TEST REPORT

APPLICANT	:	Jiangsu SEUIC Technology Co.,Ltd.
PRODUCT NAME	:	Industrial Handheld Terminal
MODEL NAME	:	AUTOID Q7
BRAND NAME	:	Seuic
FCC ID	:	2AC68-AUTOIDQ7
STANDARD(S)	:	47 CFR Part 15 Subpart E
RECEIPT DATE	:	2019-05-20
TEST DATE	:	2019-06-10 to 2019-07-27
ISSUE DATE	:	2019-09-04

Edited by: Zeng Xiaoying (Rapporteur)

Approved by: Peng Huarui (Supervisor)

MORLAB

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DIRECTORY

Change History		
Version	**Date**	**Reason for change**
1.0	2019-09-04	First edition

1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Jiangsu SEUIC Technology Co.,Ltd.
Applicant Address:	NO.15 Xinghuo Road, Nanjing New & High Technology Industry Development Zone, Nanjing 210061, China
Manufacturer:	Jiangsu SEUIC Technology Co.,Ltd.
Manufacturer Address:	NO.15 Xinghuo Road, Nanjing New & High Technology Industry Development Zone, Nanjing 210061, China

1.2. Equipment Under Test (EUT) Description

Product Name:	Industrial Handheld Terminal	
Serial No:	(N/A, marked #1 by test site)	
Hardware Version:	D310PA_V3_MB	
Software Version:	D310P_20190412_V142	
Modulation Type:	OFDM	
Modulation Mode:	802.11a, 802.11n(HT20), 802.11n(HT40) 802.11ac(VHT20), 802.11ac(VHT40), 802.11ac(VHT80),	
Operating Frequency Range:	5.180 GHz- 5.240 GHz; 5.260 GHz -5.320 GHz ; 5.500 GHz -5.720 GHz ; 5.745GHz- 5.825GHz	
Channel Number:	Refer to 1.3	
Antenna Type:	PIFA Antenna	
Antenna Gain:	2.63 dBi	
Accessory Information:	Battery1	
	Brand Name:	N/A
	Model No.:	BT01310AIQ7
	Serial No.:	(N/A, marked #1 by test site)
	Capacity:	5000mAh
	Rated Voltage:	3.63V
	Charge Limit:	4.2 V

Accessory Information:	Battery2	
	Brand Name:	N/A
	Model No.:	351322
	Serial No.:	(N/A, marked #1 by test site)
	Capacity:	90mAh
	Rated Voltage:	3.7V
	Charge Limit:	4.2 V

Note 1: The product has two shipping modes, one is a separate Industrial Handheld Terminal, and the other is an Industrial Handheld Terminal without a PISTOL GRIP.

Note 2: WIFI hotspot does not support U-NII band.

Note 3: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

1.3. The channel number and frequency of EUT

Frequency Range: 5180MHz-5240MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	**36**	**5180**	40	5200
	44	**5220**	**48**	**5240**
40MHz	**38**	**5190**	**46**	**5230**
80MHz	**42**	**5210**		
Frequency Range: 5260MHz-5320MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	**52**	**5260**	56	5280
	60	**5300**	**64**	**5320**
40MHz	**54**	**5270**	**62**	**5310**
80MHz	**58**	**5290**		
Frequency Range: 5500MHz-5720MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	**100**	**5500**	105	5520
	108	5540	112	5560
	116	5580	**120**	**5600**
	124	5620	128	5640
	132	5660	136	5680
	140	5700	**144**	**5720**
40MHz	**102**	**5510**	110	5550
	118	5590	**126**	**5630**
	134	5670	**142**	**5710**
80MHz	**106**	**5530**	**122**	**5610**
	138	**5690**		
Frequency Range: 5745-5825MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	**149**	**5745**	153	5765
	157	**5785**	161	5805
	165	**5825**		
40MHz	**151**	**5775**	**159**	**5795**
80MHz	**155**	**5775**		

Note 1: The black bold channels were selected for test.

1.4. Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 15 Subpart E (U-NII band) for the EUT FCC ID Certification:

No	Identity	Document Title
1	47 CFR Part 15 (5-1-14 Edition)	Radio Frequency Devices

Test detailed items/section required by FCC rules and results are as below:

No.	Section	Description	Test Date	Test Engineer	Result	Method determination /Remark
1	15.203	Antenna Requirement	N/A	N/A	PASS	No deviation
2	ANSI C63.10	Duty Cycle of the test signal	Jun 10, 2019	Zhou Chuang	PASS	No deviation
3	15.407(a)	Maximum conducted output Power	Jun 11, 2019	Zhou Chuang	PASS	No deviation
4	15.407(a) (e)	Emission Bandwidth	Jun 10, 2019	Zhou Chuang	PASS	No deviation
5	15.407(a)	Maximum Power spectral density	Jun 10, 2019	Zhou Chuang	PASS	No deviation
6	15.407(g)	Frequency Stability	Jun 26, 2019	Zhou Chuang	PASS	No deviation
7	15.207	Conducted Emission	Jul 27, 2019	Peng Xuewei	PASS	No deviation
8	15.407(b)	Restricted Frequency Bands	Jul 27, 2019	Peng Xuewei	PASS	No deviation
9	15.407(b)	Radiated Emission	Jul 24, 2019	Peng Xuewei	PASS	No deviation

Note1: The DFS test report was documented in a separate report (Report No.: SZ19050235W05).

Note2: The tests of Conducted Emission and Radiated Emission were performed according to the method of measurements prescribed in ANSI C63.10 2013.

Note3: These RF tests were performed according to the method of measurements prescribed in KDB789033 D02 General UNII Test Procedures New Rules v02r01.

Note4: The path loss during the RF test is calibrated to correct the results by the offset setting in the test equipments. The ref offset 12.5dB contains two parts that cable loss 2.5dB and Attenuator 10dB.

Note 5: Additions to, deviation, or exclusions from the method should be judged in the "method determination" column of add, deviate or exclude from the specific method should be explained in the "Remark" of the above table.

1.5. Environmental Conditions

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

Temperature (°C):	15 - 35
Relative Humidity (%):	30 -60
Atmospheric Pressure (kPa):	86-106

2. 47 CFR Part 15E Requirements

2.1. Antenna requirement

2.1.1. Applicable Standard

According to FCC 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

2.1.2. 2.1.2 Result: Compliant

The EUT has a permanently and irreplaceable attached antenna. Please refer to the EUT internal photos.

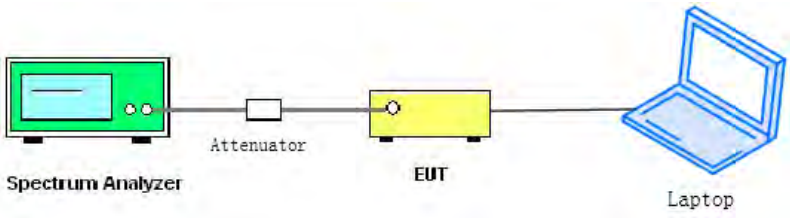
2.2. Duty Cycle of the test signal

2.2.1. Requirement

Preferably, all measurements of maximum conducted (average) output power will be performed with the EUT transmitting continuously (i.e., with a duty cycle of greater than or equal to 98%). When continuous operation cannot be realized, then the use of sweep triggering/signal gating techniques can be used to ensure that measurements are made only during transmissions at the maximum power control level. Such sweep triggering/signal gating techniques will require knowledge of the minimum transmission duration (T) over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation. Sweep triggering/signal gating techniques can then be used if the measurement/sweep time of the analyzer can be set such that it does not exceed T at any time that data are being acquired (i.e., no transmitter OFF-time is to be considered).
When continuous transmission cannot be achieved and sweep triggering/signal gating cannot be implemented, alternative procedures are provided that can be used to measure the average power; however, they will require an additional measurement of the transmitter duty cycle (D). Within this subclause, the duty cycle refers to the fraction of time over which the transmitter is ON and is transmitting at its maximum power control level. The duty cycle is considered to be constant if variations are less than ±2%; otherwise, the duty cycle is considered to be nonconstant.

2.2.2. Test Description

A. Test Set:



The EUT is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

B. Test Procedure

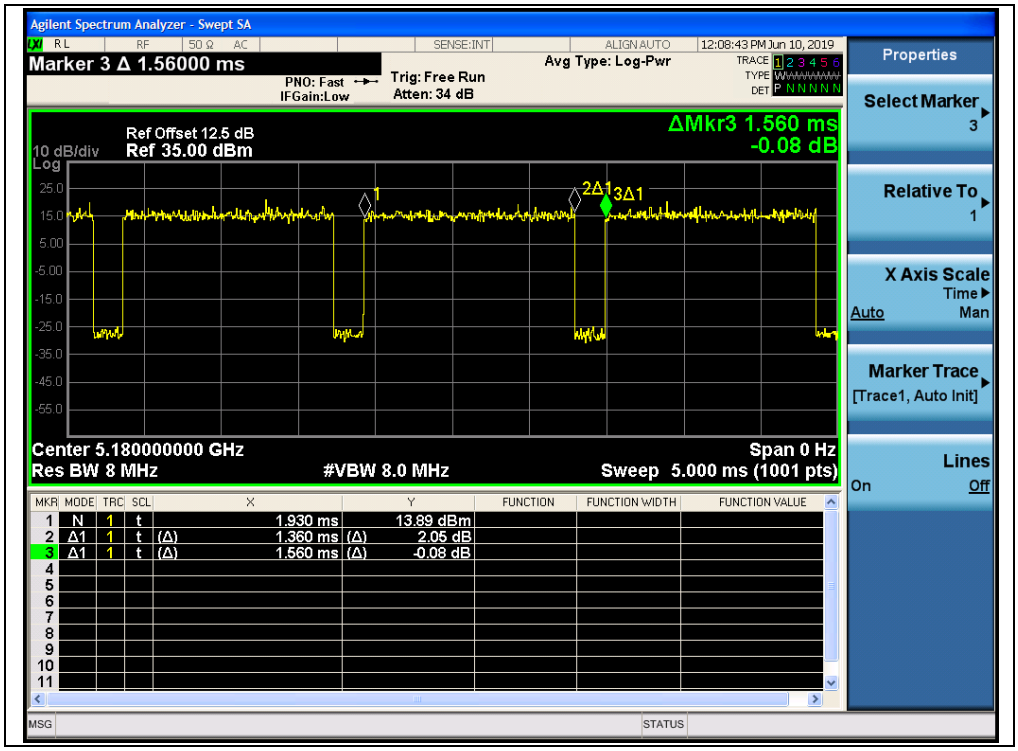
KDB 789033 Section B was used in order to prove compliance.

