RF TEST REPORT

Applicant	Huawei Device Co., Ltd.
FCC ID	2ATEYWS7100
Product	3000Mbps Wi-Fi 6 Router
Model	WS7100
Report No.	R2105A0471-R4V2
Issue Date	June 29, 2021

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

Performed by: Peng Tao *Approved by: Kai Xu*

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Version	Revision description	Issue Date
Rev.0	Initial issue of report.	June 5, 2021
Rev.1	Update data in Page56	June 7, 2021
Rev.2	Update data	June 29, 2021
Note: This revised report (Report No. R2105A0471-R4V2) supersedes and replaces the previously issued report (Report No. R2105A0471-R4V1). Please discard or destroy the previously issued report and dispose of it accordingly.		

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: August 1, 2020~ August 26, 2020 and June 1, 2021~ June 17, 2021			
Note: 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.			

WS7100 (Report No.: R2105A0471-R4V2) is a variant model of WS7100 (Report No.: R2007H0212-R4V1). This report only tests some power and added FCC ID. Other test values duplicated from Original for variant.

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 electromagnetic emissions measurements.

A2LA (Certificate Number: 3857.01)

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

1.3. Testing Location

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

2. General Description of Equipment under Test

2.1. Applicant and Manufacturer Information

Applicant	Huawei Device Co., Ltd.
Applicant address	No.2 of Xincheng Road, Songshan Lake Zone, Dongguan, Guangdong 523808, People's Republic of China
Manufacturer	Huawei Device Co., Ltd.
Manufacturer address	No.2 of Xincheng Road, Songshan Lake Zone, Dongguan, Guangdong 523808, People's Republic of China

2.2. General information

EUT Description			
Model	WS7100		
SN	WS71003000000001		
Hardware Version	AM1WS7100M		
Software Version	10.0.5.19		
Power Supply	AC/ DC adapter		
Antenna Type	External Antenna		
Antenna Gain	Antenna 1: 5.50dBi Antenna 2: 5.50dBi		
Directional Gain	Without Beamforming Mode: 5.50dBi Beamforming Mode for Power: 5.50dBi Beamforming Mode for PSD: 8.51 dBi		
Test Mode(s)	U-NII-1(5150MHz-5250MHz) U-NII-3(5725MHz-5850MHz)		
Modulation Type	802.11ax (HE20/HE40/HE80):OFDMA, OFDM		
Max. Output Power	20.48dBm		
Operating Frequency Range(s)	U-NII-1: 5150-5250MHz U-NII-3: 5725-5850MHz		
Operating temperature range:	0 ° C to 40° C		
Operating voltage range:	10.8 V to 13.2 V		
State DC voltage:	12V		
EUT Accessory			
Accessory	**Model**	**Manufacture**	**No.**
Adapter	HW-120100E01	Dongguan Shilong Fuhua Electronic Co., Ltd	1
		Shenzhen Honor Electronic Co., Ltd	2
	HW-120100B01	Dongguan Shilong Fuhua Electronic Co., Ltd	3

		Shenzhen Honor Electronic Co., Ltd	4
	HW-120100U01	Dongguan Shilong Fuhua Electronic Co., Ltd	5
		Shenzhen Honor Electronic Co., Ltd	6
Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant. 2. There is more than one Adapter, each one should be applied throughout the compliance test respectively, and however, only the worst case (Adapter 1) will be recorded in this report.			

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.

Band	Data Rate	
	SISO Antenna	**MIMO Antenna**
802.11ax HE20	MCS0	MCS0
802.11ax HE40	MCS0	MCS0
802.11ax HE80	MCS0	MCS0

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

TB Mode

Test Cases	SISO Antenna 1	SISO Antenna 2	MIMO
Average output power	--	--	**802.11ax HE20** (26-Tones, 52-Tones, 106-Tones, 242-Tones) **802.11ax HE40** (26-Tones, 52-Tones, 106-Tones, 242-Tones, 484-Tones) **802.11ax HE80** (52-Tones, 106-Tones, 242-Tones, 484-Tones, 996-Tones)
Occupied bandwidth	--	**802.11ax HE20** (26-Tones, 52-Tones, 106-Tones, 242-Tones) **802.11ax HE40** (26-Tones, 52-Tones, 106-Tones, 242-Tones, 484-Tones) **802.11ax HE80**	--

		(52-Tones, 106-Tones, 242-Tones, 484-Tones, 996-Tones)	
Frequency stability	--	--	--
Power Spectral Density	--	--	**802.11ax HE20** (26-Tones, 52-Tones, 106-Tones, 242-Tones) **802.11ax HE40** (26-Tones, 52-Tones, 106-Tones, 242-Tones, 484-Tones) **802.11ax HE80** (52-Tones, 106-Tones, 242-Tones, 484-Tones, 996-Tones)
Unwanted Emissions	**802.11ax HE20** (26-Tones, 52-Tones, 106-Tones, 242-Tones) **802.11ax HE40** (26-Tones, 52-Tones, 106-Tones, 242-Tones, 484-Tones) **802.11ax HE80** (52-Tones, 106-Tones, 242-Tones, 484-Tones, 996-Tones)	**802.11ax HE20** (26-Tones, 52-Tones, 106-Tones, 242-Tones) **802.11ax HE40** (26-Tones, 52-Tones, 106-Tones, 242-Tones, 484-Tones) **802.11ax HE80** (52-Tones, 106-Tones, 242-Tones, 484-Tones, 996-Tones)	**802.11ax HE20** (26-Tones, 52-Tones, 106-Tones, 242-Tones) **802.11ax HE40** (26-Tones, 52-Tones, 106-Tones, 242-Tones, 484-Tones) **802.11ax HE80** (52-Tones, 106-Tones, 242-Tones, 484-Tones, 996-Tones)
Conducted Emissions	--	802.11ax HE20	--
Note：“O”: test all bands			

SU Mode

Test Cases	SISO Antenna 1	SISO Antenna 2	MIMO
Average output power	802.11ax HE20/ HE40/HE80	802.11ax HE20/ HE40/HE80	802.11ax HE20/ HE40/HE80
Occupied bandwidth	--	802.11ax HE20/ HE40/HE80	--
Frequency stability	--	802.11ax HE20	--
Power Spectral Density	802.11ax HE20/ HE40/HE80	802.11ax HE20/ HE40/HE80	802.11ax HE20/ HE40/HE80
Unwanted Emissions	802.11ax HE20/ HE40/HE80	802.11ax HE20/ HE40/HE80	802.11ax HE20/ HE40/HE80
Conducted Emissions	--	802.11ax HE20	--
Note：“O”: test all bands			

During the test, the Unwanted Emission was performed in all modes with all channels, MIMO Antenna was selected as the worst antenna and only the worst condition will be recorded in the report.

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-3	20 MHz	149	5745MHz
			153	5765MHz
			157	5785MHz
			161	5805MHz
			165	5825MHz
		40 MHz	151	5755MHz
			159	5795MHz
		80 MHz	155	5775MHz

5. Test Case Results

5.1. Occupied Bandwidth

Ambient condition

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

Method of Measurement

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

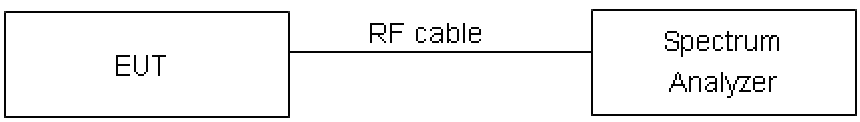
For U-NII-1, set RBW ≈1% OCB kHz, VBW ≥ 3 × RBW, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB relative to the maximum level measured in the fundamental emission.

For U-NII-3, Set RBW = 100 kHz, VBW ≥ 3 × RBW, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

Use the 99 % power bandwidth function of the instrument

Test Setup



Limits

Rule FCC Part §15.407(e)

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Measurement Uncertainty

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

Test Results:

TB Mode

26-Tones

U-NII-1

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11ax HE20	5180	19.053	21.70	PASS
	5200	19.063	21.81	PASS
	5220	19.047	21.83	PASS
	5240	19.056	21.46	PASS
802.11ax HE40	5190	37.984	41.77	PASS
	5230	37.978	41.34	PASS

U-NII-3

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11ax HE20	5745	19.068	18.98	500	PASS
	5785	19.083	19.02	500	PASS
	5825	19.073	18.99	500	PASS
802.11ax HE40	5755	38.000	38.11	500	PASS
	5795	38.018	38.07	500	PASS

52-Tones

U-NII-1

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11ax HE20	5180	18.978	21.95	PASS
	5200	18.946	22.00	PASS
	5220	18.934	21.89	PASS
	5240	18.968	22.40	PASS
802.11ax HE40	5190	38.015	41.50	PASS
	5230	37.928	40.92	PASS
802.11ax HE80	5210	77.880	83.60	PASS

U-NII-3

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11ax HE20	5745	18.957	18.93	500	PASS
	5785	18.961	18.95	500	PASS
	5825	18.994	18.98	500	PASS
802.11ax HE40	5755	37.977	38.13	500	PASS
	5795	38.072	38.05	500	PASS
802.11ax HE80	5775	77.862	78.01	500	PASS

106-Tones

U-NII-1

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11ax HE20	5180	19.026	22.07	PASS
	5200	19.027	21.89	PASS
	5220	19.037	22.91	PASS
	5240	19.003	22.00	PASS
802.11ax HE40	5190	37.828	41.83	PASS
	5230	37.833	40.95	PASS
802.11ax HE80	5210	77.761	83.11	PASS

U-NII-3

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11ax HE20	5745	19.028	18.99	500	PASS
	5785	19.069	19.04	500	PASS
	5825	19.051	19.04	500	PASS
802.11ax HE40	5755	37.892	38.02	500	PASS
	5795	37.880	38.03	500	PASS
802.11ax HE80	5775	77.961	78.04	500	PASS

242-Tones

U-NII-1

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11ax HE20	5180	18.958	21.62	PASS
	5200	18.944	21.83	PASS
	5220	18.951	22.86	PASS
	5240	19.012	24.77	PASS
802.11ax HE40	5190	37.859	41.39	PASS
	5230	37.783	41.57	PASS
802.11ax HE80	5210	77.472	82.65	PASS

U-NII-3

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11ax HE20	5745	18.989	18.95	500	PASS
	5785	19.002	18.64	500	PASS
	5825	19.014	18.88	500	PASS
802.11ax HE40	5755	37.956	38.02	500	PASS
	5795	37.975	38.03	500	PASS
802.11ax HE80	5775	77.472	78.11	500	PASS

484-Tones

U-NII-1

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11ax HE40	5190	37.844	41.09	PASS
	5230	37.767	41.20	PASS
802.11ax HE80	5210	77.299	84.45	PASS

U-NII-3

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11ax HE40	5755	37.953	37.98	500	PASS
	5795	37.982	37.95	500	PASS
802.11ax HE80	5775	77.356	77.75	500	PASS

996-Tones

U-NII-1

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11ax HE80	5210	77.269	82.86	PASS

U-NII-3

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11ax HE80	5775	77.165	77.43	500	PASS

SU Mode

U-NII-1

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11ax HE20	5180	18.950	22.44	PASS
	5200	19.019	23.98	PASS
	5220	19.009	27.06	PASS
	5240	19.146	29.91	PASS
802.11ax HE40	5190	37.881	41.98	PASS
	5230	37.914	51.13	PASS
802.11ax HE80	5210	77.417	82.97	PASS

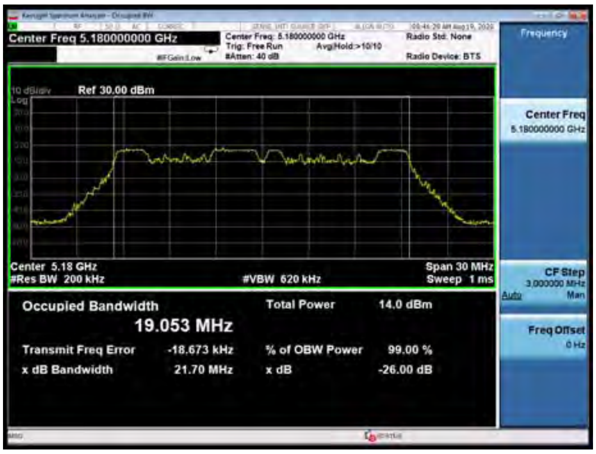
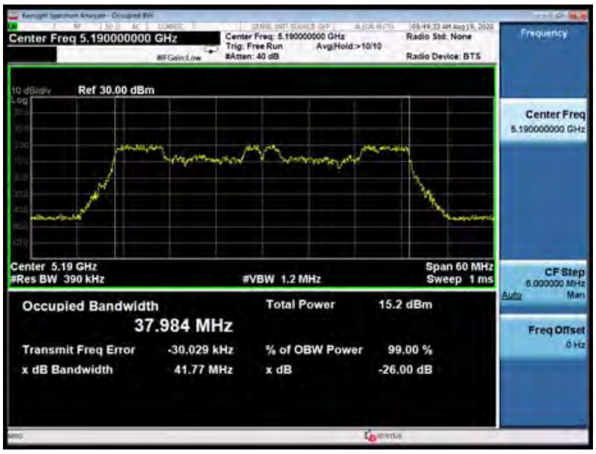
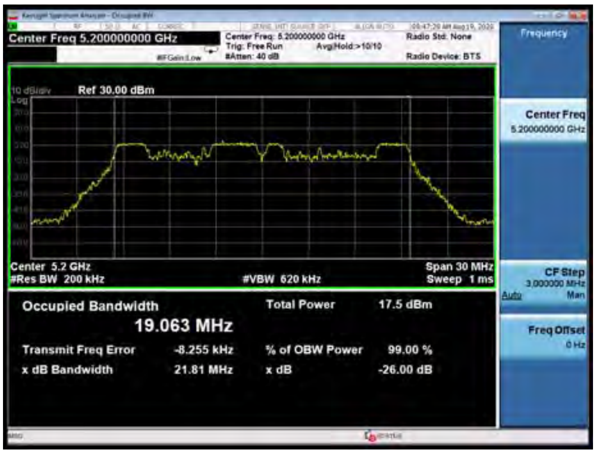
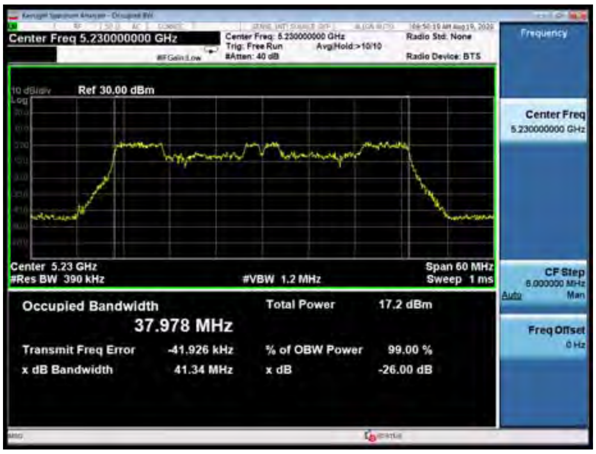
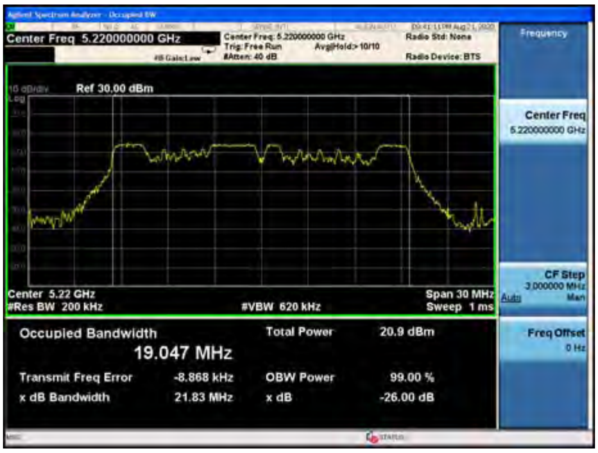
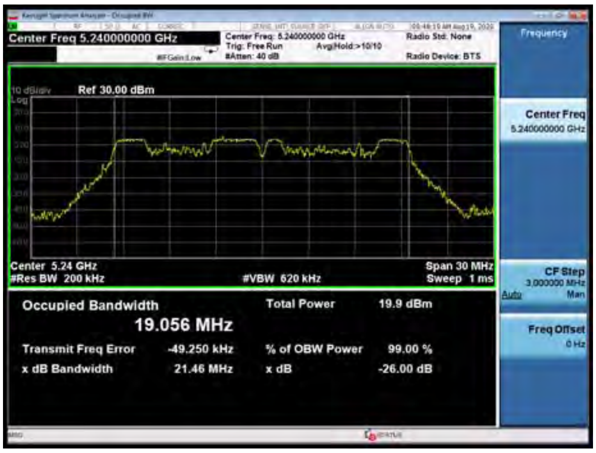
U-NII-3

Network Standards	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11ax HE20	5745	19.058	18.71	500	PASS
	5785	19.057	18.66	500	PASS
	5825	19.074	18.90	500	PASS
802.11ax HE40	5755	38.066	38.03	500	PASS
	5795	38.152	38.05	500	PASS
802.11ax HE80	5775	77.402	77.38	500	PASS

TB Mode

26-Tones

U-NII-1

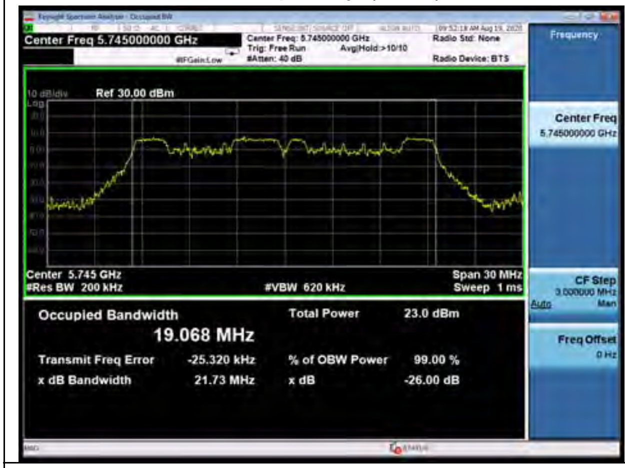
U-NII-1, 802.11ax HE20 Carrier frequency (MHz): 5180	U-NII-1, 802.11ax HE40 Carrier frequency (MHz): 5190
	
U-NII-1, 802.11ax HE20 Carrier frequency (MHz): 5200	U-NII-1, 802.11ax HE40 Carrier frequency (MHz): 5230
	
U-NII-1, 802.11ax HE20 Carrier frequency (MHz): 5220	U-NII-1, 802.11ax HE20 Carrier frequency (MHz):5240
	

