

FCC Test Report

Report No.: AGC13454220318FE06

FCC ID : 2A2R7PE-LT002

APPLICATION PURPOSE : Original Equipment

PRODUCT DESIGNATION : 4K UST Laser Projector

BRAND NAME : Paris Rhône

MODEL NAME : PE-LT002

APPLICANT : Shenzhen Danya Technology Co., Ltd.

DATE OF ISSUE : Apr. 24, 2022

STANDARD(S) : FCC Part 15.407

TEST PROCEDURE(S) : KDB 789033 D02 v02r01

REPORT VERSION : V1.0

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REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Apr. 24, 2022	Valid	Initial Release

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1. VERIFICATION OF CONFORMITY

Applicant	Shenzhen Danya Technology Co., Ltd.
Address	Room 3323, Building C, Galaxy World Phase II, Minle Community, Minzhi Street, Longhua District, Shenzhen, Guangdong, China
Manufacturer	Shenzhen Danya Technology Co., Ltd.
Address	Room 3323, Building C, Galaxy World Phase II, Minle Community, Minzhi Street, Longhua District, Shenzhen, Guangdong, China
Factory	APPOTRONICS CO., LTD BAO'AN BRANCH
Address	301, 1 Block & 101 and 301, 3 Block, Yaochuan Industrial Park, Tangwei Community, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, P.R. China
Product Designation	4K UST Laser Projector
Brand Name	Paris Rhône
Test Model	PE-LT002
Date of test	Apr. 01, 2022 to Apr. 21, 2022
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		
	Cool Cheng (Project Engineer)	Apr. 21, 2022
Reviewed By		
	Calvin Liu (Reviewer)	Apr. 24, 2022
Approved By		
	Max Zhang (Authorized Officer)	Apr. 24, 2022

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2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

The EUT is designed as “4K UST Laser Projector”. 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

Equipment Type	<input type="checkbox"/> Outdoor access points <input type="checkbox"/> Fixed P2P access points	<input type="checkbox"/> Indoor access points <input checked="" type="checkbox"/> Client devices
Operation Frequency	<input checked="" type="checkbox"/> U-NII 1:5150MHz~5250MHz <input type="checkbox"/> U-NII 2C:5470MHz~5725MHz	<input type="checkbox"/> U-NII 2A: 5250MHz~5350MHz <input checked="" type="checkbox"/> U-NII 3: 5725MHz~5850MHz
DFS Design Type	<input type="checkbox"/> Master <input type="checkbox"/> Slave with radar detection	<input checked="" type="checkbox"/> Slave without radar detection
TPC Function	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Test Frequency Range:	For 802.11a/n/ax-HT20-VHT20: 5180~5240MHz, 5745~5825MHz For 802.11n/ax-HT40: 5190~5230MHz, 5755~5795MHz	
Test Frequency Range:	For 802.11a/n-HT20/ac-VHT20: 5180~5240MHz, 5745~5825MHz For 802.11n-HT40/ac-VHT40: 5190~5230MHz, 5755~5795MHz For 802.11ac-VHT80: 5210MHz, 5775MHz	
Output Power	IEEE 802.11a:13.04dBm; IEEE 802.11n-HT20:11.782dBm; IEEE 802.11n-HT40:12.45dBm; IEEE 802.11ac-VHT20:8.68dBm; IEEE 802.11ac-VHT40:10.09dBm; IEEE 802.11ac-VHT80:9.30dBm	
Modulation	BPSK, QPSK, 16QAM, 64QAM, 128QAM, 256QAM, OFDM	
Data Rate	802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 300Mbps 802.11ac: up to 400Mbps	
Number of channels	7 channels of U-NII-1 Band 8 channels of U-NII-3 Band	
Hardware Version	REV:1.0	
Software Version	V1.0	
Antenna Designation	FPC Antenna (Comply with requirements of the FCC part 15.203)	
Antenna Gain	3.48dBi	
Power Supply	AC 100-240V, 50/60Hz, 4A	
Test Power	AC 120V/60Hz	

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2.2. TABLE OF CARRIER FREQUENCIES

For 5180~5240MHz:

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
42	5210 MHz	--	--

For 5745~5825MHz:

5 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
149	5745 MHz	161	5805 MHz
153	5765 MHz	165	5825 MHz
157	5785 MHz	--	--

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
155	5775 MHz	--	--

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

This submittal(s) (test report) is intended for **FCC ID: 2A2R7PE-LT002** 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.

3. MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

Item	Measurement Uncertainty
Uncertainty of Conducted Emission for AC Port	$U_c = \pm 3.1 \text{ dB}$
Uncertainty of Radiated Emission below 1GHz	$U_c = \pm 4.0 \text{ dB}$
Uncertainty of Radiated Emission above 1GHz	$U_c = \pm 4.8 \text{ dB}$
Uncertainty of total RF power, conducted	$U_c = \pm 0.8 \text{ dB}$
Uncertainty of RF power density, conducted	$U_c = \pm 2.6 \text{ dB}$
Uncertainty of spurious emissions, conducted	$U_c = \pm 2 \%$
Uncertainty of Occupied Channel Bandwidth	$U_c = \pm 2 \%$

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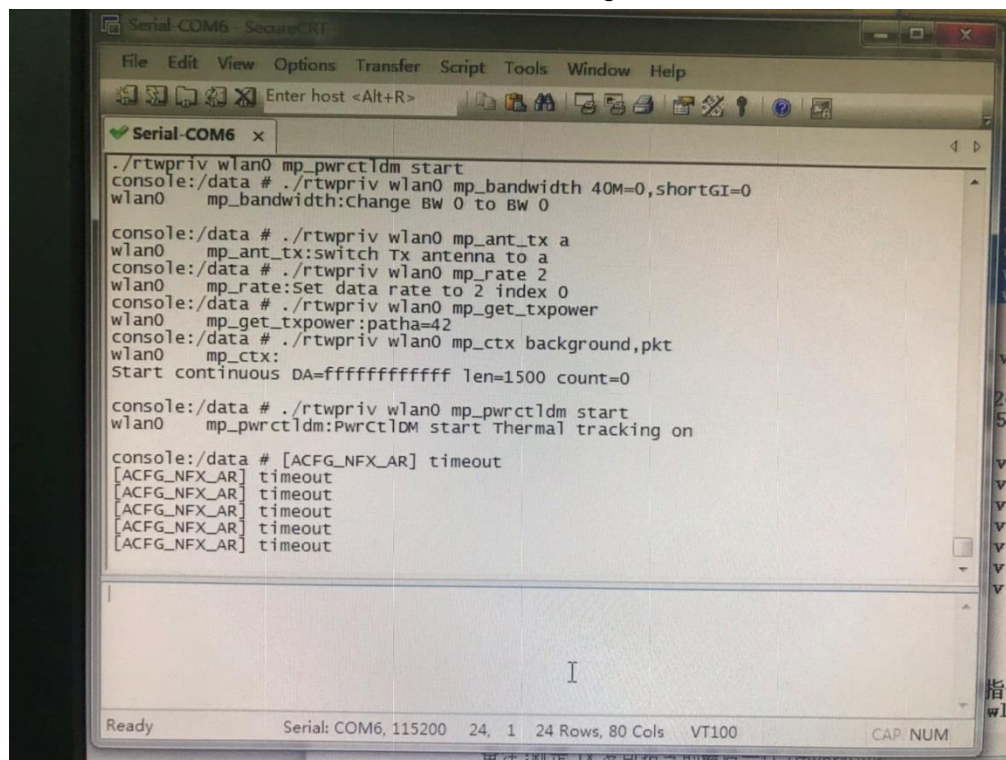
4. DESCRIPTION OF TEST MODES

Mode	Available channel	Tested channel	Modulation	Date rate (Mbps)
802.11a/n/ac20	36,40,44,48, 149,153,157,161,165	36,40,48, 149,157,165	OFDM	6Mbps/MCS0
802.11n/ac40	38,46,151,159	38,46, 151,159	OFDM	MCS0
802.11ac80	42, 155	42, 155	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.

