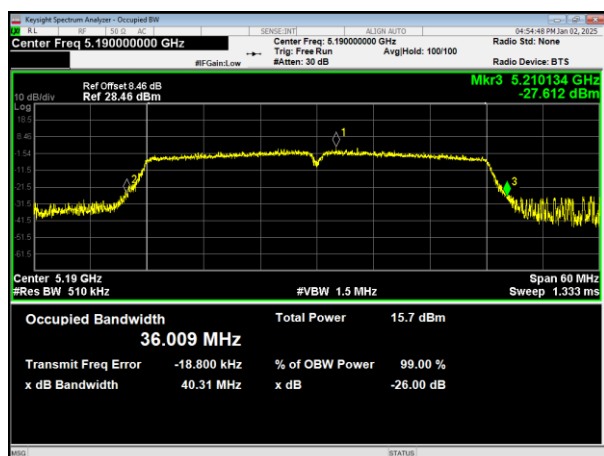
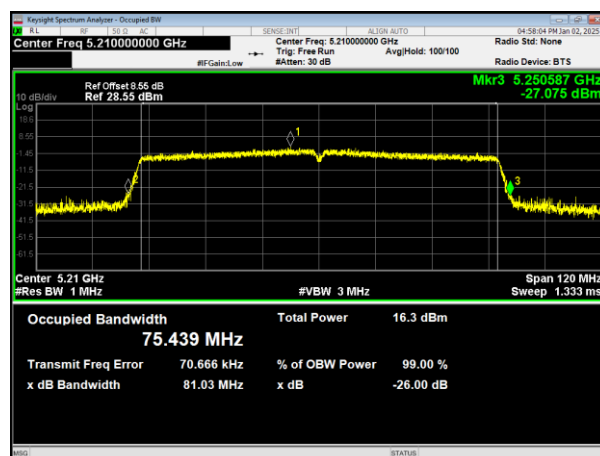




