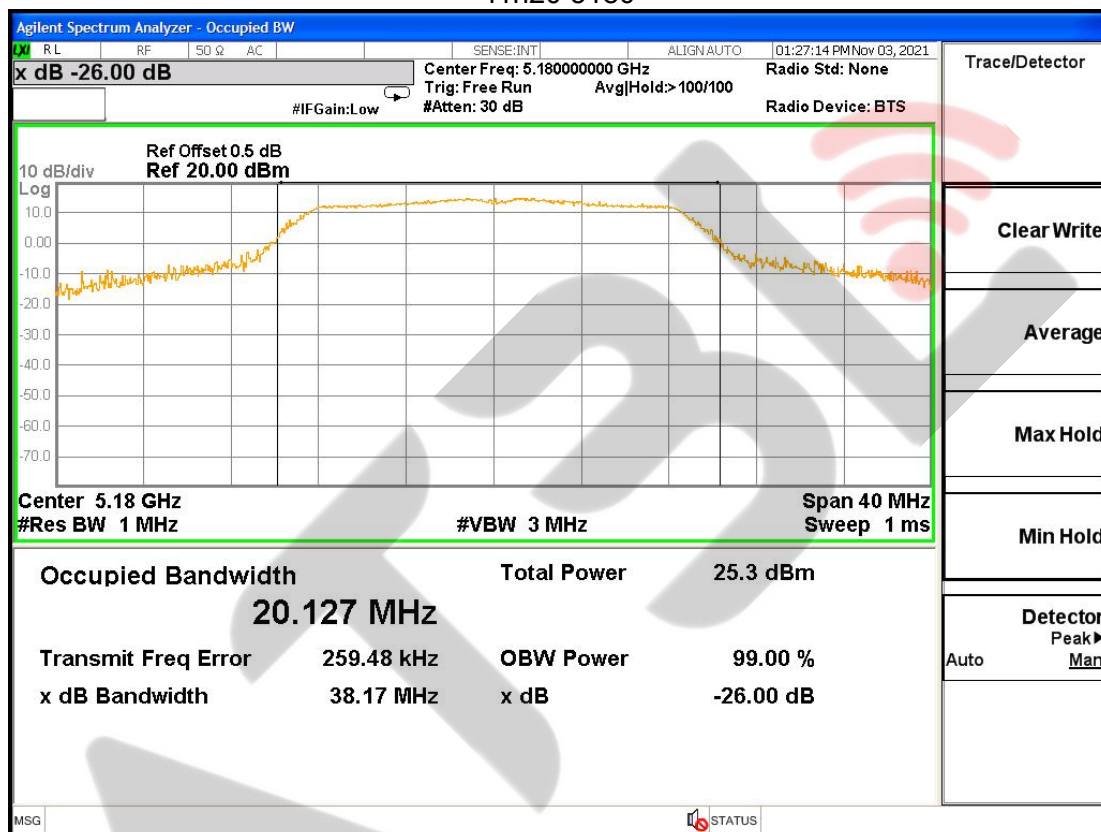


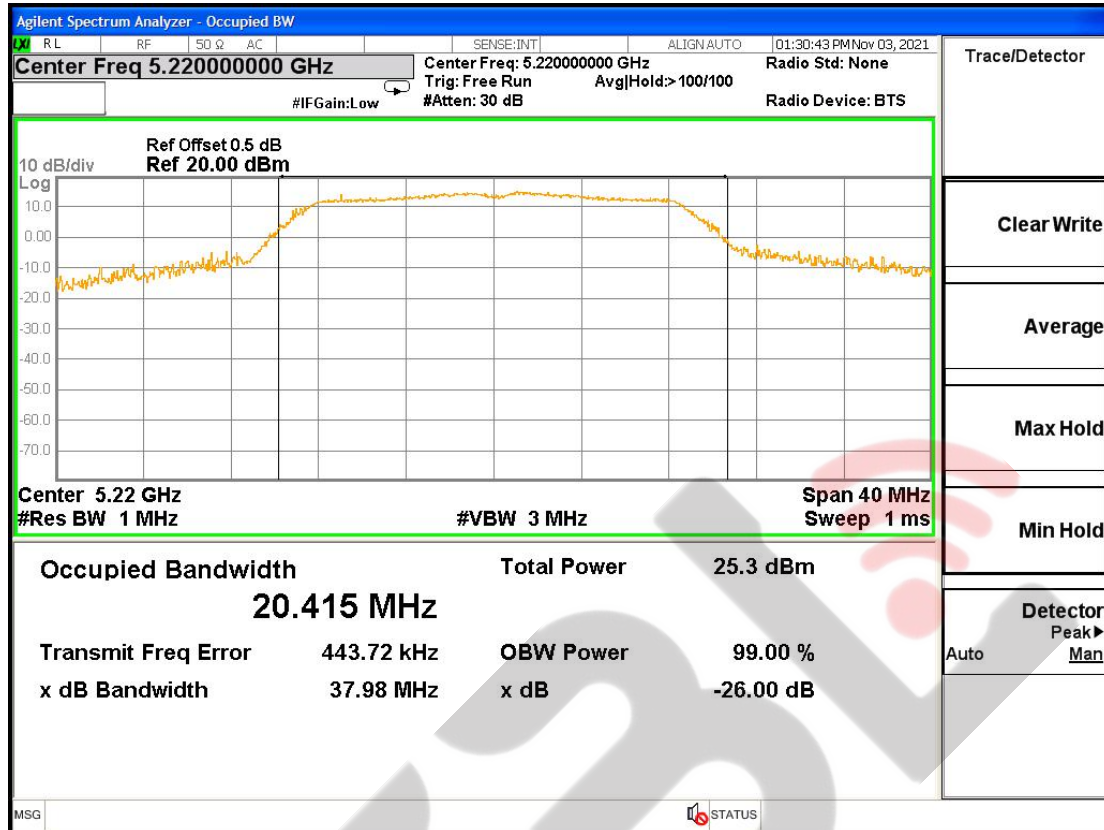
Mode 11n20 For U-NII-1(5150~5250MHz), MCS0

CH.	Freq. (MHz)	26dB Bandwidth (MHz)	Results
36	5180	38.17	PASS
44	5220	37.98	PASS
48	5240	38.77	PASS

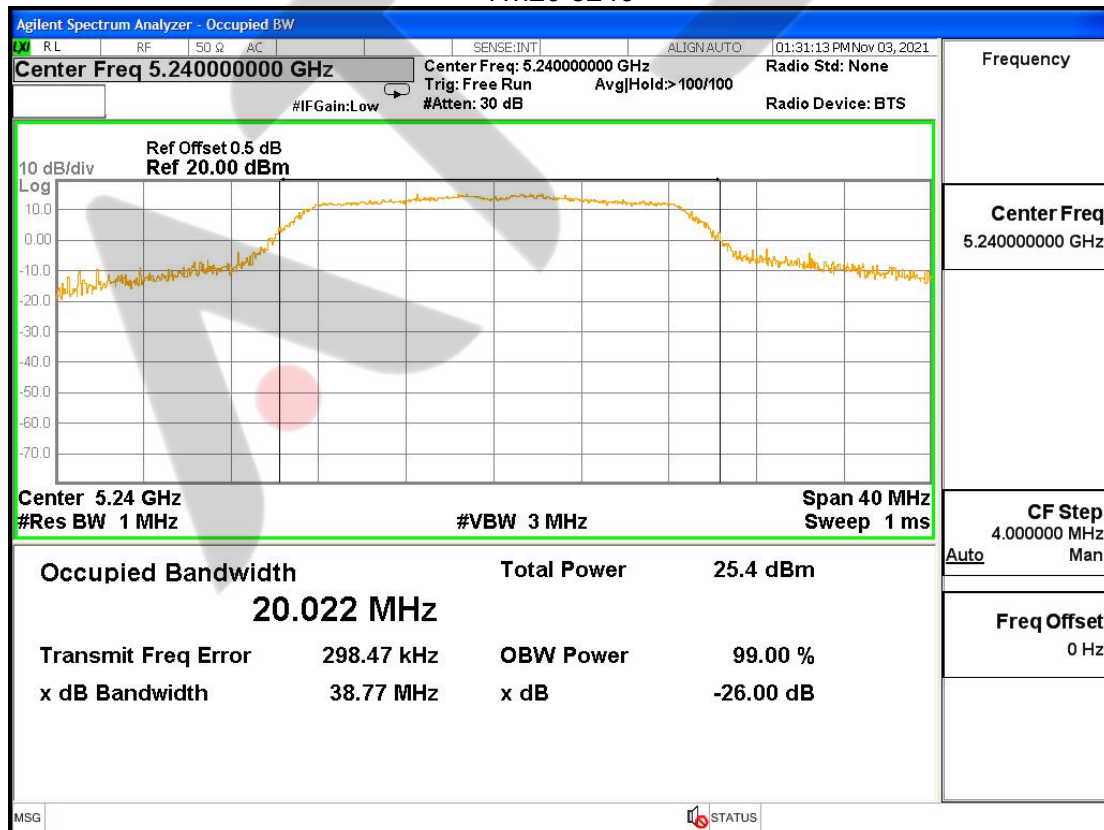
11n20 5180



11n20 5220



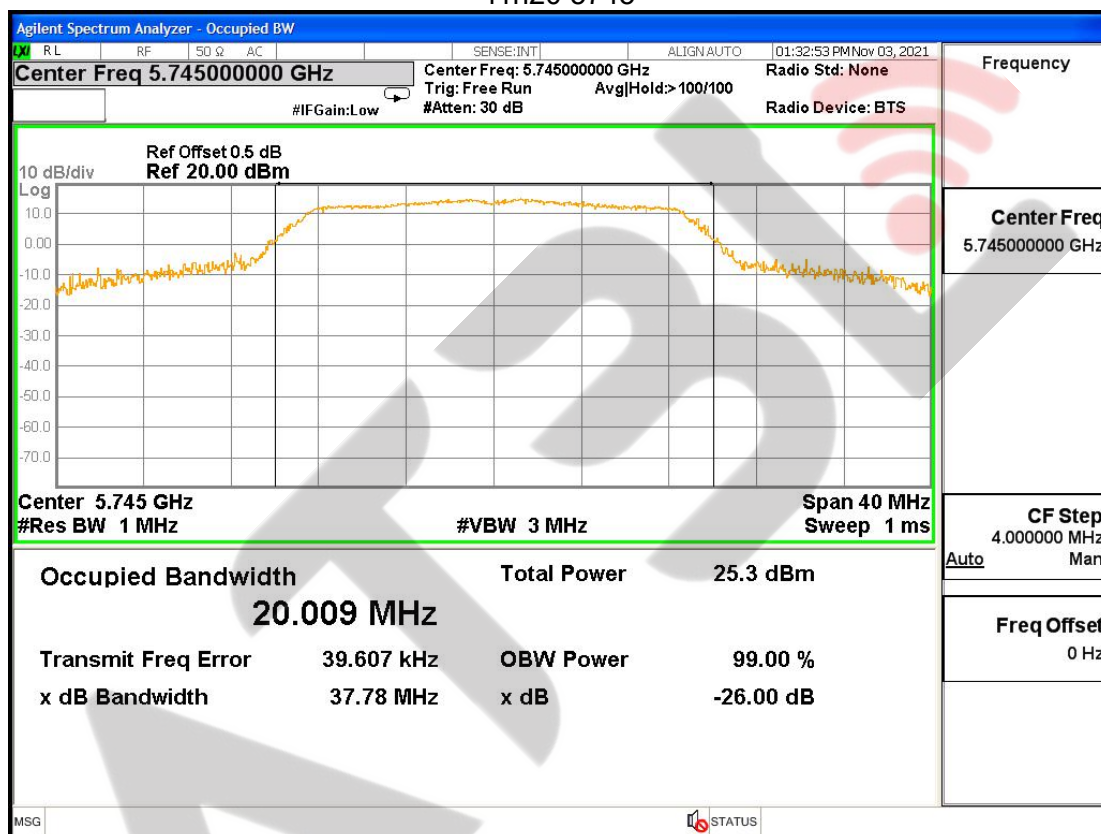
11n20 5240



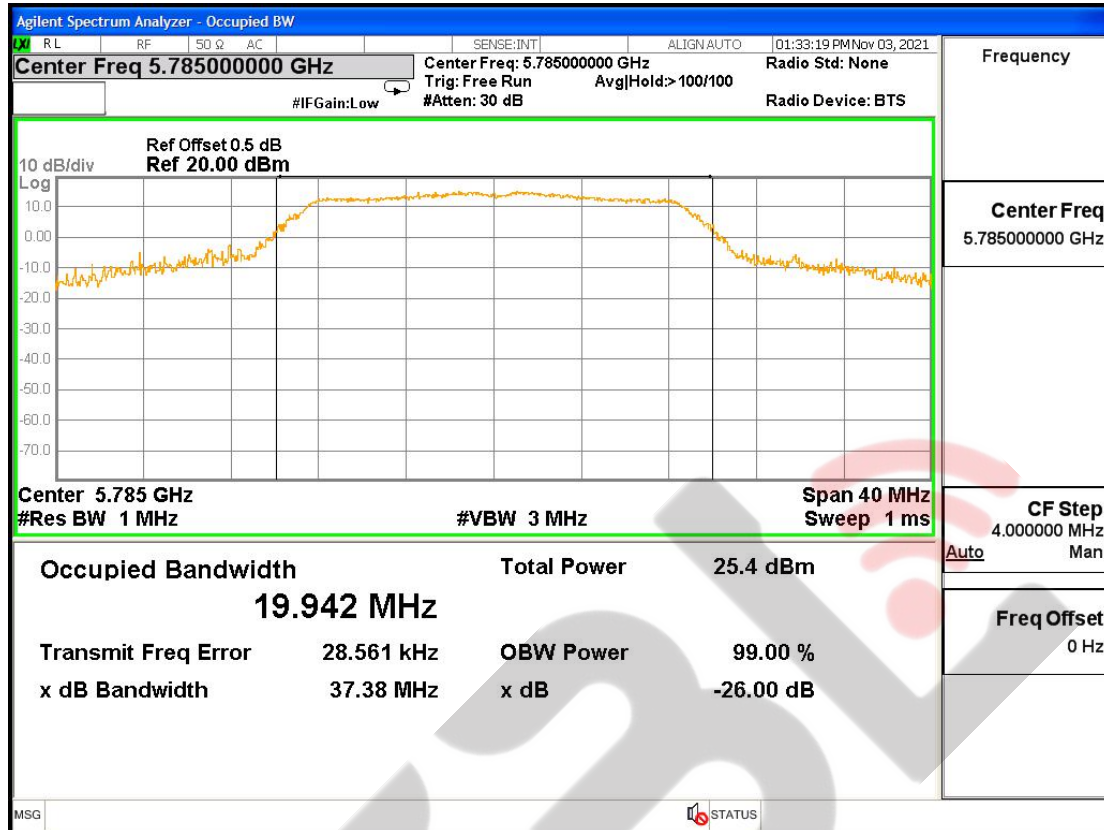
Mode 11n20 For U-NII-3(5725~5850MHz), MCS0

CH.	Freq. (MHz)	26dB Bandwidth (MHz)	Results
149	5745	37.78	PASS
157	5785	37.38	PASS
165	5825	35.48	PASS

