RADIO TEST REPORT
FCC 47 CFR PART 15 SUBPART E

Test Standard	**FCC Part 15.407**
Product name	**Digital Paper System**
Brand Name	**Avalue**
Model No.	**EL313XX (X= 0~9 or A~Z)**
Test Result	**Pass**
Statements of Conformity	**Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.**

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report.
The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc.(Wugu Laboratory)

Approved by:

Kevin Tsai
Deputy Manager

Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	January 11, 2021	Initial Issue	ALL	Allison Chen
01	January 22, 2021	See the following Note Rev.(01)	P.8, P.234	Allison Chen
02	February 20, 2021	See the following Note Rev.(02)	P.234	Allison Chen

Note:
Rev.(01)
1. Added FCC ID of ancillary equipment.
2. Added non-associated test data.

Rev.(02)
1. Revised non-associated test data.

Table of contents

1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	AIMobile Co., Ltd. 6F., No. 166, Sec.4, Chengde Rd., Shilin Dist., Taipei City 11167 , Taiwan
Manufacturer	AIMobile Co., Ltd. 6F., No. 166, Sec.4, Chengde Rd., Shilin Dist., Taipei City 11167 , Taiwan
Equipment	Digital Paper System
Model No.	EL313XX (X= 0~9 or A~Z)
Model Discrepancy	All the above models are identical except for the designation of model numbers. The suffix of (X= 0~9 or A~Z) on model number is just for marketing purpose only
Trade Name	Avalue
Received Date	September 28, 2020
Date of Test	October 27 ~ December 7, 2020
Power Operation	1. Power from Host System. Rechargeable Li-Polymer Battery / LIS1633RDPCA Rating: 2000mAh, 7.4Wh 2. Power from Adapter.

Remark:

1. Disclaimer: The variant model numbers / trademarks are assessed as identical in hardware and software to each other, hence all variants are fully covered by the test results in this test report without further verification test.
2. Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.

1.2 EUT CHANNEL INFORMATION

Frequency Range	**UNII-1**	
	IEEE 802.11a	5180 ~ 5240 MHz
	IEEE 802.11n HT 20 MHz	5180 ~ 5240 MHz
	IEEE 802.11n HT 40 MHz	5190 ~ 5230 MHz
	IEEE 802.11ac VHT 20 MHz	5180 ~ 5240 MHz
	IEEE 802.11ac VHT 40 MHz	5190 ~ 5230 MHz
	IEEE 802.11ac VHT 80 MHz	5210 MHz
	UNII-2a	
	IEEE 802.11a	5260 ~ 5320 MHz
	IEEE 802.11n HT 20 MHz	5260 ~ 5320 MHz
	IEEE 802.11n HT 40 MHz	5270 ~ 5310 MHz
	IEEE 802.11ac VHT 20 MHz	5260 ~ 5320 MHz
	IEEE 802.11ac VHT 40 MHz	5270 ~ 5310 MHz
	IEEE 802.11ac VHT 80 MHz	5290 MHz
	UNII-2c	
	IEEE 802.11a	5500 ~ 5700 MHz
	IEEE 802.11n HT 20 MHz	5500 ~ 5700 MHz
	IEEE 802.11n HT 40 MHz	5510 ~ 5670 MHz
	IEEE 802.11ac VHT 20 MHz	5500 ~ 5700 MHz
	IEEE 802.11ac VHT 40 MHz	5510 ~ 5670 MHz
	IEEE 802.11ac VHT 80 MHz	5530 ~ 5610 MHz
	UNII-3	
	IEEE 802.11a	5745 ~ 5825 MHz
	IEEE 802.11n HT 20 MHz	5745 ~ 5825 MHz
	IEEE 802.11n HT 40 MHz	5755 ~ 5795 MHz
	IEEE 802.11ac VHT 20 MHz	5745 ~ 5825 MHz
	IEEE 802.11ac VHT 40 MHz	5755 ~ 5795 MHz
	IEEE 802.11ac VHT 80 MHz	5775 MHz
Modulation Type	1. IEEE 802.11a mode: OFDM 2. IEEE 802.11n HT 20 MHz mode: OFDM 3. IEEE 802.11n HT 40 MHz mode: OFDM 4. IEEE 802.11ac VHT 20 MHz mode: OFDM 5. IEEE 802.11ac VHT 40 MHz mode: OFDM 6. IEEE 802.11ac VHT 80 MHz mode: OFDM	

Remark:
Refer as ANSI C63.10: 2013 clause 5.6.1 Table 4 for test channels

Number of frequencies to be tested		
Frequency range in which device operates	**Number of frequencies**	**Location in frequency range of operation**
☐ 1 MHz or less	1	Middle
☐ 1 MHz to 10 MHz	2	1 near top and 1 near bottom
☒ More than 10 MHz	3	1 near top, 1 near middle, and 1 near bottom

1.3 ANTENNA INFORMATION

Antenna Specification	PIFA Antenna
Antenna Gain	

Band	Chain0 (dBi)	Chain1 (dBi)	Power Directional Gain: (dBi)
5G_U-NII 1	3.93	2.69	3.35
5G_U-NII 2a	3.93	2.69	3.35
5G_U-NII 2c	3.93	2.69	3.35
5G_U-NII 3	3.93	2.69	3.35

Antenna connector	IPEX

Notes:
1. Power Directional Gain = 10*LOG(((10^(Ant1/10)+10^(Ant2/10))/2))

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	+/- 1.2575
Emission bandwidth, 20dB bandwidth	+/- 0.0014
RF output power, conducted	+/- 1.14
Power density, conducted	+/- 1.40
3M Semi Anechoic Chamber / 30M~200M	+/- 4.12
3M Semi Anechoic Chamber / 200M~1000M	+/- 4.68
3M Semi Anechoic Chamber / 1G~8G	+/- 5.18
3M Semi Anechoic Chamber / 8G~18G	+/- 5.47
3M Semi Anechoic Chamber / 18G~26G	+/- 3.81
3M Semi Anechoic Chamber / 26G~40G	+/- 3.87

Remark:
1.This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2
2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.

1.5 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at

No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan. (R.O.C.)

Test site	Test Engineer	Remark
AC Conduction Room	Lance Chen	-
Radiation	Jerry Chang / Ray Li	-
RF Conducted	Rick Lee	-

Remark: The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

1.6 INSTRUMENT CALIBRATION

3M 966 Chamber Test Site					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
Bilog Antenna	Sunol Sciences	JB3	A030105	07/24/2020	07/23/2021
Coaxial Cable	HUBER SUHNER	SUCOFLEX 104PEA	20995	02/25/2020	02/24/2021
Coaxial Cable	EMCI	EMC105	190914+327109/4	09/19/2020	09/18/2021
Digital Thermo-Hygro Meter	WISEWIND	1206	D07	01/15/2020	01/14/2021
double Ridged Guide Horn Antenna	ETC	MCTD 1209	DRH13M02003	09/30/2020	09/29/2021
High Pass Filters	MICRO TRONICS	HPM13195	003	02/25/2020	02/24/2021
Horn Antenna	ETS LINDGREN	3116	00026370	12/18/2019	12/17/2020
Loop Ant	COM-POWER	AL-130	121051	03/27/2020	03/26/2021
Pre-Amplifier	EMEC	EM330	060609	02/25/2020	02/24/2021
Pre-Amplifier	HP	8449B	3008A00965	02/25/2020	02/24/2021
Pre-Amplifier	MITEQ	AMF-6F-18004000-37-8P	985646	09/02/2020	09/01/2021
PSA Series Spectrum Analyzer	Agilent	E4446A	MY46180323	07/24/2020	07/23/2021
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Software	e3 6.11-20180413				

RF Conducted Test Site					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
Coaxial Cable	Woken	WC12	CC003	06/29/2020	06/28/2021
Coaxial Cable	Woken	WC12	CC001	06/29/2020	06/28/2021
Signal Analyzer	R&S	FSV 40	101073	09/17/2020	09/16/2021
Power Meter	Anritsu	ML2495A	1149001	05/21/2020	05/21/2021
Power Seneor	Anritsu	MA2491A	030982	05/21/2020	05/21/2021
Software	N/A				

AC line Conduction Test Room					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
CABLE	EMCI	CFD300-NL	CERF	06/29/2020	06/28/2021
EMI Test Receiver	R&S	ESCI	100064	07/17/2020	07/16/2021
LISN	SCHAFFNER	NNB 41	03/10013	02/13/2020	02/12/2021
Software	EZ-EMC(CCS-3A1-CE)				

Remark:
1. Each piece of equipment is scheduled for calibration once a year.
2. N.C.R. = No Calibration Required.

1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

Support Equipment					
No.	**Equipment**	**Brand**	**Model**	**Series No.**	**FCC ID**
	N/A				

Support Equipment					
No.	**Equipment**	**Brand**	**Model**	**Series No.**	**FCC ID**
1	Adapter	SAMSUNG	ETA-U90JWS	N/A	N/A
2	AP	ASUS	RT-AX88U	N/A	MSQ-RTAXHP00

1.8 TEST METHODOLOGY AND APPLIED STANDARDS

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10:2013, FCC Part 2, FCC Part 15.407, KDB 789033 D02, KDB 905462 D02.

2. TEST SUMMARY

FCC Standard Sec.	Chapter	Test Item	Result
15.203	1.3	Antenna Requirement	Pass
15.207	4.1	AC Conducted Emission	Pass
15.403(i)	4.2	26dB Bandwidth	Pass
15.407(e)	4.2	6dB Bandwidth	Pass
2.1049	4.2	Occupied Bandwidth (99%)	Pass
15.407(a)	4.3	Output Power Measurement	Pass
15.407(a)	4.4	Power Spectral Density	Pass
15.407(b)	4.5	Radiation Band Edge	Pass
15.407(b)	4.5	Radiation Spurious Emission	Pass
15.407(g)	4.6	Frequency Stability	Pass
15.407(h)	4.7	Dynamic Frequency Selection	Pass

3. DESCRIPTION OF TEST MODES

3.1 THE EUT CHANNEL NUMBER OF OPERATING CONDITION

Operation mode	1. IEEE 802.11a mode: 6Mbps 2. IEEE 802.11n HT 20 MHz mode: MCS8 3. IEEE 802.11n HT 40 MHz mode: MCS8 4. IEEE 802.11ac VHT 20 MHz mode: MCS8 5. IEEE 802.11ac VHT 40 MHz mode: MCS8 6. IEEE 802.11ac VHT 80 MHz mode: MCS8
Operating Frequency	

	Mode	Frequency Range (MHz)
U-NII-1	IEEE 802.11a	5180, 5220, 5240
	IEEE 802.11n HT 20 MHz	5180, 5220, 5240
	IEEE 802.11n HT 40 MHz	5190, 5230
	IEEE 802.11ac VHT 20 MHz	5180, 5220, 5240
	IEEE 802.11ac VHT 40 MHz	5190, 5230
	IEEE 802.11ac VHT 80 MHz	5210
U-NII-2a	IEEE 802.11a	5260, 5280, 5320
	IEEE 802.11n HT 20 MHz	5260, 5280, 5320
	IEEE 802.11n HT 40 MHz	5270, 5310
	IEEE 802.11ac VHT 20 MHz	5260, 5280, 5320
	IEEE 802.11ac VHT 40 MHz	5270, 5310
	IEEE 802.11ac VHT 80 MHz	5290
U-NII-2c	IEEE 802.11a	5500, 5580, 5700
	IEEE 802.11n HT 20 MHz	5500, 5580, 5700
	IEEE 802.11n HT 40 MHz	5510, 5550, 5670
	IEEE 802.11ac VHT 20 MHz	5500, 5580, 5700
	IEEE 802.11ac VHT 40 MHz	5510, 5550, 5670
	IEEE 802.11ac VHT 80 MHz	5530, 5610
U-NII-3	IEEE 802.11a	5745, 5785, 5825
	IEEE 802.11n HT 20 MHz	5745, 5785, 5825
	IEEE 802.11n HT 40 MHz	5755, 5795
	IEEE 802.11ac VHT 20 MHz	5745, 5785, 5825
	IEEE 802.11ac VHT 40 MHz	5755, 5795
	IEEE 802.11ac VHT 80 MHz	5775

Remark:
1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.
2. The mode IEEE 802.11ac VHT20 and VHT40 are only different in control messages with IEEE 802.11n 20 MHz and HT40, and have same power setting. Therefore, the highest power(IEEE 802.11n 20 MHz and HT40) were test conducted and radiated measurement and recorded in this report.

