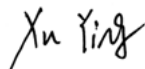


RF TEST REPORT

Applicant	Quectel Wireless Solutions Co., Ltd.
FCC ID	XMR2023FGS060N
Product	Wi-Fi, Bluetooth & 802.15.4 Module
Brand	Quectel
Model	FGS060N
Report No.	R2304A0500-R3V2
Issue Date	November 30, 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.



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Version	Revision Description	Issue Date
Rev.0	Initial issue of report.	November 24, 2023
Rev.1	Update information.	November 27, 2023
Rev.2	Update information.	November 30, 2023
<p>Note: This revised report (Report No.: R2304A0500-R3V2) supersedes and replaces the previously issued report (Report No.: R2304A0500-R3V1). Please discard or destroy the previously issued report and dispose of it accordingly.</p>		

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	NA
Date of Testing: June 2, 2023 ~ November 30, 2023 Date of Sample Received: May 31, 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	Quectel Wireless Solutions Co., Ltd.
Applicant address	Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China, 200233
Manufacturer	Quectel Wireless Solutions Co., Ltd.
Manufacturer address	Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China, 200233

2.2. General information

EUT Description		
Model	FGS060N	
SN	Conducted	E1Y23EC27000023
	Radiated	E1Y23EC27000037
Hardware Version	R1.0	
Software Version	NA	
Power Supply	External power supply	
Antenna Type	External Antenna	
Antenna Connector	SMA Male (Center Pin) (module use unique antenna connect or meet with the standard FCC Part 15.203 unique antenna connector requirement)	
Antenna Gain	1.14 dBi	
Operating Frequency Range(s)	U-NII-1: 5150MHz-5250MHz U-NII-2A: 5250MHz -5350MHz U-NII-2C: 5470MHz-5600MHz, 5650MHz-5725MHz U-NII-3: 5725MHz -5850MHz	
Modulation Type	802.11a: OFDM 802.11n (HT20/HT40): OFDM 802.11ac (VHT20/VHT40/VHT80): OFDM 802.11ax SU (HE20/ HE40/ HE80): OFDM 802.11ax RU (HE20/ HE40/ HE80): OFDMA	
Max. Output Power	15.93dBm	
Testing temperature range	-20 ° C to 50° C	
Operating temperature range	-40 ° C to 85 ° C	
Operating voltage range	3.14 V to 3.46 V	
State DC voltage	3.3 V	

Auxiliary test equipment	
PC	Manufacturer: Lenovo Model: T430
<p>Note:</p> <ol style="list-style-type: none"> 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 polarization (horizontal and vertical). The worst emission was found in lie-down position (horizontal axis) and the loop antenna is vertical, the others are vertical and horizontal. 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
802.11ax HE20	MCS0
802.11ax HE40	MCS0
802.11ax HE80	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	
	U-NII-2A	80 MHz	42	5210MHz	
			52	5260MHz	
		20 MHz	56	5280MHz	
			60	5300MHz	
			64	5320MHz	
			54	5270MHz	
		40 MHz	62	5310MHz	
			80 MHz	58	5290MHz
		U-NII-2C	20 MHz	100	5500MHz
				104	5520MHz
	108			5540MHz	
	112			5560MHz	
	116			5580MHz	
	132			5660MHz	
	136			5680MHz	
	140			5700MHz	
	40 MHz		144	5720MHz	
			102	5510MHz	
			110	5550MHz	
			134	5670MHz	
	80 MHz		142	5710MHz	
			106	5530MHz	
		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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Does this device support TDWR Band? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

5. Test Case Results

5.1. Occupied Bandwidth

Ambient condition

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

Method of Measurement

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

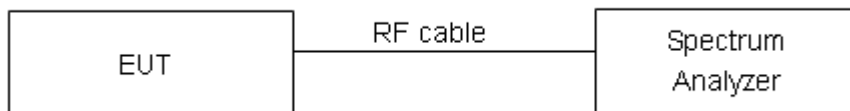
For U-NII-1/U-NII-2A/U-NII-2C, set RBW \approx 1% OCB kHz, VBW \geq 3 \times RBW, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB relative to the maximum level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

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

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

Use the 99 % power bandwidth function of the instrument

Test Setup



Limits

Rule FCC Part §15.407(e)

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

Measurement Uncertainty

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

Test Results:**U-NII-1**

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5180	16.676	19.644	PASS
	5200	16.654	19.689	PASS
	5240	16.657	19.583	PASS
802.11n HT20	5180	17.662	20.060	PASS
	5200	17.684	20.295	PASS
	5240	17.667	19.987	PASS
802.11n HT40	5190	36.123	40.690	PASS
	5230	36.203	40.256	PASS
802.11ac VHT20	5180	17.680	20.115	PASS
	5200	17.689	20.261	PASS
	5240	17.671	19.931	PASS
802.11ac VHT40	5190	36.210	40.518	PASS
	5230	36.191	40.820	PASS
802.11ac VHT80	5210	76.151	81.603	PASS
802.11ax HE20	5180	18.789	20.377	PASS
	5200	18.810	20.586	PASS
	5240	18.835	20.724	PASS
802.11ax HE40	5190	37.603	40.563	PASS
	5230	37.631	40.632	PASS
802.11ax HE80	5210	77.771	81.074	PASS

U-NII-2A

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5260	16.691	19.694	PASS
	5300	16.712	19.635	PASS
	5320	16.669	19.808	PASS
802.11n HT20	5260	17.654	20.110	PASS
	5300	17.670	20.018	PASS
	5320	17.667	20.137	PASS
802.11n HT40	5270	36.141	40.447	PASS
	5310	36.174	40.880	PASS
802.11ac VHT20	5260	17.665	20.270	PASS
	5300	17.675	20.182	PASS
	5320	17.654	20.233	PASS
802.11ac VHT40	5270	36.165	40.241	PASS
	5310	36.245	40.169	PASS
802.11ac VHT80	5290	76.147	82.105	PASS
802.11ax HE20	5260	18.824	20.313	PASS
	5300	18.812	20.529	PASS
	5320	18.798	20.590	PASS
802.11ax HE40	5270	37.618	40.256	PASS
	5310	37.632	40.941	PASS
802.11ax HE80	5290	77.815	80.850	PASS

U-NII-2C

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5500	16.657	19.676	PASS
	5580	16.690	19.728	PASS
	5700	16.684	19.586	PASS
	5720	16.683	19.638	PASS
802.11n HT20	5500	17.679	20.188	PASS
	5580	17.659	20.051	PASS
	5700	17.644	20.039	PASS
	5720	17.704	19.945	PASS
802.11n HT40	5510	36.193	40.724	PASS
	5550	36.195	40.932	PASS
	5670	36.181	40.869	PASS
	5710	36.185	40.872	PASS
802.11ac VHT20	5500	17.640	20.475	PASS
	5580	17.676	20.153	PASS
	5700	17.666	20.326	PASS
	5720	17.649	20.103	PASS
802.11ac VHT40	5510	36.190	41.157	PASS
	5550	36.205	40.525	PASS
	5670	36.179	40.970	PASS
	5710	36.211	41.337	PASS
802.11ac VHT80	5530	76.143	81.672	PASS
	5690	76.212	81.935	PASS
802.11ax HE20	5500	18.810	20.442	PASS
	5580	18.799	20.420	PASS
	5700	18.827	20.379	PASS
	5720	18.824	20.321	PASS
802.11ax HE40	5510	37.576	40.340	PASS
	5550	37.644	40.475	PASS
	5670	37.617	40.706	PASS
	5710	37.611	39.990	PASS
802.11ax HE80	5530	77.817	81.389	PASS
	5690	77.825	81.221	PASS

U-NII-3

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11a	5720	16.661	16.336	500	PASS
	5745	16.693	16.369	500	PASS
	5785	16.681	16.361	500	PASS
	5825	16.722	16.346	500	PASS
802.11n HT20	5720	17.677	17.550	500	PASS
	5745	17.672	17.544	500	PASS
	5785	17.659	17.083	500	PASS
	5825	17.707	16.939	500	PASS
802.11n HT40	5710	36.179	35.463	500	PASS
	5755	36.172	35.153	500	PASS
	5795	36.212	35.424	500	PASS
802.11ac VHT20	5720	17.659	17.558	500	PASS
	5745	17.681	17.492	500	PASS
	5785	17.686	17.287	500	PASS
	5825	17.691	17.534	500	PASS
802.11ac VHT40	5710	36.163	35.119	500	PASS
	5755	36.210	35.349	500	PASS
	5795	36.220	35.366	500	PASS
802.11ac VHT80	5690	76.231	76.354	500	PASS
	5775	76.272	76.085	500	PASS
802.11ax HE20	5720	18.777	18.057	500	PASS
	5745	18.824	17.846	500	PASS
	5785	18.786	17.864	500	PASS
	5825	18.792	18.088	500	PASS
802.11ax HE40	5710	37.676	36.465	500	PASS
	5755	37.649	36.684	500	PASS
	5795	37.600	36.882	500	PASS
802.11ax HE80	5690	77.800	77.840	500	PASS
	5775	77.903	77.864	500	PASS

TB Mode
U-NII-1

Mode	Carrier frequency (MHz)	RU Index	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11ax HE20 26-Tones	5180	0	17.644	19.265	PASS
802.11ax HE20 26-Tones	5200	4	16.526	18.121	PASS
802.11ax HE20 26-Tones	5240	8	17.674	18.425	PASS
802.11ax HE20 52-Tones	5180	37	18.162	19.161	PASS
802.11ax HE20 52-Tones	5200	38	16.848	17.843	PASS
802.11ax HE20 52-Tones	5240	40	17.851	19.442	PASS
802.11ax HE20 106-Tones	5180	53	18.057	19.648	PASS
802.11ax HE20 106-Tones	5200	53	18.032	19.664	PASS
802.11ax HE20 106-Tones	5240	54	17.637	19.576	PASS
802.11ax HE20 242-Tones	5180	61	18.782	20.241	PASS
802.11ax HE20 242-Tones	5240	61	18.768	20.529	PASS
802.11ax HE40 26-Tones	5190	0	23.888	26.001	PASS
802.11ax HE40 26-Tones	5230	17	22.301	26.200	PASS
802.11ax HE40 484-Tones	5190	65	37.574	52.753	PASS
802.11ax HE40 484-Tones	5230	65	37.515	50.784	PASS
802.11ax HE80 26-Tones	5210	0	78.052	80.439	PASS
802.11ax HE80 26-Tones	5210	36	77.227	80.302	PASS
802.11ax HE80 996-Tones	5210	67	77.795	95.238	PASS

U-NII-2A

Mode	Carrier frequency (MHz)	RU Index	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11ax HE20 26-Tones	5260	0	18.146	19.087	PASS
802.11ax HE20 26-Tones	5300	4	16.194	17.600	PASS
802.11ax HE20 26-Tones	5320	8	18.140	19.247	PASS
802.11ax HE20 52-Tones	5260	37	16.716	19.330	PASS
802.11ax HE20 52-Tones	5300	38	17.008	18.309	PASS
802.11ax HE20 52-Tones	5320	40	17.649	19.249	PASS
802.11ax HE20 106-Tones	5260	53	17.536	19.963	PASS
802.11ax HE20 106-Tones	5300	53	18.051	19.258	PASS
802.11ax HE20 106-Tones	5320	54	17.451	19.430	PASS
802.11ax HE20 242-Tones	5260	61	18.796	20.504	PASS
802.11ax HE20 242-Tones	5320	61	18.749	20.215	PASS
802.11ax HE40 26-Tones	5270	0	22.223	26.614	PASS
802.11ax HE40 26-Tones	5310	17	24.620	24.661	PASS
802.11ax HE40 484-Tones	5270	65	37.599	58.846	PASS
802.11ax HE40 484-Tones	5310	65	37.479	58.763	PASS
802.11ax HE80 26-Tones	5290	0	76.699	80.103	PASS
802.11ax HE80 26-Tones	5290	36	78.444	80.420	PASS
802.11ax HE80 996-Tones	5290	67	77.719	96.200	PASS

U-NII-2C

Mode	Carrier frequency (MHz)	RU Index	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11ax HE20 26-Tones	5500	0	17.638	18.475	PASS
802.11ax HE20 26-Tones	5580	4	16.006	18.119	PASS
802.11ax HE20 26-Tones	5700	8	17.918	19.078	PASS
802.11ax HE20 52-Tones	5500	37	17.450	19.163	PASS
802.11ax HE20 52-Tones	5580	38	16.653	18.393	PASS
802.11ax HE20 52-Tones	5700	40	17.427	19.557	PASS
802.11ax HE20 106-Tones	5500	53	17.389	19.348	PASS
802.11ax HE20 106-Tones	5580	53	18.019	19.351	PASS
802.11ax HE20 106-Tones	5700	54	17.699	19.602	PASS
802.11ax HE20 242-Tones	5500	61	18.824	20.646	PASS
802.11ax HE20 242-Tones	5700	61	18.806	20.257	PASS
802.11ax HE40 26-Tones	5510	0	21.611	25.724	PASS
802.11ax HE40 26-Tones	5670	17	23.608	19.843	PASS
802.11ax HE40 484-Tones	5510	65	37.587	42.511	PASS
802.11ax HE40 484-Tones	5670	65	37.609	44.197	PASS
802.11ax HE80 26-Tones	5530	0	77.921	80.167	PASS
802.11ax HE80 26-Tones	5530	36	78.029	80.565	PASS
802.11ax HE80 996-Tones	5530	67	77.775	95.640	PASS

U-NII-3

Mode	Carrier frequency (MHz)	RU Index	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11ax HE20 26-Tones	5745	0	18.107	1.971	500	PASS
802.11ax HE20 26-Tones	5785	4	16.899	2.593	500	PASS
802.11ax HE20 26-Tones	5825	8	18.166	1.933	500	PASS
802.11ax HE20 52-Tones	5745	37	18.001	16.950	500	PASS
802.11ax HE20 52-Tones	5785	38	16.250	15.085	500	PASS
802.11ax HE20 52-Tones	5825	40	17.947	15.705	500	PASS
802.11ax HE20 106-Tones	5745	53	17.980	16.925	500	PASS
802.11ax HE20 106-Tones	5785	53	18.050	16.985	500	PASS
802.11ax HE20 106-Tones	5825	54	17.880	17.076	500	PASS
802.11ax HE20 242-Tones	5745	61	18.820	17.973	500	PASS
802.11ax HE20 242-Tones	5825	61	18.784	18.287	500	PASS
802.11ax HE40 26-Tones	5755	0	24.001	4.030	500	PASS
802.11ax HE40 26-Tones	5795	17	20.618	1.890	500	PASS
802.11ax HE40 484-Tones	5755	65	37.580	36.592	500	PASS
802.11ax HE40 484-Tones	5795	65	37.538	36.990	500	PASS
802.11ax HE80 26-Tones	5775	0	78.266	2.006	500	PASS
802.11ax HE80 26-Tones	5775	36	76.888	2.060	500	PASS
802.11ax HE80 996-Tones	5775	67	77.873	78.010	500	PASS

ERSU Mode**U-NII-1**

Mode	Carrier frequency (MHz)	RU Index	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11ax HE20 242-Tones	5180	61	18.808	20.344	PASS
802.11ax HE20 242-Tones	5200	61	18.772	20.490	PASS
802.11ax HE20 242-Tones	5240	61	18.817	20.570	PASS

U-NII-2A

Mode	Carrier frequency (MHz)	RU Index	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11ax HE20 242-Tones	5260	61	18.787	20.453	PASS
802.11ax HE20 242-Tones	5300	61	18.803	20.413	PASS
802.11ax HE20 242-Tones	5320	61	18.795	20.729	PASS

U-NII-2C

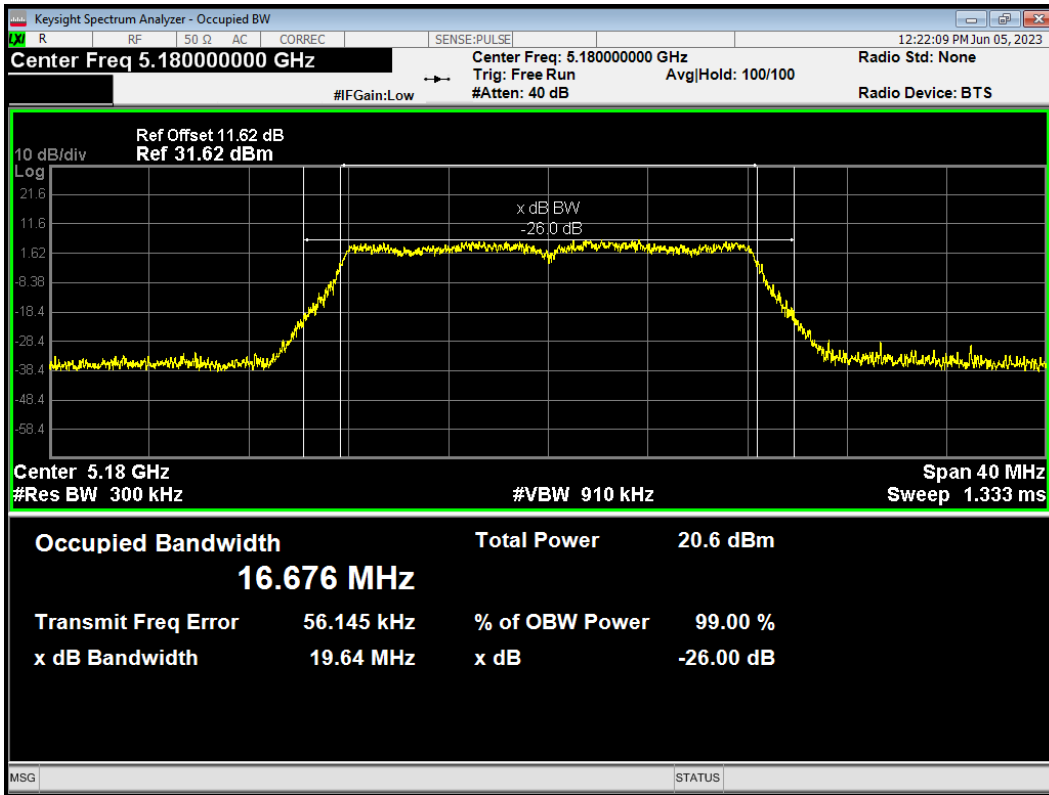
Mode	Carrier frequency (MHz)	RU Index	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11ax HE20 242-Tones	5500	61	18.815	20.444	PASS
802.11ax HE20 242-Tones	5580	61	18.787	20.491	PASS
802.11ax HE20 242-Tones	5700	61	18.780	20.319	PASS

U-NII-3

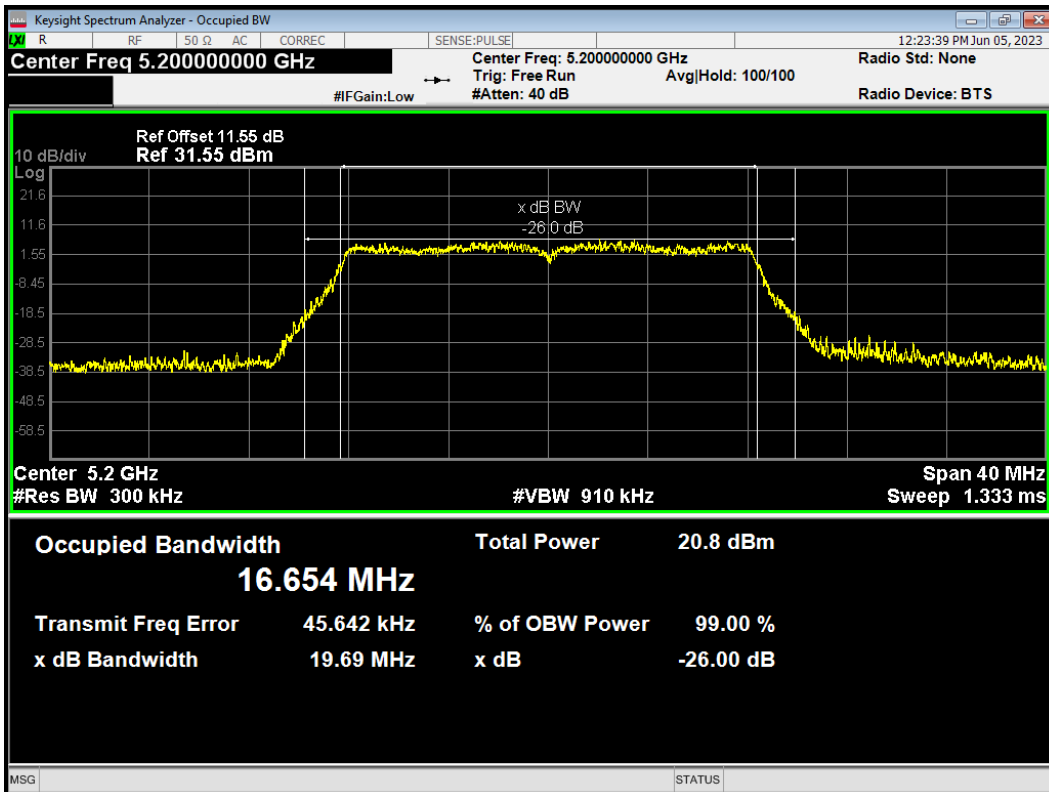
Mode	Carrier frequency (MHz)	RU Index	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11ax HE20 242-Tones	5745	61	18.802	18.362	500	PASS
802.11ax HE20 242-Tones	5785	61	18.787	17.983	500	PASS
802.11ax HE20 242-Tones	5825	61	18.798	18.285	500	PASS

99% bandwidth
U-NII-1

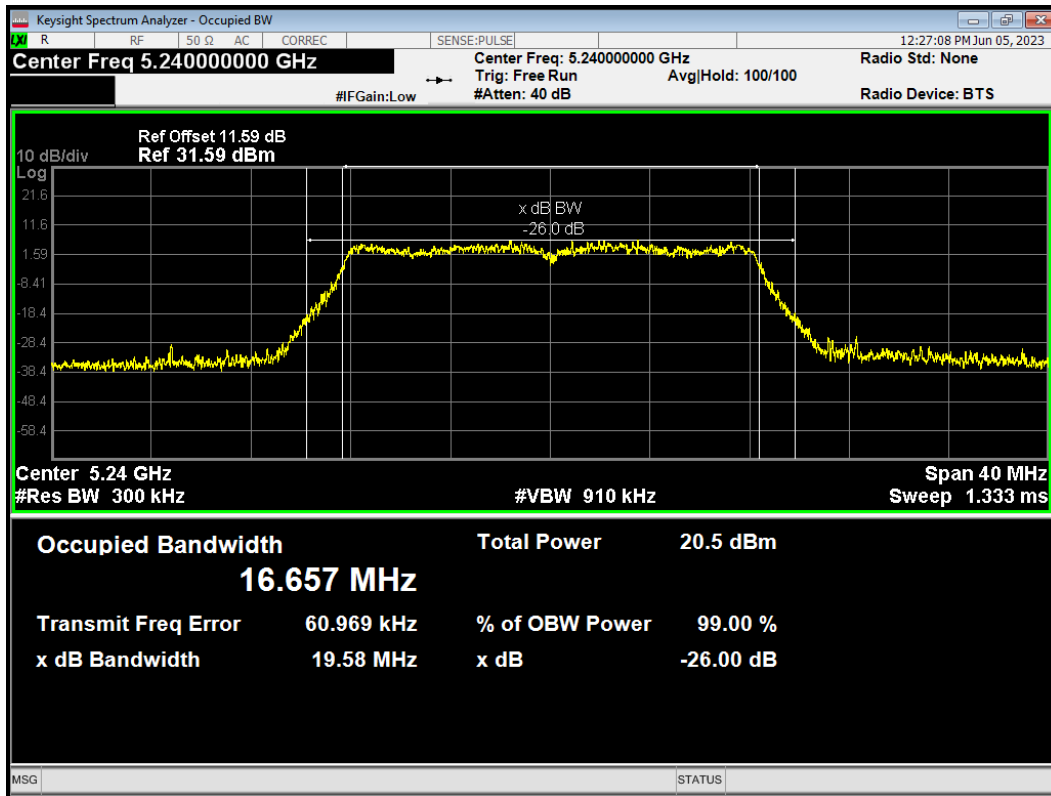
OBW 802.11a 5180MHz



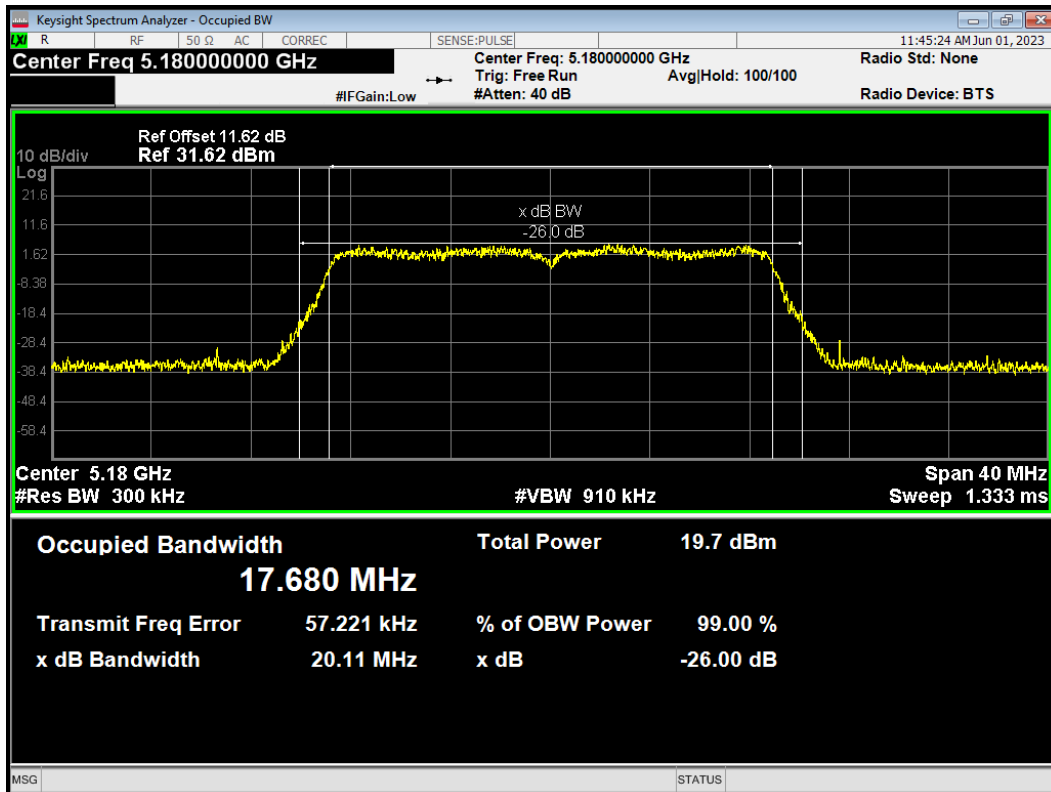
OBW 802.11a 5200MHz



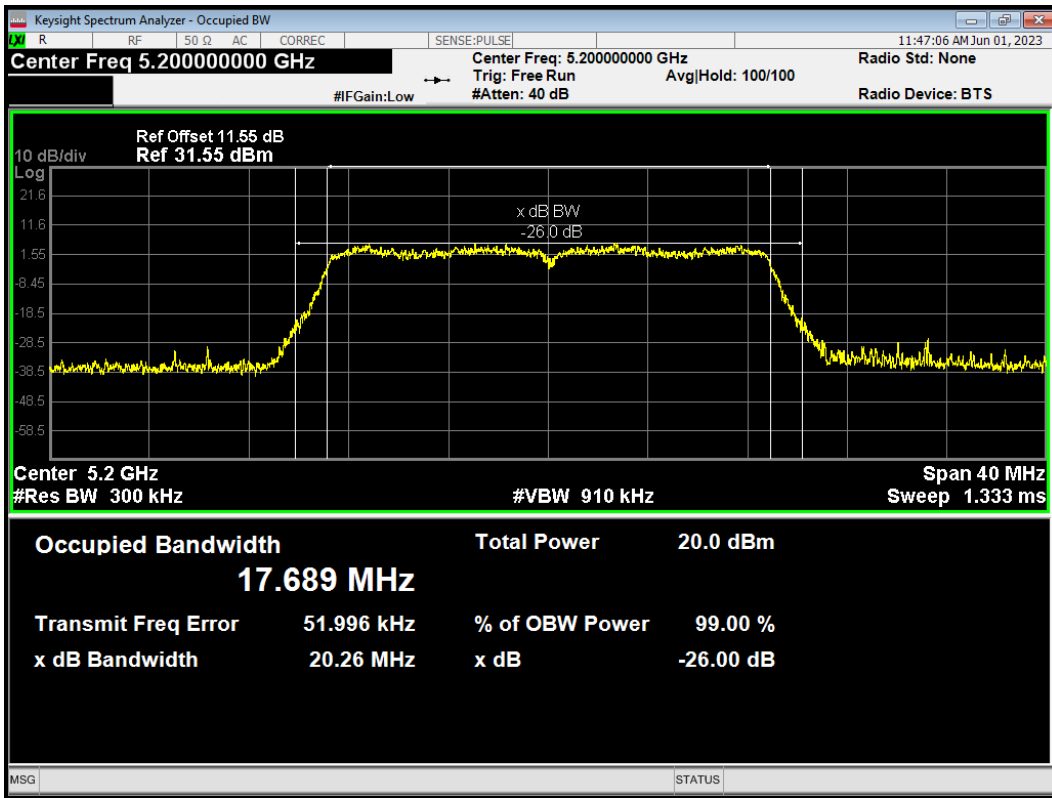
OBW 802.11a 5240MHz



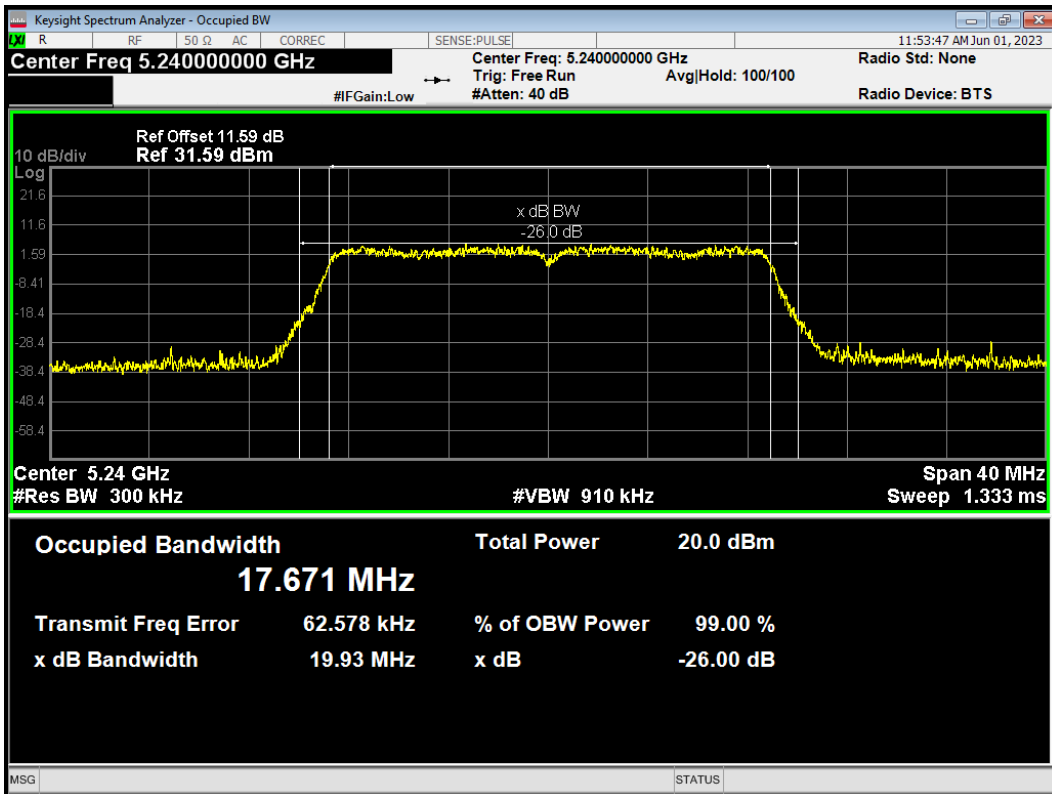
OBW 802.11ac(VHT20) 5180MHz



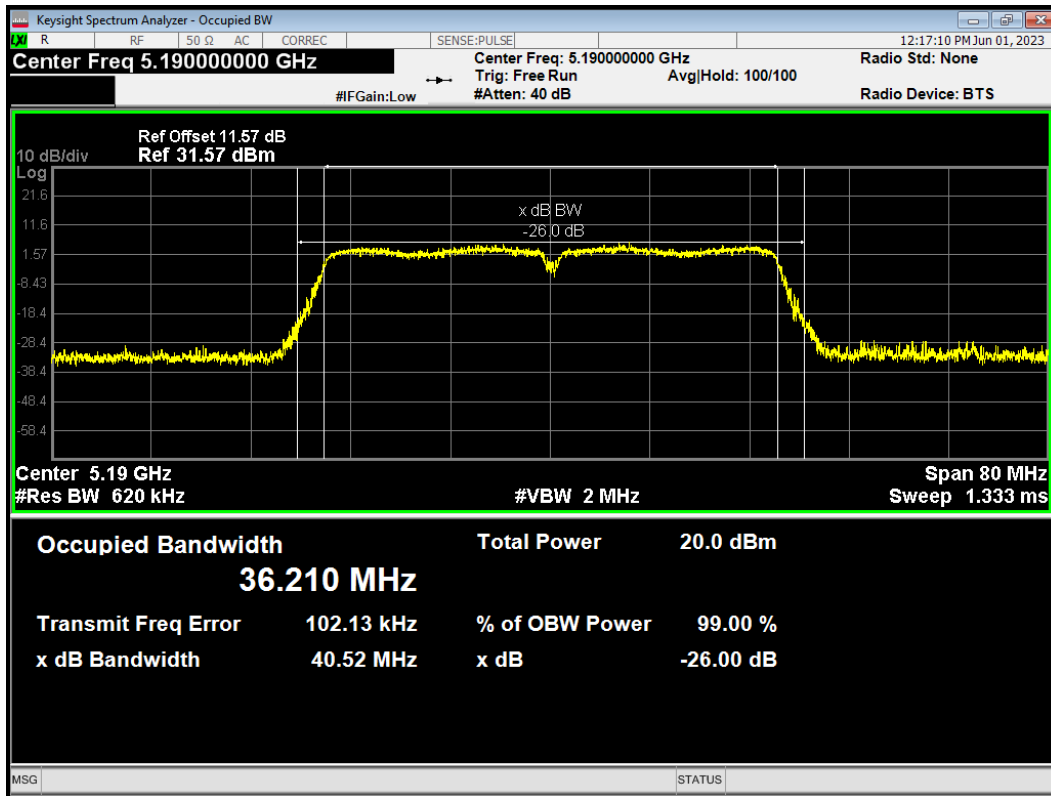
OBW 802.11ac(VHT20) 5200MHz



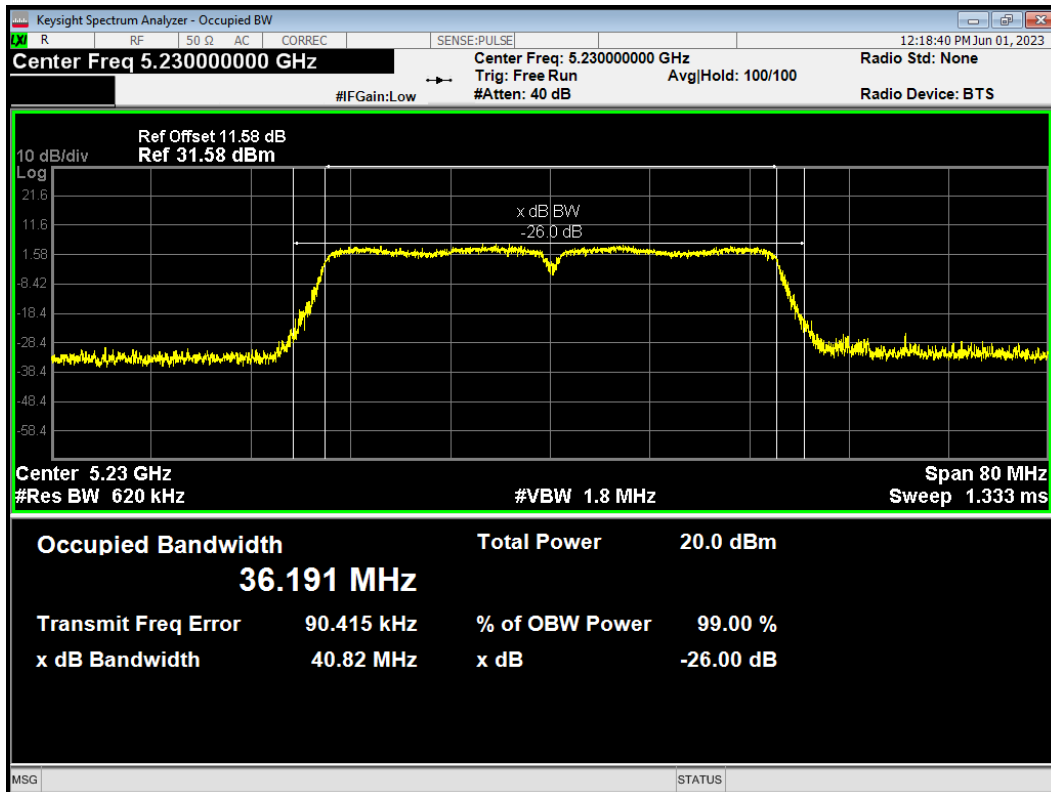
OBW 802.11ac(VHT20) 5240MHz



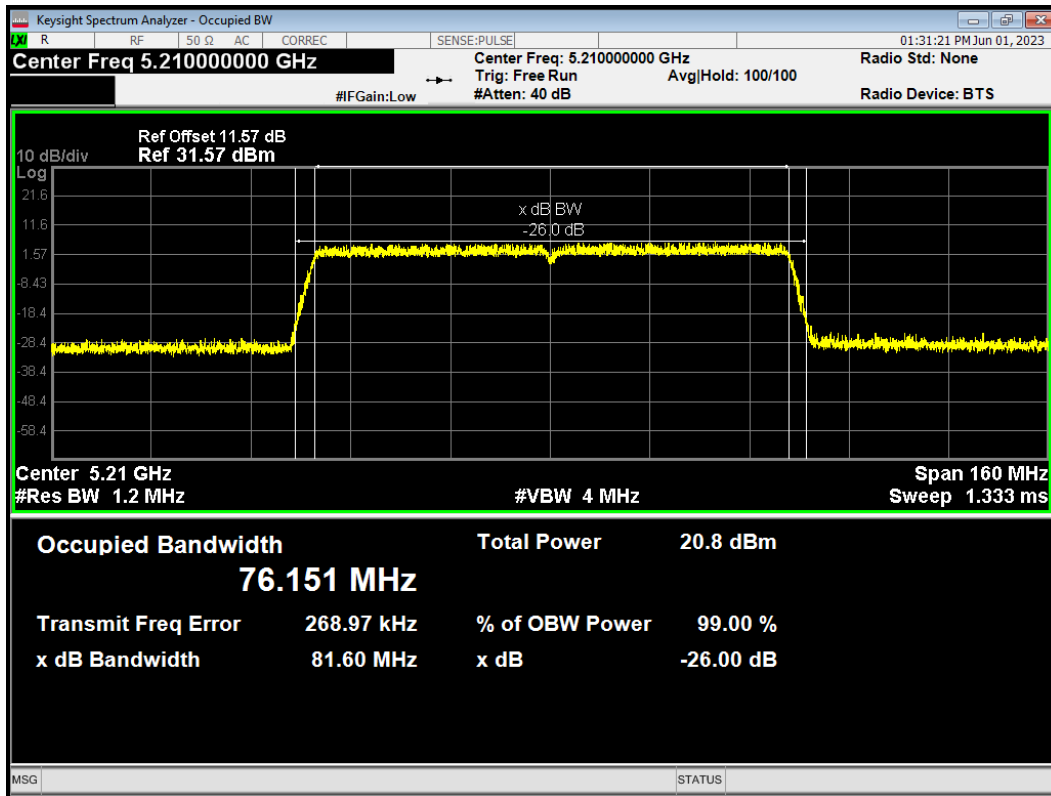
OBW 802.11ac(VHT40) 5190MHz



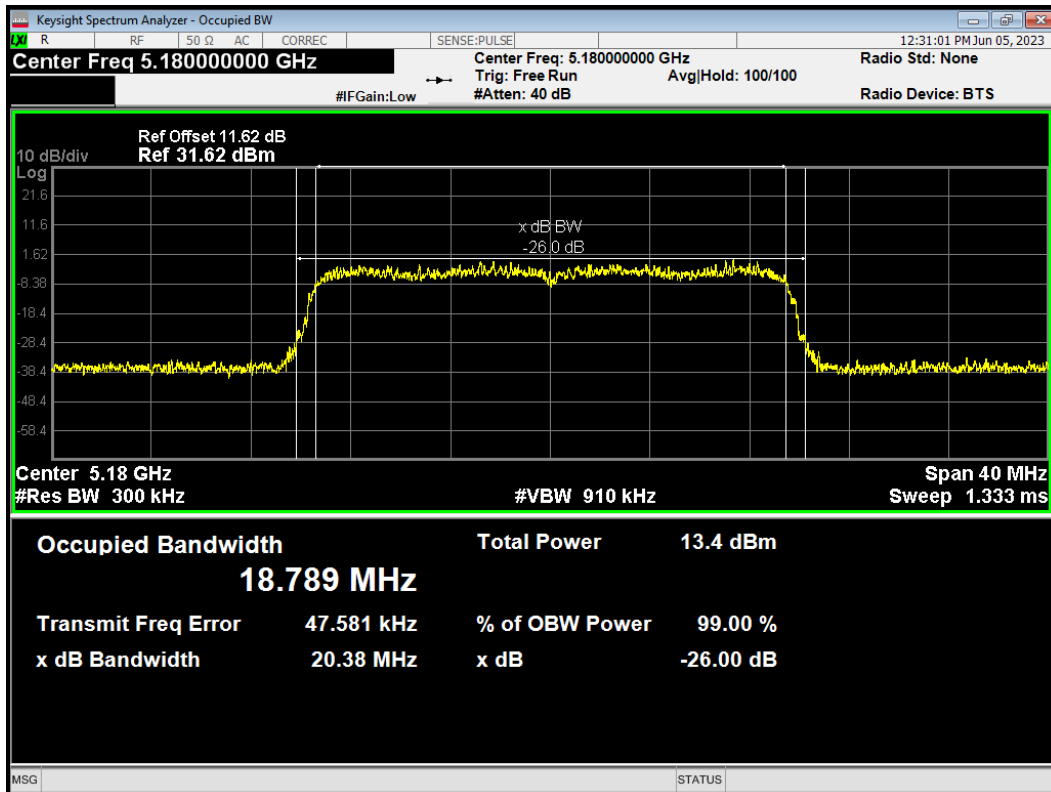
OBW 802.11ac(VHT40) 5230MHz



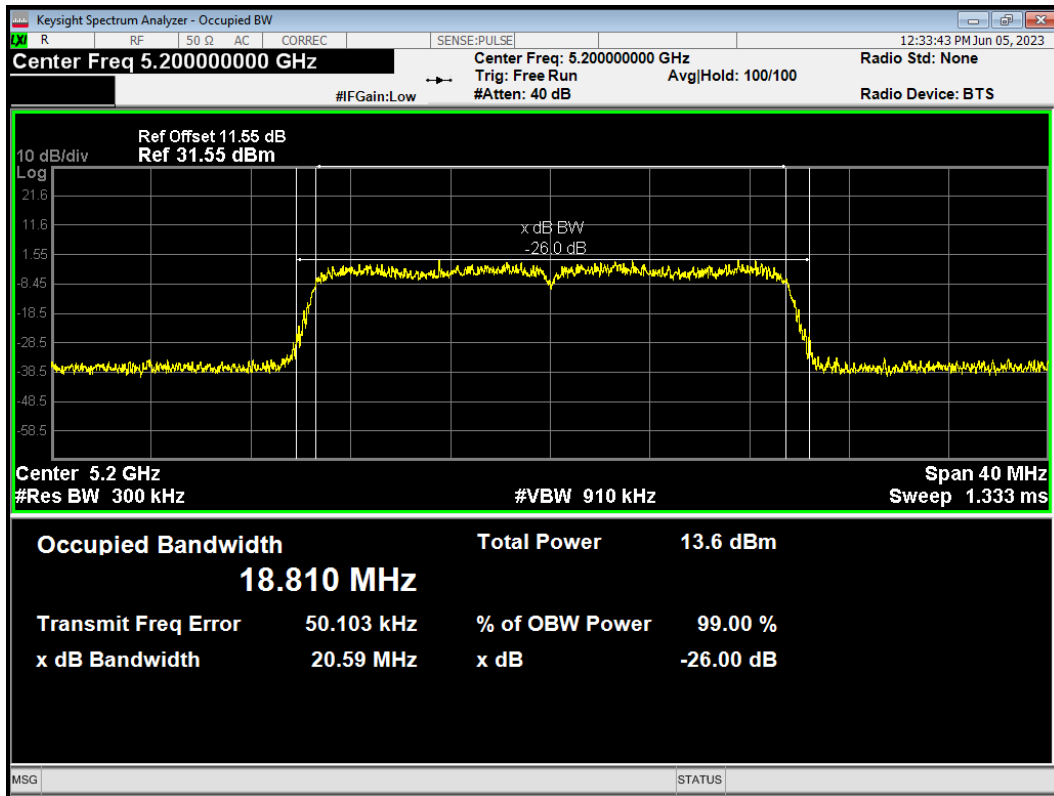
OBW 802.11ac(VHT80) 5210MHz



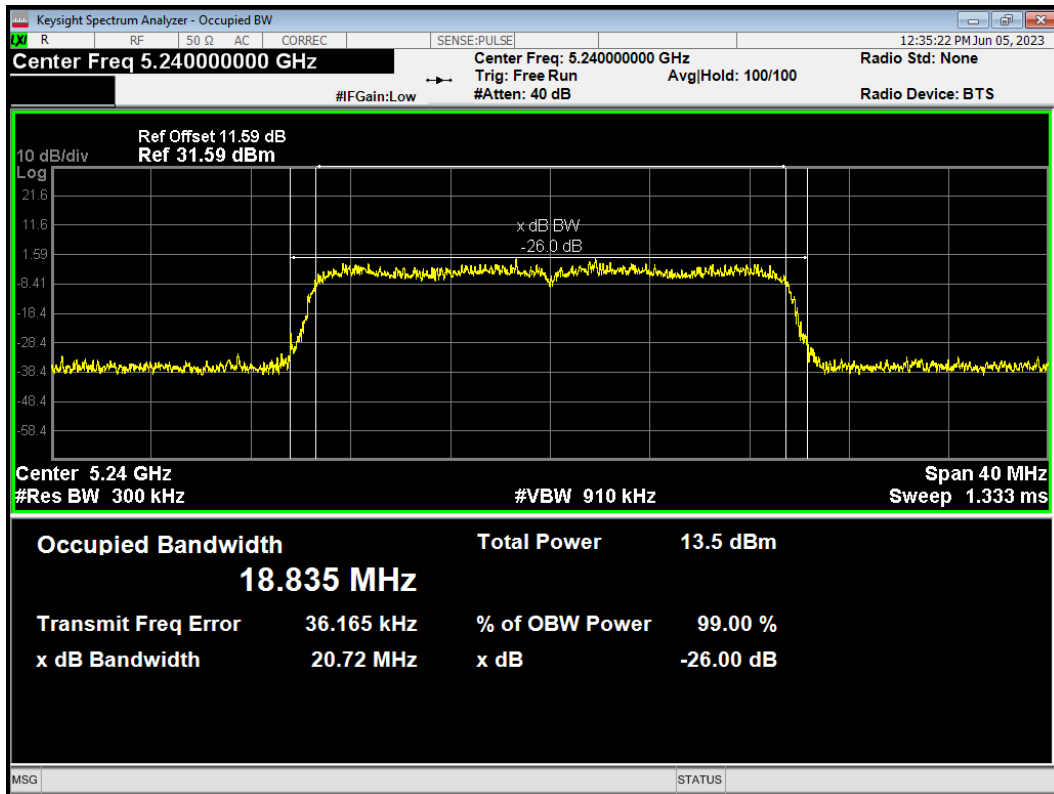
OBW 802.11ax(HE20) 5180MHz



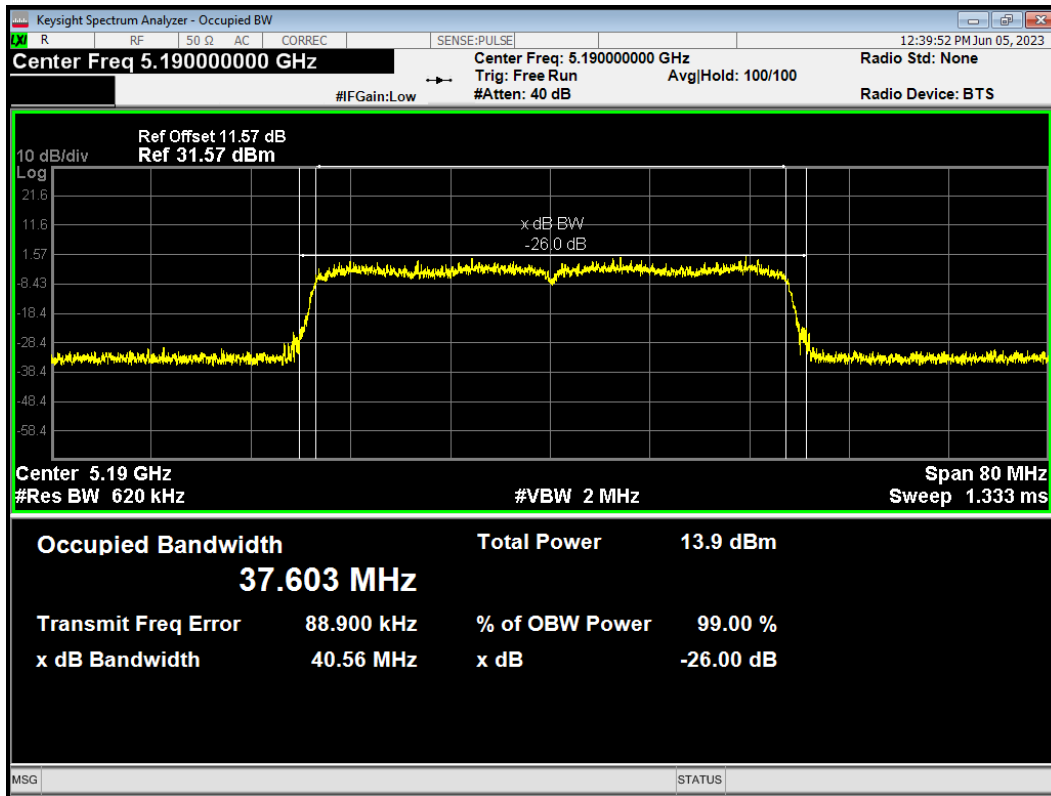
OBW 802.11ax(HE20) 5200MHz



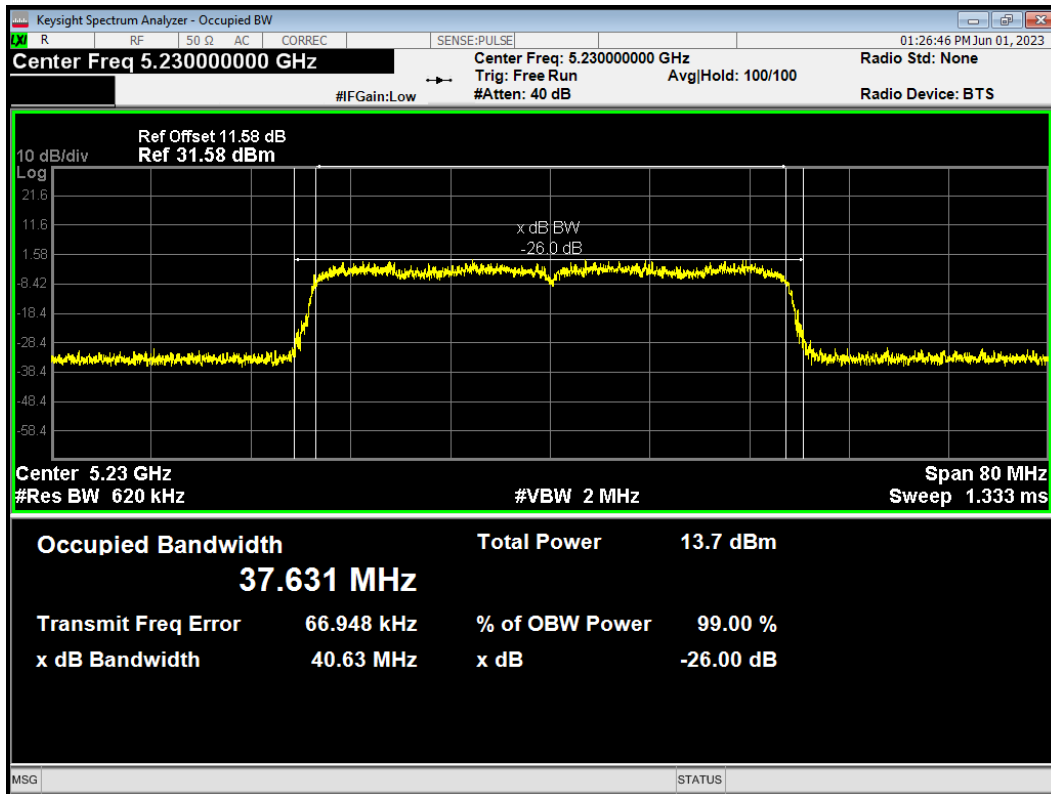
OBW 802.11ax(HE20) 5240MHz



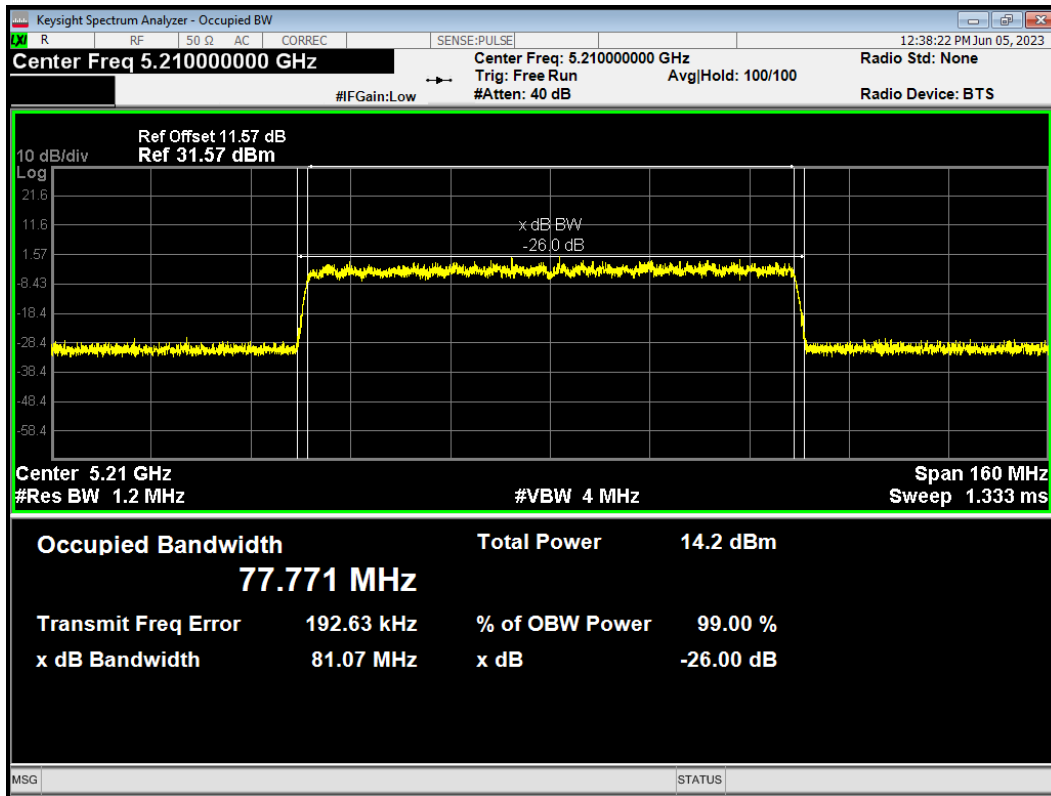
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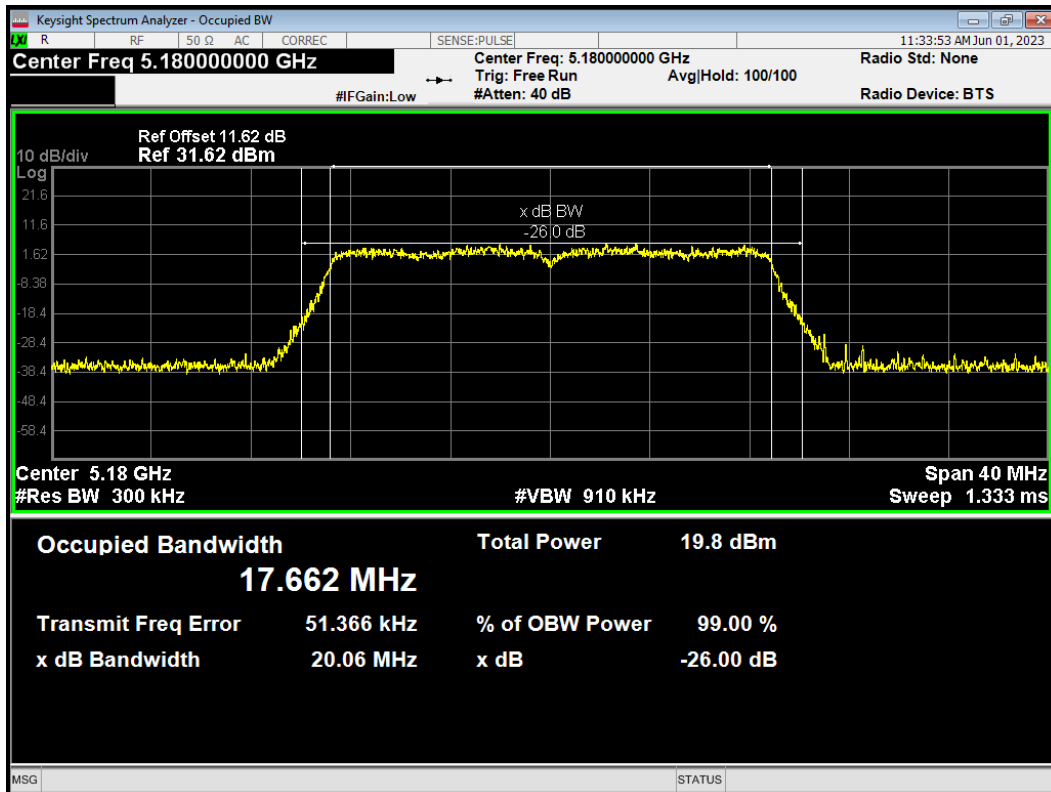
OBW 802.11ax(HE40) 5230MHz



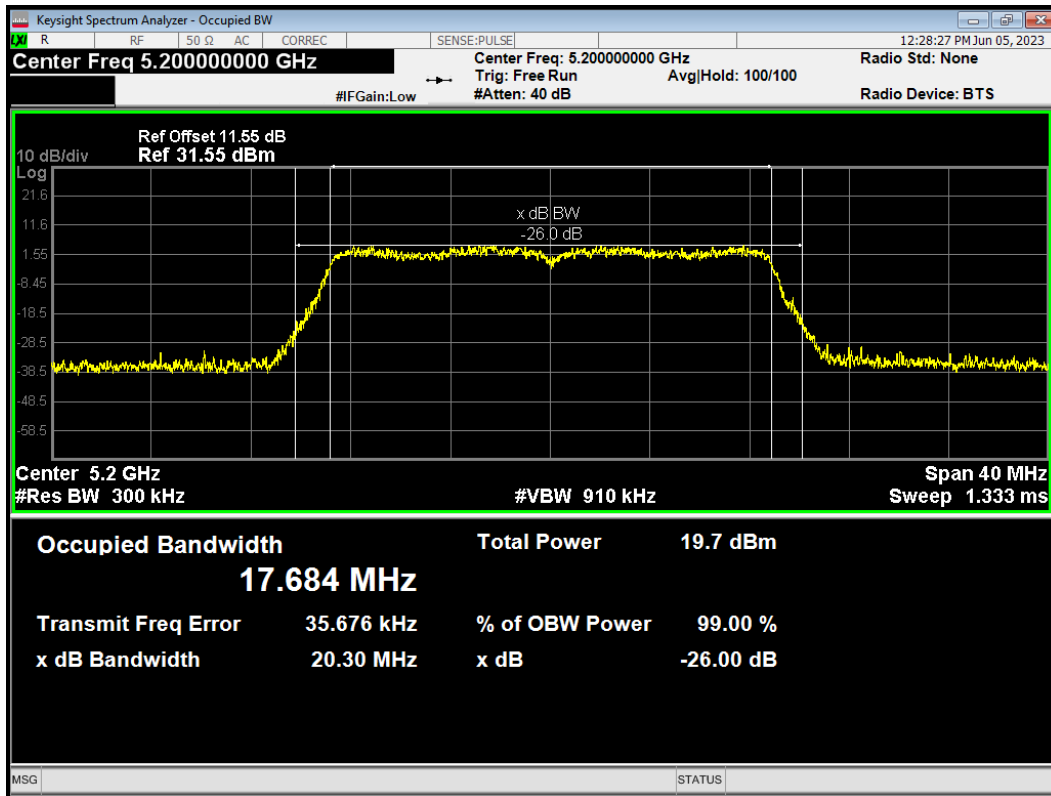
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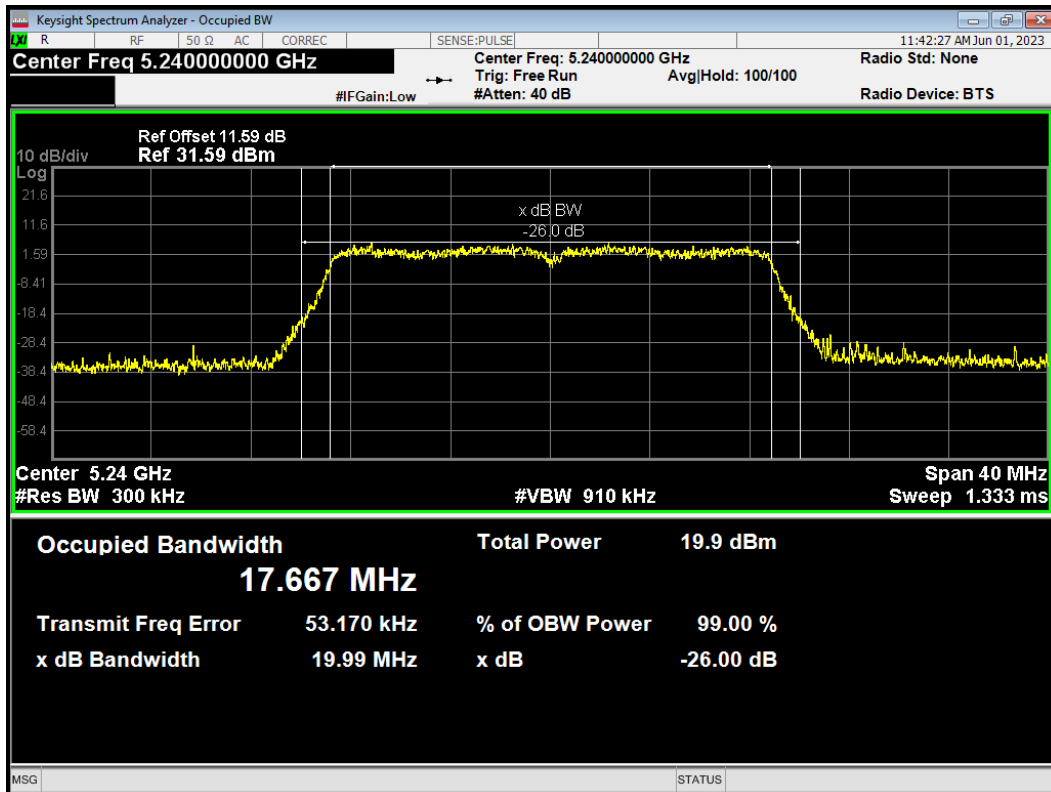
OBW 802.11n(HT20) 5180MHz



