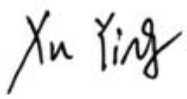
RF TEST REPORT

Applicant	Xiaomi Communications Co., Ltd.
FCC ID	2AFZZRA68G
Product	Mobile Phone
Brand	Redmi
Model	23117RA68G
Report No.	R2309A0986-R7
Issue Date	October 24, 2023

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 15E (2022)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.



Prepared by: Xu Ying *Approved by: Xu Kai*

TA Technology (Shanghai) Co., Ltd.

Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China
TEL: +86-021-50791141/2/3
FAX: +86-021-50791141/2/3-8000

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Summary of measurement results

Number	Test Case	Clause in FCC rules	Verdict
1	Average output power	15.407(a)	PASS
2	Occupied bandwidth	15.407(e)	PASS
3	Frequency stability	15.407(g)	PASS
4	Power spectral density	15.407(a)	PASS
5	Unwanted Emissions	15.407(b)	PASS
6	Conducted Emissions	15.207	PASS
Date of Testing: September 23, 2023 ~ October 7, 2023 Date of Sample Received: September 20, 2023			
Note: PASS: The EUT complies with the essential requirements in the standard. FAIL: The EUT does not comply with the essential requirements in the standard. All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.			

1. Test Laboratory

1.1. Notes of the test report

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

1.2. Test facility

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

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform 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:	Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China
City:	Shanghai
Post code:	201201
Country:	P. R. China
Contact:	Xu Kai
Telephone:	+86-021-50791141/2/3
Fax:	+86-021-50791141/2/3-8000
Website:	http://www.ta-shanghai.com
E-mail:	xukai@ta-shanghai.com

2. General Description of Equipment under Test

2.1. Applicant and Manufacturer Information

Applicant	Xiaomi Communications Co., Ltd.
Applicant address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
Manufacturer	Xiaomi Communications Co., Ltd.
Manufacturer address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

2.2. General information

EUT Description			
Model	23117RA68G		
IMEI	Conducted	IMEI 1: 863357060096302 IMEI 2: 863357060096310	
	Radiated	Radiated Emission	IMEI 1: 863357060105648 IMEI 2: 863357060105655
		Conducted Emission	IMEI 1: 863357060104481 IMEI 2: 863357060106499
Hardware Version	135100N6M0A01		
Software Version	MIUI 14		
Antenna Type	PIFA Antenna		
Antenna Connector	A permanently attached antenna (meet with the standard FCC Part 15.203 requirement)		
Antenna Gain	U-NII-1	-1.06 dBi	
	U-NII-2A	-0.90 dBi	
	U-NII-2C	-1.66 dBi	
	U-NII-3	-1.35 dBi	
Operating Frequency Range(s)	U-NII-1: 5150MHz-5250MHz U-NII-2A: 5250MHz-5350MHz U-NII-2C: 5470MHz-5725MHz U-NII-3: 5725MHz-5850MHz		
Modulation Type	802.11a: OFDM 802.11n (HT20/HT40): OFDM 802.11ac (VHT20/VHT40/VHT80): OFDM		
Max. Output Power	17.80 dBm		
Testing temperature range	-30 ° C to 50° C		
Operating temperature range	0 ° C to 40 ° C		

Operating voltage range	3.6 V to 4.48 V
State DC voltage	3.89 V

Note:
1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.
2. This device support automatically discontinue transmission, while the device is not transmitting any information, the device can automatically discontinue transmission and become standby mode for power saving. The device can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.
3. (a) Manufacturers implements security features in any digitally modulated devices capable of operating in any of the U-NII bands, so that third parties are not able to reprogram the device to operate outside the parameters for which the device was certified. The software prevents the user from operating the transmitter with operating frequencies, output power, modulation types or other radio frequency parameters outside those that were approved for the device. Manufacturers uses means including, but not limited to the use of a private network that allows only authenticated users to download software, electronic signatures in software or coding in hardware that is decoded by software to verify that new software can be legally loaded into a device to meet these requirements and must describe the methods in their application for equipment authorization.
(b) Manufacturers take steps to ensure that DFS functionality cannot be disabled by the operator of the U-NII device.

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 (2022) Unlicensed National Information Infrastructure Devices

ANSI C63.10-2013

Reference standard:

KDB 789033 D02 General UNII Test Procedures New Rules v02r01

4. Test Configuration

Test Mode

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

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

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

Worst-case data rates are shown as following table.

Mode	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0

Wireless Technology and Frequency Range

Wireless Technology		Bandwidth	Channel	Frequency
Wi-Fi	U-NII-1	20 MHz	36	5180MHz
			40	5200MHz
			44	5220MHz
			48	5240MHz
		40 MHz	38	5190MHz
			46	5230MHz
		80 MHz	42	5210MHz
	U-NII-2A	20 MHz	52	5260MHz
			56	5280MHz
			60	5300MHz
			64	5320MHz
		40 MHz	54	5270MHz
			62	5310MHz
		80 MHz	58	5290MHz
	U-NII-2C	20 MHz	100	5500MHz
			104	5520MHz
			108	5540MHz
			112	5560MHz
			116	5580MHz
			120	5600MHz
			124	5620MHz
			128	5640MHz
			132	5660MHz
			136	5680MHz
			140	5700MHz
			144	5720MHz
		40 MHz	102	5510MHz
			110	5550MHz
			118	5590MHz
			126	5630MHz
			134	5670MHz
			142	5710MHz
		80 MHz	106	5530MHz
			122	5610MHz
			138	5690MHz
	U-NII-3	20 MHz	149	5745MHz
			153	5765MHz
			157	5785MHz

			161	5805MHz
			165	5825MHz
		40 MHz	151	5755MHz
			159	5795MHz
		80 MHz	155	5775MHz
Does this device support TPC Function? ☐Yes ☒No				
Does this device support TDWR Band? ☒Yes ☐No				

5. Test Case Results

5.1. Occupied Bandwidth

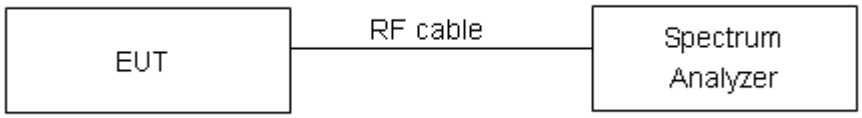
Ambient condition

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

Method of Measurement

The EUT was connected to the spectrum analyzer through an external attenuator (20dB) and a known loss cable.
For U-NII-1/U-NII-2A/U-NII-2C, set RBW ≈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

For U-NII-1/U-NII-2A/U-NII-2C
No specific occupied bandwidth requirements in Part 15.407.
For U-NII-3
Rule FCC Part §15.407(e)
Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Measurement Uncertainty

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

Test Results:

U-NII-1

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5180	16.556	20.873	PASS
	5200	16.602	20.048	PASS
	5240	16.594	20.430	PASS
802.11n HT20	5180	17.641	20.755	PASS
	5200	17.637	21.805	PASS
	5240	17.650	22.094	PASS
802.11n HT40	5190	36.051	40.754	PASS
	5230	36.089	41.079	PASS
802.11ac VHT20	5180	17.602	20.180	PASS
	5200	17.647	20.475	PASS
	5240	17.642	20.144	PASS
802.11ac VHT40	5190	35.978	40.822	PASS
	5230	36.057	40.615	PASS
802.11ac VHT80	5210	75.357	81.206	PASS

U-NII-2A

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5260	16.531	20.000	PASS
	5300	16.575	20.746	PASS
	5320	16.525	21.298	PASS
802.11n HT20	5260	17.616	21.514	PASS
	5300	17.634	21.745	PASS
	5320	17.623	20.823	PASS
802.11n HT40	5270	36.053	40.760	PASS
	5310	36.020	40.430	PASS
802.11ac VHT20	5260	17.598	20.279	PASS
	5300	17.640	20.260	PASS
	5320	17.622	20.124	PASS
802.11ac VHT40	5270	36.064	40.491	PASS
	5310	36.023	40.557	PASS
802.11ac VHT80	5290	75.313	80.686	PASS

U-NII-2C

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5500	16.537	21.546	PASS
	5600	16.567	23.137	PASS
	5700	16.577	22.504	PASS
	5720	16.594	22.557	PASS
802.11n HT20	5500	17.631	21.335	PASS
	5600	17.672	23.345	PASS
	5700	17.648	23.056	PASS
	5720	17.652	22.482	PASS
802.11n HT40	5510	36.004	40.748	PASS
	5590	36.067	40.060	PASS
	5670	36.035	40.858	PASS
	5710	36.005	40.847	PASS
802.11ac VHT20	5500	17.604	20.156	PASS
	5600	17.629	20.183	PASS
	5700	17.587	20.204	PASS
	5720	17.665	20.412	PASS
802.11ac VHT40	5510	35.996	40.656	PASS
	5590	36.099	40.210	PASS
	5670	35.993	40.505	PASS
	5710	35.988	40.770	PASS
802.11ac VHT80	5610	75.373	81.100	PASS
	5690	75.387	80.848	PASS

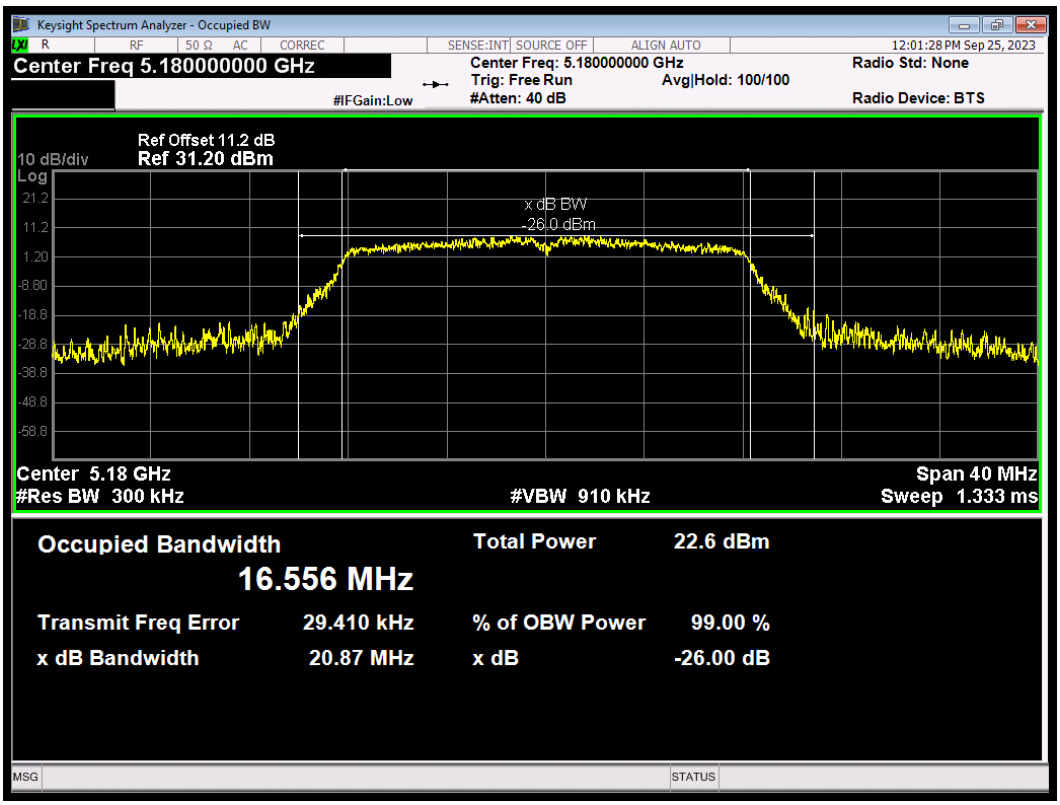
U-NII-3

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11a	5720	16.521	15.245	500	PASS
	5745	16.638	15.253	500	PASS
	5785	16.620	15.067	500	PASS
	5825	16.554	15.075	500	PASS
802.11n HT20	5720	17.649	13.843	500	PASS
	5745	17.646	13.190	500	PASS
	5785	17.668	12.378	500	PASS
	5825	17.646	13.821	500	PASS
802.11n HT40	5710	36.118	35.049	500	PASS
	5755	36.022	35.082	500	PASS
	5795	36.039	35.115	500	PASS
802.11ac VHT20	5720	17.633	13.864	500	PASS
	5745	17.612	13.842	500	PASS
	5785	17.642	13.796	500	PASS
	5825	17.653	14.025	500	PASS
802.11ac VHT40	5710	36.053	33.868	500	PASS
	5755	36.037	33.875	500	PASS
	5795	36.080	33.847	500	PASS
802.11ac VHT80	5690	75.366	75.070	500	PASS
	5775	75.315	75.114	500	PASS

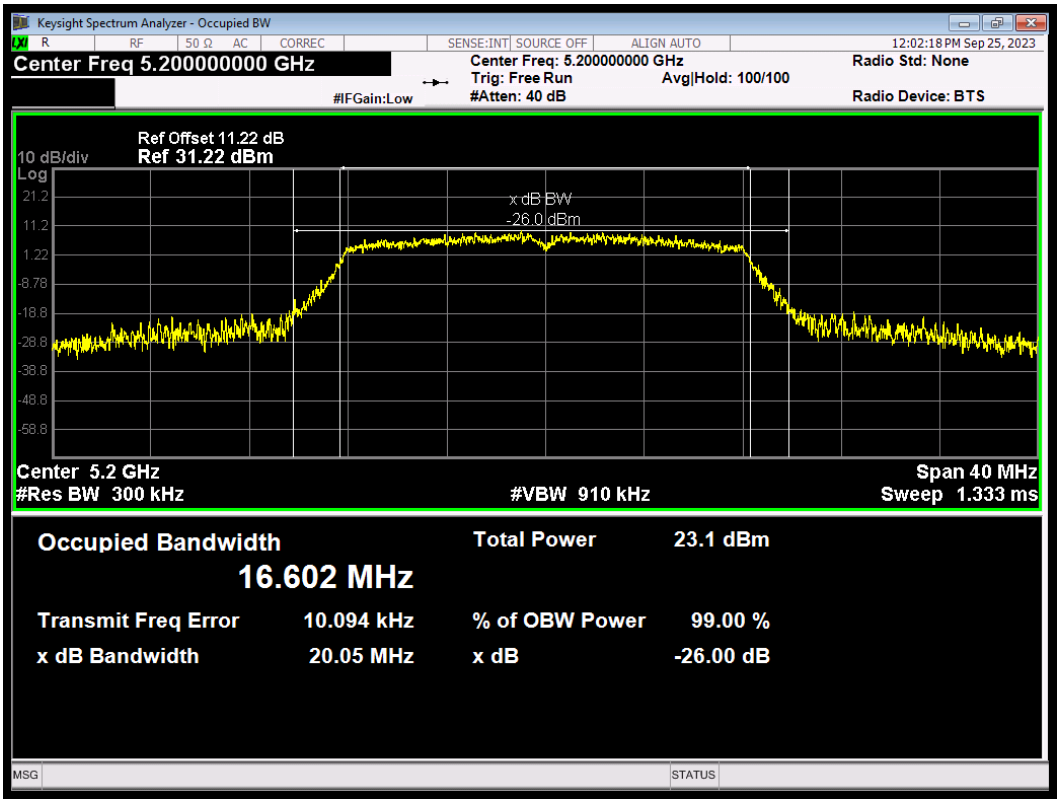
99% bandwidth

U-NII-1

OBW 802.11a 5180MHz



OBW 802.11a 5200MHz



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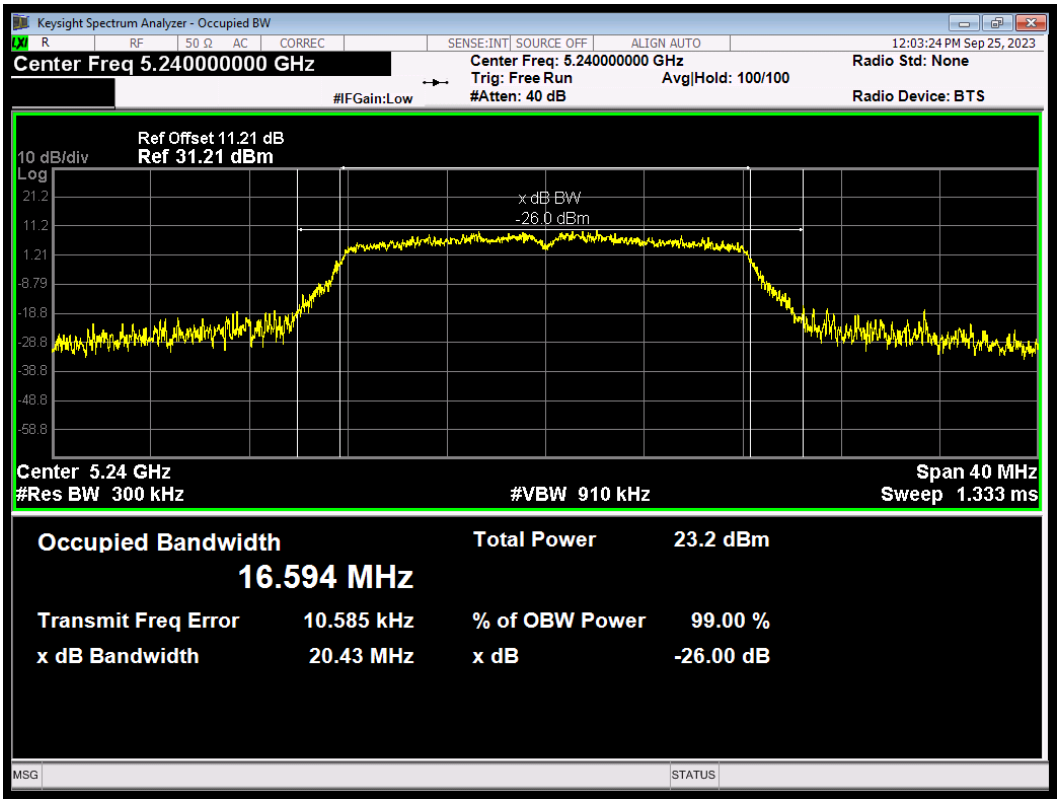

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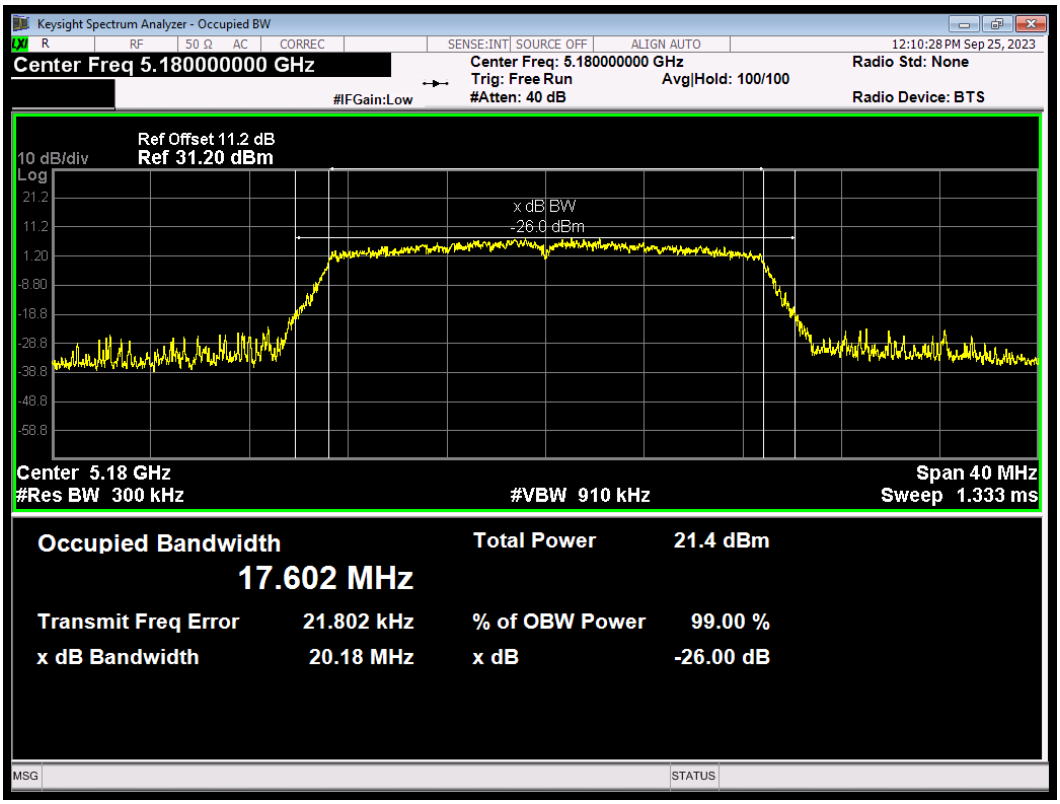

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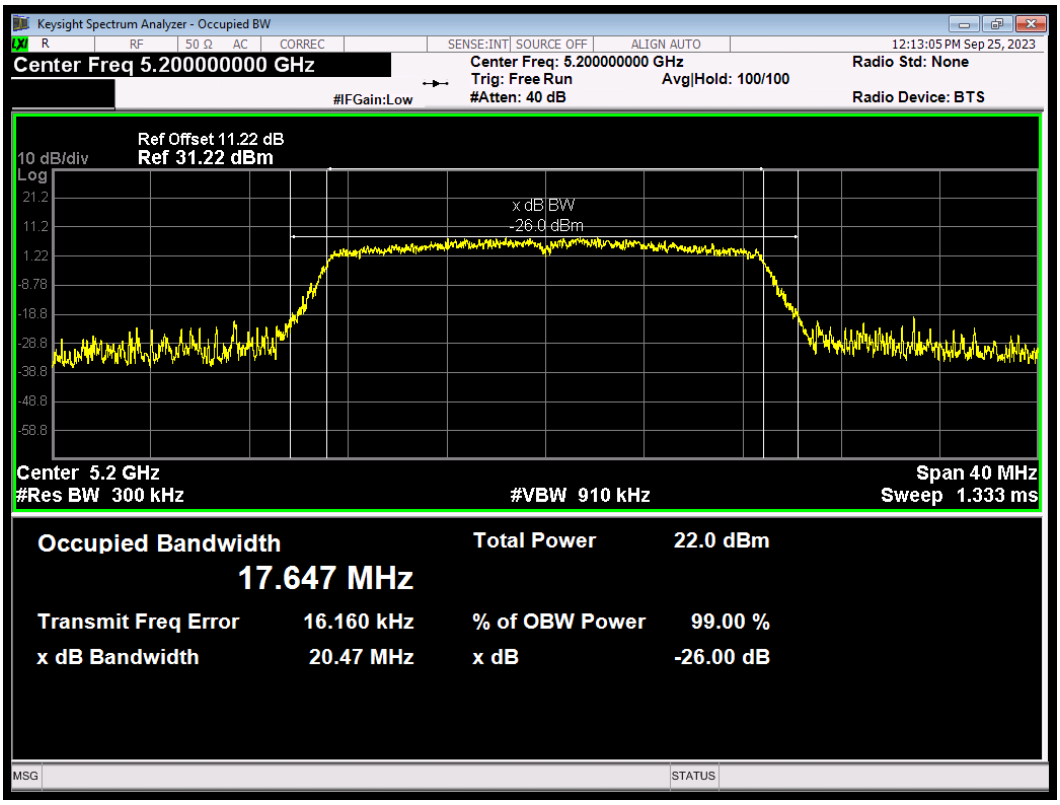

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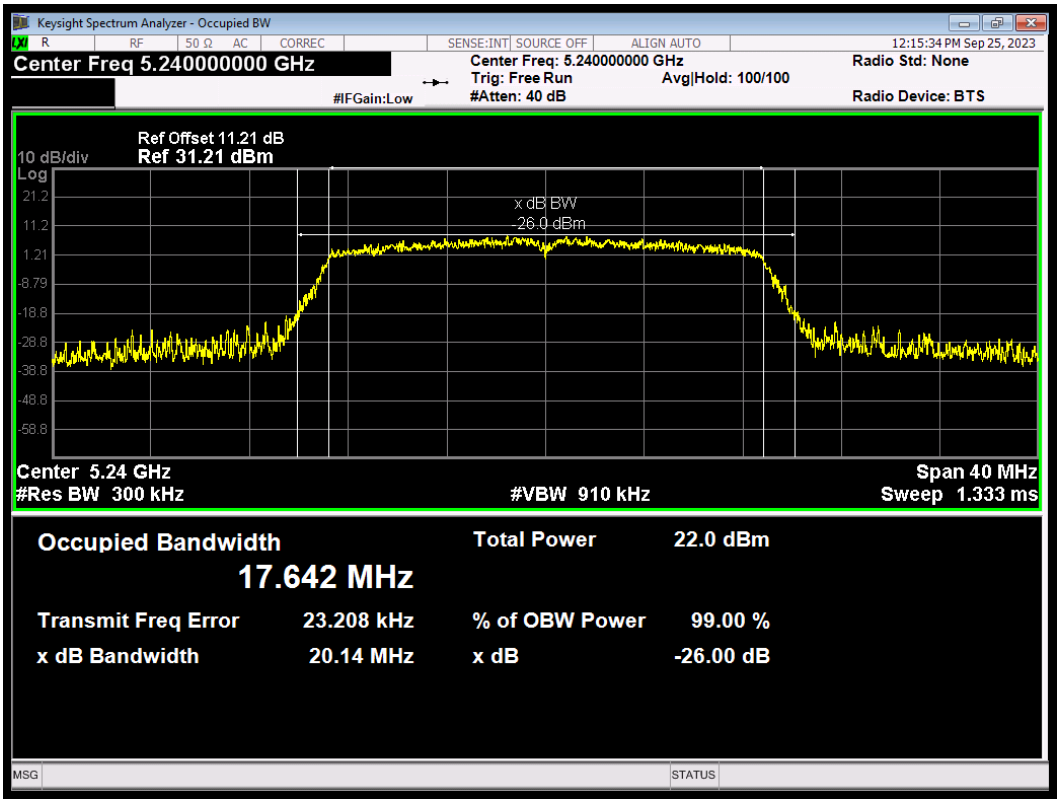

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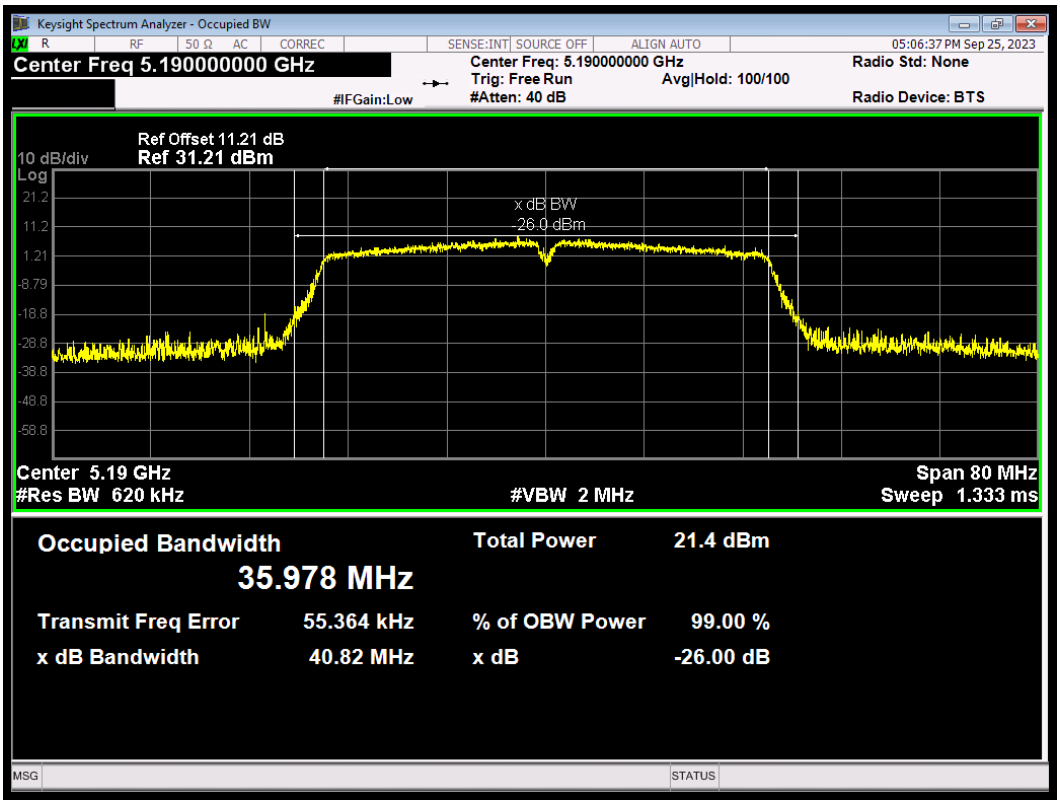

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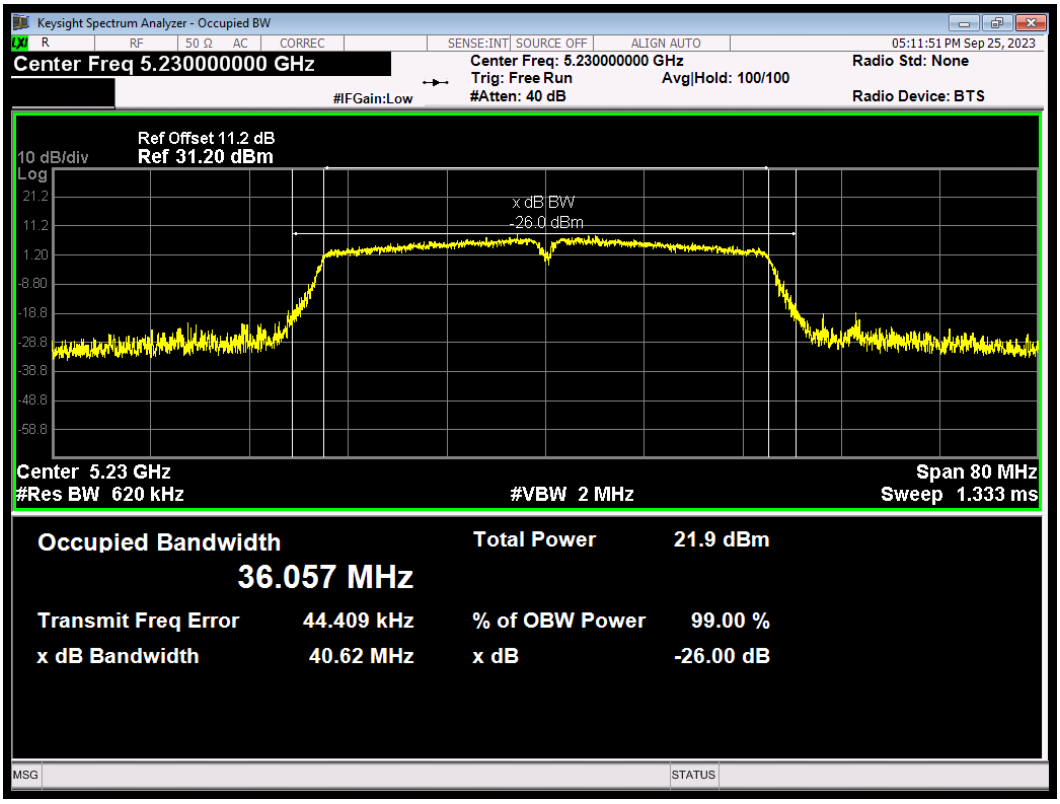

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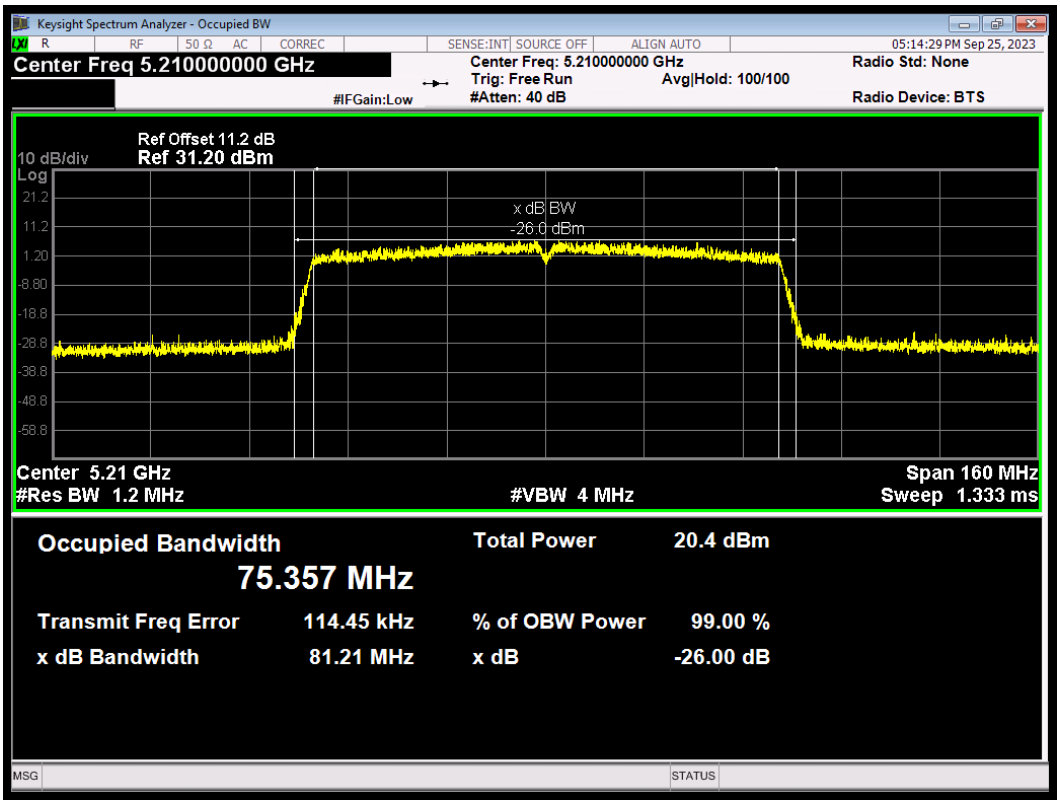
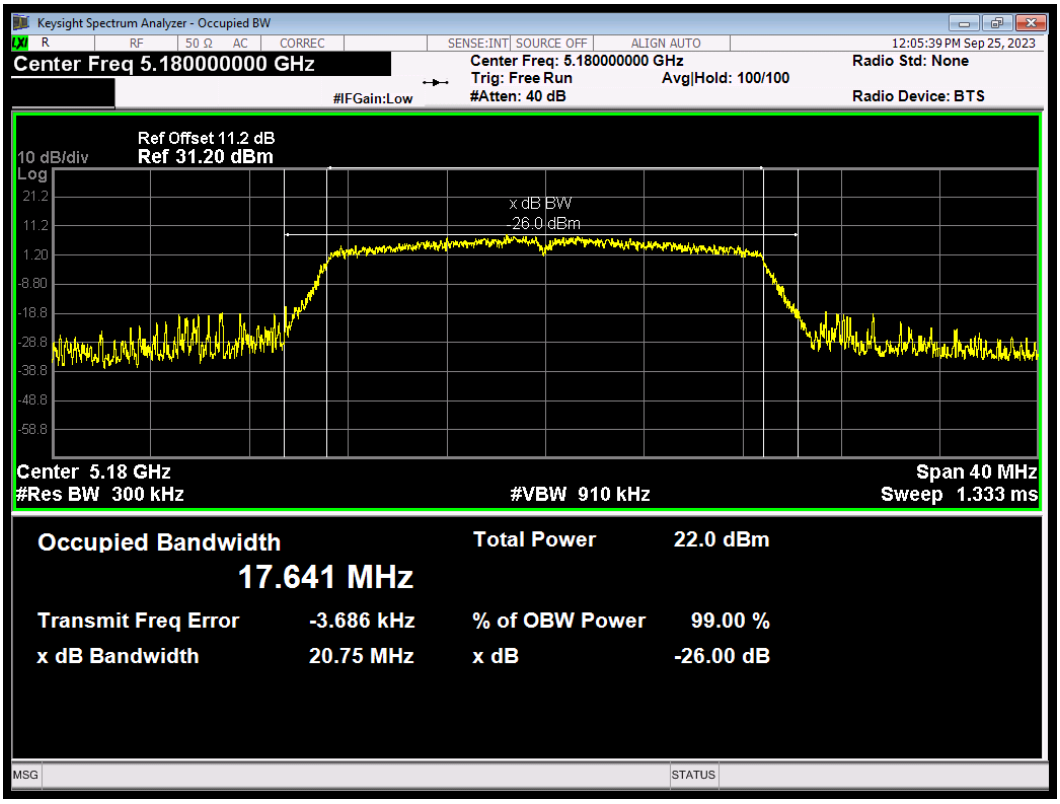


OBW 802.11n(HT20) 5180MHz



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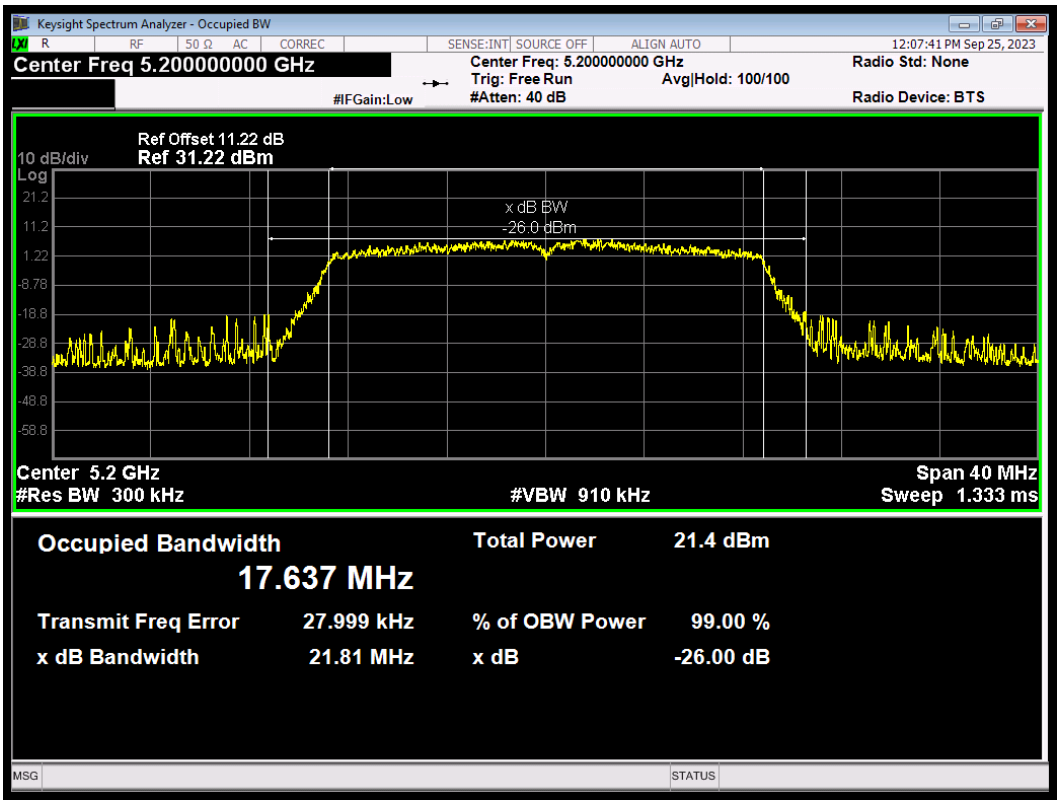

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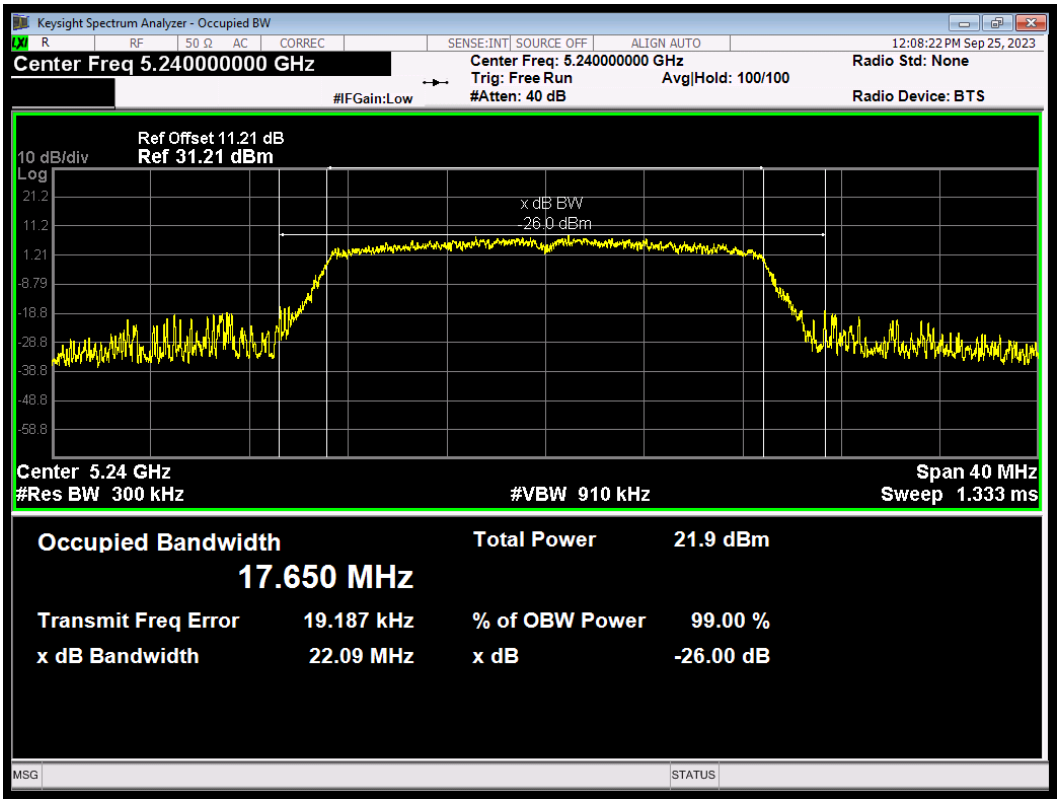

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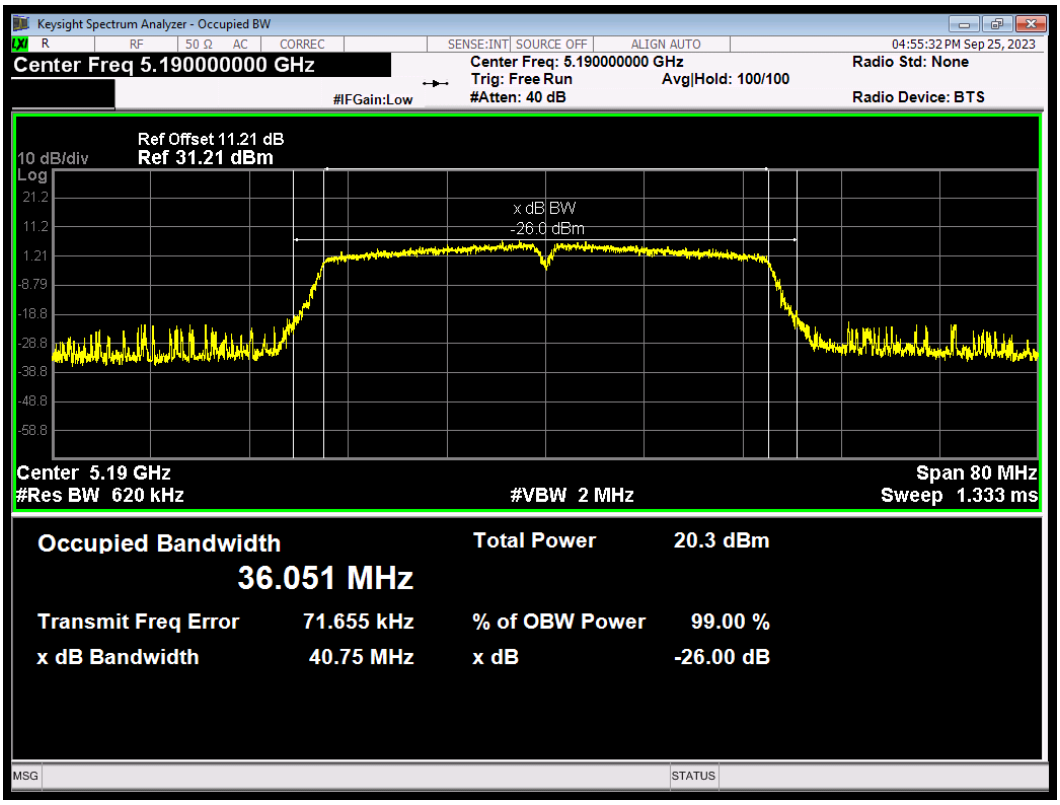

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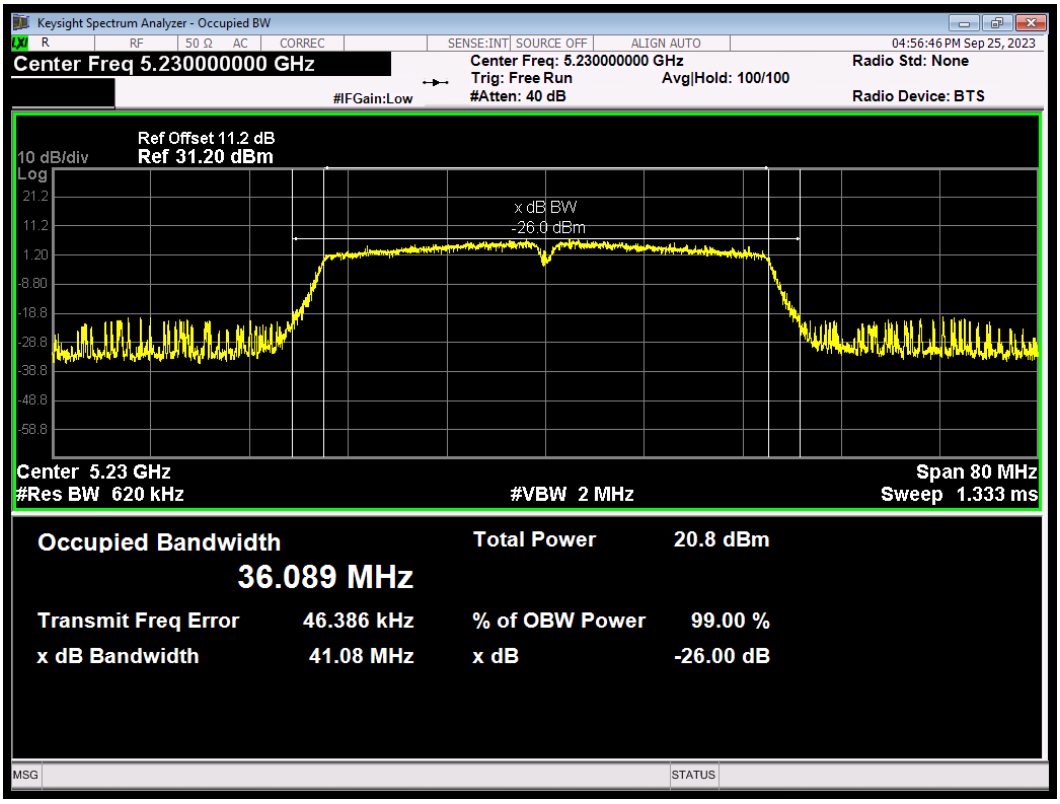
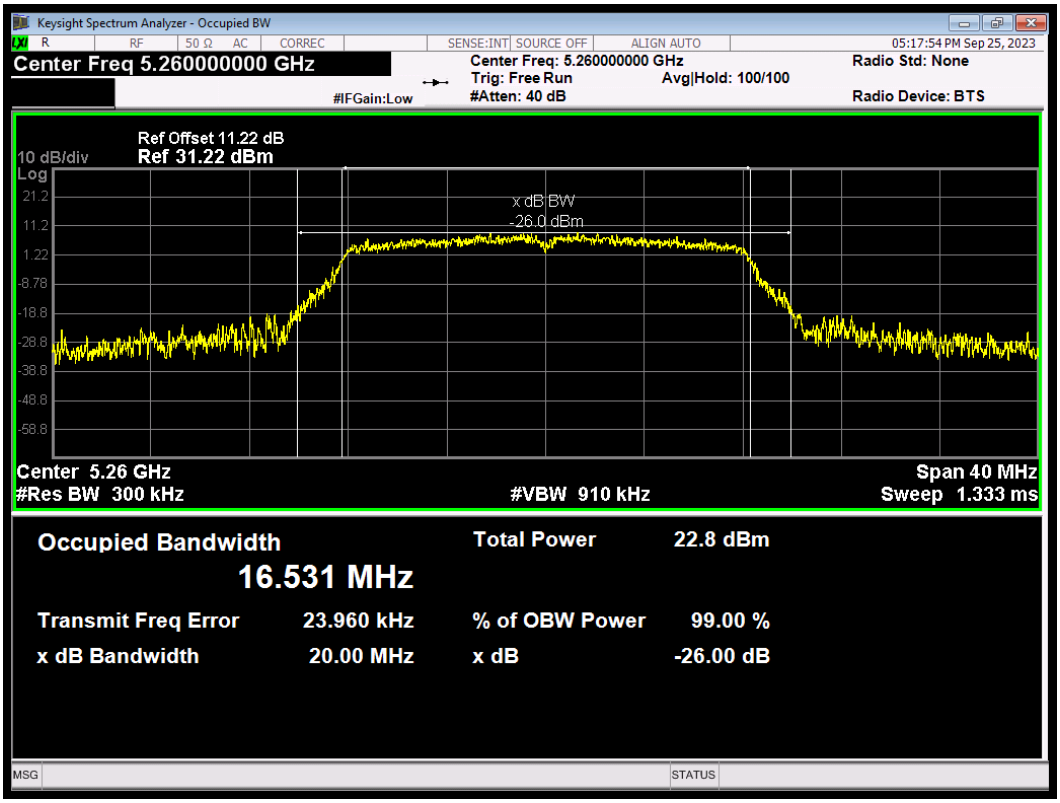
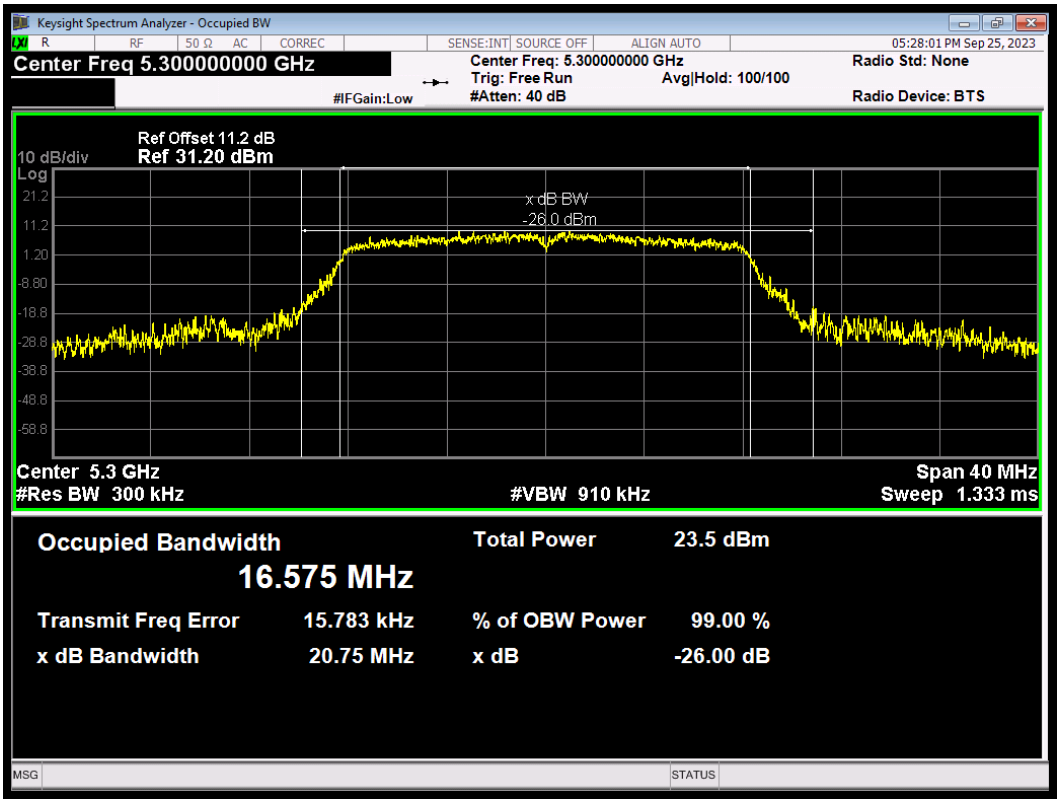


