



RF TEST REPORT

Applicant NOKIA Shanghai Bell CO., Ltd.
FCC ID 2ADZRXS2426XA
Product ONT
Brand NOKIA
Model XS-2426X-A
Report No. R2112A1145-R2
Issue Date May 5, 2022

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 15E (2021)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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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: January 21, 2022 ~ March17, 2022			
Date of Sample Received: December 16, 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
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2. General Description of Equipment under Test

2.1. Applicant and Manufacturer Information

Applicant	Nokia ShangHai Bell Co., Ltd.
Applicant address	No. 388, Ningqiao Rd. Pilot Free Trade Zone Shanghai 201206 P.R.China
Manufacturer	Nokia ShangHai Bell Co., Ltd.
Manufacturer address	No. 388, Ningqiao Rd. Pilot Free Trade Zone Shanghai 201206 P.R.China

2.2. General information

EUT Description						
Model	XS-2426X-A					
SN	ALCL00861234					
Hardware Version	PEM2.0					
Software Version	3FE49864T48612					
Power Supply	AC Adapter					
Antenna Type	Internal Antenna					
Antenna Gain	Manufacturer	Frequency (MHz)	Antenna 1 (dBi)	Antenna 2 (dBi)	Antenna 3 (dBi)	Antenna 4 (dBi)
	INPAQ	5150~5250	3.38	3.12	3.24	3.00
		5250~5350	3.38	3.12	3.24	3.00
		5470~5725	3.14	3.33	3.02	3.16
		5725~5850	3.31	3.43	2.80	3.03
	Signal Plus	5150~5250	3.10	3.10	3.20	3.50
		5250~5350	3.10	3.10	3.20	3.50
		5470~5725	3.40	3.50	3.50	3.30
		5725~5850	3.30	3.50	3.50	3.50
	Directional Gain	Manufacturer	Antenna	Frequency(MHz)		Gain (dBi)
INPAQ		MIMO (For Power)	5150~5250		3.38	
			5250~5350		3.38	
			5470~5725		3.33	
			5725~5850		3.43	
		MIMO (For PSD)	5150~5250		3.33	
			5250~5350		3.33	
			5470~5725		3.42	
			5725~5850		4.43	
		Beamforming	5150~5250		3.33	
			5250~5350		3.33	



			5470~5725	3.42
			5725~5850	4.43
	Signal Plus	MIMO (For Power)	5150~5250	3.50
			5250~5350	3.50
			5470~5725	3.50
			5725~5850	3.50
		MIMO (For PSD)	5150~5250	5.00
			5250~5350	5.00
			5470~5725	3.80
			5725~5850	4.80
		Beamforming	5150~5250	5.00
			5250~5350	5.00
			5470~5725	3.80
			5725~5850	4.80
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/ VHT160): OFDM 802.11ax (HE20/ HE40/ HE80/ HE160): OFDM, OFDMA			
Max. Conducted Power	29.98 dBm			
Testing temperature range:	-20 ° C to 50° C			
Operating temperature range:	-5 ° C to 45° C			
Operating voltage range:	11.4 V to 12.6 V			
State DC voltage:	12V			
EUT Accessory				
Internal Antenna 1	Manufacturer: INPAQ			
Internal Antenna 2	Manufacturer: Signal plus			
Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.				

**Information of Configuration:**

No.	Name	Model/Code No.	Edition	Serial No. or Quantity
1	EMA-XS-2426X-A	3FE 49691 AAAA	PEM2.0	PEM2.0
2	Power adapter	HONOR: ADS-40FKJ-12N 12036EPCU	A/0	1PCS
3	Power adapter	FUHUA: UES36WU-120300SPA	A/0	1PCS
4	UPS	Cyber Power: DTC36U12V3-G	A/0	1PCS
5	UPS	PSI: PS36L-P7 and PS36L-EX-2	A/0	1PCS

ONT Mnemonic	Kit Code	EMA Code	Part Description	Power Adapter/UPS	
XS-2426X-A	3FE49691AA	3FE 49691 AAAA	Wi-Fi GPON RGW, 2xPOTS, 3xGE, 1x10GE, 1x USB, WiFi-6 4x4 + 4x4, Nokia logo	ONT only	ONT only
XS-2426X-A	3FE49690AA	3FE 49691 AAAA	Wi-Fi GPON RGW, 2xPOTS, 3xGE, 1x10GE, 1x USB, WiFi-6 4x4 + 4x4, Kit with US plug PS	HONOR: ADS-40FKJ-12N 12036EPCU	FUHUA: UES36WU-1 20300SPA
XS-2426X-A	3FE49690AA	3FE 49691 AAAA	Wi-Fi GPON RGW, 2xPOTS, 3xGE, 1x10GE, 1x USB, WiFi-6 4x4 + 4x4, Kit with US plug PS	Cyber Power: DTC36U12V3-G	PSI: PS36L-P7 and PS36L-EX-2
XS-2426X-A	3FE49690AB	3FE 49691 AAAA	Wi-Fi GPON RGW, 2xPOTS, 3xGE, 1x10GE, 1x USB, WiFi-6 4x4 + 4x4, Canada, US plug	HONOR: ADS-40FKJ-12N 12036EPCU	FUHUA: UES36WU-1 20300SPA
XS-2426X-A	3FE49690AB	3FE 49691 AAAA	Wi-Fi GPON RGW, 2xPOTS, 3xGE, 1x10GE, 1x USB, WiFi-6 4x4 + 4x4, Canada, US plug	Cyber Power: DTC36U12V3-G	PSI: PS36L-P7 and PS36L-EX-2

NOTE: For KIT code 3FE49229AAAA, UPS equipment customers buy their own.

**Auxiliary equipment details**

No.	Name	Brand name	Model	ASB code	Valid Until
1	Test Center	Spirent	C1	DE48D0	No Cal. Required
2	OLT	Nokia	7360 ISAM FX-4	7661MC4L3KW965	No Cal. Required
3	PC	DELL	N/A	-	No Cal. Required

Information of Ports

No.	Port name	Number	Shielded or unshielded	Cable type (optic, twisted pair, etc.)	Max. Cable length
1	AC port	1	Unshielded	N/A	N/A
2	POTS	2	Unshielded	Twisted pair	2M
3	GE	3	Unshielded	CAT-5E or above	1.5M
4	10GE	1	shielded	CAT-7 or above	1.5M
5	USB	1	Unshielded	N/A	N/A

Description: The XS-2426X-A is a ONT which has one 10 GE LAN port, three GE LAN ports, one XGS-PON BOB, two POTS. The basic functional test in normal room conditions consists of the data traffic test. XS-2426X-A runs one data traffics on each line with Test Center, the each upstream is 8Gbps, and downstream is 8Gbps. Frame loss ratio less than 10e-7.



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	
	MIMO	Beamforming
802.11a	6 Mbps	6 Mbps
802.11n HT20	MCS24	MCS24
802.11n HT40	MCS24	MCS24
802.11ac VHT20	MCS0	MCS0
802.11ac VHT40	MCS0	MCS0
802.11ac VHT80	MCS0	MCS0
802.11ac VHT160	MCS0	MCS0
802.11ax HE20	MCS0	MCS0
802.11ax HE40	MCS0	MCS0
802.11ax HE80	MCS0	MCS0
802.11ax HE160	MCS0	MCS0

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

Test Cases	Internal Antenna	MIMO	Beamforming
Average conducted output power	INPAQ/ Signal plus	O	O
Occupied bandwidth	INPAQ	O	--
Frequency stability	INPAQ	O	--
Power Spectral Density	INPAQ/ Signal plus	O	O
Unwanted Emissions	INPAQ/ Signal plus	O	--
Conducted Emissions	INPAQ/ Signal plus	O	--
Note: "O": test all bands			



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
		160 MHz	50	5250MHz
	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
		160 MHz	114	5570MHz
	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.

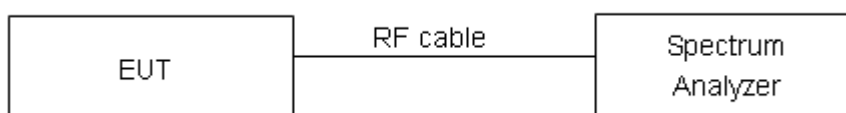
For U-NII-1/U-NII-2A/U-NII-2C, set RBW $\approx$ 1% OCB kHz, VBW $\geq$ 3 $\times$ RBW, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB relative to the maximum 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	36/5180	16.49	19.61	PASS
	40/5200	16.50	19.95	PASS
	48/5240	16.50	20.16	PASS
802.11n HT20	36/5180	17.73	20.88	PASS
	40/5200	17.71	21.20	PASS
	48/5240	17.72	20.75	PASS
802.11n HT40	38/5190	35.92	39.18	PASS
	46/5230	35.94	39.11	PASS
802.11ac VHT20	36/5180	17.70	21.34	PASS
	40/5200	17.71	20.84	PASS
	48/5240	17.71	20.79	PASS
802.11ac VHT40	38/5190	36.25	42.37	PASS
	46/5230	36.01	39.11	PASS
802.11ac VHT80	42/5210	75.85	86.23	PASS
802.11ax HE20	36/5180	19.06	21.48	PASS
	40/5200	19.03	21.28	PASS
	48/5240	19.03	21.29	PASS
802.11ax HE40	38/5190	37.59	39.95	PASS
	46/5230	37.66	40.30	PASS
802.11ax HE80	42/5210	77.08	81.17	PASS



U-NII-2A

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	52/5260	16.53	20.33	PASS
	60/5300	16.51	20.30	PASS
	64/5320	16.53	19.59	PASS
802.11n HT20	52/5260	17.72	20.89	PASS
	60/5300	17.70	20.97	PASS
	64/5320	17.72	21.20	PASS
802.11n HT40	54/5270	35.95	38.92	PASS
	62/5310	35.94	39.04	PASS
802.11ac VHT20	52/5260	17.72	20.45	PASS
	60/5300	17.69	20.71	PASS
	64/5320	17.72	20.76	PASS
802.11ac VHT40	54/5270	35.95	38.96	PASS
	62/5310	35.95	38.88	PASS
802.11ac VHT80	58/5290	75.33	80.56	PASS
802.11ac VHT160	50/5250	155.08	170.40	PASS
802.11ax HE20	52/5260	19.05	21.35	PASS
	60/5300	19.04	21.12	PASS
	64/5320	19.03	21.19	PASS
802.11ax HE40	54/5270	37.66	40.11	PASS
	62/5310	37.69	40.09	PASS
802.11ax HE80	58/5290	77.12	81.47	PASS
802.11ax HE160	50/5250	156.64	167.21	PASS



U-NII-2C

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	100/5500	16.52	19.94	PASS
	120/5600	16.49	20.23	PASS
	140/5700	16.52	20.27	PASS
	144/5720	16.49	19.81	PASS
802.11n HT20	100/5500	17.73	21.11	PASS
	120/5600	17.71	21.41	PASS
	140/5700	17.71	21.13	PASS
	144/5720	17.72	20.70	PASS
802.11n HT40	102/5510	37.67	39.80	PASS
	110/5550	37.62	39.96	PASS
	134/5670	37.61	39.67	PASS
	142/5710	37.59	40.18	PASS
802.11ac VHT20	100/5500	17.71	20.92	PASS
	120/5600	17.71	21.41	PASS
	140/5700	17.74	20.95	PASS
	144/5720	17.73	20.78	PASS
802.11ac VHT40	102/5510	35.95	39.04	PASS
	110/5550	35.92	38.80	PASS
	134/5670	35.91	38.91	PASS
	142/5710	35.99	39.18	PASS
802.11ac VHT80	106/5530	75.33	80.23	PASS
	122/5610	75.31	80.55	PASS
	138/5690	75.36	80.58	PASS
802.11ac VHT160	114/5570	154.94	169.10	PASS
802.11ax HE20	100/5500	19.04	21.53	PASS
	120/5600	19.00	21.60	PASS
	140/5700	19.06	20.93	PASS
	144/5720	19.02	21.23	PASS
802.11ax HE40	102/5510	37.58	40.15	PASS
	110/5550	37.60	40.06	PASS
	134/5670	37.63	39.74	PASS
	142/5710	37.67	40.55	PASS
802.11ax HE80	106/5530	77.04	81.70	PASS
	122/5610	76.98	81.02	PASS
	138/5690	77.02	81.20	PASS
802.11ax HE160	114/5570	154.53	162.02	PASS

U-NII-3

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11a	149/5745	16.50	16.35	500	PASS
	157/5785	16.49	16.36	500	PASS
	165/5825	16.52	16.34	500	PASS
802.11n HT20	149/5745	17.71	17.61	500	PASS
	157/5785	17.72	17.60	500	PASS
	165/5825	17.72	17.61	500	PASS
802.11n HT40	151/5755	36.32	36.31	500	PASS
	159/5795	36.27	36.28	500	PASS
802.11ac VHT20	149/5745	17.70	17.62	500	PASS
	157/5785	17.70	17.62	500	PASS
	165/5825	17.71	17.61	500	PASS
802.11ac VHT40	151/5755	36.33	35.93	500	PASS
	159/5795	36.25	36.31	500	PASS
802.11ac VHT80	155/5775	75.96	76.36	500	PASS
802.11ax HE20	149/5745	19.01	19.10	500	PASS
	157/5785	18.99	19.17	500	PASS
	165/5825	19.02	18.98	500	PASS
802.11ax HE40	151/5755	37.90	38.04	500	PASS
	159/5795	37.87	37.63	500	PASS
802.11ax HE80	155/5775	77.49	78.01	500	PASS

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



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



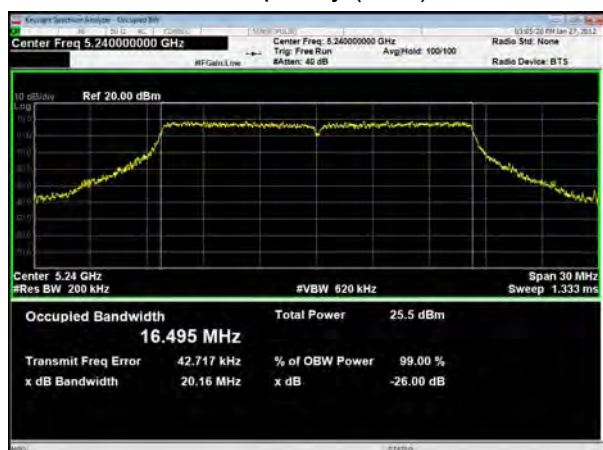
U-NII-1, 802.11a
Carrier frequency (MHz): 5200



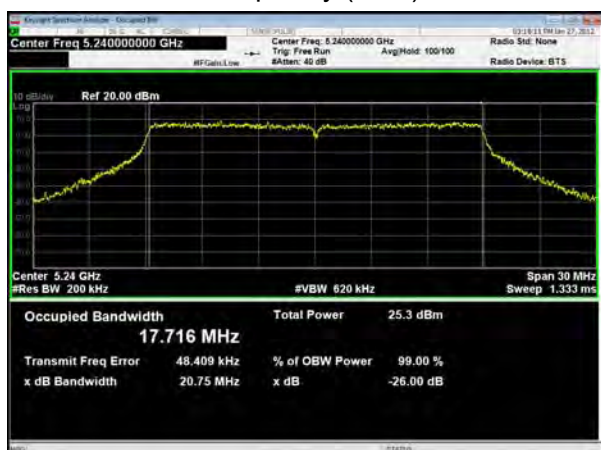
U-NII-1, 802.11n HT20
Carrier frequency (MHz): 5200



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



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



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



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



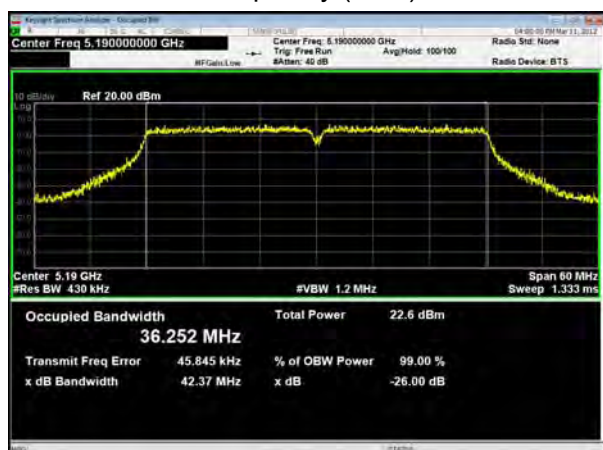
U-NII-1, 802.11n HT40
Carrier frequency (MHz): 5230



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, 802.11ac VHT160 Carrier frequency (MHz): 5250



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



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



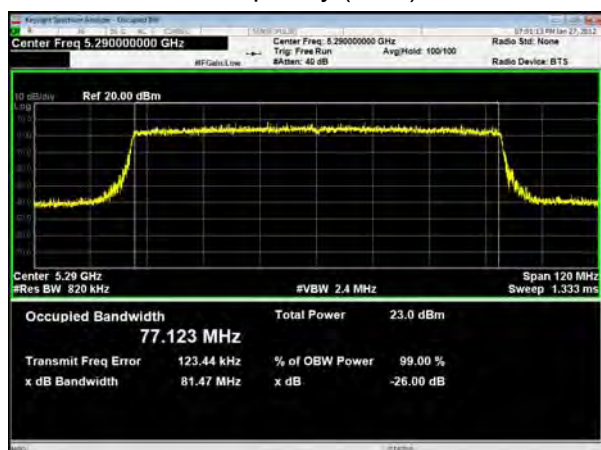
U-NII-2A, 802.11ax HE20 Carrier frequency (MHz): 5320



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



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



U-NII-2A, 802.11ax HE160 Carrier frequency (MHz): 5250



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



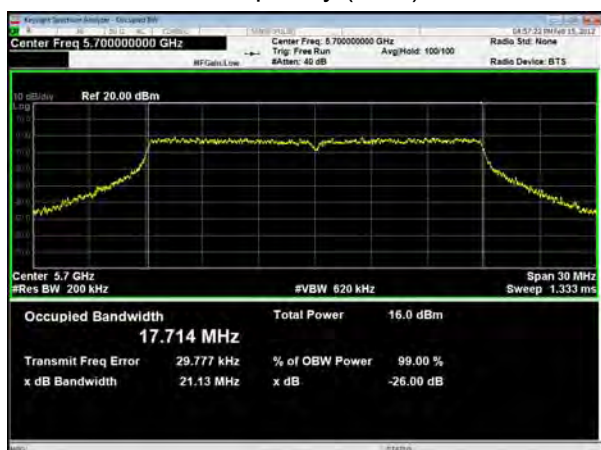
U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5600



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



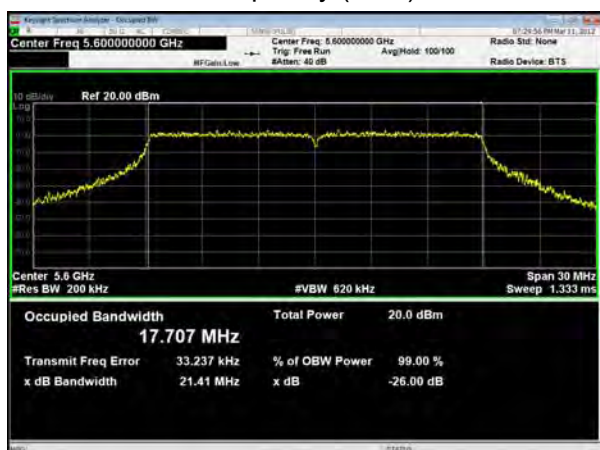
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5500



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



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): 5550



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, 802.11ac VHT160 Carrier frequency (MHz): 5570



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



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



U-NII-2C, 802.11ax HE40 Carrier frequency (MHz): 5550



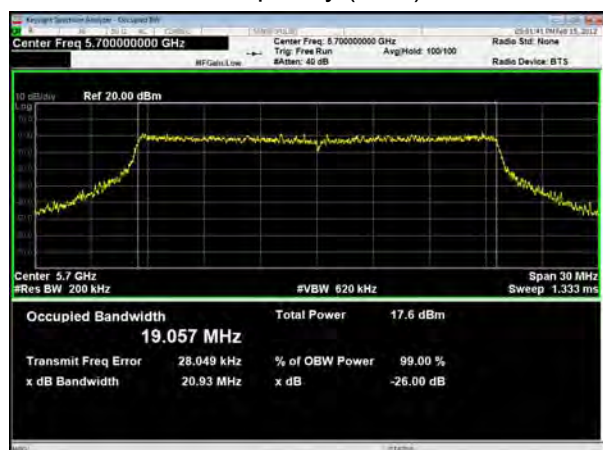
U-NII-2C, 802.11ax HE20 Carrier frequency (MHz): 5600



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



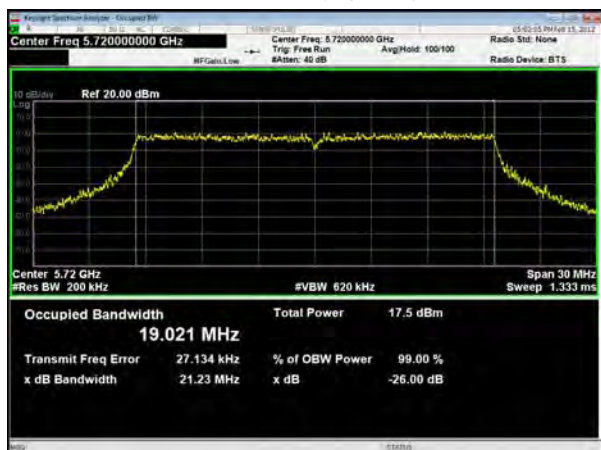
U-NII-2C, 802.11ax HE20 Carrier frequency (MHz): 5700



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



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



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



U-NII-2C, 802.11ax HE160 Carrier frequency (MHz): 5570





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



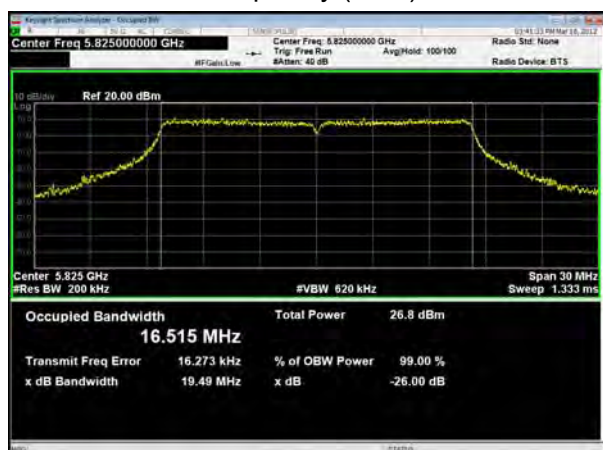
U-NII-3, 802.11n HT20

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



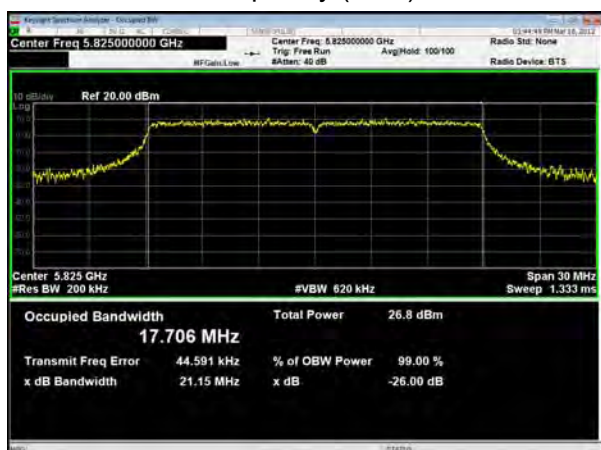
U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5785



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



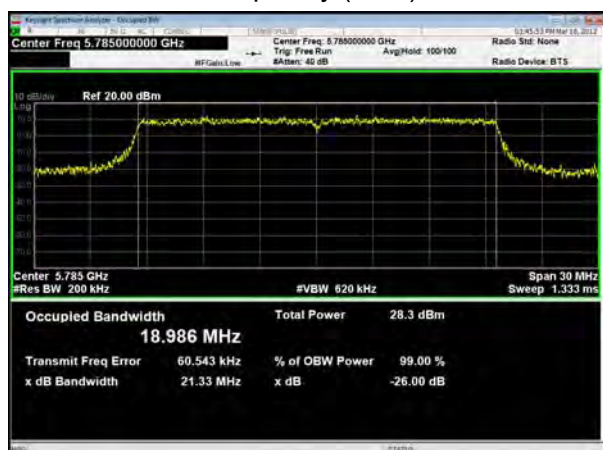
U-NII-3, 802.11ax HE20 Carrier frequency (MHz): 5745



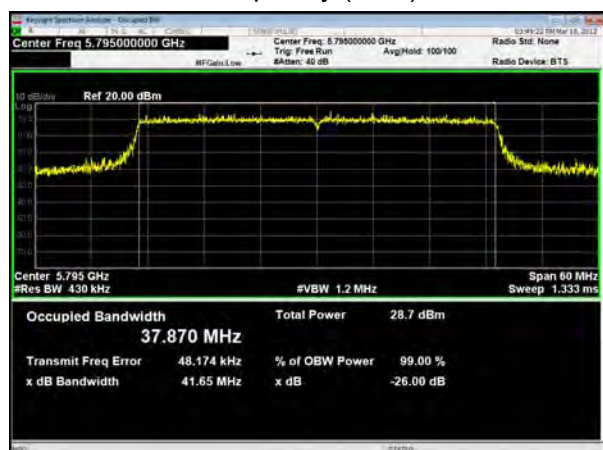
U-NII-3, 802.11ax HE40 Carrier frequency (MHz): 5755



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

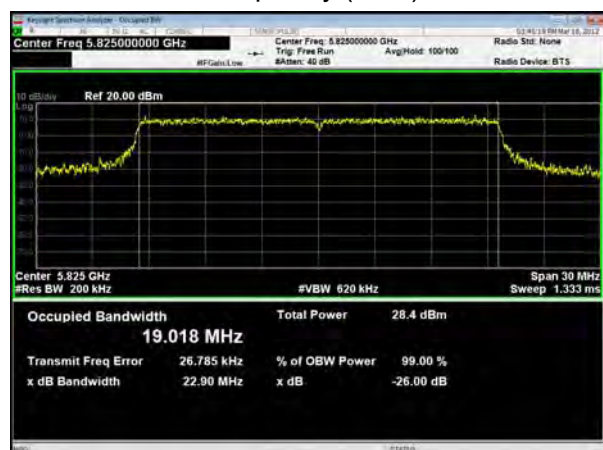


U-NII-3, 802.11ax HE40 Carrier frequency (MHz): 5795

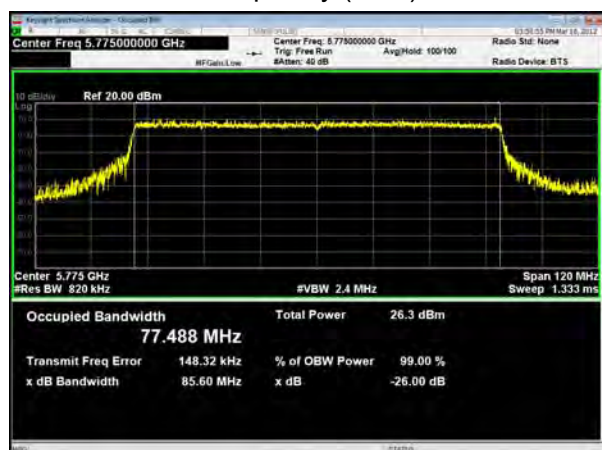




U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5825



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



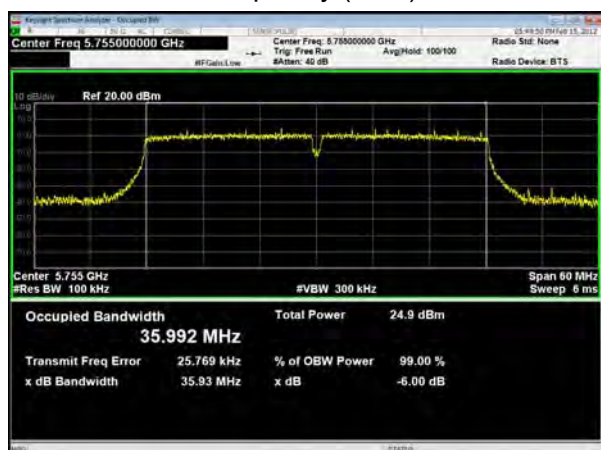
U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5795



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

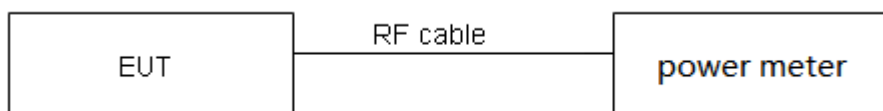
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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	1.98	2.06	0.96	0.19
802.11n HT20	5.42	6.32	0.86	0.67
802.11n HT40	5.38	6.36	0.85	0.73
802.11ac VHT20	5.42	6.32	0.86	0.67
802.11ac VHT40	5.40	6.32	0.85	0.73
802.11ac VHT80	5.40	6.34	0.85	0.73
802.11ac VHT160	5.42	5.94	0.91	0.40
802.11ax HE20	5.40	6.32	0.85	0.73
802.11ax HE40	5.38	6.32	0.85	0.73
802.11ax HE80	5.40	6.30	0.86	0.67
802.11ax HE160	5.40	5.84	0.92	0.34

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	20.33	24.08>24	24.00
		60/5300	20.30	24.08>24	24.00
		64/5320	19.59	23.92<24	23.92
	802.11n HT20	52/5260	20.89	24.20>24	24.00
		60/5300	20.97	24.22>24	24.00
		64/5320	21.20	24.26>24	24.00
	802.11n HT40	54/5270	38.92	26.90>24	24.00
		62/5310	39.04	26.92>24	24.00
	802.11ac VHT20	52/5260	20.45	24.11>24	24.00
		60/5300	20.71	24.16>24	24.00
		64/5320	20.76	24.17>24	24.00
	802.11ac VHT40	54/5270	38.96	26.91>24	24.00
		62/5310	38.88	26.90>24	24.00
	802.11ac VHT80	58/5290	80.56	30.06>24	24.00
	802.11ac VHT160	50/5250	170.40	33.31>24	24.00
	802.11ax HE20	52/5260	21.35	24.29>24	24.00
		60/5300	21.12	24.25>24	24.00
		64/5320	21.19	24.26>24	24.00
	802.11ax HE40	54/5270	40.11	27.03>24	24.00
		62/5310	40.09	27.03>24	24.00
	802.11ax	58/5290	81.47	30.11>24	24.00



	HE80				
	802.11ax HE160	50/5250	167.21	33.23>24	24.00
U-NII-2C	802.11a	100/5500	19.94	24.00	24.00
		120/5600	20.23	24.06>24	24.00
		140/5700	20.27	24.07>24	24.00
		144/5720	19.81	23.97<24	23.97
	802.11n HT20	100/5500	21.11	24.25>24	24.00
		120/5600	21.41	24.31>24	24.00
		140/5700	21.13	24.25>24	24.00
		144/5720	20.70	24.16>24	24.00
	802.11n HT40	102/5510	39.80	27.00>24	24.00
		110/5550	39.96	27.02>24	24.00
		134/5670	39.67	26.98>24	24.00
		142/5710	40.18	27.04>24	24.00
	802.11ac VHT20	100/5500	20.92	24.21>24	24.00
		120/5600	21.41	24.31>24	24.00
		140/5700	20.95	24.21>24	24.00
		144/5720	20.78	24.18>24	24.00
	802.11ac VHT40	102/5510	39.04	26.92>24	24.00
		110/5550	38.80	26.89>24	24.00
		134/5670	38.91	26.90>24	24.00
		142/5710	39.18	26.93>24	24.00
	802.11ac VHT80	106/5530	80.23	30.04>24	24.00
		122/5610	80.55	30.06>24	24.00
		138/5690	80.58	30.06>24	24.00
	802.11ac VHT160	114/5570	169.10	33.28>24	24.00
	802.11ax HE20	100/5500	21.53	24.33>24	24.00
		120/5600	21.60	24.34>24	24.00
		140/5700	20.93	24.21>24	24.00
		144/5720	21.23	24.27>24	24.00
	802.11ax HE40	102/5510	40.15	27.04>24	24.00
		110/5550	40.06	27.03>24	24.00
		134/5670	39.74	26.99>24	24.00
		142/5710	40.55	27.08>24	24.00
	802.11ax HE80	106/5530	81.70	30.12>24	24.00
		122/5610	81.02	30.09>24	24.00
		138/5690	81.20	30.10>24	24.00
	802.11ax HE160	114/5570	162.02	33.10>24	24.00

Note: 250mW=24dBm

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



INPAQ:

MIMO Antenna

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	21.49	21.68	20.54	20.73	20.06	20.25	20.85	21.04	26.98	30.00	PASS
	44/5220	20.56	20.75	20.99	21.18	19.93	20.12	20.59	20.78	26.74	30.00	PASS
	48/5240	21.64	21.83	20.49	20.68	19.74	19.93	20.69	20.88	26.90	30.00	PASS
802.11n HT20	36/5180	19.64	20.31	18.95	19.62	18.36	19.03	18.84	19.51	25.66	30.00	PASS
	44/5220	20.66	21.33	20.49	21.16	19.35	20.02	19.76	20.43	26.79	30.00	PASS
	48/5240	21.18	21.85	20.07	20.74	19.26	19.93	20.01	20.68	26.87	30.00	PASS
802.11n HT40	38/5190	18.06	18.79	17.11	17.84	16.86	17.59	16.93	17.66	24.02	30.00	PASS
	46/5230	23.31	24.04	22.62	23.35	21.77	22.50	22.68	23.41	29.38	30.00	PASS
802.11ac VHT20	36/5180	20.20	20.87	19.23	19.90	18.60	19.27	19.01	19.68	25.99	30.00	PASS
	44/5220	20.87	21.54	20.45	21.12	19.41	20.08	19.91	20.58	26.88	30.00	PASS
	48/5240	21.12	21.79	20.07	20.74	19.28	19.95	20.04	20.71	26.87	30.00	PASS
802.11ac VHT40	38/5190	18.00	18.73	17.06	17.79	16.90	17.63	17.02	17.75	24.02	30.00	PASS
	46/5230	23.31	24.04	22.73	23.46	21.68	22.41	22.60	23.33	29.37	30.00	PASS
802.11ac VHT80	42/5210	16.15	16.88	15.74	16.47	15.19	15.92	14.99	15.72	22.29	30.00	PASS
802.11ax HE20	36/5180	19.99	20.72	19.45	20.18	18.87	19.60	19.43	20.16	26.20	30.00	PASS
	44/5220	21.51	22.24	21.01	21.74	19.87	20.60	20.42	21.15	27.50	30.00	PASS
	48/5240	21.69	22.42	20.52	21.25	19.87	20.60	20.42	21.15	27.43	30.00	PASS
802.11ax HE40	38/5190	18.48	19.21	17.61	18.34	17.18	17.91	17.53	18.26	24.48	30.00	PASS
	46/5230	23.51	24.24	22.61	23.34	21.91	22.64	22.72	23.45	29.47	30.00	PASS
802.11ax HE80	42/5210	15.72	16.39	15.35	16.02	14.92	15.59	14.73	15.40	21.89	30.00	PASS

Note: 1. Average Power with duty factor = Average Power Measured +Duty cycle correction factor

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

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

3. The manufacturer declared that the directional gain = 3.38dBi<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	14.82	15.01	14.81	15.00	13.43	13.62	14.30	14.49	20.59	24.00	PASS
	60/5300	14.81	15.00	14.44	14.63	13.08	13.27	14.40	14.59	20.44	24.00	PASS
	64/5320	14.34	14.53	14.24	14.43	13.21	13.40	14.95	15.14	20.44	23.92	PASS
802.11n HT20	52/5260	14.49	15.16	14.48	15.15	13.02	13.69	14.11	14.78	20.75	24.00	PASS
	60/5300	13.87	14.54	13.61	14.28	14.30	14.97	14.26	14.93	20.71	24.00	PASS
	64/5320	14.46	15.13	14.45	15.12	14.28	14.95	14.37	15.04	21.08	24.00	PASS
802.11n HT40	54/5270	17.52	18.25	16.72	17.45	17.25	17.98	17.08	17.81	23.90	24.00	PASS
	62/5310	17.05	17.78	16.18	16.91	16.77	17.50	17.17	17.90	23.56	24.00	PASS
802.11ac VHT20	52/5260	14.86	15.53	14.29	14.96	14.39	15.06	14.31	14.98	21.16	24.00	PASS
	60/5300	14.50	15.17	14.20	14.87	14.42	15.09	14.55	15.22	21.11	24.00	PASS
	64/5320	14.25	14.92	13.61	14.28	14.27	14.94	14.56	15.23	20.87	24.00	PASS
802.11ac VHT40	54/5270	17.03	17.76	16.67	17.40	17.05	17.78	17.00	17.73	23.69	24.00	PASS
	62/5310	16.84	17.57	15.95	16.68	16.90	17.63	17.09	17.82	23.47	24.00	PASS
802.11ac VHT80	58/5290	16.51	17.24	16.12	16.85	16.73	17.46	16.79	17.52	23.30	24.00	PASS
802.11ac VHT160	50/5250	12.93	13.33	12.36	12.76	12.23	12.63	11.78	12.18	18.76	24.00	PASS
802.11ax HE20	52/5260	14.27	15.00	14.05	14.78	14.09	14.82	13.77	14.50	20.80	24.00	PASS
	60/5300	14.06	14.79	13.73	14.46	14.28	15.01	13.95	14.68	20.76	24.00	PASS
	64/5320	13.80	14.53	13.31	14.04	14.21	14.94	14.01	14.74	20.60	24.00	PASS
802.11ax HE40	54/5270	17.29	18.02	16.76	17.49	17.15	17.88	17.00	17.73	23.81	24.00	PASS
	62/5310	17.00	17.73	16.18	16.91	17.16	17.89	17.16	17.89	23.64	24.00	PASS
802.11ax HE80	58/5290	17.28	17.95	16.59	17.26	17.27	17.94	17.31	17.98	23.81	24.00	PASS
802.11ax HE160	50/5250	13.31	13.65	12.78	13.12	12.54	12.88	12.03	12.37	19.05	24.00	PASS
Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1), The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.												