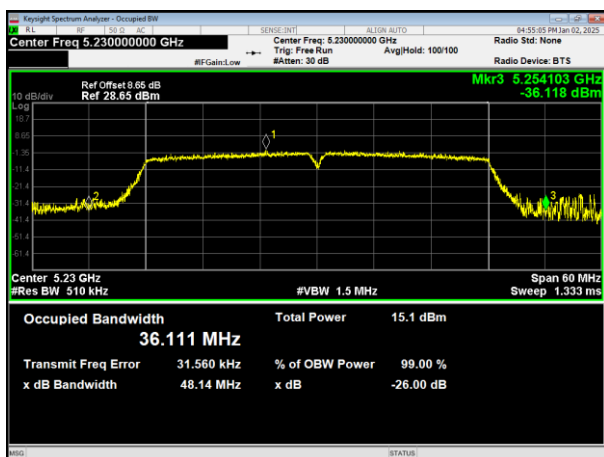
802.11n HT40



802.11ac HT80



5190MHz



5210MHz

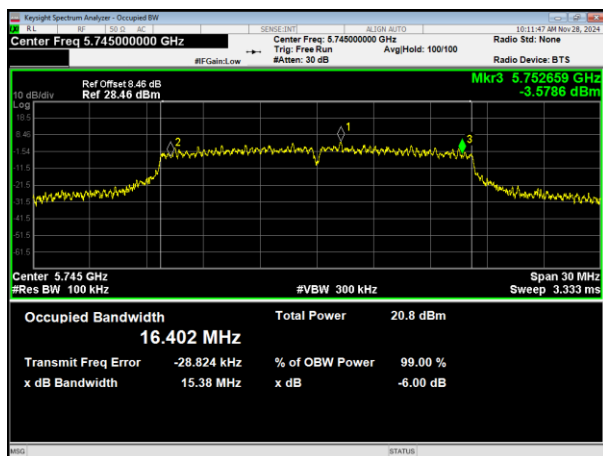


5230MHz

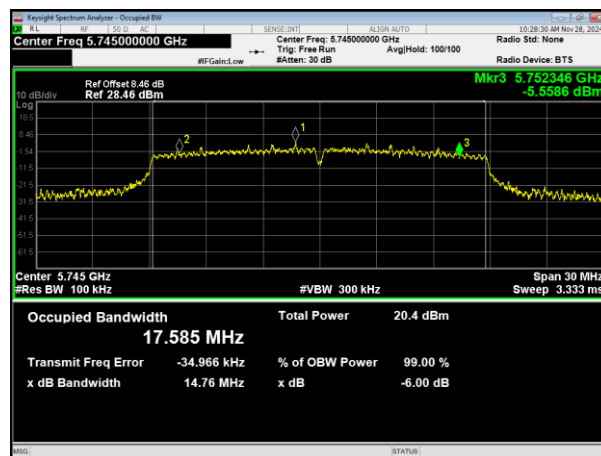




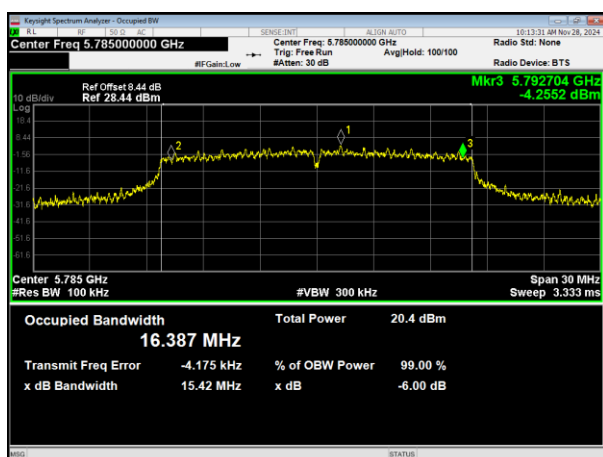
802.11a



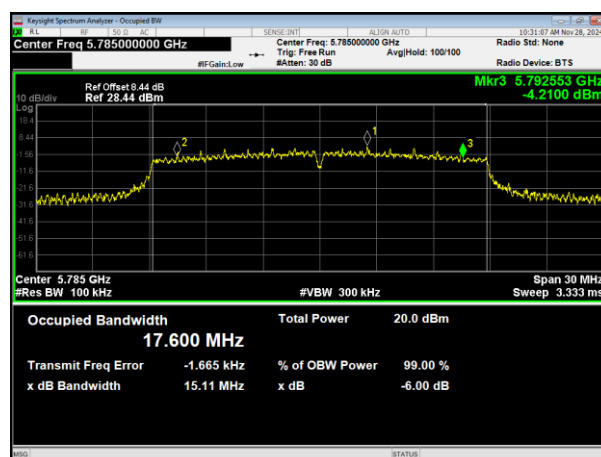
802.11ac HT20



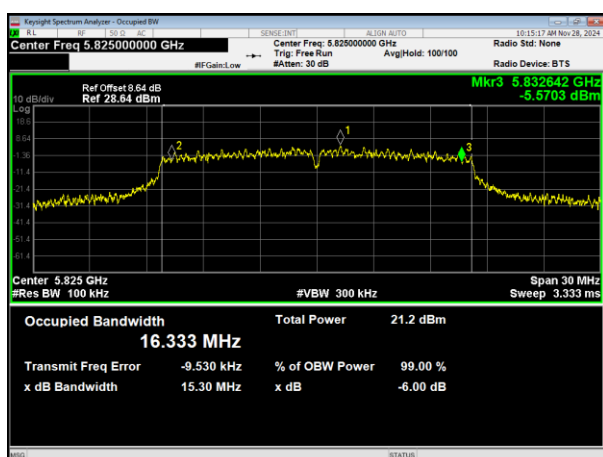
5745MHz



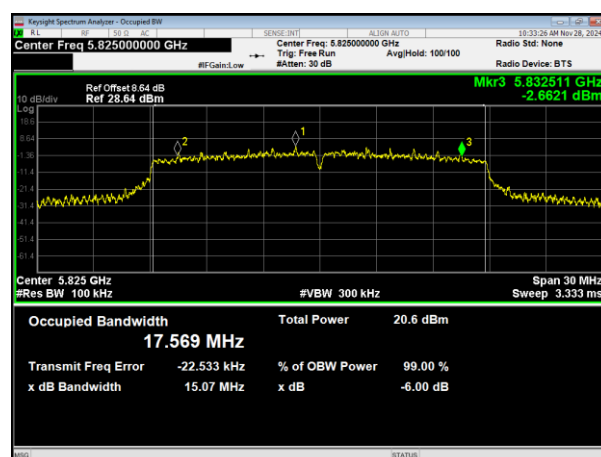
5745MHz



5785MHz



5785MHz

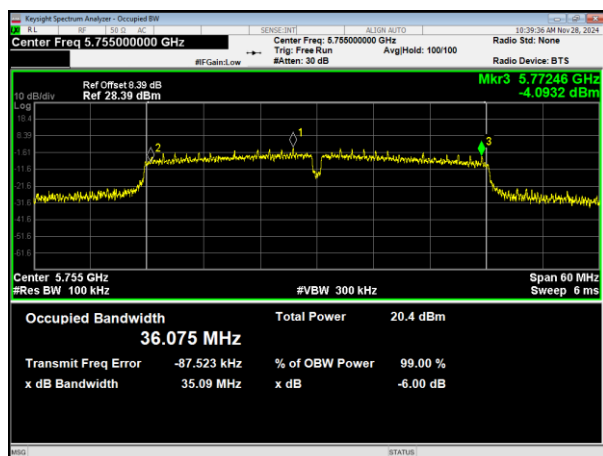


5825MHz

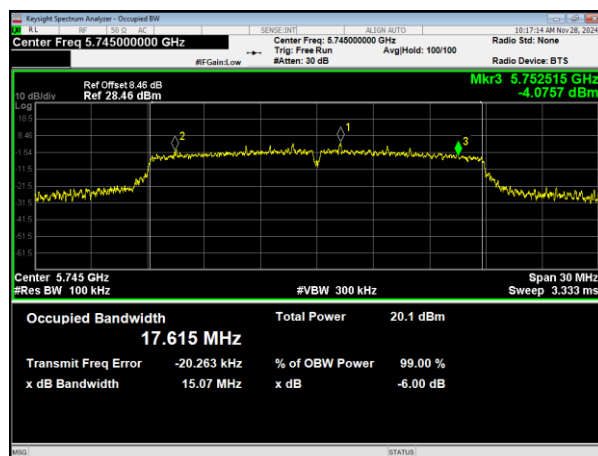
5825MHz



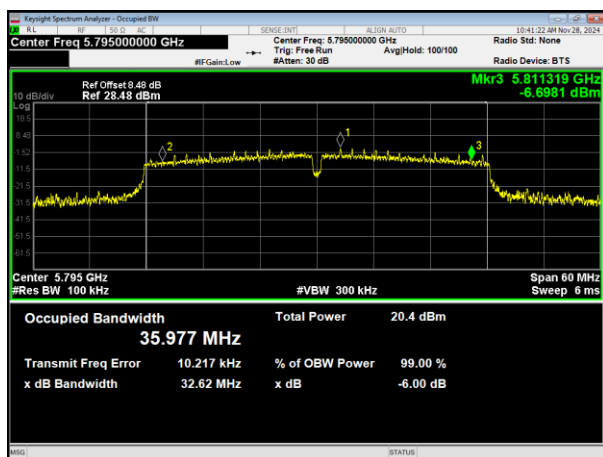
802.11ac HT40



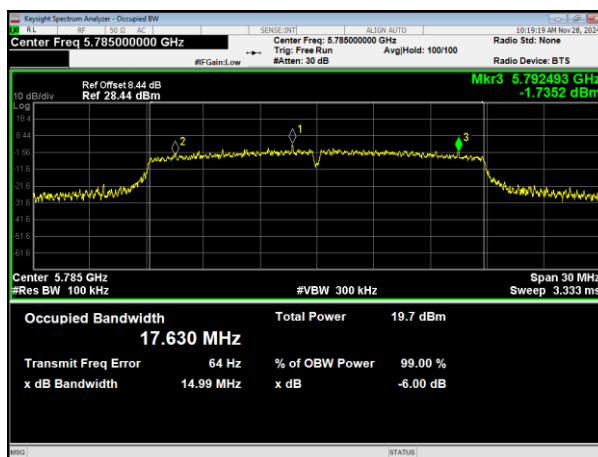
802.11n HT20



5755MHz



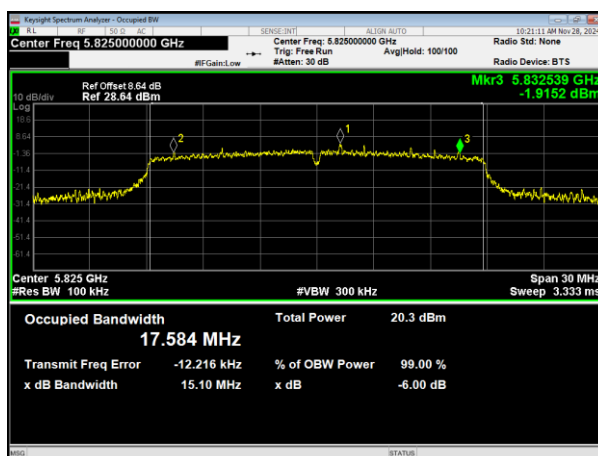
5745MHz



5795MHz



5785MHz



5825MHz



802.11n HT40 Center Freq 5.755000000 GHz Ref Offset 8.39 dB Ref 28.39 dBm Mkr3 5.772422 GHz -5.7736 dBm Center 5.755 GHz #Res BW 100 kHz #VBW 300 kHz Span 60 MHz Sweep 6 ms <table><tr><td>Occupied Bandwidth</td><td>Total Power</td><td></td></tr><tr><td>36.027 MHz</td><td>20.3 dBm</td><td></td></tr><tr><td>Transmit Freq Error</td><td>% of OBW Power</td><td>99.00 %</td></tr><tr><td>-68.313 kHz</td><td>x dB</td><td>-6.00 dB</td></tr><tr><td>x dB Bandwidth</td><td></td><td></td></tr><tr><td>34.98 MHz</td><td></td><td></td></tr></table>	Occupied Bandwidth	Total Power		36.027 MHz	20.3 dBm		Transmit Freq Error	% of OBW Power	99.00 %	-68.313 kHz	x dB	-6.00 dB	x dB Bandwidth			34.98 MHz			802.11ac HT80 Center Freq 5.775000000 GHz Ref Offset 8.41 dB Ref 28.41 dBm Mkr3 5.812483 GHz -7.8846 dBm Center 5.775 GHz #Res BW 100 kHz #VBW 300 kHz Span 120 MHz Sweep 12 ms <table><tr><td>Occupied Bandwidth</td><td>Total Power</td><td></td></tr><tr><td>75.536 MHz</td><td>20.5 dBm</td><td></td></tr><tr><td>Transmit Freq Error</td><td>% of OBW Power</td><td>99.00 %</td></tr><tr><td>-79.772 kHz</td><td>x dB</td><td>-6.00 dB</td></tr><tr><td>x dB Bandwidth</td><td></td><td></td></tr><tr><td>75.13 MHz</td><td></td><td></td></tr></table>	Occupied Bandwidth	Total Power		75.536 MHz	20.5 dBm		Transmit Freq Error	% of OBW Power	99.00 %	-79.772 kHz	x dB	-6.00 dB	x dB Bandwidth			75.13 MHz		
Occupied Bandwidth	Total Power																																				
36.027 MHz	20.3 dBm																																				
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-79.772 kHz	x dB	-6.00 dB																																			
x dB Bandwidth																																					
75.13 MHz																																					