3.2 THE WORST MODE OF MEASUREMENT

Radiated Emission Measurement Above 1G	
Test Condition	**Radiated Emission Above 1G**
Power supply Mode	**Mode 1: EUT power by Host System**
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4
Worst Position	☐ Placed in fixed position. ☒ Placed in fixed position at X-Plane (E2-Plane) ☐ Placed in fixed position at Y-Plane (E1-Plane) ☐ Placed in fixed position at Z-Plane (H-Plane)

Radiated Emission Measurement Below 1G	
Test Condition	**Radiated Emission Below 1G**
Power supply Mode	**Mode 1: EUT power by Host System**
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

AC Power Line Conducted Emission	
Test Condition	**AC Power line conducted emission for line and neutral**
Power supply Mode	**Mode 1: EUT power by Adapter**
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Remark:
1. The worst mode was record in this test report.
2. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(X-Plane) were recorded in this report
3. AC power line conducted emission and for below 1G radiation emission were performed the EUT transmit at the highest output power channel as worse case.

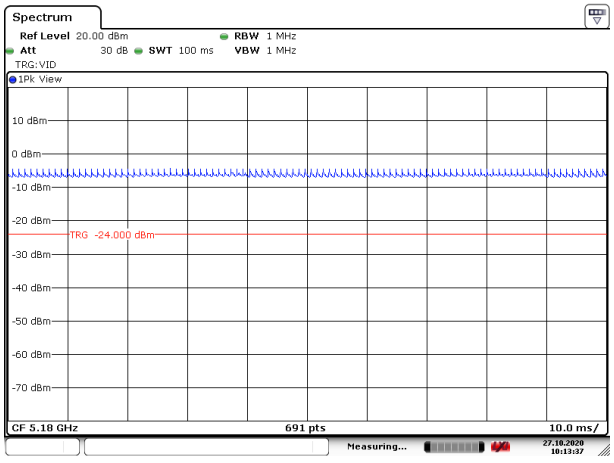
3.3 EUT DUTY CYCLE

Temperature: 23.9℃ **Humidity:** 50% RH

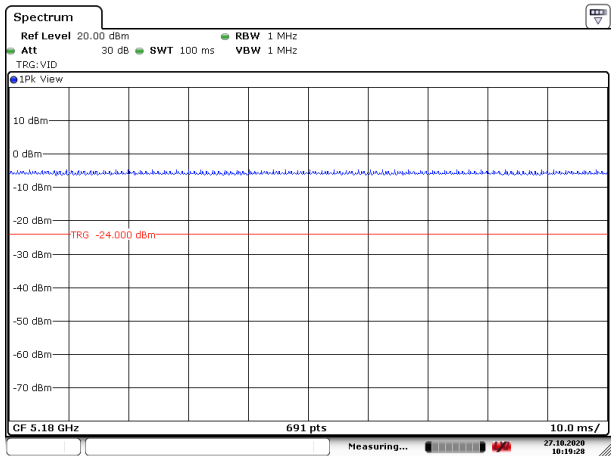
Tested by: Rick Lee **Test date:** October 27, 2020

Duty Cycle				
Configuration	Duty Cycle (%)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
802.11a	100.00%	0.00	N/A	0.01
802.11n HT20	100.00%	0.00	N/A	0.01
802.11n HT40	100.00%	0.00	N/A	0.01
802.11ac VHT80	100.00%	0.00	N/A	0.01

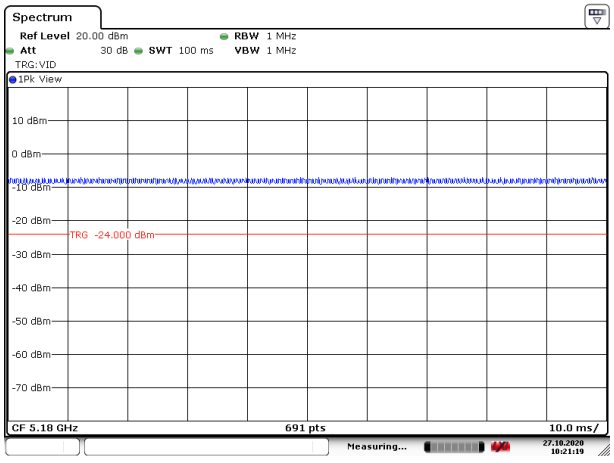
802.11a



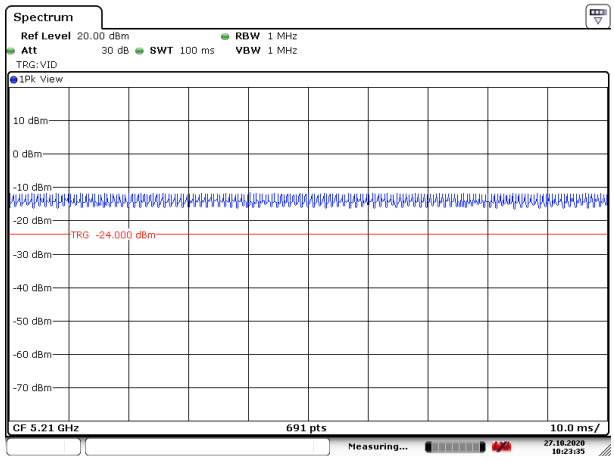
802.11n HT20



802.11n HT40



802.11ac VHT80



4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a),

Frequency Range (MHz)	Limits(dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

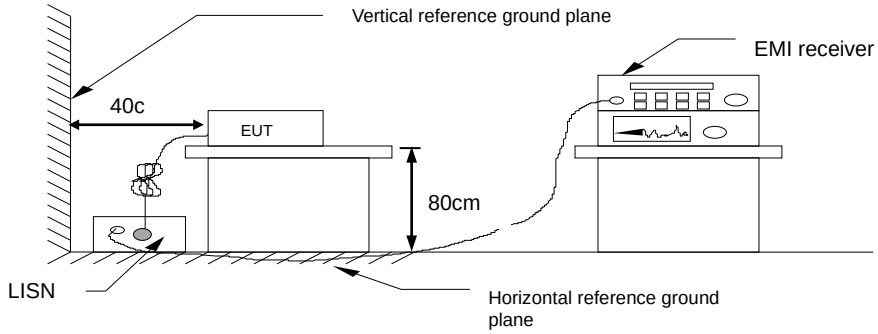
* Decreases with the logarithm of the frequency.

4.1.2 Test Procedure

Test method Refer as ANSI C63.10: 2013 clause 6.2,

1. The EUT was placed on a non-conducted table, which is 0.8m above horizontal ground plane and 0.4m above vertical ground plane.
2. EUT connected to the line impedance stabilization network (LISN)
3. Receiver set RBW of 9kHz and Detector Peak, and note as quasi-peak and average.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. Recorded Line for Neutral and Line.

4.1.3 Test Setup

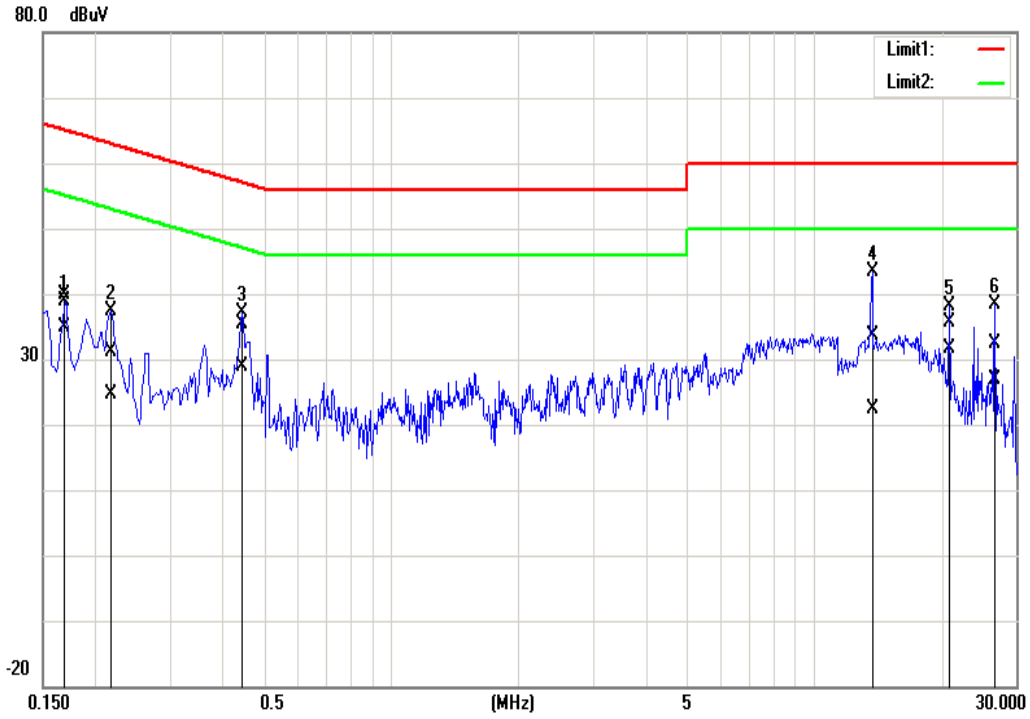


4.1.4 Test Result

Pass.

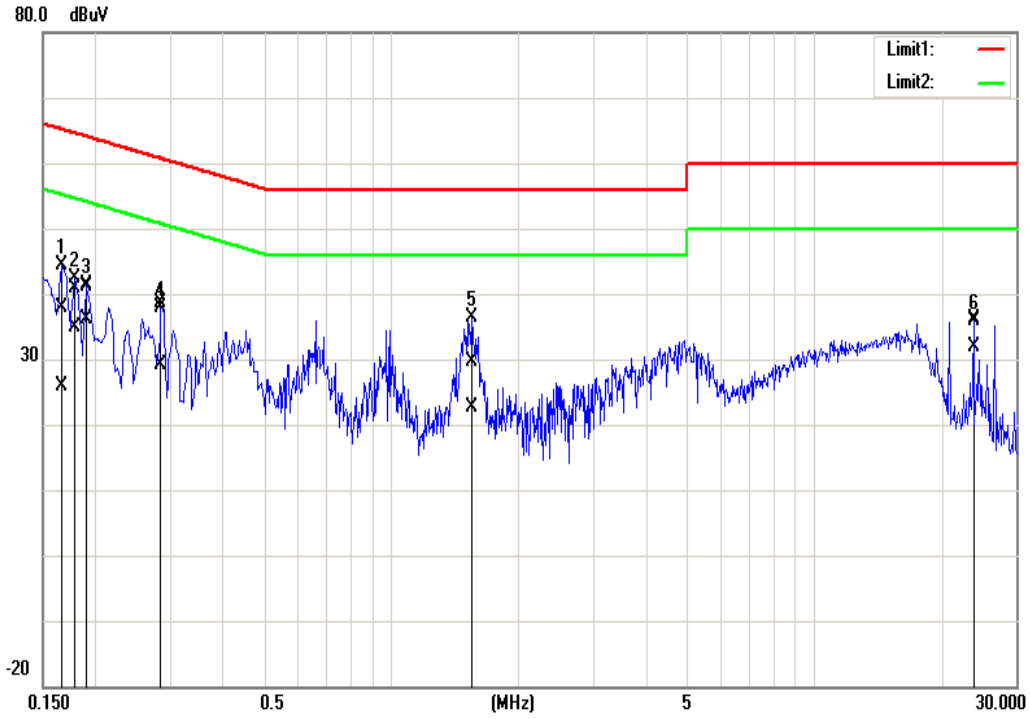
Test Data

Test Mode:	Mode 1	Temp/Hum	22.4(℃)/ 57%RH
Phase:	Line	Test Date	December 7, 2020
Test Voltage:	120Vac, 60Hz	Test Engineer	Lance Chen



