APPENDIX REPORT

Project No.	SHT2104093301EW	Radio Specification	WIFI 5G
Test sample No.	YPHT21040933013	Model No.	CT9F08
Start test date	2021-05-10	Finish date	2021-05-10
Temperature	25.2°C	Humidity	39%
Test Engineer	Hailey Chen	Auditor	Xiaodong Zhao

Appendix clause	Test item	Result
A	Maximum Conducted Output Power	PASS
B	Maximum Power Spectral Density	PASS
C	26 dB Bandwidth	PASS
D	99% Occupy bandwidth	PASS
E	6 dB Bandwidth	PASS
F	Band edge	PASS
G	Frequency stability	PASS

Appendix A：Maximum Conducted Output Power

Band	Bandwidth (MHz)	Type	Channel	Reading (dBm)	Duty cycle (%)	Duty cycle factor（dB）	Conducted Output Power (dBm)	Limit (dBm)	Result
I	20	802.11ac	CH_L	11.71	96.58	0.15	11.86	24.00	Pass
			CH_M	12.48	96.58	0.15	12.63		
			CH_H	13.33	96.48	0.16	13.49		
		802.11n	CH_L	11.04	96.55	0.15	11.19	24.00	Pass
			CH_M	11.93	96.55	0.15	12.08		
			CH_H	12.47	96.55	0.15	12.62		
		802.11a	CH_L	11.48	96.77	0.14	11.62	24.00	Pass
			CH_M	11.46	96.77	0.14	11.60		
			CH_H	13.16	96.77	0.14	13.30		
	40	802.11ac	CH_L	12.07	93.48	0.29	12.36	24.00	Pass
			CH_H	13.12	93.57	0.29	13.41		
		802.11n	CH_L	12.16	93.53	0.29	12.45	24.00	Pass
			CH_H	13.12	93.45	0.29	13.41		
	80	802.11ac	CH_M	12.67	87.67	0.57	13.24	24.00	Pass
II	20	802.11ac	CH_L	12.70	96.58	0.15	12.85	24.00	Pass
			CH_M	12.46	96.58	0.15	12.61		
			CH_H	12.74	96.58	0.15	12.89		
		802.11n	CH_L	12.93	96.55	0.15	13.08	24.00	Pass
			CH_M	12.83	96.55	0.15	12.98		
			CH_H	12.77	96.55	0.15	12.92		
		802.11a	CH_L	12.61	96.77	0.14	12.75	24.00	Pass
			CH_M	12.69	96.68	0.15	12.84		
			CH_H	12.56	96.77	0.14	12.70		
	40	802.11ac	CH_L	12.75	93.48	0.29	13.04	24.00	Pass
			CH_H	12.84	93.57	0.29	13.13		
		802.11n	CH_L	12.78	93.45	0.29	13.07	24.00	Pass
			CH_H	12.71	93.53	0.29	13.00		
	80	802.11ac	CH_M	12.64	87.52	0.58	13.22	24.00	Pass

Band	Bandwidth (MHz)	Type	Channel	Reading (dBm)	Duty cycle (%)	Duty cycle factor（dB）	Conducted Output Power (dBm)	Limit (dBm)	Result
III	20	802.11ac	CH_L	13.36	96.58	0.15	13.51	24.00	Pass
			CH_M	11.27	96.58	0.15	11.42		
			CH_H	9.44	96.48	0.16	9.60		
		802.11n	CH_L	13.65	96.55	0.15	13.80	24.00	Pass
			CH_M	11.64	96.55	0.15	11.79		
			CH_H	9.35	96.55	0.15	9.50		
		802.11a	CH_L	13.40	96.77	0.14	13.54	24.00	Pass
			CH_M	11.32	96.77	0.14	11.46		
			CH_H	10.58	96.77	0.14	10.72		
	40	802.11ac	CH_L	12.72	93.48	0.29	13.01	24.00	Pass
			CH_M	11.08	93.48	0.29	11.37		
			CH_H	8.85	93.48	0.29	9.14		
		802.11n	CH_L	12.89	93.45	0.29	13.18	24.00	Pass
			CH_M	11.09	93.53	0.29	11.38		
			CH_H	8.92	93.45	0.29	9.21		
	80	802.11ac	CH_L	12.14	87.52	0.58	12.72	24.00	Pass
			CH_M	10.72	87.69	0.57	11.29		
			CH_H	9.10	87.69	0.57	9.67		
IV	20	802.11ac	CH_L	12.62	96.58	0.15	12.77	30.00	Pass
			CH_M	12.34	96.58	0.15	12.49		
			CH_H	12.63	96.48	0.16	12.79		
		802.11n	CH_L	12.59	96.55	0.15	12.74	30.00	Pass
			CH_M	12.46	96.55	0.15	12.61		
			CH_H	12.62	96.55	0.15	12.77		
		802.11a	CH_L	12.72	96.77	0.14	12.86	30.00	Pass
			CH_M	12.35	96.68	0.15	12.50		
			CH_H	12.86	96.77	0.14	13.00		
	40	802.11ac	CH_L	12.62	93.48	0.29	12.91	30.00	Pass
			CH_H	12.44	93.48	0.29	12.73		
		802.11n	CH_L	12.59	93.44	0.29	12.88	30.00	Pass
			CH_H	12.50	93.53	0.29	12.79		
	80	802.11ac	CH_M	11.76	87.69	0.57	12.33	30.00	Pass

NOTE: duty cycle factor =10LOG(1/ duty cycle)

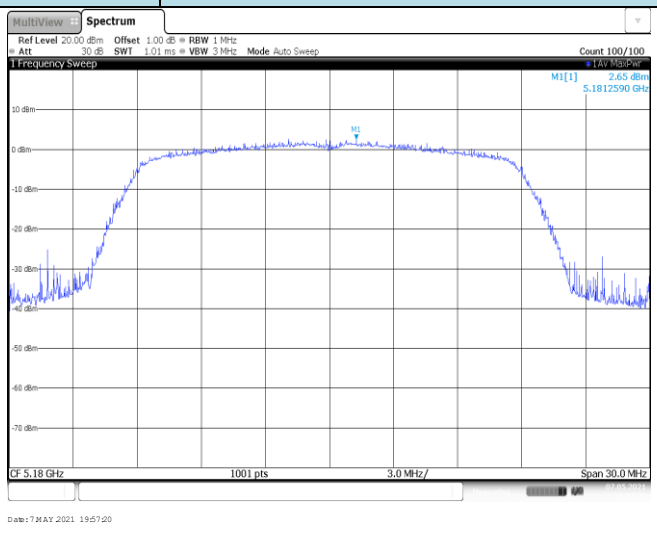
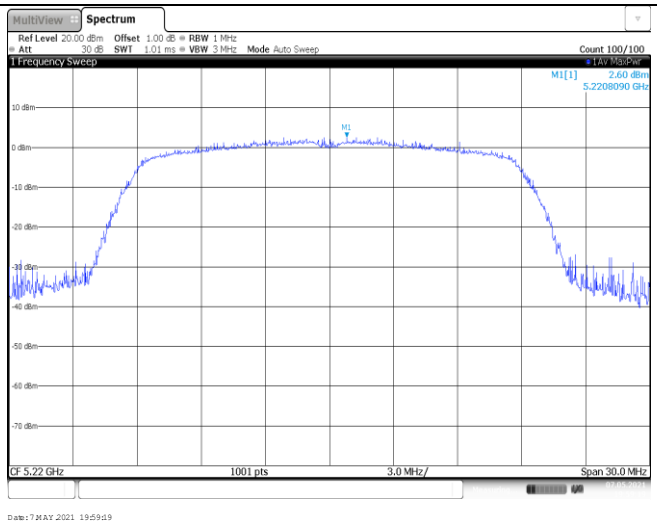
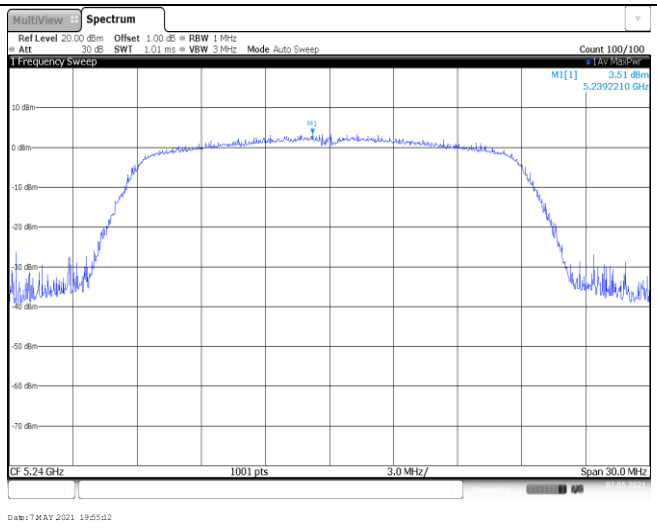
Appendix B：Maximum Power Spectral Density

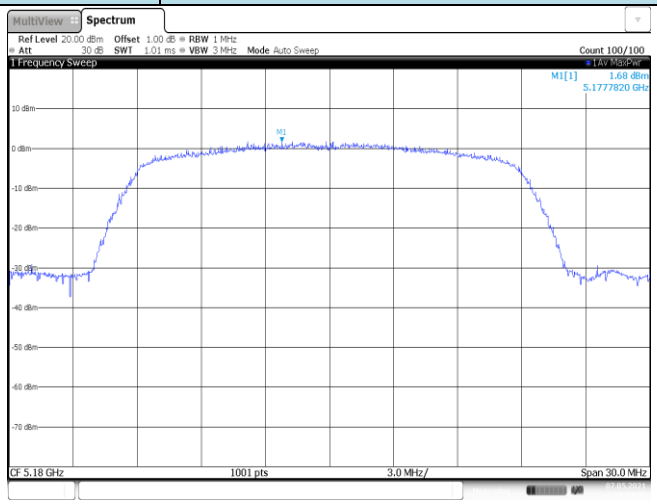
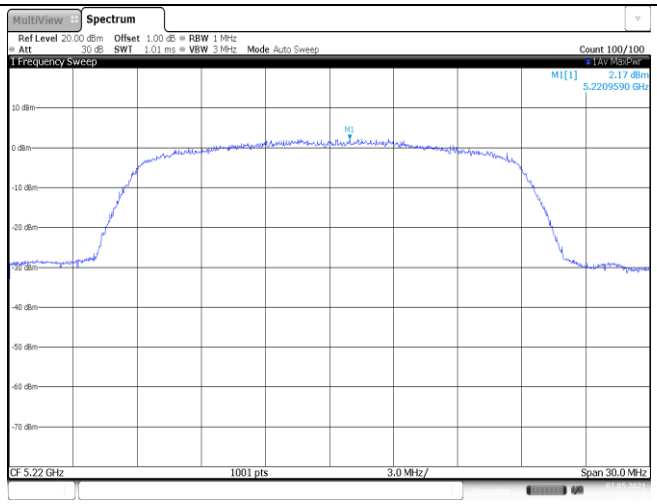
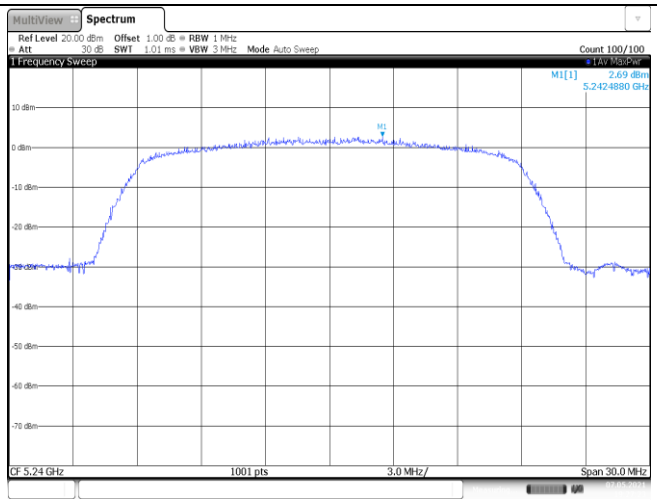
Band	Bandwidth (MHz)	Type	Channel	Reading (dBm)	Duty cycle (%)	Duty cycle factor（dB）	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)	Result
I	20	802.11 ac	CH_L	2.65	96.58	0.15	2.80	11.00	Pass
			CH_M	2.60	96.58	0.15	2.75		
			CH_H	3.51	96.48	0.16	3.67		
		802.11 n	CH_L	1.68	96.55	0.15	1.83	11.00	Pass
			CH_M	2.17	96.55	0.15	2.32		
			CH_H	2.69	96.55	0.15	2.84		
		802.11 a	CH_L	2.42	96.77	0.14	2.56	11.00	Pass
			CH_M	1.73	96.77	0.14	1.87		
			CH_H	3.45	96.77	0.14	3.59		
	40	802.11 ac	CH_L	-0.34	93.48	0.29	-0.05	11.00	Pass
			CH_H	0.53	93.57	0.29	0.82		
		802.11 n	CH_L	0.21	93.53	0.29	0.50	11.00	Pass
			CH_H	0.69	93.45	0.29	0.98		
	80	802.11 ac	CH_M	-2.49	87.67	0.57	-1.92	11.00	Pass

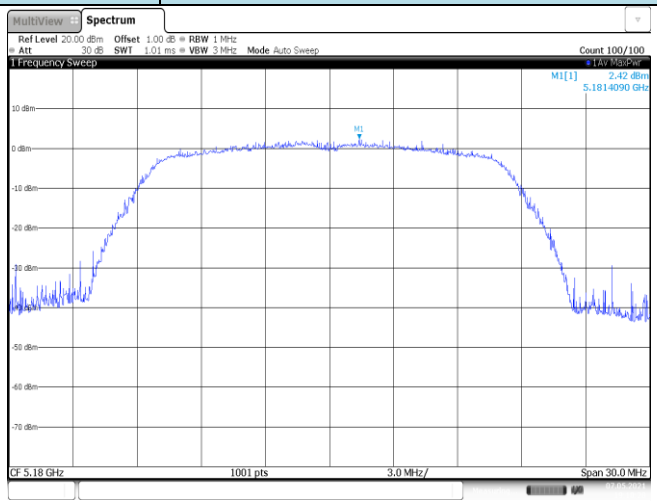
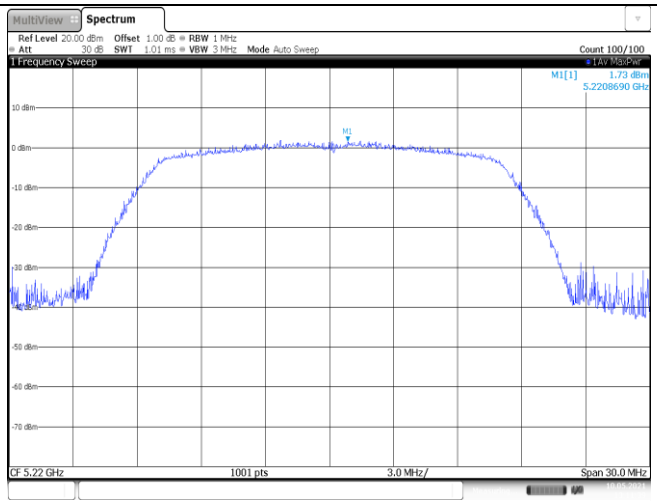
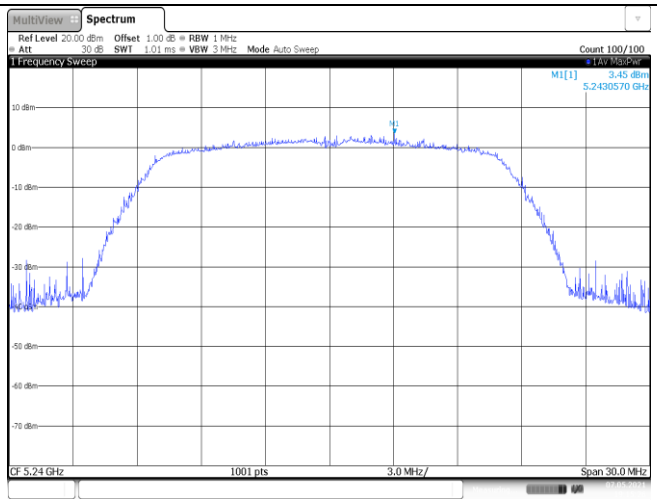
Band	Bandwidth (MHz)	Type	Channel	Reading (dBm)	Duty cycle (%)	Duty cycle factor（dB）	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)	Result
II	20	802.11 ac	CH_L	2.99	96.58	0.15	3.14	11.00	Pass
			CH_M	3.15	96.58	0.15	3.30		
			CH_H	3.51	96.58	0.15	3.66		
		802.11 n	CH_L	4.04	96.55	0.15	4.19	11.00	Pass
			CH_M	4.36	96.55	0.15	4.51		
			CH_H	3.57	96.55	0.15	3.72		
		802.11 a	CH_L	3.03	96.77	0.14	3.17	11.00	Pass
			CH_M	3.47	96.68	0.15	3.62		
			CH_H	3.29	96.77	0.14	3.43		
	40	802.11 ac	CH_L	0.17	93.48	0.29	0.46	11.00	Pass
			CH_H	0.40	93.57	0.29	0.69		
		802.11 n	CH_L	0.68	93.45	0.29	0.97	11.00	Pass
			CH_H	0.63	93.53	0.29	0.92		
	80	802.11 ac	CH_M	-2.41	87.69	0.57	-1.84	11.00	Pass