U-NII-3

99% bandwidth

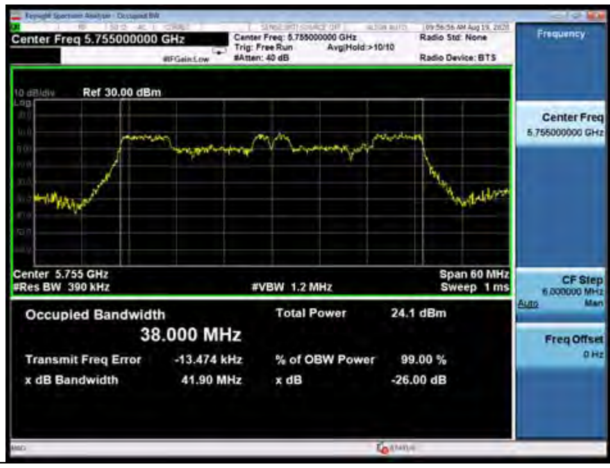
U-NII-3, 802.11ax HE20

Carrier frequency (MHz):5745



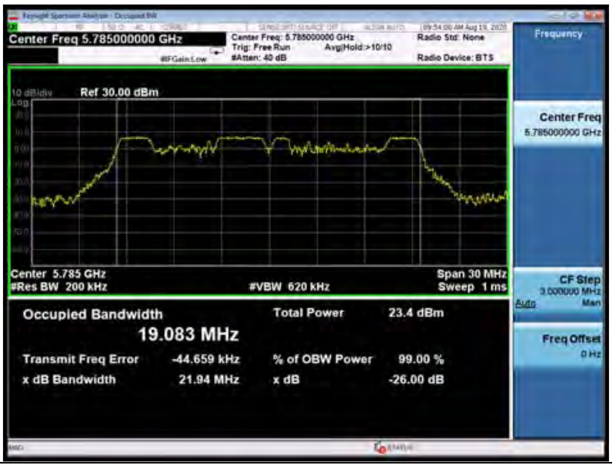
U-NII-3, 802.11ax HE40

Carrier frequency (MHz):5755



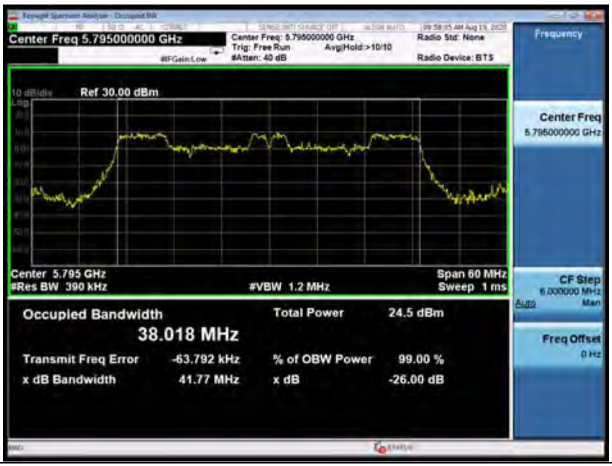
U-NII-3, 802.11ax HE20

Carrier frequency (MHz):5785



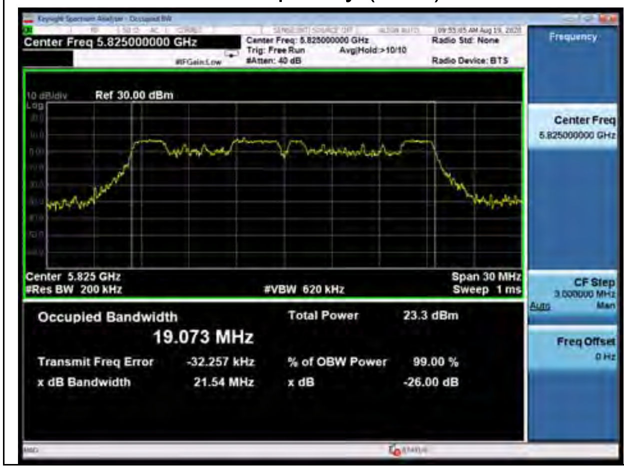
U-NII-3, 802.11ax HE40

Carrier frequency (MHz):5795



U-NII-3, 802.11ax HE20

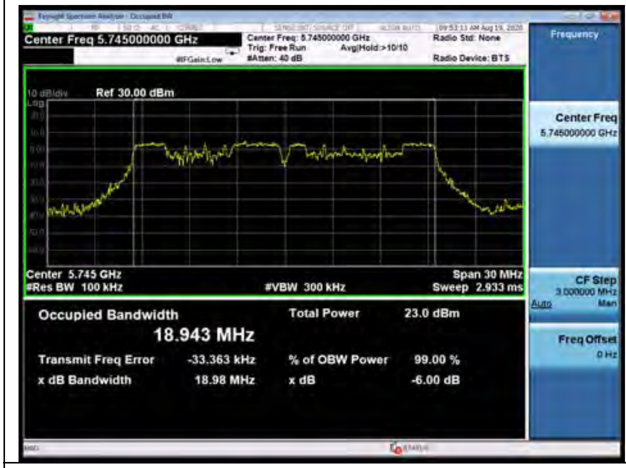
Carrier frequency (MHz):5825



Minimum 6 dB bandwidth

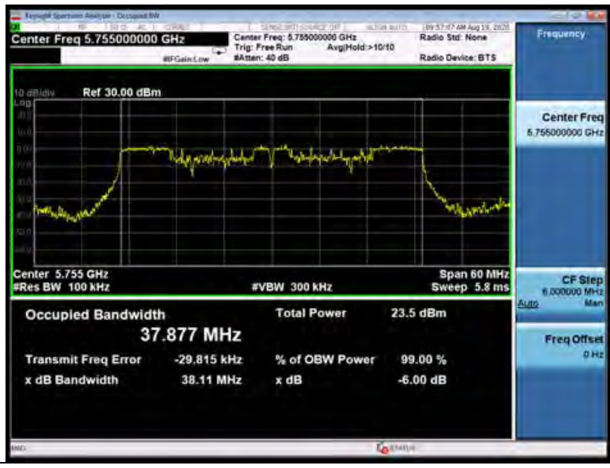
U-NII-3, 802.11ax HE20

Carrier frequency (MHz):5745



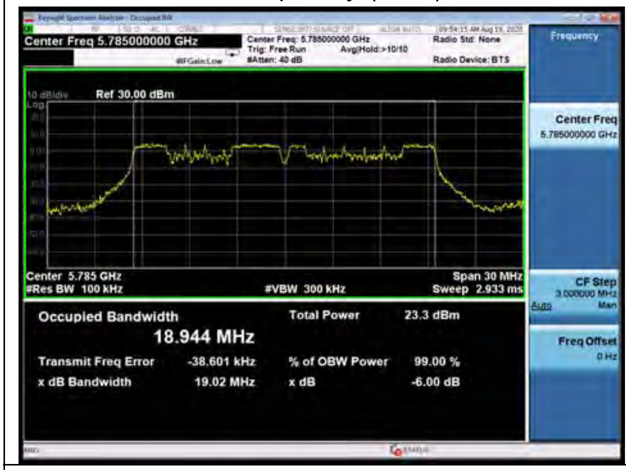
U-NII-3, 802.11ax HE40

Carrier frequency (MHz):5755



U-NII-3, 802.11ax HE20

Carrier frequency (MHz):5785

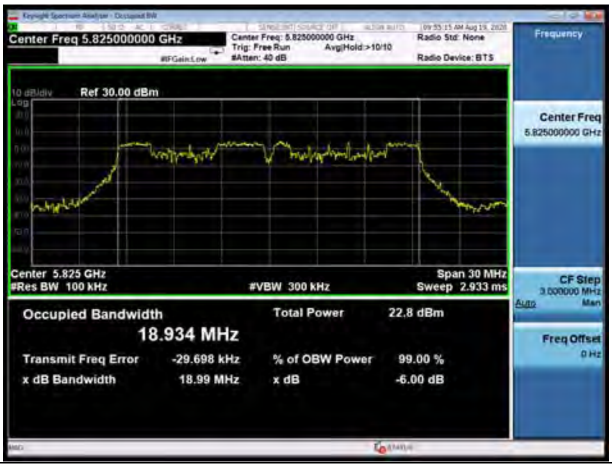


U-NII-3, 802.11ax HE40

Carrier frequency (MHz):5795

U-NII-3, 802.11ax HE20

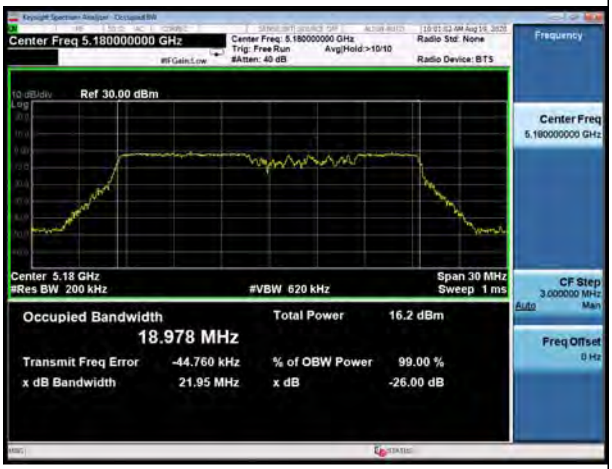
Carrier frequency (MHz):5825



52-Tones

U-NII-1

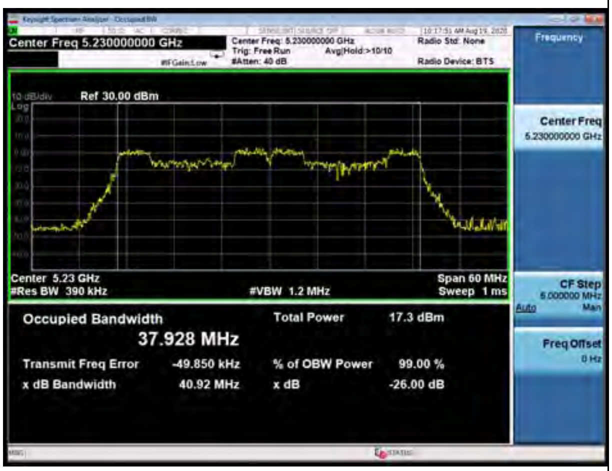
U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5180



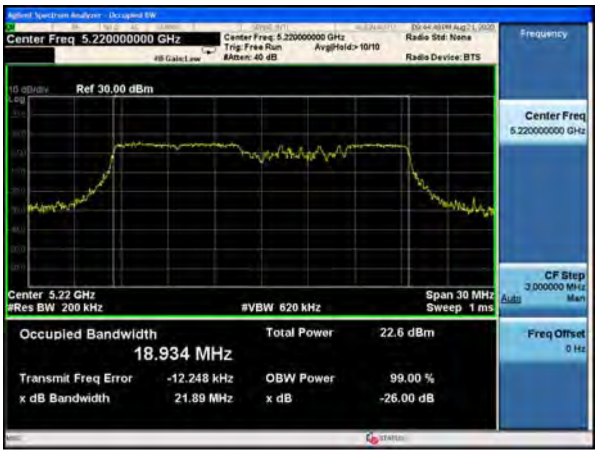
U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5190

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

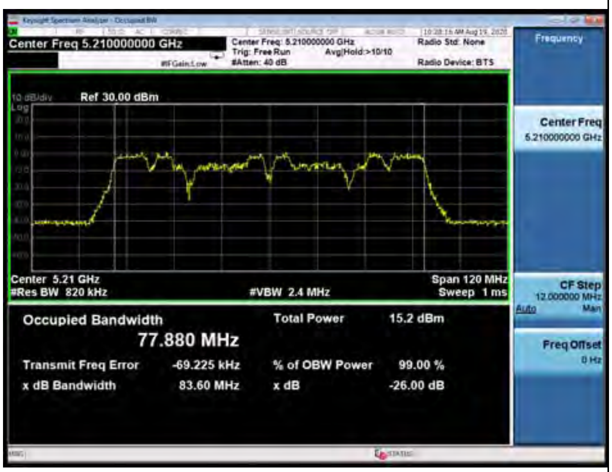
U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5230



U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5220

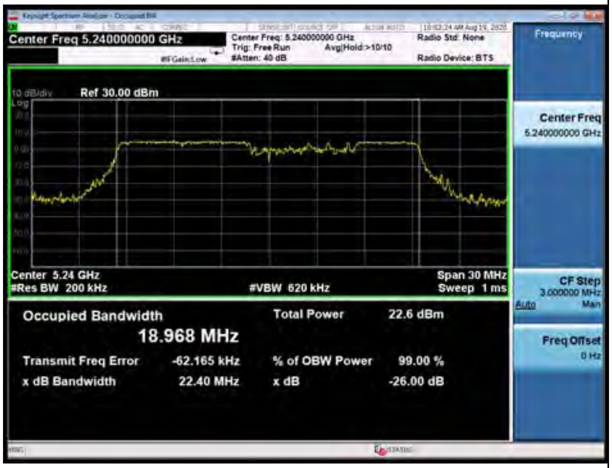


U-NII-1, 802.11ax HE80
Carrier frequency (MHz): 5210



U-NII-1, 802.11ax HE20

Carrier frequency (MHz):5240



U-NII-3

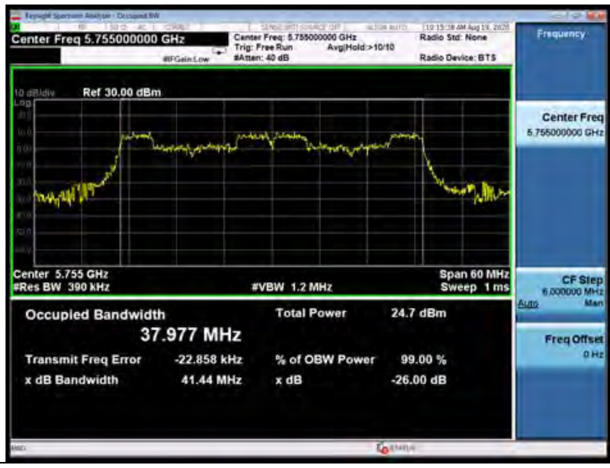
99% bandwidth

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

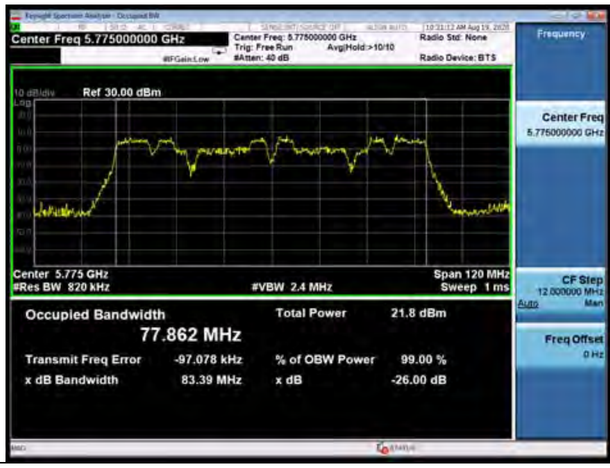
Carrier frequency (MHz):5795

U-NII-3, 802.11ax HE20

Carrier frequency (MHz):5825

U-NII-3, 802.11ax HE80

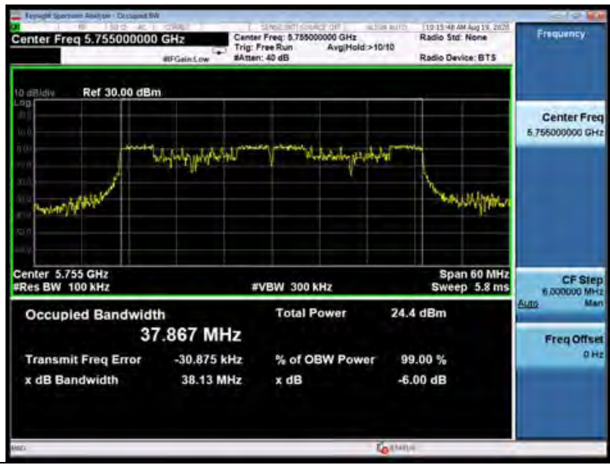
Carrier frequency (MHz):5775



Minimum 6 dB bandwidth

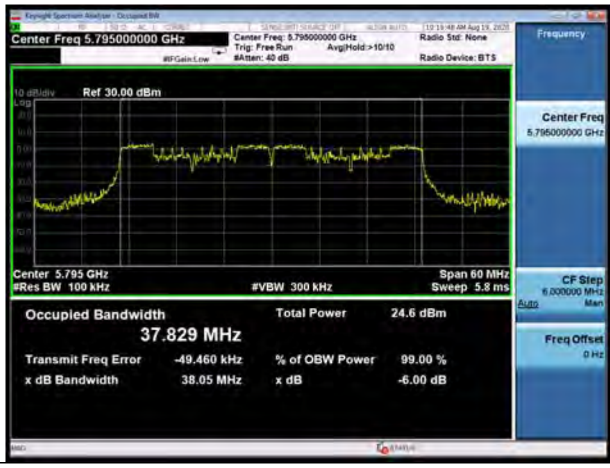
U-NII-3, 802.11ax HE20
Carrier frequency (MHz):5745

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



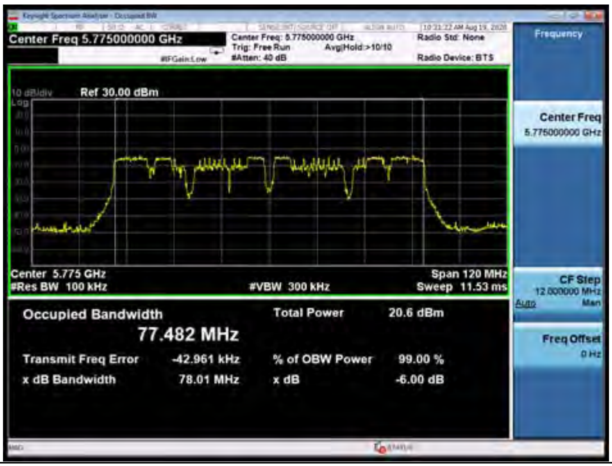
U-NII-3, 802.11ax HE20
Carrier frequency (MHz):5785

