



Registration
No. 788871

TEST REPORT FOR WLAN TESTING

Report No: SRTC2018-9004(F)-18030601(G)

Product Name: Mobile Phone

Product Model: H1A1000

Applicant: RED Technologies LLC

Manufacturer: RED Technologies LLC

Specification: FCC Part 15, Subpart E (2018)

FCC ID: 2AOYWH1A1000

The State Radio_monitoring_center Testing Center (SRTC)
15th Building, No.30, Shixing Street, Shijingshan District,
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1. GENERAL INFORMATION

1.1 Notes of the test report

The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written permission of The State Radio_monitoring_center Testing Center (SRTC).

The test results relate only to individual items of the samples which have been tested.

1.2 Information about the testing laboratory

Company:	The State Radio_monitoring_center Testing Center (SRTC)
Address:	15th Building, No.30 Shixing Street, Shijingshan District, P.R.China
City:	Beijing
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1.3 Applicant's details

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1.4 Manufacturer's details

Company:	RED Technologies LLC
Address:	34 Parker, Irvine, California, United States
City:	Irvine
Country or Region:	United States
Contacted person:	Doug Kwon
Tel:	9492067900 ext 7794
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Email:	Doug.kwon@Red.com

1.5 Test Environment

Date of Receipt of test sample at SRTC:	2018-03-06
Testing Start Date:	2018-03-12
Testing End Date:	2018-05-19

Environmental Data:	Temperature (°C)	Humidity (%)
Ambient	22	30
Maximum Extreme	55	---
Minimum Extreme	-10	---

Normal Supply Voltage (V d.c.):	3.85
Maximum Extreme Supply Voltage (V d.c.):	4.30
Minimum Extreme Supply Voltage (V d.c.):	3.65

2. DESCRIPTION OF THE DEVICE UNDER TEST

2.1 Final Equipment Build Status

Frequency Band(s)	U-NII-1:5150MHz-5250MHz U-NII-3:5725MHz-5850MHz
Modulation Type	802.11a/n (HT20/HT40) 802.11ac (HT20.HT40/HT80)
Antenna Type	PIFA Antenna
Antenna Gain	Antenna 0: -1.8 dB Antenna 1: -1.8 dB
Power Supply	Battery/AC adapter
HW Version	EVT2.1
SW Version	HiA1000.005ho.01.00.01d.403
IMEI	355929090014854

2.2 Wireless Technology and Frequency Range

Wireless Technology		Bandwidth	Channel	Frequency(MHz)
Wi-Fi	U-NII-1	20MHz	36	5180
			40	5200
			44	5220
			48	5240
		40MHz	38	5190
			46	5230
		80MHz	42	5210
	U-NII-3	20MHz	149	5745
			153	5765
			157	5785
			161	5805
			165	5825
		40MHz	151	5755
			159	5795
		80MHz	155	5775

Duty Cycle Result

Mode	Duty Cycle(%)	Correction Factor(dB)	Mode	Duty Cycle(%)	Correction Factor(dB)
802.11a	96.12%	0.170	802.11ac HT20	97.34%	0.120
802.11n HT20	98.92%	0.000	802.11ac HT40	96.27%	0.170
802.11n HT40	98.94%	0.000	802.11ac HT80	95.37%	0.210

2.3 Support Equipment

The following support equipment was used to exercise the DUT during testing:

Equipment	Charger
Manufacturer	TEN PAO INDUSTRIAL CO., LTD
Model Number	S018CDU1200150
Serial Number	---

Equipment	Battery
Manufacturer	DONGGUAN DRN NEW ENERGY CO.,LTD
Model Number	RED-A2H-4500
Serial Number	---

Equipment	Notebook
Manufacturer	LENOVO
Model Number	ThinkPad E420
Serial Number	---

2.4 Note

Automatically Discontinue Transmission	
Description	The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.
Result	While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

The antenna provide to the EUT, please refer to the following table:

Brand	Model	Antenna gain	Frequency Bands(GHz)	Antenna type	Connector Type
N/A	N/A	Ant0:-1.8dBi Ant1:-1.8dBi	5150MHz-5250MHz 5725MHz-5850MHz	PIFA Antenna	N/A

Manufacturers ensure that their designs will not be modified by the user or third parties arbitrary antenna parameters and performance.

3 REFERENCE SPECIFICATION

Specification	Version	Title
15.35	2018	Measurement detector functions and bandwidths.
15.209	2018	Radiated emission limits; general requirements.
15.205	2018	Restricted bands of operation.
15.207	2018	Conducted limits.
15.407	2018	General technical requirements
ANSI C63.10	2013	Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
KDB 644545 D03	August 14, 2014	GUIDANCE FOR IEEE Std 802.11acTM DEVICES EMISSION TESTING
KDB 905462 D03	August 22, 2016	U-NII CLIENT DEVICES WITHOUT RADAR DETECTION CAPABILITY
KDB 905462 D02	April 8, 2016	COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED-NATIONAL INFORMATION INFRASTRUCTURE DEVICES OPERATING IN THE 5250-5350 MHz AND 5470-5725 MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION
KDB 662911 D01	October 31, 2013	Emissions Testing of Transmitters with Multiple Outputs in the Same Band
KDB 789033 D02	December 14, 2017	GUIDELINES FOR COMPLIANCE TESTING OF UNLICENSED NATIONAL INFORMATION INFRASTRUCTURE (U-NII) DEVICES PART 15, SUBPART E

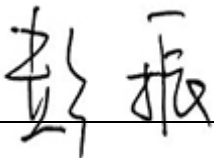
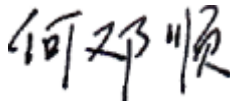
4 KEY TO NOTES AND RESULT CODES

The following are the definition of the test result.

Code	Meaning
PASS	Test result shows that the requirements of the relevant specification have been met.
FAIL	Test result shows that the requirements of the relevant specification have not been met.

5. RESULT SUMMARY

No.	Test case	FCC reference	Verdict
1.	Average Conducted Output Power	15.407(a)	Pass
2.	Occupied Bandwidth	15.407(e)	Pass
3.	Transmitter Power Spectral Density	15.407(a)	Pass
4.	Unwanted Conducted Emission Measurement	15.407(b)	Pass
5.	Frequency Stability	15.407(g)	Pass
6.	Unwanted Radiated Emission Measurement	15.205 15.209 15.35(b)	Pass
7.	AC Power line Conducted Emission	15.207	Pass
8.	DFS	15.407(h)	N/T
9.	Automatically Discontinue Transmission	15.407(c)	Pass(See 2.4Note)
10.	Antenna Requirements	15.407(a) & 15.203	Pass(See 2.4Note)

This Test Report Is Issued by: Mr. Peng Zhen 	Checked by: Mr. Li Bin 
Tested by: Mr. HeDengshun 	Issued date: 20180510

6 TEST RESULT

6.1 Average Conducted Output Power

6.1.1 Ambient condition

Temperature	Relative humidity	Pressure
22°C	30%	101.5kPa

6.1.2 Test Description

A transmitter antenna terminal of EUT is connected to the power meter. Measurement is made using a broadband power meter capable of making peak and average measurements while the EUT is operating at its maximum duty cycle (>98%), at maximum power, and at the appropriate frequencies.

6.1.3 Test limit

FCC Part15.407 (a)(1) ,

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or $4.0 \text{ dBm} + 10 \log B$, where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4.0 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC Part15.407 (a)(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 $11.0 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11.0 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC Part15.407 (a)(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. In addition, the maximum power spectral density shall not exceed 30.0 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 maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

6.1.4 Test Procedure Used

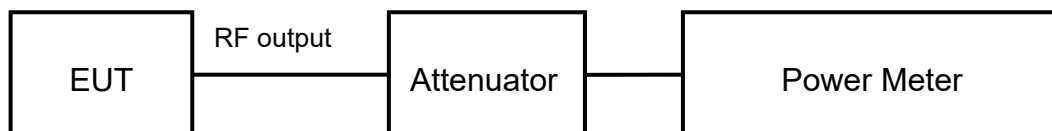
KDB 789033 D02 v02r01, Section E.3.a (Method PM).

6.1.5 Test Settings

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall utilize a fast-responding diode detector.

6.1.6 Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



6.1.7 Test result

The test results are shown in Appendix A.

6.2 Occupied Bandwidth

6.2.1 Ambient condition

Temperature	Relative humidity	Pressure
22°C	30%	101.5kPa

6.2.2 Test Description

A transmitter antenna terminal of EUT is connected to the Spectrum Analyzer. This connected to the transmitter antenna terminal of the EUT while the EUT is operating at maximum power and at the appropriate frequencies.

6.2.3 Test limit

Rule FCC Part §15.407(e)

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

6.2.4 Test Procedure Used

KDB 789033 D02 v02r01, Section D.

6.2.5 Test Settings

For U-NII-1, set $RBW \approx 1\%$ OCB kHz, $VBW \geq 3 \times RBW$, 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 26 dB relative to the maximum level measured in the fundamental emission.

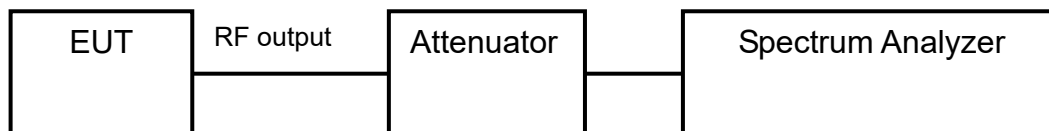
For U-NII-3, Set $RBW = 100$ kHz, $VBW \geq 3 \times RBW$, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

Use the 99 % power bandwidth function of the instrument.

6.2.6 Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



6.2.7 Test result

The test results are shown in Appendix A .

6.3 Transmitter Power Spectral Density

6.3.1 Ambient condition

Temperature	Relative humidity	Pressure
22°C	30%	101.5kPa

6.3.2 Test Description

The peak power density is measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle (>98%), at maximum power, and at the appropriate frequencies. All data rates were investigated and the worst case configuration results are reported in this section.

6.3.3 Test limit

FCC Part15.407 (a)(1) ,

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4.0 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4.0 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC Part15.407 (a)(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. In addition, the maximum power spectral density shall not exceed 11.0 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC Part15.407 (a)(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. In addition, the maximum power spectral density shall not exceed 30.0 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 maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

6.3.4 Test Procedure Used

KDB 789033 D02 v02r01, Section F.

6.3.5 Test Settings

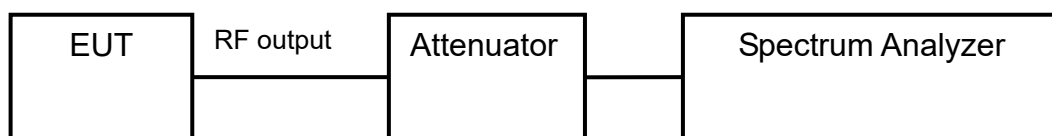
Set RBW = 500 kHz, VBW =1.5MHz for the band 5.725-5.85 GHz

Set RBW = 1 MHz, VBW =3MHz for the band 5.150-5.250 GHz, 5.250-5.350 GHz and 5.470-5.725 GHz.

The conducted PSD is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically.

6.3.6 Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



6.3.7 Test result

The test results are shown in Appendix A.

6.4 Unwanted Conducted Emission Measurement

6.4.1 Ambient condition

Temperature	Relative humidity	Pressure
22°C	40%	101.5kPa

6.4.2 Test Description

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle (>98%), at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration.

6.4.3 Test limit

FCC Part 15.407(b) ,

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

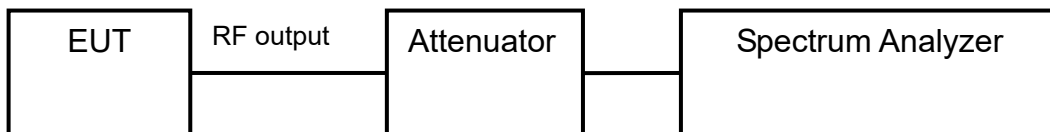
6.4.4 Test Procedure Used

KDB 789033 D02 v02r01, Section G.

6.4.5 Test Settings

- a) Set the center frequency and span to encompass frequency range to be measured.
- b) Set the RBW = 1 MHz.
- c) Set the VBW $\geq$ 3 MHz.
- d) Detector = peak.
- e) Set span to encompass the spectrum to be examined
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level.

6.4.6 Test Setup



6.4.7 Test result

The test results are shown in Appendix A.

6.5 Frequency Stability

6.5.1 Ambient condition

Temperature	Relative humidity	Pressure
20.8°C	36.5%	100.9kPa

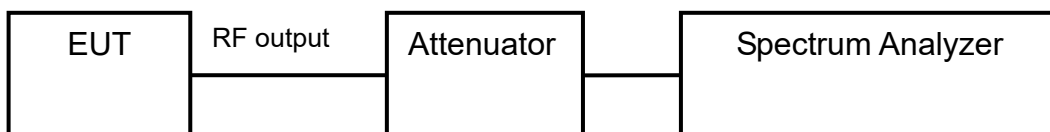
6.5.2 Test limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

6.5.3 Test Procedure Used

1. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
2. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.
3. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

6.5.4 Test Setup



6.5.5 Test result

The test results are shown in Appendix A.

6.6 Unwanted Radiated Emission Measurement

6.6.1 Ambient condition

Temperature	Relative humidity	Pressure
20.8°C	36.5%	100.9kPa

6.6.2 Test Description

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at maximum power and at the appropriate frequencies. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

6.6.3 Test limit

FCC Part15.205, 15.209,;

In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)). All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in below Table per Section 15.209.

Frequency [MHz]	Field strength [$\mu\text{V/m}$]	Measured Distance [meters]
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Radiated Limits

FCC Part15.35(b):

There is also a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit

Used conversion factor: Limit (dB $\mu\text{V/m}$) = 20 log (Limit ($\mu\text{V/m}$)/1 $\mu\text{V/m}$)

Frequency [MHz]	Detector	Unit (dB $\mu\text{V/m}$)
30~88	Quasi-peak	40.0
88~216	Quasi-peak	43.5
216~960	Quasi-peak	46.0
960~1000	Quasi-peak	54.0
1000~5th harmonic of the highest frequency or 40GHz, whichever is lower	Average	54.0
	Peak	74.0

Conversion Radiated limits

6.6.4 Test Procedure Used

KDB 789033 D02 v02r01, Sections G.3, G.4, G.5, and G.6.

6.6.5 Test Settings

Average Field Strength Measurements

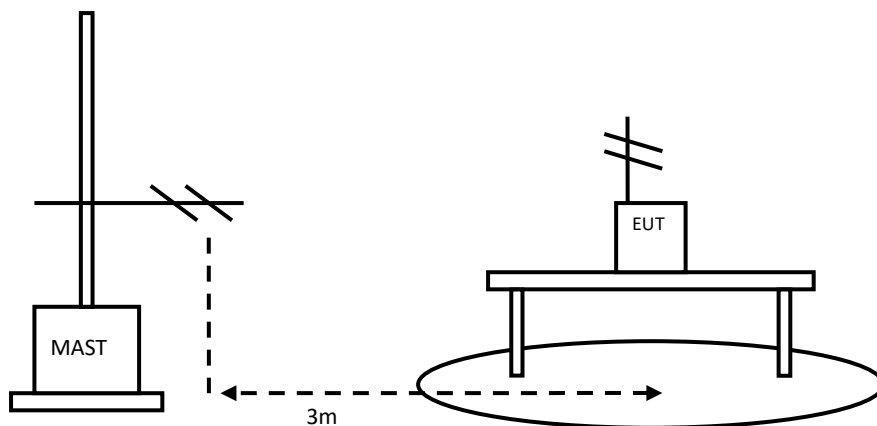
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (RMS)
5. Number of measurement points = 1001 (Number of points must be $> 2 \times \text{span}/\text{RBW}$)
6. Sweep time = auto
7. Trace (RMS) averaging was performed over at least 100 traces

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

6.6.6 Test Setup

The EUT and measurement equipment were set up as shown in the diagram below



The Equipment Under Test (EUT) was set up on a non-conductive table in the semi-anechoic chamber. The test was performed at the distance of 3 m between the EUT and the receiving antenna. The radiated emissions measurements were made in a typical installation configuration. Then start the test software ES-K1. Sweep the whole frequency band through the range from 30MHz to 1GHz or above, using receive log period antenna HL562 or Ridge horn antenna HF906.

During the test, the antenna height and EUT azimuth were varied in order to identify the

maximum level of emission from the EUT. The height of receive antenna shall be moved from 1 to 4 meters, and the antenna shall be performed under horizontal and vertical polarization. The turn table shall be rotated from 0 to 360 degrees. The measurements shall be repeated with orthogonal polarization of the test antenna. The results shall be showed the worst case of the three orthogonal axes.

The data of cable loss and antenna factor has been calibrated in full testing frequency range before the testing.

6.6.7 Test result

The test results are shown in Appendix B.

6.7 AC Power line Conducted Emission

6.7.1 Ambient condition

Temperature	Relative humidity	Pressure
20.8°C	36.5%	100.9kPa

6.7.2 Test limit

FCC Part 15.207(a) ,

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
0.15-0.5 0.5-5 5-30	Quasi-peak	Average
	66 to 56 *	56 to 46 *
	56	46
	60	50

* Decreases with the logarithm of the frequency.

The measurement is made according to ANSI C63.4-2014

6.7.3 Test result

The test results are shown in Appendix B.

6.8 Dynamic Frequency Selection

6.8.1 Ambient condition

Temperature	Relative humidity	Pressure
22°C	30%	101.5kPa

6.8.2 Test limit

FCC Part 15.407(h) and FCC 06-96 APPENDIX “COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED-NATIONAL INFORMATION INFRASTRUCTURE DEVCIES OPERATING IN THE 5250-5350 MHz AND 5470-5725 MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION”.

6.8.3 DFS Overview

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	Master	Client Without Radar Detection	Client With Radar Detection
<i>Non-Occupancy Period</i>	Yes	Not required	Yes
<i>DFS Detection Threshold</i>	Yes	Not required	Yes
<i>Channel Availability Check Time</i>	Yes	Not required	Not required
<i>U-NII Detection Bandwidth</i>	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	Master Device or Client with Radar Detection	Client Without Radar Detection
<i>DFS Detection Threshold</i>	Yes	Not required
<i>Channel Closing Transmission Time</i>	Yes	Yes
<i>Channel Move Time</i>	Yes	Yes
<i>U-NII Detection Bandwidth</i>	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client Without Radar Detection
<i>U-NII Detection Bandwidth and Statistical Performance Check</i>	All BW modes must be tested	Not required
<i>Channel Move Time and Channel Closing Transmission Time</i>	Test using widest BW mode available	Test using the widest BW mode available for the link
<i>All other tests</i>	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.		

Table 3: DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP $\geq$ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.	

Table 4: DFS Response Requirement Values

Parameter	Value
<i>Non-occupancy period</i>	Minimum 30 minutes
<i>Channel Availability Check Time</i>	60 seconds
<i>Channel Move Time</i>	10 seconds See Note 1.
<i>Channel Closing Transmission Time</i>	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
<i>U-NII Detection Bandwidth</i>	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
Note 1: <i>Channel Move Time</i> and the <i>Channel Closing Transmission Time</i> should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. Note 2: The <i>Channel Closing Transmission Time</i> is comprised of 200 milliseconds starting at the beginning of the <i>Channel Move Time</i> plus any additional intermittent control signals required to facilitate a <i>Channel</i> move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions. Note 3: During the <i>U-NII Detection Bandwidth</i> detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.	

Table 5 – Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	Roundup $\left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{PRI_{\mu sec}} \right) \right\}$	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.					

Table 6 – Long Pulse Radar Test Waveform

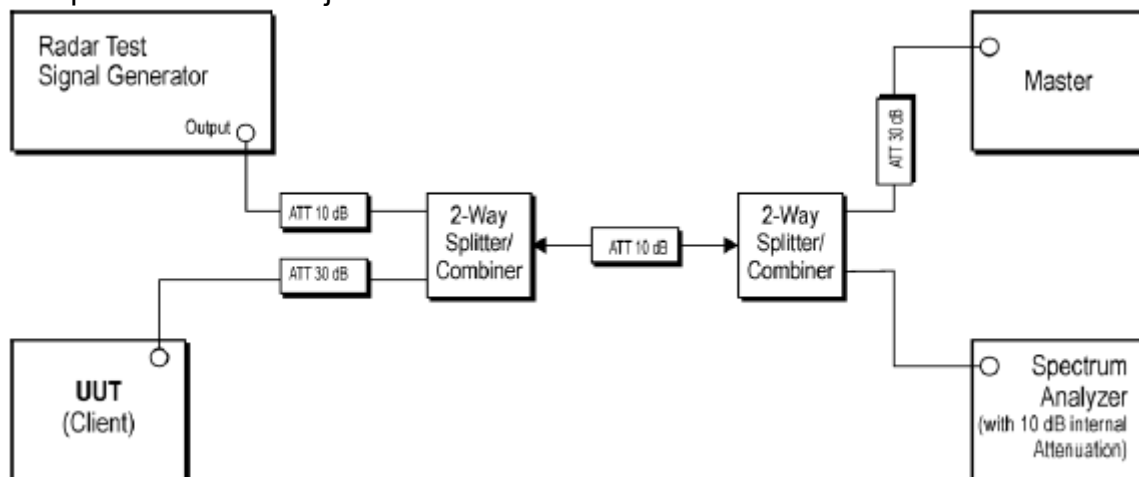
Radar Type	Pulse Width (μsec)	Chirp Width (MHz)	PRI (μsec)	Number of Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Number of Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

Table 7 – Frequency Hopping Radar Test Waveform

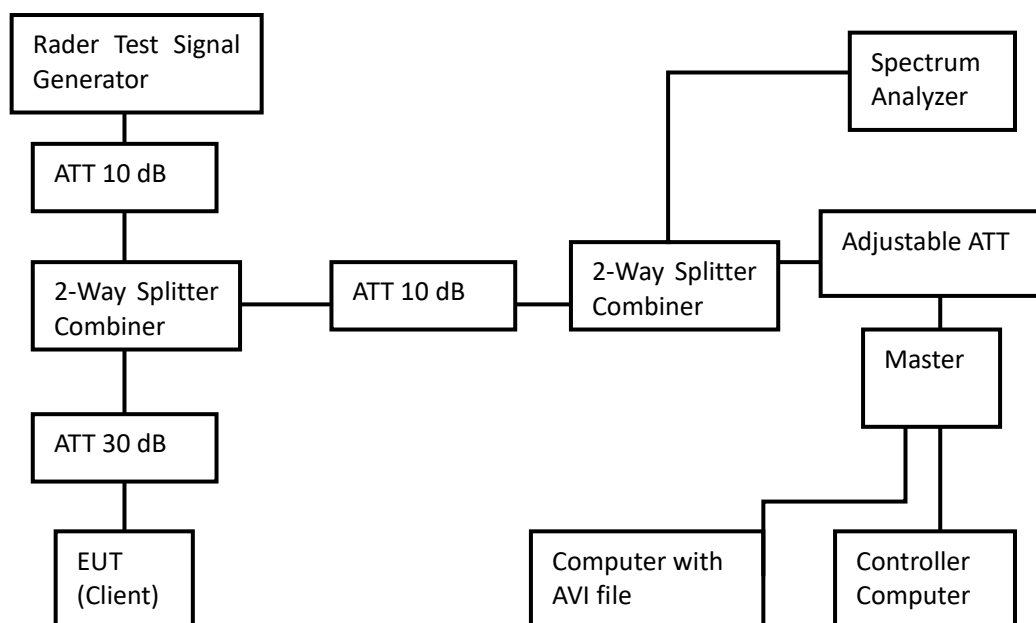
Radar Type	Pulse Width (μsec)	PRI (μsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Number of Trials
6	1	333	9	0.333	300	70%	30

6.8.4 TEST AND MEASUREMENT SYSTEM

Setup for Client with injection at the Master



Setup of EUT
CLIENT MODE:



Test Setup Operation

System testing was performed with the designated MPEG-4 (1080P,WEBRip,DD5.1.x264-btbtta) test file that streams full motion video from the Access Point to the Client in full motion video mode using the media player with the V2.61 Codec package.

This file is used by IP and Frame based systems for loading the test channel during the

In-service compliance testing of the device.

The waveform parameters from within the bounds of the signal type are selected randomly using uniform distribution.

A spectrum analyzer is used as a monitor to verify that the EUT has vacated the Channel within the (Channel Closing Transmission Time and Channel Move Time, and does not transmit on a Channel during the Non-Occupancy Period after the detection and Channel move. It is also used to monitor EUT transmissions during the Channel Availability Check Time.

6.8.5 Test Procedure Used

(i) Operational Modes. The DFS requirement applies to the following operational modes:

(A) The requirement for channel availability check time applies in the master operational mode.

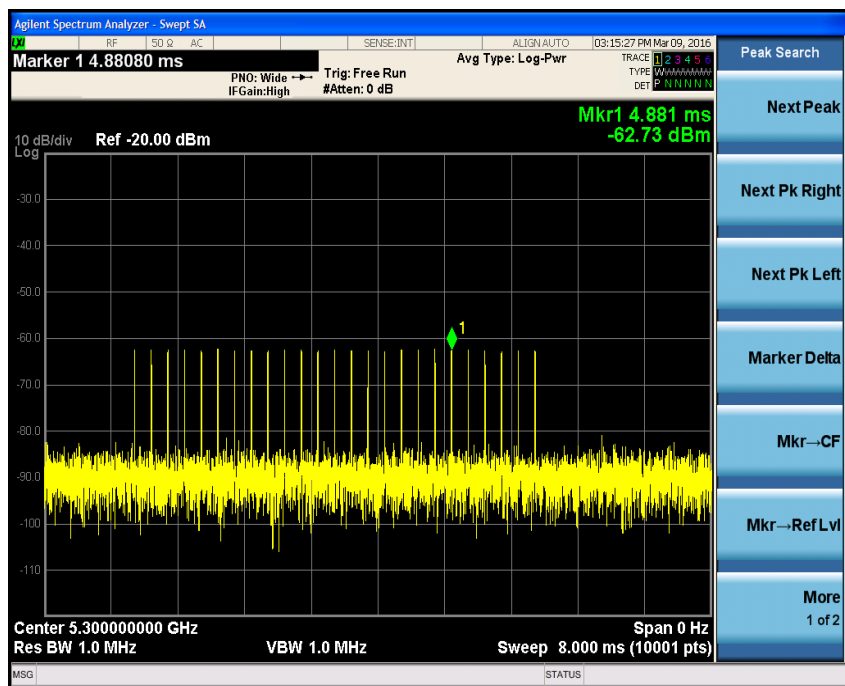
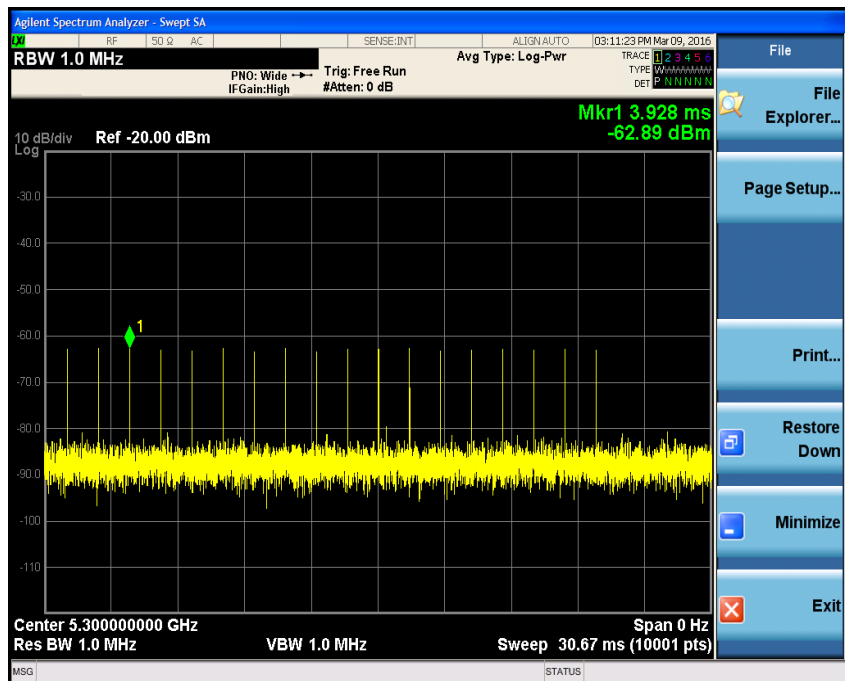
(B) The requirement for channel move time applies in both the master and slave operational modes.

