
FCC Test Report

Report No.: AGC05877201202FE06

FCC ID : 2APA9-CMSXJ21E
APPLICATION PURPOSE : Original Equipment
PRODUCT DESIGNATION : IMILAB C30
BRAND NAME : N/A
MODEL NAME : CMSXJ21E
APPLICANT : Shanghai Imilab Technology Co., Ltd.
DATE OF ISSUE : Jan. 05, 2021
STANDARD(S) : FCC Part 15.407
TEST PROCEDURE(S) : KDB 789033 D02 v02r01
REPORT VERSION : V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd



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REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Jan. 05, 2021	Valid	Initial Release

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1. VERIFICATION OF CONFORMITY

Applicant	Shanghai Imilab Technology Co., Ltd.
Address	Room 001A, Floor 11, Block 1, No. 588 Zixing Road, Minhang District, Shanghai, China
Manufacturer	Shanghai Imilab Technology Co., Ltd.
Address	Room 001A, Floor 11, Block 1, No. 588 Zixing Road, Minhang District, Shanghai, China
Product Designation	IMILAB C30
Brand Name	N/A
Test Model	CMSXJ21E
Date of test	Dec. 23, 2020 to Jan. 05, 2021
Deviation	No any deviation from the test method
Condition of Test Sample	Normal
Test Result	Pass
Report Template	AGCRT-US-BGN/RF

We hereby certify that:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with requirement of FCC Part 15 Rules requirement.

Prepared By

Sky Dong

Sky Dong
(Project Engineer)

Jan. 05, 2021

Reviewed By

Max Zhang

Max Zhang
(Reviewer)

Jan. 05, 2021

Approved By

Forrest Lei

Forrest Lei
(Authorized Officer)

Jan. 05, 2021

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2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

The EUT is designed as “IMILAB C30”. It is designed by way of utilizing the OFDM technology to achieve the system operation.

A major technical description of EUT is described as following

Operation Frequency	5150 MHz~5250MHz; 5250 MHz~5350MHz, 5470 MHz~5725MHz, 5725 MHz~5850MHz
Output Power	IEEE 802.11a20:14.30dBm; IEEE 802.11n(20):13.63dBm; IEEE802.11n(40):14.84dBm; IEEE 802.11ac(20):13.09dBm; IEEE 802.11ac(40):14.33dBm.
Modulation	BPSK, QPSK, 16QAM, 64QAM, 128QAM, 256QAM, OFDM
Number of channels	34
Hardware Version	LSAM056D1-1
Software Version	021501_1.6.0_xxxx(X is the number 0 minus 9)
Antenna Designation	FPC Antenna(Comply with requirements of the FCC part 15.203)
Antenna Gain	1.41dBi
Power Supply	DC 5V by adapter

Note:

1. The EUT is designed as Client without Radar Detection device
2. The device do not support TPC.

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2.2. TABLE OF CARRIER FREQUENCIES

Frequency Band	Channel Number	Frequency	Frequency Band	Channel Number	Frequency
5150 MHz ~ 5250MHz	36	5180 MHz	5470 MHz ~ 5725MHz	112	5560 MHz
	38	5190 MHz		116	5580 MHz
	40	5200 MHz		118	5590 MHz
	44	5220 MHz		120	5600 MHz
	46	5230 MHz		124	5620 MHz
	48	5240 MHz		126	5630 MHz
5250 MHz ~ 5350MHz	52	5260 MHz		128	5640 MHz
	54	5270 MHz		132	5660 MHz
	56	5280 MHz		134	5670 MHz
	60	5300 MHz		136	5680 MHz
	62	5310 MHz		140	5700 MHz
	64	5320 MHz		149	5745 MHz
5470 MHz ~ 5725MHz	100	5500 MHz	5725 MHz ~ 5850MHz	151	5755 MHz
	102	5510 MHz		153	5765 MHz
	104	5520 MHz		157	5785 MHz
	108	5540 MHz		159	5795 MHz
	110	5550 MHz		165	5825MHz

Note: For 20MHz bandwidth system use Channel

36,40,44,48,52,56,60,64,100,104,108,112,116,120,124,128,132,136,140,149,153,157,161,165; For 40MHz bandwidth system use Channel 38,46,54,62,102,110,118,126,134,151,159.

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2.3. RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID: 2APA9-CMSXJ21E** filing to comply with the FCC Part 15 requirements.

2.4. TEST METHODOLOGY

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10 (2013).

Radiated testing was performed at an antenna to EUT distance 3 meters.

Others testing (listed at item 5.3) was performed according to the procedures in FCC Part 15.407 rules KDB 789033 D02

2.5. SPECIAL ACCESSORIES

Refer to section 5.2.

2.6. EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

2.7. ANTENNA REQUIREMENT

This intentional radiator is designed with a permanently attached antenna of an antenna to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

For more information of the antenna, please refer to the APPENDIX B: PHOTOGRAPHS OF EUT.

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3. MEASUREMENT UNCERTAINTY

The uncertainty is calculated using the methods suggested in the “Guide to the Expression of Uncertainty in measurement” (GUM) published by CISPR and ANSI.

- Uncertainty of Conducted Emission, $U_c = \pm 3.2$ dB
- Uncertainty of Radiated Emission below 1GHz, $U_c = \pm 3.9$ dB
- Uncertainty of Radiated Emission above 1GHz, $U_c = \pm 4.8$ dB

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4. DESCRIPTION OF TEST MODES

Mode	Available channel	Tested channel	Modulation	Date rate(Mbps)
802.11a/n20/ac20	36, 40, 44, 48, 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 149, 153, 157, 161, 165	36, 40, 48, 52, 60, 64, 100, 120, 140, 149, 157, 165	OFDM	6Mbps/MCS0
802.11n40/ac40	38, 46, 54, 62, 102, 110, 118, 126, 134, 151, 159;	38, 46, 54, 62, 102, 118, 134, 151, 159	OFDM	MCS0

Note:

1. The EUT has been set to operate continuously on tested channel individually, and the EUT is operating at its maximum duty cycle>or equal 98%
2. All modes under which configure applicable have been tested and the worst mode test data recording in the test report, if no other mode data.
3. The test software is the rtwpriv which can set the EUT into the individual test modes.

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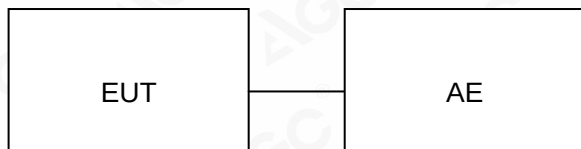
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5. SYSTEM TEST CONFIGURATION

5.1. CONFIGURATION OF EUT SYSTEM

Configure 1:



5.2. EQUIPMENT USED IN EUT SYSTEM

Item	Equipment	Model No.	ID or Specification	Remark
1	IMILAB C30	CMSXJ21E	2APA9-CMSXJ21E	EUT
2	Adapter	A162-050200U-US2	Input:100-240V, 50/60Hz, 0.35A Output: 5V, 2A	AE

5.3. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.407	6dB Bandwidth	Compliant
§15.407	Emission Bandwidth	Compliant
§15.407	Maximum conducted output power	Compliant
§15.407	Conducted Spurious Emission	Compliant
§15.407	Maximum Conducted Output Power Density	Compliant
§15.209	Radiated Emission	Compliant
§15.407	Band Edges	Compliant
§15.207	Line Conduction Emission	Compliant

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6. TEST FACILITY

Test Site	Attestation of Global Compliance (Shenzhen) Co., Ltd
Location	1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Designation Number	CN1259
FCC Test Firm Registration Number	975832
A2LA Cert. No.	5054.02
Description	Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by A2LA

TEST EQUIPMENT OF CONDUCTED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESPI	101206	May 15, 2020	May 14, 2021
LISN	R&S	ESH2-Z5	100086	Jul. 03,2020	Jul. 02,2021
Test software	R&S	ES-K1 (Ver V1.71)	N/A	N/A	N/A

TEST EQUIPMENT OF RADIATED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESCI	10096	May 15, 2020	May 14, 2021
EXA Signal Analyzer	Aglient	N9010A	MY53470504	Dec. 07, 2020	Dec. 06, 2021
Power sensor	Aglient	U2021XA	MY54110007	Jun. 08, 2020	Jun. 07, 2021
2.4GHz Fliter	EM Electronics	2400-2500MHz	N/A	Mar. 23, 2020	Mar. 22, 2022
Attenuator	ZHINAN	E-002	N/A	Sep. 03, 2020	Sep. 02, 2022
Horn antenna	SCHWARZBECK	BBHA 9170	#768	Sep.21, 2019	Sep. 20, 2021
Active loop antenna (9K-30MHz)	ZHINAN	ZN30900C	18051	May 22, 2020	May 21, 2022
Double-Ridged Waveguide Horn	ETS LINDGREN	3117	00034609	May 17, 2019	May 16, 2021
Broadband Preamplifier	ETS LINDGREN	3117PA	00225134	Sep. 03, 2020	Sep. 02, 2022
ANTENNA	SCHWARZBECK	VULB9168	494	Sep. 20, 2019	Sep. 19, 2021
Test software	Tonscend	JS32-RE (Ver.2.5)	N/A	N/A	N/A

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7. MAXIMUM CONDUCTED OUTPUT POWER

7.1. MEASUREMENT PROCEDURE

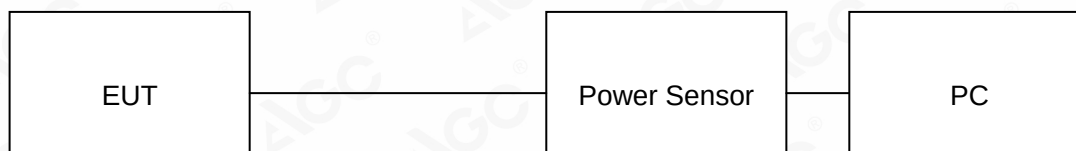
For average power test:

1. Connect EUT RF output port to power sensor through an RF attenuator.
2. Connect the power sensor to the PC.
3. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
4. Record the maximum power from the software.

Note : The EUT was tested according to KDB 789033 for compliance to FCC 47CFR 15.407 requirements.

7.2. TEST SET-UP

AVERAGE POWER SETUP



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7.3. LIMITS AND MEASUREMENT RESULT

LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION			
Frequency (MHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
5180	12.33	24	Pass
5200	12.18	24	Pass
5240	11.70	24	Pass
5260	13.63	24	Pass
5300	13.71	24	Pass
5320	13.26	24	Pass
5500	14.15	24	Pass
5600	14.19	24	Pass
5700	14.30	24	Pass
5745	12.91	30	Pass
5785	12.38	30	Pass
5825	11.17	30	Pass

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LIMITS AND MEASUREMENT RESULT FOR 802.11N20 MODULATION			
Frequency (MHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
5180	12.27	24	Pass
5200	12.40	24	Pass
5240	11.94	24	Pass
5260	13.53	24	Pass
5300	13.33	24	Pass
5320	13.63	24	Pass
5500	13.47	24	Pass
5600	13.58	24	Pass
5700	13.58	24	Pass
5745	12.91	30	Pass
5785	12.24	30	Pass
5825	11.54	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11N40 MODULATION			
Frequency (MHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
5190	13.34	24	Pass
5230	13.56	24	Pass
5270	14.79	24	Pass
5310	14.84	24	Pass
5510	14.76	24	Pass
5590	13.65	24	Pass
5670	13.69	24	Pass
5755	13.44	30	Pass
5795	12.53	30	Pass

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LIMITS AND MEASUREMENT RESULT FOR 802.11AC20 MODULATION			
Frequency (MHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
5180	12.96	24	Pass
5200	12.57	24	Pass
5240	12.41	24	Pass
5260	12.09	24	Pass
5300	12.05	24	Pass
5320	12.45	24	Pass
5500	12.68	24	Pass
5600	12.87	24	Pass
5700	13.01	24	Pass
5745	13.09	30	Pass
5785	12.01	30	Pass
5825	11.11	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11AC40 MODULATION			
Frequency (MHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
5190	14.19	24	Pass
5230	13.65	24	Pass
5270	12.96	24	Pass
5310	13.46	24	Pass
5510	13.88	24	Pass
5590	14.33	24	Pass
5670	13.99	24	Pass
5755	13.72	30	Pass
5795	12.35	30	Pass

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8. 6dB BANDWIDTH

8.1.1 -6dB BANDWIDTH MEASUREMENT PROCEDURE

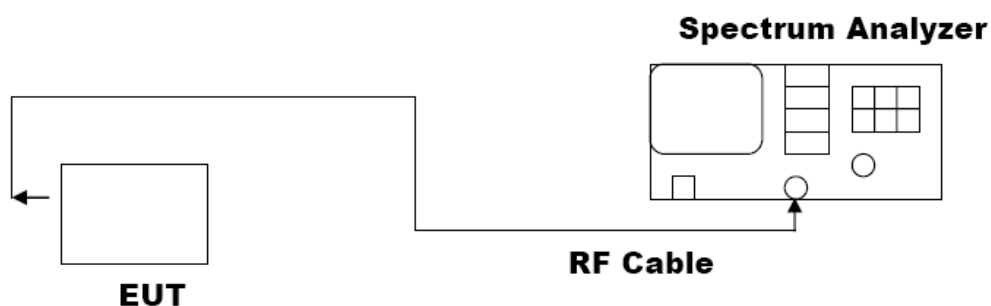
1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on operation frequency individually.
3. Set RBW = 100kHz.
4. Set the VBW $\geq 3 \times \text{RBW}$. Detector = Peak. Trace mode = max hold.
5. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.

8.1.2 99% OCCUPIED BANDWIDTH

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
3. Set Span = approximately 1.5 to 5 times the OBW, centered on a nominal channel
The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video bandwidth (VBW) shall be approximately three times RBW; Sweep = auto; Detector function = peak
4. Set SPA Trace 1 Max hold, then View.

Note: The EUT was tested according to KDB 789033 for compliance to FCC 47CFR 15.407 requirements.

