INDUSTRY CANADA RSS-247

TEST REPORT

for

Tablet Computer
MODEL: A7002
Marketing name: B3-A40FHD
Brand: acer
Test Report Number:
C170515Z01-RC1-4
Issued Date: June 20, 2017

Issued for

Acer Incorporated

8F, 88, Sec 1, Xintai 5th Rd. Xizhi, New Taipei City 221 Taiwan, R.O.C

Issued by:

Compliance Certification Services (Shenzhen) Inc.
No.10-1 Mingkeda Logistics park, No.18, Huanguan South Rd.,
Guan Lan Town, Baoan District, Shenzhen, China
TEL: 86-755-28055000
FAX: 86-755-28055221
E-Mail: service@ccssz.com

Certificate Number: 2861.01

Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	June 20, 2017	Initial Issue	ALL	Sabrina Wang

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1 TEST CERTIFICATION

Product	Tablet Computer
Model	A7002
Marketing name	B3-A40FHD
Brand	acer
Tested	May 15~June 20, 2017
Applicant	**Acer Incorporated** 8F, 88, Sec 1, Xintai 5th Rd. Xizhi, New Taipei City 221 Taiwan, R.O.C
Manufacturer	**Acer Incorporated** 8F, 88, Sec 1, Xintai 5th Rd. Xizhi, New Taipei City 221 Taiwan, R.O.C

APPLICABLE STANDARDS	
STANDARD	**TEST RESULT**
IC RSS-247 ISSUE 2 with amendment February 2017	No non-compliance noted

We hereby certify that:

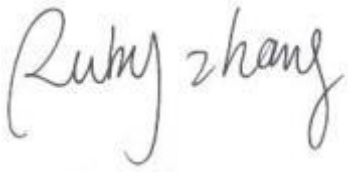
Compliance Certification Services (Shenzhen) Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The test results of this report relate only to the tested sample identified in this report.

Approved by:

Sunday Hu
Supervisor of EMC Dept.
Compliance Certification Services (Shenzhen) Inc.

Reviewed by:



Ruby Zhang
Supervisor of Report Dept.
Compliance Certification Services (Shenzhen) Inc.

2 EUT DESCRIPTION

Product	Tablet Computer
Model Number	A7002
Marketing name	B3-A40FHD
Brand	acer
Model Discrepancy	N/A
Serial Number	C170515Z01-RC1-4
Received Date	March 28, 2017
Power Supply	DC5.35V or DC5.2V supplied by the Adapter or DC3.7V supplied by the battery
Adapter Manufacturer /Model No.	**Adapter 1:** Delta / ADP-10HW A I/P: 100-240Vac, 50/60Hz, 0.4A O/P: 5.35Vdc, 2A **Adapter 2:** Liteon / PA-1100-25 I/P: 100-240Vac, 50/60Hz, 0.3A O/P: 5.2Vdc, 2.0A
Battery Manufacturer /Model No.	**Battery 1:** TCL/ PR-279594N O/P:DC3.7V **Battery 2:** Huizhou Highpower Technology Co., LTD / HPP279594AB O/P: DC3.7V
Frequency Range	UNII Band I: IEEE 802.11a, 802.11n HT20 : 5180MHz ~ 5240MHz; IEEE 802.11n HT40: 5190MHz ~ 5230MHz IEEE 802.11ac 80: 5210MHz UNII Band II IEEE 802.11a, 802.11n HT20 : 5260MHz ~ 5320MHz IEEE 802.11n HT40: 5270MHz ~ 5310MHz IEEE 802.11ac 80: 5290MHz UNII Band III IEEE 802.11a, 802.11n HT20 : 5500MHz ~ 5580MHz; 5660MHz ~ 5700MHz IEEE 802.11n HT40: 5510MHz ~ 5550MHz; 5670MHz IEEE 802.11ac 80: 5530MHz UNII Band IV IEEE 802.11a, 802.11n HT20 : 5745MHz ~ 5825MHz IEEE 802.11n HT40: 5755MHz ~ 5795MHz IEEE 802.11ac 80: 5775MHz
Transmit Power	UNII Band I: IEEE 802.11a: 14.00 dBm IEEE 802.11n HT 20 MHz mode: 14.00 dBm IEEE 802.11n HT 40 MHz mode: 14.00 dBm IEEE 802.11ac 80: 12.20 dBm UNII Band II IEEE 802.11a: 13.80 dBm

	IEEE 802.11n HT 20 MHz mode:	13.60	dBm
	IEEE 802.11n HT 40 MHz mode:	13.90	dBm
	IEEE 802.11ac 80:	12.00	dBm
	UNII Band III		
	IEEE 802.11a:	14.00	dBm
	IEEE 802.11n HT 20 MHz mode:	13.90	dBm
	IEEE 802.11n HT 40 MHz mode:	13.98	dBm
	IEEE 802.11ac 80:	11.70	dBm
	UNII Band IV		
	IEEE 802.11a:	13.10	dBm
	IEEE 802.11n HT 20 MHz mode:	13.00	dBm
	IEEE 802.11n HT 40 MHz mode:	13.30	dBm
	IEEE 802.11ac 80:	11.40	dBm
Modulation Technique	OFDM (QPSK, BPSK, 16-QAM, 64-QAM)		
Transmit Data Rate	IEEE 802.11a mode: 48, 36, 24, 18, 12, 9, 6Mbps IEEE802.11n HT20MHz mode: 6.5,13,19.5,26,39,52,58.5,65Mbps IEEE802.11n HT40MHz mode: 13.5,27,40.5,54,81,108,121.5,135Mbps IEEE802.11ac 80 mode: 29.3,58.5,84.8,117,175.5,234,263.3, 292.5,351,390Mbps		
Number of Channels	UNII Band I:		
	IEEE 802.11a, 802.11n HT20 :	4 Channels	
	IEEE 802.11n HT40 :	2 Channels	
	IEEE 802.11ac 80:	1 Channel	
	UNII Band II		
	IEEE 802.11a, 802.11n HT20 :	4 Channels	
	IEEE 802.11n HT40:	2 Channels	
	IEEE 802.11ac 80:	1 Channel	
	UNII Band III		
	IEEE 802.11a, 802.11n HT20 :	8 Channels	
	IEEE 802.11n HT 40 MHz mode:	3 Channels	
	IEEE 802.11ac 80:	1 Channels	
	UNII Band IV		
	IEEE 802.11a, 802.11n HT20 :	5 Channels	
	IEEE 802.11n HT 40 MHz mode:	2 Channels	
	IEEE 802.11ac 80:	1 Channel	
Antenna Specification	FPC Antenna with 1.98dBi gain (Max)		
Channels Spacing	IEEE 802.11a, 802.11n HT20 : 20MHz IEEE 802.11n HT40: 40MHz IEEE 802.11ac 80: 80MHz		
Temperature Range	0°C ~ +35°C		
Hardware Version	A10M_MB_V2.0		
Software Version	Aver_AV0N0_B3-A40FHD_RV00RA00_WW_GEN1		

Note: *1. The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.*

Operation Frequency:

UNLICENSED NATIONAL INFORMATION INFRASTRUCTURE (U-NII)	
CHANNEL	**MHz**
36	5180
38	5190
40	5200
42	5210
44	5220
46	5230
48	5240
52	5260
54	5270
56	5280
58	5290
60	5300
62	5310
64	5320
100	5500
102	5510
104	5520
106	5530
108	5540
110	5550
112	5560
116	5580
132	5660
134	5670
136	5680
140	5700
149	5745
151	5755
153	5765
155	5775
157	5785
159	5795
161	5805
165	5825

Remark:

1. The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.

3 TEST METHODOLO1GY

The tests documented in this report were performed in accordance with IC RSS-247, IC RSS-Gen, and ANSI C63.10.
This submittal(s) (test report) is intended for IC Certification No: 1754F-A7002 filing to comply with Industry CANADA RSS247.
Radio testing was performed according to KDB DA 02-2138、KDB 789033 D02、KDB 905462 D06;

3.1. RSS-247 RESTRICTED BANDS OF OPERATIONS

Restricted bands, identified in Table 3 of RSS-Gen.

Table 3: Restricted Frequency Bands (Note)

MHz	MHz	MHz	GHz
0.090-0.110	12.57675-12.57725	960-1427	9.0-9.2
2.1735-2.1905	13.36-13.41	1435-1626.5	9.3-9.5
3.020-3.026	16.42-16.423	1645.5-1646.5	10.6-12.7
4.125-4.128	16.69475-16.69525	1660-1710	13.25-13.4
4.17725-4.17775	16.80425-16.80475	1718.8-1722.2	14.47-14.5
4.20725-4.20775	25.5-25.67	2200-2300	15.35-16.2
5.677-5.683	37.5-38.25	2310-2390	17.7-21.4
6.215-6.218	73-74.6	2655-2900	22.01-23.12
6.26775-6.26825	74.8-75.2	3260-3267	23.6-24.0
6.31175-6.31225	108-138	3332-3339	31.2-31.8
8.291-8.294	156.52475-156.52525	3345.8-3358	36.43-36.5
8.362-8.366	156.7-156.9	3500-4400	Above 38.6
8.37625-8.38675	240-285	4500-5150	
8.41425-8.41475	322-335.4	5350-5460	
12.29-12.293	399.9-410	7250-7750	
12.51975-12.52025	608-614	8025-8500	

Note: Certain frequency bands listed in Table 3 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to the devices are set out in the 200– and 300– series RSSs, such as RSS-247 and RSS-310, which contain the requirements that apply to licence-exempt radio apparatus.

3.2. DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition.
Use the EngineerMode to control the EUT for staying in continuous transmitting mode was programmed.

Test Item	Test mode	Worse mode
Conducted Emission	**Mode 1:** Charge (Adapter 1)+Battery 1+Play Vide (USB2.0)	☒
	Mode 2: Charge (Adapter 2)+Battery 1+Play Video(USB2.0)	☐
	Mode 3: Charge (Adapter 1)+Battery 1+ Record Video(TF Card)	☐
	Mode 4: Charge (Adapter 2)+Battery 1+Record Video (TF Card)	☐
	Mode 5: Charge (Adapter 1)+Battery 2+Play Video(USB2.0)	☐
	Mode 6: Charge (Adapter 2)+Battery 2+Play Video(USB2.0)	☐
	Mode 7: Charge (Adapter 1)+Battery 2+Record Video(TF Card)	☐
	Mode 8: Charge (Adapter 2)+Battery 2+ Record Video(TF Card)	☐
	Mode 9: Charge (PC)+Battery 1+Play Vide (USB2.0)	☐
	Mode 10: Charge (PC)+Battery 2+Play Vide (USB2.0)	☐
	Mode 11: Charge (PC) +Battery 1+ Record Video (TF Card)	☐
	Mode 12: Charge (PC) +Battery 2+ Record Video (TF Card)	☐
Radiated Emission	**Mode 1:** Continuously Transmitting	☒

After verification, all tests were carried out with the worst case test modes as shown below except radiated spurious emission below 1GHz, which worst case was in normal link mode only, and power line conducted emission below 30MHz, which worst case was in normal link mode.

The EUT is a 1x1 configuration spatial (1TX & 1RX) without beam forming function.

Software used to control the EUT for staying in continuous transmitting mode was programmed.

After verification, all tests were carried out with the worst case test modes as shown below except radiated spurious emission below 1GHz, which worst case was in normal link mode only.

UNII Band I:

IEEE 802.11a for 5180 ~ 5240MHz:
Channel Low (5180MHz), Channel Mid (5200MHz) and Channel High (5240MHz) with 6Mbps data rate were chosen for full testing.

IEEE 802.11n HT 20 MHz for 5180 ~ 5240MHz:
Channel Low (5180MHz), Channel Mid (5200MHz) and Channel High (5240MHz) with 6.5Mbps data rate were chosen for full testing.

IEEE 802.11n HT 40 MHz Channel for 5190 ~ 5230MHz:
Channel Low (5190MHz) and Channel High (5230MHz) with 13.5Mbps data rate were chosen for full testing.

IEEE 802.11ac 80 Channel for 5210MHz:
Channel Low (5210MHz) with 13.5Mbps data rate were chosen for full testing.

UNII Band II:

IEEE 802.11a for 5260 ~ 5320MHz:
Channel Low (5260MHz), Channel Mid (5300MHz) and Channel High (5320MHz) with 6Mbps data rate were chosen for full testing.

IEEE 802.11n HT 20 MHz for 5260 ~ 5320MHz:
Channel Low (5260MHz), Channel Mid (5300MHz) and Channel High (5320MHz) with 6.5Mbps data rate were chosen for full testing.

IEEE 802.11n HT 40 MHz Channel for 5270~ 5310MHz:
Channel Low (5270MHz) and Channel High (5310MHz) with 13.5Mbps data rate were chosen for full testing.

IEEE 802.11ac 80 Channel for 5290MHz:
Channel Low (5290MHz) with 13.5Mbps data rate were chosen for full testing.

UNII Band III:

IEEE 802.11a for 5500 ~ 5580MHz; 5660 ~ 5700MHz:
Channel Low (5500MHz), Channel Mid (5580MHz) and Channel High (5700MHz) with 6Mbps data rate were chosen for full testing.

IEEE 802.11n HT 20 MHz for 5500 ~ 5580MHz; 5660 ~ 5700MHz:
Channel Low (5500MHz), Channel Mid (5580MHz) and Channel High (5700MHz) with 6.5Mbps data rate were chosen for full testing.

IEEE 802.11n HT 40 MHz Channel for 5510~5550MHz; 5670MHz:
Channel Low (5510MHz) and Channel High (5670MHz) with 13.5Mbps data rate were chosen for full testing.

IEEE 802.11ac 80 Channel for 5530MHz:
Channel Low (5530MHz) with 13.5Mbps data rate were chosen for full testing.

UNII Band IV:

IEEE 802.11a for 5745 ~ 5825MHz:
Channel Low (5745MHz), Channel Mid (5785MHz) and Channel High (5825MHz) with 6Mbps data rate were chosen for full testing.

IEEE 802.11n HT 20 MHz for 5745 ~ 5825MHz:
Channel Low (5745MHz), Channel Mid (5785MHz) and Channel High (5825MHz) with 6.5Mbps data rate were chosen for full testing.

IEEE 802.11n HT 40 MHz Channel for 5755~ 5795MHz:
Channel Low (5755MHz) and Channel High (5795MHz) with 13.5Mbps data rate were chosen for full testing.

IEEE 802.11ac 80 Channel for 5775MHz:

Channel Low (5775MHz) with 13.5Mbps data rate were chosen for full testing.

4 FACILITIES AND ACCREDITATIONS

4.1. FACILITIES

All measurement facilities used to collect the measurement data are located at **No.10-1 Mingkeda Logistics park, No.18, Huanguan South Rd., Guan Lan Town, Baoan District, Shenzhen, China**
The sites are constructed in conformance with the requirements of ANSI C63.10, ANSI C63.7 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, “Radio Interference Measuring Apparatus and Measurement Methods.”

4.2. ACCREDITATIONS

Our laboratories are accredited and approved by the following accreditation body according to ISO/IEC 17025.

USA	**A2LA**
China	**CNAS**

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

USA	**FCC**
Japan	**VCCI(C-3478, R-3135, T-652, G-10624)**
Canada	**INDUSTRY CANADA**

Copies of granted accreditation certificates are available for downloading from our web site, http://www.ccssz.com

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Parameter	Uncertainty
Radiated Emission, 30 to 200 MHz Test Site : 966(2)	+/-3.6880dB
Radiated Emission, 200 to 1000 MHz Test Site : 966(2)	+/-3.6695dB
Radiated Emission, 1 to 8 GHz	+/-5.1782dB
Radiated Emission, 8 to 18 GHz	+/-5.2173dB
Conducted Emissions	+/-3.6836dB
Band Width	178kHz
Peak Output Power MU	+/-1.906dB
Band Edge MU	+/-0.182dB
Channel Separation MU	416.178Hz
Duty Cycle MU	0.054ms
Frequency Stability MU	226Hz

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
The measured result is above (below) the specification limit by a margin less than the measurement uncertainty; it is therefore not possible to state compliance based on the 95% level of confidence. However, the result indicates that compliance (non-compliance) is more probable than non-compliance) with the specification limit.

5 SETUP OF EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

5.2. SUPPORT EQUIPMENT

No.	Equipment	Model No.	Serial No.	FCC ID	Brand	Data Cable	Power Cord
1	Notebook	Thinkpad S2	SL 10K92342	N/A	Lenovo	N/A	N/A
2	Earphone	ST909	N/A	N/A	Senic	Unshielded 1.20m	N/A
3	TF Card	MB-MP 16D	N/A	N/A	SAMSUNG	N/A	N/A
4	Flash Disk	N/A	N/A	N/A	Kingston	N/A	N/A
5	Adapter(For Notebook)	PA-1900-56LC	36001927	N/A	Lenovo	N/A	Unshielded 1.020m (AC Cable) Unshielded 1.50m (DC Cable)

Note:

1) Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

6 RSS 247 REQUIREMENTS

6.1. 99% BANDWIDTH

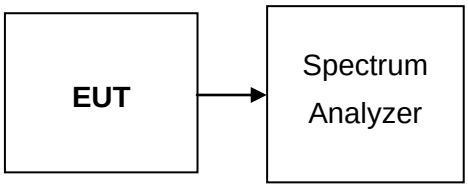
The test of the item was performed in accordance with the standards RSS-Gen 4.6.1.

MEASUREMENT EQUIPMENT USED

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Due Calibration
Spectrum Analyzer	Agilent	N9010A	MY52221469	02/21/2017	02/20/2018
Cable	Huber Suhner	SUCOFLEX104PEA	N/A	N/A	N/A

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST CONFIGURATION



TEST PROCEDURE

The resolution bandwidth shall be set to as close to 1% of the selected span as is possible without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth. Video averaging is not permitted. Where practical, a sampling detector shall be used since a peak or, peak hold.