5755MHz Center Freq 5.795000000 GHz Ref Offset 8.48 dB Ref 28.48 dBm Mkr3 5.812614 GHz -7.4277 dBm Center 5.795 GHz #Res BW 100 kHz #VBW 300 kHz Span 60 MHz Sweep 6 ms <table><tr><td>Occupied Bandwidth</td><td>Total Power</td><td></td></tr><tr><td>35.988 MHz</td><td>20.1 dBm</td><td></td></tr><tr><td>Transmit Freq Error</td><td>% of OBW Power</td><td>99.00 %</td></tr><tr><td>16.280 kHz</td><td>x dB</td><td>-6.00 dB</td></tr><tr><td>x dB Bandwidth</td><td></td><td></td></tr><tr><td>35.00 MHz</td><td></td><td></td></tr></table>	Occupied Bandwidth	Total Power		35.988 MHz	20.1 dBm		Transmit Freq Error	% of OBW Power	99.00 %	16.280 kHz	x dB	-6.00 dB	x dB Bandwidth			35.00 MHz			5775MHz																		
Occupied Bandwidth	Total Power																																				
35.988 MHz	20.1 dBm																																				
Transmit Freq Error	% of OBW Power	99.00 %																																			
16.280 kHz	x dB	-6.00 dB																																			
x dB Bandwidth																																					
35.00 MHz																																					
5795MHz																																					



7. DUTY CYCLE TEST SIGNAL

7.1 APPLIED PROCEDURES / LIMIT

Pre-analysis Check: While conducting average power measurement, duty cycle of each mode shall be checked to ensure its duty cycle in order to compensate for the loss due to insufficient ratio of duty cycle. All duty cycle is pre-scanned, and result as obtained below shows only the most representative ones where duty cycle is conducted as the given transmission with given virtual operation that expresses the percentage.

7.1.1 TEST PROCEDURE

1. Set RBW = 1 MHz.
2. Set the video bandwidth (VBW) $\geq$ RBW.
3. Detector = Peak.
4. Sweep = auto couple.
5. Allow the trace to stabilize.
6. Span=0

7.1.2 DEVIATION FROM STANDARD

No deviation.

7.1.3 TEST SETUP



7.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.



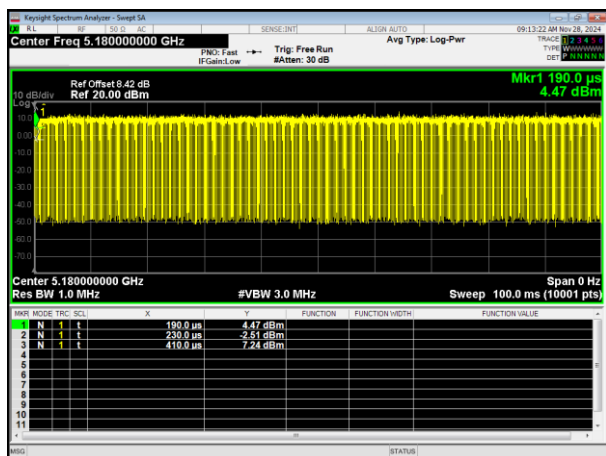
7.1.5 TEST RESULTS

		Test Channel	Duty Cycle(%)	Duty Fator (dB) 10 * log (1/ Duty cycle)
Band 1	802.11a	Low	81.82	0.87
		Middle	81.82	0.87
		High	81.82	0.87
	802.11ac HT20	Low	97.04	0.13
		Middle	97.04	0.13
		High	97.04	0.13
	802.11ac HT40	Low	92.86	0.32
		High	92.86	0.32
	802.11ac HT80	/	89.19	0.5
	802.11n HT20	Low	97.01	0.13
		Middle	97.01	0.13
		High	97.01	0.13
	802.11n HT40	Low	94.2	0.26
		High	94.2	0.26

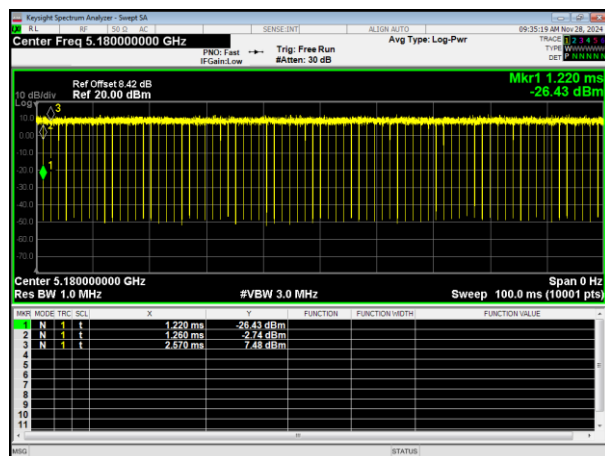
		Test Channel	Duty Cycle(%)	Duty Fator (dB) 10 * log (1/ Duty cycle)
Band 4	802.11a	Low	77.27	1.12
		Middle	77.27	1.12
		High	77.27	1.12
	802.11ac HT20	Low	93.06	0.31
		Middle	93.06	0.31
		High	93.06	0.31
	802.11ac HT40	Low	89.74	0.47
		High	89.74	0.47
	802.11ac HT80	/	82.61	0.83
	802.11n HT20	Low	96.3	0.16
		Middle	96.3	0.16
		High	96.3	0.16
	802.11n HT40	Low	94.2	0.26
		High	94.2	0.26



