RF TEST REPORT

Applicant	Huawei Technologies Co., Ltd.
FCC ID	QISAP6150DN
Product	Wireless LAN Access Point
Model	AP6150DN
Report No.	R1803H0033-R5V2
Issue Date	July 4, 2018

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 15E (2018)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Performed by: Zhengqiang Zhou

Approved by: Kai Xu

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Summary of measurement results

Number	Summary of measurements of results	Clause in FCC rules	Verdict
1	Average conducted output power	15.407(a)	PASS
2	Occupied bandwidth	15.407(e)	PASS
3	Frequency stability	15.407(g)	PASS
4	Maximum power spectral density	15.407(a)	PASS
5	Unwanted Emissions	15.407(b)	PASS
6	Conducted Emissions	15.207	PASS
Date of Testing: March 15, 2018 ~ May 4, 2018			

1. Test Laboratory

1.1. Notes of the test report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2. Test facility

CNAS (accreditation number: L2264)

TA Technology (Shanghai) Co., Ltd. has obtained the accreditation of China National Accreditation Service for Conformity Assessment (CNAS).

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

IC (recognition number is 8510A)

TA Technology (Shanghai) Co., Ltd. has been listed by industry Canada to perform electromagnetic emission measurement.

VCCI (recognition number is C-4595, T-2154, R-4113, G-10766)

TA Technology (Shanghai) Co., Ltd. has been listed by industry Japan to perform electromagnetic emission measurement.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

1.3. Testing Location

Company:	TA Technology (Shanghai) Co., Ltd.
Address:	No.145, Jintang Rd, Tangzhen Industry Park, Pudong
City:	Shanghai
Post code:	201201
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E-mail:	xukai@ta-shanghai.com

2. General Description of Equipment under Test

Client Information

Applicant	Huawei Technologies Co., Ltd.
Applicant address	Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.China.
Manufacturer	Huawei Technologies Co., Ltd.
Manufacturer address	Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.China.

General information

EUT Description		
Model	AP6150DN	
IMEI	024VWS10J2800003Y2	
Hardware Version	VA	
Software Version	V200R009C00B905	
Power Supply	DC Adapter/ Powered over Ethernet	
Antenna Type	External Antenna	
Antenna Gain	Antenna Type 1	Antenna Type 2
	Antenna 1: 4dBi Antenna 2: 4dBi Antenna 3: 4dBi Antenna 4: 4dBi	Antenna 1: 5dBi Antenna 2: 5dBi Antenna 3: 5dBi Antenna 4: 5dBi
additional beamforming gain	3 dBi	
Loss of RF cable	≤2dbi	
Test Mode(s)	U-NII-1(5150MHz-5250MHz) U-NII-2A(5250MHz-5350MHz) U-NII-2C(5470MHz-5725MHz) U-NII-3(5725MHz-5850MHz)	
Modulation Type	802.11a/n (HT20/HT40) : OFDM 802.11ac (VHT20/VHT40/VHT80/VHT80+80): OFDM	
Max. Conducted Power	26.38dBm	
Operating Frequency Range(s)	U-NII-1: 5150-5250MHz U-NII-2A:5250-5350MHz U-NII-2C:5470-5725MHz U-NII-3: 5725-5850MHz	

EUT Accessory	
POE Adapter 1	Manufacturer: Dongguan Shilong Fuhua Electronic Co., Ltd. Model: PoE35-54A Input voltage: 100-240 V/50-60 Hz,1.0A Output voltage: -48 V ⎓ 0.65 A
POE Adapter 2	Manufacturer: Shenzhen Huntkey Electric Co., Ltd. Model: PoE35-54A Input voltage: 100-240 V/50-60 Hz 1.0A Output voltage: -48 V ⎓ 0.65 A
DC Adapter 1	Manufacturer: Shenzhen Huntkey Electric Co., Ltd. Model: HKA02412020-3K Input voltage: 100-240 V/50-60 Hz 0.8A Output voltage: 12 V ⎓ 2.0 A
DC Adapter 2	Manufacturer: Dongguan Shilong Fuhua Electronic Co., Ltd. Model: HW-120200E1W Input voltage: 100-240 V/50-60 Hz 0.8A Output voltage: 12 V ⎓ 2.0 A
DC Adapter 3	Manufacturer: Shenzhen Huntkey Electric Co., Ltd. Model: HKA02412020-4K Input voltage: 100-240 V/50-60 Hz 0.8A Output voltage: 12 V ⎓ 2.0 A
DC Adapter 4	Manufacturer: Dongguan Shilong Fuhua Electronic Co., Ltd. Model: HW-120200B1W Input voltage: 100-240 V/50-60 Hz 0.8A Output voltage: 12 V ⎓ 2.0 A
DC Adapter 5	Manufacturer: Shenzhen Huntkey Electric Co., Ltd. Model: HKA02412020-1K Input voltage: 100-240 V/50-60 Hz 0.8A Output voltage: 12 V ⎓ 2.0 A
DC Adapter 6	Manufacturer: Dongguan Shilong Fuhua Electronic Co., Ltd. Model: HW-120200C1W Input voltage: 100-240 V/50-60 Hz 0.8A Output voltage: 12 V ⎓ 2.0 A
DC Adapter 7	Manufacturer: Shenzhen Huntkey Electric Co., Ltd. Model: HW-120200A1W Input voltage: 100-240 V/50-60 Hz 0.8A Output voltage: 12 V ⎓ 2.0 A
DC Adapter 8	Manufacturer: Shenzhen Huntkey Electric Co., Ltd. Model: HW-120200U1W Input voltage: 100-240 V/50-60 Hz 0.8A Output voltage: 12 V ⎓ 2.0 A
DC Adapter 9	Manufacturer: Dongguan Shilong Fuhua Electronic Co., Ltd. Model: HW-120200U1W

	Input voltage: 100-240 V/50-60 Hz 0.8A Output voltage: 12 V ⎓ 2.0 A
DC Adapter 10	Manufacturer: Shenzhen Huntkey Electric Co., Ltd. Model: HW-120200Z1W Input voltage: 100-240 V/50-60 Hz 0.8A Output voltage: 12 V ⎓ 2.0 A
DC Adapter 11	Manufacturer: Shenzhen Huntkey Electric Co., Ltd. Model: HW-24-12AC8D Input voltage: 100-240 V/50-60 Hz 0.8A Output voltage: 12 V ⎓ 2.0 A
DC Adapter 12	Manufacturer: Dongguan Shilong Fuhua Electronic Co., Ltd. Model: HW-24-12AC8D Input voltage: 100-240 V/50-60 Hz 0.8A Output voltage: 12 V ⎓ 2.0 A
Note: The information of the EUT is declared by the manufacturer.	

AP6050DN is all the same with AP6150DN except that the antenna of AP6050DN is inside the enclosure and antenna of AP6150DN is outside the enclosure.

Partial test values duplicated from **AP6050DN** for **AP6150DN**.Test items tested for AP6150DN see the table below.

Test Cases	**AP6050DN (R1803H0032-R4)**	**AP6150DN (R1803H0033-R5)**
Average conducted output power	pass	pass
Occupied bandwidth	pass	Refer to the AP6050DN
Frequency stability	pass	Refer to the AP6050DN
Power Spectral Density	pass	pass
Unwanted Emissions	pass	pass
Conducted Emissions	pass	pass

The EUT incorporates a MIMO function

Band	Modulation Mode	CDD Mode	Beamforming Mode	TX Function	Available Channel
5GHz (U-NII-1)	802.11a	Support	Not Support	1TX, 2TX, 3TX, 4TX	36~48
	802.11n HT20	Support	Support	1TX, 2TX, 3TX, 4TX	36~48
	802.11n HT40	Support	Support	1TX, 2TX, 3TX, 4TX	38~46
	802.11ac VHT80	Support	Support	1TX, 2TX, 3TX, 4TX	42
	802.11ac VHT80+80	Support	Not Support	1TX+1TX	42
5GHz (U-NII-2A & U-NII-2C)	802.11a	Support	Not Support	1TX, 2TX, 3TX, 4TX	52~64,100~144
	802.11n HT20	Support	Support	1TX, 2TX, 3TX, 4TX	52~64,100~144
	802.11n HT40	Support	Support	1TX, 2TX, 3TX, 4TX	54~62,110~142
	802.11ac VHT80	Support	Support	1TX, 2TX, 3TX, 4TX	58,106~138
	802.11ac VHT80+80	Support	Not Support	1TX+1TX	58,106~138
5GHz (U-NII-3)	802.11a	Support	Not Support	1TX, 2TX, 3TX, 4TX	149~165
	802.11n HT20	Support	Support	1TX, 2TX, 3TX, 4TX	149~165
	802.11n HT40	Support	Support	1TX, 2TX, 3TX, 4TX	151~159
	802.11ac VHT80	Support	Support	1TX, 2TX, 3TX, 4TX	155
	802.11ac VHT80+80	Support	Not Support	1TX+1TX	155

For 802.11a, the EUT doesn't support Beamforming mode.

The modulation and bandwidth are similar for 802.11n mode for 20MHz/40MHz and 802.11ac mode for V20MHz/V40MHz, therefore investigated worst case to representative mode in test report. (Final test mode refer section 4)

3. Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC CFR47 Part 15E (2018) Unlicensed National Information Infrastructure Devices

ANSI C63.10 (2013)

KDB 789033 D02 General UNII Test Procedures New Rules v02r01

KDB 662911 D01 Multiple Transmitter Output v02r01

4. Test Configuration

Test Mode

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in stand-up position (Z axis) and the worst case was recorded.

In order to find the worst case condition, Pre-tests are needed at the presence of different data rate. Preliminary tests have been done on all the configuration for confirming worst case. Data rate below means worst-case rate of each test item.

Worst-case data rates are shown as following table.

Band	**Data Rate**
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT80	MCS0
802.11ac VHT80+80	MCS0

The worst case Antenna mode for each of the following tests for Wi-Fi:

Test Cases	SISO ANT	MIMO 2X2	MIMO 3X3	MIMO 4X4	MIMO ANT1/3	MIMO ANT2/4
Average conducted output power	802.11a/n HT20/40 802.11ac VHT80	802.11a/n HT20/40 802.11ac VHT80	802.11a/n HT20/40 802.11ac VHT80	802.11a/n HT20/40 802.11ac VHT80	802.11ac VHT80+80	802.11ac VHT80+80
Occupied bandwidth	--	--	--	802.11a/n HT20/40 802.11ac VHT80	--	802.11ac VHT80+80
Frequency stability	--	--	--	802.11a/n HT20/40 802.11ac VHT80	--	--
Power Spectral Density	802.11a/n HT20/40 802.11ac VHT80	802.11a/n HT20/40 802.11ac VHT80	802.11a/n HT20/40 802.11ac VHT80	802.11a/n HT20/40 802.11ac VHT80	802.11ac VHT80+80	802.11ac VHT80+80
Unwanted Emissions	--	--	--	802.11a/n HT20/40 802.11ac VHT80	--	802.11ac VHT80+80
Conducted Emissions	--	--	--	802.11a/n HT20/40 802.11ac VHT80		--

Wireless Technology and Frequency Range

Wireless Technology		Bandwidth	Channel	Frequency
Wi-Fi	U-NII-1	20 MHz	36	5180MHz
			40	5200MHz
			44	5220MHz
			48	5240MHz
		40 MHz	38	5190MHz
			46	5230MHz
		80 MHz	42	5210MHz
		80+80 MHz	42	5210MHz
	U-NII-2A	20 MHz	52	5260MHz
			56	5280MHz
			60	5300MHz
			64	5320MHz
		40 MHz	54	5270MHz
			62	5310MHz
		80 MHz	58	5290MHz
		80+80 MHz	58	5290MHz
	U-NII-2C	20 MHz	100	5500MHz
			104	5520MHz
			108	5540MHz
			112	5560MHz
			116	5580MHz
			120	5600MHz
			124	5620MHz
			128	5640MHz
			132	5660MHz
			136	5680MHz
			140	5700MHz
			144	5720MHz
		40 MHz	102	5510MHz
			110	5550MHz
			118	5590MHz
			126	5630MHz
			134	5670MHz
			142	5710MHz
		80 MHz	106	5530MHz
			122	5610MHz
			138	5690MHz
		80+80 MHz	106	5530MHz

			122	5610MHz
			138	5690MHz
	U-NII-3	20 MHz	149	5745MHz
			157	5785MHz
			165	5825MHz
		40 MHz	151	5755MHz
			159	5795MHz
		80 MHz	155	5775MHz
		80+80 MHz	155	5775MHz
Does this device support TPC Function? ☒Yes ☐No				
Does this device support TDWR Band? ☒Yes ☐No				

5. Test Case Results

5.1. Occupied Bandwidth

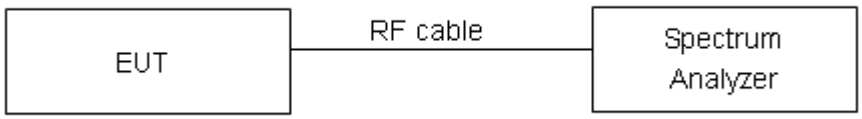
Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to the spectrum analyzer through an external attenuator (20dB) and a known loss cable.
For U-NII-1, set RBW ≈1% OCB kHz, VBW ≥ 3 × RBW, 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 26 dB relative to the maximum level measured in the fundamental emission.
For U-NII-3, Set RBW = 100 kHz, VBW ≥ 3 × RBW, 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: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.
Use the 99 % power bandwidth function of the instrument

Test Setup



Limits

Rule FCC Part §15.407(e)
Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 936 Hz.

Test Results:

U-NII-1

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5260	16.761	24.48	PASS
	5300	16.736	23.29	PASS
	5320	16.742	25.36	PASS
802.11n HT20	5180	17.888	28.41	PASS
	5200	17.857	25.27	PASS
	5240	17.888	25.93	PASS
802.11n HT40	5190	36.477	44.22	PASS
	5230	36.448	46.21	PASS
802.11ac VHT80	5210	76.438	89.73	PASS
802.11ac VHT80+80	5210	76.128	87.91	PASS

U-NII-2A

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5260	16.637	21.71	PASS
	5300	16.673	22.28	PASS
	5320	16.646	22.01	PASS
802.11n HT20	5260	17.795	22.64	PASS
	5300	17.799	22.62	PASS
	5320	17.830	22.54	PASS
802.11n HT40	5270	36.427	45.17	PASS
	5310	36.498	45.03	PASS
802.11ac VHT80	5290	76.563	110.0	PASS
802.11ac VHT80+80	5290	76.266	89.69	PASS

U-NII-2C

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5500	16.632	21.61	PASS
	5580	16.659	21.79	PASS
	5700	16.649	21.64	PASS
	5720	16.537	21.78	PASS
802.11n HT20	5500	17.804	22.76	PASS
	5580	17.811	22.74	PASS
	5700	17.796	22.81	PASS
	5720	17.738	21.82	PASS
802.11n HT40	5510	36.437	44.78	PASS
	5550	36.439	46.96	PASS
	5670	36.423	44.87	PASS
	5710	36.385	54.77	PASS
802.11ac VHT80	5530	76.511	106.2	PASS
	5610	76.260	100.7	PASS
	5690	76.480	88.34	PASS
802.11ac VHT80+80	5530	76.410	90.41	PASS
	5610	76.528	89.03	PASS
	5690	76.312	87.79	PASS

U-NII-3

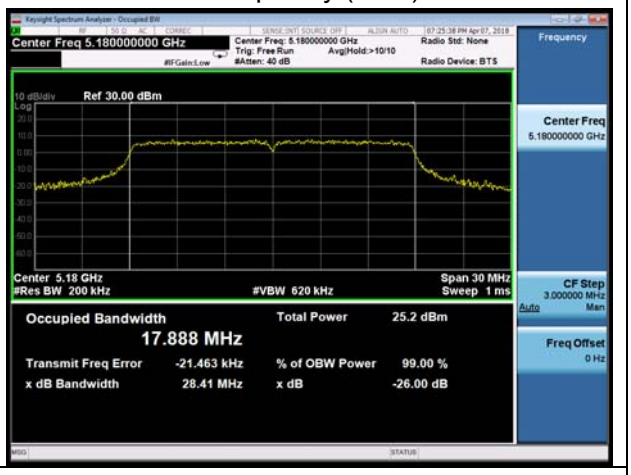
Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11a	5745	17.117	16.36	500	PASS
	5785	17.047	16.37	500	PASS
	5825	17.098	16.37	500	PASS
802.11n HT20	5745	18.204	17.61	500	PASS
	5785	18.125	17.61	500	PASS
	5825	18.215	17.61	500	PASS
802.11n HT40	5755	36.543	36.36	500	PASS
	5795	36.556	36.40	500	PASS
802.11ac VHT80	5775	76.298	76.44	500	PASS
802.11ac VHT80+80	5775	76.394	76.43	500	PASS

U-NII-1, 802.11a

Carrier frequency (MHz): 5180

U-NII-1, 802.11n HT20

Carrier frequency (MHz): 5180



U-NII-1, 802.11a

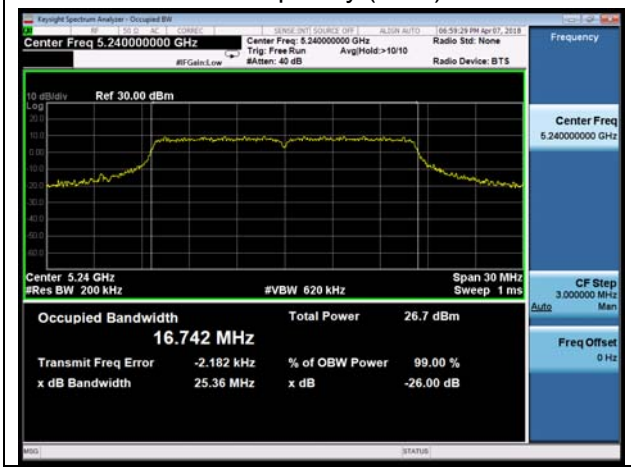
Carrier frequency (MHz): 5200

U-NII-1, 802.11n HT20

Carrier frequency (MHz): 5200

U-NII-1, 802.11a

Carrier frequency (MHz):5240



U-NII-1, 802.11n HT20

Carrier frequency (MHz):5240

U-NII-1, 802.11n HT40

Carrier frequency (MHz): 5190

U-NII-1, 802.11ac VHT80

Carrier frequency (MHz): 5210

U-NII-1, 802.11n HT40

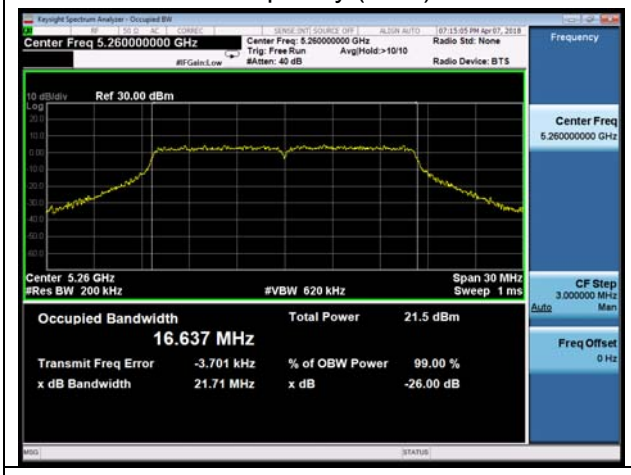
Carrier frequency (MHz): 5230

802.11ac VHT80+80

Carrier frequency (MHz): 5210

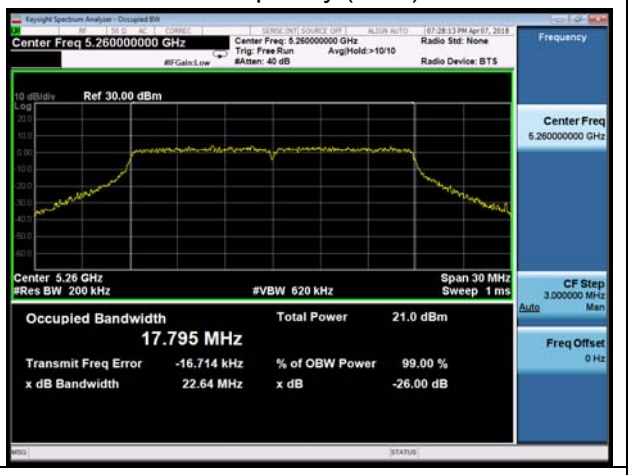
U-NII-2A, 802.11a

Carrier frequency (MHz): 5260



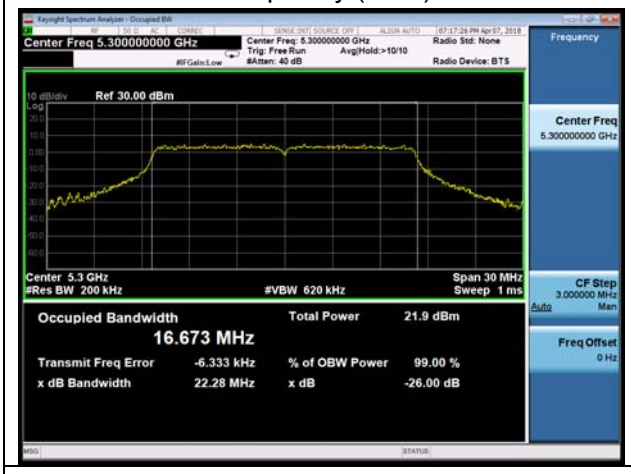
U-NII-2A, 802.11n HT20

Carrier frequency (MHz): 5260



U-NII-2A, 802.11a

Carrier frequency (MHz): 5300



U-NII-2A, 802.11n HT20

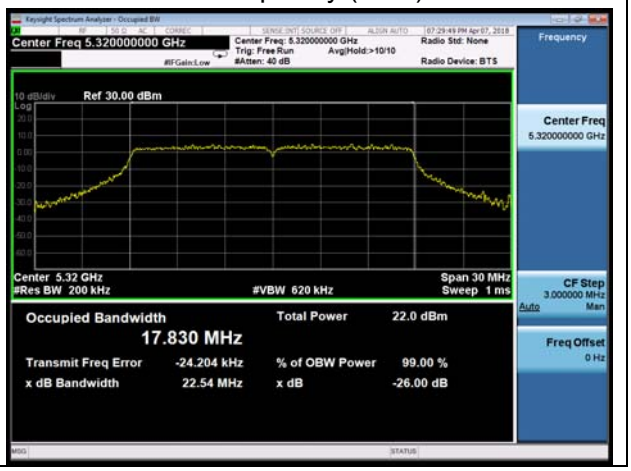
Carrier frequency (MHz): 5300

U-NII-2A, 802.11a

Carrier frequency (MHz):5320

U-NII-2A, 802.11n HT20

Carrier frequency (MHz):5320

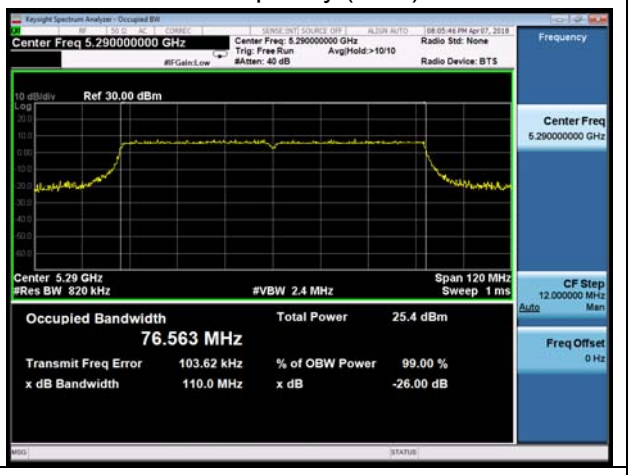


U-NII-2A, 802.11n HT40

Carrier frequency (MHz): 5270

U-NII-2A, 802.11ac VHT80

Carrier frequency (MHz): 5290



U-NII-2A, 802.11n HT40

Carrier frequency (MHz): 5310

802.11ac VHT80+80

Carrier frequency (MHz): 5290

U-NII-2C, 802.11a

Carrier frequency (MHz): 5500

U-NII-2C, 802.11a

Carrier frequency (MHz): 5580

U-NII-2C, 802.11a

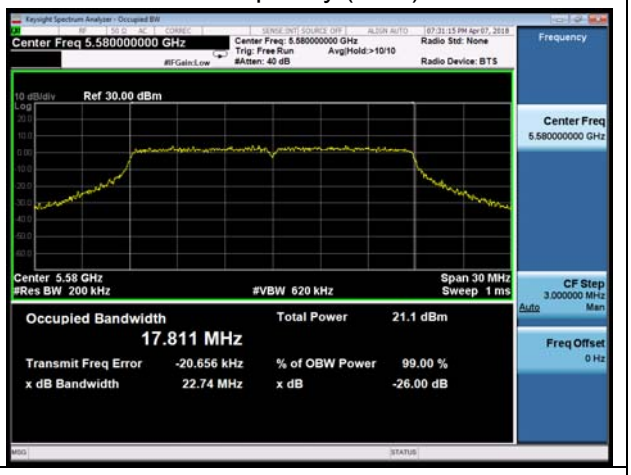
Carrier frequency (MHz):5700

U-NII-2C, 802.11a

Carrier frequency (MHz):5720

U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5500

U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5580



U-NII-2C, 802.11n HT20
Carrier frequency (MHz):5700

U-NII-2C, 802.11n HT20
Carrier frequency (MHz):5720

U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5510

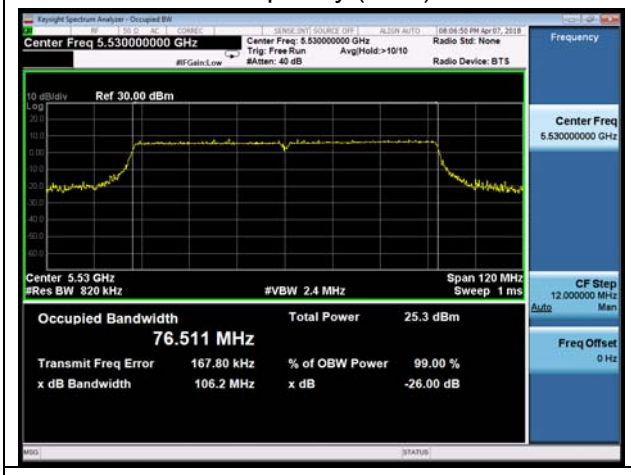
U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5550