U-NII-2A

OBW 802.11a 5260MHz



OBW 802.11a 5300MHz



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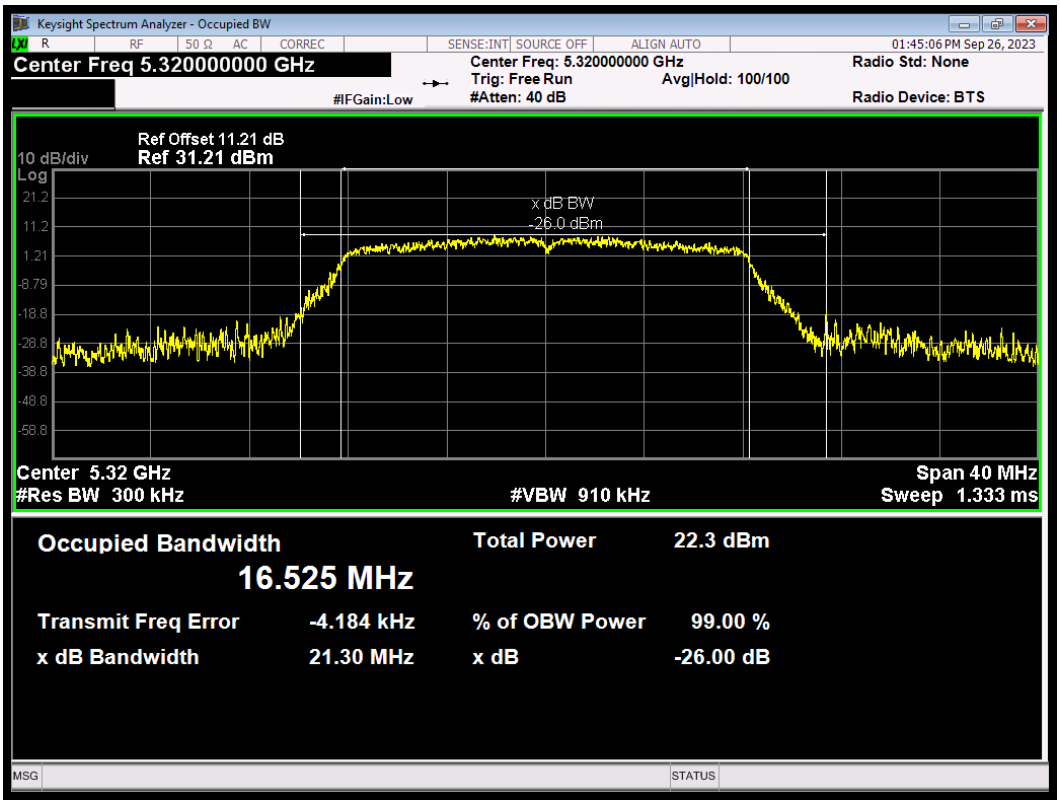
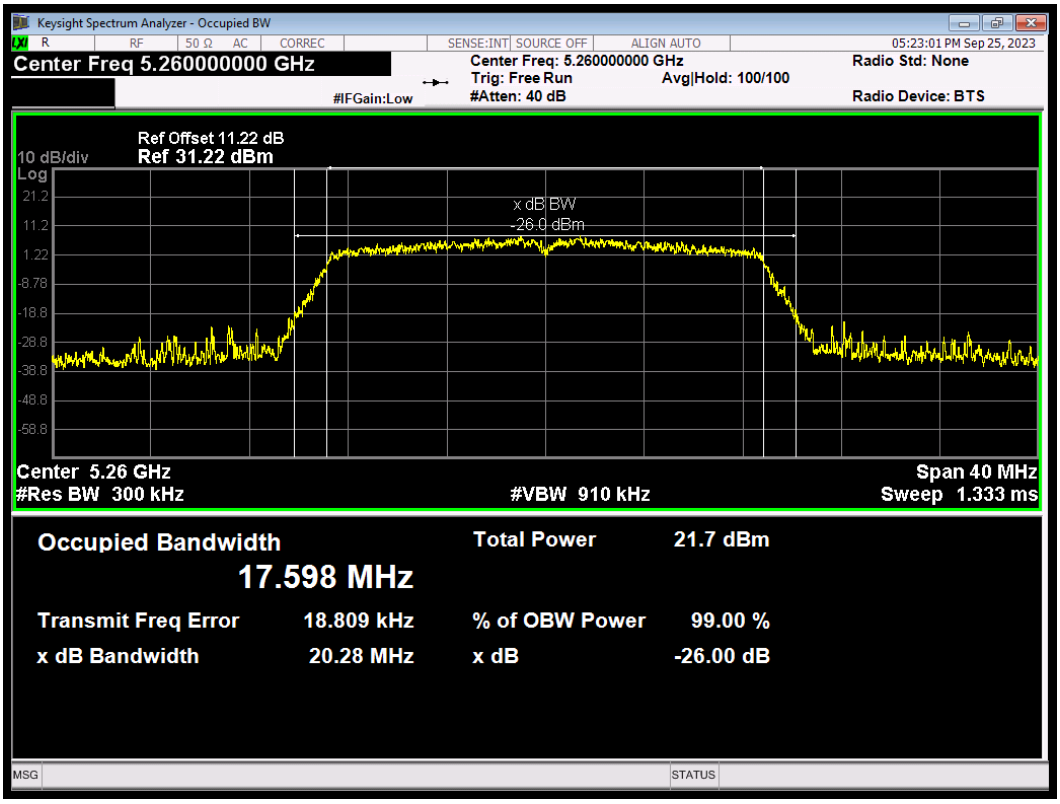


OBW 802.11ac(VHT20) 5260MHz



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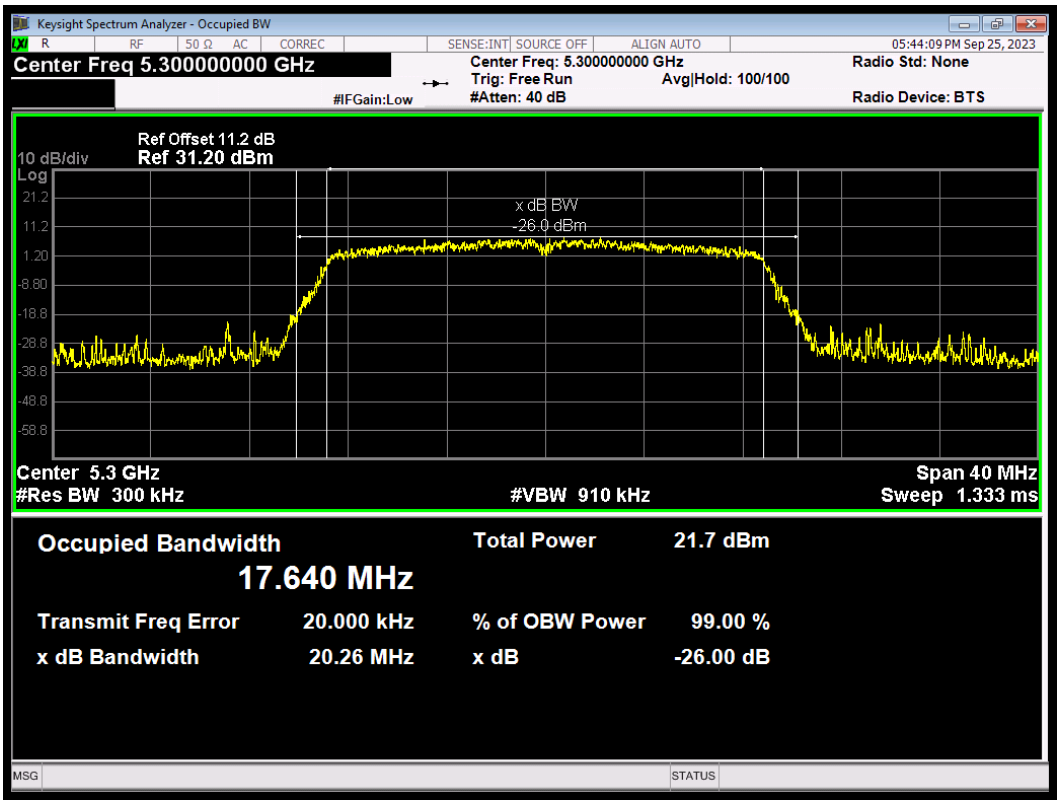

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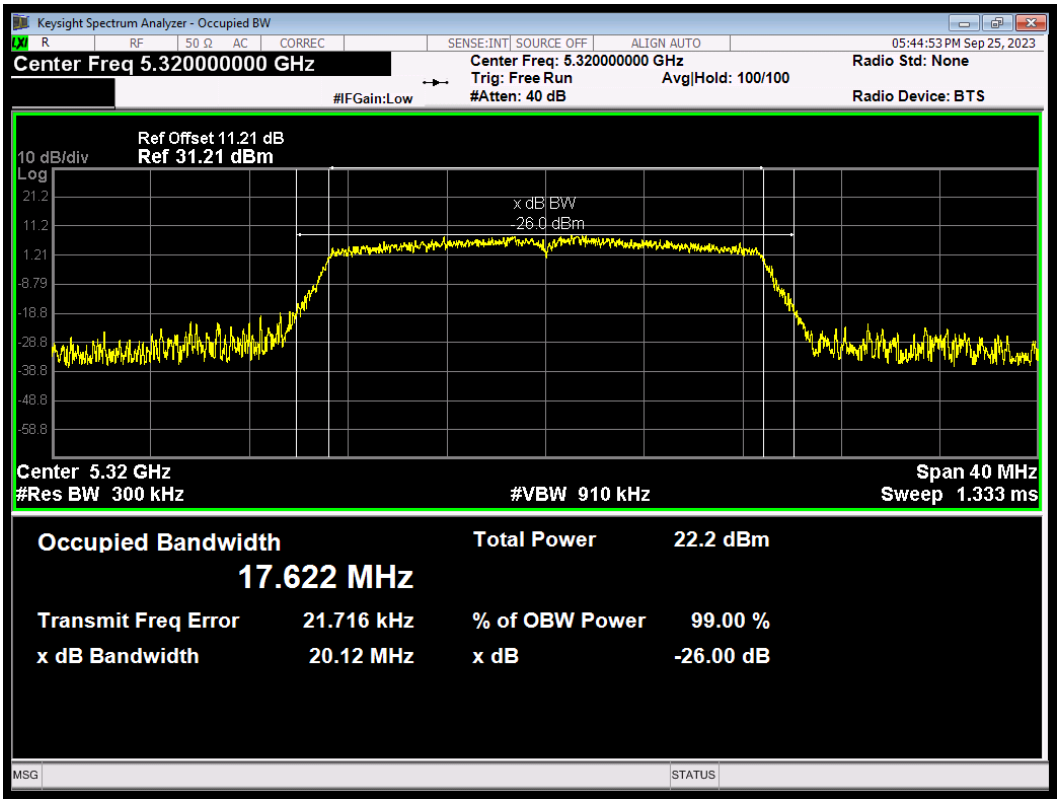

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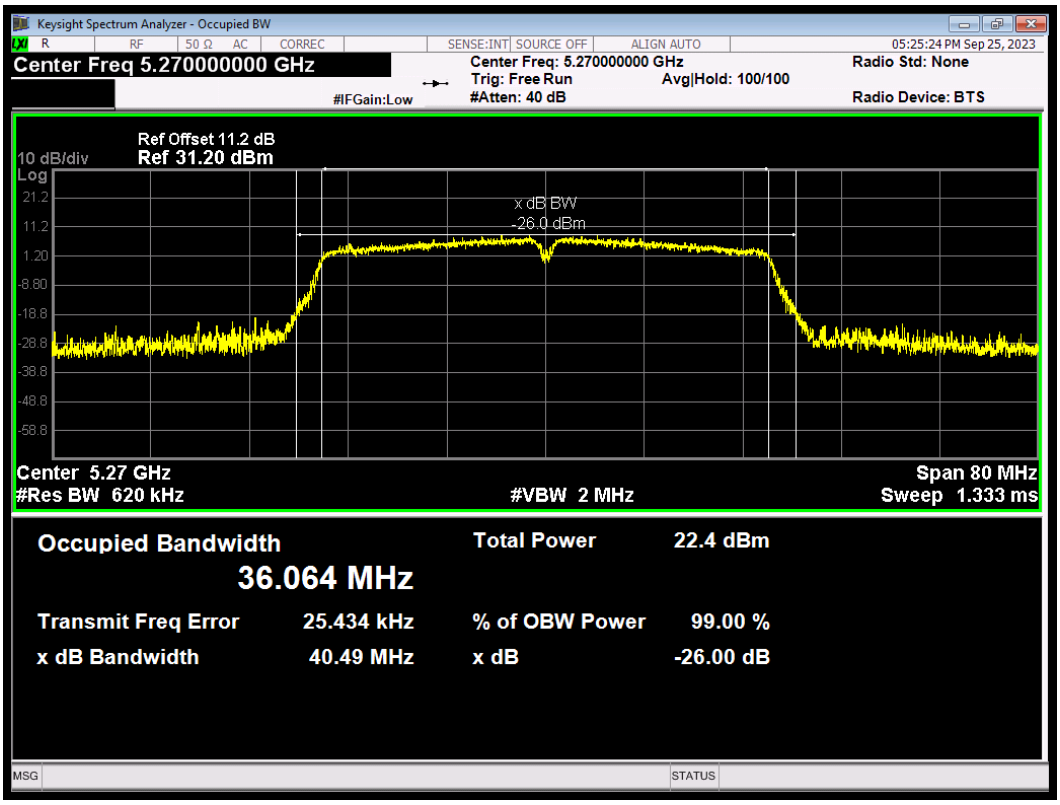

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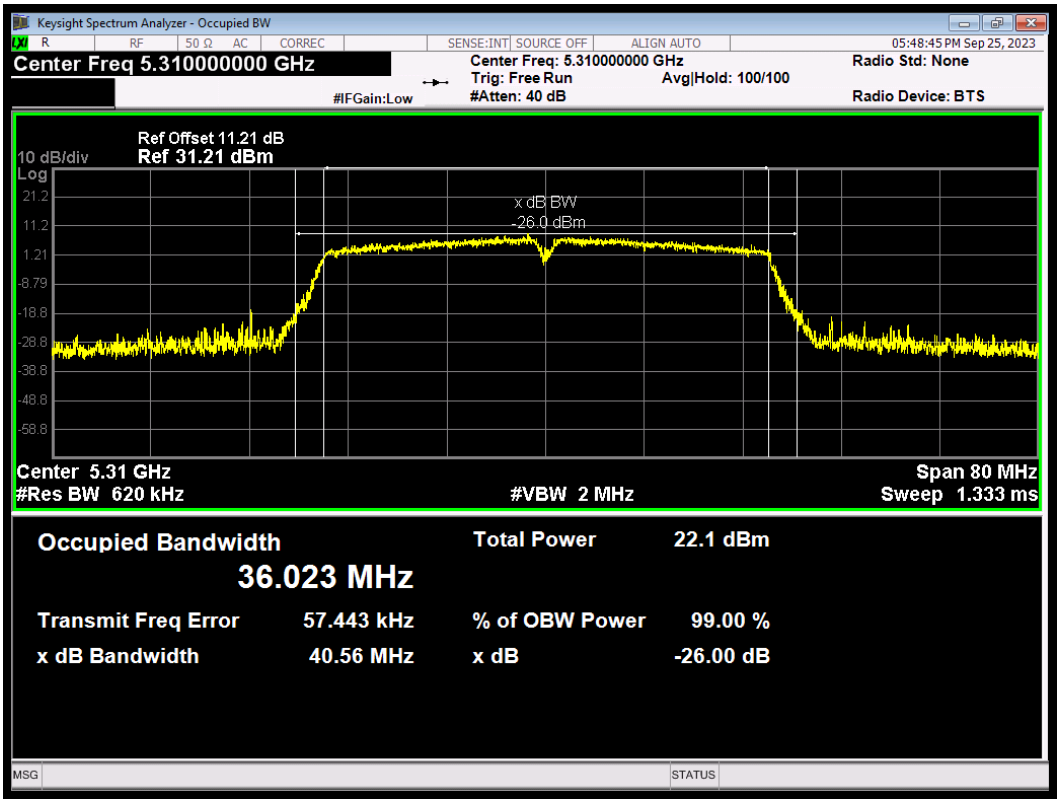

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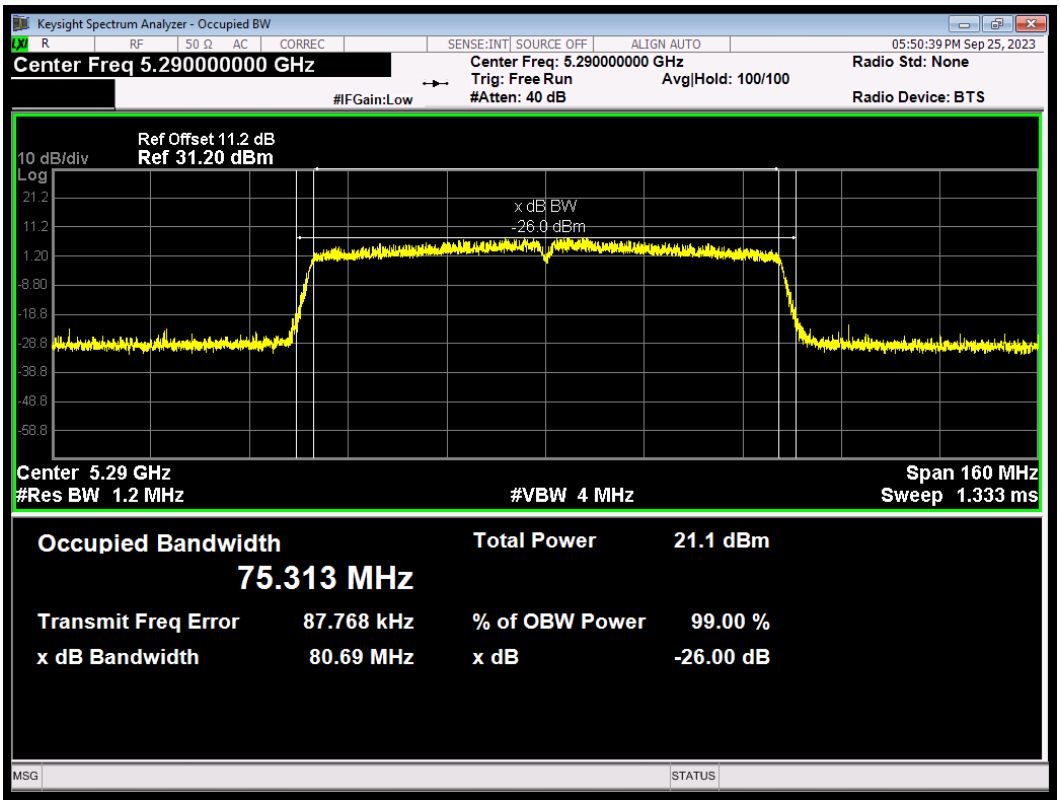
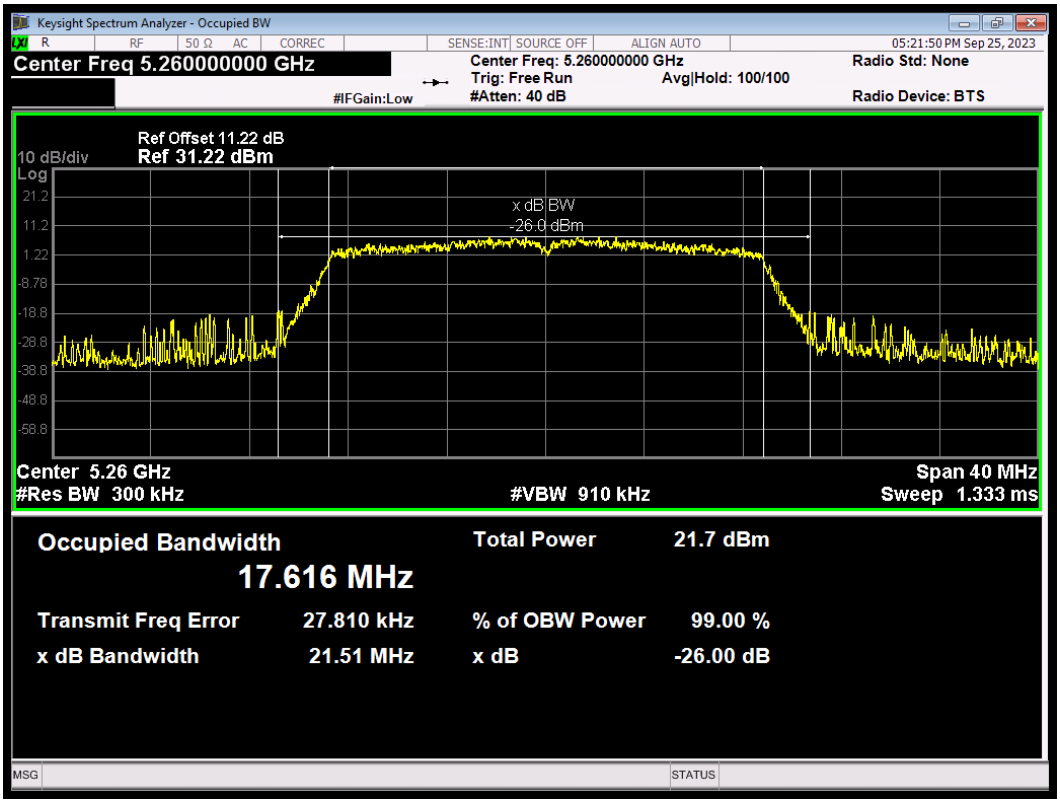
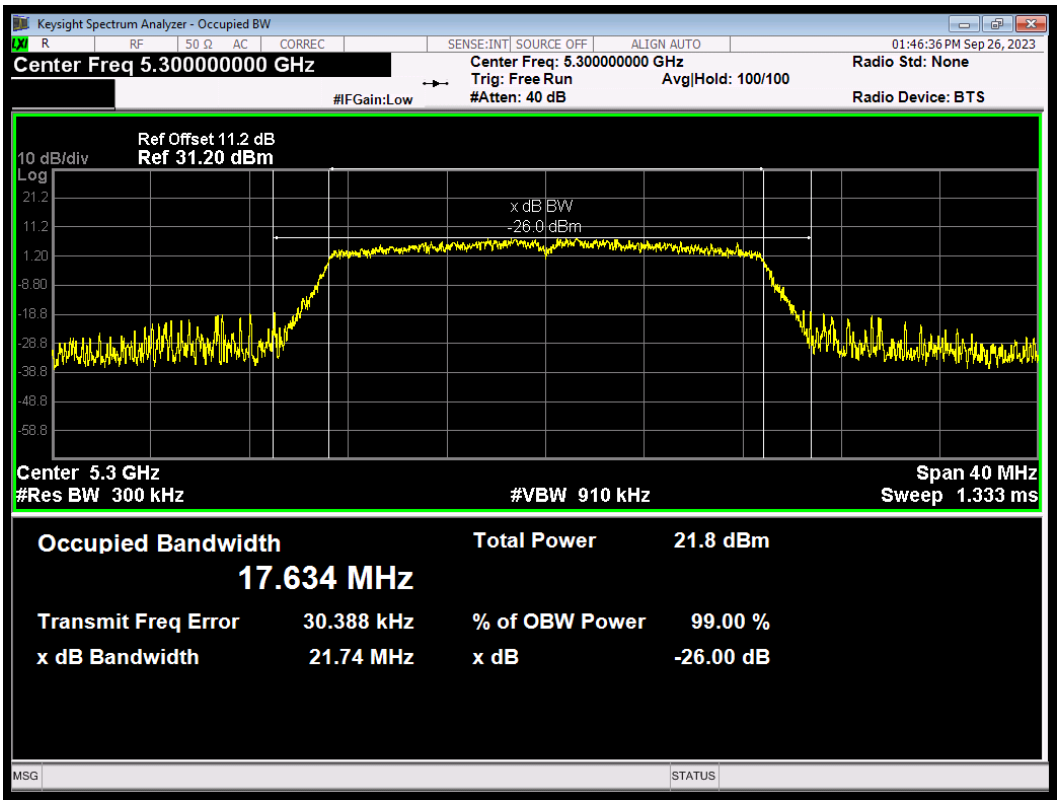