TEST RESULTS

Test Data

Test mode: IEEE 802.11a mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5180	16.546
Mid	5200	16.574
High	5240	16.595

Test mode: IEEE 802.11a mode / 5260 ~ 5320MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5260	16.565
Mid	5300	16.552
High	5320	16.592

Test mode: IEEE 802.11a mode / 5500 ~ 5580MHz; 5660 ~ 5700MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5500	16.616
Mid	5580	16.566
High	5700	16.597

Test mode: IEEE 802.11a mode / 5745 ~ 5825MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5745	16.559
Mid	5785	16.574
High	5825	16.627

Test mode: IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5180	17.561
Mid	5200	17.589
High	5240	17.603

Test mode: IEEE 802.11n HT 20 MHz mode / 5260 ~ 5320MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5260	17.605
Mid	5300	17.585
High	5320	17.562

Test mode: IEEE 802.11n HT 20 MHz mode / 5500 ~ 5580MHz; 5660 ~ 5700MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5500	17.579
Mid	5580	17.573
High	5700	17.566

Test mode: IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5745	17.570
Mid	5785	17.569
High	5825	17.578

Test mode: IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5190	36.029
High	5230	36.058

Test mode: IEEE 802.11n HT 40 MHz mode / 5270 ~ 5310MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5270	36.062
High	5310	36.040

Test mode: IEEE 802.11n HT 40 MHz mode / 5510~5550MHz; 5670MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5510	36.065
Mid	5550	35.993
High	5670	36.003

Test mode: IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
Low	5755	36.012
High	5795	36.042

Test mode: IEEE 802.11ac 80 mode / 5210MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
	5210	76.038

Test mode: IEEE 802.11ac 80 mode / 5290MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
	5290	75.696

Test mode: IEEE 802.11ac 80 mode / 5530MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
	5530	75.471

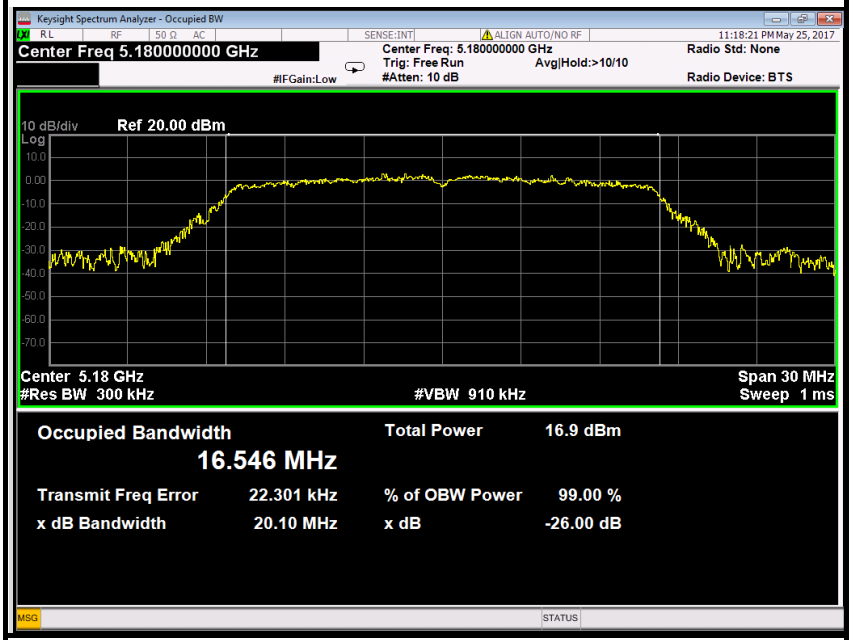
Test mode: IEEE 802.11ac 80 mode / 5775MHz

Channel	Frequency (MHz)	Bandwidth(B) (MHz)
	5775	75.220

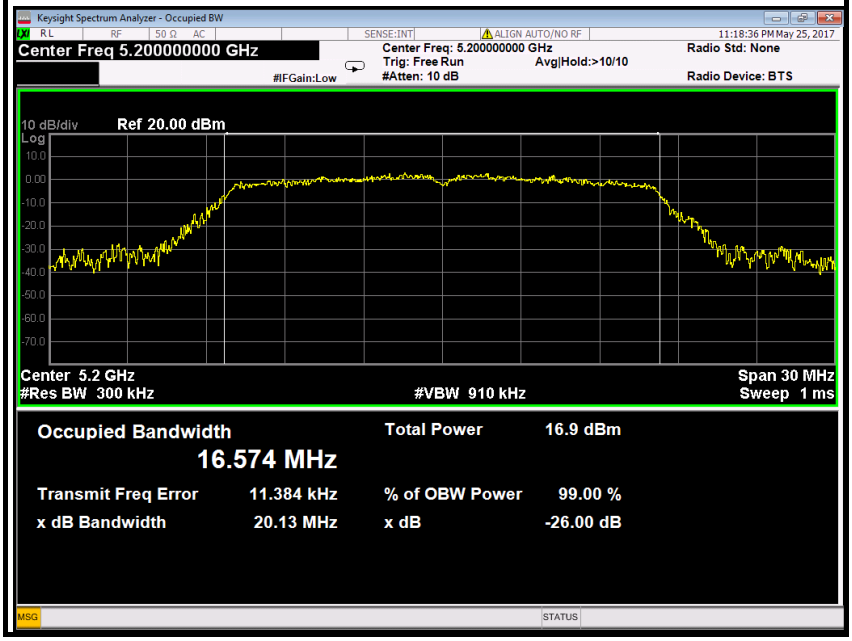
Test Plot

IEEE 802.11a mode / 5180 ~ 5240MHz

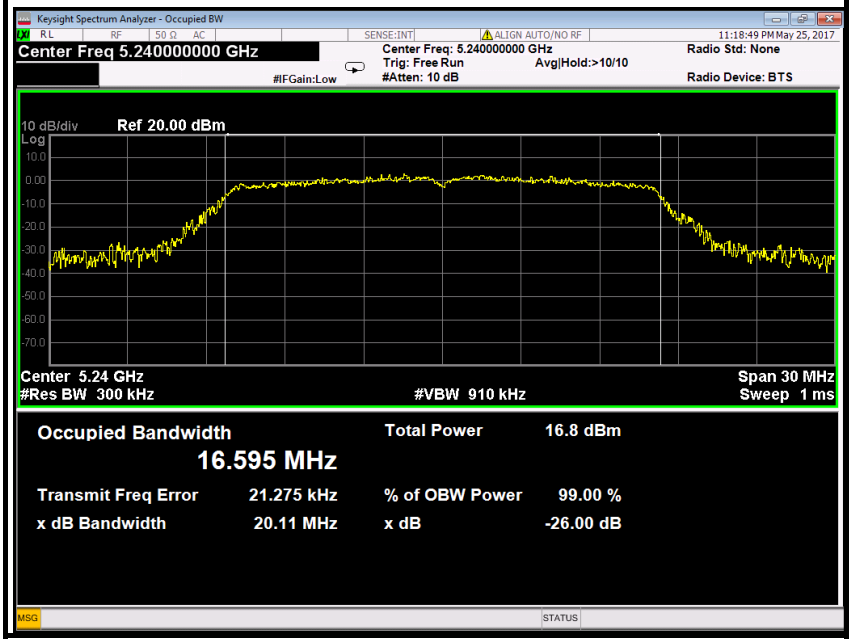
99% Bandwidth (CH Low)



99% Bandwidth (CH Mid)

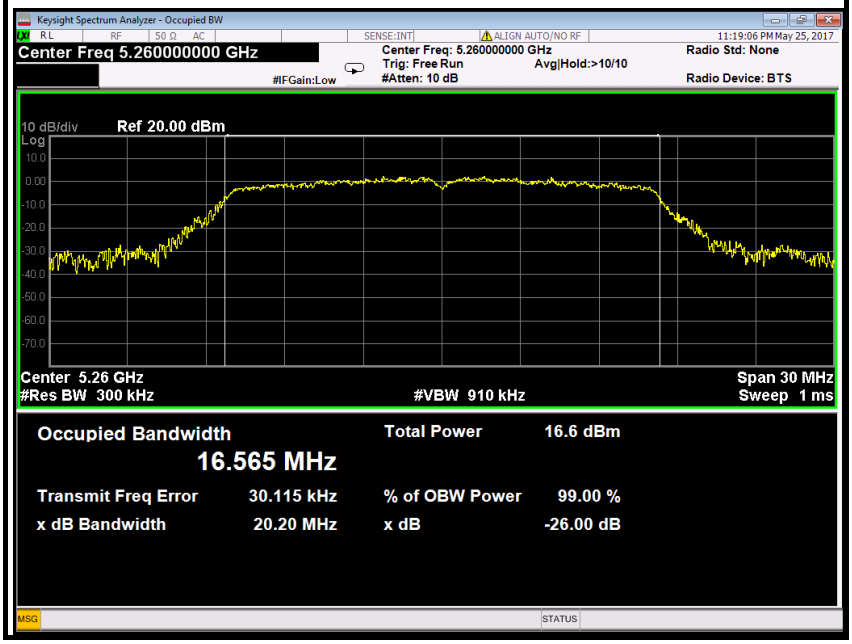


99% Bandwidth (CH High)

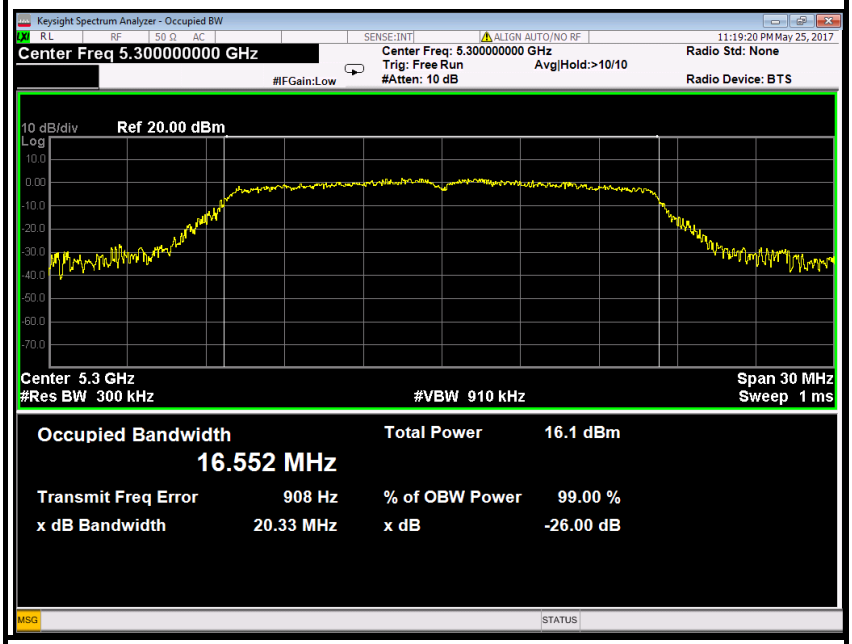


IEEE 802.11a mode / 5260~ 5320MHz

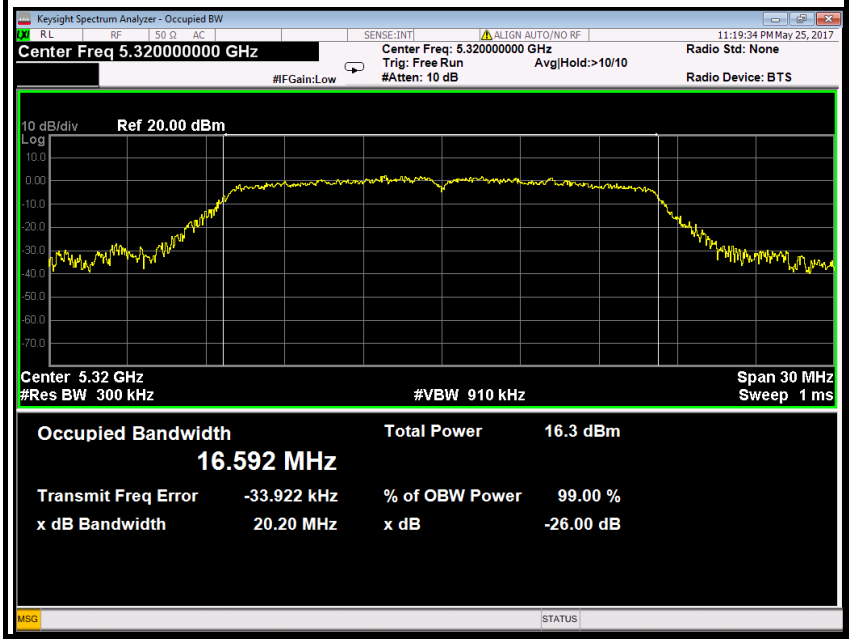
99% Bandwidth (CH Low)



99% Bandwidth (CH Mid)

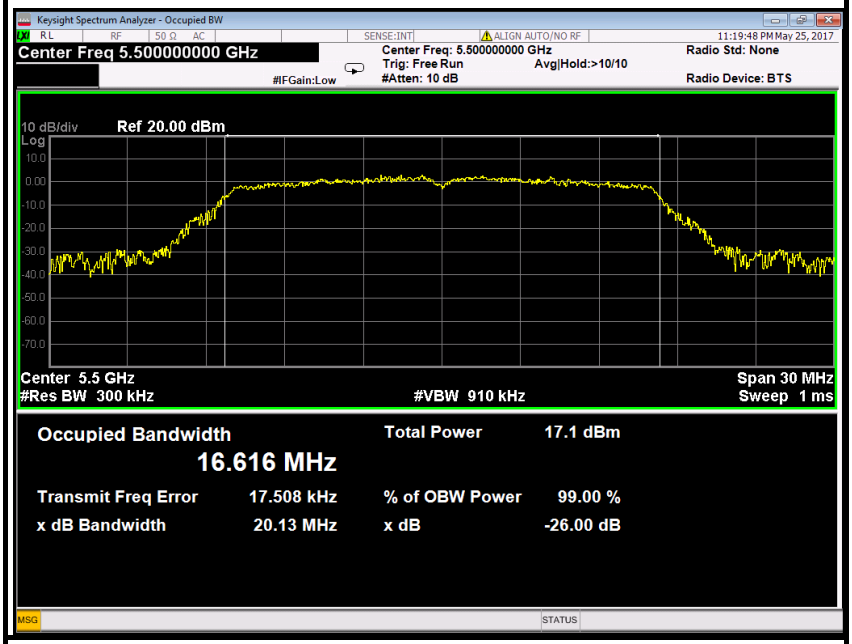


99% Bandwidth (CH High)

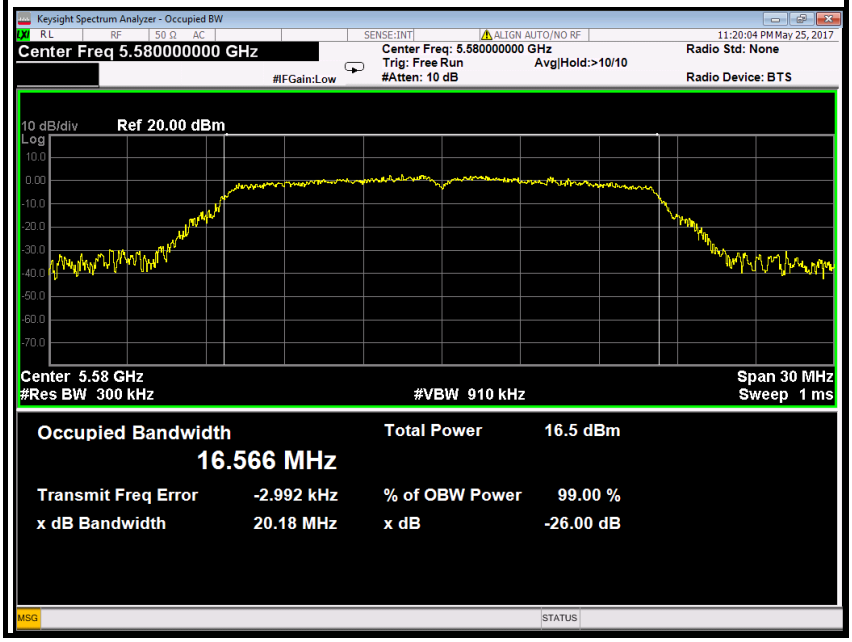


IEEE 802.11a mode / 5500 ~ 5580MHz; 5660 ~ 5700MHz

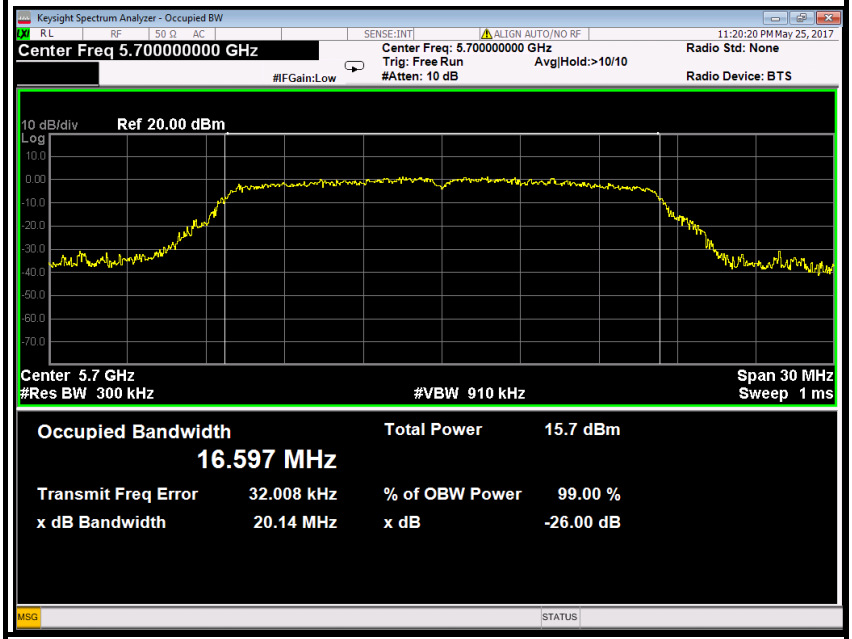
99% Bandwidth (CH Low)



99% Bandwidth (CH Mid)