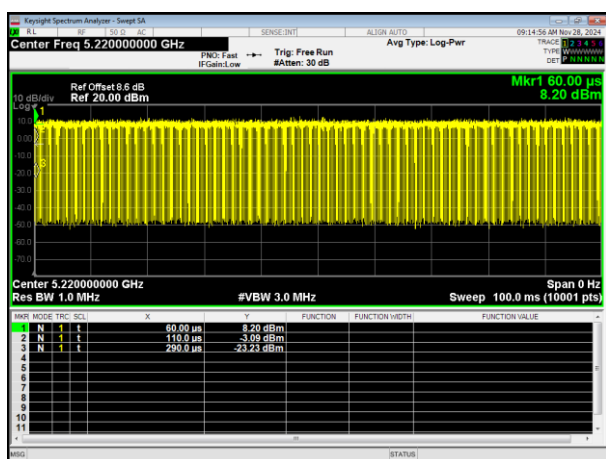
802.11a



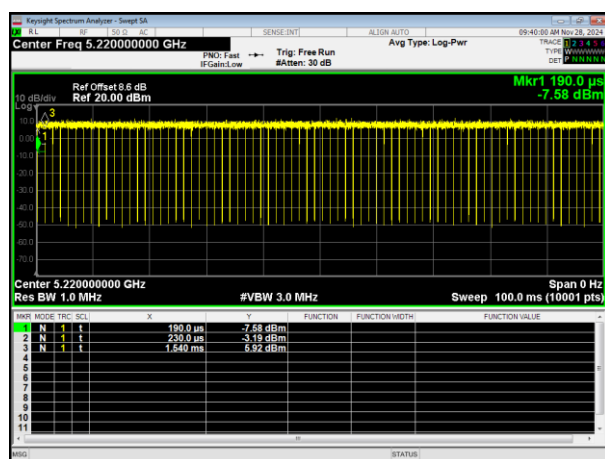
802.11ac HT20



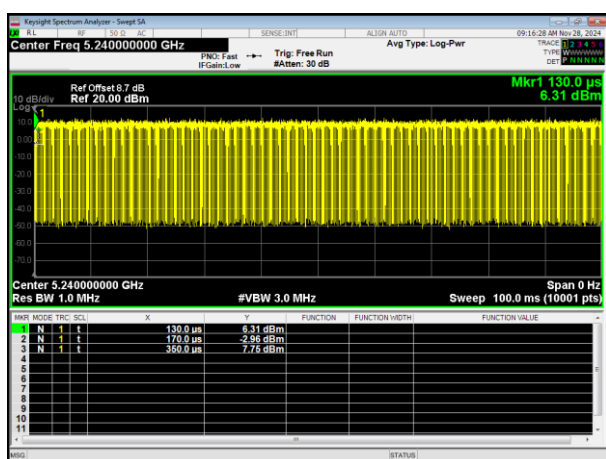
5180MHz



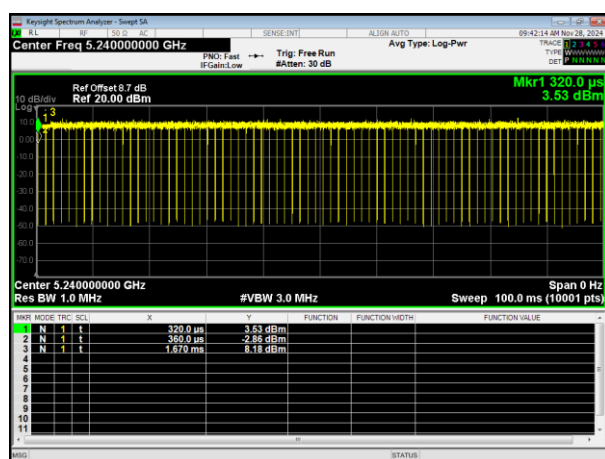
5180MHz



5200MHz



5200MHz

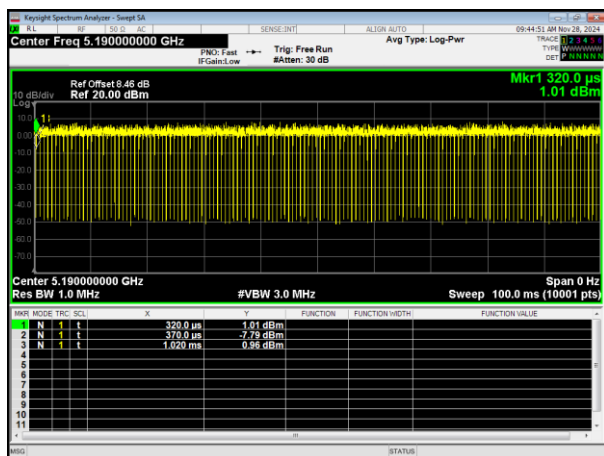


5240MHz

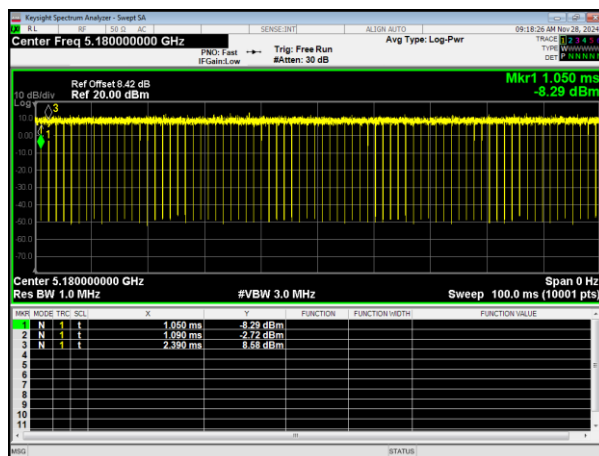
5240MHz



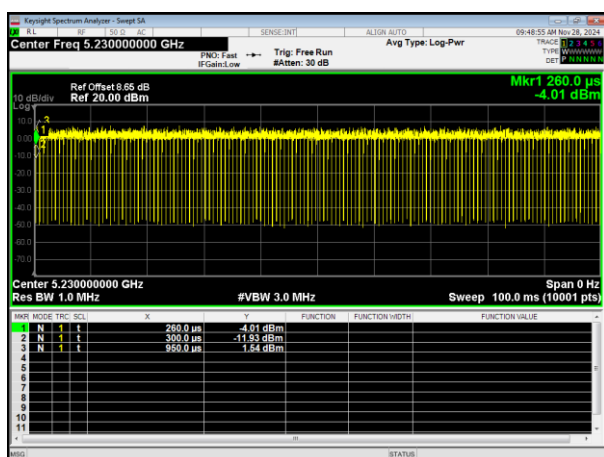
802.11ac HT40



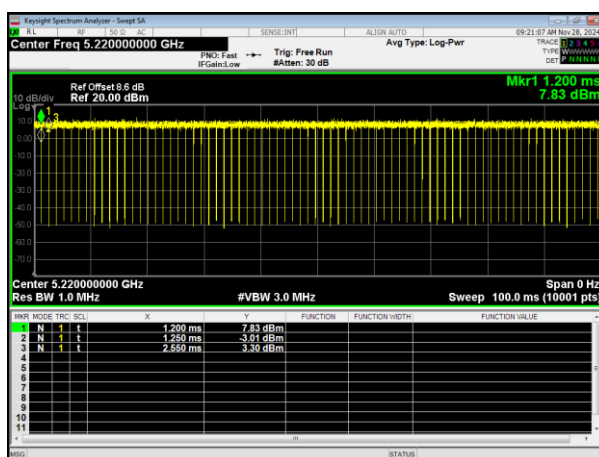
802.11n HT20



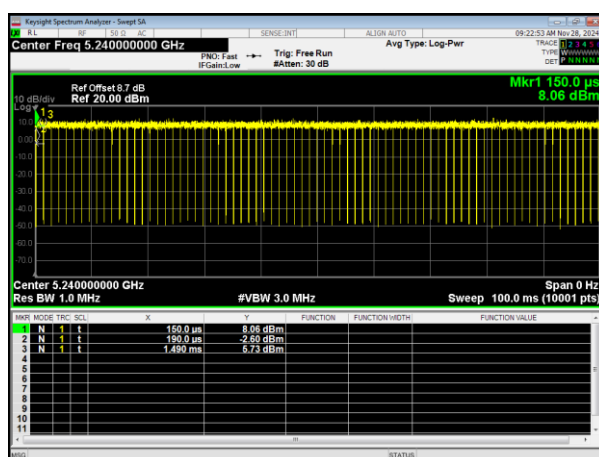
5190MHz



5180MHz



5230MHz

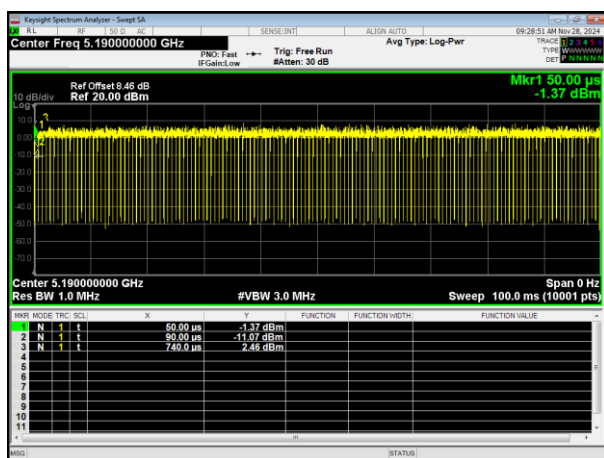


5200MHz

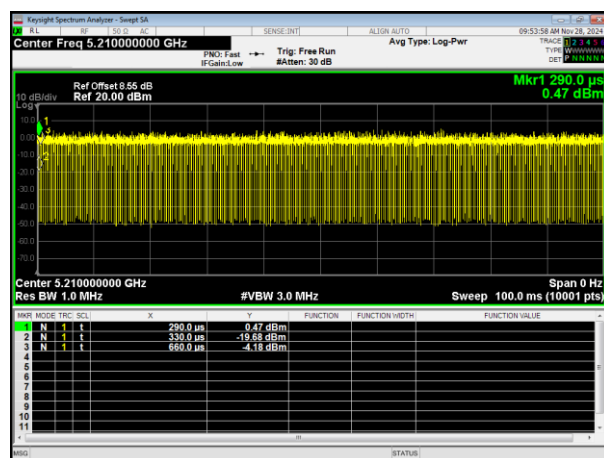
5240MHz



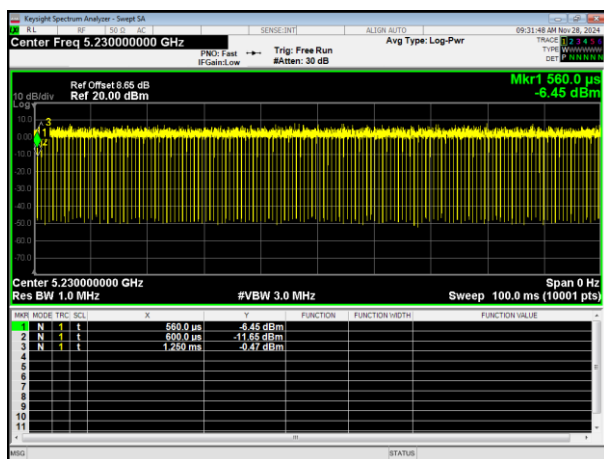
802.11n HT40



802.11ac HT80



5190MHz



5210MHz

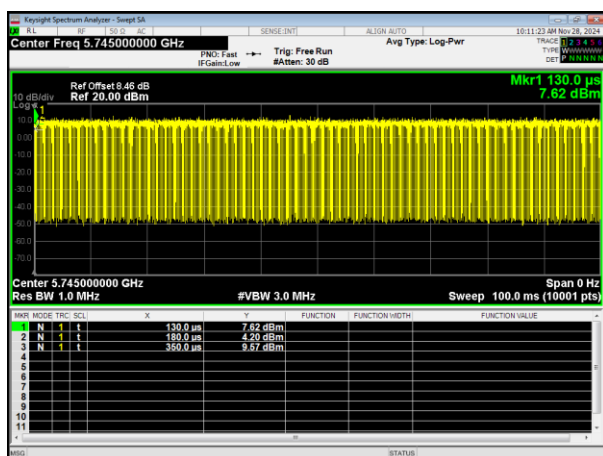


5230MHz

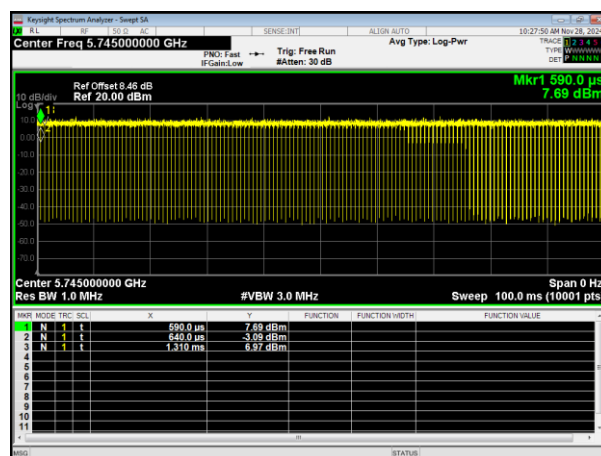




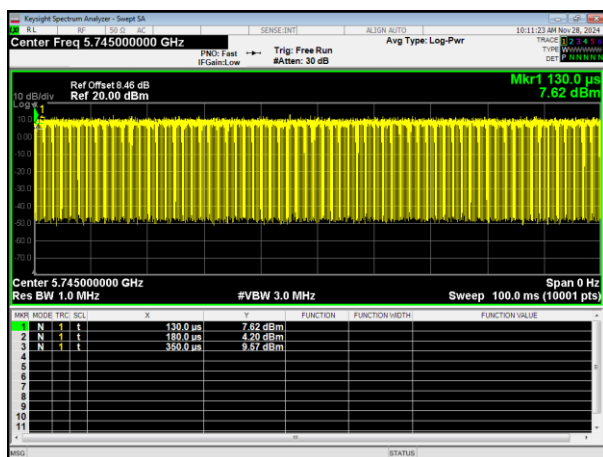
802.11a



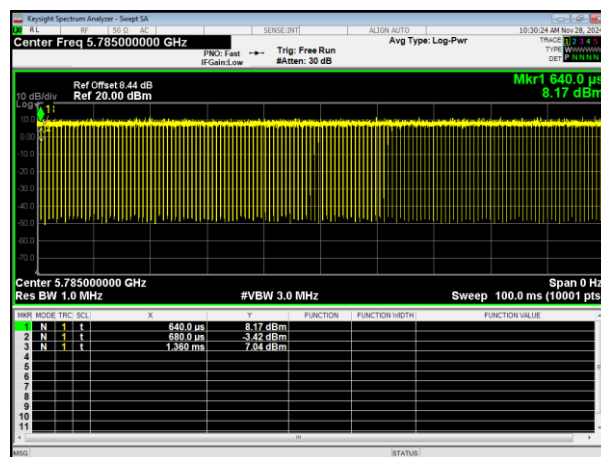
802.11ac HT20



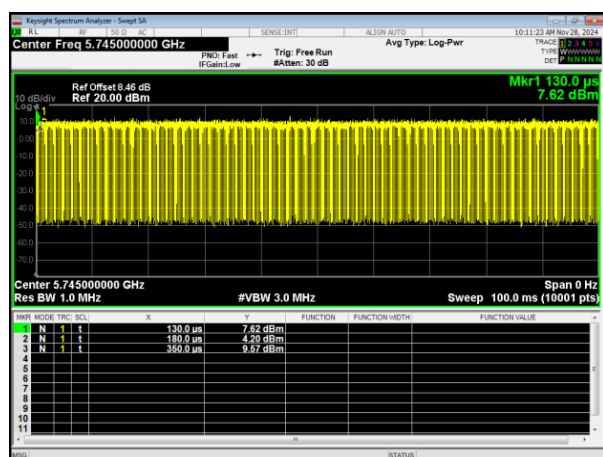
5745MHz



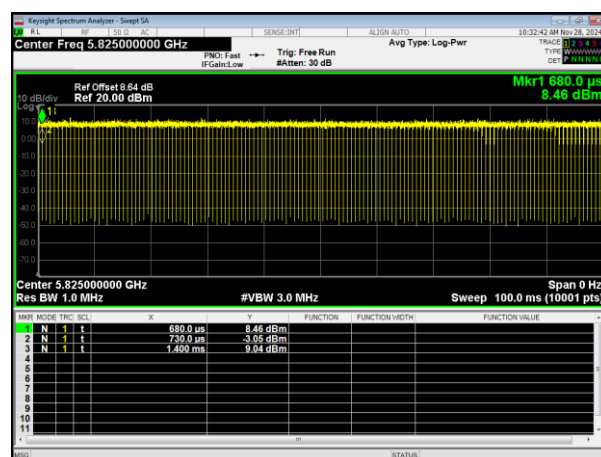
5745MHz



5785MHz



5785MHz

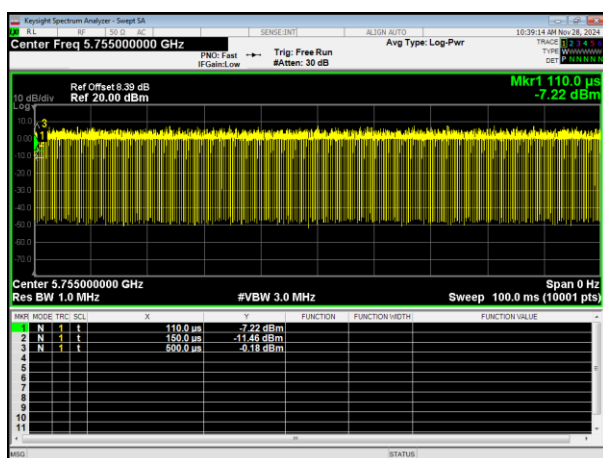


5825MHz

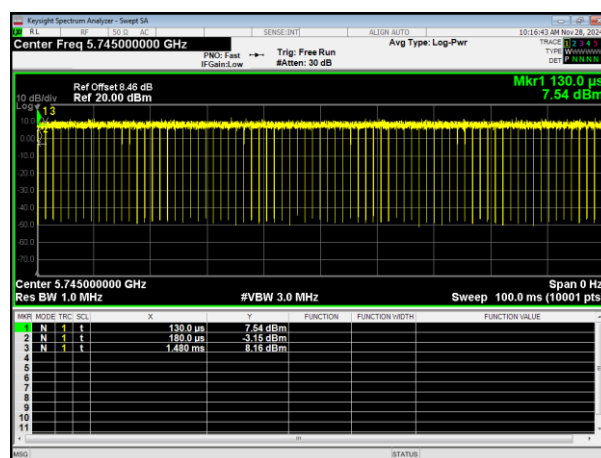
5825MHz



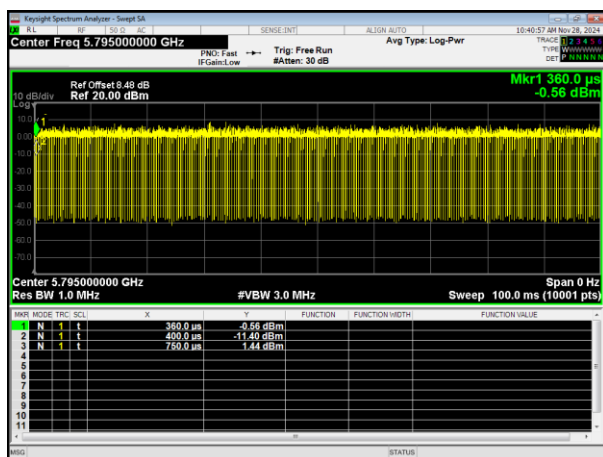
802.11ac HT40