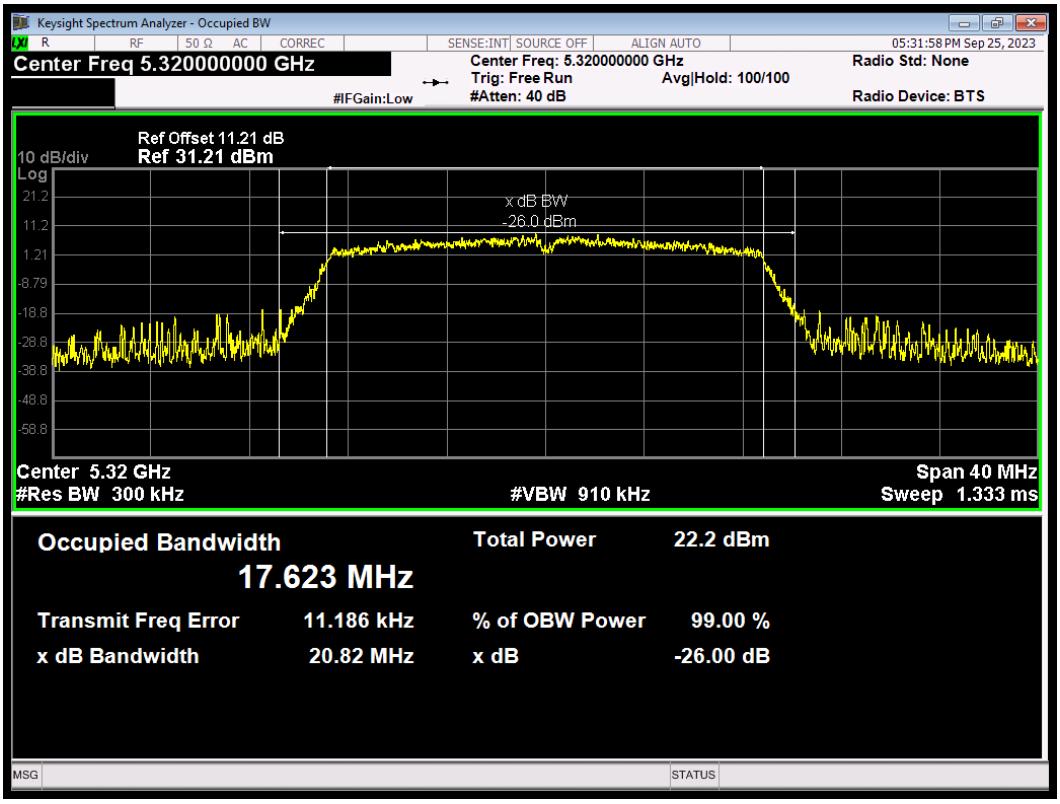
OBW 802.11n(HT20) 5260MHz



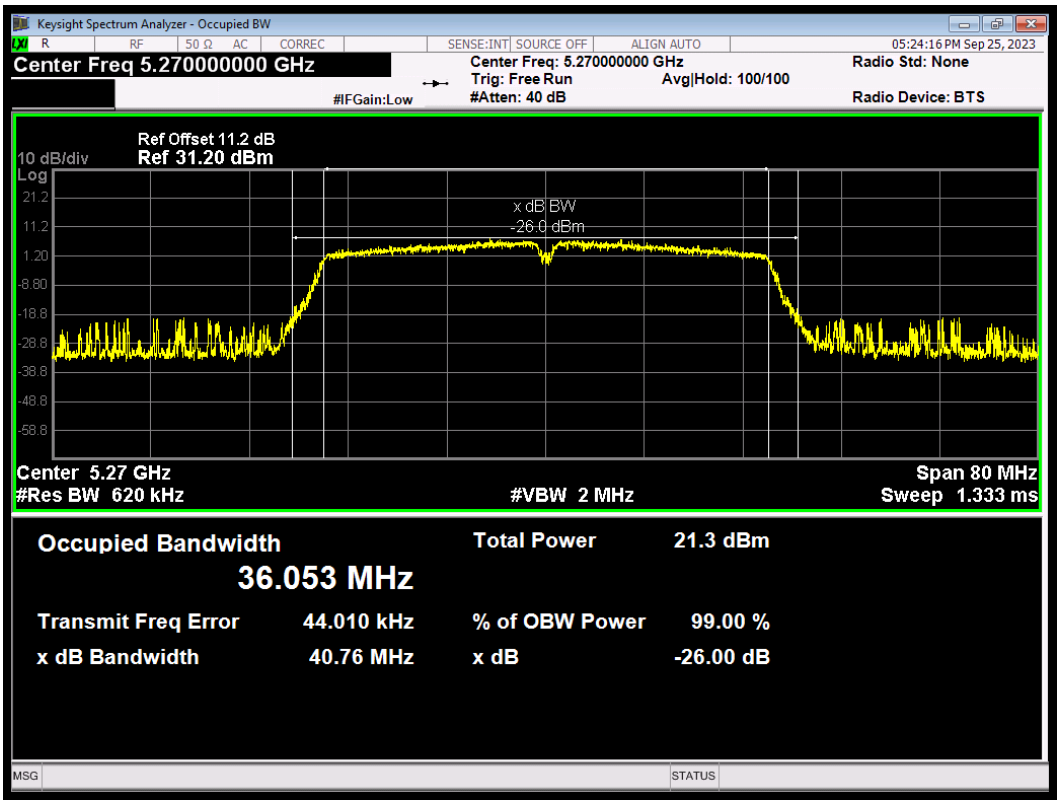
OBW 802.11n(HT20) 5300MHz



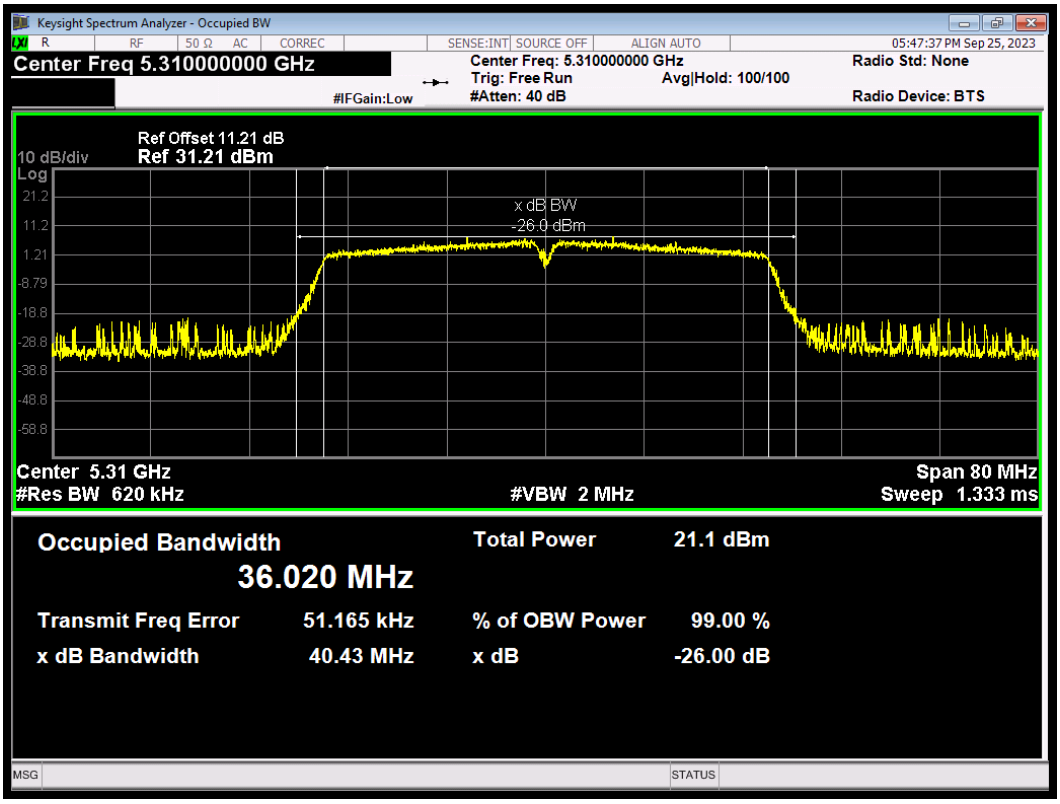
OBW 802.11n(HT20) 5320MHz



OBW 802.11n(HT40) 5270MHz

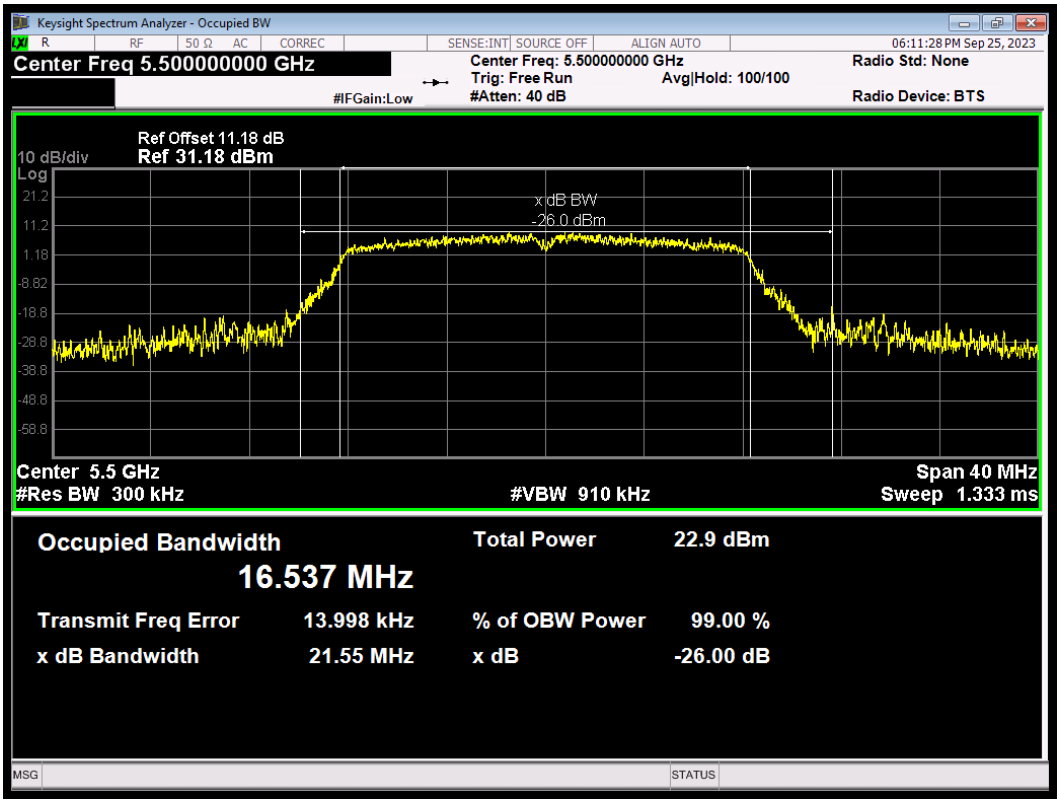


OBW 802.11n(HT40) 5310MHz

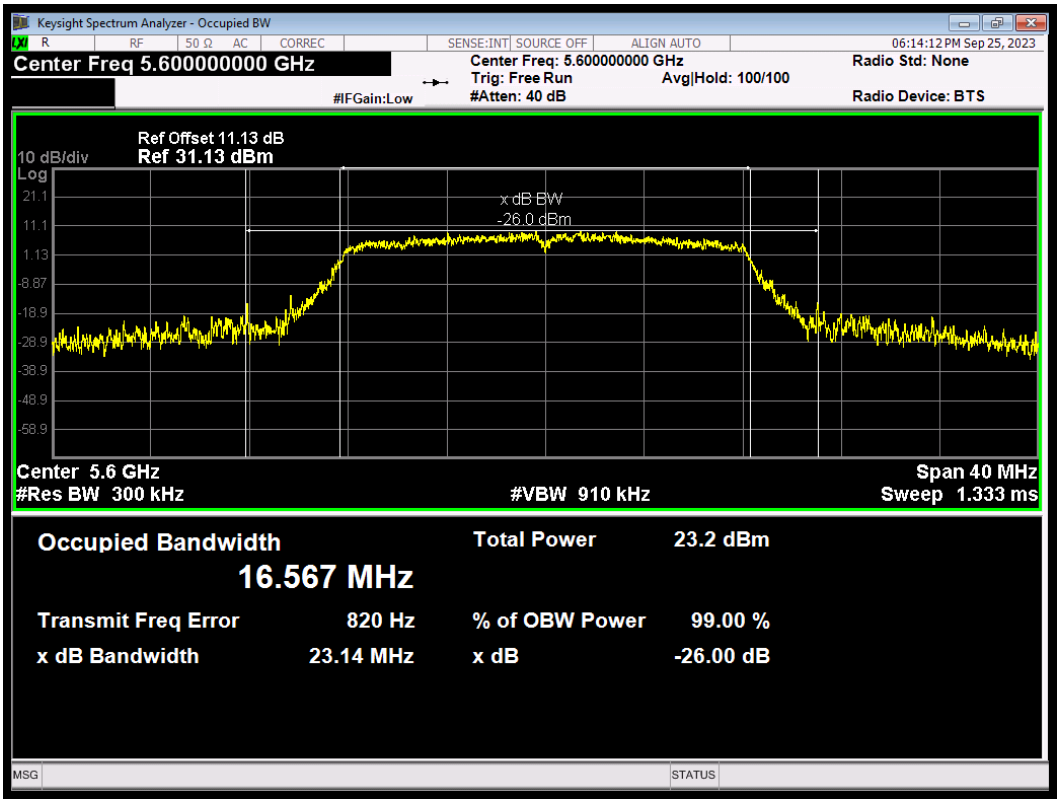


U-NII-2C

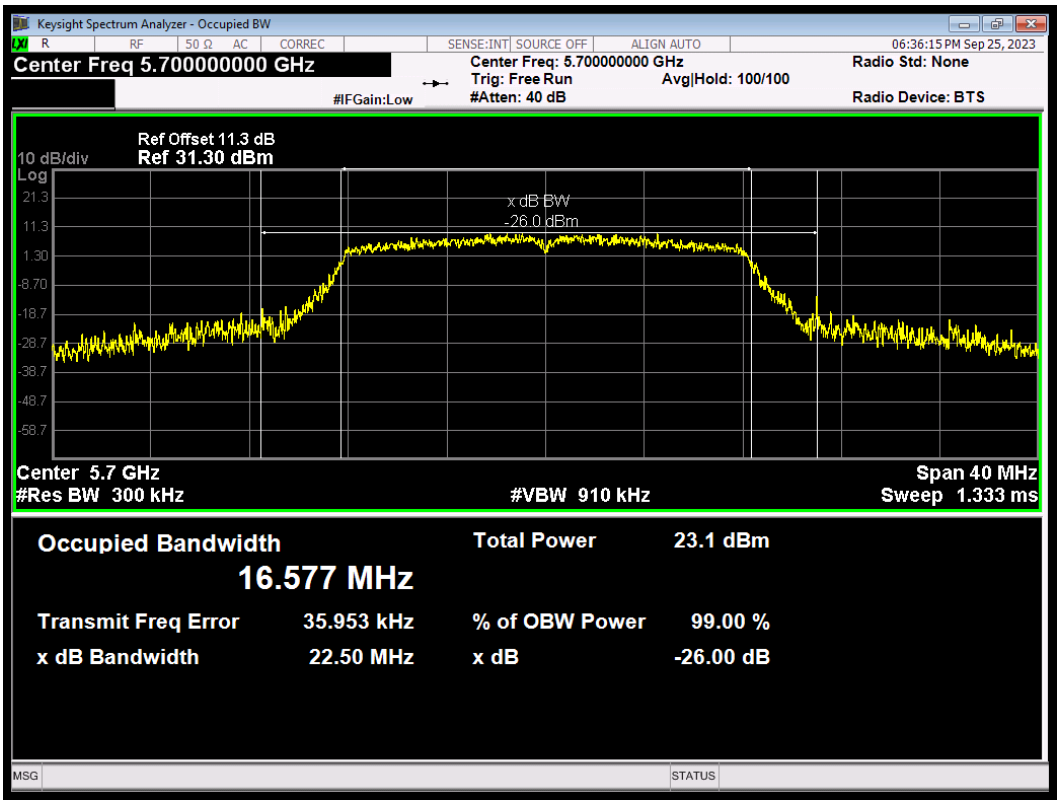
OBW 802.11a 5500MHz



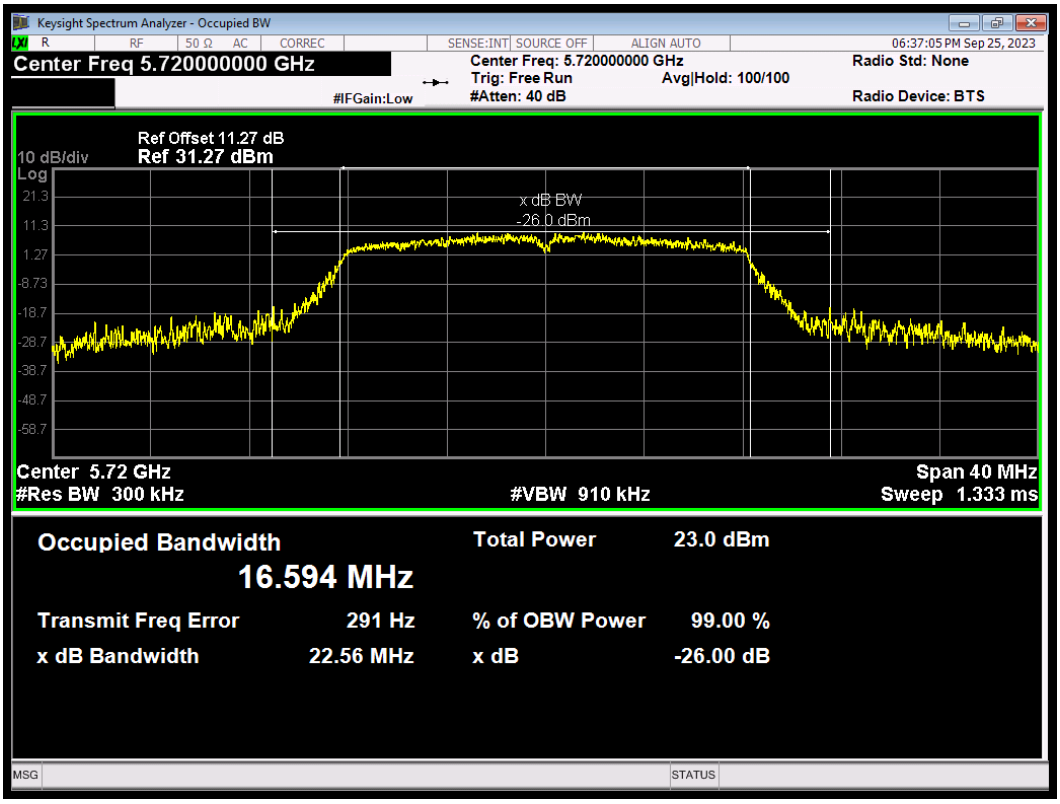
OBW 802.11a 5600MHz



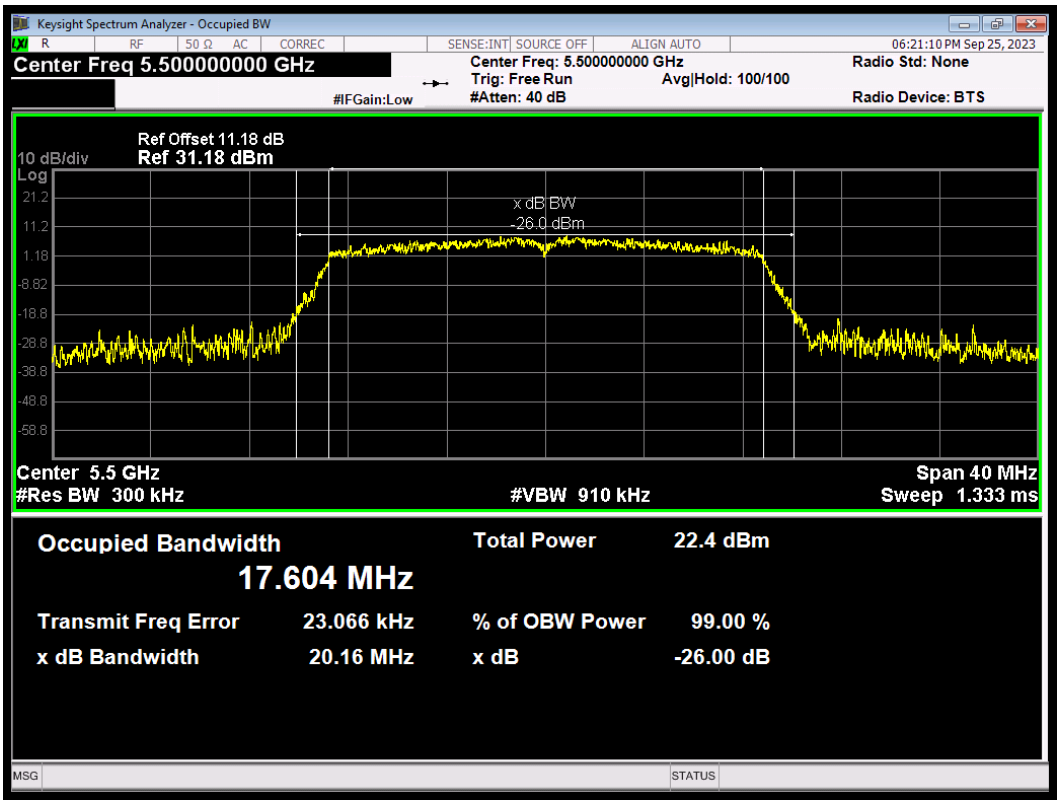
OBW 802.11a 5700MHz



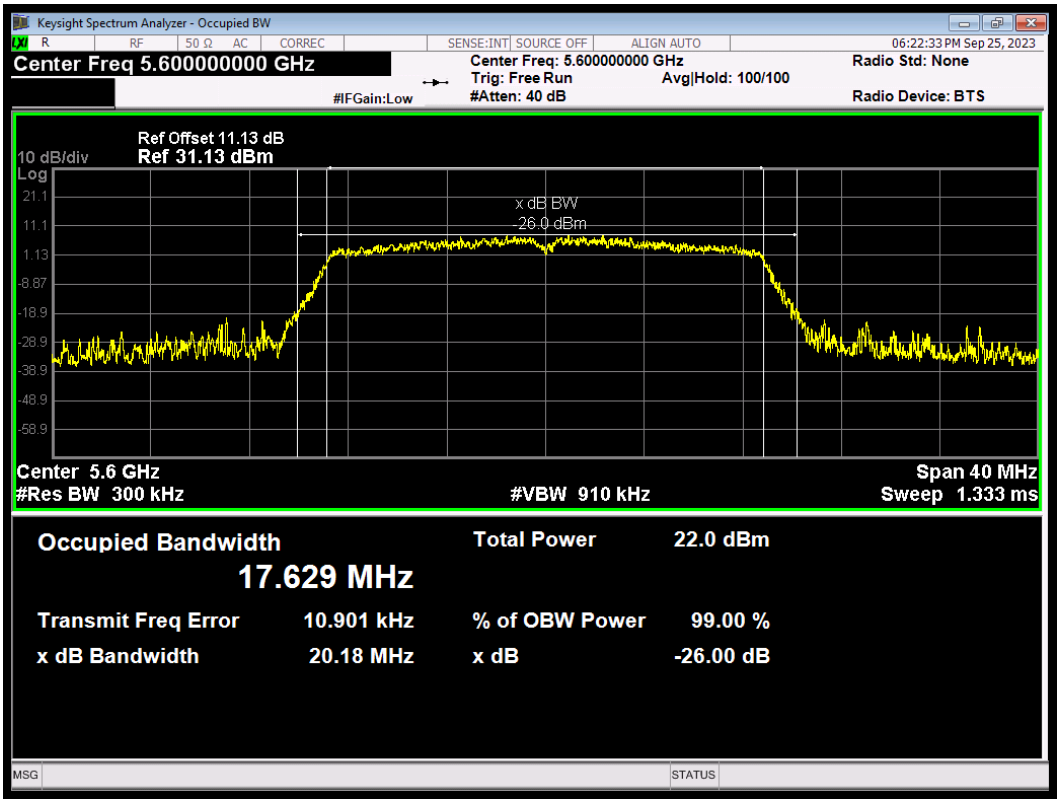
OBW 802.11a 5720MHz



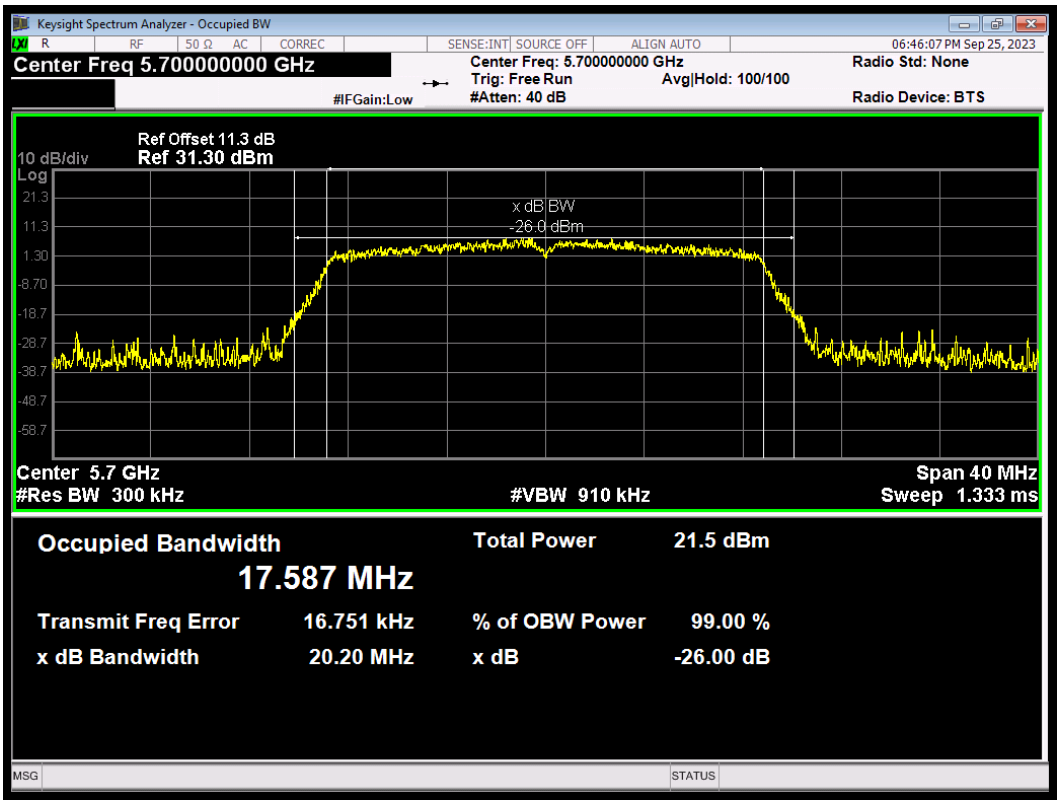
OBW 802.11ac(VHT20) 5500MHz



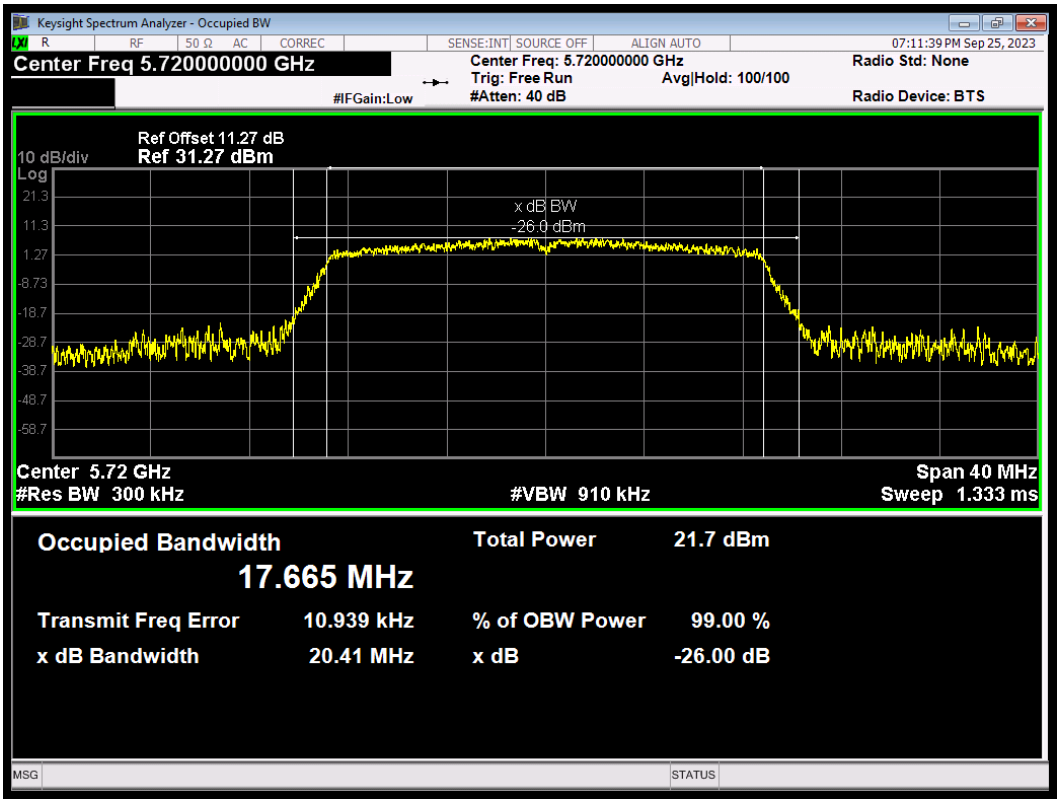
OBW 802.11ac(VHT20) 5600MHz



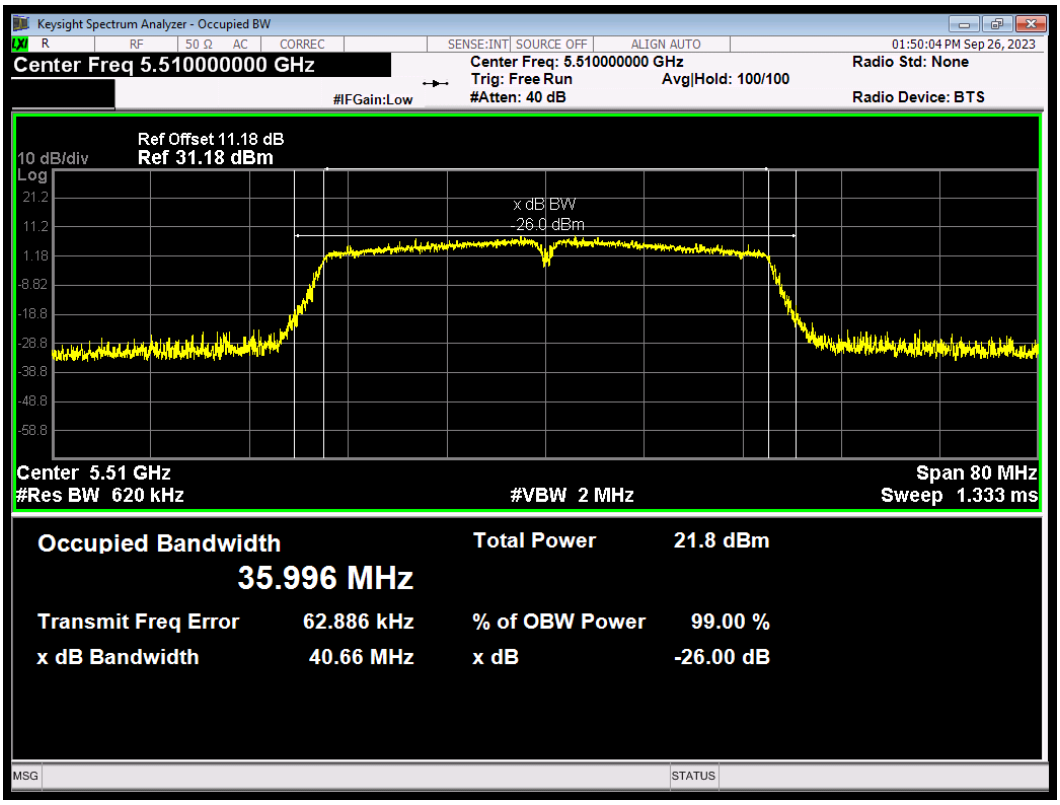
OBW 802.11ac(VHT20) 5700MHz



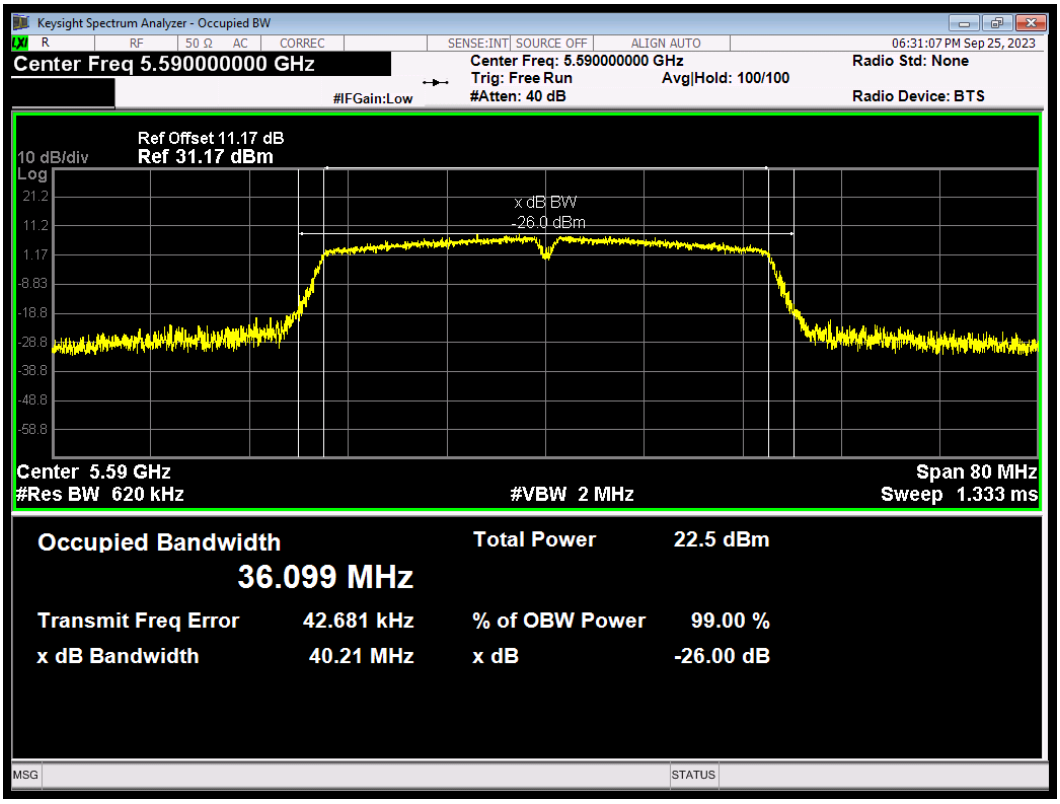
OBW 802.11ac(VHT20) 5720MHz



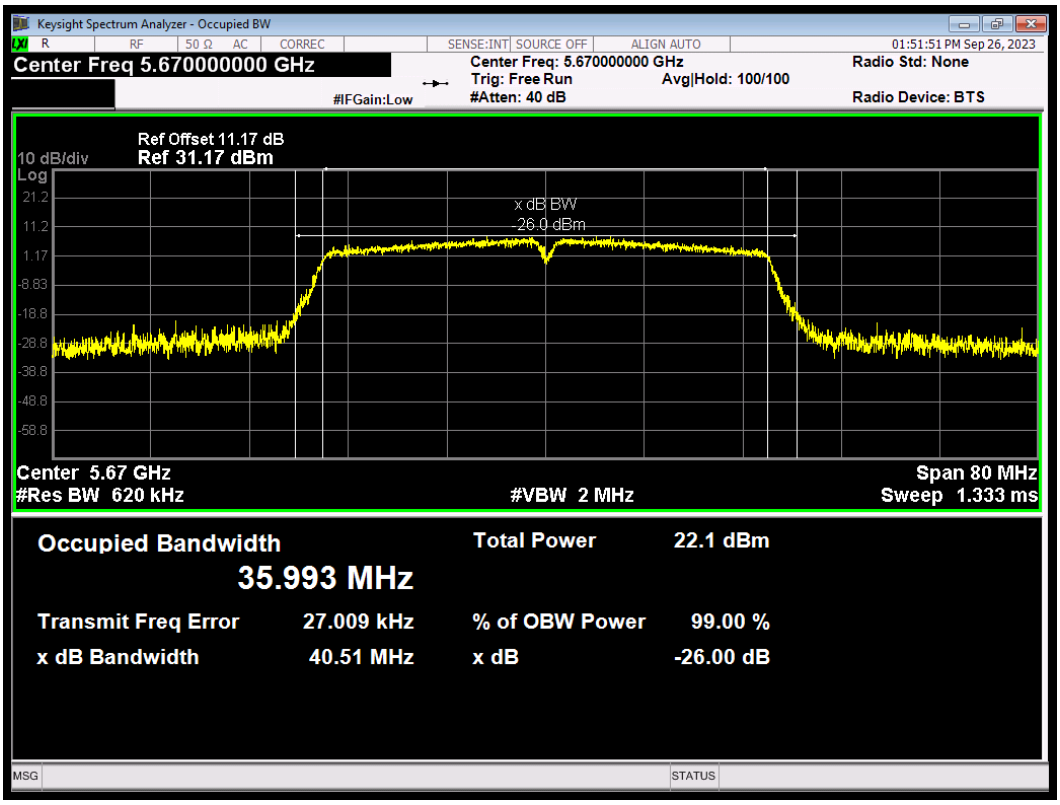
OBW 802.11ac(VHT40) 5510MHz



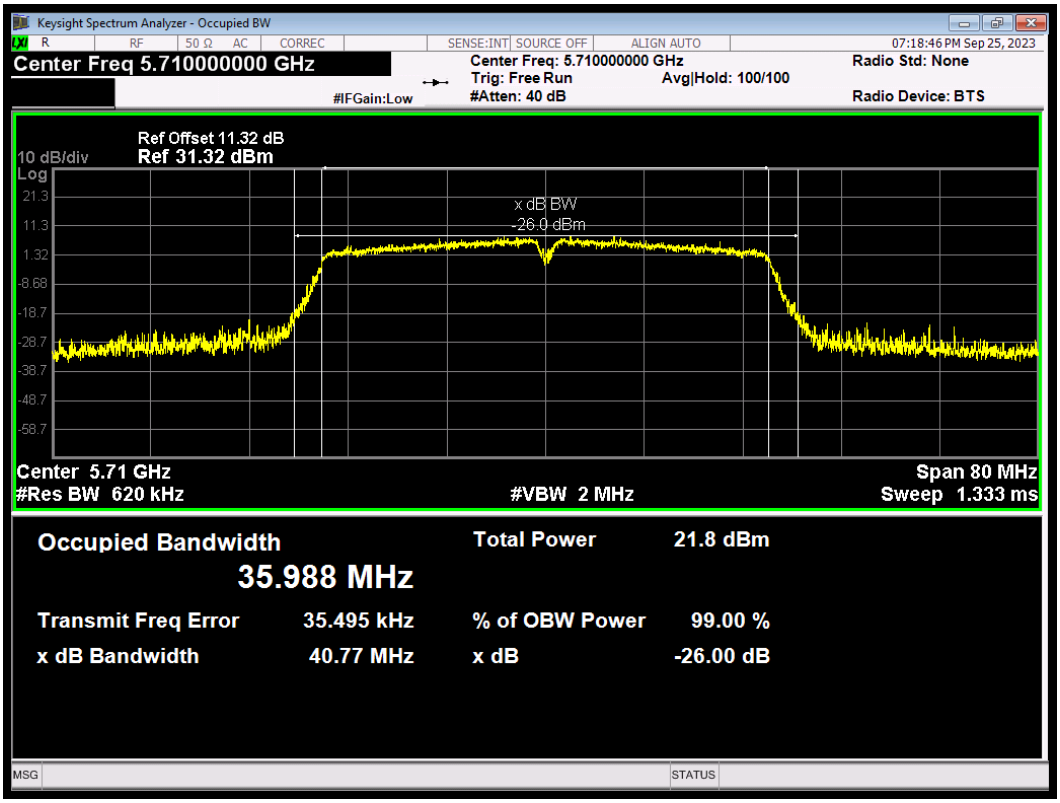
OBW 802.11ac(VHT40) 5590MHz



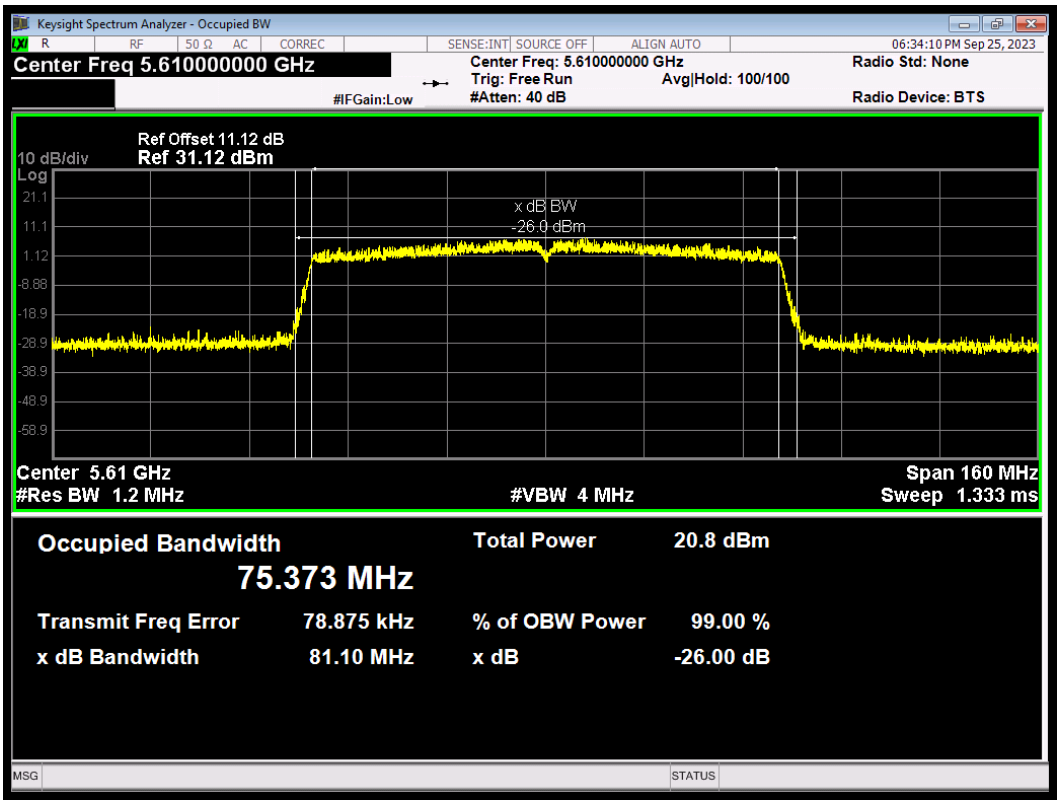
OBW 802.11ac(VHT40) 5670MHz



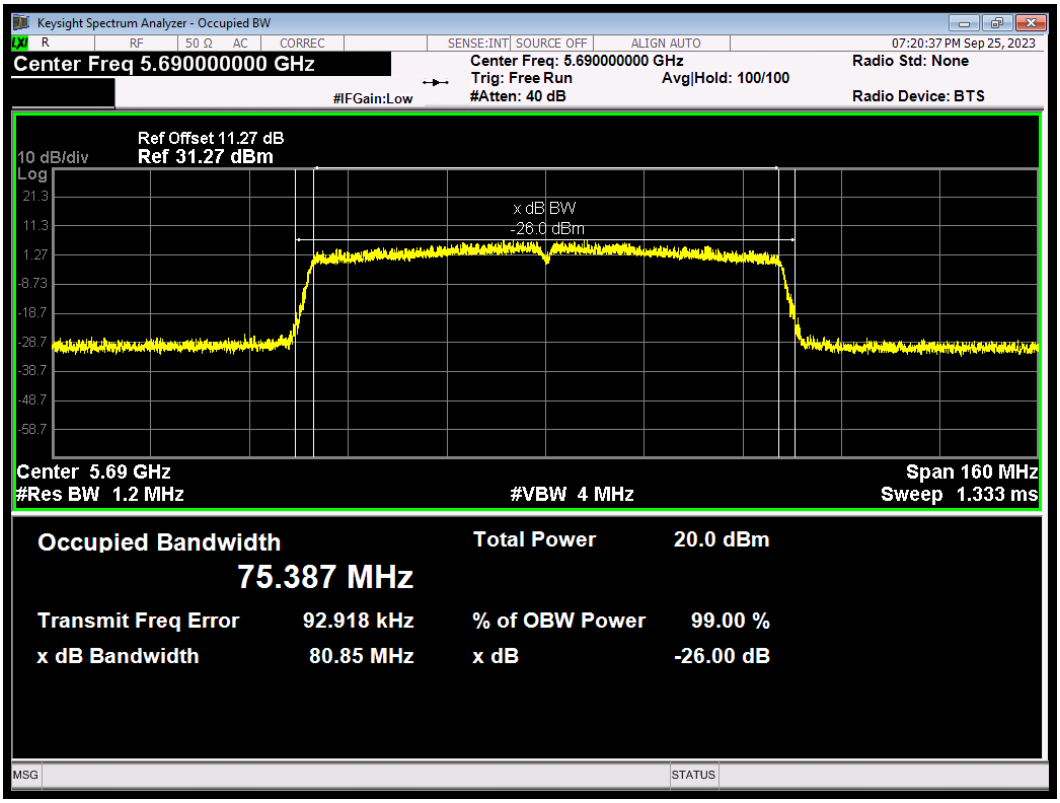
OBW 802.11ac(VHT40) 5710MHz



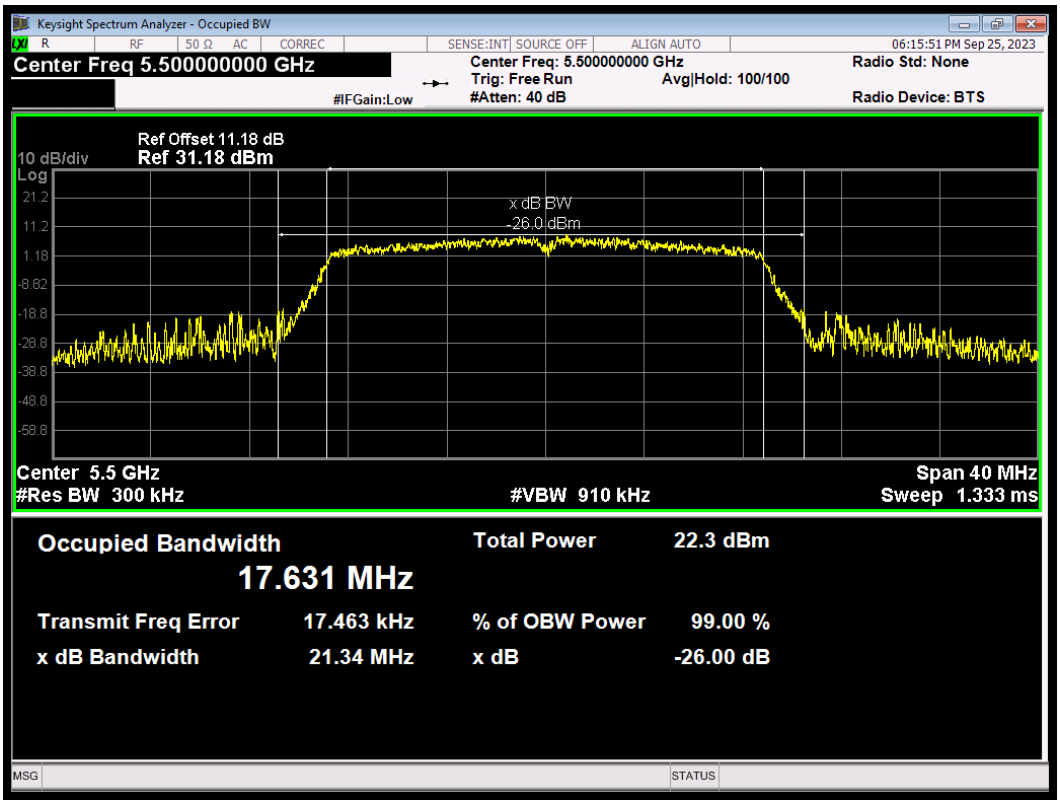
OBW 802.11ac(VHT80) 5610MHz



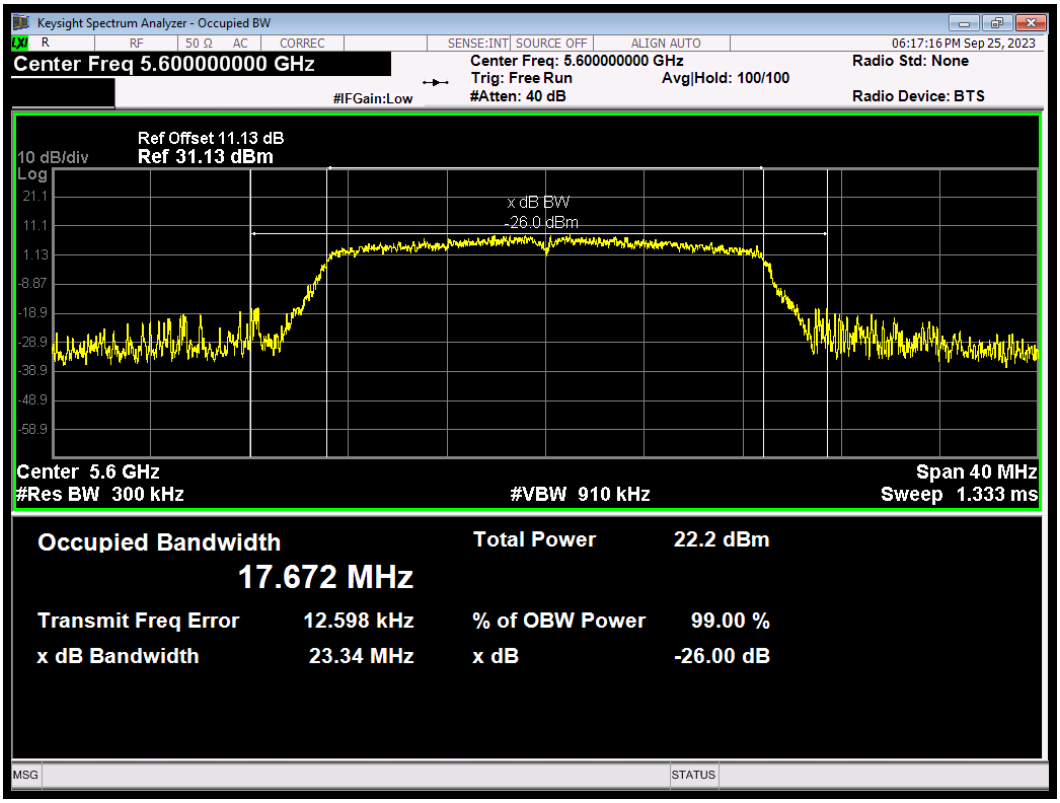
OBW 802.11ac(VHT80) 5690MHz



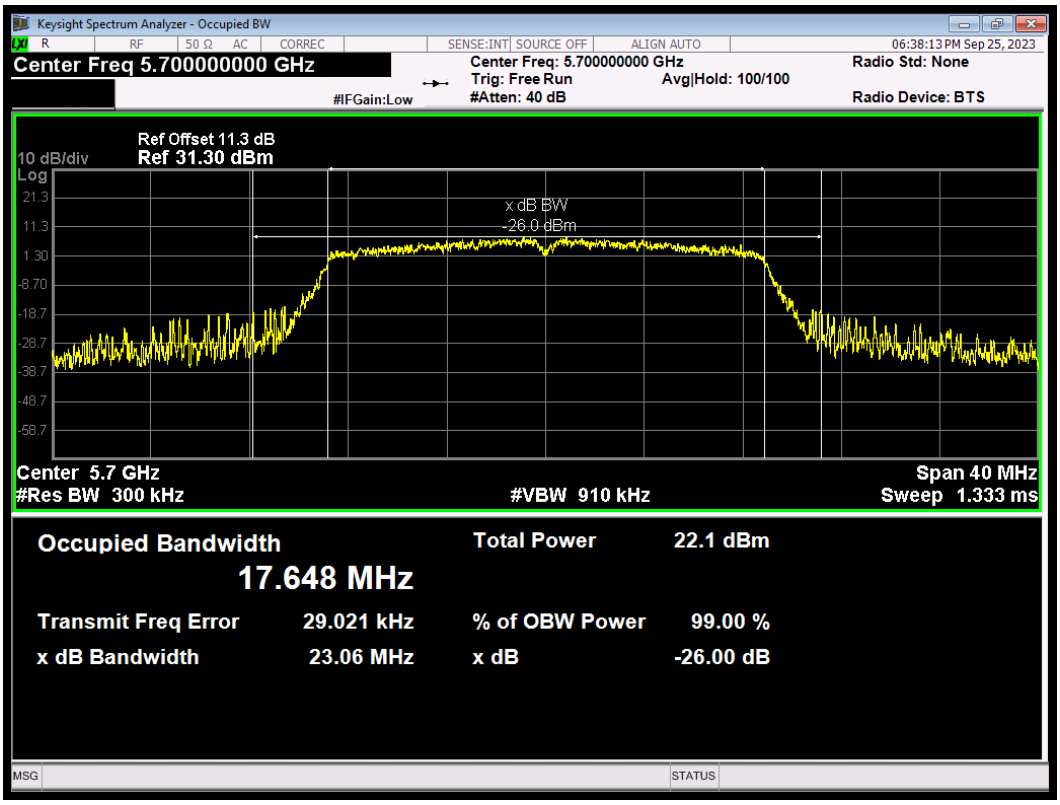
OBW 802.11n(HT20) 5500MHz



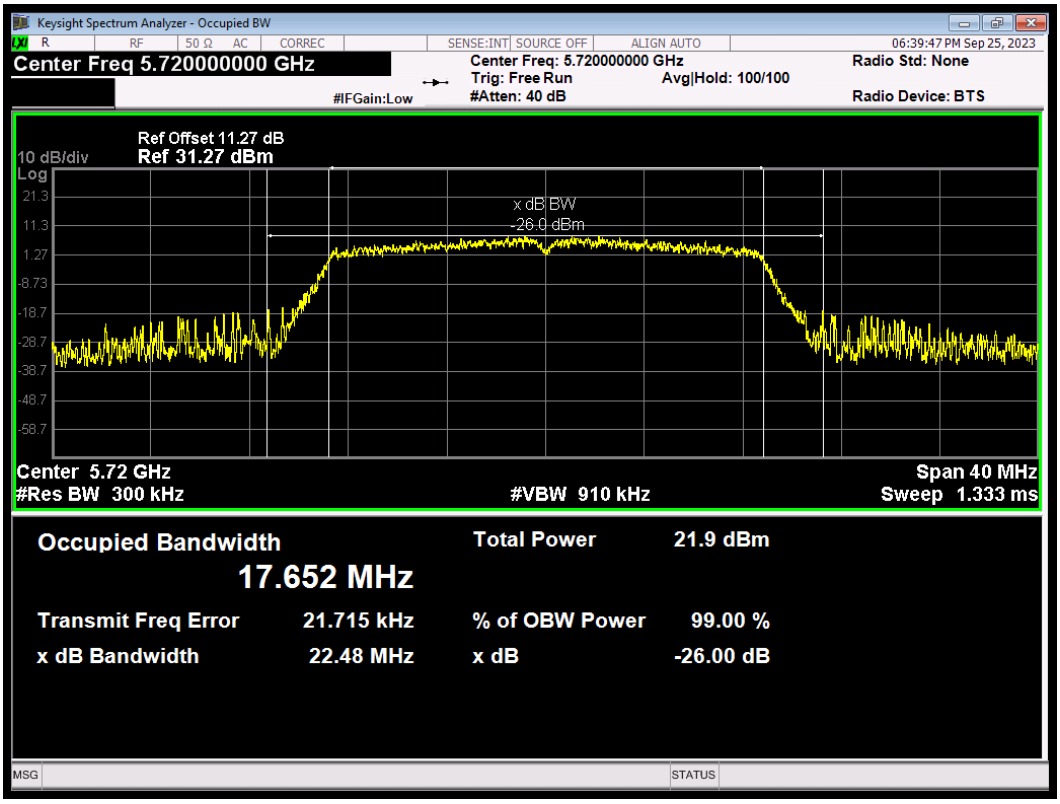
OBW 802.11n(HT20) 5600MHz



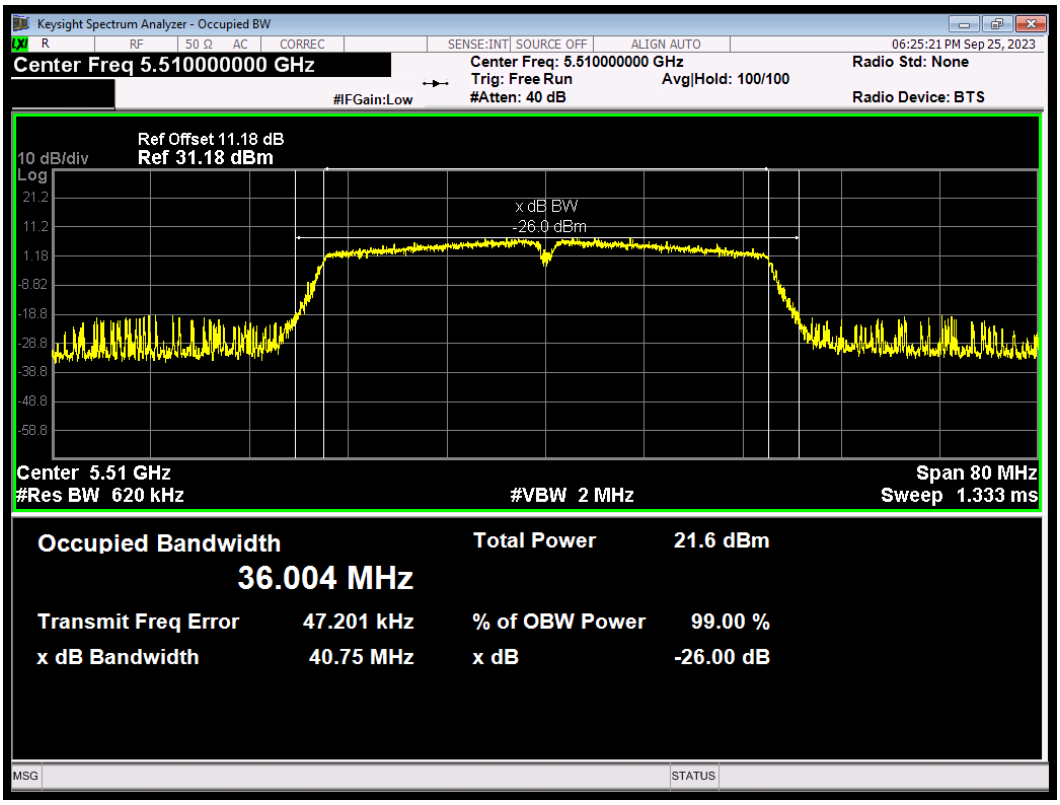
OBW 802.11n(HT20) 5700MHz



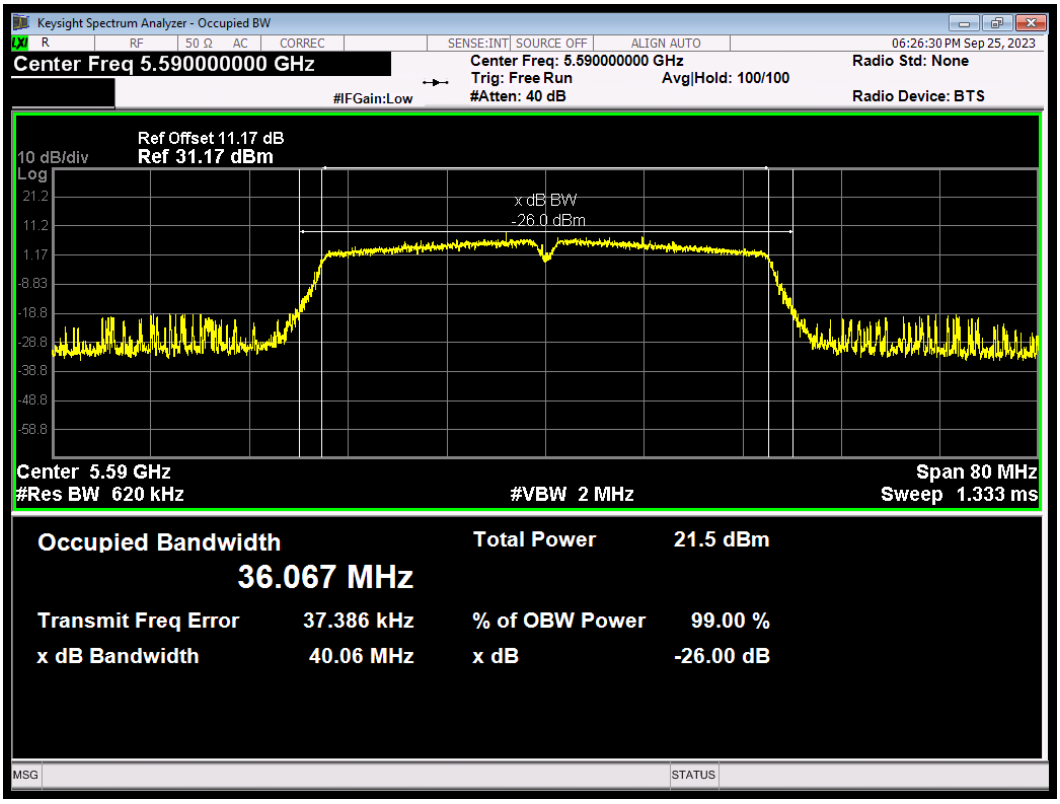
OBW 802.11n(HT20) 5720MHz



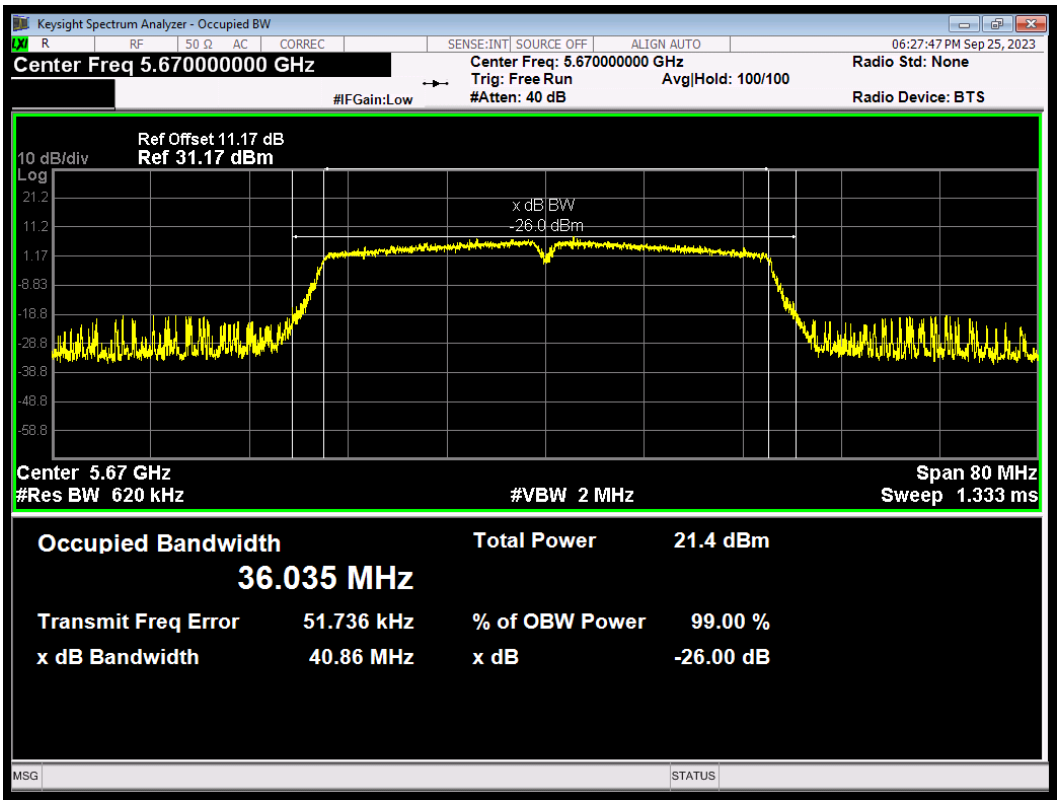
OBW 802.11n(HT40) 5510MHz



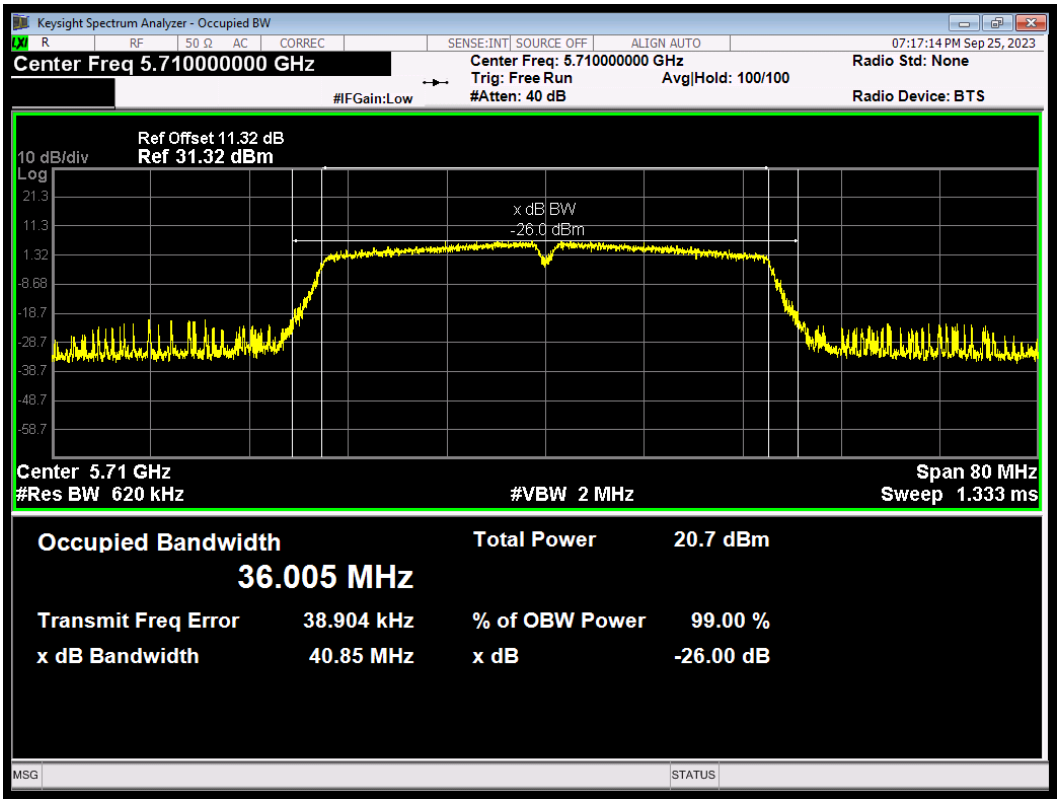
OBW 802.11n(HT40) 5590MHz



OBW 802.11n(HT40) 5670MHz

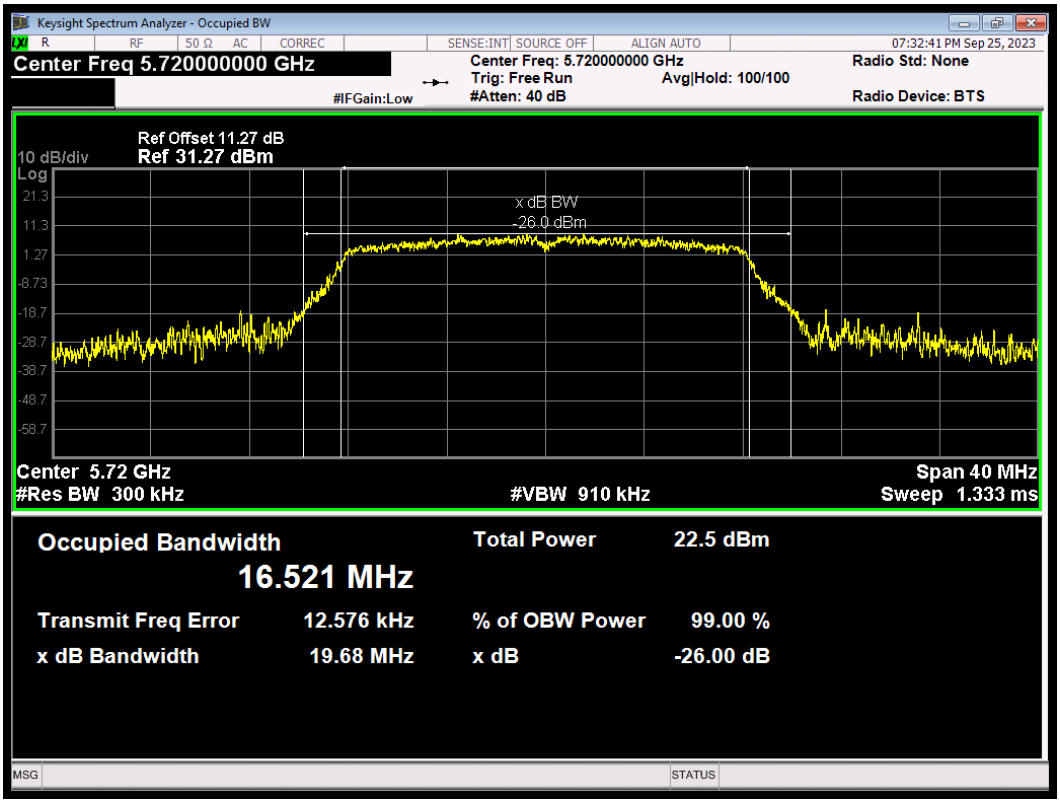


OBW 802.11n(HT40) 5710MHz

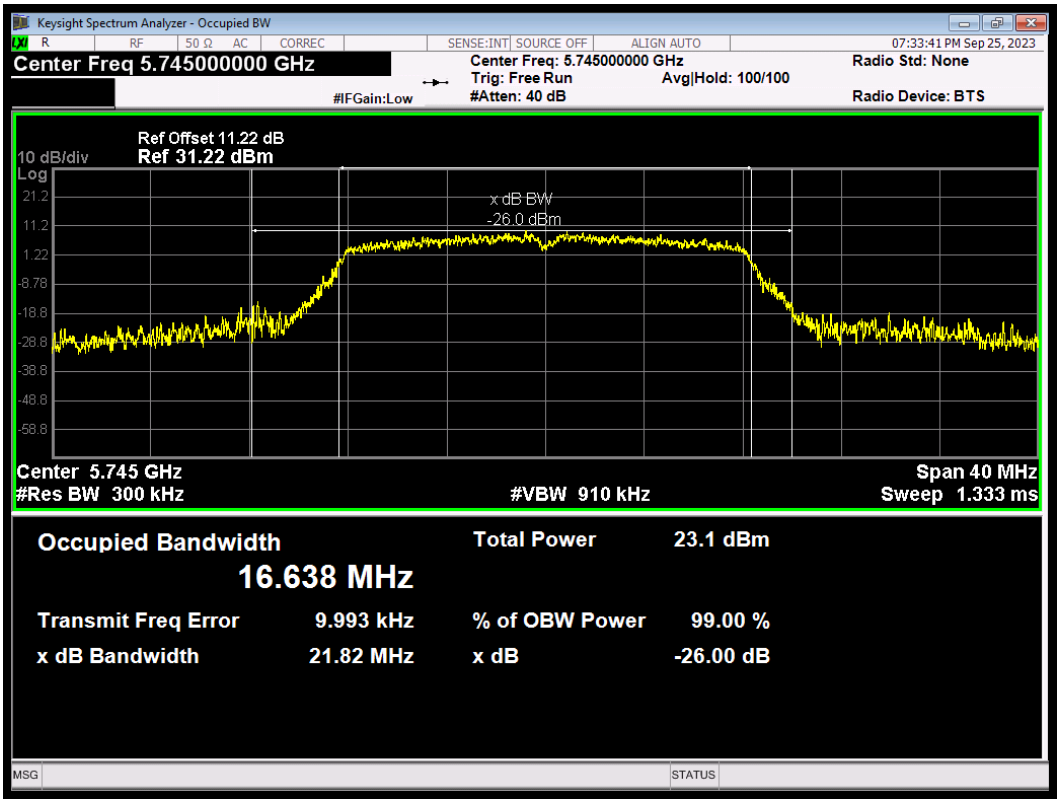


U-NII-3

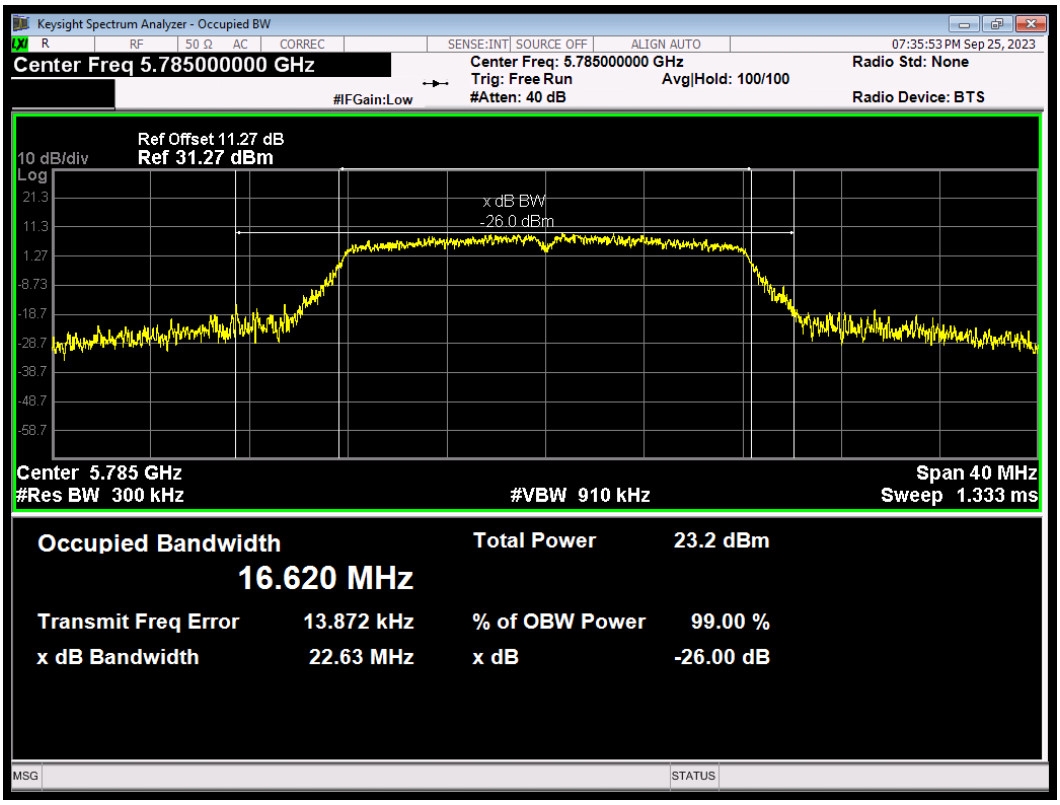
OBW 802.11a 5720MHz



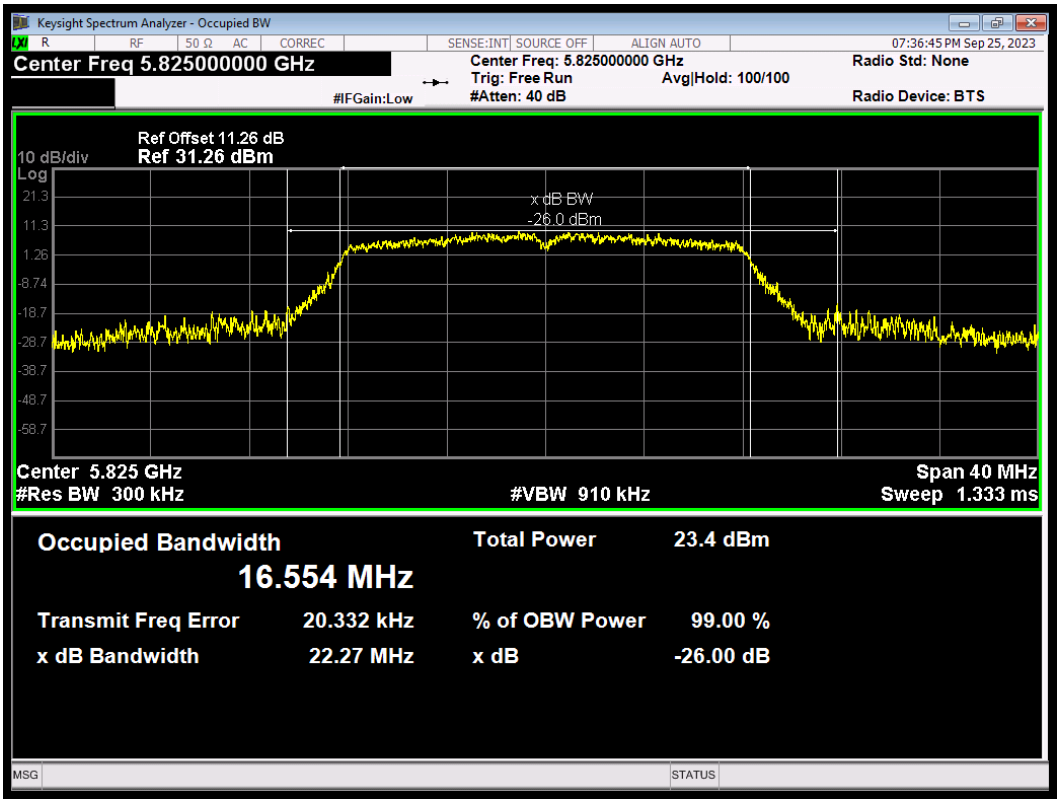
OBW 802.11a 5745MHz



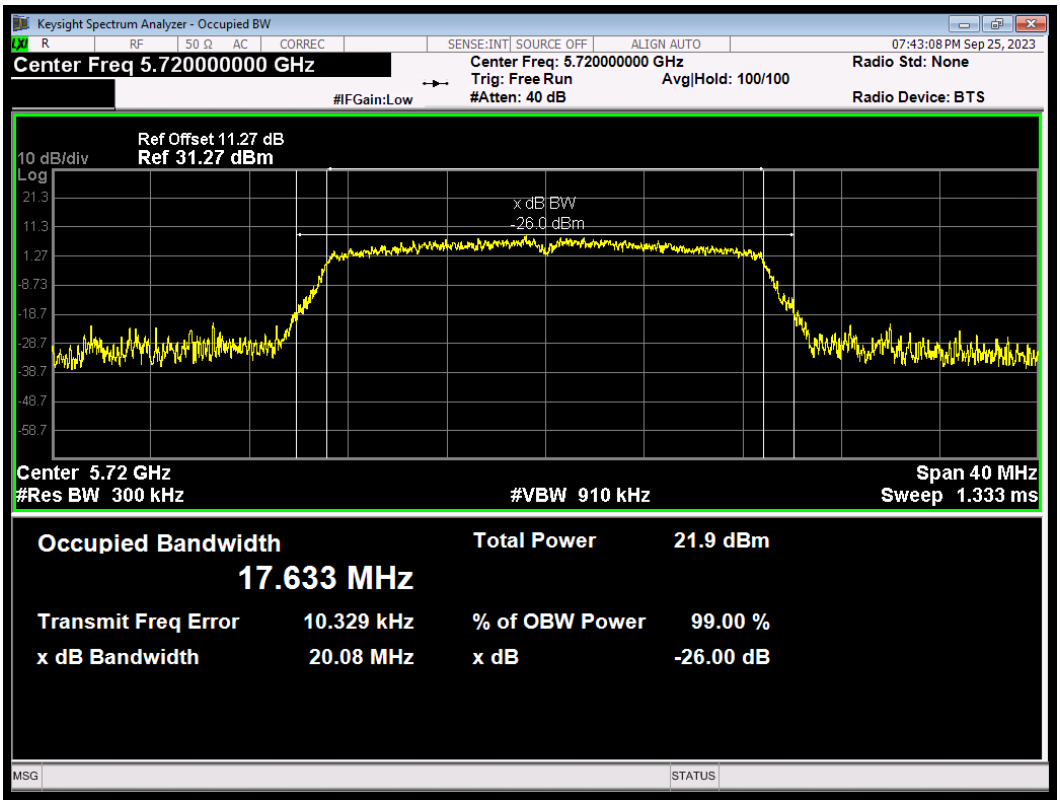
OBW 802.11a 5785MHz



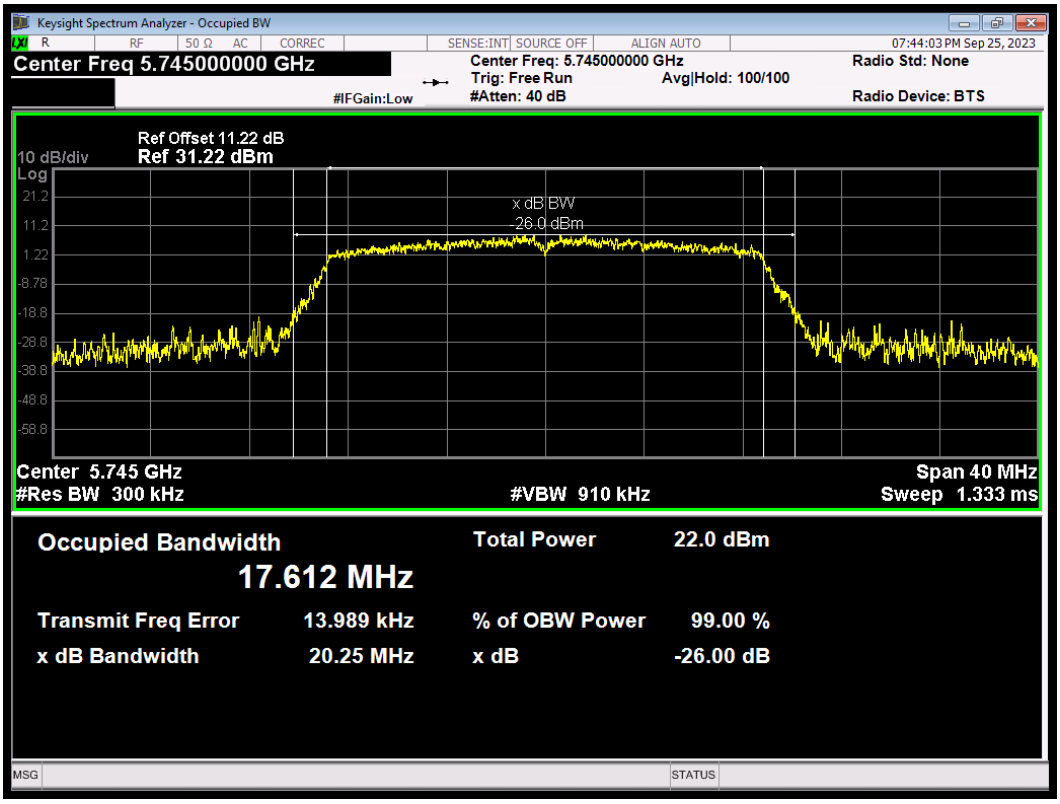
OBW 802.11a 5825MHz



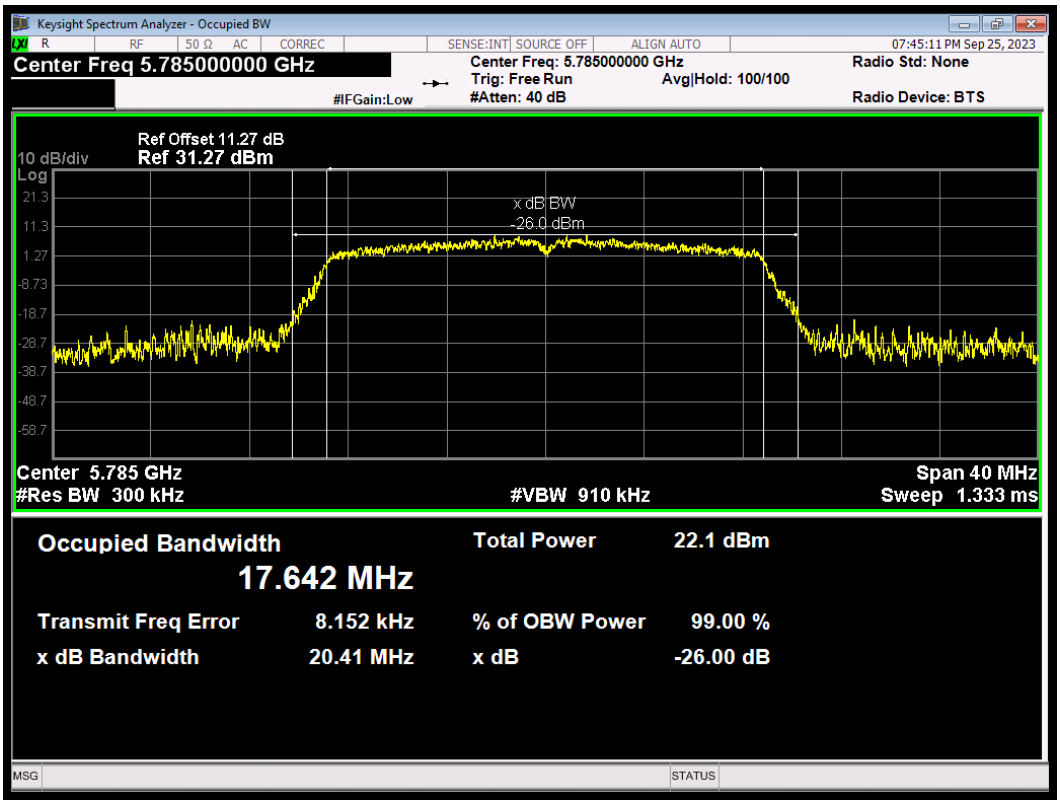
OBW 802.11ac(VHT20) 5720MHz



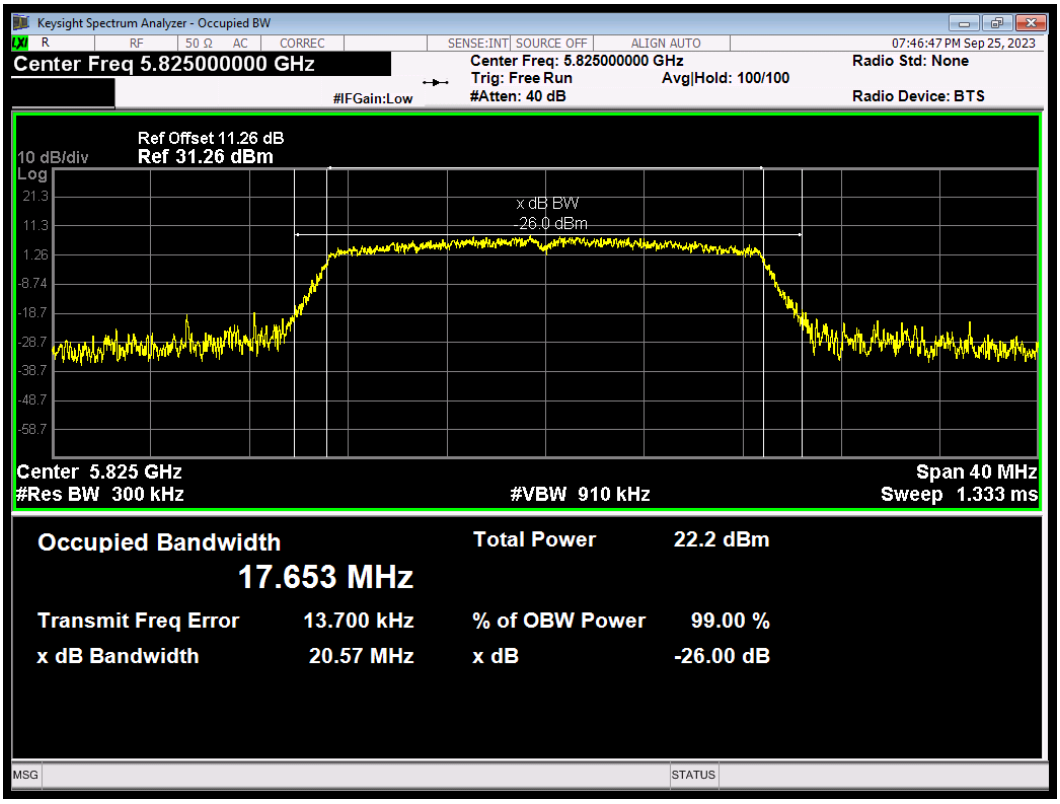
OBW 802.11ac(VHT20) 5745MHz



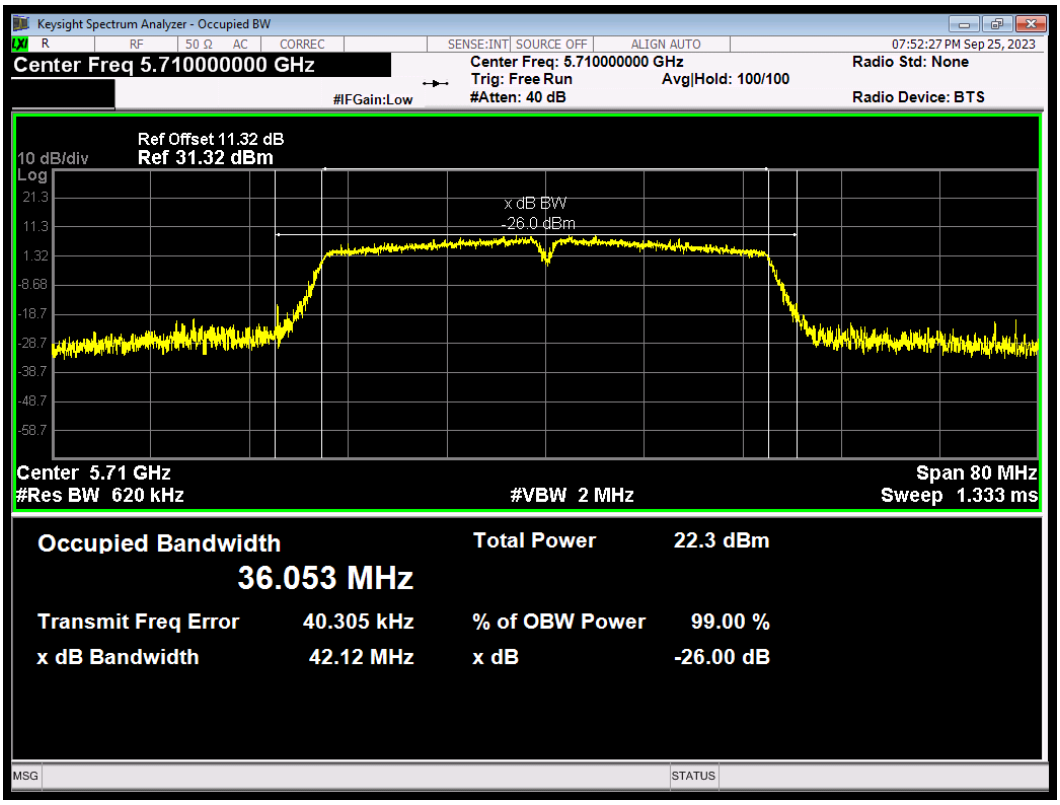
OBW 802.11ac(VHT20) 5785MHz



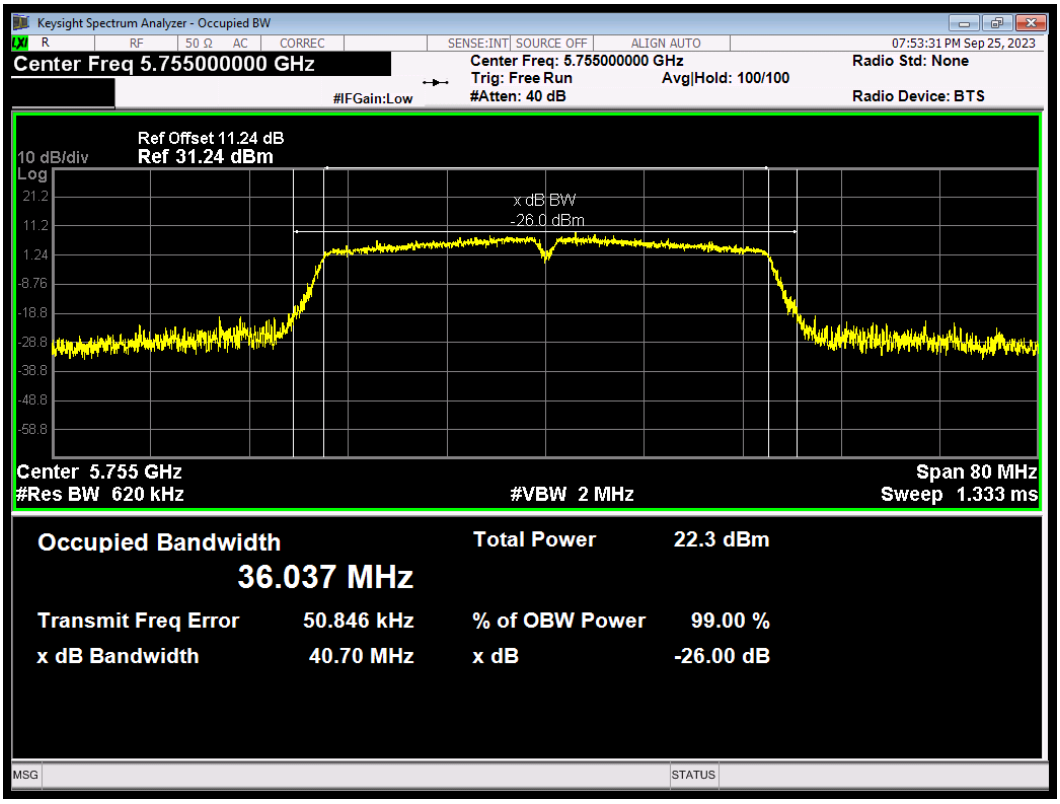
OBW 802.11ac(VHT20) 5825MHz



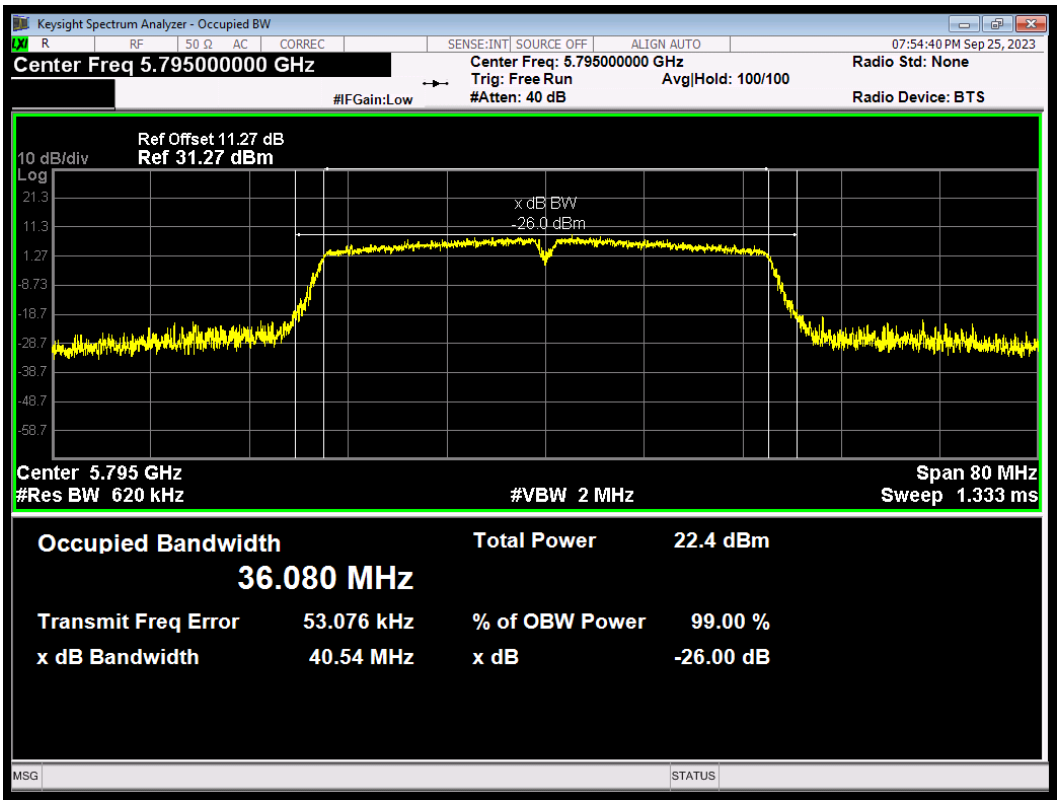
OBW 802.11ac(VHT40) 5710MHz



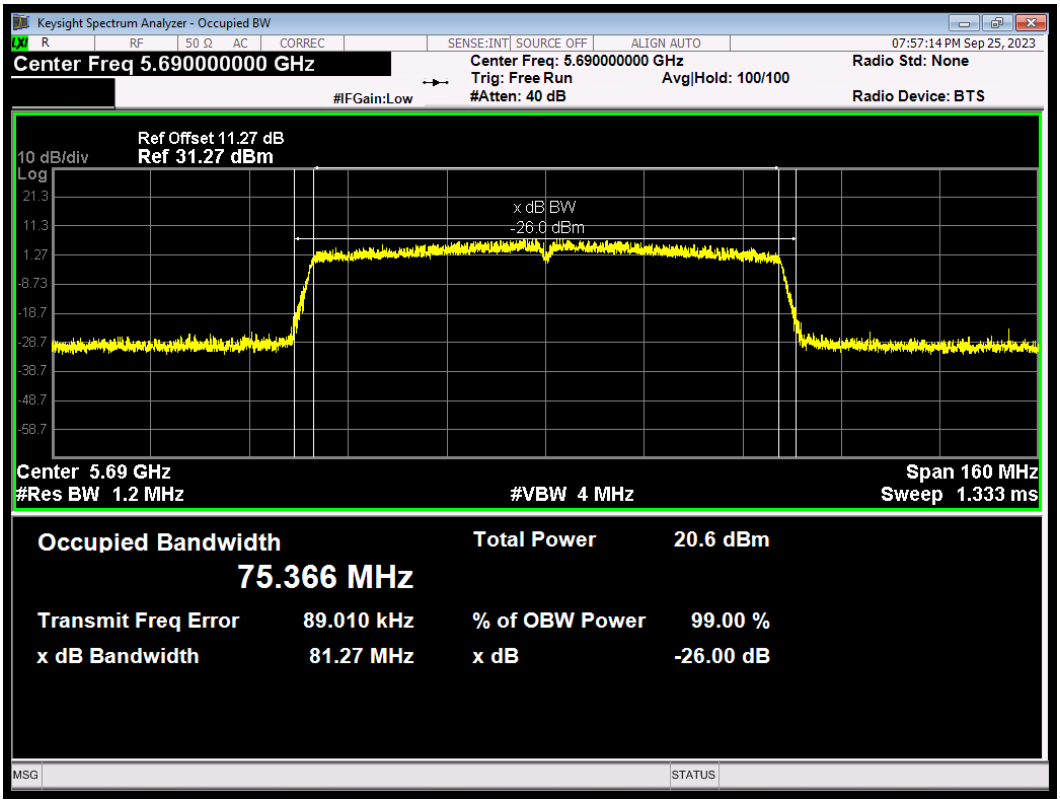
OBW 802.11ac(VHT40) 5755MHz



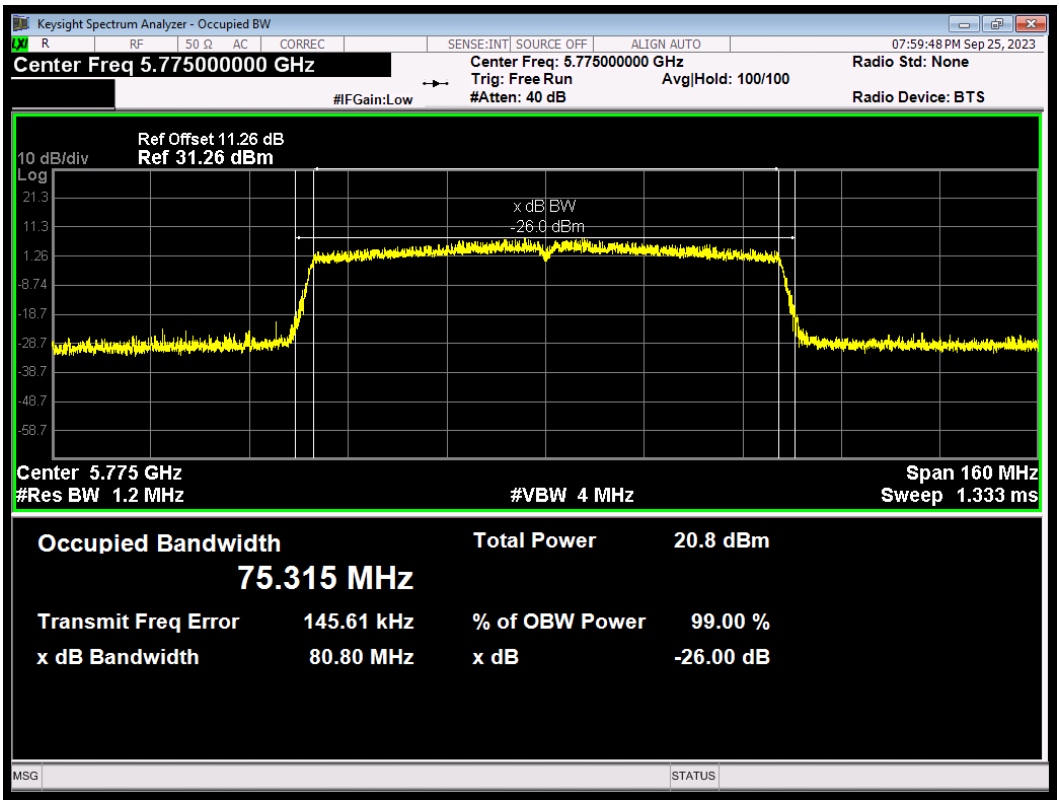
OBW 802.11ac(VHT40) 5795MHz



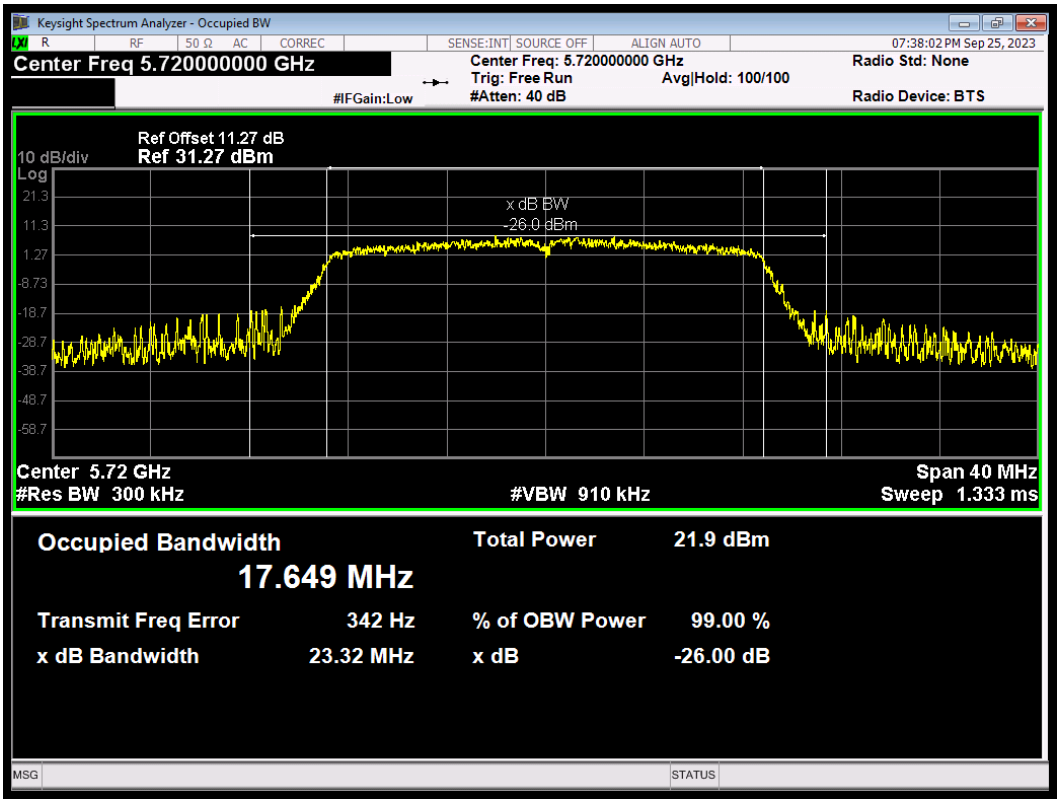
OBW 802.11ac(VHT80) 5690MHz



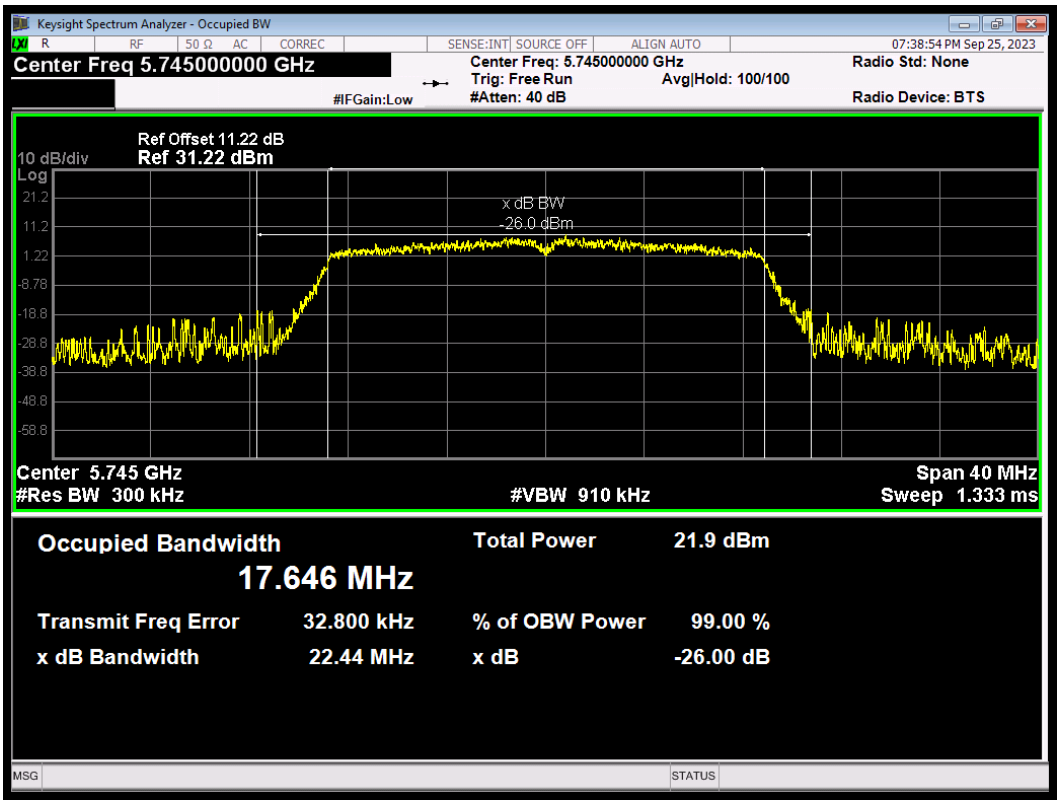
OBW 802.11ac(VHT80) 5775MHz



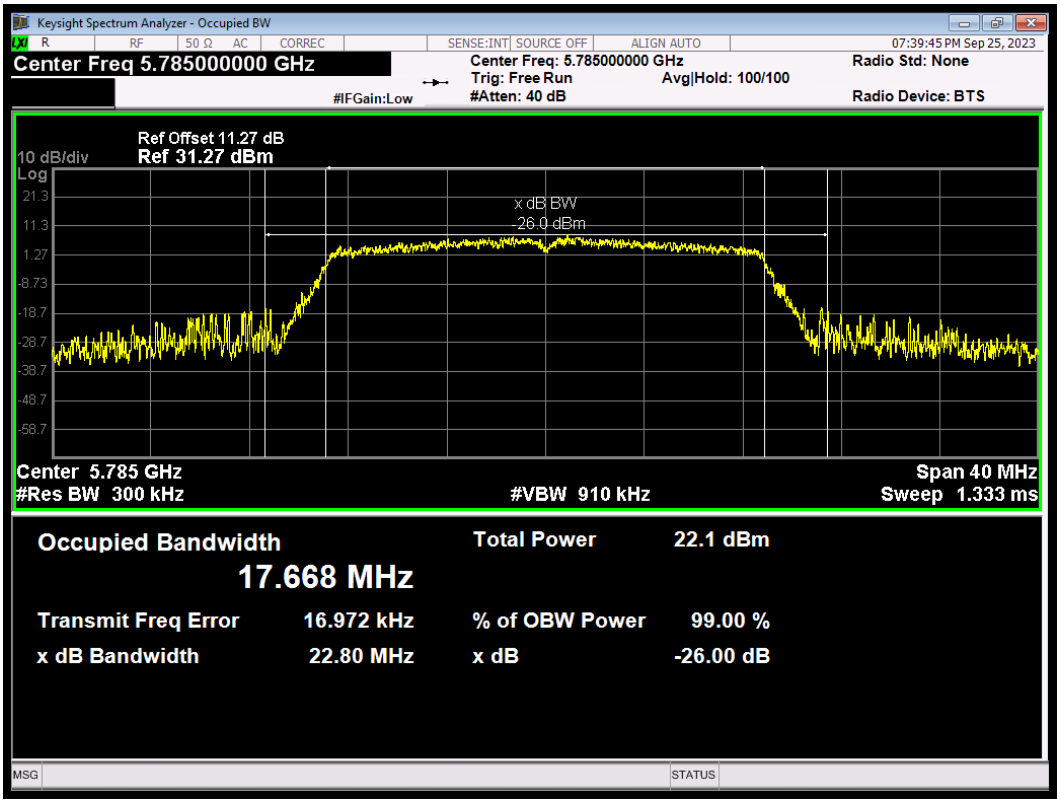
OBW 802.11n(HT20) 5720MHz



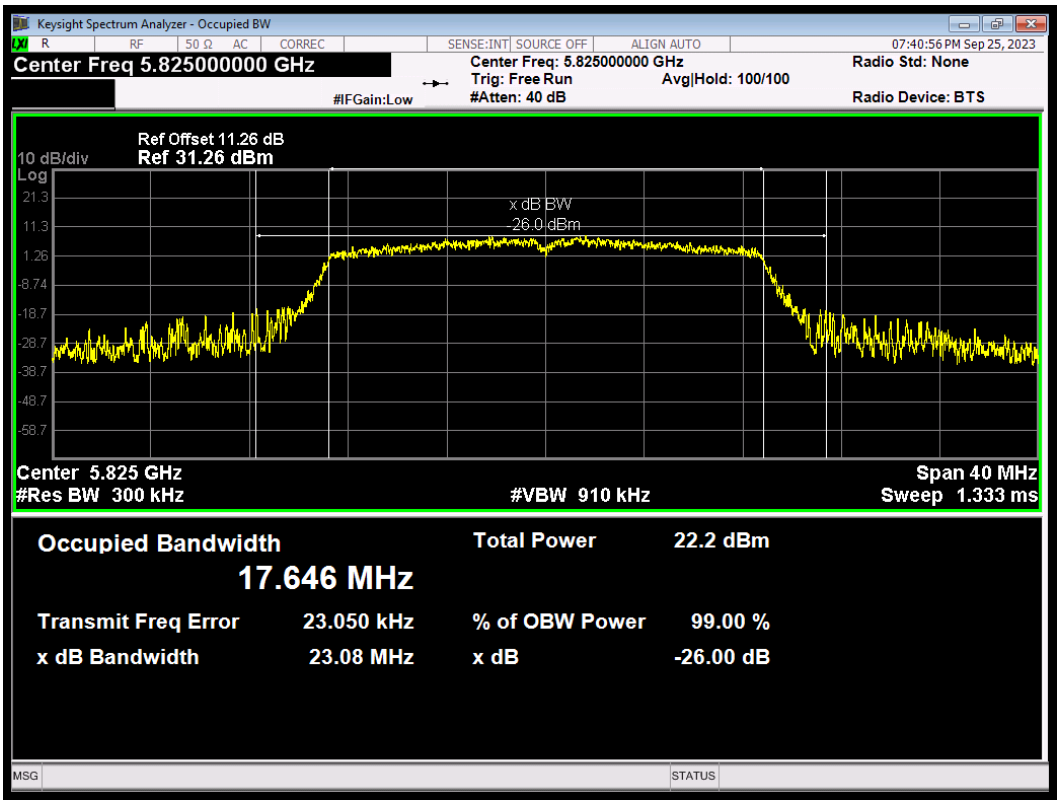
OBW 802.11n(HT20) 5745MHz



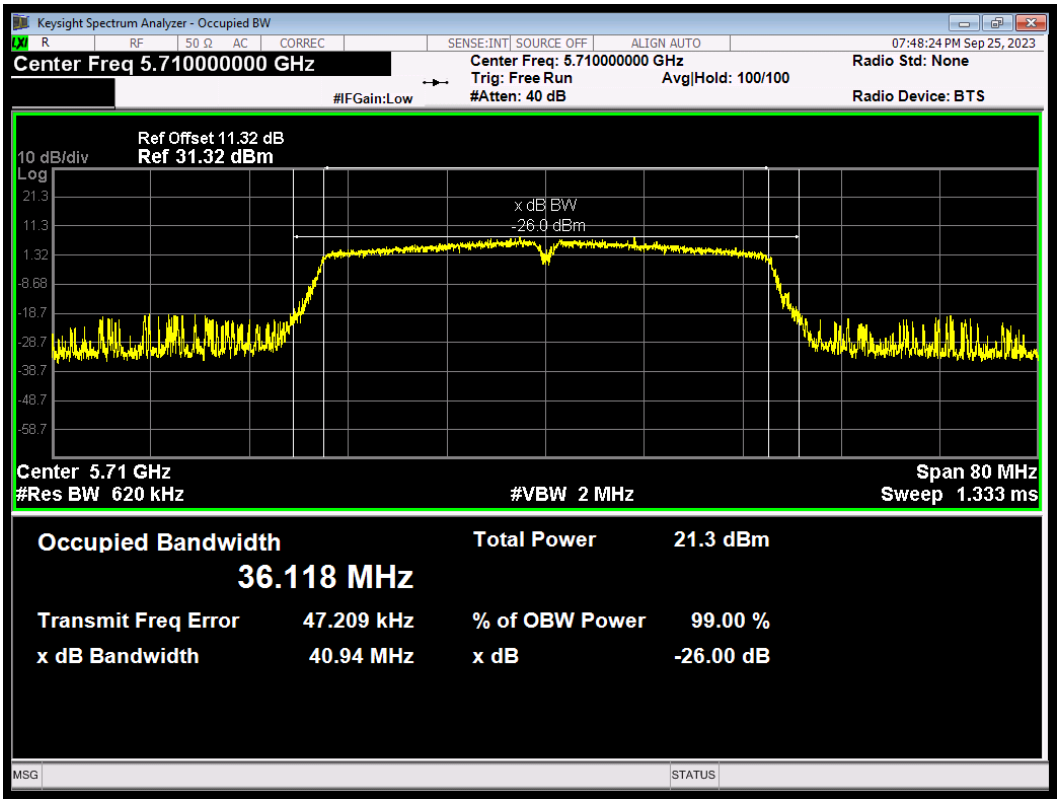
OBW 802.11n(HT20) 5785MHz



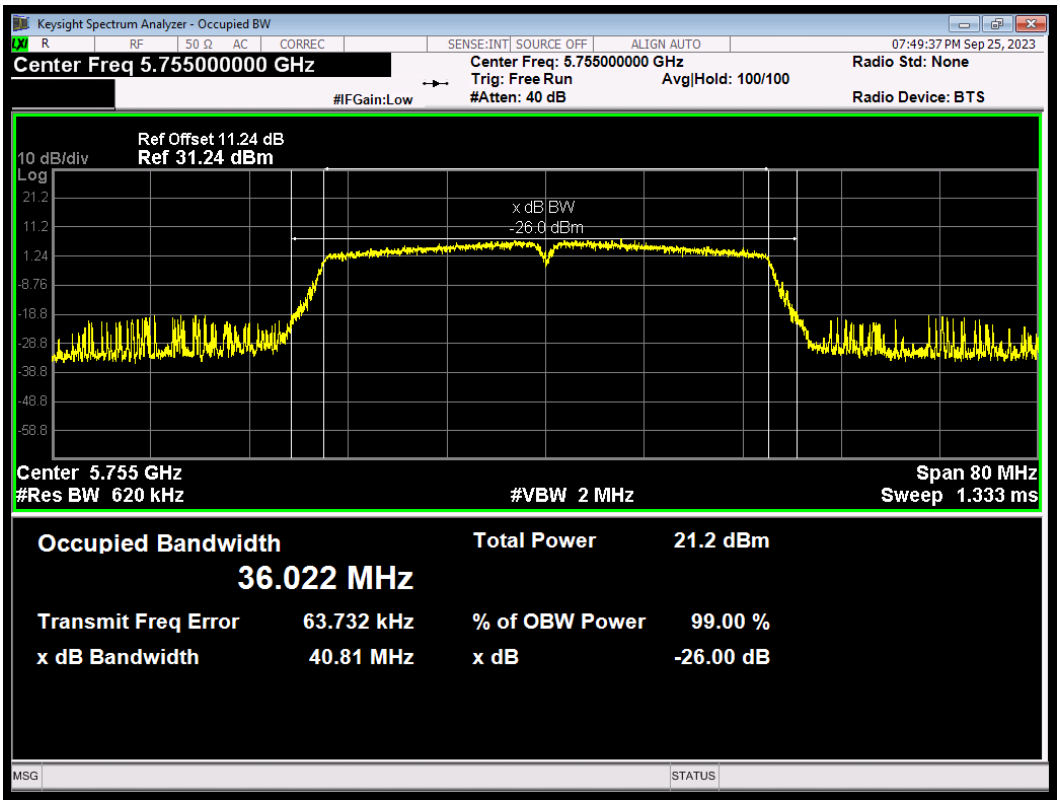
OBW 802.11n(HT20) 5825MHz



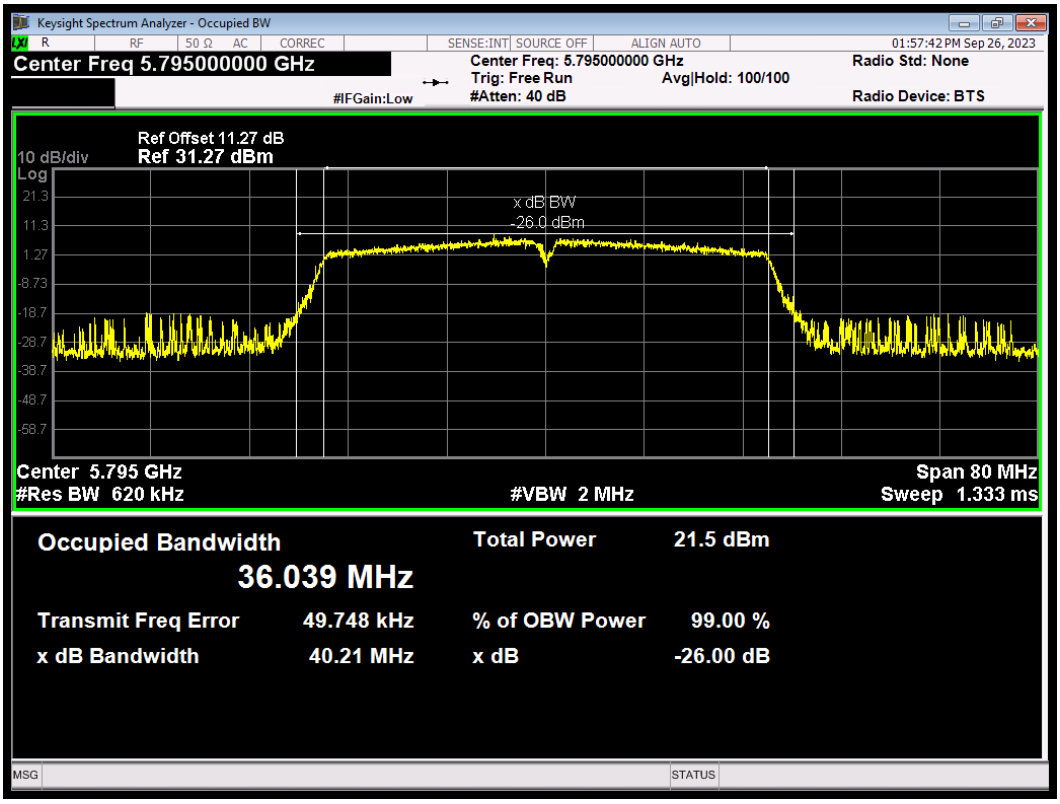
OBW 802.11n(HT40) 5710MHz



OBW 802.11n(HT40) 5755MHz



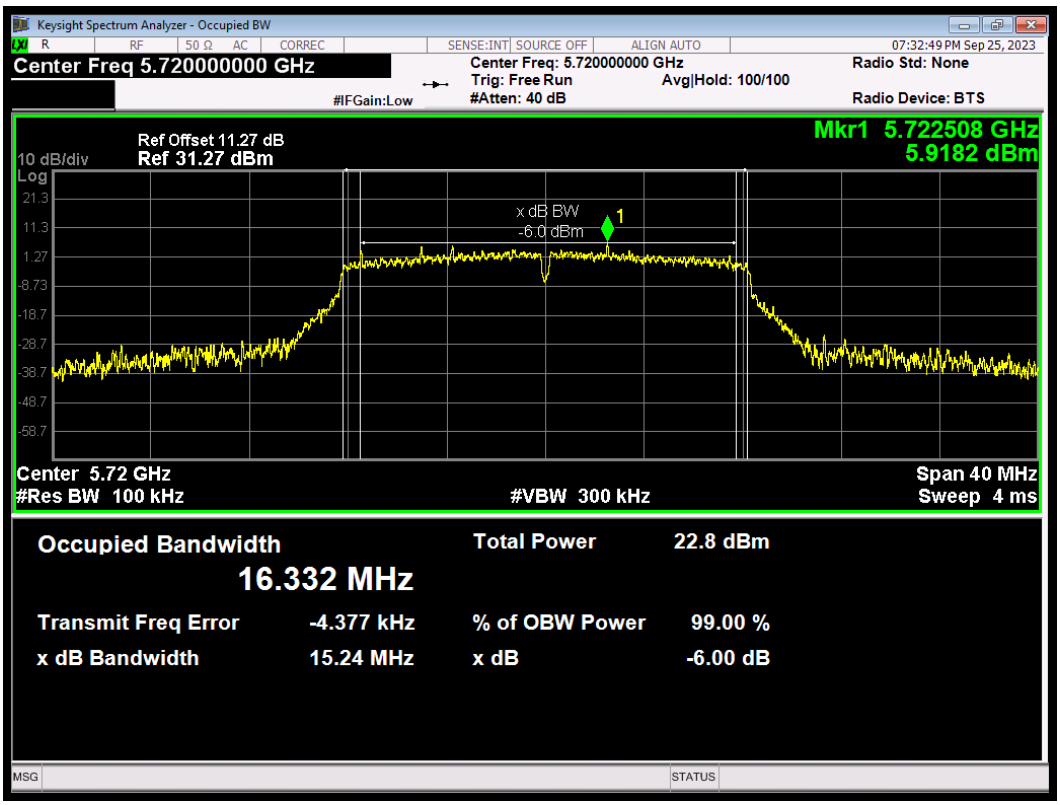
OBW 802.11n(HT40) 5795MHz



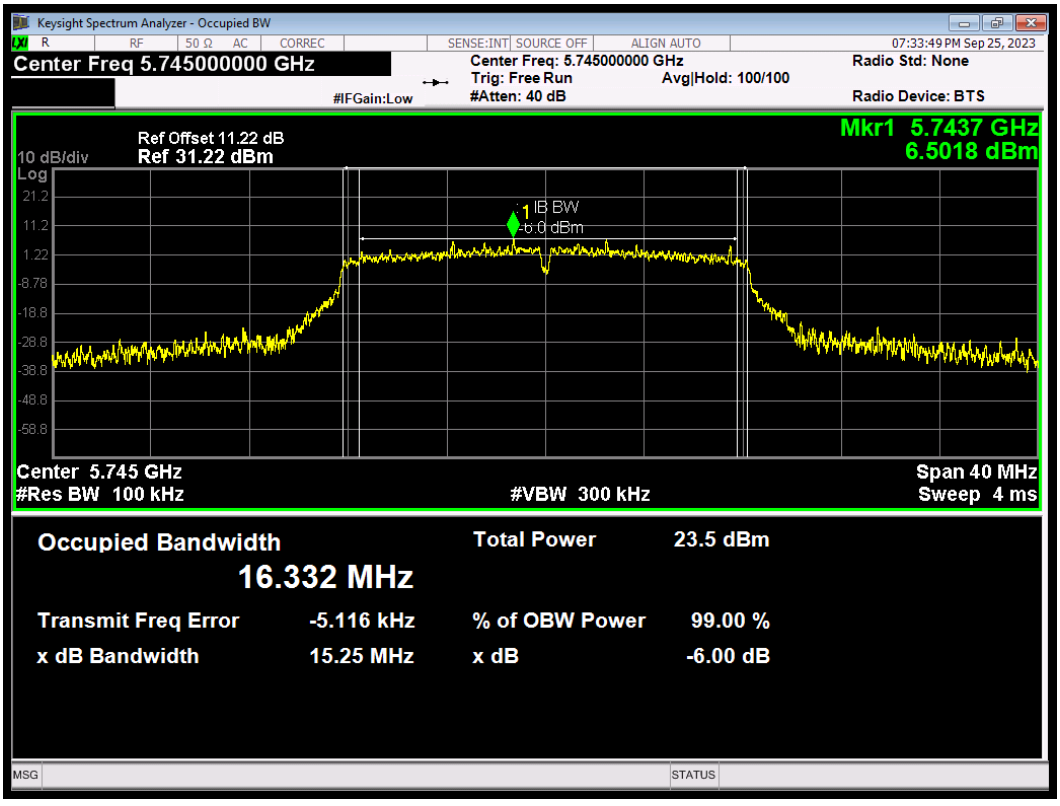
Minimum 6 dB bandwidth

U-NII-3

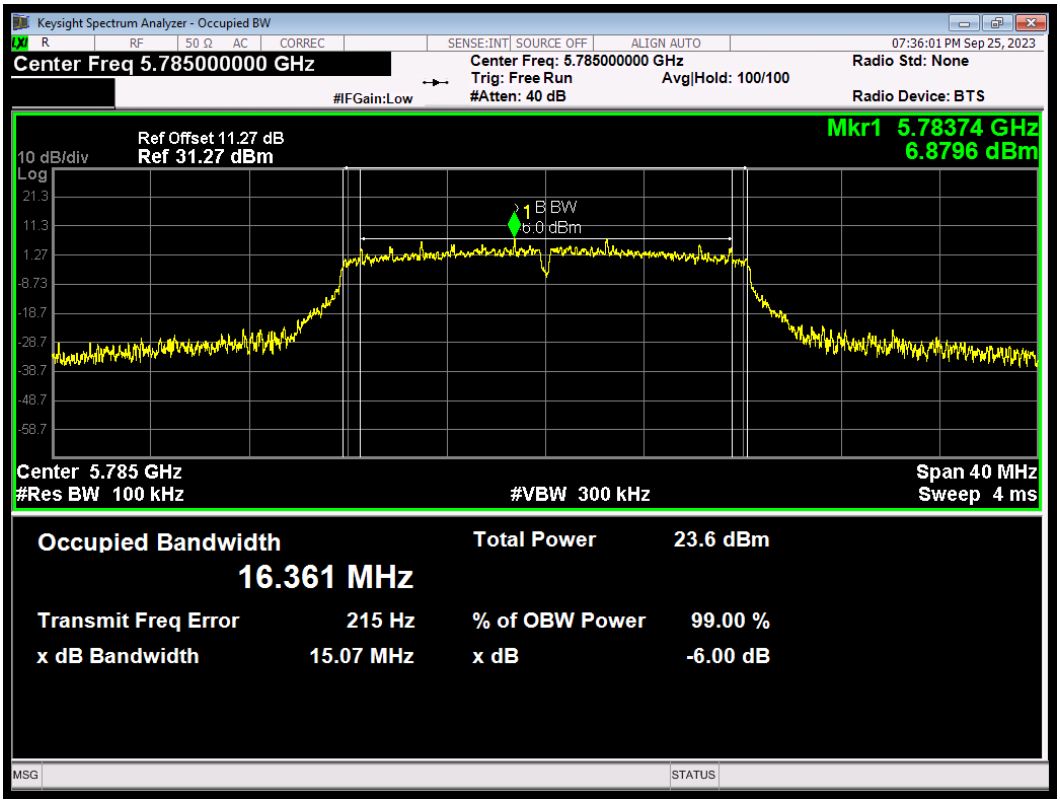
-6dB Bandwidth 802.11a 5720MHz



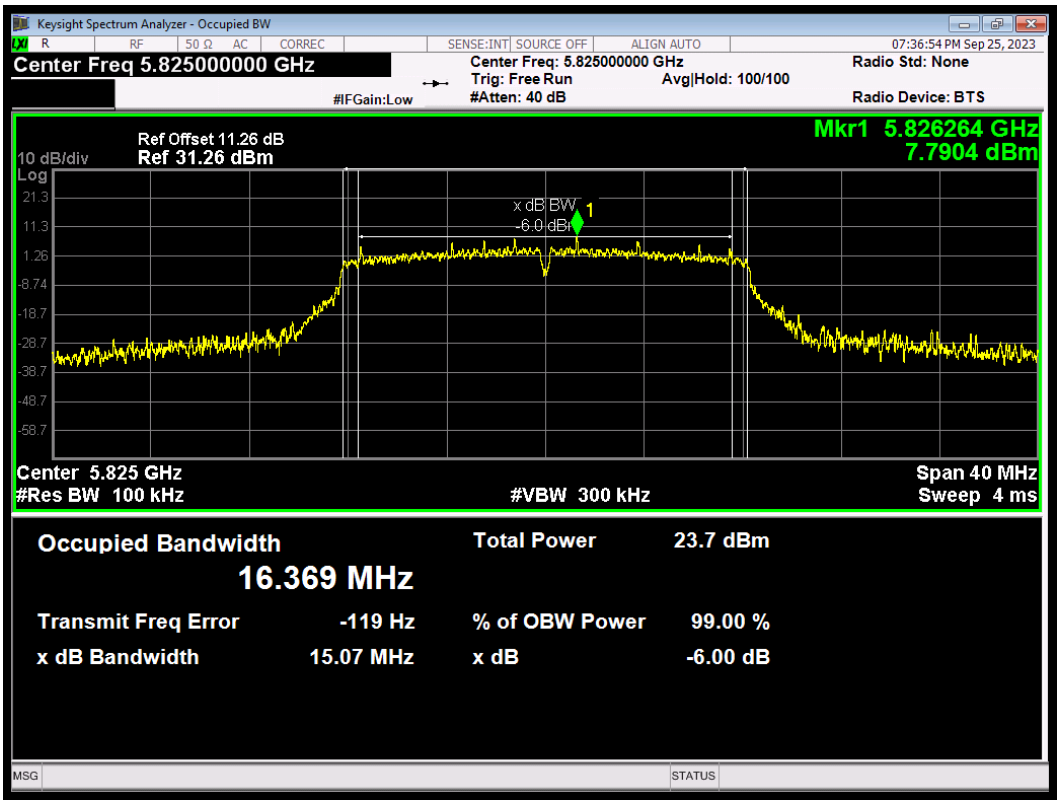
-6dB Bandwidth 802.11a 5745MHz



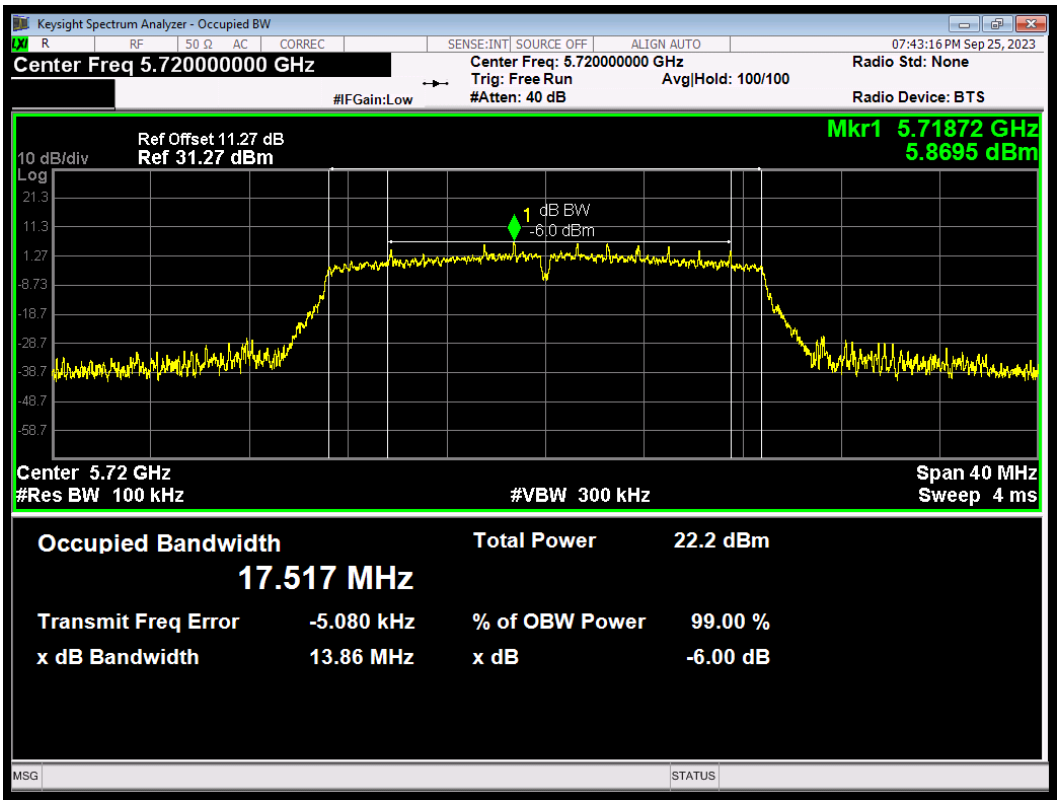
-6dB Bandwidth 802.11a 5785MHz



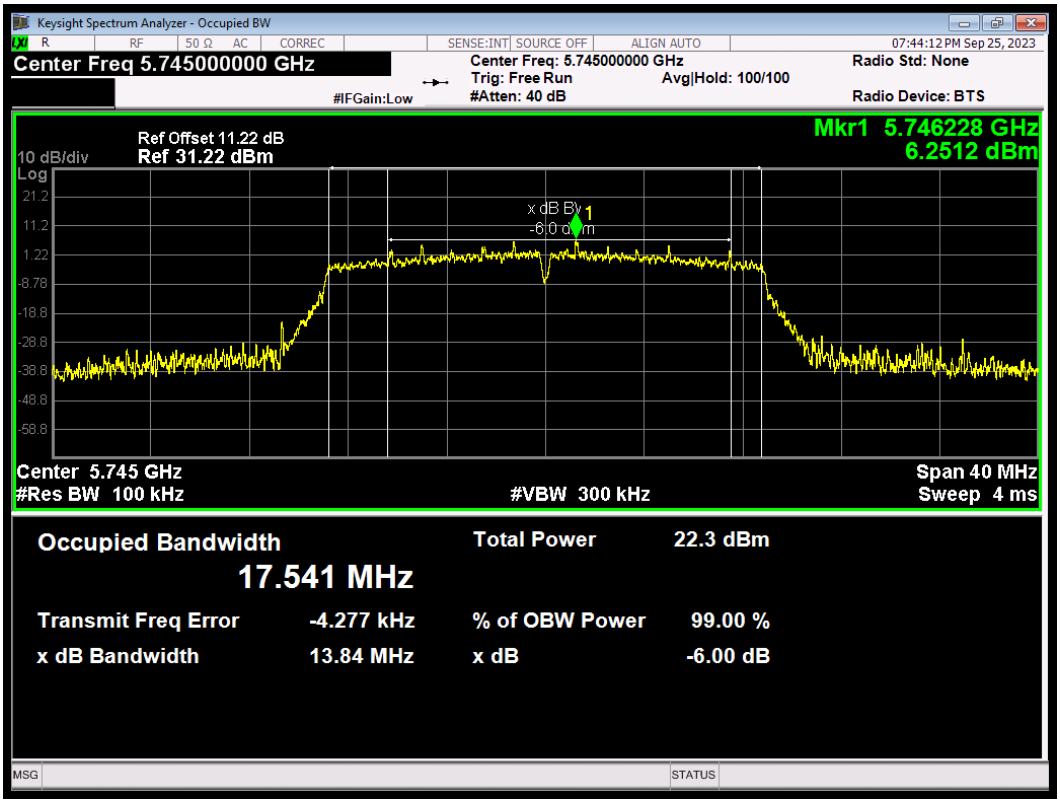
-6dB Bandwidth 802.11a 5825MHz



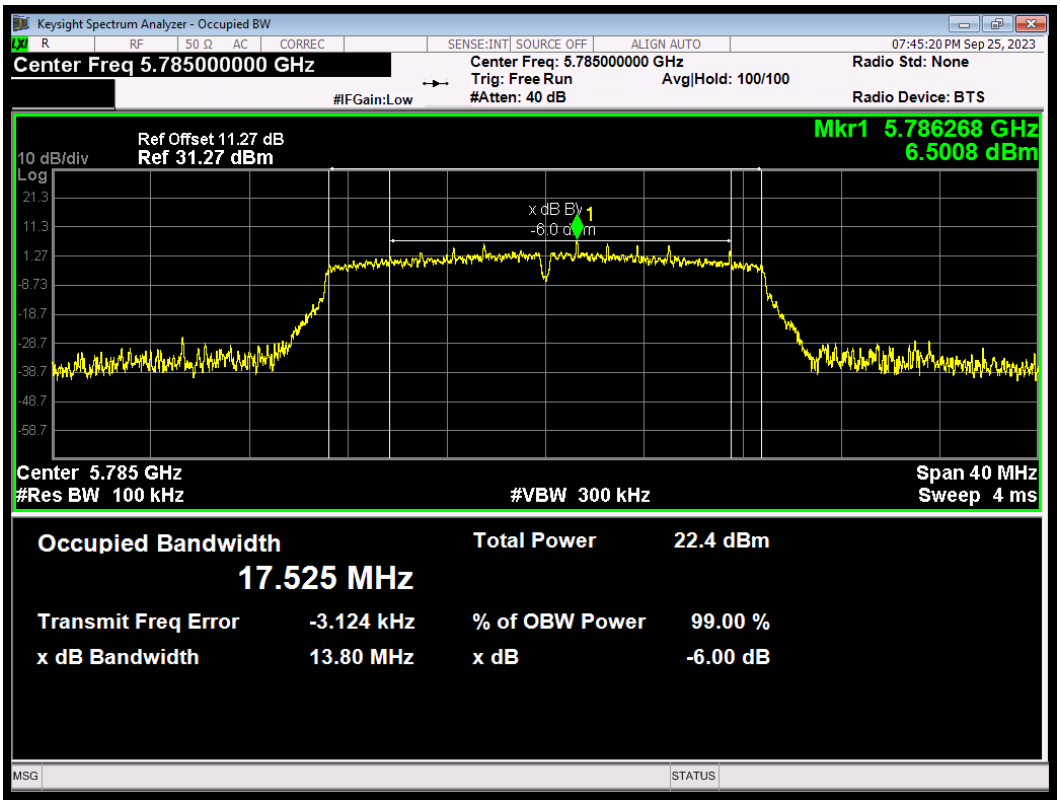
-6dB Bandwidth 802.11ac(VHT20) 5720MHz



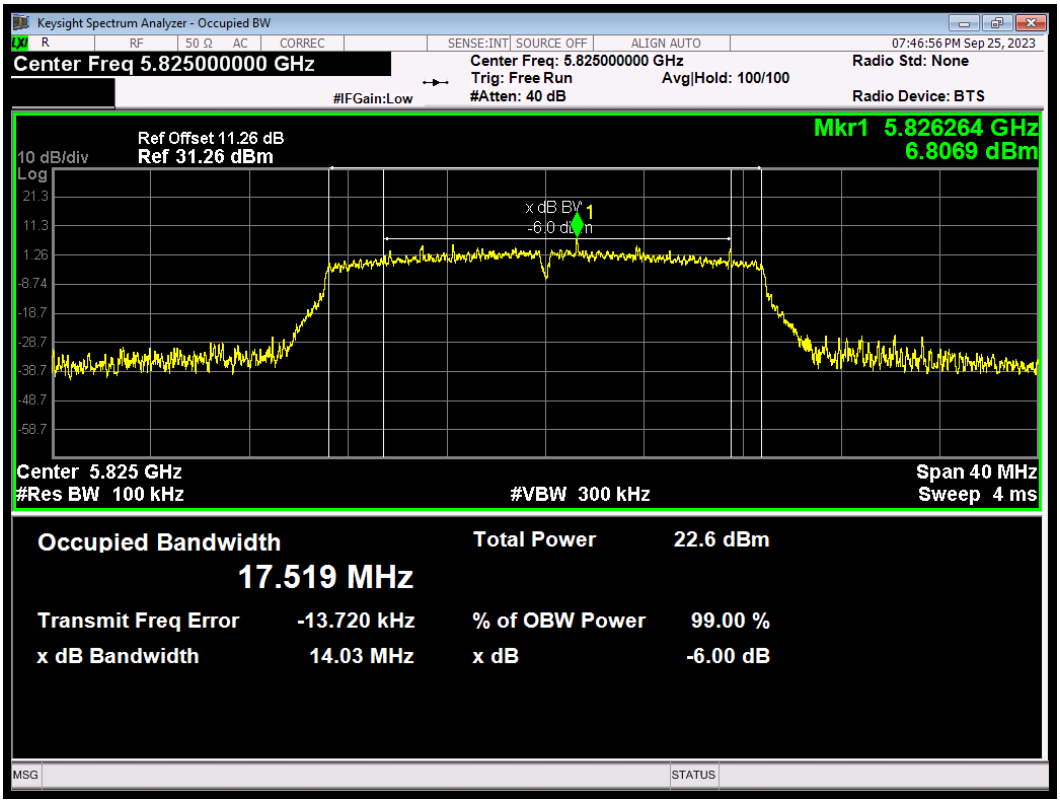
-6dB Bandwidth 802.11ac(VHT20) 5745MHz



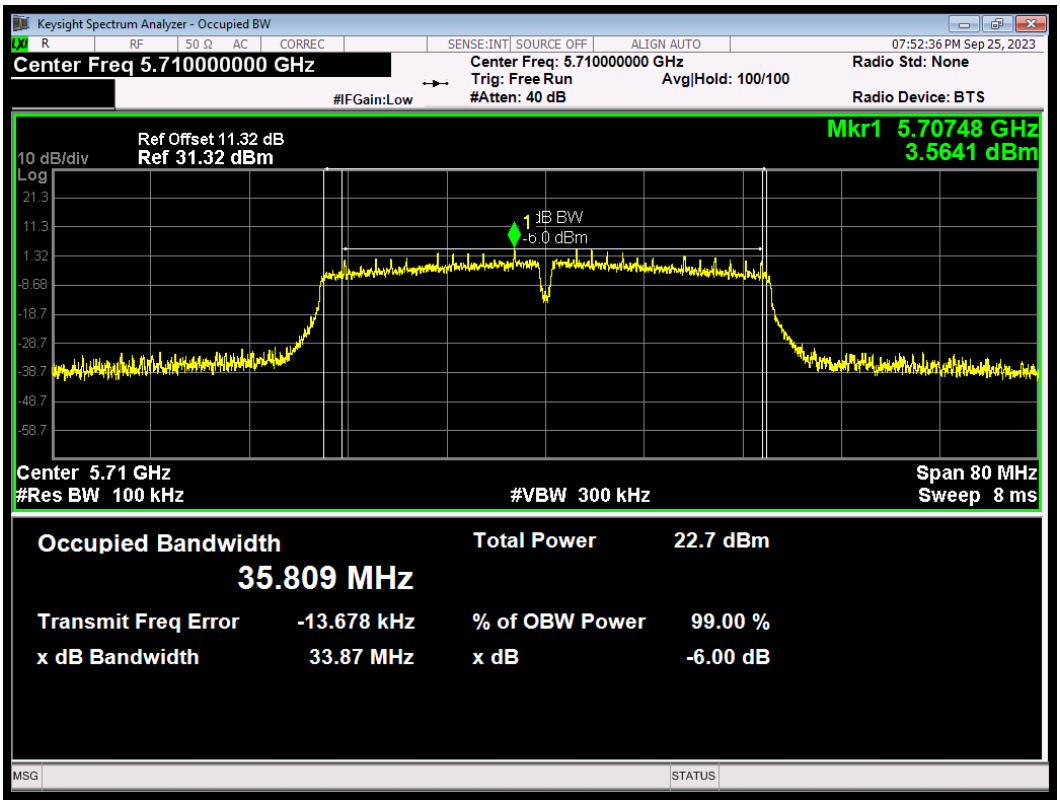
-6dB Bandwidth 802.11ac(VHT20) 5785MHz



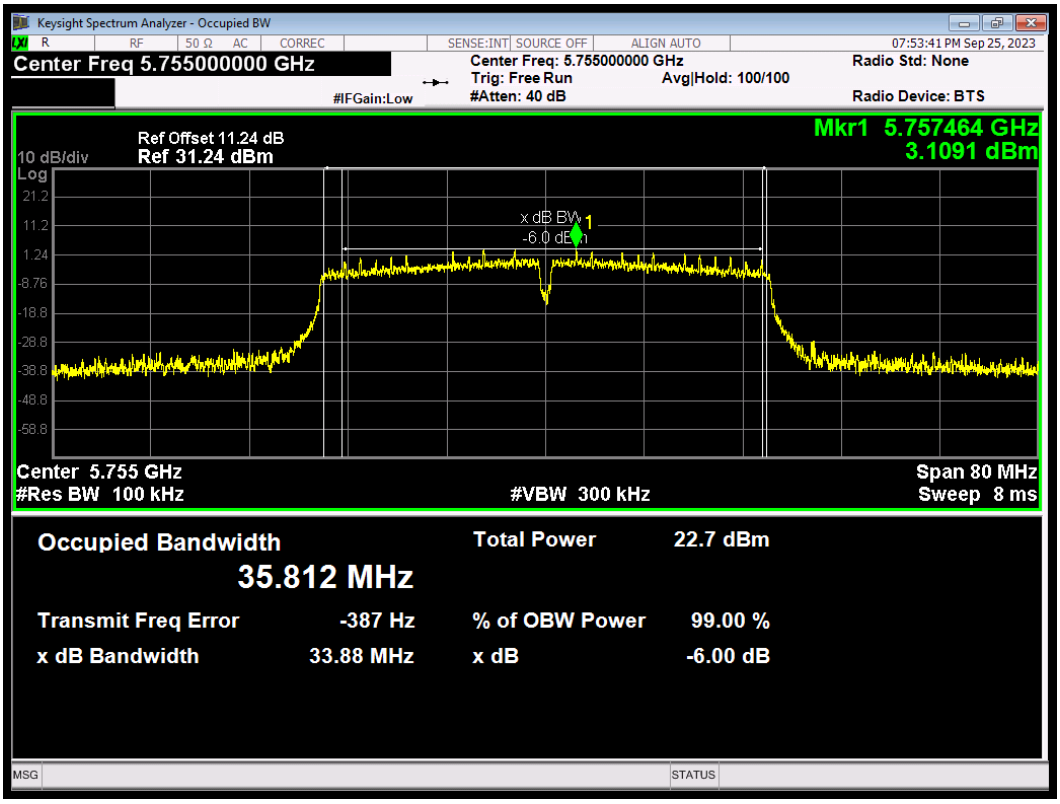
-6dB Bandwidth 802.11ac(VHT20) 5825MHz



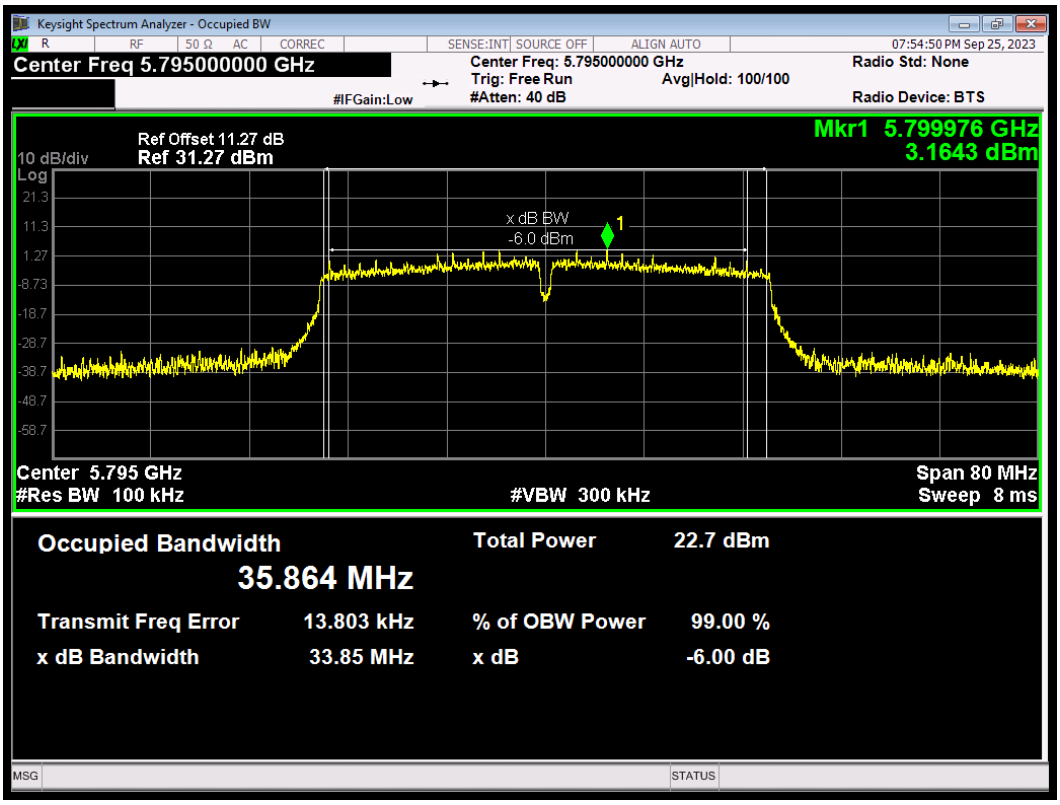
-6dB Bandwidth 802.11ac(VHT40) 5710MHz



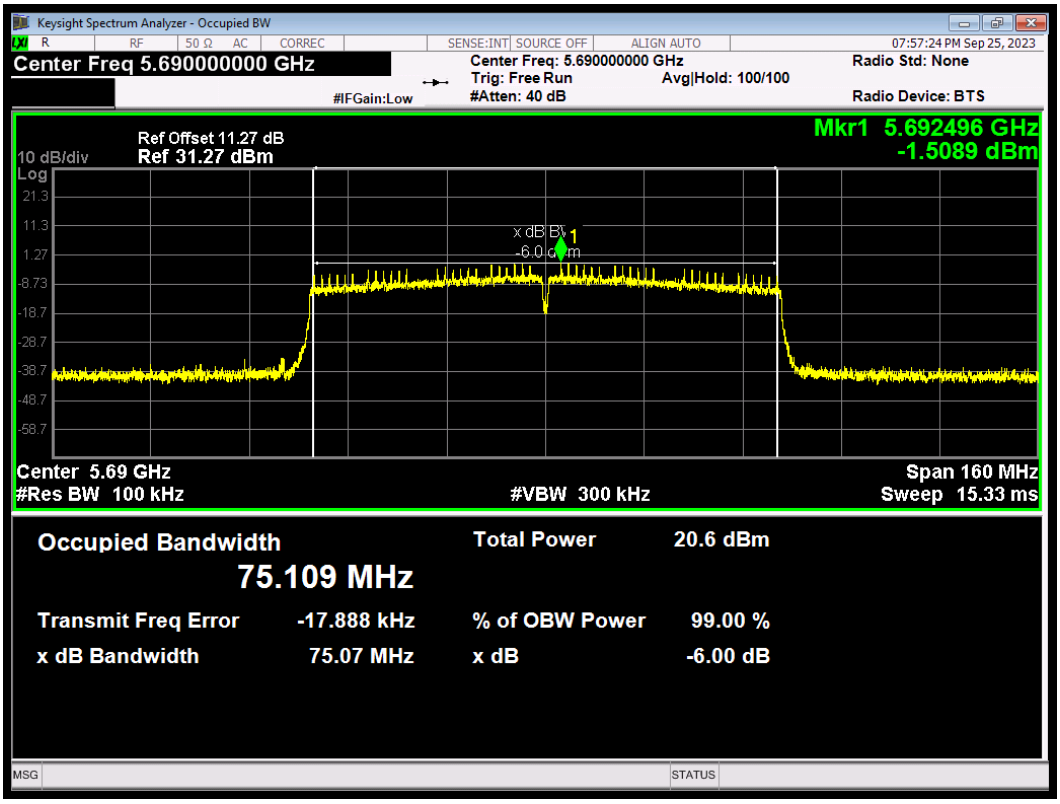
-6dB Bandwidth 802.11ac(VHT40) 5755MHz



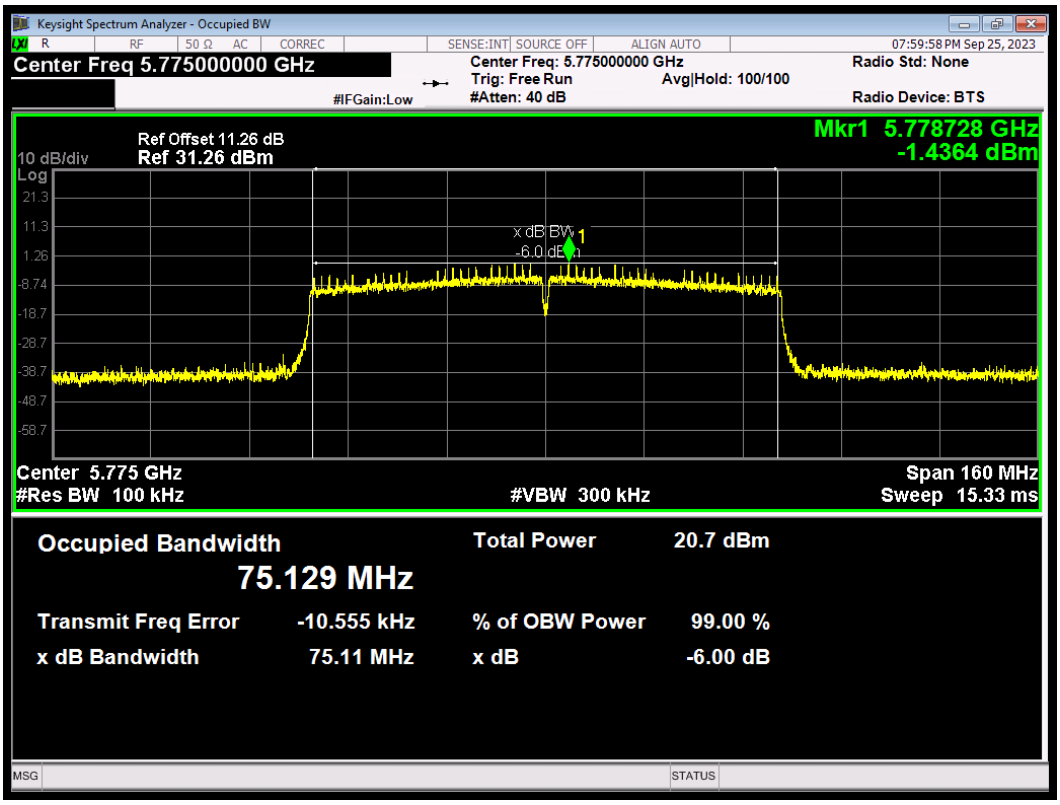
-6dB Bandwidth 802.11ac(VHT40) 5795MHz



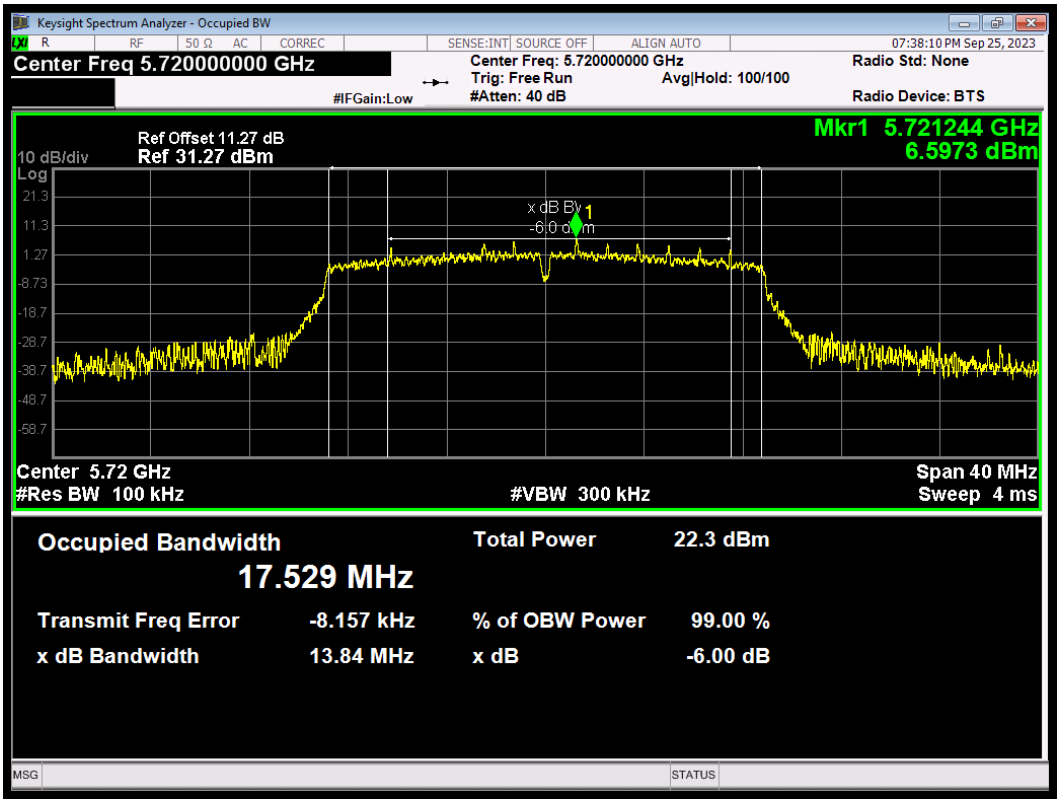
-6dB Bandwidth 802.11ac(VHT80) 5690MHz



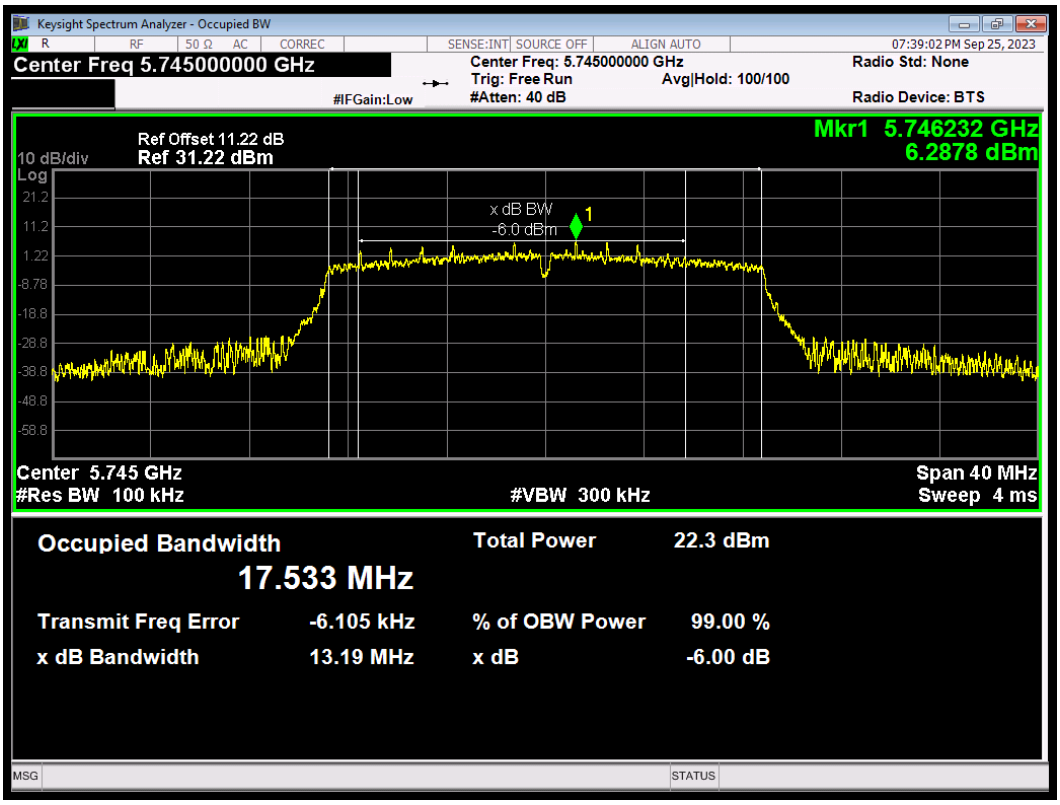
-6dB Bandwidth 802.11ac(VHT80) 5775MHz



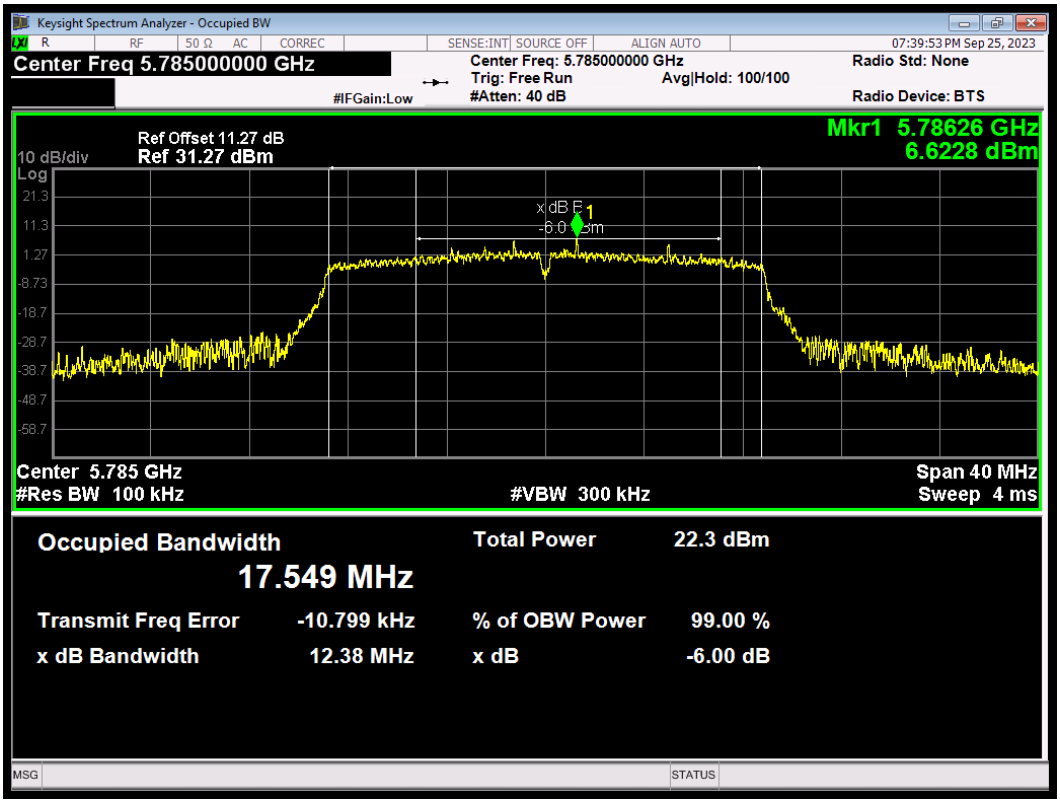
-6dB Bandwidth 802.11n(HT20) 5720MHz



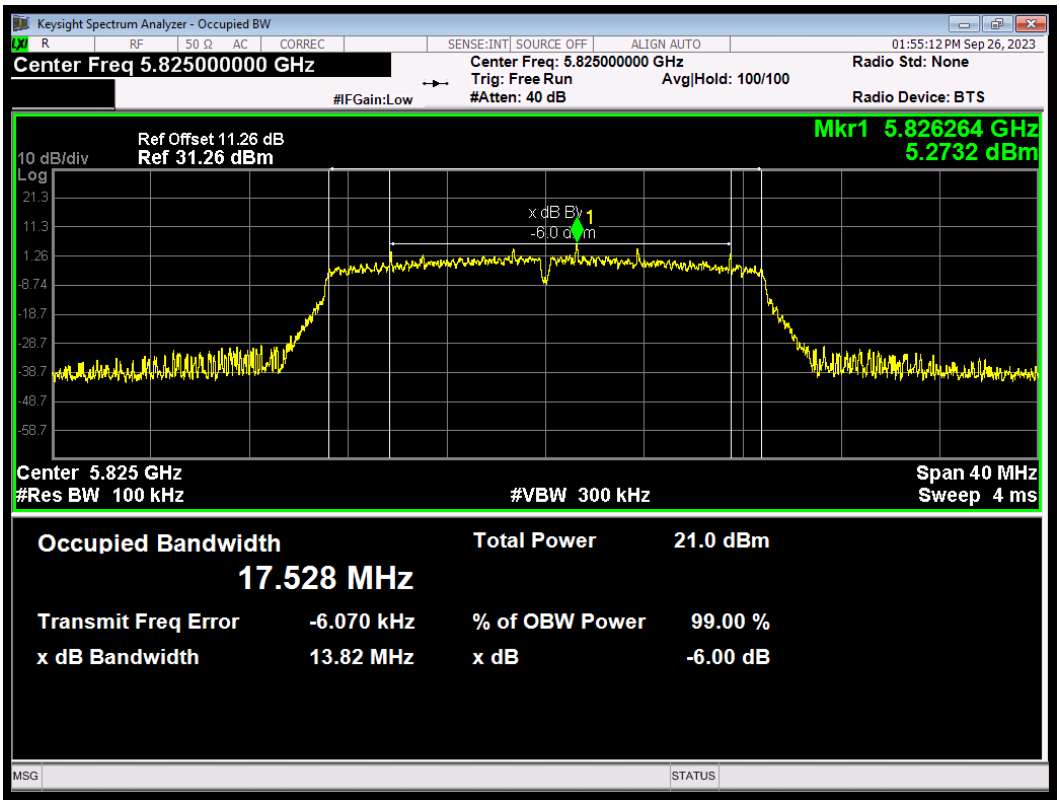
-6dB Bandwidth 802.11n(HT20) 5745MHz



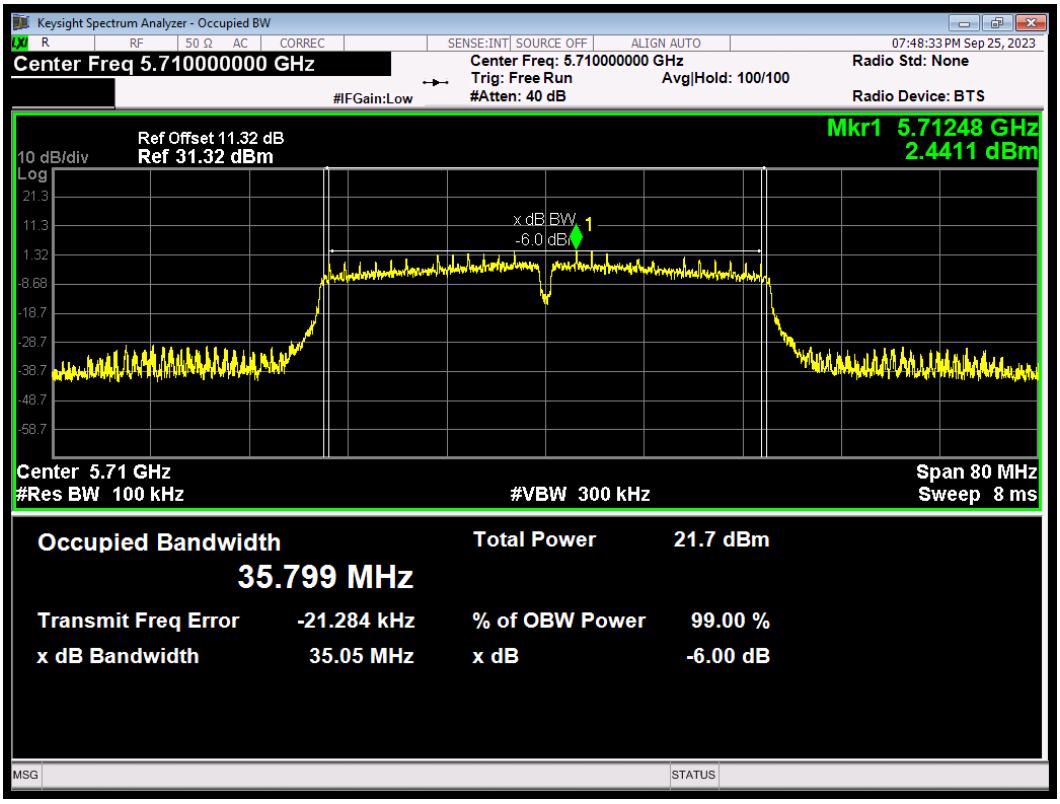
-6dB Bandwidth 802.11n(HT20) 5785MHz



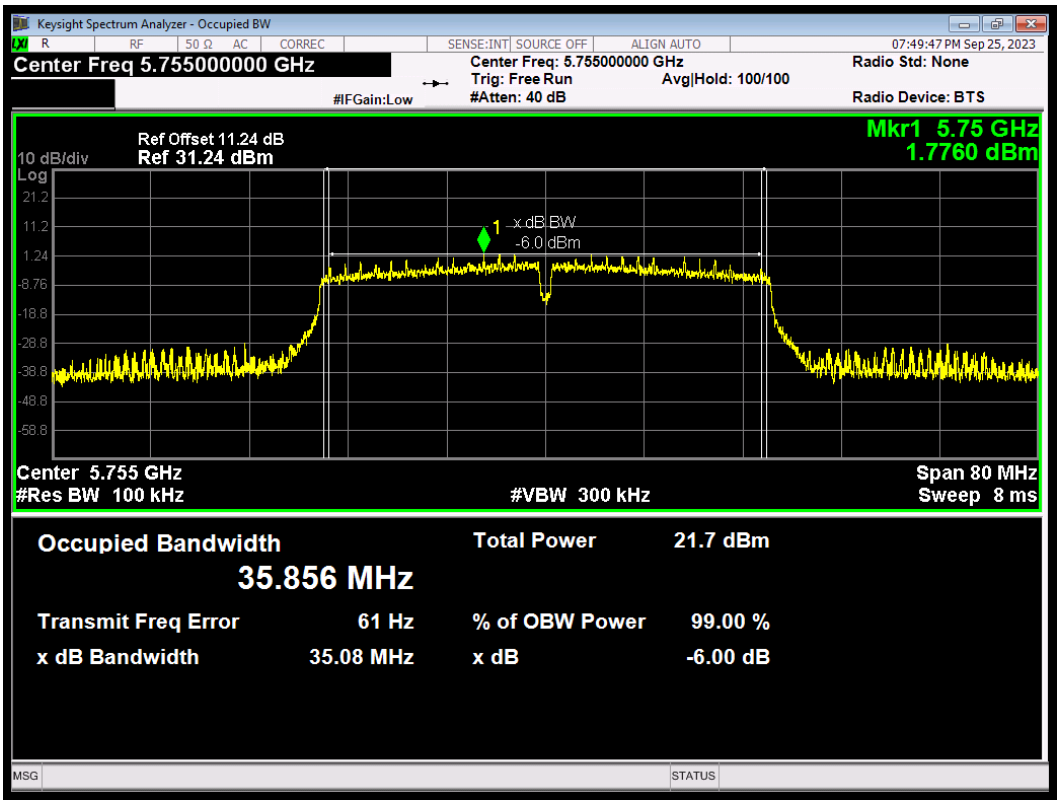
-6dB Bandwidth 802.11n(HT20) 5825MHz



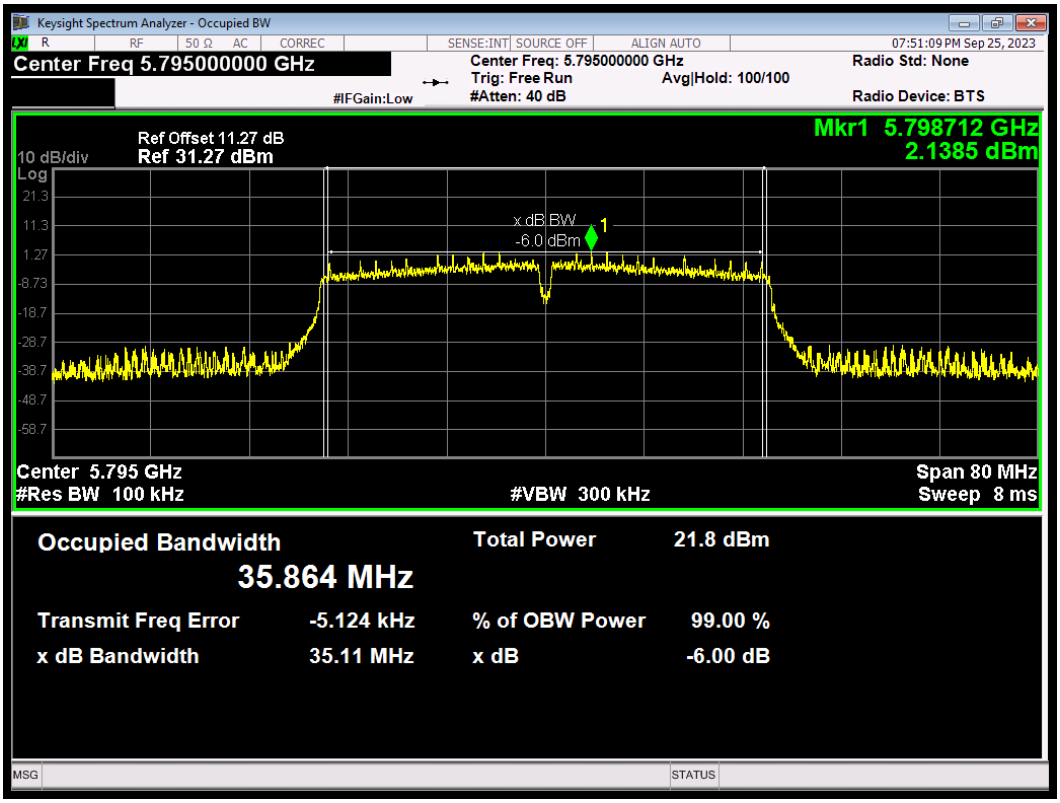
-6dB Bandwidth 802.11n(HT40) 5710MHz



-6dB Bandwidth 802.11n(HT40) 5755MHz



-6dB Bandwidth 802.11n(HT40) 5795MHz



5.2. Average Power Output

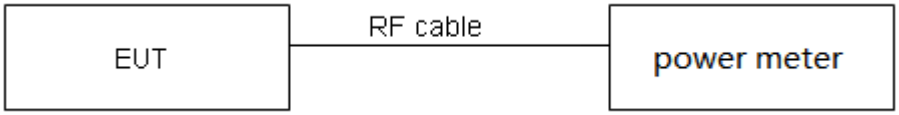
Ambient condition

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

Methods of Measurement

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

Test Setup



Limits

Rule FCC Part 15.407(a)(1) / FCC Part 15.407(a) (2) / FCC Part 15.407(a) (3)
(1) For the band 5.15-5.25 GHz.
(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).
(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude

the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

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

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

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

Measurement Uncertainty

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

Test Results

Mode	Duty cycle	Duty cycle correction Factor (dB)
802.11a	0.974	0.11
802.11n HT20	0.974	0.11
802.11n HT40	0.949	0.23
802.11ac VHT20	0.974	0.11
802.11ac VHT40	0.950	0.22
802.11ac VHT80	0.905	0.43
Note: when Duty cycle≥0.98, Duty cycle correction Factor not required.		

Power Index								
Channel	802.11a	802.11n HT20	802.11ac VHT20	Channel	802.11n HT40	802.11ac VHT40	Channel	802.11ac VHT80
CH36	17	16	16	CH38	15	16	CH42	14
CH40	17	16	16	CH46	15	16	/	/
CH48	17	16	16	/	/	/	/	/
CH52	17	16	16	CH54	15	16	CH58	14
