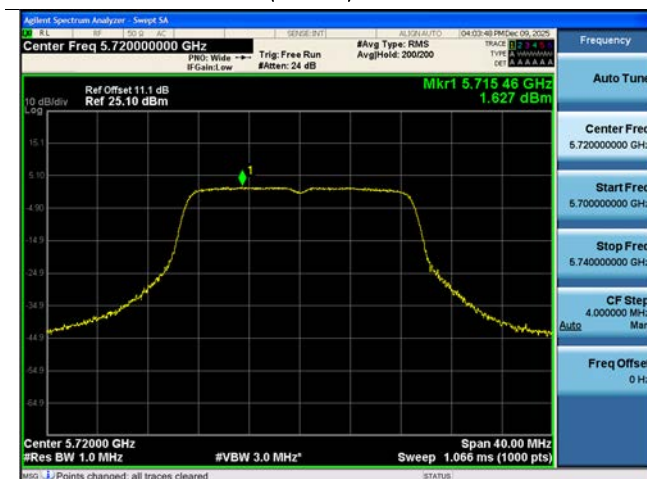
802.11n(HT20) UNII 2C Band



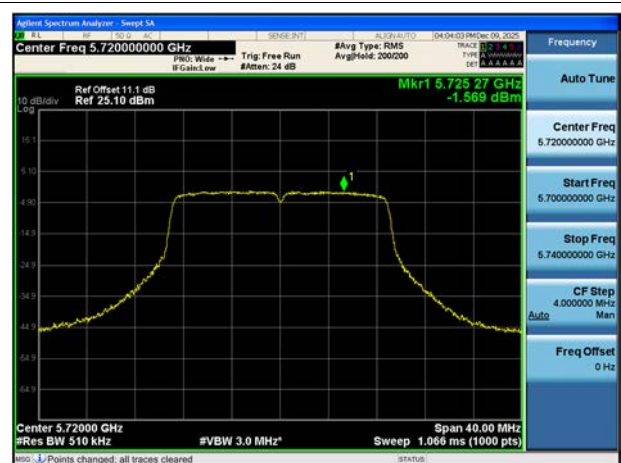
802.11n(HT20) UNII 3 Band



802.11ac(VHT20) UNII 2C Band



802.11ac(VHT20) UNII 3 Band



802.11n(HT40) UNII 2C Band



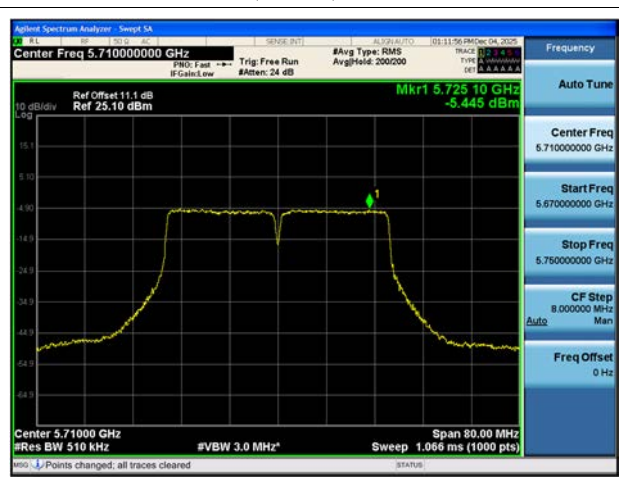