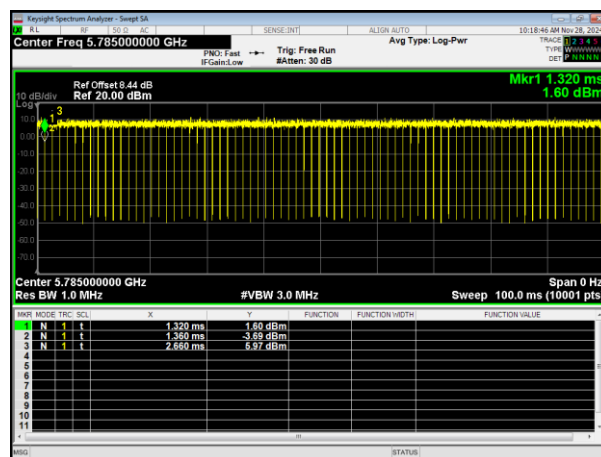
802.11n HT20



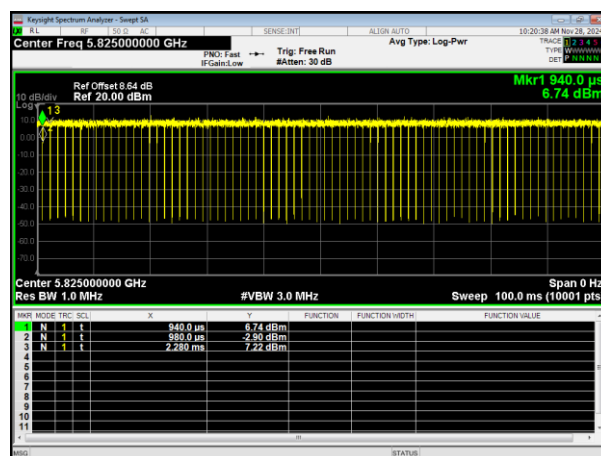
5755MHz



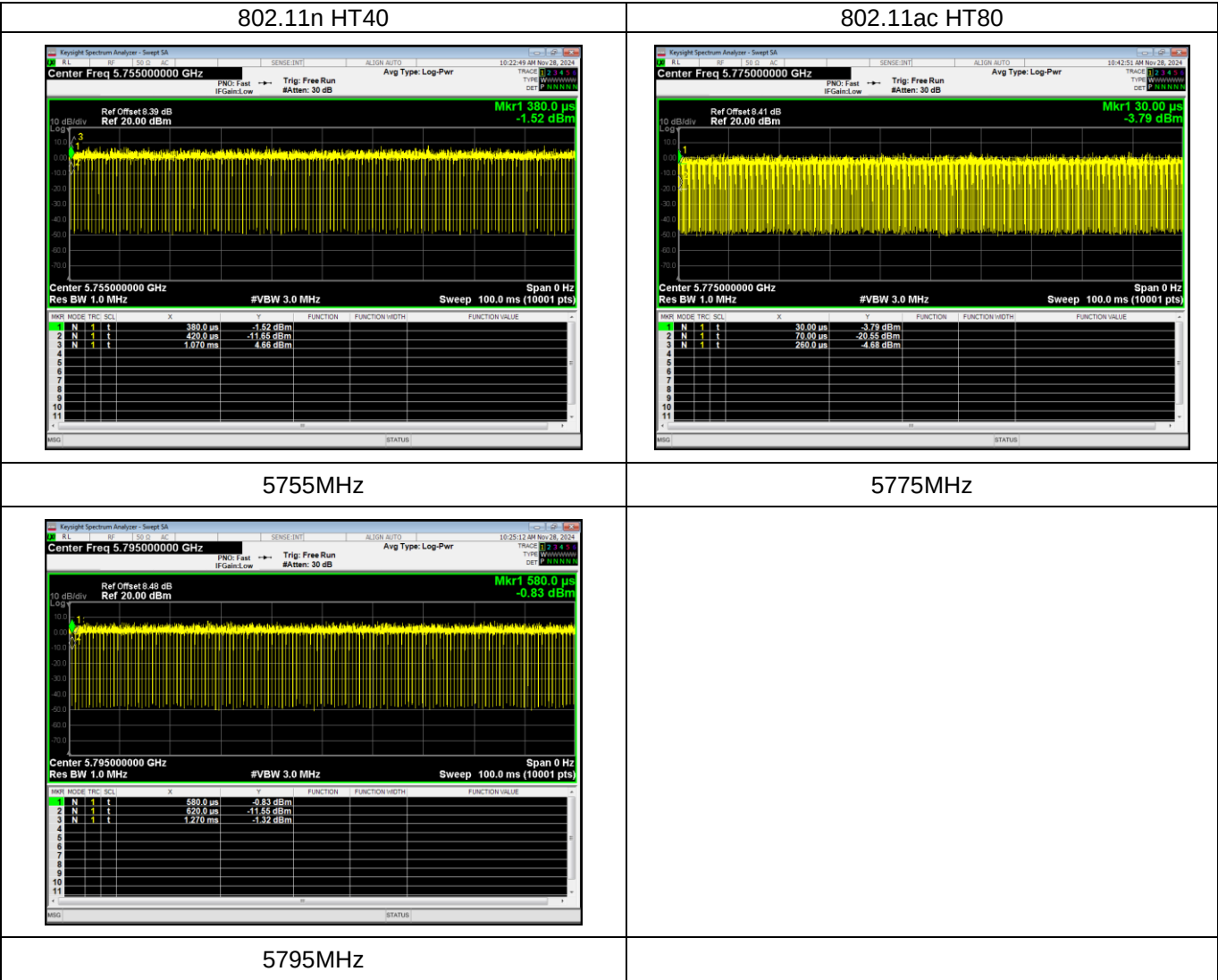
5745MHz



5795MHz



5825MHz





8. FREQUENCY STABILITY

8.1 APPLIED PROCEDURES / 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.

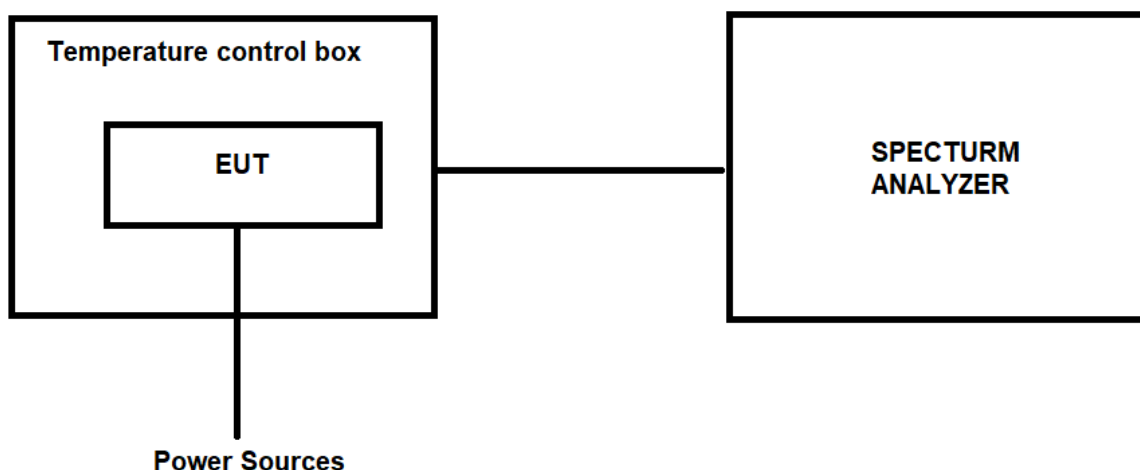
8.1.1 TEST PROCEDURE

1. The EUT was placed inside temperature chamber and powered and powered by nominal DC voltage.
2. Set EUT as normal operation.
3. Turn the EUT on and couple its output to spectrum.
4. Turn the EUT off and set the chamber to the highest temperature specified.
5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT and measure the operating frequency.
6. Repeat step with the temperature chamber set to the lowest temperature.

8.1.2 DEVIATION FROM STANDARD

No deviation.

8.1.3 TEST SETUP



8.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

**8.1.5 TEST RESULTS**

Test Voltage	Test Temp.	Measured Frequency	Spectrum Frequency (MHz)			Δ Frequency (PPM)		
		(MHz)	802.11a	802.11n HT20	802.11ac HT20	802.11a	802.11n HT20	802.11ac HT20
4.07V	-20℃	5180	5180.0369	5180.0396	5180.0314	7.1236	7.6448	6.0618
		5220	5220.0352	5220.0324	5220.0336	6.7433	6.2069	6.4368