CH60	17	16	16	CH62	15	16	/	/
CH64	17	16	16	/	/	/	/	/
CH100	16	15	16	CH102	13	14	CH122	14
CH120	17	16	16	CH118	15	16	CH138	14
CH140	17	16	16	CH134	15	16	/	/
CH144	17	16	16	CH142	15	16	/	/
CH149	17	16	16	CH151	15	16	CH155	14
CH157	17	16	16	CH159	15	16	/	/
CH165	17	16	16	/	/	/	/	/

Test Mode		Channel/ Frequency (MHz)	B=26 dB bandwidth (MHz)	Limit 11 dBm + 10 log B (dBm)	Final Limit (dBm)
U-NII-2A	802.11a	52/5260	20.00	24.01 >24	24
		60/5300	20.75	24.17 >24	24
		64/5320	21.30	24.28 >24	24
	802.11n HT20	52/5260	21.51	24.33 >24	24
		60/5300	21.75	24.37 >24	24
		64/5320	20.82	24.19 >24	24
	802.11n HT40	54/5270	40.76	27.10 >24	24
		62/5310	40.43	27.07 >24	24
	802.11ac VHT20	52/5260	20.28	24.07 >24	24
		60/5300	20.26	24.07 >24	24
		64/5320	20.12	24.04 >24	24
	802.11ac VHT40	54/5270	40.49	27.07 >24	24
		62/5310	40.56	27.08 >24	24
	802.11ac VHT80	58/5290	80.69	30.07 >24	24
U-NII-2C	802.11a	100/5500	21.55	24.33 >24	24
		120/5600	23.14	24.64 >24	24
		140/5700	22.50	24.52 >24	24
		144/5720	22.56	24.53 >24	24
	802.11n HT20	100/5500	21.34	24.29 >24	24
		120/5600	23.35	24.68 >24	24
		140/5700	23.06	24.63 >24	24
		144/5720	22.48	24.52 >24	24
	802.11n HT40	102/5510	40.75	27.10 >24	24
		118/5590	40.06	27.03 >24	24
		134/5670	40.86	27.11 >24	24
		142/5710	40.85	27.11 >24	24
	802.11ac VHT20	100/5500	20.16	24.04 >24	24
		120/5600	20.18	24.05 >24	24
		140/5700	20.20	24.05 >24	24
		144/5720	20.41	24.10 >24	24
	802.11ac VHT40	102/5510	40.66	27.09 >24	24
		118/5590	40.21	27.04 >24	24
		134/5670	40.51	27.08 >24	24
		142/5710	40.77	27.10 >24	24
	802.11ac VHT80	122/5610	81.10	30.09 >24	24
		138/5690	80.85	30.08 >24	24
Note: 250mW=24dBm					

U-NII-1

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	36/5180	16.86	16.97	24	PASS
	40/5200	17.27	17.38	24	PASS
	48/5240	17.35	17.46	24	PASS
802.11n HT20	36/5180	16.24	16.35	24	PASS
	40/5200	16.19	16.30	24	PASS
	48/5240	16.26	16.37	24	PASS
802.11n HT40	38/5190	14.20	14.43	24	PASS
	46/5230	14.61	14.84	24	PASS
802.11ac VHT20	36/5180	16.27	16.38	24	PASS
	40/5200	16.19	16.30	24	PASS
	48/5240	16.27	16.38	24	PASS
802.11ac VHT40	38/5190	15.31	15.53	24	PASS
	46/5230	15.79	16.01	24	PASS
802.11ac VHT80	42/5210	13.43	13.86	24	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

U-NII-2A

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	52/5260	17.54	17.65	24	PASS
	60/5300	17.67	17.78	24	PASS
	64/5320	17.65	17.76	24	PASS
802.11n HT20	52/5260	16.43	16.54	24	PASS
	60/5300	16.56	16.67	24	PASS
	64/5320	16.52	16.63	24	PASS
802.11n HT40	54/5270	15.21	15.44	24	PASS
	62/5310	14.91	15.14	24	PASS
802.11ac VHT20	52/5260	16.41	16.52	24	PASS
	60/5300	16.04	16.15	24	PASS
	64/5320	16.42	16.53	24	PASS
802.11ac VHT40	54/5270	16.20	16.42	24	PASS
	62/5310	15.92	16.14	24	PASS
802.11ac VHT80	58/5290	13.94	14.37	24	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

U-NII-2C

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	100/5500	16.12	16.23	24	PASS
	120/5600	17.44	17.55	24	PASS
	140/5700	17.30	17.41	24	PASS
	144/5720	16.56	16.67	24	PASS
802.11n HT20	100/5500	14.98	15.09	24	PASS
	120/5600	16.32	16.43	24	PASS
	140/5700	16.17	16.28	24	PASS
	144/5720	15.34	15.45	24	PASS
802.11n HT40	102/5510	12.69	12.92	24	PASS
	118/5590	15.25	15.48	24	PASS
	134/5670	15.28	15.51	24	PASS
	142/5710	14.33	14.56	24	PASS
802.11ac VHT20	100/5500	16.06	16.17	24	PASS
	120/5600	16.33	16.44	24	PASS
	140/5700	15.61	15.72	24	PASS
	144/5720	15.28	15.39	24	PASS
802.11ac VHT40	102/5510	13.75	13.97	24	PASS
	118/5590	16.34	16.56	24	PASS
	134/5670	16.26	16.48	24	PASS
	142/5710	15.40	15.62	24	PASS
802.11ac VHT80	122/5610	13.77	14.20	24	PASS
	138/5690	12.81	13.24	24	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

U-NII-3

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	144/5720	8.51	8.62	30	PASS
	149/5745	17.29	17.40	30	PASS
	157/5785	17.54	17.65	30	PASS
	165/5825	17.69	17.80	30	PASS
802.11n HT20	144/5720	8.19	8.30	30	PASS
	149/5745	16.18	16.29	30	PASS
	157/5785	16.34	16.45	30	PASS
	165/5825	16.48	16.59	30	PASS
802.11n HT40	142/5710	2.34	2.57	30	PASS
	151/5755	15.15	15.38	30	PASS
	159/5795	15.28	15.51	30	PASS
802.11ac VHT20	144/5720	8.25	8.36	30	PASS
	149/5745	16.20	16.31	30	PASS
	157/5785	16.34	16.45	30	PASS
	165/5825	16.49	16.60	30	PASS
802.11ac VHT40	142/5710	3.59	3.81	30	PASS
	151/5755	16.20	16.42	30	PASS
	159/5795	16.30	16.52	30	PASS
802.11ac VHT80	138/5690	3.91	4.34	30	PASS
	155/5775	13.80	14.23	30	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

5.3. Frequency Stability

Ambient condition

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

Method of Measurement

1. Frequency stability with respect to ambient temperature

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

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

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

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

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

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

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

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

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

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

2. Frequency stability when varying supply voltage

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

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

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

Limit

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

Measurement Uncertainty

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

Test Results

Voltage (V)	Temperature (°C)	U-NII-1 Test Results			
		5200MHz			
		1min	2min	5min	10min
3.89	-30	5199.996517	5199.987859	5199.980125	5199.972658
3.89	-20	5200.005800	5199.986520	5199.971308	5199.968526
3.89	-10	5199.996133	5199.981133	5199.968808	5199.966904
3.89	0	5200.002310	5199.985448	5199.963850	5199.961400
3.89	10	5199.995964	5199.983814	5199.963693	5199.954063
3.89	20	5199.991485	5199.975958	5199.954540	5199.949087
3.89	30	5199.984504	5199.973806	5199.947888	5199.941664
3.89	40	5199.978786	5199.971450	5199.940741	5199.937392
3.89	50	5199.973138	5199.969965	5199.940670	5199.931200
