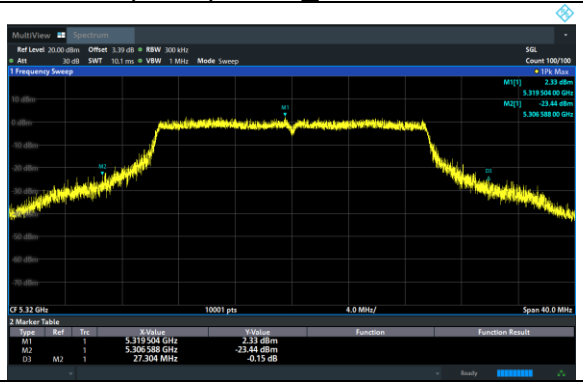
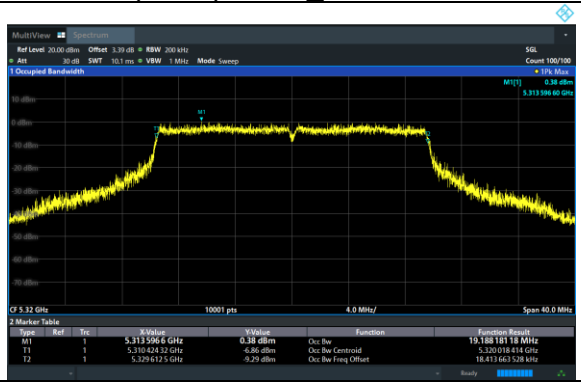
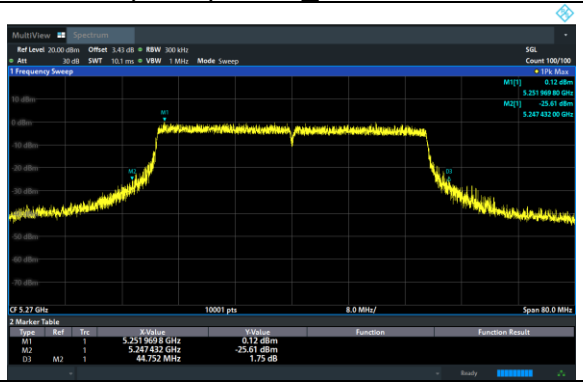
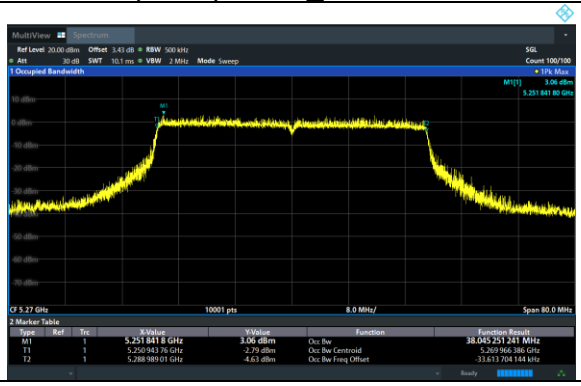
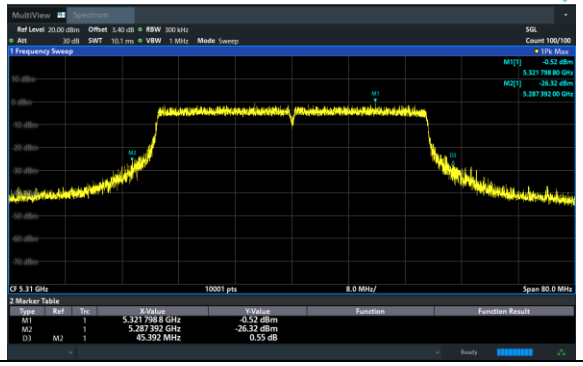
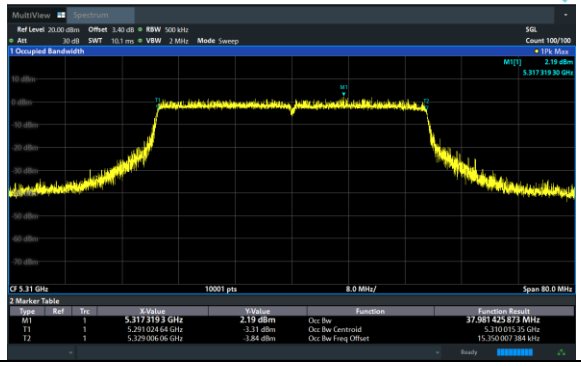
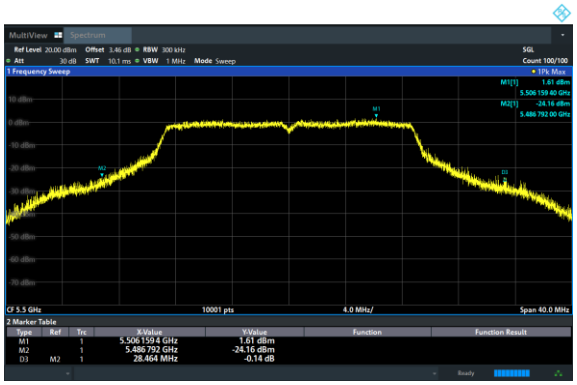
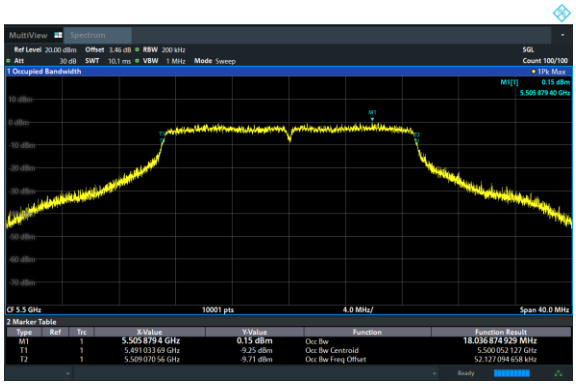
11ax (HE20) CH64_26dB bandwidth	11ax (HE20) CH64_99% bandwidth
	
11ax (HE40) CH54_26dB bandwidth	**11ax (HE40) CH54_99% bandwidth**
	
11ax (HE40) CH62_26dB bandwidth	**111ax (HE40) CH62_99% bandwidth**
	

U-NII-2C

Channel	Test Channel	Frequency (MHz)	26dB bandwidth (MHz)	Limit (kHz)	99% bandwidth	Limit (kHz)	Result
11a	CH100	5500	28.464	/	18.037	/	Pass
11a	CH120	5600	29.056	/	18.077	/	Pass
11a	CH140	5700	31.852	/	18.118	/	Pass
11n (HT20)	CH100	5500	28.488	/	18.042	/	Pass
11n (HT20)	CH120	5600	28.16	/	18.097	/	Pass
11n (HT20)	CH140	5700	29.504	/	18.118	/	Pass
11n (HT40)	CH102	5510	48.064	/	36.796	/	Pass
11n (HT40)	CH110	5550	47.504	/	36.803	/	Pass
11n (HT40)	CH134	5670	47.392	/	36.862	/	Pass
11ac (HT20)	CH100	5500	27.156	/	18.015	/	Pass
11ac (HT20)	CH120	5600	28.08	/	18.089	/	Pass
11ac (HT20)	CH140	5700	29.872	/	18.078	/	Pass
11ac (HT40)	CH102	5510	46.544	/	36.752	/	Pass
11ac (HT40)	CH110	5550	46.192	/	36.687	/	Pass
11ac (HT40)	CH134	5670	47.144	/	36.747	/	Pass
11ax (HE20)	CH100	5500	26.576	/	19.184	/	Pass
11ax (HE20)	CH120	5600	26.508	/	19.194	/	Pass
11ax (HE20)	CH140	5700	28.092	/	19.241	/	Pass
11ax (HE40)	CH102	5510	45.344	/	37.985	/	Pass
11ax (HE40)	CH110	5550	45.456	/	37.978	/	Pass
11ax (HE40)	CH134	5670	44.656	/	38.04	/	Pass

Test plots:

U-NII-2C

11a CH100_26dB bandwidth	11a CH100_99% bandwidth
	
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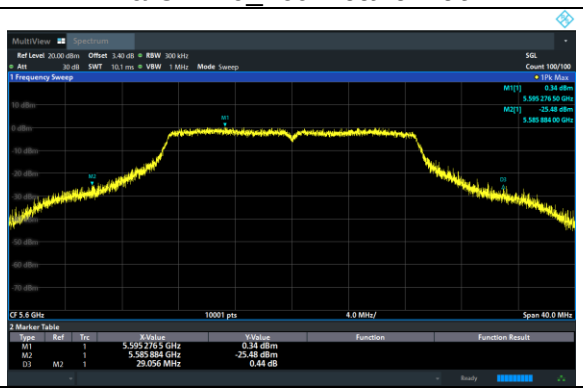	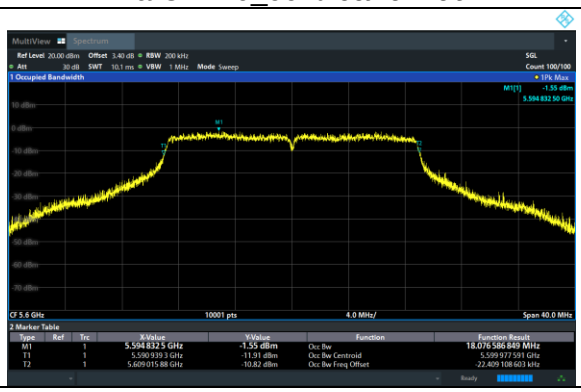
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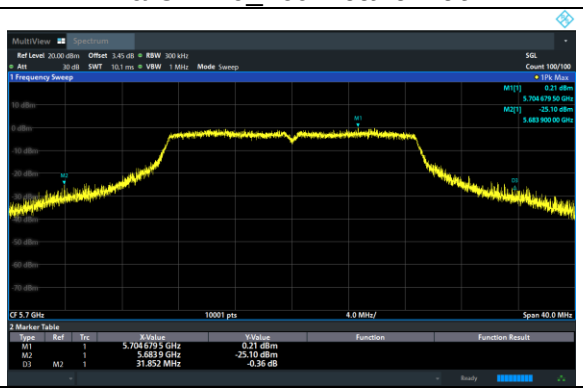
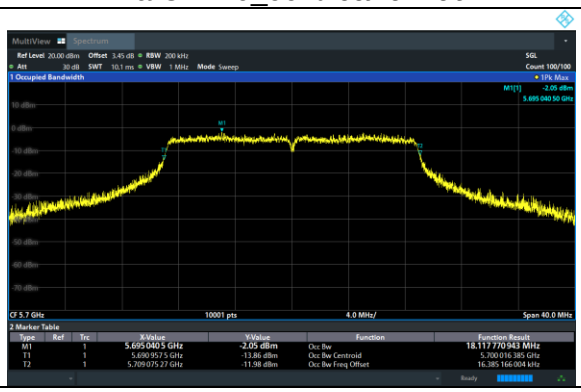
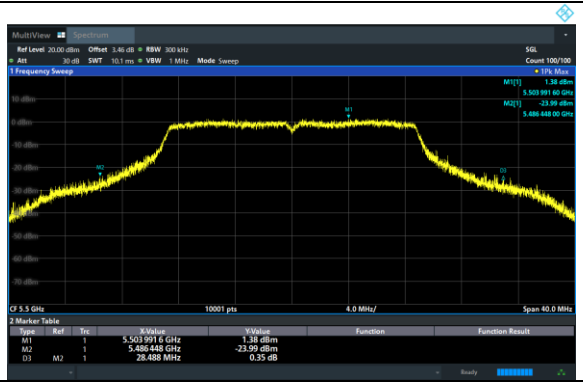
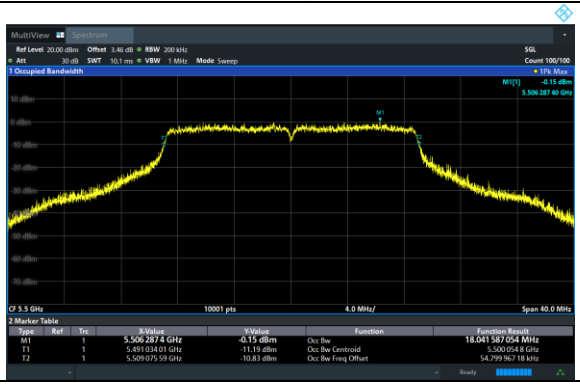
	

11n (HT20) CH100_26dB bandwidth	11n (HT20) CH100_99% bandwidth
	
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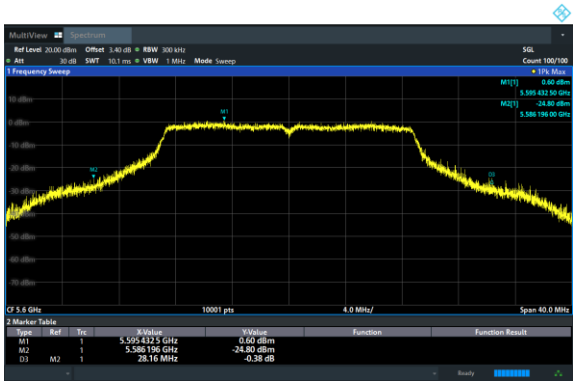	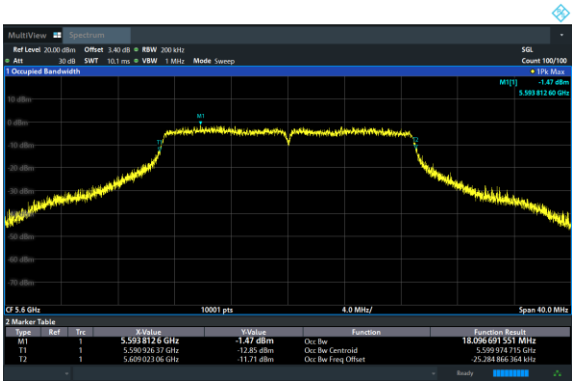
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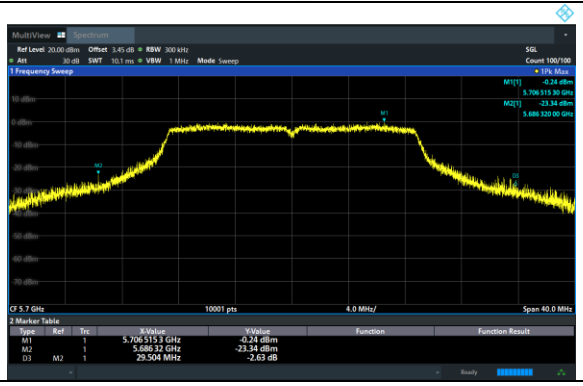	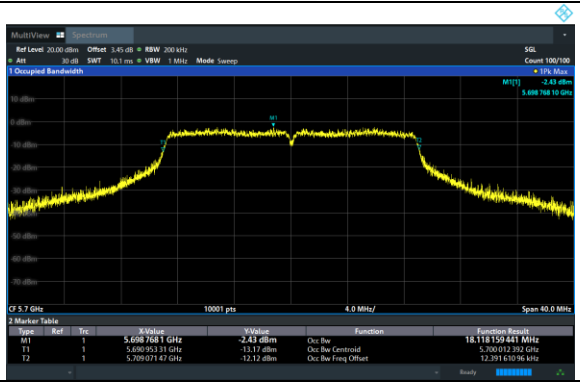

