



RF TEST REPORT

Applicant	Nokia ShangHai Bell Co., Ltd.
FCC ID	2ADZRG2426GB
Product	Nokia ONT
Brand	NOKIA
Model	G-2426G-B
Report No.	R2103A0256-R2
Issue Date	June 16, 2021

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 15E (2020)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Prepared by: Peng Tao

Approved by: Kai Xu

TA Technology (Shanghai) Co., Ltd.

No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China

TEL: +86-021-50791141/2/3

FAX: +86-021-50791141/2/3-8000



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Summary of measurement results

Number	Test Case	Clause in FCC rules	Verdict
1	Average output power	15.407(a)	PASS
2	Occupied bandwidth	15.407(e)	PASS
3	Frequency stability	15.407(g)	PASS
4	Power spectral density	15.407(a)	PASS
5	Unwanted Emissions	15.407(b)	PASS
6	Conducted Emissions	15.207	PASS
Date of Testing: April 12, 2021 ~ May 15, 2021			
Date of Sample Received: March 17, 2021			
Note: PASS: The EUT complies with the essential requirements in the standard. FAIL: The EUT does not comply with the essential requirements in the standard. All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.			



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

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 measurements.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform 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
Country: P. R. China
Contact: Xu Kai
Telephone: +86-021-50791141/2/3
Fax: +86-021-50791141/2/3-8000
Website: <http://www.ta-shanghai.com>
E-mail: xukai@ta-shanghai.com

2. General Description of Equipment under Test

2.1. Applicant and Manufacturer Information

Applicant	Nokia ShangHai Bell Co., Ltd.
Applicant address	No.388 Ningqiao Road, Pudong Jinqiao, Shanghai, 201206 CHINA
Manufacturer	Nokia ShangHai Bell Co., Ltd.
Manufacturer address	No.388 Ningqiao Road, Pudong Jinqiao, Shanghai, 201206 CHINA

2.2. General information

EUT Description		
Model	G-2426G-B	
SN	ALCLB3FC2AEA	
Hardware Version	PEM2	
Software Version	Null	
Power Supply	Battery / AC adapter	
Antenna Type	PCB Antenna	
Antenna Gain	INPAQ	Antenna 1: 2.94 dBi Antenna 2: 2.98 dBi Antenna 3: 2.82 dBi Antenna 4: 2.93 dBi
	Galtronics	Antenna 1: 2.01 dBi Antenna 2: 2.22 dBi Antenna 3: 2.23 dBi Antenna 4: 1.97 dBi
Directional Gain	INPAQ	Without Beamforming Mode: 2.98dBi Beamforming Mode: 5.37dBi
	Galtronics	Without Beamforming Mode: 2.23dBi Beamforming Mode: 5.96dBi
Test Band	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): OFDM 802.11ax (HE20/ HE40/ HE80): OFDMA	
Max. Conducted Power	29.95 dBm	
Operating Frequency Range(s)	U-NII-1: 5150MHz-5250MHz	



	U-NII-2A:5250MHz-5350MHz U-NII-2C:5470MHz-5725MHz U-NII-3: 5725MHz-5850MHz
Extreme temperature range:	-20 ° C to 50° C
Operating temperature range:	-5 ° C to 45° C
Operating voltage range:	10 V to 14 V
State DC voltage:	12V
EUT Accessory	
Adapter 1	Manufacturer: SHENZHEN HONOR ELECTRONIC CO.,LTD Model: ADS-40FKJ-12N 12036EPCU/9040108111201202R
Adapter 2	Manufacturer: SHENZHEN HONOR ELECTRONIC CO.,LTD Model: ADS-40FKJ-12N 12036EPCU/9040108111201201R
Adapter 3	Manufacturer: FUHUA ELECTRONIC CO., LTD Model: UES36WU-120300SPA/UE191205GWZF2RI
Adapter 4	Manufacturer: FUHUA ELECTRONIC CO., LTD Model: UES36WU-120300SPA/UE201222GWZF2RI
UPS 1	Manufacturer: CYBER POWER SYSTEMS INC Model: DTC36U12V3-G
UPS 2	Manufacturer: PowerTec Solutions International Model: PS36L-P7
PCB Antenna 1	Manufacturer: INPAQ
PCB Antenna 2	Manufacturer: Galtronics
Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant. 2. There is more than one Adapter/UPS, each one should be applied throughout the compliance test respectively, and however, only the worst case (Adapter 3/UPS 1) will be recorded in this report.	

**Information of Configuration:**

No.	Name	Model/Code No.	Edition	Serial No. or Quantity
1	EMA-G-2426G-B NAR	3FE49509AAXX	PEM2	1pc
2	EMA-G-2426G-B	3FE49509ABXX	PEM2	1pc
3	Power adapter	FUHUA: UES36WU-120300SPA/UE201222GWZF2RI	A/0	1pc
4	Power adapter	FUHUA: UES36WU-120300SPA/UE191205GWZF2RI	A/0	1pc
5	Power adapter	HONOR: ADS-40FKJ-12N 12036EPCU/9040108111201201R	A/0	1pc
6	Power adapter	HONOR: ADS-40FKJ-12N 12036EPCU/9040108111201202R	A/0	1pc
7	Power adapter	CyberPower: DTC36U12V3-G	--	1pc
8	Power adapter	PSI: PS36L-P7	--	1pc

Note: X can be replaced by alphanumeric characters A-Z/0-9 or blank.

Mnemonic	Kit Code	EMA Code	Part Description	Power Adapter	
G-242 6G-B	3FE4944 1AAXX	3FE4950 9AAXX	G-2426G-B, GPON ONT, NAR, US Plug, 1xUSB, 2xPOTS, 4xGE, 4x4 2.4G Wi-Fi 6, 4x4 5G Wi-Fi 6.	UES36WU-12030 0SPA/UE201222 GWZF2RI	ADS-40FKJ-12N 12036EPCU/9040 108111201201R
				DTC36U12V3-G	PS36L-P7
G-242 6G-B	3FE4944 1ABXX	3FE4950 9ABXX	G-2426G-B, GPON ONT, US Plug, 1xUSB, 2xPOTS, 4xGE, 4x4 2.4G Wi-Fi 6, 4x4 5G Wi-Fi 6.	UES36WU-12030 0SPA/UE191205 GWZF2RI	ADS-40FKJ-12N 12036EPCU/9040 108111201202R

Note: X can be replaced by alphanumeric characters A-Z/0-9 or blank.

Auxiliary equipment details

No.	Name	Brand name	Model	NSB code	Valid Until
1	BIGTAO	Xinertel	N.A	-	No Cal. Required
2	Mini-OLT	Nokia	N.A	-	No Cal. Required
3	PC	Thinkpad	N.A	-	No Cal. Required

Information of Ports

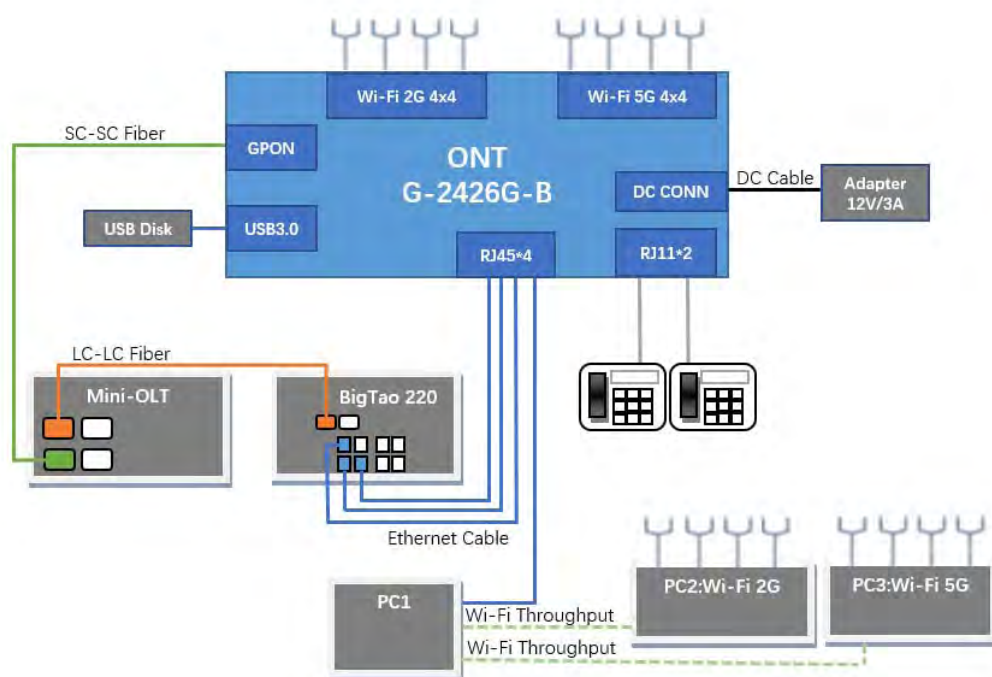
No.	Port name	Number	Shielded or unshielded	Cable type (optic, twisted pair, etc.)	Max. Cable length
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1	POWER	1	Unshielded	Power cord	1.2m
2	POTS	1	Unshielded	RJ11 twisted pair	1.5m
3	LAN	4	Unshielded	RJ45 twisted pair	100m
4	GPON	1	Unshielded	Optic fiber	10Km

Description: The G-2426G-B is a GPON ONT which has 1x GPON port, 4x GE ports, 2x POTS, 1x USB, supports 4x4 2.4G Wi-Fi 6 and 4x4 5G Wi-Fi 6.

The G-2426G-B basic functional test in normal room conditions consists of GPON-LAN traffic test, POTS connection test, Wi-Fi connection test, and USB read/write test. GPON linked with Mini-OLT, and traffic downstream should up to 1Gpbs. GE ports linked with BigTao in 1000Mbps mode, and the traffic upstream each line should up to 300Mbps. Traffic frame loss ratio less than 10^{-7} . Wi-Fi connection, POTS connection test should not be broken during and after test.





3. Applied Standards

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

Test standards:

FCC CFR47 Part 15E (2020) Unlicensed National Information Infrastructure Devices

ANSI C63.10 (2013)

Reference standard:

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.

Mode	Data Rate				
	Antenna 1	Antenna 2	Antenna 3	Antenna 4	MIMO
802.11a	6 Mbps	6 Mbps	6 Mbps	6 Mbps	6 Mbps
802.11n HT20	MCS0	MCS0	MCS0	MCS0	MCS0_NSSS4
802.11n HT40	MCS0	MCS0	MCS0	MCS0	MCS0_NSSS4
802.11ac VHT20	MCS0	MCS0	MCS0	MCS0	MCS9
802.11ac VHT40	MCS0	MCS0	MCS0	MCS0	MCS9
802.11ac VHT80	MCS0	MCS0	MCS0	MCS0	MCS9
802.11ax HE20	MCS0	MCS0	MCS0	MCS0	MCS0_NSSS4
802.11ax HE40	MCS0	MCS0	MCS0	MCS0	MCS0_NSSS4
802.11ax HE80	MCS0	MCS0	MCS0	MCS0	MCS0_NSSS4

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

Test Cases	Antenna 1	Antenna 2	Antenna 3	Antenna 4	MIMO
Average conducted output power	--	--	--	--	O
Occupied bandwidth	--	--	--	--	O
Frequency stability	--	--	--	--	O
Power Spectral Density	--	--	--	--	O
Unwanted Emissions	--	--	--	--	O
Conducted Emissions	--	--	--	--	O
Note: "O": test all bands					

According to RF Output power results in chapter 5.1, MIMO was selected as the worst antenna .

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
	U-NII-2A	20 MHz	52	5260MHz
			56	5280MHz
			60	5300MHz
			64	5320MHz
		40 MHz	54	5270MHz
			62	5310MHz
		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
		40 MHz	102	5510MHz
			110	5550MHz
			118	5590MHz
			126	5630MHz
			134	5670MHz
			142	5710MHz
		80 MHz	106	5530MHz
			122	5610MHz
			138	5690MHz
	U-NII-3	20 MHz	149	5745MHz
			153	5765MHz
			157	5785MHz



			161	5805MHz
			165	5825MHz
		40 MHz	151	5755MHz
			159	5795MHz
		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.

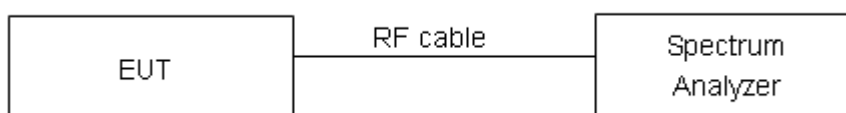
For U-NII-1/U-NII-2A/U-NII-2C, set RBW $\approx$ 1% OCB kHz, VBW $\geq 3 \times$ RBW, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB relative to the maximum level measured in the fundamental emission.

For U-NII-3, Set RBW = 100 kHz, VBW $\geq 3 \times$ 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:****INPAQ :****U-NII-1**

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5180	16.307	19.42	PASS
	5200	16.325	19.44	PASS
	5240	16.306	19.52	PASS
802.11n HT20	5180	17.489	19.81	PASS
	5200	17.503	20.00	PASS
	5240	17.491	19.86	PASS
802.11n HT40	5190	36.087	51.40	PASS
	5230	35.982	44.92	PASS
802.11ac VHT20	5180	17.486	19.98	PASS
	5200	17.495	19.83	PASS
	5240	17.475	19.67	PASS
802.11ac VHT40	5190	36.119	49.62	PASS
	5230	36.011	40.54	PASS
802.11ac VHT80	5210	75.412	108.2	PASS
802.11ax HE20	5180	18.862	22.83	PASS
	5200	18.862	21.04	PASS
	5240	18.772	19.82	PASS
802.11ax HE40	5190	37.566	43.43	PASS
	5230	37.440	39.34	PASS
802.11ax HE80	5210	76.780	90.62	PASS

U-NII-2A

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5260	16.299	19.37	PASS
	5300	16.306	19.50	PASS
	5320	16.316	19.53	PASS
802.11n HT20	5260	17.491	19.91	PASS
	5300	17.496	19.93	PASS
	5320	17.477	19.76	PASS
802.11n HT40	5270	35.883	39.70	PASS
	5310	35.836	40.02	PASS
802.11ac VHT20	5260	17.473	19.57	PASS
	5300	17.470	19.67	PASS



	5320	17.467	19.79	PASS
802.11ac VHT40	5270	35.877	39.48	PASS
	5310	35.864	39.68	PASS
802.11ac VHT80	5290	74.962	79.29	PASS
802.11ax HE20	5260	18.835	21.29	PASS
	5300	18.869	21.12	PASS
	5320	18.889	21.18	PASS
802.11ax HE40	5270	37.479	39.13	PASS
	5310	37.549	39.39	PASS
802.11ax HE80	5290	76.668	79.80	PASS

U-NII-2C

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5500	16.304	19.39	PASS
	5600	16.314	19.52	PASS
	5700	16.304	19.70	PASS
	5720	16.312	19.37	PASS
802.11n HT20	5500	17.490	19.46	PASS
	5600	17.484	19.81	PASS
	5700	17.471	19.96	PASS
	5720	17.486	19.85	PASS
802.11n HT40	5510	35.809	39.49	PASS
	5590	35.782	39.63	PASS
	5670	35.809	39.78	PASS
	5710	35.819	39.92	PASS
802.11ac VHT20	5500	17.471	19.54	PASS
	5600	17.446	19.43	PASS
	5700	17.476	19.66	PASS
	5720	17.490	19.68	PASS
802.11ac VHT40	5510	35.848	39.12	PASS
	5590	35.823	39.76	PASS
	5670	35.881	39.58	PASS
	5710	35.765	39.63	PASS
802.11ac VHT80	5530	74.973	79.04	PASS
	5610	74.872	79.12	PASS
	5690	74.935	78.97	PASS



802.11ax HE20	5500	18.877	21.28	PASS
	5600	18.846	20.88	PASS
	5700	18.836	21.42	PASS
	5720	18.832	21.43	PASS
802.11ax HE40	5510	37.356	39.32	PASS
	5590	37.447	39.41	PASS
	5670	37.480	39.23	PASS
	5710	37.455	39.38	PASS
802.11ax HE80	5530	76.694	79.70	PASS
	5610	76.684	79.92	PASS
	5690	76.647	79.77	PASS

U-NII-3

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11a	5745	17.107	15.42	500	PASS
	5785	17.314	15.67	500	PASS
	5825	16.832	15.08	500	PASS
802.11n HT20	5745	18.034	14.45	500	PASS
	5785	18.048	14.21	500	PASS
	5825	18.326	14.46	500	PASS
802.11n HT40	5755	36.266	30.11	500	PASS
	5795	36.255	31.35	500	PASS
802.11ac VHT20	5745	17.980	15.10	500	PASS
	5785	17.973	16.30	500	PASS
	5825	18.479	15.20	500	PASS
802.11ac VHT40	5755	36.523	32.48	500	PASS
	5795	36.452	35.08	500	PASS
802.11ac VHT80	5775	75.579	75.03	500	PASS
802.11ax HE20	5745	19.157	17.31	500	PASS
	5785	19.111	15.72	500	PASS
	5825	19.096	16.51	500	PASS
802.11ax HE40	5755	37.843	32.61	500	PASS
	5795	37.836	33.91	500	PASS
802.11ax HE80	5775	77.362	70.12	500	PASS



Galtronics:

U-NII-1

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5180	16.307	19.42	PASS
	5200	16.325	19.44	PASS
	5240	16.306	19.52	PASS
802.11n HT20	5180	17.489	19.81	PASS
	5200	17.503	20.00	PASS
	5240	17.491	19.86	PASS
802.11n HT40	5190	36.087	51.40	PASS
	5230	35.982	44.92	PASS
802.11ac VHT20	5180	17.486	19.98	PASS
	5200	17.495	19.83	PASS
	5240	17.475	19.67	PASS
802.11ac VHT40	5190	36.119	49.62	PASS
	5230	36.011	40.54	PASS
802.11ac VHT80	5210	75.412	108.2	PASS
802.11ax HE20	5180	18.862	22.83	PASS
	5200	18.862	21.04	PASS
	5240	18.772	19.82	PASS
802.11ax HE40	5190	37.566	43.43	PASS
	5230	37.440	39.34	PASS
802.11ax HE80	5210	76.780	90.62	PASS

U-NII-2A

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5260	16.299	19.37	PASS
	5300	16.306	19.50	PASS
	5320	16.316	19.53	PASS
802.11n HT20	5260	17.491	19.91	PASS
	5300	17.496	19.93	PASS
	5320	17.477	19.76	PASS
802.11n HT40	5270	35.883	39.70	PASS
	5310	35.836	40.02	PASS
802.11ac VHT20	5260	17.473	19.57	PASS
	5300	17.470	19.67	PASS
	5320	17.467	19.79	PASS



802.11ac VHT40	5270	35.877	39.48	PASS
	5310	35.864	39.68	PASS
802.11ac VHT80	5290	74.962	79.29	PASS
802.11ax HE20	5260	18.835	21.29	PASS
	5300	18.869	21.12	PASS
	5320	18.889	21.18	PASS
802.11ax HE40	5270	37.479	39.13	PASS
	5310	37.549	39.39	PASS
802.11ax HE80	5290	76.668	79.80	PASS

U-NII-2C

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5500	16.304	19.39	PASS
	5600	16.314	19.52	PASS
	5700	16.304	19.70	PASS
	5720	16.312	19.37	PASS
802.11n HT20	5500	17.490	19.46	PASS
	5600	17.484	19.81	PASS
	5700	17.471	19.96	PASS
	5720	17.486	19.85	PASS
802.11n HT40	5510	35.809	39.49	PASS
	5590	35.782	39.63	PASS
	5670	35.809	39.78	PASS
	5710	35.819	39.92	PASS
802.11ac VHT20	5500	17.471	19.54	PASS
	5600	17.446	19.43	PASS
	5700	17.476	19.66	PASS
	5720	17.490	19.68	PASS
802.11ac VHT40	5510	35.848	39.12	PASS
	5590	35.823	39.76	PASS
	5670	35.881	39.58	PASS
	5710	35.765	39.63	PASS
802.11ac VHT80	5530	74.973	79.04	PASS
	5610	74.872	79.12	PASS
	5690	74.935	78.97	PASS
802.11ax	5500	18.877	21.28	PASS



HE20	5600	18.846	20.88	PASS
	5700	18.836	21.42	PASS
	5720	18.832	21.43	PASS
802.11ax HE40	5510	37.356	39.32	PASS
	5590	37.447	39.41	PASS
	5670	37.480	39.23	PASS
	5710	37.455	39.38	PASS
802.11ax HE80	5530	76.694	79.70	PASS
	5610	76.684	79.92	PASS
	5690	76.647	79.77	PASS

U-NII-3

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11a	5745	17.107	15.42	500	PASS
	5785	17.314	15.67	500	PASS
	5825	16.832	15.08	500	PASS
802.11n HT20	5745	18.034	14.45	500	PASS
	5785	18.048	14.21	500	PASS
	5825	18.326	14.46	500	PASS
802.11n HT40	5755	36.266	30.11	500	PASS
	5795	36.255	31.35	500	PASS
802.11ac VHT20	5745	17.980	15.10	500	PASS
	5785	17.973	16.30	500	PASS
	5825	18.479	15.20	500	PASS
802.11ac VHT40	5755	36.523	32.48	500	PASS
	5795	36.452	35.08	500	PASS
802.11ac VHT80	5775	75.579	75.03	500	PASS
802.11ax HE20	5745	19.157	17.31	500	PASS
	5785	19.111	15.72	500	PASS
	5825	19.096	16.51	500	PASS
802.11ax HE40	5755	37.843	32.61	500	PASS
	5795	37.836	33.91	500	PASS
802.11ax HE80	5775	77.362	70.12	500	PASS



INPAQ :

U-NII-1, 802.11a
Carrier frequency (MHz): 5180U-NII-1, 802.11n HT20
Carrier frequency (MHz): 5180U-NII-1, 802.11a
Carrier frequency (MHz): 5200U-NII-1, 802.11n HT20
Carrier frequency (MHz): 5200U-NII-1, 802.11a
Carrier frequency (MHz): 5240U-NII-1, 802.11n HT20
Carrier frequency (MHz): 5240

U-NII-1, 802.11n HT40
Carrier frequency (MHz): 5190



U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5180



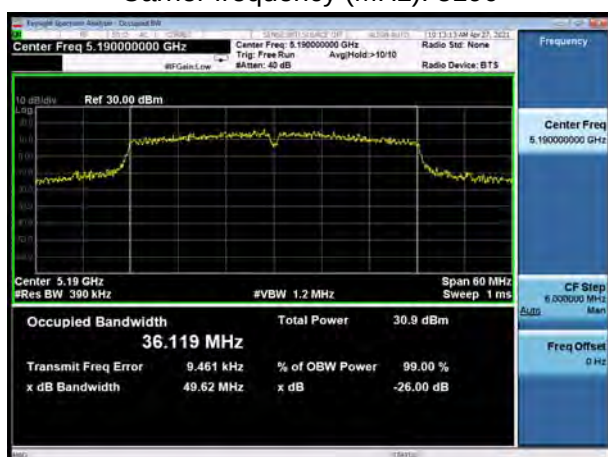
U-NII-1, 802.11n HT40
Carrier frequency (MHz): 5230



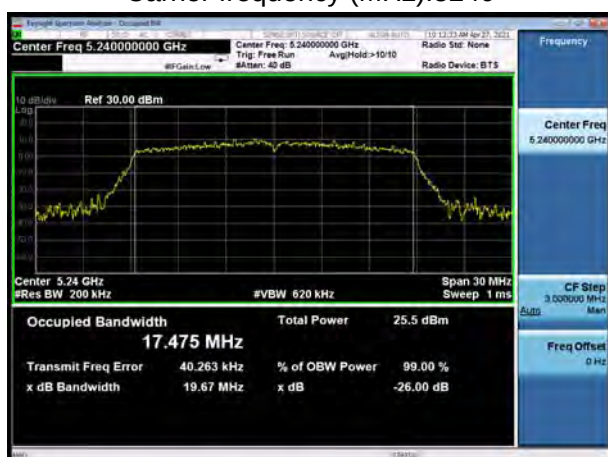
U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5200



U-NII-1, 802.11ac VHT40
Carrier frequency (MHz): 5190



U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5240





U-NII-1, 802.11ac VHT40
Carrier frequency (MHz): 5230



U-NII-1, 802.11ac VHT80
Carrier frequency (MHz): 5210



U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5180



U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5190



U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5200



U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5230



U-NII-1, 802.11ax HE20
Carrier frequency (MHz):5240



U-NII-1, 802.11ax HE80
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 VHT20
Carrier frequency (MHz):5260



U-NII-2A, 802.11n HT40
Carrier frequency (MHz): 5310



U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz): 5300



U-NII-2A, 802.11ac VHT40
Carrier frequency (MHz): 5270



U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz): 5320



U-NII-2A, 802.11ac VHT40
Carrier frequency (MHz): 5310



U-NII-2A, 802.11ac VHT80
Carrier frequency (MHz): 5290



U-NII-2A, 802.11ax HE20
Carrier frequency (MHz): 5260



U-NII-2A, 802.11ax HE40
Carrier frequency (MHz): 5270



U-NII-2A, 802.11ax HE20
Carrier frequency (MHz): 5300



U-NII-2A, 802.11ax HE40
Carrier frequency (MHz): 5310



U-NII-2A, 802.11ax HE20
Carrier frequency (MHz): 5320



U-NII-2A, 802.11ax HE80
Carrier frequency (MHz): 5290



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



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



U-NII-2C, 802.11a
Carrier frequency (MHz): 5600



U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5600



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



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



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



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



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



U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5500



U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5590



U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5600



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



U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5700



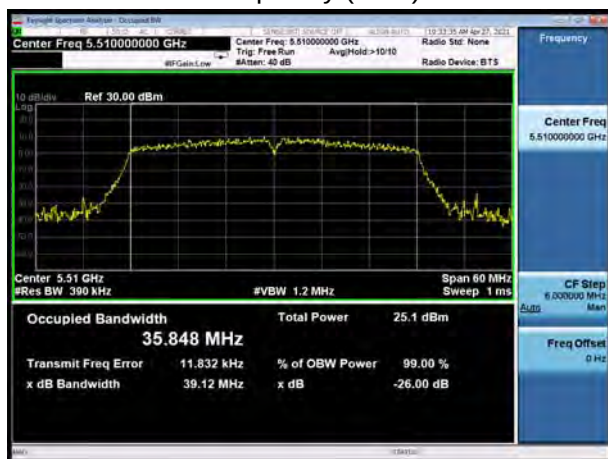
U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5710



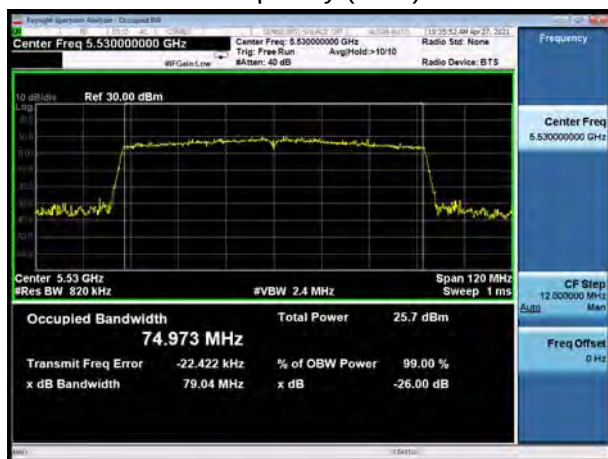
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5720



