

# FCC Test Report

Report No.: AGC11315200903FE06

**FCC ID** : 2AXQL-F11GIMWF

**APPLICATION PURPOSE** : Original Equipment

**PRODUCT DESIGNATION** : FOLDING DRONE

**BRAND NAME** : N/A

**MODEL NAME** : F11GIM, F11GIM2, F11GIM3, F11, F11PRO, B11, B11PRO, B11PRO2, B11PRO3, B11AIR, B11AIR2, B11AIR3, B7, B7PRO, B7PRO2, B7PRO3, B7AIR, B7AIR2, B7AIR3, U11, U11PRO, U11PRO2, U11PRO3, U11AIR, U11AIR2, U11AIR3, X11, X11PRO, X11PRO2, X11PRO3, X11AIR, X11AIR2, X11AIR3, M3, M3PRO, M3PRO2, M3PRO3, M3AIR, M3AIR2, M3AIR3, A1, A1PRO, A1PRO2, A1PRO3, A1AIR, A1AIR2, A1AIR3, A2, A2PRO, A2PRO2, A2PRO3, A2AIR, A2AIR2, A2AIR3, A8, A8PRO, A8PRO2, A8PRO3, A8AIR, A8AIR2

**APPLICANT** : Shenzhen Ruike Innovation Technology Co., Ltd

**DATE OF ISSUE** : Nov. 06, 2020

**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	/	Nov. 06, 2020	Valid	Initial Release

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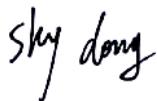
## 1. VERIFICATION OF CONFORMITY

<b>Applicant</b>	Shenzhen Ruike Innovation Technology Co., Ltd
<b>Address</b>	Unit 1701, Rufeng Building, 573 Bulong Rd, Bantian Maantang community, Longgang district, Shenzhen
<b>Manufacturer</b>	Shenzhen Ruike Innovation Technology Co., Ltd
<b>Address</b>	Unit 1701, Rufeng Building, 573 Bulong Rd, Bantian Maantang community, Longgang district, Shenzhen
<b>Factory</b>	Shenzhen Ruike Innovation Technology Co., Ltd
<b>Address</b>	Unit 1701, Rufeng Building, 573 Bulong Rd, Bantian Maantang community, Longgang district, Shenzhen
<b>Product Designation</b>	FOLDING DRONE
<b>Brand Name</b>	N/A
<b>Test Model</b>	F11GIM
<b>Series Model</b>	F11GIM2, F11GIM3, F11, F11PRO, B11, B11PRO, B11PRO2, B11PRO3, B11AIR, B11AIR2, B11AIR3, B7, B7PRO, B7PRO2, B7PRO3, B7AIR, B7AIR2, B7AIR3, U11, U11PRO, U11PRO2, U11PRO3, U11AIR, U11AIR2, U11AIR3, X11, X11PRO, X11PRO2, X11PRO3, X11AIR, X11AIR2, X11AIR3, M3, M3PRO, M3PRO2, M3PRO3, M3AIR, M3AIR2, M3AIR3, A1, A1PRO, A1PRO2, A1PRO3, A1AIR, A1AIR2, A1AIR3, A2, A2PRO, A2PRO2, A2PRO3, A2AIR, A2AIR2, A2AIR3, A8, A8PRO, A8PRO2, A8PRO3, A8AIR, A8AIR2
<b>Difference Description</b>	All the series models are the same as the test model except for the model names and the packaging.
<b>Date of test</b>	Oct. 14, 2020 to Nov. 06, 2020
<b>Deviation</b>	No any deviation from the test method
<b>Condition of Test Sample</b>	Normal
<b>Test Result</b>	Pass
<b>Report Template</b>	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.

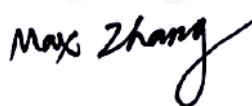
Prepared By



Sky Dong  
(Project Engineer)

Nov. 02, 2020

Reviewed By



Max Zhang  
(Reviewer)

Nov. 02, 2020

Approved By



Forrest Lei  
(Authorized Officer)

Nov. 02, 2020

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## 2. GENERAL INFORMATION

### 2.1. PRODUCT DESCRIPTION

The EUT is designed as "FOLDING DRONE". 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

<b>Operation Frequency</b>	5150 MHz~5250MHz; 5725 MHz~5850MHz
<b>Output Power</b>	IEEE 802.11a20:14.35dBm; IEEE 802.11n(20):11.67dBm; IEEE802.11n(40):10.34dBm; IEEE 802.11ac(20):11.75dBm; IEEE 802.11ac(40):10.49dBm; IEEE 802.11ac(80):9.57dBm
<b>Modulation</b>	BPSK, QPSK, 16QAM, 64QAM, 128QAM, 256QAM,OFDM
<b>Number of channels</b>	15
<b>Hardware Version</b>	V1.0
<b>Software Version</b>	V1.0
<b>Antenna Designation</b>	Integral Antenna(Comply with requirements of the FCC part 15.203)
<b>Number of transmit chain</b>	2(802.11n20/a all used two antennas, but 802.11a support SISO and 802.11n/ac support MIMO)
<b>Directional gain</b>	All transmit signals are completely un correlated with each other(see note 3)
<b>Antenna Gain</b>	2.16dBi
<b>Power Supply</b>	DC 11.1V by battery or DC 5V by USB Adapter

**Note:**

1. The EUT is designed as an outdoor access point operating device.
2. The device do not support TPC.
3. The maximum antenna gain is 2.16dBi, the device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices:

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

So: Directional gain =  $G_{ANT} + \text{Array Gain} = 2.16\text{dBi} < 6\text{dBi}$

4. The max eirp is less than 21dBm, any elevation angle above 30 degrees of eirp test pass.

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**2.2. TABLE OF CARRIER FREQUENCIES**

Frequency Band	Channel Number	Frequency	Frequency Band	Channel Number	Frequency
5150 GHz~ 5250GHz	36	5180 MHz	5725 GHz~ 5850GHz	149	5745 MHz
	38	5190 MHz		151	5755 MHz
	40	5200 MHz		153	5765 MHz
	42	5210 MHz		155	5775MHz
	44	5220 MHz		157	5785 MHz
	46	5230 MHz		159	5795 MHz
	48	5240 MHz		161	5805 MHz
				165	5825MHz

Note: For 20MHZ bandwidth system use Channel 36,40,44,48,149,153,157,161,165; For 40MHZ bandwidth system use Channel 38,46,151,159. For 80MHZ bandwidth system use Channel 42,155.

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

This submittal(s) (test report) is intended for **FCC ID: 2AXQL-F11GIMWF** 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,  $U_c = \pm 3.2 \text{ dB}$
- Uncertainty of Radiated Emission below 1GHz,  $U_c = \pm 3.9 \text{ dB}$
- Uncertainty of Radiated Emission above 1GHz,  $U_c = \pm 4.8 \text{ dB}$

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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.
3. The test software is the FCCShow.exe V1.1 which can set the EUT into the individual test modes.

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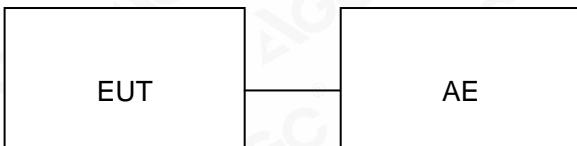
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## 5. SYSTEM TEST CONFIGURATION

### 5.1. CONFIGURATION OF EUT SYSTEM

Configure 1:



### 5.2. EQUIPMENT USED IN EUT SYSTEM

Item	Equipment	Model No.	ID or Specification	Remark
1	FOLDING DRONE	F11GIM	2AXQL-F11GIMWF	EUT
2	Adapter	TPA-46050100VU	N/A	AE
3	TF	M203	N/A	AE

### 5.3. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.407	6dB Bandwidth&26dB Bandwidth&99% Occupied 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
§15.407	Frequency Stability	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. 12, 2019	Dec. 11, 2020
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	FARA	EZ-EMC (Ver RA-03A)	N/A	N/A	N/A

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## 7. MAXIMUM CONDUCTED OUTPUT POWER

### 7.1. MEASUREMENT PROCEDURE

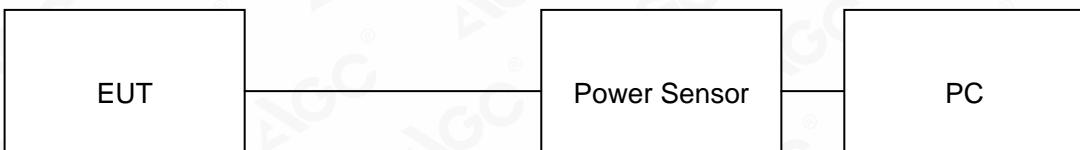
For average power test:

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 ANT 1 (dBm)	Average Power ANT 2 (dBm)	Average Power Total (dBm)	Applicable Limits (dBm)	Pass or Fail
5180	13.68	13.59	N/A	30	Pass
5200	13.92	13.81	N/A	30	Pass
5240	14.35	14.16	N/A	30	Pass
5745	12.05	11.96	N/A	30	Pass
5785	11.61	11.52	N/A	30	Pass
5825	11.78	11.63	N/A	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11N20 MODULATION					
Frequency (MHz)	Average Power ANT 1 (dBm)	Average Power ANT 2 (dBm)	Average Power Total (dBm)	Applicable Limits (dBm)	Pass or Fail
5180	7.55	7.49	10.53	30	Pass
5200	8.01	7.95	10.99	30	Pass
5240	8.56	8.47	11.53	30	Pass
5745	8.09	8.01	11.06	30	Pass
5785	8.52	8.43	11.49	30	Pass
5825	8.80	8.52	11.67	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11N40 MODULATION					
Frequency (MHz)	Average Power ANT 1 (dBm)	Average Power ANT 2 (dBm)	Average Power Total (dBm)	Applicable Limits (dBm)	Pass or Fail
5190	6.86	6.73	9.81	30	Pass
5230	7.10	7.05	10.09	30	Pass
5755	6.96	6.81	9.90	30	Pass
5795	7.35	7.31	10.34	30	Pass

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LIMITS AND MEASUREMENT RESULT FOR 802.11AC20 MODULATION					
Frequency (MHz)	Average Power ANT 1 (dBm)	Average Power ANT 2 (dBm)	Average Power Total (dBm)	Applicable Limits (dBm)	Pass or Fail
5180	8.22	8.14	11.19	30	Pass
5200	7.76	7.63	10.71	30	Pass
5240	8.43	8.35	11.40	30	Pass
5745	8.30	8.24	11.28	30	Pass
5785	8.53	8.42	11.49	30	Pass
5825	8.80	8.67	11.75	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11AC40 MODULATION					
Frequency (MHz)	Average Power ANT 1 (dBm)	Average Power ANT 2 (dBm)	Average Power Total (dBm)	Applicable Limits (dBm)	Pass or Fail
5190	7.23	7.14	10.20	30	Pass
5230	7.67	7.53	10.61	30	Pass
5755	7.22	7.18	10.21	30	Pass
5795	7.53	7.42	10.49	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11AC80 MODULATION					
Frequency (MHz)	Average Power ANT 1 (dBm)	Average Power ANT 2 (dBm)	Average Power Total (dBm)	Applicable Limits (dBm)	Pass or Fail
5210	4.68	4.55	7.63	30	Pass
5775	6.64	6.47	9.57	30	Pass

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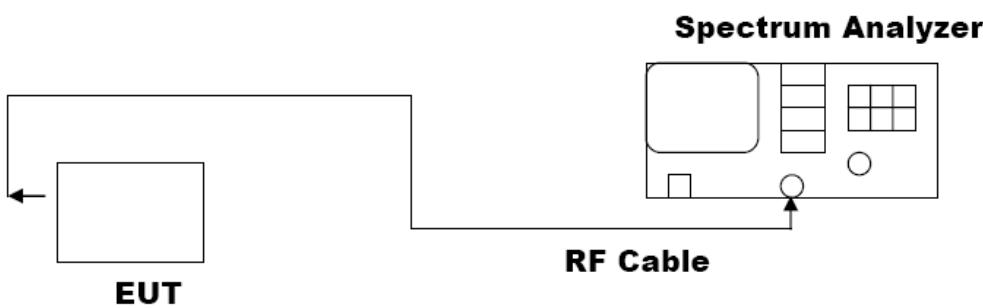
## 8. 6dB BANDWIDTH

### 8.1. 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  $\geq 3 \times$  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.

**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	
>500KHZ	5745MHz	16.50	PASS
	5785MHz	16.34	PASS
	5825MHz	16.35	PASS

LIMITS AND MEASUREMENT RESULT FOR 802.11N20/40 MODULATION			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
	Frequency (MHz)	-6dB Bandwidth	
>500KHZ	5745MHz	17.58	PASS
	5785MHz	17.56	PASS
	5825MHz	17.57	PASS
	5755MHz	34.12	PASS
	5795MHz	35.40	PASS

LIMITS AND MEASUREMENT RESULT FOR 802.11AC20/40/80 MODULATION			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
	Frequency (MHz)	-6dB Bandwidth	
>500KHZ	5745MHz	17.52	PASS
	5785MHz	17.57	PASS
	5825MHz	17.20	PASS
	5755MHz	35.22	PASS
	5795MHz	35.10	PASS
	5775MHz	73.92	PASS