2.2.3. Test Result

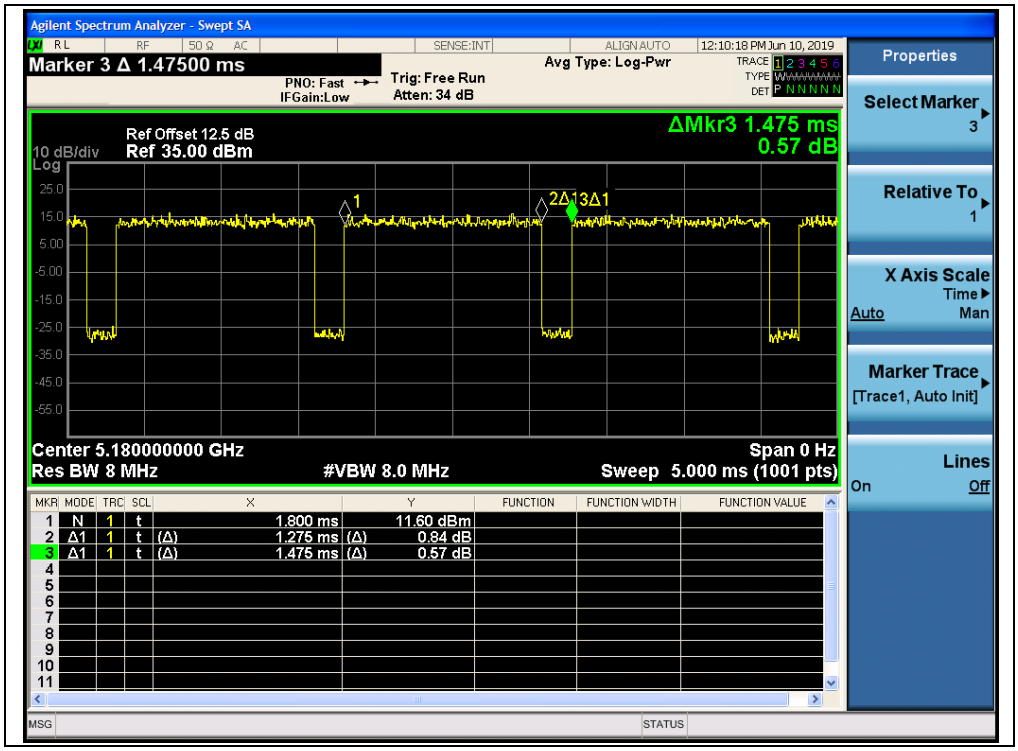
A. Test Verdict:

Test Mode	Duty Cycle (%) (D)	Duty Factor (10*log[1/D])
802.11a	87.18	0.60
802.11n(HT20)	86.44	0.63
802.11n(HT40)	76.26	1.18
802.11ac(VHT20)	82.98	0.81
802.11ac(VHT40)	71.10	1.48
802.11ac(VHT80)	55.36	2.57

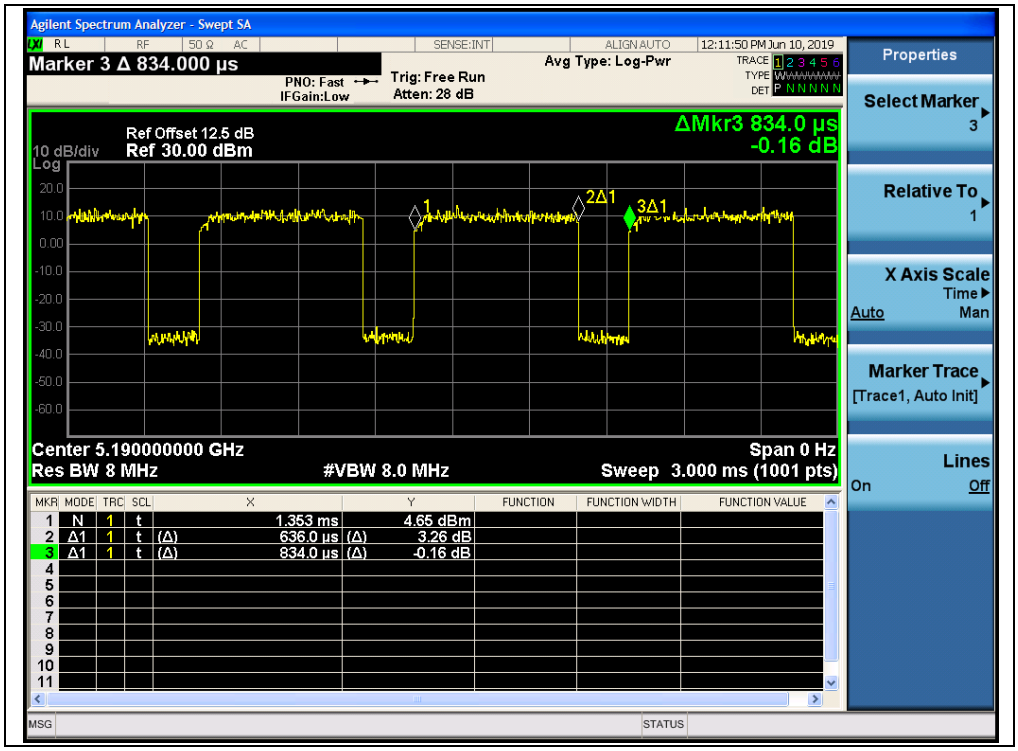
B. Test Plots



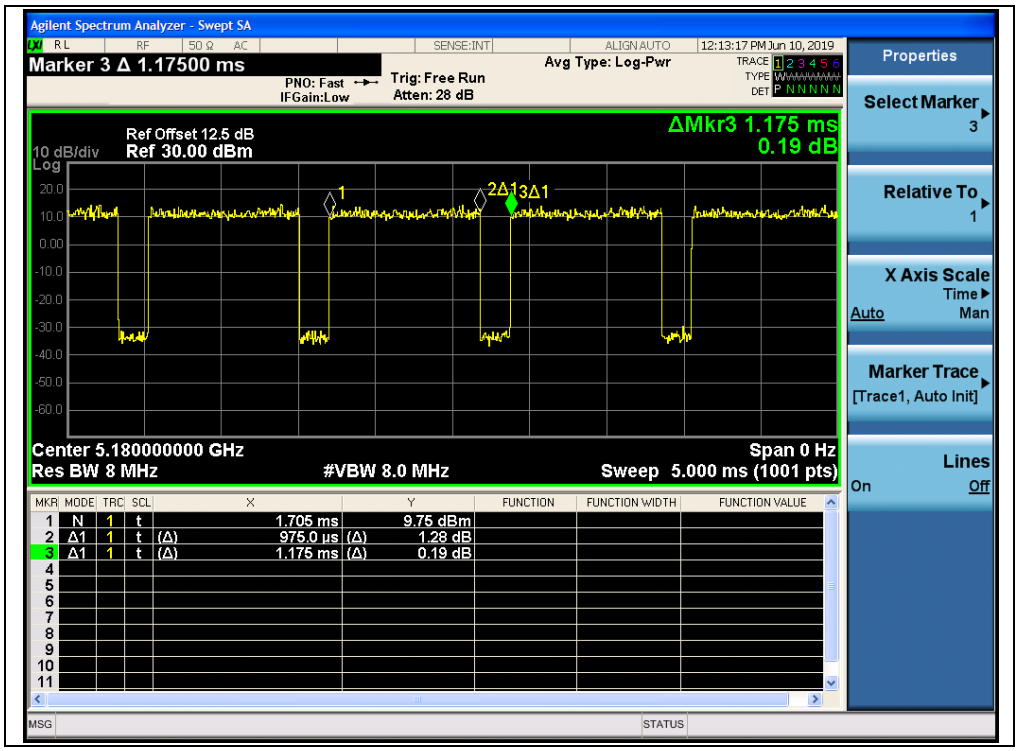
(CH36_5180MHz_802.11a)



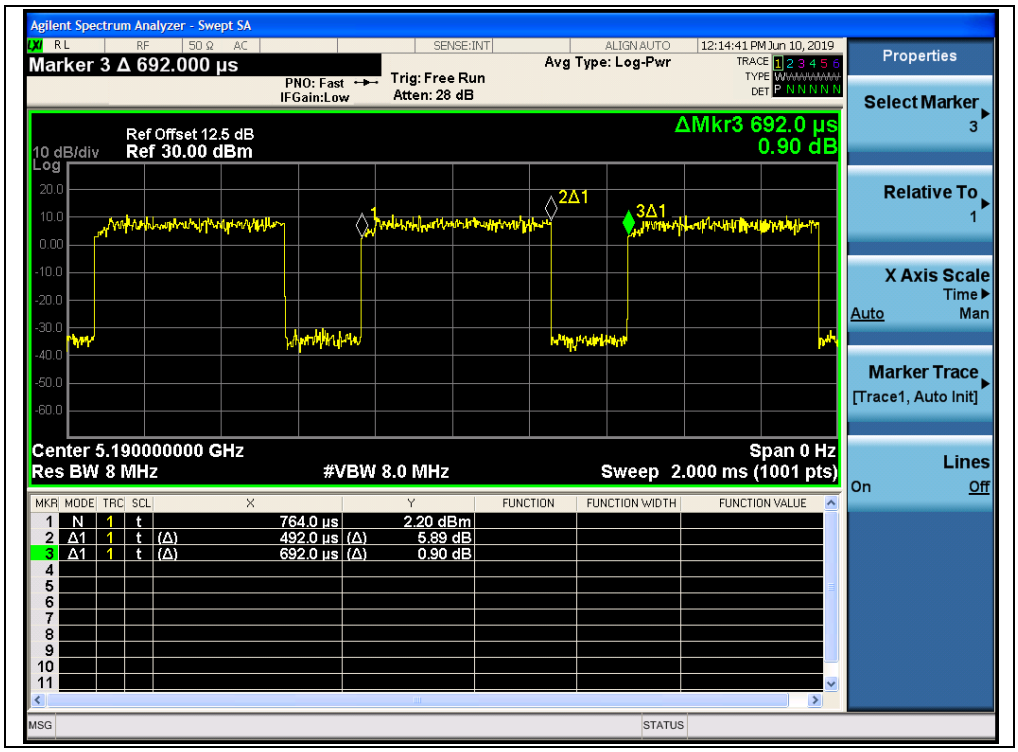
(CH36_5180MHz _802.11n(HT20))



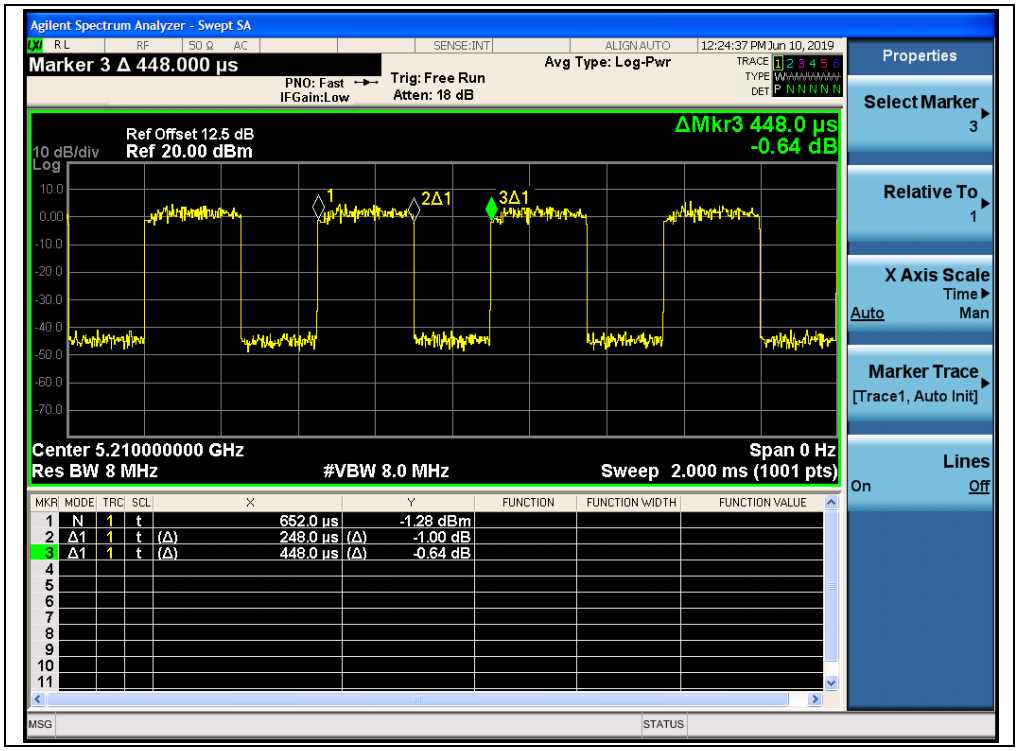
(CH38_5190MHz _802.11n(HT40))