U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5510



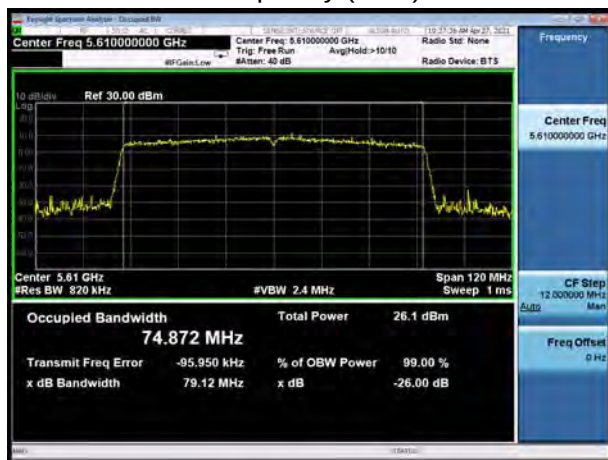
U-NII-2C, 802.11ac VHT80
Carrier frequency (MHz): 5530



U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5590



U-NII-2C, 802.11ac VHT80
Carrier frequency (MHz): 5610



U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5670



U-NII-2C, 802.11ac VHT80
Carrier frequency (MHz): 5690



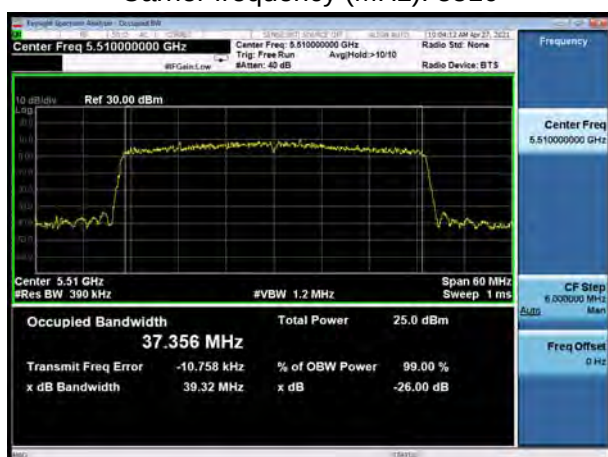
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5710



U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5500



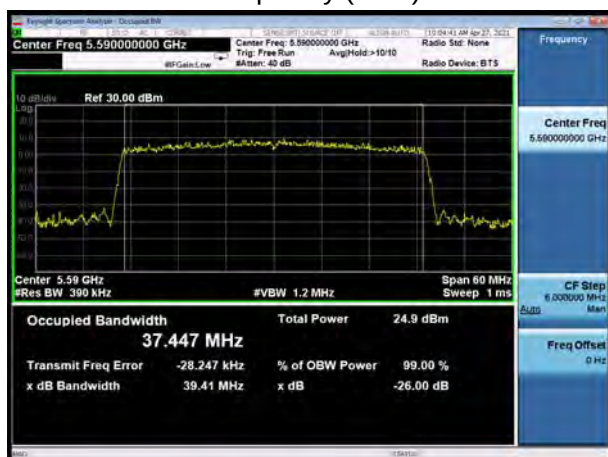
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5510



U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5600



U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5590



U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5700



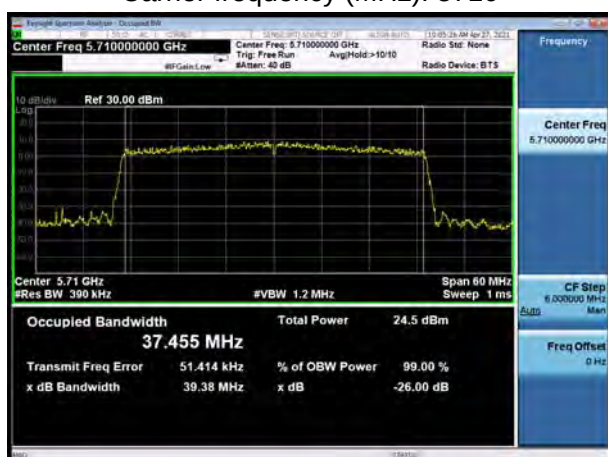
U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5670



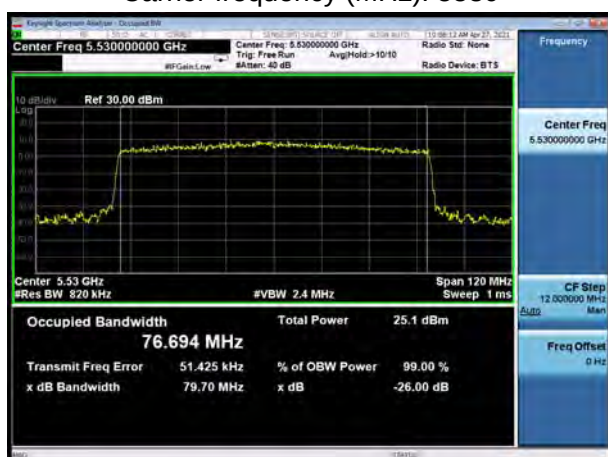
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5720



U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5710



U-NII-2C, 802.11ax HE80
Carrier frequency (MHz): 5530



U-NII-2C, 802.11ax HE80 Carrier frequency (MHz): 5610



U-NII-2C, 802.11ax HE80 Carrier frequency (MHz): 5690



99% 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 VHT20
Carrier frequency (MHz): 5745



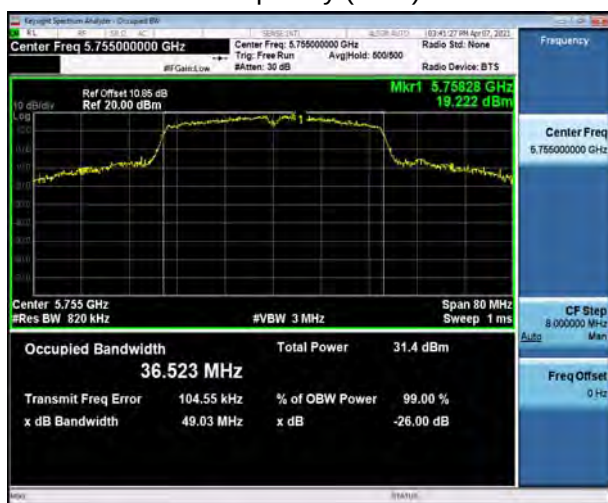
U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5795



U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5785



U-NII-3, 802.11ac VHT40 Carrier frequency (MHz): 5755



U-NII-3, 802.11ac VHT20 Carrier frequency (MHz): 5825



U-NII-3, 802.11ac VHT40 Carrier frequency (MHz): 5795



U-NII-3, 802.11ac VHT80 Carrier frequency (MHz): 5775



U-NII-3, 802.11ax HE20 Carrier frequency (MHz): 5745

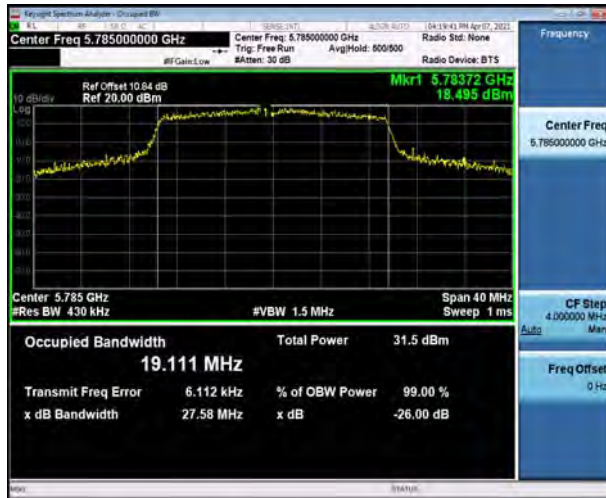


U-NII-3, 802.11ax HE40 Carrier frequency (MHz): 5755





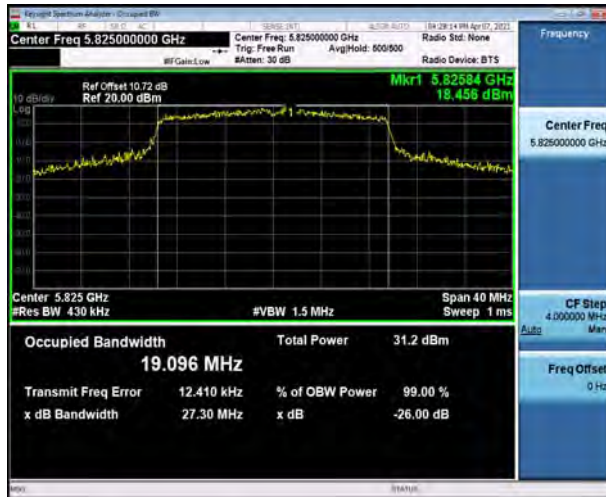
U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5785



U-NII-3, 802.11ax HE40
Carrier frequency (MHz): 5795



U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5825



U-NII-3, 802.11ax HE80
Carrier frequency (MHz): 5775





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



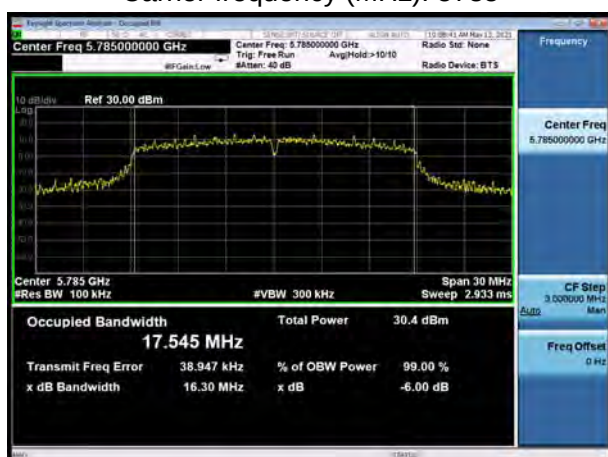
U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5745



U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5795



U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5785



U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5755



U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5825



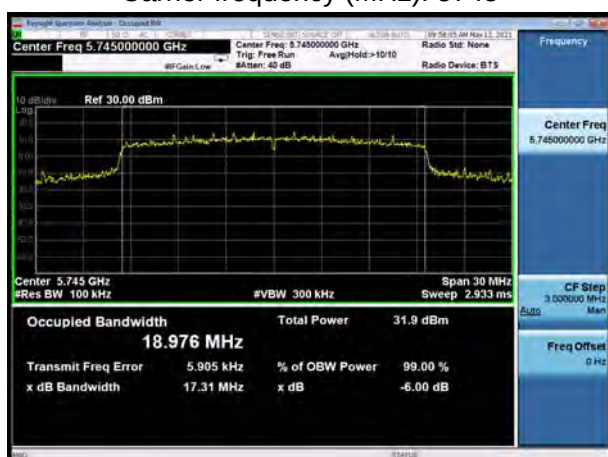
U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5795



U-NII-3, 802.11ac VHT80
Carrier frequency (MHz): 5775



U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5745



U-NII-3, 802.11ax HE40
Carrier frequency (MHz): 5755



U-NII-3, 802.11ax HE20 Carrier frequency (MHz): 5785



U-NII-3, 802.11ax HE40 Carrier frequency (MHz): 5795



U-NII-3, 802.11ax HE20 Carrier frequency (MHz): 5825



U-NII-3, 802.11ax HE80 Carrier frequency (MHz): 5775





Galtronics:

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 VHT20
Carrier frequency (MHz): 5180



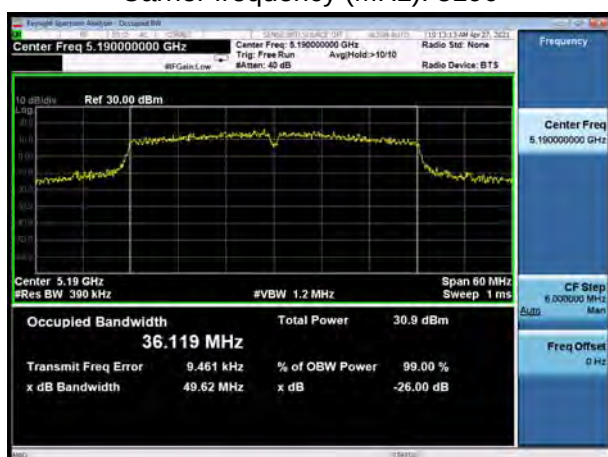
U-NII-1, 802.11n HT40
Carrier frequency (MHz): 5230



U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5200



U-NII-1, 802.11ac VHT40
Carrier frequency (MHz): 5190



U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5240



U-NII-1, 802.11ac VHT40
Carrier frequency (MHz): 5230



U-NII-1, 802.11ac VHT80
Carrier frequency (MHz): 5210



U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5180



U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5190



U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5200



U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5230





U-NII-1, 802.11ax HE20
Carrier frequency (MHz):5240



U-NII-1, 802.11ax HE80
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 VHT20
Carrier frequency (MHz):5260



U-NII-2A, 802.11n HT40
Carrier frequency (MHz): 5310



U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz): 5300



U-NII-2A, 802.11ac VHT40
Carrier frequency (MHz): 5270



U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz): 5320



U-NII-2A, 802.11ac VHT40
Carrier frequency (MHz): 5310



U-NII-2A, 802.11ac VHT80
Carrier frequency (MHz): 5290



U-NII-2A, 802.11ax HE20
Carrier frequency (MHz): 5260



U-NII-2A, 802.11ax HE40
Carrier frequency (MHz): 5270



U-NII-2A, 802.11ax HE20
Carrier frequency (MHz): 5300



U-NII-2A, 802.11ax HE40
Carrier frequency (MHz): 5310



U-NII-2A, 802.11ax HE20
Carrier frequency (MHz): 5320



U-NII-2A, 802.11ax HE80
Carrier frequency (MHz): 5290



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



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



U-NII-2C, 802.11a
Carrier frequency (MHz): 5600



U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5600



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



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



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



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



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



U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5500



U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5590



U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5600



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



U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5700



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



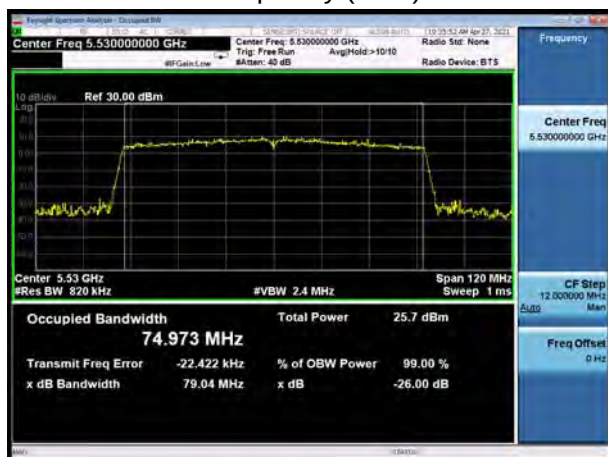
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5720



U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5510



U-NII-2C, 802.11ac VHT80
Carrier frequency (MHz): 5530



U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5590



U-NII-2C, 802.11ac VHT80
Carrier frequency (MHz): 5610



U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5670



U-NII-2C, 802.11ac VHT80
Carrier frequency (MHz): 5690



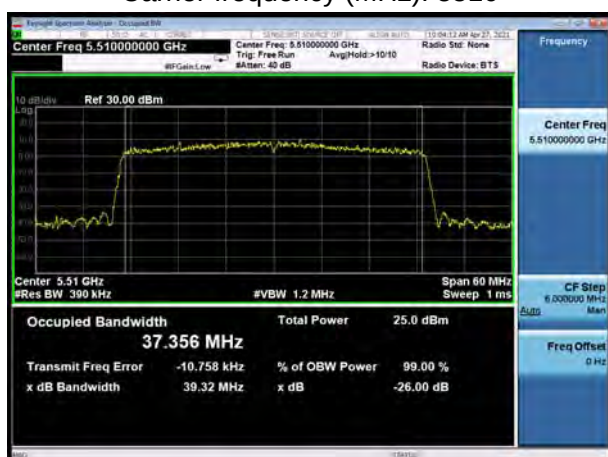
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5710



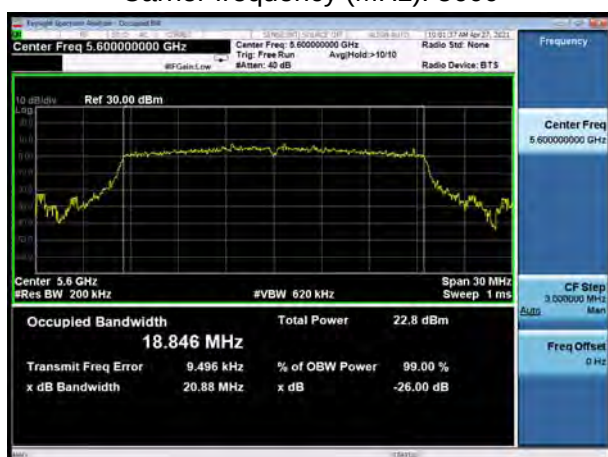
U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5500



U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5510



U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5600



U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5590



U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5700



U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5670



U-NII-2C, 802.11ax HE20
Carrier frequency (MHz): 5720



U-NII-2C, 802.11ax HE40
Carrier frequency (MHz): 5710



U-NII-2C, 802.11ax HE80
Carrier frequency (MHz): 5530



U-NII-2C, 802.11ax HE80 Carrier frequency (MHz): 5610



U-NII-2C, 802.11ax HE80 Carrier frequency (MHz): 5690



99% 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 VHT20
Carrier frequency (MHz): 5745



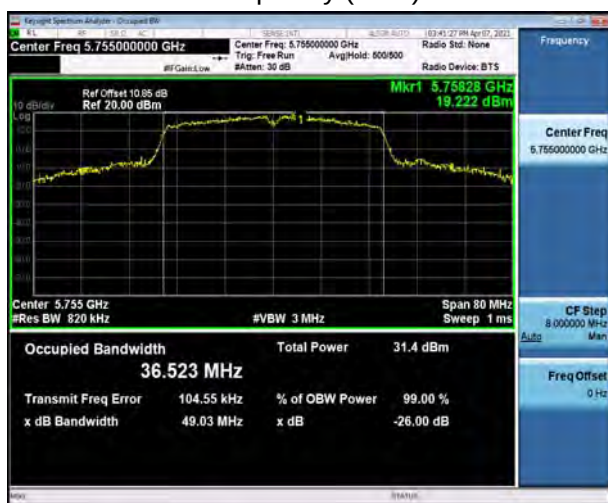
U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5795



U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5785



U-NII-3, 802.11ac VHT40 Carrier frequency (MHz): 5755



U-NII-3, 802.11ac VHT20 Carrier frequency (MHz): 5825



U-NII-3, 802.11ac VHT40 Carrier frequency (MHz): 5795



U-NII-3, 802.11ac VHT80 Carrier frequency (MHz): 5775



U-NII-3, 802.11ax HE20 Carrier frequency (MHz): 5745



U-NII-3, 802.11ax HE40 Carrier frequency (MHz): 5755





U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5785



U-NII-3, 802.11ax HE40
Carrier frequency (MHz): 5795



U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5825



U-NII-3, 802.11ax HE80
Carrier frequency (MHz): 5775





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 VHT20
Carrier frequency (MHz): 5745



U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5795



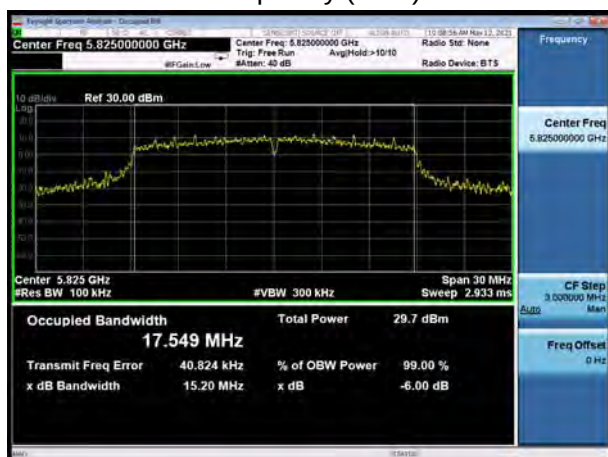
U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5785



U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5755



U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5825



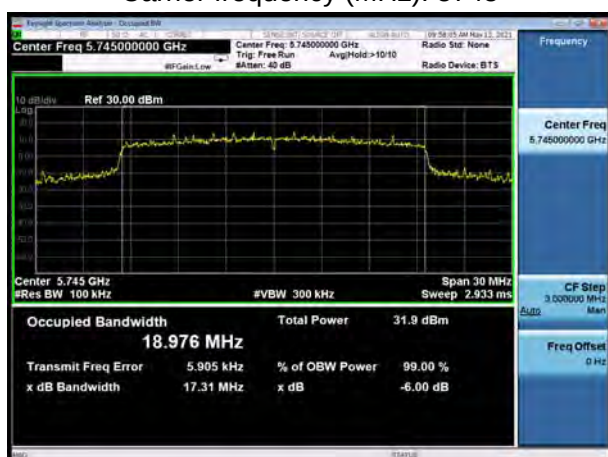
U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5795



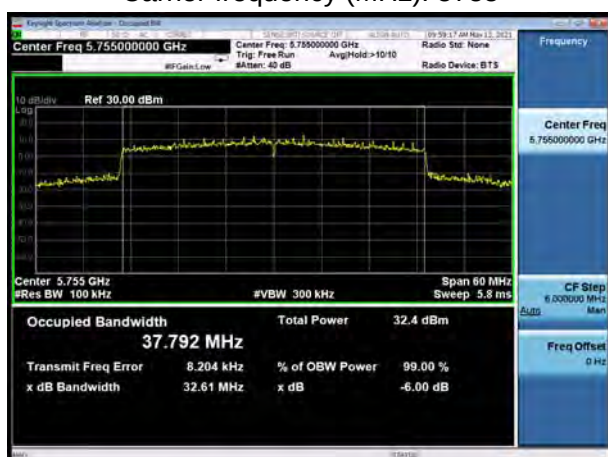
U-NII-3, 802.11ac VHT80
Carrier frequency (MHz): 5775



U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5745



U-NII-3, 802.11ax HE40
Carrier frequency (MHz): 5755



U-NII-3, 802.11ax HE20 Carrier frequency (MHz): 5785



U-NII-3, 802.11ax HE40 Carrier frequency (MHz): 5795



U-NII-3, 802.11ax HE20 Carrier frequency (MHz): 5825



U-NII-3, 802.11ax HE80 Carrier frequency (MHz): 5775



5.2. Average Power Output

Ambient condition

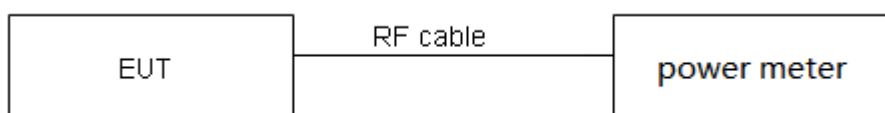
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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)

(1) For the band 5.15-5.25 GHz.

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23

dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For client devices in the 5.15-5.25 GHz band, the maximum 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.

(2) 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 $11 \text{ dBm} + 10 \log B$, 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.

(3) 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 $k = 2$, $U = 0.44 \text{ dB}$.



Test Results

Mode	T _{on} (ms)	T _(on+off) (ms)	Duty cycle	Duty cycle correction Factor(dB)
802.11a	2.082	2.142	0.972	0.123
802.11n HT20	2.082	2.142	0.972	0.123
802.11n HT40	2.004	2.058	0.974	0.115
802.11ac VHT20	0.568	0.626	0.907	0.422
802.11ac VHT40	0.568	0.626	0.907	0.422
802.11ac VHT80	0.568	0.626	0.907	0.422
802.11ax HE20	1.848	1.902	0.972	0.125
802.11ax HE40	1.842	1.902	0.968	0.139
802.11ax HE80	3.590	3.640	0.986	NA
Note: when Duty cycle ≥ 0.98 , Duty cycle correction Factor not required.				