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

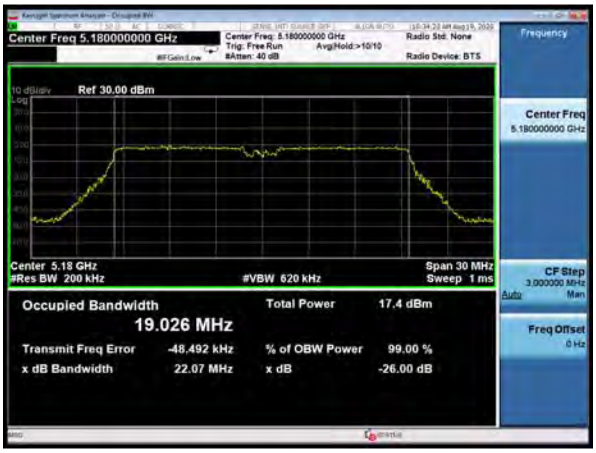


106-Tones

U-NII-1

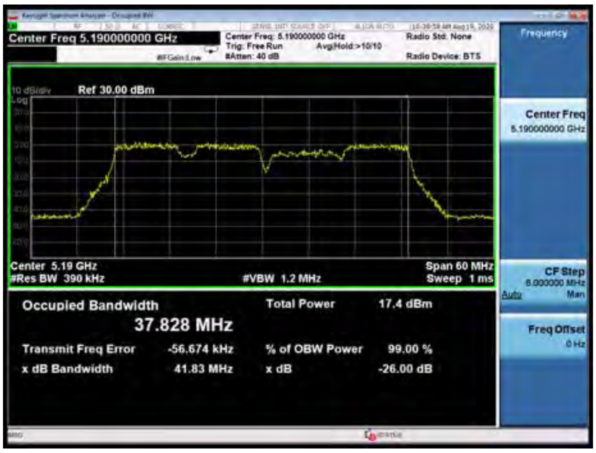
U-NII-1, 802.11ax HE20

Carrier frequency (MHz): 5180



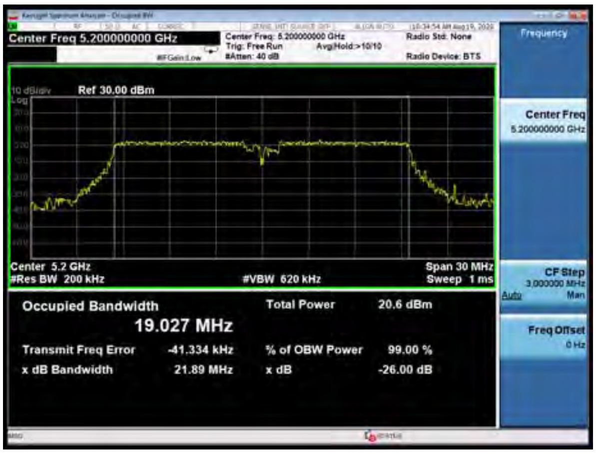
U-NII-1, 802.11ax HE40

Carrier frequency (MHz): 5190



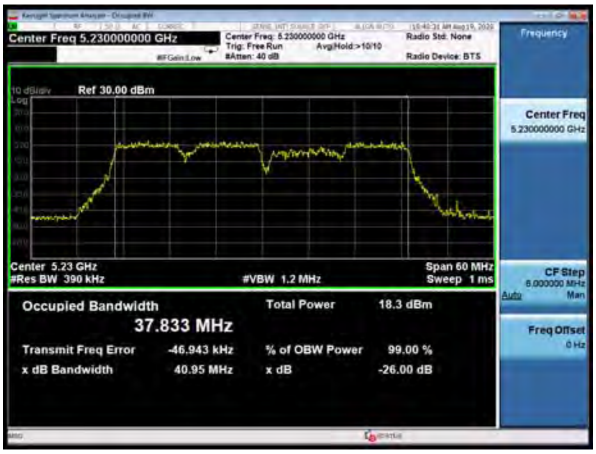
U-NII-1, 802.11ax HE20

Carrier frequency (MHz): 5200



U-NII-1, 802.11ax HE40

Carrier frequency (MHz): 5230

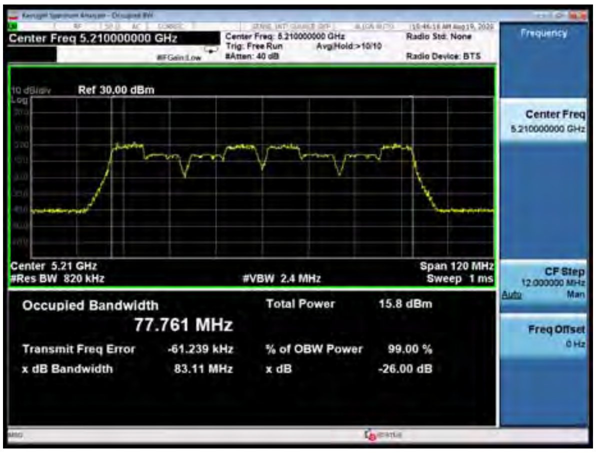


U-NII-1, 802.11ax HE20

Carrier frequency (MHz): 5220

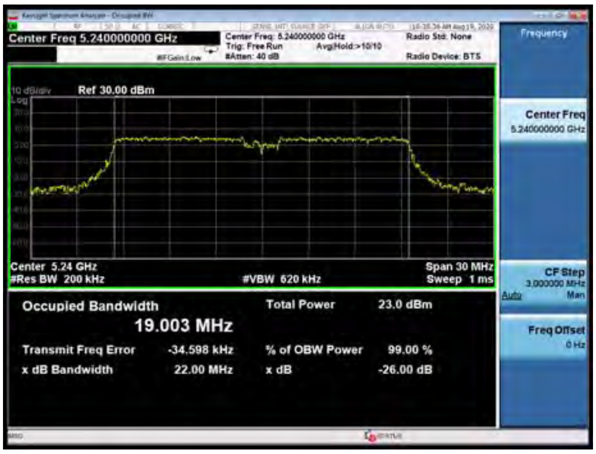
U-NII-1, 802.11ax HE80

Carrier frequency (MHz): 5210



U-NII-1, 802.11ax HE20

Carrier frequency (MHz):5240



U-NII-3

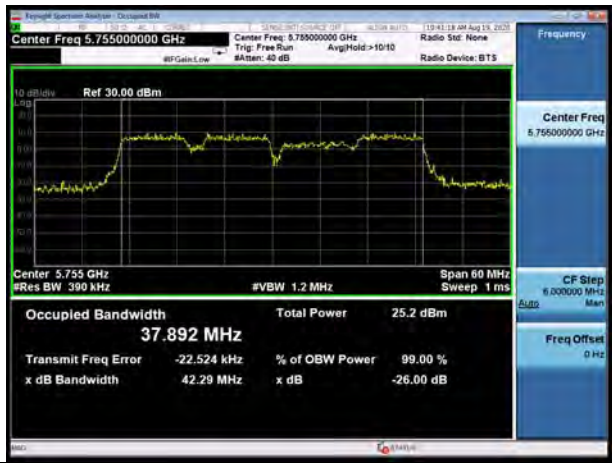
99% bandwidth

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

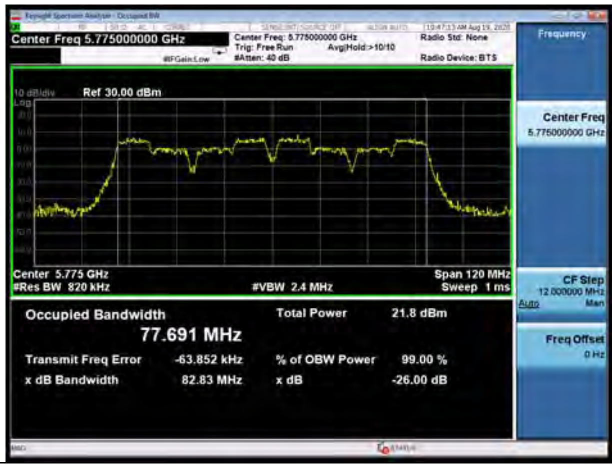
Carrier frequency (MHz):5795

U-NII-3, 802.11ax HE20

Carrier frequency (MHz):5825

U-NII-3, 802.11ax HE80

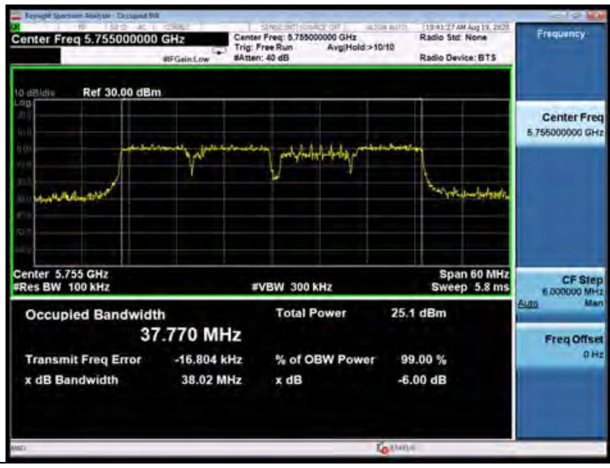
Carrier frequency (MHz):5775



Minimum 6 dB bandwidth

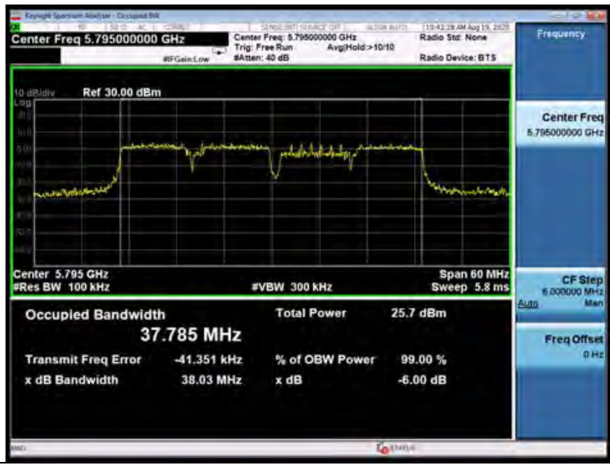
U-NII-3, 802.11ax HE20
Carrier frequency (MHz):5745

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

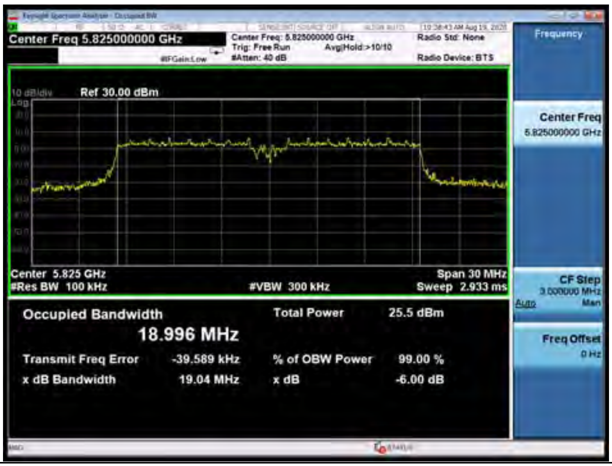


U-NII-3, 802.11ax HE20
Carrier frequency (MHz):5785

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



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



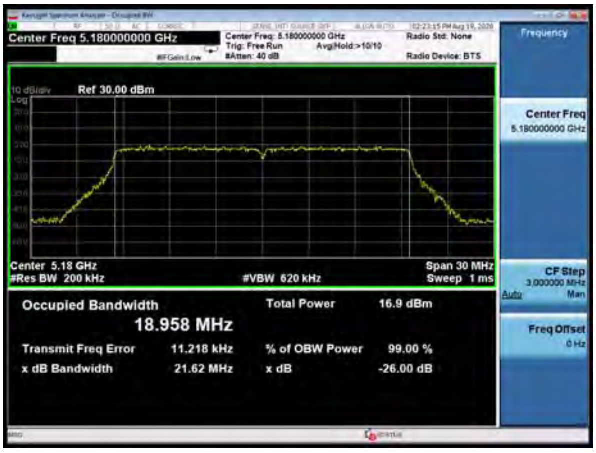
U-NII-3, 802.11ax HE80
Carrier frequency (MHz):5775

242-Tones

U-NII-1

U-NII-1, 802.11ax HE20

Carrier frequency (MHz): 5180

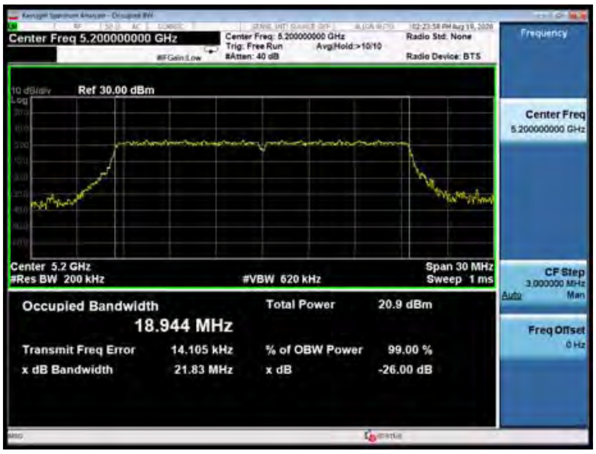


U-NII-1, 802.11ax HE40

Carrier frequency (MHz): 5190

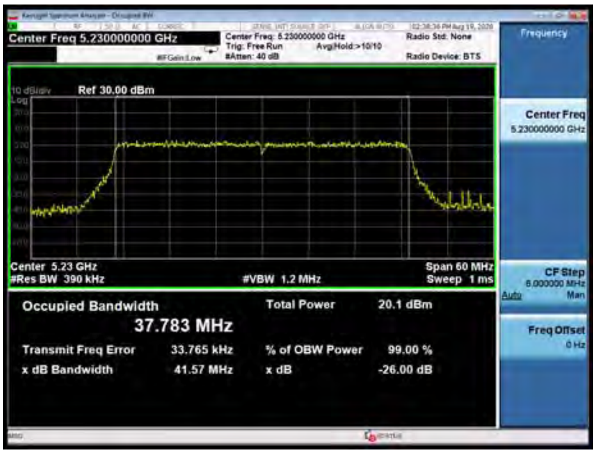
U-NII-1, 802.11ax HE20

Carrier frequency (MHz): 5200



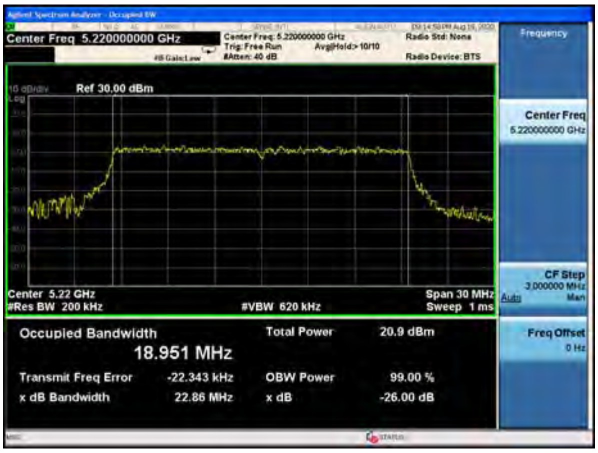
U-NII-1, 802.11ax HE40

Carrier frequency (MHz): 5230



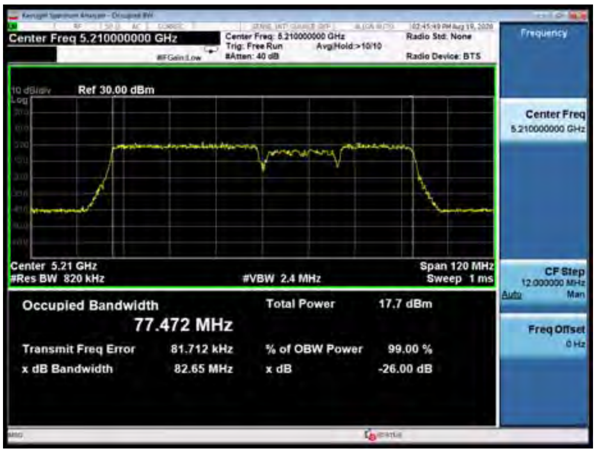
U-NII-1, 802.11ax HE20

Carrier frequency (MHz): 5220

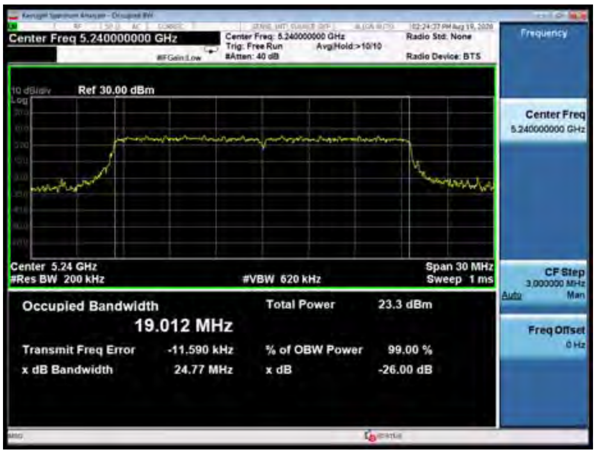


U-NII-1, 802.11ax HE80

Carrier frequency (MHz): 5210



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



U-NII-3

99% bandwidth

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

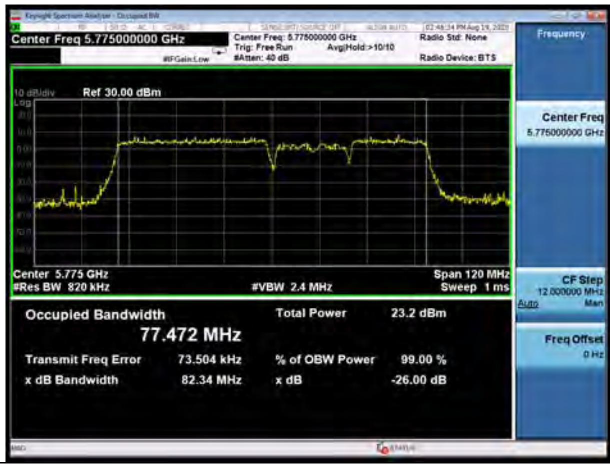
U-NII-3, 802.11ax HE40
Carrier frequency (MHz):5755

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

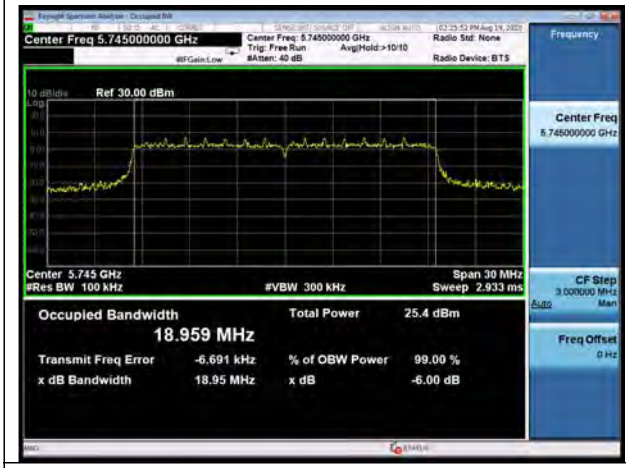
U-NII-3, 802.11ax HE80
Carrier frequency (MHz):5775



Minimum 6 dB bandwidth

U-NII-3, 802.11ax HE20

Carrier frequency (MHz):5745



U-NII-3, 802.11ax HE40

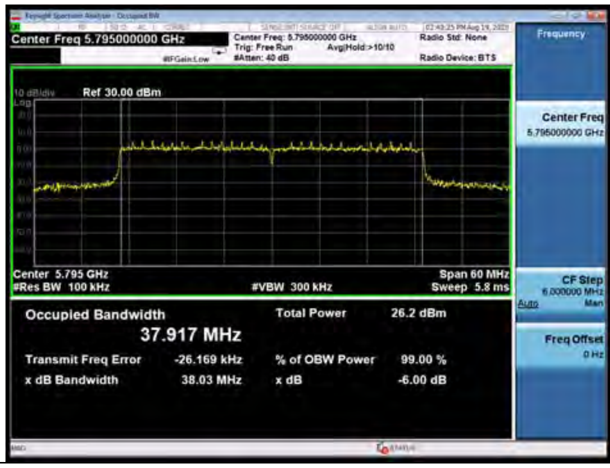
Carrier frequency (MHz):5755

U-NII-3, 802.11ax HE20

Carrier frequency (MHz):5785

U-NII-3, 802.11ax HE40

Carrier frequency (MHz):5795

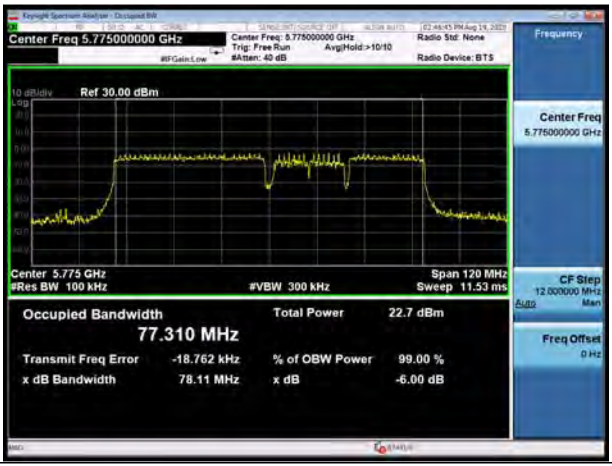


U-NII-3, 802.11ax HE20

Carrier frequency (MHz):5825

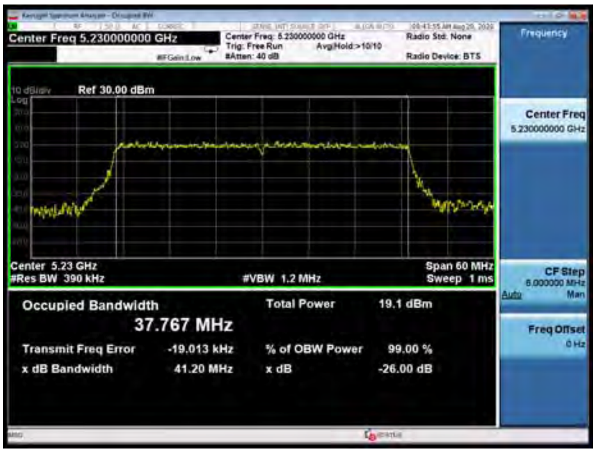
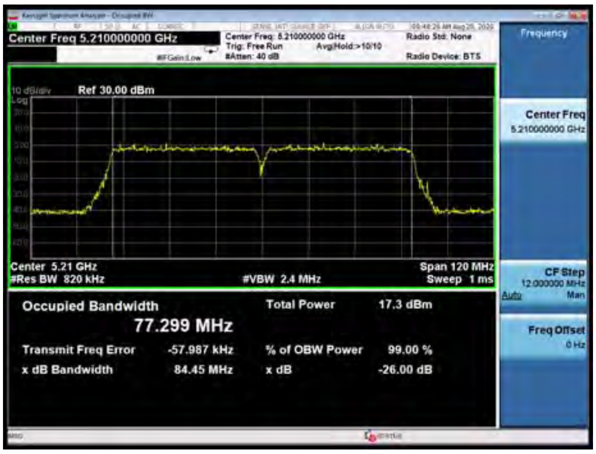
U-NII-3, 802.11ax HE80

Carrier frequency (MHz):5775



484-Tones

U-NII-1

U-NII-1, 802.11ax HE40 Carrier frequency (MHz): 5190	U-NII-1, 802.11ax HE40 Carrier frequency (MHz): 5230
	
