



TEST REPORT

FCC Part 15 Subpart E

Test report

On Behalf of

SUNVALLEYTEK INTERNATIONAL, INC.

For

4K UST Laser Projector

Model No.: VA-LT002

FCC ID: 2AFDGVA-LT002

Prepared for : **SUNVALLEYTEK INTERNATIONAL, INC.**
46724 Lakeview Blvd, Fremont, CA 94538

Prepared By : **Shenzhen HUAKE Testing Technology Co., Ltd.**
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Date of Test: **Jan. 15, 2019 ~ Jan. 21, 2019**

Date of Report: **Jan. 21, 2019**

Report Number: **HK1901210167E**

TEST RESULT CERTIFICATION

Applicant's name: SUNVALLEYTEK INTERNATIONAL, INC.
Address: 46724 Lakeview Blvd, Fremont, CA 94538
Manufacture's Name: Shenzhen NearbyExpress Technology Development Company Limited
Address: 333 Bulong Road, Jialianda Industrial Park, Building 1, Bantian, Longgang District, Shenzhen, China
Factory's Name: Shenzhen NearbyExpress Technology Development Company Limited
Address: 333 Bulong Road, Jialianda Industrial Park, Building 1, Bantian, Longgang District, Shenzhen, China

Product description

Trade Mark: VAVA
Product name: 4K UST Laser Projector
Model and/or type reference ...: VA-LT002

Standards: 47 CFR FCC Part 15 Subpart E

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Date of Test:

Date (s) of performance of tests: Jan. 15, 2019 ~ Jan. 21, 2019

Date of Issue: Jan. 21, 2019

Test Result: **Pass**

Testing Engineer :



(Gary Qian)

Technical Manager :



(Eden Hu)

Authorized Signatory :



(Jason Zhou)

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1.SUMMARY

1.1 TEST STANDARDS

The tests were performed according to following standards:

[FCC Part 15 Subpart E](#): Unlicensed National Information Infrastructure Devices

[ANSI C63.10:2013](#) : American National Standard for Testing Unlicensed Wireless Devices

[KDB 789033 D02 v02r01](#): Guidelines for compliance testing of unlicensed national information infrastructure (U-NII) devices (part 15, subpart E)

1.2 TEST DESCRIPTION

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

1.3 TEST FACILITY

1.3.1 Address of the test laboratory

Shenzhen HUAK Testing Technology Co., Ltd.

Add.:1F, B2 Building, Junfeng Zhongcheng Zhizao Innovation Park,Heping Community, Fuhai Street, Bao'an District, Shenzhen, China

There is one 3m semi-anechoic chamber and two line conducted labs for final test. The Test Sites meet the requirements in documents ANSI C63.4 and CISPR 32/EN 55032 requirements.

1.3.2 Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

IC Registration No.: 21210

The 3m alternate test site of Shenzhen HUAK Testing Technology Co., Ltd. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration No.: 21210 on May 24, 2016.

FCC Registration No.: CN1229

Test Firm Registration Number : 616276

1.4 STATEMENT OF THE MEASUREMENT UNCERTAINTY

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the Shenzhen HUAK Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for HUAK laboratory is reported:

Test	Measurement Uncertainty	Notes
Transmitter power conducted	±0.57 dB	(1)
Transmitter power Radiated	±2.20 dB	(1)
Conducted spurious emission 9KHz-40 GHz	±2.20 dB	(1)
Occupied Bandwidth	±0.01ppm	(1)
Radiated Emission 30~1000MHz	±4.10dB	(1)
Radiated Emission Above 1GHz	±4.32dB	(1)
Conducted Disturbance0.15~30MHz	±3.20dB	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

2.GENERAL INFORMATION

2.1 ENVIRONMENTAL CONDITIONS

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature:	25°C
Relative Humidity:	55 %
Air Pressure:	101 kPa

2.2 GENERAL DESCRIPTION OF EUT

Product Name	4K UST Laser Projector
Model/Type reference	VA-LT002
Power supply	100-240VAC
Modulation	802.11a/n20/n40/ac20/ac40/ac80 BPSK, QPSK, 16QAM, 64QAM, 128QAM, 256QAM, OFDM
Operation Frequency	5150 MHz~5250MHz;5725 MHz~5850MHz
Channel number	15
Antenna Designation	FPC antenna
Number of transmit chain	2(802.11a used antenna 2, 802.11n20/n40/ ac20/ac40/ac80 used two antennas)
Directional gain	All transmit signals are completely uncorrelated with each other
Antenna Gain	Ant 1: 5.04dBi Ant 2: 5.25dBi
Hardware Version	LT002-TV-PCB-VERB1 V02
Software Version	VAVA_V1.00_20180905.183616

Note: For more details, refer to the user's manual of the EUT.

2.3. 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

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

This submittal(s) (test report) is intended for **FCC ID: 2AFDGVA-LT002** filing to comply with the FCC Part 15 requirements.

2.5. ACCESSORIES USED

Item	Equipment	Model No.	Specification	Remark
1	--	--	--	--

2.6 EQUIPMENT USED

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	L.I.S.N. Artificial Mains Network	R&S	ENV216	HKE-002	Dec. 27, 2018	1 Year
2.	Receiver	R&S	ESCI 7	HKE-010	Dec. 27, 2018	1 Year
3.	RF automatic control unit	Tonscend	JS0806-2	HKE-060	Dec. 27, 2018	1 Year
4.	Horn Antenna	Schwarzbeck	BBHA 9170	HKE-090	Dec. 27, 2018	1 Year
5.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 27, 2018	1 Year
6.	Preamplifier	Schwarzbeck	BBV 9743	HKE-006	Dec. 27, 2018	1 Year
7.	EMI Test Receiver	Rohde & Schwarz	ESCI 7	HKE-010	Dec. 27, 2018	1 Year
8.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	HKE-012	Dec. 27, 2018	1 Year
9.	Loop Antenna	Schwarzbeck	FMZB 1519 B	HKE-014	Dec. 27, 2018	1 Year
10.	Horn Antenna	Schwarzbeck	9120D	HKE-013	Dec. 27, 2018	1 Year
11.	Pre-amplifier	EMCI	EMC051845 SE	HKE-015	Dec. 27, 2018	1 Year
12.	Pre-amplifier	Agilent	83051A	HKE-016	Dec. 27, 2018	1 Year
13.	EMI Test Software EZ-EMC	Tonscend	JS1120-B Version	HKE-083	Dec. 27, 2018	N/A
14.	Power Sensor	Agilent	E9300A	HKE-086	Dec. 27, 2018	1 Year
15.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 27, 2018	1 Year
16.	Signal generator	Agilent	N5182A	HKE-029	Dec. 27, 2018	1 Year
17.	Signal Generator	Agilent	83630A	HKE-028	Dec. 27, 2018	1 Year
18.	Shielded room	Shiel Hong	4*3*3	HKE-039	Dec. 27, 2018	3 Year

The calibration interval was one year

3. DESCRIPTION OF TEST MODES

Mode	Available channel	Tested channel	Modulation	Date rate(Mbps)
802.11a/n20/ac20	36,40,44,48,149,153,157,161,165	36,38,48,149, 157,165	OFDM	6/6.5
802.11n40/ac40	38,46,151,159	38,46, 151,159	OFDM	13.5
802.11ac80	42,155	42,155	OFDM	13.5

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.

4. MAXIMUM CONDUCTED OUTPUT POWER

4.1. MEASUREMENT PROCEDURE

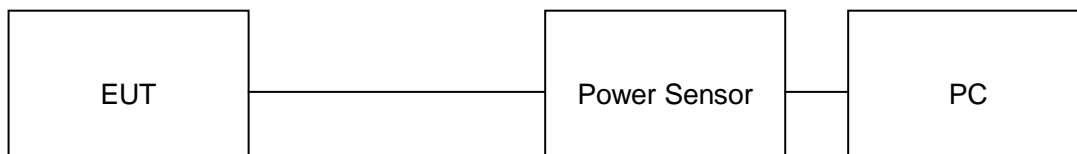
For average power test:

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.

4.2. TEST SET-UP

AVERAGE POWER SETUP



4.3. LIMITS AND MEASUREMENT RESULT

LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION			
Frequency (MHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
5180	12.24	24	Pass
5200	12.44	24	Pass
5240	12.57	24	Pass
5745	14.48	30	Pass
5785	14.88	30	Pass
5825	14.65	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11N20 MODULATION					
Frequency (MHz)	Average Power CHAIN 1(dBm)	Average Power Chain 2(dBm)	Average Power Total(dBm)	Applicable Limits (dBm)	Pass or Fail
5180	10.45	10.78	13.63	24	Pass
5200	10.67	10.95	13.82	24	Pass
5240	10.58	10.78	13.69	24	Pass
5745	12.41	12.57	15.50	30	Pass
5785	12.38	12.63	15.52	30	Pass
5825	12.52	12.75	15.65	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11AC20 MODULATION					
Frequency (MHz)	Average Power CHAIN 1(dBm)	Average Power Chain 2(dBm)	Average Power Total(dBm)	Applicable Limits (dBm)	Pass or Fail
5180	10.24	10.58	13.42	24	Pass
5200	10.41	10.74	13.59	24	Pass
5240	10.36	10.71	13.55	24	Pass
5745	12.28	12.62	15.46	30	Pass
5785	12.31	12.42	15.38	30	Pass
5825	12.42	12.54	15.49	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11N40 MODULATION					
Frequency (MHz)	Average Power CHAIN 1(dBm)	Average Power Chain 2(dBm)	Average Power Total(dBm)	Applicable Limits (dBm)	Pass or Fail
5190	8.42	8.85	11.65	24	Pass
5230	8.37	8.94	11.67	24	Pass
5755	10.51	10.77	13.65	30	Pass
5795	10.61	10.69	13.66	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11AC40 MODULATION					
Frequency (MHz)	Average Power CHAIN 1(dBm)	Average Power Chain 2(dBm)	Average Power Total(dBm)	Applicable Limits (dBm)	Pass or Fail
5190	8.12	8.54	11.35	24	Pass
5230	8.05	8.62	11.35	24	Pass
5755	10.24	10.42	13.34	30	Pass
5795	10.14	10.51	13.34	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11AC80 MODULATION					
Frequency (MHz)	Average Power CHAIN 1(dBm)	Average Power Chain 2(dBm)	Average Power Total(dBm)	Applicable Limits (dBm)	Pass or Fail
5210	6.54	6.71	9.64	24	Pass
5775	8.41	8.52	11.48	30	Pass

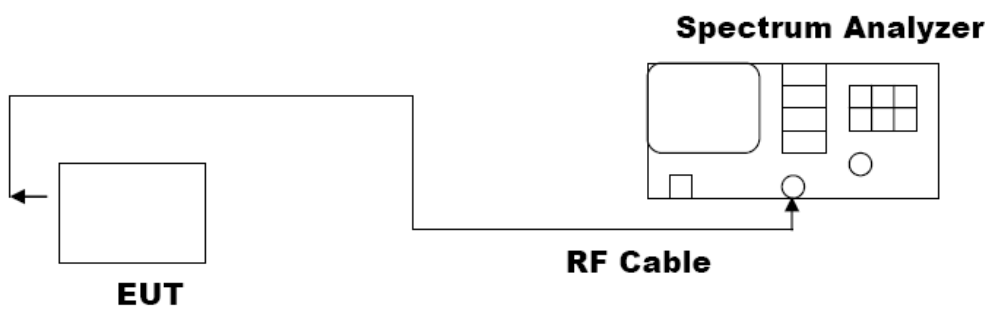
5. 6dB BANDWIDTH

5.1. 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 $\geq 3 \times \text{RBW}$. 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.

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

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



5.3. LIMITS AND MEASUREMENT RESULTS

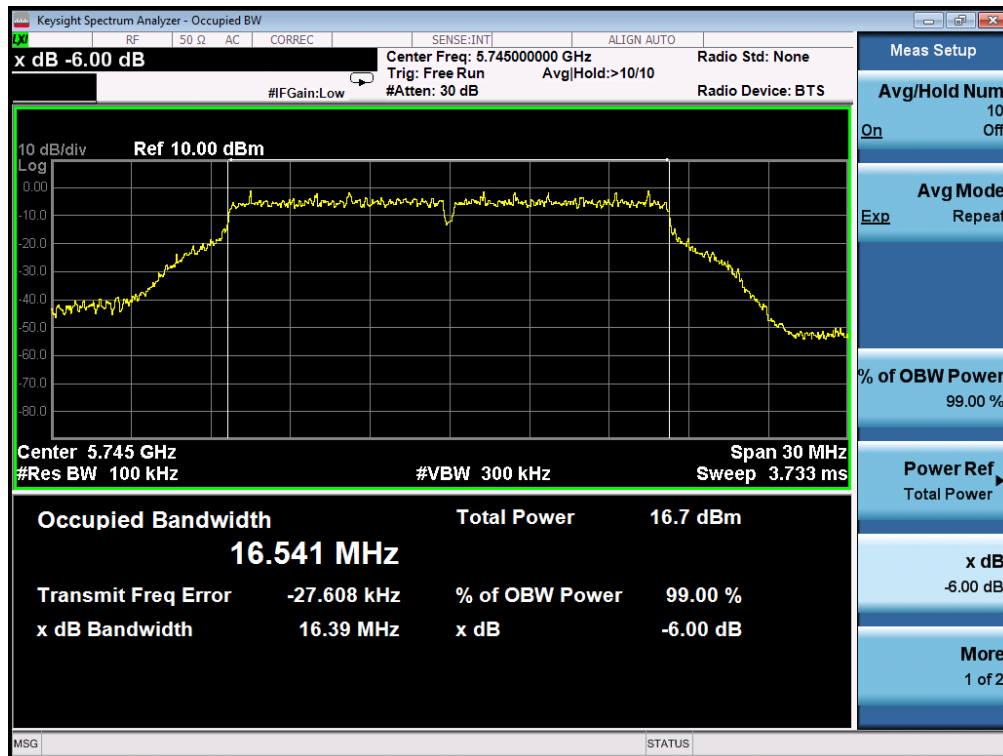
LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
>500KHZ	5745MHz	16.39	PASS
	5785MHz	16.37	PASS
	5825MHz	16.39	PASS

LIMITS AND MEASUREMENT RESULT FOR 802.11N20/40 MODULATION			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
>500KHZ	5745MHz	17.60	PASS
	5785MHz	17.58	PASS
	5825MHz	17.61	PASS
	5755MHz	36.35	PASS
	5795MHz	36.37	PASS

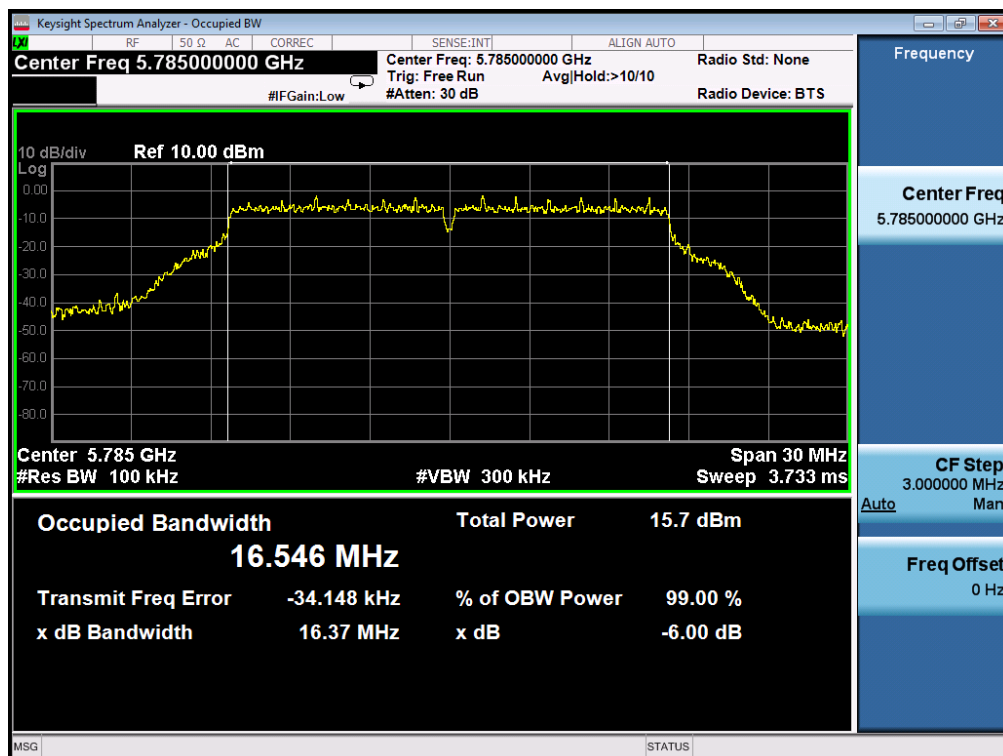
LIMITS AND MEASUREMENT RESULT FOR 802.11AC20/40/80 MODULATION			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
>500KHZ	5745MHz	17.60	PASS
	5785MHz	17.60	PASS
	5825MHz	17.60	PASS
	5755MHz	36.36	PASS
	5795MHz	36.36	PASS
	5775MHz	75.78	PASS