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	19.37	23.87<24	23.87
		60/5300	19.50	23.90<24	23.90
		64/5320	19.53	23.91<24	23.91
	802.11n HT20	52/5260	19.91	23.99<24	23.99
		60/5300	19.93	24.00	24.00
		64/5320	19.76	23.96<24	23.96
	802.11n HT40	54/5270	39.70	26.99>24	24.00
		62/5310	40.02	27.02>24	24.00
	802.11ac VHT20	52/5260	19.57	23.92<24	23.92
		60/5300	19.67	23.94<24	23.94
		64/5320	19.79	23.96<24	23.96
	802.11ac VHT40	54/5270	39.48	26.96>24	24.00
		62/5310	39.68	26.99>24	24.00
	802.11ac VHT80	58/5290	79.29	29.99>24	24.00
	802.11ax HE20	52/5260	21.29	24.28>24	24.00
		60/5300	21.12	24.25>24	24.00
		64/5320	21.18	24.26>24	24.00
	802.11ax HE40	54/5270	39.13	26.93>24	24.00
		62/5310	39.39	26.95>24	24.00
	802.11ax HE80	58/5290	79.80	30.02>24	24.00
U-NII-2C	802.11a	100/5500	19.39	23.88<24	23.88



		120/5600	19.52	23.90<24	23.90
		140/5700	19.70	23.94<24	23.94
		144/5720	19.37	23.87<24	23.87
	802.11n HT20	100/5500	19.46	23.89<24	23.89
		120/5600	19.81	23.97<24	23.97
		140/5700	19.96	24.00	24.00
		144/5720	19.85	23.98<24	23.98
	802.11n HT40	102/5510	39.49	26.96>24	24.00
		118/5590	39.63	26.98>24	24.00
		134/5670	39.78	27.00>24	24.00
		142/5710	39.92	27.01>24	24.00
	802.11ac VHT20	100/5500	19.54	23.91<24	23.91
		120/5600	19.43	23.88<24	23.88
		140/5700	19.66	23.94<24	23.94
		144/5720	19.68	23.94<24	23.94
	802.11ac VHT40	102/5510	39.12	26.92>24	24.00
		118/5590	39.76	26.99>24	24.00
		134/5670	39.58	26.97>24	24.00
		142/5710	39.63	26.98>24	24.00
	802.11ac VHT80	106/5530	79.04	29.98>24	24.00
		122/5610	79.12	29.98>24	24.00
		138/5690	78.97	29.97>24	24.00
	802.11ax HE20	100/5500	21.28	24.28>24	24.00
		120/5600	20.88	24.20>24	24.00
		140/5700	21.42	24.31>24	24.00
		144/5720	21.43	24.31>24	24.00
	802.11ax HE40	102/5510	39.32	26.95>24	24.00
		118/5590	39.41	26.96>24	24.00
		134/5670	39.23	26.94>24	24.00
		142/5710	39.38	26.95>24	24.00
	802.11ax HE80	106/5530	79.70	30.01>24	24.00
		122/5610	79.92	30.03>24	24.00
		138/5690	79.77	30.02>24	24.00

Note: 250mW=24dBm



Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor

INPAQ :

MIMO without Beamforming

U-NII-1

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	36/5180	18.57	18.69	18.26	18.38	18.43	18.55	18.61	18.73	24.61	30.00	PASS
	44/5220	20.39	20.51	20.86	20.98	20.23	20.35	20.65	20.77	26.68	30.00	PASS
	48/5240	20.55	20.67	20.96	21.08	20.18	20.30	20.15	20.27	26.62	30.00	PASS
802.11n HT20	36/5180	19.98	20.10	20.42	20.54	19.53	19.65	20.04	20.16	26.15	30.00	PASS
	44/5220	20.32	20.44	20.23	20.35	20.16	20.28	20.73	20.85	26.51	30.00	PASS
	48/5240	20.77	20.89	20.64	20.76	20.23	20.35	20.68	20.80	26.73	30.00	PASS
802.11n HT40	38/5190	20.32	20.44	20.68	20.80	20.64	20.76	20.75	20.87	26.74	30.00	PASS
	46/5230	23.24	23.36	23.51	23.63	23.14	23.26	23.17	23.29	29.40	30.00	PASS
802.11ac VHT20	36/5180	20.62	21.04	20.12	20.54	20.51	20.93	21.16	21.58	27.06	30.00	PASS
	44/5220	20.48	20.90	20.14	20.56	20.86	21.28	21.12	21.54	27.11	30.00	PASS
	48/5240	21.02	21.44	20.86	21.28	20.66	21.08	20.69	21.11	27.25	30.00	PASS
802.11ac VHT40	38/5190	19.75	20.17	19.84	20.26	19.98	20.40	19.87	20.29	26.30	30.00	PASS
	46/5230	23.47	23.89	23.38	23.80	23.12	23.54	23.16	23.58	29.73	30.00	PASS
802.11ac VHT80	42/5210	19.11	19.53	19.24	19.66	19.18	19.60	19.32	19.74	25.66	30.00	PASS
802.11ax HE20	36/5180	20.27	20.40	20.18	20.31	20.83	20.96	21.12	21.25	26.76	30.00	PASS
	44/5220	20.75	20.88	19.95	20.08	20.47	20.60	20.05	20.18	26.46	30.00	PASS
	48/5240	21.10	21.23	20.98	21.11	20.27	20.40	20.88	21.01	26.96	30.00	PASS
802.11ax HE40	38/5190	21.06	21.20	21.02	21.16	21.32	21.46	21.54	21.68	27.40	30.00	PASS
	46/5230	23.33	23.47	23.42	23.56	23.13	23.27	23.44	23.58	29.49	30.00	PASS
802.11ax HE80	42/5210	19.65	19.65	18.97	18.97	19.34	19.34	19.62	19.62	25.42	30.00	PASS

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

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

2. The manufacturer declared that the directional gain = 2.98dBi<6dBi. So the power limit is 30dBm.



U-NII-2A

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	52/5260	14.73	14.85	14.67	14.79	14.23	14.35	15.16	15.28	20.85	23.87	PASS
	60/5300	14.56	14.68	14.53	14.65	14.23	14.35	15.04	15.16	20.74	23.90	PASS
	64/5320	14.93	15.05	14.78	14.90	14.14	14.26	14.86	14.98	20.83	23.91	PASS
802.11n HT20	52/5260	14.59	14.71	14.86	14.98	14.37	14.49	14.78	14.90	20.80	23.99	PASS
	60/5300	14.68	14.80	14.85	14.97	14.32	14.44	14.43	14.55	20.72	24.00	PASS
	64/5320	14.32	14.44	14.25	14.37	13.96	14.08	14.18	14.30	20.32	23.96	PASS
802.11n HT40	54/5270	17.53	17.65	17.42	17.54	16.95	17.07	17.78	17.90	23.57	24.00	PASS
	62/5310	17.24	17.36	17.30	17.42	16.82	16.94	17.48	17.60	23.35	24.00	PASS
802.11ac VHT20	52/5260	14.48	14.90	14.53	14.95	14.02	14.44	14.84	15.26	20.92	23.92	PASS
	60/5300	14.19	14.61	14.21	14.63	13.79	14.21	14.74	15.16	20.69	23.94	PASS
	64/5320	14.58	15.00	14.36	14.78	14.09	14.51	14.32	14.74	20.78	23.96	PASS
802.11ac VHT40	54/5270	17.62	18.04	17.02	17.44	17.31	17.73	17.12	17.54	23.72	24.00	PASS
	62/5310	17.52	17.94	17.38	17.80	17.08	17.50	17.76	18.18	23.88	24.00	PASS
802.11ac VHT80	58/5290	17.21	17.63	17.30	17.72	16.75	17.17	17.52	17.94	23.65	24.00	PASS
802.11ax HE20	52/5260	15.53	15.66	15.68	15.81	15.07	15.20	15.94	16.07	21.71	24.00	PASS
	60/5300	15.31	15.44	15.23	15.36	14.92	15.05	15.87	16.00	21.49	24.00	PASS
	64/5320	15.63	15.76	15.39	15.52	15.08	15.21	15.60	15.73	21.58	24.00	PASS
802.11ax HE40	54/5270	16.85	16.99	16.71	16.85	16.38	16.52	16.74	16.88	22.83	24.00	PASS
	62/5310	16.42	16.56	16.37	16.51	16.26	16.40	16.53	16.67	22.56	24.00	PASS
802.11ax HE80	58/5290	17.16	17.16	17.39	17.39	17.24	17.24	17.69	17.69	23.40	24.00	PASS

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

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



U-NII-2C

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	100/5500	13.36	13.48	13.02	13.14	13.18	13.30	13.96	14.08	19.54	23.88	PASS
	120/5600	15.08	15.20	14.04	14.16	13.97	14.09	13.96	14.08	20.43	23.90	PASS
	140/5700	14.82	14.94	14.79	14.91	14.35	14.47	14.28	14.40	20.71	23.94	PASS
	144/5720	14.32	14.44	14.45	14.57	14.02	14.14	14.06	14.18	20.36	23.87	PASS
802.11n HT20	100/5500	12.67	12.79	12.20	12.32	12.18	12.30	12.37	12.49	18.50	23.89	PASS
	120/5600	15.79	15.91	14.40	14.52	14.48	14.60	14.42	14.54	20.96	23.97	PASS
	140/5700	15.28	15.40	14.78	14.90	14.83	14.95	14.73	14.85	21.05	24.00	PASS
	144/5720	15.12	15.24	15.21	15.33	14.32	14.44	14.51	14.63	20.95	23.98	PASS
802.11n HT40	102/5510	17.96	18.08	17.12	17.24	16.98	17.10	16.96	17.08	23.41	24.00	PASS
	118/5590	17.59	17.71	17.06	17.18	16.88	17.00	16.86	16.98	23.24	24.00	PASS
	134/5670	17.80	17.92	17.09	17.21	16.93	17.05	16.91	17.03	23.33	24.00	PASS
	142/5710	17.29	17.41	17.14	17.26	16.89	17.01	16.99	17.11	23.22	24.00	PASS
802.11ac VHT20	100/5500	12.65	13.07	12.13	12.55	12.58	13.00	13.01	13.43	19.05	23.91	PASS
	120/5600	14.95	15.37	14.05	14.47	14.47	14.89	14.61	15.03	20.97	23.88	PASS
	140/5700	14.63	15.05	14.74	15.16	14.35	14.77	14.28	14.70	20.95	23.94	PASS
	144/5720	14.38	14.80	14.60	15.02	14.23	14.65	14.18	14.60	20.79	23.94	PASS
802.11ac VHT40	102/5510	17.12	17.54	16.98	17.40	16.95	17.37	17.43	17.85	23.57	24.00	PASS
	118/5590	17.68	18.10	16.73	17.15	16.62	17.04	16.54	16.96	23.36	24.00	PASS
	134/5670	17.47	17.89	17.04	17.46	16.21	16.63	16.18	16.60	23.20	24.00	PASS
	142/5710	17.01	17.43	17.21	17.63	17.06	17.48	16.88	17.30	23.48	24.00	PASS
802.11ac VHT80	106/5530	17.32	17.74	16.74	17.16	16.61	17.03	17.32	17.74	23.45	24.00	PASS
	122/5610	18.41	18.83	16.98	17.40	17.08	17.50	17.23	17.65	23.91	24.00	PASS
	138/5690	18.12	18.54	17.51	17.93	16.15	16.57	16.51	16.93	23.59	24.00	PASS
802.11ax HE20	100/5500	15.18	15.31	14.98	15.11	15.03	15.16	15.62	15.75	21.36	24.00	PASS
	120/5600	15.86	15.99	15.12	15.25	15.25	15.38	15.38	15.51	21.56	24.00	PASS
	140/5700	15.32	15.45	15.23	15.36	15.05	15.18	15.26	15.39	21.36	24.00	PASS
	144/5720	15.96	16.09	15.72	15.85	15.08	15.21	15.12	15.25	21.63	24.00	PASS
802.11ax HE40	102/5510	17.86	18.00	17.19	17.33	17.17	17.31	17.44	17.58	23.58	24.00	PASS
	118/5590	17.92	18.06	16.83	16.97	16.92	17.06	17.26	17.40	23.41	24.00	PASS
	134/5670	17.52	17.66	17.36	17.50	17.37	17.51	17.15	17.29	23.51	24.00	PASS
	142/5710	17.68	17.82	17.34	17.48	17.09	17.23	17.23	17.37	23.50	24.00	PASS



802.11ax HE80	106/5530	17.54	17.54	17.26	17.26	17.03	17.03	17.16	17.16	23.27	24.00	PASS
	122/5610	17.92	17.92	16.85	16.85	16.99	16.99	17.22	17.22	23.29	24.00	PASS
	138/5690	18.06	18.06	17.56	17.56	16.91	16.91	16.86	16.86	23.40	24.00	PASS

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

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

U-NII-3

Network Standards	Channel/Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	149/5745	23.21	23.33	23.69	23.81	23.92	24.04	24.10	24.22	29.89	30.00	PASS
	157/5785	23.25	23.37	23.12	23.24	22.70	22.82	23.02	23.14	29.17	30.00	PASS
	165/5825	23.25	23.37	23.14	23.26	22.71	22.83	23.40	23.52	29.28	30.00	PASS
802.11n HT20	149/5745	21.95	22.07	22.31	22.43	22.24	22.36	22.83	22.95	28.49	30.00	PASS
	157/5785	23.17	23.29	23.24	23.36	22.70	22.82	23.07	23.19	29.19	30.00	PASS
	165/5825	23.46	23.58	23.47	23.59	21.97	22.09	22.59	22.71	29.06	30.00	PASS
802.11n HT40	151/5755	21.96	22.08	22.15	22.27	22.20	22.32	22.38	22.50	28.31	30.00	PASS
	159/5795	22.03	22.15	21.98	22.10	21.53	21.65	21.84	21.96	27.99	30.00	PASS
802.11ac VHT20	149/5745	22.96	23.38	22.18	22.60	22.55	22.97	22.47	22.89	28.99	30.00	PASS
	157/5785	23.10	23.52	23.01	23.43	22.62	23.04	23.00	23.42	29.38	30.00	PASS
	165/5825	23.61	24.03	23.52	23.94	21.97	22.39	22.62	23.04	29.42	30.00	PASS
802.11ac VHT40	151/5755	22.03	22.45	22.27	22.69	22.46	22.88	22.36	22.78	28.73	30.00	PASS
	159/5795	21.98	22.40	21.86	22.28	21.11	21.53	21.52	21.94	28.07	30.00	PASS
802.11ac VHT80	155/5775	22.66	23.08	22.76	23.18	22.65	23.07	22.96	23.38	29.20	30.00	PASS
802.11ax HE20	149/5745	23.14	23.27	23.59	23.72	23.83	23.96	24.07	24.20	29.82	30.00	PASS
	157/5785	23.33	23.46	23.15	23.28	22.96	23.09	23.48	23.61	29.38	30.00	PASS
	165/5825	23.47	23.60	23.47	23.60	22.33	22.46	22.60	22.73	29.14	30.00	PASS
802.11ax HE40	151/5755	23.05	23.19	23.38	23.52	23.56	23.70	23.87	24.01	29.63	30.00	PASS
	159/5795	23.19	23.33	23.12	23.26	22.43	22.57	23.68	23.82	29.29	30.00	PASS
802.11ax HE80	155/5775	23.06	23.06	23.06	23.06	22.84	22.84	23.11	23.11	29.04	30.00	PASS

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

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

2. The manufacturer declared that the directional gain = 2.98dBi<6dBi. So the power limit is 30dBm.

**MIMO with Beamforming****U-NII-1**

Network Standards	Channel/Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	36/5180	18.55	18.67	18.19	18.31	18.41	18.53	18.58	18.70	24.58	30.00	PASS
	44/5220	20.32	20.44	20.87	20.99	20.21	20.33	20.69	20.81	26.67	30.00	PASS
	48/5240	20.51	20.63	20.93	21.05	20.18	20.30	20.11	20.23	26.59	30.00	PASS
802.11n HT20	36/5180	19.93	20.05	20.40	20.52	19.55	19.67	20.01	20.13	26.13	30.00	PASS
	44/5220	20.29	20.41	20.25	20.37	20.19	20.31	20.69	20.81	26.50	30.00	PASS
	48/5240	20.83	20.95	20.61	20.73	20.18	20.30	20.62	20.74	26.71	30.00	PASS
802.11n HT40	38/5190	20.31	20.43	20.66	20.78	20.62	20.74	20.70	20.82	26.71	30.00	PASS
	46/5230	23.26	23.38	23.49	23.61	23.09	23.21	23.14	23.26	29.38	30.00	PASS
802.11ac VHT20	36/5180	20.57	20.99	20.15	20.57	20.54	20.96	21.13	21.55	27.05	30.00	PASS
	44/5220	20.43	20.85	20.12	20.54	20.82	21.24	21.09	21.51	27.07	30.00	PASS
	48/5240	20.96	21.38	20.81	21.23	20.63	21.05	20.66	21.08	27.21	30.00	PASS
802.11ac VHT40	38/5190	19.73	20.15	19.83	20.25	19.96	20.38	19.83	20.25	26.28	30.00	PASS
	46/5230	23.45	23.87	23.26	23.68	23.07	23.49	23.14	23.56	29.68	30.00	PASS
802.11ac VHT80	42/5210	19.10	19.52	19.22	19.64	19.16	19.58	19.29	19.71	25.64	30.00	PASS
802.11ax HE20	36/5180	20.25	20.38	20.13	20.26	20.81	20.94	21.15	21.28	26.75	30.00	PASS
	44/5220	20.68	20.81	19.91	20.04	20.44	20.57	20.08	20.21	26.43	30.00	PASS
	48/5240	21.06	21.19	20.93	21.06	20.23	20.36	20.92	21.05	26.94	30.00	PASS
802.11ax HE40	38/5190	21.04	21.18	21.01	21.15	21.28	21.42	21.51	21.65	27.37	30.00	PASS
	46/5230	23.36	23.50	23.40	23.54	23.06	23.20	23.41	23.55	29.47	30.00	PASS
802.11ax HE80	42/5210	19.62	19.62	18.95	18.95	19.31	19.31	19.59	19.59	25.40	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 that the directional gain = 5.37dBi<6dBi. So the power limit is 30dBm.												



U-NII-2A

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	52/5260	14.71	14.83	14.64	14.76	14.21	14.33	15.13	15.25	20.83	23.87	PASS
	60/5300	14.52	14.64	14.49	14.61	14.22	14.34	15.02	15.14	20.72	23.90	PASS
	64/5320	14.91	15.03	14.75	14.87	14.17	14.29	14.85	14.97	20.82	23.91	PASS
802.11n HT20	52/5260	14.56	14.68	14.83	14.95	14.36	14.48	14.73	14.85	20.77	23.99	PASS
	60/5300	14.64	14.76	14.81	14.93	14.28	14.40	14.41	14.53	20.68	24.00	PASS
	64/5320	14.30	14.42	14.22	14.34	13.96	14.08	14.14	14.26	20.30	23.96	PASS
802.11n HT40	54/5270	17.51	17.63	17.40	17.52	16.93	17.05	17.76	17.88	23.55	24.00	PASS
	62/5310	17.22	17.34	17.26	17.38	16.80	16.92	17.44	17.56	23.32	24.00	PASS
802.11ac VHT20	52/5260	14.43	14.85	14.49	14.91	14.06	14.48	14.83	15.25	20.90	23.92	PASS
	60/5300	14.17	14.59	14.23	14.65	13.75	14.17	14.72	15.14	20.67	23.94	PASS
	64/5320	14.55	14.97	14.35	14.77	14.06	14.48	14.30	14.72	20.76	23.96	PASS
802.11ac VHT40	54/5270	17.56	17.98	17.00	17.42	17.29	17.71	17.15	17.57	23.70	24.00	PASS
	62/5310	17.49	17.91	17.35	17.77	17.06	17.48	17.71	18.13	23.85	24.00	PASS
802.11ac VHT80	58/5290	17.16	17.58	17.28	17.70	16.74	17.16	17.49	17.91	23.62	24.00	PASS
802.11ax HE20	52/5260	15.49	15.62	15.62	15.75	15.02	15.15	15.91	16.04	21.67	24.00	PASS
	60/5300	15.28	15.41	15.21	15.34	14.86	14.99	15.82	15.95	21.45	24.00	PASS
	64/5320	15.61	15.74	15.34	15.47	15.03	15.16	15.56	15.69	21.54	24.00	PASS
802.11ax HE40	54/5270	16.81	16.95	16.69	16.83	16.35	16.49	16.73	16.87	22.81	24.00	PASS
	62/5310	16.41	16.55	16.33	16.47	16.23	16.37	16.51	16.65	22.53	24.00	PASS
802.11ax HE80	58/5290	17.13	17.13	17.36	17.36	17.22	17.22	17.63	17.63	23.36	24.00	PASS

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

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



U-NII-2C

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	100/5500	13.34	13.46	13.01	13.13	13.15	13.27	13.93	14.05	19.52	23.88	PASS
	120/5600	15.05	15.17	14.01	14.13	13.95	14.07	13.91	14.03	20.40	23.90	PASS
	140/5700	14.81	14.93	14.76	14.88	14.33	14.45	14.25	14.37	20.69	23.94	PASS
	144/5720	14.29	14.41	14.42	14.54	14.05	14.17	14.02	14.14	20.34	23.87	PASS
802.11n HT20	100/5500	12.66	12.78	12.17	12.29	12.17	12.29	12.35	12.47	18.49	23.89	PASS
	120/5600	15.72	15.84	14.37	14.49	14.42	14.54	14.38	14.50	20.91	23.97	PASS
	140/5700	15.23	15.35	14.75	14.87	14.61	14.73	14.72	14.84	20.98	24.00	PASS
	144/5720	15.10	15.22	15.18	15.30	14.36	14.48	14.48	14.60	20.94	23.98	PASS
802.11n HT40	102/5510	17.93	18.05	17.10	17.22	16.95	17.07	16.92	17.04	23.38	24.00	PASS
	118/5590	17.55	17.67	17.02	17.14	16.83	16.95	16.81	16.93	23.20	24.00	PASS
	134/5670	17.76	17.88	17.06	17.18	16.88	17.00	16.82	16.94	23.28	24.00	PASS
	142/5710	17.25	17.37	17.11	17.23	16.87	16.99	16.96	17.08	23.19	24.00	PASS
802.11ac VHT20	100/5500	12.64	13.06	12.12	12.54	12.56	12.98	13.01	13.43	19.04	23.91	PASS
	120/5600	14.92	15.34	14.03	14.45	14.45	14.87	14.58	15.00	20.95	23.88	PASS
	140/5700	14.60	15.02	14.72	15.14	14.33	14.75	14.24	14.66	20.92	23.94	PASS
	144/5720	14.31	14.73	14.58	15.00	14.18	14.60	14.15	14.57	20.75	23.94	PASS
802.11ac VHT40	102/5510	17.08	17.50	16.97	17.39	16.92	17.34	17.41	17.83	23.54	24.00	PASS
	118/5590	17.63	18.05	16.71	17.13	16.57	16.99	16.52	16.94	23.32	24.00	PASS
	134/5670	17.42	17.84	17.03	17.45	16.18	16.60	16.14	16.56	23.17	24.00	PASS
	142/5710	17.03	17.45	17.19	17.61	17.02	17.44	16.85	17.27	23.47	24.00	PASS
802.11ac VHT80	106/5530	17.28	17.70	16.72	17.14	16.57	16.99	17.29	17.71	23.42	24.00	PASS
	122/5610	18.37	18.79	16.95	17.37	17.06	17.48	17.18	17.60	23.87	24.00	PASS
	138/5690	18.15	18.57	17.48	17.90	16.13	16.55	16.48	16.90	23.58	24.00	PASS
802.11ax HE20	100/5500	15.16	15.29	14.95	15.08	15.01	15.14	15.57	15.70	21.33	24.00	PASS
	120/5600	15.83	15.96	15.09	15.22	15.26	15.39	15.34	15.47	21.53	24.00	PASS
	140/5700	15.30	15.43	15.21	15.34	14.99	15.12	15.25	15.38	21.33	24.00	PASS
	144/5720	15.91	16.04	15.68	15.81	15.05	15.18	15.08	15.21	21.59	24.00	PASS
802.11ax HE40	102/5510	17.83	17.97	17.14	17.28	17.14	17.28	17.13	17.27	23.48	24.00	PASS
	118/5590	17.88	18.02	16.79	16.93	16.91	17.05	17.24	17.38	23.39	24.00	PASS
	134/5670	17.46	17.60	17.34	17.48	17.33	17.47	17.11	17.25	23.47	24.00	PASS
	142/5710	17.64	17.78	17.31	17.45	17.03	17.17	17.22	17.36	23.47	24.00	PASS



802.11ax HE80	106/5530	17.52	17.52	17.23	17.23	17.01	17.01	17.12	17.12	23.24	24.00	PASS
	122/5610	17.87	17.87	16.81	16.81	16.95	16.95	17.19	17.19	23.25	24.00	PASS
	138/5690	18.01	18.01	17.52	17.52	16.88	16.88	16.83	16.83	23.36	24.00	PASS

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

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

U-NII-3

Network Standards	Channel/Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	149/5745	23.18	23.30	23.62	23.74	23.89	24.01	23.96	24.08	29.82	30.00	PASS
	157/5785	23.22	23.34	23.08	23.20	22.73	22.85	23.08	23.20	29.18	30.00	PASS
	165/5825	23.21	23.33	23.10	23.22	22.79	22.91	23.35	23.47	29.26	30.00	PASS
802.11n HT20	149/5745	21.93	22.05	22.28	22.40	22.23	22.35	22.81	22.93	28.47	30.00	PASS
	157/5785	23.15	23.27	23.21	23.33	22.76	22.88	23.02	23.14	29.18	30.00	PASS
	165/5825	23.42	23.54	23.42	23.54	22.12	22.24	22.73	22.85	29.10	30.00	PASS
802.11n HT40	151/5755	21.95	22.07	22.12	22.24	22.16	22.28	22.37	22.49	28.29	30.00	PASS
	159/5795	22.01	22.13	21.96	22.08	21.52	21.64	21.81	21.93	27.97	30.00	PASS
802.11ac VHT20	149/5745	22.93	23.35	22.15	22.57	22.51	22.93	22.45	22.87	28.96	30.00	PASS
	157/5785	23.09	23.51	23.06	23.48	22.59	23.01	23.03	23.45	29.39	30.00	PASS
	165/5825	23.57	23.99	23.47	23.89	22.03	22.45	22.63	23.05	29.41	30.00	PASS
802.11ac VHT40	151/5755	22.01	22.43	22.26	22.68	22.42	22.84	22.35	22.77	28.71	30.00	PASS
	159/5795	21.96	22.38	21.84	22.26	21.07	21.49	21.48	21.90	28.04	30.00	PASS
802.11ac VHT80	155/5775	22.63	23.05	23.78	24.20	22.63	23.05	22.91	23.33	29.46	30.00	PASS
802.11ax HE20	149/5745	23.75	23.88	23.68	23.81	23.99	24.12	23.42	23.55	29.86	30.00	PASS
	157/5785	23.49	23.62	23.49	23.62	23.17	23.30	23.46	23.59	29.55	30.00	PASS
	165/5825	23.56	23.69	23.56	23.69	22.44	22.57	22.85	22.98	29.27	30.00	PASS
802.11ax HE40	151/5755	23.64	23.78	23.64	23.78	23.57	23.71	23.30	23.44	29.70	30.00	PASS
	159/5795	23.25	23.39	23.46	23.60	22.91	23.05	23.06	23.20	29.33	30.00	PASS
802.11ax HE80	155/5775	23.19	23.19	23.24	23.24	22.87	22.87	23.68	23.68	29.28	30.00	PASS

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

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

2. The manufacturer declared that the directional gain = 5.37dBi<6dBi. So the power limit is 30dBm.



Galtronics:
MIMO without Beamforming
U-NII-1

Network Standards	Channel/Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	36/5180	20.57	20.69	20.30	20.42	20.58	20.70	20.64	20.76	26.67	30.00	PASS
	44/5220	20.39	20.51	20.86	20.98	20.23	20.35	20.65	20.77	26.68	30.00	PASS
	48/5240	20.55	20.67	20.96	21.08	20.18	20.30	20.15	20.27	26.62	30.00	PASS
802.11n HT20	36/5180	20.65	20.77	20.86	20.98	20.04	20.16	20.65	20.77	26.70	30.00	PASS
	44/5220	20.32	20.44	20.23	20.35	20.16	20.28	20.73	20.85	26.51	30.00	PASS
	48/5240	20.77	20.89	20.64	20.76	20.23	20.35	20.68	20.80	26.73	30.00	PASS
802.11n HT40	38/5190	23.46	23.58	23.18	23.30	23.32	23.44	23.31	23.43	29.45	30.00	PASS
	46/5230	23.24	23.36	23.51	23.63	23.14	23.26	23.17	23.29	29.40	30.00	PASS
802.11ac VHT20	36/5180	20.62	21.04	20.12	20.54	20.51	20.93	21.16	21.58	27.06	30.00	PASS
	44/5220	20.48	20.90	20.14	20.56	20.86	21.28	21.12	21.54	27.11	30.00	PASS
	48/5240	21.02	21.44	20.86	21.28	20.66	21.08	20.69	21.11	27.25	30.00	PASS
802.11ac VHT40	38/5190	23.26	23.68	23.12	23.54	23.08	23.50	23.60	24.02	29.71	30.00	PASS
	46/5230	23.47	23.89	23.38	23.80	23.12	23.54	23.16	23.58	29.73	30.00	PASS
802.11ac VHT80	42/5210	17.23	17.65	16.98	17.40	17.36	17.78	17.52	17.94	23.72	30.00	PASS
802.11ax HE20	36/5180	19.14	19.27	19.09	19.22	19.52	19.65	20.76	20.89	25.83	30.00	PASS
	44/5220	20.75	20.88	19.95	20.08	20.47	20.60	20.05	20.18	26.46	30.00	PASS
	48/5240	21.10	21.23	20.98	21.11	20.27	20.40	20.88	21.01	26.96	30.00	PASS
802.11ax HE40	38/5190	21.06	21.20	21.02	21.16	21.32	21.46	21.54	21.68	27.40	30.00	PASS
	46/5230	23.33	23.47	23.42	23.56	23.13	23.27	23.44	23.58	29.49	30.00	PASS
802.11ax HE80	42/5210	18.57	18.57	17.68	17.68	18.05	18.05	18.43	18.43	24.22	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 that the directional gain = 2.23dBi<6dBi. So the power limit is 30dBm.