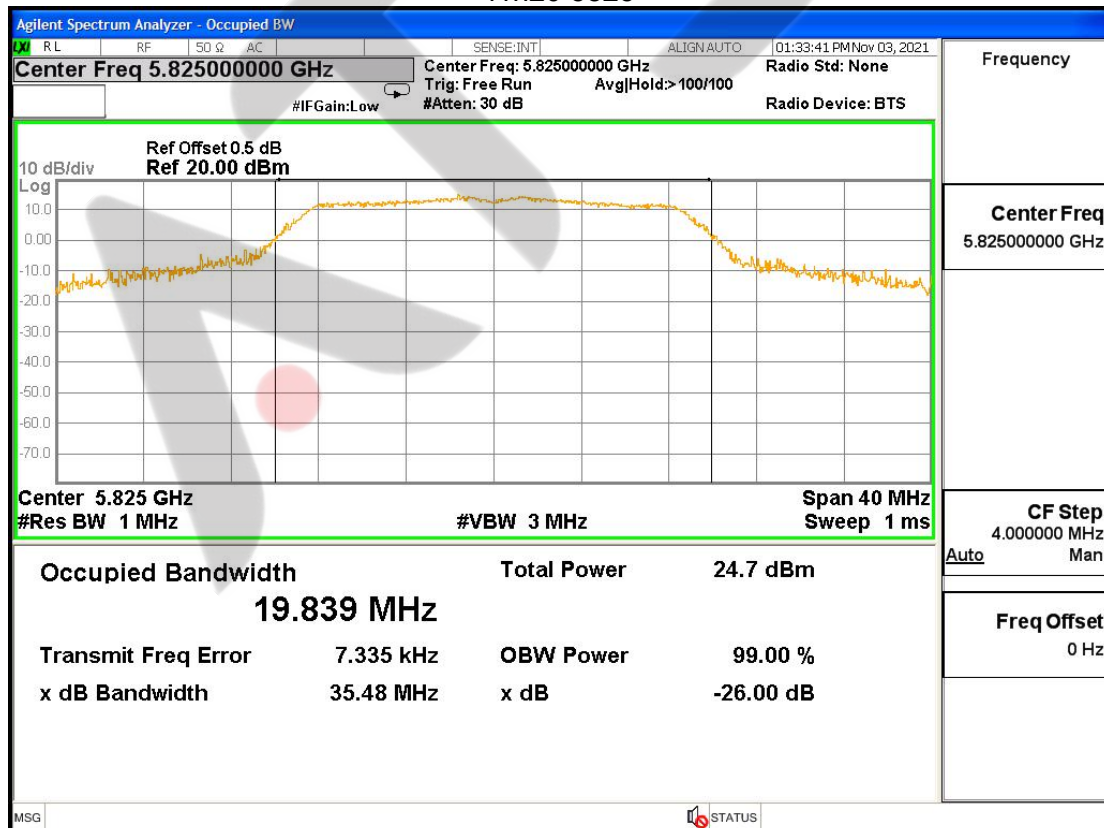
11n20 5745



11n20 5785



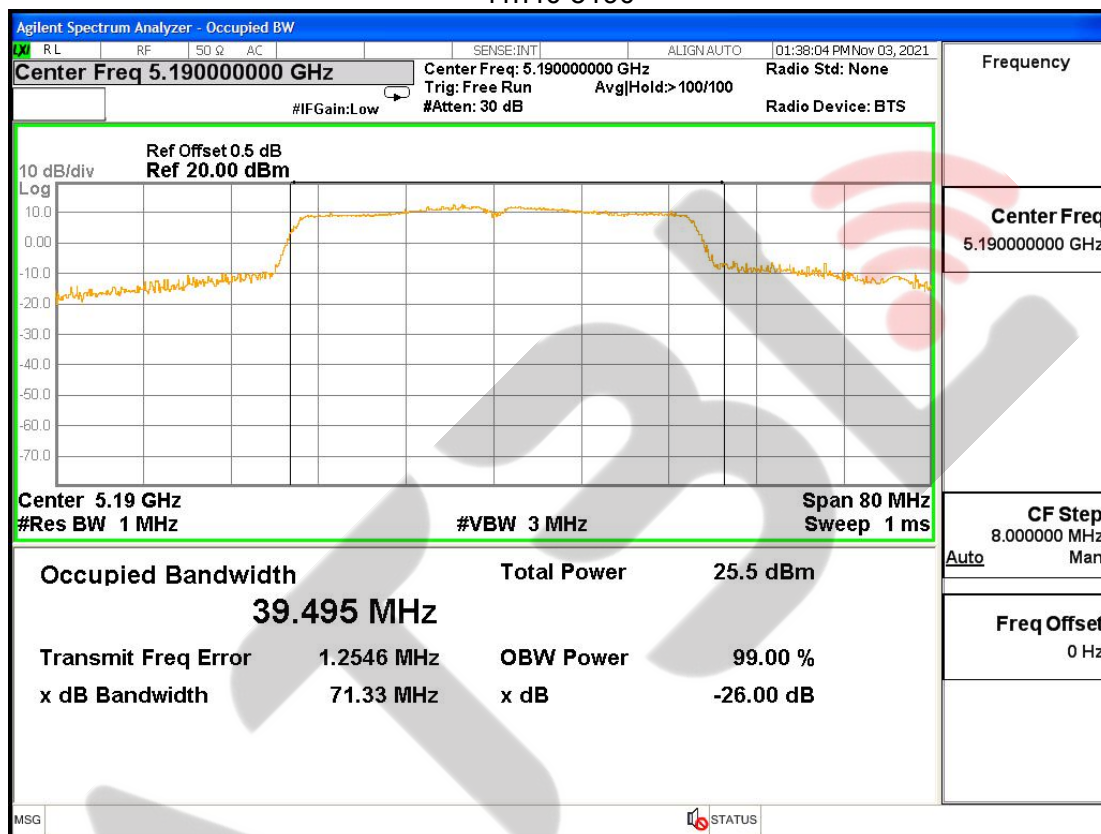
11n20 5825



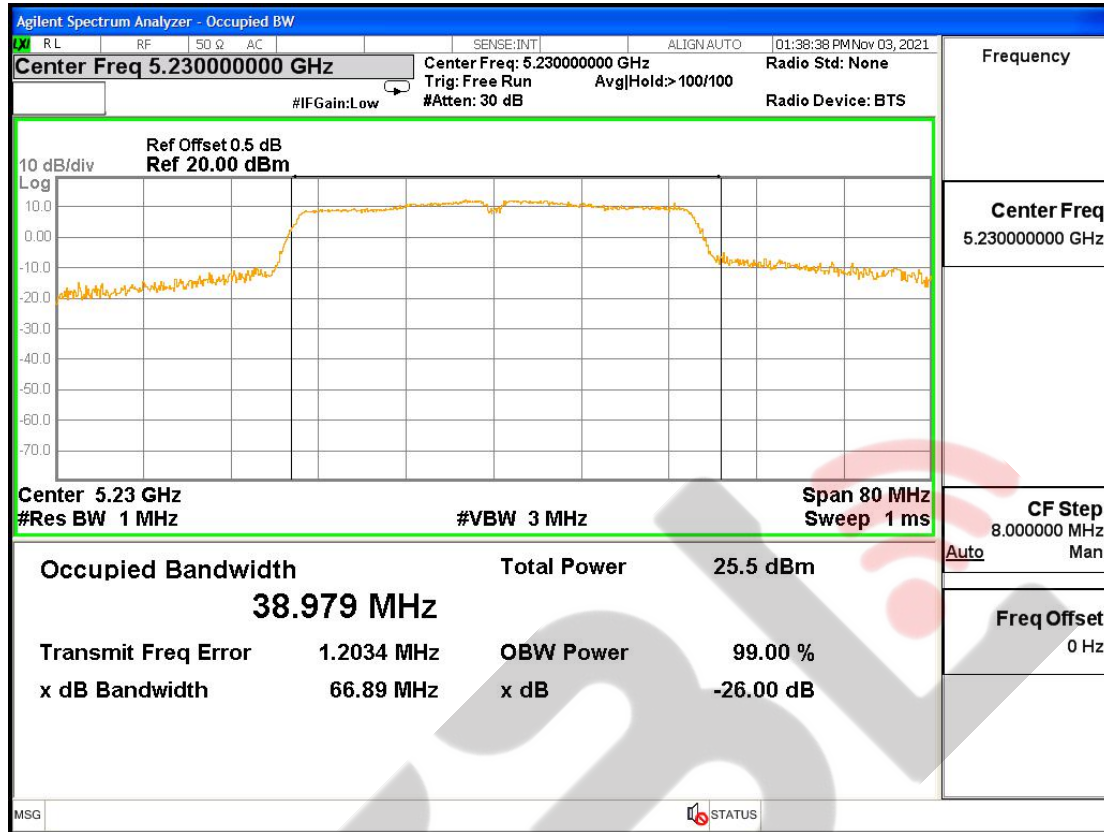
Mode 11n40 For U-NII-1(5150~5250MHz), MCS0

CH.	Freq. (MHz)	26dB Bandwidth (MHz)	Results
38	5190	71.33	PASS
46	5230	66.89	PASS

11n40 5190



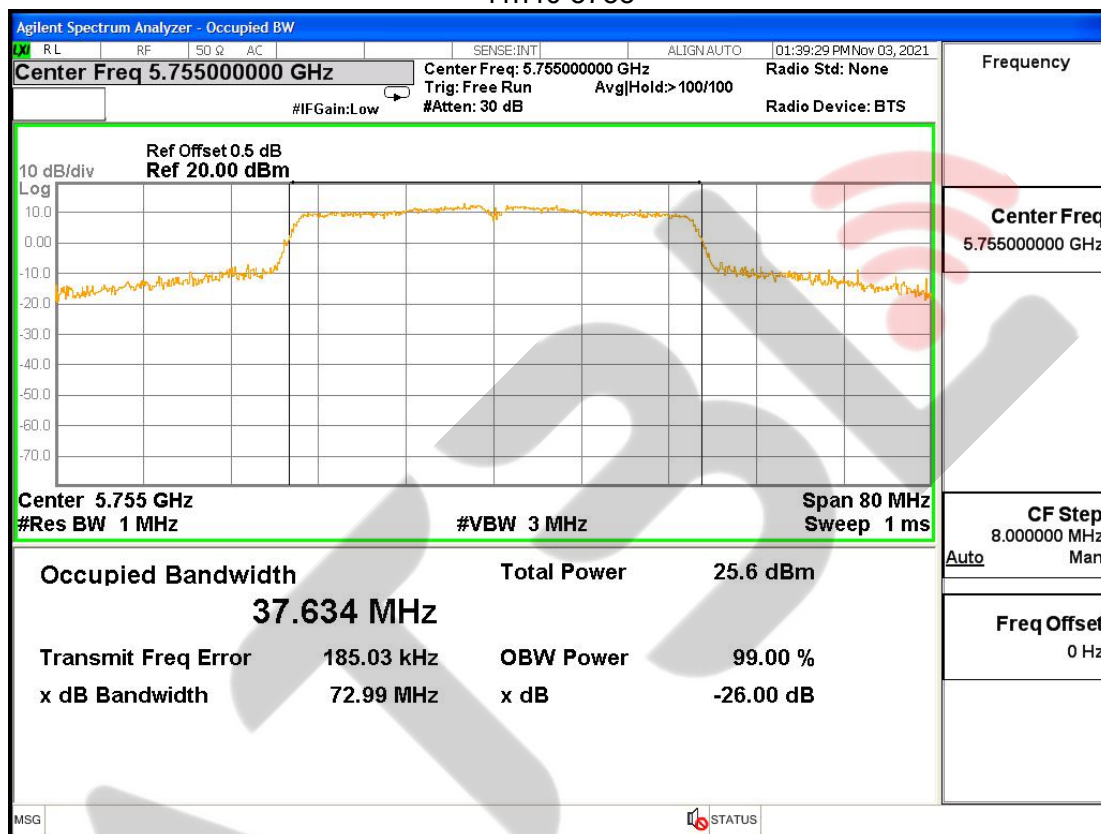
11n40 5230



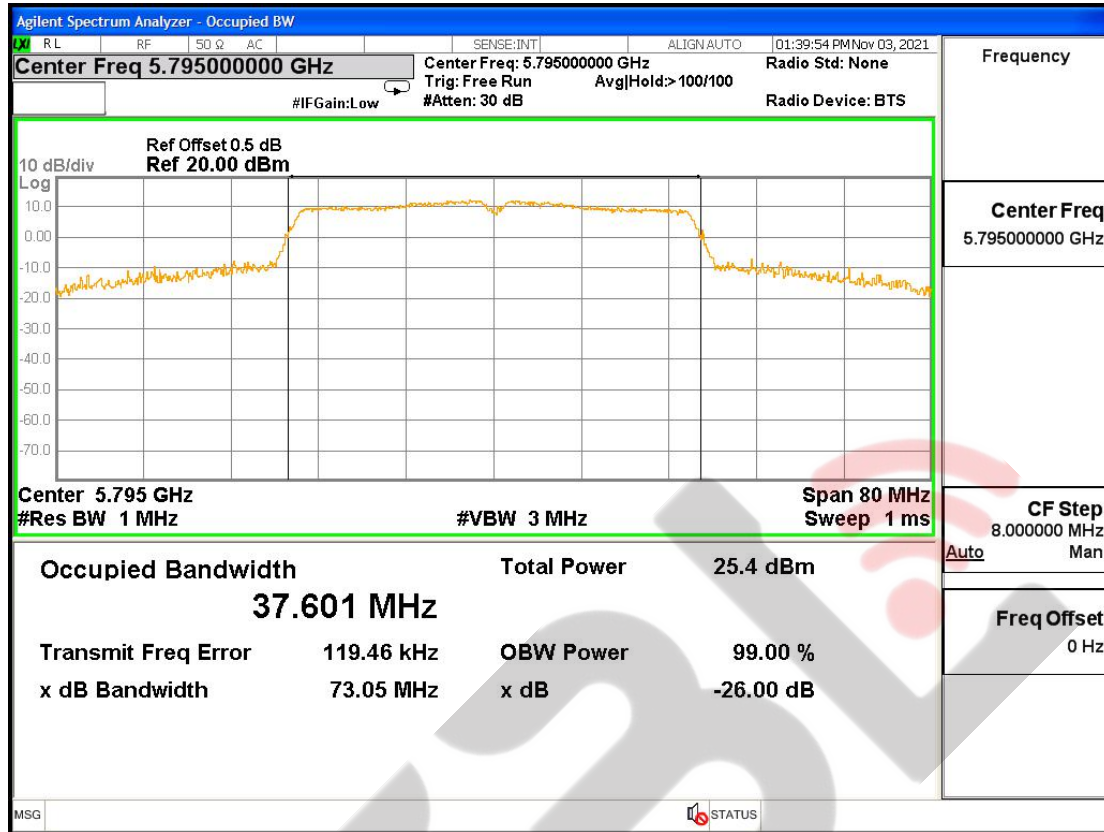
Mode 11n40 For U-NII-3(5725~5850MHz), MCS0

CH.	Freq. (MHz)	26dB Bandwidth (MHz)	Results
151	5755	72.99	PASS
159	5795	73.05	PASS