8.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



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8.3. LIMITS AND MEASUREMENT RESULTS

LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION				
Applicable Limits	Applicable Limits			
	Test Data (MHz)			Criteria
	Frequency (MHz)	-6dB Bandwidth	99.00% Occupied Bandwidth	
>500KHZ	5745MHz	16.38	16.676	PASS
	5785MHz	16.33	16.591	PASS
	5825MHz	16.37	16.634	PASS

LIMITS AND MEASUREMENT RESULT FOR 802.11N20/40 MODULATION				
Applicable Limits	Applicable Limits			
	Test Data (MHz)			Criteria
	Frequency (MHz)	-6dB Bandwidth	99.00% Occupied Bandwidth	
>500KHZ	5745MHz	17.57	17.793	PASS
	5785MHz	17.24	17.746	PASS
	5825MHz	17.31	17.733	PASS
	5755MHz	36.32	36.284	PASS
	5795MHz	36.33	36.284	PASS

LIMITS AND MEASUREMENT RESULT FOR 802.11AC20/40 MODULATION				
Applicable Limits	Applicable Limits			
	Test Data (MHz)			Criteria
	Frequency (MHz)	-6dB Bandwidth	99.00% Occupied Bandwidth	
>500KHZ	5745MHz	16.92	17.751	PASS
	5785MHz	17.57	17.755	PASS
	5825MHz	17.54	17.735	PASS
	5755MHz	36.35	36.394	PASS
	5795MHz	36.95	36.310	PASS

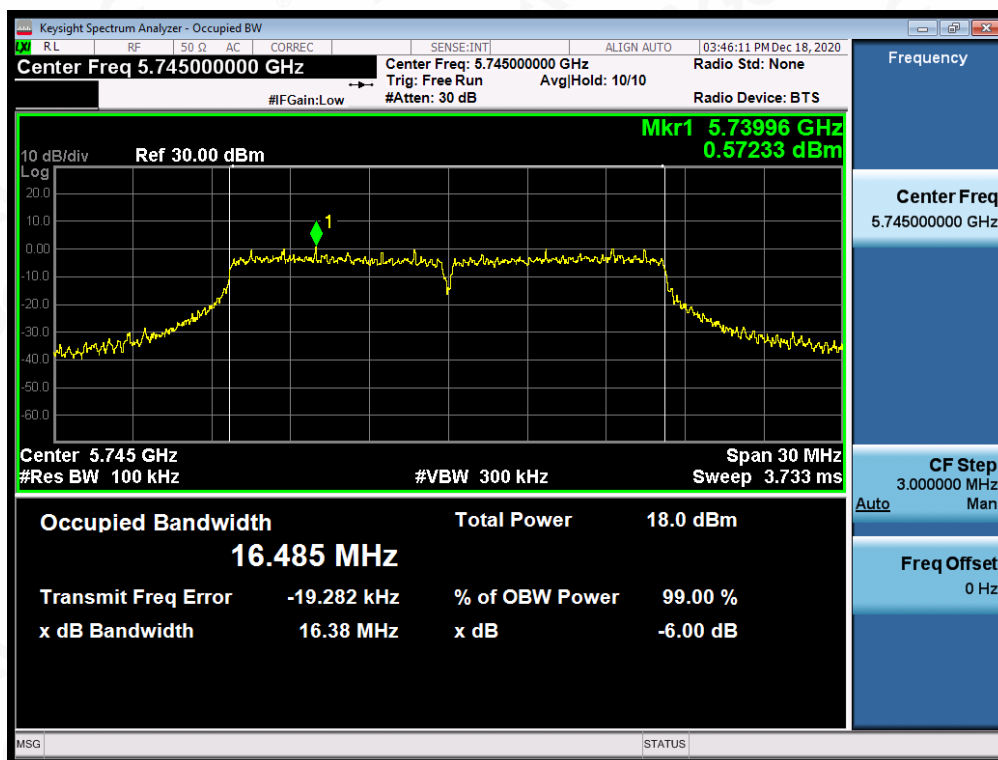
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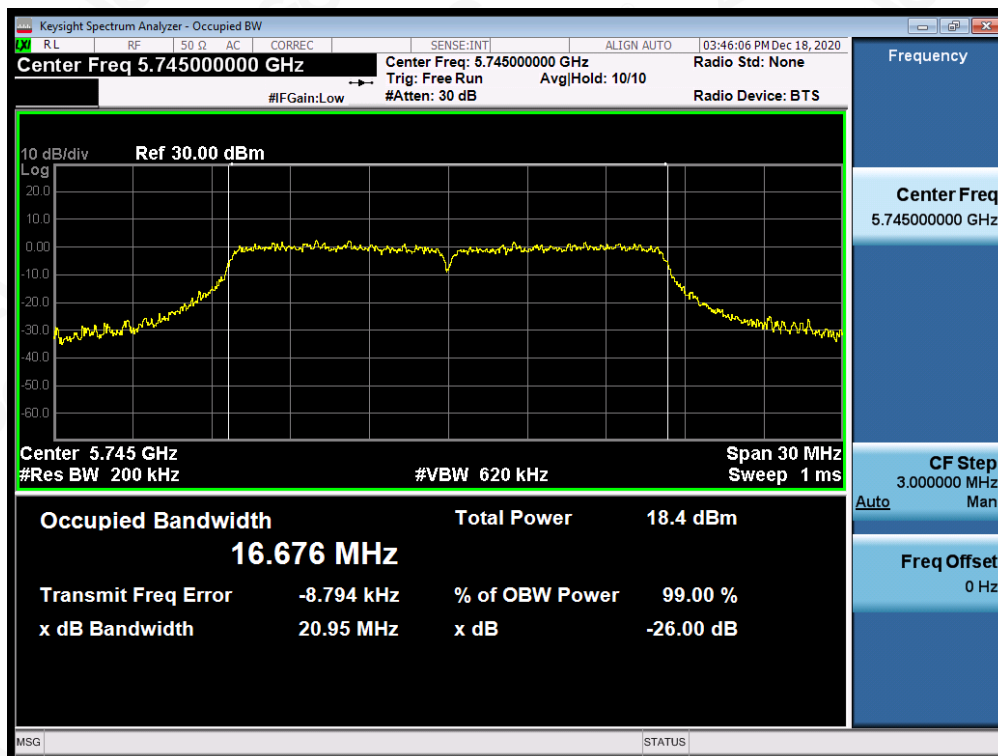


802.11a20 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5745MHz (-6dB BANDWIDTH)



TEST PLOT OF BANDWIDTH FOR 5745MHz (99% BANDWIDTH)

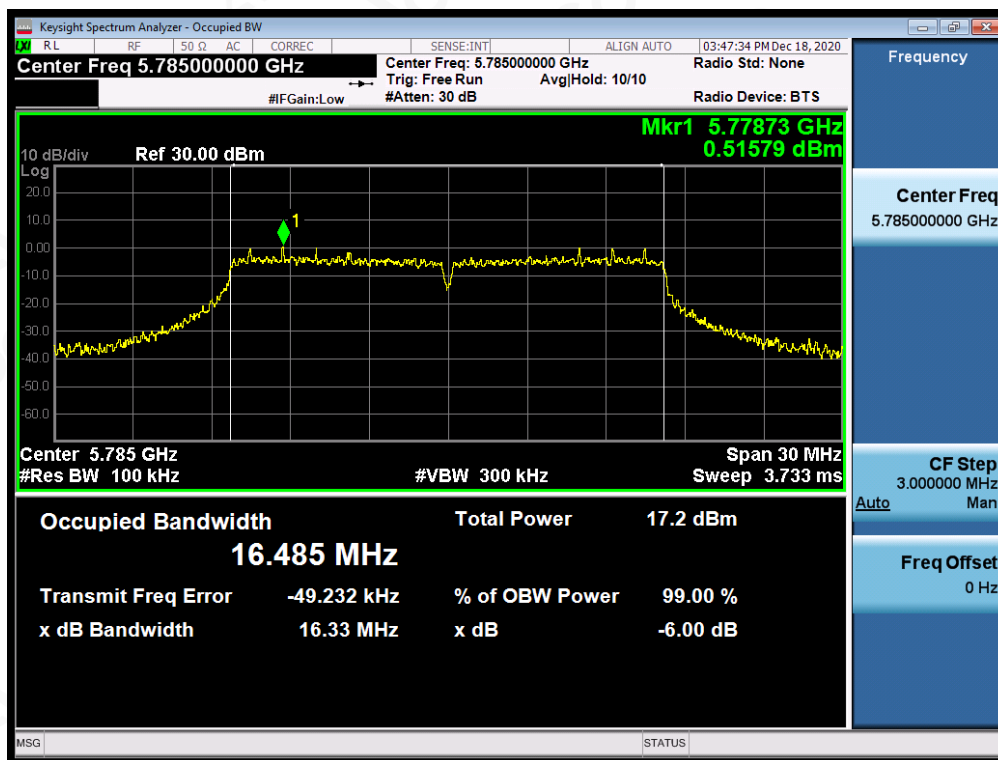


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TEST PLOT OF BANDWIDTH FOR 5785MHz (-6dB BANDWIDTH)



TEST PLOT OF BANDWIDTH FOR 5785MHz (99% BANDWIDTH)



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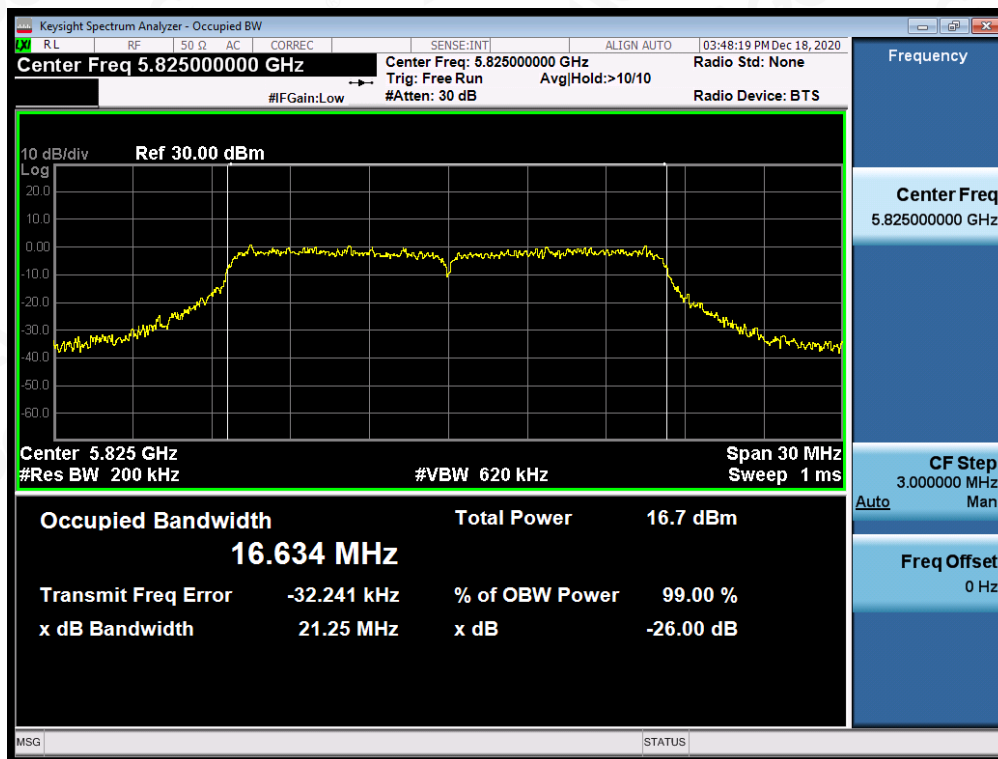
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TEST PLOT OF BANDWIDTH FOR 5825MHz (-6dB BANDWIDTH)



TEST PLOT OF BANDWIDTH FOR 5825MHz (99% BANDWIDTH)



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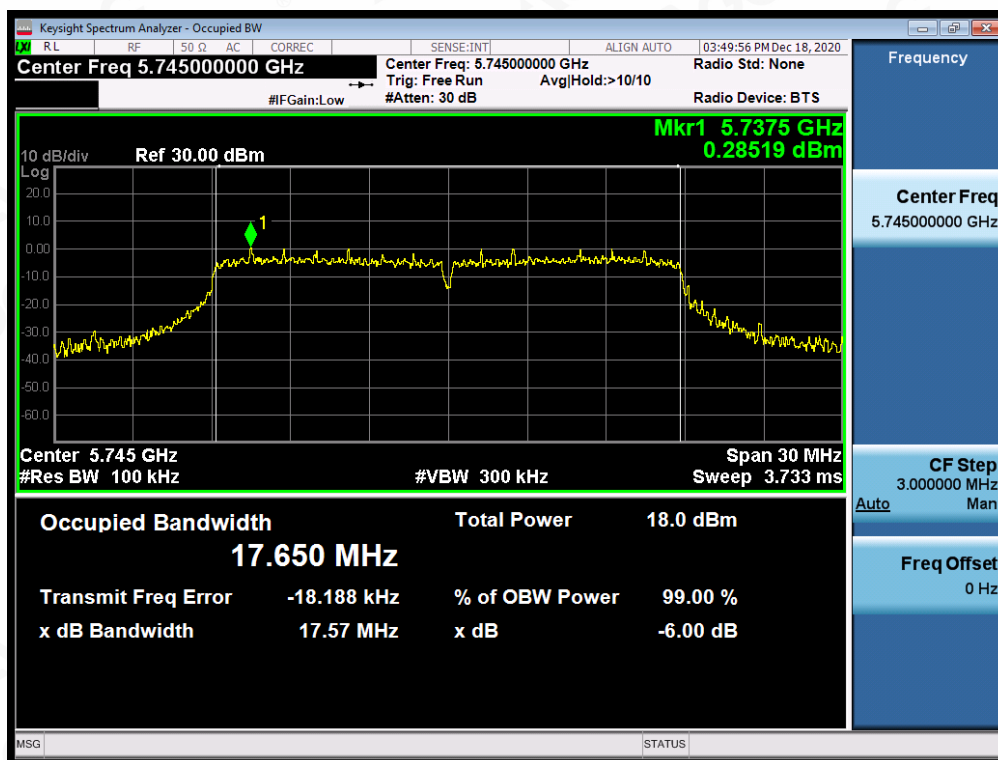
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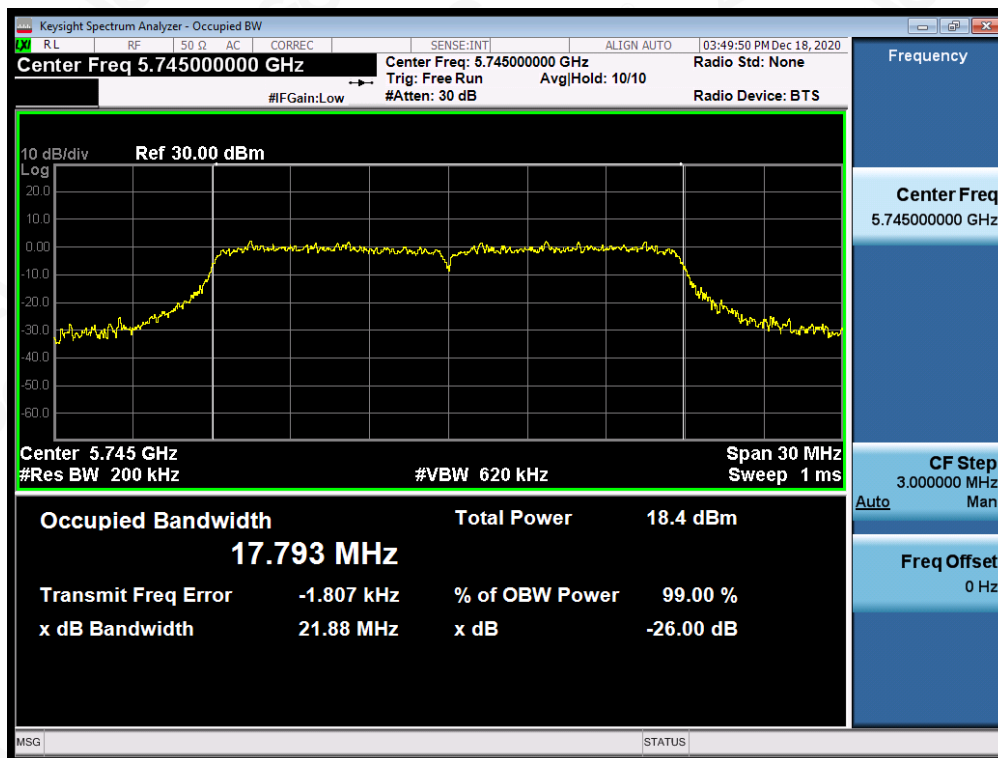


802.11n20 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5745MHz (-6dB BANDWIDTH)



TEST PLOT OF BANDWIDTH FOR 5745MHz (99% BANDWIDTH)

