

# 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 Zhu

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	802.11a <sub>c</sub>	CH <sub>L</sub>	11.71	96.58	0.15	11.86	24.00	Pass
			CH <sub>M</sub>	12.48	96.58	0.15	12.63		
			CH <sub>H</sub>	13.33	96.48	0.16	13.49		
		802.11n	CH <sub>L</sub>	11.04	96.55	0.15	11.19	24.00	Pass
			CH <sub>M</sub>	11.93	96.55	0.15	12.08		
			CH <sub>H</sub>	12.47	96.55	0.15	12.62		
	802.11a	CH <sub>L</sub>	11.48	96.77	0.14	11.62	24.00	Pass	
		CH <sub>M</sub>	11.46	96.77	0.14	11.60			
		CH <sub>H</sub>	13.16	96.77	0.14	13.30			
	40	802.11a <sub>c</sub>	CH <sub>L</sub>	12.07	93.48	0.29	12.36	24.00	Pass
			CH <sub>H</sub>	13.12	93.57	0.29	13.41		
		802.11n	CH <sub>L</sub>	12.16	93.53	0.29	12.45	24.00	Pass
CH <sub>H</sub>			13.12	93.45	0.29	13.41			
80	802.11a <sub>c</sub>	CH <sub>M</sub>	12.67	87.67	0.57	13.24	24.00	Pass	
II	20	802.11a <sub>c</sub>	CH <sub>L</sub>	12.70	96.58	0.15	12.85	24.00	Pass
			CH <sub>M</sub>	12.46	96.58	0.15	12.61		
			CH <sub>H</sub>	12.74	96.58	0.15	12.89		
		802.11n	CH <sub>L</sub>	12.93	96.55	0.15	13.08	24.00	Pass
			CH <sub>M</sub>	12.83	96.55	0.15	12.98		
			CH <sub>H</sub>	12.77	96.55	0.15	12.92		
	802.11a	CH <sub>L</sub>	12.61	96.77	0.14	12.75	24.00	Pass	
		CH <sub>M</sub>	12.69	96.68	0.15	12.84			
		CH <sub>H</sub>	12.56	96.77	0.14	12.70			
	40	802.11a <sub>c</sub>	CH <sub>L</sub>	12.75	93.48	0.29	13.04	24.00	Pass
			CH <sub>H</sub>	12.84	93.57	0.29	13.13		
		802.11n	CH <sub>L</sub>	12.78	93.45	0.29	13.07	24.00	Pass
CH <sub>H</sub>			12.71	93.53	0.29	13.00			
80	802.11a <sub>c</sub>	CH <sub>M</sub>	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 <sub>L</sub>	13.36	96.58	0.15	13.51	24.00	Pass
			CH <sub>M</sub>	11.27	96.58	0.15	11.42		
			CH <sub>H</sub>	9.44	96.48	0.16	9.60		
		802.11n	CH <sub>L</sub>	13.65	96.55	0.15	13.80	24.00	Pass
			CH <sub>M</sub>	11.64	96.55	0.15	11.79		
			CH <sub>H</sub>	9.35	96.55	0.15	9.50		
		802.11a	CH <sub>L</sub>	13.40	96.77	0.14	13.54	24.00	Pass
			CH <sub>M</sub>	11.32	96.77	0.14	11.46		
			CH <sub>H</sub>	10.58	96.77	0.14	10.72		
	40	802.11ac	CH <sub>L</sub>	12.72	93.48	0.29	13.01	24.00	Pass
			CH <sub>M</sub>	11.08	93.48	0.29	11.37		
			CH <sub>H</sub>	8.85	93.48	0.29	9.14		
		802.11n	CH <sub>L</sub>	12.89	93.45	0.29	13.18	24.00	Pass
			CH <sub>M</sub>	11.09	93.53	0.29	11.38		
			CH <sub>H</sub>	8.92	93.45	0.29	9.21		
80	802.11ac	CH <sub>L</sub>	12.14	87.52	0.58	12.72	24.00	Pass	
		CH <sub>M</sub>	10.72	87.69	0.57	11.29			
		CH <sub>H</sub>	9.10	87.69	0.57	9.67			
IV	20	802.11ac	CH <sub>L</sub>	12.62	96.58	0.15	12.77	30.00	Pass
			CH <sub>M</sub>	12.34	96.58	0.15	12.49		
			CH <sub>H</sub>	12.63	96.48	0.16	12.79		
		802.11n	CH <sub>L</sub>	12.59	96.55	0.15	12.74	30.00	Pass
			CH <sub>M</sub>	12.46	96.55	0.15	12.61		
			CH <sub>H</sub>	12.62	96.55	0.15	12.77		
		802.11a	CH <sub>L</sub>	12.72	96.77	0.14	12.86	30.00	Pass
			CH <sub>M</sub>	12.35	96.68	0.15	12.50		
			CH <sub>H</sub>	12.86	96.77	0.14	13.00		
	40	802.11ac	CH <sub>L</sub>	12.62	93.48	0.29	12.91	30.00	Pass
			CH <sub>H</sub>	12.44	93.48	0.29	12.73		
		802.11n	CH <sub>L</sub>	12.59	93.44	0.29	12.88	30.00	Pass
			CH <sub>H</sub>	12.50	93.53	0.29	12.79		
	80	802.11ac	CH <sub>M</sub>	11.76	87.69	0.57	12.33	30.00	Pass

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

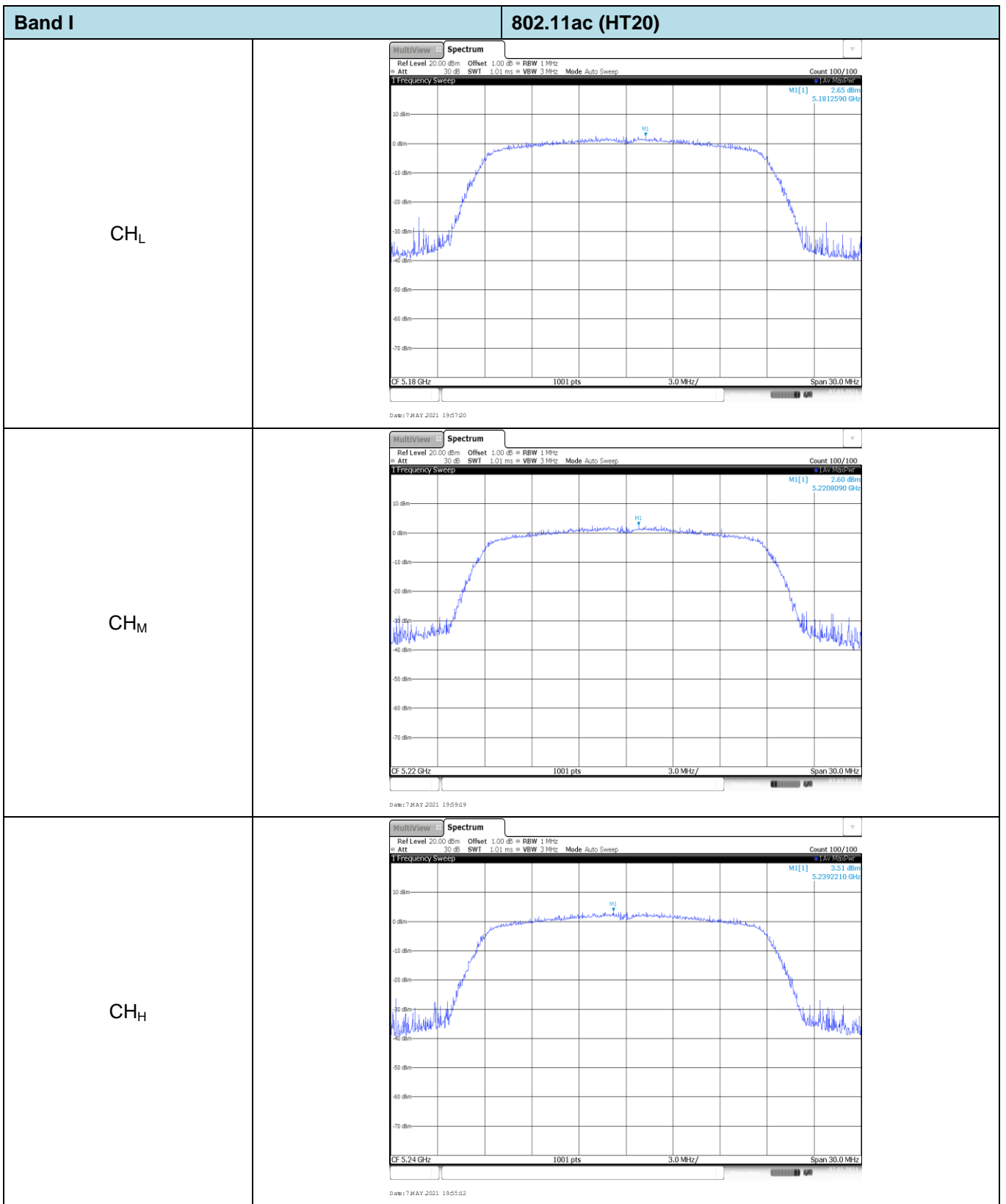
**Appendix B: Maximum Power Spectral Density**

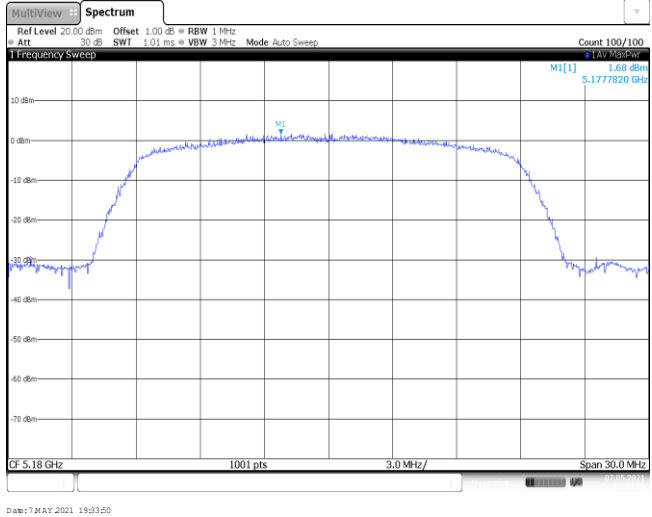
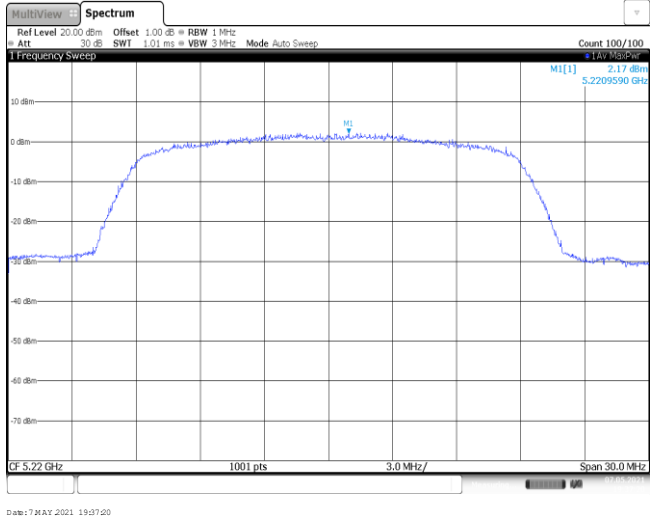
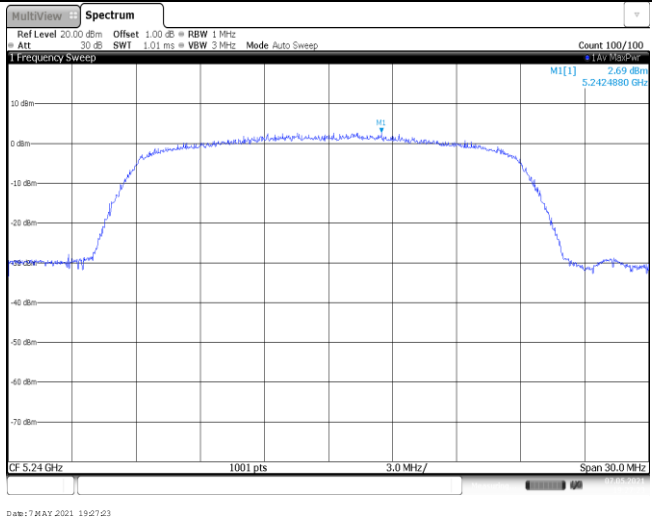
Band	Bandwidth (MHz)	Type	Channel	Reading (dBm)	Duty cycle (%)	Duty cycle factor (dB)	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)	Result
I	20	802.11 ac	CH <sub>L</sub>	2.65	96.58	0.15	2.80	11.00	Pass
			CH <sub>M</sub>	2.60	96.58	0.15	2.75		
			CH <sub>H</sub>	3.51	96.48	0.16	3.67		
		802.11 n	CH <sub>L</sub>	1.68	96.55	0.15	1.83	11.00	Pass
			CH <sub>M</sub>	2.17	96.55	0.15	2.32		
			CH <sub>H</sub>	2.69	96.55	0.15	2.84		
	802.11 a	CH <sub>L</sub>	2.42	96.77	0.14	2.56	11.00	Pass	
		CH <sub>M</sub>	1.73	96.77	0.14	1.87			
		CH <sub>H</sub>	3.45	96.77	0.14	3.59			
	40	802.11 ac	CH <sub>L</sub>	-0.34	93.48	0.29	-0.05	11.00	Pass
			CH <sub>H</sub>	0.53	93.57	0.29	0.82		
		802.11 n	CH <sub>L</sub>	0.21	93.53	0.29	0.50	11.00	Pass
CH <sub>H</sub>			0.69	93.45	0.29	0.98			
80	802.11 ac	CH <sub>M</sub>	-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 <sub>L</sub>	2.99	96.58	0.15	3.14	11.00	Pass
			CH <sub>M</sub>	3.15	96.58	0.15	3.30		
			CH <sub>H</sub>	3.51	96.58	0.15	3.66		
		802.11 n	CH <sub>L</sub>	4.04	96.55	0.15	4.19	11.00	Pass
			CH <sub>M</sub>	4.36	96.55	0.15	4.51		
			CH <sub>H</sub>	3.57	96.55	0.15	3.72		
	802.11 a	CH <sub>L</sub>	3.03	96.77	0.14	3.17	11.00	Pass	
		CH <sub>M</sub>	3.47	96.68	0.15	3.62			
		CH <sub>H</sub>	3.29	96.77	0.14	3.43			
	40	802.11 ac	CH <sub>L</sub>	0.17	93.48	0.29	0.46	11.00	Pass
			CH <sub>H</sub>	0.40	93.57	0.29	0.69		
		802.11 n	CH <sub>L</sub>	0.68	93.45	0.29	0.97	11.00	Pass
CH <sub>H</sub>			0.63	93.53	0.29	0.92			
80	802.11 ac	CH <sub>M</sub>	-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 <sub>L</sub>	5.32	96.58	0.15	5.47	11.00	Pass
			CH <sub>M</sub>	1.64	96.58	0.15	1.79		
			CH <sub>H</sub>	-1.25	96.48	0.16	-1.09		
		802.11 n	CH <sub>L</sub>	4.76	96.55	0.15	4.91	11.00	Pass
			CH <sub>M</sub>	2.08	96.55	0.15	2.23		
			CH <sub>H</sub>	-1.04	96.55	0.15	-0.89		
		802.11 a	CH <sub>L</sub>	4.49	96.77	0.14	4.63	11.00	Pass
			CH <sub>M</sub>	2.09	96.77	0.14	2.23		
			CH <sub>H</sub>	-0.71	96.77	0.14	-0.57		
	40	802.11 ac	CH <sub>L</sub>	0.46	93.48	0.29	0.75	11.00	Pass
			CH <sub>M</sub>	-1.36	93.48	0.29	-1.07		
			CH <sub>H</sub>	-4.15	93.48	0.29	-3.86		
		802.11 n	CH <sub>L</sub>	1.56	93.45	0.29	1.85	11.00	Pass
			CH <sub>M</sub>	-1.40	93.53	0.29	-1.11		
			CH <sub>H</sub>	-3.70	93.45	0.29	-3.41		
80	802.11 ac	CH <sub>L</sub>	-3.18	87.52	0.58	-2.60	11.00	Pass	
		CH <sub>M</sub>	-3.96	87.69	0.57	-3.39			
		CH <sub>H</sub>	-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 <sub>L</sub>	1.31	96.58	0.15	1.46	30.00	Pass
			CH <sub>M</sub>	1.49	96.58	0.15	1.64		
			CH <sub>H</sub>	0.45	96.48	0.16	0.61		
		802.11 n	CH <sub>L</sub>	1.97	96.55	0.15	2.12	30.00	Pass
			CH <sub>M</sub>	1.39	96.55	0.15	1.54		
			CH <sub>H</sub>	0.86	96.55	0.15	1.01		
		802.11 a	CH <sub>L</sub>	2.08	96.77	0.14	2.22	30.00	Pass
			CH <sub>M</sub>	1.44	96.68	0.15	1.59		
			CH <sub>H</sub>	0.99	96.77	0.14	1.13		
	40	802.11 ac	CH <sub>L</sub>	-0.97	93.48	0.29	-0.68	30.00	Pass
			CH <sub>H</sub>	-2.10	93.48	0.29	-1.81		
		802.11 n	CH <sub>L</sub>	-1.04	93.44	0.29	-0.75	30.00	Pass
			CH <sub>H</sub>	-1.54	93.53	0.29	-1.25		
	80	802.11 ac	CH <sub>M</sub>	-5.68	87.69	0.57	-5.11	30.00	Pass