11n40 5755



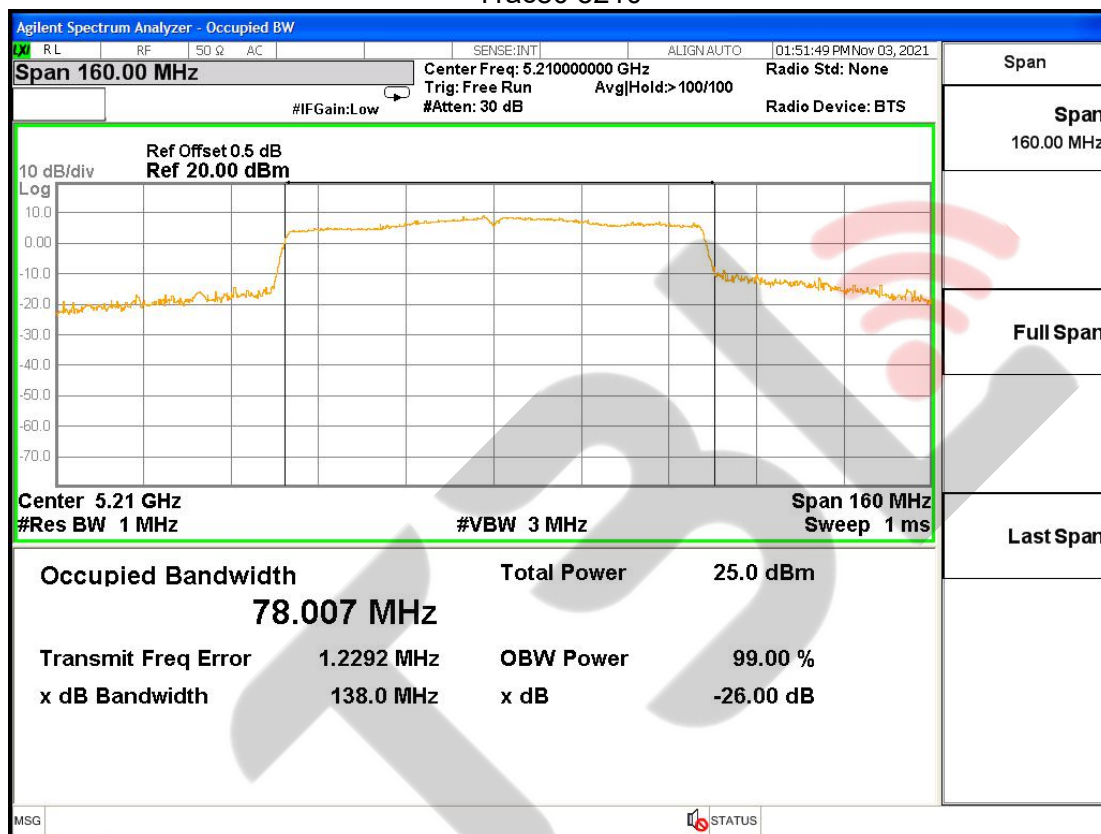
11n40 5795



Mode 11ac80 For U-NII-1(5150~5250MHz), MCS0

CH.	Freq. (MHz)	26dB Bandwidth (MHz)	Results
42	5210	138	PASS

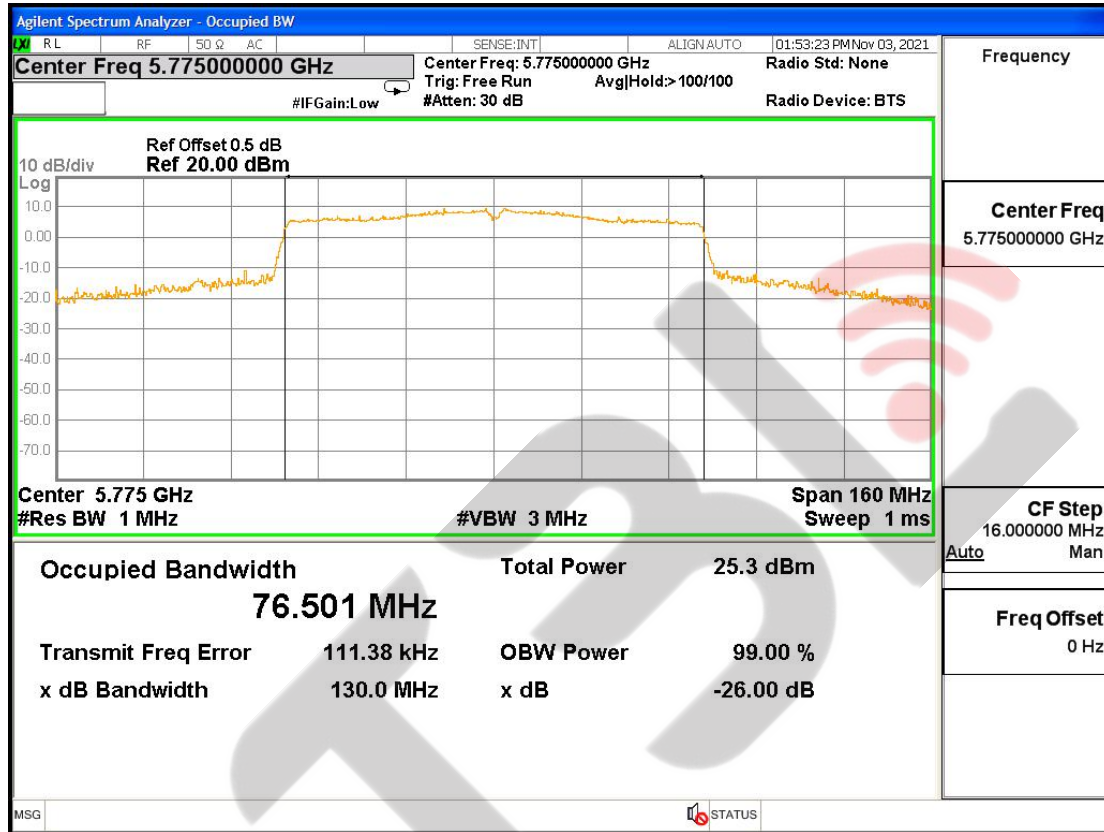
11ac80 5210



Mode 11ac80 For U-NII-3(5725~5850MHz), MCS0

CH.	Freq. (MHz)	26dB Bandwidth (MHz)	Results
155	5775	130	PASS

11ac80 5775



5.2 OCCUPIED BANDWIDTH (99%) TEST APPLIED PROCEDURES / LIMIT

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

5.2.1 TEST PROCEDURE

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures v02r01. The following procedure shall be used for measuring (99 %) power bandwidth:
 1. Set center frequency to the nominal EUT channel center frequency.
 2. Set span = 1.5 times to 5.0 times the OBW.
 3. Set RBW = 1 % to 5 % of the OBW
 4. Set VBW $\geq 3 \cdot$ RBW
 5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
 6. Use the 99 % power bandwidth function of the instrument (if available).
 7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

5.2.2 DEVIATION FROM STANDARD

No deviation.

5.2.3 TEST SETUP



5.2.4 EUT OPERATION CONDITIONS

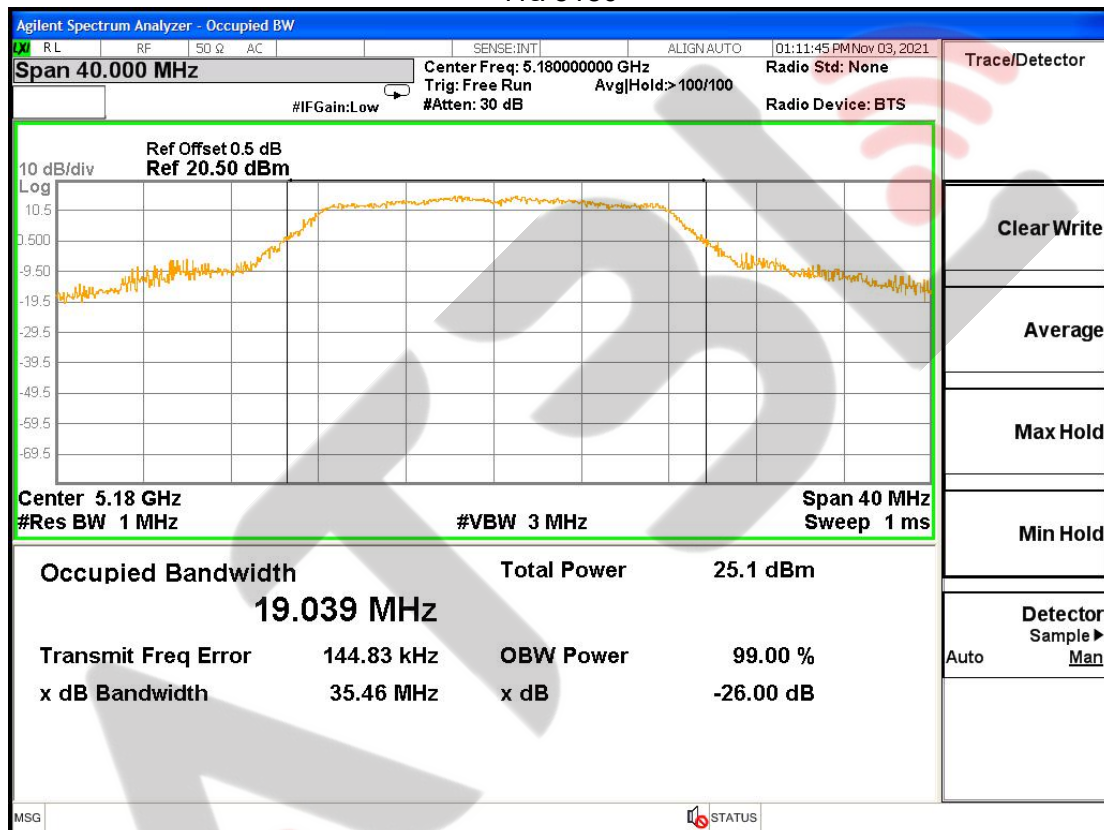
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.2.5 TEST RESULTS

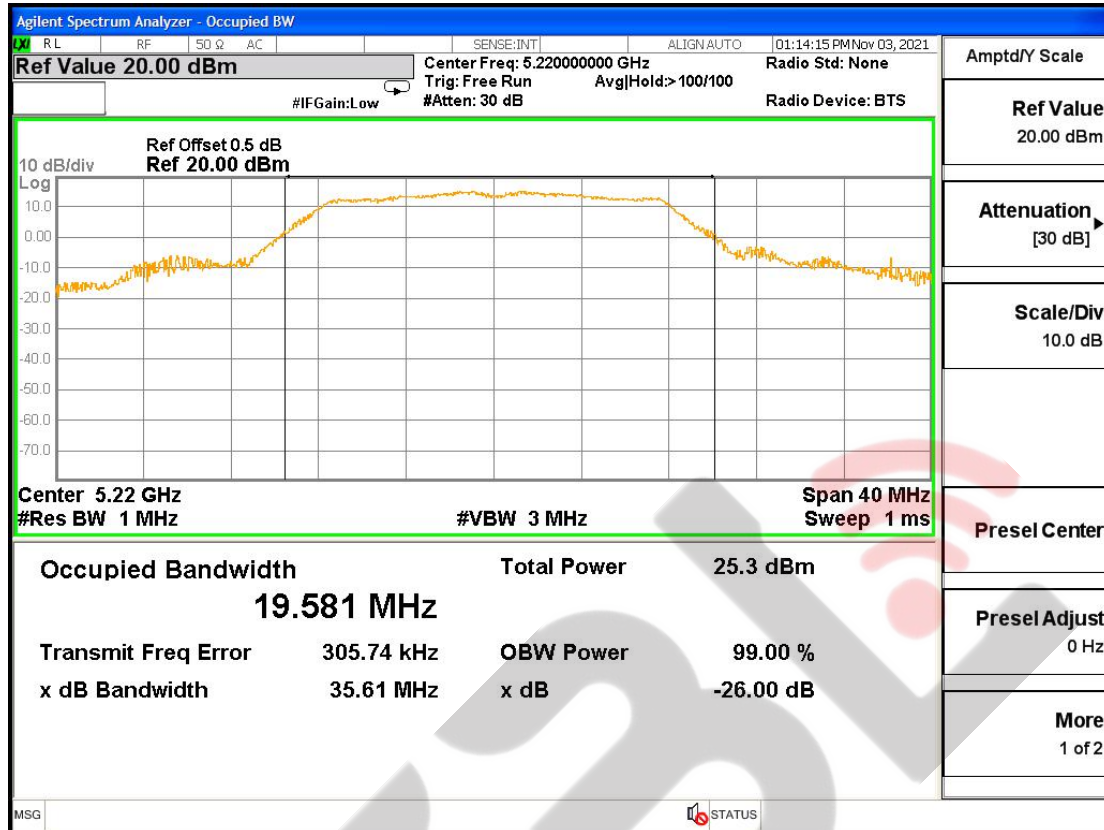
Mode 11a For U-NII-1(5150~5250MHz), 6Mbps

CH.	Freq. (MHz)	99% Bandwidth (MHz)	Results
36	5180	19.039	PASS
44	5220	19.581	PASS
48	5240	19.059	PASS