Software Setting



```

Serial-COM6 - SecureCRT
File Edit View Options Transfer Script Tools Window Help
Enter host <Alt+R>
Serial-COM6 x
./rtwpriv wlan0 mp_pwrctrlm start
console:/data # ./rtwpriv wlan0 mp_bandwidth 40M=0,shortGI=0
wlan0 mp_bandwidth:change BW 0 to BW 0

console:/data # ./rtwpriv wlan0 mp_ant_tx a
wlan0 mp_ant_tx:switch Tx antenna to a
console:/data # ./rtwpriv wlan0 mp_rate 2
wlan0 mp_rate:Set data rate to 2 index 0
console:/data # ./rtwpriv wlan0 mp_get_txpower
wlan0 mp_get_txpower:patha=42
console:/data # ./rtwpriv wlan0 mp_ctx background,pkt
wlan0 mp_ctx:
Start continuous DA=fffffffffff len=1500 count=0

console:/data # ./rtwpriv wlan0 mp_pwrctrlm start
wlan0 mp_pwrctrlm:Pwrctrlm start Thermal tracking on

console:/data # [ACFG_NFX_AR] timeout
[ACFG_NFX_AR] timeout
[ACFG_NFX_AR] timeout
[ACFG_NFX_AR] timeout
[ACFG_NFX_AR] timeout
[ACFG_NFX_AR] timeout

Ready Serial: COM6, 115200 24, 1 24 Rows, 80 Cols VT100 CAP: NUM
  
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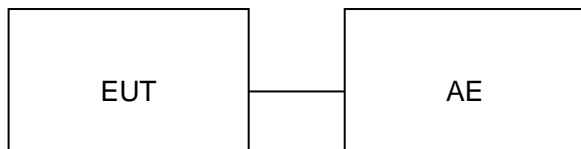
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5. SYSTEM TEST CONFIGURATION

5.1. CONFIGURATION OF EUT SYSTEM

Configure 1:



5.2. EQUIPMENT USED IN EUT SYSTEM

Item	Equipment	Model No.	ID or Specification	Remark
1	4K UST Laser Projector	PE-LT002	2A2R7PE-LT002	EUT

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, 2021	May 14, 2022
LISN	R&S	ESH2-Z5	100086	Jun. 09, 2021	Jun. 08, 2022
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, 2021	May 14, 2022
EXA Signal Analyzer	Aglient	N9010A	MY53470504	Nov. 17, 2021	Nov. 16, 2022
Power sensor	Aglient	U2021XA	MY54110007	Jun. 08, 2021	Jun. 07, 2022
5GHz Fliter	EM Electronics	5150-5880MHz	N/A	Mar. 22, 2022	Mar. 21, 2024
Attenuator	ZHINAN	E-002	N/A	Sep. 03, 2020	Sep. 02, 2022
Horn antenna	SCHWARZBECK	BBHA 9170	#768	Oct. 31, 2021	Oct. 30, 2023
Active loop antenna (9K-30MHz)	ZHINAN	ZN30900C	18051	May 22, 2020	May 21, 2022