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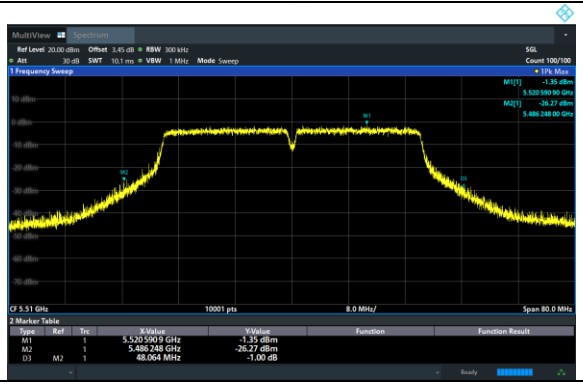
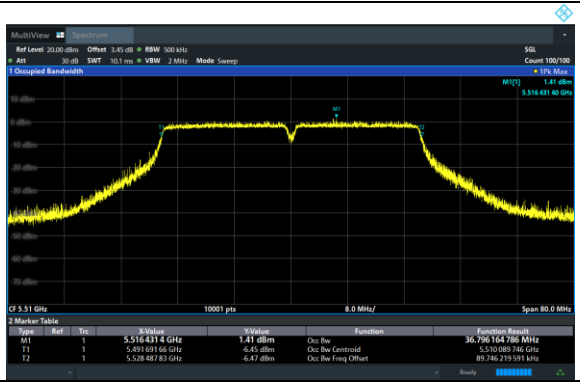
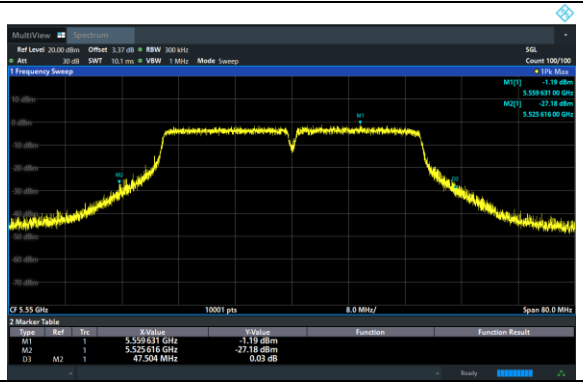
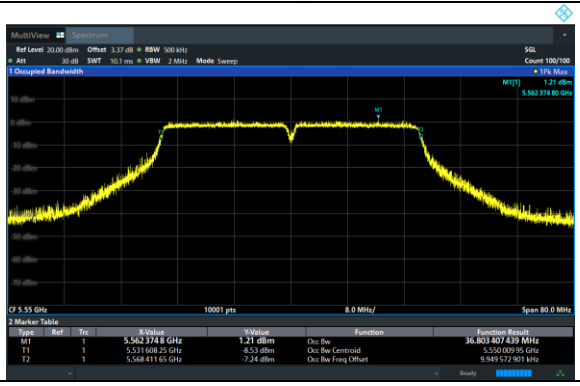
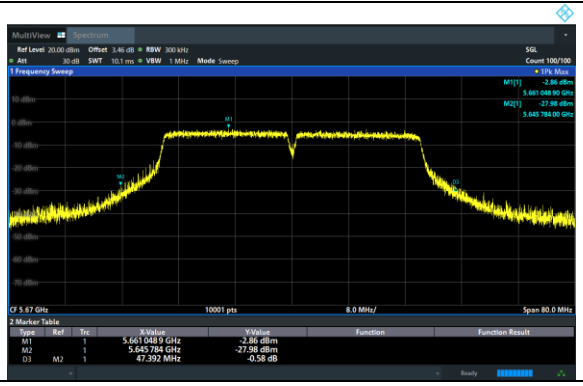
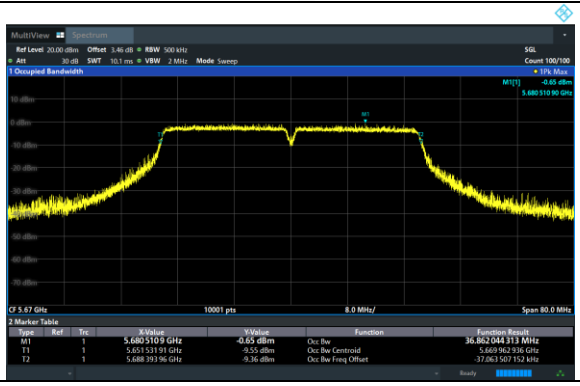
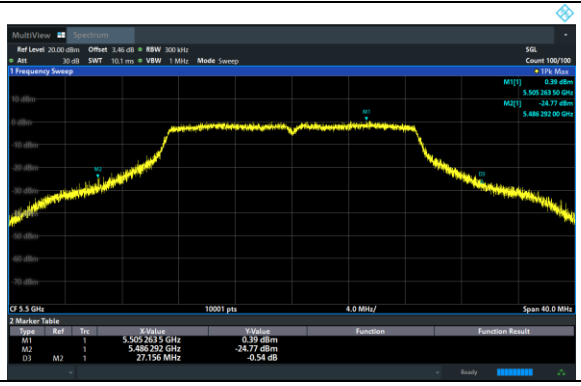
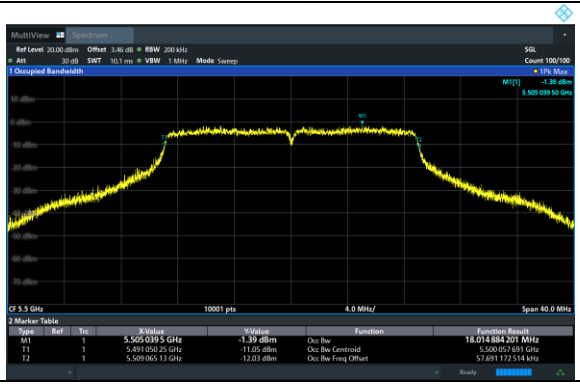
	