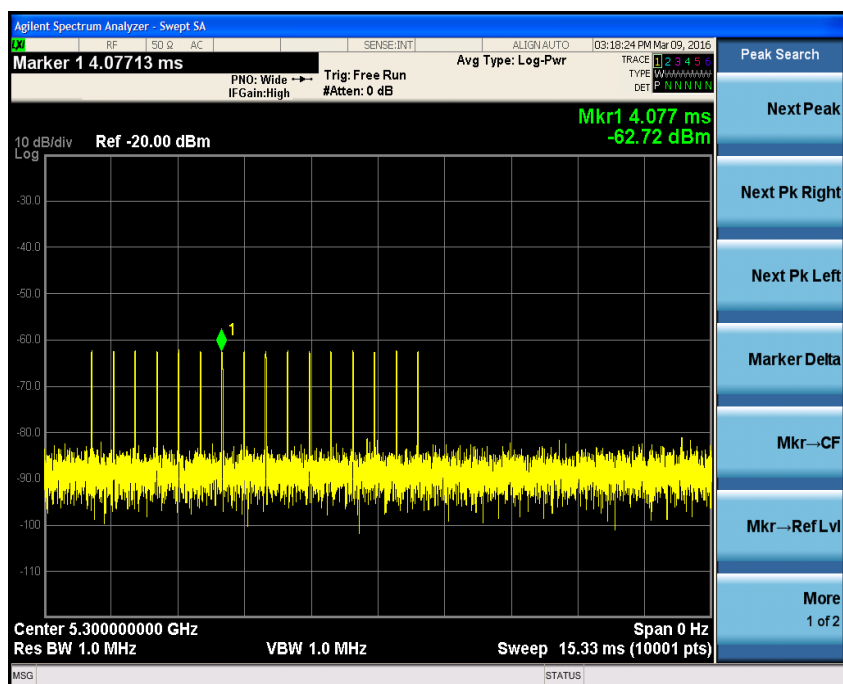
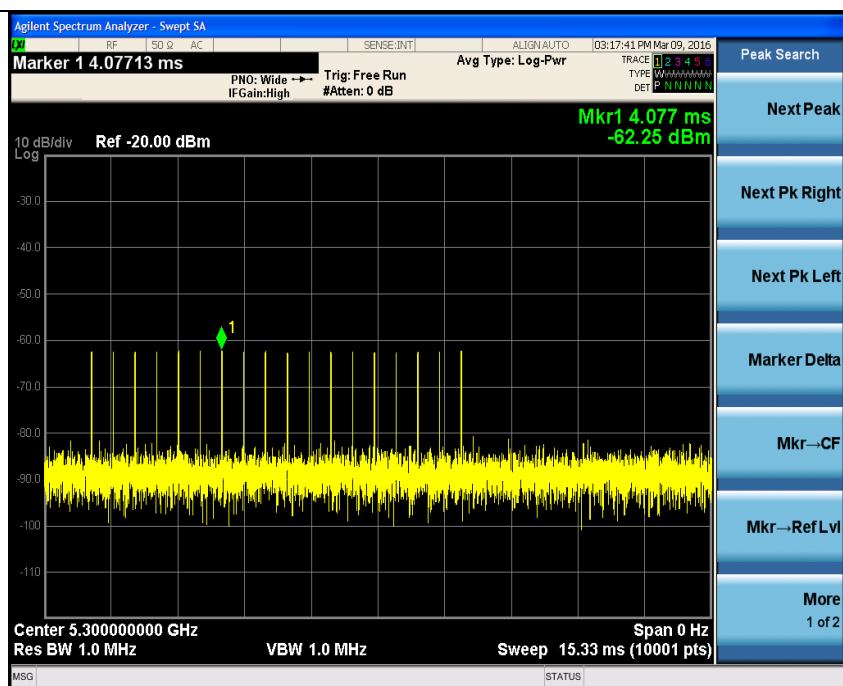
(ii) Channel Availability Check Time. A U-NII device shall check if there is a radar system already operating on the channel before it can initiate a transmission on a channel and when it has to move to a new channel. The U-NII device may start using the channel if no radar signal with a power level greater than the interference threshold values listed in paragraph (h)(2) of this section, is detected within 60 seconds.

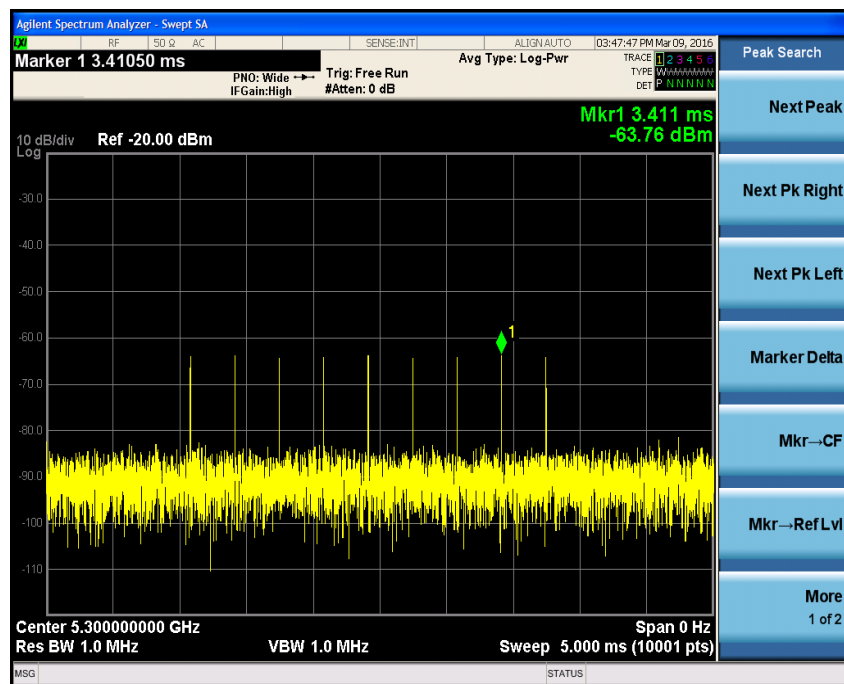
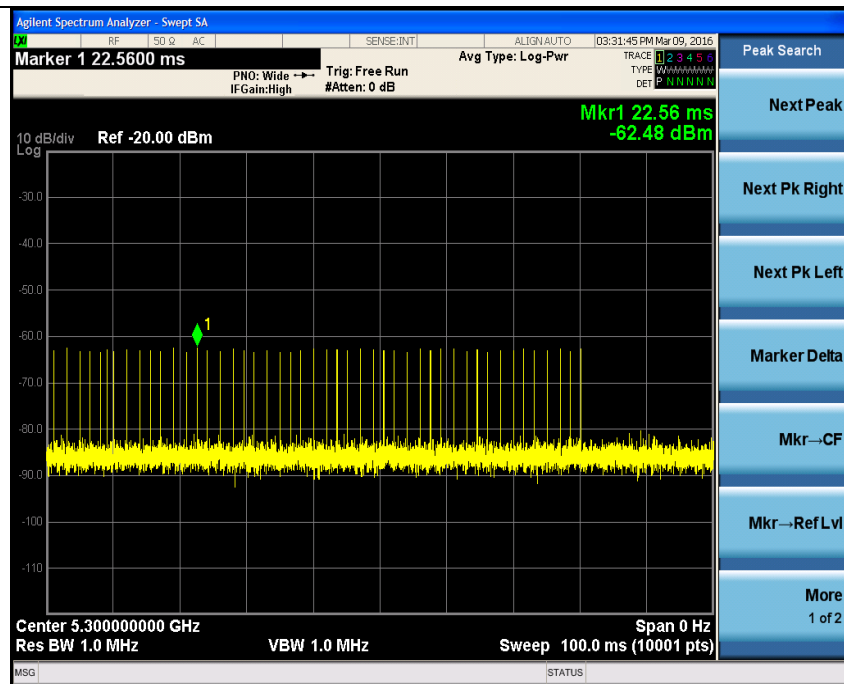
(iii) Channel Move Time. After a radar's presence is detected, all transmissions shall cease on the operating channel within 10 seconds. Transmissions during this period shall consist of normal traffic for a maximum of 200 ms after detection of the radar signal. In addition, intermittent management and control signals can be sent during the remaining time to facilitate vacating the operating channel.

(iv) Non-occupancy Period. A channel that has been flagged as containing a radar system, either by a channel availability check or in-service monitoring, is subject to a non-occupancy period of at least 30 minutes. The non-occupancy period starts at the time when the radar system is detected.

6.8.6 RADAR WAVEFORM







6.8.7 Test result

The test results are shown in Appendix A.

Note: The EUT only operates in the 5150-5250MHz and 5725-5850MHz frequency bands and does not involve the DFS frequency band, so there is no test.

7 MEASUREMENT UNCERTAINTIES

Items	Uncertainty	
Occupied Bandwidth	3kHz	
Output Power	0.67dB	
Transmitter Power Spectral Density	0.75dB	
Spurious emissions	30MHz~1GHz	2.83dB
	1GHz~12.75GHz	2.50dB
	12.75GHz~40GHz	2.75dB

8 TEST EQUIPMENTS

No.	Name/ Model	Manufacturer	S/N	Cal date	Cal Due date
1.	Spectrum Analyzer FSV	ROHDE&SCHWARZ	101065	2017.08.20	2018.08.19
2.	Signal Analyzer N9020A	Agilent	MY48010771	2017.08.20	2018.08.19
3.	Chamber SH-241	ESPEC	92013758	2017.08.20	2018.08.19
4.	DC Power Apply E3645A	Agilent	MY40000741	2018.03.01	2019.02.28
5.	Power Meter E4416A	Agilent	MY52370013	2018.03.01	2019.02.28
6.	Power Sensor E9327A	Agilent	MY52420006	2018.03.01	2019.02.28
7.	12.65m×8.03m×7.50m Fully-Anechoic Chamber	FRANKONIA	-----	-----	-----
8.	23.18m×16.88m×9.60m Semi-Anechoic Chamber	FRANKONIA	---	-----	-----
9.	Turn table Diameter:1m	HD	-----	-----	-----
10.	Turn table Diameter:5m	HD	-----	-----	-----
11.	Antenna master FAC(MA4.0)	MATURO	-----	-----	-----
12.	Antenna master SAC(MA4.0)	MATURO	-----	-----	-----
13.	9.080m×5.255m×3.525m Shielding room	FRANKONIA	-----	-----	-----
14.	HF 906 Double-Ridged Waveguide Horn Antenna	R&S	100030	2017.08.20	2018.08.19
15.	HF 906 Double-Ridged Waveguide Horn Antenna	R&S	100029	2017.08.20	2018.08.19
16.	HL562 Ultra log antenna	R&S	100016	2017.08.20	2018.08.19
17.	3160-09 Receive antenna	SCHWARZ-BECK	002058-002	2017.08.20	2018.08.19
18.	ESI 40 EMI test receiver	R&S	100015	2017.08.20	2018.08.19
19.	Radio tester	CMU 200	114667	2017.08.20	2018.08.19
20.	ESCS30 EMI test receiver	R&S	100029	2017.08.20	2018.08.19
21.	HL562 Receive antenna	R&S	100167	2017.08.20	2018.08.19
22.	ESH3-Z5 LISN	R&S	100020	2017.08.20	2018.08.19

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Please refer to the attachment.

APPENDIX B – TEST DATA OF RADIATED EMISSION

Please refer to the attachment.

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Output Power Result

U-NII-1(SISO Ant0)

Test Mode	Data Rate (Mbps)	Average Power(dBm)			Limit(dBm)	Conclusion
		5180 MHz	5200 MHz	5240MHz		
802.11a	6	13.82	13.98	13.92	24.0	pass
	9	13.43	13.57	13.56	24.0	pass
	12	13.04	13.16	13.15	24.0	pass
	18	12.65	12.75	12.73	24.0	pass
	24	12.25	12.35	12.31	24.0	pass
	36	11.86	11.94	11.89	24.0	pass
	48	11.47	11.53	11.48	24.0	pass
	54	11.08	11.12	11.06	24.0	pass
802.11n (HT20)	6.5	13.78	13.89	13.87	24.0	pass
	13	13.40	13.49	13.48	24.0	pass
	19.5	13.02	13.09	13.08	24.0	pass
	26	12.64	12.69	12.67	24.0	pass
	39	12.26	12.29	12.26	24.0	pass
	52	11.88	11.89	11.85	24.0	pass
	58.5	11.50	11.49	11.45	24.0	pass
	65	11.12	11.09	11.04	24.0	pass
Test Mode	Data Rate (Mbps)	Average Power(dBm)		Limit(dBm)	Conclusion	
		5190 MHz	5230 MHz			
802.11n (HT40)	13.5	13.05	13.12	24.0	pass	
	27	12.67	12.73	24.0	pass	
	40.5	12.29	12.33	24.0	pass	
	54	11.91	11.94	24.0	pass	
	81	11.53	11.54	24.0	pass	
	108	11.15	11.15	24.0	pass	
	121.5	10.77	10.75	24.0	pass	
	135	10.39	10.36	24.0	pass	

Test Mode	Data Rate (Mbps)	Average Power(dBm)			Limit(dBm)	Conclusion
		5180 MHz	5200 MHz	5240MHz		
802.11ac (HT20)	6.5	13.78	13.84	13.83	24.0	pass
	13	13.45	13.50	13.50	24.0	pass
	19.5	13.12	13.17	13.15	24.0	pass
	26	12.79	12.83	12.81	24.0	pass
	39	12.46	12.49	12.46	24.0	pass
	52	12.13	12.15	12.12	24.0	pass
	58.5	11.80	11.82	11.77	24.0	pass
	65	11.47	11.48	11.43	24.0	pass
	78	11.14	11.15	11.08	24.0	pass
Test Mode	Data Rate (Mbps)	Average Power(dBm)		Limit(dBm)	Conclusion	
		5190 MHz	5230 MHz			
802.11ac (HT40)	13.5	13.15	13.14	24.0	pass	
	27	12.83	12.84	24.0	pass	
	40.5	12.50	12.52	24.0	pass	
	54	12.18	12.21	24.0	pass	
	81	11.85	11.89	24.0	pass	
	108	11.53	11.58	24.0	pass	
	121.5	11.20	11.26	24.0	pass	
	135	10.88	10.95	24.0	pass	
	162	10.55	10.63	24.0	pass	
	180	10.23	10.32	24.0	pass	
Test Mode	Data Rate (Mbps)	Average Power(dBm)		Limit(dBm)	Conclusion	
		5210 MHz				
802.11ac (HT80)	29.3	12.42		24.0	pass	
	58.5	12.08		24.0	pass	
	87.8	11.73		24.0	pass	
	117	11.39		24.0	pass	
	175.5	11.05		24.0	pass	
	234	10.70		24.0	pass	
	263.3	10.36		24.0	pass	
	292.5	10.02		24.0	pass	
	351	9.67		24.0	pass	
	390	9.33		24.0	pass	

U-NII-1 (SISO Ant1)

Test Mode	Data Rate (Mbps)	Average Power(dBm)			Limit(dBm)	Conclusion
		5180 MHz	5200 MHz	5240MHz		
802.11a	6	11.15	11.23	11.31	24.0	pass
	9	10.93	10.99	11.07	24.0	pass
	12	10.70	10.76	10.83	24.0	pass
	18	10.48	10.52	10.59	24.0	pass
	24	10.25	10.29	10.35	24.0	pass
	36	10.03	10.05	10.11	24.0	pass
	48	9.80	9.82	9.87	24.0	pass
	54	9.58	9.57	9.63	24.0	pass
802.11n (HT20)	6.5	11.06	11.12	11.11	24.0	pass
	13	10.83	10.88	10.88	24.0	pass
	19.5	10.59	10.64	10.66	24.0	pass
	26	10.36	10.40	10.43	24.0	pass
	39	10.12	10.17	10.21	24.0	pass
	52	9.89	9.93	9.98	24.0	pass
	58.5	9.65	9.69	9.76	24.0	pass
	65	9.42	9.45	9.53	24.0	pass
Test Mode	Data Rate (Mbps)	Average Power(dBm)		Limit(dBm)	Conclusion	
		5190 MHz	5230 MHz			
802.11n (HT40)	13.5	10.24	10.25	24.0	pass	
	27	9.91	9.93	24.0	pass	
	40.5	9.59	9.62	24.0	pass	
	54	9.26	9.30	24.0	pass	
	81	8.94	8.98	24.0	pass	
	108	8.61	8.66	24.0	pass	
	121.5	8.29	8.35	24.0	pass	
	135	7.96	8.03	24.0	pass	

Test Mode	Data Rate (Mbps)	Average Power(dBm)			Limit(dBm)	Conclusion
		5180 MHz	5200 MHz	5240MHz		
802.11ac (HT20)	6.5	11.12	11.15	11.23	24.0	pass
	13	10.90	10.91	10.98	24.0	pass
	19.5	10.69	10.70	10.73	24.0	pass
	26	10.47	10.49	10.48	24.0	pass
	39	10.26	10.29	10.24	24.0	pass
	52	10.04	10.08	9.99	24.0	pass
	58.5	9.82	9.87	9.74	24.0	pass
	65	9.61	9.66	9.49	24.0	pass
	78	9.39	9.45	9.24	24.0	pass
Test Mode	Data Rate (Mbps)	Average Power(dBm)		Limit(dBm)	Conclusion	
		5190 MHz	5230 MHz			
802.11ac (HT40)	13.5	10.29	10.32	24.0	pass	
	27	9.98	10.01	24.0	pass	
	40.5	9.66	9.70	24.0	pass	
	54	9.35	9.39	24.0	pass	
	81	9.03	9.08	24.0	pass	
	108	8.72	8.77	24.0	pass	
	121.5	8.40	8.46	24.0	pass	
	135	8.09	8.15	24.0	pass	
	162	7.77	7.84	24.0	pass	
	180	7.46	7.53	24.0	pass	
Test Mode	Data Rate (Mbps)	Average Power(dBm)		Limit(dBm)	Conclusion	
		5210 MHz				
802.11ac (HT80)	29.3	9.23		24.0	pass	
	58.5	8.90		24.0	pass	
	87.8	8.58		24.0	pass	
	117	8.25		24.0	pass	
	175.5	7.92		24.0	pass	
	234	7.60		24.0	pass	
	263.3	7.27		24.0	pass	
	292.5	6.94		24.0	pass	
	351	6.62		24.0	pass	
	390	6.29		24.0	pass	

U-NII-1 (MIMO Ant0+Ant1)

Test Mode	Data Rate (Mbps)	Average Power(dBm)			Limit(dBm)	Conclusion
		5180 MHz	5200 MHz	5240MHz		
802.11n (HT20) Ant0	6.5	13.78	13.43	13.69	24.0	pass
	13	13.40	13.11	13.33	24.0	pass
	19.5	13.03	12.78	12.96	24.0	pass
	26	12.65	12.46	12.60	24.0	pass
	39	12.28	12.14	12.23	24.0	pass
	52	11.90	11.82	11.87	24.0	pass
	58.5	11.53	11.49	11.50	24.0	pass
	65	11.15	11.17	11.14	24.0	pass
802.11n (HT20) Ant1	6.5	11.23	11.24	11.27	24.0	pass
	13	10.96	10.99	11.02	24.0	pass
	19.5	10.70	10.73	10.77	24.0	pass
	26	10.43	10.48	10.52	24.0	pass
	39	10.16	10.22	10.28	24.0	pass
	52	9.89	9.97	10.03	24.0	pass
	58.5	9.63	9.71	9.78	24.0	pass
	65	9.56	9.46	9.53	24.0	pass
802.11n (HT20) Ant0+Ant1	6.5	15.70	15.48	15.66	24.0	pass
	13	15.36	15.19	15.34	24.0	pass
	19.5	15.03	14.89	15.01	24.0	pass
	26	14.69	14.59	14.69	24.0	pass
	39	14.36	14.30	14.37	24.0	pass
	52	14.02	14.00	14.06	24.0	pass
	58.5	13.69	13.70	13.73	24.0	pass
	65	13.44	13.41	13.42	24.0	pass

Test Mode	Data Rate (Mbps)	Average Power(dBm)						Limit(dBm)	Conclusion
		Ant0 Meas Power		Ant1 Meas Power		Total Corr'd Power			
		5190 MHz	5230 MHz	5190 MHz	5230 MHz	5190 MHz	5230 MHz		
802.11n (HT40)	13.5	13.07	13.08	10.33	10.36	14.92	14.94	24.0	pass
	27	12.73	12.76	10.00	10.03	14.59	14.62	24.0	pass
	40.5	12.40	12.44	9.67	9.70	14.26	14.29	24.0	pass
	54	12.06	12.12	9.34	9.37	13.92	13.97	24.0	pass
	81	11.73	11.80	9.01	9.03	13.59	13.64	24.0	pass
	108	11.39	11.48	8.68	8.70	13.25	13.32	24.0	pass
	121.5	11.06	11.16	8.35	8.37	12.92	13.00	24.0	pass
	135	10.72	10.84	8.02	8.04	12.59	12.67	24.0	pass

Test Mode	Data Rate (Mbps)	Average Power(dBm)			Limit(dBm)	Conclusion
		5180 MHz	5200 MHz	5240MHz		
802.11ac (HT20) Ant0	6.5	13.65	13.68	13.59	24.0	pass
	13	13.38	13.39	13.31	24.0	pass
	19.5	13.11	13.11	13.03	24.0	pass
	26	12.83	12.82	12.75	24.0	pass
	39	12.56	12.53	12.47	24.0	pass
	52	12.29	12.24	12.18	24.0	pass
	58.5	12.02	11.96	11.90	24.0	pass
	65	11.74	11.67	11.62	24.0	pass
	78	11.47	11.38	11.34	24.0	pass
802.11ac (HT20) Ant1	6.5	11.12	11.23	11.16	24.0	pass
	13	10.90	10.98	11.08	24.0	pass
	19.5	10.68	10.74	10.82	24.0	pass
	26	10.46	10.49	10.55	24.0	pass
	39	10.25	10.24	10.29	24.0	pass
	52	10.03	9.99	10.03	24.0	pass
	58.5	9.81	9.75	9.77	24.0	pass
	65	9.59	9.50	9.50	24.0	pass
	78	9.37	9.25	9.24	24.0	pass
802.11ac (HT20) Ant0+Ant1	6.5	15.58	15.64	15.55	24.0	pass
	13	15.32	15.36	15.35	24.0	pass
	19.5	15.07	15.10	15.07	24.0	pass
	26	14.82	14.82	14.80	24.0	pass
	39	14.57	14.54	14.53	24.0	pass
	52	14.32	14.27	14.25	24.0	pass
	58.5	14.06	14.00	13.97	24.0	pass
	65	13.81	13.73	13.70	24.0	pass
	78	13.56	13.45	13.43	24.0	pass

Test Mode	Data Rate (Mbps)	Average Power(dBm)						Limit(dBm)	Conclusion
		Ant0 Meas Power		Ant1 Meas Power		Total Corr'd Power			
		5190 MHz	5230 MHz	5190 MHz	5230 MHz	5190 MHz	5230 MHz		
802.11ac (HT40)	13.5	13.98	13.84	10.31	10.42	15.53	15.47	24.0	pass
	27	13.58	13.46	10.00	10.09	15.16	15.10	24.0	pass
	40.5	13.18	13.08	9.69	9.77	14.79	14.74	24.0	pass
	54	12.77	12.70	9.38	9.44	14.41	14.38	24.0	pass
	81	12.37	12.32	9.07	9.11	14.04	14.02	24.0	pass
	108	11.97	11.94	8.75	8.79	13.66	13.65	24.0	pass
	121.5	11.57	11.56	8.44	8.46	13.29	13.29	24.0	pass
	135	11.16	11.18	8.13	8.13	12.91	12.93	24.0	pass
	162	10.76	10.80	7.82	7.81	12.54	12.57	24.0	pass
	180	10.36	10.42	7.51	7.48	12.18	12.20	24.0	pass

Test Mode	Data Rate (Mbps)	Average Power(dBm)			Limit(dBm)	Conclusion
		Ant0 Meas Power	Ant1 Meas Power	Total Corr'd Power		
		5210 MHz	5210 MHz	5210 MHz		
802.11ac (HT80)	29.3	12.45	9.35	14.18	24.0	pass
	58.5	12.08	9.03	13.83	24.0	pass
	87.8	11.71	8.71	13.47	24.0	pass
	117	11.34	8.39	13.12	24.0	pass
	175.5	10.97	8.07	12.77	24.0	pass
	234	10.60	7.74	12.41	24.0	pass
	263.3	10.23	7.42	12.06	24.0	pass
	292.5	9.86	7.10	11.71	24.0	pass
	351	9.49	6.78	11.35	24.0	pass
	390	9.12	6.46	11.00	24.0	pass

U-NII-3 (SISO Ant0)

Test Mode	Data Rate (Mbps)	Average Power(dBm)			Limit(dBm)	Conclusion
		5745MHz	5785MHz	5825MHz		
802.11a	6	12.89	12.96	12.87	30.0	pass
	9	12.47	12.50	12.43	30.0	pass
	12	12.22	12.25	12.20	30.0	pass
	18	11.97	12.00	11.96	30.0	pass
	24	11.72	11.75	11.72	30.0	pass
	36	11.47	11.50	11.48	30.0	pass
	48	11.22	11.25	11.25	30.0	pass
	54	10.97	11.00	11.01	30.0	pass
802.11n (HT20)	6.5	12.63	12.57	12.48	30.0	pass
	13	12.40	12.31	12.22	30.0	pass
	19.5	12.14	12.05	11.97	30.0	pass
	26	11.87	11.79	11.71	30.0	pass
	39	11.61	11.54	11.45	30.0	pass
	52	11.34	11.28	11.19	30.0	pass
	58.5	11.08	11.02	10.94	30.0	pass
	65	10.81	10.76	10.68	30.0	pass
Test Mode	Data Rate (Mbps)	Average Power(dBm)		Limit(dBm)	Conclusion	
		5755 MHz	5795 MHz			
802.11n (HT40)	13.5	11.65	11.62	30.0	pass	
	27	11.32	11.32	30.0	pass	
	40.5	10.99	10.98	30.0	pass	
	54	10.66	10.65	30.0	pass	
	81	10.34	10.31	30.0	pass	
	108	10.01	9.98	30.0	pass	
	121.5	9.68	9.64	30.0	pass	
	135	9.35	9.31	30.0	pass	

Test Mode	Data Rate (Mbps)	Average Power(dBm)			Limit(dBm)	Conclusion
		5745MHz	5785MHz	5825MHz		
802.11ac (HT20)	6.5	12.59	12.62	12.58	30.0	pass
	13	12.37	12.40	12.36	30.0	pass
	19.5	12.15	12.17	12.13	30.0	pass
	26	11.93	11.95	11.91	30.0	pass
	39	11.71	11.73	11.69	30.0	pass
	52	11.49	11.50	11.46	30.0	pass
	58.5	11.27	11.28	11.24	30.0	pass
	65	11.05	11.05	11.01	30.0	pass
	78	10.83	10.84	10.79	30.0	pass
Test Mode	Data Rate (Mbps)	Average Power(dBm)		Limit(dBm)	Conclusion	
		5755 MHz	5795 MHz			
802.11ac (HT40)	13.5	11.65	11.60	30.0	pass	
	27	11.35	11.34	30.0	pass	
	40.5	11.06	11.04	30.0	pass	
	54	10.76	10.73	30.0	pass	
	81	10.46	10.42	30.0	pass	
	108	10.17	10.12	30.0	pass	
	121.5	9.87	9.81	30.0	pass	
	135	9.57	9.50	30.0	pass	
	162	9.28	9.20	30.0	pass	
	180	8.98	8.89	30.0	pass	
Test Mode	Data Rate (Mbps)	Average Power(dBm)		Limit(dBm)	Conclusion	
		5775 MHz				
802.11ac (HT80)	29.3	10.94		30.0	pass	
	58.5	10.62		30.0	pass	
	87.8	10.30		30.0	pass	
	117	9.98		30.0	pass	
	175.5	9.66		30.0	pass	
	234	9.34		30.0	pass	
	263.3	9.02		30.0	pass	
	292.5	8.70		30.0	pass	
	351	8.38		30.0	pass	
	390	8.06		30.0	pass	

U-NII-3 (SISO Ant1)

Test Mode	Data Rate (Mbps)	Average Power(dBm)			Limit(dBm)	Conclusion
		5745MHz	5785MHz	5825MHz		
802.11a	6	10.12	10.14	10.15	30.0	pass
	9	9.91	9.94	9.93	30.0	pass
	12	9.71	9.73	9.72	30.0	pass
	18	9.50	9.53	9.50	30.0	pass
	24	9.30	9.33	9.28	30.0	pass
	36	9.09	9.13	9.06	30.0	pass
	48	8.89	8.92	8.85	30.0	pass
	54	8.68	8.72	8.63	30.0	pass
802.11n (HT20)	6.5	9.89	10.01	9.97	30.0	pass
	13	9.70	9.79	9.77	30.0	pass
	19.5	9.50	9.57	9.57	30.0	pass
	26	9.31	9.35	9.37	30.0	pass
	39	9.12	9.13	9.16	30.0	pass
	52	8.93	8.91	8.96	30.0	pass
	58.5	8.73	8.69	8.76	30.0	pass
	65	8.54	8.47	8.56	30.0	pass
Test Mode	Data Rate (Mbps)	Average Power(dBm)		Limit(dBm)	Conclusion	
		5755 MHz	5795 MHz			
802.11n (HT40)	13.5	9.26	9.31	30.0	pass	
	27	8.93	8.97	30.0	pass	
	40.5	8.61	8.63	30.0	pass	
	54	8.28	8.29	30.0	pass	
	81	7.96	7.96	30.0	pass	
	108	7.63	7.62	30.0	pass	
	121.5	7.31	7.28	30.0	pass	
	135	6.98	6.94	30.0	pass	

Test Mode	Data Rate (Mbps)	Average Power(dBm)			Limit(dBm)	Conclusion
		5745MHz	5785MHz	5825MHz		
802.11ac (HT20)	6.5	9.98	9.89	9.96	30.0	pass
	13	9.78	9.69	9.76	30.0	pass
	19.5	9.58	9.50	9.57	30.0	pass
	26	9.38	9.30	9.37	30.0	pass
	39	9.18	9.11	9.18	30.0	pass
	52	8.98	8.91	8.98	30.0	pass
	58.5	8.78	8.71	8.78	30.0	pass
	65	8.58	8.52	8.59	30.0	pass
	78	8.38	8.32	8.39	30.0	pass
Test Mode	Data Rate (Mbps)	Average Power(dBm)		Limit(dBm)	Conclusion	
		5755 MHz	5795 MHz			
802.11ac (HT40)	13.5	9.22	9.24	30.0	pass	
	27	8.93	8.95	30.0	pass	
	40.5	8.63	8.66	30.0	pass	
	54	8.34	8.37	30.0	pass	
	81	8.04	8.08	30.0	pass	
	108	7.75	7.80	30.0	pass	
	121.5	7.45	7.51	30.0	pass	
	135	7.16	7.22	30.0	pass	
	162	6.86	6.93	30.0	pass	
	180	6.57	6.64	30.0	pass	
Test Mode	Data Rate (Mbps)	Average Power(dBm)		Limit(dBm)	Conclusion	
		5775 MHz				
802.11ac (HT80)	29.3	8.53		30.0	pass	
	58.5	8.16		30.0	pass	
	87.8	7.80		30.0	pass	
	117	7.43		30.0	pass	
	175.5	7.07		30.0	pass	
	234	6.70		30.0	pass	
	263.3	6.33		30.0	pass	
	292.5	5.97		30.0	pass	
	351	5.60		30.0	pass	
	390	5.60		30.0	pass	