U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5670

U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5710

U-NII-2C, 802.11ac VHT80

Carrier frequency (MHz): 5530



802.11ac VHT80+80

Carrier frequency (MHz): 5530

U-NII-2C, 802.11ac VHT80

Carrier frequency (MHz): 5610

U-NII-2C, 802.11ac VHT80+80

Carrier frequency (MHz): 5610

U-NII-2C, 802.11ac VHT80

Carrier frequency (MHz): 5690

U-NII-2C, 802.11ac VHT80+80

Carrier frequency (MHz): 5690

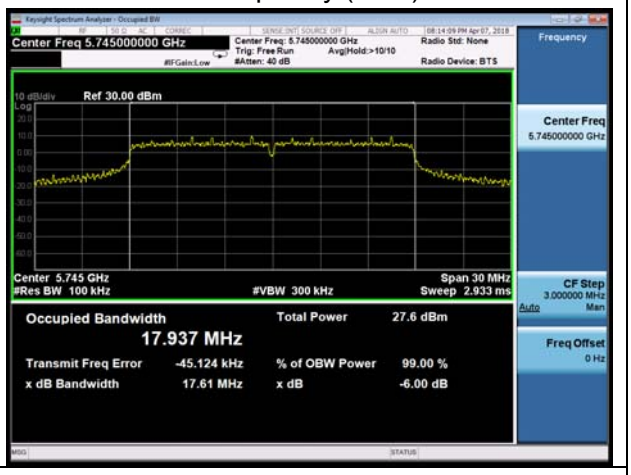
Minimum 6 dB bandwidth

U-NII-3, 802.11a

Carrier frequency (MHz): 5745

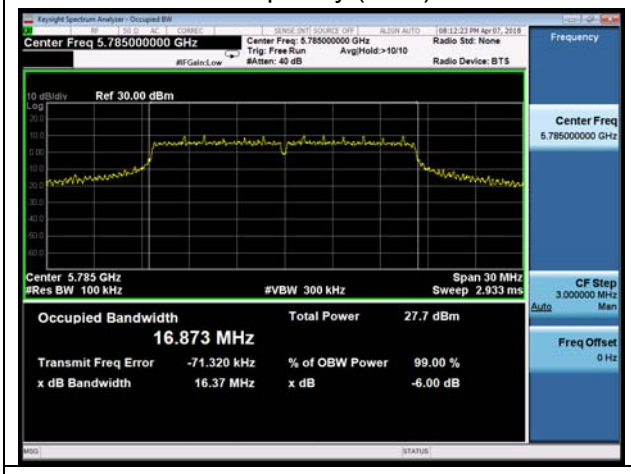
U-NII-3, 802.11n HT20

Carrier frequency (MHz): 5745



U-NII-3, 802.11a

Carrier frequency (MHz): 5785



U-NII-3, 802.11n HT20

Carrier frequency (MHz): 5785

U-NII-3, 802.11a

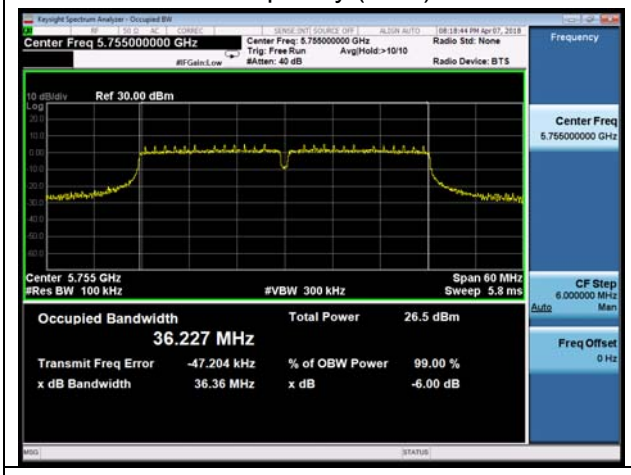
Carrier frequency (MHz): 5825

U-NII-3, 802.11n HT20

Carrier frequency (MHz): 5825

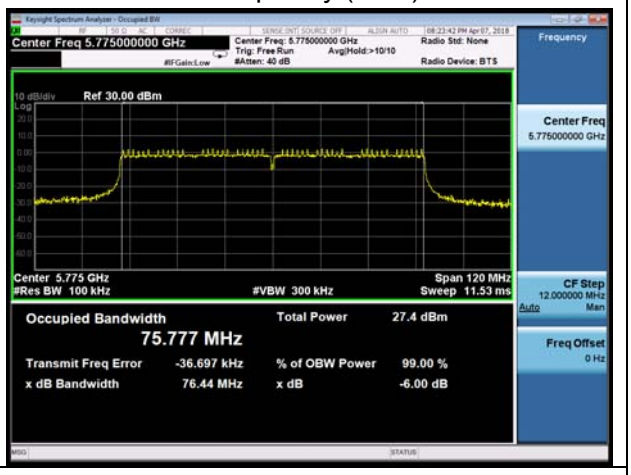
U-NII-3, 802.11n HT40

Carrier frequency (MHz): 5755



U-NII-3, 802.11ac VHT80

Carrier frequency (MHz): 5775

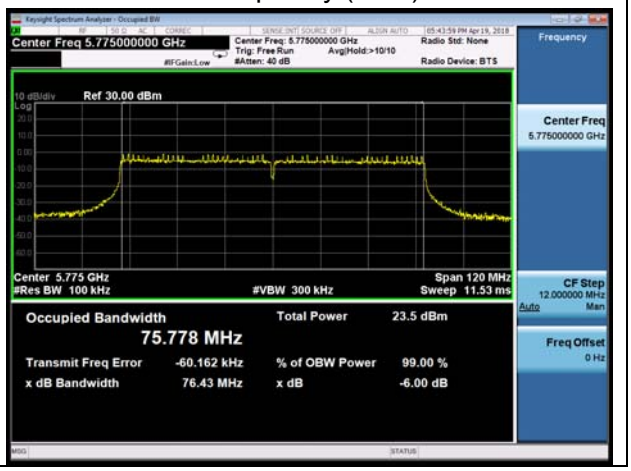


U-NII-3, 802.11n HT40

Carrier frequency (MHz): 5795

802.11ac VHT80+80

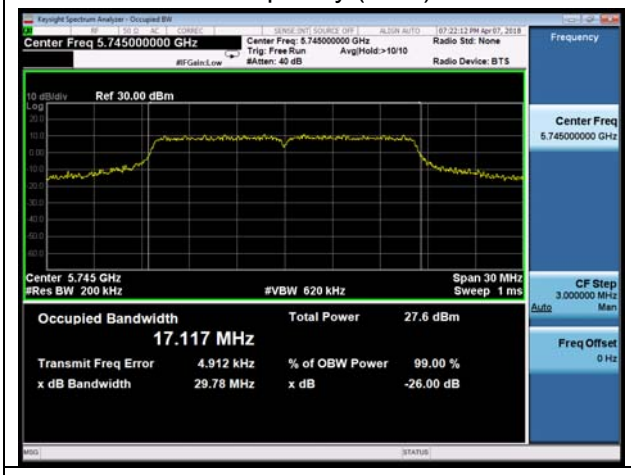
Carrier frequency (MHz): 5775



Minimum 26 dB bandwidth

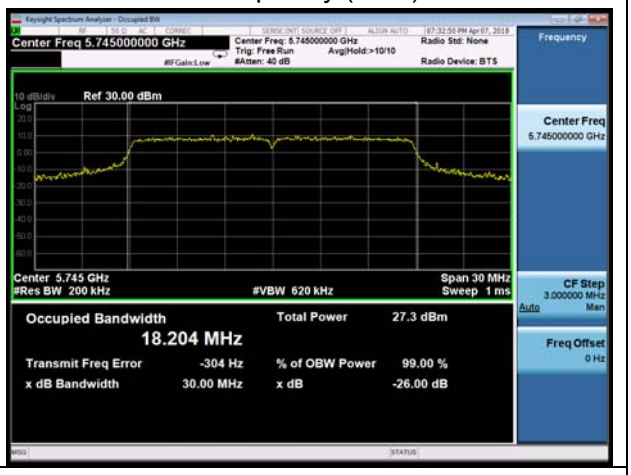
U-NII-3, 802.11a

Carrier frequency (MHz): 5745



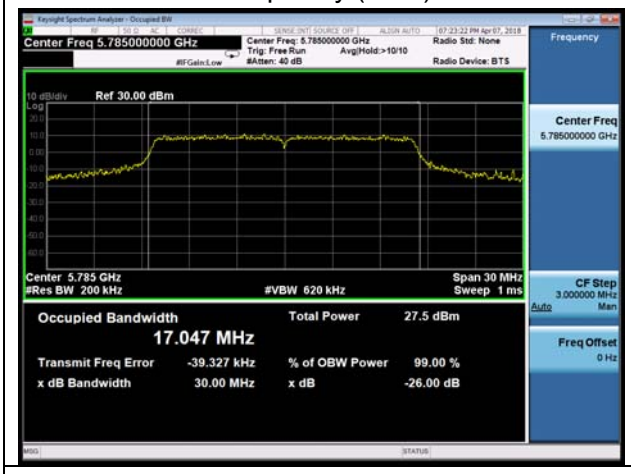
U-NII-3, 802.11n HT20

Carrier frequency (MHz): 5745



U-NII-3, 802.11a

Carrier frequency (MHz): 5785

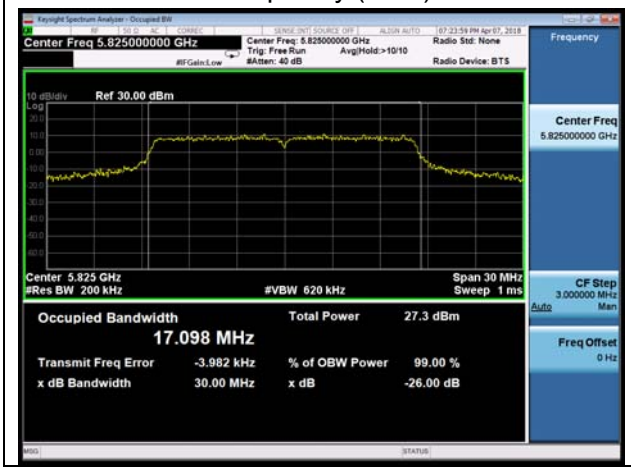


U-NII-3, 802.11n HT20

Carrier frequency (MHz): 5785

U-NII-3, 802.11a

Carrier frequency (MHz): 5825



U-NII-3, 802.11n HT20

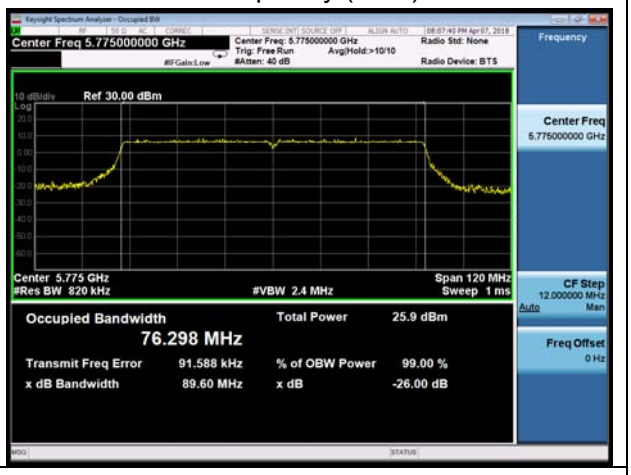
Carrier frequency (MHz): 5825

U-NII-3, 802.11n HT40

Carrier frequency (MHz): 5755

U-NII-3, 802.11ac VHT80

Carrier frequency (MHz): 5775



U-NII-3, 802.11n HT40

Carrier frequency (MHz): 5795

802.11ac VHT80+80

Carrier frequency (MHz): 5775

5.2. Average Power Output –Conducted

Ambient condition

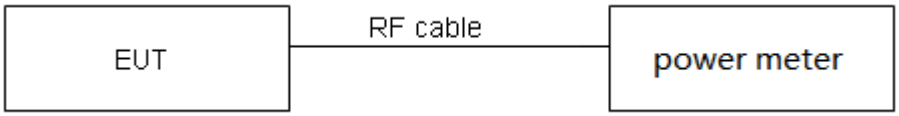
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

During the process of the testing, The EUT was connected to the average power meter through an external attenuator and a known loss cable. The EUT is max power transmission with proper modulation. We use Maximum average Conducted Output Power Level Method in KDB789033 for this test

The conducted Power is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically.

Test Setup



Limits

Rule FCC Part 15.407(a)(1)(2)(3)

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 0.44 dB.

Test Results

Antenna Type 1: Gain = 4 dBi, Antenna Type 2: Gain = 5 dBi. In this report we use a larger antenna gain (Antenna Type 2: Gain = 5 dBi) to evaluate the limits.

Band	T_{on} (ms)	$T_{(on+off)}$ (ms)	Duty cycle	Duty cycle correction Factor(dB)
802.11a	2.02	2.09	0.97	0.14
802.11n HT20	4.97	5.03	0.99	N/A
802.11n HT40	2.40	2.47	0.97	0.13
802.11ac VHT80	1.14	1.20	0.95	0.22
802.11ac VHT80+80	2.24	2.30	0.97	0.13
Note: when Duty cycle>0.98, Duty cycle correction Factor not required.				

SISO Antenna 1 Power Index													
Packet Type	**CH36**	**CH40**	**CH48**	**CH52**	**CH60**	**CH64**	**CH 100**	**CH 116**	**CH 140**	**CH 144**	**CH 149**	**CH 157**	**CH 165**
802.11a	20	20	20	20	20	20	19	18	19	19	19	19	19
802.11n HT20	20	20	20	20	20	20	19	19	19	19	19	19	19
Packet Type	**CH38**	**CH46**	**CH54**	**CH62**	**CH 102**	**CH 110**	**CH 134**	**CH 142**	**CH 151**	**CH 159**	/	/	/
802.11n HT40	20	20	20	19	19	18	18	19	19	19	/	/	/
Packet Type	**CH42**	**CH58**	**CH 106**	**CH 122**	**CH 138**	**CH 155**	/	/	/	/	/	/	/
802.11ac VHT80	19	18	17	17	17	17	/	/	/	/	/	/	/

SISO Antenna 2 Power Index													
Packet Type	**CH36**	**CH40**	**CH48**	**CH52**	**CH60**	**CH64**	**CH 100**	**CH 116**	**CH 140**	**CH 144**	**CH 149**	**CH 157**	**CH 165**
802.11a	20	20	20	20	20	20	19	18	19	19	19	19	19
802.11n HT20	20	20	20	20	20	20	19	18	19	19	19	19	19
Packet Type	**CH38**	**CH46**	**CH54**	**CH62**	**CH 102**	**CH 110**	**CH 134**	**CH 142**	**CH 151**	**CH 159**	/	/	/
802.11n HT40	20	20	20	19	19	19	18	19	19	19	/	/	/
Packet Type	**CH42**	**CH58**	**CH 106**	**CH 122**	**CH 138**	**CH 155**	/	/	/	/	/	/	/
802.11ac	18	18	17	17	17	17	/	/	/	/	/	/	/

VHT80													

SISO Antenna 3 Power Index													
Packet Type	**CH36**	**CH40**	**CH48**	**CH52**	**CH60**	**CH64**	**CH 100**	**CH 116**	**CH 140**	**CH 144**	**CH 149**	**CH 157**	**CH 165**
802.11a	20	20	20	20	20	20	19	19	19	19	19	19	19
802.11n HT20	20	20	20	20	20	20	19	19	19	19	19	19	19
Packet Type	**CH38**	**CH46**	**CH54**	**CH62**	**CH 102**	**CH 110**	**CH 134**	**CH 142**	**CH 151**	**CH 159**	/	/	/
802.11n HT40	20	20	20	19	19	19	19	19	19	18	/	/	/
Packet Type	**CH42**	**CH58**	**CH 106**	**CH 122**	**CH 138**	**CH 155**	/	/	/	/	/	/	/
802.11ac VHT80	18	18	18	18	18	17	/	/	/	/	/	/	/

SISO Antenna 4 Power Index													
Packet Type	**CH36**	**CH40**	**CH48**	**CH52**	**CH60**	**CH64**	**CH 100**	**CH 116**	**CH 140**	**CH 144**	**CH 149**	**CH 157**	**CH 165**
802.11a	20	20	20	20	20	20	19	18	19	19	19	19	19
802.11n HT20	20	20	20	20	20	20	19	18	19	19	19	19	19
Packet Type	**CH38**	**CH46**	**CH54**	**CH62**	**CH 102**	**CH 110**	**CH 134**	**CH 142**	**CH 151**	**CH 159**	/	/	/
802.11n HT40	20	20	20	19	19	19	19	19	19	19	/	/	/
Packet Type	**CH42**	**CH58**	**CH 106**	**CH 122**	**CH 138**	**CH 155**	/	/	/	/	/	/	/
802.11ac VHT80	18	18	17	17	17	17	/	/	/	/	/	/	/

Without beamforming

MIMO Antenna 2X2 Power Index													
Packet Type	**CH36**	**CH40**	**CH48**	**CH52**	**CH60**	**CH64**	**CH 100**	**CH 116**	**CH 140**	**CH 144**	**CH 149**	**CH 157**	**CH 165**
802.11a	20	20	20	19	19	18	18	17	17	17	19	18	18
802.11n HT20	20	20	20	19	19	19	18	17	17	18	19	18	18
Packet Type	**CH38**	**CH46**	**CH54**	**CH62**	**CH 102**	**CH 110**	**CH 134**	**CH 142**	**CH 151**	**CH 159**	/	/	/
802.11n HT40	19	20	20	19	19	19	18	19	18	18	/	/	/
Packet Type	**CH42**	**CH58**	**CH 106**	**CH 122**	**CH 138**	**CH 155**	/	/	/	/	/	/	/
802.11ac VHT80	18	18	18	18	18	17	/	/	/	/	/	/	/

With beamforming

MIMO Antenna 2X2 Power Index													
Packet Type	**CH36**	**CH40**	**CH48**	**CH52**	**CH60**	**CH64**	**CH 100**	**CH 116**	**CH 140**	**CH 144**	**CH 149**	**CH 157**	**CH 165**
802.11n HT20	20	20	20	19	19	19	18	17	17	18	19	18	18
Packet Type	**CH38**	**CH46**	**CH54**	**CH62**	**CH 102**	**CH 110**	**CH 134**	**CH 142**	**CH 151**	**CH 159**	/	/	/
802.11n HT40	19	20	20	19	19	19	18	19	18	18	/	/	/
Packet Type	**CH42**	**CH58**	**CH 106**	**CH 122**	**CH 138**	**CH 155**	/	/	/	/	/	/	/
802.11ac VHT80	18	18	18	18	18	17	/	/	/	/	/	/	/

Without beamforming

MIMO Antenna 3X3 Power Index													
Packet Type	**CH36**	**CH40**	**CH48**	**CH52**	**CH60**	**CH64**	**CH 100**	**CH 116**	**CH 140**	**CH 144**	**CH 149**	**CH 157**	**CH 165**
802.11a	20	20	20	17	17	17	16	15	16	16	19	19	19
802.11n HT20	19	20	19	18	18	17	16	15	16	16	20	20	19
Packet Type	**CH38**	**CH46**	**CH54**	**CH62**	**CH 102**	**CH 110**	**CH 134**	**CH 142**	**CH 151**	**CH 159**	/	/	/
802.11n HT40	19	19	19	19	19	19	19	19	20	20	/	/	/
Packet Type	**CH42**	**CH58**	**CH 106**	**CH 122**	**CH 138**	**CH 155**	/	/	/	/	/	/	/
802.11ac VHT80	18	18	18	18	18	19	/	/	/	/	/	/	/

With beamforming

MIMO Antenna 3X3 Power Index													
Packet Type	**CH36**	**CH40**	**CH48**	**CH52**	**CH60**	**CH64**	**CH 100**	**CH 116**	**CH 140**	**CH 144**	**CH 149**	**CH 157**	**CH 165**
802.11n HT20	19	20	19	17	17	17	16	15	16	16	20	20	19
Packet Type	**CH38**	**CH46**	**CH54**	**CH62**	**CH 102**	**CH 110**	**CH 134**	**CH 142**	**CH 151**	**CH 159**	/	/	/
802.11n HT40	19	19	18	18	18	18	18	18	20	20	/	/	/
Packet Type	**CH42**	**CH58**	**CH 106**	**CH 122**	**CH 138**	**CH 155**	/	/	/	/	/	/	/
802.11ac VHT80	18	18	18	18	18	19	/	/	/	/	/	/	/

Without beamforming

MIMO Antenna 4X4 Power Index													
Packet Type	**CH36**	**CH40**	**CH48**	**CH52**	**CH60**	**CH64**	**CH 100**	**CH 116**	**CH 140**	**CH 144**	**CH 149**	**CH 157**	**CH 165**
802.11a	19	19	19	15	15	15	14	14	14	14	20	20	20
802.11n HT20	18	19	19	15	15	15	14	14	15	14	20	20	20
Packet Type	**CH38**	**CH46**	**CH54**	**CH62**	**CH 102**	**CH 110**	**CH 134**	**CH 142**	**CH 151**	**CH 159**	/	/	/
802.11n HT40	15	19	18	18	13.5	18	18	18	19	19	/	/	/
Packet Type	**CH42**	**CH58**	**CH 106**	**CH 122**	**CH 138**	**CH 155**	/	/	/	/	/	/	/
802.11ac VHT80	17	18	18	18	18	18	/	/	/	/	/	/	/

With beamforming

MIMO Antenna 4X4 Power Index													
Packet Type	**CH36**	**CH40**	**CH48**	**CH52**	**CH60**	**CH64**	**CH 100**	**CH 116**	**CH 140**	**CH 144**	**CH 149**	**CH 157**	**CH 165**
802.11n HT20	18	19	19	16	15	15	14	14	15	14	20	20	20
Packet Type	**CH38**	**CH46**	**CH54**	**CH62**	**CH 102**	**CH 110**	**CH 134**	**CH 142**	**CH 151**	**CH 159**	/	/	/
802.11n HT40	15	19	17	17	13.5	17	17	17	19	19	/	/	/
Packet Type	**CH42**	**CH58**	**CH 106**	**CH 122**	**CH 138**	**CH 155**	/	/	/	/	/	/	/
802.11ac VHT80	17	17	17	17	17	18	/	/	/	/	/	/	/

MIMO Antenna1/3 Power Index						
Packet Type	**CH42**	**CH58**	**CH106**	**CH122**	**CH138**	**CH155**
802.11ac VHT80+80	17	16	16	15	15	15

MIMO Antenna2/4 Power Index						
Packet Type	**CH42**	**CH58**	**CH106**	**CH122**	**CH138**	**CH155**
802.11ac VHT80+80	16	16	16	15	15	15

MIMO Antenna 4x4

Network Standards		Channel/Frequency (MHz)	B=26 dB bandwidth (MHz)	Limit 11 dBm + 10 log B (dBm)	Final Limit(dBm)
U-NII-2A	802.11a	52/5260	21.71	24.37 > 24	24.00
		60/5300	22.28	24.48 > 24	24.00
		64/5320	22.01	24.43 > 24	24.00
	802.11n HT20	52/5260	22.64	24.55 > 24	24.00
		60/5300	22.62	24.54 > 24	24.00
		64/5320	22.54	24.53 > 24	24.00
	802.11n HT40	54/5270	45.17	27.55 > 24	24.00
		62/5310	45.03	27.54 > 24	24.00
	802.11ac VHT80	58/5290	76.56	29.84 > 24	24.00
	802.11ac VHT80+80	58/5290	89.69	30.53 > 24	24.00
Note: 250mW=24dBm					