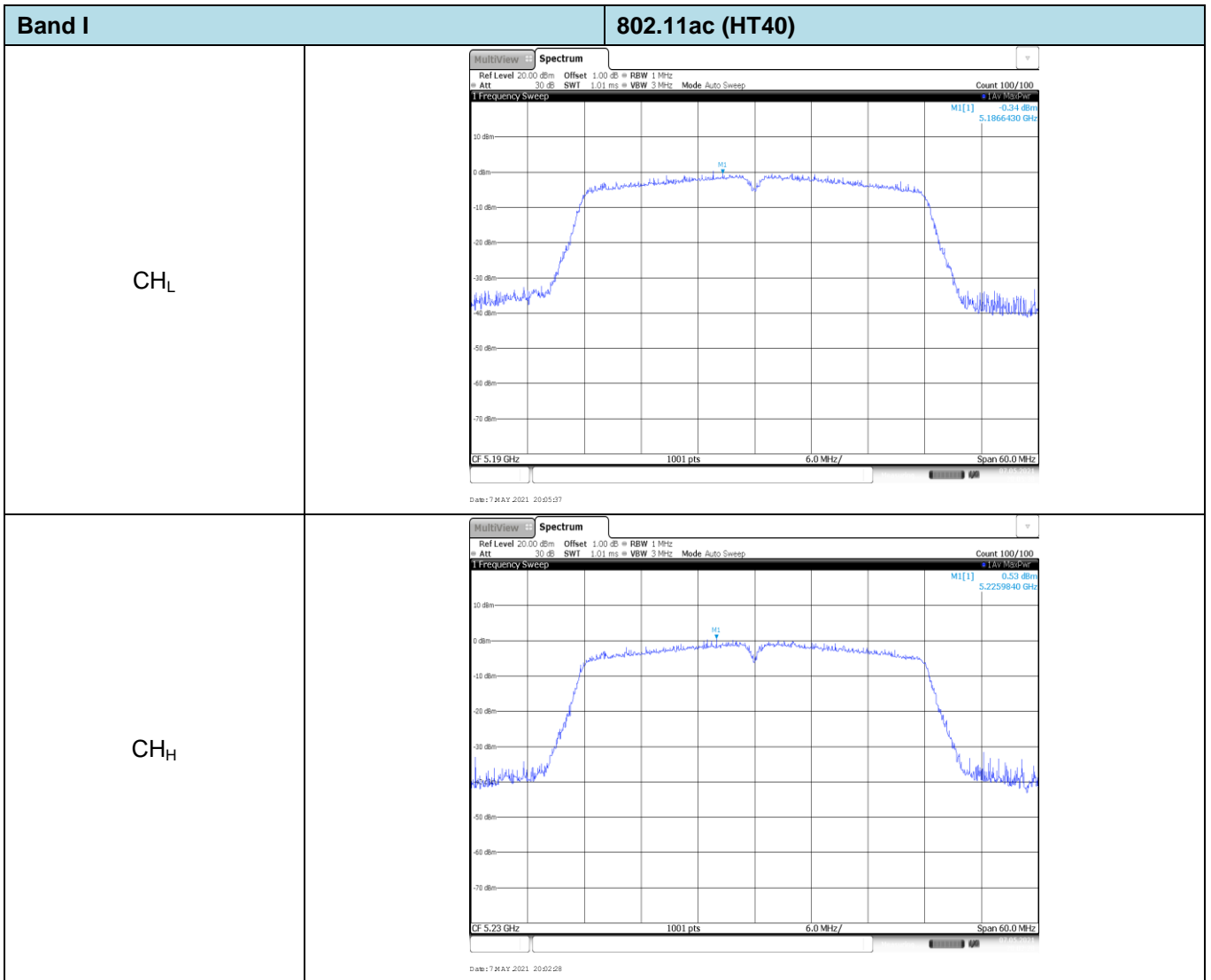
Test plot as follows:



Band I		802.11n (HT20)
CH <sub>L</sub>		
CH <sub>M</sub>		
CH <sub>H</sub>		

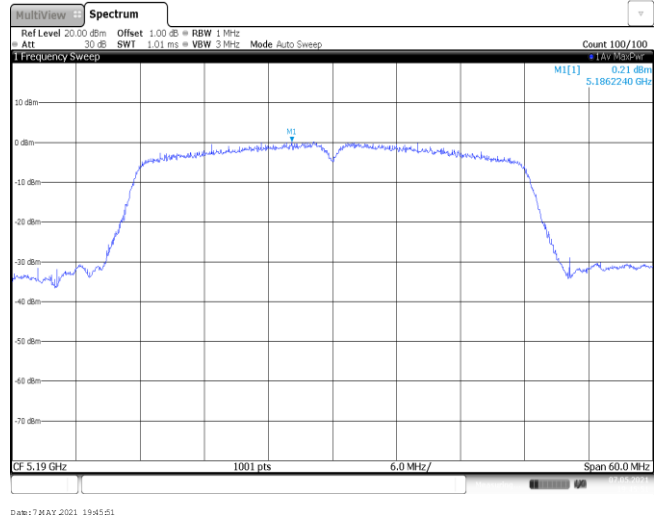
Band I		802.11a
CH <sub>L</sub>	<p>                     MultiView Spectrum                      Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Count 100/100                      Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep                      1 Frequency Sweep                      M1(1) 2.42 dBm                      5.1814090 GHz                      CF 5.18 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz                      Date: 7 MAY 2021 19:18:28                 </p>	
CH <sub>M</sub>	<p>                     MultiView Spectrum                      Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Count 100/100                      Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep                      1 Frequency Sweep                      M1(1) 1.73 dBm                      5.2208690 GHz                      CF 5.22 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz                      Date: 10 MAY 2021 13:11:19                 </p>	
CH <sub>H</sub>	<p>                     MultiView Spectrum                      Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Count 100/100                      Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep                      1 Frequency Sweep                      M1(1) 3.45 dBm                      5.2430570 GHz                      CF 5.24 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz                      Date: 7 MAY 2021 19:15:26                 </p>	



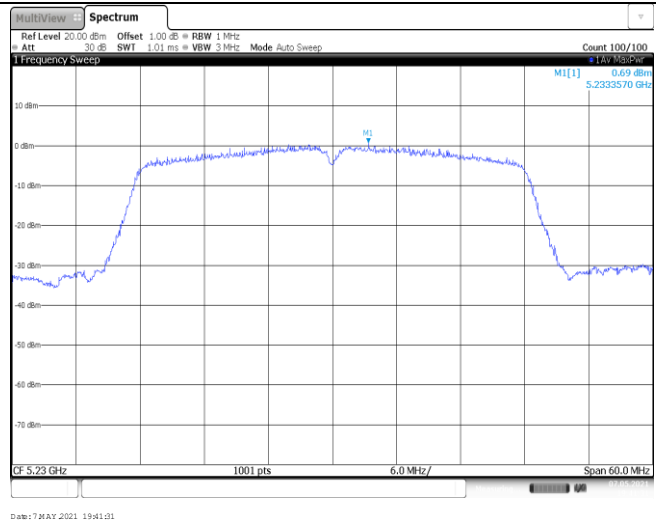


**Band I** **802.11n (HT40)**

CH<sub>L</sub>

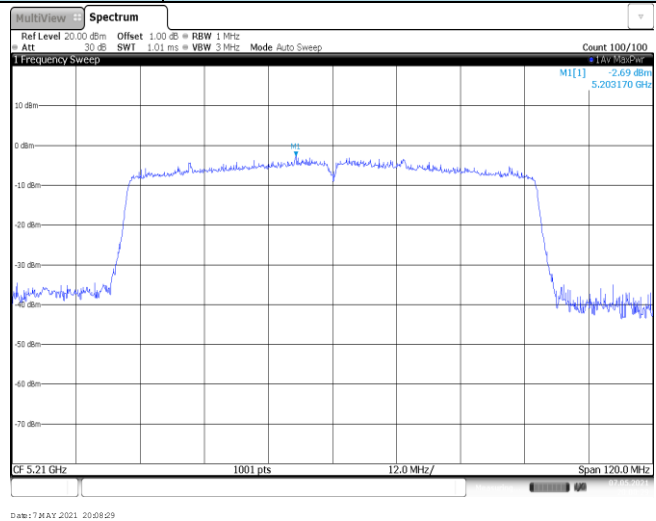


CH<sub>H</sub>



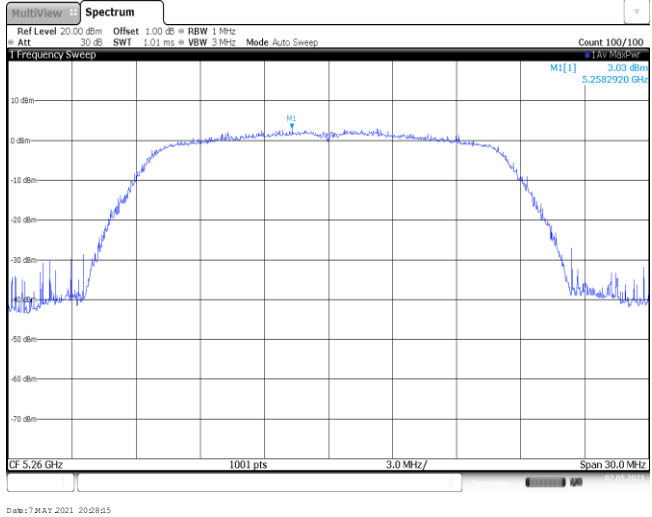
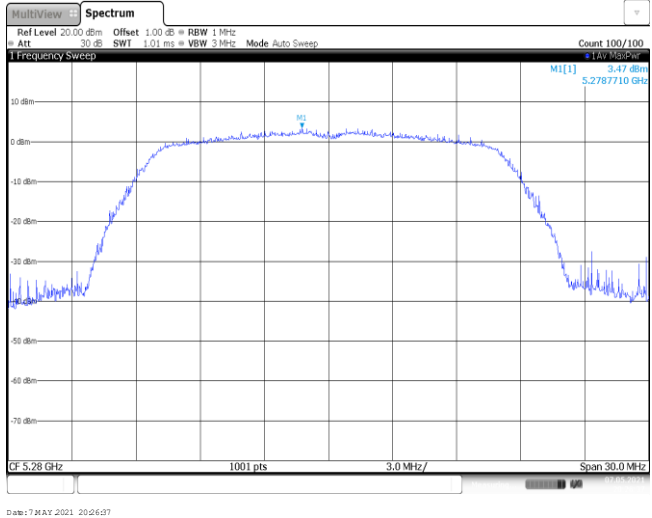
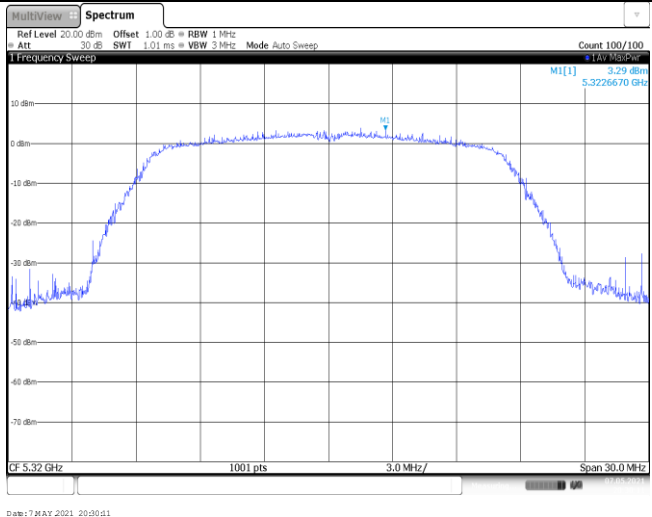
**Band I** **802.11ac (HT80)**

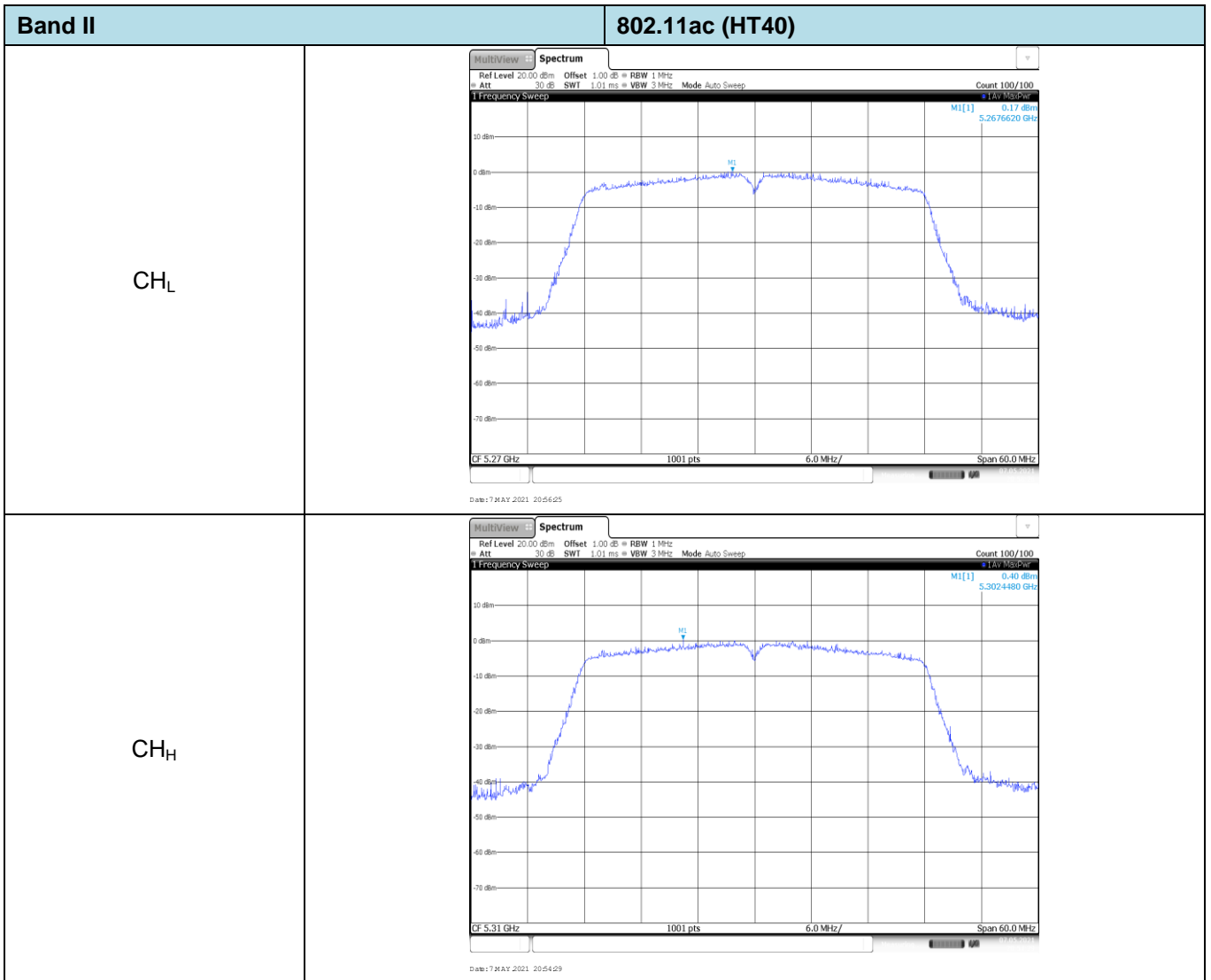
CH<sub>M</sub>



Band II		802.11ac (HT20)
CH <sub>L</sub>	<p>                     Spectrum plot for channel CH<sub>L</sub>. The plot shows a signal centered at 5.26 GHz. The peak level is 2.99 dBm. The span is 30.0 MHz. The plot includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 1 MHz, Att 30 dB, SWF 1.01 ms, VBW 3 MHz, Mode Auto Sweep, Count 100/100. The date is 7 MAY 2021 20:50:26.                 </p>	
CH <sub>M</sub>	<p>                     Spectrum plot for channel CH<sub>M</sub>. The plot shows a signal centered at 5.28 GHz. The peak level is 3.15 dBm. The span is 30.0 MHz. The plot includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 1 MHz, Att 30 dB, SWF 1.01 ms, VBW 3 MHz, Mode Auto Sweep, Count 100/100. The date is 7 MAY 2021 20:52:21.                 </p>	
CH <sub>H</sub>	<p>                     Spectrum plot for channel CH<sub>H</sub>. The plot shows a signal centered at 5.32 GHz. The peak level is 3.51 dBm. The span is 30.0 MHz. The plot includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 1 MHz, Att 30 dB, SWF 1.01 ms, VBW 3 MHz, Mode Auto Sweep, Count 100/100. The date is 7 MAY 2021 20:48:21.                 </p>	