802.11a20 TEST RESULT

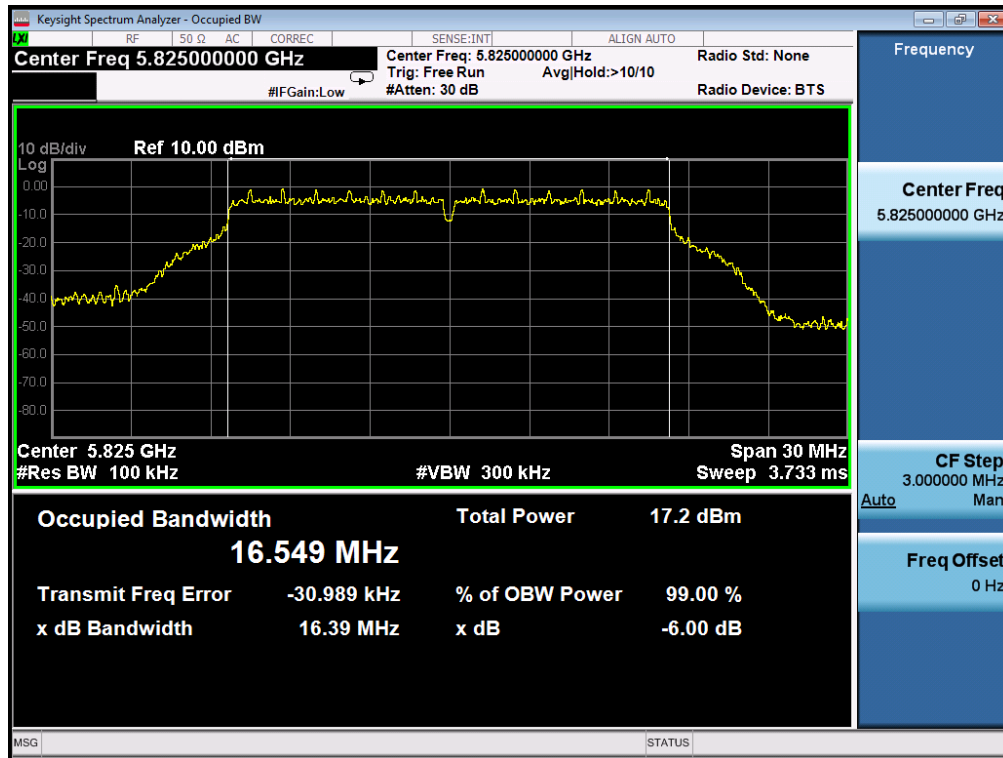
TEST PLOT OF BANDWIDTH FOR 5745MHz



TEST PLOT OF BANDWIDTH FOR 5785MHz

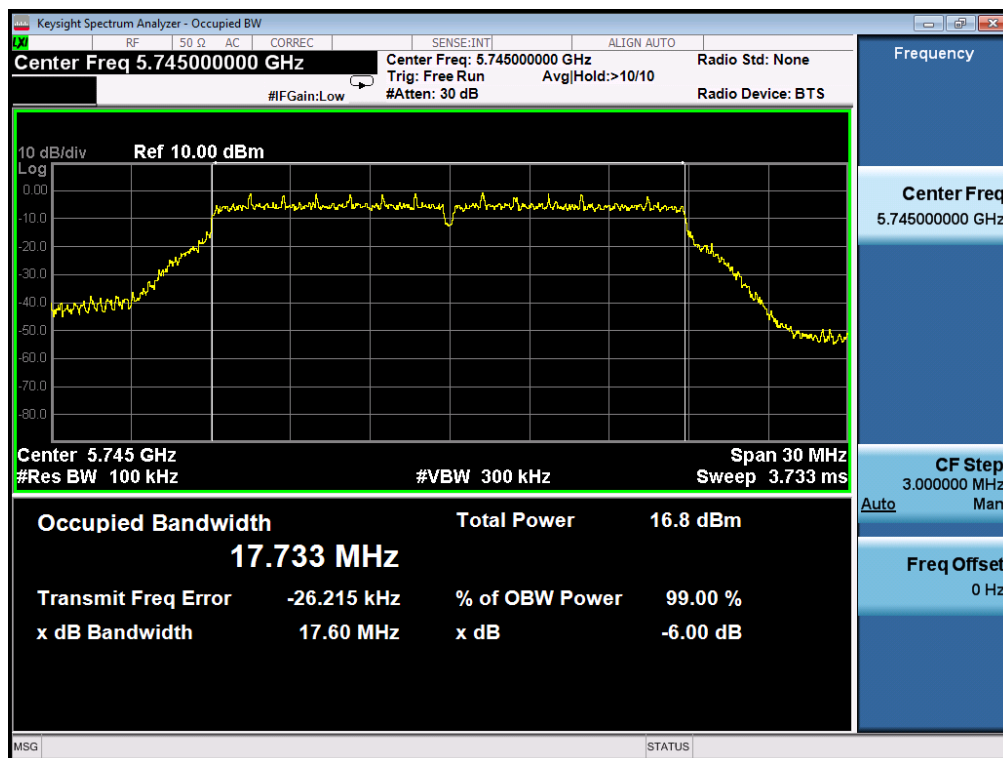


TEST PLOT OF BANDWIDTH FOR 5825MHz

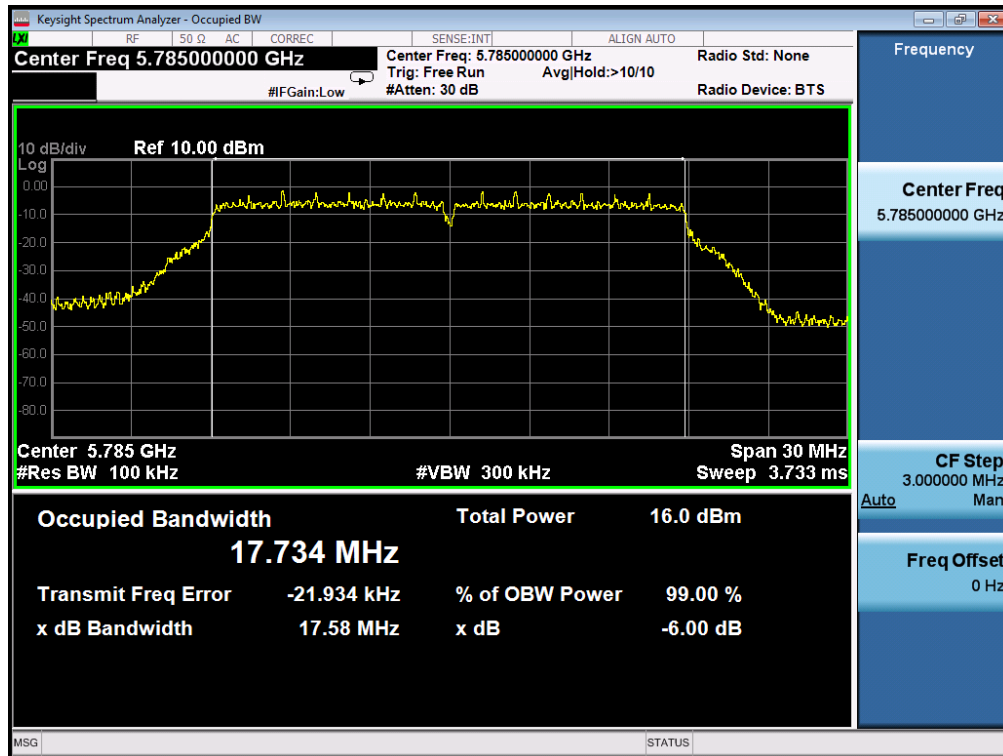


802.11n20 TEST RESULT

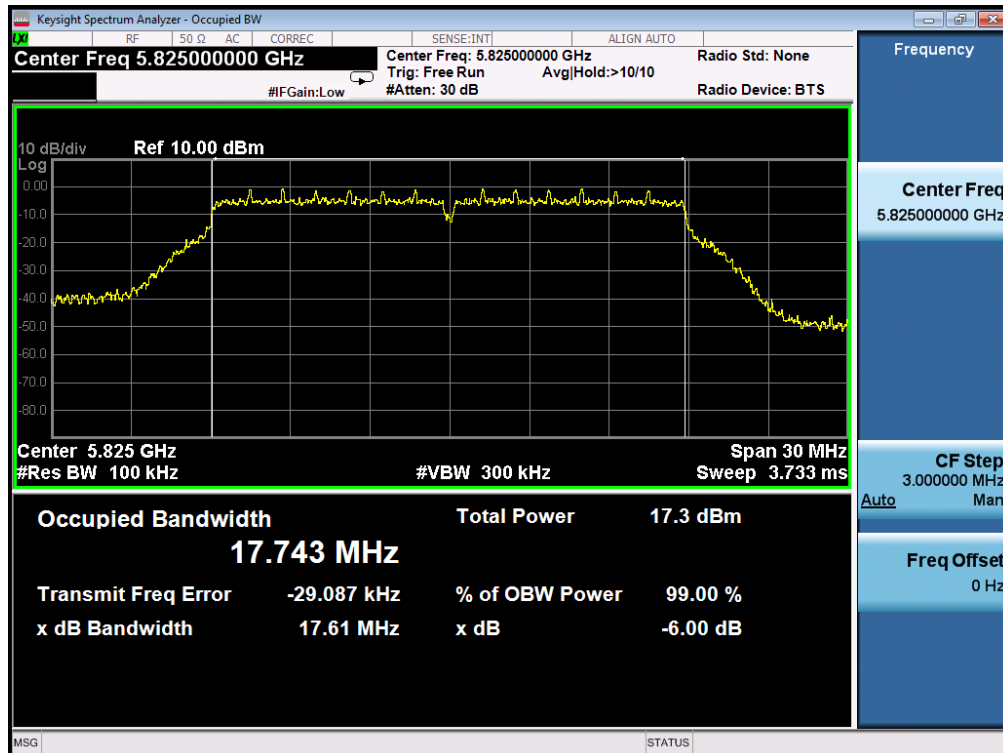
TEST PLOT OF BANDWIDTH FOR 5745MHz



TEST PLOT OF BANDWIDTH FOR 5785MHz

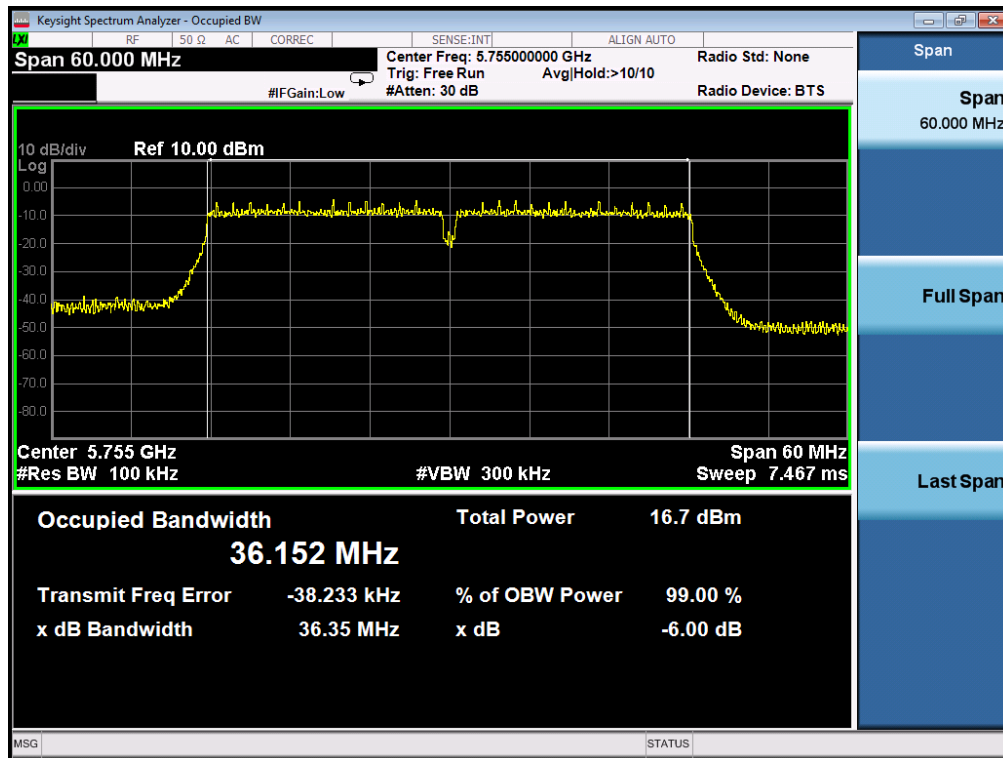


TEST PLOT OF BANDWIDTH FOR 5825MHz

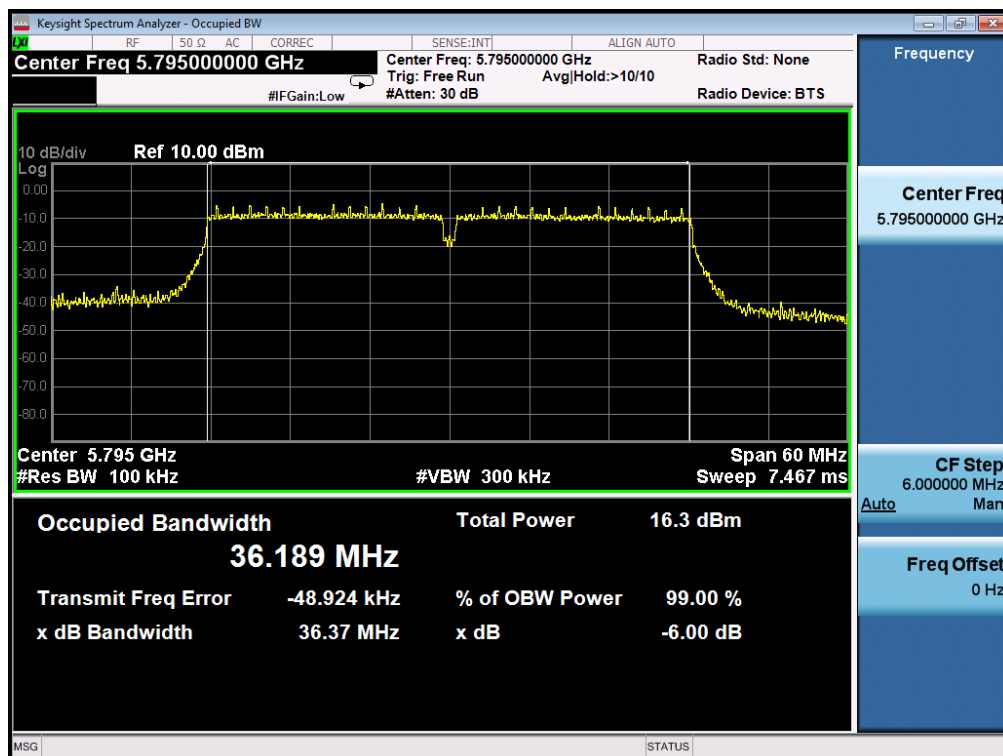


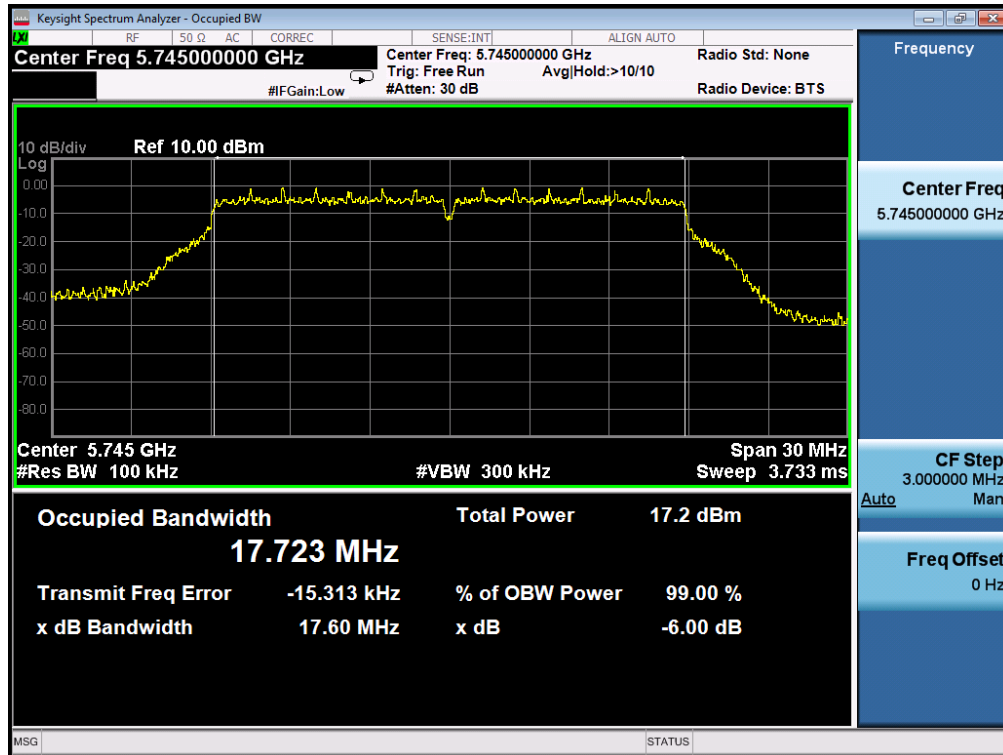
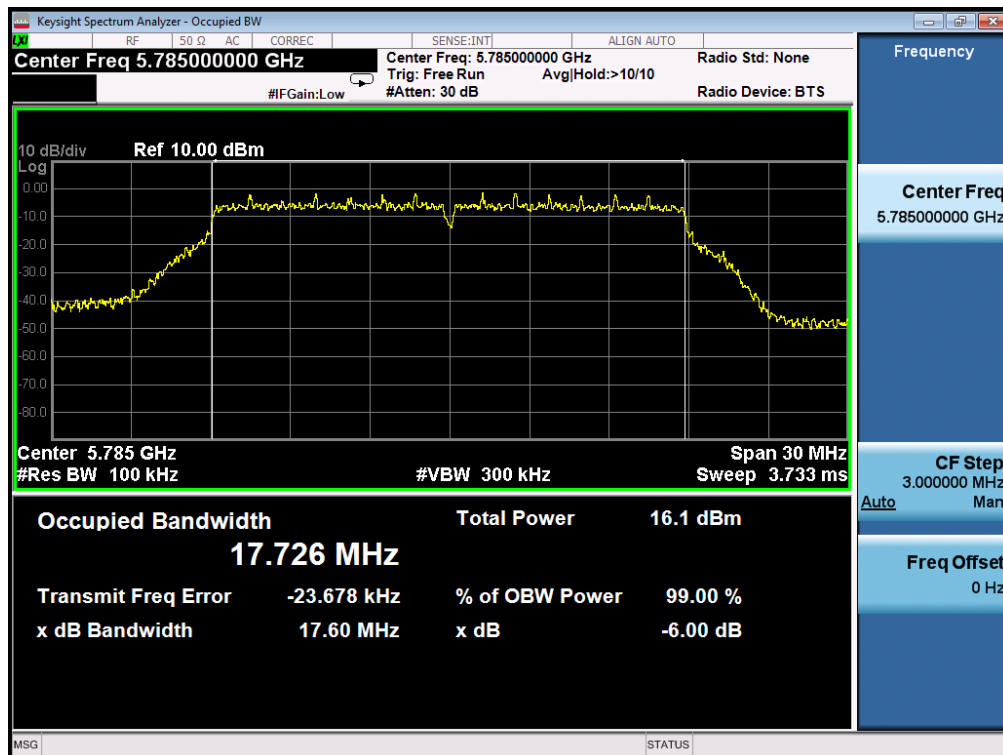
802.11n40 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5755MHz

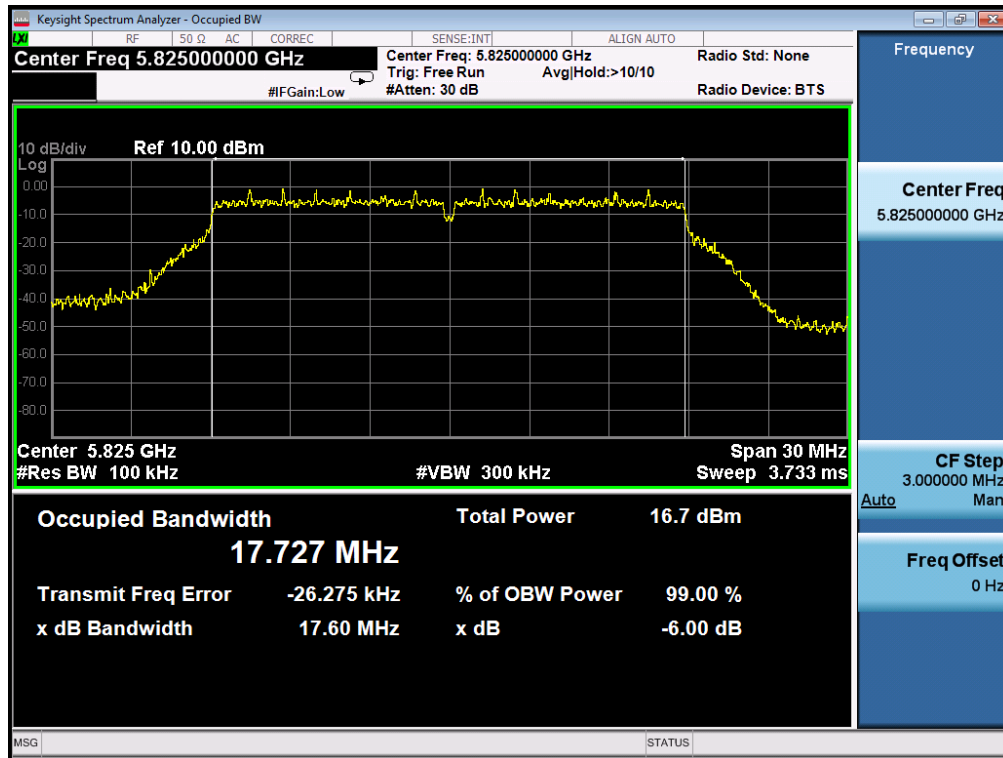


TEST PLOT OF BANDWIDTH FOR 5795MHz



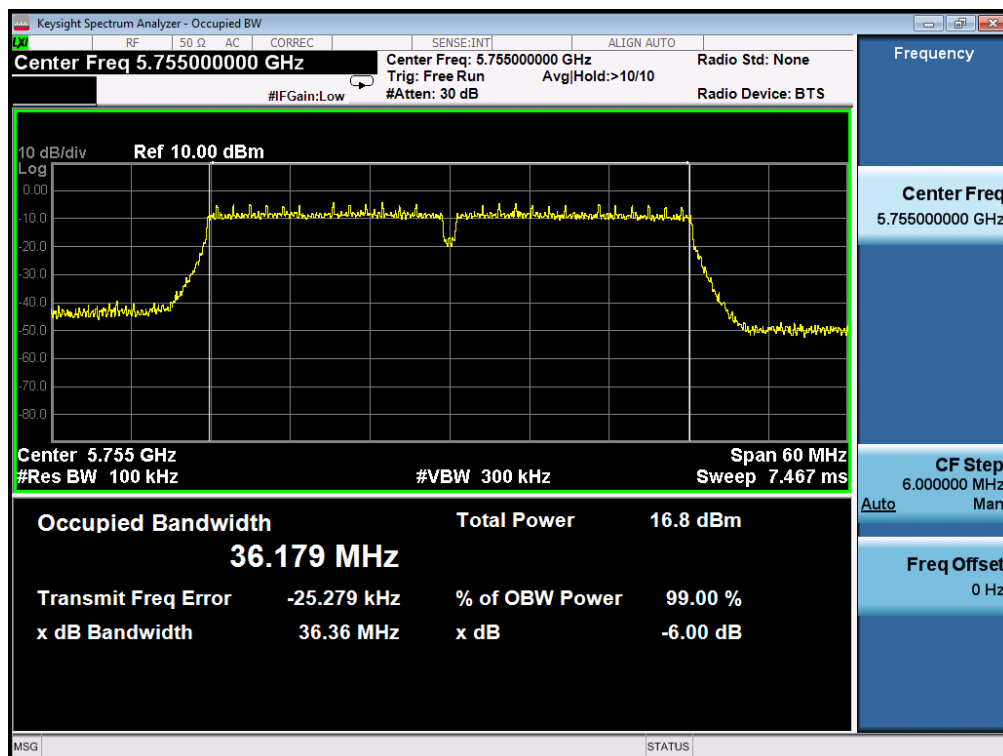
802.11ac20 TEST RESULT**TEST PLOT OF BANDWIDTH FOR 5745MHz****TEST PLOT OF BANDWIDTH FOR 5785MHz**