Double-Ridged Waveguide Horn	ETS LINDGREN	3117	00034609	Apr. 23, 2021	Apr. 22, 2023
Broadband Preamplifier	ETS LINDGREN	3117PA	00225134	Sep. 03, 2020	Sep. 02, 2022
ANTENNA	SCHWARZBECK	VULB9168	494	Jan. 08, 2020	Jan. 07, 2023
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

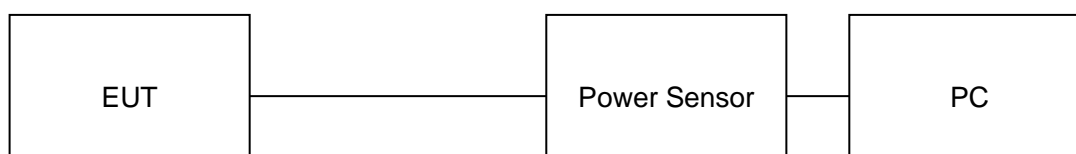
For average power test:

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

Test Data of Conducted Output Power for band 5.15-5.25 GHz				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail
802.11a	5180	11.62	24	Pass
	5200	11.94	24	Pass
	5240	13.04	24	Pass
802.11n20	5180	10.39	24	Pass
	5200	11.58	24	Pass
	5240	11.78	24	Pass
802.11n40	5190	11.15	24	Pass
	5230	12.45	24	Pass
802.11ac20	5180	6.79	24	Pass
	5200	7.76	24	Pass
	5240	8.68	24	Pass
802.11ac40	5190	7.52	24	Pass
	5230	10.09	24	Pass
802.11ac80	5210	9.30	24	Pass

Test Data of Conducted Output Power for band 5.725-5.85 GHz				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail
802.11a	5745	8.70	24	Pass
	5785	9.06	24	Pass
	5825	8.96	24	Pass
802.11n20	5745	8.10	24	Pass
	5785	8.67	24	Pass
	5825	8.98	24	Pass
802.11n40	5755	8.59	24	Pass
	5795	9.67	24	Pass
802.11ac20	5745	5.06	24	Pass
	5785	4.57	24	Pass
	5825	4.30	24	Pass
802.11ac40	5755	5.04	24	Pass
	5795	5.66	24	Pass
802.11ac80	5775	6.30	24	Pass

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8. BANDWIDTH

8.1. MEASUREMENT PROCEDURE

-6dB bandwidth (DTS bandwidth):

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.

99% occupied bandwidth:

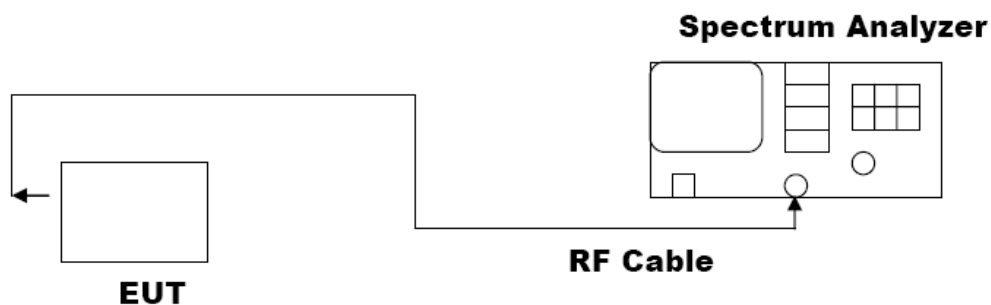
1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
3. Set Span = approximately 1.5 to 5 times the OBW, centered on a nominal channel
The nominal IF filter bandwidth (3 dB RBW) shall 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.

-26dB Bandwidth:

1. Set RBW = approximately 1% of the emission bandwidth.
2. Set the VBW $> \text{RBW}$.
3. Detector = Peak.
4. Trace mode = max hold.
5. 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%.