U-NII-1, 802.11ax HE80 Carrier frequency (MHz): 5210	
	

U-NII-3

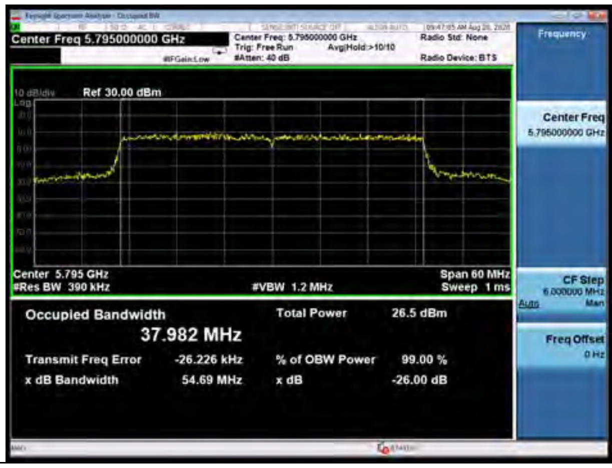
99% bandwidth

U-NII-3, 802.11ax HE40

Carrier frequency (MHz):5755

U-NII-3, 802.11ax HE40

Carrier frequency (MHz):5795



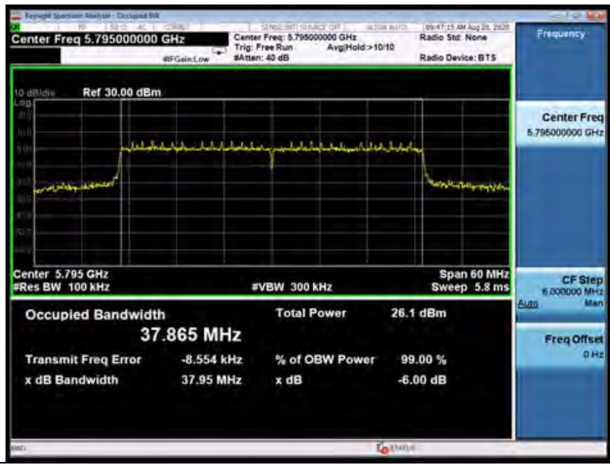
U-NII-3, 802.11ax HE80

Carrier frequency (MHz):5775

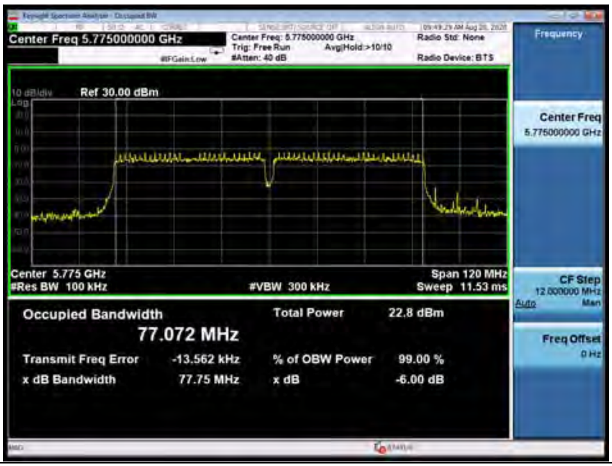
Minimum 6 dB bandwidth

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

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



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

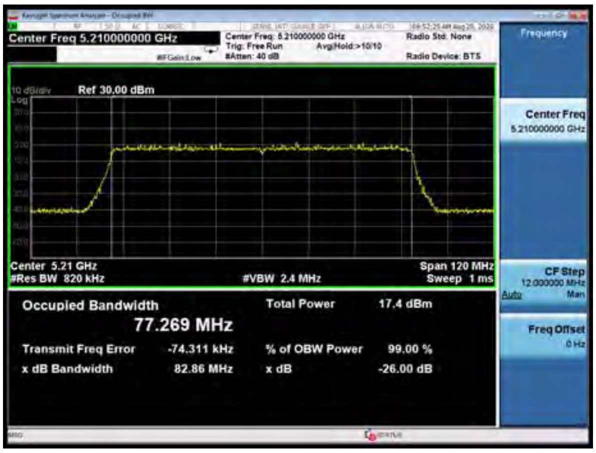


996-Tones

U-NII-1

U-NII-1, 802.11ax HE80

Carrier frequency (MHz): 5210



U-NII-3

99% bandwidth

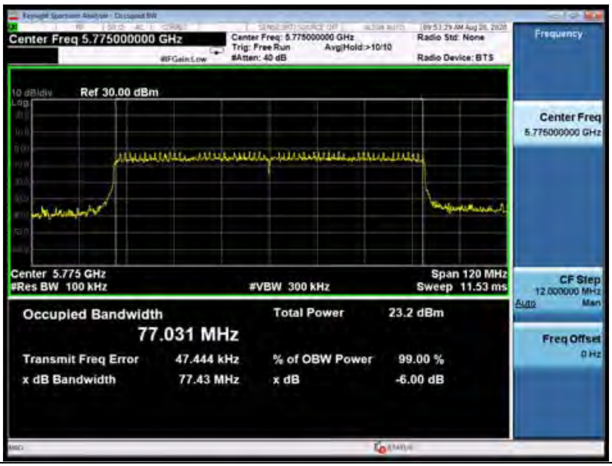
U-NII-3, 802.11ax HE80

Carrier frequency (MHz):5775

Minimum 6 dB bandwidth

U-NII-3, 802.11ax HE80

Carrier frequency (MHz):5775

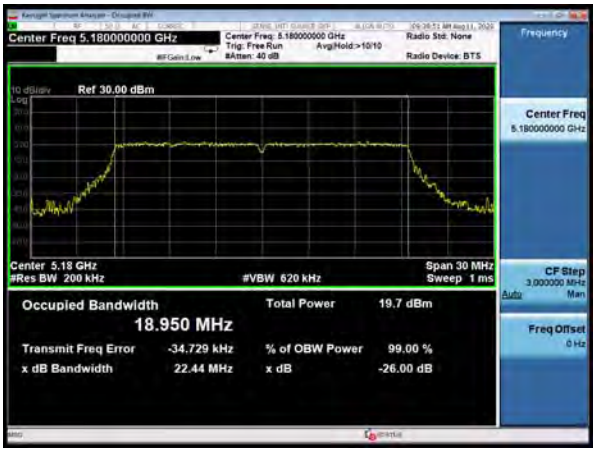


SU Mode

U-NII-1

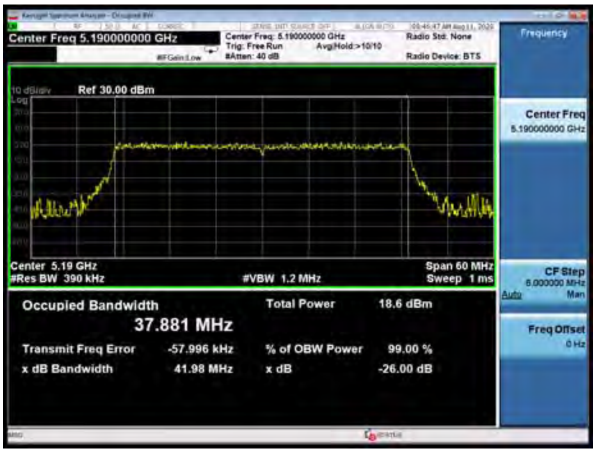
U-NII-1, 802.11ax HE20

Carrier frequency (MHz): 5180



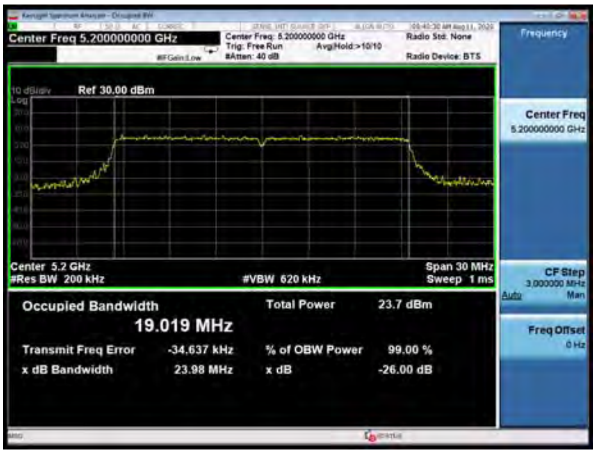
U-NII-1, 802.11ax HE40

Carrier frequency (MHz): 5190



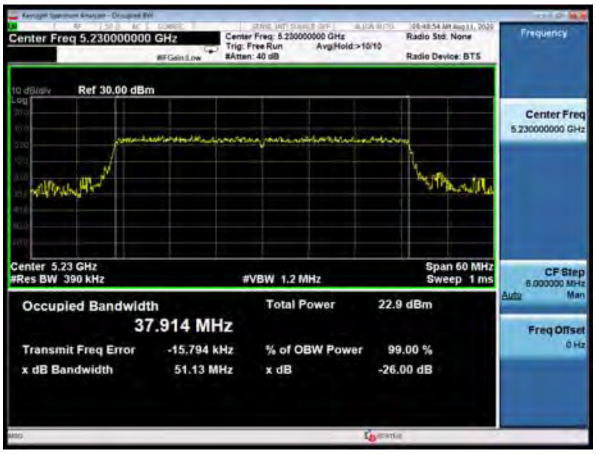
U-NII-1, 802.11ax HE20

Carrier frequency (MHz): 5200



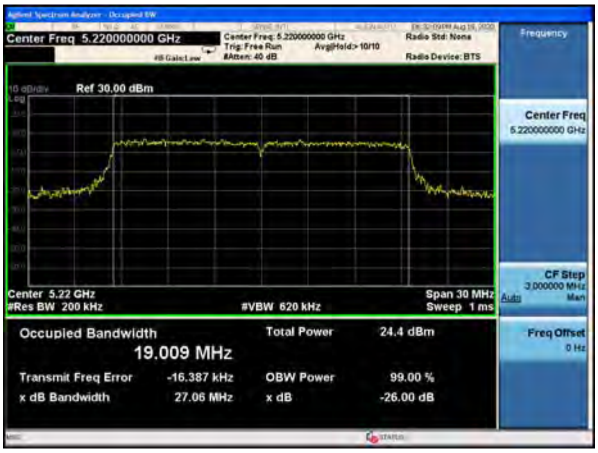
U-NII-1, 802.11ax HE40

Carrier frequency (MHz): 5230



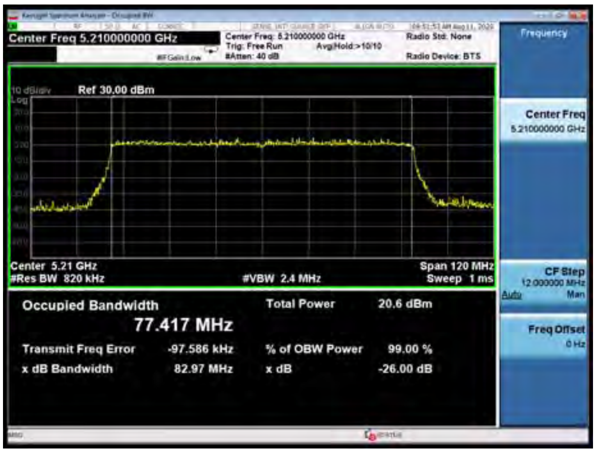
U-NII-1, 802.11ax HE20

Carrier frequency (MHz): 5220

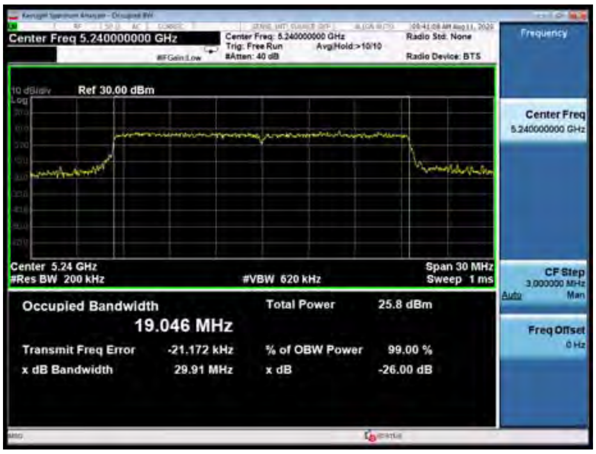


U-NII-1, 802.11ax HE80

Carrier frequency (MHz): 5210



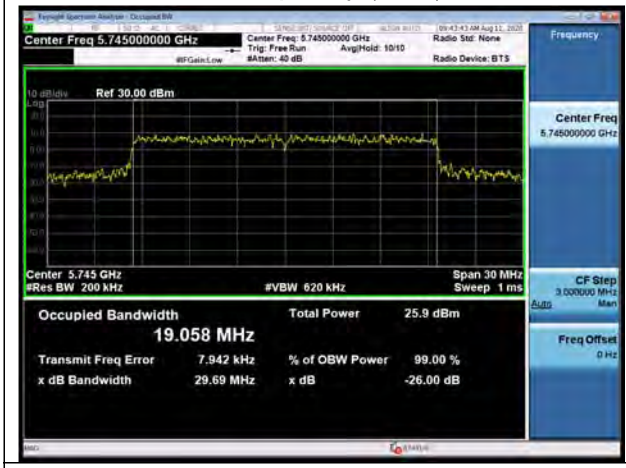
U-NII-1, 802.11ax HE20
Carrier frequency (MHz):5240



U-NII-3

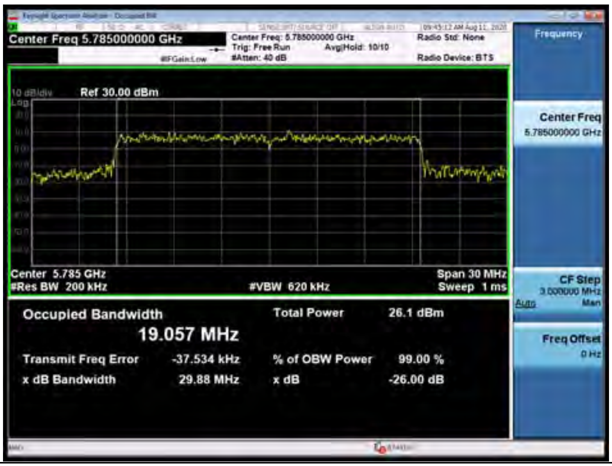
99% bandwidth

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

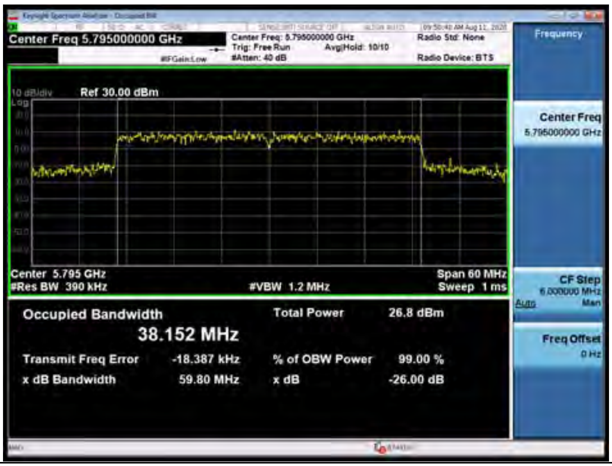


U-NII-3, 802.11ax HE40
Carrier frequency (MHz):5755

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

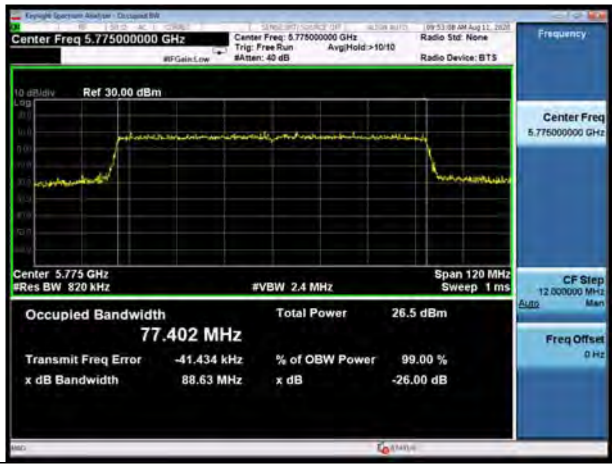


U-NII-3, 802.11ax HE40
Carrier frequency (MHz):5795



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

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



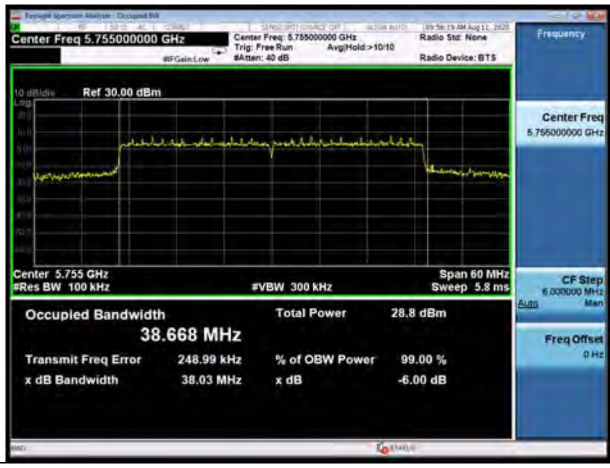
Minimum 6 dB bandwidth

U-NII-3, 802.11ax HE20

Carrier frequency (MHz):5745

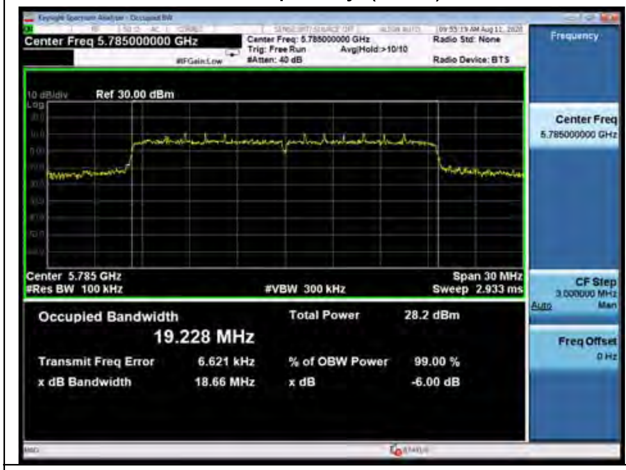
U-NII-3, 802.11ax HE40

Carrier frequency (MHz):5755



U-NII-3, 802.11ax HE20

Carrier frequency (MHz):5785

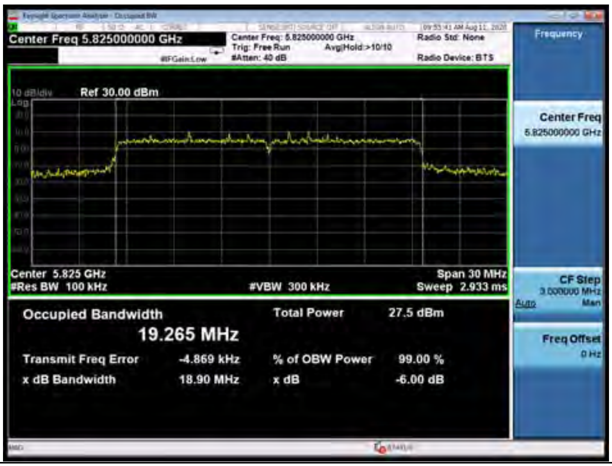


U-NII-3, 802.11ax HE40

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

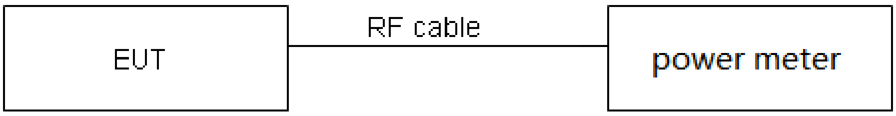
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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 Output Power Level Method in KDB789033 for this test

The Output 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 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 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 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 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 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 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 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 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 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 band 5.725-5.85 GHz, the maximum 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 output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Measurement Uncertainty

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

Test Results

TB Mode

26-Tones

Band	T_{on} (ms)	$T_{(on+off)}$ (ms)	Duty cycle	Duty cycle correction Factor(dB)
802.11ax HE20	2.06	2.16	0.95	0.21
802.11ax HE40	2.06	2.17	0.95	0.23
Note: when Duty cycle>0.98, Duty cycle correction Factor not required.				

U-NII-1

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11ax HE20	36/5180	6.33	6.54	6.54	6.75	9.66	30.00	PASS
	40/5200	10.05	10.26	10.46	10.67	13.48	30.00	PASS
	44/5220	12.25	12.46	12.49	12.70	15.60	30.00	PASS
	48/5240	12.44	12.65	12.77	12.98	15.83	30.00	PASS
802.11ax HE40	38/5190	4.16	4.39	4.38	4.61	7.51	30.00	PASS
	46/5230	7.42	7.65	7.59	7.82	10.75	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power =10log($10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$).
2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,
For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \le 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \ge 5$.
So directional gain = G_{ANT} + Array Gain =5.5+0=5.5 dBi<6dBi. So the power limt is 30dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11ax HE20	149/5745	13.25	13.46	13.10	13.31	16.40	30.00	PASS
	157/5785	13.22	13.43	13.07	13.28	16.37	30.00	PASS
	165/5825	13.37	13.58	13.26	13.47	16.54	30.00	PASS
802.11ax HE40	151/5755	12.56	12.79	12.43	12.66	15.74	30.00	PASS
	159/5795	12.55	12.78	12.39	12.62	15.71	30.00	PASS

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

2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,
For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.
So directional gain = G_{ANT} + Array Gain =5.5+0=5.5dBi<6dBi. So the power limt is 30dBm.

52-Tones

Band	T_{on} (ms)	$T_{(on+off)}$ (ms)	Duty cycle	Duty cycle correction Factor(dB)
802.11ax HE20	1.06	1.16	0.91	0.41
802.11ax HE40	1.06	1.16	0.92	0.38
802.11ax HE80	1.07	1.18	0.91	0.40
Note: when Duty cycle>0.98, Duty cycle correction Factor not required.				