TEST PLOT OF BANDWIDTH FOR 5825MHz

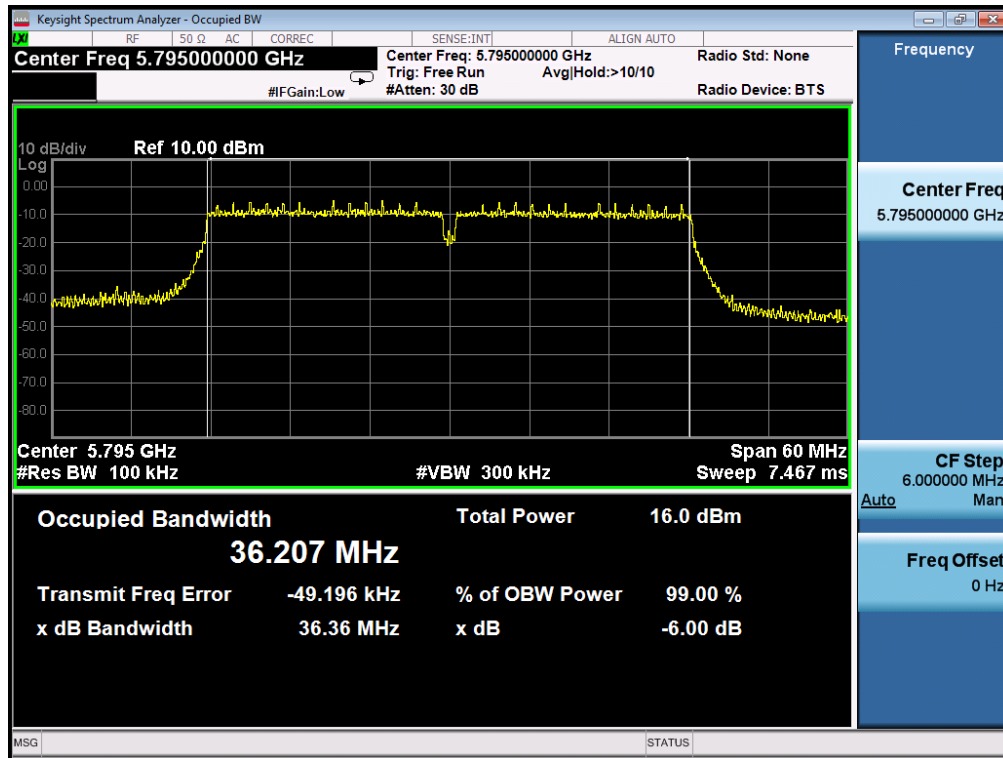


802.11ac40 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5755MHz

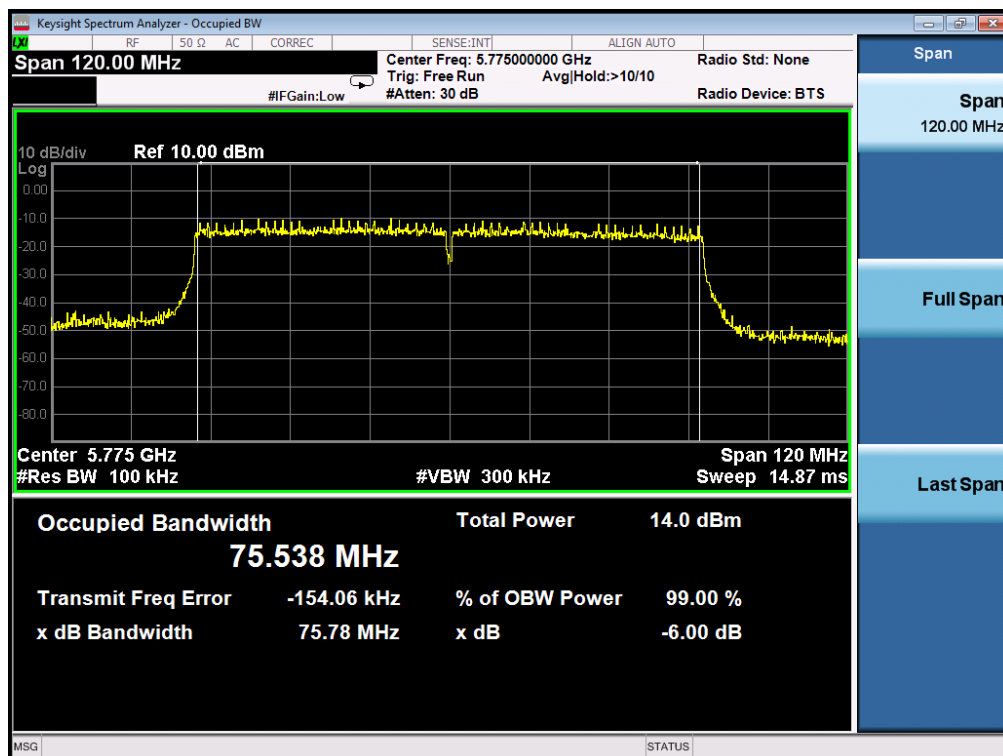


TEST PLOT OF BANDWIDTH FOR 5795MHz



802.11ac80 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5775MHz



6. EMISSION BANDWIDTH

6.1. MEASUREMENT PROCEDURE

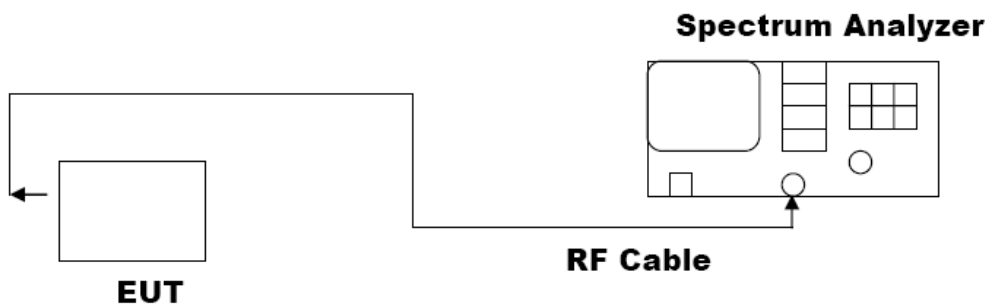
- a) Set RBW = approximately 1% of the emission bandwidth.
 - b) Set the VBW > RBW.
 - c) Detector = Peak.
 - d) Trace mode = max hold.
 - e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission.
- Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW $\geq 3 \cdot$ RBW
5. Peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument

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

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



6.3. LIMITS AND MEASUREMENT RESULTS

LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION			
Test Channel	-26dBc EBW (MHz)	99% OBW (MHz)	Criteria
5180MHz	21.41	16.728	PASS
5200MHz	21.46	16.730	PASS
5240MHz	21.51	16.717	PASS

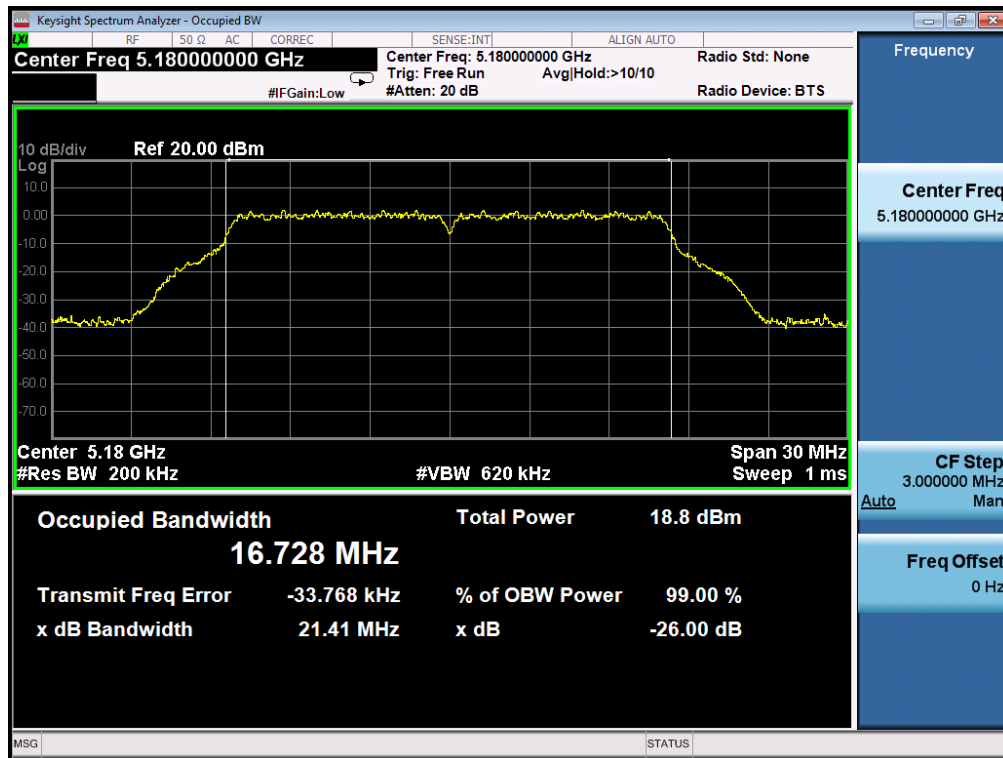
LIMITS AND MEASUREMENT RESULT FOR 802.11N20/40 MODULATION			
Test Channel	-26dBc EBW (MHz)	99% OBW (MHz)	Criteria
5180MHz	21.54	17.841	PASS
5200MHz	21.83	17.958	PASS
5240MHz	21.71	17.913	PASS
5190MHz	40.14	36.329	PASS
5230MHz	40.00	36.308	PASS

LIMITS AND MEASUREMENT RESULT FOR 802.11AC20/40/80 MODULATION			
Test Channel	-26dBc EBW (MHz)	99% OBW (MHz)	Criteria
5180MHz	21.58	17.872	PASS
5200MHz	21.65	17.875	PASS
5240MHz	21.55	17.892	PASS
5190MHz	40.06	36.339	PASS
5230MHz	40.23	36.293	PASS
5210MHz	81.52	75.816	PASS

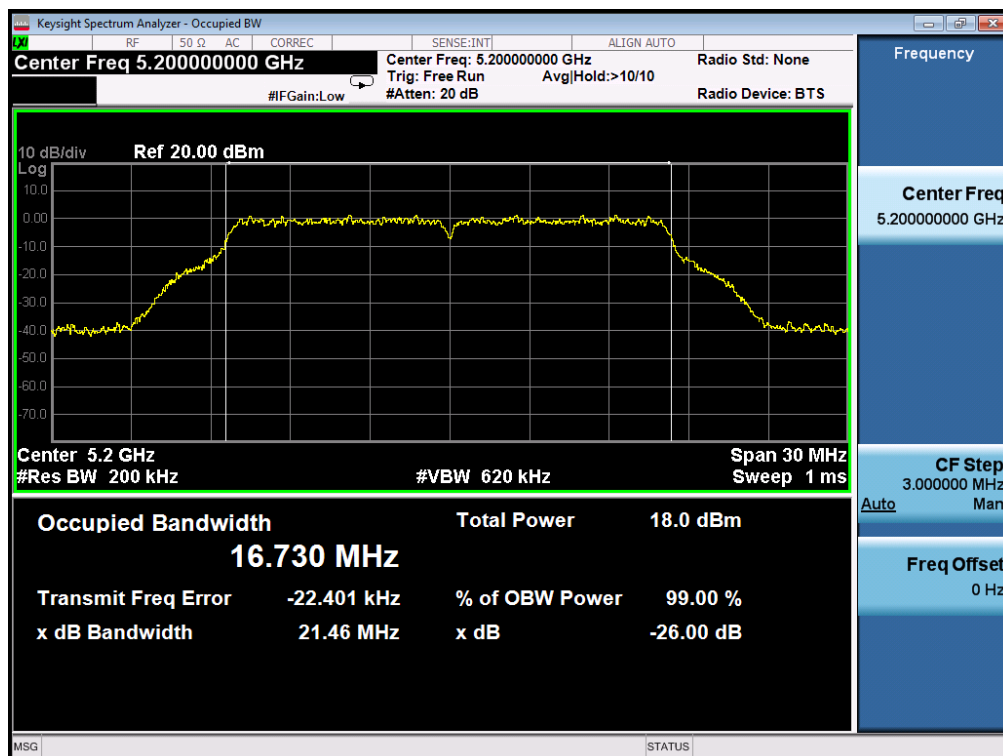
A 26-dB bandwidth that straddles into U-NII 2A band but its 99% occupied power bandwidth does not. If DFS is required, the device must be able to detect radar signal within its 99% occupied power bandwidth. For this rare case, DFS requirement does not apply.