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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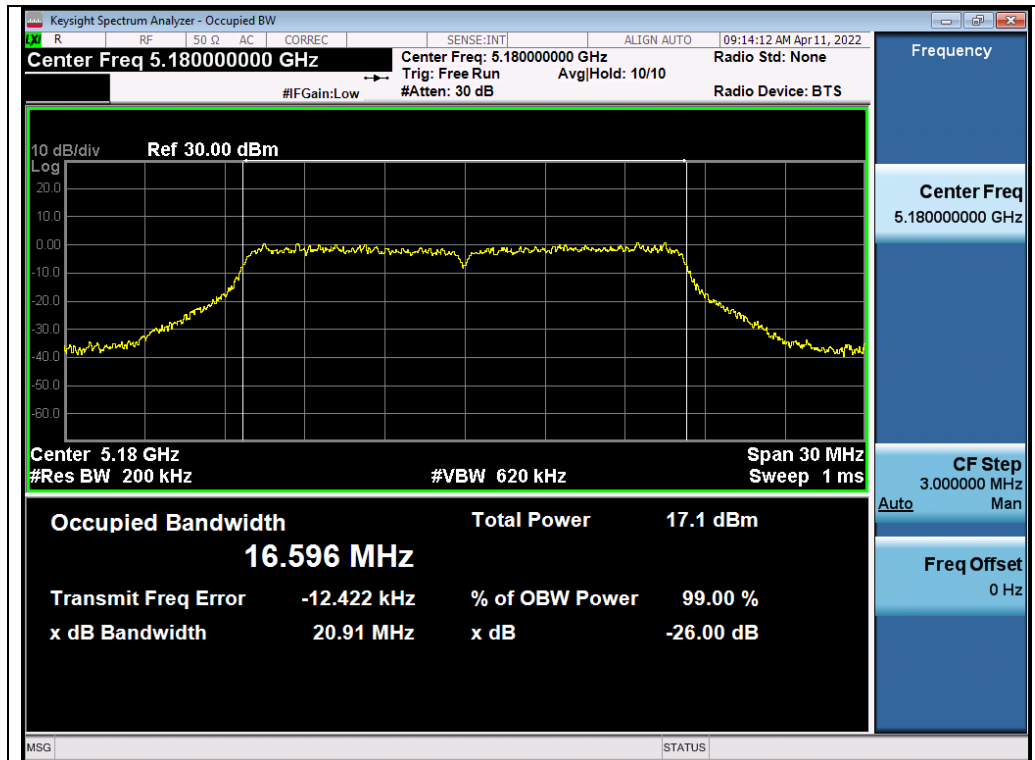
8.3. LIMITS AND MEASUREMENT RESULTS

Test Data of Occupied Bandwidth and -26dB Bandwidth for band 5.15-5.25 GHz					
Test Mode	Test Channel (MHz)	99% Occupied Bandwidth (MHz)	-26dB Bandwidth (MHz)	Limits (MHz)	Pass or Fail
802.11a	5180	16.596	20.91	N/A	Pass
	5200	16.595	20.79	N/A	Pass
	5240	16.613	22.02	N/A	Pass
802.11n20	5180	17.718	21.17	N/A	Pass
	5200	17.706	21.68	N/A	Pass
	5240	17.761	21.66	N/A	Pass
802.11n40	5190	36.277	41.52	N/A	Pass
	5230	36.310	41.58	N/A	Pass
802.11ac20	5180	17.679	21.04	N/A	Pass
	5200	17.672	20.88	N/A	Pass
	5240	17.679	21.07	N/A	Pass
802.11ac40	5190	36.285	41.68	N/A	Pass
	5230	36.302	41.66	N/A	Pass
802.11ac80	5210	75.920	82.24	N/A	Pass

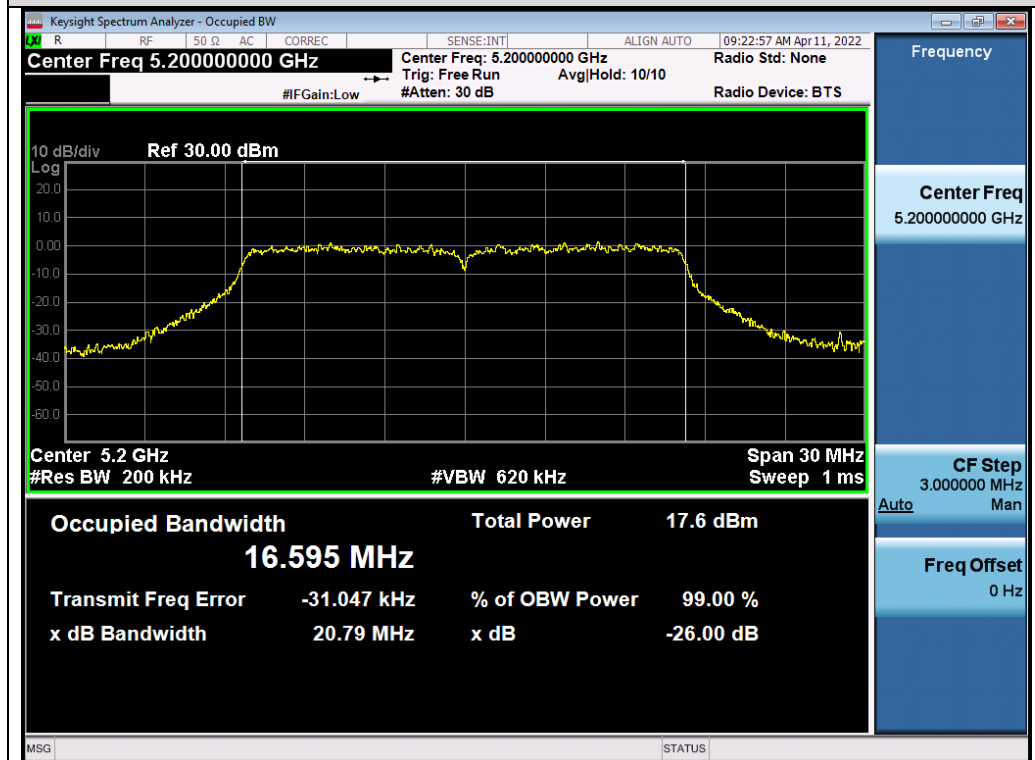
Test Data of Occupied Bandwidth and DTS Bandwidth for band 5.725-5.85 GHz					
Test Mode	Test Channel (MHz)	99% Occupied Bandwidth (MHz)	DTS Bandwidth (MHz)	Limits (MHz)	Pass or Fail
802.11a	5745	16.687	16.35	0.5	Pass
	5785	16.656	16.35	0.5	Pass
	5825	16.628	16.35	0.5	Pass
802.11n20	5745	17.838	17.56	0.5	Pass
	5785	17.802	17.56	0.5	Pass
	5825	17.772	17.55	0.5	Pass
802.11n40	5755	36.299	36.34	0.5	Pass
	5795	36.274	35.99	0.5	Pass
802.11ac20	5745	17.695	17.57	0.5	Pass
	5785	17.696	17.57	0.5	Pass
	5825	17.695	17.57	0.5	Pass
802.11ac40	5755	36.289	36.34	0.5	Pass
	5795	36.311	36.40	0.5	Pass
802.11ac80	5775	75.815	75.30	0.5	Pass

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Test Graphs of Occupied Bandwidth and -26dB Bandwidth for band 5.15-5.25 GHz



Test_Graph_802.11a_ANT1_5180_6Mbps_OBW



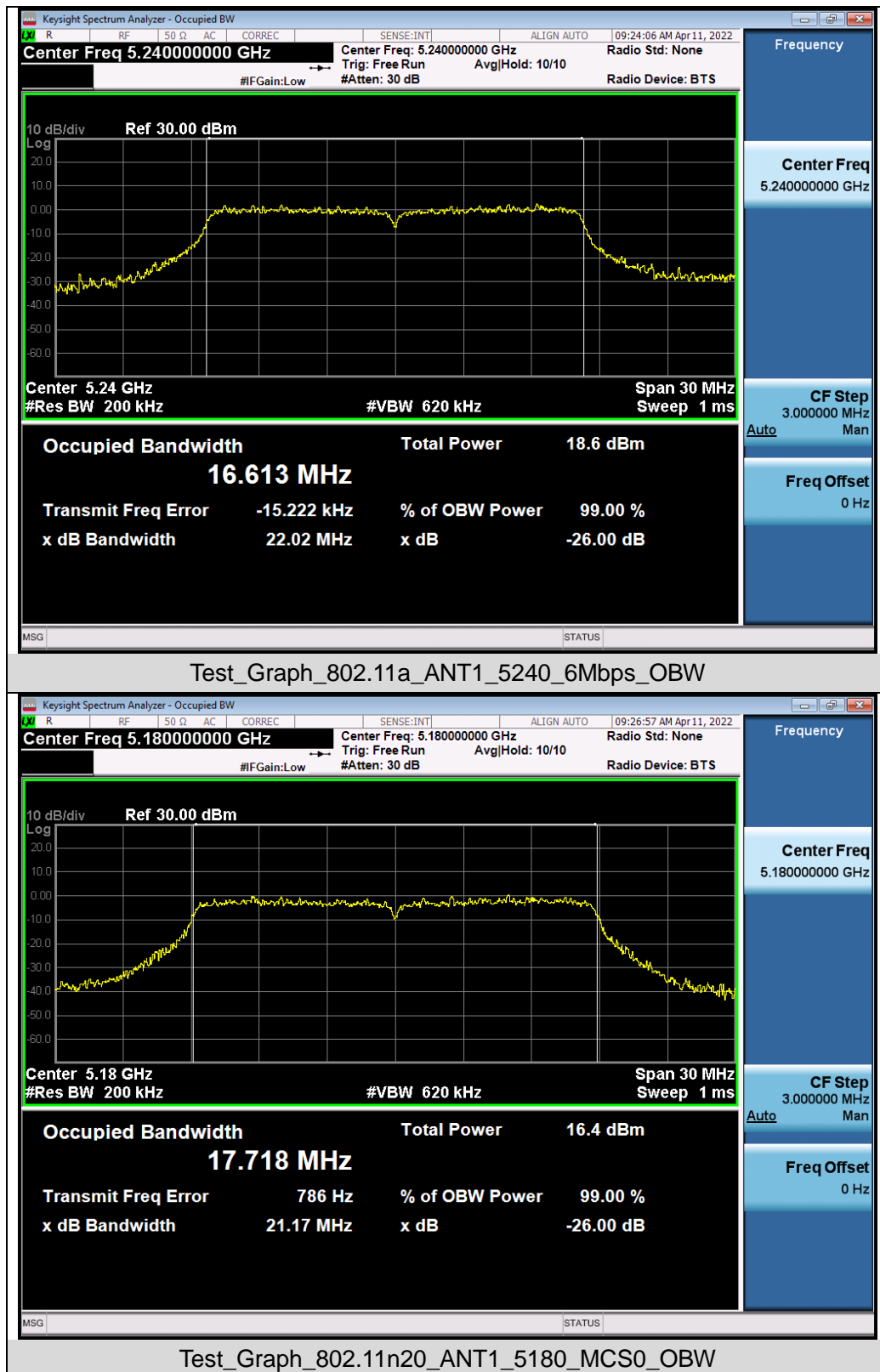
Test_Graph_802.11a_ANT1_5200_6Mbps_OBW

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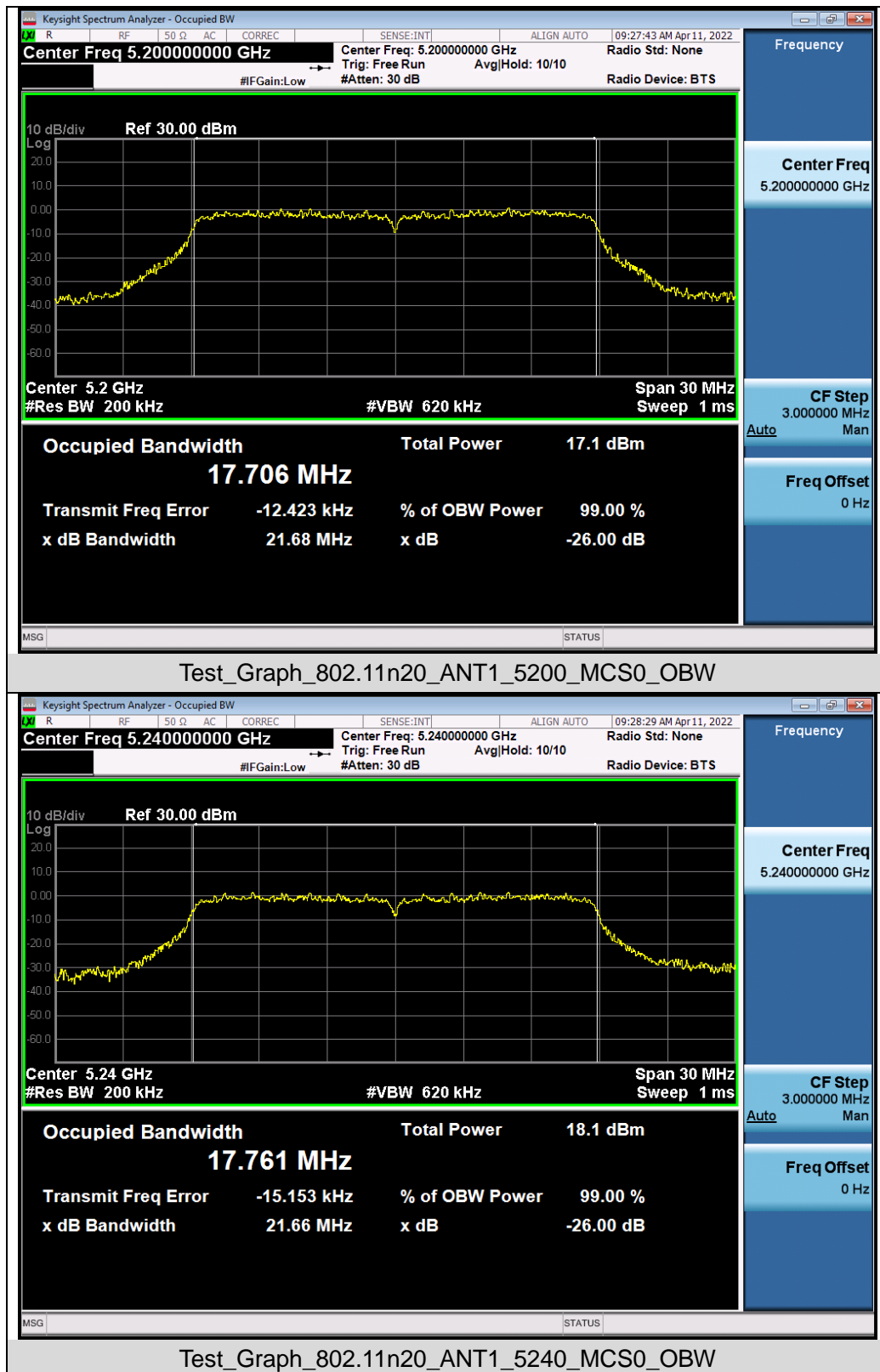
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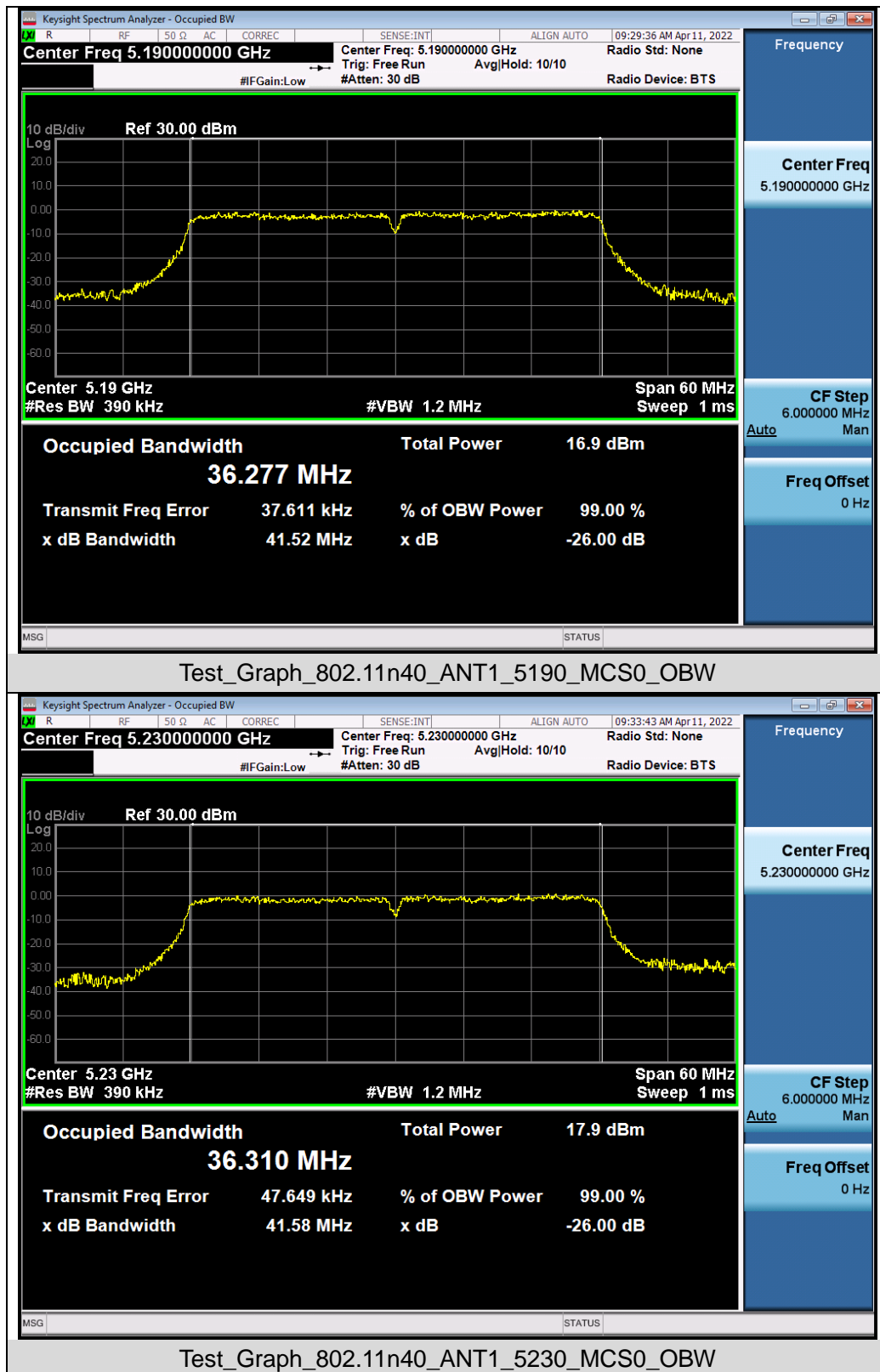