802.11n(HT40) UNII 3 Band



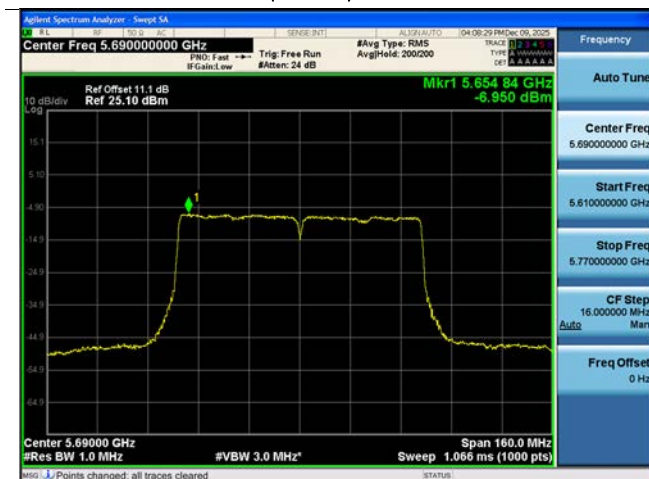
802.11ac(VHT40) UNII 2C Band



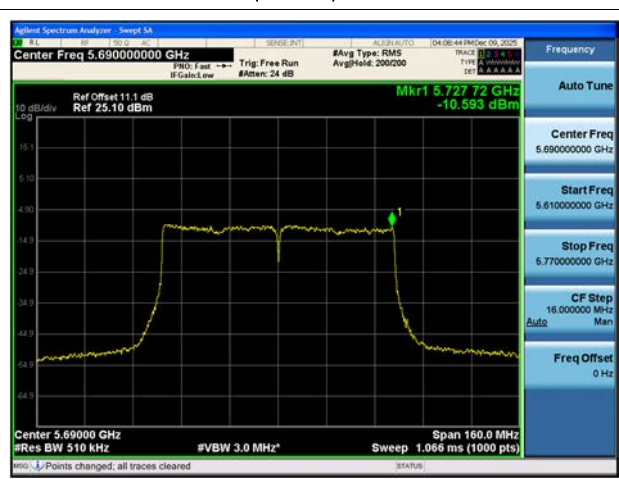
802.11ac(VHT40) UNII 3 Band



802.11ac(VHT80) UNII 2C Band

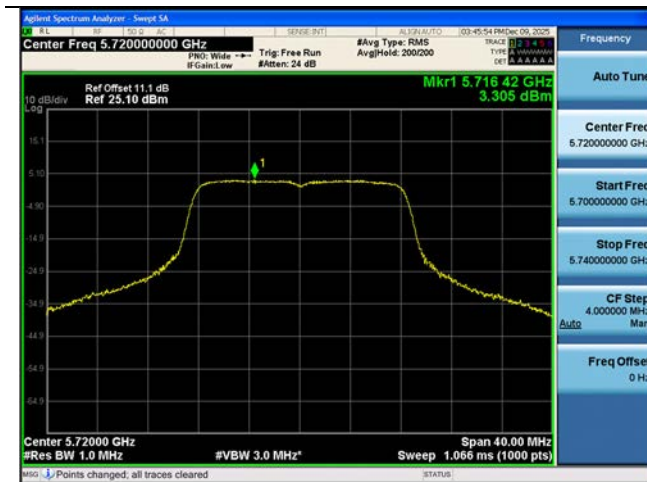


802.11ac(VHT80) UNII 3 Band



[MIMO (Ant.2)]