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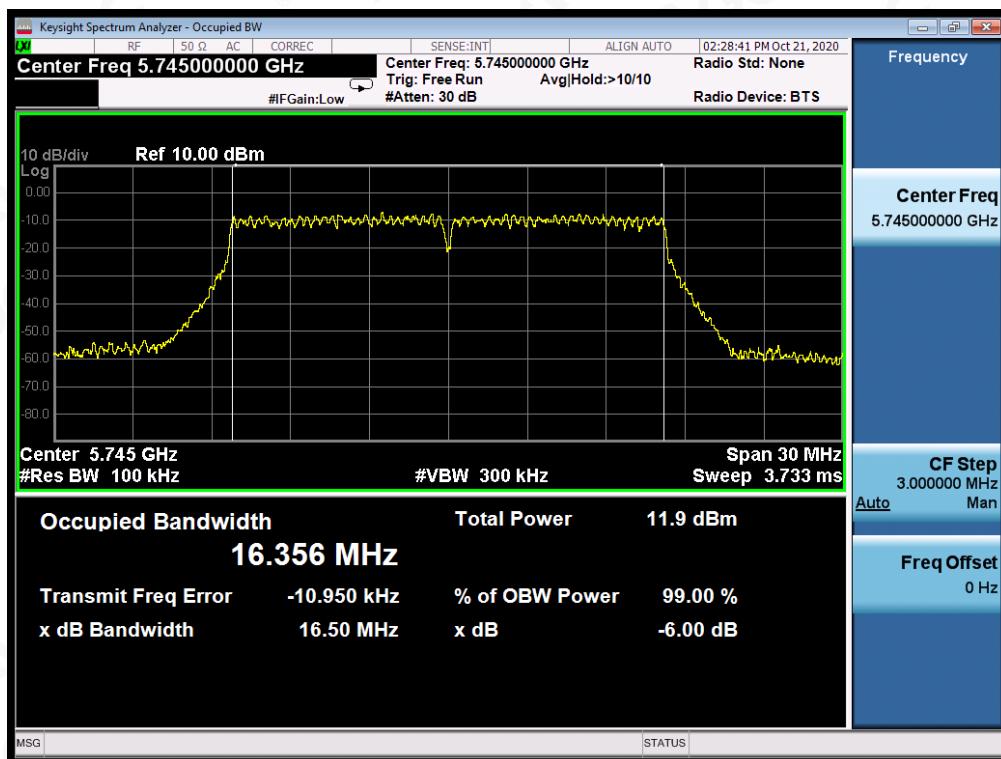
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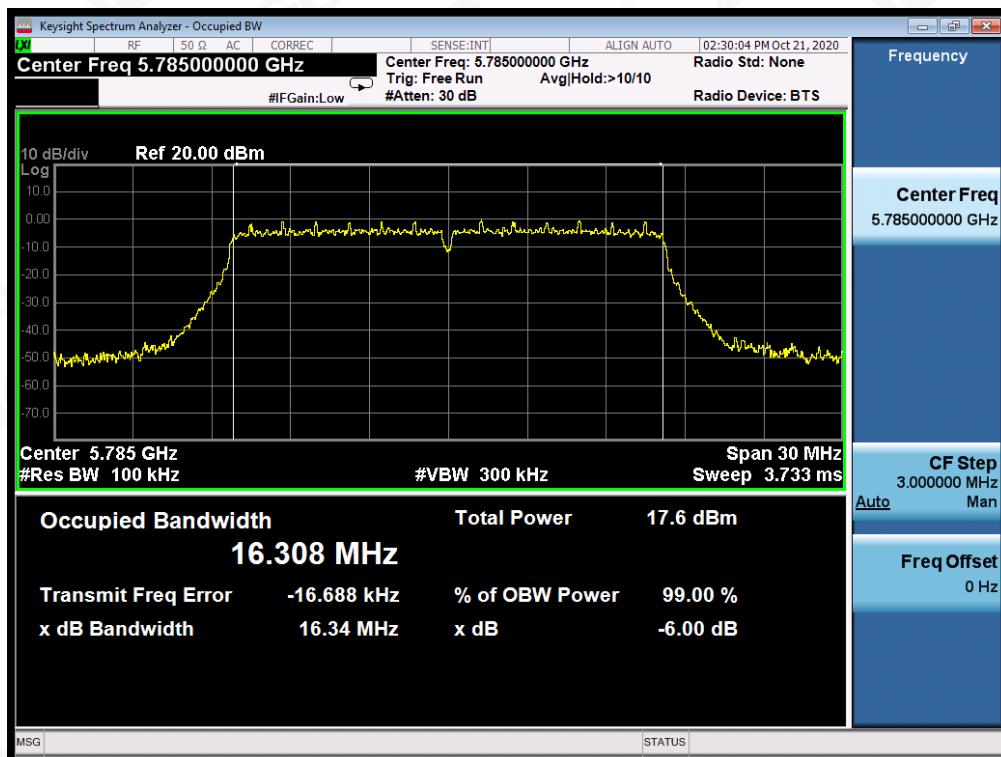


## 802.11a20 TEST RESULT

### TEST PLOT OF BANDWIDTH FOR 5745MHz



### TEST PLOT OF BANDWIDTH FOR 5785MHz



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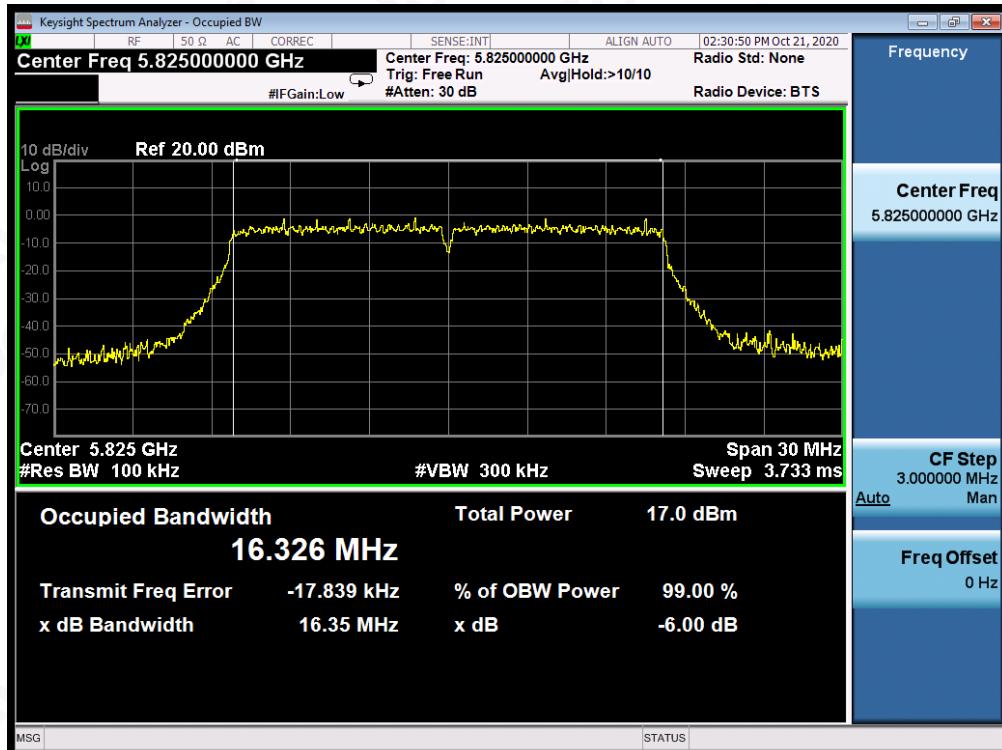
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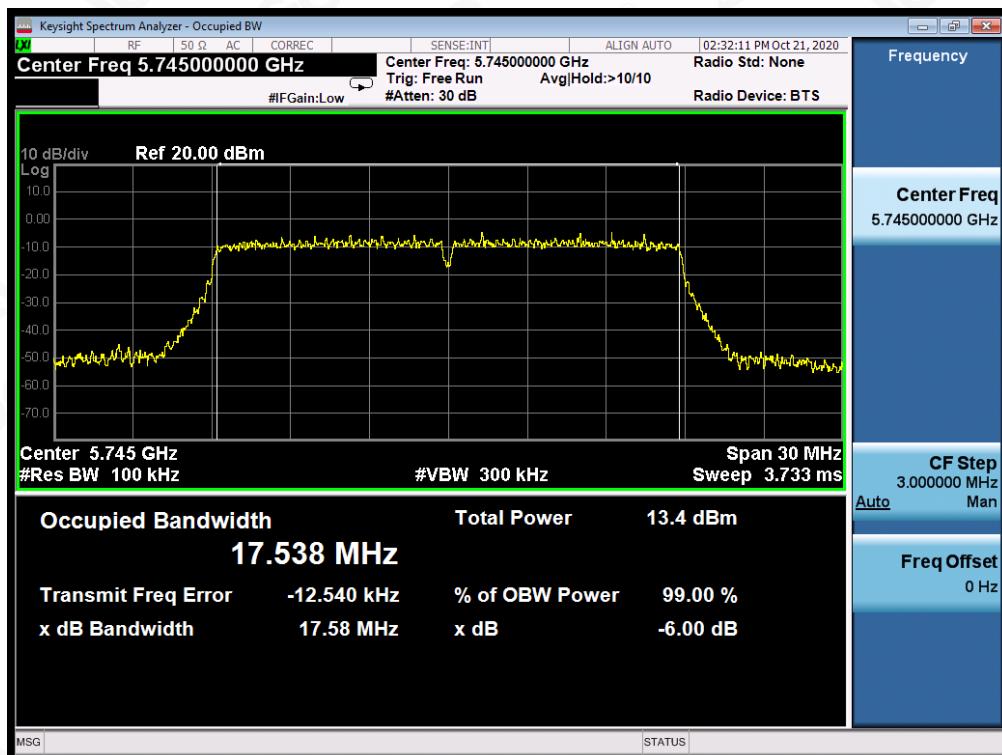


## TEST PLOT OF BANDWIDTH FOR 5825MHz



## 802.11n20 TEST RESULT

## TEST PLOT OF BANDWIDTH FOR 5745MHz



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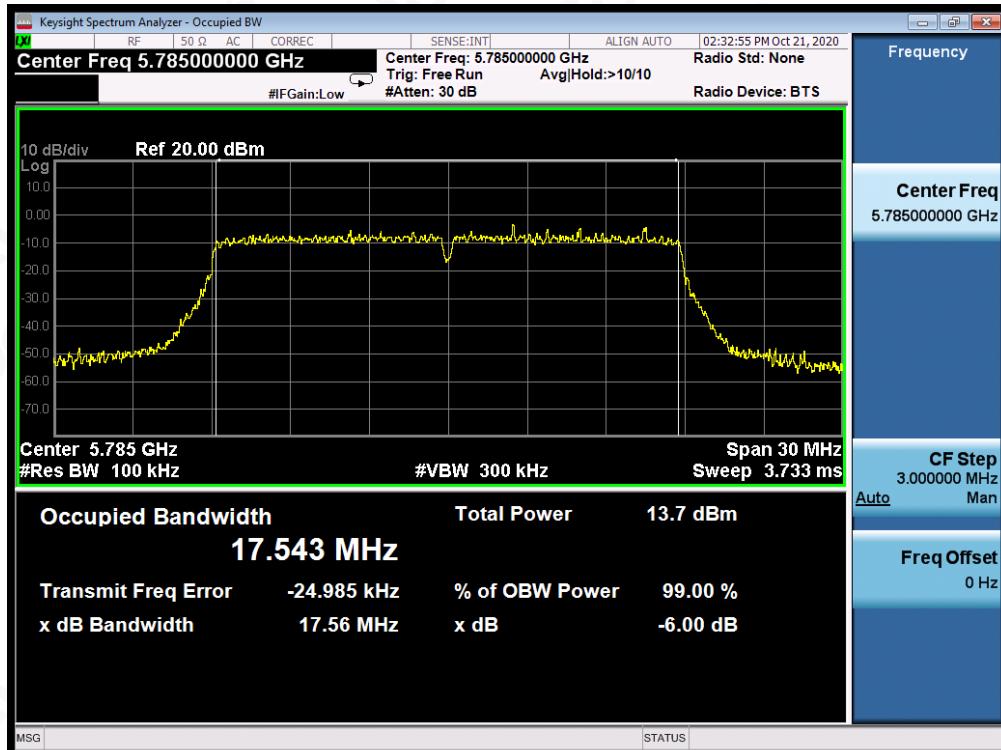
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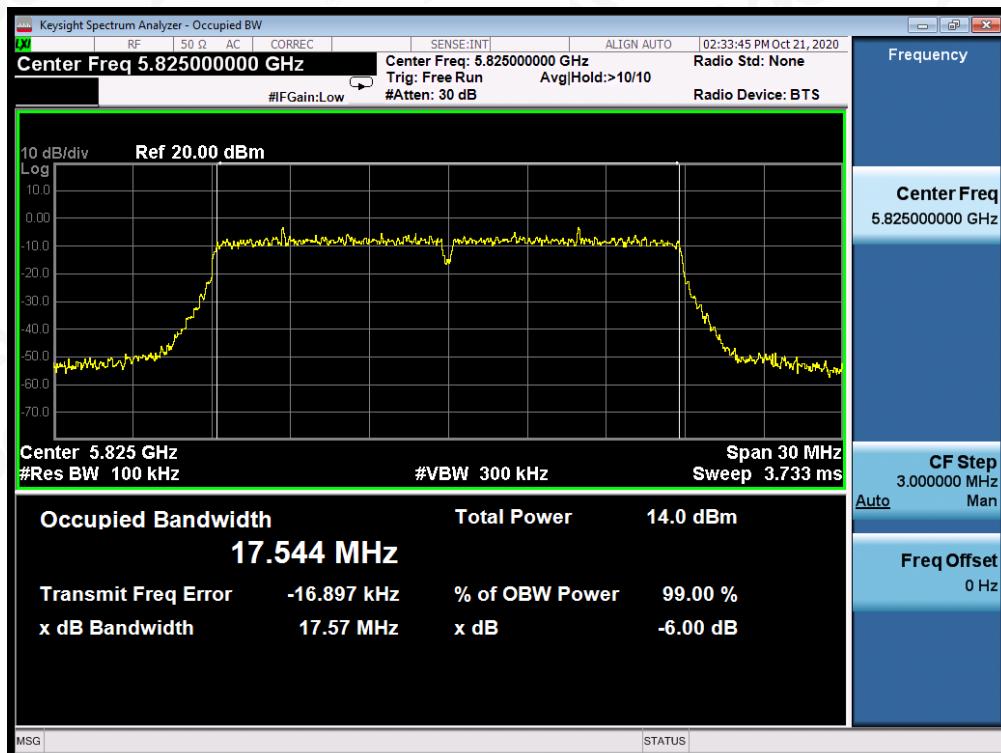
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## TEST PLOT OF BANDWIDTH FOR 5785MHz