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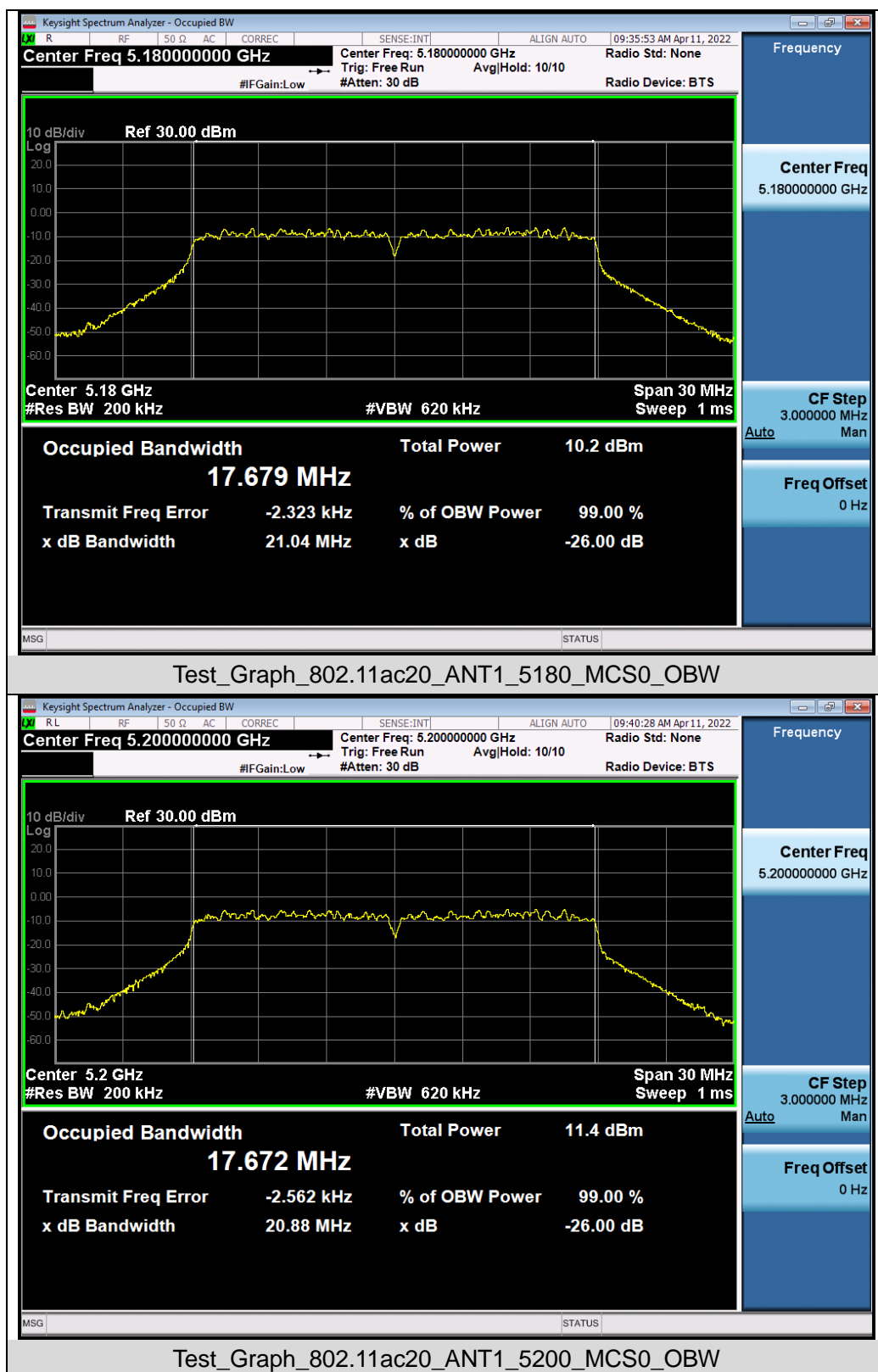
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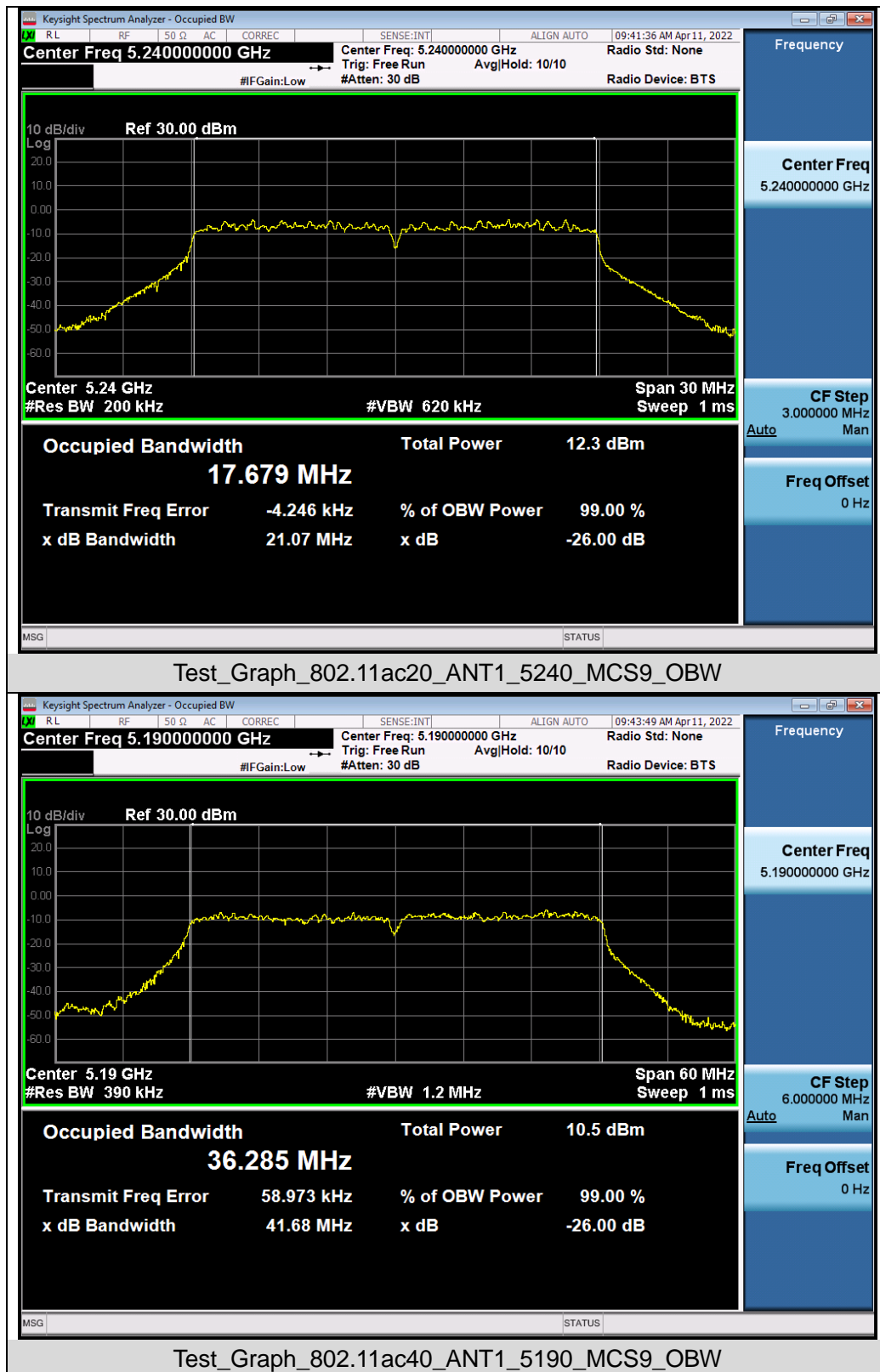
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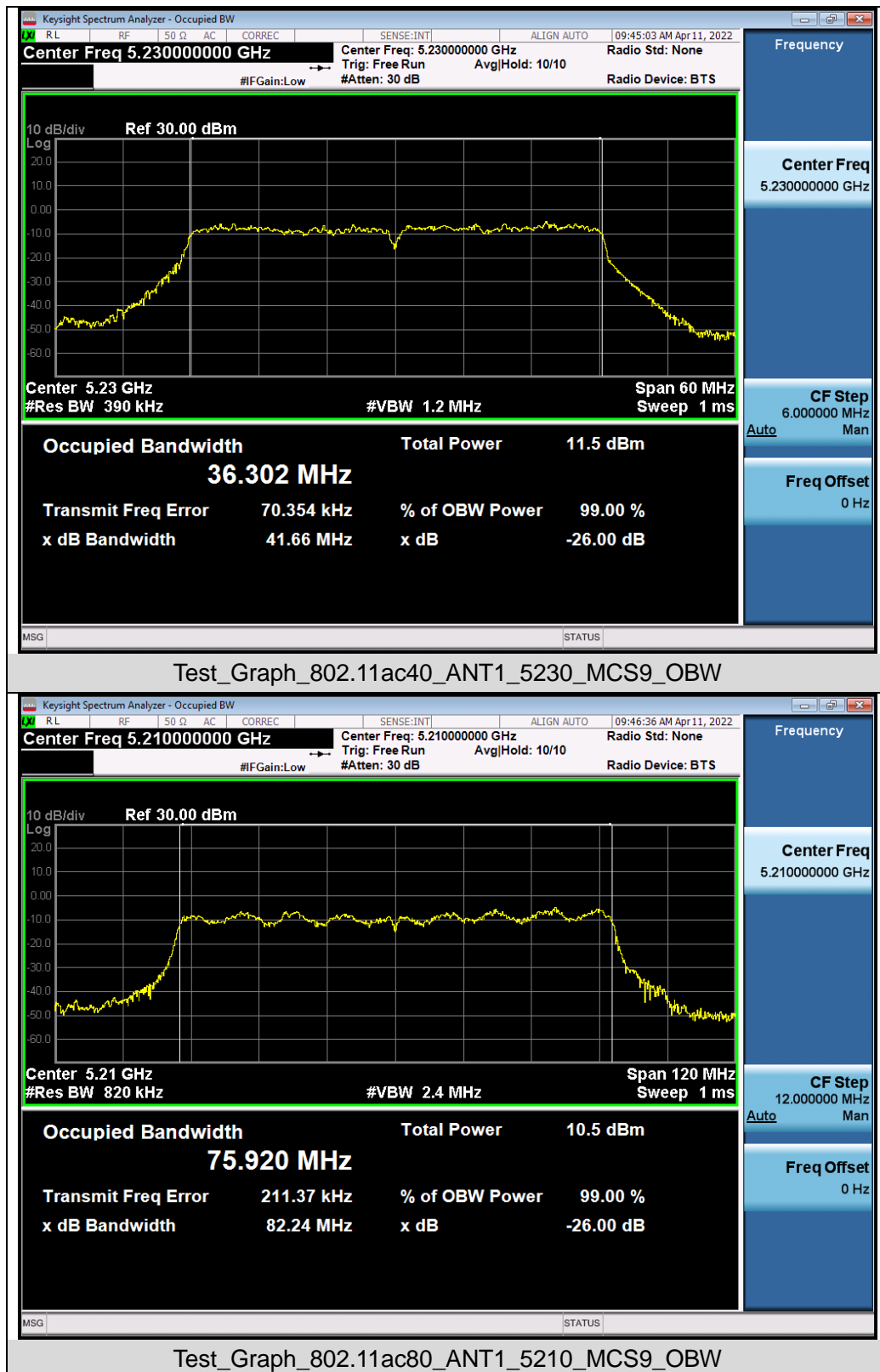
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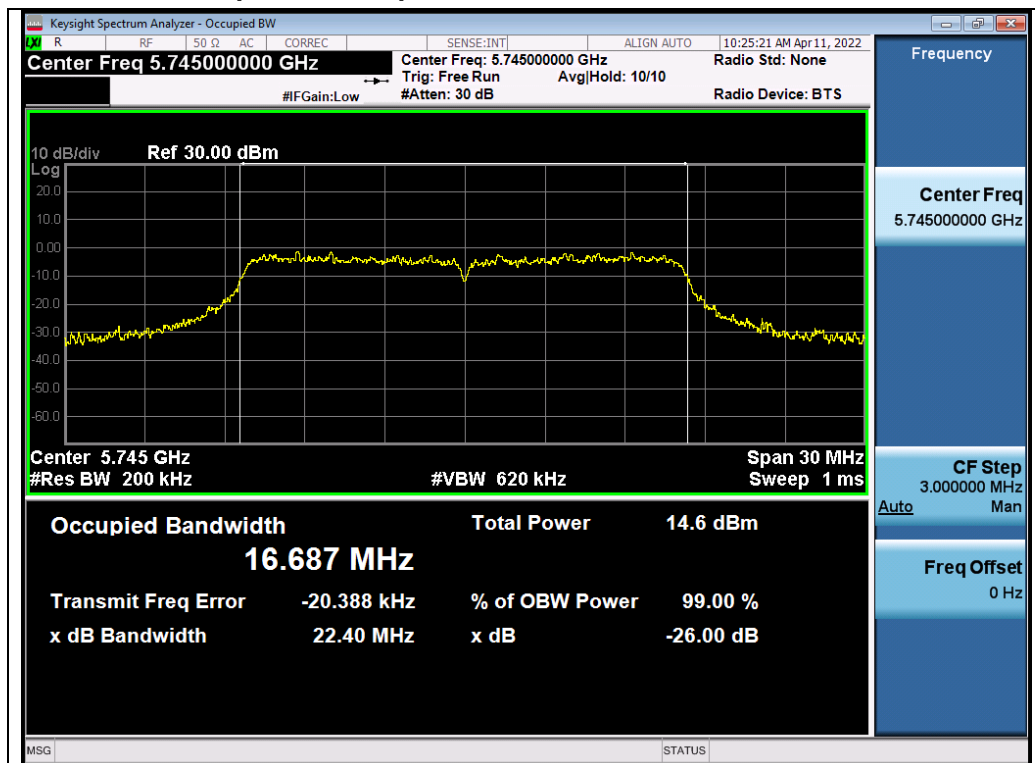


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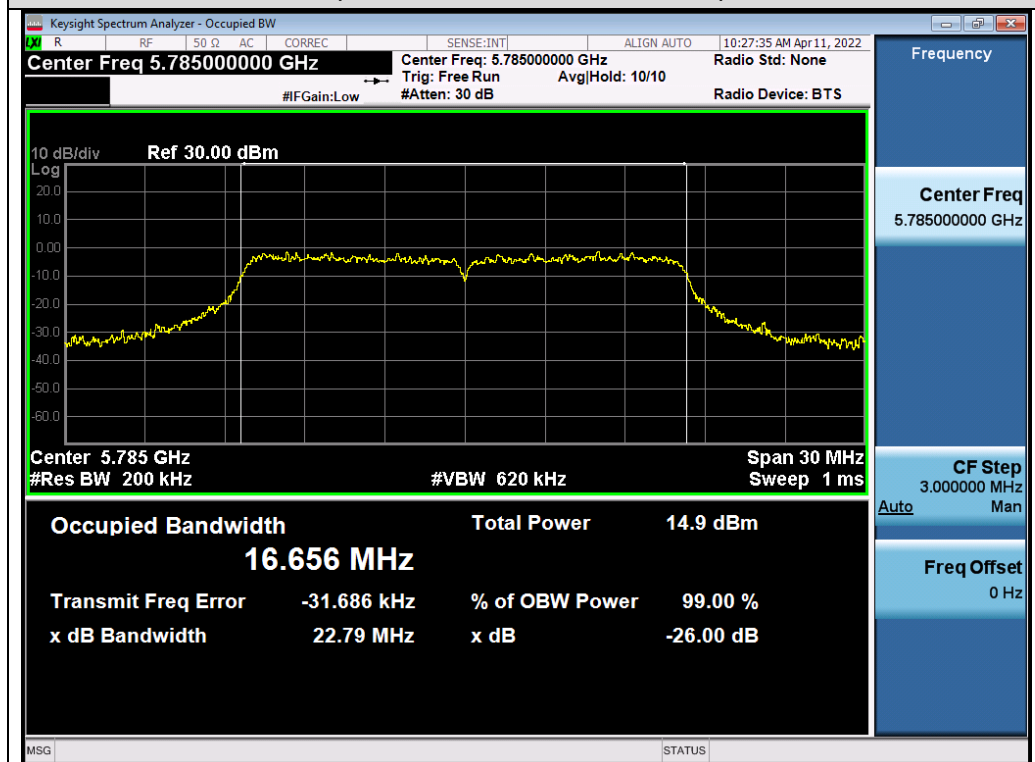


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Test Graphs of Occupied Bandwidth for band 5.725-5.85 GHz



Test_Graph_802.11a_ANT1_5745_6Mbps_OBW



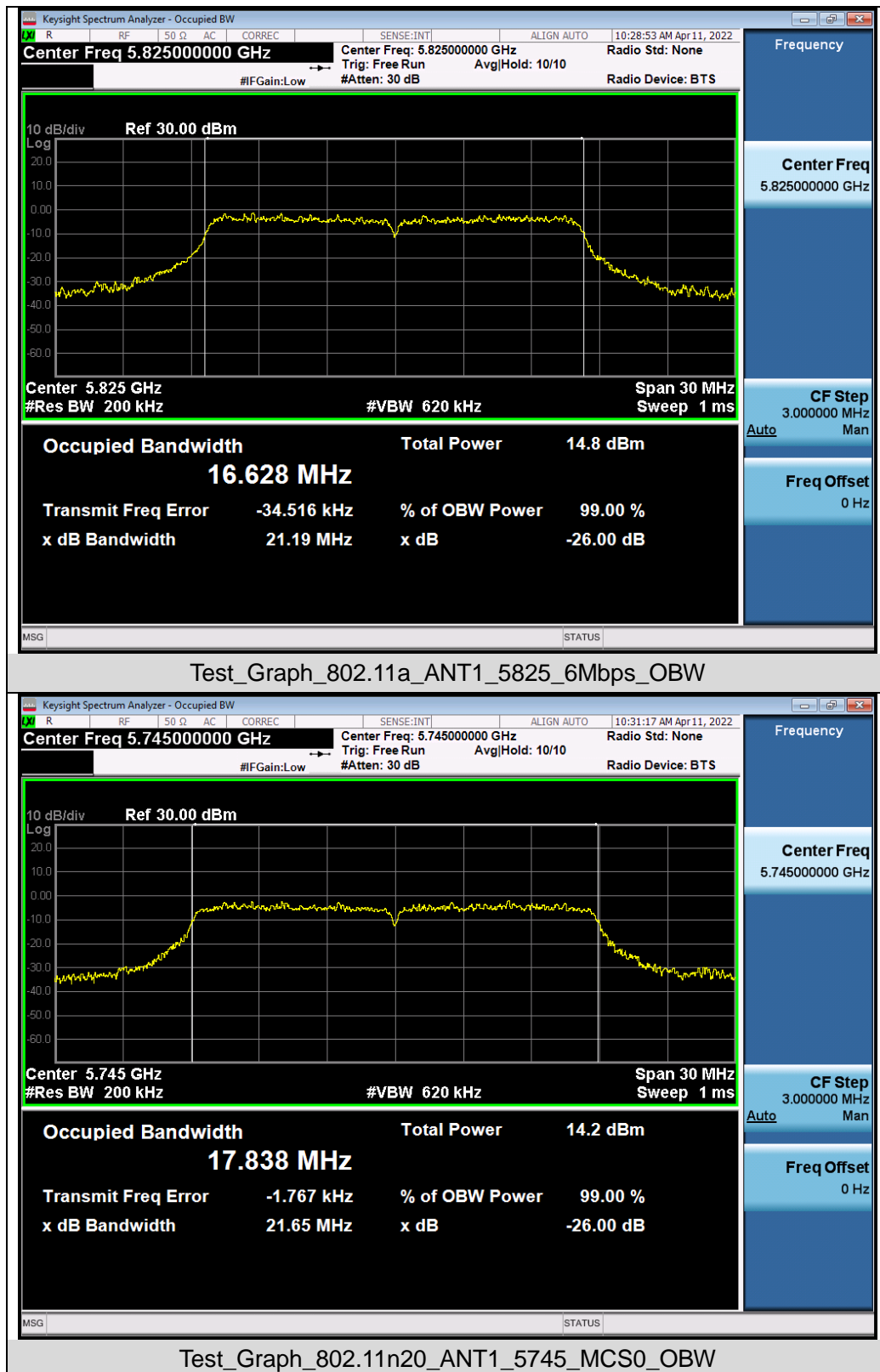
Test_Graph_802.11a_ANT1_5785_6Mbps_OBW

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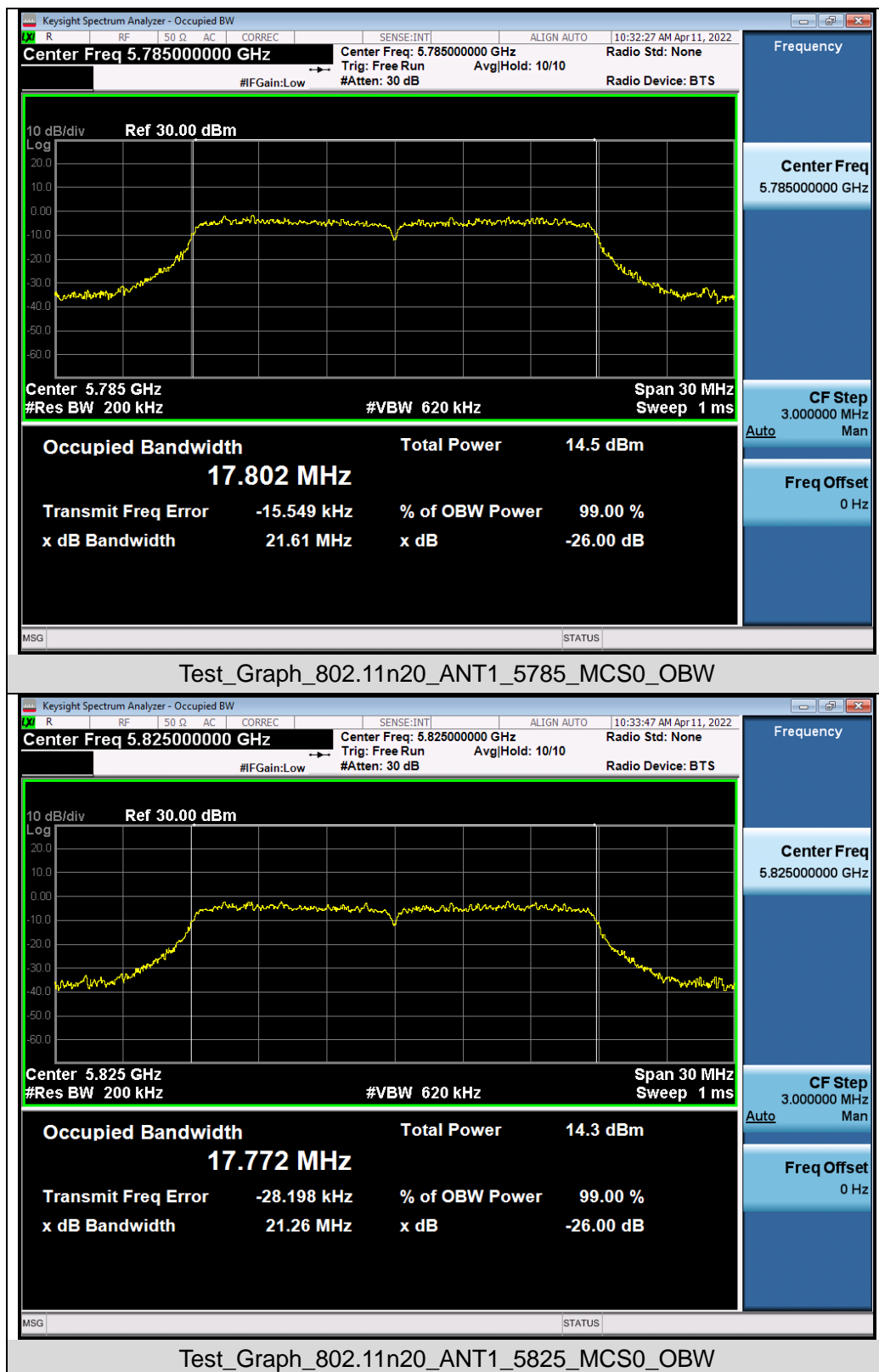
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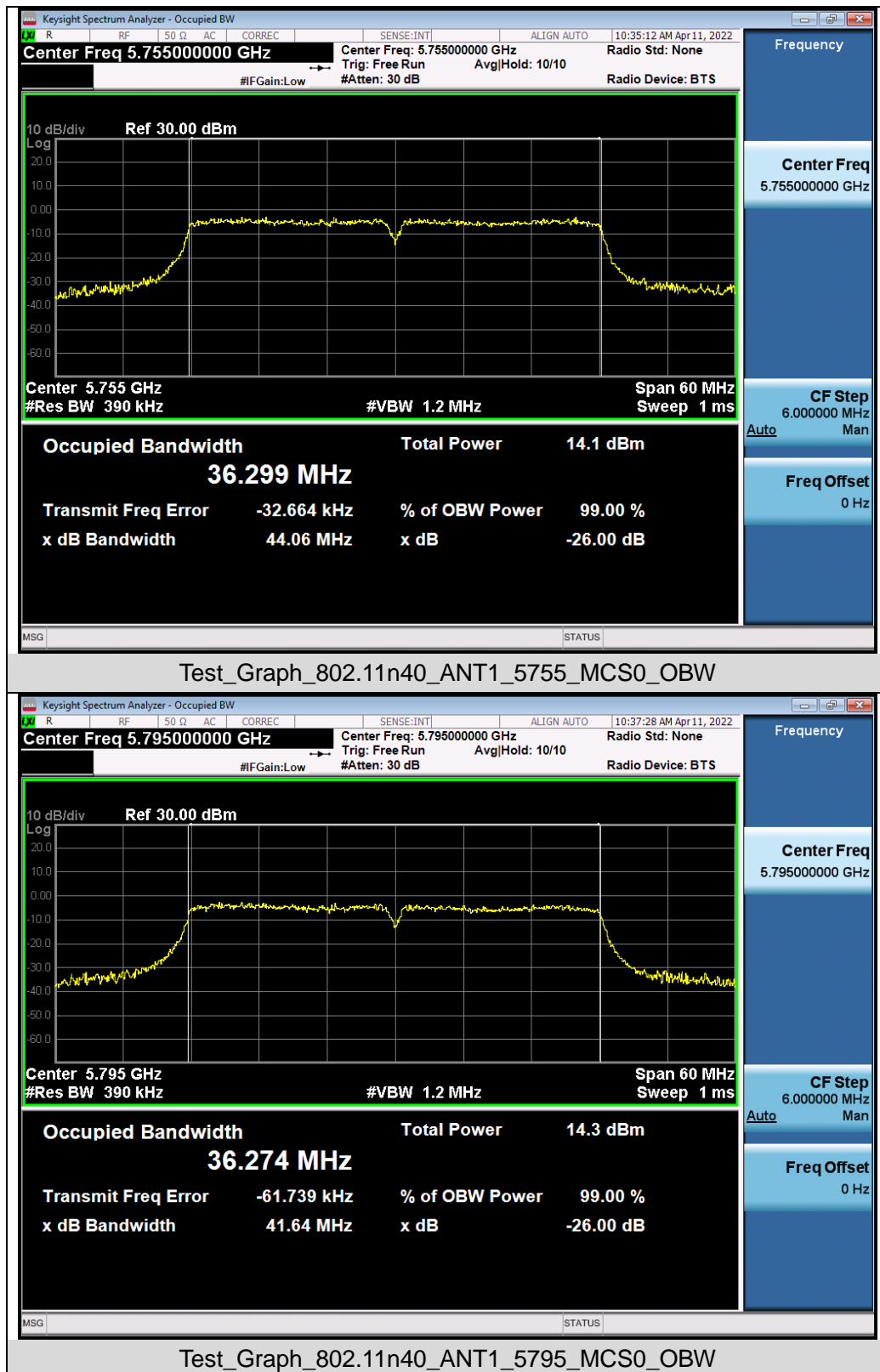
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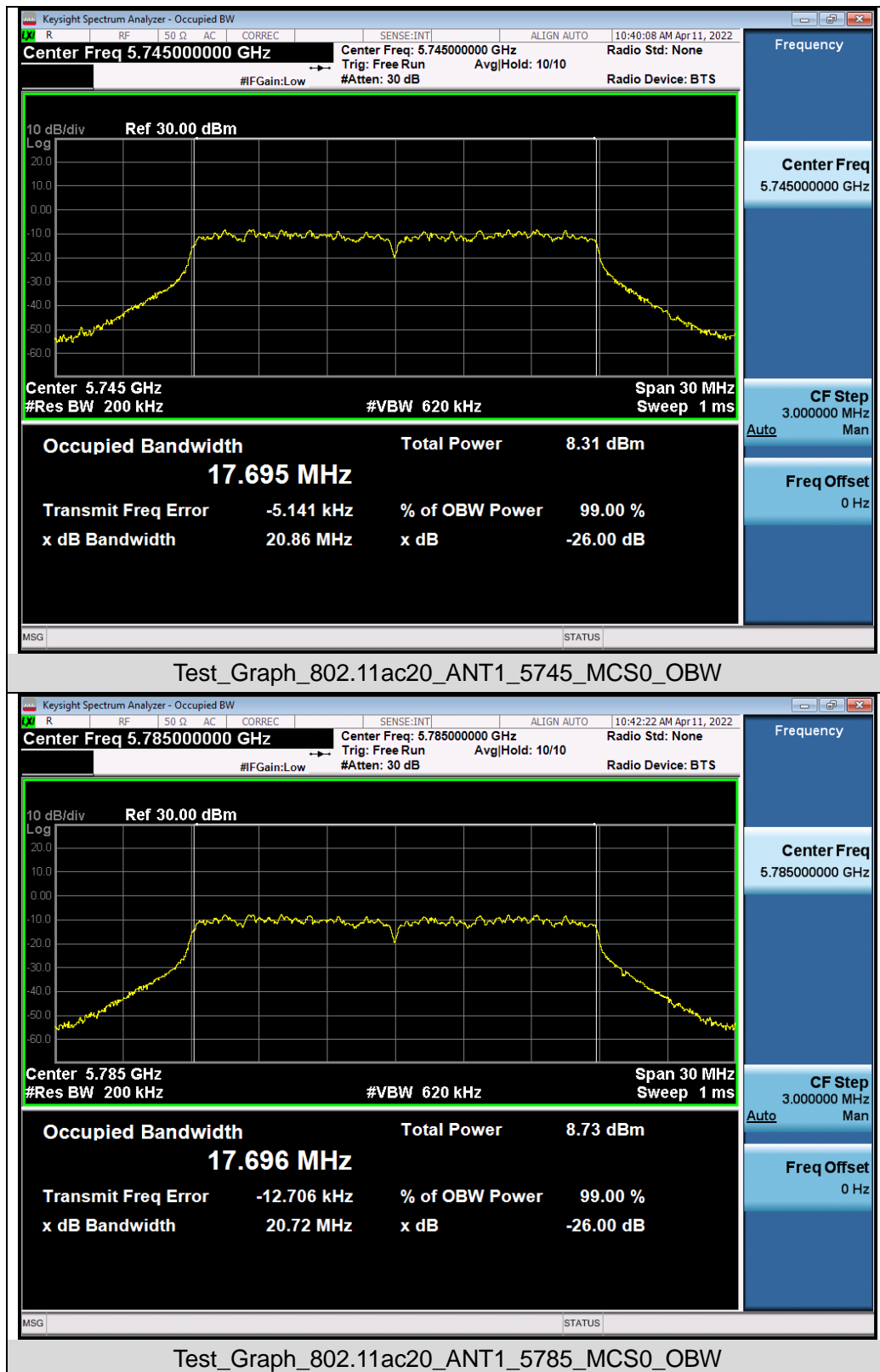
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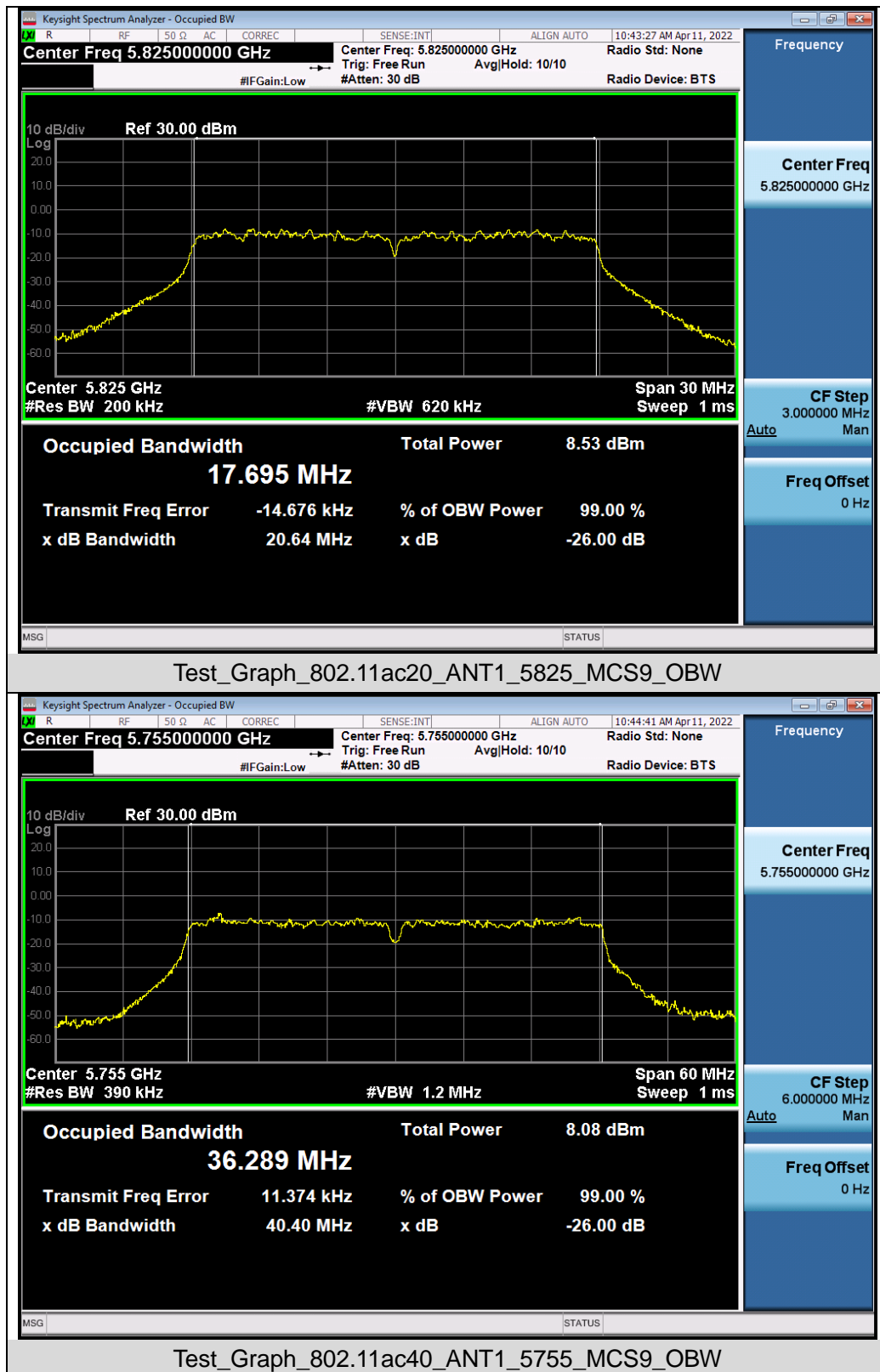
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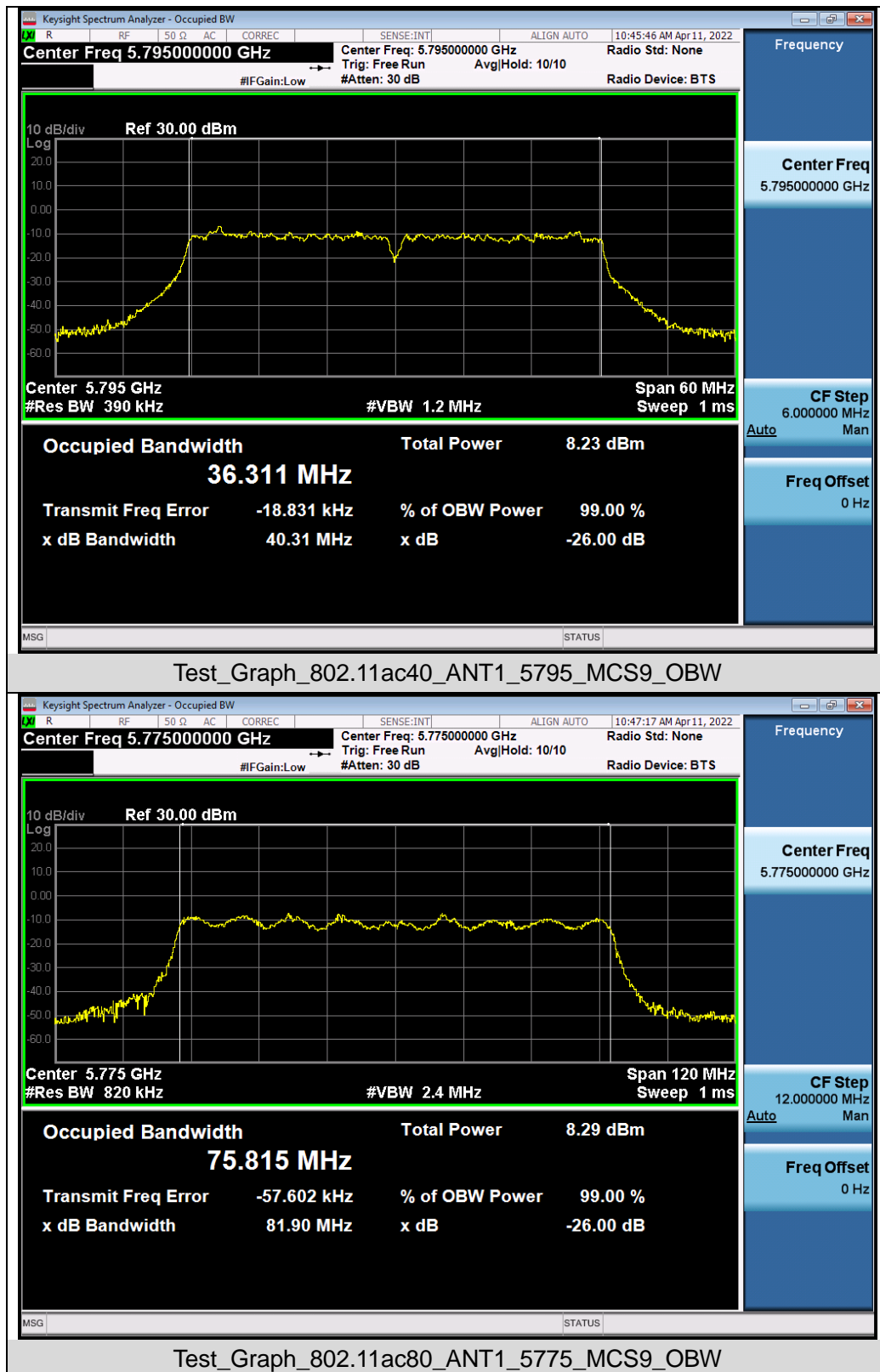
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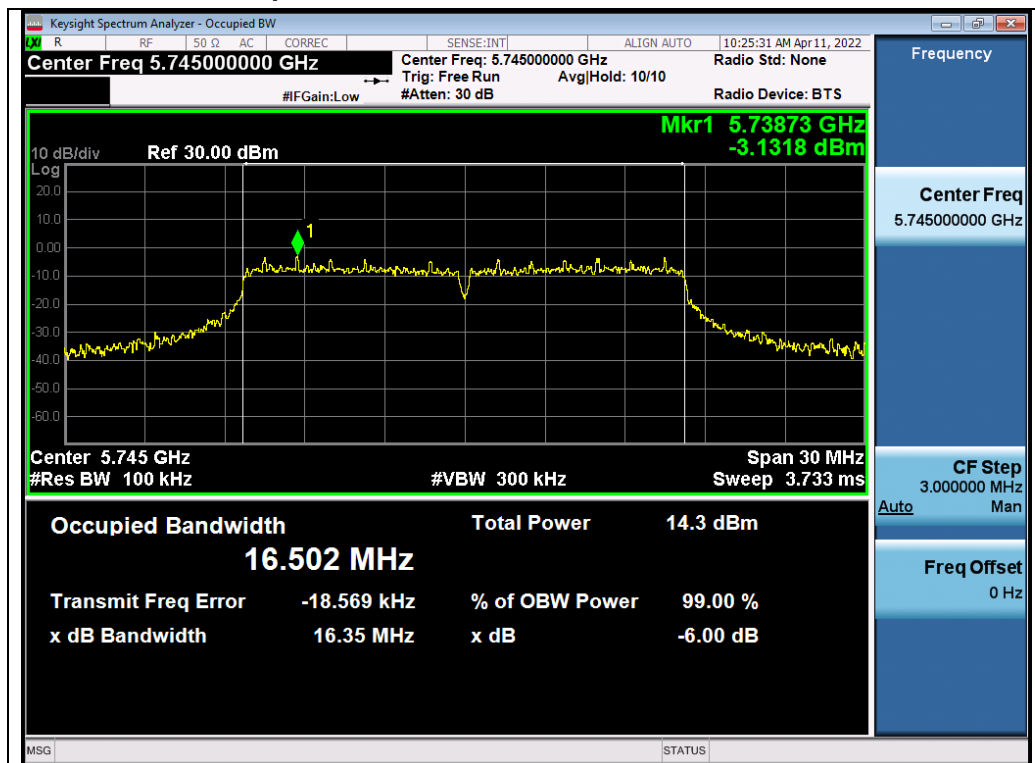


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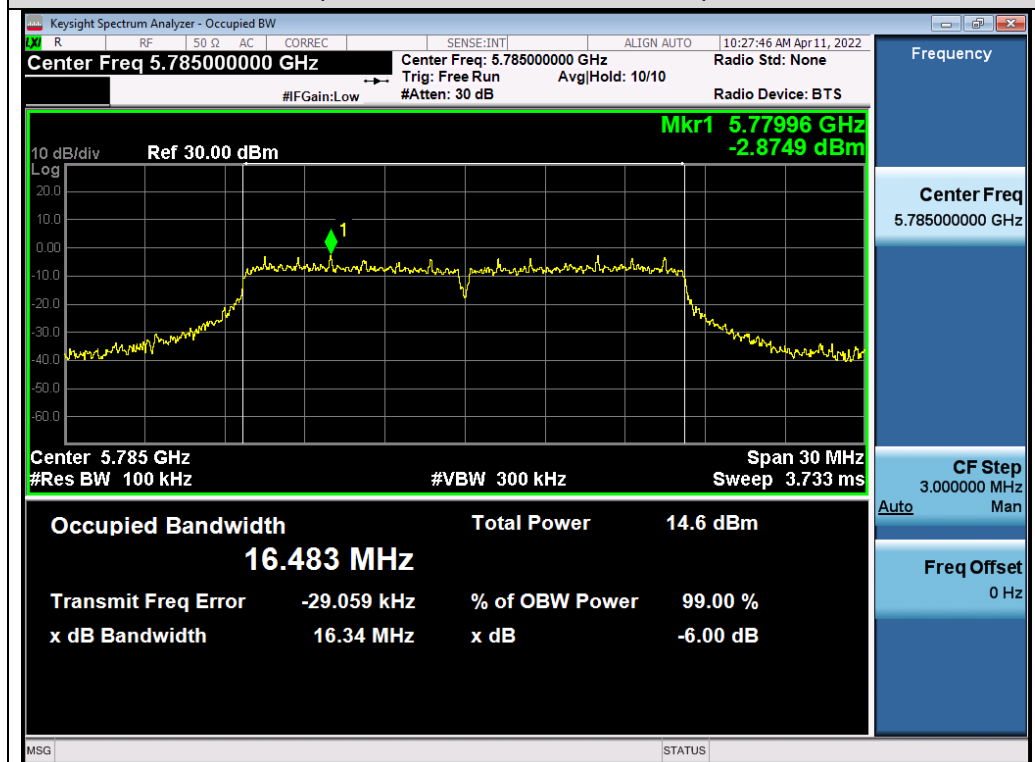


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Test Graphs of DTS Bandwidth for band 5.725-5.85 GHz



Test_Graph_802.11a_ANT1_5745_6Mbps_DTBSW



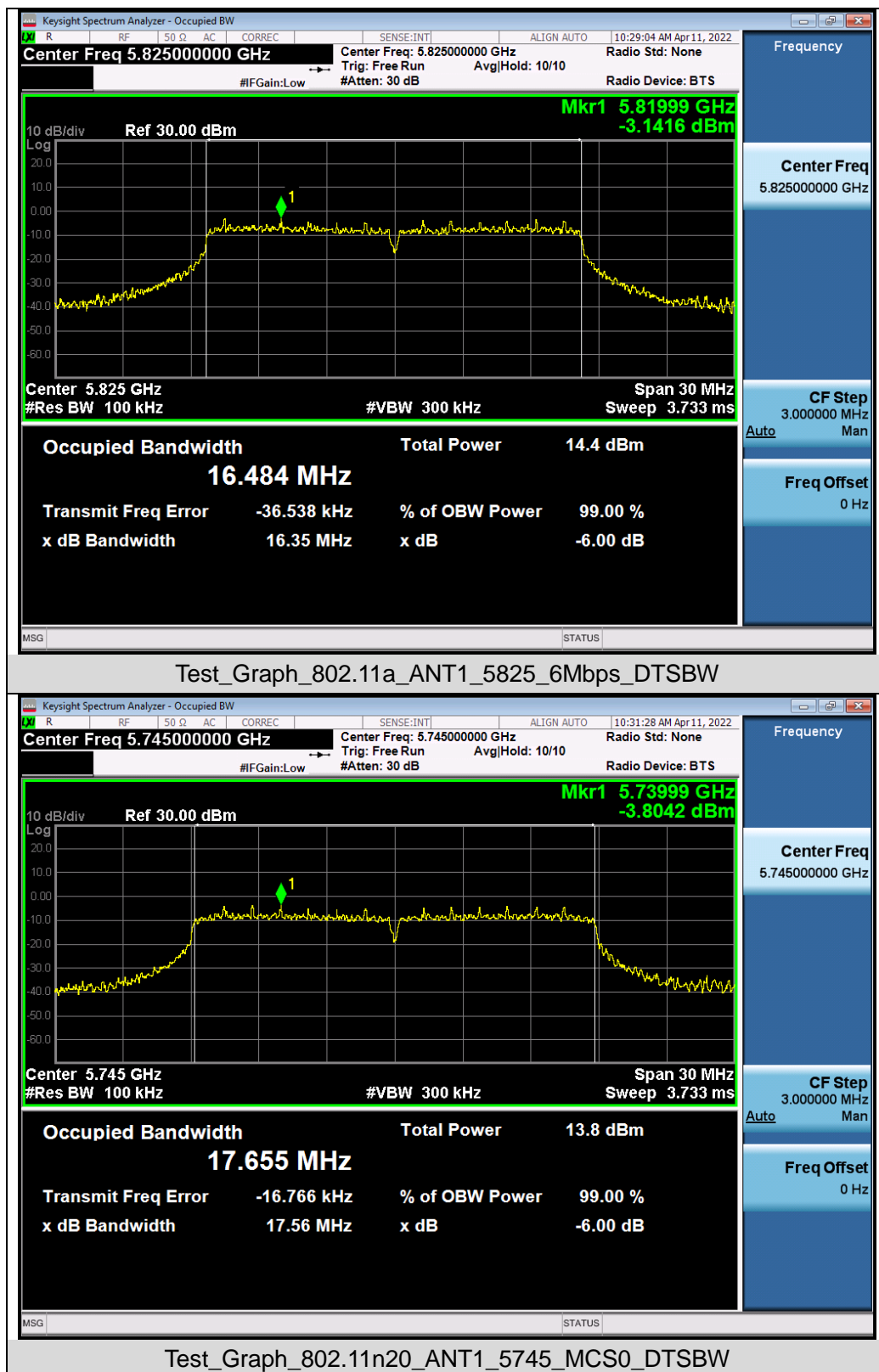
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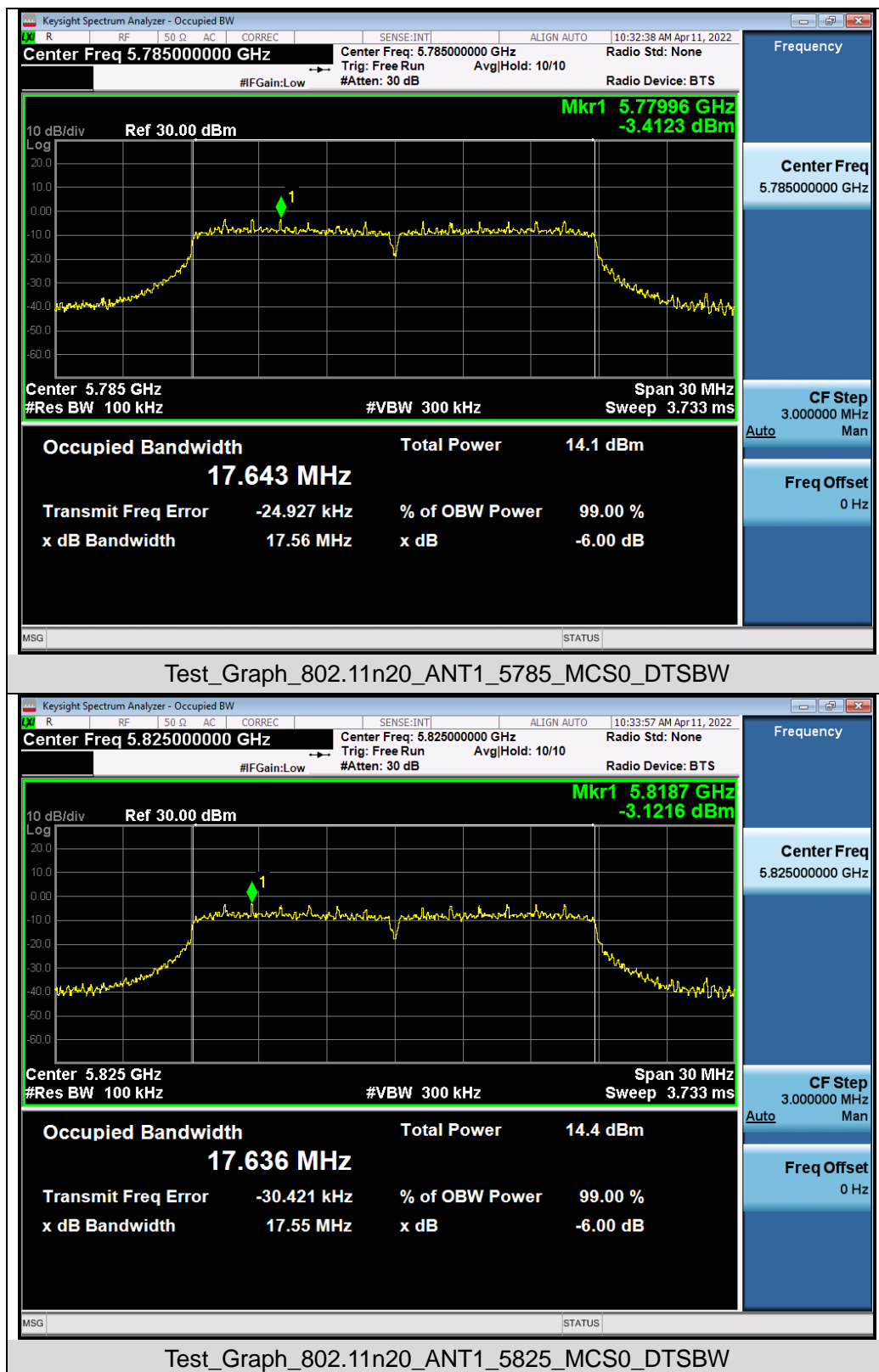
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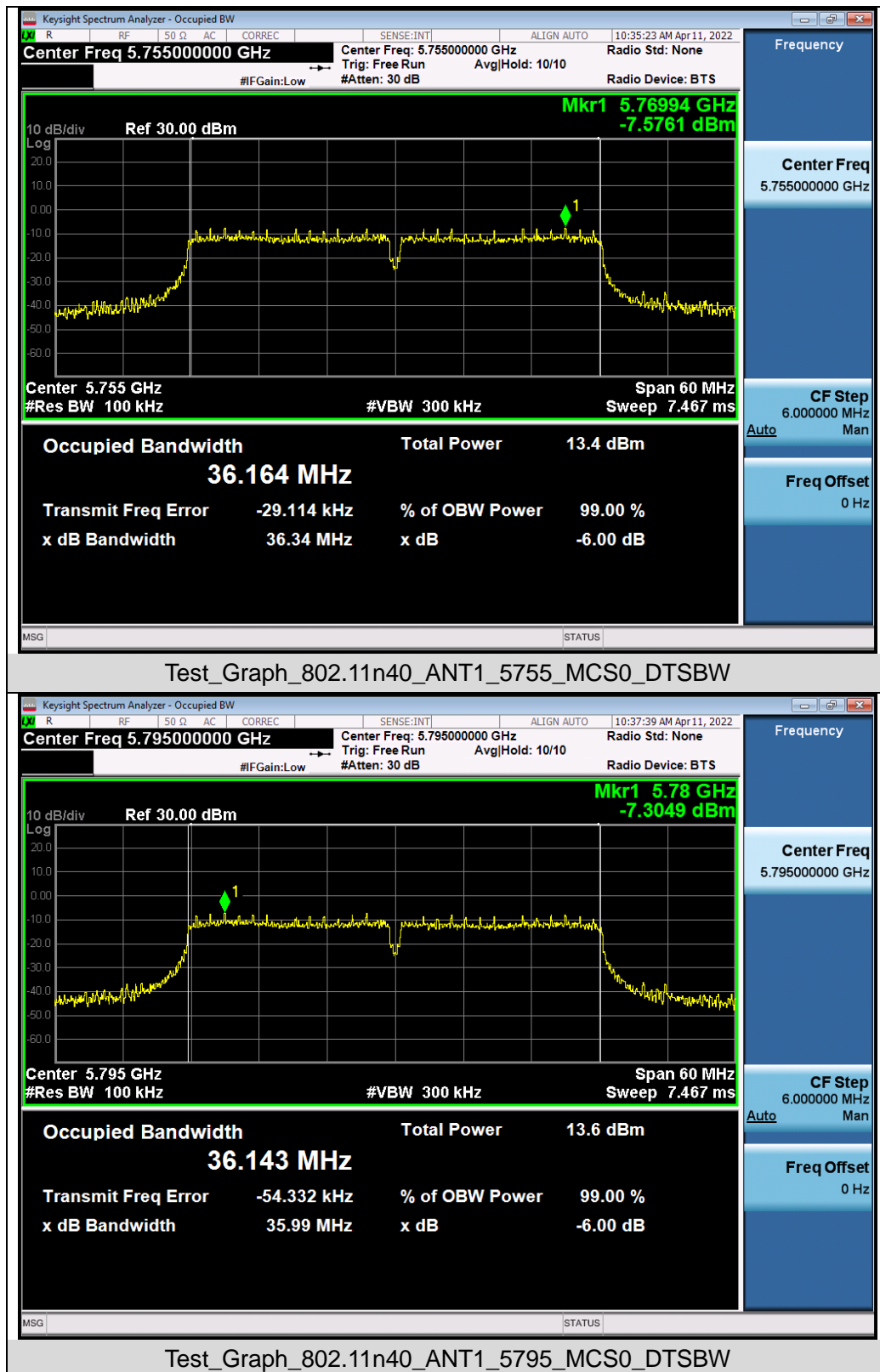
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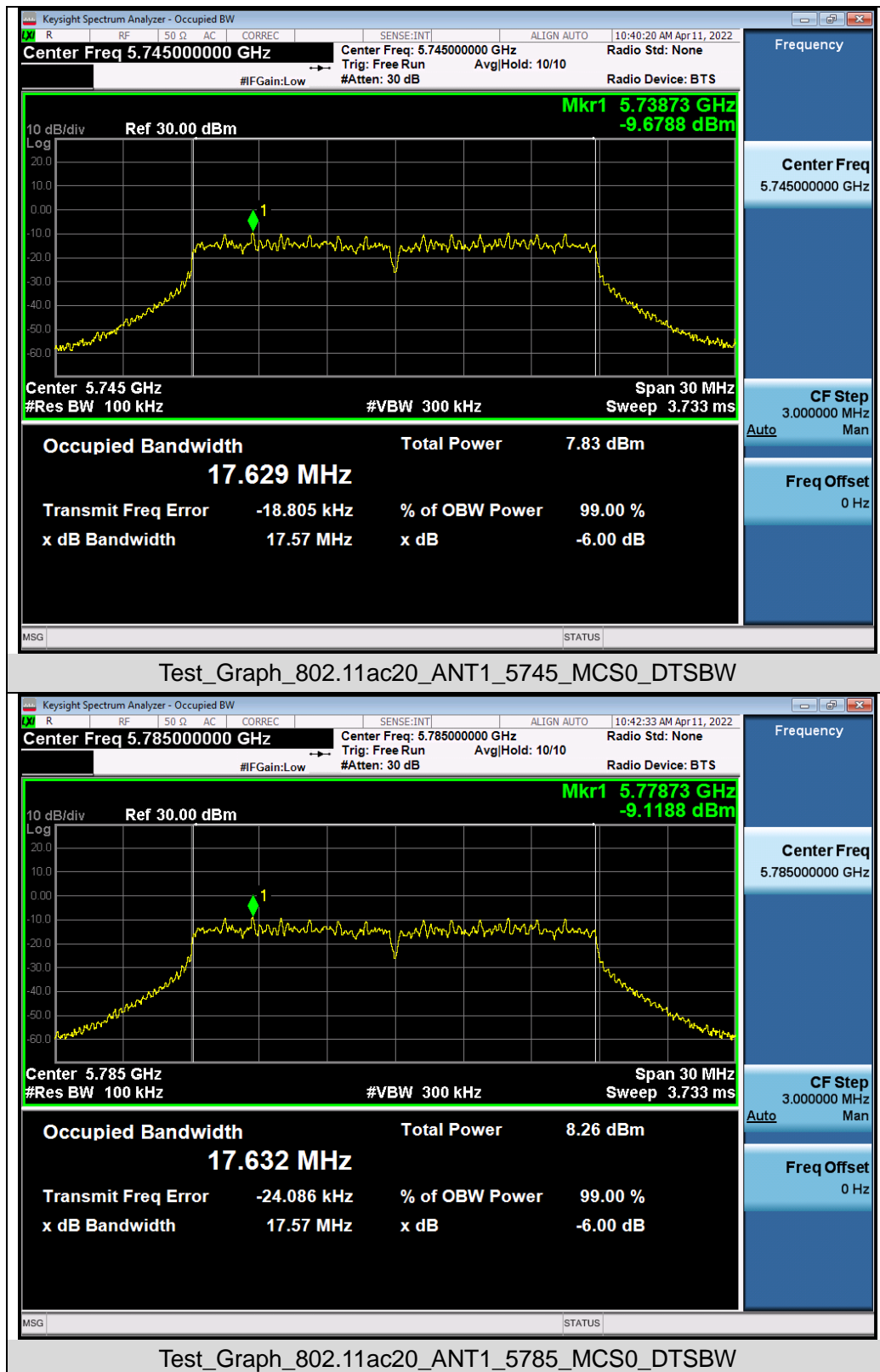
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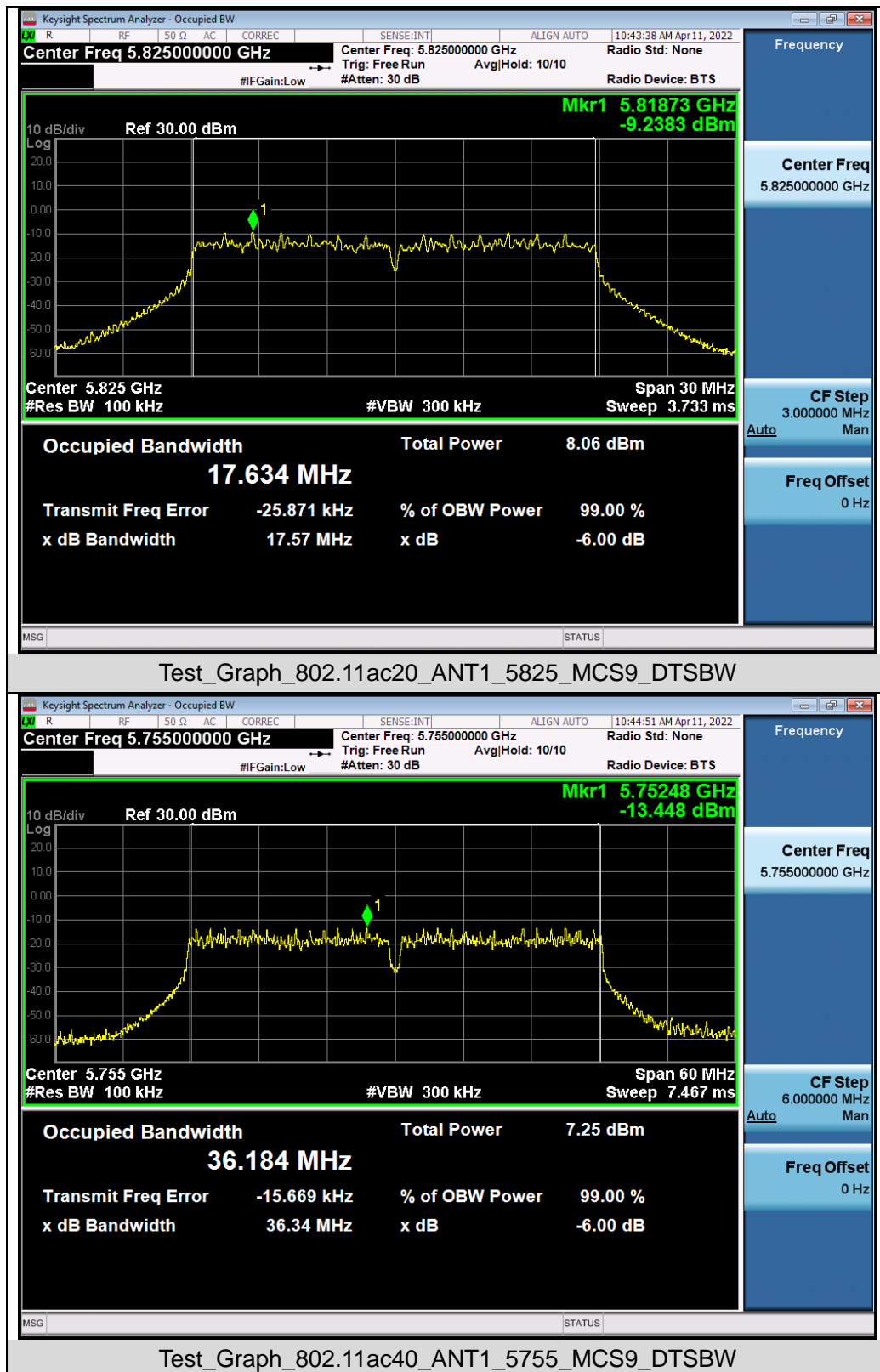