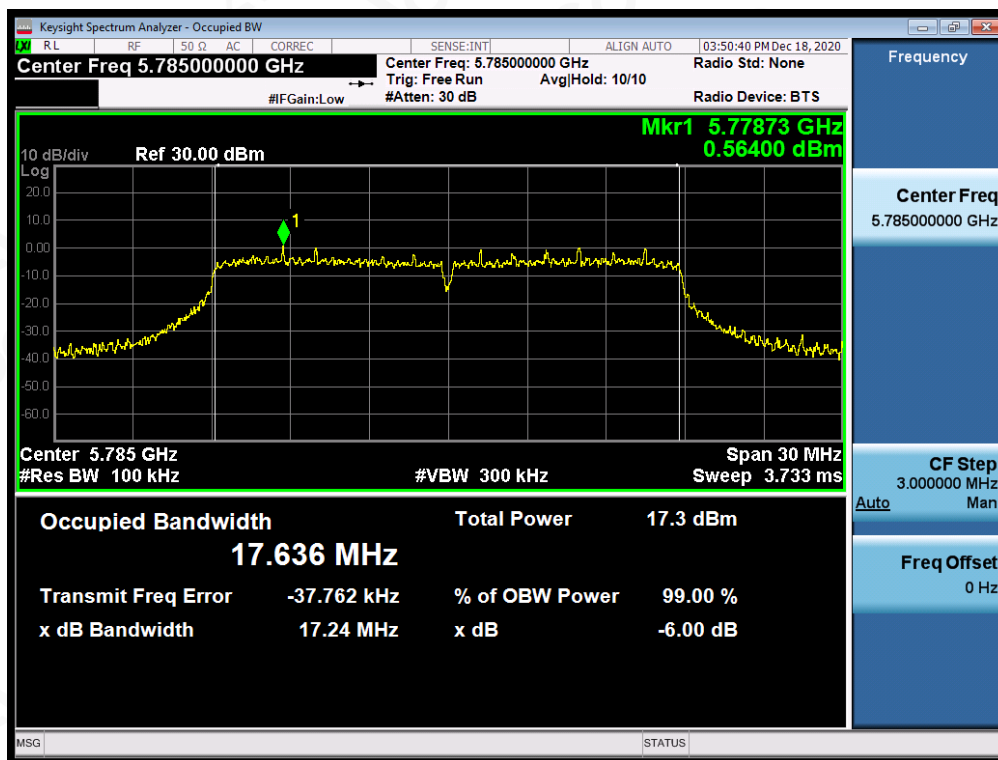


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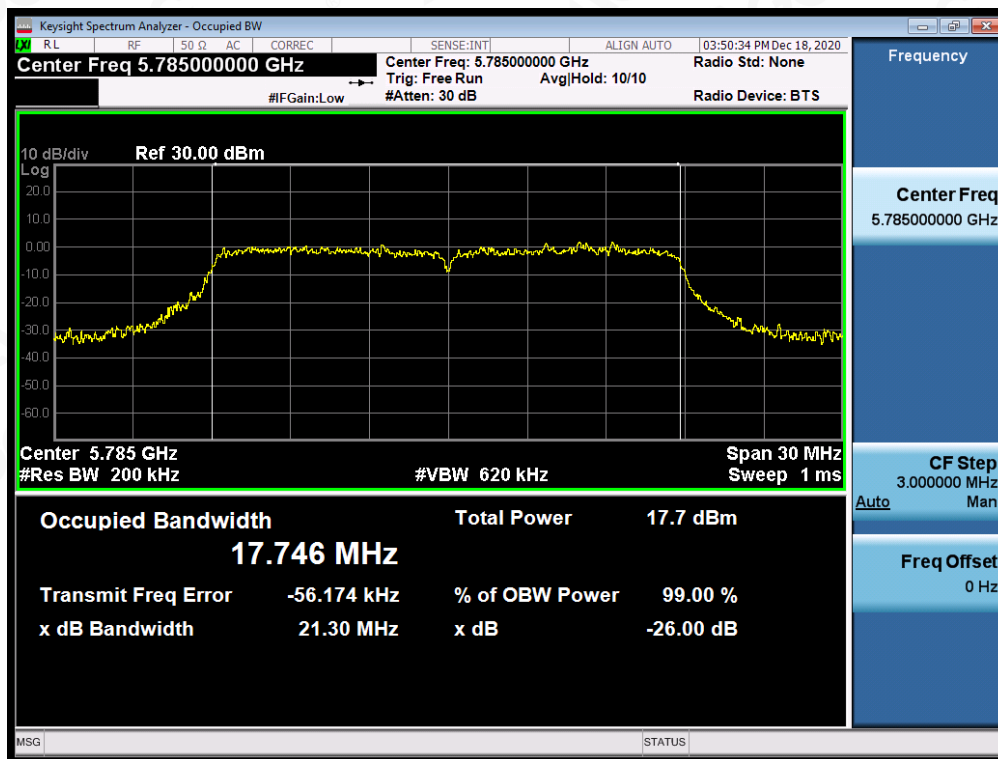
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TEST PLOT OF BANDWIDTH FOR 5785MHz (-6dB BANDWIDTH)



TEST PLOT OF BANDWIDTH FOR 5785MHz (99% BANDWIDTH)

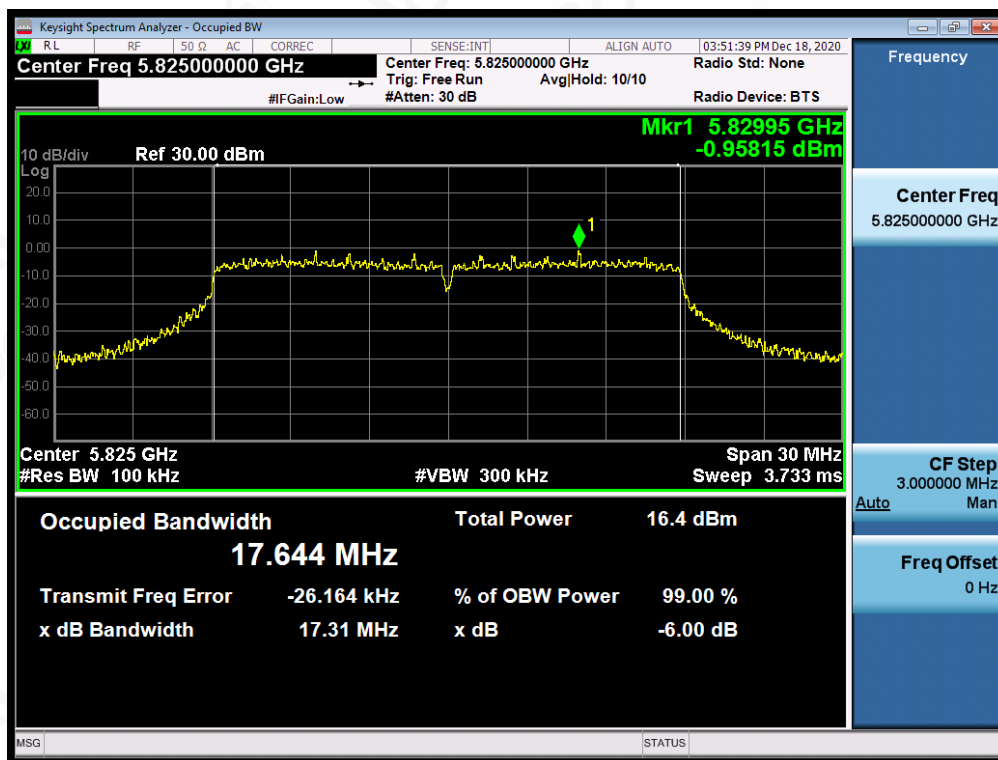


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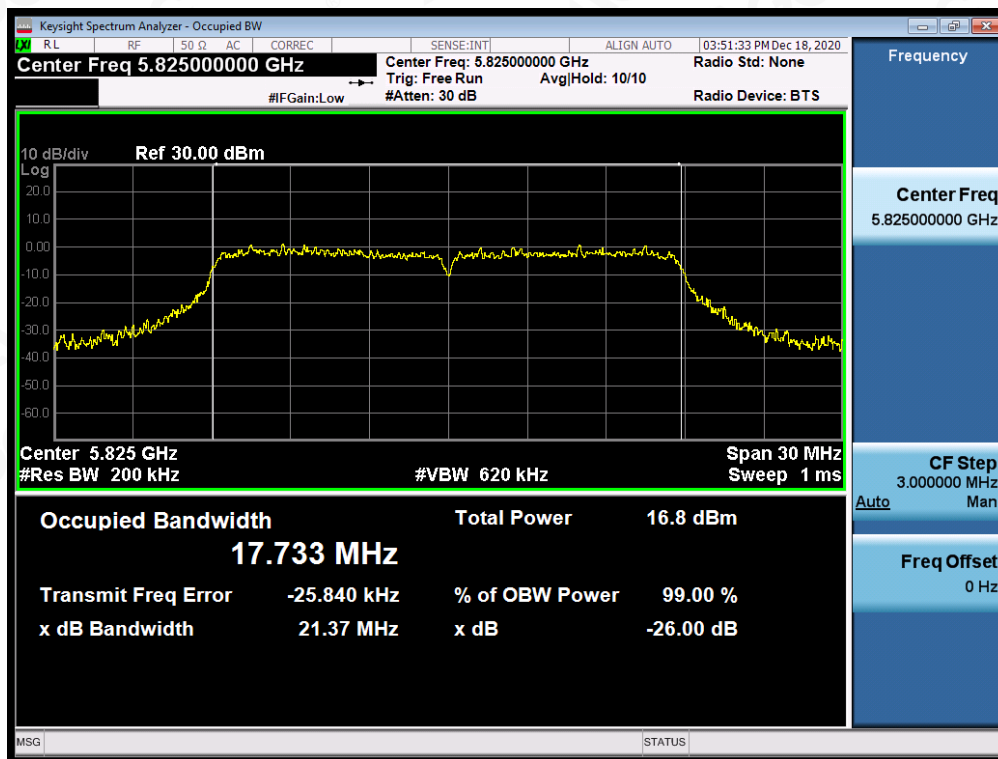
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TEST PLOT OF BANDWIDTH FOR 5825MHz (-6dB BANDWIDTH)



TEST PLOT OF BANDWIDTH FOR 5825MHz (99% BANDWIDTH)



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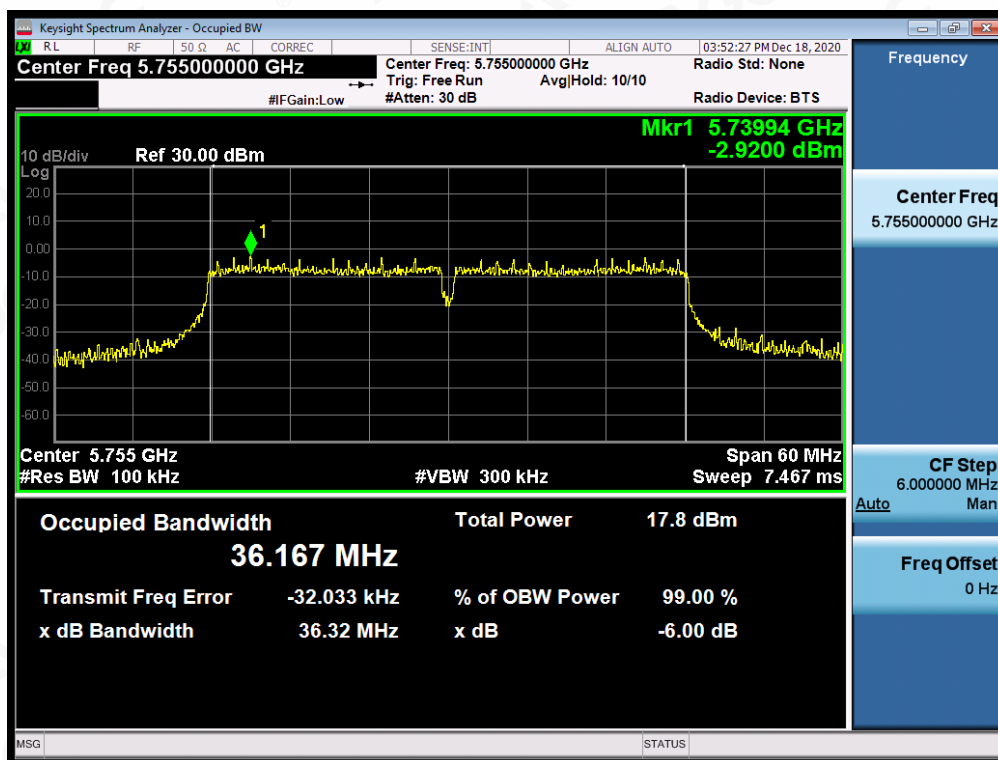
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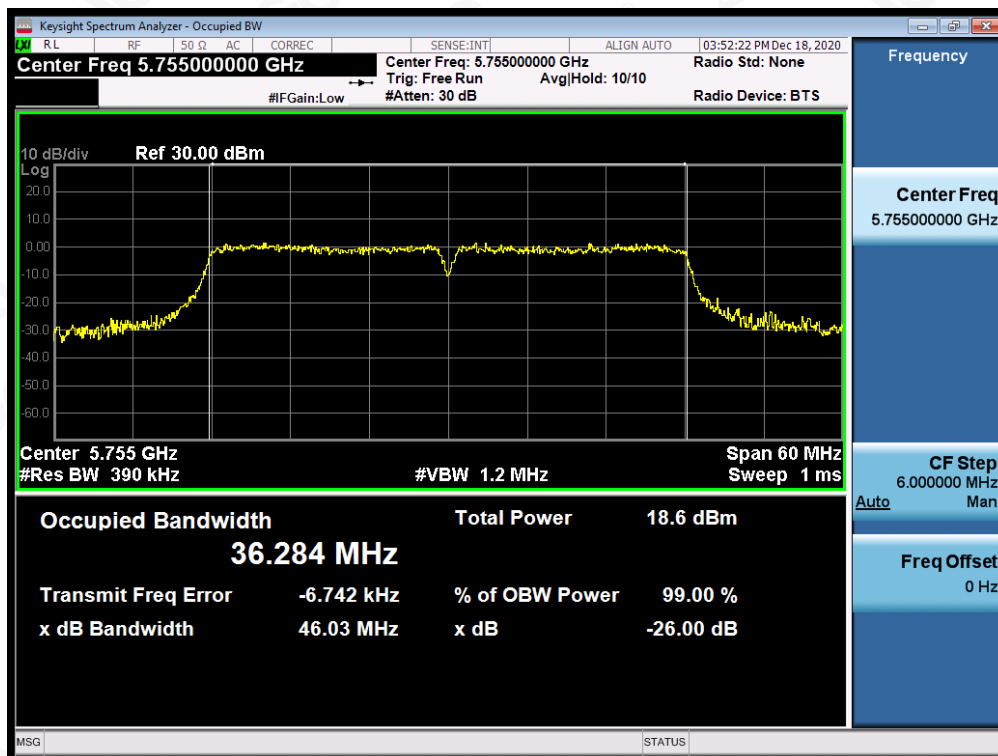


802.11n40 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5755MHz (-6dB BANDWIDTH)



TEST PLOT OF BANDWIDTH FOR 5755MHz (99% BANDWIDTH)



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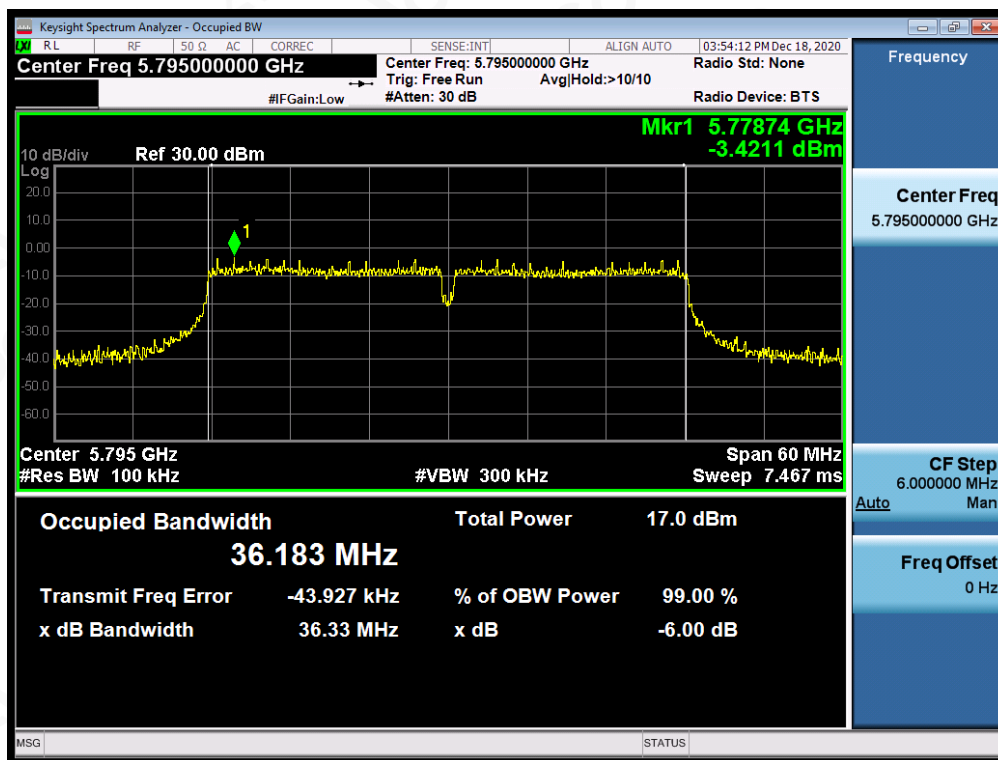
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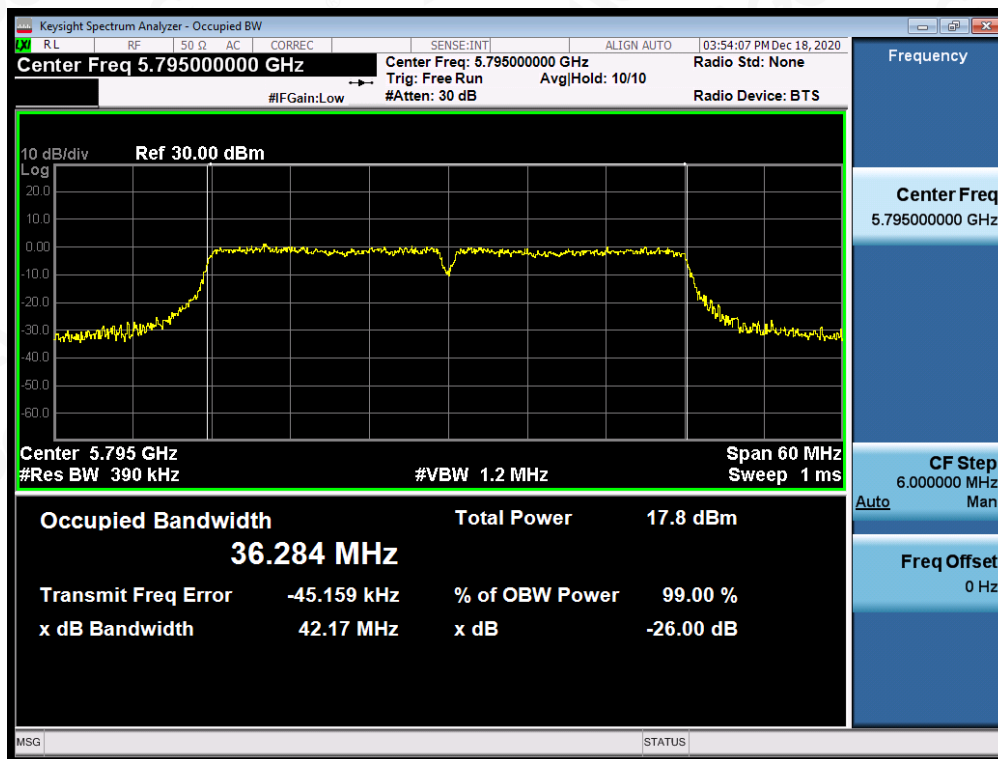
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TEST PLOT OF BANDWIDTH FOR 5795MHz (-6dB BANDWIDTH)