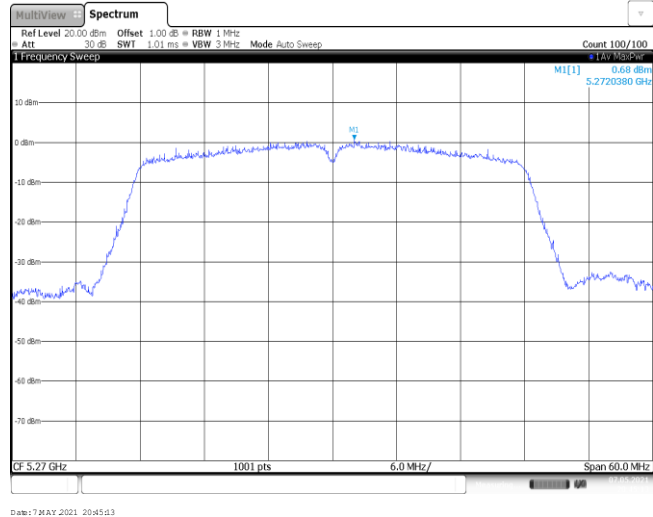
Band II		802.11n (HT20)
CH <sub>L</sub>	<p>Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Count 100/100              Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep              M1(1) 4.04 dBm              5.2585610 GHz              CF 5.26 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz              Date: 7 MAY 2021 20:26:28</p>	
CH <sub>M</sub>	<p>Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Count 100/100              Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep              M1(1) 4.36 dBm              5.2819180 GHz              CF 5.28 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz              Date: 7 MAY 2021 20:23:57</p>	
CH <sub>H</sub>	<p>Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Count 100/100              Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep              M1(1) 3.57 dBm              5.3223680 GHz              CF 5.32 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz              Date: 7 MAY 2021 20:29:15</p>	

Band II		802.11a
CH <sub>L</sub>	 <p>The spectrum plot for channel CH<sub>L</sub> shows a signal centered at 5.28 GHz. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in MHz, with a span of 30.0 MHz. The signal is a flat-topped pulse with a bandwidth of approximately 20 MHz. A peak is labeled M1 at 5.282920 GHz with a power of 3.03 dBm. The plot includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 1 MHz, Count 100/100, and Date: 7 MAY 2021 20:28:15.</p>	
CH <sub>M</sub>	 <p>The spectrum plot for channel CH<sub>M</sub> shows a signal centered at 5.28 GHz. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in MHz, with a span of 30.0 MHz. The signal is a flat-topped pulse with a bandwidth of approximately 20 MHz. A peak is labeled M1 at 5.2787710 GHz with a power of 3.47 dBm. The plot includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 1 MHz, Count 100/100, and Date: 7 MAY 2021 20:26:07.</p>	
CH <sub>H</sub>	 <p>The spectrum plot for channel CH<sub>H</sub> shows a signal centered at 5.32 GHz. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in MHz, with a span of 30.0 MHz. The signal is a flat-topped pulse with a bandwidth of approximately 20 MHz. A peak is labeled M1 at 5.3226670 GHz with a power of 3.29 dBm. The plot includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 1 MHz, Count 100/100, and Date: 7 MAY 2021 20:20:11.</p>	

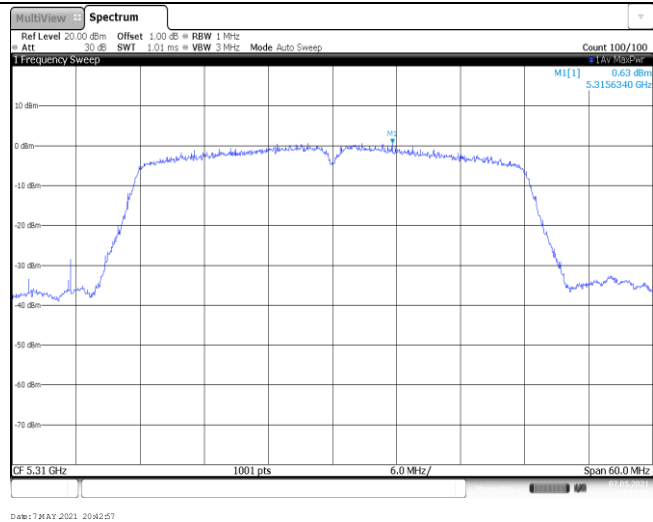


**Band II** **802.11n (HT40)**

CH<sub>L</sub>

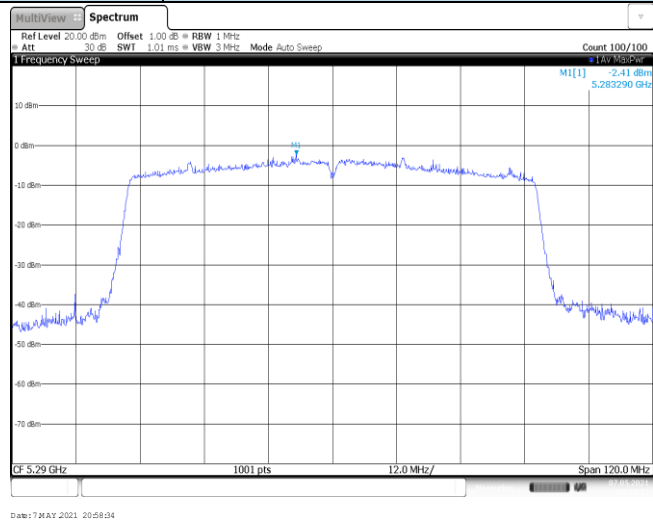


CH<sub>H</sub>



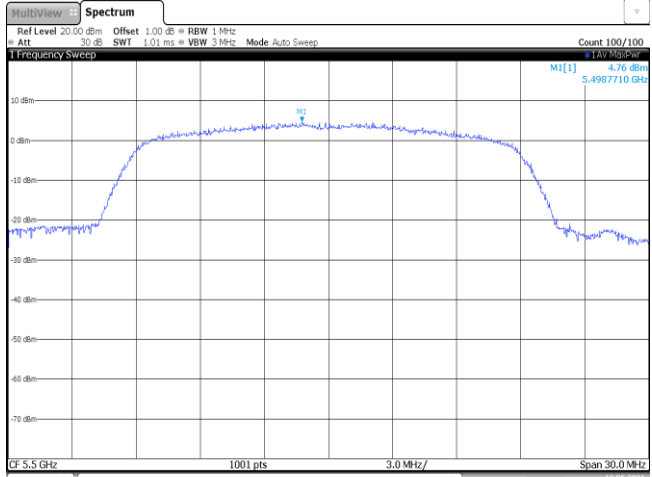
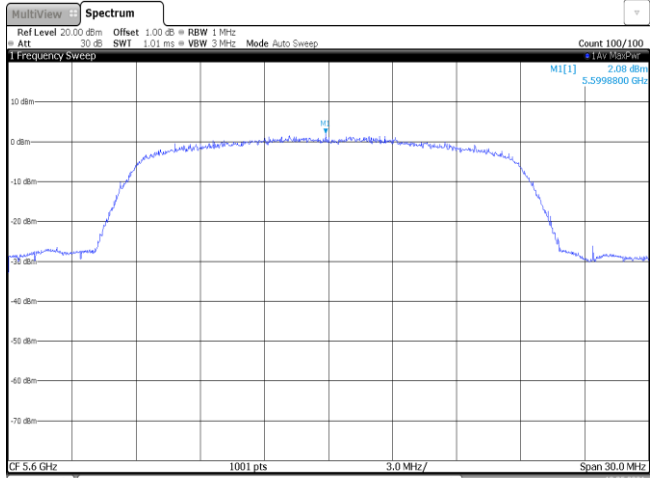
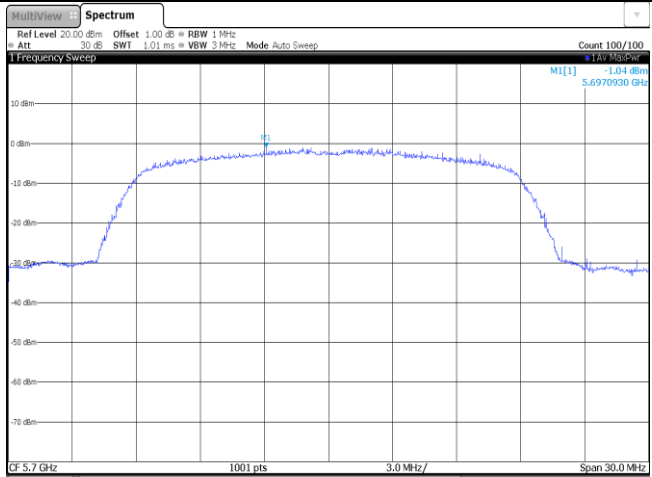
**Band II** **802.11ac (HT80)**

CH<sub>M</sub>



Band III		802.11ac (HT20)
CH <sub>L</sub>	<p>Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Count 100/100              Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep              M1(1) 5.32 dBm              5.5017080 GHz              CF 5.5 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz              Date: 10.MAY.2021 10:24:46</p>	
CH <sub>M</sub>	<p>Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Count 100/100              Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep              M1(1) 1.64 dBm              5.5970330 GHz              CF 5.6 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz              Date: 10.MAY.2021 10:26:05</p>	
CH <sub>H</sub>	<p>Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Count 100/100              Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep              M1(1) -1.25 dBm              5.7010790 GHz              CF 5.7 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz              Date: 10.MAY.2021 10:29:20</p>	

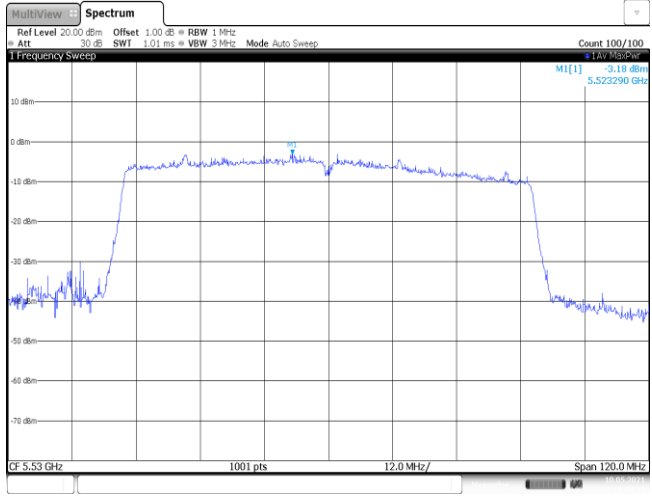
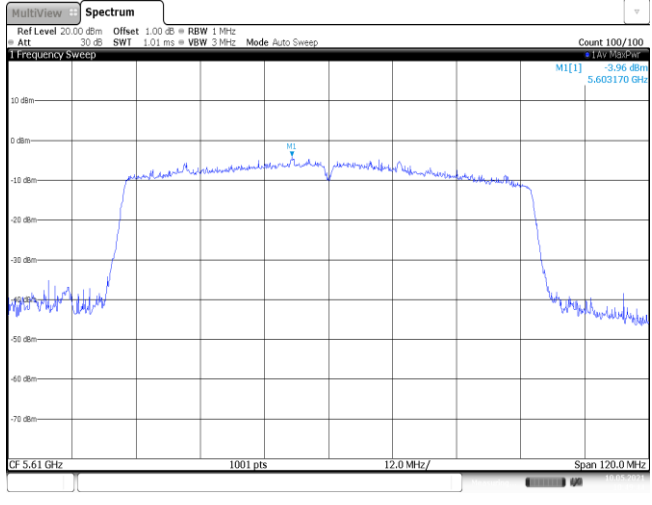
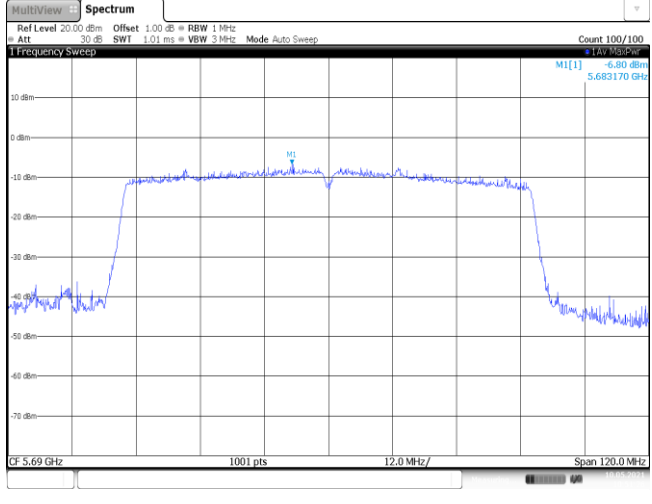


Band III		802.11n (HT20)
CH <sub>L</sub>	 <p>Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 M1[1] -4.76 dBm 5.4987710 GHz CF 5.5 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 10 MAY 2021 09:48:11</p>	
CH <sub>M</sub>	 <p>Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 M1[1] 2.08 dBm 5.5998800 GHz CF 5.6 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 10 MAY 2021 09:55:19</p>	
CH <sub>H</sub>	 <p>Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 M1[1] -1.04 dBm 5.6970930 GHz CF 5.7 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 10 MAY 2021 10:02:27</p>	