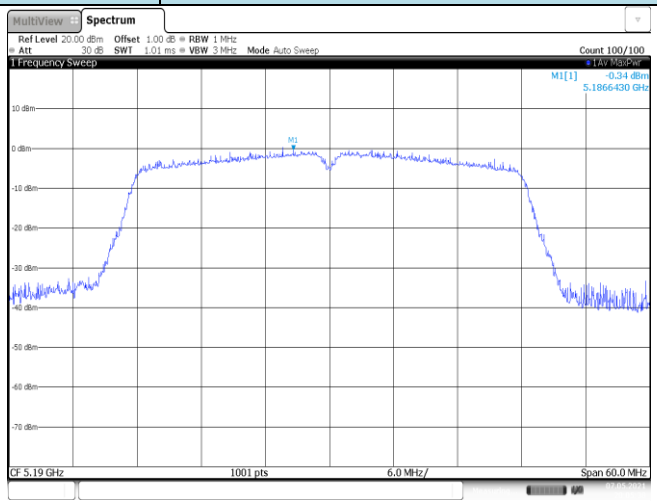
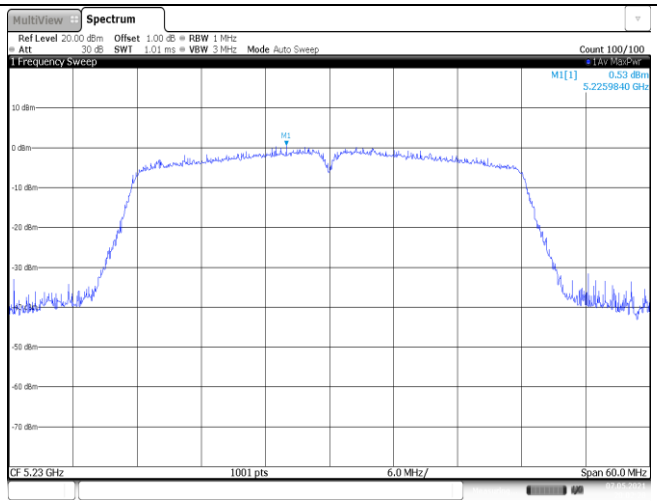
Band	Bandwidth (MHz)	Type	Channel	Reading (dBm)	Duty cycle (%)	Duty cycle factor（dB）	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)	Result
III	20	802.11 ac	CH_L	5.32	96.58	0.15	5.47	11.00	Pass
			CH_M	1.64	96.58	0.15	1.79		
			CH_H	-1.25	96.48	0.16	-1.09		
		802.11 n	CH_L	4.76	96.55	0.15	4.91	11.00	Pass
			CH_M	2.08	96.55	0.15	2.23		
			CH_H	-1.04	96.55	0.15	-0.89		
		802.11 a	CH_L	4.49	96.77	0.14	4.63	11.00	Pass
			CH_M	2.09	96.77	0.14	2.23		
			CH_H	-0.71	96.77	0.14	-0.57		
	40	802.11 ac	CH_L	0.46	93.48	0.29	0.75	11.00	Pass
			CH_M	-1.36	93.48	0.29	-1.07		
			CH_H	-4.15	93.48	0.29	-3.86		
		802.11 n	CH_L	1.56	93.45	0.29	1.85	11.00	Pass
			CH_M	-1.40	93.53	0.29	-1.11		
			CH_H	-3.70	93.45	0.29	-3.41		
	80	802.11 ac	CH_L	-3.18	87.52	0.58	-2.60	11.00	Pass
			CH_M	-3.96	87.69	0.57	-3.39		
			CH_H	-6.80	87.69	0.57	-6.23		
Band	Bandwidth (MHz)	Type	Channel	Reading (dBm)	Duty cycle (%)	Duty cycle factor（dB）	Power Spectral Density (dBm/500 kHz)	Limit (dBm/500K Hz)	Result
IV	20	802.11 ac	CH_L	1.31	96.58	0.15	1.46	30.00	Pass
			CH_M	1.49	96.58	0.15	1.64		
			CH_H	0.45	96.48	0.16	0.61		
		802.11 n	CH_L	1.97	96.55	0.15	2.12	30.00	Pass
			CH_M	1.39	96.55	0.15	1.54		
			CH_H	0.86	96.55	0.15	1.01		
		802.11 a	CH_L	2.08	96.77	0.14	2.22	30.00	Pass
			CH_M	1.44	96.68	0.15	1.59		
			CH_H	0.99	96.77	0.14	1.13		
	40	802.11 ac	CH_L	-0.97	93.48	0.29	-0.68	30.00	Pass
			CH_H	-2.10	93.48	0.29	-1.81		
		802.11 n	CH_L	-1.04	93.44	0.29	-0.75	30.00	Pass
			CH_H	-1.54	93.53	0.29	-1.25		
	80	802.11 ac	CH_M	-5.68	87.69	0.57	-5.11	30.00	Pass

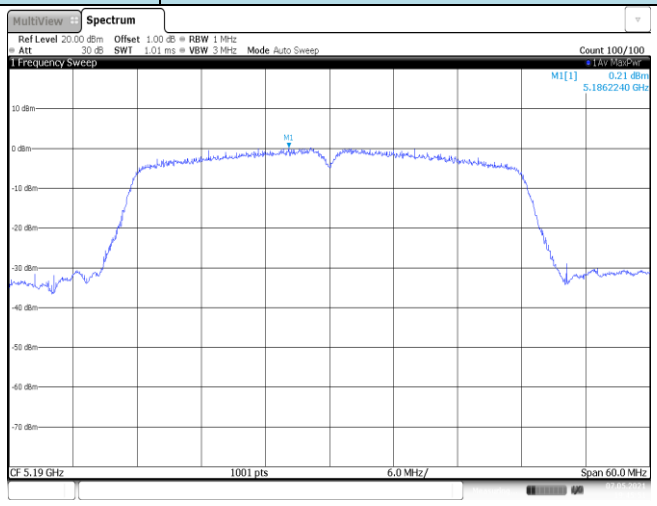
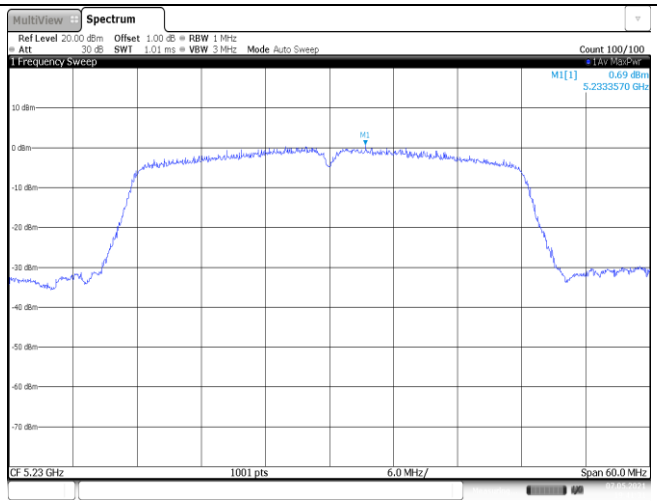
Test plot as follows:

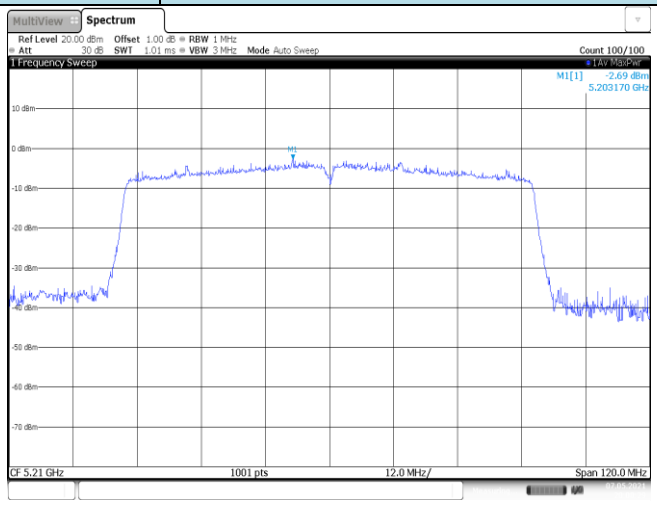
Band I	**802.11ac (HT20)**
CH_L	
CH_M	
CH_H	

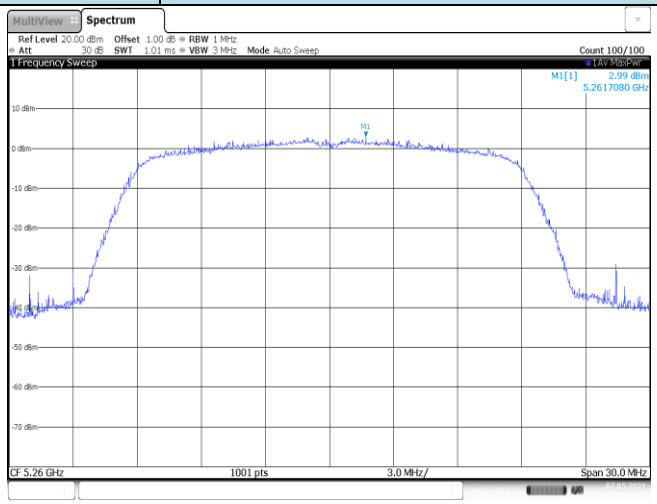
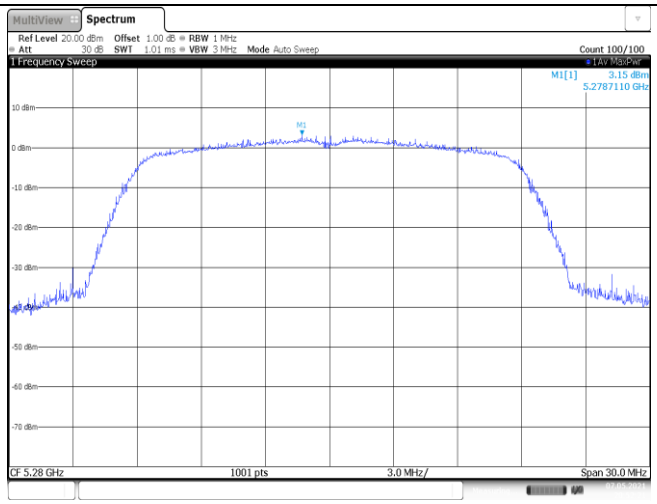
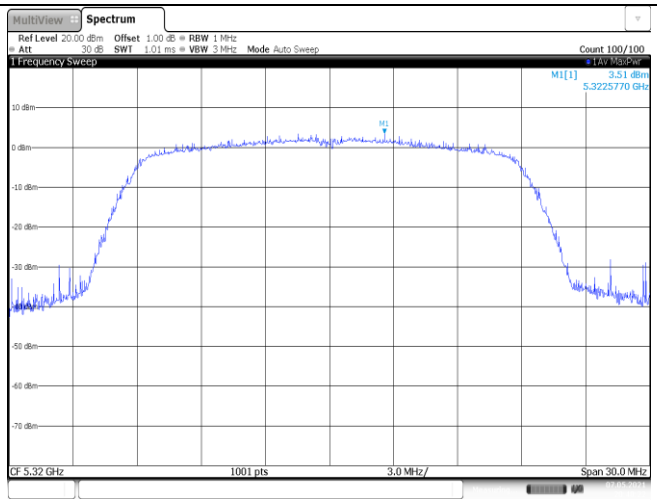
Band I	802.11n (HT20)
CH_L	
CH_M	
CH_H	

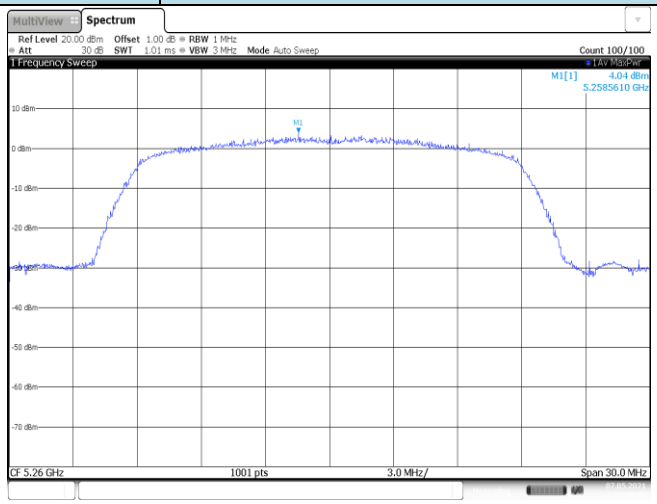
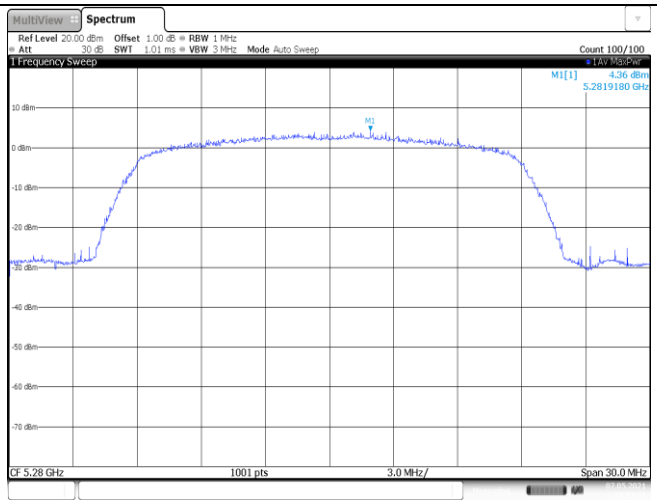
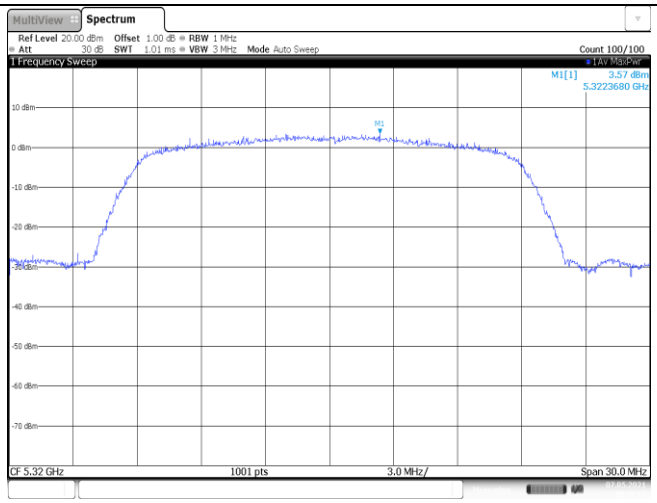
Band I	802.11a
CH_L	
CH_M	
CH_H	

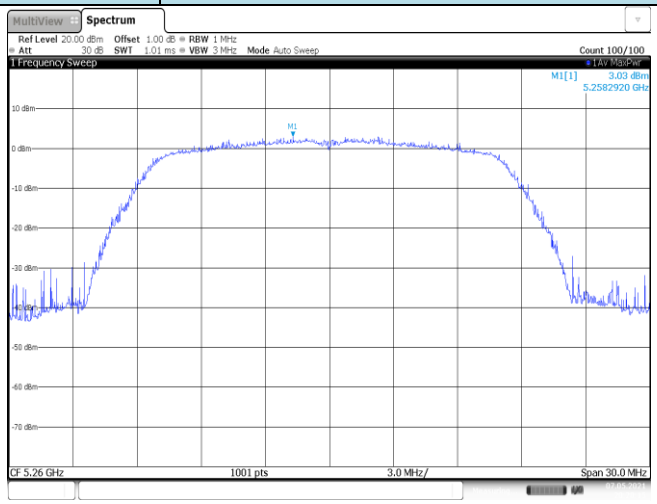
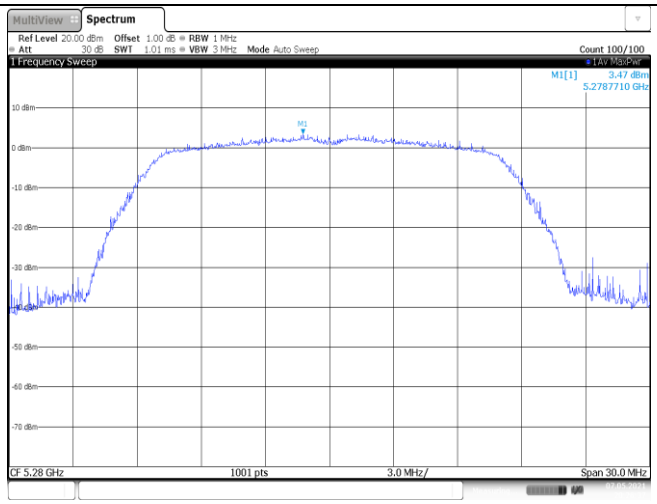
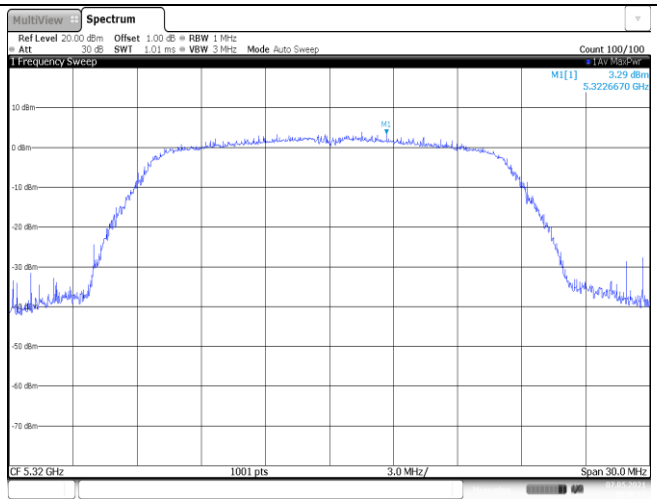
Band I	802.11ac (HT40)
CH_L	
CH_H	