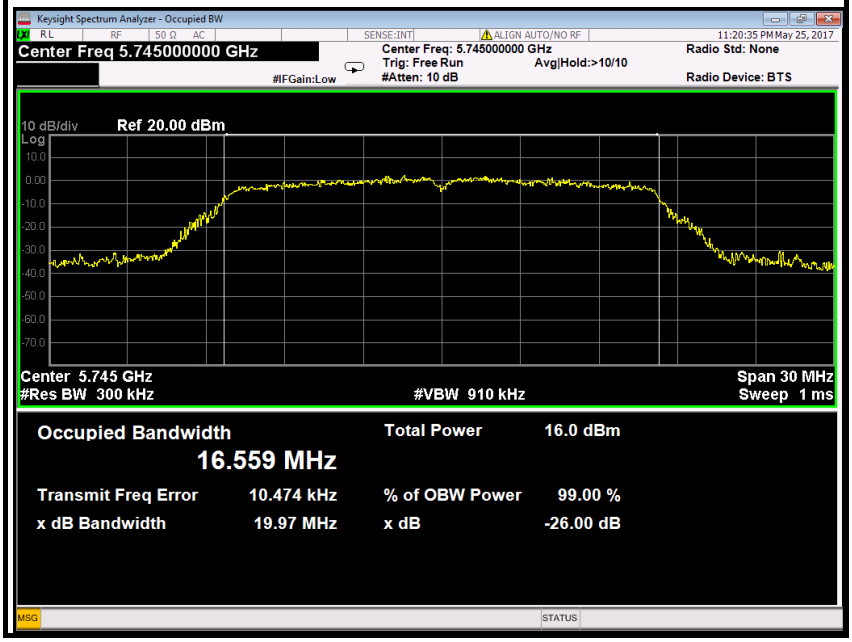


99% Bandwidth (CH High)

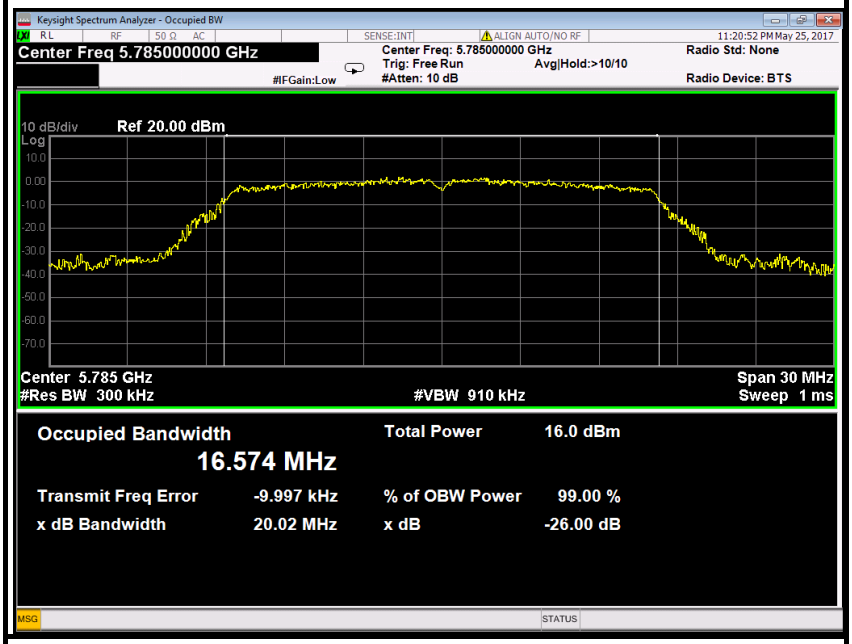


IEEE 802.11a mode / 5745 ~ 5825MHz

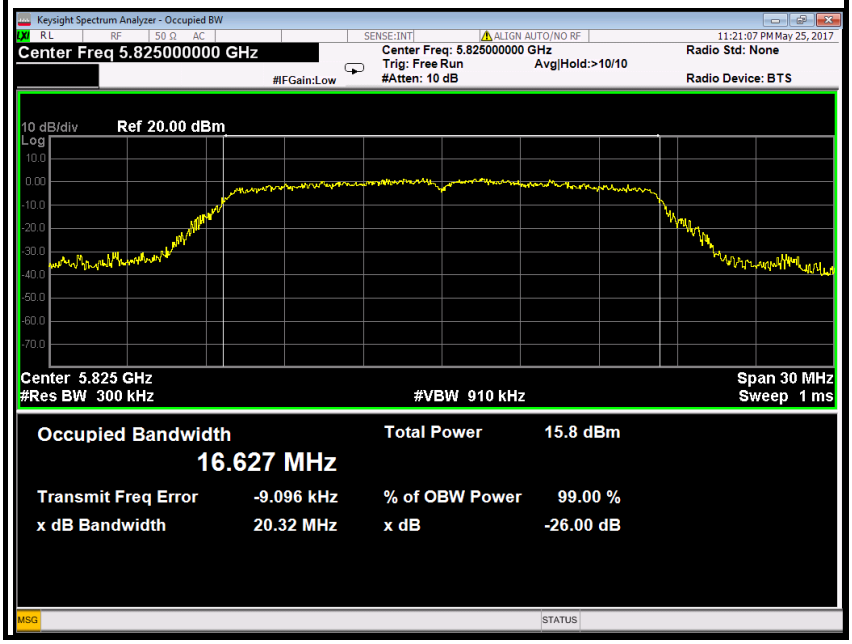
99% Bandwidth (CH Low)



99% Bandwidth (CH Mid)

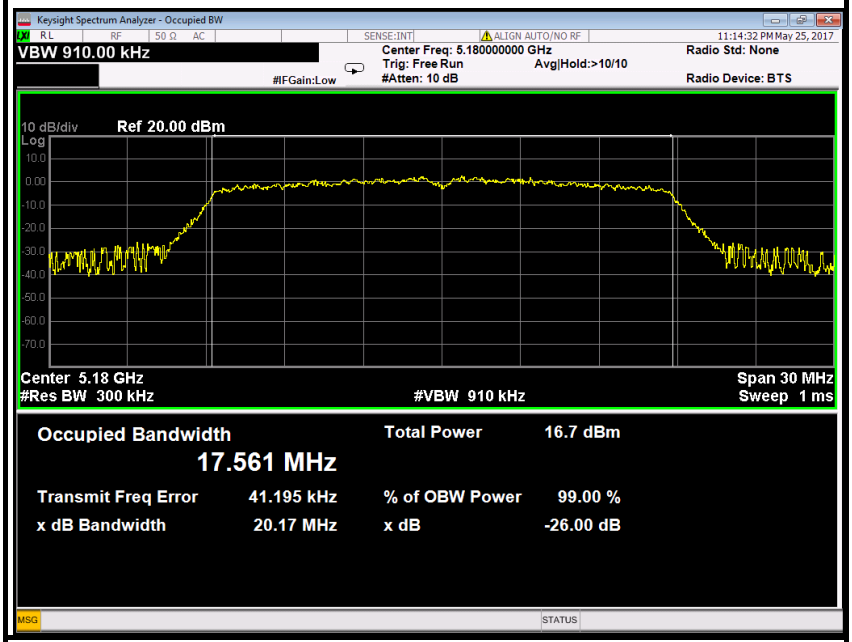


99% Bandwidth (CH High)

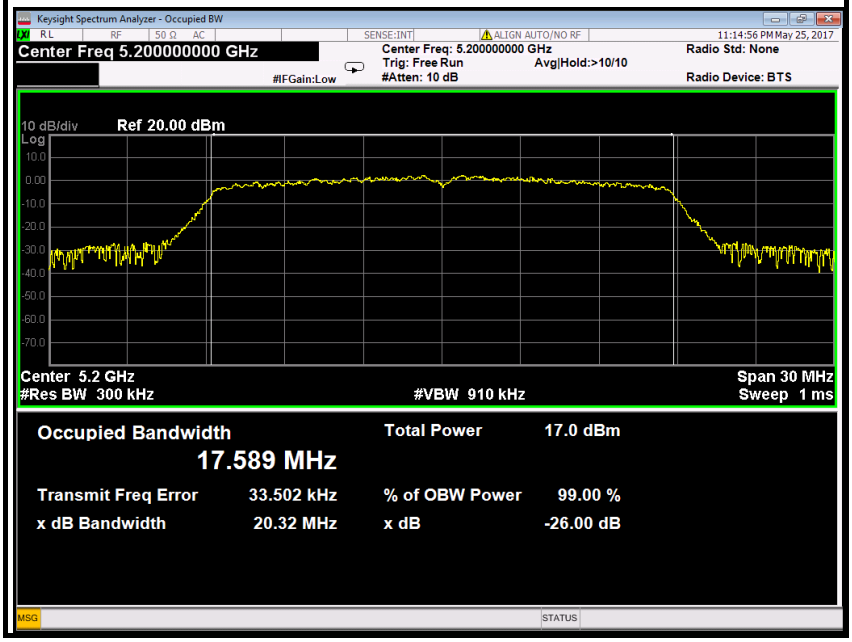


IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

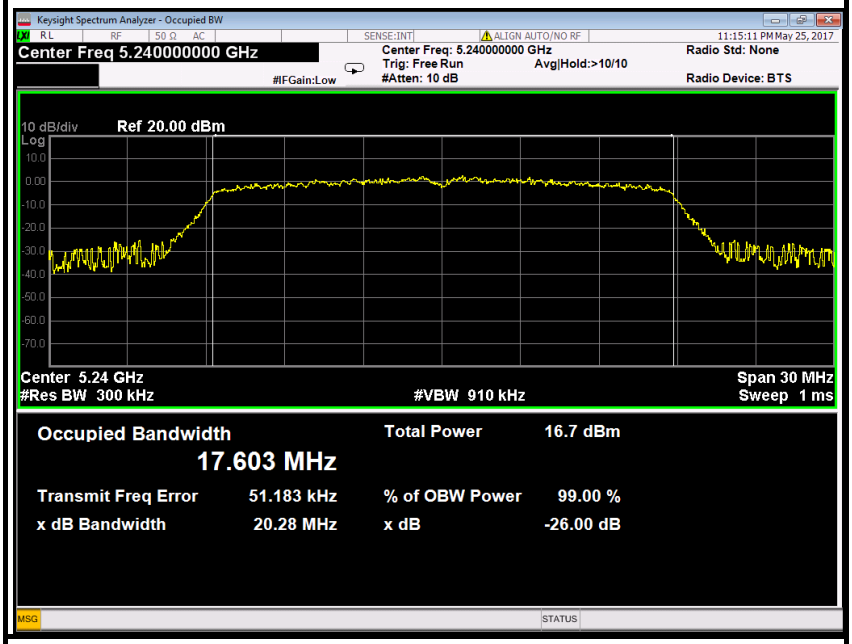
99% Bandwidth (CH Low)



99% Bandwidth (CH Mid)

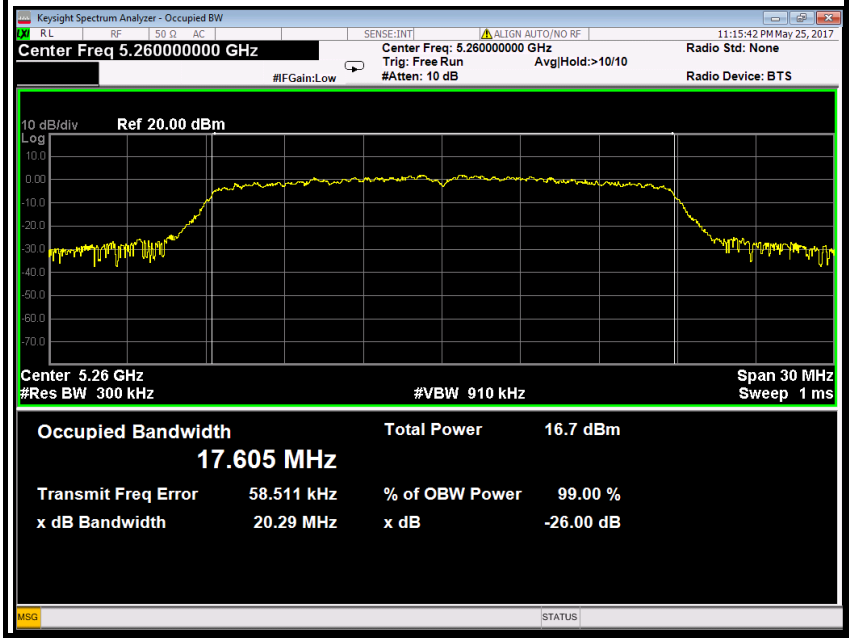


99% Bandwidth (CH High)

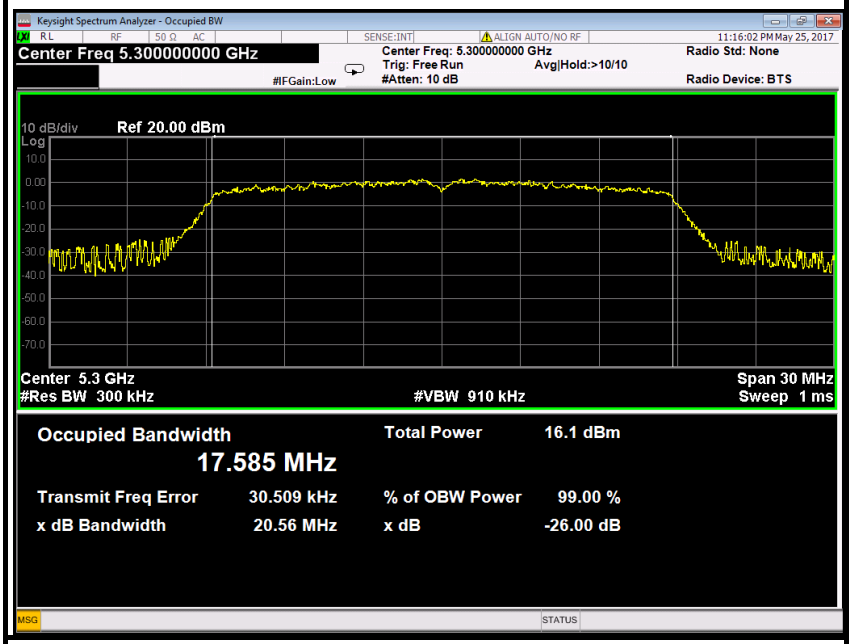


IEEE 802.11n HT 20 MHz mode / 5260~ 5320MHz

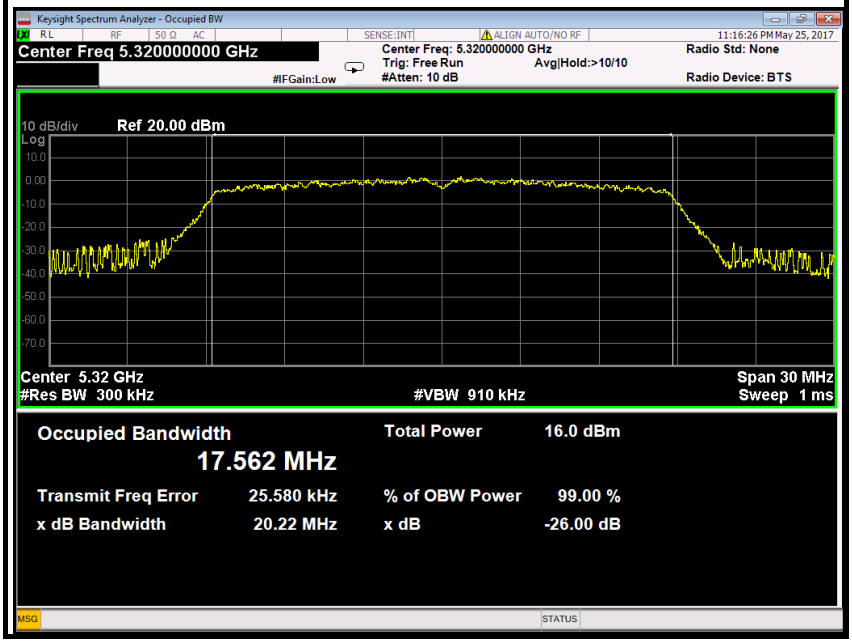
99% Bandwidth (CH Low)



99% Bandwidth (CH Mid)

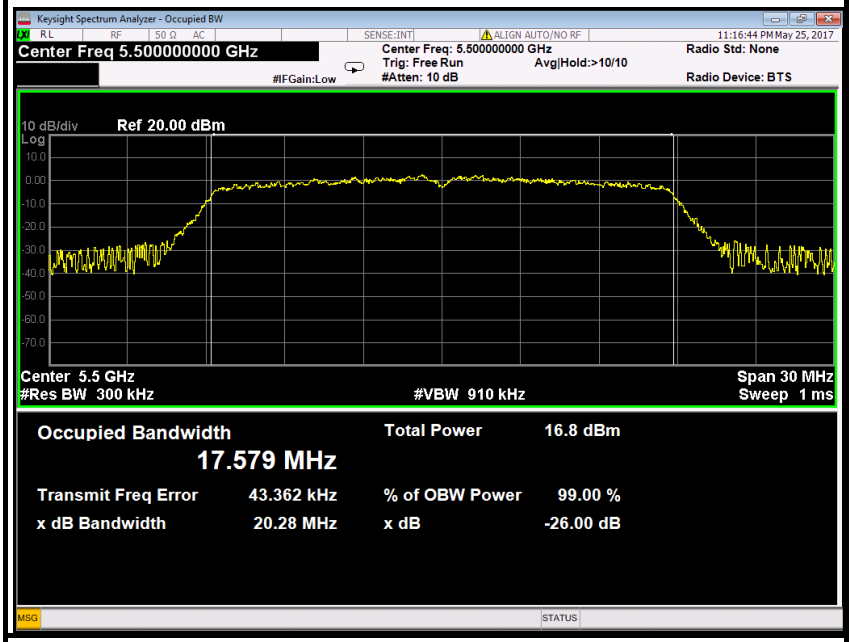


99% Bandwidth (CH High)