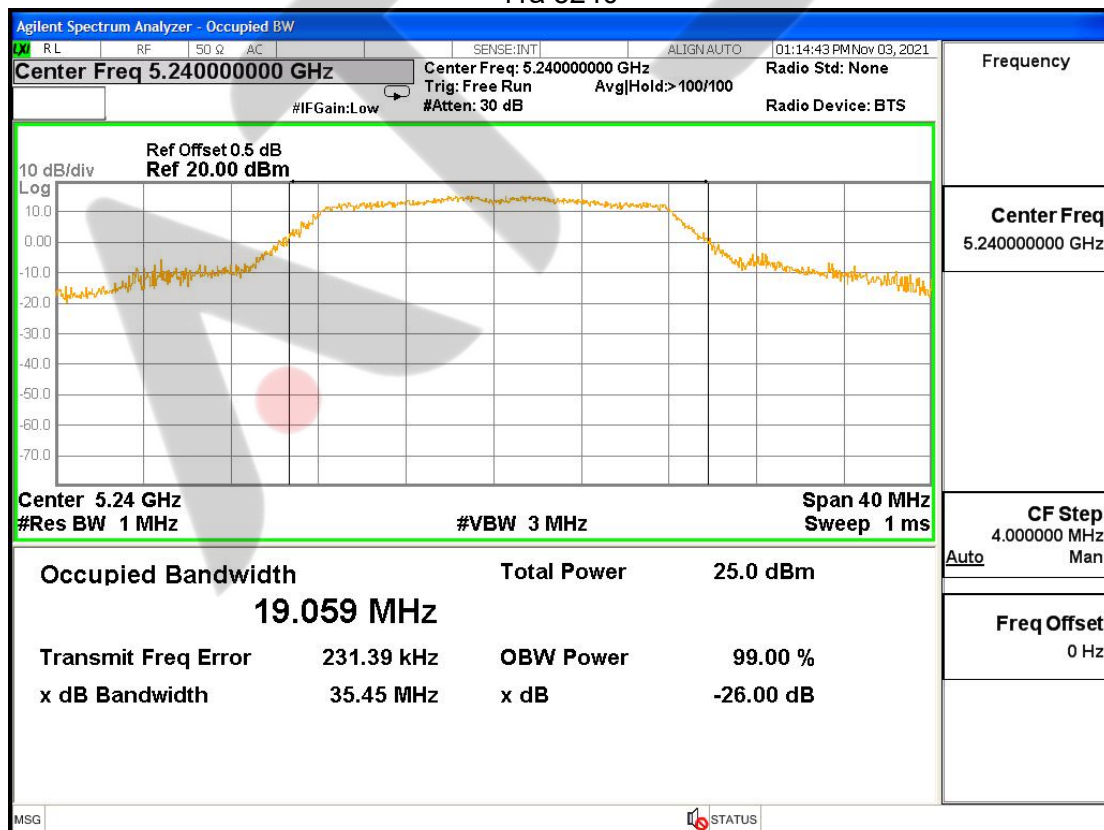
11a 5180



11a 5220



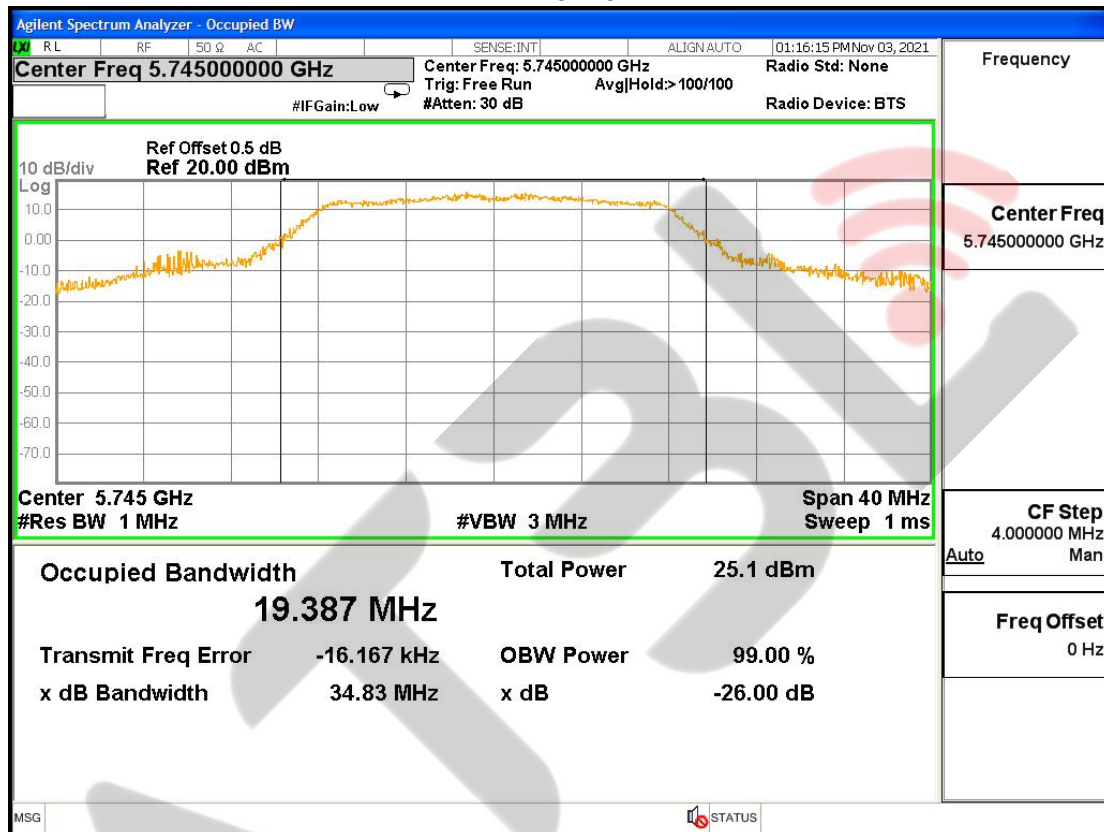
11a 5240



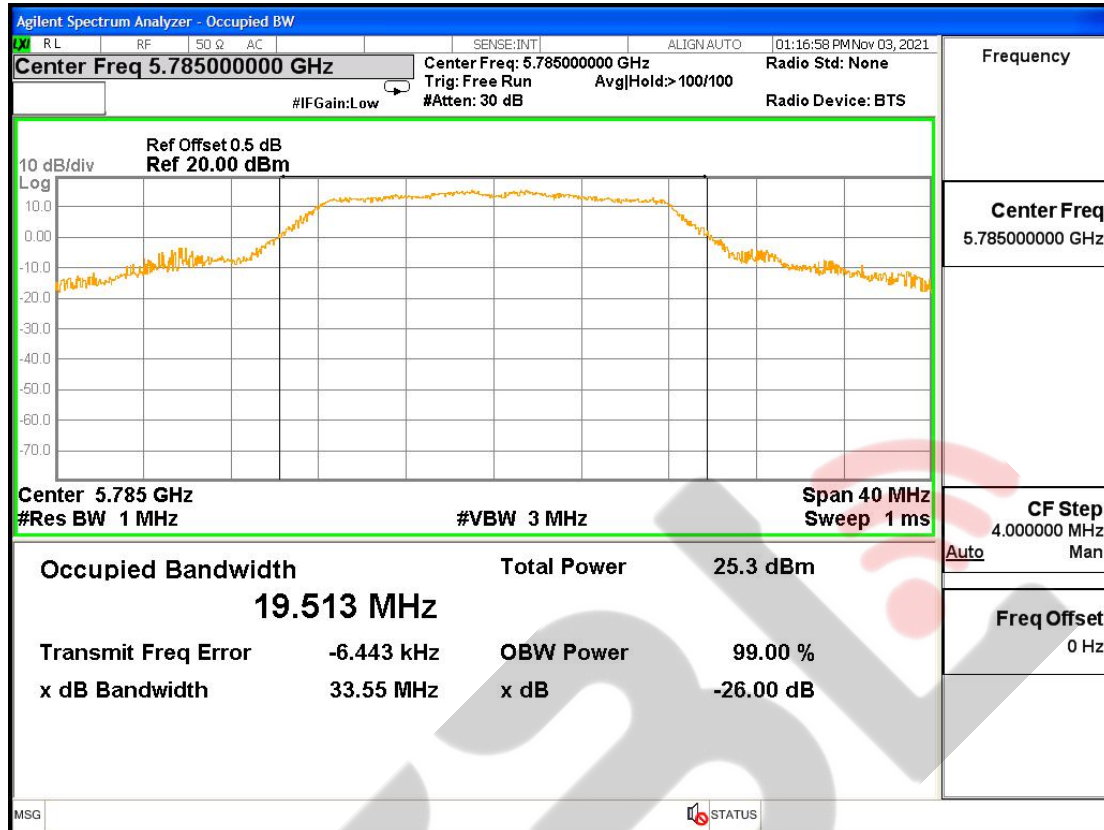
Mode 11a For U-NII-3(5725~5850MHz), 6Mbps

CH.	Freq. (MHz)	99% Bandwidth (MHz)	Results
149	5745	19.387	PASS
157	5785	19.513	PASS
165	5825	19.105	PASS

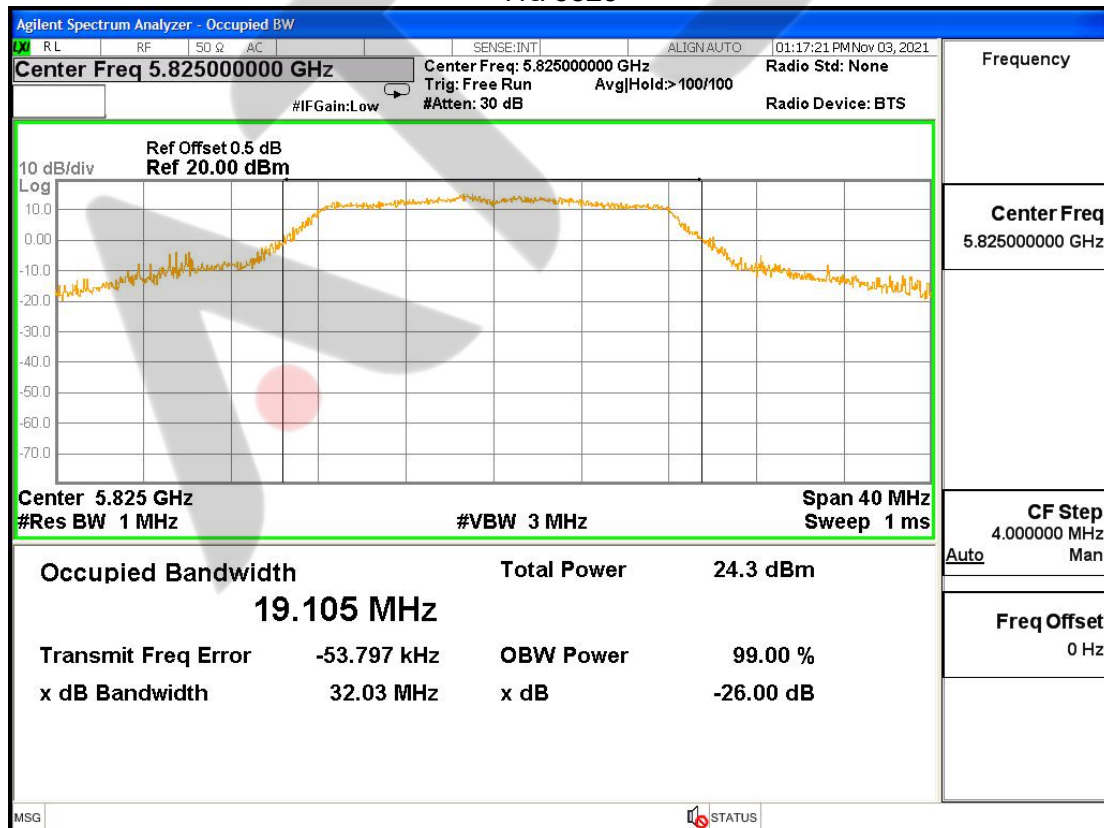
11a 5745



11a 5785



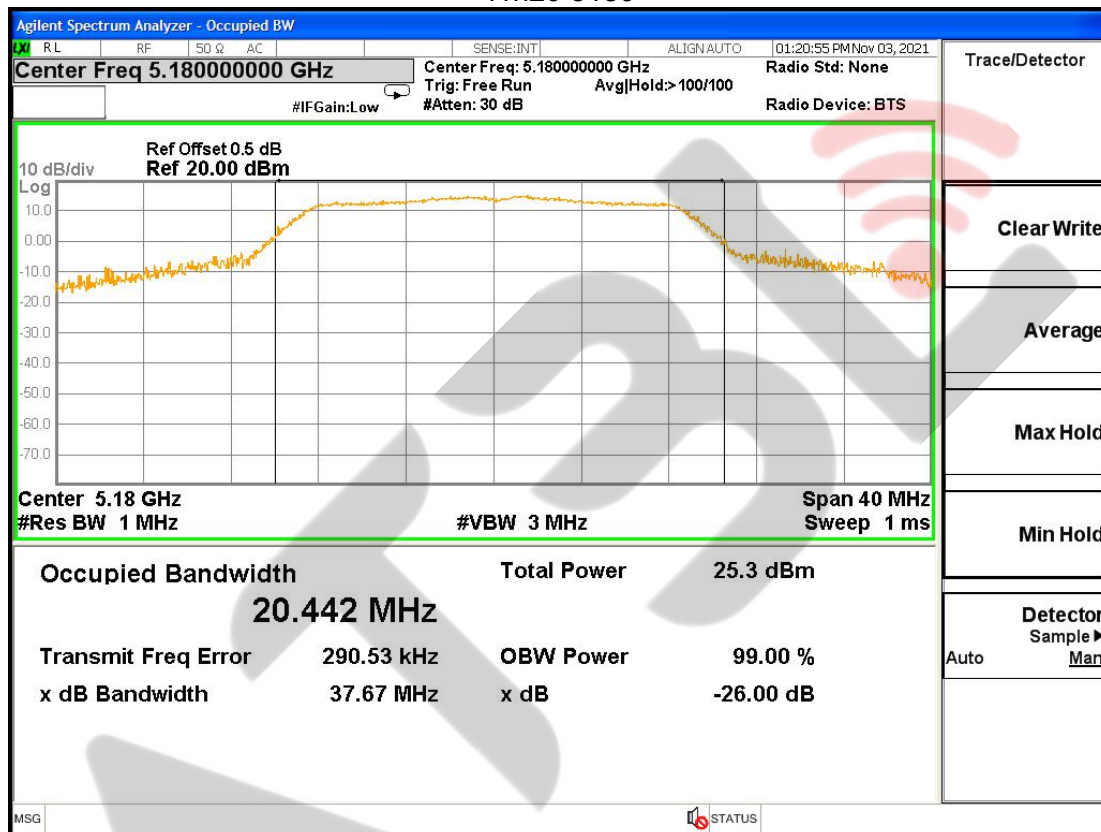
11a 5825



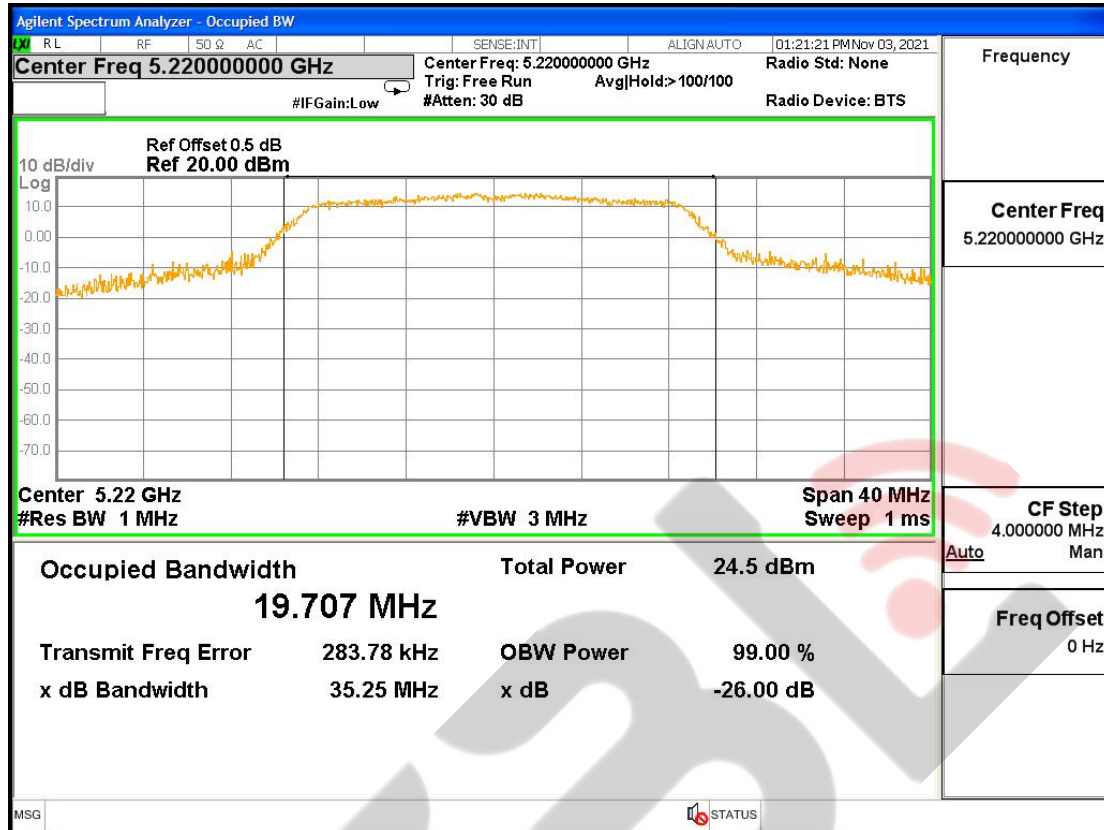
Mode 11n20 For U-NII-1(5150~5250MHz), MCS0

CH.	Freq. (MHz)	99% Bandwidth (MHz)	Results
36	5180	20.442	PASS
44	5220	19.707	PASS
48	5240	19.465	PASS