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	14.60	14.79	13.46	13.65	13.94	14.13	13.41	13.60	20.09	24.00	PASS
	120/5600	14.68	14.87	14.41	14.60	14.44	14.63	13.87	14.06	20.57	24.00	PASS
	140/5700	14.64	14.83	13.27	13.46	14.54	14.73	14.84	15.03	20.57	24.00	PASS
	144/5720	13.79	13.98	13.59	13.78	14.05	14.24	14.46	14.65	20.19	23.97	PASS
802.11n HT20	100/5500	14.84	15.51	13.81	14.48	14.36	15.03	13.80	14.47	20.91	24.00	PASS
	120/5600	14.53	15.20	14.31	14.98	14.54	15.21	14.36	15.03	21.12	24.00	PASS
	140/5700	14.70	15.37	13.52	14.19	14.36	15.03	15.17	15.84	21.17	24.00	PASS
	144/5720	14.07	14.74	13.61	14.28	13.97	14.64	14.18	14.85	20.65	24.00	PASS
802.11n HT40	102/5510	17.73	18.46	16.66	17.39	16.93	17.66	16.24	16.97	23.67	24.00	PASS
	110/5550	18.00	18.73	17.04	17.77	16.92	17.65	16.86	17.59	23.98	24.00	PASS
	134/5670	16.91	17.64	15.93	16.66	16.45	17.18	16.72	17.45	23.27	24.00	PASS
	142/5710	17.25	17.98	16.22	16.95	17.02	17.75	17.67	18.40	23.82	24.00	PASS
802.11ac VHT20	100/5500	15.01	15.68	13.92	14.59	14.52	15.19	13.81	14.48	21.03	24.00	PASS
	120/5600	14.35	15.02	14.38	15.05	14.50	15.17	14.40	15.07	21.10	24.00	PASS
	140/5700	14.25	14.92	12.73	13.40	14.08	14.75	14.26	14.93	20.56	24.00	PASS
	144/5720	14.46	15.13	13.91	14.58	14.31	14.98	14.25	14.92	20.92	24.00	PASS
802.11ac VHT40	102/5510	17.82	18.55	16.30	17.03	16.93	17.66	16.33	17.06	23.64	24.00	PASS
	110/5550	17.91	18.64	16.95	17.68	17.04	17.77	16.50	17.23	23.88	24.00	PASS
	134/5670	16.75	17.48	15.86	16.59	16.24	16.97	16.72	17.45	23.16	24.00	PASS
	142/5710	17.29	18.02	16.38	17.11	17.09	17.82	17.51	18.24	23.84	24.00	PASS
802.11ac VHT80	106/5530	17.67	18.40	16.44	17.17	16.47	17.20	16.14	16.87	23.47	24.00	PASS
	122/5610	17.32	18.05	17.08	17.81	17.02	17.75	16.20	16.93	23.68	24.00	PASS
	138/5690	17.37	18.10	16.41	17.14	17.15	17.88	17.52	18.25	23.88	24.00	PASS
802.11ac VHT160	114/5570	15.16	15.56	14.65	15.05	14.76	15.16	14.07	14.47	21.10	24.00	PASS
802.11ax HE20	100/5500	14.96	15.69	13.61	14.34	14.19	14.92	13.67	14.40	20.89	24.00	PASS
	120/5600	14.62	15.35	14.03	14.76	14.48	15.21	13.91	14.64	21.02	24.00	PASS
	140/5700	14.54	15.27	13.38	14.11	14.63	15.36	14.32	15.05	21.00	24.00	PASS
	144/5720	14.24	14.97	13.45	14.18	14.00	14.73	14.40	15.13	20.79	24.00	PASS
802.11ax HE40	102/5510	16.71	17.44	16.31	17.04	16.86	17.59	16.37	17.10	23.32	24.00	PASS
	110/5550	17.02	17.75	16.76	17.49	17.12	17.85	16.60	17.33	23.63	24.00	PASS



	134/5670	16.79	17.52	15.85	16.58	16.41	17.14	16.32	17.05	23.11	24.00	PASS
	142/5710	16.70	17.43	15.28	16.01	16.32	17.05	16.35	17.08	22.94	24.00	PASS
802.11ax HE80	106/5530	18.10	18.77	17.04	17.71	17.27	17.94	16.57	17.24	23.97	24.00	PASS
	122/5610	17.93	18.60	17.14	17.81	17.33	18.00	16.60	17.27	23.97	24.00	PASS
	138/5690	17.22	17.89	15.54	16.21	16.74	17.41	16.52	17.19	23.24	24.00	PASS
802.11ax HE160	114/5570	17.38	17.72	16.60	16.94	16.75	17.09	16.50	16.84	23.18	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	23.35	23.54	23.93	24.12	23.43	23.62	23.03	23.22	29.66	30.00	PASS
	157/5785	22.72	22.91	23.74	23.93	22.62	22.81	22.21	22.40	29.07	30.00	PASS
	165/5825	22.55	22.74	23.13	23.32	22.78	22.97	22.38	22.57	28.93	30.00	PASS
802.11n HT20	149/5745	22.87	23.54	23.58	24.25	22.77	23.44	22.47	23.14	29.63	30.00	PASS
	157/5785	22.20	22.87	23.19	23.86	22.14	22.81	21.80	22.47	29.05	30.00	PASS
	165/5825	22.19	22.86	22.79	23.46	22.24	22.91	21.69	22.36	28.93	30.00	PASS
802.11n HT40	151/5755	23.35	24.08	22.42	23.15	23.46	24.19	23.14	23.87	29.86	30.00	PASS
	159/5795	23.15	23.88	22.29	23.02	22.57	23.30	21.97	22.70	29.26	30.00	PASS
802.11ac VHT20	149/5745	22.94	23.61	22.03	22.70	22.81	23.48	22.64	23.31	29.31	30.00	PASS
	157/5785	22.58	23.25	21.55	22.22	21.92	22.59	21.70	22.37	28.64	30.00	PASS
	165/5825	22.66	23.33	21.25	21.92	22.26	22.93	21.64	22.31	28.67	30.00	PASS
802.11ac VHT40	151/5755	23.68	24.41	22.34	23.07	23.33	24.06	23.05	23.78	29.88	30.00	PASS
	159/5795	22.92	23.65	22.36	23.09	22.84	23.57	22.00	22.73	29.30	30.00	PASS
802.11ac VHT80	155/5775	20.52	21.25	19.67	20.40	20.58	21.31	19.42	20.15	26.83	30.00	PASS
802.11ax HE20	149/5745	23.38	24.11	22.73	23.46	23.18	23.91	22.58	23.31	29.73	30.00	PASS
	157/5785	23.10	23.83	22.48	23.21	22.65	23.38	22.17	22.90	29.36	30.00	PASS
	165/5825	23.01	23.74	21.74	22.47	22.94	23.67	22.14	22.87	29.24	30.00	PASS
802.11ax HE40	151/5755	22.74	23.47	22.16	22.89	22.53	23.26	22.03	22.76	29.12	30.00	PASS
	159/5795	23.31	24.04	22.40	23.13	22.98	23.71	22.28	23.01	29.51	30.00	PASS
802.11ax HE80	155/5775	20.26	20.93	19.41	20.08	19.83	20.50	19.00	19.67	26.34	30.00	PASS

Note: 1. 1.Average Power with duty factor = Average Power Measured +Duty cycle correction factor
2. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.
3. The manufacturer declared that the directional gain = 3.43dBi<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	21.74	21.93	20.34	20.53	19.07	19.26	20.46	20.65	26.71	30.00	PASS
	44/5220	21.84	22.03	20.18	20.37	20.83	21.02	20.14	20.33	27.01	30.00	PASS
	48/5240	21.79	21.98	20.35	20.54	20.92	21.11	20.16	20.35	27.06	30.00	PASS
802.11n HT20	36/5180	19.93	20.60	18.76	19.43	18.59	19.26	18.95	19.62	25.78	30.00	PASS
	44/5220	21.26	21.93	20.65	21.32	20.30	20.97	19.53	20.20	27.17	30.00	PASS
	48/5240	21.32	21.99	20.28	20.95	20.43	21.10	19.67	20.34	27.15	30.00	PASS
802.11n HT40	38/5190	18.00	18.73	17.16	17.89	17.00	17.73	16.88	17.61	24.03	30.00	PASS
	46/5230	23.75	24.48	23.04	23.77	22.91	23.64	22.21	22.94	29.76	30.00	PASS
802.11ac VHT20	36/5180	20.35	21.02	19.14	19.81	18.30	18.97	19.06	19.73	25.96	30.00	PASS
	44/5220	20.99	21.66	20.42	21.09	20.41	21.08	19.59	20.26	27.07	30.00	PASS
	48/5240	21.13	21.80	20.32	20.99	20.51	21.18	19.75	20.42	27.14	30.00	PASS
802.11ac VHT40	38/5190	18.08	18.81	17.19	17.92	16.90	17.63	17.20	17.93	24.12	30.00	PASS
	46/5230	23.78	24.51	23.15	23.88	22.60	23.33	22.29	23.02	29.74	30.00	PASS
802.11ac VHT80	42/5210	15.64	16.37	15.57	16.30	14.69	15.42	14.89	15.62	21.97	30.00	PASS
802.11ax HE20	36/5180	20.00	20.73	19.42	20.15	18.99	19.72	19.42	20.15	26.22	30.00	PASS
	44/5220	21.72	22.45	20.96	21.69	20.83	21.56	20.15	20.88	27.70	30.00	PASS
	48/5240	21.85	22.58	20.86	21.59	21.01	21.74	19.99	20.72	27.73	30.00	PASS
802.11ax HE40	38/5190	18.32	19.05	17.47	18.20	17.11	17.84	17.38	18.11	24.34	30.00	PASS
	46/5230	23.51	24.24	22.86	23.59	22.76	23.49	22.32	23.05	29.63	30.00	PASS
802.11ax HE80	42/5210	15.79	16.46	15.45	16.12	14.99	15.66	14.79	15.46	21.96	30.00	PASS

Note: 1. 1.Average Power with duty factor = Average Power Measured +Duty cycle correction factor

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

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

3. The manufacturer declared that the directional gain =3.33dBi<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	15.05	15.24	14.90	15.09	15.10	15.29	14.12	14.31	21.02	24.00	PASS
	60/5300	15.10	15.29	14.70	14.89	15.00	15.19	14.82	15.01	21.12	24.00	PASS
	64/5320	14.61	14.80	14.17	14.36	14.62	14.81	14.75	14.94	20.75	23.92	PASS
802.11n HT20	52/5260	14.65	15.32	14.47	15.14	14.44	15.11	13.56	14.23	20.99	24.00	PASS
	60/5300	14.58	15.25	14.04	14.71	14.35	15.02	14.04	14.71	20.95	24.00	PASS
	64/5320	14.03	14.70	13.60	14.27	14.00	14.67	14.11	14.78	20.63	24.00	PASS
802.11n HT40	54/5270	16.65	17.38	17.01	17.74	17.16	17.89	16.30	17.03	23.54	24.00	PASS
	62/5310	16.69	17.42	16.40	17.3	16.92	17.65	16.53	17.26	23.39	24.00	PASS
802.11ac VHT20	52/5260	14.54	15.21	14.44	15.11	14.62	15.29	13.55	14.22	21.00	24.00	PASS
	60/5300	14.55	15.22	14.25	14.92	14.52	15.19	14.26	14.93	21.09	24.00	PASS
	64/5320	14.11	14.78	13.77	14.44	13.75	14.42	14.19	14.86	20.65	24.00	PASS
802.11ac VHT40	54/5270	16.58	17.31	16.64	17.37	16.86	17.59	16.29	17.02	23.35	24.00	PASS
	62/5310	16.79	17.52	16.46	17.19	16.73	17.46	16.37	17.10	23.34	24.00	PASS
802.11ac VHT80	58/5290	16.50	17.23	16.26	16.99	16.52	17.25	16.01	16.74	23.08	24.00	PASS
802.11ac VHT160	50/5250	13.02	13.42	12.42	12.82	12.05	12.45	11.57	11.97	18.72	24.00	PASS
802.11ax HE20	52/5260	14.16	14.89	13.87	14.60	14.07	14.80	13.07	13.80	20.56	24.00	PASS
	60/5300	14.26	14.99	13.99	14.72	14.39	15.12	13.90	14.63	20.89	24.00	PASS
	64/5320	13.62	14.35	13.19	13.92	13.74	14.47	13.79	14.52	20.34	24.00	PASS
802.11ax HE40	54/5270	17.21	17.94	17.60	18.33	17.18	17.91	16.60	17.33	23.91	24.00	PASS
	62/5310	17.08	17.81	16.95	17.68	17.47	18.20	16.95	17.68	23.87	24.00	PASS
802.11ax HE80	58/5290	17.51	18.18	17.11	17.78	17.55	18.22	16.90	17.57	23.97	24.00	PASS
802.11ax HE160	50/5250	13.43	13.77	12.77	13.11	12.39	12.73	11.78	12.12	18.99	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	15.44	15.63	14.81	15.00	14.75	14.94	14.55	14.74	21.11	24.00	PASS
	120/5600	14.66	14.85	14.69	14.88	14.86	15.05	14.16	14.35	20.81	24.00	PASS
	140/5700	14.81	15.00	14.20	14.39	14.46	14.65	15.00	15.19	20.84	24.00	PASS
	144/5720	14.37	14.56	14.65	14.84	14.83	15.02	14.55	14.74	20.81	23.97	PASS
802.11n HT20	100/5500	14.98	15.65	14.51	15.18	14.29	14.96	14.13	14.80	21.18	24.00	PASS
	120/5600	14.06	14.73	14.09	14.76	14.50	15.17	13.90	14.57	20.83	24.00	PASS
	140/5700	15.25	15.92	13.81	14.48	14.02	14.69	14.00	14.67	21.00	24.00	PASS
	144/5720	14.44	15.11	13.82	14.49	13.83	14.50	13.34	14.01	20.56	24.00	PASS
802.11n HT40	102/5510	17.00	17.73	16.80	17.53	16.60	17.33	16.00	16.73	23.36	24.00	PASS
	110/5550	17.51	18.24	17.20	17.93	17.10	17.83	16.40	17.13	23.82	24.00	PASS
	134/5670	17.31	18.04	17.39	18.12	17.15	17.88	16.90	17.63	23.94	24.00	PASS
	142/5710	16.58	17.31	16.92	17.65	16.63	17.36	16.29	17.02	23.36	24.00	PASS
802.11ac VHT20	100/5500	14.70	15.37	14.36	15.03	14.06	14.73	13.66	14.33	20.90	24.00	PASS
	120/5600	14.10	14.77	14.04	14.71	14.29	14.96	13.27	13.94	20.63	24.00	PASS
	140/5700	14.37	15.04	14.11	14.78	14.48	15.15	14.02	14.69	20.94	24.00	PASS
	144/5720	13.64	14.31	14.07	14.74	14.21	14.88	13.39	14.06	20.53	24.00	PASS
802.11ac VHT40	102/5510	17.37	18.10	16.83	17.56	16.76	17.49	16.15	16.88	23.55	24.00	PASS
	110/5550	17.16	17.89	17.12	17.85	16.86	17.59	16.45	17.18	23.66	24.00	PASS
	134/5670	16.85	17.58	17.14	17.87	17.11	17.84	16.79	17.52	23.73	24.00	PASS
	142/5710	16.82	17.55	16.75	17.48	16.39	17.12	16.06	16.79	23.27	24.00	PASS
802.11ac VHT80	106/5530	16.94	17.67	16.69	17.42	16.64	17.37	16.13	16.86	23.36	24.00	PASS
	122/5610	17.01	17.74	17.28	18.01	17.13	17.86	17.00	17.73	23.86	24.00	PASS
	138/5690	16.92	17.65	16.56	17.29	16.73	17.46	16.37	17.10	23.40	24.00	PASS
802.11ac VHT160	114/5570	15.38	15.78	14.51	14.91	14.67	15.07	14.17	14.57	21.12	24.00	PASS
802.11ax HE20	100/5500	14.80	15.53	14.68	15.41	14.48	15.21	13.99	14.72	21.25	24.00	PASS
	120/5600	14.40	15.13	14.65	15.38	14.71	15.44	13.69	14.42	21.13	24.00	PASS
	140/5700	14.29	15.02	13.91	14.64	13.85	14.58	13.64	14.37	20.68	24.00	PASS
	144/5720	14.50	15.23	14.65	15.38	14.87	15.60	14.00	14.73	21.27	24.00	PASS
802.11ax HE40	102/5510	17.37	18.10	17.05	17.78	16.70	17.43	16.60	17.33	23.69	24.00	PASS
	110/5550	17.57	18.30	17.21	17.94	17.30	18.03	16.60	17.33	23.93	24.00	PASS



	134/5670	16.58	17.31	16.39	17.12	16.55	17.28	16.71	17.44	23.31	24.00	PASS
	142/5710	16.12	16.85	16.53	17.26	16.50	17.23	16.41	17.14	23.14	24.00	PASS
802.11ax HE80	106/5530	17.10	17.77	16.94	17.61	16.83	17.50	16.43	17.10	23.52	24.00	PASS
	122/5610	17.25	17.92	17.17	17.84	17.19	17.86	17.18	17.85	23.89	24.00	PASS
	138/5690	16.93	17.60	16.84	17.51	16.98	17.65	17.00	17.67	23.63	24.00	PASS
802.11ax HE160	114/5570	17.74	18.08	17.79	18.13	17.41	17.75	17.34	17.68	23.94	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	23.41	23.60	23.42	23.61	23.85	24.04	23.13	23.32	29.67	30.00	PASS
	157/5785	22.68	22.87	23.19	23.38	23.30	23.49	22.11	22.30	29.05	30.00	PASS
	165/5825	22.60	22.79	23.10	23.29	22.99	23.18	22.60	22.79	29.04	30.00	PASS
802.11n HT20	149/5745	22.99	23.66	23.10	23.77	23.50	24.17	22.89	23.56	29.81	30.00	PASS
	157/5785	22.78	23.45	22.85	23.52	22.74	23.41	22.67	23.34	29.45	30.00	PASS
	165/5825	22.47	23.14	22.89	23.56	22.68	23.35	22.00	22.67	29.21	30.00	PASS
802.11n HT40	151/5755	22.75	23.48	22.58	23.31	22.29	23.02	22.28	23.01	29.23	30.00	PASS
	159/5795	22.43	23.16	23.78	24.51	23.36	24.09	22.40	23.13	29.78	30.00	PASS
802.11ac VHT20	149/5745	22.40	23.07	23.40	24.07	23.78	24.45	22.70	23.37	29.79	30.00	PASS
	157/5785	22.60	23.27	23.16	23.83	23.10	23.77	22.14	22.81	29.46	30.00	PASS
	165/5825	22.17	22.84	22.50	23.17	22.40	23.07	22.36	23.03	29.05	30.00	PASS
802.11ac VHT40	151/5755	22.79	23.52	22.94	23.67	22.60	23.33	22.40	23.13	29.44	30.00	PASS
	159/5795	23.40	24.13	23.70	24.43	23.30	24.03	22.40	23.13	29.98	30.00	PASS
802.11ac VHT80	155/5775	20.51	21.24	19.95	20.68	20.42	21.15	19.40	20.13	26.84	30.00	PASS
802.11ax HE20	149/5745	22.90	23.63	22.80	23.53	22.60	23.33	23.11	23.84	29.61	30.00	PASS
	157/5785	22.75	23.48	22.79	23.52	22.87	23.60	22.00	22.73	29.37	30.00	PASS
	165/5825	22.12	22.85	22.24	22.97	22.26	22.99	22.00	22.73	28.91	30.00	PASS
802.11ax HE40	151/5755	22.83	23.56	22.12	22.85	22.25	22.98	22.55	23.28	29.20	30.00	PASS
	159/5795	22.49	23.22	22.76	23.49	22.40	23.13	22.00	22.73	29.17	30.00	PASS
802.11ax HE80	155/5775	20.16	20.83	19.45	20.12	19.96	20.63	19.06	19.73	26.37	30.00	PASS

Note: 1. 1.Average Power with duty factor = Average Power Measured +Duty cycle correction factor
2. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power = $10\log(10^{(\text{Power antenna1 in dBm}/10)} + 10^{(\text{Power antenna2 in dBm}/10)} + 10^{(\text{Power antenna3 in dBm}/10)} + 10^{(\text{Power antenna4 in dBm}/10)})$.
3. The manufacturer declared that the directional gain =4.43dBi<6dBi. So the power limit is 30dBm.



Signal Plus:

MIMO Antenna

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	21.49	21.68	20.54	20.73	20.06	20.25	20.85	21.04	26.98	30.00	PASS
	44/5220	20.56	20.75	20.99	21.18	19.93	20.12	20.59	20.78	26.74	30.00	PASS
	48/5240	21.64	21.83	20.49	20.68	19.74	19.93	20.69	20.88	26.90	30.00	PASS
802.11n HT20	36/5180	20.87	21.54	20.18	20.85	19.47	20.14	20.16	20.83	26.89	30.00	PASS
	44/5220	20.66	21.33	20.49	21.16	19.35	20.02	19.76	20.43	26.79	30.00	PASS
	48/5240	21.18	21.85	20.07	20.74	19.26	19.93	20.01	20.68	26.87	30.00	PASS
802.11n HT40	38/5190	20.22	20.95	19.78	20.51	19.79	20.52	19.35	20.08	26.54	30.00	PASS
	46/5230	23.31	24.04	22.62	23.35	21.77	22.50	22.68	23.41	29.38	30.00	PASS
802.11ac VHT20	36/5180	20.89	21.56	20.11	20.78	19.52	20.19	20.30	20.97	26.92	30.00	PASS
	44/5220	20.87	21.54	20.45	21.12	19.41	20.08	19.91	20.58	26.88	30.00	PASS
	48/5240	21.12	21.79	20.07	20.74	19.28	19.95	20.04	20.71	26.87	30.00	PASS
802.11ac VHT40	38/5190	20.48	21.21	19.87	20.60	19.24	19.97	19.60	20.33	26.57	30.00	PASS
	46/5230	23.31	24.04	22.73	23.46	21.68	22.41	22.60	23.33	29.37	30.00	PASS
802.11ac VHT80	42/5210	19.81	20.54	19.43	20.16	19.02	19.75	18.59	19.32	25.99	30.00	PASS
802.11ax HE20	36/5180	20.83	21.56	19.93	20.66	19.64	20.37	19.70	20.43	26.80	30.00	PASS
	44/5220	21.51	22.24	21.01	21.74	19.87	20.60	20.42	21.15	27.50	30.00	PASS
	48/5240	21.69	22.42	20.52	21.25	19.87	20.60	20.42	21.15	27.43	30.00	PASS
802.11ax HE40	38/5190	17.12	17.85	17.21	17.94	17.08	17.81	17.00	17.73	23.85	30.00	PASS
	46/5230	23.51	24.24	22.61	23.34	21.91	22.64	22.72	23.45	29.47	30.00	PASS
802.11ax HE80	42/5210	17.01	17.68	16.99	17.66	16.99	17.66	17.16	17.83	23.73	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 = 3.50 <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	14.82	15.01	14.81	15.00	13.43	13.62	14.30	14.49	20.59	24.00	PASS
	60/5300	14.81	15.00	14.44	14.63	13.08	13.27	14.40	14.59	20.44	24.00	PASS
	64/5320	14.34	14.53	14.24	14.43	13.21	13.40	14.95	15.14	20.44	23.92	PASS
802.11n HT20	52/5260	14.49	15.16	14.48	15.15	13.02	13.69	14.11	14.78	20.75	24.00	PASS
	60/5300	13.87	14.54	13.61	14.28	14.30	14.97	14.26	14.93	20.71	24.00	PASS
	64/5320	14.46	15.13	14.45	15.12	14.28	14.95	14.37	15.04	21.08	24.00	PASS
802.11n HT40	54/5270	17.52	18.25	16.72	17.45	17.25	17.98	17.08	17.81	23.90	24.00	PASS
	62/5310	17.05	17.78	16.18	16.91	16.77	17.50	17.17	17.90	23.56	24.00	PASS
802.11ac VHT20	52/5260	14.86	15.53	14.29	14.96	14.39	15.06	14.31	14.98	21.16	24.00	PASS
	60/5300	14.50	15.17	14.20	14.87	14.42	15.09	14.55	15.22	21.11	24.00	PASS
	64/5320	14.25	14.92	13.61	14.28	14.27	14.94	14.56	15.23	20.87	24.00	PASS
802.11ac VHT40	54/5270	17.03	17.76	16.67	17.40	17.05	17.78	17.00	17.73	23.69	24.00	PASS
	62/5310	16.84	17.57	15.95	16.68	16.90	17.63	17.09	17.82	23.47	24.00	PASS
802.11ac VHT80	58/5290	16.51	17.24	16.12	16.85	16.73	17.46	16.79	17.52	23.30	24.00	PASS
802.11ac VHT160	50/5250	13.87	14.27	13.37	13.77	13.18	13.58	13.77	14.17	19.98	24.00	PASS
802.11ax HE20	52/5260	14.27	15.00	14.05	14.78	14.09	14.82	13.77	14.50	20.80	24.00	PASS
	60/5300	14.06	14.79	13.73	14.46	14.28	15.01	13.95	14.68	20.76	24.00	PASS
	64/5320	13.80	14.53	13.31	14.04	14.21	14.94	14.01	14.74	20.60	24.00	PASS
802.11ax HE40	54/5270	17.29	18.02	16.76	17.49	17.15	17.88	17.00	17.73	23.81	24.00	PASS
	62/5310	17.00	17.73	16.18	16.91	17.16	17.89	17.16	17.89	23.64	24.00	PASS
802.11ax HE80	58/5290	17.28	17.95	16.59	17.26	17.27	17.94	17.31	17.98	23.81	24.00	PASS
802.11ax HE160	50/5250	13.57	13.91	12.84	13.18	12.89	13.23	12.99	13.33	19.44	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	14.60	14.79	13.46	13.65	13.94	14.13	13.41	13.60	20.09	24.00	PASS
	120/5600	14.68	14.87	14.41	14.60	14.44	14.63	13.87	14.06	20.57	24.00	PASS
	140/5700	14.64	14.83	13.27	13.46	14.54	14.73	14.84	15.03	20.57	24.00	PASS
	144/5720	13.79	13.98	13.59	13.78	14.05	14.24	14.46	14.65	20.19	23.97	PASS
802.11n HT20	100/5500	14.84	15.51	13.81	14.48	14.36	15.03	13.80	14.47	20.91	24.00	PASS
	120/5600	14.53	15.20	14.31	14.98	14.54	15.21	14.36	15.03	21.12	24.00	PASS
	140/5700	14.70	15.37	13.52	14.19	14.36	15.03	15.17	15.84	21.17	24.00	PASS
	144/5720	14.07	14.74	13.61	14.28	13.97	14.64	14.18	14.85	20.65	24.00	PASS
802.11n HT40	102/5510	17.73	18.46	16.66	17.39	16.93	17.66	16.24	16.97	23.67	24.00	PASS
	110/5550	18.00	18.73	17.04	17.77	16.92	17.65	16.86	17.59	23.98	24.00	PASS
	134/5670	16.91	17.64	15.93	16.66	16.45	17.18	16.72	17.45	23.27	24.00	PASS
	142/5710	17.25	17.98	16.22	16.95	17.02	17.75	17.67	18.40	23.82	24.00	PASS
802.11ac VHT20	100/5500	15.01	15.68	13.92	14.59	14.52	15.19	13.81	14.48	21.03	24.00	PASS
	120/5600	14.35	15.02	14.38	15.05	14.50	15.17	14.40	15.07	21.10	24.00	PASS
	140/5700	14.25	14.92	12.73	13.40	14.08	14.75	14.26	14.93	20.56	24.00	PASS
	144/5720	14.46	15.13	13.91	14.58	14.31	14.98	14.25	14.92	20.92	24.00	PASS
802.11ac VHT40	102/5510	17.82	18.55	16.30	17.03	16.93	17.66	16.33	17.06	23.64	24.00	PASS
	110/5550	17.91	18.64	16.95	17.68	17.04	17.77	16.50	17.23	23.88	24.00	PASS
	134/5670	16.75	17.48	15.86	16.59	16.24	16.97	16.72	17.45	23.16	24.00	PASS
	142/5710	17.29	18.02	16.38	17.11	17.09	17.82	17.51	18.24	23.84	24.00	PASS
802.11ac VHT80	106/5530	17.67	18.40	16.44	17.17	16.47	17.20	16.14	16.87	23.47	24.00	PASS
	122/5610	17.32	18.05	17.08	17.81	17.02	17.75	16.20	16.93	23.68	24.00	PASS
	138/5690	17.37	18.10	16.41	17.14	17.15	17.88	17.52	18.25	23.88	24.00	PASS
802.11ac VHT160	114/5570	16.07	16.47	15.36	15.76	15.82	16.22	15.54	15.94	22.12	24.00	PASS
802.11ax HE20	100/5500	14.96	15.69	13.61	14.34	14.19	14.92	13.67	14.40	20.89	24.00	PASS
	120/5600	14.62	15.35	14.03	14.76	14.48	15.21	13.91	14.64	21.02	24.00	PASS
	140/5700	14.54	15.27	13.38	14.11	14.63	15.36	14.32	15.05	21.00	24.00	PASS
	144/5720	14.24	14.97	13.45	14.18	14.00	14.73	14.40	15.13	20.79	24.00	PASS
802.11ax HE40	102/5510	16.36	17.09	15.01	15.74	15.35	16.08	15.15	15.88	22.25	24.00	PASS
	110/5550	17.02	17.75	16.76	17.49	17.12	17.85	16.60	17.33	23.63	24.00	PASS