		5240	5240.0214	5240.0222	5240.0214	4.0840	4.2366	4.0840
		5745	5745.0354	5745.0396	5745.0327	6.1619	6.8930	5.6919
		5785	5785.0396	5785.0314	5785.0356	6.8453	5.4278	6.1538
		5825	5825.0314	5825.0352	5825.0365	5.3906	6.0429	6.2661
3.33V		5180	5180.0252	5180.0244	5180.0254	4.8649	4.7104	4.9035
		5220	5220.0318	5220.0363	5220.0352	6.0920	6.9540	6.7433
		5240	5240.0241	5240.0245	5240.0227	4.5992	4.6756	4.3321
		5745	5745.0269	5745.0225	5745.0263	4.6823	3.9164	4.5779
		5785	5785.0341	5785.0363	5785.0355	5.8946	6.2748	6.1366
		5825	5825.0417	5825.0441	5825.0412	7.1588	7.5708	7.0730
3.7V	25℃	5180	5180.0526	5180.0513	5180.0563	10.1544	9.9035	10.8687
		5220	5220.0268	5220.0239	5220.0244	5.1341	4.5785	4.6743
		5240	5240.0352	5240.0314	5240.0367	6.7176	5.9924	7.0038
		5745	5745.0354	5745.0322	5745.0325	6.1619	5.6049	5.6571
		5785	5785.0436	5785.0436	5785.0466	7.5367	7.5367	8.0553
		5825	5825.0218	5825.0223	5825.0224	3.7425	3.8283	3.8455
4.07V	50℃	5180	5180.0352	5180.0314	5180.0367	6.7954	6.0618	7.0849
		5220	5220.0245	5220.0244	5220.0272	4.6935	4.6743	5.2107
		5240	5240.0396	5240.0352	5240.0353	7.5573	6.7176	6.7366
		5745	5745.0614	5745.0658	5745.0641	10.6876	11.4534	11.1575
		5785	5785.0428	5785.0426	5785.0443	7.3984	7.3639	7.6577