802.11a20 TEST RESULT

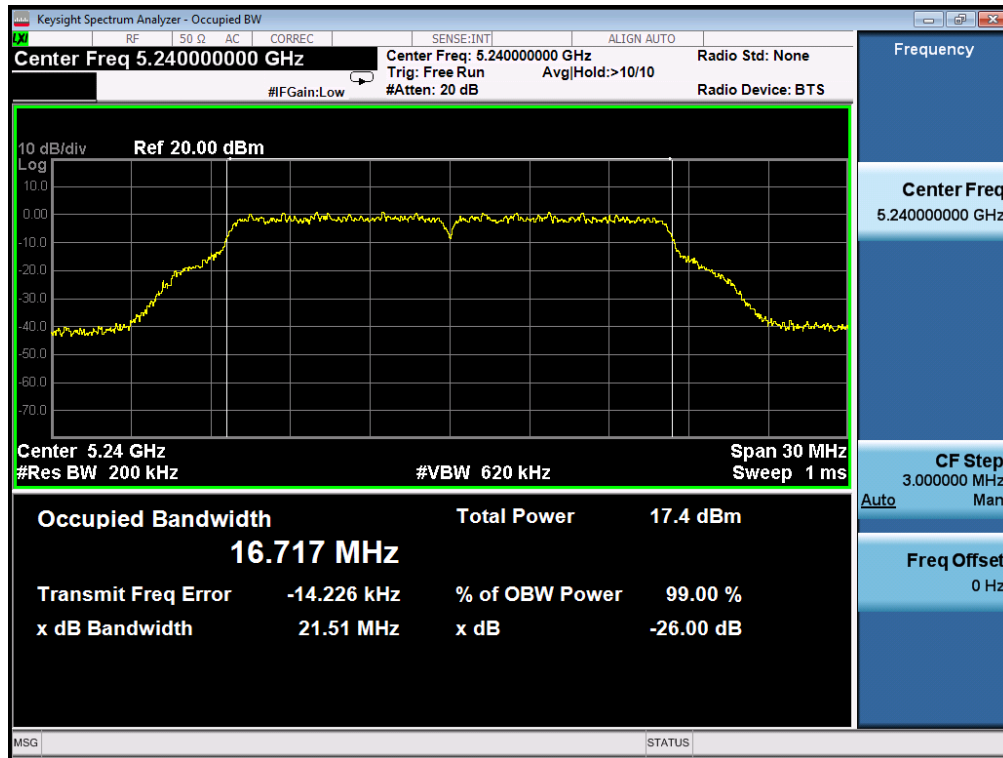
TEST PLOT OF BANDWIDTH FOR 5180MHz



TEST PLOT OF BANDWIDTH FOR 5200MHz

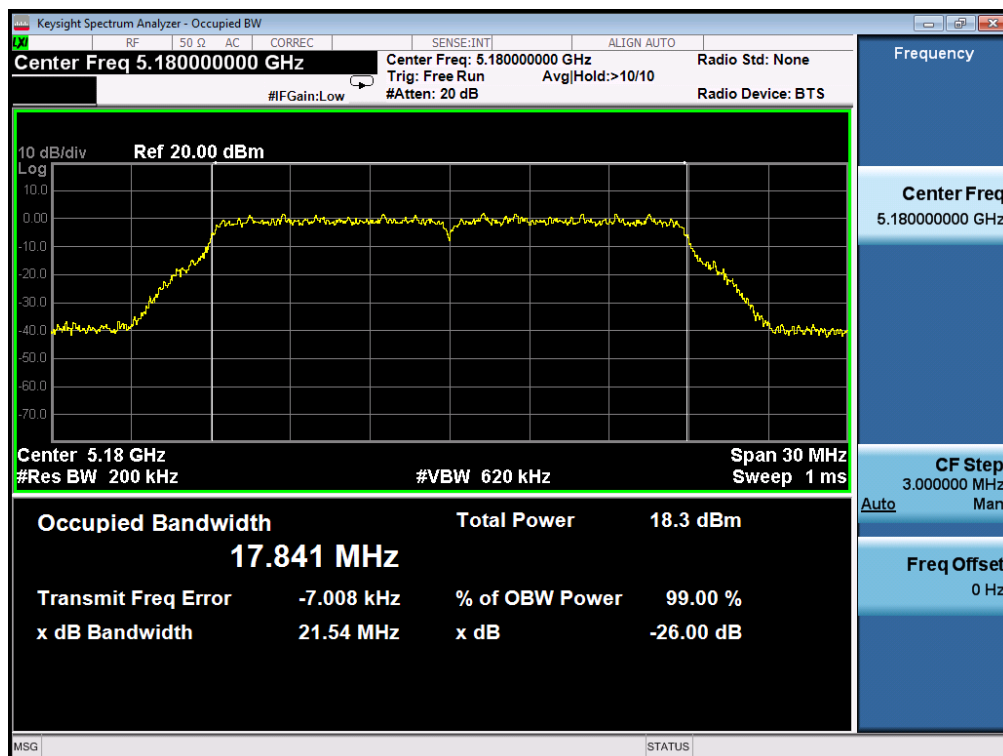


TEST PLOT OF BANDWIDTH FOR 5240MHz

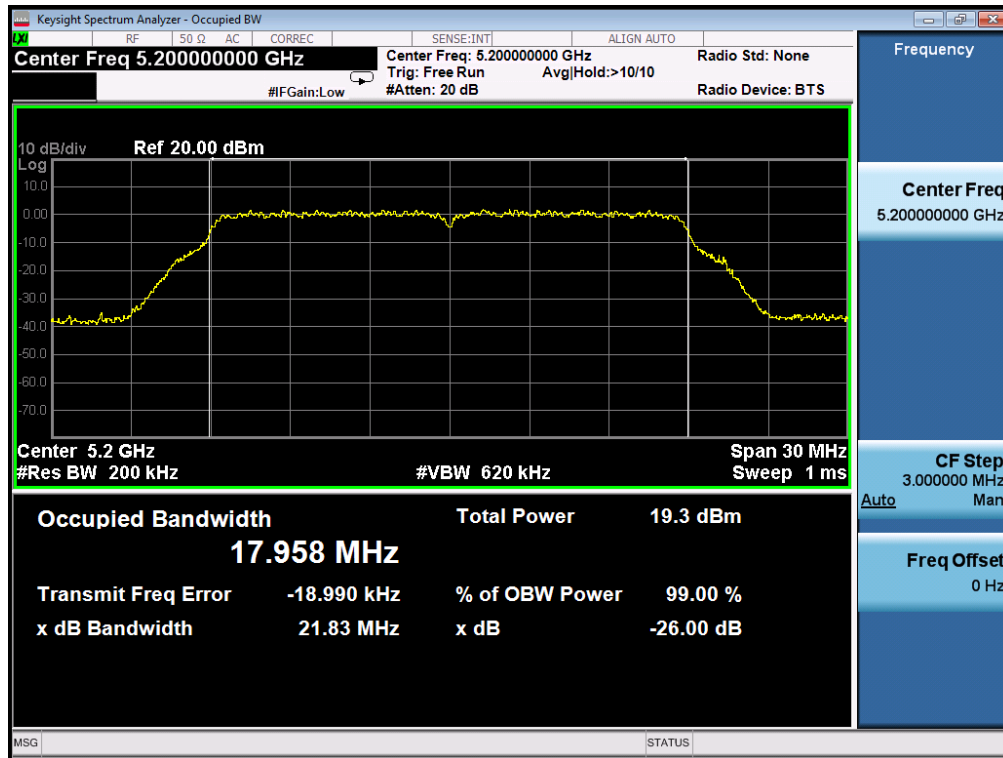


802.11n20 TEST RESULT

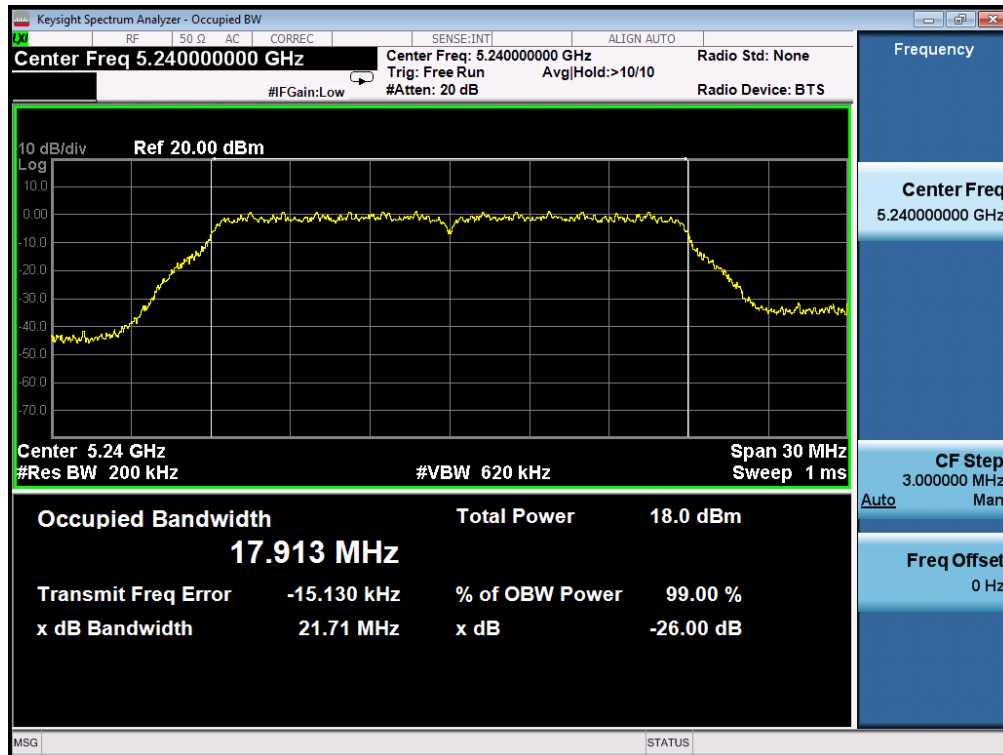
TEST PLOT OF BANDWIDTH FOR 5180MHz



TEST PLOT OF BANDWIDTH FOR 5200MHz

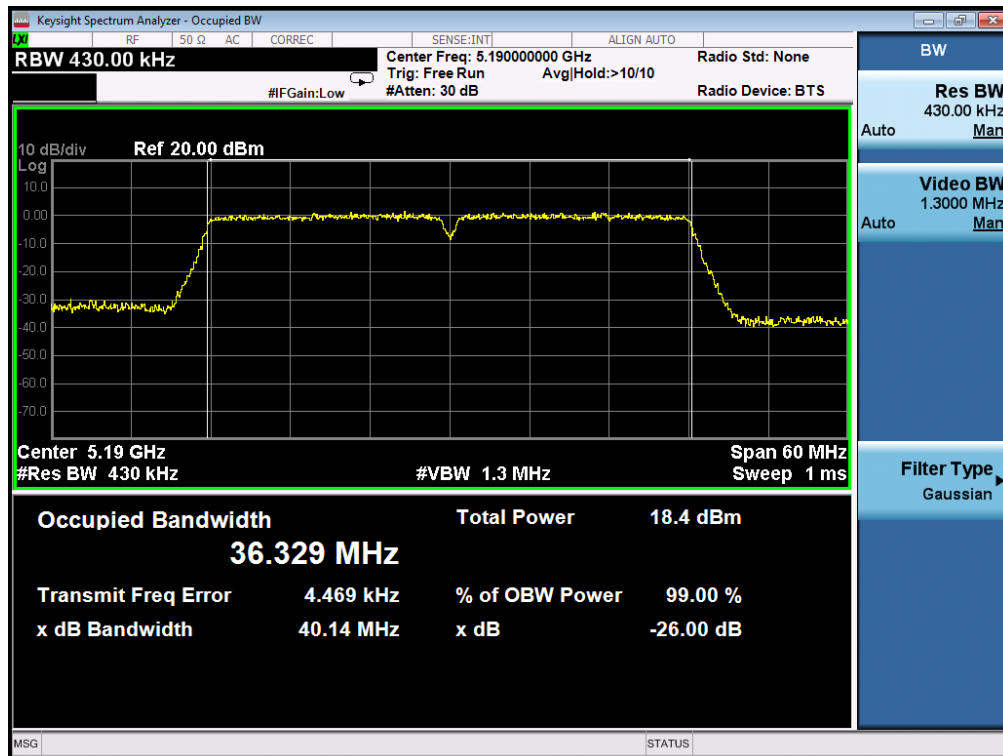


TEST PLOT OF BANDWIDTH FOR 5240MHz



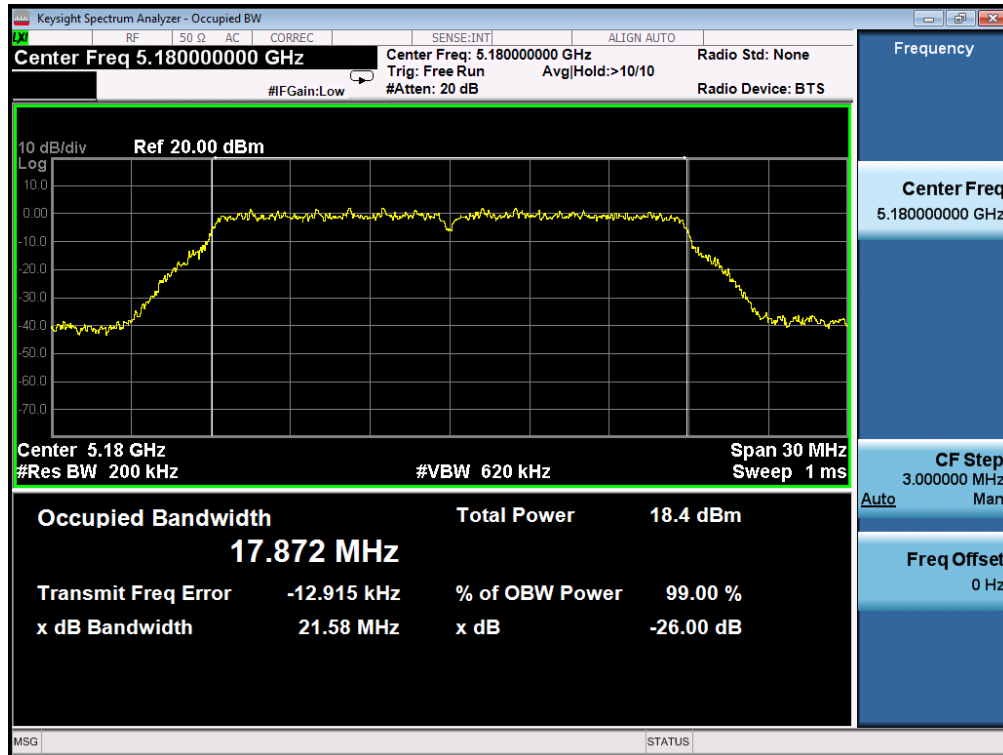
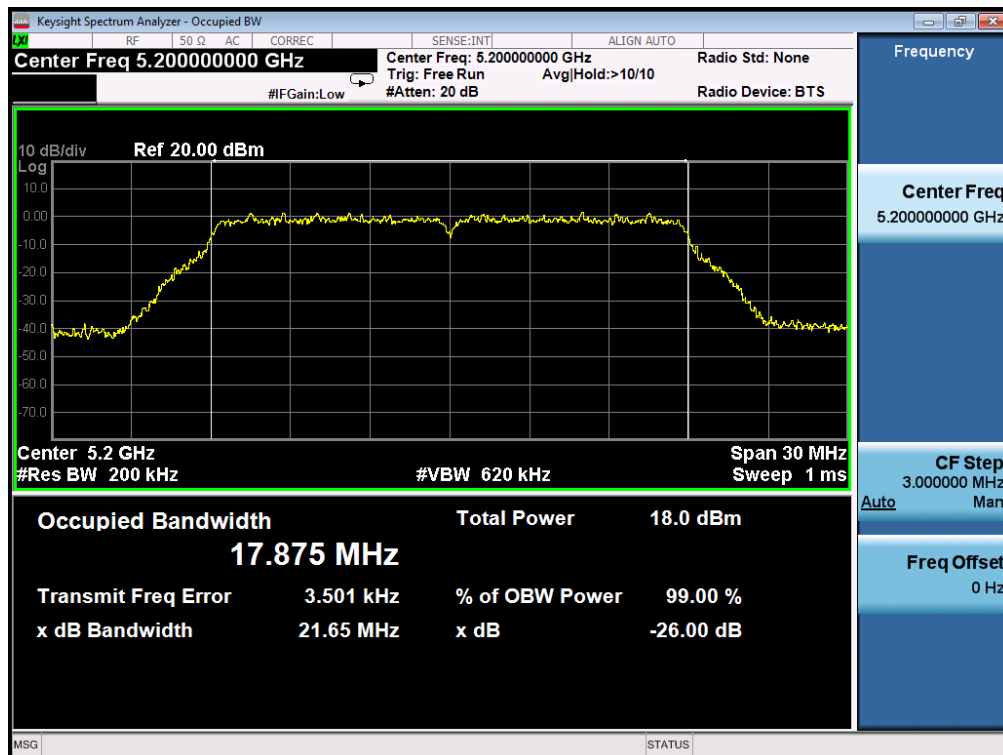
802.11n40 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5190MHz

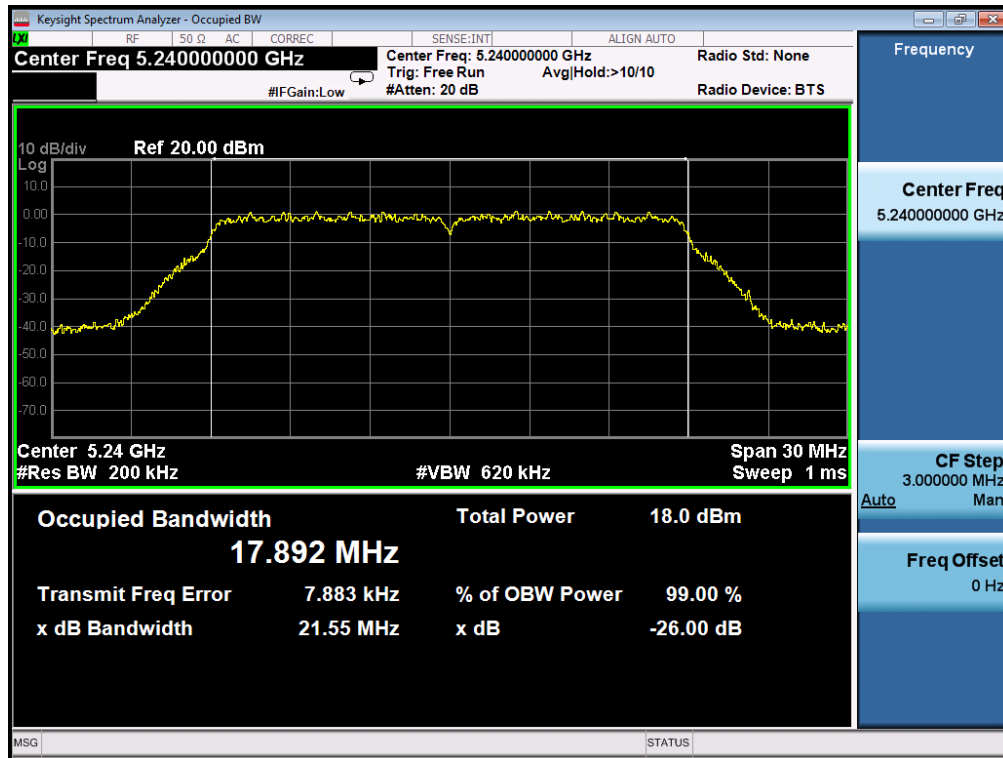


TEST PLOT OF BANDWIDTH FOR 5230MHz



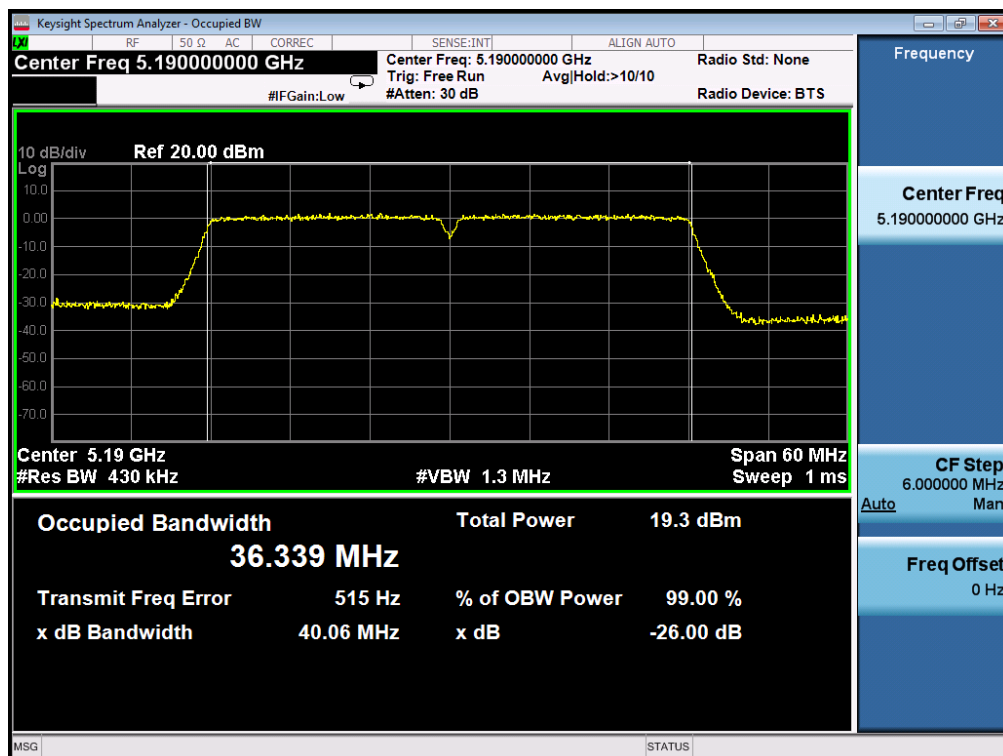
802.11ac20 TEST RESULT**TEST PLOT OF BANDWIDTH FOR 5180MHz****TEST PLOT OF BANDWIDTH FOR 5200MHz**

TEST PLOT OF BANDWIDTH FOR 5240MHz

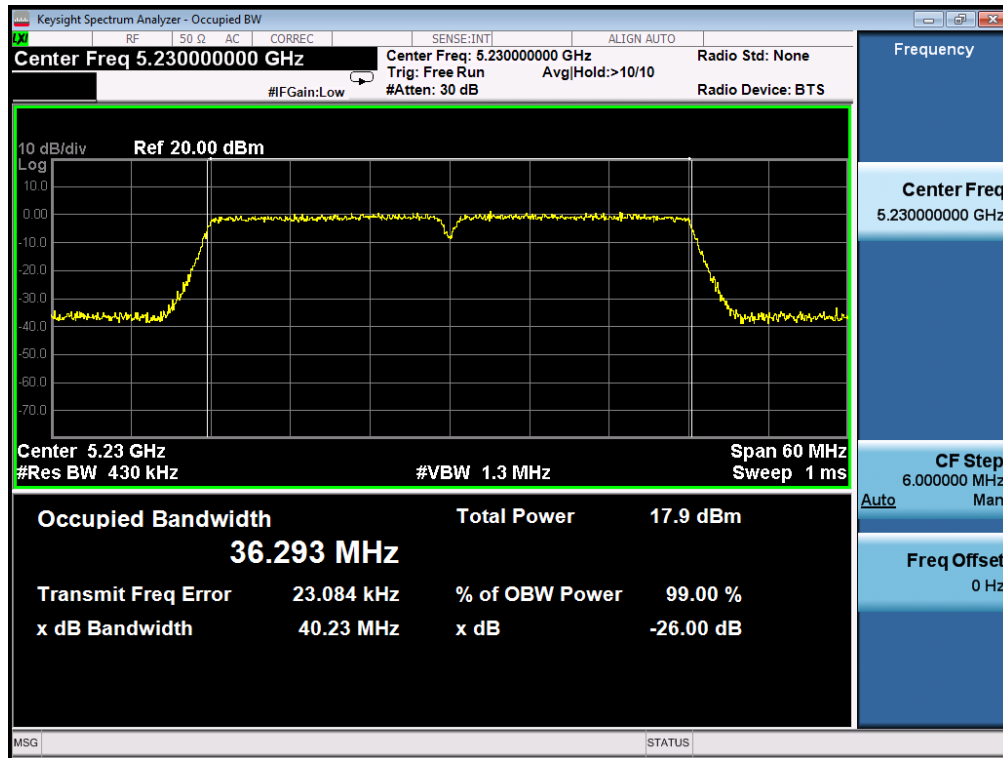


802.11ac40 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5190MHz

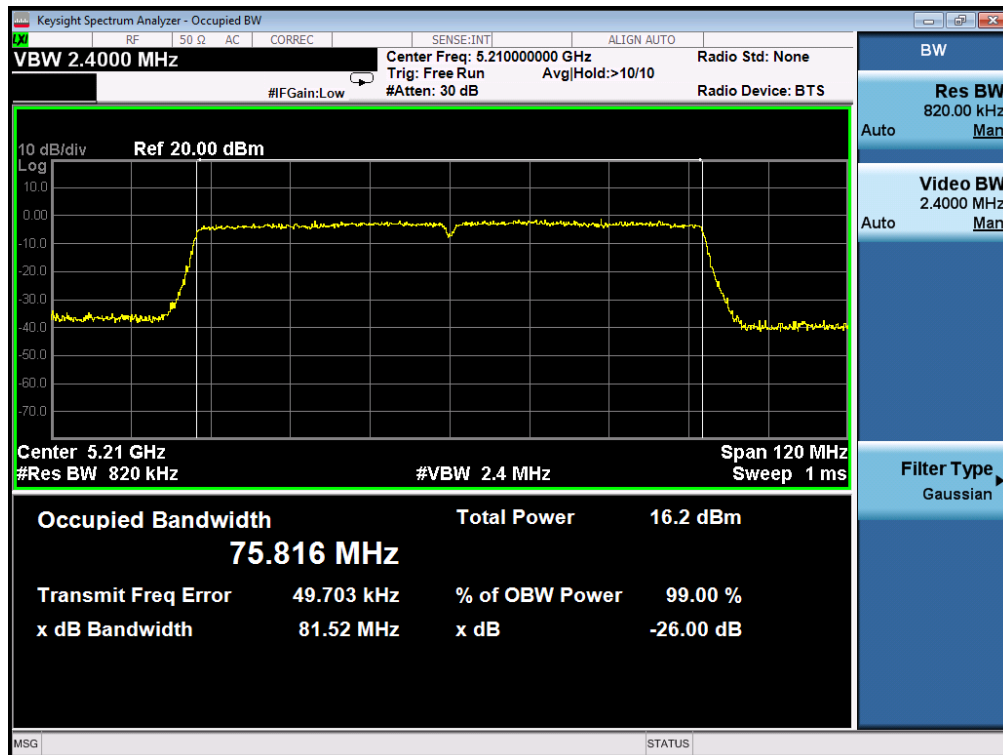


TEST PLOT OF BANDWIDTH FOR 5230MHz



802.11ac80 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5210MHz



7. MAXIMUM CONDUCTED OUTPUT PEAK POWER SPECTRAL DENSITY

7.1 MEASUREMENT PROCEDURE

Refer to KDB 789033 section F

7.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

Refer To Section 8.2.

7.3 MEASUREMENT EQUIPMENT USED

Refer To Section 6.