Network Standards		Channel/Frequency (MHz)	B=26 dB bandwidth (MHz)	Limit 11 dBm + 10 log B (dBm)	Final Limit(dBm)
U-NII-2C	802.11a	100/5500	21.61	24.35 > 24	24.00
		116/5580	21.79	24.38 > 24	24.00
		140/5700	21.64	24.35 > 24	24.00
		144/5720	21.78	24.38 > 24	24.00
	802.11n HT20	100/5500	22.76	24.57 > 24	24.00
		116/5580	22.74	24.57 > 24	24.00
		140/5700	22.81	24.58 > 24	24.00
		144/5720	21.82	24.39> 24	24.00
	802.11n HT40	102/5510	44.78	27.51 > 24	24.00
		110/5550	46.96	27.72 > 24	24.00
		134/5670	44.87	27.52 > 24	24.00
		142/5710	54.77	28.39 > 24	24.00
	802.11ac VHT80	106/5530	106.20	31.26 > 24	24.00
		122/5610	100.70	31.03 > 24	24.00
		138/5690	88.34	30.46 > 24	24.00
	802.11ac VHT80+80	106/5530	90.41	30.56 > 24	24.00
		122/5610	89.03	30.50 > 24	24.00
		138/5690	87.79	30.43 > 24	24.00
Note: 250mW=24dBm					

Test results

Note: Output Power=Read Value+Duty cycle correction factor

SISO Antenna 1

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11a	36/5180	19.84	19.98	30	PASS
	40/5200	19.69	19.83	30	PASS
	48/5240	19.73	19.87	30	PASS
802.11n HT20	36/5180	19.84	19.84	30	PASS
	40/5200	19.72	19.72	30	PASS
	48/5240	19.71	19.71	30	PASS
802.11n HT40	38/5190	19.03	19.16	30	PASS
	46/5230	19.08	19.21	30	PASS
802.11ac VHT80	42/5210	18.37	18.59	30	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

U-NII-2A

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11a	52/5260	19.68	19.82	24.00	PASS
	60/5300	19.94	20.08	24.00	PASS
	64/5320	20.11	20.25	24.00	PASS
802.11n HT20	52/5260	19.74	19.74	24.00	PASS
	60/5300	20.04	20.04	24.00	PASS
	64/5320	20.14	20.14	24.00	PASS
802.11n HT40	54/5270	19.21	19.34	24.00	PASS
	62/5310	18.68	18.81	24.00	PASS
802.11ac VHT80	58/5290	17.73	17.95	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

U-NII-2C

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11a	100/5500	20.04	20.18	24.00	PASS
	116/5580	20.01	20.15	24.00	PASS
	140/5700	20.14	20.28	24.00	PASS
	144/5720	19.94	20.08	24.00	PASS
802.11n HT20	100/5500	20.14	20.14	24.00	PASS
	116/5580	20.04	20.04	24.00	PASS
	140/5700	20.22	20.22	24.00	PASS
	144/5720	20.04	20.04	24.00	PASS
802.11n HT40	102/5510	19.43	19.56	24.00	PASS
	110/5550	18.74	18.87	24.00	PASS
	134/5670	18.77	18.90	24.00	PASS
	142/5710	19.24	19.33	24.00	PASS
802.11ac VHT80	106/5530	17.95	18.17	24.00	PASS
	122/5610	17.55	17.77	24.00	PASS
	138/5690	18.03	18.25	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

U-NII-3

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11a	149/5745	20.03	20.17	30	PASS
	157/5785	20.11	20.25	30	PASS
	165/5825	20.21	20.35	30	PASS
802.11n HT20	149/5745	20.06	20.06	30	PASS
	157/5785	20.13	20.13	30	PASS
	165/5825	20.27	20.27	30	PASS
802.11n HT40	151/5755	19.25	19.38	30	PASS
	159/5795	19.34	19.47	30	PASS
802.11ac VHT80	155/5775	17.69	17.91	30	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

SISO Antenna 2

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11a	36/5180	20.15	20.29	30	PASS
	40/5200	19.92	20.06	30	PASS
	48/5240	19.75	19.89	30	PASS
802.11n HT20	36/5180	20.08	20.08	30	PASS
	40/5200	19.84	19.84	30	PASS
	48/5240	19.76	19.76	30	PASS
802.11n HT40	38/5190	19.34	19.47	30	PASS
	46/5230	19.33	19.46	30	PASS
802.11ac VHT80	42/5210	17.65	17.87	30	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

U-NII-2A

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11a	52/5260	19.86	20.00	24.00	PASS
	60/5300	19.93	20.07	24.00	PASS
	64/5320	19.81	19.95	24.00	PASS
802.11n HT20	52/5260	19.85	19.85	24.00	PASS
	60/5300	20.05	20.05	24.00	PASS
	64/5320	19.84	19.84	24.00	PASS
802.11n HT40	54/5270	19.48	19.61	24.00	PASS
	62/5310	18.65	18.78	24.00	PASS
802.11ac VHT80	58/5290	17.79	18.01	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

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Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11a	100/5500	20.33	20.47	24.00	PASS
	116/5580	19.81	19.95	24.00	PASS
	140/5700	20.35	20.49	24.00	PASS
	144/5720	20.14	20.28	24.00	PASS
802.11n HT20	100/5500	20.38	20.38	24.00	PASS
	116/5580	19.84	19.84	24.00	PASS
	140/5700	20.34	20.34	24.00	PASS
	144/5720	20.22	20.22	24.00	PASS
802.11n HT40	102/5510	19.43	19.56	24.00	PASS
	110/5550	19.41	19.54	24.00	PASS
	134/5670	18.69	18.82	24.00	PASS
	142/5710	19.14	19.27	24.00	PASS
802.11ac VHT80	106/5530	17.75	17.97	24.00	PASS
	122/5610	18.33	18.55	24.00	PASS
	138/5690	18.04	18.26	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

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Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11a	149/5745	20.05	20.19	30	PASS
	157/5785	20.22	20.36	30	PASS
	165/5825	20.33	20.47	30	PASS
802.11n HT20	149/5745	20.17	20.17	30	PASS
	157/5785	20.31	20.31	30	PASS
	165/5825	20.36	20.36	30	PASS
802.11n HT40	151/5755	19.38	19.51	30	PASS
	159/5795	19.43	19.56	30	PASS
802.11ac VHT80	155/5775	17.62	17.84	30	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

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Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11a	36/5180	20.21	20.35	30	PASS
	40/5200	19.98	20.12	30	PASS
	48/5240	19.87	20.01	30	PASS
802.11n HT20	36/5180	20.27	20.27	30	PASS
	40/5200	20.08	20.08	30	PASS
	48/5240	19.89	19.89	30	PASS
802.11n HT40	38/5190	19.43	19.56	30	PASS
	46/5230	19.25	19.38	30	PASS
802.11ac VHT80	42/5210	17.69	17.91	30	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

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Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11a	52/5260	20.00	20.14	24.00	PASS
	60/5300	20.22	20.36	24.00	PASS
	64/5320	20.38	20.52	24.00	PASS
802.11n HT20	52/5260	20.05	20.05	24.00	PASS
	60/5300	20.24	20.24	24.00	PASS
	64/5320	20.38	20.38	24.00	PASS
802.11n HT40	54/5270	19.44	19.57	24.00	PASS
	62/5310	18.87	19.00	24.00	PASS
802.11ac VHT80	58/5290	17.83	18.05	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

U-NII-2C

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11a	100/5500	19.67	19.81	24.00	PASS
	116/5580	20.37	20.51	24.00	PASS
	140/5700	20.09	20.23	24.00	PASS
	144/5720	19.96	20.10	24.00	PASS
802.11n HT20	100/5500	19.69	19.69	24.00	PASS
	116/5580	20.11	20.11	24.00	PASS
	140/5700	20.09	20.09	24.00	PASS
	144/5720	19.89	19.89	24.00	PASS
802.11n HT40	102/5510	18.87	19.00	24.00	PASS
	110/5550	19.02	19.15	24.00	PASS
	134/5670	19.31	19.44	24.00	PASS
	142/5710	19.14	19.27	24.00	PASS
802.11ac VHT80	106/5530	18.01	18.23	24.00	PASS
	122/5610	18.24	18.46	24.00	PASS
	138/5690	17.99	18.21	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

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Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11a	149/5745	20.23	20.37	30	PASS
	157/5785	20.44	20.58	30	PASS
	165/5825	20.38	20.52	30	PASS
802.11n HT20	149/5745	20.33	20.33	30	PASS
	157/5785	20.28	20.28	30	PASS
	165/5825	20.37	20.37	30	PASS
802.11n HT40	151/5755	19.41	19.54	30	PASS
	159/5795	18.69	18.82	30	PASS
802.11ac VHT80	155/5775	17.86	18.08	30	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

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Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11a	36/5180	20.09	20.23	30	PASS
	40/5200	19.97	20.11	30	PASS
	48/5240	19.81	19.95	30	PASS
802.11n HT20	36/5180	20.07	20.07	30	PASS
	40/5200	19.96	19.96	30	PASS
	48/5240	19.85	19.85	30	PASS
802.11n HT40	38/5190	19.41	19.54	30	PASS
	46/5230	19.47	19.60	30	PASS
802.11ac VHT80	42/5210	17.78	18.00	30	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

U-NII-2A

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11a	52/5260	19.91	20.05	24.00	PASS
	60/5300	20.14	20.28	24.00	PASS
	64/5320	20.10	20.24	24.00	PASS
802.11n HT20	52/5260	19.93	19.93	24.00	PASS
	60/5300	20.24	20.24	24.00	PASS
	64/5320	20.13	20.13	24.00	PASS
802.11n HT40	54/5270	19.32	19.45	24.00	PASS
	62/5310	18.77	18.90	24.00	PASS
802.11ac VHT80	58/5290	17.85	18.07	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

U-NII-2C

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11a	100/5500	20.03	20.17	24.00	PASS
	116/5580	19.77	19.91	24.00	PASS
	140/5700	20.11	20.25	24.00	PASS
	144/5720	20.02	20.16	24.00	PASS
802.11n HT20	100/5500	20.04	20.04	24.00	PASS
	116/5580	19.88	19.88	24.00	PASS
	140/5700	20.15	20.15	24.00	PASS
	144/5720	20.14	20.14	24.00	PASS
802.11n HT40	102/5510	19.13	19.26	24.00	PASS
	110/5550	19.01	19.14	24.00	PASS
	134/5670	19.43	19.56	24.00	PASS
	142/5710	19.11	19.24	24.00	PASS
802.11ac VHT80	106/5530	17.74	17.96	24.00	PASS
	122/5610	18.34	18.56	24.00	PASS
	138/5690	17.88	18.10	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

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Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11a	149/5745	20.28	20.42	30	PASS
	157/5785	20.23	20.37	30	PASS
	165/5825	20.24	20.38	30	PASS
802.11n HT20	149/5745	20.33	20.33	30	PASS
	157/5785	20.37	20.37	30	PASS
	165/5825	20.35	20.35	30	PASS
802.11n HT40	151/5755	19.47	19.60	30	PASS
	159/5795	19.44	19.57	30	PASS
802.11ac VHT80	155/5775	17.76	17.98	30	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

MIMO Antenna 2X2 without beamforming

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Network Standards	Channel/ Frequency (MHz)	Output Power					Limit (dBm)	Conclusion
		ANT1		ANT2		Total Power (dBm)		
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11a	36/5180	19.63	19.77	19.96	20.10	22.94	30.00	PASS
	44/5220	20.05	20.19	20.24	20.38	23.29	30.00	PASS
	48/5240	19.95	20.09	20.27	20.41	23.26	30.00	PASS
802.11n HT20	36/5180	19.68	19.68	19.93	19.93	22.82	30.00	PASS
	44/5220	20.24	20.24	20.27	20.27	23.27	30.00	PASS
	48/5240	20.17	20.17	20.25	20.25	23.22	30.00	PASS
802.11n HT40	38/5190	18.54	18.67	18.79	18.92	21.81	30.00	PASS
	46/5230	19.22	19.35	19.48	19.61	22.49	30.00	PASS
802.11ac VHT80	42/5210	17.75	17.97	17.96	18.18	21.09	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1), The Total Power $=10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)})$.

2. The manufacturer declared the transmitter output signals is CDD mode And $N_{ss}=2$. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

So directional gain = G_{ANT} + Array Gain =5+0=5 dBi<6dBi. So the power limt is 30dBm.

U-NII-2A

Network Standards	Channel/ Frequency (MHz)	Output Power					Limit (dBm)	Conclusion
		ANT1		ANT2		Total Power (dBm)		
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11a	52/5260	18.87	19.01	19.05	19.19	22.11	24.00	PASS
	60/5300	19.08	19.22	19.11	19.25	22.24	24.00	PASS
	64/5320	18.37	18.51	18.22	18.36	21.44	24.00	PASS
802.11n HT20	52/5260	18.76	18.76	19.07	19.07	21.93	24.00	PASS
	60/5300	19.15	19.15	19.06	19.06	22.12	24.00	PASS
	64/5320	19.38	19.38	19.24	19.24	22.32	24.00	PASS
802.11n HT40	54/5270	19.19	19.32	19.41	19.54	22.44	24.00	PASS
	62/5310	18.55	18.68	18.69	18.82	21.76	24.00	PASS
802.11ac VHT80	58/5290	17.81	18.03	18.24	18.46	21.26	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1), The Total Power $=10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)})$.

2. The manufacturer declared the transmitter output signals is CDD mode And $N_{ss}=2$. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain,

Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

So directional gain = G_{ANT} + Array Gain $=5+0=5$ dBi <6dBi. So the power limt is 24dBm.

U-NII-2C

Network Standards	Channel/ Frequency (MHz)	Output Power					Limit (dBm)	Conclusion
		ANT1		ANT2		Total Power (dBm)		
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11a	100/5500	19.07	19.21	19.02	19.16	22.19	24.00	PASS
	116/5580	18.94	19.08	18.53	18.67	21.89	24.00	PASS
	140/5700	18.46	18.60	18.27	18.41	21.51	24.00	PASS
	144/5720	18.04	18.18	17.92	18.06	21.13	24.00	PASS
802.11n HT20	100/5500	19.11	19.11	19.13	19.13	22.13	24.00	PASS
	116/5580	18.94	18.94	18.67	18.67	21.82	24.00	PASS
	140/5700	18.54	18.54	18.33	18.33	21.45	24.00	PASS
	144/5720	18.94	18.94	19.11	19.11	22.04	24.00	PASS
802.11n HT40	102/5510	19.15	19.28	19.24	19.37	22.33	24.00	PASS
	110/5550	19.37	19.50	19.22	19.35	22.43	24.00	PASS
	134/5670	18.79	18.92	18.58	18.71	21.82	24.00	PASS
	142/5710	19.04	19.17	19.14	19.27	22.23	24.00	PASS
802.11ac VHT80	106/5530	18.43	18.65	18.48	18.70	21.69	24.00	PASS
	122/5610	18.44	18.66	18.39	18.61	21.65	24.00	PASS
	138/5690	18.48	18.70	18.46	18.68	21.70	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1), The Total Power $=10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)})$.

2. The manufacturer declared the transmitter output signals is CDD mode And $N_{ss}=2$. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain,

Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

So directional gain = G_{ANT} + Array Gain =5+0=5 dBi <6dBi. So the power limt is 24dBm.

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Network Standards	Channel/ Frequency (MHz)	Output Power					Limit (dBm)	Conclusion
		ANT1		ANT2		Total Power (dBm)		
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11a	149/5745	20.44	20.58	20.28	20.42	23.51	30.00	PASS
	157/5785	19.76	19.90	19.64	19.78	22.85	30.00	PASS
	165/5825	19.69	19.83	19.56	19.70	22.77	30.00	PASS
802.11n HT20	149/5745	20.48	20.48	20.37	20.37	23.44	30.00	PASS
	157/5785	19.82	19.82	19.78	19.78	22.81	30.00	PASS
	165/5825	19.68	19.68	19.81	19.81	22.76	30.00	PASS
802.11n HT40	151/5755	18.69	18.82	18.72	18.85	21.84	30.00	PASS
	159/5795	18.81	18.94	18.76	18.89	21.92	30.00	PASS
802.11ac VHT80	155/5775	17.76	17.98	17.86	18.08	21.04	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1), The Total Power $=10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)})$.

2. The manufacturer declared the transmitter output signals is CDD mode And $N_{ss}=2$. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \le 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = $5\log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \ge 5$.

So directional gain = G_{ANT} + Array Gain $=5+0=5$ dBi <6dBi. So the power limt is 30dBm.

MIMO Antenna 2X2 with beamforming

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Network Standards	Channel/ Frequency (MHz)	Output Power					Limit (dBm)	Conclusion
		ANT1		ANT2		Total Power (dBm)		
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11n HT20	36/5180	19.97	19.97	20.12	20.12	23.06	30.00	PASS
	44/5220	20.03	20.03	20.24	20.24	23.15	30.00	PASS
	48/5240	19.85	19.85	20.19	20.19	23.03	30.00	PASS
802.11n HT40	38/5190	18.54	18.67	18.76	18.89	21.79	30.00	PASS
	46/5230	19.17	19.30	19.41	19.54	22.43	30.00	PASS
802.11ac VHT80	42/5210	17.64	17.86	17.92	18.14	21.02	30.00	PASS
Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1), The Total Power =10log($10^{(\text{Power antenna1 in dBm/10})}$+$10^{(\text{Power antenna2 in dBm/10})}$). 2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（2/2）=5dBi < 6dBi. So the limt is 30dBm.								

U-NII-2A

Network Standards	Channel/ Frequency (MHz)	Output Power					Limit (dBm)	Conclusion
		ANT1		ANT2		Total Power (dBm)		
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11n HT20	52/5260	18.94	18.94	19.11	19.11	22.04	24.00	PASS
	60/5300	19.27	19.27	19.33	19.33	22.31	24.00	PASS
	64/5320	19.51	19.51	19.42	19.42	22.48	24.00	PASS
802.11n HT40	54/5270	19.36	19.49	19.48	19.61	22.56	24.00	PASS
	62/5310	18.75	18.88	18.89	19.02	21.96	24.00	PASS
802.11ac VHT80	58/5290	17.96	18.18	18.17	18.39	21.30	24.00	PASS
Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1), The Total Power =10log($10^{(\text{Power antenna1 in dBm/10})}$+$10^{(\text{Power antenna2 in dBm/10})}$). 2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（2/2）=5dBi < 6dBi. So the limt is 24dBm.								

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Network Standards	Channel/ Frequency (MHz)	Output Power					Limit (dBm)	Conclusion
		ANT1		ANT2		Total Power (dBm)		
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11n HT20	100/5500	19.16	19.16	19.24	19.24	22.21	24.00	PASS
	116/5580	19.05	19.05	18.86	18.86	21.97	24.00	PASS
	140/5700	18.66	18.66	18.42	18.42	21.55	24.00	PASS
	144/5720	19.04	19.04	19.11	19.11	22.09	24.00	PASS
802.11n HT40	102/5510	19.18	19.31	19.27	19.40	22.36	24.00	PASS
	110/5550	19.46	19.59	19.34	19.47	22.54	24.00	PASS
	134/5670	18.87	19.00	18.69	18.82	21.92	24.00	PASS
	142/5710	19.17	19.30	19.06	19.19	22.25	24.00	PASS
802.11ac VHT80	106/5530	18.46	18.68	18.44	18.66	21.68	24.00	PASS
	122/5610	18.41	18.63	18.49	18.71	21.68	24.00	PASS
	138/5690	18.47	18.69	18.44	18.66	21.69	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1), The Total Power =$10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)})$.

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（2/2）=5dBi < 6dBi. So the limt is 24dBm.

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Network Standards	Channel/ Frequency (MHz)	Output Power					Limit (dBm)	Conclusion
		ANT1		ANT2		Total Power (dBm)		
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11n HT20	149/5745	20.44	20.44	20.37	20.37	23.42	30.00	PASS
	157/5785	19.75	19.75	19.84	19.84	22.81	30.00	PASS
	165/5825	19.71	19.71	19.76	19.76	22.75	30.00	PASS
802.11n HT40	151/5755	18.84	18.97	18.73	18.86	21.92	30.00	PASS
	159/5795	18.94	19.07	18.99	19.12	22.10	30.00	PASS
802.11ac VHT80	155/5775	18.01	18.23	18.09	18.31	21.28	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1), The Total Power =$10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)})$.

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（2/2）=5dBi < 6dBi. So the limt is 30dBm.

MIMO Antenna 3X3 without beamforming

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Output Power							Limit (dBm)	Conclusion
		ANT1		ANT2		ANT3		Total Power (dBm)		
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11a	36/5180	19.79	19.93	20.04	20.18	20.33	20.47	24.97	30.00	PASS
	44/5220	19.75	19.89	20.11	20.25	20.38	20.52	24.99	30.00	PASS
	48/5240	19.94	20.08	20.08	20.22	20.22	20.36	24.99	30.00	PASS
802.11n HT20	36/5180	19.70	19.70	19.82	19.82	20.15	20.15	24.67	30.00	PASS
	44/5220	19.98	19.98	20.01	20.01	20.40	20.40	24.91	30.00	PASS
	48/5240	19.63	19.63	19.88	19.88	20.02	20.02	24.62	30.00	PASS
802.11n HT40	38/5190	18.83	18.96	19.30	19.43	19.48	19.61	24.11	30.00	PASS
	46/5230	18.86	18.99	18.67	18.80	19.30	19.43	23.85	30.00	PASS
802.11ac VHT80	42/5210	18.21	18.43	18.45	18.67	18.49	18.71	23.38	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power =$10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}+10^{(\text{Power antenna3 in dBm}/10)})$.

2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=3. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

So directional gain = G_{ANT} + Array Gain =5+0=5 dBi<6dBi. So the power limt is 30dBm.

U-NII-2A

Network Standards	Channel/ Frequency (MHz)	Output Power							Limit (dBm)	Conclusion
		ANT1		ANT2		ANT3		Total Power (dBm)		
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11a	52/5260	17.24	17.38	17.52	17.66	17.55	17.69	22.35	24.00	PASS
	60/5300	17.45	17.59	17.57	17.71	17.55	17.69	22.43	24.00	PASS
	64/5320	17.55	17.69	17.64	17.78	17.71	17.85	22.54	24.00	PASS
802.11n HT20	52/5260	18.37	18.37	18.33	18.33	18.46	18.46	23.16	24.00	PASS
	60/5300	18.45	18.45	18.44	18.44	18.50	18.50	23.23	24.00	PASS
	64/5320	17.43	17.43	17.55	17.55	17.60	17.60	22.30	24.00	PASS
802.11n HT40	54/5270	18.55	18.68	18.58	18.71	18.62	18.75	23.48	24.00	PASS
	62/5310	18.73	18.86	18.77	18.90	18.84	18.97	23.68	24.00	PASS
802.11ac VHT80	58/5290	17.58	17.80	17.62	17.84	17.87	18.09	22.69	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power $=10\log(10^{(\text{Power antenna1 in dBm/10})}+10^{(\text{Power antenna2 in dBm/10})}+10^{(\text{Power antenna3 in dBm/10})})$.

2. The manufacturer declared the transmitter output signals is CDD mode And $N_{ss}=3$. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,
For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.
So directional gain = G_{ANT} + Array Gain =5+0=5 dBi <6dBi. So the power limt is 24dBm.

U-NII-2C

Network Standards	Channel/ Frequency (MHz)	Output Power							Limit (dBm)	Conclusion
		ANT1		ANT2		ANT3		Total Power (dBm)		
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11a	100/5500	17.04	17.18	17.08	17.22	17.11	17.25	21.98	24.00	PASS
	116/5580	16.54	16.68	16.48	16.62	16.47	16.61	21.40	24.00	PASS
	140/5700	17.38	17.52	17.45	17.59	17.51	17.65	22.35	24.00	PASS
	144/5720	17.34	17.48	17.46	17.60	17.49	17.63	22.34	24.00	PASS
802.11n HT20	100/5500	16.90	16.90	16.70	16.70	16.78	16.78	21.57	24.00	PASS
	116/5580	16.06	16.06	16.09	16.09	16.11	16.11	20.86	24.00	PASS
	140/5700	17.02	17.02	16.88	16.88	16.78	16.78	21.67	24.00	PASS
	144/5720	17.11	17.11	17.19	17.19	17.14	17.14	21.92	24.00	PASS
802.11n HT40	102/5510	18.90	19.03	18.77	18.90	18.76	18.89	23.71	24.00	PASS
	110/5550	18.86	18.99	18.78	18.91	18.89	19.02	23.74	24.00	PASS
	134/5670	19.02	19.15	19.05	19.18	18.99	19.12	23.92	24.00	PASS
	142/5710	19.14	19.27	19.04	19.17	19.07	19.20	23.98	24.00	PASS
802.11ac VHT80	106/5530	17.88	18.10	17.89	18.11	17.93	18.15	22.89	24.00	PASS
	122/5610	17.84	18.06	17.77	17.99	17.76	17.98	22.78	24.00	PASS
	138/5690	17.74	17.96	17.66	17.88	17.61	17.83	22.67	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power $=10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}+10^{(\text{Power antenna3 in dBm}/10)})$.