3.6	20	5199.970702	5199.963916	5199.933248	5199.927639
4.48	20	5199.968872	5199.959037	5199.924955	5199.925006
Max. ΔMHz		-0.031128	-0.040963	-0.075045	-0.0749940
PPM		-5.986154	-7.877500	-14.431731	-14.421923

Voltage (V)	Temperature (°C)	U-NII-2A Test Results			
		5300MHz			
		1min	2min	5min	10min
3.89	-30	5299.995314	5299.991785	5299.989337	5299.979547
3.89	-20	5299.986243	5299.982146	5299.985771	5299.976745
3.89	-10	5299.983241	5299.976614	5299.982632	5299.969308
3.89	0	5299.977863	5299.976196	5299.979554	5299.971572
3.89	10	5299.970916	5299.967536	5299.978218	5299.966209
3.89	20	5299.964425	5299.957807	5299.970066	5299.965426
3.89	30	5299.959736	5299.956523	5299.968449	5299.964578
3.89	40	5299.954357	5299.948121	5299.963274	5299.964161
3.89	50	5299.953340	5299.943032	5299.956107	5299.960006
3.6	20	5299.948914	5299.940338	5299.950827	5299.959325
4.48	20	5299.948001	5299.939990	5299.943061	5299.957729
Max. ΔMHz		-0.051999	-0.060010	-0.056939	-0.042271
PPM		-9.811132	-11.322642	-10.743208	-7.975660

Voltage (V)	Temperature (°C)	U-NII-2C Test Results			
		5580MHz			
		1min	2min	5min	10min
3.89	-30	5579.991547	5579.985291	5579.980611	5579.971963
3.89	-20	5579.988362	5579.976681	5579.974462	5579.969081
3.89	-10	5579.978395	5579.975165	5579.970590	5579.968242
3.89	0	5579.986198	5579.976124	5579.964465	5579.965903
3.89	10	5579.983079	5579.974647	5579.955510	5579.964287
3.89	20	5579.982030	5579.971671	5579.946579	5579.961499
3.89	30	5579.975982	5579.963771	5579.945052	5579.960172
3.89	40	5579.967423	5579.956347	5579.940249	5579.958340
3.89	50	5579.965701	5579.946646	5579.930652	5579.954667
3.6	20	5579.957872	5579.940917	5579.923429	5579.948753
4.48	20	5579.956862	5579.938232	5579.920641	5579.940264
Max. ΔMHz		-0.0431380	-0.0617680	-0.0793590	-0.0597360
PPM		-7.730824	-11.069534	-14.222043	-10.705376

Voltage (V)	Temperature (°C)	U-NII-3 Test Results			
		5785MHz			
		1min	2min	5min	10min
3.89	-30	5784.999687	5784.990652	5784.984114	5784.981767
3.89	-20	5784.992334	5784.984695	5784.977468	5784.972197
3.89	-10	5784.985805	5784.979921	5784.973822	5784.965204
3.89	0	5784.987328	5784.974697	5784.967614	5784.963665
3.89	10	5784.983650	5784.968435	5784.966172	5784.963575
3.89	20	5784.980741	5784.958809	5784.961053	5784.954440
3.89	30	5784.975085	5784.948877	5784.960047	5784.950604
3.89	40	5784.969592	5784.943340	5784.951870	5784.948274
3.89	50	5784.959898	5784.934033	5784.943911	5784.947563
3.6	20	5784.950852	5784.927828	5784.940636	5784.941748
4.48	20	5784.950145	5784.918116	5784.940422	5784.938481
Max. ΔMHz		-0.049855	-0.0818840	-0.0595780	-0.0615190
PPM		-8.617978	-14.154538	-10.298704	-10.634226

5.4. Power Spectral Density

Ambient condition

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

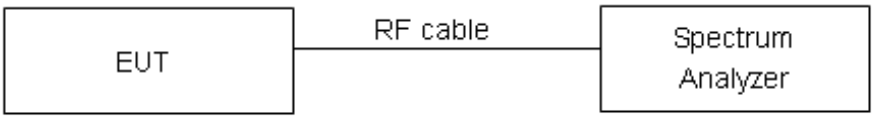
Method of Measurement

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

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

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

Test setup



Limits

Rule FCC Part 15.407(a)(1)/ FCC Part 15.407(a)(2) / FCC Part 15.407(a)(3)
For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum 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/GHz	Limits
5.15-5.25	11dBm/MHz
5.25-5.35 and 5.47-5.725	11dBm/MHz
5.725-5.85	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:

U-NII-1

Mode	Channel/ Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	36/5180	7.32	7.43	11	PASS
	40/5200	7.80	7.91	11	PASS
	48/5240	7.80	7.91	11	PASS
802.11n HT20	36/5180	6.79	6.90	11	PASS
	40/5200	6.28	6.39	11	PASS
	48/5240	6.51	6.62	11	PASS
802.11n HT40	38/5190	1.57	1.80	11	PASS
	46/5230	1.91	2.14	11	PASS
802.11ac VHT20	36/5180	6.53	6.64	11	PASS
	40/5200	6.74	6.85	11	PASS
	48/5240	6.39	6.50	11	PASS
802.11ac VHT40	38/5190	2.8	3.02	11	PASS
	46/5230	3.17	3.39	11	PASS
802.11ac VHT80	42/5210	-2.51	-2.08	11	PASS
Note: Power Spectral Density =Read Value+Duty cycle correction factor					

U-NII-2A

Mode	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	52/5260	7.83	7.94	11	PASS
	60/5300	8.16	8.27	11	PASS
	64/5320	7.94	8.05	11	PASS
802.11n HT20	52/5260	6.55	6.66	11	PASS
	60/5300	6.83	6.94	11	PASS
	64/5320	6.84	6.95	11	PASS
802.11n HT40	54/5270	2.43	2.66	11	PASS
	62/5310	2.37	2.60	11	PASS
802.11ac VHT20	52/5260	6.56	6.67	11	PASS
	60/5300	6.09	6.20	11	PASS
	64/5320	6.76	6.87	11	PASS
802.11ac VHT40	54/5270	3.68	3.90	11	PASS
	62/5310	3.72	3.94	11	PASS
802.11ac VHT80	58/5290	-2.07	-1.64	11	PASS
Note: Power Spectral Density =Read Value+Duty cycle correction factor					

U-NII-2C

Mode	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	100/5500	6.44	6.55	11	PASS
	120/5600	7.87	7.98	11	PASS
	140/5700	7.91	8.02	11	PASS
	144/5720	7.78	7.89	11	PASS
802.11n HT20	100/5500	5.40	5.51	11	PASS
	120/5600	6.61	6.72	11	PASS
	140/5700	6.54	6.65	11	PASS
	144/5720	6.48	6.59	11	PASS
802.11n HT40	102/5510	0.02	0.25	11	PASS
	118/5590	2.61	2.84	11	PASS
	134/5670	2.83	3.06	11	PASS
	142/5710	1.80	2.03	11	PASS
802.11ac VHT20	100/5500	6.34	6.45	11	PASS
	120/5600	6.59	6.70	11	PASS
	140/5700	5.89	6.00	11	PASS
	144/5720	6.38	6.49	11	PASS
802.11ac VHT40	102/5510	1.19	1.41	11	PASS
	118/5590	3.68	3.90	11	PASS
	134/5670	3.71	3.93	11	PASS
	142/5710	2.80	3.02	11	PASS
802.11ac VHT80	122/5610	-1.91	-1.48	11	PASS
	138/5690	-2.83	-2.40	11	PASS
Note: Power Spectral Density =Read Value+Duty cycle correction factor					

U-NII-3

Mode	Channel /Frequency (MHz)	Read Value (dBm/470kHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Conclusion
802.11a	144/5720	1.73	2.11	30	PASS
	149/5745	4.37	4.75	30	PASS
	157/5785	4.65	5.03	30	PASS
	165/5825	5.05	5.43	30	PASS
802.11n HT20	144/5720	0.92	1.30	30	PASS
	149/5745	3.12	3.50	30	PASS
	157/5785	3.35	3.73	30	PASS
	165/5825	3.60	3.98	30	PASS
802.11n HT40	142/5710	-4.60	-4.10	30	PASS
	151/5755	-0.95	-0.45	30	PASS
	159/5795	-0.80	-0.30	30	PASS
802.11ac VHT20	144/5720	1.09	1.47	30	PASS
	149/5745	3.05	3.43	30	PASS
	157/5785	3.20	3.58	30	PASS
	165/5825	3.63	4.01	30	PASS
802.11ac VHT40	142/5710	-3.66	-3.17	30	PASS
	151/5755	0.22	0.71	30	PASS
	159/5795	0.20	0.69	30	PASS
802.11ac VHT80	138/5690	-9.23	-8.53	30	PASS
	155/5775	-5.14	-4.44	30	PASS
Note: PSD=Read Value+Duty cycle correction factor +10*log(500/470)					