## TEST PLOT OF BANDWIDTH FOR 5825MHz



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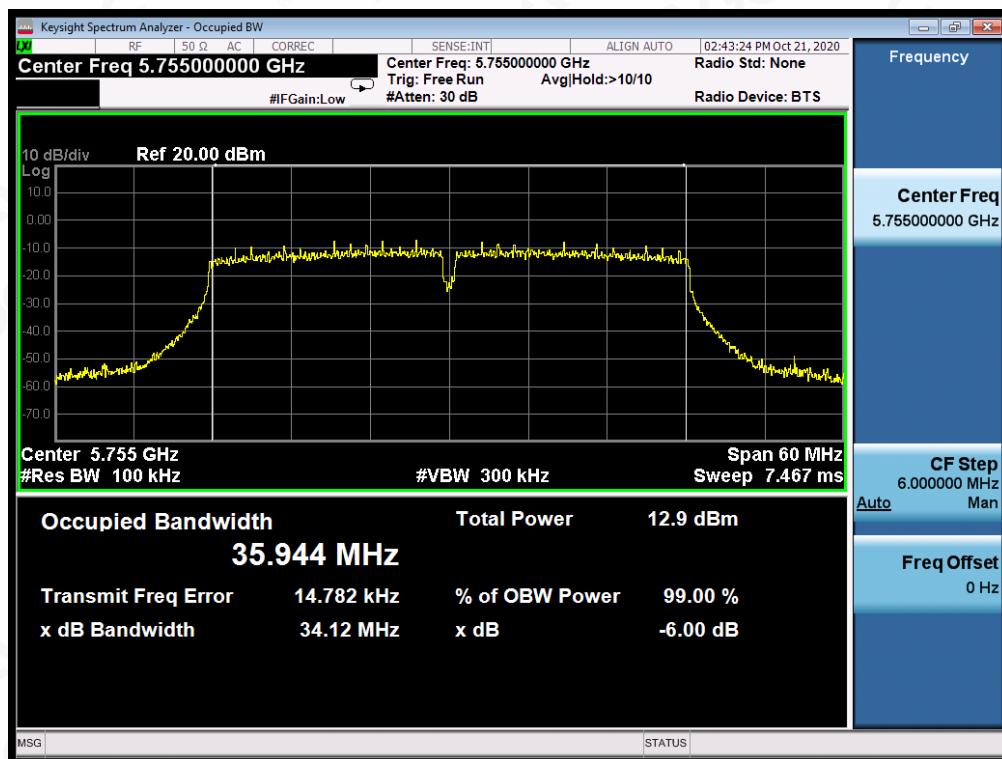
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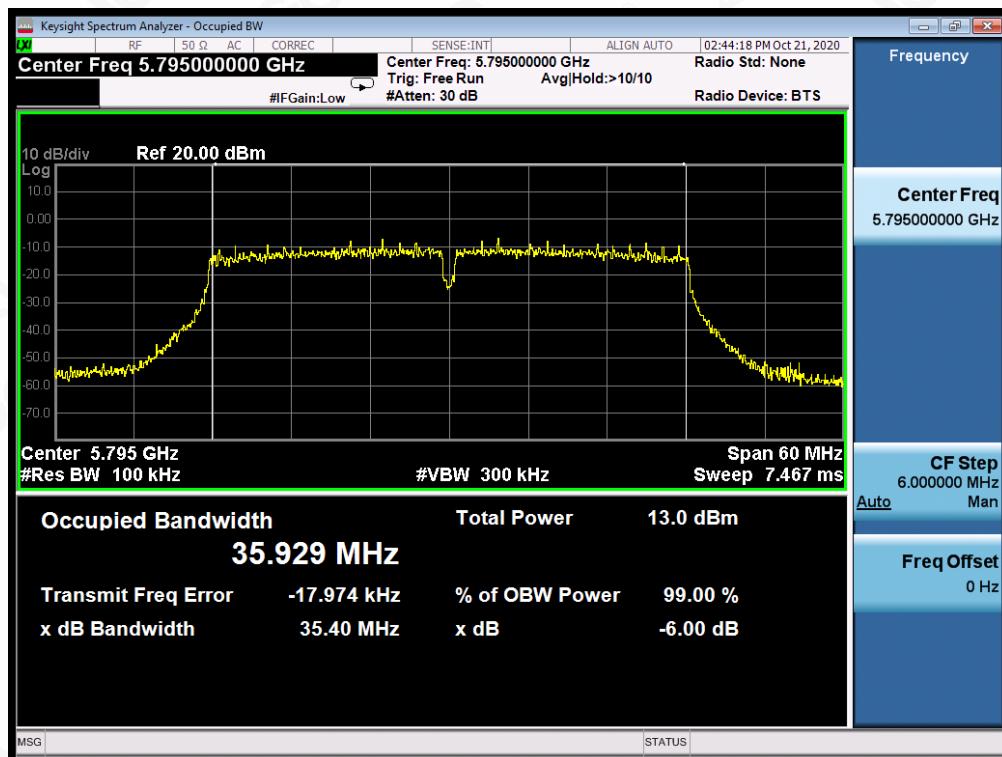


## 802.11n40 TEST RESULT

### TEST PLOT OF BANDWIDTH FOR 5755MHz



### TEST PLOT OF BANDWIDTH FOR 5795MHz



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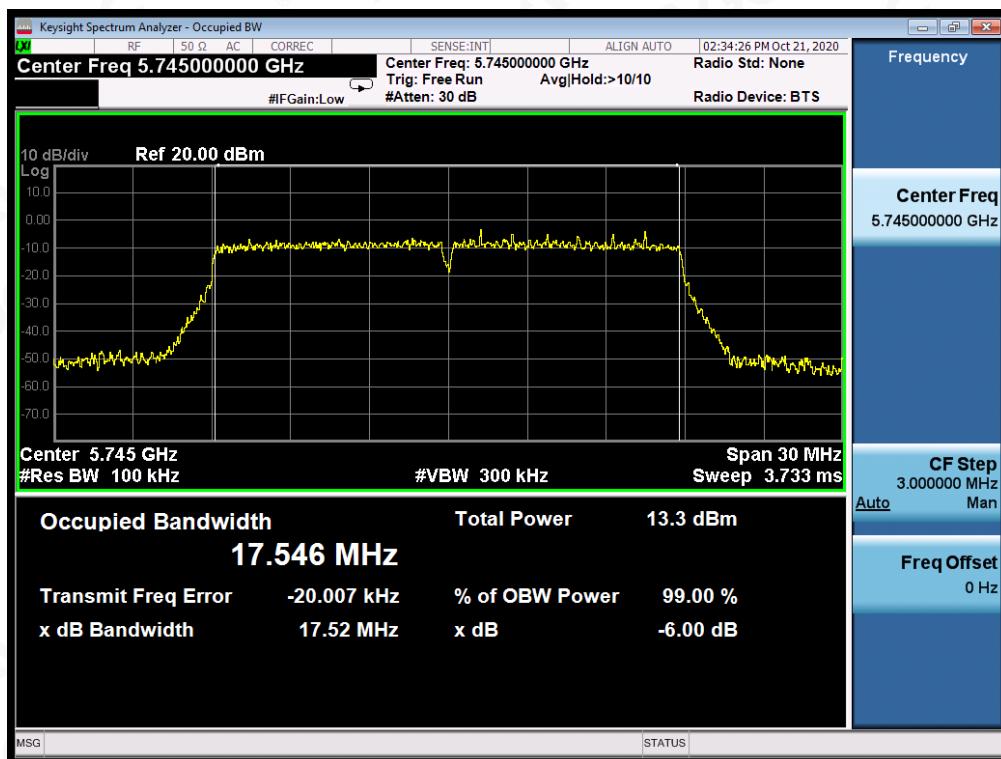
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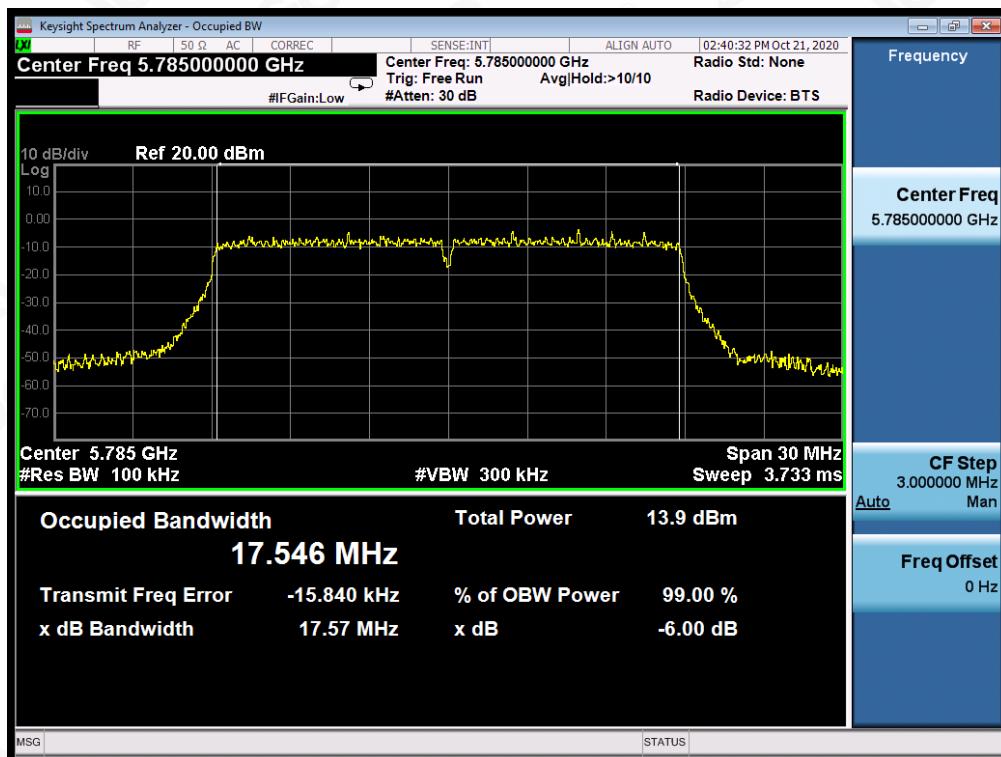


## 802.11ac20 TEST RESULT

### TEST PLOT OF BANDWIDTH FOR 5745MHz



### TEST PLOT OF BANDWIDTH FOR 5785MHz



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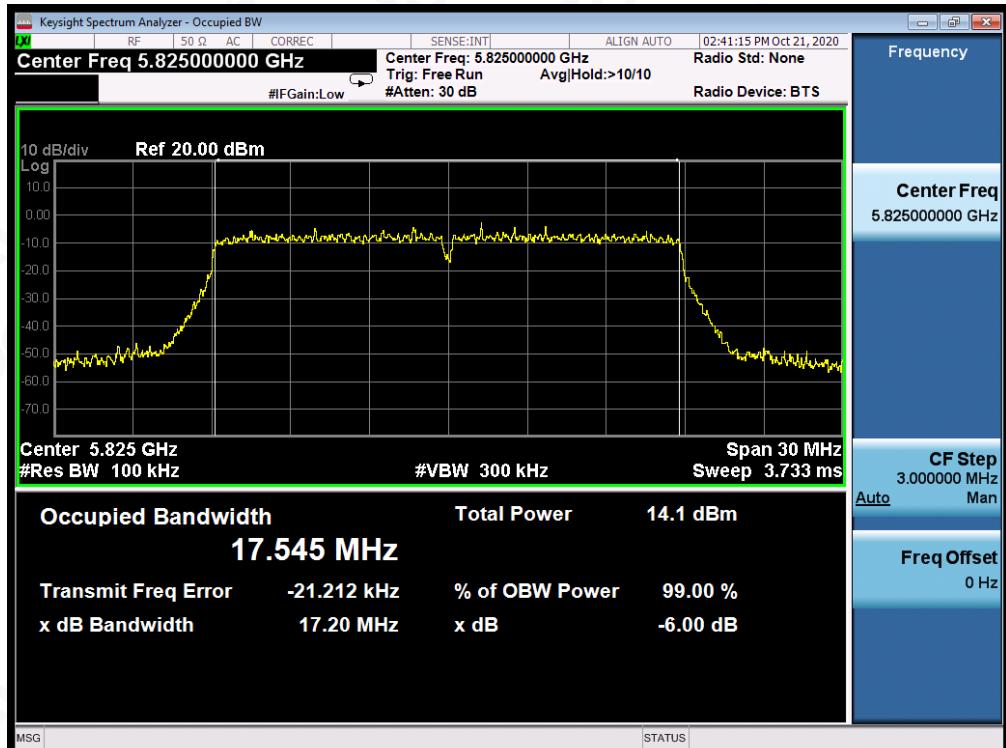
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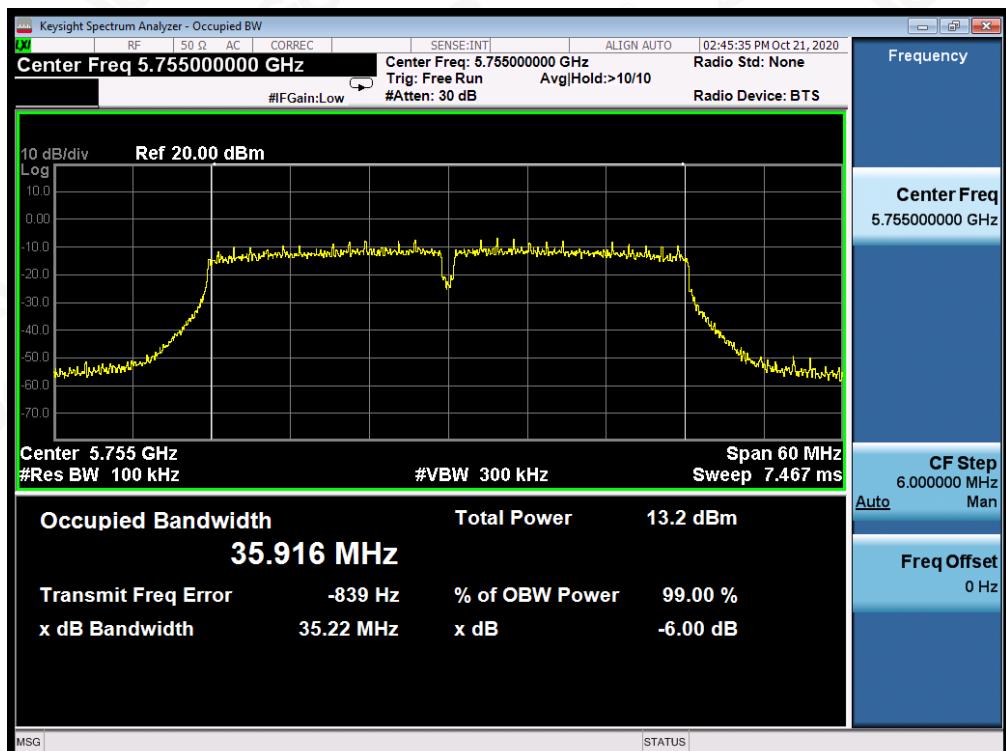