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	134/5670	16.79	17.52	15.85	16.58	16.41	17.14	16.32	17.05	23.11	24.00	PASS
	142/5710	16.70	17.43	15.28	16.01	16.32	17.05	16.35	17.08	22.94	24.00	PASS
802.11ax HE80	106/5530	18.10	18.77	17.04	17.71	17.27	17.94	16.57	17.24	23.97	24.00	PASS
	122/5610	17.93	18.60	17.14	17.81	17.33	18.00	16.60	17.27	23.97	24.00	PASS
	138/5690	17.22	17.89	15.54	16.21	16.74	17.41	16.52	17.19	23.24	24.00	PASS
802.11ax HE160	114/5570	17.38	17.72	16.60	16.94	16.75	17.09	16.50	16.84	23.18	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	23.35	23.54	23.93	24.12	23.43	23.62	23.03	23.22	29.66	30.00	PASS
	157/5785	22.72	22.91	23.74	23.93	22.62	22.81	22.21	22.40	29.07	30.00	PASS
	165/5825	22.55	22.74	23.13	23.32	22.78	22.97	22.38	22.57	28.93	30.00	PASS
802.11n HT20	149/5745	22.87	23.54	23.58	24.25	22.77	23.44	22.47	23.14	29.63	30.00	PASS
	157/5785	22.20	22.87	23.19	23.86	22.14	22.81	21.80	22.47	29.05	30.00	PASS
	165/5825	22.19	22.86	22.79	23.46	22.24	22.91	21.69	22.36	28.93	30.00	PASS
802.11n HT40	151/5755	23.35	24.08	22.42	23.15	23.46	24.19	23.14	23.87	29.86	30.00	PASS
	159/5795	23.15	23.88	22.29	23.02	22.57	23.30	21.97	22.70	29.26	30.00	PASS
802.11ac VHT20	149/5745	22.94	23.61	22.03	22.70	22.81	23.48	22.64	23.31	29.31	30.00	PASS
	157/5785	22.58	23.25	21.55	22.22	21.92	22.59	21.70	22.37	28.64	30.00	PASS
	165/5825	22.66	23.33	21.25	21.92	22.26	22.93	21.64	22.31	28.67	30.00	PASS
802.11ac VHT40	151/5755	23.68	24.41	22.34	23.07	23.33	24.06	23.05	23.78	29.88	30.00	PASS
	159/5795	22.92	23.65	22.36	23.09	22.84	23.57	22.00	22.73	29.30	30.00	PASS
802.11ac VHT80	155/5775	22.66	23.39	22.23	22.96	22.73	23.46	22.01	22.74	29.17	30.00	PASS
802.11ax HE20	149/5745	23.38	24.11	22.73	23.46	23.18	23.91	22.58	23.31	29.73	30.00	PASS
	157/5785	23.10	23.83	22.48	23.21	22.65	23.38	22.17	22.90	29.36	30.00	PASS
	165/5825	23.01	23.74	21.74	22.47	22.94	23.67	22.14	22.87	29.24	30.00	PASS
802.11ax HE40	151/5755	23.74	24.47	22.58	23.31	23.01	23.74	22.48	23.21	29.73	30.00	PASS
	159/5795	23.31	24.04	22.40	23.13	22.98	23.71	22.28	23.01	29.51	30.00	PASS
802.11ax HE80	155/5775	21.10	21.77	20.16	20.83	20.90	21.57	20.02	20.69	27.26	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 = 3.50dBi < 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	21.74	21.93	20.34	20.53	19.07	19.26	20.46	20.65	26.71	30.00	PASS
	44/5220	21.84	22.03	20.18	20.37	20.83	21.02	20.14	20.33	27.01	30.00	PASS
	48/5240	21.79	21.98	20.35	20.54	20.92	21.11	20.16	20.35	27.06	30.00	PASS
802.11n HT20	36/5180	21.12	21.79	19.60	20.27	19.91	20.58	19.76	20.43	26.83	30.00	PASS
	44/5220	21.26	21.93	20.65	21.32	20.30	20.97	19.53	20.20	27.17	30.00	PASS
	48/5240	21.32	21.99	20.28	20.95	20.43	21.10	19.67	20.34	27.15	30.00	PASS
802.11n HT40	38/5190	19.78	20.51	19.89	20.62	19.76	20.49	19.59	20.32	26.50	30.00	PASS
	46/5230	23.75	24.48	23.04	23.77	22.91	23.64	22.21	22.94	29.76	30.00	PASS
802.11ac VHT20	36/5180	21.31	21.98	19.98	20.65	19.71	20.38	19.87	20.54	26.95	30.00	PASS
	44/5220	20.99	21.66	20.42	21.09	20.41	21.08	19.59	20.26	27.07	30.00	PASS
	48/5240	21.13	21.80	20.32	20.99	20.51	21.18	19.75	20.42	27.14	30.00	PASS
802.11ac VHT40	38/5190	19.59	20.32	19.69	20.42	19.91	20.64	20.10	20.83	26.58	30.00	PASS
	46/5230	23.78	24.51	23.15	23.88	22.60	23.33	22.29	23.02	29.74	30.00	PASS
802.11ac VHT80	42/5210	18.88	19.61	18.69	19.42	18.79	19.52	18.51	19.24	25.47	30.00	PASS
802.11ax HE20	36/5180	19.87	20.60	19.66	20.39	19.83	20.56	19.69	20.42	26.51	30.00	PASS
	44/5220	21.72	22.45	20.96	21.69	20.83	21.56	20.15	20.88	27.70	30.00	PASS
	48/5240	21.85	22.58	20.86	21.59	21.01	21.74	19.99	20.72	27.73	30.00	PASS
802.11ax HE40	38/5190	17.01	17.74	17.15	17.88	16.99	17.72	17.04	17.77	23.80	30.00	PASS
	46/5230	23.51	24.24	22.86	23.59	22.76	23.49	22.32	23.05	29.63	30.00	PASS
802.11ax HE80	42/5210	16.99	17.66	17.05	17.72	17.10	17.77	16.95	17.62	23.71	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 = 5.00dBi < 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	15.05	15.24	14.90	15.09	15.10	15.29	14.12	14.31	21.02	24.00	PASS
	60/5300	15.10	15.29	14.70	14.89	15.00	15.19	14.82	15.01	21.12	24.00	PASS
	64/5320	14.61	14.80	14.17	14.36	14.62	14.81	14.75	14.94	20.75	23.92	PASS
802.11n HT20	52/5260	14.65	15.32	14.47	15.14	14.44	15.11	13.56	14.23	20.99	24.00	PASS
	60/5300	14.58	15.25	14.04	14.71	14.35	15.02	14.04	14.71	20.95	24.00	PASS
	64/5320	14.03	14.70	13.60	14.27	14.00	14.67	14.11	14.78	20.63	24.00	PASS
802.11n HT40	54/5270	16.65	17.38	17.01	17.74	17.16	17.89	16.30	17.03	23.54	24.00	PASS
	62/5310	16.69	17.42	16.40	17.13	16.92	17.65	16.53	17.26	23.39	24.00	PASS
802.11ac VHT20	52/5260	14.54	15.21	14.44	15.11	14.62	15.29	13.55	14.22	21.00	24.00	PASS
	60/5300	14.55	15.22	14.25	14.92	14.52	15.19	14.26	14.93	21.09	24.00	PASS
	64/5320	14.11	14.78	13.77	14.44	13.75	14.42	14.19	14.86	20.65	24.00	PASS
802.11ac VHT40	54/5270	16.58	17.31	16.64	17.37	16.86	17.59	16.29	17.02	23.35	24.00	PASS
	62/5310	16.79	17.52	16.46	17.19	16.73	17.46	16.37	17.10	23.34	24.00	PASS
802.11ac VHT80	58/5290	16.50	17.23	16.26	16.99	16.52	17.25	16.01	16.74	23.08	24.00	PASS
802.11ac VHT160	50/5250	13.36	13.76	13.60	14.00	13.19	13.59	13.42	13.82	19.81	24.00	PASS
802.11ax HE20	52/5260	14.16	14.89	13.87	14.60	14.07	14.80	13.07	13.80	20.56	24.00	PASS
	60/5300	14.26	14.99	13.99	14.72	14.39	15.12	13.90	14.63	20.89	24.00	PASS
	64/5320	13.62	14.35	13.19	13.92	13.74	14.47	13.79	14.52	20.34	24.00	PASS
802.11ax HE40	54/5270	17.21	17.94	17.60	18.33	17.18	17.91	16.60	17.33	23.91	24.00	PASS
	62/5310	17.08	17.81	16.95	17.68	17.47	18.20	16.95	17.68	23.87	24.00	PASS
802.11ax HE80	58/5290	17.51	18.18	17.11	17.78	17.55	18.22	16.90	17.57	23.97	24.00	PASS
802.11ax HE160	50/5250	13.66	14.00	12.83	13.17	12.76	13.10	12.97	13.31	19.43	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	15.44	15.63	14.81	15.00	14.75	14.94	14.55	14.74	21.11	24.00	PASS
	120/5600	14.66	14.85	14.69	14.88	14.86	15.05	14.16	14.35	20.81	24.00	PASS
	140/5700	14.81	15.00	14.20	14.39	14.46	14.65	15.00	15.19	20.84	24.00	PASS
	144/5720	14.37	14.56	14.65	14.84	14.83	15.02	14.55	14.74	20.81	23.97	PASS
802.11n HT20	100/5500	14.98	15.65	14.51	15.18	14.29	14.96	14.13	14.80	21.18	24.00	PASS
	120/5600	14.06	14.73	14.09	14.76	14.50	15.17	13.90	14.57	20.83	24.00	PASS
	140/5700	15.25	15.92	13.81	14.48	14.02	14.69	14.00	14.67	21.00	24.00	PASS
	144/5720	14.44	15.11	13.82	14.49	13.83	14.50	13.34	14.01	20.56	24.00	PASS
802.11n HT40	102/5510	17.00	17.73	16.80	17.53	16.60	17.33	16.00	16.73	23.36	24.00	PASS
	110/5550	17.51	18.24	17.20	17.93	17.10	17.83	16.40	17.13	23.82	24.00	PASS
	134/5670	17.31	18.04	17.39	18.12	17.15	17.88	16.90	17.63	23.94	24.00	PASS
	142/5710	16.58	17.31	16.92	17.65	16.63	17.36	16.29	17.02	23.36	24.00	PASS
802.11ac VHT20	100/5500	14.70	15.37	14.36	15.03	14.06	14.73	13.66	14.33	20.90	24.00	PASS
	120/5600	14.10	14.77	14.04	14.71	14.29	14.96	13.27	13.94	20.63	24.00	PASS
	140/5700	14.37	15.04	14.11	14.78	14.48	15.15	14.02	14.69	20.94	24.00	PASS
	144/5720	13.64	14.31	14.07	14.74	14.21	14.88	13.39	14.06	20.53	24.00	PASS
802.11ac VHT40	102/5510	17.37	18.10	16.83	17.56	16.76	17.49	16.15	16.88	23.55	24.00	PASS
	110/5550	17.16	17.89	17.12	17.85	16.86	17.59	16.45	17.18	23.66	24.00	PASS
	134/5670	16.85	17.58	17.14	17.87	17.11	17.84	16.79	17.52	23.73	24.00	PASS
	142/5710	16.82	17.55	16.75	17.48	16.39	17.12	16.06	16.79	23.27	24.00	PASS
802.11ac VHT80	106/5530	16.94	17.67	16.69	17.42	16.64	17.37	16.13	16.86	23.36	24.00	PASS
	122/5610	17.01	17.74	17.28	18.01	17.13	17.86	17.00	17.73	23.86	24.00	PASS
	138/5690	16.92	17.65	16.56	17.29	16.73	17.46	16.37	17.10	23.40	24.00	PASS
802.11ac VHT160	114/5570	16.40	16.80	15.42	15.82	15.88	16.28	15.43	15.83	22.22	24.00	PASS
802.11ax HE20	100/5500	14.80	15.53	14.68	15.41	14.48	15.21	13.99	14.72	21.25	24.00	PASS
	120/5600	14.40	15.13	14.65	15.38	14.71	15.44	13.69	14.42	21.13	24.00	PASS
	140/5700	14.29	15.02	13.91	14.64	13.85	14.58	13.64	14.37	20.68	24.00	PASS
	144/5720	14.50	15.23	14.65	15.38	14.87	15.60	14.00	14.73	21.27	24.00	PASS
802.11ax HE40	102/5510	16.51	17.24	14.94	15.67	15.48	16.21	15.25	15.98	22.34	24.00	PASS
	110/5550	17.57	18.30	17.21	17.94	17.30	18.03	16.60	17.33	23.93	24.00	PASS

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	134/5670	16.58	17.31	16.39	17.12	16.55	17.28	16.71	17.44	23.31	24.00	PASS
	142/5710	16.12	16.85	16.53	17.26	16.50	17.23	16.41	17.14	23.14	24.00	PASS
802.11ax HE80	106/5530	17.10	17.77	16.94	17.61	16.83	17.50	16.43	17.10	23.52	24.00	PASS
	122/5610	17.25	17.92	17.17	17.84	17.19	17.86	17.18	17.85	23.89	24.00	PASS
	138/5690	16.93	17.60	16.84	17.51	16.98	17.65	17.00	17.67	23.63	24.00	PASS
802.11ax HE160	114/5570	17.74	18.08	17.79	18.13	17.41	17.75	17.34	17.68	23.94	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	23.41	23.60	23.42	23.61	23.85	24.04	23.13	23.32	29.67	30.00	PASS
	157/5785	22.68	22.87	23.19	23.38	23.30	23.49	22.11	22.30	29.05	30.00	PASS
	165/5825	22.60	22.79	23.10	23.29	22.99	23.18	22.60	22.79	29.04	30.00	PASS
802.11n HT20	149/5745	22.99	23.66	23.10	23.77	23.50	24.17	22.89	23.56	29.81	30.00	PASS
	157/5785	22.78	23.45	22.85	23.52	22.74	23.41	22.67	23.34	29.45	30.00	PASS
	165/5825	22.47	23.14	22.89	23.56	22.68	23.35	22.00	22.67	29.21	30.00	PASS
802.11n HT40	151/5755	22.75	23.48	22.58	23.31	22.29	23.02	22.28	23.01	29.23	30.00	PASS
	159/5795	22.43	23.16	23.78	24.51	23.36	24.09	22.40	23.13	29.78	30.00	PASS
802.11ac VHT20	149/5745	22.40	23.07	23.40	24.07	23.78	24.45	22.70	23.37	29.79	30.00	PASS
	157/5785	22.60	23.27	23.16	23.83	23.10	23.77	22.14	22.81	29.46	30.00	PASS
	165/5825	22.17	22.84	22.50	23.17	22.40	23.07	22.36	23.03	29.05	30.00	PASS
802.11ac VHT40	151/5755	22.79	23.52	22.94	23.67	22.60	23.33	22.40	23.13	29.44	30.00	PASS
	159/5795	23.40	24.13	23.70	24.43	23.30	24.03	22.40	23.13	29.98	30.00	PASS
802.11ac VHT80	155/5775	22.99	23.72	23.39	24.12	23.14	23.87	22.60	23.33	29.79	30.00	PASS
802.11ax HE20	149/5745	22.90	23.63	22.80	23.53	22.60	23.33	23.11	23.84	29.61	30.00	PASS
	157/5785	22.75	23.48	22.79	23.52	22.87	23.60	22.00	22.73	29.37	30.00	PASS
	165/5825	22.12	22.85	22.24	22.97	22.26	22.99	22.00	22.73	28.91	30.00	PASS
802.11ax HE40	151/5755	23.14	23.87	22.83	23.56	22.87	23.60	22.98	23.71	29.71	30.00	PASS
	159/5795	22.49	23.22	22.76	23.49	22.40	23.13	22.00	22.73	29.17	30.00	PASS
802.11ax HE80	155/5775	20.97	21.64	20.31	20.98	20.89	21.56	20.03	20.70	27.26	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 = 4.80dBi<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	5200.001088	5199.999427	5199.997023	5199.988782
12	-10	5199.995074	5199.990648	5199.992072	5199.983060
12	0	5199.990299	5199.980855	5199.982088	5199.974972
12	10	5199.989948	5199.977305	5199.972279	5199.970807
12	20	5199.981015	5199.967675	5199.965023	5199.969040
12	30	5199.977785	5199.961276	5199.964325	5199.967924
12	40	5199.976117	5199.954244	5199.958062	5199.958968
12	50	5199.97470	5199.947133	5199.952698	5199.949010
11.4	25	5199.968173	5199.940854	5199.948807	5199.947527
12.6	25	5199.958472	5199.937307	5199.944983	5199.939084
MHz		-0.041528371	-0.062692749	-0.055017414	-0.060915696
PPM		-7.986225175	-12.0562978	-10.58027189	-11.71455684

Voltage (V)	Temperature (°C)	U-NII-2A Test Results			
		5300MHz			
		1min	2min	5min	10min
12	-20	5300.000520	5299.992763	5299.990704	5299.990613
12	-10	5299.997863	5299.991032	5299.981804	5299.985107
12	0	5299.996401	5299.986707	5299.978574	5299.978503
12	10	5299.991537	5299.977497	5299.969682	5299.976224
12	20	5299.982618	5299.976234	5299.966118	5299.973776
12	30	5299.979495	5299.966731	5299.963952	5299.970046
12	40	5299.976579	5299.963586	5299.960287	5299.960953
12	50	5299.972439	5299.957797	5299.955426	5299.951483
11.4	25	5299.970258	5299.956856	5299.950844	5299.949097
12.6	25	5299.968711	5299.955502	5299.942477	5299.942857
MHz		-0.031288894	-0.044498202	-0.057522561	-0.057142779
PPM		-5.903564957	-8.395887127	-10.85331346	-10.78165638



Voltage (V)	Temperature (°C)	U-NII-2C Test Results			
		5580MHz			
		1min	2min	5min	10min
12	-20	5579.996554	5579.992331	5579.990614	5579.986509
12	-10	5579.991565	5579.986721	5579.988483	5579.982923
12	0	5579.985283	5579.978426	5579.985952	5579.973700
12	10	5579.977492	5579.971389	5579.977135	5579.968847
12	20	5579.971890	5579.965010	5579.972087	5579.960279
12	30	5579.971199	5579.963504	5579.968870	5579.957246
12	40	5579.965571	5579.953912	5579.964551	5579.953975
12	50	5579.957282	5579.945611	5579.962100	5579.947701
11.4	25	5579.947897	5579.937675	5579.953388	5579.943875
12.6	25	5579.944835	5579.932151	5579.949137	5579.940408
MHz		-0.055165491	-0.067848737	-0.050862597	-0.05959214
PPM		-9.886288741	-12.15927193	-9.115160723	-10.67959494

Voltage (V)	Temperature (°C)	U-NII-3 Test Results			
		5785MHz			
		1min	2min	5min	10min
12	-20	5784.991521	5784.982993	5784.976063	5784.971344
12	-10	5784.990856	5784.975285	5784.970419	5784.970872
12	0	5784.981343	5784.973478	5784.965074	5784.964316
12	10	5784.978942	5784.970793	5784.955194	5784.960226
12	20	5784.976735	5784.965060	5784.949793	5784.956424
12	30	5784.975588	5784.962934	5784.943492	5784.949669
12	40	5784.966979	5784.957905	5784.943227	5784.940943
12	50	5784.957270	5784.949182	5784.937243	5784.939538
11.4	25	5784.950740	5784.944782	5784.934058	5784.936522
12.6	25	5784.941580	5784.940155	5784.924961	5784.928398
MHz		-0.058420072	-0.059845049	-0.075038722	-0.07160187
PPM		-10.09854305	-10.34486582	-12.97125701	-12.37715995

5.4. Power Spectral Density

Ambient condition

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

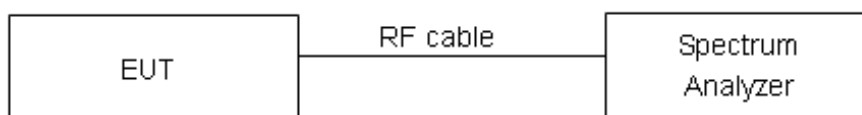
Method of Measurement

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****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	11.47	11.66	10.50	10.69	9.98	10.17	10.60	10.79	16.88	17.00	PASS
	40/5200	11.18	11.37	11.04	11.23	9.57	9.76	10.54	10.73	16.84	17.00	PASS
	48/5240	11.21	11.40	10.34	10.53	9.41	9.60	10.29	10.48	16.57	17.00	PASS
802.11n HT20	36/5180	9.46	10.13	8.38	9.05	7.63	8.30	8.38	9.05	15.20	17.00	PASS
	40/5200	10.59	11.26	9.96	10.63	8.87	9.54	9.19	9.86	16.39	17.00	PASS
	48/5240	10.79	11.46	9.78	10.45	8.96	9.63	9.57	10.24	16.51	17.00	PASS
802.11n HT40	38/5190	4.26	4.99	3.59	4.32	3.37	4.10	3.15	3.88	10.36	17.00	PASS
	46/5230	9.79	10.52	9.23	9.96	8.10	8.83	8.81	9.54	15.77	17.00	PASS
802.11ac VHT20	36/5180	9.30	9.97	8.48	9.15	7.82	8.49	8.07	8.74	15.14	17.00	PASS
	40/5200	10.38	11.05	10.12	10.79	8.86	9.53	9.27	9.94	16.39	17.00	PASS
	48/5240	10.60	11.27	9.26	9.93	9.25	9.92	9.37	10.04	16.35	17.00	PASS
802.11ac VHT40	38/5190	4.53	5.26	3.40	4.13	3.36	4.09	3.25	3.98	10.42	17.00	PASS
	46/5230	9.77	10.50	9.17	9.90	8.32	9.05	9.21	9.94	15.90	17.00	PASS
802.11ac VHT80	42/5210	-1.13	-0.40	-1.27	-0.54	-1.93	-1.20	-2.31	-1.58	5.12	17.00	PASS
802.11ax HE20	36/5180	9.82	10.55	8.49	9.22	8.00	8.73	8.35	9.08	15.47	17.00	PASS
	44/5220	10.92	11.65	10.12	10.85	9.57	10.30	9.78	10.51	16.88	17.00	PASS
	48/5240	11.28	12.01	9.93	10.66	9.29	10.02	9.94	10.67	16.92	17.00	PASS
802.11ax HE40	38/5190	4.45	5.18	3.60	4.33	3.87	4.60	3.55	4.28	10.63	17.00	PASS
	46/5230	9.91	10.64	9.31	10.04	8.18	8.91	9.04	9.77	15.90	17.00	PASS
802.11ax HE80	42/5210	-1.62	-0.95	-1.72	-1.05	-2.31	-1.64	-2.33	-1.66	4.71	17.00	PASS

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

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

3. The manufacturer declared that the directional gain = 3.33dBi<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	5.01	5.20	4.42	4.61	3.11	3.30	4.37	4.56	10.49	11.00	PASS
	60/5300	4.85	5.04	4.03	4.22	3.22	3.41	4.26	4.45	10.34	11.00	PASS
	64/5320	4.35	4.54	4.08	4.27	4.91	5.10	4.64	4.83	10.72	11.00	PASS
802.11n HT20	52/5260	4.36	5.03	3.78	4.45	4.11	4.78	4.13	4.80	10.79	11.00	PASS
	60/5300	3.52	4.19	3.32	3.99	4.19	4.86	4.21	4.88	10.52	11.00	PASS
	64/5320	3.77	4.44	3.16	3.83	3.99	4.66	4.47	5.14	10.56	11.00	PASS
802.11n HT40	54/5270	3.82	4.55	3.53	4.26	3.52	4.25	3.38	4.11	10.31	11.00	PASS
	62/5310	3.33	4.06	3.07	3.80	3.74	4.47	3.39	4.12	10.14	11.00	PASS
802.11ac VHT20	52/5260	4.43	5.10	3.74	4.41	4.12	4.79	3.67	4.34	10.69	11.00	PASS
	60/5300	4.04	4.71	3.58	4.25	4.64	5.31	4.04	4.71	10.78	11.00	PASS
	64/5320	3.94	4.61	3.33	4.00	3.79	4.46	3.95	4.62	10.45	11.00	PASS
802.11ac VHT40	54/5270	3.61	4.34	3.00	3.73	3.78	4.51	3.71	4.44	10.29	11.00	PASS
	62/5310	2.92	3.65	2.90	3.63	3.55	4.28	3.72	4.45	10.04	11.00	PASS
802.11ac VHT80	58/5290	0.16	0.89	-0.56	0.17	0.14	0.87	0.66	1.39	6.87	11.00	PASS
802.11ac VHT160	50/5250	-7.51	-7.11	-7.69	-7.29	-8.07	-7.67	-9.01	-8.61	-1.61	11.00	PASS
802.11ax HE20	52/5260	4.11	4.84	3.29	4.02	3.40	4.13	3.22	3.95	10.27	11.00	PASS
	60/5300	3.40	4.13	3.03	3.76	3.76	4.49	3.51	4.24	10.18	11.00	PASS
	64/5320	3.28	4.01	2.61	3.34	3.61	4.34	3.53	4.26	10.03	11.00	PASS
802.11ax HE40	54/5270	3.66	4.39	3.00	3.73	3.87	4.60	3.66	4.39	10.31	11.00	PASS
	62/5310	3.42	4.15	2.48	3.21	3.79	4.52	3.51	4.24	10.08	11.00	PASS
802.11ax HE80	58/5290	0.51	1.18	0.01	0.68	0.52	1.19	0.97	1.64	7.21	11.00	PASS
802.11ax HE160	50/5250	-6.93	-6.59	-7.18	-6.84	-7.88	-7.54	-8.05	-7.71	-1.12	11.00	PASS

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

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

3. The manufacturer declared that the directional gain = 3.33dBi < 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	5.17	5.36	3.71	3.90	4.43	4.62	4.01	4.20	10.58	11.00	PASS
	120/5600	3.93	4.12	3.70	3.89	3.75	3.94	3.25	3.44	9.87	11.00	PASS
	140/5700	4.38	4.57	3.12	3.31	4.32	4.51	4.56	4.75	10.34	11.00	PASS
	144/5720	3.49	3.68	3.21	3.40	4.37	4.56	4.14	4.33	10.04	11.00	PASS
802.11n HT20	100/5500	4.60	5.27	3.51	4.18	3.72	4.39	3.39	4.06	10.52	11.00	PASS
	120/5600	4.02	4.69	4.22	4.89	3.94	4.61	3.62	4.29	10.64	11.00	PASS
	140/5700	4.54	5.21	2.76	3.43	3.84	4.51	4.38	5.05	10.62	11.00	PASS
	144/5720	3.91	4.58	3.10	3.77	3.91	4.58	3.48	4.15	10.30	11.00	PASS
802.11n HT40	102/5510	4.31	5.04	2.76	3.49	3.32	4.05	2.89	3.62	10.11	11.00	PASS
	110/5550	4.35	5.08	3.61	4.34	3.47	4.20	3.38	4.11	10.47	11.00	PASS
	134/5670	3.36	4.09	2.36	3.09	2.60	3.33	3.13	3.86	9.63	11.00	PASS
	142/5710	3.55	4.28	2.98	3.71	3.39	4.12	4.19	4.92	10.30	11.00	PASS
802.11ac VHT20	100/5500	4.76	5.43	3.34	4.01	4.24	4.91	3.50	4.17	10.69	11.00	PASS
	120/5600	3.96	4.63	4.01	4.68	4.05	4.72	3.58	4.25	10.59	11.00	PASS
	140/5700	3.39	4.06	2.47	3.14	3.65	4.32	3.99	4.66	10.10	11.00	PASS
	144/5720	4.20	4.87	3.83	4.50	4.15	4.82	4.17	4.84	10.78	11.00	PASS
802.11ac VHT40	102/5510	4.18	4.91	2.95	3.68	3.43	4.16	2.56	3.29	10.07	11.00	PASS
	110/5550	4.66	5.39	3.22	3.95	3.68	4.41	3.02	3.75	10.44	11.00	PASS
	134/5670	3.39	4.12	2.83	3.56	2.95	3.68	3.17	3.90	9.84	11.00	PASS
	142/5710	3.48	4.21	2.94	3.67	3.61	4.34	4.14	4.87	10.31	11.00	PASS
802.11ac VHT80	106/5530	1.30	2.03	-0.30	0.43	0.12	0.85	-0.52	0.21	6.96	11.00	PASS
	122/5610	0.71	1.44	0.34	1.07	0.35	1.08	-0.29	0.44	7.04	11.00	PASS
	138/5690	0.97	1.70	-0.55	0.18	0.58	1.31	1.06	1.79	7.31	11.00	PASS
802.11ac VHT160	114/5570	-4.85	-4.45	-5.56	-5.16	-5.31	-4.91	-6.06	-5.66	1.00	11.00	PASS
802.11ax HE20	100/5500	4.28	5.01	3.05	3.78	3.73	4.46	2.63	3.36	10.22	11.00	PASS
	120/5600	3.52	4.25	3.37	4.10	3.37	4.10	0.47	1.20	9.60	11.00	PASS
	140/5700	4.51	5.24	3.26	3.99	4.40	5.13	4.29	5.02	10.89	11.00	PASS
	144/5720	3.72	4.45	2.85	3.58	3.63	4.36	3.76	4.49	10.26	11.00	PASS
802.11ax HE40	102/5510	4.36	5.09	2.73	3.46	3.42	4.15	2.45	3.18	10.05	11.00	PASS
	110/5550	4.50	5.23	3.35	4.08	3.43	4.16	3.22	3.95	10.41	11.00	PASS
	134/5670	3.54	4.27	2.36	3.09	3.35	4.08	2.82	3.55	9.79	11.00	PASS
	142/5710	2.77	3.50	2.12	2.85	2.59	3.32	2.99	3.72	9.38	11.00	PASS

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802.11ax HE80	106/5530	1.52	2.19	0.60	1.27	0.50	1.17	-0.33	0.34	7.31	11.00	PASS
	122/5610	1.16	1.83	0.96	1.63	0.65	1.32	0.01	0.68	7.41	11.00	PASS
	138/5690	0.61	1.28	-1.42	-0.75	0.02	0.69	0.29	0.96	6.63	11.00	PASS
802.11ax HE160	114/5570	-2.15	-1.81	-2.93	-2.59	-2.94	-2.60	-3.34	-3.00	3.54	11.00	PASS

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

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

3. The manufacturer declared that the directional gain =3.42dBi<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	9.56	10.02	10.30	10.76	9.62	10.08	9.62	10.08	16.27	30.00	PASS
	157/5785	9.12	9.58	10.11	10.57	9.06	9.52	8.99	9.45	15.82	30.00	PASS
	165/5825	8.70	9.16	9.79	10.25	9.87	10.33	8.97	9.43	15.84	30.00	PASS
802.11n HT20	149/5745	8.93	9.87	9.77	10.71	9.43	10.37	8.76	9.70	16.20	30.00	PASS
	157/5785	8.79	9.73	9.61	10.55	8.20	9.14	8.11	9.05	15.68	30.00	PASS
	165/5825	8.18	9.12	7.51	8.45	8.58	9.52	7.97	8.91	15.03	30.00	PASS
802.11n HT40	151/5755	6.63	7.63	5.45	6.45	6.40	7.40	6.55	7.55	13.30	30.00	PASS
	159/5795	6.24	7.24	5.45	6.45	5.92	6.92	5.14	6.14	12.73	30.00	PASS
802.11ac VHT20	149/5745	8.88	9.82	8.43	9.37	9.06	10.00	8.62	9.56	15.71	30.00	PASS
	157/5785	8.18	9.12	8.15	9.09	8.50	9.44	7.87	8.81	15.14	30.00	PASS
	165/5825	8.35	9.29	7.38	8.32	8.94	9.88	8.07	9.01	15.18	30.00	PASS
802.11ac VHT40	151/5755	6.31	7.31	5.34	6.34	6.55	7.55	6.06	7.06	13.11	30.00	PASS
	159/5795	6.65	7.65	5.59	6.59	6.03	7.03	5.52	6.52	12.99	30.00	PASS
802.11ac VHT80	155/5775	-0.04	0.96	-0.81	0.19	-0.10	0.90	-1.02	-0.02	6.55	30.00	PASS
802.11ax HE20	149/5745	9.88	10.88	8.95	9.95	9.34	10.34	8.99	9.99	16.33	30.00	PASS
	157/5785	9.25	10.25	8.30	9.30	9.22	10.22	8.36	9.36	15.83	30.00	PASS
	165/5825	8.93	9.93	7.94	8.94	9.24	10.24	8.58	9.58	15.72	30.00	PASS
802.11ax HE40	151/5755	5.40	6.40	4.63	5.63	5.36	6.36	5.09	6.09	12.15	30.00	PASS
	159/5795	6.45	7.45	5.93	6.93	6.54	7.54	5.34	6.34	13.11	30.00	PASS
802.11ax HE80	155/5775	-0.39	0.55	-0.96	-0.02	-0.44	0.50	-1.39	-0.45	6.18	30.00	PASS

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

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

3. The manufacturer declared that the directional gain = 4.43dBi < 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	11.60	11.79	9.97	10.16	10.24	10.43	9.95	10.14	16.71	17.00	PASS
	40/5200	11.57	11.76	10.03	10.22	10.70	10.89	9.96	10.15	16.82	17.00	PASS
	48/5240	11.55	11.74	10.12	10.31	10.46	10.65	10.07	10.26	16.80	17.00	PASS
802.11n HT20	36/5180	9.17	9.84	8.24	8.91	7.59	8.26	8.23	8.90	15.03	17.00	PASS
	40/5200	10.68	11.35	10.26	10.93	9.86	10.53	9.41	10.08	16.77	17.00	PASS
	48/5240	10.68	11.35	9.91	10.58	10.24	10.91	9.05	9.72	16.70	17.00	PASS
802.11n HT40	38/5190	4.36	5.09	3.56	4.29	3.33	4.06	3.07	3.80	10.35	17.00	PASS
	46/5230	10.54	11.27	9.61	10.34	8.89	9.62	9.16	9.89	16.34	17.00	PASS
802.11ac VHT20	36/5180	9.57	10.24	8.10	8.77	7.86	8.53	8.67	9.34	15.29	17.00	PASS
	40/5200	10.77	11.44	10.27	10.94	10.01	10.68	9.18	9.85	16.78	17.00	PASS
	48/5240	10.67	11.34	9.59	10.26	9.96	10.63	8.92	9.59	16.52	17.00	PASS
802.11ac VHT40	38/5190	4.37	5.10	3.30	4.03	3.16	3.89	3.18	3.91	10.28	17.00	PASS
	46/5230	10.40	11.13	9.36	10.09	9.04	9.77	9.25	9.98	16.30	17.00	PASS
802.11ac VHT80	42/5210	-0.89	-0.16	-1.13	-0.40	-1.98	-1.25	-1.86	-1.13	5.31	17.00	PASS
802.11ax HE20	36/5180	9.77	10.50	8.35	9.08	8.58	9.31	8.14	8.87	15.51	17.00	PASS
	44/5220	10.98	11.71	9.96	10.69	10.15	10.88	9.46	10.19	16.92	17.00	PASS
	48/5240	10.73	11.46	9.87	10.60	10.32	11.05	9.31	10.04	16.84	17.00	PASS
802.11ax HE40	38/5190	4.81	5.54	3.48	4.21	3.58	4.31	3.42	4.15	10.61	17.00	PASS
	46/5230	10.28	11.01	9.17	9.90	8.86	9.59	8.79	9.52	16.07	17.00	PASS
802.11ax HE80	42/5210	-1.46	-0.79	-1.84	-1.17	-2.03	-1.36	-2.62	-1.95	4.72	17.00	PASS