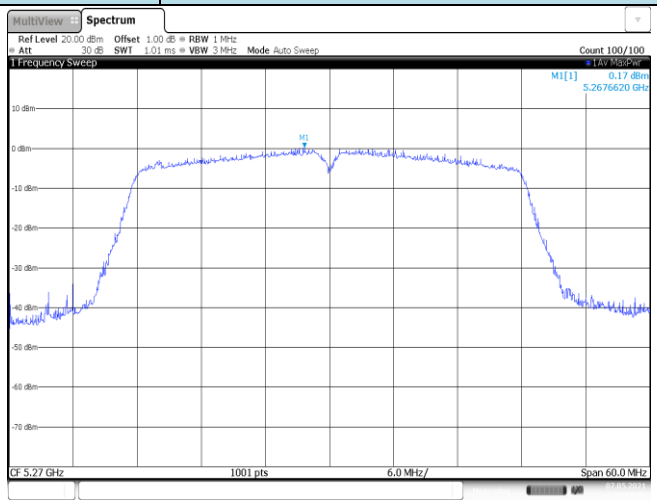
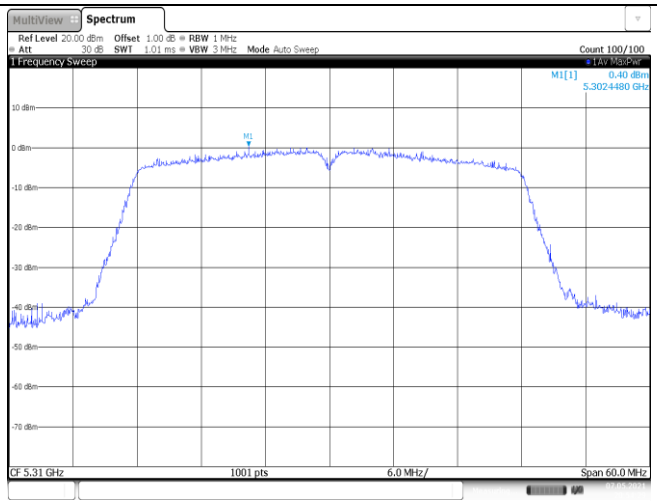
Band I	802.11n (HT40)
CH_L	
CH_H	

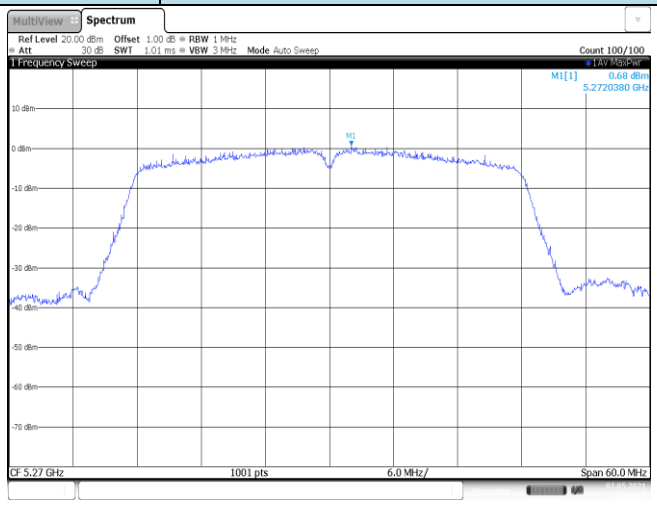
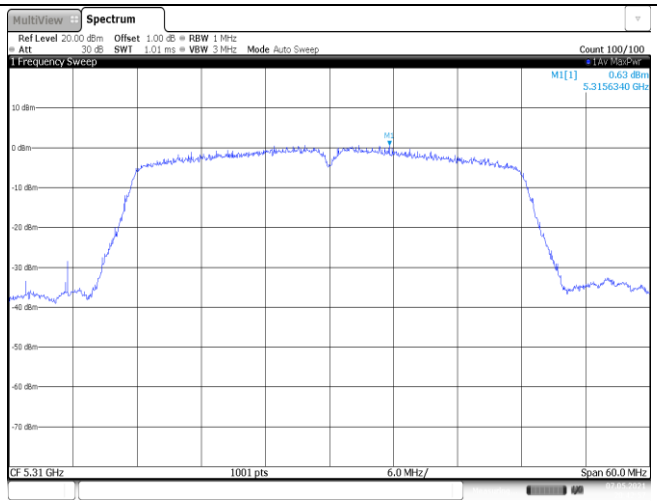
Band I	802.11ac (HT80)
CH_M	

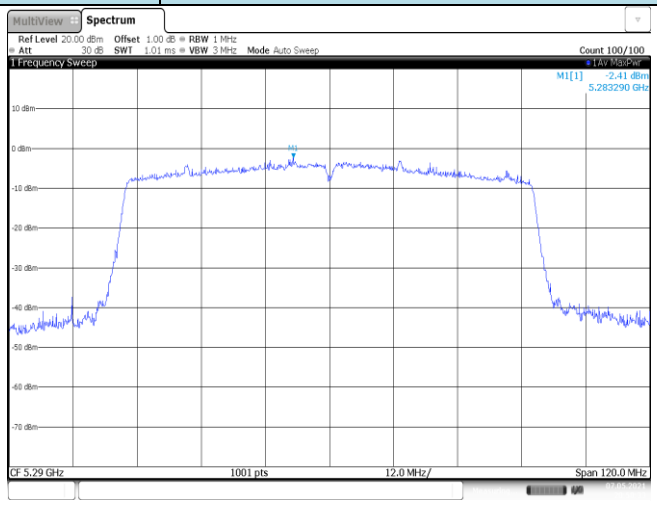
Band II	802.11ac (HT20)
CH_L	
CH_M	
CH_H	

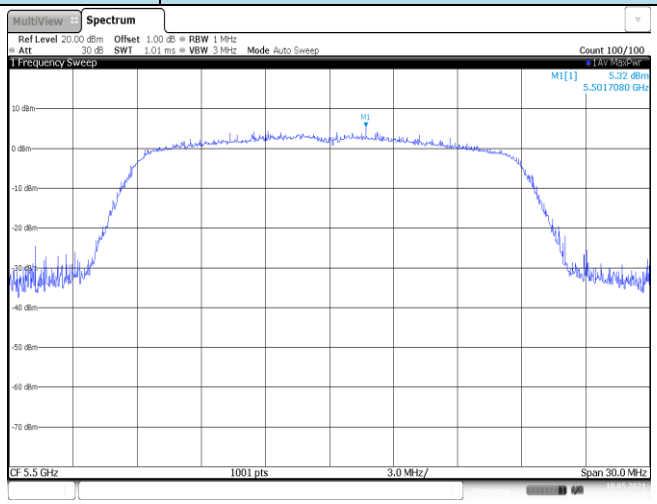
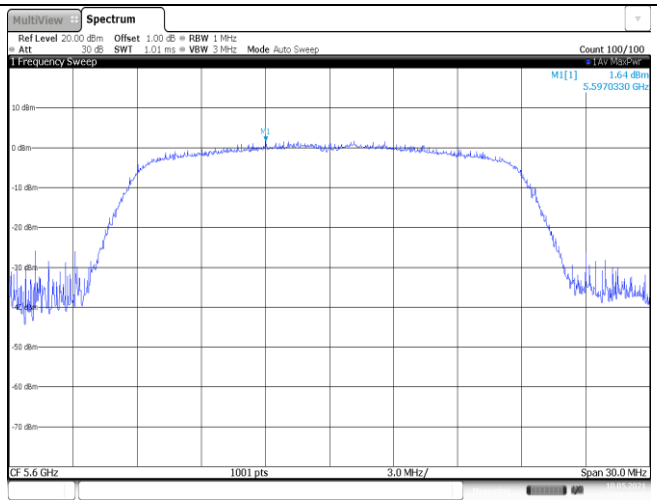
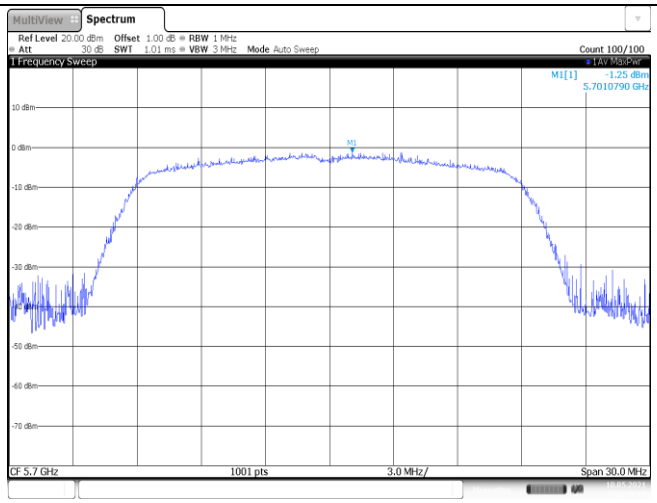
Band II	802.11n (HT20)
CH_L	
CH_M	
CH_H	

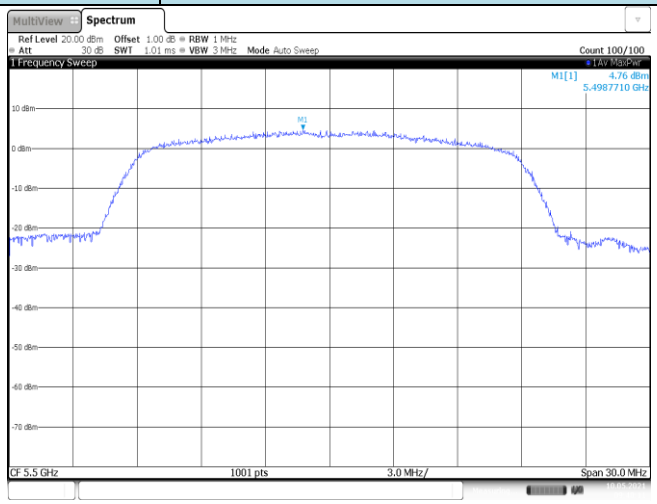
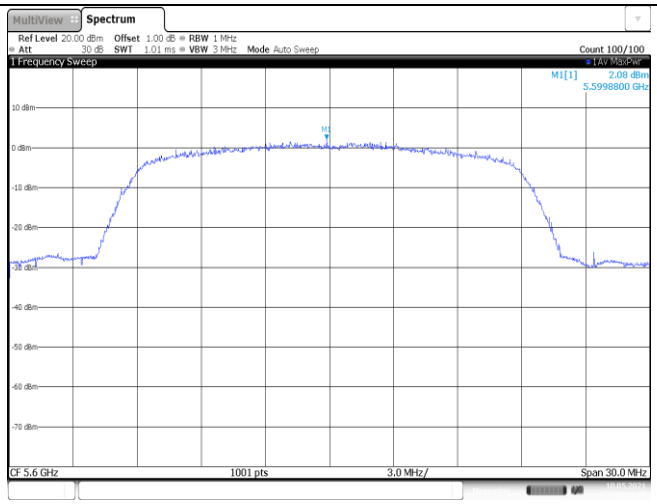
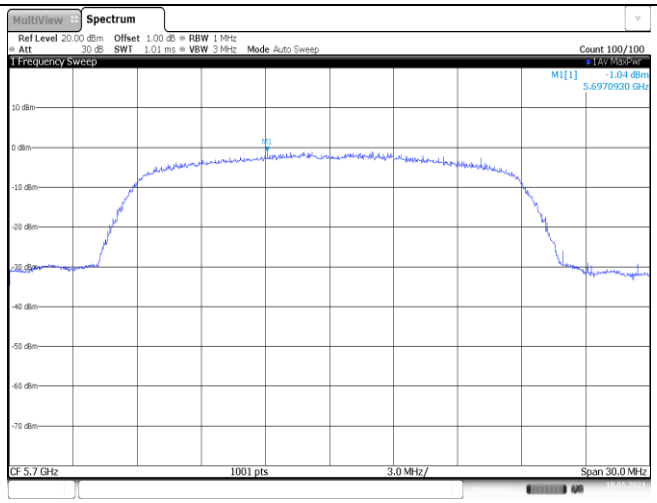
Band II	802.11a
CH_L	
CH_M	
CH_H	

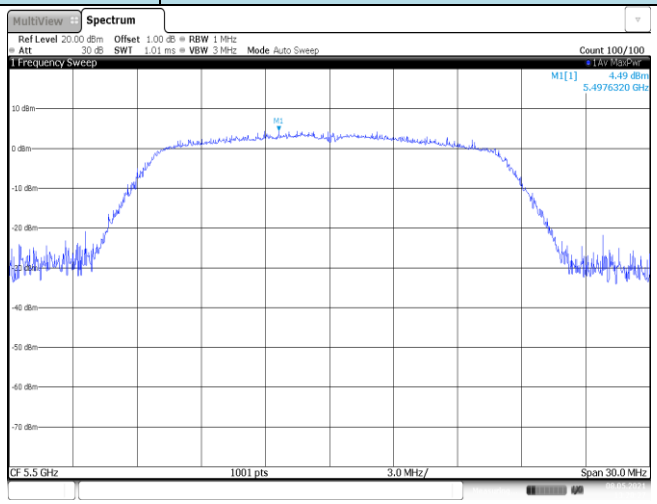
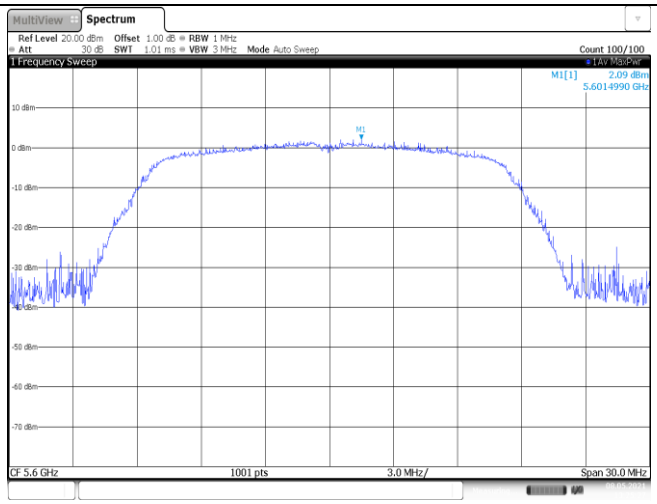
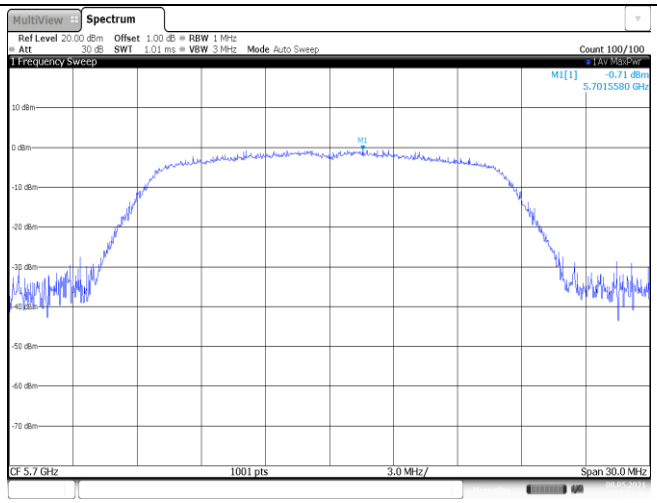
Band II	802.11ac (HT40)
CH_L	
CH_H	