11n (HT40) CH110_26dB bandwidth	**11n (HT40) CH110_99% bandwidth**
	
11n (HT40) CH134_26dB bandwidth	**11n (HT40) CH134_99% bandwidth**
	

11ac (HT20) CH100_26dB bandwidth	11ac (HT20) CH100_99% bandwidth
	
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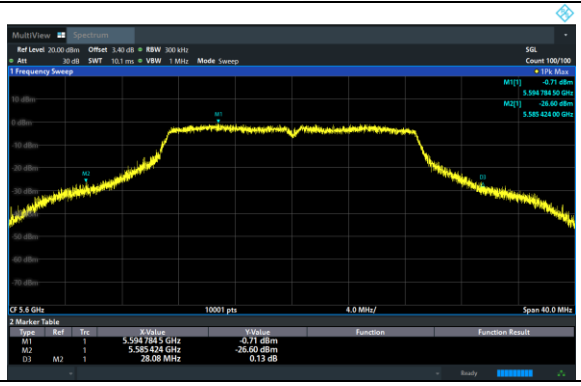	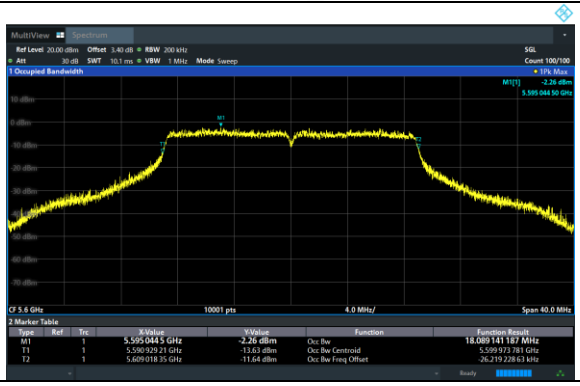
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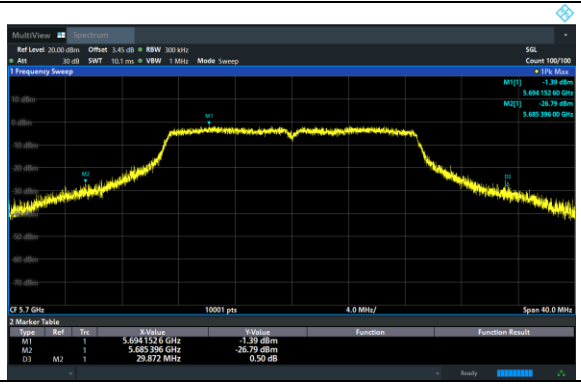
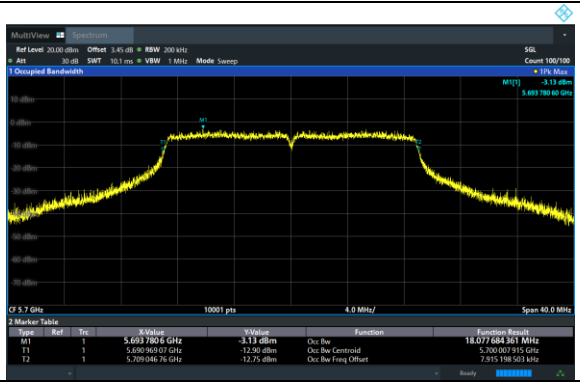
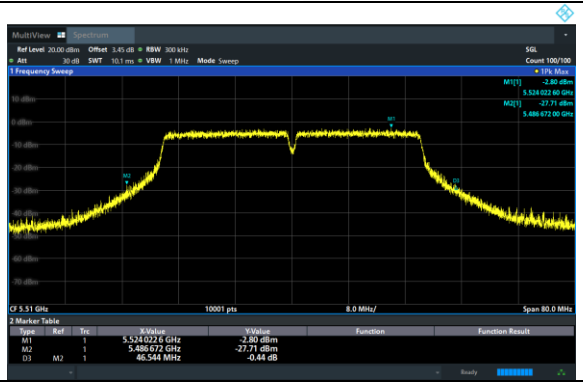
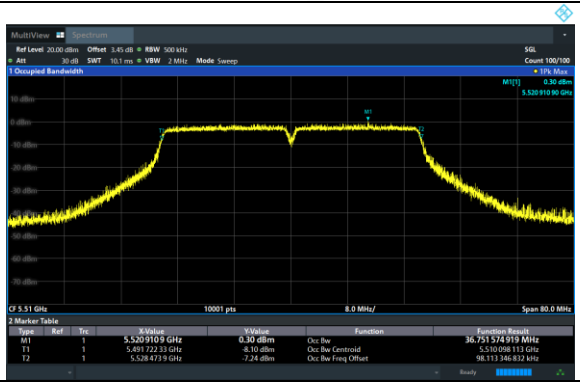
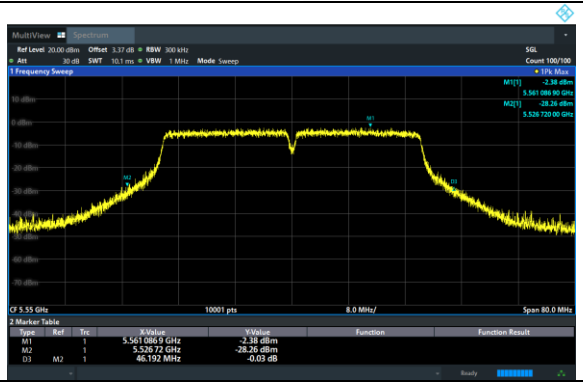
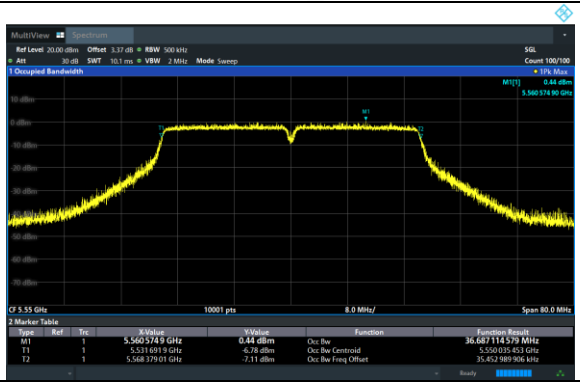
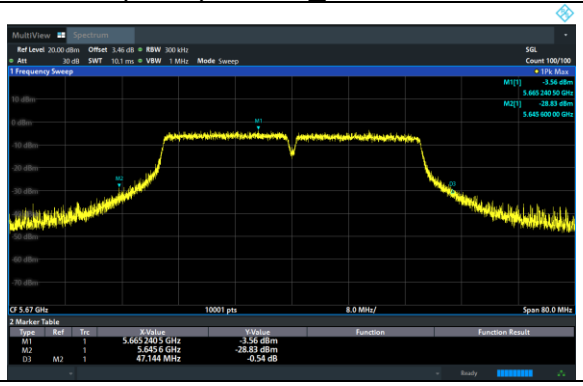
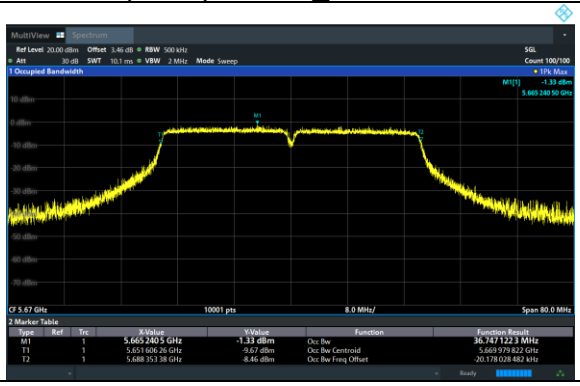
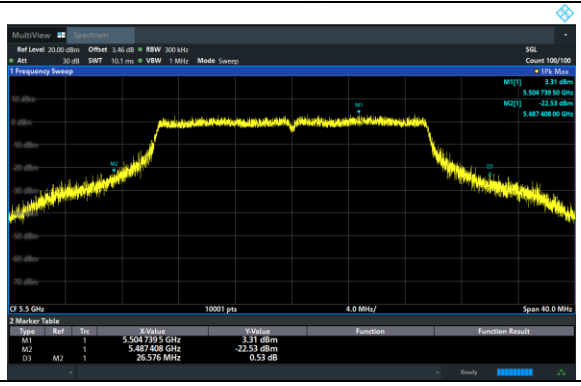
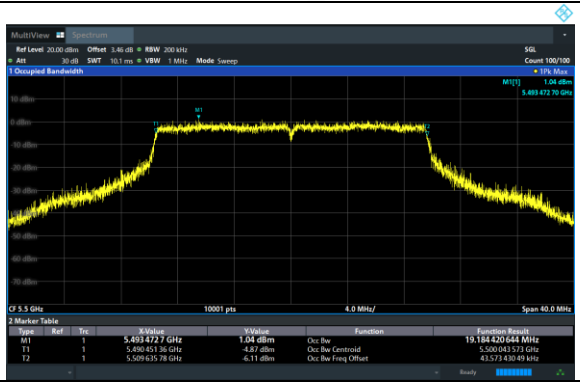
	

11ac (HT40) CH102_26dB bandwidth	11ac (HT40) CH102_99% bandwidth
	
11ac (HT40) CH110_26dB bandwidth	**11ac (HT40) CH110_99% bandwidth**
	
11ac (HT40) CH134_26dB bandwidth	**11ac (HT40) CH134_99% bandwidth**
	

11ax (HE20) CH100_26dB bandwidth	11ax (HE20) CH100_99% bandwidth
	
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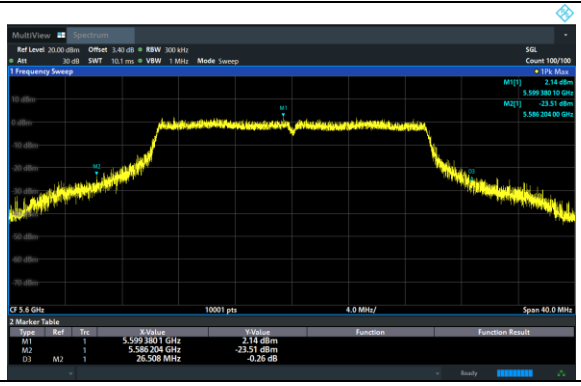	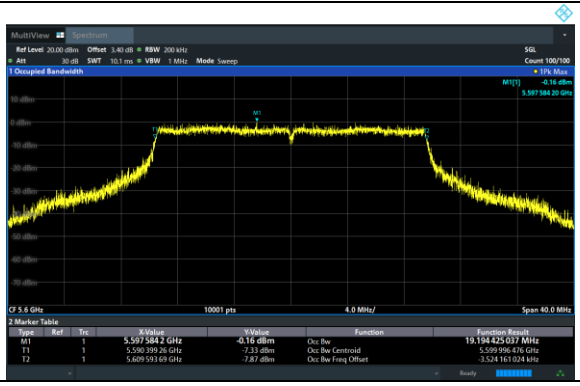
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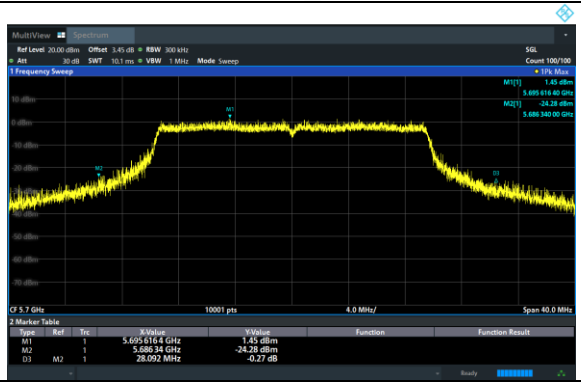	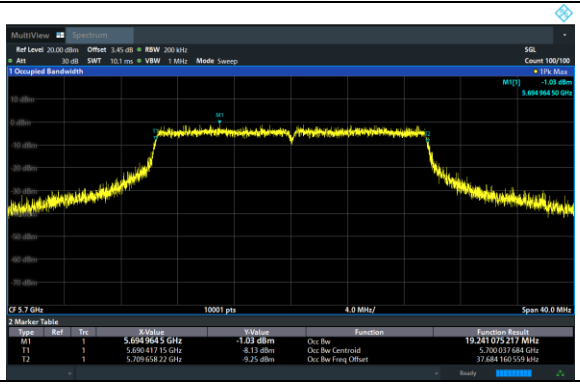