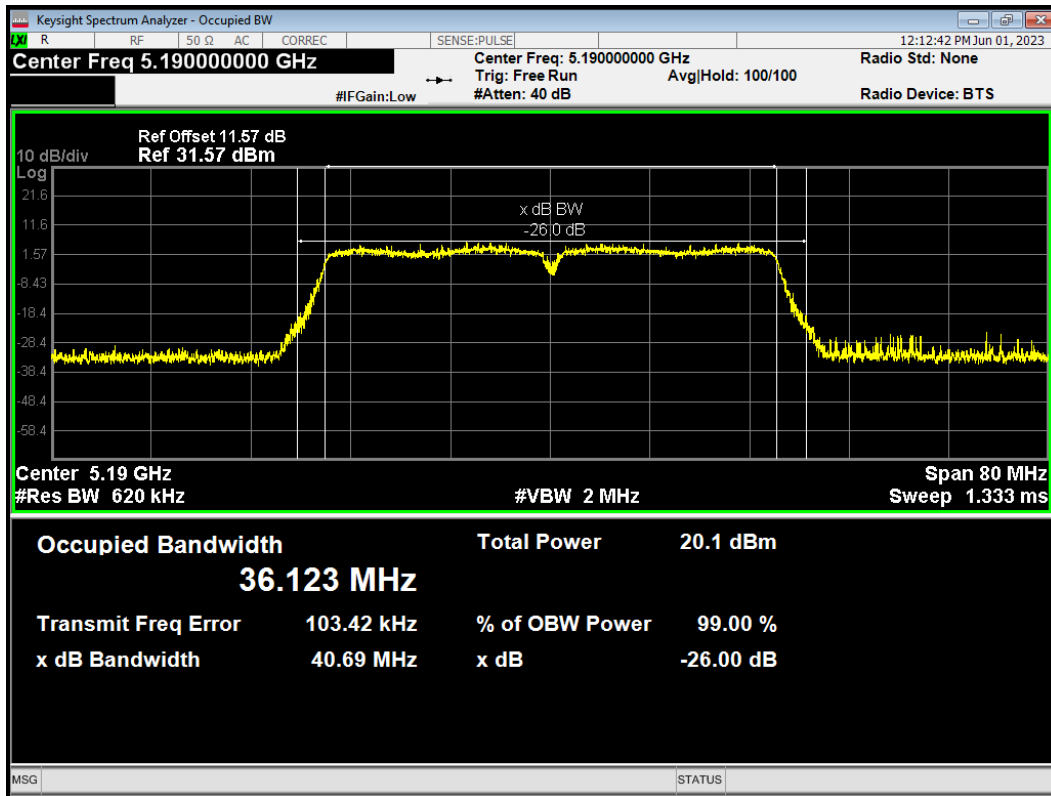
OBW 802.11n(HT20) 5200MHz



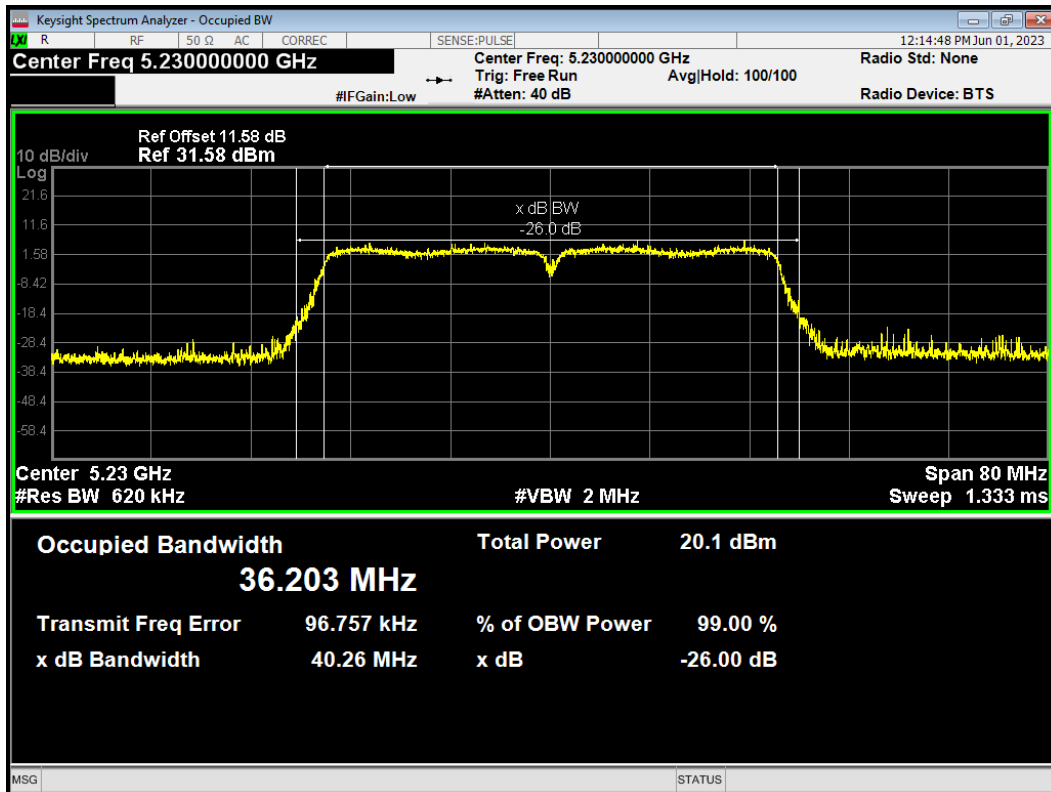
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OBW 802.11n(HT40) 5190MHz

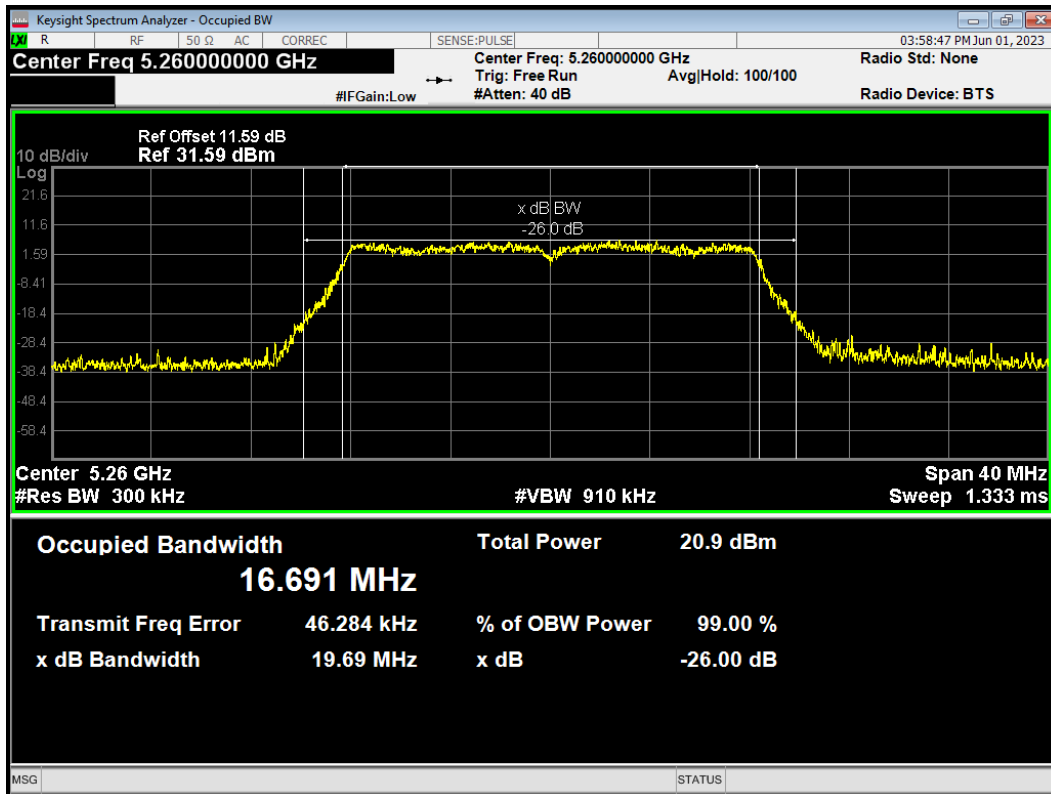


OBW 802.11n(HT40) 5230MHz

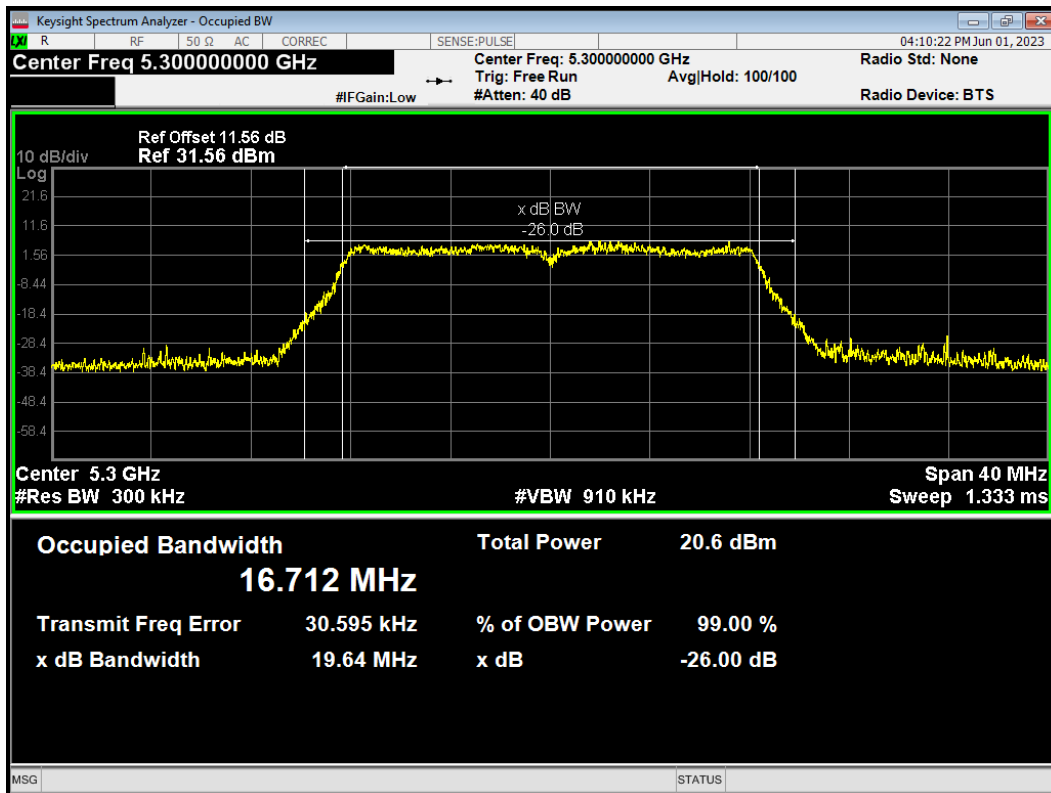


U-NII-2A

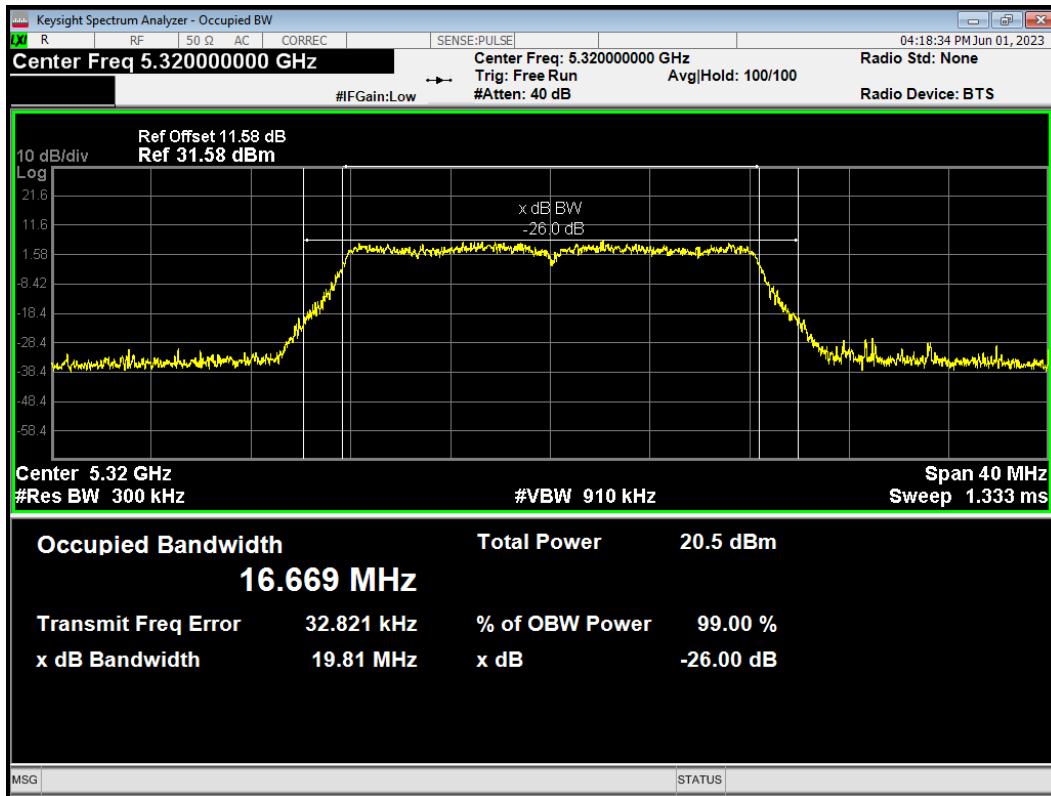
OBW 802.11a 5260MHz



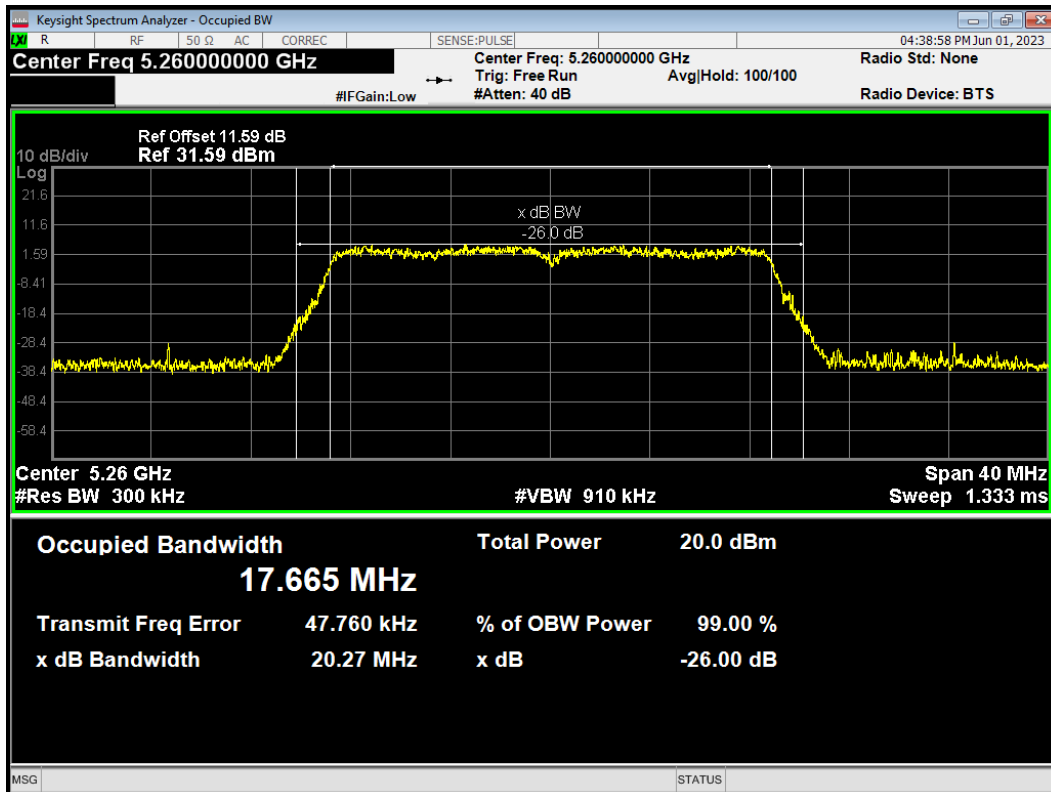
OBW 802.11a 5300MHz



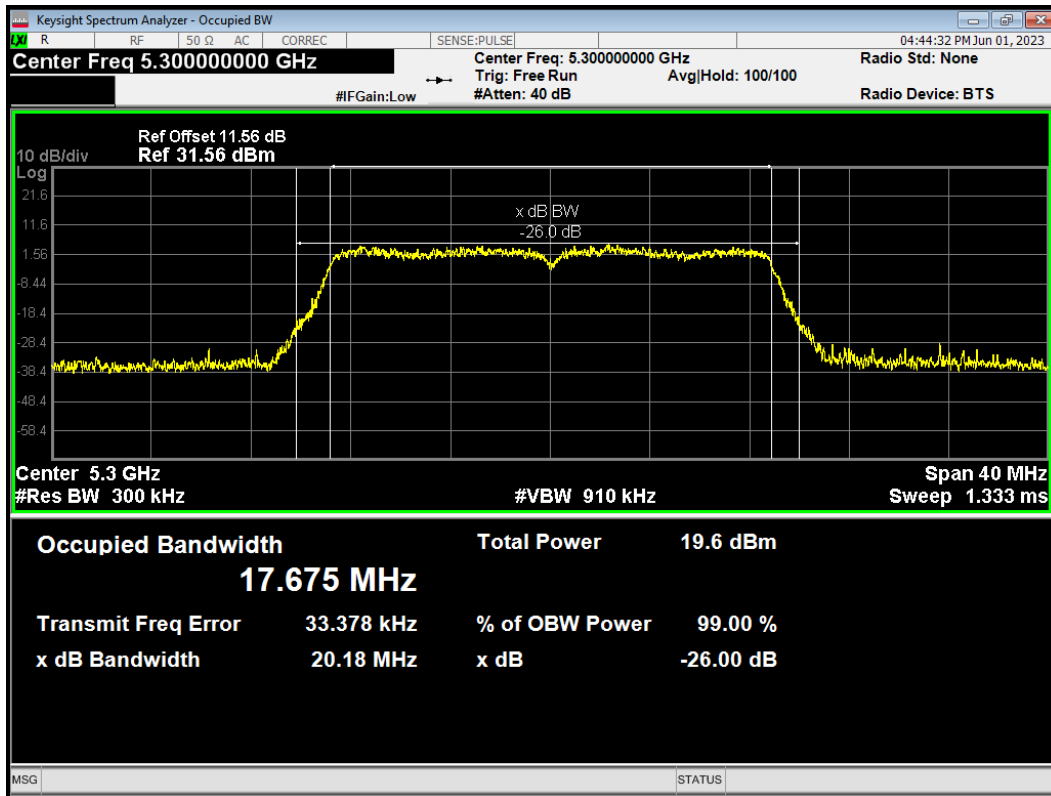
OBW 802.11a 5320MHz



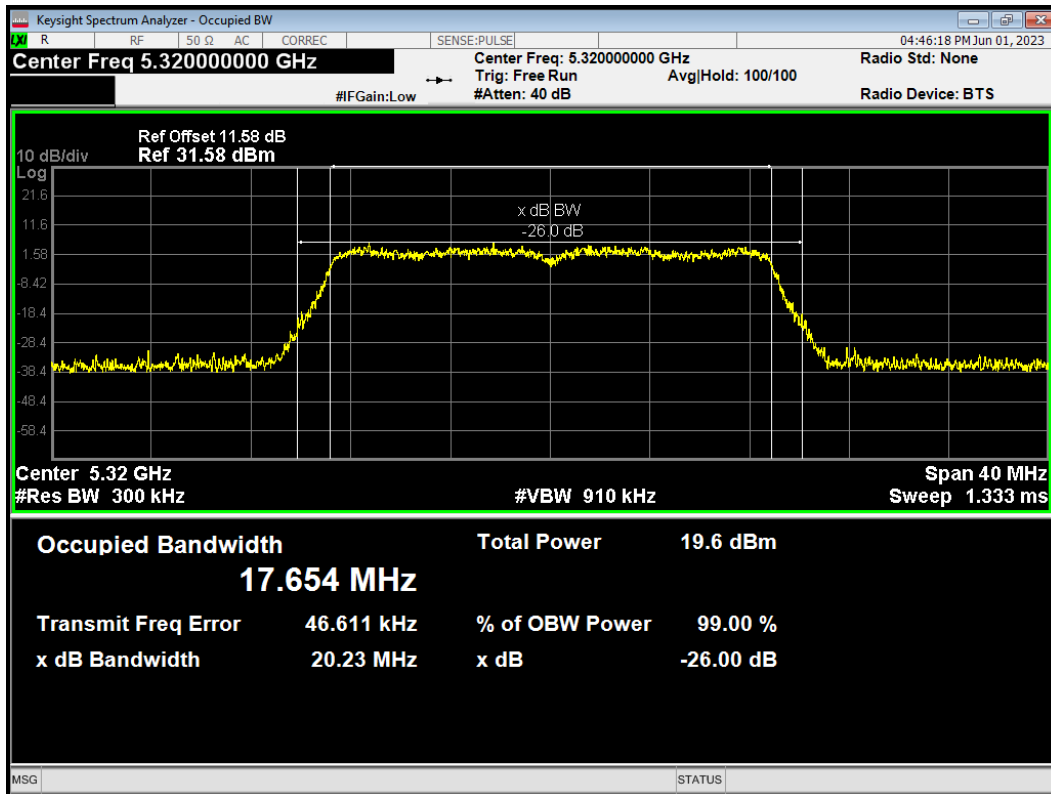
OBW 802.11ac(VHT20) 5260MHz



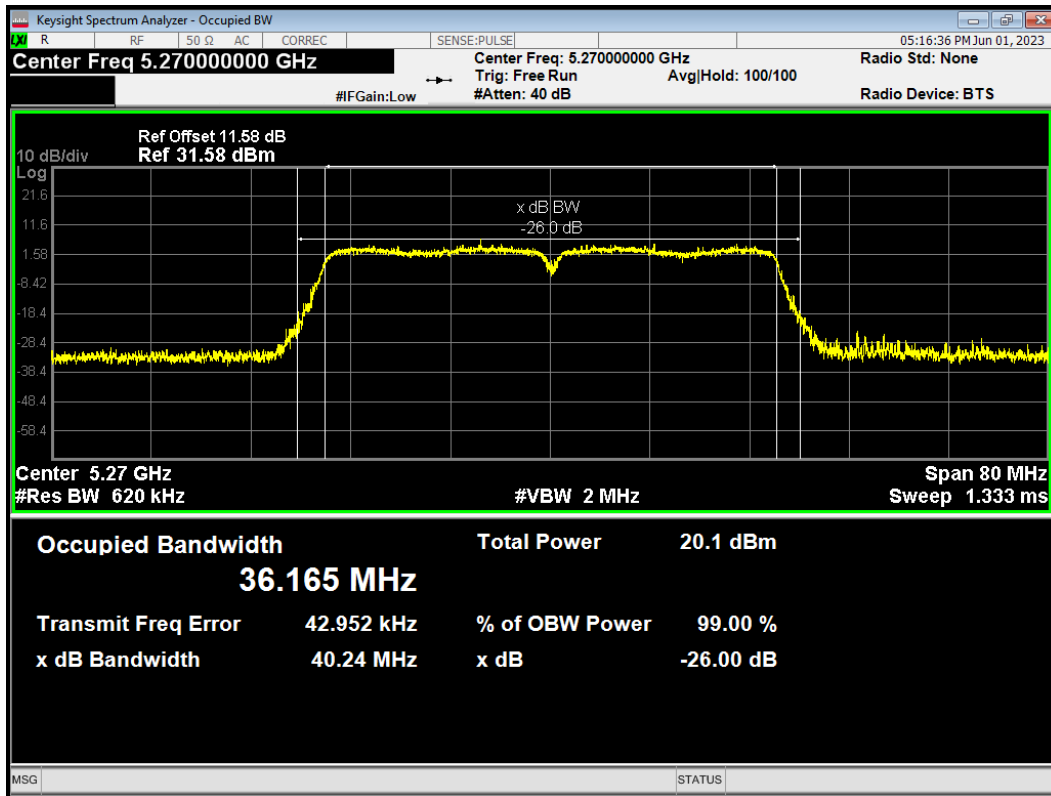
OBW 802.11ac(VHT20) 5300MHz



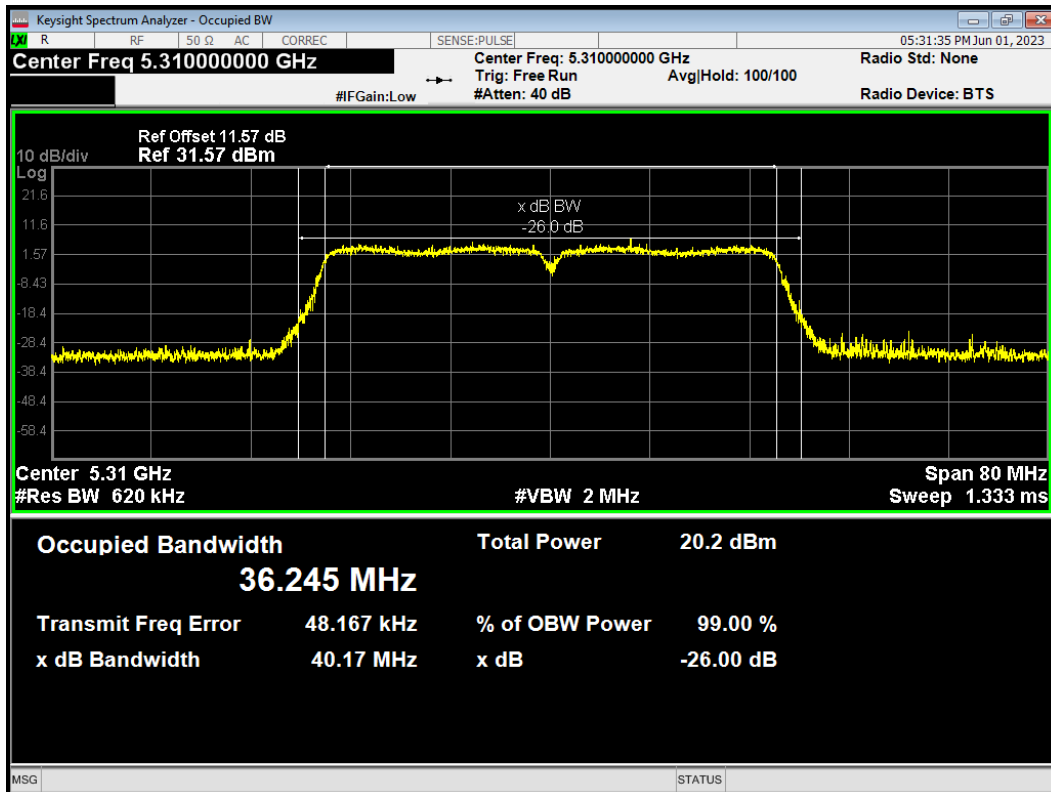
OBW 802.11ac(VHT20) 5320MHz



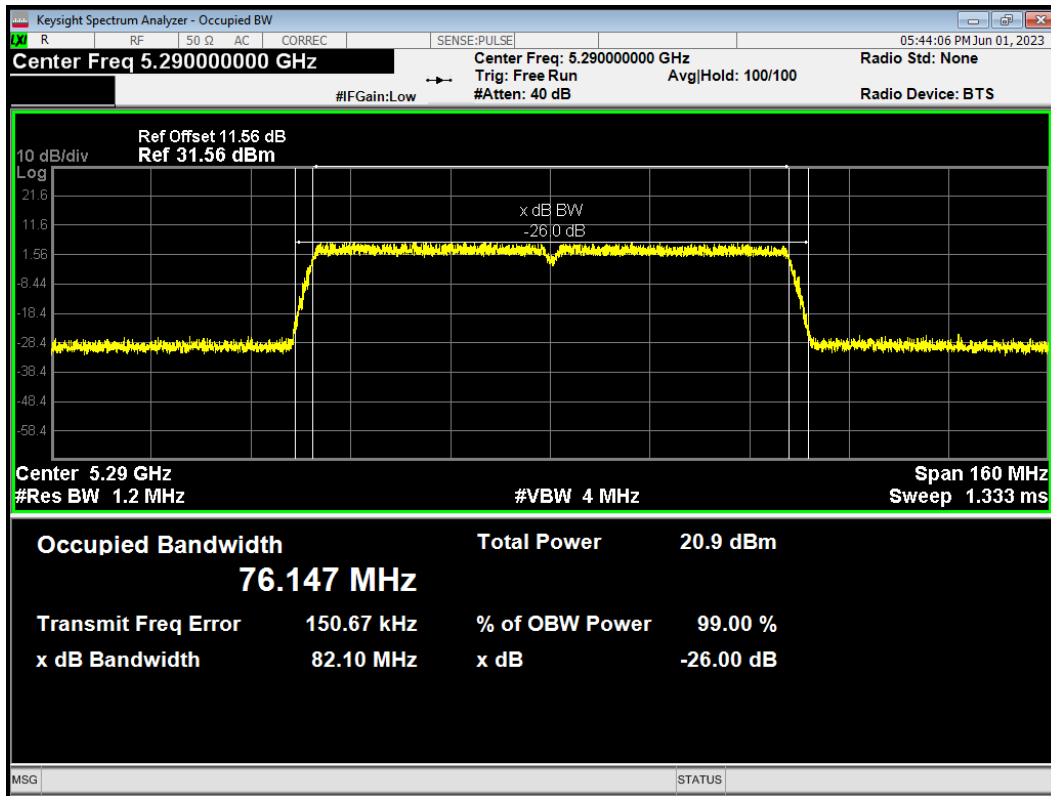
OBW 802.11ac(VHT40) 5270MHz



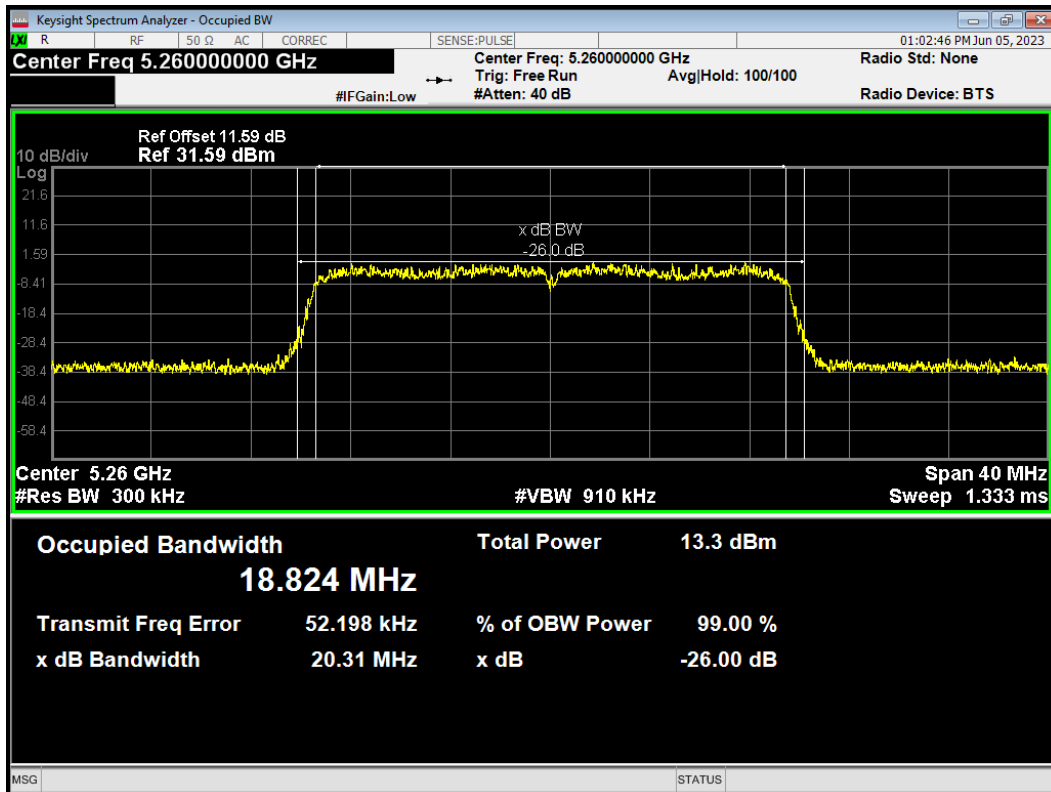
OBW 802.11ac(VHT40) 5310MHz



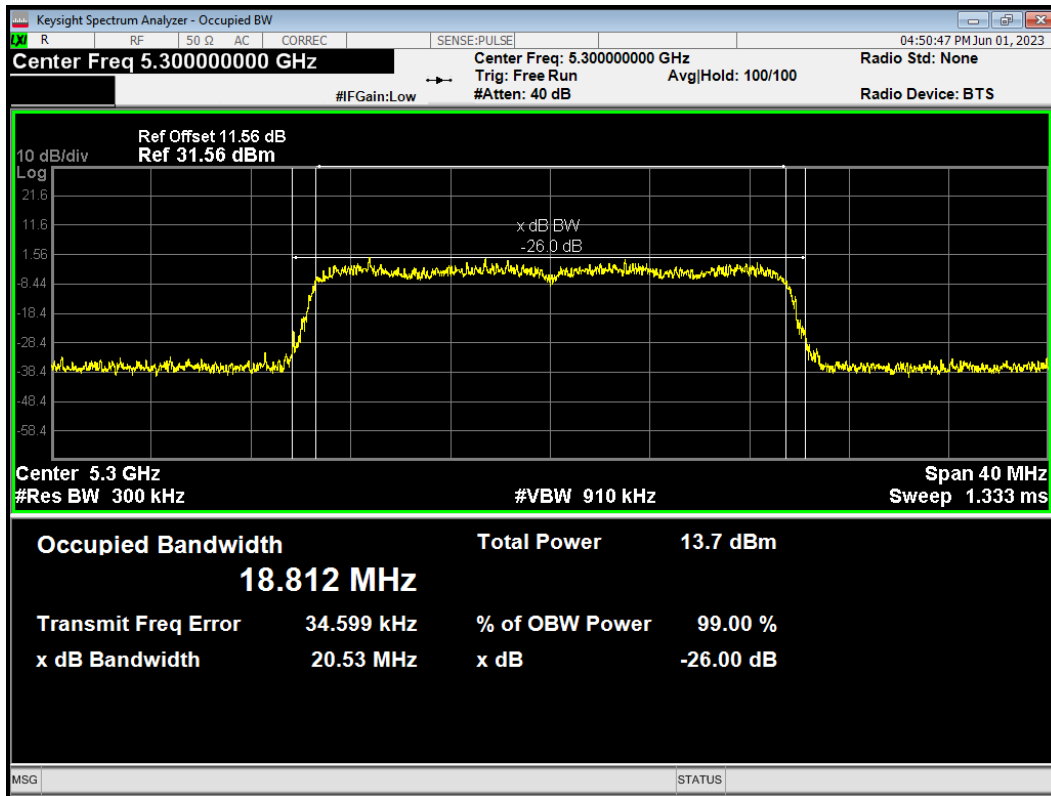
OBW 802.11ac(VHT80) 5290MHz



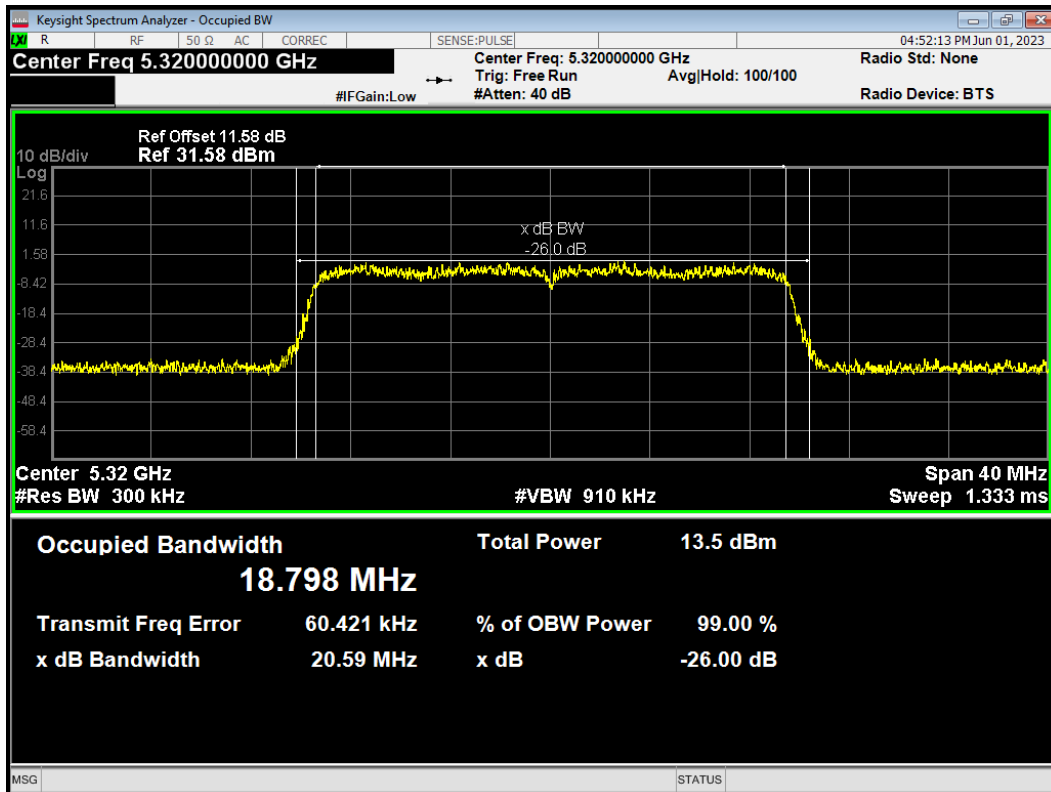
OBW 802.11ax(HE20) 5260MHz



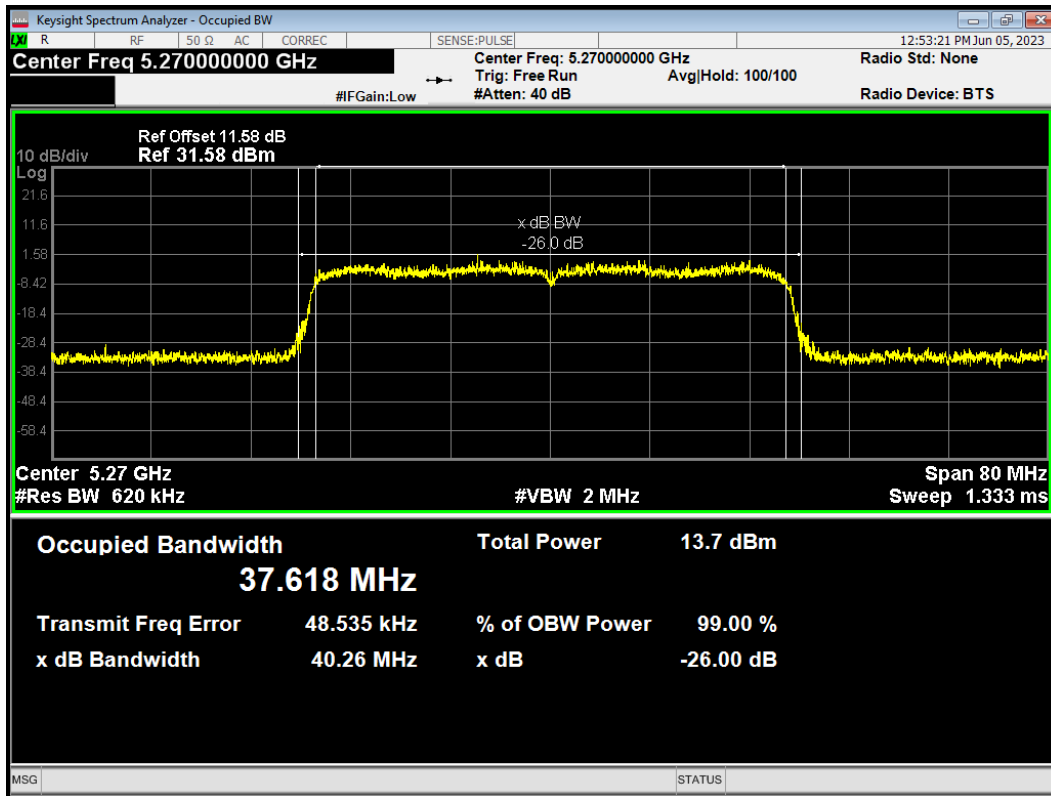
OBW 802.11ax(HE20) 5300MHz



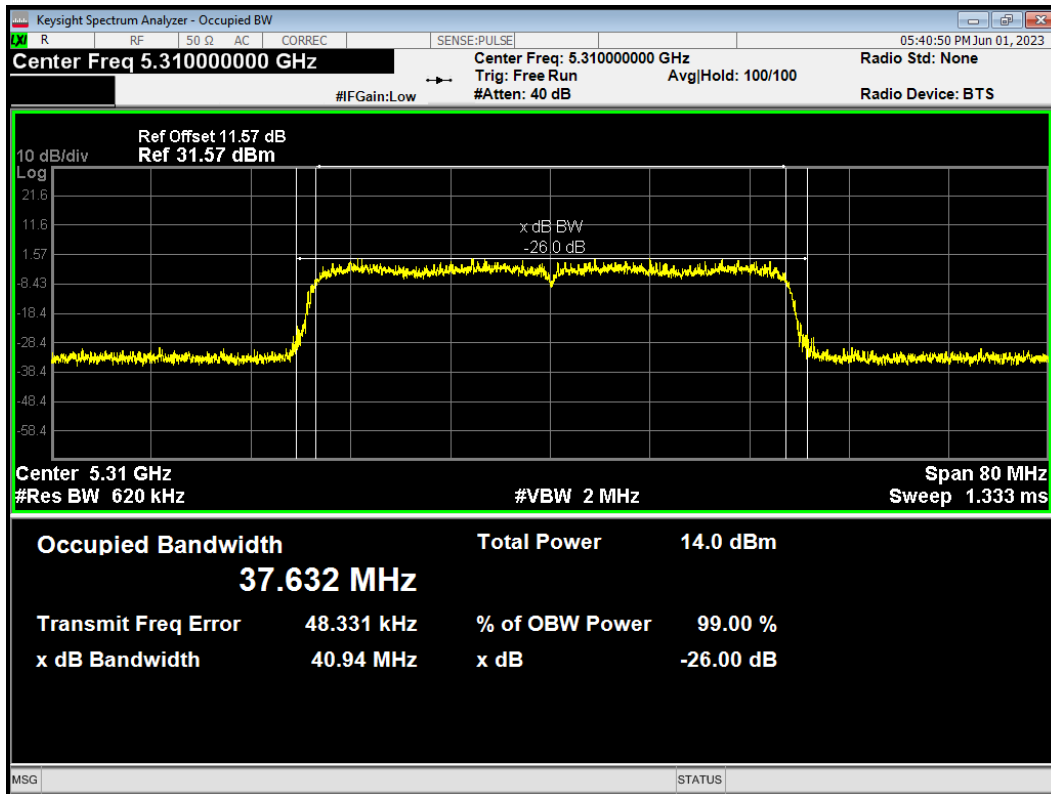
OBW 802.11ax(HE20) 5320MHz



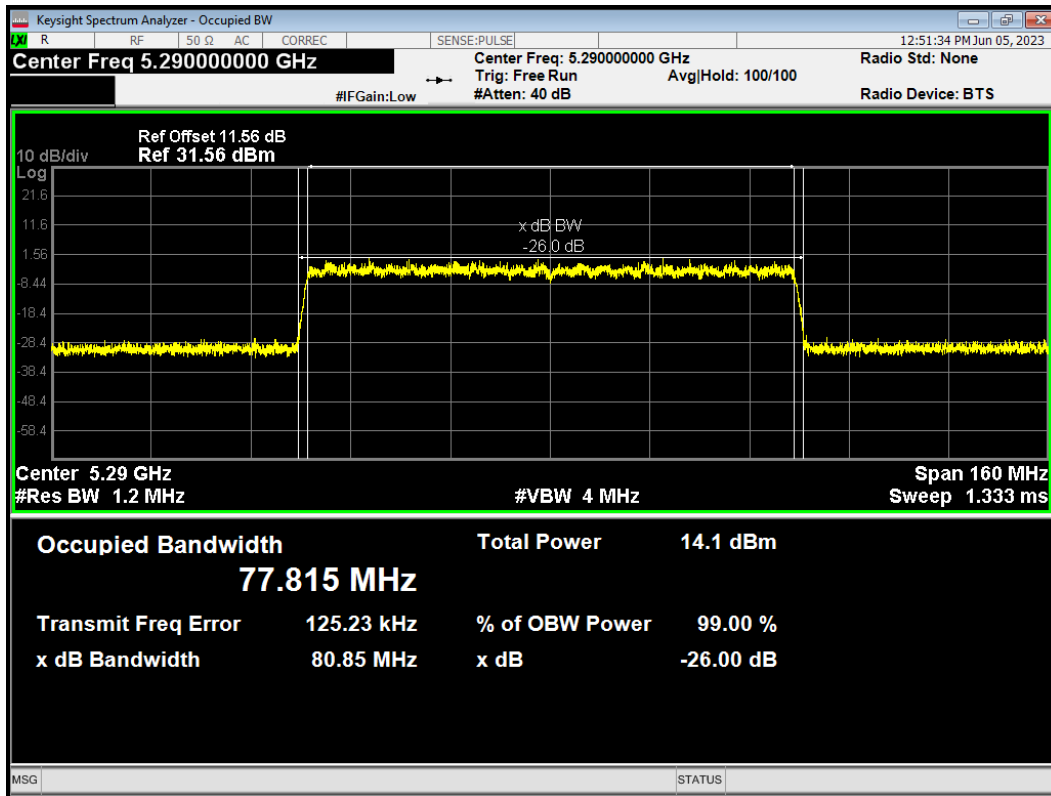
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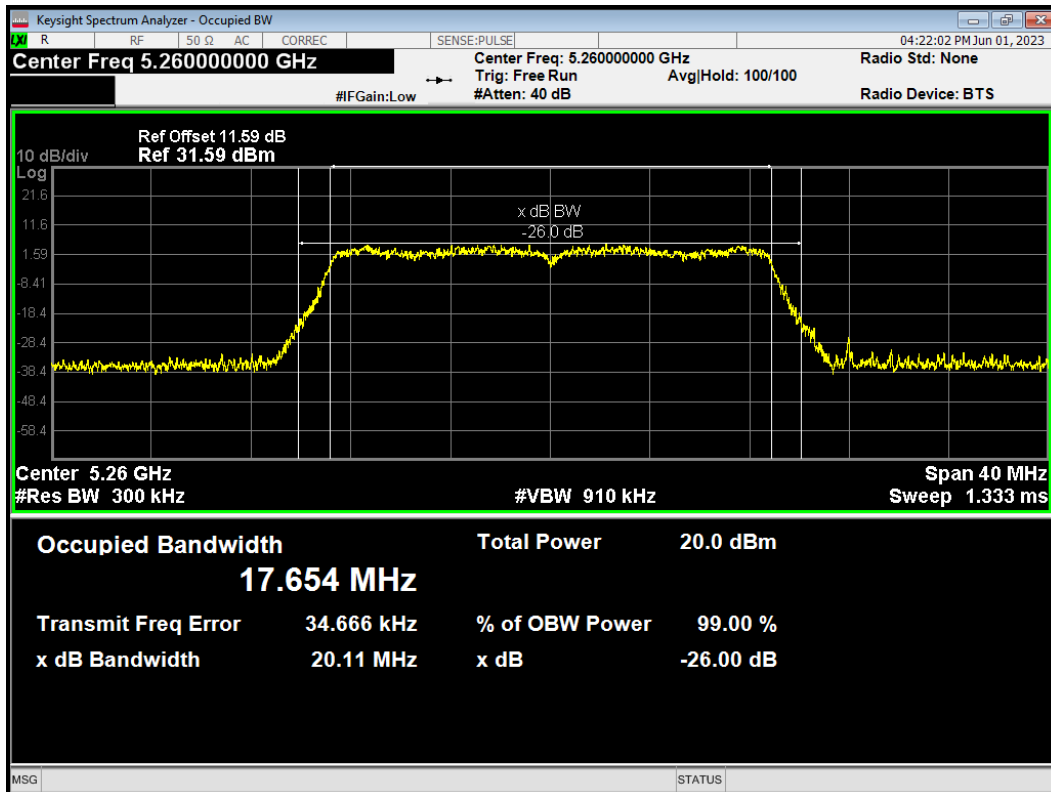
OBW 802.11ax(HE40) 5310MHz



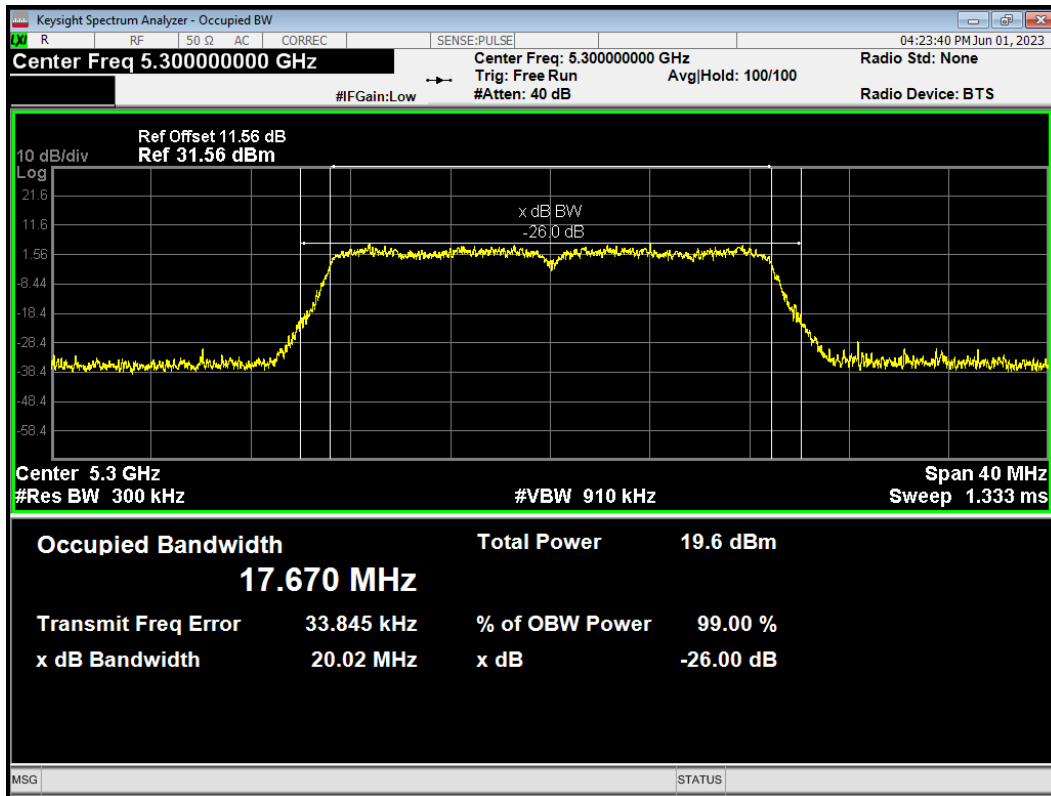
OBW 802.11ax(HE80) 5290MHz



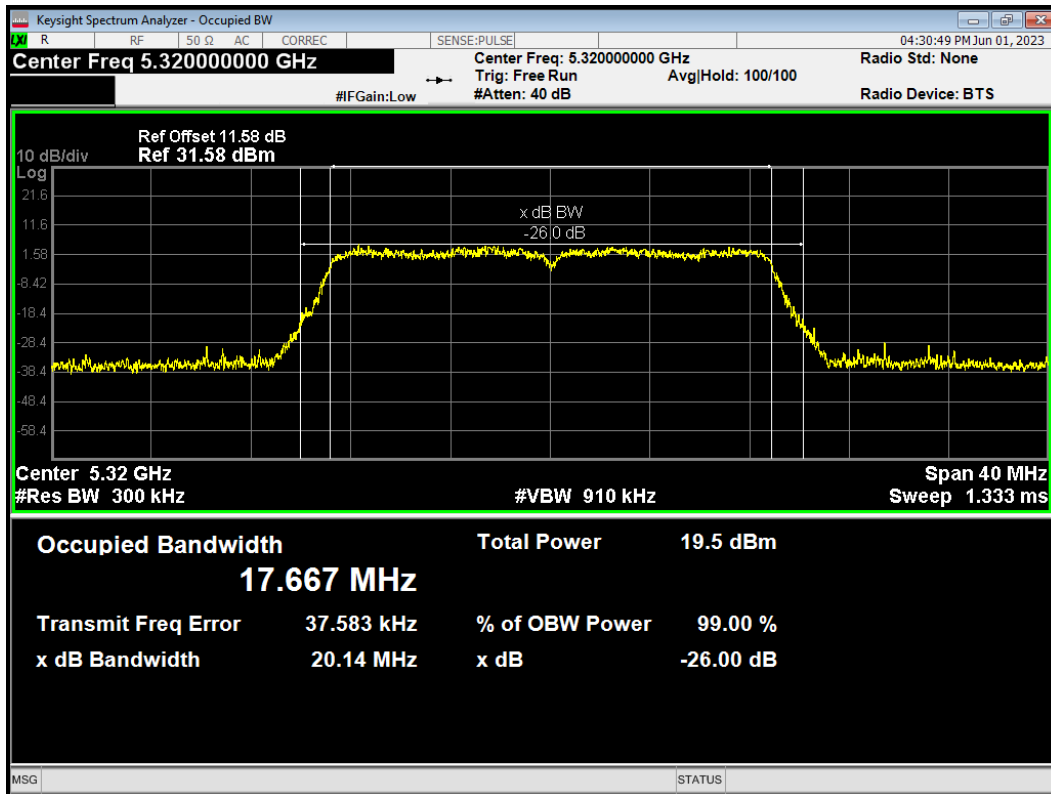
OBW 802.11n(HT20) 5260MHz



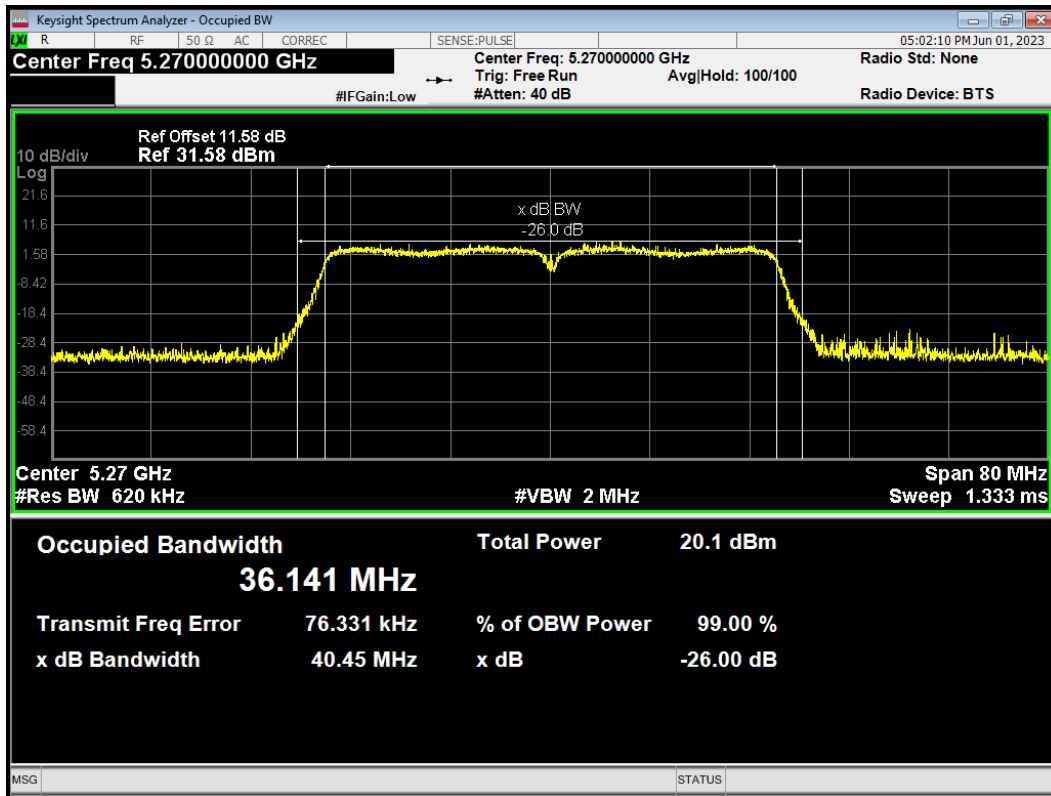
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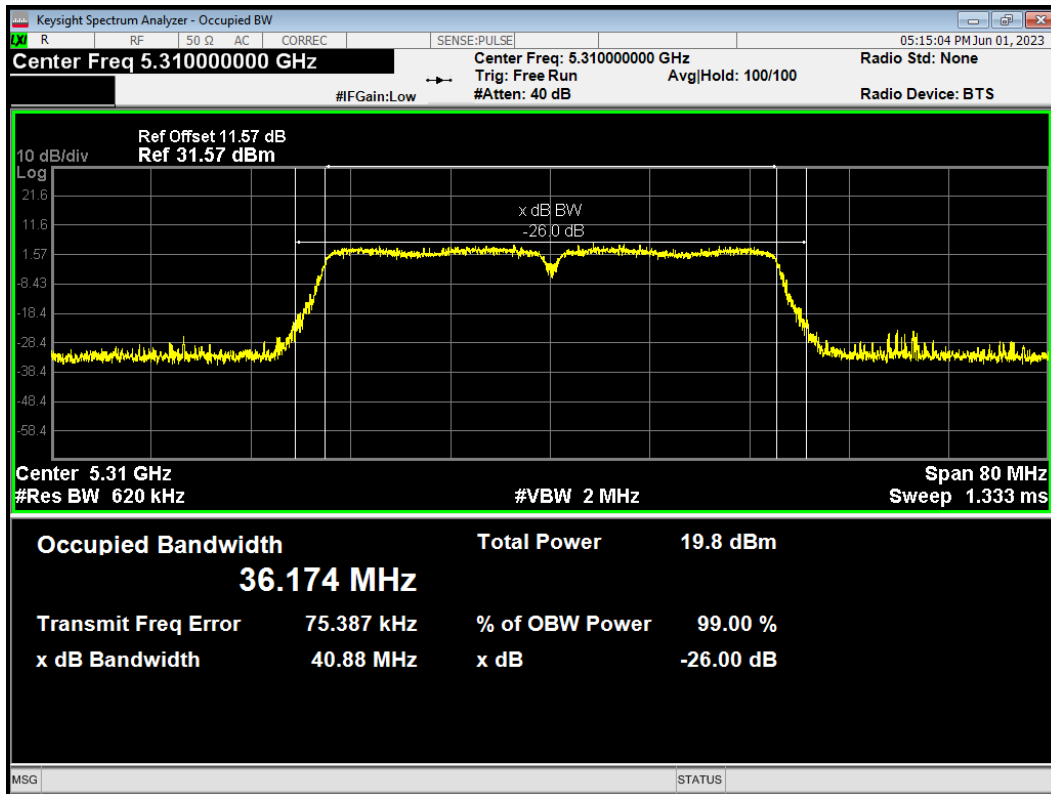
OBW 802.11n(HT20) 5320MHz