		5825	5825.0644	5825.0625	5825.0667	11.0558	10.7296	11.4506
3.33V	50℃	5180	5180.0336	5180.0322	5180.0344	6.4865	6.2162	6.6409
		5220	5220.0251	5220.0267	5220.0253	4.8084	5.1149	4.8467
		5240	5240.0317	5240.0353	5240.0324	6.0496	6.7366	6.1832
		5745	5745.0463	5745.0424	5745.0462	8.0592	7.3803	8.0418
		5785	5785.0254	5785.0257	5785.0248	4.3907	4.4425	4.2869
		5825	5825.0739	5825.0736	5825.0763	12.6867	12.6352	13.0987



Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)		Δ Frequency (PPM)	
			802.11n HT40	802.11ac HT40	802.11n HT40	802.11ac HT40
132V	-20°C	5190	5180.0336	5180.0351	6.4865	6.7761
		5230	5220.0370	5220.0332	7.0881	6.3602
		5755	5240.0251	5240.0279	4.7901	5.3244
		5795	5745.0401	5745.0321	6.9800	5.5875
108V		5190	5785.0326	5785.0366	5.6353	6.3267
		5230	5825.0337	5825.0378	5.7854	6.4893
		5755	5180.0215	5180.0266	4.1506	5.1351
		5795	5220.0373	5220.0332	7.1456	6.3602
120V	25°C	5190	5240.0237	5240.0221	4.5229	4.2176
		5230	5745.0294	5745.0295	5.1175	5.1349
		5755	5785.0356	5785.0321	6.1538	5.5488
		5795	5825.0487	5825.0421	8.3605	7.2275
132V	50°C	5190	5180.0593	5180.0526	11.4479	10.1544
		5230	5220.0240	5220.0274	4.5977	5.2490
		5755	5240.0382	5240.0321	7.2901	6.1260