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

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

3. The manufacturer declared that the directional gain = 3.33dBi < 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	5.04	5.23	4.83	5.02	4.96	5.15	4.03	4.22	10.94	11.00	PASS
	60/5300	5.04	5.23	4.69	4.88	4.69	4.88	4.58	4.77	10.96	11.00	PASS
	64/5320	4.34	4.53	3.87	4.06	4.50	4.69	4.45	4.64	10.51	11.00	PASS
802.11n HT20	52/5260	4.11	4.78	3.91	4.58	4.19	4.86	3.10	3.77	10.54	11.00	PASS
	60/5300	3.71	4.38	3.33	4.00	3.93	4.60	3.67	4.34	10.35	11.00	PASS
	64/5320	3.80	4.47	3.27	3.94	3.74	4.41	3.86	4.53	10.36	11.00	PASS
802.11n HT40	54/5270	2.88	3.61	3.33	4.06	3.24	3.97	2.92	3.65	9.84	11.00	PASS
	62/5310	3.39	4.12	2.66	3.39	3.27	4.00	2.69	3.42	9.76	11.00	PASS
802.11ac VHT20	52/5260	3.98	4.65	3.76	4.43	4.38	5.05	3.23	3.90	10.54	11.00	PASS
	60/5300	4.25	4.92	3.49	4.16	3.84	4.51	3.74	4.41	10.53	11.00	PASS
	64/5320	3.78	4.45	3.07	3.74	3.68	4.35	3.28	3.95	10.15	11.00	PASS
802.11ac VHT40	54/5270	2.99	3.72	3.41	4.14	3.28	4.01	2.52	3.25	9.81	11.00	PASS
	62/5310	3.32	4.05	2.98	3.71	3.05	3.78	2.78	3.51	9.79	11.00	PASS
802.11ac VHT80	58/5290	0.29	1.02	-0.04	0.69	0.25	0.98	-0.09	0.64	6.86	11.00	PASS
802.11ac VHT160	50/5250	-7.60	-7.20	-7.61	-7.21	-8.28	-7.88	-8.64	-8.24	-1.59	11.00	PASS
802.11ax HE20	52/5260	3.72	4.45	3.56	4.29	3.74	4.47	2.97	3.70	10.26	11.00	PASS
	60/5300	3.53	4.26	3.11	3.84	3.60	4.33	3.25	3.98	10.13	11.00	PASS
	64/5320	3.43	4.16	3.20	3.93	3.74	4.47	3.19	3.92	10.15	11.00	PASS
802.11ax HE40	54/5270	3.47	4.20	3.95	4.68	3.83	4.56	3.36	4.09	10.41	11.00	PASS
	62/5310	3.89	4.62	3.56	4.29	3.68	4.41	3.18	3.91	10.34	11.00	PASS
802.11ax HE80	58/5290	1.09	1.76	0.88	1.55	1.00	1.67	0.12	0.79	7.48	11.00	PASS
802.11ax HE160	50/5250	-6.87	-6.53	-7.21	-6.87	-7.84	-7.50	-8.07	-7.73	-1.11	11.00	PASS

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

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

3. The manufacturer declared that the directional gain = 3.33dBi < 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	4.99	5.18	4.63	4.82	4.19	4.38	4.46	4.65	10.79	11.00	PASS
	120/5600	5.00	5.19	4.58	4.77	4.72	4.91	4.02	4.21	10.80	11.00	PASS
	140/5700	4.39	4.58	4.35	4.54	4.34	4.53	4.98	5.17	10.73	11.00	PASS
	144/5720	4.18	4.37	4.52	4.71	4.59	4.78	4.47	4.66	10.65	11.00	PASS
802.11n HT20	100/5500	4.72	5.39	3.90	4.57	3.68	4.35	3.78	4.45	10.73	11.00	PASS
	120/5600	4.30	4.97	3.83	4.50	4.07	4.74	3.49	4.16	10.62	11.00	PASS
	140/5700	4.93	5.60	3.47	4.14	3.89	4.56	3.86	4.53	10.76	11.00	PASS
	144/5720	4.29	4.96	3.72	4.39	3.82	4.49	3.31	3.98	10.49	11.00	PASS
802.11n HT40	102/5510	3.67	4.40	3.29	4.02	2.87	3.60	2.60	3.33	9.87	11.00	PASS
	110/5550	4.04	4.77	3.66	4.39	3.67	4.40	3.08	3.81	10.37	11.00	PASS
	134/5670	3.43	4.16	3.91	4.64	3.62	4.35	3.31	4.04	10.32	11.00	PASS
	142/5710	2.95	3.68	3.26	3.99	3.14	3.87	2.81	3.54	9.79	11.00	PASS
802.11ac VHT20	100/5500	4.65	5.32	3.88	4.55	3.58	4.25	3.38	4.05	10.59	11.00	PASS
	120/5600	4.24	4.91	4.01	4.68	3.98	4.65	3.57	4.24	10.64	11.00	PASS
	140/5700	3.62	4.29	3.76	4.43	4.19	4.86	4.00	4.67	10.59	11.00	PASS
	144/5720	3.88	4.55	3.37	4.04	4.05	4.72	3.10	3.77	10.30	11.00	PASS
802.11ac VHT40	102/5510	3.72	4.45	2.94	3.67	2.96	3.69	2.29	3.02	9.76	11.00	PASS
	110/5550	3.44	4.17	3.46	4.19	3.67	4.40	2.67	3.40	10.08	11.00	PASS
	134/5670	3.54	4.27	3.81	4.54	3.91	4.64	3.07	3.80	10.35	11.00	PASS
	142/5710	2.69	3.42	3.34	4.07	2.75	3.48	2.68	3.41	9.62	11.00	PASS
802.11ac VHT80	106/5530	0.34	1.07	0.45	1.18	-0.28	0.45	-0.58	0.15	6.75	11.00	PASS
	122/5610	0.24	0.64	0.44	0.84	0.19	0.59	-0.59	-0.19	6.51	11.00	PASS
	138/5690	-0.44	0.29	-0.19	0.54	0.13	0.86	-0.12	0.61	6.60	11.00	PASS
802.11ac VHT160	114/5570	-4.67	-4.27	-5.44	-5.04	-5.47	-5.07	-6.31	-5.91	0.98	11.00	PASS
802.11ax HE20	100/5500	4.36	5.09	4.03	4.76	4.20	4.93	3.51	4.24	10.79	11.00	PASS
	120/5600	4.26	4.99	4.13	4.86	4.28	5.01	3.61	4.34	10.83	11.00	PASS
	140/5700	3.75	4.48	3.23	3.96	3.62	4.35	3.59	4.32	10.30	11.00	PASS
	144/5720	4.31	5.04	4.14	4.87	4.31	5.04	3.40	4.13	10.81	11.00	PASS
802.11ax HE40	102/5510	3.37	4.10	3.38	4.11	3.25	3.98	2.80	3.53	9.96	11.00	PASS
	110/5550	4.04	4.77	3.42	4.15	3.42	4.15	3.20	3.93	10.28	11.00	PASS
	134/5670	2.41	3.14	2.83	3.56	2.77	3.50	2.35	3.08	9.35	11.00	PASS
	142/5710	3.20	3.93	3.16	3.89	2.82	3.55	3.26	3.99	9.86	11.00	PASS

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802.11ax HE80	106/5530	0.35	1.02	0.15	0.82	0.20	0.87	-0.35	0.32	6.79	11.00	PASS
	122/5610	0.91	1.25	0.56	0.90	0.55	0.89	0.41	0.75	6.97	11.00	PASS
	138/5690	0.20	0.87	-0.15	0.52	0.05	0.72	0.48	1.15	6.84	11.00	PASS
802.11ax HE160	114/5570	-1.72	-1.38	-1.86	-1.52	-1.95	-1.61	-2.37	-2.03	4.39	11.00	PASS

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

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

3. The manufacturer declared that the directional gain = 3.42dBi < 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	7.74	8.20	8.04	8.50	8.32	8.78	7.58	8.04	14.41	30.00	PASS
	157/5785	9.11	9.57	9.92	10.38	9.43	9.89	8.83	9.29	15.82	30.00	PASS
	165/5825	8.78	9.24	9.34	9.80	9.14	9.60	8.81	9.27	15.50	30.00	PASS
802.11n HT20	149/5745	9.10	10.04	9.30	10.24	9.19	10.13	8.79	9.73	16.06	30.00	PASS
	157/5785	8.38	9.32	8.74	9.68	8.97	9.91	7.75	8.69	15.44	30.00	PASS
	165/5825	9.07	10.01	8.85	9.79	8.96	9.90	8.35	9.29	15.77	30.00	PASS
802.11n HT40	151/5755	5.97	6.97	5.45	6.45	5.45	6.45	5.45	6.45	12.60	30.00	PASS
	159/5795	5.91	6.91	6.67	7.67	6.66	7.66	5.67	6.67	13.27	30.00	PASS
802.11ac VHT20	149/5745	9.33	10.27	9.71	10.65	9.85	10.79	8.89	9.83	16.42	30.00	PASS
	157/5785	8.75	9.69	9.51	10.45	8.93	9.87	8.36	9.30	15.87	30.00	PASS
	165/5825	8.06	9.00	8.76	9.70	8.78	9.72	7.74	8.68	15.32	30.00	PASS
802.11ac VHT40	151/5755	5.23	6.23	5.21	6.21	5.54	6.54	5.51	6.51	12.40	30.00	PASS
	159/5795	6.59	7.59	6.66	7.66	6.44	7.44	5.91	6.91	13.43	30.00	PASS
802.11ac VHT80	155/5775	0.10	1.10	-0.78	0.22	0.03	1.03	-1.25	-0.25	6.58	30.00	PASS
802.11ax HE20	149/5745	9.15	10.15	8.89	9.89	9.81	10.81	8.84	9.84	16.21	30.00	PASS
	157/5785	8.74	9.74	9.15	10.15	8.68	9.68	8.01	9.01	15.68	30.00	PASS
	165/5825	8.19	9.19	8.23	9.23	8.30	9.30	7.89	8.89	15.18	30.00	PASS
802.11ax HE40	151/5755	5.74	6.74	5.04	6.04	5.48	6.48	4.88	5.88	12.32	30.00	PASS
	159/5795	5.61	6.61	5.76	6.76	5.46	6.46	4.59	5.59	12.40	30.00	PASS
802.11ax HE80	155/5775	-0.03	0.91	-1.08	-0.14	-0.28	0.66	-1.26	-0.32	6.33	30.00	PASS

Note: 1. Power Spectral Density = Read Value + Duty cycle correction factor + $10 \cdot \log_{10}(500/470)$

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

3. The manufacturer declared that the directional gain = 4.43dBi < 6dBi. So the PSD limit is 30dBm.



Signal Plus:

MIMO:

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	11.47	11.66	10.50	10.69	9.98	10.17	10.60	10.79	16.88	17.00	PASS
	40/5200	11.18	11.37	11.04	11.23	9.57	9.76	10.54	10.73	16.84	17.00	PASS
	48/5240	11.21	11.40	10.34	10.53	9.41	9.60	10.29	10.48	16.57	17.00	PASS
802.11n HT20	36/5180	10.55	11.22	9.39	10.06	9.14	9.81	9.74	10.41	16.43	17.00	PASS
	40/5200	10.59	11.26	9.96	10.63	8.87	9.54	9.19	9.86	16.39	17.00	PASS
	48/5240	10.79	11.46	9.78	10.45	8.96	9.63	9.57	10.24	16.51	17.00	PASS
802.11n HT40	38/5190	6.78	7.51	5.81	6.54	5.63	6.36	5.60	6.33	12.73	17.00	PASS
	46/5230	9.79	10.52	9.23	9.96	8.10	8.83	8.81	9.54	15.77	17.00	PASS
802.11ac VHT20	36/5180	10.88	11.55	9.16	9.83	9.05	9.72	9.41	10.08	16.38	17.00	PASS
	40/5200	10.38	11.05	10.12	10.79	8.86	9.53	9.27	9.94	16.39	17.00	PASS
	48/5240	10.60	11.27	9.26	9.93	9.25	9.92	9.37	10.04	16.35	17.00	PASS
802.11ac VHT40	38/5190	6.66	7.39	5.90	6.63	5.40	6.13	5.78	6.51	12.71	17.00	PASS
	46/5230	6.83	7.56	6.09	6.82	6.08	6.81	5.80	6.53	12.97	17.00	PASS
802.11ac VHT80	42/5210	2.54	3.27	2.28	3.01	1.92	2.65	1.47	2.20	8.82	17.00	PASS
802.11ax HE20	36/5180	10.05	10.78	8.58	9.31	8.48	9.21	8.85	9.58	15.79	17.00	PASS
	44/5220	10.92	11.65	10.12	10.85	9.57	10.30	9.78	10.51	16.88	17.00	PASS
	48/5240	11.28	12.01	9.93	10.66	9.29	10.02	9.94	10.67	16.92	17.00	PASS
802.11ax HE40	38/5190	2.37	3.10	3.19	3.92	3.34	4.07	3.75	4.48	9.94	17.00	PASS
	46/5230	9.91	10.64	9.31	10.04	8.18	8.91	9.04	9.77	15.90	17.00	PASS
802.11ax HE80	42/5210	0.76	1.43	0.78	1.45	0.08	0.75	-0.15	0.52	7.08	17.00	PASS

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

2. The manufacturer declared that the directional gain = 5.00dBi < 6dBi. So the PSD limit is 11dBm.



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	5.01	5.20	4.42	4.61	3.11	3.30	4.37	4.56	10.49	11.00	PASS
	60/5300	4.85	5.04	4.03	4.22	3.22	3.41	4.26	4.45	10.34	11.00	PASS
	64/5320	4.35	4.54	4.08	4.27	4.91	5.10	4.64	4.83	10.72	11.00	PASS
802.11n HT20	52/5260	4.36	5.03	3.78	4.45	4.11	4.78	4.13	4.80	10.79	11.00	PASS
	60/5300	3.52	4.19	3.32	3.99	4.19	4.86	4.21	4.88	10.52	11.00	PASS
	64/5320	3.77	4.44	3.16	3.83	3.99	4.66	4.47	5.14	10.56	11.00	PASS
802.11n HT40	54/5270	3.82	4.55	3.53	4.26	3.52	4.25	3.38	4.11	10.31	11.00	PASS
	62/5310	3.33	4.06	3.07	3.80	3.74	4.47	3.39	4.12	10.14	11.00	PASS
802.11ac VHT20	52/5260	4.43	5.10	3.74	4.41	4.12	4.79	3.67	4.34	10.69	11.00	PASS
	60/5300	4.04	4.71	3.58	4.25	4.64	5.31	4.04	4.71	10.78	11.00	PASS
	64/5320	3.94	4.61	3.33	4.00	3.79	4.46	3.95	4.62	10.45	11.00	PASS
802.11ac VHT40	54/5270	3.61	4.34	3.00	3.73	3.78	4.51	3.71	4.44	10.29	11.00	PASS
	62/5310	2.92	3.65	2.90	3.63	3.55	4.28	3.72	4.45	10.04	11.00	PASS
802.11ac VHT80	58/5290	0.16	0.89	-0.56	0.17	0.14	0.87	0.66	1.39	6.87	11.00	PASS
802.11ac VHT160	50/5250	-6.58	-6.18	-6.64	-6.24	-7.10	-6.70	-6.85	-6.45	-0.37	11.00	PASS
802.11ax HE20	52/5260	4.11	4.84	3.29	4.02	3.40	4.13	3.22	3.95	10.27	11.00	PASS
	60/5300	3.40	4.13	3.03	3.76	3.76	4.49	3.51	4.24	10.18	11.00	PASS
	64/5320	3.28	4.01	2.61	3.34	3.61	4.34	3.53	4.26	10.03	11.00	PASS
802.11ax HE40	54/5270	3.66	4.39	3.00	3.73	3.87	4.60	3.66	4.39	10.31	11.00	PASS
	62/5310	3.42	4.15	2.48	3.21	3.79	4.52	3.51	4.24	10.08	11.00	PASS
802.11ax HE80	58/5290	0.51	1.18	0.01	0.68	0.52	1.19	0.97	1.64	7.21	11.00	PASS
802.11ax HE160	50/5250	-6.68	-6.34	-7.36	-7.02	-7.27	-6.93	-7.46	-7.12	-0.82	11.00	PASS

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

2. The manufacturer declared that the directional gain = 5.00dBi<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	5.17	5.36	3.71	3.90	4.43	4.62	4.01	4.20	10.58	11.00	PASS
	120/5600	3.93	4.12	3.70	3.89	3.75	3.94	3.25	3.44	9.87	11.00	PASS
	140/5700	4.38	4.57	3.12	3.31	4.32	4.51	4.56	4.75	10.34	11.00	PASS
	144/5720	3.49	3.68	3.21	3.40	4.37	4.56	4.14	4.33	10.04	11.00	PASS
802.11n HT20	100/5500	4.60	5.27	3.51	4.18	3.72	4.39	3.39	4.06	10.52	11.00	PASS
	120/5600	4.02	4.69	4.22	4.89	3.94	4.61	3.62	4.29	10.64	11.00	PASS
	140/5700	4.54	5.21	2.76	3.43	3.84	4.51	4.38	5.05	10.62	11.00	PASS
	144/5720	3.91	4.58	3.10	3.77	3.91	4.58	3.48	4.15	10.30	11.00	PASS
802.11n HT40	102/5510	4.31	5.04	2.76	3.49	3.32	4.05	2.89	3.62	10.11	11.00	PASS
	110/5550	4.35	5.08	3.61	4.34	3.47	4.20	3.38	4.11	10.47	11.00	PASS
	134/5670	3.36	4.09	2.36	3.09	2.60	3.33	3.13	3.86	9.63	11.00	PASS
	142/5710	3.55	4.28	2.98	3.71	3.39	4.12	4.19	4.92	10.30	11.00	PASS
802.11ac VHT20	100/5500	4.76	5.43	3.34	4.01	4.24	4.91	3.50	4.17	10.69	11.00	PASS
	120/5600	3.96	4.63	4.01	4.68	4.05	4.72	3.58	4.25	10.59	11.00	PASS
	140/5700	3.39	4.06	2.47	3.14	3.65	4.32	3.99	4.66	10.10	11.00	PASS
	144/5720	4.20	4.87	3.83	4.50	4.15	4.82	4.17	4.84	10.78	11.00	PASS
802.11ac VHT40	102/5510	4.18	4.91	2.95	3.68	3.43	4.16	2.56	3.29	10.07	11.00	PASS
	110/5550	4.66	5.39	3.22	3.95	3.68	4.41	3.02	3.75	10.44	11.00	PASS
	134/5670	3.39	4.12	2.83	3.56	2.95	3.68	3.17	3.90	9.84	11.00	PASS
	142/5710	3.48	4.21	2.94	3.67	3.61	4.34	4.14	4.87	10.31	11.00	PASS
802.11ac VHT80	106/5530	1.30	2.03	-0.30	0.43	0.12	0.85	-0.52	0.21	6.96	11.00	PASS
	122/5610	0.71	1.44	0.34	1.07	0.35	1.08	-0.29	0.44	7.04	11.00	PASS
	138/5690	0.97	1.70	-0.55	0.18	0.58	1.31	1.06	1.79	7.31	11.00	PASS
802.11ac VHT160	114/5570	-3.44	-3.04	-4.74	-4.34	-4.25	-3.85	-4.70	-4.30	2.17	11.00	PASS
802.11ax HE20	100/5500	4.28	5.01	3.05	3.78	3.73	4.46	2.63	3.36	10.22	11.00	PASS
	120/5600	3.52	4.25	3.37	4.10	3.37	4.10	2.47	3.20	9.95	11.00	PASS
	140/5700	4.51	5.24	3.26	3.99	4.40	5.13	4.29	5.02	10.89	11.00	PASS
	144/5720	3.72	4.45	2.85	3.58	3.63	4.36	3.76	4.49	10.26	11.00	PASS
802.11ax HE40	102/5510	2.67	3.40	1.08	1.81	1.65	2.38	1.35	2.08	8.48	11.00	PASS
	110/5550	4.50	5.23	3.35	4.08	3.43	4.16	3.22	3.95	10.41	11.00	PASS
	134/5670	3.54	4.27	2.36	3.09	3.35	4.08	2.82	3.55	9.79	11.00	PASS
	142/5710	2.77	3.50	2.12	2.85	2.59	3.32	2.99	3.72	9.38	11.00	PASS

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802.11ax HE80	106/5530	1.52	2.19	0.60	1.27	0.50	1.17	-0.33	0.34	7.31	11.00	PASS
	122/5610	1.16	1.83	0.96	1.63	0.65	1.32	0.01	0.68	7.41	11.00	PASS
	138/5690	0.61	1.28	-1.42	-0.75	0.02	0.69	0.29	0.96	6.63	11.00	PASS
802.11ax HE160	114/5570	-2.15	-1.81	-2.93	-2.59	-2.94	-2.60	-3.34	-3.00	3.54	11.00	PASS

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

2. The manufacturer declared that the directional gain =3.80dBi<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	9.56	10.02	10.30	10.76	9.62	10.08	9.62	10.08	16.27	30.00	PASS
	157/5785	9.12	9.58	10.11	10.57	9.06	9.52	8.99	9.45	15.82	30.00	PASS
	165/5825	8.70	9.16	9.79	10.25	9.87	10.33	8.97	9.43	15.84	30.00	PASS
802.11n HT20	149/5745	8.93	9.87	9.77	10.71	9.43	10.37	8.76	9.70	16.20	30.00	PASS
	157/5785	8.79	9.73	9.61	10.55	8.20	9.14	8.11	9.05	15.68	30.00	PASS
	165/5825	8.18	9.12	7.51	8.45	8.58	9.52	7.97	8.91	15.03	30.00	PASS
802.11n HT40	151/5755	6.63	7.63	5.45	6.45	6.40	7.40	6.55	7.55	13.30	30.00	PASS
	159/5795	6.24	7.24	5.45	6.45	5.92	6.92	5.14	6.14	12.73	30.00	PASS
802.11ac VHT20	149/5745	8.88	9.82	8.43	9.37	9.06	10.00	8.62	9.56	15.71	30.00	PASS
	157/5785	8.18	9.12	8.15	9.09	8.50	9.44	7.87	8.81	15.14	30.00	PASS
	165/5825	8.35	9.29	7.38	8.32	8.94	9.88	8.07	9.01	15.18	30.00	PASS
802.11ac VHT40	151/5755	6.31	7.31	5.34	6.34	6.55	7.55	6.06	7.06	13.11	30.00	PASS
	159/5795	6.65	7.65	5.59	6.59	6.03	7.03	5.52	6.52	12.99	30.00	PASS
802.11ac VHT80	155/5775	2.20	3.20	1.26	2.26	1.12	2.12	0.93	1.93	8.43	30.00	PASS
802.11ax HE20	149/5745	9.88	10.88	8.95	9.95	9.34	10.34	8.99	9.99	16.33	30.00	PASS
	157/5785	9.25	10.25	8.30	9.30	9.22	10.22	8.36	9.36	15.83	30.00	PASS
	165/5825	8.93	9.93	7.94	8.94	9.24	10.24	8.58	9.58	15.72	30.00	PASS
802.11ax HE40	151/5755	6.85	7.85	5.36	6.36	6.70	7.70	6.37	7.37	13.38	30.00	PASS
	159/5795	6.45	7.45	5.93	6.93	6.54	7.54	5.34	6.34	13.11	30.00	PASS
802.11ax HE80	155/5775	0.85	1.79	-0.19	0.75	0.46	1.40	-0.21	0.73	7.21	30.00	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 =4.80dBi<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	11.60	11.79	9.97	10.16	10.24	10.43	9.95	10.14	16.71	17.00	PASS
	40/5200	11.57	11.76	10.03	10.22	10.70	10.89	9.96	10.15	16.82	17.00	PASS
	48/5240	11.55	11.74	10.12	10.31	10.46	10.65	10.07	10.26	16.80	17.00	PASS
802.11n HT20	36/5180	9.17	9.84	8.24	8.91	7.59	8.26	8.23	8.90	15.03	17.00	PASS
	40/5200	10.68	11.35	10.26	10.93	9.86	10.53	9.41	10.08	16.77	17.00	PASS
	48/5240	10.68	11.35	9.91	10.58	10.24	10.91	9.05	9.72	16.70	17.00	PASS
802.11n HT40	38/5190	6.50	7.23	5.83	6.56	5.85	6.58	5.74	6.47	12.74	17.00	PASS
	46/5230	10.54	11.27	9.61	10.34	8.89	9.62	9.16	9.89	16.34	17.00	PASS
802.11ac VHT20	36/5180	10.88	11.55	9.16	9.83	9.05	9.72	9.41	10.08	16.38	17.00	PASS
	40/5200	10.77	11.44	10.27	10.94	10.01	10.68	9.18	9.85	16.78	17.00	PASS
	48/5240	10.67	11.34	9.59	10.26	9.96	10.63	8.92	9.59	16.52	17.00	PASS
802.11ac VHT40	38/5190	6.66	7.39	5.85	6.58	5.52	6.25	5.85	6.58	12.74	17.00	PASS
	46/5230	10.40	11.13	9.36	10.09	9.04	9.77	9.25	9.98	16.30	17.00	PASS
802.11ac VHT80	42/5210	2.39	3.12	2.45	3.18	1.57	2.30	1.51	2.24	8.75	17.00	PASS
802.11ax HE20	36/5180	9.94	10.67	9.04	9.77	8.20	8.93	8.60	9.33	15.74	17.00	PASS
	44/5220	10.98	11.71	9.96	10.69	10.15	10.88	9.46	10.19	16.92	17.00	PASS
	48/5240	10.73	11.46	9.87	10.60	10.32	11.05	9.31	10.04	16.84	17.00	PASS
802.11ax HE40	38/5190	3.26	3.99	3.59	4.32	2.98	3.71	3.73	4.46	10.15	17.00	PASS
	46/5230	10.28	11.01	9.17	9.90	8.86	9.59	8.79	9.52	16.07	17.00	PASS
802.11ax HE80	42/5210	0.66	1.33	0.63	1.30	0.18	0.85	-0.26	0.41	7.01	17.00	PASS

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

2. The manufacturer declared that the directional gain = 5.00dBi < 6dBi. So the PSD limit is 11dBm.



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	5.04	5.23	4.83	5.02	4.96	5.15	4.03	4.22	10.94	11.00	PASS
	60/5300	5.04	5.23	4.69	4.88	4.69	4.88	4.58	4.77	10.96	11.00	PASS
	64/5320	4.34	4.53	3.87	4.06	4.50	4.69	4.45	4.64	10.51	11.00	PASS
802.11n HT20	52/5260	4.11	4.78	3.91	4.58	4.19	4.86	3.10	3.77	10.54	11.00	PASS
	60/5300	3.71	4.38	3.33	4.00	3.93	4.60	3.67	4.34	10.35	11.00	PASS
	64/5320	3.80	4.47	3.27	3.94	3.74	4.41	3.86	4.53	10.36	11.00	PASS
802.11n HT40	54/5270	2.88	3.61	3.33	4.06	3.24	3.97	2.92	3.65	9.84	11.00	PASS
	62/5310	3.39	4.12	2.66	3.39	3.27	4.00	2.69	3.42	9.76	11.00	PASS
802.11ac VHT20	52/5260	3.98	4.65	3.76	4.43	4.38	5.05	3.23	3.90	10.54	11.00	PASS
	60/5300	4.25	4.92	3.49	4.16	3.84	4.51	3.74	4.41	10.53	11.00	PASS
	64/5320	3.78	4.45	3.07	3.74	3.68	4.35	3.28	3.95	10.15	11.00	PASS
802.11ac VHT40	54/5270	2.99	3.72	3.41	4.14	3.28	4.01	2.52	3.25	9.81	11.00	PASS
	62/5310	3.32	4.05	2.98	3.71	3.05	3.78	2.78	3.51	9.79	11.00	PASS
802.11ac VHT80	58/5290	0.29	1.02	-0.04	0.69	0.25	0.98	-0.09	0.64	6.86	11.00	PASS
802.11ac VHT160	50/5250	-6.31	-5.91	-6.87	-6.47	-6.90	-6.50	-6.92	-6.52	-0.32	11.00	PASS
802.11ax HE20	52/5260	3.72	4.45	3.56	4.29	3.74	4.47	2.97	3.70	10.26	11.00	PASS
	60/5300	3.53	4.26	3.11	3.84	3.60	4.33	3.25	3.98	10.13	11.00	PASS
	64/5320	3.43	4.16	3.20	3.93	3.74	4.47	3.19	3.92	10.15	11.00	PASS
802.11ax HE40	54/5270	3.47	4.20	3.95	4.68	3.83	4.56	3.36	4.09	10.41	11.00	PASS
	62/5310	3.89	4.62	3.56	4.29	3.68	4.41	3.18	3.91	10.34	11.00	PASS
802.11ax HE80	58/5290	1.09	1.76	0.88	1.55	1.00	1.67	0.12	0.79	7.48	11.00	PASS
802.11ax HE160	50/5250	-6.89	-6.55	-7.29	-6.95	-7.42	-7.08	-7.51	-7.17	-0.91	11.00	PASS

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

2. The manufacturer declared that the directional gain =5.00dBi<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	4.99	5.18	4.63	4.82	4.19	4.38	4.46	4.65	10.79	11.00	PASS
	120/5600	5.00	5.19	4.58	4.77	4.72	4.91	4.02	4.21	10.80	11.00	PASS
	140/5700	4.39	4.58	4.35	4.54	4.34	4.53	4.98	5.17	10.73	11.00	PASS
	144/5720	4.18	4.37	4.52	4.71	4.59	4.78	4.47	4.66	10.65	11.00	PASS
802.11n HT20	100/5500	4.72	5.39	3.90	4.57	3.68	4.35	3.78	4.45	10.73	11.00	PASS
	120/5600	4.30	4.97	3.83	4.50	4.07	4.74	3.49	4.16	10.62	11.00	PASS
	140/5700	4.93	5.60	3.47	4.14	3.89	4.56	3.86	4.53	10.76	11.00	PASS
	144/5720	4.29	4.96	3.72	4.39	3.82	4.49	3.31	3.98	10.49	11.00	PASS
802.11n HT40	102/5510	3.67	4.40	3.29	4.02	2.87	3.60	2.60	3.33	9.87	11.00	PASS
	110/5550	4.04	4.77	3.66	4.39	3.67	4.40	3.08	3.81	10.37	11.00	PASS
	134/5670	3.43	4.16	3.91	4.64	3.62	4.35	3.31	4.04	10.32	11.00	PASS
	142/5710	2.95	3.68	3.26	3.99	3.14	3.87	2.81	3.54	9.79	11.00	PASS
802.11ac VHT20	100/5500	4.65	5.32	3.88	4.55	3.58	4.25	3.38	4.05	10.59	11.00	PASS
	120/5600	4.24	4.91	4.01	4.68	3.98	4.65	3.57	4.24	10.64	11.00	PASS
	140/5700	3.62	4.29	3.76	4.43	4.19	4.86	4.00	4.67	10.59	11.00	PASS
	144/5720	3.89	4.56	3.37	4.04	4.05	4.72	3.10	3.77	10.31	11.00	PASS
802.11ac VHT40	102/5510	3.72	4.45	2.94	3.67	2.96	3.69	2.29	3.02	9.76	11.00	PASS
	110/5550	3.44	4.17	3.46	4.19	3.67	4.40	2.67	3.40	10.08	11.00	PASS
	134/5670	3.54	4.27	3.81	4.54	3.91	4.64	3.07	3.80	10.35	11.00	PASS
	142/5710	2.69	3.42	3.34	4.07	2.75	3.48	2.68	3.41	9.62	11.00	PASS
802.11ac VHT80	106/5530	0.34	1.07	0.45	1.18	-0.28	0.45	-0.58	0.15	6.75	11.00	PASS
	122/5610	0.24	0.64	0.44	0.84	0.19	0.59	-0.59	-0.19	6.51	11.00	PASS
	138/5690	-0.44	0.29	-0.19	0.54	0.13	0.86	-0.12	0.61	6.60	11.00	PASS
802.11ac VHT160	114/5570	-3.44	-3.04	-4.74	-4.34	-4.25	-3.85	-4.70	-4.30	2.17	11.00	PASS
802.11ax HE20	100/5500	4.36	5.09	4.03	4.76	4.20	4.93	3.51	4.24	10.79	11.00	PASS
	120/5600	4.26	4.99	4.13	4.86	4.28	5.01	3.61	4.34	10.83	11.00	PASS
	140/5700	3.75	4.48	3.23	3.96	3.62	4.35	3.59	4.32	10.30	11.00	PASS
	144/5720	4.31	5.04	4.14	4.87	4.31	5.04	3.40	4.13	10.81	11.00	PASS
802.11ax HE40	102/5510	2.55	3.28	1.18	1.91	1.65	2.38	1.05	1.78	8.40	11.00	PASS
	110/5550	4.04	4.77	3.42	4.15	3.42	4.15	3.20	3.93	10.28	11.00	PASS
	134/5670	2.41	3.14	2.83	3.56	2.77	3.50	2.35	3.08	9.35	11.00	PASS
	142/5710	3.20	3.93	3.16	3.89	2.82	3.55	3.26	3.99	9.86	11.00	PASS

**RF Test Report****Report No.: R2112A1145-R2**

802.11ax HE80	106/5530	0.35	1.02	0.15	0.82	0.20	0.87	-0.35	0.32	6.79	11.00	PASS
	122/5610	0.91	1.25	0.56	0.90	0.55	0.89	0.41	0.75	6.97	11.00	PASS
	138/5690	0.20	0.87	-0.15	0.52	0.05	0.72	0.48	1.15	6.84	11.00	PASS
802.11ax HE160	114/5570	-1.72	-1.38	-1.86	-1.52	-1.95	-1.61	-2.37	-2.03	4.39	11.00	PASS

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

2. The manufacturer declared that the directional gain = 3.80dBi<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	7.74	8.20	8.04	8.50	8.32	8.78	7.58	8.04	14.41	30.00	PASS
	157/5785	9.11	9.57	9.92	10.38	9.43	9.89	8.83	9.29	15.82	30.00	PASS
	165/5825	8.78	9.24	9.34	9.80	9.14	9.60	8.81	9.27	15.50	30.00	PASS
802.11n HT20	149/5745	9.10	10.04	9.30	10.24	9.19	10.13	8.79	9.73	16.06	30.00	PASS
	157/5785	8.38	9.32	8.74	9.68	8.97	9.91	7.75	8.69	15.44	30.00	PASS
	165/5825	9.07	10.01	8.85	9.79	8.96	9.90	8.35	9.29	15.77	30.00	PASS
802.11n HT40	151/5755	5.97	6.97	5.45	6.45	5.45	6.45	5.45	6.45	12.60	30.00	PASS
	159/5795	5.91	6.91	6.67	7.67	6.66	7.66	5.67	6.67	13.27	30.00	PASS
802.11ac VHT20	149/5745	9.33	10.27	9.71	10.65	9.85	10.79	8.89	9.83	16.42	30.00	PASS
	157/5785	8.75	9.69	9.51	10.45	8.93	9.87	8.36	9.30	15.87	30.00	PASS
	165/5825	8.06	9.00	8.76	9.70	8.78	9.72	7.74	8.68	15.32	30.00	PASS
802.11ac VHT40	151/5755	5.23	6.23	5.21	6.21	5.54	6.54	5.51	6.51	12.40	30.00	PASS
	159/5795	6.59	7.59	6.66	7.66	6.44	7.44	5.91	6.91	13.43	30.00	PASS
802.11ac VHT80	155/5775	3.08	4.08	3.20	4.20	3.25	4.25	2.67	3.67	10.08	30.00	PASS
802.11ax HE20	149/5745	9.15	10.15	8.89	9.89	9.81	10.81	8.84	9.84	16.21	30.00	PASS
	157/5785	8.74	9.74	9.15	10.15	8.68	9.68	8.01	9.01	15.68	30.00	PASS
	165/5825	8.19	9.19	8.23	9.23	8.30	9.30	7.89	8.89	15.18	30.00	PASS
802.11ax HE40	151/5755	6.31	7.31	5.74	6.74	5.92	6.92	6.08	7.08	13.04	30.00	PASS
	159/5795	5.61	6.61	5.76	6.76	5.46	6.46	4.59	5.59	12.40	30.00	PASS
802.11ax HE80	155/5775	0.46	1.40	-0.14	0.80	0.86	1.80	-0.57	0.37	7.15	30.00	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 = 4.80dBi<6dBi. So the PSD limit is 30dBm.