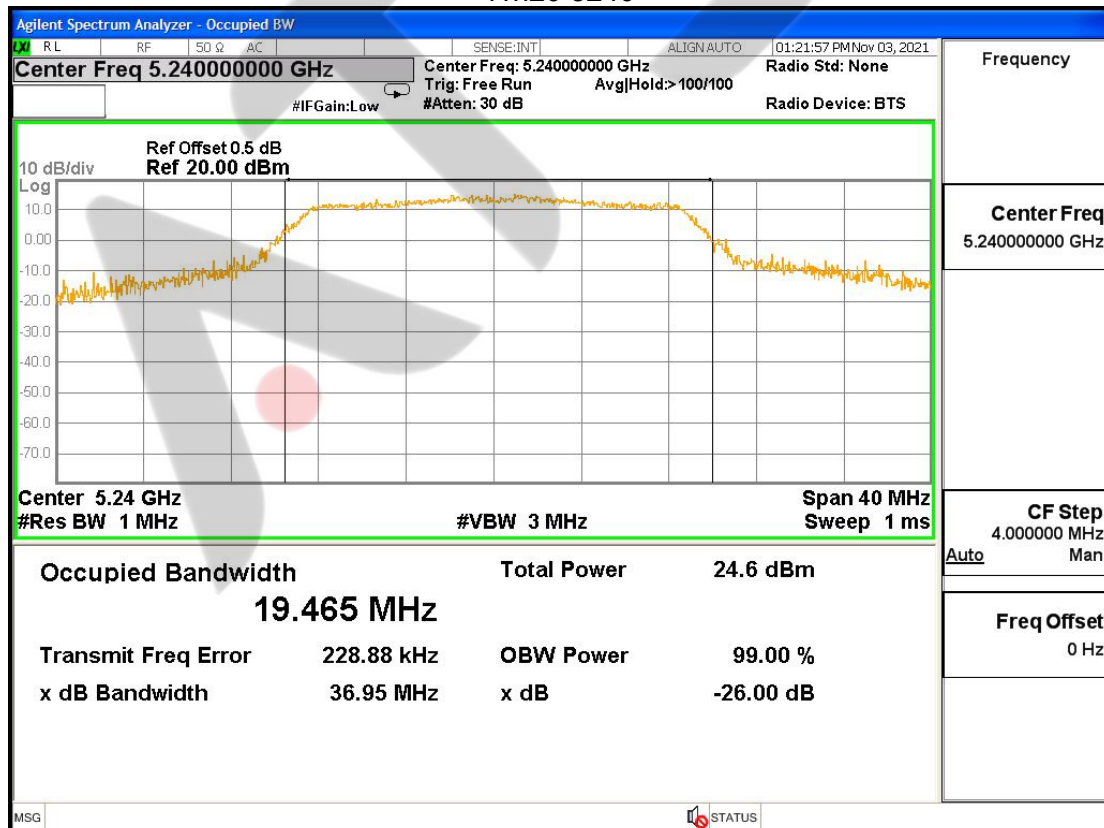
11n20 5180



11n20 5220



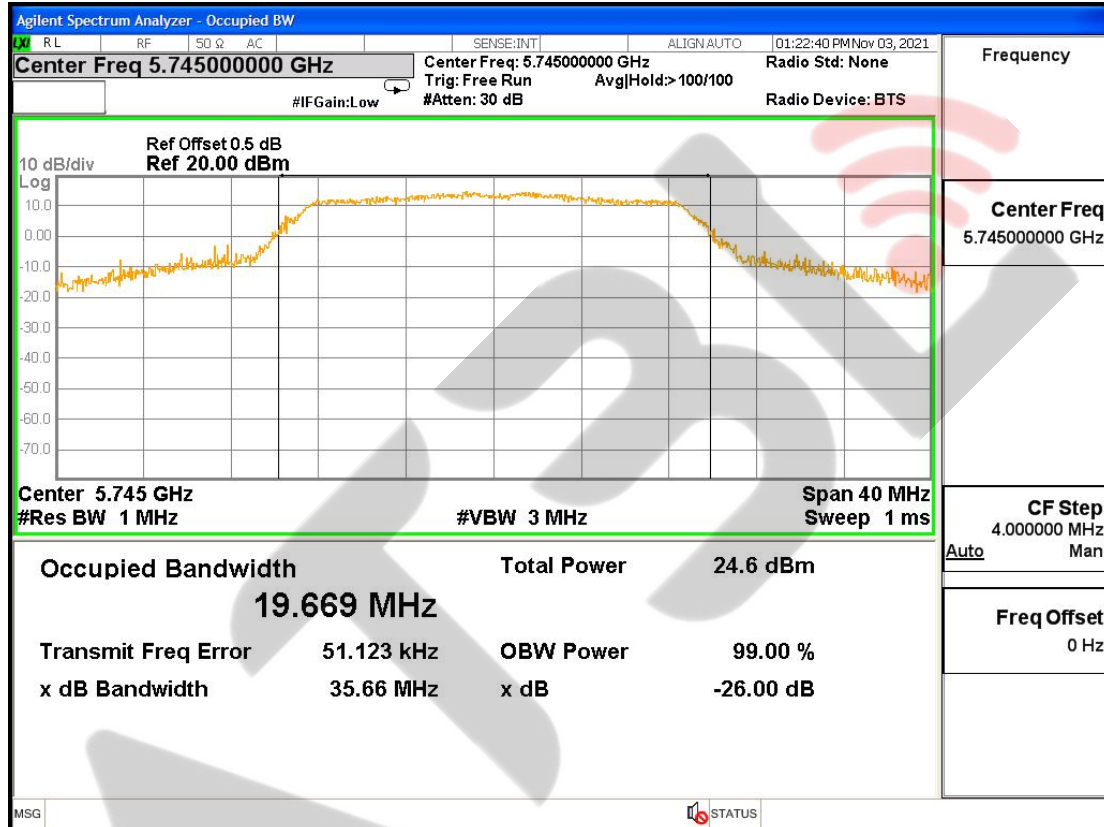
11n20 5240



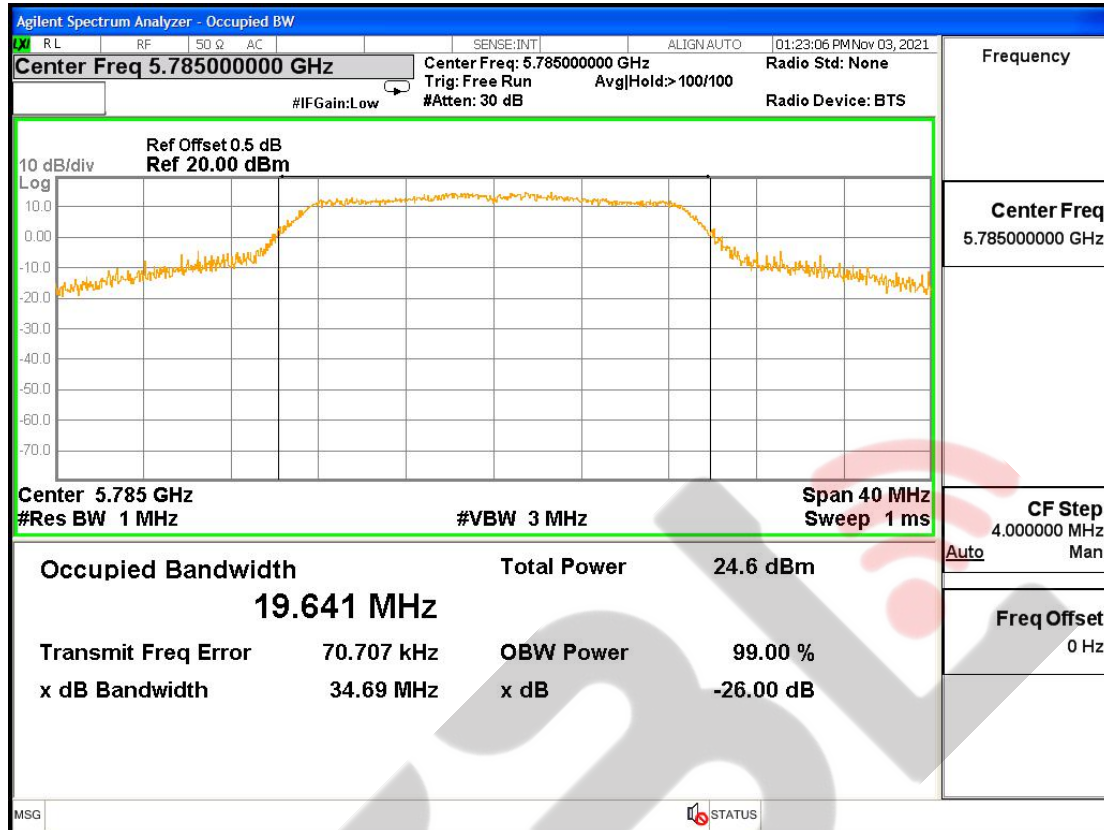
Mode 11n20 For U-NII-3(5725~5850MHz), MCS0

CH.	Freq. (MHz)	99% Bandwidth (MHz)	Results
149	5745	19.669	PASS
157	5785	19.641	PASS
165	5825	19.598	PASS

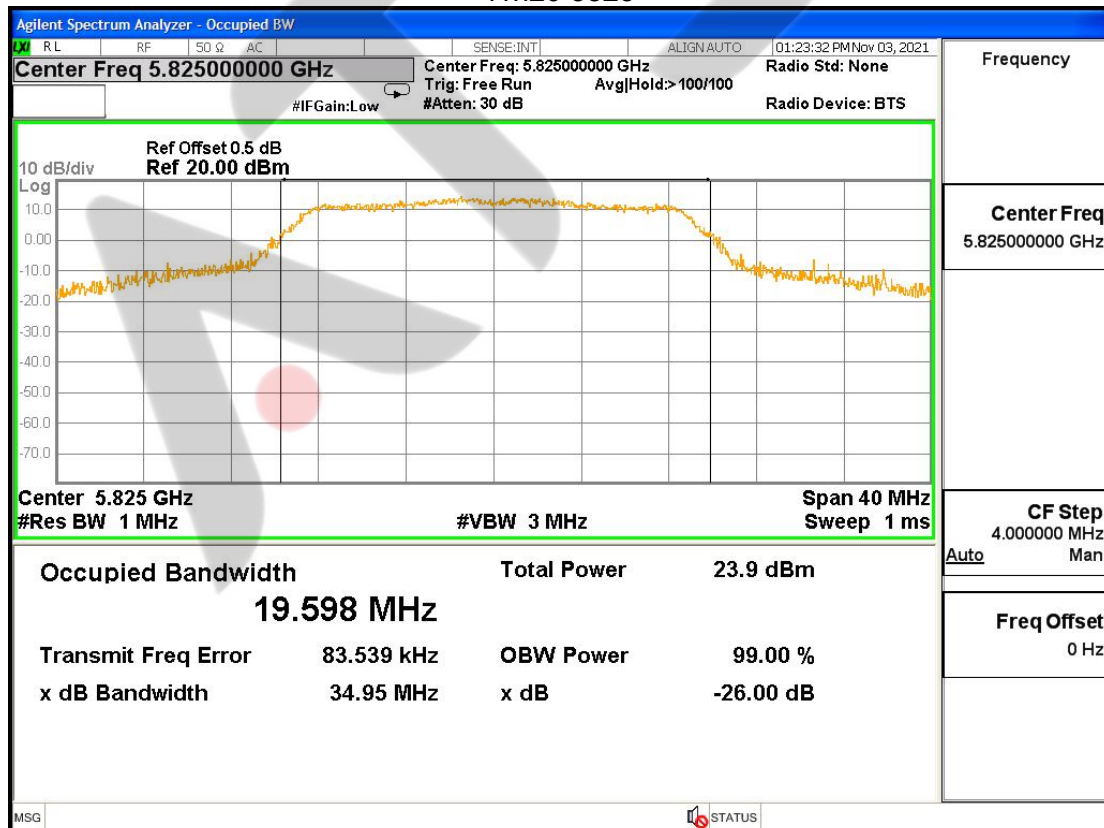
11n20 5745



11n20 5785



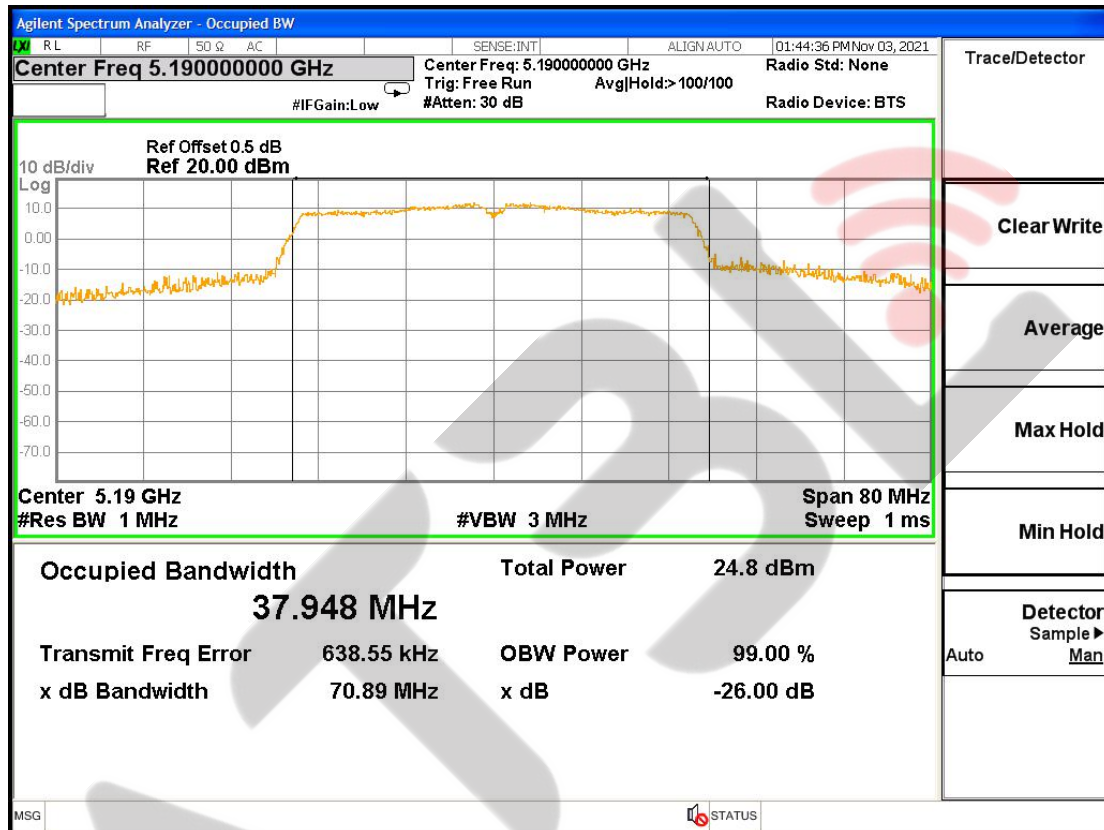
11n20 5825



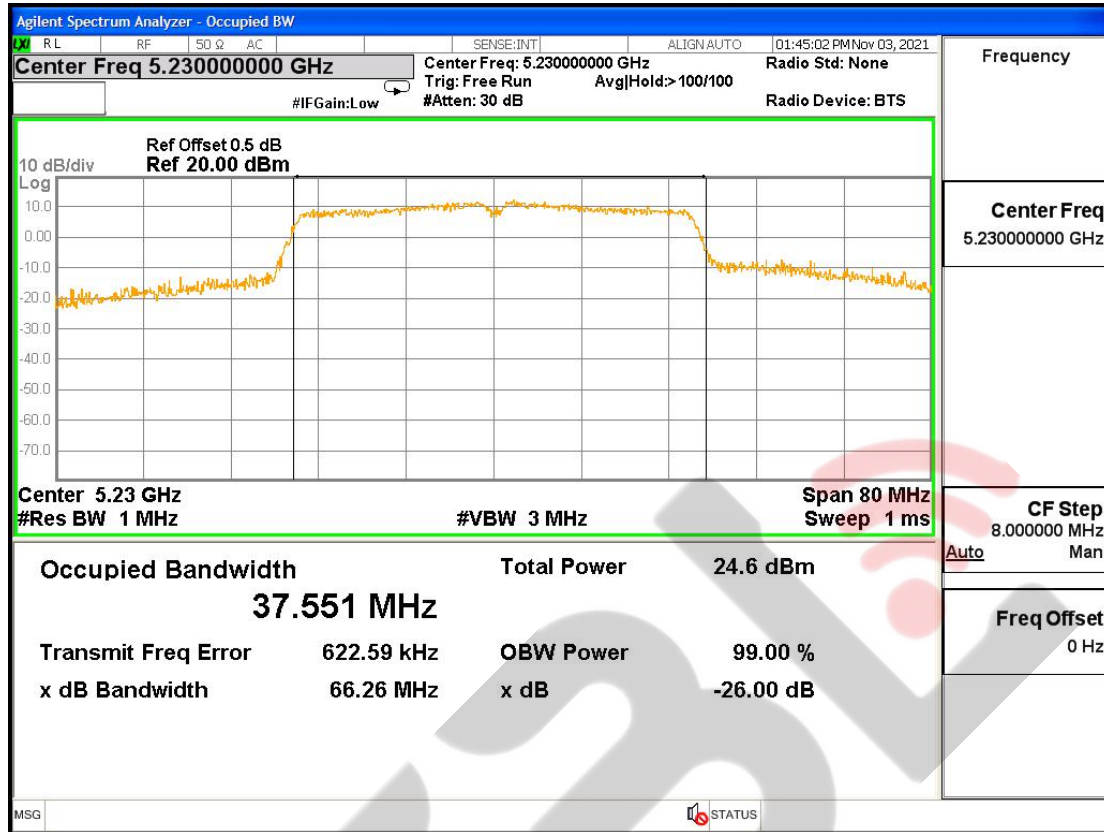
Mode 11n40 For U-NII-1(5150~5250MHz), MCS0