Frequency (MHz)	Quasi Peak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	Average margin (dB)	Remark
0.1700	29.77	24.65	10.21	39.98	34.86	64.96	54.96	-24.98	-20.10	Pass
0.2180	20.83	14.37	10.21	31.04	24.58	62.89	52.89	-31.85	-28.31	Pass
0.4460	25.14	18.73	10.22	35.36	28.95	56.95	46.95	-21.59	-18.00	Pass
13.7500	23.15	12.01	10.40	33.55	22.41	60.00	50.00	-26.45	-27.59	Pass
20.8700	25.21	21.35	10.37	35.58	31.72	60.00	50.00	-24.42	-18.28	Pass
26.8340	22.03	16.65	10.25	32.28	26.90	60.00	50.00	-27.72	-23.10	Pass

Test Mode:	Mode 1	Temp/Hum	22.4(℃)/ 57%RH
Phase:	Line	Test Date	December 7, 2020
Test Voltage:	120Vac, 60Hz	Test Engineer	Lance Chen



Frequency (MHz)	Quasi Peak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	Average margin (dB)	Remark
0.1660	27.80	15.58	10.18	37.98	25.76	65.16	55.16	-27.18	-29.40	Pass
0.1780	30.68	24.68	10.19	40.87	34.87	64.58	54.58	-23.71	-19.71	Pass
0.1900	31.00	25.83	10.19	41.19	36.02	64.04	54.04	-22.85	-18.02	Pass
0.2860	28.34	19.03	10.19	38.53	29.22	60.64	50.64	-22.11	-21.42	Pass
1.5540	19.38	12.44	10.21	29.59	22.65	56.00	46.00	-26.41	-23.35	Pass
23.8500	25.65	21.31	10.51	36.16	31.82	60.00	50.00	-23.84	-18.18	Pass

4.2 26dB BANDWIDTH, 6dB BANDWIDTH AND OCCUPIED BANDWIDTH(99%)

4.2.1 Test Limit

26 dB Bandwidth ：For reporting purposes only.

6 dB Bandwidth ：Least 500kHz.

Occupied Bandwidth(99%) ： For reporting purposes only.

4.2.2 Test Procedure

26dB

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

2. Set RBW: approximately 1% of the emission bandwidth.

3. Set the VBW>RBW.

4. Detoctor = Peak.

5. Trace mode = max hold.

6. Measure the maximum width of the emission that is 26dB down from the peak of the emission. Compare this with the RBW setting of the analyser. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

6dB

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

2. Set RBW = 100 kHz.

3. Set the video bandwidth (VBW) ≥ 3 x RBW.

4. Detoctor = Peak.

5. Trace mode = max hold.

6. Sweep = auto couple.

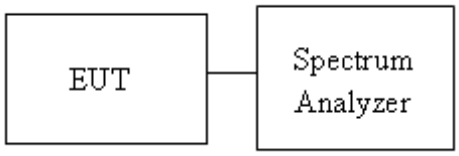
7. Allow the trace to stabilize.

8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

99%

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set center frequency to the nominal EUT channel center frequency.
3. Set span = 1.5 times to 5.0 times the OBW.
4. Set RBW = 1 % to 5% of the OBW.
5. Set VBW ≧ 3 xRBW

4.2.3 Test Setup



4.2.4 Test Result

Chain 0

Temperature:	24.6℃	**Humidity:**	53.5% RH
Tested by:	Rick Lee	**Test date:**	November 16, 2020

Chain 1

Temperature:	25.9℃	**Humidity:**	50% RH
Tested by:	Rick Lee	**Test date:**	November 24, 2020

UNII-1 5150-5250 MHz					
Test mode: IEEE 802.11a mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW (99%) (MHz)**	**Chain 1 OBW (99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5180	-	-	19.95	19.77
Mid	5220	-	-	19.61	19.82
High	5240	-	-	19.78	19.87
Test mode: IEEE 802.11n HT20 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW (99%) (MHz)**	**Chain 1 OBW (99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5180	-	-	20.00	20.04
Mid	5220	-	-	20.03	19.86
High	5240	-	-	19.91	19.87
Test mode: IEEE 802.11n HT40 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW (99%) (MHz)**	**Chain 1 OBW (99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5190	-	-	40.30	39.71
High	5230	-	-	39.05	39.77
Test mode: IEEE 802.11ac VHT80 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW (99%) (MHz)**	**Chain 1 OBW (99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5210	-	-	81.69	81.16

Chain 0

Temperature:	24.6℃	**Humidity:**	53.5% RH
Tested by:	Rick Lee	**Test date:**	November 16, 2020

Chain 1

Temperature:	25.9℃	**Humidity:**	50% RH
Tested by:	Rick Lee	**Test date:**	November 24, 2020

UNII-2a 5250-5350 MHz					
Test mode: IEEE 802.11a mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW (99%) (MHz)**	**Chain 1 OBW (99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5260	-	-	19.57	19.69
Mid	5280	-	-	18.97	19.80
High	5320	-	-	19.63	19.67
Test mode: IEEE 802.11n HT20 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW (99%) (MHz)**	**Chain 1 OBW (99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5260	-	-	19.98	20.13
Mid	5280	-	-	19.44	19.83
High	5320	-	-	20.16	20.17

Chain 0

Temperature:	24.1℃	**Humidity:**	54.2% RH
Tested by:	Rick Lee	**Test date:**	November 17, 2020

Chain 1

Temperature:	25.9℃	**Humidity:**	50% RH
Tested by:	Rick Lee	**Test date:**	November 24, 2020

UNII-2a 5250-5350 MHz					
Test mode: IEEE 802.11n HT40 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW (99%) (MHz)**	**Chain 1 OBW (99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5270	-	-	40.46	39.67
High	5310	-	-	40.53	39.63
Test mode: IEEE 802.11ac VHT80 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW (99%) (MHz)**	**Chain 1 OBW (99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5290	-	-	81.66	80.95

Chain 0

Temperature:	24.6℃	**Humidity:**	53.5% RH
Tested by:	Rick Lee	**Test date:**	November 16, 2020

Chain 1

Temperature:	25.9℃	**Humidity:**	50% RH
Tested by:	Rick Lee	**Test date:**	November 24, 2020

UNII-2c 5475-5725 MHz					
Test mode: IEEE 802.11a mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW (99%) (MHz)**	**Chain 1 OBW (99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5500	-	-	19.76	19.62
Mid	5580	-	-	19.82	19.91
High	5700	-	-	19.80	19.79
Test mode: IEEE 802.11n HT20 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW (99%) (MHz)**	**Chain 1 OBW (99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5500	-	-	19.96	20.10
Mid	5580	-	-	20.02	19.97
High	5700	-	-	19.99	20.11

Chain 0

Temperature:	24.1℃	**Humidity:**	54.2% RH
Tested by:	Rick Lee	**Test date:**	November 17, 2020

Chain 1

Temperature:	25.9℃	**Humidity:**	50% RH
Tested by:	Rick Lee	**Test date:**	November 24, 2020

UNII-2c 5475-5725 MHz					
Test mode: IEEE 802.11n HT40 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW (99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5510	-	-	40.28	39.48
Mid	5550	-	-	40.23	39.92
High	5670	-	-	40.46	39.94
Test mode: IEEE 802.11ac VHT80 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5530	-	-	81.41	80.96
High	5610			81.69	81.11

Chain 0

Temperature:	24.6℃	**Humidity:**	53.5% RH
Tested by:	Rick Lee	**Test date:**	November 16, 2020

Chain 1

Temperature:	25.9℃	**Humidity:**	50% RH
Tested by:	Rick Lee	**Test date:**	November 24, 2020

UNII-3 5725-5825MHz					
Test mode: IEEE 802.11a mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**
Low	5745	-	-	16.60	16.59
Mid	5785	-	-	16.60	16.57
High	5825	-	-	16.57	16.58
Test mode: IEEE 802.11n HT20 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**
Low	5745	-	-	17.74	17.71
Mid	5785	-	-	17.74	17.73
High	5825	-	-	17.70	17.70

Chain 0

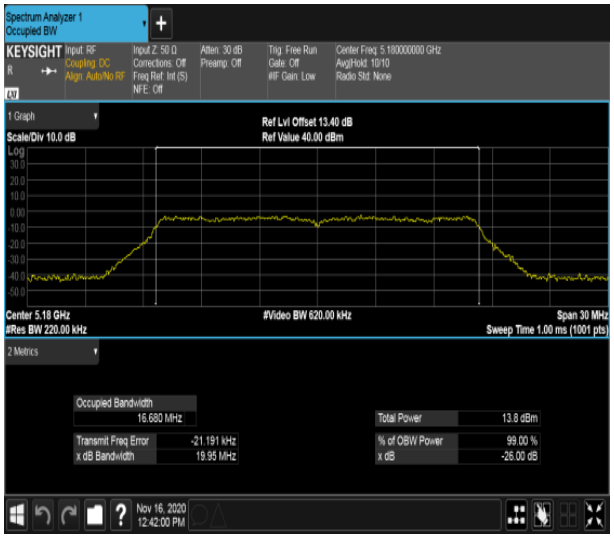
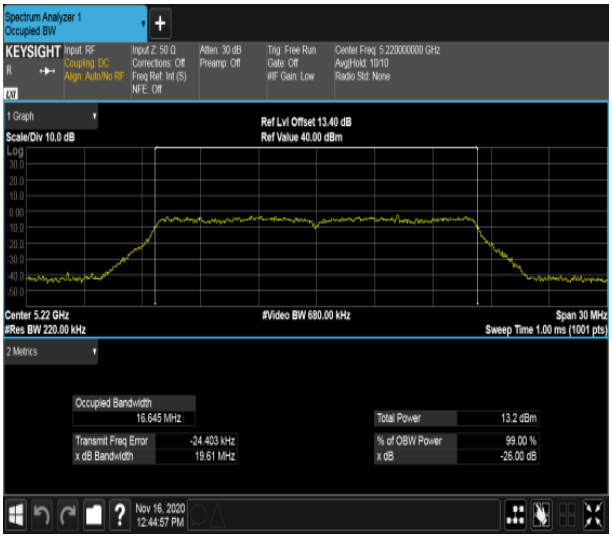
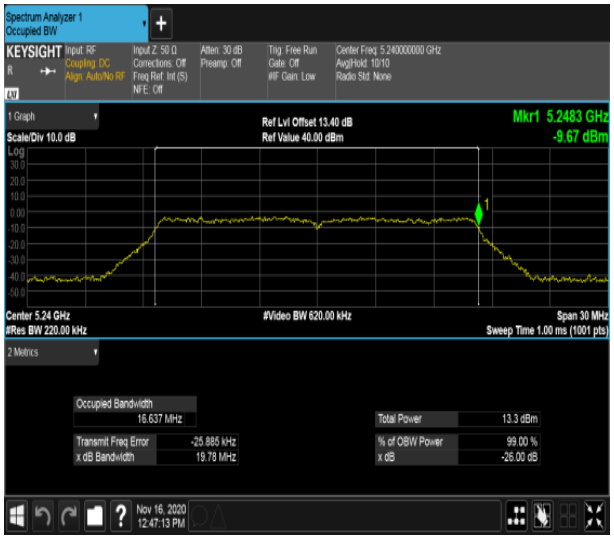
Temperature:	24.1℃	**Humidity:**	54.2% RH
Tested by:	Rick Lee	**Test date:**	November 17, 2020