OBW 802.11n(HT40) 5270MHz

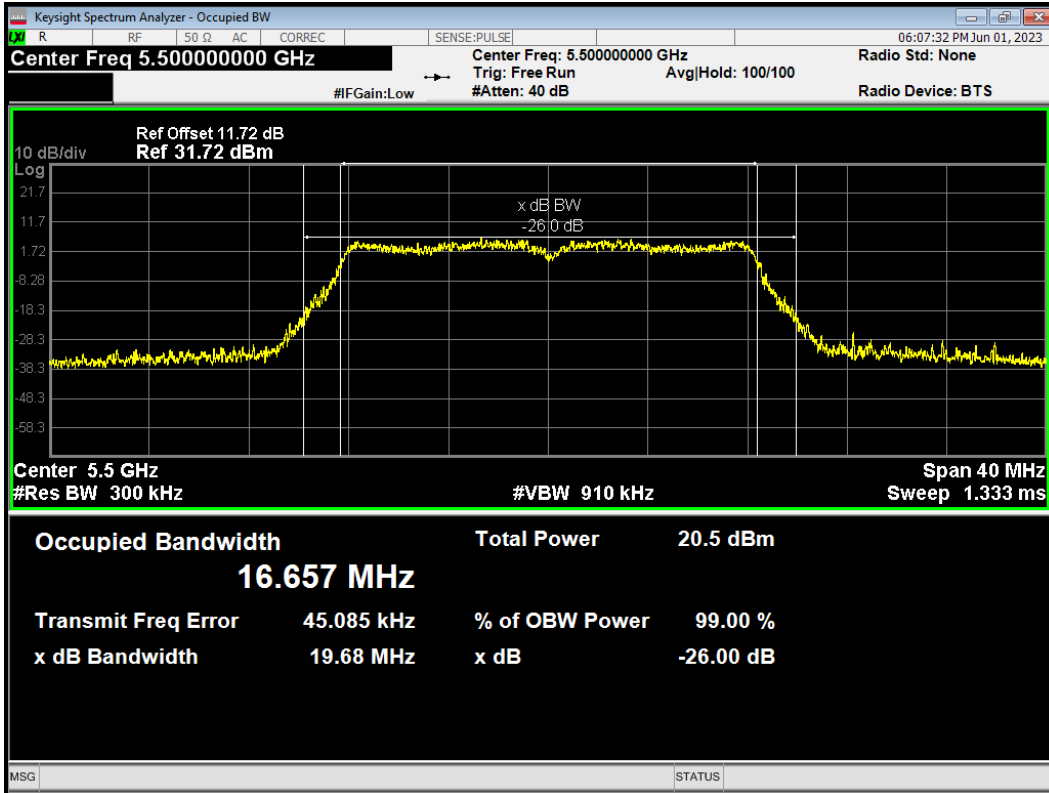


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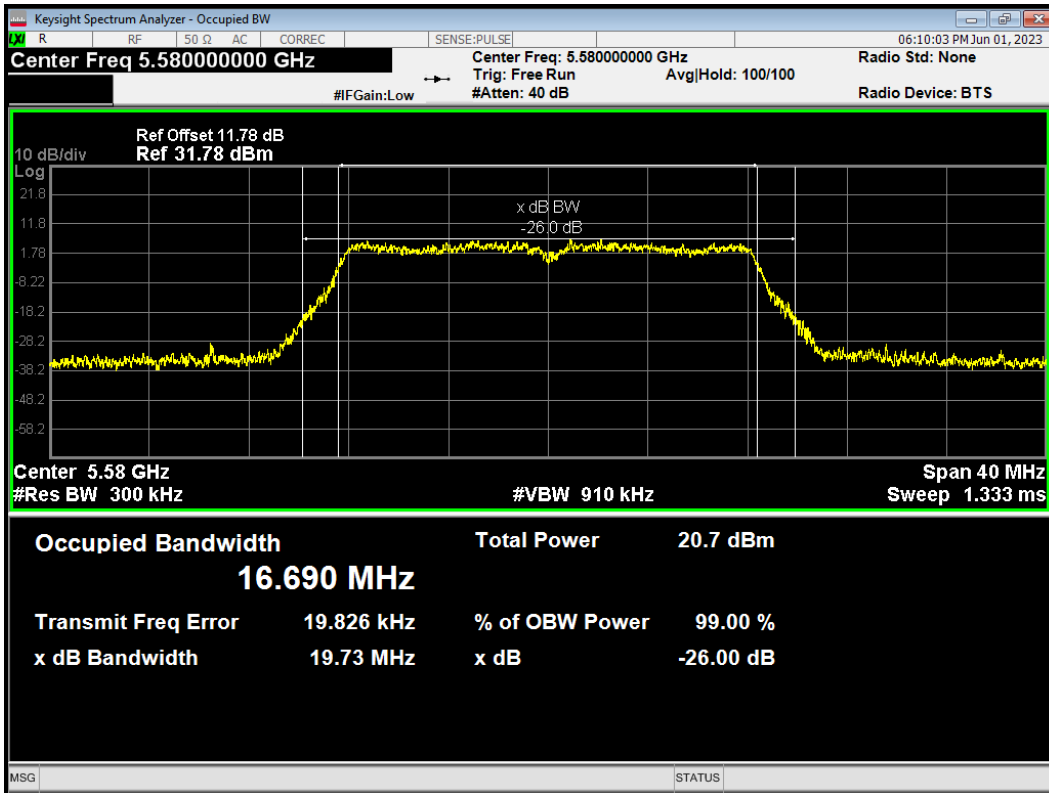


U-NII-2C

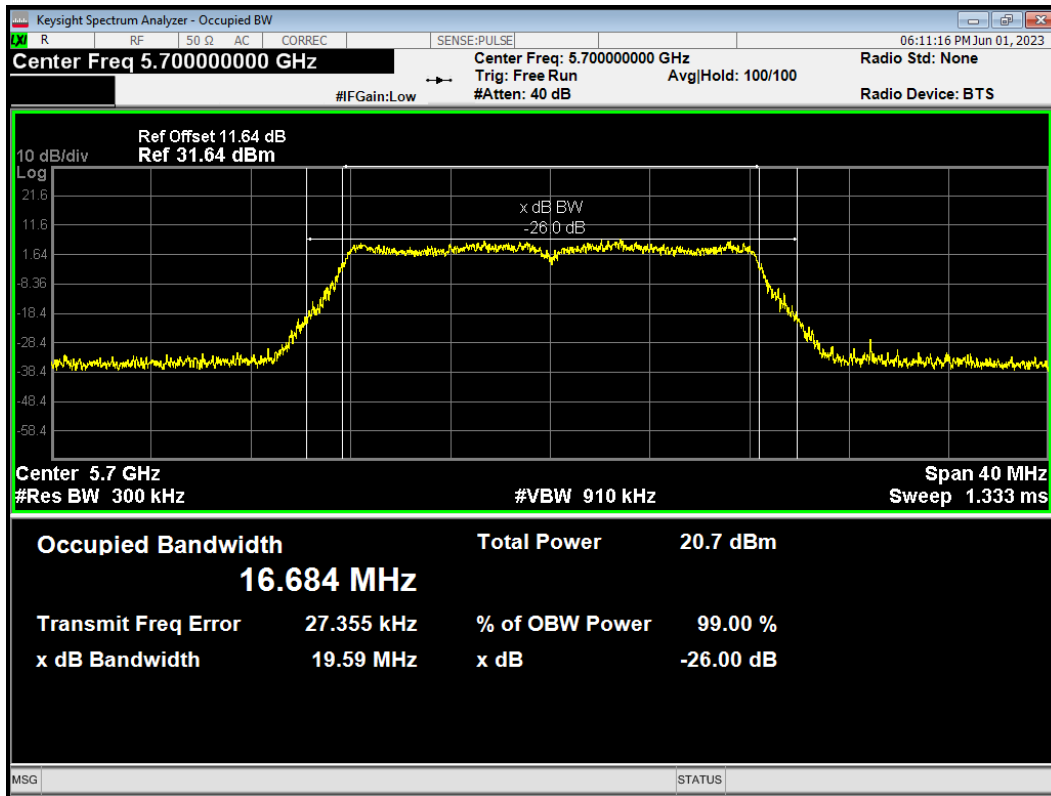
OBW 802.11a 5500MHz



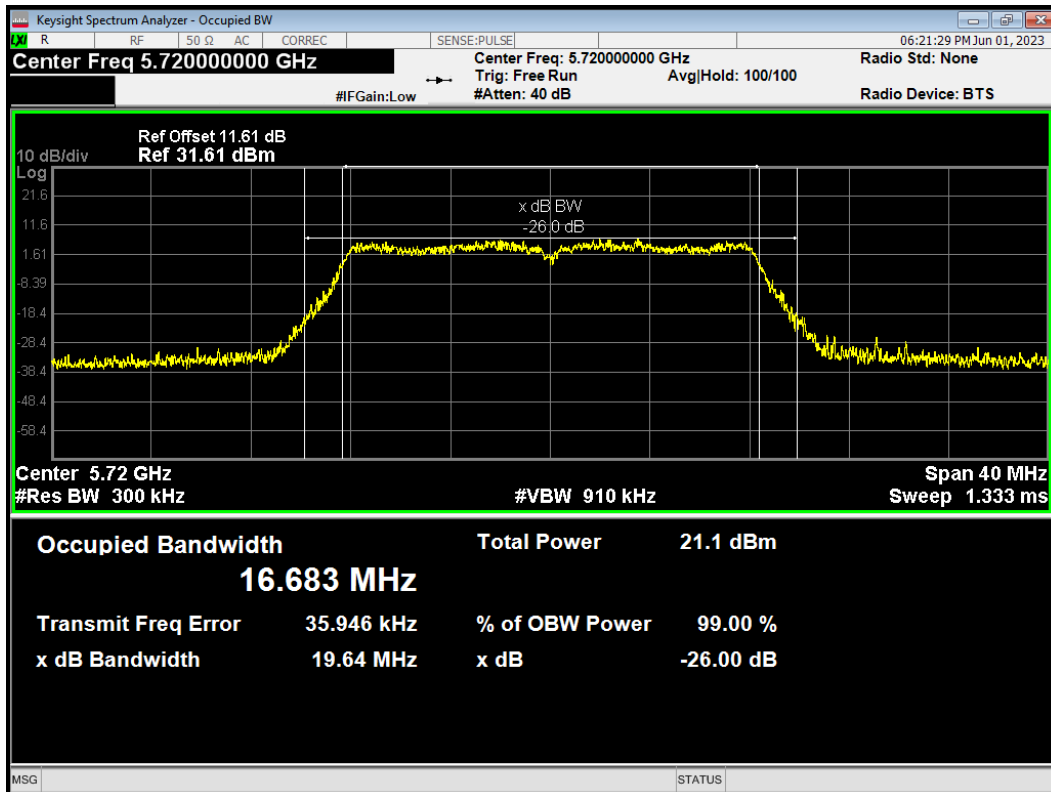
OBW 802.11a 5580MHz



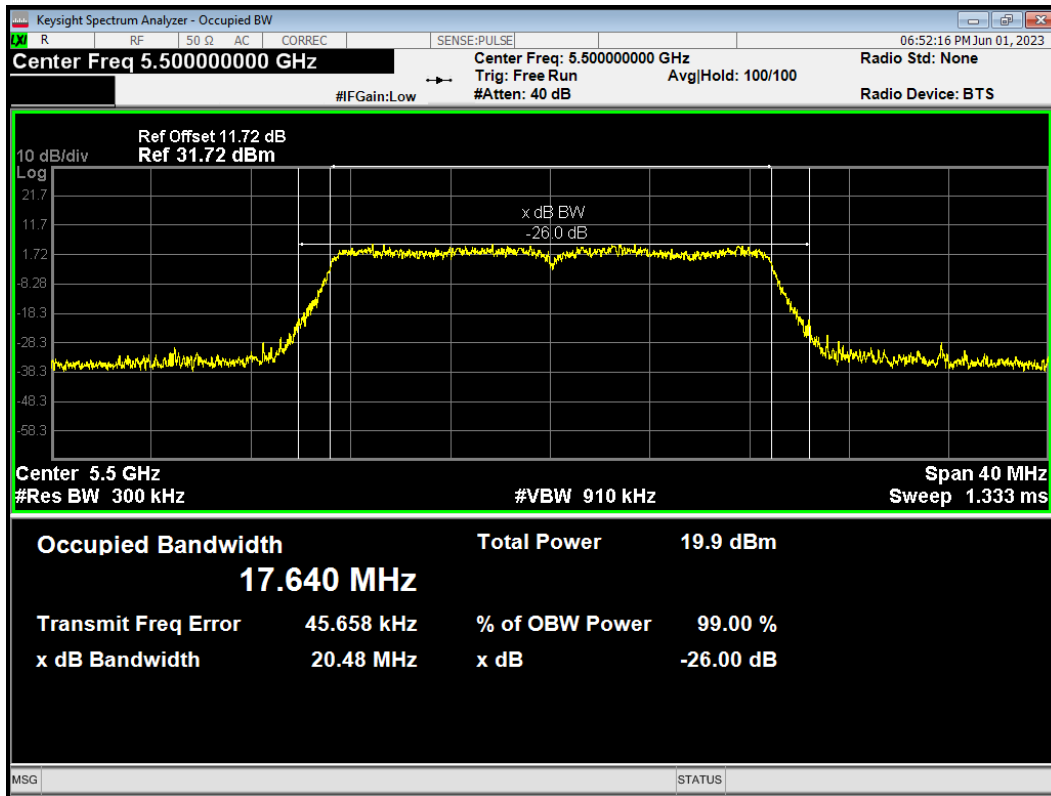
OBW 802.11a 5700MHz



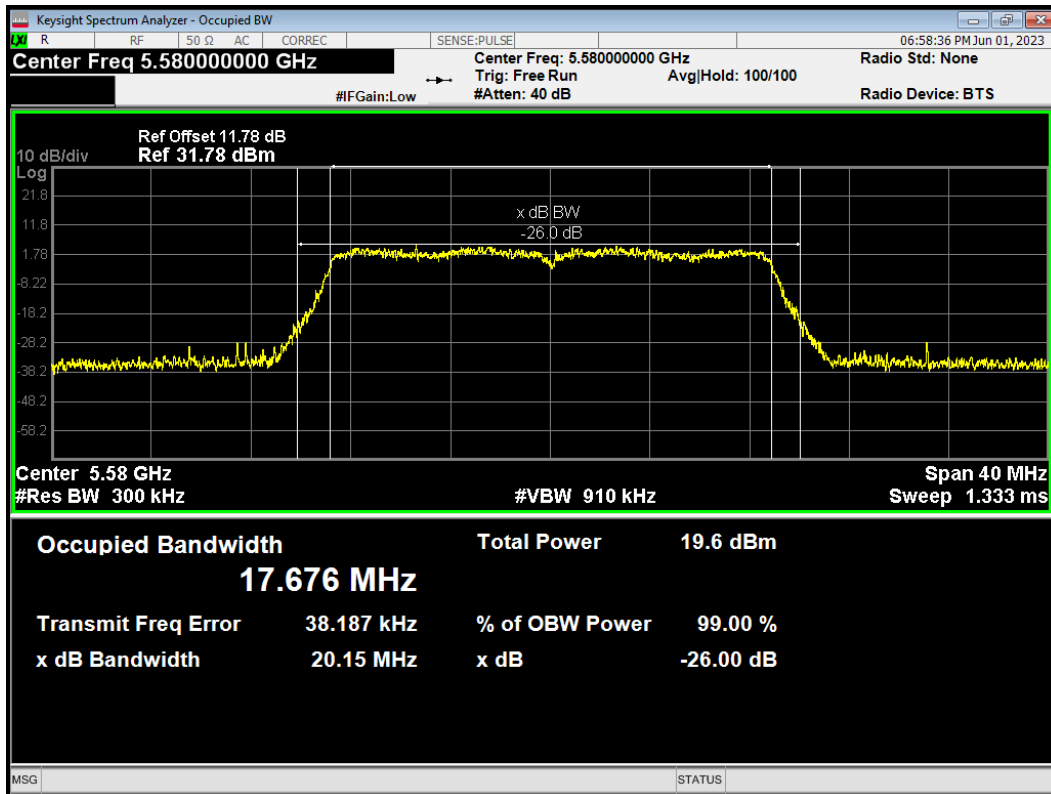
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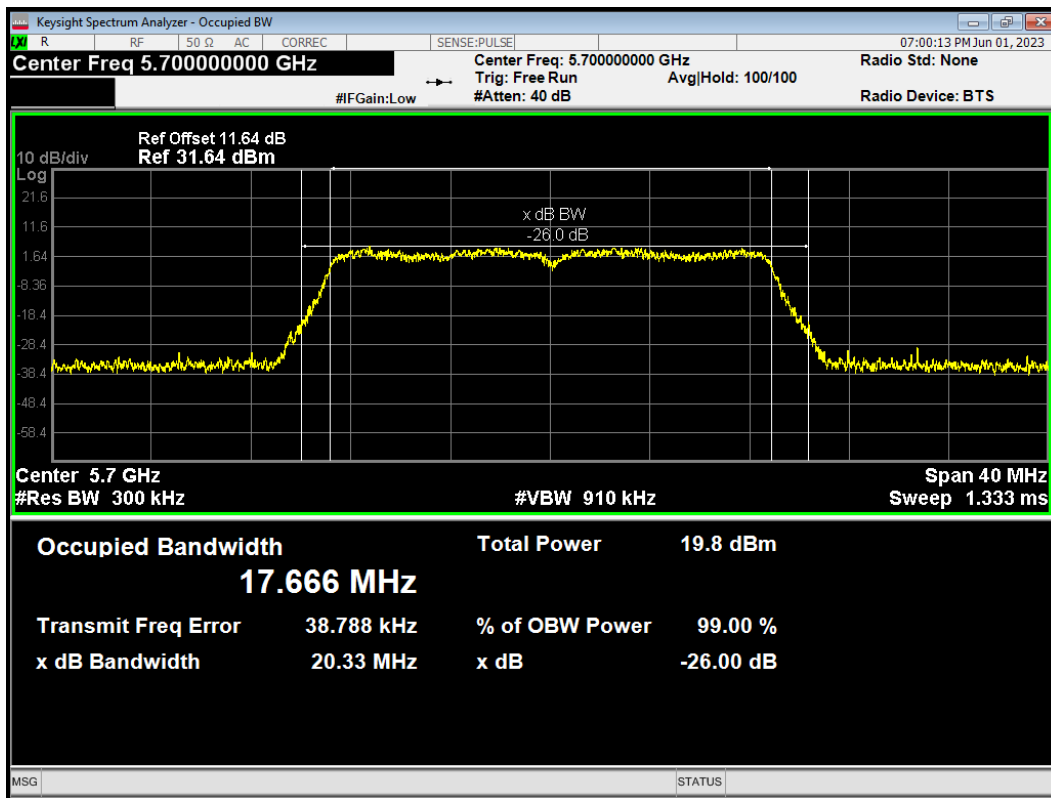
OBW 802.11ac(VHT20) 5500MHz