TEST PLOT OF BANDWIDTH FOR 5795MHz (99% BANDWIDTH)



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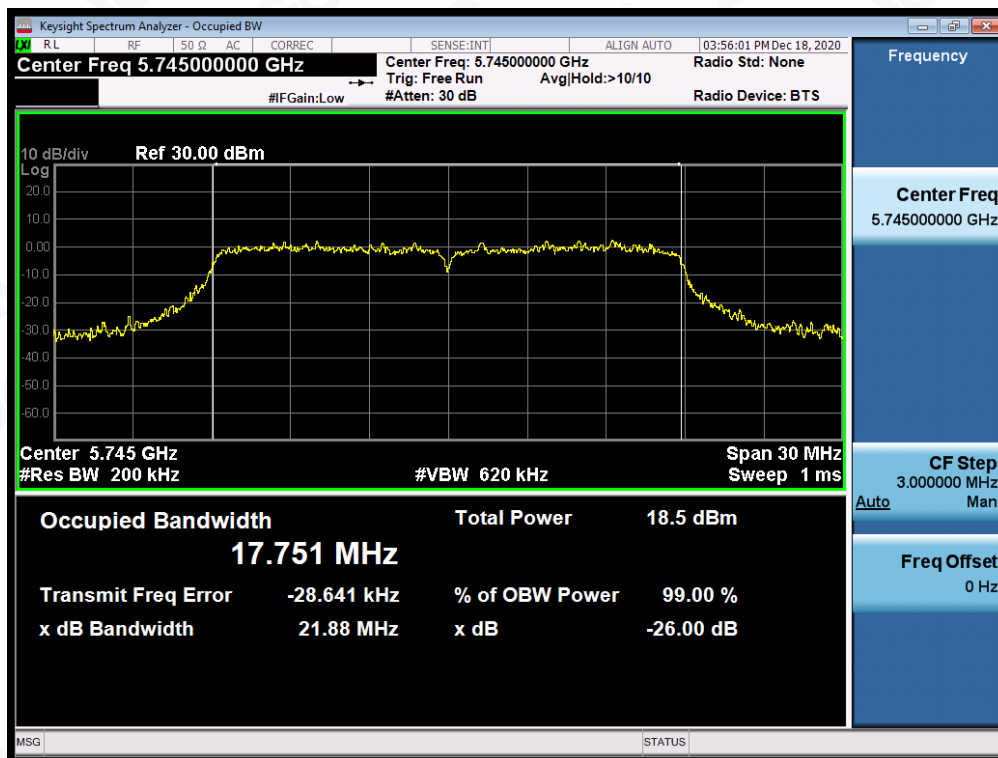


802.11ac20 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5745MHz (-6dB BANDWIDTH)



TEST PLOT OF BANDWIDTH FOR 5745MHz (99% BANDWIDTH)



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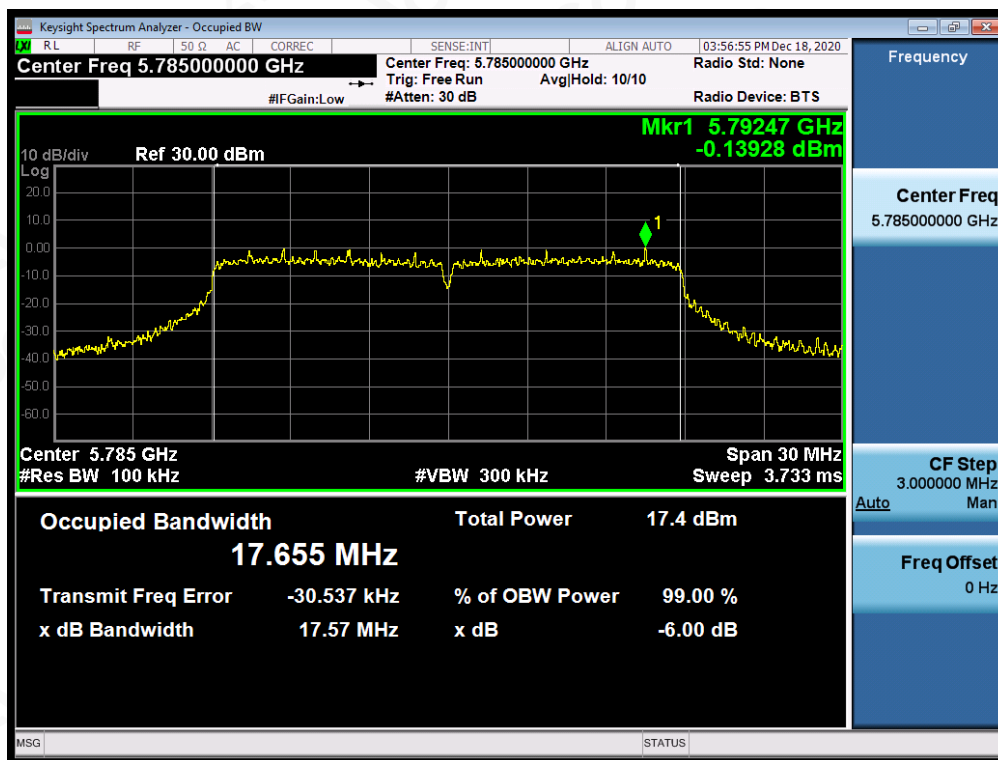
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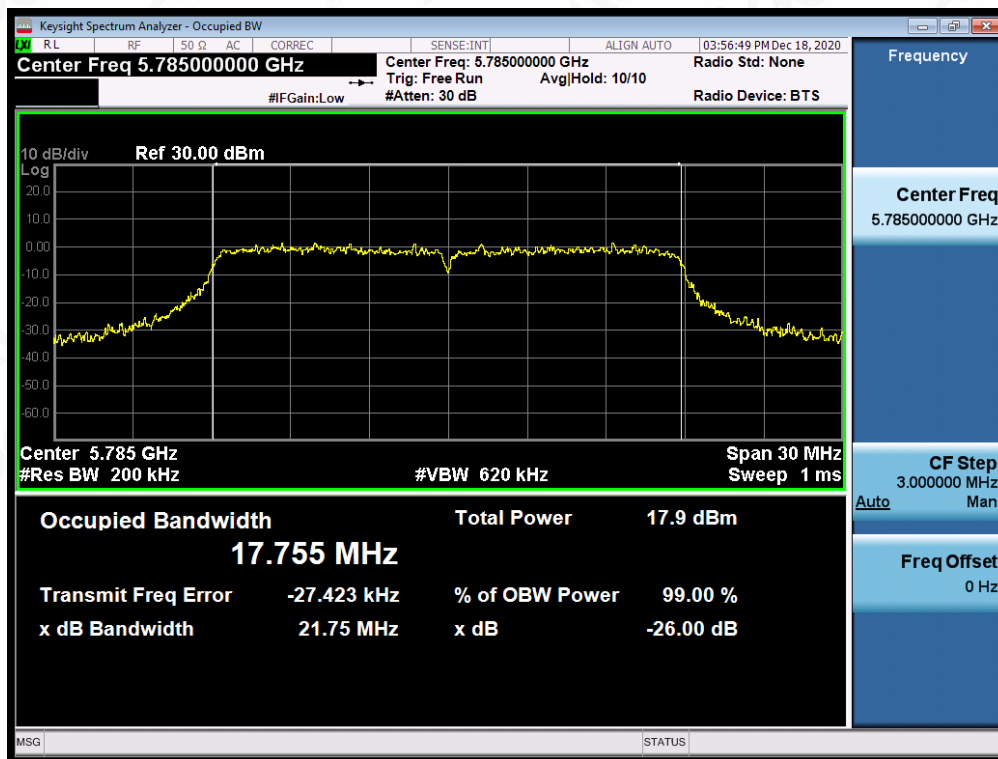
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TEST PLOT OF BANDWIDTH FOR 5785MHz (-6dB BANDWIDTH)



TEST PLOT OF BANDWIDTH FOR 5785MHz (99% BANDWIDTH)



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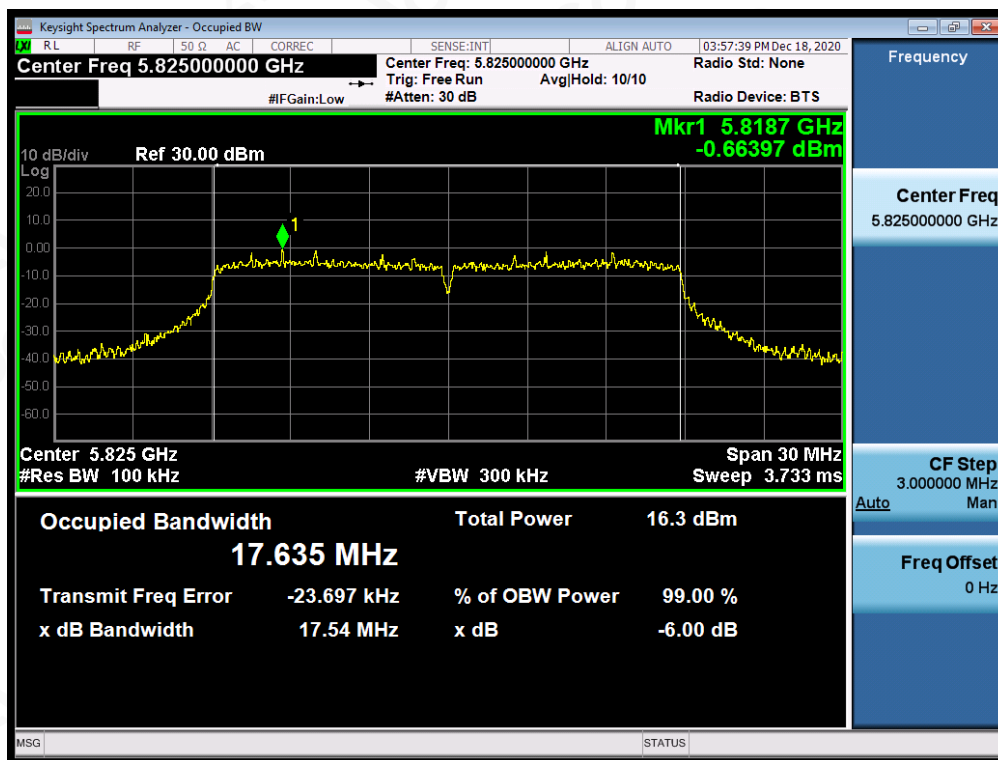
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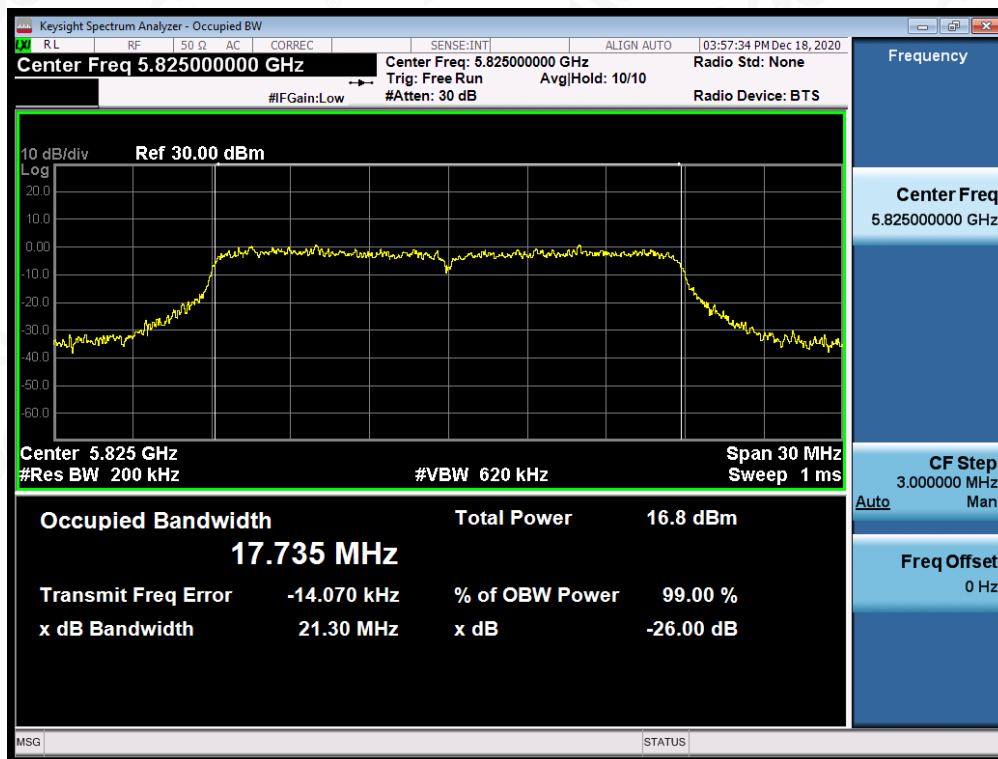
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TEST PLOT OF BANDWIDTH FOR 5825MHz (-6dB BANDWIDTH)



TEST PLOT OF BANDWIDTH FOR 5825MHz (99% BANDWIDTH)