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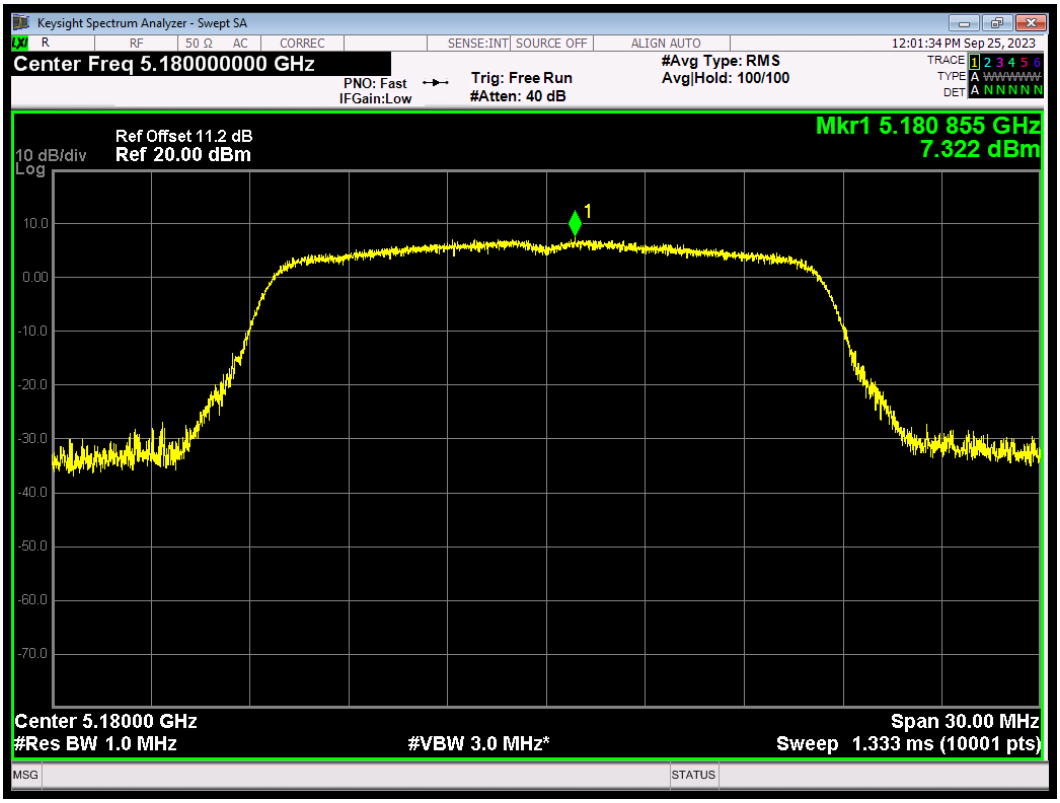
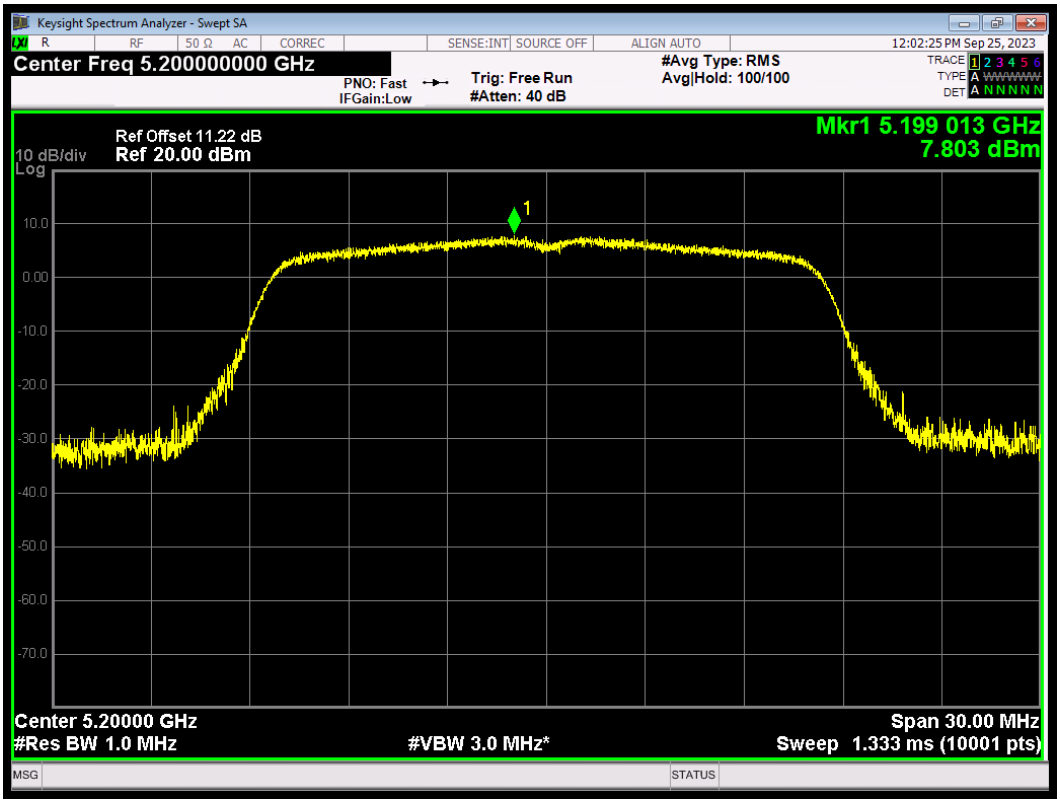
PSD 802.11a 5180MHz



PSD 802.11a 5200MHz



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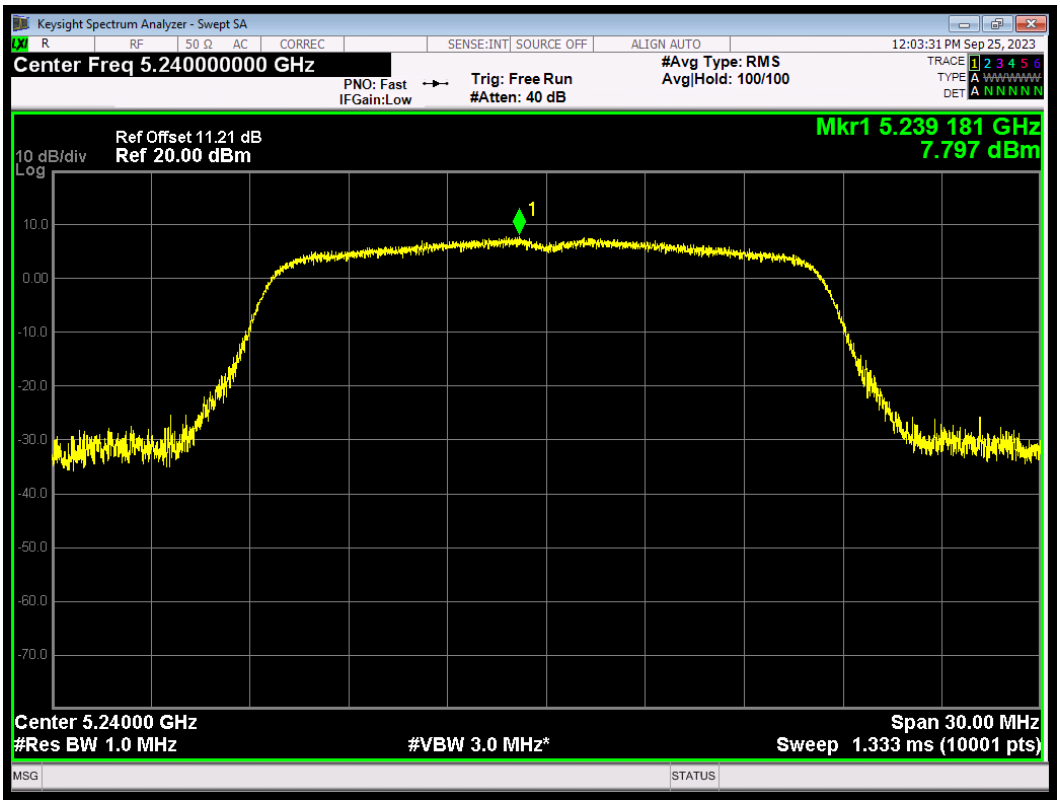
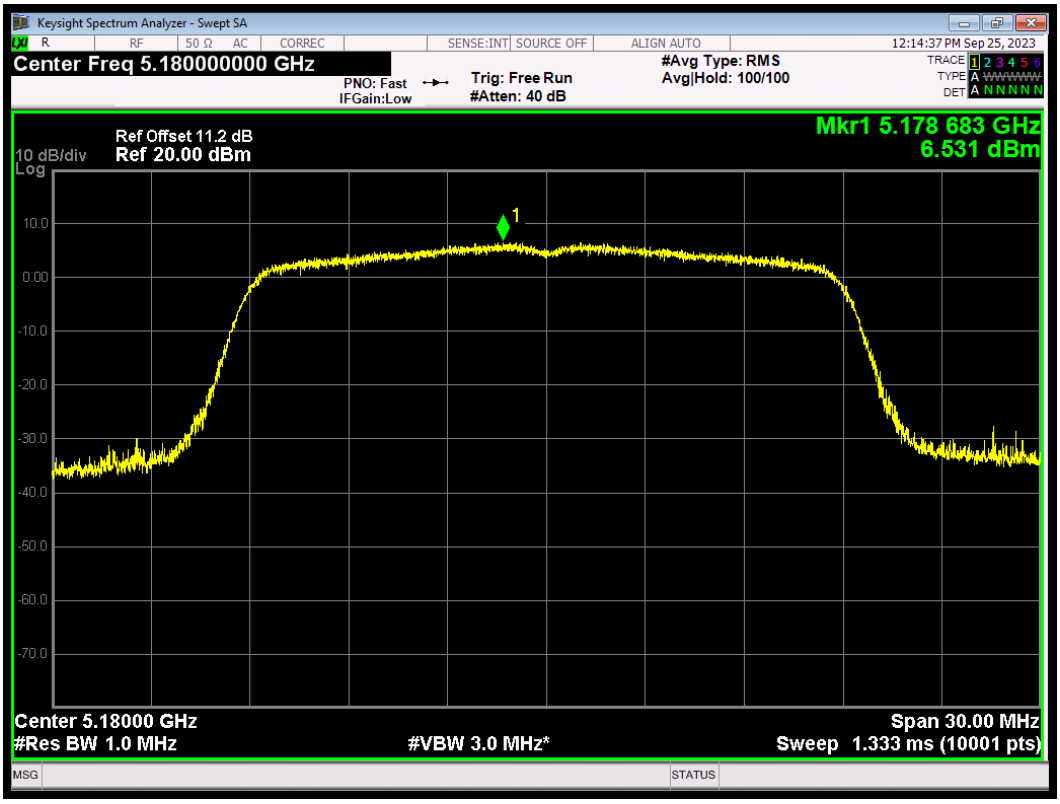


PSD 802.11ac(VHT20) 5180MHz



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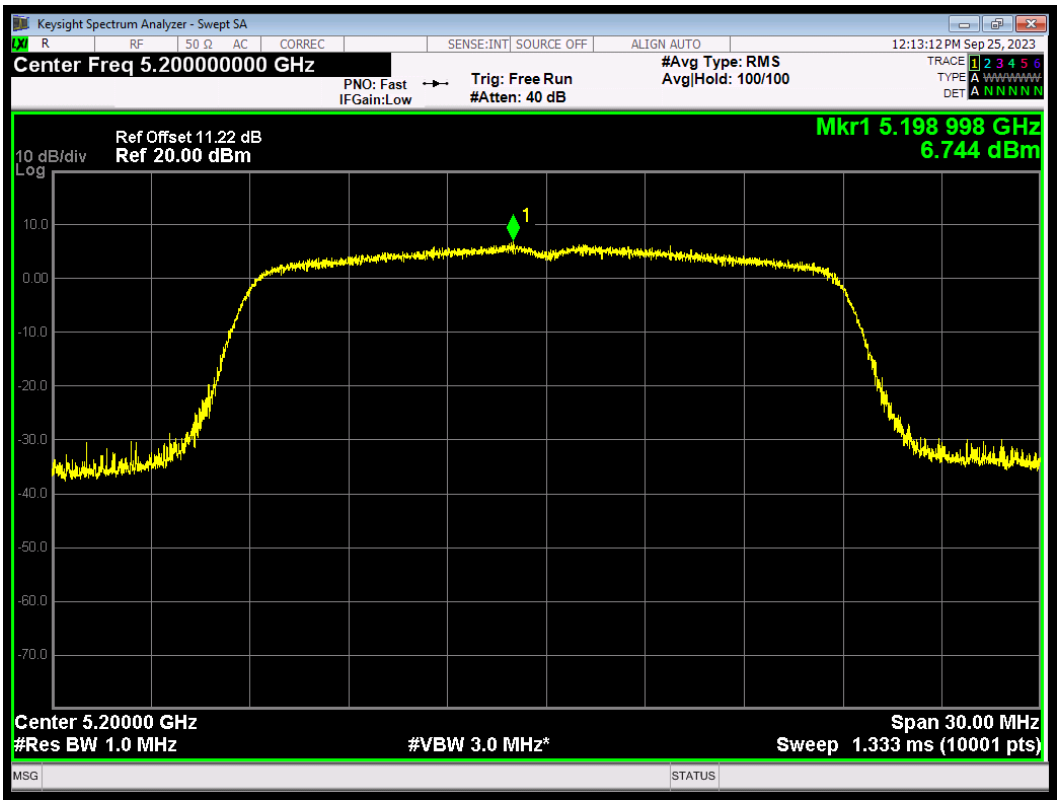

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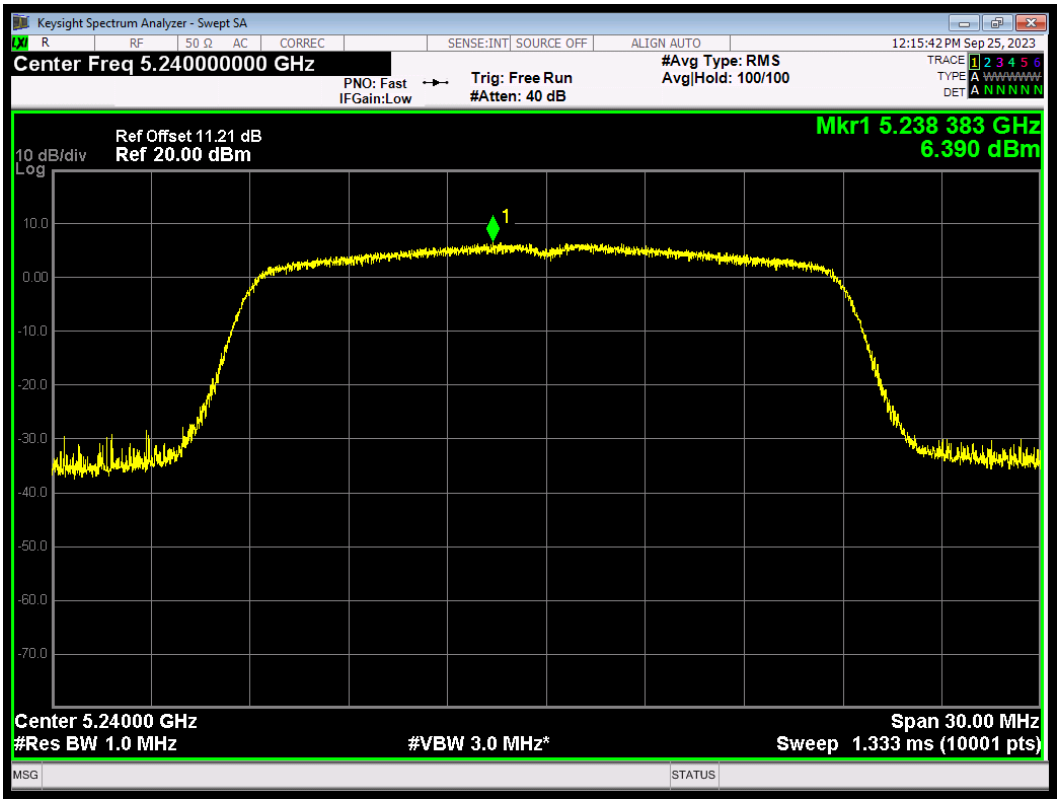
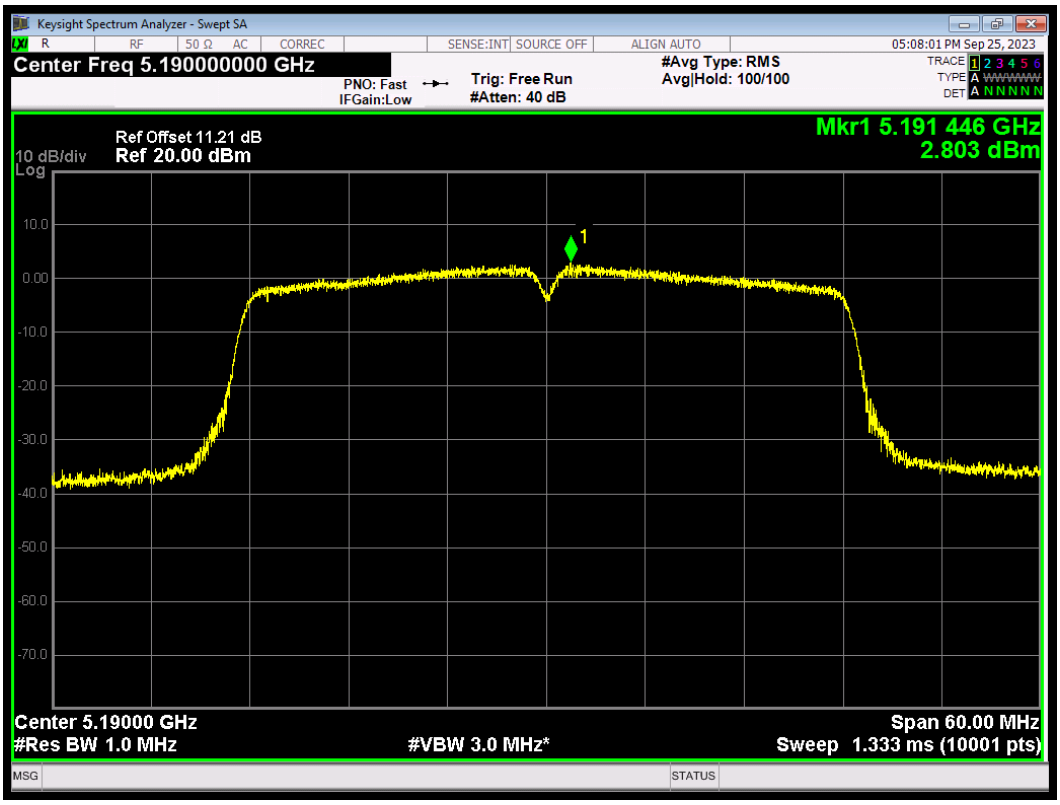


PSD 802.11ac(VHT40) 5190MHz



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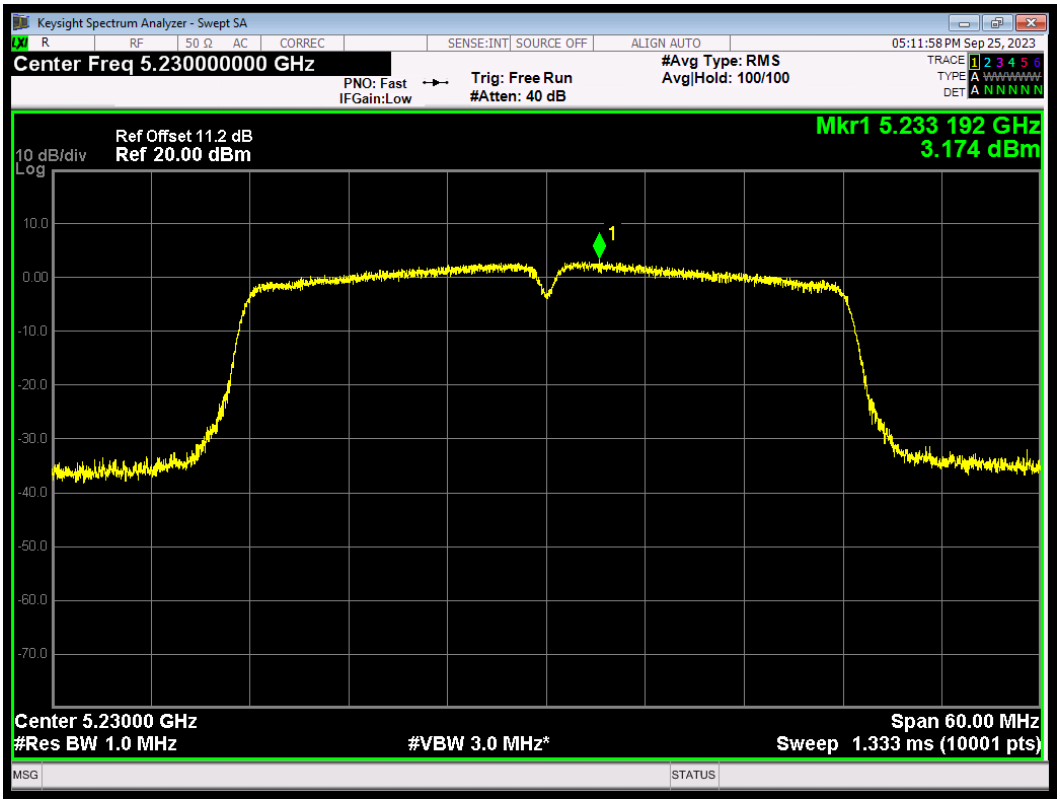
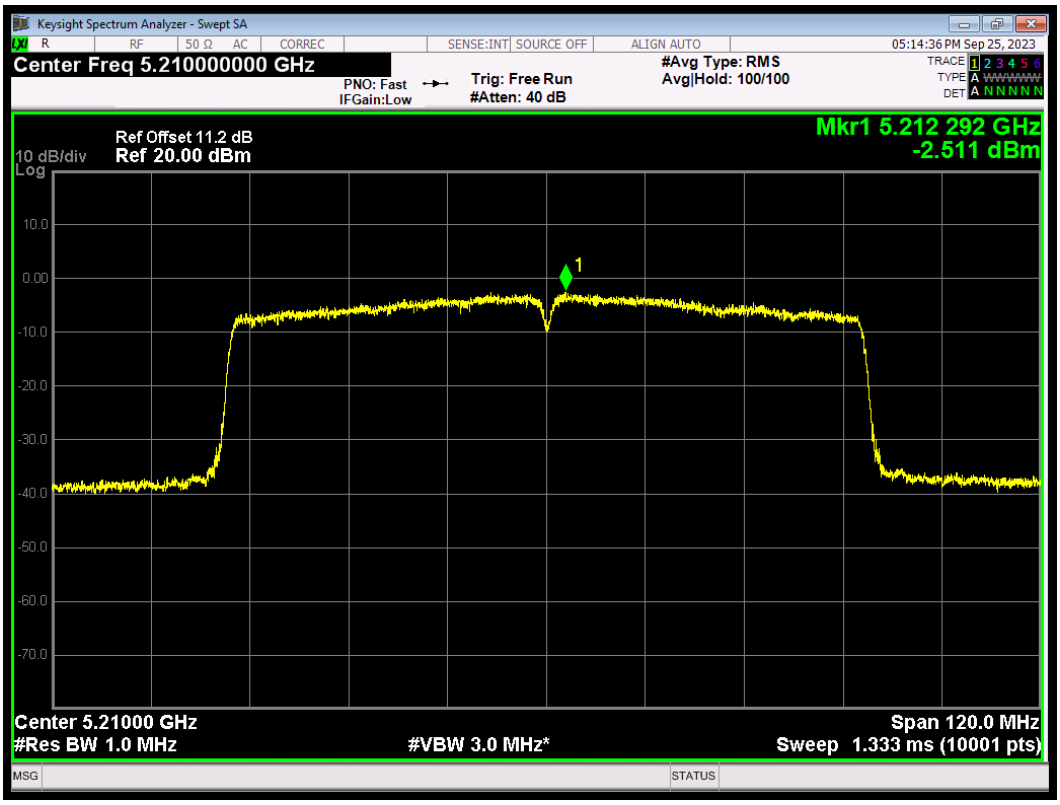
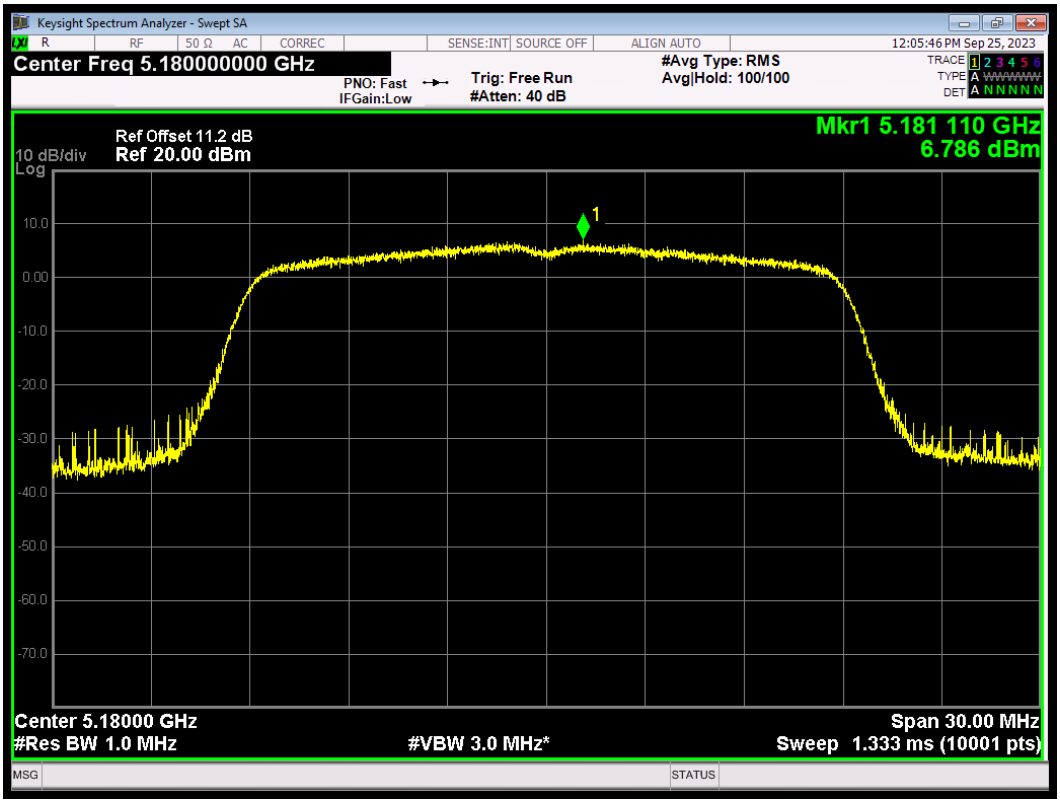


PSD 802.11ac(VHT80) 5210MHz



PSD 802.11n(HT20) 5180MHz



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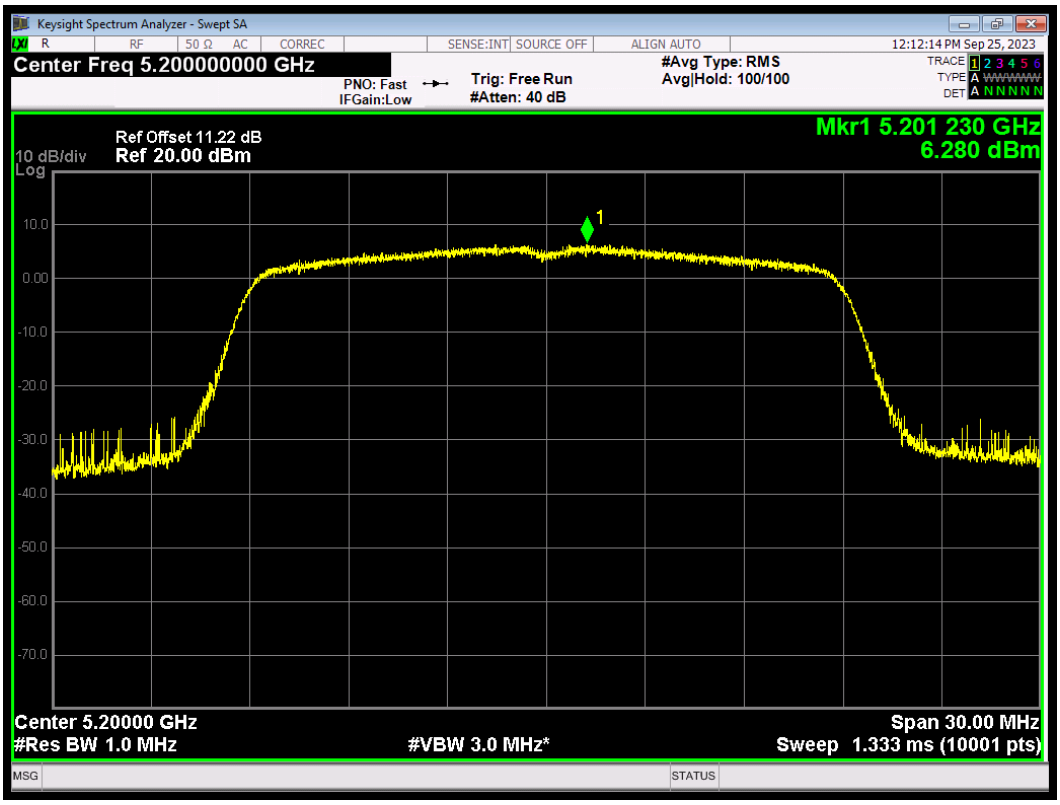
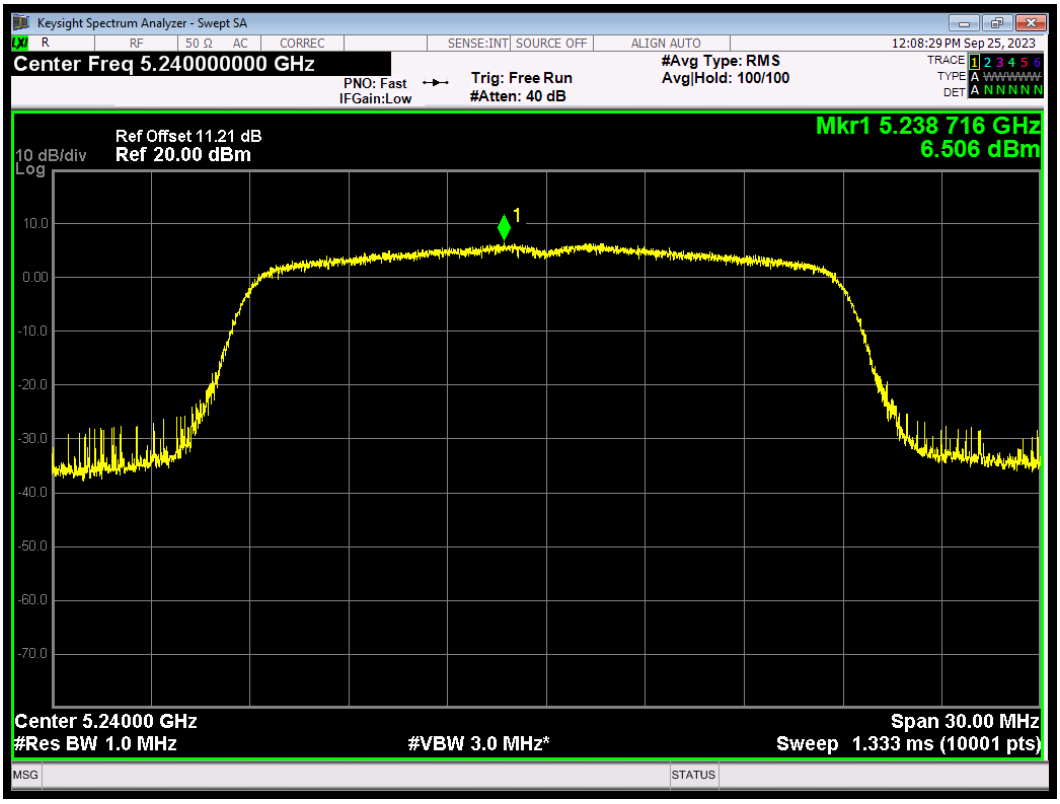
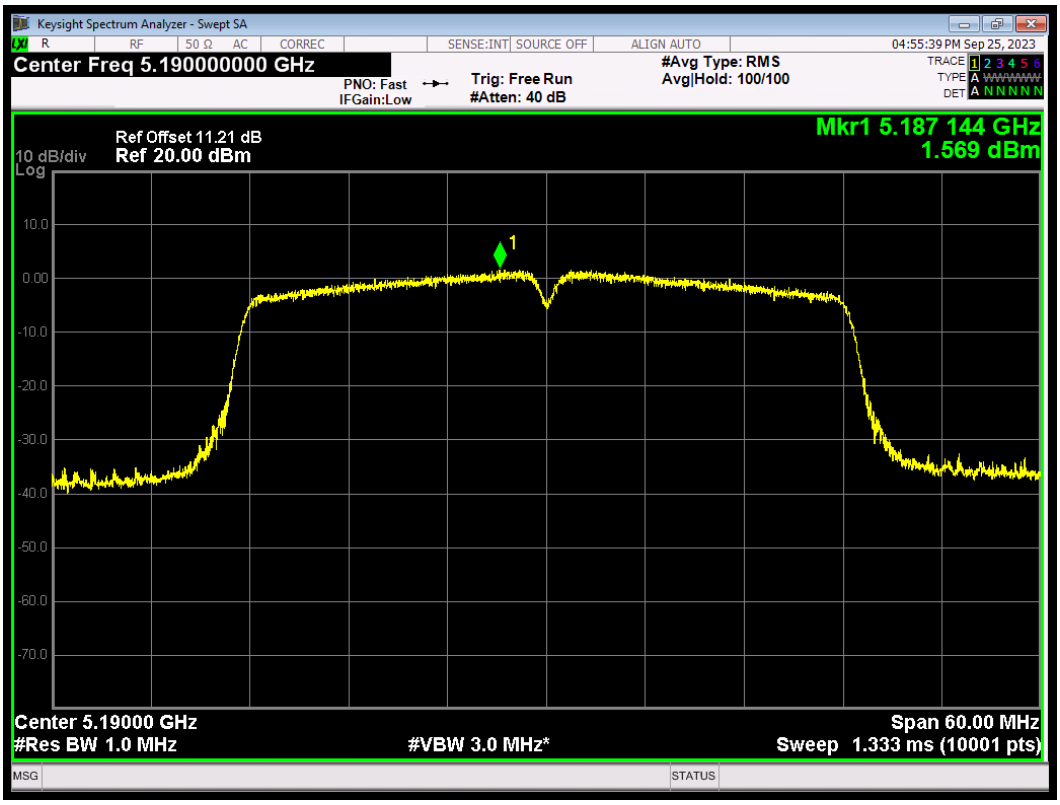


PSD 802.11n(HT20) 5240MHz



PSD 802.11n(HT40) 5190MHz



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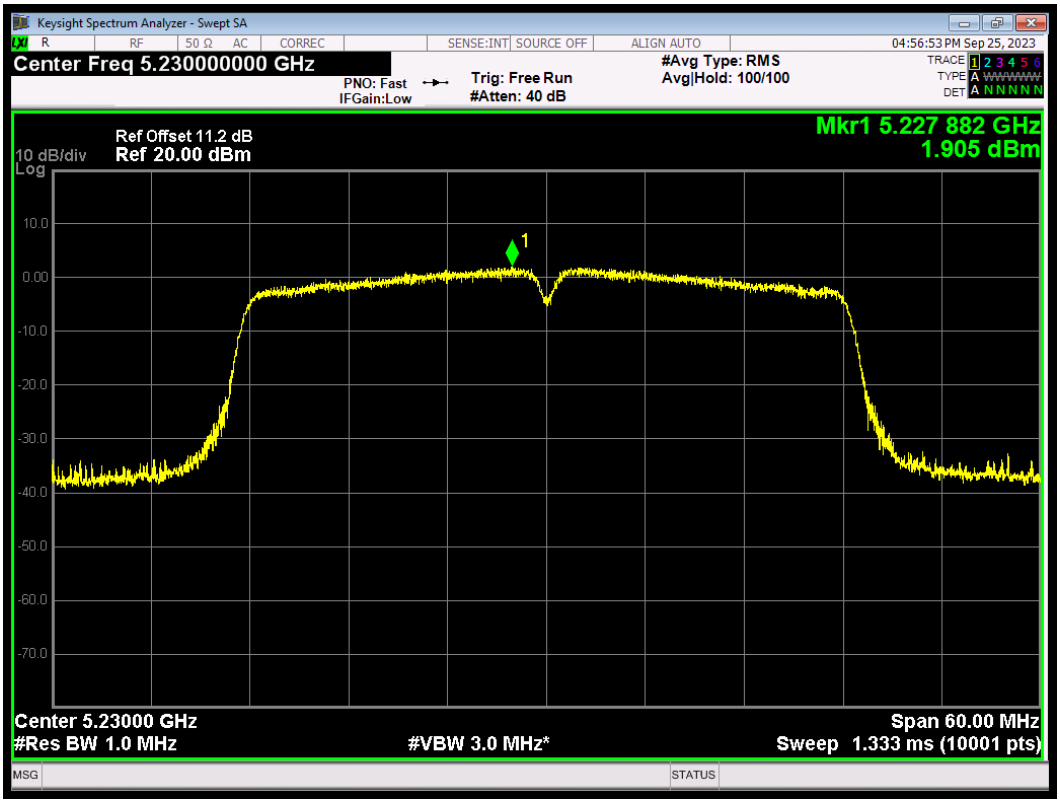

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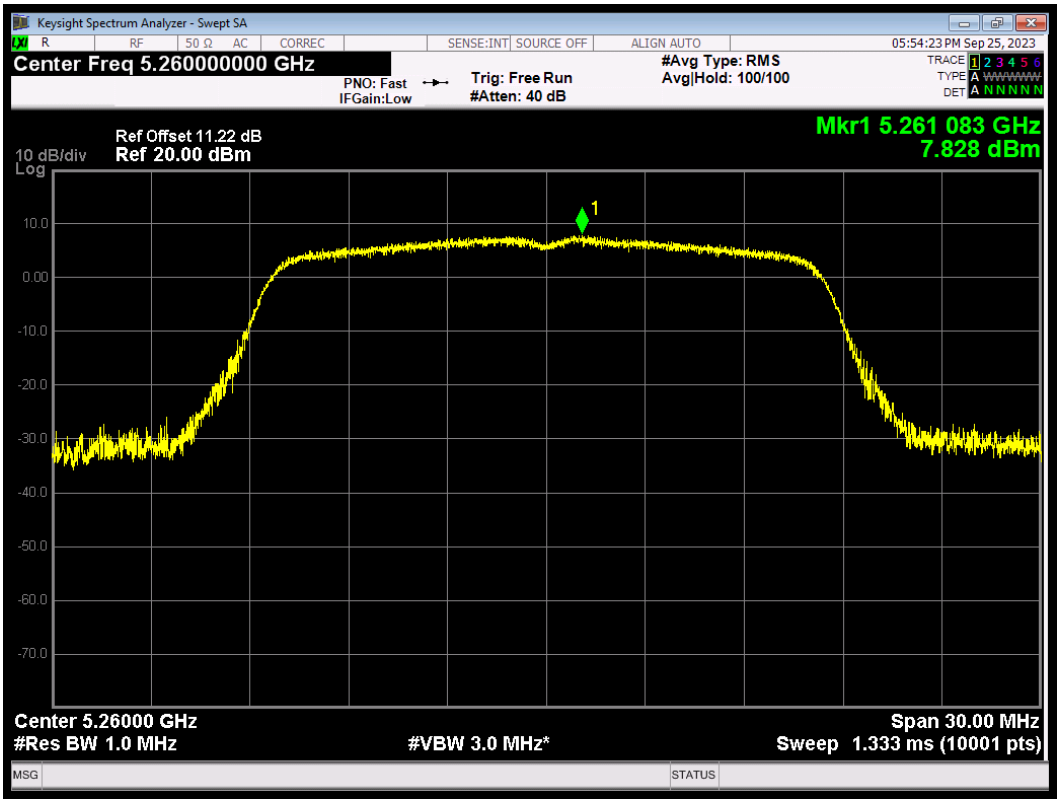
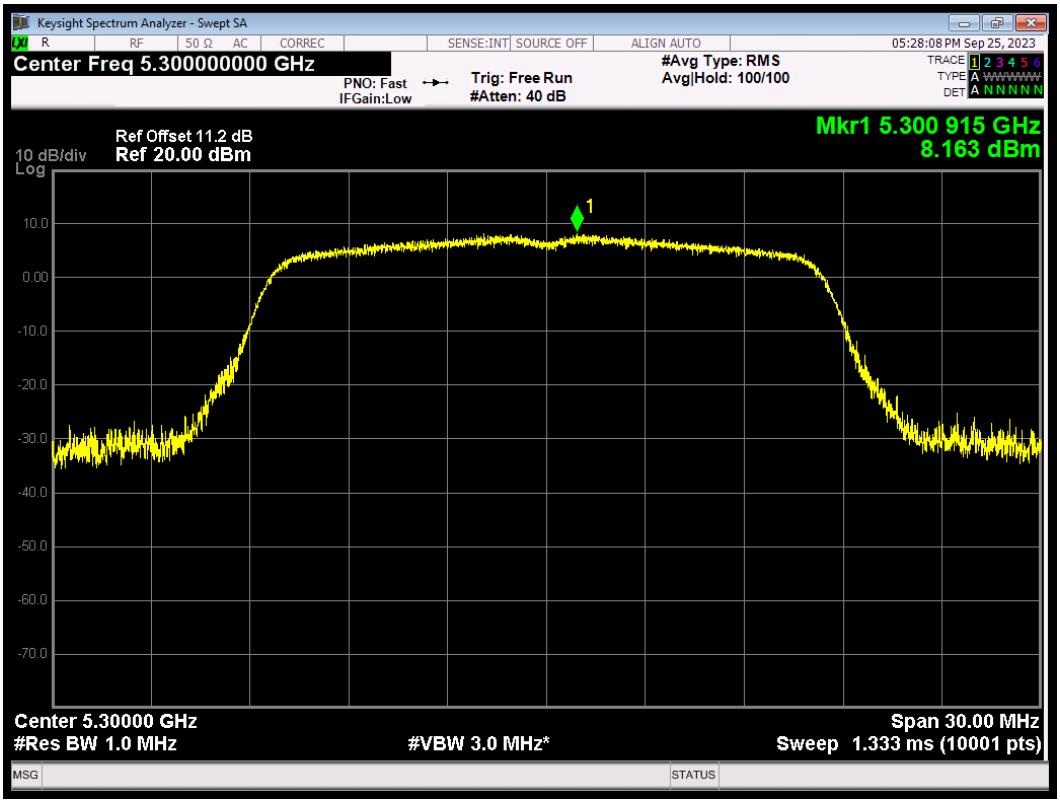
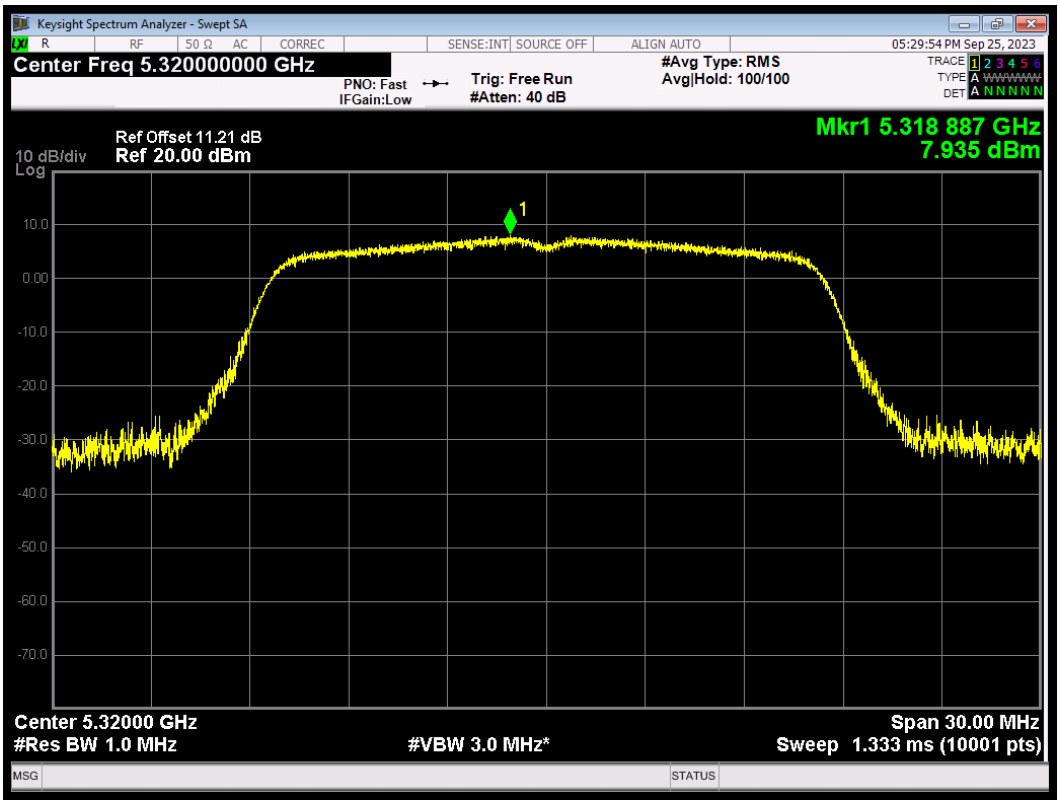
PSD 802.11a 5260MHz



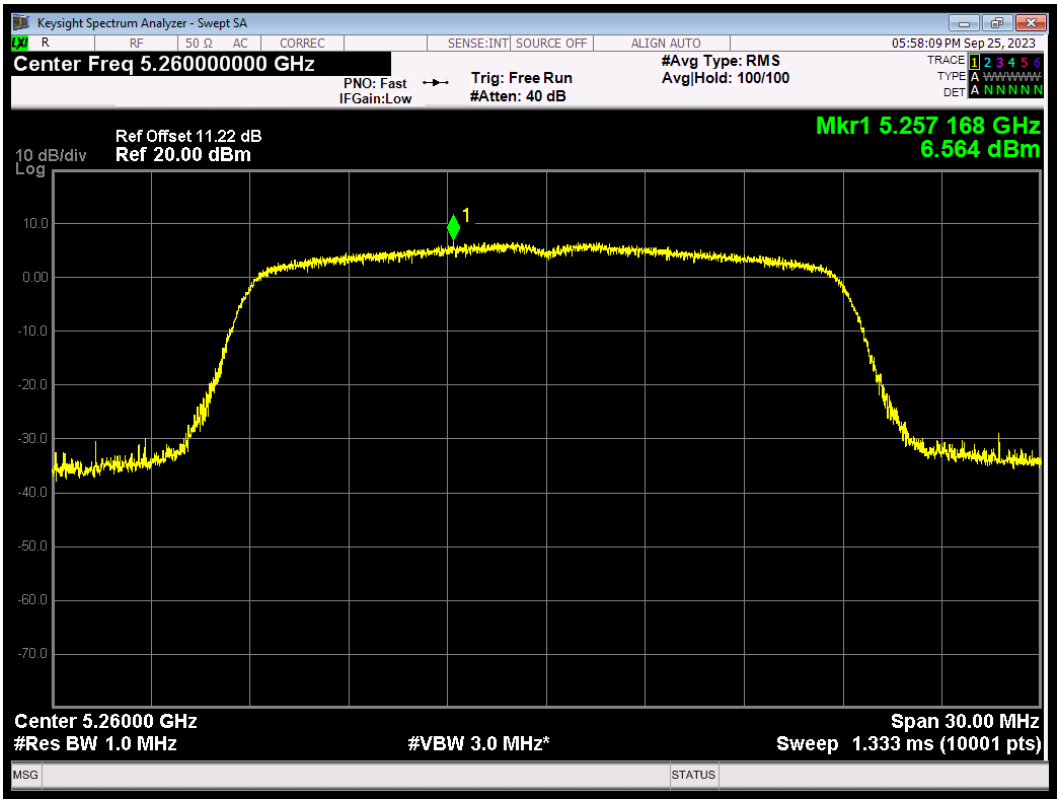
PSD 802.11a 5300MHz



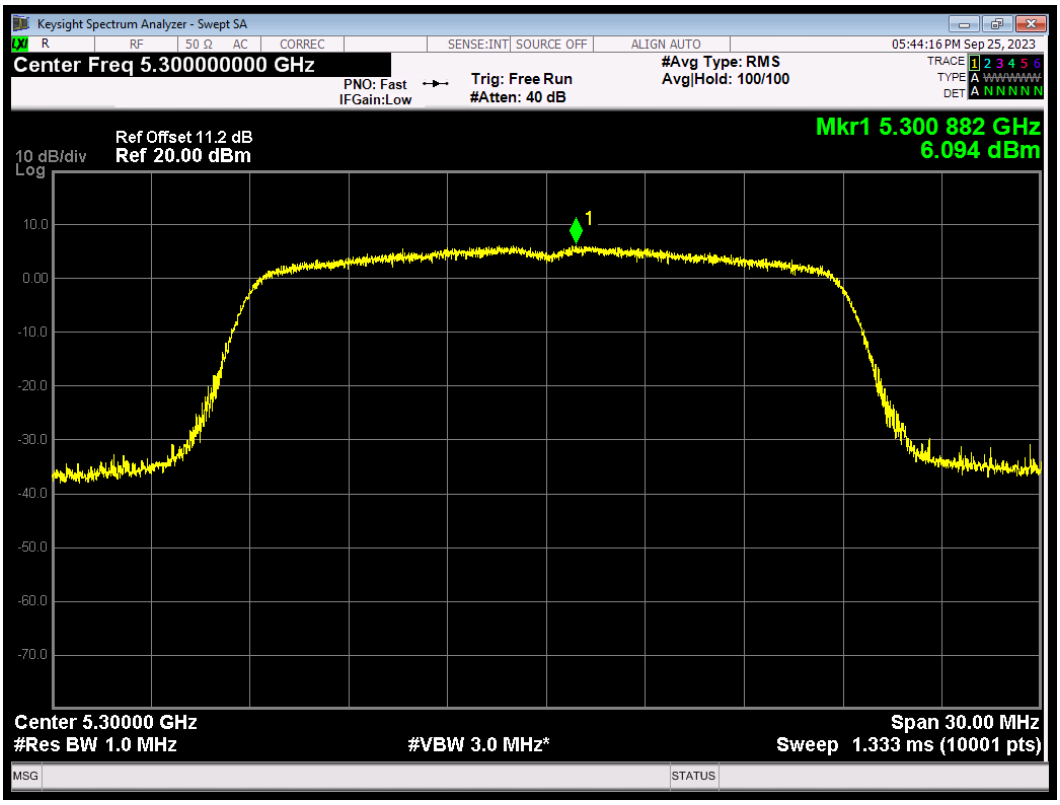
PSD 802.11a 5320MHz



PSD 802.11ac(VHT20) 5260MHz



PSD 802.11ac(VHT20) 5300MHz



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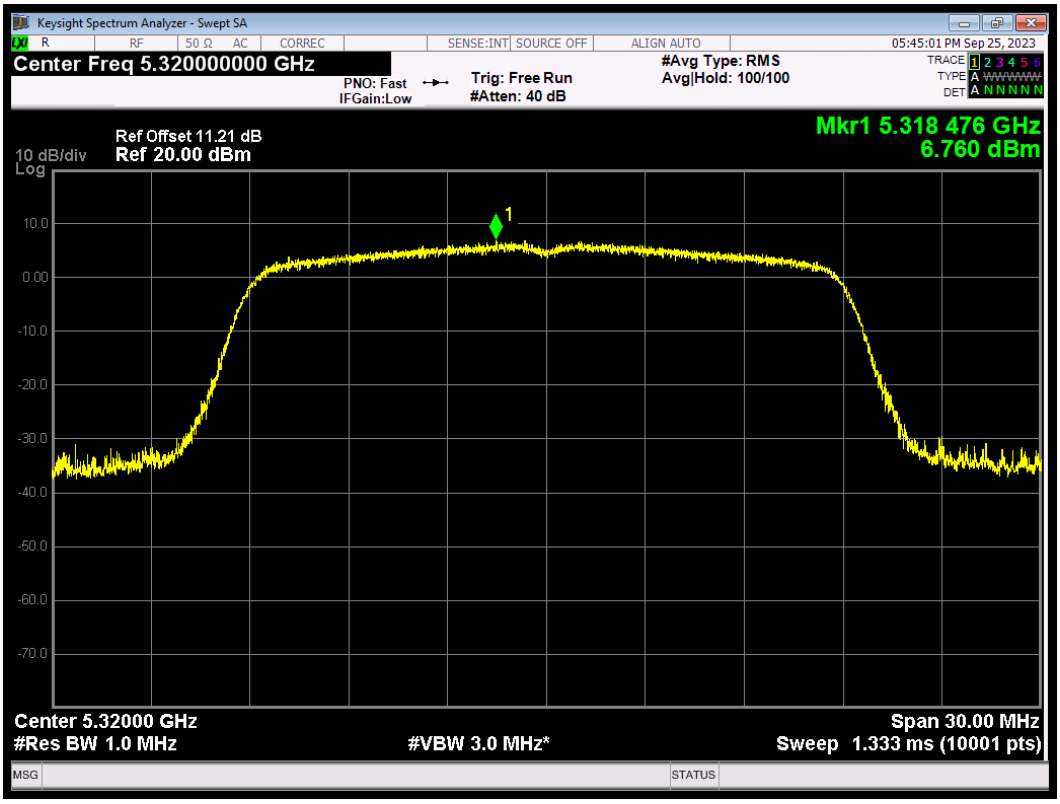
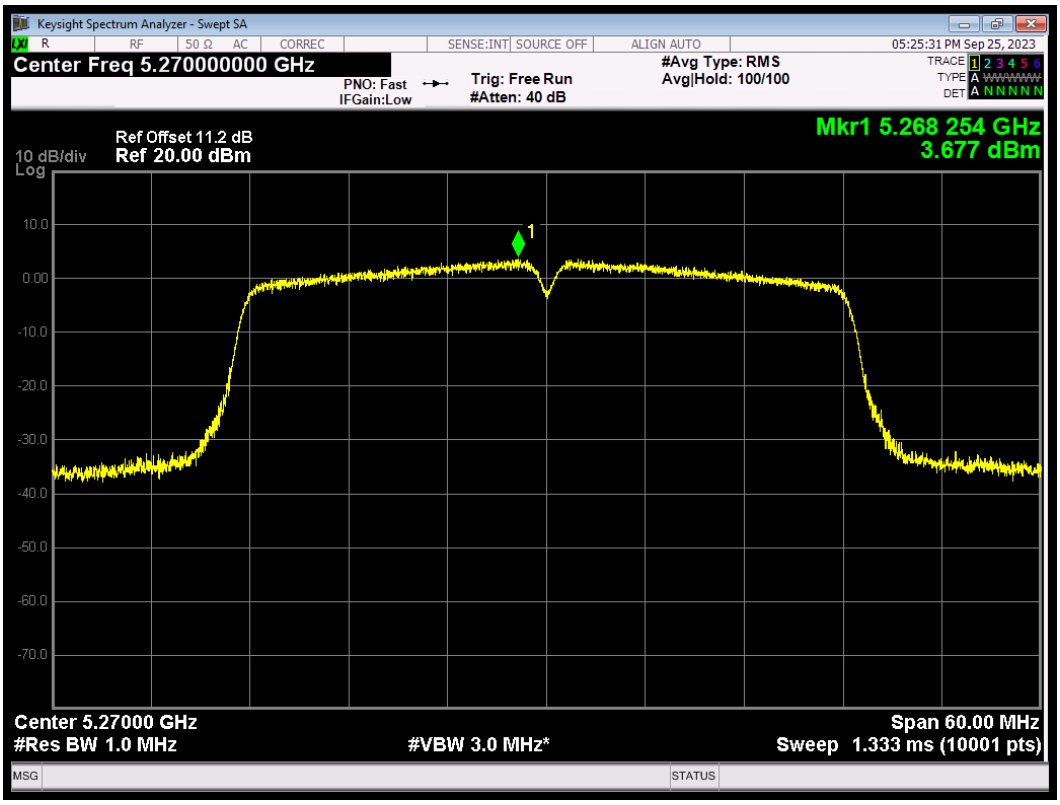
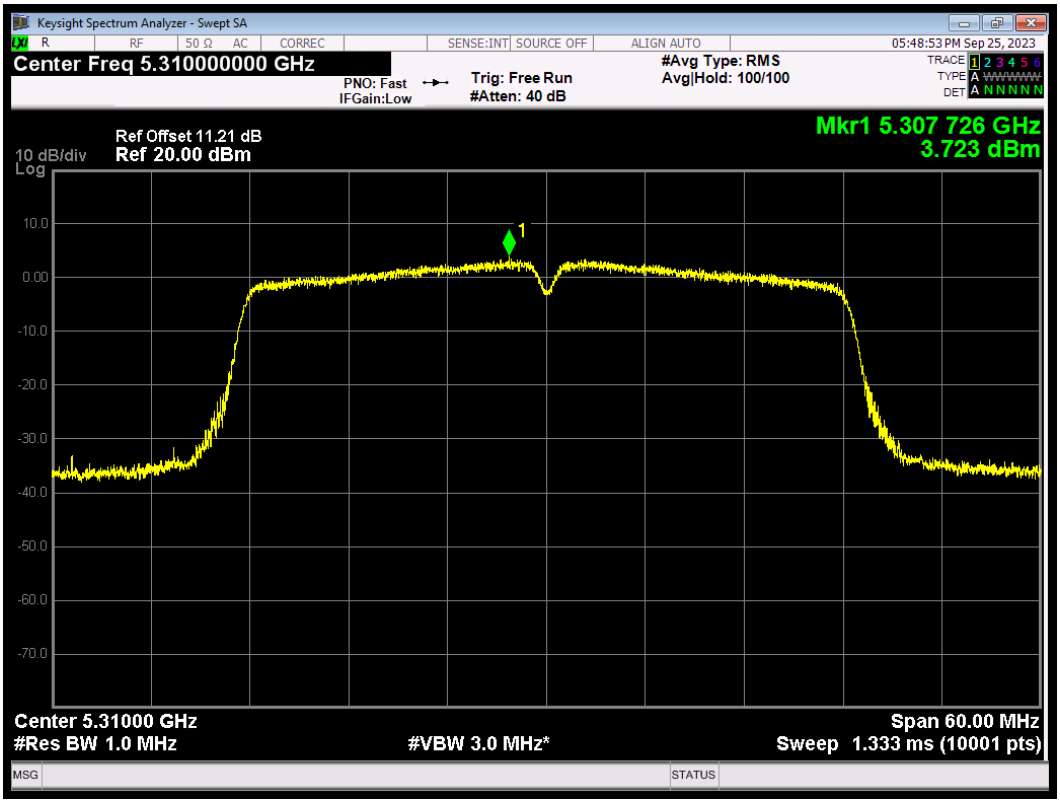