## TEST PLOT OF BANDWIDTH FOR 5825MHz



## 802.11ac40 TEST RESULT

## TEST PLOT OF BANDWIDTH FOR 5755MHz



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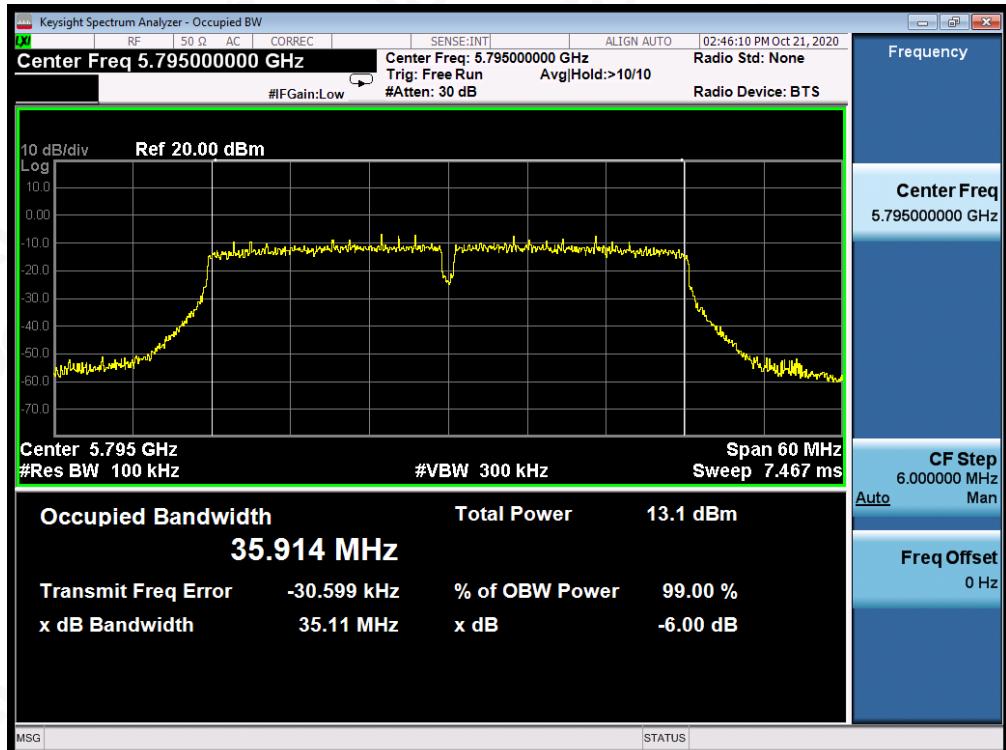
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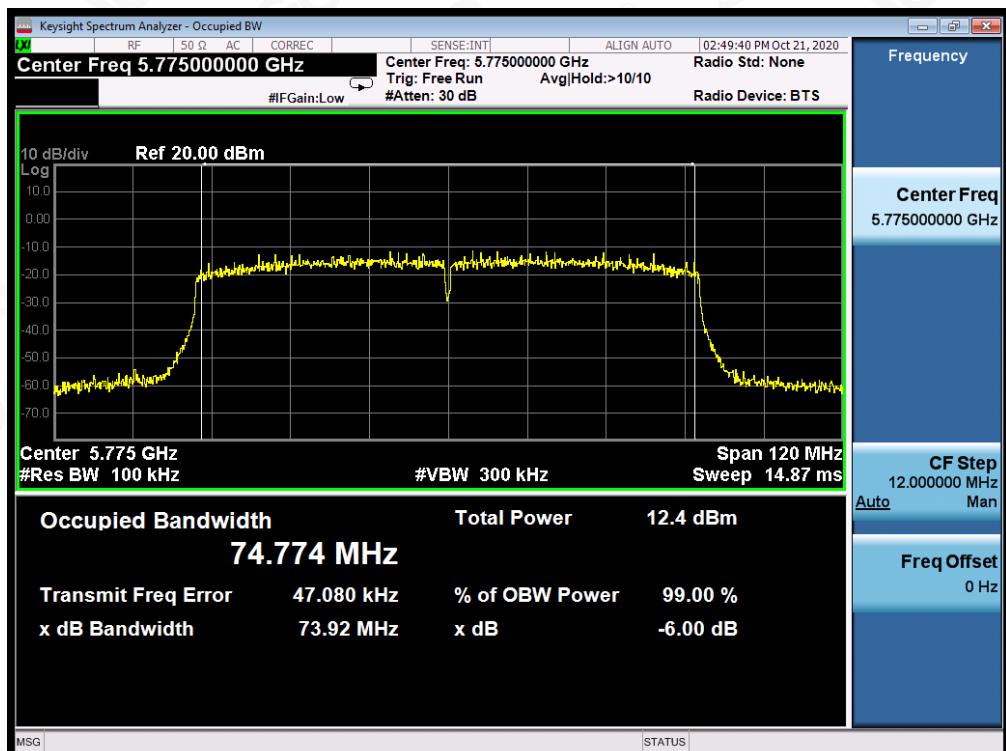


## TEST PLOT OF BANDWIDTH FOR 5795MHz



## 802.11ac80 TEST RESULT

## TEST PLOT OF BANDWIDTH FOR 5775MHz



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## 9. EMISSION BANDWIDTH

### 9.1. MEASUREMENT PROCEDURE

#### 9.1.1. -26dB Bandwidth MEASUREMENT PROCEDURE

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

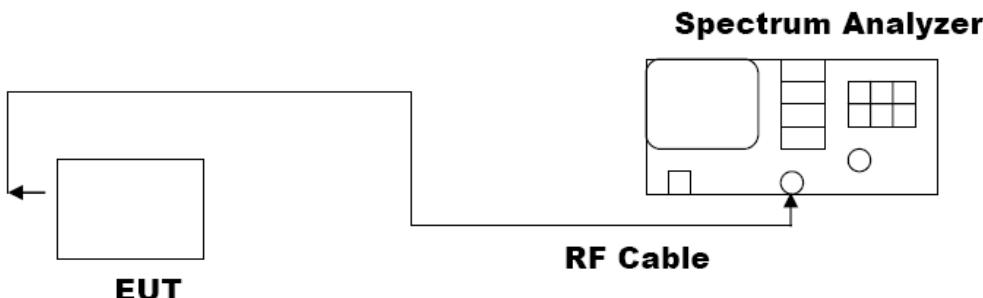
Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

#### 9.1.2. 99.00% Occupied Bandwidth MEASUREMENT PROCEDURE

- a) Connect the antenna port(s) to the spectrum analyzer input.
- b) 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
- c) Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter wave form on the spectrum analyzer.
- d) 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	18.42	16.341	PASS
	5200MHz	18.34	16.343	PASS
	5240MHz	18.46	16.343	PASS

LIMITS AND MEASUREMENT RESULT FOR 802.11N20/40 MODULATION				
Applicable Limits	Applicable Limits			
	Test Data (MHz)			Criteria
	Frequency (MHz)	-26dB Bandwidth	99.00% Occupied Bandwidth	
Within the Band	5180MHz	19.15	17.525	PASS
	5200MHz	19.22	17.537	PASS
	5240MHz	19.26	17.526	PASS
	5190MHz	40.38	36.021	PASS
	5230MHz	40.01	36.059	PASS

LIMITS AND MEASUREMENT RESULT FOR 802.11AC20/40/80 MODULATION				
Applicable Limits	Applicable Limits			
	Test Data (MHz)			Criteria
	Frequency (MHz)	-26dB Bandwidth	99.00% Occupied Bandwidth	
Within the Band	5180MHz	19.18	17.530	PASS
	5200MHz	19.27	17.524	PASS
	5240MHz	19.25	17.532	PASS
	5190MHz	40.61	36.003	PASS
	5230MHz	40.06	35.970	PASS
	5210MHz	79.97	74.736	PASS

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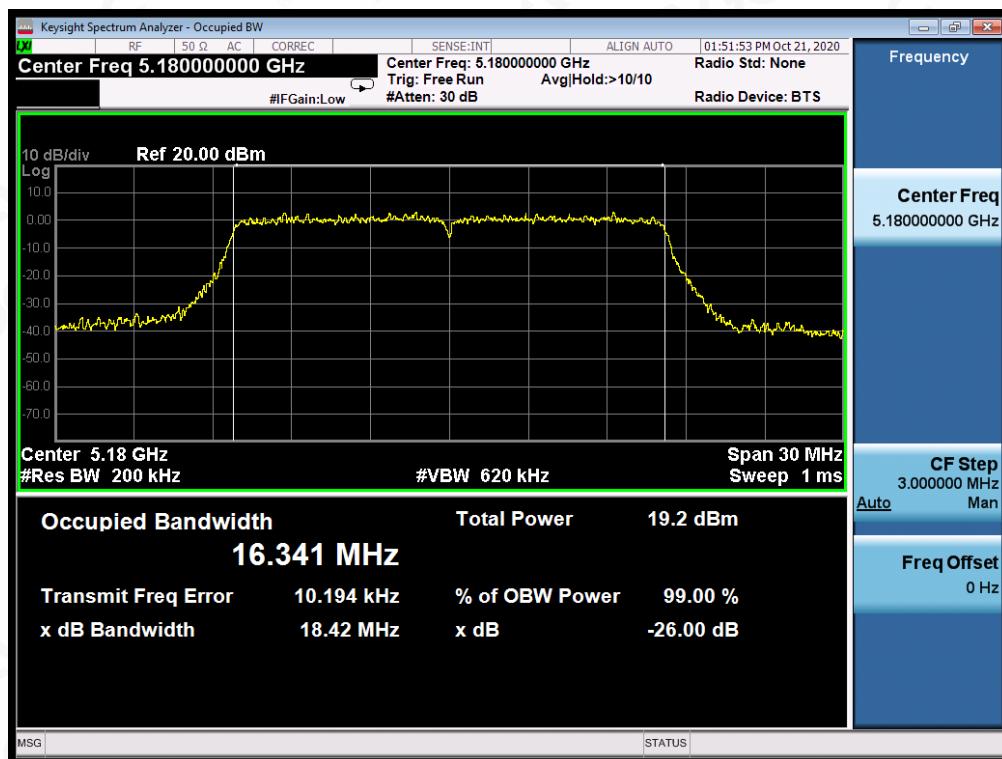
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## 802.11a20 TEST RESULT

### TEST PLOT OF BANDWIDTH FOR 5180MHz



### TEST PLOT OF BANDWIDTH FOR 5200MHz



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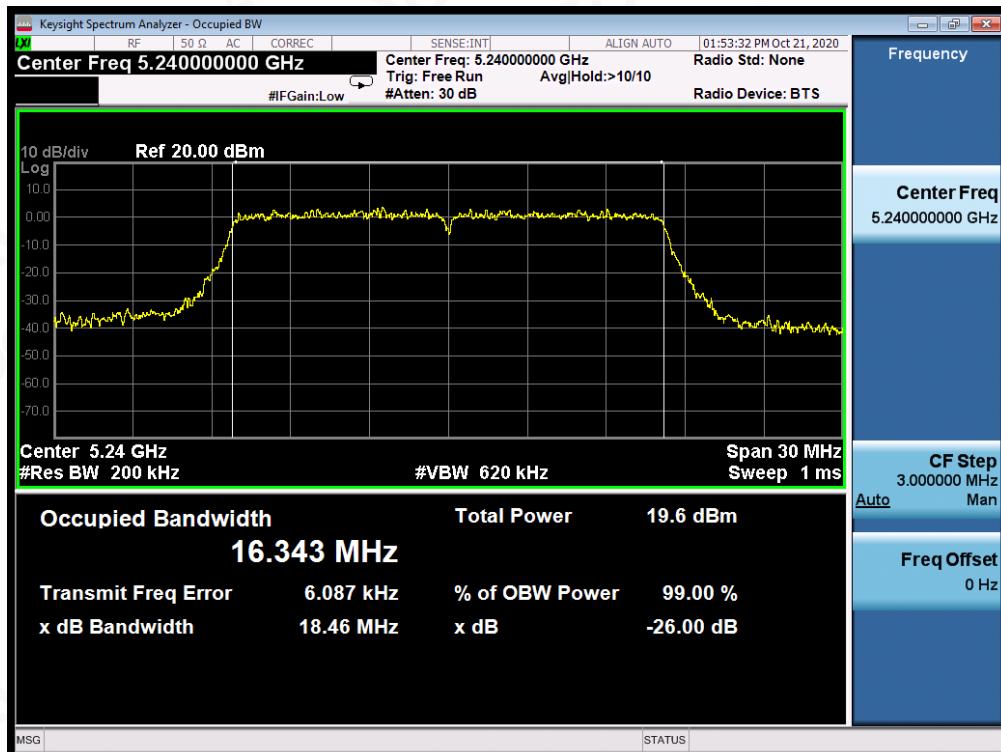
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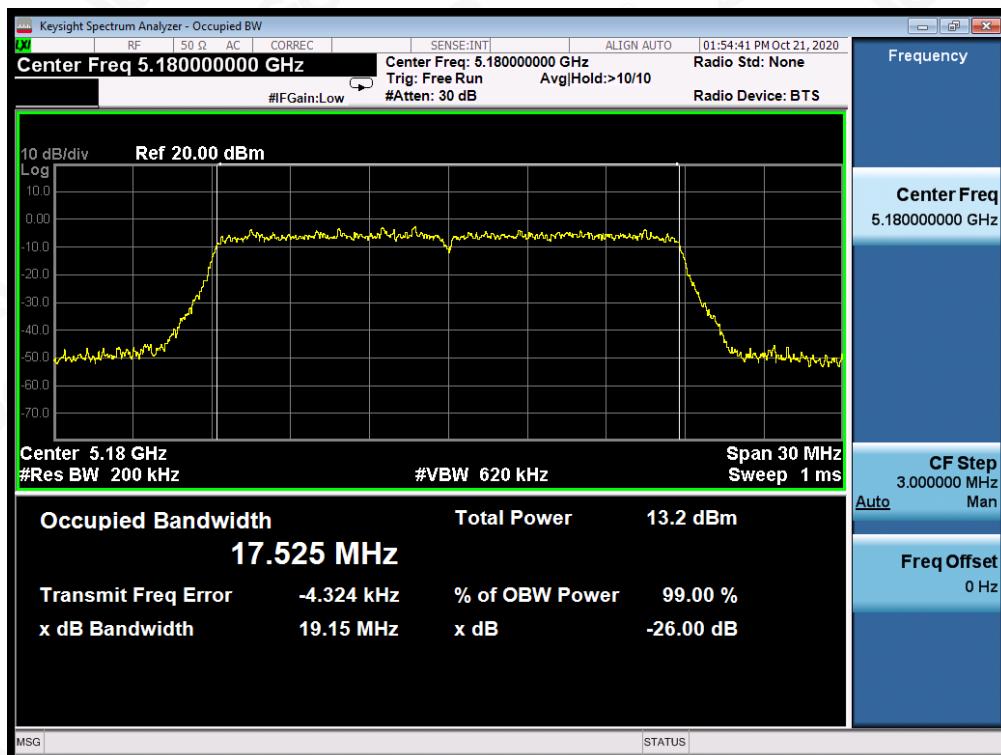