(CH36_5180MHz _802.11ac(VHT20))



(CH38_5190MHz _802.11 ac(VHT40))



(CH42_5210MHz _802.11 ac(VHT80))

2.3. Maximum conducted output power

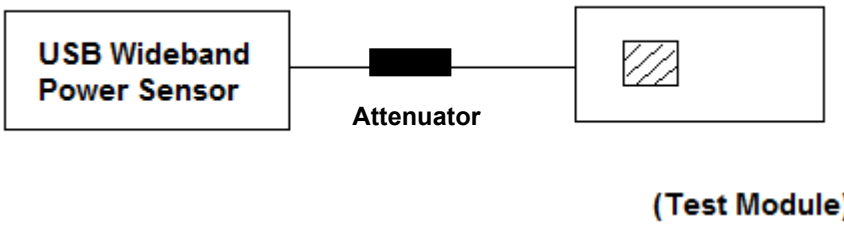
2.3.1. Requirement

(1) For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.
(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.
(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.
If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
(4) According to KDB662911D01Measure-and-sum technique, the conducted emission level (e.g., transmit power or power in specified bandwidth) is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically to determine the total emission level from the device. Summing is performed in units that are directly proportional to power.
(5) According to KDB 662911 D01, the directional gain = G_{ANT} +10log(N_{ANT}) dBi, where G_{ANT} is the antenna gain in dBi, N_{ANT} is the number of outputs.

2.3.2. Test Description

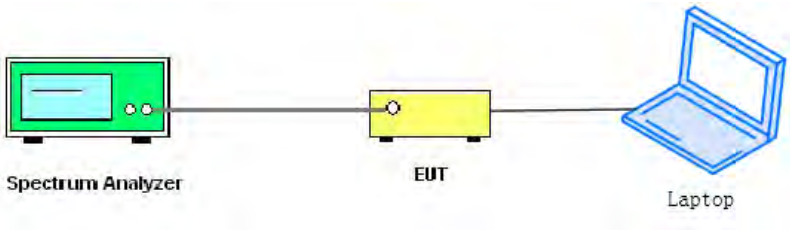
Section E) 3) of KDB 789033 defines a methodology using a USB Wideband Power Sensor.

A. Test Setup:



The EUT (Equipment under the test) which is coupled to the USB Wideband Power Sensor; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading, all test result in USB Wideband Power Sensor.

For ac (VHT80) mode power



The EUT (Equipment under the test) is coupled to the Spectrum analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading, all test result in Spectrum analyzer.

2.3.3. Limits

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.

Mode	Band	Channel (MHz)	26dB BW (MHz)	11+10log(26dB BW)	Limits (dBm)
a	UNII-2a	5260	22.00	24.42	24.00
		5300	21.96	24.42	24.00
		5320	22.13	24.45	24.00
	UNII-2c	5500	22.47	24.52	24.00
		5600	22.04	24.43	24.00
		5720	21.64	24.35	24.00
n20	UNII-2a	5260	22.34	24.49	24.00
		5300	22.53	24.53	24.00
		5320	22.42	24.51	24.00
	UNII-2c	5500	22.22	24.47	24.00
		5600	22.77	24.57	24.00
		5720	22.34	24.49	24.00
ac20	UNII-2a	5260	22.13	24.45	24.00
		5300	22.06	24.44	24.00
		5320	22.05	24.43	24.00
	UNII-2c	5500	22.12	24.45	24.00
		5600	22.23	24.47	24.00
		5720	22.07	24.44	24.00

2.3.4. Test Result

Maximum Peak Conducted Output Power

802.11a Test mode

Channel	Frequency (MHz)	Measured Peak Power		Limit (dBm)		Verdict
		dBm	W	dBm	W	
36	5180	22.60	0.182	24	0.25	PASS
44	5220	22.39	0.173			
48	5240	23.18	0.208			
52	5260	23.03	0.201			
60	5300	22.81	0.191			
64	5320	22.91	0.195			
100	5500	22.39	0.173			
120	5600	22.67	0.185			
144	5720	22.25	0.168			
149	5745	22.31	0.170	30	1	
157	5785	22.18	0.165			
165	5825	22.13	0.163			

802.11n (HT20) Test mode

Channel	Frequency (MHz)	Measured Peak Power		Limit (dBm)		Verdict
		dBm	W	dBm	W	
36	5180	22.57	0.181	24	0.25	PASS
44	5220	22.39	0.173			
48	5240	23.03	0.201			
52	5260	22.87	0.194			
60	5300	22.78	0.190			
64	5320	22.14	0.164			
100	5500	22.00	0.158			
120	5600	22.16	0.164			
144	5720	22.11	0.163			
149	5745	22.01	0.159	30	1	
157	5785	21.99	0.158			
165	5825	21.37	0.137			

802.11n (HT40) Test mode

Channel	Frequency (MHz)	Measured Peak Power		Limit (dBm)		Verdict
		dBm	W	dBm	W	
38	5190	22.61	0.182	24	0.25	PASS
46	5230	22.45	0.176			
54	5270	22.94	0.197			
62	5310	22.61	0.182			
102	5510	22.36	0.172			
126	5630	22.17	0.165			
142	5710	21.96	0.157			
151	5755	22.42	0.175	30	1	
159	5795	22.36	0.172			

802.11ac (VHT20) Test mode

Channel	Frequency (MHz)	Measured Peak Power		Limit (dBm)		Verdict
		dBm	W	dBm	W	
36	5180	20.62	0.115	24	0.25	PASS
44	5220	20.35	0.108			
48	5240	21.12	0.129			
52	5260	21.07	0.128			
60	5300	20.81	0.121			
64	5320	20.55	0.114			
100	5500	20.11	0.103			
120	5600	20.26	0.106			
144	5720	19.71	0.094			
149	5745	19.74	0.094	30	1	
157	5785	19.65	0.092			
165	5825	19.34	0.086			

802.11ac (VHT40) Test mode

Channel	Frequency (MHz)	Measured Peak Power		Limit (dBm)		Verdict
		dBm	W	dBm	W	
38	5190	21.62	0.145	24	0.25	PASS
46	5230	21.31	0.135			
54	5270	21.97	0.157			
62	5310	21.66	0.147			
102	5510	21.43	0.139			
126	5630	21.38	0.137			
142	5710	20.41	0.110			
151	5755	21.18	0.131	30	1	
159	5795	20.95	0.124			

802.11ac (VHT80) Test mode

Channel	Frequency (MHz)	Measured Peak Power (dBm)		Limit(dBm)		Verdict
		dBm	W	dBm	W	
42	5210	21.79	0.151	24	0.25	PASS
58	5290	22.12	0.163			
106	5530	21.36	0.137			
138	5690	20.79	0.120			
155	5775	21.27	0.134	30		

Maximum Average Conducted Output Power

802.11a Test mode

Frequency (MHz)	Average Power (dBm)				Limit (dBm)		Verdict
	Measured	Duty Factor	Duty factor Calculated				
	dBm		dBm	W	dBm	W	
5180	11.78	0.60	12.38	0.017	24	0.25	PASS
5220	11.61		12.21	0.017			
5240	12.10		12.70	0.019			
5260	12.01		12.61	0.018			
5300	11.81		12.41	0.017			
5320	11.90		12.50	0.018			
5500	11.60		12.20	0.017			
5600	11.92		12.52	0.018			
5720	11.58		12.18	0.017			
5745	11.41		12.01	0.016	30	1	
5785	11.12		11.72	0.015			
5825	10.82		11.42	0.014			

802.11 n (HT20) Test mode

Frequency (MHz)	Average Power (dBm)				Limit (dBm)		Verdict
	Measured	Duty Factor	Duty factor Calculated				
	dBm		dBm	W	dBm	W	
5180	11.63	0.63	12.26	0.017	24	0.25	PASS
5220	11.15		11.78	0.015			
5240	11.88		12.51	0.018			
5260	11.77		12.40	0.017			
5300	11.56		12.19	0.017			
5320	11.22		11.85	0.015			
5500	11.02		11.65	0.015			
5600	11.07		11.70	0.015			
5720	10.54		11.17	0.013			
5745	10.41		11.04	0.013	30	1	
5785	10.30		10.93	0.012			
5825	9.94		10.57	0.011			

802.11 n (HT40) Test mode

Frequency (MHz)	Average Power (dBm)				Limit (dBm)		Verdict
	Measured	Duty Factor	Duty factor Calculated				
	dBm		dBm	W	dBm	W	
5190	10.05	1.18	11.23	0.013	24	0.25	PASS
5230	9.79		10.97	0.013			
5270	10.47		11.65	0.015			
5310	10.21		11.39	0.014			
5510	9.91		11.09	0.013			
5630	9.88		11.06	0.013			
5710	8.87		10.05	0.010			
5755	9.70		10.88	0.012	30	1	
5795	9.39		10.57	0.011			

802.11 ac (VHT20) Test mode

Frequency (MHz)	Average Power (dBm)				Limit (dBm)		Verdict
	Measured	Duty Factor	Duty factor Calculated				
	dBm		dBm	W	dBm	W	
5180	9.64	0.81	10.45	0.011	24	0.25	PASS
5220	9.39		10.20	0.010			
5240	10.20		11.01	0.013			
5260	10.08		10.89	0.012			
5300	9.91		10.72	0.012			
5320	9.68		10.49	0.011			
5500	9.15		9.96	0.010			
5600	9.31		10.12	0.010			
5720	8.79		9.60	0.009			
5745	8.87		9.68	0.009	30	1	
5785	8.65		9.46	0.009			
5825	8.40		9.21	0.008			

802.11 ac (VHT40) Test mode

Frequency (MHz)	Average Power (dBm)				Limit (dBm)		Verdict
	Measured	Duty Factor	Duty factor Calculated				
	dBm		dBm	W	dBm	W	
5190	10.09	1.48	11.57	0.014	24	0.25	PASS
5230	9.86		11.34	0.014			
5270	10.48		11.96	0.016			
5310	10.21		11.69	0.015			
5510	9.96		11.44	0.014			
5630	9.89		11.37	0.014			
5710	8.99		10.47	0.011			
5755	9.68		11.16	0.013	30	1	
5795	9.46		10.94	0.012			

802.11 ac (VHT80) Test mode

Frequency (MHz)	Average Power (dBm)				Limit (dBm)		Verdict
	Measured	Duty Factor	Duty factor Calculated				
	dBm		dBm	W	dBm	W	
5210	8.69	2.57	11.26	0.013	24	0.25	PASS
5290	9.05		11.62	0.015			
5530	8.39		10.96	0.012			
5690	7.86		10.43	0.011			
5775	8.22		10.79	0.012	30	1	

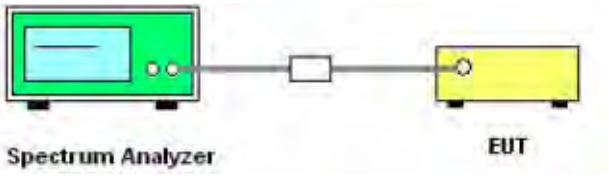
2.4. Emission Bandwidth

2.4.1. Requirement

For purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. Determination of the emissions bandwidth is based on the use of measurement instrumentation employing a peak detector function with an instrument resolution bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement. Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

2.4.2. Test Description

A. Test Set:



The EUT is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

B. Test Procedure

1. KDB 789033 Section C) 1) Emission Bandwidth was used in order to prove compliance

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 peak 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%.