U-NII-3 (MIMO Ant0+Ant1)

Test Mode	Data Rate (Mbps)	Average Power(dBm)			Limit(dBm)	Conclusion
		5745MHz	5785MHz	5825MHz		
802.11n (HT20) Ant0	6.5	12.57	12.47	12.48	30.0	pass
	13	12.34	12.24	12.25	30.0	pass
	19.5	12.11	12.01	12.03	30.0	pass
	26	11.88	11.78	11.81	30.0	pass
	39	11.65	11.56	11.59	30.0	pass
	52	11.42	11.33	11.37	30.0	pass
	58.5	11.19	11.10	11.15	30.0	pass
	65	10.96	10.87	10.93	30.0	pass
802.11n (HT20) Ant1	6.5	10.01	10.03	10.05	30.0	pass
	13	9.81	9.81	9.83	30.0	pass
	19.5	9.62	9.60	9.60	30.0	pass
	26	9.42	9.38	9.38	30.0	pass
	39	9.23	9.17	9.15	30.0	pass
	52	9.03	8.95	8.93	30.0	pass
	58.5	8.84	8.74	8.70	30.0	pass
	65	8.64	8.52	8.48	30.0	pass
802.11n (HT20) Ant0+Ant1	6.5	14.49	14.43	14.44	30.0	pass
	13	14.27	14.20	14.22	30.0	pass
	19.5	14.05	13.98	13.99	30.0	pass
	26	13.83	13.75	13.77	30.0	pass
	39	13.62	13.54	13.55	30.0	pass
	52	13.40	13.31	13.33	30.0	pass
	58.5	13.18	13.09	13.11	30.0	pass
	65	12.96	12.86	12.89	30.0	pass

Test Mode	Data Rate (Mbps)	Average Power(dBm)						Limit(dBm)	Conclusion
		Ant0 Meas Power		Ant1 Meas Power		Total Corr'd Power			
		5755 MHz	5795 MHz	5755 MHz	5795 MHz	5755 MHz	5795 MHz		
802.11n (HT40)	13.5	11.62	11.58	9.42	9.38	13.67	13.63	30.0	pass
	27	11.29	11.25	9.09	9.06	13.34	13.30	30.0	pass
	40.5	10.96	10.92	8.75	8.74	13.00	12.98	30.0	pass
	54	10.63	10.59	8.42	8.42	12.67	12.65	30.0	pass
	81	10.30	10.27	8.09	8.09	12.34	12.33	30.0	pass
	108	9.97	9.94	7.76	7.77	12.01	12.00	30.0	pass
	121.5	9.64	9.61	7.42	7.45	11.68	11.67	30.0	pass
	135	9.31	9.28	7.09	7.13	11.35	11.35	30.0	pass

Test Mode	Data Rate (Mbps)	Average Power(dBm)			Limit(dBm)	Conclusion
		5745MHz	5785MHz	5825MHz		
802.11ac (HT20) Ant0	6.5	12.46	12.52	12.48	30.0	pass
	13	12.25	12.29	12.25	30.0	pass
	19.5	12.04	12.05	12.02	30.0	pass
	26	11.82	11.82	11.79	30.0	pass
	39	11.61	11.59	11.57	30.0	pass
	52	11.40	11.35	11.34	30.0	pass
	58.5	11.19	11.12	11.11	30.0	pass
	65	10.97	10.88	10.88	30.0	pass
	78	10.76	10.65	10.68	30.0	pass
802.11ac (HT20) Ant1	6.5	10.02	10.12	10.04	30.0	pass
	13	9.84	9.93	9.86	30.0	pass
	19.5	9.65	9.75	9.67	30.0	pass
	26	9.47	9.56	9.49	30.0	pass
	39	9.28	9.38	9.31	30.0	pass
	52	9.10	9.19	9.12	30.0	pass
	58.5	8.91	9.00	8.94	30.0	pass
	65	8.73	8.82	8.75	30.0	pass
	78	8.54	8.63	8.57	30.0	pass
802.11ac (HT20) Ant0+Ant1	6.5	14.42	14.49	14.44	30.0	pass
	13	14.22	14.28	14.23	30.0	pass
	19.5	14.02	14.06	14.01	30.0	pass
	26	13.81	13.85	13.80	30.0	pass
	39	13.61	13.63	13.60	30.0	pass
	52	13.41	13.41	13.38	30.0	pass
	58.5	13.21	13.20	13.17	30.0	pass
	65	13.00	12.98	12.95	30.0	pass
	78	12.80	12.77	12.76	30.0	pass

Test Mode	Data Rate (Mbps)	Average Power(dBm)						Limit(dBm)	Conclusion
		Ant0 Meas Power		Ant1 Meas Power		Total Corr'd Power			
		5755 MHz	5795 MHz	5755 MHz	5795 MHz	5755 MHz	5795 MHz		
802.11ac (HT40)	13.5	11.49	11.48	9.22	9.31	13.51	13.54	30.0	pass
	27	11.20	11.19	8.94	9.00	13.23	13.24	30.0	pass
	40.5	10.91	10.90	8.65	8.69	12.94	12.94	30.0	pass
	54	10.62	10.60	8.37	8.39	12.65	12.64	30.0	pass
	81	10.33	10.30	8.09	8.08	12.36	12.34	30.0	pass
	108	10.05	10.01	7.80	7.77	12.08	12.04	30.0	pass
	121.5	9.76	9.71	7.52	7.46	11.79	11.74	30.0	pass
	135	9.47	9.41	7.24	7.16	11.51	11.44	30.0	pass
	162	9.18	9.12	6.95	6.85	11.22	11.14	30.0	pass
	180	8.89	8.93	6.67	6.54	10.93	10.91	30.0	pass

Test Mode	Data Rate (Mbps)	Average Power(dBm)			Limit(dBm)	Conclusion
		Ant0 Meas Power	Ant1 Meas Power	Total Corr'd Power		
		5775 MHz	5775 MHz	5775 MHz		
802.11ac (HT80)	29.3	10.85	8.52	12.85	30.0	pass
	58.5	10.52	8.19	12.52	30.0	pass
	87.8	10.20	7.87	12.20	30.0	pass
	117	9.87	7.54	11.87	30.0	pass
	175.5	9.55	7.22	11.55	30.0	pass
	234	9.22	6.89	11.22	30.0	pass
	263.3	8.90	6.57	10.90	30.0	pass
	292.5	8.57	6.24	10.57	30.0	pass
	351	8.25	5.92	10.25	30.0	pass
	390	7.92	5.59	9.92	30.0	pass

In order to find the worst case condition,Pre-tests are needed at the presence of different data rate.Data rate below means worst-case rate of each test item.

Worst-case data rates are shown as following table.

Test Mode	Data Rate
802.11a	6Mbps
802.11n HT20	MCS0(6.5 Mbps)
802.11n HT40	MCS0(13.5 Mbps)
802.11ac HT20	MCS0(6.5 Mbps)
802.11ac HT40	MCS0(13.5 Mbps)
802.11ac HT80	MCS0(29.3 Mbps)

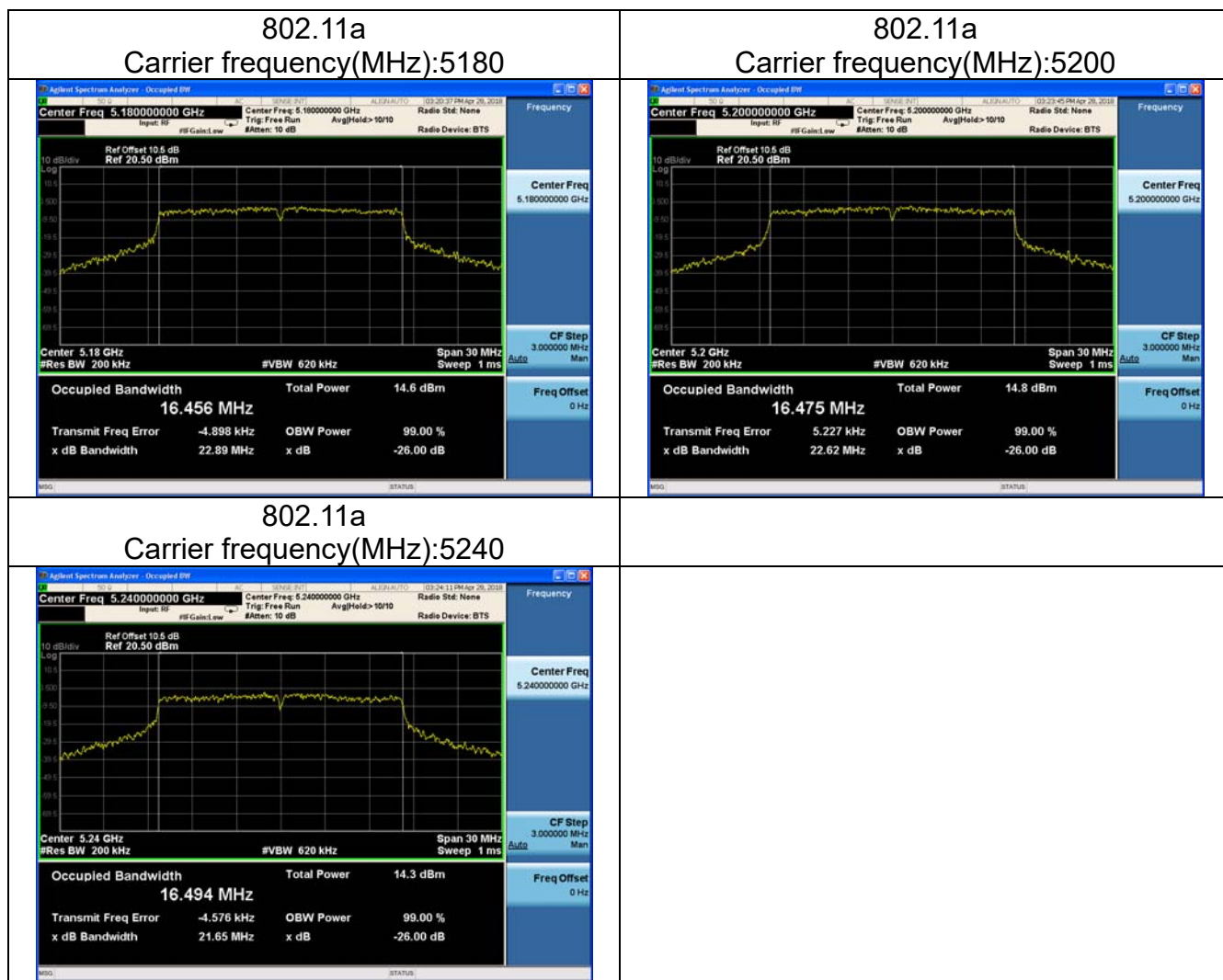
Occupied Bandwidth

Offset 10.5dB = Attenuator 10dB+ Temporary antenna connector loss 0.2dB+ Cable loss 0.3dB

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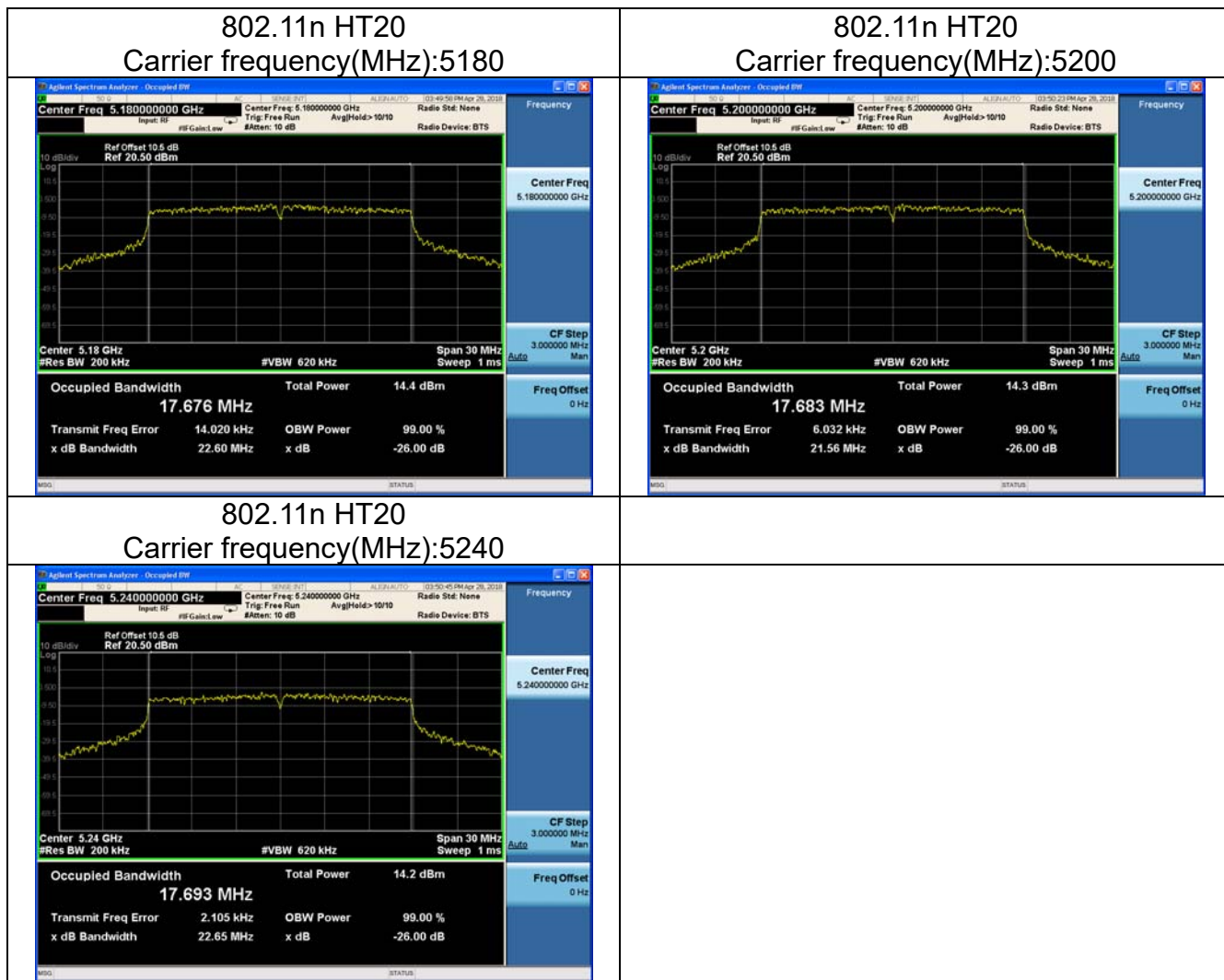
Test Mode: 802.11a (SISO Ant0)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Couclusion
5180	16.456	22.89	pass
5200	16.475	22.62	pass
5240	16.494	21.65	pass



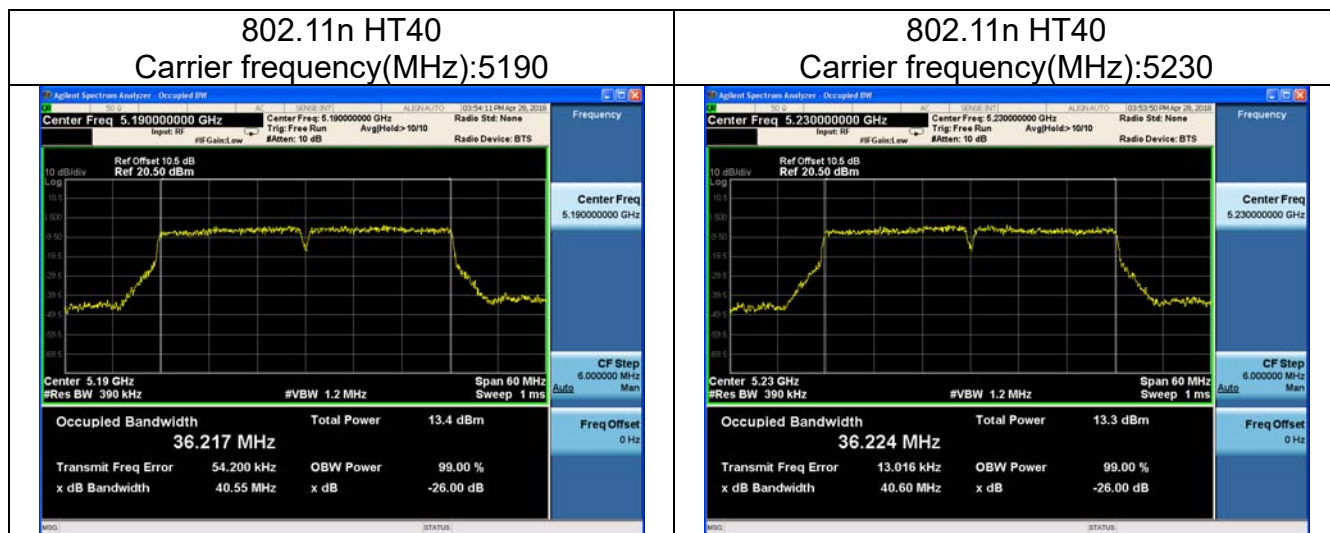
Test Mode: 802.11n HT20 (SISO Ant0)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Couclusion
5180	17.676	22.60	pass
5200	17.683	21.56	pass
5240	17.693	22.65	pass



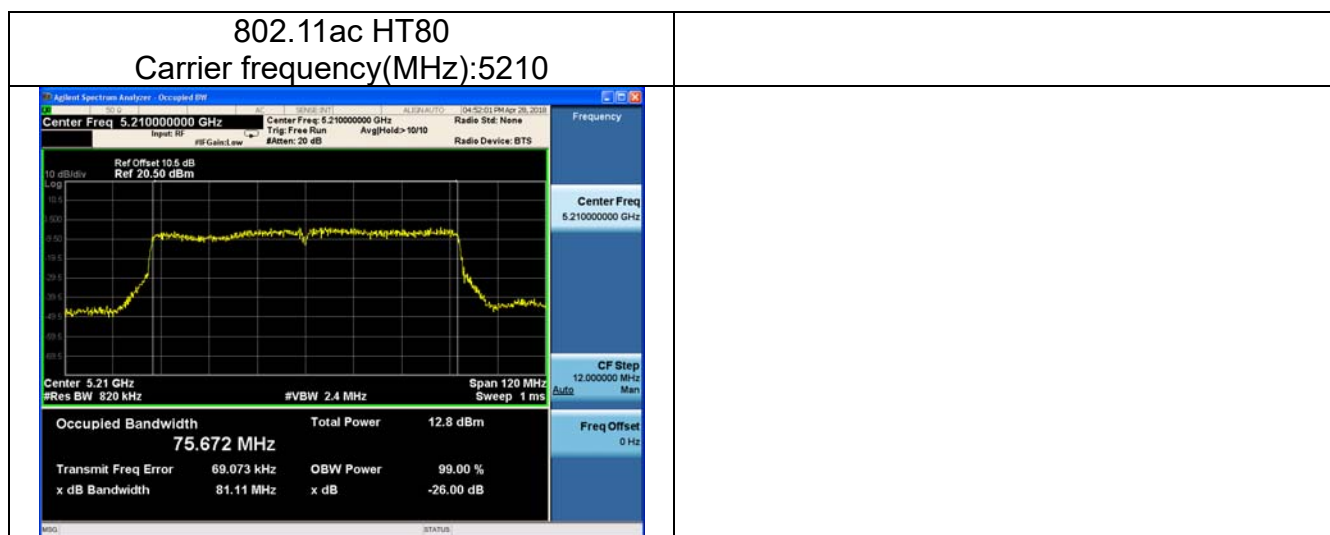
Test Mode: 802.11n HT40 (SISO Ant0)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Conclusion
5190	36.217	40.55	pass
5230	36.224	40.60	pass



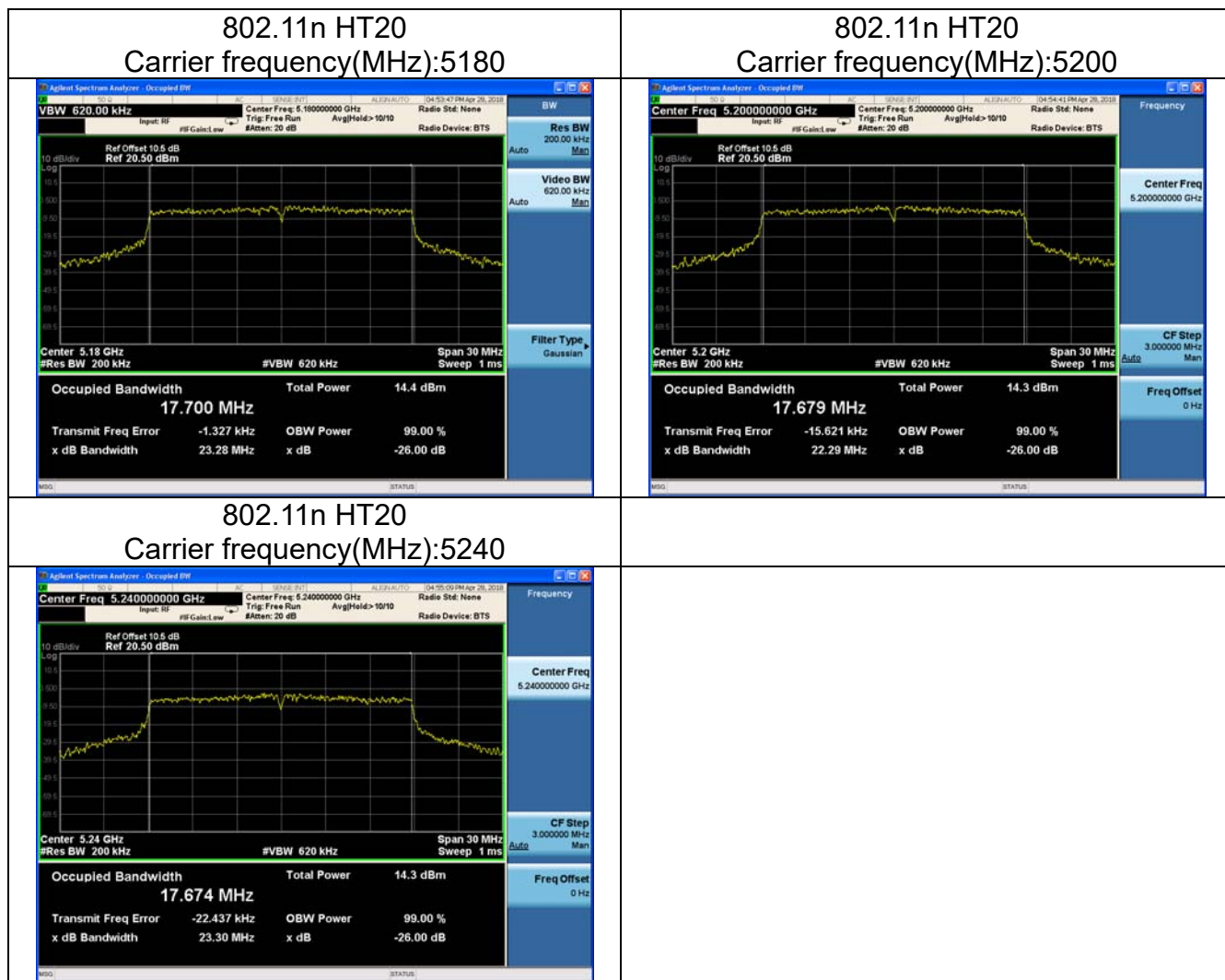
Test Mode: 802.11ac HT80 (SISO Ant0)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Conclusion
5210	75.672	81.11	pass



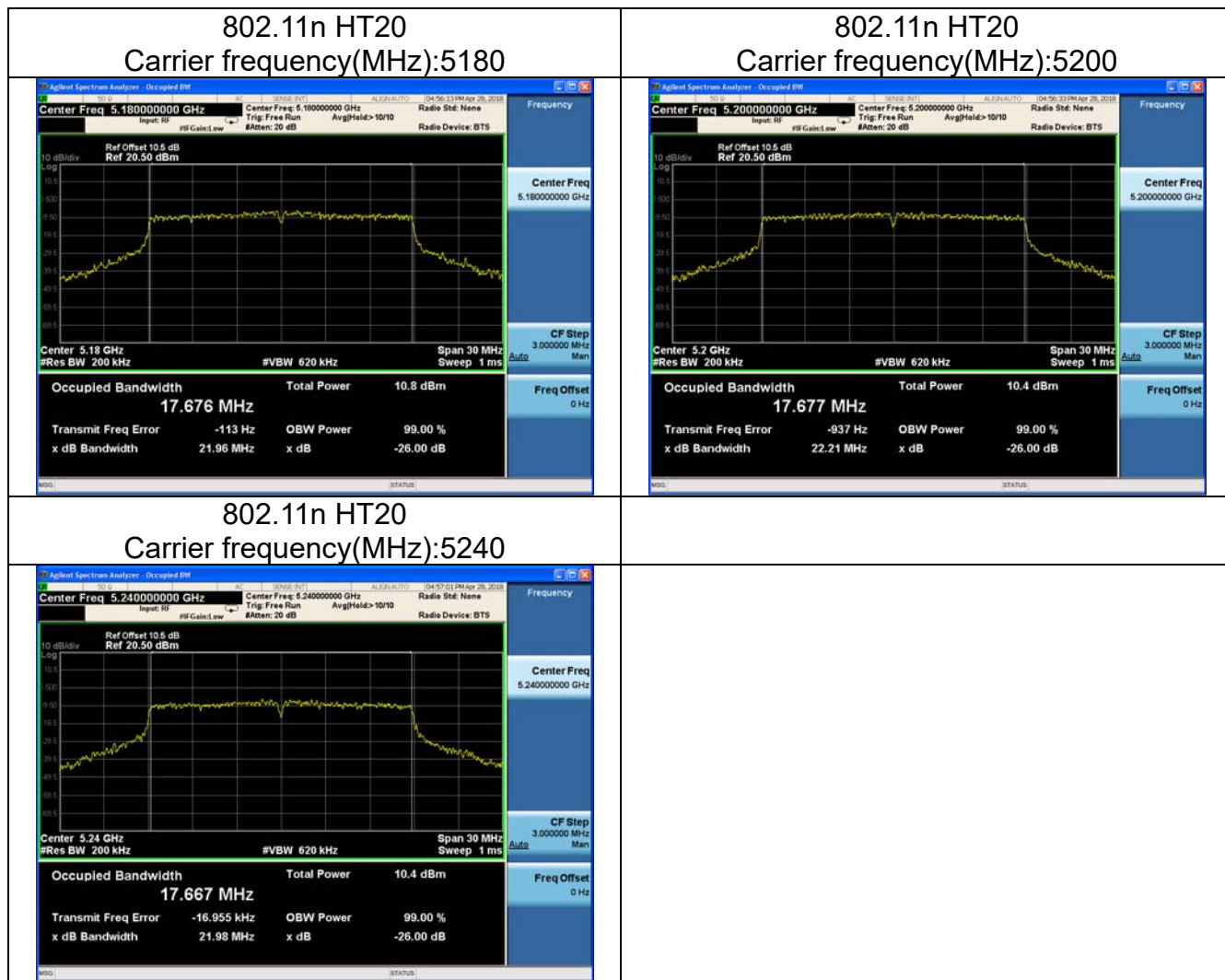
Test Mode: 802.11n HT20 (MIMO Ant0)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Couclusion
5180	17.700	23.28	pass
5200	17.679	22.29	pass
5240	17.674	23.30	pass



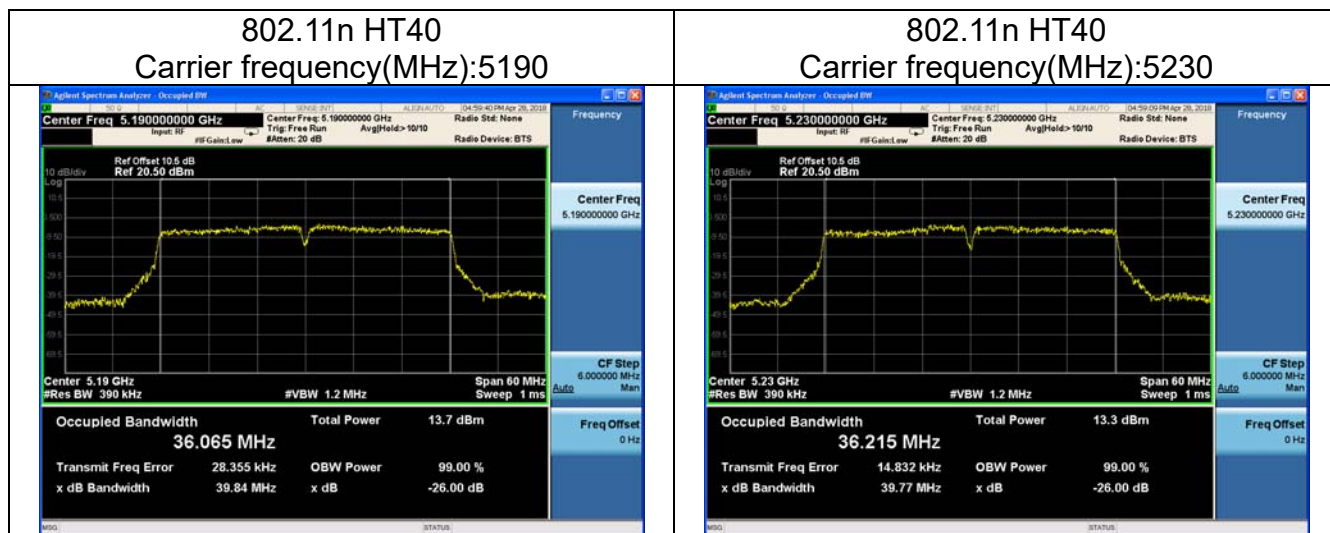
Test Mode: 802.11n HT20 (MIMO Ant1)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Couclusion
5180	17.676	21.96	pass
5200	17.677	22.21	pass
5240	17.667	21.98	pass