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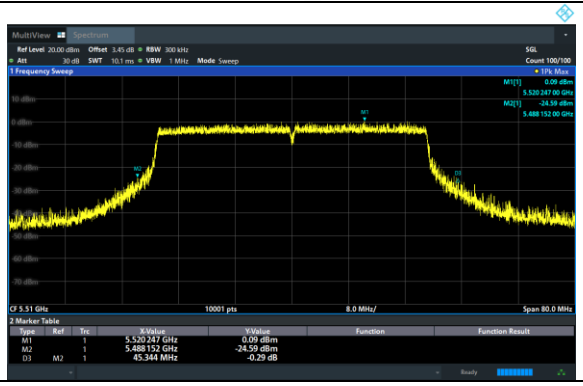
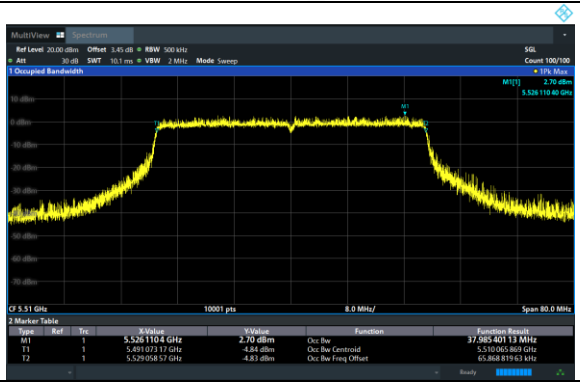
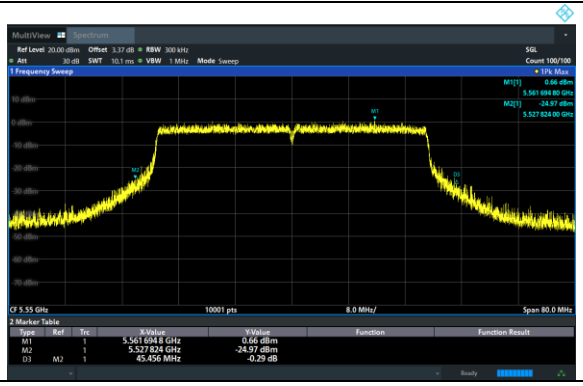
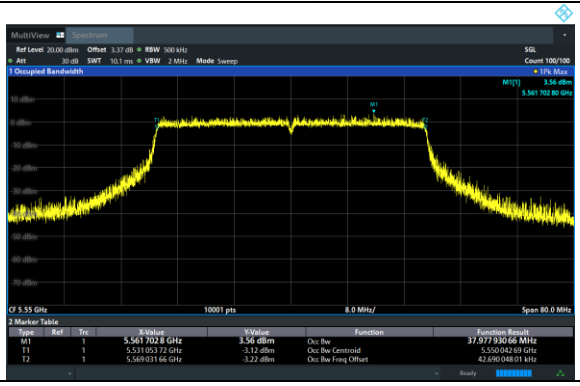
	
11ax (HE40) CH110_26dB bandwidth	**11ax (HE40) CH110_99% bandwidth**
	
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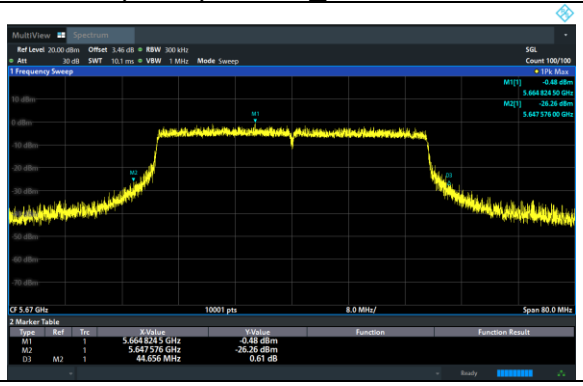
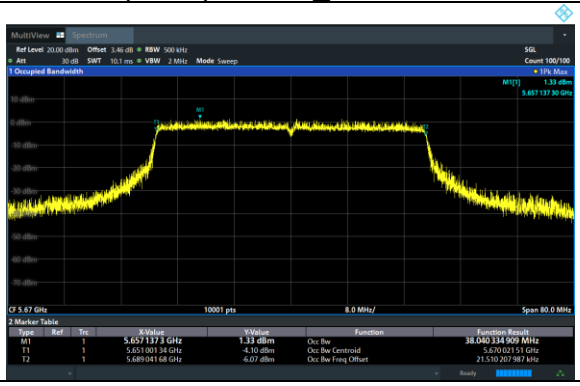
	

5.7 6 dB Bandwidth

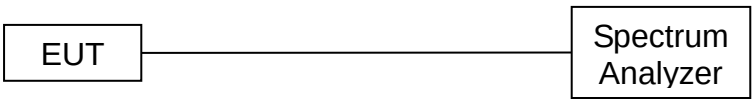
5.7.1 Limit

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

5.7.2 Test Procedure

1. Set RBW= 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 26 dB relative to the maximum level measured in the fundamental emission.

5.7.3 Test Setup



5.7.4 Test Results

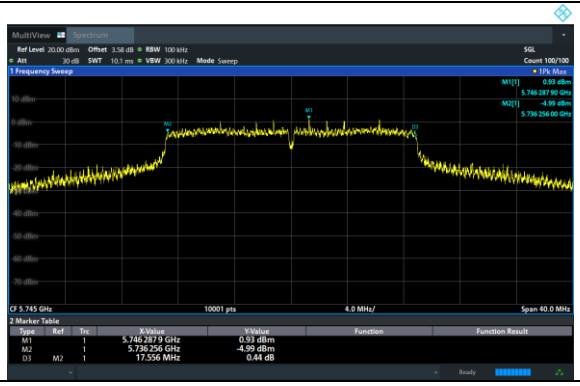
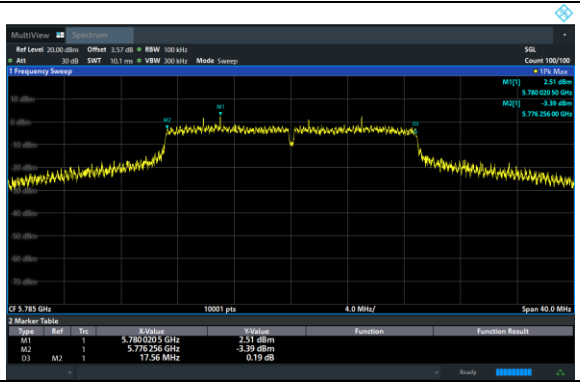
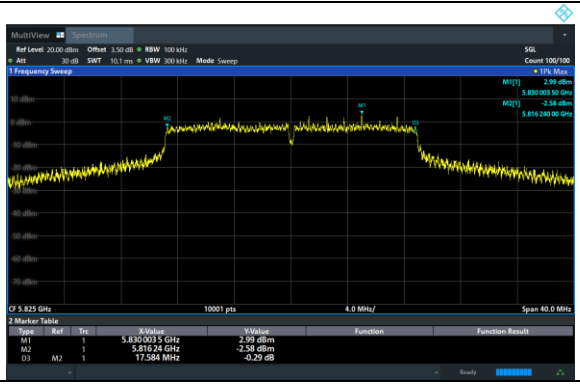
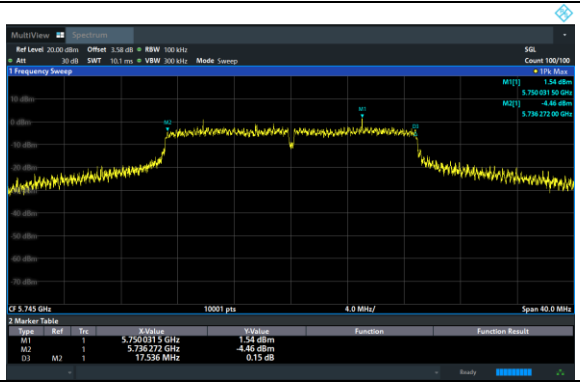
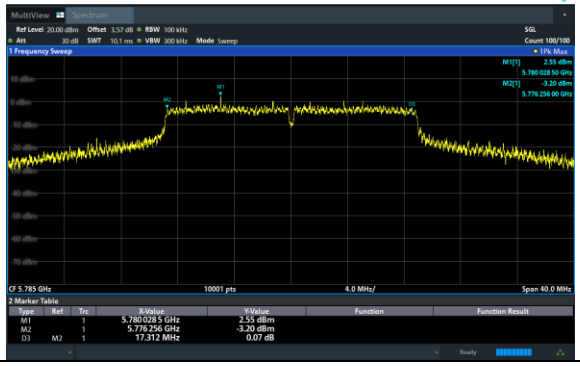
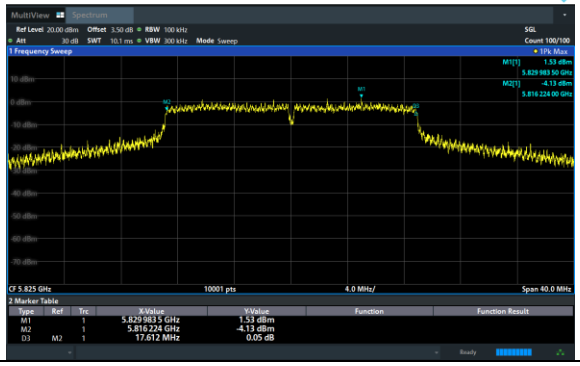
EUT:	Wireless carplay adapter	Model Name:	TY-001
Test Mode:	TX	Test Voltage:	DC 5V from adapter AC 120V/60Hz