2. The manufacturer declared the transmitter output signals is CDD mode And $N_{ss}=3$. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

So directional gain = G_{ANT} + Array Gain =5+0=5 dBi <6dBi. So the power limt is 24dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	Output Power							Limit (dBm)	Conclusion
		ANT1		ANT2		ANT3		Total Power (dBm)		
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11a	149/5745	20.47	20.61	20.41	20.55	20.49	20.63	25.36	30.00	PASS
	157/5785	20.33	20.47	20.38	20.52	20.47	20.61	25.30	30.00	PASS
	165/5825	20.28	20.42	20.34	20.48	20.36	20.50	25.23	30.00	PASS
802.11n HT20	149/5745	19.77	19.77	19.74	19.74	19.72	19.72	24.51	30.00	PASS
	157/5785	19.98	19.98	19.86	19.86	19.95	19.95	24.70	30.00	PASS
	165/5825	19.87	19.87	19.82	19.82	19.90	19.90	24.63	30.00	PASS
802.11n HT40	151/5755	19.32	19.45	19.22	19.35	19.03	19.16	24.09	30.00	PASS
	159/5795	19.44	19.57	19.46	19.59	19.22	19.35	24.27	30.00	PASS
802.11ac VHT80	155/5775	18.36	18.58	18.44	18.66	18.48	18.70	23.42	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power $=10\log(10^{(\text{Power antenna1 in dBm/10})}+10^{(\text{Power antenna2 in dBm/10})}+10^{(\text{Power antenna3 in dBm/10})})$.

2. The manufacturer declared the transmitter output signals is CDD mode And $N_{ss}=3$. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

So directional gain = G_{ANT} + Array Gain =5+0=5 dBi <6dBi. So the power limt is 30dBm.

MIMO Antenna 3X3 with beamforming

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Output Power							Limit (dBm)	Conclusion
		ANT1		ANT2		ANT3		Total Power (dBm)		
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11n HT20	36/5180	19.99	19.99	19.95	19.95	19.93	19.93	24.73	30.00	PASS
	44/5220	20.02	20.02	20.07	20.07	20.22	20.22	24.88	30.00	PASS
	48/5240	20.02	20.02	19.85	19.85	19.74	19.74	24.64	30.00	PASS
802.11n HT40	38/5190	19.03	19.16	18.88	19.01	18.94	19.07	23.85	30.00	PASS
	46/5230	18.99	19.12	18.93	19.06	19.04	19.17	23.89	30.00	PASS
802.11ac VHT80	42/5210	18.42	18.64	18.36	18.58	18.29	18.51	23.35	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power =$10\log(10^{(\text{Power antenna1 in dBm/10})}+10^{(\text{Power antenna2 in dBm/10})}+10^{(\text{Power antenna3 in dBm/10})})$.
2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（3/3）=5dBi < 6dBi. So the limt is 30dBm.

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Network Standards	Channel/ Frequency (MHz)	Output Power							Limit (dBm)	Conclusion
		ANT1		ANT2		ANT3		Total Power (dBm)		
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11n HT20	52/5260	16.99	16.99	16.89	16.89	17.12	17.12	21.77	24.00	PASS
	60/5300	17.22	17.22	17.12	17.12	17.31	17.31	21.99	24.00	PASS
	64/5320	17.37	17.37	17.22	17.22	17.31	17.31	22.07	24.00	PASS
802.11n HT40	54/5270	17.55	17.68	17.58	17.71	17.51	17.64	22.45	24.00	PASS
	62/5310	17.53	17.66	17.62	17.75	17.66	17.79	22.50	24.00	PASS
802.11ac VHT80	58/5290	17.69	17.91	17.58	17.80	17.88	18.10	22.71	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power =$10\log(10^{(\text{Power antenna1 in dBm/10})}+10^{(\text{Power antenna2 in dBm/10})}+10^{(\text{Power antenna3 in dBm/10})})$.
2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（3/3）=5dBi < 6dBi. So the limt is 24dBm.

U-NII-2C

Network Standards	Channel/ Frequency (MHz)	Output Power							Limit (dBm)	Conclusion
		ANT1		ANT2		ANT3		Total Power (dBm)		
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11n HT20	100/5500	16.78	16.78	16.80	16.80	16.91	16.91	21.60	24.00	PASS
	116/5580	16.09	16.09	16.14	16.14	16.21	16.21	20.92	24.00	PASS
	140/5700	17.11	17.11	16.99	16.99	16.91	16.91	21.78	24.00	PASS
	144/5720	17.08	17.08	17.11	17.11	17.26	17.26	21.92	24.00	PASS
802.11n HT40	102/5510	17.77	17.90	17.81	17.94	17.79	17.92	22.69	24.00	PASS
	110/5550	17.69	17.82	17.91	18.04	17.89	18.02	22.73	24.00	PASS
	134/5670	17.88	18.01	17.79	17.92	18.01	18.14	22.79	24.00	PASS
	142/5710	18.32	18.45	18.16	18.29	18.11	18.24	23.10	24.00	PASS
802.11ac VHT80	106/5530	17.86	18.08	17.95	18.17	17.91	18.13	22.90	24.00	PASS
	122/5610	17.74	17.96	17.76	17.98	17.81	18.03	20.98	24.00	PASS
	138/5690	17.73	17.95	17.55	17.77	17.51	17.73	20.87	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power =$10\log(10^{(\text{Power antenna1 in dBm/10})}+10^{(\text{Power antenna2 in dBm/10})}+10^{(\text{Power antenna3 in dBm/10})})$.
2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（3/3）=5dBi < 6dBi. So the limt is 24dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	Output Power							Limit (dBm)	Conclusion
		ANT1		ANT2		ANT3		Total Power (dBm)		
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11n HT20	149/5745	19.79	19.79	19.92	19.92	19.88	19.88	24.63	30.00	PASS
	157/5785	19.71	19.71	19.67	19.67	19.89	19.89	24.53	30.00	PASS
	165/5825	19.95	19.95	19.85	19.85	19.88	19.88	24.66	30.00	PASS
802.11n HT40	151/5755	19.25	19.38	19.33	19.46	19.41	19.54	24.23	30.00	PASS
	159/5795	19.16	19.29	19.26	19.39	19.02	19.15	24.05	30.00	PASS
802.11ac VHT80	155/5775	18.27	18.49	18.15	18.37	18.33	18.55	23.25	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power =$10\log(10^{(\text{Power antenna1 in dBm/10})}+10^{(\text{Power antenna2 in dBm/10})}+10^{(\text{Power antenna3 in dBm/10})})$.
2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（3/3）=5dBi < 6dBi. So the limt is 30dBm.

MIMO Antenna 4X4 without beamforming

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Output Power								Total Power (dBm)	Limit (dBm)	Conclusion
		ANT1		ANT2		ANT3		ANT4				
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11a	52/5260	19.70	19.84	19.92	20.06	20.12	20.26	20.02	20.16	26.10	30.00	PASS
	60/5300	19.87	20.01	19.92	20.06	20.05	20.19	20.21	20.35	26.17	30.00	PASS
	64/5320	19.77	19.91	19.96	20.10	19.94	20.08	20.28	20.42	26.15	30.00	PASS
802.11n HT20	36/5180	18.21	18.21	18.45	18.45	18.55	18.55	18.53	18.53	24.46	30.00	PASS
	44/5220	19.88	19.88	19.79	19.79	20.03	20.03	19.93	19.93	25.93	30.00	PASS
	48/5240	19.96	19.96	19.91	19.91	20.04	20.04	19.99	19.99	26.00	30.00	PASS
802.11n HT40	38/5190	14.41	14.54	14.55	14.68	14.61	14.74	14.67	14.80	20.71	30.00	PASS
	46/5230	18.90	19.03	19.44	19.57	19.37	19.50	19.41	19.54	25.43	30.00	PASS
802.11ac VHT80	42/5210	17.55	17.77	17.64	17.86	17.73	17.95	17.82	18.04	23.93	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power $=10\log(10^{(\text{Power antenna1 in dBm/10})}+10^{(\text{Power antenna2 in dBm/10})}+10^{(\text{Power antenna3 in dBm/10})}+10^{(\text{Power antenna4 in dBm/10})})$.

2. The manufacturer declared the transmitter output signals is CDD mode And $N_{ss}=4$. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \le 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \ge 5$.

So directional gain = G_{ANT} + Array Gain $=5+0=5$ dBi <6dBi. So the power limt is 30dBm.

U-NII-2A

Network Standards	Channel/ Frequency (MHz)	Output Power								Total Power (dBm)	Limit (dBm)	Conclusion
		ANT1		ANT2		ANT3		ANT4				
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11a	52/5260	14.85	14.99	14.88	15.02	14.76	14.90	14.89	15.03	21.00	24.00	PASS
	60/5300	15.33	15.47	15.47	15.61	15.12	15.26	15.22	15.36	21.44	24.00	PASS
	64/5320	15.22	15.36	15.26	15.40	15.17	15.31	15.29	15.43	21.39	24.00	PASS
802.11n HT20	52/5260	14.91	14.91	14.98	14.98	14.87	14.87	15.03	15.03	20.97	24.00	PASS
	60/5300	15.21	15.21	15.16	15.16	15.19	15.19	15.31	15.31	21.24	24.00	PASS
	64/5320	15.33	15.33	15.26	15.26	15.17	15.17	15.34	15.34	21.30	24.00	PASS
802.11n HT40	54/5270	17.57	17.70	17.50	17.63	17.53	17.66	17.57	17.70	23.69	24.00	PASS
	62/5310	17.55	17.68	17.51	17.64	17.58	17.71	17.61	17.74	23.71	24.00	PASS
802.11ac VHT80	58/5290	17.70	17.92	17.78	18.00	17.65	17.87	17.82	18.04	23.98	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power $=10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}+10^{(\text{Power antenna3 in dBm}/10)}+10^{(\text{Power antenna4 in dBm}/10)})$.

2. The manufacturer declared the transmitter output signals is CDD mode And $N_{ss}=4$. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

So directional gain = G_{ANT} + Array Gain =5+0=5 dBi <6dBi. So the power limt is 24dBm.

U-NII-2C

Network Standards	Channel/ Frequency (MHz)	Output Power								Total Power (dBm)	Limit (dBm)	Conclusion
		ANT1		ANT2		ANT3		ANT4				
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11a	100/5500	14.31	14.45	14.03	14.17	14.21	14.35	14.35	14.49	20.38	24.00	PASS
	116/5580	14.41	14.55	14.37	14.51	14.42	14.56	14.46	14.60	20.57	24.00	PASS
	140/5700	13.91	14.05	14.19	14.33	13.92	14.06	14.12	14.26	20.19	24.00	PASS
	144/5720	14.08	14.22	14.01	14.15	14.16	14.30	14.22	14.36	20.27	24.00	PASS
802.11n HT20	100/5500	14.93	14.93	14.77	14.77	14.69	14.69	14.87	14.87	20.84	24.00	PASS
	116/5580	14.96	14.96	14.76	14.76	14.93	14.93	14.91	14.91	20.91	24.00	PASS
	140/5700	16.14	16.14	16.04	16.04	16.22	16.22	16.07	16.07	22.14	24.00	PASS
	144/5720	14.96	14.96	15.08	15.08	14.99	14.99	14.91	14.91	21.01	24.00	PASS
802.11n HT40	102/5510	13.45	13.58	13.48	13.61	13.18	13.31	13.55	13.68	19.57	24.00	PASS
	110/5550	17.86	17.99	17.90	18.03	17.79	17.92	17.82	17.95	23.99	24.00	PASS
	134/5670	17.81	17.94	17.79	17.92	17.81	17.94	17.89	18.02	23.97	24.00	PASS
	142/5710	17.88	18.01	17.84	17.97	17.85	17.98	17.81	17.94	23.99	24.00	PASS
802.11ac VHT80	106/5530	17.73	17.95	17.72	17.94	17.74	17.96	17.77	17.99	23.98	24.00	PASS
	122/5610	17.67	17.89	17.82	18.04	17.67	17.89	17.78	18.00	23.98	24.00	PASS
	138/5690	17.64	17.86	17.71	17.93	17.59	17.81	17.62	17.84	23.88	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power $=10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}+10^{(\text{Power antenna3 in dBm}/10)}+10^{(\text{Power antenna4 in dBm}/10)})$.

2. The manufacturer declared the transmitter output signals is CDD mode And $N_{ss}=4$. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

So directional gain = G_{ANT} + Array Gain =5+0=5 dBi <6dBi. So the power limt is 24dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	Output Power								Total Power (dBm)	Limit (dBm)	Conclusion
		ANT1		ANT2		ANT3		ANT4				
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11a	149/5745	19.73	19.87	19.75	19.89	19.86	20.00	19.91	20.05	25.97	30.00	PASS
	157/5785	19.94	20.08	19.88	20.02	20.14	20.28	19.98	20.12	26.14	30.00	PASS
	165/5825	20.12	20.26	20.21	20.35	20.27	20.41	20.31	20.45	26.38	30.00	PASS
802.11n HT20	149/5745	19.81	19.81	18.78	18.78	19.89	19.89	20.03	20.03	25.68	30.00	PASS
	157/5785	20.06	20.06	19.91	19.91	20.11	20.11	20.09	20.09	26.06	30.00	PASS
	165/5825	20.23	20.23	20.21	20.21	20.27	20.27	20.32	20.32	26.28	30.00	PASS
802.11n HT40	151/5755	18.37	18.50	18.24	18.37	18.13	18.26	18.45	18.58	24.45	30.00	PASS
	159/5795	18.48	18.61	18.42	18.55	18.46	18.59	18.53	18.66	24.62	30.00	PASS
802.11ac VHT80	155/5775	17.57	17.79	17.36	17.58	17.53	17.75	17.68	17.90	23.78	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power $=10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}+10^{(\text{Power antenna3 in dBm}/10)}+10^{(\text{Power antenna4 in dBm}/10)})$.

2. The manufacturer declared the transmitter output signals is CDD mode And $N_{ss}=4$. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

So directional gain = G_{ANT} + Array Gain =5+0=5 dBi <6dBi. So the power limt is 30dBm.

MIMO Antenna 4X4 with beamforming

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Output Power								Total Power (dBm)	Limit (dBm)	Conclusion
		ANT1		ANT2		ANT3		ANT4				
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11n HT20	36/5180	18.27	18.27	18.37	18.37	18.53	18.53	18.49	18.49	24.44	30.00	PASS
	44/5220	19.75	19.75	19.86	19.86	19.89	19.89	19.87	19.87	25.86	30.00	PASS
	48/5240	20.03	20.03	20.04	20.04	19.97	19.97	20.13	20.13	26.06	30.00	PASS
802.11n HT40	38/5190	14.47	14.60	14.38	14.51	14.55	14.68	14.51	14.64	20.63	30.00	PASS
	46/5230	19.03	19.16	19.49	19.62	19.43	19.56	19.64	19.77	25.55	30.00	PASS
802.11ac VHT80	42/5210	17.48	17.70	17.73	17.95	17.81	18.03	17.76	17.98	23.94	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power =$10\log(10^{(\text{Power antenna1 in dBm/10})}+10^{(\text{Power antenna2 in dBm/10})}+10^{(\text{Power antenna3 in dBm/10})}+10^{(\text{Power antenna4 in dBm/10})})$.

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（4/4）=5dBi < 6dBi. So the limt is 30dBm.

U-NII-2A

Network Standards	Channel/ Frequency (MHz)	Output Power								Total Power (dBm)	Limit (dBm)	Conclusion
		ANT1		ANT2		ANT3		ANT4				
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11n HT20	52/5260	15.63	15.63	16.04	16.04	15.92	15.92	15.89	15.89	21.89	24.00	PASS
	60/5300	14.86	14.86	15.17	15.17	15.11	15.11	15.15	15.15	21.09	24.00	PASS
	64/5320	15.05	15.05	15.13	15.13	15.14	15.14	15.03	15.03	21.11	24.00	PASS
802.11n HT40	54/5270	16.17	16.30	16.53	16.66	16.47	16.60	16.61	16.74	22.60	24.00	PASS
	62/5310	16.41	16.54	16.54	16.67	16.68	16.81	16.76	16.89	22.75	24.00	PASS
802.11ac VHT80	58/5290	16.61	16.83	16.78	17.00	16.87	17.09	16.95	17.17	23.05	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power =$10\log(10^{(\text{Power antenna1 in dBm/10})}+10^{(\text{Power antenna2 in dBm/10})}+10^{(\text{Power antenna3 in dBm/10})}+10^{(\text{Power antenna4 in dBm/10})})$.

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（4/4）=5dBi < 6dBi. So the limt is 24dBm.

U-NII-2C

Network Standards	Channel/ Frequency (MHz)	Output Power								Total Power (dBm)	Limit (dBm)	Conclusion
		ANT1		ANT2		ANT3		ANT4				
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11n HT20	100/5500	14.91	14.91	14.83	14.83	14.76	14.76	15.06	15.06	20.91	24.00	PASS
	116/5580	15.01	15.01	14.84	14.84	14.89	14.89	14.83	14.83	20.91	24.00	PASS
	140/5700	15.99	15.99	16.12	16.12	16.18	16.18	16.04	16.04	22.10	24.00	PASS
	144/5720	15.04	15.04	15.08	15.08	14.96	14.96	15.10	15.23	21.10	24.00	PASS
802.11n HT40	102/5510	13.37	13.50	13.44	13.57	13.59	13.72	13.57	13.70	19.64	24.00	PASS
	110/5550	17.02	17.15	16.75	16.88	16.82	16.95	16.79	16.92	23.00	24.00	PASS
	134/5670	17.12	17.25	17.13	17.26	16.84	16.97	17.08	17.21	23.19	24.00	PASS
	142/5710	17.04	17.17	17.09	17.22	17.11	17.24	17.24	17.24	23.24	24.00	PASS
802.11ac VHT80	106/5530	17.19	17.41	16.95	17.17	16.93	17.15	17.14	17.36	23.30	24.00	PASS
	122/5610	17.08	17.30	17.01	17.23	16.99	17.21	17.03	17.25	22.02	24.00	PASS
	138/5690	16.96	17.18	16.99	17.21	17.08	17.30	17.11	17.33	22.01	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power =$10\log(10^{(\text{Power antenna1 in dBm/10})}+10^{(\text{Power antenna2 in dBm/10})}+10^{(\text{Power antenna3 in dBm/10})}+10^{(\text{Power antenna4 in dBm/10})})$.

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（4/4）=5dBi < 6dBi. So the limt is 24dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	Output Power								Total Power (dBm)	Limit (dBm)	Conclusion
		ANT1		ANT2		ANT3		ANT4				
		Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)	Read Value (dBm)	Output Power (dBm)			
802.11n HT20	149/5745	20.06	20.06	19.12	19.12	19.96	19.96	20.13	20.13	25.86	30.00	PASS
	157/5785	19.86	19.86	19.87	19.87	19.93	19.93	19.98	19.98	25.93	30.00	PASS
	165/5825	20.13	20.13	20.13	20.13	20.16	20.16	20.16	20.16	26.17	30.00	PASS
802.11n HT40	151/5755	18.56	18.69	18.19	18.32	18.21	18.34	18.63	18.76	24.55	30.00	PASS
	159/5795	18.63	18.76	18.46	18.59	18.56	18.69	18.76	18.89	24.75	30.00	PASS
802.11ac VHT80	155/5775	17.49	17.71	17.43	17.65	17.61	17.83	17.82	18.04	23.83	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power =$10\log(10^{(\text{Power antenna1 in dBm/10})}+10^{(\text{Power antenna2 in dBm/10})}+10^{(\text{Power antenna3 in dBm/10})}+10^{(\text{Power antenna4 in dBm/10})})$.

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（4/4）=5dBi < 6dBi. So the limt is 30dBm.

MIMO Antenna 1&3

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	16.43	16.56	30.00	PASS
	58/5290	16.14	16.27	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	16.25	16.38	30.00	PASS
	106/5530	16.11	16.24	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	16.27	16.40	30.00	PASS
	122/5610	16.16	16.29	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	16.11	16.24	30.00	PASS
	138/5690	15.83	15.96	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	16.04	16.17	30.00	PASS
	155/5775	16.02	16.15	30.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	58/5290	15.66	15.79	24.00	PASS
	106/5530	16.18	16.31	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	58/5290	15.73	15.86	24.00	PASS
	122/5610	16.13	16.26	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	58/5290	15.78	15.91	24.00	PASS
	138/5690	15.94	16.07	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	58/5290	15.73	15.86	24.00	PASS
	155/5775	15.98	16.11	30.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	106/5530	16.43	16.56	24.00	PASS
	122/5610	16.13	16.26	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	106/5530	16.37	16.50	30.00	PASS
	138/5690	15.92	16.05	30.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	106/5530	16.42	16.55	24.00	PASS
	155/5775	15.93	16.06	30.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	122/5610	16.14	16.27	24.00	PASS
	138/5690	15.91	16.04	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	122/5610	16.04	16.17	24.00	PASS
	155/5775	15.94	16.07	30.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	138/5690	15.93	16.06	24.00	PASS
	155/5775	15.87	16.00	30.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

MIMO Antenna 2&4

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	15.74	15.87	30.00	PASS
	58/5290	15.99	16.12	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	15.89	16.02	30.00	PASS
	106/5530	16.48	16.61	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	15.66	15.79	30.00	PASS
	122/5610	16.43	16.56	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	15.73	15.86	30.00	PASS
	138/5690	15.81	15.94	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	15.65	15.78	30.00	PASS
	155/5775	15.93	16.06	30.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	58/5290	16.01	16.14	24.00	PASS
	106/5530	15.78	15.91	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	58/5290	16.02	16.15	24.00	PASS
	122/5610	15.66	15.79	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	58/5290	16.04	16.17	24.00	PASS
	138/5690	15.99	16.12	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	58/5290	16.00	16.13	24.00	PASS
	155/5775	15.92	16.05	30.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	106/5530	15.68	15.81	24.00	PASS
	122/5610	16.48	16.61	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	106/5530	16.35	16.48	24.00	PASS
	138/5690	15.88	16.01	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	106/5530	16.37	16.50	24.00	PASS
	155/5775	15.86	15.99	30.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	122/5610	15.81	15.94	24.00	PASS
	138/5690	15.89	16.02	24.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	122/5610	15.97	16.10	24.00	PASS
	155/5775	15.83	15.96	30.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	Output Power (dBm)	Limit (dBm)	Conclusion
802.11ac VHT80+80	138/5690	15.75	15.88	24.00	PASS
	155/5775	15.86	15.99	30.00	PASS
Note: Output Power=Read Value+Duty cycle correction factor					

5.3. Frequency Stability

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

1. Frequency stability with respect to ambient temperature

a) Supply the EUT with a nominal ac voltage or install a new or fully charged battery in the EUT. If possible, a dummy load shall be connected to the EUT because an antenna near the metallic walls of an environmental test chamber could affect the output frequency of the EUT. If the EUT is equipped with a permanently attached, adjustable-length antenna, then the EUT shall be placed in the center of the chamber with the antenna adjusted to the shortest length possible. Turn ON the EUT and tune it to one of the number of frequencies shown in 5.6.

b) Couple the unlicensed wireless device output to the measuring instrument by connecting an antenna to the measuring instrument with a suitable length of coaxial cable and placing the measuring antenna near the EUT (e.g., 15 cm away), or by connecting a dummy load to the measuring instrument, through an attenuator if necessary.

c) Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument but is strong enough to allow measurement of the operating or fundamental frequency of the EUT).

d) Turn the EUT OFF and place it inside the environmental temperature chamber. For devices that have oscillator heaters, energize only the heater circuit.

e) Set the temperature control on the chamber to the highest specified in the regulatory requirements for the type of device and allow the oscillator heater and the chamber temperature to stabilize.

f) 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.

g) Measure the frequency at each of frequencies specified in 5.6.

h) Switch OFF the EUT but do not switch OFF the oscillator heater.

i) Lower the chamber temperature by not more that 10 C, and allow the temperature inside the chamber to stabilize.

j) Repeat step f) through step i) down to the lowest specified temperature.

2. Frequency stability when varying supply voltage

Unless otherwise specified, these tests shall be made at ambient room temperature (+15 C to +25 C). An antenna shall be connected to the antenna output terminals of the EUT if possible. If the EUT is equipped with or uses an adjustable-length antenna, then it shall be fully extended.

a) Supply the EUT with nominal voltage or install a new or fully charged battery in the EUT. Turn ON the EUT and couple its output to a frequency counter or other frequency-measuring instrument.

b) Tune the EUT to one of the number of frequencies required in 5.6. Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument but is strong enough to allow measurement of the operating or fundamental frequency of the EUT).
c) Measure the frequency at each of the frequencies specified in 5.6.
d) Repeat the above procedure at 85% and 115% of the nominal supply voltage.

Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 936Hz

Test Results

Voltage (V)	Temperature (°C)	U-NII-1 Test Results			
		5200MHz			
		1min	2min	5min	10min
12	-20	5200.001697	5199.996481	5199.993888	5199.992752
12	-10	5199.994466	5199.993220	5199.992087	5199.983164
12	0	5199.991950	5199.984404	5199.982093	5199.976310
12	10	5199.988845	5199.977431	5199.973359	5199.967588
12	20	5199.982552	5199.969822	5199.967287	5199.963541
12	30	5199.975067	5199.964325	5199.959476	5199.957551
12	40	5199.974550	5199.963467	5199.952533	5199.952752
12	50	5199.973700	5199.959818	5199.950186	5199.950386
10.8	20	5199.964690	5199.953635	5199.949665	5199.947266
13.2	20	5199.960436	5199.951466	5199.944912	5199.945375
MHz		-0.039564	-0.048534	-0.055088	-0.054625
PPM		-7.608412	-9.333447	-10.593750	-10.504870

Voltage (V)	Temperature (°C)	U-NII-2A Test Results			
		5300MHz			
		1min	2min	5min	10min
12	-20	5299.998849	5299.993178	5299.988286	5299.986853
12	-10	5299.992220	5299.986929	5299.986989	5299.977005
12	0	5299.989232	5299.979180	5299.982887	5299.969172
12	10	5299.981270	5299.973163	5299.973824	5299.962906
12	20	5299.980808	5299.968992	5299.965007	5299.955407
12	30	5299.977968	5299.959956	5299.958286	5299.948304
12	40	5299.968640	5299.953186	5299.953722	5299.945752
12	50	5299.964074	5299.945871	5299.951357	5299.940069
10.8	20	5299.962209	5299.939745	5299.944824	5299.930726
13.2	20	5299.960694	5299.931731	5299.934848	5299.922504
MHz		-0.039306	-0.068269	-0.065152	-0.077496
PPM		-7.416147	-12.881032	-12.292879	-14.621933

Voltage (V)	Temperature (°C)	U-NII-2C Test Results			
		5580MHz			
		1min	2min	5min	10min
12	-20	5580.003404	5580.001179	5579.995528	5579.986754
12	-10	5579.994773	5580.000399	5579.994084	5579.983770
12	0	5579.989699	5579.995892	5579.991778	5579.979121
12	10	5579.983216	5579.988087	5579.990784	5579.974434
12	20	5579.974287	5579.986082	5579.988857	5579.972218
12	30	5579.969046	5579.985203	5579.987109	5579.966023
12	40	5579.967867	5579.978823	5579.979128	5579.960266
12	50	5579.965977	5579.975728	5579.975036	5579.955675
10.8	20	5579.957568	5579.973177	5579.965940	5579.947247
13.2	20	5579.953091	5579.966253	5579.957526	5579.937522
MHz		-0.046909	-0.033747	-0.042474	-0.062478
PPM		-8.406705	-6.047800	-7.611783	-11.196725

Voltage (V)	Temperature (°C)	U-NII-3 Test Results			
		5785MHz			
		1min	2min	5min	10min
12	-20	5785.001187	5785.000789	5784.997112	5784.992352
12	-10	5784.994162	5784.994325	5784.991418	5784.991965
12	0	5784.992579	5784.984953	5784.985016	5784.990518
12	10	5784.990144	5784.983862	5784.978188	5784.982951
12	20	5784.980545	5784.982034	5784.977341	5784.979465
12	30	5784.980410	5784.972868	5784.974529	5784.970708
12	40	5784.970422	5784.967594	5784.974356	5784.963223
12	50	5784.963052	5784.966671	5784.974122	5784.954835
10.8	20	5784.960509	5784.960340	5784.967864	5784.946862
13.2	20	5784.954846	5784.957056	5784.965006	5784.946814
MHz		-0.045154	-0.042944	-0.034994	-0.053186
PPM		-7.805356	-7.423407	-6.049074	-9.193745

5.4. Power Spectral Density

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

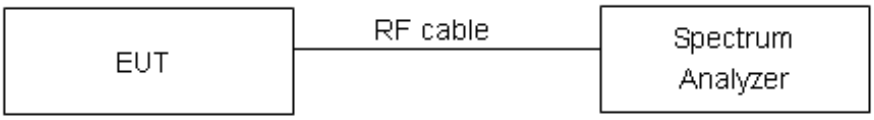
The EUT was connected to the spectrum analyzer through an external attenuator (20dB) and a known loss cable.

Set RBW = 500 kHz, VBW =1.5MHz for the band 5.725-5.85 GHz

Set RBW = 1 MHz, VBW =3MHz for the band 5.150-5.250 GHz

The conducted PSD is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically.

Test setup



Limits

Rule FCC Part 15.407(a)(1)/ Part 15.407(a)(2) / Part 15.407(a)(3)
For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmittingantennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Frequency Bands/MHz	Limits
5150-5250	17/11dBm/MHz
5.25-5.35 GHz and 5.47-5.725 GHz	11dBm/MHz
5725-5850	30dBm/500kHz

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 0.75dB.

Test Results:

Note: Power Spectral Density =Read Value+Duty cycle correction factor

SISO Antenna 1

U-NII-1

Network Standards	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	36/5180	8.25	8.39	17	PASS
	40/5200	8.16	8.30	17	PASS
	48/5240	7.86	7.99	17	PASS
802.11n HT20	36/5180	8.02	8.02	17	PASS
	40/5200	8.03	8.03	17	PASS
	48/5240	8.06	8.06	17	PASS
802.11n HT40	38/5190	4.00	4.13	17	PASS
	46/5230	4.28	4.40	17	PASS
802.11ac VHT80	42/5210	0.34	0.56	17	PASS

U-NII-2A

Network Standards	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	52/5260	8.21	8.35	11	PASS
	60/5300	8.60	8.73	11	PASS
	64/5320	8.71	8.84	11	PASS
802.11n HT20	52/5260	8.09	8.09	11	PASS
	60/5300	8.17	8.17	11	PASS
	64/5320	8.78	8.78	11	PASS
802.11n HT40	54/5270	4.71	4.84	11	PASS
	62/5310	3.75	3.88	11	PASS
802.11ac VHT80	58/5290	-0.28	-0.06	11	PASS

U-NII-2C

Network Standards	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	100/5500	8.93	9.07	11	PASS
	116/5580	9.19	9.32	11	PASS
	140/5700	9.05	9.18	11	PASS
	144/5720	8.37	8.51	11	PASS
802.11n HT20	100/5500	8.53	8.53	11	PASS
	116/5580	8.10	8.10	11	PASS
	140/5700	8.43	8.43	11	PASS
	144/5720	8.26	8.26	11	PASS
802.11n HT40	102/5510	4.80	4.93	11	PASS
	110/5550	4.39	4.52	11	PASS
	134/5670	3.80	3.93	11	PASS
	142/5710	4.43	4.56	11	PASS
802.11ac VHT80	106/5530	0.35	0.57	11	PASS
	122/5610	-0.26	-0.03	11	PASS
	138/5690	-0.19	0.04	11	PASS

U-NII-3

Network Standards	Channel /Frequency (MHz)	Read Value (dBm/500kHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Conclusion
802.11a	149/5745	5.97	6.10	30	PASS
	157/5785	5.94	6.08	30	PASS
	165/5825	5.68	5.81	30	PASS
802.11n HT20	149/5745	5.47	5.47	30	PASS
	157/5785	5.26	5.26	30	PASS
	165/5825	5.81	5.81	30	PASS
802.11n HT40	151/5755	1.77	1.90	30	PASS
	159/5795	1.56	1.69	30	PASS
802.11ac VHT80	155/5775	-3.24	-3.02	30	PASS

SISO Antenna 2

U-NII-1

Network Standards	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	36/5180	8.20	8.34	17	PASS
	40/5200	8.79	8.92	17	PASS
	48/5240	8.09	8.23	17	PASS
802.11n HT20	36/5180	8.33	8.33	17	PASS
	40/5200	8.29	8.29	17	PASS
	48/5240	7.77	7.77	17	PASS
802.11n HT40	38/5190	4.77	4.90	17	PASS
	46/5230	5.08	5.21	17	PASS
802.11ac VHT80	42/5210	-0.44	-0.21	17	PASS

U-NII-2A

Network Standards	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	52/5260	8.27	8.41	11	PASS
	60/5300	8.62	8.75	11	PASS
	64/5320	8.39	8.53	11	PASS
802.11n HT20	52/5260	7.80	7.80	11	PASS
	60/5300	8.41	8.41	11	PASS
	64/5320	8.06	8.06	11	PASS
802.11n HT40	54/5270	5.07	5.20	11	PASS
	62/5310	4.09	4.22	11	PASS
802.11ac VHT80	58/5290	-0.49	-0.26	11	PASS

U-NII-2C

Network Standards	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	100/5500	8.65	8.79	11	PASS
	116/5580	8.52	8.65	11	PASS
	140/5700	8.72	8.86	11	PASS
	144/5720	8.16	8.29	11	PASS
802.11n HT20	100/5500	8.60	8.60	11	PASS
	116/5580	7.76	7.76	11	PASS
	140/5700	8.80	8.80	11	PASS
	144/5720	8.10	8.10	11	PASS
802.11n HT40	102/5510	4.63	4.76	11	PASS
	110/5550	4.85	4.98	11	PASS
	134/5670	3.94	4.07	11	PASS
	142/5710	4.36	4.49	11	PASS
802.11ac VHT80	106/5530	0.57	0.80	11	PASS
	122/5610	1.22	1.44	11	PASS
	138/5690	0.45	0.67	11	PASS

U-NII-3

Network Standards	Channel /Frequency (MHz)	Read Value (dBm/500kHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Conclusion
802.11a	149/5745	5.41	5.55	30	PASS
	157/5785	5.98	6.11	30	PASS
	165/5825	5.76	5.90	30	PASS
802.11n HT20	149/5745	5.89	5.89	30	PASS
	157/5785	5.50	5.50	30	PASS
	165/5825	5.95	5.95	30	PASS
802.11n HT40	151/5755	2.10	2.23	30	PASS
	159/5795	2.06	2.19	30	PASS
802.11ac VHT80	155/5775	-2.77	-2.54	30	PASS

SISO Antenna 3

U-NII-1

Network Standards	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	36/5180	8.65	8.79	17	PASS
	40/5200	8.26	8.39	17	PASS
	48/5240	7.79	7.92	17	PASS
802.11n HT20	36/5180	8.49	8.49	17	PASS
	40/5200	7.96	7.96	17	PASS
	48/5240	8.32	8.32	17	PASS
802.11n HT40	38/5190	4.63	4.76	17	PASS
	46/5230	4.34	4.47	17	PASS
802.11ac VHT80	42/5210	-0.20	0.02	17	PASS

U-NII-2A

Network Standards	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	52/5260	8.62	8.76	11	PASS
	60/5300	8.25	8.39	11	PASS
	64/5320	8.91	9.04	11	PASS
802.11n HT20	52/5260	7.71	7.71	11	PASS
	60/5300	8.42	8.42	11	PASS
	64/5320	8.72	8.72	11	PASS
802.11n HT40	54/5270	4.77	4.90	11	PASS
	62/5310	3.90	4.03	11	PASS
802.11ac VHT80	58/5290	-0.32	-0.10	11	PASS

U-NII-2C

Network Standards	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	100/5500	7.91	8.05	11	PASS
	116/5580	8.75	8.88	11	PASS
	140/5700	8.51	8.65	11	PASS
	144/5720	8.57	8.71	11	PASS
802.11n HT20	100/5500	7.79	7.79	11	PASS
	116/5580	8.48	8.48	11	PASS
	140/5700	8.00	8.00	11	PASS
	144/5720	8.17	8.17	11	PASS
802.11n HT40	102/5510	3.86	3.98	11	PASS
	110/5550	4.19	4.32	11	PASS
	134/5670	4.61	4.73	11	PASS
	142/5710	4.49	4.62	11	PASS
802.11ac VHT80	106/5530	0.53	0.75	11	PASS
	122/5610	0.52	0.74	11	PASS
	138/5690	0.18	0.40	11	PASS

U-NII-3

Network Standards	Channel /Frequency (MHz)	Read Value (dBm/500kHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Conclusion
802.11a	149/5745	6.51	6.64	30	PASS
	157/5785	5.77	5.91	30	PASS
	165/5825	6.11	6.25	30	PASS
802.11n HT20	149/5745	5.49	5.49	30	PASS
	157/5785	5.77	5.77	30	PASS
	165/5825	5.61	5.61	30	PASS
802.11n HT40	151/5755	2.02	2.15	30	PASS
	159/5795	0.66	0.79	30	PASS
802.11ac VHT80	155/5775	-2.80	-2.58	30	PASS

SISO Antenna 4

U-NII-1

Network Standards	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	36/5180	9.06	9.19	17	PASS
	40/5200	8.40	8.54	17	PASS
	48/5240	8.60	8.73	17	PASS
802.11n HT20	36/5180	8.24	8.24	17	PASS
	40/5200	8.09	8.09	17	PASS
	48/5240	8.18	8.18	17	PASS
802.11n HT40	38/5190	4.90	5.03	17	PASS
	46/5230	5.01	5.14	17	PASS
802.11ac VHT80	42/5210	0.17	0.39	17	PASS

U-NII-2A

Network Standards	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	52/5260	8.18	8.32	11	PASS
	60/5300	8.56	8.69	11	PASS
	64/5320	8.66	8.80	11	PASS
802.11n HT20	52/5260	8.39	8.39	11	PASS
	60/5300	8.54	8.54	11	PASS
	64/5320	8.52	8.52	11	PASS
802.11n HT40	54/5270	4.53	4.66	11	PASS
	62/5310	4.08	4.21	11	PASS
802.11ac VHT80	58/5290	-0.57	-0.34	11	PASS

U-NII-2C

Network Standards	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	100/5500	8.73	8.86	11	PASS
	116/5580	8.38	8.52	11	PASS
	140/5700	8.94	9.08	11	PASS
	144/5720	8.14	8.28	11	PASS
802.11n HT20	100/5500	8.50	8.50	11	PASS
	116/5580	7.73	7.73	11	PASS
	140/5700	8.23	8.23	11	PASS
	144/5720	7.94	7.94	11	PASS
802.11n HT40	102/5510	4.22	4.35	11	PASS
	110/5550	4.08	4.21	11	PASS
	134/5670	4.66	4.79	11	PASS
	142/5710	4.72	4.85	11	PASS
802.11ac VHT80	106/5530	0.08	0.30	11	PASS
	122/5610	0.98	1.20	11	PASS
	138/5690	-0.45	-0.23	11	PASS

U-NII-3

Network Standards	Channel /Frequency (MHz)	Read Value (dBm/500kHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Conclusion
802.11a	149/5745	5.87	6.00	30	PASS
	157/5785	5.93	6.07	30	PASS
	165/5825	5.86	6.00	30	PASS
802.11n HT20	149/5745	5.86	5.86	30	PASS
	157/5785	5.89	5.89	30	PASS
	165/5825	5.66	5.66	30	PASS
802.11n HT40	151/5755	2.08	2.21	30	PASS
	159/5795	1.59	1.72	30	PASS
802.11ac VHT80	155/5775	-2.89	-2.67	30	PASS

MIMO Antenna 2X2 without Beamforming

U-NII-1

Network Standards	Channel /Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		ANT1		ANT2		Total PSD (dBm/MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/M Hz)			
802.11a	36/5180	7.98	8.11	8.61	8.75	11.45	17.00	PASS
	40/5200	8.87	9.01	9.16	9.30	12.16	17.00	PASS
	48/5240	9.00	9.13	9.29	9.42	12.29	17.00	PASS
802.11n HT20	36/5180	7.52	7.52	8.02	8.02	10.79	17.00	PASS
	40/5200	8.61	8.61	9.24	9.24	11.95	17.00	PASS
	48/5240	8.82	8.82	8.64	8.64	11.74	17.00	PASS
802.11n HT40	38/5190	4.01	4.14	4.49	4.62	7.39	17.00	PASS
	46/5230	4.04	4.17	4.58	4.71	7.46	17.00	PASS
802.11ac VHT80	42/5210	0.36	0.58	0.33	0.55	3.58	17.00	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})})$

2. The manufacturer declared the transmitter output signals is CDD mode and N_{ss}=2. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain, For power spectral density (PSD) measurements on all devices, Array Gain = 10 $\log(N_{ANT}/N_{SS})$ dB=0. So directional gain = G_{ANT} + Array Gain =5+0=5 dBi<6dBi. So the power limt is 17dBm

U-NII-2A

Network Standards	Channel /Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		ANT1		ANT2		Total PSD (dBm/MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	52/5260	7.10	7.23	7.51	7.65	10.45	11.00	PASS
	60/5300	7.47	7.61	7.46	7.60	10.61	11.00	PASS
	64/5320	7.15	7.29	6.96	7.10	10.20	11.00	PASS
802.11n HT20	52/5260	7.03	7.03	7.25	7.25	10.15	11.00	PASS
	60/5300	7.36	7.36	7.27	7.27	10.32	11.00	PASS
	64/5320	7.23	7.23	7.61	7.61	10.44	11.00	PASS
802.11n HT40	54/5270	4.09	4.22	5.16	5.29	7.80	11.00	PASS
	62/5310	3.99	4.12	4.17	4.30	7.22	11.00	PASS
802.11ac VHT80	58/5290	-0.35	-0.13	0.50	0.72	3.33	11.00	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})})$

2. The manufacturer declared the transmitter output signals is CDD mode and N_{ss}=2. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain, For power spectral density (PSD) measurements on all devices, Array Gain = $10\log(N_{ANT}/N_{SS})$ dB=0.So directional gain = G_{ANT} + Array Gain =5+0=5 dBi<6dBi. So the power limt is 11dBm

U-NII-2C

Network Standards	Channel /Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		ANT1		ANT2		Total PSD (dBm/MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	100/5500	7.43	7.56	7.28	7.42	10.50	11.00	PASS
	116/5580	7.18	7.31	7.59	7.72	10.53	11.00	PASS
	140/5700	6.99	7.13	7.37	7.51	10.33	11.00	PASS
	144/5720	6.62	6.75	6.76	6.89	9.83	11.00	PASS
802.11n HT20	100/5500	7.34	7.34	7.42	7.42	10.39	11.00	PASS
	116/5580	7.13	7.13	6.99	6.99	10.07	11.00	PASS
	140/5700	6.78	6.78	7.13	7.13	9.97	11.00	PASS
	144/5720	7.16	7.16	7.25	7.25	10.21	11.00	PASS
802.11n HT40	102/5510	4.50	4.63	4.69	4.82	7.74	11.00	PASS
	110/5550	4.70	4.83	4.86	4.99	7.92	11.00	PASS
	134/5670	4.02	4.15	4.25	4.38	7.28	11.00	PASS
	142/5710	4.26	4.39	4.67	4.80	7.61	11.00	PASS
802.11ac VHT80	106/5530	0.85	1.07	1.51	1.73	4.43	11.00	PASS
	122/5610	0.44	0.66	1.17	1.39	4.05	11.00	PASS
	138/5690	-0.04	0.18	1.05	1.27	3.77	11.00	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})})$

2. The manufacturer declared the transmitter output signals is CDD mode and N_{ss}=2. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain, For power spectral density (PSD) measurements on all devices, Array Gain = $10\log(N_{ANT}/N_{SS})$ dB=0.

So directional gain = G_{ANT} + Array Gain =5+0=5 dBi<6dBi. So the power limt is 11dBm

U-NII-3

Network Standards	Channel /Frequency (MHz)	Power Spectral Density					Limit (dBm/ 500kHz)	Conclusion
		ANT1		ANT2		Total PSD (dBm/ 500kHz)		
		Read Value (dBm/ 500kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 500kHz)	PSD (dBm/ 500kHz)			
802.11a	149/5745	6.01	6.15	6.91	7.05	9.63	30.00	PASS
	157/5785	5.51	5.64	6.14	6.27	8.98	30.00	PASS
	165/5825	5.46	5.60	6.15	6.29	8.97	30.00	PASS
802.11n HT20	149/5745	5.66	5.66	6.38	6.38	9.04	30.00	PASS
	157/5785	5.00	5.00	5.50	5.50	8.27	30.00	PASS
	165/5825	5.08	5.08	5.52	5.52	8.32	30.00	PASS
802.11n HT40	151/5755	1.03	1.15	1.61	1.74	4.47	30.00	PASS
	159/5795	1.09	1.22	1.48	1.61	4.43	30.00	PASS
802.11ac VHT80	155/5775	-3.31	-3.09	-2.45	-2.23	0.37	30.00	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})})$

2. The manufacturer declared the transmitter output signals is CDD mode and N_{ss}=2. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain, For power spectral density (PSD) measurements on all devices, Array Gain = $10\log(N_{ANT}/N_{SS})$ dB=0.

So directional gain = G_{ANT} + Array Gain =5+0=5 dBi<6dBi. So the power limt is 30dBm

MIMO Antenna 2X2 with Beamforming

U-NII-1

Network Standards	Channel /Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		ANT1		ANT2		Total PSD (dBm/MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11n HT20	36/5180	8.01	8.01	8.54	8.54	11.29	17	PASS
	40/5200	8.13	8.13	8.65	8.65	11.41	17	PASS
	48/5240	8.24	8.24	8.60	8.60	11.44	17	PASS
802.11n HT40	38/5190	3.50	3.63	4.32	4.44	7.07	17	PASS
	46/5230	4.58	4.71	4.64	4.77	7.75	17	PASS
802.11ac VHT80	42/5210	-0.541	-0.32	0.03	0.25	2.99	17	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})})$

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（2/2）=5dBi < 6dBi. So the limt is 17dBm.

U-NII-2A

Network Standards	Channel /Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		ANT1		ANT2		Total PSD (dBm/MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/M Hz)			
802.11n HT20	52/5260	7.15	7.15	7.33	7.33	10.25	11.00	PASS
	60/5300	7.15	7.15	7.20	7.20	10.19	11.00	PASS
	64/5320	7.60	7.60	7.31	7.31	10.47	11.00	PASS
802.11n HT40	54/5270	4.66	4.79	4.80	4.93	7.87	11.00	PASS
	62/5310	3.68	3.81	3.91	4.04	6.94	11.00	PASS
802.11ac VHT80	58/5290	0.20	0.42	0.16	0.39	3.41	11.00	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})})$

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（2/2）=5dBi < 6dBi. So the limt is 11dBm.

U-NII-2C

Network Standards	Channel /Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		ANT1		ANT2		Total PSD (dBm/ MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11n HT20	100/5500	7.22	7.22	7.58	7.58	10.42	11.00	PASS
	116/5580	7.45	7.45	7.41	7.41	10.44	11.00	PASS
	140/5700	7.16	7.16	7.43	7.43	10.31	11.00	PASS
	144/5720	7.31	7.31	7.48	7.48	10.40	11.00	PASS
802.11n HT40	102/5510	4.54	4.67	5.07	5.20	7.96	11.00	PASS
	110/5550	5.16	5.29	5.05	5.18	8.24	11.00	PASS
	134/5670	4.27	4.40	4.37	4.50	7.46	11.00	PASS
	142/5710	4.45	4.58	4.90	5.03	7.82	11.00	PASS
802.11ac VHT80	106/5530	1.35	1.57	1.40	1.62	4.61	11.00	PASS
	122/5610	0.24	0.47	1.57	1.79	4.19	11.00	PASS
	138/5690	-0.28	-0.06	0.71	0.93	3.48	11.00	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})})$

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（2/2）=5dBi < 6dBi. So the limt is 11dBm.

U-NII-3

Network Standards	Channel /Frequency (MHz)	Power Spectral Density					Limit (dBm /500kHz)	Conclusion
		ANT1		ANT2		Total PSD (dBm/ 500kHz)		
		Read Value (dBm/ 500kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 500kHz)	PSD (dBm/ 500kHz)			
802.11n HT20	149/5745	5.97	5.97	6.53	6.53	9.27	30.00	PASS
	157/5785	5.12	5.12	5.94	5.94	8.56	30.00	PASS
	165/5825	5.06	5.06	5.32	5.32	8.20	30.00	PASS
802.11n HT40	151/5755	1.32	1.45	1.76	1.89	4.69	30.00	PASS
	159/5795	1.16	1.29	1.64	1.77	4.55	30.00	PASS
802.11ac VHT80	155/5775	-2.94	-2.72	-2.76	-2.54	0.38	30.00	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})})$

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e） (i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（2/2）=5dBi < 6dBi. So the limt is 30dBm.