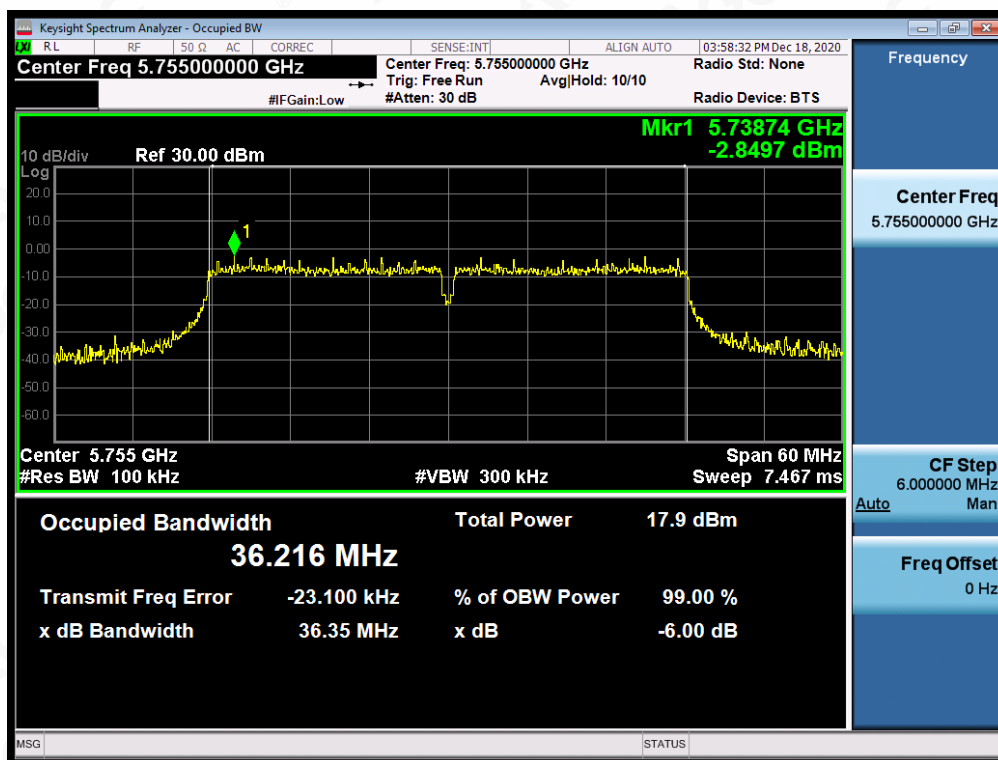
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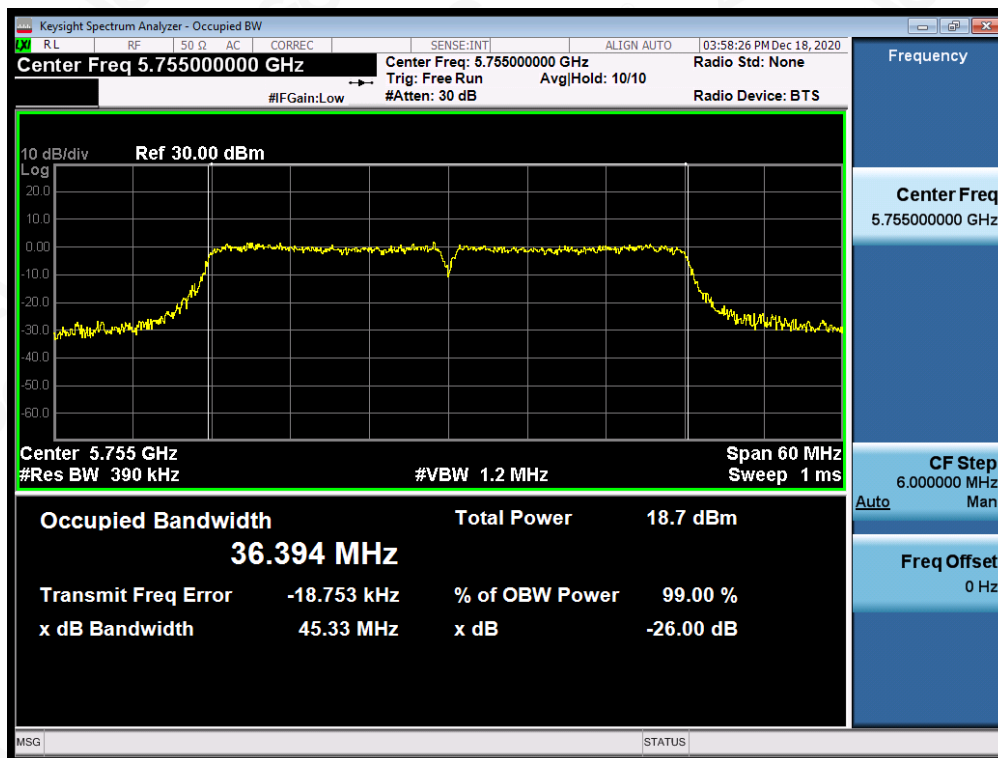


802.11ac40 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5755MHz (-6dB BANDWIDTH)



TEST PLOT OF BANDWIDTH FOR 5755MHz (99% BANDWIDTH)

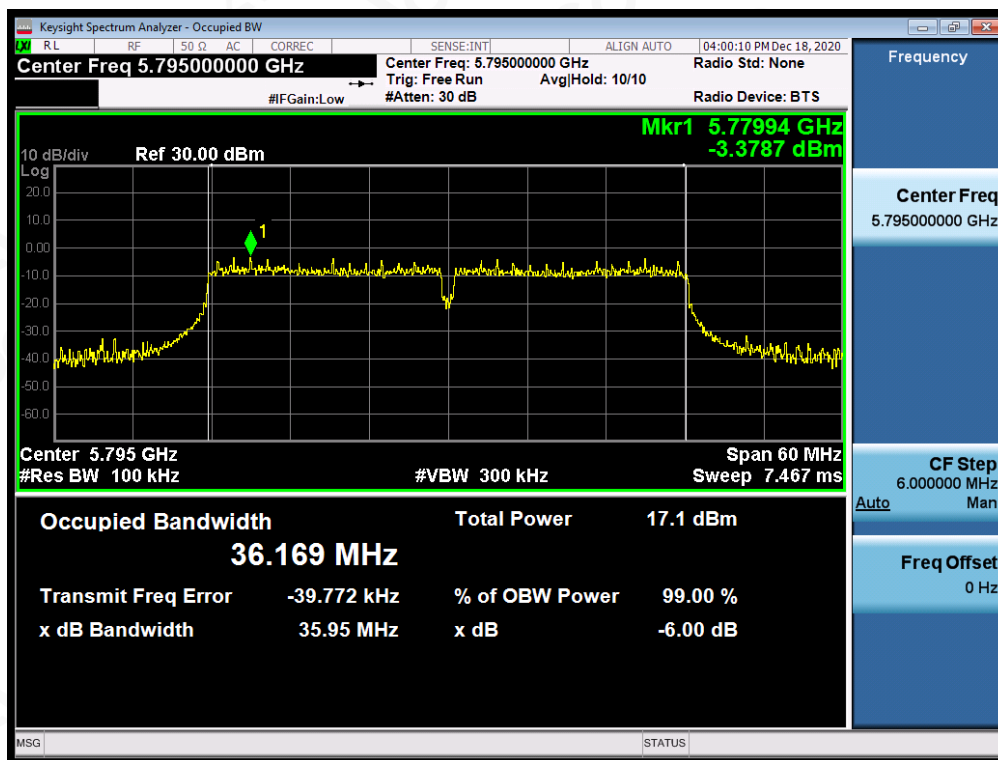


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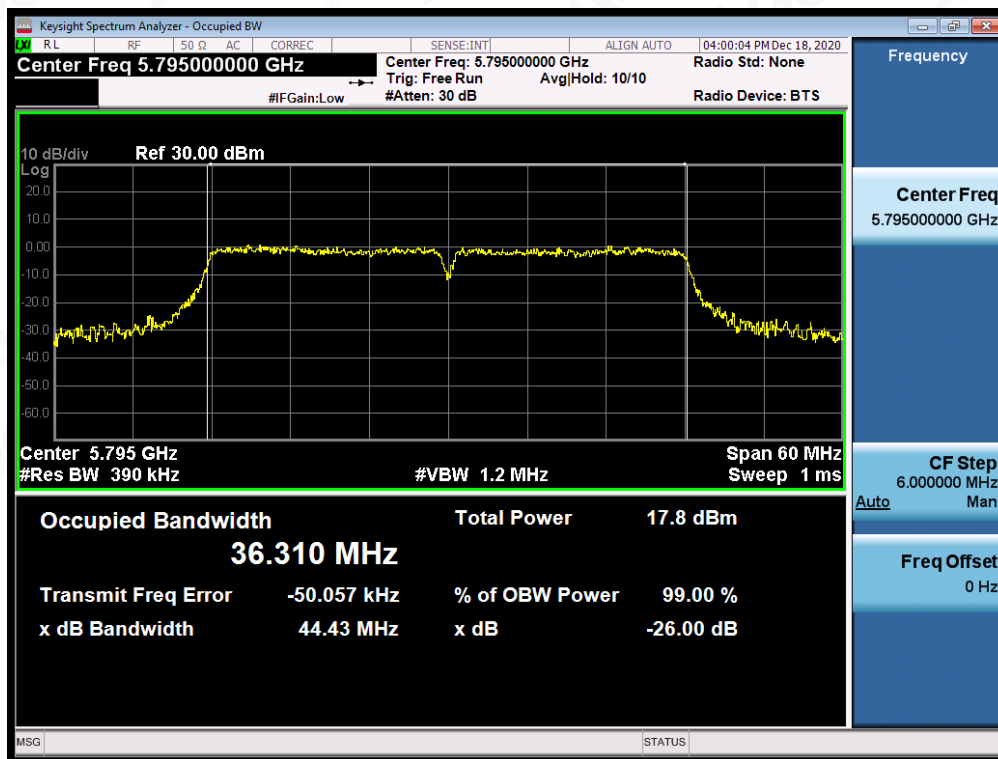
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TEST PLOT OF BANDWIDTH FOR 5795MHz (-6dB BANDWIDTH)



TEST PLOT OF BANDWIDTH FOR 5795MHz (99% BANDWIDTH)



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9. EMISSION BANDWIDTH

9.1. MEASUREMENT PROCEDURE

9.1.1. -26dB Bandwidth MEASUREMENT PROCEDURE

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the maximum of the emission.

Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

9.1.2. 99.00% Occupied Bandwidth MEASUREMENT PROCEDURE

- Connect the antenna port(s) to the spectrum analyzer input.
- Configure the spectrum analyzer as shown below (enter all losses between the transmitter output and the spectrum analyzer).

Center Frequency = Channel center frequency

Span = 2 x emission bandwidth

RBW = 1% to 5% of the emission bandwidth

VBW > 3 x RBW

Sweep time = auto couple

Detector = Peak

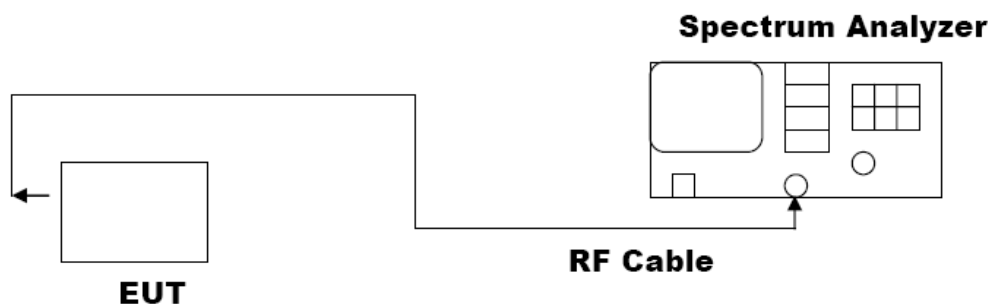
Trace mode = max hold

- Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter wave form on the spectrum analyzer.

- Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is 1% to 5%.

Note: The EUT was tested according to KDB 789033 for compliance to FCC 47CFR 15.407 requirements.

9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



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9.3. LIMITS AND MEASUREMENT RESULTS

LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION				
Applicable Limits	Applicable Limits			
	Test Data (MHz)			Criteria
	Frequency (MHz)	-26dB Bandwidth	99.00% Occupied Bandwidth	
Within the Band	5180MHz	20.88	16.635	PASS
	5200MHz	20.51	16.586	PASS
	5240MHz	20.96	16.636	PASS
	5260MHz	21.11	16.657	PASS
	5300MHz	21.32	16.669	PASS
	5320MHz	21.03	16.654	PASS
	5500MHz	21.43	16.645	PASS
	5600MHz	20.99	16.578	PASS
	5700MHz	20.95	16.646	PASS

LIMITS AND MEASUREMENT RESULT FOR 802.11N20 MODULATION				
Applicable Limits	Applicable Limits			
	Test Data (MHz)			Criteria
	Frequency (MHz)	-26dB Bandwidth	99.00% Occupied Bandwidth	
Within the Band	5180MHz	21.25	17.683	PASS
	5200MHz	21.50	17.741	PASS
	5240MHz	21.21	17.698	PASS
	5260MHz	21.79	17.727	PASS
	5300MHz	22.49	17.712	PASS
	5320MHz	21.20	17.673	PASS
	5500MHz	21.63	17.712	PASS
	5600MHz	20.92	17.653	PASS
	5700MHz	21.48	17.688	PASS

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LIMITS AND MEASUREMENT RESULT FOR 802.11N40 MODULATION				
Applicable Limits	Applicable Limits			
	Test Data (MHz)			Criteria
	Frequency (MHz)	-26dB Bandwidth	99.00% Occupied Bandwidth	
Within the Band	5190MHz	42.09	36.326	PASS
	5230MHz	42.09	36.285	PASS
	5270MHz	42.00	36.312	PASS
	5310MHz	42.75	36.308	PASS
	5510MHz	42.21	36.292	PASS
	5590MHz	41.85	36.314	PASS
	5670MHz	42.24	36.330	PASS

LIMITS AND MEASUREMENT RESULT FOR 802.11AC20 MODULATION				
Applicable Limits	Applicable Limits			
	Test Data (MHz)			Criteria
	Frequency (MHz)	-26dB Bandwidth	99.00% Occupied Bandwidth	
Within the Band	5180MHz	21.49	17.710	PASS
	5200MHz	21.79	17.729	PASS
	5240MHz	21.50	17.694	PASS
	5260MHz	21.40	17.726	PASS
	5300MHz	21.55	17.699	PASS
	5320MHz	21.44	17.783	PASS
	5500MHz	21.37	17.683	PASS
	5600MHz	20.83	17.675	PASS
	5700MHz	21.27	17.719	PASS

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LIMITS AND MEASUREMENT RESULT FOR 802.11AC40 MODULATION				
Applicable Limits	Applicable Limits			
	Test Data (MHz)			Criteria
	Frequency (MHz)	-26dB Bandwidth	99.00% Occupied Bandwidth	
Within the Band	5190MHz	41.42	36.217	PASS
	5230MHz	41.56	36.218	PASS
	5270MHz	41.57	36.219	PASS
	5310MHz	41.21	36.248	PASS
	5510MHz	42.13	36.275	PASS
	5590MHz	42.17	36.311	PASS
	5670MHz	41.91	36.300	PASS