2. KDB 789033 Section C) 2) minimum emission bandwidth for the band 5.725-5.85GHz was used in order to prove compliance.

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

a) Set RBW = 100 kHz.

b) Set the video bandwidth (VBW) ≥ 3 × RBW.

c) Detector = Peak.

d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.
g) 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.

2.4.3. Test Result

802.11a Test mode

A. Test Verdict:

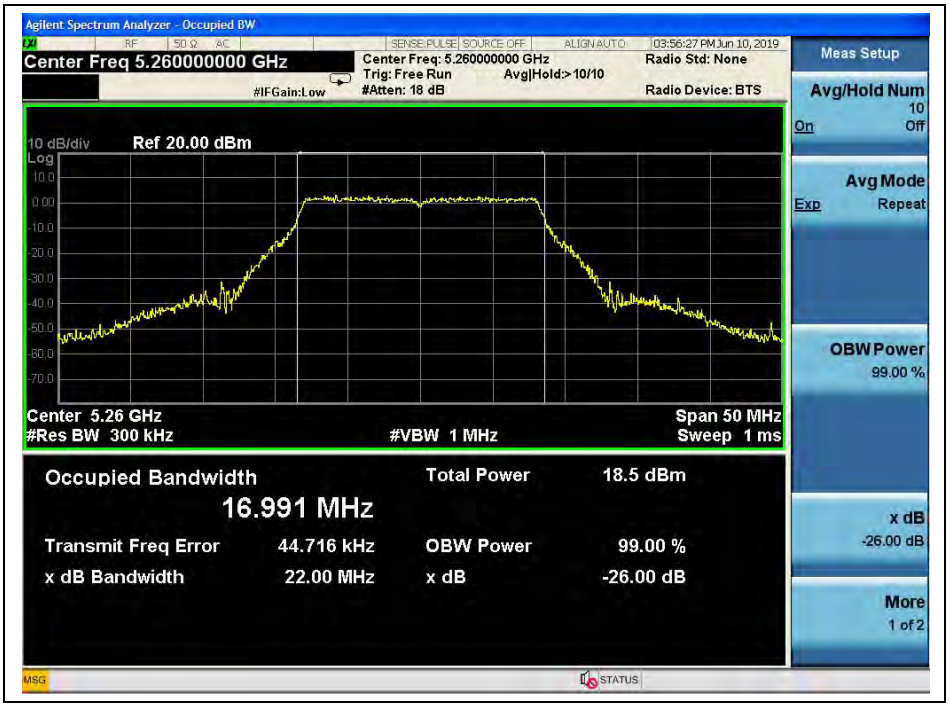
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
36	5180	21.89
44	5220	22.25
48	5240	22.17
52	5260	22.00
60	5300	21.96
64	5320	22.13
100	5500	22.47
120	5600	22.04
144	5720	21.64
Channel	**Frequency (MHz)**	**6dB Bandwidth (MHz)**
144	5720	16.46
149	5745	16.45
157	5785	16.46
165	5825	16.46

B. Test Plots

(Channel 36, 5180MHz, 802.11a,)

(Channel 44, 5220 MHz, 802.11a,)

(Channel 48, 5240MHz, 802.11a,)



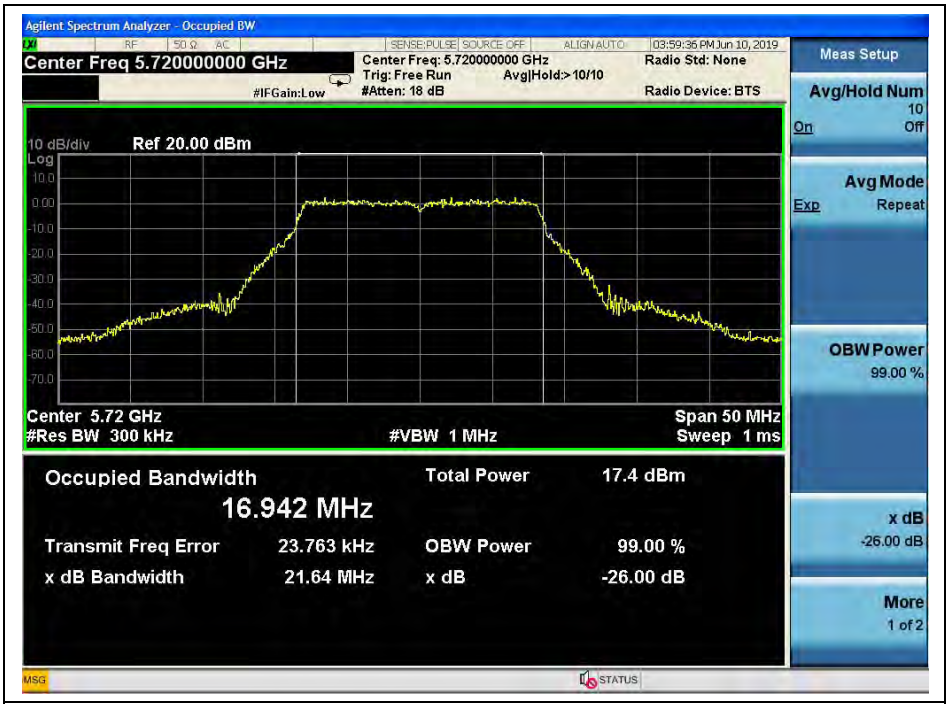
(Channel 52, 5260MHz, 802.11a,)

(Channel 60, 5300 MHz, 802.11a,)

(Channel 64, 5320MHz, 802.11a,)

(Channel 100, 5500MHz, 802.11a,)

(Channel 120, 5600 MHz, 802.11a,)



(Channel 144, 5720MHz, 802.11a,)

(Channel 144, 5720MHz, 802.11a,)

(Channel 149, 5745MHz, 802.11a)

(Channel 157, 5785MHz, 802.11a)

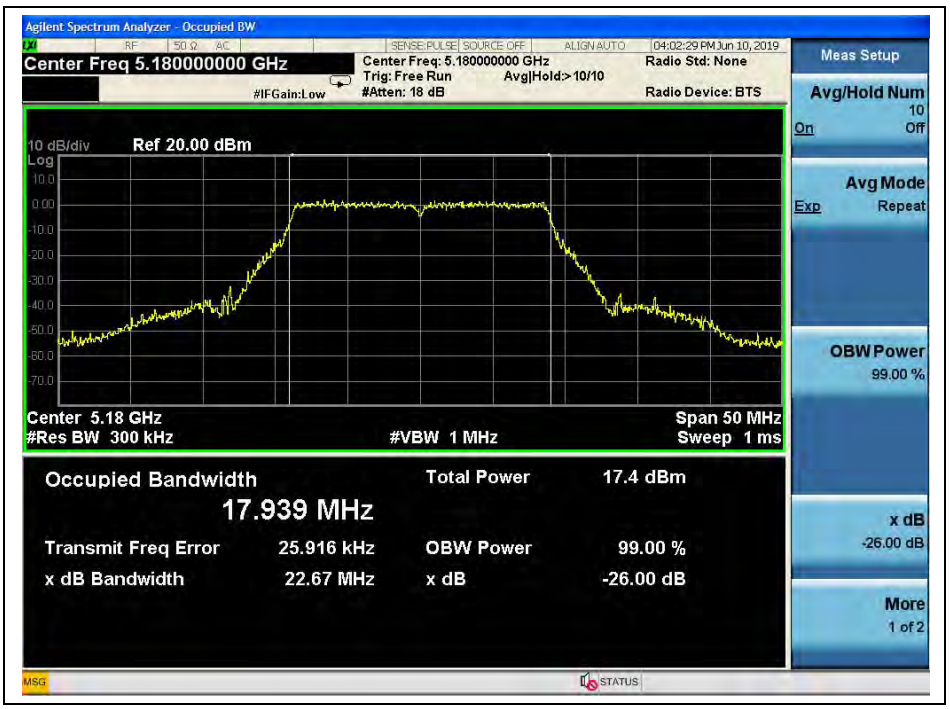
(Channel 165, 5825MHz, 802.11a)

802.11n (HT20) Test mode

A. Test Verdict:

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
36	5180	22.67
44	5220	22.29
48	5240	22.31
52	5260	22.34
60	5300	22.53
64	5320	22.42
100	5500	22.22
120	5600	22.77
144	5720	22.34
Channel	**Frequency (MHz)**	**6dB Bandwidth (MHz)**
144	5720	17.68
149	5745	17.67
157	5785	17.64
165	5825	17.65

B. Test Plots



(Channel 36, 5180MHz, 802.11 n (HT20))

(Channel 44, 5220 MHz, 802.11 n (HT20))

(Channel 48, 5240MHz, 802.11 n (HT20))

(Channel 52, 5260MHz, 802.11 n (HT20))

(Channel 60, 5300 MHz, 802.11 n (HT20))

(Channel 64, 5320MHz, 802.11 n (HT20))

(Channel 100, 5500MHz, 802.11 n (HT20))

(Channel 120, 5600 MHz, 802.11 n (HT20))

(Channel 144, 5720MHz, 802.11 n (HT20))

(Channel 144, 5720MHz, 802.11 n (HT20))

(Channel 149, 5745MHz, 802.11 n (HT20))

(Channel 157, 5785MHz, 802.11 n (HT20))