MIMO Antenna 3X3 without Beamforming

U-NII-1

Network Standards	Channel /Frequency (MHz)	Power Spectral Density							Limit (dBm /MHz)	Conclusion
		ANT1		ANT2		ANT3		Total PSD (dBm/MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	36/5180	7.87	8.01	8.39	8.53	9.19	9.33	13.43	17.00	PASS
	40/5200	8.29	8.42	8.66	8.79	9.61	9.74	13.79	17.00	PASS
	48/5240	8.25	8.39	8.78	8.91	9.54	9.67	13.79	17.00	PASS
802.11n HT20	36/5180	7.82	7.82	7.49	7.49	8.38	8.38	12.69	17.00	PASS
	40/5200	8.47	8.47	8.34	8.34	8.68	8.68	13.27	17.00	PASS
	48/5240	8.05	8.05	7.72	7.72	8.24	8.24	12.78	17.00	PASS
802.11n HT40	38/5190	3.78	3.91	4.91	5.03	4.86	4.99	9.45	17.00	PASS
	46/5230	3.87	4.00	4.75	4.88	4.62	4.75	9.33	17.00	PASS
802.11ac VHT80	42/5210	1.53	1.76	0.28	0.50	0.70	0.92	5.86	17.00	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})}+10^{(\text{PSD antenna3 in dBm/10})})$

2. The manufacturer declared the transmitter output signals is CDD mode and N_{ss}=3. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain, For power spectral density (PSD) measurements on all devices, Array Gain = 10 log(N_{ANT}/N_{SS}) dB=0.

So directional gain = G_{ANT} + Array Gain =5+0=5 dBi<6dBi. So the power limt is 17dBm

U-NII-2A

Network Standards	Channel /Frequency (MHz)	Power Spectral Density							Limit (dBm /MHz)	Conclusion
		ANT1		ANT2		ANT3		Total PSD (dBm/MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	52/5260	5.98	6.11	5.99	6.12	5.84	5.98	10.84	11.00	PASS
	60/5300	5.80	5.94	5.88	6.02	5.89	6.03	10.77	11.00	PASS
	64/5320	6.11	6.25	5.80	5.93	5.82	5.95	10.82	11.00	PASS
802.11n HT20	52/5260	5.59	5.59	5.94	5.94	6.14	6.14	10.67	11.00	PASS
	60/5300	5.22	5.22	5.71	5.71	5.72	5.72	10.33	11.00	PASS
	64/5320	5.54	5.54	5.71	5.71	5.69	5.69	10.42	11.00	PASS
802.11n HT40	54/5270	3.25	3.38	3.63	3.75	4.14	4.27	8.59	11.00	PASS
	62/5310	3.40	3.53	3.95	4.07	4.19	4.32	8.76	11.00	PASS
802.11ac VHT80	58/5290	-0.57	-0.35	-0.34	-0.11	-0.27	-0.05	4.60	11.00	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})}+10^{(\text{PSD antenna3 in dBm/10})})$

2. The manufacturer declared the transmitter output signals is CDD mode and N_{ss}=3. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain, For power spectral density (PSD) measurements on all devices, Array Gain = 10 $\log(N_{ANT}/N_{SS})$ dB=0.

So directional gain = G_{ANT} + Array Gain =5+0=5 dBi<6dBi. So the power limt is 11dBm

U-NII-2C

Network Standards	Channel /Frequency (MHz)	Power Spectral Density							Limit (dBm /MHz)	Conclusion
		ANT1		ANT2		ANT3		Total PSD (dBm/MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	100/5500	5.53	5.66	5.78	5.92	5.87	6.00	10.63	11.00	PASS
	116/5580	5.45	5.58	5.26	5.40	5.57	5.71	10.34	11.00	PASS
	140/5700	5.98	6.11	5.84	5.97	5.84	5.98	10.79	11.00	PASS
	144/5720	5.81	5.94	5.87	6.00	5.70	5.84	10.70	11.00	PASS
802.11n HT20	100/5500	5.50	5.50	5.44	5.44	5.30	5.30	10.18	11.00	PASS
	116/5580	5.46	5.46	5.30	5.30	5.29	5.29	10.12	11.00	PASS
	140/5700	5.88	5.88	5.96	5.96	5.59	5.59	10.59	11.00	PASS
	144/5720	5.46	5.46	5.87	5.87	5.30	5.30	10.32	11.00	PASS
802.11n HT40	102/5510	4.62	4.75	4.74	4.87	4.66	4.78	9.57	11.00	PASS
	110/5550	4.98	5.10	4.85	4.98	4.95	5.08	9.83	11.00	PASS
	134/5670	5.24	5.36	5.49	5.62	5.23	5.36	10.22	11.00	PASS
	142/5710	4.44	4.56	5.29	5.42	4.93	5.06	9.80	11.00	PASS
802.11ac VHT80	106/5530	1.19	1.42	0.89	1.11	0.65	0.87	5.91	11.00	PASS
	122/5610	0.31	0.53	0.36	0.59	-0.32	-0.10	5.12	11.00	PASS
	138/5690	-0.35	-0.12	0.07	0.29	-0.49	-0.26	4.75	11.00	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})}+10^{(\text{PSD antenna3 in dBm/10})})$

2. The manufacturer declared the transmitter output signals is CDD mode and N_{ss}=3. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain, For power spectral density (PSD) measurements on all devices, Array Gain = 10 $\log(N_{ANT}/N_{SS})$ dB=0.

So directional gain = G_{ANT} + Array Gain =5+0=5 dBi<6dBi. So the power limt is 11dBm

U-NII-3

Network Standards	Channel /Frequency (MHz)	Power Spectral Density							Limit (dBm/ 500kHz)	Conclusion
		ANT1		ANT2		ANT3		Total PSD (dBm/ 500kHz)		
		Read Value (dBm/ 500kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 500kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 500kHz)	PSD (dBm/ 500kHz			
802.11a	149/5745	6.55	6.69	6.75	6.88	6.15	6.28	11.40	30.00	PASS
	157/5785	6.29	6.42	7.08	7.22	6.60	6.74	11.58	30.00	PASS
	165/5825	6.45	6.59	6.71	6.85	6.51	6.65	11.47	30.00	PASS
802.11n HT20	149/5745	6.28	6.28	6.22	6.22	5.96	5.96	10.93	30.00	PASS
	157/5785	6.10	6.10	6.34	6.34	6.32	6.32	11.02	30.00	PASS
	165/5825	6.26	6.26	6.45	6.45	5.99	5.99	11.01	30.00	PASS
802.11n HT40	151/5755	1.90	2.03	3.14	3.27	2.52	2.65	7.45	30.00	PASS
	159/5795	2.59	2.72	3.13	3.26	2.40	2.53	7.62	30.00	PASS
802.11ac VHT80	155/5775	-1.66	-1.43	-0.72	-0.50	-1.49	-1.26	3.73	30.00	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})}+10^{(\text{PSD antenna3 in dBm/10})})$

2. The manufacturer declared the transmitter output signals is CDD mode and N_{ss}=3. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain, For power spectral density (PSD) measurements on all devices, Array Gain = 10 log(N_{ANT}/N_{SS}) dB=0.

So directional gain = G_{ANT} + Array Gain =5+0=5 dBi<6dBi. So the power limt is 30dBm

MIMO Antenna 3X3 with Beamforming

U-NII-1

Network Standards	Channel /Frequency (MHz)	Power Spectral Density							Limit (dBm /MHz)	Conclusion
		ANT1		ANT2		ANT3		Total PSD (dBm/MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11n HT20	36/5180	7.64	7.64	7.99	7.99	8.70	8.70	12.90	17	PASS
	40/5200	8.90	8.90	8.75	8.75	9.49	9.49	13.83	17	PASS
	48/5240	8.07	8.07	8.32	8.32	8.76	8.76	13.16	17	PASS
802.11n HT40	38/5190	4.32	4.45	4.73	4.86	4.86	4.99	9.54	17	PASS
	46/5230	4.16	4.29	4.74	4.86	4.52	4.64	9.38	17	PASS
802.11ac VHT80	42/5210	0.32	0.54	0.37	0.59	1.25	1.48	5.66	17	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})}+10^{(\text{PSD antenna3 in dBm/10})})$

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)=5+10log（3/3）=5dBi < 6dBi. So the limt is 17dBm.

U-NII-2A

Network Standards	Channel /Frequency (MHz)	Power Spectral Density							Limit (dBm /MHz)	Conclusion
		ANT1		ANT2		ANT3		Total PSD (dBm/MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11n HT20	52/5260	5.84	5.84	5.72	5.72	5.76	5.76	10.54	11.00	PASS
	60/5300	5.26	5.26	5.84	5.84	5.96	5.96	10.47	11.00	PASS
	64/5320	5.57	5.57	5.58	5.58	5.84	5.84	10.44	11.00	PASS
802.11n HT40	54/5270	2.38	2.51	2.83	2.96	3.14	3.27	7.69	11.00	PASS
	62/5310	2.63	2.76	2.89	3.02	3.45	3.57	7.90	11.00	PASS
802.11ac VHT80	58/5290	-1.36	-1.14	-1.06	-0.84	-0.72	-0.50	3.95	11.00	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})}+10^{(\text{PSD antenna3 in dBm/10})})$

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)= 5+10log（3/3）=5dBi < 6dBi. So the limt is 11dBm.

U-NII-2C

Network Standards	Channel /Frequency (MHz)	Power Spectral Density							Limit (dBm /MHz)	Conclusion
		ANT1		ANT2		ANT3		Total PSD (dBm/ MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11n HT20	100/5500	5.77	5.77	5.37	5.37	5.42	5.42	10.29	11.00	PASS
	116/5580	5.59	5.59	5.16	5.16	5.37	5.37	10.15	11.00	PASS
	140/5700	6.09	6.09	6.01	6.01	5.66	5.66	10.69	11.00	PASS
	144/5720	5.38	5.38	5.67	5.67	5.46	5.46	10.28	11.00	PASS
802.11n HT40	102/5510	3.74	3.87	3.71	3.84	3.69	3.82	8.61	11.00	PASS
	110/5550	4.03	4.16	3.69	3.81	3.89	4.02	8.77	11.00	PASS
	134/5670	4.12	4.25	4.48	4.61	3.93	4.06	9.08	11.00	PASS
	142/5710	3.78	3.90	3.99	4.11	3.26	3.39	8.58	11.00	PASS
802.11ac VHT80	106/5530	0.39	0.61	1.13	1.36	0.58	0.80	5.71	11.00	PASS
	122/5610	0.01	0.23	0.14	0.36	-0.37	-0.14	3.31	11.00	PASS
	138/5690	-0.31	-0.08	0.31	0.54	-0.41	-0.18	3.25	11.00	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})}+10^{(\text{PSD antenna3 in dBm/10})})$

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)= 5+10log（3/3）=5dBi < 6dBi. So the limt is 11dBm.

U-NII-3

Network Standards	Channel /Frequency (MHz)	Power Spectral Density							Limit (dBm /500kHz)	Conclusion
		ANT1		ANT2		ANT3		Total PSD (dBm/ 500kHz)		
		Read Value (dBm/ 500kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 500kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 500kHz)	PSD (dBm/ 500kHz)			
802.11n HT20	149/5745	8.54	8.54	7.86	7.86	8.49	8.49	13.08	30.00	PASS
	157/5785	8.34	8.34	9.45	9.45	8.55	8.55	13.58	30.00	PASS
	165/5825	8.22	8.22	8.76	8.76	8.21	8.21	13.17	30.00	PASS
802.11n HT40	151/5755	5.60	5.73	5.83	5.96	5.54	5.67	10.56	30.00	PASS
	159/5795	5.79	5.92	6.03	6.16	5.72	5.85	10.75	30.00	PASS
802.11ac VHT80	155/5775	1.35	1.57	2.13	2.35	1.63	1.86	6.71	30.00	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})}+10^{(\text{PSD antenna3 in dBm/10})})$

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)= 5+10log（3/3）=5dBi < 6dBi. So the limt is 30dBm.

MIMO Antenna 4X4 without Beamforming

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm /MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	36/5180	7.71	7.84	8.33	8.47	8.38	8.52	8.88	9.02	14.50	17	PASS
	40/5200	8.19	8.32	8.49	8.62	8.56	8.70	8.92	9.05	14.70	17	PASS
	48/5240	8.29	8.42	8.65	8.79	9.11	9.25	8.82	8.96	14.88	17	PASS
802.11n HT20	36/5180	5.89	5.89	6.53	6.53	7.27	7.27	7.10	7.10	12.75	17	PASS
	40/5200	7.77	7.77	8.37	8.37	8.67	8.67	8.85	8.85	14.46	17	PASS
	48/5240	8.16	8.16	8.59	8.59	8.94	8.94	8.71	8.71	14.63	17	PASS
802.11n HT40	38/5190	-0.84	-0.71	-0.07	0.06	0.48	0.61	0.42	0.54	6.18	17	PASS
	46/5230	4.33	4.45	4.74	4.87	5.07	5.20	5.31	5.44	11.03	17	PASS
802.11ac VHT80	42/5210	-0.57	-0.34	-0.22	0.01	0.14	0.36	0.50	0.72	6.22	17	PASS

Note: 1. Power Spectral Density =Read Value+Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})}+10^{(\text{PSD antenna3 in dBm/10})}) +10^{(\text{PSD antenna4 in dBm/10})})$

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=4. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5+10log（4/4)=5 dBi <6 dBi. So the PSD limt is 17dBm.

U-NII-2A

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density								Total Power (dBm /MHz)	Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4				
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	52/5260	3.48	3.61	4.17	4.31	4.04	4.18	4.29	4.42	10.16	11.00	PASS
	60/5300	3.76	3.89	4.09	4.22	4.37	4.50	4.31	4.45	10.29	11.00	PASS
	64/5320	4.25	4.39	4.24	4.38	4.42	4.56	4.27	4.41	10.45	11.00	PASS
802.11n HT20	52/5260	2.97	2.97	3.76	3.76	4.01	4.01	3.91	3.91	9.70	11.00	PASS
	60/5300	3.43	3.43	3.81	3.81	3.73	3.73	4.06	4.06	9.78	11.00	PASS
	64/5320	3.58	3.58	3.79	3.79	3.98	3.98	3.83	3.83	9.82	11.00	PASS
802.11n HT40	54/5270	2.41	2.54	2.98	3.11	3.03	3.16	3.05	3.18	9.02	11.00	PASS
	62/5310	2.98	3.11	3.03	3.16	3.30	3.43	3.21	3.34	9.28	11.00	PASS
802.11ac VHT80	58/5290	-0.55	-0.33	-0.12	0.10	-0.35	-0.13	0.16	0.38	6.03	11.00	PASS

Note: 1. Power Spectral Density =Read Value+Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})}+10^{(\text{PSD antenna3 in dBm/10})}+10^{(\text{PSD antenna4 in dBm/10})})$

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=4. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5+10log（4/4)=5 dBi <6 dBi. So the PSD limt is 11dBm.

U-NII-2C

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density								Total Power (dBm /MHz)	Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4				
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11a	100/5500	4.10	4.23	4.06	4.20	4.09	4.22	4.22	4.36	10.27	11.00	PASS
	116/5580	4.17	4.31	4.35	4.49	4.40	4.54	4.68	4.82	10.56	11.00	PASS
	140/5700	4.36	4.50	4.29	4.43	4.35	4.48	4.34	4.47	10.49	11.00	PASS
	144/5720	3.69	3.82	4.27	4.41	3.78	3.91	4.03	4.17	10.10	11.00	PASS
802.11n HT20	100/5500	3.74	3.74	3.63	3.63	4.04	4.04	4.02	4.02	9.88	11.00	PASS
	116/5580	4.23	4.23	4.16	4.16	4.27	4.27	4.43	4.43	10.29	11.00	PASS
	140/5700	4.59	4.59	5.03	5.03	4.55	4.55	4.60	4.60	10.72	11.00	PASS
	144/5720	2.99	2.99	3.74	3.74	3.52	3.52	3.87	3.87	9.56	11.00	PASS
802.11n HT40	102/5510	-1.55	-1.42	-1.30	-1.17	-1.52	-1.39	-0.55	-0.42	4.94	11.00	PASS
	110/5550	4.36	4.48	4.00	4.13	3.98	4.11	4.11	4.24	10.26	11.00	PASS
	134/5670	4.60	4.73	4.02	4.15	4.06	4.19	4.41	4.54	10.43	11.00	PASS
	142/5710	3.38	3.51	4.02	4.15	3.45	3.58	3.81	3.94	9.82	11.00	PASS
802.11ac VHT80	106/5530	1.46	1.69	1.20	1.42	0.67	0.89	1.21	1.43	7.39	11.00	PASS
	122/5610	-0.03	0.20	0.47	0.69	-0.04	0.19	1.05	1.28	6.63	11.00	PASS
	138/5690	-0.38	-0.15	0.01	0.23	-0.44	-0.21	0.29	0.51	6.12	11.00	PASS

Note: 1. Power Spectral Density =Read Value+Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=10log($10^{(\text{PSD antenna1 in dBm/10})}$+$10^{(\text{PSD antenna2 in dBm/10})}$+$10^{(\text{PSD antenna3 in dBm/10})}$) +$10^{(\text{PSD antenna4 in dBm/10})}$)

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=4. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5+10log（4/4)=5 dBi <6 dBi. So the PSD limt is 11dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density								Total Power (dBm/500kHz)	Limit (dBm/MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4				
		Read Value (dBm/MHz)	PSD (dBm/MHz)	Read Value (dBm/MHz)	PSD (dBm/MHz)	Read Value (dBm/MHz)	PSD (dBm/MHz)	Read Value (dBm/MHz)	PSD (dBm/MHz)			
802.11a	149/5745	5.93	6.06	6.31	6.44	6.26	6.40	6.53	6.67	12.42	30.00	PASS
	157/5785	5.84	5.98	6.91	7.05	6.50	6.63	6.66	6.80	12.65	30.00	PASS
	165/5825	6.40	6.53	6.93	7.06	6.76	6.89	6.82	6.95	12.89	30.00	PASS
802.11n HT20	149/5745	5.92	5.92	6.66	6.66	5.95	5.95	6.63	6.63	12.33	30.00	PASS
	157/5785	6.44	6.44	6.71	6.71	6.23	6.23	6.66	6.66	12.54	30.00	PASS
	165/5825	6.21	6.21	6.70	6.70	6.55	6.55	6.46	6.46	12.50	30.00	PASS
802.11n HT40	151/5755	1.44	1.56	1.92	2.05	1.71	1.84	2.01	2.14	7.92	30.00	PASS
	159/5795	1.57	1.70	2.42	2.54	1.57	1.70	2.04	2.16	8.06	30.00	PASS
802.11ac VHT80	155/5775	-3.10	-2.88	-2.07	-1.85	-2.43	-2.20	-2.51	-2.29	3.73	30.00	PASS

Note: 1. Power Spectral Density =Read Value+Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})}+10^{(\text{PSD antenna3 in dBm/10})}+10^{(\text{PSD antenna4 in dBm/10})})$

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=4. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5+10log（4/4)=5 dBi <6 dBi. So the PSD limt is 30dBm.

MIMO Antenna 4X4 with Beamforming

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density								Total Power (dBm /MHz)	Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4				
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11n HT20	36/5180	6.50	6.50	7.09	7.09	7.18	7.18	6.86	6.86	12.94	17.00	PASS
	40/5200	7.38	7.38	7.86	7.86	8.47	8.47	8.42	8.42	14.07	17.00	PASS
	48/5240	8.06	8.06	8.51	8.51	8.50	8.50	8.21	8.21	14.34	17.00	PASS
802.11n HT40	38/5190	-0.70	-0.57	-0.09	0.04	0.42	0.55	0.24	0.37	6.14	17.00	PASS
	46/5230	4.09	4.22	4.58	4.70	4.70	4.83	5.38	5.50	10.86	17.00	PASS
802.11ac VHT80	42/5210	-1.092	-0.87	-0.23	0.00	-0.37	-0.14	0.79	1.01	6.07	17.00	PASS

Note: 1. Power Spectral Density =Read Value+Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})}+10^{(\text{PSD antenna3 in dBm/10})}) +10^{(\text{PSD antenna4 in dBm/10})})$

3. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)= 5+10log（4/4)=5 dBi < 6dBi. So the limt is 17dBm.

U-NII-2A

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density								Total Power (dBm /MHz)	Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4				
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11n HT20	52/5260	4.00	4.00	4.55	4.55	4.53	4.53	4.76	4.76	10.49	11.00	PASS
	60/5300	3.20	3.20	3.68	3.68	4.03	4.03	3.86	3.86	9.72	11.00	PASS
	64/5320	3.64	3.64	3.81	3.81	3.87	3.87	4.09	4.09	9.87	11.00	PASS
802.11n HT40	54/5270	1.23	1.36	1.81	1.94	2.26	2.39	2.24	2.37	8.05	11.00	PASS
	62/5310	1.54	1.67	1.57	1.70	1.98	2.11	2.41	2.54	8.04	11.00	PASS
802.11ac VHT80	58/5290	-1.83	-1.60	-1.65	-1.42	-1.03	-0.81	-0.78	-0.55	4.94	11.00	PASS

Note: 1. Power Spectral Density =Read Value+Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=$10\log(10^{(\text{PSD antenna1 in dBm/10})}+10^{(\text{PSD antenna2 in dBm/10})}+10^{(\text{PSD antenna3 in dBm/10})}) +10^{(\text{PSD antenna4 in dBm/10})})$

3. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)= 5+10log（4/4)=5 dBi < 6dBi. So the limt is 11dBm.

U-NII-2C

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density								Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm /MHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11n HT20	100/5500	3.65	3.65	3.61	3.61	3.49	3.49	3.93	3.93	9.70	11.00	PASS
	116/5580	4.53	4.53	4.16	4.16	4.09	4.09	4.41	4.41	10.32	11.00	PASS
	140/5700	4.73	4.73	4.76	4.76	4.75	4.75	5.07	5.07	10.85	11.00	PASS
	144/5720	3.48	3.48	3.55	3.55	3.64	3.64	3.45	3.45	9.55	11.00	PASS
802.11n HT40	102/5510	-1.22	-1.09	-1.00	-0.87	-0.96	-0.84	-0.32	-0.19	5.29	11.00	PASS
	110/5550	3.03	3.16	2.47	2.60	2.87	3.00	3.74	3.87	9.20	11.00	PASS
	134/5670	2.98	3.10	3.20	3.33	2.61	2.74	3.27	3.40	9.17	11.00	PASS
	142/5710	2.43	2.56	3.07	3.20	2.62	2.75	2.96	3.09	8.93	11.00	PASS
802.11ac VHT80	106/5530	-0.09	0.13	0.05	0.28	-0.35	-0.13	0.61	0.83	6.31	11.00	PASS
	122/5610	-0.03	0.19	0.01	0.24	-0.02	0.21	0.89	1.11	4.98	11.00	PASS
	138/5690	-0.23	0.00	0.20	0.42	-0.58	-0.35	0.00	0.23	4.80	11.00	PASS

Note: 1. Power Spectral Density =Read Value+Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=10log($10^{(\text{PSD antenna1 in dBm/10})}$+$10^{(\text{PSD antenna2 in dBm/10})}$+$10^{(\text{PSD antenna3 in dBm/10})}$) +$10^{(\text{PSD antenna4 in dBm/10})}$)

3. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)= 5+10log（4/4)=5 dBi < 6dBi. So the limt is 11dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density								Limit (dBm/ MHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm/500kHz)		
		Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)	Read Value (dBm/ MHz)	PSD (dBm/ MHz)			
802.11n HT20	149/5745	-2.01	-2.01	-1.08	-1.08	-1.22	-1.22	-1.11	-1.11	4.68	30.00	PASS
	157/5785	2.21	2.21	2.80	2.80	2.54	2.54	2.81	2.81	8.62	30.00	PASS
	165/5825	1.97	1.97	3.08	3.08	2.50	2.50	2.61	2.61	8.58	30.00	PASS
802.11n HT40	151/5755	7.20	7.33	7.49	7.61	7.00	7.13	7.21	7.34	13.38	30.00	PASS
	159/5795	7.14	7.27	7.51	7.64	7.37	7.50	7.42	7.55	13.51	30.00	PASS
802.11ac VHT80	155/5775	7.07	7.30	7.71	7.93	7.35	7.57	7.34	7.56	13.62	30.00	PASS

Note: 1. Power Spectral Density =Read Value+Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),the power spectral density=10log($10^{(\text{PSD antenna1 in dBm/10})}$+$10^{(\text{PSD antenna2 in dBm/10})}$+$10^{(\text{PSD antenna3 in dBm/10})}$) +$10^{(\text{PSD antenna4 in dBm/10})}$)

3. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e）(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)= 5+10log（4/4)=5 dBi < 6dBi. So the limt is 30dBm.