802.11a UNII 2C Band



802.11a UNII 3 Band



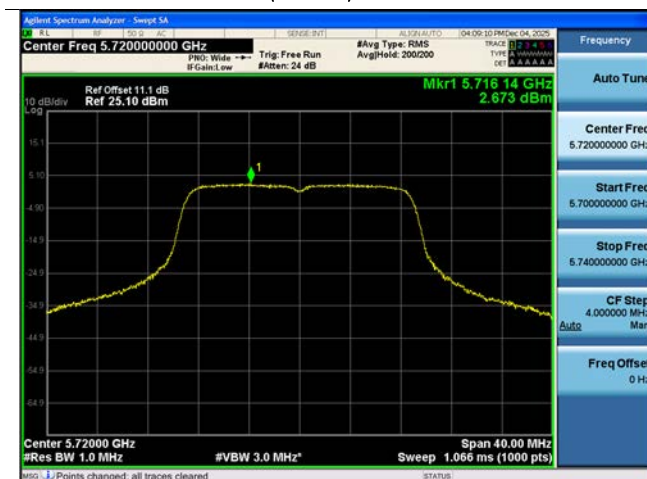
802.11n(HT20) UNII 2C Band



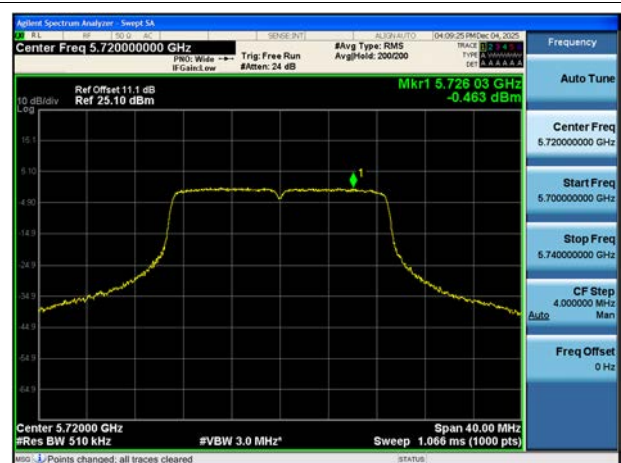
802.11n(HT20) UNII 3 Band



802.11ac(VHT20) UNII 2C Band



802.11ac(VHT20) UNII 3 Band



802.11n(HT40) UNII 2C Band



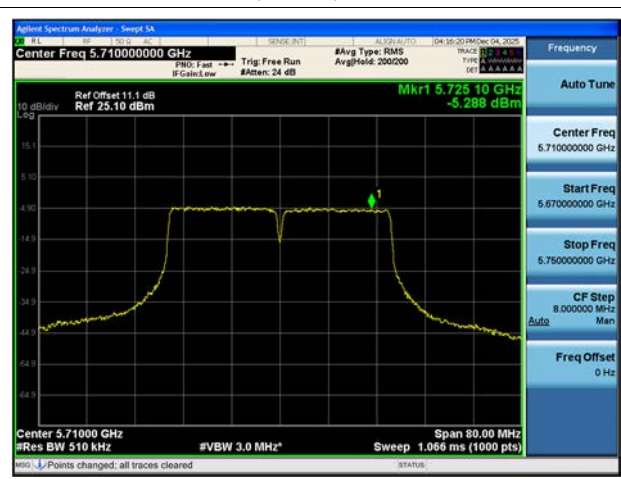
802.11n(HT40) UNII 3 Band



802.11ac(VHT40) UNII 2C Band



802.11ac(VHT40) UNII 3 Band



802.11ac(VHT80) UNII 2C Band



802.11ac(VHT80) UNII 3 Band



10.8 RADIATED SPURIOUS EMISSIONS

Frequency Range : 9 kHz – 30 MHz

Frequency	Measured Value	CL+AF+DF-AG	ANT. POL	Total	Limit	Margin
[MHz]	[dB μ V]	[dB/m]	[H/V]	[dB μ V/m]	[dB μ V/m]	[dB]
No Critical peaks found						

Note:

1. The Measured Value of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
2. Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB)
3. Limit line = specific Limits (dB μ V) + Distance extrapolation factor

Frequency Range : Below 1 GHz

Frequency	Measured Value	A.F+C.L	ANT. POL	Total	Limit	Margin
[MHz]	[dB μ V]	[dB/m]	[H/V]	[dB μ V/m]	[dB μ V/m]	[dB]
No Critical peaks found						

Note:

1. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode

Frequency Range : Above 1 GHz

[MIMO (Ant1+Ant2)]

Band : UNII 1			Operation Mode : 802.11a				
CH.36 5180 MHz			Transfer Rate : 6Mbps				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10360	57.07	-3.27	V	53.80	68.20	14.40	PK
15540	52.91	-1.27	V	51.64	73.98	22.34	PK
15540	39.22	-1.27	V	37.95	53.98	16.03	AV
10360	57.20	-3.27	H	53.93	68.20	14.27	PK
15540	53.13	-1.27	H	51.86	73.98	22.12	PK
15540	39.52	-1.27	H	38.25	53.98	15.73	AV