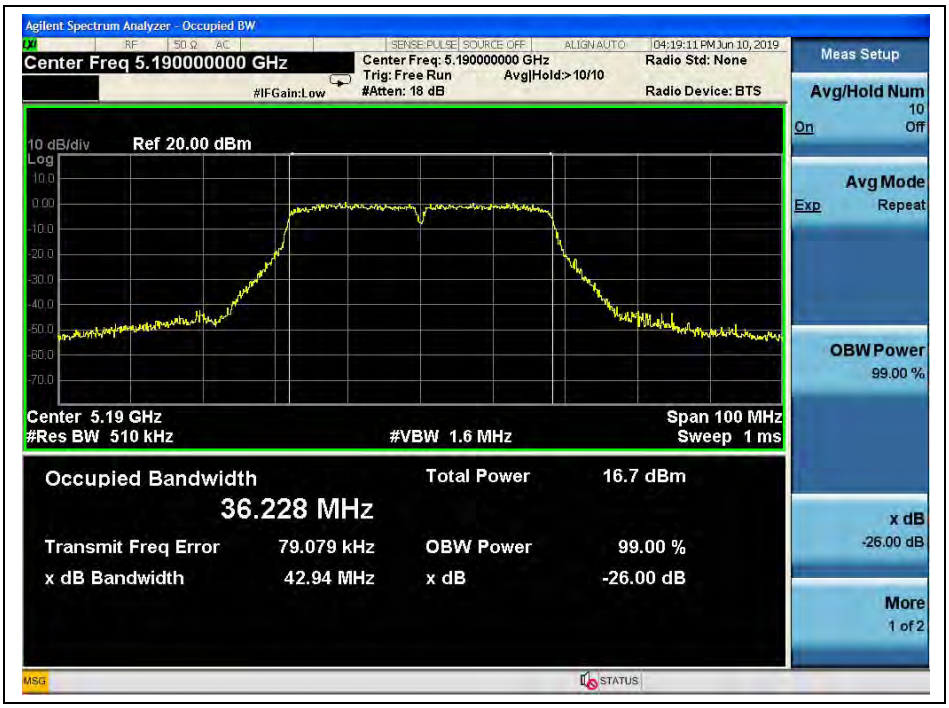
(Channel 165, 5825MHz, 802.11 n (HT20))

802.11n (HT40) Test mode

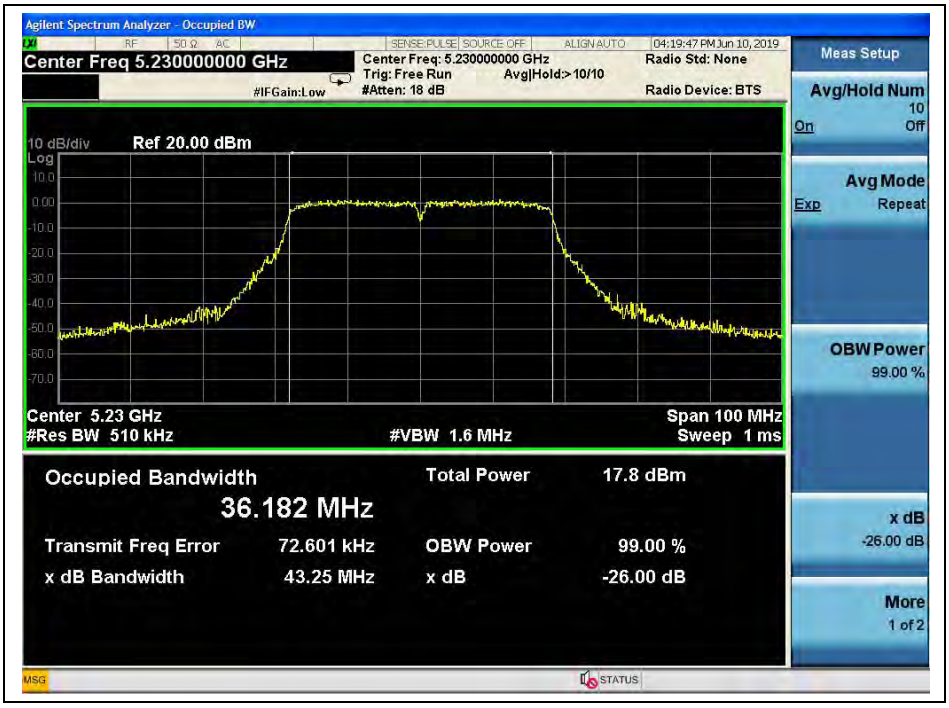
A. Test Verdict:

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
38	5190	42.94
46	5230	43.25
54	5270	43.05
62	5310	43.00
102	5510	43.56
126	5630	42.90
142	5710	42.88
Channel	**Frequency (MHz)**	**6dB Bandwidth (MHz)**
142	5710	36.02
151	5755	36.30
159	5795	35.64

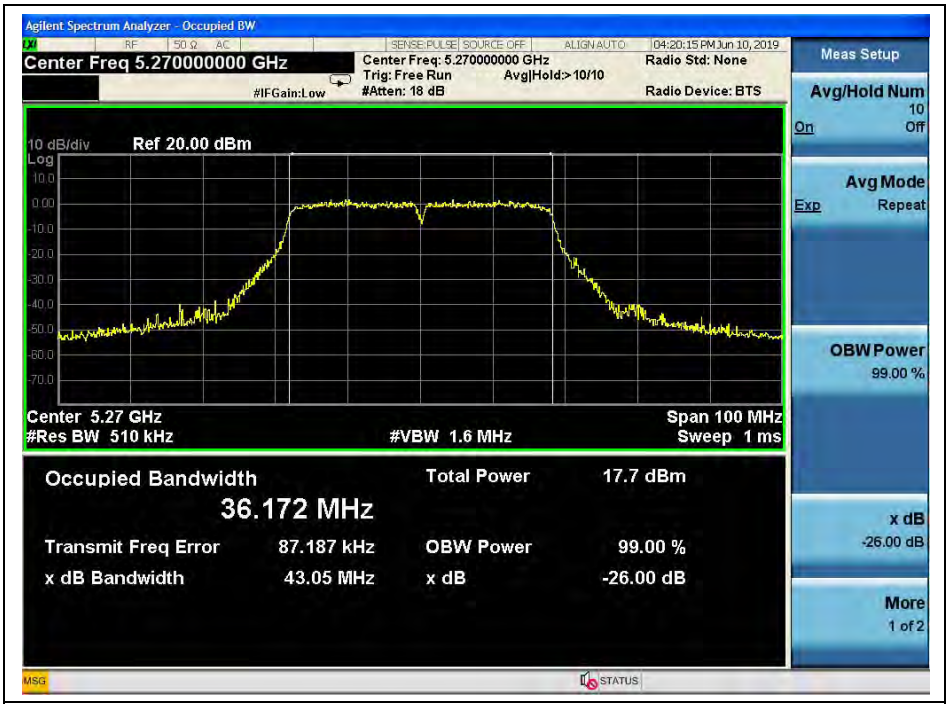
B. Test Plots



(Channel 38, 5190MHz, 802.11n (HT40))



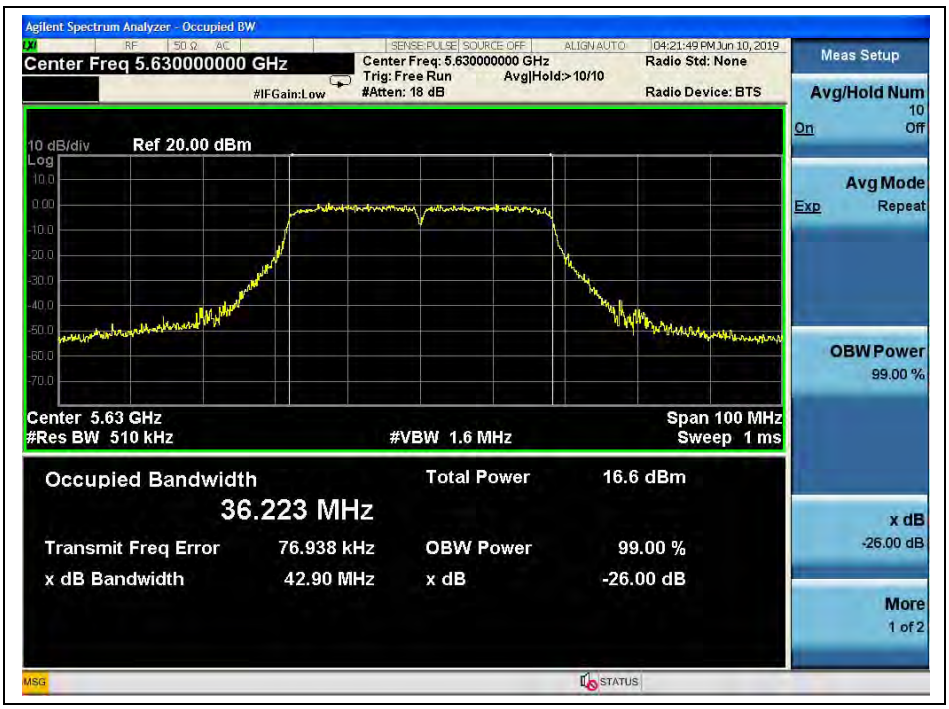
(Channel 46, 5230 MHz, 802.11n (HT40))



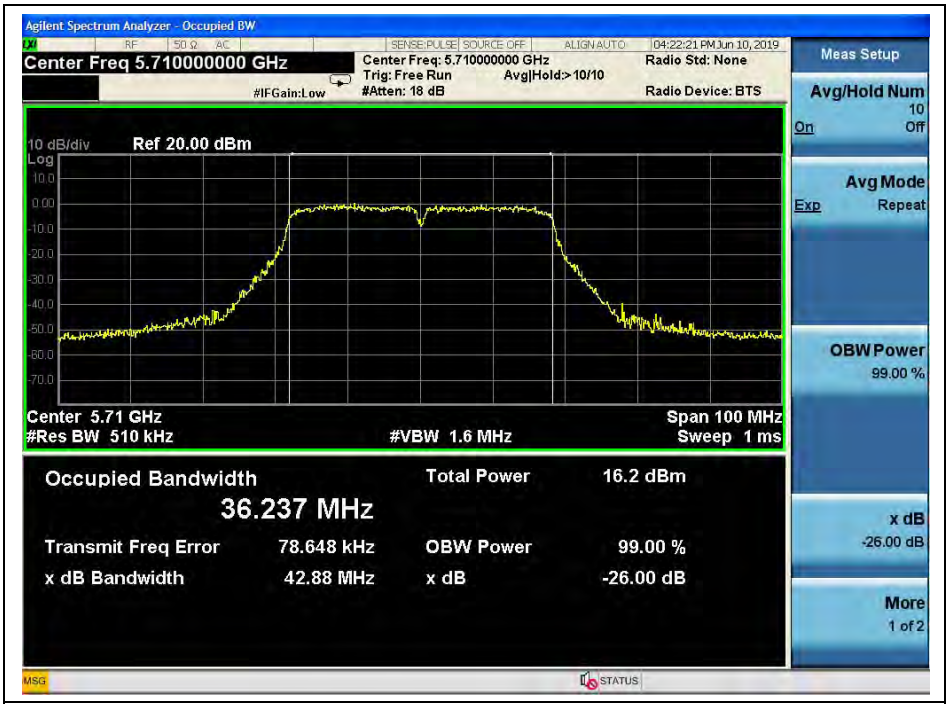
(Channel 54, 5270MHz, 802.11n (HT40))

(Channel 62, 5310 MHz, 802.11n (HT40))