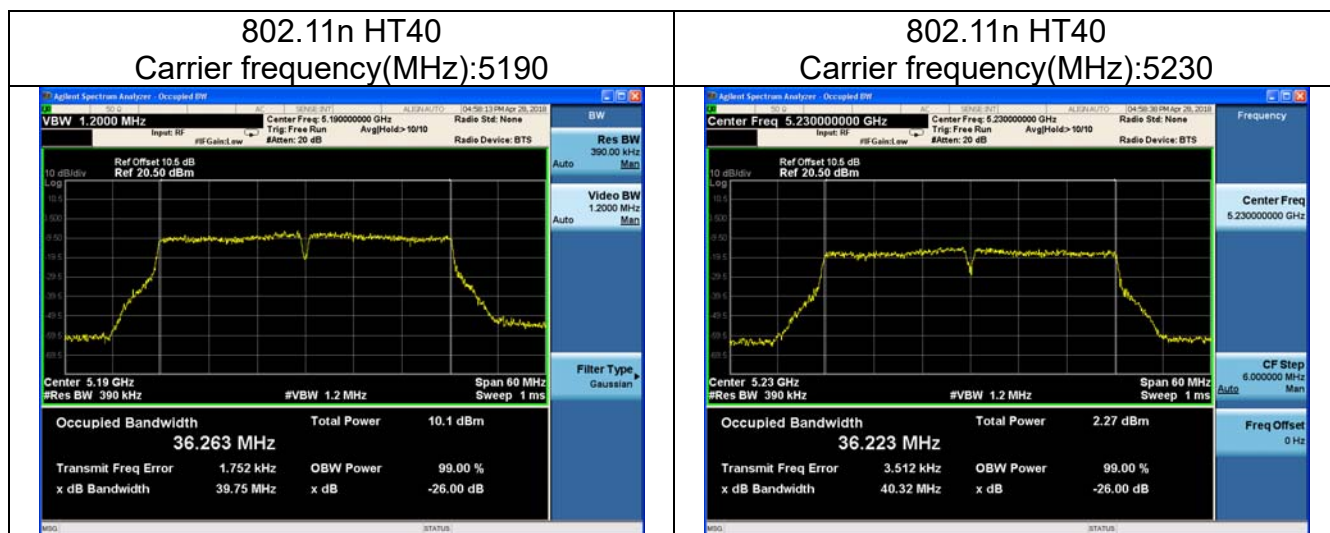
Test Mode: 802.11n HT40 (MIMO Ant0)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Couclusion
5190	36.065	39.84	pass
5230	36.215	39.77	pass



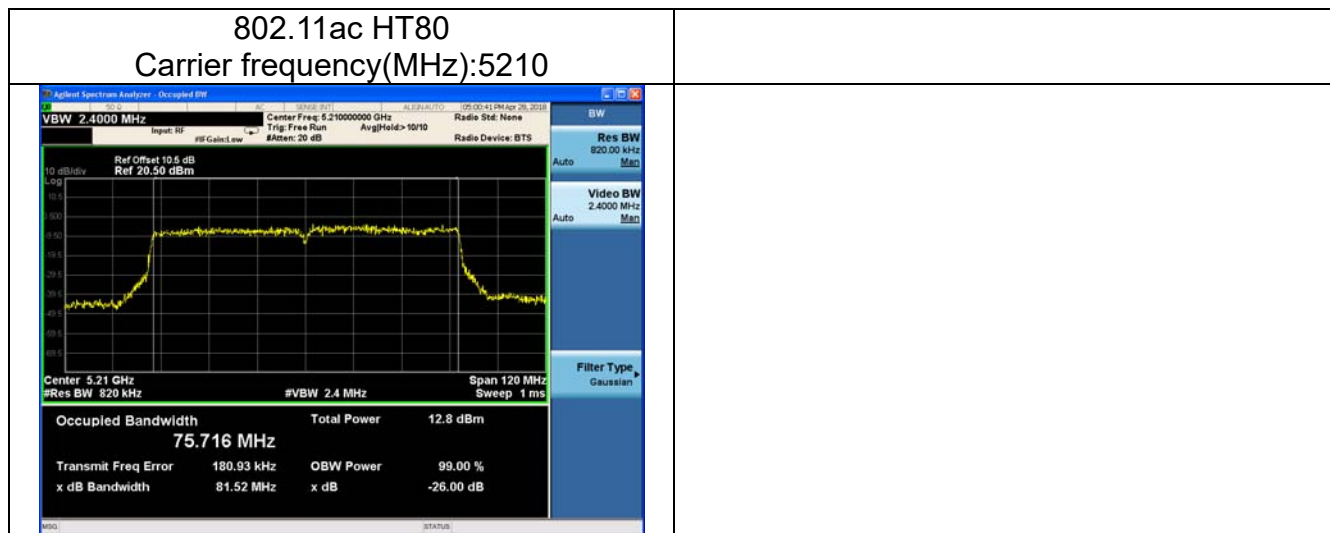
Test Mode: 802.11n HT40 (MIMO Ant1)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Couclusion
5190	36.263	39.75	pass
5230	36.223	40.32	pass



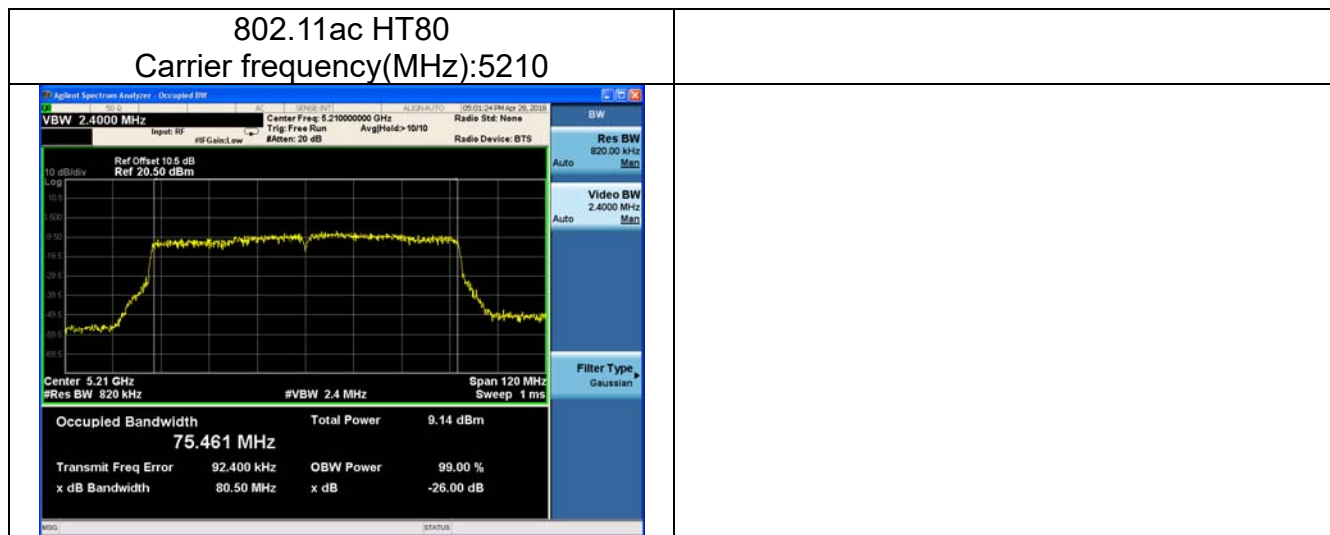
Test Mode: 802.11ac HT80 (MIMO Ant0)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Couclusion
5210	75.716	81.52	pass



Test Mode: 802.11ac HT80 (MIMO Ant1)

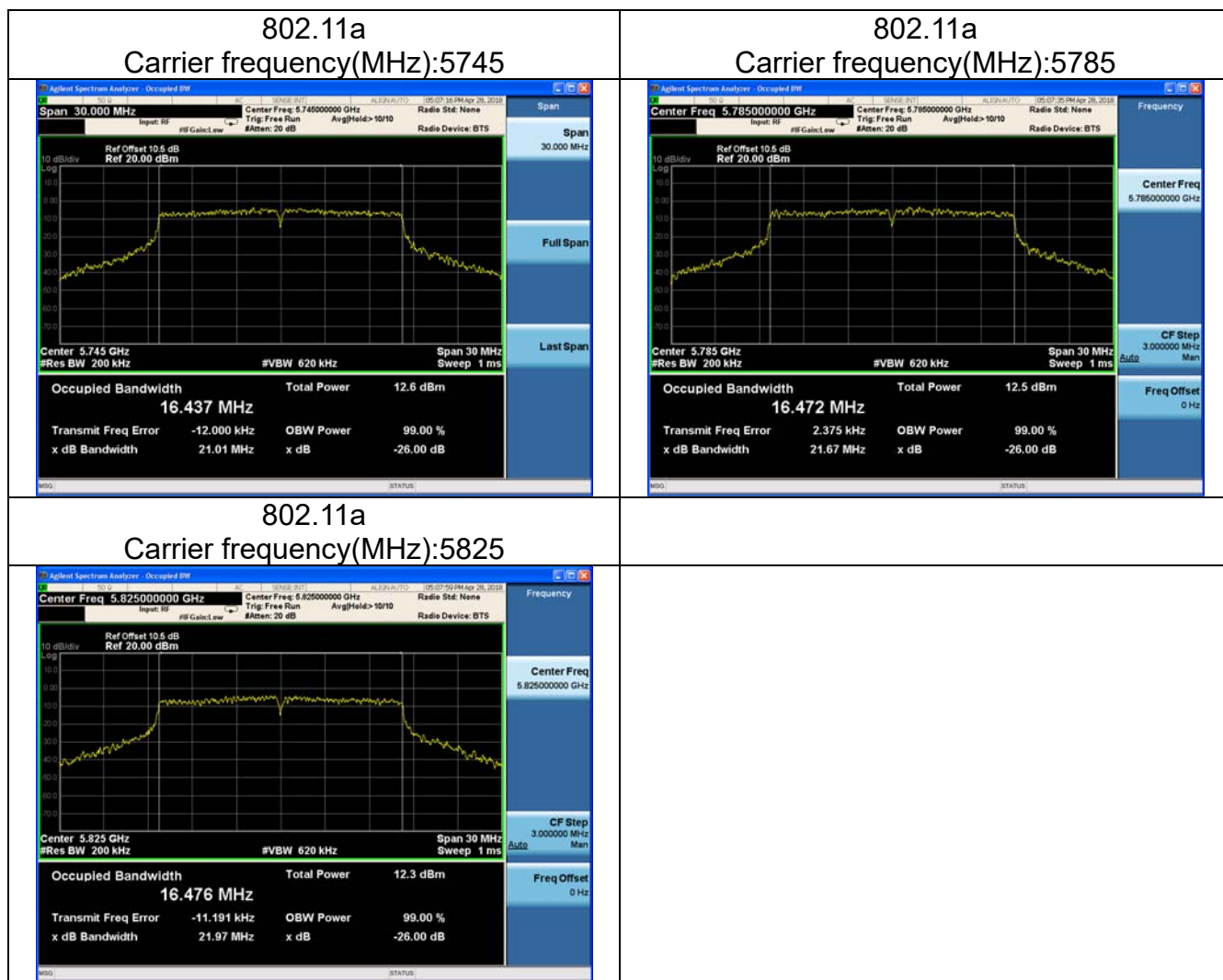
Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Couclusion
5210	75.461	80.50	pass



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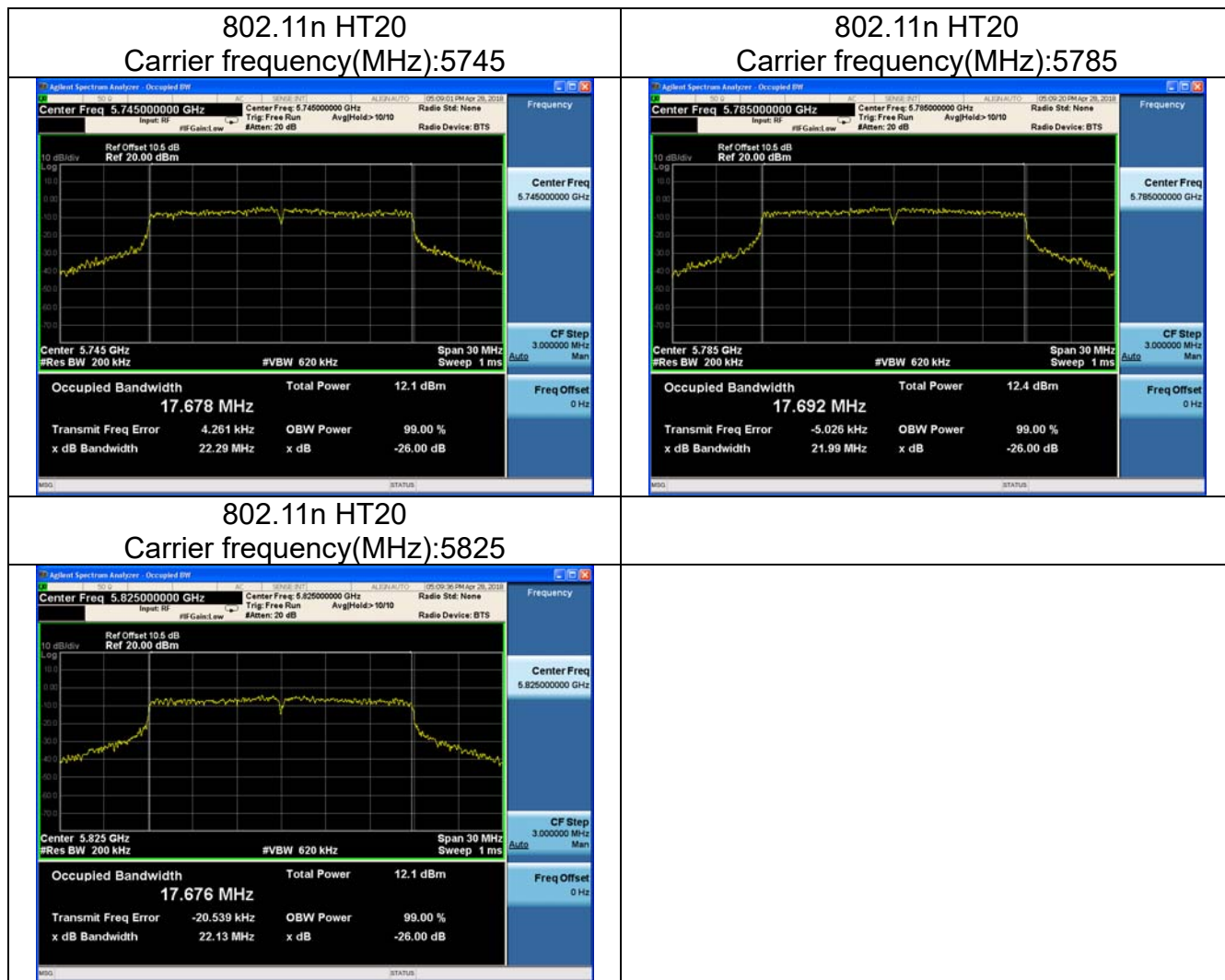
Test Mode: 802.11a (SISO Ant0)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Conclusion
5745	16.437	21.01	pass
5785	16.472	21.67	pass
5825	16.476	21.97	pass



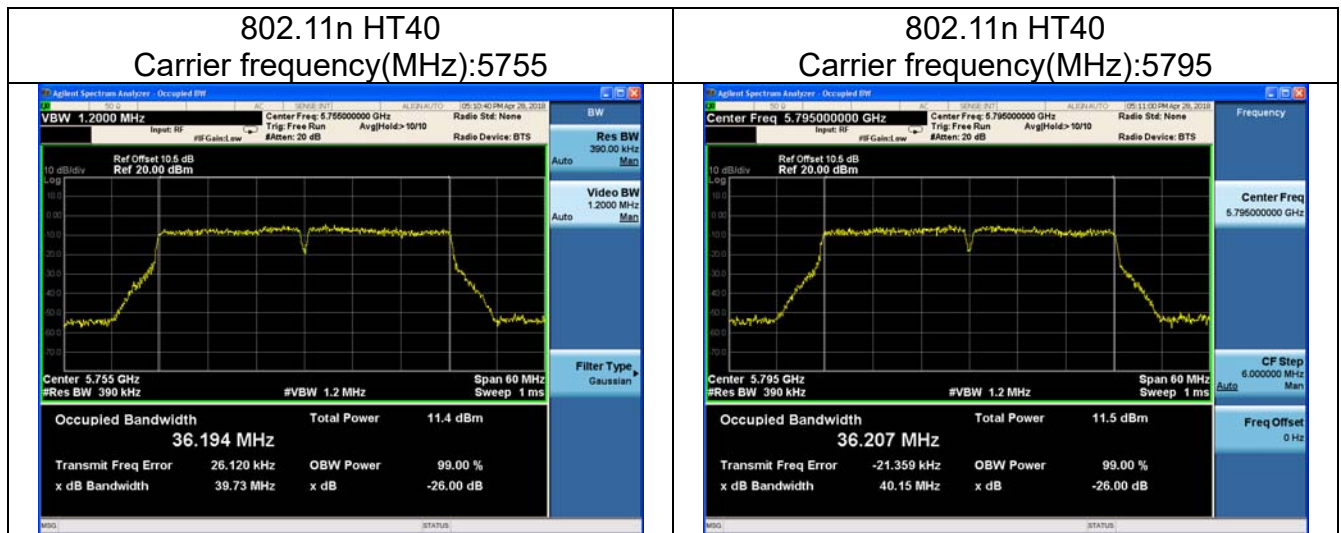
Test Mode: 802.11n HT20 (SISO Ant0)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Conclusion
5745	17.678	22.29	pass
5785	17.692	21.99	pass
5825	17.676	22.13	pass



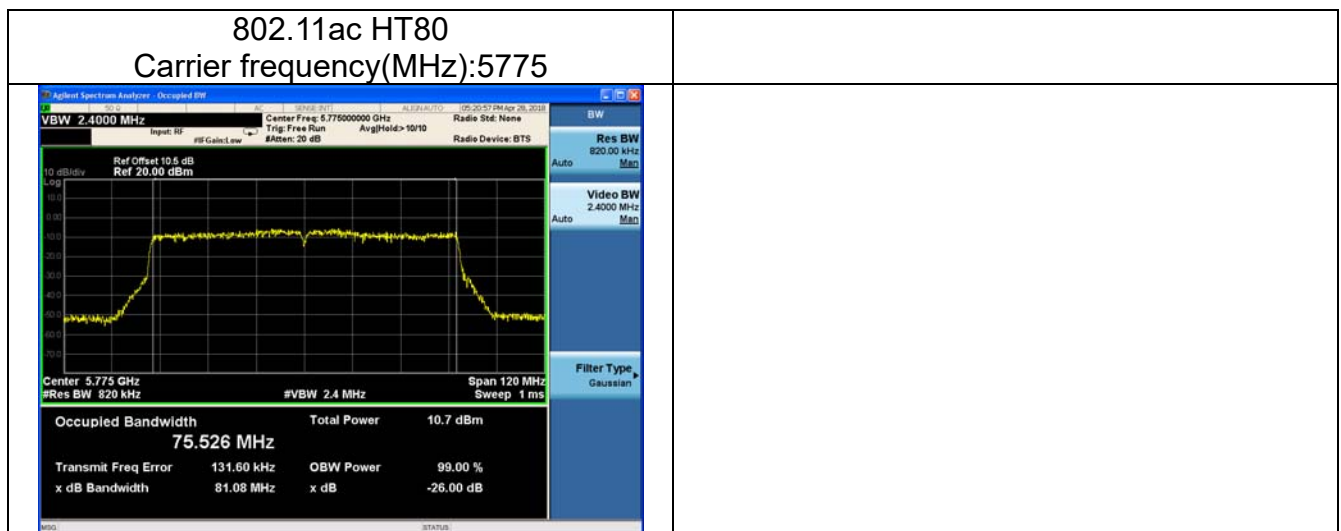
Test Mode: 802.11n HT40 (SISO Ant0)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Conclusion
5755	36.194	39.73	pass
5795	36.207	40.15	pass



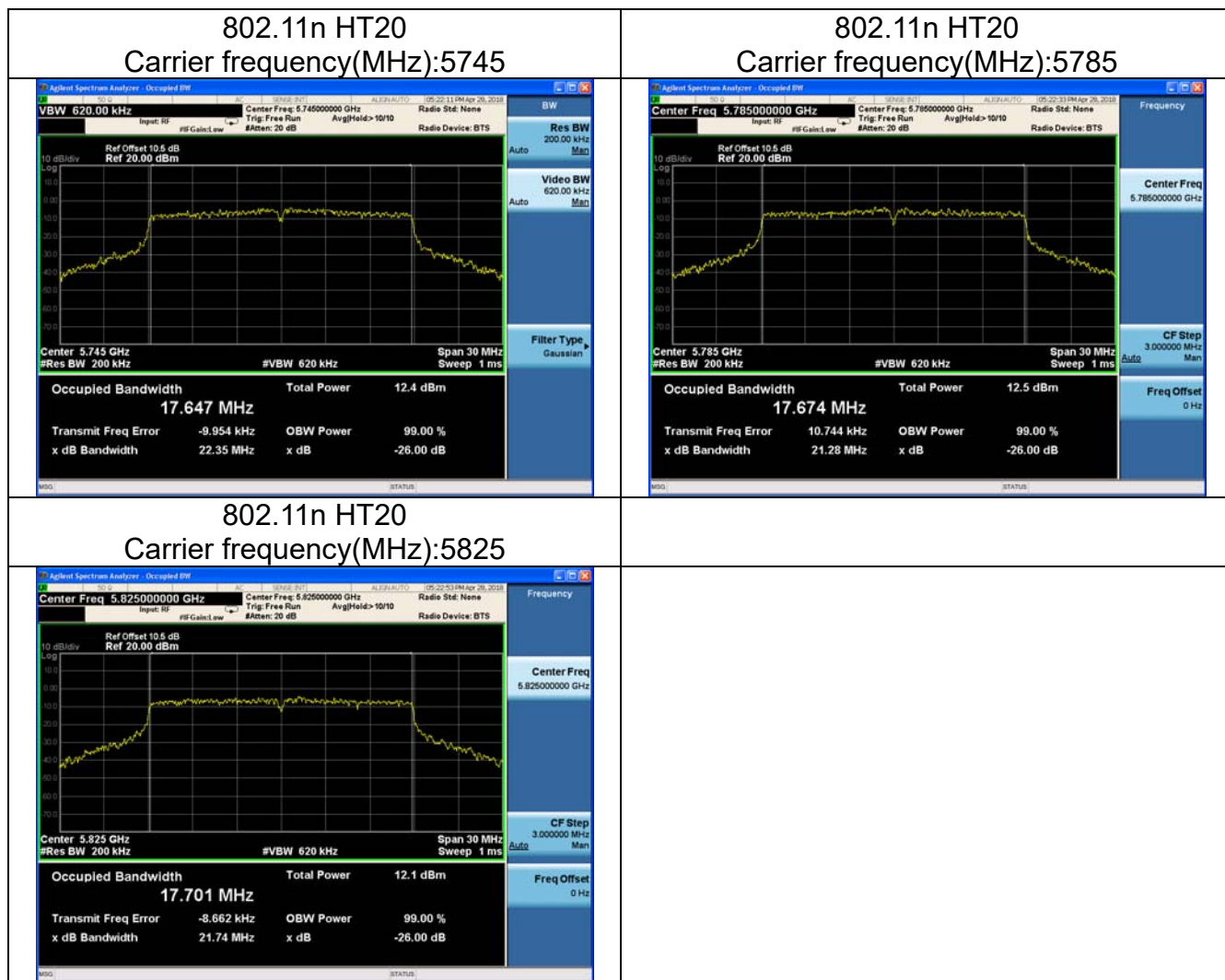
Test Mode: 802.11ac HT80 (SISO Ant0)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Conclusion
5775	75.526	81.08	pass



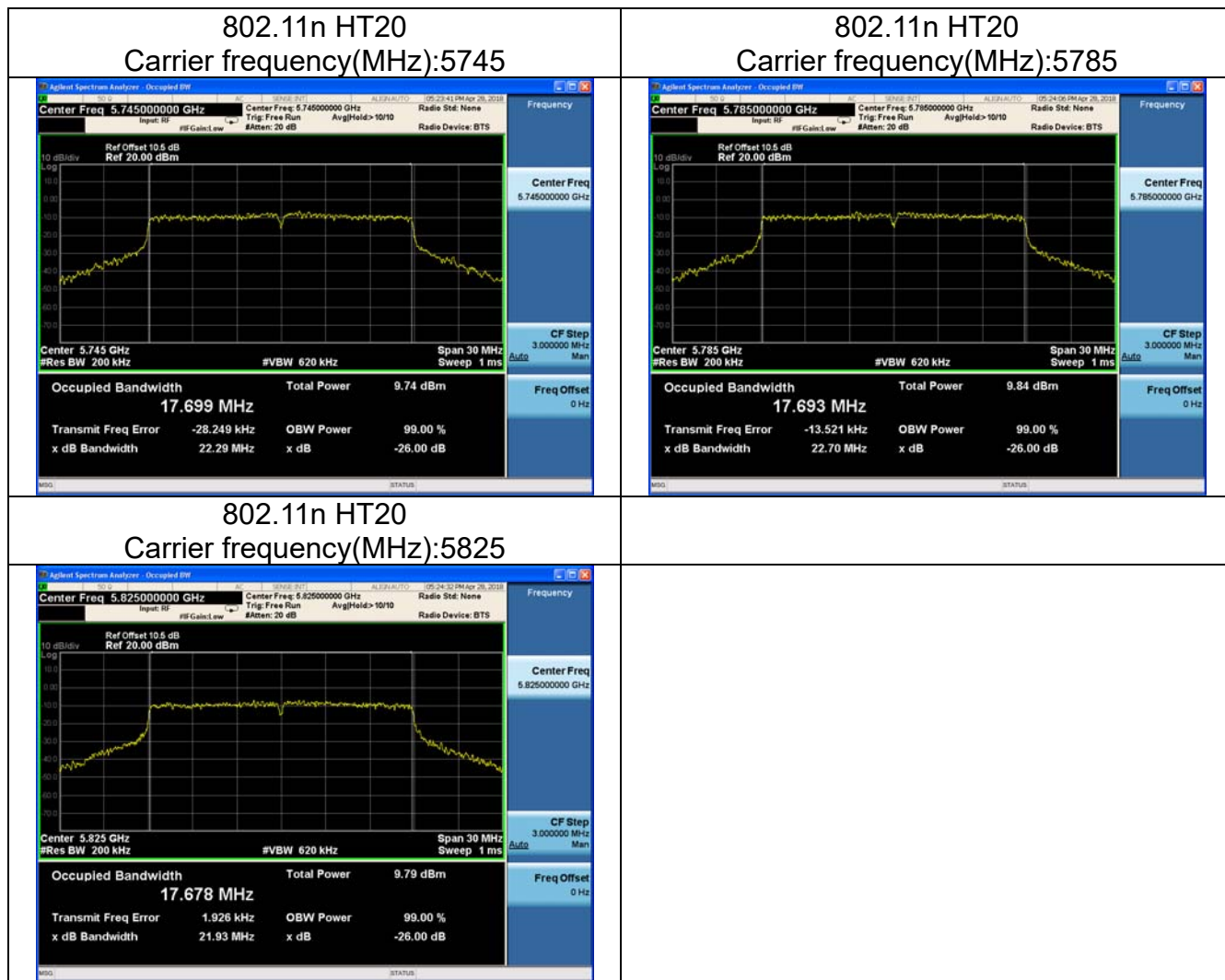
Test Mode: 802.11n HT20 (MIMO Ant0)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Couclusion
5745	17.647	22.35	pass
5785	17.674	21.28	pass
5825	17.701	21.74	pass