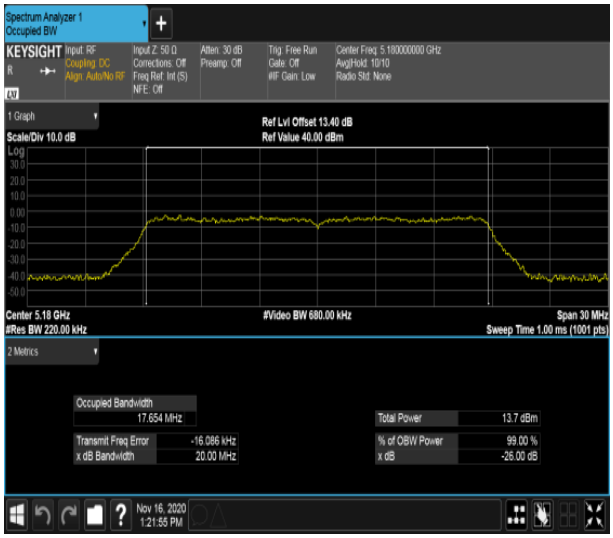
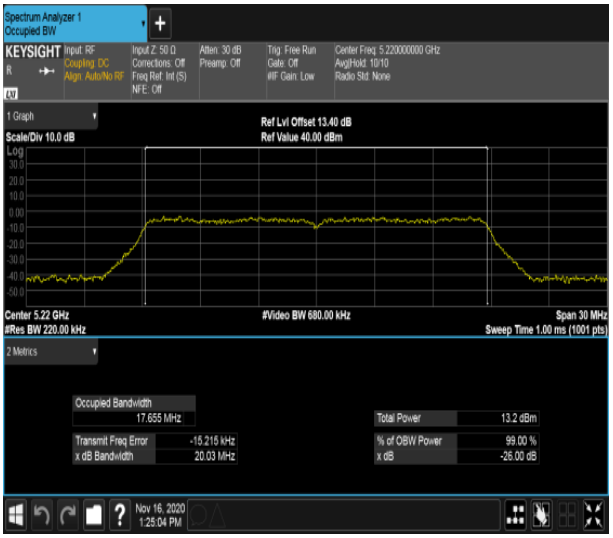
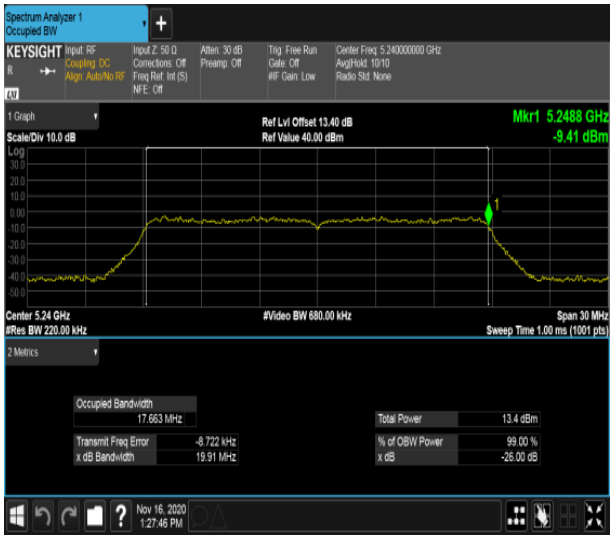
Chain 1

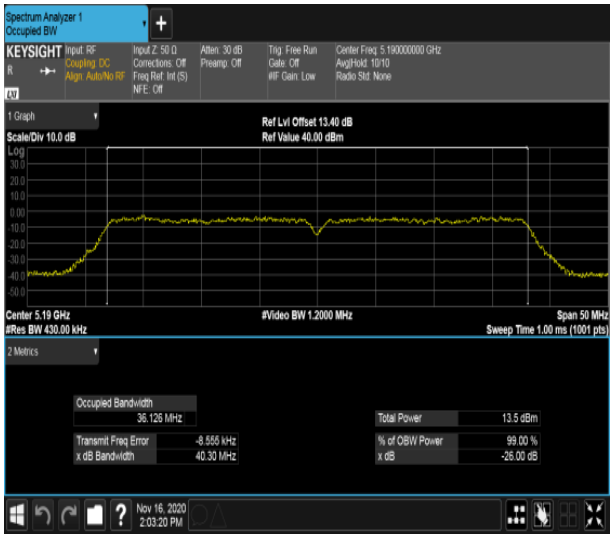
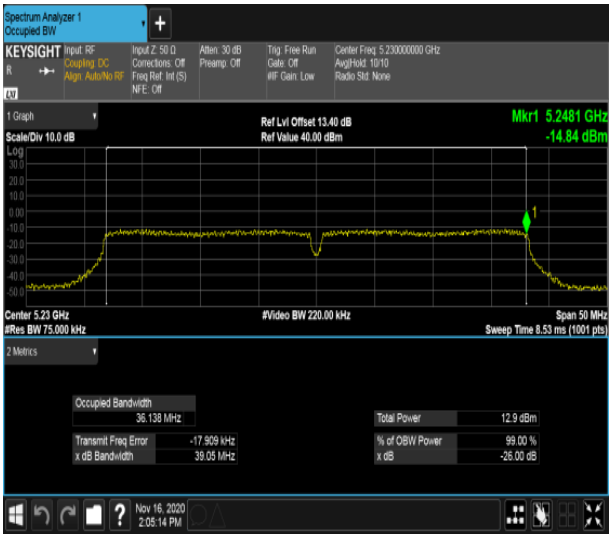
Temperature:	25.9℃	**Humidity:**	50% RH
Tested by:	Rick Lee	**Test date:**	November 24, 2020

UNII-3 5725-5825MHz					
Test mode: IEEE 802.11n HT40 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**
Low	5755	-	-	36.47	36.44
High	5795	-	-	36.46	36.43
Test mode: IEEE 802.11ac VHT80 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**
Low	5775	-	-	76.62	76.57

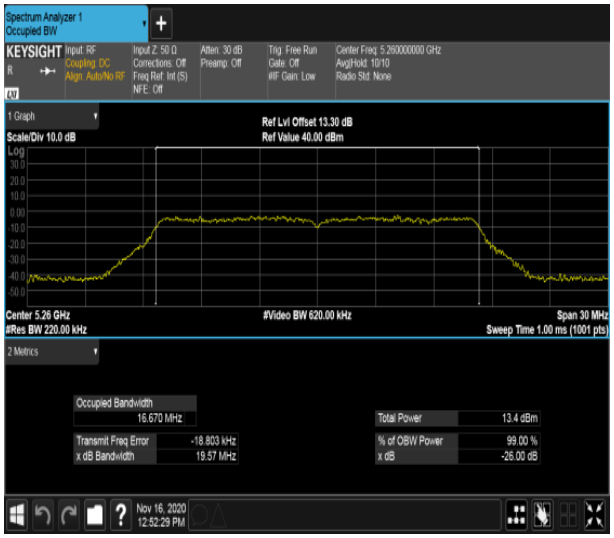
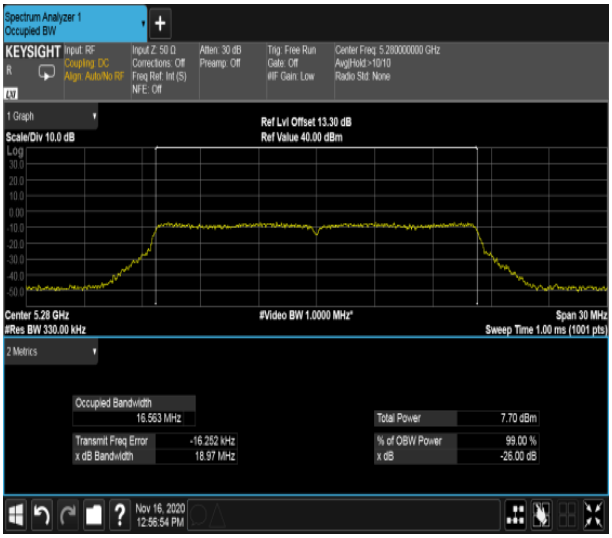
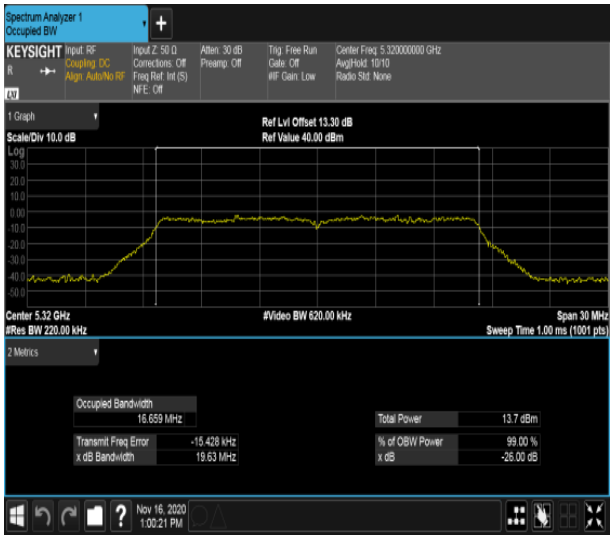
Test Data (26dB BANDWIDTH)

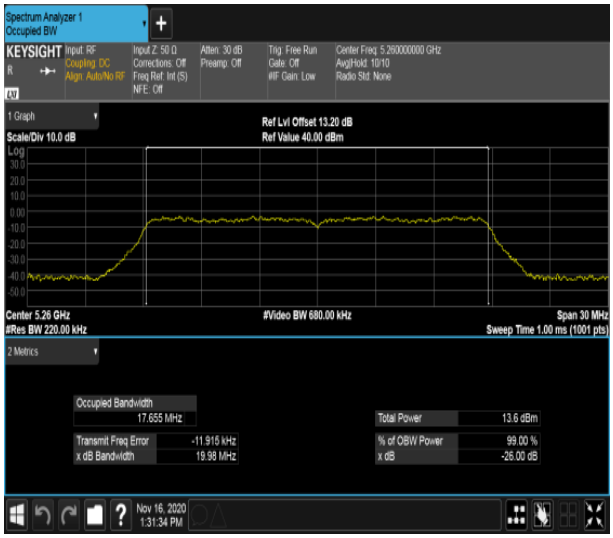
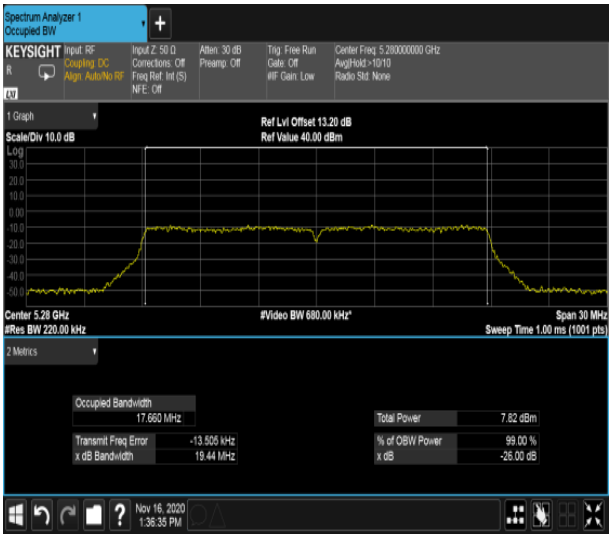
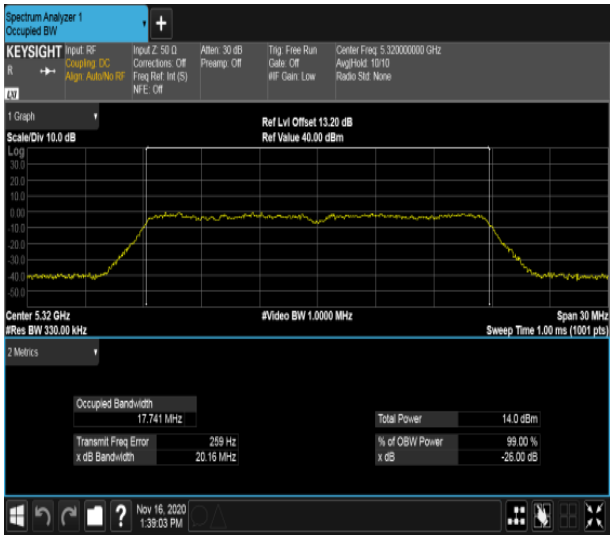
UNII-1 IEEE 802.11a mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