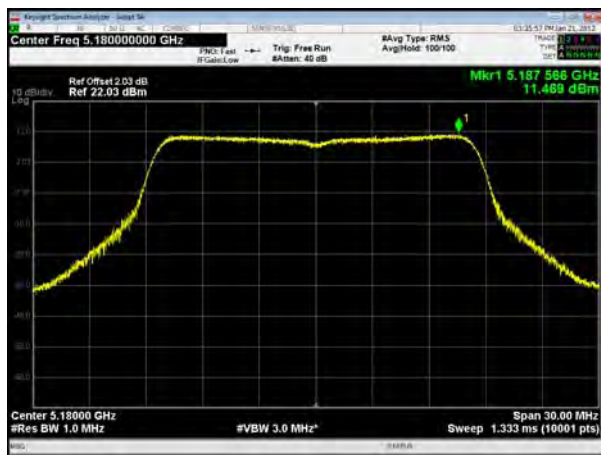


INPAQ:

MIMO

Antenna 1

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



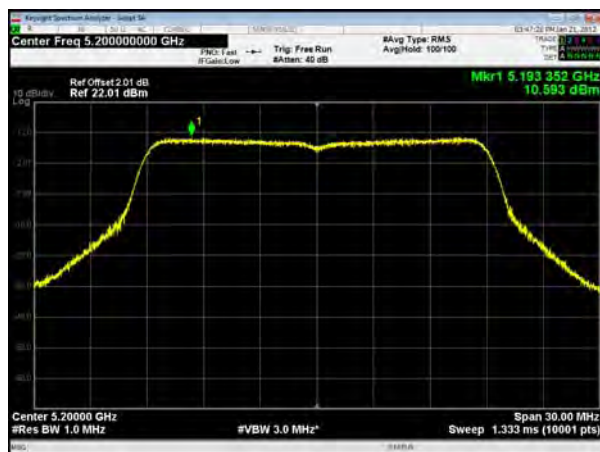
U-NII-1, 802.11n HT20, Channel No.: 36



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



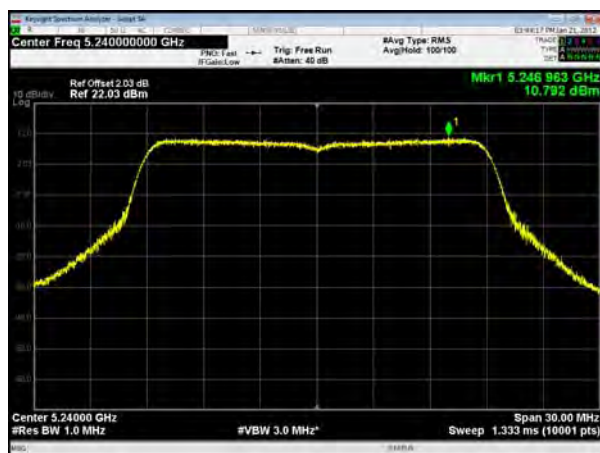
U-NII-1, 802.11n HT20, Channel No.: 40



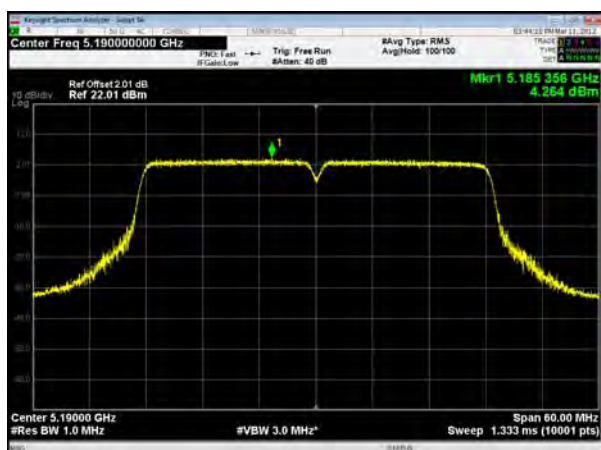
U-NII-1, 802.11a, Channel No.: 48



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



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



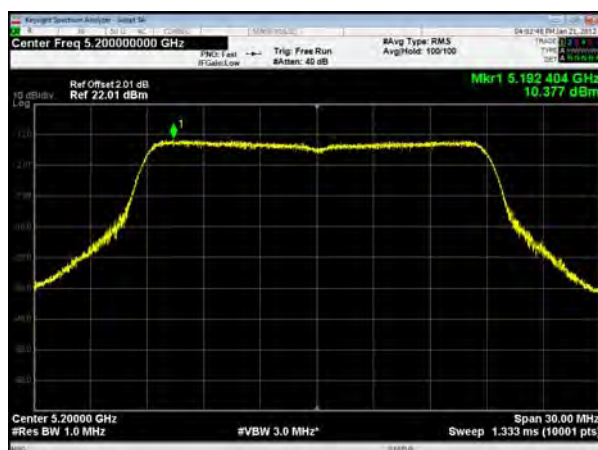
U-NII-1, 802.11ac VHT20, Channel No.: 36



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





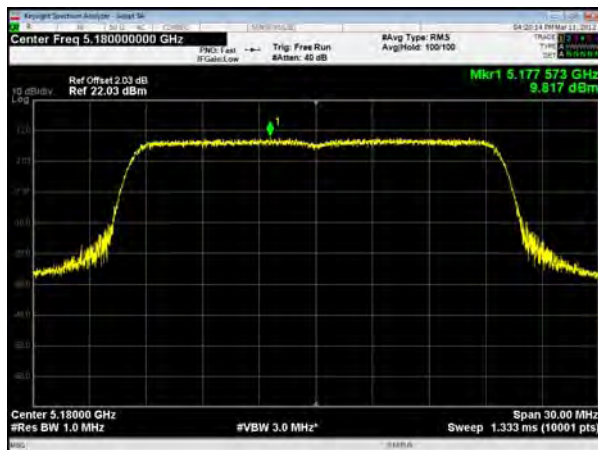
U-NII-1, 802.11ac VHT40, Channel No.: 46



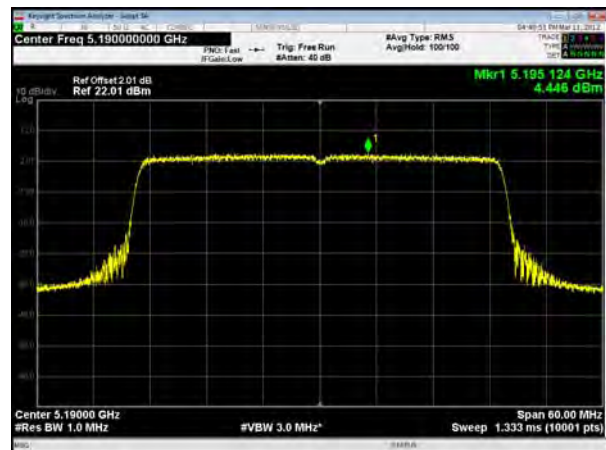
U-NII-1, 802.11ac VHT80, Channel No.: 42



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

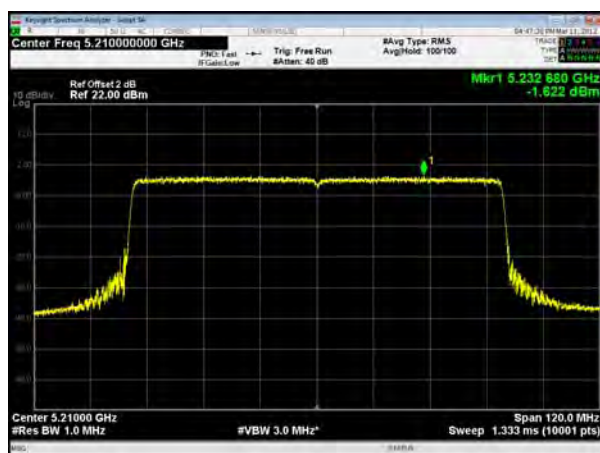




U-NII-1, 802.11ax HE20, Channel No.: 48



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





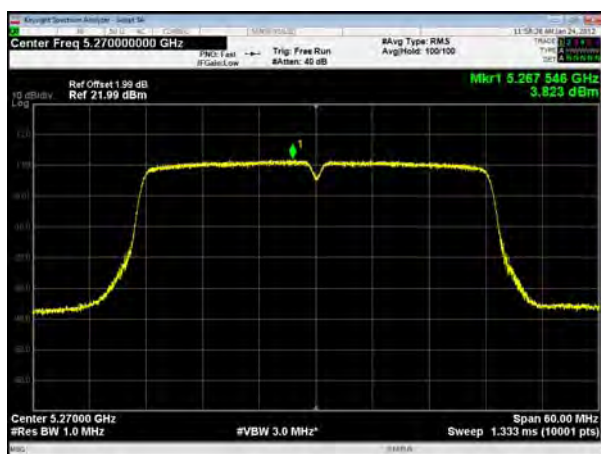
U-NII-2A, 802.11a, Channel No.: 64



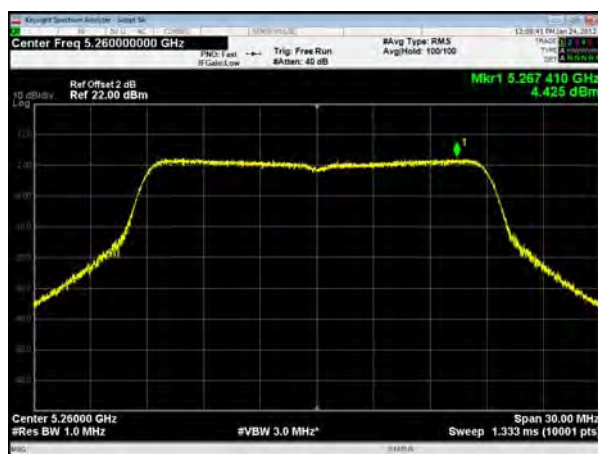
U-NII-2A, 802.11n HT20, Channel No.: 64



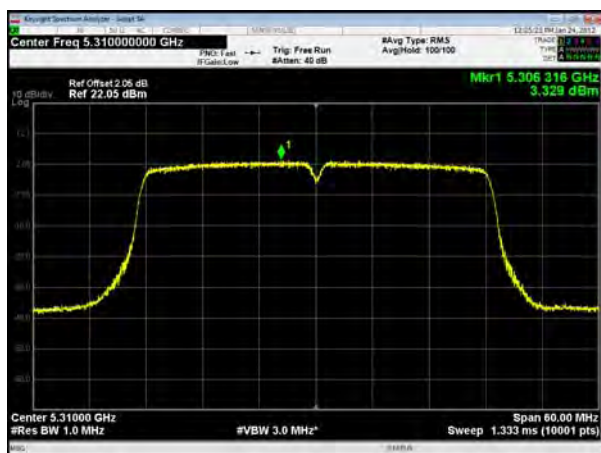
U-NII-2A, 802.11n HT40, Channel No.: 54



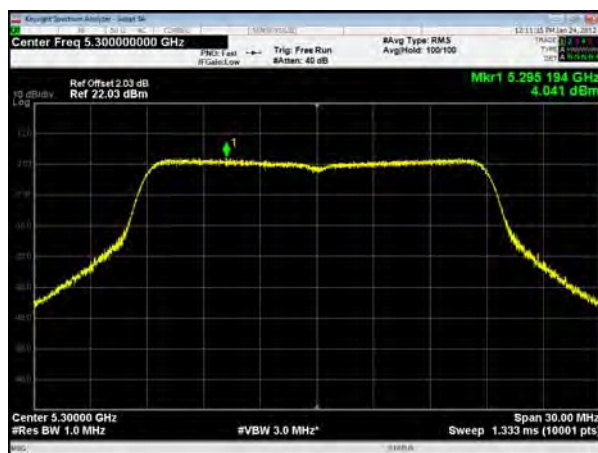
U-NII-2A, 802.11ac VHT20, Channel No.: 52



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

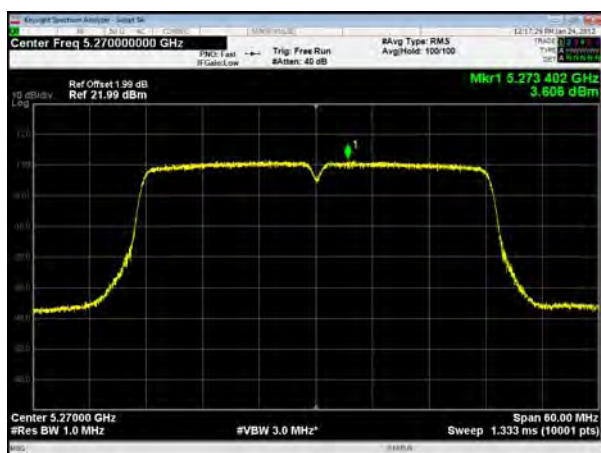


U-NII-2A, 802.11ac VHT20, Channel No.: 60





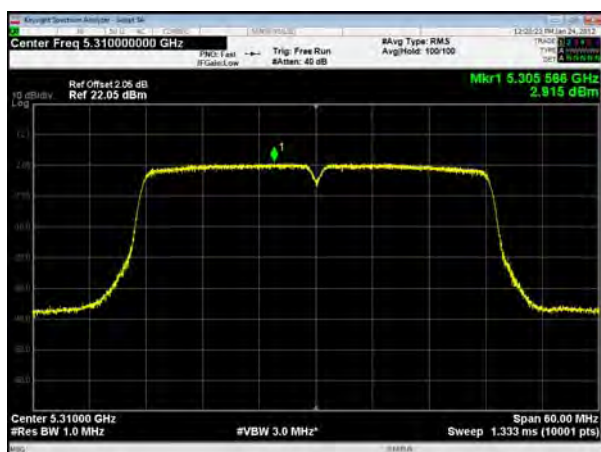
U-NII-2A, 802.11ac VHT40, Channel No.: 54



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



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



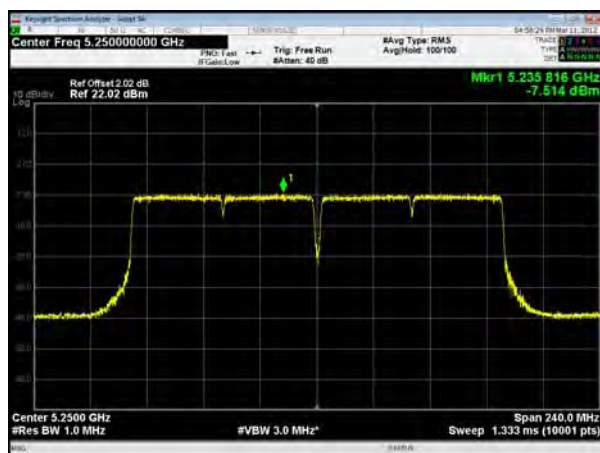
U-NII-2A, 802.11ac VHT80, Channel No.: 58



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



U-NII-2A, 802.11ac VHT160, Channel No.: 50

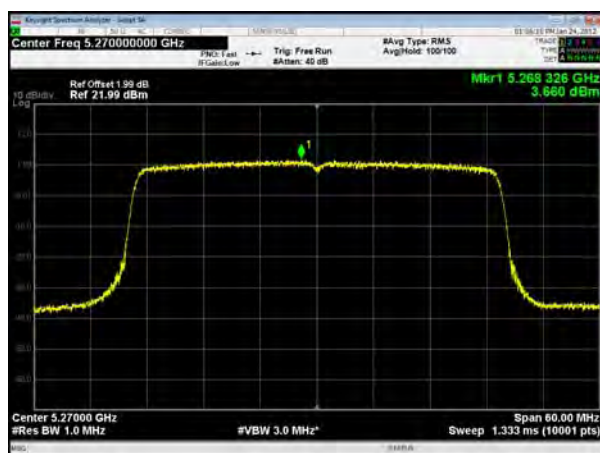




U-NII-2A, 802.11ax HE20, Channel No.: 60



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



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



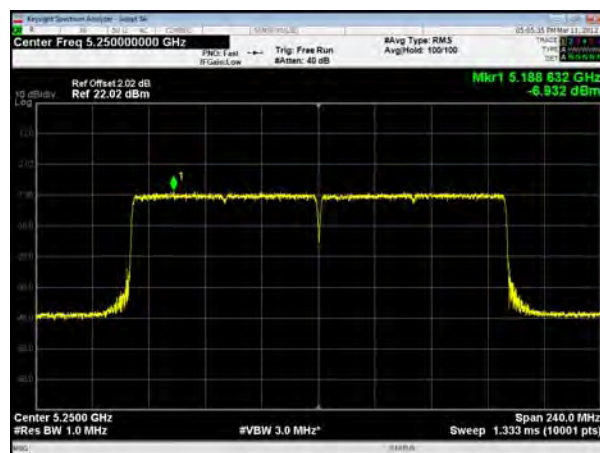
U-NII-2A, 802.11ax HE40, Channel No.: 62



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



U-NII-2A, 802.11ax HE160, Channel No.: 50





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



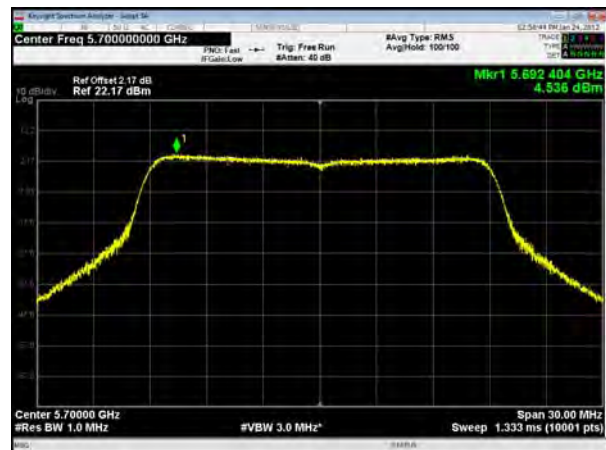
U-NII-2C, 802.11n HT20, Channel No.: 120



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

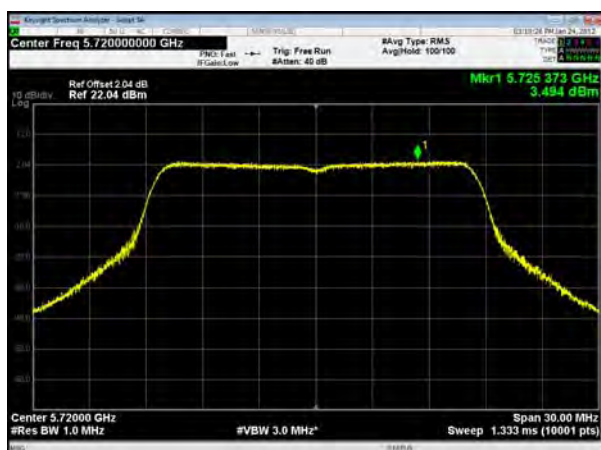


U-NII-2C, 802.11n HT20, Channel No.: 140





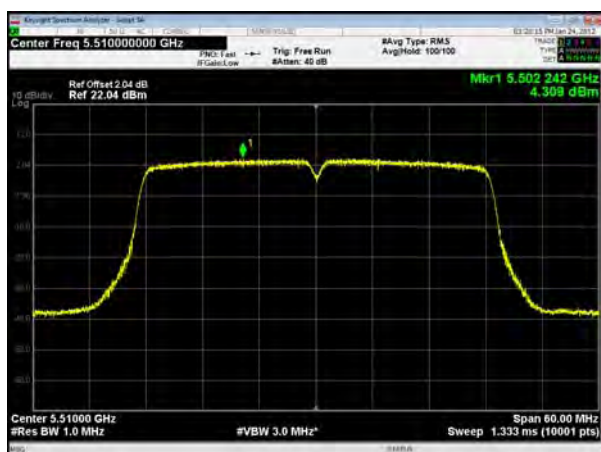
U-NII-2C, 802.11a, Channel No.: 144



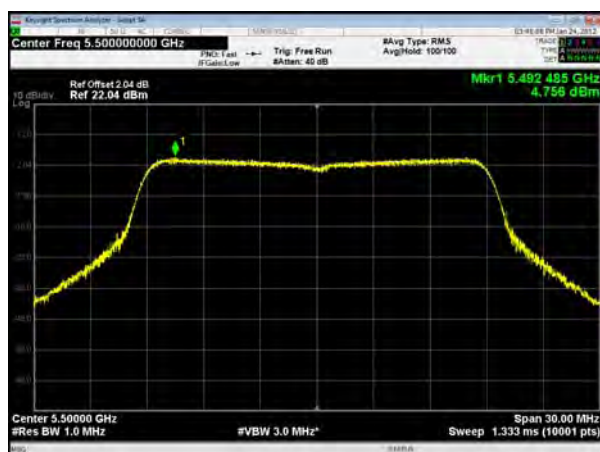
U-NII-2C, 802.11n HT20, Channel No.: 144



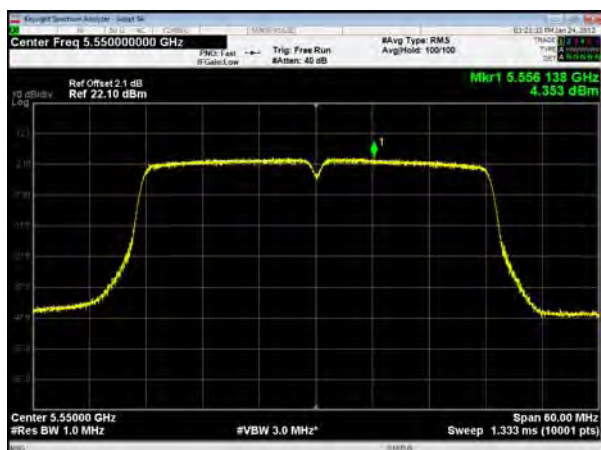
U-NII-2C, 802.11n HT40, Channel No.: 102



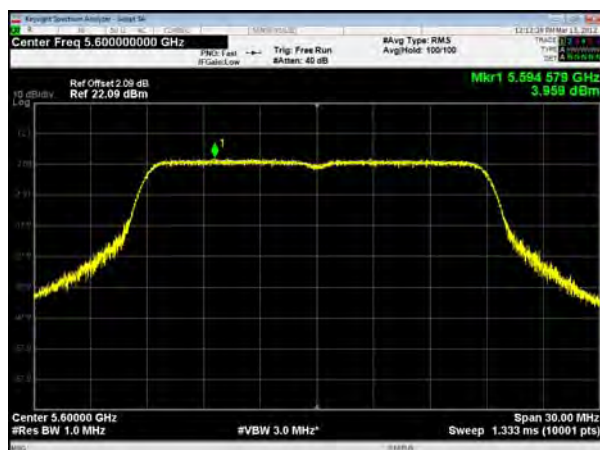
U-NII-2C, 802.11ac VHT20, Channel No.: 100



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



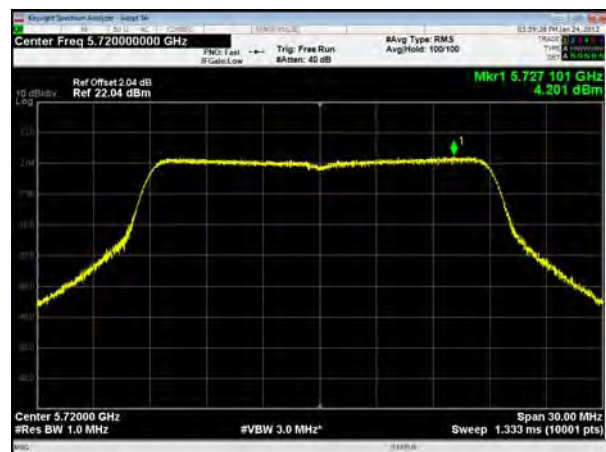
U-NII-2C, 802.11ac VHT20, Channel No.: 140



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

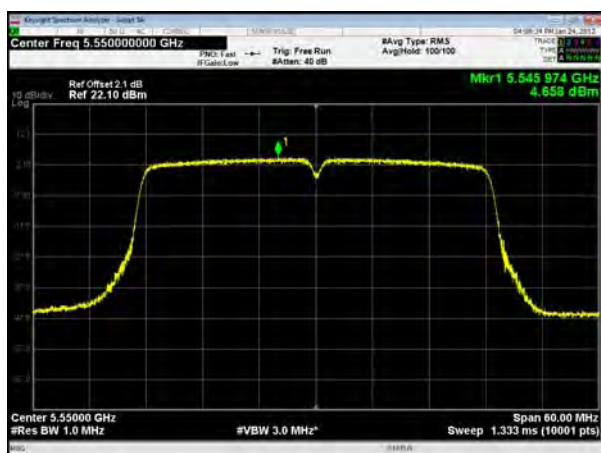


U-NII-2C, 802.11ac VHT80, Channel No.: 106





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



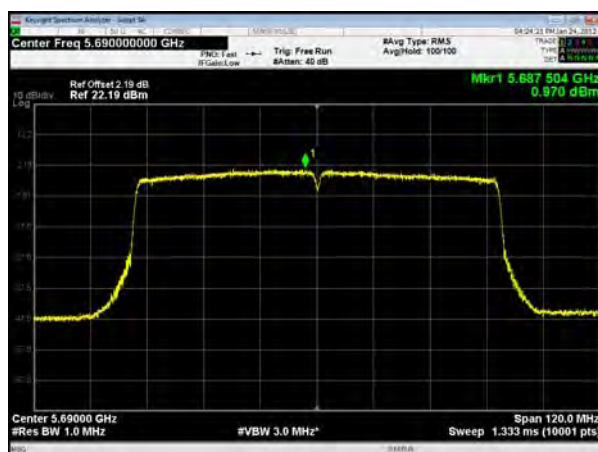
U-NII-2C, 802.11ac VHT80, Channel No.: 122



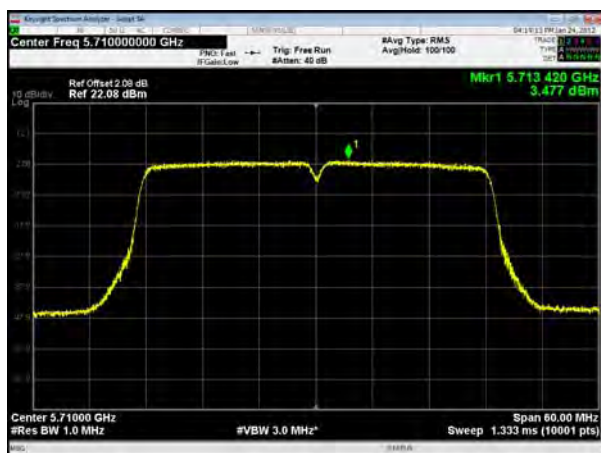
U-NII-2C, 802.11ac VHT40, Channel No.: 134



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



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

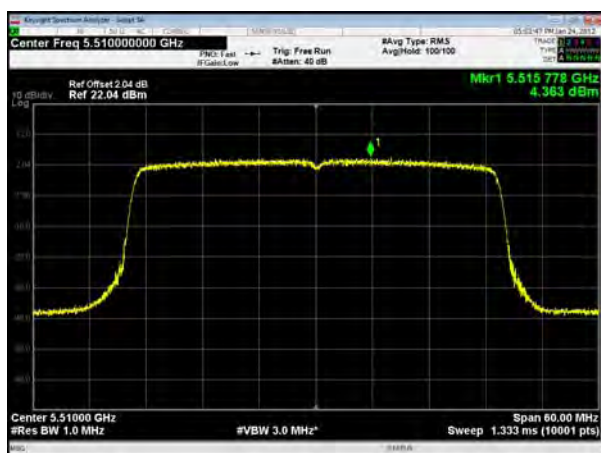


U-NII-2C, 802.11ac VHT160, Channel No.: 114

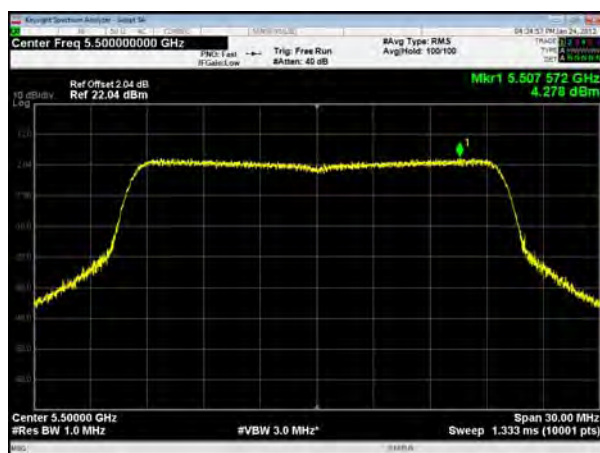




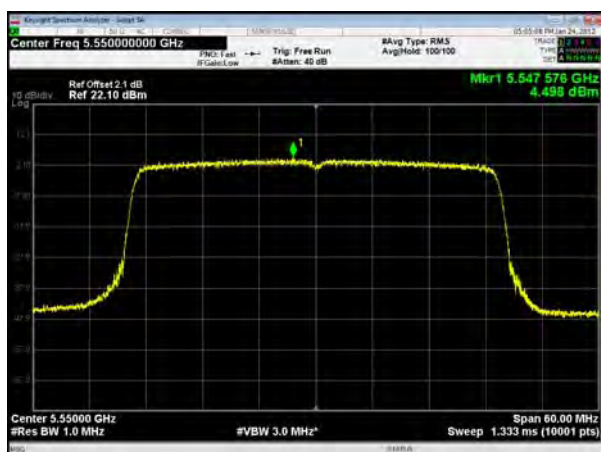
U-NII-2C, 802.11ax HE40, Channel No.: 102



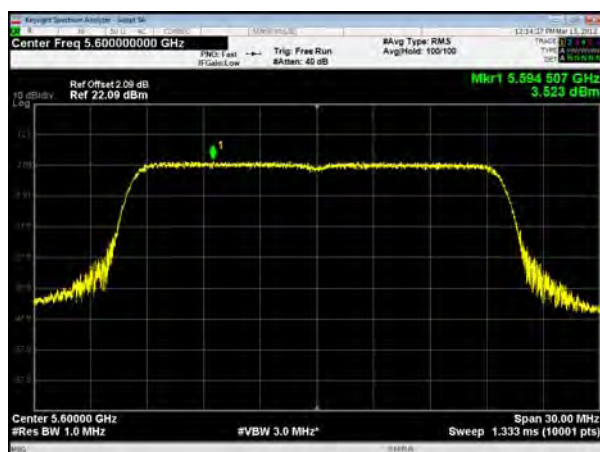
U-NII-2C, 802.11ax HE20, Channel No.: 100



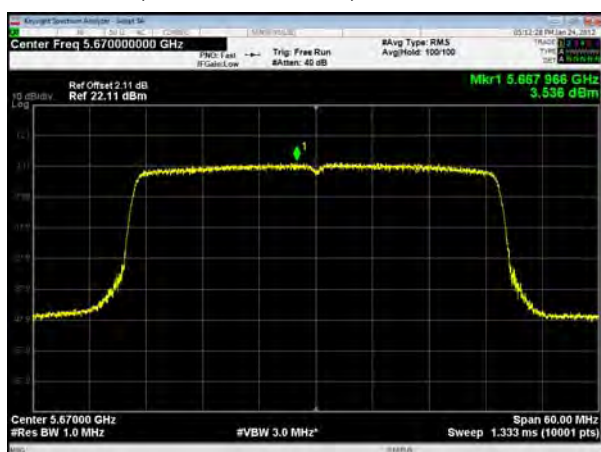
U-NII-2C, 802.11ax HE40, Channel No.: 118