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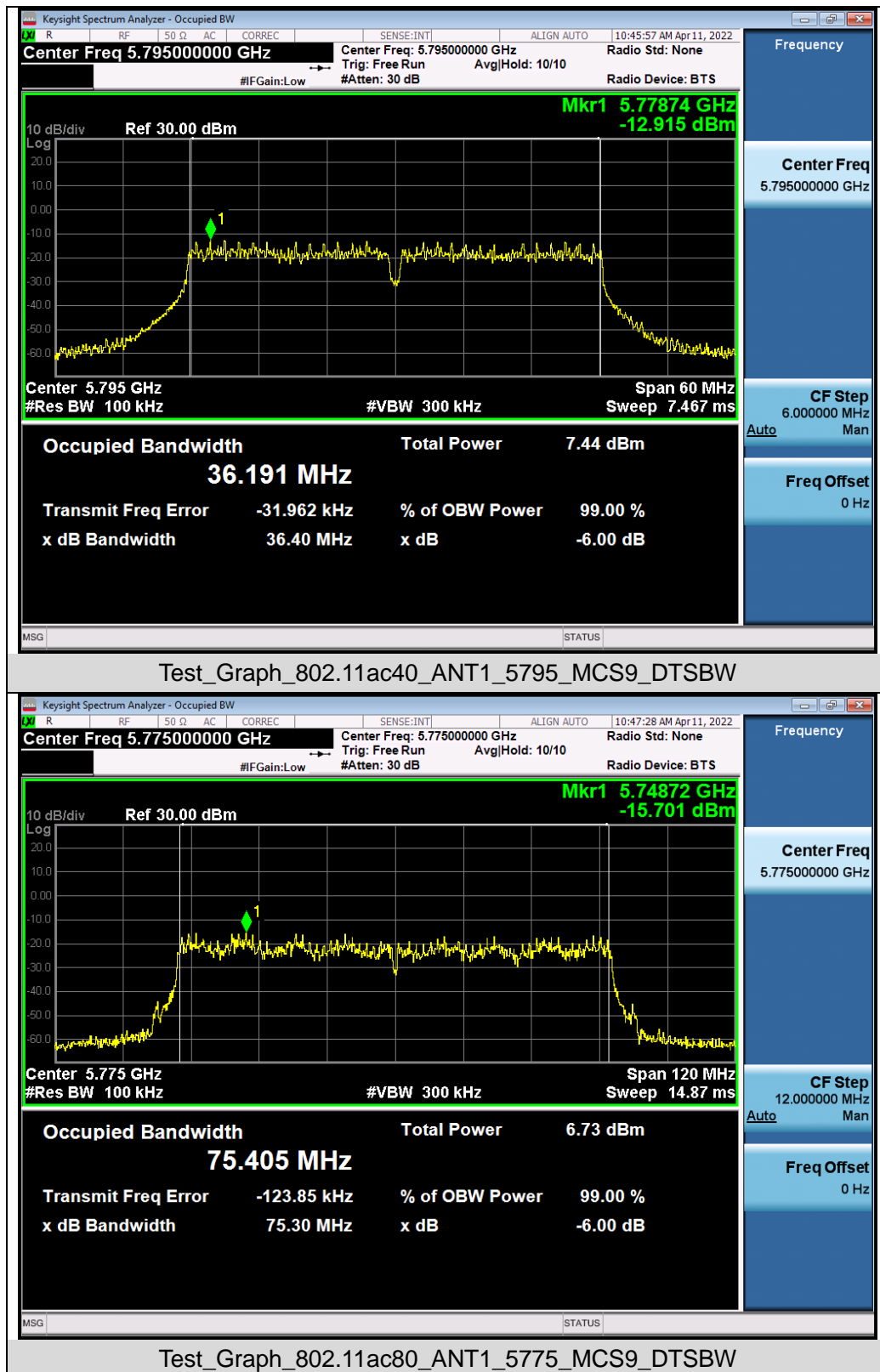
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9. MAXIMUM CONDUCTED OUTPUT AVERAGE POWER SPECTRAL DENSITY

9.1. MEASUREMENT PROCEDURE

Refer to KDB 789033 section F

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

Refer to Section 8.2.

9.3. MEASUREMENT EQUIPMENT USED

Refer to Section 6.

9.4. LIMITS AND MEASUREMENT RESULT

Test Data of Conducted Output Power Density for band 5.15-5.25 GHz				
Test Mode	Test Channel (MHz)	Average Power Density (dBm/MHz)	Limits (dBm/MHz)	Pass or Fail
802.11a	5180	0.131	11	Pass
	5200	0.979	11	Pass
	5240	2.139	11	Pass
802.11n20	5180	-0.766	11	Pass
	5200	0.586	11	Pass
	5240	0.706	11	Pass
802.11n40	5190	-2.921	11	Pass
	5230	-1.386	11	Pass
802.11ac20	5180	-3.906	11	Pass
	5200	-3.132	11	Pass
	5240	-2.265	11	Pass
802.11ac40	5190	-6.198	11	Pass
	5230	-3.804	11	Pass
802.11ac80	5210	-5.532	11	Pass

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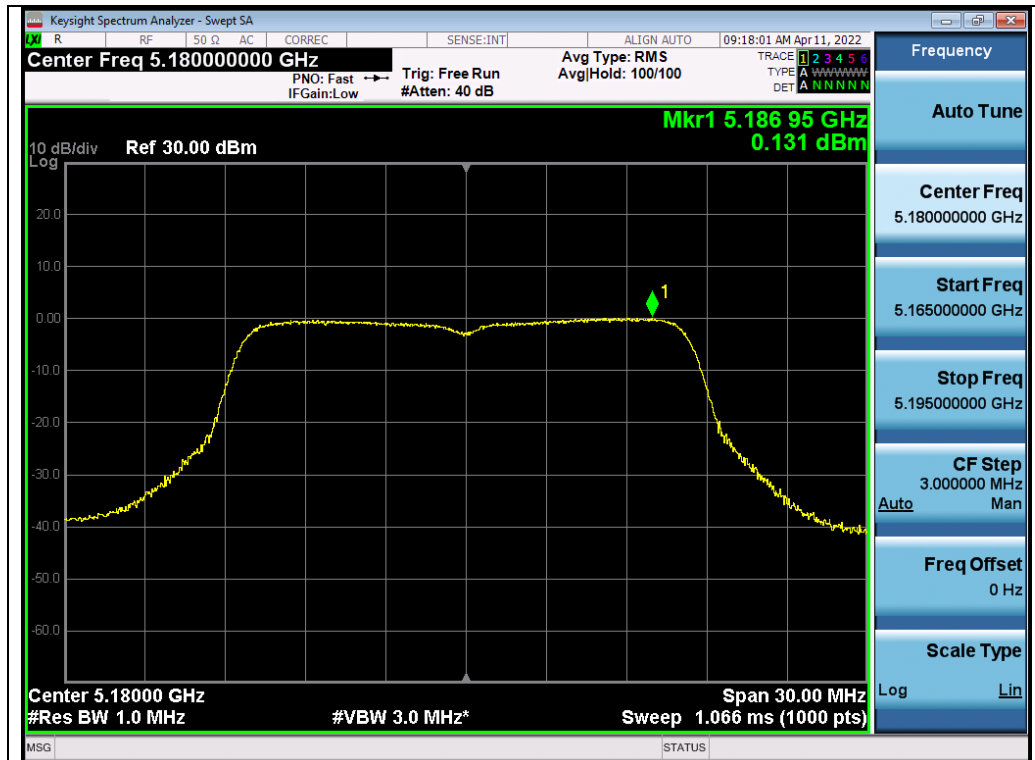
Test Data of Conducted Output Power Density for band 5.725-5.85 GHz					
Test Mode	Test Channel (MHz)	Average Power Density (dBm/100kHz)	Average Power Density (dBm/500kHz)	Limits (dBm/500kHz)	Pass or Fail
802.11a	5745	-10.914	-3.924	30	Pass
	5785	-10.548	-3.558	30	Pass
	5825	-10.832	-3.842	30	Pass
802.11n20	5745	-11.900	-4.910	30	Pass
	5785	-11.169	-4.179	30	Pass
	5825	-11.752	-4.762	30	Pass
802.11n40	5755	-14.400	-7.410	30	Pass
	5795	-13.301	-6.311	30	Pass
802.11ac20	5745	-13.992	-7.002	30	Pass
	5785	-13.630	-6.640	30	Pass
	5825	-14.686	-7.696	30	Pass
802.11ac40	5755	-15.759	-8.769	30	Pass
	5795	-14.792	-7.802	30	Pass
802.11ac80	5775	-23.212	-16.222	30	Pass

Note:1. Power density(dBm/500kHz) = Power density(dBm/100kHz) +10*log(500/100).

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Test Graphs of Conducted Output Power Spectral Density for band 5.15-5.25 GHz



Test_Graph_802.11a_ANT1_5180_6Mbps_PSD



Test_Graph_802.11a_ANT1_5200_6Mbps_PSD