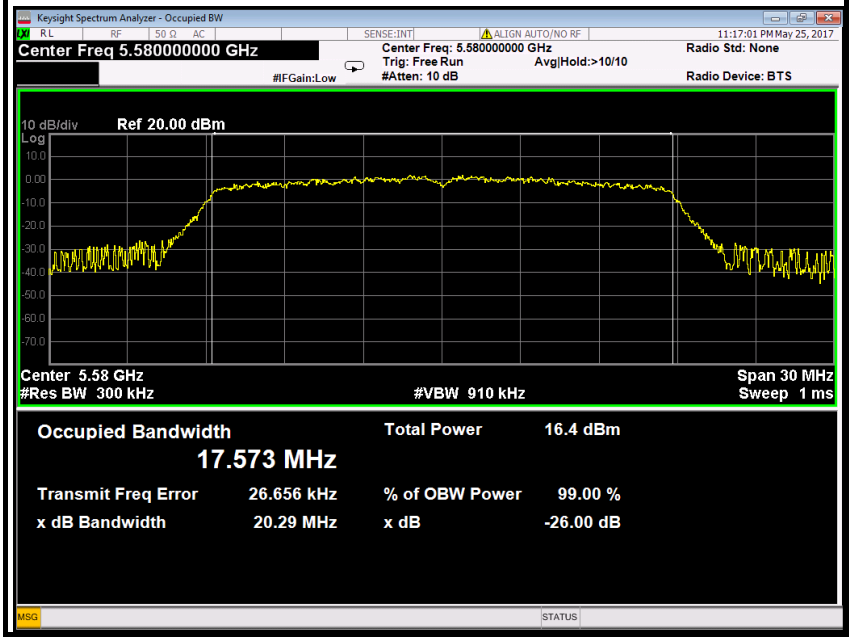


IEEE 802.11n HT 20 MHz mode /
5500 ~ 5580MHz; 5660 ~ 5700MHz

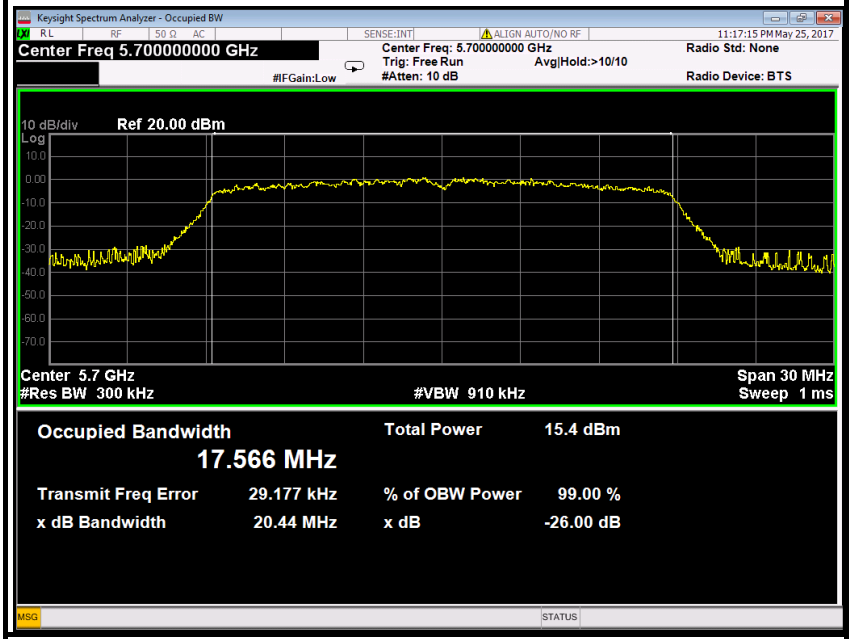
99% Bandwidth (CH Low)



99% Bandwidth (CH Mid)

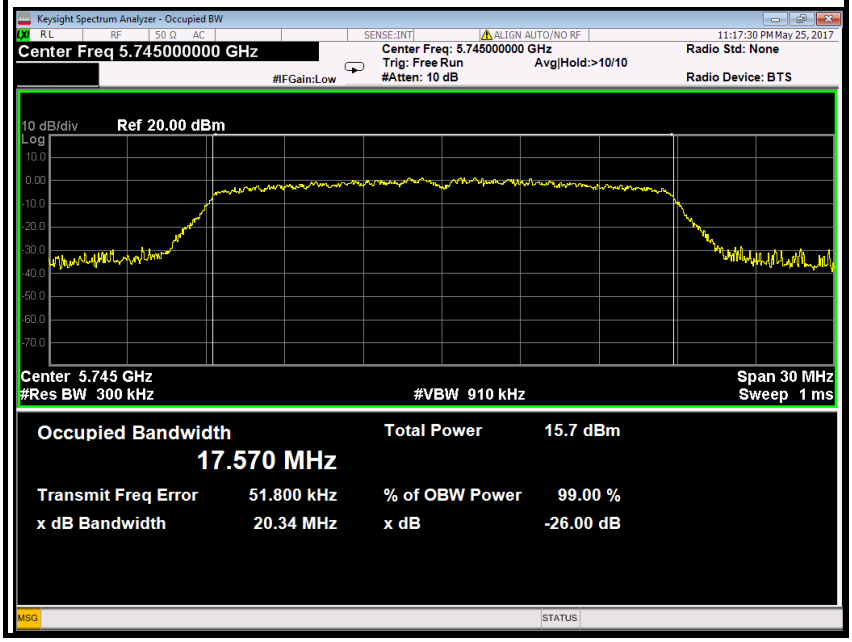


99% Bandwidth (CH High)

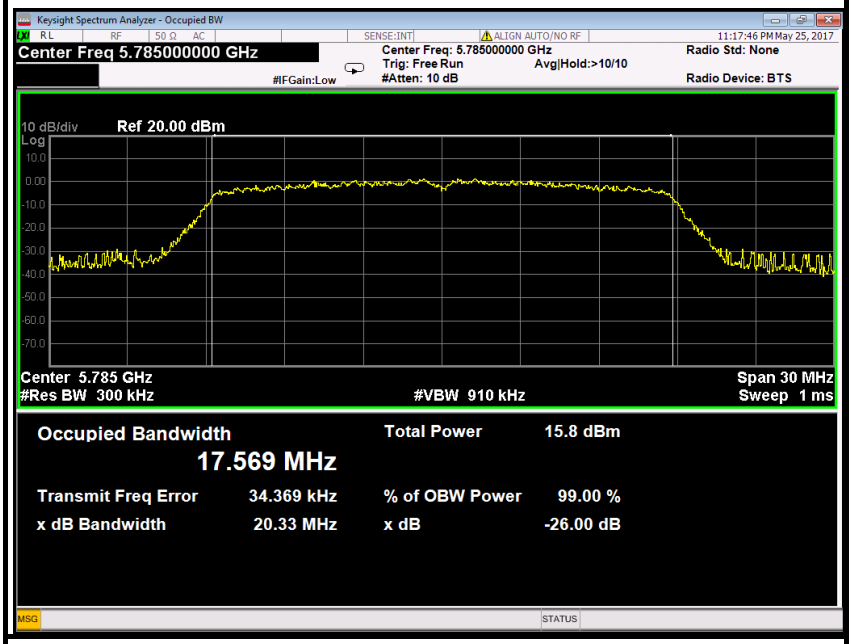


IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz

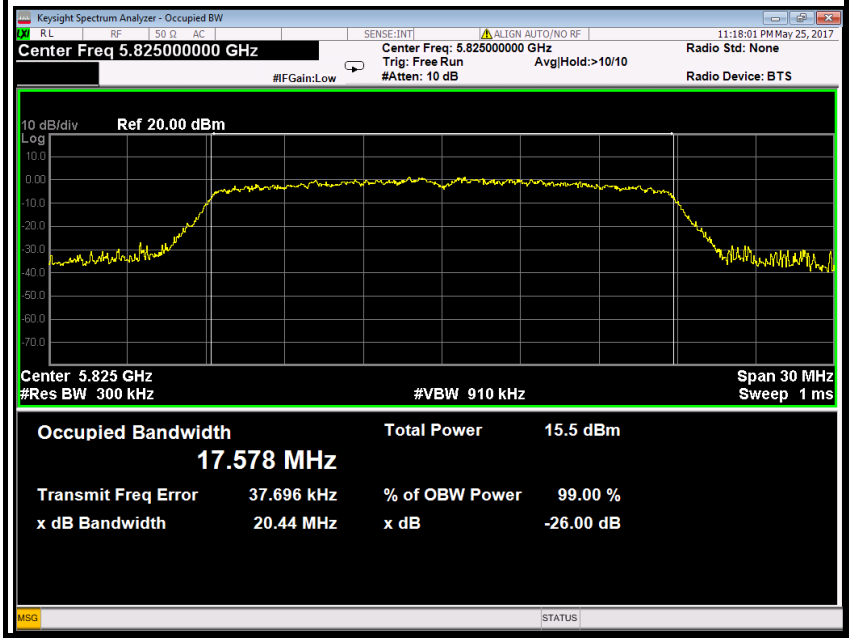
99% Bandwidth (CH Low)



99% Bandwidth (CH Mid)

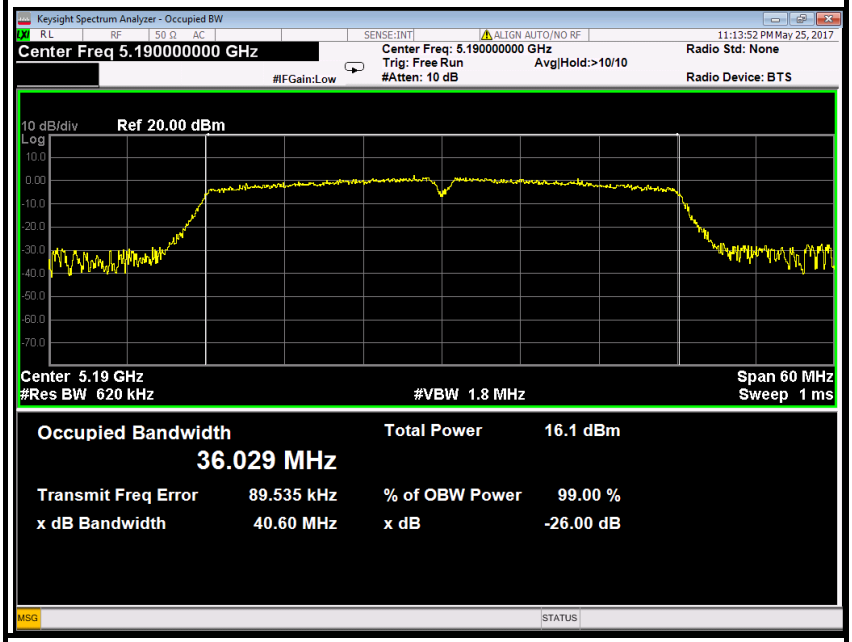


99% Bandwidth (CH High)

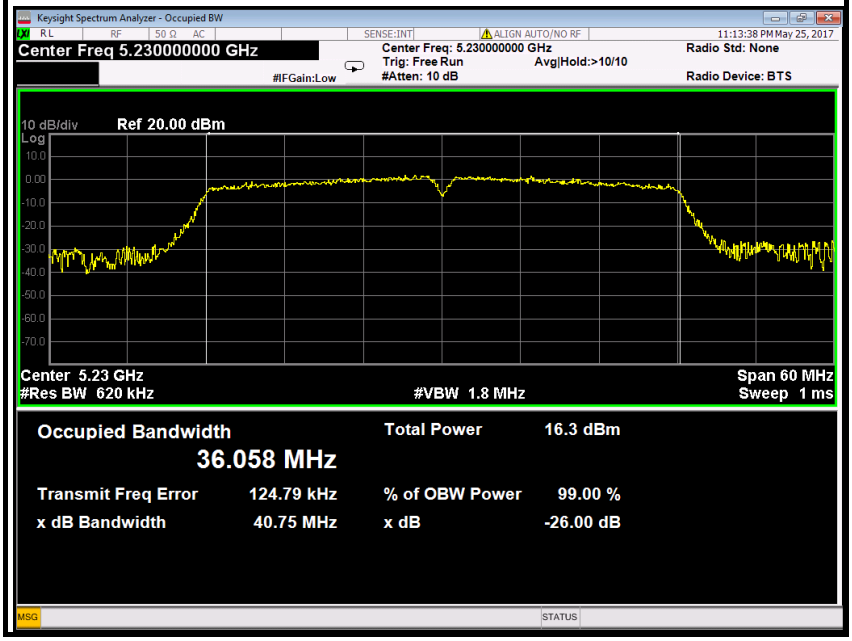


IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

99% Bandwidth (CH Low)

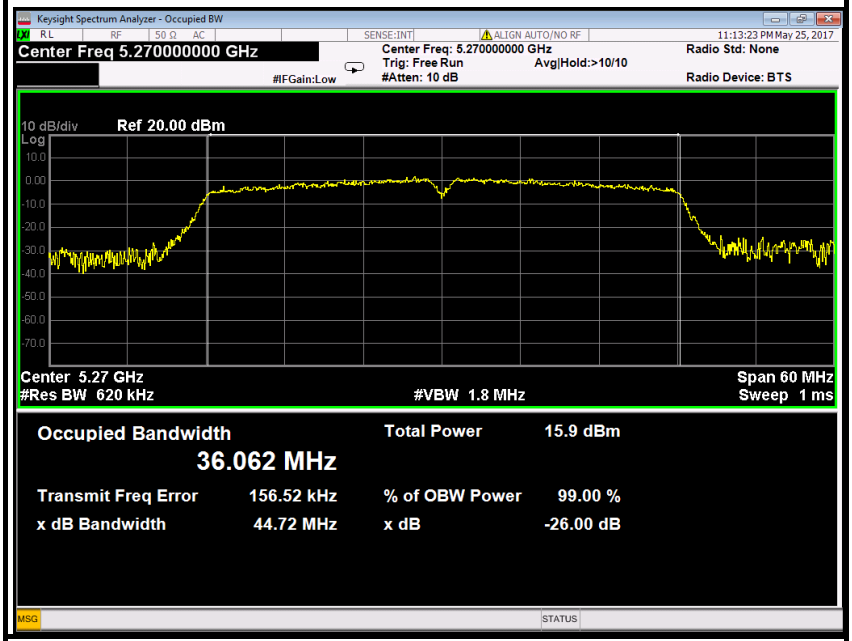


99% Bandwidth (CH High)

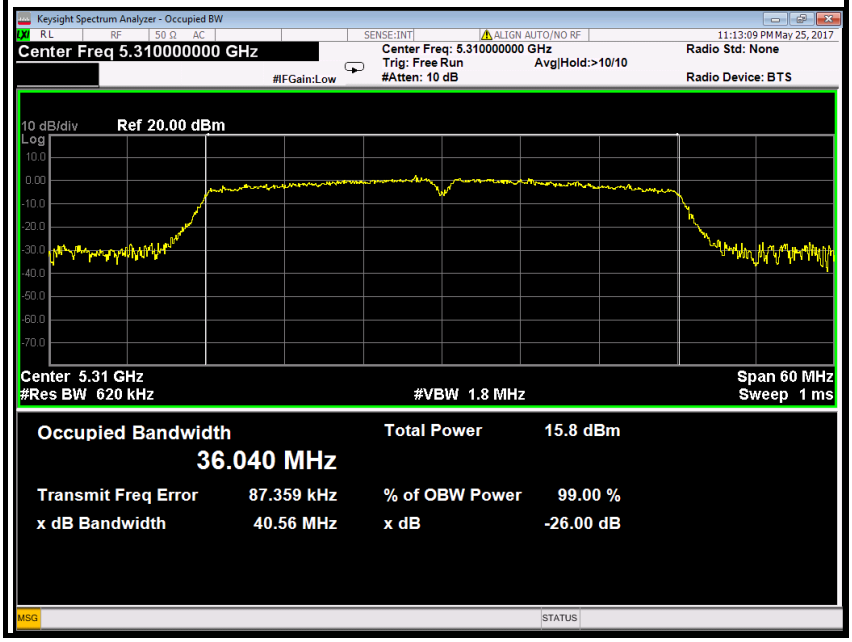


IEEE 802.11n HT 40 MHz mode / 5270 ~ 5310MHz

99% Bandwidth (CH Low)

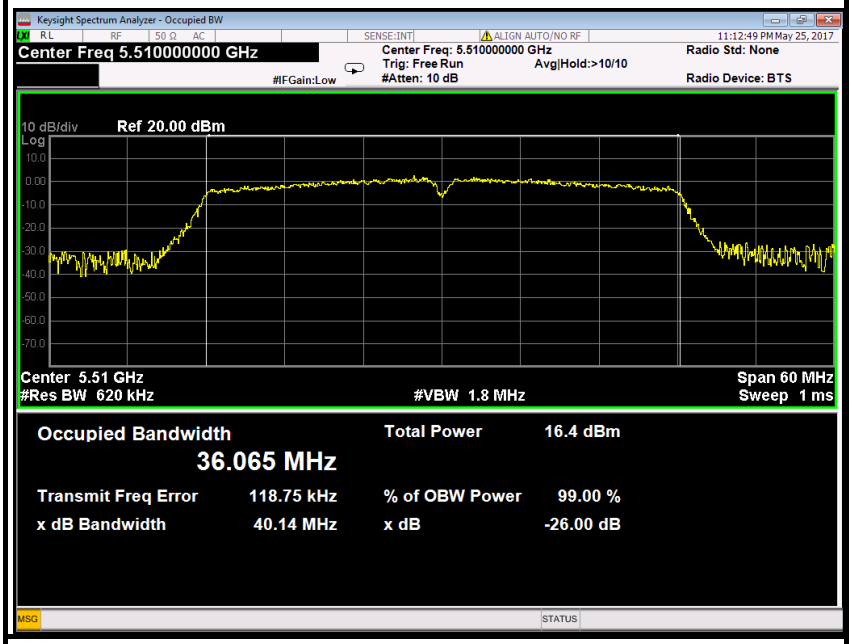


99% Bandwidth (CH High)