U-NII-2A

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	52/5260	14.73	14.85	14.67	14.79	14.23	14.35	15.16	15.28	20.85	23.87	PASS
	60/5300	14.56	14.68	14.53	14.65	14.23	14.35	15.04	15.16	20.74	23.90	PASS
	64/5320	14.93	15.05	14.78	14.90	14.14	14.26	14.86	14.98	20.83	23.91	PASS
802.11n HT20	52/5260	14.59	14.71	14.86	14.98	14.37	14.49	14.78	14.90	20.80	23.99	PASS
	60/5300	14.68	14.80	14.85	14.97	14.32	14.44	14.43	14.55	20.72	24.00	PASS
	64/5320	14.60	14.72	14.43	14.55	14.07	14.19	14.65	14.77	20.59	23.96	PASS
802.11n HT40	54/5270	17.53	17.65	17.42	17.54	16.95	17.07	17.78	17.90	23.57	24.00	PASS
	62/5310	17.24	17.36	17.30	17.42	16.82	16.94	17.48	17.60	23.35	24.00	PASS
802.11ac VHT20	52/5260	14.48	14.90	14.53	14.95	14.02	14.44	14.84	15.26	20.92	23.92	PASS
	60/5300	14.19	14.61	14.21	14.63	13.79	14.21	14.74	15.16	20.69	23.94	PASS
	64/5320	14.72	15.14	14.67	15.09	14.18	14.60	14.86	15.28	21.06	23.96	PASS
802.11ac VHT40	54/5270	17.62	18.04	17.02	17.44	17.31	17.73	17.12	17.54	23.72	24.00	PASS
	62/5310	17.52	17.94	17.38	17.80	17.08	17.50	17.76	18.18	23.88	24.00	PASS
802.11ac VHT80	58/5290	17.21	17.63	17.30	17.72	16.75	17.17	17.52	17.94	23.65	24.00	PASS
802.11ax HE20	52/5260	15.53	15.66	15.68	15.81	15.07	15.20	15.94	16.07	21.71	24.00	PASS
	60/5300	15.31	15.44	15.23	15.36	14.92	15.05	15.87	16.00	21.49	24.00	PASS
	64/5320	15.63	15.76	15.39	15.52	15.08	15.21	15.60	15.73	21.58	24.00	PASS
802.11ax HE40	54/5270	15.03	15.17	14.95	15.09	14.56	14.70	14.75	14.89	20.99	24.00	PASS
	62/5310	14.98	15.12	14.67	14.81	14.37	14.51	14.82	14.96	20.88	24.00	PASS
802.11ax HE80	58/5290	17.16	17.16	17.39	17.39	17.24	17.24	17.69	17.69	23.40	24.00	PASS

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

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



U-NII-2C

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	100/5500	13.36	13.48	13.02	13.14	13.18	13.30	13.96	14.08	19.54	23.88	PASS
	120/5600	15.08	15.20	14.04	14.16	13.97	14.09	13.96	14.08	20.43	23.90	PASS
	140/5700	13.84	13.96	13.72	13.84	13.31	13.43	13.26	13.38	19.68	23.94	PASS
	144/5720	14.32	14.44	14.45	14.57	14.02	14.14	14.06	14.18	20.36	23.87	PASS
802.11n HT20	100/5500	14.76	14.88	14.08	14.20	14.19	14.31	14.47	14.59	20.53	23.89	PASS
	120/5600	15.79	15.91	14.40	14.52	14.48	14.60	14.42	14.54	20.96	23.97	PASS
	140/5700	14.21	14.33	13.75	13.87	13.78	13.90	13.66	13.78	20.00	24.00	PASS
	144/5720	15.12	15.24	15.21	15.33	14.32	14.44	14.51	14.63	20.95	23.98	PASS
802.11n HT40	102/5510	17.96	18.08	17.12	17.24	16.98	17.10	16.96	17.08	23.41	24.00	PASS
	118/5590	17.06	17.18	16.48	16.60	16.27	16.39	16.32	16.44	22.68	24.00	PASS
	134/5670	17.80	17.92	17.09	17.21	16.93	17.05	16.91	17.03	23.33	24.00	PASS
	142/5710	17.29	17.41	17.14	17.26	16.89	17.01	16.99	17.11	23.22	24.00	PASS
802.11ac VHT20	100/5500	14.12	14.54	13.85	14.27	14.14	14.56	14.53	14.95	20.61	23.91	PASS
	120/5600	14.95	15.37	14.05	14.47	14.47	14.89	14.61	15.03	20.97	23.88	PASS
	140/5700	13.24	13.66	13.34	13.76	13.06	13.48	13.02	13.44	19.61	23.94	PASS
	144/5720	14.38	14.80	14.60	15.02	14.23	14.65	14.18	14.60	20.79	23.94	PASS
802.11ac VHT40	102/5510	17.12	17.54	16.98	17.40	16.95	17.37	17.43	17.85	23.57	24.00	PASS
	118/5590	16.86	17.28	16.03	16.45	15.96	16.38	15.64	16.06	22.59	24.00	PASS
	134/5670	17.47	17.89	17.04	17.46	16.21	16.63	16.18	16.60	23.20	24.00	PASS
	142/5710	17.01	17.43	17.21	17.63	17.06	17.48	16.88	17.30	23.48	24.00	PASS
802.11ac VHT80	106/5530	15.14	15.56	14.25	14.67	13.98	14.40	14.56	14.98	20.95	24.00	PASS
	122/5610	18.41	18.83	16.98	17.40	17.08	17.50	17.23	17.65	23.91	24.00	PASS
	138/5690	18.12	18.54	17.51	17.93	16.15	16.57	16.51	16.93	23.59	24.00	PASS
802.11ax HE20	100/5500	12.06	12.19	11.95	12.08	12.08	12.21	12.57	12.70	18.32	24.00	PASS
	120/5600	15.86	15.99	15.12	15.25	15.25	15.38	15.38	15.51	21.56	24.00	PASS
	140/5700	15.32	15.45	15.23	15.36	15.05	15.18	15.26	15.39	21.36	24.00	PASS
	144/5720	15.96	16.09	15.72	15.85	15.08	15.21	15.12	15.25	21.63	24.00	PASS
802.11ax HE40	102/5510	17.86	18.00	17.19	17.33	17.17	17.31	17.44	17.58	23.58	24.00	PASS
	118/5590	17.92	18.06	16.83	16.97	16.92	17.06	17.26	17.40	23.41	24.00	PASS
	134/5670	17.52	17.66	17.36	17.50	17.37	17.51	17.15	17.29	23.51	24.00	PASS
	142/5710	17.68	17.82	17.34	17.48	17.09	17.23	17.23	17.37	23.50	24.00	PASS



802.11ax HE80	106/5530	17.54	17.54	17.26	17.26	17.03	17.03	17.16	17.16	23.27	24.00	PASS
	122/5610	17.92	17.92	16.85	16.85	16.99	16.99	17.22	17.22	23.29	24.00	PASS
	138/5690	18.06	18.06	17.56	17.56	16.91	16.91	16.86	16.86	23.40	24.00	PASS

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

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

U-NII-3

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	149/5745	23.21	23.33	23.69	23.81	23.92	24.04	24.10	24.22	29.89	30.00	PASS
	157/5785	23.25	23.37	23.12	23.24	22.70	22.82	23.02	23.14	29.17	30.00	PASS
	165/5825	23.25	23.37	23.14	23.26	22.71	22.83	23.40	23.52	29.28	30.00	PASS
802.11n HT20	149/5745	21.95	22.07	22.31	22.43	22.24	22.36	22.83	22.95	28.49	30.00	PASS
	157/5785	23.17	23.29	23.24	23.36	22.70	22.82	23.07	23.19	29.19	30.00	PASS
	165/5825	23.46	23.58	23.47	23.59	21.97	22.09	22.59	22.71	29.06	30.00	PASS
802.11n HT40	151/5755	23.02	23.14	23.31	23.43	23.47	23.59	23.72	23.84	29.52	30.00	PASS
	159/5795	23.15	23.27	23.11	23.23	22.76	22.88	22.96	23.08	29.13	30.00	PASS
802.11ac VHT20	149/5745	22.96	23.38	22.18	22.60	22.55	22.97	22.47	22.89	28.99	30.00	PASS
	157/5785	23.10	23.52	23.01	23.43	22.62	23.04	23.00	23.42	29.38	30.00	PASS
	165/5825	23.61	24.03	23.52	23.94	21.97	22.39	22.62	23.04	29.42	30.00	PASS
802.11ac VHT40	151/5755	23.22	23.64	23.42	23.84	23.57	23.99	23.78	24.20	29.95	30.00	PASS
	159/5795	23.06	23.48	22.91	23.33	22.27	22.69	22.74	23.16	29.20	30.00	PASS
802.11ac VHT80	155/5775	22.66	23.08	22.76	23.18	22.65	23.07	22.96	23.38	29.20	30.00	PASS
802.11ax HE20	149/5745	23.14	23.27	23.59	23.72	23.83	23.96	24.07	24.20	29.82	30.00	PASS
	157/5785	23.33	23.46	23.15	23.28	22.96	23.09	23.48	23.61	29.38	30.00	PASS
	165/5825	23.47	23.60	23.47	23.60	22.33	22.46	22.60	22.73	29.14	30.00	PASS
802.11ax HE40	151/5755	23.05	23.19	23.38	23.52	23.56	23.70	23.87	24.01	29.63	30.00	PASS
	159/5795	23.19	23.33	23.12	23.26	22.43	22.57	23.68	23.82	29.29	30.00	PASS
802.11ax HE80	155/5775	23.06	23.06	23.06	23.06	22.84	22.84	23.11	23.11	29.04	30.00	PASS

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

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

2. The manufacturer declared that the directional gain = 2.23dBi<6dBi. So the power limit is 30dBm.

**MIMO with Beamforming****U-NII-1**

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	36/5180	20.55	20.67	20.27	20.39	20.55	20.67	20.67	20.79	26.66	30.00	PASS
	44/5220	20.32	20.44	20.87	20.99	20.21	20.33	20.69	20.81	26.67	30.00	PASS
	48/5240	20.51	20.63	20.93	21.05	20.18	20.30	20.11	20.23	26.59	30.00	PASS
802.11n HT20	36/5180	20.61	20.73	20.82	20.94	20.11	20.23	20.62	20.74	26.69	30.00	PASS
	44/5220	20.29	20.41	20.25	20.37	20.19	20.31	20.69	20.81	26.50	30.00	PASS
	48/5240	20.83	20.95	20.61	20.73	20.18	20.30	20.62	20.74	26.71	30.00	PASS
802.11n HT40	38/5190	23.42	23.54	23.16	23.28	23.26	23.38	23.26	23.38	29.41	30.00	PASS
	46/5230	23.26	23.38	23.49	23.61	23.09	23.21	23.14	23.26	29.38	30.00	PASS
802.11ac VHT20	36/5180	20.57	20.99	20.15	20.57	20.54	20.96	21.13	21.55	27.05	30.00	PASS
	44/5220	20.43	20.85	20.12	20.54	20.82	21.24	21.09	21.51	27.07	30.00	PASS
	48/5240	20.96	21.38	20.81	21.23	20.63	21.05	20.66	21.08	27.21	30.00	PASS
802.11ac VHT40	38/5190	23.22	23.64	23.15	23.57	23.05	23.47	23.58	24.00	29.70	30.00	PASS
	46/5230	23.45	23.87	23.26	23.68	23.07	23.49	23.14	23.56	29.68	30.00	PASS
802.11ac VHT80	42/5210	17.21	17.63	16.95	17.37	17.32	17.74	17.48	17.90	23.69	30.00	PASS
802.11ax HE20	36/5180	19.12	19.26	19.03	19.17	19.46	19.60	20.65	20.79	25.78	30.00	PASS
	44/5220	20.68	20.81	19.91	20.04	20.44	20.57	20.08	20.21	26.43	30.00	PASS
	48/5240	21.06	21.19	20.93	21.06	20.23	20.36	20.92	21.05	26.94	30.00	PASS
802.11ax HE40	38/5190	21.04	21.18	21.01	21.15	21.28	21.42	21.51	21.65	27.37	30.00	PASS
	46/5230	23.36	23.50	23.40	23.54	23.06	23.20	23.41	23.55	29.47	30.00	PASS
802.11ax HE80	42/5210	18.52	18.52	17.63	17.63	17.94	17.94	18.34	18.34	24.14	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 that the directional gain = 5.96dBi<6dBi. So the power limit is 30dBm.



U-NII-2A

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	52/5260	14.71	14.83	14.64	14.76	14.21	14.33	15.13	15.25	20.83	23.87	PASS
	60/5300	14.52	14.64	14.49	14.61	14.22	14.34	15.02	15.14	20.72	23.90	PASS
	64/5320	14.91	15.03	14.75	14.87	14.17	14.29	14.85	14.97	20.82	23.91	PASS
802.11n HT20	52/5260	14.56	14.68	14.83	14.95	14.36	14.48	14.73	14.85	20.77	23.99	PASS
	60/5300	14.64	14.76	14.81	14.93	14.28	14.40	14.41	14.53	20.68	24.00	PASS
	64/5320	14.57	14.69	14.38	14.50	14.05	14.17	14.62	14.74	20.55	23.96	PASS
802.11n HT40	54/5270	17.51	17.63	17.40	17.52	16.93	17.05	17.76	17.88	23.55	24.00	PASS
	62/5310	17.22	17.34	17.26	17.38	16.80	16.92	17.44	17.56	23.32	24.00	PASS
802.11ac VHT20	52/5260	14.43	14.85	14.49	14.91	14.06	14.48	14.83	15.25	20.90	23.92	PASS
	60/5300	14.17	14.59	14.23	14.65	13.75	14.17	14.72	15.14	20.67	23.94	PASS
	64/5320	14.68	15.10	14.62	15.04	14.13	14.55	14.83	15.25	21.02	23.96	PASS
802.11ac VHT40	54/5270	17.56	17.98	17.00	17.42	17.29	17.71	17.15	17.57	23.70	24.00	PASS
	62/5310	17.49	17.91	17.35	17.77	17.06	17.48	17.71	18.13	23.85	24.00	PASS
802.11ac VHT80	58/5290	17.16	17.58	17.28	17.70	16.74	17.16	17.49	17.91	23.62	24.00	PASS
802.11ax HE20	52/5260	15.49	15.62	15.62	15.75	15.02	15.15	15.91	16.04	21.67	24.00	PASS
	60/5300	15.28	15.41	15.21	15.34	14.86	14.99	15.82	15.95	21.45	24.00	PASS
	64/5320	15.61	15.74	15.34	15.47	15.03	15.16	15.56	15.69	21.54	24.00	PASS
802.11ax HE40	54/5270	15.01	15.01	14.91	14.91	14.52	14.52	14.72	14.72	20.81	24.00	PASS
	62/5310	14.92	14.92	14.63	14.63	14.36	14.36	14.79	14.79	20.70	24.00	PASS
802.11ax HE80	58/5290	17.13	17.13	17.36	17.36	17.22	17.22	17.63	17.63	23.36	24.00	PASS

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

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



U-NII-2C

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	100/5500	13.34	13.46	13.01	13.13	13.15	13.27	13.93	14.05	19.52	23.88	PASS
	120/5600	15.05	15.17	14.01	14.13	13.95	14.07	13.91	14.03	20.40	23.90	PASS
	140/5700	13.82	13.94	13.68	13.80	13.26	13.38	13.24	13.36	19.65	23.94	PASS
	144/5720	14.29	14.41	14.42	14.54	14.05	14.17	14.02	14.14	20.34	23.87	PASS
802.11n HT20	100/5500	14.72	14.84	14.05	14.17	14.13	14.25	14.42	14.54	20.48	23.89	PASS
	120/5600	15.72	15.84	14.37	14.49	14.42	14.54	14.38	14.50	20.91	23.97	PASS
	140/5700	14.19	14.31	13.72	13.84	13.75	13.87	13.61	13.73	19.97	24.00	PASS
	144/5720	15.10	15.22	15.18	15.30	14.36	14.48	14.48	14.60	20.94	23.98	PASS
802.11n HT40	102/5510	17.93	18.05	17.10	17.22	16.95	17.07	16.92	17.04	23.38	24.00	PASS
	118/5590	17.02	17.14	16.42	16.54	16.22	16.34	16.28	16.40	22.63	24.00	PASS
	134/5670	17.76	17.88	17.06	17.18	16.88	17.00	16.82	16.94	23.28	24.00	PASS
	142/5710	17.25	17.37	17.11	17.23	16.87	16.99	16.96	17.08	23.19	24.00	PASS
802.11ac VHT20	100/5500	14.09	14.51	13.82	14.24	14.09	14.51	14.47	14.89	20.57	23.91	PASS
	120/5600	14.92	15.34	14.03	14.45	14.45	14.87	14.58	15.00	20.95	23.88	PASS
	140/5700	13.18	13.60	13.28	13.70	12.97	13.39	12.97	13.39	19.54	23.94	PASS
	144/5720	14.31	14.73	14.58	15.00	14.18	14.60	14.15	14.57	20.75	23.94	PASS
802.11ac VHT40	102/5510	17.08	17.50	16.97	17.39	16.92	17.34	17.41	17.83	23.54	24.00	PASS
	118/5590	16.82	17.24	15.97	16.39	15.94	16.36	15.61	16.03	22.55	24.00	PASS
	134/5670	17.42	17.84	17.03	17.45	16.18	16.60	16.14	16.56	23.17	24.00	PASS
	142/5710	17.03	17.45	17.19	17.61	17.02	17.44	16.85	17.27	23.47	24.00	PASS
802.11ac VHT80	106/5530	15.11	15.53	14.23	14.65	13.95	14.37	14.52	14.94	20.92	24.00	PASS
	122/5610	18.37	18.79	16.95	17.37	17.06	17.48	17.18	17.60	23.87	24.00	PASS
	138/5690	18.15	18.57	17.48	17.90	16.13	16.55	16.48	16.90	23.58	24.00	PASS
802.11ax HE20	100/5500	12.02	12.16	11.93	12.07	12.05	12.19	12.53	12.67	18.30	24.00	PASS
	120/5600	15.83	15.96	15.09	15.22	15.26	15.39	15.34	15.47	21.53	24.00	PASS
	140/5700	15.30	15.43	15.21	15.34	14.99	15.12	15.25	15.38	21.33	24.00	PASS
	144/5720	15.91	16.04	15.68	15.81	15.05	15.18	15.08	15.21	21.59	24.00	PASS
802.11ax HE40	102/5510	17.83	17.97	17.14	17.28	17.14	17.28	17.13	17.27	23.48	24.00	PASS
	118/5590	17.88	18.02	16.79	16.93	16.91	17.05	17.24	17.38	23.39	24.00	PASS
	134/5670	17.46	17.60	17.34	17.48	17.33	17.47	17.11	17.25	23.47	24.00	PASS
	142/5710	17.64	17.78	17.31	17.45	17.03	17.17	17.22	17.36	23.47	24.00	PASS



802.11ax HE80	106/5530	17.52	17.52	17.23	17.23	17.01	17.01	17.12	17.12	23.24	24.00	PASS
	122/5610	17.87	17.87	16.81	16.81	16.95	16.95	17.19	17.19	23.25	24.00	PASS
	138/5690	18.01	18.01	17.52	17.52	16.88	16.88	16.83	16.83	23.36	24.00	PASS

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

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

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Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		MIMO Antenna3		MIMO Antenna4		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	149/5745	23.18	23.30	23.62	23.74	23.89	24.01	23.96	24.08	29.82	30.00	PASS
	157/5785	23.22	23.34	23.08	23.20	22.73	22.85	23.08	23.20	29.18	30.00	PASS
	165/5825	23.21	23.33	23.10	23.22	22.79	22.91	23.35	23.47	29.26	30.00	PASS
802.11n HT20	149/5745	21.93	22.05	22.28	22.40	22.23	22.35	22.81	22.93	28.47	30.00	PASS
	157/5785	23.15	23.27	23.21	23.33	22.76	22.88	23.02	23.14	29.18	30.00	PASS
	165/5825	23.42	23.54	23.42	23.54	22.12	22.24	22.73	22.85	29.10	30.00	PASS
802.11n HT40	151/5755	23.01	23.13	23.26	23.38	23.44	23.56	23.68	23.80	29.49	30.00	PASS
	159/5795	23.13	23.25	23.07	23.19	22.85	22.97	23.12	23.24	29.18	30.00	PASS
802.11ac VHT20	149/5745	22.93	23.35	22.15	22.57	22.51	22.93	22.45	22.87	28.96	30.00	PASS
	157/5785	23.09	23.51	23.06	23.48	22.59	23.01	23.03	23.45	29.39	30.00	PASS
	165/5825	23.57	23.99	23.47	23.89	22.03	22.45	22.63	23.05	29.41	30.00	PASS
802.11ac VHT40	151/5755	23.18	23.60	23.39	23.81	23.52	23.94	23.71	24.13	29.90	30.00	PASS
	159/5795	23.04	23.46	22.88	23.30	22.24	22.66	22.96	23.38	29.23	30.00	PASS
802.11ac VHT80	155/5775	22.63	23.05	23.78	24.20	22.63	23.05	22.91	23.33	29.46	30.00	PASS
802.11ax HE20	149/5745	23.75	23.88	23.68	23.81	23.99	24.12	23.42	23.55	29.86	30.00	PASS
	157/5785	23.49	23.62	23.49	23.62	23.17	23.30	23.46	23.59	29.55	30.00	PASS
	165/5825	23.56	23.69	23.56	23.69	22.44	22.57	22.85	22.98	29.27	30.00	PASS
802.11ax HE40	151/5755	23.64	23.78	23.64	23.78	23.57	23.71	23.30	23.44	29.70	30.00	PASS
	159/5795	23.25	23.39	23.46	23.60	22.91	23.05	23.06	23.20	29.33	30.00	PASS
802.11ax HE80	155/5775	23.02	23.02	23.01	23.01	22.79	22.79	23.06	23.06	28.99	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 that the directional gain = 5.96dBi<6dBi. So the power limit is 30dBm.

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 than 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 $k = 2$, $U = 936\text{Hz}$

**Test Results****INPAQ :**

Voltage (V)	Temperature (°C)	U-NII-1 Test Results			
		5200MHz			
		1min	2min	5min	10min
12	-20	5199.998040	5199.994964	5199.989776	5199.987054
12	-10	5200.005617	5199.985319	5199.981657	5199.978175
12	0	5199.995665	5199.980483	5199.981074	5199.968399
12	10	5199.990437	5199.979793	5199.972692	5199.958906
12	20	5199.988412	5199.978605	5199.971947	5199.958702
12	30	5199.983022	5199.976193	5199.971767	5199.950091
12	40	5199.978742	5199.974363	5199.964998	5199.940349
12	50	5199.976027	5199.964987	5199.962383	5199.935515
10	20	5199.966332	5199.955575	5199.962015	5199.927918
14	20	5199.965669	5199.946354	5199.958916	5199.925983
MHz		-0.034331	-0.053646	-0.041084	-0.074017
PPM		-6.602202	-10.316543	-7.900701	-14.234013

Voltage (V)	Temperature (°C)	U-NII-2A Test Results			
		5300MHz			
		1min	2min	5min	10min
12	-20	5300.004664	5300.004581	5299.999831	5299.996311
12	-10	5299.997564	5299.996138	5299.991296	5299.987901
12	0	5299.991204	5299.986520	5299.987171	5299.978753
12	10	5299.982847	5299.984436	5299.986063	5299.975772
12	20	5299.980479	5299.978560	5299.985745	5299.973804
12	30	5299.974910	5299.976440	5299.983918	5299.968612
12	40	5299.967949	5299.967822	5299.977773	5299.962094
12	50	5299.960572	5299.962808	5299.973214	5299.956708
10	20	5299.955169	5299.955395	5299.966797	5299.947523
14	20	5299.947839	5299.947146	5299.964977	5299.940931
MHz		-0.052161	-0.052854	-0.035023	-0.059069
PPM		-9.841715	-9.972542	-6.608137	-11.145147



Voltage (V)	Temperature (°C)	U-NII-2C Test Results			
		5580MHz			
		1min	2min	5min	10min
12	-20	5579.995889	5579.993564	5579.990951	5579.982137
12	-10	5579.990920	5579.988986	5579.987441	5579.973986
12	0	5579.990362	5579.980022	5579.982402	5579.967020
12	10	5579.988022	5579.976480	5579.972708	5579.961035
12	20	5579.984561	5579.967835	5579.964593	5579.951759
12	30	5579.983056	5579.958076	5579.959441	5579.945578
12	40	5579.973550	5579.948517	5579.955296	5579.944264
12	50	5579.967968	5579.940965	5579.955237	5579.943371
10	20	5579.966101	5579.932511	5579.950056	5579.939905
14	20	5579.965428	5579.928635	5579.947606	5579.934199
MHz		-0.034572	-0.071365	-0.052394	-0.065801
PPM		-6.195682	-12.789484	-9.389695	-11.792280

Voltage (V)	Temperature (°C)	U-NII-3 Test Results			
		5785MHz			
		1min	2min	5min	10min
12	-20	5784.995530	5784.989168	5784.982324	5784.981552
12	-10	5784.991125	5784.984862	5784.978466	5784.975767
12	0	5784.981879	5784.980048	5784.971145	5784.967888
12	10	5784.980267	5784.970902	5784.962729	5784.962472
12	20	5784.973679	5784.967883	5784.956198	5784.960297
12	30	5784.965344	5784.961011	5784.947240	5784.952126
12	40	5784.957659	5784.958735	5784.941418	5784.944153
12	50	5784.948204	5784.950245	5784.934164	5784.938755
10	20	5784.942629	5784.941428	5784.929207	5784.932122
14	20	5784.940606	5784.937147	5784.927805	5784.931683
MHz		-0.059394	-0.062853	-0.072195	-0.068317
PPM		-10.266863	-10.864879	-12.479656	-11.809315



Galtronics:

Voltage (V)	Temperature (°C)	U-NII-1 Test Results			
		5200MHz			
		1min	2min	5min	10min
12	-20	5199.998040	5199.994964	5199.989776	5199.987054
12	-10	5200.005617	5199.985319	5199.981657	5199.978175
12	0	5199.995665	5199.980483	5199.981074	5199.968399
12	10	5199.990437	5199.979793	5199.972692	5199.958906
12	20	5199.988412	5199.978605	5199.971947	5199.958702
12	30	5199.983022	5199.976193	5199.971767	5199.950091
12	40	5199.978742	5199.974363	5199.964998	5199.940349
12	50	5199.976027	5199.964987	5199.962383	5199.935515
10	20	5199.966332	5199.955575	5199.962015	5199.927918
14	20	5199.965669	5199.946354	5199.958916	5199.925983
MHz		-0.034331	-0.053646	-0.041084	-0.074017
PPM		-6.602202	-10.316543	-7.900701	-14.234013

Voltage (V)	Temperature (°C)	U-NII-2A Test Results			
		5300MHz			
		1min	2min	5min	10min
12	-20	5300.004664	5300.004581	5299.999831	5299.996311
12	-10	5299.997564	5299.996138	5299.991296	5299.987901
12	0	5299.991204	5299.986520	5299.987171	5299.978753
12	10	5299.982847	5299.984436	5299.986063	5299.975772
12	20	5299.980479	5299.978560	5299.985745	5299.973804
12	30	5299.974910	5299.976440	5299.983918	5299.968612
12	40	5299.967949	5299.967822	5299.977773	5299.962094
12	50	5299.960572	5299.962808	5299.973214	5299.956708
10	20	5299.955169	5299.955395	5299.966797	5299.947523
14	20	5299.947839	5299.947146	5299.964977	5299.940931
MHz		-0.052161	-0.052854	-0.035023	-0.059069
PPM		-9.841715	-9.972542	-6.608137	-11.145147



Voltage (V)	Temperature (°C)	U-NII-2C Test Results			
		5580MHz			
		1min	2min	5min	10min
12	-20	5579.995889	5579.993564	5579.990951	5579.982137
12	-10	5579.990920	5579.988986	5579.987441	5579.973986
12	0	5579.990362	5579.980022	5579.982402	5579.967020
12	10	5579.988022	5579.976480	5579.972708	5579.961035
12	20	5579.984561	5579.967835	5579.964593	5579.951759
12	30	5579.983056	5579.958076	5579.959441	5579.945578
12	40	5579.973550	5579.948517	5579.955296	5579.944264
12	50	5579.967968	5579.940965	5579.955237	5579.943371
10	20	5579.966101	5579.932511	5579.950056	5579.939905
14	20	5579.965428	5579.928635	5579.947606	5579.934199
MHz		-0.034572	-0.071365	-0.052394	-0.065801
PPM		-6.195682	-12.789484	-9.389695	-11.792280

Voltage (V)	Temperature (°C)	U-NII-3 Test Results			
		5785MHz			
		1min	2min	5min	10min
12	-20	5784.995530	5784.989168	5784.982324	5784.981552
12	-10	5784.991125	5784.984862	5784.978466	5784.975767
12	0	5784.981879	5784.980048	5784.971145	5784.967888
12	10	5784.980267	5784.970902	5784.962729	5784.962472
12	20	5784.973679	5784.967883	5784.956198	5784.960297
12	30	5784.965344	5784.961011	5784.947240	5784.952126
12	40	5784.957659	5784.958735	5784.941418	5784.944153
12	50	5784.948204	5784.950245	5784.934164	5784.938755
10	20	5784.942629	5784.941428	5784.929207	5784.932122
14	20	5784.940606	5784.937147	5784.927805	5784.931683
MHz		-0.059394	-0.062853	-0.072195	-0.068317
PPM		-10.266863	-10.864879	-12.479656	-11.809315

5.4. Power Spectral Density

Ambient condition

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

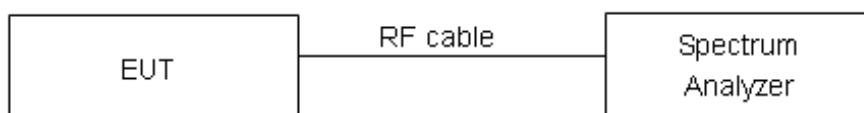
Method of Measurement

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

Set RBW = 1MHz, VBW =3MHz for the band 5.150-5.250GHz, 5.250-5.350GHz, 5.470-5.725GHz.
Set RBW = 470kHz, VBW =1.5MHz for the band 5.725-5.850GHz

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 500kHz 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.