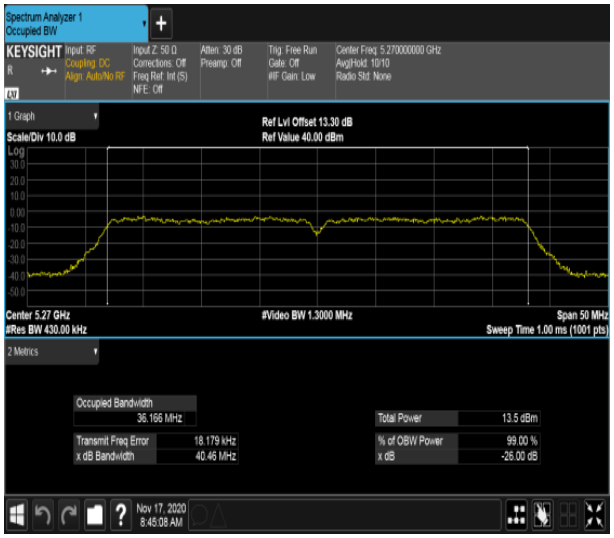
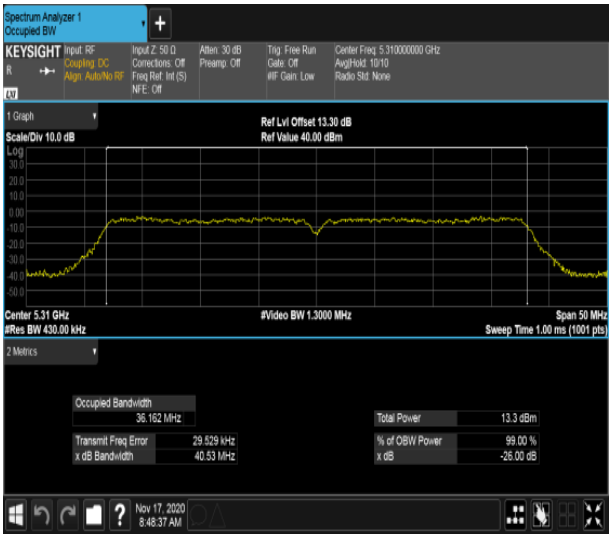
UNII-1 IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

UNII-1 IEEE 802.11n HT40 mode- chain 0	
Low CH	**High CH**
	
UNII-1 IEEE 802.11ac VHT80 mode- chain 0	
Low CH	
	

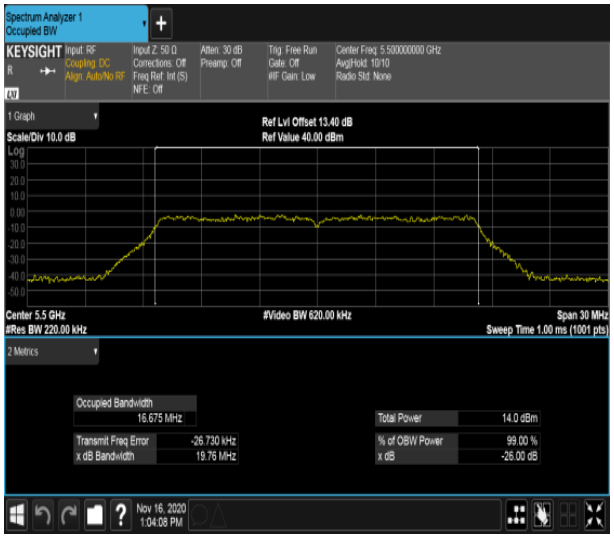
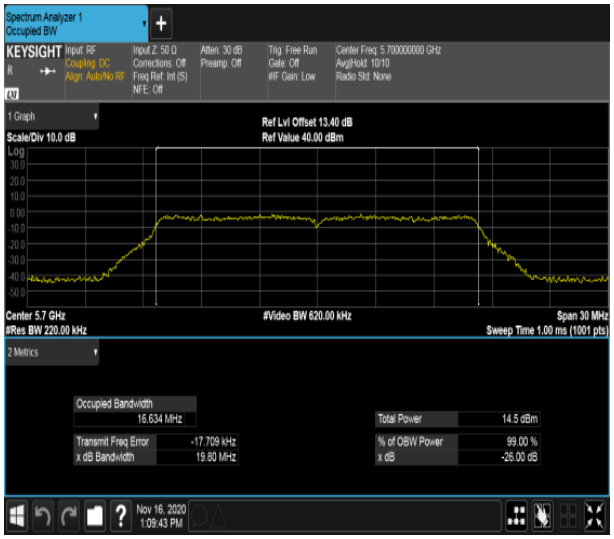
Test Data (26dB BANDWIDTH)

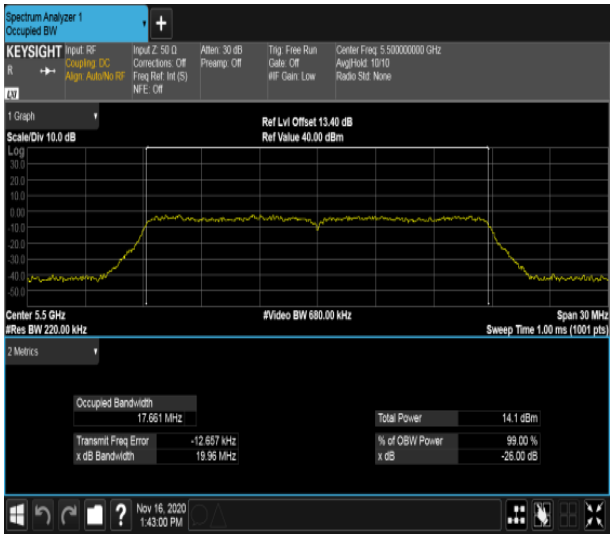
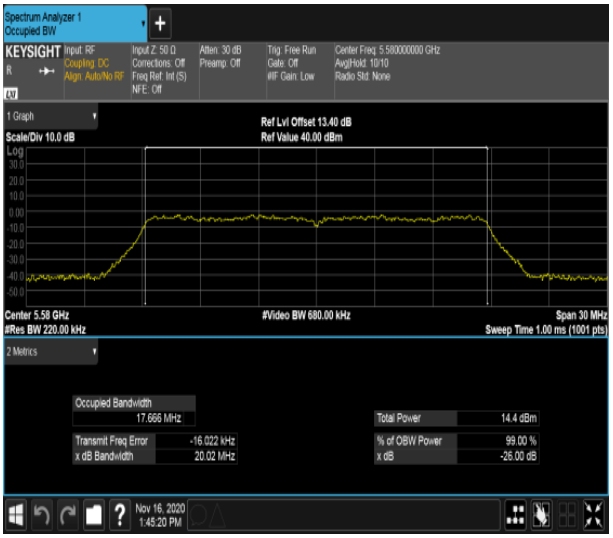
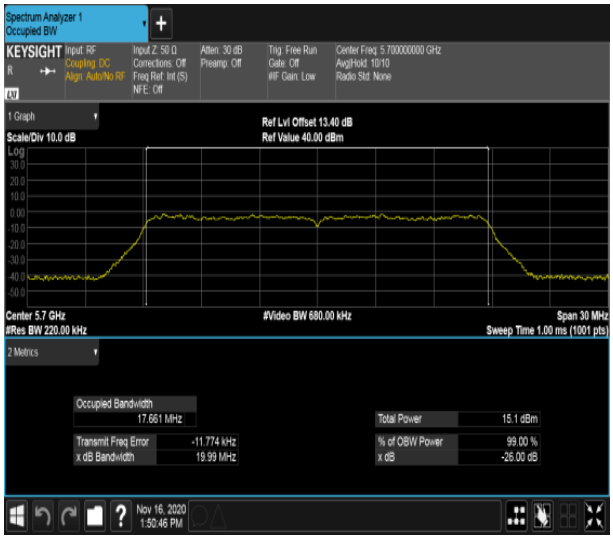
UNII-2a IEEE 802.11a mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

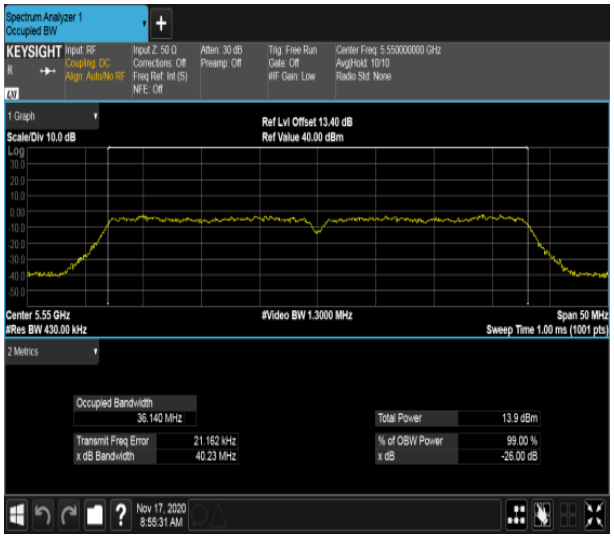
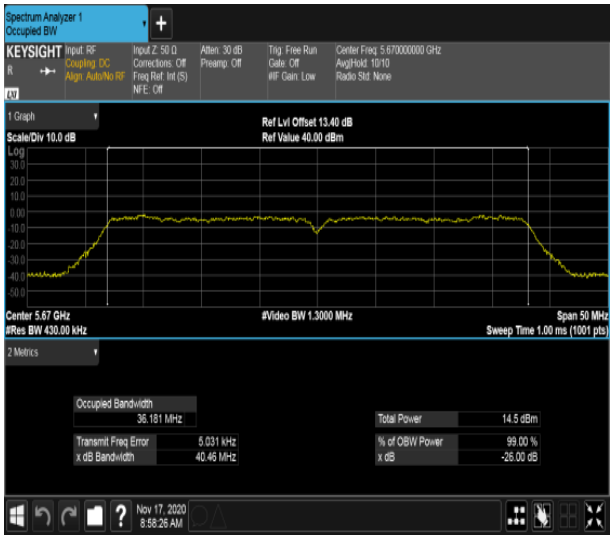
UNII-2a IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

UNII-2a IEEE 802.11n HT40 mode- chain 0	
Low CH	**High CH**
	
UNII-2a IEEE 802.11ac VHT80 mode- chain 0	
Low CH	
	

Test Data (26dB BANDWIDTH)

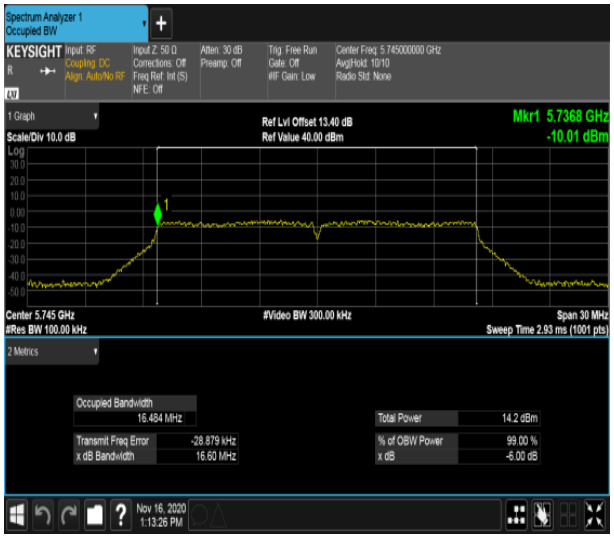
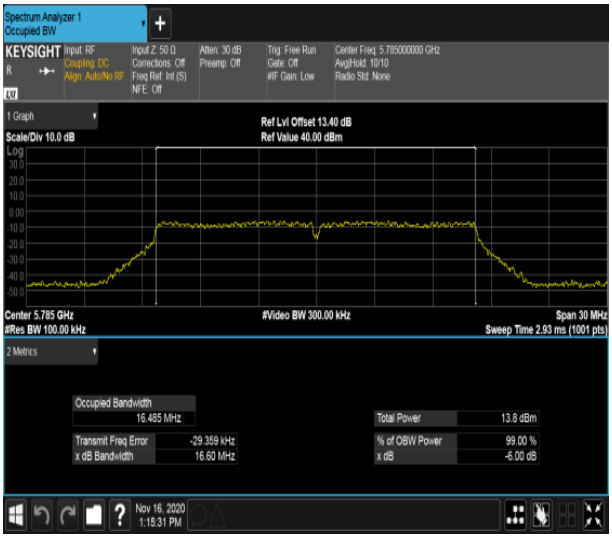
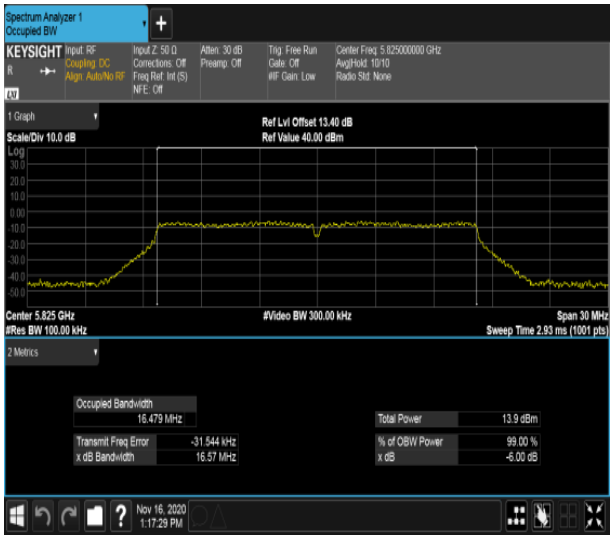
UNII-2c IEEE 802.11a mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