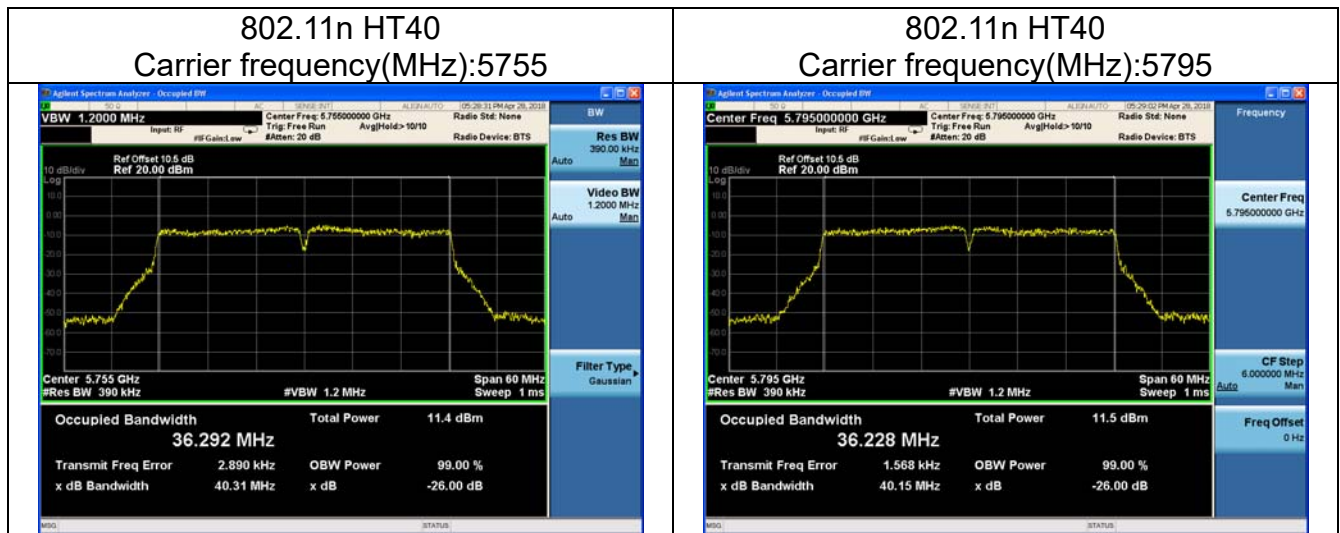
Test Mode: 802.11n HT20 (MIMO Ant1)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Couclusion
5745	17.699	22.29	pass
5785	17.693	22.70	pass
5825	17.678	21.93	pass



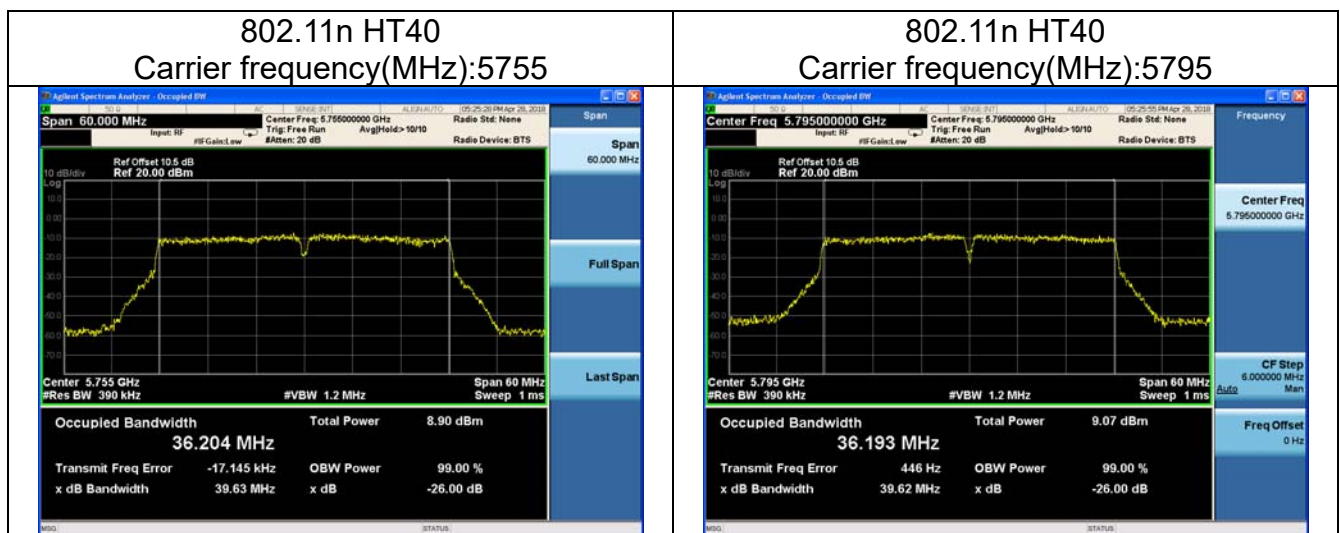
Test Mode: 802.11n HT40 (MIMO Ant0)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Conclusion
5755	36.292	40.31	pass
5795	36.228	40.15	pass



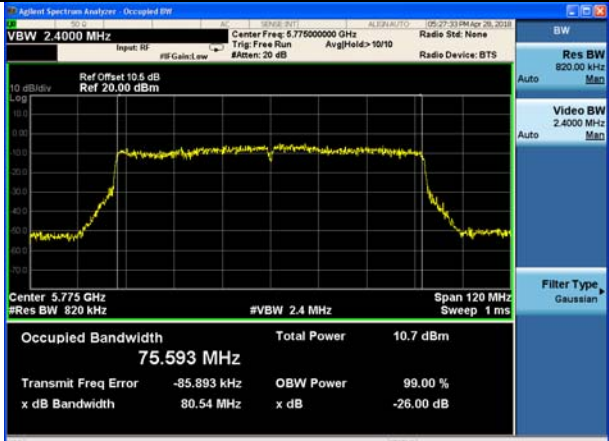
Test Mode: 802.11n HT40 (MIMO Ant1)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Conclusion
5755	36.204	39.63	pass
5795	36.193	39.62	pass



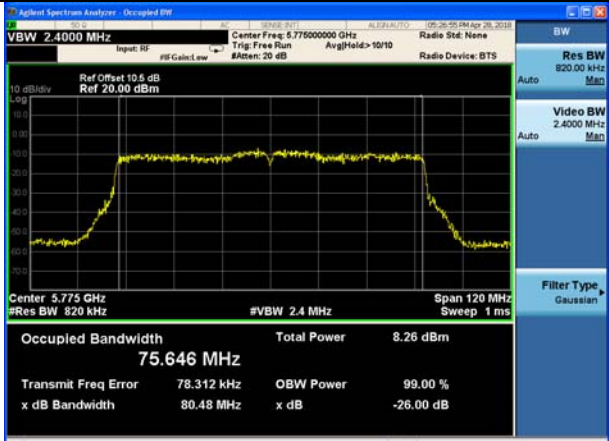
Test Mode: 802.11ac HT80 (MIMO Ant0)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Couclusion
5775	75.593	80.54	pass

802.11ac HT80 Carrier frequency(MHz):5775 	
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Test Mode: 802.11ac HT80 (MIMO Ant1)

Carrier frequency (MHz)	99% Bandwidth(MHz)	Minimum 26dB Bandwidth(MHz)	Couclusion
5775	75.646	78.312	pass

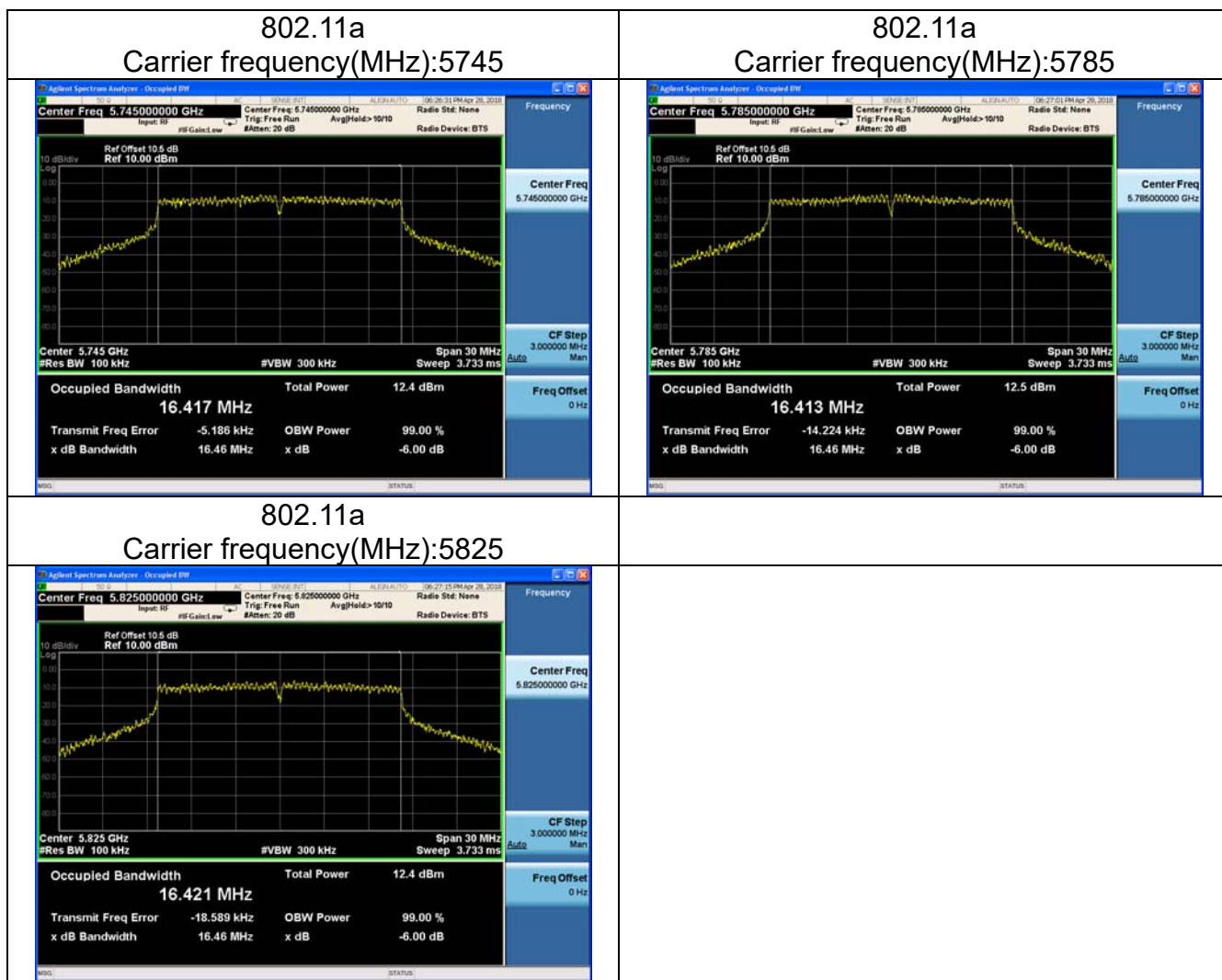
802.11ac HT80 Carrier frequency(MHz):5775 	
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6dB Bandwidth

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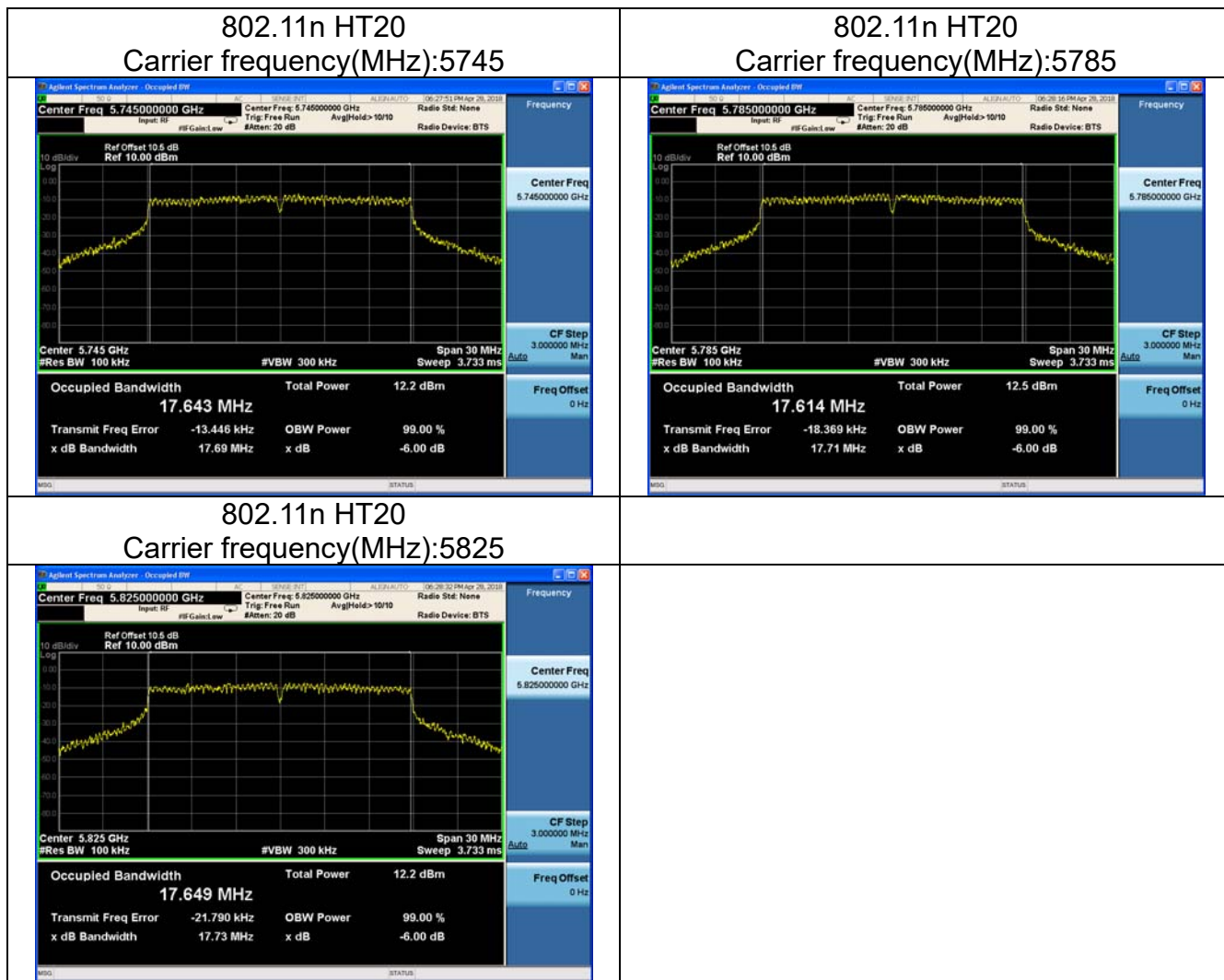
Test Mode: 802.11a (SISO Ant0)

Carrier frequency (MHz)	6dB Bandwidth(MHz)	Minimum Limit (MHz)	Couclusion
5745	16.46	0.5	pass
5785	16.46	0.5	pass
5825	16.46	0.5	pass



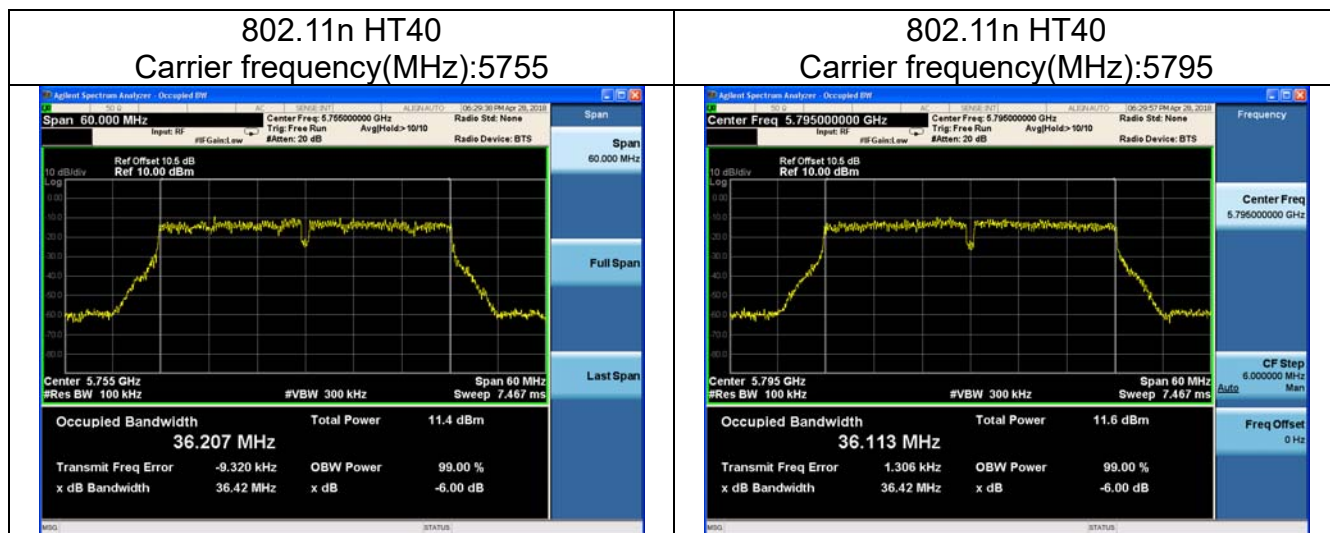
Test Mode: 802.11n HT20 (SISO Ant0)

Carrier frequency (MHz)	6dB Bandwidth(MHz)	Minimum Limit (MHz)	Couclusion
5745	17.69	0.5	pass
5785	17.71	0.5	pass
5825	17.73	0.5	pass



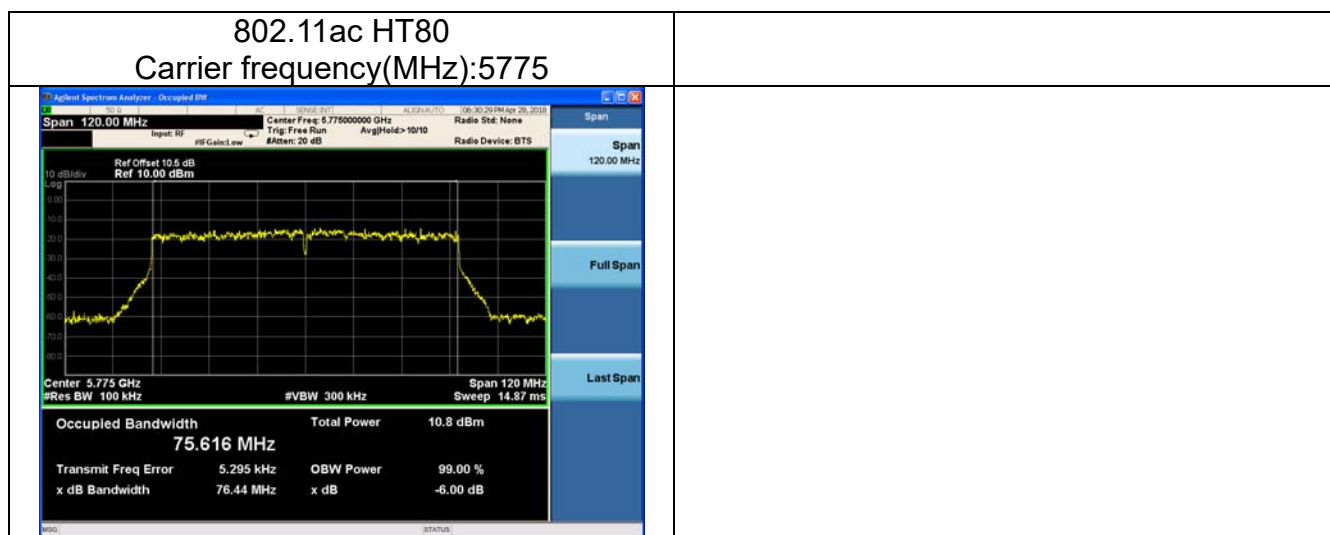
Test Mode: 802.11n HT40 (SISO Ant0)

Carrier frequency (MHz)	6dB Bandwidth(MHz)	Minimum Limit (MHz)	Couclusion
5755	36.42	0.5	pass
5795	36.42	0.5	pass



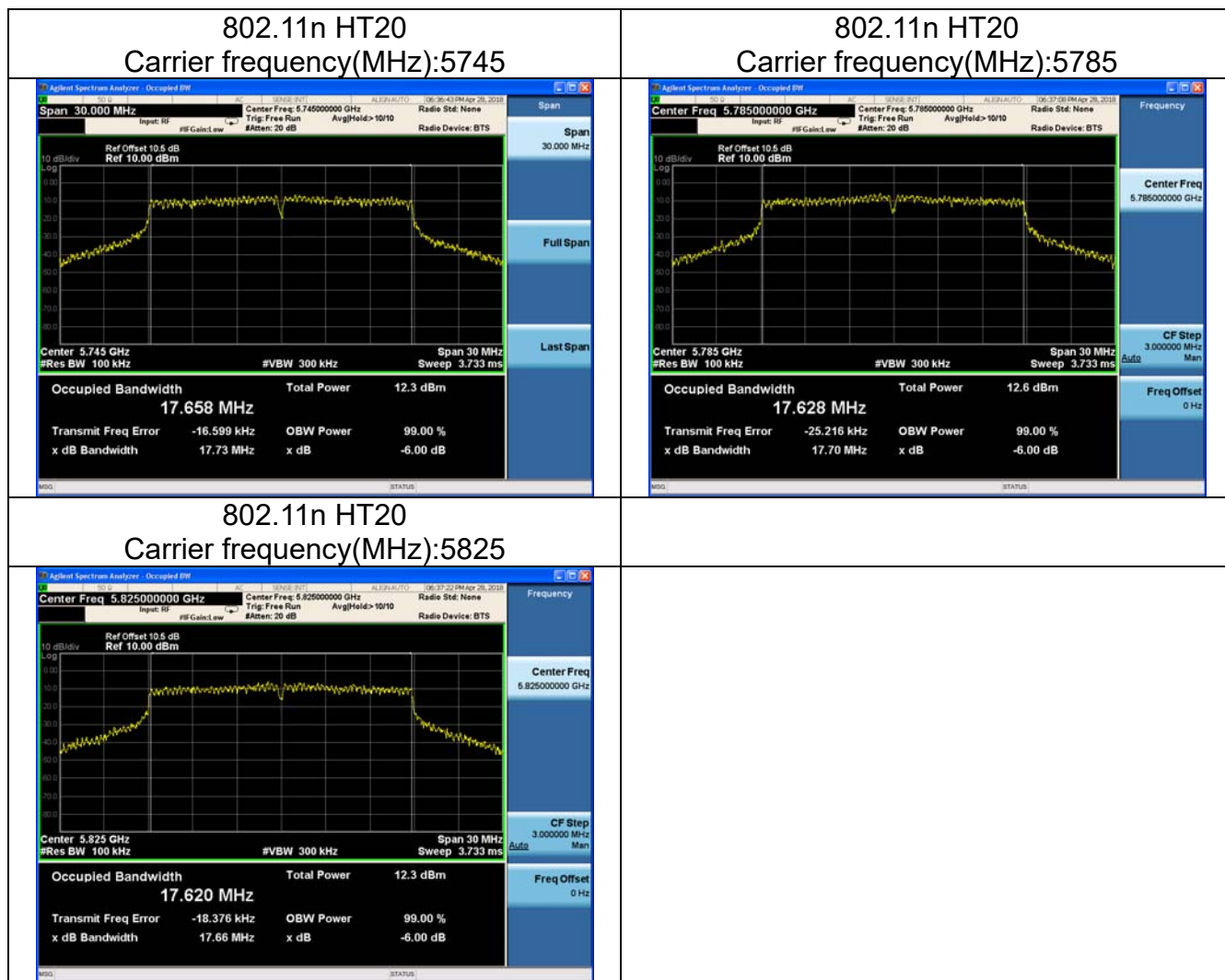
Test Mode: 802.11ac HT80 (SISO Ant0)

Carrier frequency (MHz)	6dB Bandwidth(MHz)	Minimum Limit (MHz)	Couclusion
5775	76.44	0.5	pass



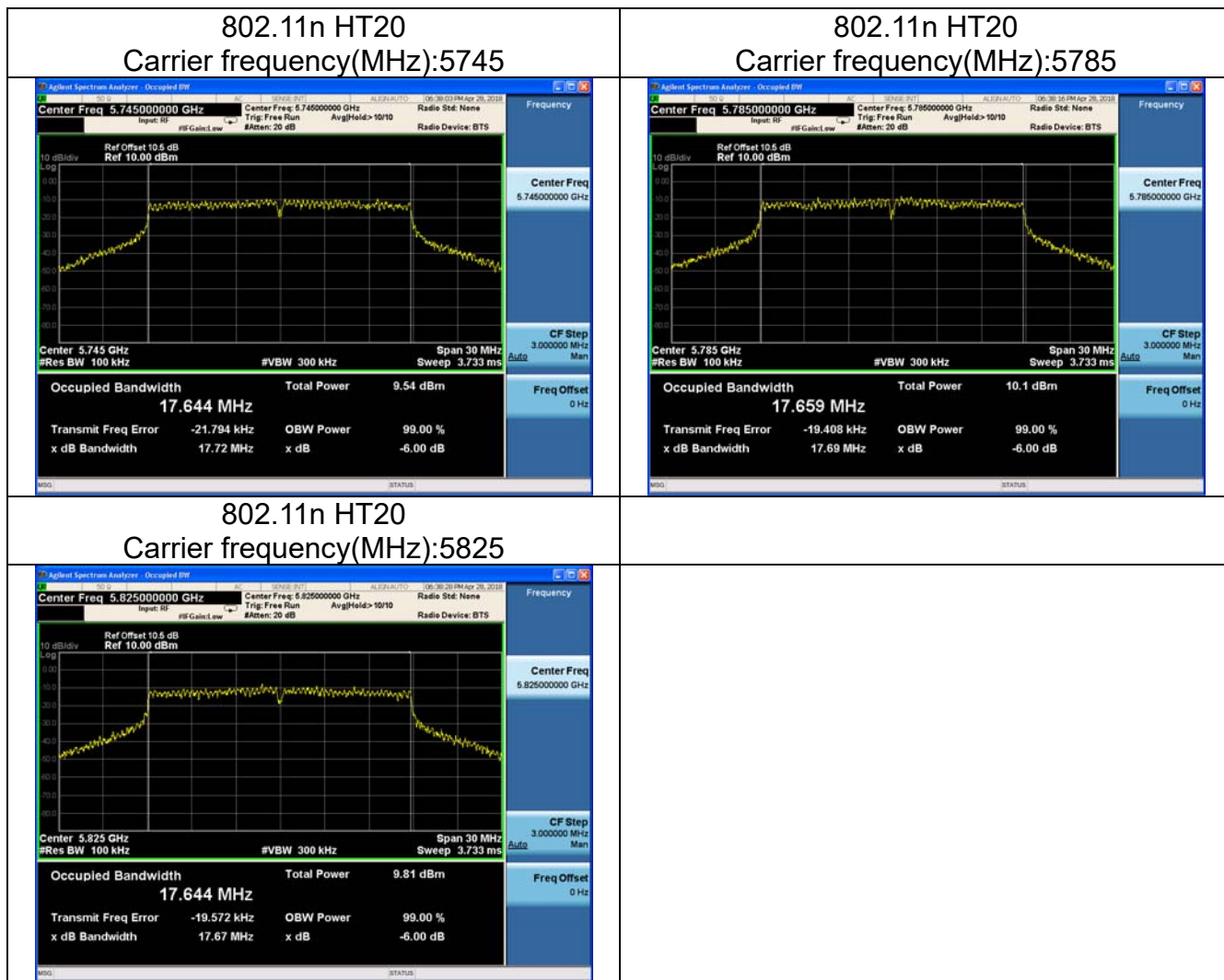
Test Mode: 802.11n HT20 (MIMO Ant0)

Carrier frequency (MHz)	6dB Bandwidth(MHz)	Minimum Limit (MHz)	Couclusion
5745	17.73	0.5	pass
5785	17.70	0.5	pass
5825	17.66	0.5	pass



Test Mode: 802.11n HT20 (MIMO Ant1)

Carrier frequency (MHz)	6dB Bandwidth(MHz)	Minimum Limit (MHz)	Couclusion
5745	17.72	0.5	pass
5785	17.69	0.5	pass
5825	17.67	0.5	pass



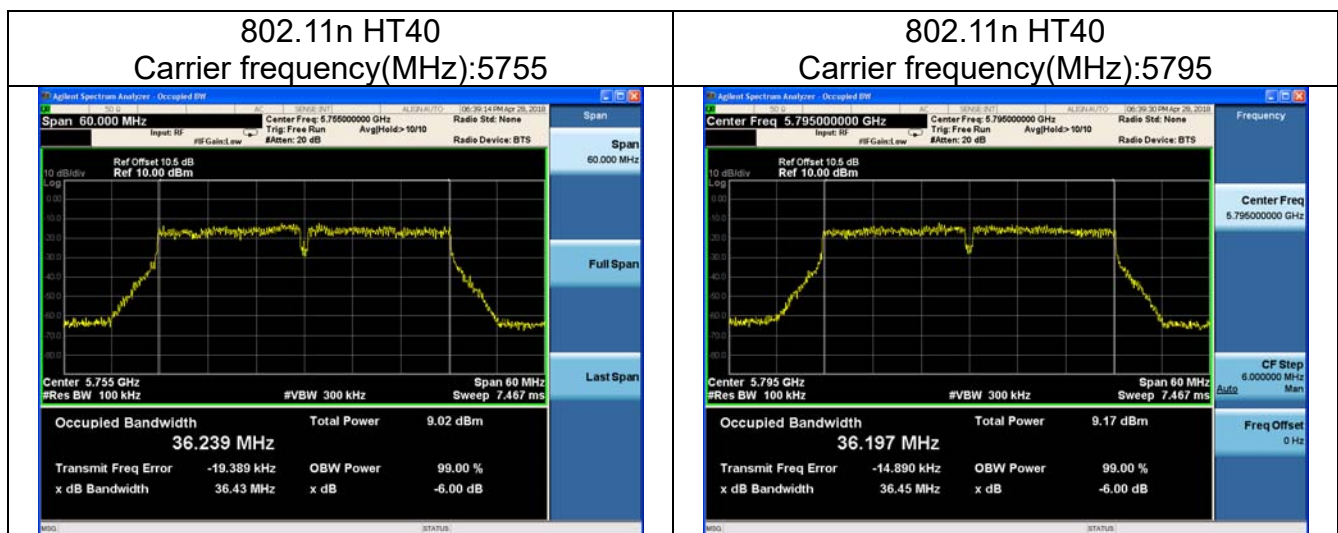
Test Mode: 802.11n HT40 (MIMO Ant0)