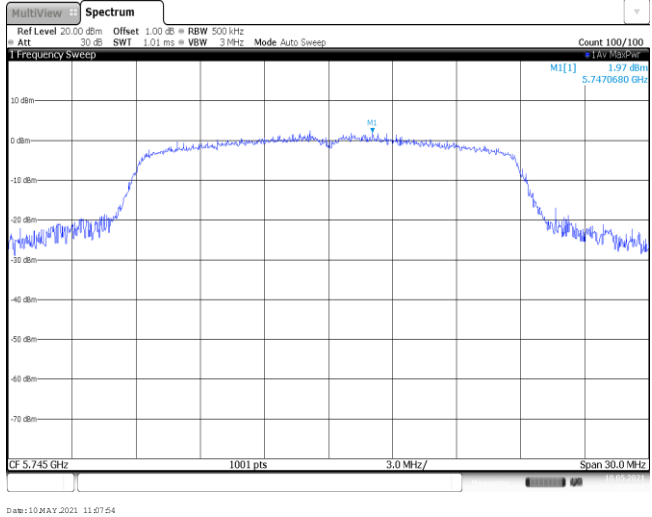
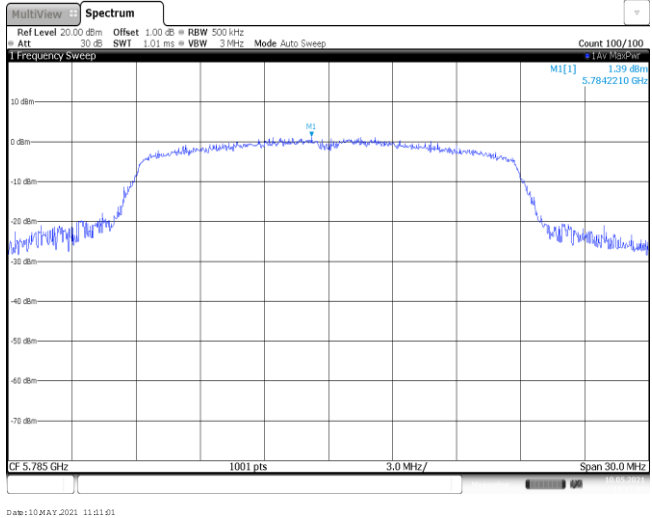
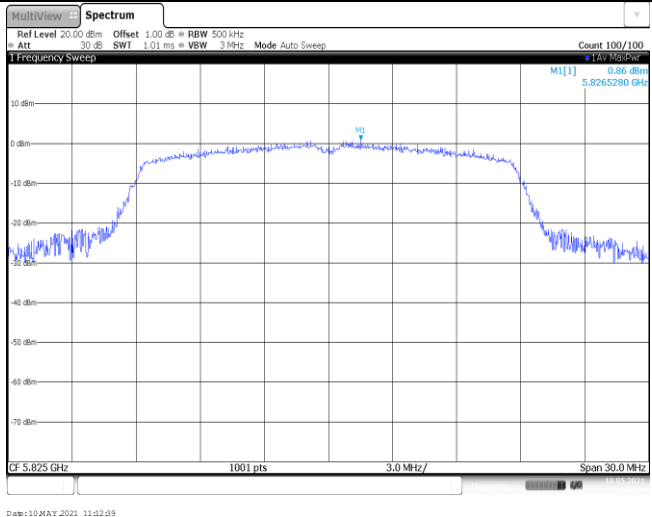
Band III		802.11a
CH <sub>L</sub>	<p>MultiView Spectrum                  Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Count 100/100                  Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep                  1 Frequency Sweep                  M1[1] 4.49 dBm                  5.4976320 GHz                  CF 5.5 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz                  Date: 8 MAY 2021 13:28:26</p>	
CH <sub>M</sub>	<p>MultiView Spectrum                  Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Count 100/100                  Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep                  1 Frequency Sweep                  M1[1] 2.09 dBm                  5.6014990 GHz                  CF 5.6 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz                  Date: 8 MAY 2021 13:25:27</p>	
CH <sub>H</sub>	<p>MultiView Spectrum                  Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Count 100/100                  Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep                  1 Frequency Sweep                  M1[1] -0.71 dBm                  5.7015580 GHz                  CF 5.7 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz                  Date: 8 MAY 2021 13:04:56</p>	

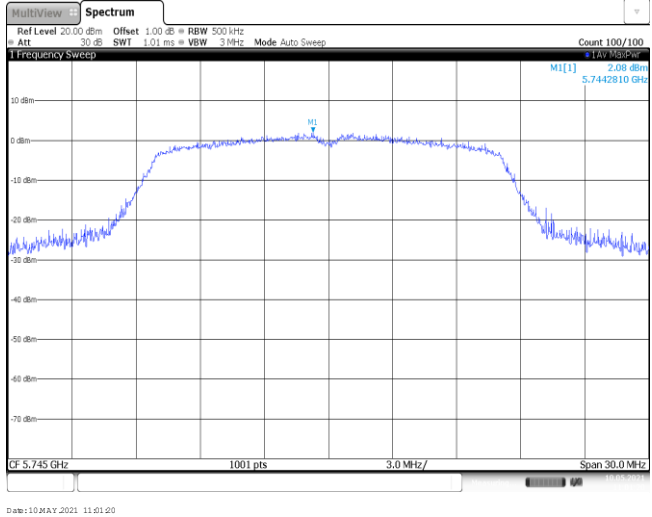
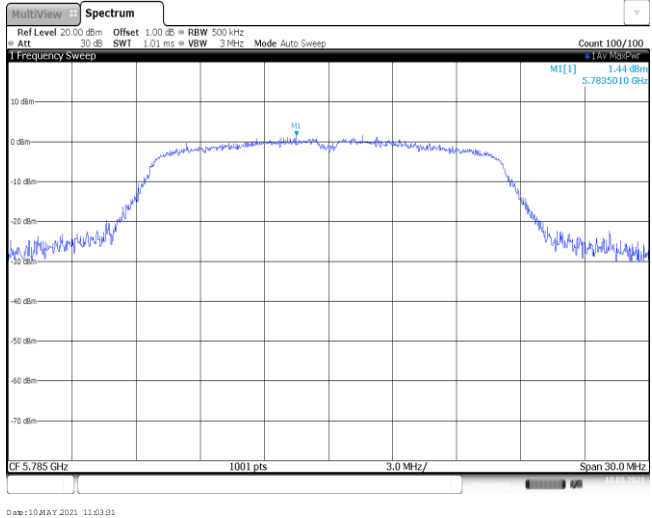
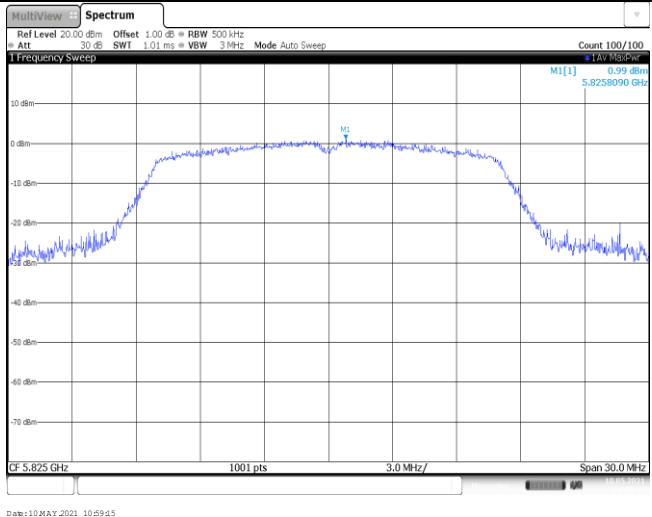
Band III		802.11ac (HT40)
CH <sub>L</sub>	<p>MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep M1[1] 0.46 dBm 5.5052050 GHz CF 5.51 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz Date: 10.MAY.2021 10:56:51</p>	
CH <sub>M</sub>	<p>MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep M1[1] -1.36 dBm 5.5882020 GHz CF 5.59 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz Date: 10.MAY.2021 10:50:06</p>	
CH <sub>H</sub>	<p>MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep M1[1] -4.15 dBm 5.6649650 GHz CF 5.67 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz Date: 10.MAY.2021 10:54:11</p>	

Band III		802.11n (HT40)
CH <sub>L</sub>	<p>Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 M1[1] -1.56 dBm 5.5064040 GHz CF 5.51 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz Date: 10 MAY 2021 10:12:54</p>	
CH <sub>M</sub>	<p>Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 M1[1] -1.40 dBm 5.838860 GHz CF 5.59 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz Date: 10 MAY 2021 10:18:05</p>	
CH <sub>H</sub>	<p>Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 M1[1] -3.70 dBm 5.6685010 GHz CF 5.67 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz Date: 10 MAY 2021 10:20:11</p>	

Band III		802.11ac (HT80)
CH <sub>L</sub>	 <p>MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWI 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep M1[1] -3.18 dBm 5.525290 GHz CF 5.53 GHz 1001 pts 12.0 MHz/ Span 120.0 MHz Date:10.MAY.2021 10:46:05</p>	
CH <sub>M</sub>	 <p>MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWI 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep M1[1] -3.96 dBm 5.603170 GHz CF 5.61 GHz 1001 pts 12.0 MHz/ Span 120.0 MHz Date:10.MAY.2021 10:49:44</p>	
CH <sub>H</sub>	 <p>MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWI 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep M1[1] -6.80 dBm 5.683170 GHz CF 5.69 GHz 1001 pts 12.0 MHz/ Span 120.0 MHz Date:10.MAY.2021 10:51:26</p>	

Band IV		802.11ac (HT20)
CH <sub>L</sub>	<p>                     MultiView Spectrum                      Ref Level 20.00 dBm Offset 1.00 dB RBW 500 kHz                      Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep                      Count 100/100                      1 Frequency Sweep                      M1[1] 1.31 dBm                      5.7443410 GHz                      CF 5.745 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz                      Date: 10 MAY 2021 11:19:23                 </p>	
CH <sub>M</sub>	<p>                     MultiView Spectrum                      Ref Level 20.00 dBm Offset 1.00 dB RBW 500 kHz                      Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep                      Count 100/100                      1 Frequency Sweep                      M1[1] 1.49 dBm                      5.7841310 GHz                      CF 5.785 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz                      Date: 10 MAY 2021 11:21:22                 </p>	
CH <sub>H</sub>	<p>                     MultiView Spectrum                      Ref Level 20.00 dBm Offset 1.00 dB RBW 500 kHz                      Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep                      Count 100/100                      1 Frequency Sweep                      M1[1] 0.45 dBm                      5.8229020 GHz                      CF 5.825 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz                      Date: 10 MAY 2021 11:23:01                 </p>	

Band IV		802.11n (HT20)
CH <sub>L</sub>	 <p>Ref Level 20.00 dBm Offset 1.00 dB RBW 500 kHz Count 100/100 Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep M1[1] 1.39 dBm 5.7470680 GHz CF 5.745 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 10 MAY 2021 11:07:54</p>	
CH <sub>M</sub>	 <p>Ref Level 20.00 dBm Offset 1.00 dB RBW 500 kHz Count 100/100 Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep M1[1] 1.39 dBm 5.7842210 GHz CF 5.785 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 10 MAY 2021 11:11:01</p>	
CH <sub>H</sub>	 <p>Ref Level 20.00 dBm Offset 1.00 dB RBW 500 kHz Count 100/100 Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep M1[1] 0.86 dBm 5.8265280 GHz CF 5.825 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 10 MAY 2021 11:12:09</p>	

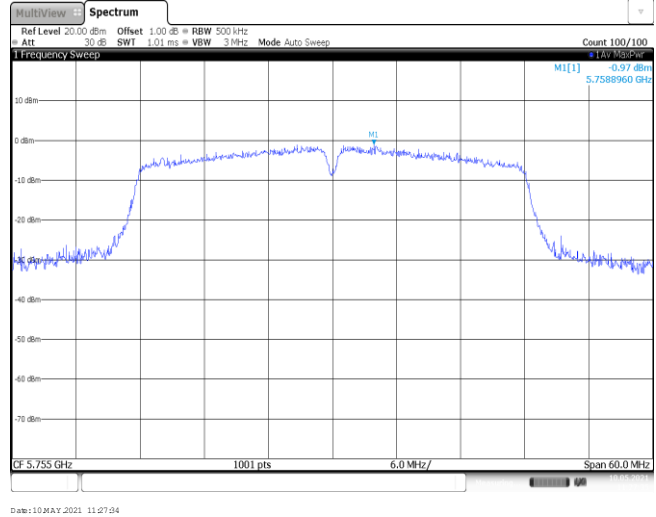
Band IV		802.11a
CH <sub>L</sub>	 <p>Ref Level 20.00 dBm Offset 1.00 dB RBW 500 kHz Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 M1[1] 2.08 dBm 5.7442810 GHz CF 5.745 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 10 MAY 2021 11:01:20</p>	
CH <sub>M</sub>	 <p>Ref Level 20.00 dBm Offset 1.00 dB RBW 500 kHz Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 M1[1] 1.44 dBm 5.7835010 GHz CF 5.785 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 10 MAY 2021 11:03:01</p>	
CH <sub>H</sub>	 <p>Ref Level 20.00 dBm Offset 1.00 dB RBW 500 kHz Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 M1[1] 0.99 dBm 5.8258090 GHz CF 5.825 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 10 MAY 2021 10:59:45</p>	



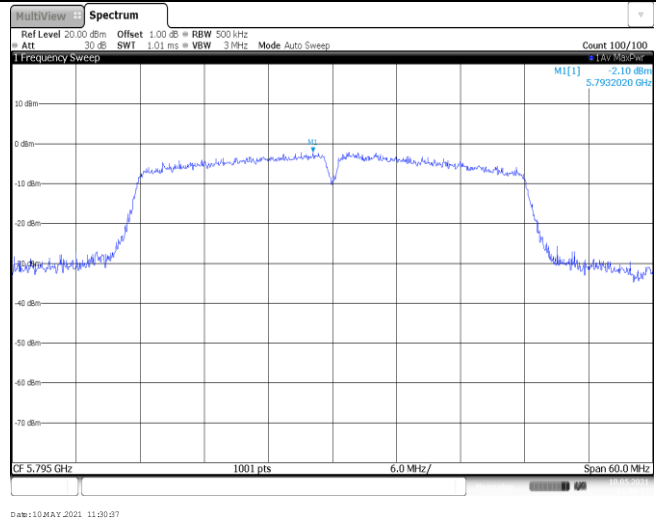
Band IV

802.11ac (HT40)