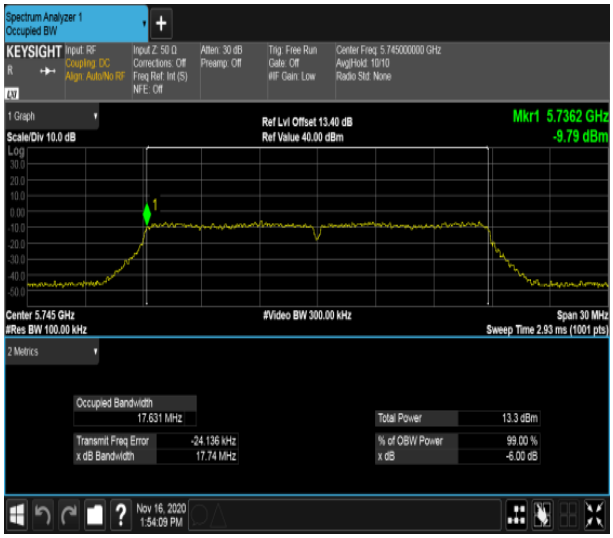
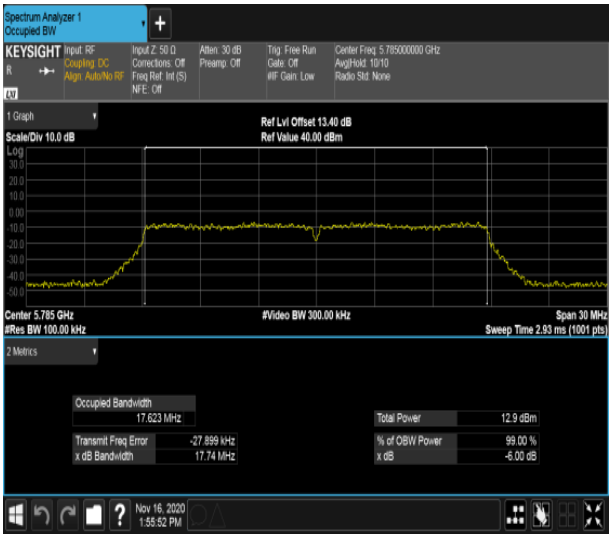
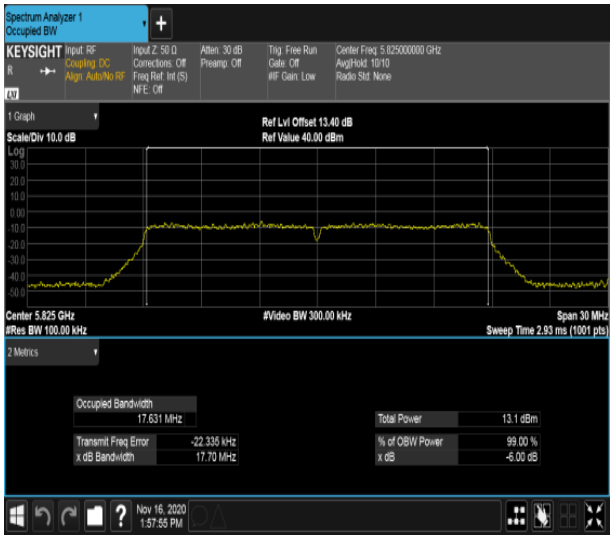
UNII-2c IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

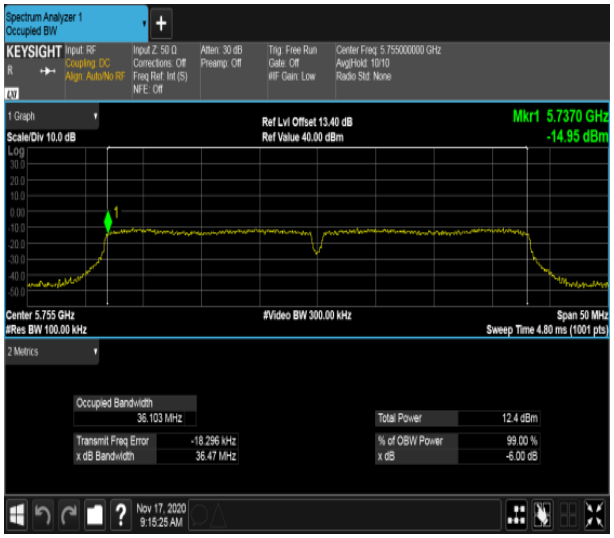
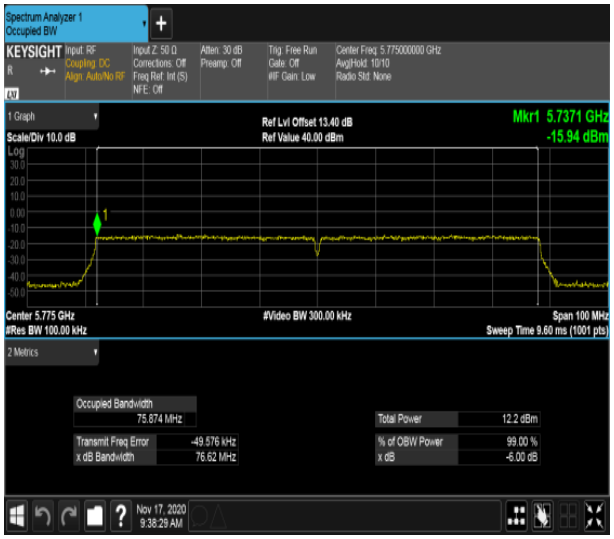
UNII-2c IEEE 802.11n HT40 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

UNII-2c IEEE 802.11ac VHT80 mode- chain 0	
Low CH	**High CH**
	

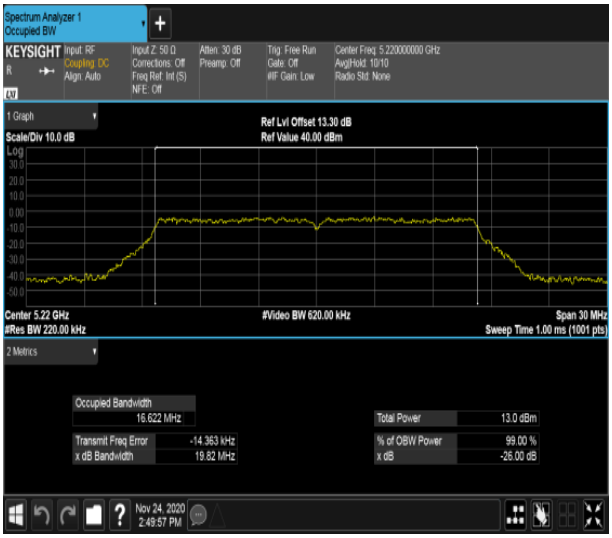
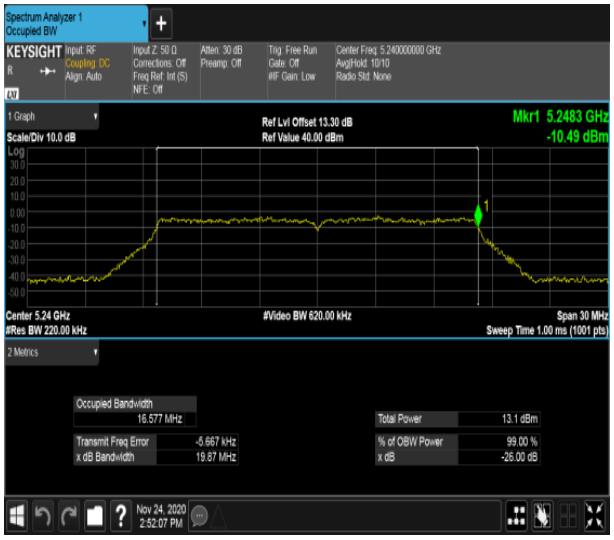
Test Data (6dB BANDWIDTH)

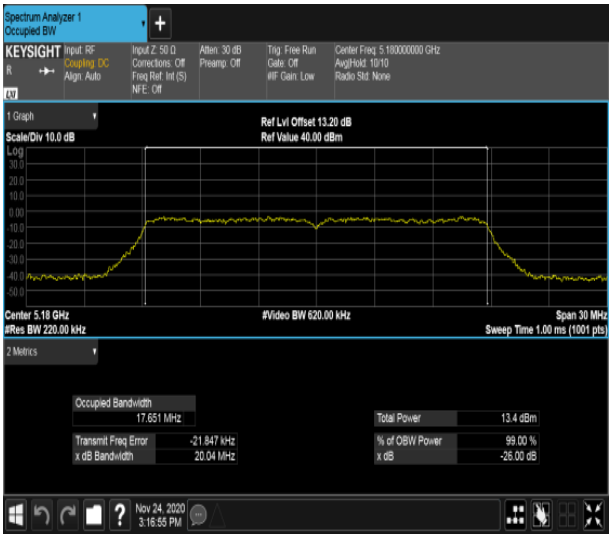
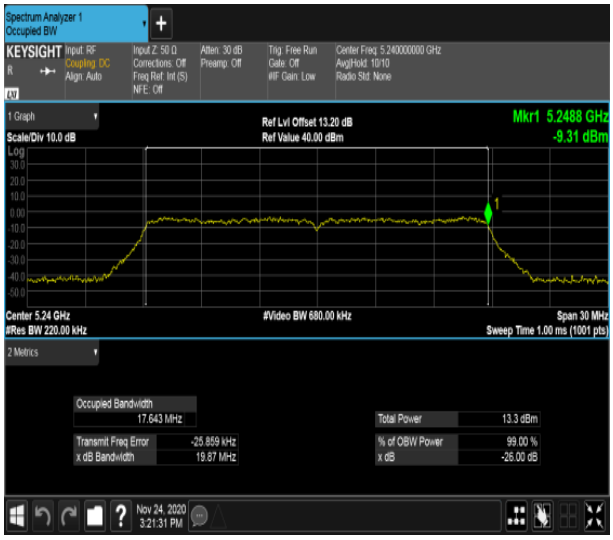
UNII-3 IEEE 802.11a mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