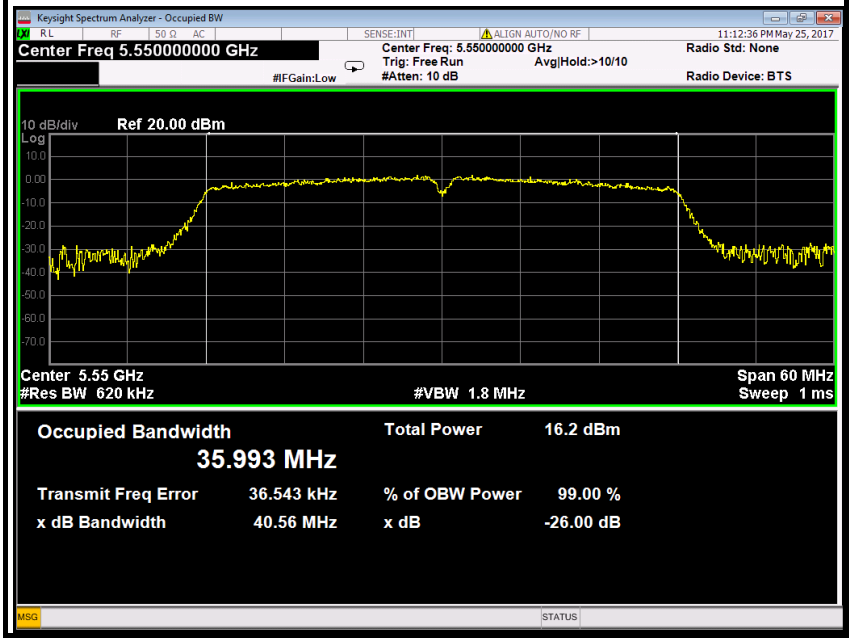


IEEE 802.11n HT 40 MHz mode / 5510~5550MHz; 5670MHz

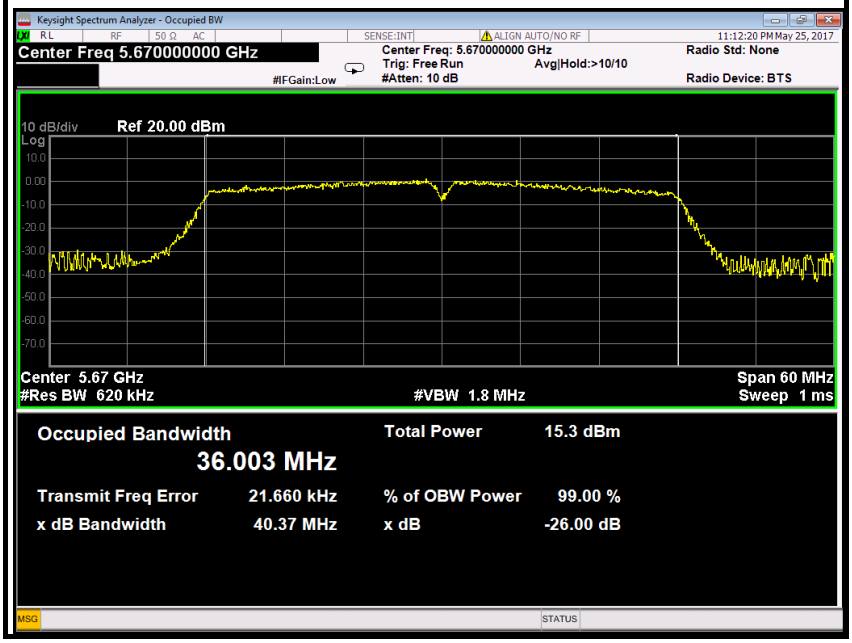
99% Bandwidth (CH Low)



99% Bandwidth (CH Mid)

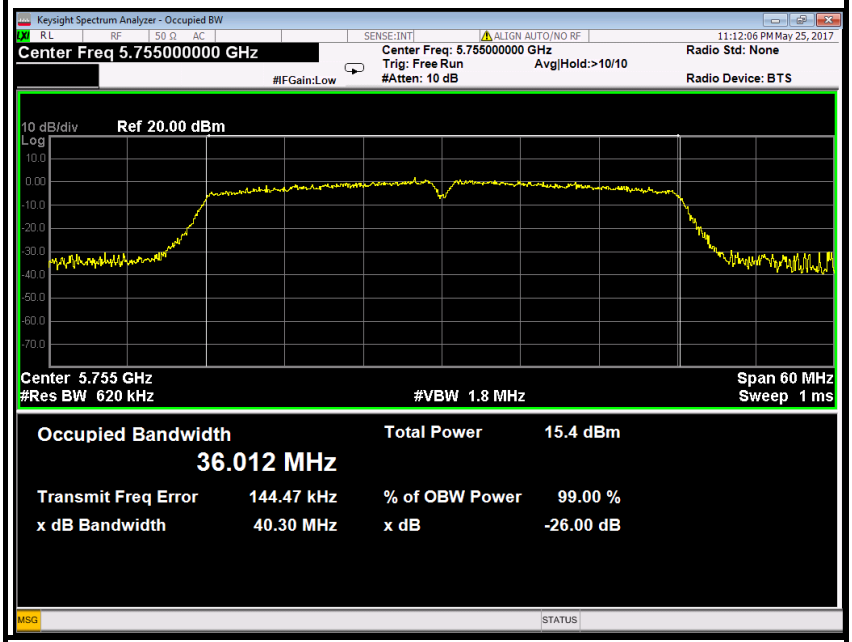


99% Bandwidth (CH High)

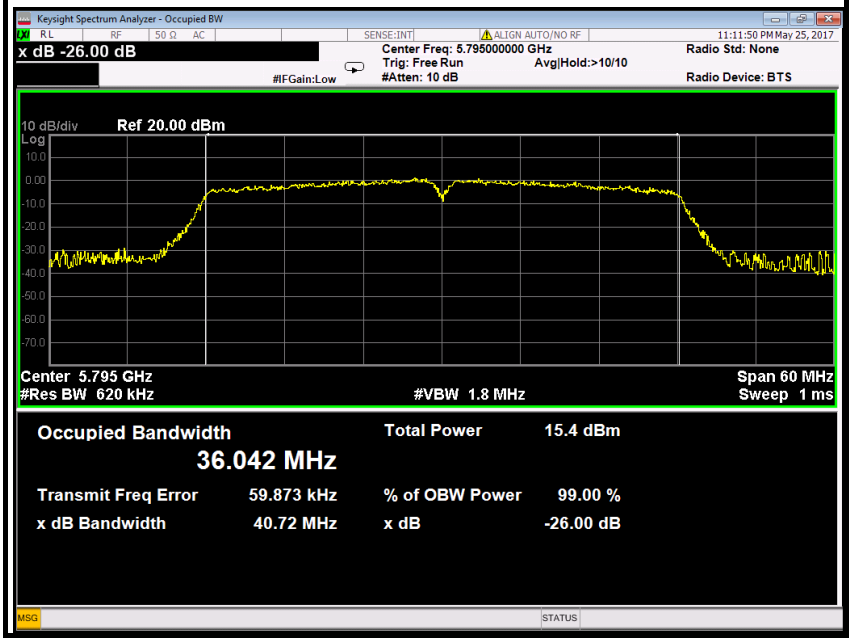


IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

99% Bandwidth (CH Low)

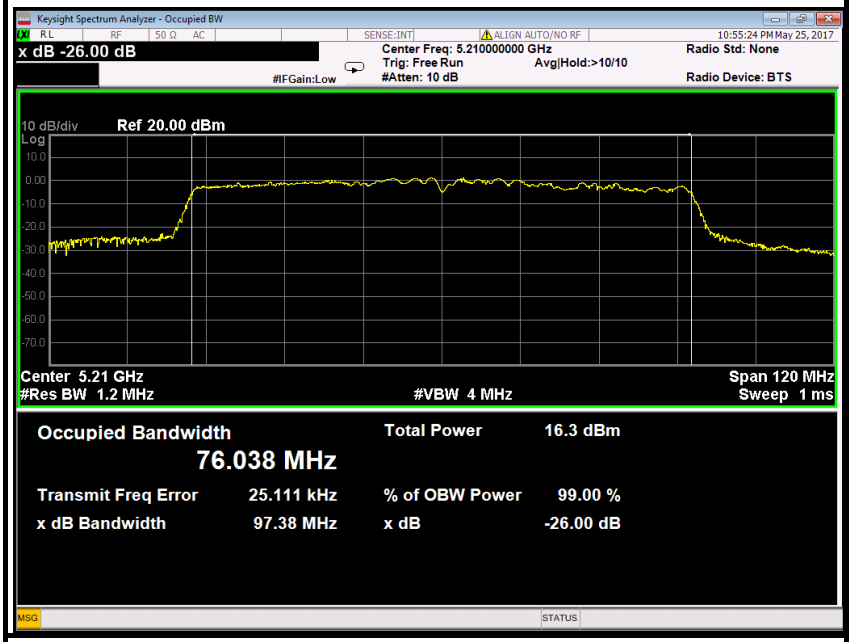


99% Bandwidth (CH High)



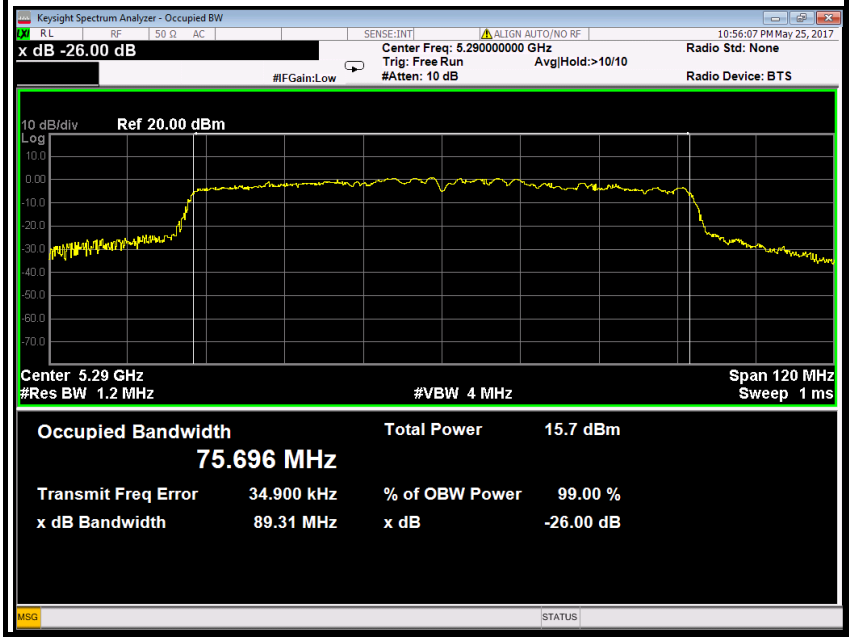
IEEE 802.11ac 80 mode / 5210MHz

99% Bandwidth



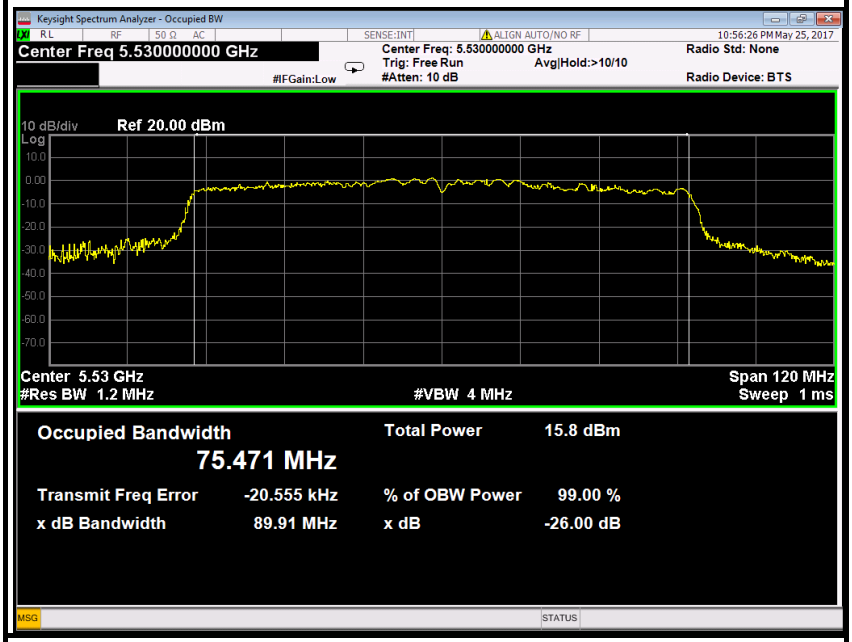
IEEE 802.11ac 80 mode / 5290MHz

99% Bandwidth



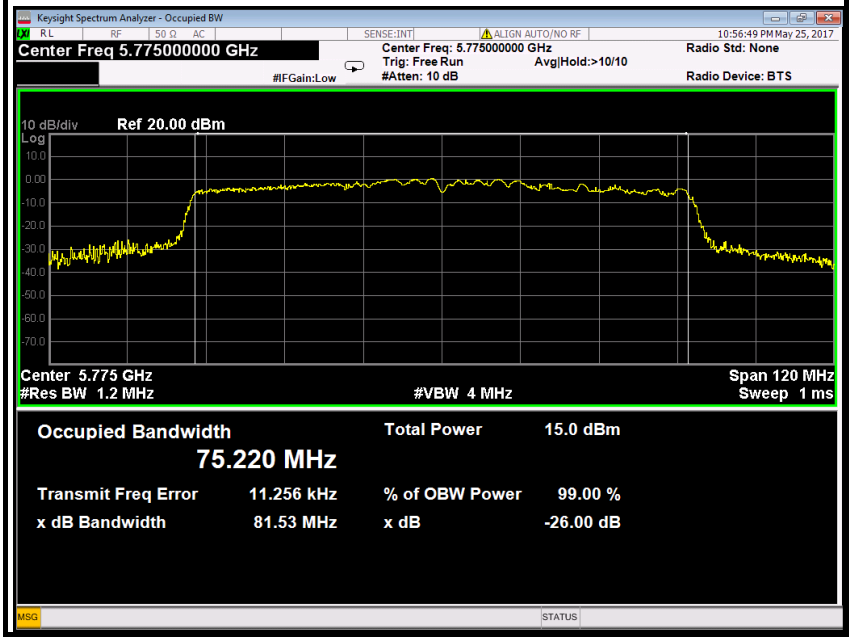
IEEE 802.11ac 80 mode / 5530MHz

99% Bandwidth



IEEE 802.11ac 80 mode / 5775MHz

99% Bandwidth



6.2. 26dB EMISSION BANDWIDTH

LIMIT

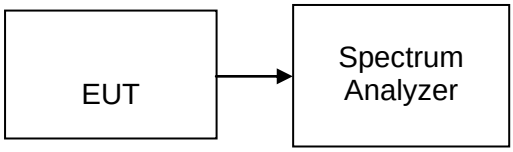
No Limit.

MEASUREMENT EQUIPMENT USED

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Due Calibration
Spectrum Analyzer	Agilent	N9010A	MY52221469	02/21/2017	02/20/2018
Cable	Huber Suhner	SUCOFLEX104PEA	N/A	N/A	N/A

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST CONFIGURATION



TEST PROCEDURE

1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low-loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW > 1%EBW, VBW > RBW, Span >26dB bandwidth, Detector = Peak, and Sweep = auto.
4. Mark the peak frequency and –26dB (upper and lower) frequency.
5. Repeat until all the rest channels were investigated.

TEST RESULTS

No non-compliance noted

Test Plot

The test plots please refer to 6.1 for detail.

Test Data

Test mode: IEEE 802.11a mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	26dB Bandwidth(B) (MHz)
Low	5180	20.10
Mid	5200	20.13
High	5240	20.11

Test mode: IEEE 802.11a mode / 5260 ~ 5320MHz

Channel	Frequency (MHz)	26dB Bandwidth(B) (MHz)
Low	5260	20.20
Mid	5300	20.33
High	5320	20.20

Test mode: IEEE 802.11a mode / 5500 ~ 5580MHz; 5660 ~ 5700MHz

Channel	Frequency (MHz)	26dB Bandwidth(B) (MHz)
Low	5500	20.13
Mid	5580	20.18
High	5700	20.14

Test mode: IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	26dB Bandwidth(B) (MHz)
Low	5180	20.17
Mid	5200	20.32
High	5240	20.28

Test mode: IEEE 802.11n HT 20 MHz mode / 5260 ~ 5320MHz

Channel	Frequency (MHz)	26dB Bandwidth(B) (MHz)
Low	5260	20.29
Mid	5300	20.56
High	5320	20.22

Test mode: IEEE 802.11n HT 20 MHz mode / 5500 ~ 5580MHz; 5660 ~ 5700MHz

Channel	Frequency (MHz)	26dB Bandwidth(B) (MHz)
Low	5500	20.28
Mid	5580	20.29
High	5700	20.44

Test mode: IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

Channel	Frequency (MHz)	26dB Bandwidth(B) (MHz)
Low	5190	40.60
High	5230	40.75

Test mode: IEEE 802.11n HT 40 MHz mode / 5270 ~ 5310MHz

Channel	Frequency (MHz)	26dB Bandwidth(B) (MHz)
Low	5270	44.72
High	5310	40.56

Test mode: IEEE 802.11n HT 40 MHz mode / 5510~5550MHz; 5670MHz

Channel	Frequency (MHz)	26dB Bandwidth(B) (MHz)
Low	5510	40.14
Mid	5550	40.56
High	5670	40.37

Test mode: IEEE 802.11ac 80 mode / 5210MHz

Channel	Frequency (MHz)	26dB Bandwidth(B) (MHz)
	5210	97.38

Test mode: IEEE 802.11ac 80 mode / 5290MHz

Channel	Frequency (MHz)	26dB Bandwidth(B) (MHz)
	5290	89.31

Test mode: IEEE 802.11ac 80 mode / 5530MHz

Channel	Frequency (MHz)	26dB Bandwidth(B) (MHz)
	5530	89.91

6.3. 6dB BANDWIDTH

LIMIT

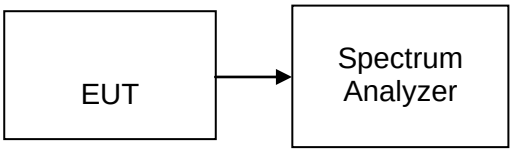
According to RSS-247 §6.2.4, for equipment operating in the band 5725-5850 MHz, the minimum 6 dB bandwidth shall be at least 500 kHz.