Carrier frequency (MHz)	6dB Bandwidth(MHz)	Minimum Limit (MHz)	Couclusion
5755	36.44	0.5	pass
5795	36.43	0.5	pass



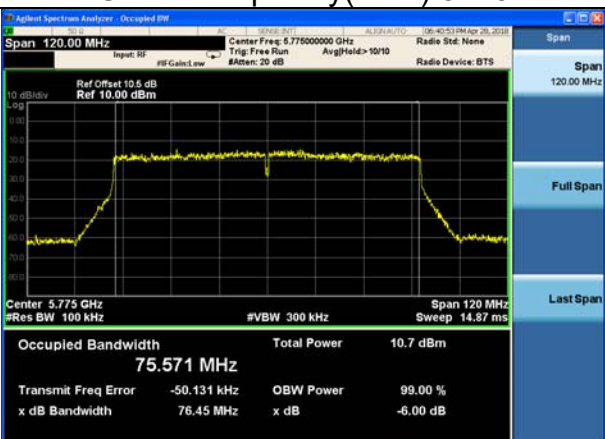
Test Mode: 802.11n HT40 (MIMO Ant1)

Carrier frequency (MHz)	6dB Bandwidth(MHz)	Minimum Limit (MHz)	Couclusion
5755	36.43	0.5	pass
5795	36.45	0.5	pass



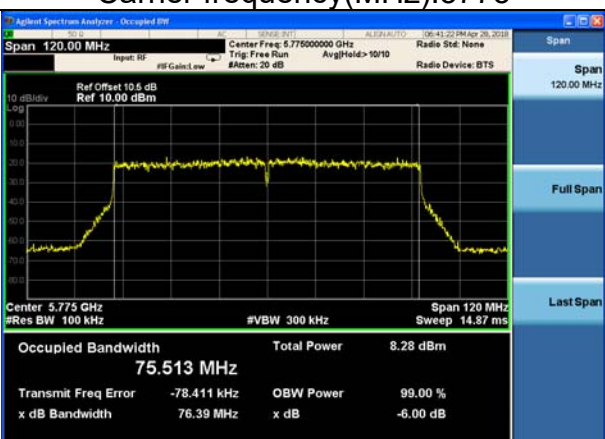
Test Mode: 802.11ac HT80 (MIMO Ant0)

Carrier frequency (MHz)	6dB Bandwidth(MHz)	Minimum Limit (MHz)	Couclusion
5775	76.45	0.5	pass

802.11ac HT80 Carrier frequency(MHz):5775	
	

Test Mode: 802.11ac HT80 (MIMO Ant1)

Carrier frequency (MHz)	6dB Bandwidth(MHz)	Minimum Limit (MHz)	Couclusion
5775	76.39	0.5	pass

802.11ac HT80 Carrier frequency(MHz):5775	
	

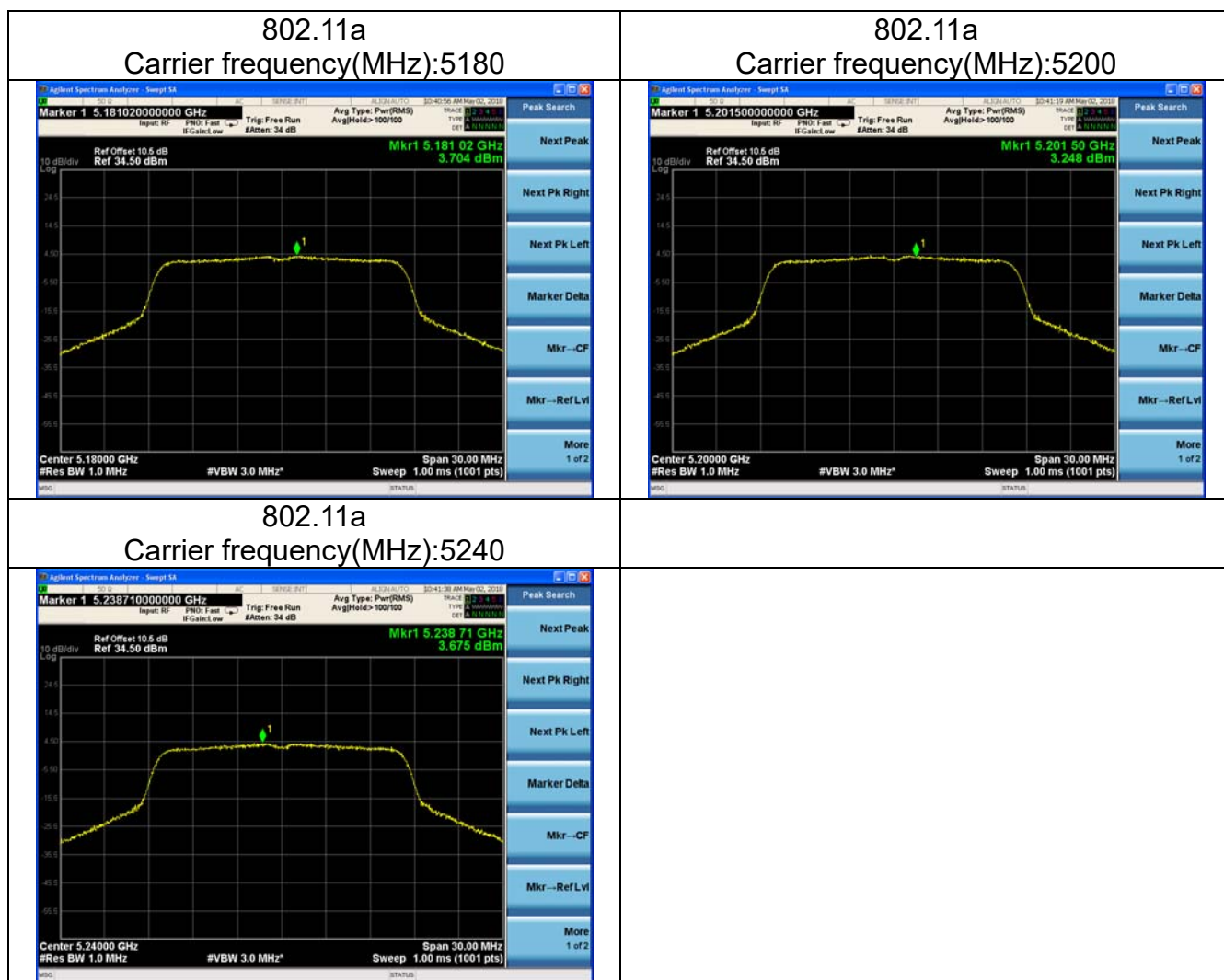
Transmitter Power Spectral Density

Offset 10.5dB = Attenuator 10dB+ Temporary antenna connector loss 0.2dB+ Cable loss 0.3dB

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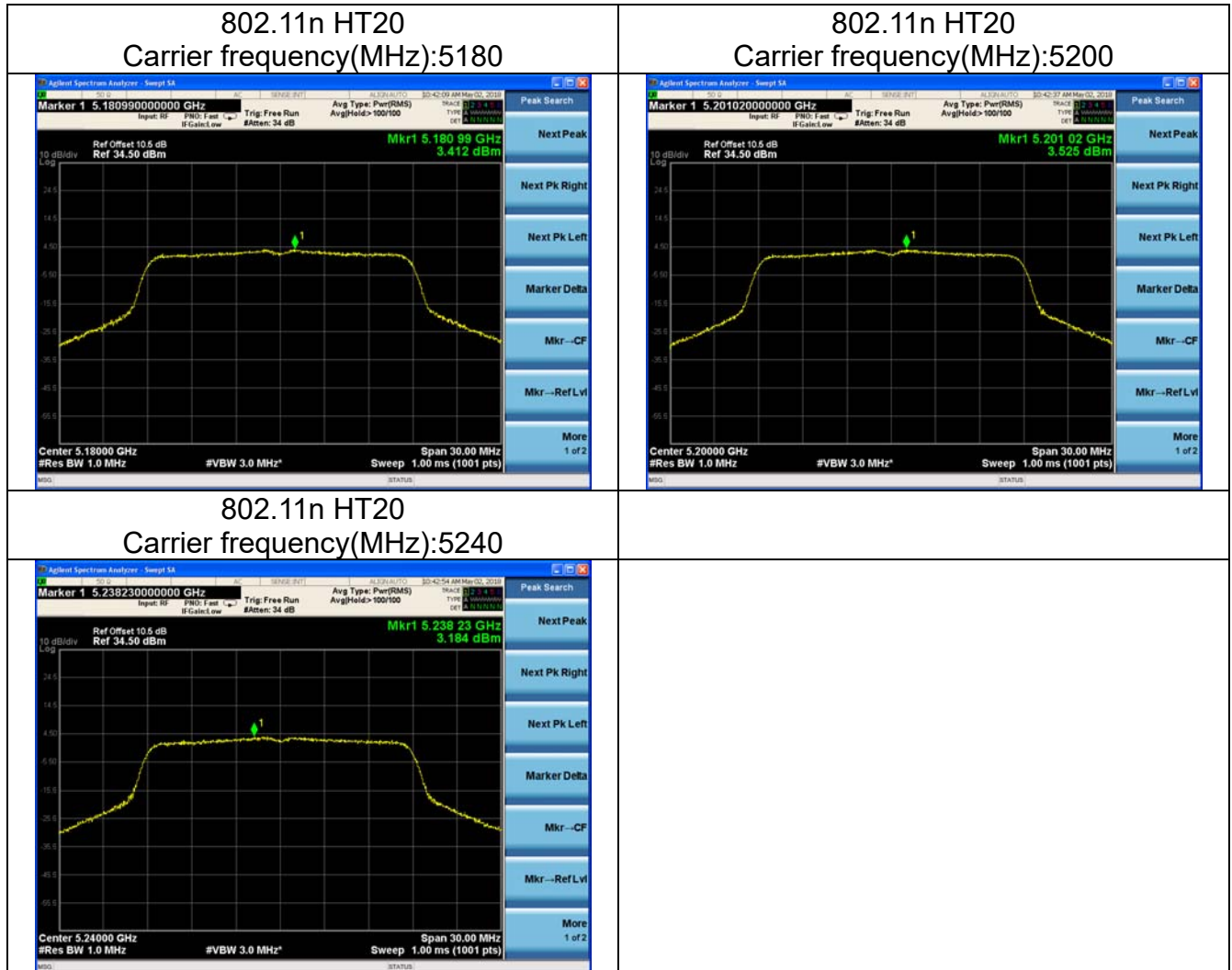
Test Mode: 802.11a (SISO Ant0)

Carrier frequency (MHz)	Duty Cycle Correction Factor(dB)	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)	Conclusion
5180	0.170	3.874	11.0	pass
5200	0.170	3.418	11.0	pass
5240	0.170	3.845	11.0	pass



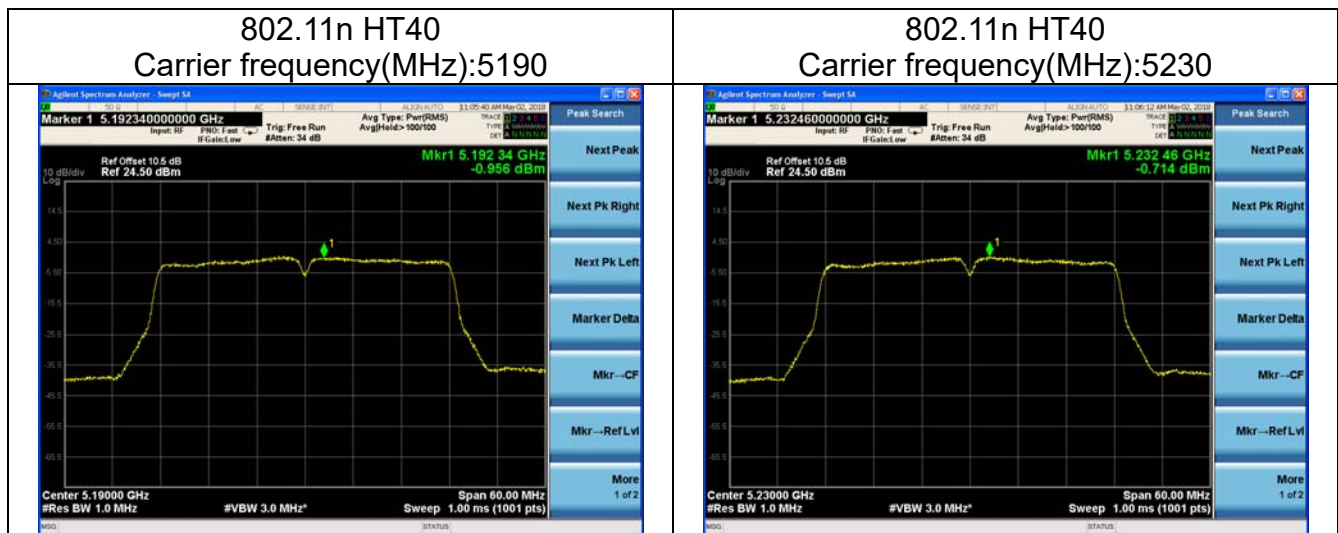
Test Mode: 802.11n HT20 (SISO Ant0)

Carrier frequency (MHz)	Duty Cycle Correction Factor(dB)	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)	Couclusion
5180	0.000	3.412	11.0	pass
5200	0.000	3.525	11.0	pass
5240	0.000	3.184	11.0	pass



Test Mode: 802.11n HT40 (SISO Ant0)

Carrier frequency (MHz)	Duty Cycle Correction Factor(dB)	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)	Couclusion
5190	0.000	-0.956	11.0	pass
5230	0.000	-0.714	11.0	pass



Test Mode: 802.11ac HT80 (SISO Ant0)

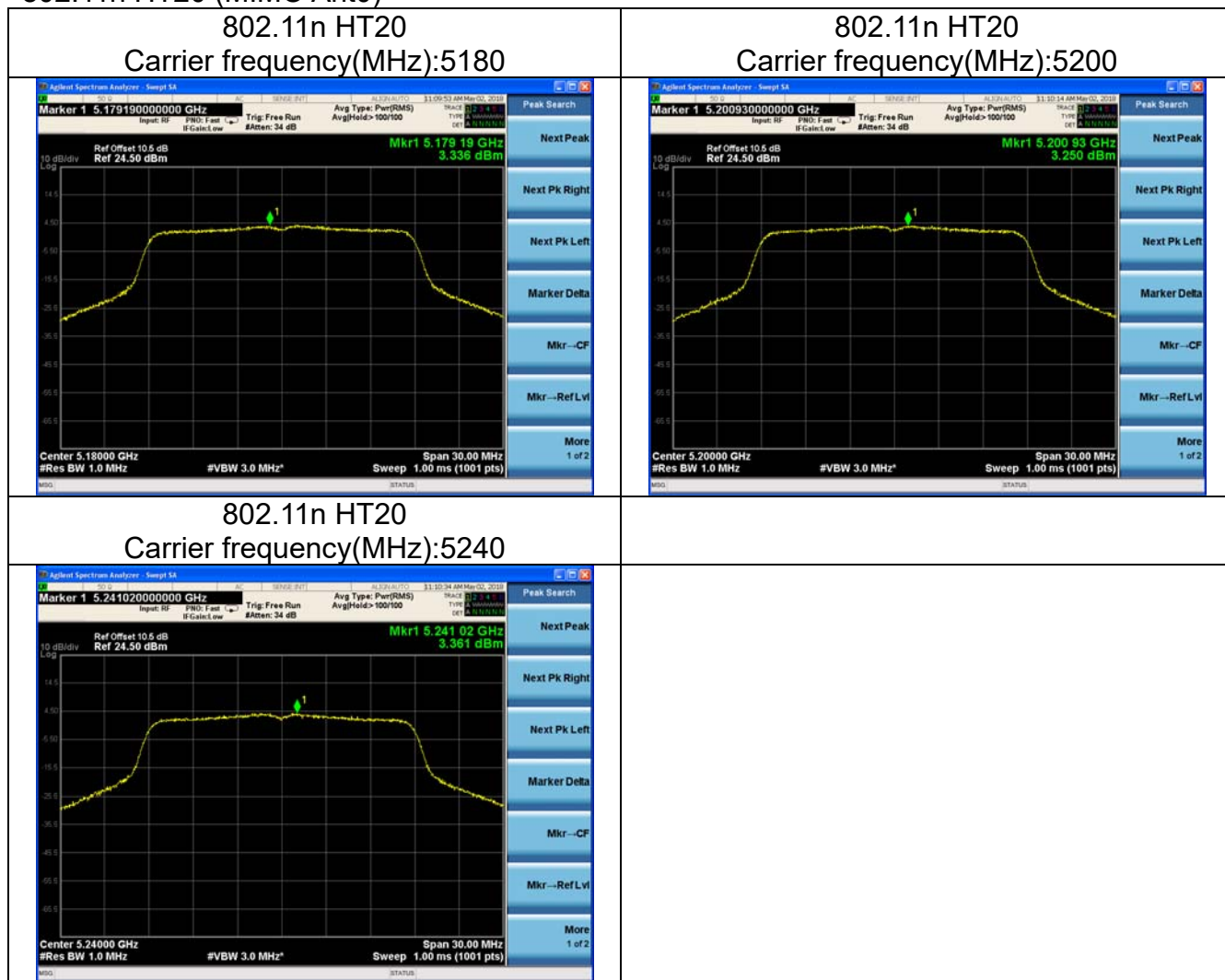
Carrier frequency (MHz)	Duty Cycle Correction Factor(dB)	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)	Couclusion
5210	0.210	-3.467	11.0	pass



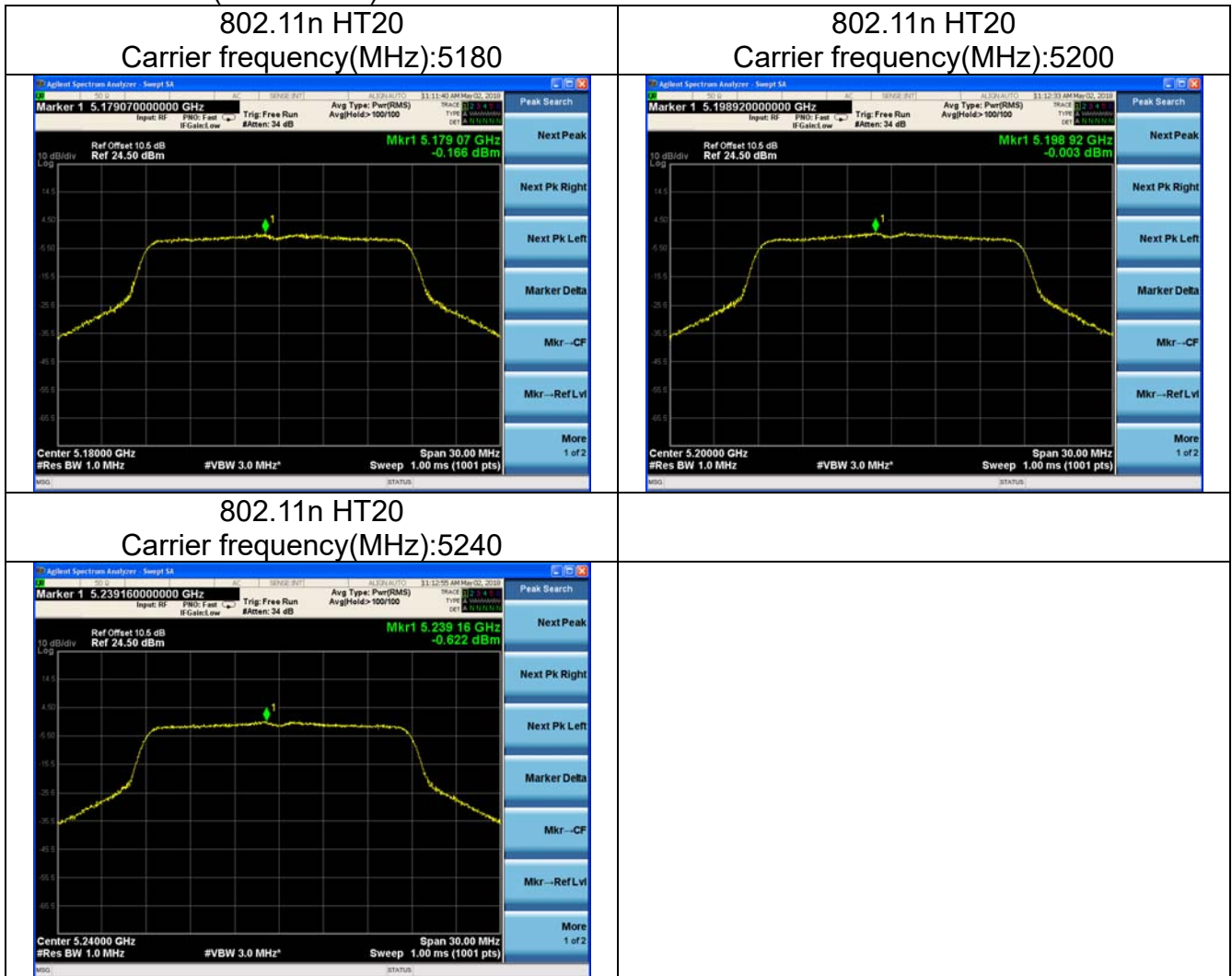
Test Mode: 802.11n HT20 (MIMO Ant0+Ant1)

Carrier frequency (MHz)	Duty Cycle Correction Factor(dB)	Ant0 Meas PSD (dBm/MHz)	Ant1 Meas PSD (dBm/MHz)	Total Corr'd PSD (dBm/MHz)	Limit (dBm/MHz)	Couclusion
5180	0.000	3.336	-0.166	4.939	11.0	pass
5200	0.000	3.250	-0.003	4.932	11.0	pass
5240	0.000	3.361	-0.622	4.821	11.0	pass

802.11n HT20 (MIMO Ant0)



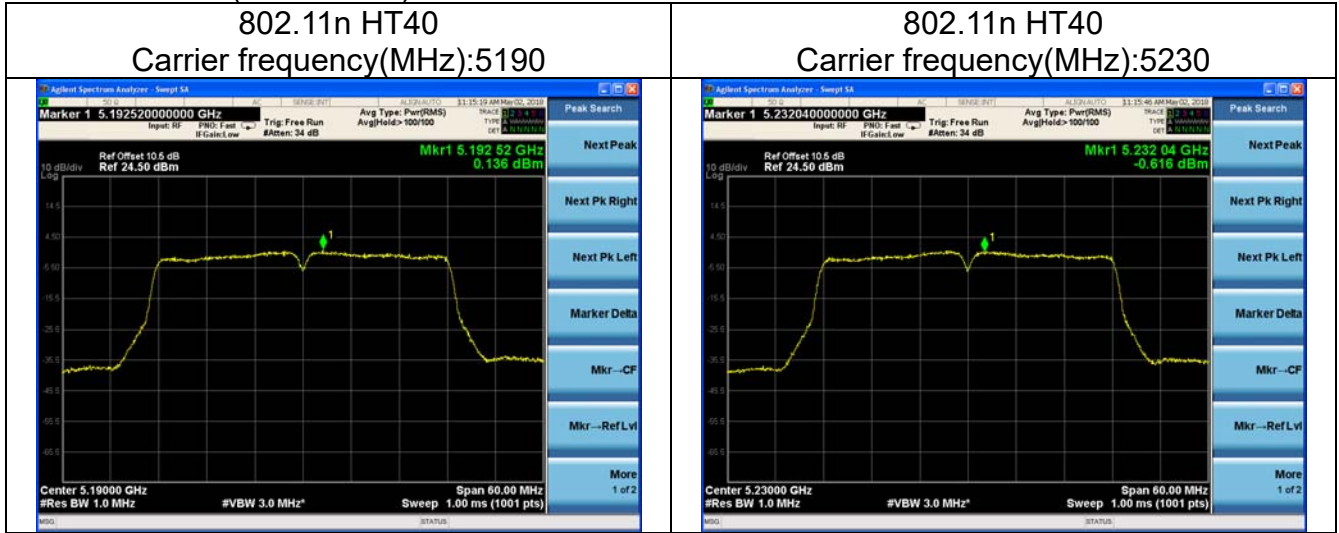
802.11n HT20 (MIMO Ant1)



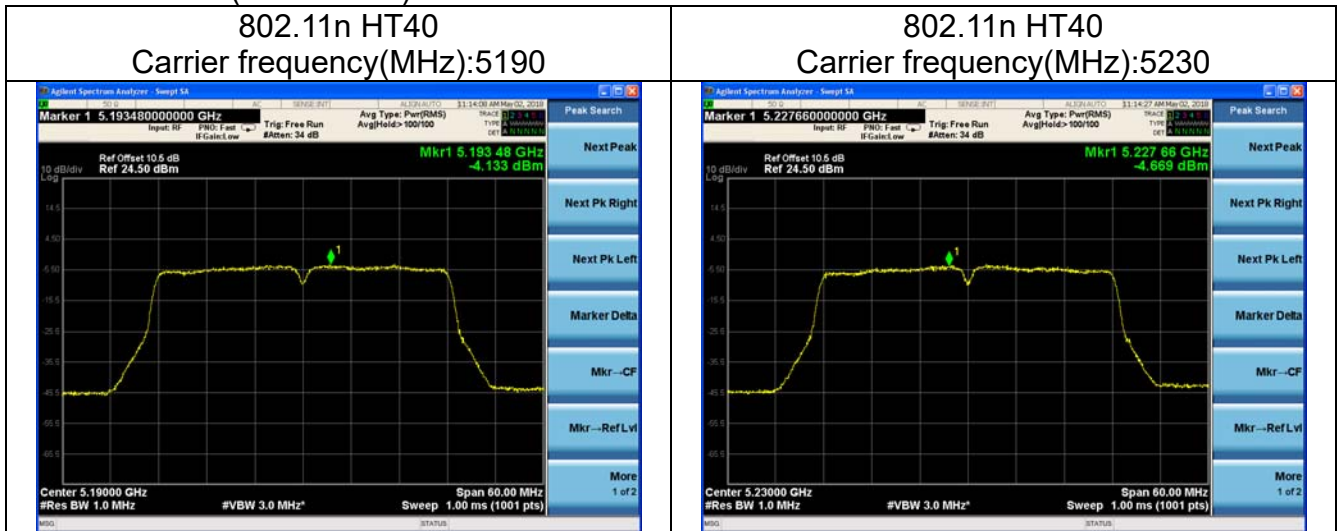
Test Mode: 802.11n HT40 (MIMO Ant0+Ant1)

Carrier frequency (MHz)	Duty Cycle Correction Factor(dB)	Ant0 Meas PSD (dBm/MHz)	Ant1 Meas PSD (dBm/MHz)	Total Corr'd PSD (dBm/MHz)	Limit (dBm/MHz)	Couclusion
5190	0.000	0.136	-4.133	1.516	11.0	pass
5230	0.000	-0.616	-4.669	0.824	11.0	pass

802.11n HT40 (MIMO Ant0)

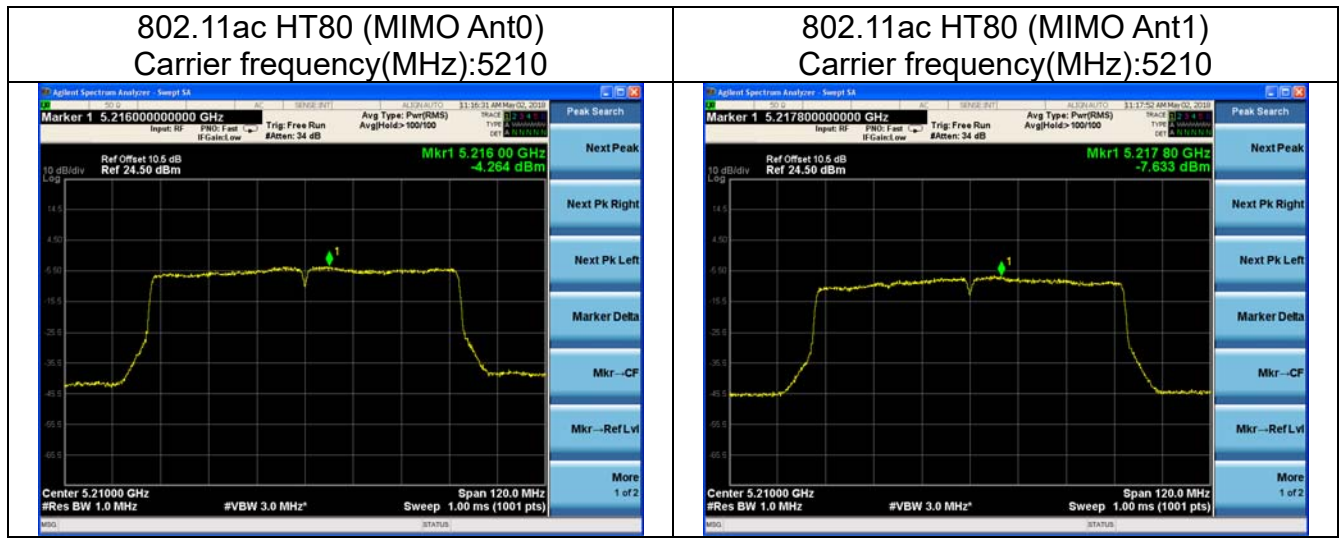


802.11n HT40 (MIMO Ant1)



Test Mode: 802.11ac HT80 (MIMO Ant0+Ant1)