MIMO Antenna 1&3

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	-1.85	-1.72	17.00	PASS
	58/5290	-2.39	-2.26	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	-1.92	-1.79	17.00	PASS
	106/5530	-1.92	-1.79	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	-2.09	-1.96	17.00	PASS
	122/5610	-1.34	-1.21	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	-1.94	-1.81	17.00	PASS
	138/5690	-1.73	-1.60	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	-2.16	-2.03	17.00	PASS
	155/5775	-4.48	-4.35	30.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	58/5290	-2.51	-2.38	11.00	PASS
	106/5530	-1.98	-1.85	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	58/5290	-2.75	-2.62	11.00	PASS
	122/5610	-1.65	-1.52	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	58/5290	-2.57	-2.44	11.00	PASS
	138/5690	-1.44	-1.31	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	58/5290	-2.64	-2.51	11.00	PASS
	155/5775	-4.54	-4.41	30.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	106/5530	-0.93	-0.80	11.00	PASS
	122/5610	-2.46	-2.33	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	106/5530	-1.33	-1.20	11.00	PASS
	138/5690	-2.01	-1.88	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	106/5530	-1.12	-0.99	11.00	PASS
	155/5775	-5.09	-4.96	30.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	122/5610	-1.88	-1.75	11.00	PASS
	138/5690	-2.20	-2.07	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	122/5610	-2.17	-2.04	11.00	PASS
	155/5775	-5.14	-5.01	30.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	138/5690	-2.36	-2.23	11.00	PASS
	155/5775	-5.02	-4.89	30.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

MIMO Antenna 2&4

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	-2.55	-2.42	17.00	PASS
	58/5290	-2.51	-2.38	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	-2.66	-2.53	17.00	PASS
	106/5530	-1.77	-1.64	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	-2.73	-2.60	17.00	PASS
	122/5610	-1.56	-1.43	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	-2.26	-2.13	17.00	PASS
	138/5690	-1.82	-1.69	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	42/5210	-2.88	-2.75	17.00	PASS
	155/5775	-4.44	-4.31	30.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	58/5290	-2.16	-2.03	11.00	PASS
	106/5530	-2.31	-2.18	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	58/5290	-2.02	-1.89	11.00	PASS
	122/5610	-2.48	-2.35	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	58/5290	-2.19	-2.06	11.00	PASS
	138/5690	-1.67	-1.54	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	58/5290	-2.11	-1.98	11.00	PASS
	155/5775	-4.55	-4.42	30.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	106/5530	-2.09	-1.96	11.00	PASS
	122/5610	-2.21	-2.08	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	106/5530	-0.64	-0.51	11.00	PASS
	138/5690	-2.52	-2.39	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	106/5530	-0.87	-0.74	11.00	PASS
	155/5775	-4.87	-4.74	30.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

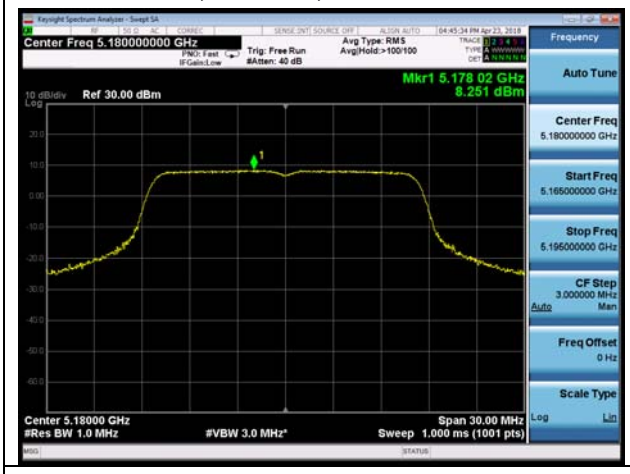
Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	122/5610	-2.01	-1.88	11.00	PASS
	138/5690	-2.21	-2.08	11.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	122/5610	-1.83	-1.70	11.00	PASS
	155/5775	-5.20	-5.07	30.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

Network Standards	Channel/ Frequency (MHz)	Read Value (dBm)	PSD (dBm	Limit (dBm)	Conclusion
802.11ac VHT80+80	138/5690	-2.25	-2.12	11.00	PASS
	155/5775	-5.48	-5.35	30.00	PASS
Note:PSD=Read Value+Duty cycle correction factor					

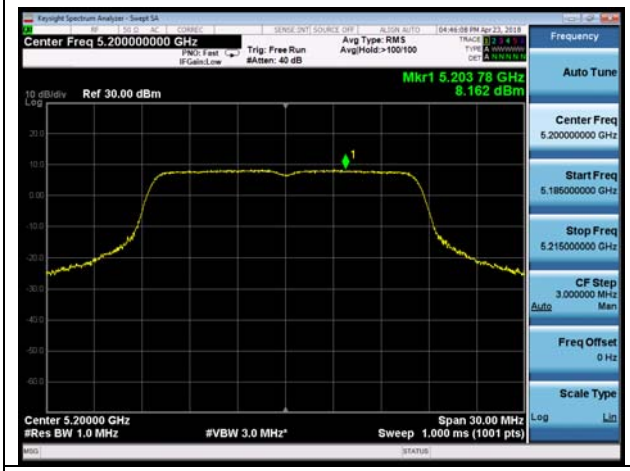
SISO Antenna 1

U-NII-1, 802.11a, Channel No.: 36



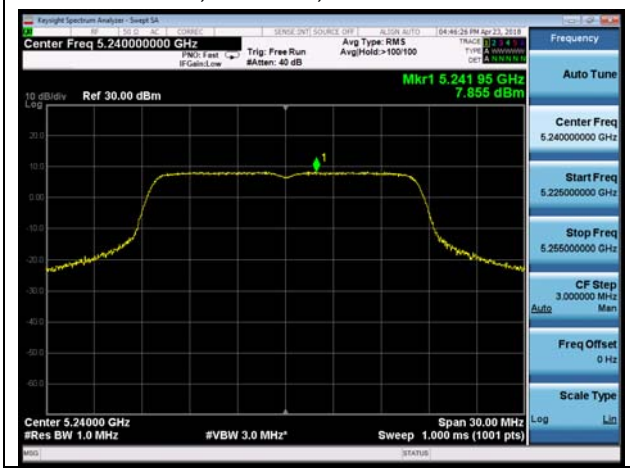
U-NII-1, 802.11n HT20, Channel No.: 36

U-NII-1, 802.11a, Channel No.: 40



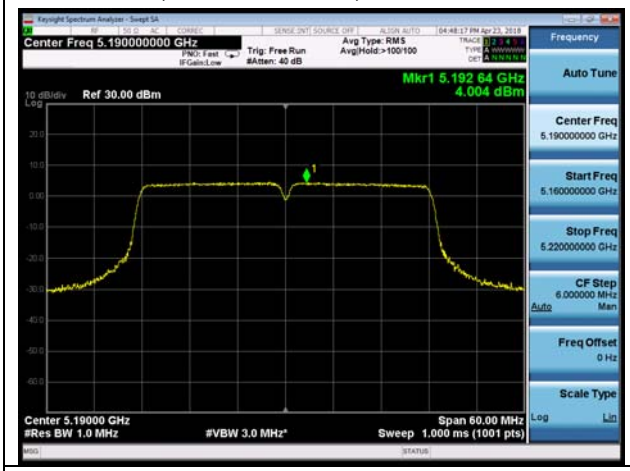
U-NII-1, 802.11n HT20, Channel No.: 40

U-NII-1, 802.11a, Channel No.: 48

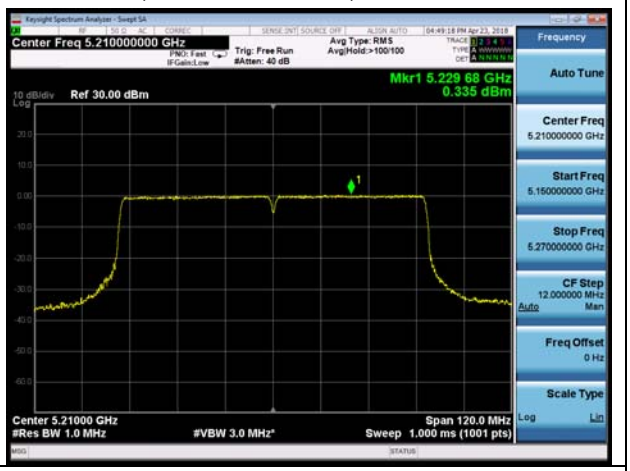


U-NII-1, 802.11n HT20, Channel No.: 48

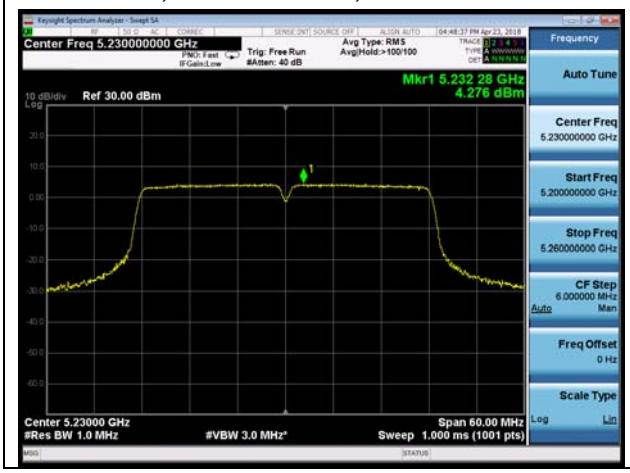
U-NII-1, 802.11n HT40, Channel No.: 38



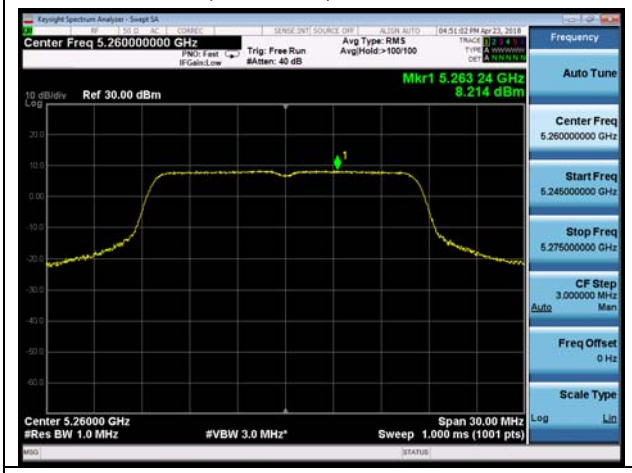
U-NII-1, 802.11ac HT80, Channel No.: 42



U-NII-1, 802.11n HT40, Channel No.: 46



U-NII-2A, 802.11a, Channel No.: 52

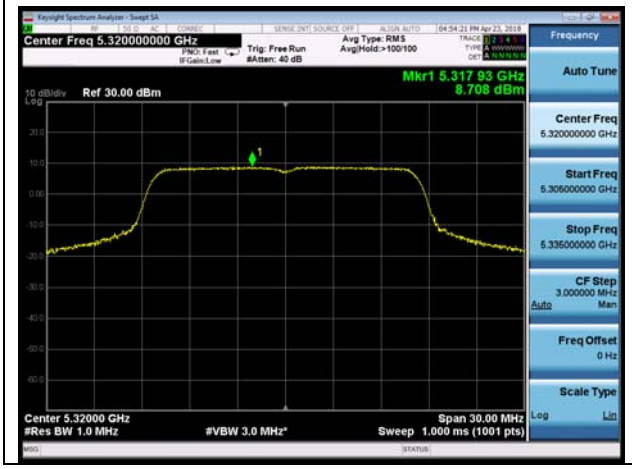


U-NII-2A, 802.11n HT20, Channel No.: 52

U-NII-2A, 802.11a, Channel No.: 60

U-NII-2A, 802.11n HT20, Channel No.: 60

U-NII-2A, 802.11a, Channel No.: 64

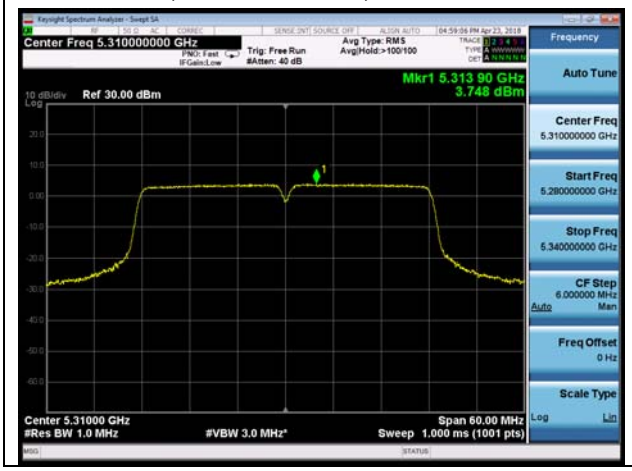


U-NII-2A, 802.11n HT20, Channel No.: 64

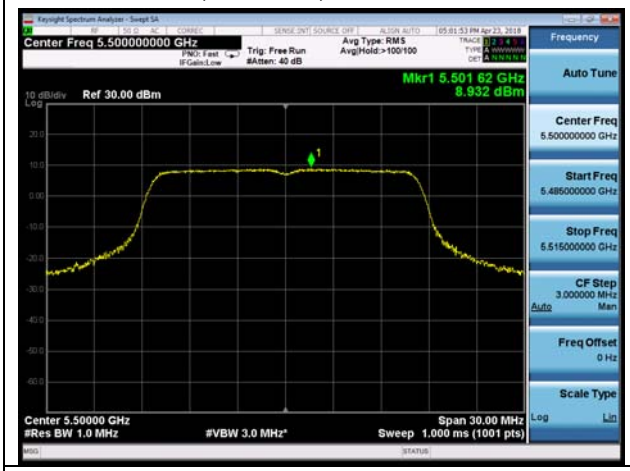
U-NII-2A, 802.11n HT40, Channel No.: 54

U-NII-2A, 802.11ac HT80, Channel No.: 48

U-NII-2A, 802.11n HT40, Channel No.: 62

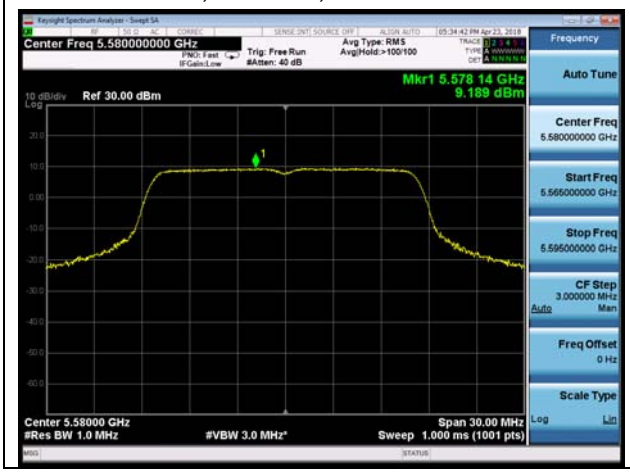


U-NII-2C, 802.11a, Channel No.: 100



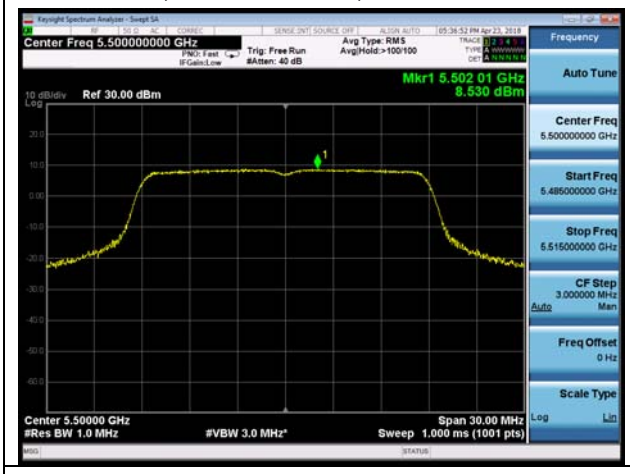
U-NII-2C, 802.11a, Channel No.: 140

U-NII-2C, 802.11a, Channel No.: 116



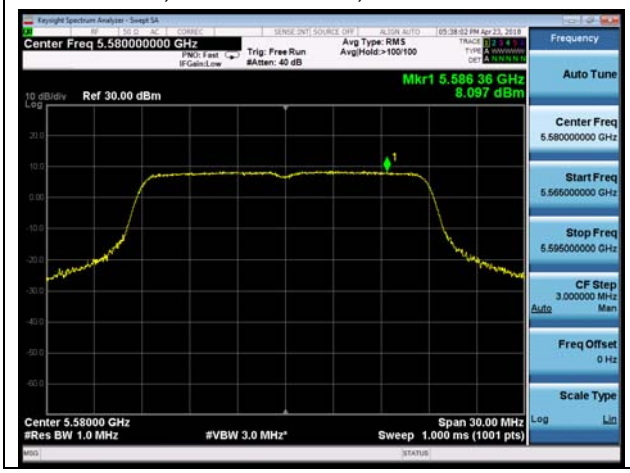
U-NII-2C, 802.11a, Channel No.: 144

U-NII-2C, 802.11n HT20, Channel No.: 100



U-NII-2C, 802.11n HT20, Channel No.: 140

U-NII-2C, 802.11n HT20, Channel No.: 116

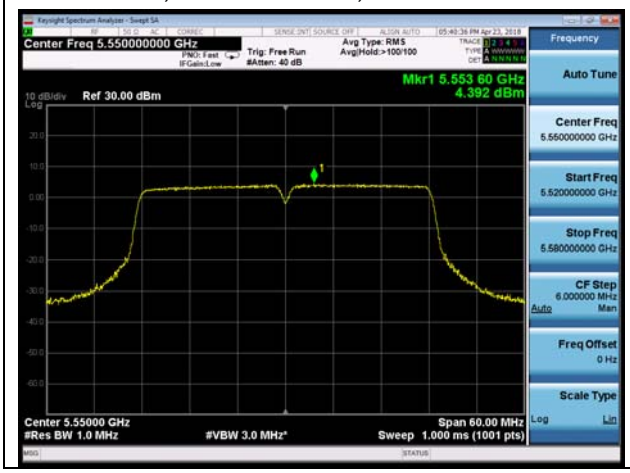


U-NII-2C, 802.11n HT20, Channel No.: 144

U-NII-2C, 802.11n HT40, Channel No.: 102

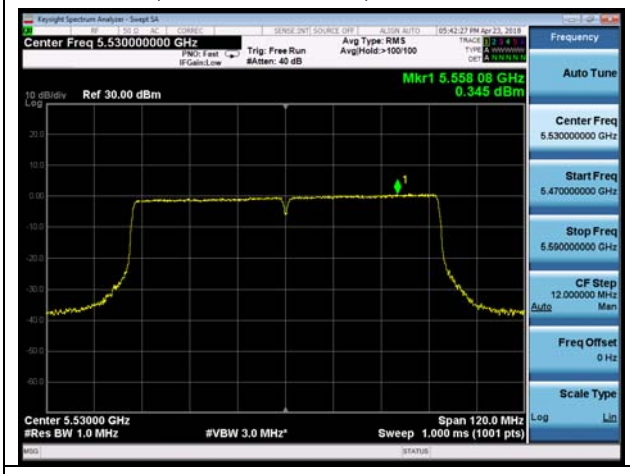
U-NII-2C, 802.11n HT40, Channel No.: 134

U-NII-2C, 802.11n HT40, Channel No.: 110



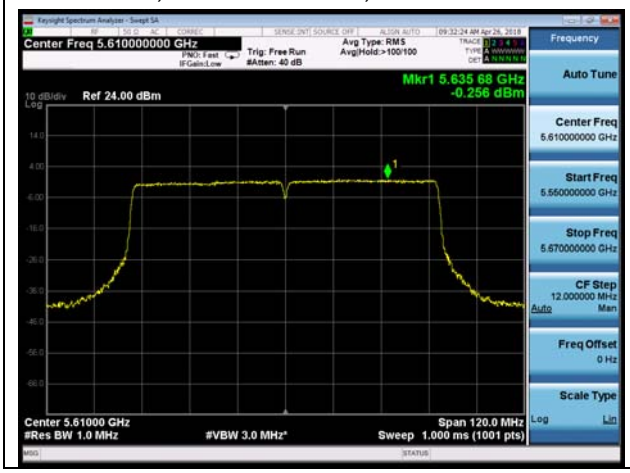
U-NII-2C, 802.11n HT40, Channel No.: 142

U-NII-2C, 802.11ac HT80, Channel No.: 106

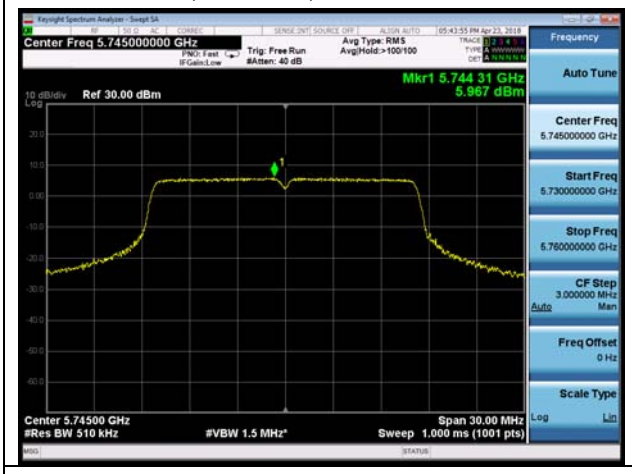


U-NII-2C, 802.11ac HT80, Channel No.: 138

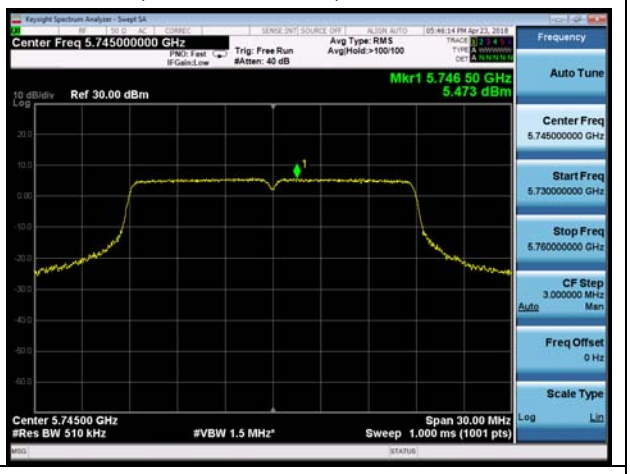
U-NII-2C, 802.11ac HT80, Channel No.: 122