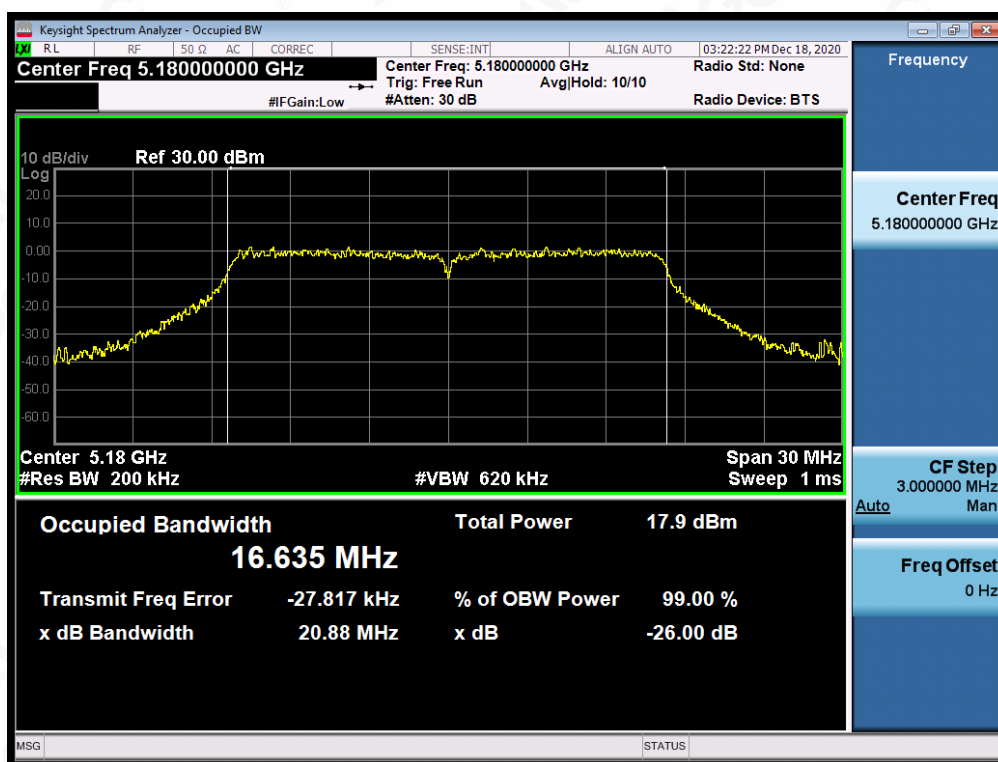
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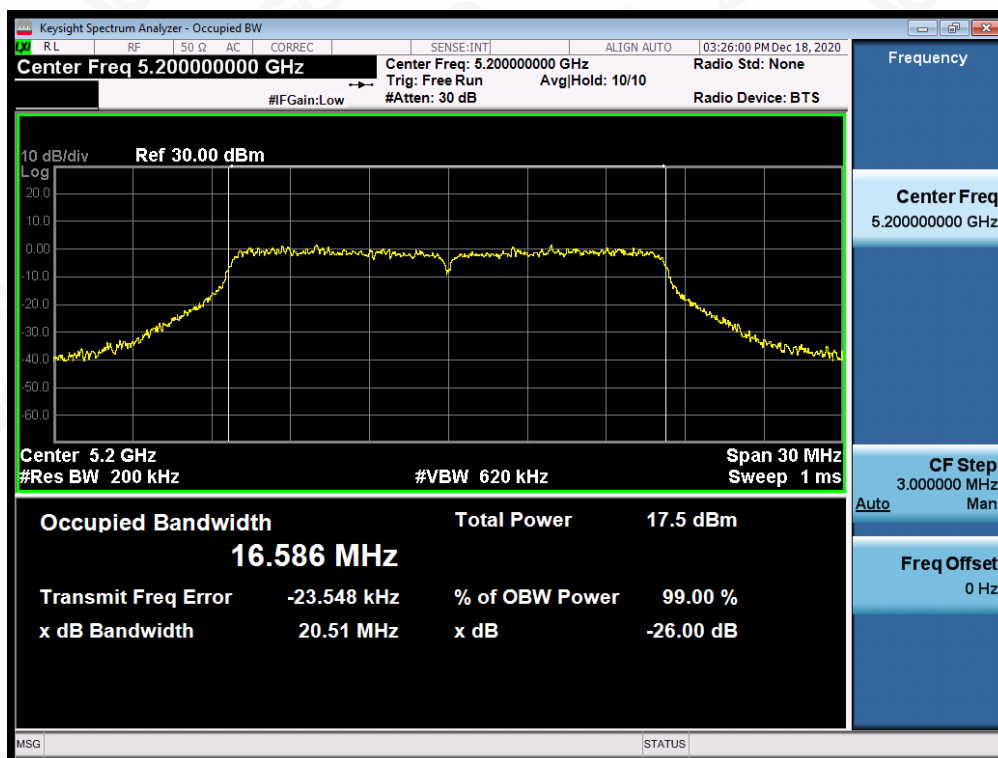


802.11a20 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5180MHz



TEST PLOT OF BANDWIDTH FOR 5200MHz

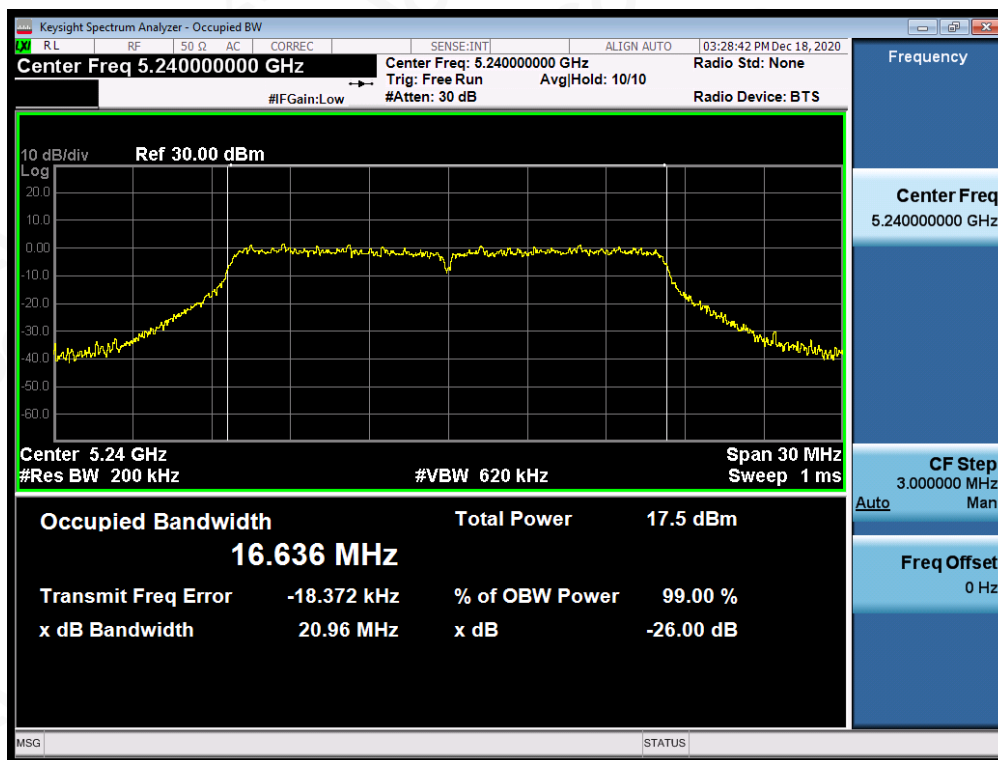


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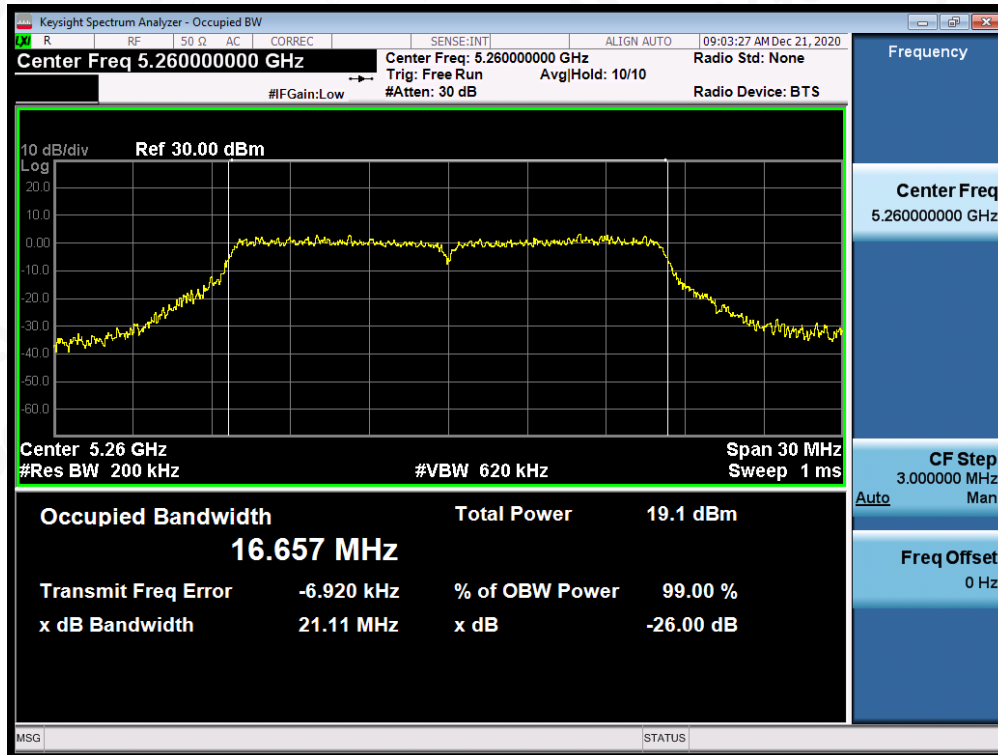
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TEST PLOT OF BANDWIDTH FOR 5240MHz



TEST PLOT OF BANDWIDTH FOR 5260MHz

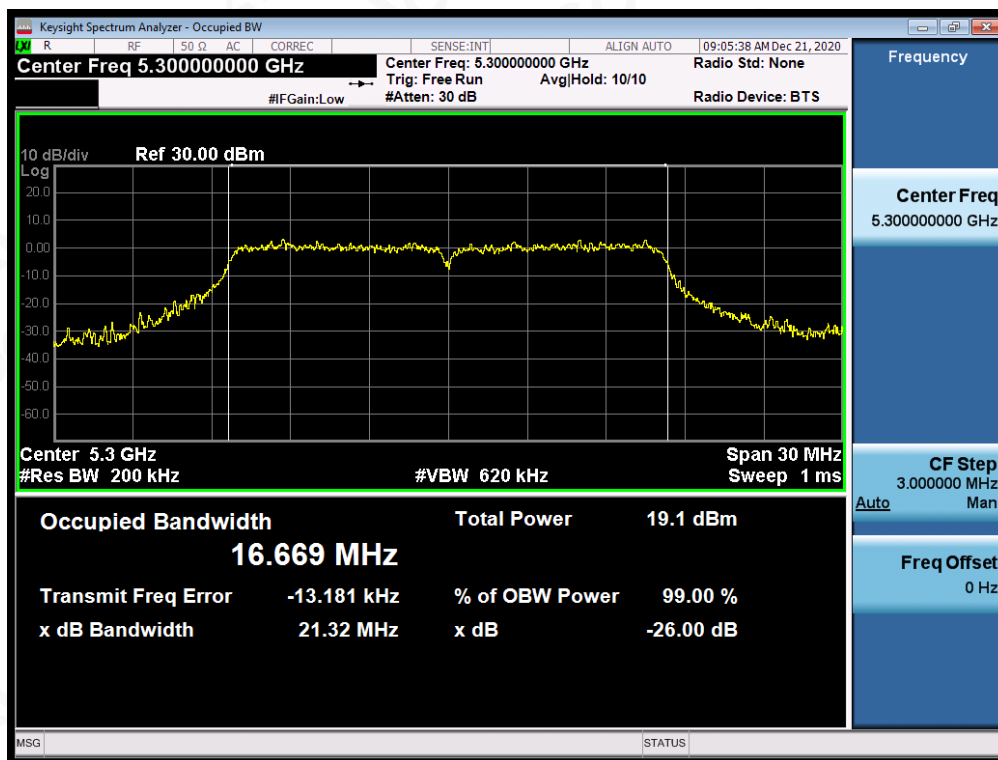


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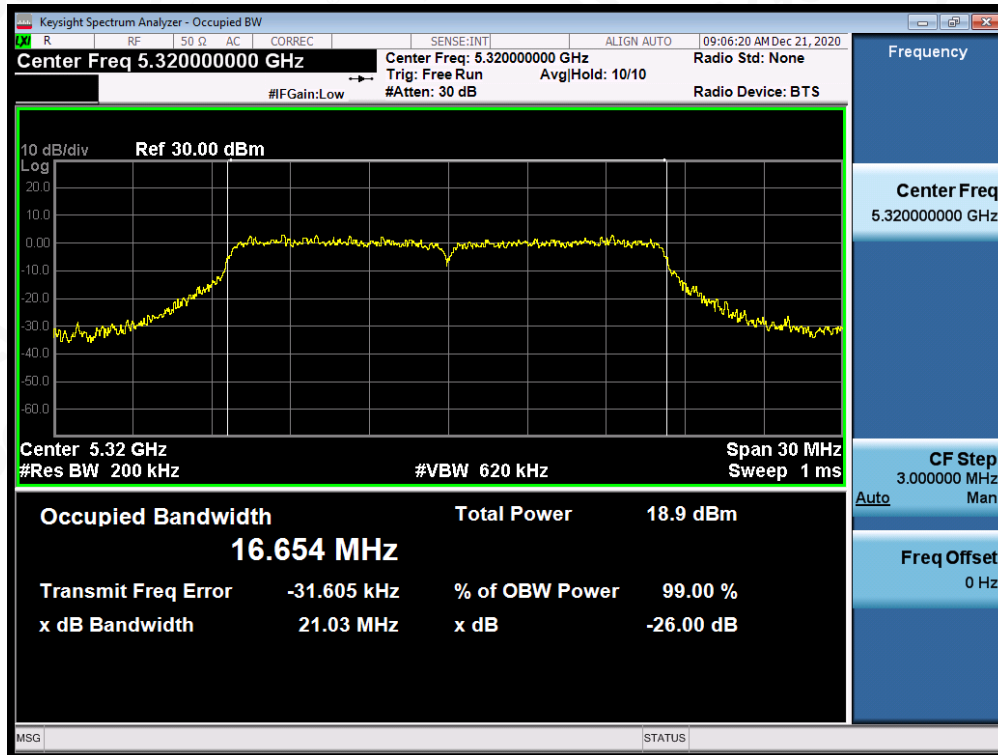
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TEST PLOT OF BANDWIDTH FOR 5300MHZ



TEST PLOT OF BANDWIDTH FOR 5320MHZ



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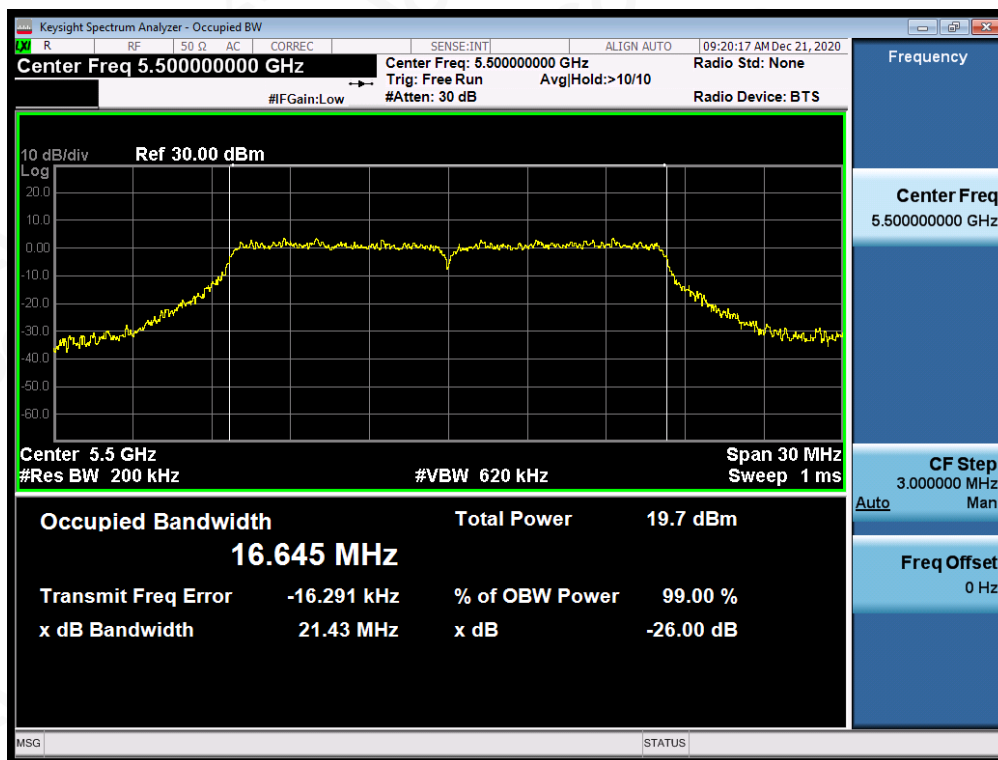
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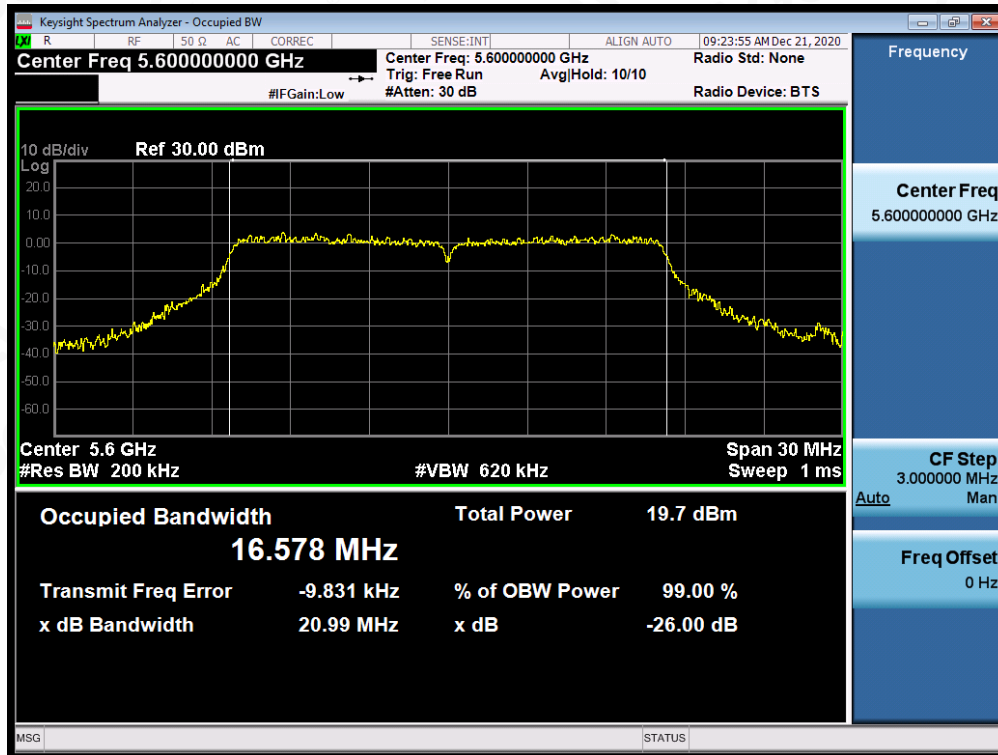
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TEST PLOT OF BANDWIDTH FOR 5500MHz