		5795	5745.0326	5745.0326	5.6745	5.6745
108V	50°C	5190	5785.0427	5785.0403	7.3812	6.9663
		5230	5825.0294	5825.0221	5.0472	3.7940
		5755	5180.0325	5180.0355	6.2741	6.8533
		5795	5220.0207	5220.0221	3.9655	4.2337



Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)	Δ Frequency (PPM)
			802.11ac HT80	802.11ac HT80
132V	-20℃	5210	5210.0156	2.9942
		5775	5775.0168	2.9091
108V		5210	5210.0274	5.2591
		5775	5775.0343	5.9394
120V	25℃	5210	5210.0465	8.9251
		5775	5775.0364	6.3030
132V	50℃	5210	5210.0347	6.6603
		5775	5775.0265	4.5887
108V	50℃	5210	5210.0336	6.4491
		5775	5775.0547	9.4719



9. TRANSMISSION IN THE ABSENCE OF DATA

9.1 STANDARD REQUIREMENT

According to §15.407(c)

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 a description of how this requirement is met.

9.2 TEST RESULT

No non-compliance noted:
Refer to the theory of operation.

10. ANTENNA REQUIREMENT

10.1 STANDARD REQUIREMENT

15.203 requirement: 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.

10.2 EUT ANTENNA

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

11. TEST SEUUP PHOTO

Reference to the appendix I for details.

12. EUT PHOTO

Reference to the appendix II for details.

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