## TEST PLOT OF BANDWIDTH FOR 5240MHz



## 802.11n20 TEST RESULT

## TEST PLOT OF BANDWIDTH FOR 5180MHz



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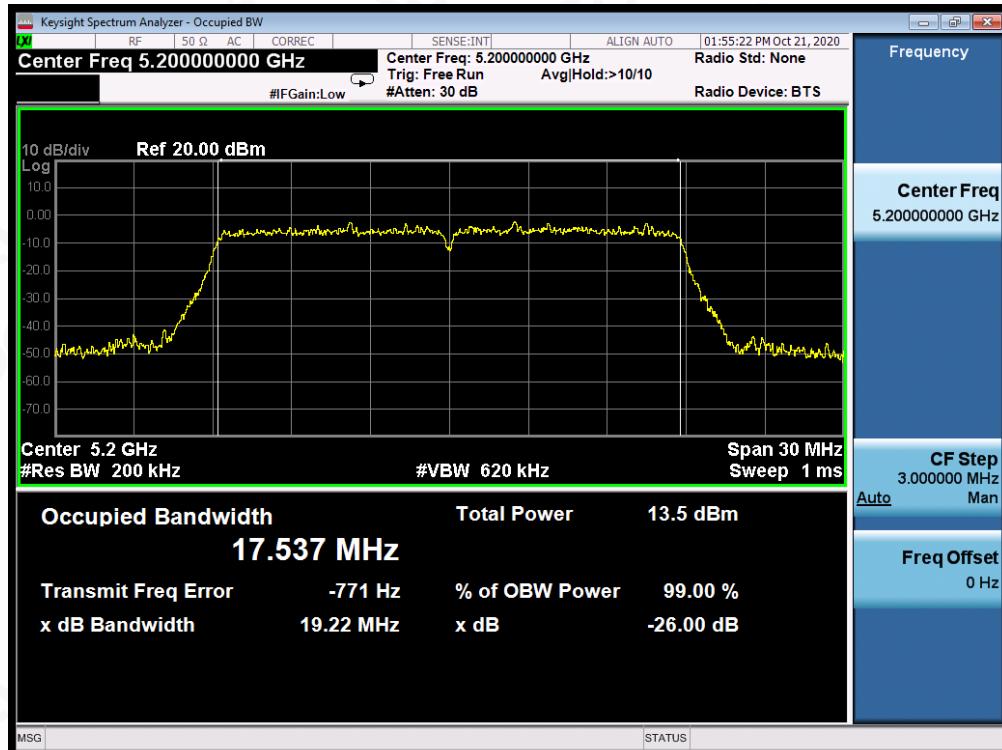
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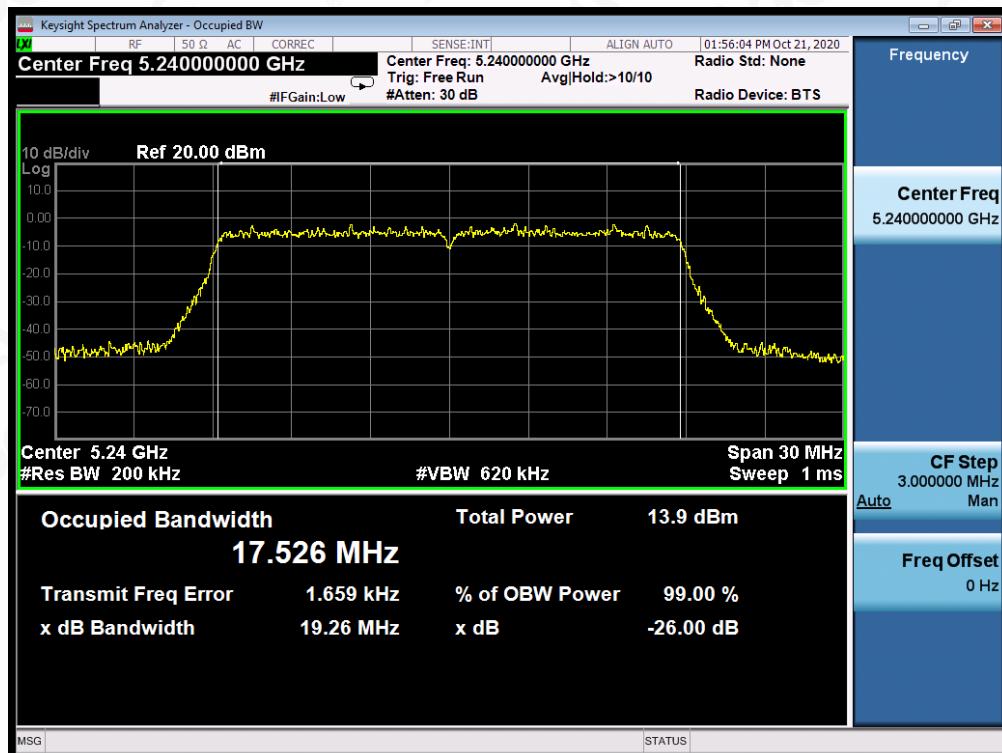
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## TEST PLOT OF BANDWIDTH FOR 5200MHz



## TEST PLOT OF BANDWIDTH FOR 5240MHz



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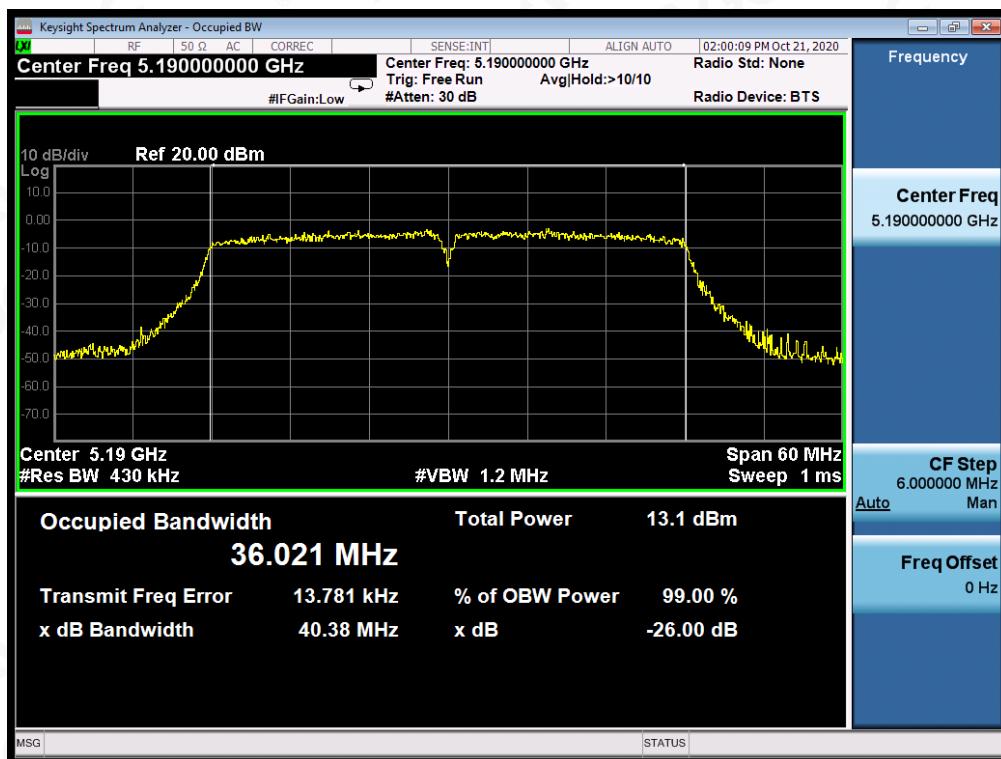
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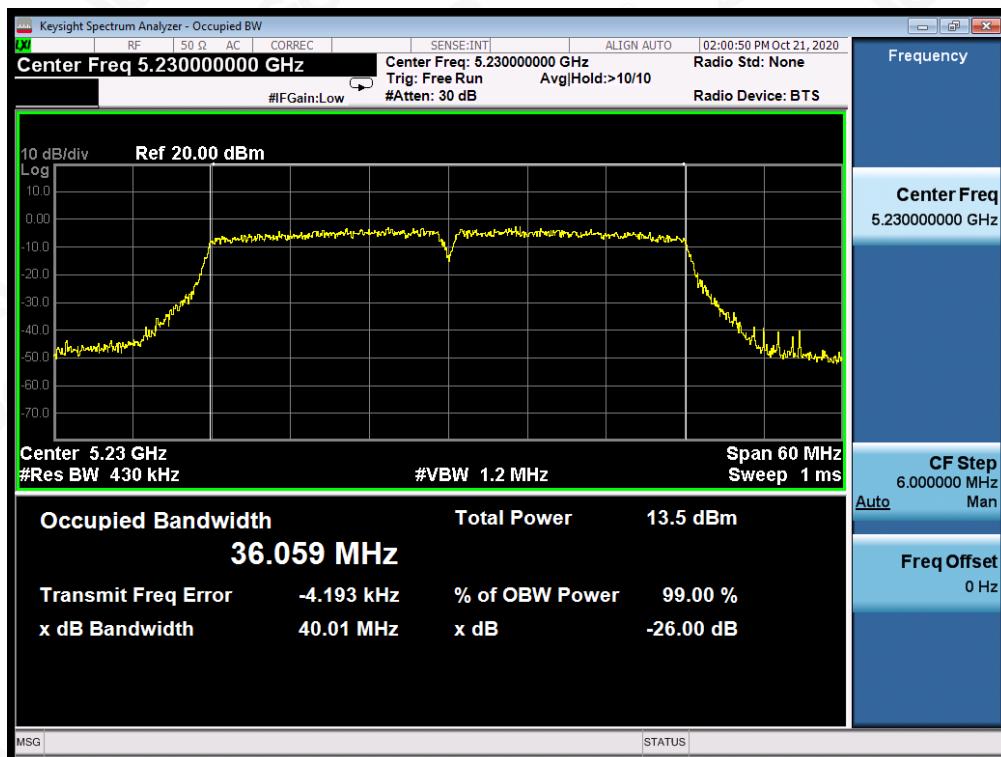


## 802.11n40 TEST RESULT

### TEST PLOT OF BANDWIDTH FOR 5190MHz



### TEST PLOT OF BANDWIDTH FOR 5230MHz



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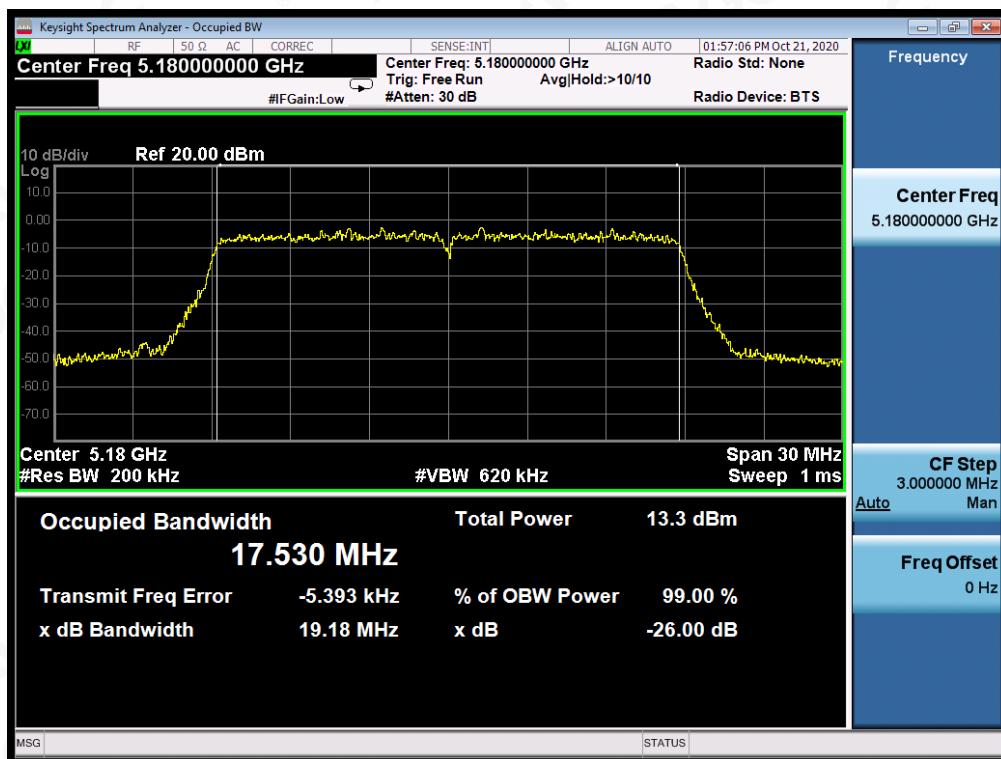
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## 802.11ac20 TEST RESULT

### TEST PLOT OF BANDWIDTH FOR 5180MHz



### TEST PLOT OF BANDWIDTH FOR 5200MHz



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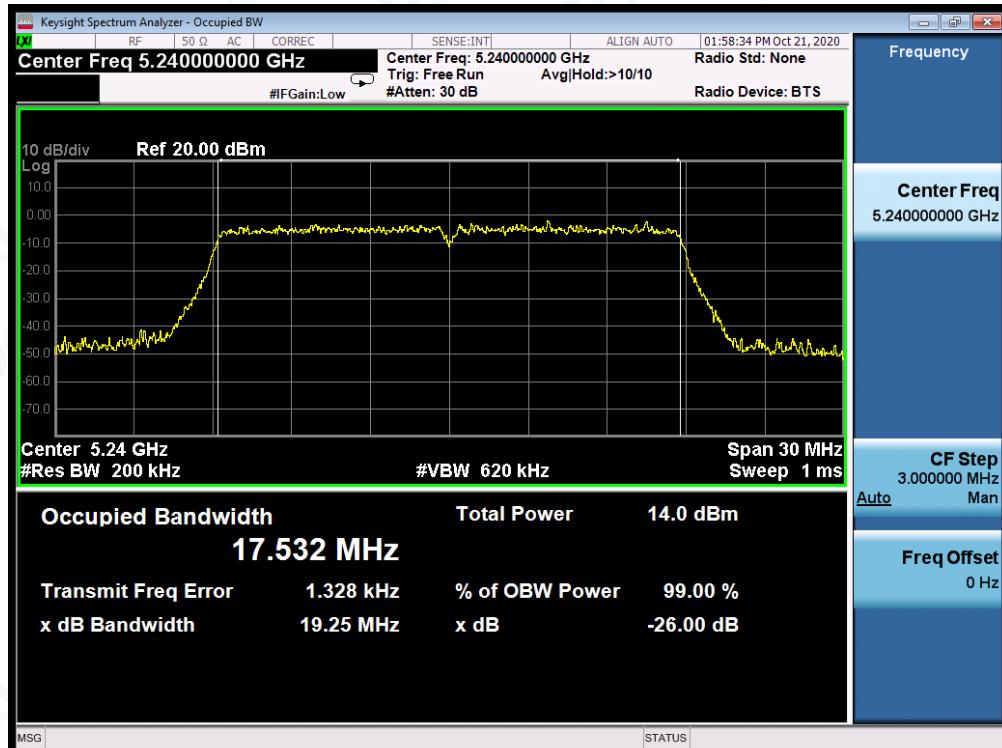
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## TEST PLOT OF BANDWIDTH FOR 5240MHz