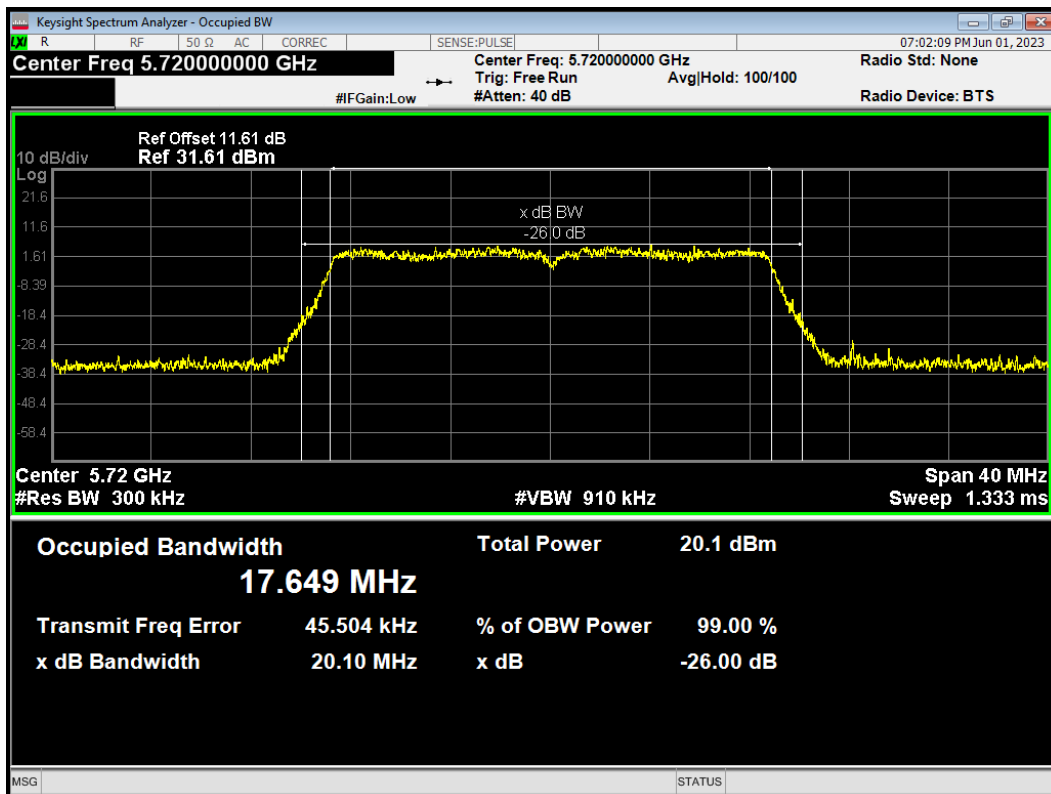
OBW 802.11ac(VHT20) 5580MHz



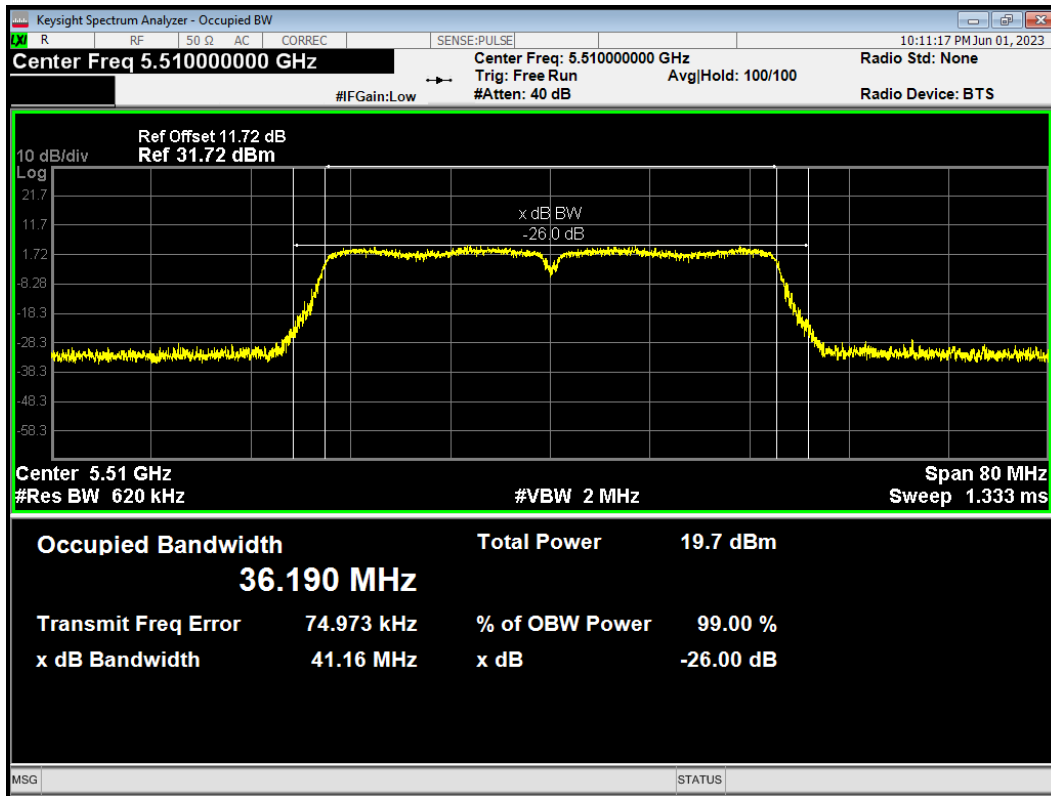
OBW 802.11ac(VHT20) 5700MHz



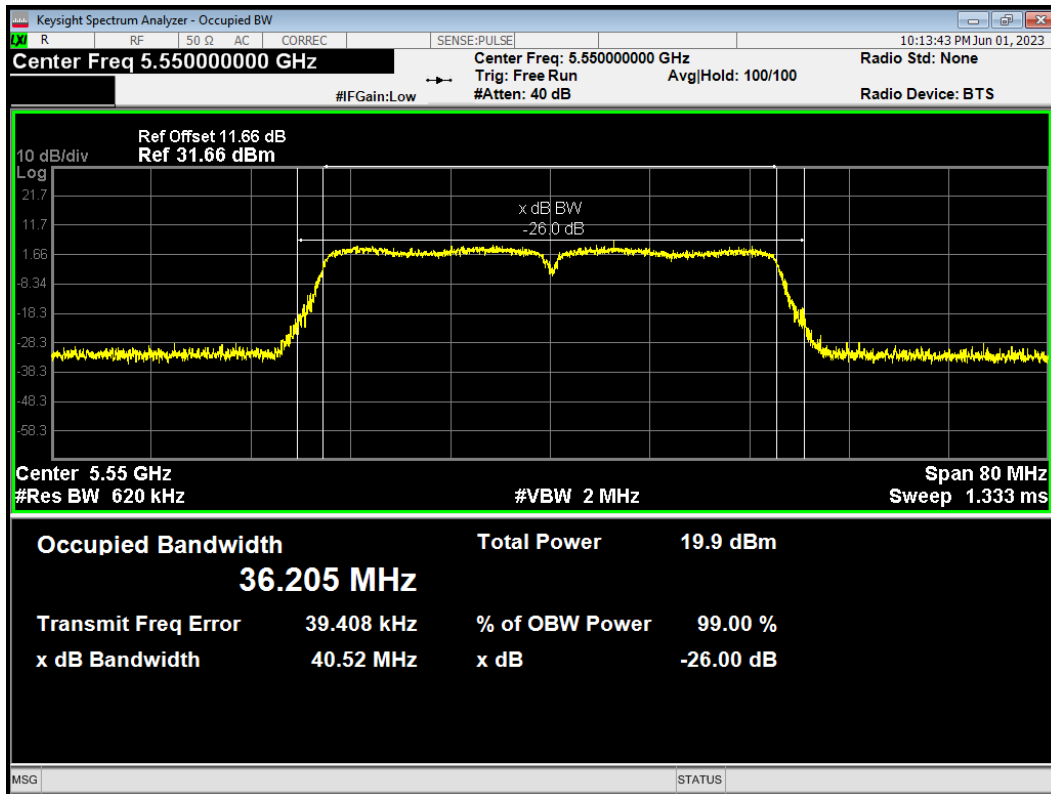
OBW 802.11ac(VHT20) 5720MHz



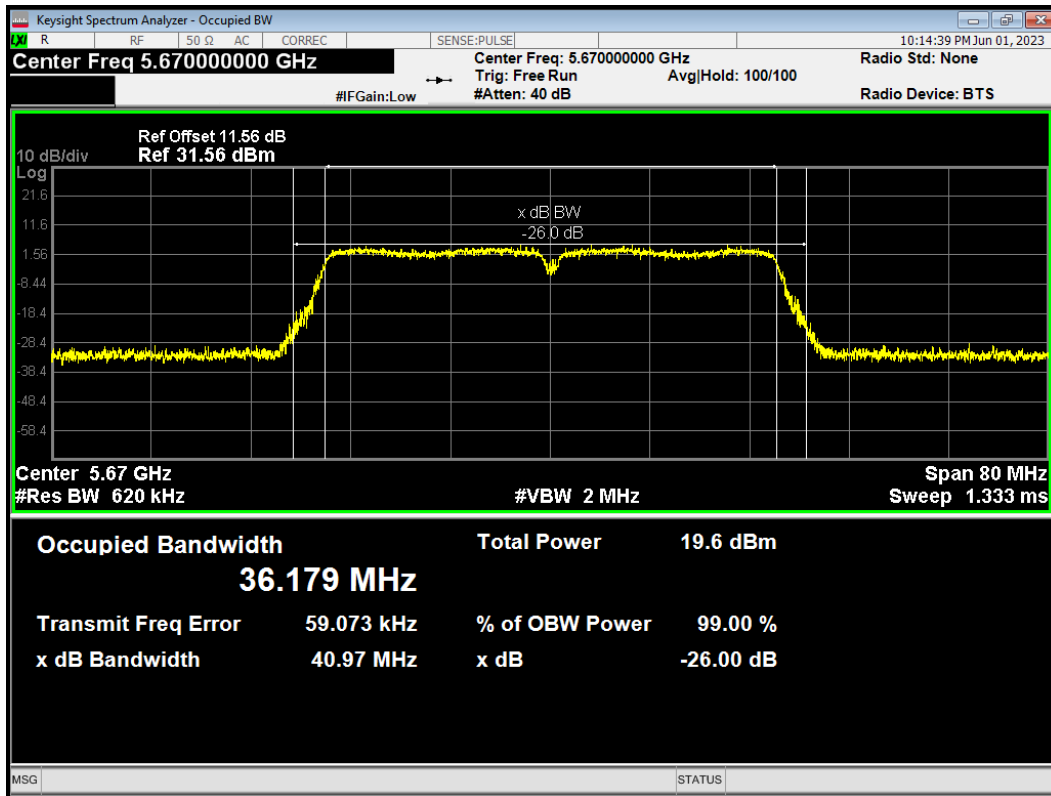
OBW 802.11ac(VHT40) 5510MHz



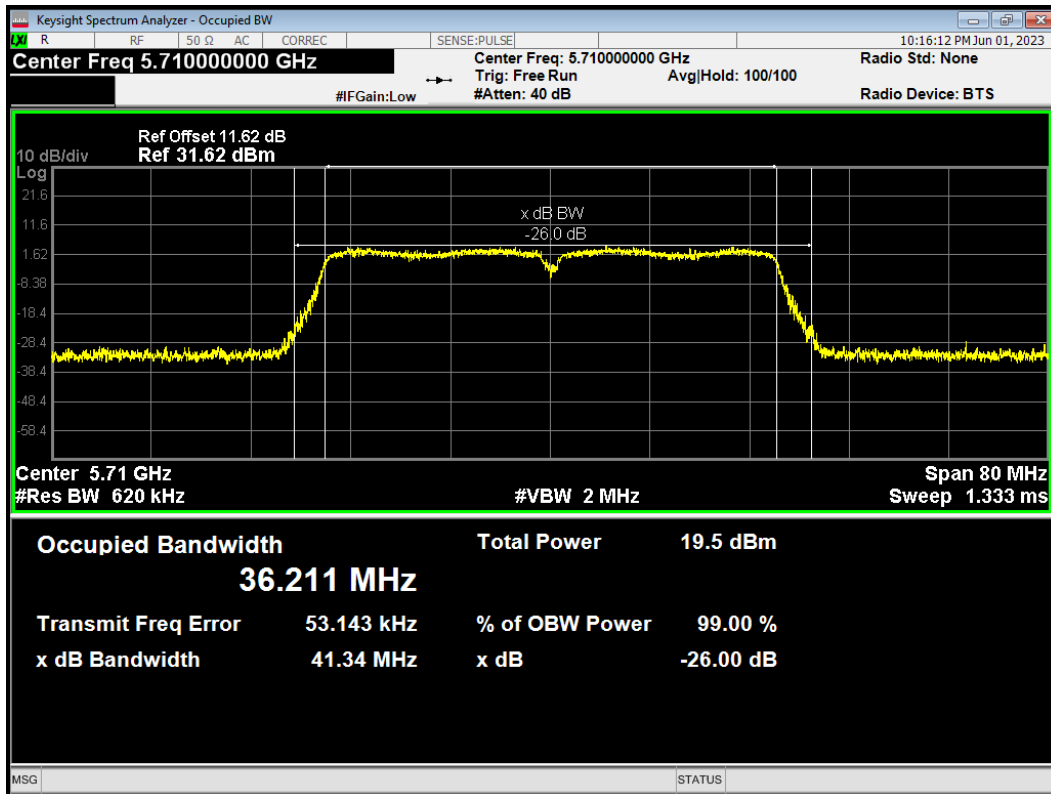
OBW 802.11ac(VHT40) 5550MHz



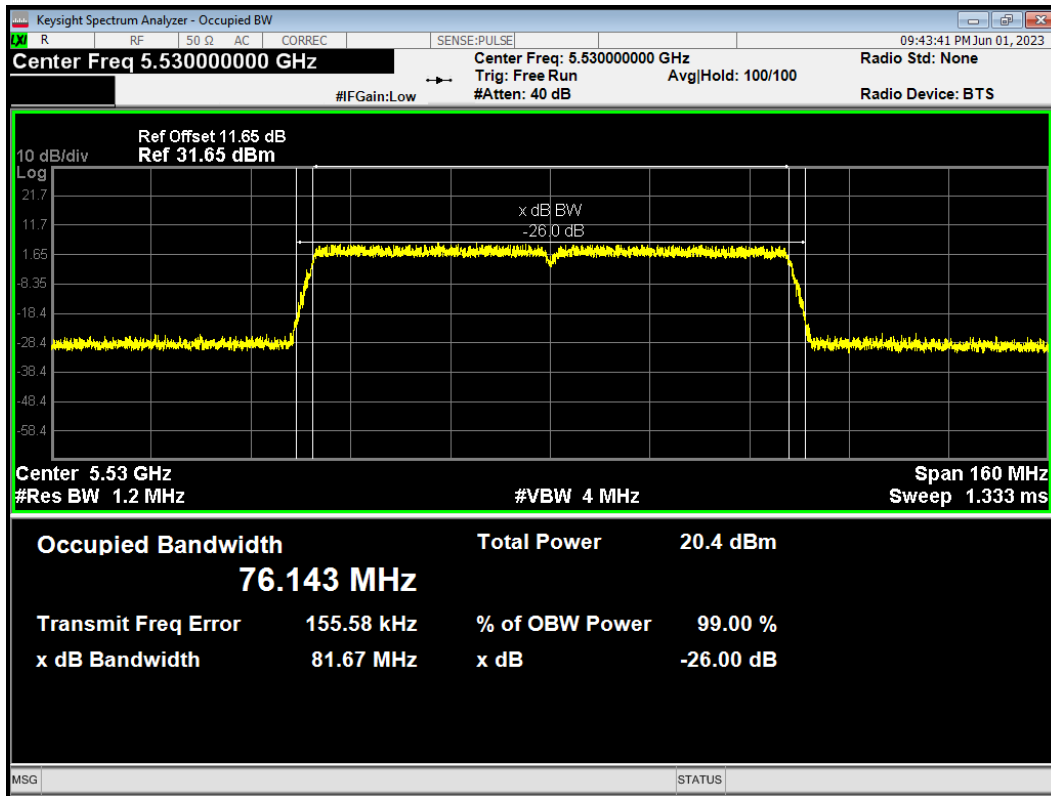
OBW 802.11ac(VHT40) 5670MHz



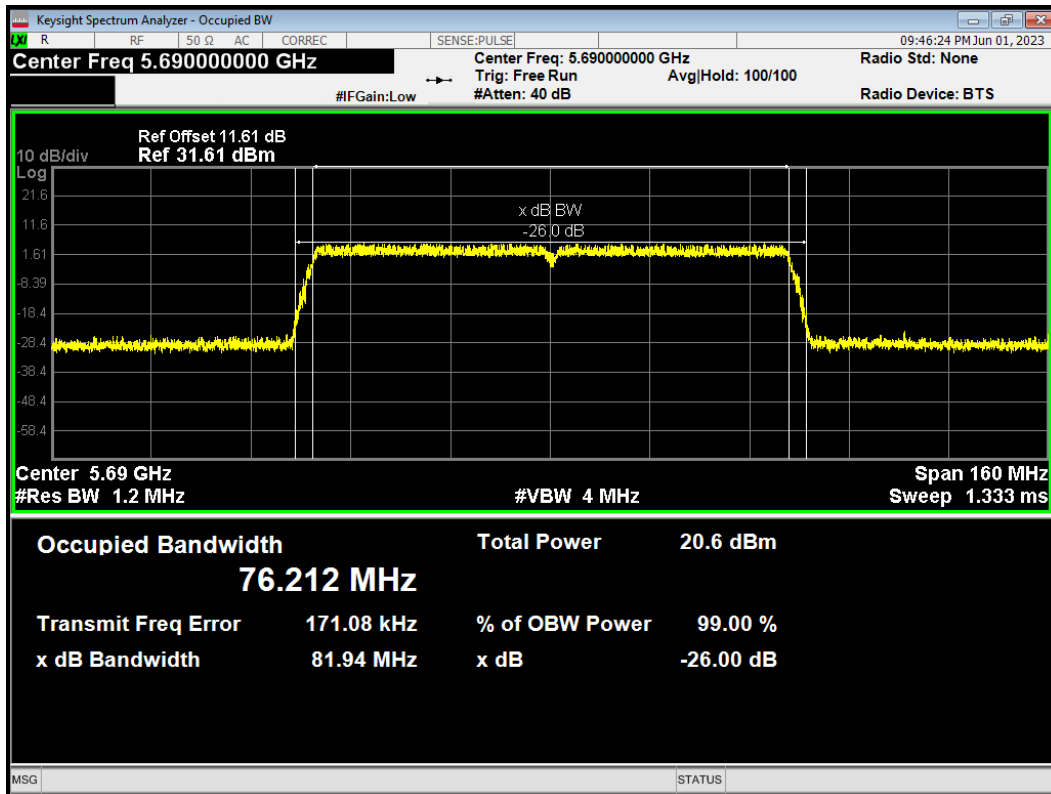
OBW 802.11ac(VHT40) 5710MHz



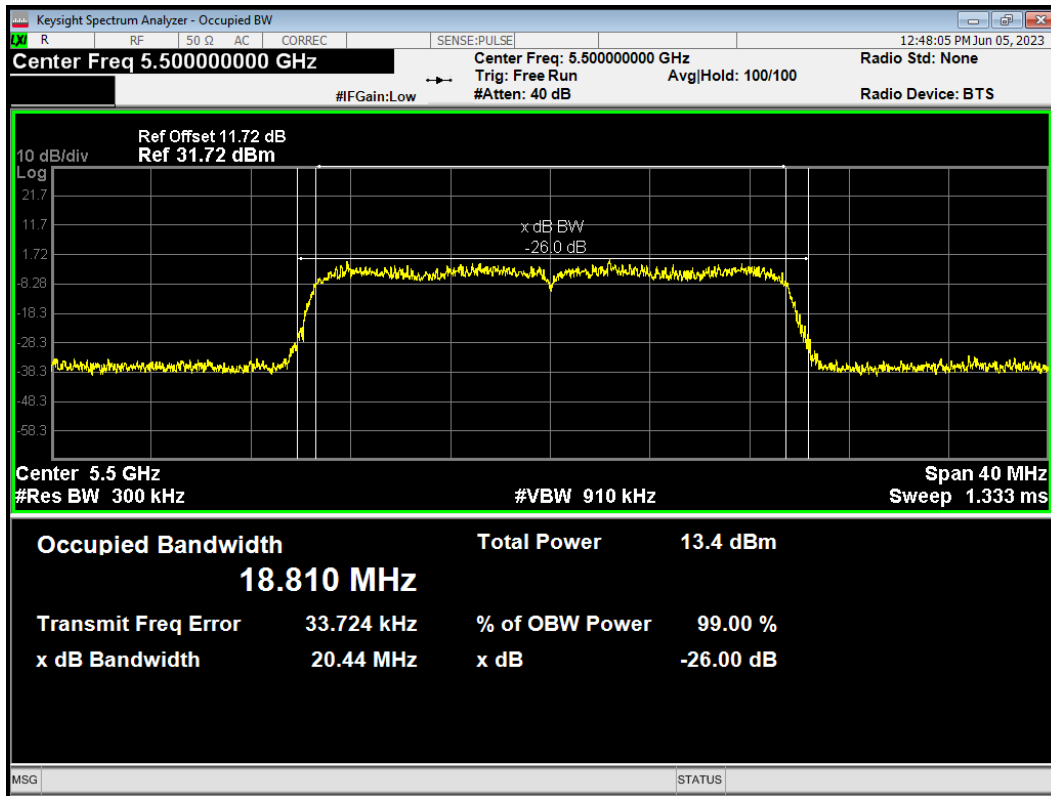
OBW 802.11ac(VHT80) 5530MHz



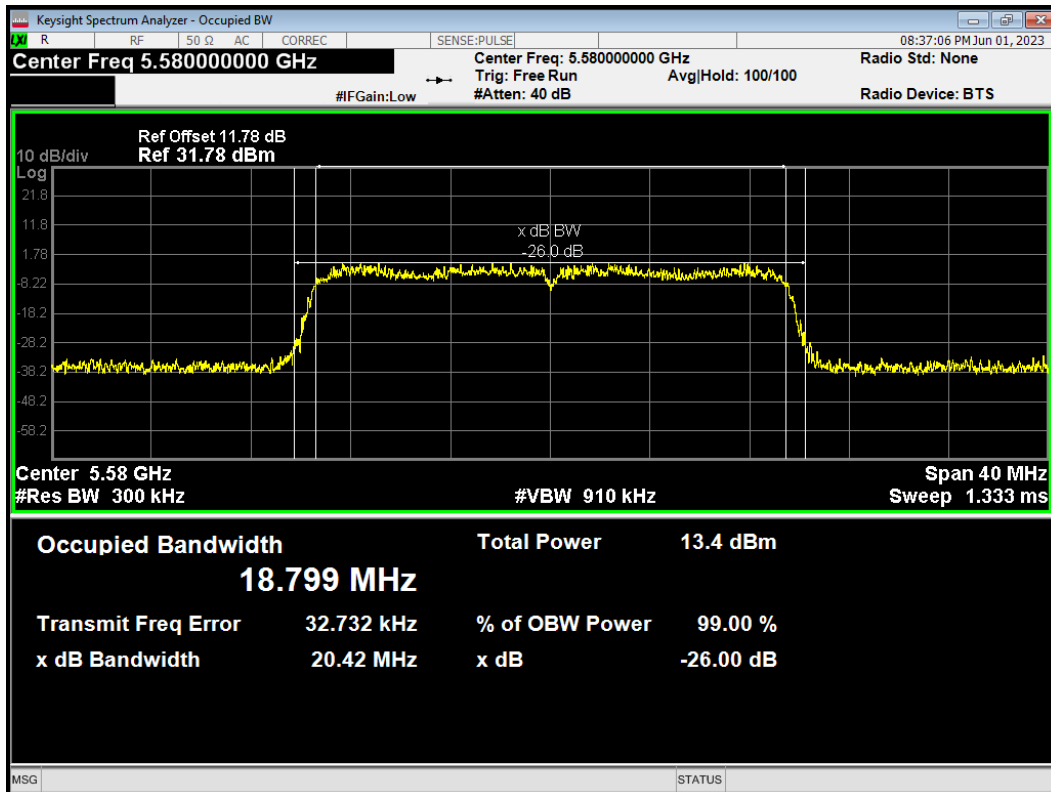
OBW 802.11ac(VHT80) 5690MHz



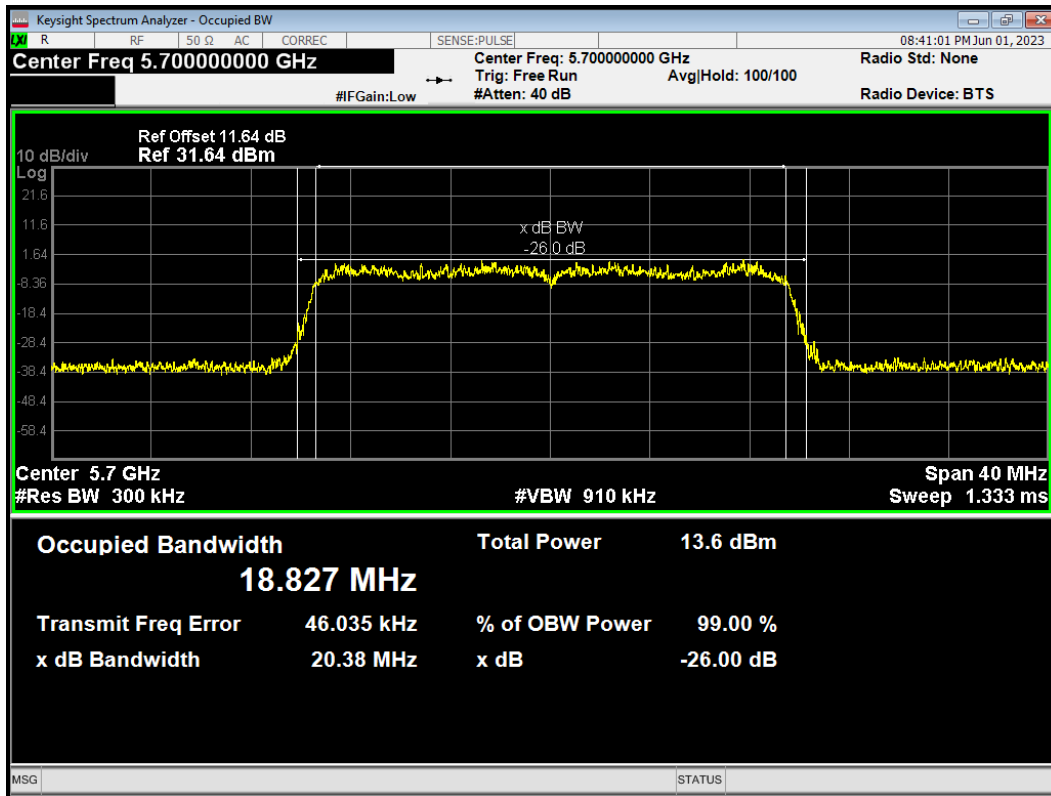
OBW 802.11ax(HE20) 5500MHz



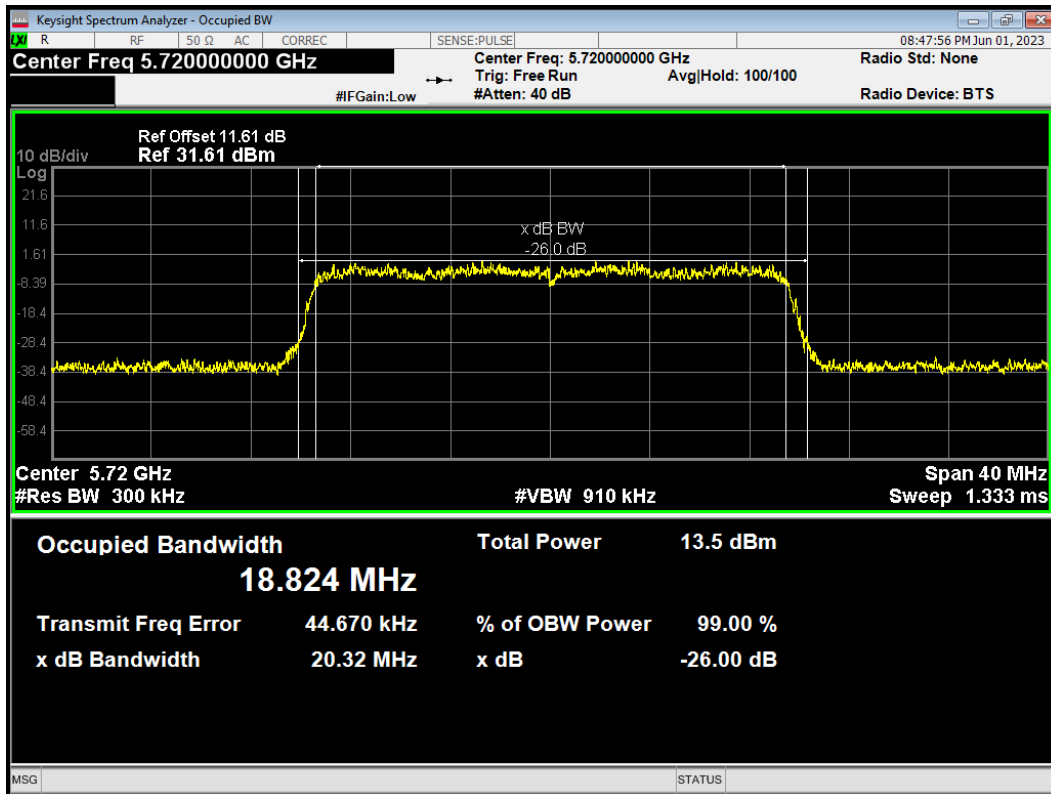
OBW 802.11ax(HE20) 5580MHz



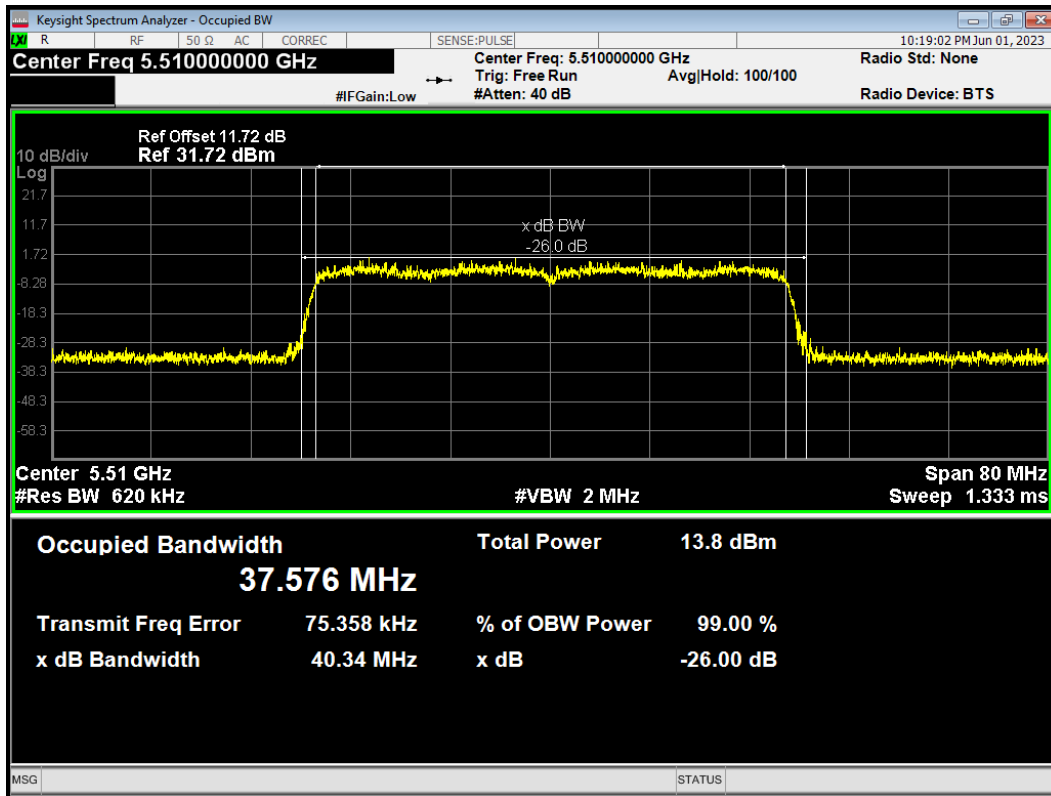
OBW 802.11ax(HE20) 5700MHz



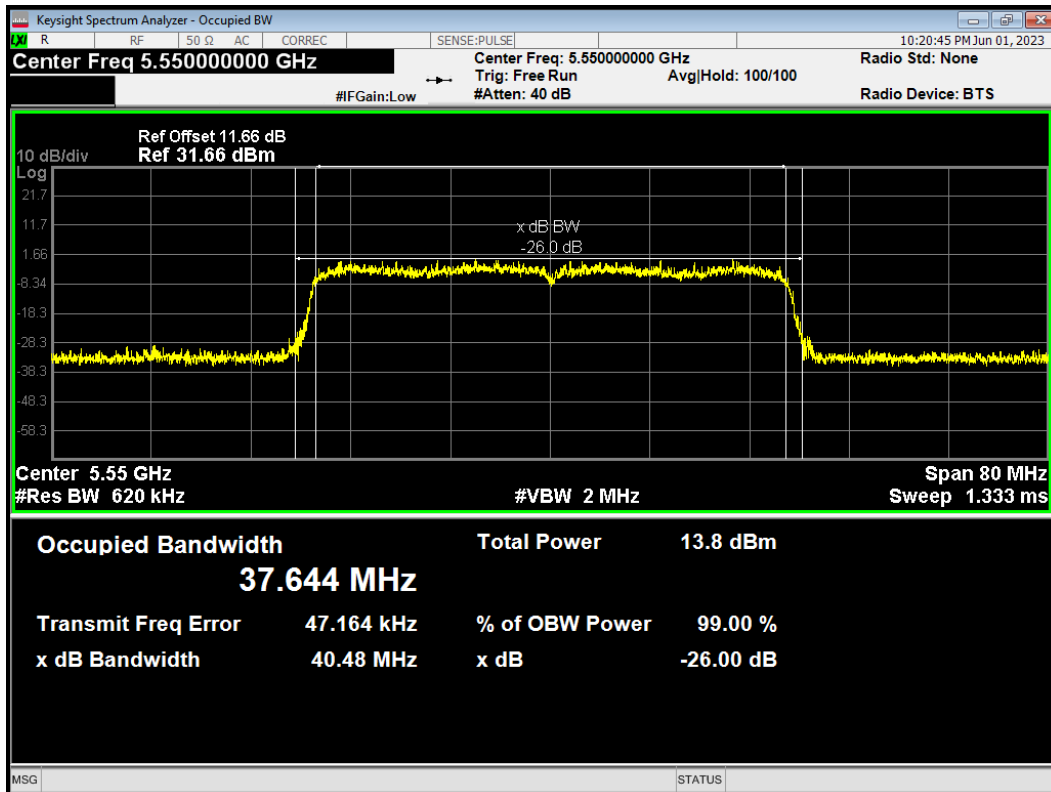
OBW 802.11ax(HE20) 5720MHz



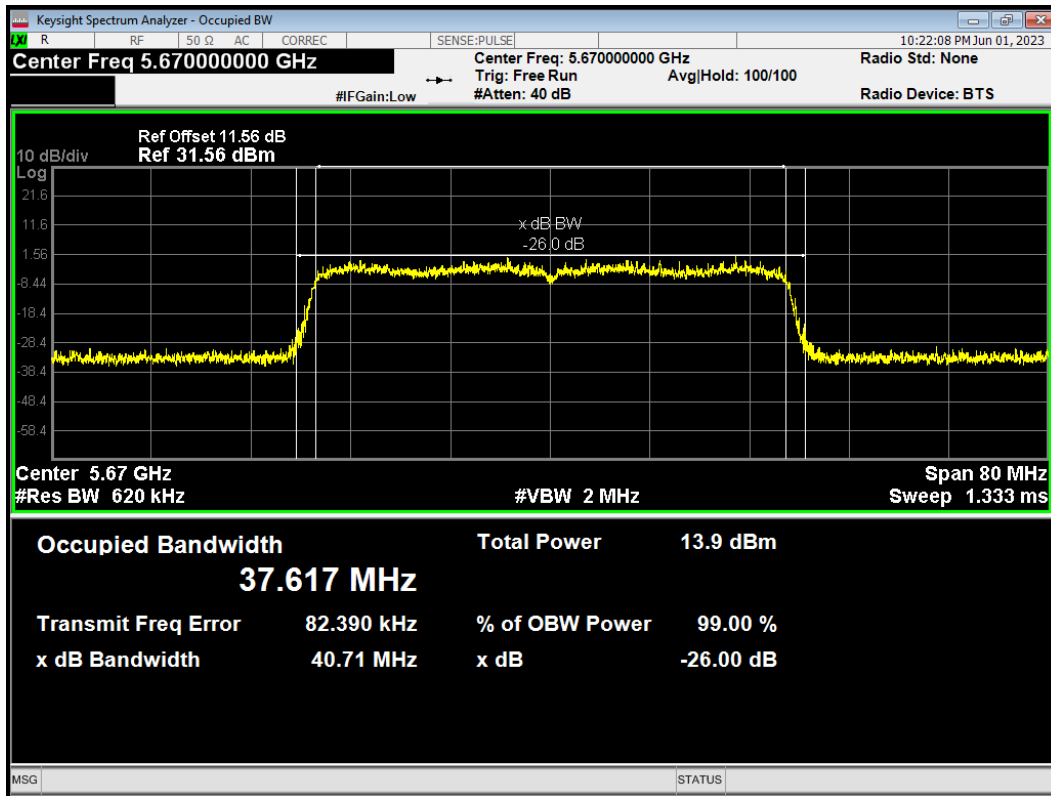
OBW 802.11ax(HE40) 5510MHz



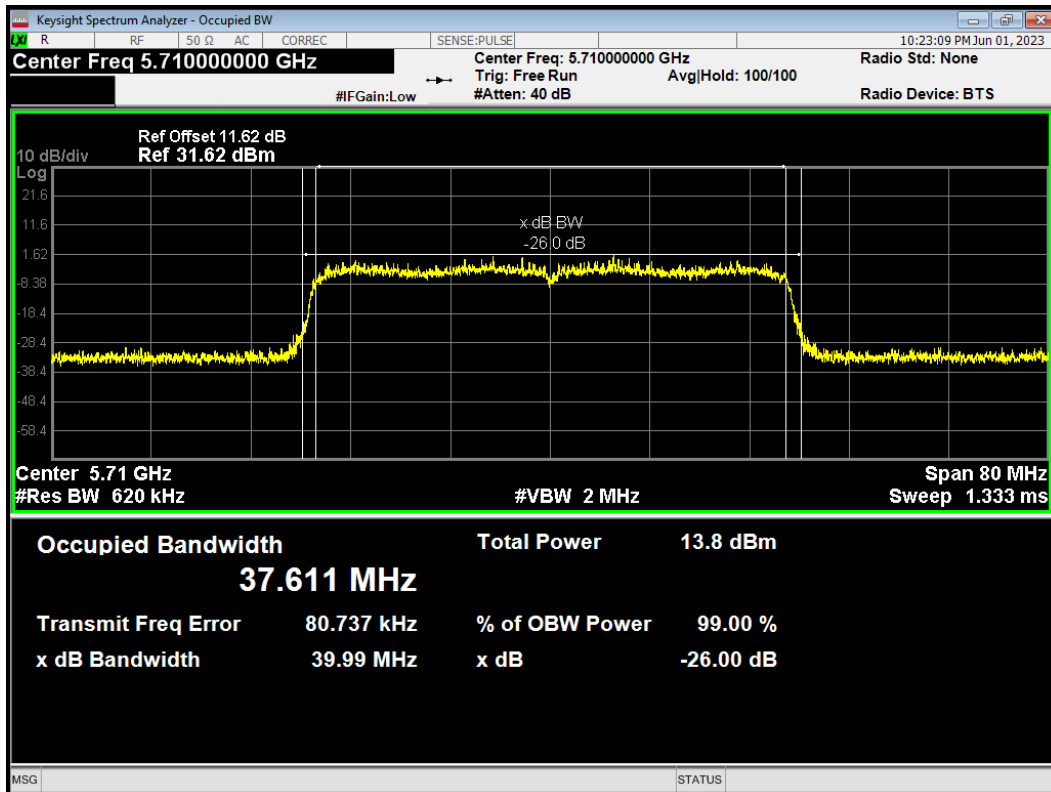
OBW 802.11ax(HE40) 5550MHz



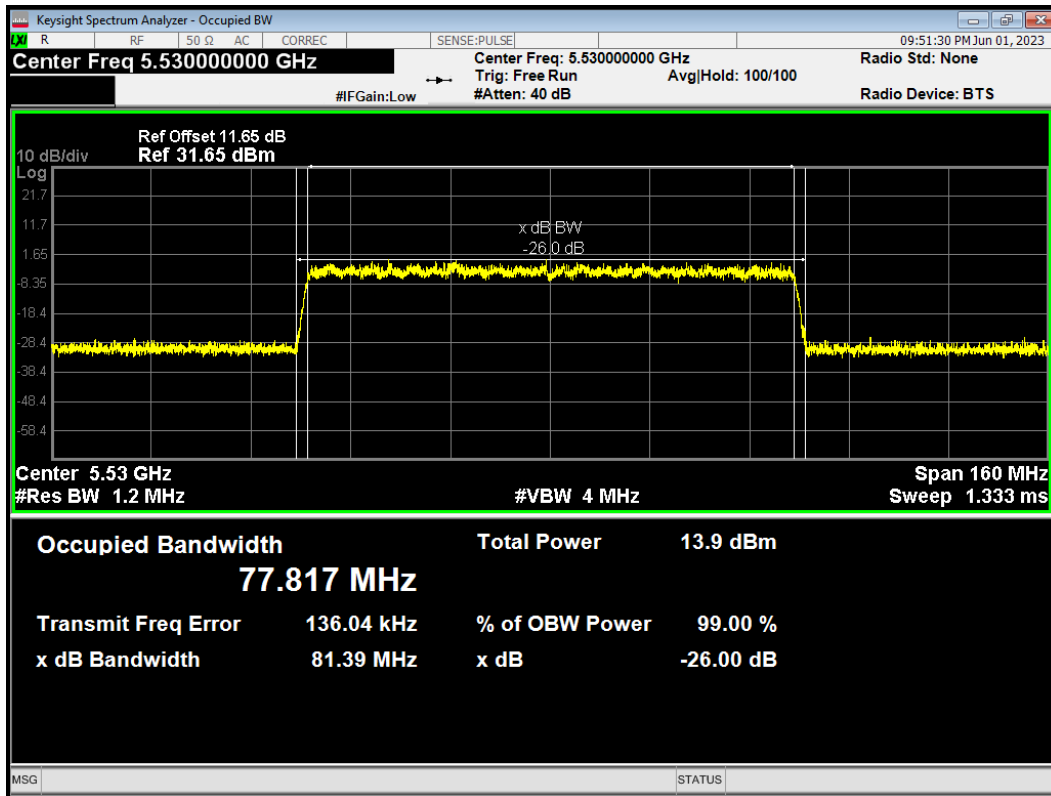
OBW 802.11ax(HE40) 5670MHz



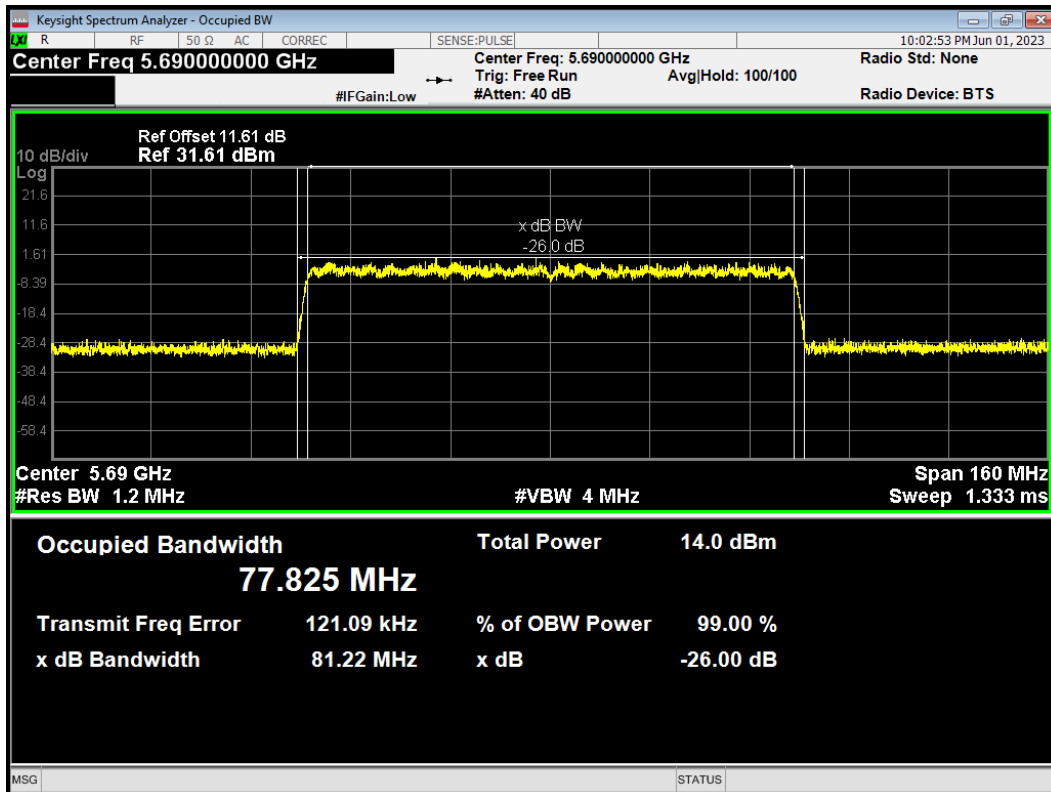
OBW 802.11ax(HE40) 5710MHz



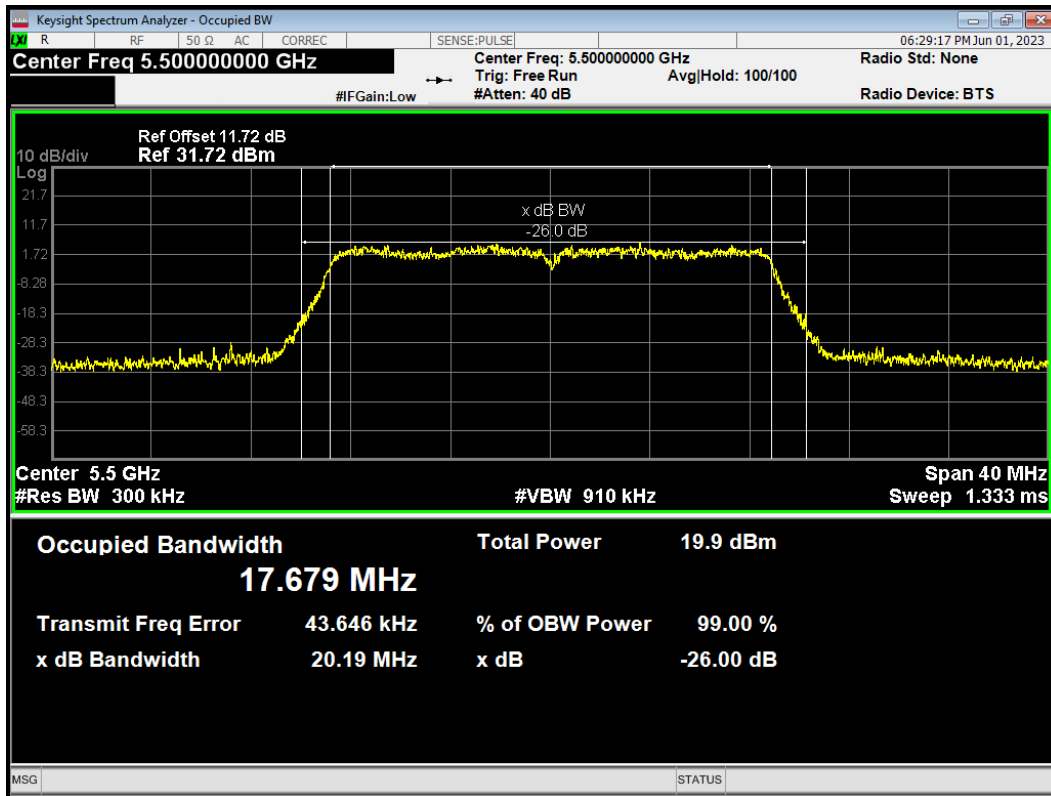
OBW 802.11ax(HE80) 5530MHz



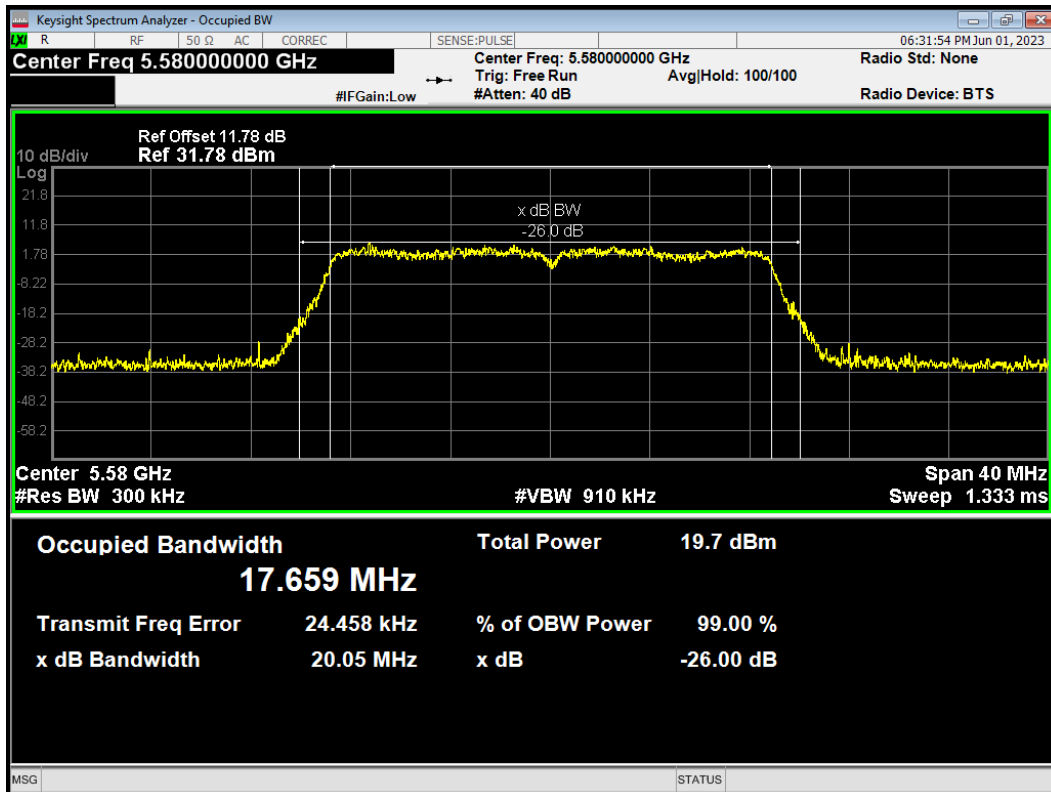
OBW 802.11ax(HE80) 5690MHz



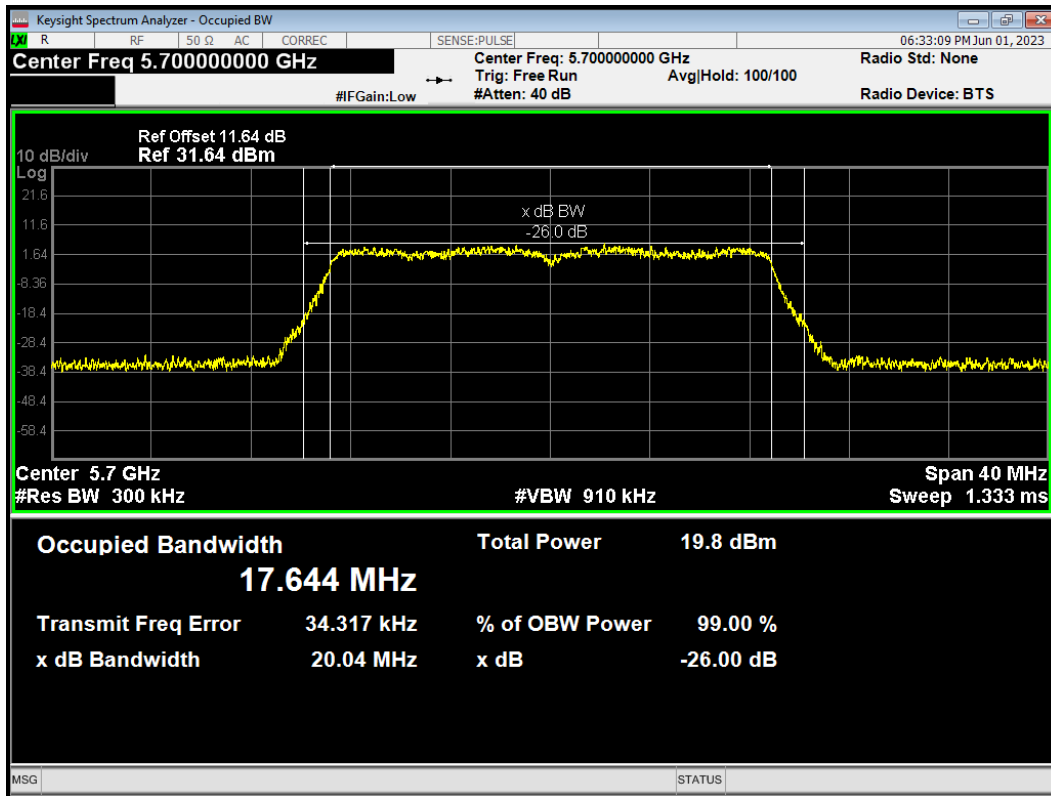
OBW 802.11n(HT20) 5500MHz



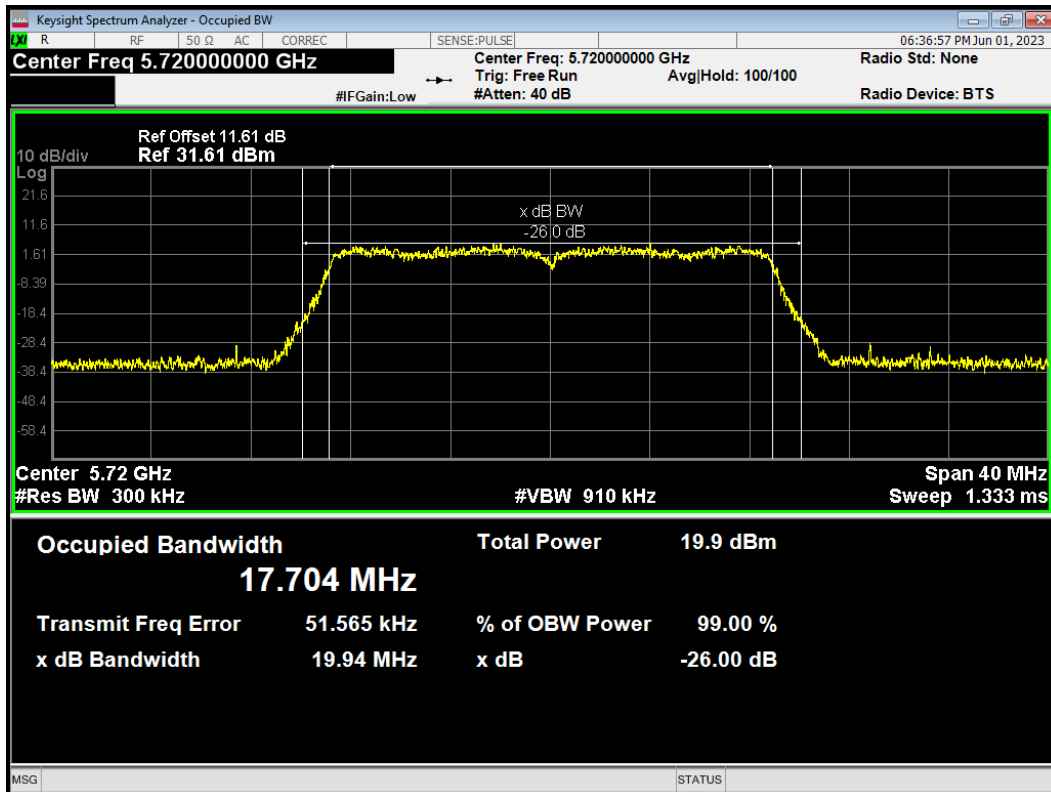
OBW 802.11n(HT20) 5580MHz



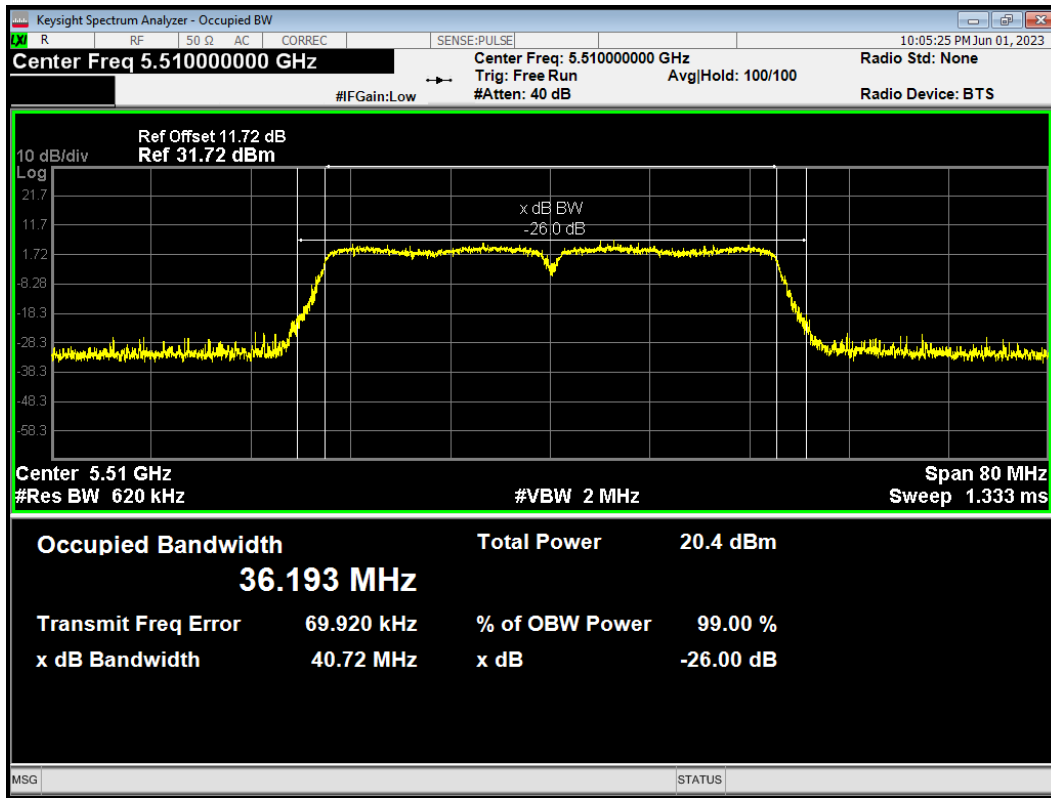
OBW 802.11n(HT20) 5700MHz



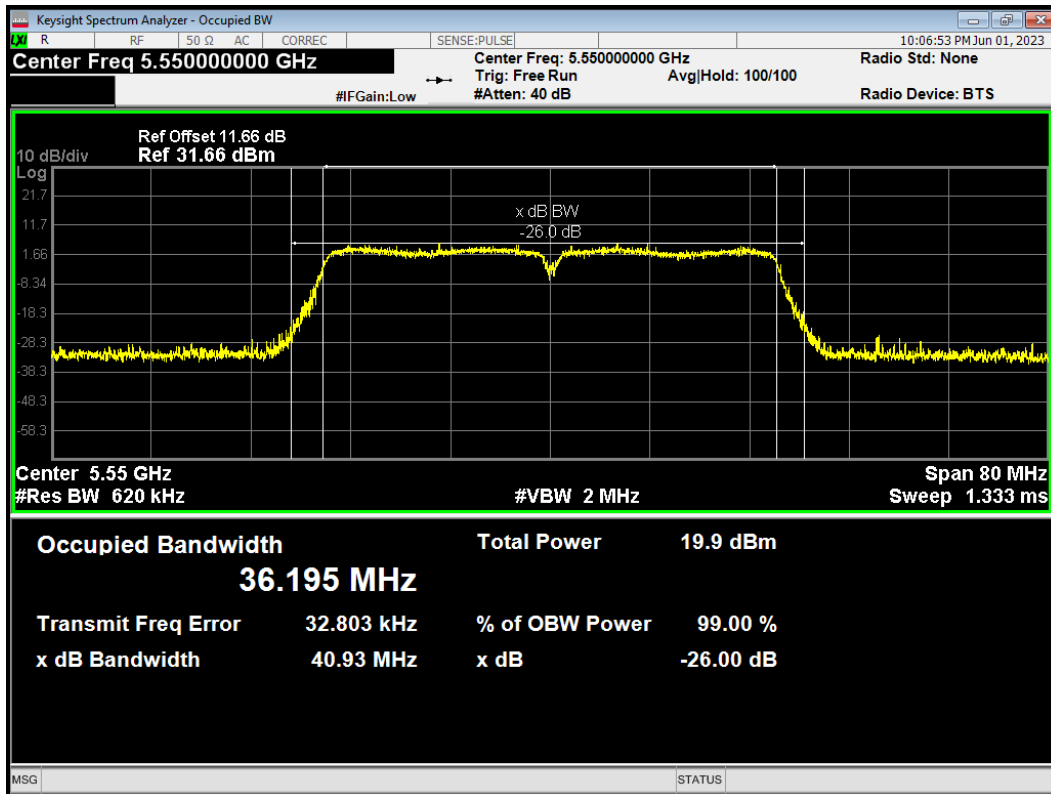
OBW 802.11n(HT20) 5720MHz



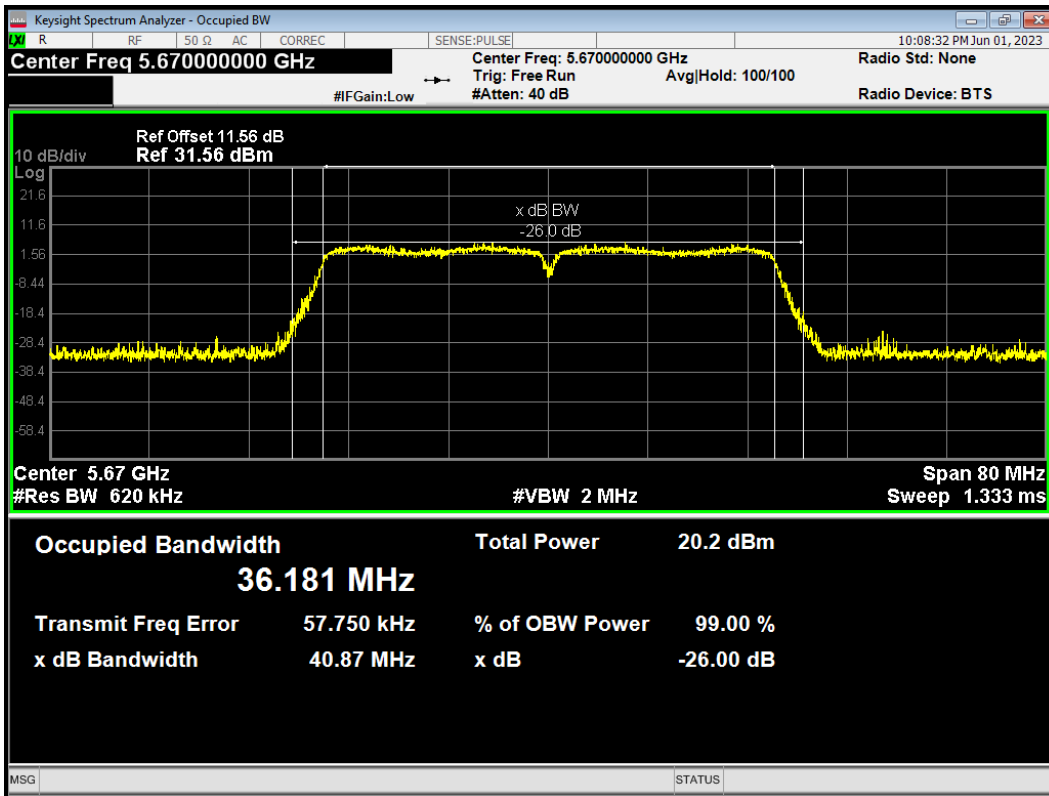
OBW 802.11n(HT40) 5510MHz



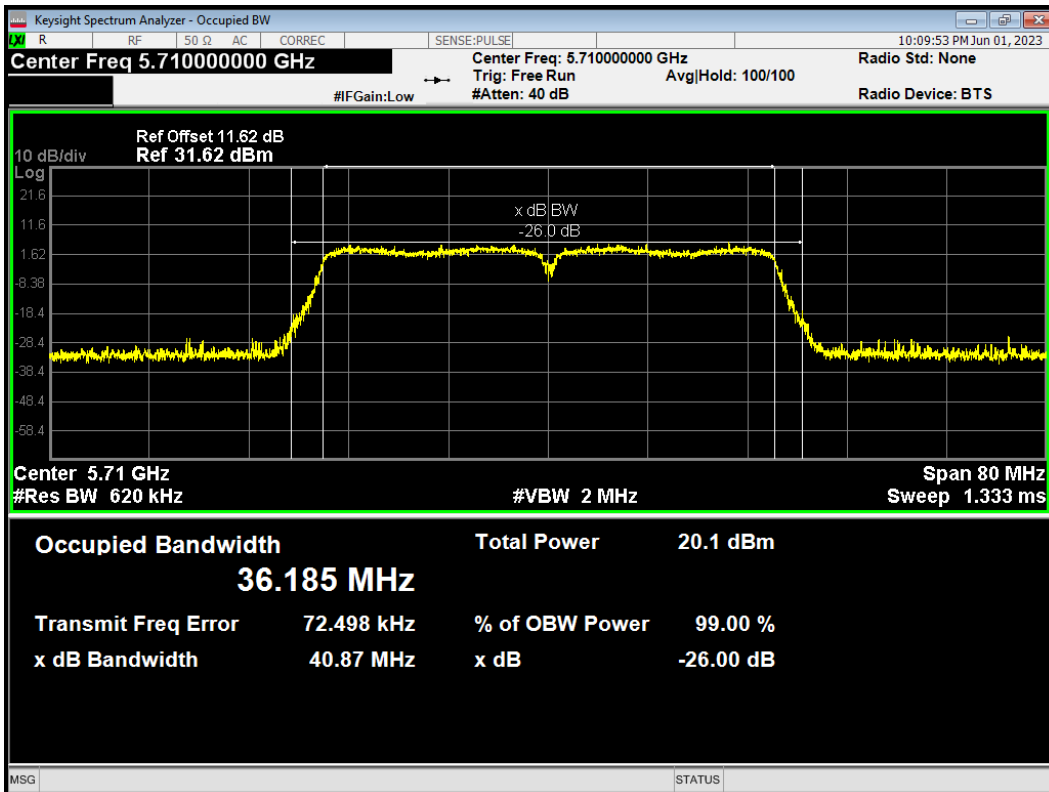
OBW 802.11n(HT40) 5550MHz



OBW 802.11n(HT40) 5670MHz

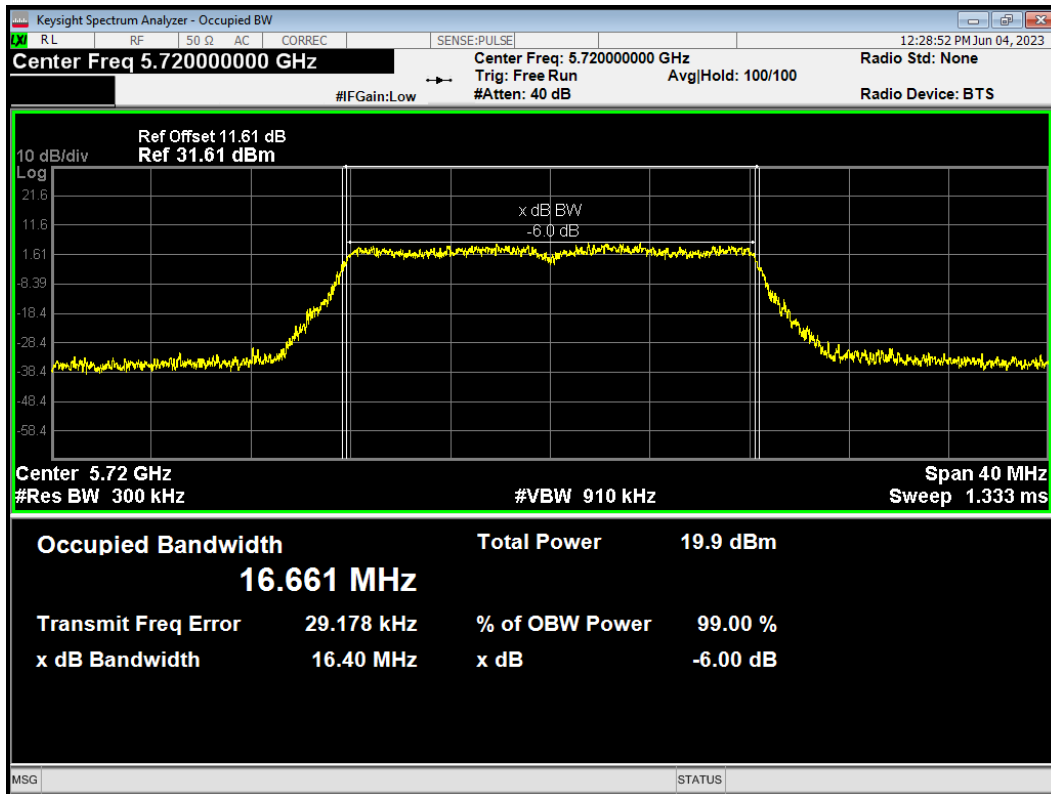


OBW 802.11n(HT40) 5710MHz

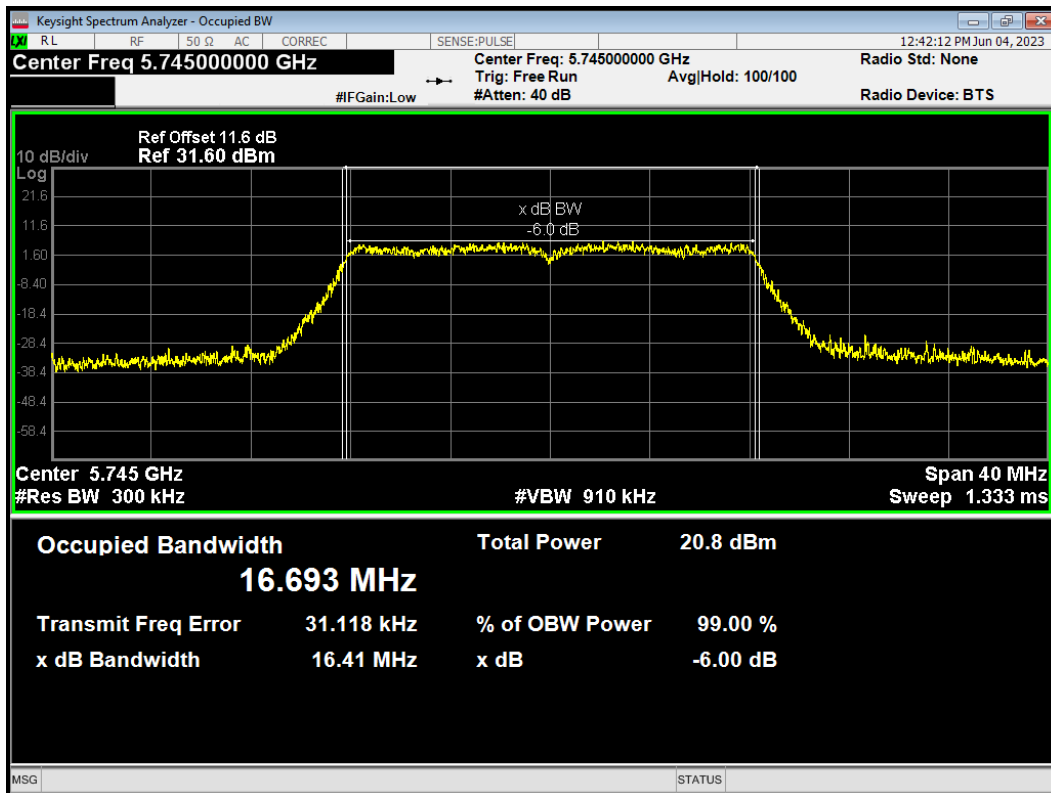


U-NII-3

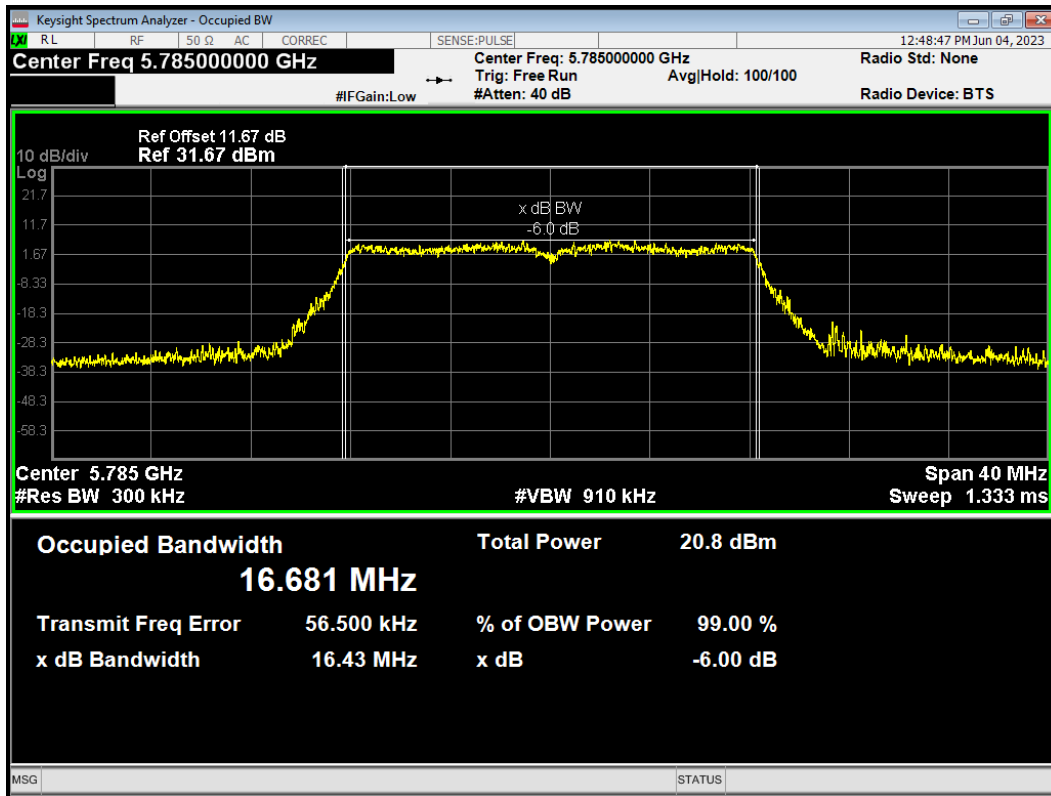
OBW 802.11a 5720MHz



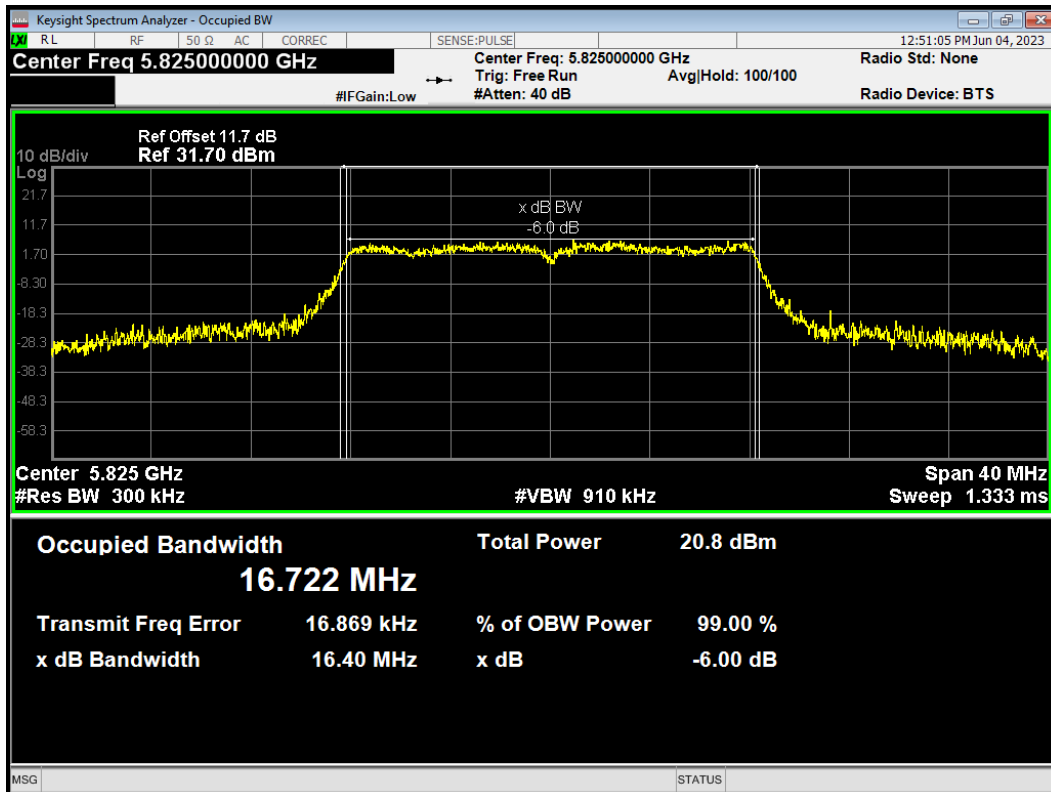
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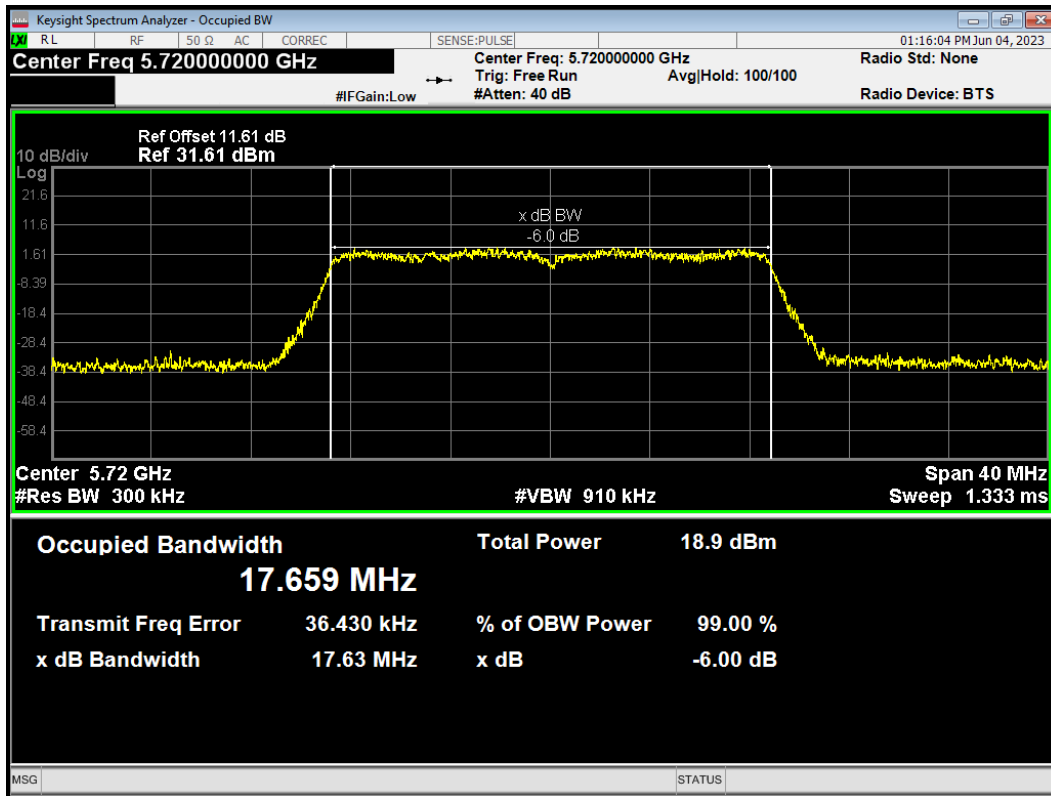
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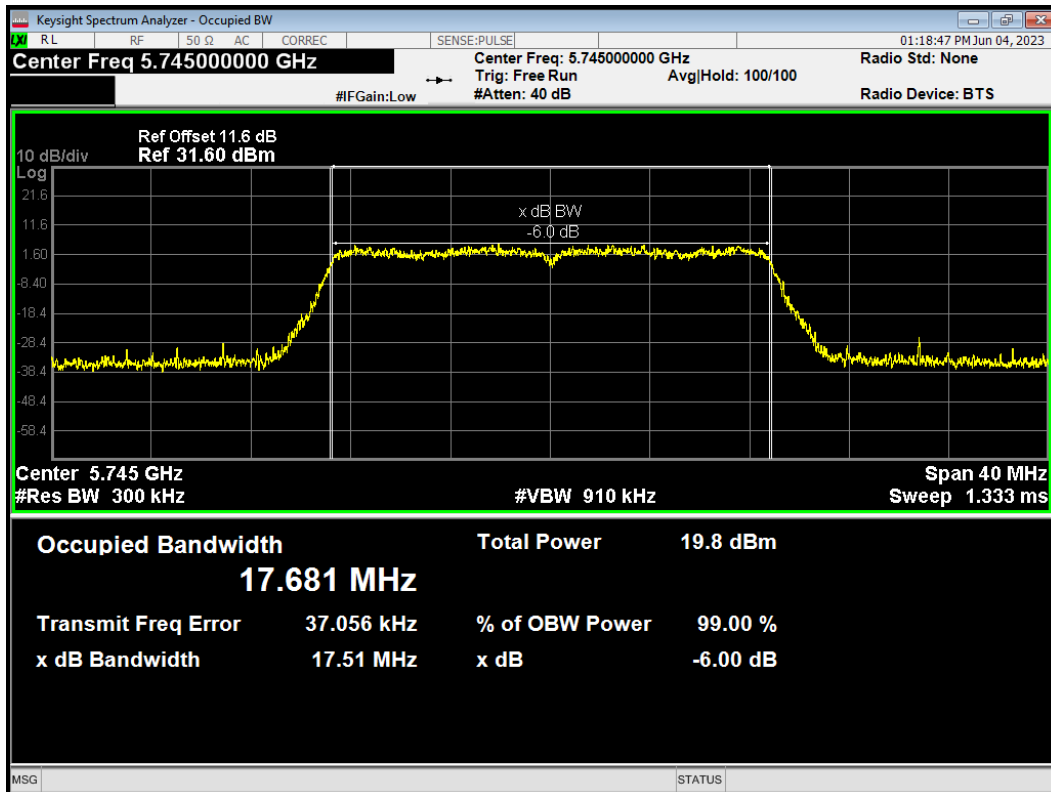
OBW 802.11a 5825MHz