Band : UNII 1			Operation Mode : 802.11a				
CH.40 5200 MHz			Transfer Rate : 6Mbps				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10400	56.45	-3.23	V	53.22	68.20	14.98	PK
15600	53.75	-1.75	V	52.00	73.98	21.98	PK
15600	40.56	-1.75	V	38.81	53.98	15.17	AV
10400	55.79	-3.23	H	52.56	68.20	15.64	PK
15600	53.78	-1.75	H	52.03	73.98	21.95	PK
15600	40.68	-1.75	H	38.93	53.98	15.05	AV

Band : UNII 1			Operation Mode : 802.11a				
CH.48 5240 MHz			Transfer Rate : 6Mbps				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10480	56.98	-3.59	V	53.39	68.20	14.81	PK
15720	53.39	-2.02	V	51.37	73.98	22.61	PK
15720	40.68	-2.02	V	38.66	53.98	15.32	AV
10480	56.26	-3.59	H	52.67	68.20	15.53	PK
15720	53.77	-2.02	H	51.75	73.98	22.23	PK
15720	40.49	-2.02	H	38.47	53.98	15.51	AV

Band : UNII 2A			Operation Mode : 802.11a				
CH.52 5260 MHz			Transfer Rate : 6Mbps				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10520	58.54	-3.80	V	54.74	68.20	13.46	PK
15780	53.50	-2.36	V	51.14	73.98	22.84	PK
15780	39.53	-2.36	V	37.17	53.98	16.81	AV
10520	57.25	-3.80	H	53.45	68.20	14.75	PK
15780	53.78	-2.36	H	51.42	73.98	22.56	PK
15780	39.72	-2.36	H	37.36	53.98	16.62	AV

Band : UNII 2A			Operation Mode : 802.11a				
CH.60 5300 MHz			Transfer Rate : 6Mbps				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10600	58.70	-3.43	V	55.27	73.98	18.71	PK
10600	45.29	-3.43	V	41.86	53.98	12.12	AV
15900	53.16	-2.54	V	50.62	73.98	23.36	PK
15900	39.45	-2.54	V	36.91	53.98	17.07	AV
10600	56.18	-3.43	H	52.75	73.98	21.23	PK
10600	43.76	-3.43	H	40.33	53.98	13.65	AV
15900	54.05	-2.54	H	51.51	73.98	22.47	PK
15900	39.51	-2.54	H	36.97	53.98	17.01	AV

Band : UNII 2A			Operation Mode : 802.11a				
CH.64 5320 MHz			Transfer Rate : 6Mbps				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10640	57.28	-3.36	V	53.92	73.98	20.06	PK
10640	44.91	-3.36	V	41.55	53.98	12.43	AV
15960	53.27	-2.25	V	51.02	73.98	22.96	PK
15960	39.75	-2.25	V	37.50	53.98	16.48	AV
10640	57.39	-3.36	H	54.03	73.98	19.95	PK
10640	43.75	-3.36	H	40.39	53.98	13.59	AV
15960	53.57	-2.25	H	51.32	73.98	22.66	PK
15960	39.85	-2.25	H	37.60	53.98	16.38	AV

Band : UNII 2C			Operation Mode : 802.11a				
CH.100 5500 MHz			Transfer Rate : 6Mbps				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11000	56.09	-2.69	V	53.40	73.98	20.58	PK
11000	43.16	-2.69	V	40.47	53.98	13.51	AV
16500	53.87	-2.52	V	51.35	68.20	16.85	PK
11000	55.04	-2.69	H	52.35	73.98	21.63	PK
11000	42.39	-2.69	H	39.70	53.98	14.28	AV
16500	54.09	-2.52	H	51.57	68.20	16.63	PK

Band : UNII 2C			Operation Mode : 802.11a				
CH.120 5600 MHz			Transfer Rate : 6Mbps				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11200	55.28	-3.26	V	52.02	73.98	21.96	PK
11200	42.15	-3.26	V	38.89	53.98	15.09	AV
16800	53.35	-2.98	V	50.37	68.20	17.83	PK
11200	53.84	-3.26	H	50.58	73.98	23.40	PK
11200	41.38	-3.26	H	38.12	53.98	15.86	AV
16800	53.92	-2.98	H	50.94	68.20	17.26	PK