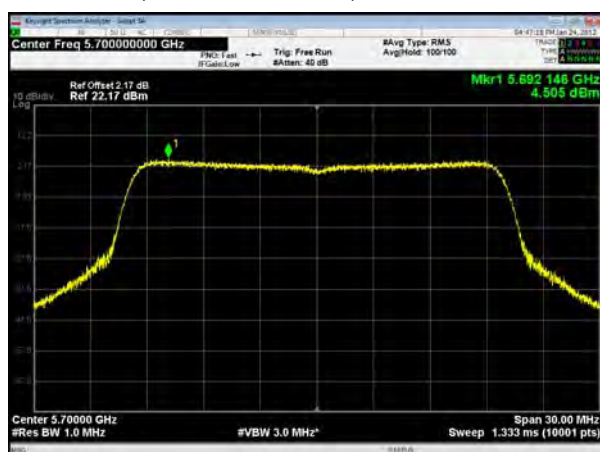
U-NII-2C, 802.11ax HE20, Channel No.: 120



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

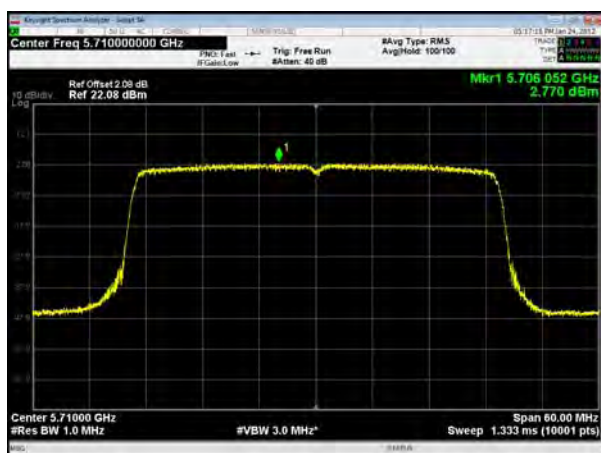


U-NII-2C, 802.11ax HE20, Channel No.: 140

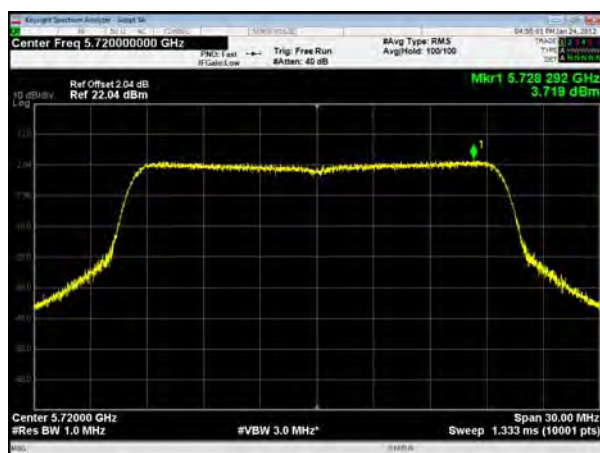




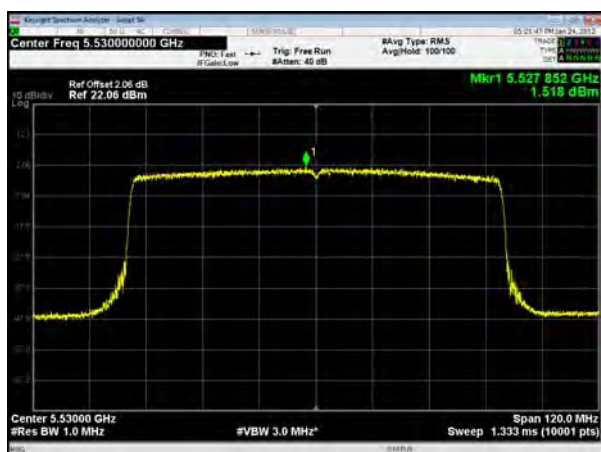
U-NII-2C, 802.11ax HE40, Channel No.: 142



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



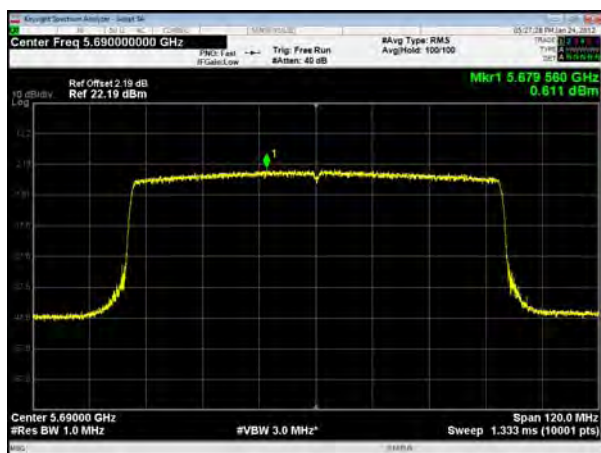
U-NII-2C, 802.11ax HE80, Channel No.: 106



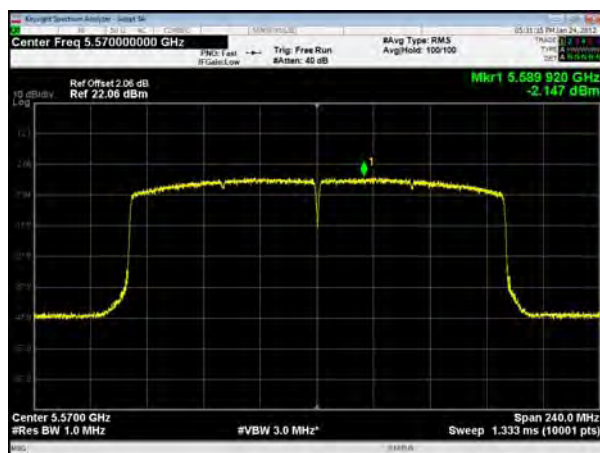
U-NII-2C, 802.11ax HE80, Channel No.: 122



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



U-NII-2C, 802.11ax HE160, Channel No.: 114

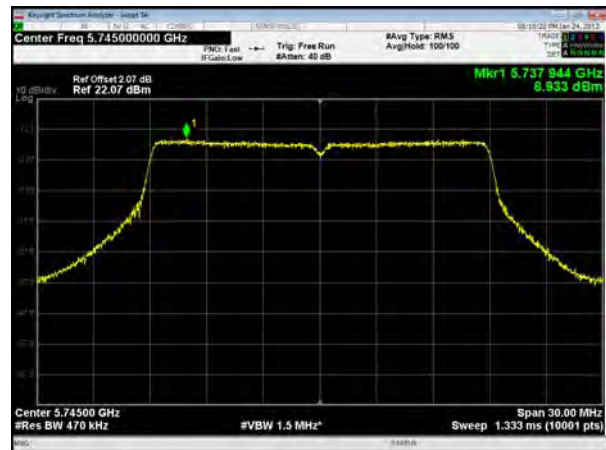




U-NII-3, 802.11a, Channel No.: 149



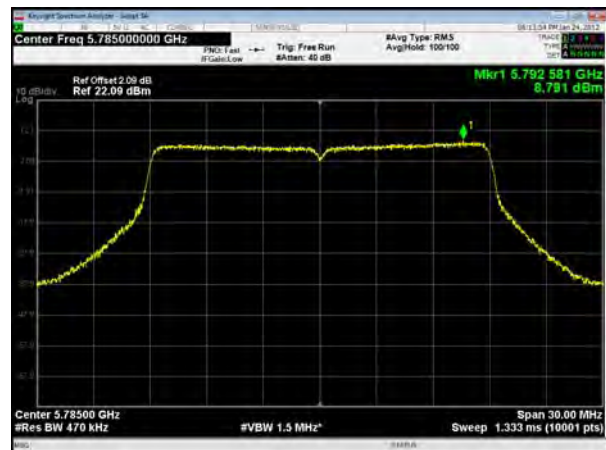
U-NII-3, 802.11n HT20, Channel No.: 149



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

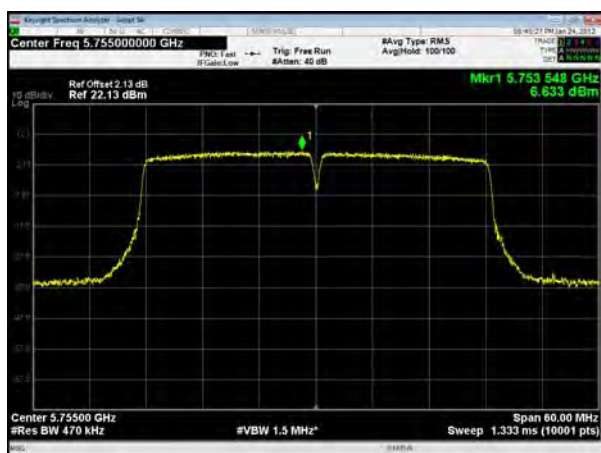


U-NII-3, 802.11n HT20, Channel No.: 165





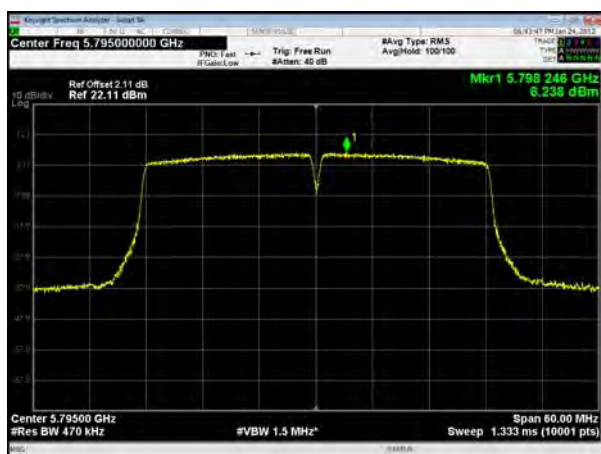
U-NII-3, 802.11n HT40, Channel No.: 151



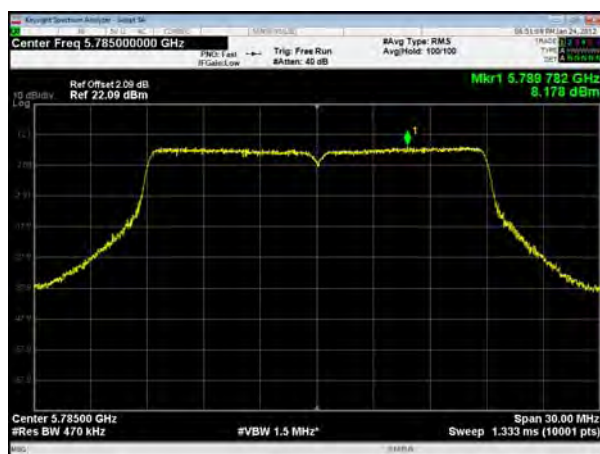
U-NII-3, 802.11ac VHT20, Channel No.: 149



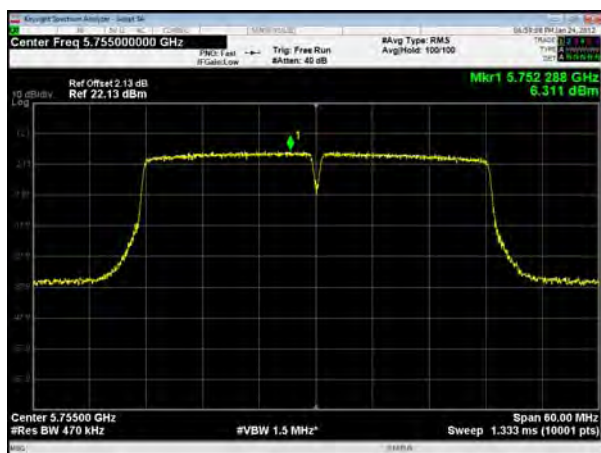
U-NII-3, 802.11n HT40, Channel No.: 159



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



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

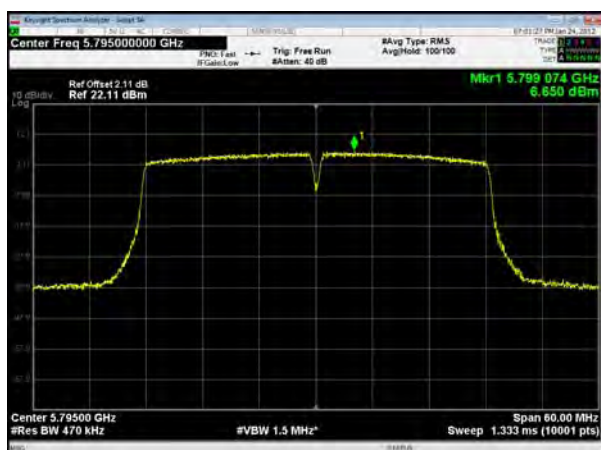


U-NII-3, 802.11ac VHT20, Channel No.: 165





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



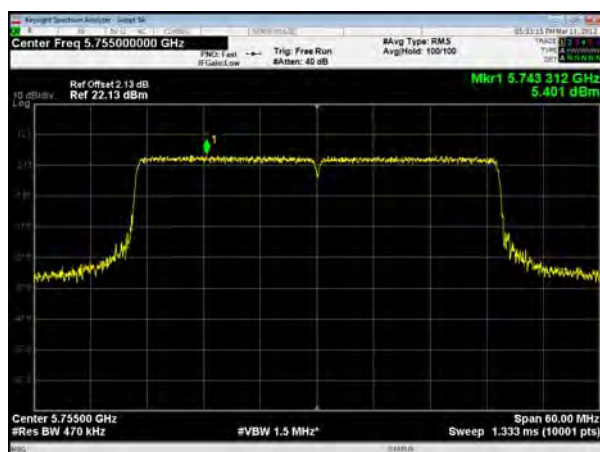
U-NII-3, 802.11ac VHT80, Channel No.: 155



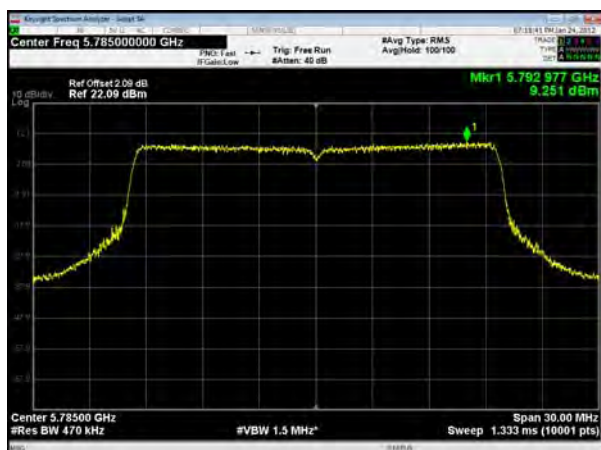
U-NII-3, 802.11ax HE20, Channel No.: 149



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



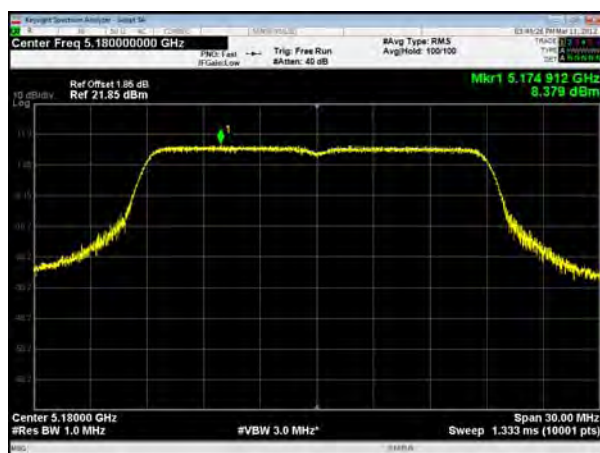


Antenna 2

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

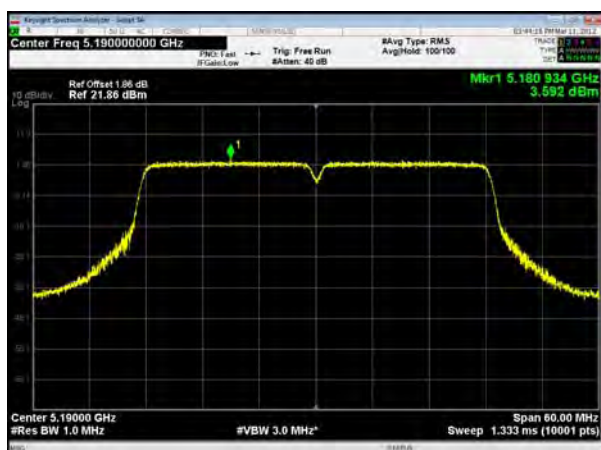


U-NII-1, 802.11n HT20, Channel No.: 48





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



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



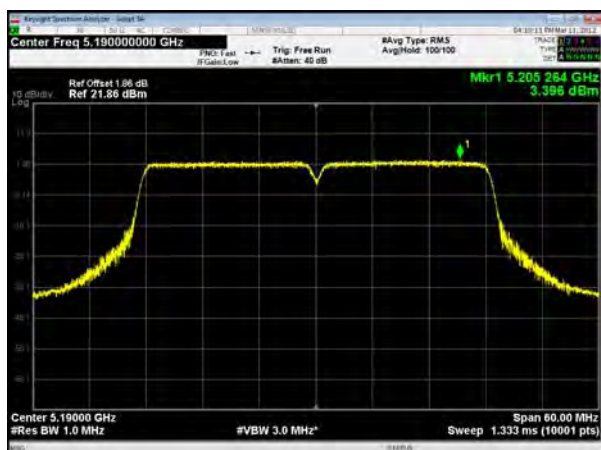
U-NII-1, 802.11n HT40, Channel No.: 46



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

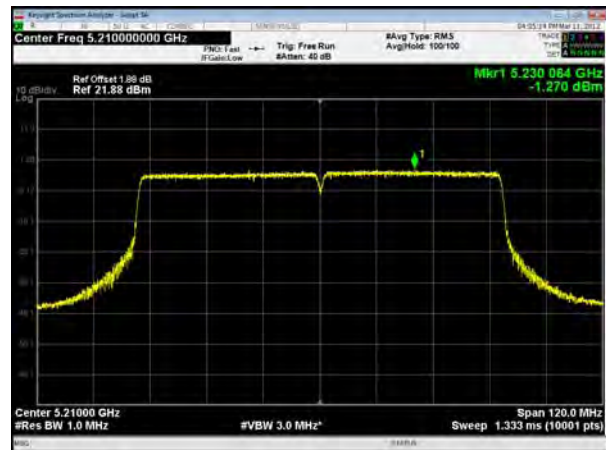




U-NII-1, 802.11ac VHT40, Channel No.: 46



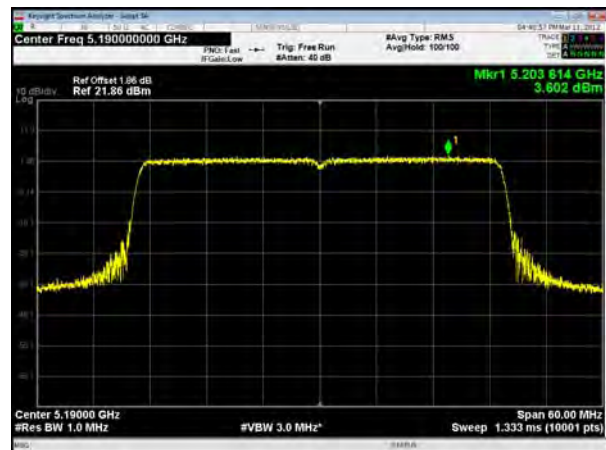
U-NII-1, 802.11ac VHT80, Channel No.: 42



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

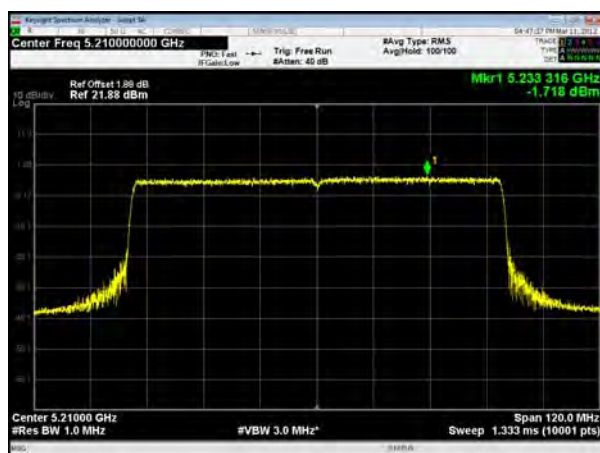




U-NII-1, 802.11ax HE20, Channel No.: 48



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





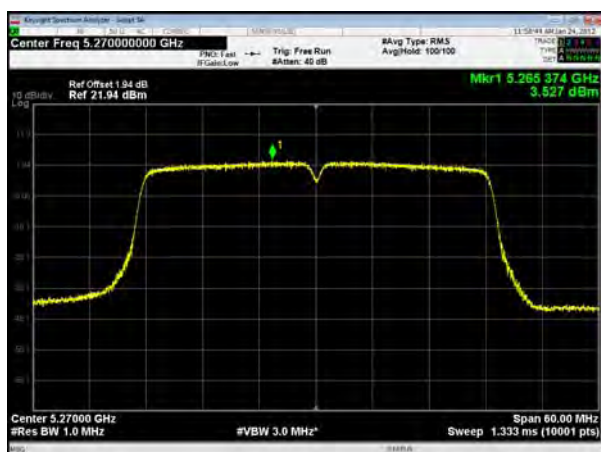
U-NII-2A, 802.11a, Channel No.: 64



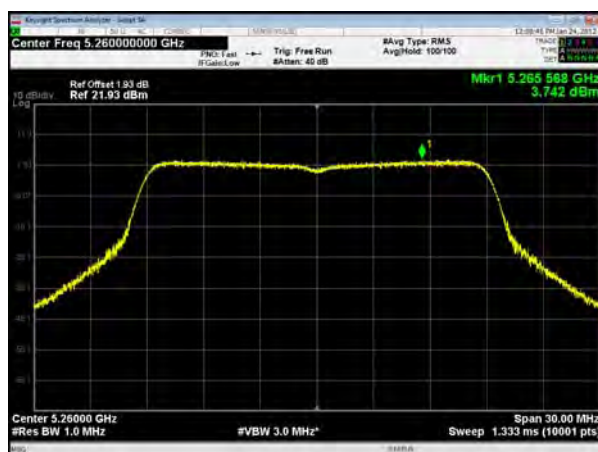
U-NII-2A, 802.11n HT20, Channel No.: 64



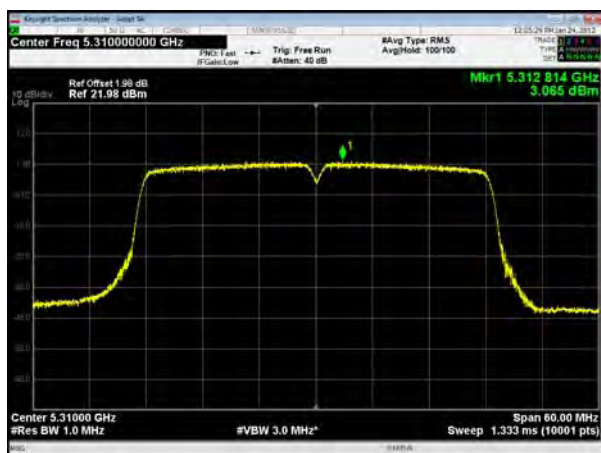
U-NII-2A, 802.11n HT40, Channel No.: 54



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



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

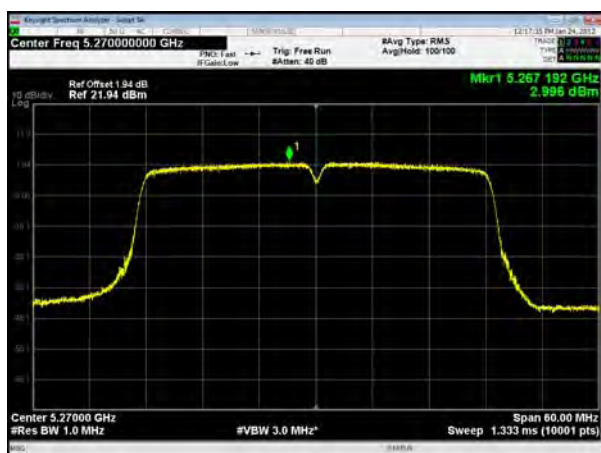


U-NII-2A, 802.11ac VHT20, Channel No.: 60





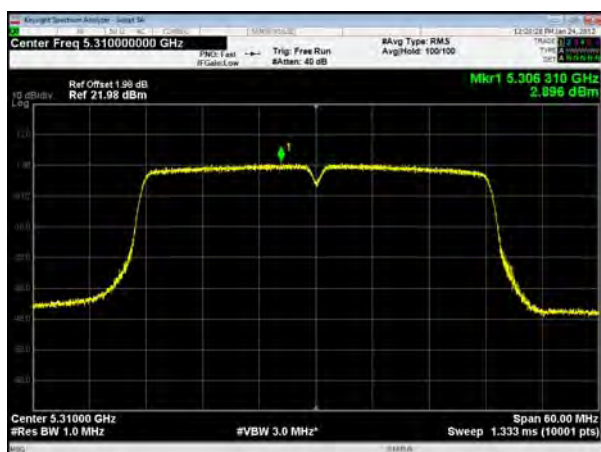
U-NII-2A, 802.11ac VHT40, Channel No.: 54



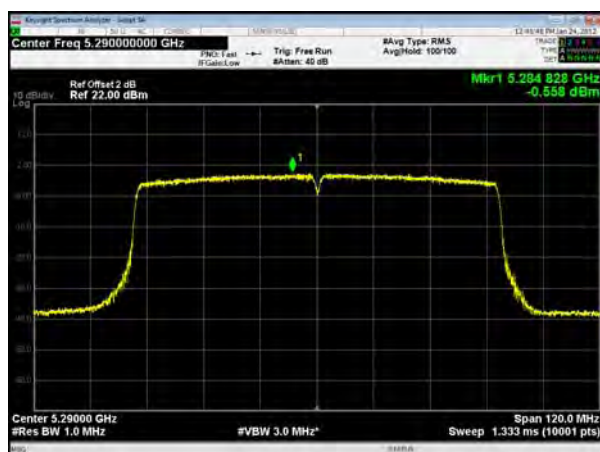
U-NII-2A, 802.11ac VHT20, Channel No.: 64



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



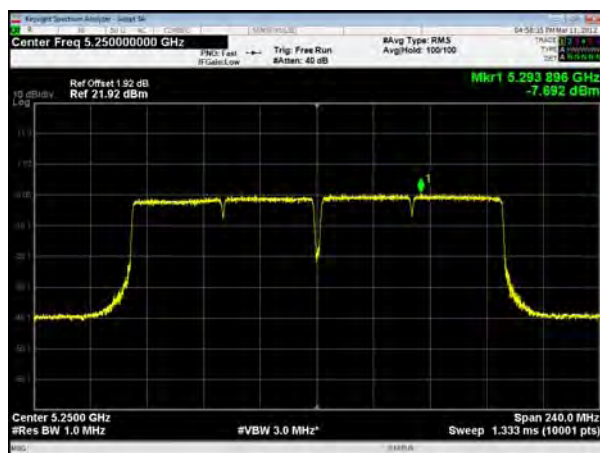
U-NII-2A, 802.11ac VHT80, Channel No.: 58



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



U-NII-2A, 802.11ac VHT160, Channel No.: 50

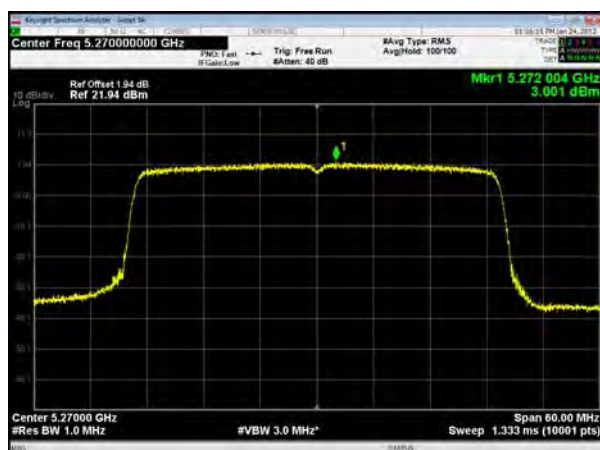




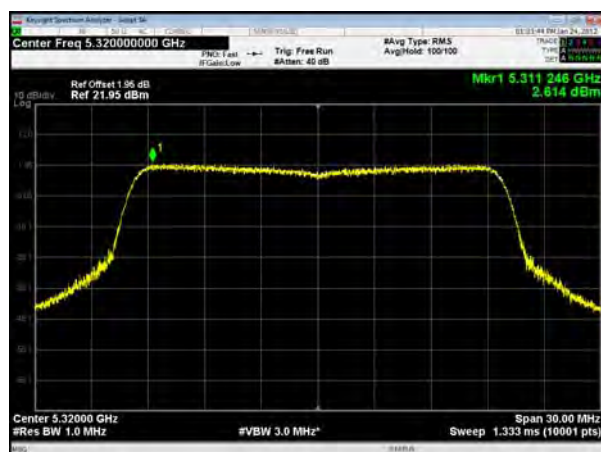
U-NII-2A, 802.11ax HE20, Channel No.: 60



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



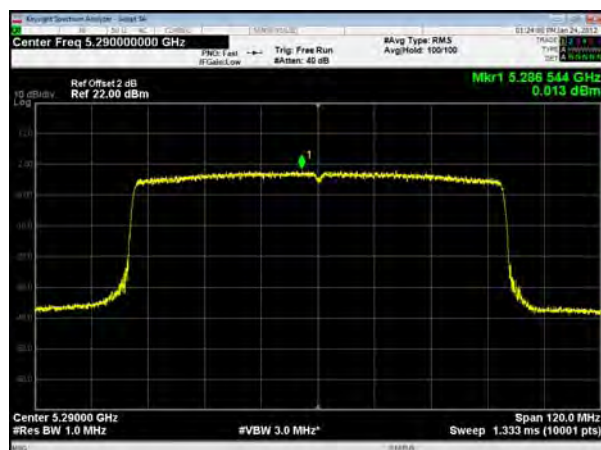
U-NII-2A, 802.11ax HE20, Channel No.: 64



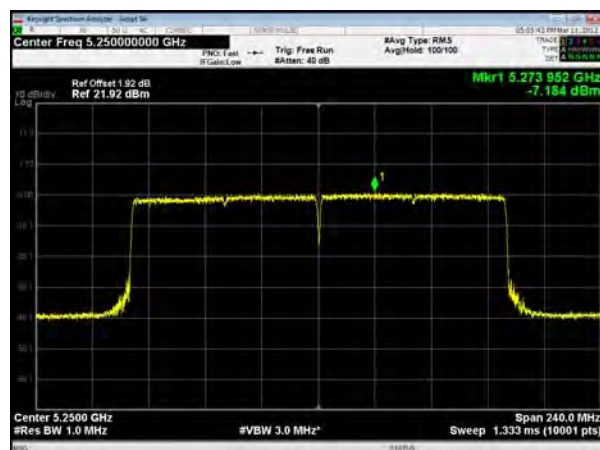
U-NII-2A, 802.11ax HE40, Channel No.: 62