## 802.11ac40 TEST RESULT

## TEST PLOT OF BANDWIDTH FOR 5190MHz



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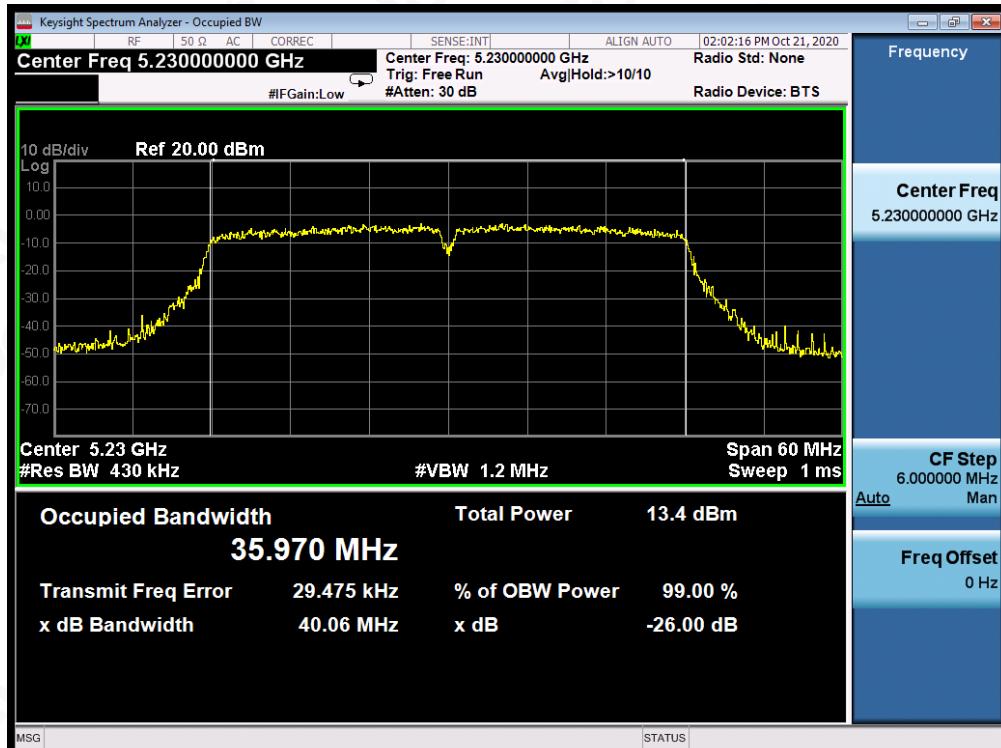
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## TEST PLOT OF BANDWIDTH FOR 5230MHz



## 802.11ac80 TEST RESULT

## TEST PLOT OF BANDWIDTH FOR 5210MHz



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**10. MAXIMUM CONDUCTED OUTPUT AVERAGE POWER SPECTRAL DENSITY****10.1 MEASUREMENT PROCEDURE**

Refer to KDB 789033 section F

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

Refer To Section 8.2.

**10.3 MEASUREMENT EQUIPMENT USED**

Refer To Section 6.

**10.4 LIMITS AND MEASUREMENT RESULT**

LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION					
Frequency (MHz)	Power density Ant 1 (dBm/MHz)	Power density Ant 2 (dBm/MHz)	Power density Total (dBm/MHz)	Applicable Limits (dBm)	Pass or Fail
5180	2.281	2.080	N/A	17	Pass
5200	2.289	2.184	N/A	17	Pass
5240	2.870	3.048	N/A	17	Pass
Frequency (MHz)	Power density Ant 1 (dBm/500kHz)	Power density Ant 2 (dBm/500kHz)	Power density Total (dBm/500kHz)	Applicable Limits (dBm)	Pass or Fail
5745	-2.409	-2.259	N/A	30	Pass
5785	-2.387	-2.511	N/A	30	Pass
5825	-2.171	-2.881	N/A	30	Pass

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LIMITS AND MEASUREMENT RESULT FOR 802.11N20 MODULATION					
Frequency (MHz)	Power density Ant 1 (dBm/MHz)	Power density Ant 2 (dBm/MHz)	Power density Total (dBm/MHz)	Applicable Limits (dBm)	Pass or Fail
5180	-4.056	-4.019	-1.03	17	Pass
5200	-3.864	-3.553	-0.70	17	Pass
5240	-3.112	-3.493	-0.29	17	Pass
Frequency (MHz)	Power density Ant 1 (dBm/500kHz)	Power density Ant 2 (dBm/500kHz)	Power density Total (dBm/500kHz)	Applicable Limits (dBm)	Pass or Fail
5745	-6.385	-6.259	-3.31	30	Pass
5785	-5.445	-6.091	-2.75	30	Pass
5825	-5.733	-5.622	-2.67	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11N40 MODULATION					
Frequency (MHz)	Power density Ant 1 (dBm/MHz)	Power density Ant 2 (dBm/MHz)	Power density Total (dBm/MHz)	Applicable Limits (dBm)	Pass or Fail
5190	-7.148	-7.379	-4.25	17	Pass
5230	-6.751	-6.323	-3.52	17	Pass
Frequency (MHz)	Power density Ant 1 (dBm/500kHz)	Power density Ant 2 (dBm/500kHz)	Power density Total (dBm/500kHz)	Applicable Limits (dBm)	Pass or Fail
5755	-9.707	-9.997	-6.84	30	Pass
5795	-9.488	-9.564	-6.52	30	Pass

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LIMITS AND MEASUREMENT RESULT FOR 802.11AC20 MODULATION					
Frequency (MHz)	Power density Ant 1 (dBm/MHz)	Power density Ant 2 (dBm/MHz)	Power density Total (dBm/MHz)	Applicable Limits (dBm)	Pass or Fail
5180	-4.049	-4.227	-1.13	17	Pass
5200	-3.801	-3.956	-0.87	17	Pass
5240	-3.049	-3.078	-0.05	17	Pass
Frequency (MHz)	Power density Ant 1 (dBm/500kHz)	Power density Ant 2 (dBm/500kHz)	Power density Total (dBm/500kHz)	Applicable Limits (dBm)	Pass or Fail
5745	-6.057	-6.332	-3.18	30	Pass
5785	-6.027	-6.019	-3.01	30	Pass
5825	-5.926	-5.614	-2.76	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11AC40 MODULATION					
Frequency (MHz)	Power density Ant 1 (dBm/MHz)	Power density Ant 2 (dBm/MHz)	Power density Total (dBm/MHz)	Applicable Limits (dBm)	Pass or Fail
5190	-7.217	-7.027	-4.11	17	Pass
5230	-6.581	-6.599	-3.58	17	Pass
Frequency (MHz)	Power density Ant 1 (dBm/500kHz)	Power density Ant 2 (dBm/500kHz)	Power density Total (dBm/500kHz)	Applicable Limits (dBm)	Pass or Fail
5755	-9.750	-10.388	-7.05	30	Pass
5795	-9.236	-9.396	-6.30	30	Pass

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LIMITS AND MEASUREMENT RESULT FOR 802.11AC80 MODULATION					
Frequency (MHz)	Power density Ant 1 (dBm/MHz)	Power density Ant 2 (dBm/MHz)	Power density Total (dBm/MHz)	Applicable Limits (dBm)	Pass or Fail
5210	-9.842	-9.010	-6.40	17	Pass
Frequency (MHz)	Power density Ant 1 (dBm/500kHz)	Power density Ant 2 (dBm/500kHz)	Power density Total (dBm/500kHz)	Applicable Limits (dBm)	Pass or Fail
5775	-12.862	-12.701	-9.77	30	Pass

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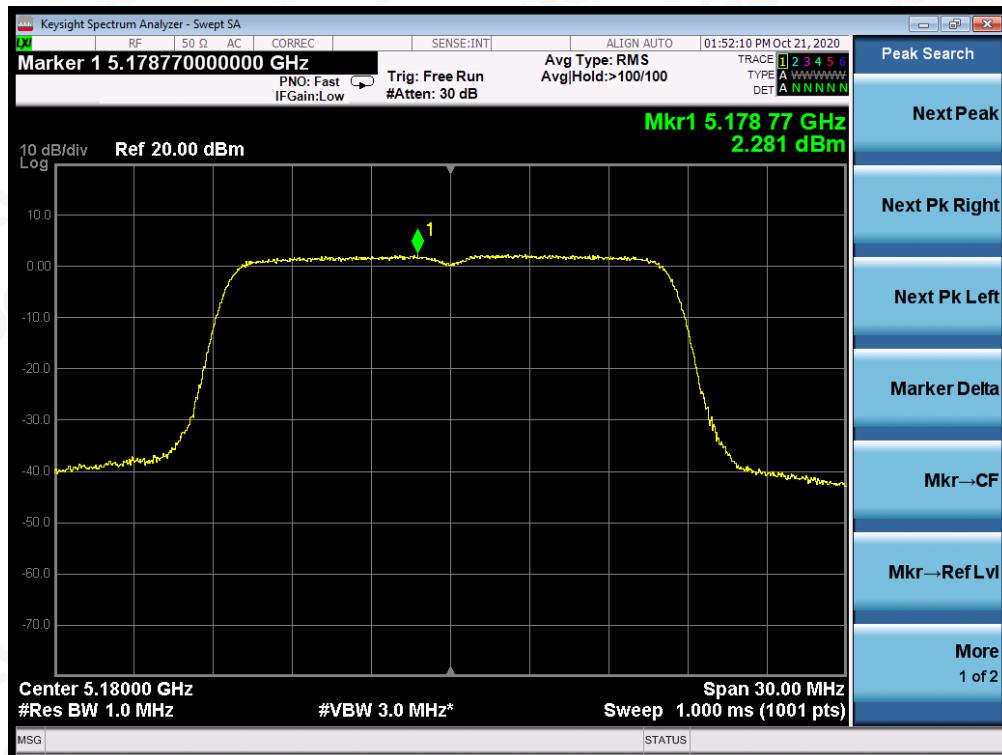
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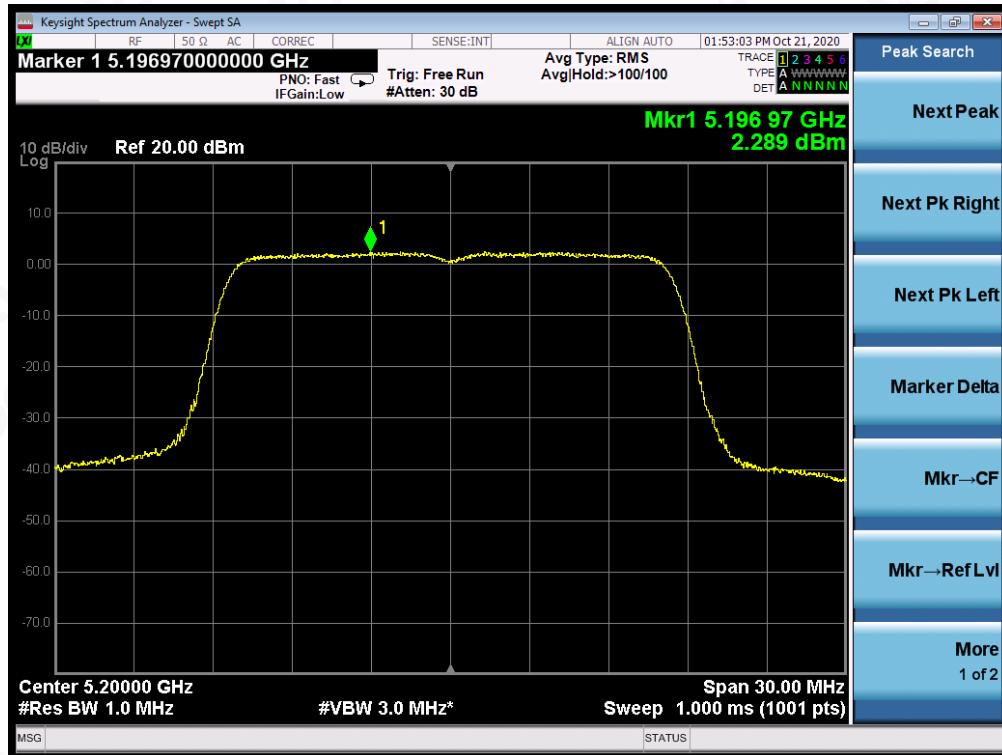