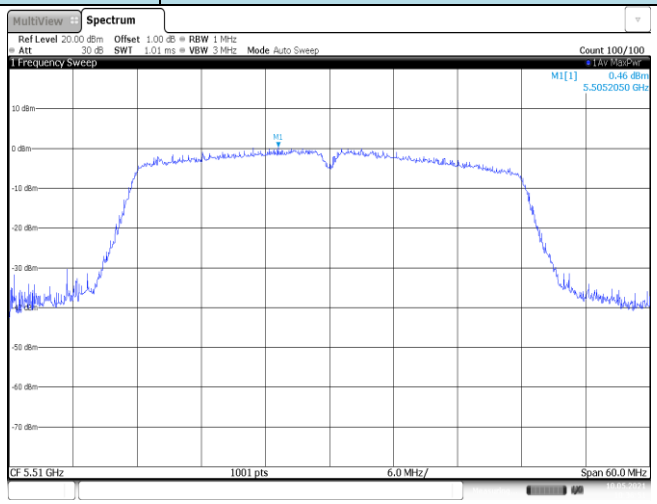
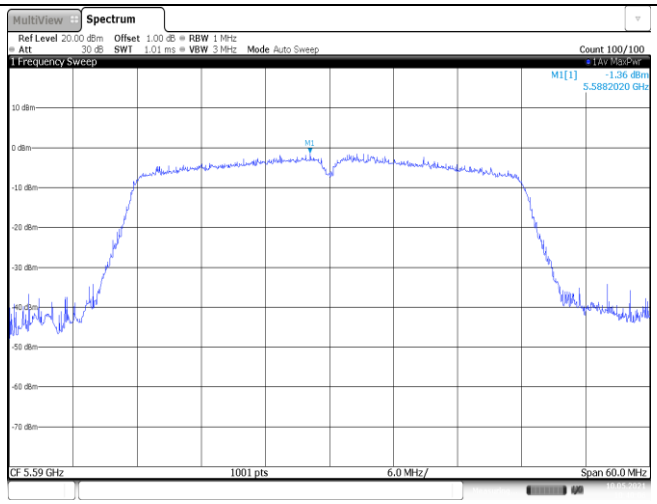
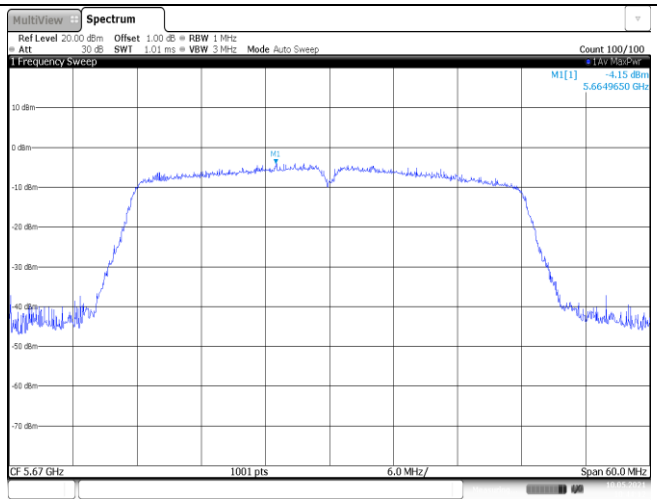
Band II	802.11n (HT40)
CH_L	
CH_H	

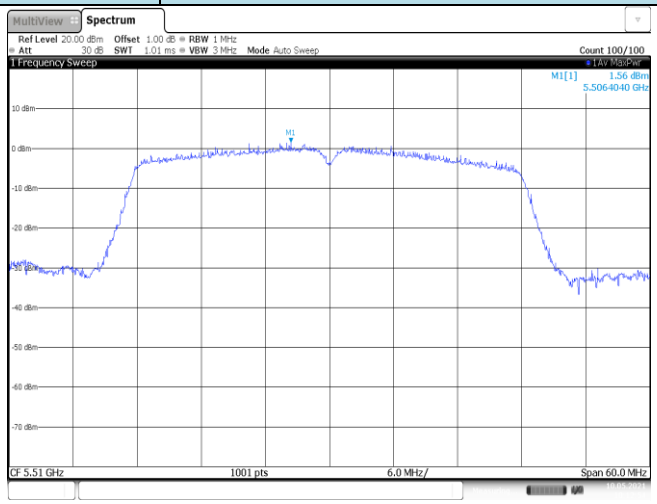
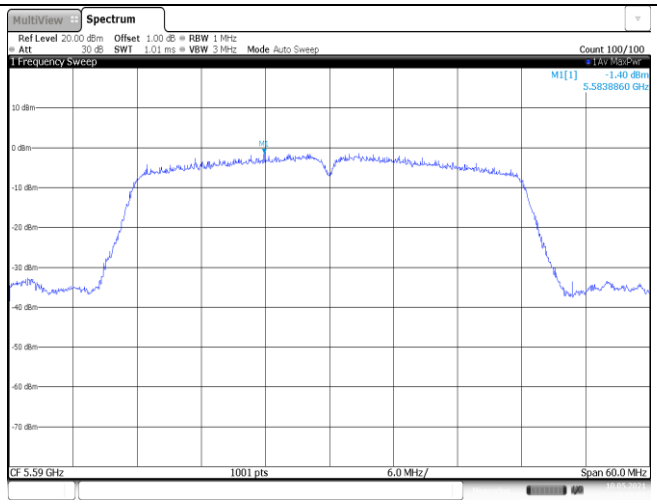
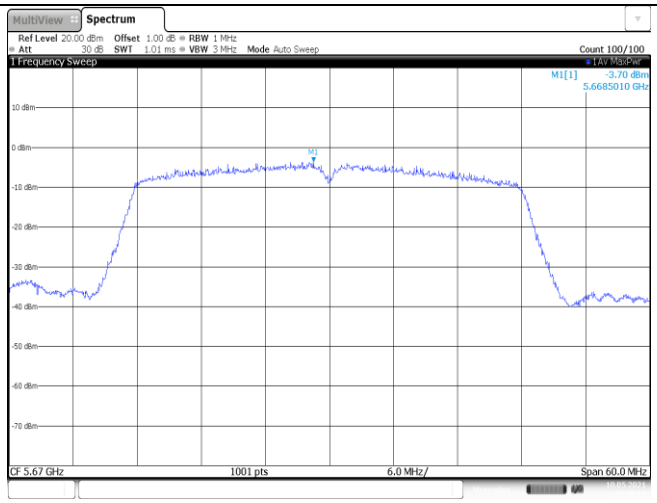
Band II	802.11ac (HT80)
CH_M	

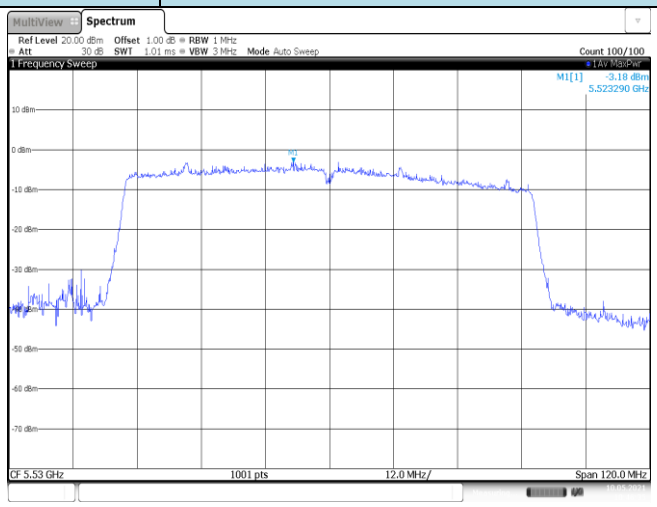
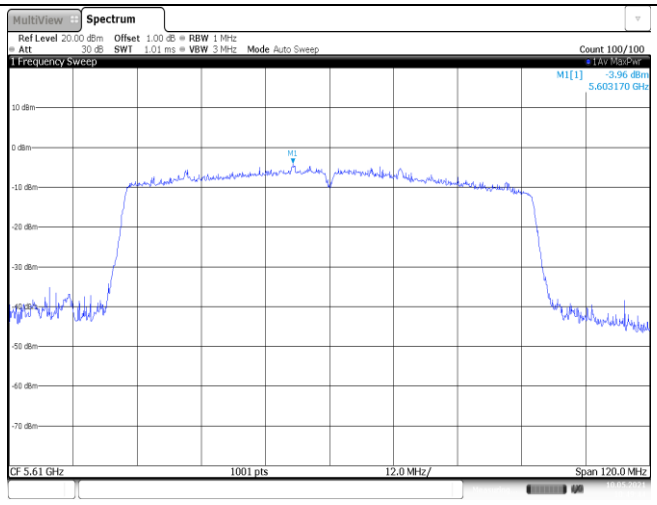
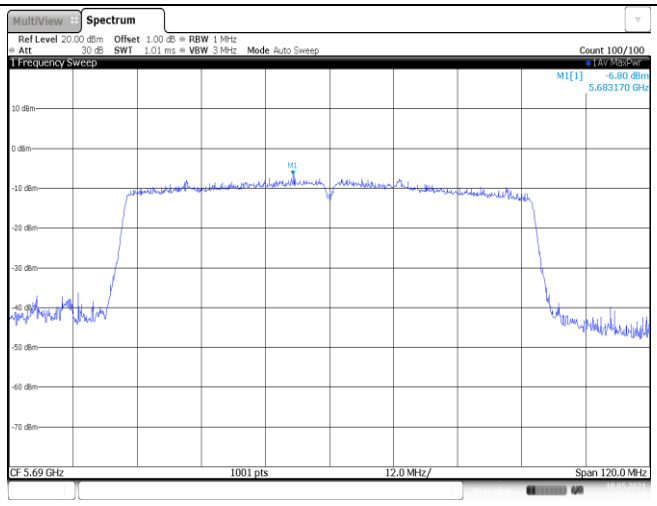
Band III	802.11ac (HT20)
CH_L	
CH_M	
CH_H	

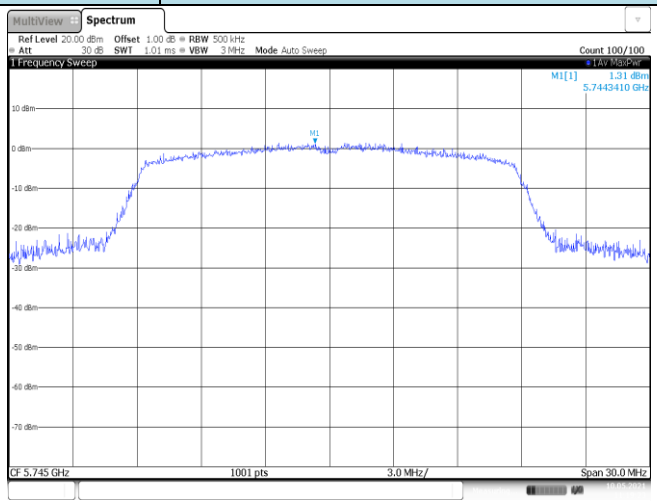
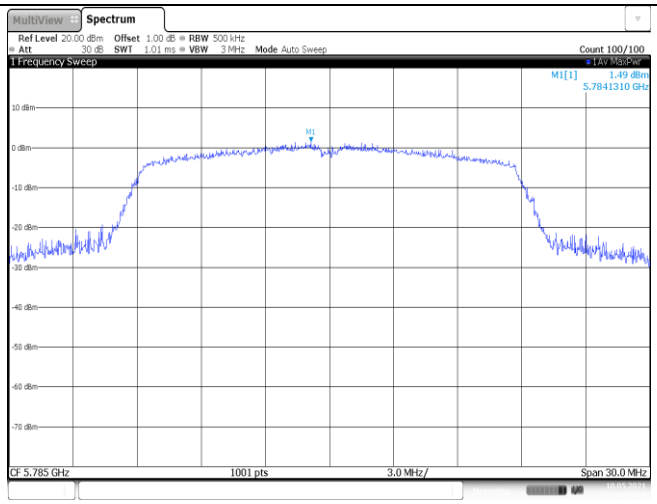
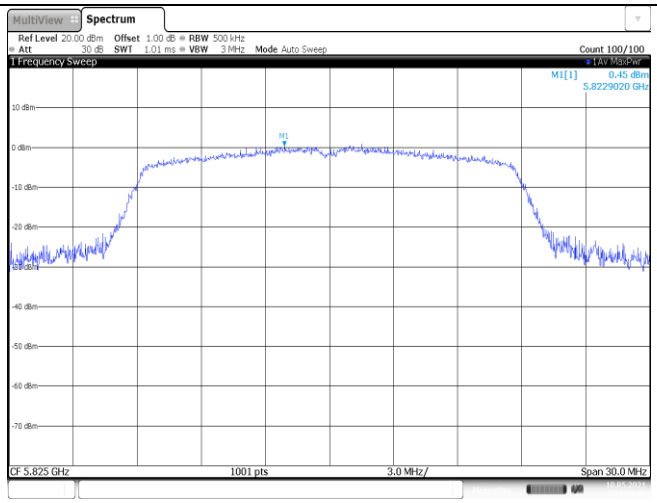
Band III	802.11n (HT20)
CH_L	
CH_M	
CH_H	

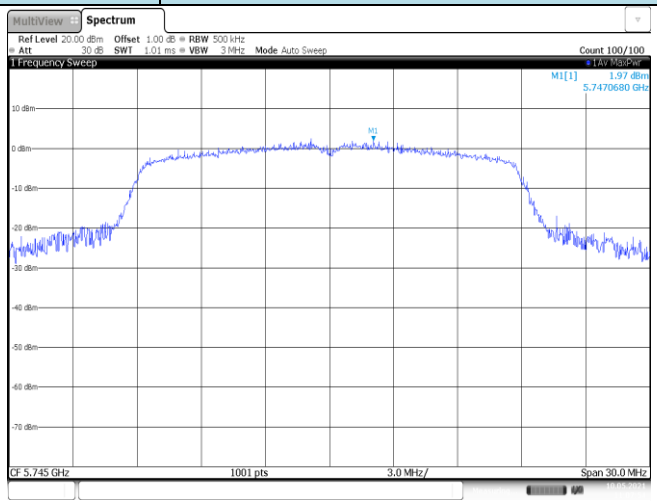
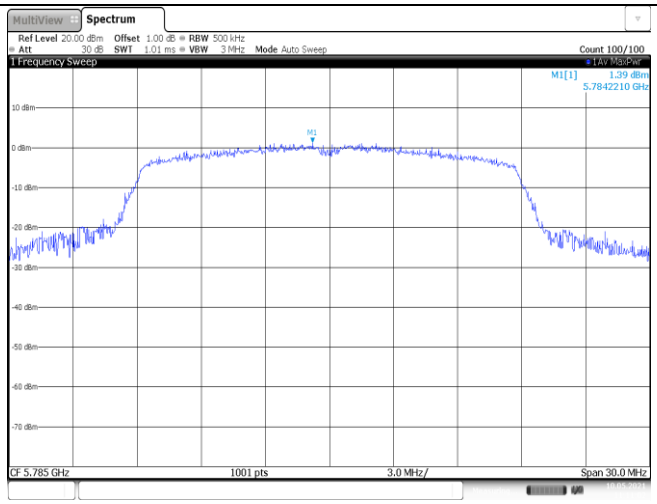
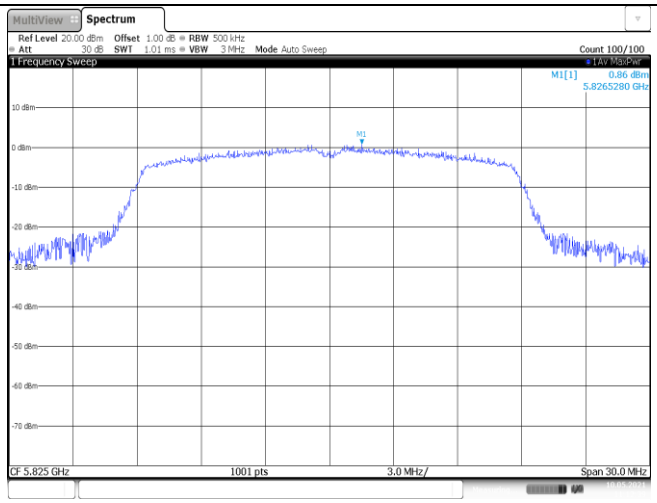
Band III	802.11a
CH_L	
CH_M	
CH_H	