7.4 LIMITS AND MEASUREMENT RESULT

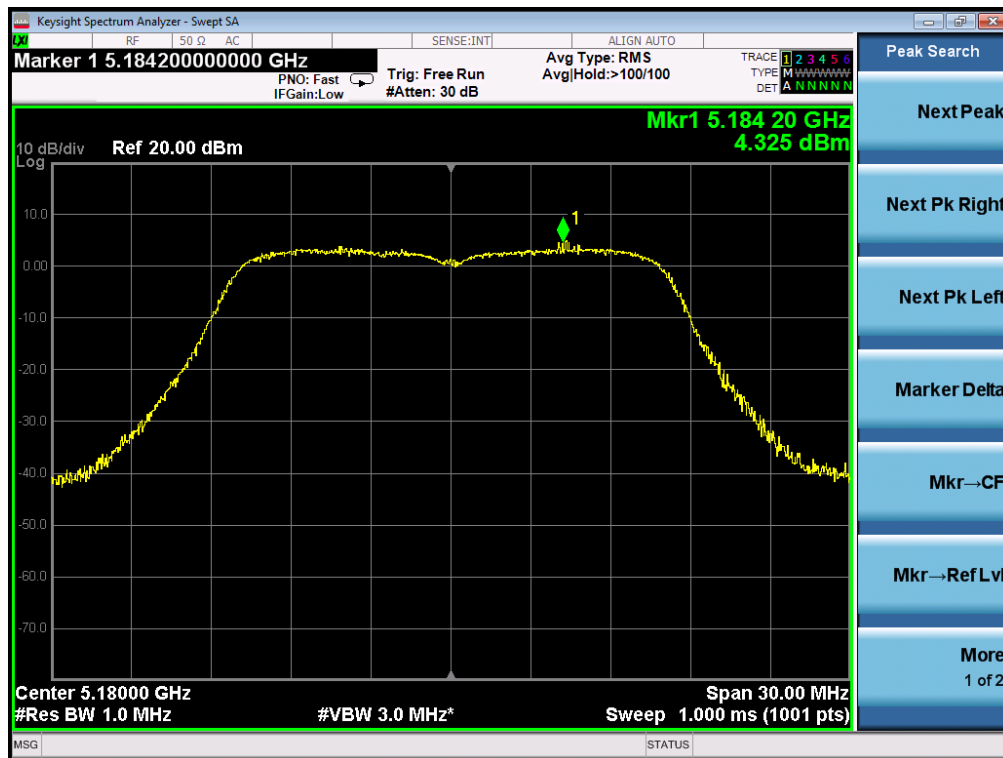
LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION			
Frequency (MHz)	Power density (dBm/MHz)	Applicable Limits (dBm)	Pass or Fail
5180	4.325	11	Pass
5200	4.491	11	Pass
5240	5.060	11	Pass
Frequency (MHz)	Power density (dBm/500kHz)	Applicable Limits (dBm)	Pass or Fail
5745	5.058	30	Pass
5785	3.530	30	Pass
5825	5.057	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11N20/40 MODULATION					
Frequency (MHz)	Power density CHAIN 1 (dBm/MHz)	Power density CHAIN 2 (dBm/MHz)	Power density Total (dBm/MHz)	Applicable Limits (dBm)	Pass or Fail
5180	4.101	3.806	6.966	11	Pass
5200	4.112	4.777	7.468	11	Pass
5240	4.918	5.094	8.017	11	Pass
5190	1.068	1.716	4.414	11	Pass
5230	1.465	2.486	5.016	11	Pass
Frequency (MHz)	Power density CHAIN 1 (dBm/500kHz)	Power density CHAIN 2 (dBm/500kHz)	Power density Total (dBm/500kHz)	Applicable Limits (dBm)	Pass or Fail
5745	4.534	4.535	7.545	30	Pass
5785	3.937	3.724	6.842	30	Pass
5825	4.823	4.662	7.754	30	Pass
5755	1.342	1.233	4.298	30	Pass
5795	0.667	0.640	3.664	30	Pass

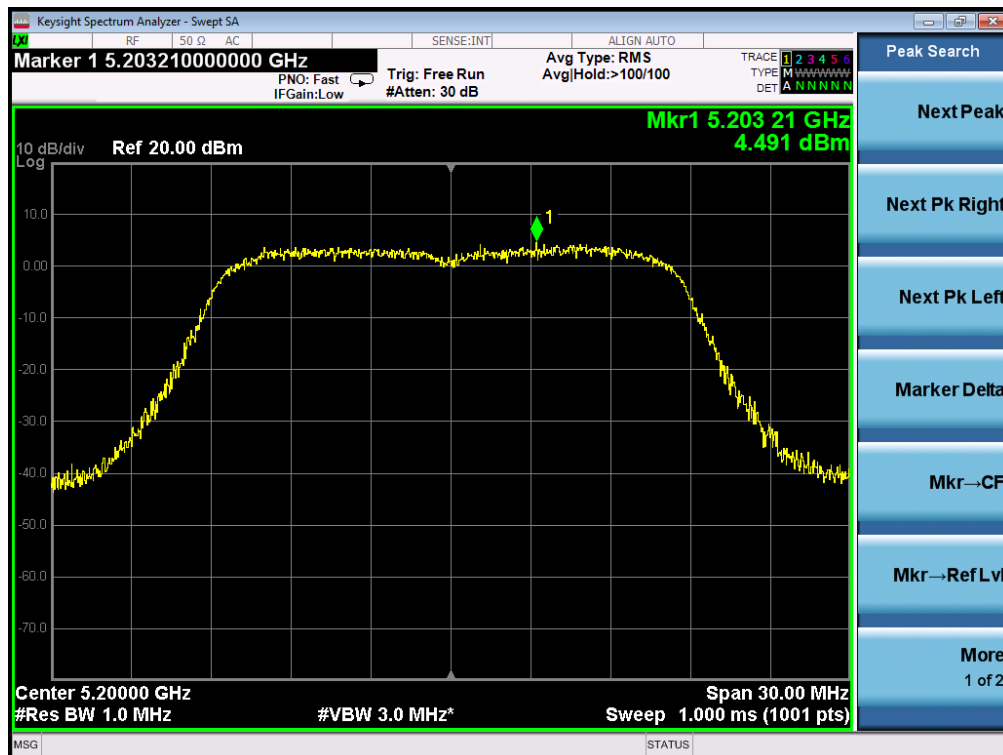
LIMITS AND MEASUREMENT RESULT FOR 802.11AC20/40/80 MODULATION					
Frequency (MHz)	Power density CHAIN 1 (dBm/MHz)	Power density CHAIN 2 (dBm/MHz)	Power density Total (dBm/MHz)	Applicable Limits (dBm)	Pass or Fail
5180	4.293	4.123	7.219	11	Pass
5200	4.036	4.361	7.212	11	Pass
5240	4.443	4.626	7.546	11	Pass
5190	1.178	1.289	4.244	11	Pass
5230	1.622	1.463	4.554	11	Pass
5210	-1.168	-0.912	1.972	11	Pass
Frequency (MHz)	Power density CHAIN 1 (dBm/500kHz)	Power density CHAIN 2 (dBm/500kHz)	Power density Total (dBm/500kHz)	Applicable Limits (dBm)	Pass or Fail
5745	4.596	4.360	7.490	30	Pass
5785	3.773	3.654	6.724	30	Pass
5825	4.238	4.376	7.318	30	Pass
5755	1.202	1.032	4.128	30	Pass
5795	1.097	1.102	4.110	30	Pass
5775	-1.394	-1.421	1.603	30	Pass

802.11a20 TEST RESULT

TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz

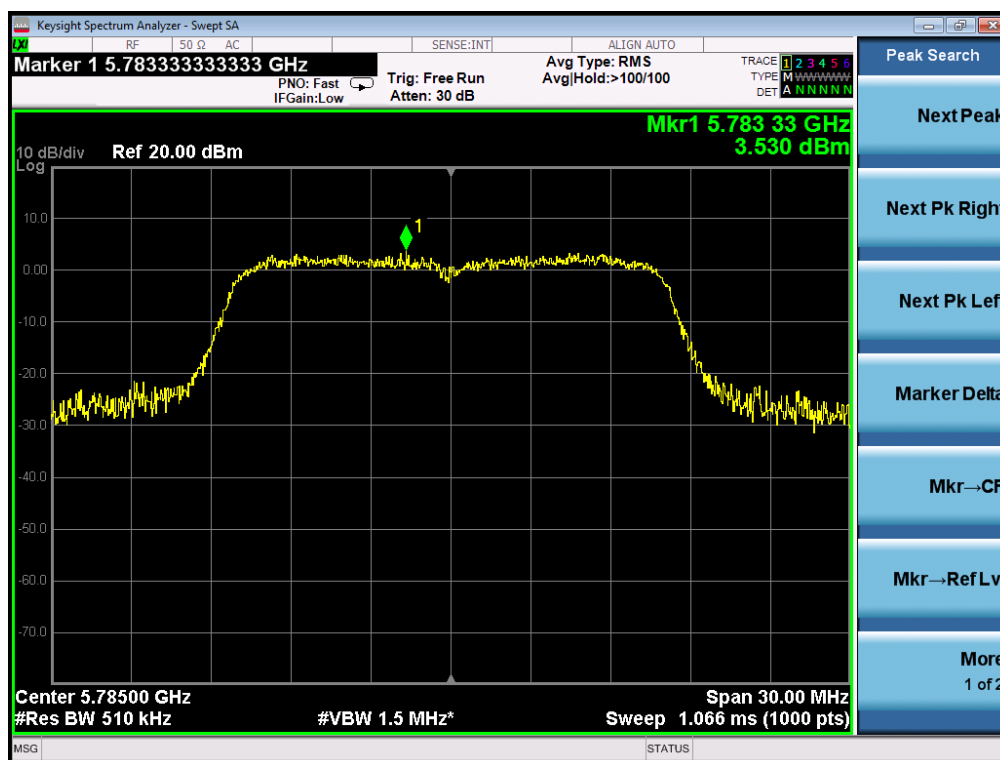


TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz





TEST PLOT OF SPECTRAL DENSITY FOR 5785MHz



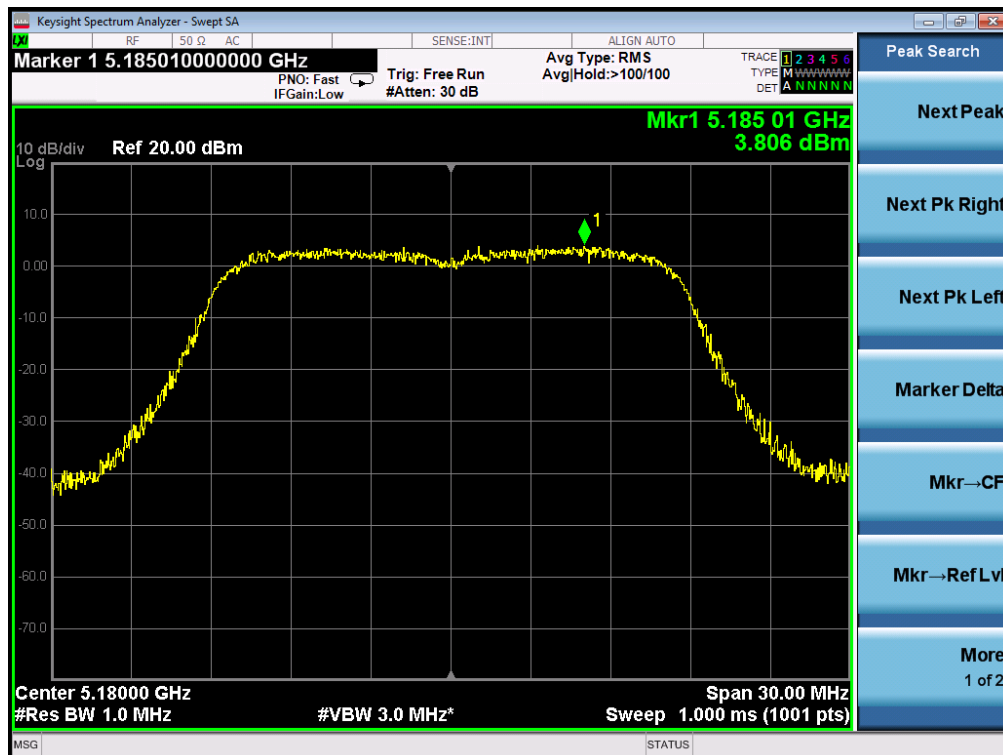
TEST PLOT OF SPECTRAL DENSITY FOR 5825MHz



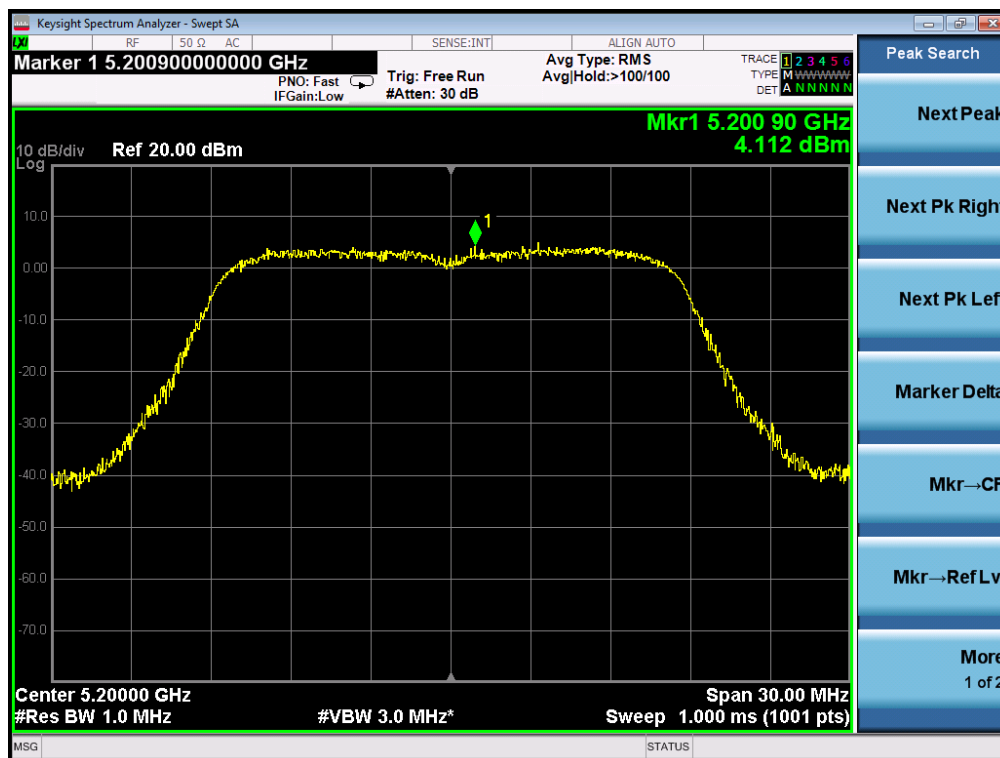
802.11n20 TEST RESULT
TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz AT CHAIN 1



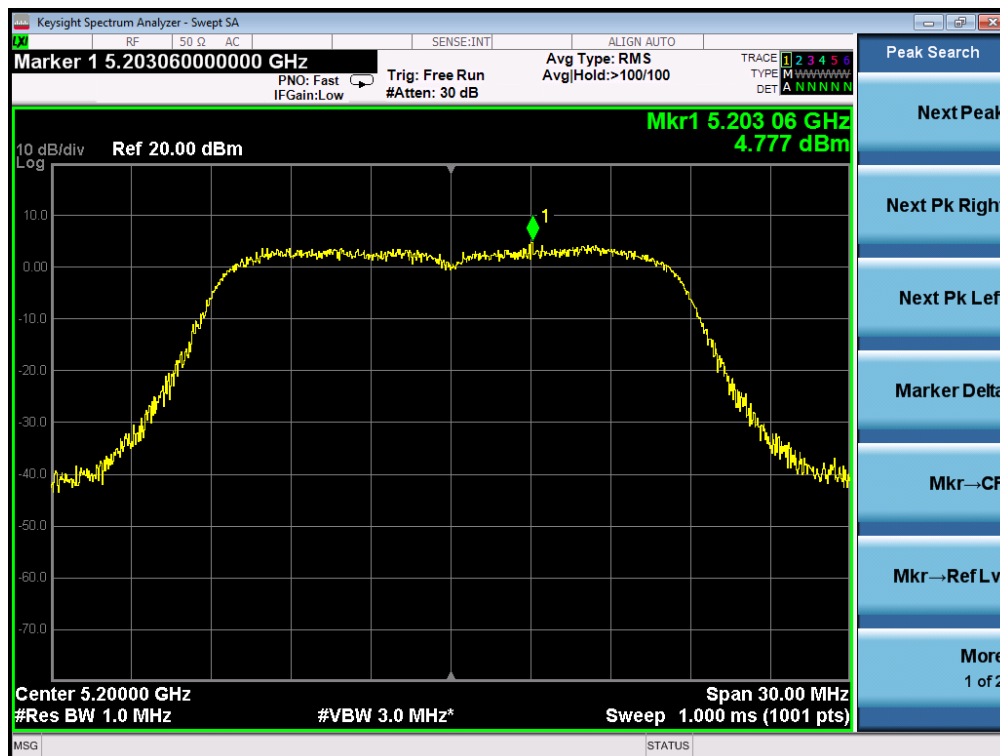
TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz AT CHAIN 2



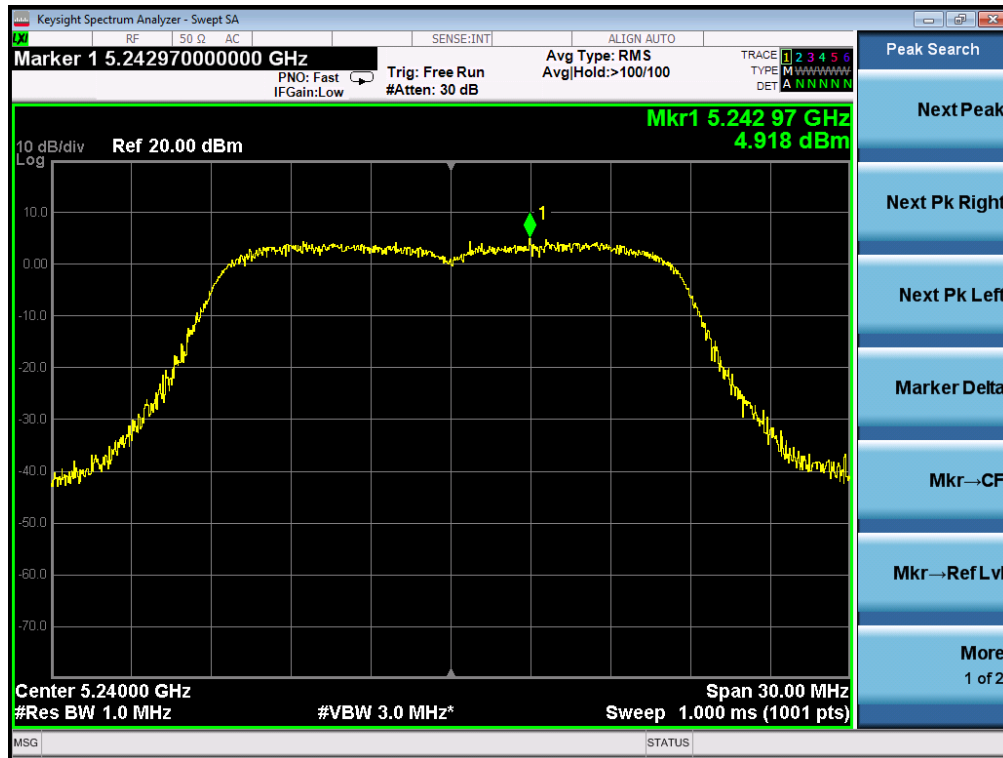
TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz AT CHAIN 1



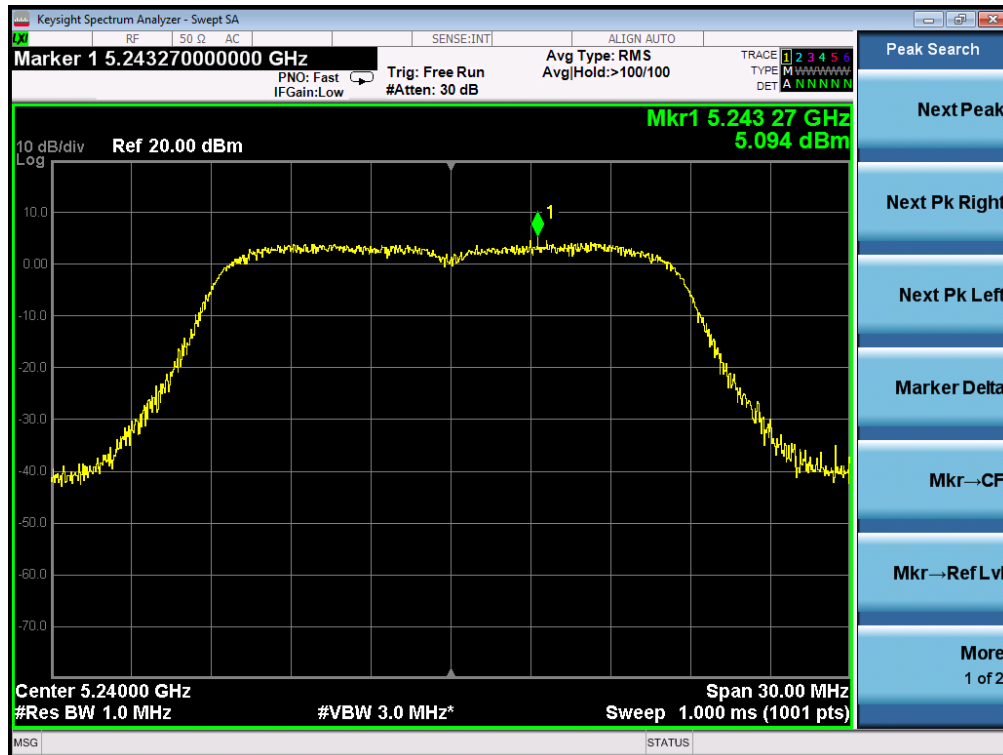
TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz AT CHAIN 2



TEST PLOT OF SPECTRAL DENSITY FOR 5240MHz AT CHAIN 1



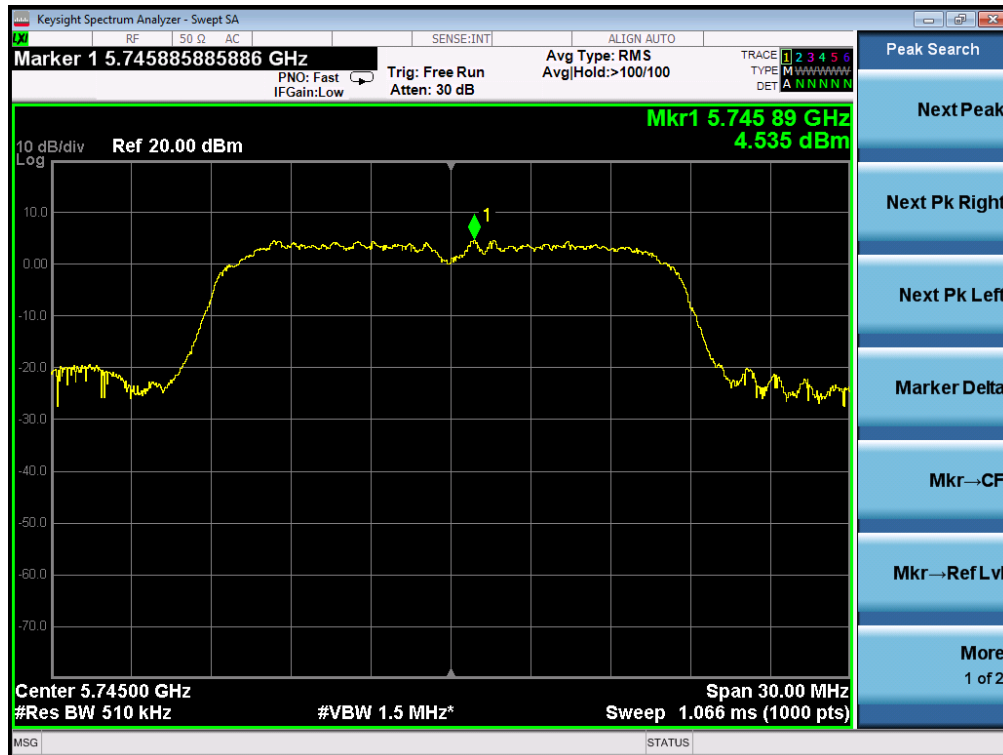
TEST PLOT OF SPECTRAL DENSITY FOR 5240MHz AT CHAIN 2