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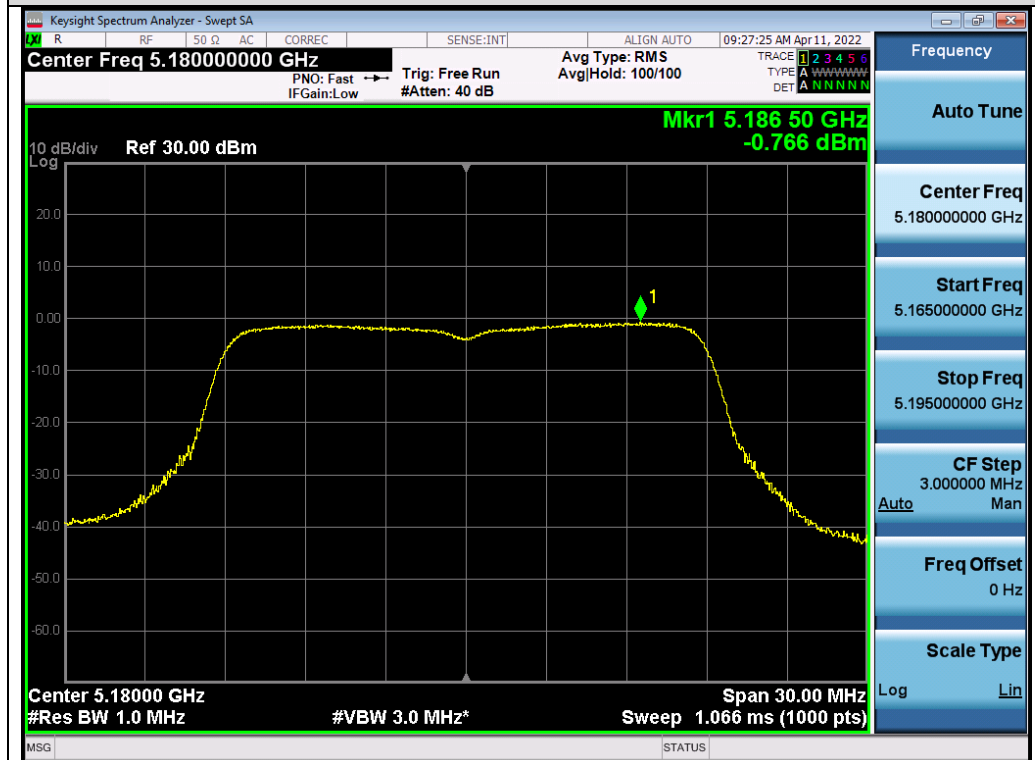
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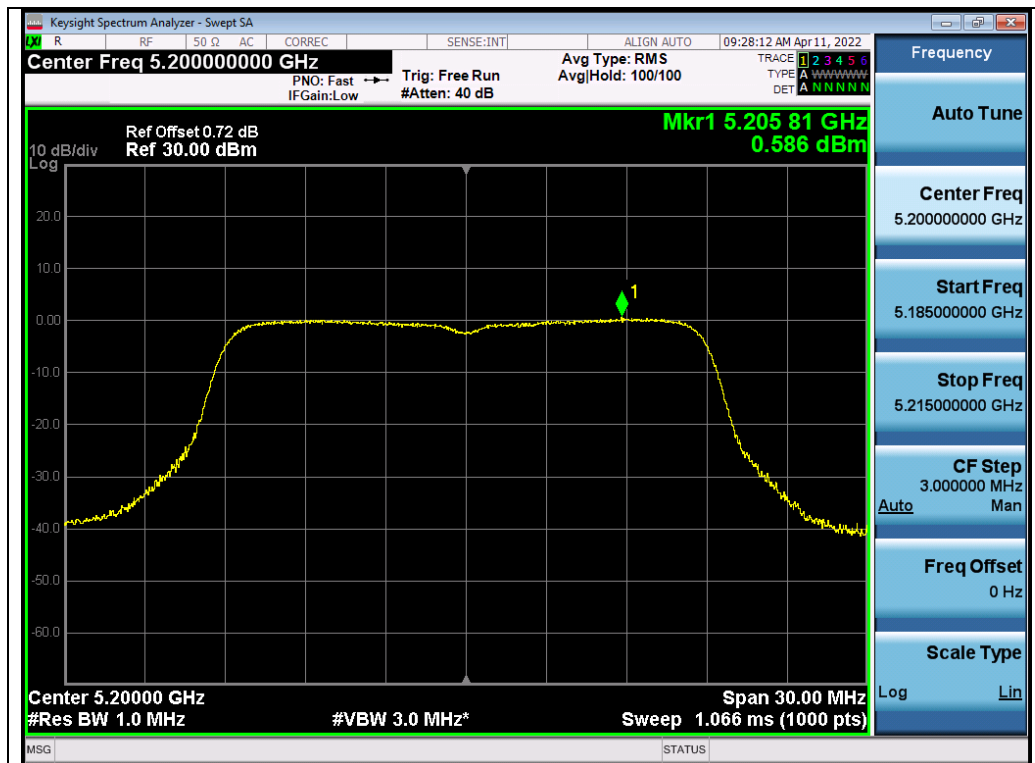


Test_Graph_802.11a_ANT1_5240_6Mbps_PSD

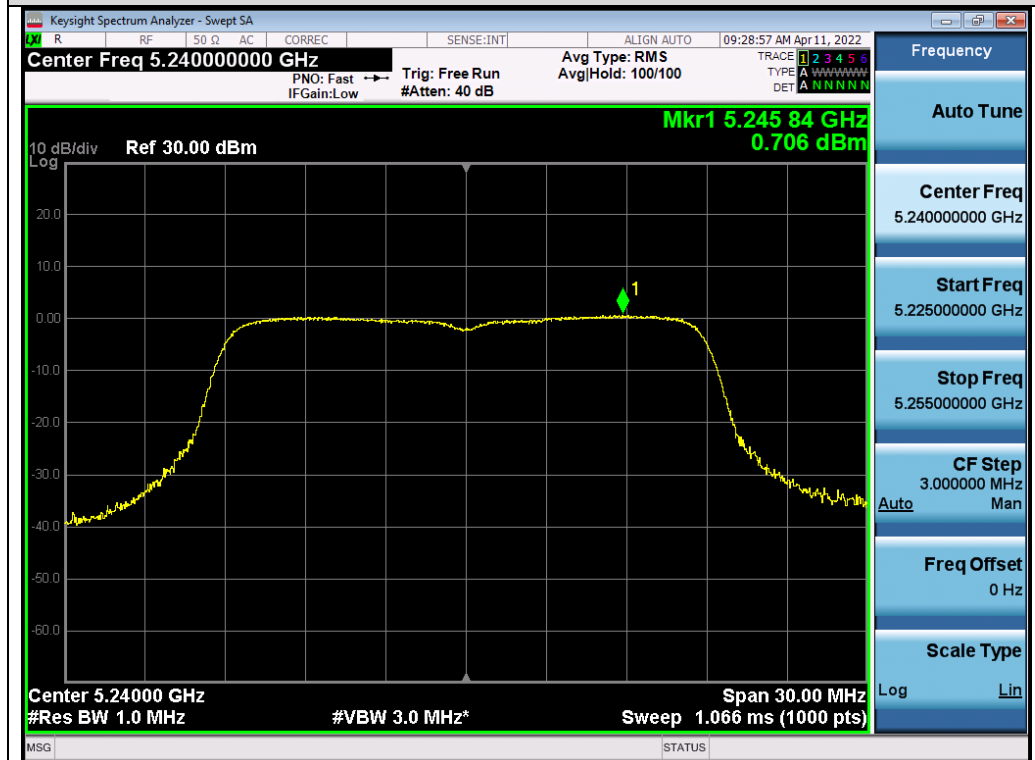


Test_Graph_802.11n20_ANT1_5180_MCS0_PSD

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Test_Graph_802.11n20_ANT1_5200_MCS0_PSD

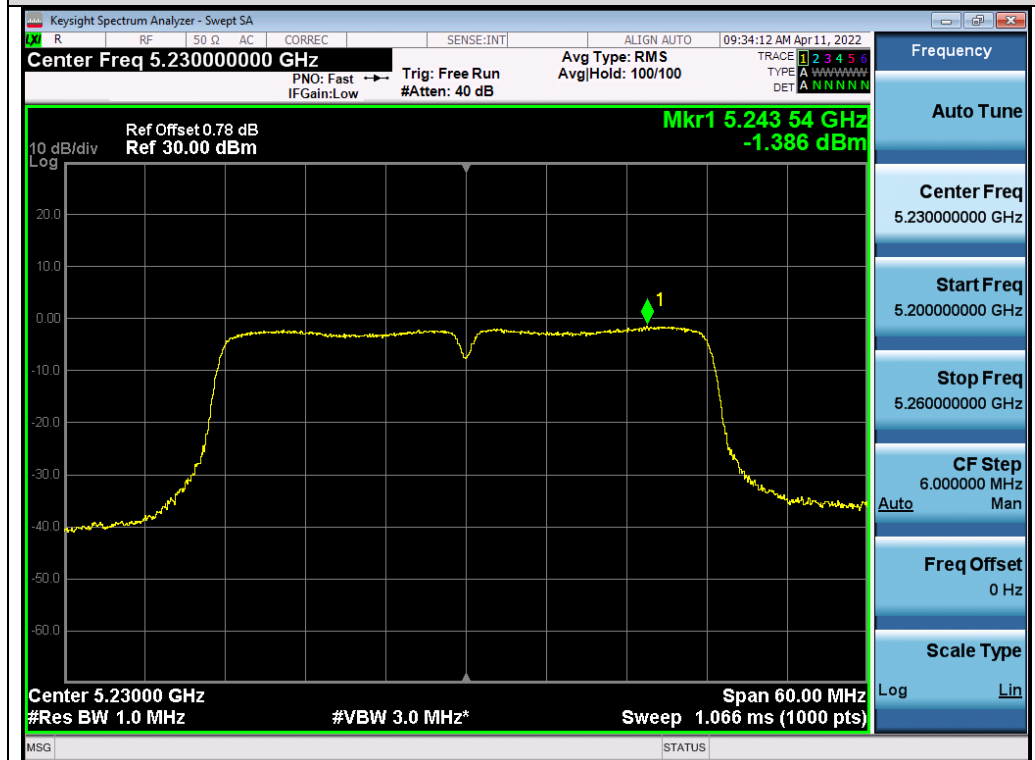


Test_Graph_802.11n20_ANT1_5240_MCS0_PSD

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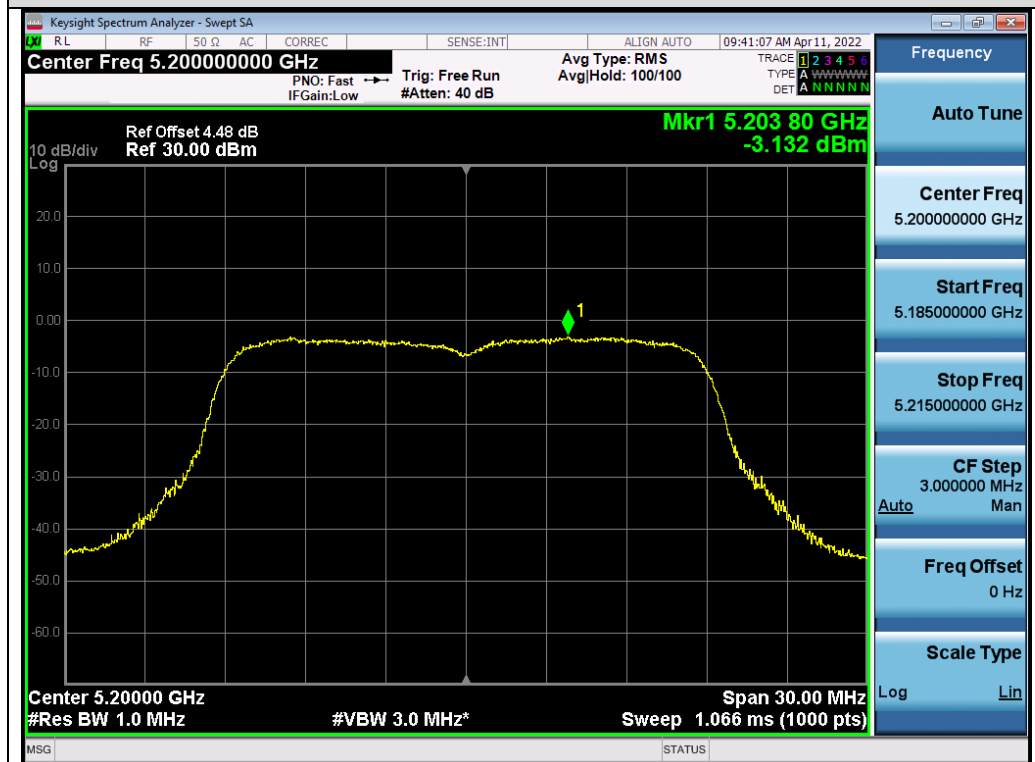
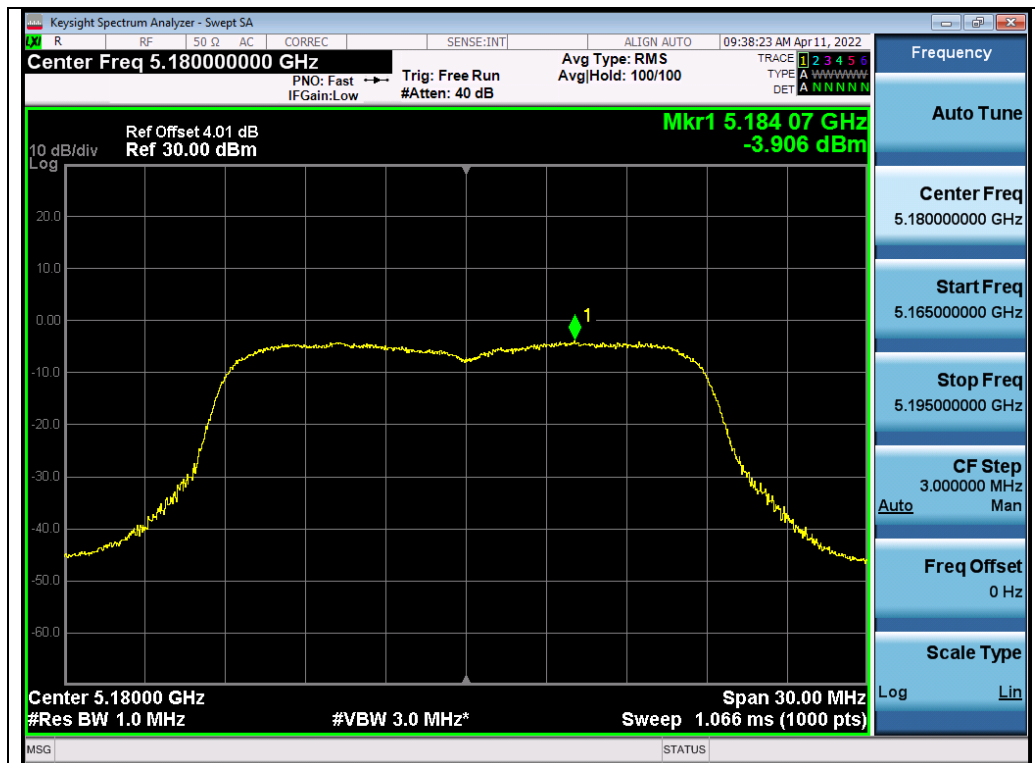


Test_Graph_802.11n40_ANT1_5190_MCS0_PSD

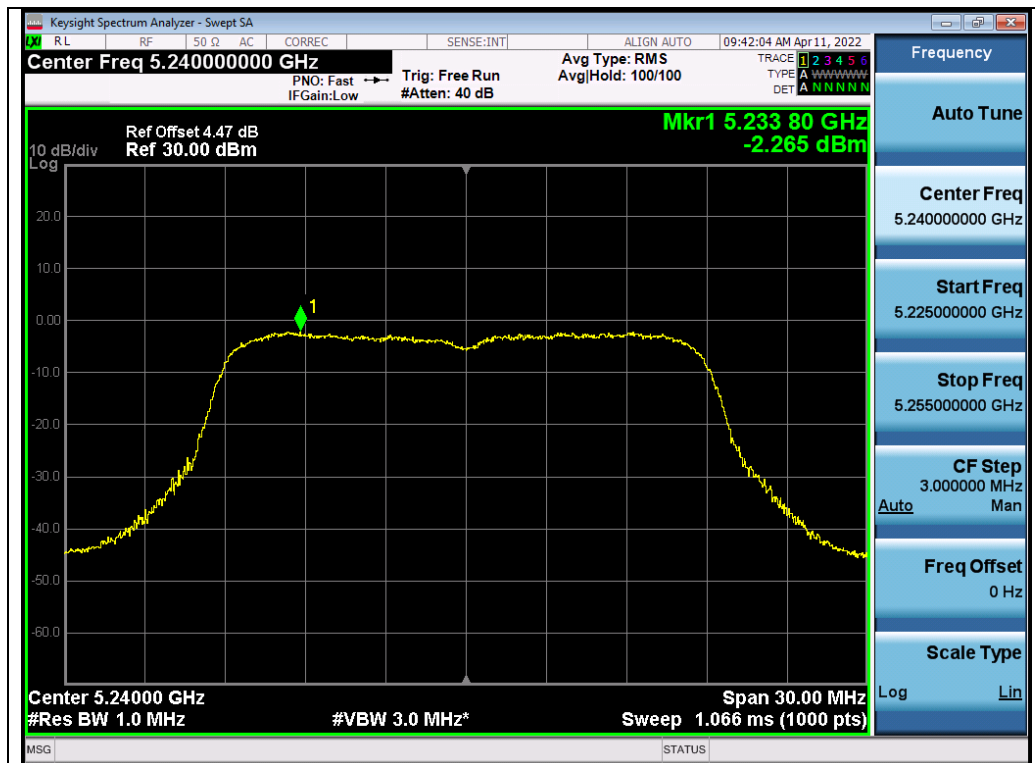


Test_Graph_802.11n40_ANT1_5230_MCS0_PSD

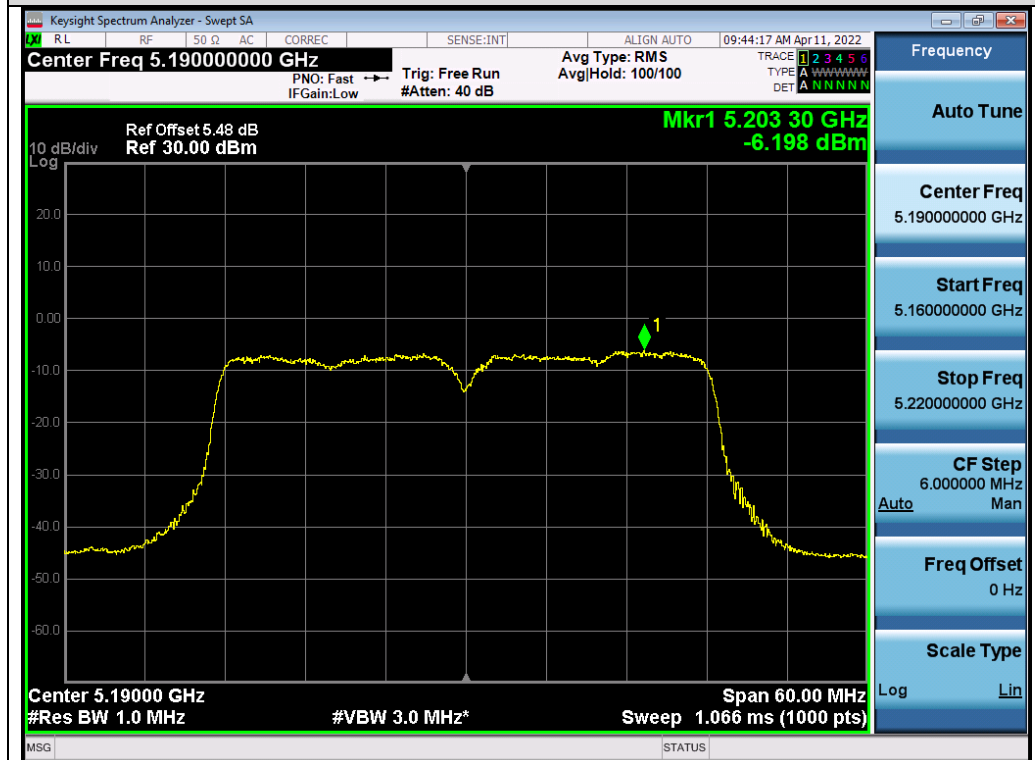
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Test_Graph_802.11ac20_ANT1_5240_MCS9_PSD

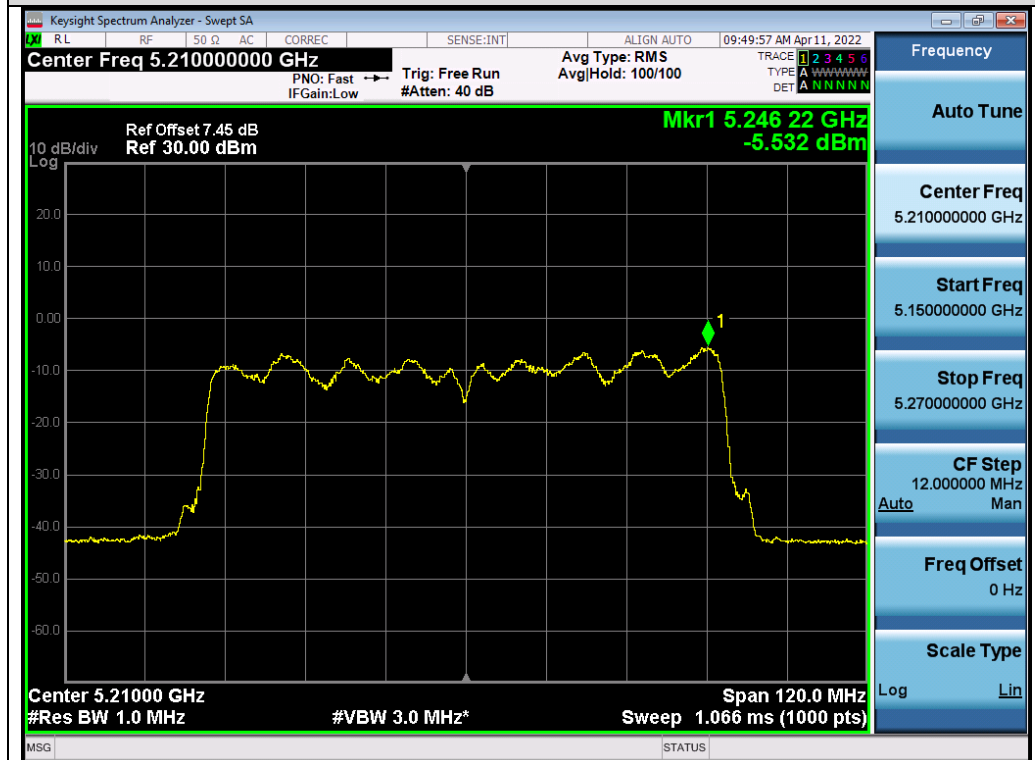


Test_Graph_802.11ac40_ANT1_5190_MCS9_PSD

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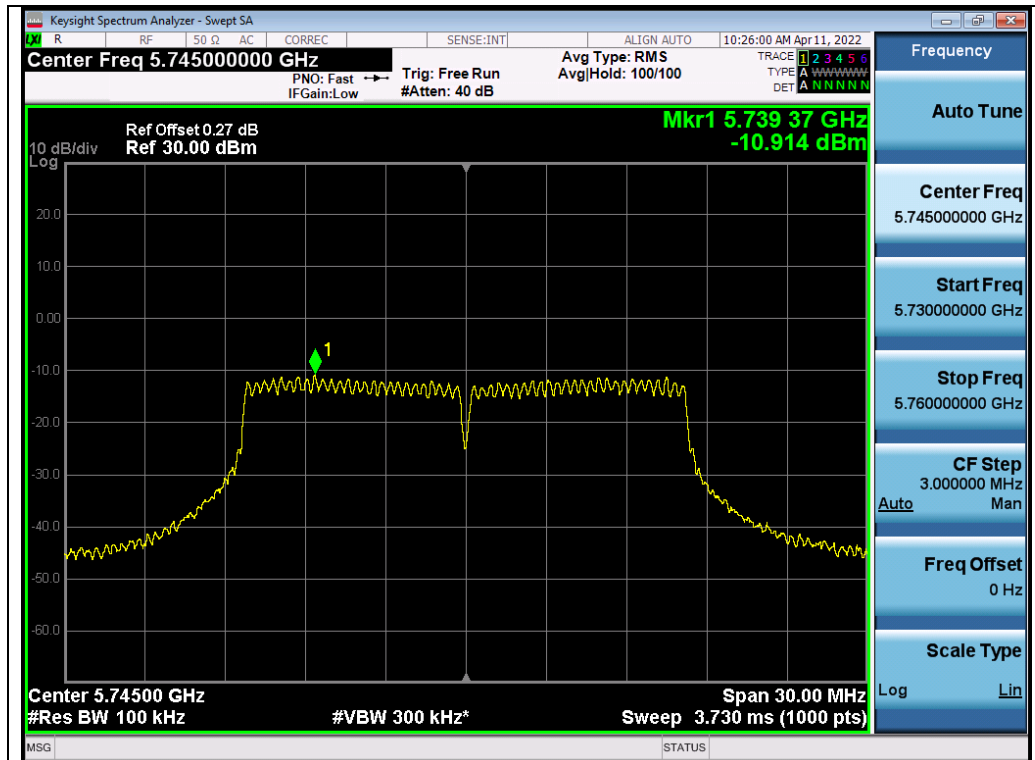
Test_Graph_802.11ac40_ANT1_5230_MCS9_PSD



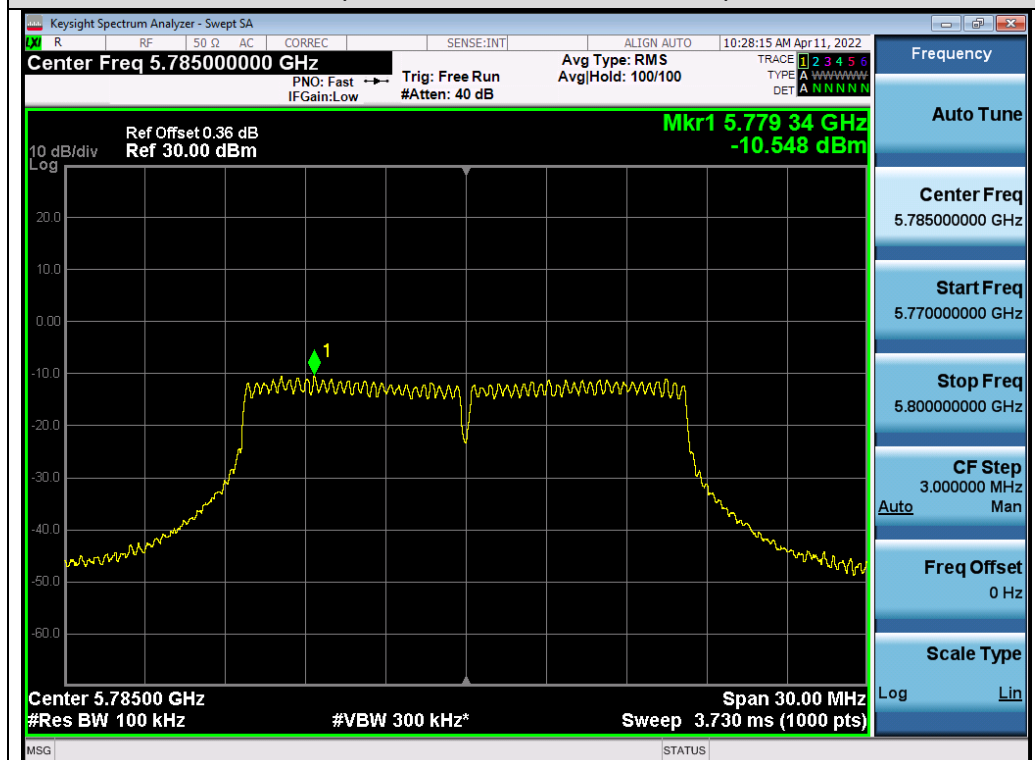
Test_Graph_802.11ac80_ANT1_5210_MCS9_PSD

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

Test Graphs of Conducted Output Power Spectral Density for band 5.725-5.85 GHz

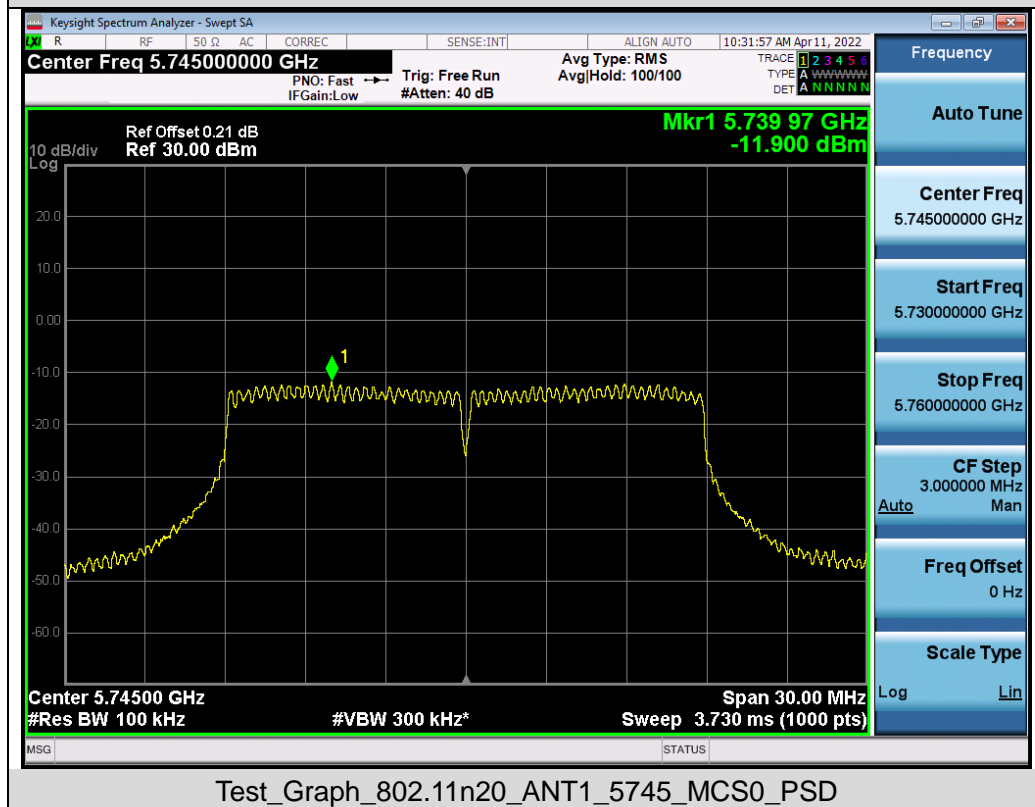
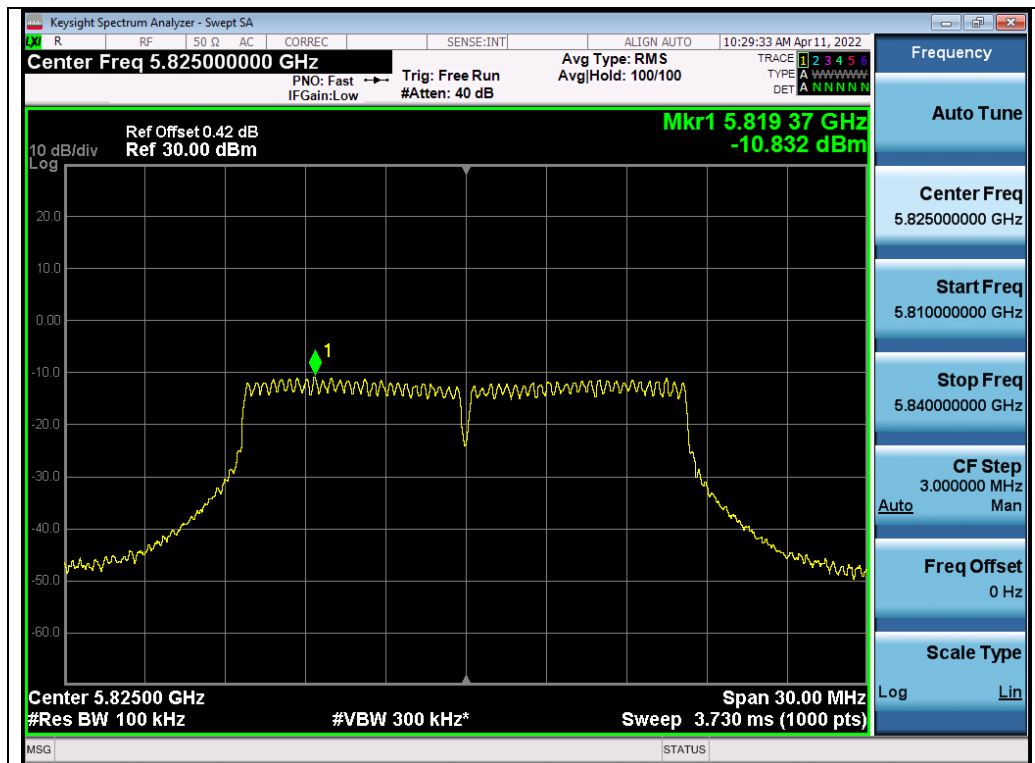


Test_Graph_802.11a_ANT1_5745_6Mbps_PSD

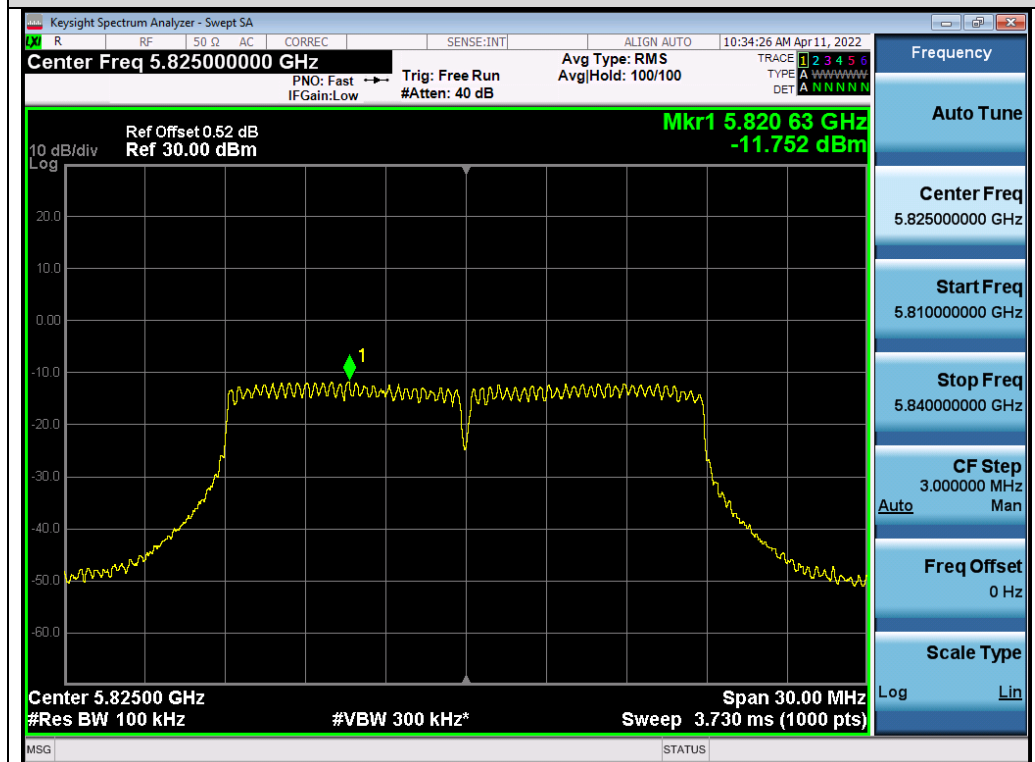
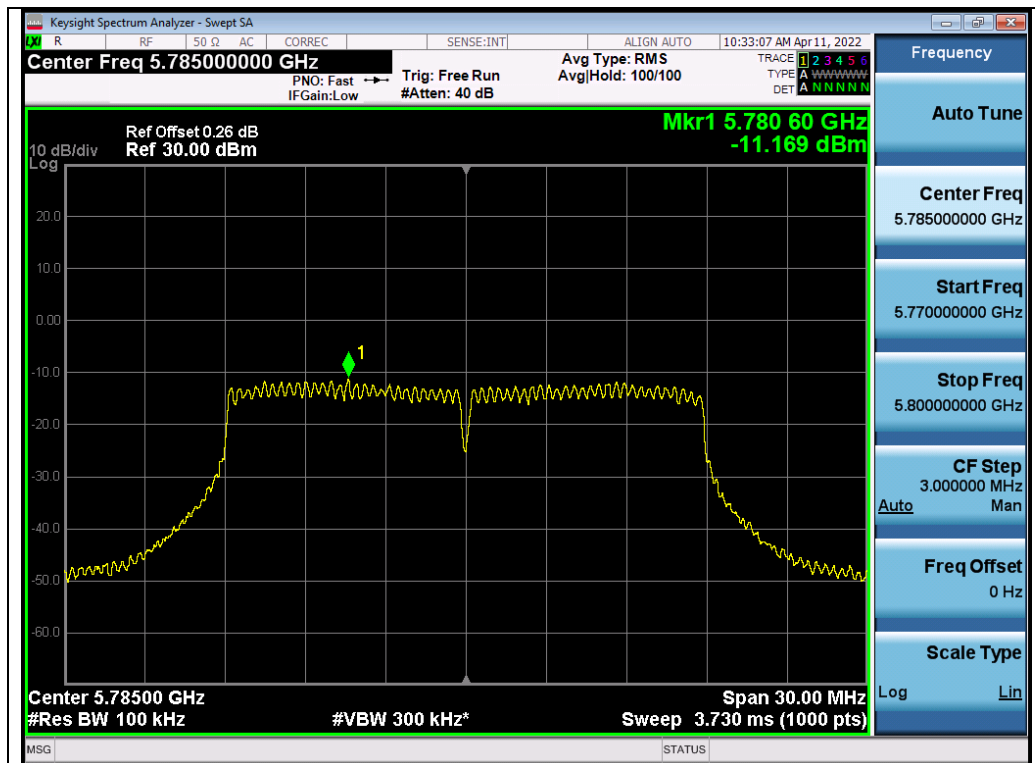


Test_Graph_802.11a_ANT1_5785_6Mbps_PSD

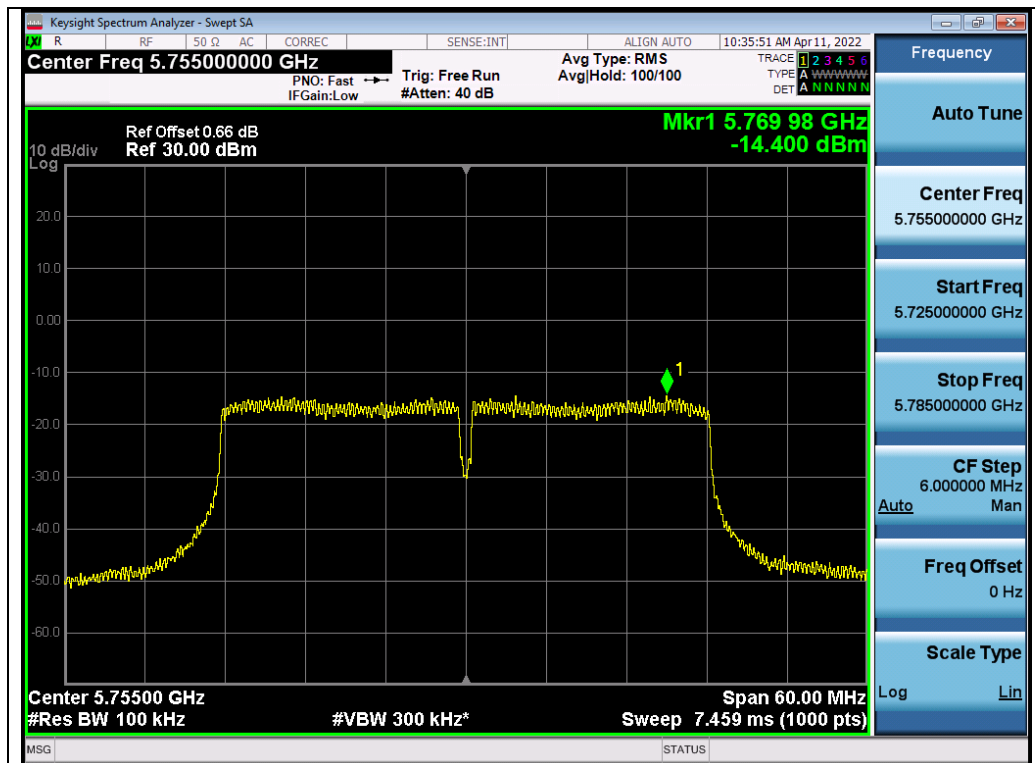
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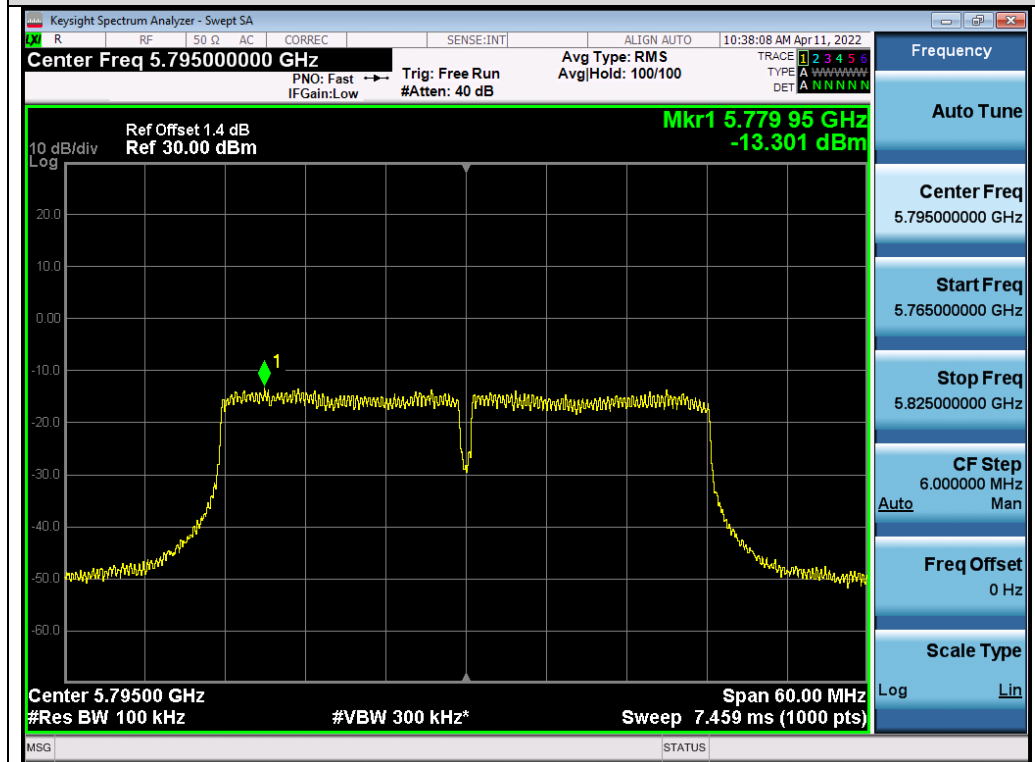
Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.



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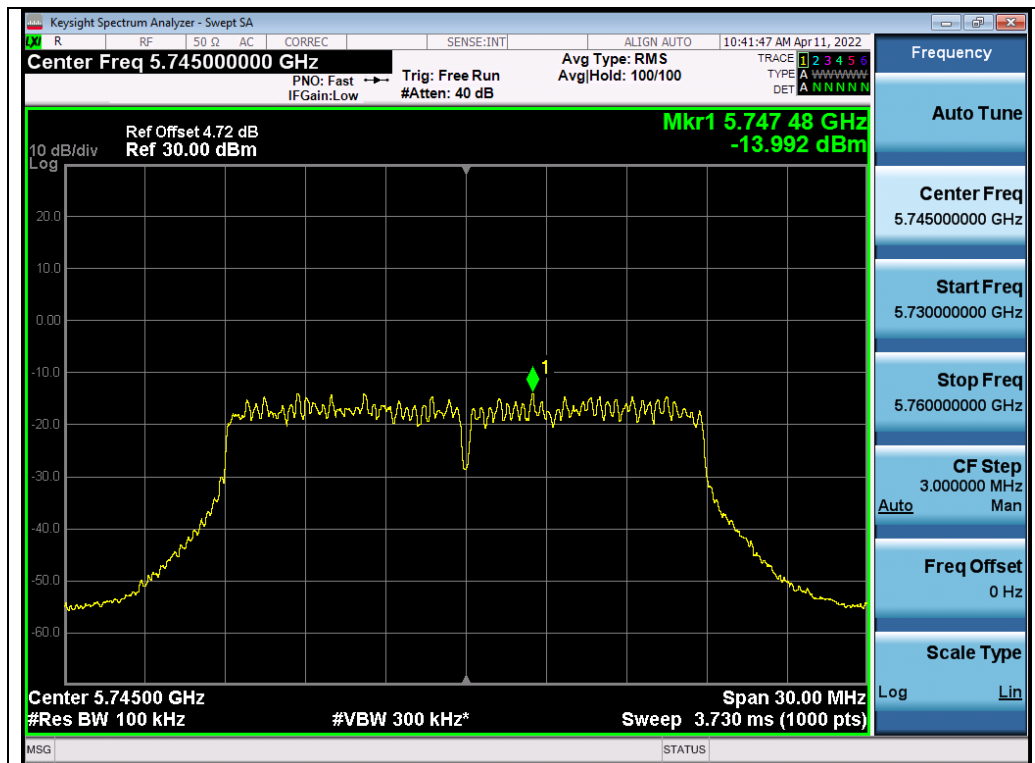


Test_Graph_802.11n40_ANT1_5755_MCS0_PSD

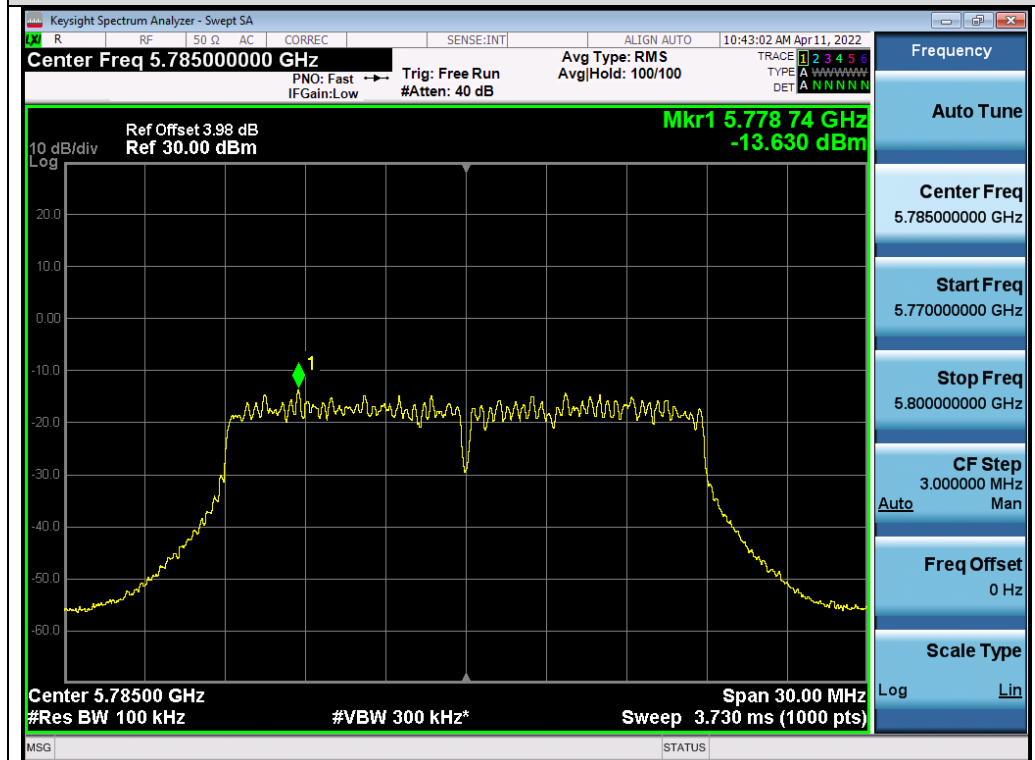