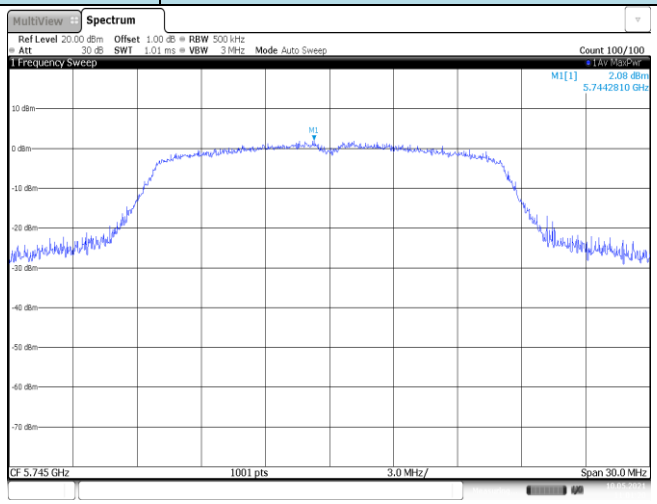
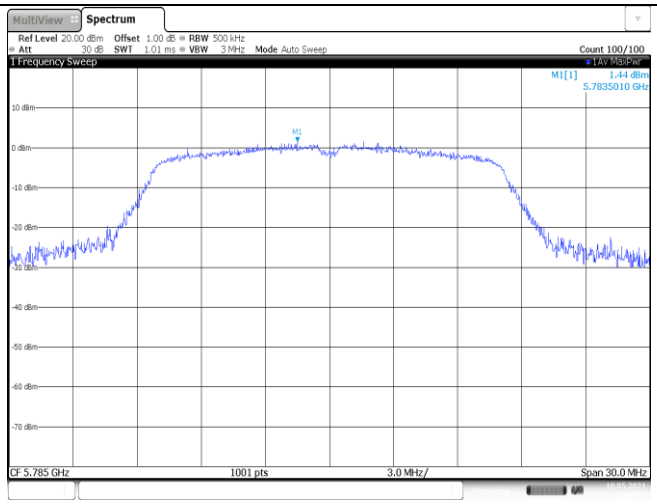
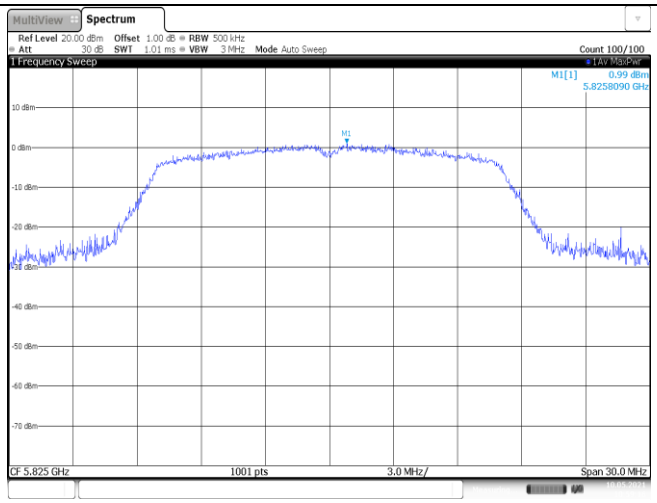
Band III	802.11ac (HT40)
CH_L	
CH_M	
CH_H	

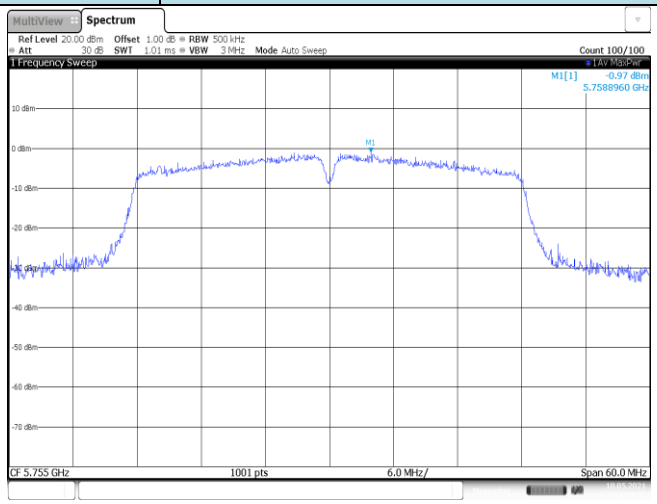
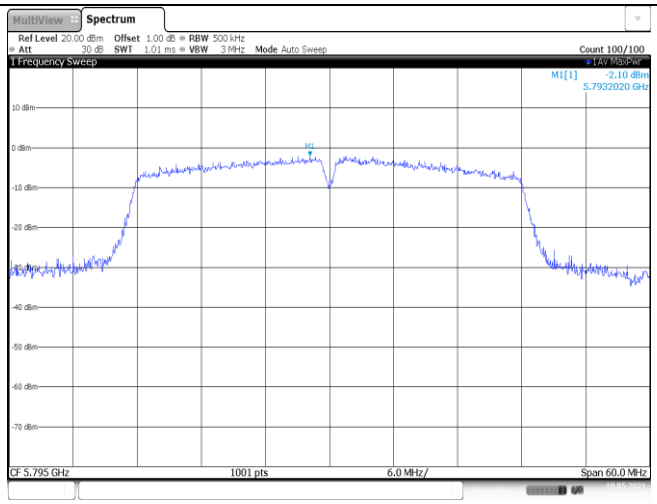
Band III	802.11n (HT40)
CH_L	
CH_M	
CH_H	

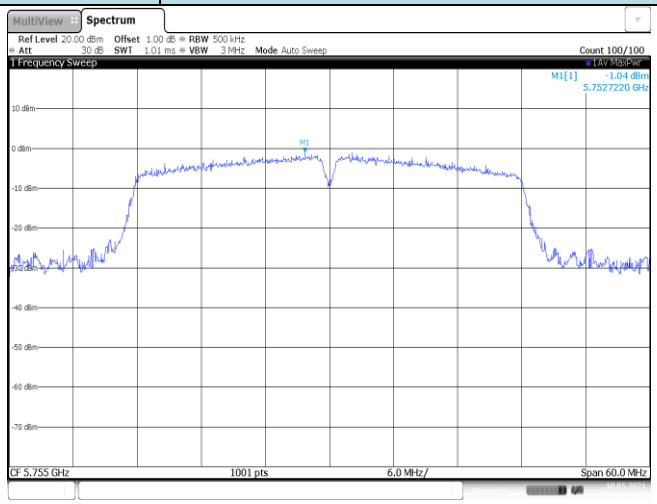
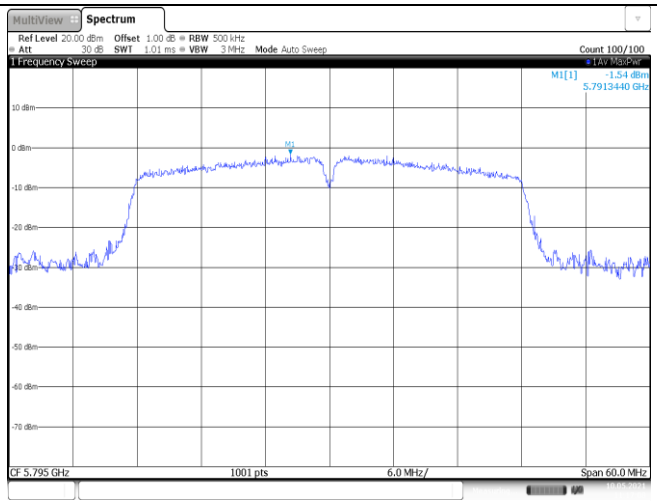
Band III	802.11ac (HT80)
CH_L	
CH_M	
CH_H	

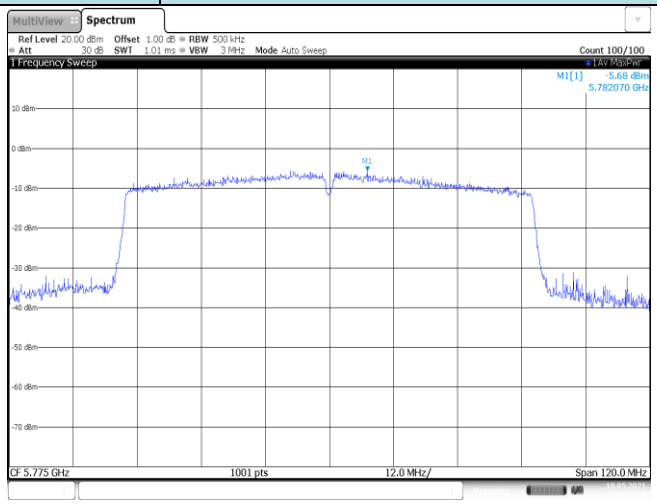
Band IV	802.11ac (HT20)
CH_L	
CH_M	
CH_H	

Band IV	802.11n (HT20)
CH_L	
CH_M	
CH_H	

Band IV	802.11a
CH_L	
CH_M	
CH_H	

Band IV	802.11ac (HT40)
CH_L	
CH_H	

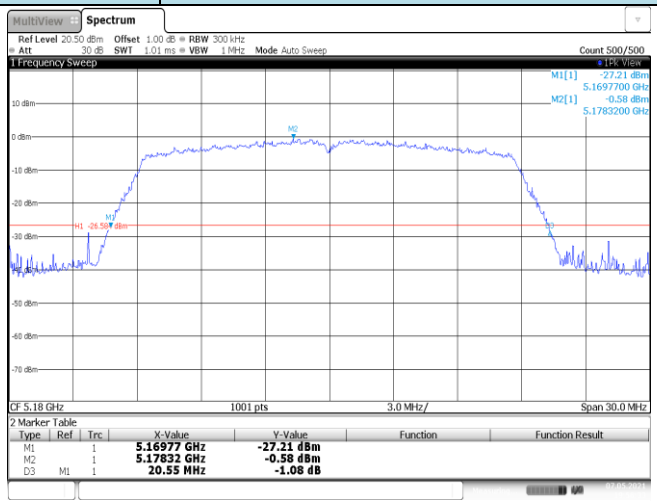
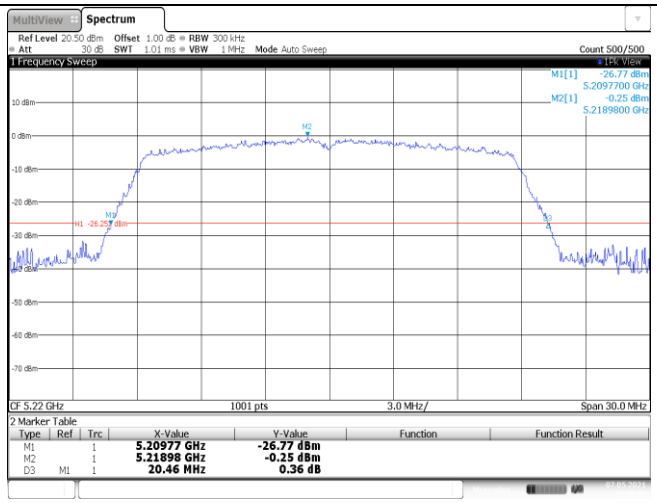
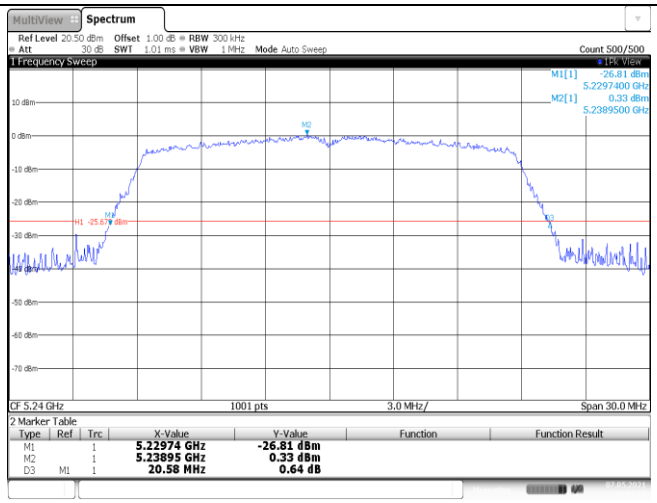
Band IV	802.11n (HT40)
CH_L	
CH_H	

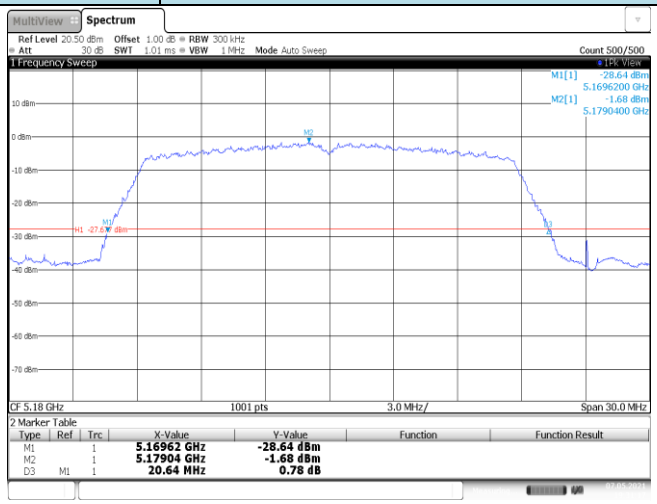
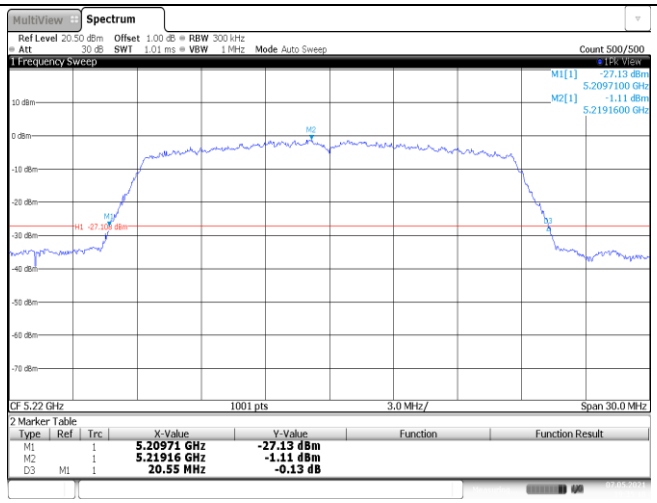
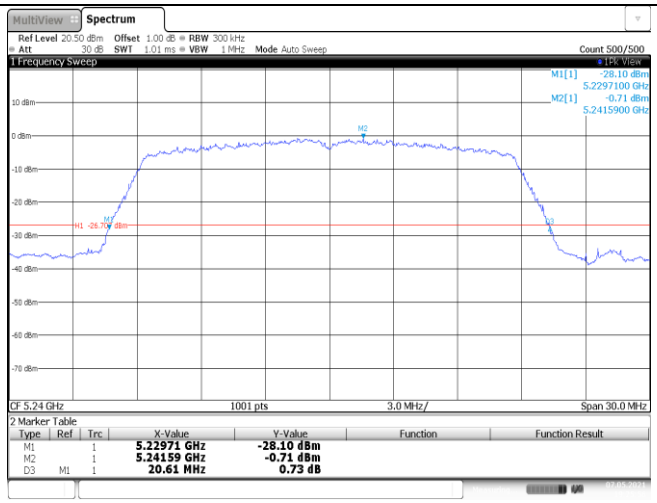
Band IV	802.11ac (HT80)
CH_M	

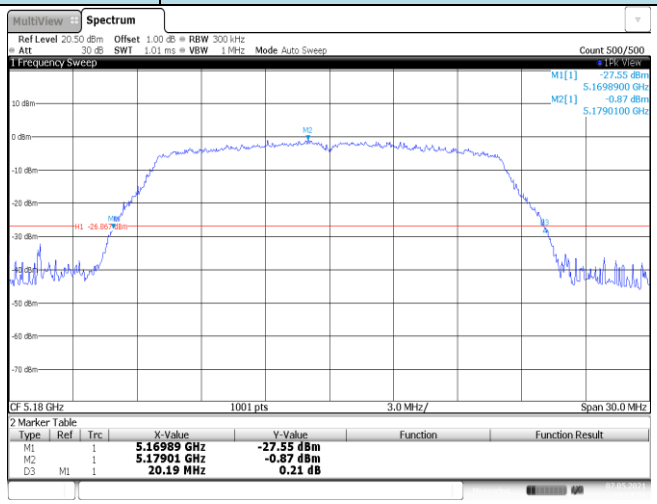
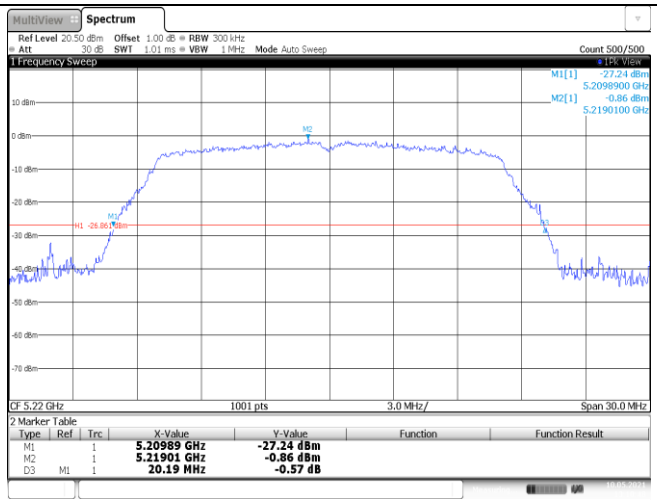
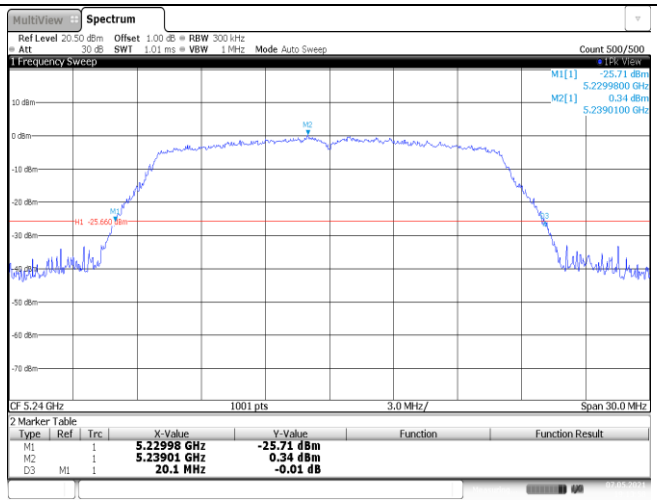
Appendix C：26dB bandwidth