TEST PLOT OF SPECTRAL DENSITY FOR 5745MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5745MHz AT CHAIN 2



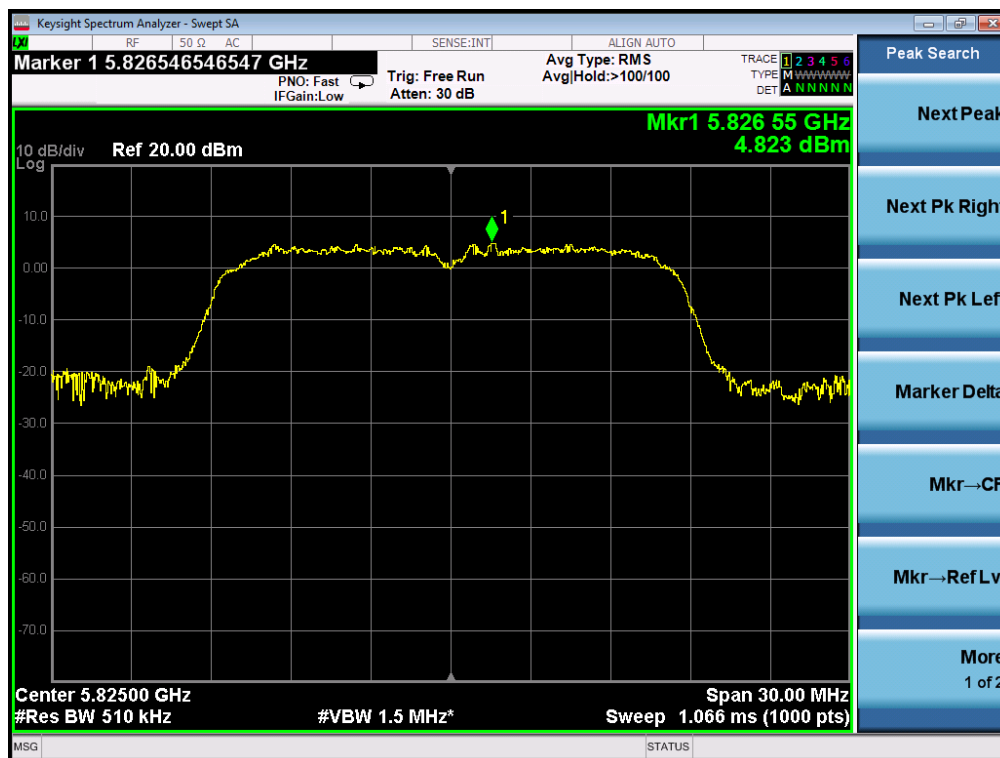
TEST PLOT OF SPECTRAL DENSITY FOR 5785MHz AT CHAIN 1



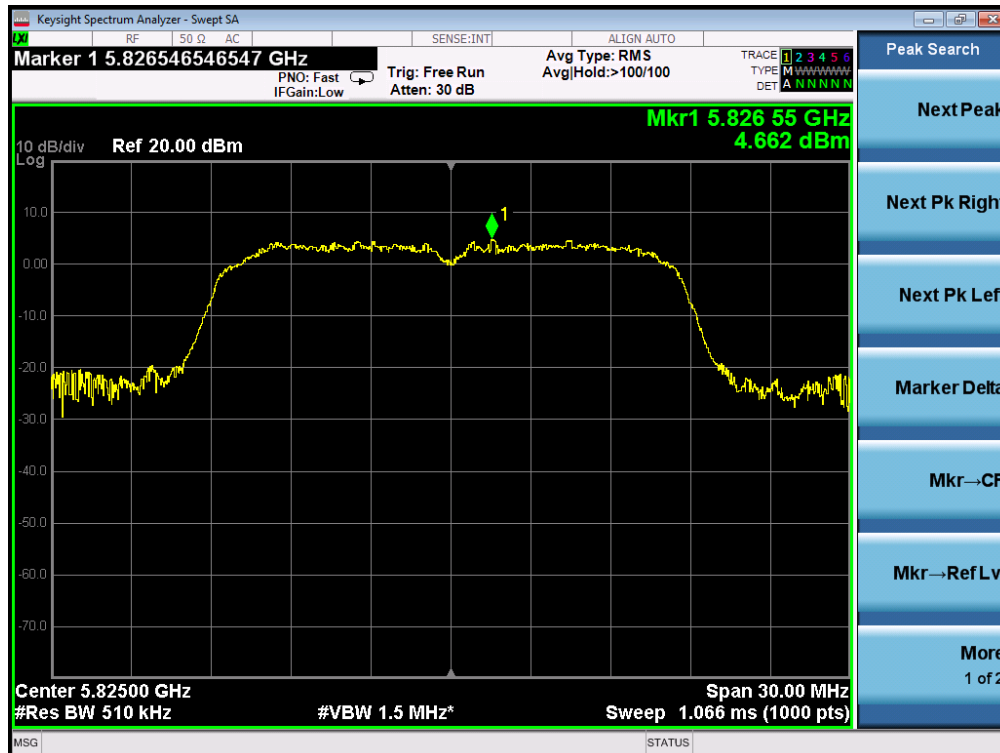
TEST PLOT OF SPECTRAL DENSITY FOR 5785MHz AT CHAIN 2



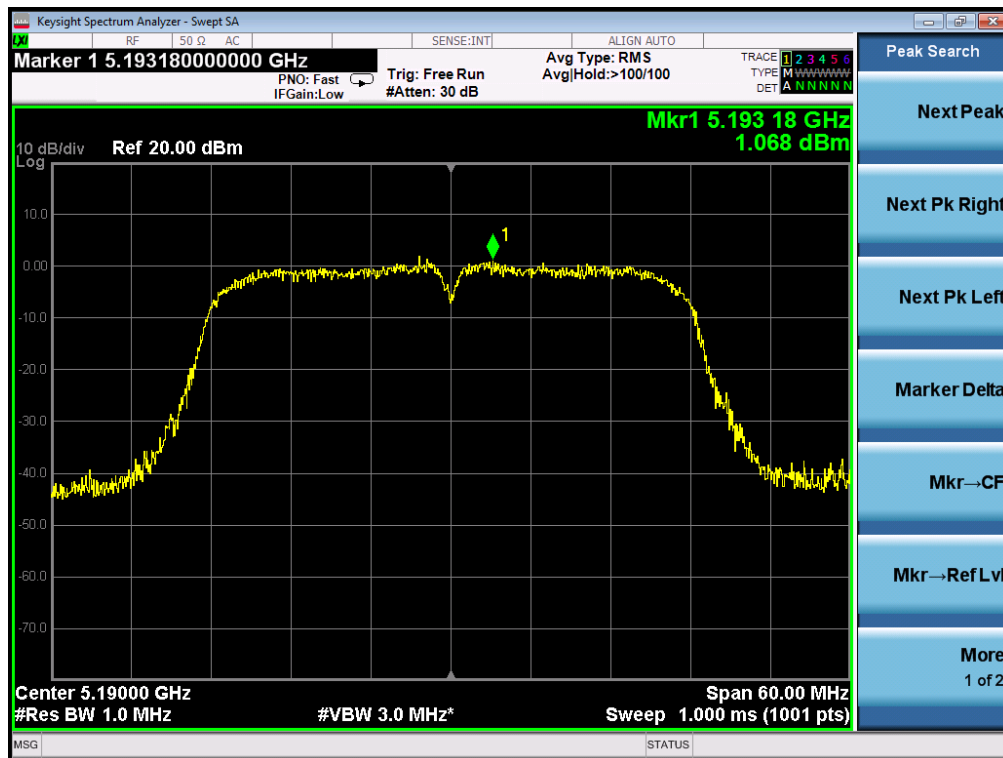
TEST PLOT OF SPECTRAL DENSITY FOR 5825MHz AT CHAIN 1



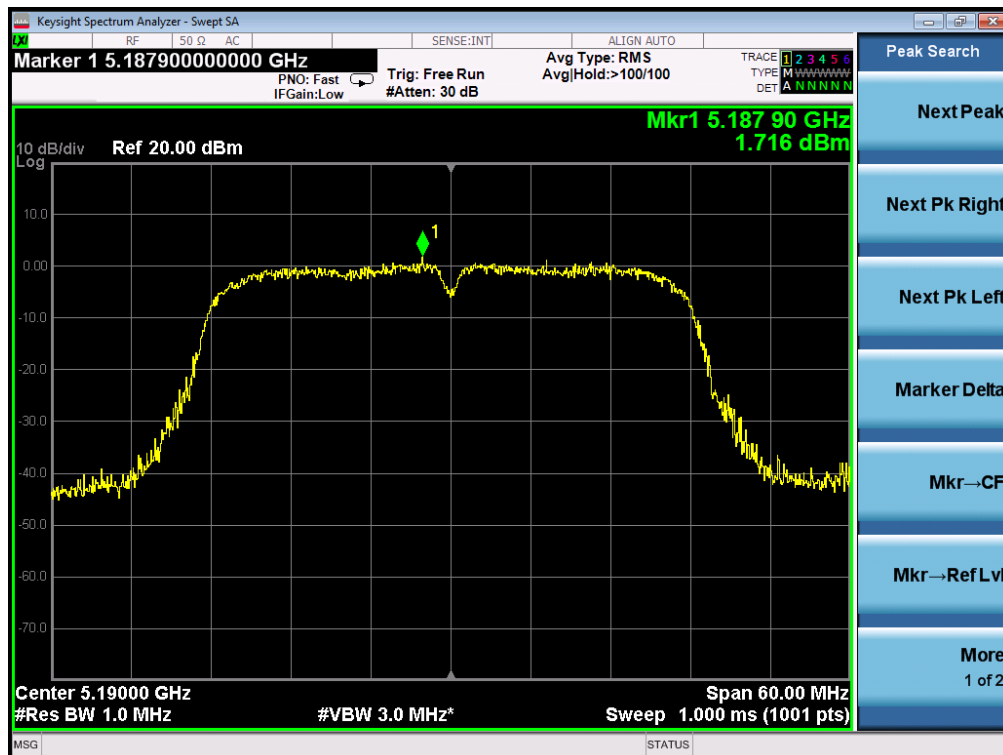
TEST PLOT OF SPECTRAL DENSITY FOR 5825MHz AT CHAIN 2



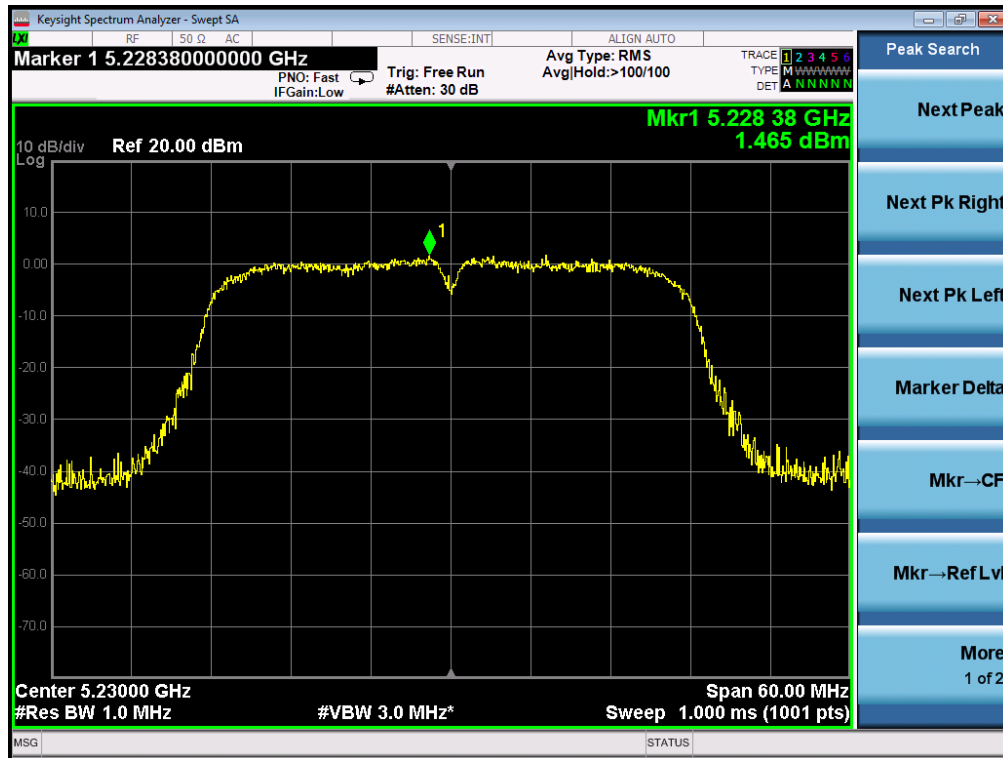
802.11n40 TEST RESULT
TEST PLOT OF SPECTRAL DENSITY FOR 5190MHz AT CHAIN 1



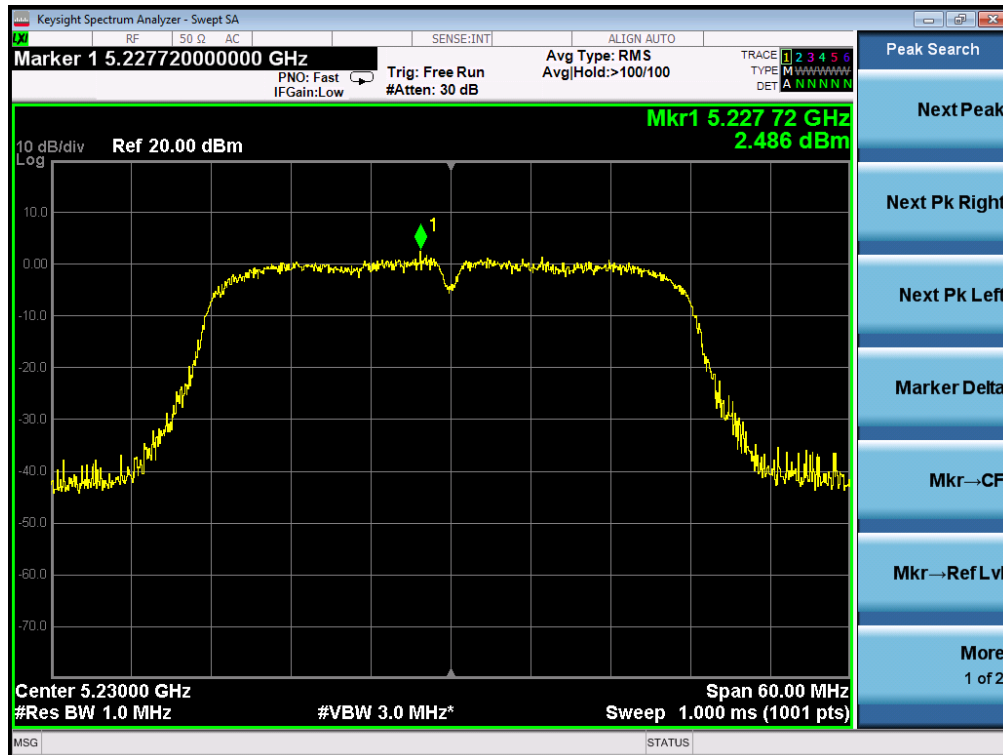
TEST PLOT OF SPECTRAL DENSITY FOR 5190MHz AT CHAIN 2



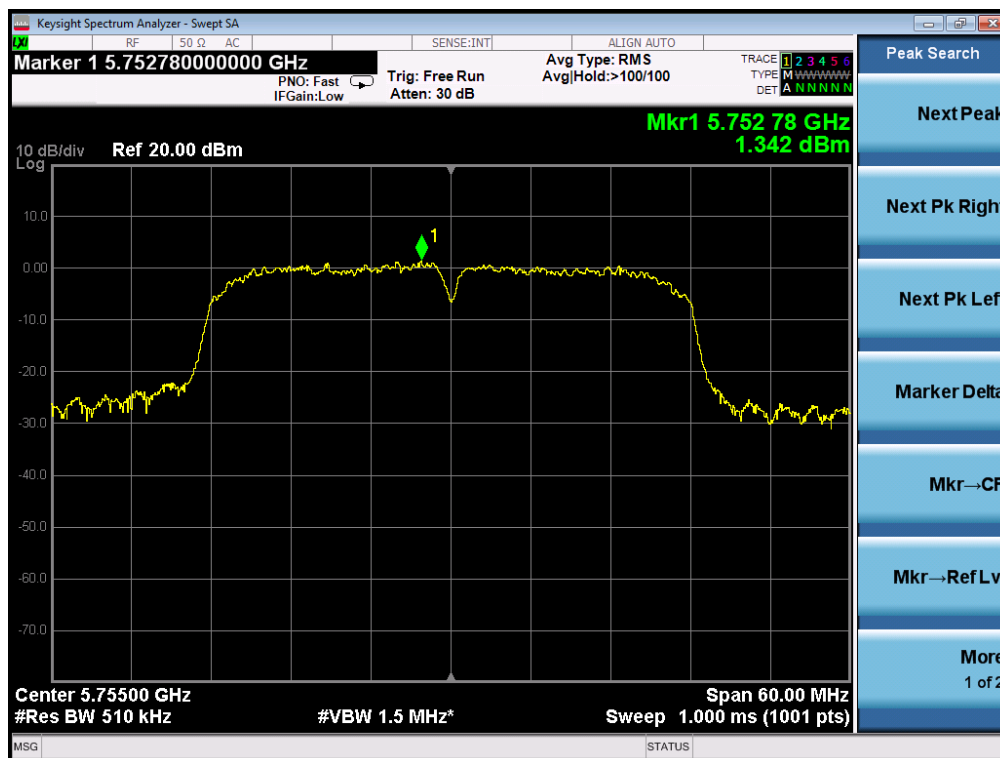
TEST PLOT OF SPECTRAL DENSITY FOR 5230MHz AT CHAIN 1



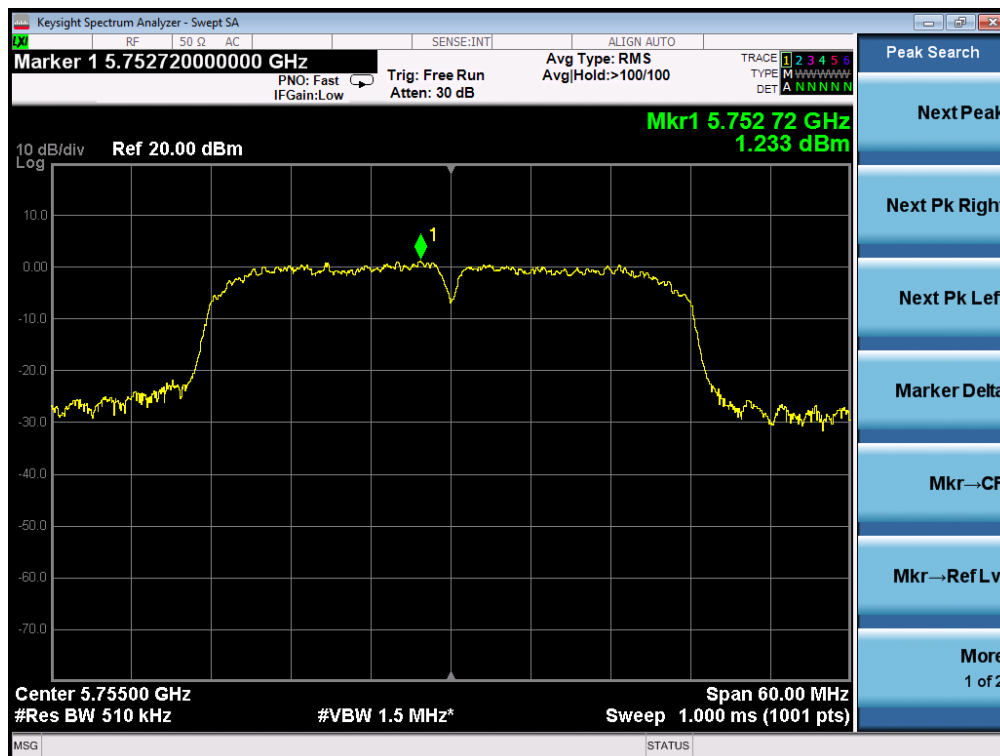
TEST PLOT OF SPECTRAL DENSITY FOR 5230MHz AT CHAIN 2