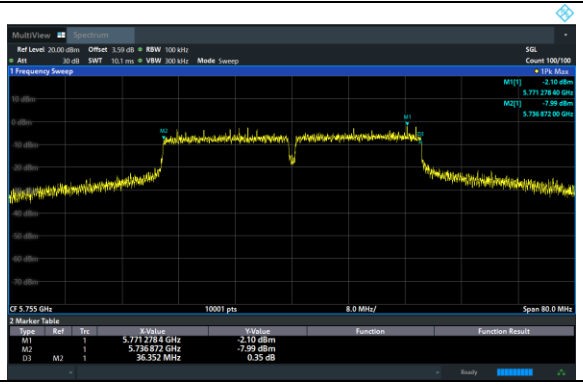
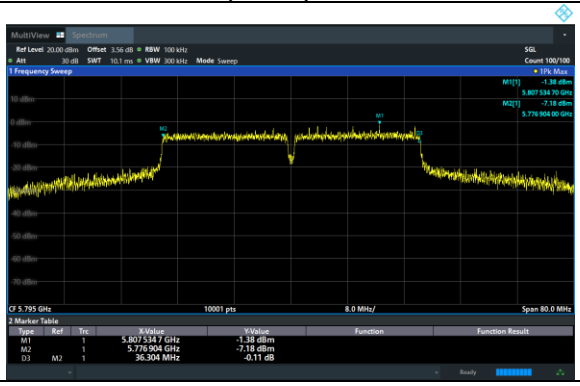
For U-NII-3

Channel	Test Channel	Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
11a	CH149	5745	17.556	500	Pass
11a	CH157	5785	17.56	500	Pass
11a	CH165	5825	17.584	500	Pass
11n (HT20)	CH149	5745	17.536	500	Pass
11n (HT20)	CH157	5785	17.312	500	Pass
11n (HT20)	CH165	5825	17.612	500	Pass
11n (HT40)	CH151	5755	36.352	500	Pass
11n (HT40)	CH159	5795	36.304	500	Pass
11ac (HT20)	CH149	5745	17.58	500	Pass
11ac (HT20)	CH157	5785	17.556	500	Pass
11ac (HT20)	CH165	5825	17.592	500	Pass
11ac (HT40)	CH151	5755	36.328	500	Pass
11ac (HT40)	CH159	5795	36.376	500	Pass
11ax (HE20)	CH149	5745	18.912	500	Pass
11ax (HE20)	CH157	5785	18.972	500	Pass
11ax (HE20)	CH165	5825	19.052	500	Pass
11ax (HE40)	CH151	5755	37.88	500	Pass
11ax (HE40)	CH159	5795	37.736	500	Pass

Test plots:

For U-NII-3

11a CH149	11a CH157
	
11a CH165	**11n(HT20) CH149**
	
11n(HT20) CH157	**11n(HT20) CH165**
	

11n (HT40) CH151	11n (HT40) CH159
	
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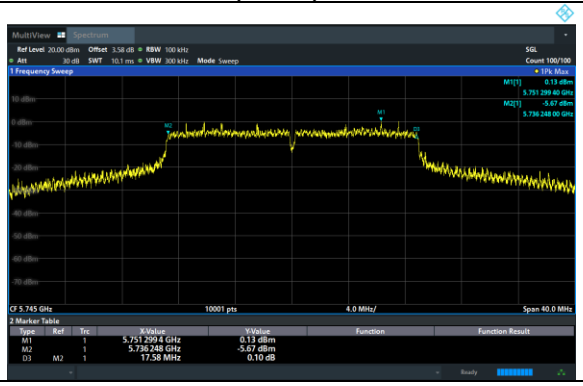
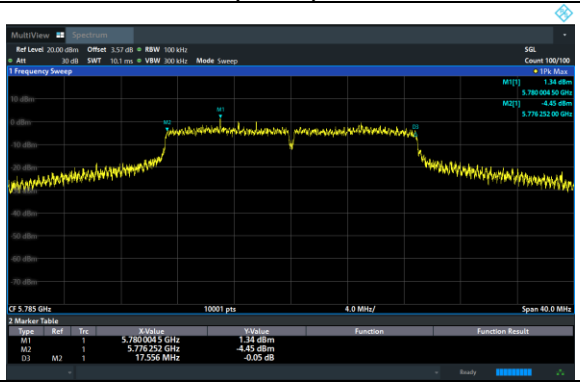
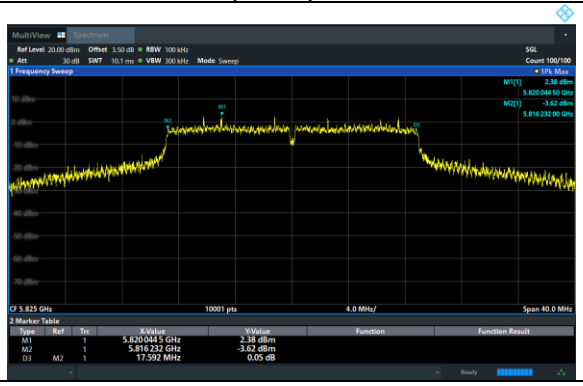
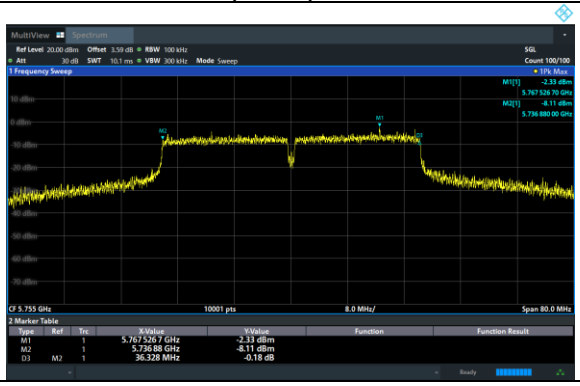
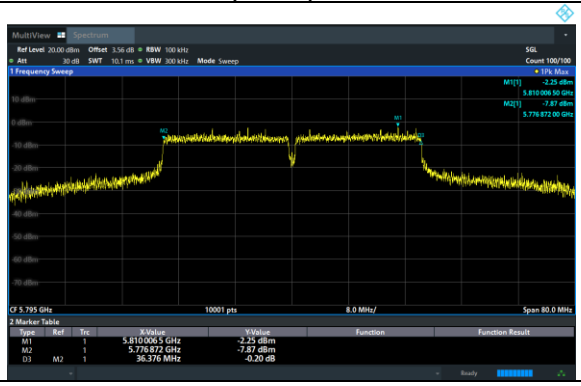
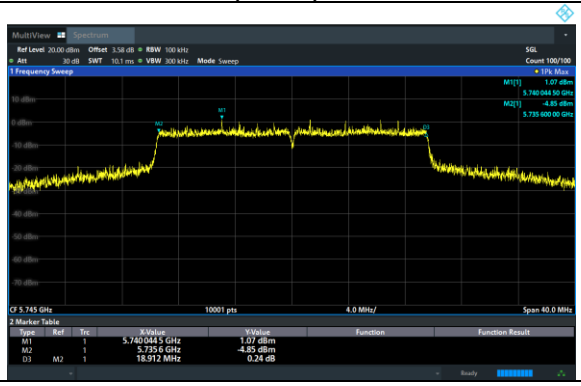
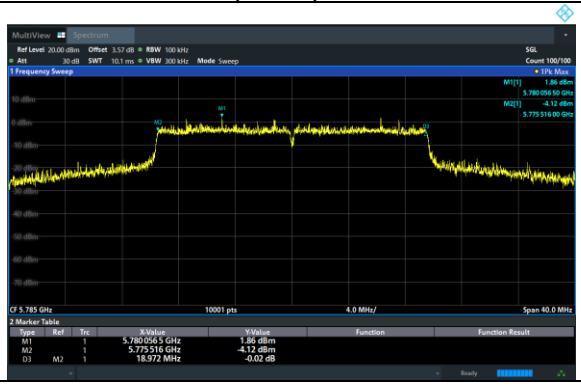
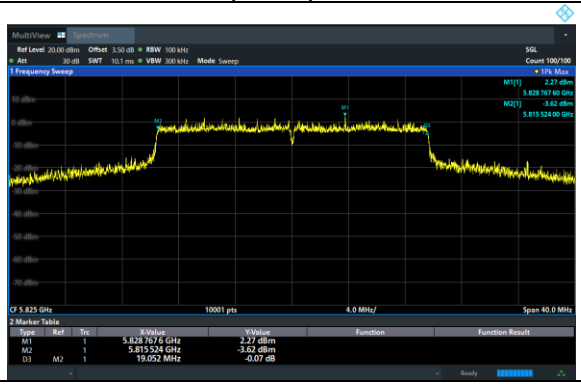
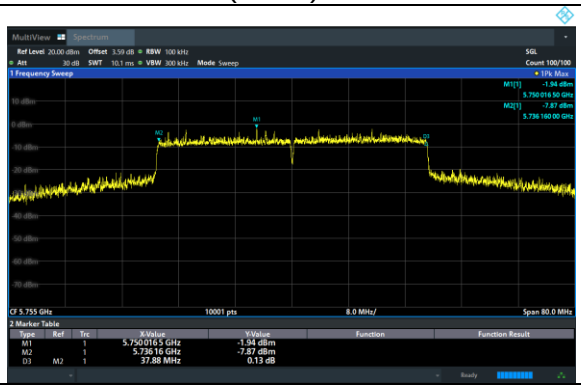
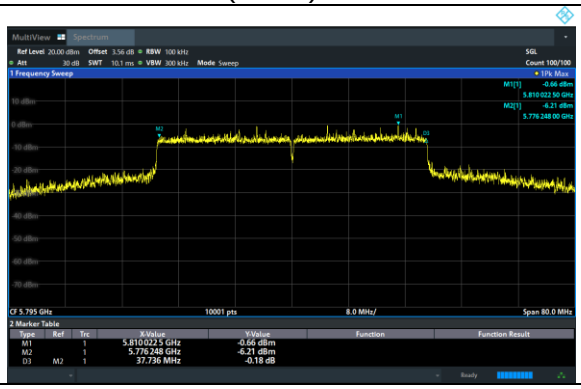
	