CH.	Freq. (MHz)	99% Bandwidth (MHz)	Results
38	5190	37.948	PASS
46	5230	37.551	PASS

11n40 5190



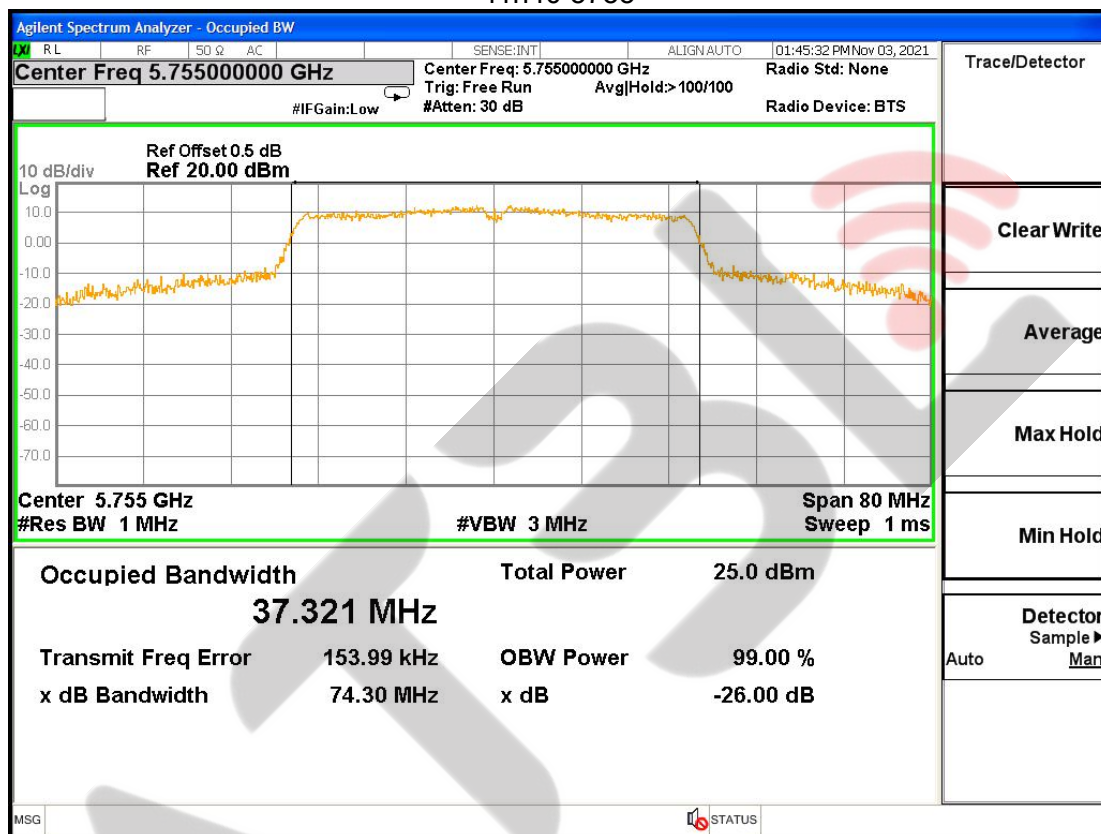
11n40 5230



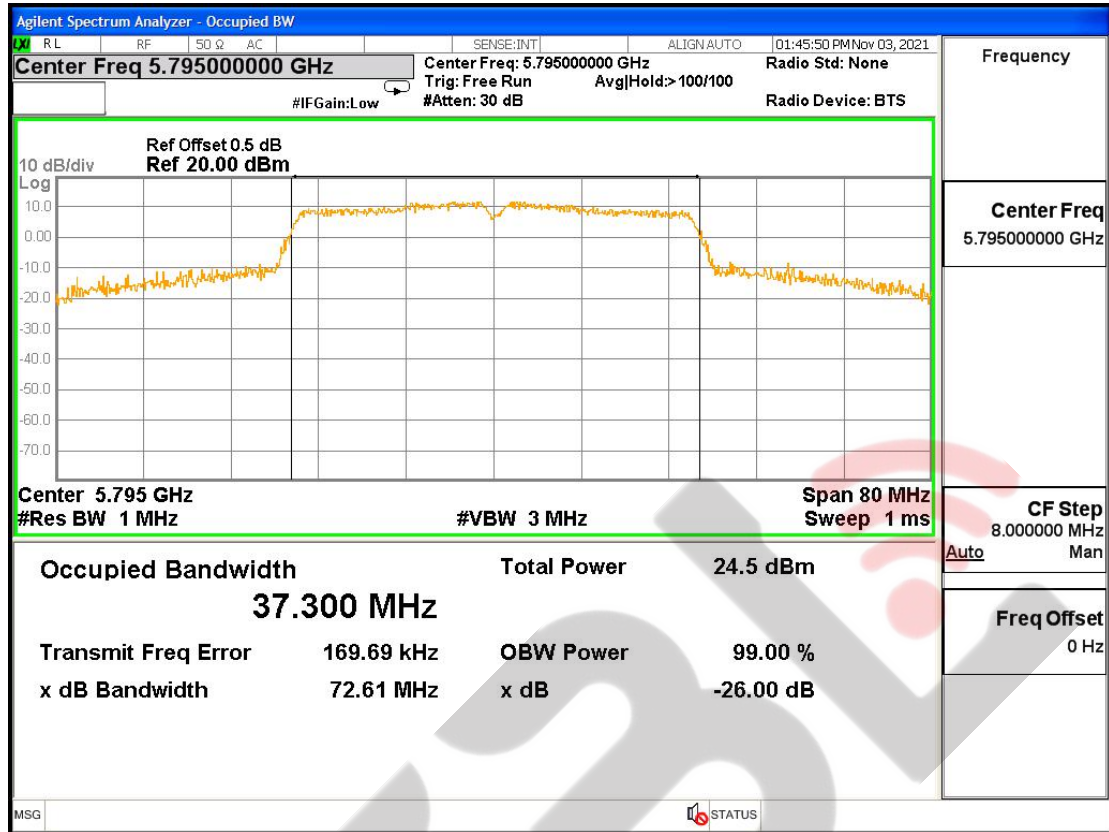
Mode 11n40 For U-NII-3(5725~5850MHz), MCS0

CH.	Freq. (MHz)	99% Bandwidth (MHz)	Results
151	5755	37.321	PASS
159	5795	37.300	PASS

11n40 5755



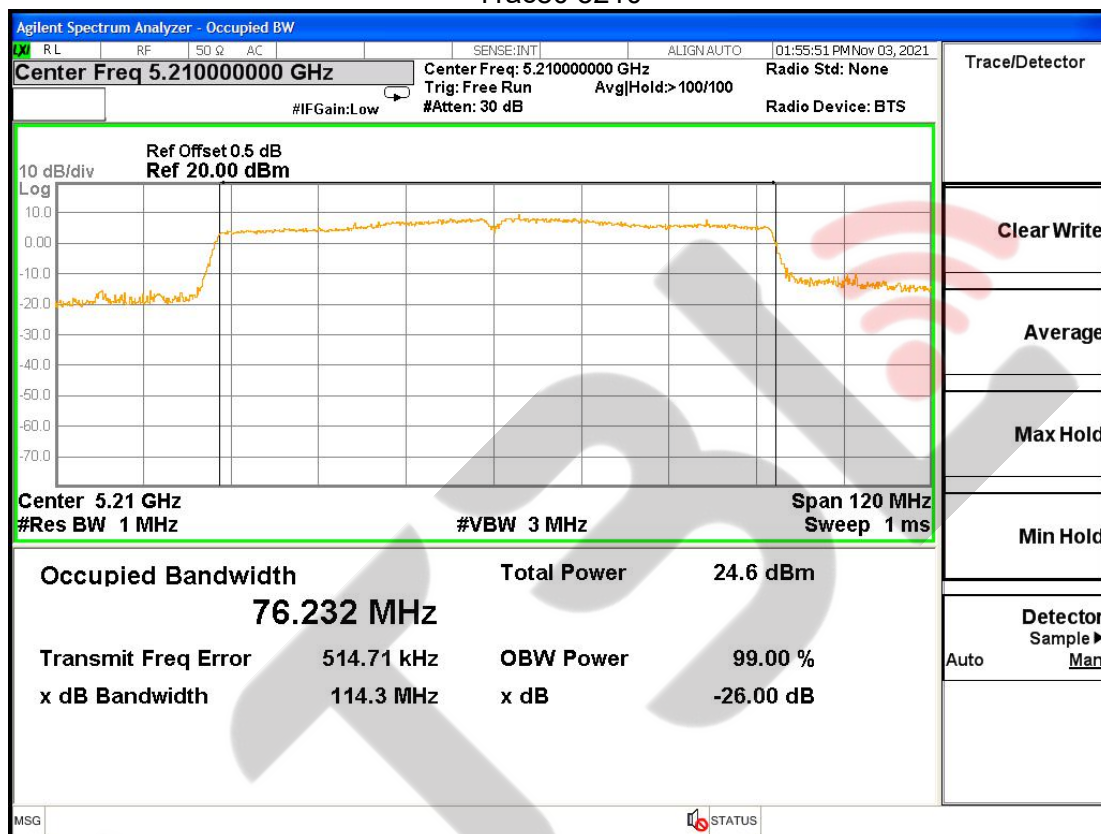
11n40 5795



Mode 11ac80 For U-NII-1(5150~5250MHz), MCS0

CH.	Freq. (MHz)	99% Bandwidth (MHz)	Results
42	5210	76.232	PASS

11ac80 5210



Mode 11ac80 For U-NII-3(5725~5850MHz), MCS0

CH.	Freq. (MHz)	99% Bandwidth (MHz)	Results
155	5775	75.879	PASS

11ac80 5775

Agilent Spectrum Analyzer - Occupied BW

RL

RF

50 Ω

AC

SENSE:INT

ALIGN: AUTO

01:54:31 PM Nov 03, 2021

Span 120.00 MHz

Center Freq: 5.775000000 GHz

Trig: Free Run

Avg/Hold: >100/100

Radio Std: None

#IFGain: Low

#Atten: 30 dB

Radio Device: BTS

Trace/Detector

Clear Write

Average

Max Hold

Min Hold

Detector Sample ▶

Auto Man

10 dB/div

Ref Offset 0.5 dB

Ref 20.00 dBm

Log

10.0

0.00

-10.0

-20.0

-30.0

-40.0

-50.0

-60.0

-70.0

Center 5.775 GHz

#Res BW 1 MHz

#VBW 3 MHz

Span 120 MHz

Sweep 1 ms

Occupied Bandwidth

75.879 MHz

Total Power

24.4 dBm

Transmit Freq Error

140.35 kHz

OBW Power

99.00 %

x dB Bandwidth

117.6 MHz

x dB

-26.00 dB

MSG

STATUS

5.3 MINIMUM EMISSION BANDWIDTH(6 DB) PROCEDURES / LIMIT

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.725-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

5.3.1 TEST PROCEDURE

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures v02r01.
 - a) Set RBW = 100 kHz.
 - b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
 - c) Detector = Peak.
 - d) Trace mode = max hold.
 - e) Sweep = auto couple.
 - f) Allow the trace to stabilize.
 - g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

5.3.2 DEVIATION FROM STANDARD

No deviation.

5.3.3 TEST SETUP



5.3.4 EUT OPERATION CONDITIONS

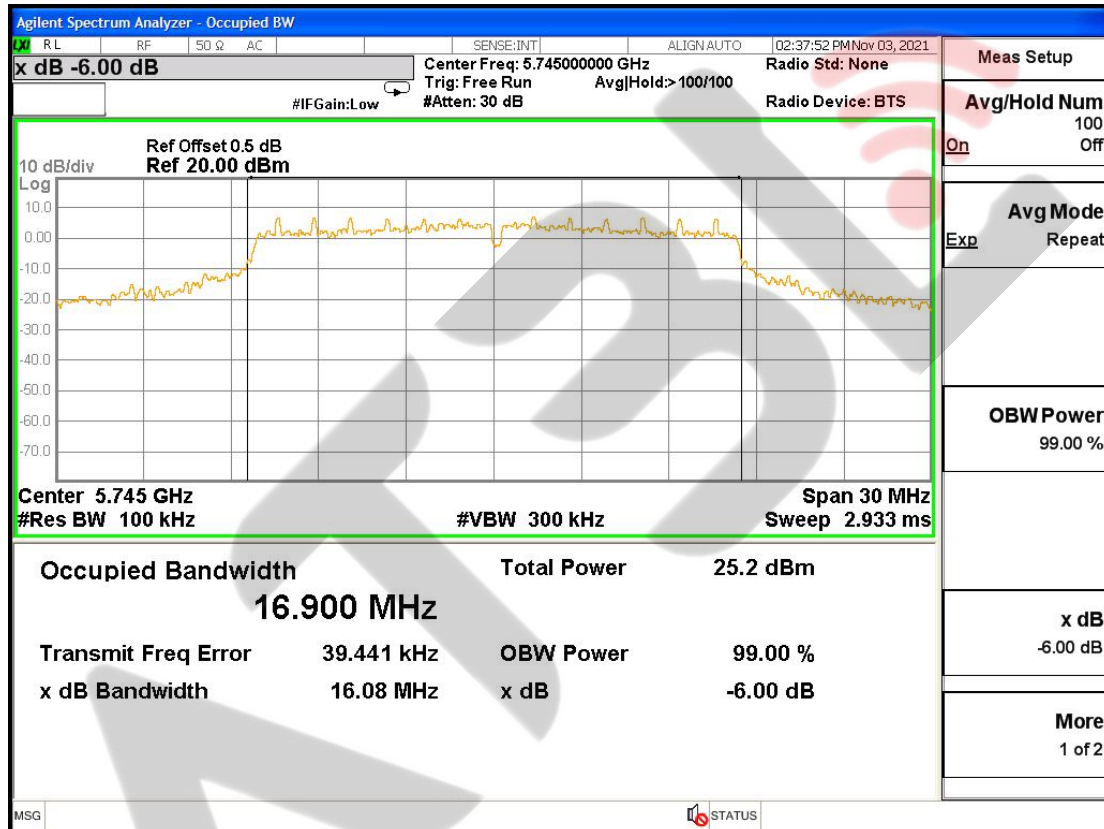
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.3.5 TESTRESULTS