MEASUREMENT EQUIPMENT USED

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Due Calibration
Spectrum Analyzer	Agilent	N9010A	MY52221469	02/21/2017	02/20/2018
Cable	HuberSuhner	SUCOFLEX104PEA	N/A	N/A	N/A

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST CONFIGURATION



TEST PROCEDURE

8.1 Option 2:

The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described above (i.e., RBW = 100 kHz, VBW ≥ 3 RBW, peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB.

TEST RESULTS

No non-compliance noted

Test Data

Test mode: IEEE 802.11a mode / 5745 ~ 5825MHz

Channel	Frequency (MHz)	6dB Bandwidth(B) (MHz)	Limit (kHz)	Test Result
Low	5745	15.10	>500	PASS
Mid	5785	15.06		PASS
High	5825	15.07		PASS

Test mode: IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz

Channel	Frequency (MHz)	6dB Bandwidth(B) (MHz)	Limit (kHz)	Test Result
Low	5745	15.07	>500	PASS
Mid	5785	15.07		PASS
High	5825	15.08		PASS

Test mode: IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

Channel	Frequency (MHz)	6dB Bandwidth(B) (MHz)	Limit (kHz)	Test Result
Low	5755	35.08	>500	PASS
High	5795	35.08		PASS

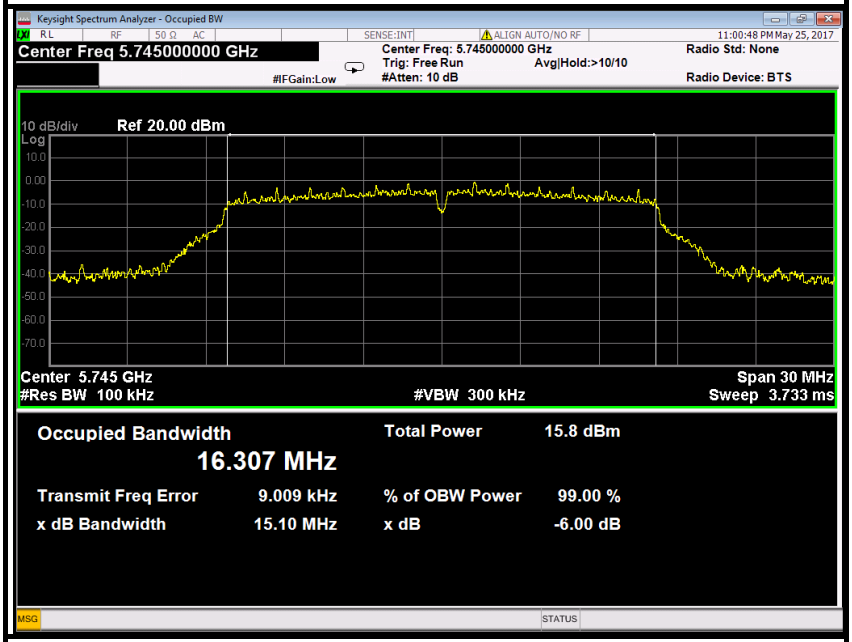
Test mode: IEEE 802.11ac 80 mode / 5775MHz

Channel	Frequency (MHz)	6dB Bandwidth(B) (MHz)	Limit (kHz)	Test Result
	5775	73.79	>500	PASS

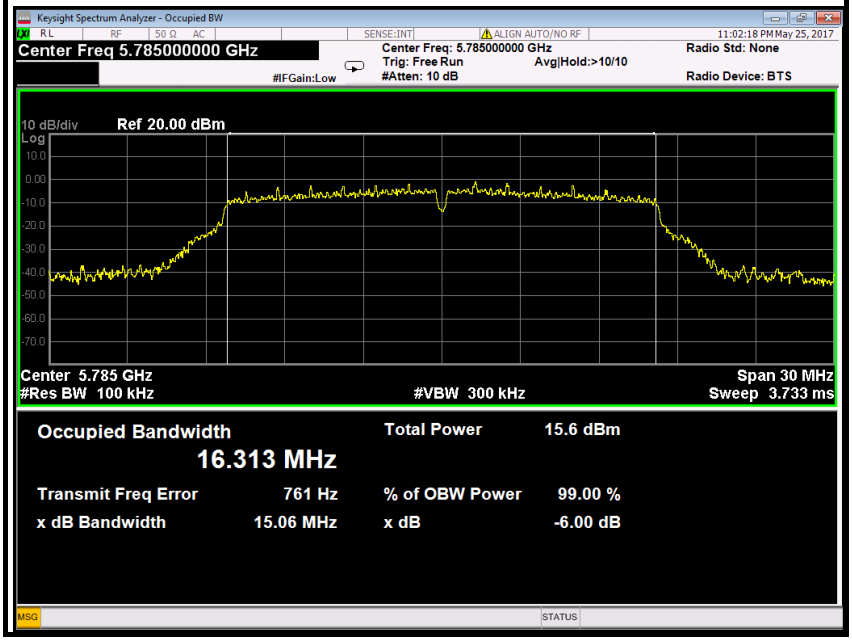
Test Plot

IEEE 802.11a mode / 5745 ~ 5825MHz

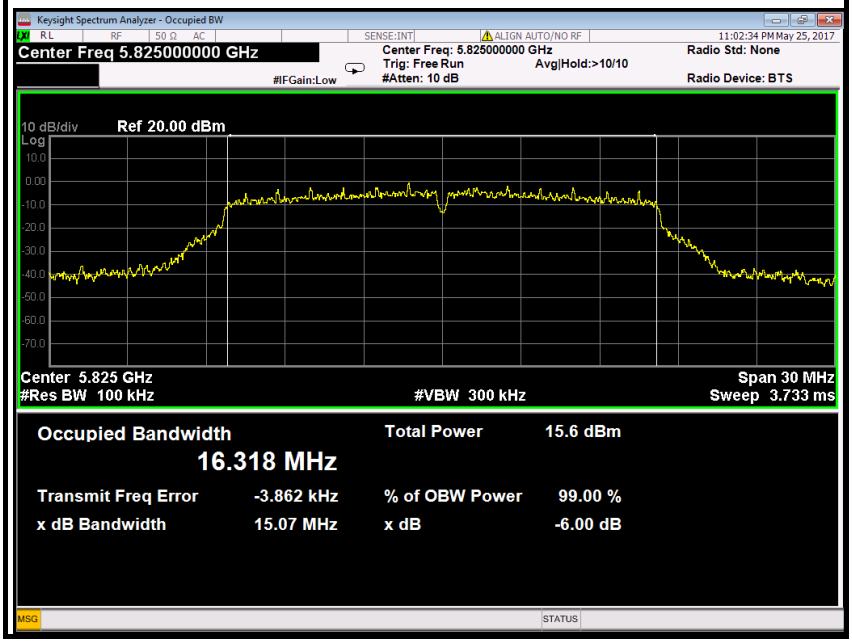
6dB Bandwidth (CH Low)



6dB Bandwidth (CH Mid)

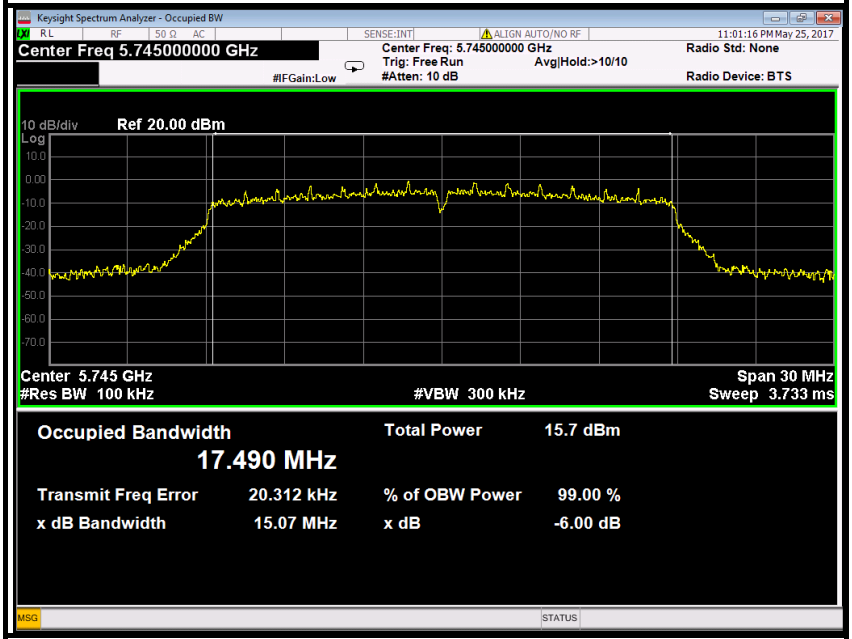


6dB Bandwidth (CH High)

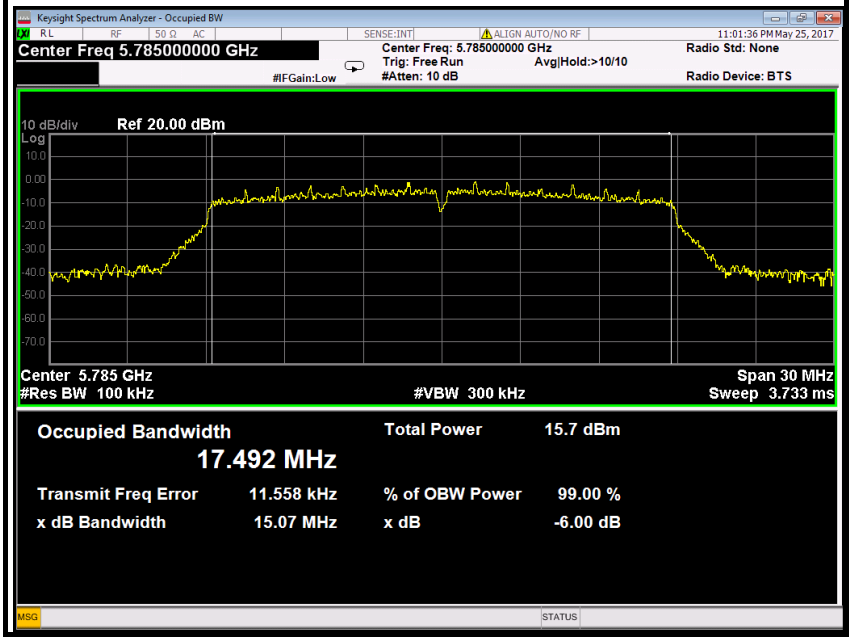


IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz

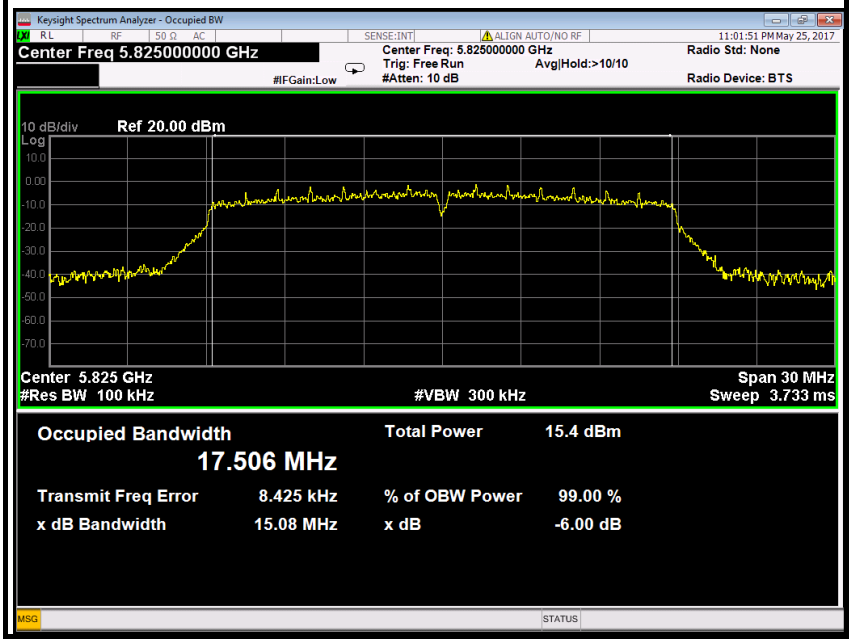
6dB Bandwidth (CH Low)



6dB Bandwidth (CH Mid)

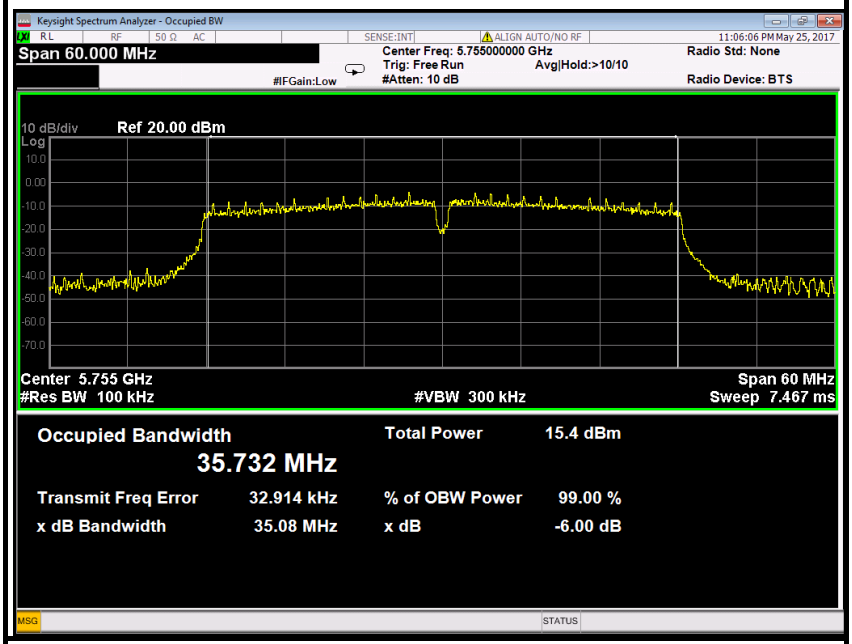


6dB Bandwidth (CH High)

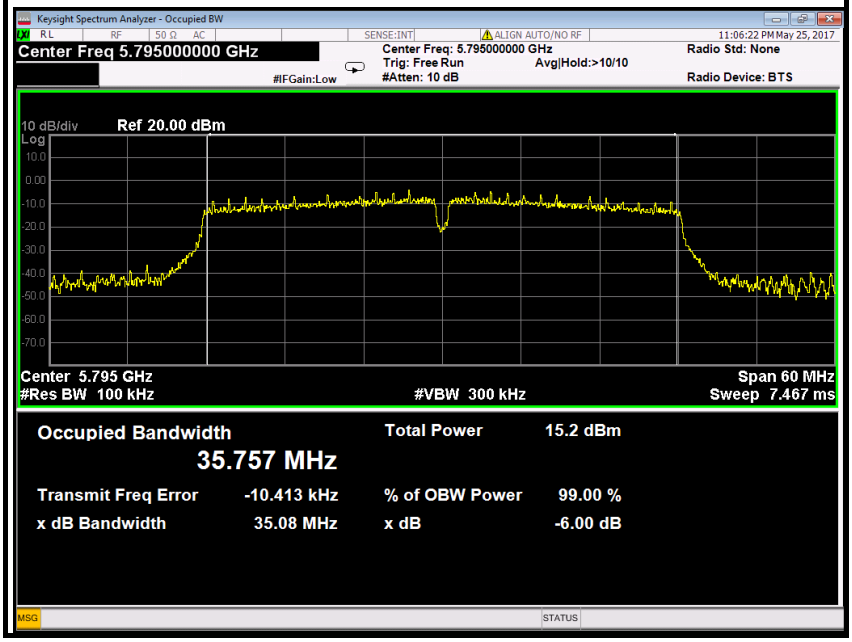


IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

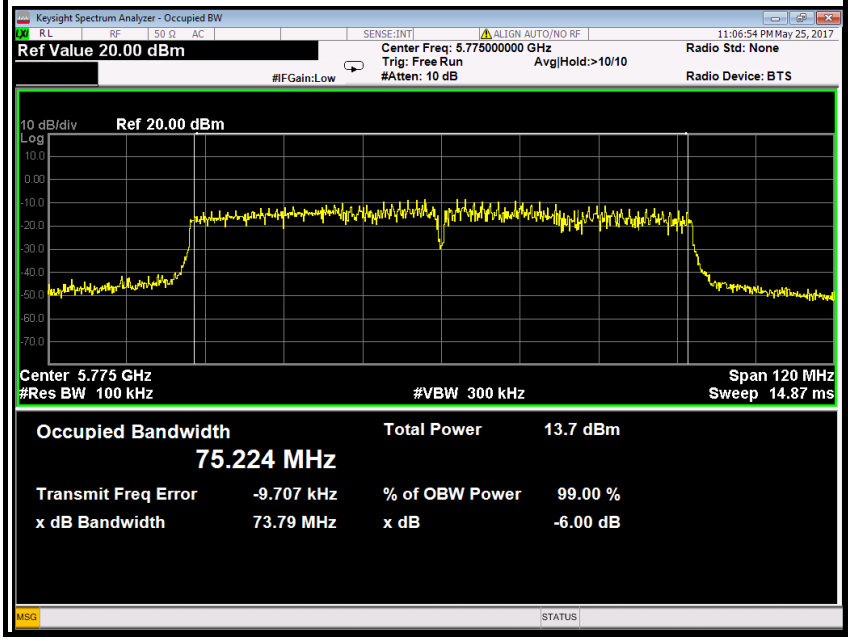
6dB Bandwidth (CH Low)



6dB Bandwidth (CH High)



IEEE 802.11ac 80 MHz mode / 5775MHz
6dB Bandwidth



6.4. ANTENNA GAIN

MEASUREMENT

The antenna gain of the complete system is calculated by the difference of radiated power in EIRP and the conducted power of the module. For UNII devices, the IEEE 802.11a mode is used.