Frequency Bands/MHz	Limits
5150-5250	17 dBm/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 $k = 2$, $U = 0.75\text{dB}$.

**Test Results:**

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

INPAQ :**MIMO without Beamforming****U-NII-1**

Mode	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	8.30	8.42	8.37	8.49	7.96	8.08	7.86	7.99	14.27	17	PASS
	40/5200	10.58	10.71	10.78	10.90	10.81	10.93	10.55	10.67	16.82	17	PASS
	48/5240	10.47	10.59	10.71	10.83	10.72	10.85	10.60	10.72	16.77	17	PASS
802.11n HT20	36/5180	10.50	10.63	10.87	10.99	10.39	10.51	10.25	10.37	16.65	17	PASS
	40/5200	10.52	10.65	10.39	10.51	10.40	10.52	10.25	10.37	16.54	17	PASS
	48/5240	10.38	10.50	10.49	10.61	10.09	10.21	9.99	10.11	16.38	17	PASS
802.11n HT40	38/5190	6.95	7.06	6.56	6.67	6.54	6.65	6.60	6.71	12.80	17	PASS
	46/5230	10.40	10.52	10.74	10.86	10.43	10.54	10.18	10.29	16.58	17	PASS
802.11ac VHT20	36/5180	10.72	11.14	10.42	10.84	10.29	10.72	10.36	10.78	16.89	17	PASS
	40/5200	10.30	10.72	10.61	11.03	10.70	11.12	10.45	10.87	16.96	17	PASS
	48/5240	10.49	10.91	10.32	10.74	10.46	10.88	10.10	10.52	16.79	17	PASS
802.11ac VHT40	38/5190	6.20	6.62	6.13	6.56	5.79	6.21	5.85	6.27	12.44	17	PASS
	46/5230	10.41	10.83	10.06	10.48	10.07	10.49	10.19	10.61	16.63	17	PASS
802.11ac VHT80	42/5210	1.474	1.90	1.73	2.16	1.87	2.29	1.76	2.18	8.15	17	PASS
802.11ax HE20	36/5180	10.77	10.90	10.62	10.75	10.94	11.06	10.64	10.77	16.89	17	PASS
	44/5220	10.40	10.52	10.25	10.38	10.17	10.30	10.09	10.22	16.38	17	PASS
	48/5240	10.69	10.81	10.36	10.49	10.04	10.17	10.95	11.07	16.67	17	PASS
802.11ax HE40	38/5190	7.44	7.58	7.59	7.72	7.43	7.57	7.25	7.39	13.59	17	PASS
	46/5230	9.77	9.91	9.85	9.99	9.68	9.82	9.46	9.60	15.85	17	PASS
802.11ax HE80	42/5210	3.604	3.60	3.68	3.68	3.62	3.62	3.60	3.60	9.65	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 that the directional gain = 2.98dBi<6dBi. So the PSD limit is 17dBm.



U-NII-2A

Mode	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	52/5260	4.90	5.02	4.58	4.71	4.29	4.42	4.11	4.23	10.62	11	PASS
	60/5300	4.73	4.86	4.78	4.90	4.83	4.96	4.89	5.01	10.95	11	PASS
	64/5320	4.76	4.88	4.64	4.76	5.00	5.13	4.80	4.92	10.94	11	PASS
802.11n HT20	52/5260	4.73	4.85	4.44	4.57	4.80	4.92	4.98	5.10	10.88	11	PASS
	60/5300	4.93	5.06	4.77	4.89	4.92	5.05	4.57	4.70	10.95	11	PASS
	64/5320	4.86	4.98	4.25	4.37	4.75	4.87	4.85	4.98	10.83	11	PASS
802.11n HT40	54/5270	4.83	4.95	4.57	4.69	4.92	5.03	4.85	4.97	10.93	11	PASS
	62/5310	4.61	4.73	4.84	4.96	4.78	4.89	4.99	5.11	10.94	11	PASS
802.11ac VHT20	52/5260	4.18	4.60	4.50	4.92	4.23	4.65	4.43	4.86	10.78	11	PASS
	60/5300	4.21	4.63	4.25	4.68	4.56	4.98	4.14	4.56	10.73	11	PASS
	64/5320	4.25	4.67	4.41	4.83	4.14	4.56	4.26	4.68	10.71	11	PASS
802.11ac VHT40	54/5270	4.31	4.73	4.12	4.54	4.44	4.86	4.53	4.95	10.79	11	PASS
	62/5310	4.03	4.45	4.39	4.81	4.46	4.89	4.10	4.52	10.69	11	PASS
802.11ac VHT80	58/5290	2.57	3.00	2.03	2.45	2.00	2.42	2.26	2.69	8.67	11	PASS
802.11ax HE20	52/5260	4.92	5.04	4.87	5.00	4.99	5.12	4.49	4.62	10.97	11	PASS
	60/5300	4.93	5.05	4.76	4.89	4.62	4.75	4.61	4.74	10.88	11	PASS
	64/5320	4.82	4.95	4.43	4.56	4.59	4.72	4.39	4.52	10.71	11	PASS
802.11ax HE40	54/5270	3.98	4.12	4.01	4.14	3.87	4.01	4.02	4.16	10.13	11	PASS
	62/5310	3.21	3.35	3.33	3.47	3.41	3.55	3.35	3.48	9.48	11	PASS
802.11ax HE80	58/5290	2.28	2.28	2.24	2.24	2.14	2.14	1.83	1.83	8.15	11	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density = $10 \log(10^{(\text{PSD antenna1 in dBm/10})} + 10^{(\text{PSD antenna2 in dBm/10})} + 10^{(\text{PSD antenna3 in dBm/10})} + 10^{(\text{PSD antenna4 in dBm/10})})$

2. The manufacturer declared that the directional gain = 2.98dBi < 6dBi. So the PSD limit is 11dBm.

U-NII-2C

Mode	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	100/5500	3.74	3.86	3.67	3.79	3.60	3.72	3.60	3.73	9.80	11	PASS



	120/5600	4.84	4.97	4.65	4.77	4.97	5.10	4.50	4.62	10.89	11	PASS
	140/5700	4.92	5.05	4.60	4.73	4.83	4.96	4.77	4.89	10.93	11	PASS
	144/5720	4.74	4.86	4.93	5.06	4.63	4.75	4.90	5.02	10.95	11	PASS
802.11n HT20	100/5500	2.02	2.14	1.65	1.77	2.12	2.24	2.13	2.25	8.13	11	PASS
	120/5600	4.47	4.60	4.41	4.53	4.44	4.56	4.45	4.57	10.58	11	PASS
	140/5700	4.48	4.60	4.49	4.61	4.71	4.84	4.57	4.69	10.71	11	PASS
	144/5720	4.91	5.03	4.42	4.54	4.56	4.69	4.52	4.65	10.75	11	PASS
802.11n HT40	102/5510	4.96	5.08	4.86	4.98	4.53	4.65	4.68	4.79	10.90	11	PASS
	118/5590	4.46	4.57	4.13	4.24	4.48	4.60	4.93	5.04	10.64	11	PASS
	134/5670	4.91	5.02	4.80	4.91	4.68	4.80	4.87	4.99	10.95	11	PASS
	142/5710	4.94	5.06	4.85	4.97	4.69	4.81	4.47	4.59	10.88	11	PASS
802.11ac VHT20	100/5500	2.08	2.51	2.04	2.46	2.10	2.52	2.11	2.53	8.52	11	PASS
	120/5600	4.58	5.00	4.46	4.88	4.44	4.87	4.27	4.69	10.88	11	PASS
	140/5700	4.43	4.85	4.49	4.91	4.36	4.78	4.51	4.93	10.89	11	PASS
	144/5720	4.15	4.57	4.57	4.99	4.52	4.94	4.60	5.02	10.91	11	PASS
802.11ac VHT40	102/5510	4.33	4.76	4.58	5.00	4.19	4.61	4.59	5.02	10.87	11	PASS
	118/5590	4.40	4.82	4.29	4.71	4.13	4.56	4.31	4.74	10.73	11	PASS
	134/5670	4.16	4.58	4.27	4.69	4.60	5.02	4.57	4.99	10.85	11	PASS
	142/5710	4.46	4.88	4.28	4.71	4.74	5.16	4.20	4.62	10.87	11	PASS
802.11ac VHT80	106/5530	2.06	2.49	2.17	2.60	1.95	2.37	1.95	2.37	8.48	11	PASS
	122/5610	2.14	2.56	2.22	2.64	1.92	2.34	1.64	2.06	8.43	11	PASS
	138/5690	2.52	2.94	3.05	3.47	2.88	3.31	2.84	3.27	9.27	11	PASS
802.11ax HE20	100/5500	4.92	5.05	4.99	5.11	4.76	4.89	4.52	4.65	10.95	11	PASS
	120/5600	4.57	4.70	4.51	4.63	4.70	4.83	4.78	4.91	10.79	11	PASS
	140/5700	4.75	4.87	5.01	5.13	4.89	5.02	4.63	4.75	10.97	11	PASS
	144/5720	5.11	5.24	4.79	4.91	4.53	4.65	4.47	4.59	10.88	11	PASS
802.11ax HE40	102/5510	3.89	4.03	3.87	4.01	3.96	4.10	3.47	3.61	9.96	11	PASS
	118/5590	4.33	4.47	4.69	4.83	4.51	4.65	4.39	4.52	10.64	11	PASS
	134/5670	3.35	3.49	3.41	3.55	3.32	3.46	3.26	3.40	9.50	11	PASS
	142/5710	4.07	4.21	3.82	3.96	4.30	4.44	3.92	4.06	10.19	11	PASS
802.11ax HE80	106/5530	1.63	1.63	1.40	1.40	1.17	1.17	1.54	1.54	7.46	11	PASS
	122/5610	1.28	1.28	1.09	1.09	1.08	1.08	0.76	0.76	7.08	11	PASS
	138/5690	1.41	1.41	1.32	1.32	0.86	0.86	1.10	1.10	7.20	11	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density = $10\log(10^{(\text{PSD antenna1 in dBm/10})} + 10^{(\text{PSD antenna2 in dBm/10})} + 10^{(\text{PSD antenna3 in dBm/10})} + 10^{(\text{PSD antenna4 in dBm/10})})$

2. The manufacturer declared that the directional gain = 2.98dBi < 6dBi. So the PSD limit is 11dBm.



U-NII-3

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)			
802.11a	149/5745	10.96	11.35	11.07	11.46	11.18	11.57	11.70	12.09	17.65	30	PASS
	157/5785	10.63	11.02	10.43	10.82	10.22	10.61	10.55	10.94	16.87	30	PASS
	165/5825	10.75	11.14	11.74	12.13	10.10	10.49	11.11	11.50	17.38	30	PASS
802.11n HT20	149/5745	10.57	10.96	10.96	11.35	11.45	11.84	11.41	11.80	17.53	30	PASS
	157/5785	10.61	11.00	10.25	10.64	10.08	10.47	10.25	10.64	16.72	30	PASS
	165/5825	10.67	11.06	10.90	11.29	9.25	9.64	10.05	10.44	16.68	30	PASS
802.11n HT40	151/5755	7.53	7.92	7.94	8.33	7.93	8.32	8.28	8.67	14.33	30	PASS
	159/5795	7.56	7.95	5.19	5.58	6.68	7.07	7.15	7.54	13.14	30	PASS
802.11ac VHT20	149/5745	10.27	10.96	10.78	11.47	11.16	11.85	11.31	12.00	17.61	30	PASS
	157/5785	10.31	11.00	10.17	10.86	9.90	10.59	10.35	11.04	16.90	30	PASS
	165/5825	10.76	11.45	10.73	11.42	9.55	10.24	9.66	10.35	16.93	30	PASS
802.11ac VHT40	151/5755	7.75	8.44	7.85	8.54	7.73	8.42	8.74	9.43	14.75	30	PASS
	159/5795	7.38	8.07	7.59	8.28	6.84	7.53	7.55	8.24	14.06	30	PASS
802.11ac VHT80	155/5775	4.38	5.07	4.42	5.11	4.65	5.34	4.32	5.01	11.16	30	PASS
802.11ax HE20	149/5745	9.89	10.29	10.38	10.78	10.61	11.01	10.68	11.08	16.82	30	PASS
	157/5785	8.59	8.99	9.91	10.31	9.52	9.92	9.81	10.21	15.90	30	PASS
	165/5825	10.68	11.08	10.46	10.86	9.20	9.60	9.33	9.73	16.38	30	PASS
802.11ax HE40	151/5755	7.35	7.76	7.39	7.80	7.99	8.40	8.10	8.51	14.15	30	PASS
	159/5795	7.46	7.87	7.36	7.77	6.55	6.96	7.81	8.22	13.75	30	PASS
802.11ax HE80	155/5775	4.57	4.84	4.69	4.96	4.18	4.45	4.74	5.01	10.84	30	PASS

Note: 1. PSD=Read Value+Duty cycle+10*LOG(500/470) 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 that the directional gain = 2.98dBi<6dBi. So the PSD limit is 30dBm.



MIMO with Beamforming

U-NII-1

Mode	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	8.12	8.25	8.09	8.21	8.20	8.32	8.00	8.12	14.25	17	PASS
	40/5200	10.09	10.21	10.42	10.55	10.45	10.57	10.09	10.21	16.41	17	PASS
	48/5240	10.69	10.81	10.51	10.63	10.73	10.85	10.54	10.66	16.76	17	PASS
802.11n HT20	36/5180	10.77	10.89	10.57	10.69	10.65	10.77	10.52	10.64	16.77	17	PASS
	40/5200	10.17	10.29	10.27	10.39	10.20	10.32	10.28	10.40	16.37	17	PASS
	48/5240	10.51	10.63	10.18	10.30	10.18	10.30	10.31	10.43	16.44	17	PASS
802.11n HT40	38/5190	6.17	6.28	6.20	6.32	6.20	6.31	6.18	6.29	12.32	17	PASS
	46/5230	10.74	10.86	10.26	10.37	10.35	10.47	10.30	10.41	16.55	17	PASS
802.11ac VHT20	36/5180	10.37	10.79	10.52	10.94	10.08	10.50	10.45	10.87	16.80	17	PASS
	40/5200	10.21	10.63	10.29	10.71	10.29	10.71	10.39	10.81	16.73	17	PASS
	48/5240	10.35	10.78	10.39	10.81	10.30	10.72	10.14	10.56	16.74	17	PASS
802.11ac VHT40	38/5190	6.09	6.51	6.13	6.55	5.86	6.29	6.02	6.44	12.47	17	PASS
	46/5230	10.36	10.78	10.31	10.73	10.06	10.48	10.47	10.89	16.74	17	PASS
802.11ac VHT80	42/5210	1.865	2.29	1.61	2.03	1.64	2.06	1.52	1.94	8.10	17	PASS
802.11ax HE20	36/5180	10.39	10.52	10.38	10.51	10.52	10.64	10.47	10.59	16.58	17	PASS
	44/5220	10.28	10.41	10.26	10.38	10.79	10.91	10.53	10.65	16.61	17	PASS
	48/5240	10.50	10.63	10.26	10.38	10.26	10.39	10.71	10.84	16.58	17	PASS
802.11ax HE40	38/5190	7.17	7.31	7.46	7.60	7.49	7.63	7.44	7.58	13.55	17	PASS
	46/5230	9.28	9.42	10.34	10.48	10.20	10.34	9.88	10.02	16.10	17	PASS
802.11ax HE80	42/5210	3.816	3.82	3.24	3.24	3.32	3.32	3.36	3.36	9.46	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 that the directional gain = 5.37dBi < 6dBi. So the PSD limit is 17dBm.



U-NII-2A

Mode	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	52/5260	4.58	4.70	4.51	4.63	4.34	4.47	4.73	4.85	10.69	11	PASS
	60/5300	4.79	4.91	4.75	4.87	4.55	4.67	4.53	4.66	10.80	11	PASS
	64/5320	4.38	4.50	4.52	4.64	4.66	4.78	4.30	4.42	10.61	11	PASS
802.11n HT20	52/5260	4.70	4.83	4.63	4.75	4.88	5.00	4.57	4.70	10.84	11	PASS
	60/5300	4.51	4.64	4.63	4.76	4.43	4.55	4.62	4.74	10.69	11	PASS
	64/5320	4.47	4.59	4.36	4.48	4.53	4.65	4.57	4.70	10.63	11	PASS
802.11n HT40	54/5270	4.64	4.76	4.43	4.55	4.80	4.92	4.59	4.71	10.76	11	PASS
	62/5310	4.55	4.66	4.87	4.98	4.70	4.81	4.73	4.84	10.85	11	PASS
802.11ac VHT20	52/5260	4.15	4.57	4.48	4.90	4.35	4.77	4.48	4.91	10.81	11	PASS
	60/5300	4.38	4.80	4.18	4.61	4.25	4.67	4.11	4.53	10.67	11	PASS
	64/5320	4.18	4.60	4.12	4.54	4.05	4.47	4.10	4.52	10.55	11	PASS
802.11ac VHT40	54/5270	4.05	4.47	4.00	4.42	4.33	4.76	4.37	4.79	10.63	11	PASS
	62/5310	4.29	4.71	4.42	4.84	4.33	4.75	4.15	4.57	10.74	11	PASS
802.11ac VHT80	58/5290	1.80	2.22	2.06	2.48	1.99	2.41	2.24	2.66	8.47	11	PASS
802.11ax HE20	52/5260	4.72	4.84	4.51	4.63	4.42	4.54	4.64	4.76	10.72	11	PASS
	60/5300	4.54	4.67	4.61	4.73	4.69	4.81	4.46	4.58	10.72	11	PASS
	64/5320	4.48	4.61	4.41	4.53	4.73	4.86	4.48	4.60	10.67	11	PASS
802.11ax HE40	54/5270	3.79	3.93	3.89	4.03	4.10	4.24	3.92	4.06	10.08	11	PASS
	62/5310	3.15	3.29	3.38	3.52	3.40	3.53	3.21	3.35	9.45	11	PASS
802.11ax HE80	58/5290	2.10	2.10	2.16	2.16	2.00	2.00	1.96	1.96	8.07	11	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density = $10 \log(10^{(\text{PSD antenna1 in dBm/10})} + 10^{(\text{PSD antenna2 in dBm/10})} + 10^{(\text{PSD antenna3 in dBm/10})} + 10^{(\text{PSD antenna4 in dBm/10})})$

2. The manufacturer declared that the directional gain = 5.37dBi < 6dBi. So the PSD limit is 11dBm.

U-NII-2C

Mode	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	100/5500	3.87	3.99	3.46	3.59	3.68	3.80	3.77	3.89	9.84	11	PASS



	120/5600	4.42	4.54	4.54	4.67	4.45	4.57	4.54	4.67	10.63	11	PASS
	140/5700	4.68	4.81	4.91	5.03	4.89	5.02	4.52	4.65	10.90	11	PASS
	144/5720	4.78	4.90	4.60	4.72	5.00	5.12	4.64	4.76	10.90	11	PASS
802.11n HT20	100/5500	1.90	2.03	1.96	2.08	2.00	2.12	2.00	2.12	8.11	11	PASS
	120/5600	4.40	4.52	4.20	4.32	4.64	4.76	4.33	4.45	10.54	11	PASS
	140/5700	4.45	4.58	4.50	4.63	4.48	4.61	4.20	4.32	10.55	11	PASS
	144/5720	4.60	4.73	4.63	4.76	4.62	4.75	4.56	4.69	10.75	11	PASS
802.11n HT40	102/5510	4.64	4.76	4.48	4.59	4.28	4.39	4.54	4.65	10.62	11	PASS
	118/5590	4.84	4.96	4.61	4.73	4.73	4.85	4.31	4.43	10.77	11	PASS
	134/5670	4.69	4.81	4.48	4.60	4.73	4.85	4.59	4.71	10.76	11	PASS
	142/5710	4.42	4.53	4.24	4.35	4.31	4.43	4.46	4.57	10.49	11	PASS
802.11ac VHT20	100/5500	2.02	2.44	2.18	2.61	2.20	2.62	2.25	2.67	8.60	11	PASS
	120/5600	4.18	4.60	4.53	4.95	4.16	4.58	4.17	4.59	10.70	11	PASS
	140/5700	4.76	5.19	4.50	4.92	4.28	4.70	4.54	4.96	10.97	11	PASS
	144/5720	4.89	5.31	4.52	4.94	4.30	4.72	4.50	4.92	11.00	11	PASS
802.11ac VHT40	102/5510	4.12	4.54	4.73	5.15	4.40	4.82	4.36	4.78	10.85	11	PASS
	118/5590	4.16	4.58	4.22	4.64	4.52	4.94	4.41	4.83	10.77	11	PASS
	134/5670	4.51	4.93	4.34	4.76	4.40	4.82	4.20	4.63	10.81	11	PASS
	142/5710	4.21	4.63	4.51	4.93	4.21	4.63	4.76	5.18	10.87	11	PASS
802.11ac VHT80	106/5530	2.03	2.45	1.92	2.34	1.99	2.41	1.89	2.32	8.40	11	PASS
	122/5610	2.33	2.75	2.14	2.57	2.17	2.60	2.15	2.58	8.64	11	PASS
	138/5690	2.73	3.15	2.42	2.84	2.52	2.94	2.30	2.72	8.94	11	PASS
802.11ax HE20	100/5500	4.77	4.89	4.58	4.71	4.68	4.80	4.61	4.73	10.80	11	PASS
	120/5600	4.78	4.90	4.82	4.94	4.74	4.86	4.59	4.71	10.88	11	PASS
	140/5700	4.79	4.91	4.40	4.52	5.11	5.24	4.96	5.09	10.97	11	PASS
	144/5720	4.73	4.85	4.49	4.62	4.51	4.63	4.56	4.69	10.72	11	PASS
802.11ax HE40	102/5510	3.72	3.85	3.45	3.58	3.48	3.62	3.19	3.33	9.62	11	PASS
	118/5590	4.43	4.57	4.31	4.45	4.09	4.22	4.10	4.24	10.39	11	PASS
	134/5670	3.23	3.36	3.14	3.28	3.15	3.29	3.12	3.26	9.32	11	PASS
	142/5710	4.07	4.21	3.82	3.96	4.41	4.55	4.12	4.26	10.27	11	PASS
802.11ax HE80	106/5530	1.10	1.10	1.35	1.35	1.25	1.25	1.16	1.16	7.24	11	PASS
	122/5610	1.11	1.11	1.42	1.42	1.44	1.44	1.22	1.22	7.32	11	PASS
	138/5690	1.65	1.65	1.56	1.56	1.41	1.41	1.34	1.34	7.51	11	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density = $10\log(10^{(\text{PSD antenna1 in dBm/10})} + 10^{(\text{PSD antenna2 in dBm/10})} + 10^{(\text{PSD antenna3 in dBm/10})} + 10^{(\text{PSD antenna4 in dBm/10})})$

2. The manufacturer declared that the directional gain = 5.37dBi < 6dBi. So the PSD limit is 11dBm.



U-NII-3

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)			
802.11a	149/5745	10.42	10.81	11.53	11.92	11.52	11.91	11.68	12.07	17.73	30	PASS
	157/5785	10.70	11.09	10.77	11.16	10.23	10.62	10.77	11.16	17.04	30	PASS
	165/5825	11.61	12.00	11.65	12.04	10.39	10.78	10.89	11.28	17.58	30	PASS
802.11n HT20	149/5745	10.36	10.75	10.77	11.16	11.31	11.70	11.25	11.64	17.35	30	PASS
	157/5785	10.40	10.79	10.37	10.76	9.90	10.29	10.34	10.73	16.67	30	PASS
	165/5825	10.50	10.89	10.73	11.12	9.36	9.75	10.29	10.68	16.66	30	PASS
802.11n HT40	151/5755	7.19	7.58	7.91	8.30	8.14	8.53	8.56	8.95	14.38	30	PASS
	159/5795	7.76	8.15	7.61	8.00	7.10	7.49	7.37	7.76	13.87	30	PASS
802.11ac VHT20	149/5745	10.75	11.44	11.16	11.85	11.09	11.78	11.34	12.03	17.80	30	PASS
	157/5785	10.33	11.02	10.37	11.06	10.22	10.91	10.60	11.29	17.10	30	PASS
	165/5825	10.91	11.60	10.84	11.53	9.14	9.83	9.82	10.51	16.95	30	PASS
802.11ac VHT40	151/5755	7.27	7.96	8.19	8.88	8.28	8.97	8.61	9.30	14.83	30	PASS
	159/5795	7.47	8.16	7.14	7.83	6.65	7.34	7.20	7.89	13.84	30	PASS
802.11ac VHT80	155/5775	4.32	5.01	4.06	4.75	4.67	5.36	4.56	5.25	11.12	30	PASS
802.11ax HE20	149/5745	10.27	10.67	10.19	10.59	11.04	11.44	11.54	11.94	17.21	30	PASS
	157/5785	10.26	10.66	10.44	10.84	10.02	10.42	10.68	11.08	16.77	30	PASS
	165/5825	10.58	10.98	10.41	10.81	9.21	9.61	9.73	10.13	16.43	30	PASS
802.11ax HE40	151/5755	7.35	7.76	7.55	7.96	8.37	8.78	8.60	9.01	14.43	30	PASS
	159/5795	7.74	8.15	7.05	7.46	7.06	7.47	6.87	7.28	13.62	30	PASS
802.11ax HE80	155/5775	4.52	4.79	4.10	4.37	4.12	4.39	4.76	5.03	10.67	30	PASS

Note: 1. PSD=Read Value+Duty cycle+10*LOG(500/470) 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 that the directional gain = 5.37dBi<6dBi. So the PSD limit is 30dBm.