Test_Graph_802.11n40_ANT1_5795_MCS0_PSD

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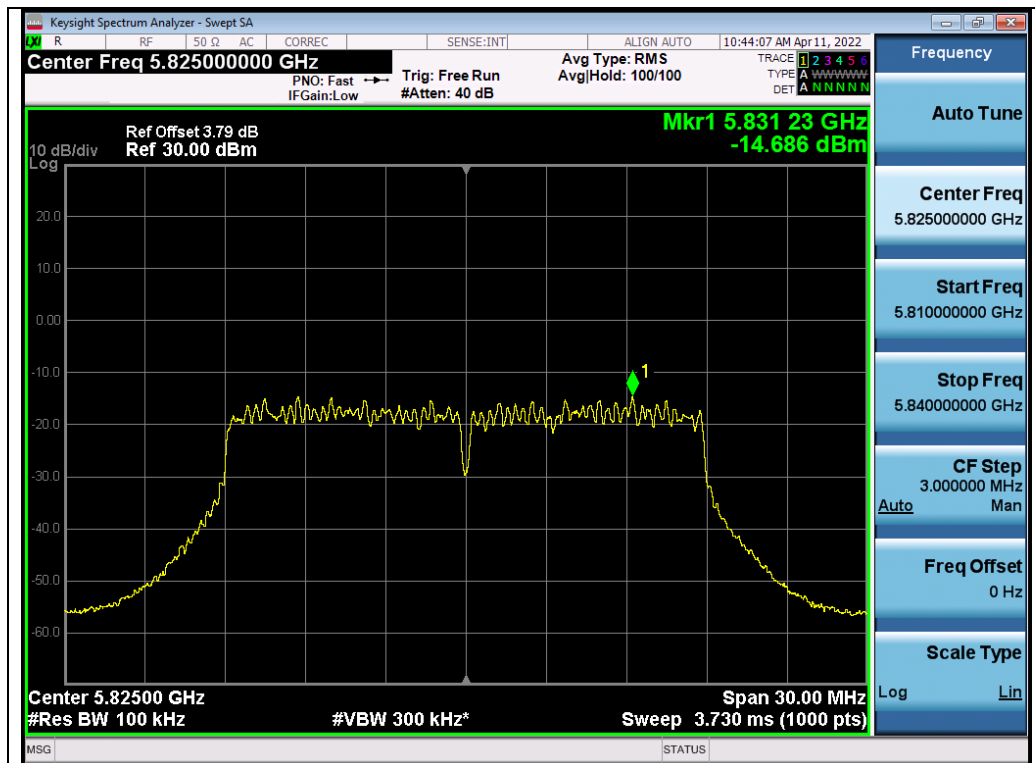


Test_Graph_802.11ac20_ANT1_5745_MCS0_PSD

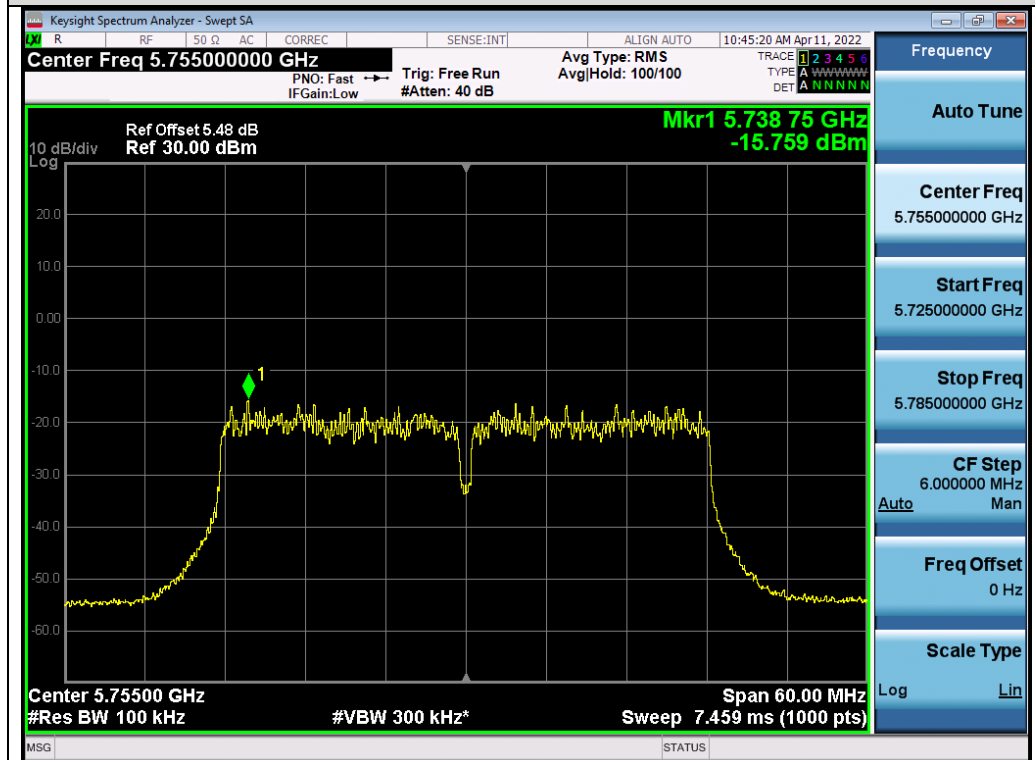


Test_Graph_802.11ac20_ANT1_5785_MCS0_PSD

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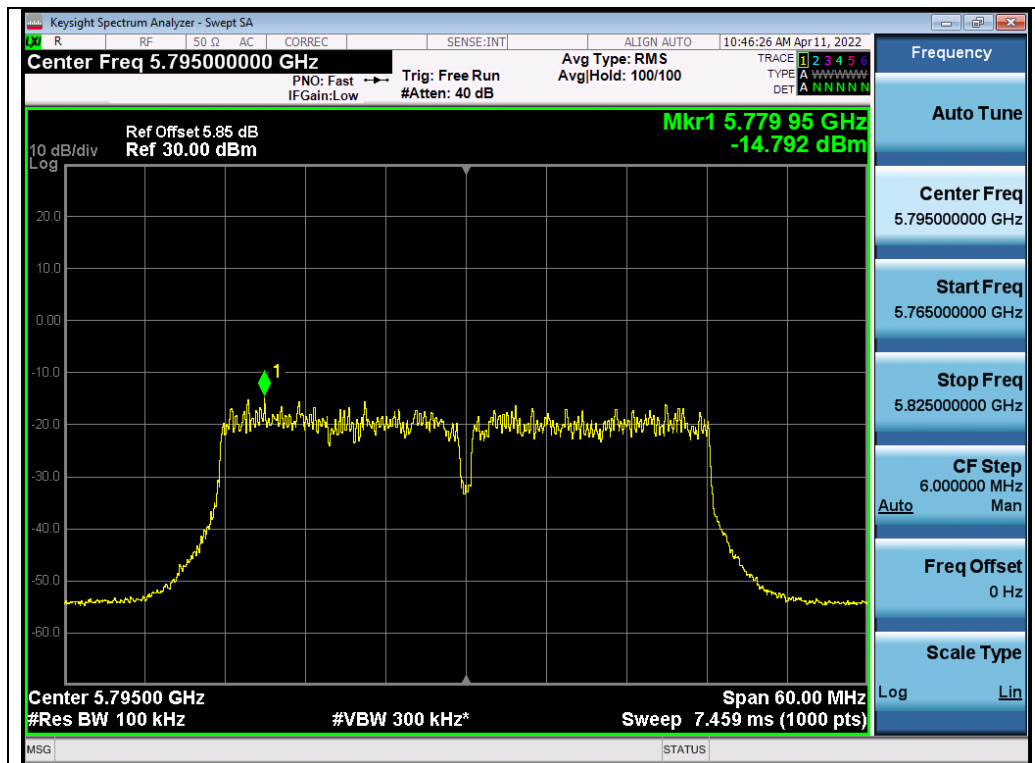


Test_Graph_802.11ac20_ANT1_5825_MCS9_PSD

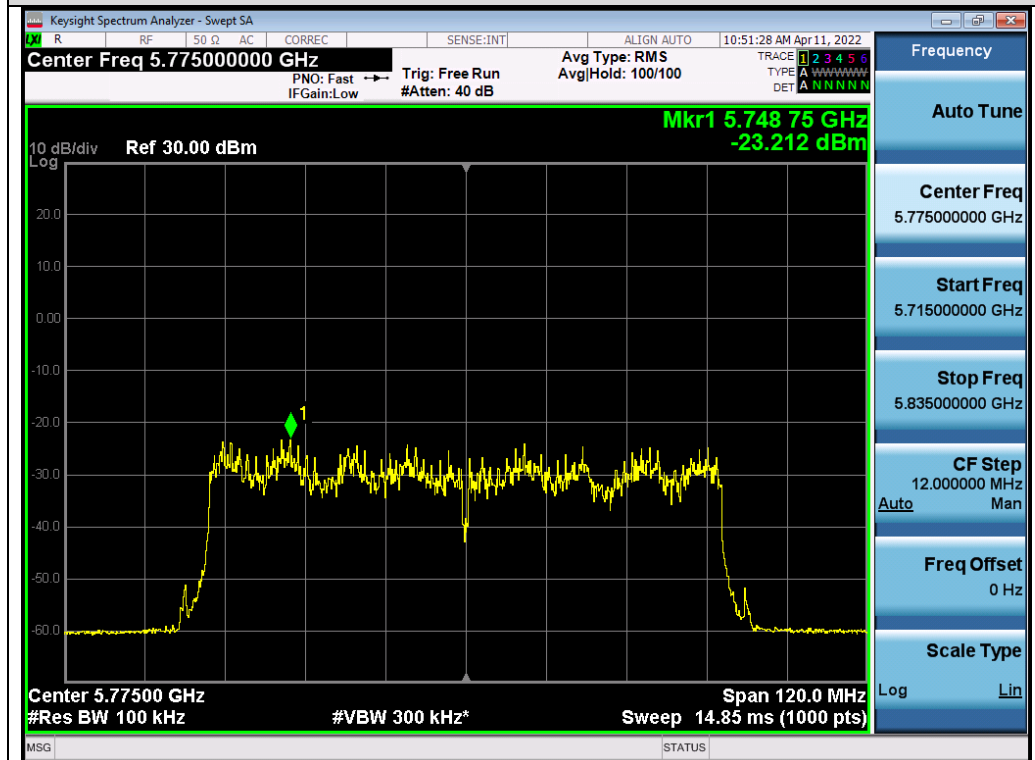


Test_Graph_802.11ac40_ANT1_5755_MCS9_PSD

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Test_Graph_802.11ac40_ANT1_5795_MCS9_PSD



Test_Graph_802.11ac80_ANT1_5775_MCS9_PSD

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10. CONDUCTED SPURIOUS EMISSION

10.1. MEASUREMENT PROCEDURE

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 SPA Trace 1 Max hold, then View.

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

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

The same as described in section 8.2.

10.3. MEASUREMENT EQUIPMENT USED

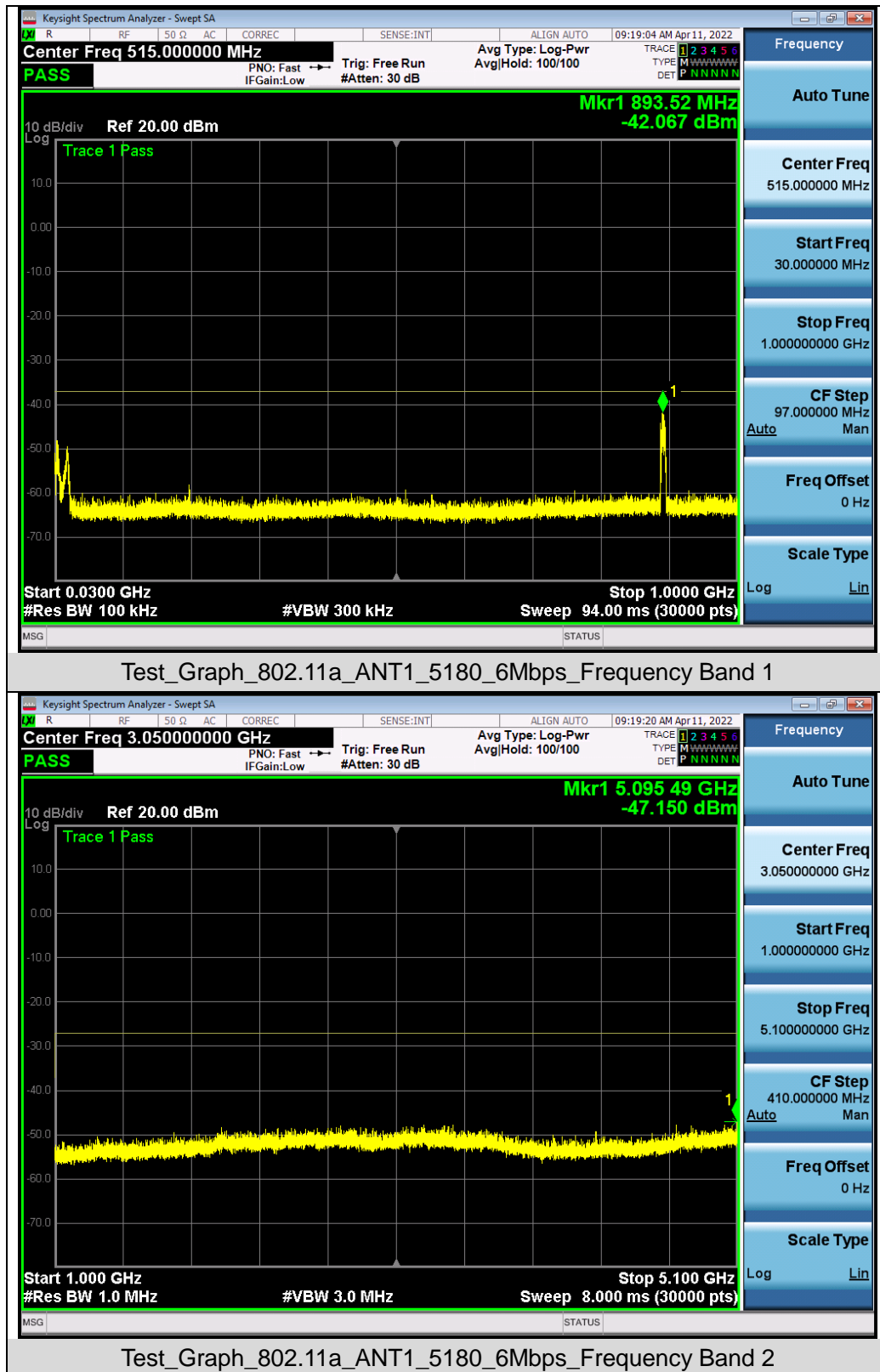
The same as described in section 6.

10.4. LIMITS AND MEASUREMENT RESULT

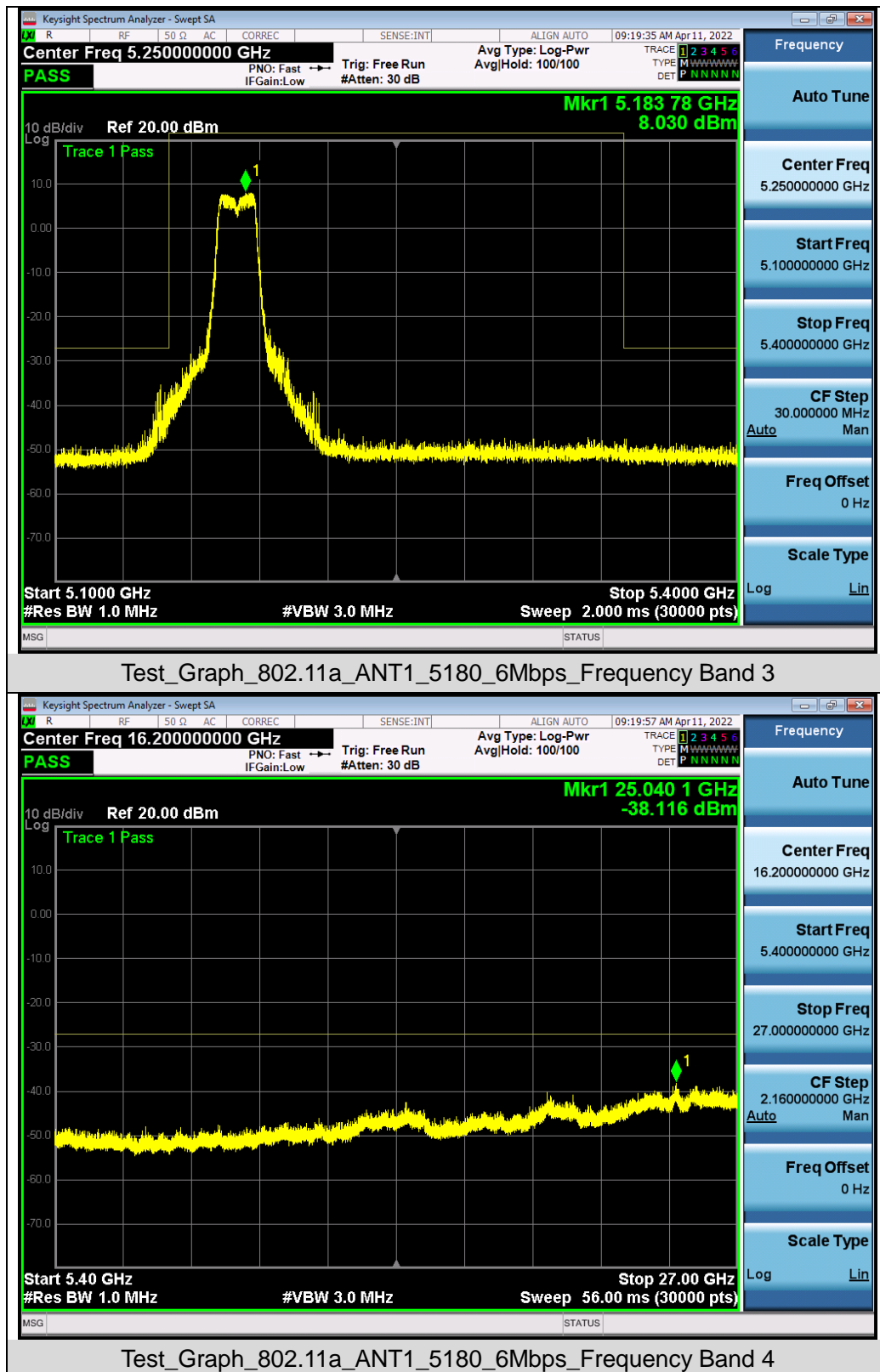
LIMITS AND MEASUREMENT RESULT		
Applicable Limits	Measurement Result	
	Test channel	Criteri a
-27dBm/MHz	5150MHz-5250MHz	PASS
All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.	5725MHz-5850MHz	PASS

Note: All the 20MHz bandwidth modulation had been tested, the 802.11a20 was the worst case and record in his test report. All the 40MHz bandwidth modulation had been tested, the 802.11N40 was the worst case and record in his test report. All the 80MHz bandwidth modulation had been tested, the 802.11AC80 was the worst case and record in his test report.

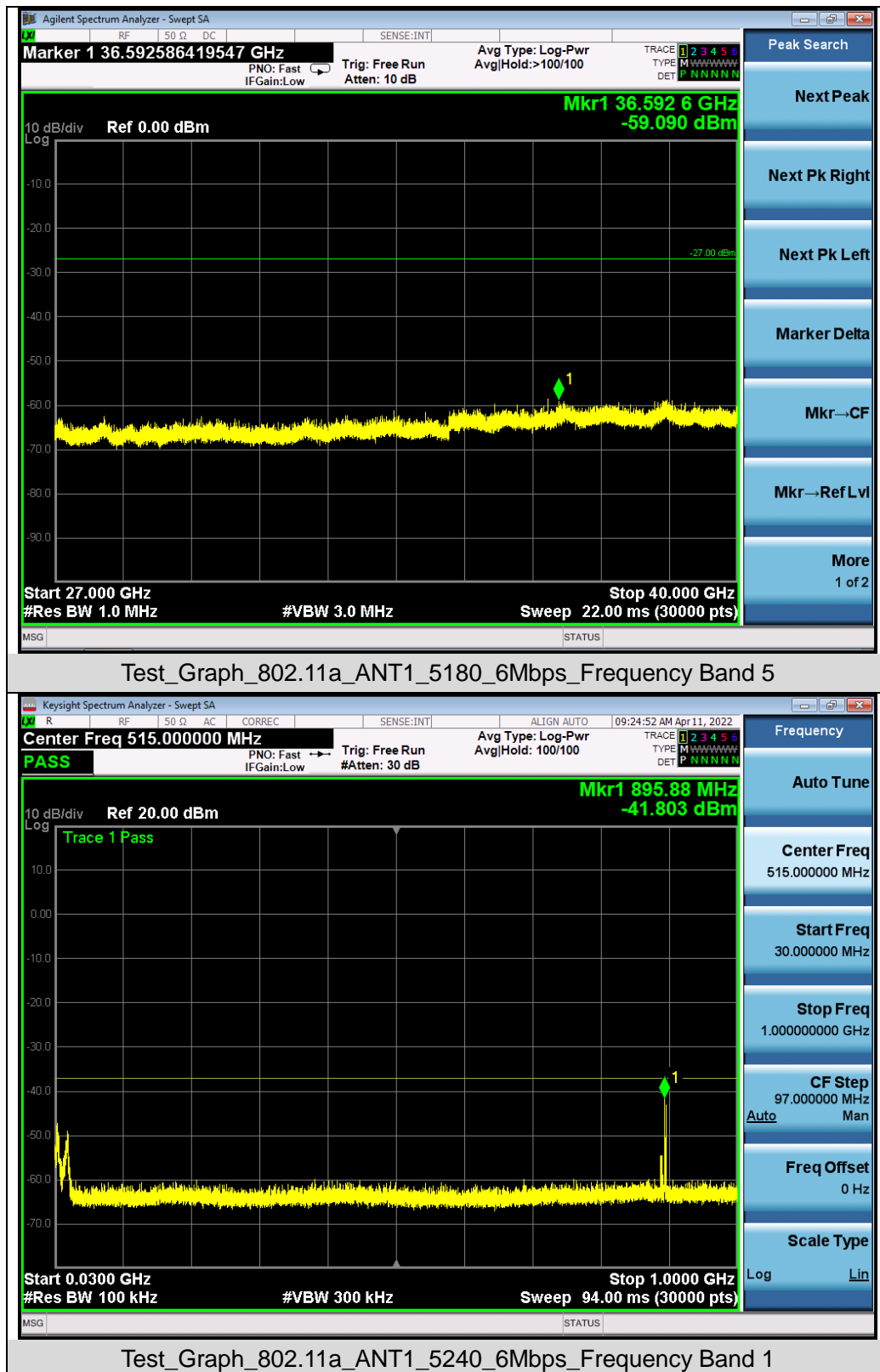
Test Graphs of Spurious Emissions outside of the 5.15-5.35 GHz band for transmitters operating in the 5.15-5.25 GHz band



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