U-NII-1

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11ax HE20	36/5180	8.12	8.53	8.46	8.87	11.71	30.00	PASS
	40/5200	11.95	12.36	12.44	12.85	15.62	30.00	PASS
	44/5220	14.15	14.56	14.33	14.74	17.66	30.00	PASS
	48/5240	14.22	14.63	14.74	15.15	17.91	30.00	PASS
802.11ax HE40	38/5190	4.71	5.09	4.82	5.20	8.15	30.00	PASS
	46/5230	7.79	8.17	7.66	8.04	11.11	30.00	PASS
802.11ax HE80	42/5210	4.68	5.08	5.03	5.43	8.27	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power =10log($10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$).
2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,
For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.
So directional gain = G_{ANT} + Array Gain =5.5+0=5.5 dBi<6dBi. So the power limt is 30dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11ax HE20	149/5745	15.40	15.81	15.52	15.93	18.88	30.00	PASS
	157/5785	15.59	16.00	15.31	15.72	18.87	30.00	PASS
	165/5825	15.13	15.54	15.25	15.66	18.61	30.00	PASS
802.11ax HE40	151/5755	12.64	13.02	12.71	13.09	16.06	30.00	PASS
	159/5795	12.84	13.22	12.55	12.93	16.08	30.00	PASS
802.11ax HE80	155/5775	12.22	12.62	11.81	12.21	15.43	30.00	PASS

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

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

2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

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

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

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

So directional gain = G_{ANT} + Array Gain =5.5+0=5.5dBi<6dBi. So the power limt is 30dBm.

106-Tones

Band	T_{on} (ms)	$T_{(on+off)}$ (ms)	Duty cycle	Duty cycle correction Factor(dB)
802.11ax HE20	0.53	0.65	0.82	0.88
802.11ax HE40	0.55	0.66	0.84	0.75
802.11ax HE80	0.55	0.64	0.86	0.64
Note: when Duty cycle>0.98, Duty cycle correction Factor not required.				

U-NII-1

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11ax HE20	36/5180	8.93	9.81	9.42	10.30	13.07	30.00	PASS
	40/5200	13.04	13.92	13.55	14.43	17.19	30.00	PASS
	44/5220	15.23	16.11	15.38	16.26	19.20	30.00	PASS
	48/5240	15.25	16.13	15.89	16.77	19.47	30.00	PASS
802.11ax HE40	38/5190	5.72	6.47	5.63	6.38	9.44	30.00	PASS
	46/5230	8.64	9.39	8.55	9.30	12.36	30.00	PASS
802.11ax HE80	42/5210	4.96	5.60	4.18	4.82	8.24	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power =10log($10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$).
2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,
For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.
So directional gain = G_{ANT} + Array Gain =5.5+0=5.5 dBi<6dBi. So the power limt is 30dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11ax HE20	149/5745	16.34	17.22	16.42	17.30	20.27	30.00	PASS
	157/5785	16.46	17.34	16.35	17.23	20.30	30.00	PASS
	165/5825	16.23	17.11	16.14	17.02	20.08	30.00	PASS
802.11ax HE40	151/5755	14.05	14.80	13.86	14.61	17.72	30.00	PASS
	159/5795	14.12	14.87	13.94	14.69	17.79	30.00	PASS
802.11ax HE80	155/5775	11.54	12.18	12.01	12.65	15.43	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power =10log($10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$).
2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,
For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \le 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \ge 5$.
So directional gain = G_{ANT} + Array Gain =5.5+0=5.5dBi<6dBi. So the power limt is 30dBm.

242-Tones

Band	T_{on} (ms)	$T_{(on+off)}$ (ms)	Duty cycle	Duty cycle correction Factor(dB)
802.11ax HE20	0.28	0.38	0.74	1.33
802.11ax HE40	0.28	0.39	0.72	1.42
802.11ax HE80	0.28	0.40	0.71	1.49
Note: when Duty cycle>0.98, Duty cycle correction Factor not required.				

U-NII-1

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11ax HE20	36/5180	9.08	10.41	9.16	10.49	13.46	30.00	PASS
	40/5200	12.97	14.30	13.29	14.62	17.47	30.00	PASS
	44/5220	14.69	16.02	15.03	16.36	19.20	30.00	PASS
	48/5240	14.95	16.28	15.28	16.61	19.45	30.00	PASS
802.11ax HE40	38/5190	6.96	8.38	6.73	8.15	11.27	30.00	PASS
	46/5230	10.02	11.44	9.92	11.34	14.40	30.00	PASS
802.11ax HE80	42/5210	5.42	6.91	5.28	6.77	9.85	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power =10log($10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$).
2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,
For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.
So directional gain = G_{ANT} + Array Gain =5.5+0=5.5 dBi<6dBi. So the power limt is 30dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11ax HE20	149/5745	15.85	17.18	15.77	17.10	20.15	30.00	PASS
	157/5785	16.12	17.45	15.86	17.19	20.33	30.00	PASS
	165/5825	15.92	17.25	15.78	17.11	20.19	30.00	PASS
802.11ax HE40	151/5755	14.69	16.11	14.55	15.97	19.05	30.00	PASS
	159/5795	14.75	16.17	14.63	16.05	19.12	30.00	PASS
802.11ax HE80	155/5775	11.82	13.31	11.65	13.14	16.23	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power =10log($10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$).
2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,
For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \le 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \ge 5$.
So directional gain = G_{ANT} + Array Gain =5.5+0=5.5dBi<6dBi. So the power limt is 30dBm.

484-Tones

Band	T_{on} (ms)	$T_{(on+off)}$ (ms)	Duty cycle	Duty cycle correction Factor(dB)
802.11ax HE40	0.18	0.28	0.64	1.92
802.11ax HE80	0.18	0.28	0.65	1.89
Note: when Duty cycle>0.98, Duty cycle correction Factor not required.				

U-NII-1

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11ax HE40	38/5190	6.32	8.24	6.64	8.56	11.41	30.00	PASS
	46/5230	9.61	11.53	9.48	11.40	14.47	30.00	PASS
802.11ax HE80	42/5210	6.28	8.17	6.35	8.24	11.21	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power =10log($10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$).
2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,
For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.
So directional gain = G_{ANT} + Array Gain =5.5+0=5.5 dBi<6dBi. So the power limt is 30dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11ax HE40	151/5755	14.60	16.52	14.35	16.27	19.41	30.00	PASS
	159/5795	14.52	16.44	14.49	16.41	19.43	30.00	PASS
802.11ax HE80	155/5775	13.43	15.32	13.62	15.51	18.42	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power =10log($10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$).
2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,
For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \le 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \ge 5$.
So directional gain = G_{ANT} + Array Gain =5.5+0=5.5dBi<6dBi. So the power limt is 30dBm.

996-Tones

Band	T_{on} (ms)	$T_{(on+off)}$ (ms)	Duty cycle	Duty cycle correction Factor(dB)
802.11ax HE80	0.13	0.24	0.55	2.63
Note: when Duty cycle>0.98, Duty cycle correction Factor not required.				

U-NII-1

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11ax HE80	42/5210	6.11	8.74	5.46	8.09	11.43	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power =10log($10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$).
2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,
For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.
So directional gain = G_{ANT} + Array Gain =5.5+0=5.5 dBi<6dBi. So the power limt is 30dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11ax HE80	155/5775	12.72	15.35	12.88	15.51	18.44	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power =10log($10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$).
2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,
For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.
So directional gain = G_{ANT} + Array Gain =5.5+0=5.5dBi<6dBi. So the power limt is 30dBm.

SU Mode

Band	T_{on} (ms)	$T_{(on+off)}$ (ms)	Duty cycle	Duty cycle correction Factor(dB)
802.11ax HE20	1.74	1.85	0.94	0.25
802.11ax HE40	0.91	1.02	0.90	0.47
802.11ax HE80	0.46	0.55	0.84	0.75
Note: when Duty cycle>0.98, Duty cycle correction Factor not required.				

SISO Antenna 1

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11ax HE20	36/5180	12.54	12.79	30	PASS
	40/5200	16.51	16.76	30	PASS
	44/5220	17.08	17.33	30	PASS
	48/5240	18.72	18.97	30	PASS
802.11ax HE40	38/5190	10.74	11.21	30	PASS
	46/5230	13.68	14.15	30	PASS
802.11ax HE80	42/5210	8.86	9.61	30	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

U-NII-3

Network Standards	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11ax HE20	149/5745	20.11	20.36	30	PASS
	157/5785	20.21	20.46	30	PASS
	165/5825	20.05	20.30	30	PASS
802.11ax HE40	151/5755	18.84	19.31	30	PASS
	159/5795	18.56	19.03	30	PASS
802.11ax HE80	155/5775	17.57	18.32	30	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

SISO Antenna 2

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11ax HE20	36/5180	12.65	12.90	30	PASS
	40/5200	16.72	16.97	30	PASS
	44/5220	17.96	18.21	30	PASS
	48/5240	18.73	18.98	30	PASS
802.11ax HE40	38/5190	10.59	11.06	30	PASS
	46/5230	13.56	14.03	30	PASS
802.11ax HE80	42/5210	8.64	9.39	30	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

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Network Standards	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11ax HE20	149/5745	20.16	20.41	30	PASS
	157/5785	20.23	20.48	30	PASS
	165/5825	20.12	20.37	30	PASS
802.11ax HE40	151/5755	18.75	19.22	30	PASS
	159/5795	18.43	18.90	30	PASS
802.11ax HE80	155/5775	17.42	18.17	30	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

MIMO(Without beamforming)

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Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11ax HE20	36/5180	9.28	9.53	9.93	10.18	12.88	30.00	PASS
	40/5200	13.52	13.77	13.91	14.16	16.98	30.00	PASS
	44/5220	14.22	14.47	14.59	14.84	17.67	30.00	PASS
	48/5240	15.72	15.97	16.36	16.61	19.31	30.00	PASS
802.11ax HE40	38/5190	7.33	7.80	7.85	8.32	11.08	30.00	PASS
	46/5230	10.63	11.10	11.15	11.62	14.38	30.00	PASS
802.11ax HE80	42/5210	5.44	6.19	5.89	6.64	9.44	30.00	PASS

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

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

2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

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

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

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

So directional gain = G_{ANT} + Array Gain =5.5+0=5.5 dBi<6dBi. So the power limt is 30dBm.

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Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11ax HE20	149/5745	16.23	16.48	17.43	17.68	20.13	30.00	PASS
	157/5785	16.84	17.09	17.34	17.59	20.36	30.00	PASS
	165/5825	16.74	16.99	17.49	17.74	20.39	30.00	PASS
802.11ax HE40	151/5755	15.66	16.13	15.98	16.45	19.30	30.00	PASS
	159/5795	15.73	16.20	16.24	16.71	19.47	30.00	PASS
802.11ax HE80	155/5775	14.61	15.36	14.82	15.57	18.48	30.00	PASS

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

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

2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

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

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

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

So directional gain = G_{ANT} + Array Gain =5.5+0=5.5dBi<6dBi. So the power limt is 30dBm.

MIMO(With beamforming)

U-NII-1

Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11ax HE20	36/5180	9.54	9.79	9.71	9.96	12.89	27.49	PASS
	40/5200	13.71	13.96	14.32	14.57	17.29	27.49	PASS
	44/5220	14.52	14.77	15.14	15.39	18.10	27.49	PASS
	48/5240	16.03	16.28	16.32	16.57	19.44	27.49	PASS
802.11ax HE40	38/5190	7.31	7.78	7.83	8.30	11.06	27.49	PASS
	46/5230	10.68	11.15	10.78	11.25	14.21	27.49	PASS
802.11ax HE80	42/5210	5.41	6.16	5.72	6.47	9.33	27.49	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power =10log(10$^{(\text{Power antenna1 in dBm/10})}$+10$^{(\text{Power antenna2 in dBm/10})}$).
2. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e)(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)（ii）If antenna gains are not equal, directional gain = GANTMAX + 10 log(NANT/NSS). So the directional gain =5.5+10log（2/Nss)=8.51>6. So the power limit=30-(8.51-6)=27.49.

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Network Standards	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		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)			
802.11ax HE20	149/5745	16.21	16.46	17.41	17.66	20.11	27.49	PASS
	157/5785	16.82	17.07	17.32	17.57	20.34	27.49	PASS
	165/5825	16.66	16.91	17.46	17.71	20.34	27.49	PASS
802.11ax HE40	151/5755	15.56	16.03	15.94	16.41	19.23	27.49	PASS
	159/5795	15.65	16.12	16.17	16.64	19.40	27.49	PASS
802.11ax HE80	155/5775	14.24	14.99	14.96	15.71	18.38	27.49	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),
The Total Power =10log($10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$).
2. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F) 2) e)(i),If all antennas have the same gain, directional gain = GANT + 10 log(NANT/NSS)（ii）If antenna gains are not equal，directional gain = GANTMAX + 10 log(NANT/NSS). So the directional gain =5.5+10log（2/Nss)=8.51>6. So the power limit=30-(8.51-6)=27.49.

5.3. Frequency Stability

Ambient condition

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

Method of Measurement

1. Frequency stability with respect to ambient temperature

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

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

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

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

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

f) While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made.

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

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

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

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

2. Frequency stability when varying supply voltage

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

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

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

Limit

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

Measurement Uncertainty

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

Test Results

SU Mode

Voltage (V)	Temperature (°C)	U-NII-1 Test Results 5200MHz			
		1min	2min	5min	10min
12	0	5199.999731	5199.991912	5199.990598	5199.981018
12	5	5199.995676	5199.989423	5199.985094	5199.975463
12	10	5199.993359	5199.984618	5199.979920	5199.967515
12	15	5199.990373	5199.981907	5199.972433	5199.960987
12	20	5199.986431	5199.973441	5199.963245	5199.958836
12	30	5199.980951	5199.972881	5199.956483	5199.950607
12	40	5199.970964	5199.963567	5199.955855	5199.945730
12	50	5199.965725	5199.957689	5199.947012	5199.940907
10.8	25	5199.965277	5199.955616	5199.941966	5199.930981
13.2	25	5199.964830	5199.949078	5199.933910	5199.930870
MHz		-0.035170	-0.050922	-0.066090	-0.069130
PPM		-6.763512	-9.792618	-12.709692	-13.294189

Voltage (V)	Temperature (°C)	U-NII-3 Test Results 5785MHz			
		1min	2min	5min	10min
12	0	5785.008850	5785.007049	5785.003974	5784.998375
12	5	5785.005152	5785.003088	5784.999851	5784.993632
12	10	5785.001534	5784.995049	5784.991623	5784.992102
12	15	5784.999119	5784.988468	5784.989258	5784.987905
12	20	5784.991966	5784.980117	5784.987763	5784.981532
12	30	5784.987644	5784.974021	5784.985761	5784.976230
12	40	5784.986850	5784.965624	5784.981900	5784.971361
12	50	5784.982633	5784.955633	5784.977741	5784.967595
10.8	25	5784.972932	5784.949620	5784.968405	5784.962490
13.2	25	5784.972105	5784.945221	5784.963611	5784.961161
MHz		-0.027895	-0.054779	-0.036389	-0.038839
PPM		-4.821935	-9.469138	-6.290167	-6.713778

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.
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.
(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.

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

Frequency Bands/MHz	Limits
5150-5250	11dBm/MHz

5725-5850	30dBm/500kHz

Measurement Uncertainty

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

Test Results:

TB Mode

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Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
802.11ax HE20	36/5180	-3.40	-3.18	-2.97	-2.75	0.05	14.49	PASS
	40/5200	0.97	1.19	0.69	0.90	4.06	14.49	PASS
	44/5220	3.29	3.51	3.88	4.10	6.82	14.49	PASS
	48/5240	3.62	3.84	3.32	3.53	6.70	14.49	PASS
802.11ax HE40	38/5190	-5.20	-4.97	-4.97	-4.74	-1.84	14.49	PASS
	46/5230	-3.12	-2.89	-3.41	-3.18	-0.02	14.49	PASS

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

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

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5.5+10log（2/1)=8.51>6 dBi. So the PSD limt is 17-(directional gain-6 dBi) =17-(8.51-6)=14.49dBm.

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Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)			
802.11ax HE20	149/5745	2.91	3.39	2.88	3.36	6.39	27.49	PASS
	157/5785	3.48	3.97	3.12	3.60	6.80	27.49	PASS
	165/5825	3.56	4.04	3.82	4.30	7.19	27.49	PASS
802.11ax HE40	151/5755	0.61	1.11	0.35	0.85	4.00	27.49	PASS
	159/5795	0.90	1.40	0.90	1.40	4.41	27.49	PASS

Note: 1.Note:PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor,

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

2. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5.5+10log（2/1)=8.51>6 dBi. So the PSD limt is 30-(8.51-6 dBi) =27.49 dBm.

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Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
802.11ax HE20	36/5180	-2.19	-1.78	-2.34	-1.93	1.15	14.49	PASS
	40/5200	1.79	2.20	1.82	2.22	5.22	14.49	PASS
	44/5220	4.10	4.51	4.55	4.96	7.75	14.49	PASS
	48/5240	3.99	4.40	4.26	4.66	7.54	14.49	PASS
802.11ax HE40	38/5190	-4.61	-4.23	-4.54	-4.17	-1.19	14.49	PASS
	46/5230	-4.16	-3.78	-4.04	-3.66	-0.71	14.49	PASS
802.11ax HE80	42/5210	-9.00	-8.60	-8.93	-8.53	-5.55	14.49	PASS

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

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

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5.5+10log（2/1)=8.51>6 dBi. So the PSD limt is 17-(directional gain-6 dBi) =17-(8.51-6)=14.49dBm.

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Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)			
802.11ax HE20	149/5745	3.08	3.76	3.38	4.05	6.92	27.49	PASS
	157/5785	3.90	4.58	3.90	4.57	7.59	27.49	PASS
	165/5825	3.88	4.56	3.40	4.08	7.34	27.49	PASS
802.11ax HE40	151/5755	1.41	2.06	1.34	1.98	5.03	27.49	PASS
	159/5795	1.37	2.01	1.44	2.09	5.06	27.49	PASS
802.11ax HE80	155/5775	-5.56	-4.88	-5.72	-5.05	-1.95	27.49	PASS

Note: 1.Note:PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor,
The Total Power =10log($10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$).
2. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5.5+10log（2/1)=8.51>6 dBi. So the PSD limt is 30-(8.51-6 dBi) =27.49 dBm.

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Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
802.11ax HE20	36/5180	-2.34	-1.46	-2.09	-1.21	1.68	14.49	PASS
	40/5200	1.35	2.23	1.49	2.37	5.31	14.49	PASS
	44/5220	4.20	5.08	4.41	5.29	8.19	14.49	PASS
	48/5240	4.08	4.96	3.56	4.44	7.72	14.49	PASS
802.11ax HE40	38/5190	-5.13	-4.38	-5.00	-4.25	-1.30	14.49	PASS
	46/5230	-3.44	-2.69	-3.67	-2.92	0.20	14.49	PASS
802.11ax HE80	42/5210	-9.25	-8.61	-9.78	-9.14	-5.86	14.49	PASS

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

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

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5.5+10log（2/1)=8.51>6 dBi. So the PSD limt is 17-(directional gain-6 dBi) =17-(8.51-6)=14.49dBm.

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Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)			
802.11ax HE20	149/5745	3.19	4.35	2.89	4.04	7.21	27.49	PASS
	157/5785	3.87	5.02	3.32	4.47	7.76	27.49	PASS
	165/5825	3.05	4.20	3.09	4.24	7.23	27.49	PASS
802.11ax HE40	151/5755	0.76	1.78	0.51	1.53	4.67	27.49	PASS
	159/5795	1.09	2.10	1.07	2.08	5.10	27.49	PASS
802.11ax HE80	155/5775	-6.00	-5.09	-5.99	-5.07	-2.07	27.49	PASS

Note: 1.Note:PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor,
The Total Power =10log(10$^{(\text{Power antenna1 in dBm/10})}$+10$^{(\text{Power antenna2 in dBm/10})}$).
2. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5.5+10log（2/1)=8.51>6 dBi. So the PSD limt is 30-(8.51-6 dBi) =27.49 dBm.