Galtronics:

MIMO without Beamforming

U-NII-1

Mode	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	10.52	10.65	10.77	10.90	10.51	10.63	10.53	10.66	16.73	17	PASS
	40/5200	10.58	10.71	10.78	10.90	10.81	10.93	10.55	10.67	16.82	17	PASS
	48/5240	10.47	10.59	10.71	10.83	10.72	10.85	10.60	10.72	16.77	17	PASS
802.11n HT20	36/5180	10.50	10.63	10.87	10.99	10.39	10.51	10.25	10.37	16.65	17	PASS
	40/5200	10.52	10.65	10.39	10.51	10.40	10.52	10.25	10.37	16.54	17	PASS
	48/5240	10.38	10.50	10.49	10.61	10.09	10.21	9.99	10.11	16.38	17	PASS
802.11n HT40	38/5190	10.67	10.79	10.34	10.45	10.26	10.37	10.39	10.50	16.55	17	PASS
	46/5230	10.40	10.52	10.74	10.86	10.43	10.54	10.18	10.29	16.58	17	PASS
802.11ac VHT20	36/5180	10.72	11.14	10.42	10.84	10.29	10.72	10.36	10.78	16.89	17	PASS
	40/5200	10.30	10.72	10.61	11.03	10.70	11.12	10.45	10.87	16.96	17	PASS
	48/5240	10.49	10.91	10.32	10.74	10.46	10.88	10.10	10.52	16.79	17	PASS
802.11ac VHT40	38/5190	10.74	11.16	10.44	10.86	10.51	10.93	10.34	10.76	16.95	17	PASS
	46/5230	10.41	10.83	10.06	10.48	10.07	10.49	10.19	10.61	16.63	17	PASS
802.11ac VHT80	42/5210	0.698	1.12	0.62	1.04	0.46	0.88	0.45	0.87	7.00	17	PASS
802.11ax HE20	36/5180	8.64	8.76	8.57	8.69	8.09	8.21	8.57	8.70	14.62	17	PASS
	44/5220	10.40	10.52	10.25	10.38	10.17	10.30	10.09	10.22	16.38	17	PASS
	48/5240	10.69	10.81	10.36	10.49	10.04	10.17	10.95	11.07	16.67	17	PASS
802.11ax HE40	38/5190	7.44	7.58	7.59	7.72	7.43	7.57	7.25	7.39	13.59	17	PASS
	46/5230	9.77	9.91	9.85	9.99	9.68	9.82	9.46	9.60	15.85	17	PASS
802.11ax HE80	42/5210	0.81	0.81	1.06	1.06	1.51	1.51	0.70	0.70	7.05	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 that the directional gain = 2.23dBi < 6dBi. So the PSD limit is 17dBm.



U-NII-2A

Mode	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	52/5260	4.90	5.02	4.58	4.71	4.29	4.42	4.11	4.23	10.62	11	PASS
	60/5300	4.73	4.86	4.78	4.90	4.83	4.96	4.89	5.01	10.95	11	PASS
	64/5320	4.76	4.88	4.64	4.76	5.00	5.13	4.80	4.92	10.94	11	PASS
802.11n HT20	52/5260	4.73	4.85	4.44	4.57	4.80	4.92	4.98	5.10	10.88	11	PASS
	60/5300	4.93	5.06	4.77	4.89	4.92	5.05	4.57	4.70	10.95	11	PASS
	64/5320	4.86	4.98	4.25	4.37	4.75	4.87	4.85	4.98	10.83	11	PASS
802.11n HT40	54/5270	4.83	4.95	4.57	4.69	4.92	5.03	4.85	4.97	10.93	11	PASS
	62/5310	4.61	4.73	4.84	4.96	4.78	4.89	4.99	5.11	10.94	11	PASS
802.11ac VHT20	52/5260	4.18	4.60	4.50	4.92	4.23	4.65	4.43	4.86	10.78	11	PASS
	60/5300	4.21	4.63	4.25	4.68	4.56	4.98	4.14	4.56	10.73	11	PASS
	64/5320	4.25	4.67	4.41	4.83	4.14	4.56	4.26	4.68	10.71	11	PASS
802.11ac VHT40	54/5270	4.31	4.73	4.12	4.54	4.44	4.86	4.53	4.95	10.79	11	PASS
	62/5310	4.03	4.45	4.39	4.81	4.46	4.89	4.10	4.52	10.69	11	PASS
802.11ac VHT80	58/5290	2.57	3.00	2.03	2.45	2.00	2.42	2.26	2.69	8.67	11	PASS
802.11ax HE20	52/5260	4.92	5.04	4.87	5.00	4.99	5.12	4.49	4.62	10.97	11	PASS
	60/5300	4.93	5.05	4.76	4.89	4.62	4.75	4.61	4.74	10.88	11	PASS
	64/5320	4.82	4.95	4.43	4.56	4.59	4.72	4.39	4.52	10.71	11	PASS
802.11ax HE40	54/5270	1.07	1.21	1.13	1.27	1.35	1.49	1.28	1.42	7.37	11	PASS
	62/5310	1.21	1.35	1.22	1.36	1.39	1.53	0.91	1.05	7.35	11	PASS
802.11ax HE80	58/5290	2.28	2.28	2.24	2.24	2.14	2.14	1.83	1.83	8.15	11	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density = $10 \log(10^{(\text{PSD antenna1 in dBm/10})} + 10^{(\text{PSD antenna2 in dBm/10})} + 10^{(\text{PSD antenna3 in dBm/10})} + 10^{(\text{PSD antenna4 in dBm/10})})$

2. The manufacturer declared that the directional gain = 2.23dBi < 6dBi. So the PSD limit is 11dBm.

U-NII-2C

Mode	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	100/5500	4.90	5.02	4.79	4.92	4.70	4.82	4.64	4.76	10.90	11	PASS



	120/5600	4.84	4.97	4.65	4.77	4.97	5.10	4.50	4.62	10.89	11	PASS
	140/5700	4.76	4.89	4.67	4.79	4.65	4.77	4.59	4.71	10.81	11	PASS
	144/5720	4.74	4.86	4.93	5.06	4.63	4.75	4.90	5.02	10.95	11	PASS
802.11n HT20	100/5500	4.65	4.77	4.50	4.62	4.31	4.43	4.80	4.92	10.71	11	PASS
	120/5600	4.47	4.60	4.41	4.53	4.44	4.56	4.45	4.57	10.58	11	PASS
	140/5700	3.94	4.06	3.86	3.98	3.94	4.07	3.90	4.02	10.05	11	PASS
	144/5720	4.91	5.03	4.42	4.54	4.56	4.69	4.52	4.65	10.75	11	PASS
802.11n HT40	102/5510	4.96	5.08	4.86	4.98	4.53	4.65	4.68	4.79	10.90	11	PASS
	118/5590	4.46	4.57	4.13	4.24	4.48	4.60	4.93	5.04	10.64	11	PASS
	134/5670	4.91	5.02	4.80	4.91	4.68	4.80	4.87	4.99	10.95	11	PASS
	142/5710	4.94	5.06	4.85	4.97	4.69	4.81	4.47	4.59	10.88	11	PASS
802.11ac VHT20	100/5500	2.08	2.51	2.04	2.46	2.10	2.52	2.11	2.53	8.52	11	PASS
	120/5600	4.58	5.00	4.46	4.88	4.44	4.87	4.27	4.69	10.88	11	PASS
	140/5700	3.89	4.32	3.90	4.33	3.64	4.06	3.86	4.28	10.27	11	PASS
	144/5720	4.49	4.91	4.57	4.99	4.52	4.94	4.60	5.02	10.99	11	PASS
802.11ac VHT40	102/5510	4.33	4.76	4.58	5.00	4.19	4.61	4.59	5.02	10.87	11	PASS
	118/5590	4.40	4.82	4.29	4.71	4.13	4.56	4.31	4.74	10.73	11	PASS
	134/5670	4.16	4.58	4.27	4.69	4.60	5.02	4.57	4.99	10.85	11	PASS
	142/5710	4.46	4.88	4.28	4.71	4.74	5.16	4.20	4.62	10.87	11	PASS
802.11ac VHT80	106/5530	-1.85	-1.43	-2.05	-1.63	-2.29	-1.86	-2.20	-1.78	4.35	11	PASS
	122/5610	2.14	2.56	2.22	2.64	1.92	2.34	1.64	2.06	8.43	11	PASS
	138/5690	2.52	2.94	3.05	3.47	2.88	3.31	2.84	3.27	9.27	11	PASS
802.11ax HE20	100/5500	1.13	1.25	0.98	1.11	1.19	1.31	1.23	1.35	7.28	11	PASS
	120/5600	4.57	4.70	4.51	4.63	4.70	4.83	4.78	4.91	10.79	11	PASS
	140/5700	4.75	4.87	5.01	5.13	4.89	5.02	4.63	4.75	10.97	11	PASS
	144/5720	5.11	5.24	4.79	4.91	4.53	4.65	4.47	4.59	10.88	11	PASS
802.11ax HE40	102/5510	3.89	4.03	3.87	4.01	3.96	4.10	3.47	3.61	9.96	11	PASS
	118/5590	4.33	4.47	4.69	4.83	4.51	4.65	4.39	4.52	10.64	11	PASS
	134/5670	3.35	3.49	3.41	3.55	3.32	3.46	3.26	3.40	9.50	11	PASS
	142/5710	4.07	4.21	3.82	3.96	4.30	4.44	3.92	4.06	10.19	11	PASS
802.11ax HE80	106/5530	1.63	1.63	1.40	1.40	1.17	1.17	1.54	1.54	7.46	11	PASS
	122/5610	1.28	1.28	1.09	1.09	1.08	1.08	0.76	0.76	7.08	11	PASS
	138/5690	1.41	1.41	1.32	1.32	0.86	0.86	1.10	1.10	7.20	11	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density = $10\log(10^{(\text{PSD antenna1 in dBm/10})} + 10^{(\text{PSD antenna2 in dBm/10})} + 10^{(\text{PSD antenna3 in dBm/10})} + 10^{(\text{PSD antenna4 in dBm/10})})$

2. The manufacturer declared that the directional gain = 2.23dBi < 6dBi. So the PSD limit is 11dBm.



U-NII-3

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)			
802.11a	149/5745	10.96	11.35	11.07	11.46	11.18	11.57	11.70	12.09	17.65	30	PASS
	157/5785	10.63	11.02	10.43	10.82	10.22	10.61	10.55	10.94	16.87	30	PASS
	165/5825	10.75	11.14	11.74	12.13	10.10	10.49	11.11	11.50	17.38	30	PASS
802.11n HT20	149/5745	10.57	10.96	10.96	11.35	11.45	11.84	11.41	11.80	17.53	30	PASS
	157/5785	10.61	11.00	10.25	10.64	10.08	10.47	10.25	10.64	16.72	30	PASS
	165/5825	10.67	11.06	10.90	11.29	9.25	9.64	10.05	10.44	16.68	30	PASS
802.11n HT40	151/5755	7.53	7.92	7.94	8.33	7.93	8.32	8.28	8.67	14.33	30	PASS
	159/5795	7.56	7.95	5.19	5.58	6.68	7.07	7.15	7.54	13.14	30	PASS
802.11ac VHT20	149/5745	10.27	10.96	10.78	11.47	11.16	11.85	11.31	12.00	17.61	30	PASS
	157/5785	10.31	11.00	10.17	10.86	9.90	10.59	10.35	11.04	16.90	30	PASS
	165/5825	10.76	11.45	10.73	11.42	9.55	10.24	9.66	10.35	16.93	30	PASS
802.11ac VHT40	151/5755	7.75	8.44	7.85	8.54	7.73	8.42	8.74	9.43	14.75	30	PASS
	159/5795	7.38	8.07	7.59	8.28	6.84	7.53	7.55	8.24	14.06	30	PASS
802.11ac VHT80	155/5775	4.38	5.07	4.42	5.11	4.65	5.34	4.32	5.01	11.16	30	PASS
802.11ax HE20	149/5745	9.89	10.29	10.38	10.78	10.61	11.01	10.68	11.08	16.82	30	PASS
	157/5785	8.59	8.99	9.91	10.31	9.52	9.92	9.81	10.21	15.90	30	PASS
	165/5825	10.68	11.08	10.46	10.86	9.20	9.60	9.33	9.73	16.38	30	PASS
802.11ax HE40	151/5755	7.35	7.76	7.39	7.80	7.99	8.40	8.10	8.51	14.15	30	PASS
	159/5795	7.46	7.87	7.36	7.77	6.55	6.96	7.81	8.22	13.75	30	PASS
802.11ax HE80	155/5775	4.57	4.84	4.69	4.96	4.18	4.45	4.74	5.01	10.84	30	PASS

Note: 1. PSD=Read Value+Duty cycle+10*LOG(500/470) 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 that the directional gain = 2.23dBi<6dBi. So the PSD limit is 30dBm.



MIMO with Beamforming

U-NII-1

Mode	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	10.75	10.87	10.61	10.73	10.40	10.53	10.38	10.51	16.68	17	PASS
	40/5200	10.09	10.21	10.42	10.55	10.45	10.57	10.09	10.21	16.41	17	PASS
	48/5240	10.69	10.81	10.51	10.63	10.73	10.85	10.54	10.66	16.76	17	PASS
802.11n HT20	36/5180	10.77	10.89	10.57	10.69	10.65	10.77	10.52	10.64	16.77	17	PASS
	40/5200	10.17	10.29	10.27	10.39	10.20	10.32	10.28	10.40	16.37	17	PASS
	48/5240	10.51	10.63	10.18	10.30	10.18	10.30	10.31	10.43	16.44	17	PASS
802.11n HT40	38/5190	10.28	10.39	10.25	10.36	10.52	10.64	10.39	10.51	16.50	17	PASS
	46/5230	10.74	10.86	10.26	10.37	10.35	10.47	10.30	10.41	16.55	17	PASS
802.11ac VHT20	36/5180	10.37	10.79	10.52	10.94	10.08	10.50	10.45	10.87	16.80	17	PASS
	40/5200	10.21	10.63	10.29	10.71	10.29	10.71	10.39	10.81	16.73	17	PASS
	48/5240	10.35	10.78	10.39	10.81	10.30	10.72	10.14	10.56	16.74	17	PASS
802.11ac VHT40	38/5190	10.29	10.71	10.49	10.91	10.30	10.72	10.58	11.00	16.86	17	PASS
	46/5230	10.36	10.78	10.31	10.73	10.06	10.48	10.47	10.89	16.74	17	PASS
802.11ac VHT80	42/5210	0.408	0.83	0.43	0.85	0.42	0.84	0.50	0.93	6.88	17	PASS
802.11ax HE20	36/5180	8.50	8.63	8.67	8.80	8.40	8.53	8.62	8.75	14.70	17	PASS
	44/5220	10.28	10.41	10.26	10.38	10.79	10.91	10.53	10.65	16.61	17	PASS
	48/5240	10.50	10.63	10.26	10.38	10.26	10.39	10.71	10.84	16.58	17	PASS
802.11ax HE40	38/5190	7.17	7.31	7.46	7.60	7.49	7.63	7.44	7.58	13.55	17	PASS
	46/5230	9.28	9.42	10.34	10.48	10.20	10.34	9.88	10.02	16.10	17	PASS
802.11ax HE80	42/5210	0.43	0.43	0.81	0.81	0.81	0.81	0.80	0.80	6.74	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 that the directional gain = 5.96dBi < 6dBi. So the PSD limit is 17dBm.



U-NII-2A

Mode	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	52/5260	4.58	4.70	4.51	4.63	4.34	4.47	4.73	4.85	10.69	11	PASS
	60/5300	4.79	4.91	4.75	4.87	4.55	4.67	4.53	4.66	10.80	11	PASS
	64/5320	4.38	4.50	4.52	4.64	4.66	4.78	4.30	4.42	10.61	11	PASS
802.11n HT20	52/5260	4.70	4.83	4.63	4.75	4.88	5.00	4.57	4.70	10.84	11	PASS
	60/5300	4.51	4.64	4.63	4.76	4.43	4.55	4.62	4.74	10.69	11	PASS
	64/5320	4.47	4.59	4.36	4.48	4.53	4.65	4.57	4.70	10.63	11	PASS
802.11n HT40	54/5270	4.64	4.76	4.43	4.55	4.80	4.92	4.59	4.71	10.76	11	PASS
	62/5310	4.55	4.66	4.87	4.98	4.70	4.81	4.73	4.84	10.85	11	PASS
802.11ac VHT20	52/5260	4.15	4.57	4.48	4.90	4.35	4.77	4.48	4.91	10.81	11	PASS
	60/5300	4.38	4.80	4.18	4.61	4.25	4.67	4.11	4.53	10.67	11	PASS
	64/5320	4.18	4.60	4.12	4.54	4.05	4.47	4.10	4.52	10.55	11	PASS
802.11ac VHT40	54/5270	4.05	4.47	4.00	4.42	4.33	4.76	4.37	4.79	10.63	11	PASS
	62/5310	4.54	4.96	4.44	4.86	4.54	4.96	4.33	4.75	10.91	11	PASS
802.11ac VHT80	58/5290	1.80	2.22	2.06	2.48	1.99	2.41	2.24	2.66	8.47	11	PASS
802.11ax HE20	52/5260	4.72	4.84	4.51	4.63	4.42	4.54	4.64	4.76	10.72	11	PASS
	60/5300	4.54	4.67	4.61	4.73	4.69	4.81	4.46	4.58	10.72	11	PASS
	64/5320	4.48	4.61	4.41	4.53	4.73	4.86	4.48	4.60	10.67	11	PASS
802.11ax HE40	54/5270	1.47	1.61	1.03	1.17	1.21	1.35	1.10	1.24	7.36	11	PASS
	62/5310	0.70	0.84	0.92	1.05	0.86	1.00	0.94	1.07	7.01	11	PASS
802.11ax HE80	58/5290	2.10	2.10	2.16	2.16	2.00	2.00	1.96	1.96	8.07	11	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density = $10 \log(10^{(\text{PSD antenna1 in dBm/10})} + 10^{(\text{PSD antenna2 in dBm/10})} + 10^{(\text{PSD antenna3 in dBm/10})} + 10^{(\text{PSD antenna4 in dBm/10})})$

2. The manufacturer declared that the directional gain = 5.96dBi < 6dBi. So the PSD limit is 11dBm.

U-NII-2C

Mode	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	100/5500	4.83	4.96	4.64	4.76	4.68	4.81	4.63	4.75	10.84	11	PASS



	120/5600	4.42	4.54	4.54	4.67	4.45	4.57	4.54	4.67	10.63	11	PASS
	140/5700	4.47	4.60	4.49	4.62	4.53	4.66	4.34	4.46	10.60	11	PASS
	144/5720	4.78	4.90	4.60	4.72	5.00	5.12	4.64	4.76	10.90	11	PASS
802.11n HT20	100/5500	4.77	4.89	4.72	4.84	4.67	4.79	4.71	4.83	10.86	11	PASS
	120/5600	4.40	4.52	4.20	4.32	4.64	4.76	4.33	4.45	10.54	11	PASS
	140/5700	3.82	3.94	3.78	3.91	3.98	4.10	3.59	3.71	9.94	11	PASS
	144/5720	4.60	4.73	4.63	4.76	4.62	4.75	4.56	4.69	10.75	11	PASS
802.11n HT40	102/5510	4.64	4.76	4.48	4.59	4.28	4.39	4.54	4.65	10.62	11	PASS
	118/5590	4.84	4.96	4.61	4.73	4.73	4.85	4.31	4.43	10.77	11	PASS
	134/5670	4.69	4.81	4.48	4.60	4.73	4.85	4.59	4.71	10.76	11	PASS
	142/5710	4.42	4.53	4.24	4.35	4.31	4.43	4.46	4.57	10.49	11	PASS
802.11ac VHT20	100/5500	2.02	2.44	2.18	2.61	2.20	2.62	2.25	2.67	8.60	11	PASS
	120/5600	4.18	4.60	4.53	4.95	4.16	4.58	4.17	4.59	10.70	11	PASS
	140/5700	3.70	4.12	3.48	3.90	3.81	4.24	3.98	4.40	10.19	11	PASS
	144/5720	4.89	5.31	4.52	4.94	4.30	4.72	4.50	4.92	11.00	11	PASS
802.11ac VHT40	102/5510	4.12	4.54	4.73	5.15	4.40	4.82	4.36	4.78	10.85	11	PASS
	118/5590	4.16	4.58	4.22	4.64	4.52	4.94	4.41	4.83	10.77	11	PASS
	134/5670	4.51	4.93	4.34	4.76	4.40	4.82	4.20	4.63	10.81	11	PASS
	142/5710	4.21	4.63	4.51	4.93	4.72	5.14	4.76	5.18	11.00	11	PASS
802.11ac VHT80	106/5530	-2.02	-1.60	-2.40	-1.98	-2.25	-1.82	-2.24	-1.82	4.22	11	PASS
	122/5610	2.33	2.75	2.14	2.57	2.17	2.60	2.15	2.58	8.64	11	PASS
	138/5690	2.73	3.15	2.42	2.84	2.52	2.94	2.30	2.72	8.94	11	PASS
802.11ax HE20	100/5500	1.05	1.17	0.92	1.04	1.13	1.25	1.29	1.41	7.24	11	PASS
	120/5600	4.78	4.90	4.82	4.94	4.74	4.86	4.59	4.71	10.88	11	PASS
	140/5700	4.79	4.91	4.40	4.52	5.11	5.24	4.96	5.09	10.97	11	PASS
	144/5720	4.73	4.85	4.49	4.62	4.51	4.63	4.56	4.69	10.72	11	PASS
802.11ax HE40	102/5510	3.72	3.85	3.45	3.58	3.48	3.62	3.19	3.33	9.62	11	PASS
	118/5590	4.43	4.57	4.31	4.45	4.09	4.22	4.10	4.24	10.39	11	PASS
	134/5670	3.23	3.36	3.14	3.28	3.15	3.29	3.12	3.26	9.32	11	PASS
	142/5710	4.07	4.21	3.82	3.96	4.41	4.55	4.12	4.26	10.27	11	PASS
802.11ax HE80	106/5530	1.10	1.10	1.35	1.35	1.25	1.25	1.16	1.16	7.24	11	PASS
	122/5610	1.11	1.11	1.42	1.42	1.44	1.44	1.22	1.22	7.32	11	PASS
	138/5690	1.65	1.65	1.56	1.56	1.41	1.41	1.34	1.34	7.51	11	PASS

Note: 1. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a), the power spectral density = $10\log(10^{(\text{PSD antenna1 in dBm/10})} + 10^{(\text{PSD antenna2 in dBm/10})} + 10^{(\text{PSD antenna3 in dBm/10})} + 10^{(\text{PSD antenna4 in dBm/10})})$

2. The manufacturer declared that the directional gain = 5.96dBi < 6dBi. So the PSD limit is 11dBm.



U-NII-3

Mode	Channel/ Frequency (MHz)	Power Spectral Density									Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Antenna 3		Antenna 4		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 500kHz)			
802.11a	149/5745	10.42	10.81	11.53	11.92	11.52	11.91	11.68	12.07	17.73	30	PASS
	157/5785	10.70	11.09	10.77	11.16	10.23	10.62	10.77	11.16	17.04	30	PASS
	165/5825	11.61	12.00	11.65	12.04	10.39	10.78	10.89	11.28	17.58	30	PASS
802.11n HT20	149/5745	10.36	10.75	10.77	11.16	11.31	11.70	11.25	11.64	17.35	30	PASS
	157/5785	10.40	10.79	10.37	10.76	9.90	10.29	10.34	10.73	16.67	30	PASS
	165/5825	10.50	10.89	10.73	11.12	9.36	9.75	10.29	10.68	16.66	30	PASS
802.11n HT40	151/5755	7.19	7.58	7.91	8.30	8.14	8.53	8.56	8.95	14.38	30	PASS
	159/5795	7.76	8.15	7.61	8.00	7.10	7.49	7.37	7.76	13.87	30	PASS
802.11ac VHT20	149/5745	10.75	11.44	11.16	11.85	11.09	11.78	11.34	12.03	17.80	30	PASS
	157/5785	10.33	11.02	10.37	11.06	10.22	10.91	10.60	11.29	17.10	30	PASS
	165/5825	10.91	11.60	10.84	11.53	9.14	9.83	9.82	10.51	16.95	30	PASS
802.11ac VHT40	151/5755	7.27	7.96	8.19	8.88	8.28	8.97	8.61	9.30	14.83	30	PASS
	159/5795	7.47	8.16	7.14	7.83	6.65	7.34	7.20	7.89	13.84	30	PASS
802.11ac VHT80	155/5775	4.32	5.01	4.06	4.75	4.67	5.36	4.56	5.25	11.12	30	PASS
802.11ax HE20	149/5745	10.27	10.67	10.19	10.59	11.04	11.44	11.54	11.94	17.21	30	PASS
	157/5785	10.26	10.66	10.44	10.84	10.02	10.42	10.68	11.08	16.77	30	PASS
	165/5825	10.58	10.98	10.41	10.81	9.21	9.61	9.73	10.13	16.43	30	PASS
802.11ax HE40	151/5755	7.35	7.76	7.55	7.96	8.37	8.78	8.60	9.01	14.43	30	PASS
	159/5795	7.74	8.15	7.05	7.46	7.06	7.47	6.87	7.28	13.62	30	PASS
802.11ax HE80	155/5775	4.52	4.79	4.10	4.37	4.12	4.39	4.76	5.03	10.67	30	PASS

Note: 1. PSD=Read Value+Duty cycle+10*LOG(500/470) 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 that the directional gain = 5.96dBi<6dBi. So the PSD limit is 30dBm.