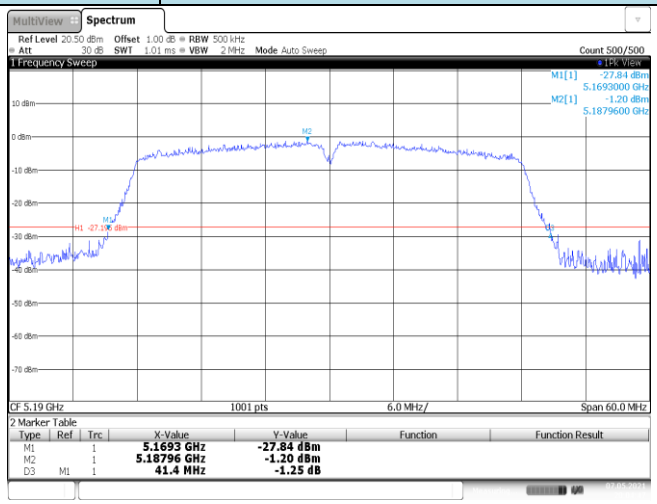
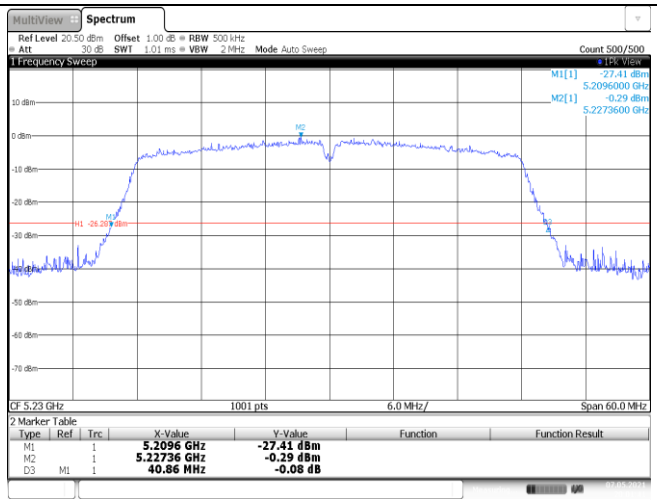
Band	Bandwidth (MHz)	Type	Channel	26dB bandwidth (MHz)	Result
I	20	802.11ac	CH_L	20.55	Pass
			CH_M	20.46	
			CH_H	20.58	
		802.11n	CH_L	20.64	Pass
			CH_M	20.55	
			CH_H	20.61	
		802.11a	CH_L	20.19	Pass
			CH_M	20.19	
			CH_H	20.10	
	40	802.11ac	CH_L	41.40	Pass
			CH_H	40.86	
		802.11n	CH_L	41.16	Pass
			CH_H	41.10	
	80	802.11ac	CH_M	81.60	Pass
II	20	802.11ac	CH_L	20.52	Pass
			CH_M	20.58	
			CH_H	20.64	
		802.11n	CH_L	20.49	Pass
			CH_M	20.58	
			CH_H	20.61	
		802.11a	CH_L	20.25	Pass
			CH_M	20.31	
			CH_H	20.31	
	40	802.11ac	CH_L	40.80	Pass
			CH_H	40.62	
		802.11n	CH_L	40.98	Pass
			CH_H	40.74	
	80	802.11ac	CH_M	81.36	Pass

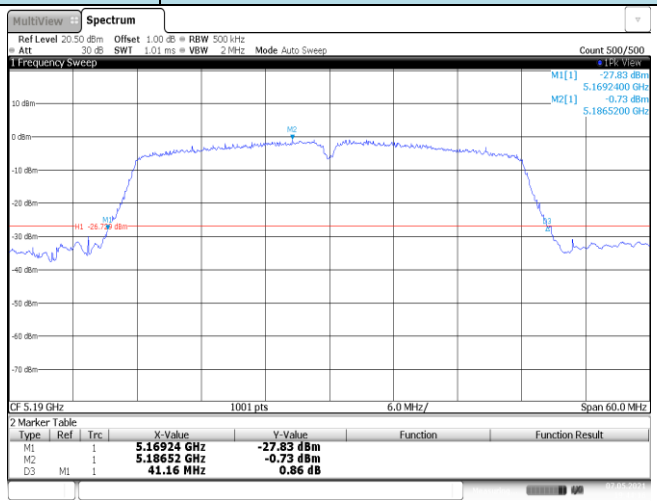
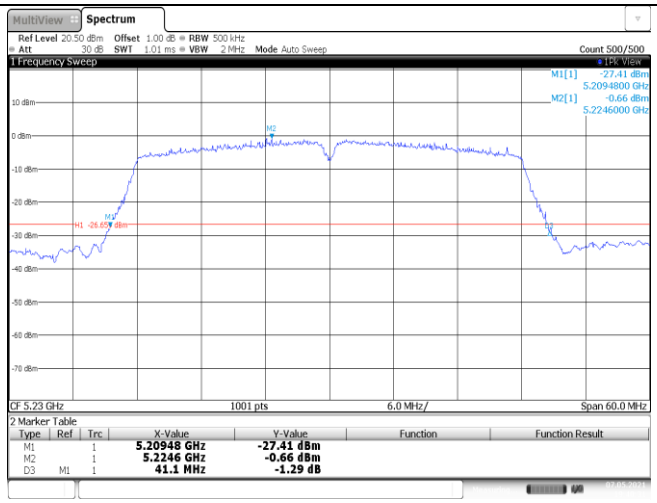
Band	Bandwidth (MHz)	Type	Channel	26dB bandwidth (MHz)	Result
III	20	802.11ac	CH_L	20.49	Pass
			CH_M	20.67	
			CH_H	20.58	
		802.11n	CH_L	20.76	Pass
			CH_M	20.76	
			CH_H	20.82	
		802.11a	CH_L	20.37	Pass
			CH_M	20.25	
			CH_H	20.31	
	40	802.11ac	CH_L	41.22	Pass
			CH_M	40.62	
			CH_H	41.04	
		802.11n	CH_L	40.98	Pass
			CH_M	41.16	
			CH_H	41.16	
	80	802.11ac	CH_L	81.48	Pass
			CH_M	81.24	
			CH_H	81.60	

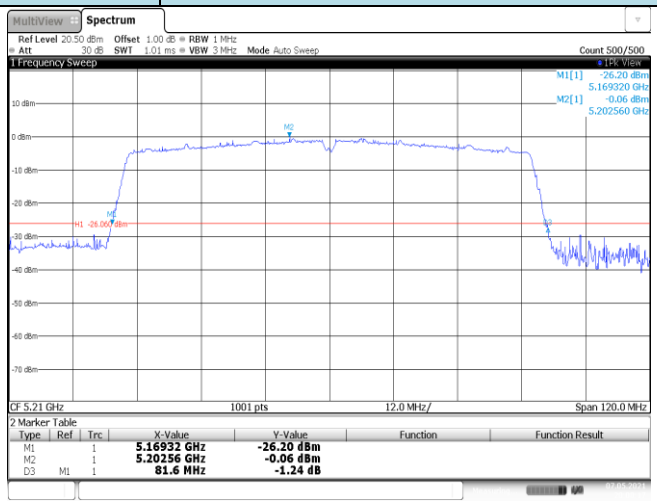
Band I	802.11ac (HT20)
CH_L	
CH_M	
CH_H	

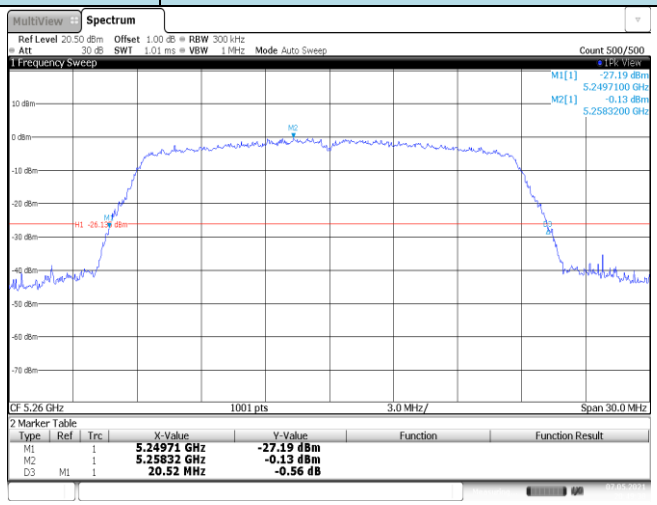
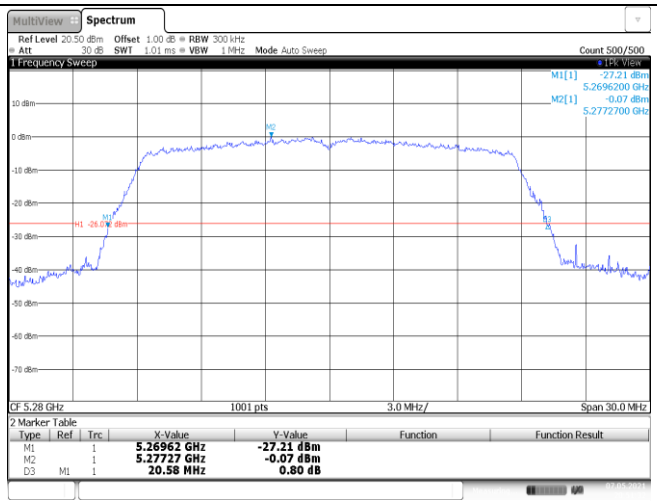
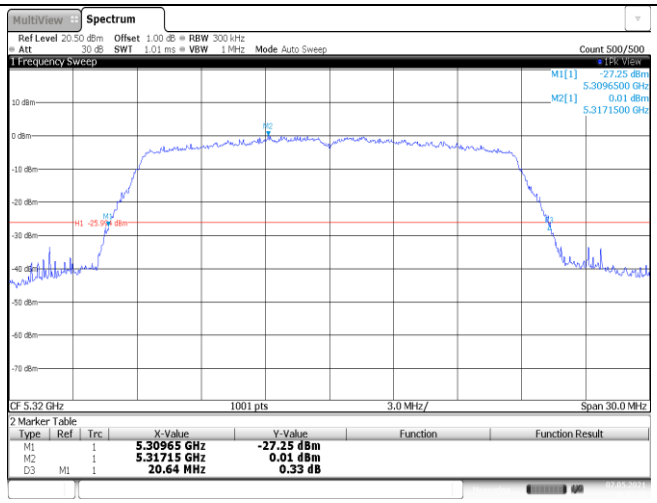
Band I	802.11n (HT20)
CH_L	
CH_M	
CH_H	

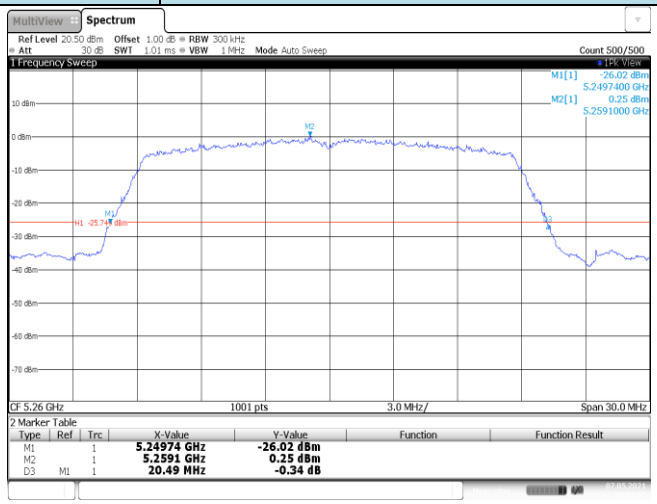
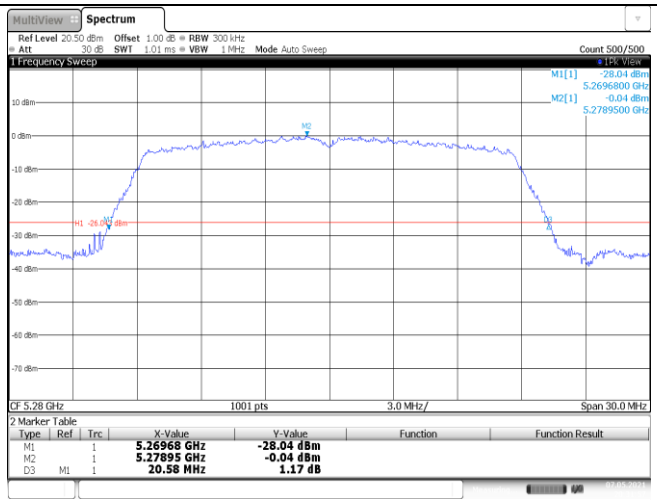
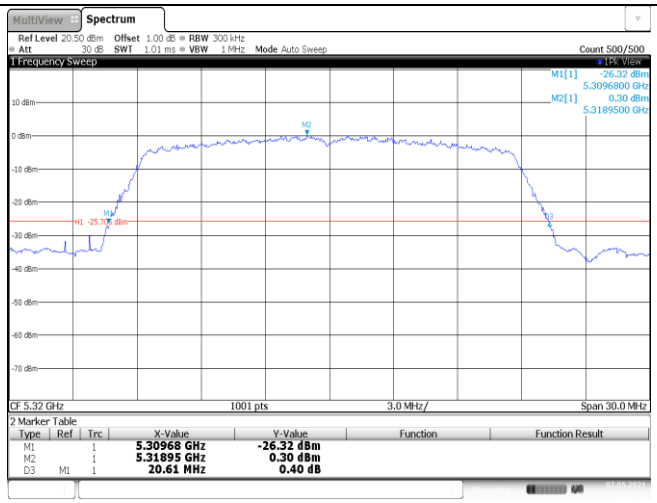
Band I	802.11a
CH_L	
CH_M	
CH_H	

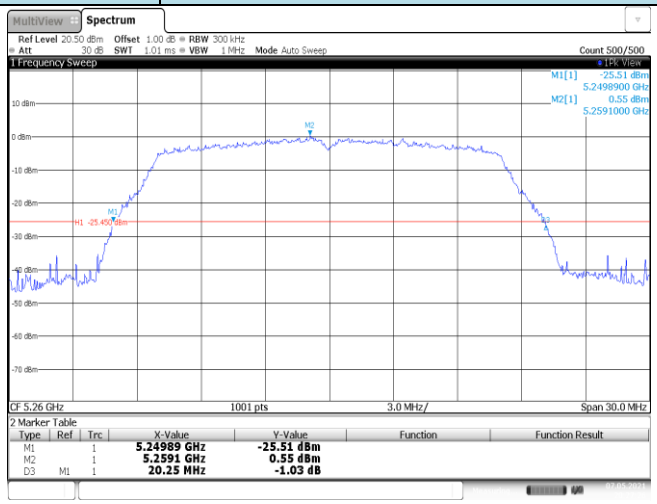
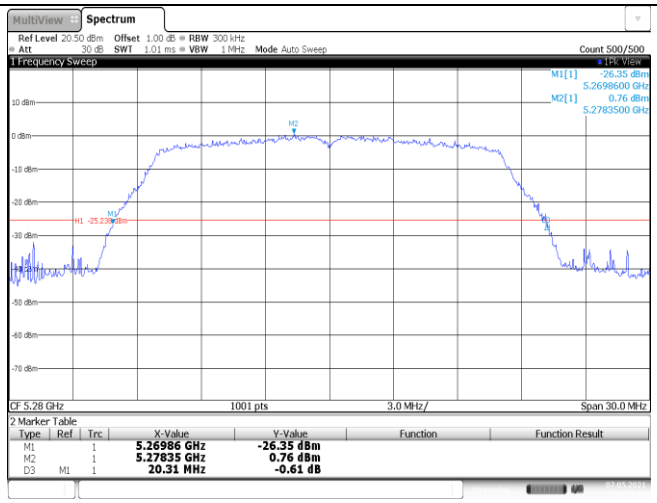
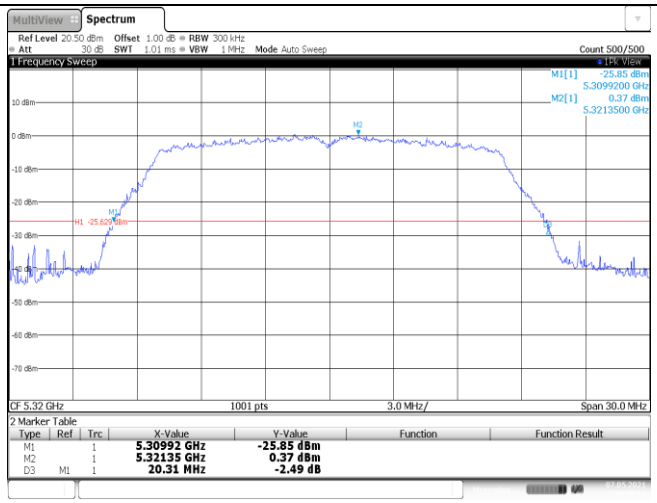
Band I	802.11ac (HT40)
CH_L	
CH_H	