Band : UNII 2C			Operation Mode : 802.11a 6Mbps				
CH.144 5720 MHz			Transfer Rate : 6Mbps				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11440	57.82	-3.03	V	54.79	73.98	19.19	PK
11440	45.52	-3.03	V	42.49	53.98	11.49	AV
17160	53.05	-2.42	V	50.63	68.20	17.57	PK
11440	57.64	-3.03	H	54.61	73.98	19.37	PK
11440	44.28	-3.03	H	41.25	53.98	12.73	AV
17160	53.44	-2.42	H	51.02	68.20	17.18	PK

Band : UNII 3			Operation Mode : 802.11a				
CH.149 5745 MHz			Transfer Rate : 6Mbps				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11490	55.23	-3.10	V	52.13	73.98	21.85	PK
11490	43.49	-3.10	V	40.39	53.98	13.59	AV
17235	54.17	-2.28	V	51.89	68.20	16.31	PK
11490	55.05	-3.10	H	51.95	73.98	22.03	PK
11490	42.35	-3.10	H	39.25	53.98	14.73	AV
17235	53.78	-2.28	H	51.50	68.20	16.70	PK

Band : UNII 3			Operation Mode : 802.11a				
CH.157 5785 MHz			Transfer Rate : 6Mbps				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11570	55.03	-3.44	V	51.59	73.98	22.39	PK
11570	44.33	-3.44	V	40.89	53.98	13.09	AV
17355	53.18	-2.01	V	51.17	68.20	17.03	PK
11570	55.13	-3.44	H	51.69	73.98	22.29	PK
11570	43.00	-3.44	H	39.56	53.98	14.42	AV
17355	53.96	-2.01	H	51.95	68.20	16.25	PK

Band : UNII 3			Operation Mode : 802.11a				
CH.165 5825 MHz			Transfer Rate : 6Mbps				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11650	55.80	-3.92	V	51.88	73.98	22.10	PK
11650	45.24	-3.92	V	41.32	53.98	12.66	AV
17475	53.41	-0.72	V	52.69	68.20	15.51	PK
11650	56.43	-3.92	H	52.51	73.98	21.47	PK
11650	44.53	-3.92	H	40.61	53.98	13.37	AV
17475	52.99	-0.72	H	52.27	68.20	15.93	PK

Band : UNII 4			Operation Mode : 802.11a				
CH.169 5845 MHz			Transfer Rate : 6Mbps				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11690	55.04	-3.69	V	51.35	73.98	22.63	PK
11690	44.80	-3.69	V	41.11	53.98	12.87	AV
17535	52.29	0.45	V	52.74	68.20	15.46	PK
11690	55.09	-3.69	H	51.40	73.98	22.58	PK
11690	43.93	-3.69	H	40.24	53.98	13.74	AV
17535	53.33	0.45	H	53.78	68.20	14.42	PK

Band : UNII 4			Operation Mode : 802.11a				
CH.173 5865 MHz			Transfer Rate : 6Mbps				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11730	55.24	-3.48	V	51.76	73.98	22.22	PK
11730	45.13	-3.48	V	41.65	53.98	12.33	AV
17595	52.72	0.74	V	53.46	68.20	14.74	PK
11730	55.37	-3.48	H	51.89	73.98	22.09	PK
11730	44.45	-3.48	H	40.97	53.98	13.01	AV
17595	52.43	0.74	H	53.17	68.20	15.03	PK

Band : UNII 4			Operation Mode : 802.11a				
CH.177 5885 MHz			Transfer Rate : 6Mbps				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11770	55.11	-3.30	V	51.81	73.98	22.17	PK
11770	45.26	-3.30	V	41.96	53.98	12.02	AV
17655	52.33	1.20	V	53.53	68.20	14.67	PK
11770	55.36	-3.30	H	52.06	73.98	21.92	PK
11770	45.00	-3.30	H	41.70	53.98	12.28	AV
17655	52.01	1.20	H	53.21	68.20	14.99	PK