PSD 802.11ac(VHT40) 5270MHz



PSD 802.11ac(VHT40) 5310MHz



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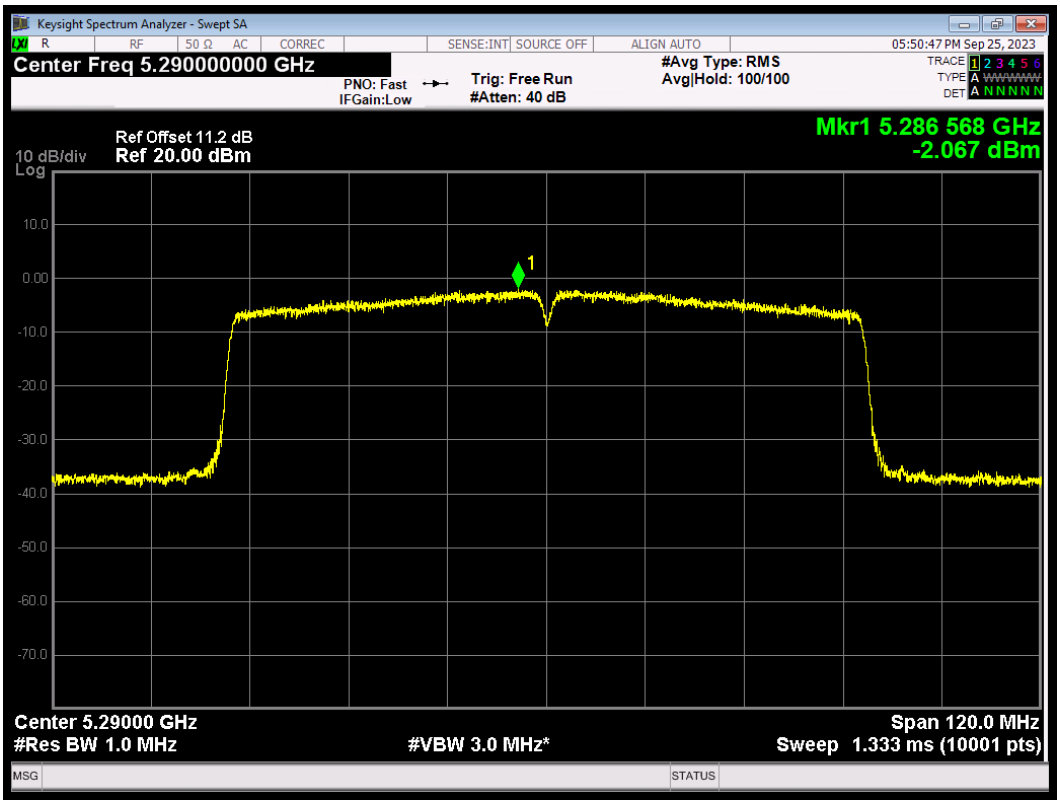
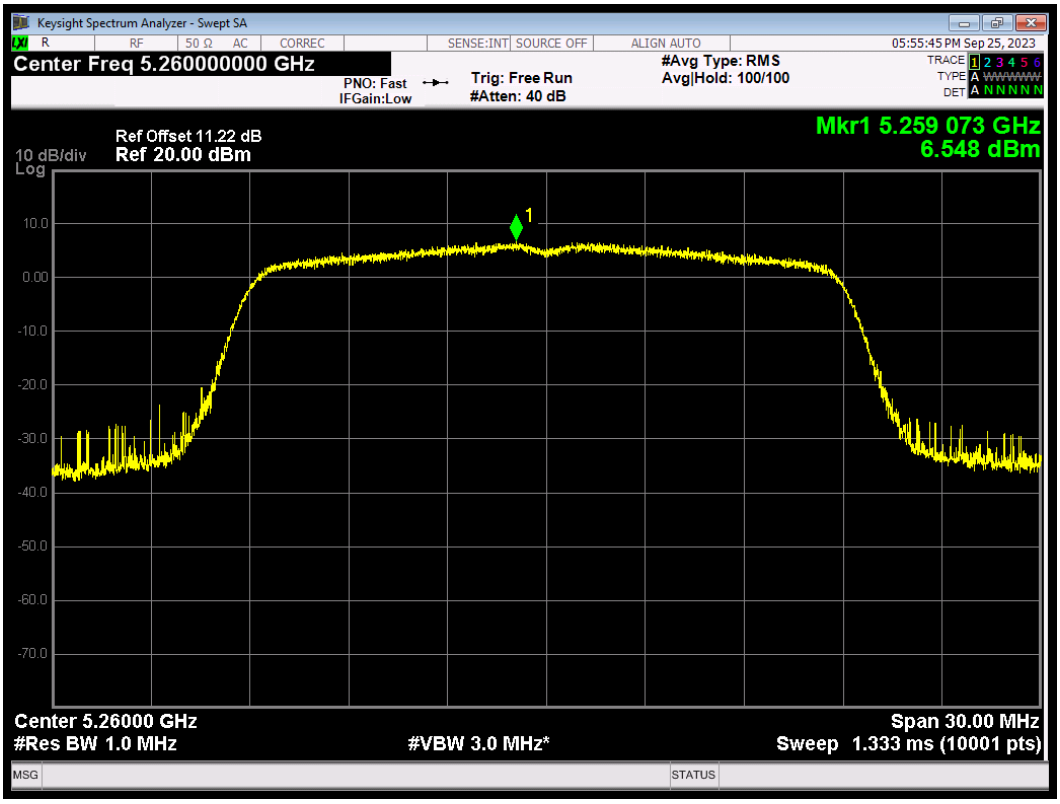
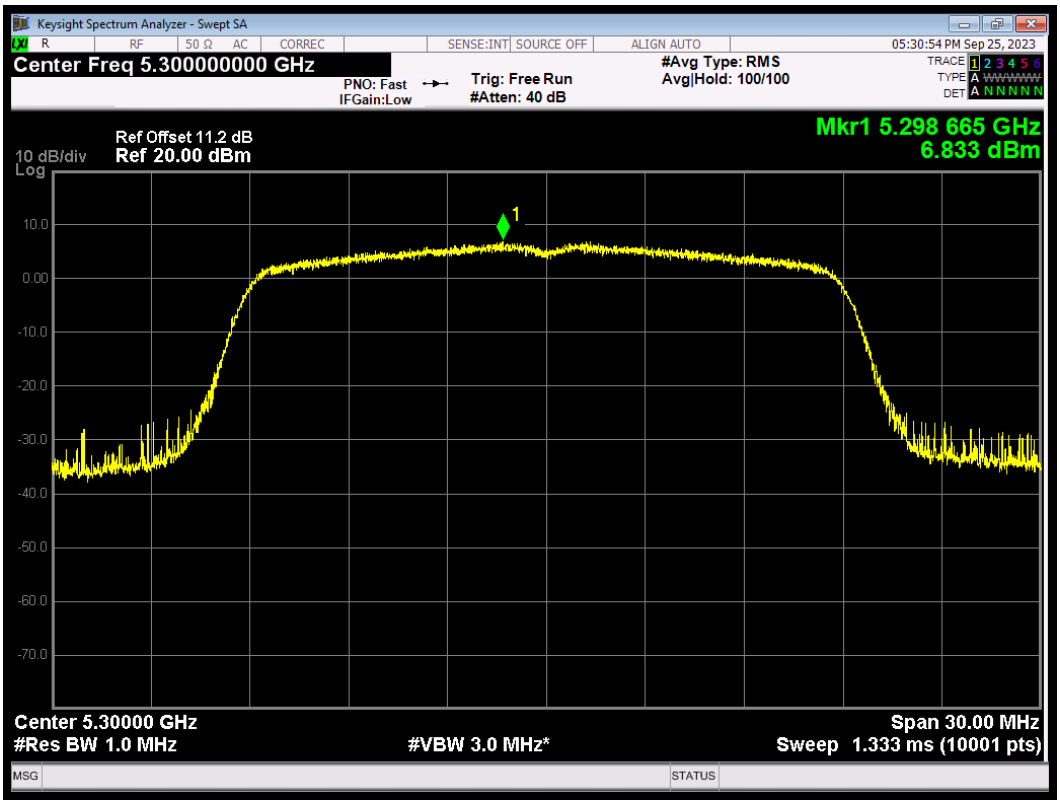


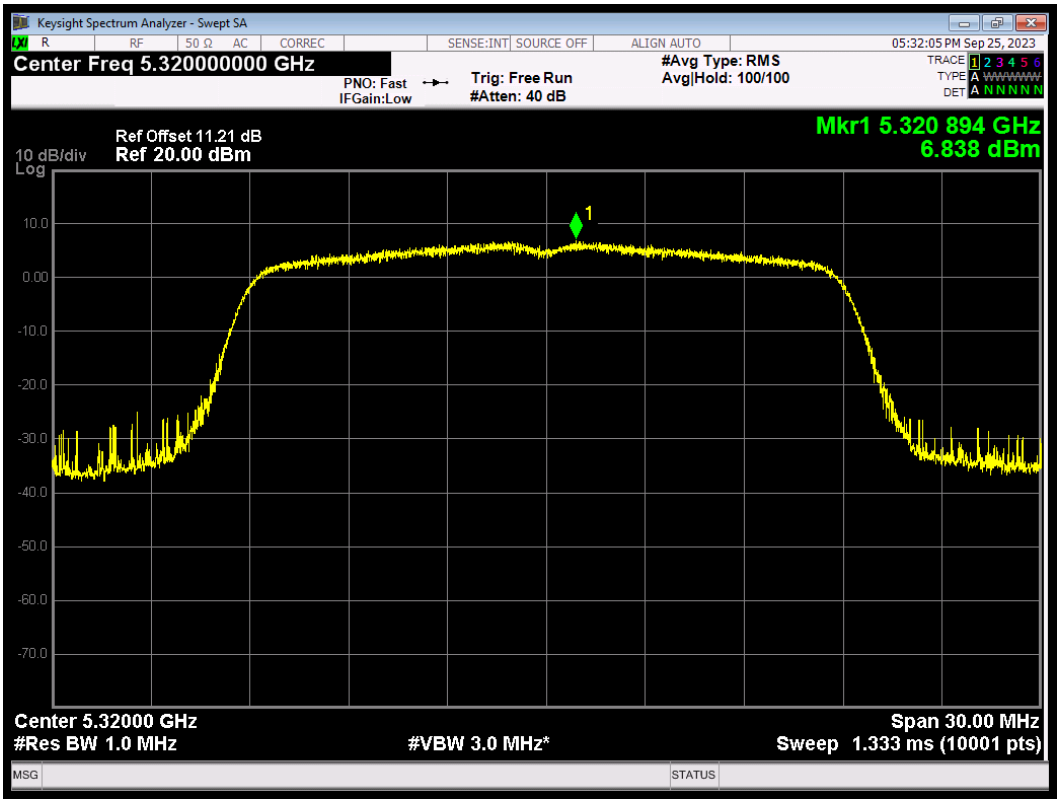
PSD 802.11n(HT20) 5260MHz



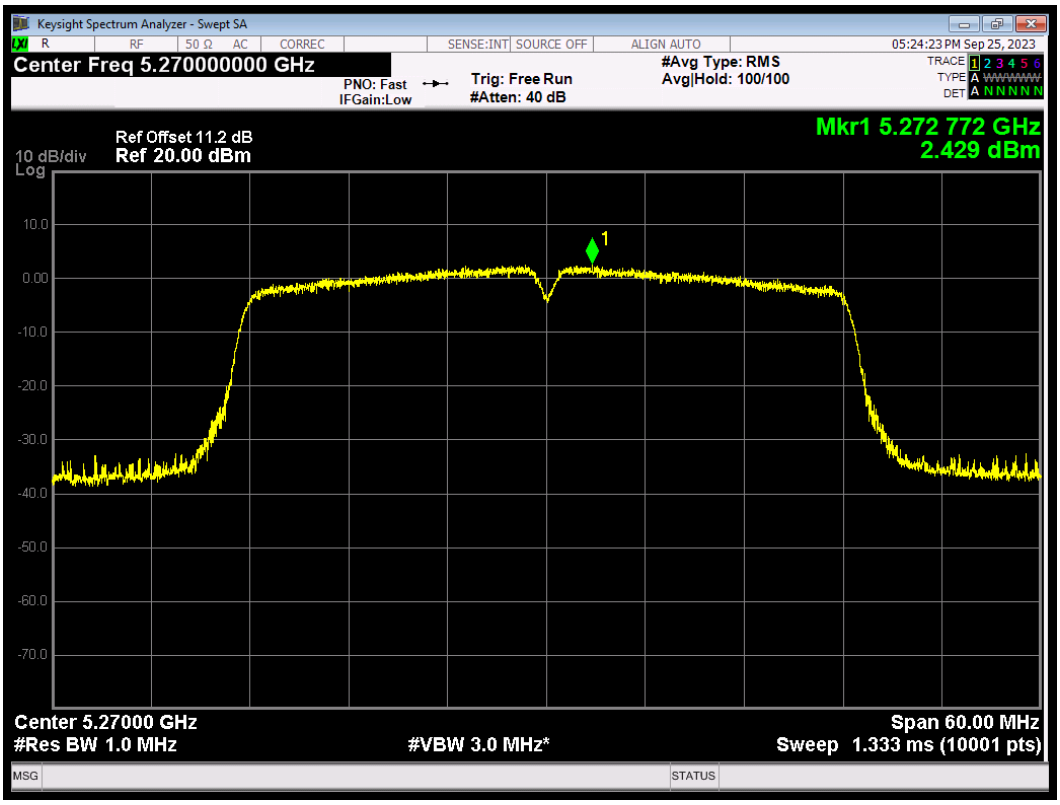
PSD 802.11n(HT20) 5300MHz



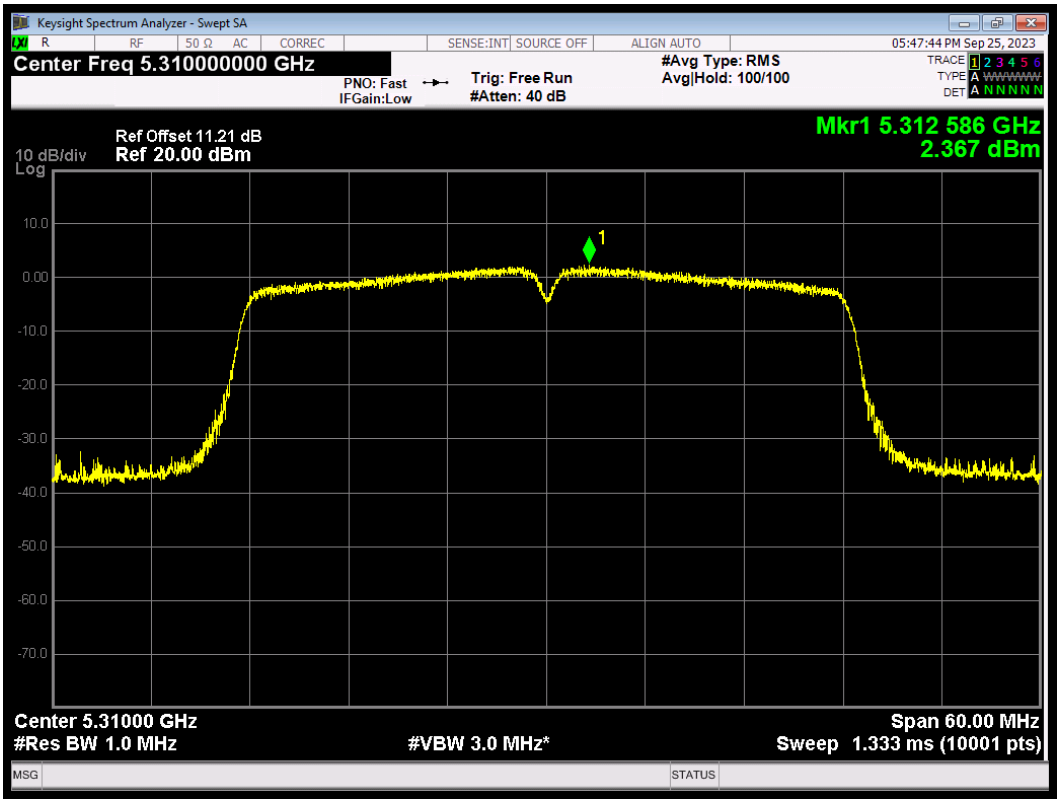
PSD 802.11n(HT20) 5320MHz



PSD 802.11n(HT40) 5270MHz



PSD 802.11n(HT40) 5310MHz



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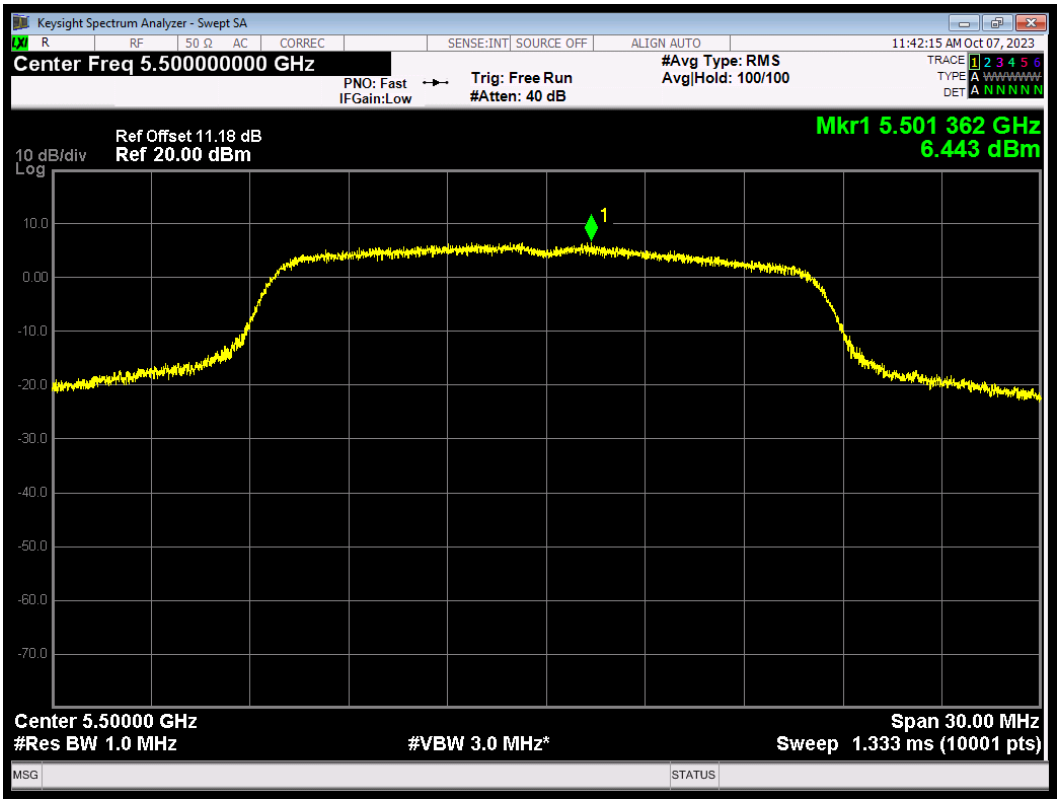
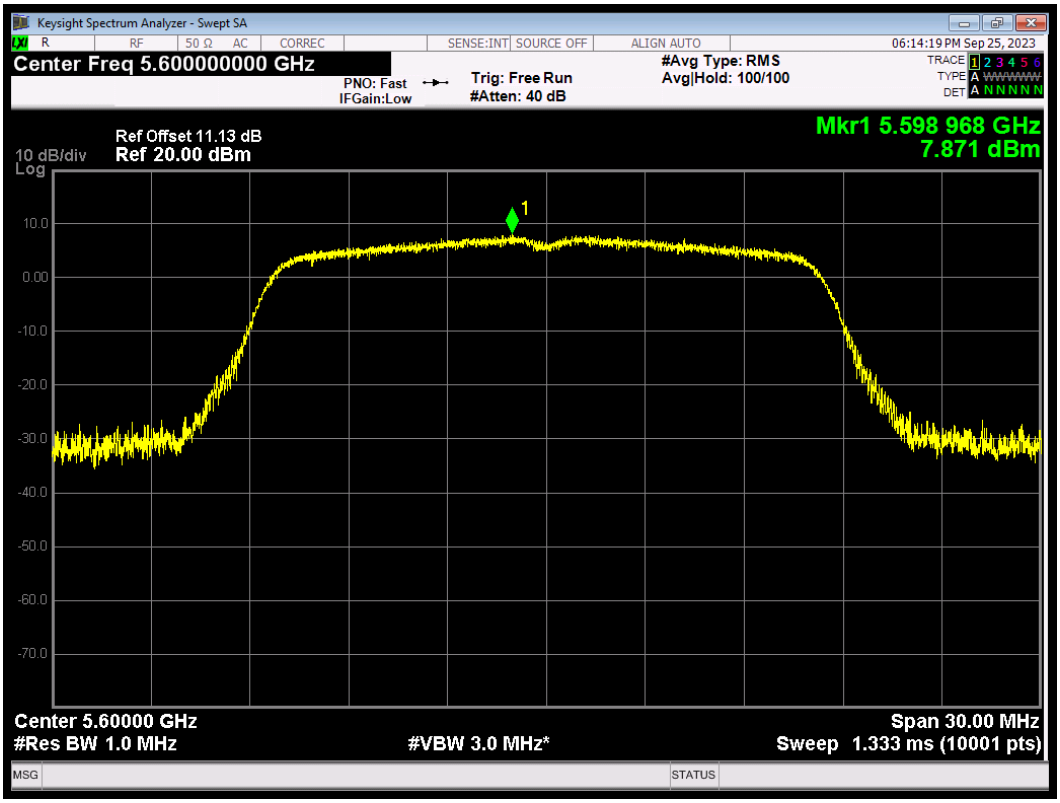
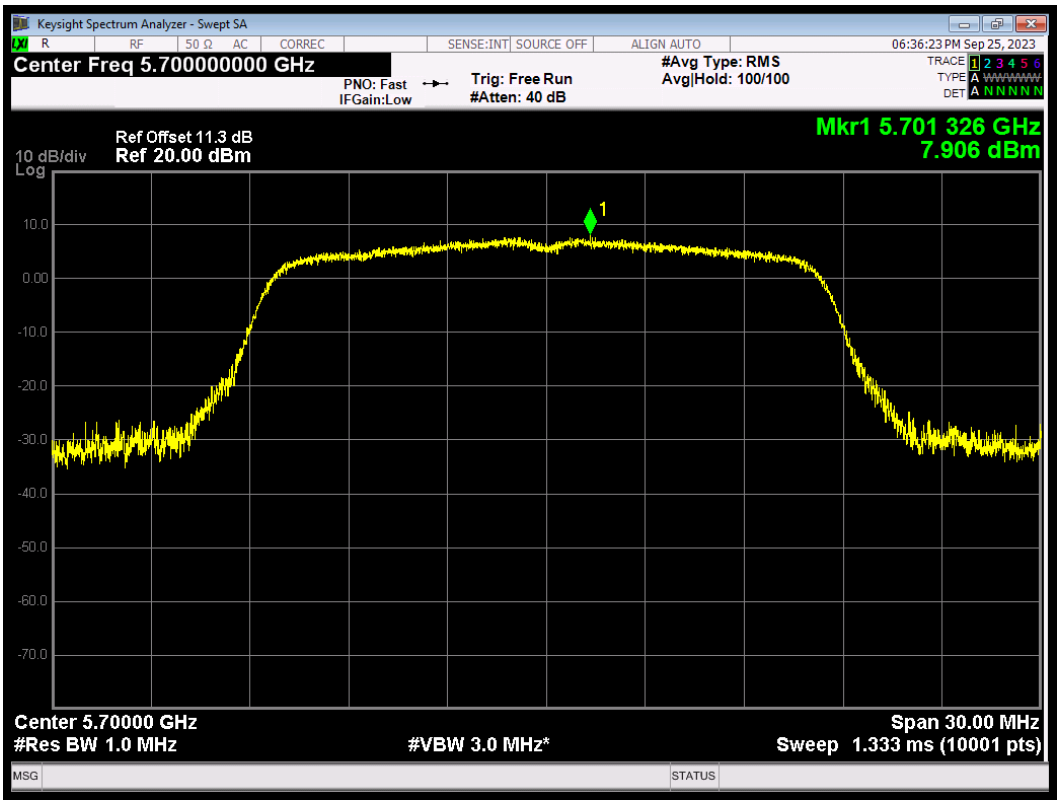
PSD 802.11a 5500MHz