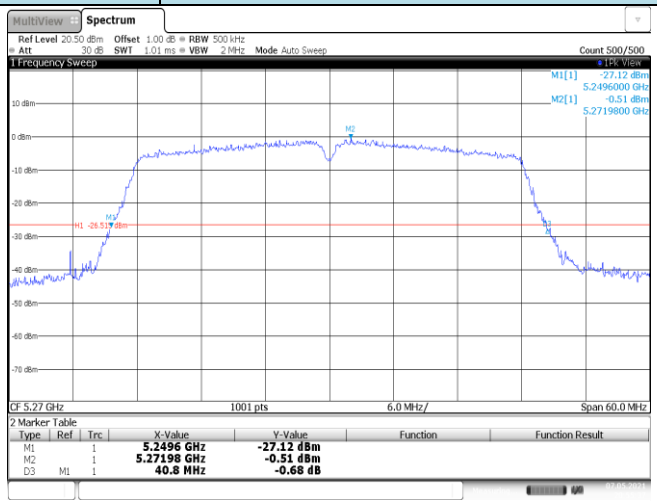
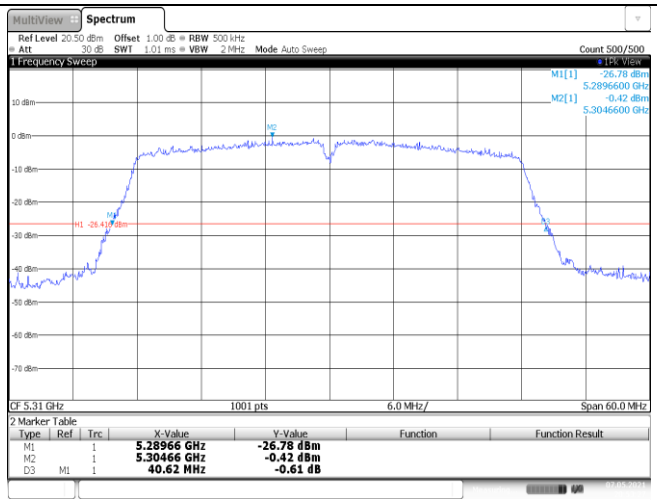
Band I	802.11n (HT40)
CH_L	
CH_H	

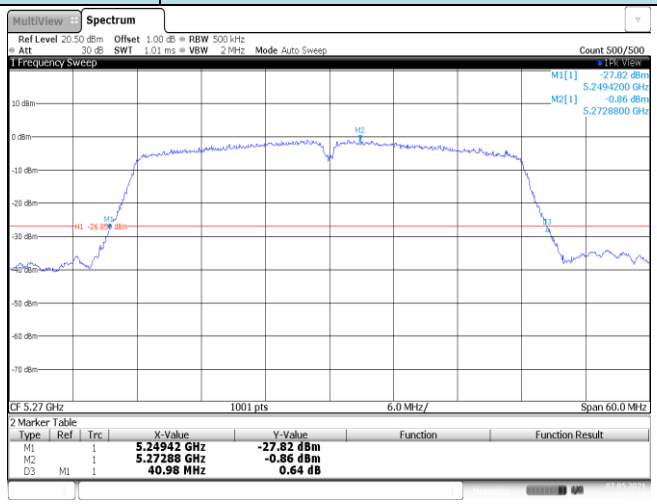
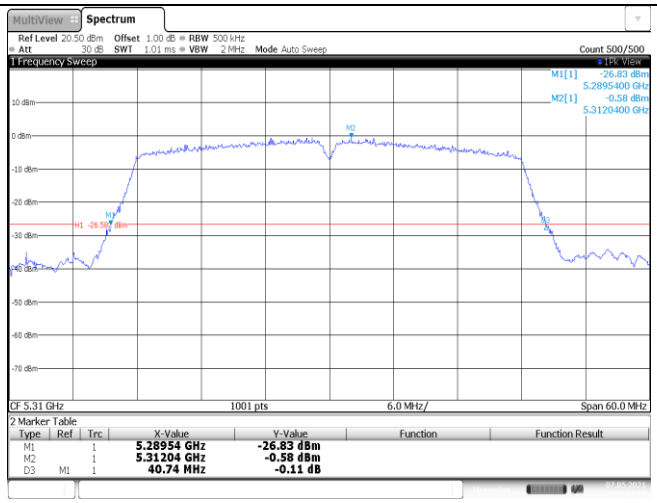
Band I	802.11ac (HT80)
CH_M	

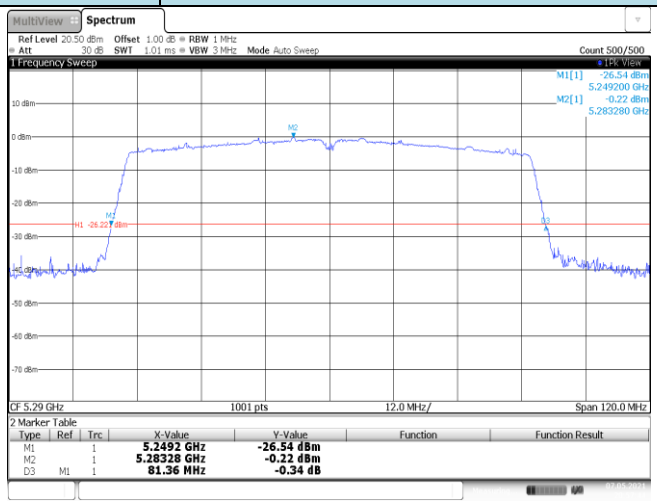
Band II	802.11ac (HT20)
CH_L	
CH_M	
CH_H	

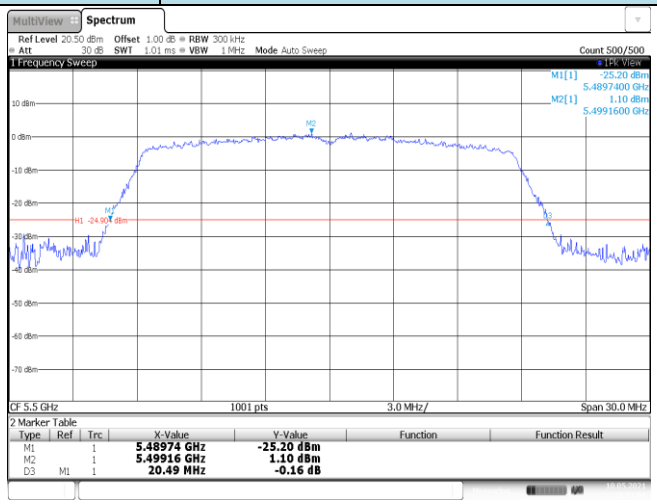
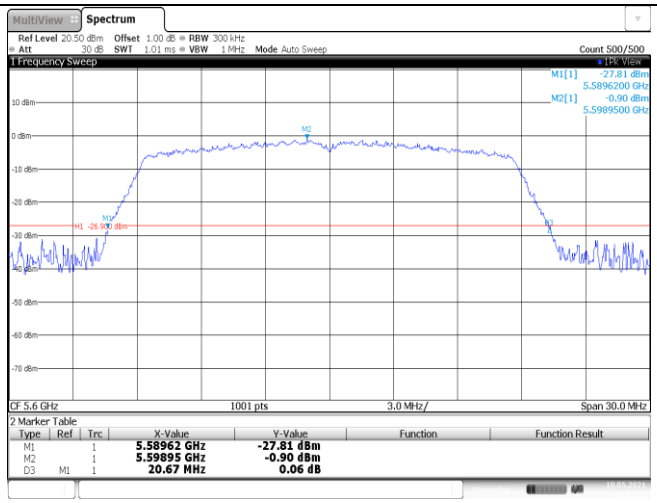
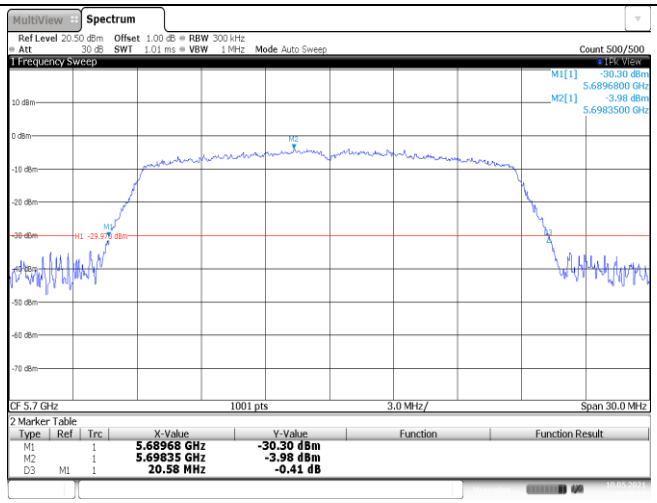
Band II	802.11n (HT20)
CH_L	
CH_M	
CH_H	

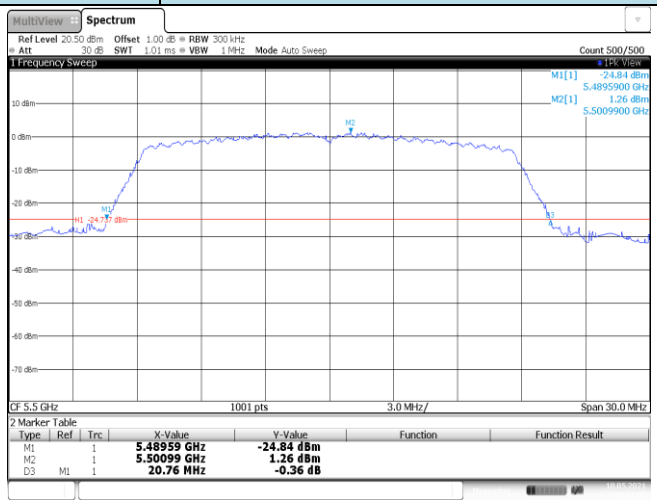
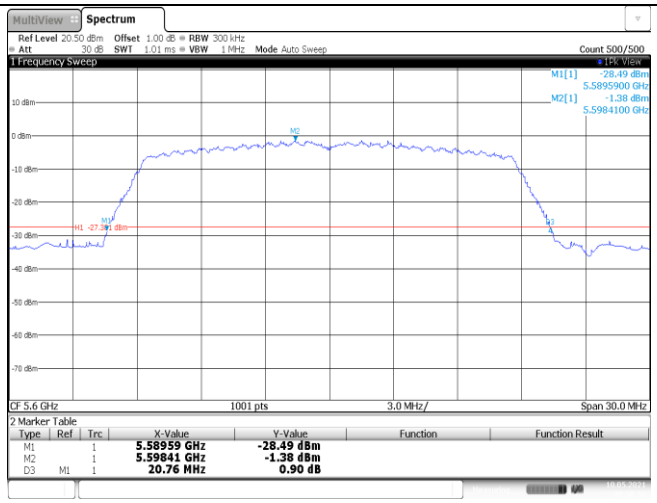
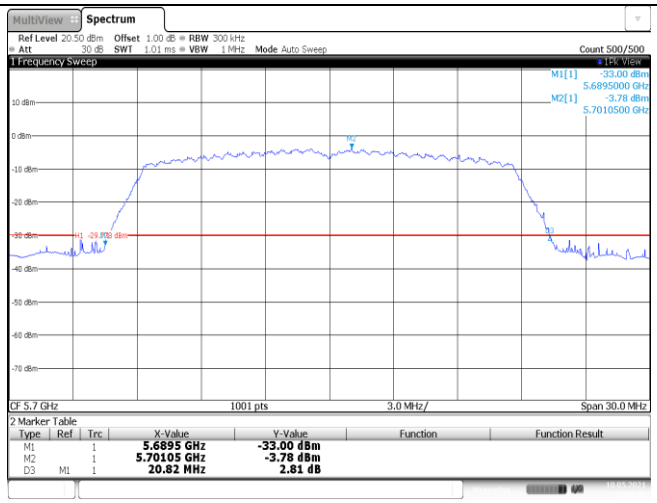
Band II	802.11a
CH_L	
CH_M	
CH_H	

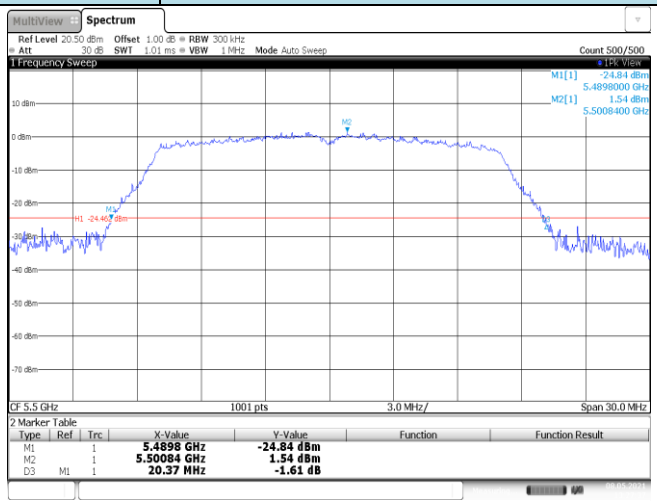
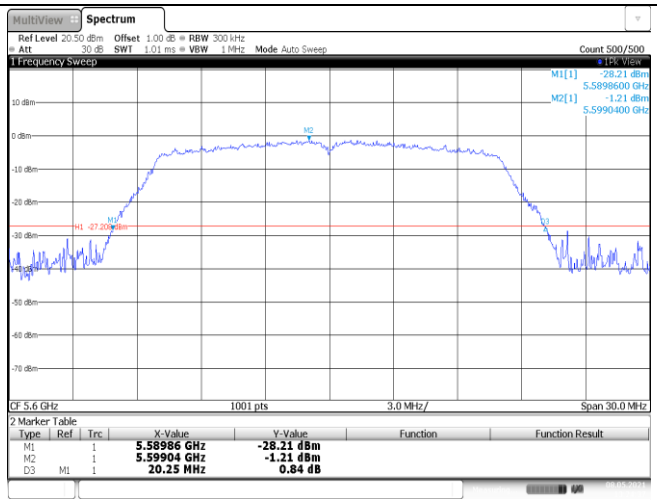
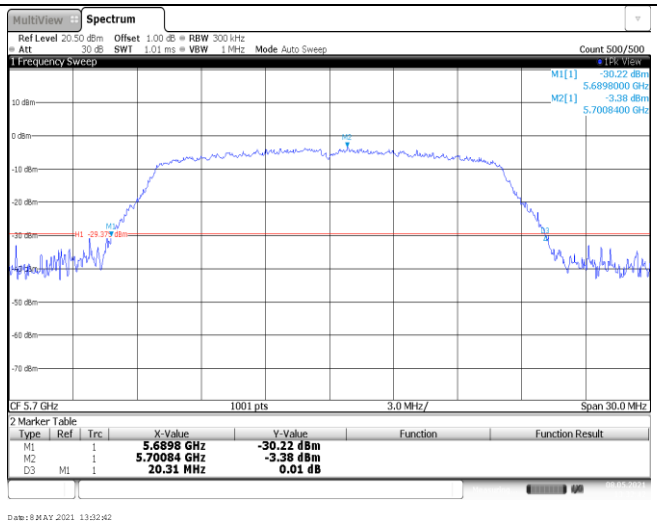
Band II	802.11ac (HT40)
CH_L	
CH_H	