### 802.11a20 TEST RESULT-ant 1

#### TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz



#### TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz



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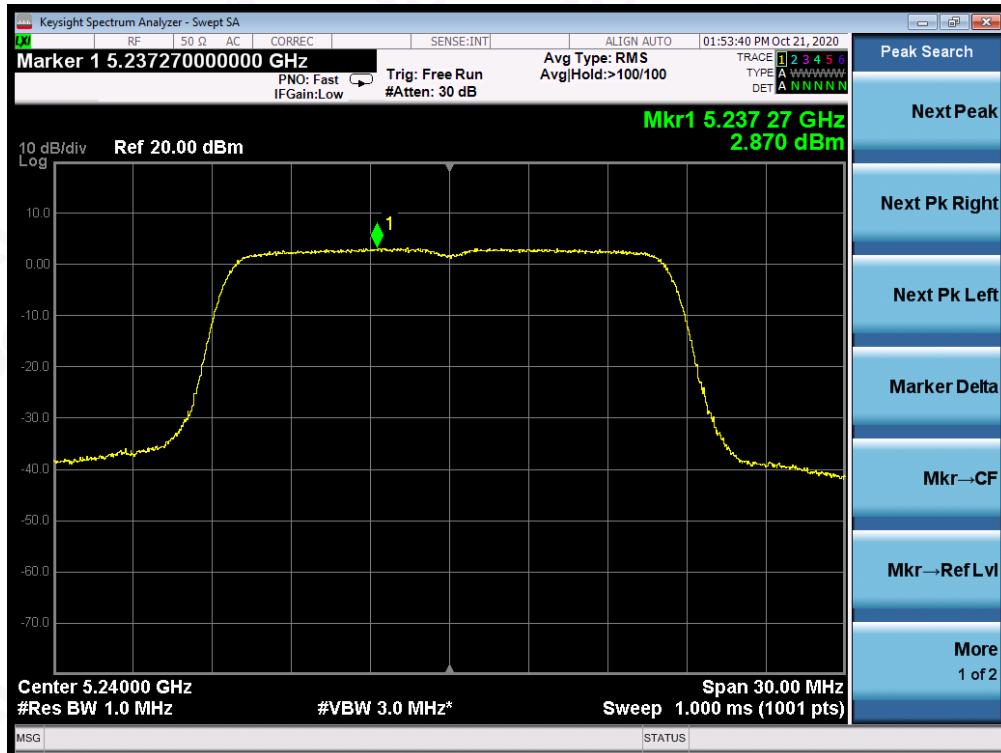
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## TEST PLOT OF SPECTRAL DENSITY FOR 5240MHz



## TEST PLOT OF SPECTRAL DENSITY FOR 5745MHz



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## TEST PLOT OF SPECTRAL DENSITY FOR 5785MHz



## TEST PLOT OF SPECTRAL DENSITY FOR 5825MHz



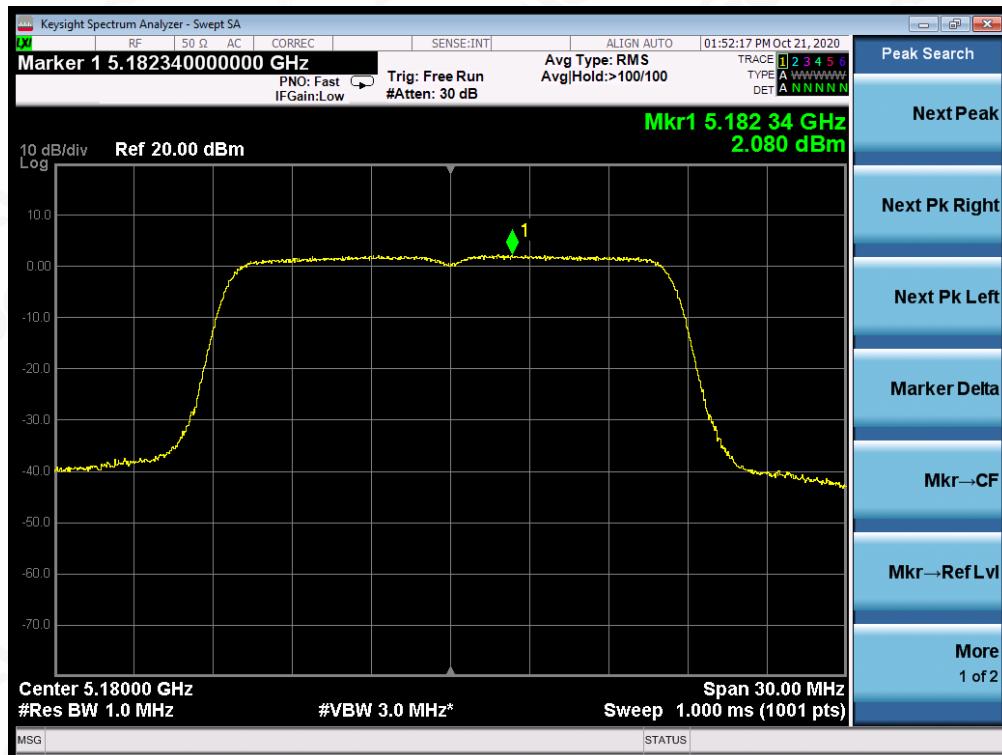
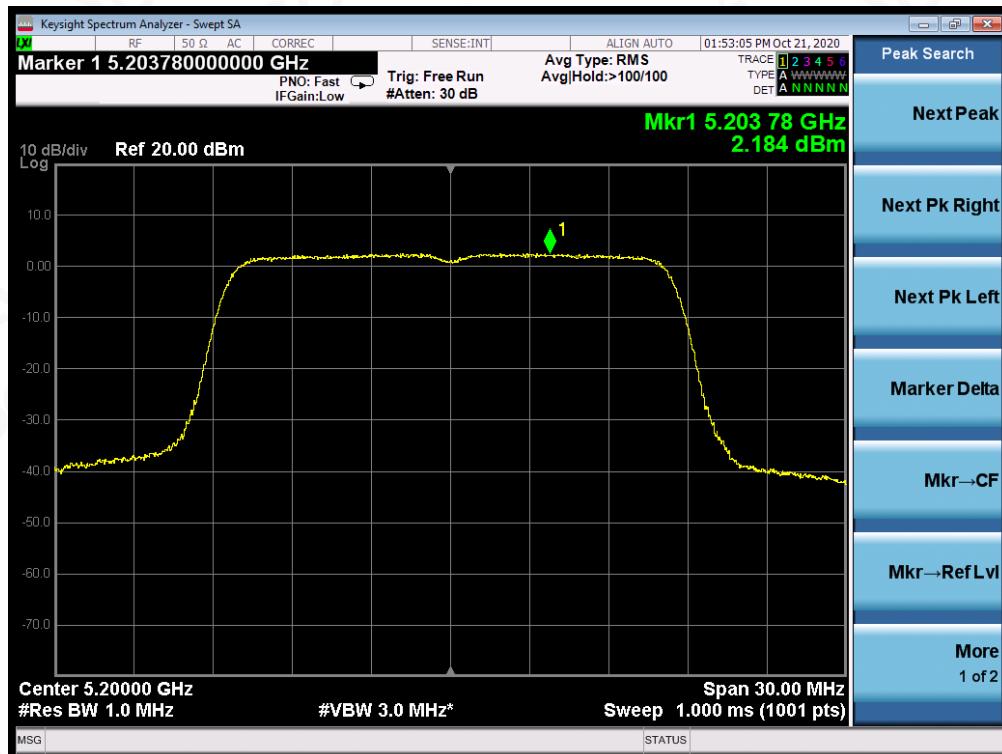
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**802.11a20 TEST RESULT-ant 2**
**TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz**

**TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz**


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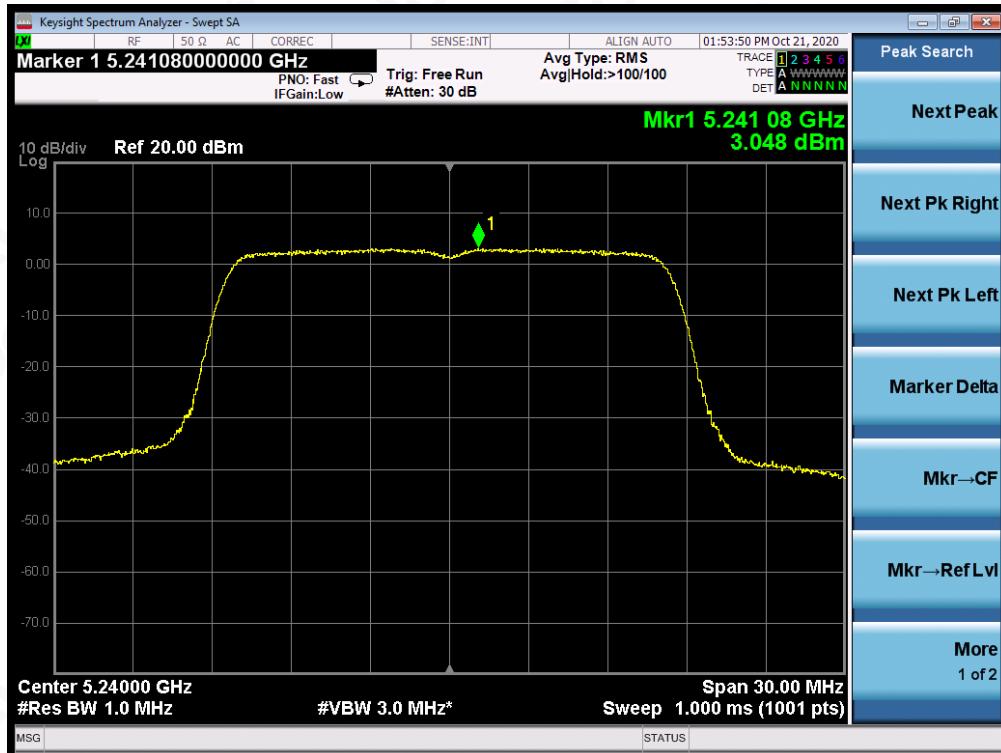
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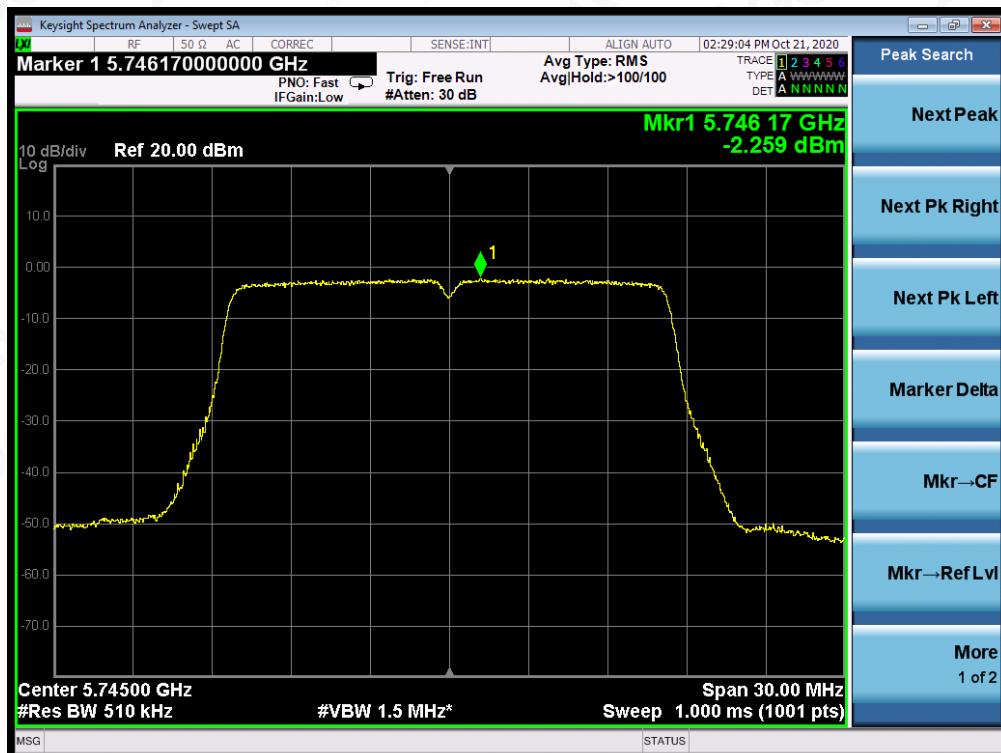
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## TEST PLOT OF SPECTRAL DENSITY FOR 5240MHz



## TEST PLOT OF SPECTRAL DENSITY FOR 5745MHz



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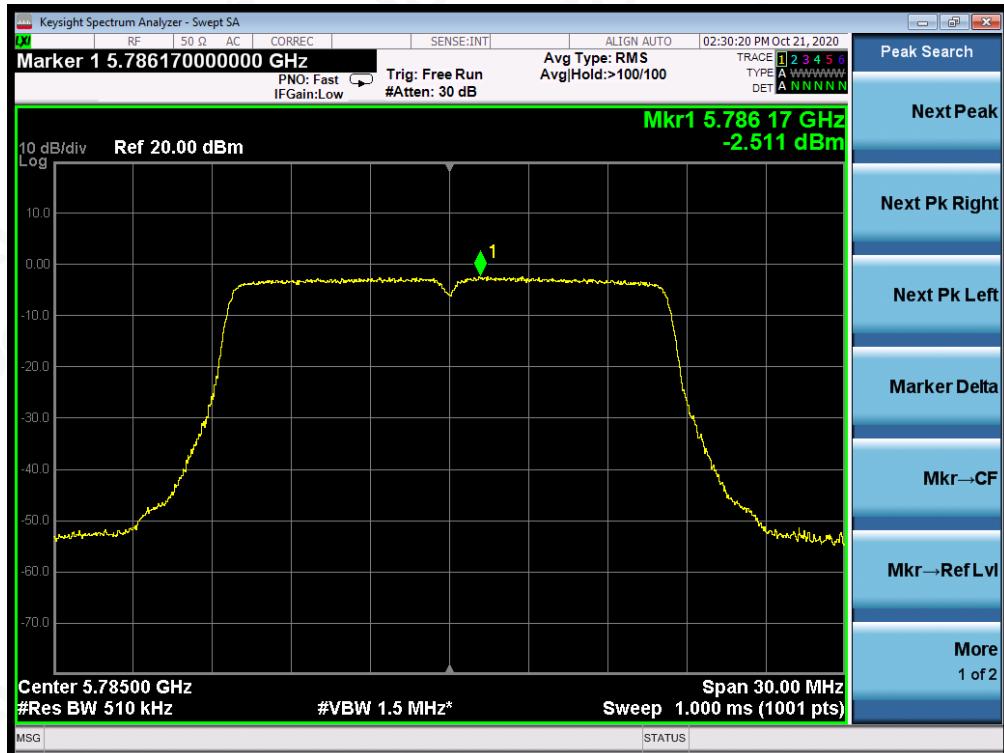
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## TEST PLOT OF SPECTRAL DENSITY FOR 5785MHz