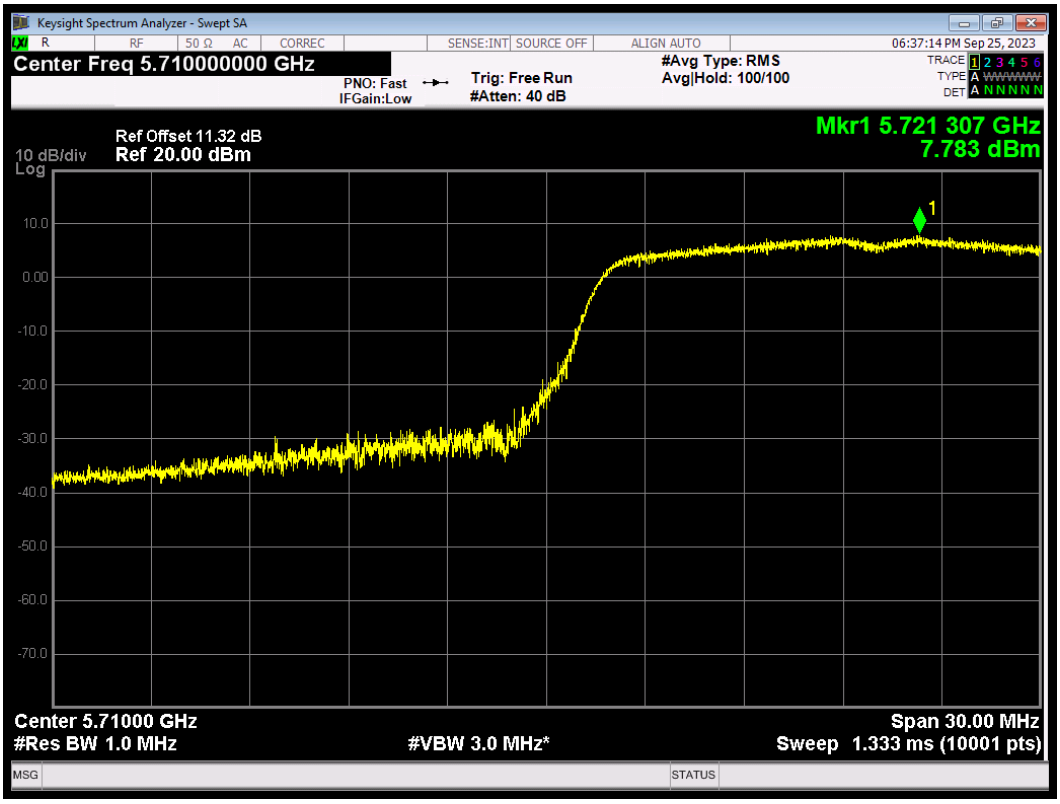
PSD 802.11a 5600MHz



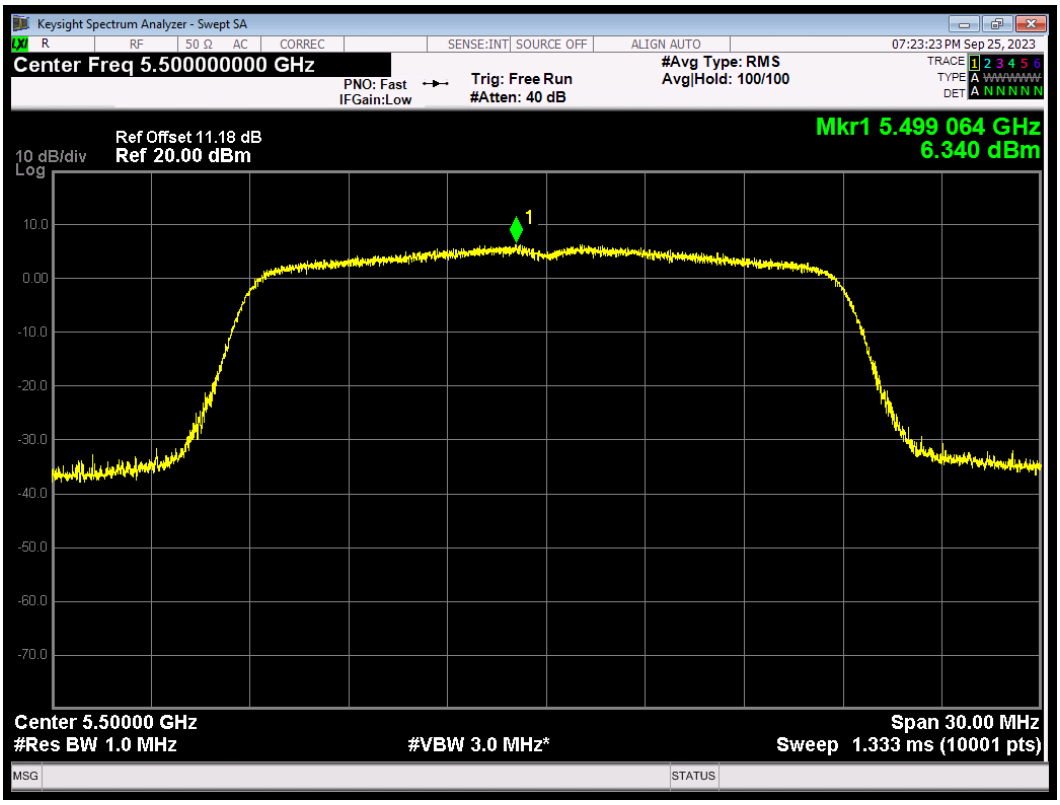
PSD 802.11a 5700MHz



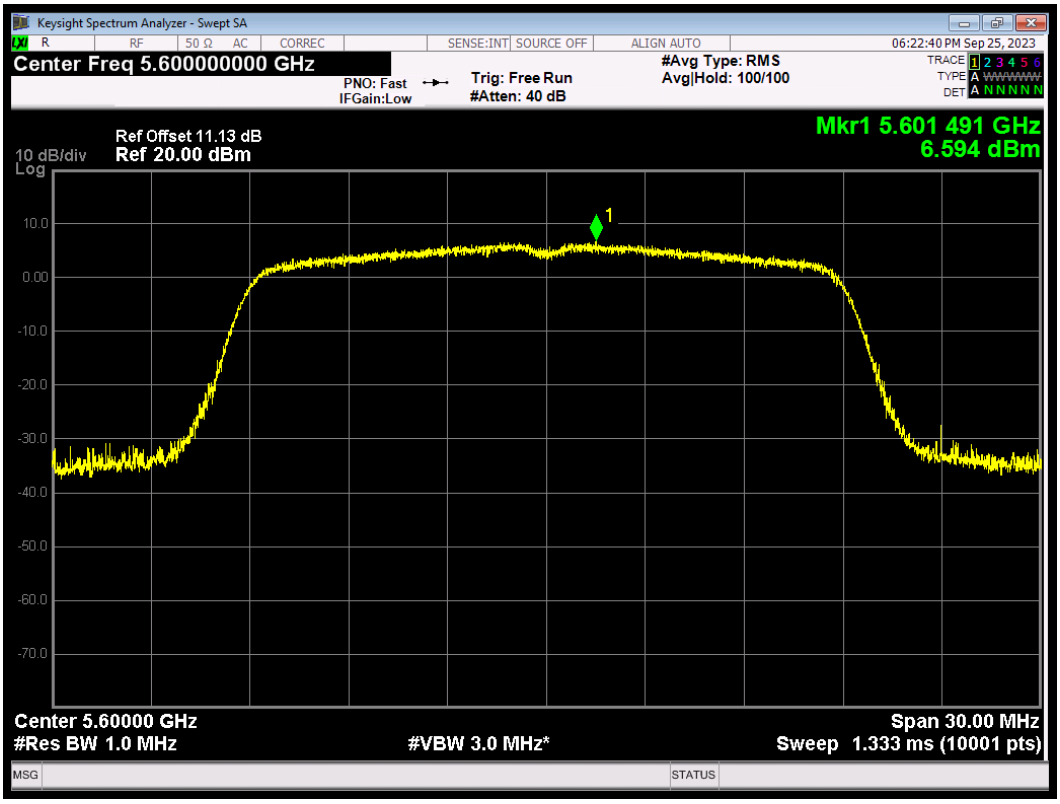
PSD 802.11a 5720MHz



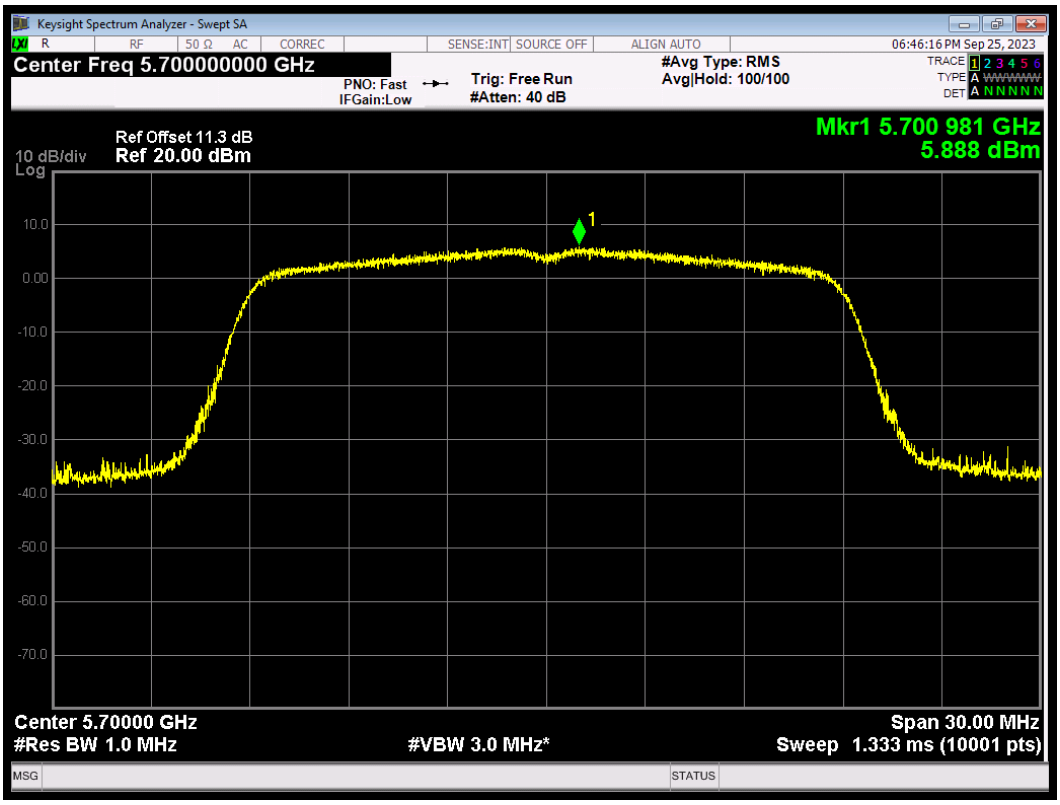
PSD 802.11ac(VHT20) 5500MHz



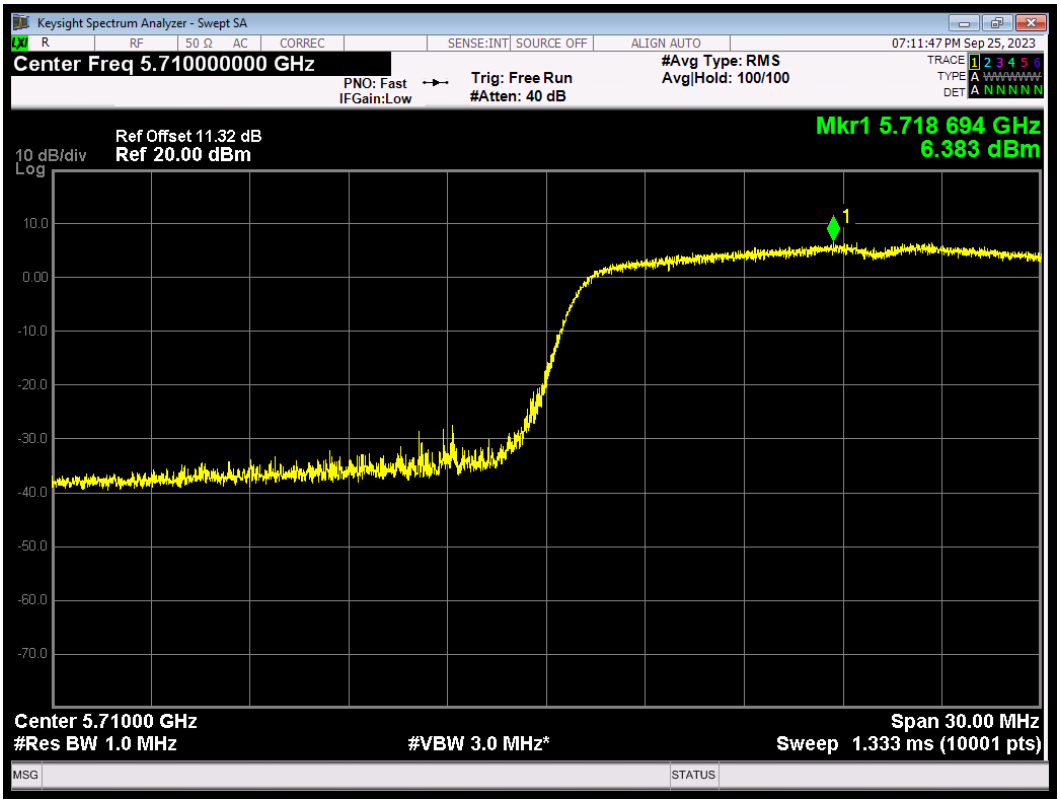
PSD 802.11ac(VHT20) 5600MHz



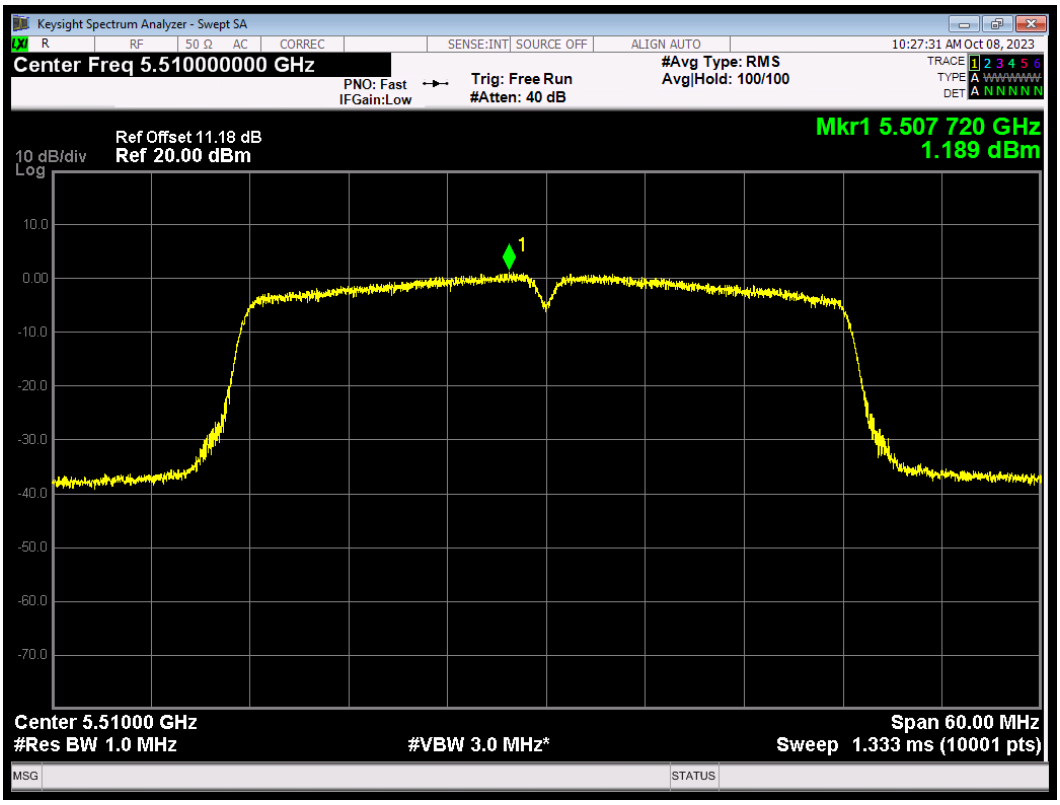
PSD 802.11ac(VHT20) 5700MHz



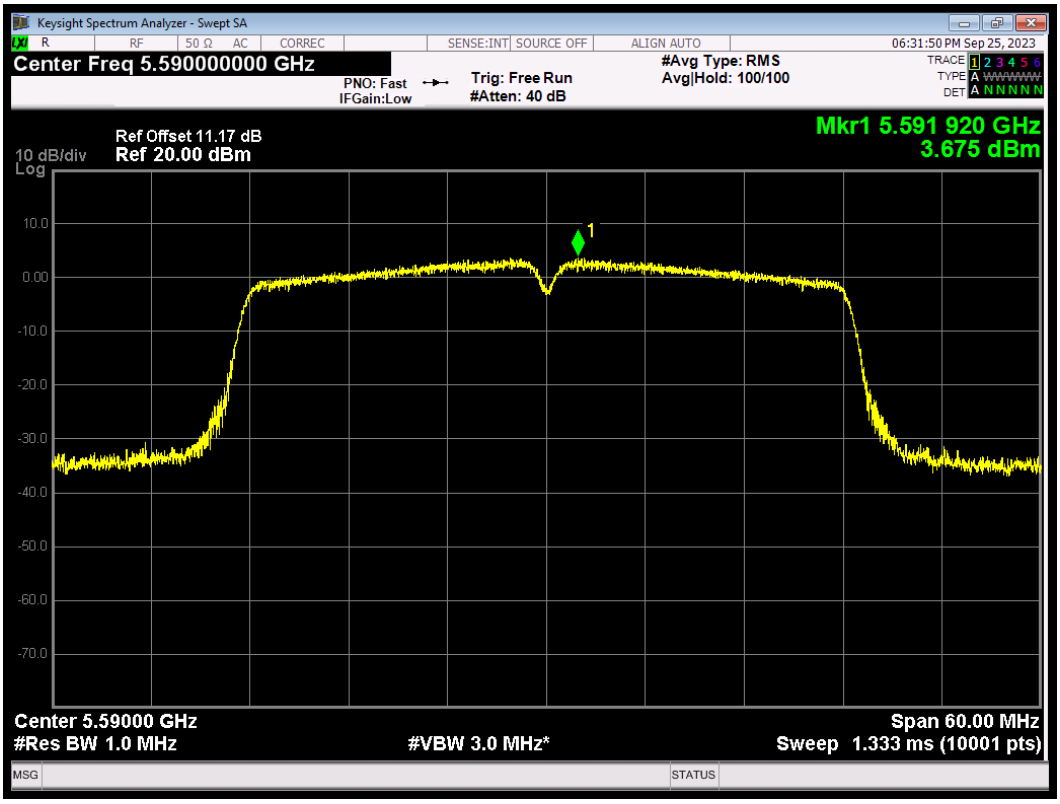
PSD 802.11ac(VHT20) 5720MHz



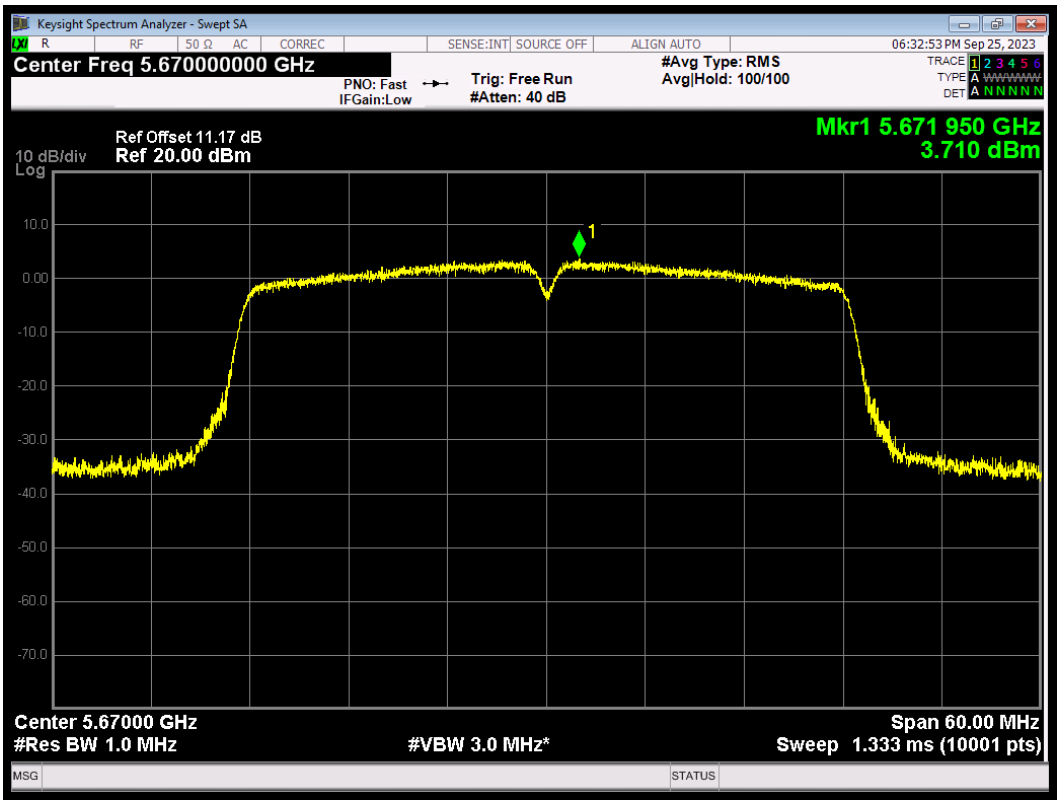
PSD 802.11ac(VHT40) 5510MHz



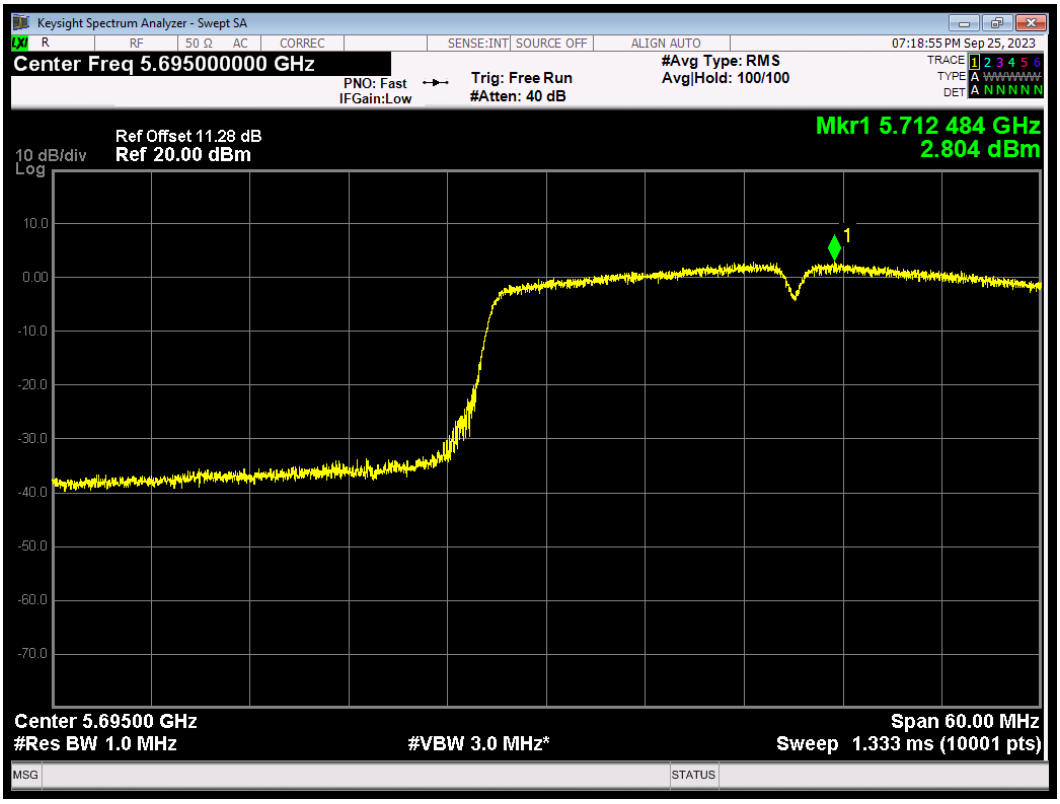
PSD 802.11ac(VHT40) 5590MHz



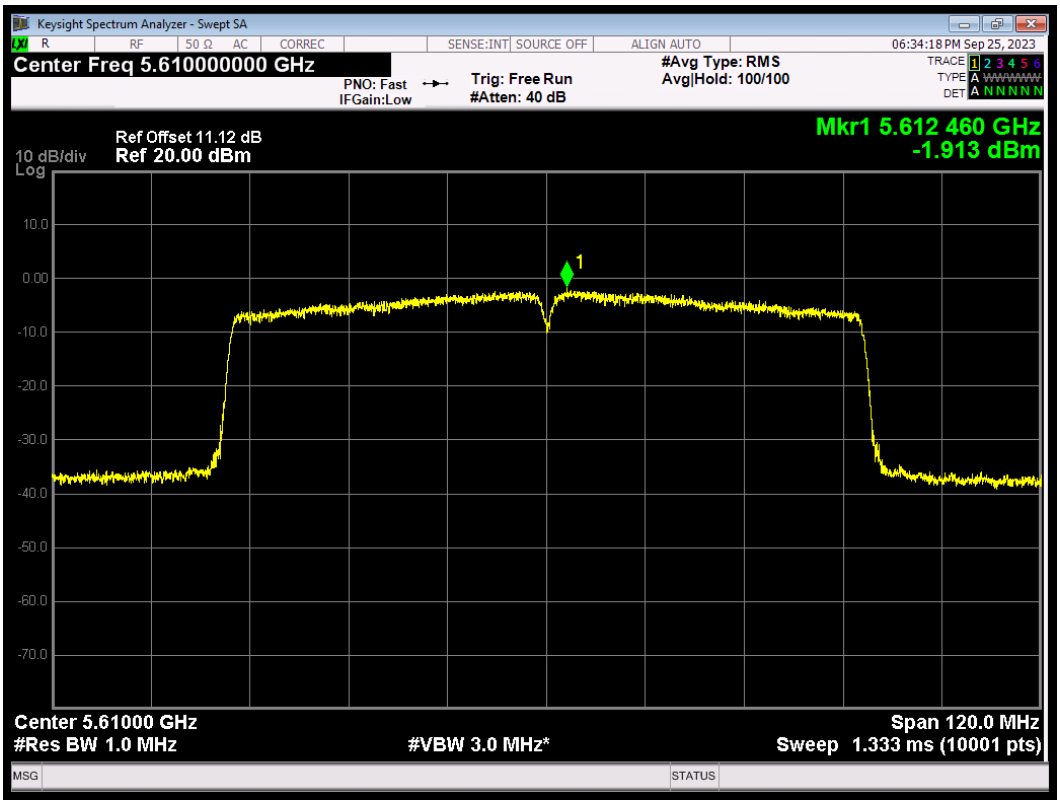
PSD 802.11ac(VHT40) 5670MHz



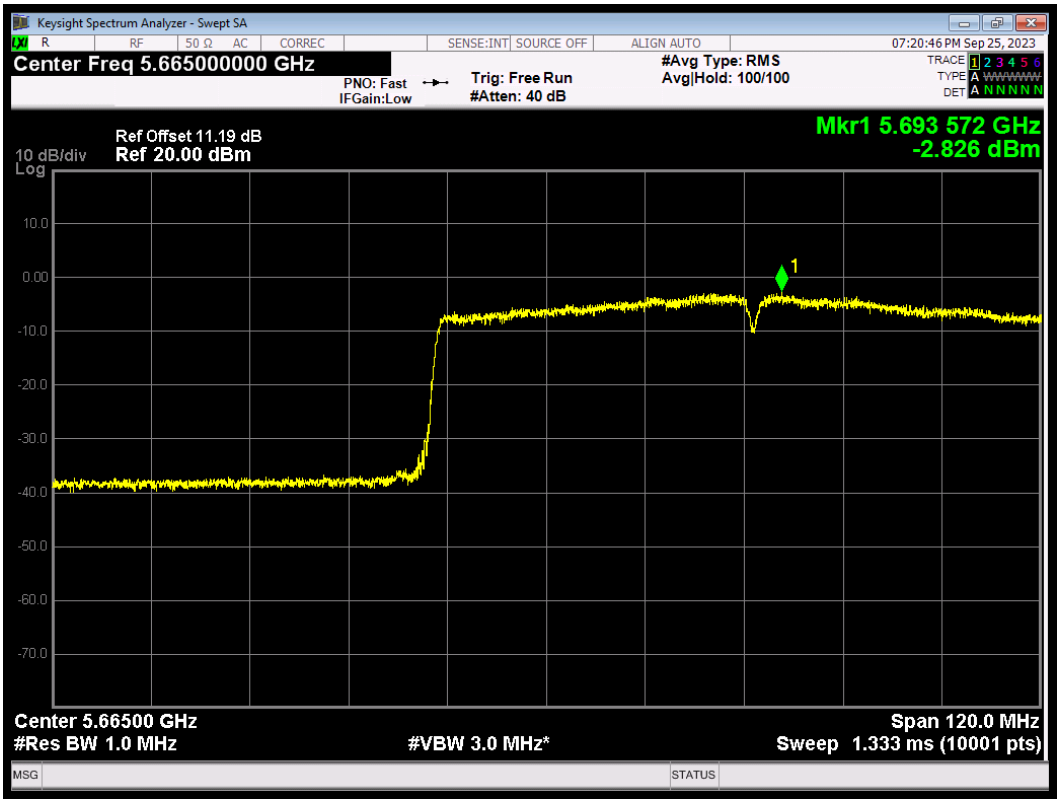
PSD 802.11ac(VHT40) 5710MHz



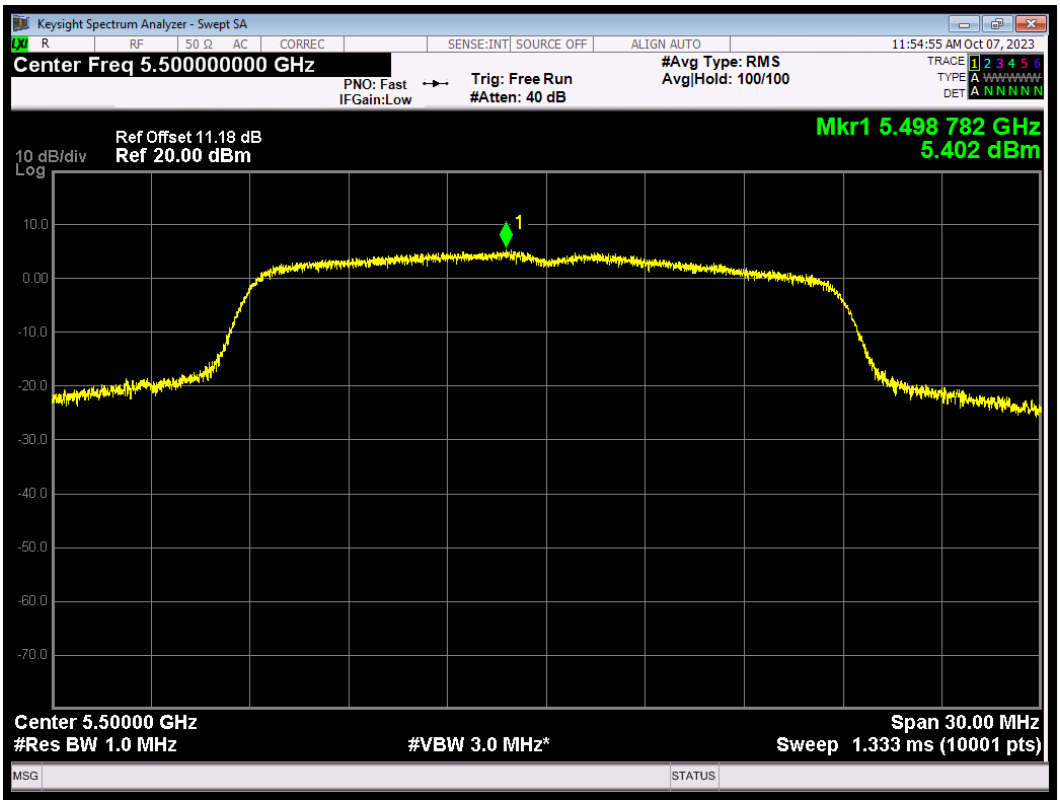
PSD 802.11ac(VHT80) 5610MHz



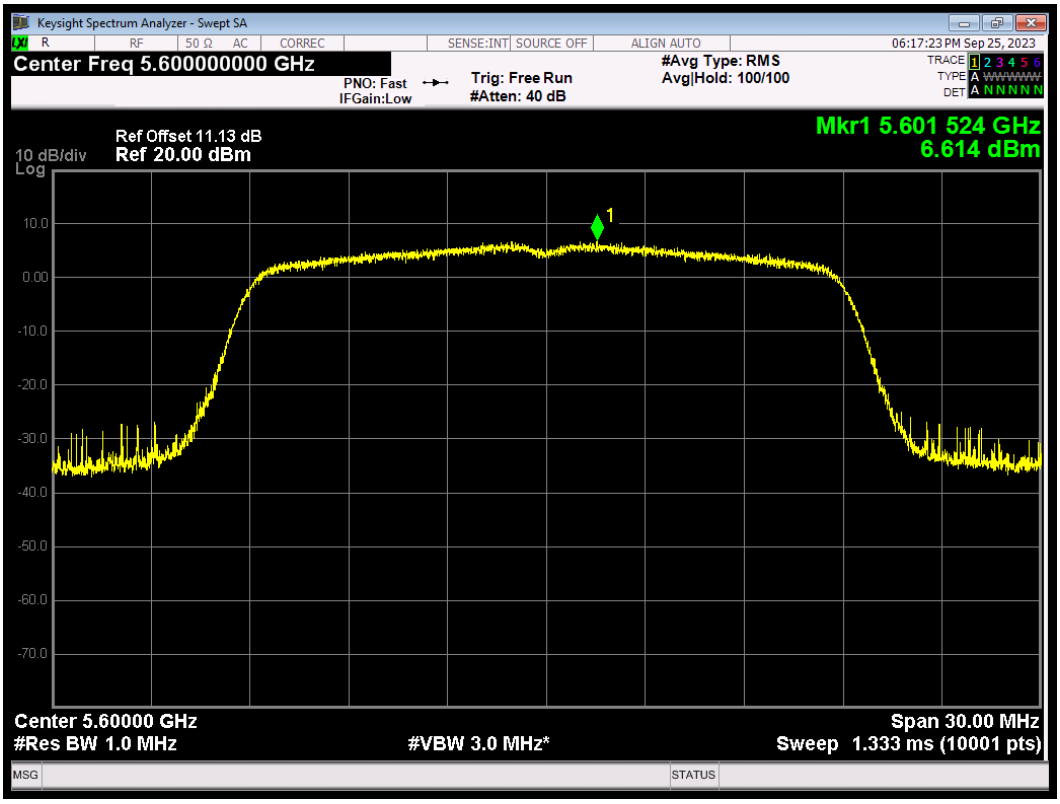
PSD 802.11ac(VHT80) 5690MHz



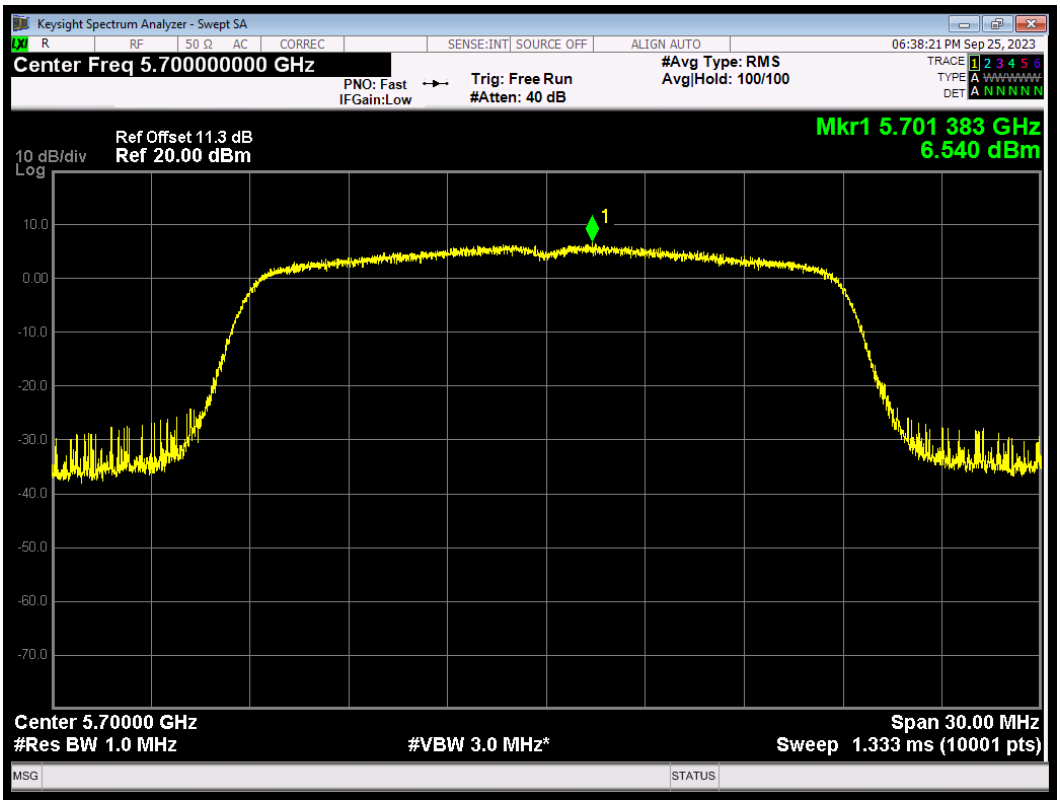
PSD 802.11n(HT20) 5500MHz



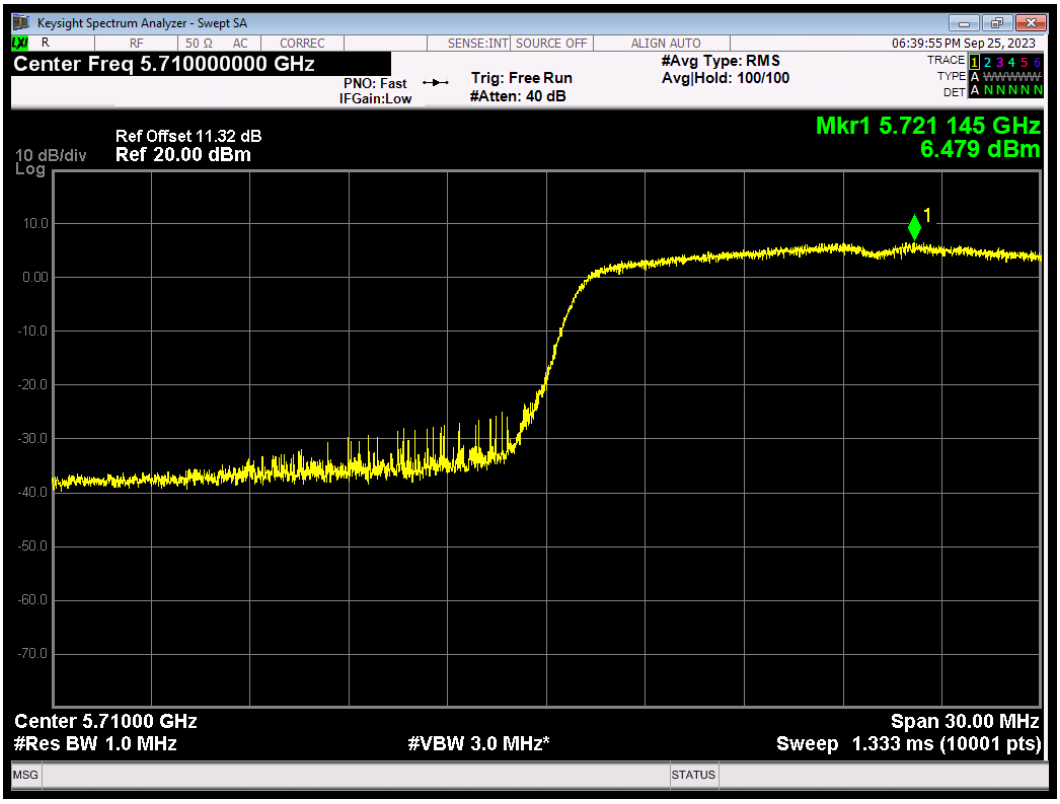
PSD 802.11n(HT20) 5600MHz



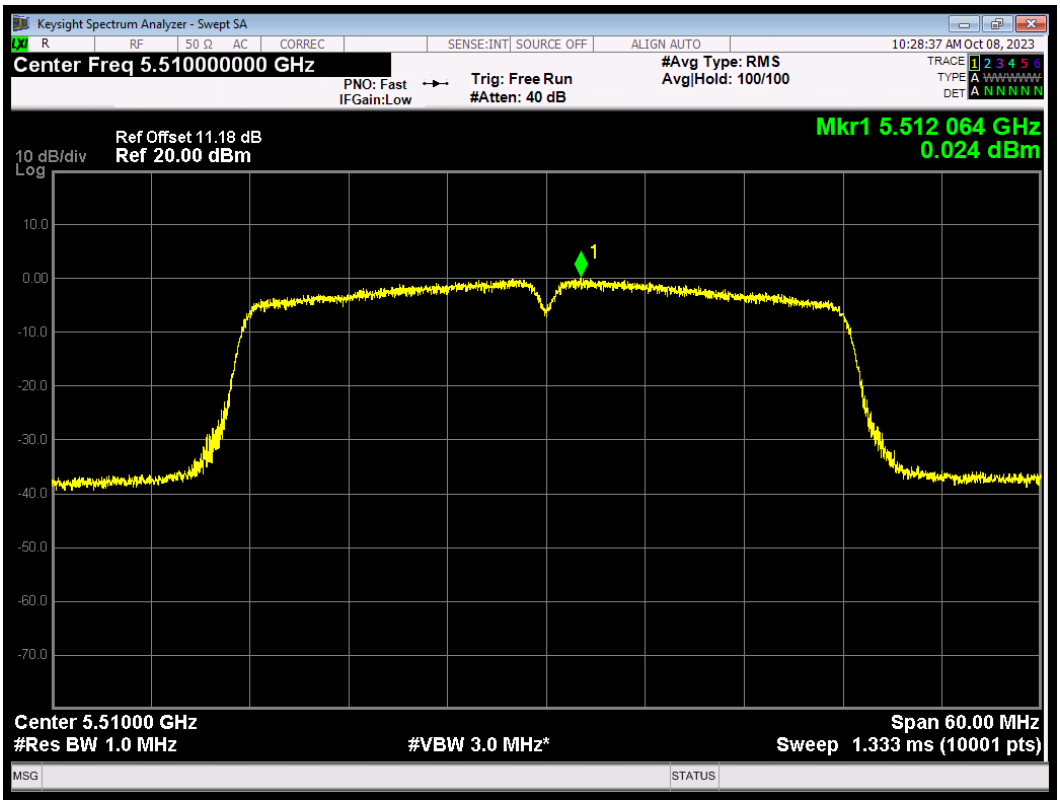
PSD 802.11n(HT20) 5700MHz



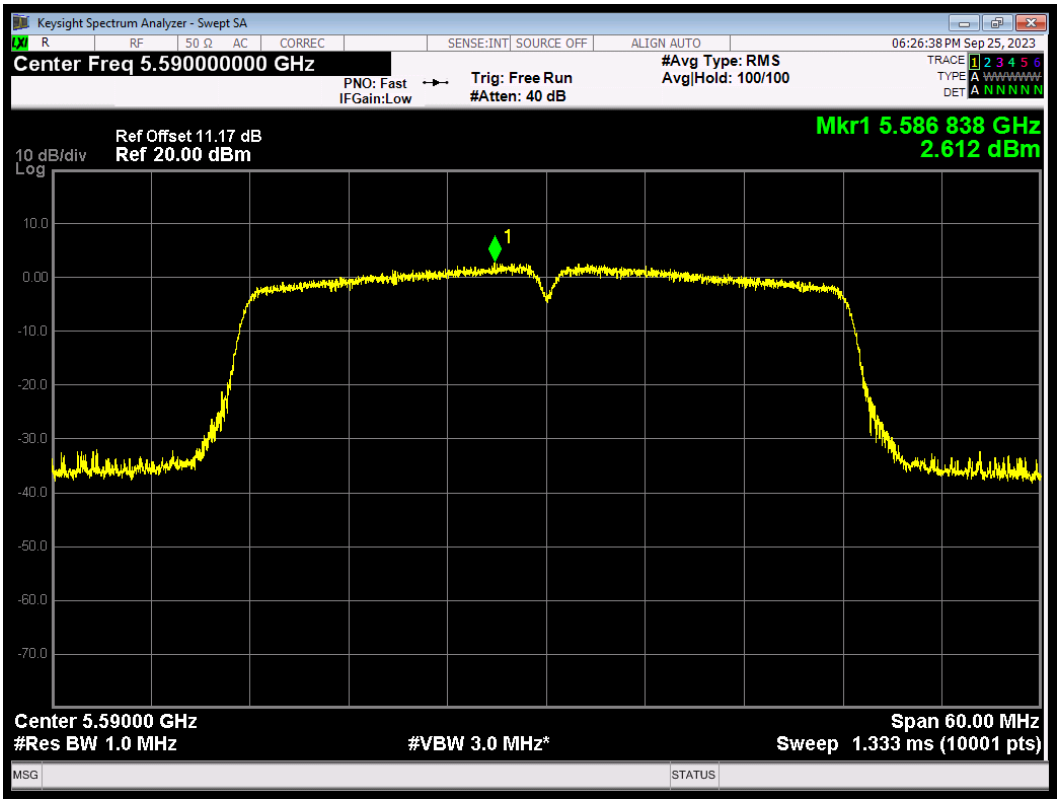
PSD 802.11n(HT20) 5720MHz



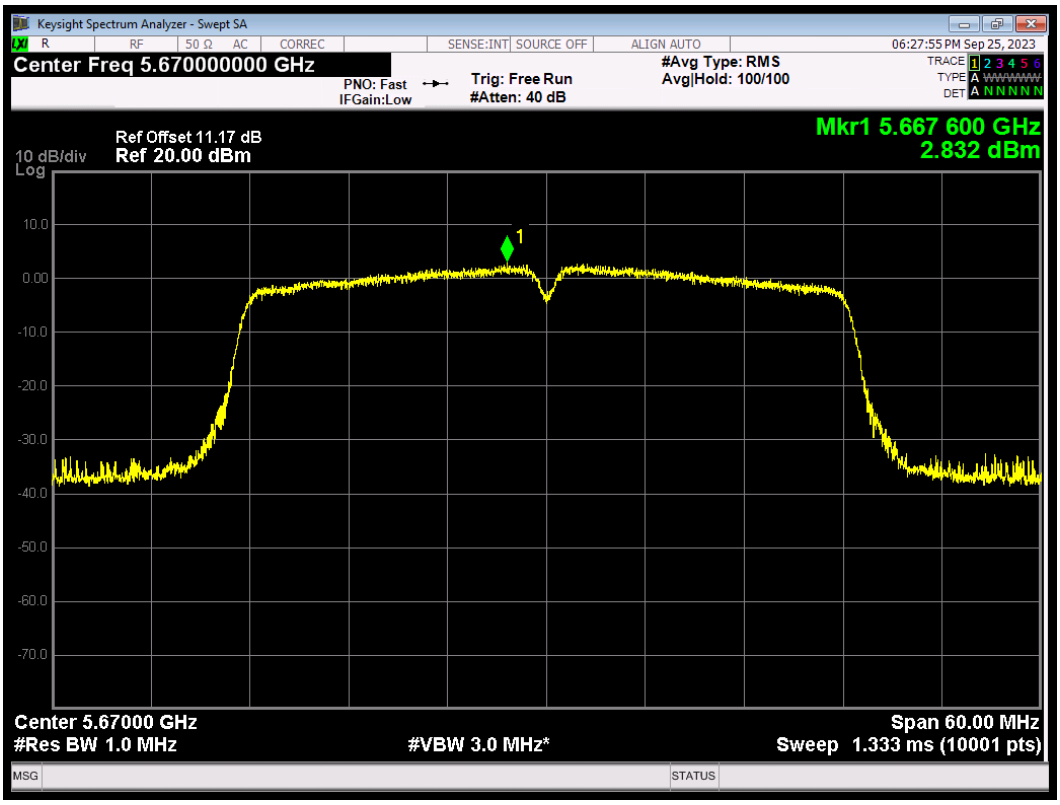
PSD 802.11n(HT40) 5510MHz



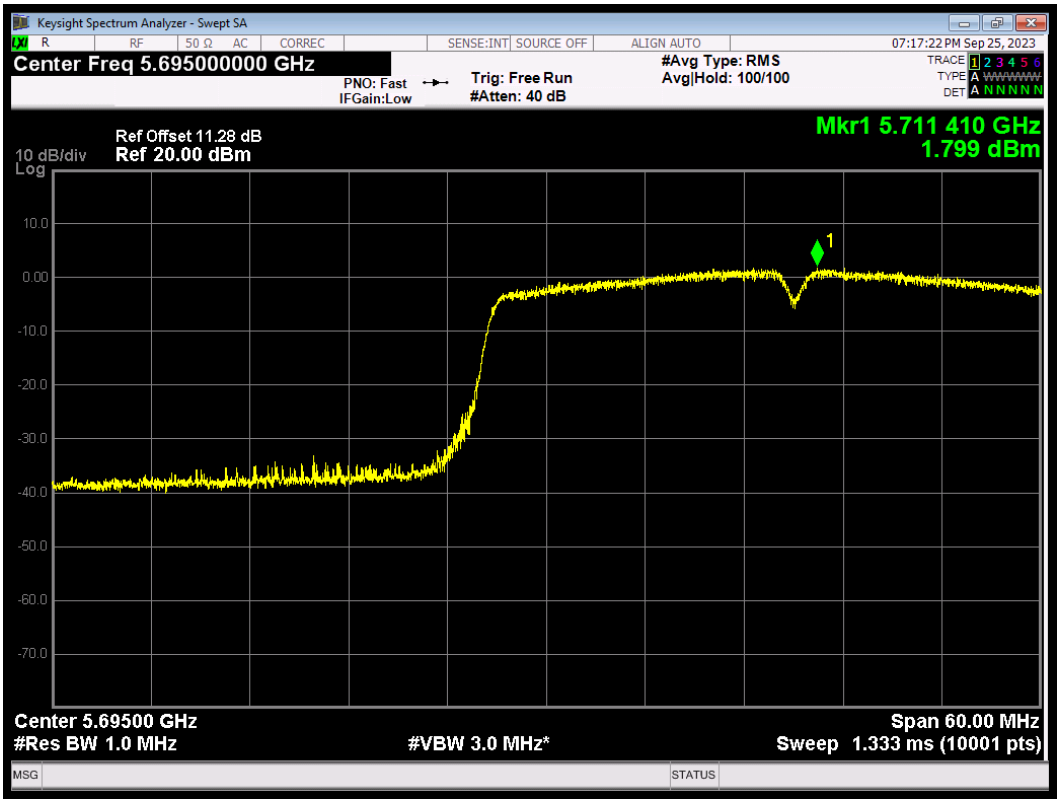
PSD 802.11n(HT40) 5590MHz



PSD 802.11n(HT40) 5670MHz

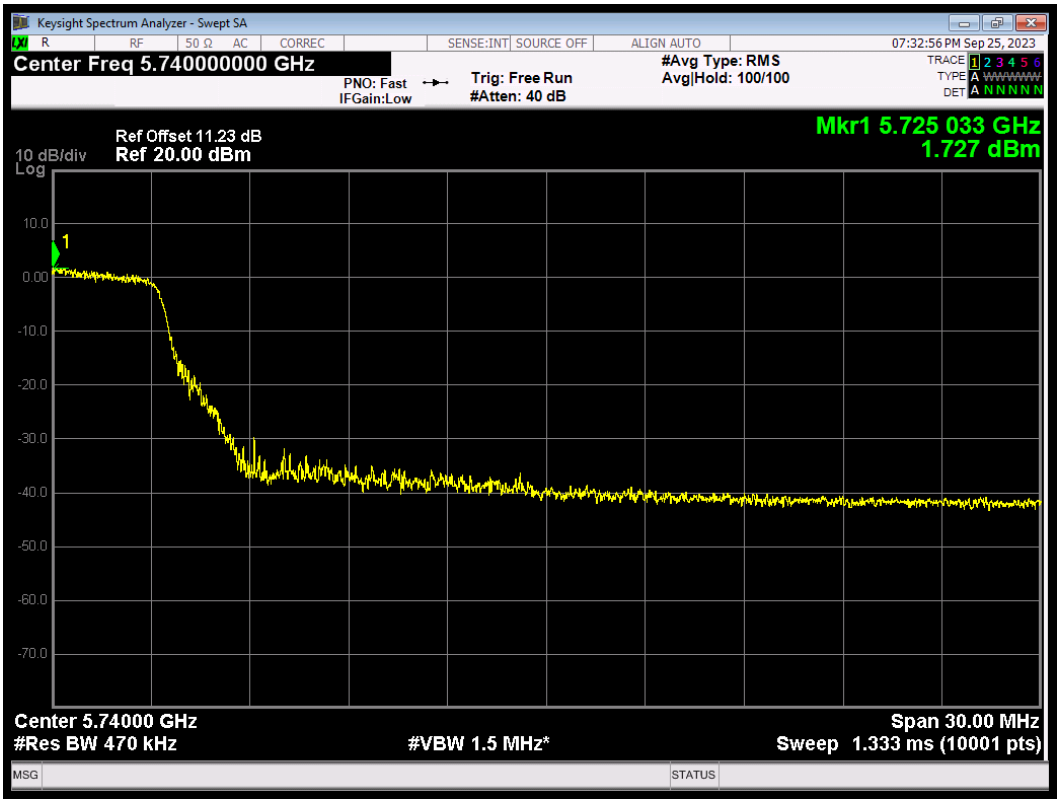


PSD 802.11n(HT40) 5710MHz

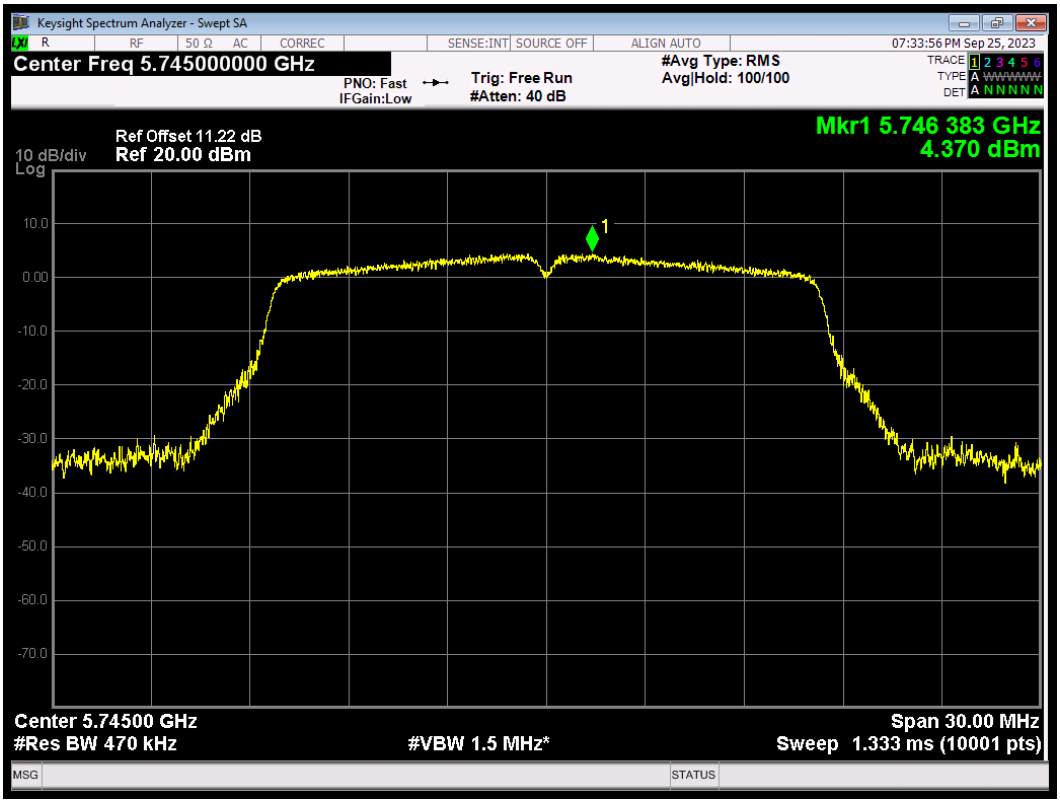


U-NII-3

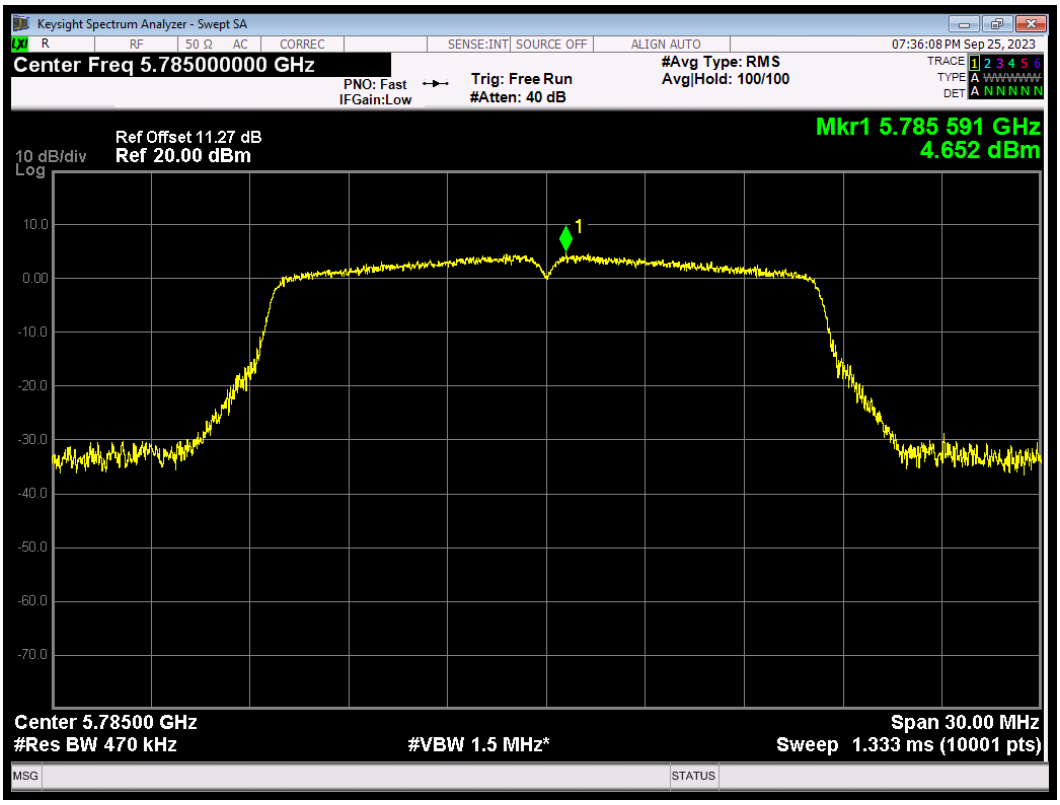
PSD 802.11a 5720MHz



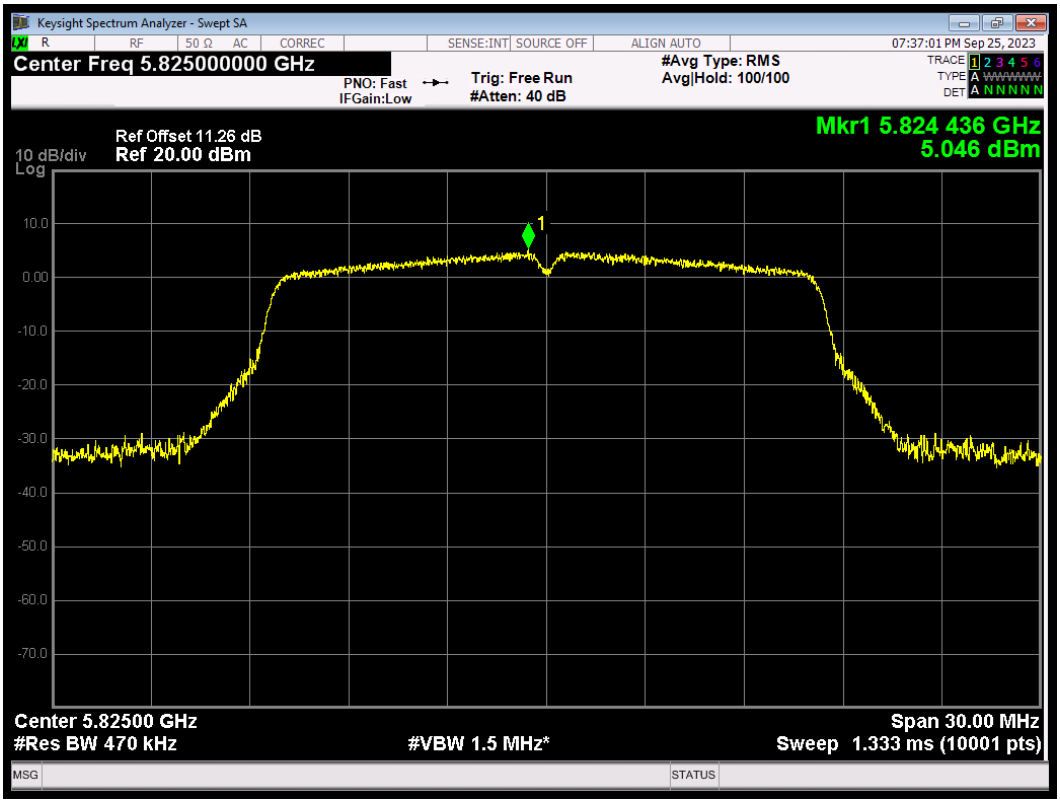
PSD 802.11a 5745MHz



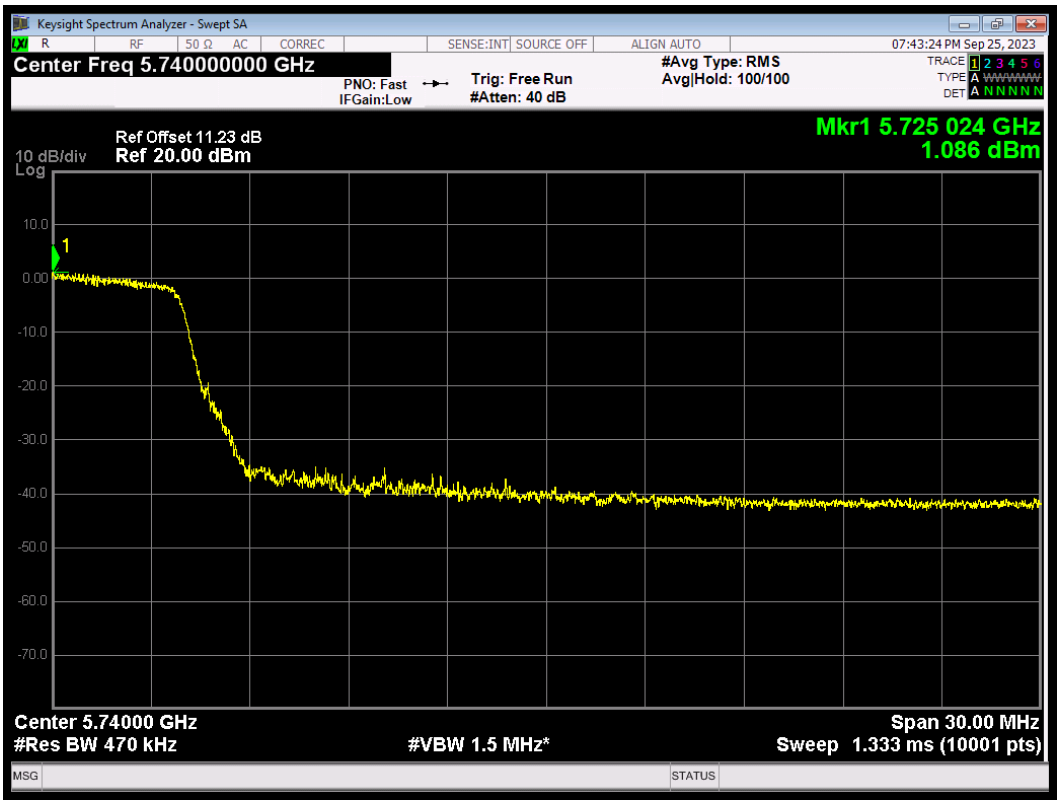
PSD 802.11a 5785MHz



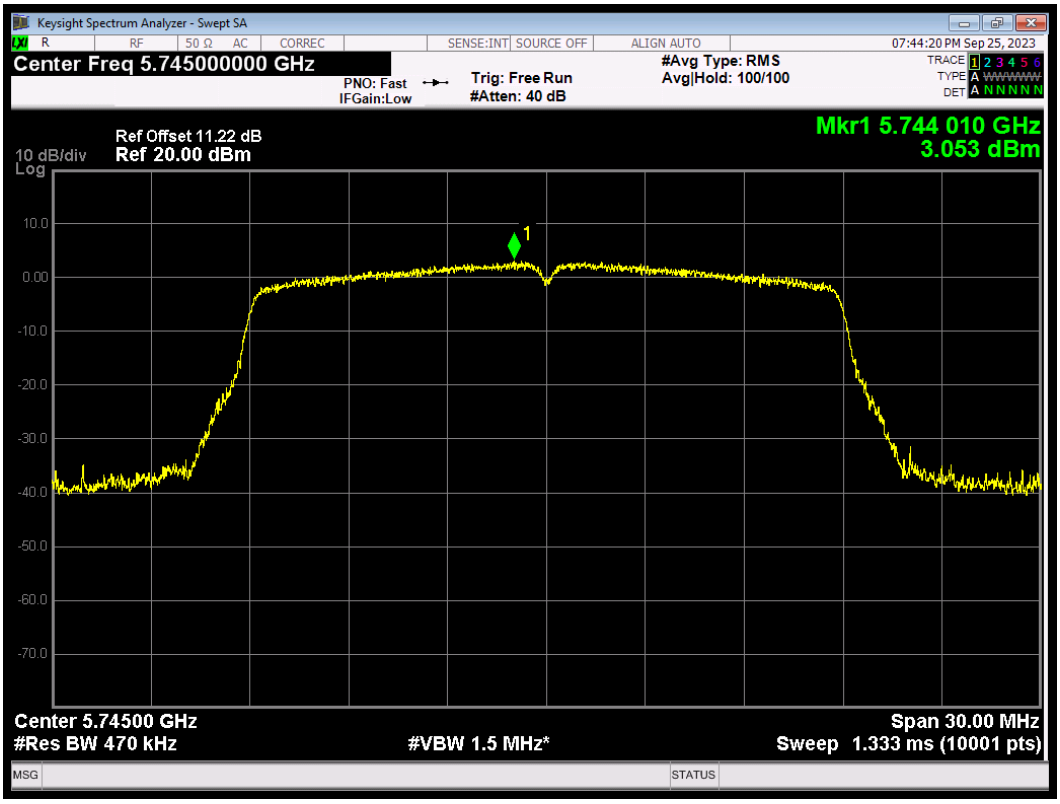
PSD 802.11a 5825MHz



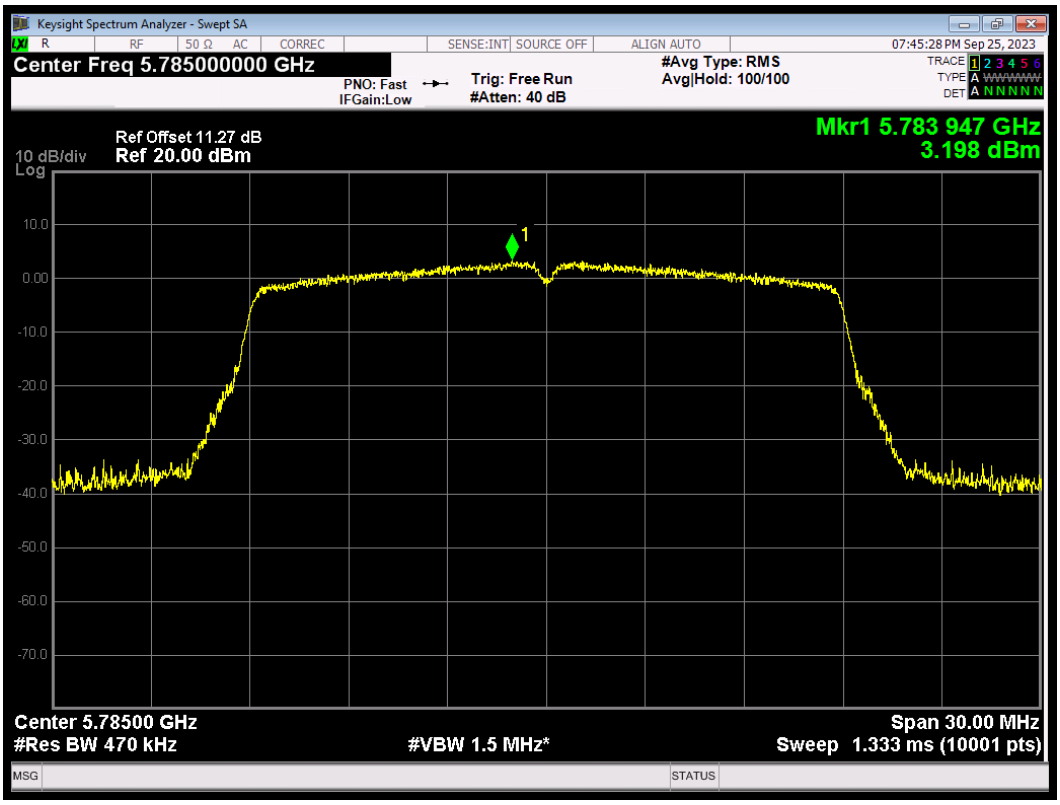
PSD 802.11ac(VHT20) 5720MHz



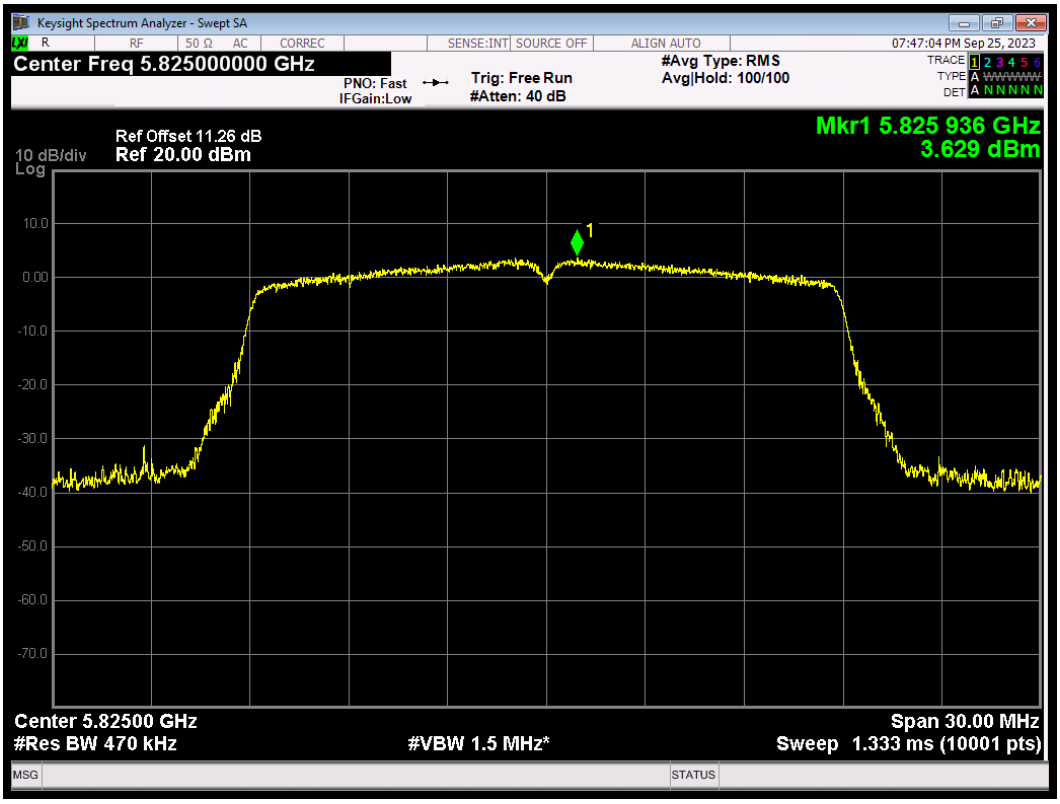
PSD 802.11ac(VHT20) 5745MHz



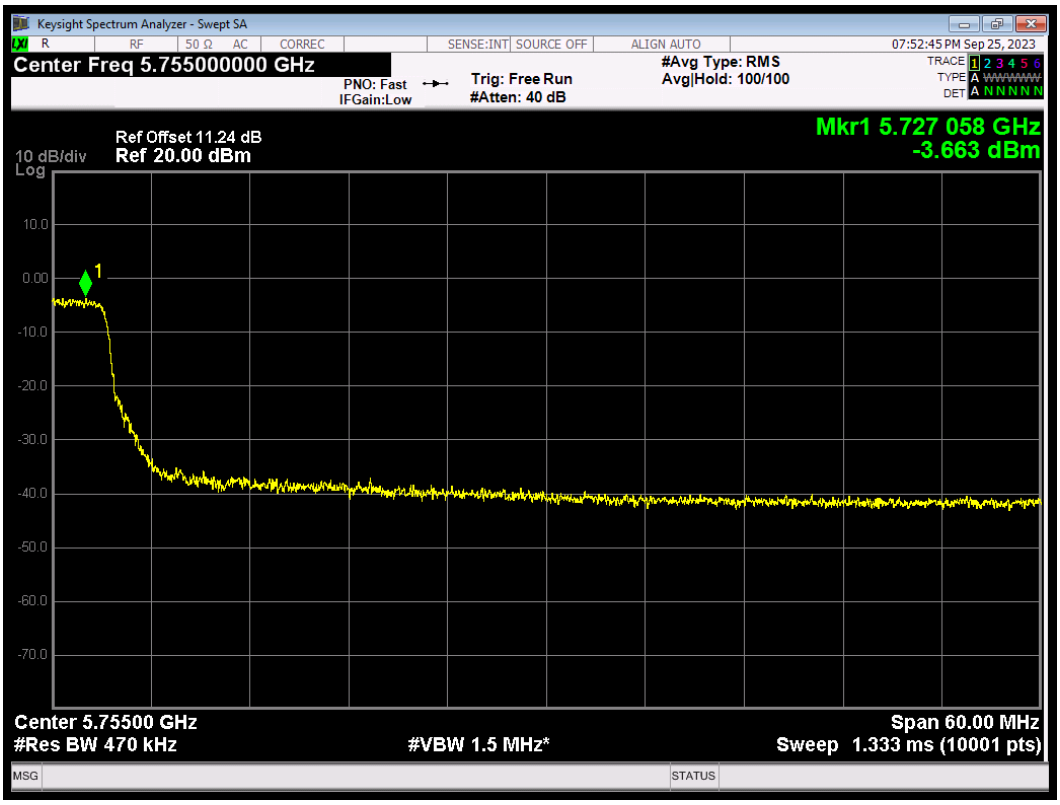
PSD 802.11ac(VHT20) 5785MHz



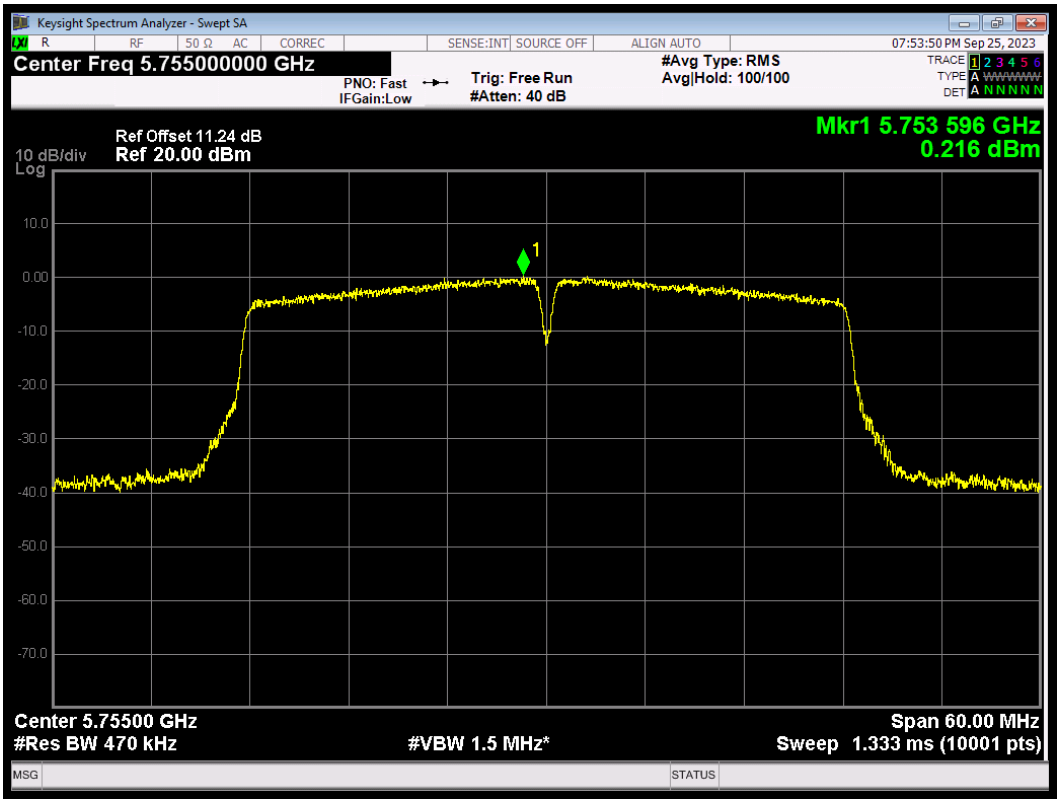
PSD 802.11ac(VHT20) 5825MHz



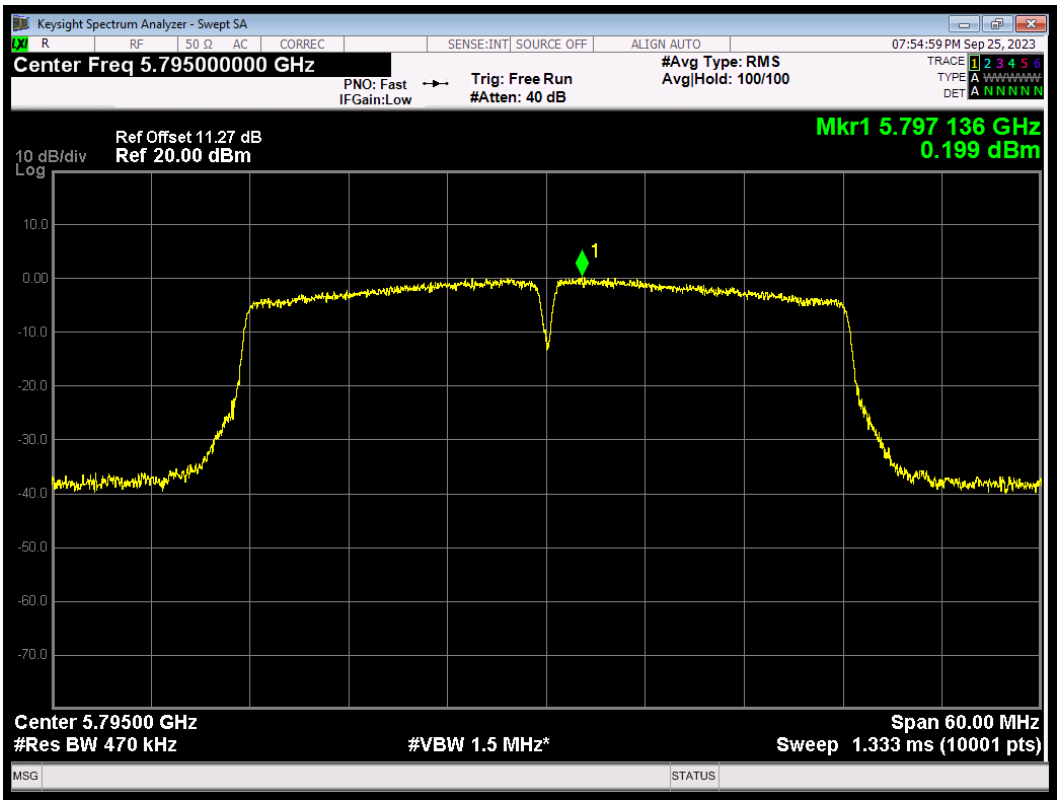
PSD 802.11ac(VHT40) 5710MHz



PSD 802.11ac(VHT40) 5755MHz



PSD 802.11ac(VHT40) 5795MHz



PSD 802.11ac(VHT80) 5690MHz