11ac(HT20) CH165	**11ac(HT40) CH151**
	

11ac(HT40) CH159	11ax (HE20) CH149
	
11ax (HE20) CH157	**11ax(HE20) CH165**
	
11ax(HE40) CH151	**11ax(HE40) CH159**
	

5.8 Out Of Band Emission

5.8.1 Limit

According to FCC §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.

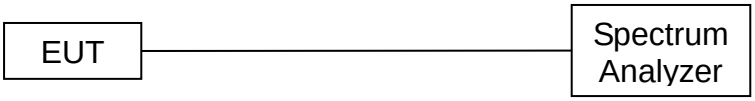
(4) For transmitters operating solely in the 5.725–5.850 GHz band:

(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

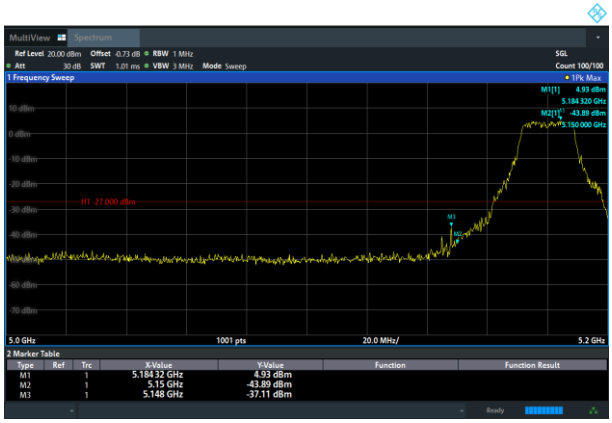
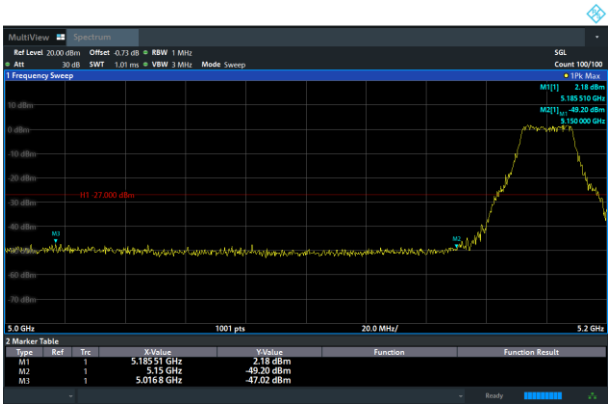
5.8.2 Test Procedure

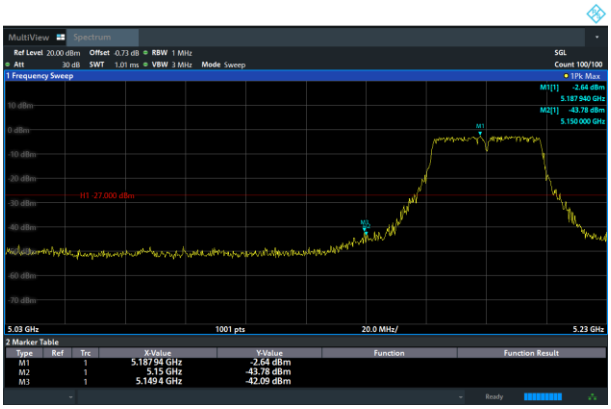
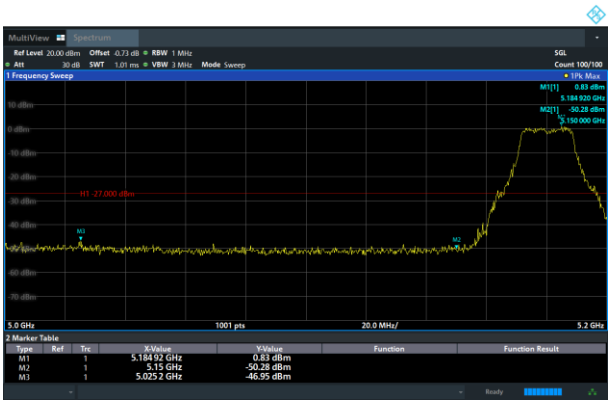
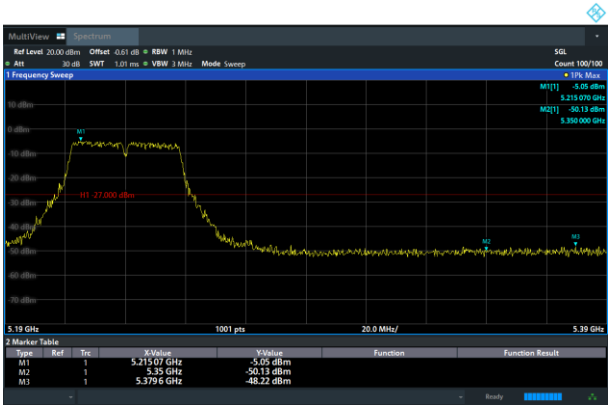
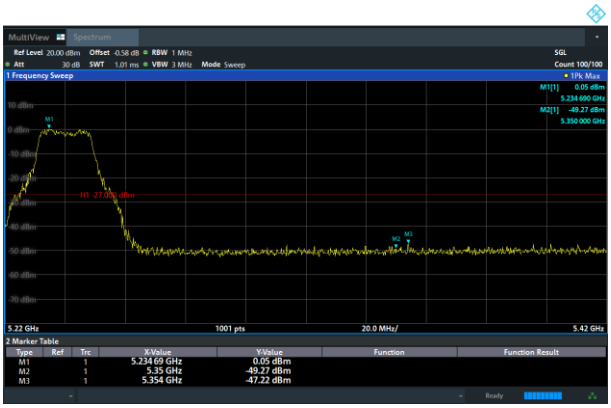
a) Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
b) Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
c) Set RBW of spectrum analyzer to 1 MHz with a convenient frequency span.
d) Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
e) Repeat above procedures until all measured frequencies were complete.