TEST PLOT OF BANDWIDTH FOR 5600MHz

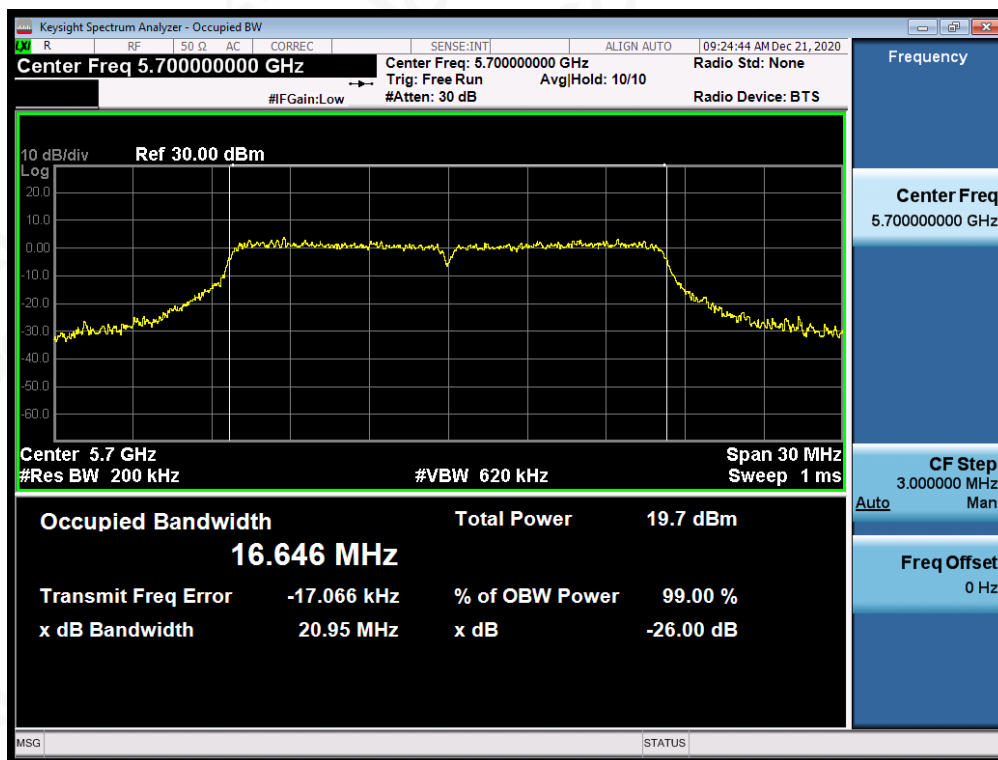


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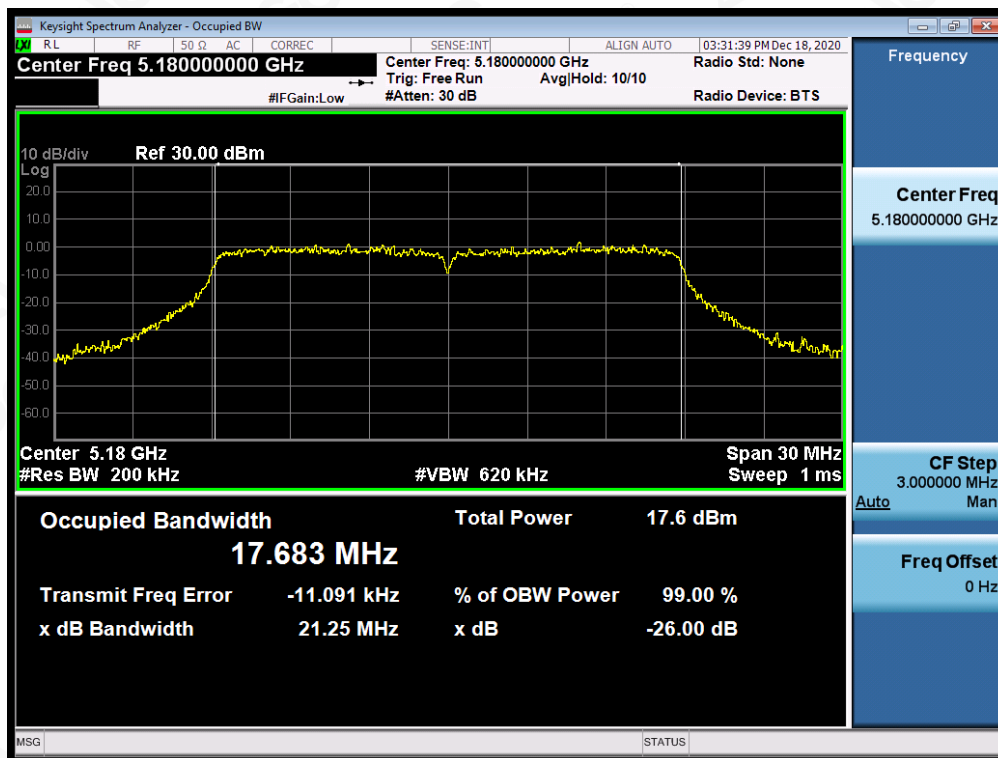


TEST PLOT OF BANDWIDTH FOR 5700MHz



802.11n20 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5180MHz



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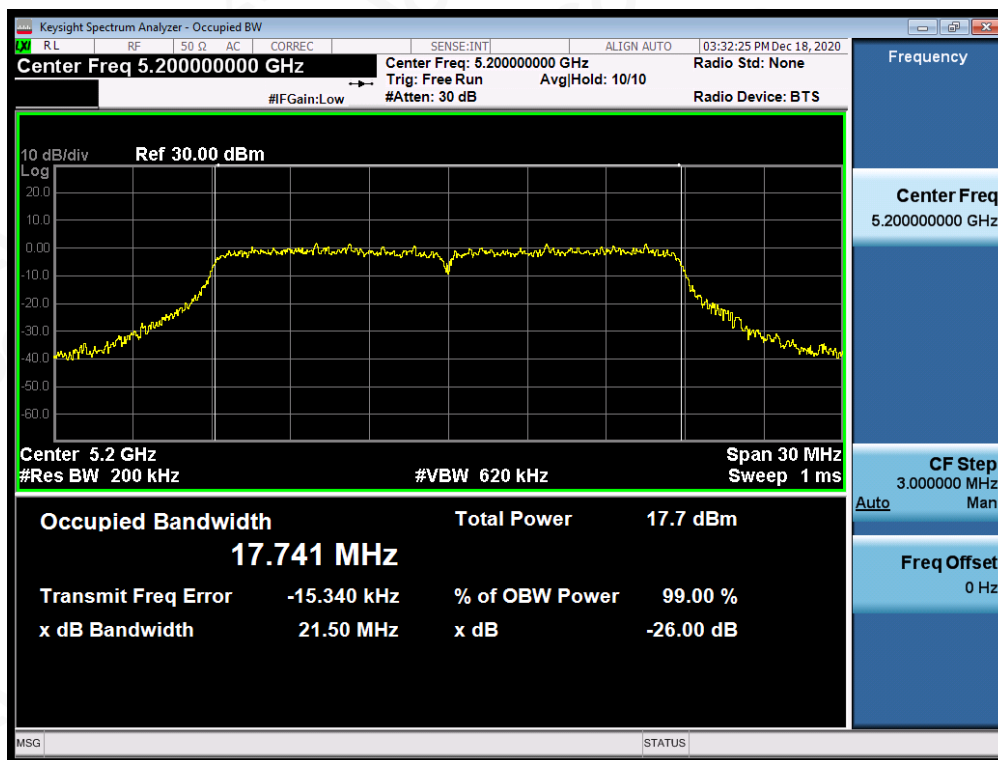
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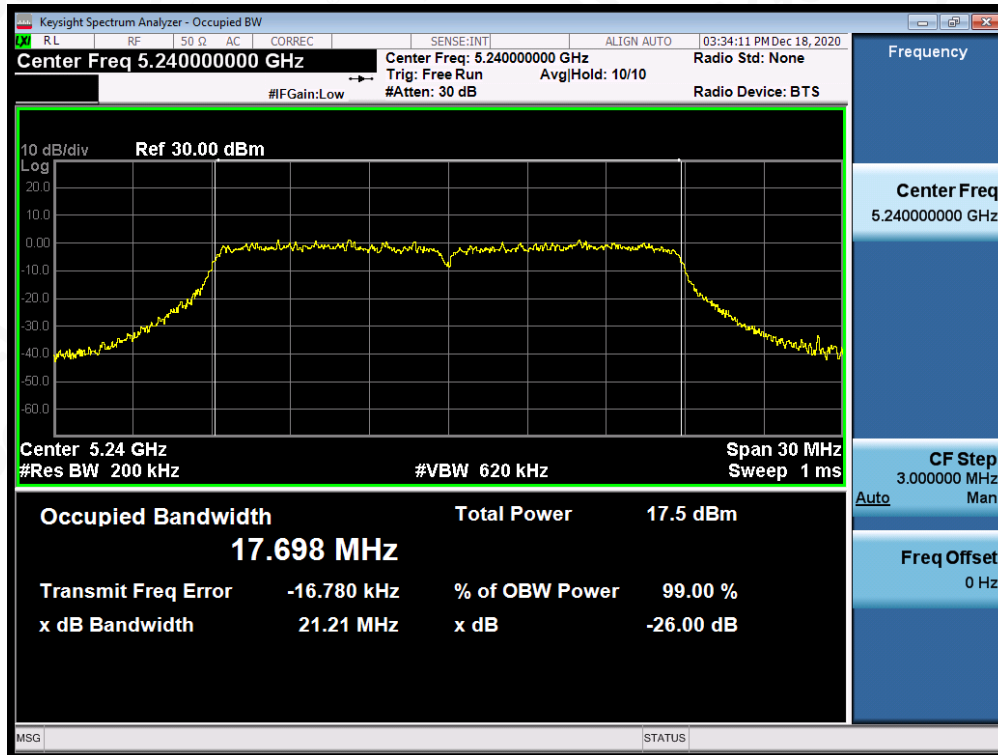
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TEST PLOT OF BANDWIDTH FOR 5200MHZ



TEST PLOT OF BANDWIDTH FOR 5240MHZ

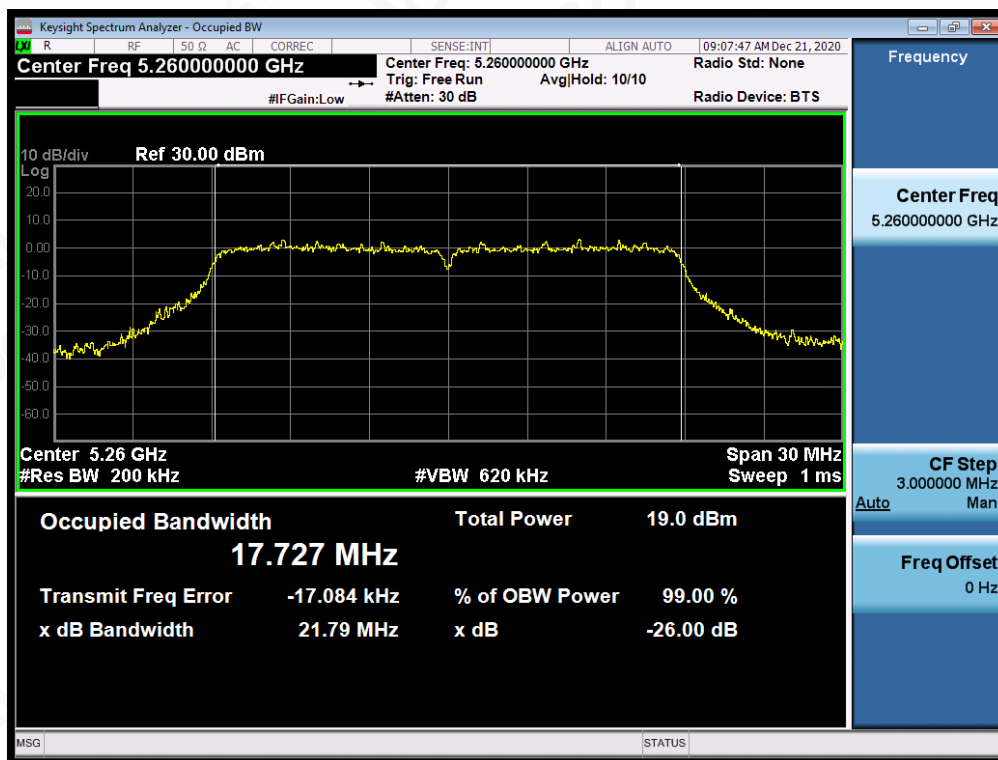


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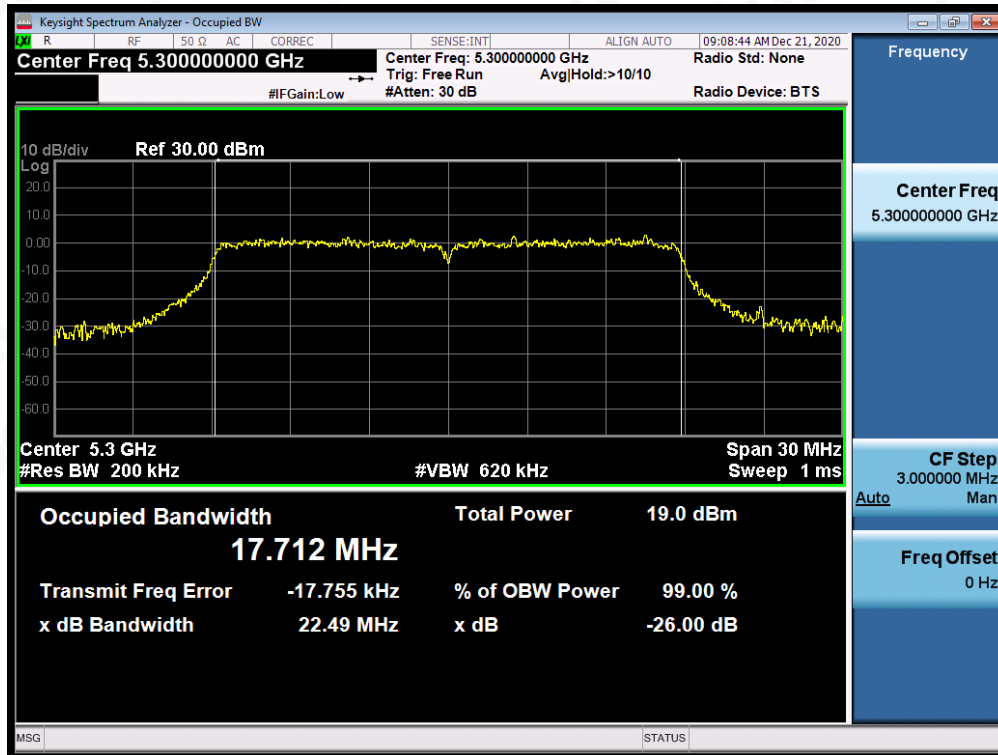
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TEST PLOT OF BANDWIDTH FOR 5260MHZ