242-Tones

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
802.11ax HE20	36/5180	-3.24	-1.92	-3.16	-1.83	1.13	14.49	PASS
	40/5200	1.09	2.42	0.83	2.16	5.30	14.49	PASS
	44/5220	2.41	3.73	1.21	2.53	6.18	14.49	PASS
	48/5240	3.49	4.81	3.63	4.96	7.89	14.49	PASS
802.11ax HE40	38/5190	-5.17	-3.76	-5.22	-3.80	-0.77	14.49	PASS
	46/5230	-3.16	-1.74	-3.12	-1.70	1.29	14.49	PASS
802.11ax HE80	42/5210	-9.33	-7.84	-9.44	-7.95	-4.89	14.49	PASS

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

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

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5.5+10log（2/1)=8.51>6 dBi. So the PSD limt is 17-(directional gain-6 dBi) =17-(8.51-6)=14.49dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)			
802.11ax HE20	149/5745	2.58	4.18	2.77	4.37	7.29	27.49	PASS
	157/5785	2.63	4.23	2.38	3.98	7.12	27.49	PASS
	165/5825	2.75	4.35	2.80	4.39	7.38	27.49	PASS
802.11ax HE40	151/5755	0.45	2.14	0.04	1.73	4.95	27.49	PASS
	159/5795	-0.05	1.64	-0.10	1.59	4.63	27.49	PASS
802.11ax HE80	155/5775	-6.82	-5.06	-6.48	-4.73	-1.88	27.49	PASS

Note: 1.Note:PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor,
The Total Power =10log($10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$).
2. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5.5+10log（2/1)=8.51>6 dBi. So the PSD limt is 30-(8.51-6 dBi) =27.49 dBm.

484-Tones

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
802.11ax HE40	38/5190	-6.66	-4.74	-7.24	-5.32	-2.01	14.49	PASS
	46/5230	-4.53	-2.62	-4.30	-2.38	0.52	14.49	PASS
802.11ax HE80	42/5210	-10.53	-8.64	-10.27	-8.38	-5.50	14.49	PASS

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

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

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5.5+10log（2/1)=8.51>6 dBi. So the PSD limt is 17-(directional gain-6 dBi) =17-(8.51-6)=14.49dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)			
802.11ax HE40	151/5755	-0.14	2.05	-0.51	1.68	4.88	27.49	PASS
	159/5795	-0.56	1.63	-0.81	1.38	4.52	27.49	PASS
802.11ax HE80	155/5775	-6.83	-4.68	-7.59	-5.43	-2.03	27.49	PASS

Note: 1.Note:PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor,

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

2. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5.5+10log（2/1)=8.51>6 dBi. So the PSD limt is 30-(8.51-6 dBi) =27.49 dBm.

996-Tones

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
802.11ax HE80	42/5210	-10.16	-7.53	-10.67	-8.04	-4.77	14.49	PASS

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

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

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5.5+10log（2/1)=8.51>6 dBi. So the PSD limt is 17-(directional gain-6 dBi) =17-(8.51-6)=14.49dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)			
802.11ax HE80	155/5775	-7.64	-4.74	-7.84	-4.95	-1.83	27.49	PASS

Note: 1.Note:PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor,
The Total Power =10log($10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$).

2. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5.5+10log（2/1)=8.51>6 dBi. So the PSD limt is 30-(8.51-6 dBi) =27.49 dBm.

SU Mode

SISO Antenna 1

U-NII-1

Network Standards	Channel Number	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11ax HE20	36	0.70	0.95	17	PASS
	40	4.59	4.84	17	PASS
	44	5.63	5.88	17	PASS
	48	6.97	7.22	17	PASS
802.11ax HE40	38	-4.27	-3.80	17	PASS
	46	0.10	0.57	17	PASS
802.11ax HE80	42	-9.46	-8.71	17	PASS
Note: Power Spectral Density =Read Value+Duty cycle correction factor					

U-NII-3

Network Standards	Channel Number	Read Value (dBm/470kHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Conclusion
802.11ax HE20	149	3.21	3.73	30	PASS
	157	3.48	4.00	30	PASS
	165	3.24	3.76	30	PASS
802.11ax HE40	151	0.12	0.86	30	PASS
	159	0.73	1.47	30	PASS
802.11ax HE80	155	-2.96	-1.94	30	PASS
Note:PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor					

SISO Antenna 2

U-NII-1

Network Standards	Channel Number	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11ax HE20	36	1.19	1.44	17	PASS
	40	5.12	5.37	17	PASS
	44	6.12	6.37	17	PASS
	48	6.95	7.20	17	PASS
802.11ax HE40	38	-3.69	-3.22	17	PASS
	46	-0.19	0.28	17	PASS
802.11ax HE80	42	-10.11	-9.35	17	PASS
Note: Power Spectral Density =Read Value+Duty cycle correction factor					

U-NII-3

Network Standards	Channel Number	Read Value (dBm/470kHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Conclusion
802.11ax HE20	149	3.19	3.71	30	PASS
	157	2.91	3.43	30	PASS
	165	2.93	3.45	30	PASS
802.11ax HE40	151	-0.27	0.47	30	PASS
	159	0.33	1.07	30	PASS
802.11ax HE80	155	-2.58	-1.55	30	PASS
Note:PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor					

MIMO without Beamforming

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
802.11ax HE20	36/5180	-2.07	-1.82	-1.78	-1.53	1.34	14.49	PASS
	40/5200	1.85	2.10	2.08	2.33	5.23	14.49	PASS
	44/5220	2.80	3.05	3.29	3.54	6.31	14.49	PASS
	48/5240	4.36	4.61	4.79	5.04	7.84	14.49	PASS
802.11ax HE40	38/5190	-6.80	-6.33	-6.79	-6.32	-3.31	14.49	PASS
	46/5230	-3.58	-3.11	-3.40	-2.93	-0.01	14.49	PASS
802.11ax HE80	42/5210	-12.41	-11.66	-12.22	-11.46	-8.55	14.49	PASS

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

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

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5.5+10log（2/1)=8.51>6 dBi. So the PSD limt is 17-(directional gain-6 dBi) =17-(8.51-6)=14.49dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)			
802.11ax HE20	149/5745	1.86	2.39	2.30	2.82	5.62	27.49	PASS
	157/5785	2.11	2.63	2.36	2.88	5.77	27.49	PASS
	165/5825	2.46	2.98	2.72	3.24	6.13	27.49	PASS
802.11ax HE40	151/5755	-4.64	-3.90	-4.79	-4.05	-0.97	27.49	PASS
	159/5795	-1.17	-0.43	-1.32	-0.58	2.50	27.49	PASS
802.11ax HE80	155/5775	-4.72	-3.70	-5.11	-4.09	-0.88	27.49	PASS

Note: 1.Note:PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor,
The Total Power =10log($10^{(\text{Power antenna1 in dBm}/10)}$+$10^{(\text{Power antenna2 in dBm}/10)}$).
2. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5.5+10log（2/1)=8.51>6 dBi. So the PSD limt is 30-(8.51-6 dBi) =27.49 dBm.

MIMO with Beamforming

U-NII-1

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm /MHz)		
		Read Value (dBm/MHz)	PSD (dBm /MHz)	Read Value (dBm/MHz)	PSD (dBm /MHz)			
802.11ax HE20	36/5180	-1.23	-0.98	-1.22	-0.97	2.04	14.49	PASS
	40/5200	2.78	3.03	2.58	2.83	5.94	14.49	PASS
	44/5220	2.92	3.18	3.61	3.86	6.54	14.49	PASS
	48/5240	4.73	4.98	5.07	5.32	8.16	14.49	PASS
802.11ax HE40	38/5190	-7.96	-7.49	-7.69	-7.22	-4.34	14.49	PASS
	46/5230	-3.90	-3.43	-3.77	-3.30	-0.36	14.49	PASS
802.11ax HE80	42/5210	-12.35	-11.59	-12.84	-12.08	-8.82	14.49	PASS

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

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

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5.5+10log（2/1)=8.51>6 dBi. So the PSD limt is 17-(directional gain-6 dBi) =17-(8.51-6)=14.49 dBm.

U-NII-3

Network Standards	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Total Power (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)	Read Value (dBm/ 470kHz)	Power Spectral Density (dBm/ 500kHz)			
802.11ax HE20	149/5745	2.29	2.81	2.26	2.78	5.81	27.49	PASS
	157/5785	2.43	2.95	2.00	2.52	5.75	27.49	PASS
	165/5825	2.15	2.67	2.16	2.68	5.69	27.49	PASS
802.11ax HE40	151/5755	-4.91	-4.17	-4.91	-4.17	-1.16	27.49	PASS
	159/5795	-1.14	-0.40	-1.28	-0.54	2.54	27.49	PASS
802.11ax HE80	155/5775	-4.49	-3.46	-4.31	-3.28	-0.36	27.49	PASS

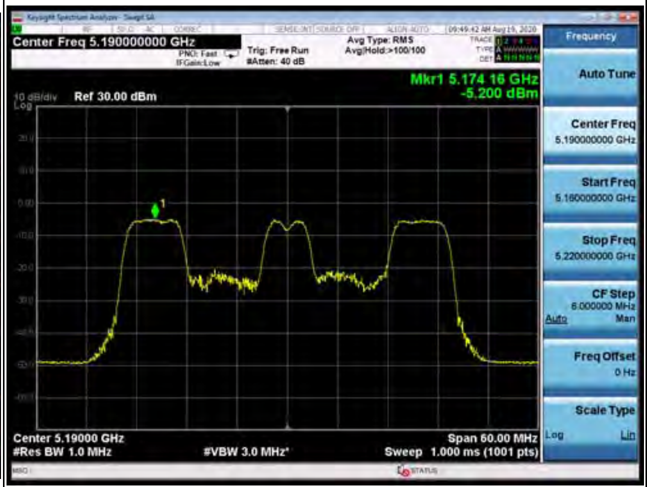
Note: 1.Note:PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor,
The Total Power =$10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)})$.
2. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 2)f)(i): If all antennas have the same gain, Directional gain = GANT + Array Gain, For PSD measurements on all devices,Array Gain=10log(Nant/Nss)dB,so directional gain=GANT+Array Gain=5.5+10log（2/1)=8.51>6 dBi. So the PSD limt is 30-(directional gain-6 dBi) =30-(8.51-6) =27.49dBm.

TB Mode

26-Tones

MIMO Antenna 1

U-NII-1

U-NII-1, 802.11ax HE20 Carrier frequency (MHz): 5180	U-NII-1, 802.11ax HE40 Carrier frequency (MHz): 5190
	
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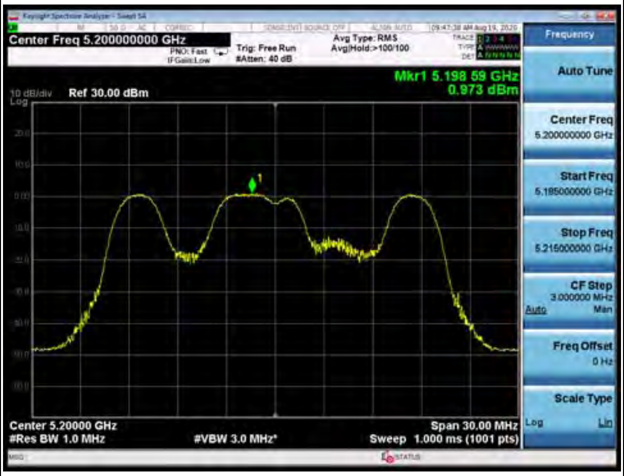
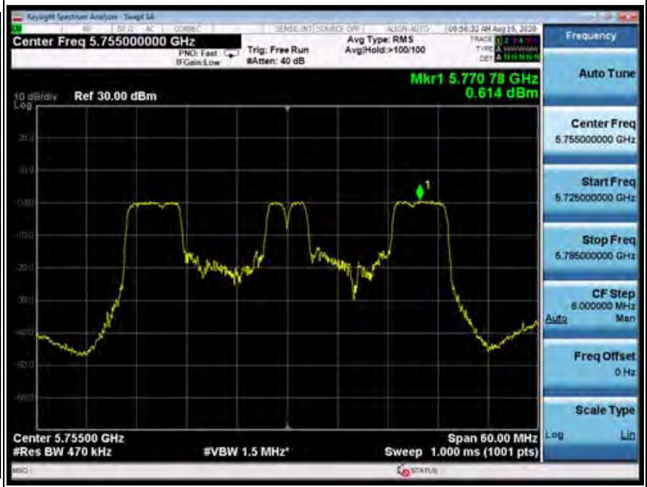
	
U-NII-1, 802.11ax HE20 Carrier frequency (MHz):5220	
	

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

U-NII-3

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
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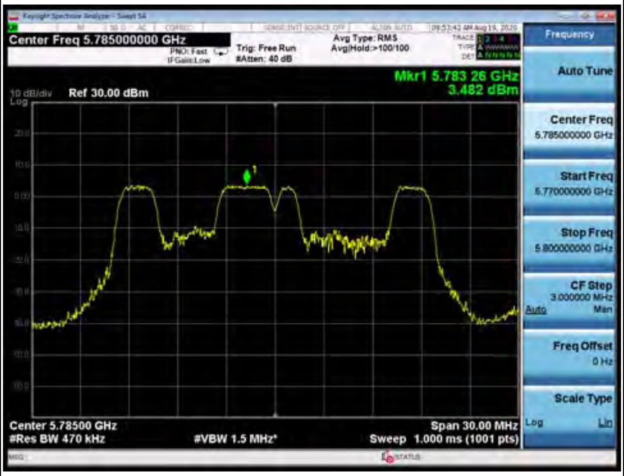
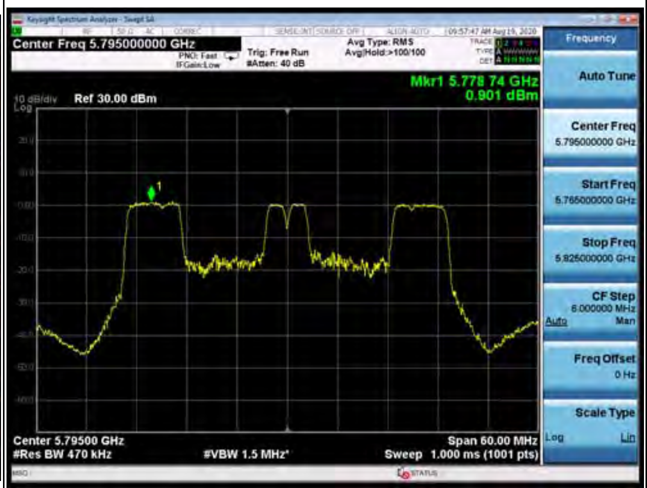


U-NII-3, 802.11ax HE40
Carrier frequency (MHz): 5795



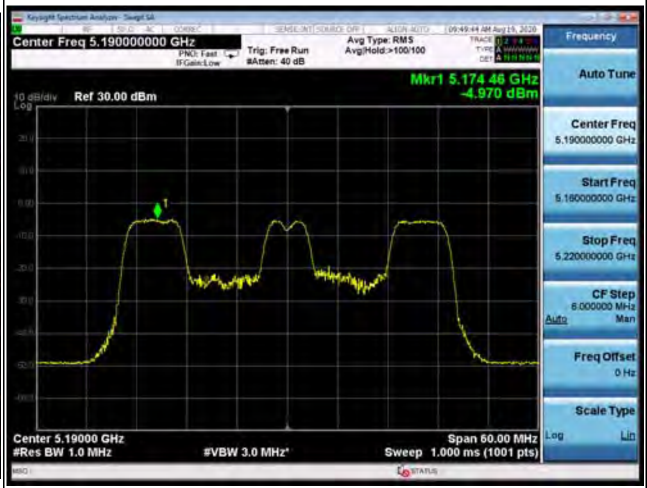
U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5825

MIMO Antenna 2

U-NII-1

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):5220

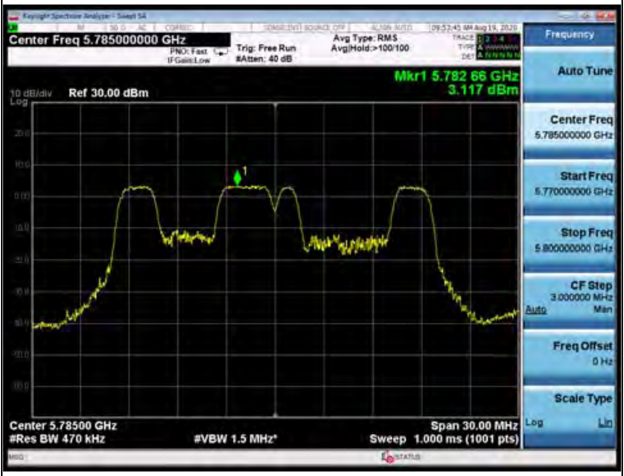
U-NII-1, 802.11ax HE20
Carrier frequency (MHz):5240

U-NII-3

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

52-Tones

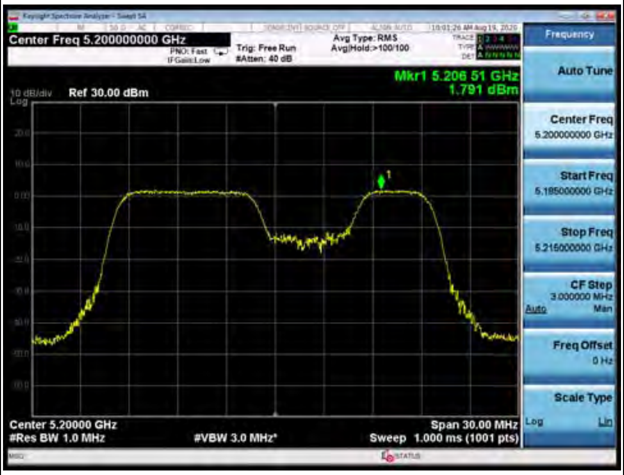
MIMO Antenna 1

U-NII-1

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

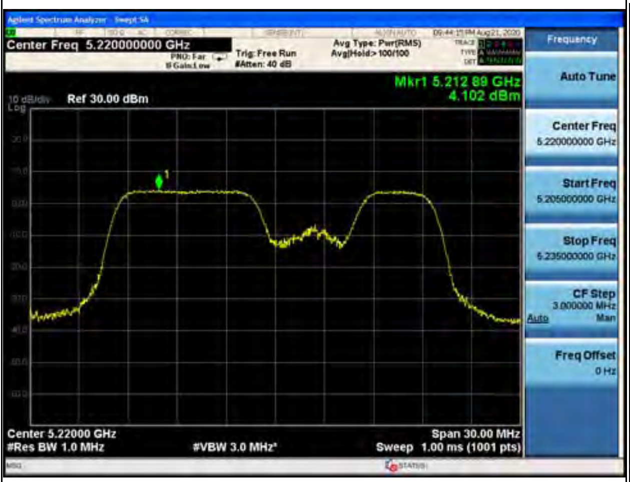
U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5190

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):5220



U-NII-1, 802.11ax HE80
Carrier frequency (MHz): 5210

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

U-NII-3

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Carrier frequency (MHz): 5745

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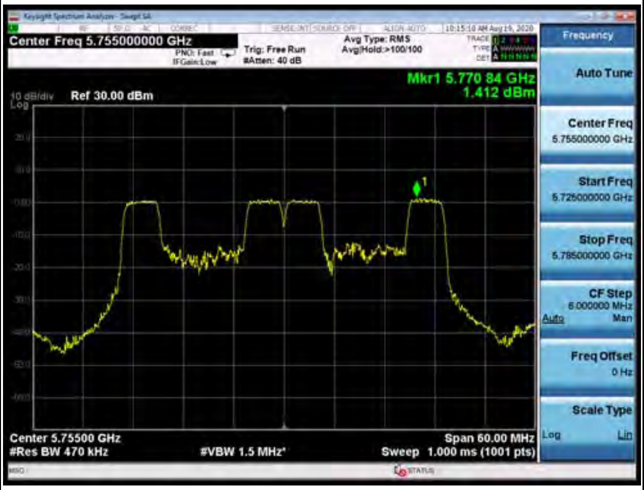
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Carrier frequency (MHz): 5785