INPAQ :

MIMO without Beamforming

Antenna 1

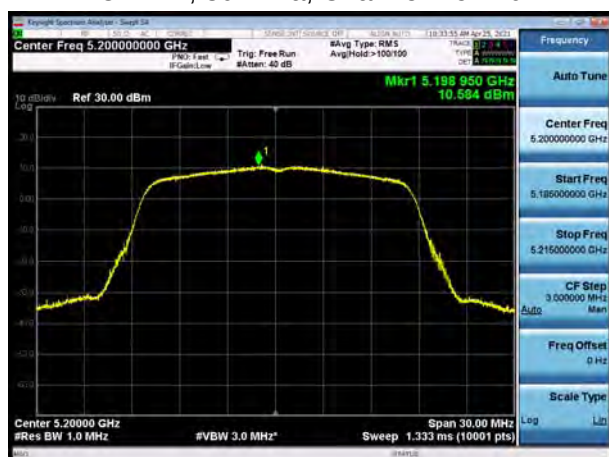
U-NII-1, 802.11a, Channel No.: 36



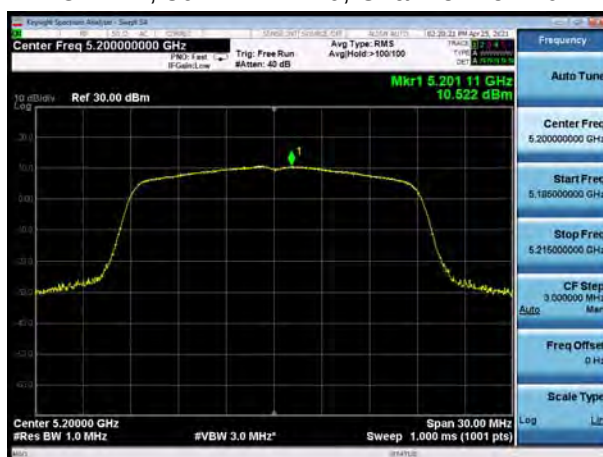
U-NII-1, 802.11n HT20, Channel No.: 36



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

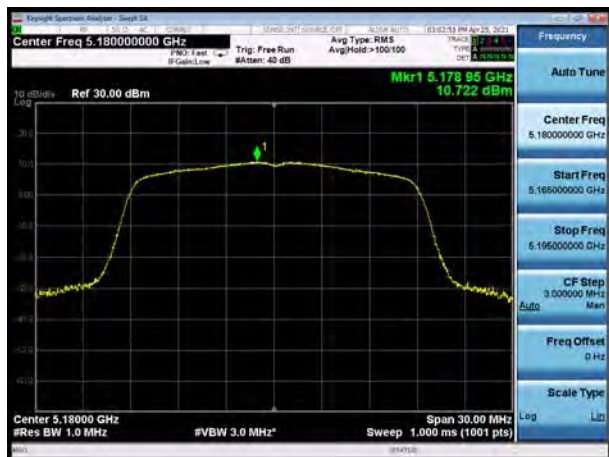




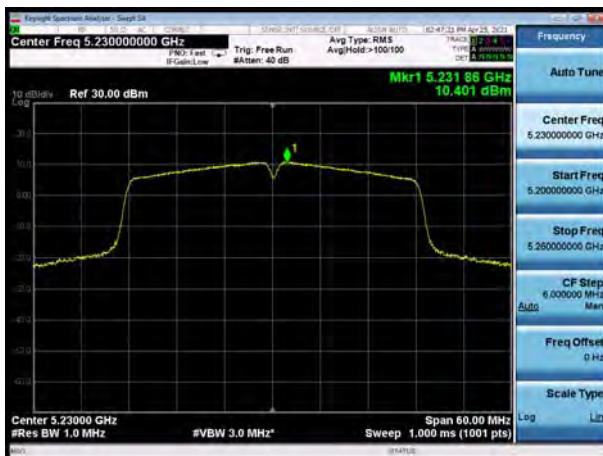
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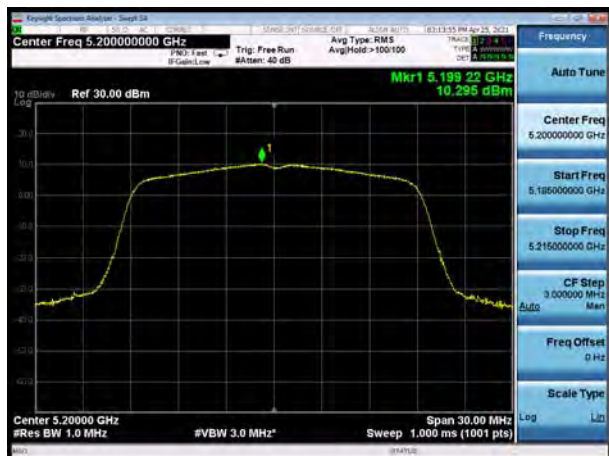
U-NII-1, 802.11ac VHT20, Channel No.: 36



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



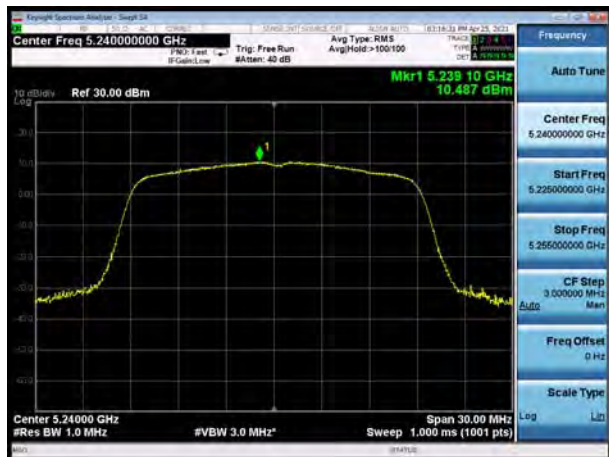
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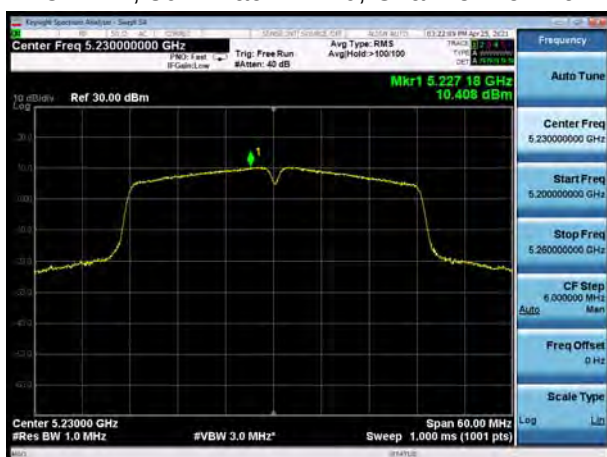


U-NII-1, 802.11ac VHT20, Channel No.: 48





U-NII-1, 802.11ac VHT40, Channel No.: 46



U-NII-1, 802.11ac VHT80, Channel No.: 42



U-NII-1, 802.11ax HE20, Channel No.: 36



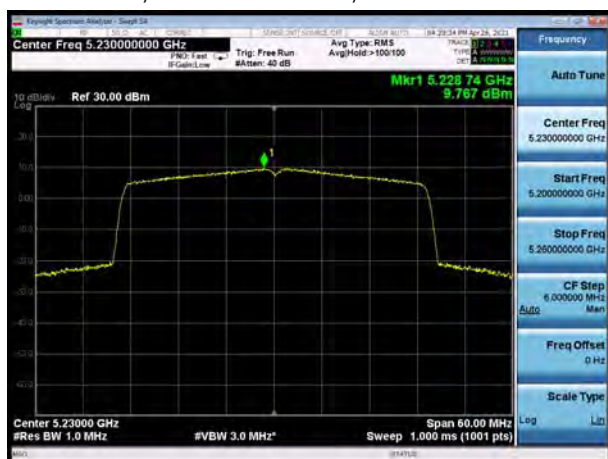
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U-NII-1, 802.11ax HE20, Channel No.: 40

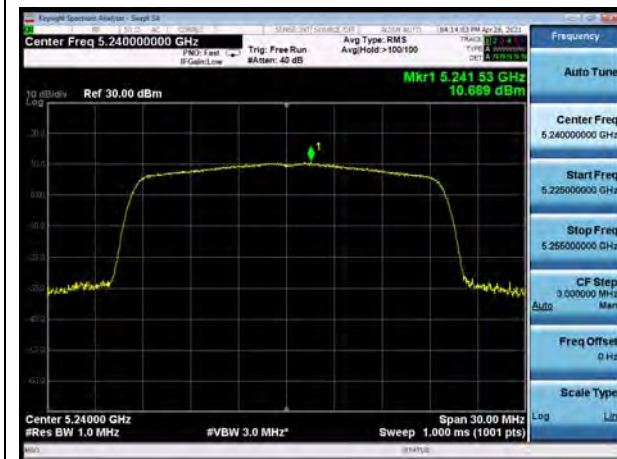


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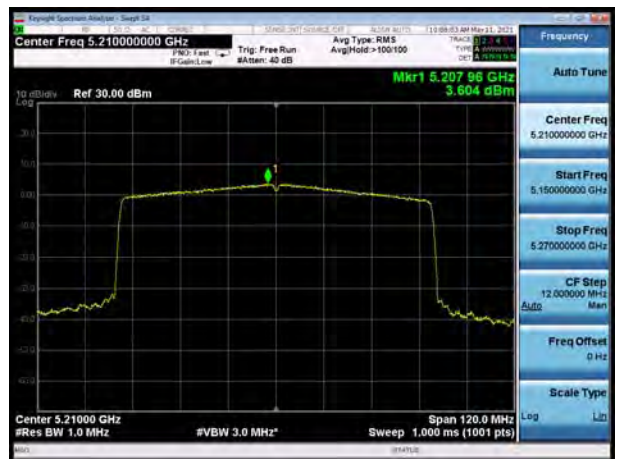




U-NII-1, 802.11ax HE20, Channel No.: 48



U-NII-1, 802.11ax HE80, Channel No.: 42



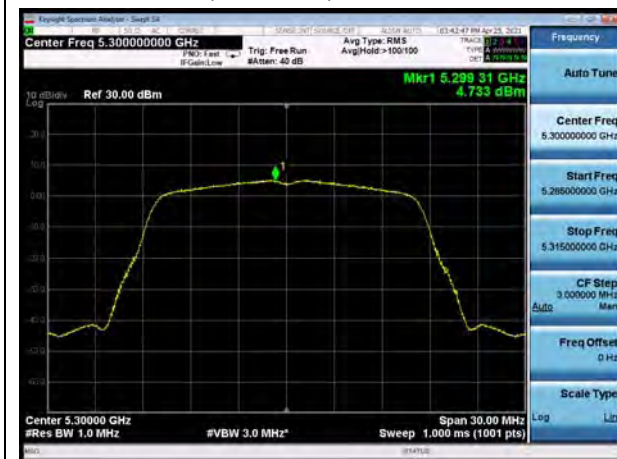
U-NII-2A, 802.11a, Channel No.: 52



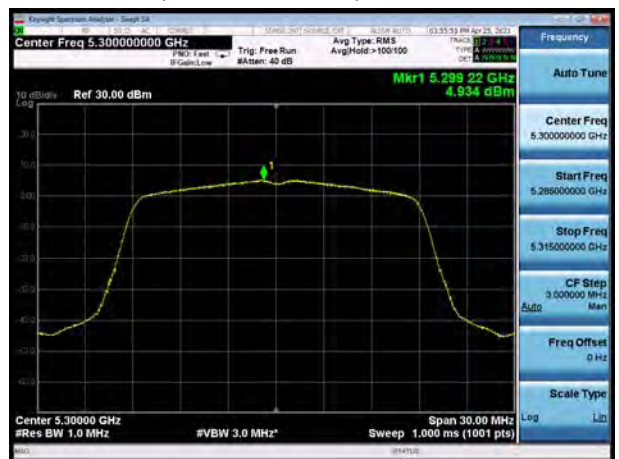
U-NII-2A, 802.11n HT20, Channel No.: 52



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



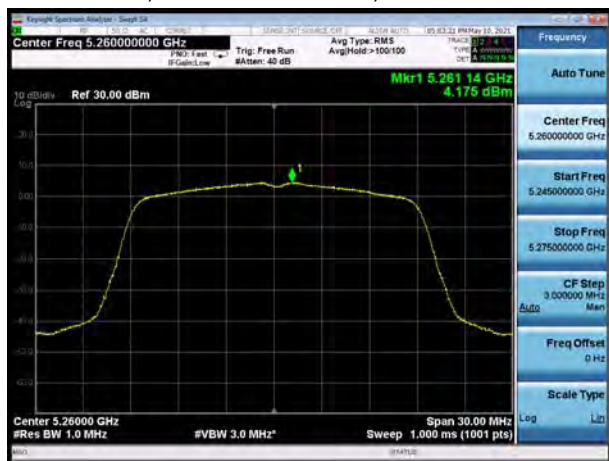
U-NII-2A, 802.11n HT20, Channel No.: 64



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



U-NII-2A, 802.11ac VHT20, Channel No.: 52



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



U-NII-2A, 802.11ac VHT20, Channel No.: 60

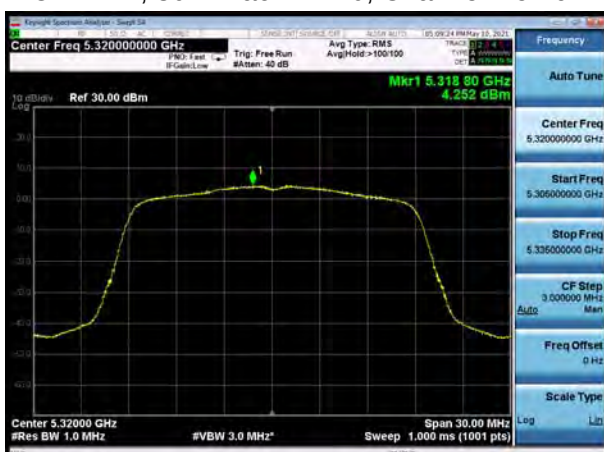




U-NII-2A, 802.11ac VHT40, Channel No.: 54



U-NII-2A, 802.11ac VHT20, Channel No.: 64



U-NII-2A, 802.11ac VHT40, Channel No.: 62



U-NII-2A, 802.11ac VHT80, Channel No.: 58



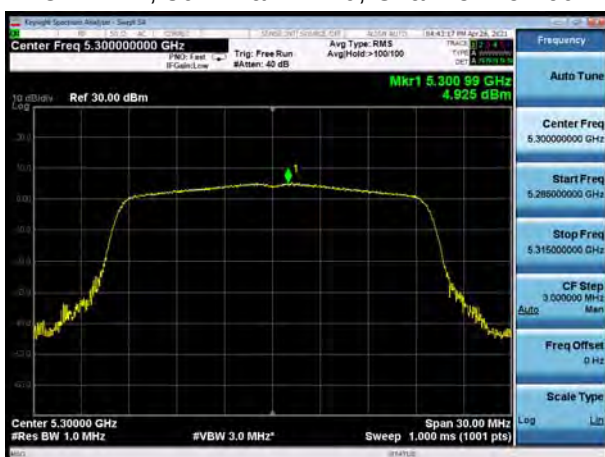
U-NII-2A, 802.11ax HE20, Channel No.: 52



U-NII-2A, 802.11ax HE40, Channel No.: 54



U-NII-2A, 802.11ax HE20, Channel No.: 60



U-NII-2A, 802.11ax HE40, Channel No.: 62



U-NII-2A, 802.11ax HE20, Channel No.: 64



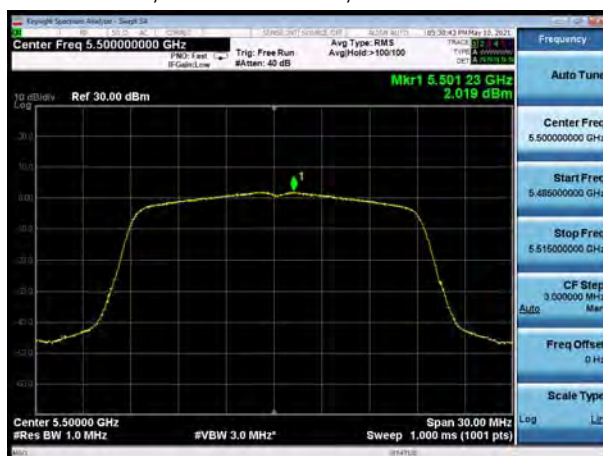
U-NII-2A, 802.11ax HE80, Channel No.: 58



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



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





U-NII-2C, 802.11a, Channel No.: 120



U-NII-2C, 802.11n HT20, Channel No.: 120



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



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



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

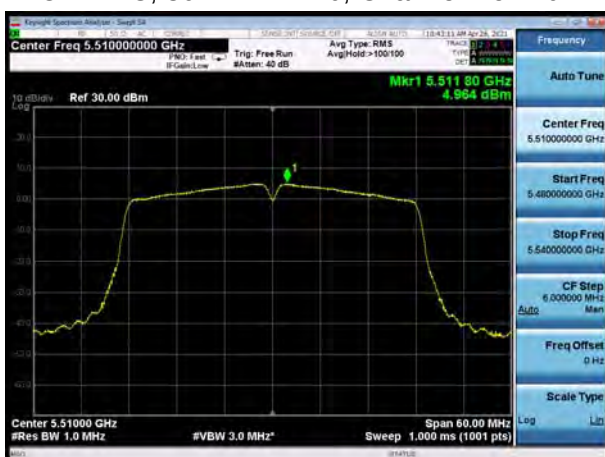


U-NII-2C, 802.11n HT20, Channel No.: 144

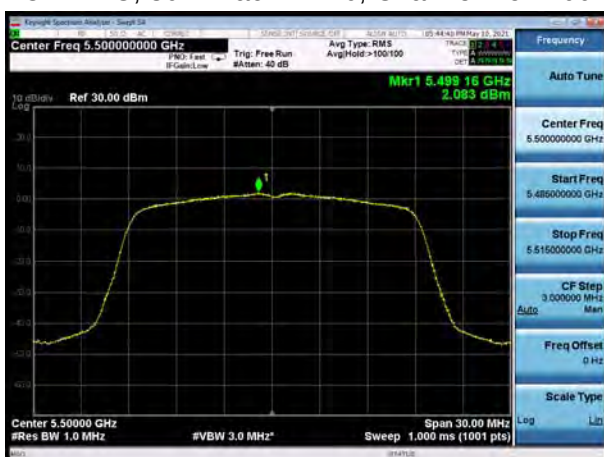




U-NII-2C, 802.11n HT40, Channel No.: 102



U-NII-2C, 802.11ac VHT20, Channel No.: 100



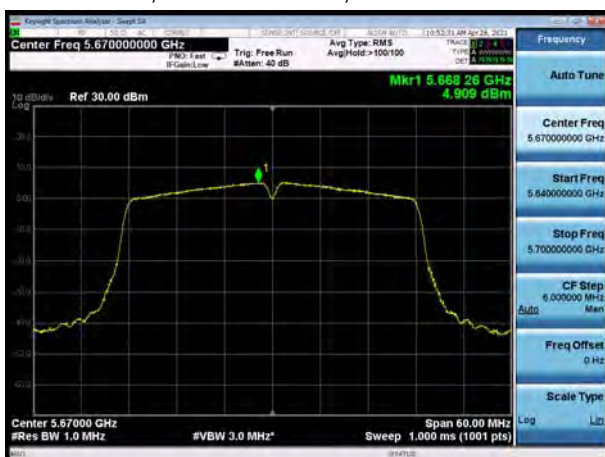
U-NII-2C, 802.11n HT40, Channel No.: 118



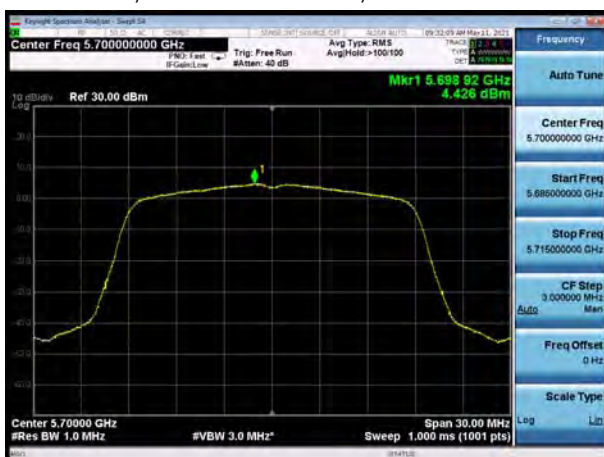
U-NII-2C, 802.11ac VHT20, Channel No.: 120



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

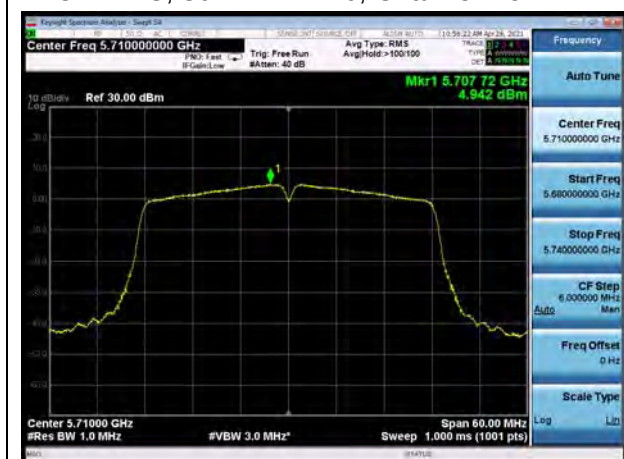


U-NII-2C, 802.11ac VHT20, Channel No.: 140

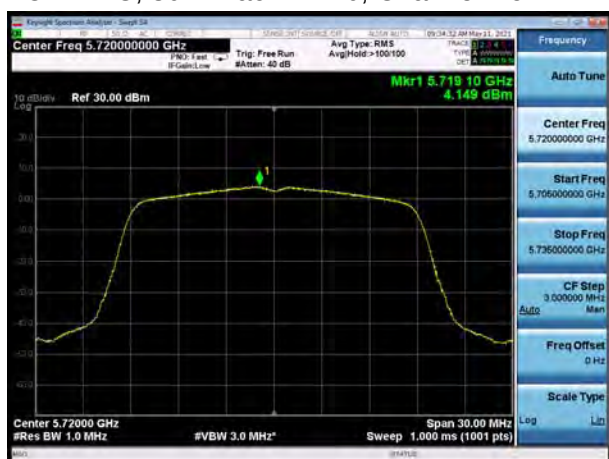




U-NII-2C, 802.11n HT40, Channel No.: 142



U-NII-2C, 802.11ac VHT20, Channel No.: 144



U-NII-2C, 802.11ac VHT40, Channel No.: 102



U-NII-2C, 802.11ac VHT80, Channel No.: 106



U-NII-2C, 802.11ac VHT40, Channel No.: 118

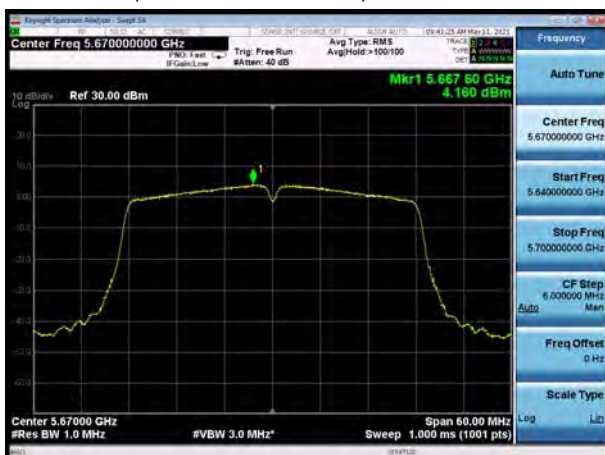


U-NII-2C, 802.11ac VHT80, Channel No.: 122





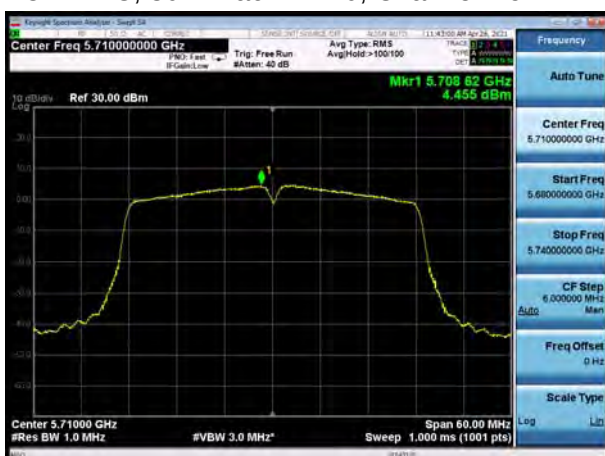
U-NII-2C, 802.11ac VHT40, Channel No.: 134



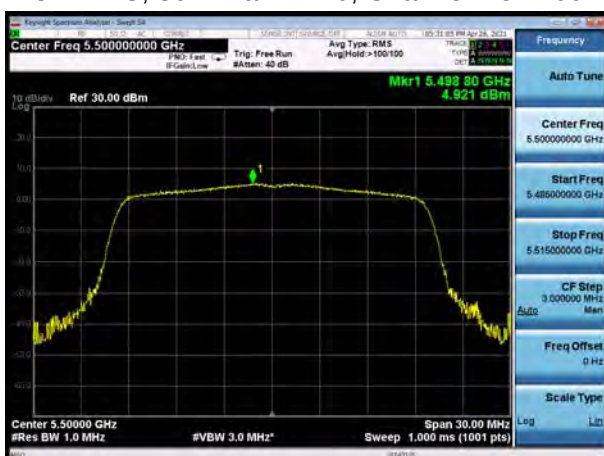
U-NII-2C, 802.11ac VHT80, Channel No.: 138



U-NII-2C, 802.11ac VHT40, Channel No.: 142



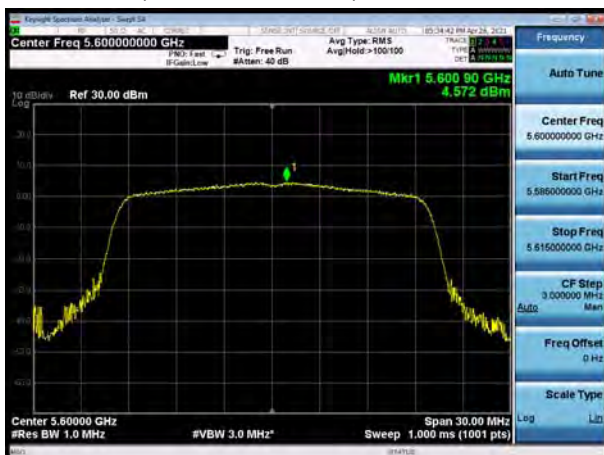
U-NII-2C, 802.11ax HE20, Channel No.: 100



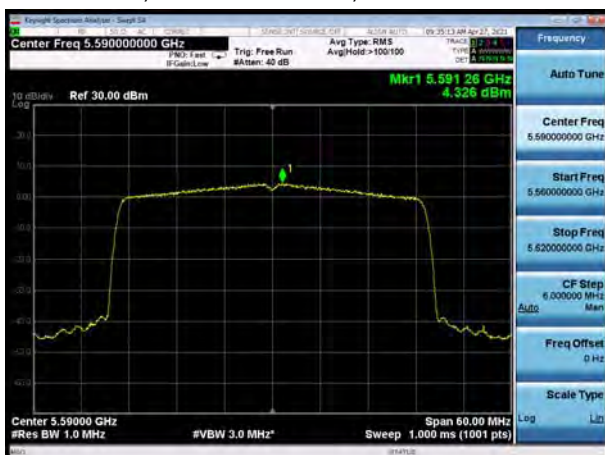
U-NII-2C, 802.11ax HE40, Channel No.: 102



U-NII-2C, 802.11ax HE20, Channel No.: 120



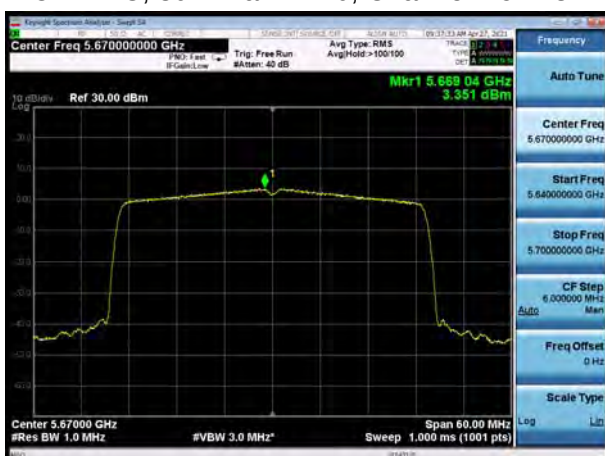
U-NII-2C, 802.11ax HE40, Channel No.: 118



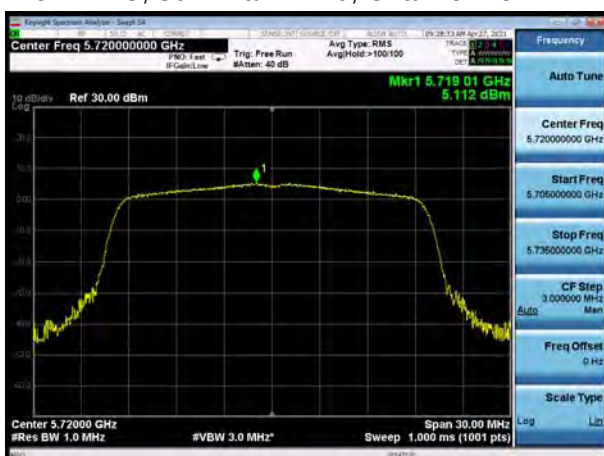
U-NII-2C, 802.11ax HE20, Channel No.: 140