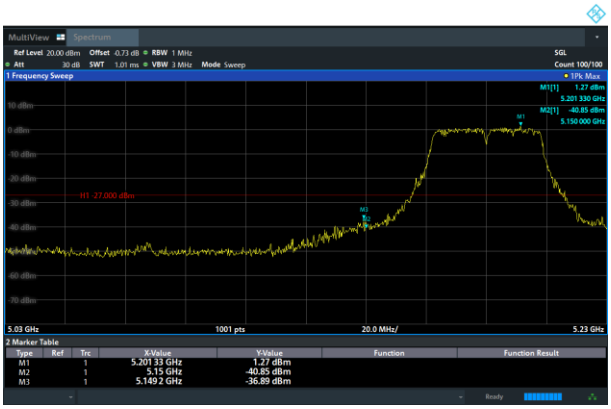
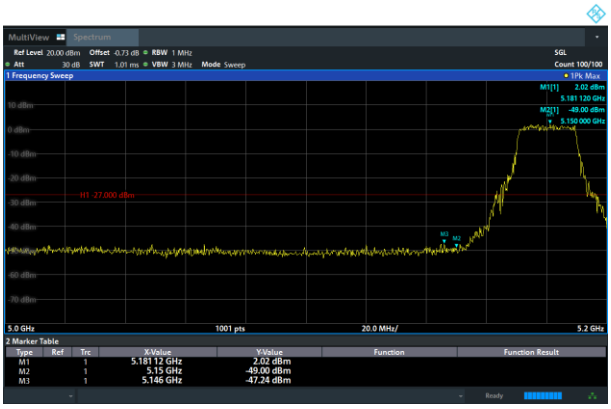
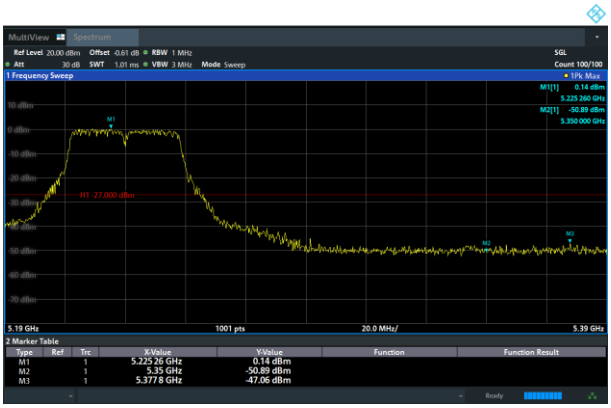
5.8.3 Test Setup

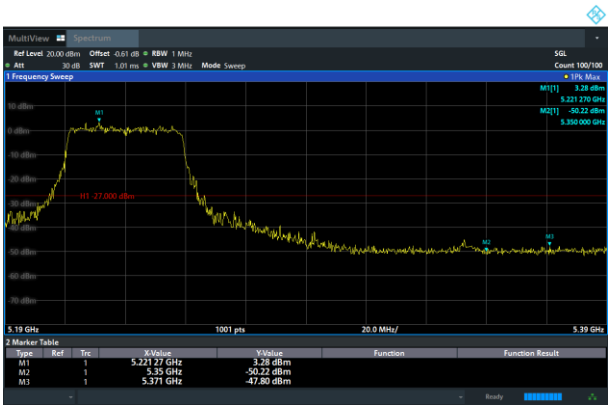


5.8.4 Test Results

5150-5250 MHz	
(802.11a) Band Edge, Left Side	(802.11n20) Band Edge, Left Side
	
(802.11a) Band Edge, Right Side	(802.11n20) Band Edge, Right Side

5150-5250 MHz	
(802.11n40) Band Edge, Left Side	(802.11ac20) Band Edge, Left Side
	
(802.11n40) Band Edge, Right Side	(802.11ac20) Band Edge, Right Side
	

5150-5250 MHz	
(802.11ac40) Band Edge, Left Side	(802.11ax20) Band Edge, Left Side
	
(802.11ac40) Band Edge, Right Side	(802.11ax20) Band Edge, Right Side
	

5150-5250 MHz	
(802.11ax40) Band Edge, Left Side	(802.11ax40) Band Edge, Right Side
	

5250-5235 MHz	
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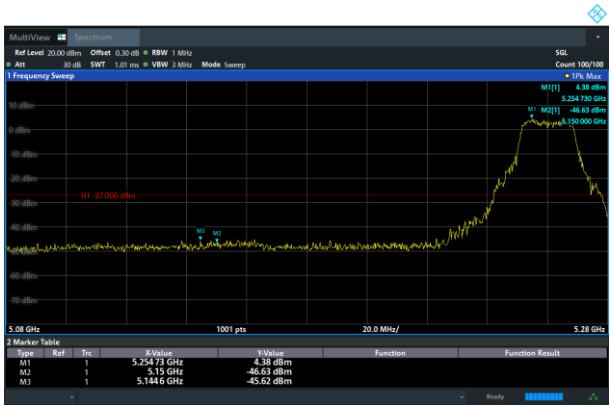
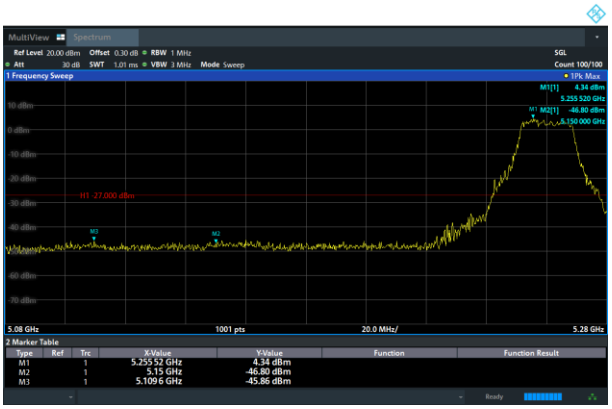
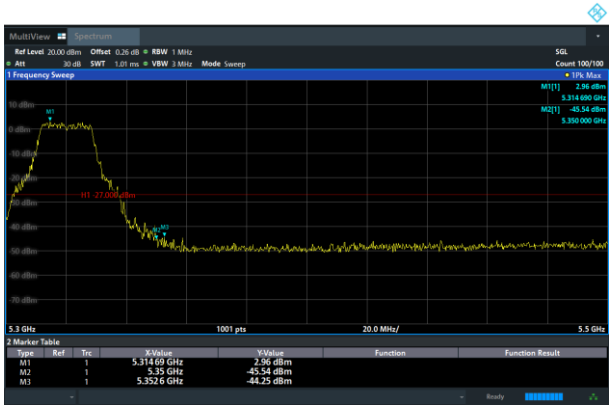
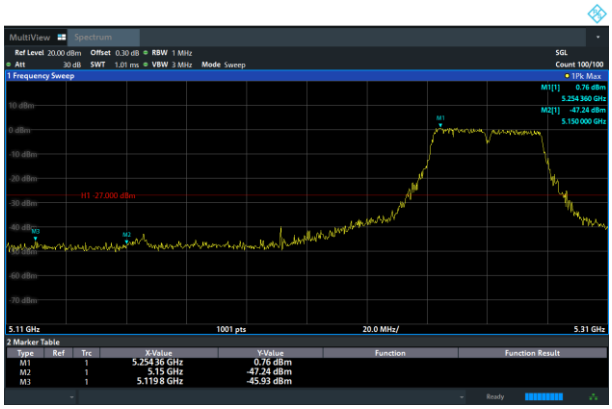
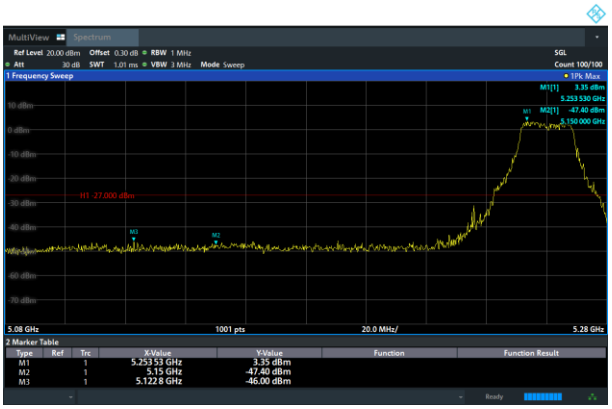
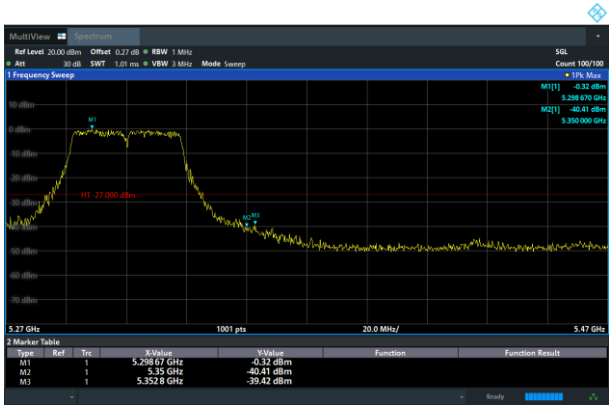
	
(802.11a) Band Edge, Right Side	(802.11n20) Band Edge, Right Side
	

5250-5235 MHz	
(802.11n40) Band Edge, Left Side	(802.11ac20) Band Edge, Left Side
	
(802.11n40) Band Edge, Right Side	(802.11ac20) Band Edge, Right Side