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



U-NII-2A, 802.11ax HE160, Channel No.: 50

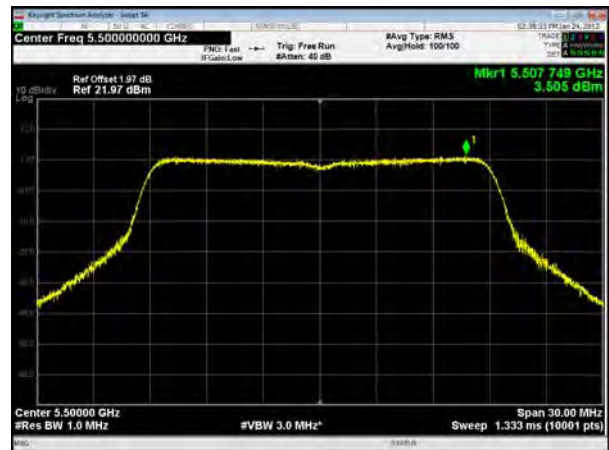




U-NII-2C, 802.11a, Channel No.: 100



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



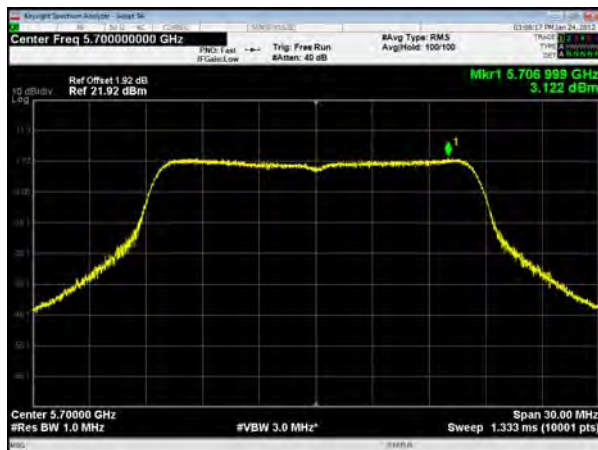
U-NII-2C, 802.11a, Channel No.: 120



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



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

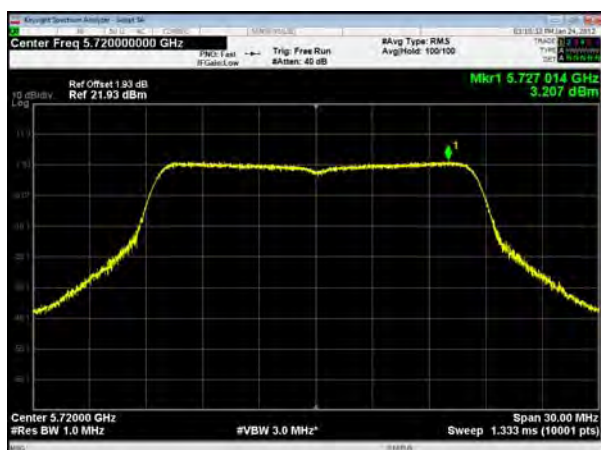


U-NII-2C, 802.11n HT20, Channel No.: 140

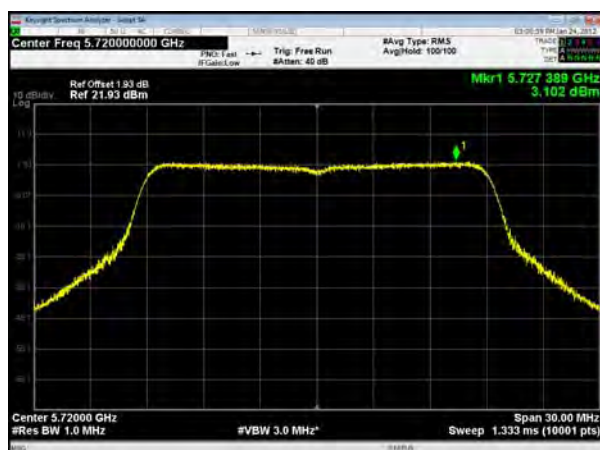




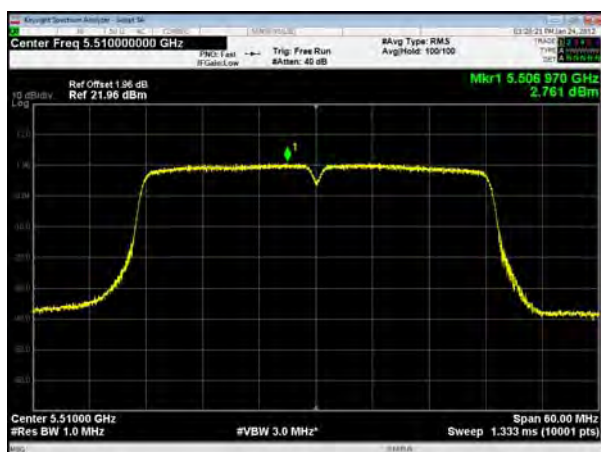
U-NII-2C, 802.11a, Channel No.: 144



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



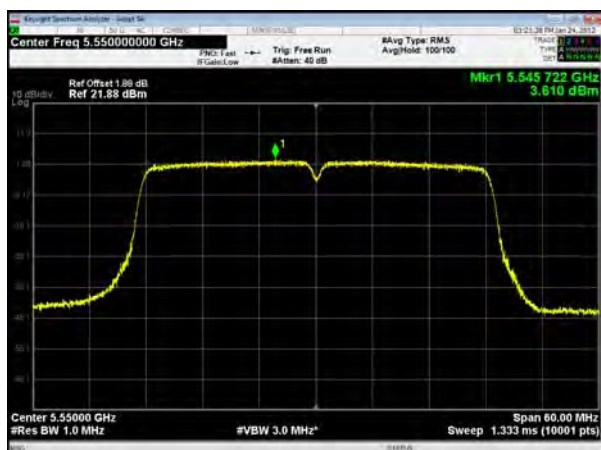
U-NII-2C, 802.11n HT40, Channel No.: 102



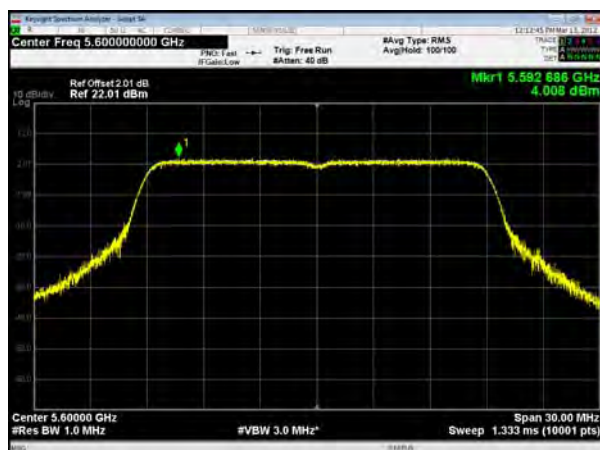
U-NII-2C, 802.11ac VHT20, Channel No.: 100



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

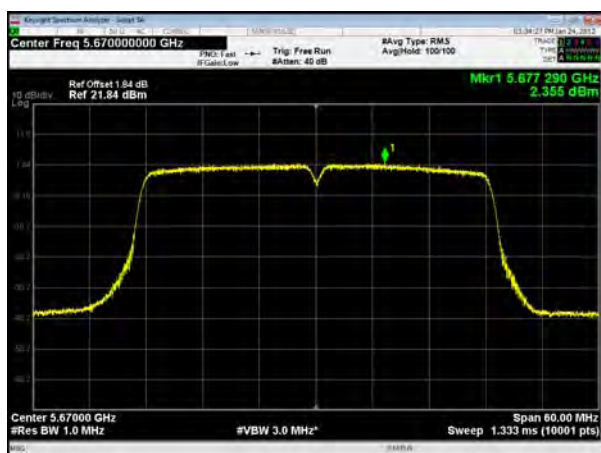


U-NII-2C, 802.11ac VHT20, Channel No.: 120





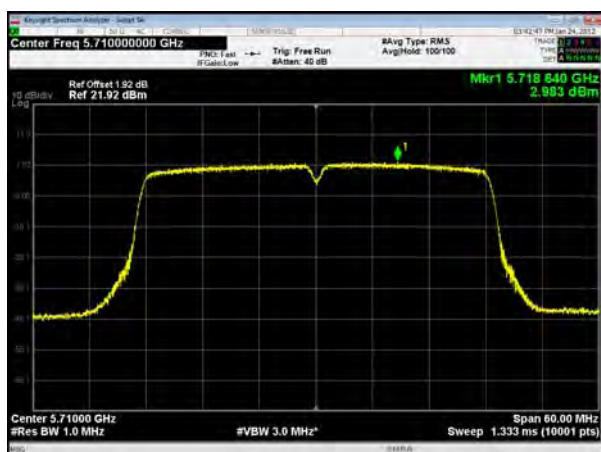
U-NII-2C, 802.11n HT40, Channel No.: 134



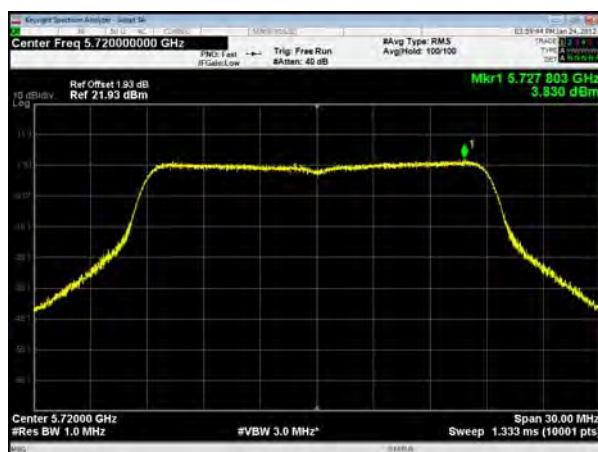
U-NII-2C, 802.11ac VHT20, Channel No.: 140



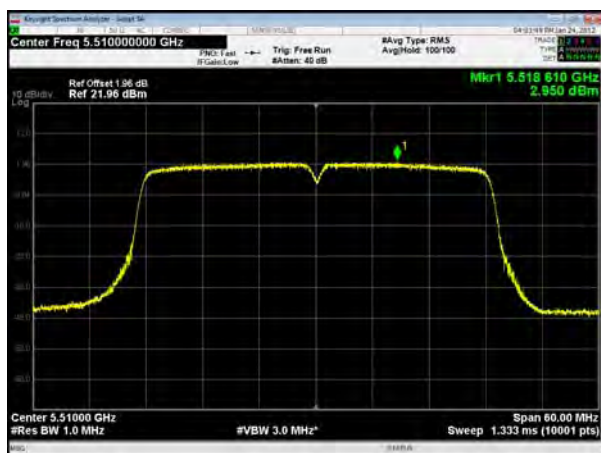
U-NII-2C, 802.11n HT40, Channel No.: 142



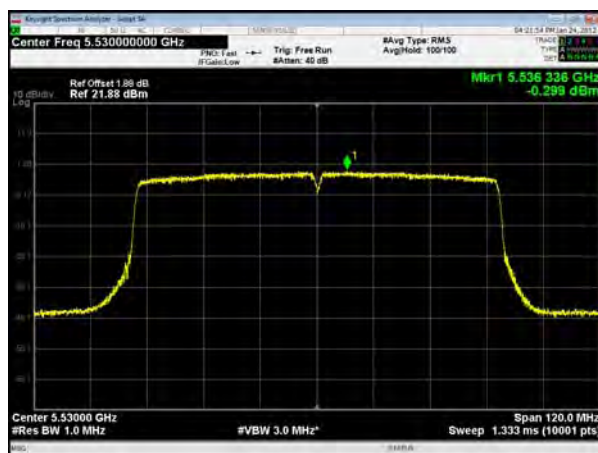
U-NII-2C, 802.11ac VHT20, Channel No.: 144



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

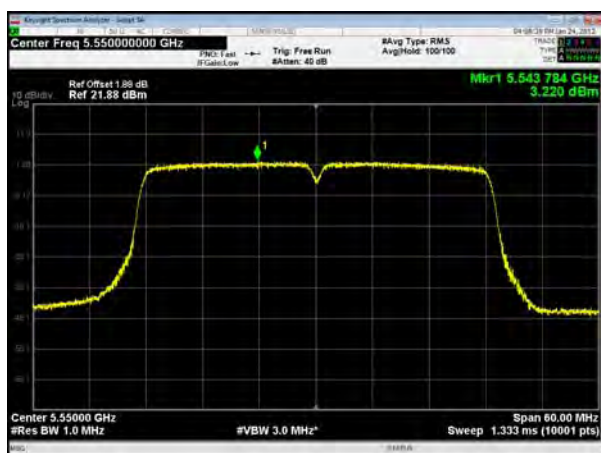


U-NII-2C, 802.11ac VHT80, Channel No.: 106





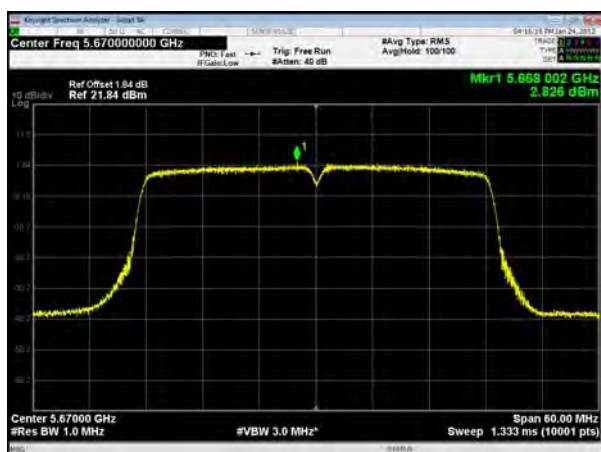
U-NII-2C, 802.11ac VHT40, Channel No.: 118



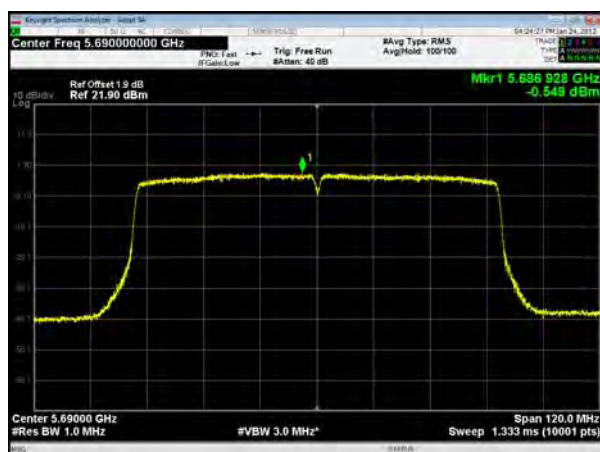
U-NII-2C, 802.11ac VHT80, Channel No.: 122



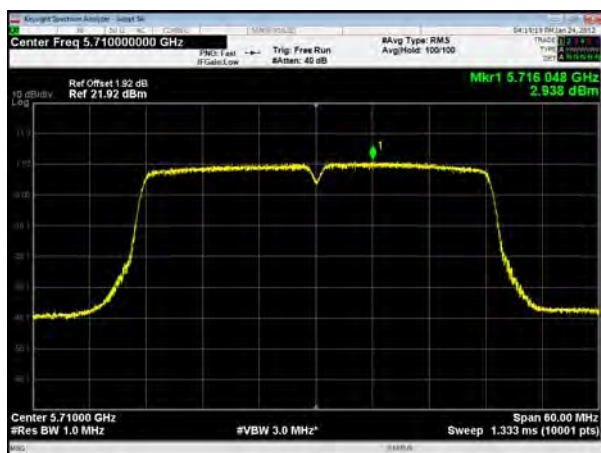
U-NII-2C, 802.11ac VHT40, Channel No.: 134



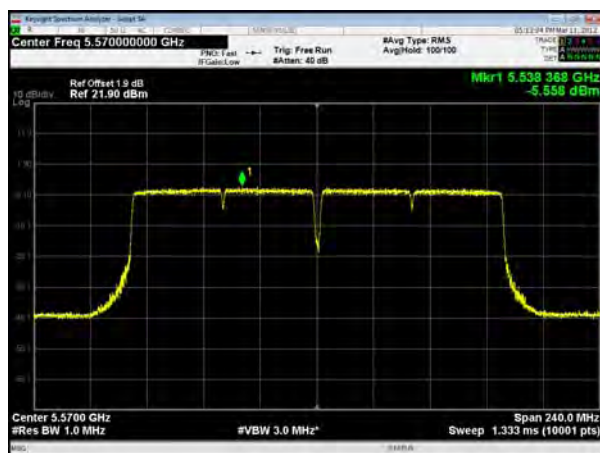
U-NII-2C, 802.11ac VHT80, Channel No.: 138



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

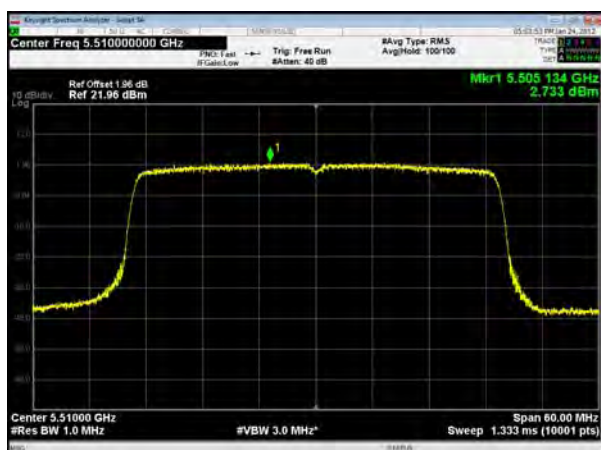


U-NII-2C, 802.11ac VHT160, Channel No.: 114





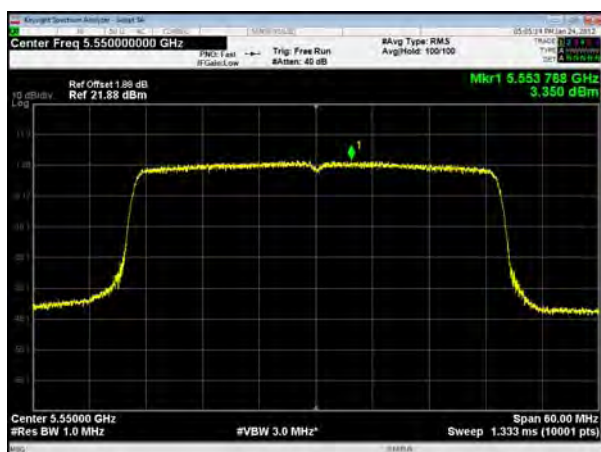
U-NII-2C, 802.11ax HE40, Channel No.: 102



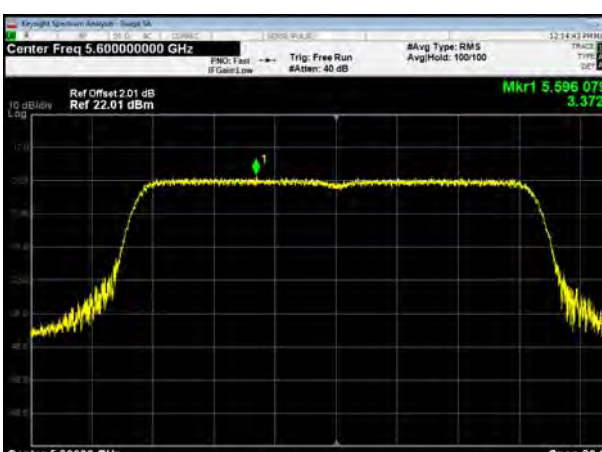
U-NII-2C, 802.11ax HE20, Channel No.: 100



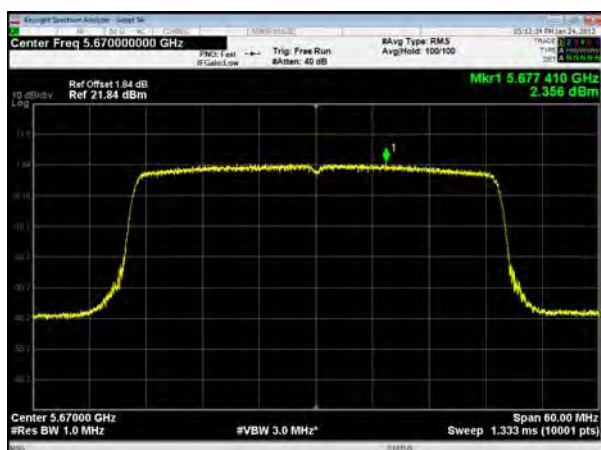
U-NII-2C, 802.11ax HE40, Channel No.: 118



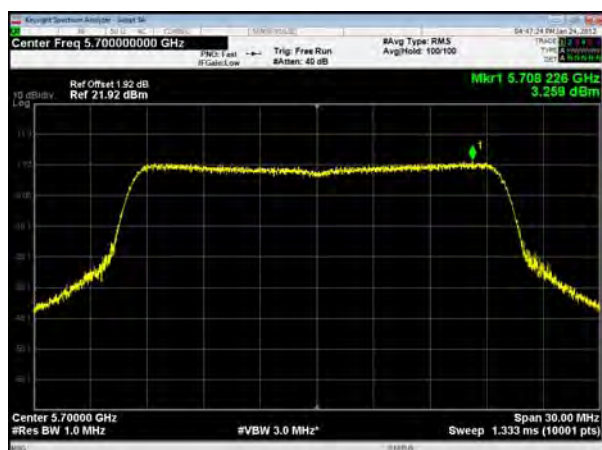
U-NII-2C, 802.11ax HE20, Channel No.: 120



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



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

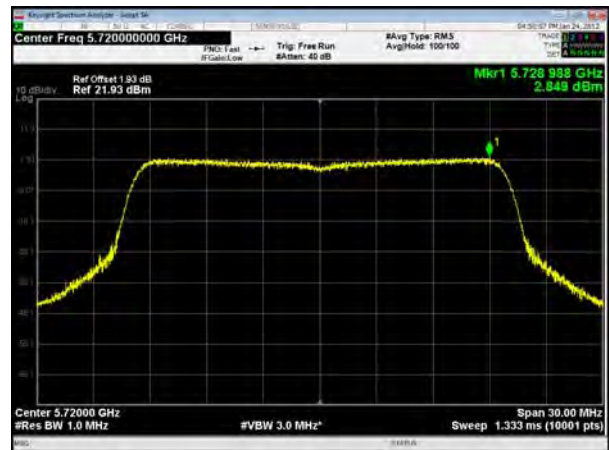




U-NII-2C, 802.11ax HE40, Channel No.: 142



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



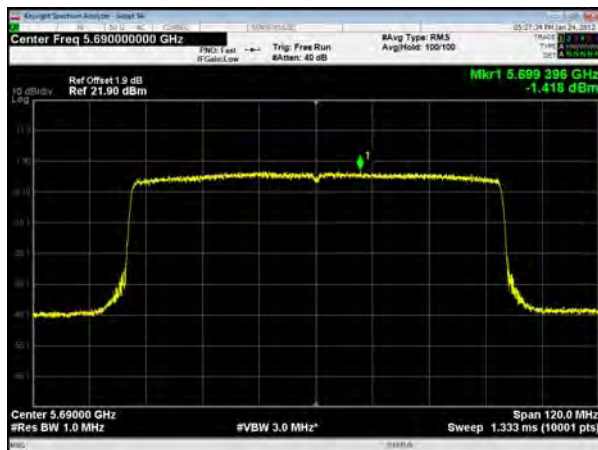
U-NII-2C, 802.11ax HE80, Channel No.: 106



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



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



U-NII-2C, 802.11ax HE160, Channel No.: 114





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

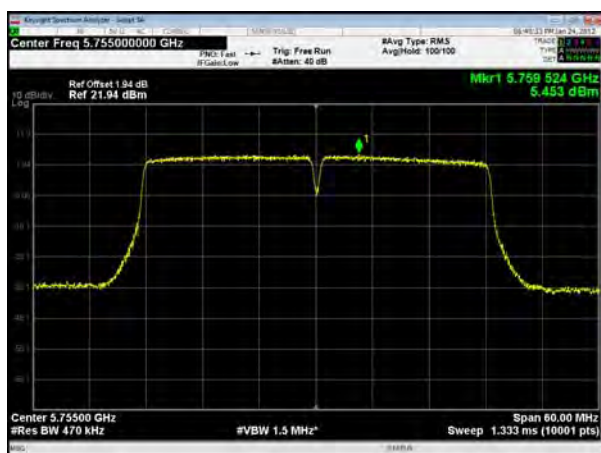


U-NII-3, 802.11n HT20, Channel No.: 165

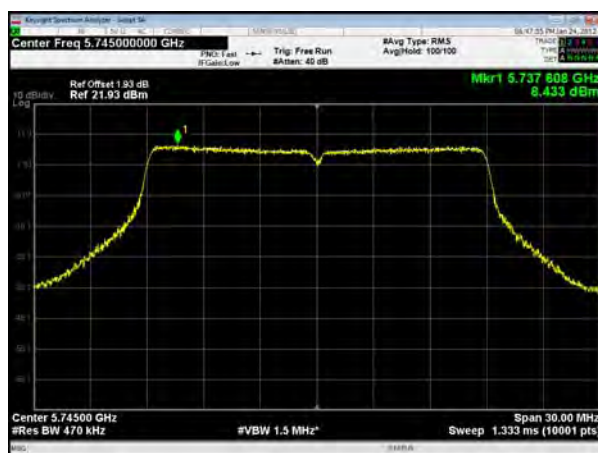




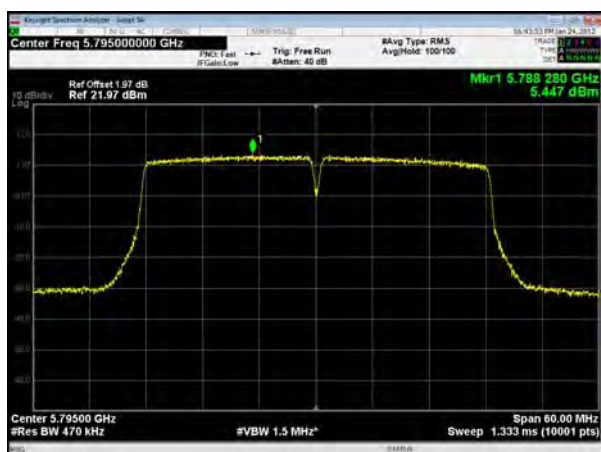
U-NII-3, 802.11n HT40, Channel No.: 151



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



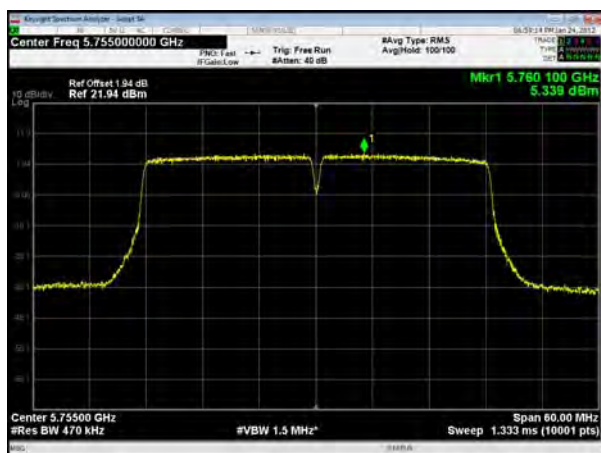
U-NII-3, 802.11n HT40, Channel No.: 159



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



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

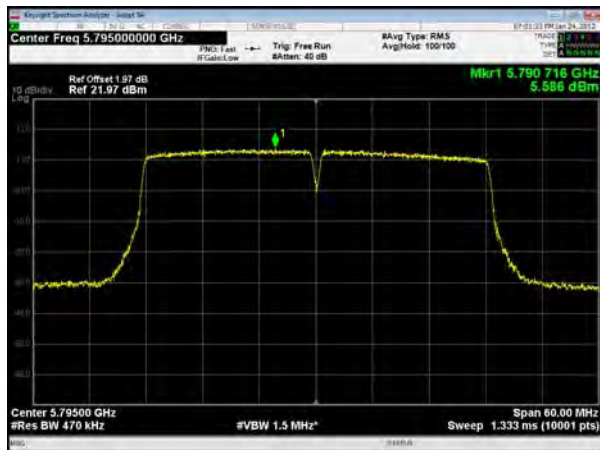


U-NII-3, 802.11ac VHT20, Channel No.: 165

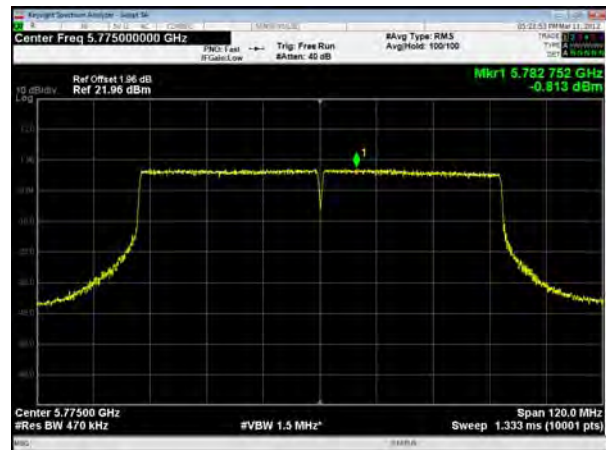




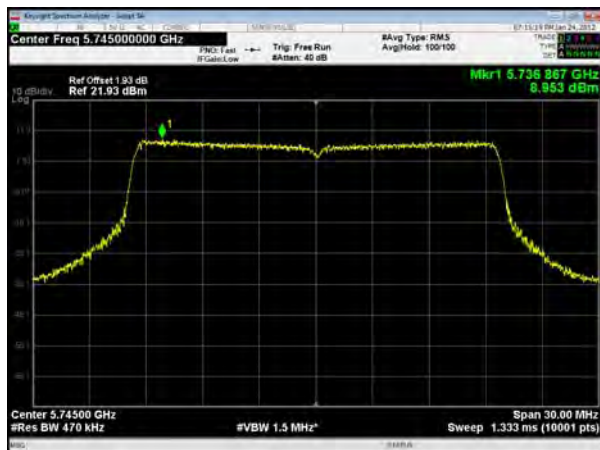
U-NII-3, 802.11ac VHT40, Channel No.: 159



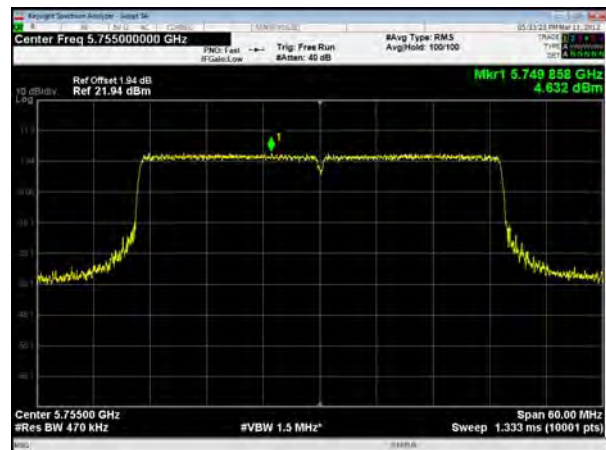
U-NII-3, 802.11ac VHT80, Channel No.: 155



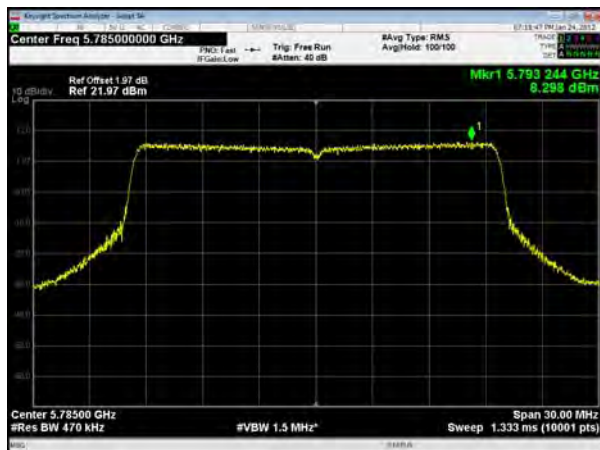
U-NII-3, 802.11ax HE20, Channel No.: 149



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



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

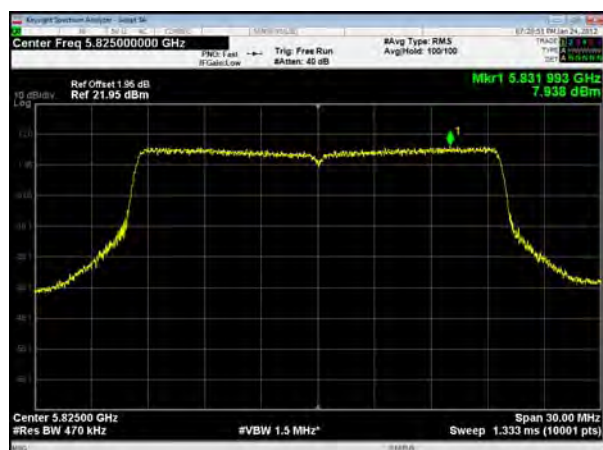


U-NII-3, 802.11ax HE40, Channel No.: 159

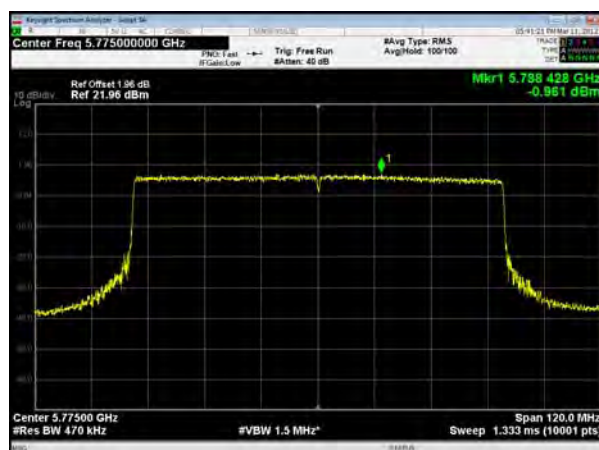




U-NII-3, 802.11ax HE20, Channel No.: 165



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



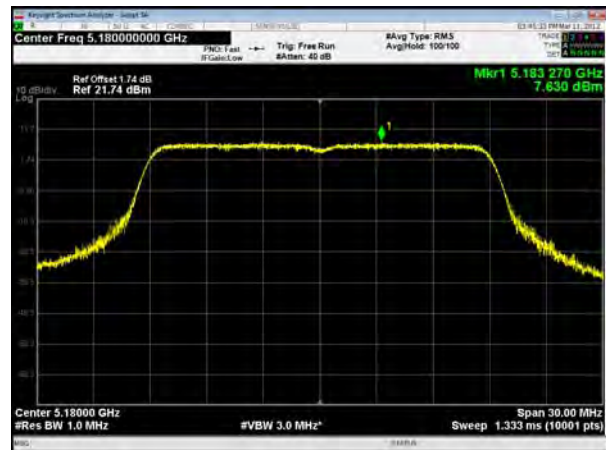


Antenna 3

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



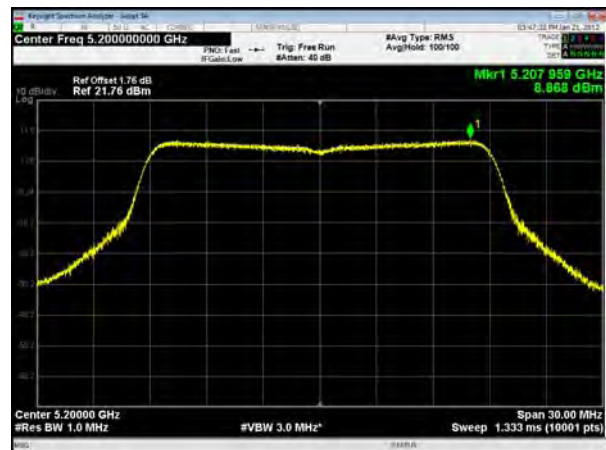
U-NII-1, 802.11n HT20, Channel No.: 36



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



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



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



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





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



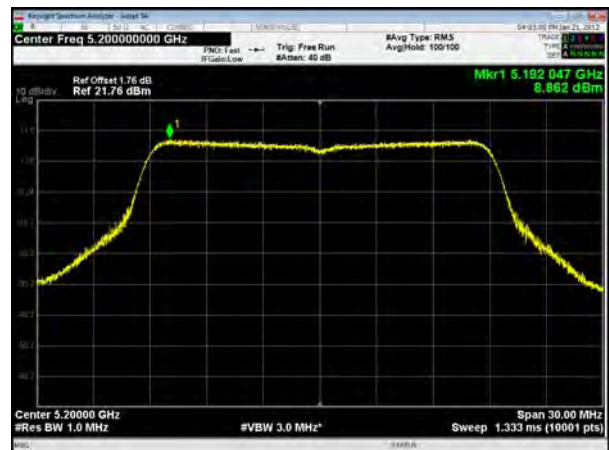
U-NII-1, 802.11ac VHT20, Channel No.: 36