TEST PLOT OF BANDWIDTH FOR 5300MHZ



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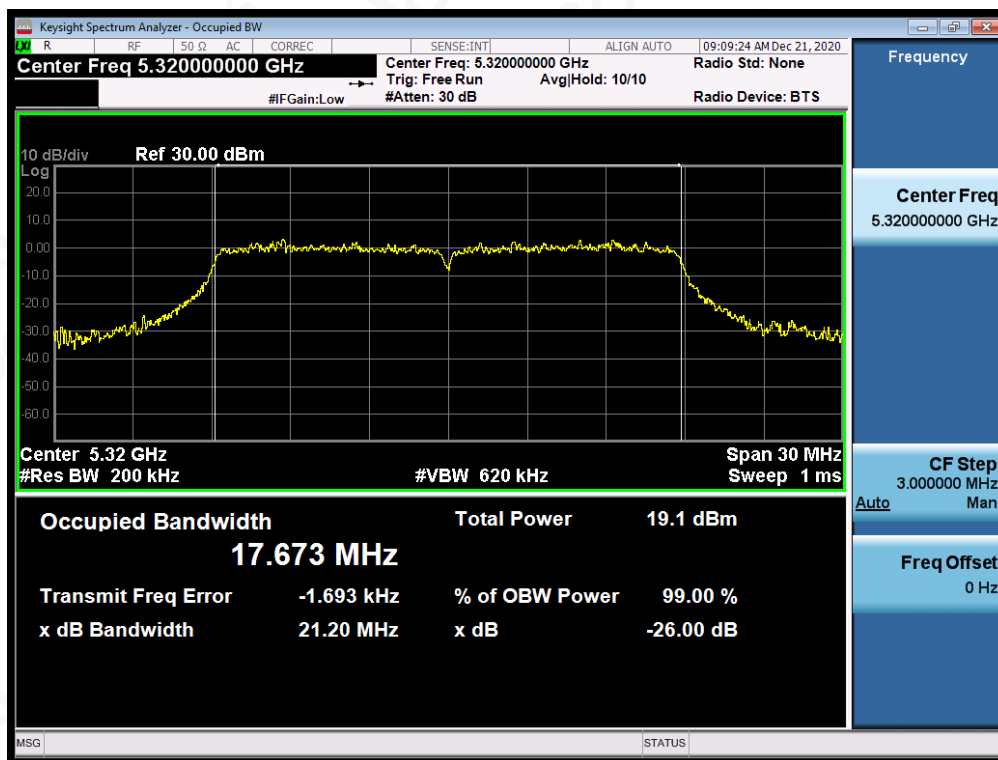
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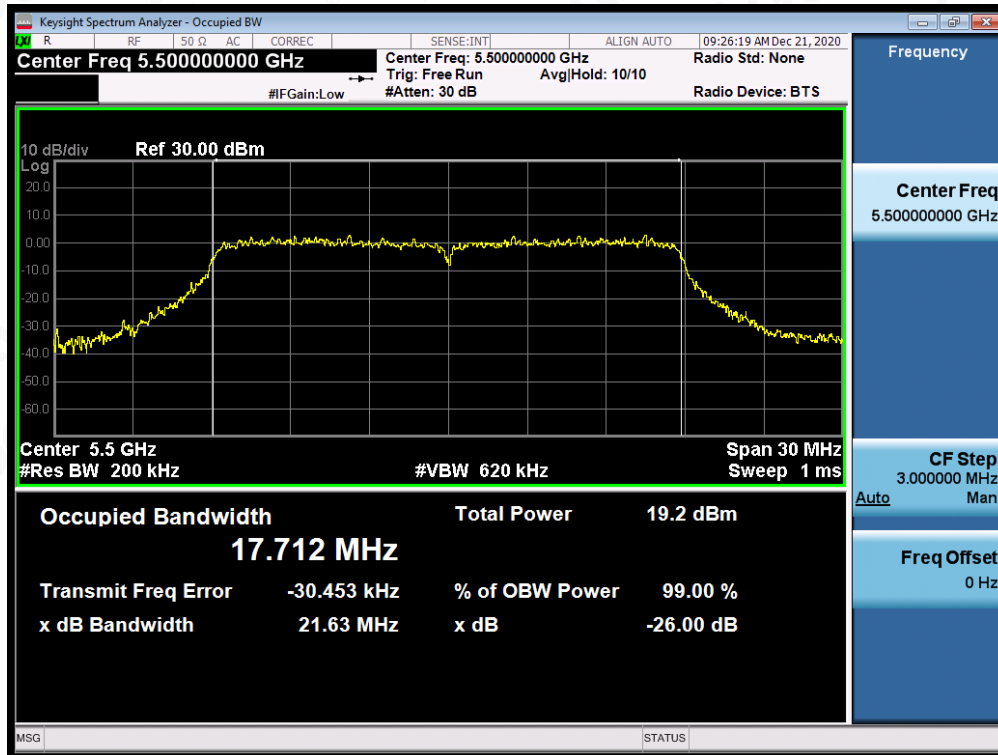
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TEST PLOT OF BANDWIDTH FOR 5320MHz



TEST PLOT OF BANDWIDTH FOR 5500MHz



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TEST PLOT OF BANDWIDTH FOR 5600MHz



TEST PLOT OF BANDWIDTH FOR 5700MHz



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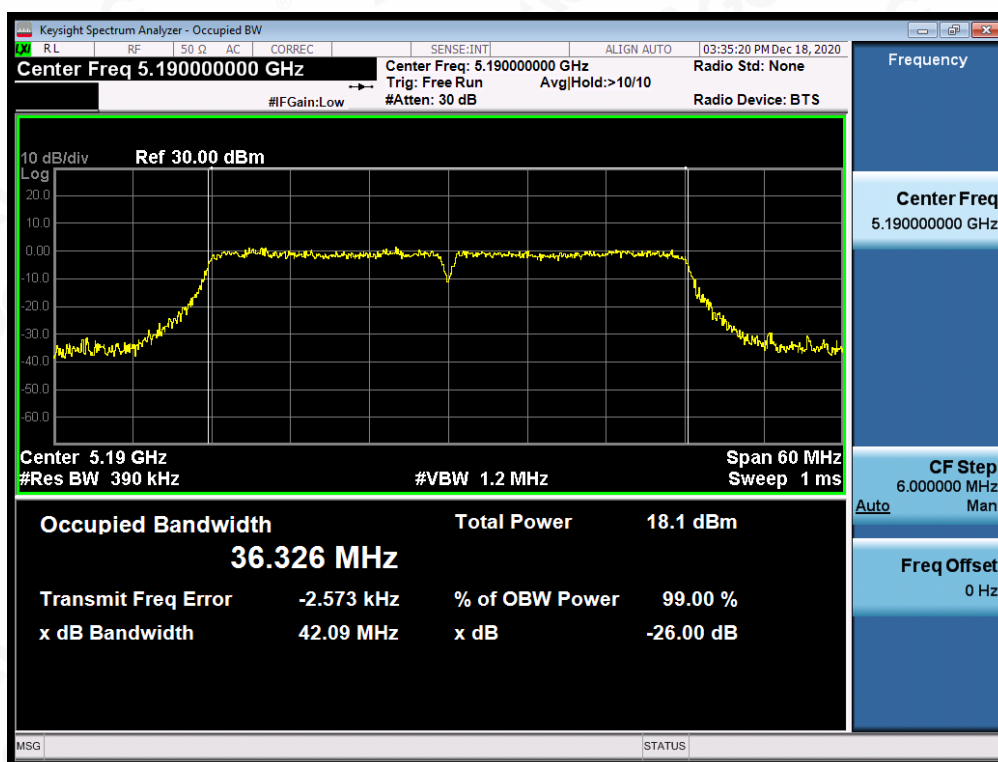
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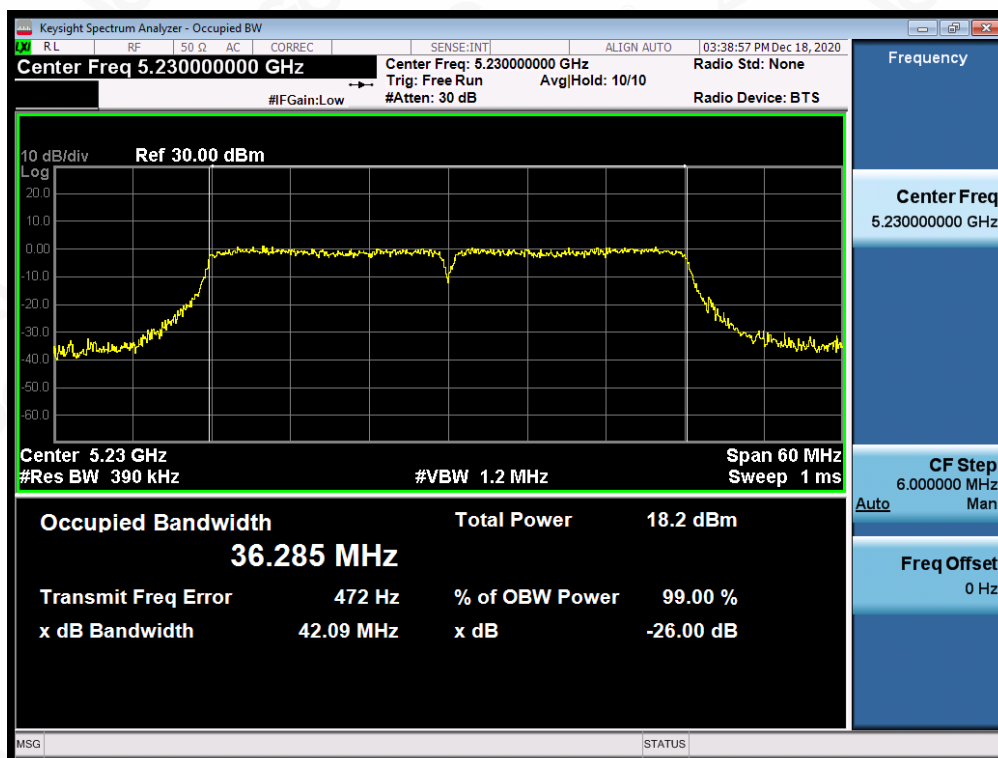


802.11n40 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5190MHz



TEST PLOT OF BANDWIDTH FOR 5230MHz

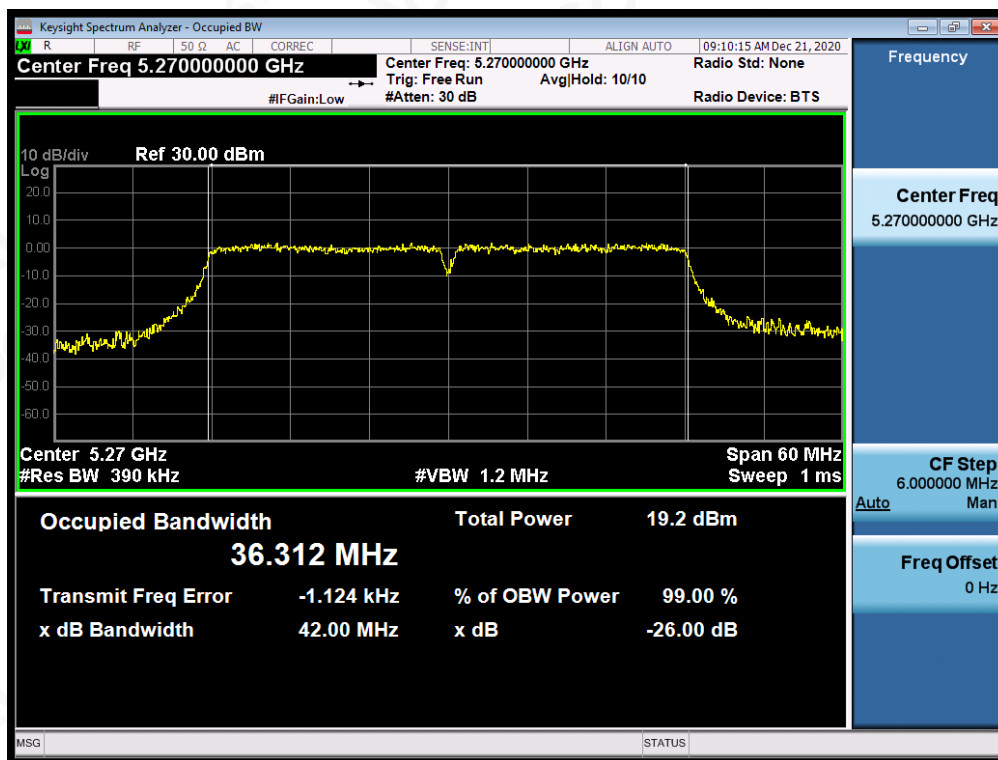


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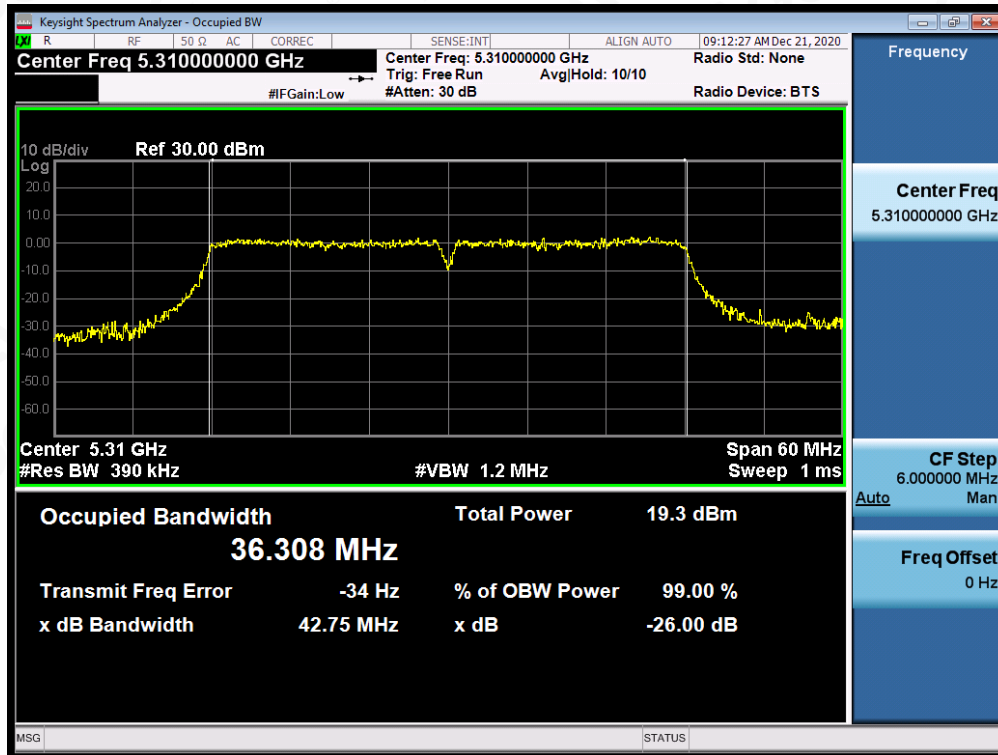
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TEST PLOT OF BANDWIDTH FOR 5270MHz



TEST PLOT OF BANDWIDTH FOR 5310MHz



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