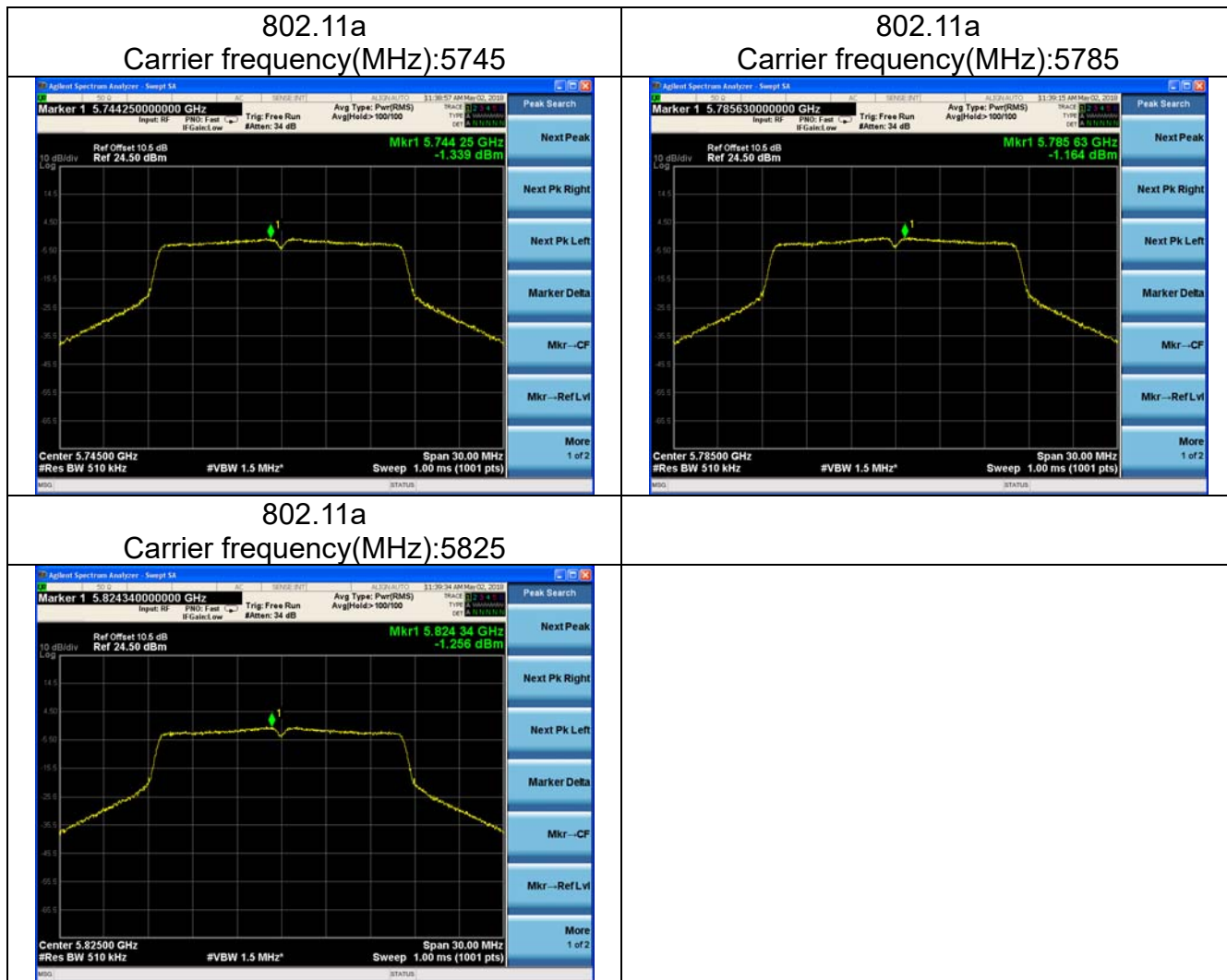
Carrier frequency (MHz)	Duty Cycle Correction Factor(dB)	Ant0 Meas PSD (dBm/MHz)	Ant1 Meas PSD (dBm/MHz)	Total Corr'd PSD (dBm/MHz)	Limit (dBm/MHz)	Couclusion
5210	0.210	-4.054	-7.423	-2.409	11.0	pass



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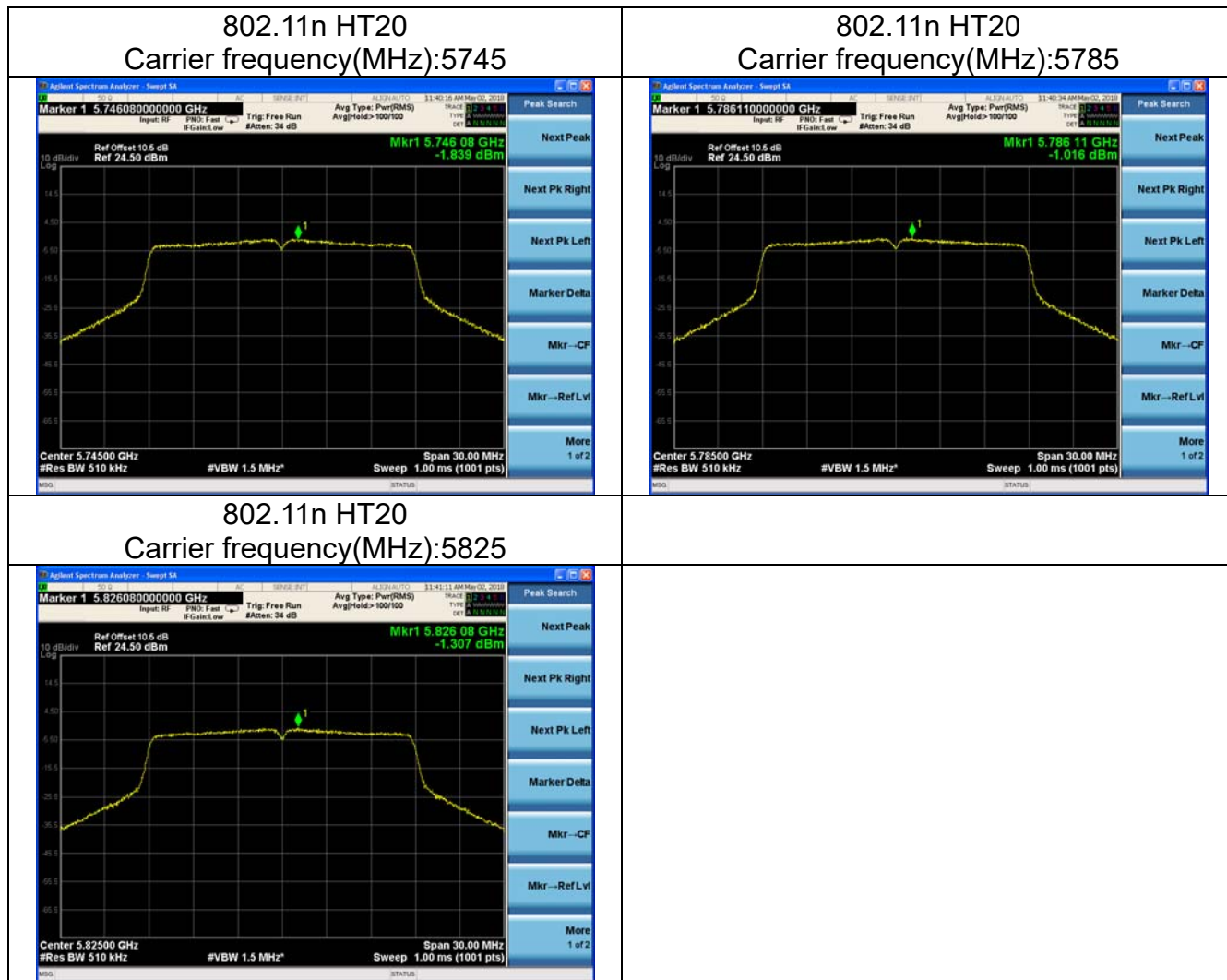
Test Mode: 802.11a (SISO Ant0)

Carrier frequency (MHz)	Duty Cycle Correction Factor(dB)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Conclusion
5745	0.170	-1.169	30.0	pass
5785	0.170	-0.994	30.0	pass
5825	0.170	-1.086	30.0	pass



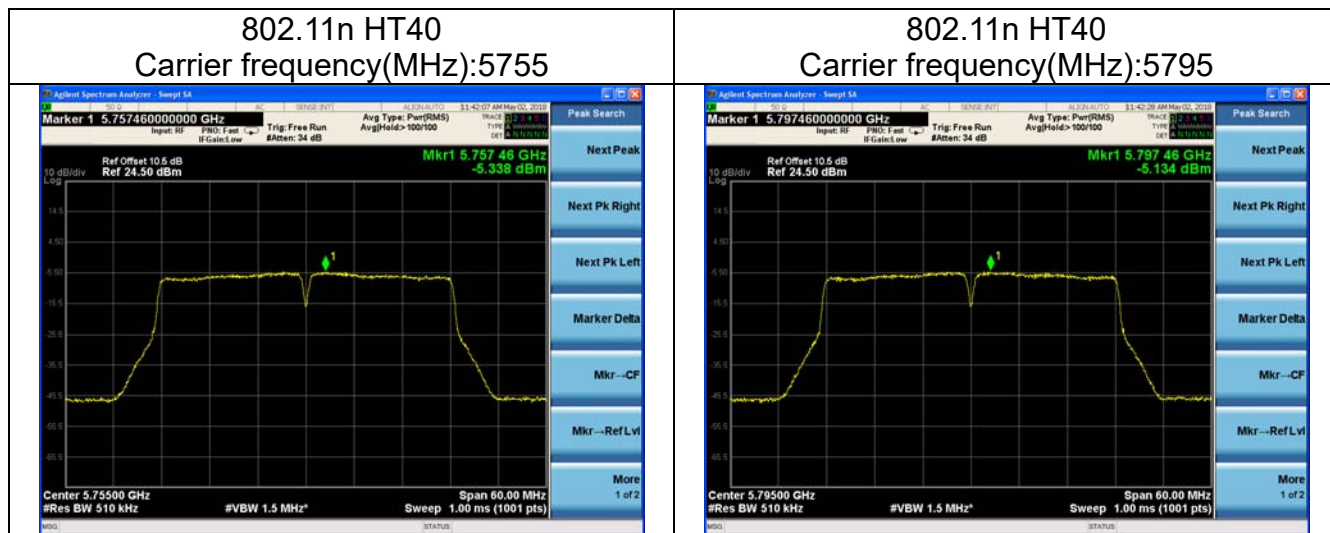
Test Mode: 802.11n HT20 (SISO Ant0)

Carrier frequency (MHz)	Duty Cycle Correction Factor(dB)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Couclusion
5745	0.000	-1.839	30.0	pass
5785	0.000	-1.016	30.0	pass
5825	0.000	-1.307	30.0	pass



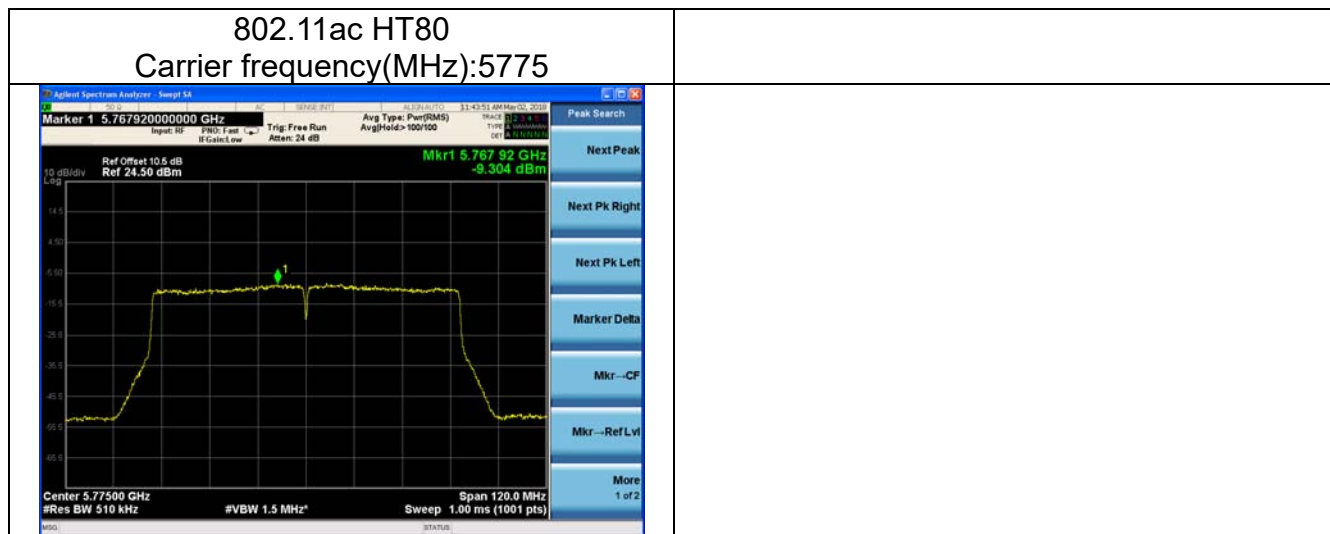
Test Mode: 802.11n HT40 (SISO Ant0)

Carrier frequency (MHz)	Duty Cycle Correction Factor(dB)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Couclusion
5755	0.000	-5.338	30.0	pass
5795	0.000	-5.134	30.0	pass



Test Mode: 802.11ac HT80 (SISO Ant0)

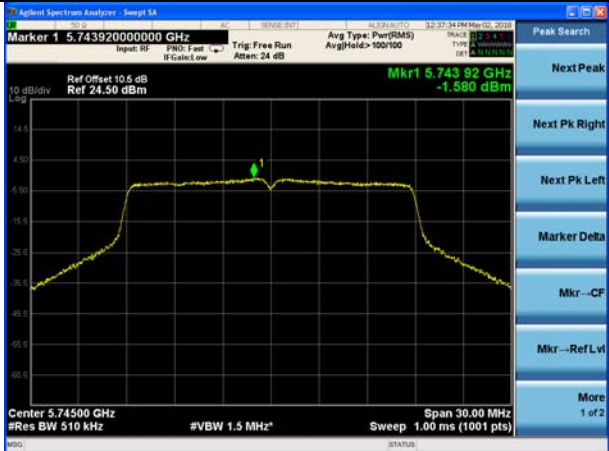
Carrier frequency (MHz)	Duty Cycle Correction Factor(dB)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Couclusion
5775	0.210	-9.094	30.0	pass



Test Mode: 802.11n HT20 (MIMO Ant0+Ant1)

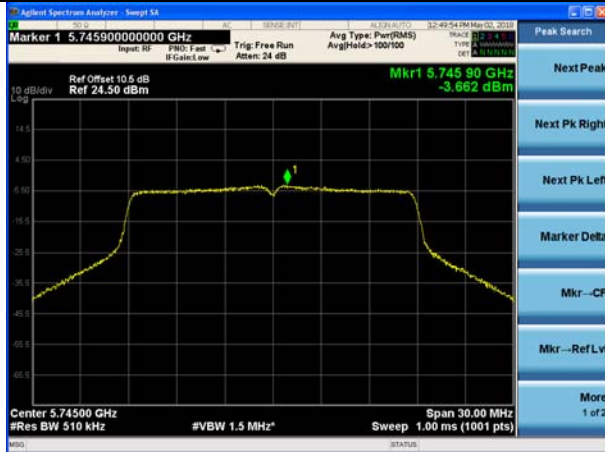
Carrier frequency (MHz)	Duty Cycle Correction Factor(dB)	Ant0 Meas PSD (dBm/500kHz)	Ant1 Meas PSD (dBm/500kHz)	Total Corr'd PSD (dBm/500kHz)	Limit (dBm/500kHz)	Couclusion
5745	0.000	-1.580	-3.662	0.513	30.0	pass
5785	0.000	-0.816	-3.536	1.044	30.0	pass
5825	0.000	-0.989	-3.786	0.844	30.0	pass

802.11n HT20 (MIMO Ant0)

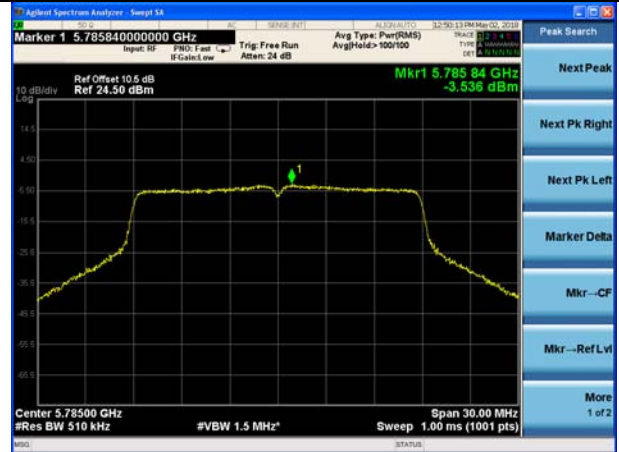
802.11n HT20 Carrier frequency(MHz):5745		802.11n HT20 Carrier frequency(MHz):5785	
			
802.11n HT20 Carrier frequency(MHz):5825			
			

802.11n HT20 (MIMO Ant1)

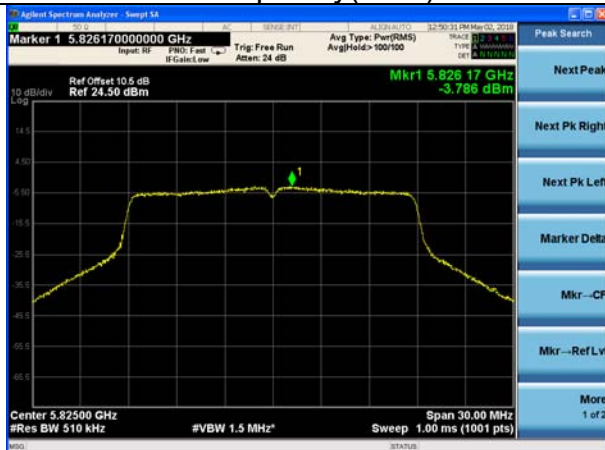
802.11n HT20
Carrier frequency(MHz):5745



802.11n HT20
Carrier frequency(MHz):5785



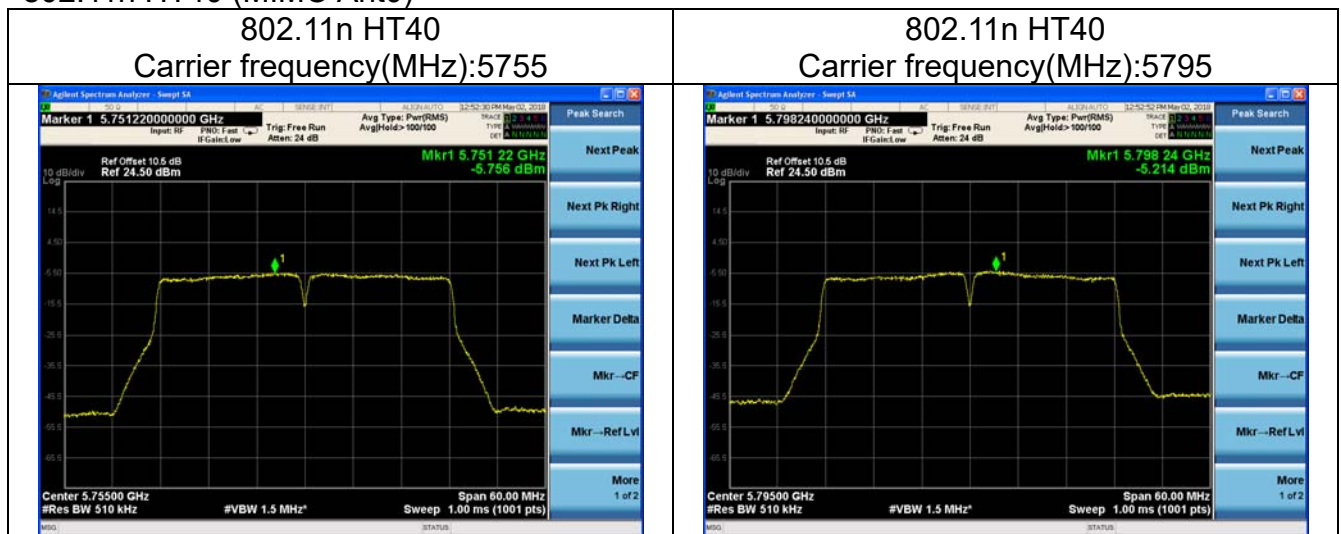
802.11n HT20
Carrier frequency(MHz):5825



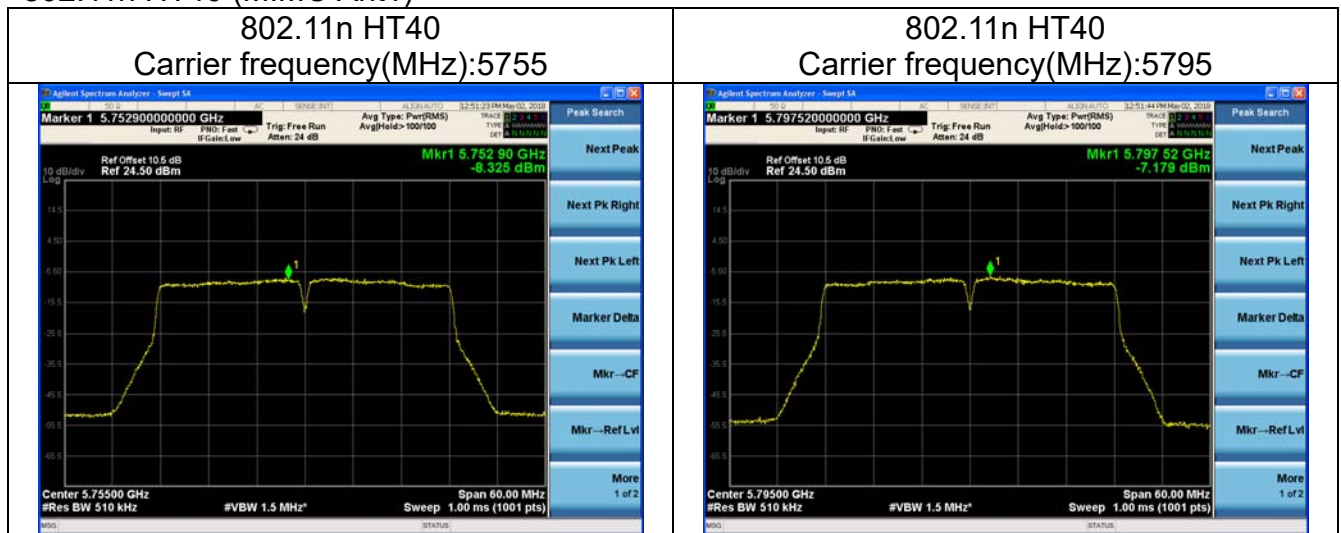
Test Mode: 802.11n HT40 (MIMO Ant0+Ant1)

Carrier frequency (MHz)	Duty Cycle Correction Factor(dB)	Ant0 Meas PSD (dBm/500kHz)	Ant1 Meas PSD (dBm/500kHz)	Total Corr'd PSD (dBm/500kHz)	Limit (dBm/500kHz)	Couclusion
5755	0.000	-5.756	-8.325	-3.843	30.0	pass
5795	0.000	-5.214	-7.179	-3.076	30.0	pass

802.11n HT40 (MIMO Ant0)

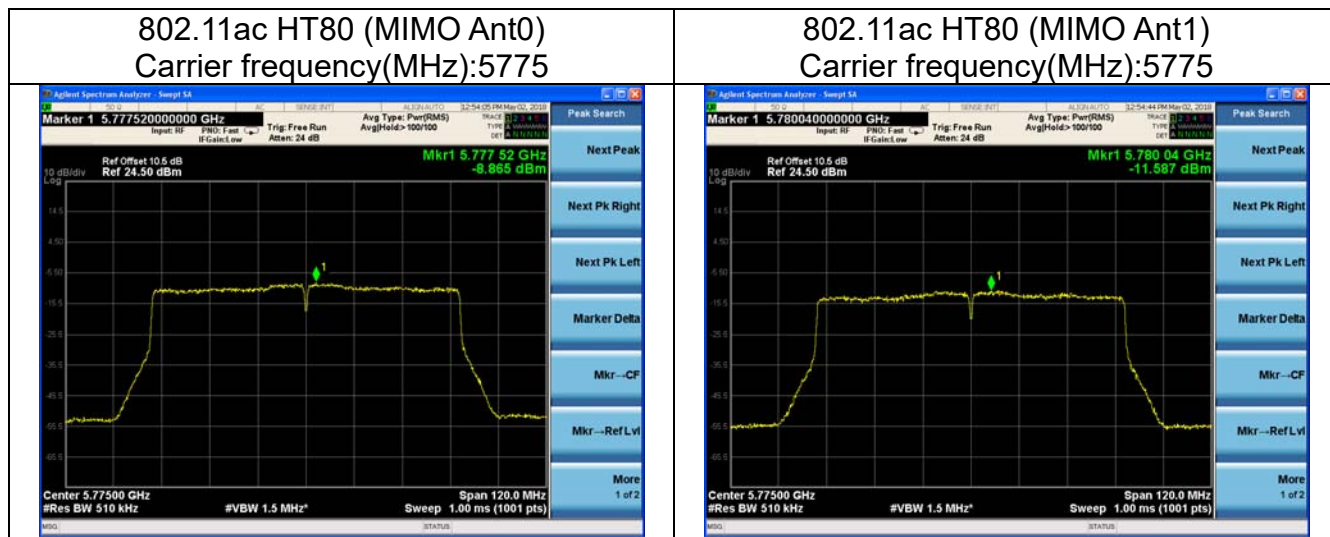


802.11n HT40 (MIMO Ant1)



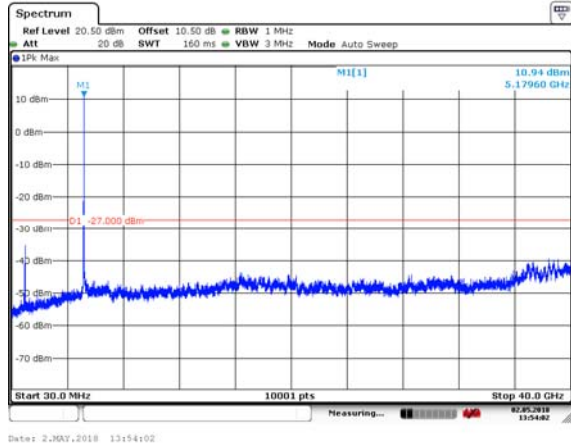
Test Mode: 802.11ac HT80 (MIMO Ant0+Ant1)

Carrier frequency (MHz)	Duty Cycle Correction Factor(dB)	Ant0 Meas PSD (dBm/500kHz)	Ant1 Meas PSD (dBm/500kHz)	Total Corr'd PSD (dBm/500kHz)	Limit (dBm/500kHz)	Couclusion
5775	0.210	-8.655	-11.377	-6.796	30.0	pass



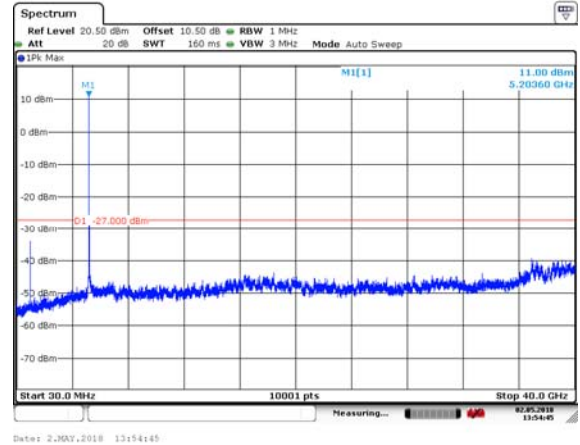
Unwanted Conducted Emission Measurement U-NII-1