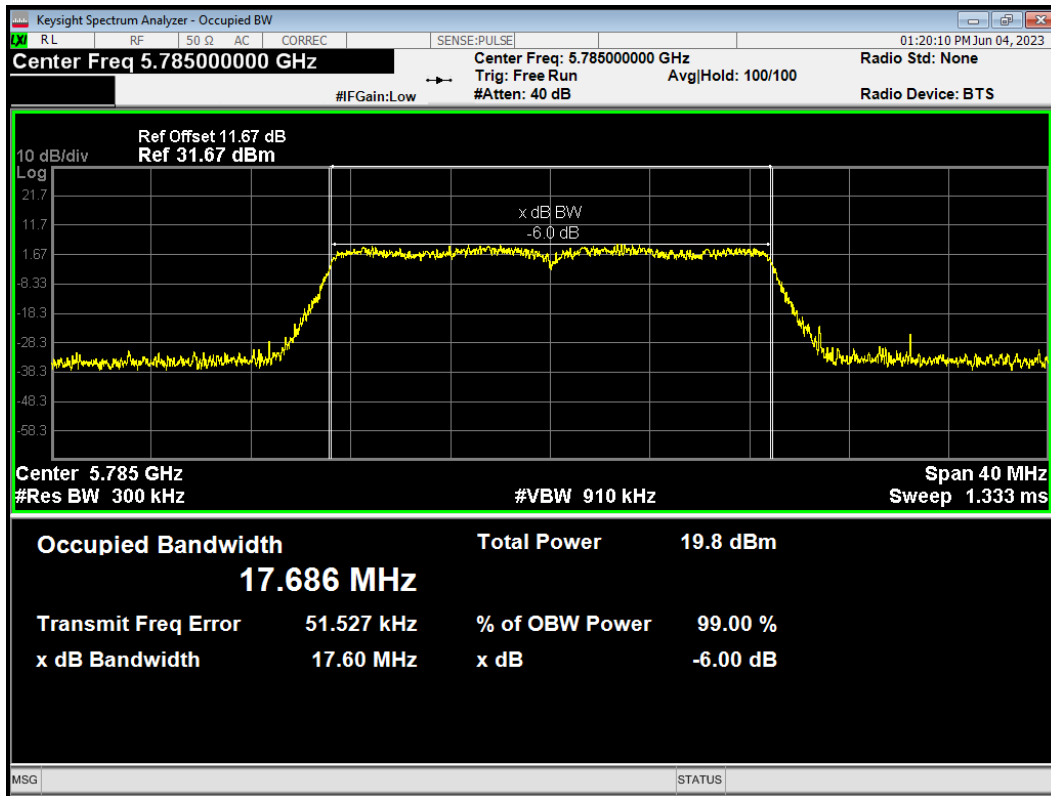
OBW 802.11ac(VHT20) 5720MHz



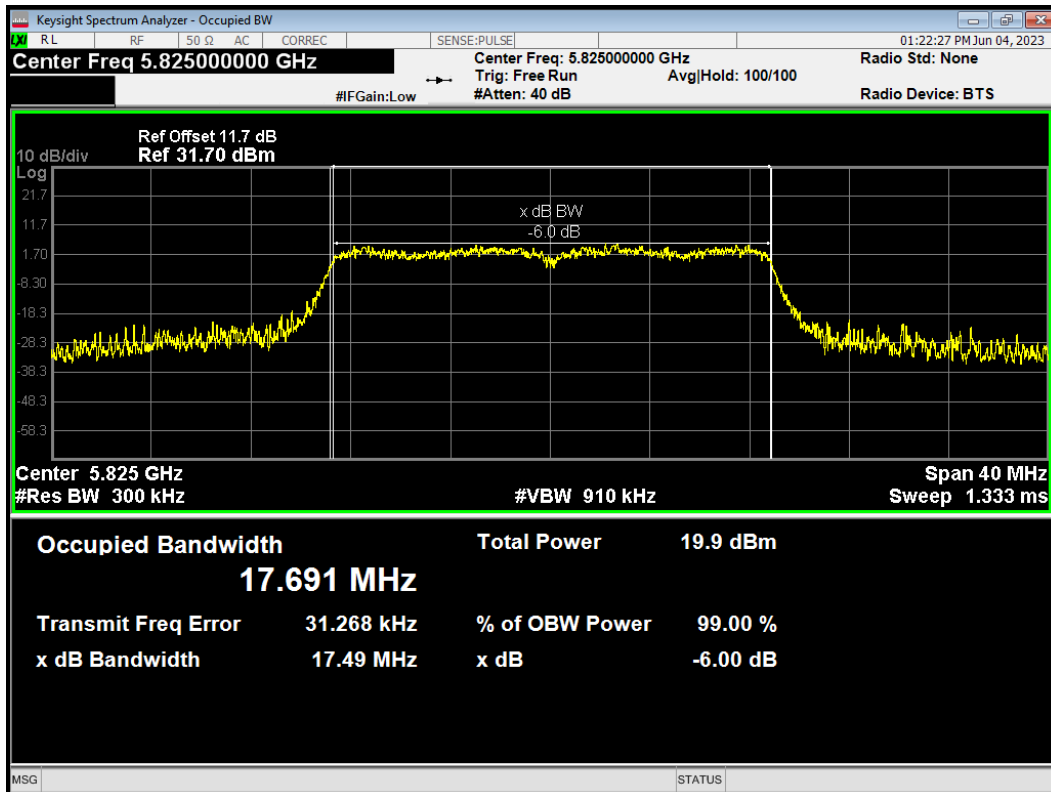
OBW 802.11ac(VHT20) 5745MHz



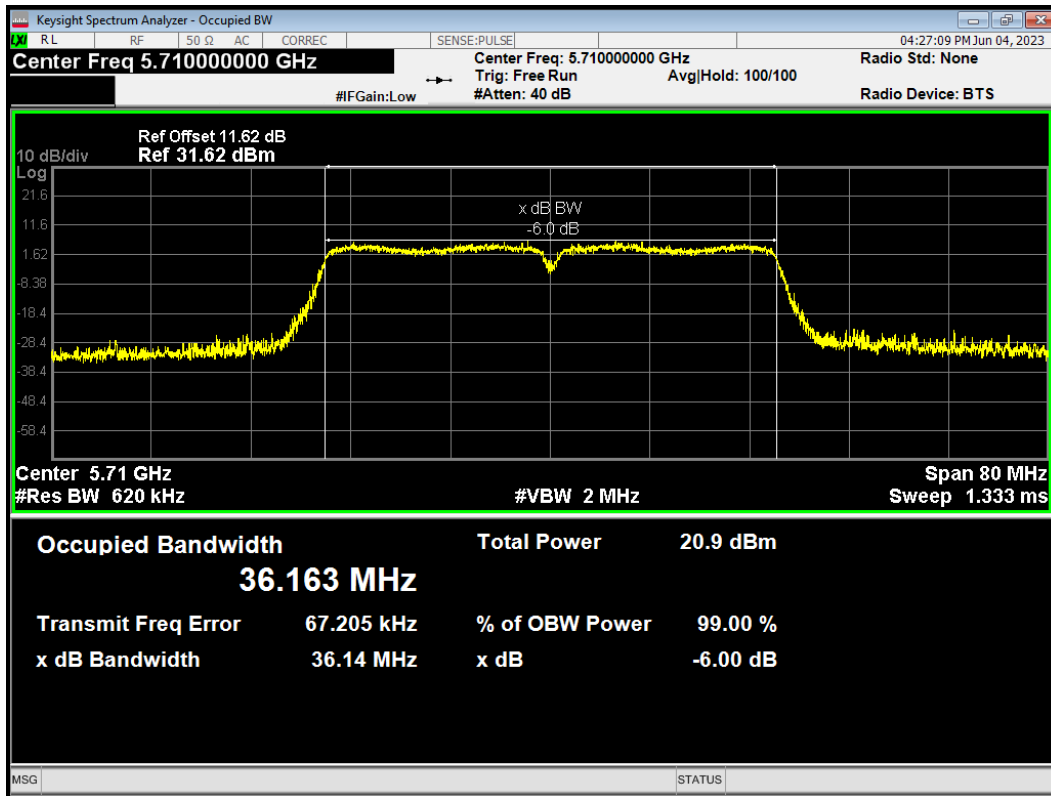
OBW 802.11ac(VHT20) 5785MHz



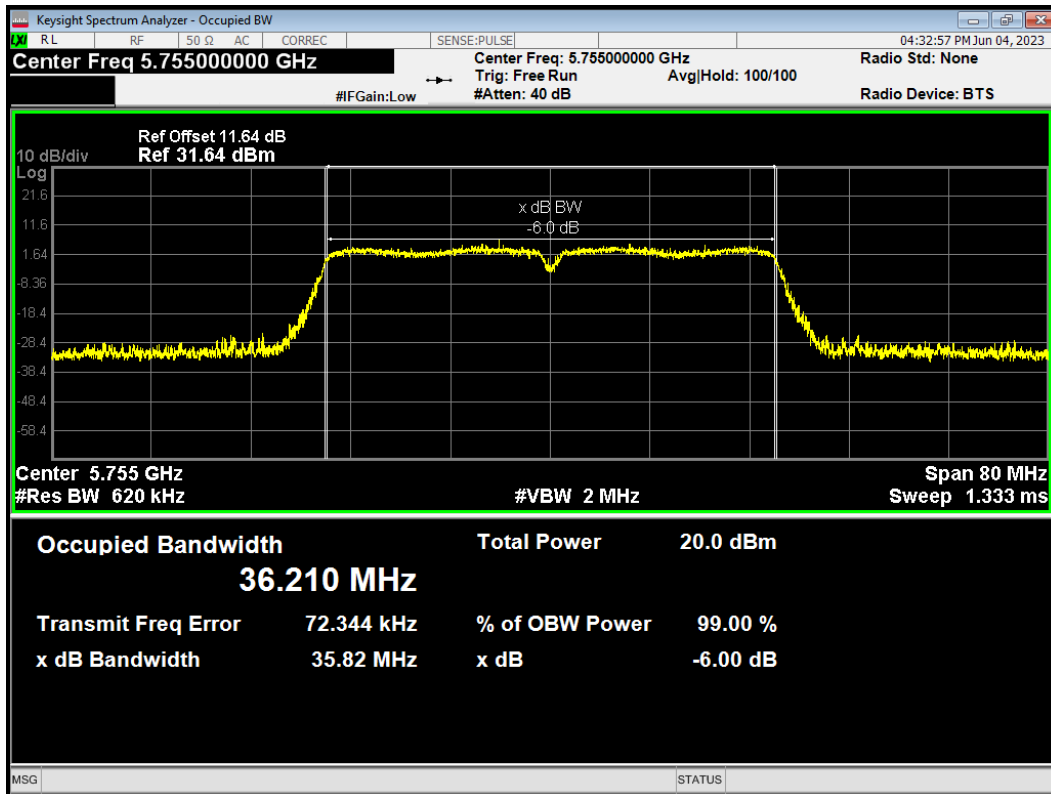
OBW 802.11ac(VHT20) 5825MHz



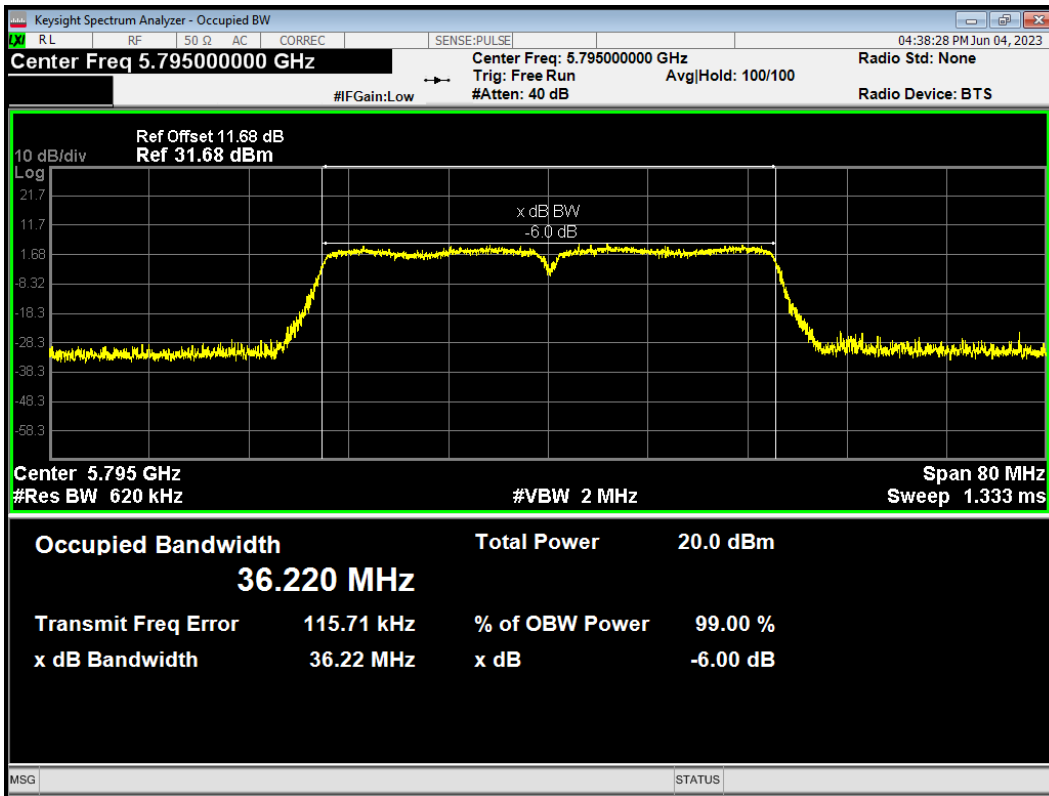
OBW 802.11ac(VHT40) 5710MHz



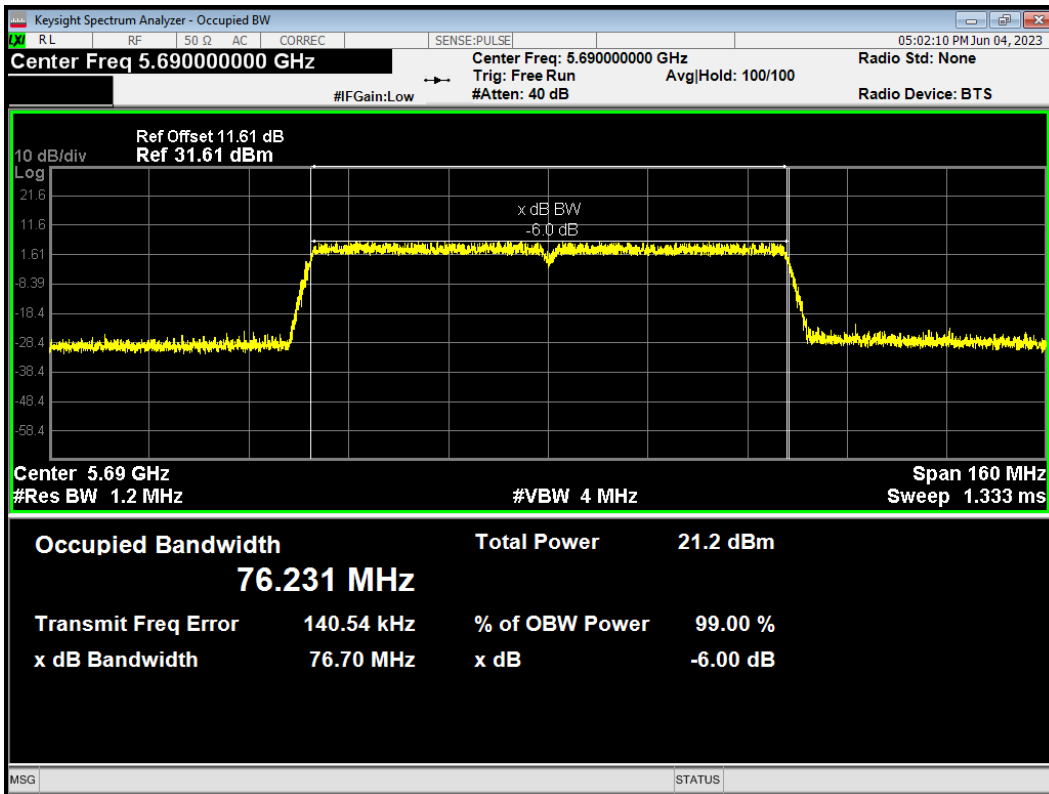
OBW 802.11ac(VHT40) 5755MHz



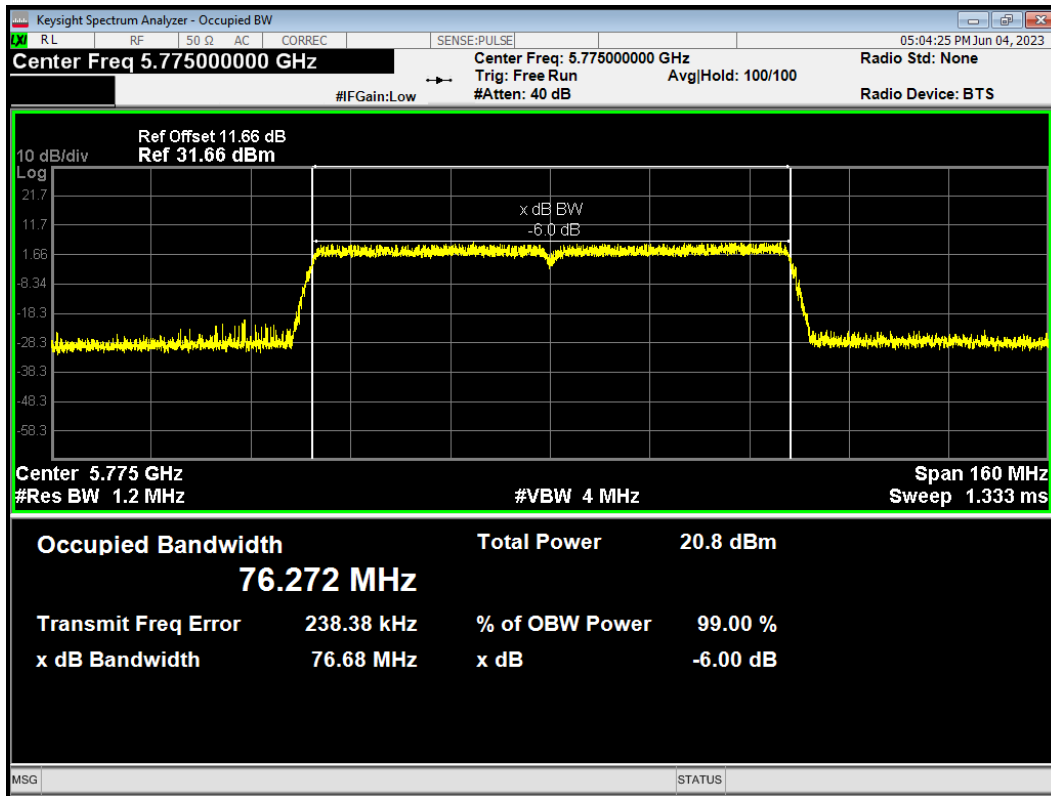
OBW 802.11ac(VHT40) 5795MHz



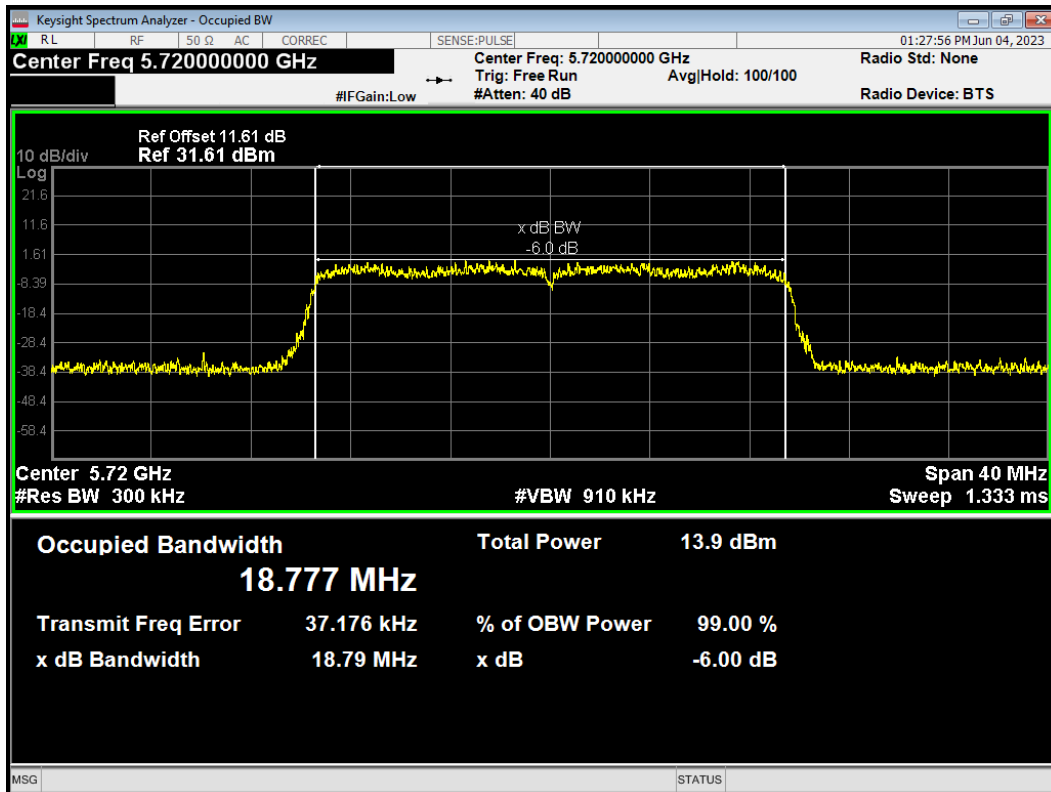
OBW 802.11ac(VHT80) 5690MHz



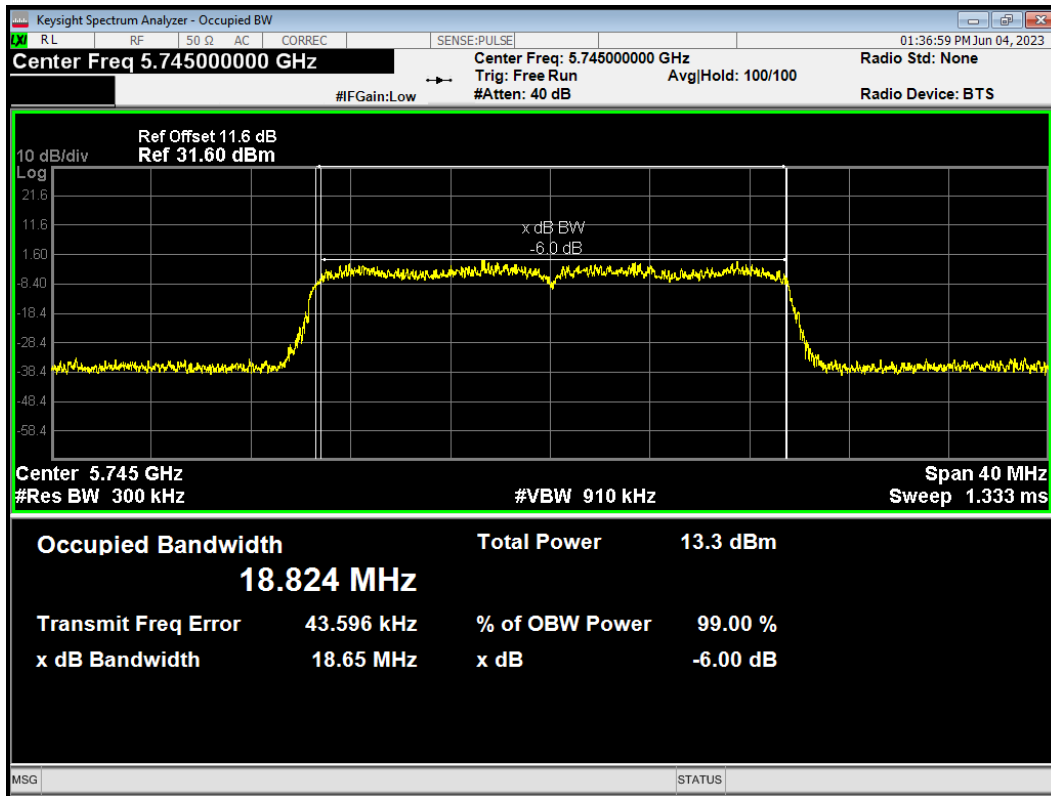
OBW 802.11ac(VHT80) 5775MHz



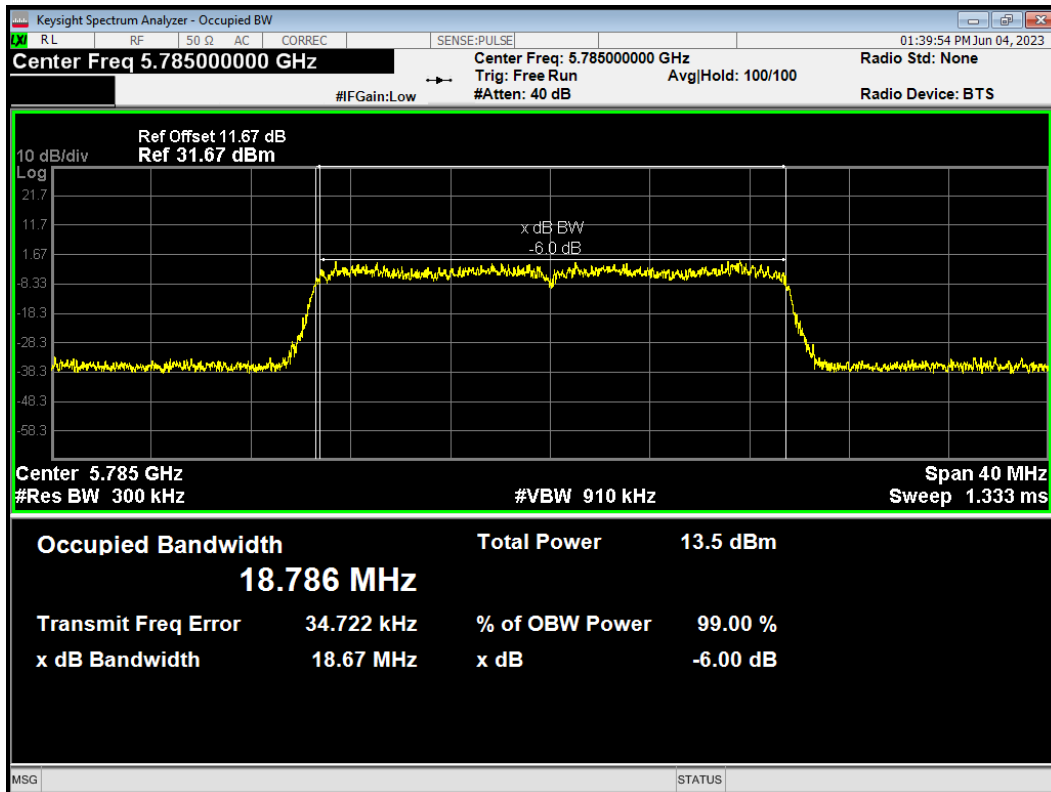
OBW 802.11ax(HE20) 5720MHz



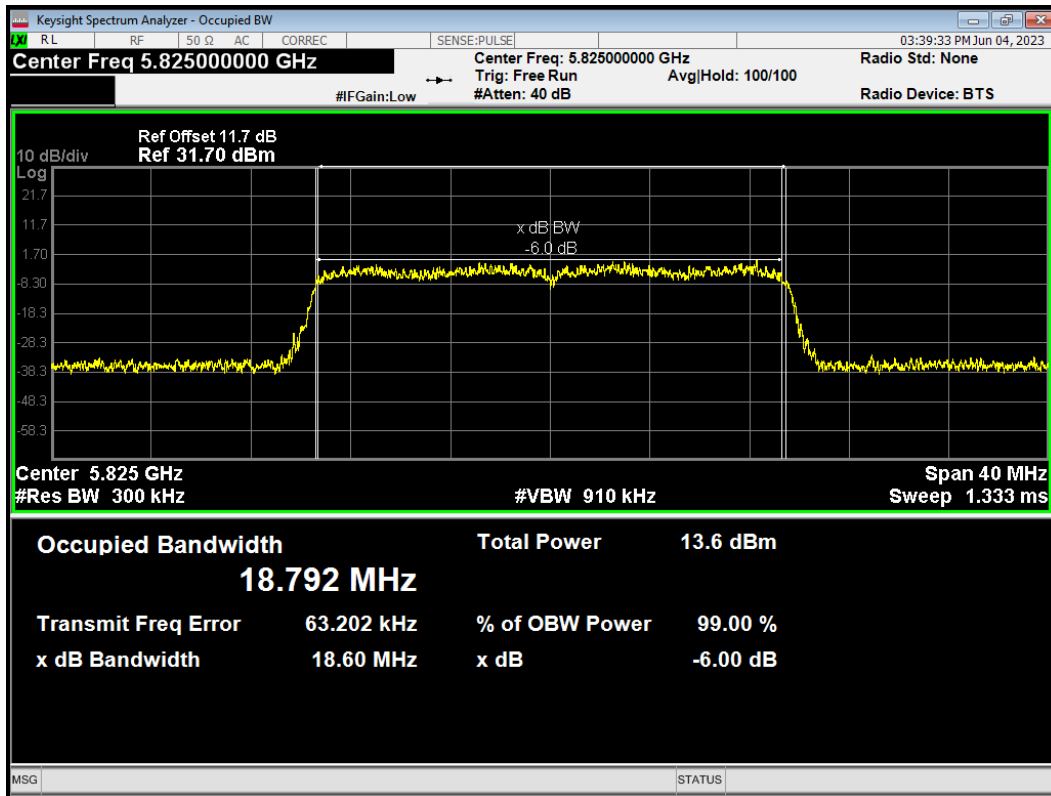
OBW 802.11ax(HE20) 5745MHz



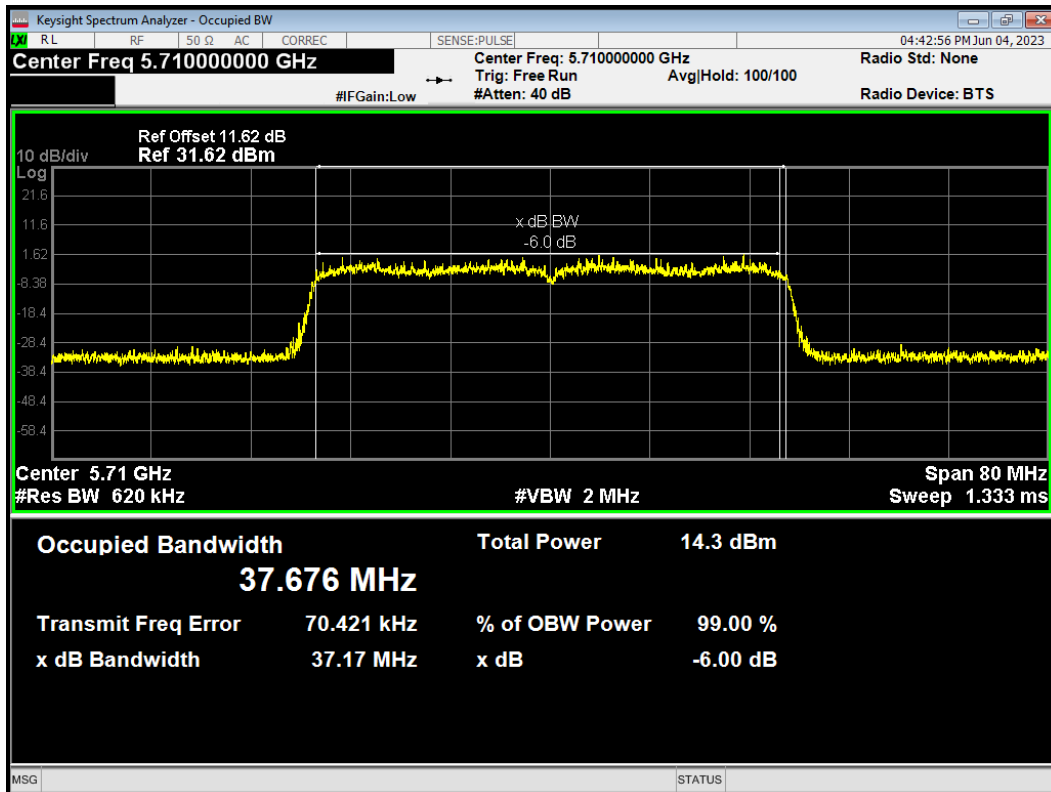
OBW 802.11ax(HE20) 5785MHz



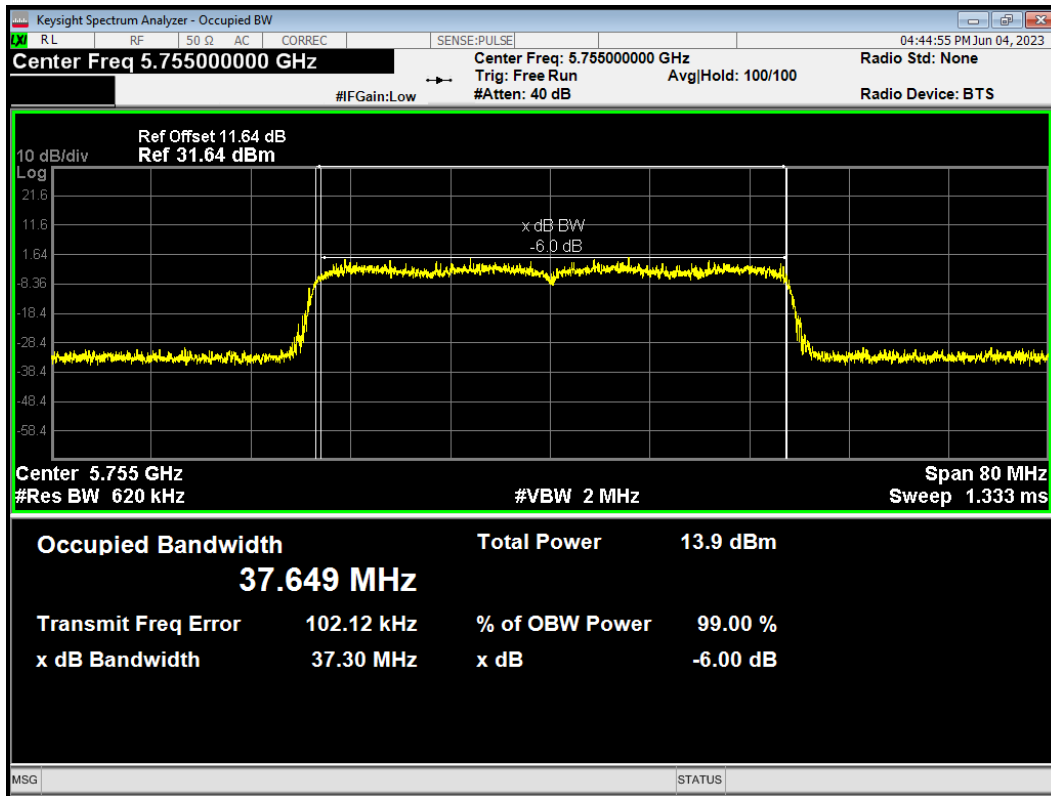
OBW 802.11ax(HE20) 5825MHz



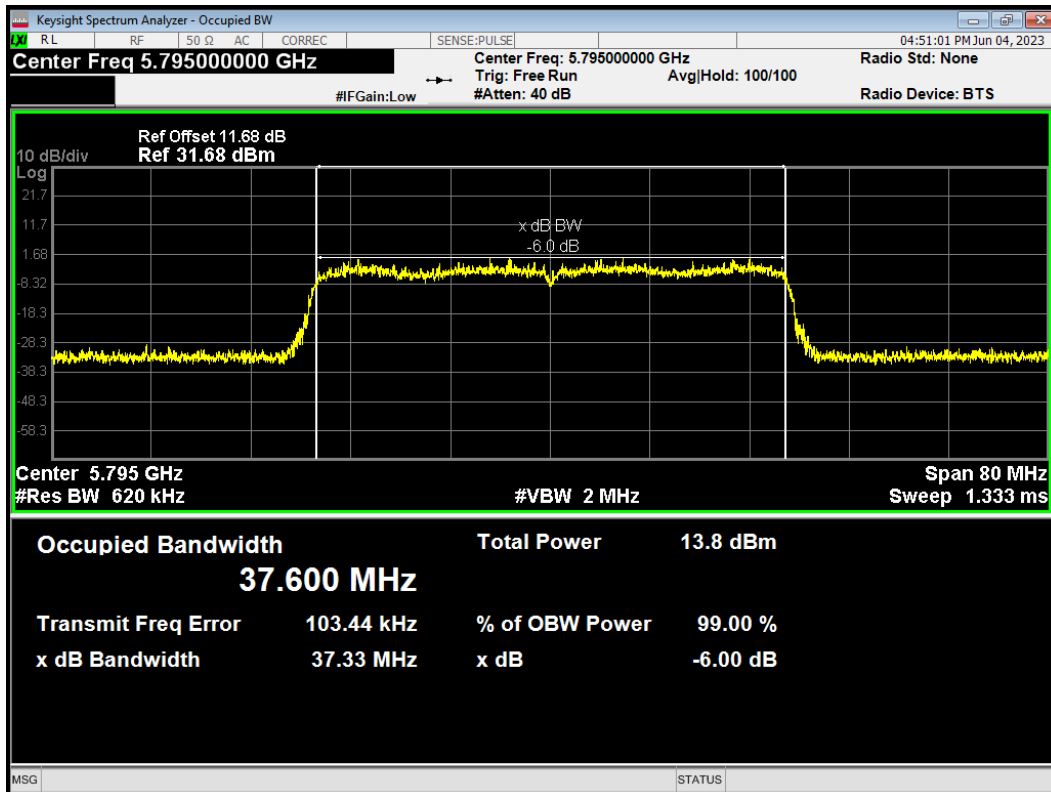
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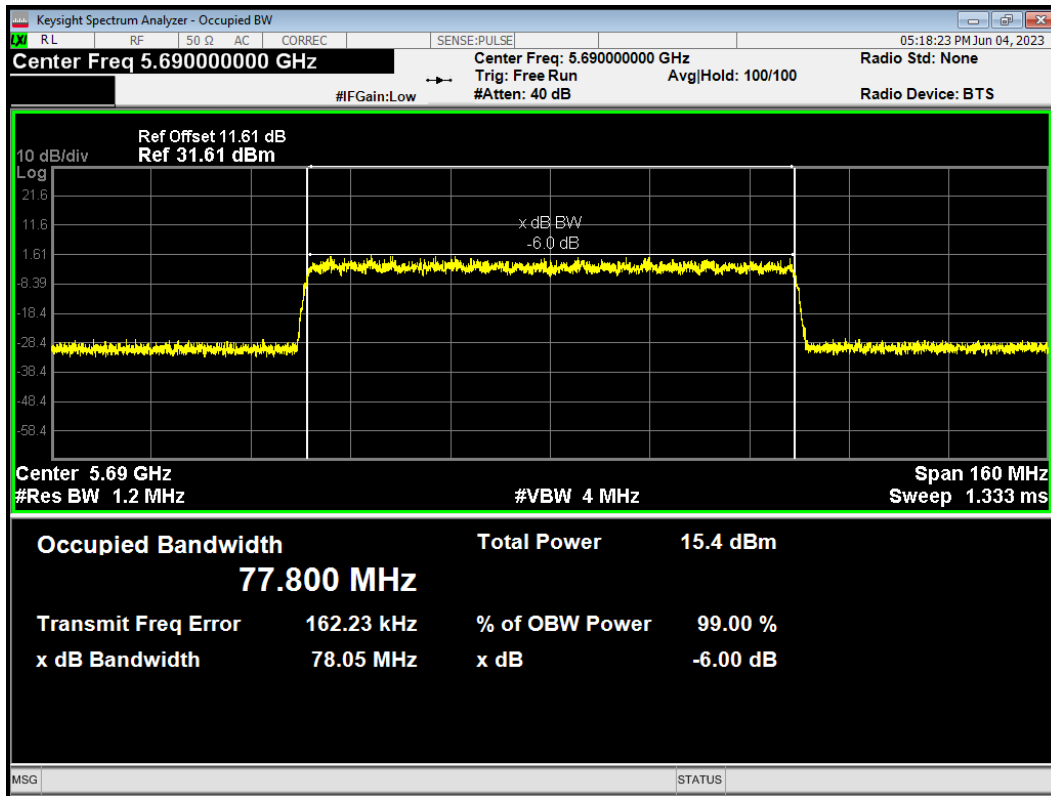
OBW 802.11ax(HE40) 5755MHz



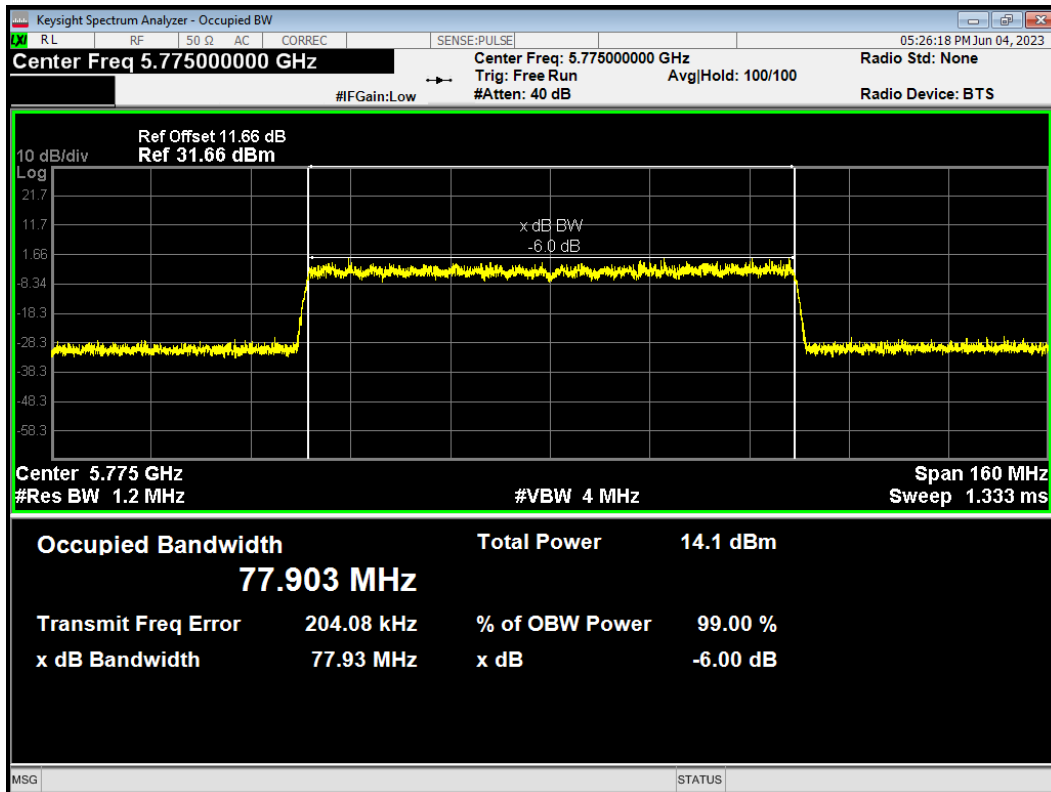
OBW 802.11ax(HE40) 5795MHz



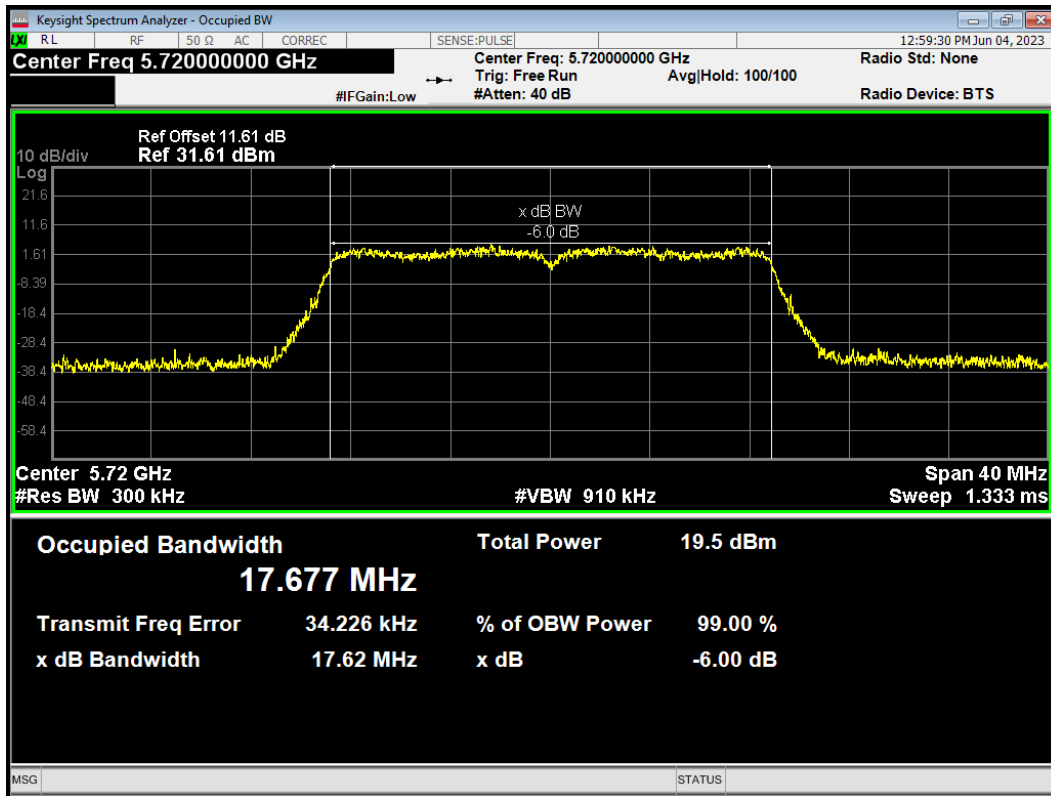
OBW 802.11ax(HE80) 5690MHz



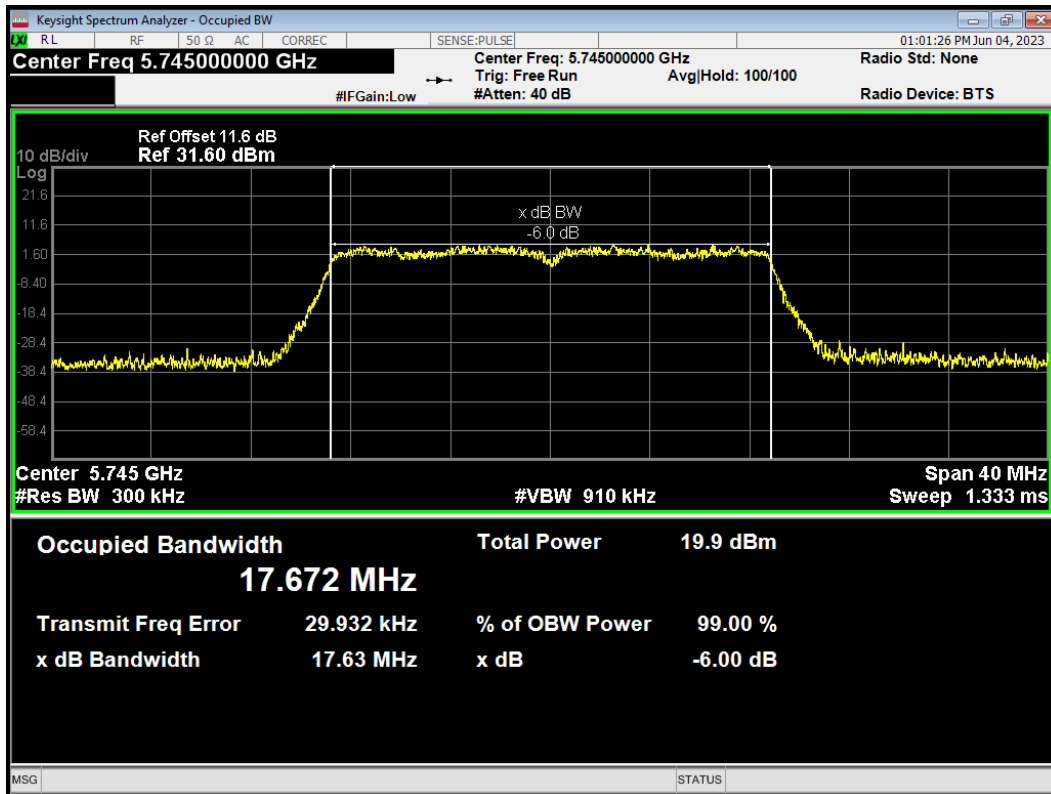
OBW 802.11ax(HE80) 5775MHz



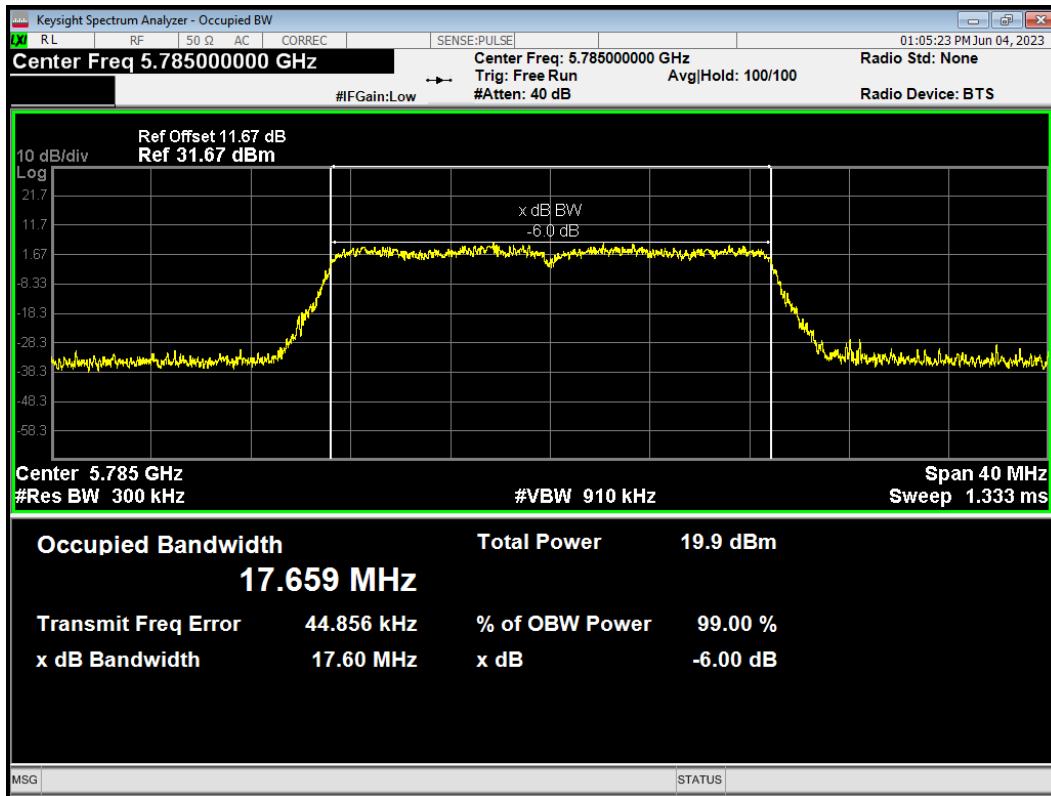
OBW 802.11n(HT20) 5720MHz



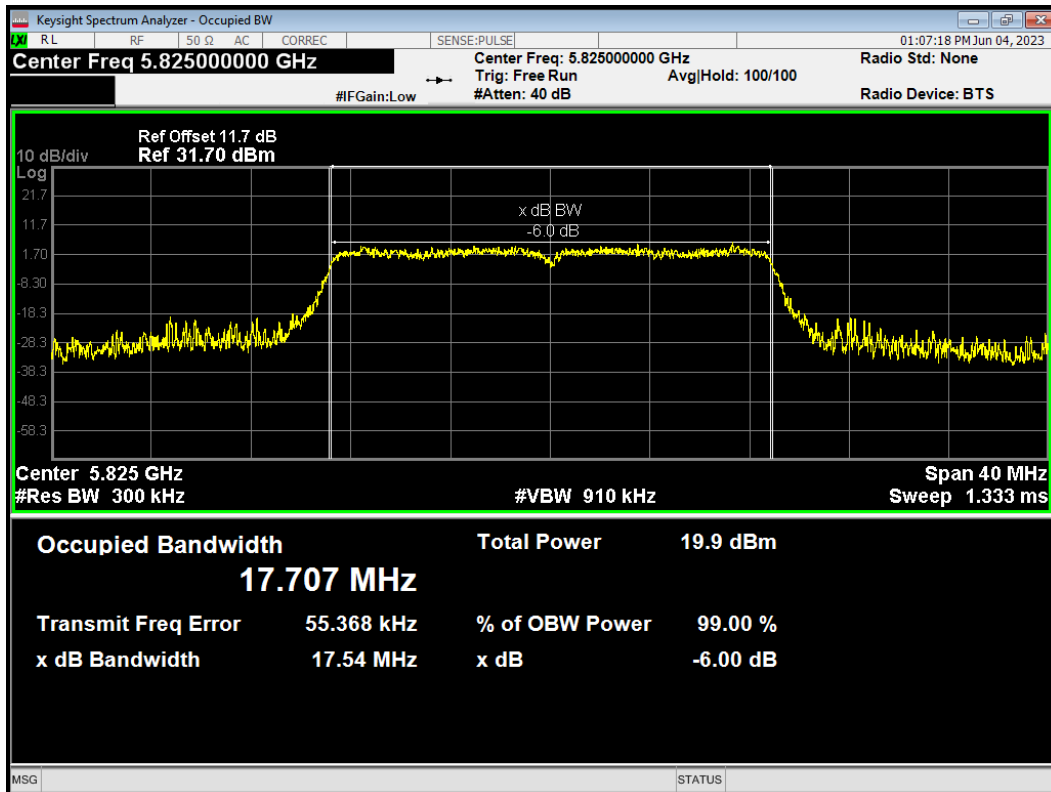
OBW 802.11n(HT20) 5745MHz



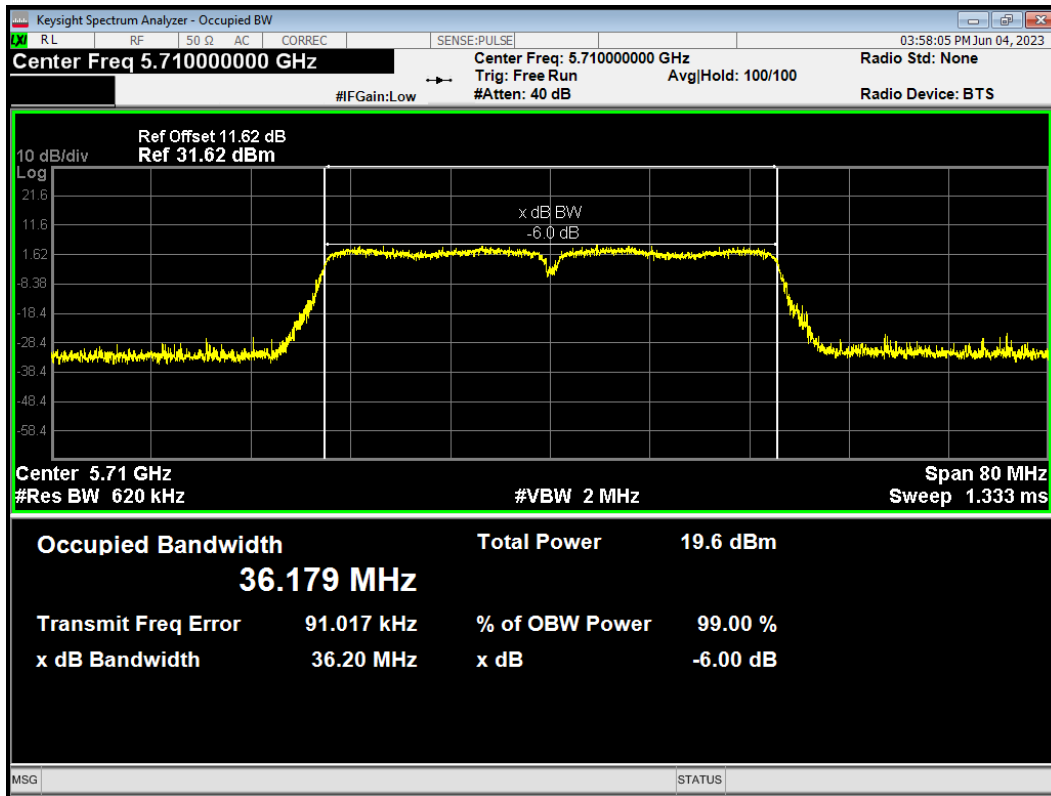
OBW 802.11n(HT20) 5785MHz



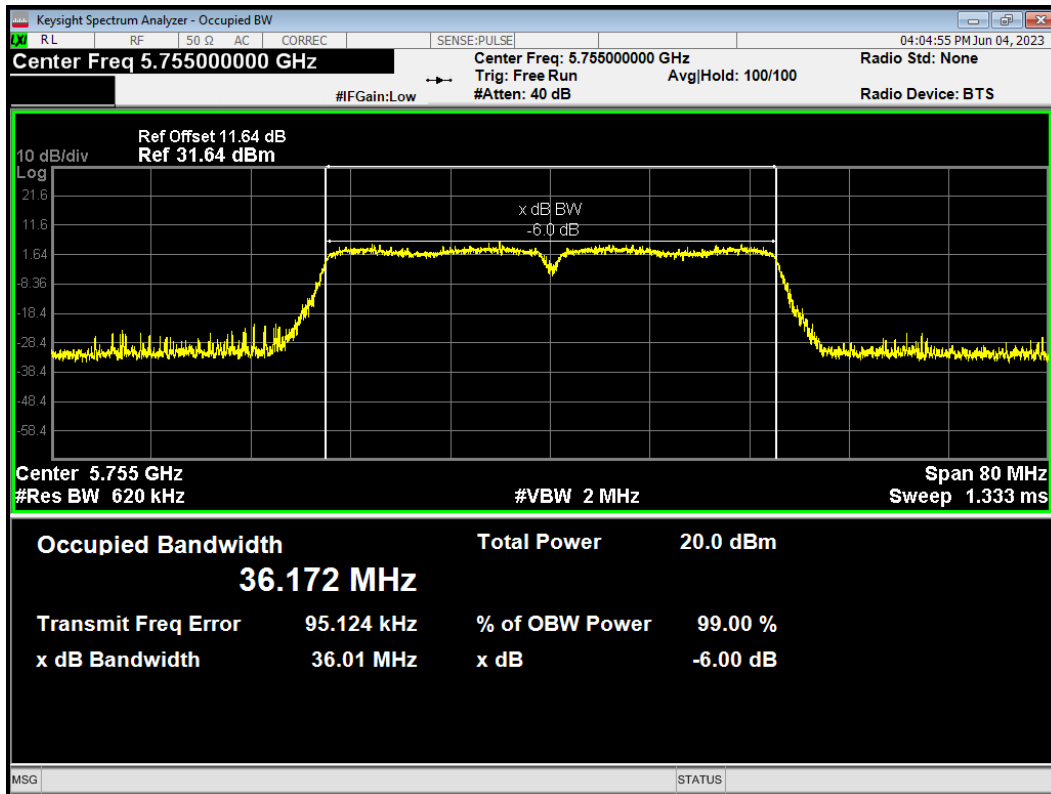
OBW 802.11n(HT20) 5825MHz



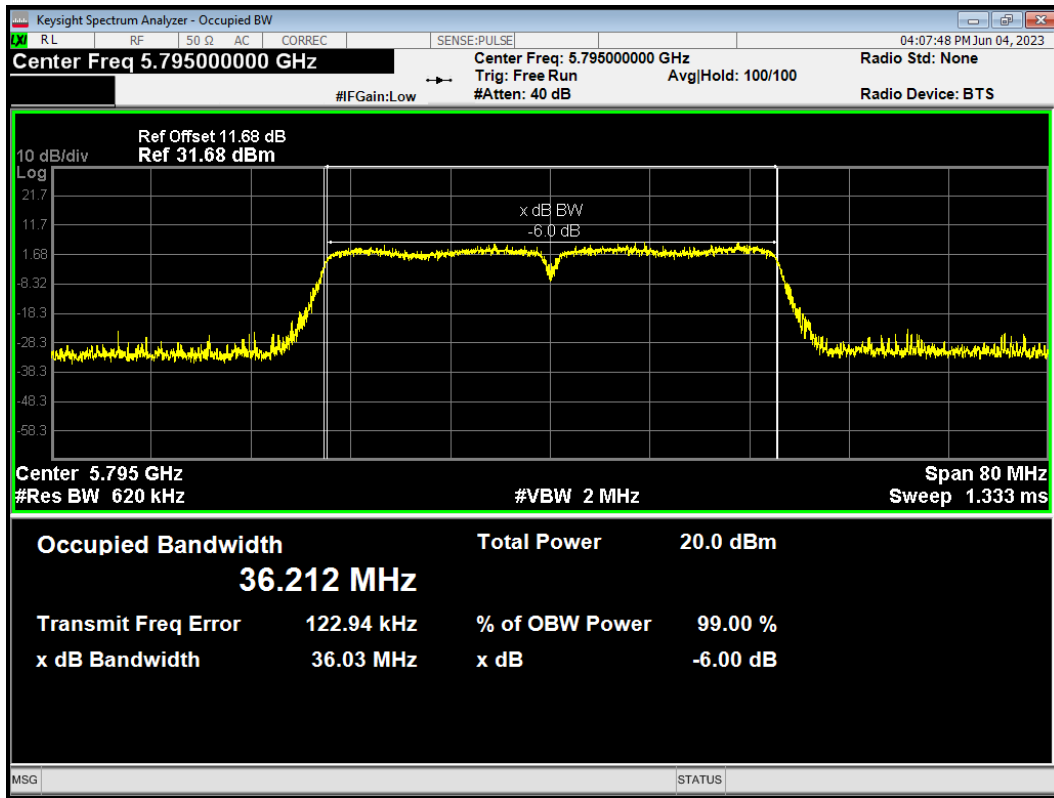
OBW 802.11n(HT40) 5710MHz



OBW 802.11n(HT40) 5755MHz



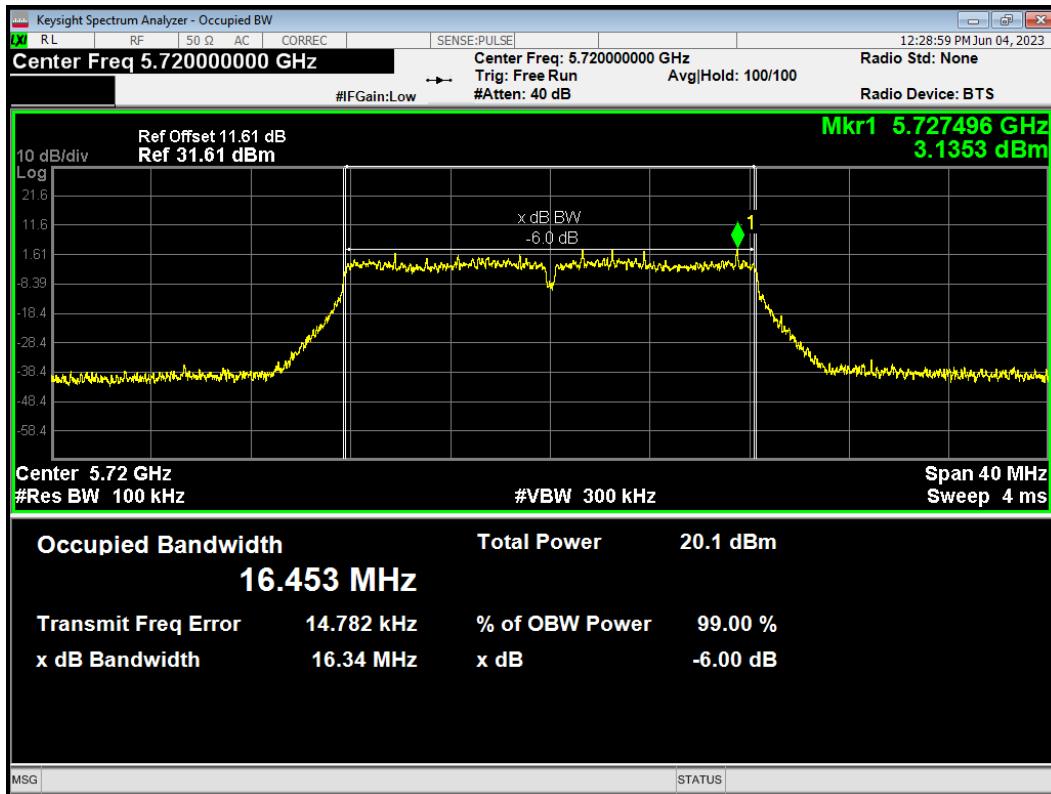
OBW 802.11n(HT40) 5795MHz



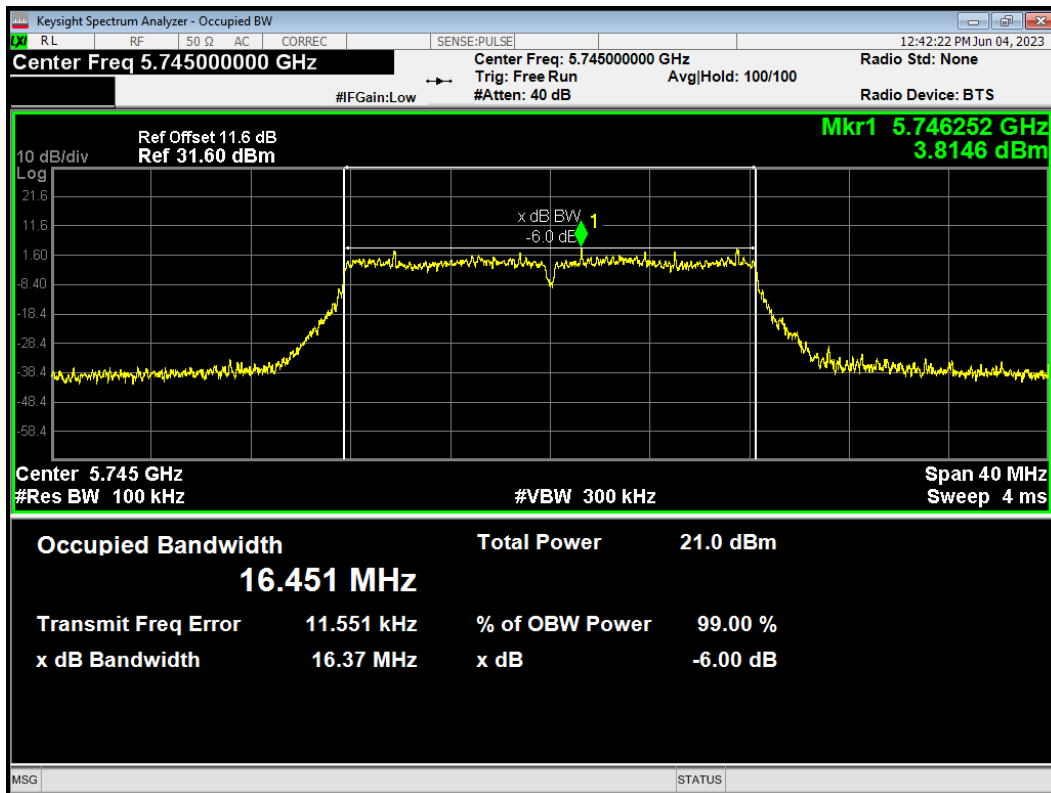
Minimum 6 dB bandwidth

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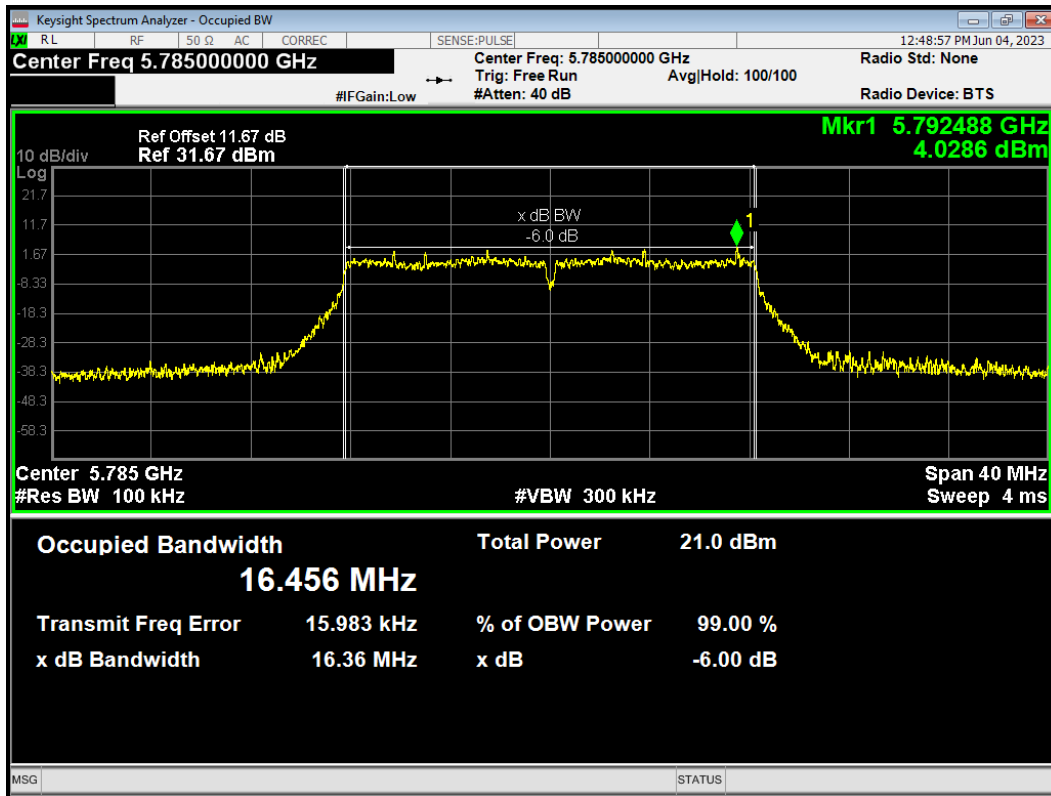
-6dB Bandwidth 802.11a 5720MHz