CH<sub>L</sub>

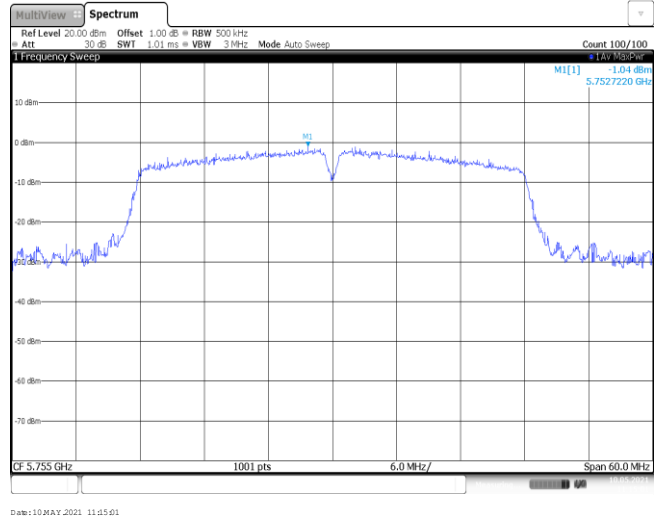


CH<sub>H</sub>

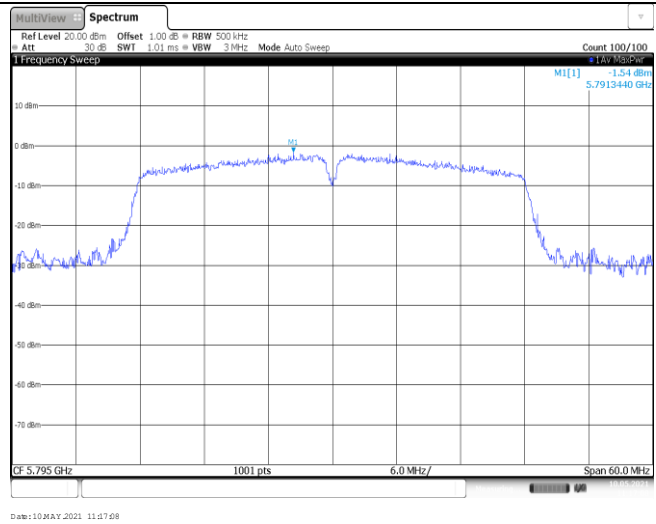


**Band IV** **802.11n (HT40)**

CH<sub>L</sub>



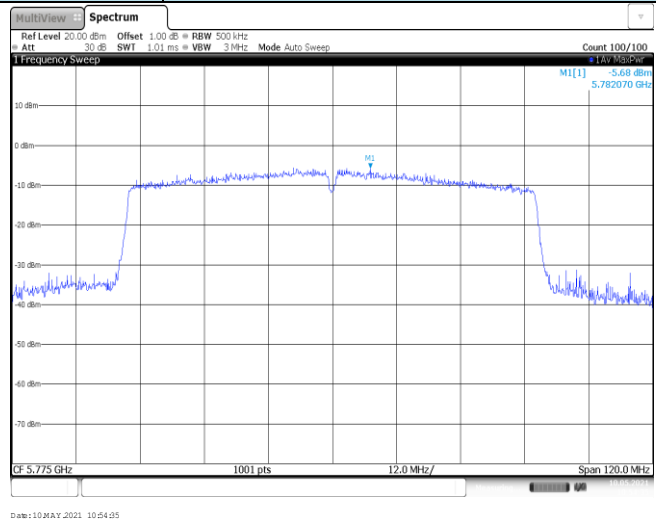
CH<sub>H</sub>



**Band IV**

**802.11ac (HT80)**

CH<sub>M</sub>



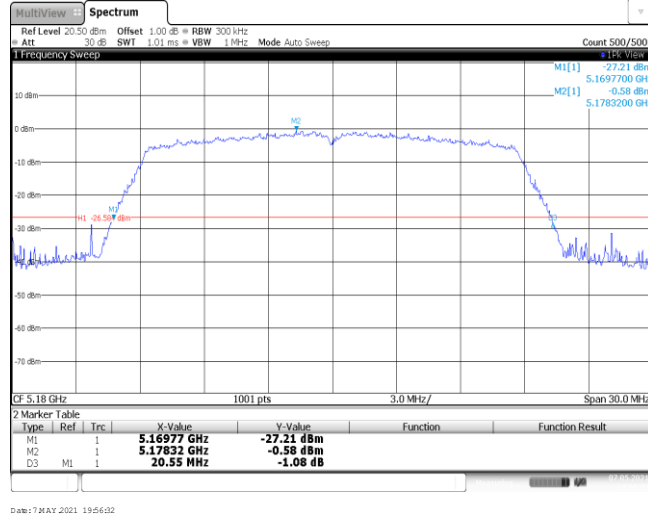
**Appendix C: 26dB bandwidth**

Band	Bandwidth (MHz)	Type	Channel	26dB bandwidth (MHz)	Result
I	20	802.11ac	CH <sub>L</sub>	20.55	Pass
			CH <sub>M</sub>	20.46	
			CH <sub>H</sub>	20.58	
		802.11n	CH <sub>L</sub>	20.64	Pass
			CH <sub>M</sub>	20.55	
			CH <sub>H</sub>	20.61	
		802.11a	CH <sub>L</sub>	20.19	Pass
			CH <sub>M</sub>	20.19	
			CH <sub>H</sub>	20.10	
	40	802.11ac	CH <sub>L</sub>	41.40	Pass
			CH <sub>H</sub>	40.86	
		802.11n	CH <sub>L</sub>	41.16	Pass
CH <sub>H</sub>			41.10		
80	802.11ac	CH <sub>M</sub>	81.60	Pass	
II	20	802.11ac	CH <sub>L</sub>	20.52	Pass
			CH <sub>M</sub>	20.58	
			CH <sub>H</sub>	20.64	
		802.11n	CH <sub>L</sub>	20.49	Pass
			CH <sub>M</sub>	20.58	
			CH <sub>H</sub>	20.61	
		802.11a	CH <sub>L</sub>	20.25	Pass
			CH <sub>M</sub>	20.31	
			CH <sub>H</sub>	20.31	
	40	802.11ac	CH <sub>L</sub>	40.80	Pass
			CH <sub>H</sub>	40.62	
		802.11n	CH <sub>L</sub>	40.98	Pass
CH <sub>H</sub>			40.74		
80	802.11ac	CH <sub>M</sub>	81.36	Pass	

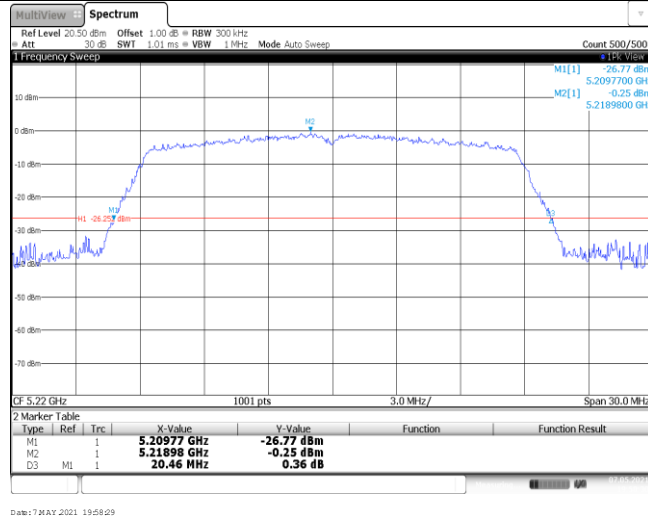
Band	Bandwidth (MHz)	Type	Channel	26dB bandwidth (MHz)	Result
III	20	802.11ac	CH <sub>L</sub>	20.49	Pass
			CH <sub>M</sub>	20.67	
			CH <sub>H</sub>	20.58	
		802.11n	CH <sub>L</sub>	20.76	Pass
			CH <sub>M</sub>	20.76	
			CH <sub>H</sub>	20.82	
		802.11a	CH <sub>L</sub>	20.37	Pass
			CH <sub>M</sub>	20.25	
			CH <sub>H</sub>	20.31	
	40	802.11ac	CH <sub>L</sub>	41.22	Pass
			CH <sub>M</sub>	40.62	
			CH <sub>H</sub>	41.04	
		802.11n	CH <sub>L</sub>	40.98	Pass
			CH <sub>M</sub>	41.16	
			CH <sub>H</sub>	41.16	
80	802.11ac	CH <sub>L</sub>	81.48	Pass	
		CH <sub>M</sub>	81.24		
		CH <sub>H</sub>	81.60		

**Band I** **802.11ac (HT20)**

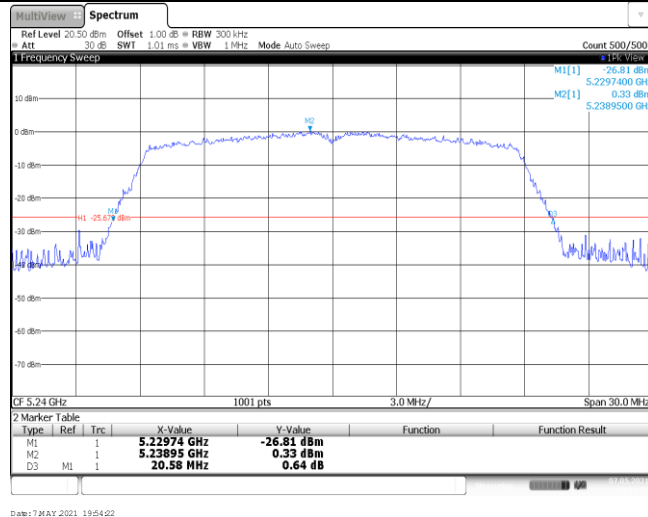
CH<sub>L</sub>



CH<sub>M</sub>



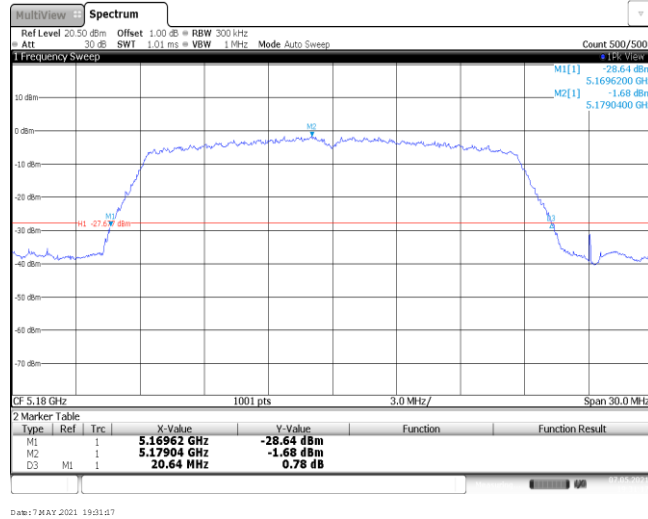
CH<sub>H</sub>



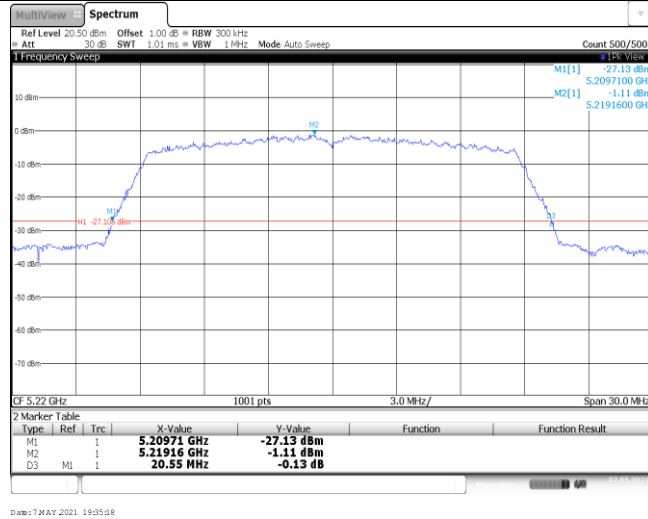
Band I

802.11n (HT20)