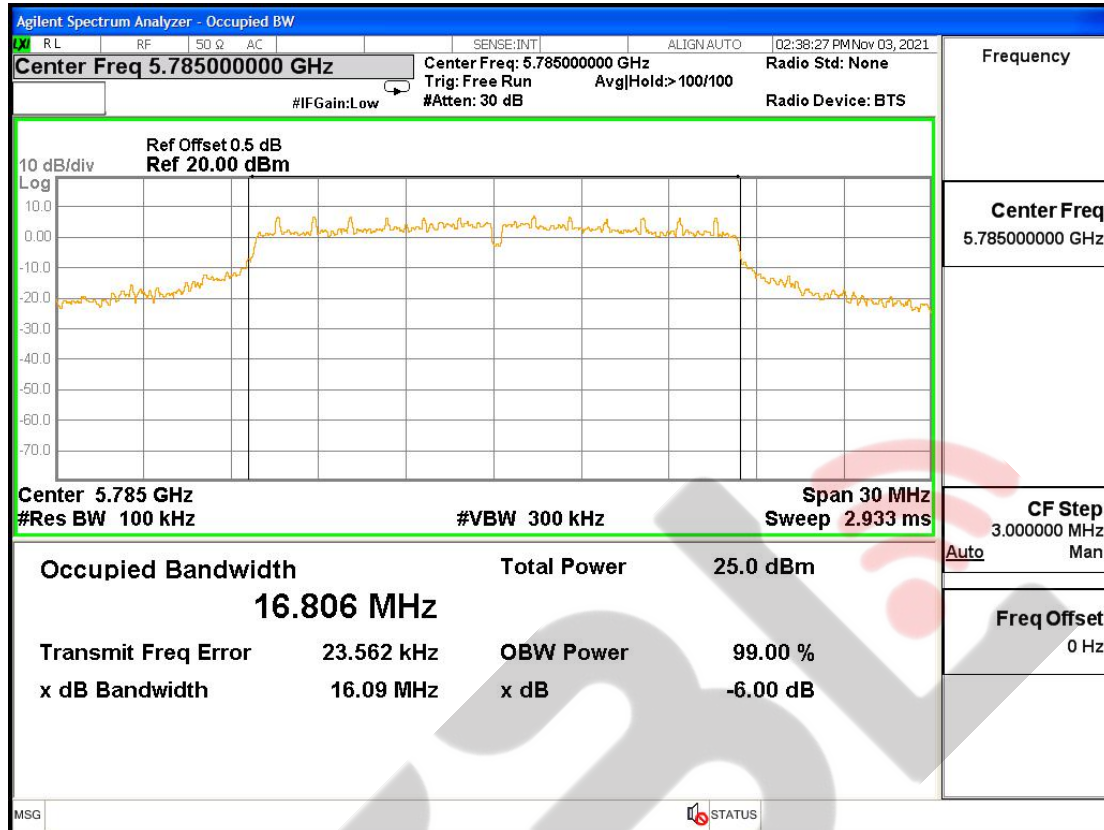
Mode 11a For U-NII-3(5725~5850MHz), 6Mbps

CH.	Freq. (MHz)	6dB Bandwidth (MHz)	Results
149	5745	16.08	PASS
157	5785	16.09	PASS
165	5825	16.09	PASS

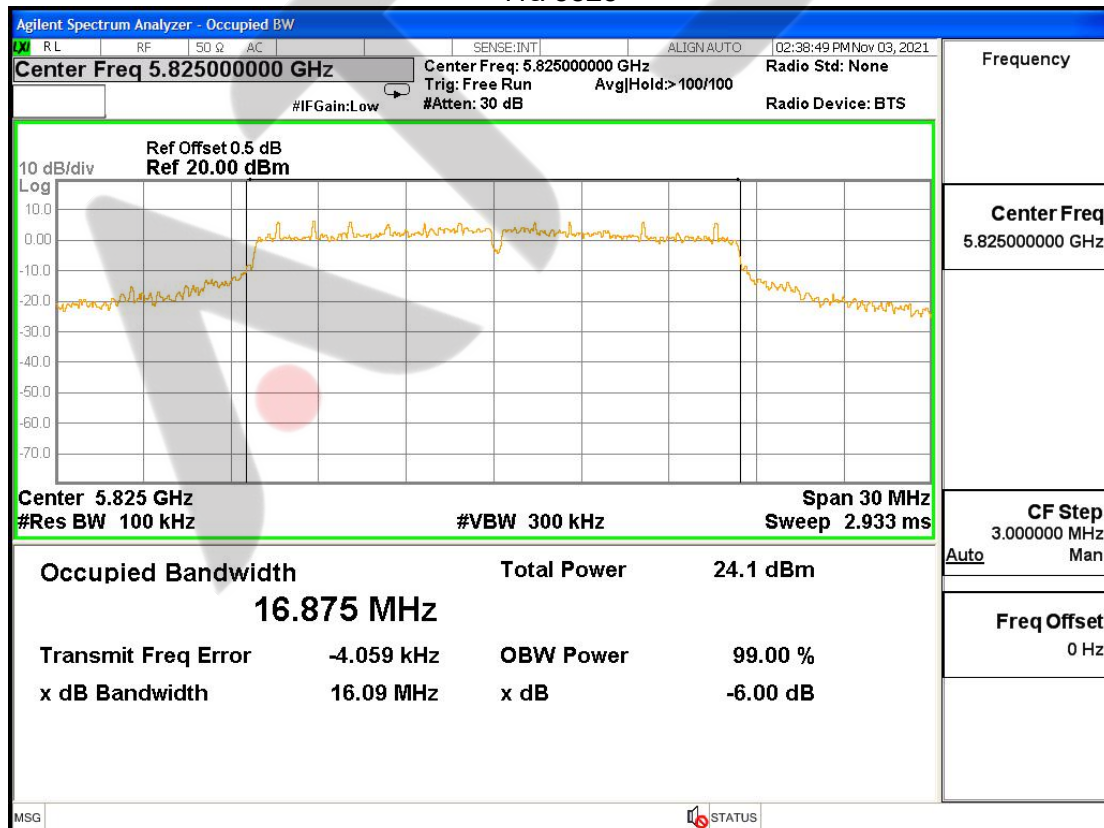
11a 5745



11a 5785



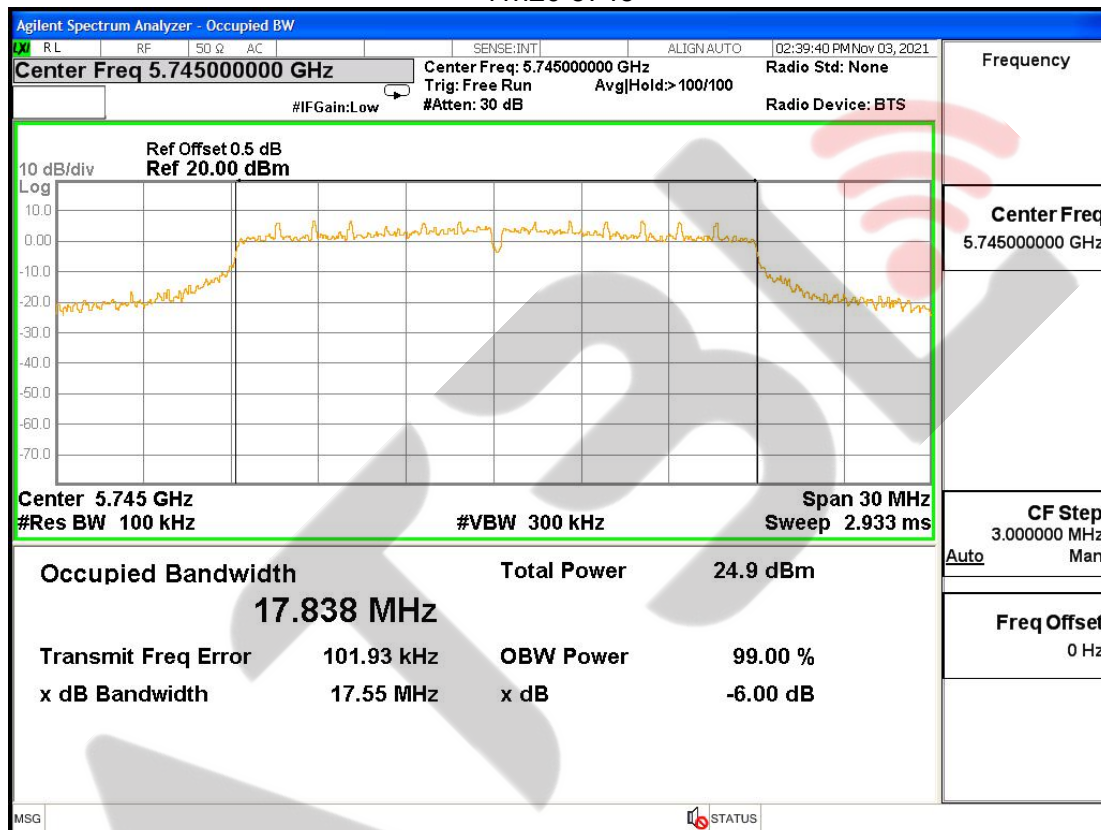
11a 5825



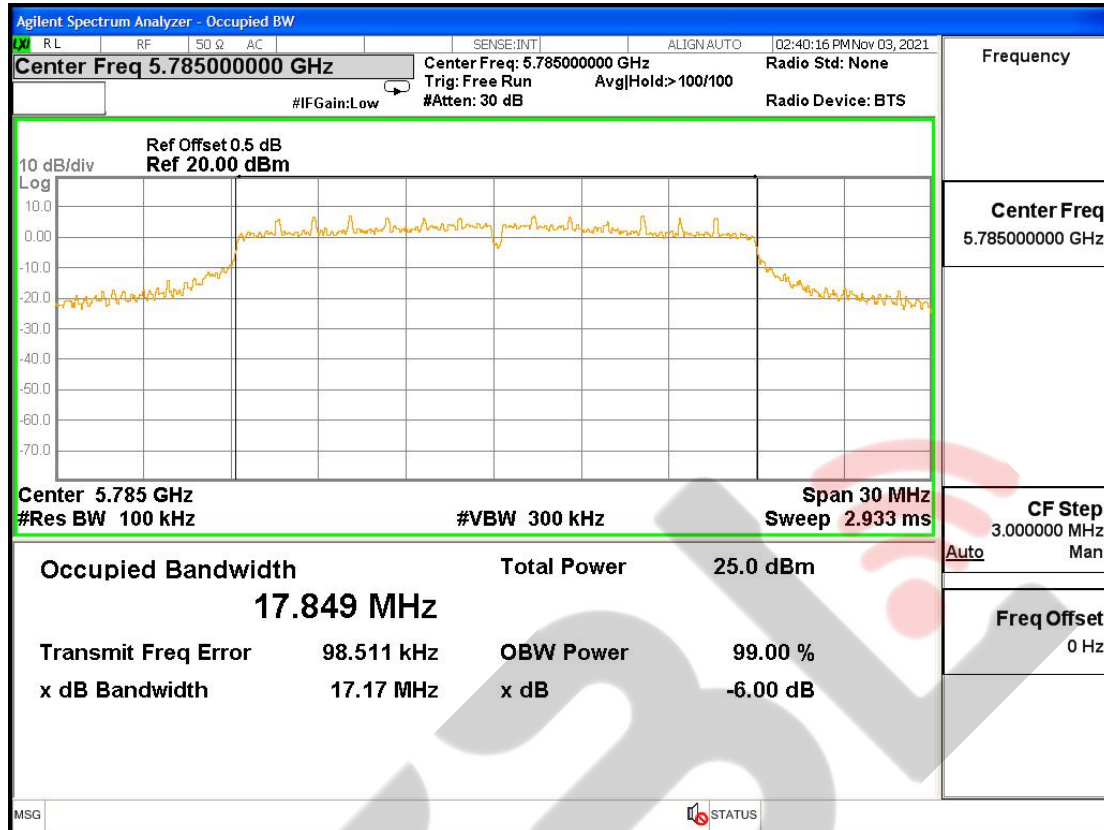
Mode 11n20 For U-NII-3(5725~5850MHz), MCS0

CH.	Freq. (MHz)	6dB Bandwidth (MHz)	Results
149	5745	17.838	PASS
157	5785	17.849	PASS
165	5825	17.821	PASS