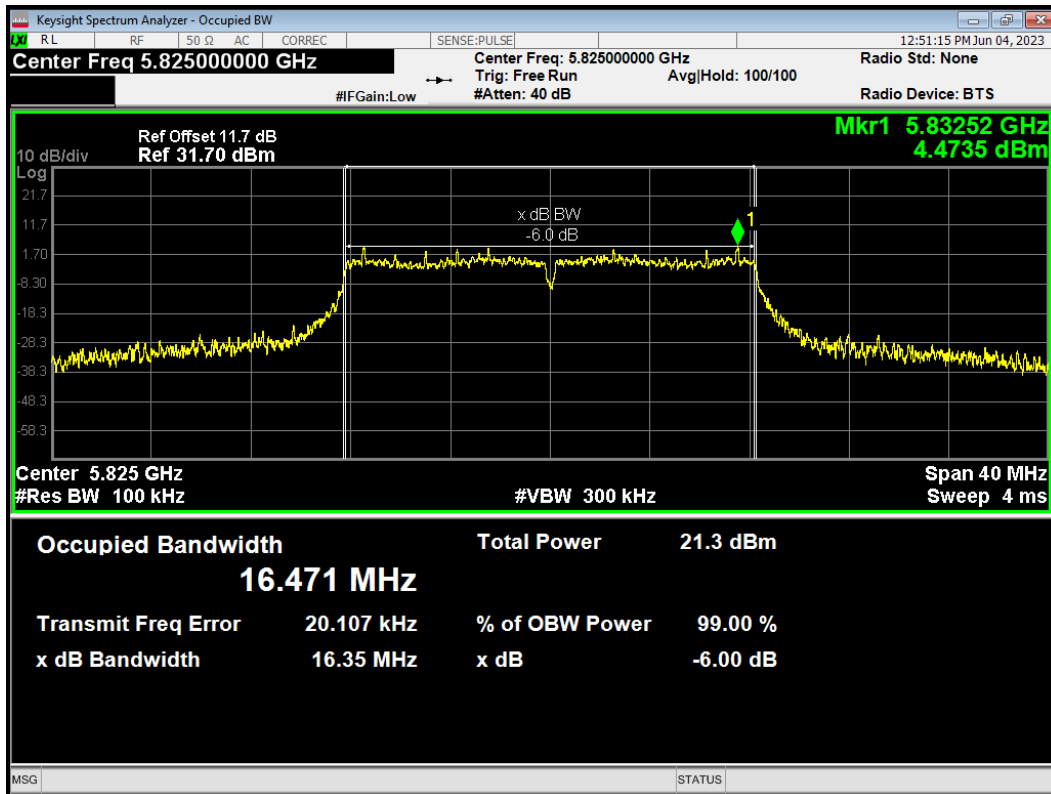
-6dB Bandwidth 802.11a 5745MHz



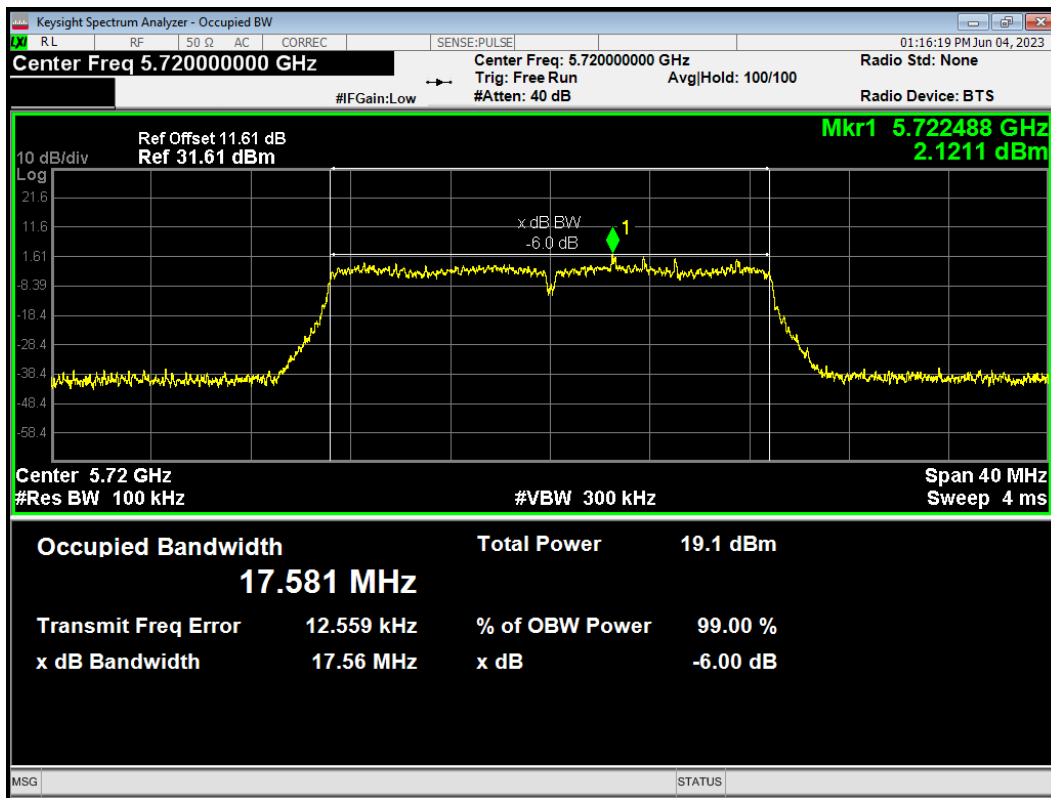
-6dB Bandwidth 802.11a 5785MHz



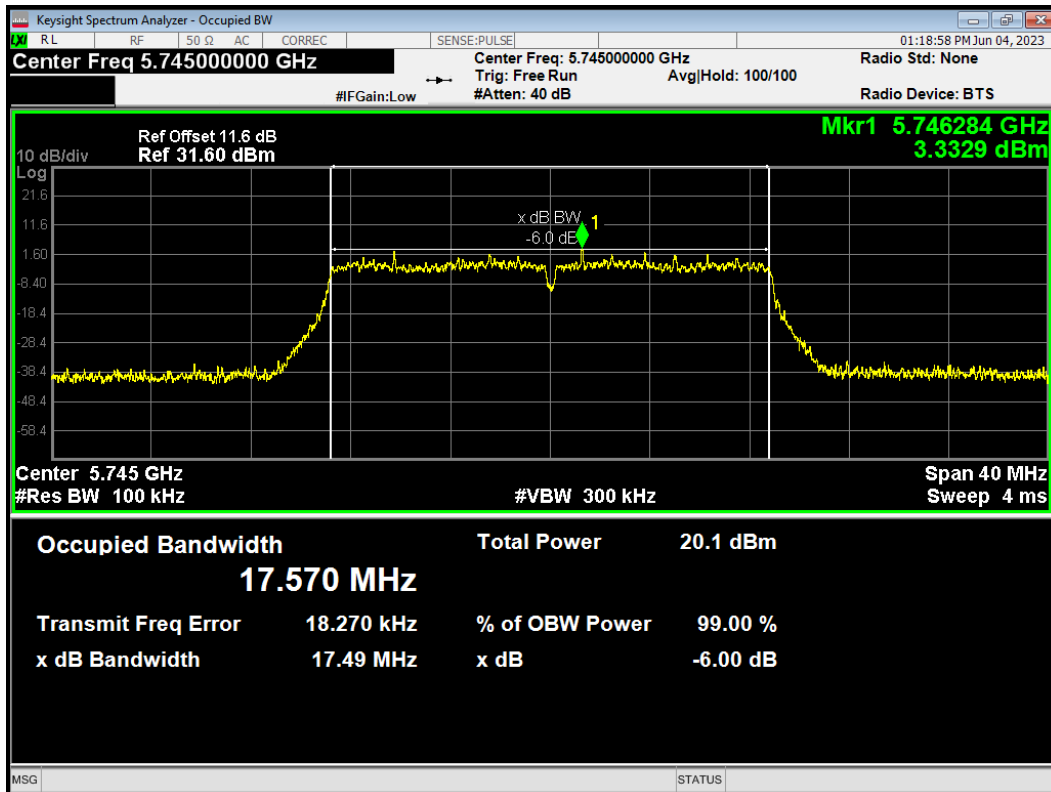
-6dB Bandwidth 802.11a 5825MHz



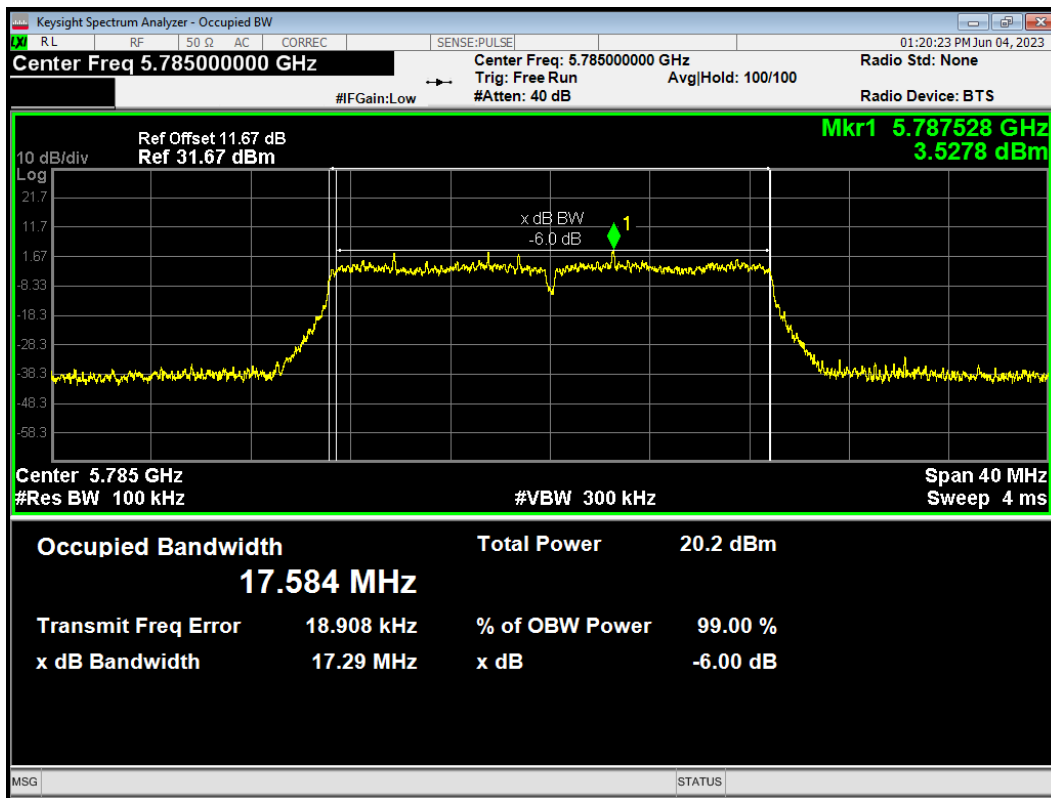
-6dB Bandwidth 802.11ac(VHT20) 5720MHz



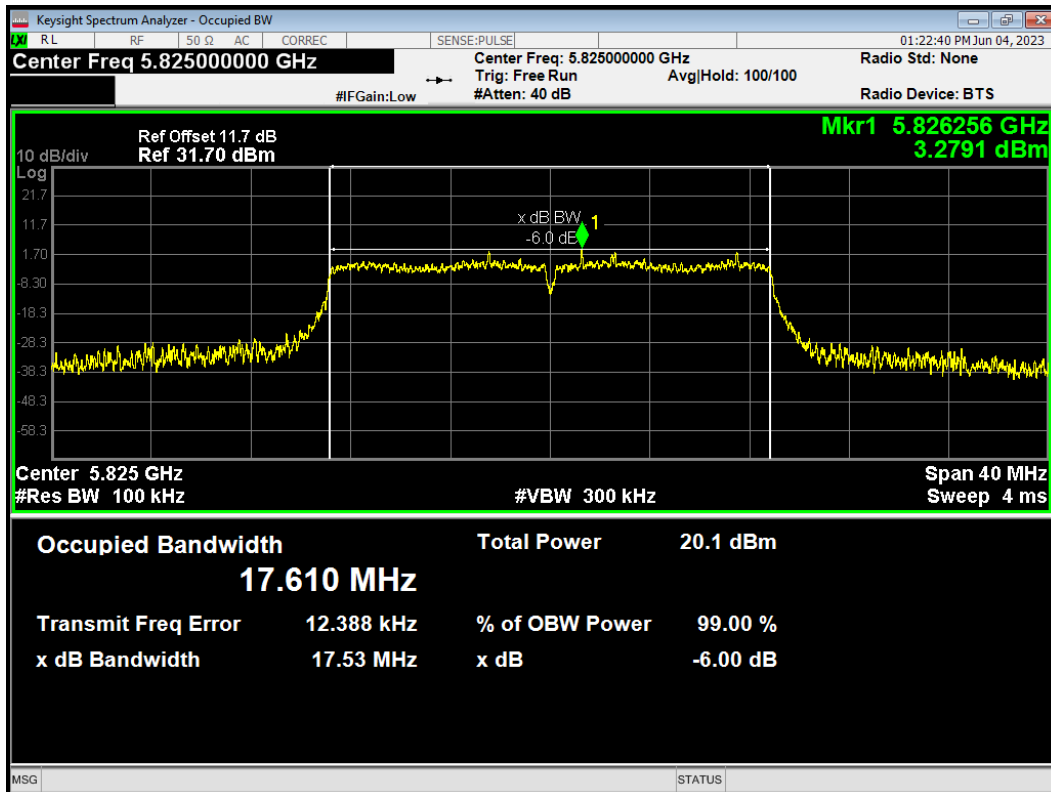
-6dB Bandwidth 802.11ac(VHT20) 5745MHz



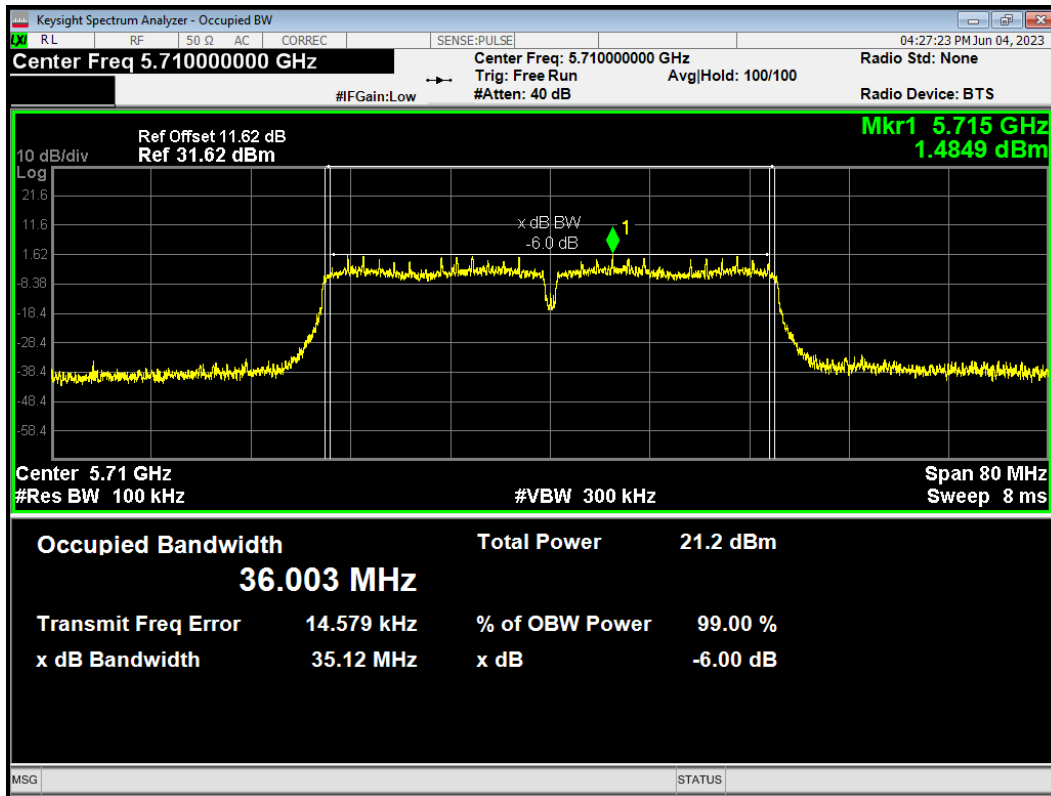
-6dB Bandwidth 802.11ac(VHT20) 5785MHz



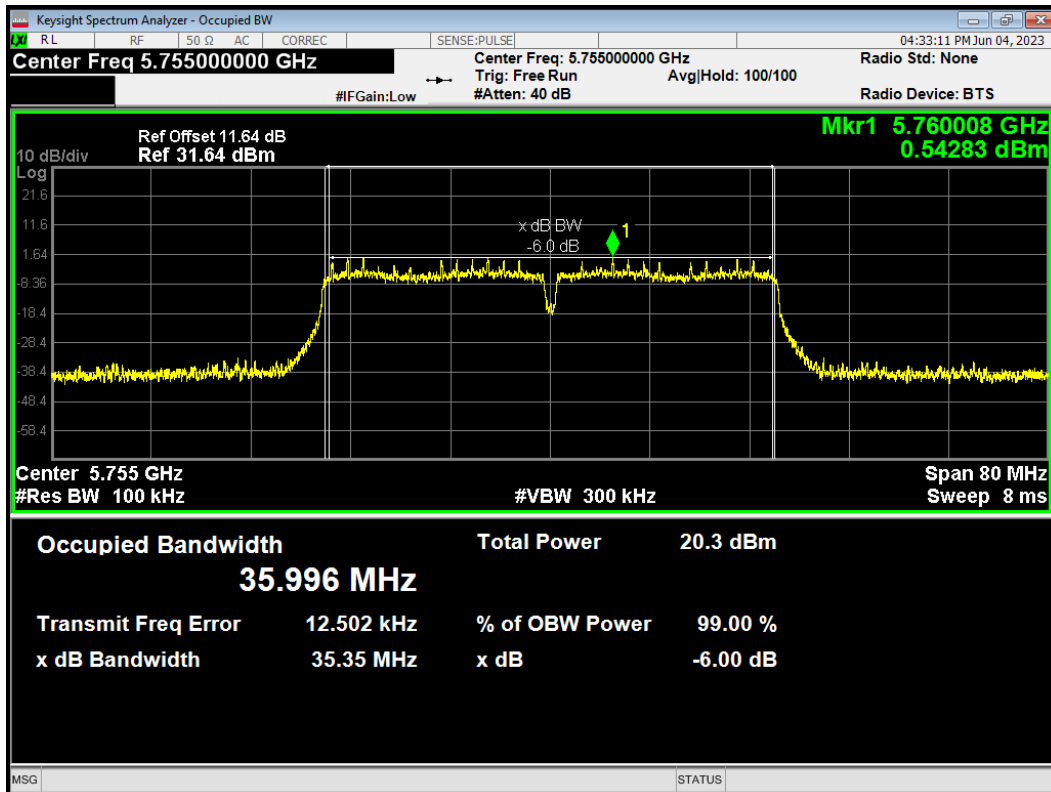
-6dB Bandwidth 802.11ac(VHT20) 5825MHz



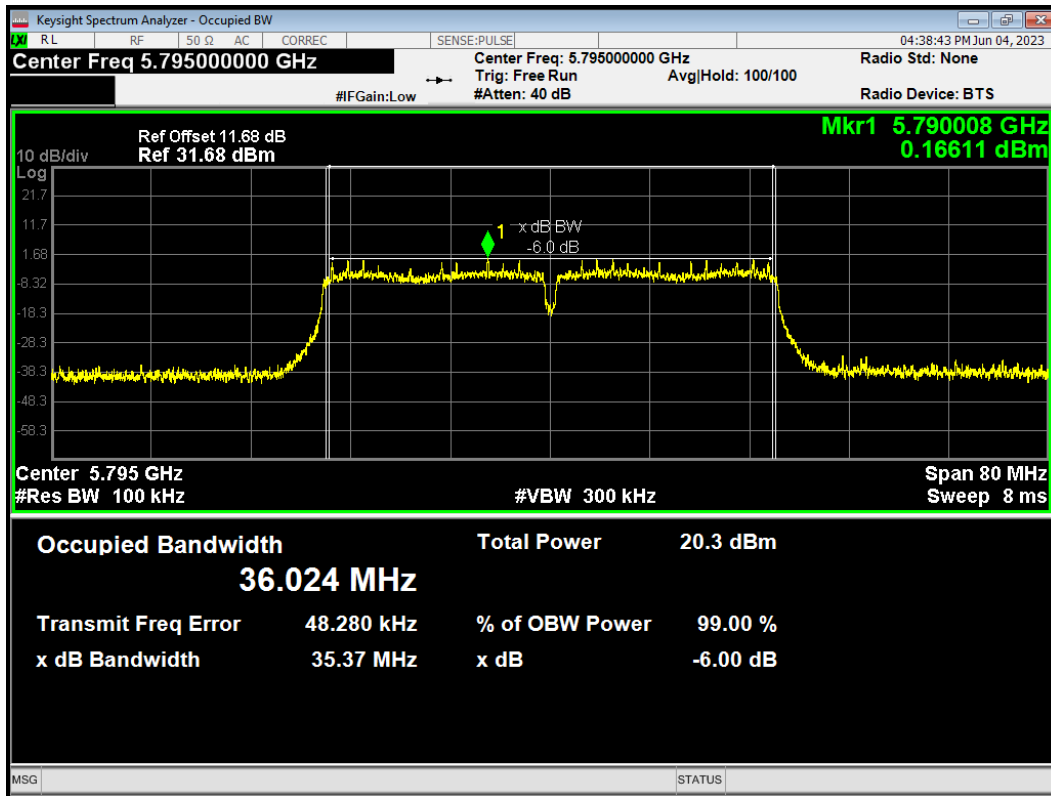
-6dB Bandwidth 802.11ac(VHT40) 5710MHz



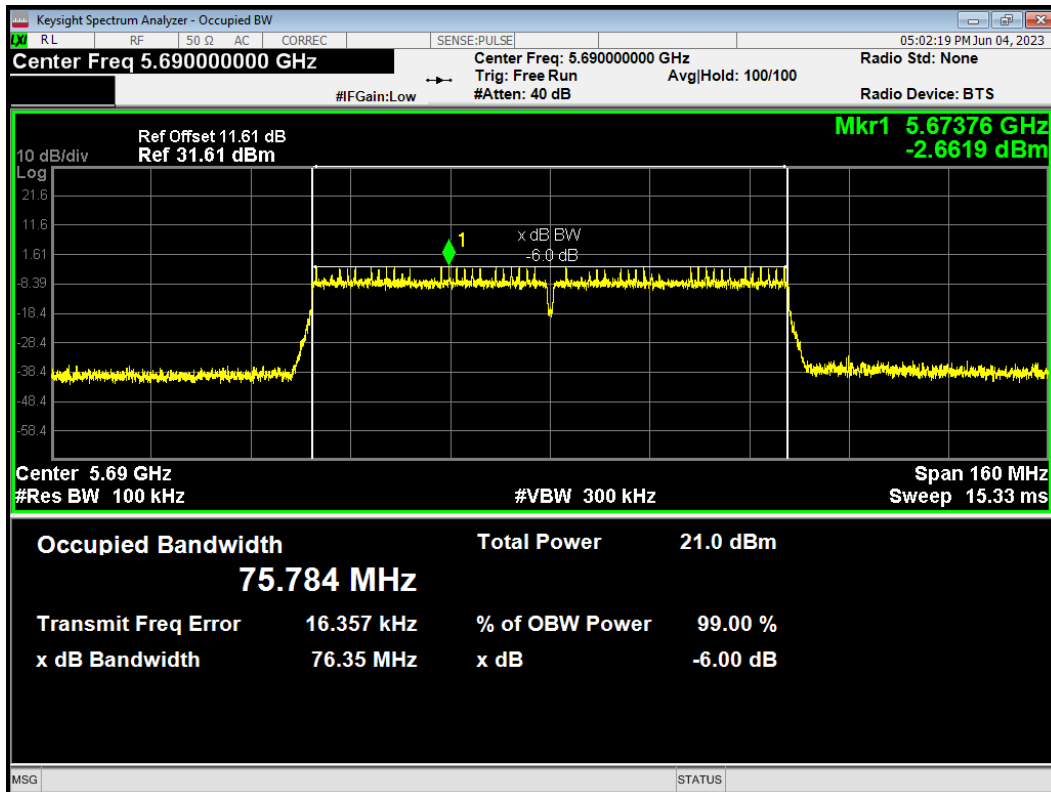
-6dB Bandwidth 802.11ac(VHT40) 5755MHz



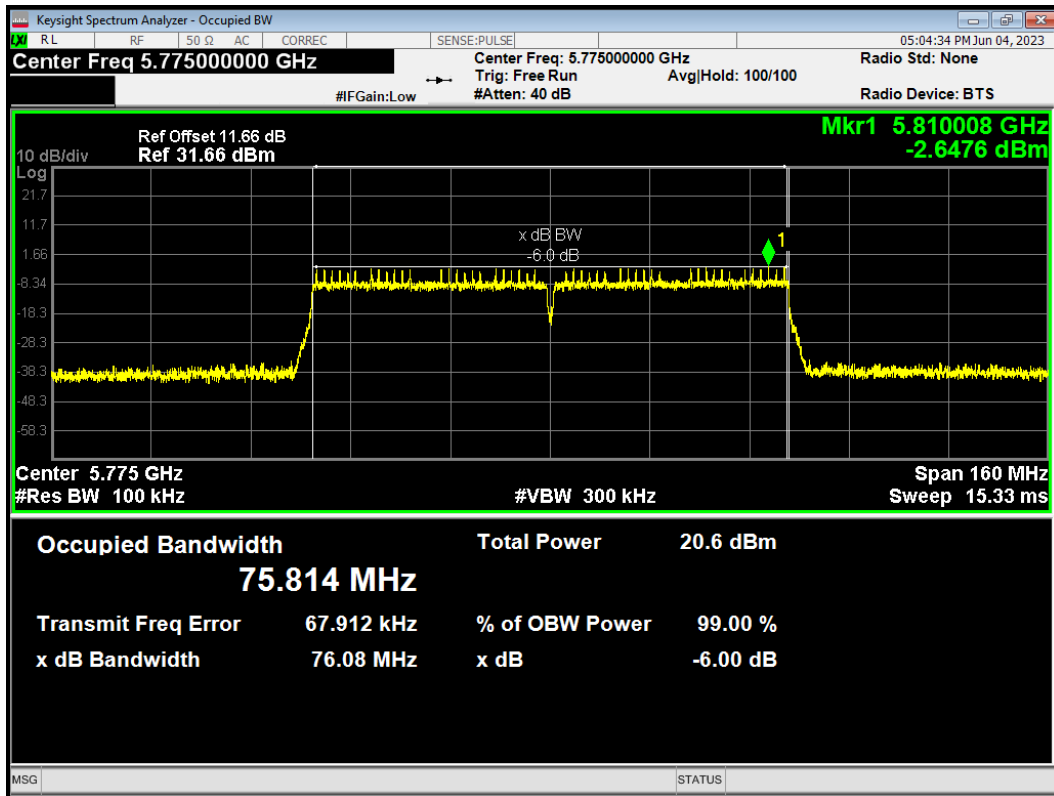
-6dB Bandwidth 802.11ac(VHT40) 5795MHz



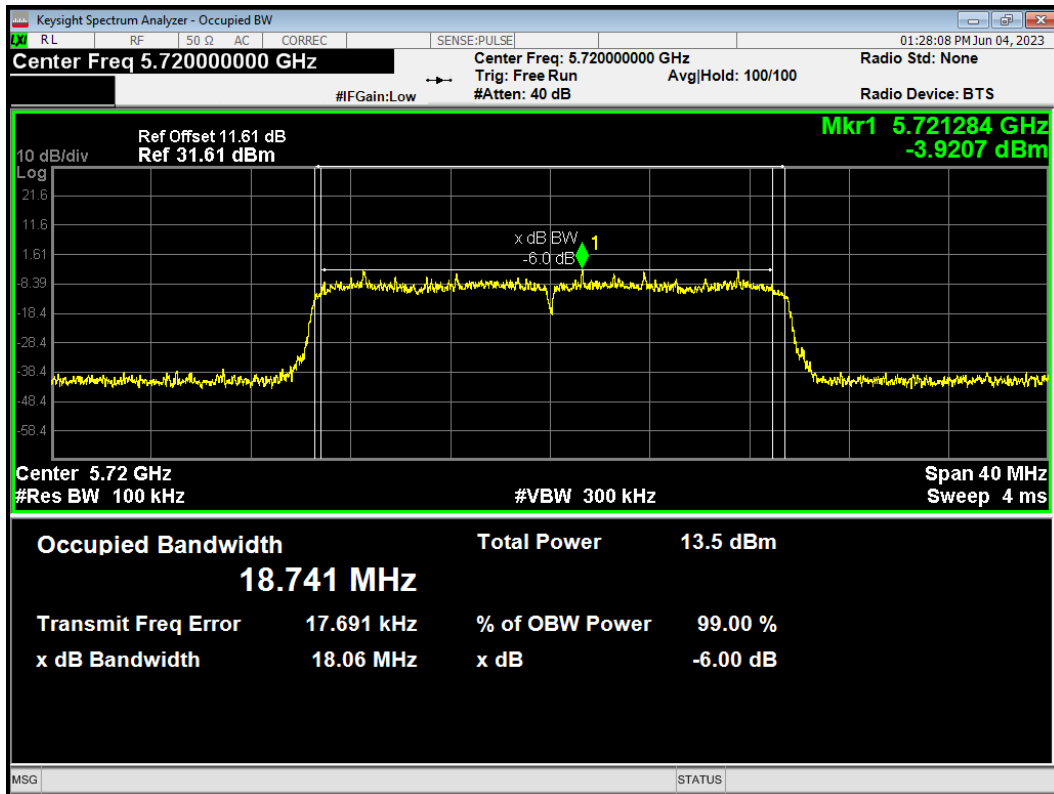
-6dB Bandwidth 802.11ac(VHT80) 5690MHz



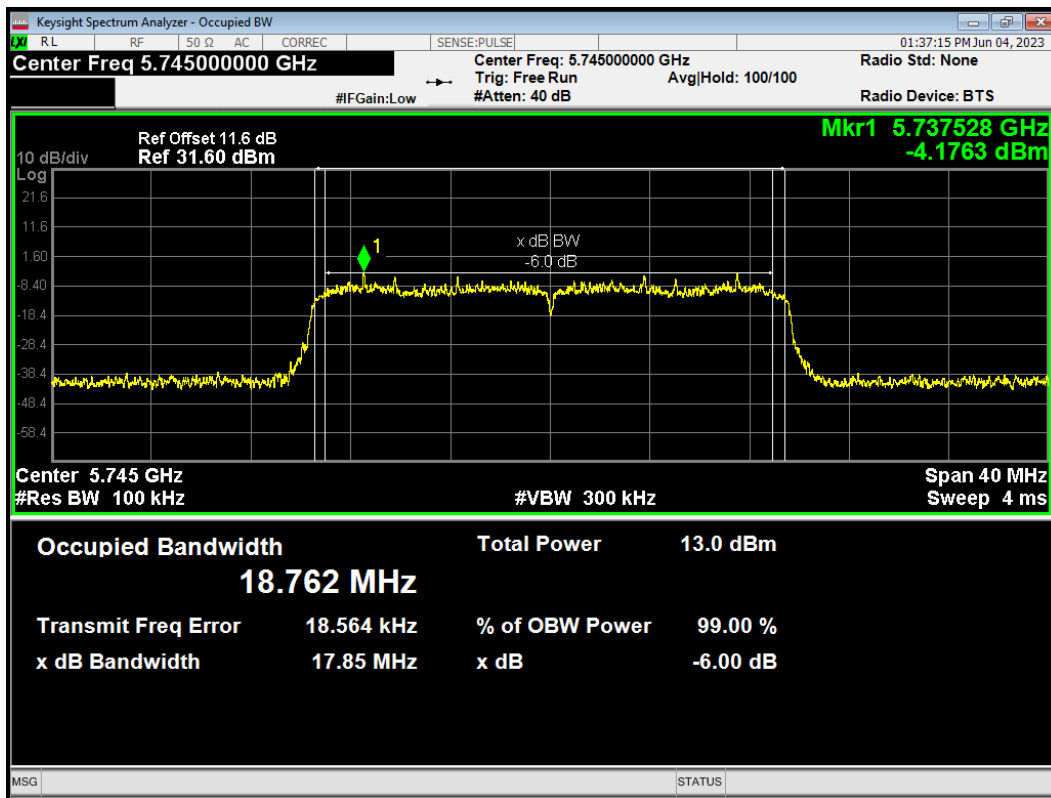
-6dB Bandwidth 802.11ac(VHT80) 5775MHz



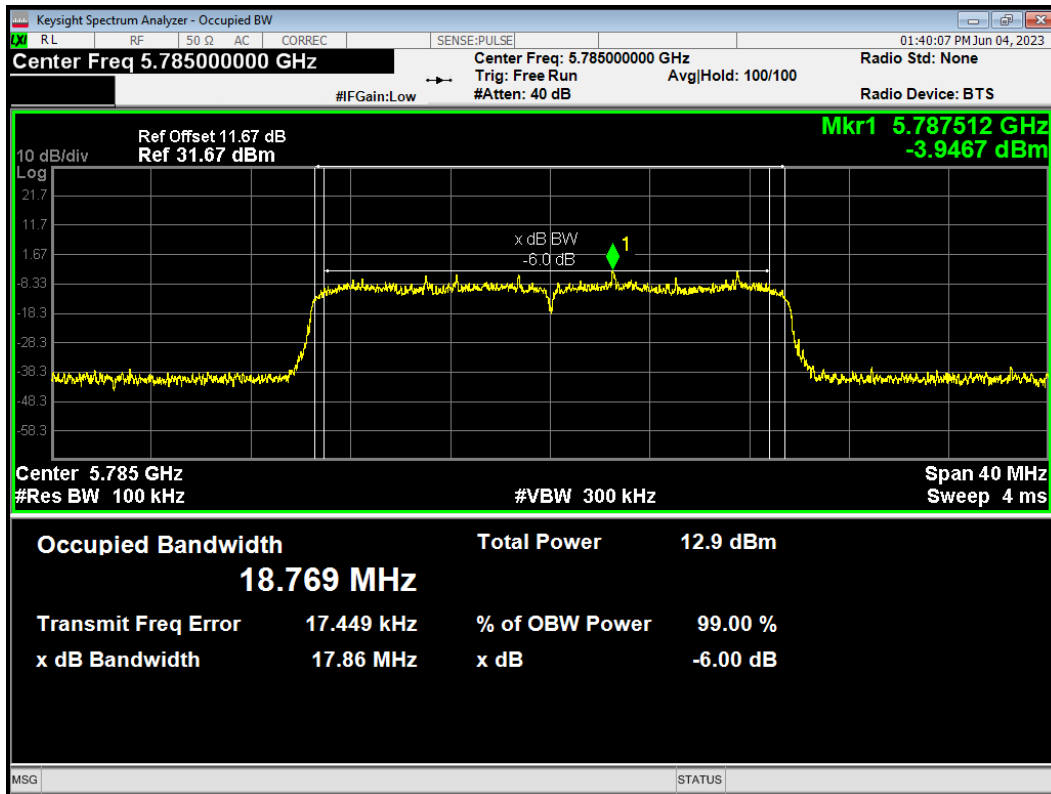
-6dB Bandwidth 802.11ax(HE20) 5720MHz



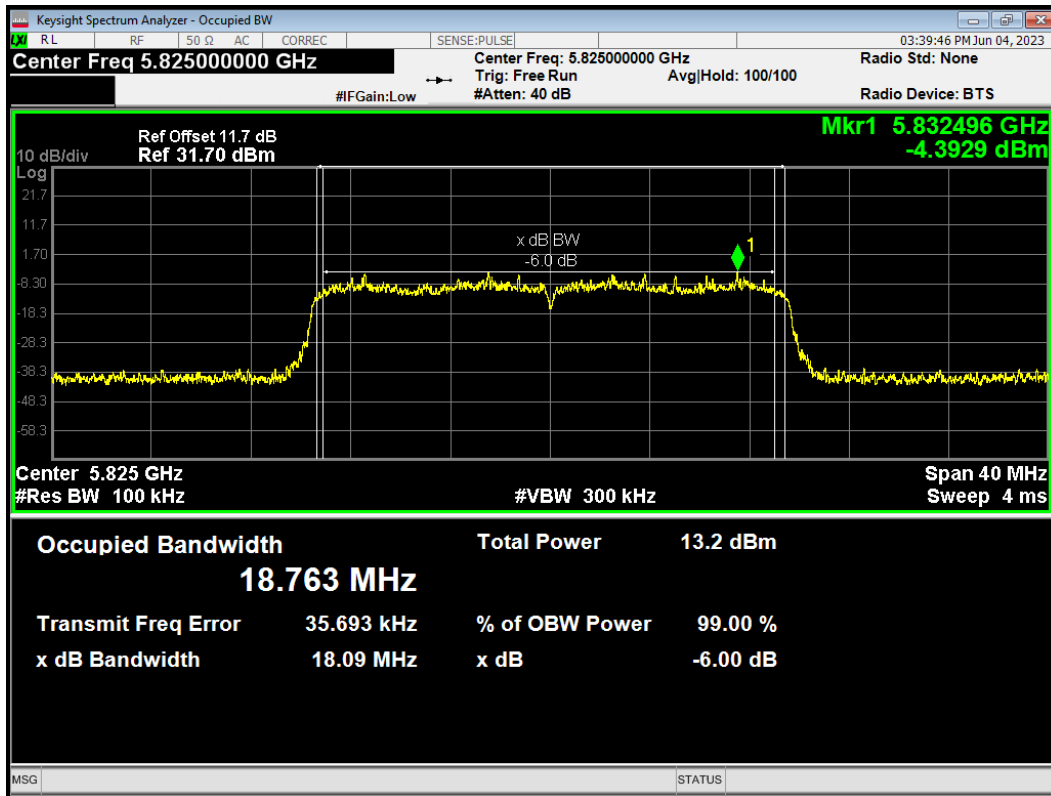
-6dB Bandwidth 802.11ax(HE20) 5745MHz



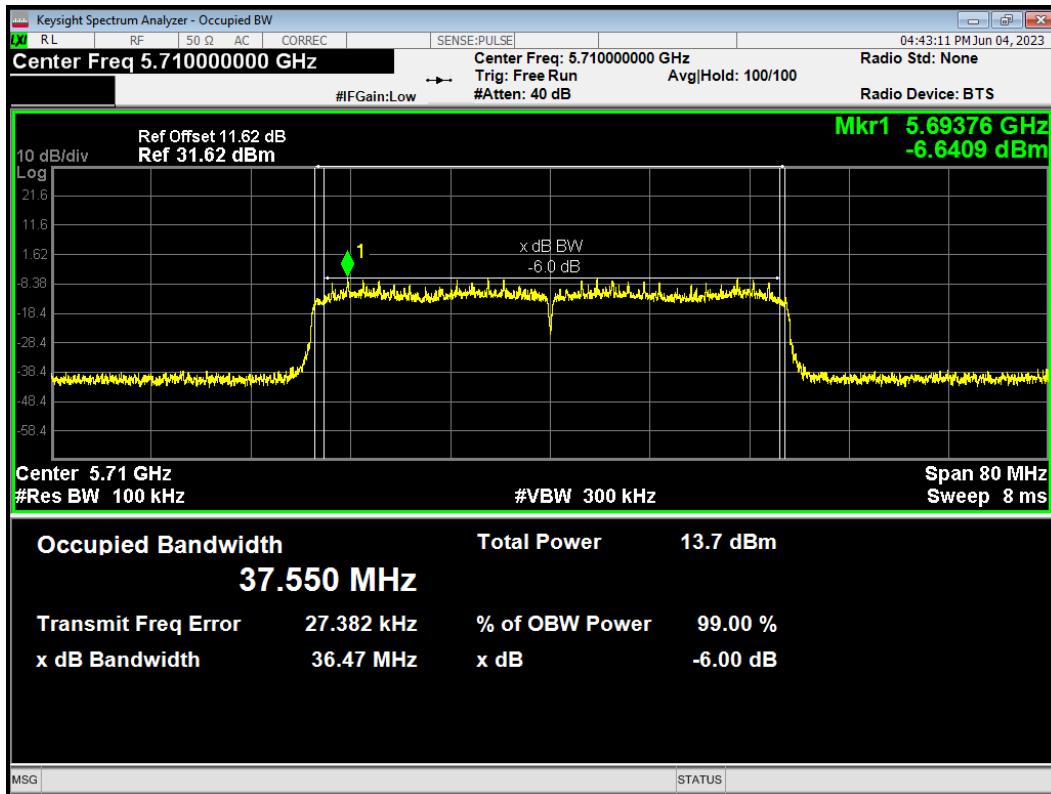
-6dB Bandwidth 802.11ax(HE20) 5785MHz



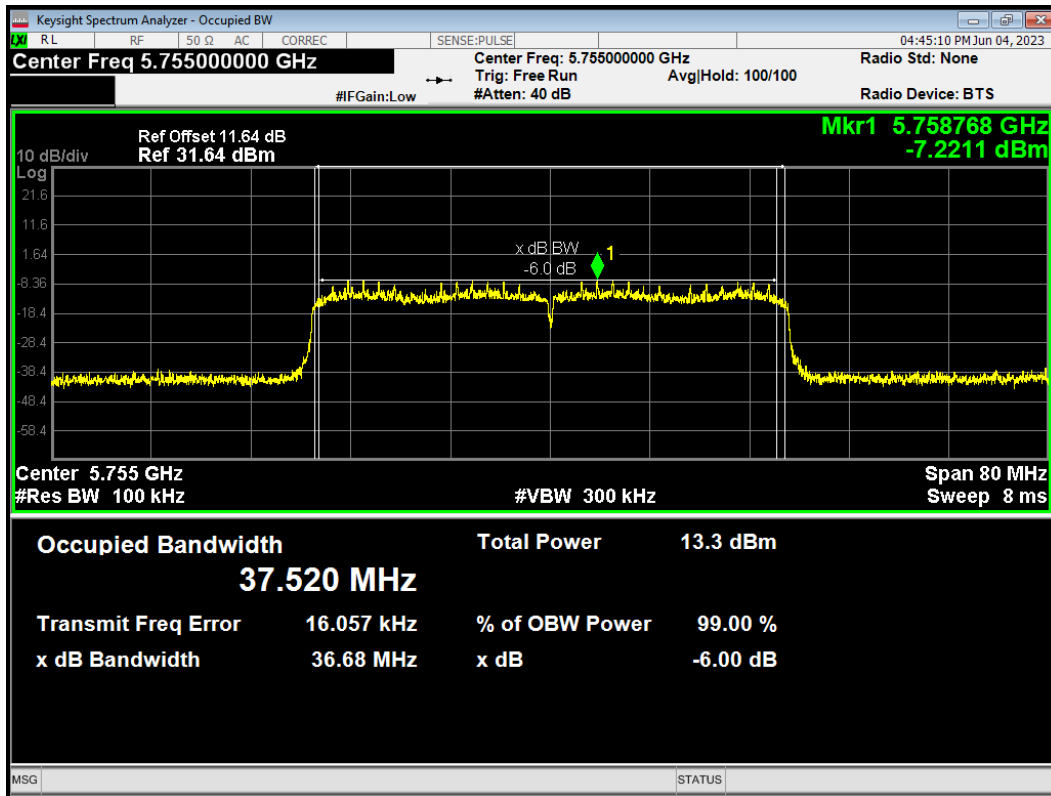
-6dB Bandwidth 802.11ax(HE20) 5825MHz



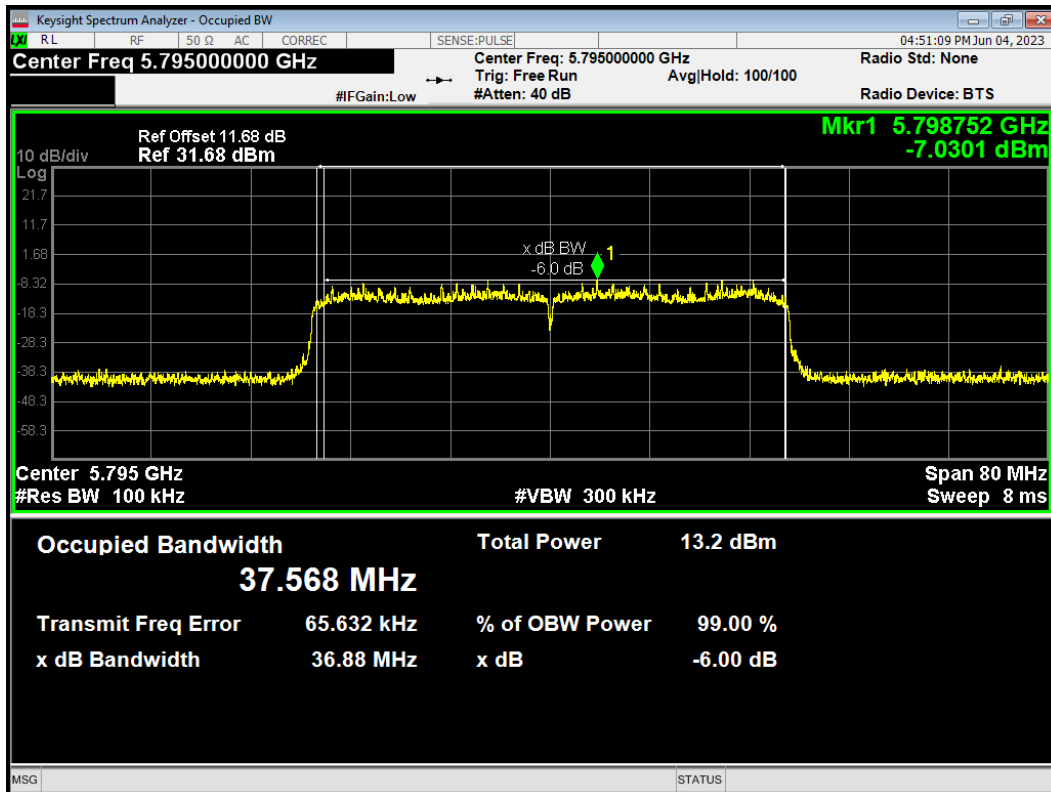
-6dB Bandwidth 802.11ax(HE40) 5710MHz



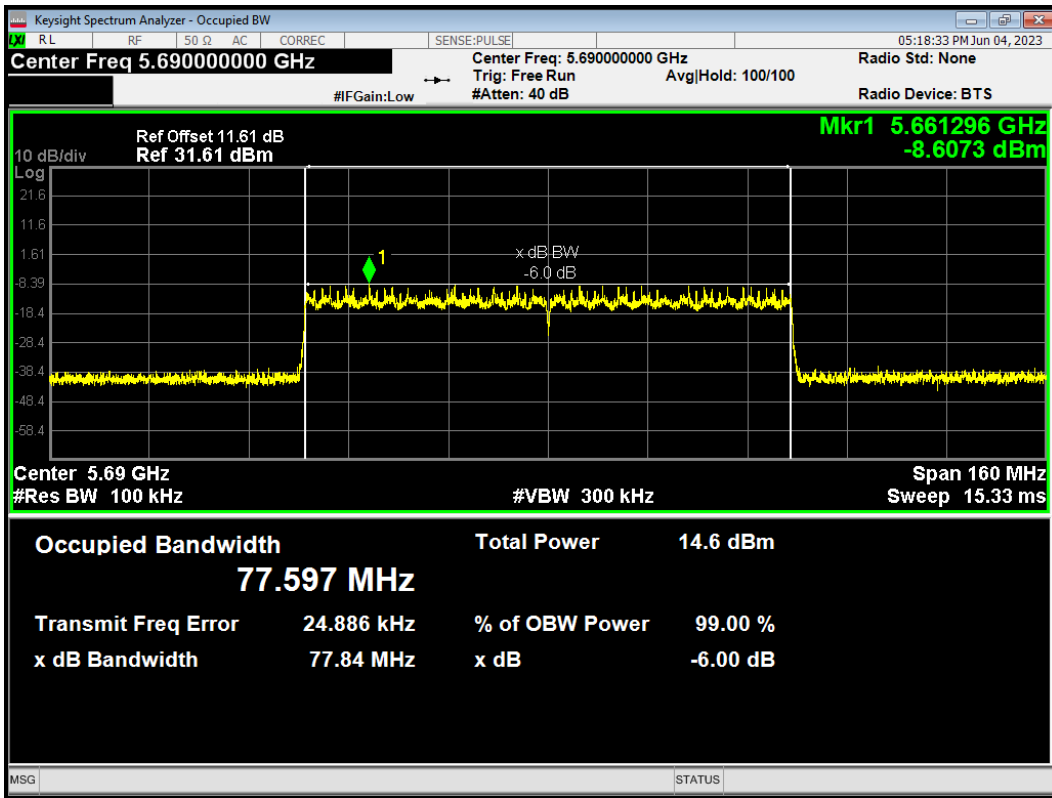
-6dB Bandwidth 802.11ax(HE40) 5755MHz



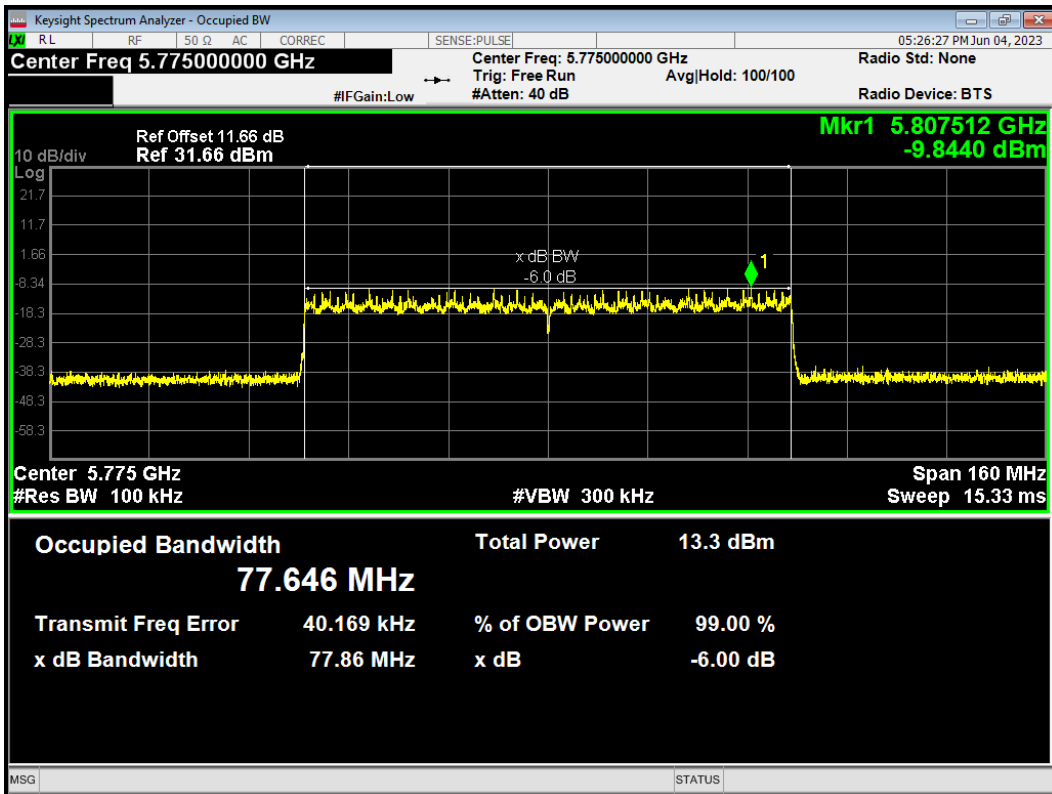
-6dB Bandwidth 802.11ax(HE40) 5795MHz



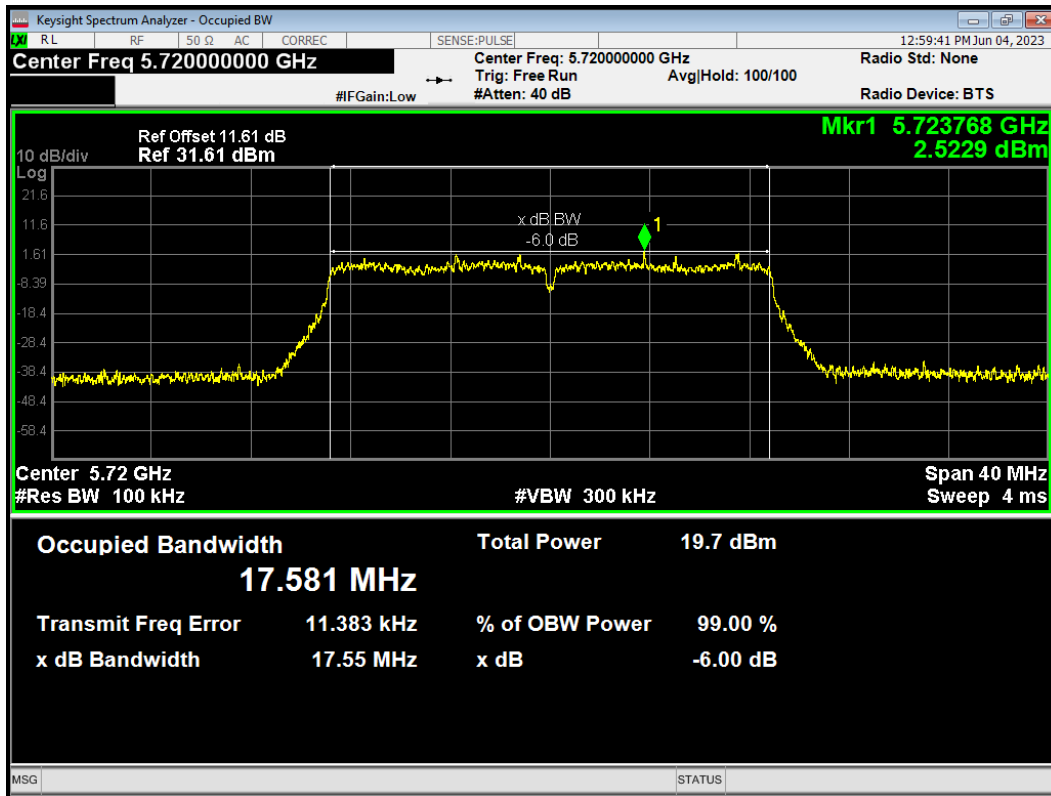
-6dB Bandwidth 802.11ax(HE80) 5690MHz



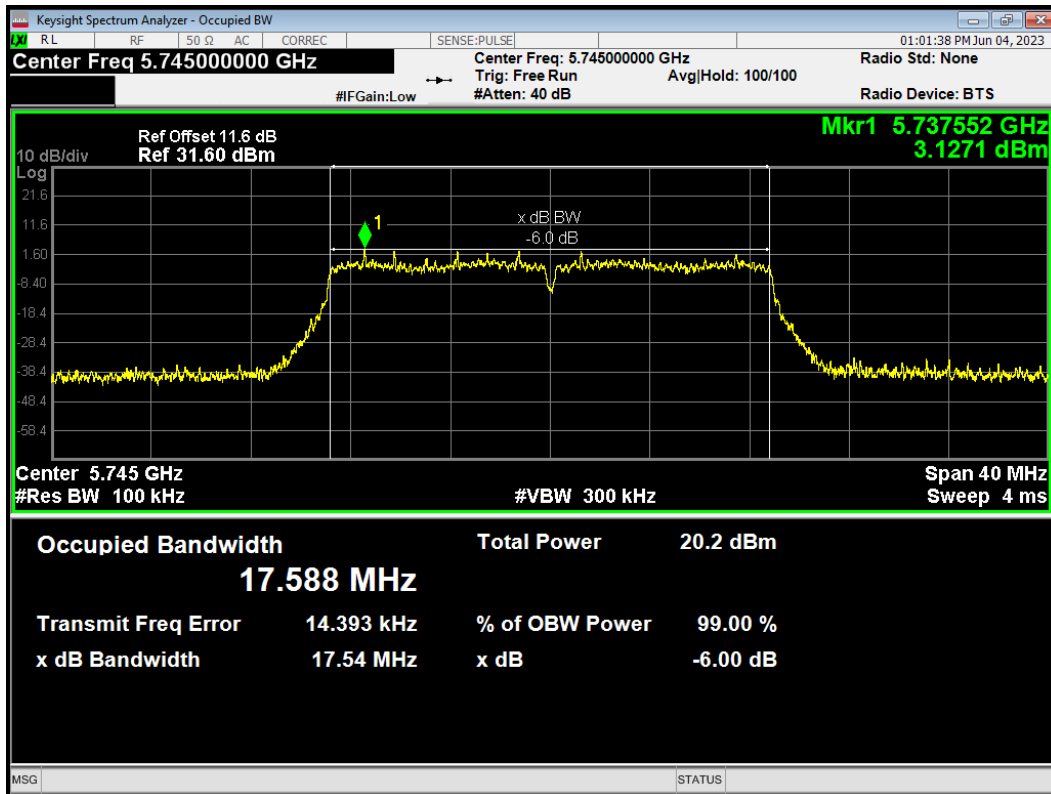
-6dB Bandwidth 802.11ax(HE80) 5775MHz



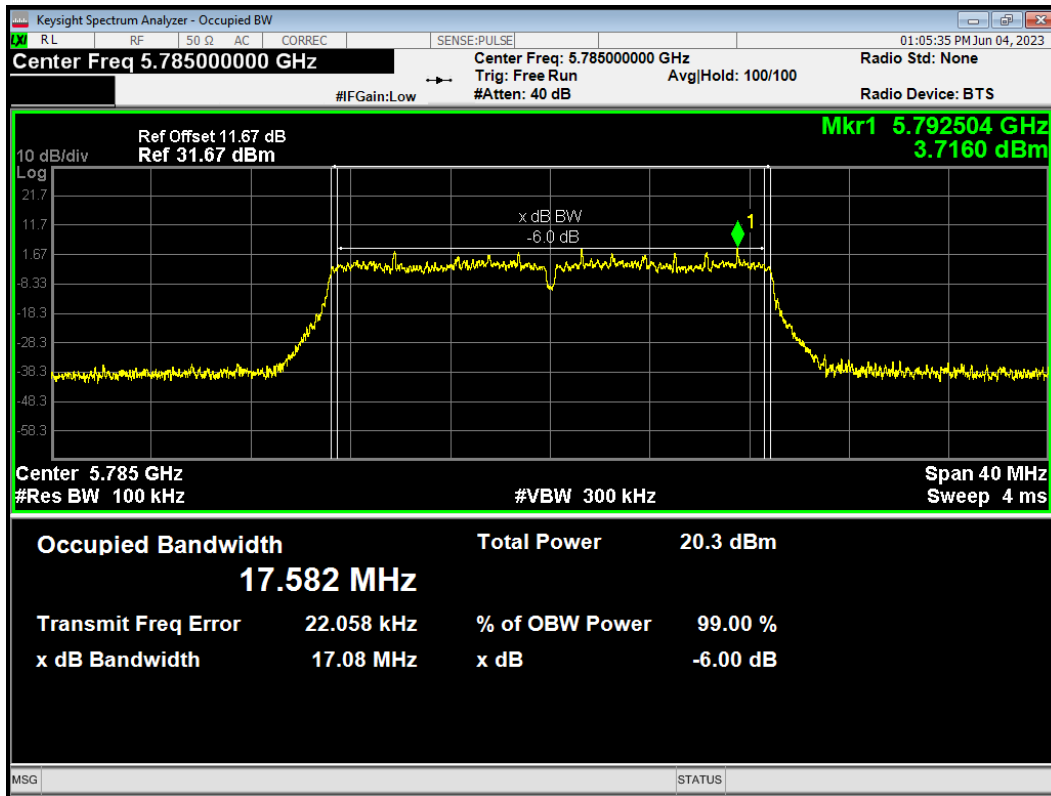
-6dB Bandwidth 802.11n(HT20) 5720MHz



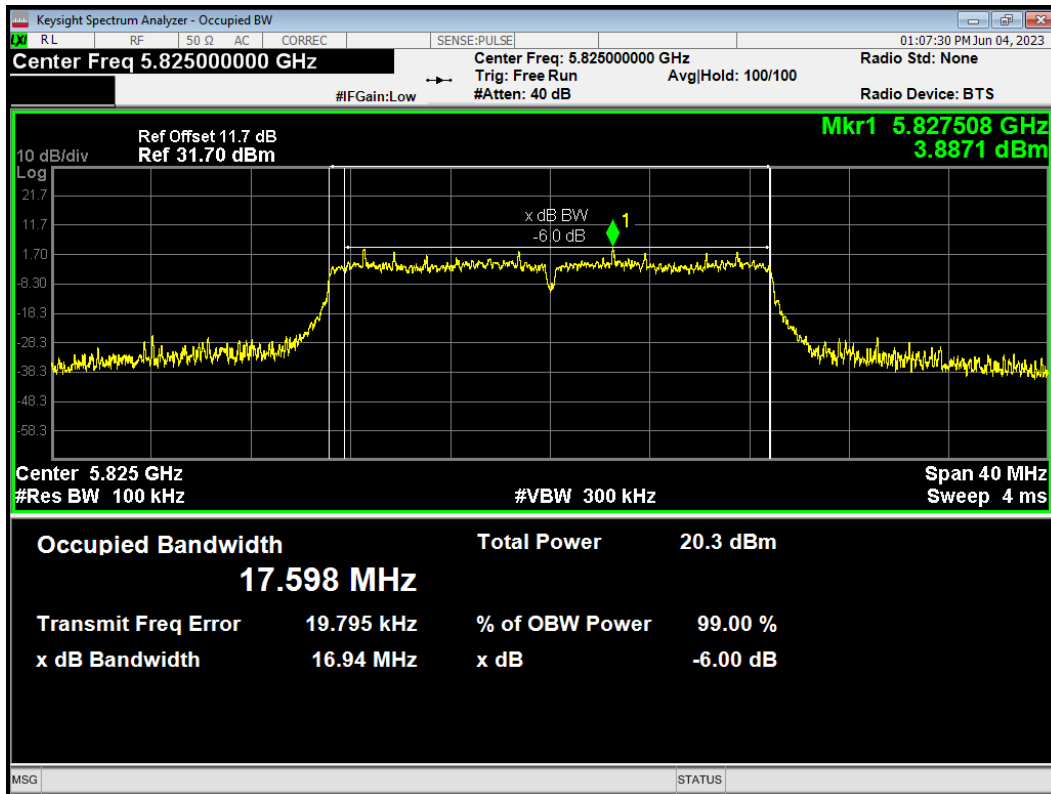
-6dB Bandwidth 802.11n(HT20) 5745MHz



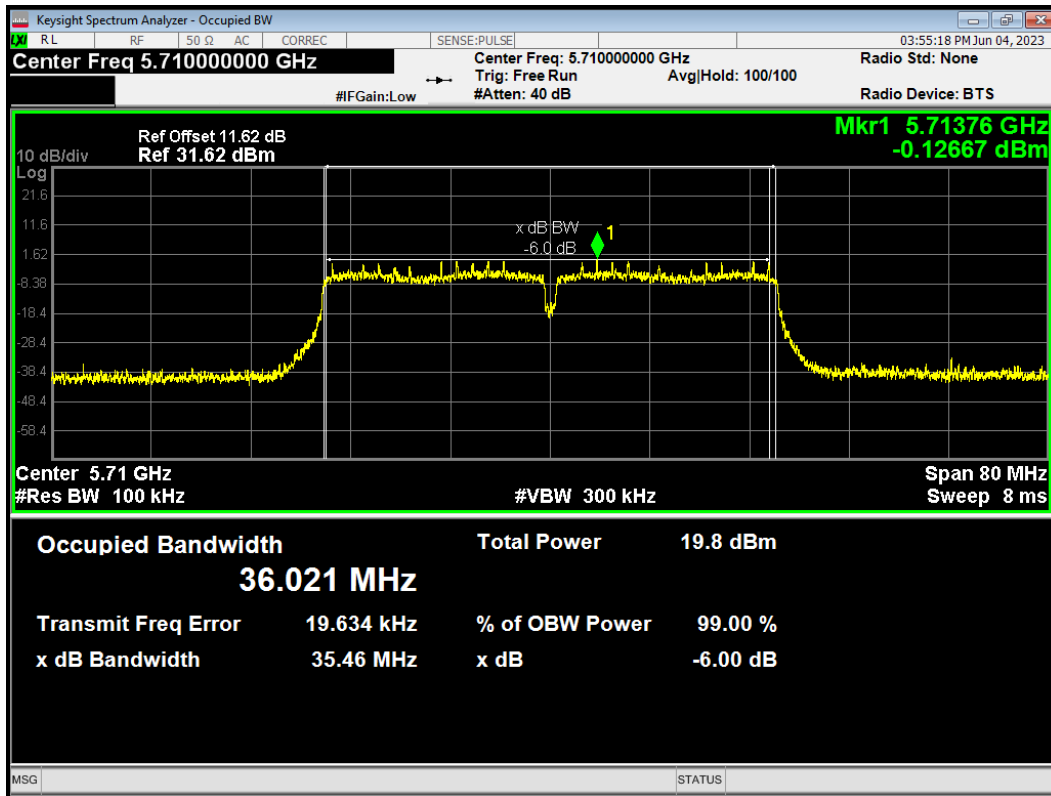
-6dB Bandwidth 802.11n(HT20) 5785MHz



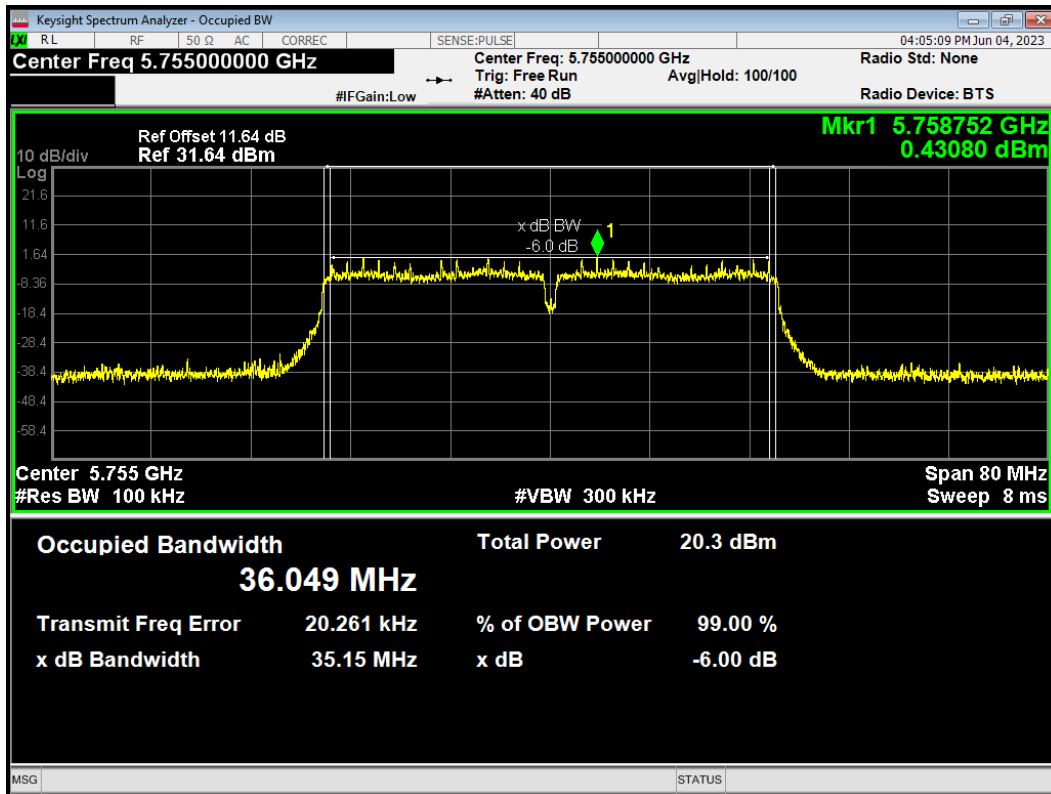
-6dB Bandwidth 802.11n(HT20) 5825MHz



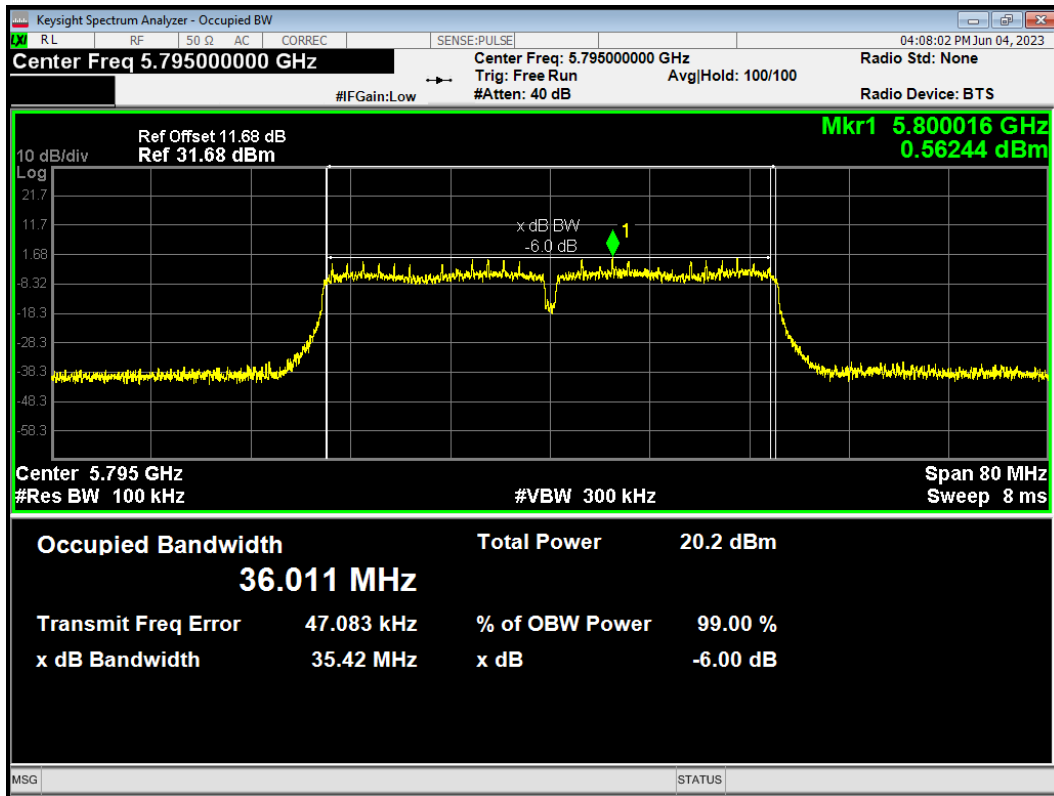
-6dB Bandwidth 802.11n(HT40) 5710MHz



-6dB Bandwidth 802.11n(HT40) 5755MHz



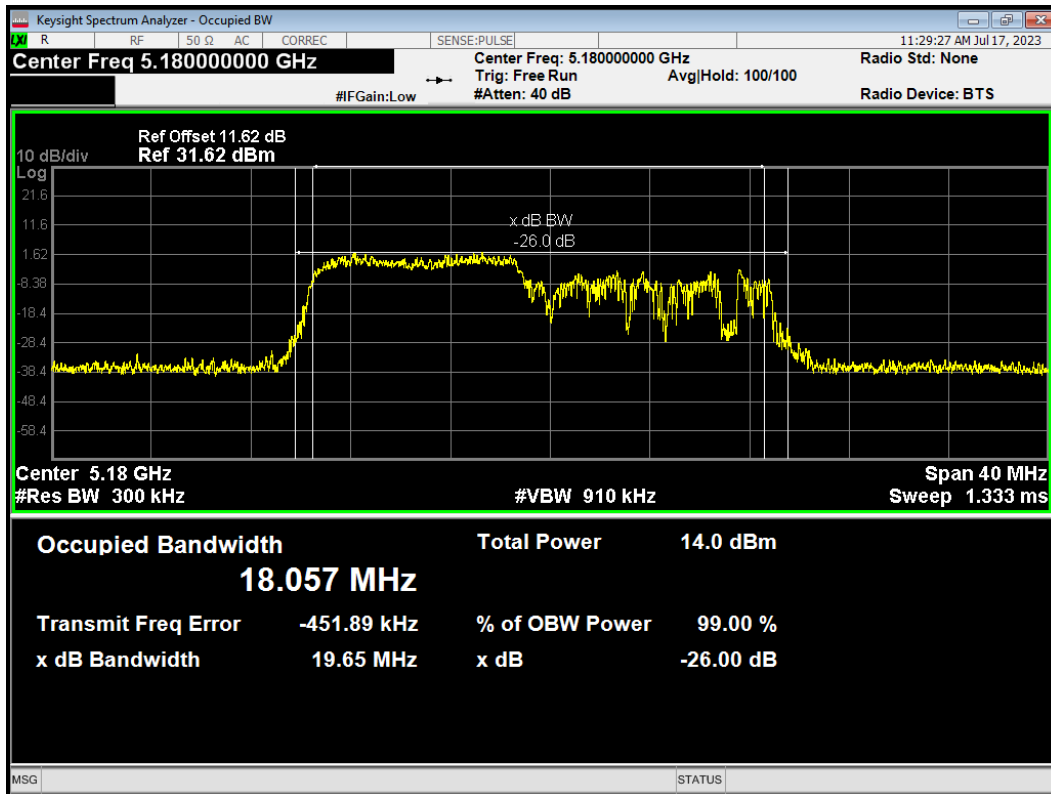
-6dB Bandwidth 802.11n(HT40) 5795MHz



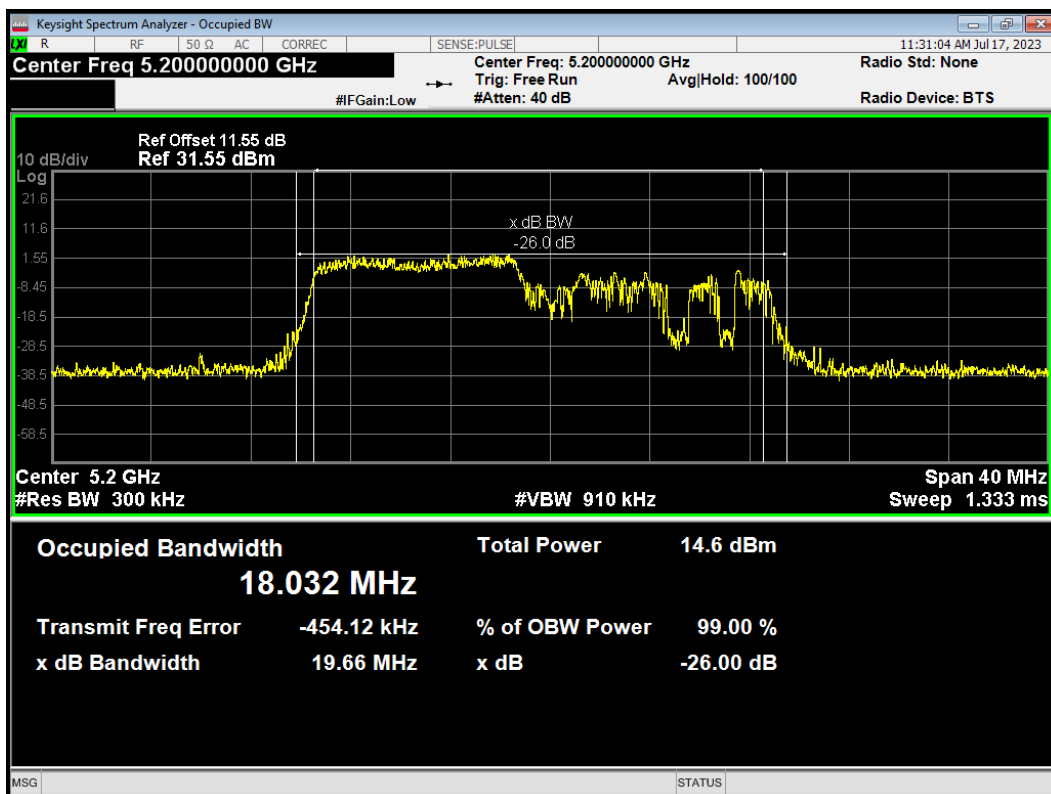
TB Mode

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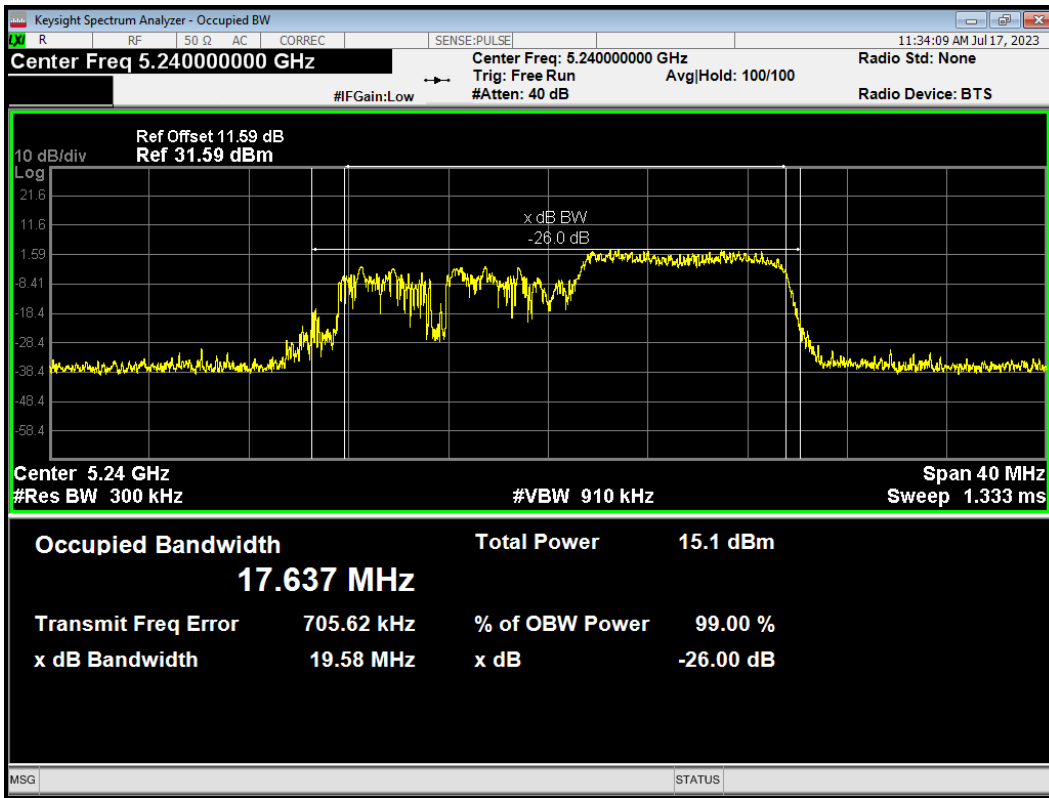
OBW 802.11ax HE20 106-Tones 5180MHz