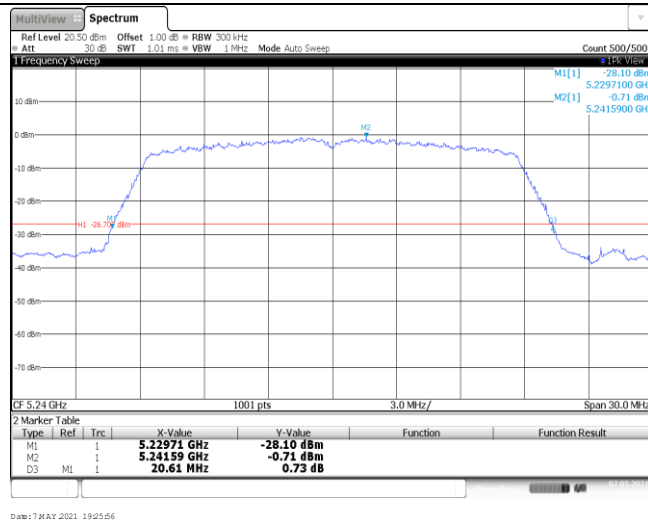
CH<sub>L</sub>



CH<sub>M</sub>

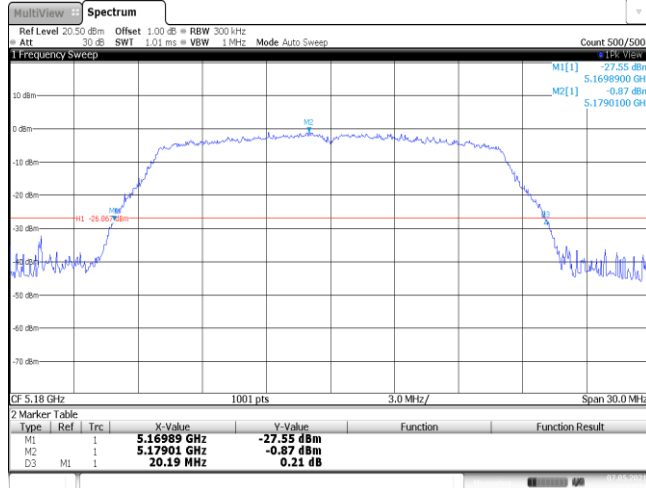


CH<sub>H</sub>



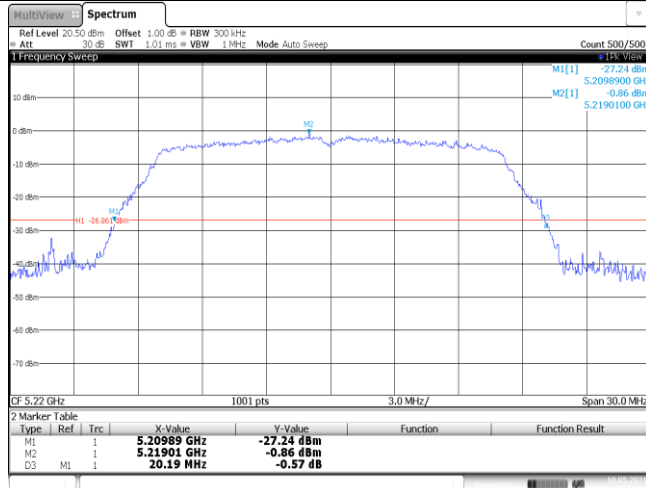
**Band I** **802.11a**

CH<sub>L</sub>



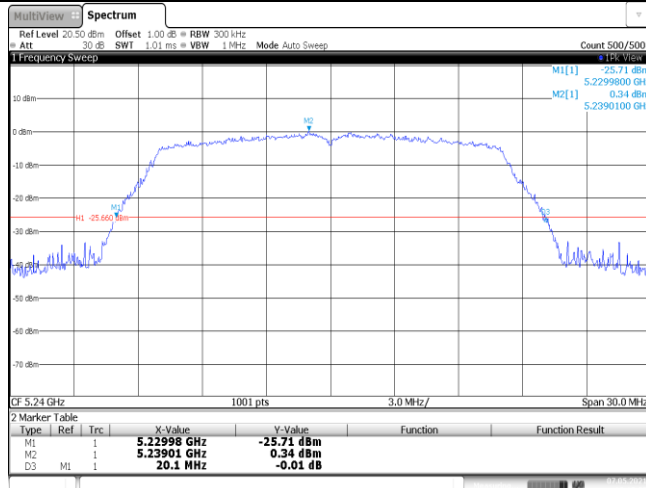
Date: 7 MAY 2021 19:17:24

CH<sub>M</sub>



Date: 10 MAY 2021 13:00:48

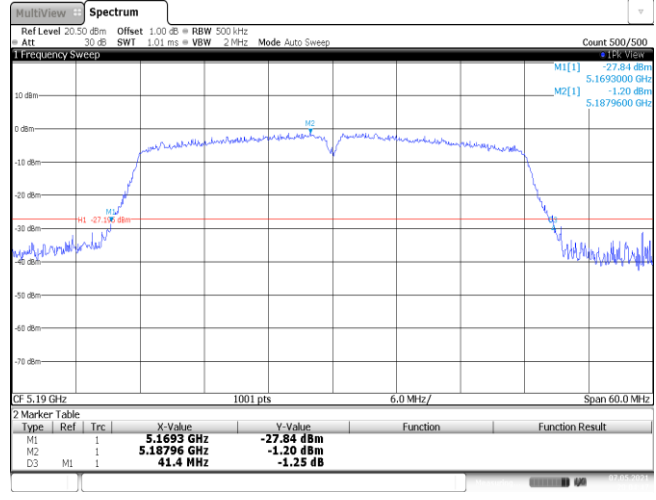
CH<sub>H</sub>



Date: 7 MAY 2021 19:13:58

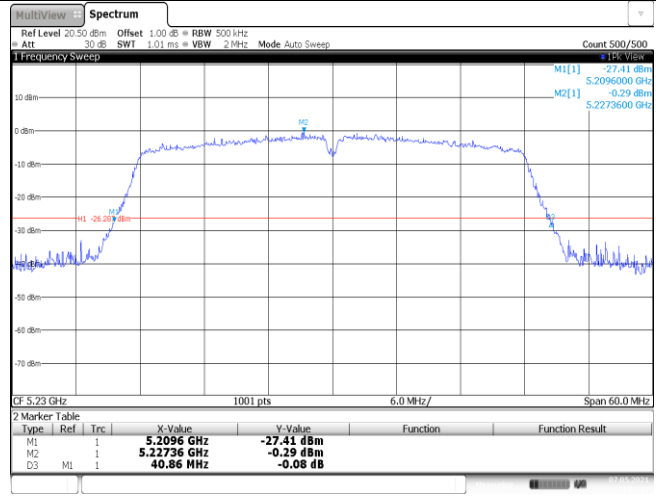
**Band I** **802.11ac (HT40)**

CH<sub>L</sub>



Date: 7 MAY 2021 20:04:47

CH<sub>H</sub>

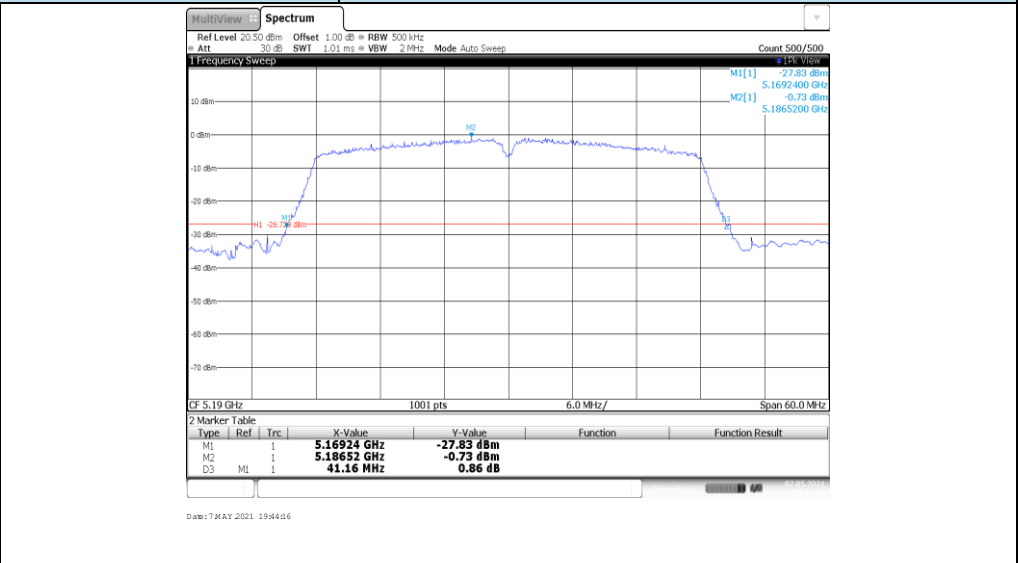


Date: 7 MAY 2021 20:01:41

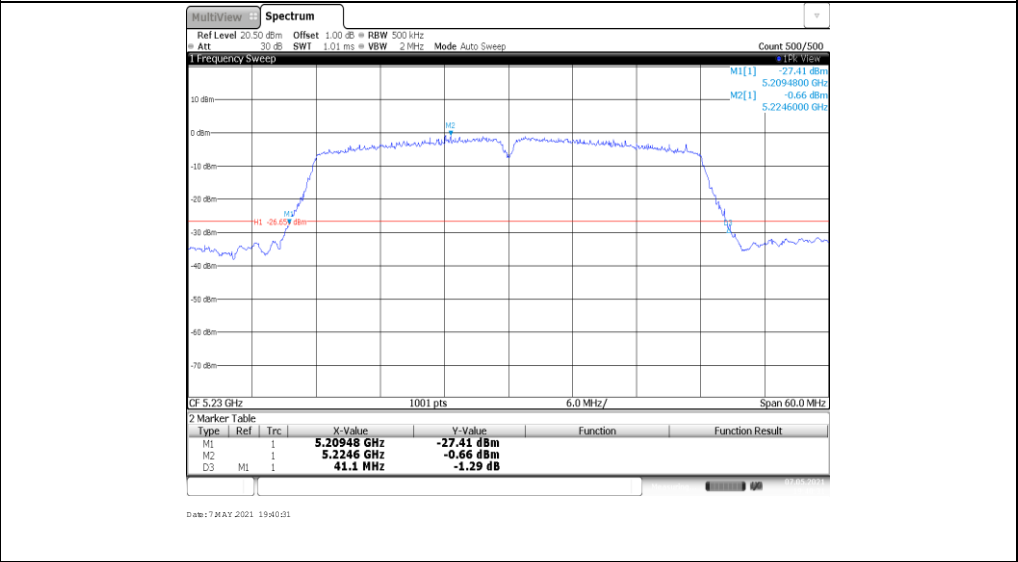


**Band I** **802.11n (HT40)**

CH<sub>L</sub>

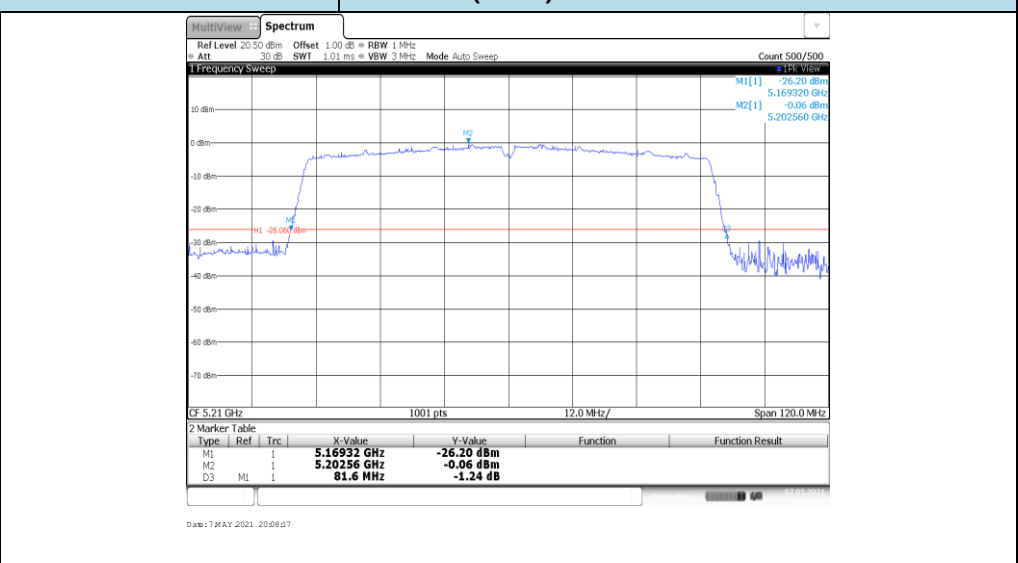


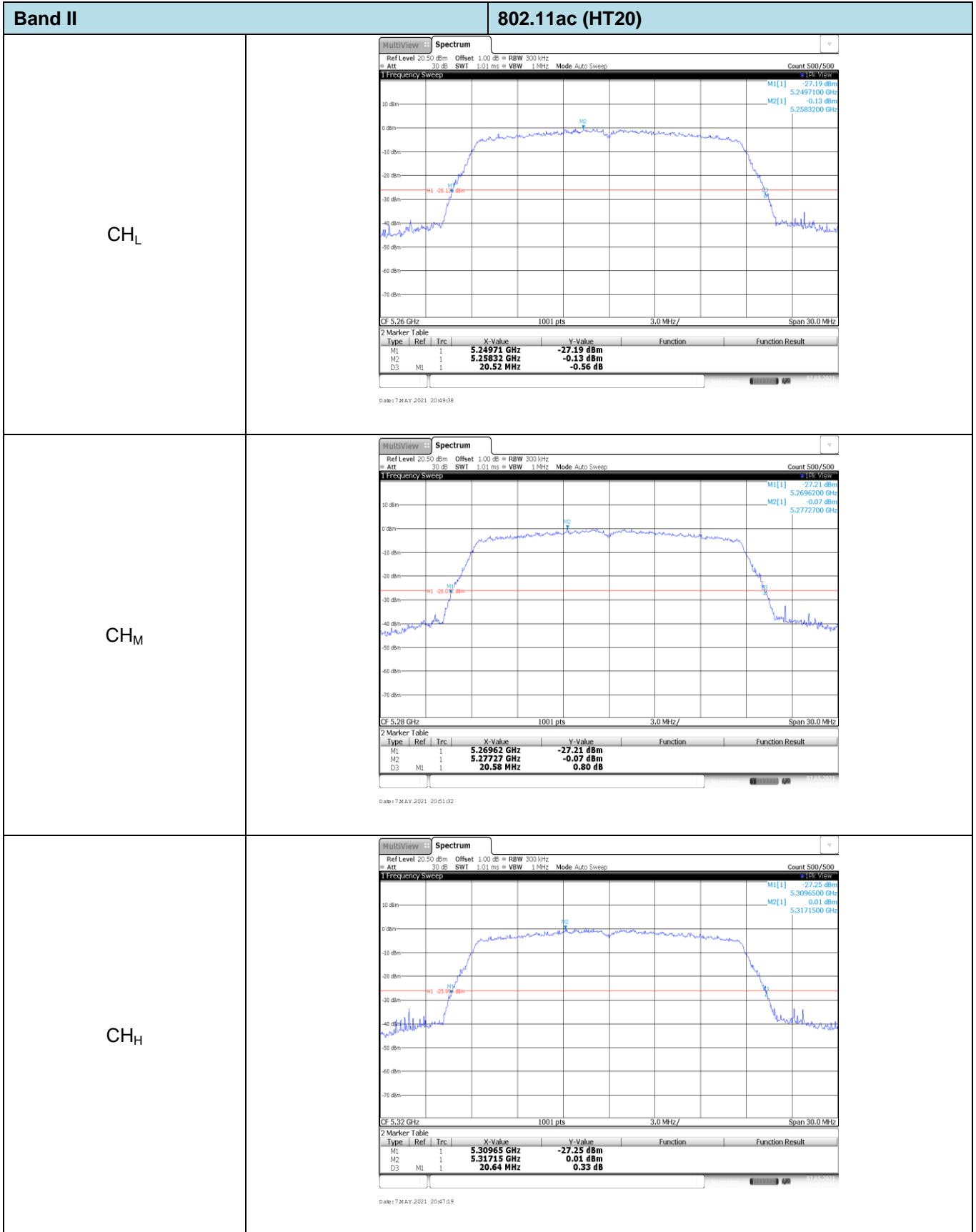
CH<sub>H</sub>



**Band I** **802.11ac (HT80)**

CH<sub>M</sub>

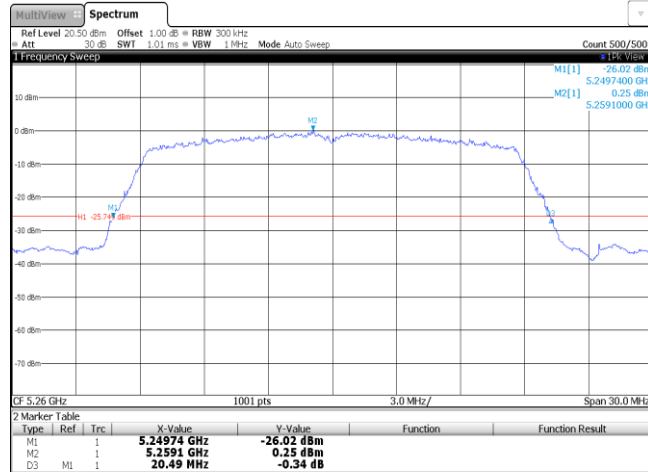




**Band II**

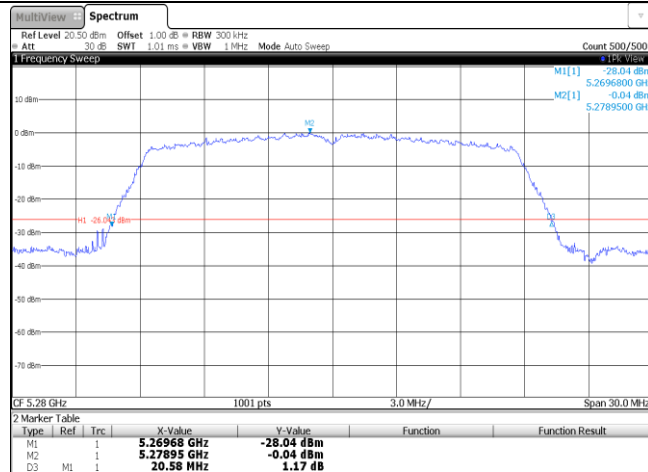
**802.11n (HT20)**

CH<sub>L</sub>



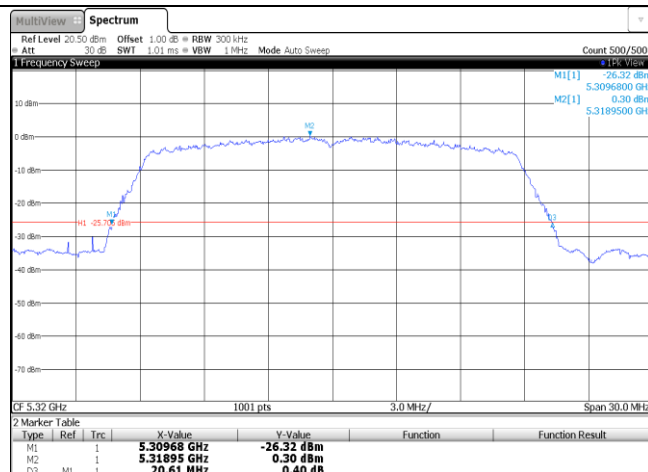