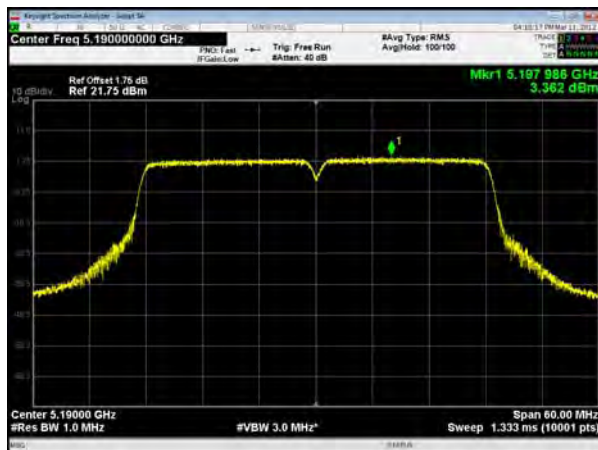
U-NII-1, 802.11n HT40, Channel No.: 46



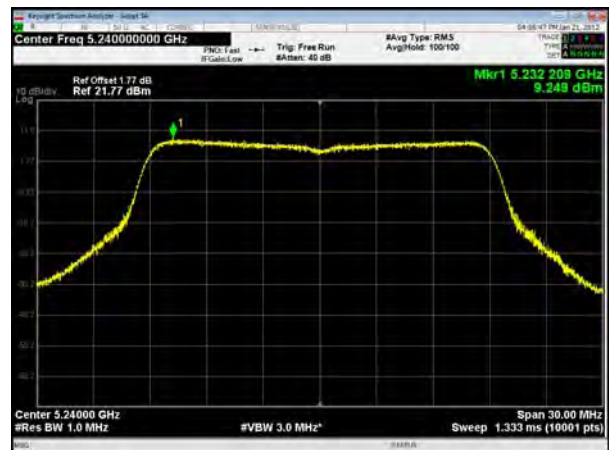
U-NII-1, 802.11ac VHT20, Channel No.: 40



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



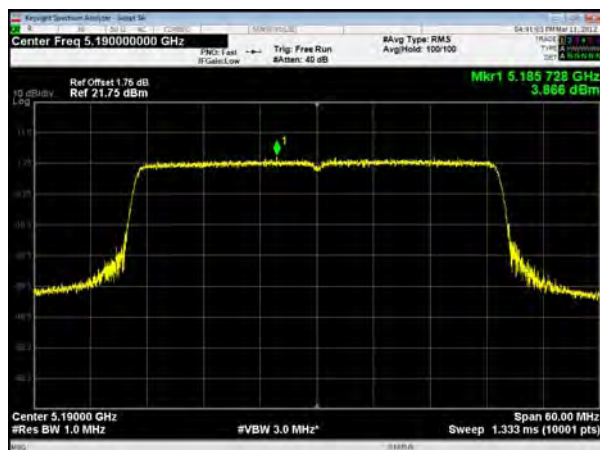
U-NII-1, 802.11ac VHT80, Channel No.: 42



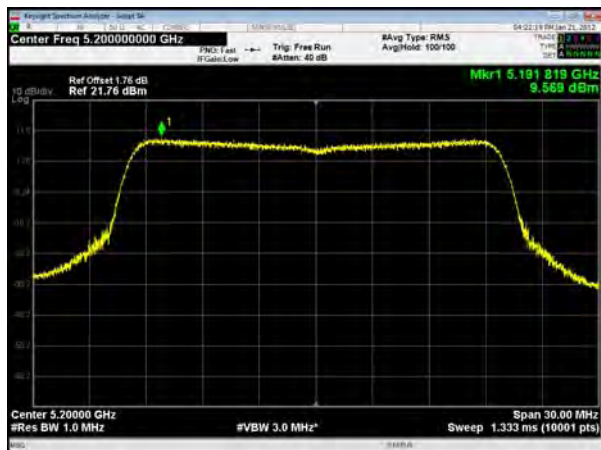
U-NII-1, 802.11ax HE20, Channel No.: 36



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

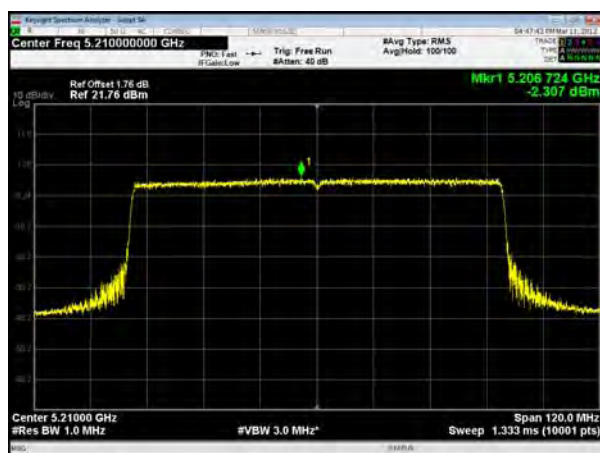




U-NII-1, 802.11ax HE20, Channel No.: 48



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





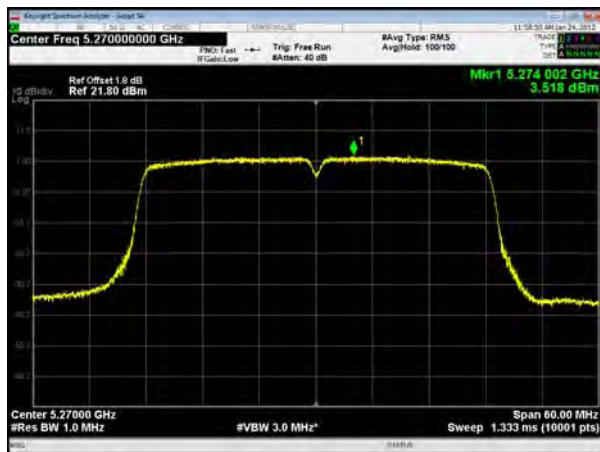
U-NII-2A, 802.11a, Channel No.: 64



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



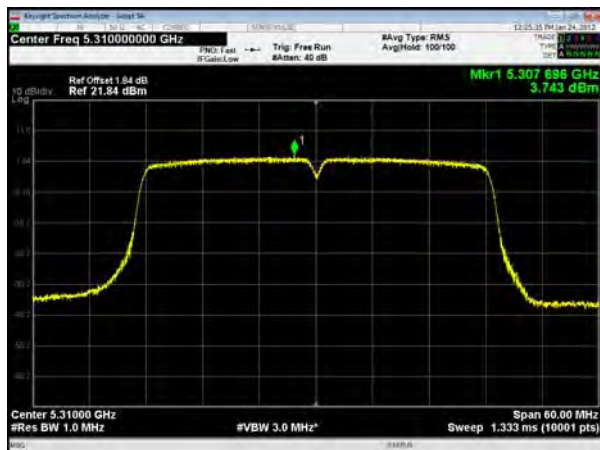
U-NII-2A, 802.11n HT40, Channel No.: 54



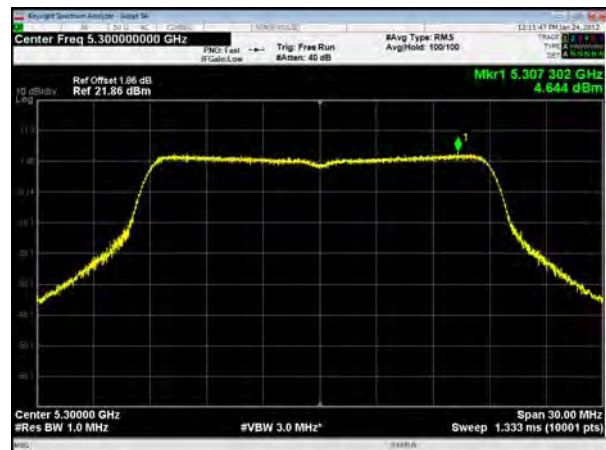
U-NII-2A, 802.11ac VHT20, Channel No.: 52



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



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

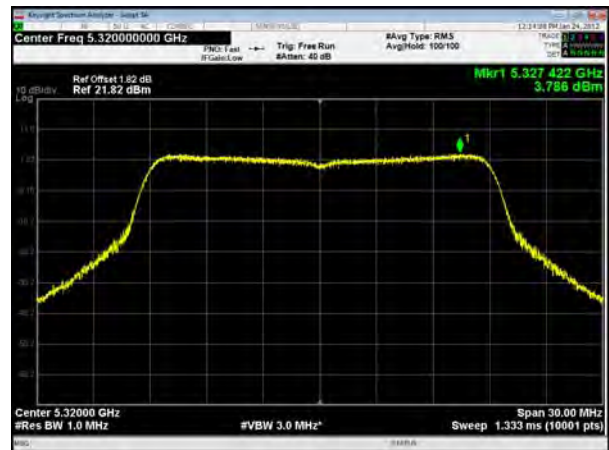




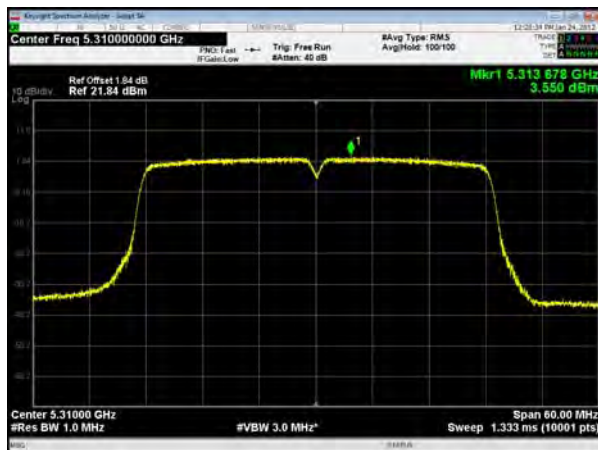
U-NII-2A, 802.11ac VHT40, Channel No.: 54



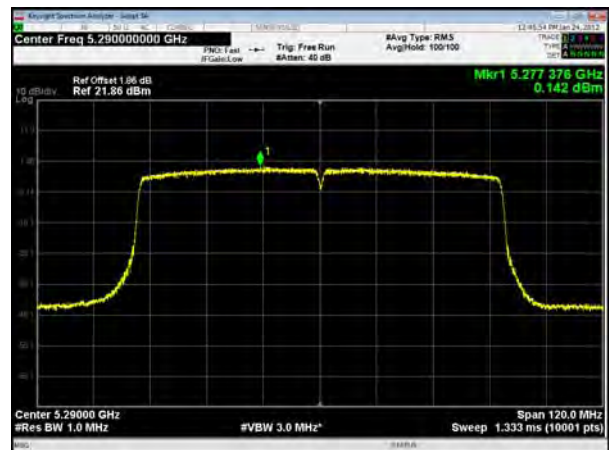
U-NII-2A, 802.11ac VHT20, Channel No.: 64



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



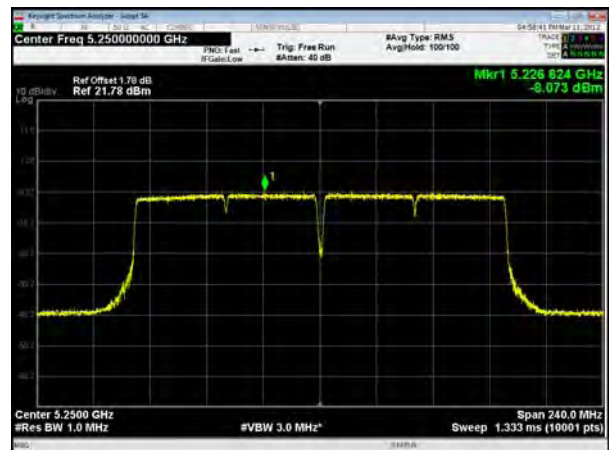
U-NII-2A, 802.11ac VHT80, Channel No.: 58



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

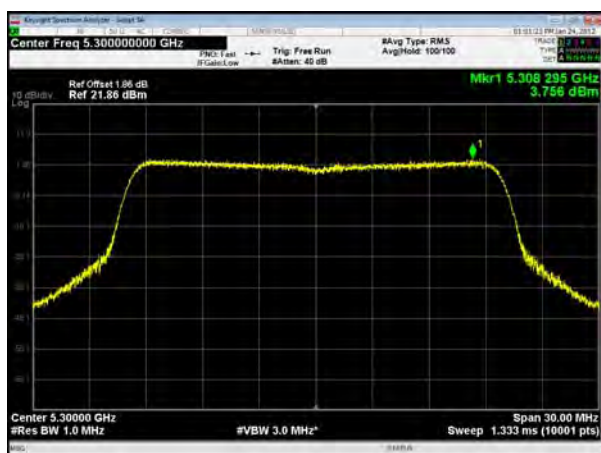


U-NII-2A, 802.11ac VHT160, Channel No.: 50

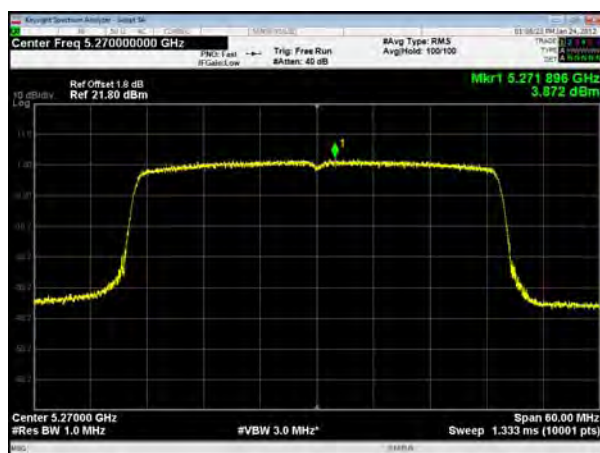




U-NII-2A, 802.11ax HE20, Channel No.: 60



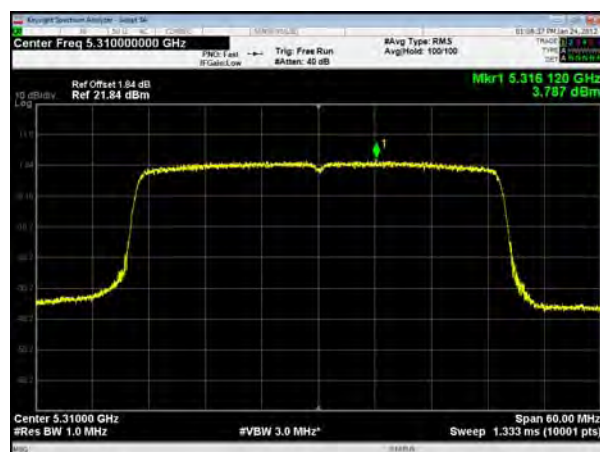
U-NII-2A, 802.11ax HE40, Channel No.: 54



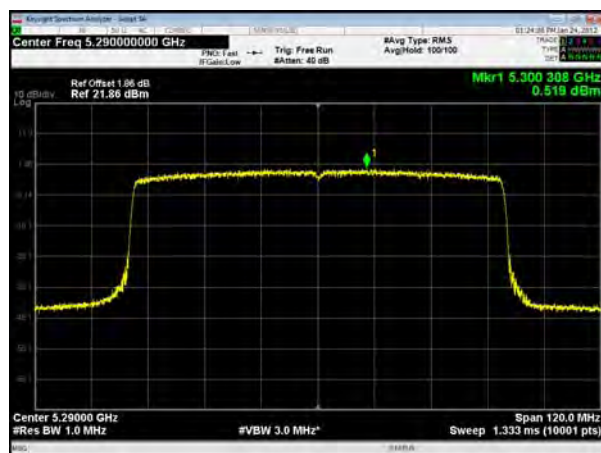
U-NII-2A, 802.11ax HE20, Channel No.: 64



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



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



U-NII-2A, 802.11ax HE160, Channel No.: 50





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

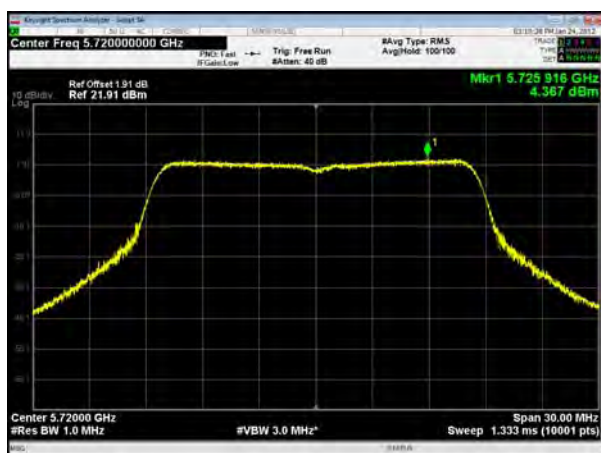


U-NII-2C, 802.11n HT20, Channel No.: 140





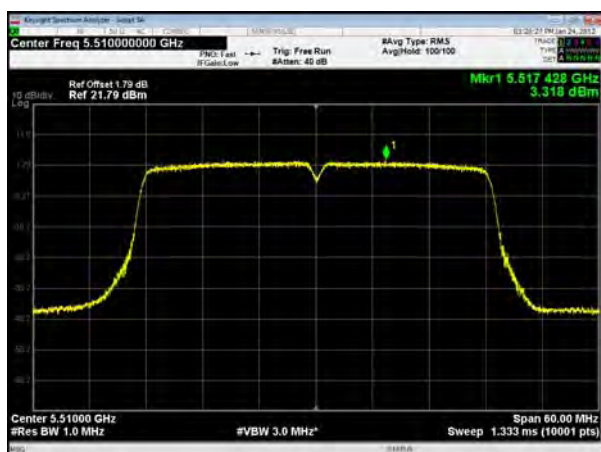
U-NII-2C, 802.11a, Channel No.: 144



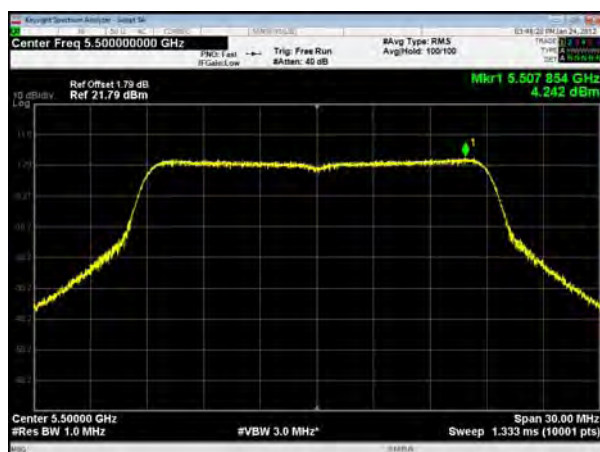
U-NII-2C, 802.11n HT20, Channel No.: 144



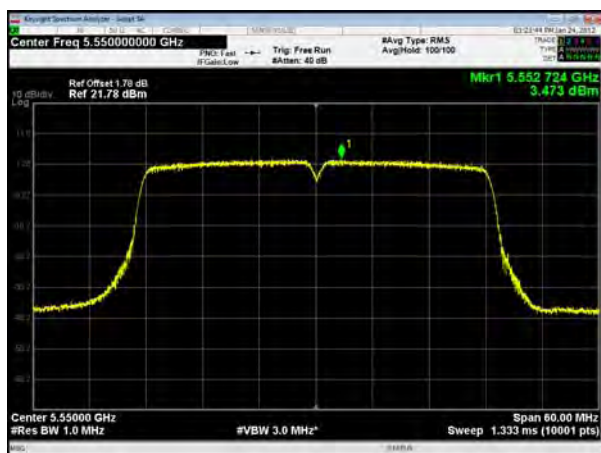
U-NII-2C, 802.11n HT40, Channel No.: 102



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



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

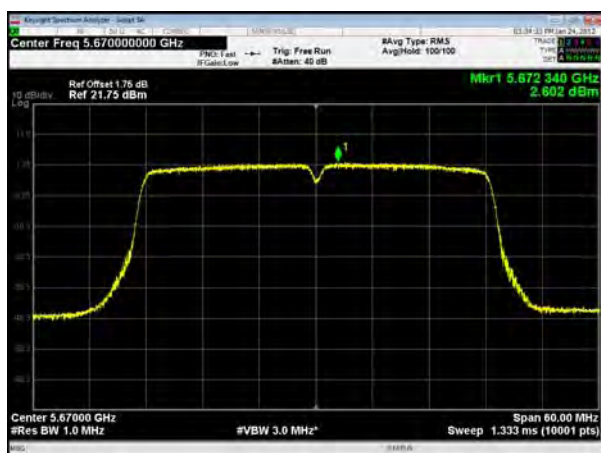


U-NII-2C, 802.11ac VHT20, Channel No.: 120

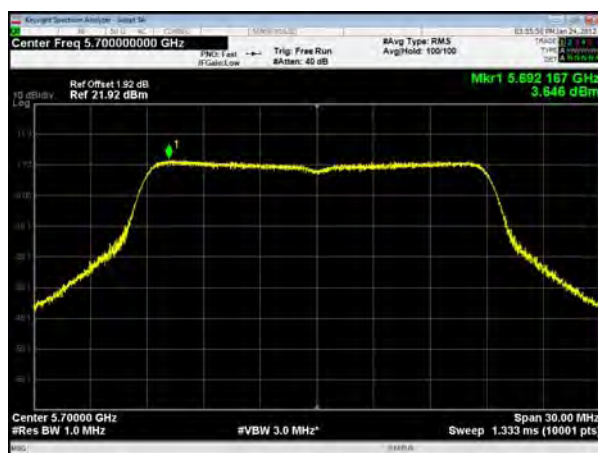




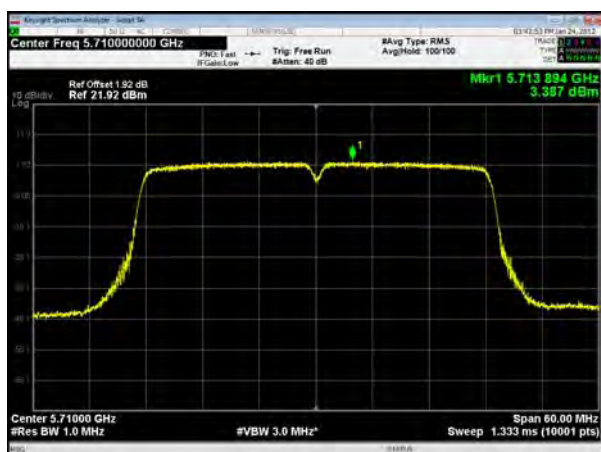
U-NII-2C, 802.11n HT40, Channel No.: 134



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



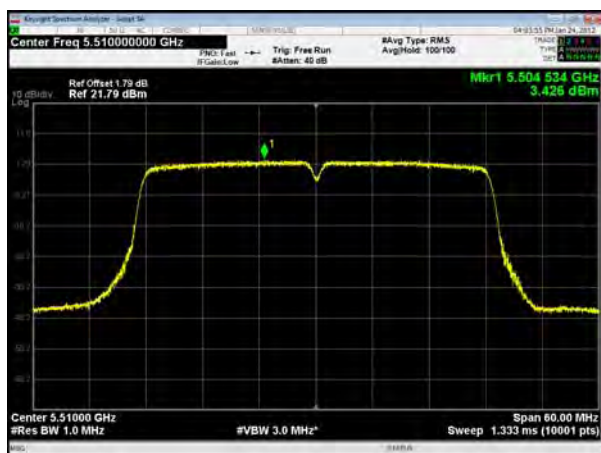
U-NII-2C, 802.11n HT40, Channel No.: 142



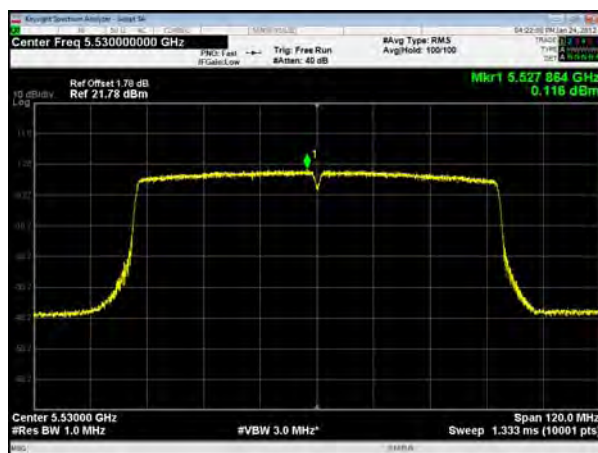
U-NII-2C, 802.11ac VHT20, Channel No.: 144



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

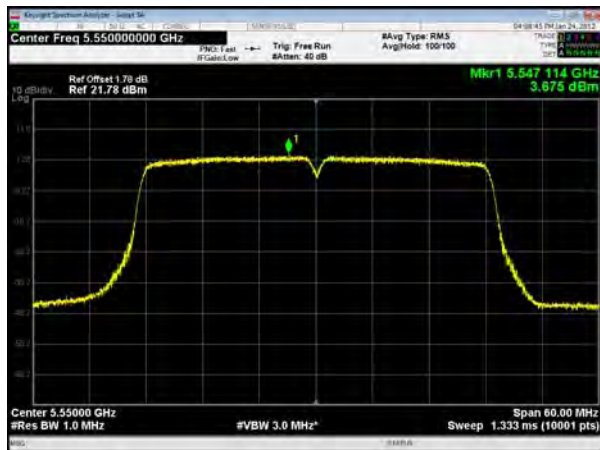


U-NII-2C, 802.11ac VHT80, Channel No.: 106





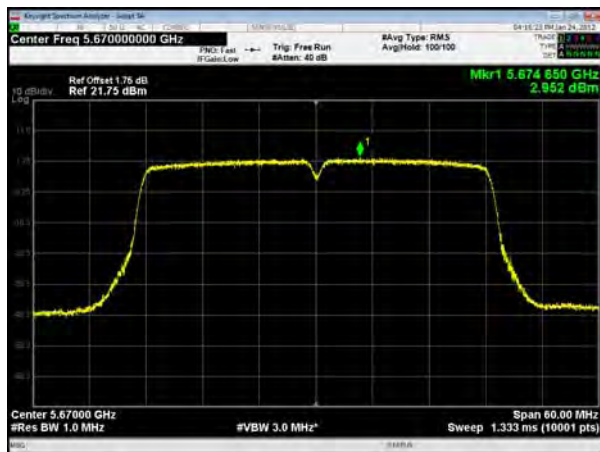
U-NII-2C, 802.11ac VHT40, Channel No.: 118



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

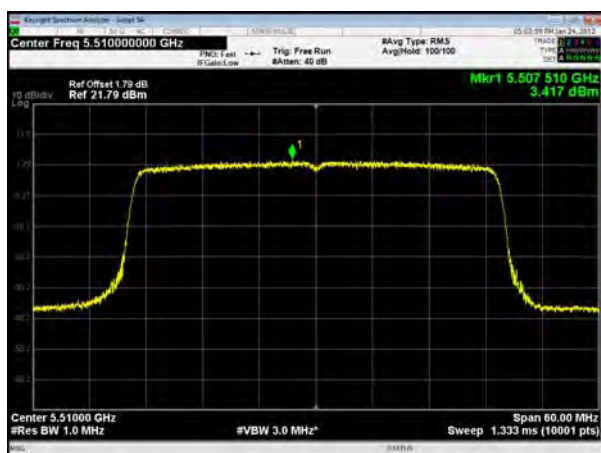


U-NII-2C, 802.11ac VHT160, Channel No.: 114

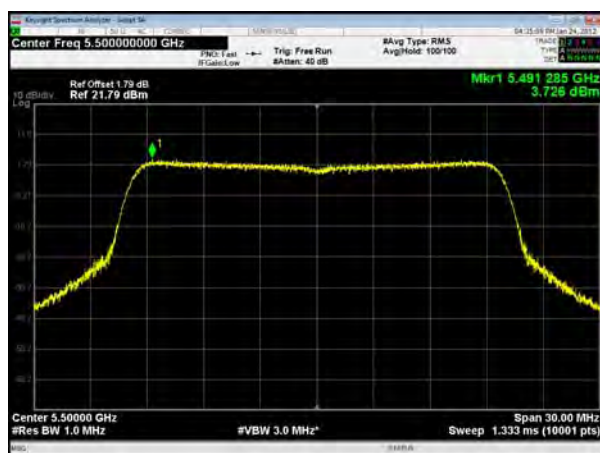




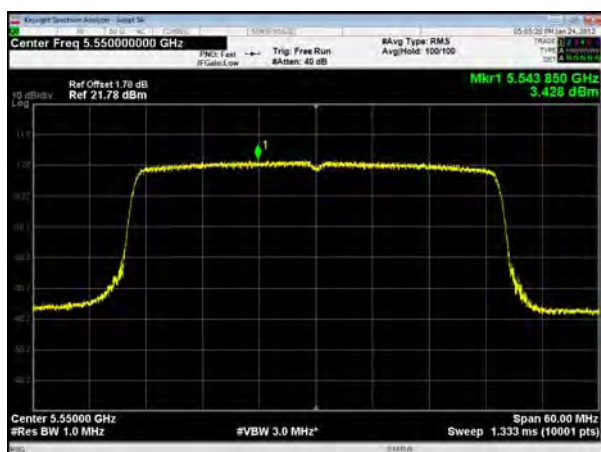
U-NII-2C, 802.11ax HE40, Channel No.: 102



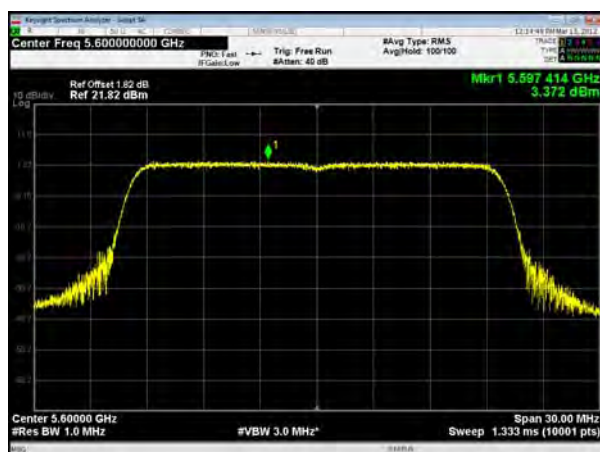
U-NII-2C, 802.11ax HE20, Channel No.: 100



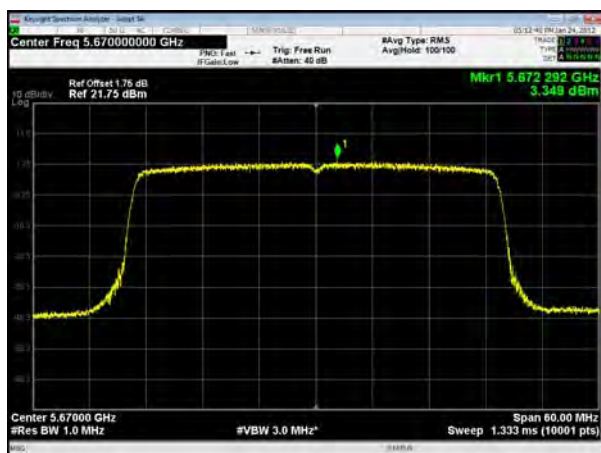
U-NII-2C, 802.11ax HE40, Channel No.: 118



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



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

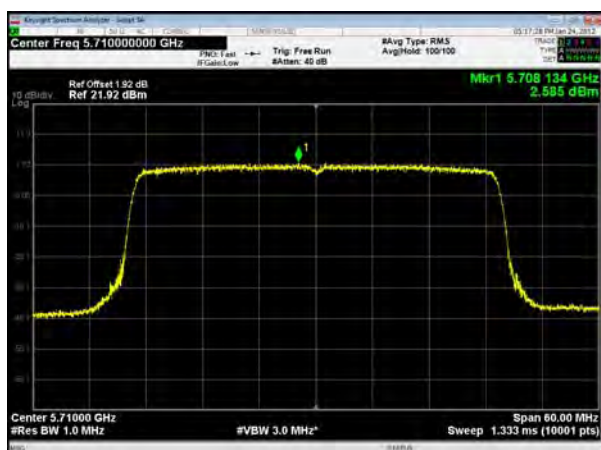


U-NII-2C, 802.11ax HE20, Channel No.: 140





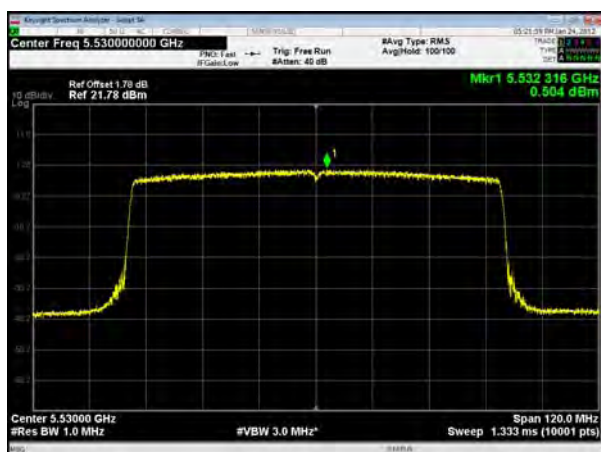
U-NII-2C, 802.11ax HE40, Channel No.: 142



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



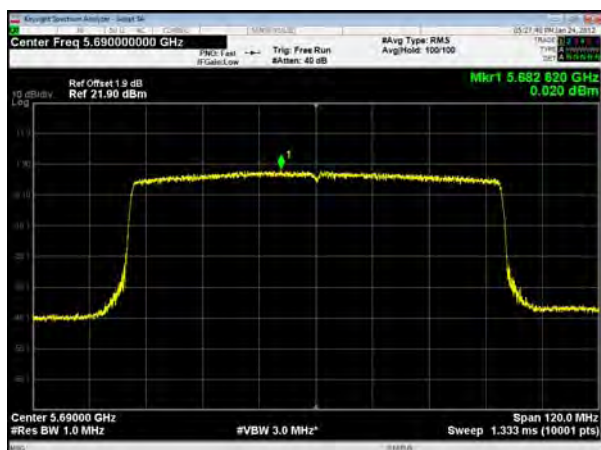
U-NII-2C, 802.11ax HE80, Channel No.: 106



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



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



U-NII-2C, 802.11ax HE160, Channel No.: 114