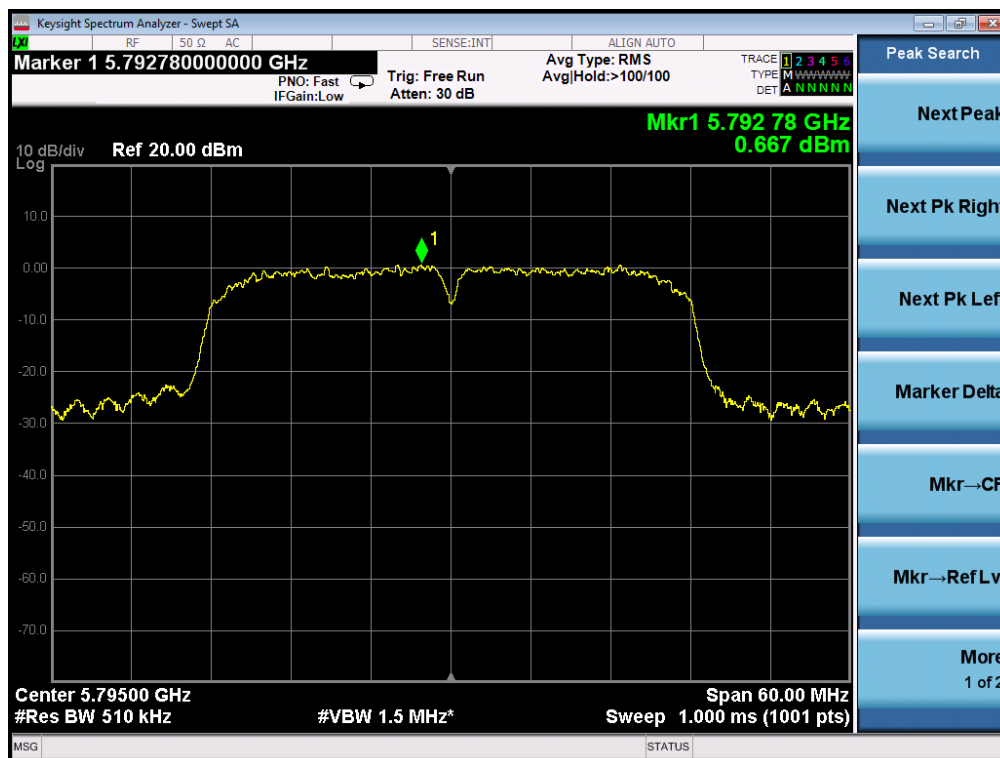
TEST PLOT OF SPECTRAL DENSITY FOR 5755MHz AT CHAIN 1



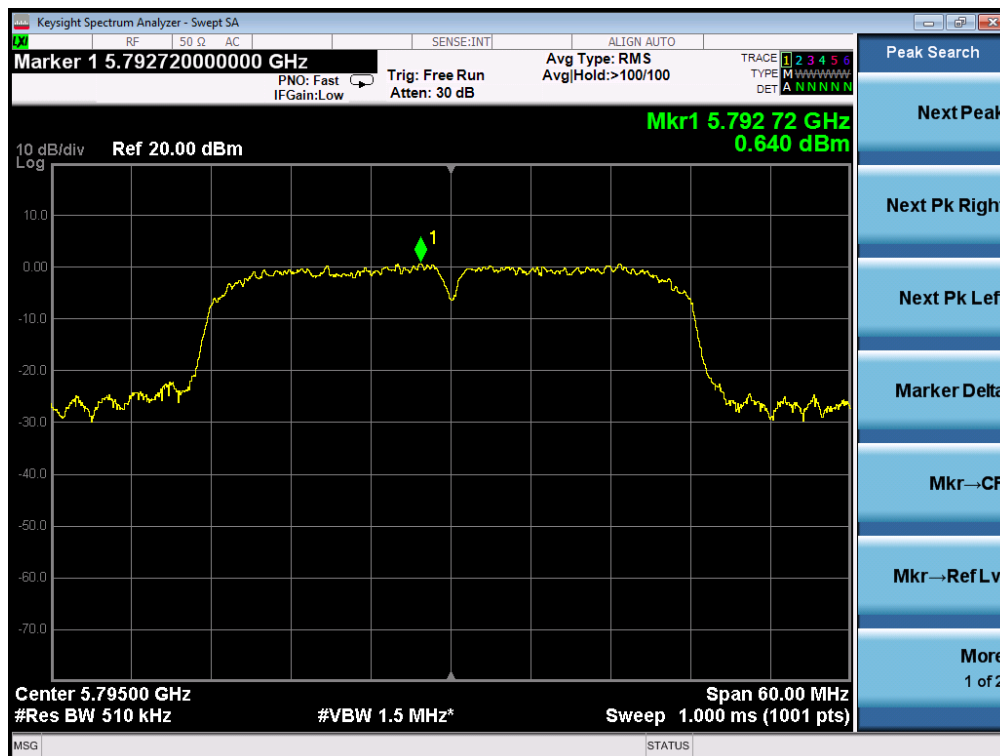
TEST PLOT OF SPECTRAL DENSITY FOR 5755MHz AT CHAIN 2

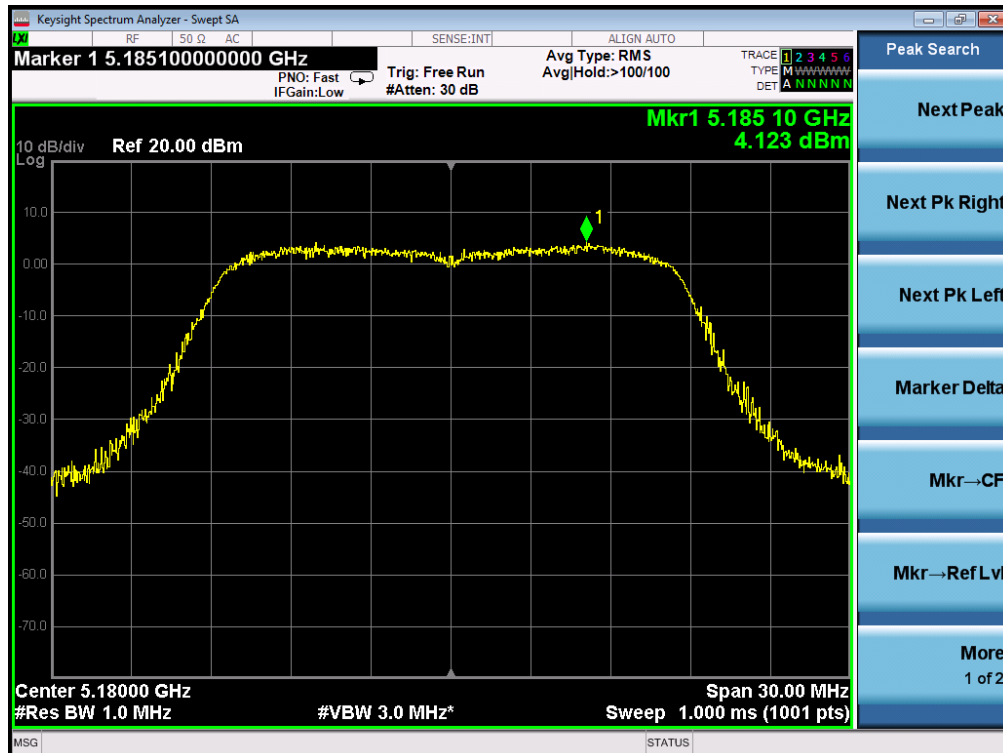


TEST PLOT OF SPECTRAL DENSITY FOR 5795MHz AT CHAIN 1

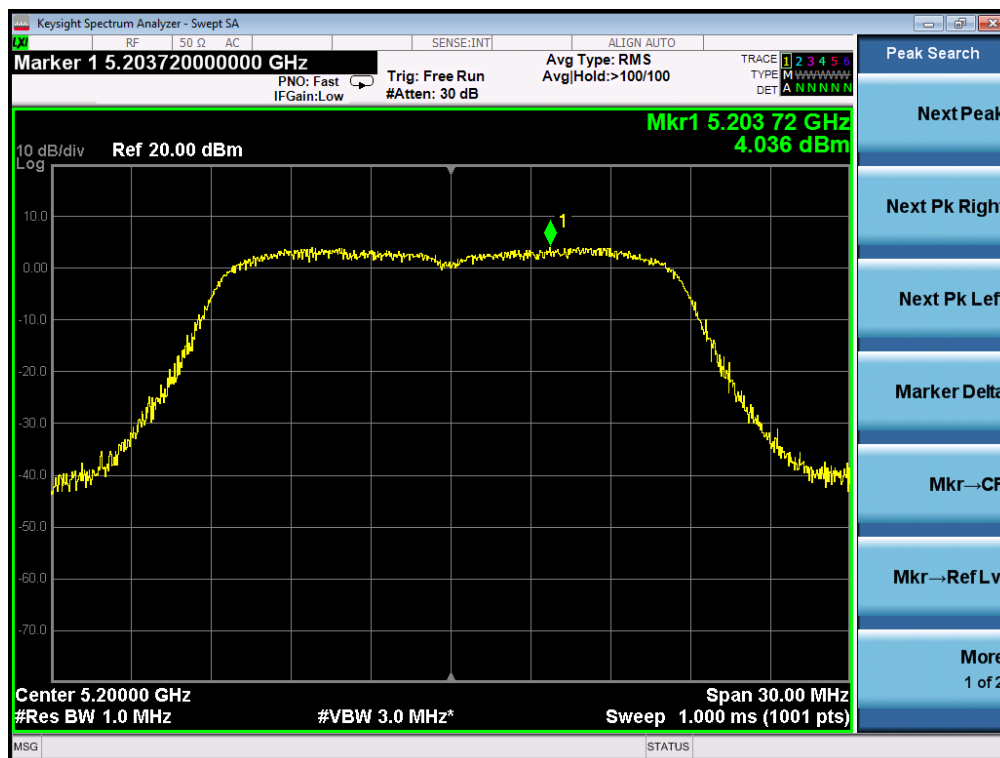


TEST PLOT OF SPECTRAL DENSITY FOR 5795MHz AT CHAIN 2



802.11ac20 TEST RESULT**TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz AT CHAIN 1****TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz AT CHAIN 2**

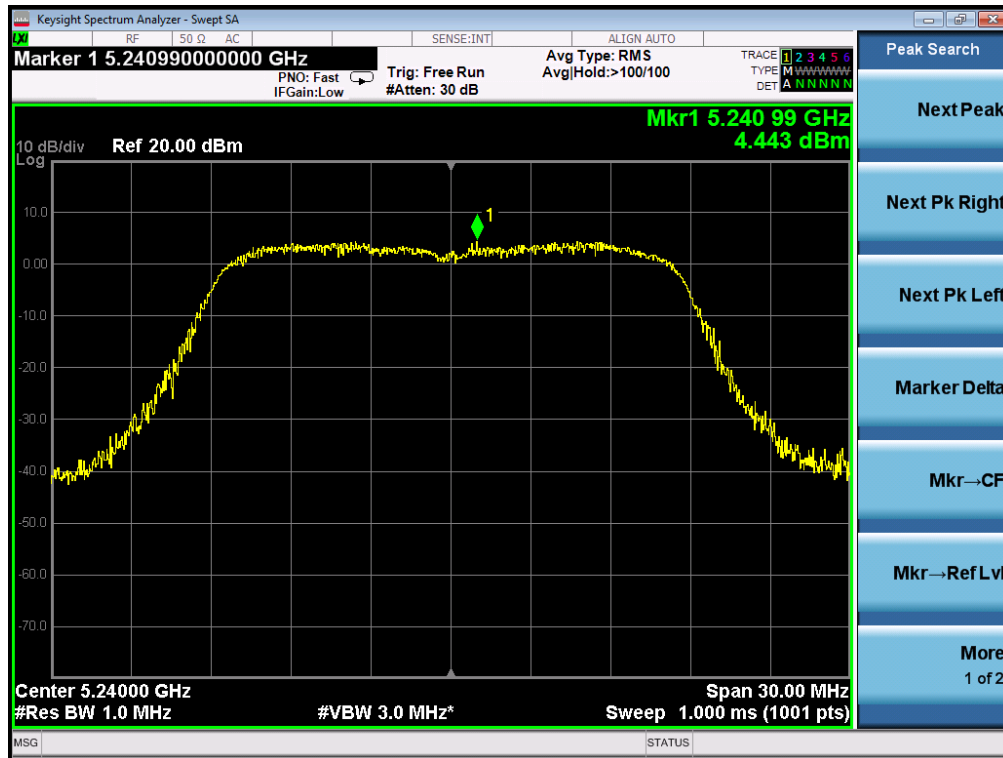
TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz AT CHAIN 1



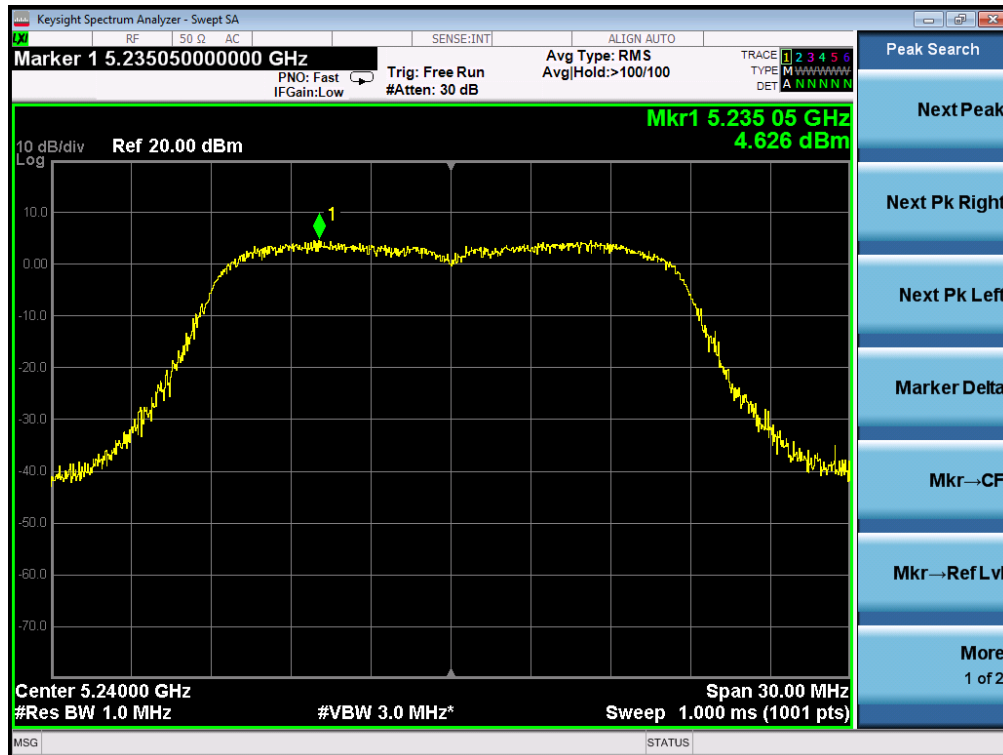
TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz AT CHAIN 2



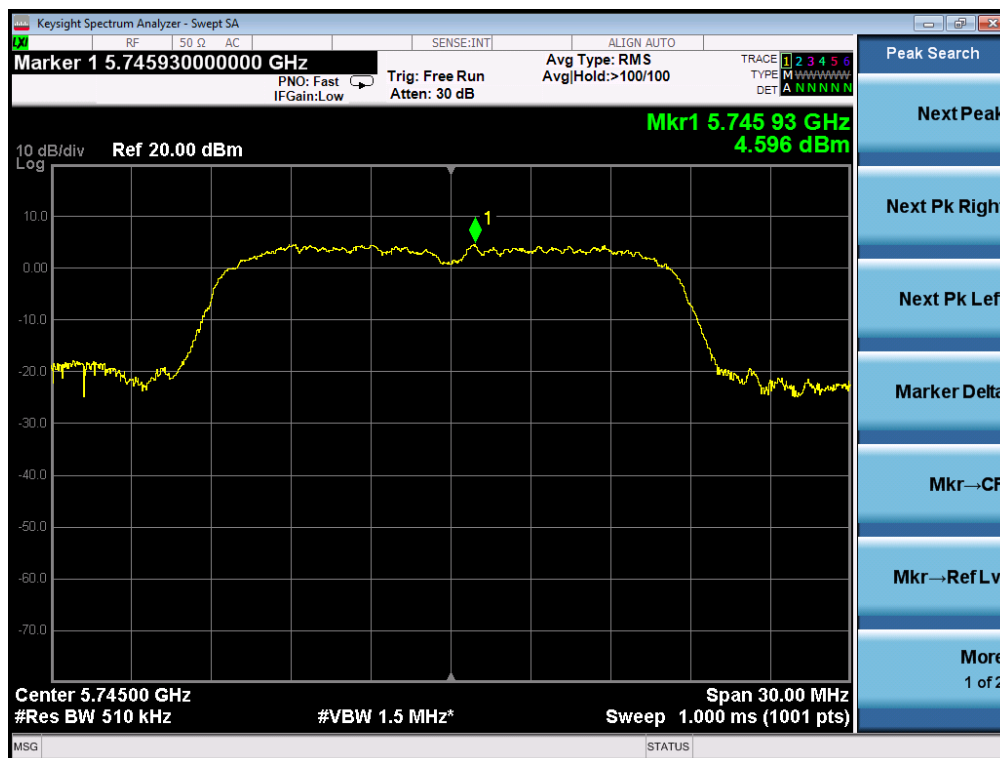
TEST PLOT OF SPECTRAL DENSITY FOR 5240MHz AT CHAIN 1



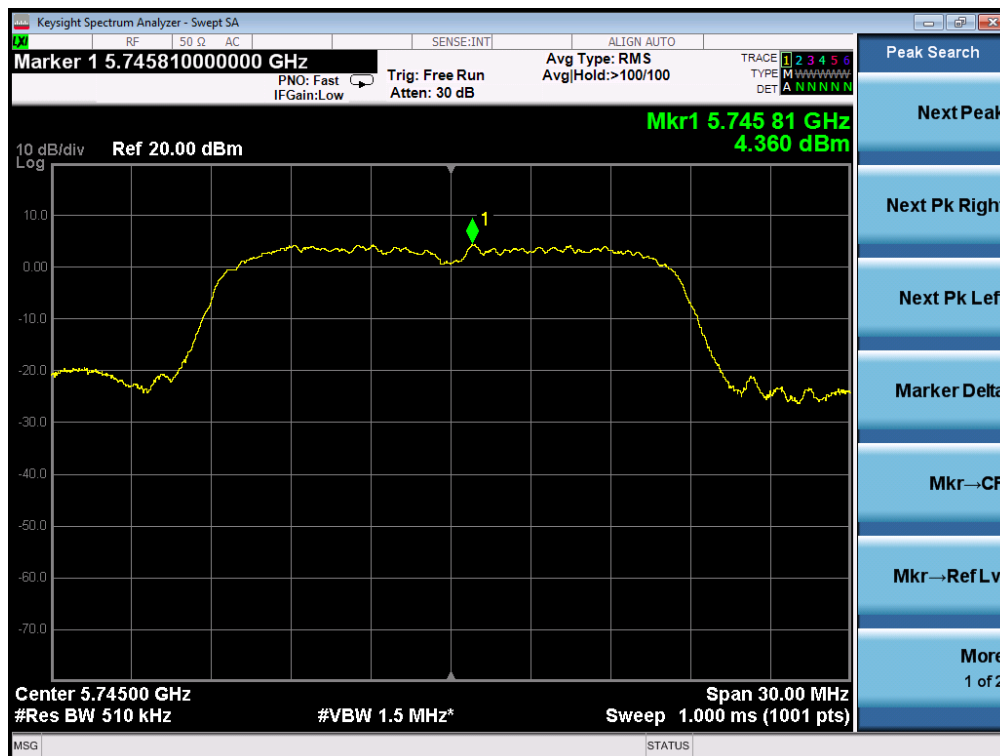
TEST PLOT OF SPECTRAL DENSITY FOR 5240MHz AT CHAIN 2



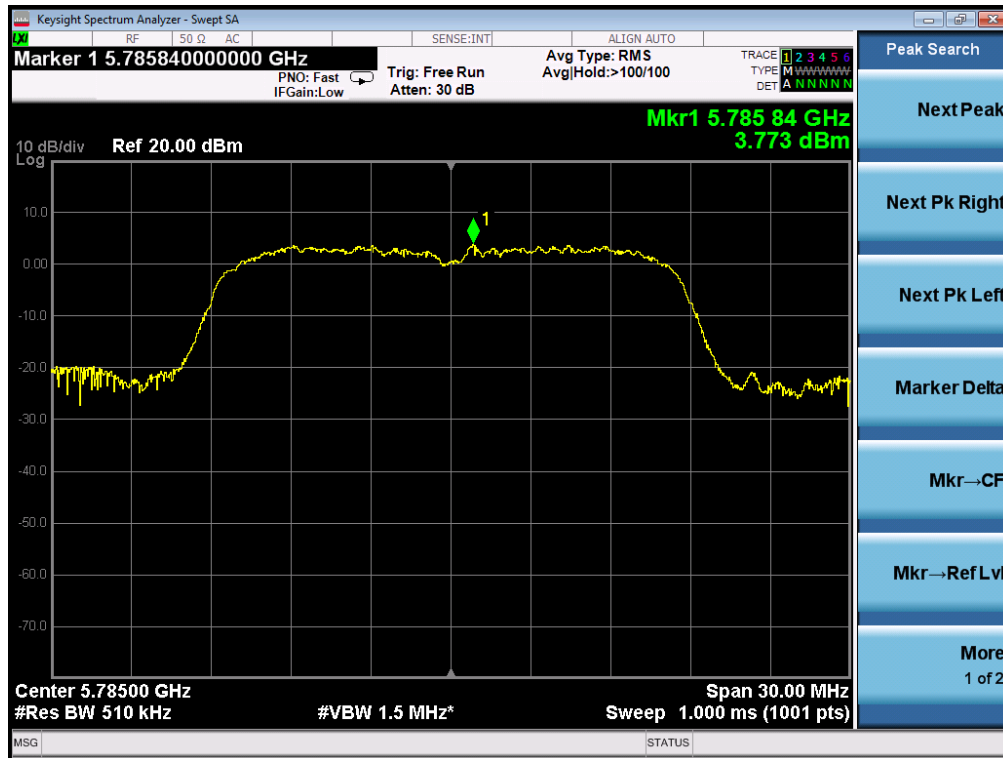
TEST PLOT OF SPECTRAL DENSITY FOR 5745MHz AT CHAIN 1