Date: 7 MAY 2021 20:24:57

CH<sub>M</sub>



Date: 7 MAY 2021 20:31:57

CH<sub>H</sub>

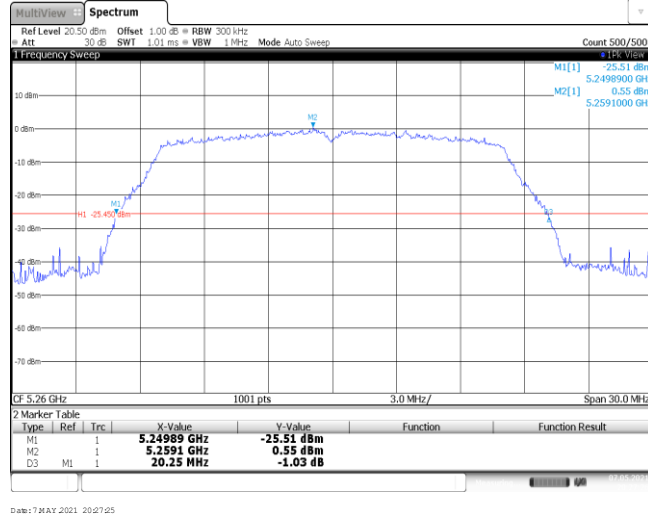


Date: 7 MAY 2021 20:37:49

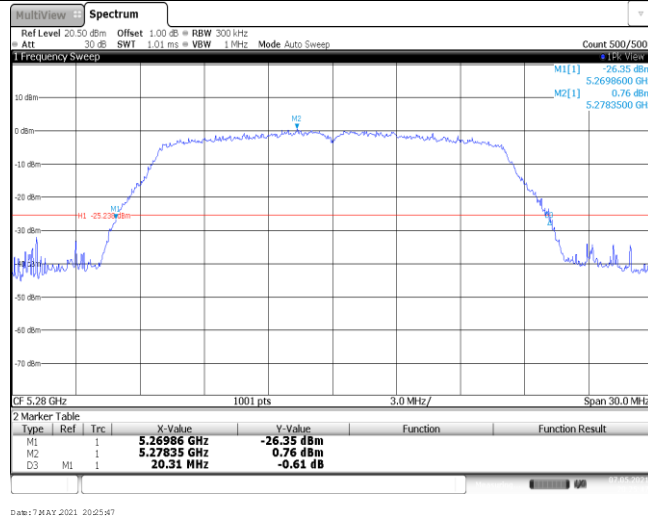
**Band II**

**802.11a**

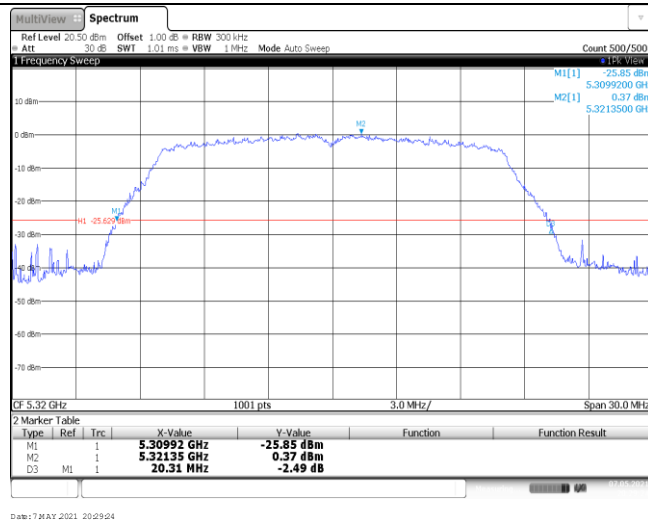
CH<sub>L</sub>



CH<sub>M</sub>

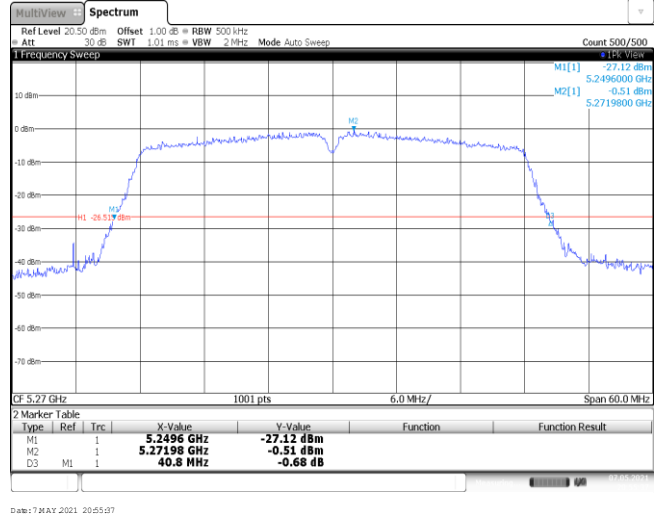


CH<sub>H</sub>

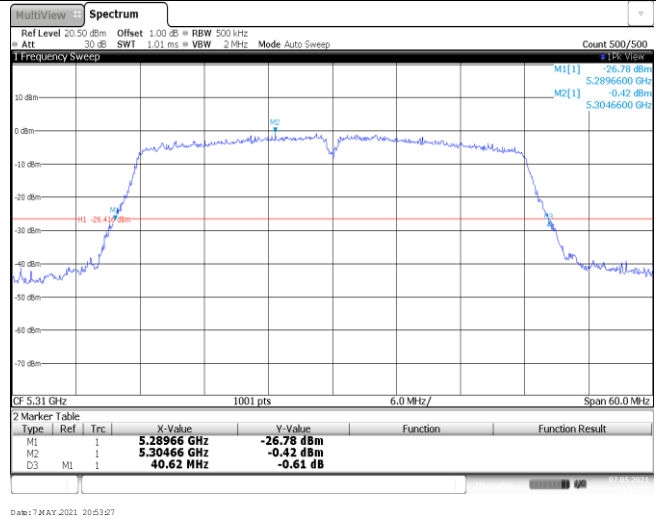


**Band II** **802.11ac (HT40)**

CH<sub>L</sub>

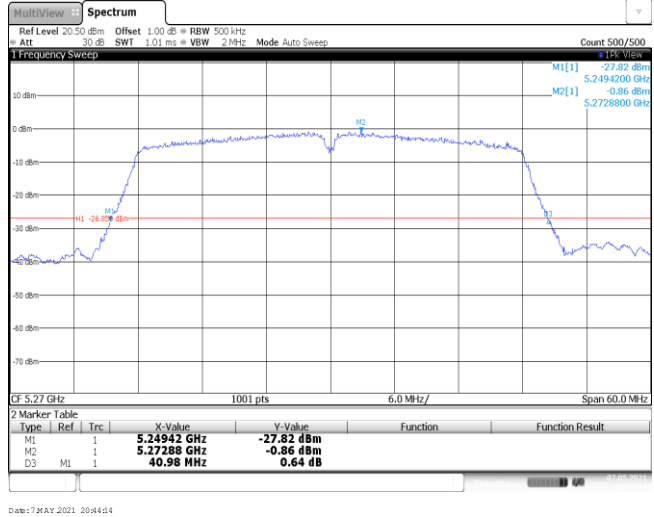


CH<sub>H</sub>

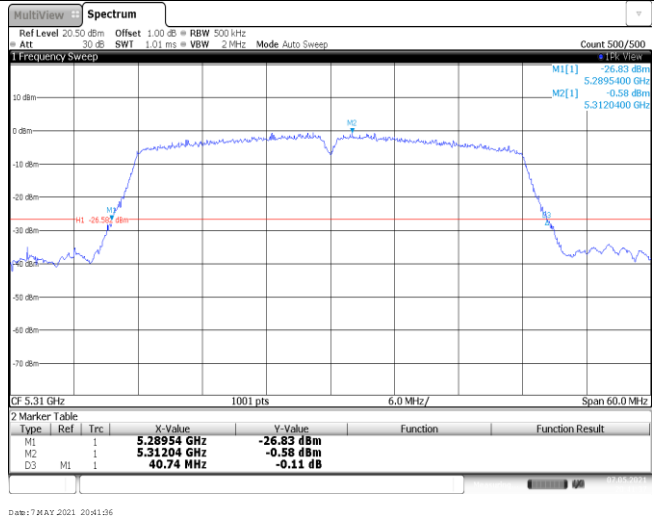


**Band II** **802.11n (HT40)**

CH<sub>L</sub>

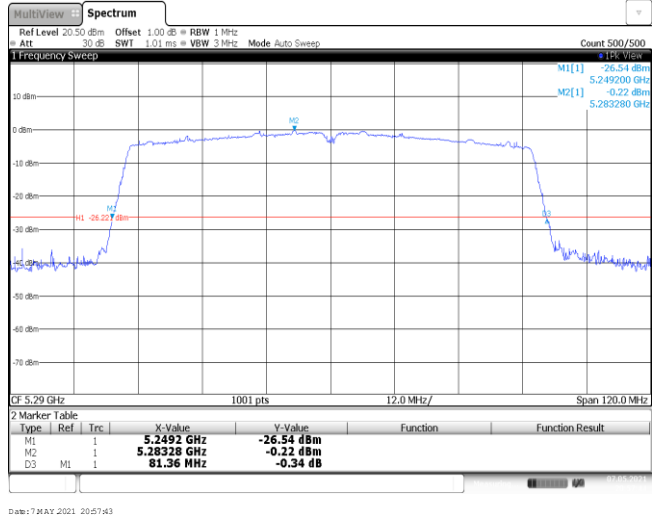


CH<sub>H</sub>



**Band II** **802.11ac (HT80)**

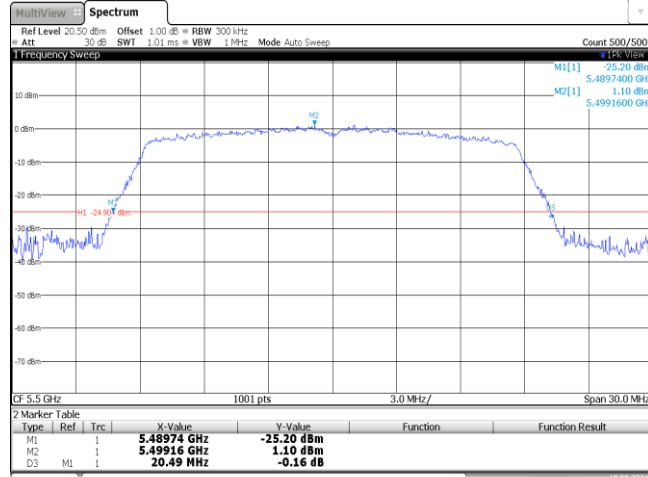
CH<sub>M</sub>



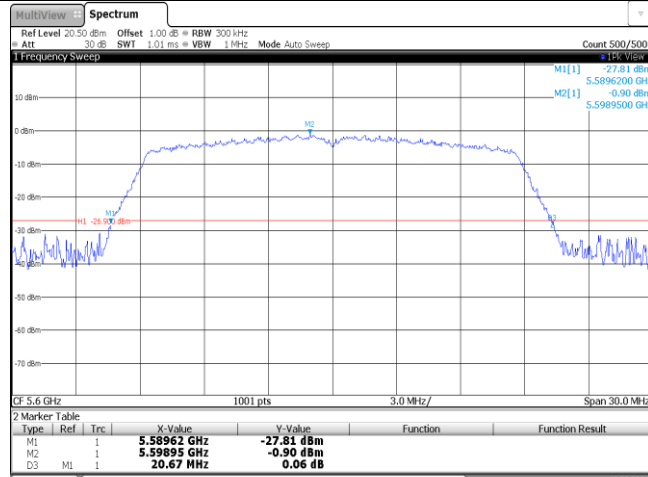
Band III

802.11ac (HT20)

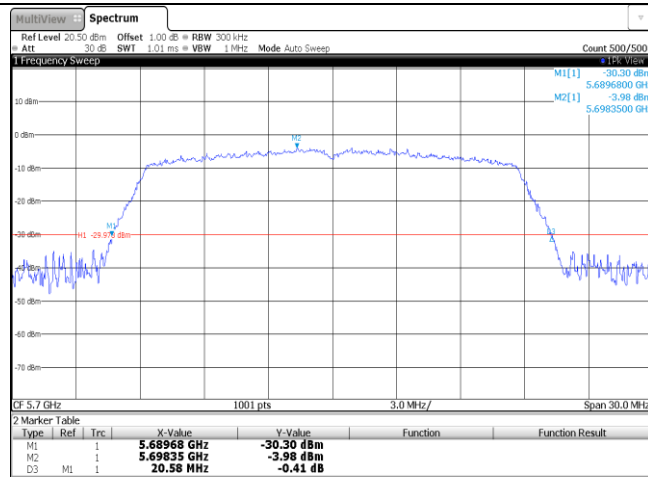
CH<sub>L</sub>



CH<sub>M</sub>



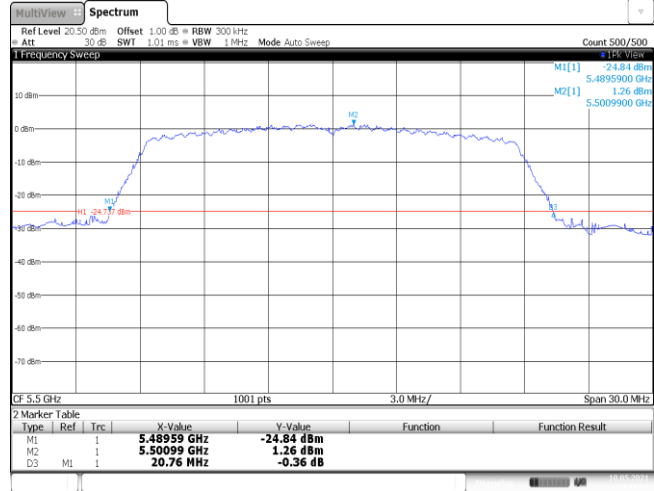
CH<sub>H</sub>



Band III

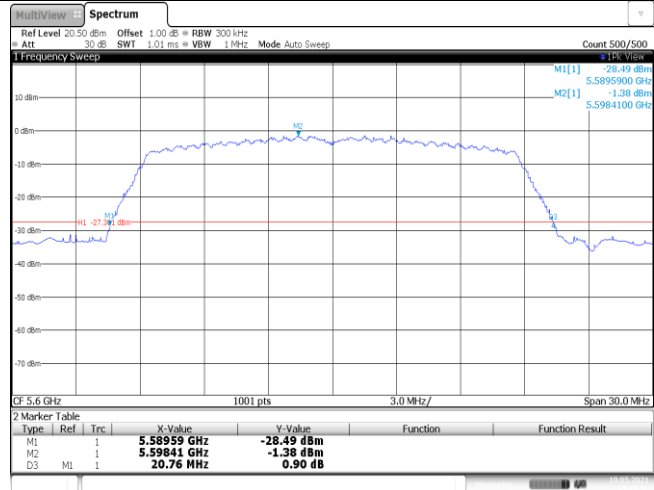
802.11n (HT20)