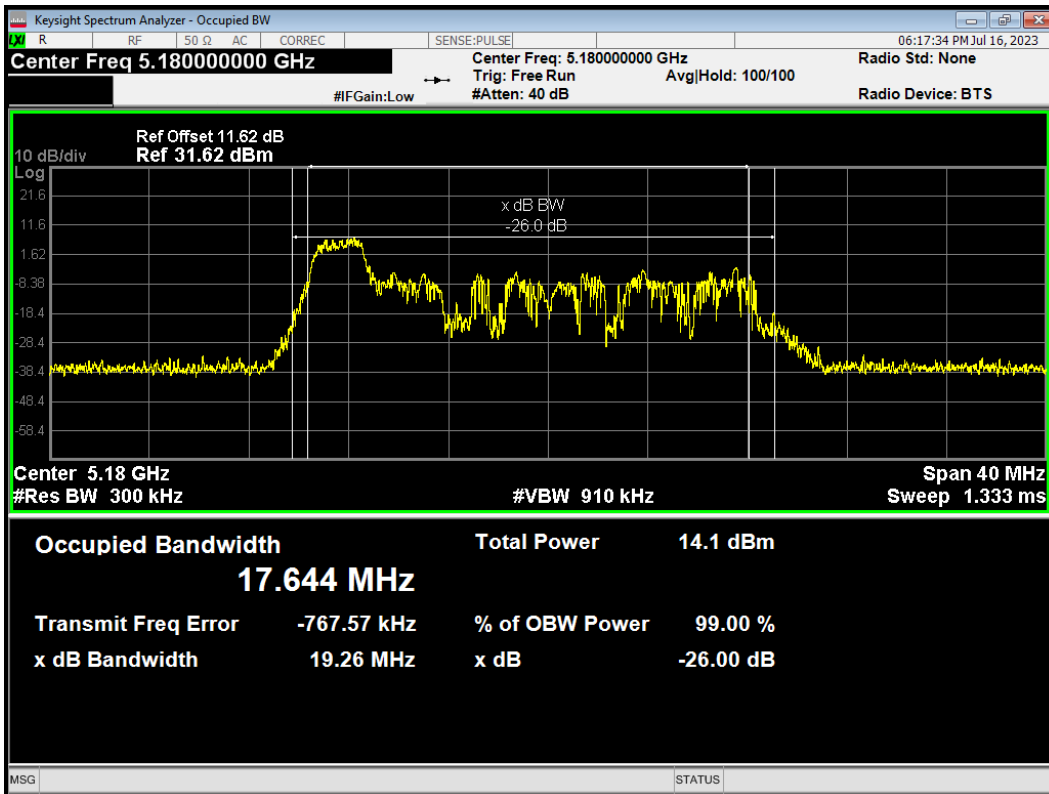
OBW 802.11ax HE20 106-Tones 5200MHz



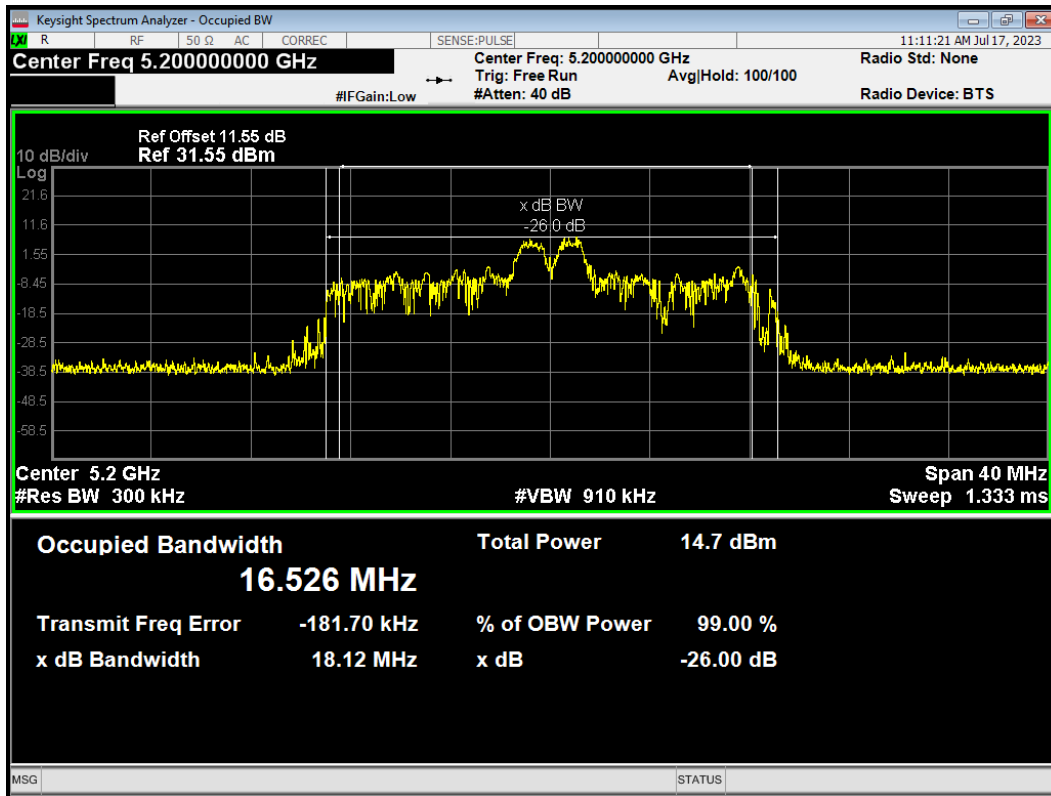
OBW 802.11ax HE20 106-Tones 5240MHz



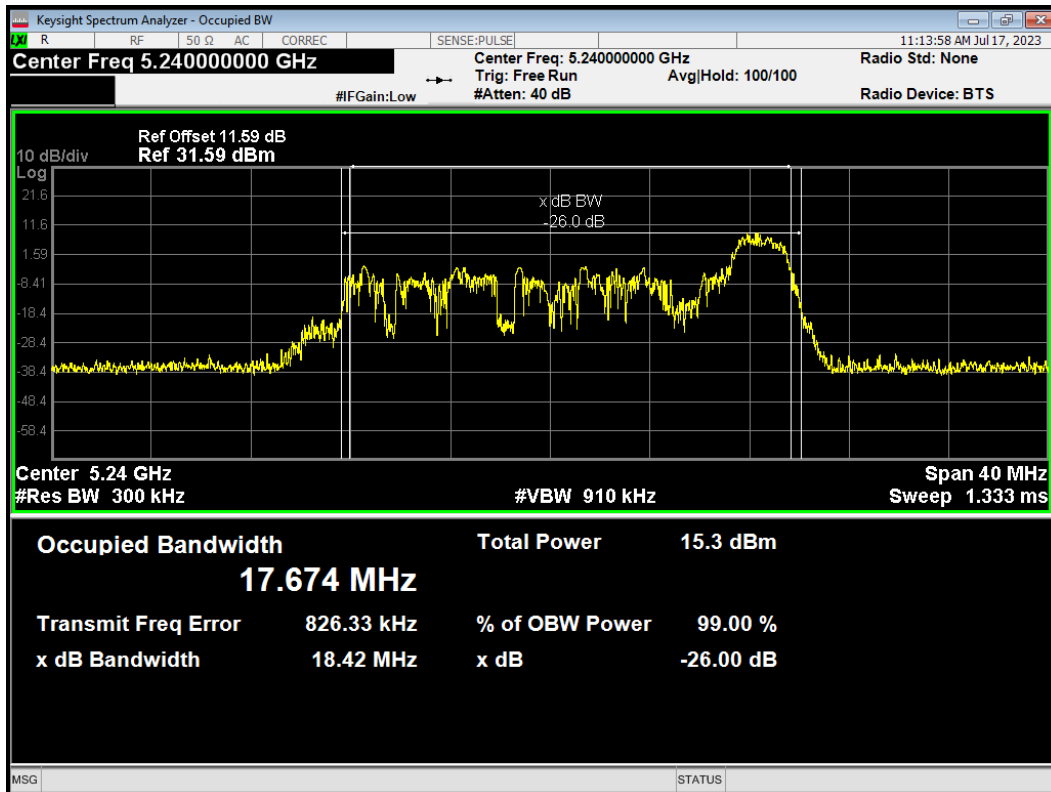
OBW 802.11ax HE20 26-Tones 5180MHz



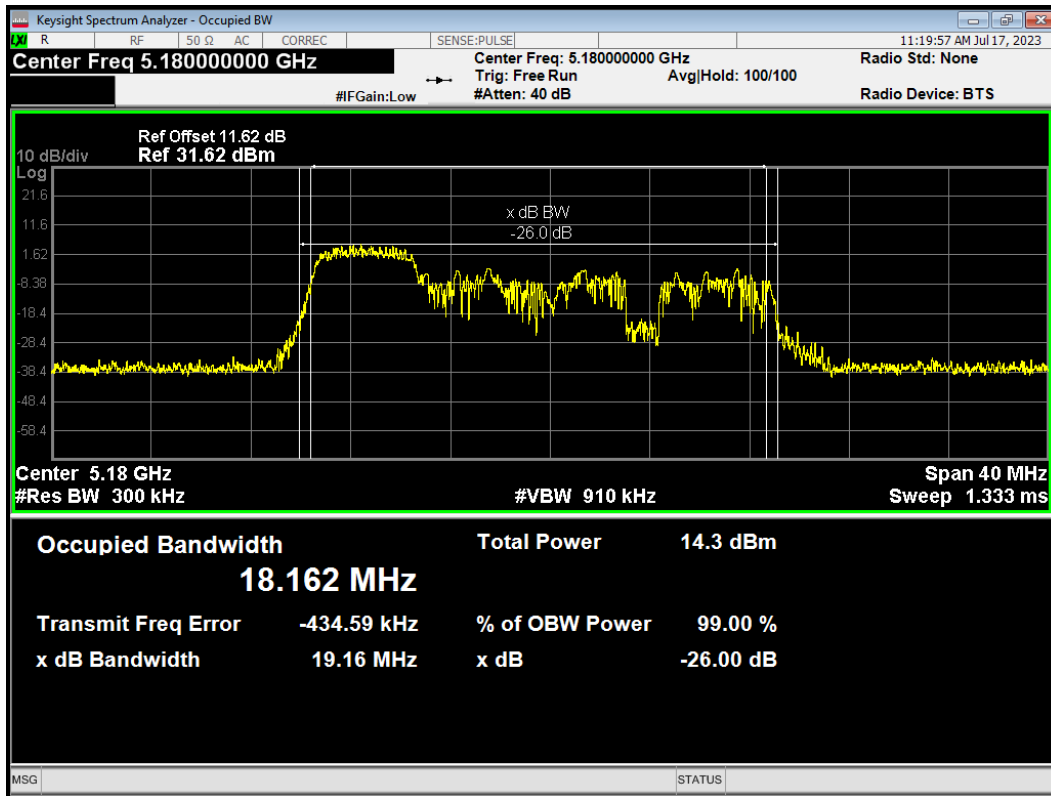
OBW 802.11ax HE20 26-Tones 5200MHz



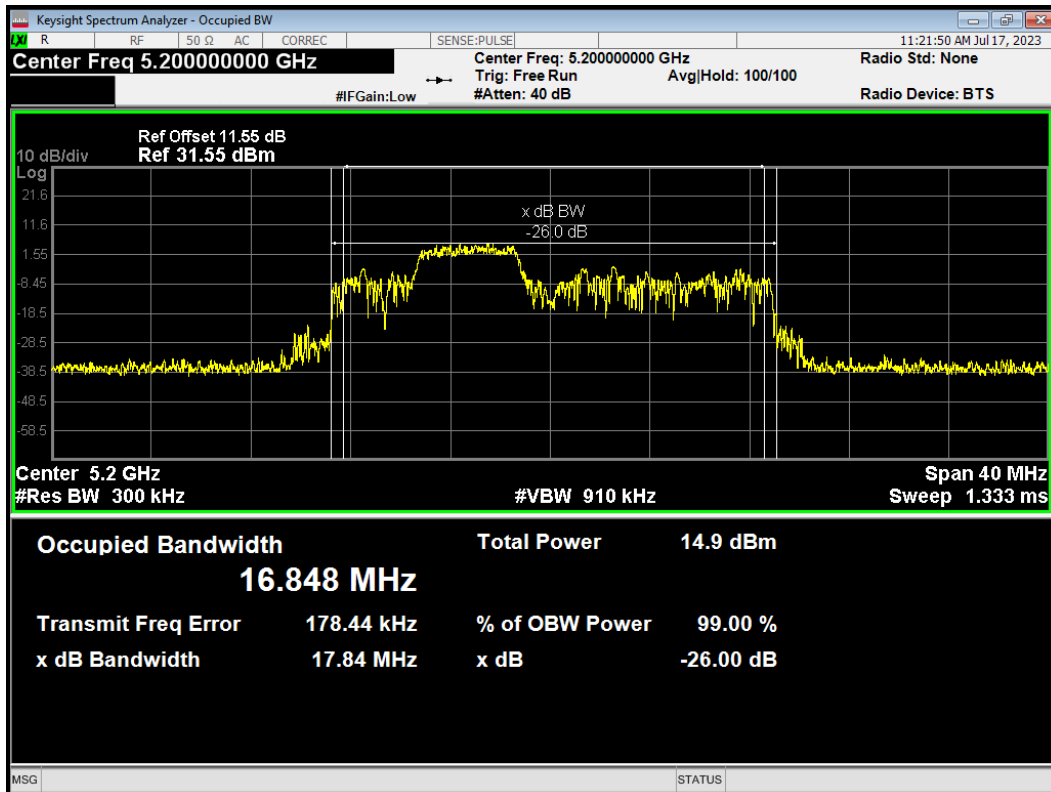
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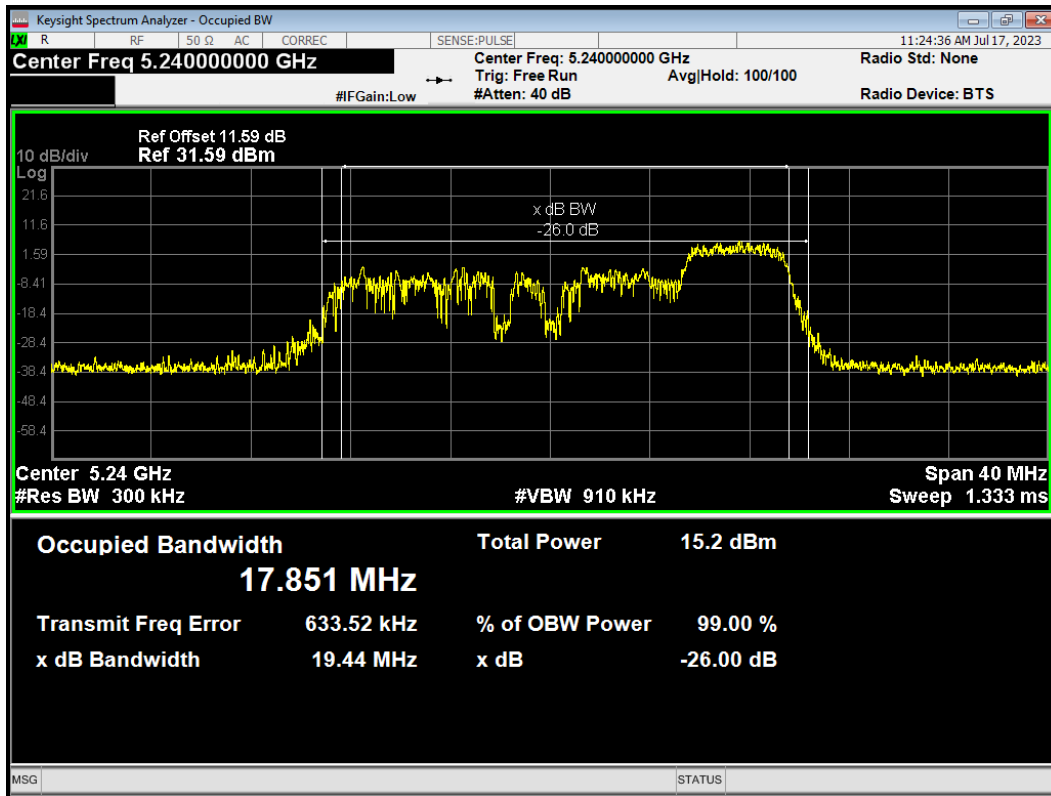
OBW 802.11ax HE20 52-Tones 5180MHz



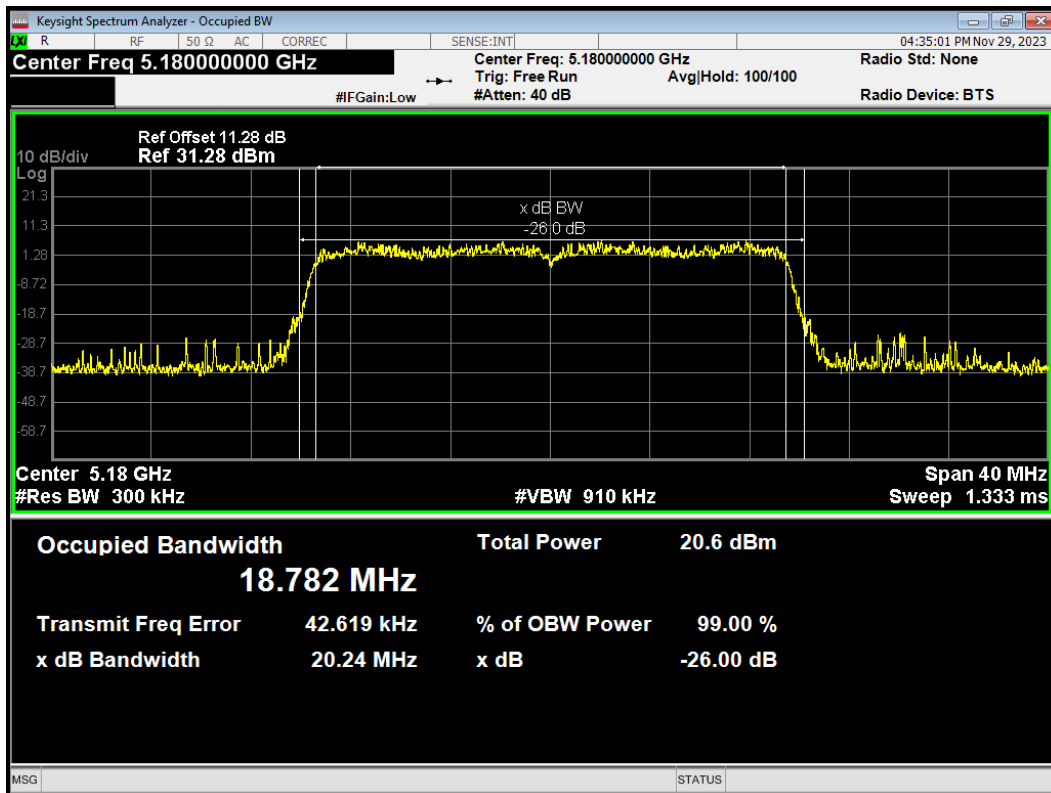
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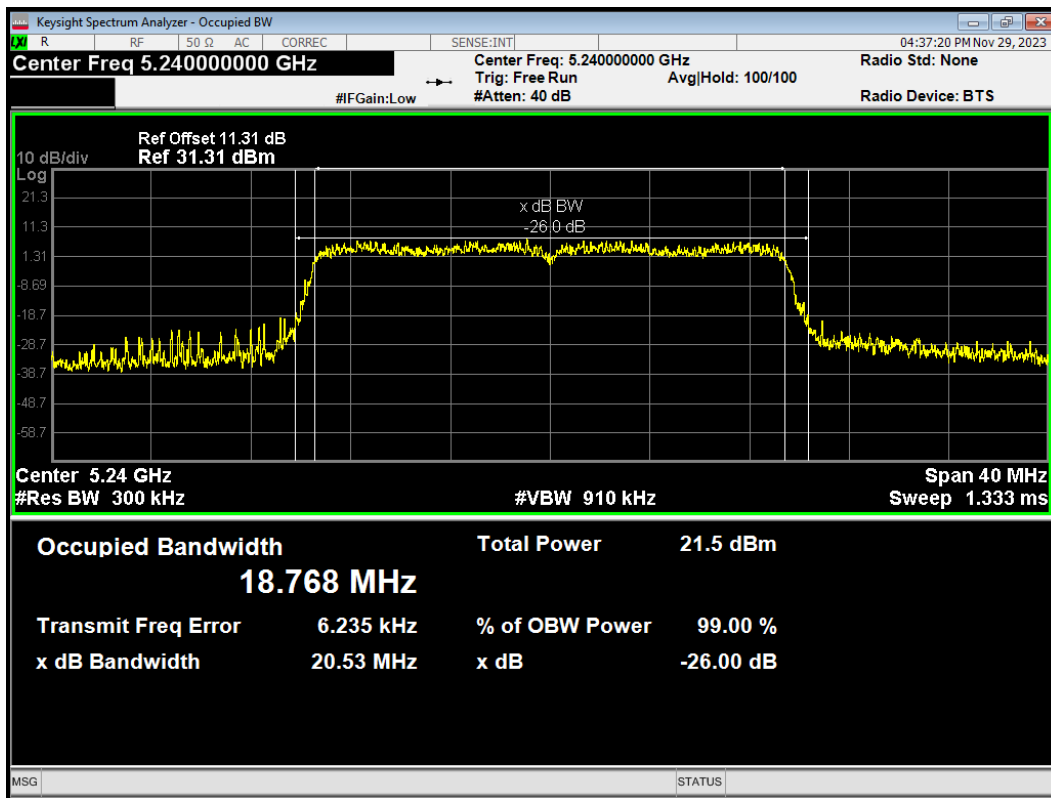
OBW 802.11ax HE20 52-Tones 5240MHz