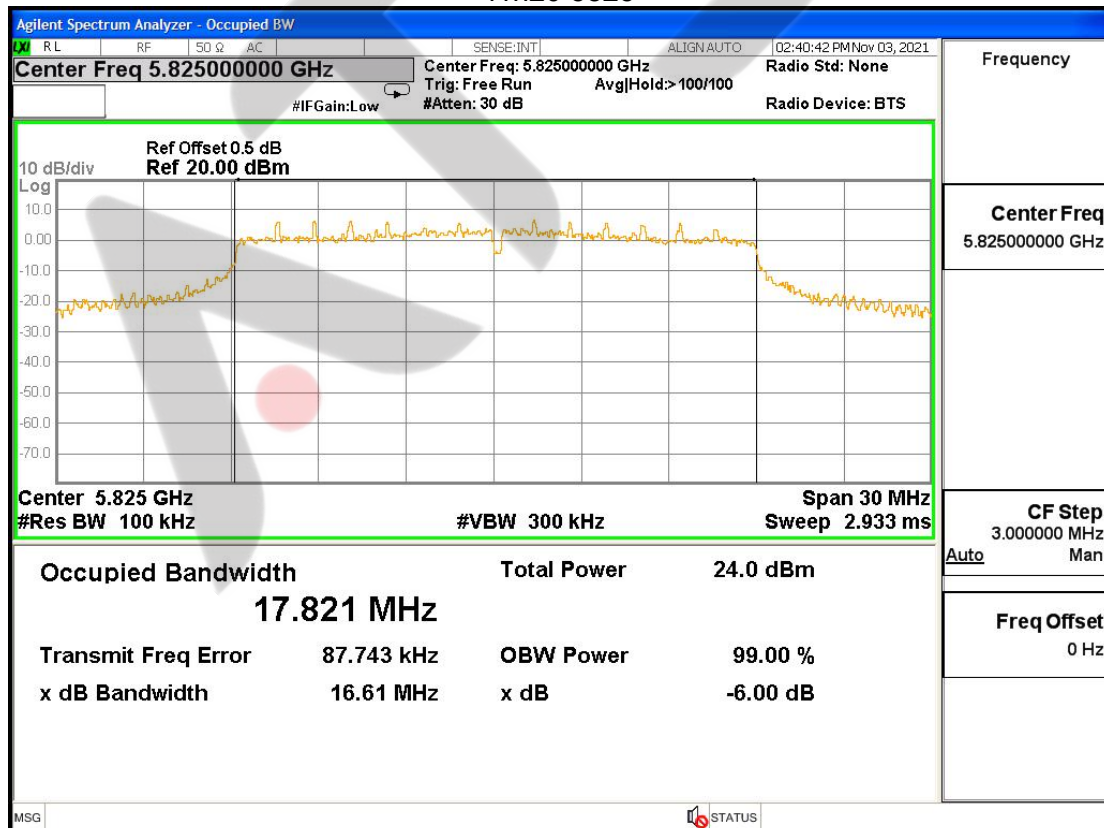
11n20 5745



11n20 5785



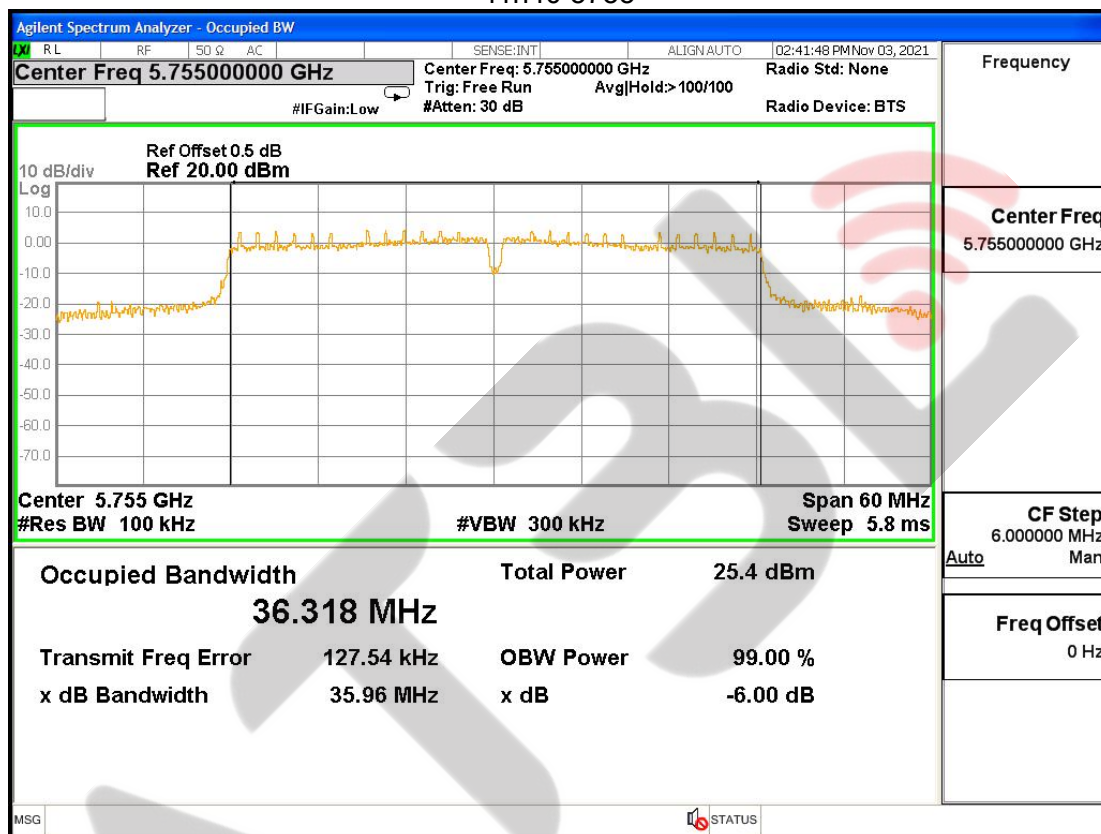
11n20 5825



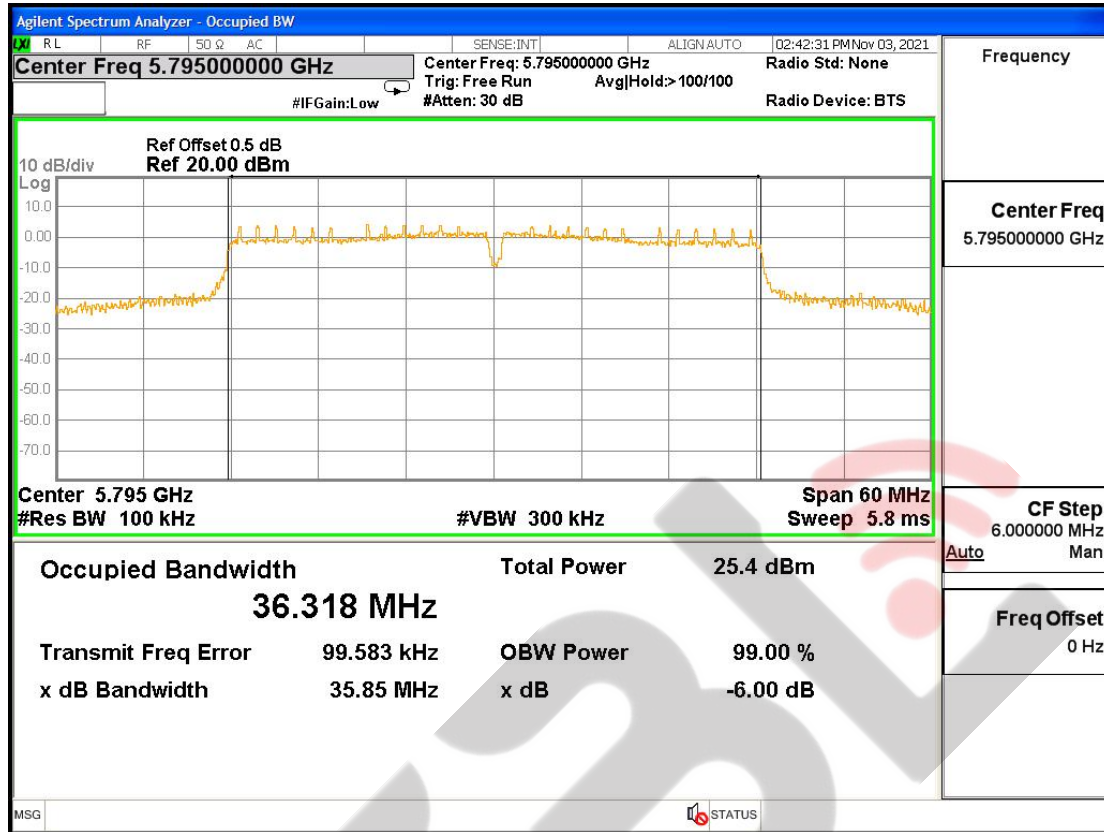
Mode 11n40 For U-NII-3(5725~5850MHz), MCS0

CH.	Freq. (MHz)	6dB Bandwidth (MHz)	Results
151	5755	36.318	PASS
159	5795	36.318	PASS

11n40 5755



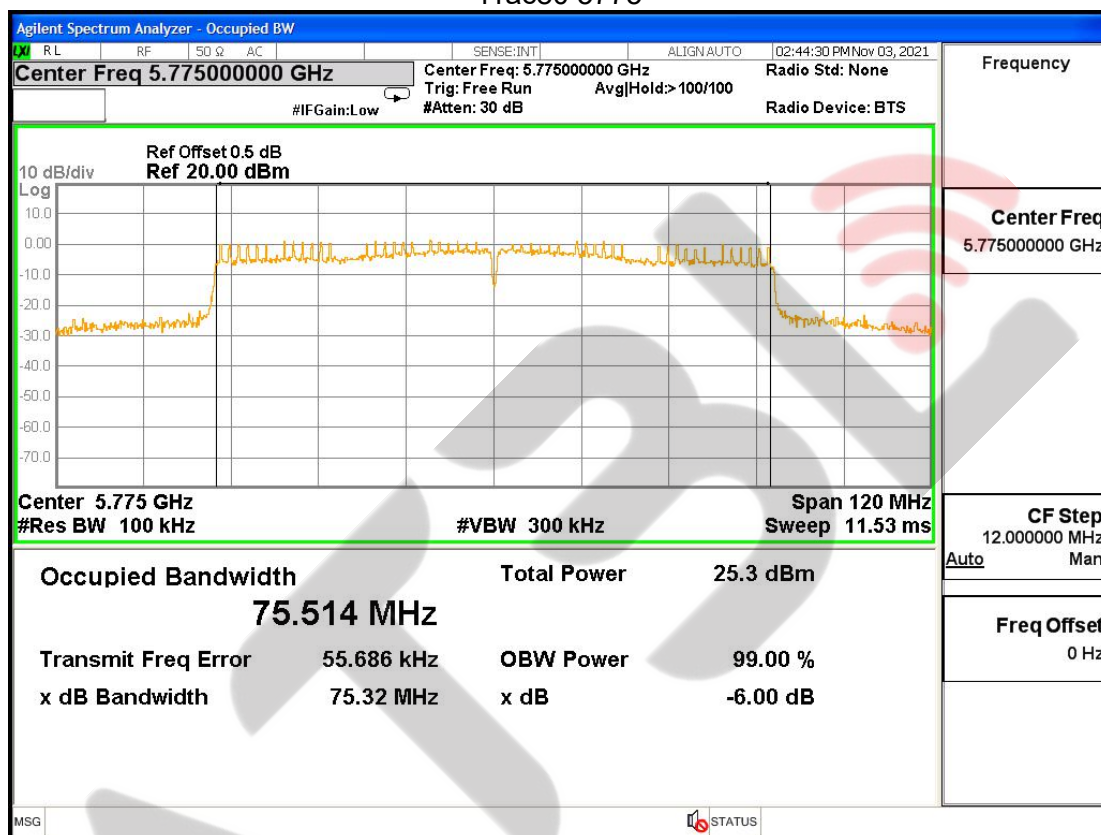
11n40 5795



Mode 11ac80 For U-NII-3(5725~5850MHz), MCS0

CH.	Freq. (MHz)	6dB Bandwidth (MHz)	Results
155	5775	75.514	PASS

11ac80 5775



6. MAXIMUM CONDUCTED OUTPUT POWER

6.1 LIMIT

For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. 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.

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 $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz, If transmitting antennas of directional gain greater than 6 dBi are used.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used.

FCC Part15 (15.407) , Subpart E				
Section	Test Item	Limit	FrequencyRange (MHz)	Result
15.407(a)(1)(iv)	Peak Output Power	0.25 watt	5150-5250	PASS
		The lesser of 250 mW or $11 \text{ dBm} + 10 \log (26 \text{ dB emission bandwidth})$	5250-5350 5470-5725	
15.407(a)(3)		1 watt	5725-5825	

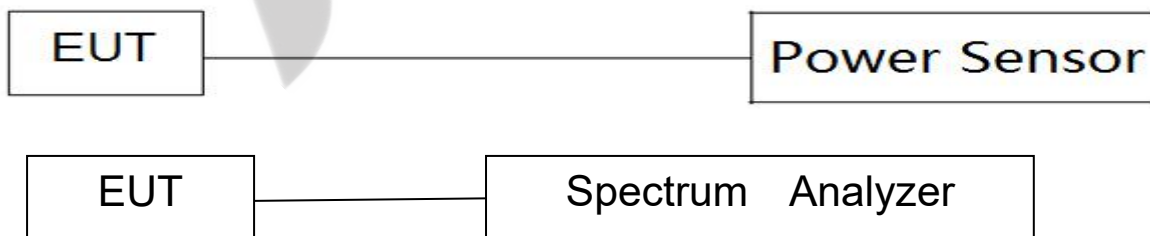
6.2 TEST PROCEDURE

The EUT was directly connected to the Power Sensor&PC

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 5 Unless otherwise a special operating condition is specified in the follows during the testing.

6.6TEST RESULTS

U-NII-1 (5.15-5.25GHz)

U-NII-1 (5.15-5.25GHz)			
Test Channel	Frequency (MHz)	AV Power (dBm)	LIMIT (dBm)
802.11a			
36	5180	18.04	23.98
40	5200	17.74	23.98
48	5240	17.95	23.98
802.11n(HT20)			
36	5180	17.71	23.98
40	5200	17.61	23.98
48	5240	17.64	23.98
802.11n(HT40)			
38	5190	17.64	23.98
46	5230	17.75	23.98
802.11ac(HT20)			
36	5180	17.73	23.98
40	5200	17.62	23.98
48	5240	17.79	23.98
802.11ac(HT40)			
38	5190	17.72	23.98
46	5230	17.84	23.98
802.11ac(HT80)			
42	5210	17.40	23.98

Note:

1. For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 0.25 W.

U-NII-3 (5.725-5.85GHz)

U-NII-3 (5.725-5.85GHz)			
Test Channel	Frequency (MHz)	AV Power (dBm)	LIMIT (dBm)
802.11a			
149	5745	17.69	30
157	5785	17.73	30
165	5825	17.53	30
802.11n(HT20)			
149	5745	17.63	30
157	5785	17.66	30
165	5825	17.22	30
802.11n(HT40)			
151	5755	17.86	30
159	5795	17.73	30
802.11ac(HT20)			
149	5745	17.64	30
157	5785	17.74	30
165	5825	17.28	30
802.11ac(HT40)			
151	5755	17.95	30
159	5795	17.78	30
802.11ac(HT80)			
155	5775	17.38	30

Note:

1. For the band 5.745-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1 W.

7.AUTOMATICALLY DISCONTINUE TRANSMISSION

7.1LIMIT OF AUTOMATICALLY DISCONTINUE TRANSMISSION

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.

7.2TEST RESULT OF AUTOMATICALLY DISCONTINUE TRANSMISSION

During no any information transmission, 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

8.1STANDARD REQUIREMENT

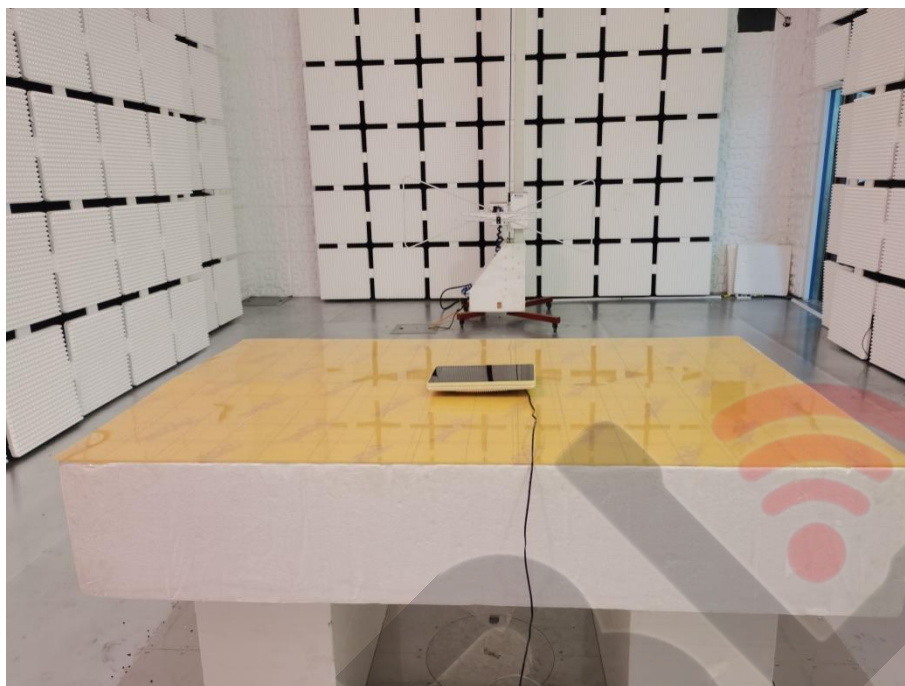
15.203requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

8.2EUT ANTENNA

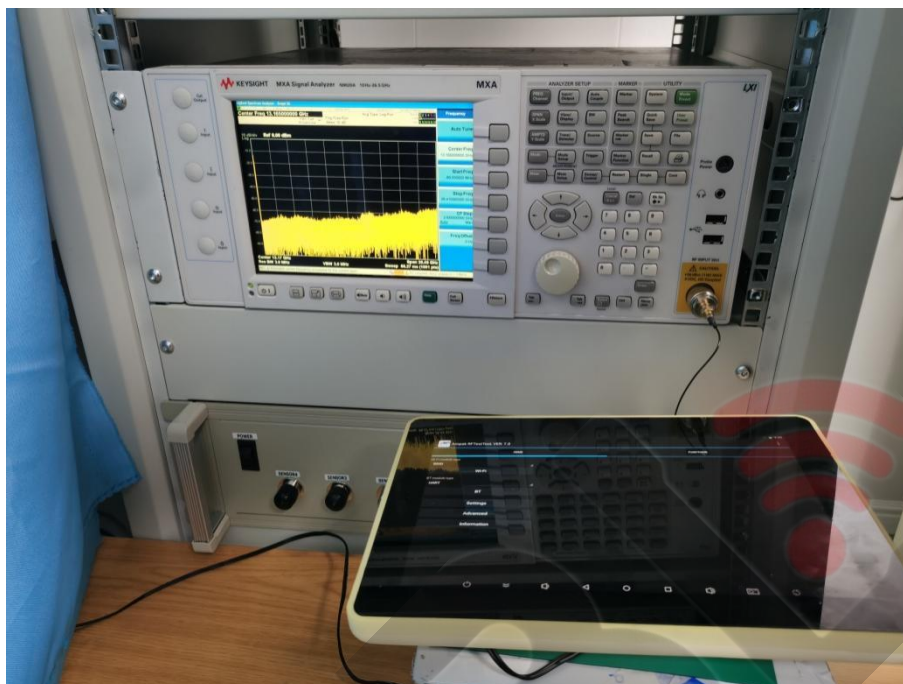
The EUT antenna is FPC Antenna. It comply with the standard requirement.



Radiated Measurement Photos



Conducted Measurement Photos



*****END OF THE REPORT*****