## TEST PLOT OF SPECTRAL DENSITY FOR 5825MHz



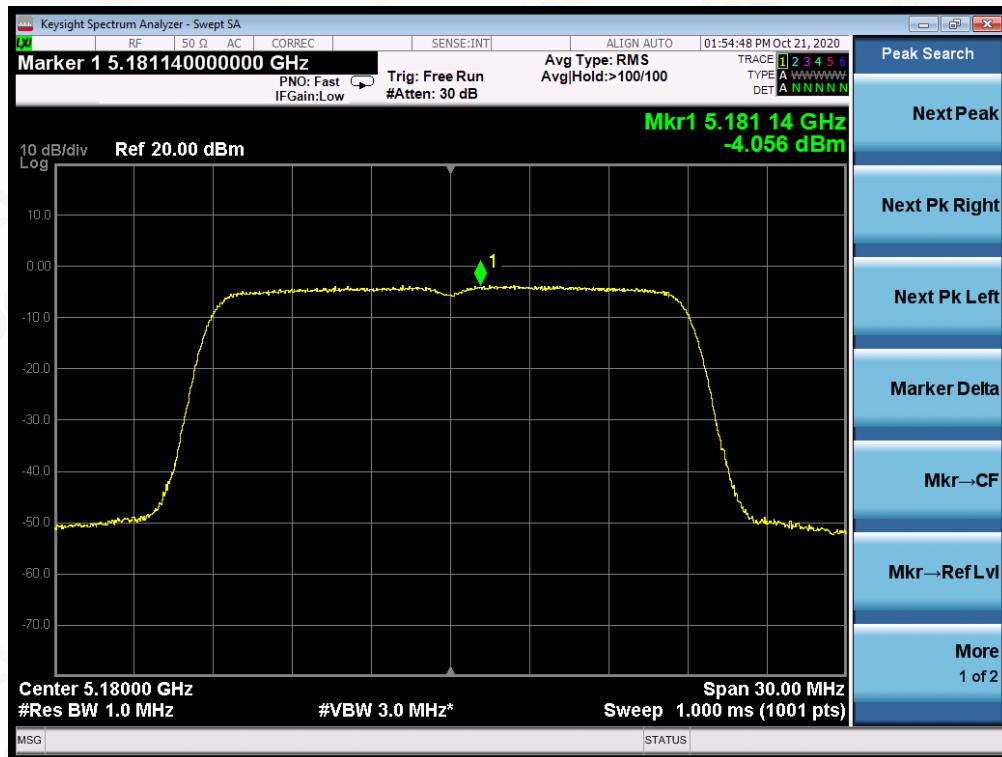
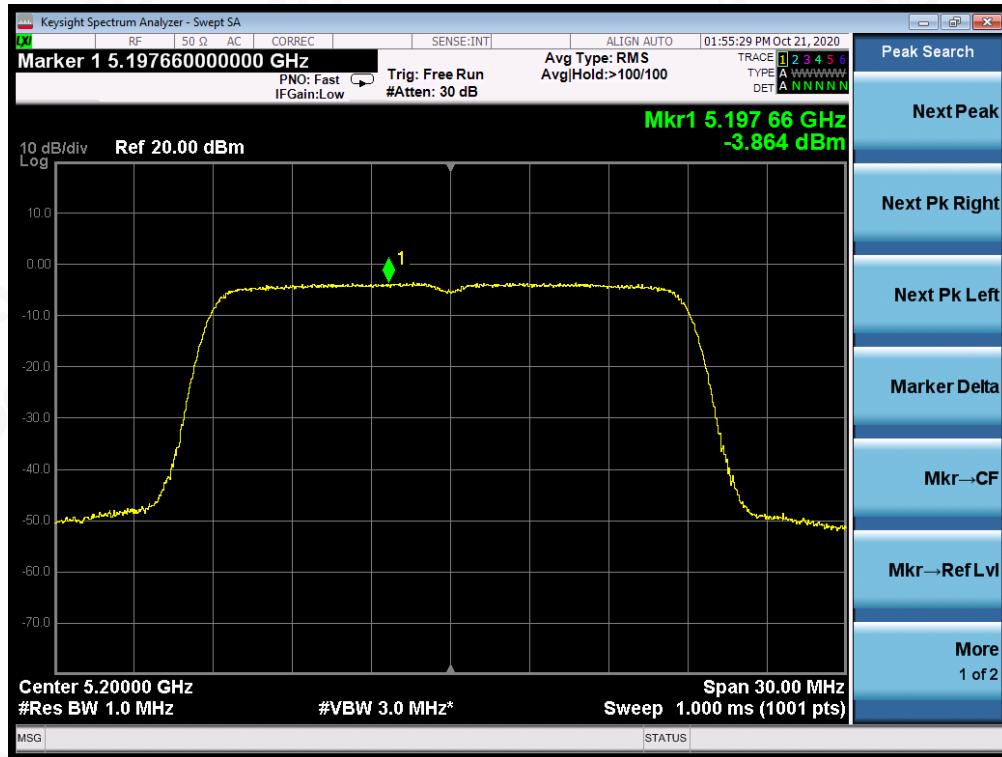
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**802.11n20 TEST RESULT-ant 1**
**TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz**

**TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz**


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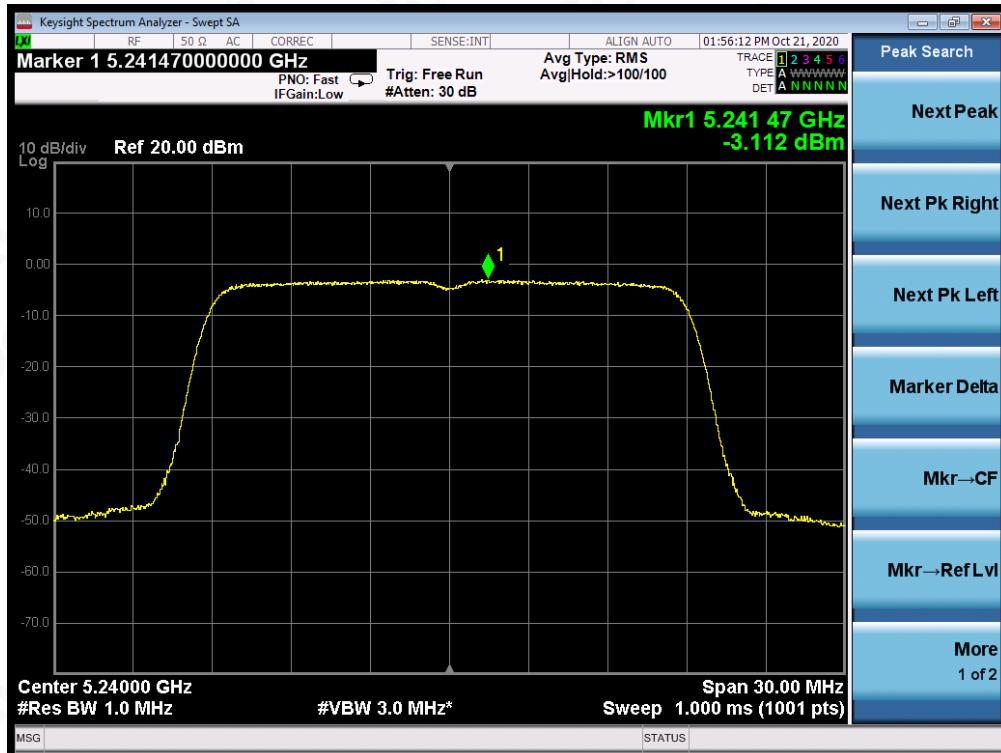
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## TEST PLOT OF SPECTRAL DENSITY FOR 5240MHz



## TEST PLOT OF SPECTRAL DENSITY FOR 5745MHz



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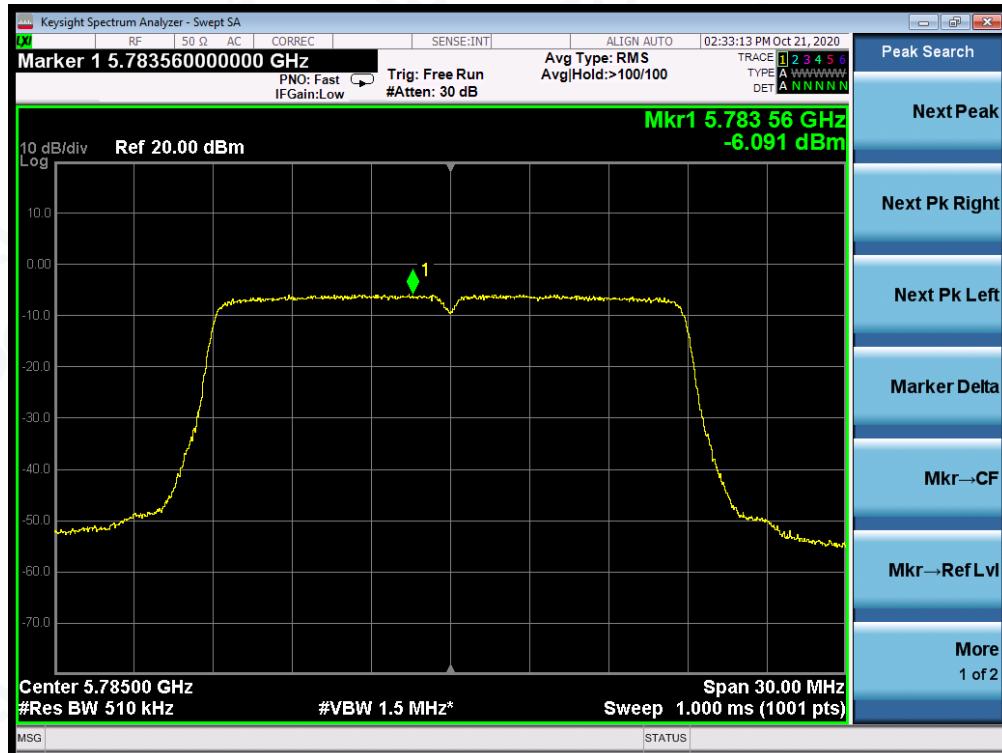
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## TEST PLOT OF SPECTRAL DENSITY FOR 5785MHz



## TEST PLOT OF SPECTRAL DENSITY FOR 5825MHz



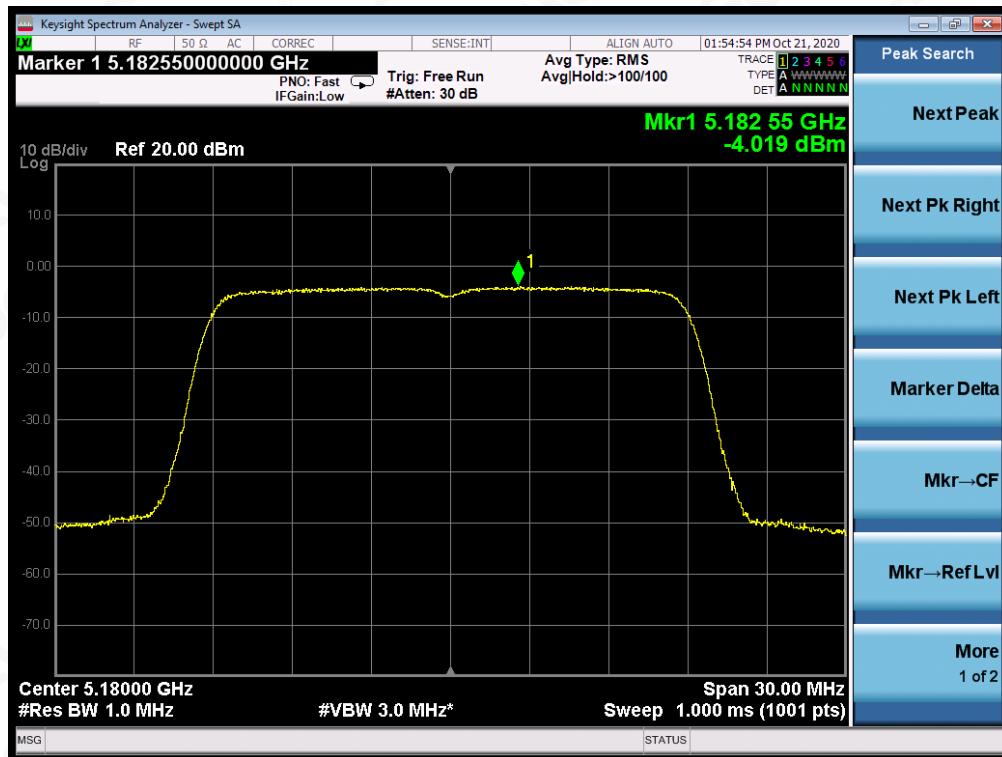
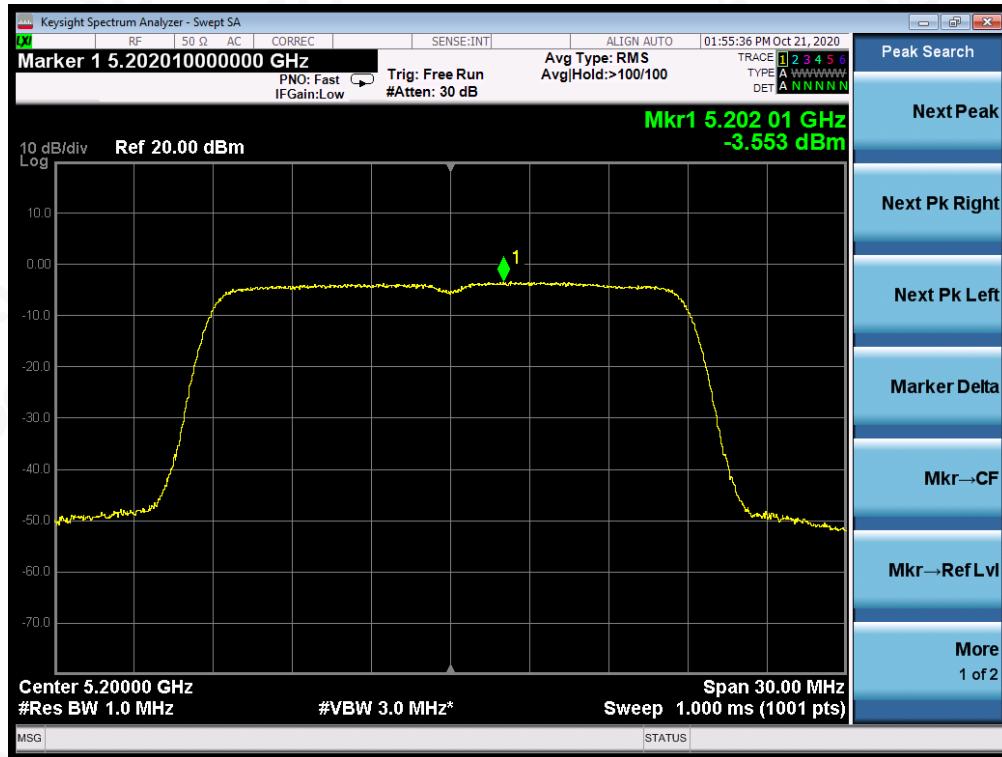
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**802.11n20 TEST RESULT-ant 2**
**TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz**

**TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz**


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