MEASUREMENT PARAMETERS

Measurement parameter	
Detector	Peak
Sweep time	Auto
Resolution bandwidth	3 MHz
Video bandwidth	3 MHz
Trace-Mode	Max hold

LIMITS

FCC	IC
Antenna Gain	
6 dBi	

TEST RESULTS

PASS

Please refer to antenna report;

6.5. OUTPUT POWER

LIMIT

According to RSS-247 §6.2,

1. For the band 5150-5250 MHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10B, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

2. For the band 5250-5350 MHz, the maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

3. For the band 5470-5600 MHz and 5650-5725 MHz, the maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

4. For the band 5725-5850 MHz, The maximum conducted output power shall not exceed 1 W. The power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint3 systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

Specified Limit of the Output Power

Test mode: IEEE 802.11a mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)	10*Log(B) (dB)	10 + 10*Log(B) (dBm)	Maximum Conducted Output Power Limit (dBm)
Low	5180	20.10	13.03	23.03	23.00
Mid	5200	20.13	13.04	23.04	23.00
High	5240	20.11	13.03	23.03	23.00

Test mode: IEEE 802.11a mode / 5260 ~ 5320MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)	10*Log(B) (dB)	11 + 10*Log(B) (dBm)	Maximum Conducted Output Power Limit (dBm)
Low	5260	20.20	13.05	24.05	24.00
Mid	5300	20.33	13.08	24.08	24.00
High	5320	20.20	13.05	24.05	24.00

Test mode: IEEE 802.11a mode / 5500 ~ 5580MHz; 5660 ~ 5700MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)	10*Log(B) (dB)	11 + 10*Log(B) (dBm)	Maximum Conducted Output Power Limit (dBm)
Low	5500	20.13	13.04	24.04	24.00
Mid	5580	20.18	13.05	24.05	24.00
High	5700	20.14	13.04	24.04	24.00

Test mode: IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)	10*Log(B) (dB)	10 + 10*Log(B) (dBm)	Maximum Conducted Output Power Limit (dBm)
Low	5180	20.17	13.05	23.05	23.00
Mid	5200	20.32	13.08	23.08	23.00
High	5240	20.28	13.07	23.07	23.00

Test mode: IEEE 802.11n HT 20 MHz mode / 5260 ~ 5320MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)	10*Log(B) (dB)	11 + 10*Log(B) (dBm)	Maximum Conducted Output Power Limit (dBm)
Low	5260	20.29	13.07	24.07	24.00
Mid	5300	20.56	13.13	24.13	24.00
High	5320	20.22	13.06	24.06	24.00

Test mode: IEEE 802.11n HT 20 MHz mode / 5500 ~ 5580MHz; 5660 ~ 5700MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)	10*Log(B) (dB)	11 + 10*Log(B) (dBm)	Maximum Conducted Output Power Limit (dBm)
Low	5500	20.28	13.07	24.07	24.00
Mid	5580	20.29	13.07	24.07	24.00
High	5700	20.44	13.10	24.10	24.00

IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)	10*Log(B) (dB)	10 + 10*Log(B) (dBm)	Maximum Conducted Output Power Limit (dBm)
Low	5190	40.60	16.09	26.09	23.00
High	5230	40.75	16.10	26.10	23.00

IEEE 802.11n HT 40 MHz mode / 5270 ~ 5310MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)	10*Log(B) (dB)	11 + 10*Log(B) (dBm)	Maximum Conducted Output Power Limit (dBm)
Low	5270	44.72	16.51	27.51	24.00
High	5310	40.56	16.08	27.08	24.00

IEEE 802.11n HT 40 MHz mode / 5510~5550MHz; 5670MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)	10*Log(B) (dB)	11 + 10*Log(B) (dBm)	Maximum Conducted Output Power Limit (dBm)
Low	5510	40.14	16.04	27.04	24.00
Mid	5550	40.56	16.08	27.08	24.00
High	5670	40.37	16.06	27.06	24.00

IEEE 802.11ac 80 mode / 5210MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)	10*Log(B) (dB)	10 + 10*Log(B) (dBm)	Maximum Conducted Output Power Limit (dBm)
	5210	97.38	19.88	29.88	23.00

IEEE 802.11ac 80 mode / 5290MHz

Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)	10*Log(B) (dB)	11 + 10*Log(B) (dBm)	Maximum Conducted Output Power Limit (dBm)
	5290	89.31	19.51	30.51	24.00

IEEE 802.11ac 80 mode / 5530MHz

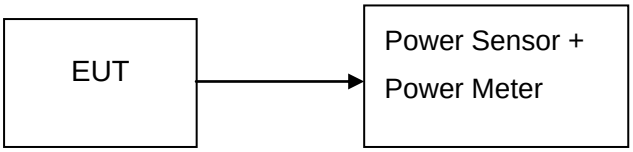
Channel	Frequency (MHz)	26 dB Bandwidth (B) (MHz)	10*Log(B) (dB)	11 + 10*Log(B) (dBm)	Maximum Conducted Output Power Limit (dBm)
	5530	89.91	19.54	30.54	24.00

MEASUREMENT EQUIPMENT USED

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Calibration Due
Power Meter	Anritsu	ML2495A	1204003	02/21/2017	02/20/2018
Power Sensor	Anritsu	MA2411B	1126150	02/21/2017	02/20/2018
Cable	HuberSuhner	SUCOFLEX104PEA	N/A	N/A	N/A

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST CONFIGURATIONS



TEST PROCEDURE

Set span to encompass the entire emission bandwidth (EBW) of the signal.

Set RBW = 1 MHz / Set VBW = 3 MHz.

Use sample detector mode if bin width (i.e., span/number of points in spectrum display) < 0.5 RBW. Otherwise use peak detector mode. Use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at full control power for entire sweep of every sweep. If the device transmits continuously, with no off intervals or reduced power intervals, the trigger may be set to “free run”.·Trace average 100 traces in power averaging mode. Compute power by integrating the spectrum across the 26 dB EBW of the signal. The integration can be performed using the spectrum analyzer’s band power measurement function with band limits set equal to the EBW band edges or by summing power levels in each 1 MHz band in linear power terms. The 1 MHz band power levels to be summed can be obtained by averaging, in linear power terms, power levels in each frequency bin across the 1 MHz.

TEST RESULTS

No non-compliance noted

Test Data

IEEE 802.11a mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	AVG Output Power (dBm)	Antenna Gain (dBi)	AVG Output Power (W)	Maximum e.i.r.p (W)	Limit (dBm)	Result
Low	5180	14.00	1.98	15.98	0.03963	23.00	PASS
Mid	5200	13.98		15.96	0.03945		PASS
High	5240	13.76		15.74	0.03750		PASS

IEEE 802.11a mode / 5260~ 5320MHz

Channel	Frequency (MHz)	AVG Output Power (dBm)	AVG Output Power (W)	Limit (dBm)	Result
Low	5260	13.70	0.02344	24.00	PASS
Mid	5300	13.60	0.02291		PASS
High	5320	13.80	0.02399		PASS

IEEE 802.11a mode / 5500 ~ 5580MHz; 5660 ~ 5700MHz

Channel	Frequency (MHz)	AVG Output Power (dBm)	AVG Output Power (W)	Limit (dBm)	Result
Low	5500	14.00	0.02512	24.00	PASS
Mid	5580	13.70	0.02344		PASS
High	5700	13.30	0.02138		PASS

IEEE 802.11a mode / 5745 ~ 5825MHz

Channel	Frequency (MHz)	AVG Output Power (dBm)	AVG Output Power (W)	Limit (dBm)	Result
Low	5745	13.10	0.02042	30.00	PASS
Mid	5785	13.10	0.02042		PASS
High	5825	12.80	0.01905		PASS

IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	AVG Output Power (dBm)	Antenna Gain (dBi)	AVG Output Power (W)	Maximum e.i.r.p (W)	Limit (dBm)	Result
Low	5180	14.00	1.98	15.98	0.03963	23.00	PASS
Mid	5200	14.00		15.98	0.03963		PASS
High	5240	13.60		15.58	0.03614		PASS

IEEE 802.11n HT 20 MHz mode / 5260~ 5320MHz

Channel	Frequency (MHz)	AVG Output Power (dBm)	AVG Output Power (W)	Limit (dBm)	Result
Low	5260	13.60	0.02291	24.00	PASS
Mid	5300	13.60	0.02291		PASS
High	5320	13.40	0.02188		PASS

IEEE 802.11n HT 20 MHz mode / 5500 ~ 5580MHz; 5660 ~ 5700MHz

Channel	Frequency (MHz)	AVG Output Power (dBm)	AVG Output Power (W)	Limit (dBm)	Result
Low	5500	13.90	0.02455	24.00	PASS
Mid	5580	13.60	0.02291		PASS
High	5700	13.20	0.02089		PASS

IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz

Channel	Frequency (MHz)	AVG Output Power (dBm)	AVG Output Power (W)	Limit (dBm)	Result
Low	5745	13.00	0.01995	30.00	PASS
Mid	5785	12.90	0.01950		PASS
High	5825	12.70	0.01862		PASS

IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

Channel	Frequency (MHz)	AVG Output Power (dBm)	Antenna Gain (dBi)	AVG Output Power (W)	Maximum e.i.r.p (W)	Limit (dBm)	Result
Low	5190	13.92	1.98	15.90	0.03890	23.00	PASS
High	5230	14.00		15.98	0.03963		PASS

IEEE 802.11n HT 40 MHz mode / 5270 ~ 5310MHz

Channel	Frequency (MHz)	AVG Output Power (dBm)	AVG Output Power (W)	Limit (dBm)	Result
Low	5270	13.70	0.02344	24.00	PASS
High	5310	13.90	0.02455		PASS

IEEE 802.11n HT 40 MHz mode / 5510~5550MHz; 5670MHz

Channel	Frequency (MHz)	AVG Output Power (dBm)	AVG Output Power (W)	Limit (dBm)	Result
Low	5510	13.90	0.02455	24.00	PASS
Mid	5550	13.98	0.02500		PASS
High	5670	13.60	0.02291		PASS

IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

Channel	Frequency (MHz)	AVG Output Power (dBm)	AVG Output Power (W)	Limit (dBm)	Result
Low	5755	13.30	0.02138	30.00	PASS
High	5795	13.00	0.01995		PASS

IEEE 802.11ac 80 mode / 5210MHz

Channel	Frequency (MHz)	AVG Output Power (dBm)	Antenna Gain (dBi)	AVG Output Power (W)	Maximum e.i.r.p (W)	Limit (dBm)	Result
	5210	12.20	1.98	14.18	0.02618	23.00	PASS

IEEE 802.11ac 80 mode / 5290MHz

Channel	Frequency (MHz)	AVG Output Power (dBm)	AVG Output Power (W)	Limit (dBm)	Result
	5290	12.00	0.01585	24.00	PASS

IEEE 802.11ac 80 mode / 5530MHz

Channel	Frequency (MHz)	AVG Output Power (dBm)	AVG Output Power (W)	Limit (dBm)	Result
	5530	11.70	0.01479	24.00	PASS

IEEE 802.11ac 80 mode / 5775MHz

Channel	Frequency (MHz)	AVG Output Power (dBm)	AVG Output Power (W)	Limit (dBm)	Result
	5775	11.40	0.01380	30.00	PASS

6.6. BAND EDGES MEASUREMENT

LIMIT

According to RSS-247 §5.5, In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

MEASUREMENT EQUIPMENT USED

Radiated Emission Test Site 966（2）					
Name of Equipment	**Manufacturer**	**Model Number**	**Serial Number**	**Last Calibration**	**Due Calibration**
PSA Series Spectrum Analyzer	Agilent	N9010A	MY52221469	02/21/2017	02/20/2018
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100783	02/21/2017	02/20/2018
Amplifier	EMEC	EM330	060661	03/18/2017	03/17/2018
High Noise Amplifier	Agilent	8449B	3008A01838	02/21/2017	02/20/2018
Loop Antenna	COM-POWER	AL-130	121044	09/25/2016	09/24/2017
Bilog Antenna	SCHAFFNER	CBL6143	5082	02/21/2017	02/20/2018
Horn Antenna	SCHWARZBECK	BBHA9120	D286	02/27/2018	02/27/2018
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170-497	02/27/2018	02/27/2018
Turn Table	N/A	N/A	N/A	N.C.R	N.C.R
Antenna Tower	SUNOL	TLT2	N/A	N.C.R	N.C.R
Controller	Sunol Sciences	SC104V	022310-1	N.C.R	N.C.R
Controller	CT	N/A	N/A	N.C.R	N.C.R
Temp. / Humidity Meter	Anymetre	JR913	N/A	02/21/2017	02/20/2018
Test S/W	FARAD	LZ-RF / CCS-SZ-3A2			

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

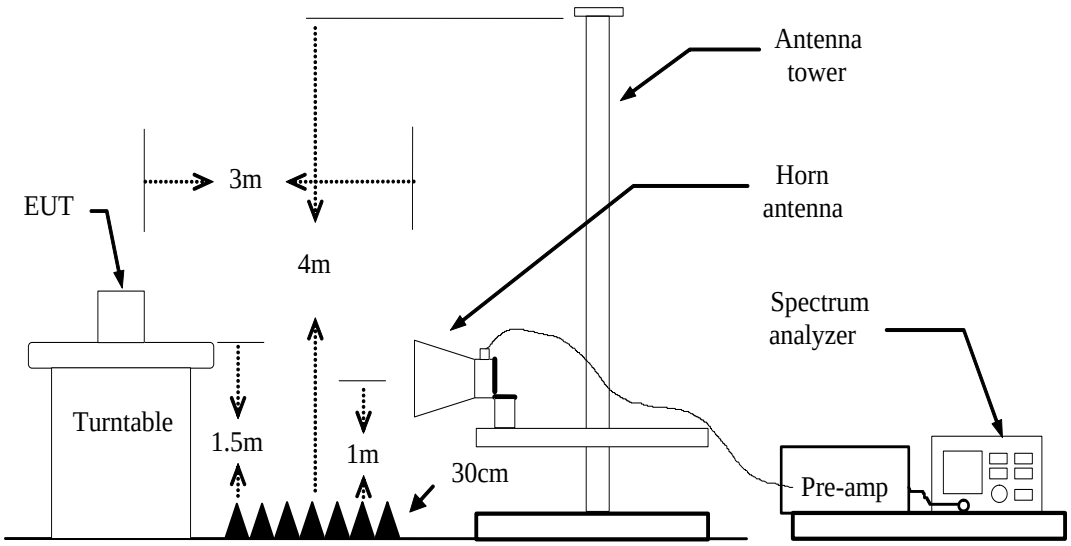
2. The FCC Site Registration number is 101879.

3. N.C.R = No Calibration Required.

6.6.4. TEST PROCEDURES (please refer to measurement standard)

1. The EUT is placed on a turntable, which is 1.5m above the ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
   (a) PEAK: RBW=1MHz / VBW=3MHz / Sweep=AUTO
   (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO / Detector=Peak
5. Repeat the procedures until all the PEAK and AVERAGE versus POLARIZATION are measured.

6.6.5. TEST SETUP



6.6.6. TEST RESULTS

IEEE 802.11a mode / 5500 ~ 5580MHz; 5660 ~ 5700MHz

1. Operating Frequency: 5500-5700MHz
2. CH Low: 5500MHz, CH High: 5700MHz
3. 26dB bandwidth: CH Low: 20.13MHz, CH High: 20.14MHz
4. Frequency Range: 5489.935MHz, 5710.070MHz

IEEE 802.11a mode / 5745 ~ 5825MHz

1. Operating Frequency: 5745-5825MHz
2. CH Low: 5745MHz, CH High: 5825MHz
3. 26dB bandwidth: CH Low: 19.97MHz, CH High: 20.32MHz
4. Frequency Range: 5735.015MHz, 5835.160MHz

IEEE 802.11n HT 20 MHz mode / 5500 ~ 5580MHz; 5660 ~ 5700MHz

1. Operating Frequency: 5500-5700MHz
2. CH Low: 5500MHz, CH High: 5700MHz
3. 26dB bandwidth: CH Low: 20.28MHz, CH High: 20.44MHz
4. Frequency Range: 5489.860MHz, 5710.220MHz

IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz

1. Operating Frequency: 5745-5825MHz
2. CH Low: 5745MHz, CH High: 5825MHz
3. 26dB bandwidth: CH Low: 20.34MHz, CH High: 20.44MHz
4. Frequency Range: 5734.830MHz, 5835.220MHz

IEEE 802.11n HT 40 MHz mode / 5510~5550MHz; 5670MHz

1. Operating Frequency: 5510-5670MHz
2. CH Low: 5510MHz, CH High: 5670MHz
3. 26dB bandwidth: CH Low: 40.14MHz, CH High: 40.37MHz
4. Frequency Range: 5489.930MHz, 5690.185MHz

IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

1. Operating Frequency: 5755-5795MHz
2. CH Low: 5755MHz, CH High: 5795MHz
3. 26dB bandwidth: CH Low: 40.30MHz, CH High: 40.72MHz
4. Frequency Range: 5734.850MHz, 5815.360MHz

IEEE 802.11ac 80 mode / 5530MHz

1. Operating Frequency: 5530MHz
2. CH: 5530MHz
3. 26dB bandwidth: CH: 89.91MHz
4. Frequency Range: 5485.045MHz, 5574.955MHz

IEEE 802.11ac 80 mode / 5775MHz

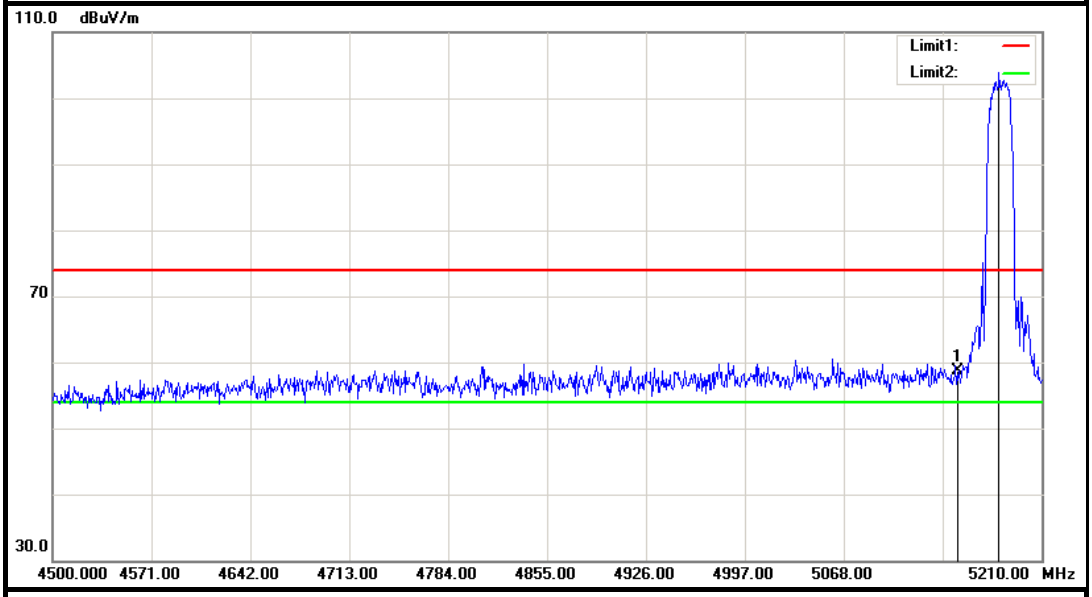
1. Operating Frequency: 5775MHz
2. CH: 5775MHz
3. 26dB bandwidth: CH: 81.53MHz
4. Frequency Range: 5734.235MHz, 5815.765MHz

Because the mentioned conditions the Fundamental Frequency Range was far away from the restricted bands in the table published in 15.205, the test is not applicable.