802.11a (SISO Ant0)
Carrier frequency(MHz):5180



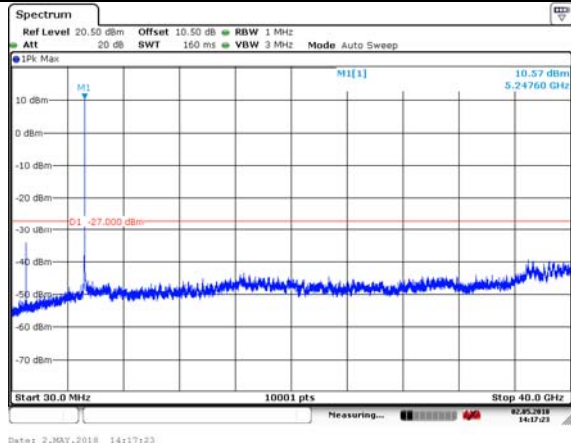
Date: 2/MAY/2018 13:54:02

802.11a (SISO Ant0)
Carrier frequency(MHz):5200



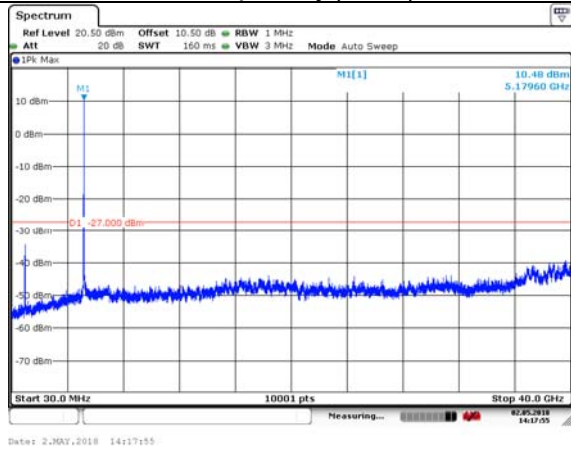
Date: 2/MAY/2018 13:54:45

802.11a (SISO Ant0)
Carrier frequency(MHz):5240

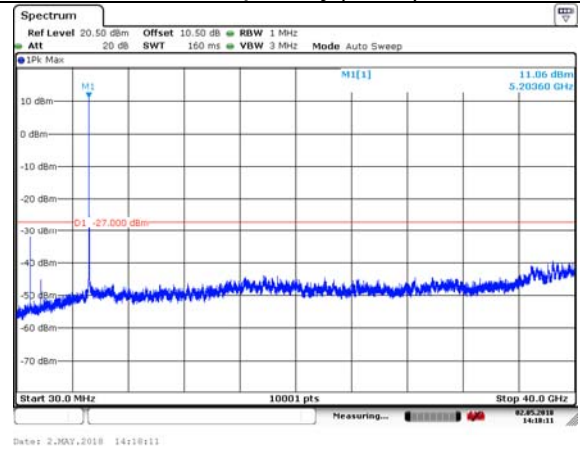


Date: 2/MAY/2018 14:17:23

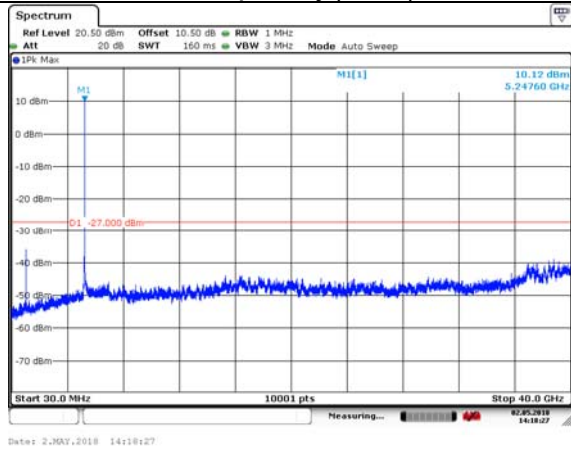
802.11n HT20 (SISO Ant0)
Carrier frequency(MHz):5180



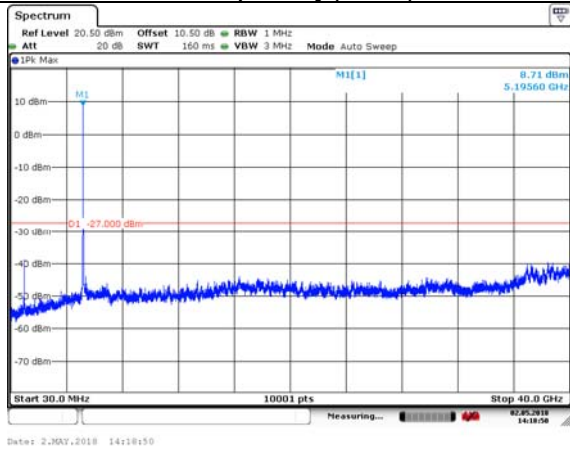
802.11n HT20 (SISO Ant0)
Carrier frequency(MHz):5200



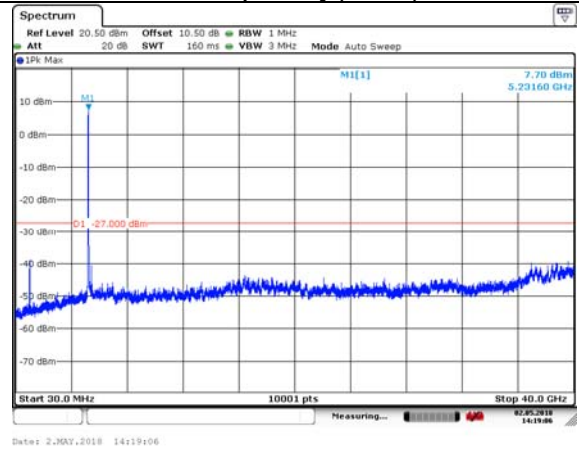
802.11n HT20 (SISO Ant0)
Carrier frequency(MHz):5240



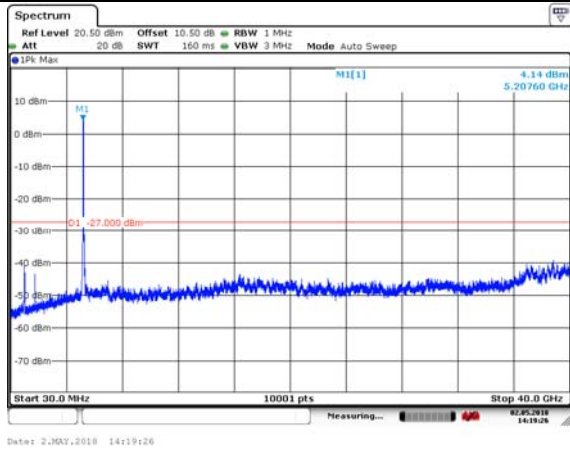
802.11n HT40 (SISO Ant0)
Carrier frequency(MHz):5190



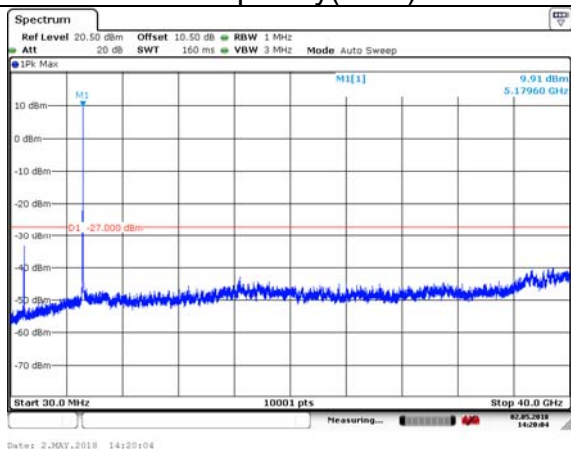
802.11n HT40 (SISO Ant0)
Carrier frequency(MHz):5230



802.11ac HT80 (SISO Ant0)
Carrier frequency(MHz):5210

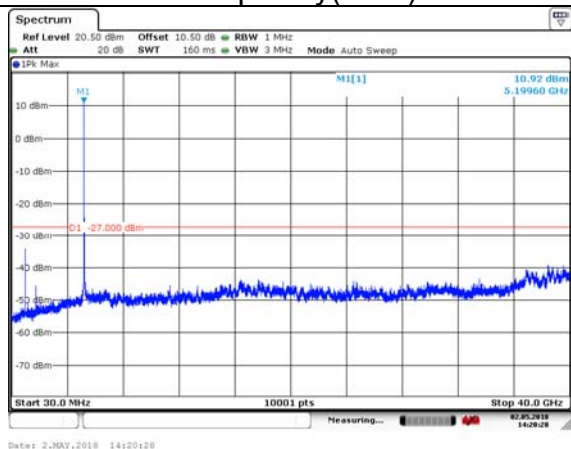


802.11n HT20 (MIMO Ant0)
Carrier frequency(MHz):5180



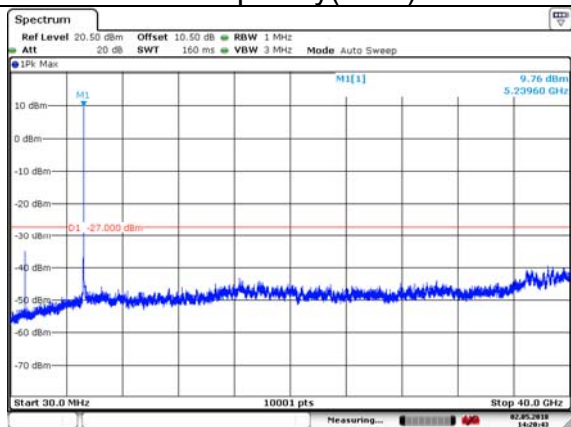
Date: 2,007,2018 14:20:04

802.11n HT20 (MIMO Ant0)
Carrier frequency(MHz):5200



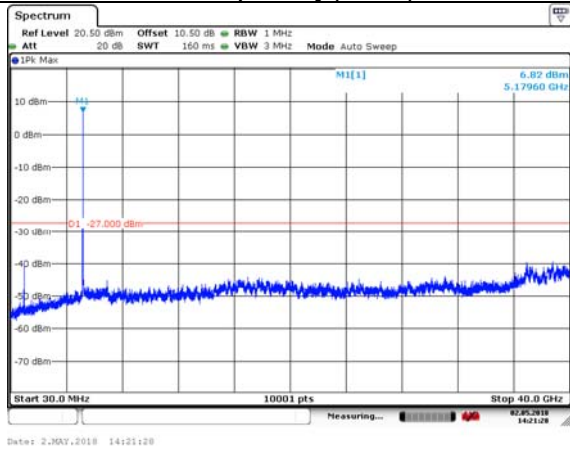
Date: 2,007,2018 14:20:28

802.11n HT20 (MIMO Ant0)
Carrier frequency(MHz):5240

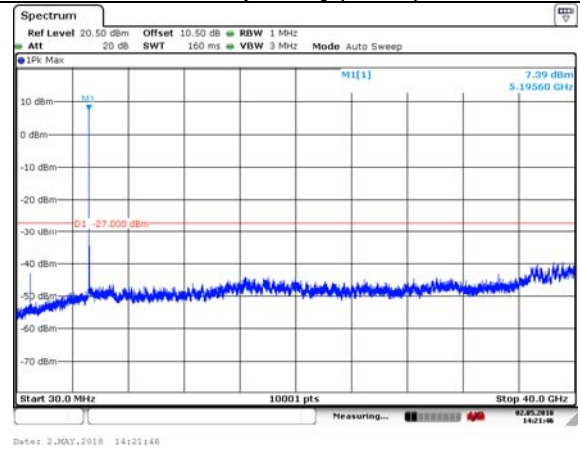


Date: 2,007,2018 14:20:43

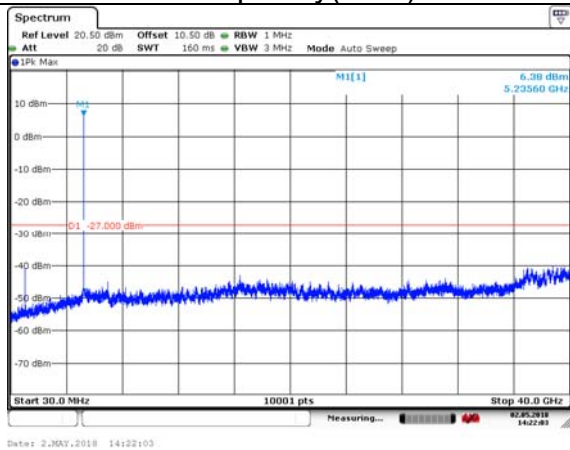
802.11n HT20 (MIMO Ant1)
Carrier frequency(MHz):5180



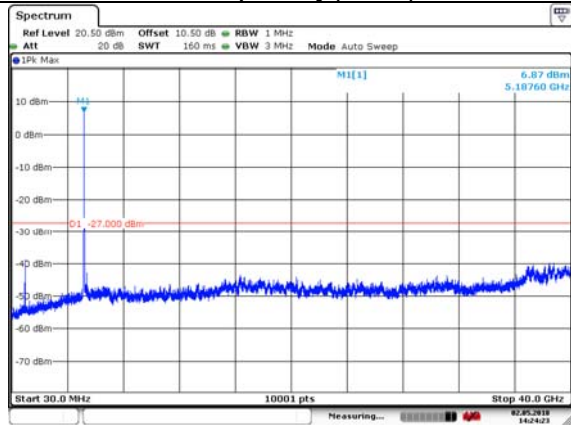
802.11n HT20 (MIMO Ant1)
Carrier frequency(MHz):5200



802.11n HT20 (MIMO Ant1)
Carrier frequency(MHz):5240

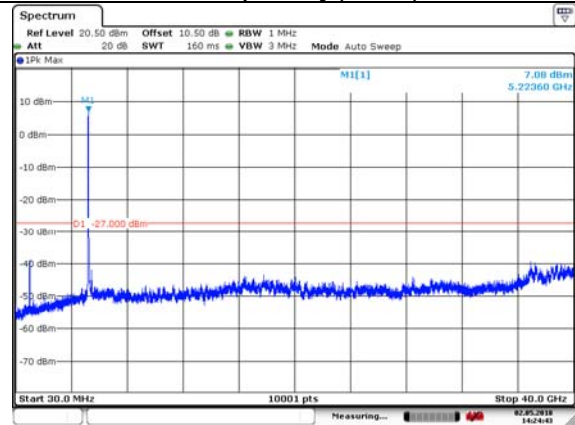


802.11n HT40 (MIMO Ant0)
Carrier frequency(MHz):5190



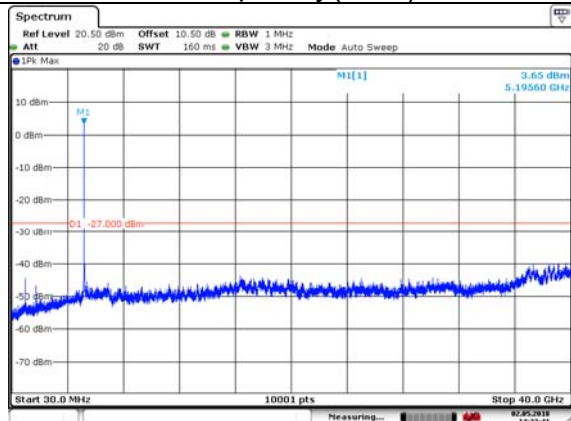
Date: 2.MAY.2018 14:24:23

802.11n HT40 (MIMO Ant0)
Carrier frequency(MHz):5230



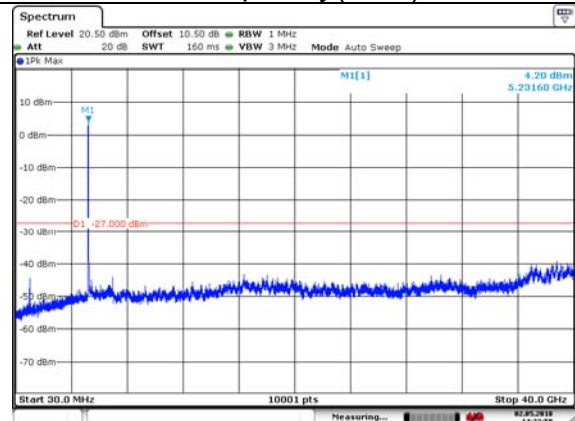
Date: 2.MAY.2018 14:24:43

802.11n HT40 (MIMO Ant1)
Carrier frequency(MHz):5190



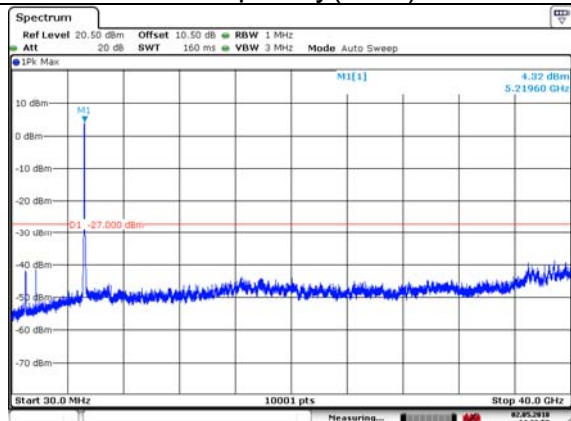
Date: 2.MAY.2018 14:22:41

802.11n HT40 (MIMO Ant1)
Carrier frequency(MHz):5230



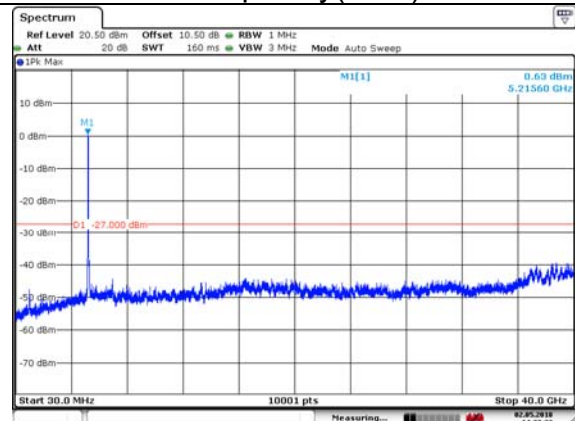
Date: 2.MAY.2018 14:22:58

802.11ac HT80 (MIMO Ant0)
Carrier frequency(MHz):5210



Date: 2.MAY.2018 14:23:58

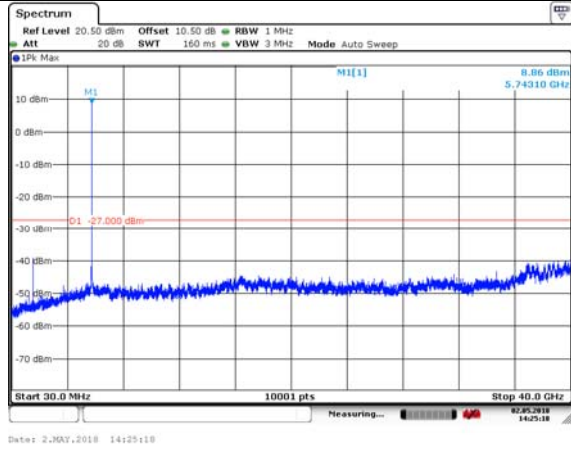
802.11ac HT80 (MIMO Ant1)
Carrier frequency(MHz):5210



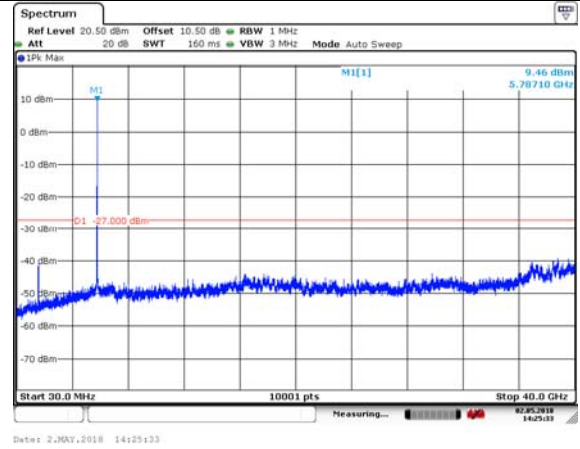
Date: 2.MAY.2018 14:23:22

U-NII-3

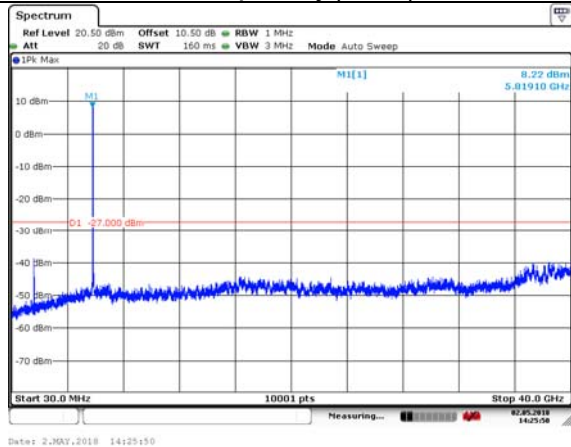
802.11a (SISO Ant0)
Carrier frequency(MHz):5745



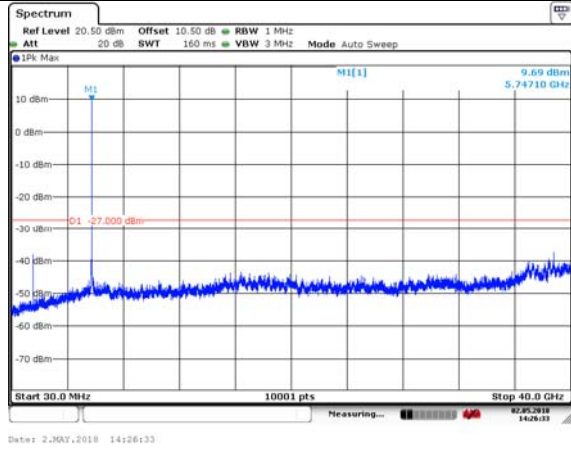
802.11a (SISO Ant0)
Carrier frequency(MHz):5785



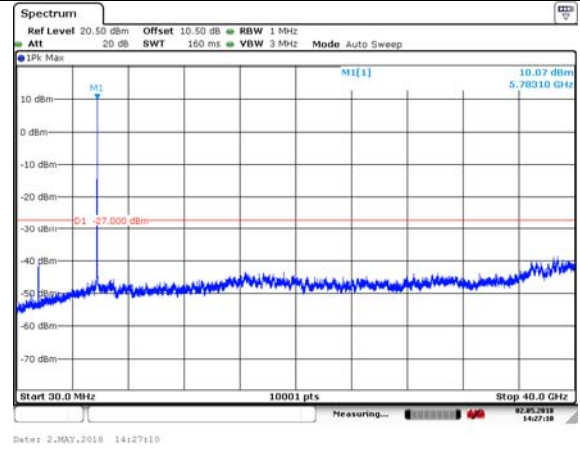
802.11a (SISO Ant0)
Carrier frequency(MHz):5825



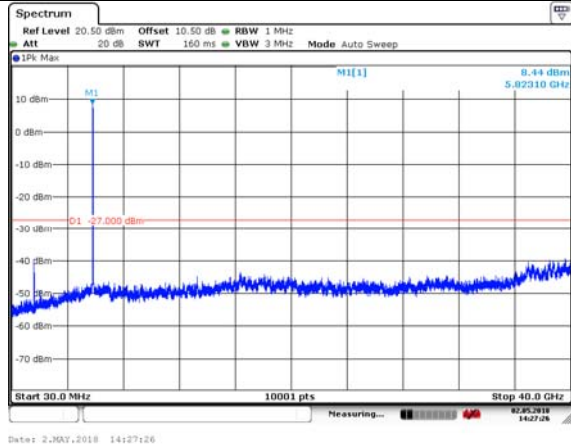
802.11n HT20 (SISO Ant0)
Carrier frequency(MHz):5745



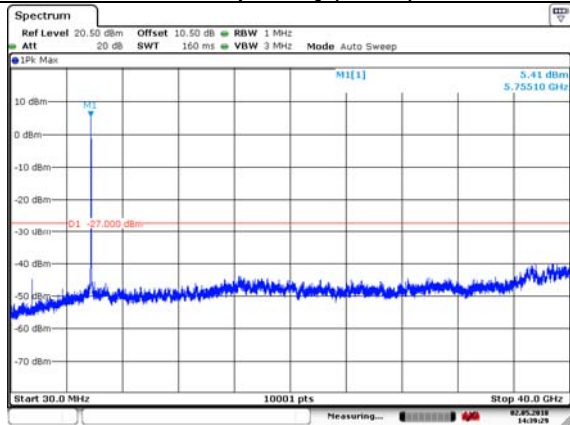
802.11n HT20 (SISO Ant0)
Carrier frequency(MHz):5785



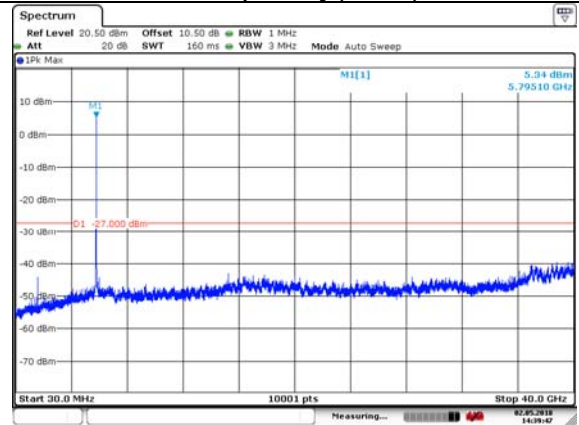
802.11n HT20 (SISO Ant0)
Carrier frequency(MHz):5825



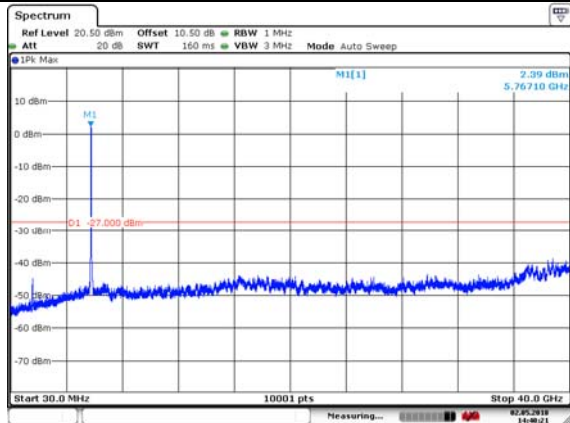
802.11n HT40 (SISO Ant0)
Carrier frequency(MHz):5755



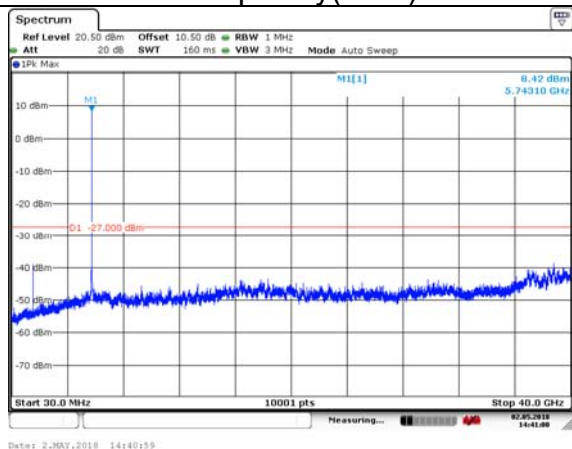
802.11n HT40 (SISO Ant0)
Carrier frequency(MHz):5795



802.11ac HT80 (SISO Ant0)
Carrier frequency(MHz):5775

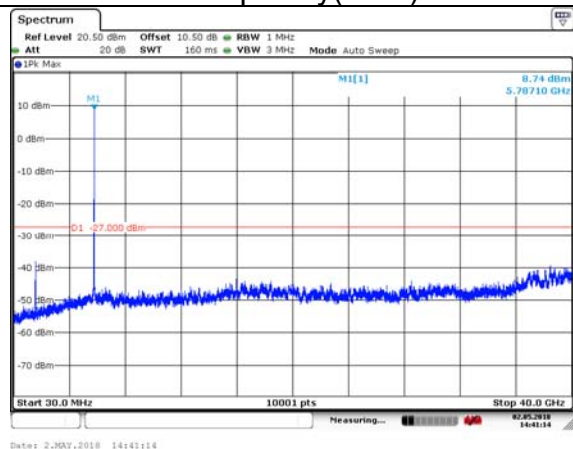


802.11n HT20 (MIMO Ant0)
Carrier frequency(MHz):5745



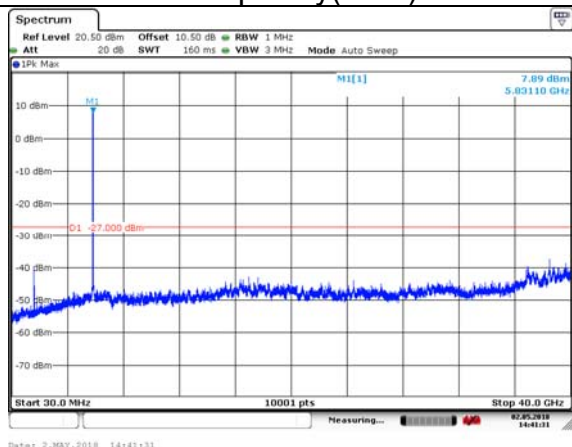
Date: 2,007,2018 14:40:59

802.11n HT20 (MIMO Ant0)
Carrier frequency(MHz):5785



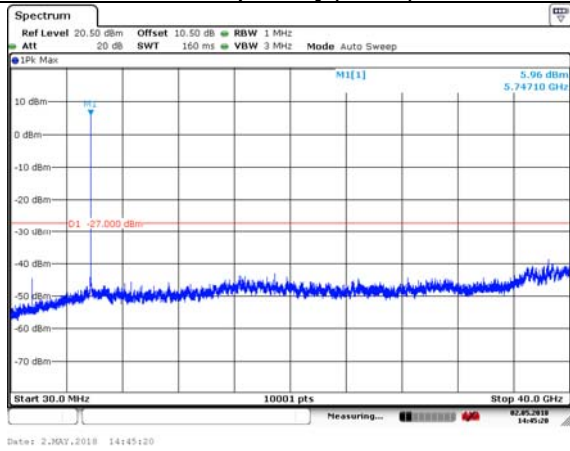
Date: 2,007,2018 14:41:14

802.11n HT20 (MIMO Ant0)
Carrier frequency(MHz):5825

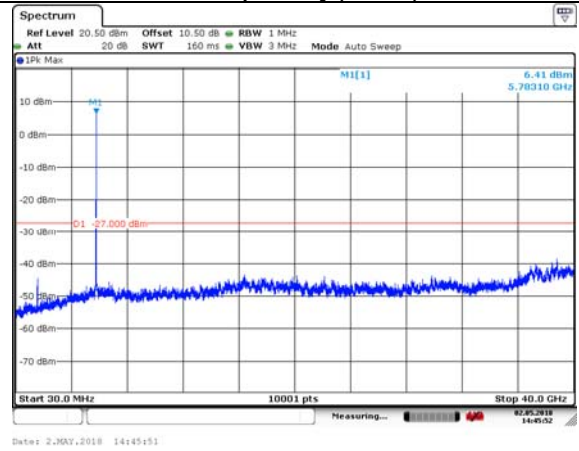


Date: 2,007,2018 14:41:31

802.11n HT20 (MIMO Ant1)
Carrier frequency(MHz):5745



802.11n HT20 (MIMO Ant1)
Carrier frequency(MHz):5785



802.11n HT20 (MIMO Ant1)
Carrier frequency(MHz):5825