CH<sub>L</sub>



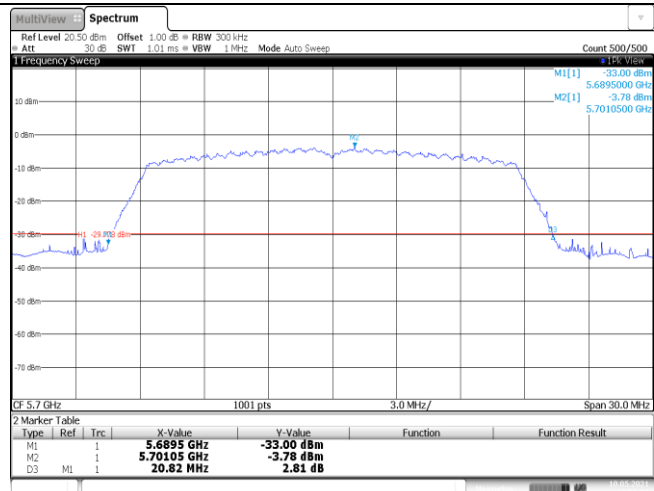
Date: 10 MAY 2021 09:44:40

CH<sub>M</sub>



Date: 10 MAY 2021 09:50:56

CH<sub>H</sub>

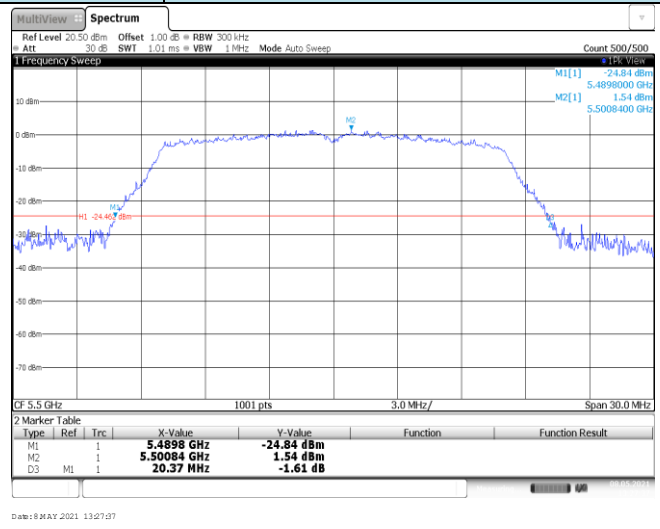


Date: 10 MAY 2021 10:00:30

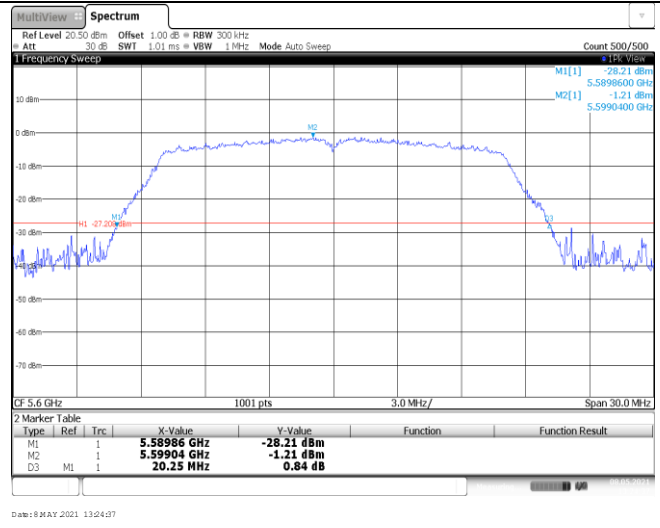


**Band III** **802.11a**

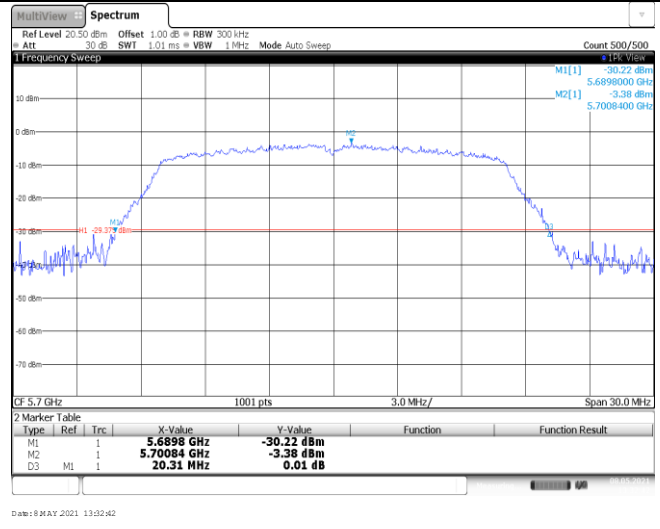
CH<sub>L</sub>



CH<sub>M</sub>

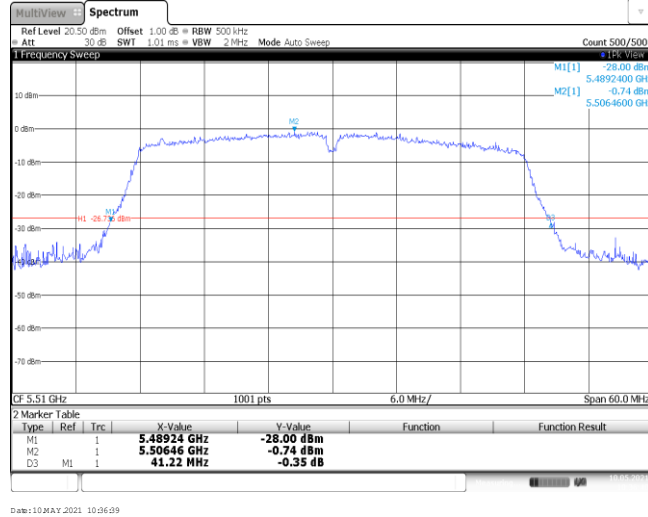


CH<sub>H</sub>

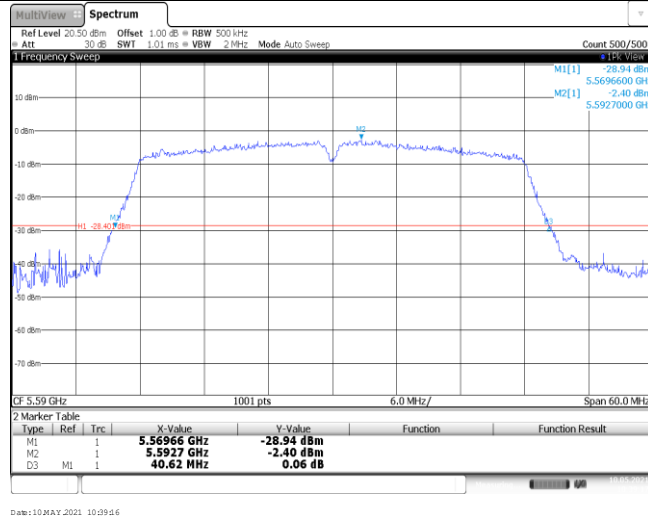


**Band III** **802.11ac (HT40)**

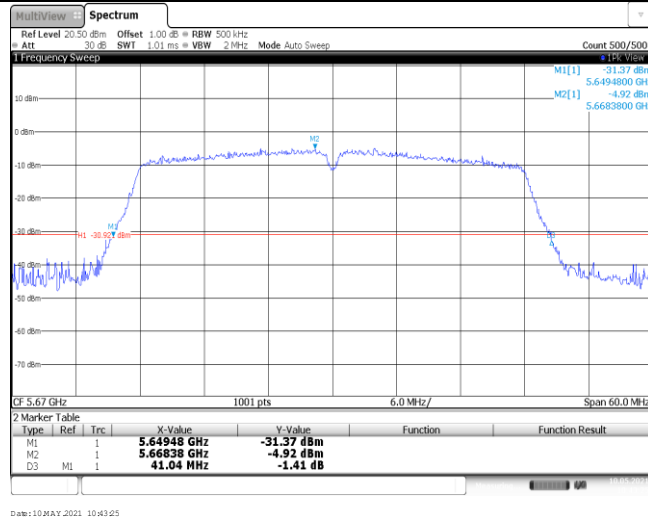
CH<sub>L</sub>



CH<sub>M</sub>



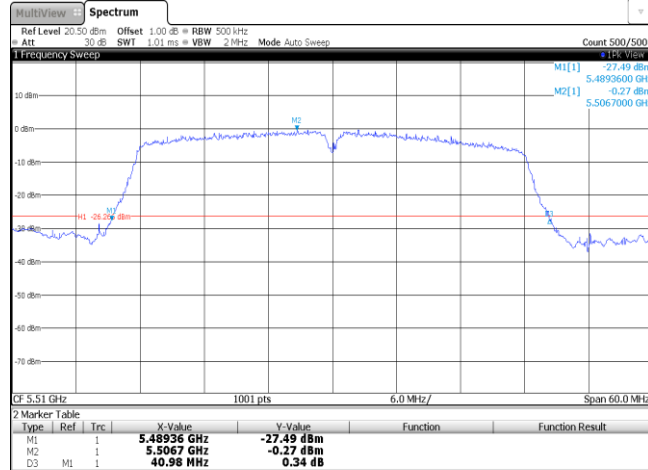
CH<sub>H</sub>



**Band III**

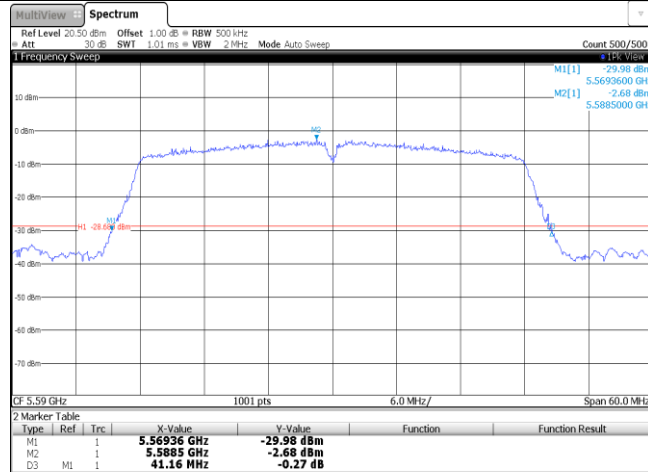
**802.11n (HT40)**

CH<sub>L</sub>



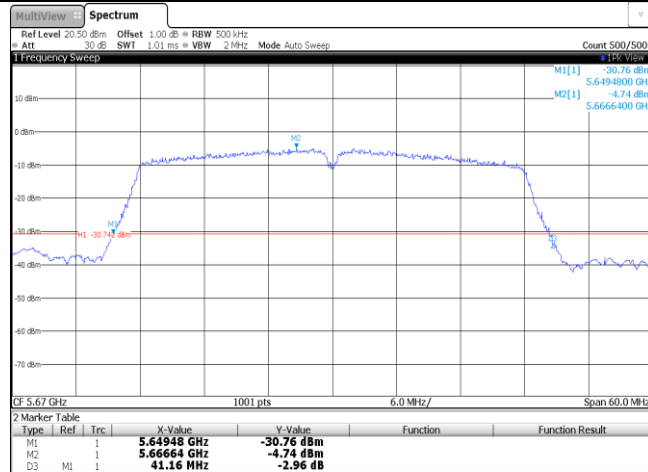
Date:10.MAY.2021 10:12:47

CH<sub>M</sub>



Date:10.MAY.2021 10:17:53

CH<sub>H</sub>



Date:10.MAY.2021 10:19:04

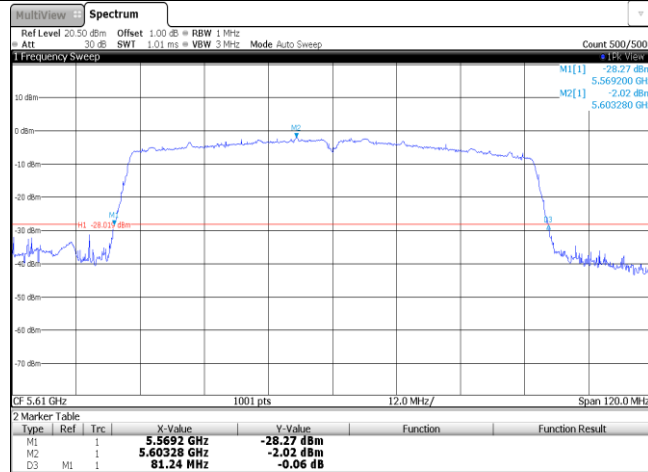
Band III

802.11ac (HT80)

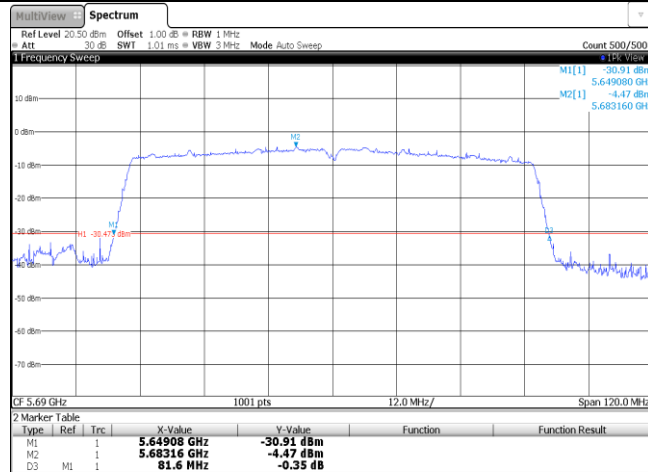
CH<sub>L</sub>



CH<sub>M</sub>



CH<sub>H</sub>



**Appendix D: 99% Occupy bandwidth**

Band	Bandwidth (MHz)	Type	Channel	99% Occupy bandwidth (MHz)	Result
I	20	802.11ac	CH <sub>L</sub>	17.68	Pass
			CH <sub>M</sub>	17.68	
			CH <sub>H</sub>	17.65	
		802.11n	CH <sub>L</sub>	17.71	Pass
			CH <sub>M</sub>	17.71	
			CH <sub>H</sub>	17.68	
	802.11a	CH <sub>L</sub>	16.66	Pass	
		CH <sub>M</sub>	16.66		
		CH <sub>H</sub>	16.66		
	40	802.11ac	CH <sub>L</sub>	36.08	Pass
			CH <sub>H</sub>	36.08	
		802.11n	CH <sub>L</sub>	36.20	Pass
CH <sub>H</sub>			36.08		
80	802.11ac	CH <sub>M</sub>	75.28	Pass	
II	20	802.11ac	CH <sub>L</sub>	17.68	Pass
			CH <sub>M</sub>	17.68	
			CH <sub>H</sub>	17.68	
		802.11n	CH <sub>L</sub>	17.74	Pass
			CH <sub>M</sub>	17.71	
			CH <sub>H</sub>	17.68	
	802.11a	CH <sub>L</sub>	16.63	Pass	
		CH <sub>M</sub>	16.66		
		CH <sub>H</sub>	16.66		
	40	802.11ac	CH <sub>L</sub>	36.08	Pass
			CH <sub>H</sub>	36.08	
		802.11n	CH <sub>L</sub>	36.08	Pass
CH <sub>H</sub>			36.08		
80	802.11ac	CH <sub>M</sub>	75.05	Pass	

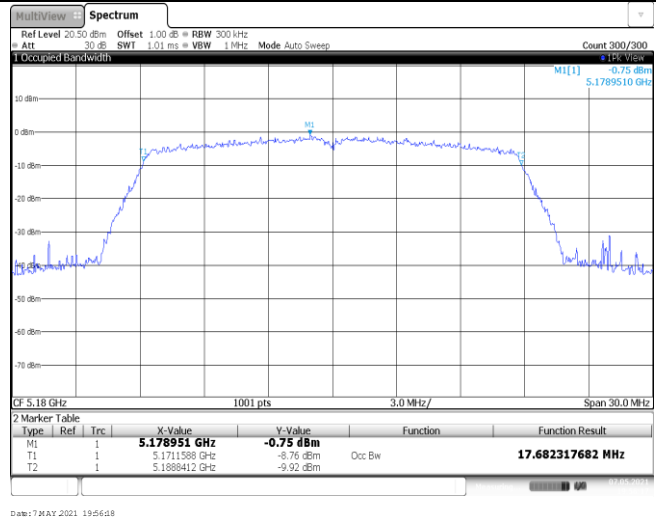
Band	Bandwidth (MHz)	Type	Channel	99% Occupy bandwidth (MHz)	Result
III	20	802.11ac	CH <sub>L</sub>	17.71	Pass
			CH <sub>M</sub>	17.68	
			CH <sub>H</sub>	17.68	
		802.11n	CH <sub>L</sub>	17.83	Pass
			CH <sub>M</sub>	17.77	
			CH <sub>H</sub>	17.77	
		802.11a	CH <sub>L</sub>	16.69	Pass
			CH <sub>M</sub>	16.66	
			CH <sub>H</sub>	16.66	
	40	802.11ac	CH <sub>L</sub>	36.08	Pass
			CH <sub>M</sub>	36.14	
			CH <sub>H</sub>	36.08	
		802.11n	CH <sub>L</sub>	36.14	Pass
			CH <sub>M</sub>	36.14	
			CH <sub>H</sub>	36.14	
80	802.11ac	CH <sub>L</sub>	75.16	Pass	
		CH <sub>M</sub>	75.04		
		CH <sub>H</sub>	75.28		

Band	Bandwidth (MHz)	Type	Channel	99% Occupy bandwidth (MHz)	Result
IV	20	802.11ac	CH <sub>L</sub>	17.80	Pass
			CH <sub>M</sub>	17.80	
			CH <sub>H</sub>	17.80	
		802.11n	CH <sub>L</sub>	17.89	Pass
			CH <sub>M</sub>	17.89	
			CH <sub>H</sub>	17.92	
		802.11a	CH <sub>L</sub>	16.81	Pass
			CH <sub>M</sub>	16.81	
			CH <sub>H</sub>	16.81	
	40	802.11ac	CH <sub>L</sub>	36.20	Pass
			CH <sub>H</sub>	36.20	
		802.11n	CH <sub>L</sub>	36.30	Pass
			CH <sub>H</sub>	36.38	
80	802.11ac	CH <sub>M</sub>	75.28	Pass	

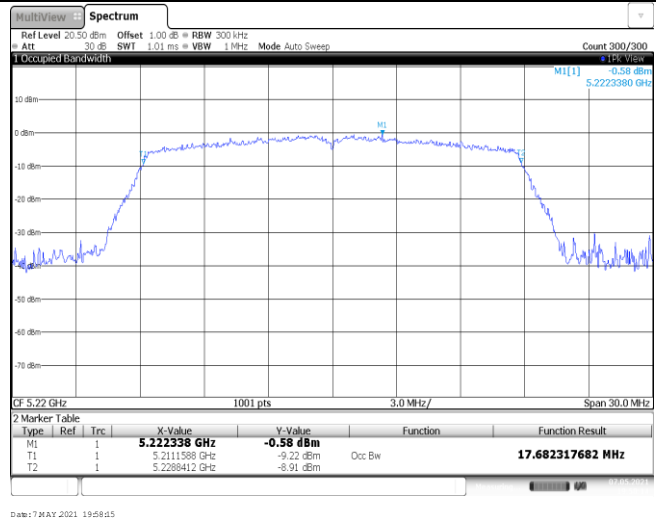
Band I

802.11ac (HT20)

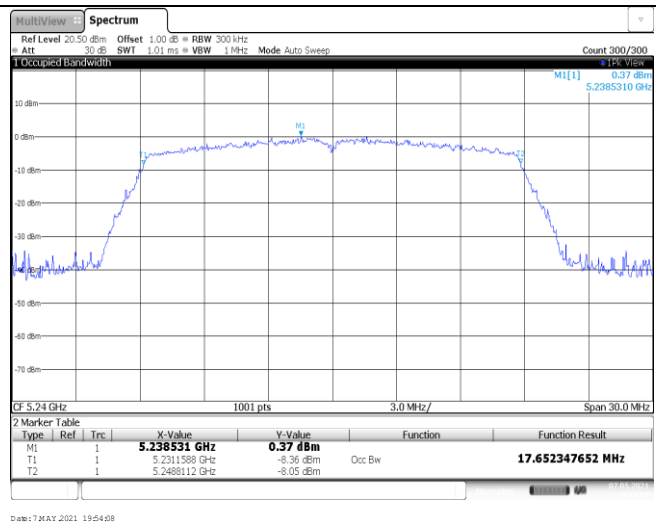
CH<sub>L</sub>



CH<sub>M</sub>

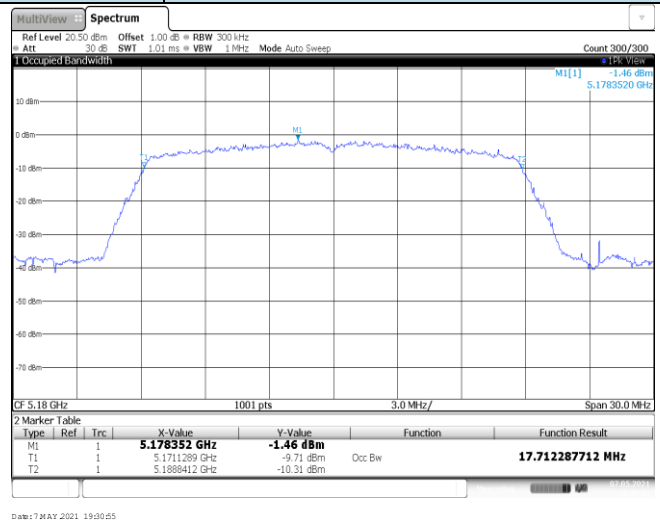


CH<sub>H</sub>

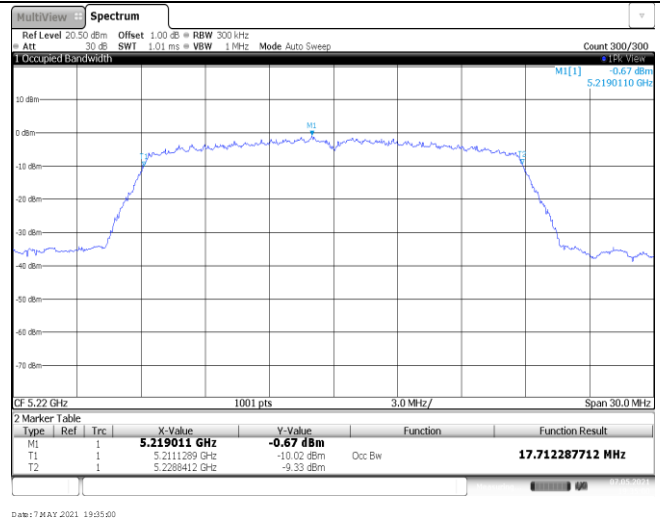


**Band I** **802.11n (HT20)**

CH<sub>L</sub>



CH<sub>M</sub>



CH<sub>H</sub>