U-NII-2C, 802.11ax HE40, Channel No.: 134



U-NII-2C, 802.11ax HE20, Channel No.: 144



U-NII-2C, 802.11ax HE40, Channel No.: 142



U-NII-2C, 802.11ax HE80, Channel No.: 106



U-NII-2C, 802.11ax HE80, Channel No.: 122



U-NII-2C, 802.11ax HE80, Channel No.: 138



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



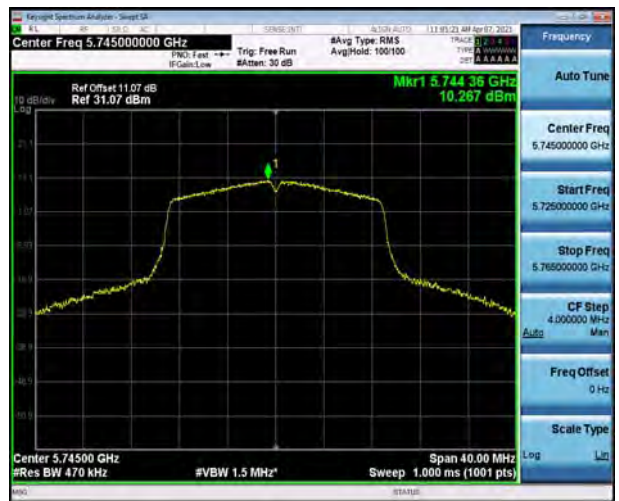
U-NII-3, 802.11n HT20, Channel No.: 165



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



U-NII-3, 802.11ac VHT20, Channel No.: 149



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



U-NII-3, 802.11ac VHT20, Channel No.: 157





U-NII-3, 802.11ac VHT40, Channel No.: 151



U-NII-3, 802.11ac VHT20, Channel No.: 165



U-NII-3, 802.11ac VHT40, Channel No.: 159



U-NII-3, 802.11ac VHT80, Channel No.: 155



U-NII-3, 802.11ax HE20, Channel No.: 149



U-NII-3, 802.11ax HE40, Channel No.: 151





U-NII-3, 802.11ax HE20, Channel No.: 157



U-NII-3, 802.11ax HE40, Channel No.: 159



U-NII-3, 802.11ax HE20, Channel No.: 165



U-NII-3, 802.11ax HE80, Channel No.: 155



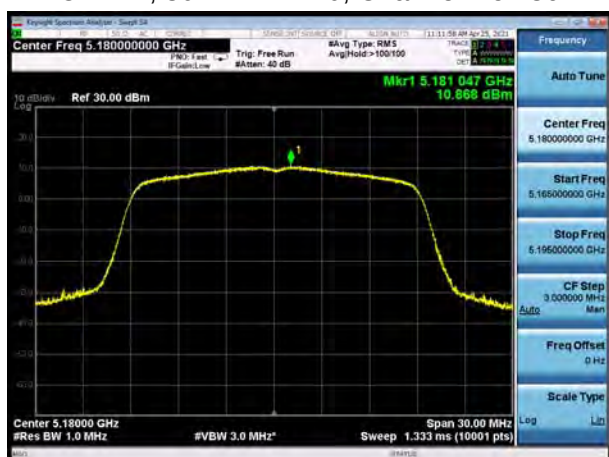


Antenna 2

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



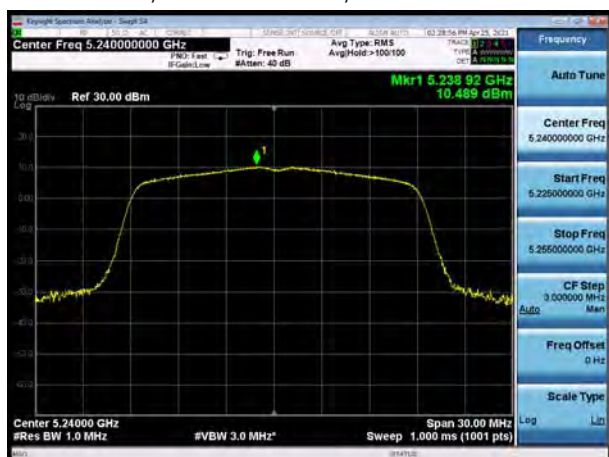
U-NII-1, 802.11n HT20, Channel No.: 40



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



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

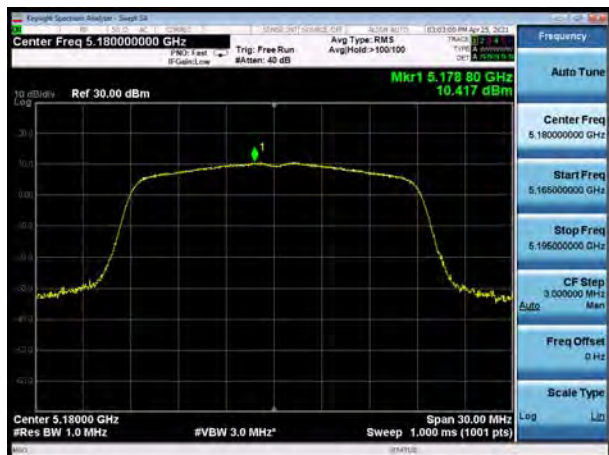




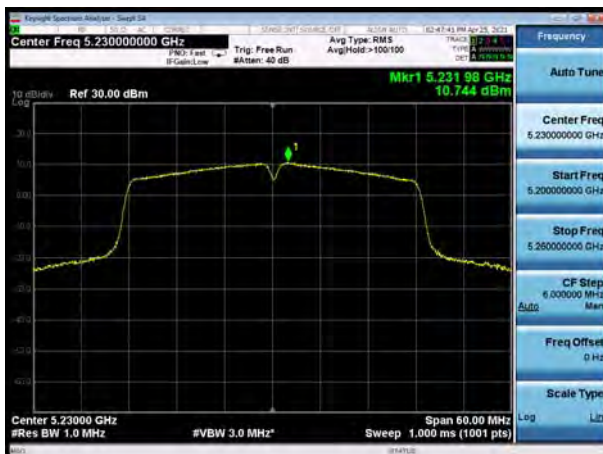
U-NII-1, 802.11n HT40, Channel No.: 38



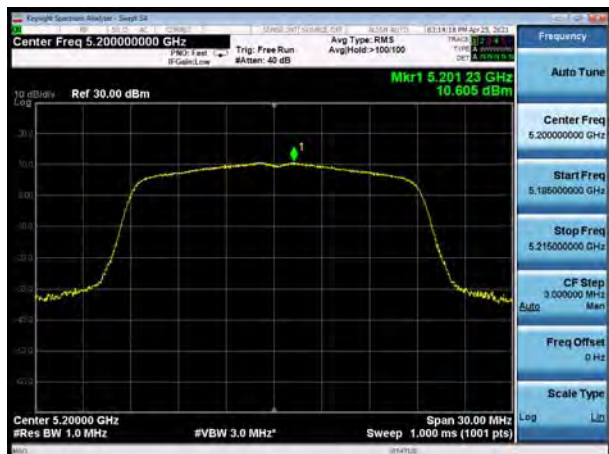
U-NII-1, 802.11ac VHT20, Channel No.: 36



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



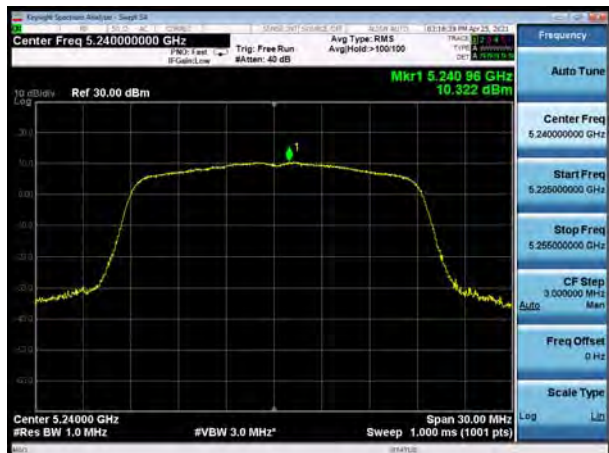
U-NII-1, 802.11ac VHT20, Channel No.: 40



U-NII-1, 802.11ac VHT40, Channel No.: 38

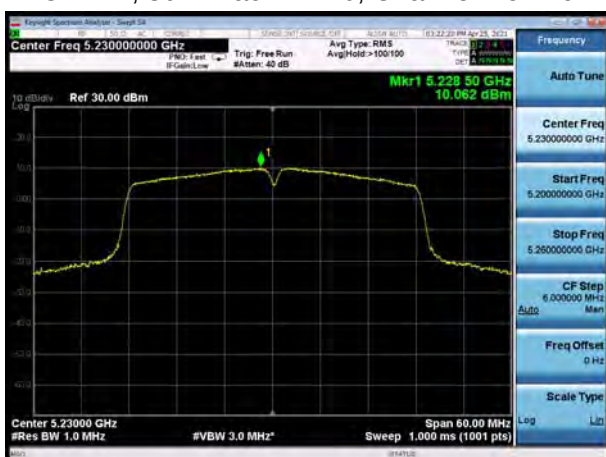


U-NII-1, 802.11ac VHT20, Channel No.: 48





U-NII-1, 802.11ac VHT40, Channel No.: 46



U-NII-1, 802.11ac VHT80, Channel No.: 42



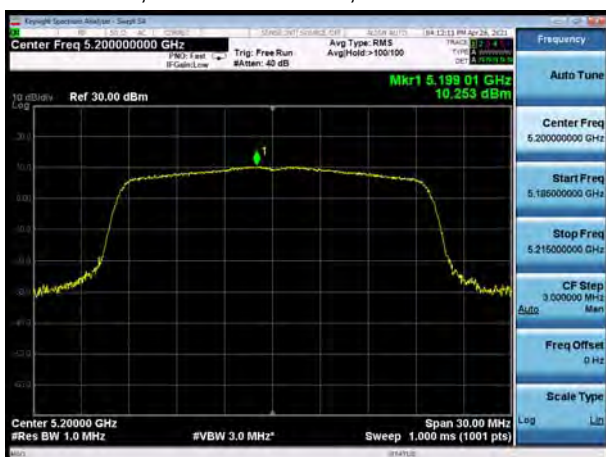
U-NII-1, 802.11ax HE20, Channel No.: 36



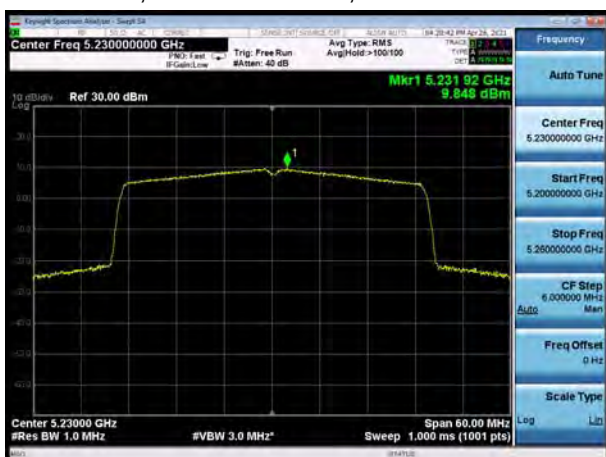
U-NII-1, 802.11ax HE40, Channel No.: 38



U-NII-1, 802.11ax HE20, Channel No.: 40

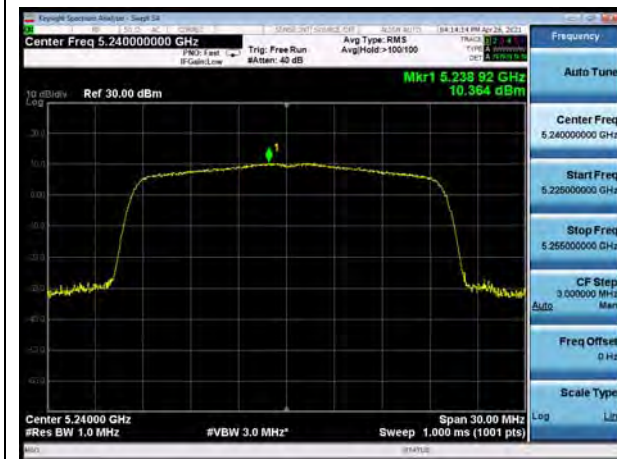


U-NII-1, 802.11ax HE40, Channel No.: 46





U-NII-1, 802.11ax HE20, Channel No.: 48



U-NII-1, 802.11ax HE80, Channel No.: 42



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





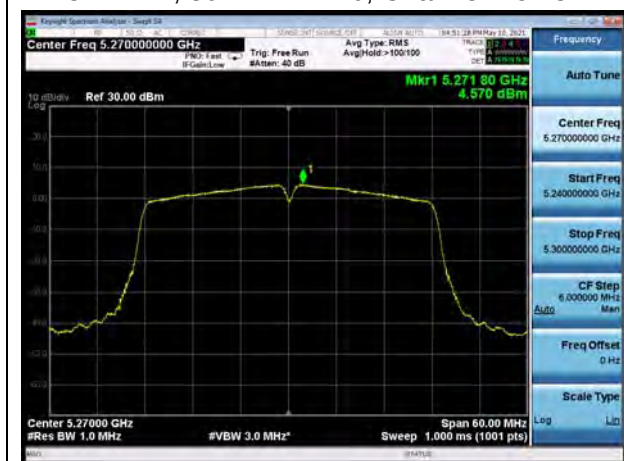
U-NII-2A, 802.11a, Channel No.: 64



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



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



U-NII-2A, 802.11ac VHT20, Channel No.: 52



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

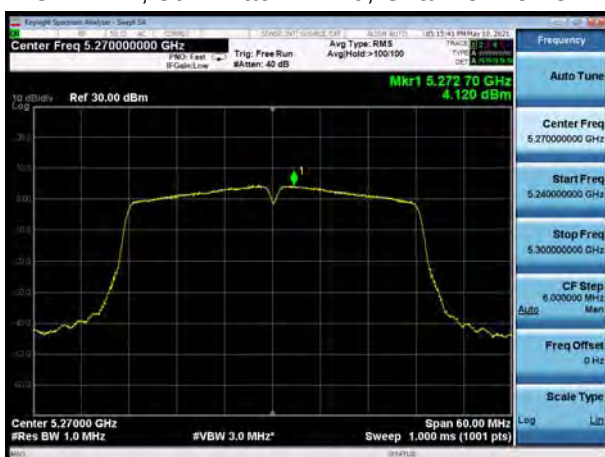


U-NII-2A, 802.11ac VHT20, Channel No.: 60

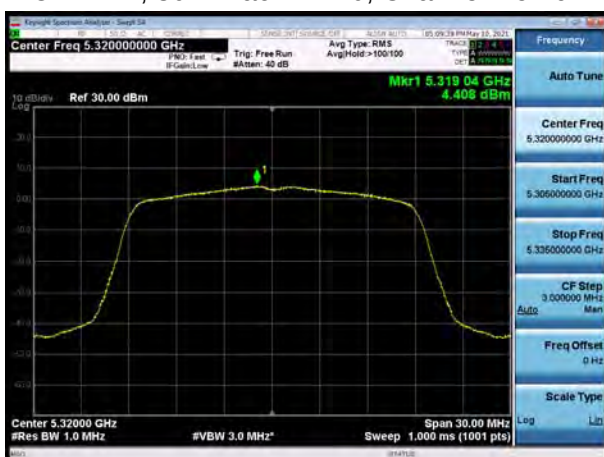




U-NII-2A, 802.11ac VHT40, Channel No.: 54



U-NII-2A, 802.11ac VHT20, Channel No.: 64



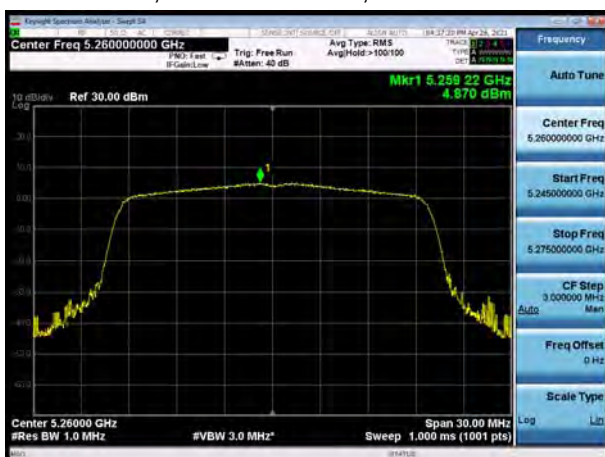
U-NII-2A, 802.11ac VHT40, Channel No.: 62



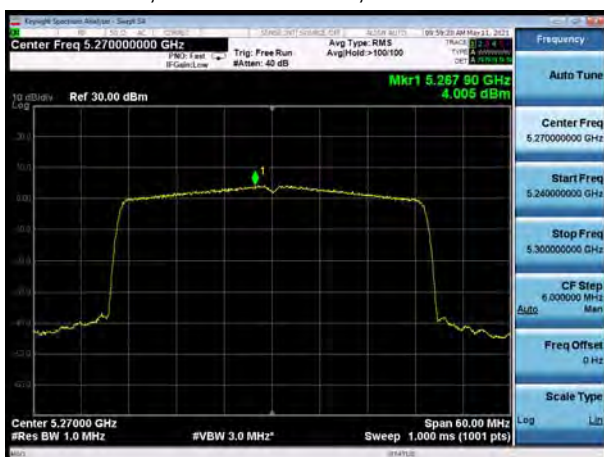
U-NII-2A, 802.11ac VHT80, Channel No.: 58



U-NII-2A, 802.11ax HE20, Channel No.: 52

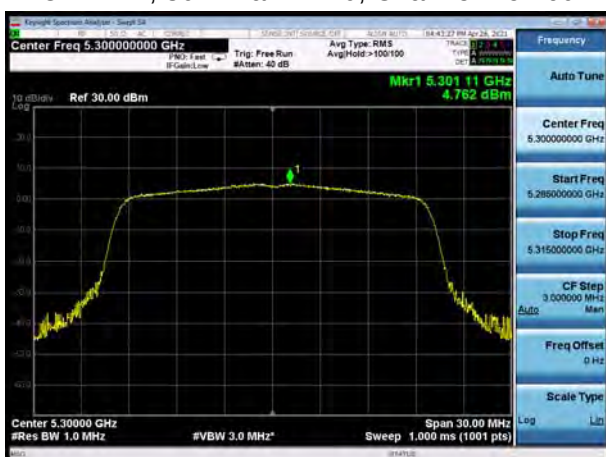


U-NII-2A, 802.11ax HE40, Channel No.: 54

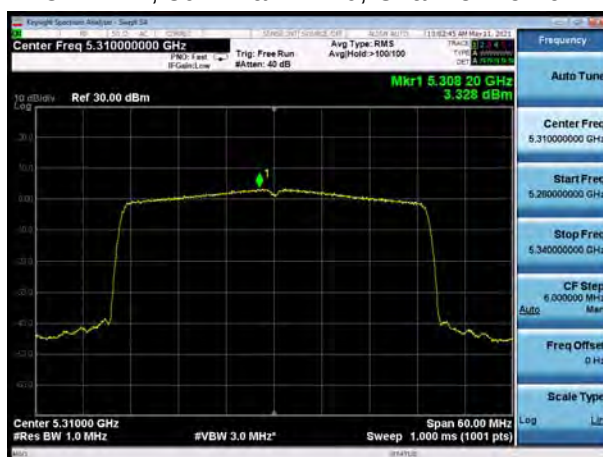




U-NII-2A, 802.11ax HE20, Channel No.: 60



U-NII-2A, 802.11ax HE40, Channel No.: 62



U-NII-2A, 802.11ax HE20, Channel No.: 64



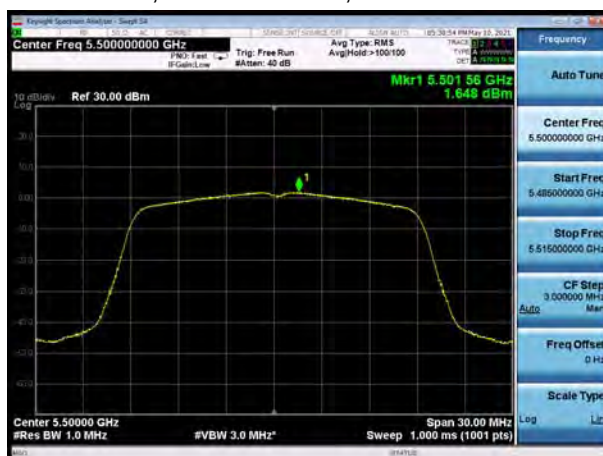
U-NII-2A, 802.11ax HE80, Channel No.: 58



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



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





U-NII-2C, 802.11a, Channel No.: 120



U-NII-2C, 802.11n HT20, Channel No.: 120



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



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



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



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





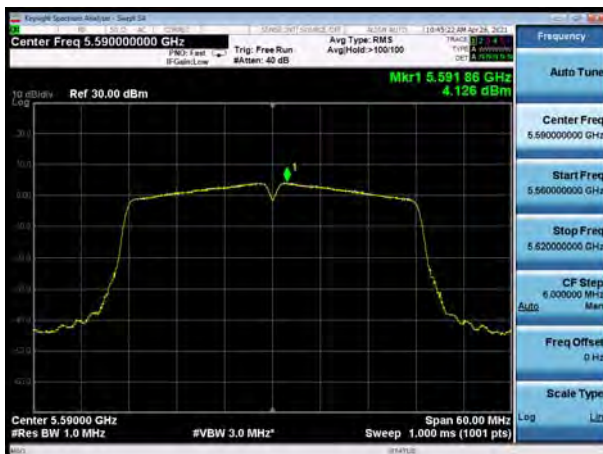
U-NII-2C, 802.11n HT40, Channel No.: 102



U-NII-2C, 802.11ac VHT20, Channel No.: 100



U-NII-2C, 802.11n HT40, Channel No.: 118



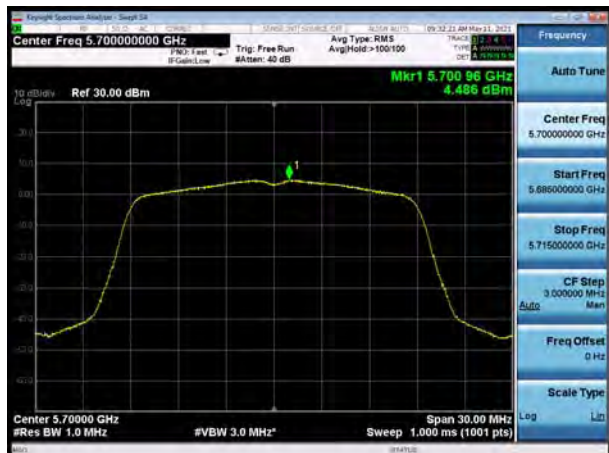
U-NII-2C, 802.11ac VHT20, Channel No.: 120



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

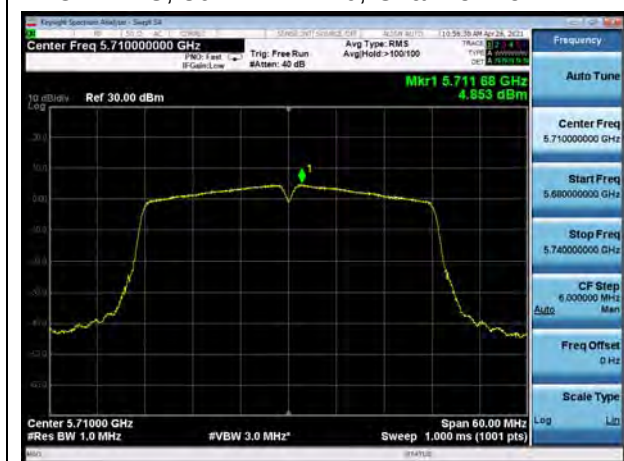


U-NII-2C, 802.11ac VHT20, Channel No.: 140

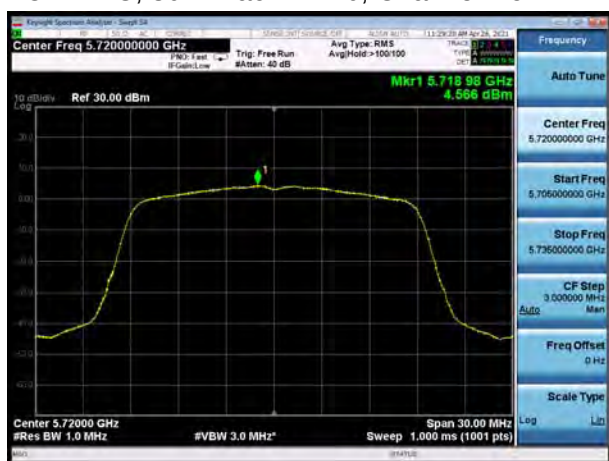




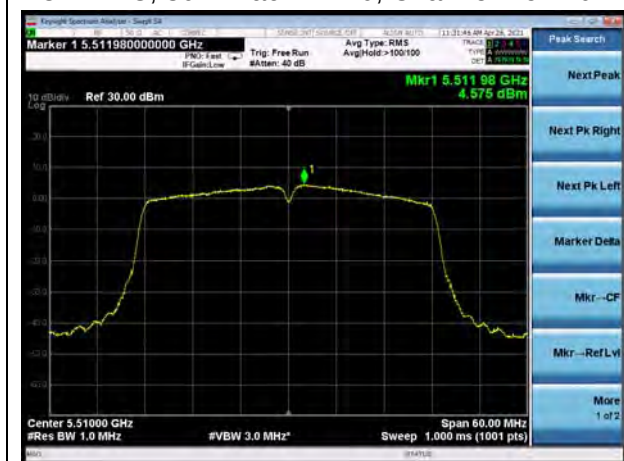
U-NII-2C, 802.11n HT40, Channel No.: 142



U-NII-2C, 802.11ac VHT20, Channel No.: 144



U-NII-2C, 802.11ac VHT40, Channel No.: 102



U-NII-2C, 802.11ac VHT80, Channel No.: 106



U-NII-2C, 802.11ac VHT40, Channel No.: 118



U-NII-2C, 802.11ac VHT80, Channel No.: 122





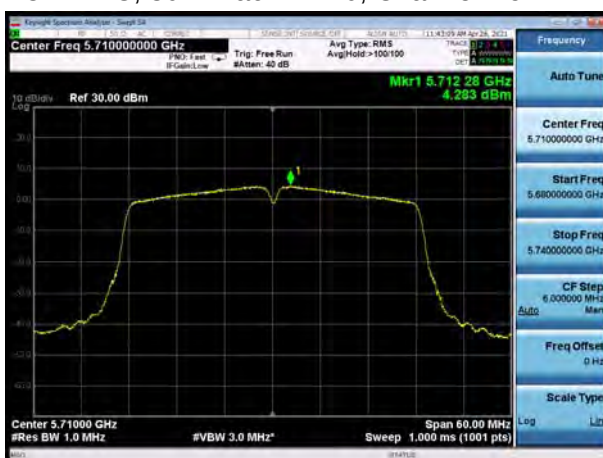
U-NII-2C, 802.11ac VHT40, Channel No.: 134



U-NII-2C, 802.11ac VHT80, Channel No.: 138



U-NII-2C, 802.11ac VHT40, Channel No.: 142



U-NII-2C, 802.11ax HE20, Channel No.: 100



U-NII-2C, 802.11ax HE40, Channel No.: 102



U-NII-2C, 802.11ax HE20, Channel No.: 120