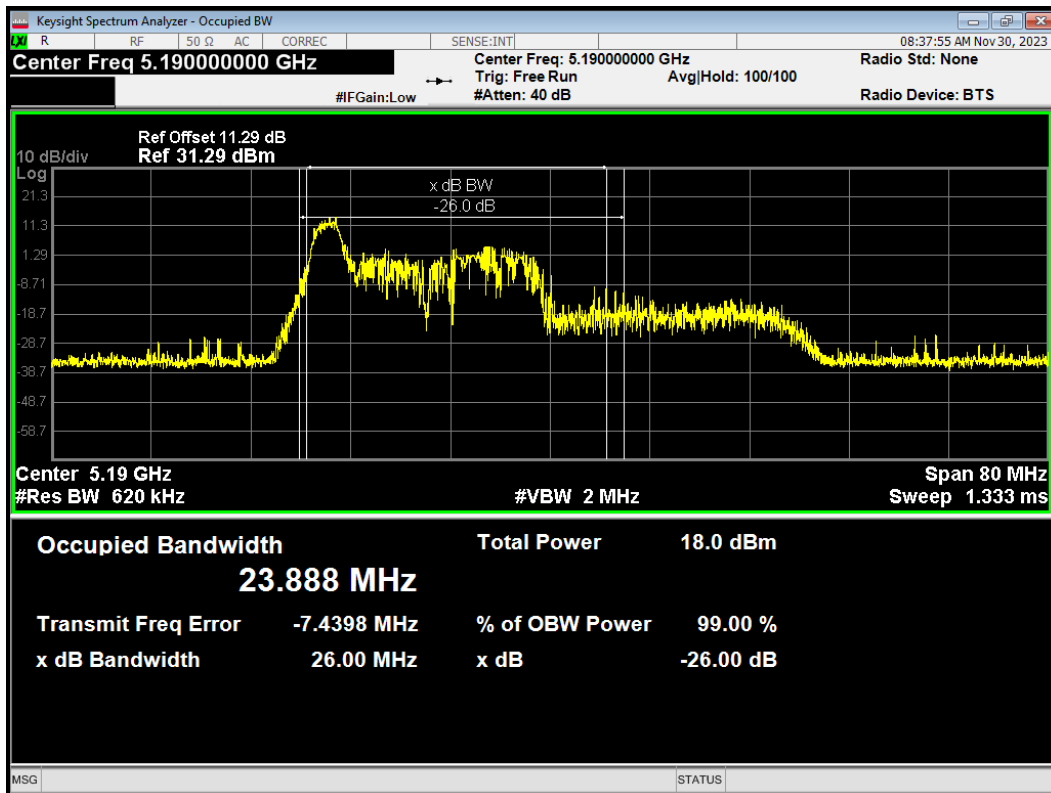
OBW 802.11ax HE20 242-Tones 5180MHz



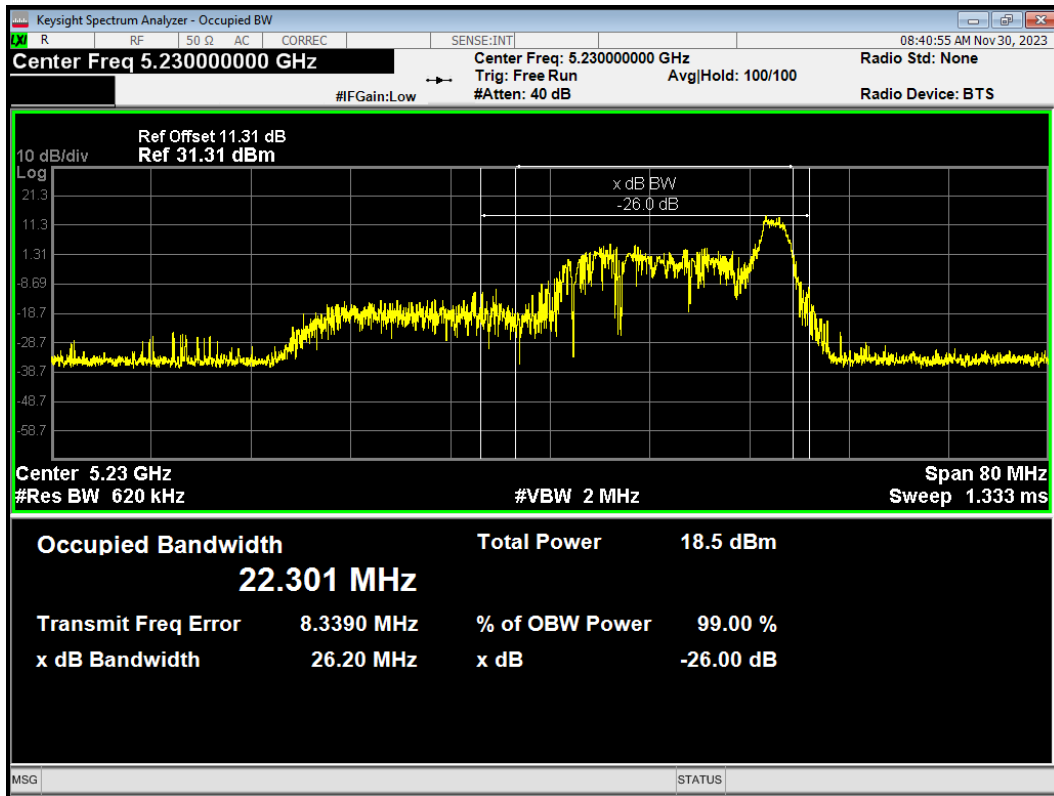
OBW 802.11ax HE20 242-Tones 5240MHz



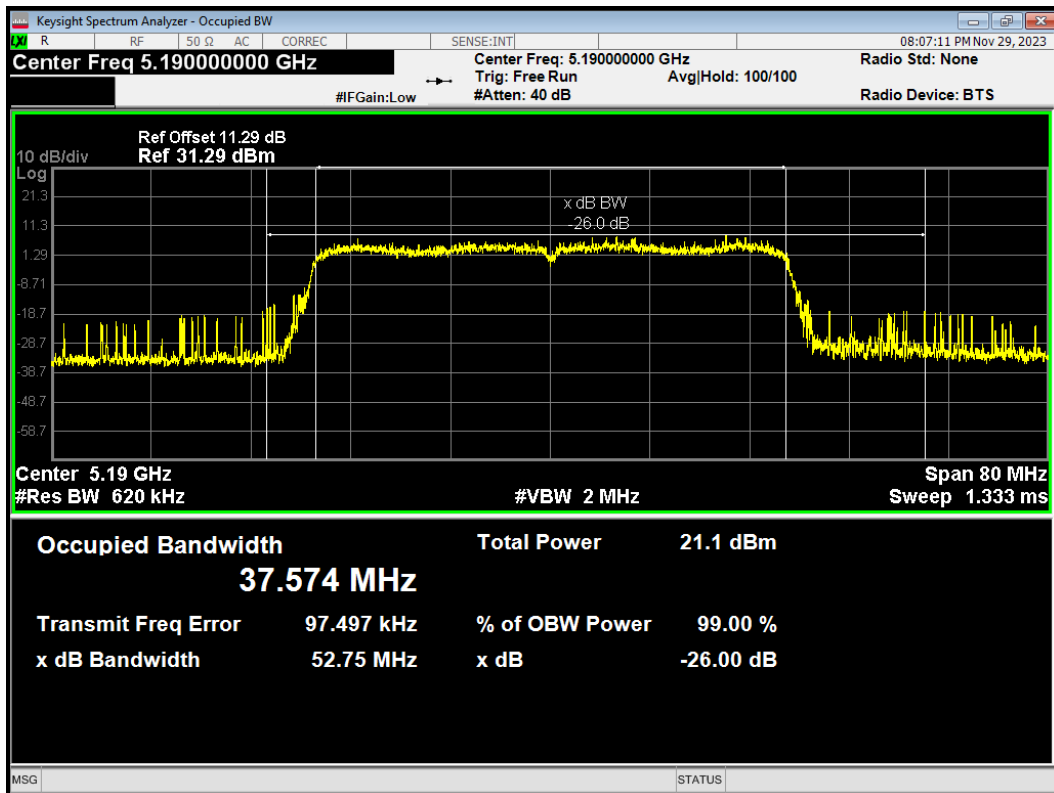
OBW 802.11ax HE40 26-Tones 5190MHz



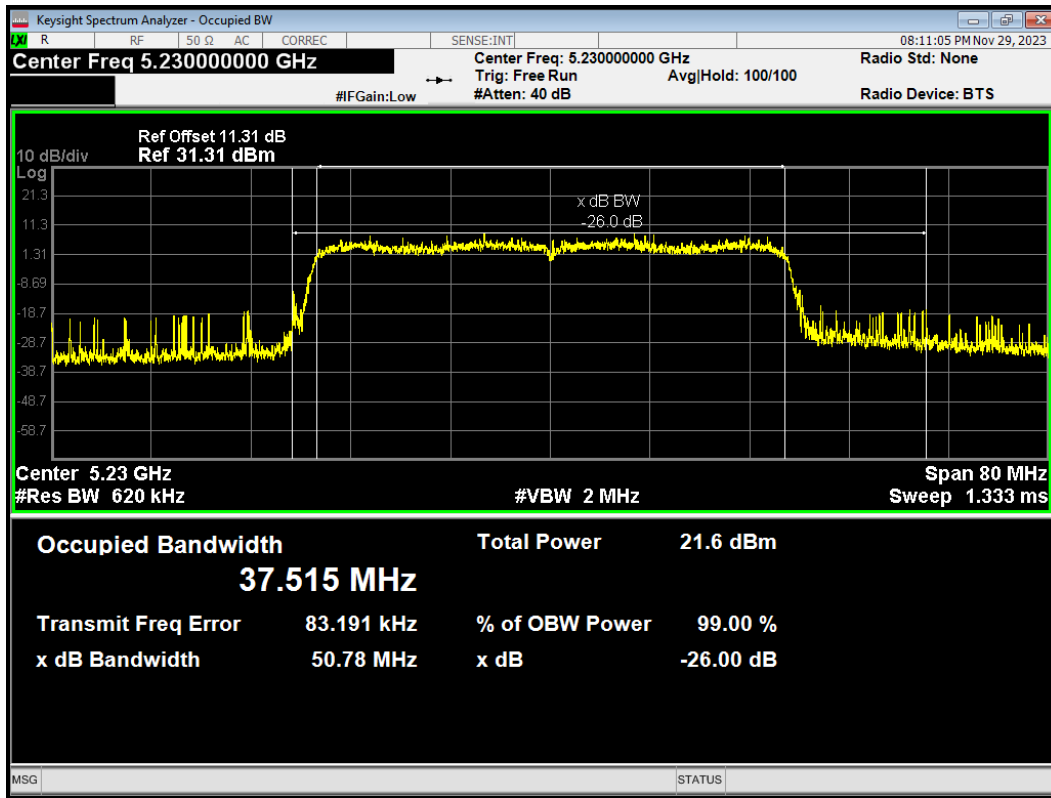
OBW 802.11ax HE40 26-Tones 5230MHz



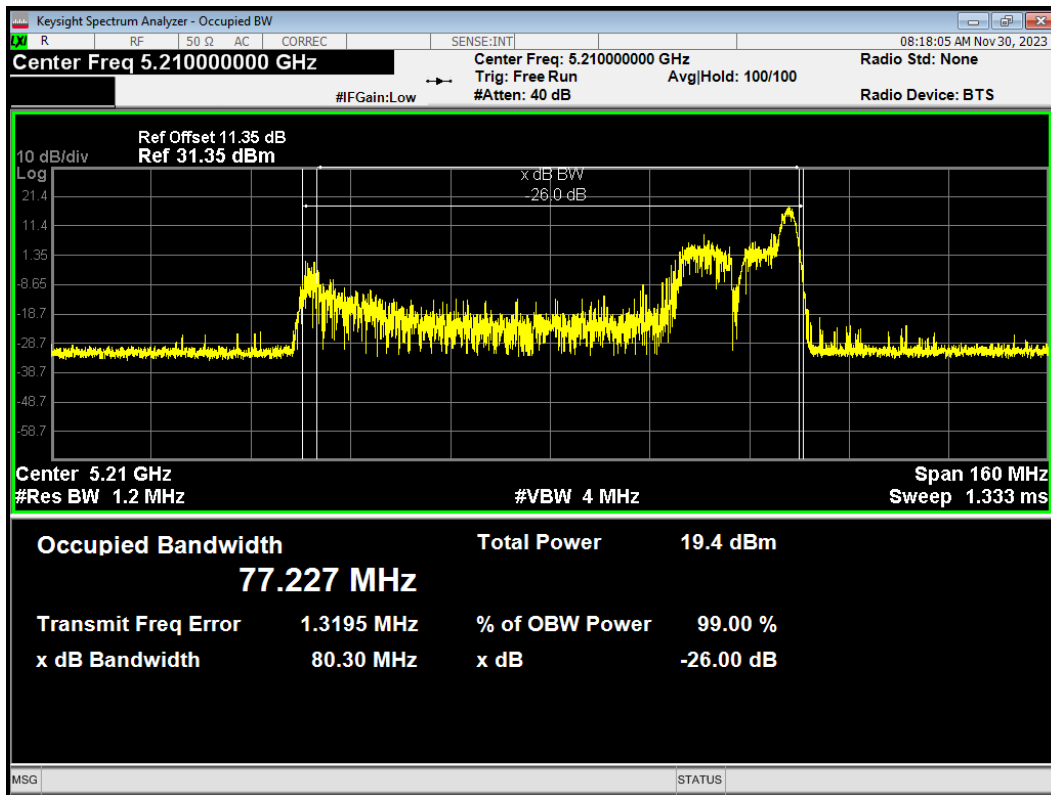
OBW 802.11ax HE40 484-Tones 5190MHz



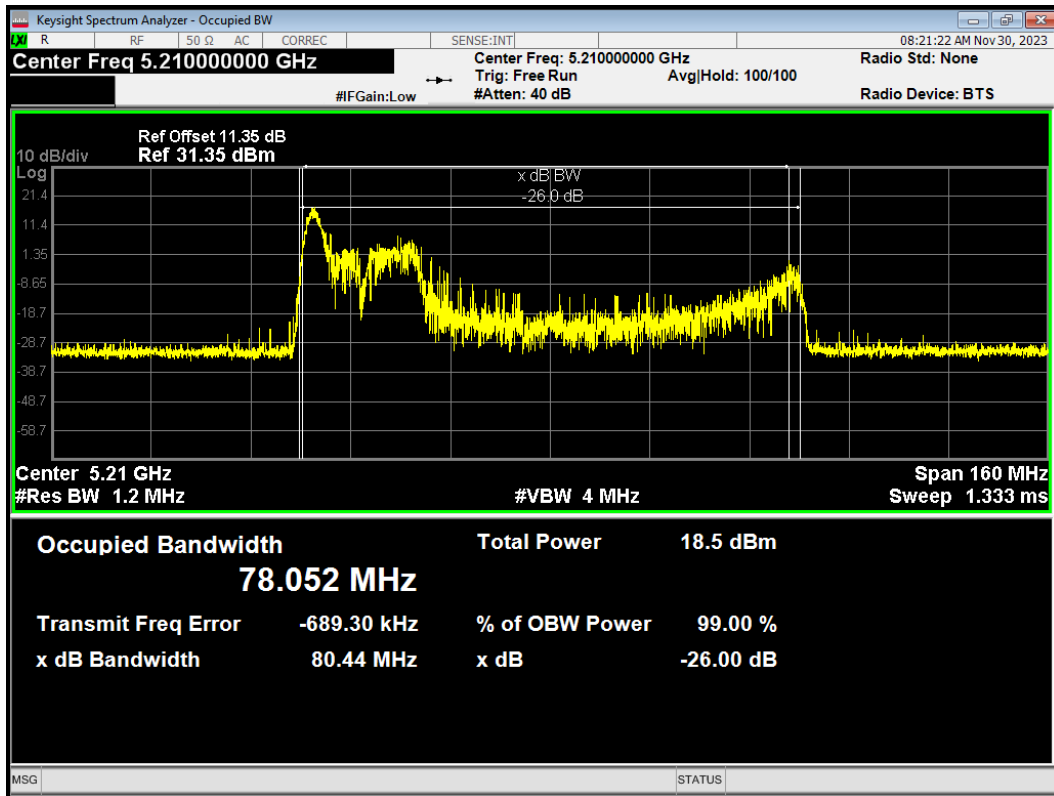
OBW 802.11ax HE40 484-Tones 5230MHz



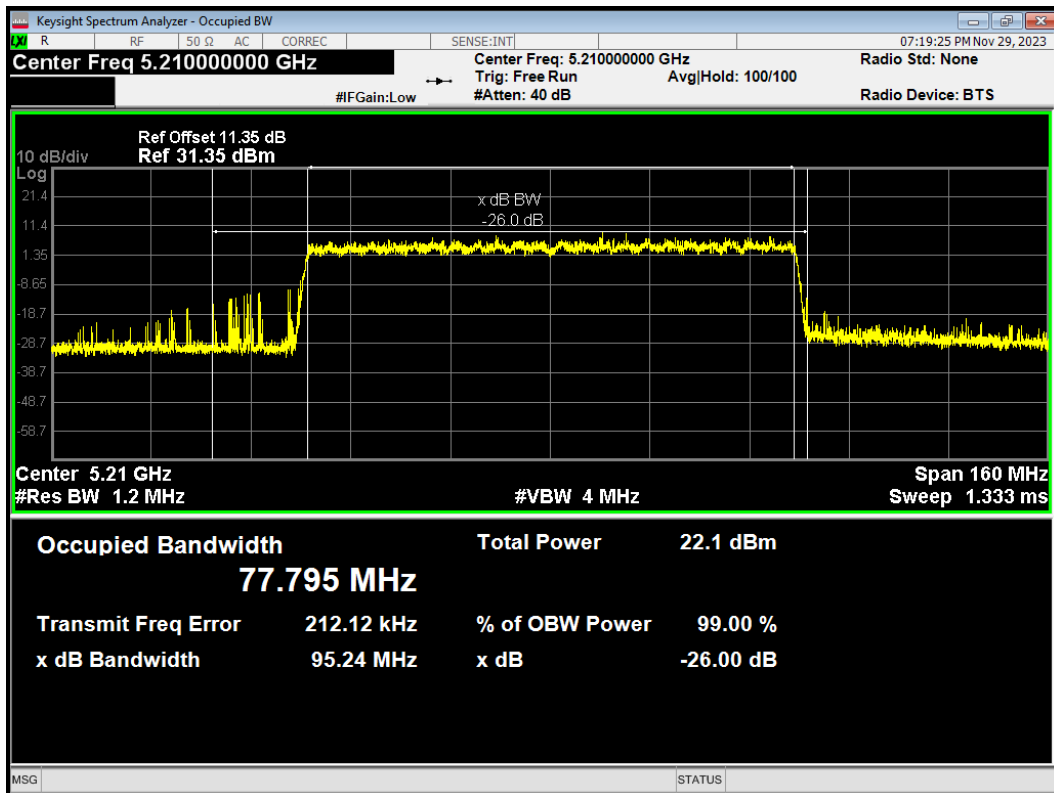
OBW 802.11ax HE80 26-Tones 5210MHz



OBW 802.11ax HE80 26-Tones 5210MHz

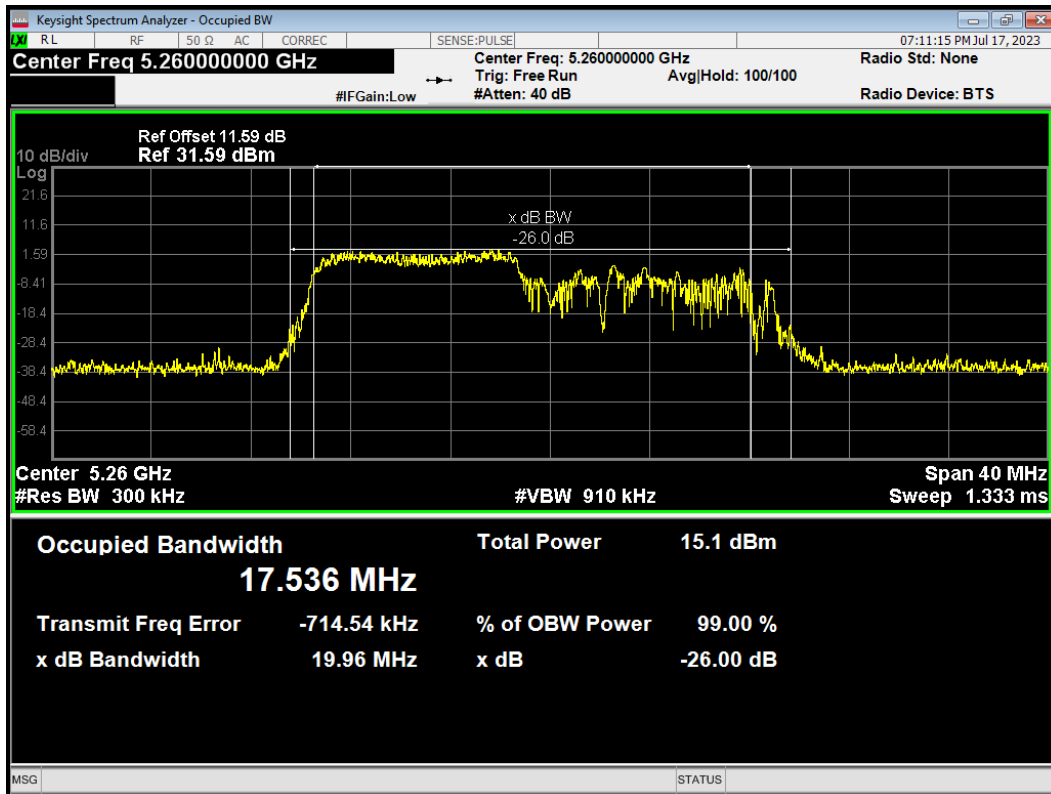


OBW 802.11ax HE80 996-Tones 5210MHz

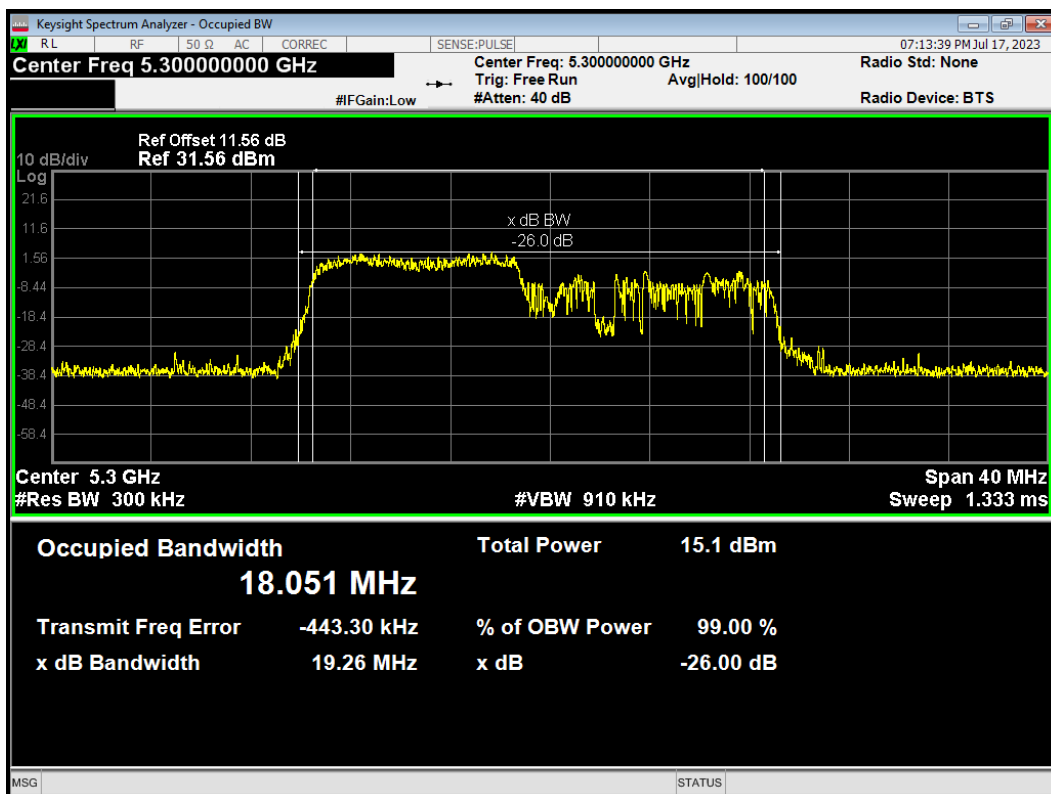


U-NII-2A

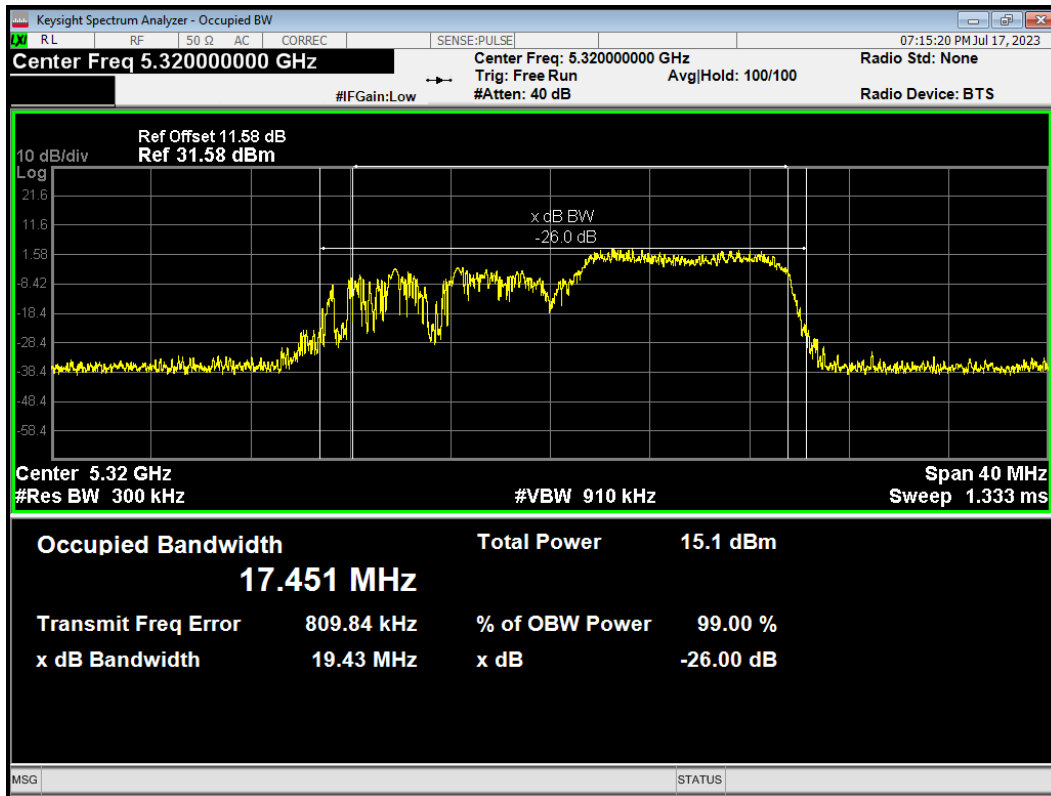
OBW 802.11ax HE20 106-Tones 5260MHz



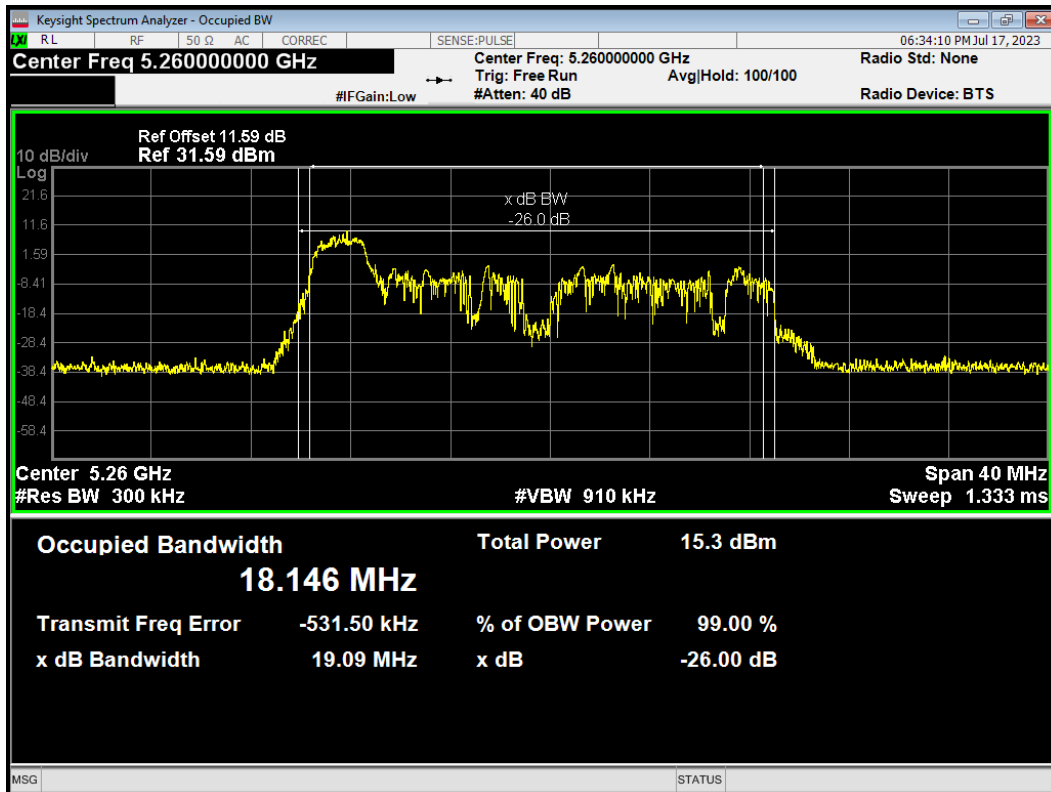
OBW 802.11ax HE20 106-Tones 5300MHz



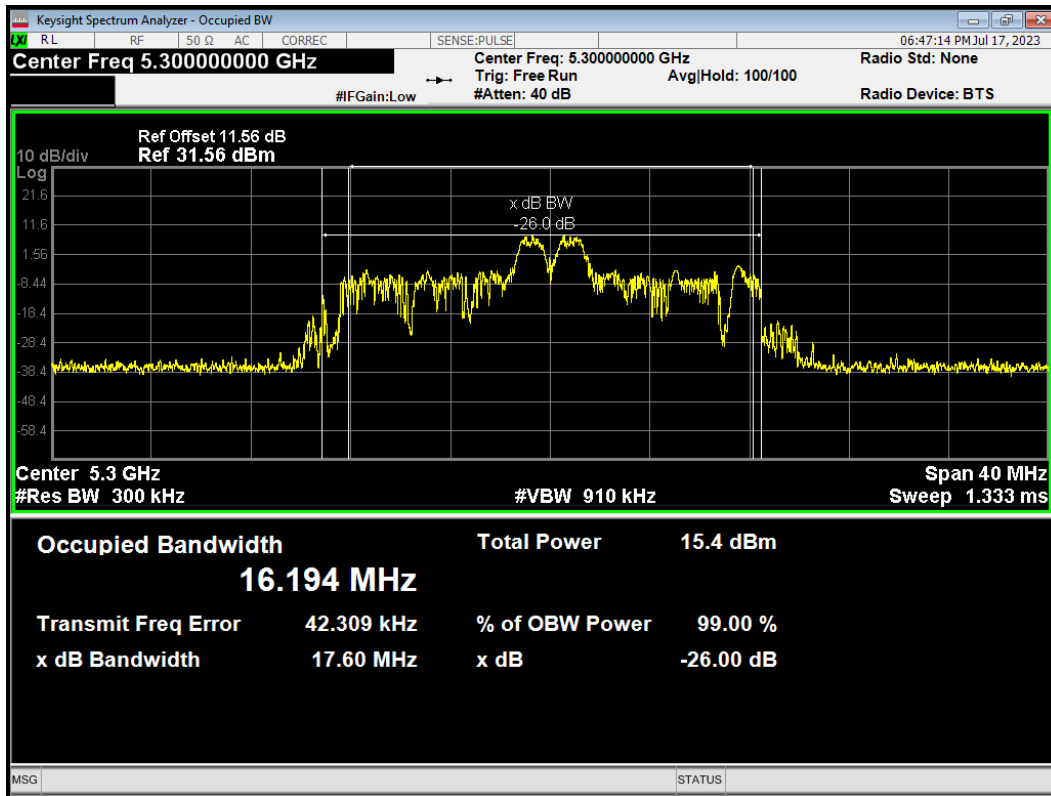
OBW 802.11ax HE20 106-Tones 5320MHz



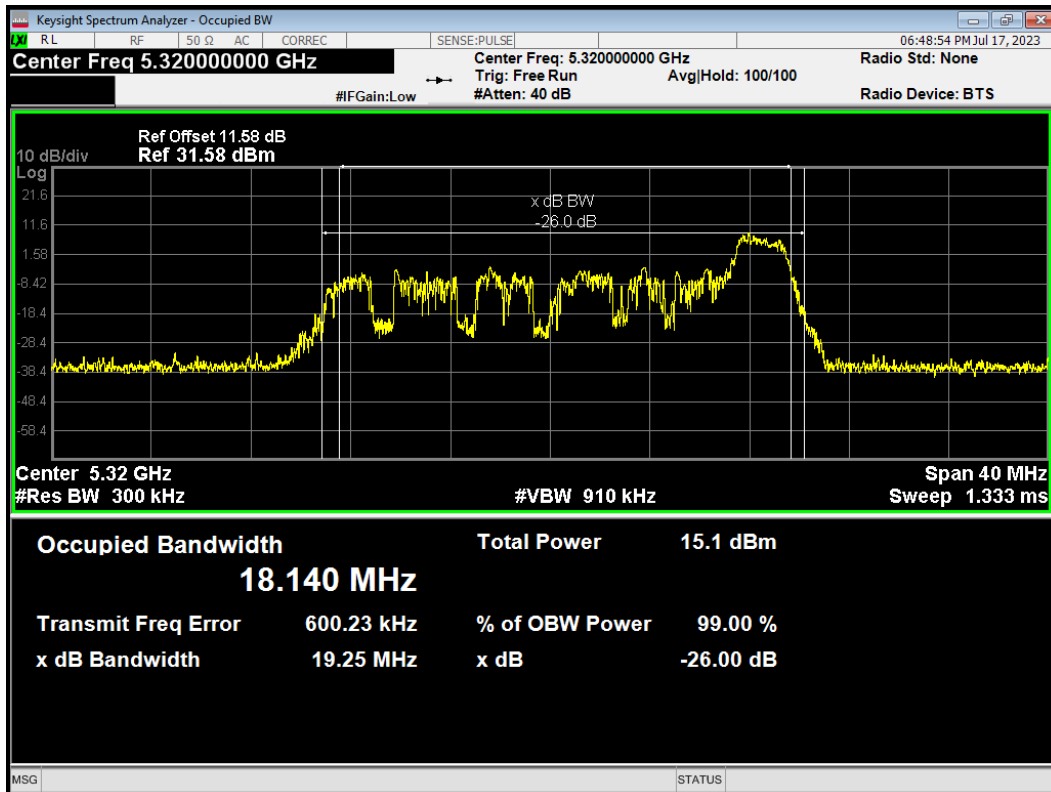
OBW 802.11ax HE20 26-Tones 5260MHz



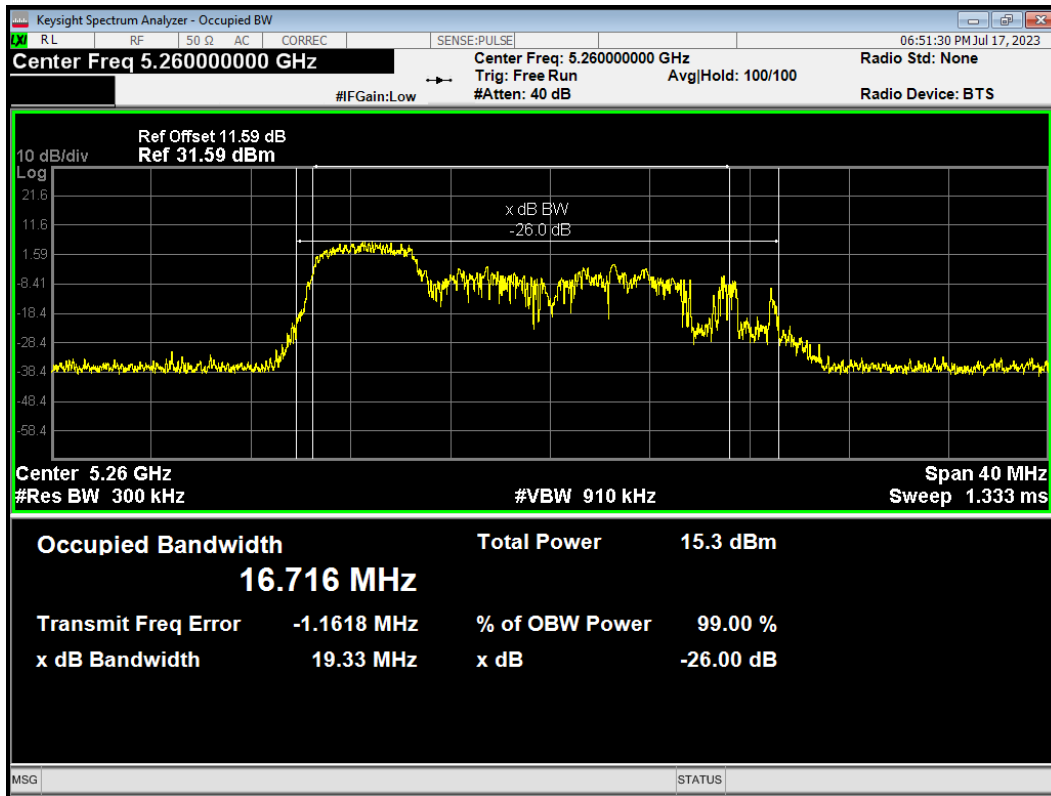
OBW 802.11ax HE20 26-Tones 5300MHz



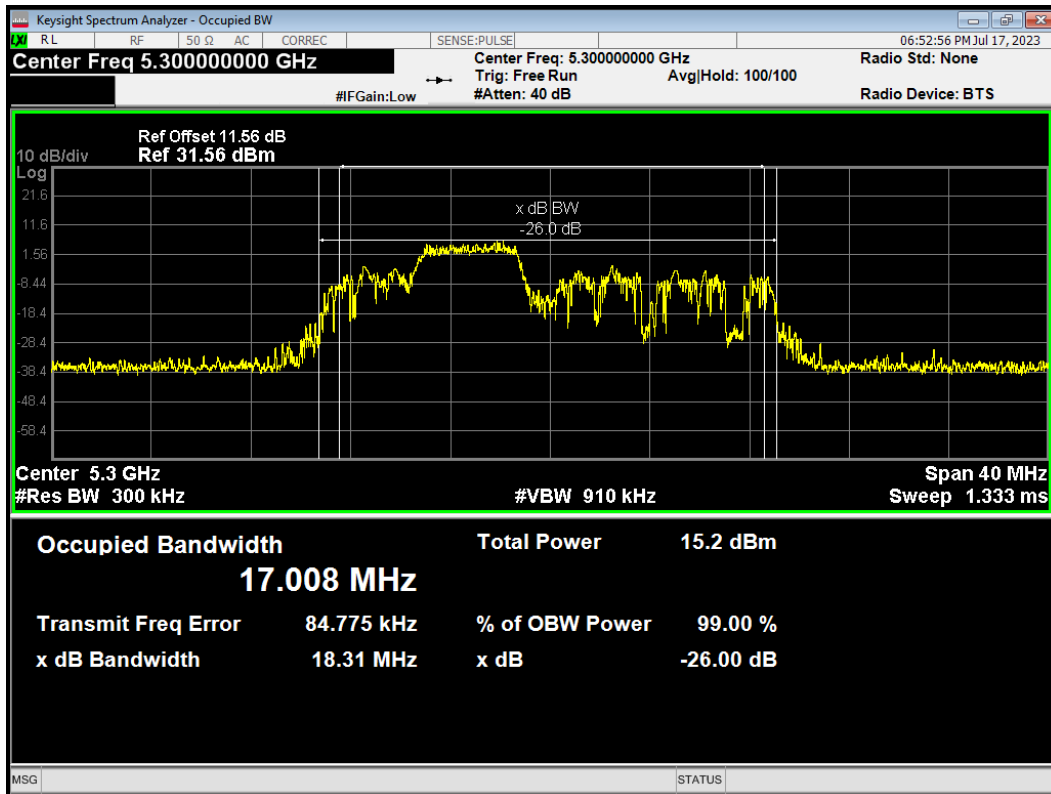
OBW 802.11ax HE20 26-Tones 5320MHz



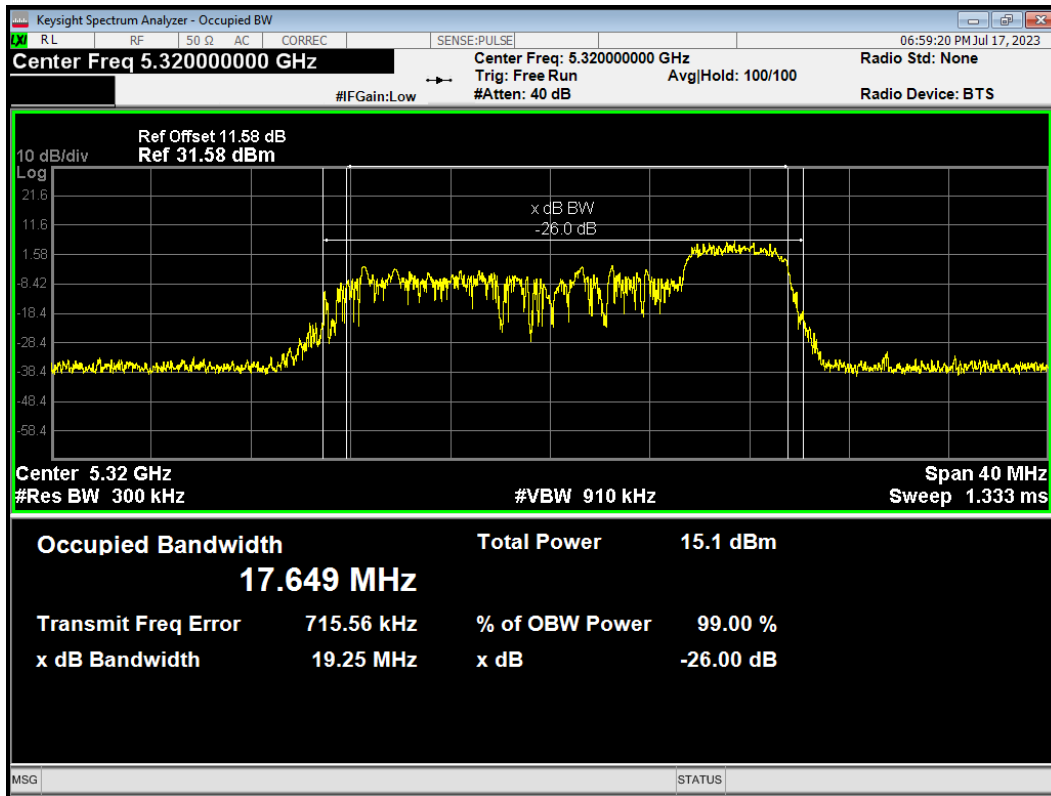
OBW 802.11ax HE20 52-Tones 5260MHz



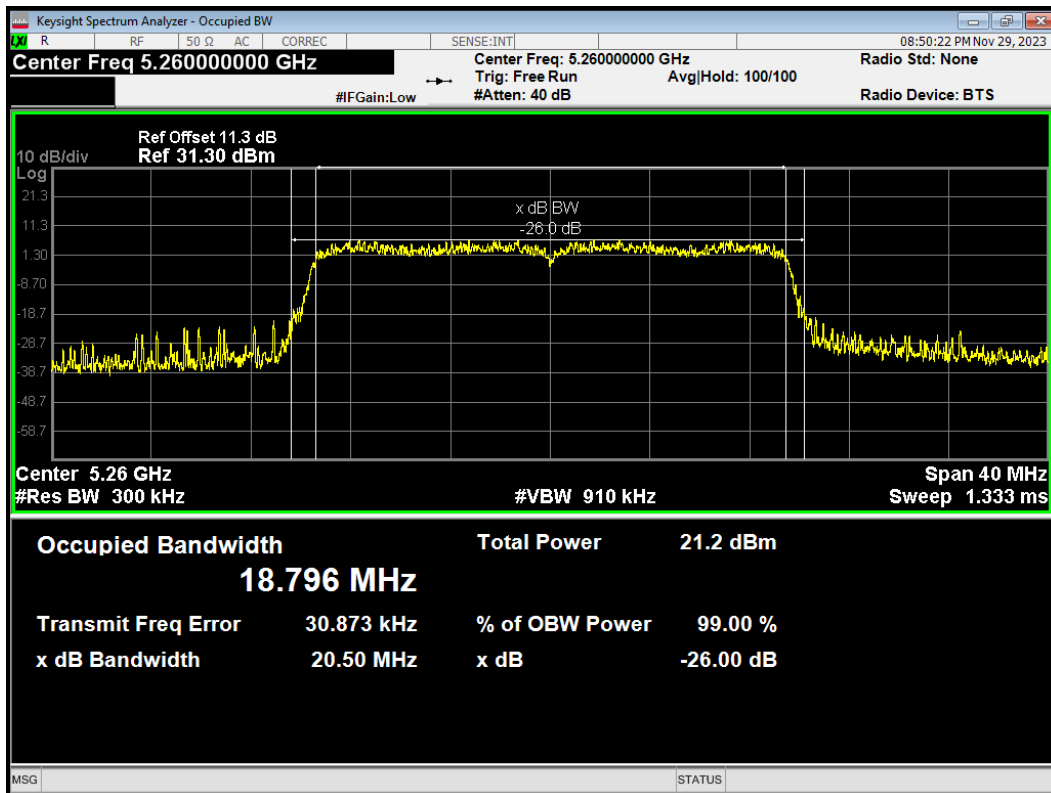
OBW 802.11ax HE20 52-Tones 5300MHz



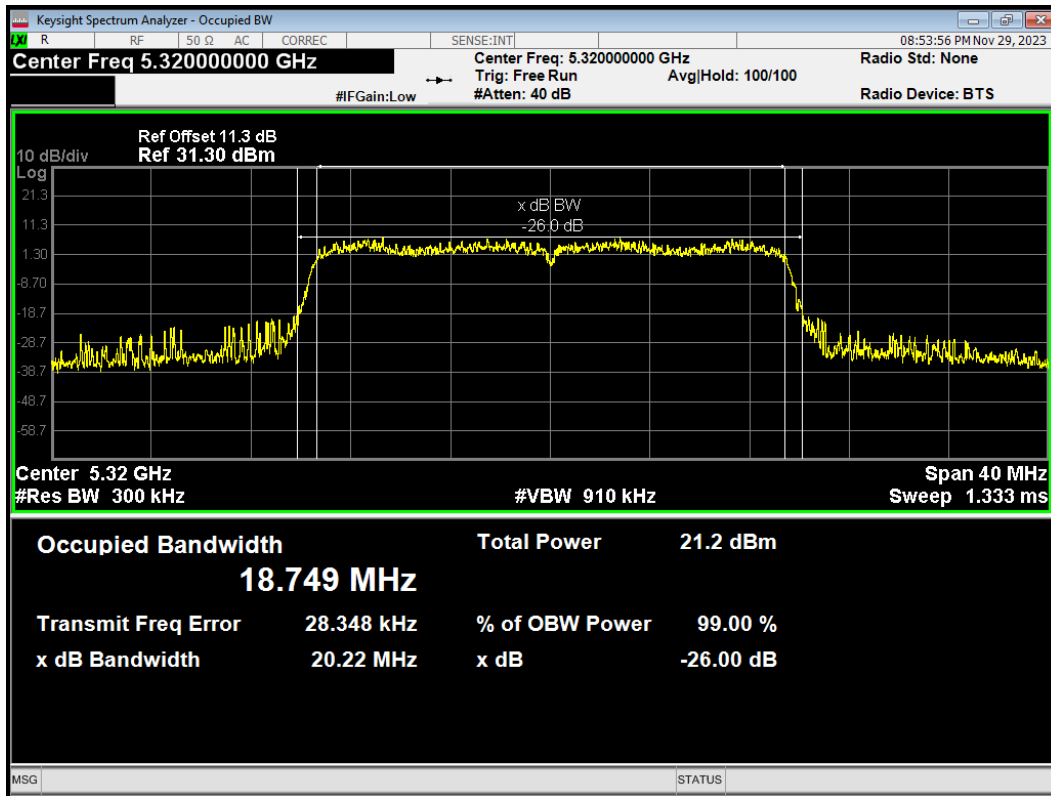
OBW 802.11ax HE20 52-Tones 5320MHz



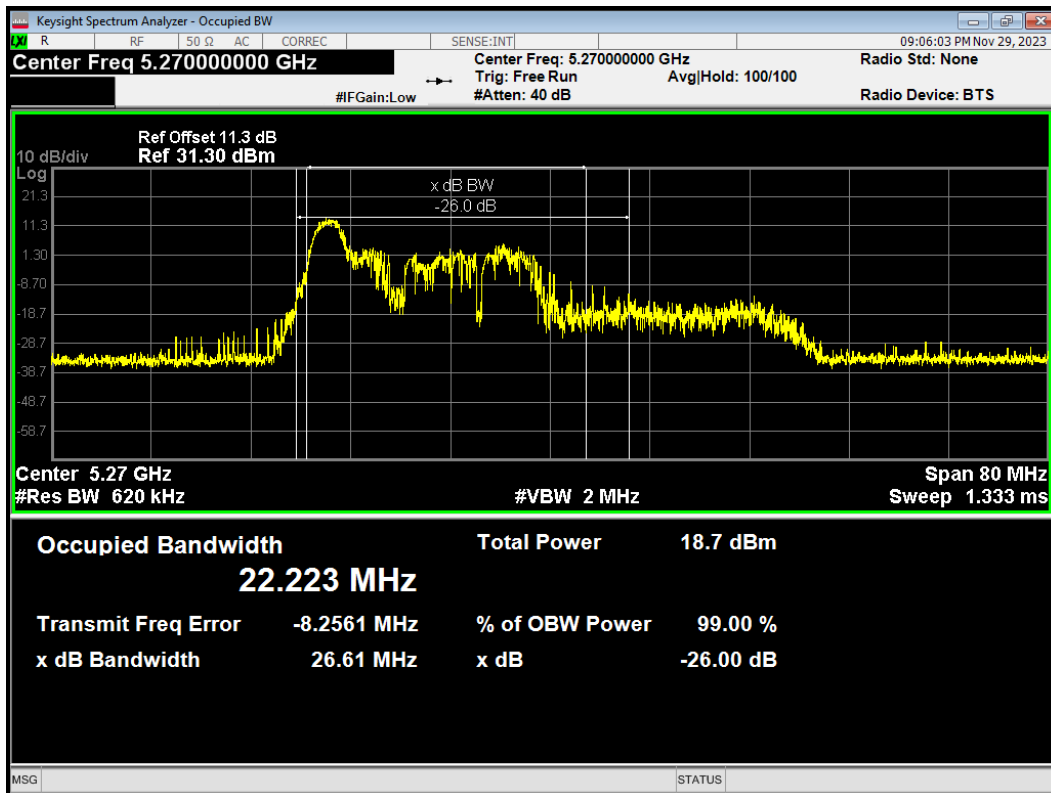
OBW 802.11ax HE20 242-Tones 5260MHz



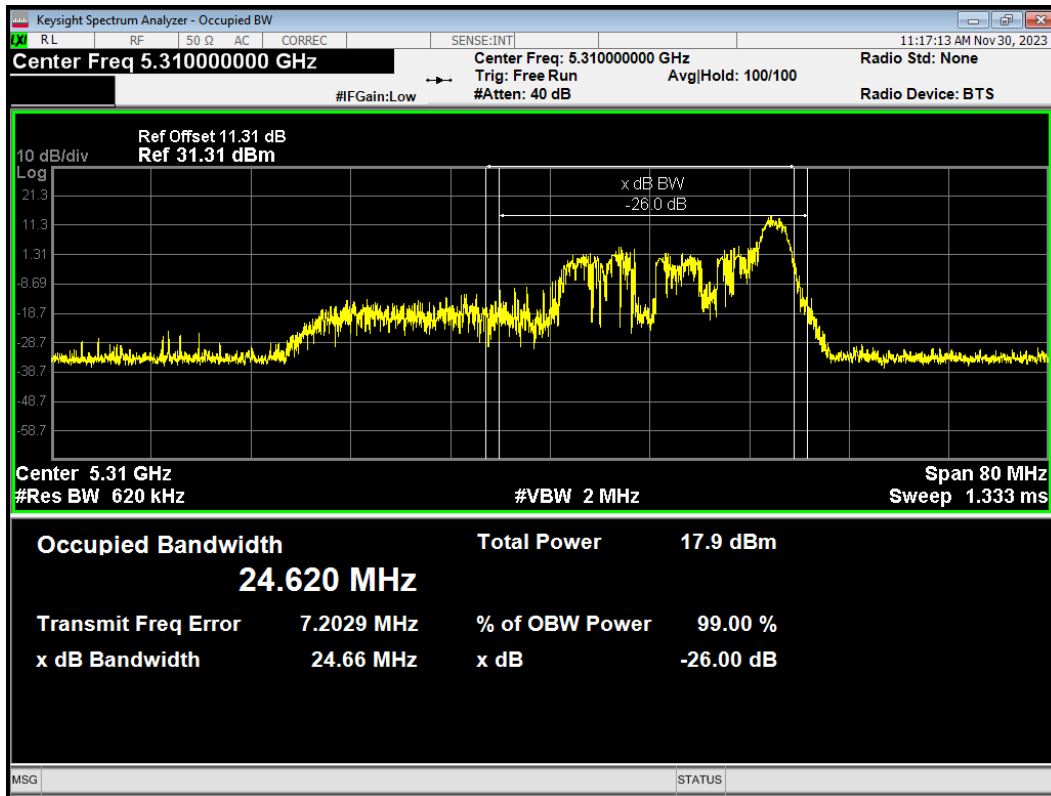
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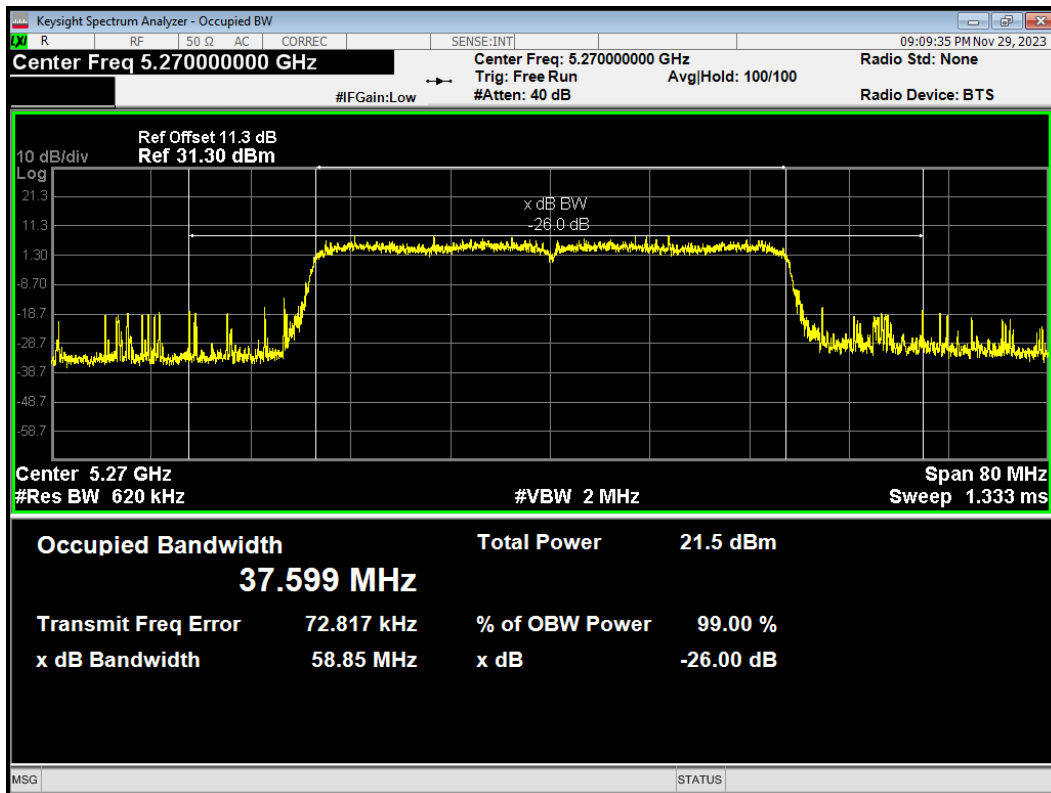
OBW 802.11ax HE40 26-Tones 5270MHz



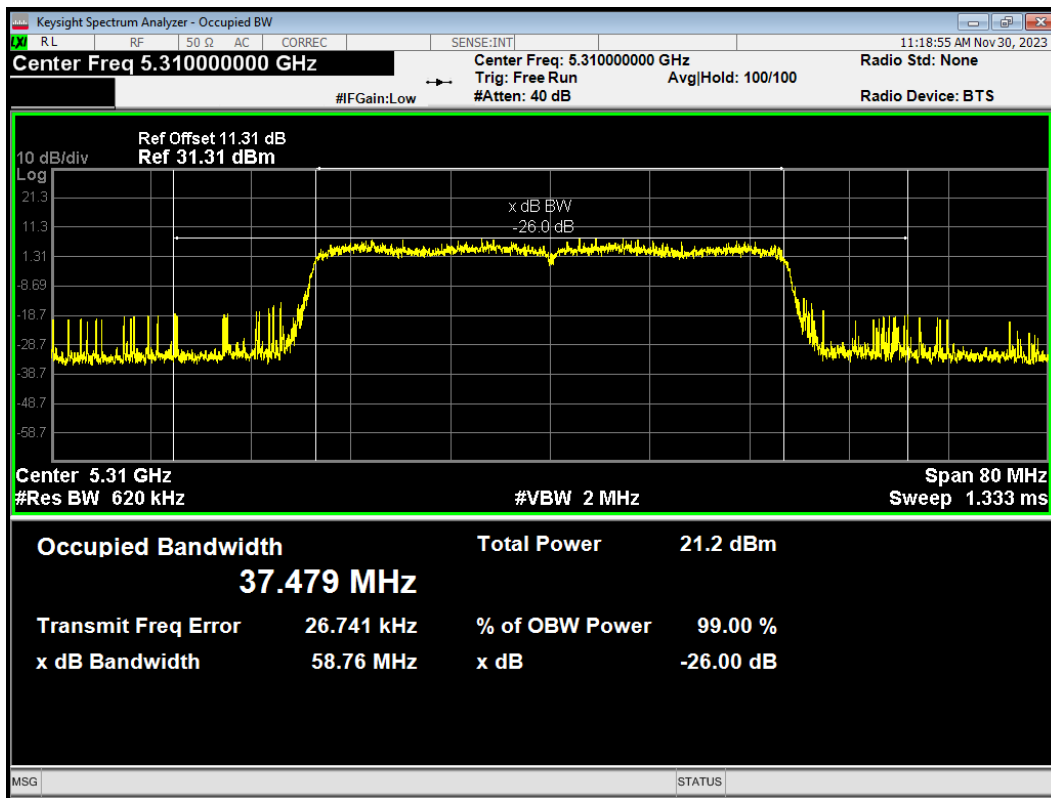
OBW 802.11ax HE40 26-Tones 5310MHz



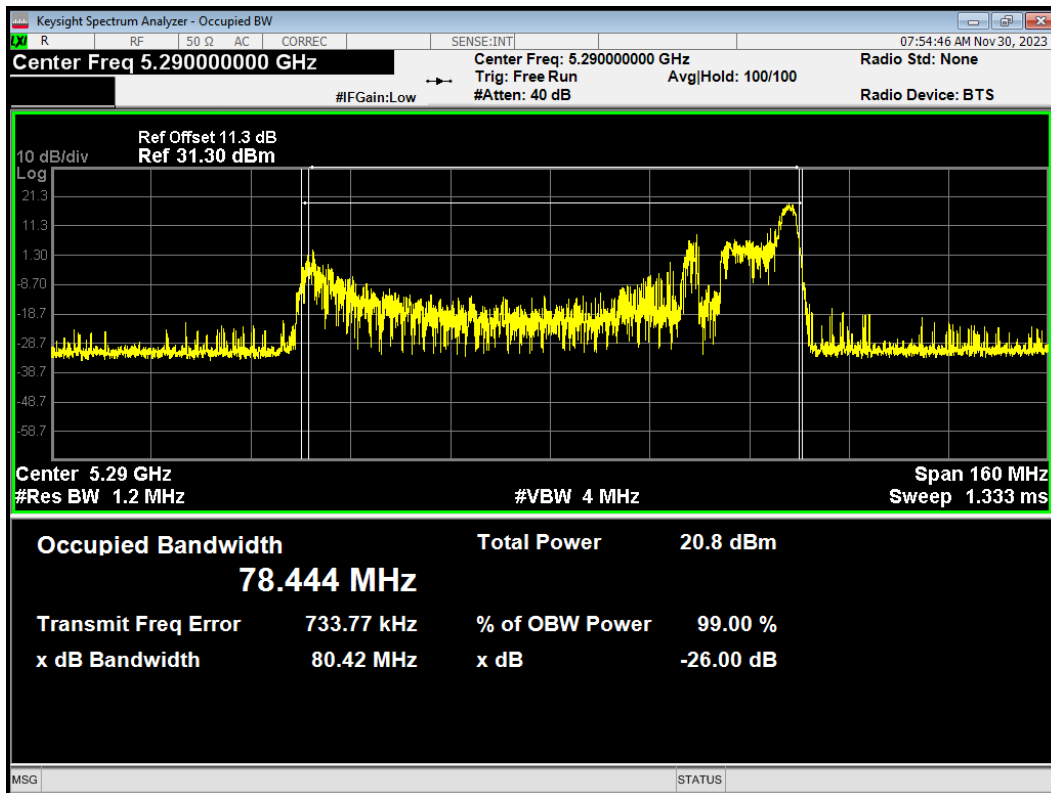
OBW 802.11ax HE40 484-Tones 5270MHz



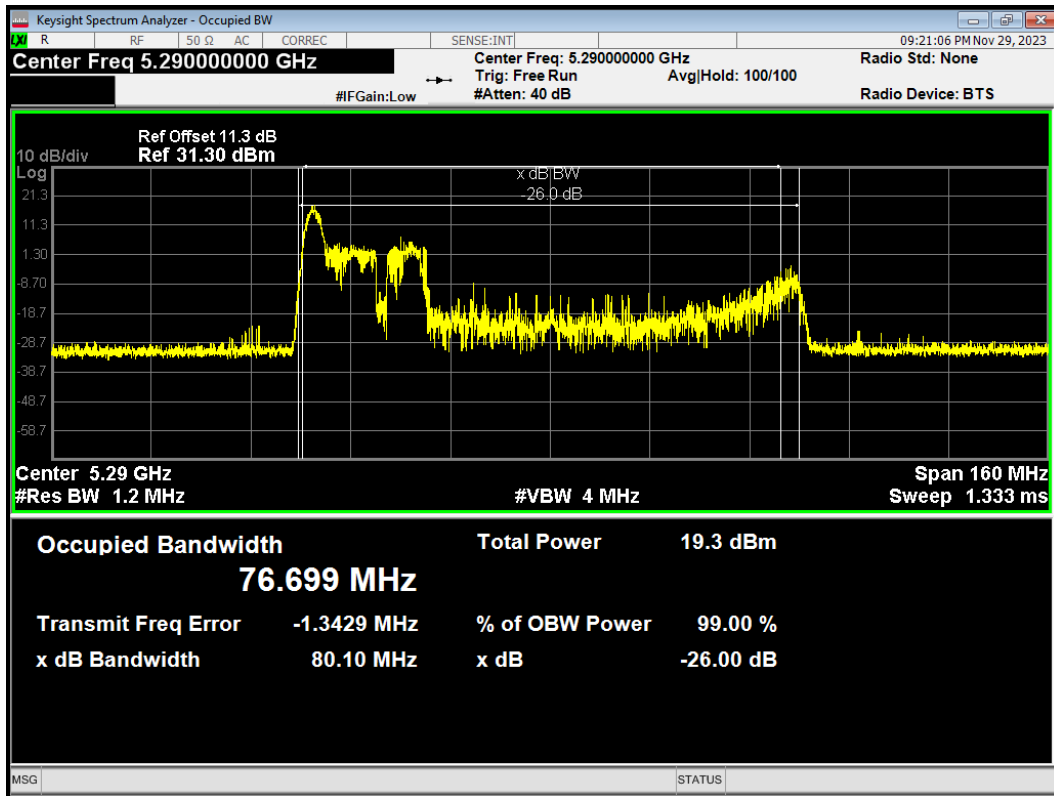
OBW 802.11ax HE40 484-Tones 5310MHz



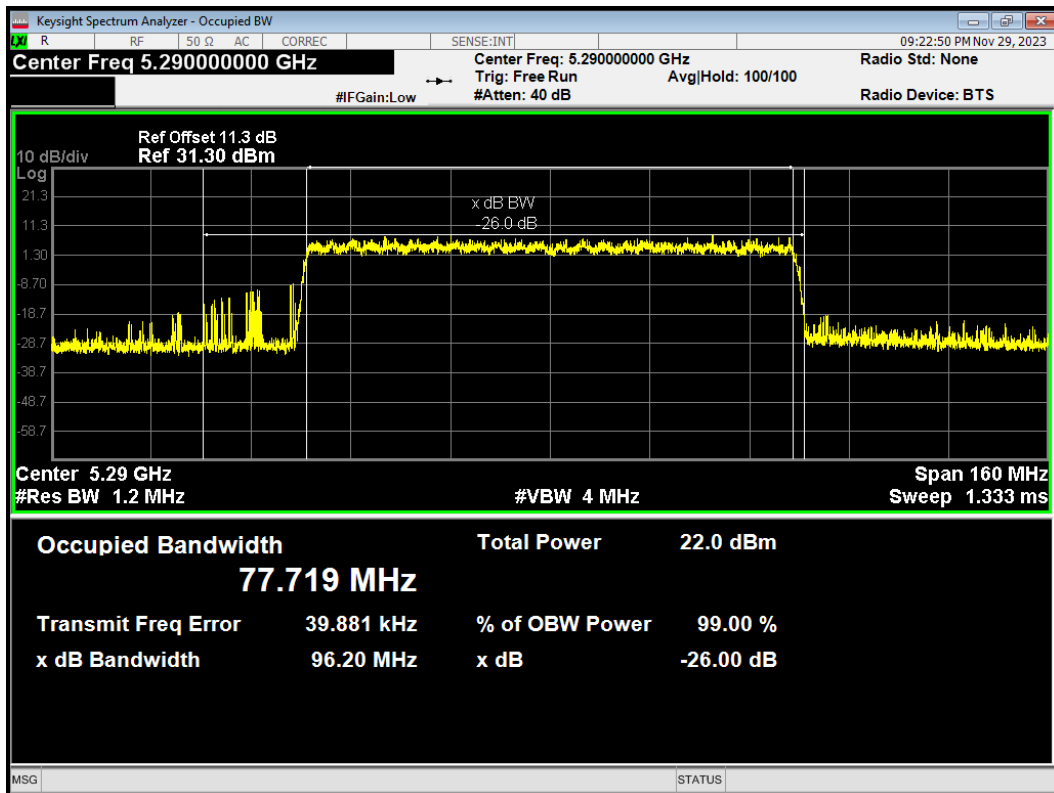
OBW 802.11ax HE80 26-Tones 5290MHz



OBW 802.11ax HE80 26-Tones 5290MHz

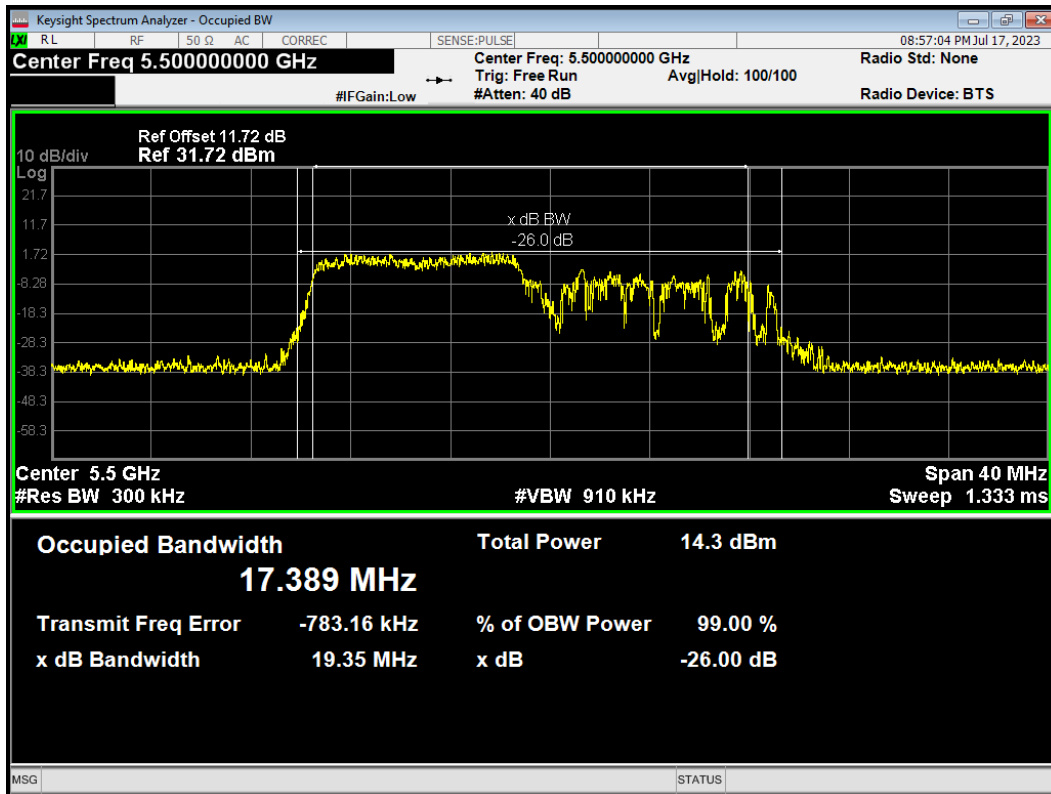


OBW 802.11ax HE80 996-Tones 5290MHz

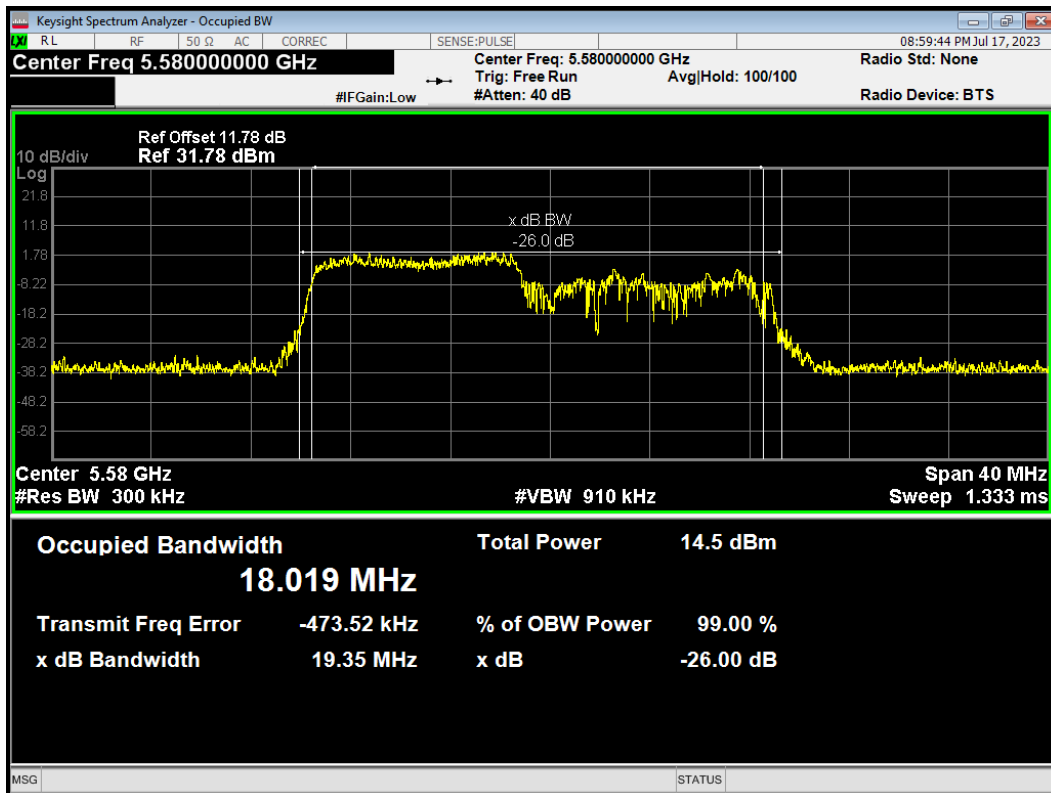


U-NII-2C

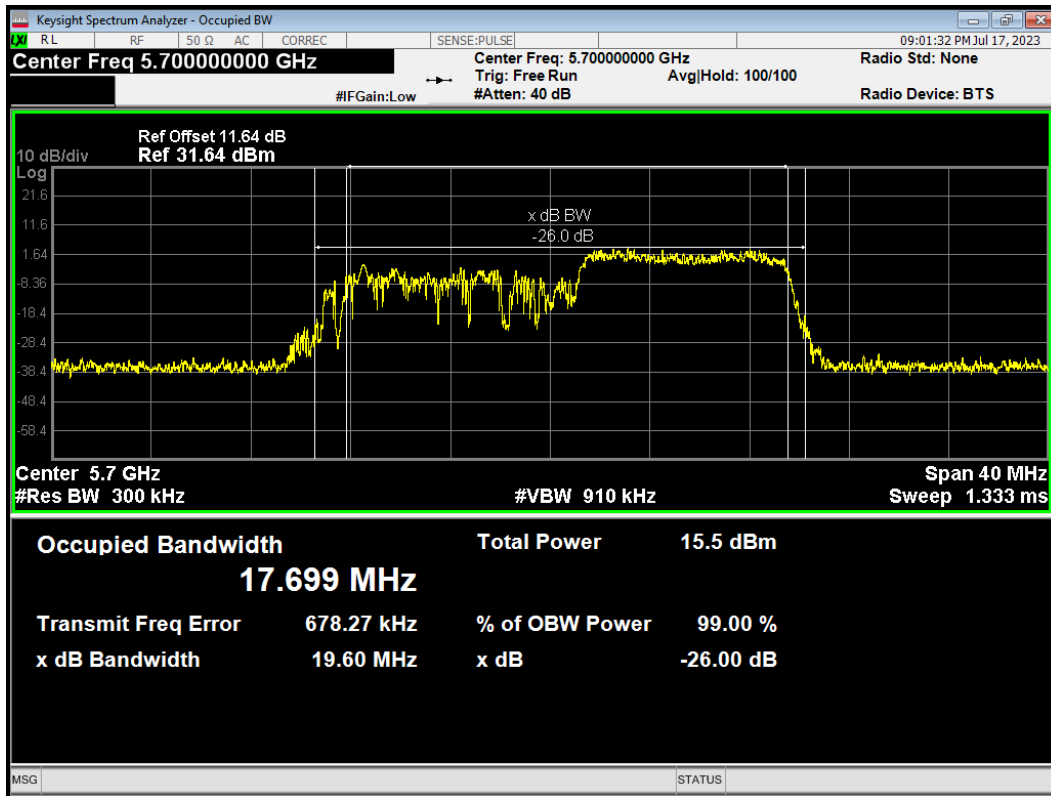
OBW 802.11ax HE20 106-Tones 5500MHz



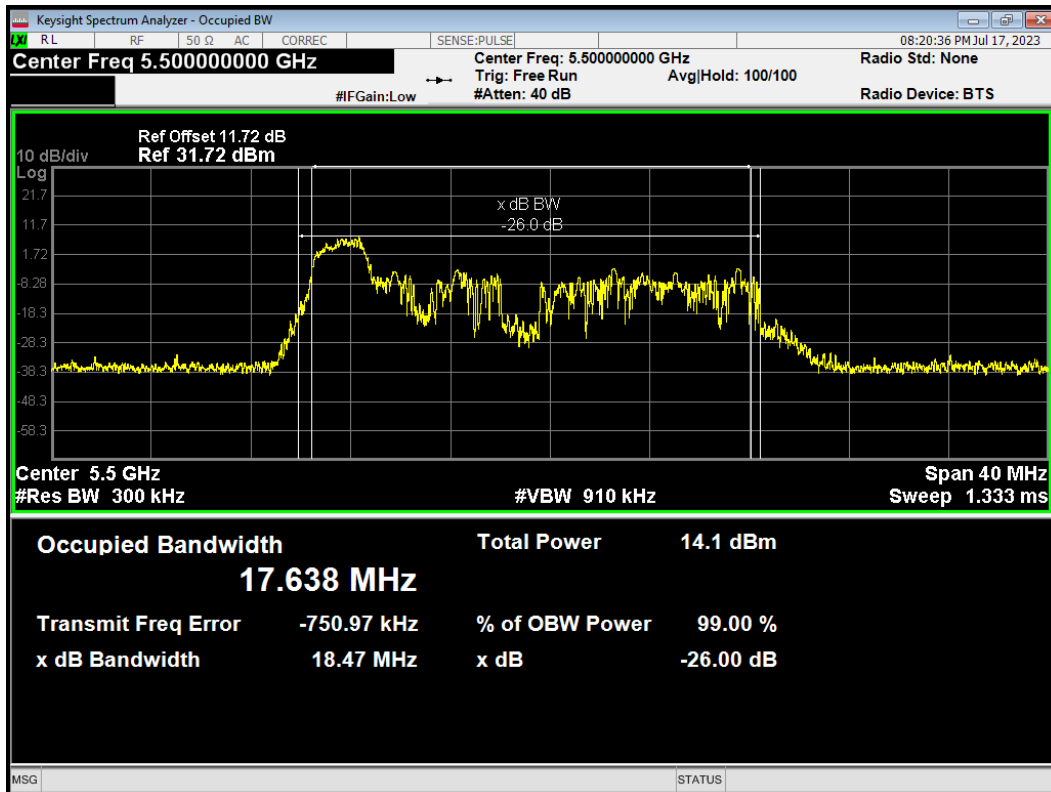
OBW 802.11ax HE20 106-Tones 5580MHz



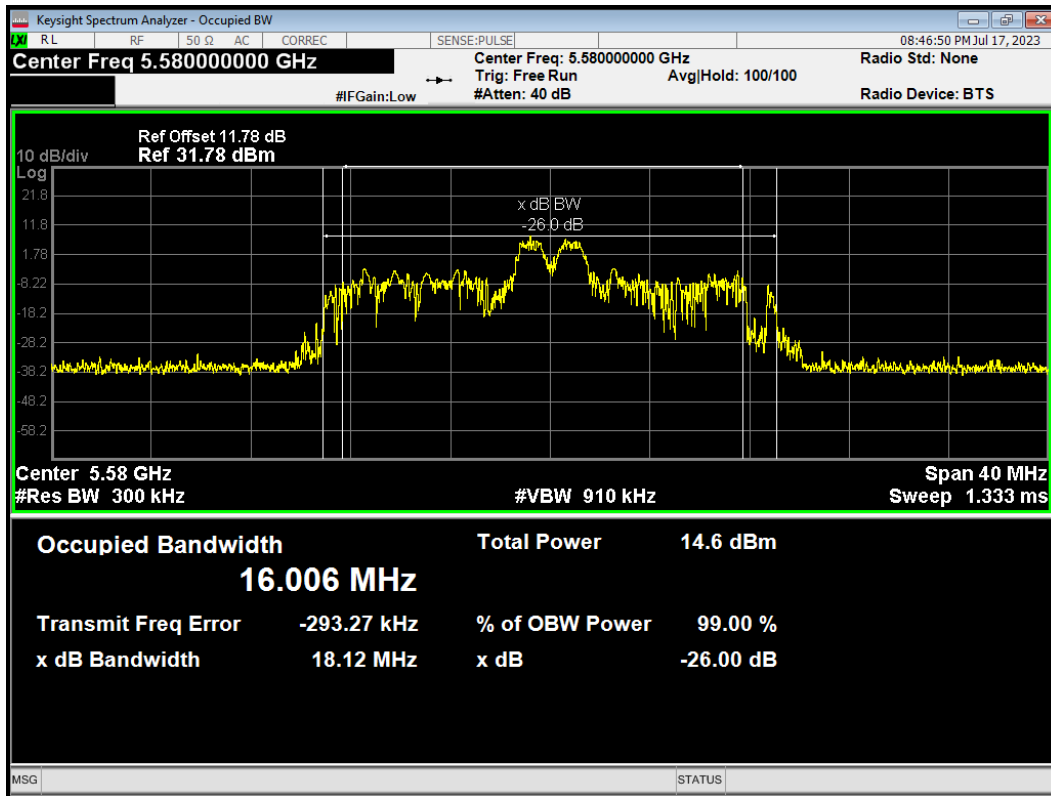
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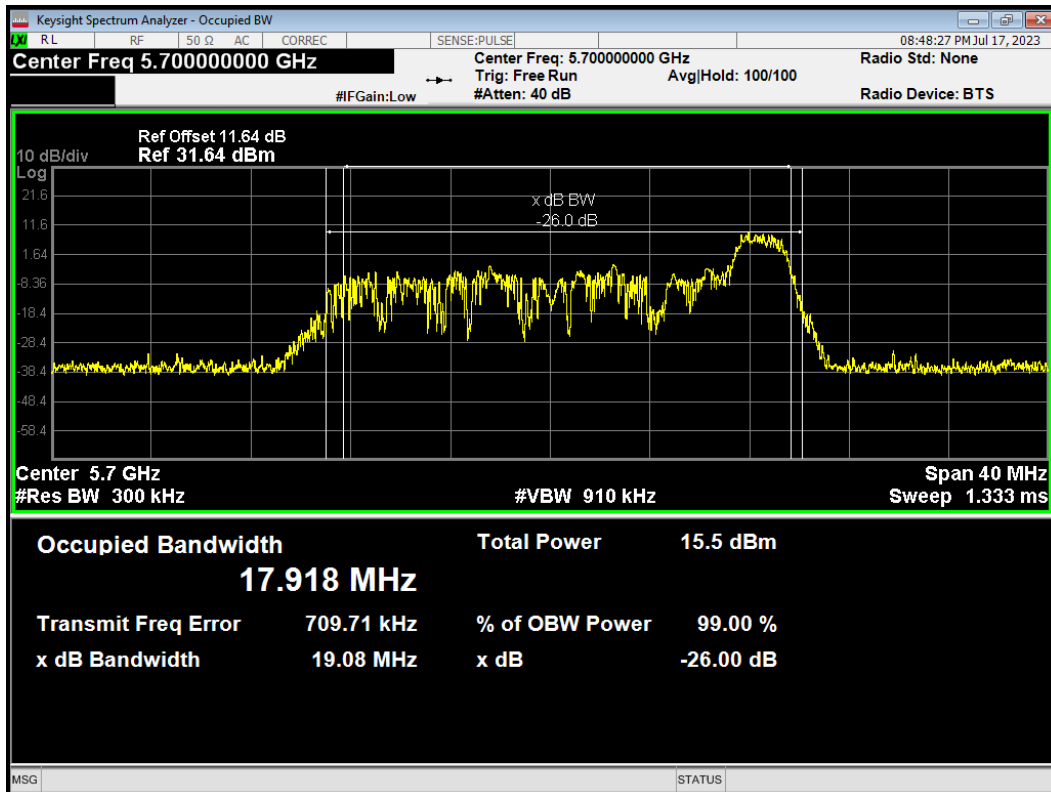
OBW 802.11ax HE20 26-Tones 5500MHz



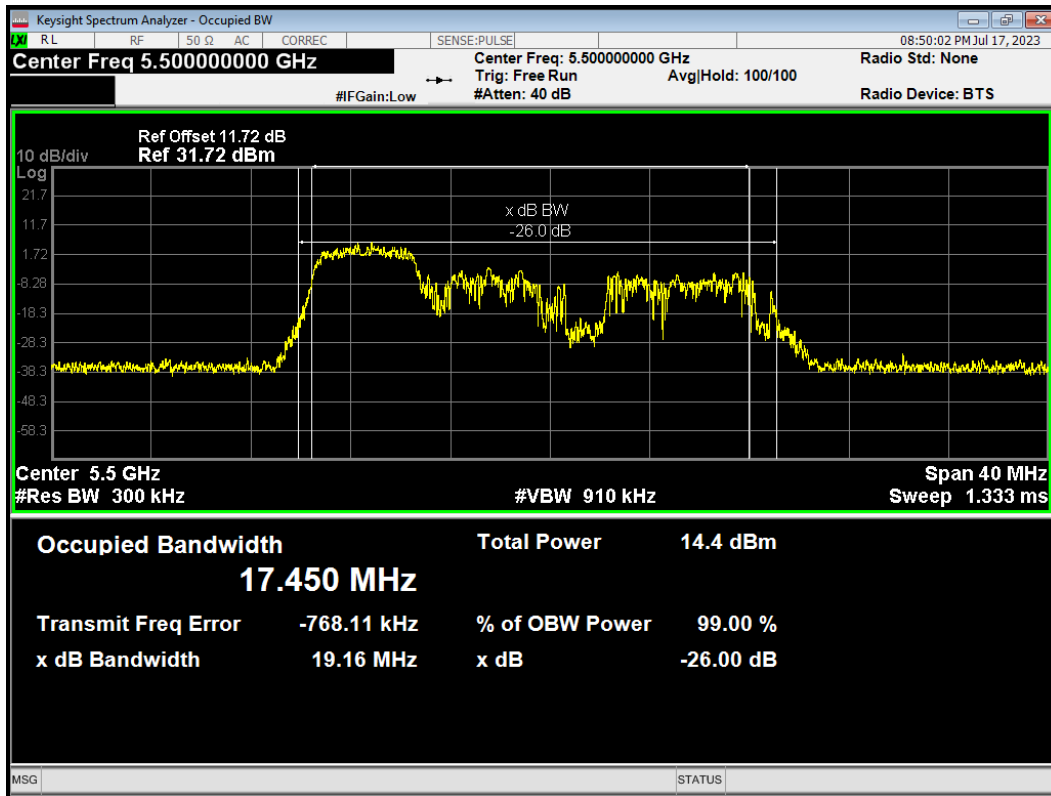
OBW 802.11ax HE20 26-Tones 5580MHz



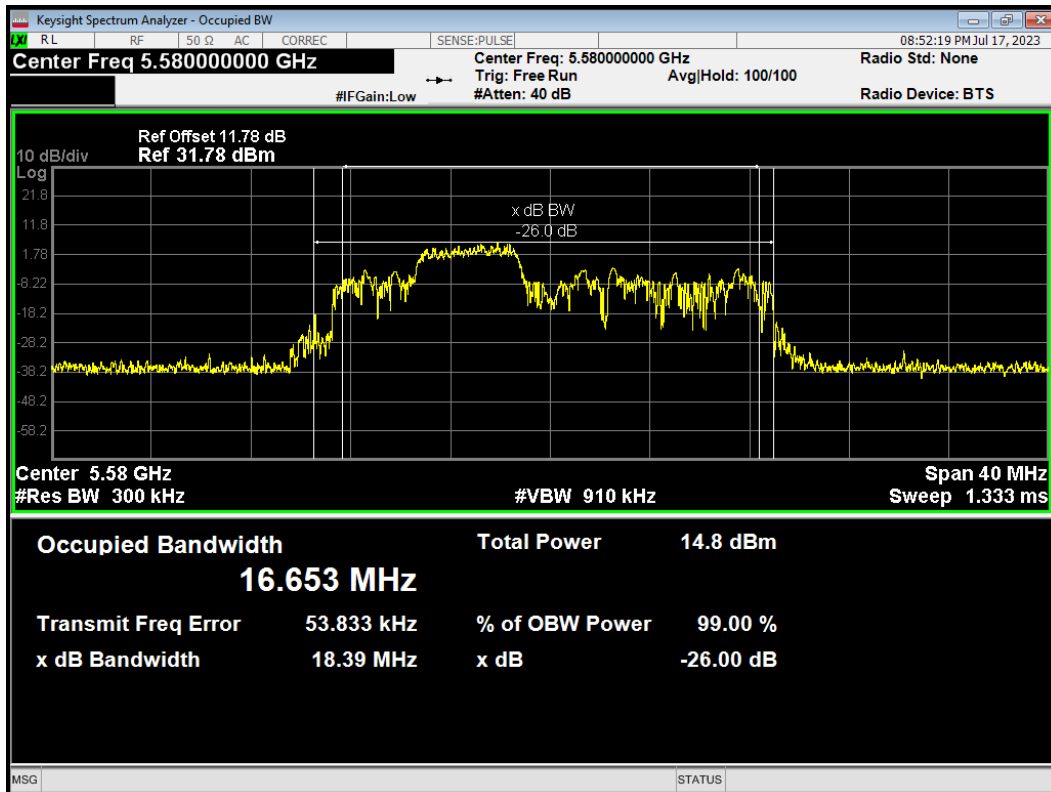
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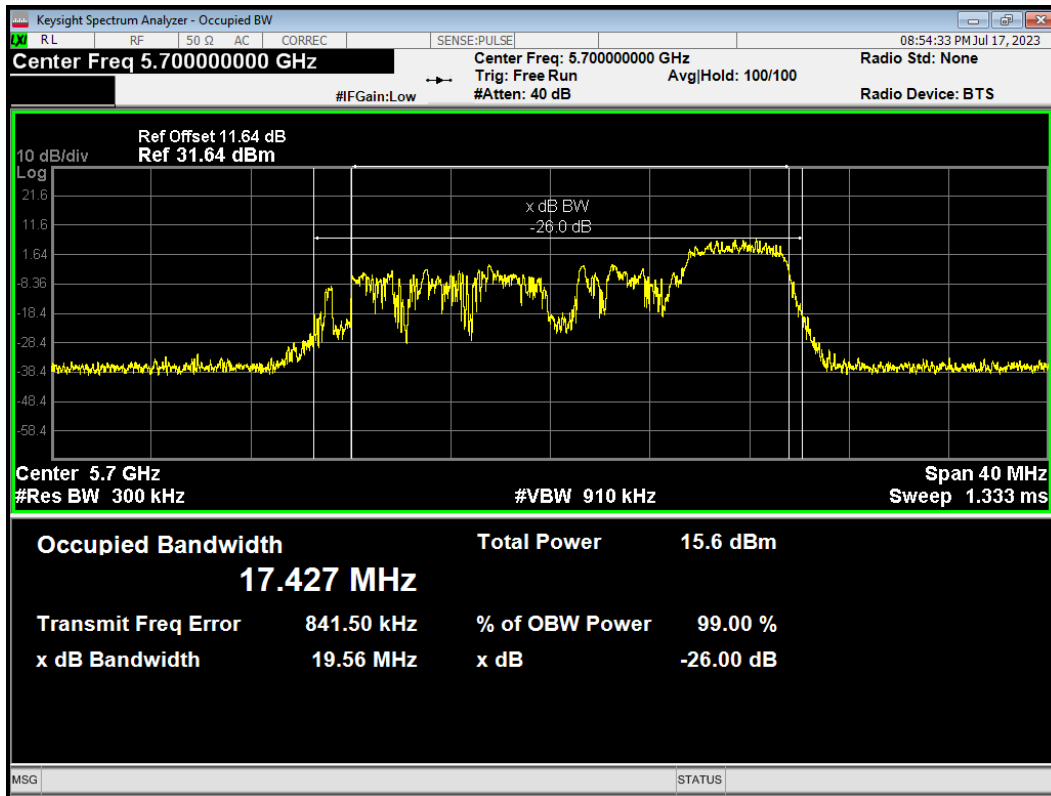
OBW 802.11ax HE20 52-Tones 5500MHz



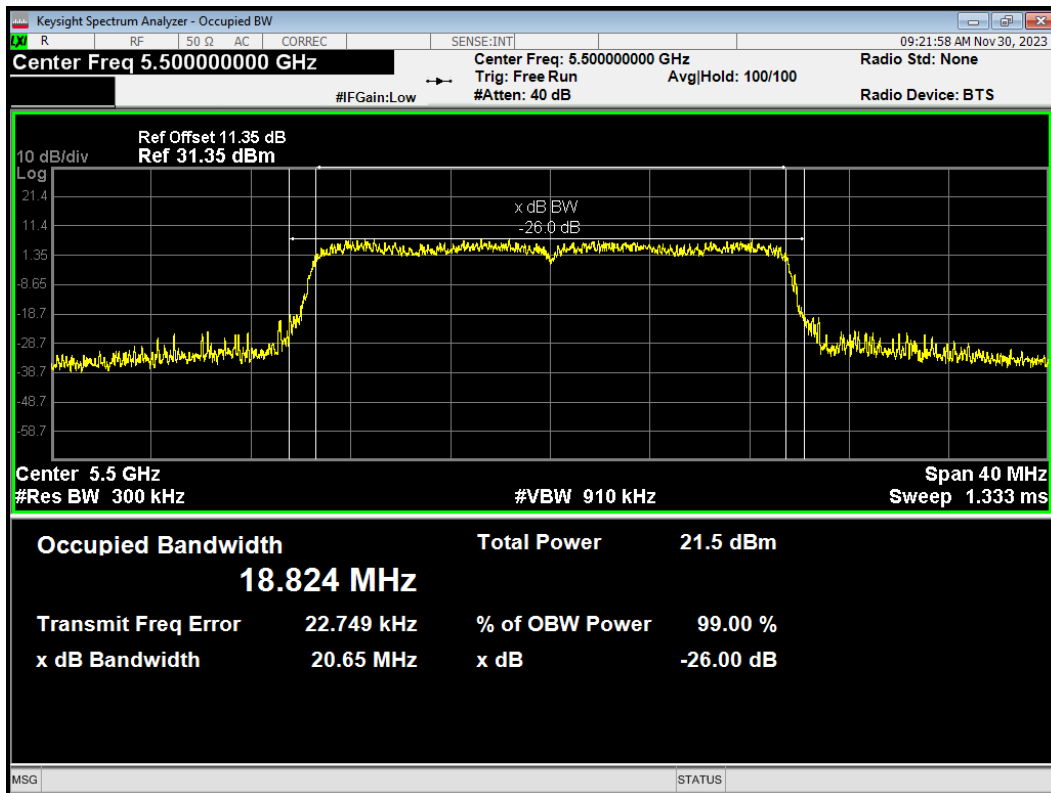
OBW 802.11ax HE20 52-Tones 5580MHz



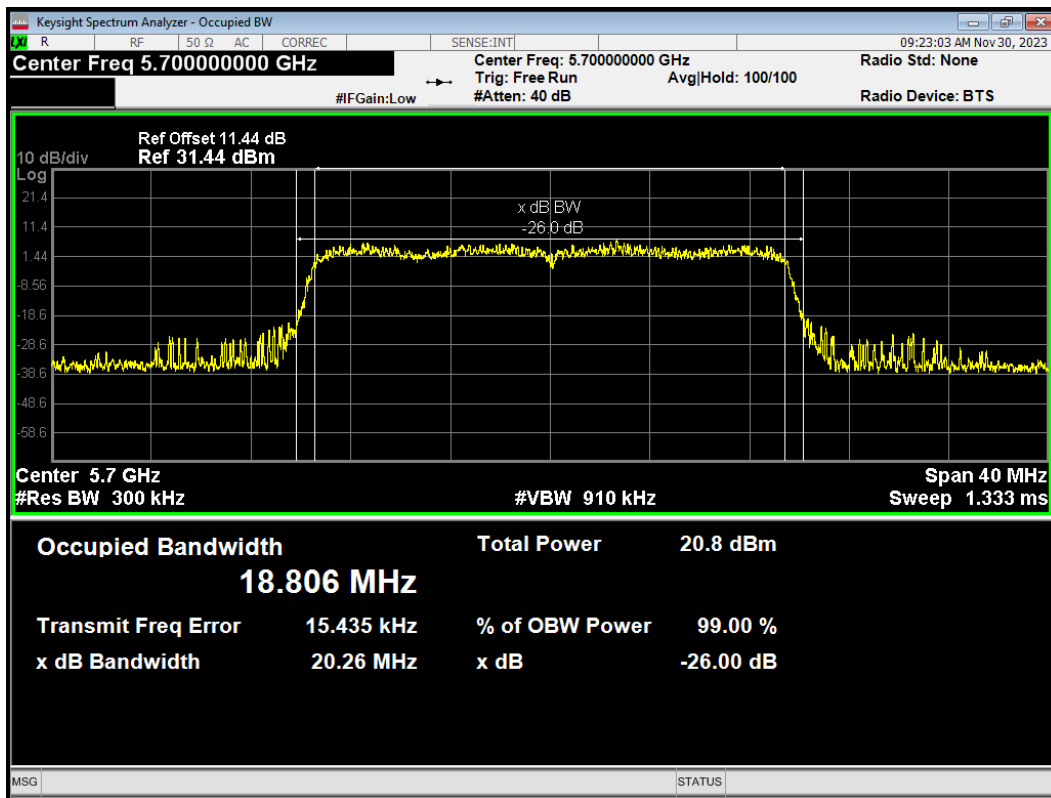
OBW 802.11ax HE20 52-Tones 5700MHz



OBW 802.11ax HE20 242-Tones 5500MHz



OBW 802.11ax HE20 242-Tones 5700MHz



OBW 802.11ax HE40 26-Tones 5510MHz