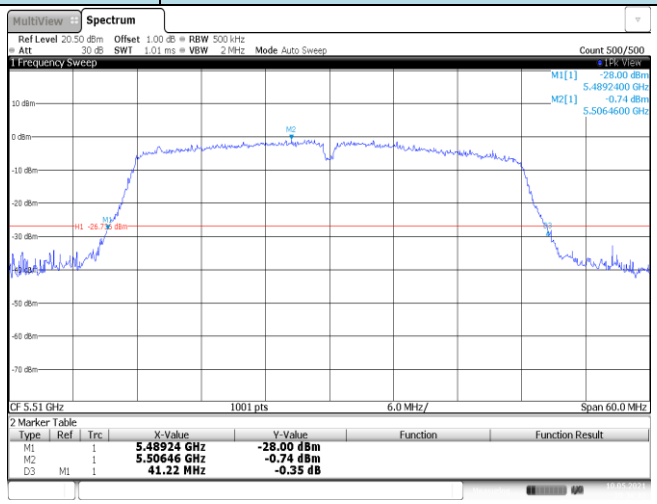
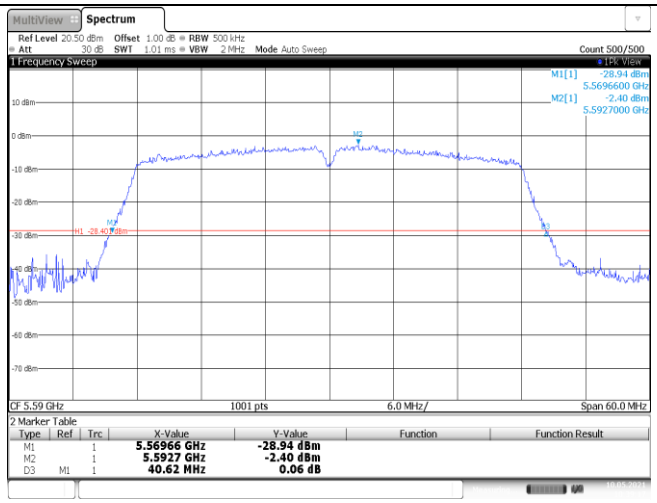
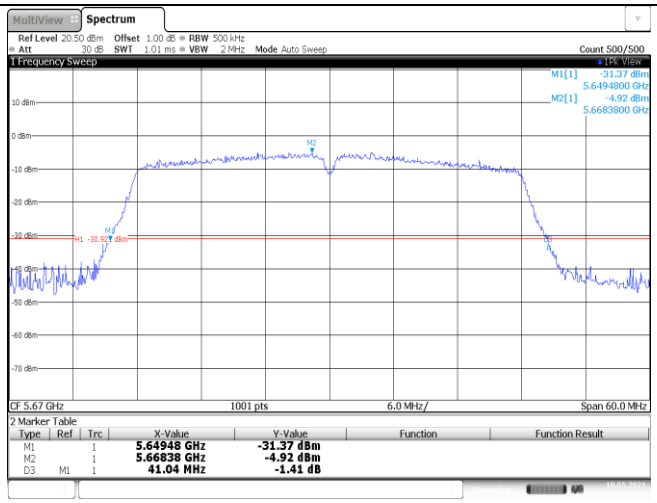
Band II	802.11n (HT40)
CH_L	
CH_H	

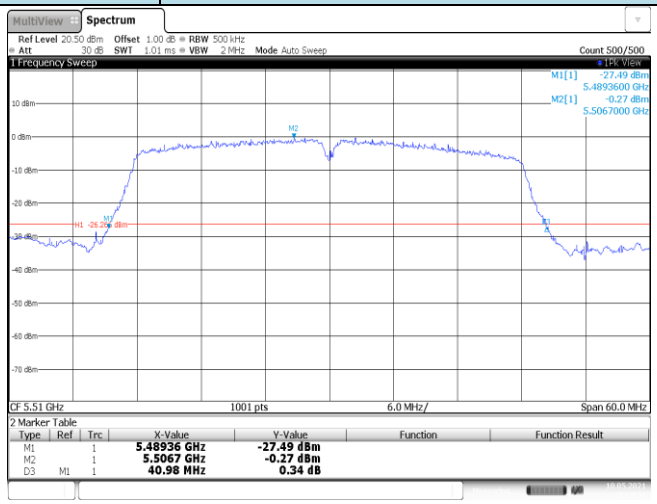
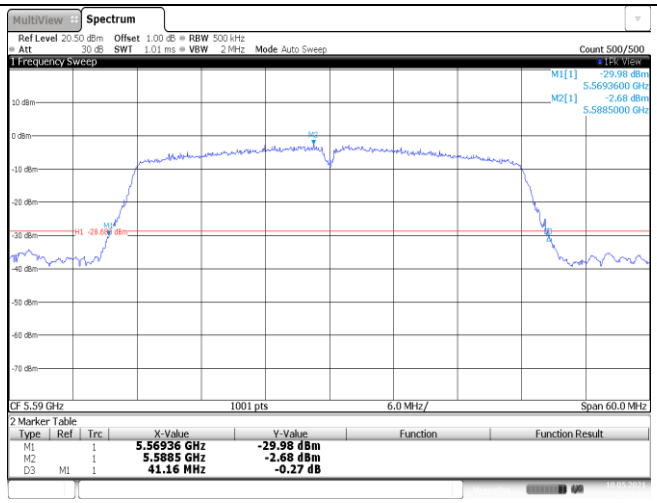
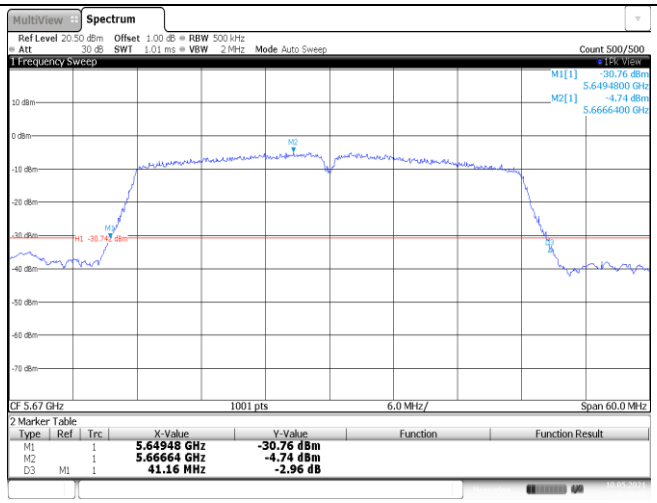
Band II	802.11ac (HT80)
CH_M	

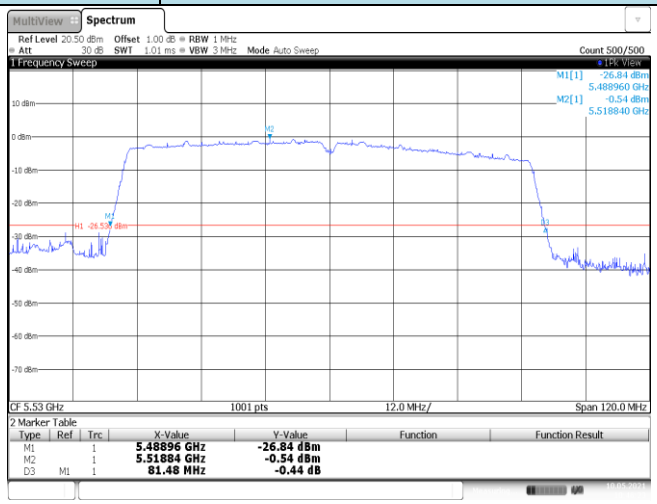
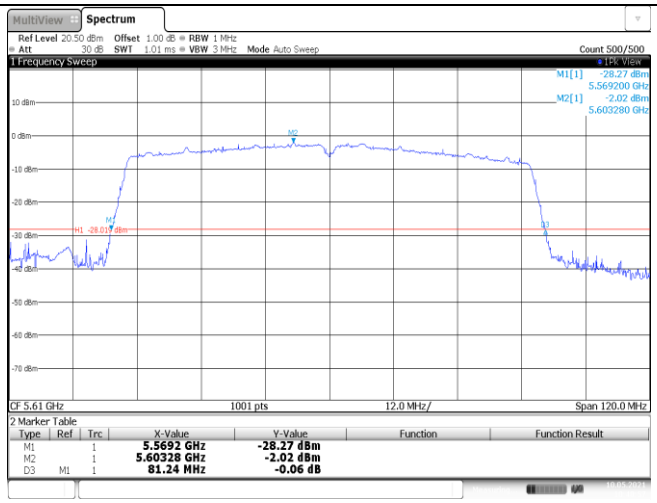
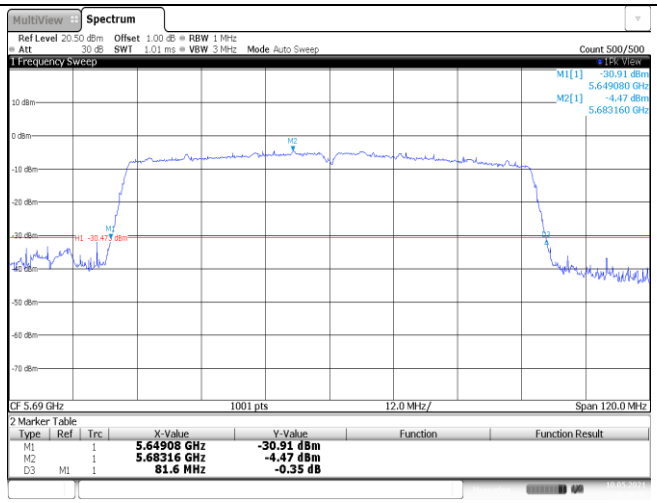
Band III	802.11ac (HT20)
CH_L	
CH_M	
CH_H	

Band III	802.11n (HT20)
CH_L	
CH_M	
CH_H	

Band III	802.11a
CH_L	
CH_M	
CH_H	

Band III	802.11ac (HT40)
CH_L	
CH_M	
CH_H	

Band III	802.11n (HT40)
CH_L	
CH_M	
CH_H	

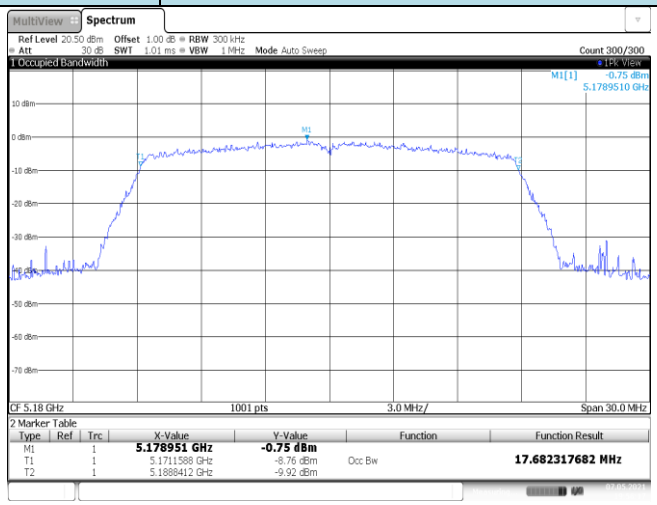
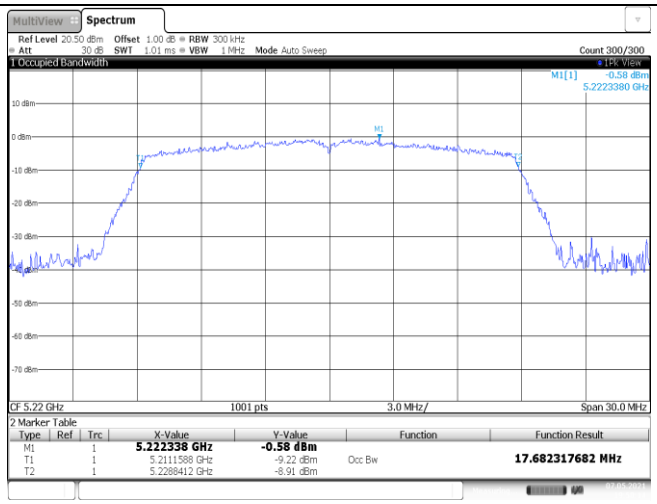
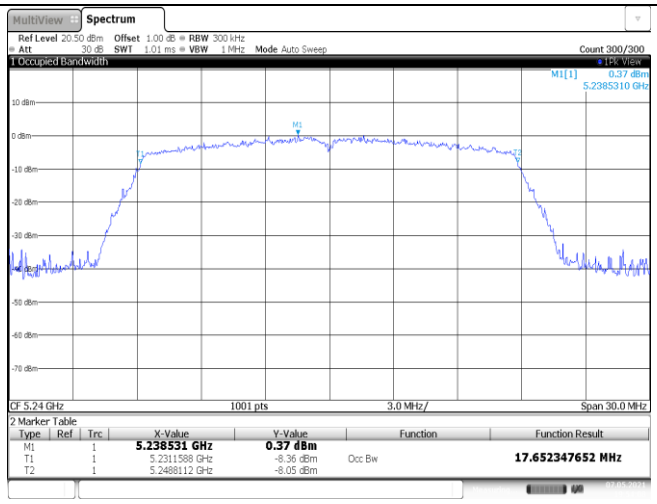
Band III	802.11ac (HT80)
CH_L	
CH_M	
CH_H	

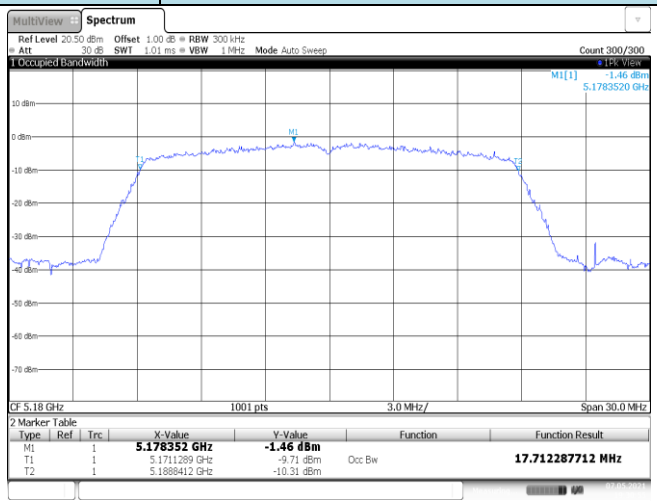
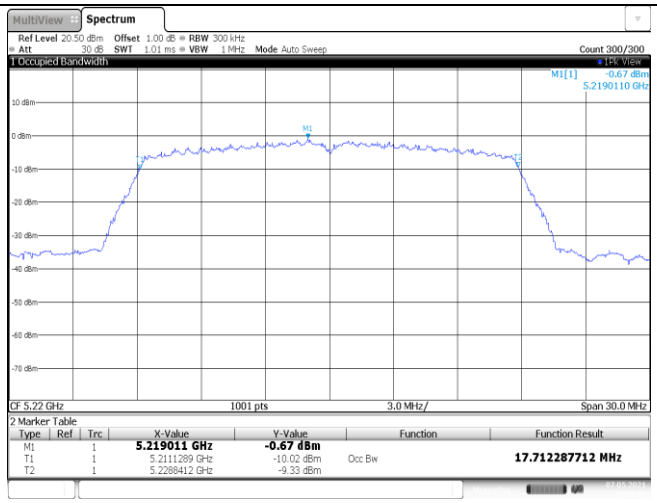
Appendix D：99% Occupy bandwidth

Band	Bandwidth (MHz)	Type	Channel	99% Occupy bandwith (MHz)	Result
I	20	802.11ac	CH_L	17.68	Pass
			CH_M	17.68	
			CH_H	17.65	
		802.11n	CH_L	17.71	Pass
			CH_M	17.71	
			CH_H	17.68	
		802.11a	CH_L	16.66	Pass
			CH_M	16.66	
			CH_H	16.66	
	40	802.11ac	CH_L	36.08	Pass
			CH_H	36.08	
		802.11n	CH_L	36.20	Pass
			CH_H	36.08	
	80	802.11ac	CH_M	75.28	Pass
II	20	802.11ac	CH_L	17.68	Pass
			CH_M	17.68	
			CH_H	17.68	
		802.11n	CH_L	17.74	Pass
			CH_M	17.71	
			CH_H	17.68	
		802.11a	CH_L	16.63	Pass
			CH_M	16.66	
			CH_H	16.66	
	40	802.11ac	CH_L	36.08	Pass
			CH_H	36.08	
		802.11n	CH_L	36.08	Pass
			CH_H	36.08	
	80	802.11ac	CH_M	75.05	Pass

Band	Bandwidth (MHz)	Type	Channel	99% Occupy bandwith (MHz)	Result
III	20	802.11ac	CH_L	17.71	Pass
			CH_M	17.68	
			CH_H	17.68	
		802.11n	CH_L	17.83	Pass
			CH_M	17.77	
			CH_H	17.77	
		802.11a	CH_L	16.69	Pass
			CH_M	16.66	
			CH_H	16.66	
	40	802.11ac	CH_L	36.08	Pass
			CH_M	36.14	
			CH_H	36.08	
		802.11n	CH_L	36.14	Pass
			CH_M	36.14	
			CH_H	36.14	
	80	802.11ac	CH_L	75.16	Pass
			CH_M	75.04	
			CH_H	75.28	

Band	Bandwidth (MHz)	Type	Channel	99% Occupy bandwith (MHz)	Result
IV	20	802.11ac	CH_L	17.80	Pass
			CH_M	17.80	
			CH_H	17.80	
		802.11n	CH_L	17.89	Pass
			CH_M	17.89	
			CH_H	17.92	
		802.11a	CH_L	16.81	Pass
			CH_M	16.81	
			CH_H	16.81	
	40	802.11ac	CH_L	36.20	Pass
			CH_H	36.20	
		802.11n	CH_L	36.30	Pass
			CH_H	36.38	
	80	802.11ac	CH_M	75.28	Pass

Band I	802.11ac (HT20)
CH_L	
CH_M	
CH_H	

Band I	802.11n (HT20)
CH_L	
CH_M	
CH_H