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

</td>
</tr>
<tr>
<td>U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5825

</td>
<td>U-NII-3, 802.11ax HE80
Carrier frequency (MHz): 5775

</td>
</tr>
</table>

MIMO Antenna 2

U-NII-1

U-NII-1, 802.11ax HE20

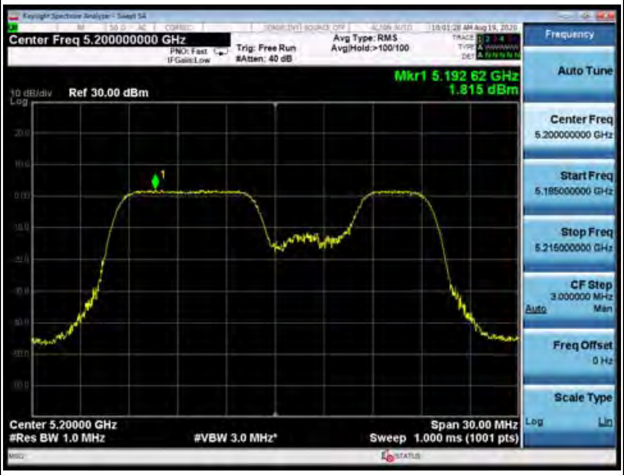
Carrier frequency (MHz): 5180

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):5220

U-NII-1, 802.11ax HE80

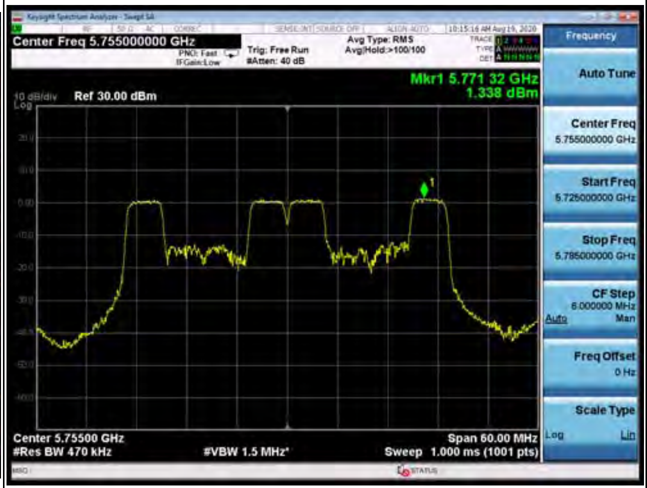
Carrier frequency (MHz): 5210

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


U-NII-3

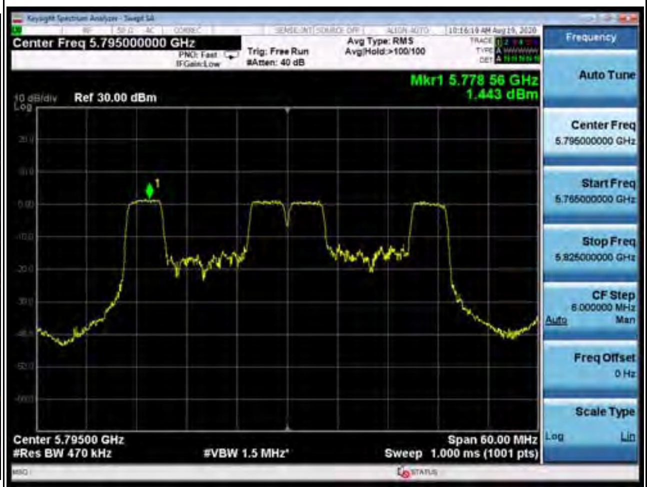
U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5745

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

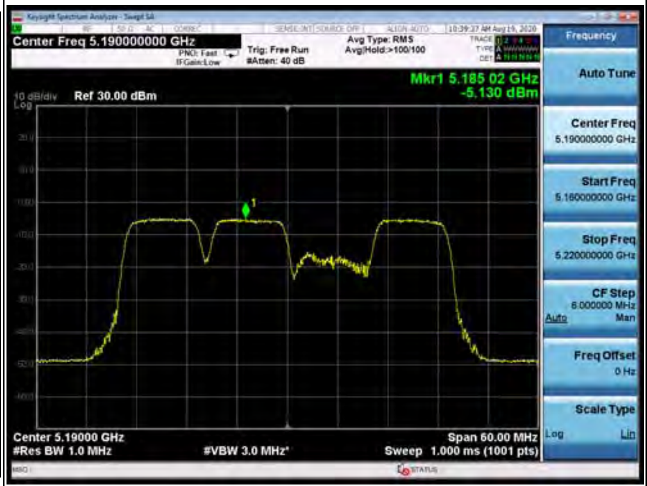
106-Tones

MIMO Antenna 1

U-NII-1

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):5220

U-NII-1, 802.11ax HE80
Carrier frequency (MHz): 5210

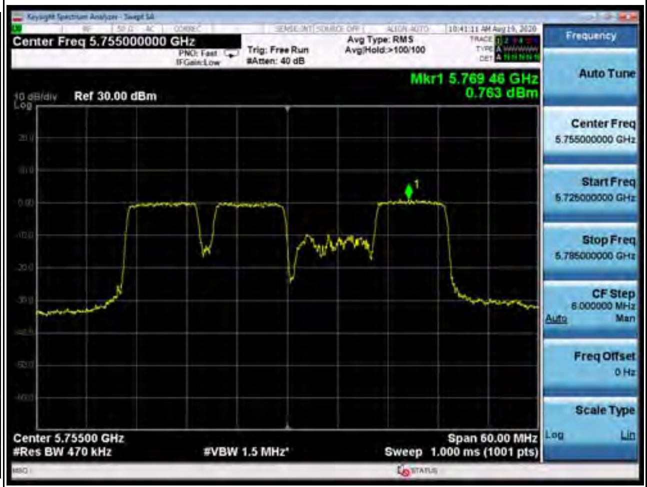
U-NII-1, 802.11ax HE20

Carrier frequency (MHz):5240

U-NII-3

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

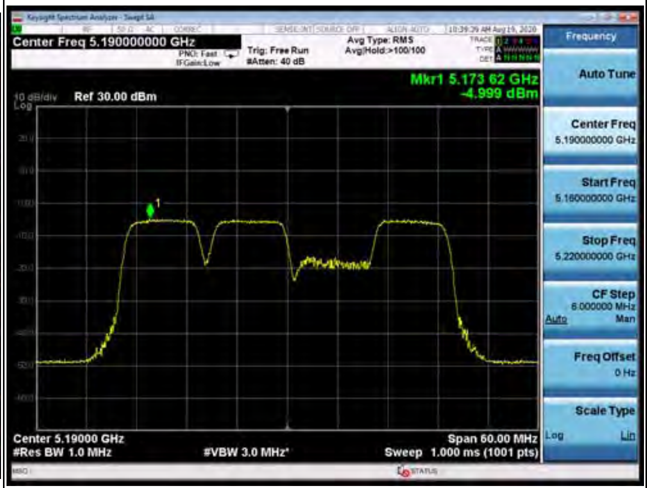
U-NII-3, 802.11ax HE40
Carrier frequency (MHz): 5795

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

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

MIMO Antenna 2

U-NII-1

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):5220	U-NII-1, 802.11ax HE80 Carrier frequency (MHz): 5210
	

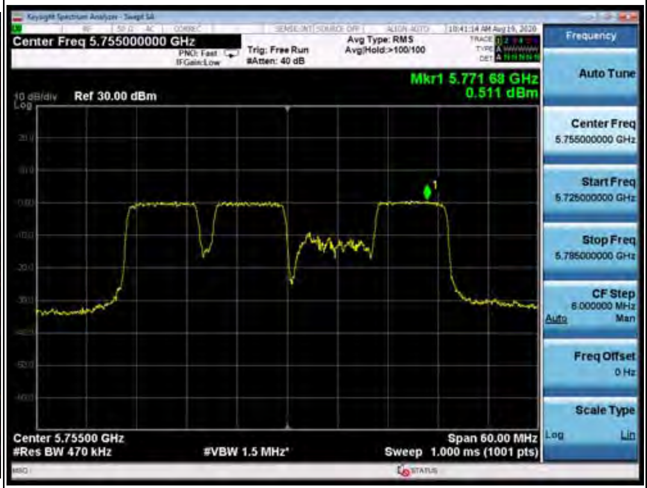
U-NII-1, 802.11ax HE20

Carrier frequency (MHz):5240

U-NII-3

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

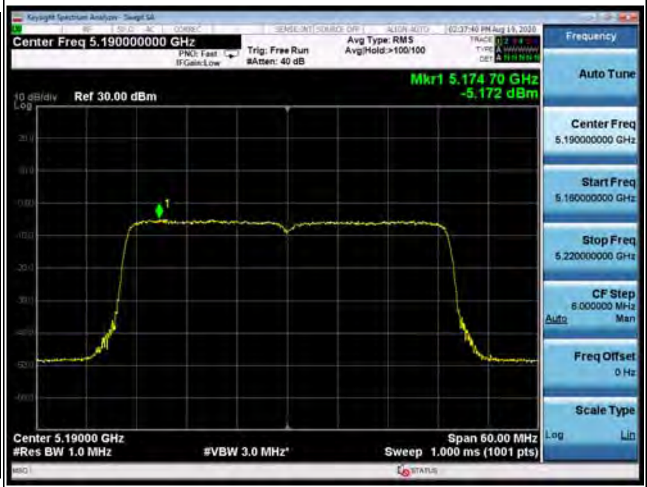
U-NII-3, 802.11ax HE80
Carrier frequency (MHz): 5775

242-Tones

MIMO Antenna 1

U-NII-1

<table>
<tr>
<td>U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5180

</td>
<td>U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5190

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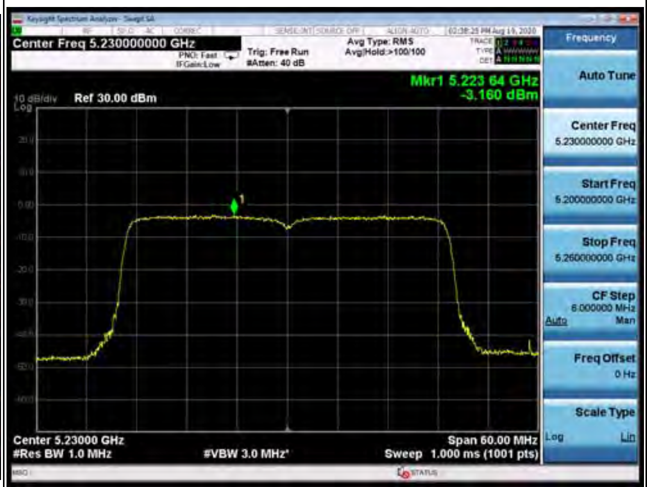
<tr>
<td>U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5200

</td>
<td>U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5230

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<tr>
<td>U-NII-1, 802.11ax HE20
Carrier frequency (MHz):5220

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<td>U-NII-1, 802.11ax HE80
Carrier frequency (MHz): 5210

</td>
</tr>
</table>

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


U-NII-3

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

MIMO Antenna 2

U-NII-1

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):5220

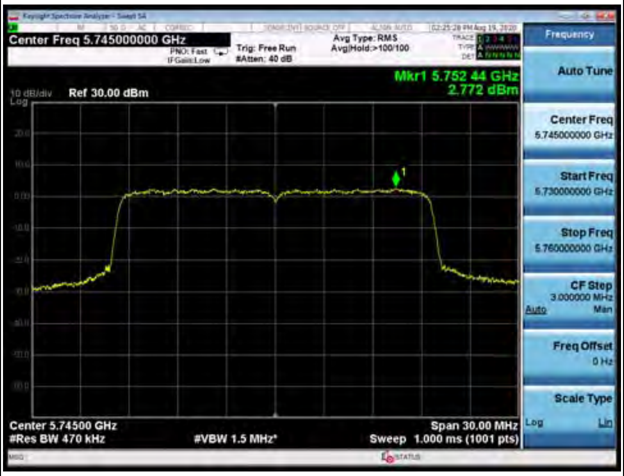
U-NII-1, 802.11ax HE80
Carrier frequency (MHz): 5210

U-NII-1, 802.11ax HE20

Carrier frequency (MHz):5240

U-NII-3

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

484-Tones

MIMO Antenna 1

U-NII-1

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

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

U-NII-1, 802.11ax HE80
Carrier frequency (MHz): 5210

U-NII-3

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

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

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

MIMO Antenna 2

U-NII-1

<table>
<tr>
<td>U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5190

</td>
<td>U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5230

</td>
</tr>
<tr>
<td>U-NII-1, 802.11ax HE80
Carrier frequency (MHz): 5210

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<td></td>
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U-NII-3

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

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

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

996-Tones

MIMO Antenna 1

U-NII-1

U-NII-1, 802.11ax HE80

Carrier frequency (MHz): 5210

U-NII-3

U-NII-3, 802.11ax HE80

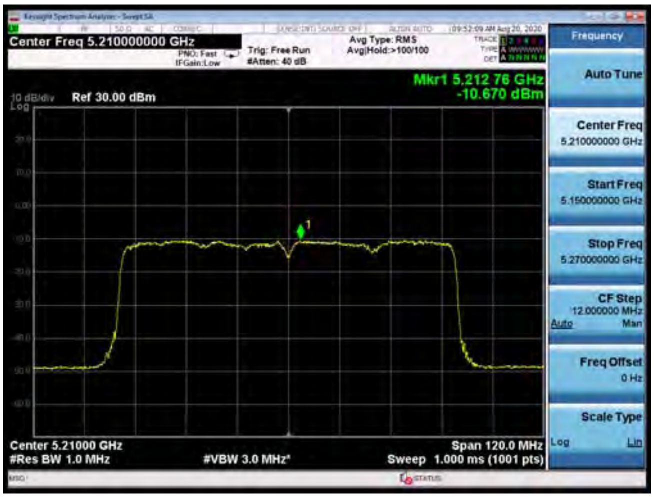
Carrier frequency (MHz): 5775

MIMO Antenna 2

U-NII-1

U-NII-1, 802.11ax HE80

Carrier frequency (MHz): 5210



U-NII-3

U-NII-3, 802.11ax HE80

Carrier frequency (MHz): 5775

SU Mode

SISO Antenna 1

U-NII-1

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):5220

U-NII-1, 802.11ax HE80

Carrier frequency (MHz): 5210

U-NII-1, 802.11ax HE20

Carrier frequency (MHz):5240

U-NII-3

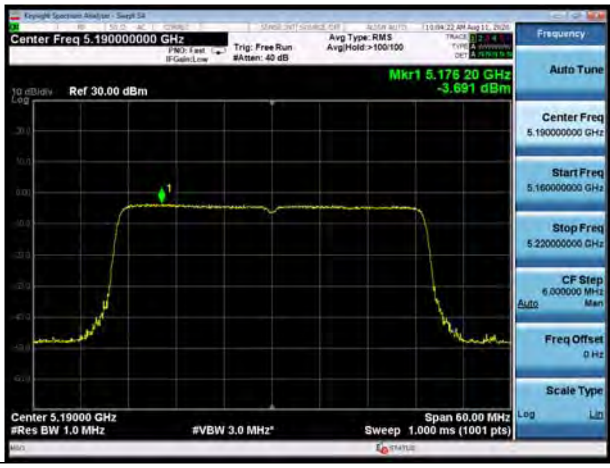
U-NII-3, 802.11ax HE20 Carrier frequency (MHz): 5745	U-NII-3, 802.11ax HE40 Carrier frequency (MHz): 5755
	
U-NII-3, 802.11ax HE20 Carrier frequency (MHz): 5785	U-NII-3, 802.11ax HE40 Carrier frequency (MHz): 5795
	
U-NII-3, 802.11ax HE20 Carrier frequency (MHz): 5825	U-NII-3, 802.11ax HE80 Carrier frequency (MHz): 5775
	

SISO Antenna 2

U-NII-1

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):5220

U-NII-1, 802.11ax HE80
Carrier frequency (MHz): 5210

U-NII-1, 802.11ax HE20

Carrier frequency (MHz):5240

U-NII-3

<table>
<tr><td>U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5745

</td>
<td>U-NII-3, 802.11ax HE40
Carrier frequency (MHz): 5755

</td></tr>
<tr><td>U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5785

</td>
<td>U-NII-3, 802.11ax HE40
Carrier frequency (MHz): 5795

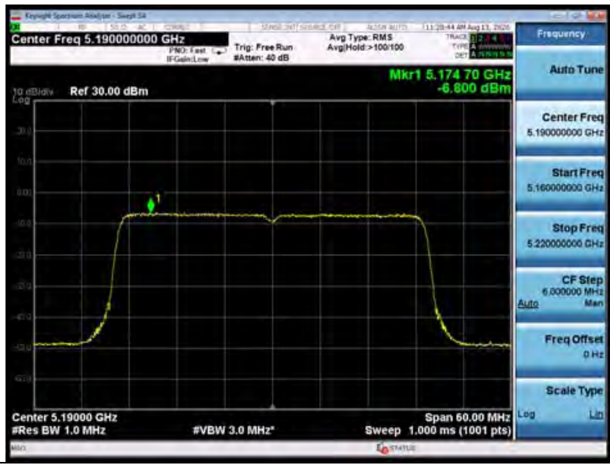
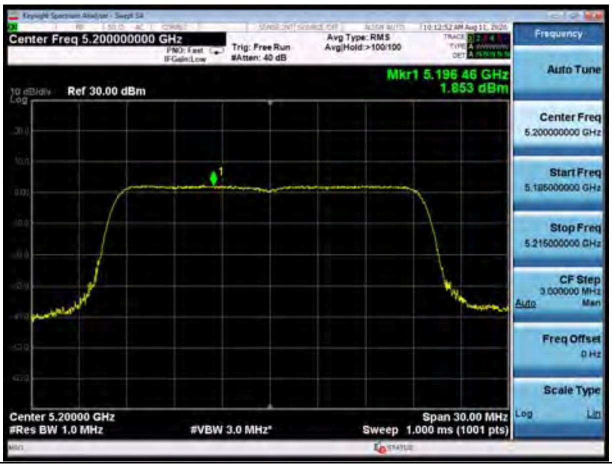
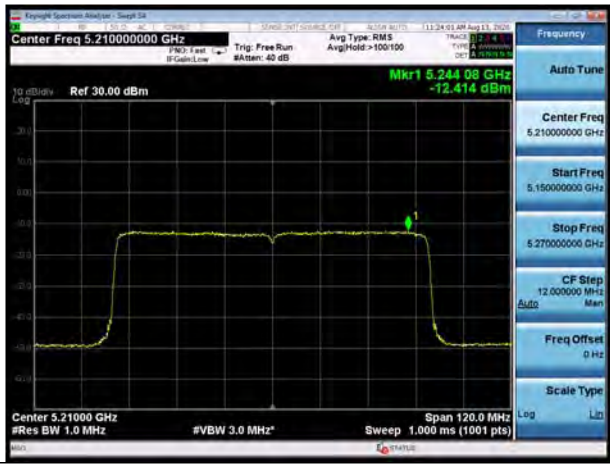
</td></tr>
<tr><td>U-NII-3, 802.11ax HE20
Carrier frequency (MHz): 5825

</td>
<td>U-NII-3, 802.11ax HE80
Carrier frequency (MHz): 5775

</td></tr>
</table>

MIMO Antenna 1(without Beamforming)

U-NII-1

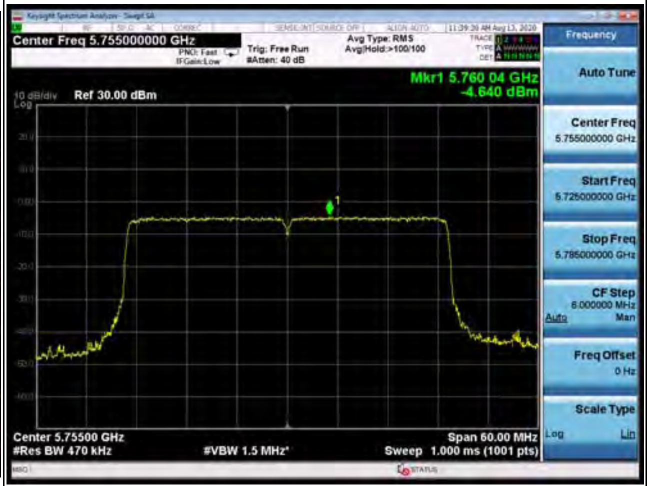
<table>
<tr><td>U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5180
</td><td>U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5190
</td></tr>
<tr><td>U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5200
</td><td>U-NII-1, 802.11ax HE40
Carrier frequency (MHz): 5230
</td></tr>
<tr><td>U-NII-1, 802.11ax HE20
Carrier frequency (MHz):5220
</td><td>U-NII-1, 802.11ax HE80
Carrier frequency (MHz): 5210
</td></tr>
</table>

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

U-NII-3

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

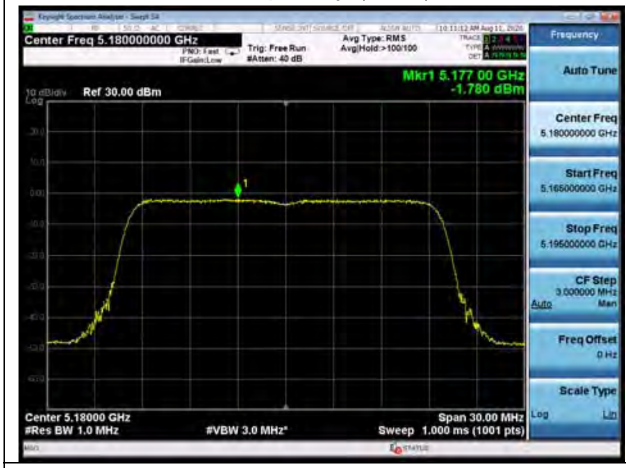
U-NII-3, 802.11ax HE80
Carrier frequency (MHz): 5775