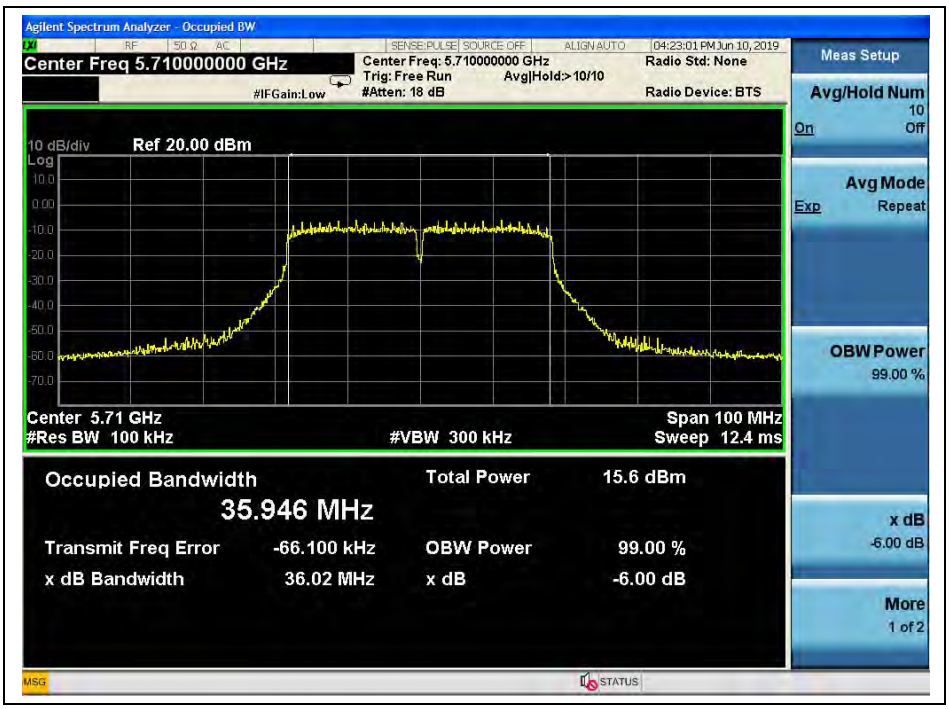
(Channel 102, 5510MHz, 802.11n (HT40))



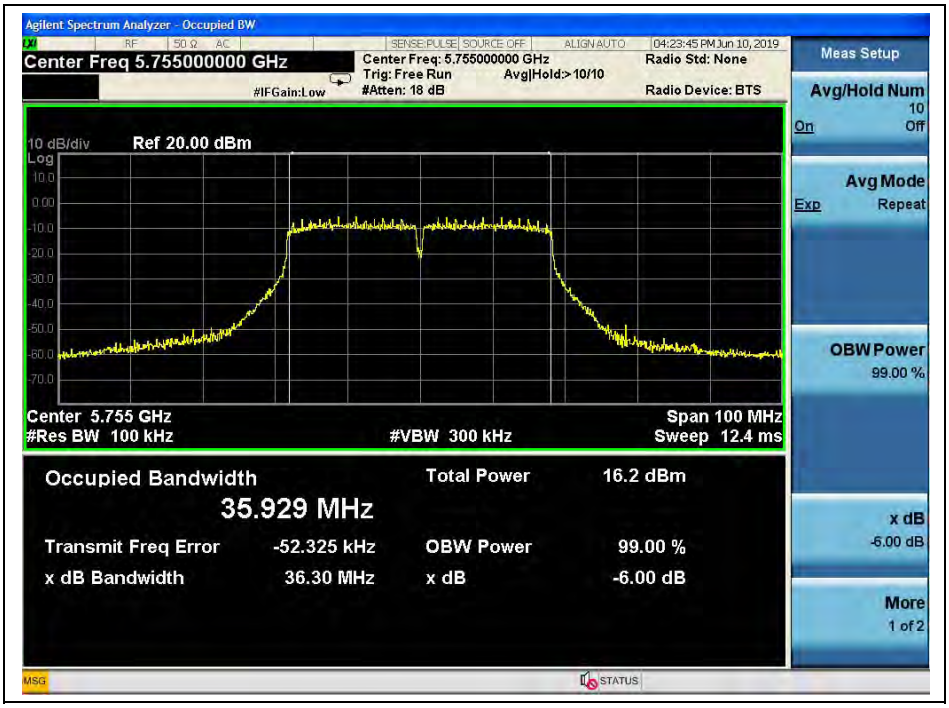
(Channel 126, 5630 MHz, 802.11n (HT40))



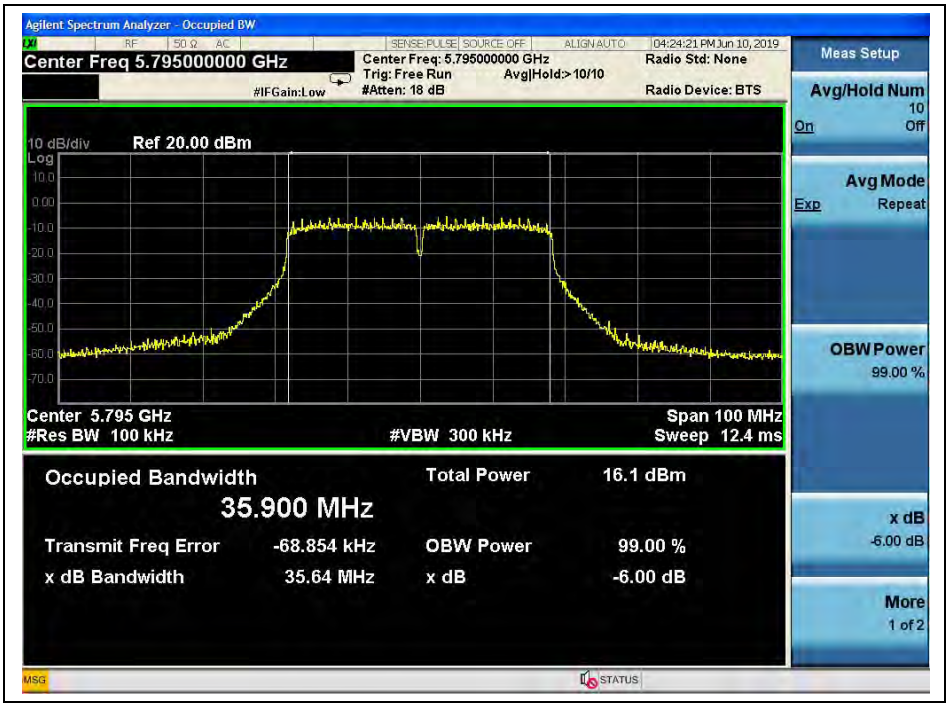
(Channel 142, 5710MHz, 802.11n (HT40))



(Channel 142, 5710MHz, 802.11n (HT40))



(Channel 151, 5755 MHz, 802.11n (HT40))



(Channel 159, 5795MHz, 802.11n (HT40))

802.11ac (VHT20) Test mode

A. Test Verdict:

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
36	5180	21.99
44	5220	22.19
48	5240	22.08
52	5260	22.13
60	5300	22.06
64	5320	22.05
100	5500	22.12
120	5600	22.23
144	5720	22.07
Channel	**Frequency (MHz)**	**6dB Bandwidth (MHz)**
144	5720	17.66
149	5745	17.64
157	5785	17.65
165	5825	17.65

B. Test Plots

(Channel 36, 5180MHz, 802.11 ac (VHT20))

(Channel 44, 5220 MHz, 802.11 ac (VHT20))

(Channel 48, 5240MHz, 802.11 ac (VHT20))

(Channel 52, 5260MHz, 802.11 ac (VHT20))

(Channel 60, 5300 MHz, 802.11 ac (VHT20))

(Channel 64, 5320MHz, 802.11 ac (VHT20))

(Channel 100, 5500MHz, 802.11 ac (VHT20))

(Channel 120, 5600 MHz, 802.11 ac (VHT20))

(Channel 144, 5720MHz, 802.11 ac (VHT20))

(Channel 144, 5720MHz, 802.11 ac (VHT20))

(Channel 149, 5745MHz, 802.11 ac (VHT20))

(Channel 157, 5785MHz, 802.11 ac (VHT20))

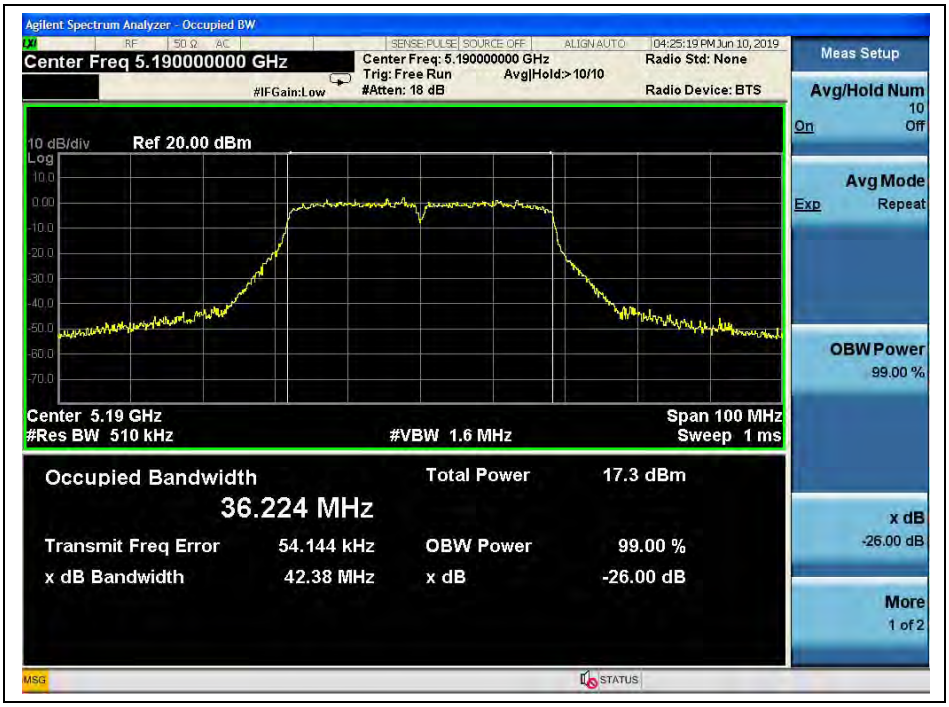
(Channel 165, 5825MHz, 802.11 ac (VHT20))

802.11ac (VHT40) Test mode

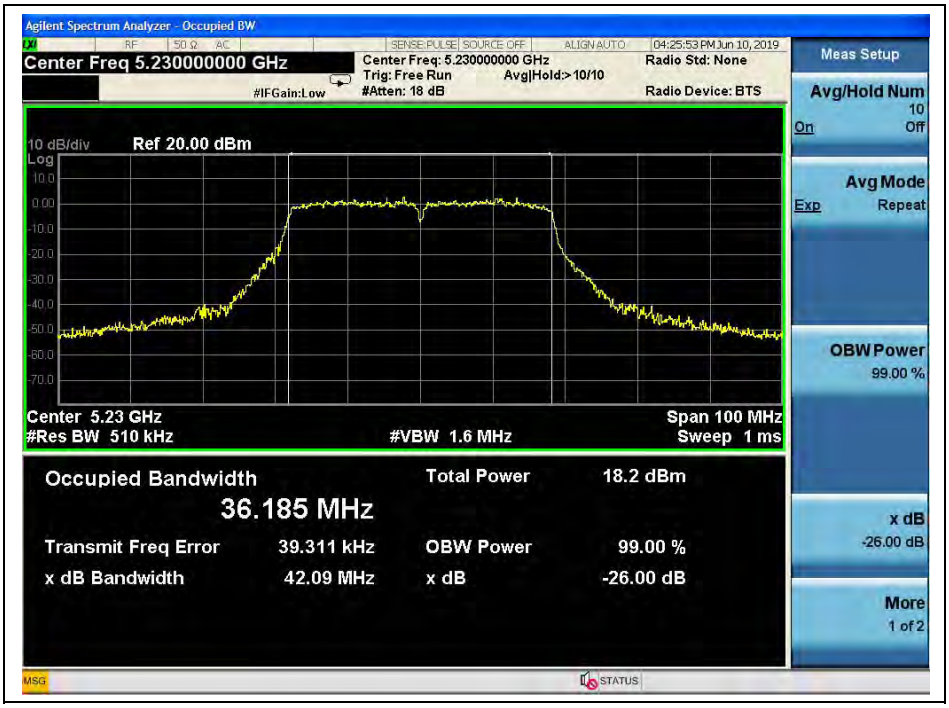
A. Test Verdict:

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
38	5190	42.38
46	5230	42.09
54	5270	42.65
62	5310	42.57
102	5510	42.44
126	5630	42.63
142	5710	42.48
Channel	**Frequency (MHz)**	**6dB Bandwidth (MHz)**
142	5710	35.45
151	5755	35.20
159	5795	35.52

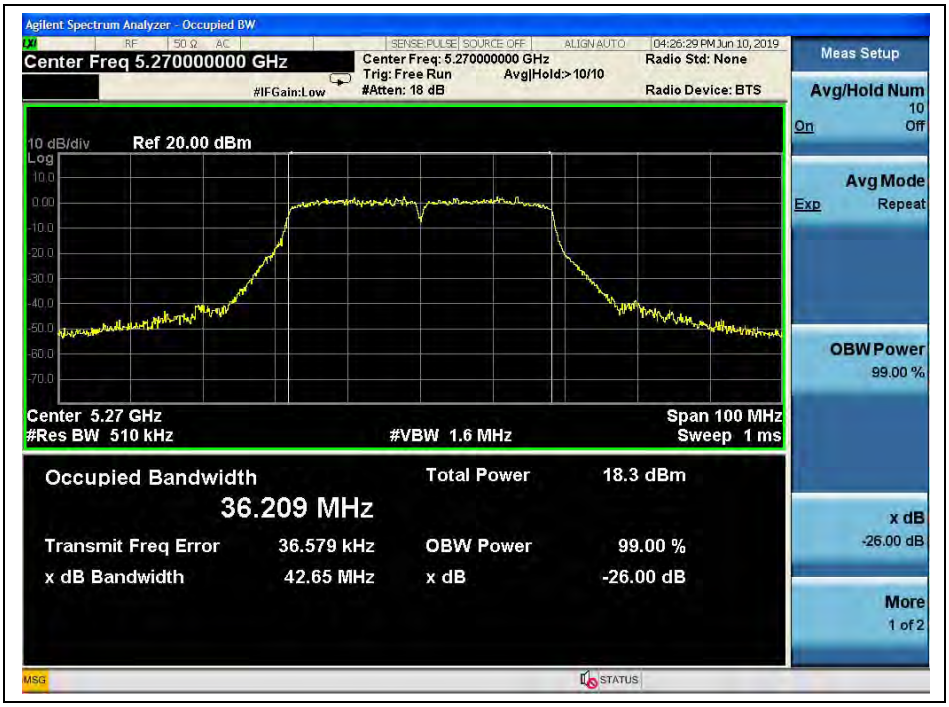
B. Test Plots



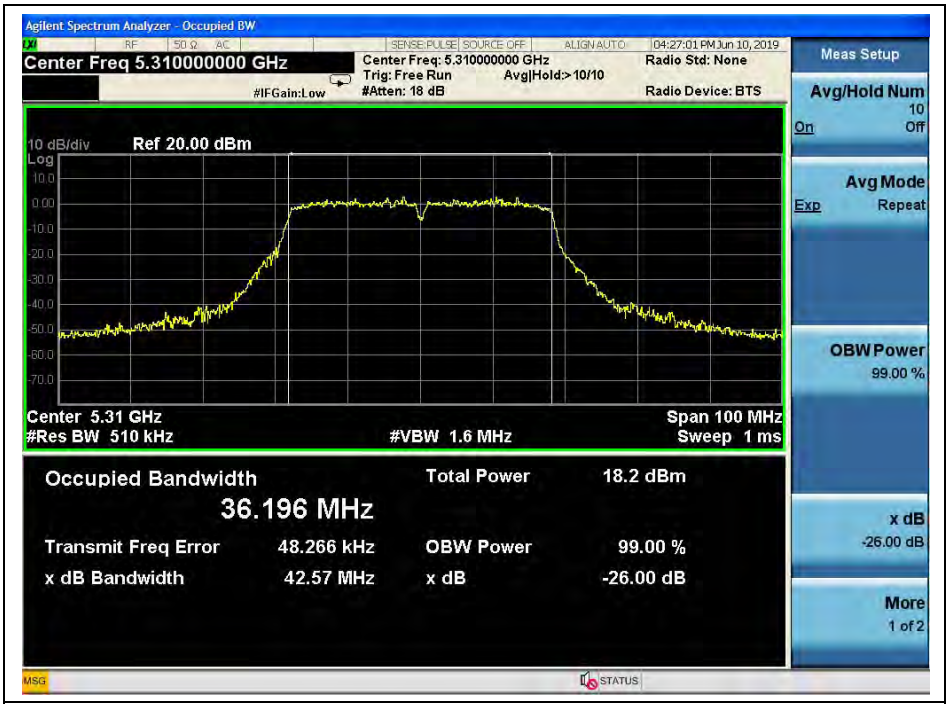
(Channel 38, 5190MHz, 802.11 ac (VHT40))



(Channel 46, 5230 MHz, 802.11 ac (VHT40))



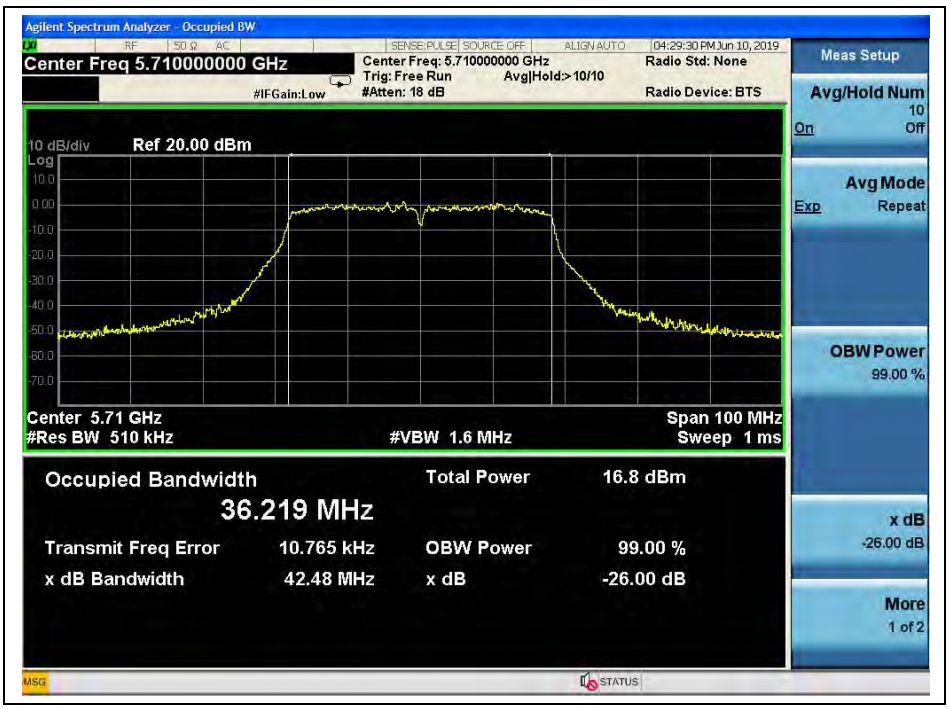
(Channel 54, 5270MHz, 802.11 ac (VHT40))



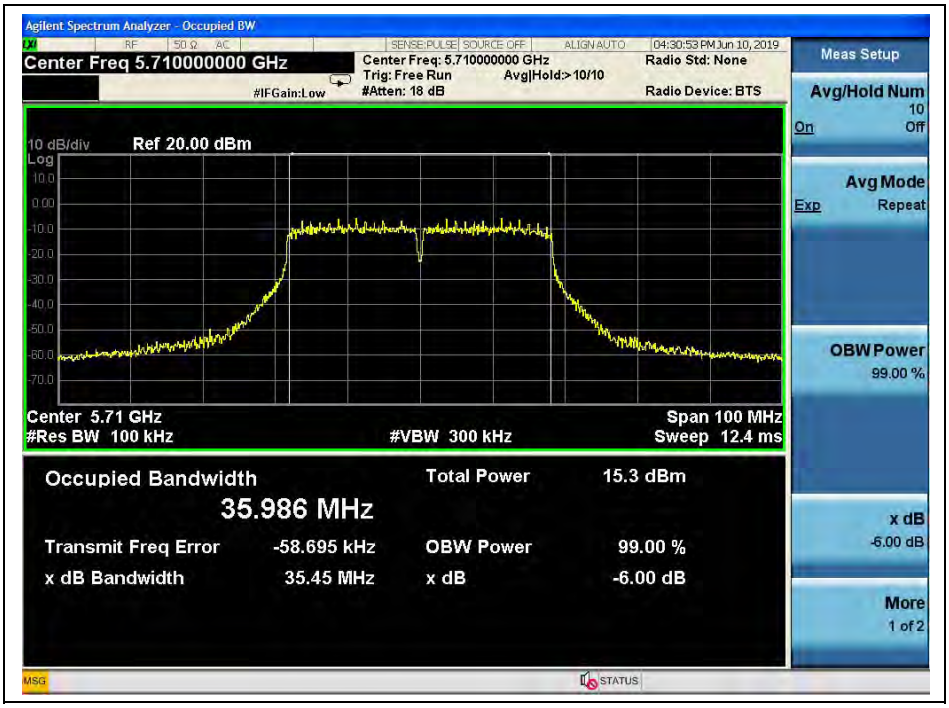
(Channel 62, 5310 MHz, 802.11 ac (VHT40))

(Channel 102, 5510MHz, 802.11 ac (VHT40))