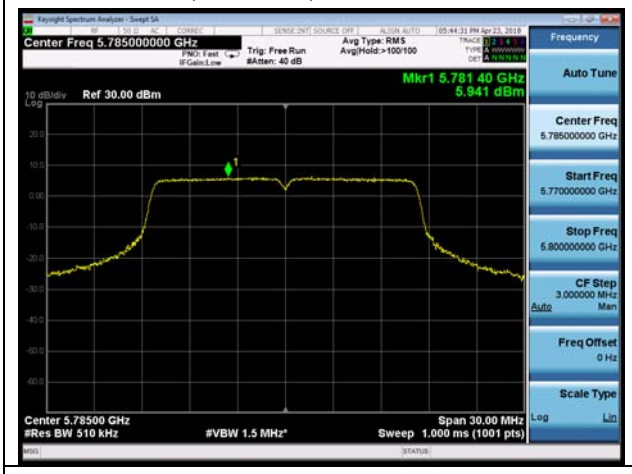
U-NII-3, 802.11a, Channel No.: 149



U-NII-3, 802.11n HT20, Channel No.: 149

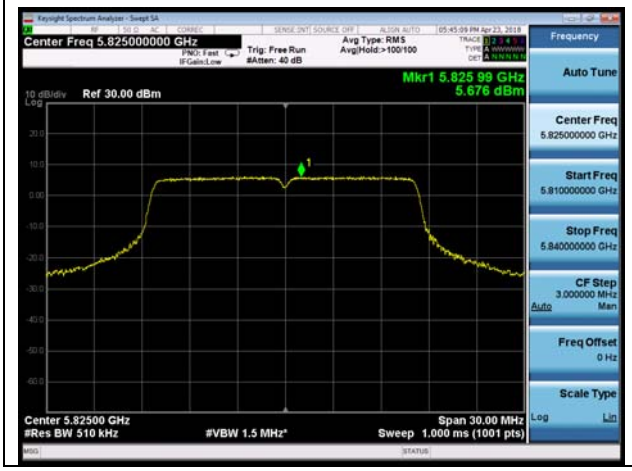


U-NII-3, 802.11a, Channel No.: 157



U-NII-3, 802.11n HT20, Channel No.: 157

U-NII-3, 802.11a, Channel No.: 165



U-NII-3, 802.11n HT20, Channel No.: 165

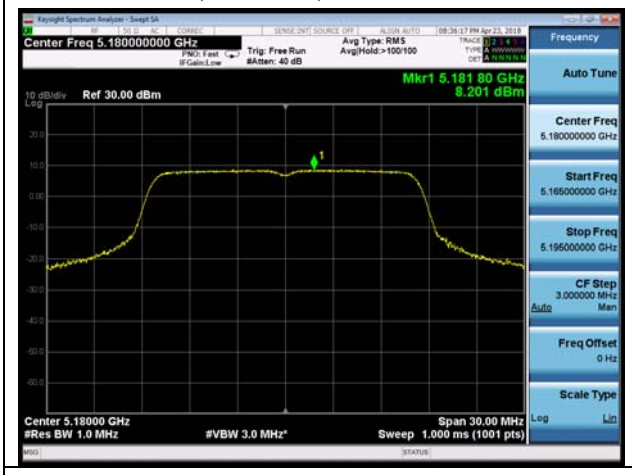
U-NII-3, 802.11n HT40, Channel No.: 151

U-NII-3, 802.11ac HT80, Channel No.: 155

U-NII-3, 802.11n HT40, Channel No.: 159

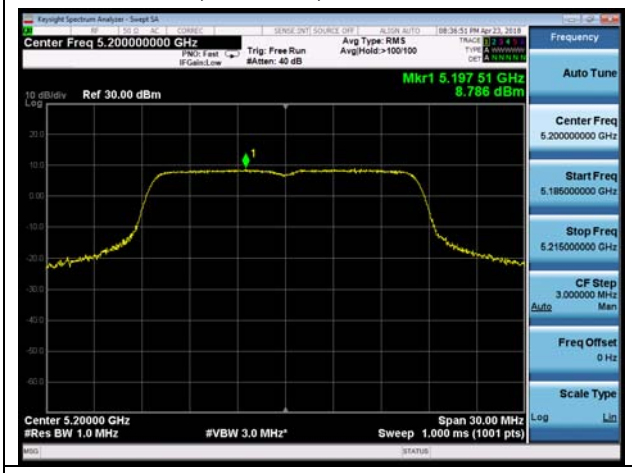
SISO Antenna 2

U-NII-1, 802.11a, Channel No.: 36



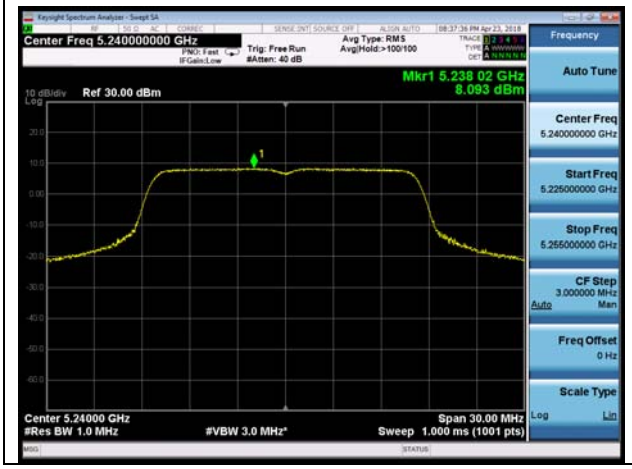
U-NII-1, 802.11n HT20, Channel No.: 36

U-NII-1, 802.11a, Channel No.: 40



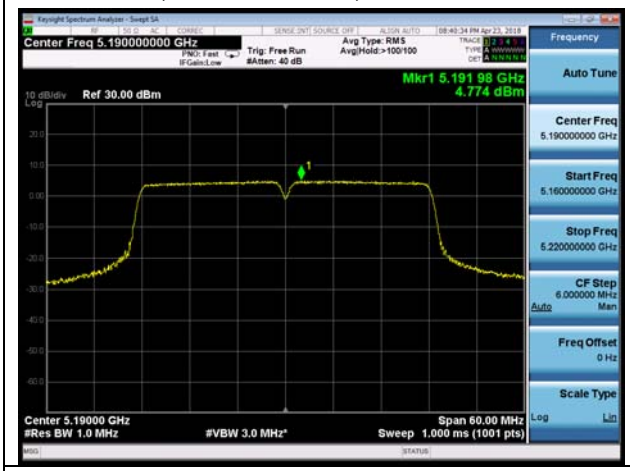
U-NII-1, 802.11n HT20, Channel No.: 40

U-NII-1, 802.11a, Channel No.: 48



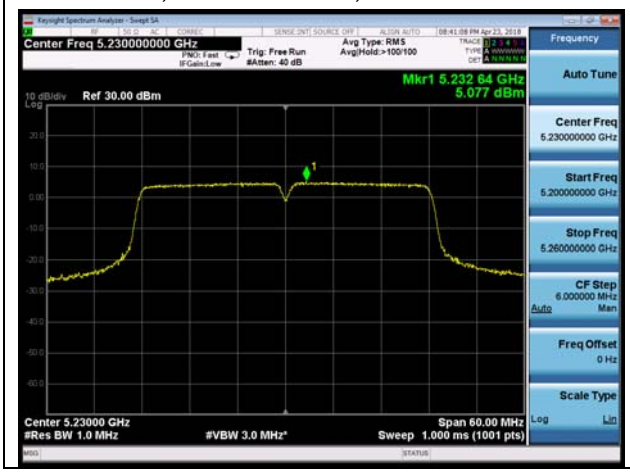
U-NII-1, 802.11n HT20, Channel No.: 48

U-NII-1, 802.11n HT40, Channel No.: 38

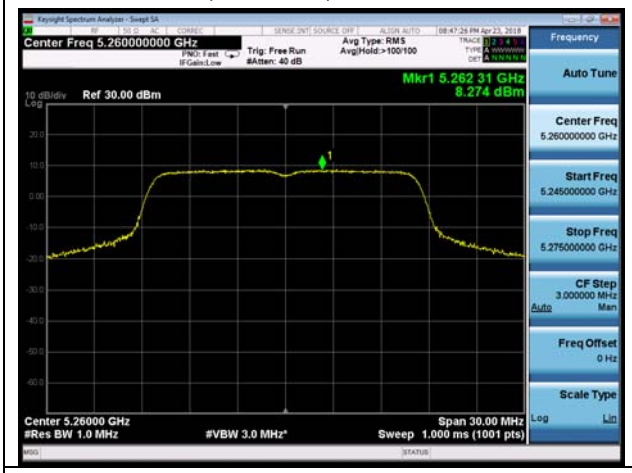


U-NII-1, 802.11ac HT80, Channel No.: 42

U-NII-1, 802.11n HT40, Channel No.: 46

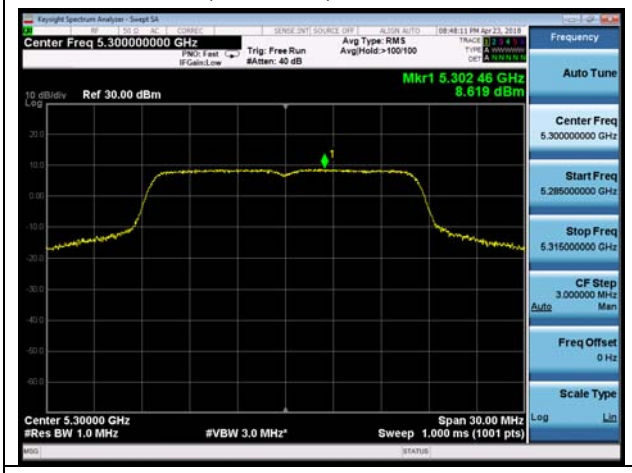


U-NII-2A, 802.11a, Channel No.: 52



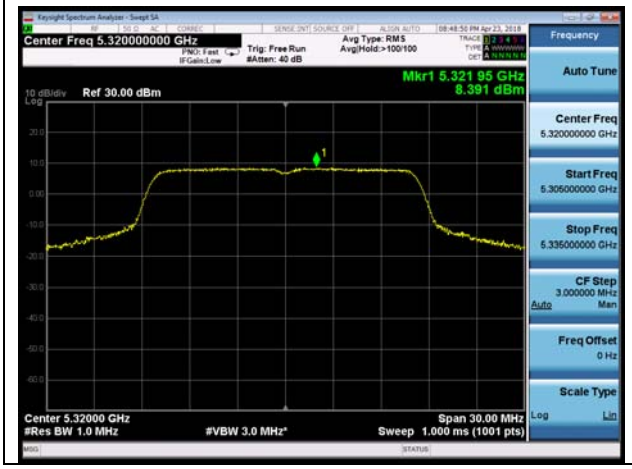
U-NII-2A, 802.11n HT20, Channel No.: 52

U-NII-2A, 802.11a, Channel No.: 60



U-NII-2A, 802.11n HT20, Channel No.: 60

U-NII-2A, 802.11a, Channel No.: 64

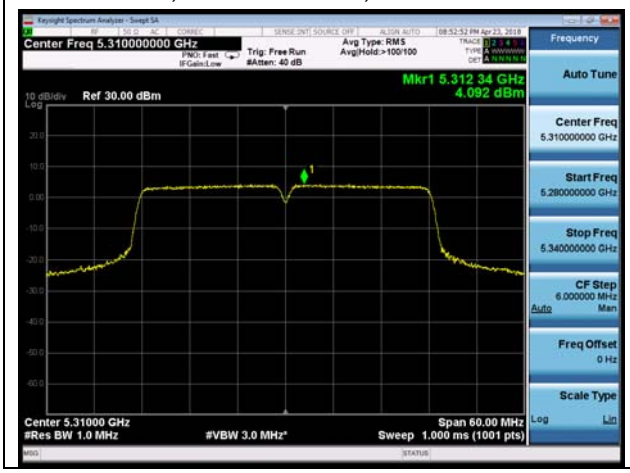


U-NII-2A, 802.11n HT20, Channel No.: 64

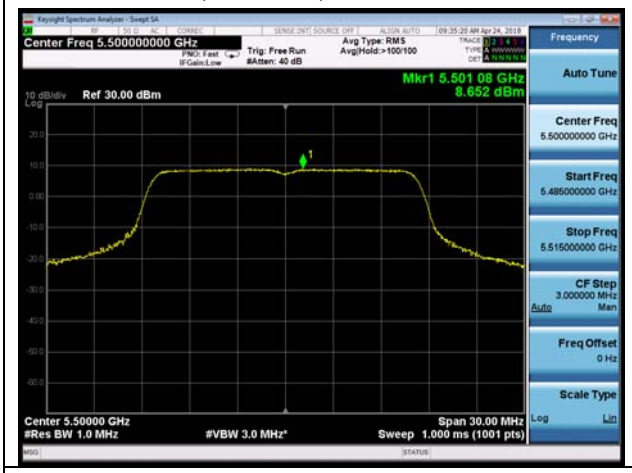
U-NII-2A, 802.11n HT40, Channel No.: 54

U-NII-2A, 802.11ac HT80, Channel No.: 58

U-NII-2A, 802.11n HT40, Channel No.: 62

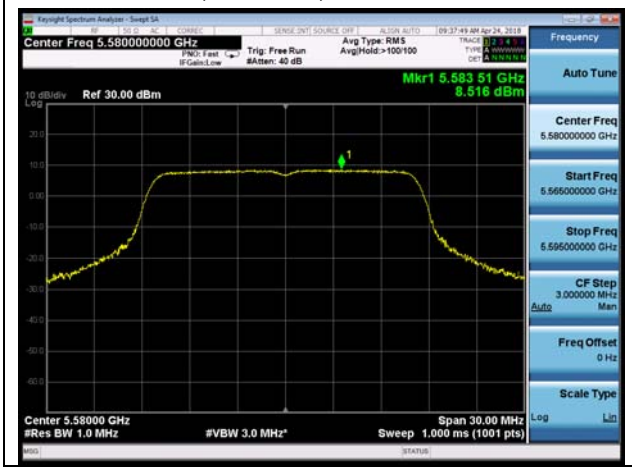


U-NII-2C, 802.11a, Channel No.: 100



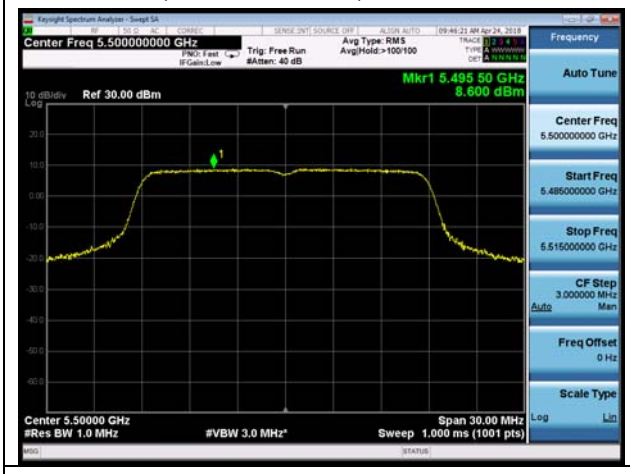
U-NII-2C, 802.11a, Channel No.: 140

U-NII-2C, 802.11a, Channel No.: 116



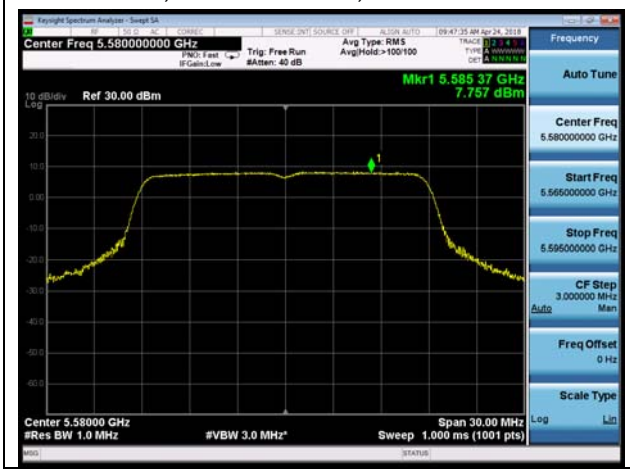
U-NII-2C, 802.11a, Channel No.: 144

U-NII-2C, 802.11n HT20, Channel No.: 100



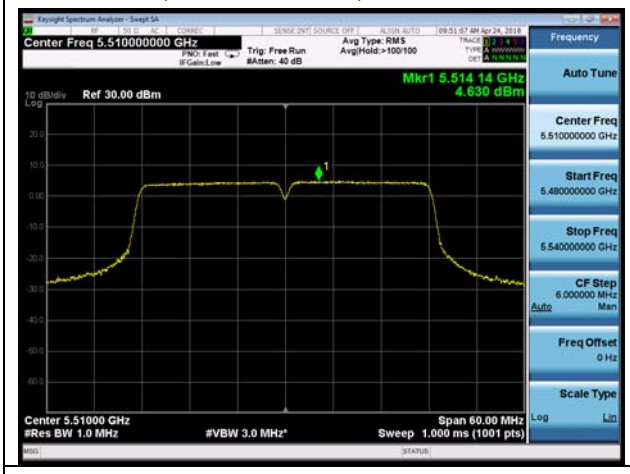
U-NII-2C, 802.11n HT20, Channel No.: 140

U-NII-2C, 802.11n HT20, Channel No.: 116



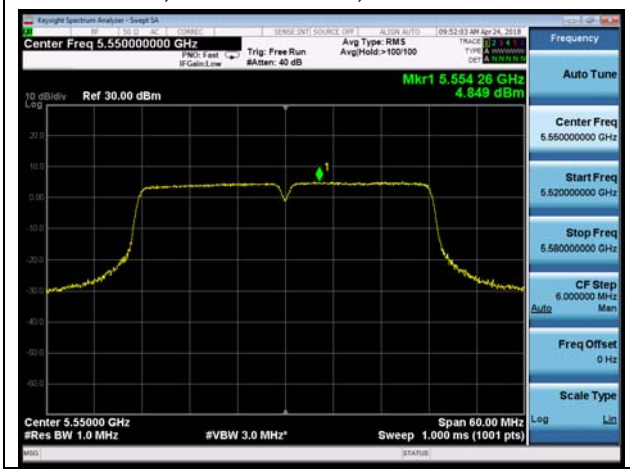
U-NII-2C, 802.11n HT20, Channel No.: 144

U-NII-2C, 802.11n HT40, Channel No.: 102



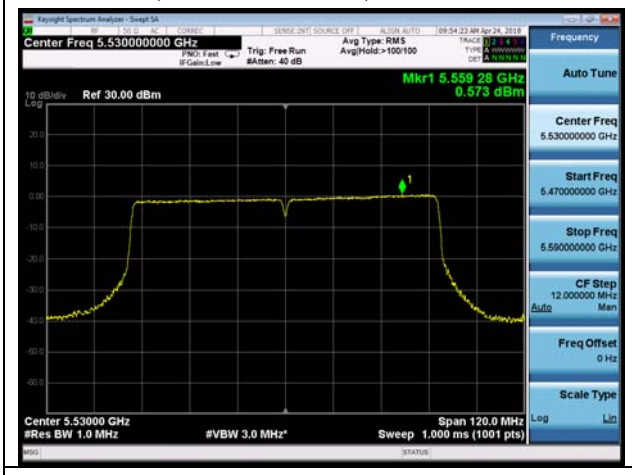
U-NII-2C, 802.11n HT40, Channel No.: 134

U-NII-2C, 802.11n HT40, Channel No.: 110



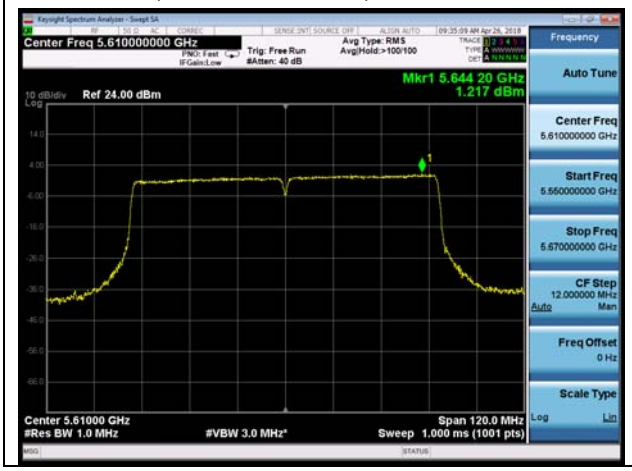
U-NII-2C, 802.11n HT40, Channel No.: 142

U-NII-2C, 802.11ac HT80, Channel No.: 106

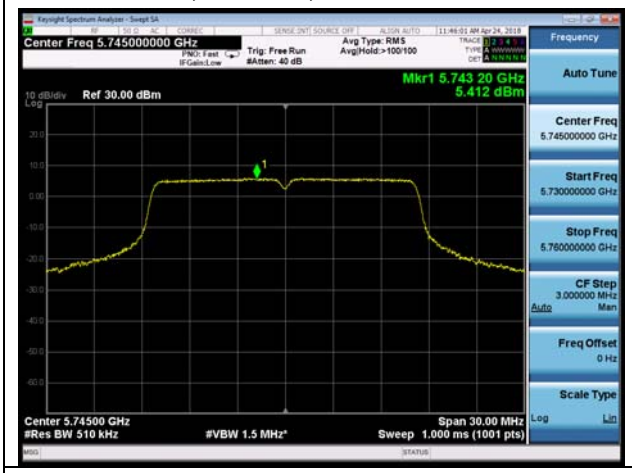


U-NII-2C, 802.11ac HT80, Channel No.: 138

U-NII-2C, 802.11ac HT80, Channel No.: 122

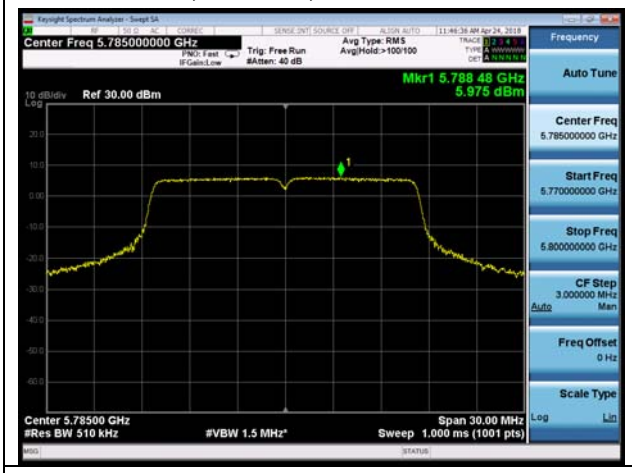


U-NII-3, 802.11a, Channel No.: 149



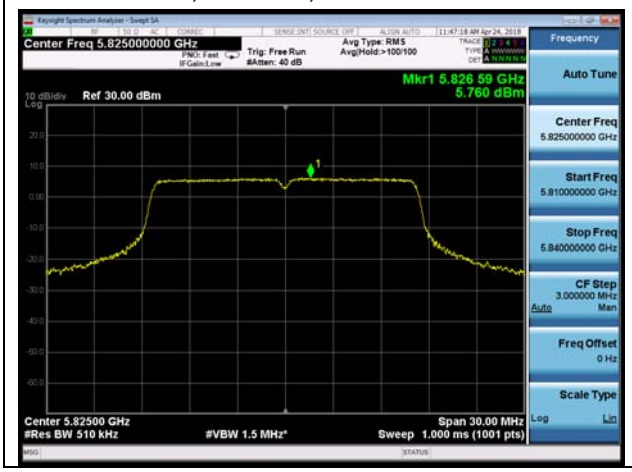
U-NII-3, 802.11n HT20, Channel No.: 149

U-NII-3, 802.11a, Channel No.: 157



U-NII-3, 802.11n HT20, Channel No.: 157

U-NII-3, 802.11a, Channel No.: 165



U-NII-3, 802.11n HT20, Channel No.: 165

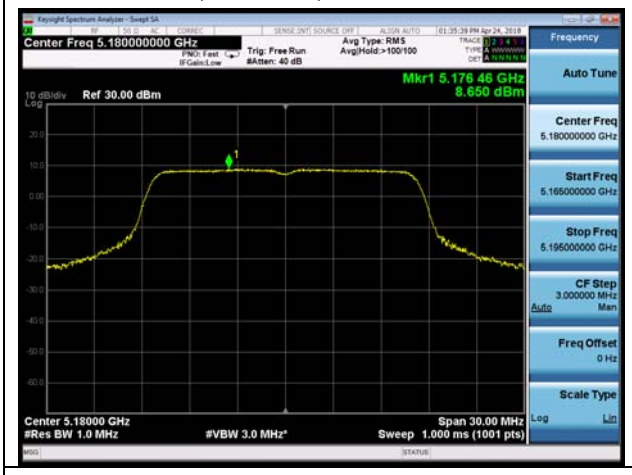
U-NII-3, 802.11n HT40, Channel No.: 151

U-NII-3, 802.11ac HT80, Channel No.: 155

U-NII-3, 802.11n HT40, Channel No.: 159

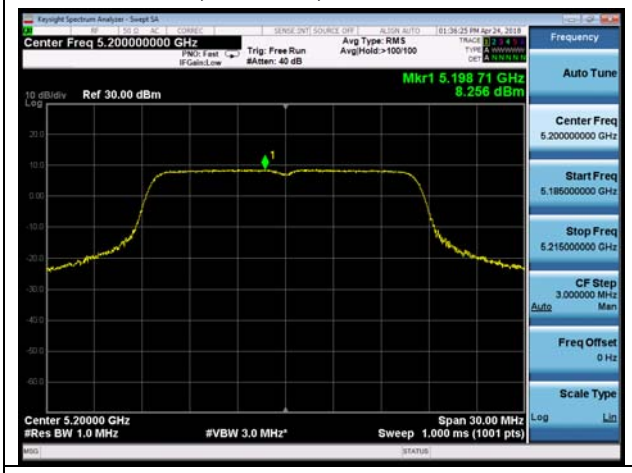
SISO Antenna 3

U-NII-1, 802.11a, Channel No.: 36



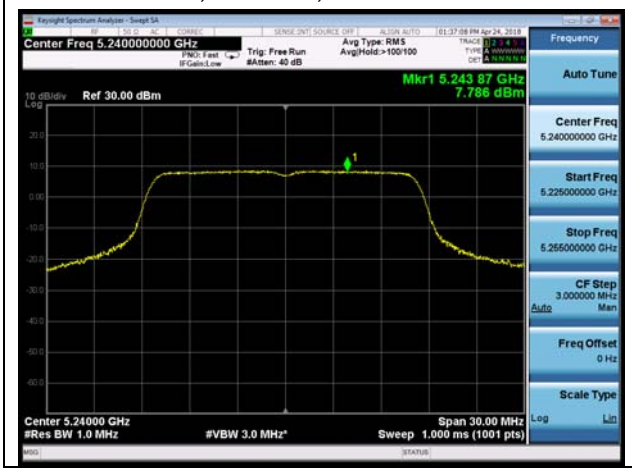
U-NII-1, 802.11n HT20, Channel No.: 36

U-NII-1, 802.11a, Channel No.: 40



U-NII-1, 802.11n HT20, Channel No.: 40

U-NII-1, 802.11a, Channel No.: 48



U-NII-1, 802.11n HT20, Channel No.: 48

U-NII-1, 802.11n HT40, Channel No.: 38

U-NII-1, 802.11ac HT80, Channel No.: 42

U-NII-1, 802.11n HT40, Channel No.: 46