MIMO Antenna 2(without Beamforming)

U-NII-1

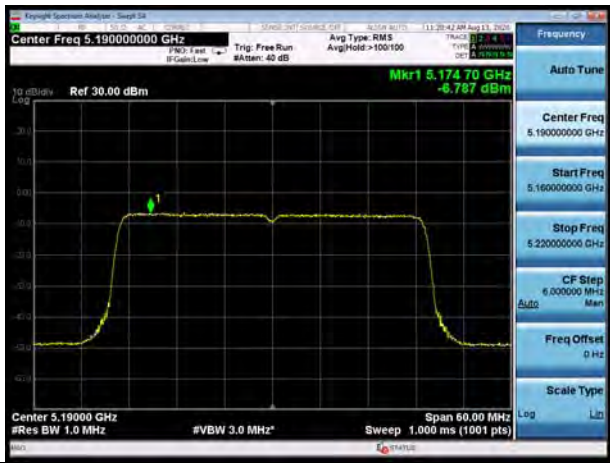
U-NII-1, 802.11ax HE20

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

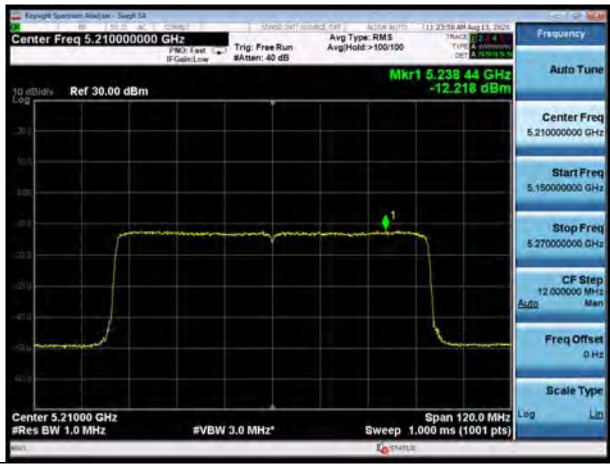
Carrier frequency (MHz): 5230

U-NII-1, 802.11ax HE20

Carrier frequency (MHz):5220

U-NII-1, 802.11ax HE80

Carrier frequency (MHz): 5210



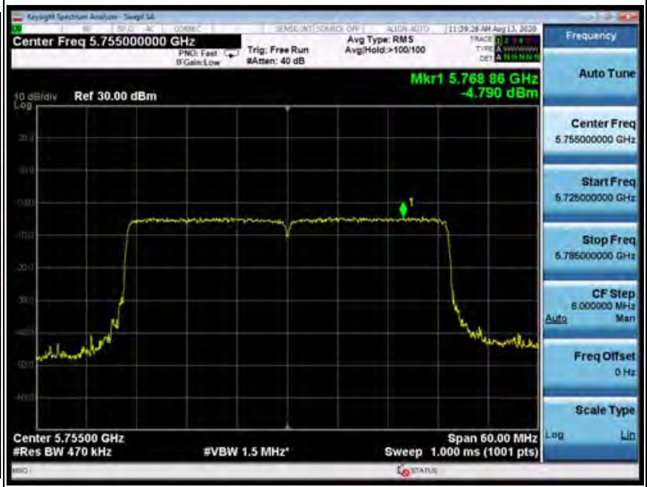
U-NII-1, 802.11ax HE20

Carrier frequency (MHz):5240

U-NII-3

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

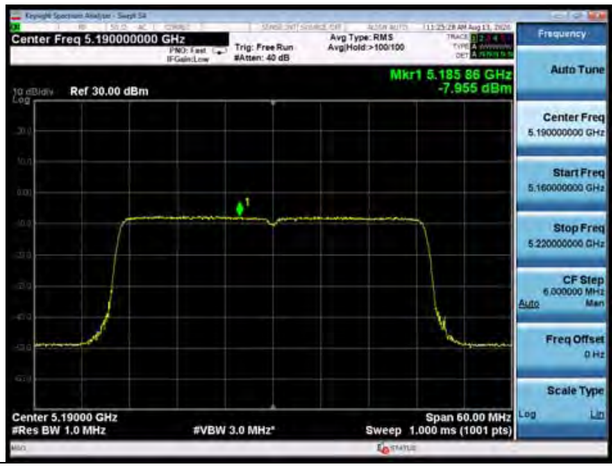
U-NII-3, 802.11ax HE80
Carrier frequency (MHz): 5775

MIMO Antenna 1(with Beamforming)

U-NII-1

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

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

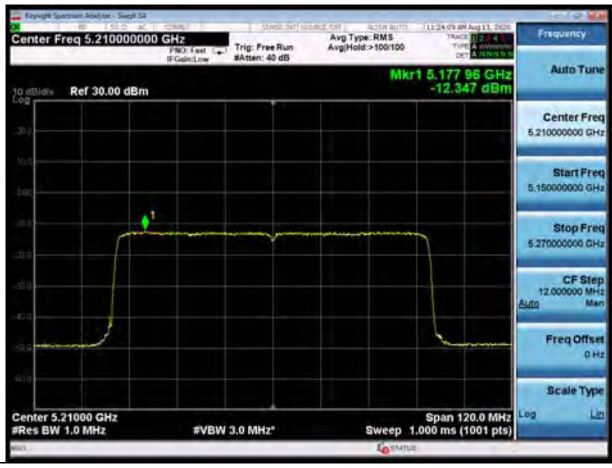


U-NII-1, 802.11ax HE20
Carrier frequency (MHz): 5200

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

U-NII-1, 802.11ax HE20
Carrier frequency (MHz):5220

U-NII-1, 802.11ax HE80
Carrier frequency (MHz): 5210



U-NII-1, 802.11ax HE20

Carrier frequency (MHz):5240

U-NII-3

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

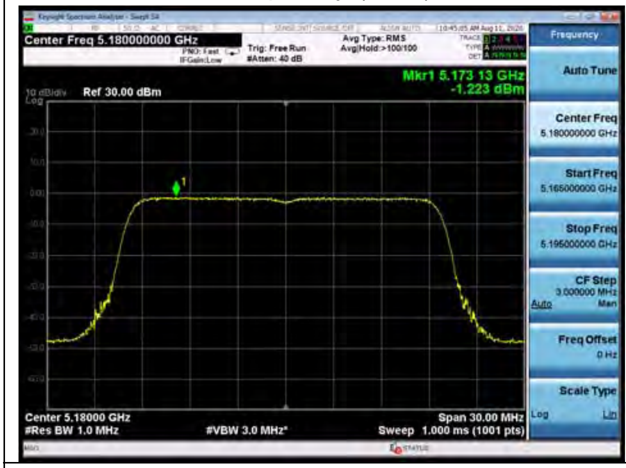
U-NII-3, 802.11ax HE80
Carrier frequency (MHz): 5775

MIMO Antenna 2(with Beamforming)

U-NII-1

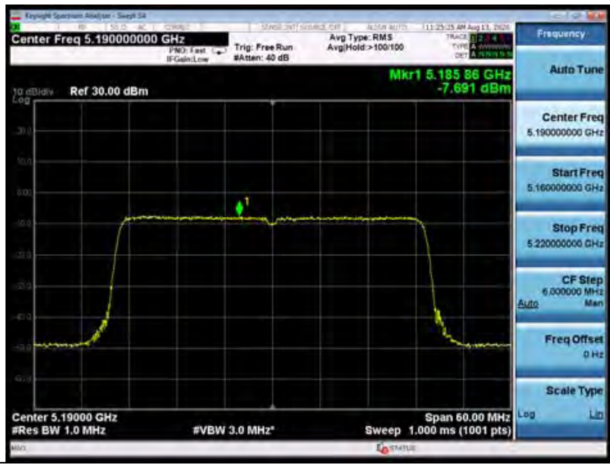
U-NII-1, 802.11ax HE20

Carrier frequency (MHz): 5180



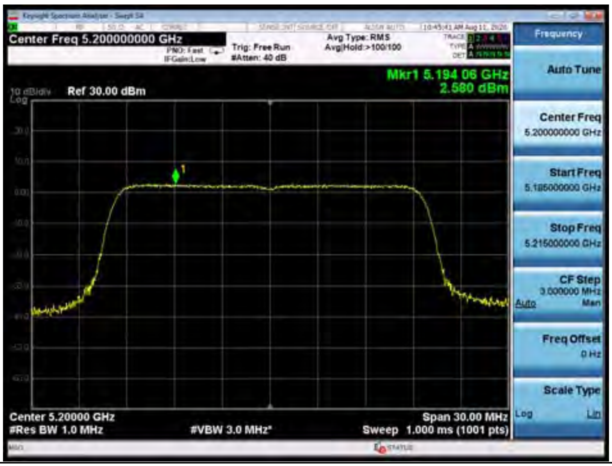
U-NII-1, 802.11ax HE40

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):5220

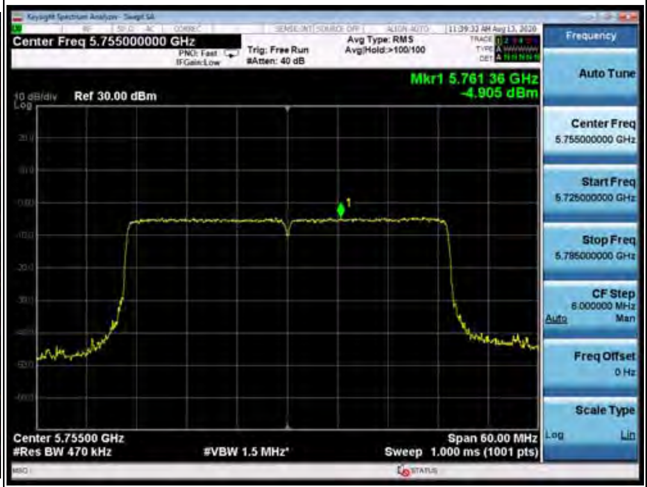
U-NII-1, 802.11ax HE80

Carrier frequency (MHz): 5210

U-NII-1, 802.11ax HE20

Carrier frequency (MHz):5240

U-NII-3

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
	

5.5. Unwanted Emission

Ambient condition

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

Method of Measurement

The test set-up was made in accordance to the general provisions of ANSI C63.10-2013. The Equipment Under Test (EUT) was set up on a non-conductive table in the semi-anechoic chamber. The test was performed at the distance of 3 m between the EUT and the receiving antenna. The radiated emissions measurements were made in a typical installation configuration.
Sweep the whole frequency band range from 9kHz to the 10th harmonic of the carrier, and the emissions less than 20 dB below the permissible value are reported.

During the test, the height of receive antenna shall be moved from 1 to 4 meters, and the antenna shall be performed under horizontal and vertical polarization. The turntable shall be rotated from 0 to 360 degrees for detecting the maximum of radiated spurious signal level. The measurements shall be repeated with orthogonal polarization of the test antenna. The data of cable loss and antenna factor has been calibrated in full testing frequency range before the testing.
Set the spectrum analyzer in the following:
Below 1GHz (detector: Peak and Quasi-Peak)
RBW=100kHz / VBW=300kHz / Sweep=AUTO
Above 1GHz (detector: Peak):
I) Peak emission levels are measured by setting the instrument as follows:
1) RBW = 1 MHz.
2) VBW ≥ [3 × RBW]
3) Detector = peak.
4) Sweep time = auto.
5) Trace mode = max hold.
6) Allow sweeps to continue until the trace stabilizes. Note that if the transmission is not continuous, then the time required for the trace to stabilize will increase by a factor of approximately 1 / D, where D is the duty cycle.

II) Average emission levels are measured by setting the instrument as follows:
a) RBW = 1 MHz.
b) VBW ≥ [3 × RBW].
c) Detector = RMS (power averaging), if [span / (# of points in sweep)] ≤ RBW / 2. Satisfying this condition can require increasing the number of points in the sweep or reducing the span. If the condition is not satisfied, then the detector mode shall be set to peak.
d) Averaging type = power (i.e., rms) (As an alternative, the detector and averaging type may be set for linear voltage averaging. Some instruments require linear display mode to use linear voltage averaging. Log or dB averaging shall not be used.)

e) Sweep time = auto.

f) Perform a trace average of at least 100 traces if the transmission is continuous. If the transmission is not continuous, then the number of traces shall be increased by a factor of 1 / D, where D is the duty cycle. For example, with 50% duty cycle, at least 200 traces shall be averaged. (If a specific emission is demonstrated to be continuous—i.e., 100% duty cycle—then rather than turning ON and OFF with the transmit cycle, at least 100 traces shall be averaged.)

g) If tests are performed with the EUT transmitting at a duty cycle less than 98%, then a correction factor shall be added to the measurement results prior to comparing with the emission limit, to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:

1) If power averaging (rms) mode was used in the preceding step e), then the correction factor is [10 log (1 / D)], where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 3 dB shall be added to the measured emission levels.

2) If linear voltage averaging mode was used in the preceding step e), then the correction factor is [20 log (1 / D)], where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 6 dB shall be added to the measured emission levels.

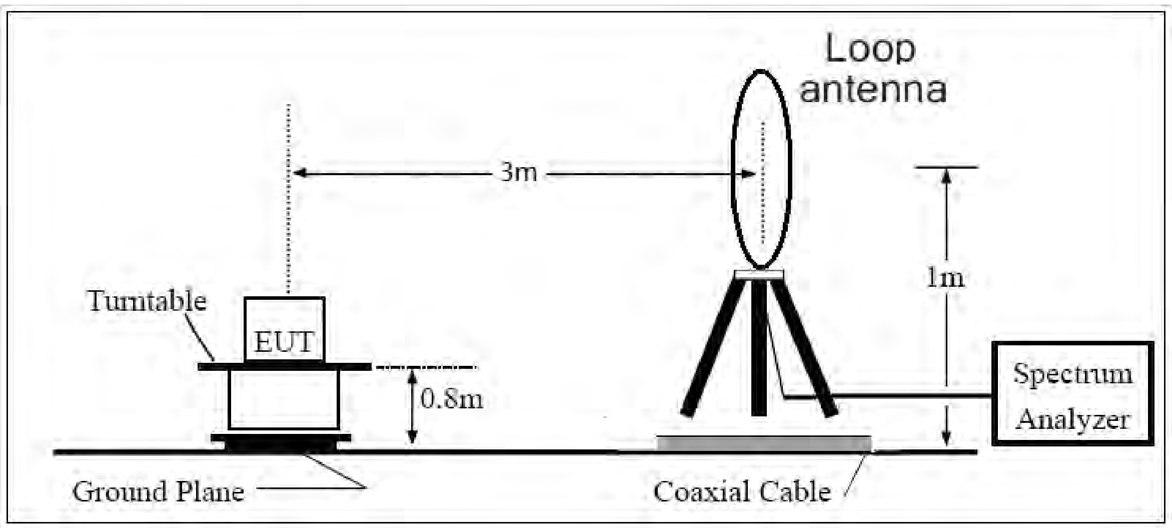
3) If a specific emission is demonstrated to be continuous (100% duty cycle) rather than turning ON and OFF with the transmit cycle, then no duty cycle correction is required for that emission.

Reduce the video bandwidth until no significant variations in the displayed signal are observed in subsequent traces, provided the video bandwidth is no less than 1 Hz. For regulatory requirements that specify averaging only over the transmit duration (e.g., digital transmission system [DTS] and Unlicensed National Information Infrastructure [U-NII]), the video bandwidth shall be greater than [1 / (minimum transmitter on time)] and no less than 1 Hz.

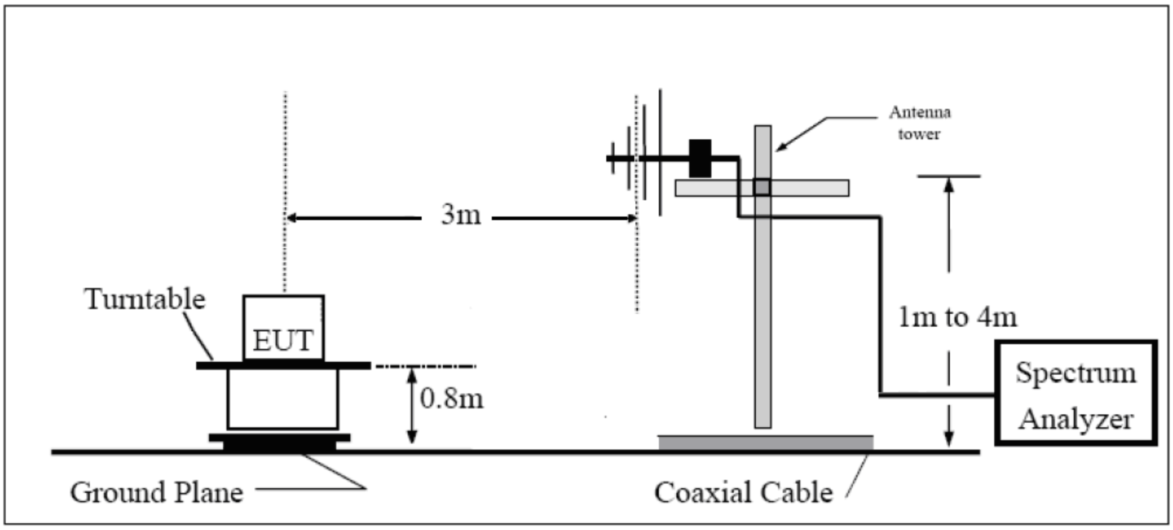
The field strength of spurious emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in stand-up position (Z axis) and the loop antenna is vertical, others antenna are vertical and horizontal.

The test is in transmitting mode.

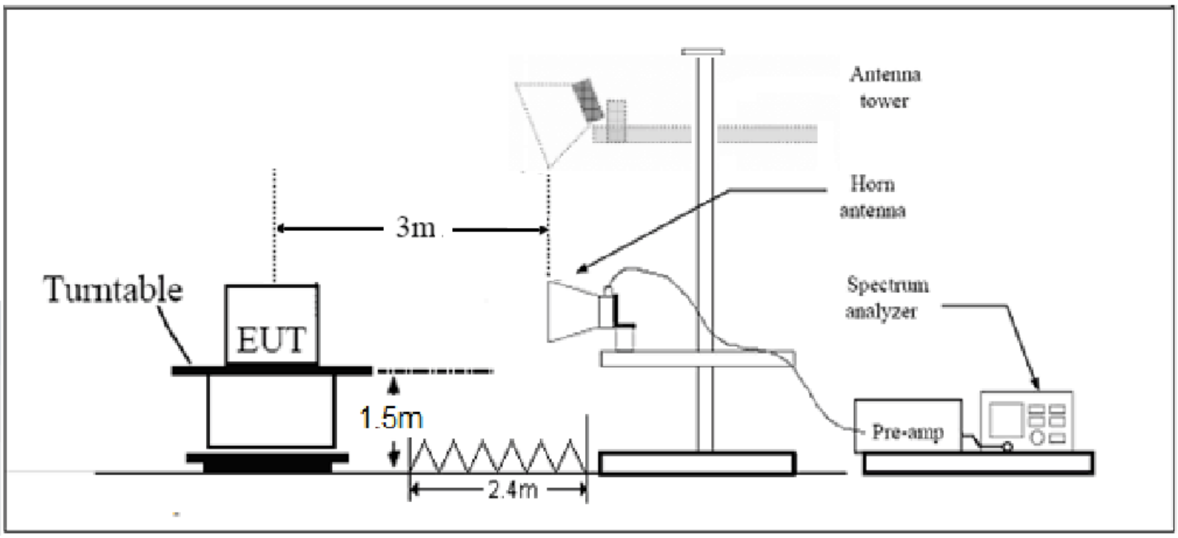
9KHz~~~30MHz



30MHz~~~ 1GHz



Above 1GHz



Note: Area side:2.4mX3.6m

Limits

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz(68.2dBμV/m).

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz(68.2dBμV/m).

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz(68.2dBμV/m).

Note: the following formula is used to convert the EIRP to field strength

§1、E[dBμV/m] = EIRP[dBm] - 20 log(d[meters]) + 104.77, where E = field strength and

d = distance at which field strength limit is specified in the rules;

§2、E[dBμV/m] = EIRP[dBm] + 95.2, for d = 3 meters

(4) Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table.

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)
0.009–0.490	2400/F(kHz)	/
0.490–1.705	24000/F(kHz)	/
1.705–30.0	30	/
30-88	100	40
88-216	150	43.5
216-960	200	46
Above960	500	54