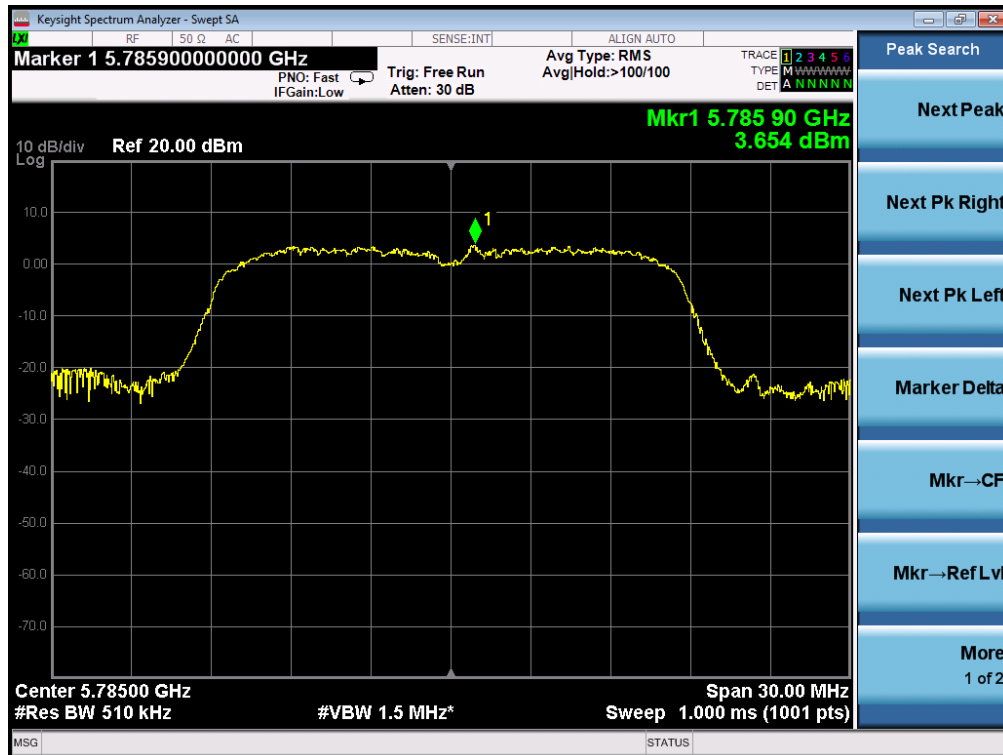
TEST PLOT OF SPECTRAL DENSITY FOR 5745MHz AT CHAIN 2



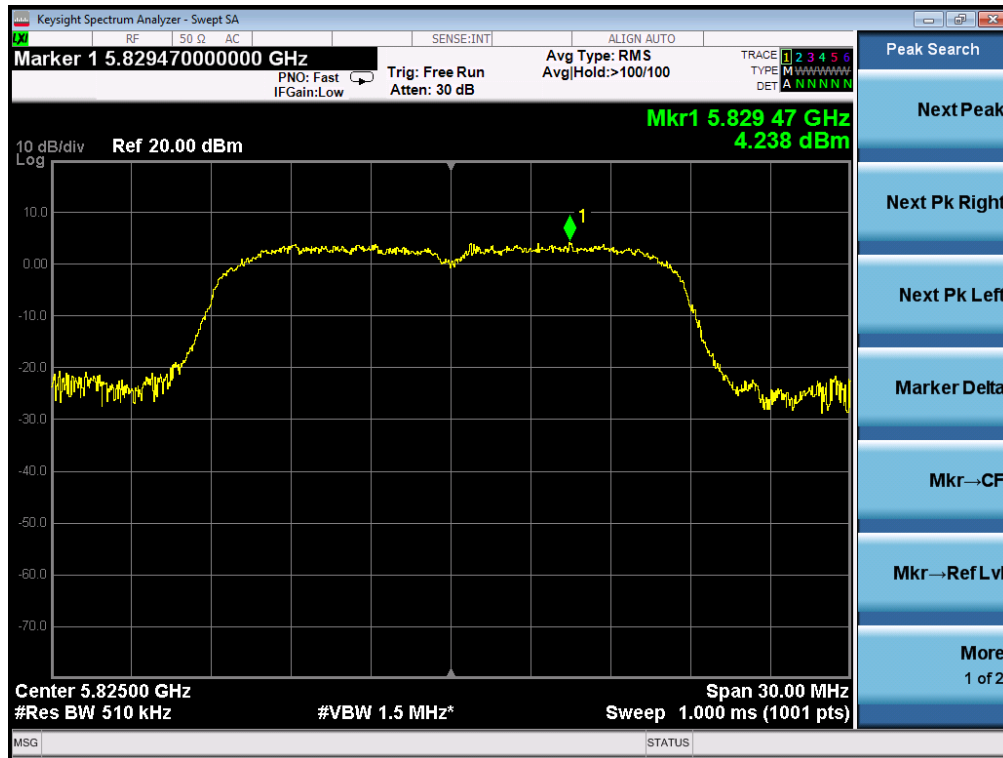
TEST PLOT OF SPECTRAL DENSITY FOR 5785MHz AT CHAIN 1



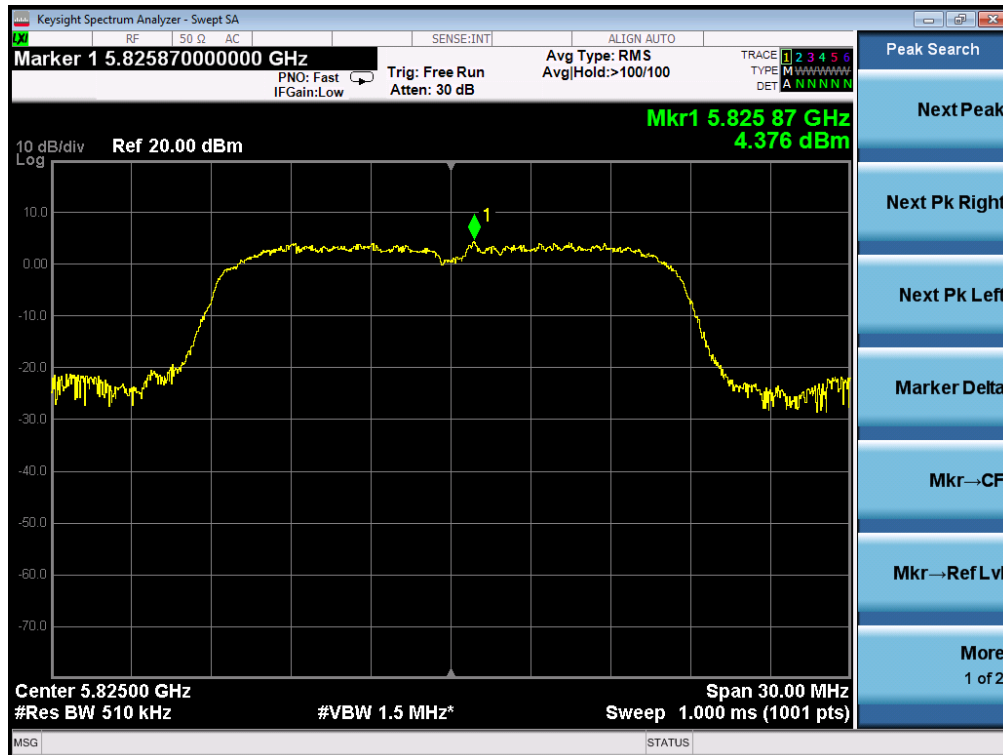
TEST PLOT OF SPECTRAL DENSITY FOR 5785MHz AT CHAIN 2

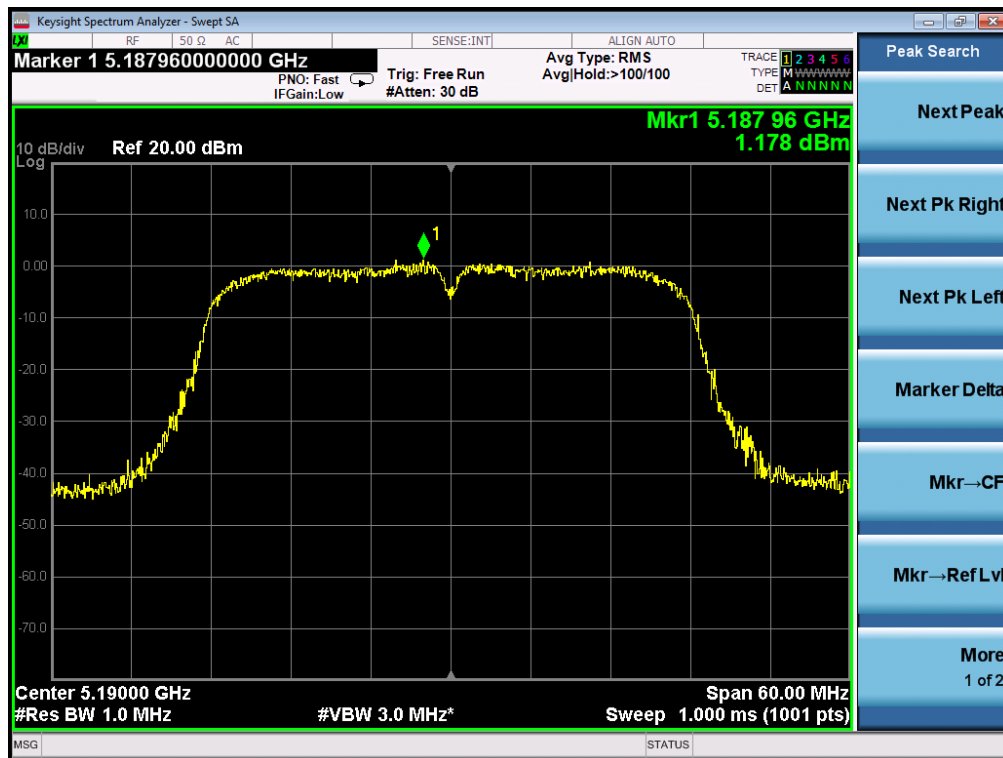
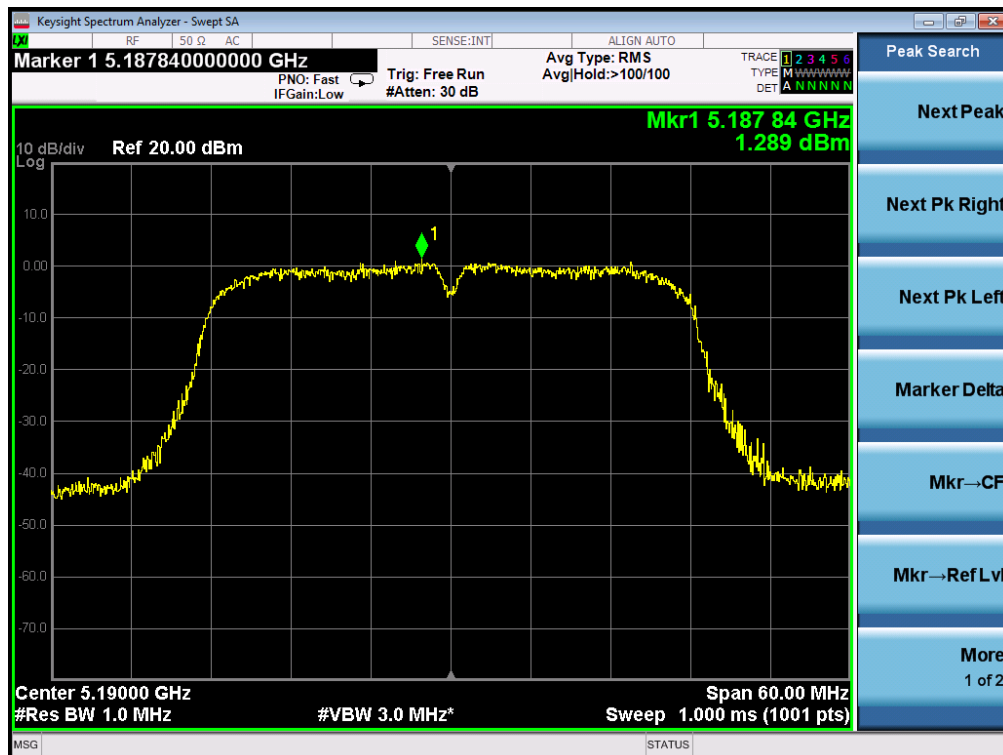


TEST PLOT OF SPECTRAL DENSITY FOR 5825MHz AT CHAIN 1

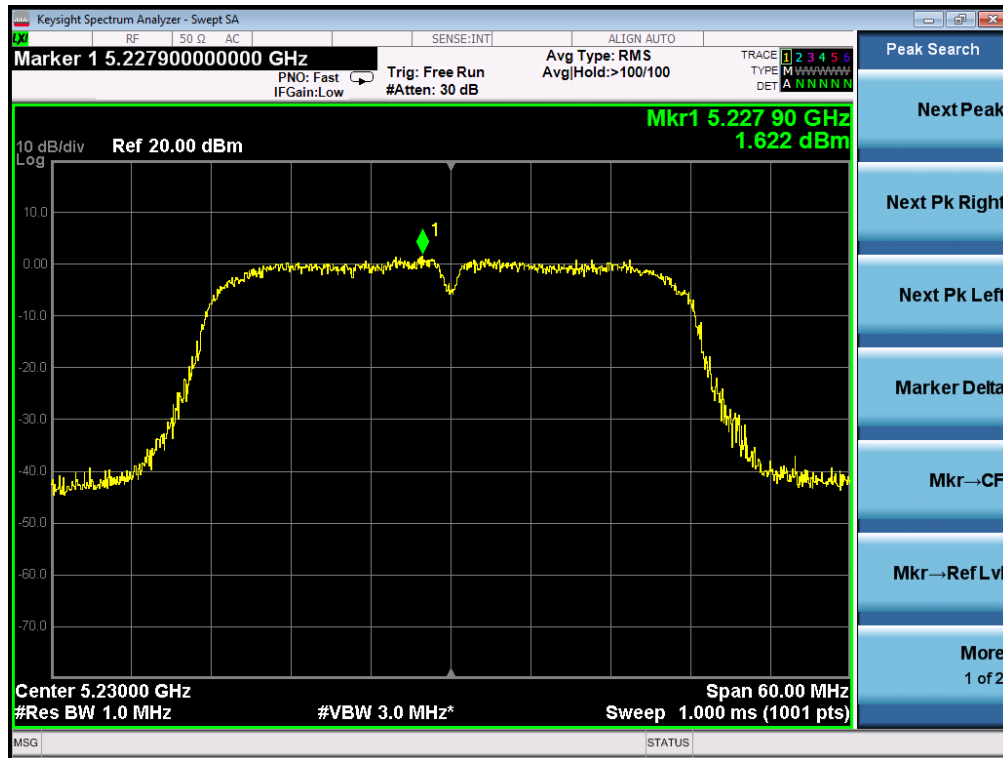


TEST PLOT OF SPECTRAL DENSITY FOR 5825MHz AT CHAIN 2

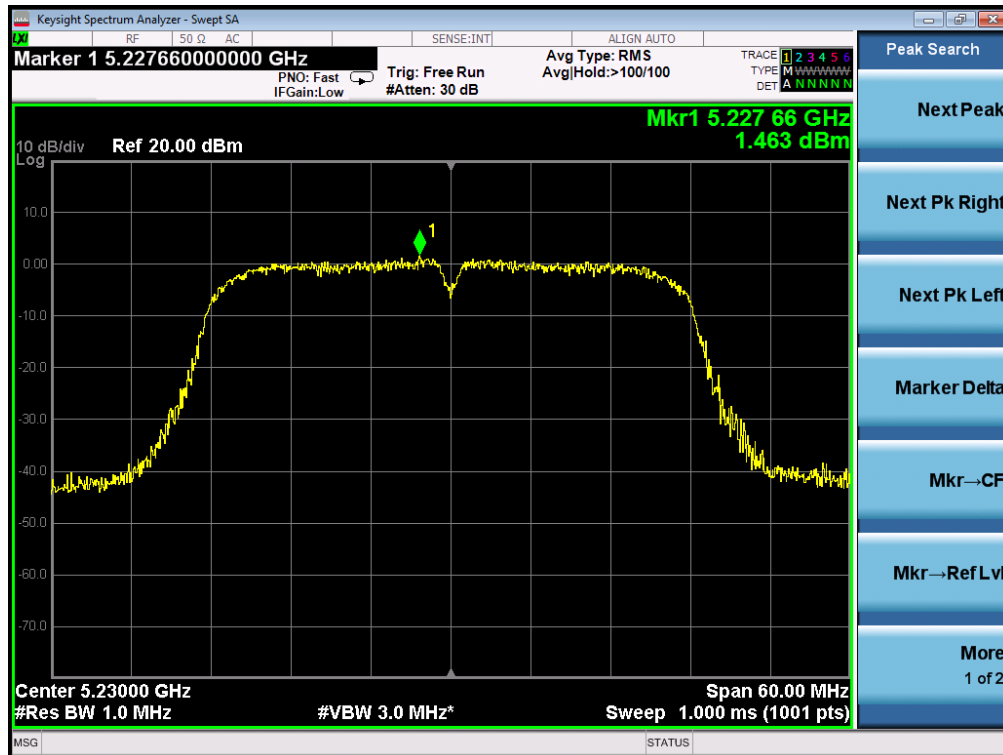


802.11ac40 TEST RESULT**TEST PLOT OF SPECTRAL DENSITY FOR 5190MHz AT CHAIN 1****TEST PLOT OF SPECTRAL DENSITY FOR 5190MHz AT CHAIN 2**

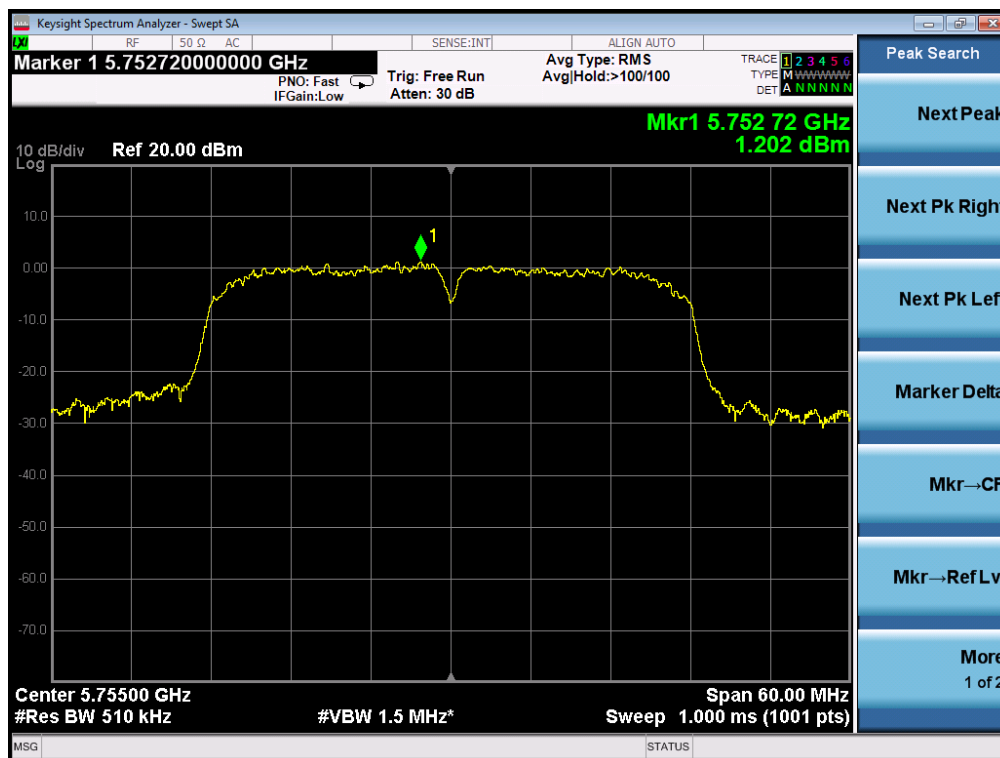
TEST PLOT OF SPECTRAL DENSITY FOR 5230MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5230MHz AT CHAIN 2



TEST PLOT OF SPECTRAL DENSITY FOR 5755MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5755MHz AT CHAIN 2