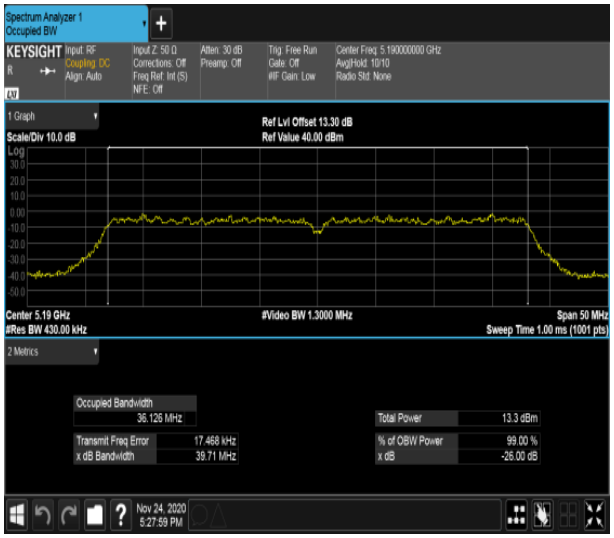
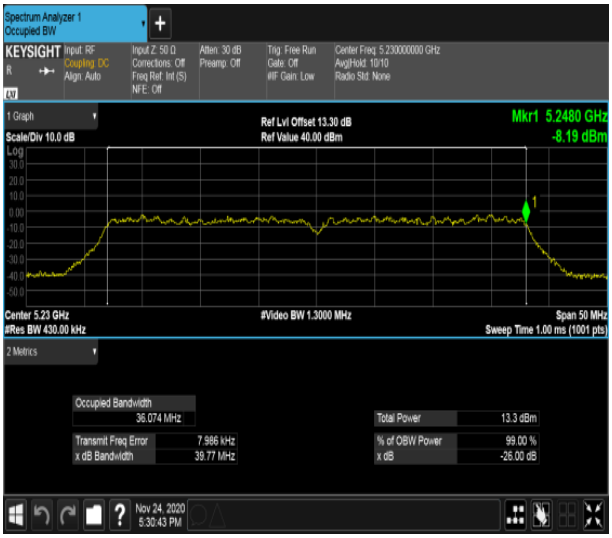
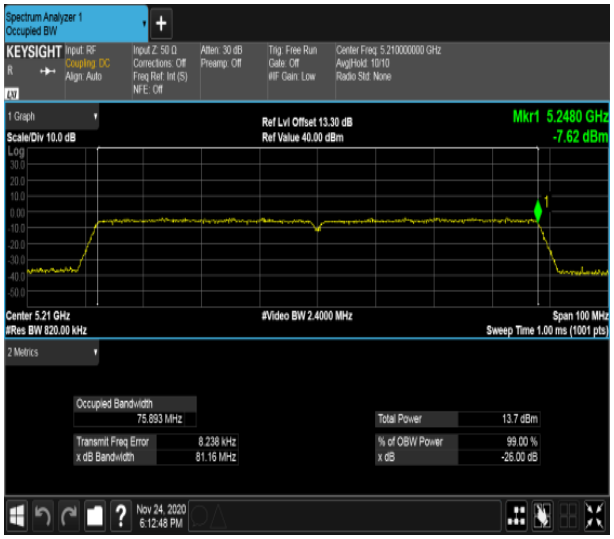
UNII-3 IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

UNII-3 IEEE 802.11n HT40 mode- chain 0	
Low CH	**High CH**
	
UNII-3 IEEE 802.11ac VHT80 mode- chain 0	
Mid CH	
	

Test Data (26dB BANDWIDTH)

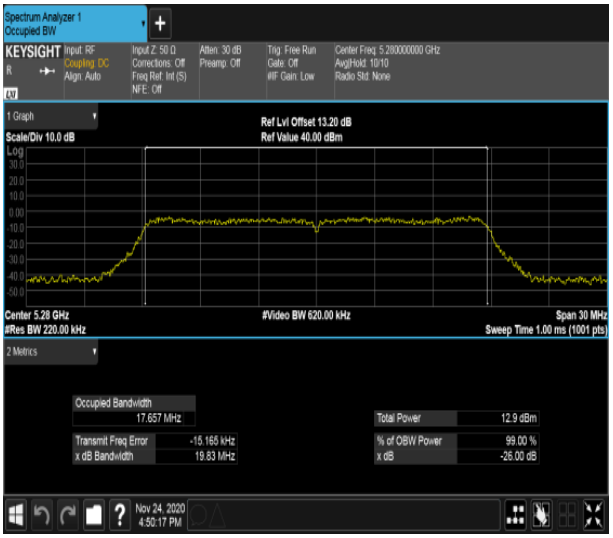
UNII-1 IEEE 802.11a mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

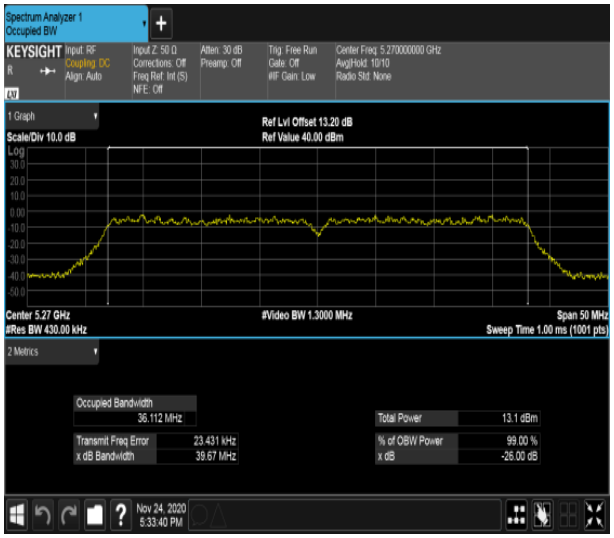
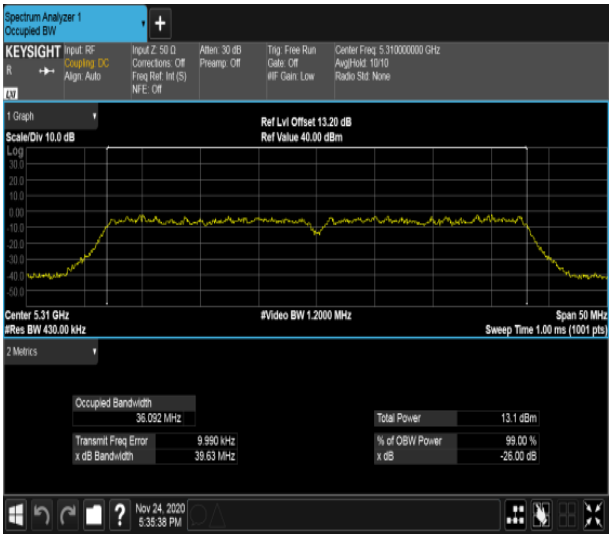
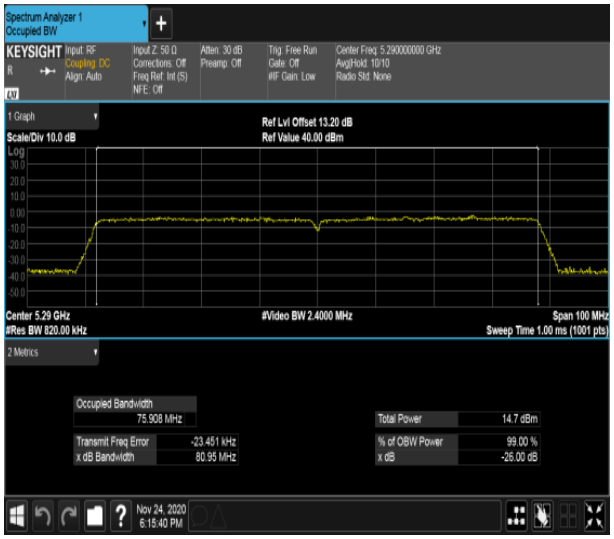
UNII-1 IEEE 802.11n HT20 mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

UNII-1 IEEE 802.11n HT40 mode- chain 1	
Low CH	**High CH**
	
UNII-1 IEEE 802.11ac VHT80 mode- chain 1	
Mid CH	
	

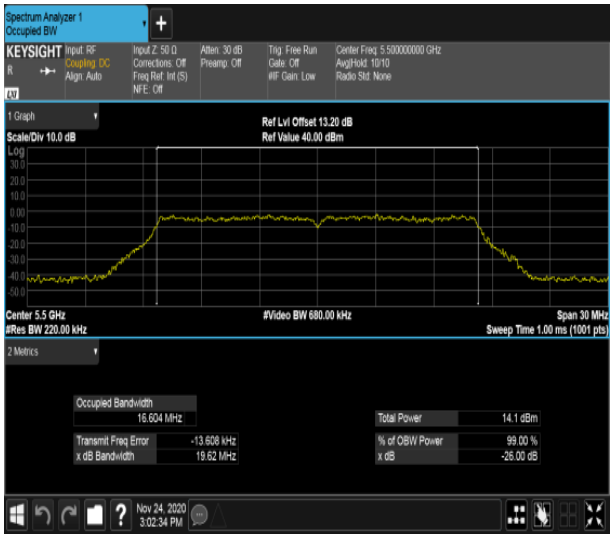
Test Data (26dB BANDWIDTH)

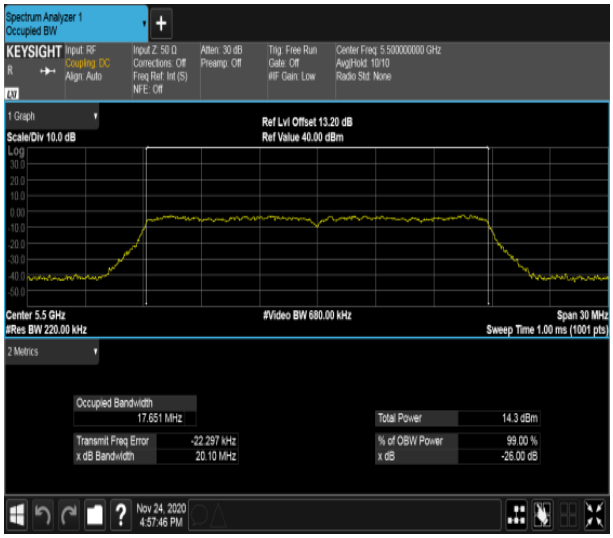
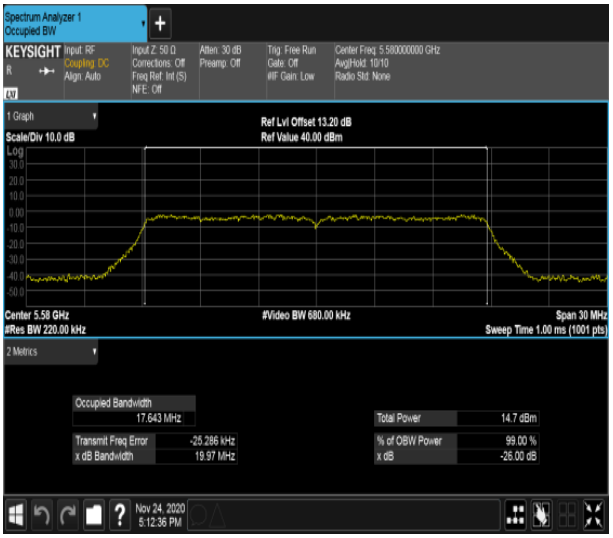
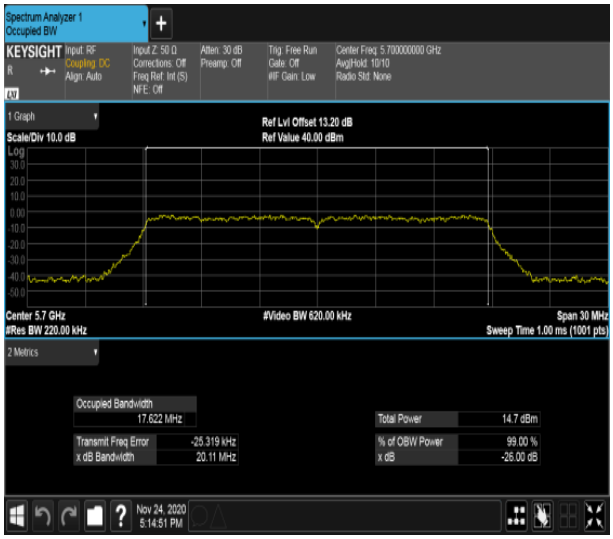
UNII-2a IEEE 802.11a mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