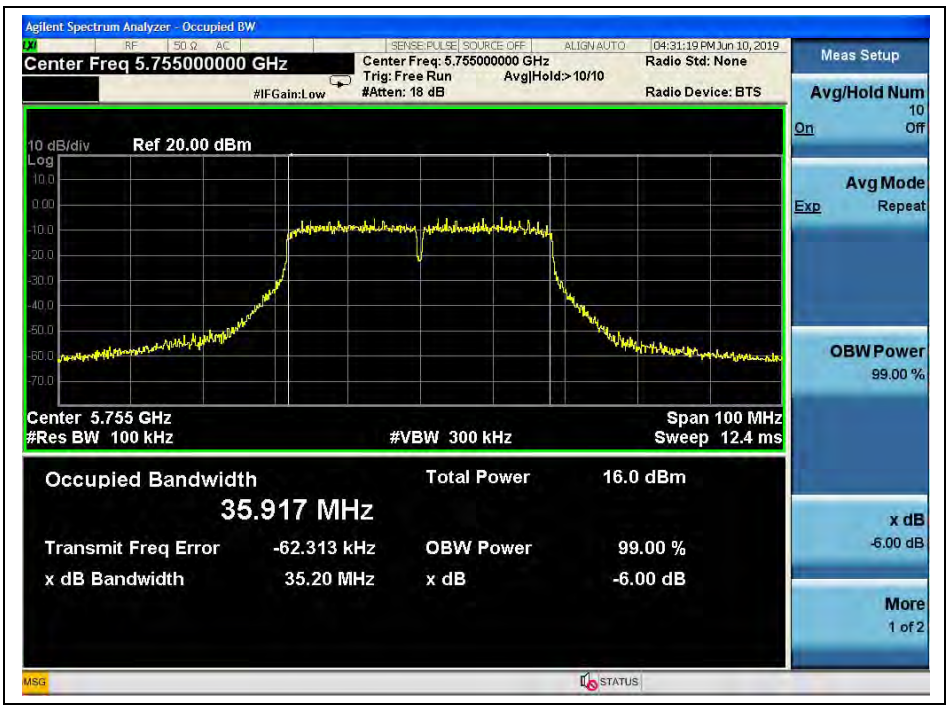
(Channel 126, 5630 MHz, 802.11 ac (VHT40))



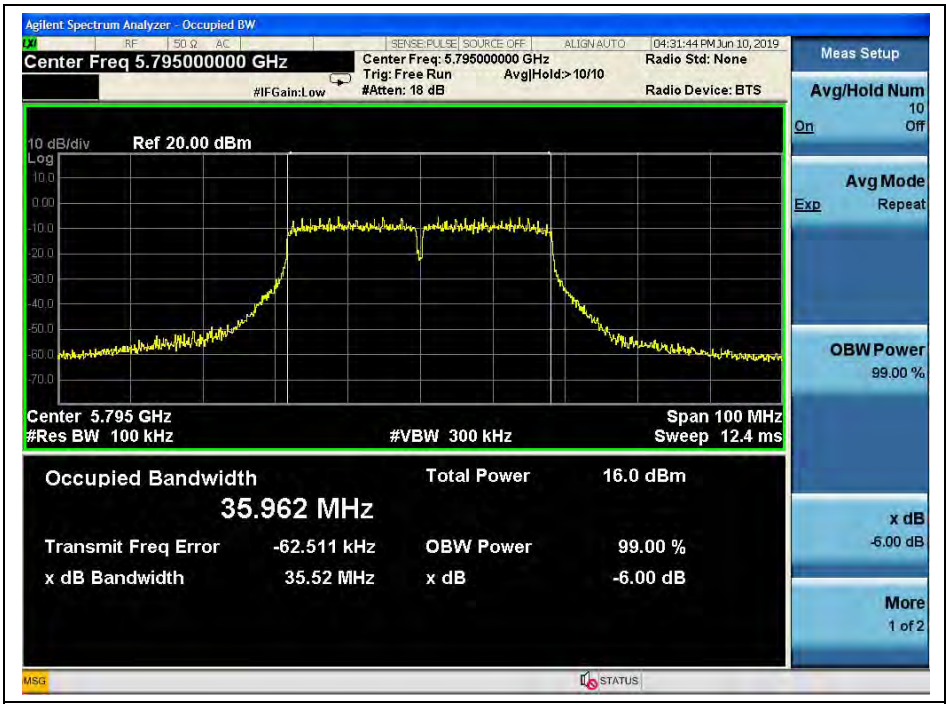
(Channel 142, 5710MHz, 802.11 ac (VHT40))



(Channel 142, 5710MHz, 802.11 ac (VHT40))



(Channel 151, 5755 MHz, 802.11 ac (VHT40))



(Channel 159, 5795MHz, 802.11ac (VHT40))

802.11ac (VHT80) Test mode

A. Test Verdict:

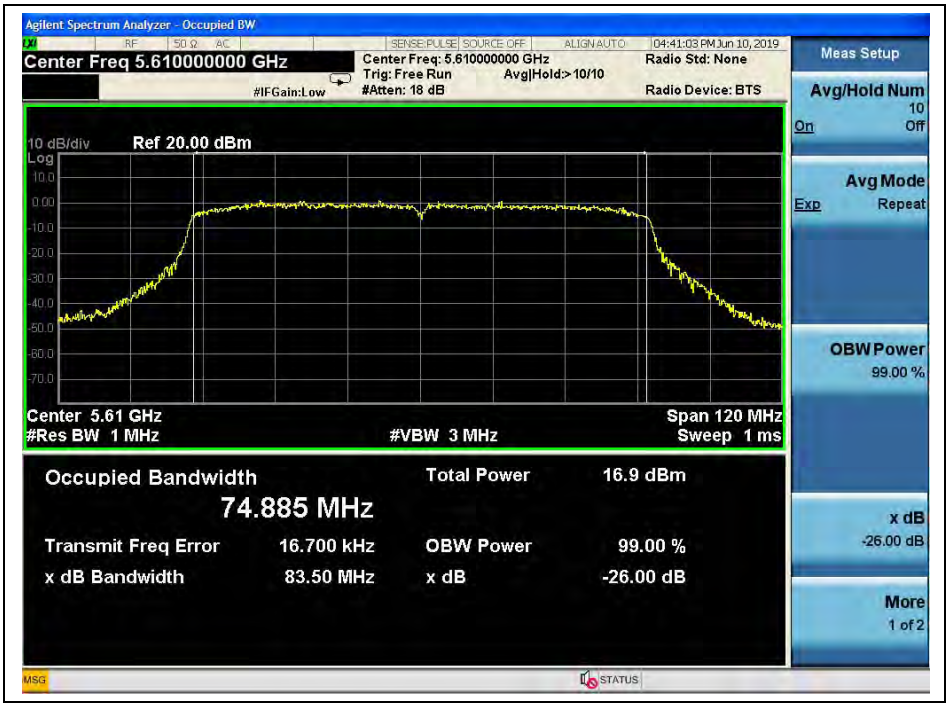
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
42	5210	83.32
58	5290	82.58
106	5530	83.44
122	5610	83.50
138	5690	83.93
Channel	**Frequency (MHz)**	**6dB Bandwidth (MHz)**
138	5690	75.09
155	5775	75.10

B. Test Plots

(Channel 42, 5210MHz, 802.11 ac (VHT80))

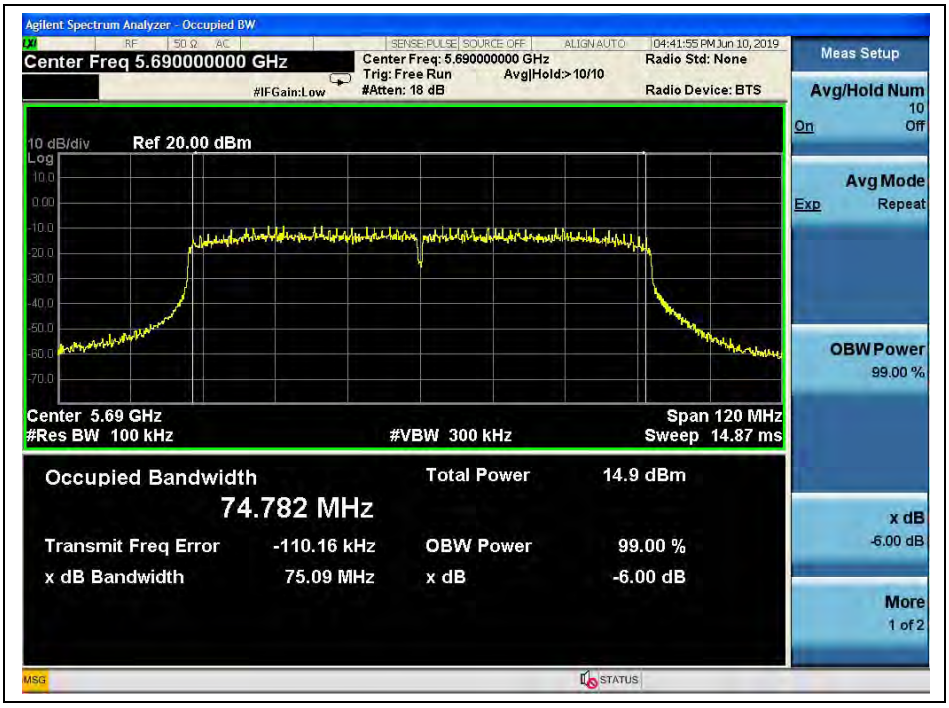
(Channel 58, 5290 MHz, 802.11 ac (VHT80))

(Channel 106, 5530MHz, 802.11 ac (VHT80))

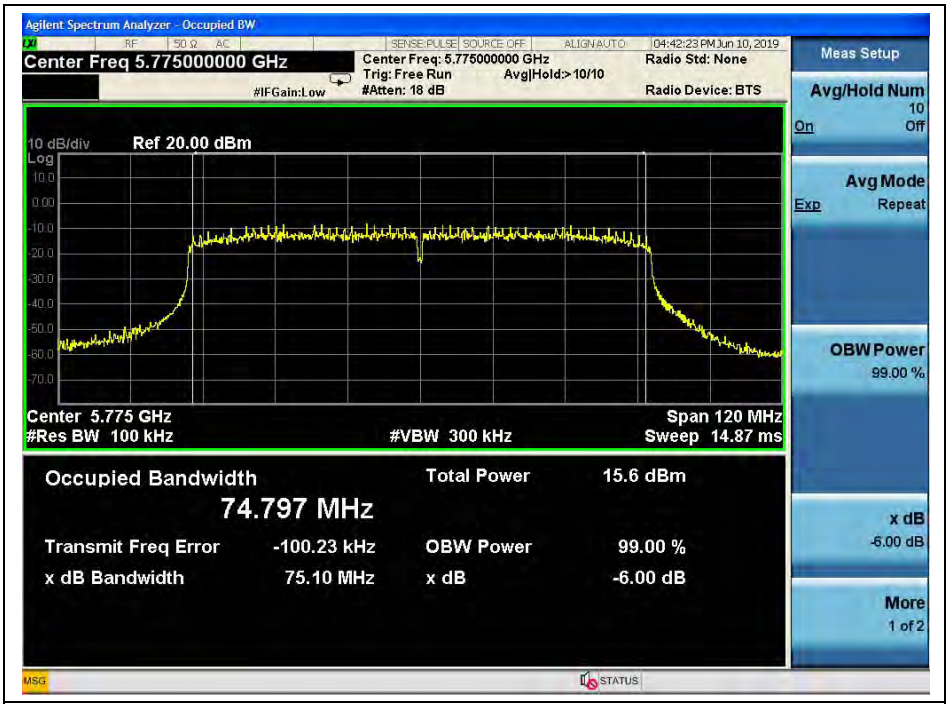


(Channel 122, 5610 MHz, 802.11 ac (VHT80))

(Channel 138, 5690MHz, 802.11 ac (VHT80))



(Channel 138, 5690MHz, 802.11 ac (VHT80))



(Channel 155, 5775 MHz, 802.11 ac (VHT80))