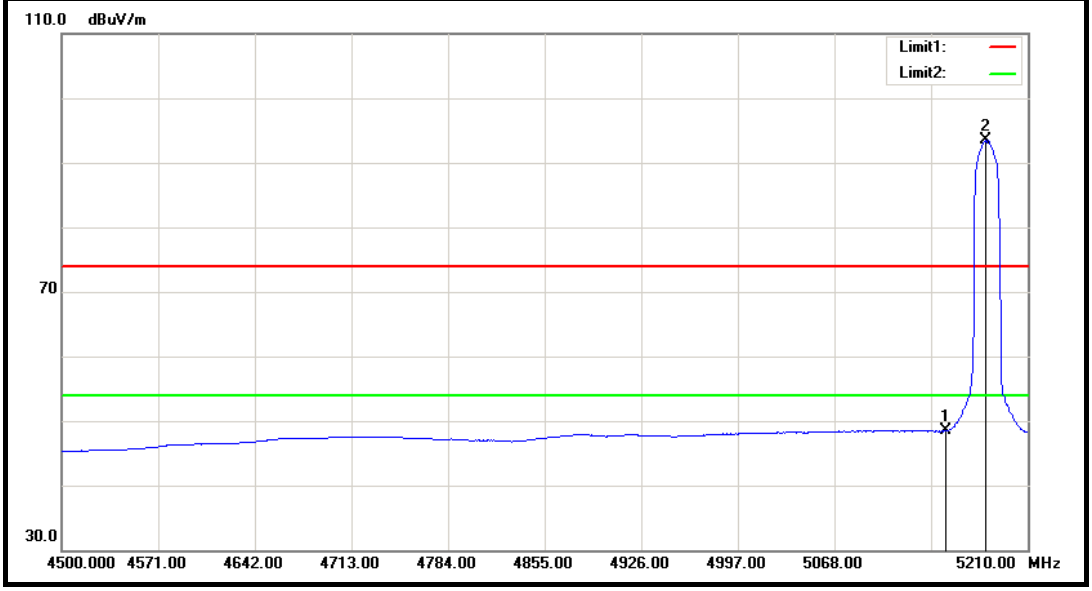
Test Plot

IEEE 802.11a mode / 5180MHz

Detector mode: Peak **Polarity: Vertical**

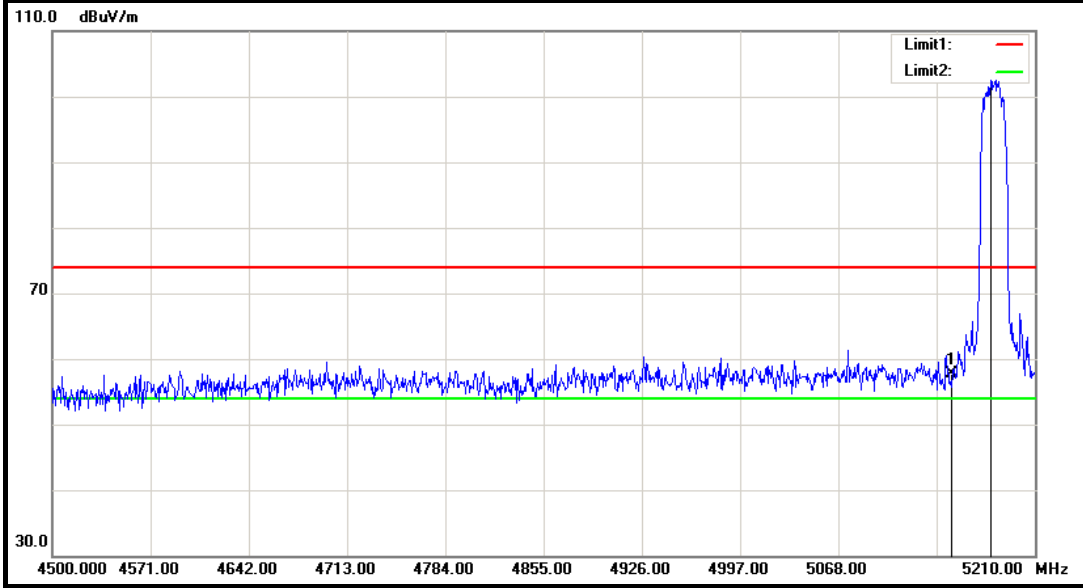


Detector mode: Average **Polarity: Vertical**

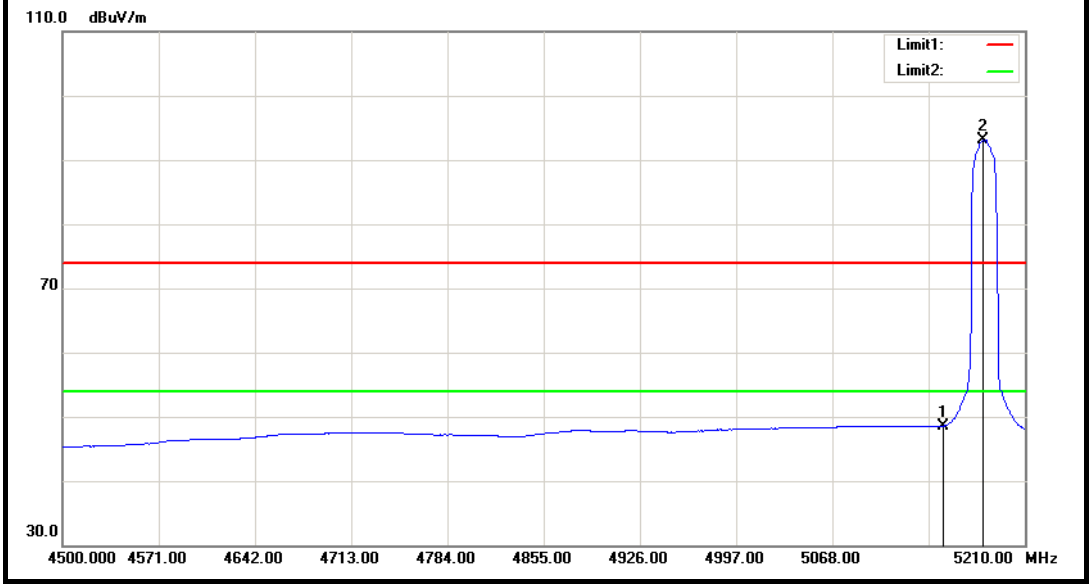


No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1	5150.000	53.38	5.25	58.63	74.00	-15.37	Peak	Vertical
2	5179.470	98.62	5.30	103.92	---	---	Peak	Vertical
1	5150.000	43.25	5.25	48.50	54.00	-5.50	Average	Vertical
2	5178.760	88.23	5.30	93.53	---	---	Average	Vertical

Detector mode: Peak **Polarity: Horizontal**



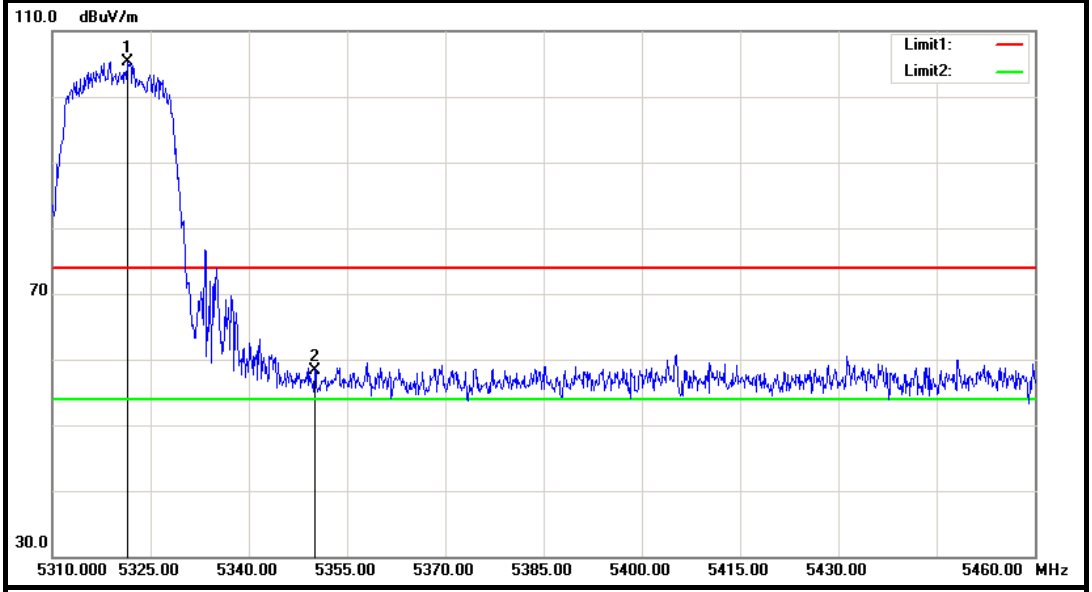
Detector mode: Average **Polarity: Horizontal**



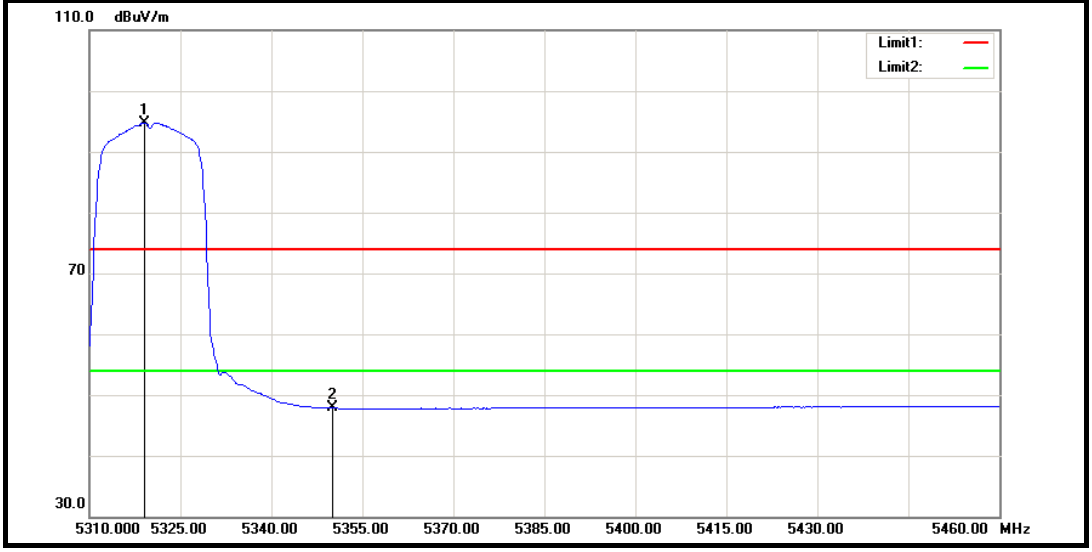
No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1	5150.000	52.38	5.25	57.63	74.00	-16.37	Peak	Horizontal
2	5178.050	97.29	5.30	102.59	---	---	Peak	Horizontal
1	5150.000	43.34	5.25	48.59	54.00	-5.41	Average	Horizontal
2	5178.760	87.86	5.30	93.16	---	---	Average	Horizontal

IEEE 802.11a mode / 5320MHz

Detector mode: Peak **Polarity: Vertical**

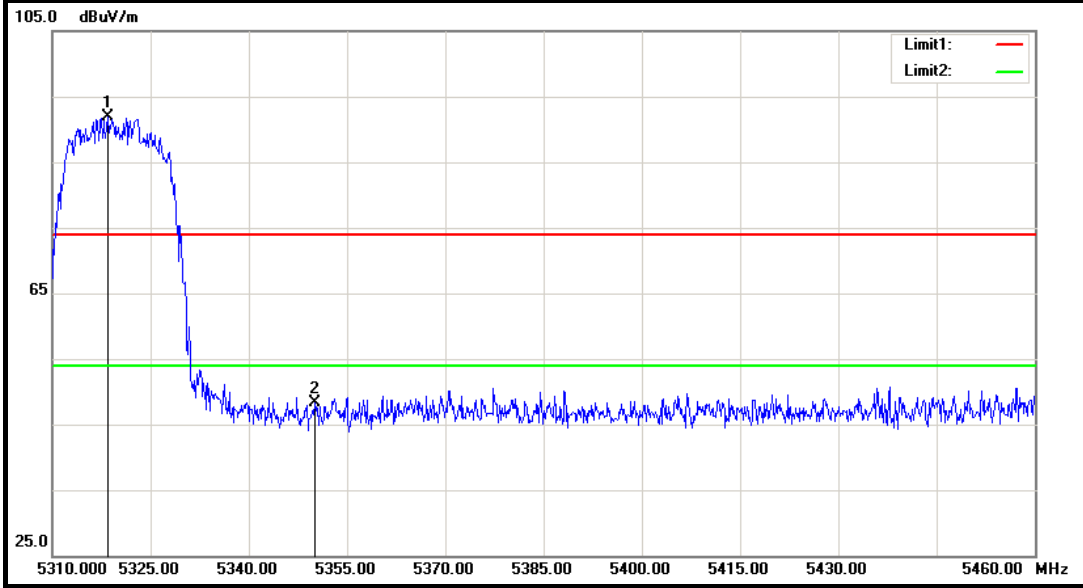


Detector mode: Average **Polarity: Vertical**

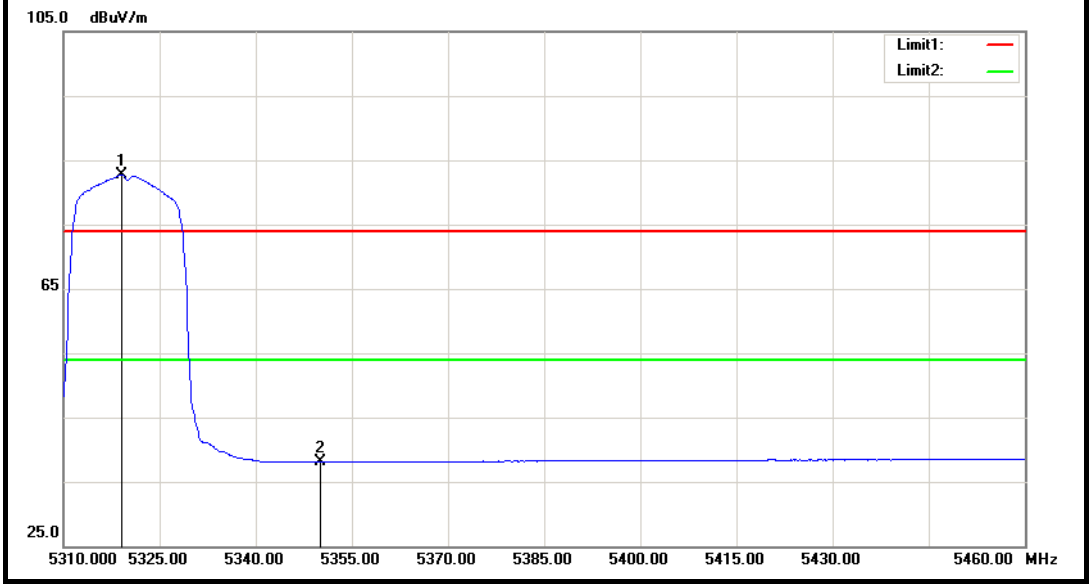


No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1	5321.400	99.84	5.55	105.39	---	---	Peak	Vertical
2	5350.000	52.78	5.60	58.38	74.00	-15.62	Peak	Vertical
1	5319.000	89.22	5.55	94.77	---	---	Average	Vertical
2	5350.000	42.21	5.60	47.81	54.00	-6.19	Average	Vertical

Detector mode: Peak **Polarity: Horizontal**



Detector mode: Average **Polarity: Horizontal**



No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1	5318.550	86.30	5.55	91.85	---	---	Peak	Horizontal
2	5350.000	42.61	5.60	48.21	74.00	-25.79	Peak	Horizontal
1	5319.000	77.14	5.55	82.69	---	---	Average	Horizontal
2	5350.000	32.45	5.60	38.05	74.00	-35.95	Average	Horizontal