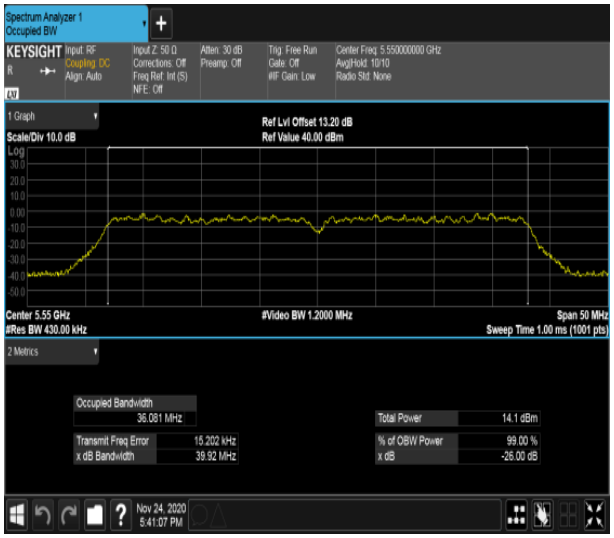
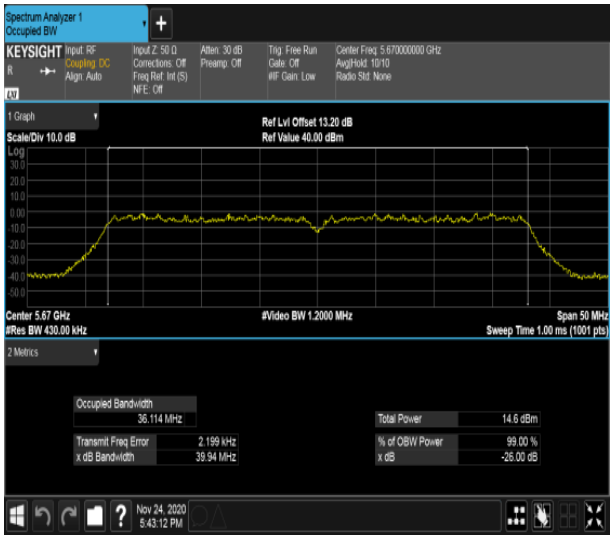
UNII-2a IEEE 802.11n HT20 mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

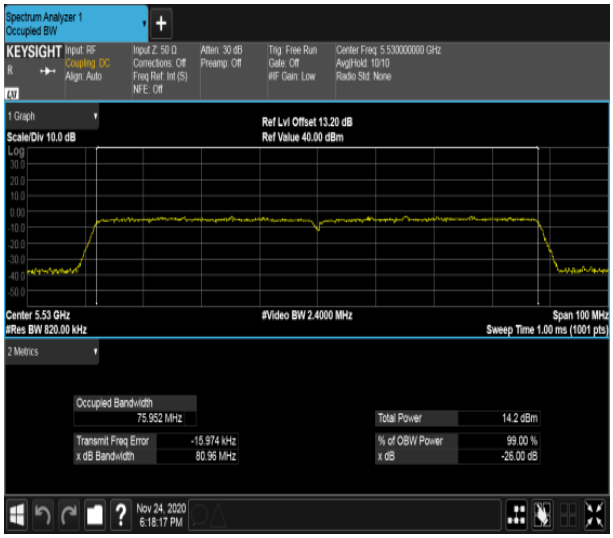
UNII-2a IEEE 802.11n HT40 mode- chain 1	
Low CH	**High CH**
	
UNII-2a IEEE 802.11ac VHT80 mode- chain 1	
Mid CH	
	

Test Data (26dB BANDWIDTH)

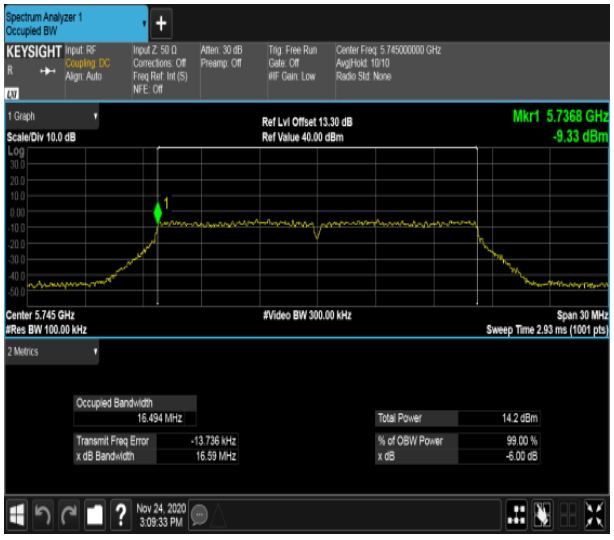
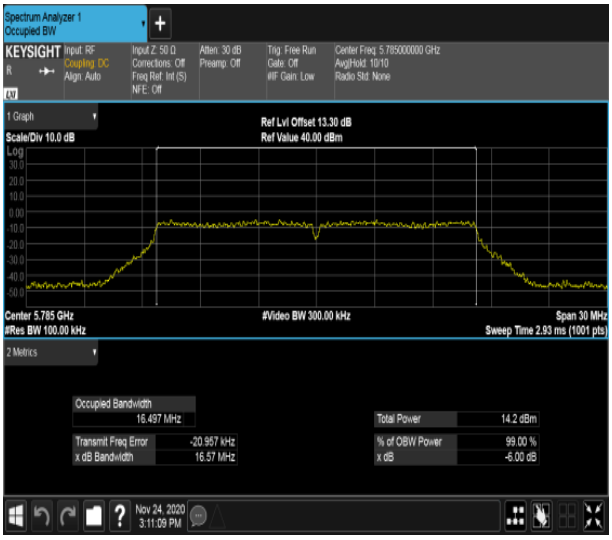
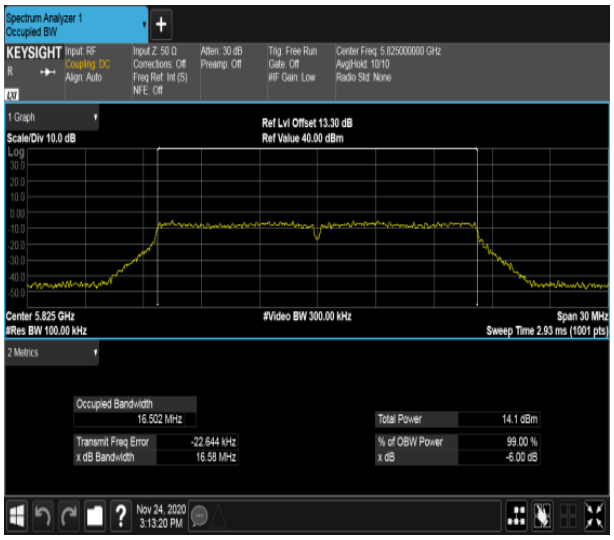
UNII-2c IEEE 802.11a mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

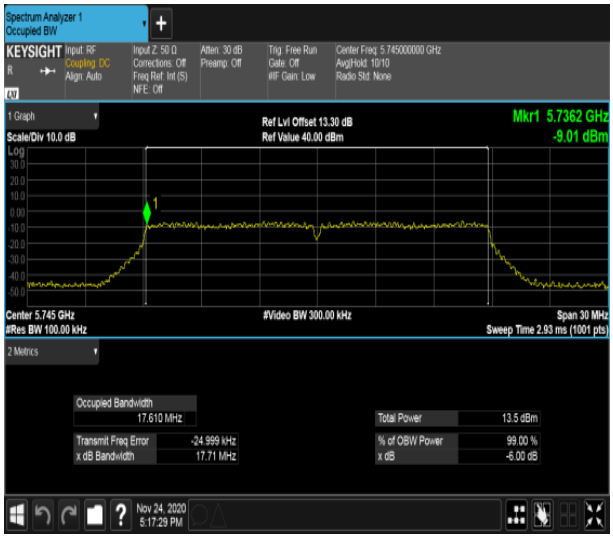
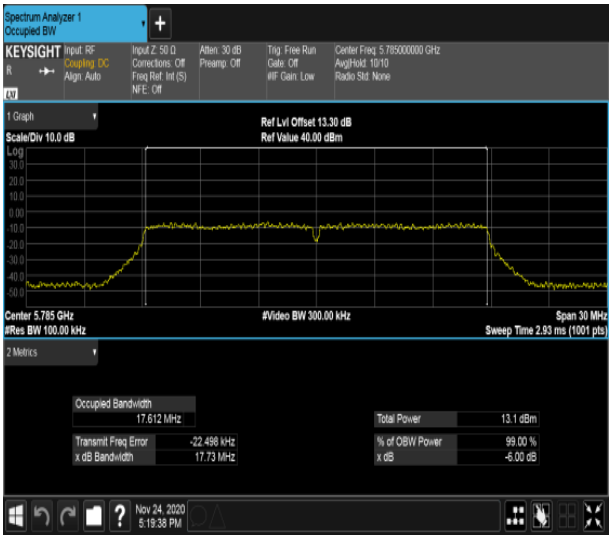
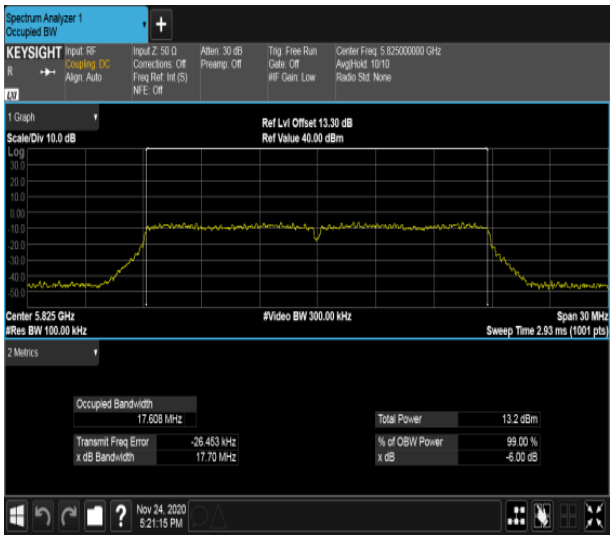
UNII-2c IEEE 802.11n HT20 mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

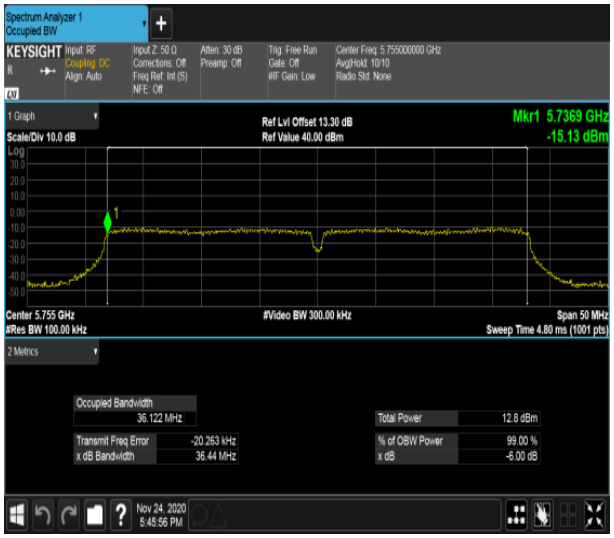
UNII-2c IEEE 802.11n HT40 mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

UNII-2c IEEE 802.11ac VHT80 mode- chain 1	
Low CH	**High CH**
	

Test Data (6dB BANDWIDTH)

UNII-3 IEEE 802.11a mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

UNII-3 IEEE 802.11n HT20 mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

UNII-3 IEEE 802.11n HT40 mode- chain 1	
Low CH	**High CH**
	
UNII-3 IEEE 802.11ac VHT80 mode- chain 1	
Mid CH